PLANNING COMMISSIONERS

JEFFREY BARNES
Chair

PATRICIA KORZEC
Vice-Chair

RAY L. BAKER
Commissioner

JEFFREY SIMS
Commissioner

BRIAN LOWELL
Commissioner

VACANT
Commissioner

VACANT
Commissioner

PLANNING COMMISSION
Regular Meeting

Agenda

Thursday, June 22, 2017 at 7:00 PM
City Hall Council Chamber – 14177 Frederick Street

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

APPROVAL OF AGENDA

Approval of Agenda

CONSENT CALENDAR

All matters listed under Consent Calendar are considered to be routine and all will be enacted by one roll call vote. There will be no discussion of these items unless Members of the Planning Commission request specific items be removed from the Consent Calendar for separate action.

APPROVAL OF MINUTES

Planning Commission - Regular Meeting - May 25, 2017 7:00 PM

Approved as submitted

PUBLIC COMMENTS PROCEDURE

Any person wishing to address the Commission on any matter, either under the Public Comments section of the Agenda or scheduled items or public hearings, must fill out a "Request to Speak" form available at the door. The completed form must be submitted to the Secretary prior to the Agenda item being called by the Chairperson. In speaking to the Commission, member of the public may be limited to three minutes per person, except for the applicant for entitlement. The Commission may establish an overall time limit for comments on a particular Agenda item. Members of the public must direct their questions to

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Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, in compliance with the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 72 hours before the meeting. The 72-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

the Chairperson of the Commission and not to other members of the Commission, the applicant, the Staff, or the audience.

NON-PUBLIC HEARING ITEMS

PUBLIC HEARING ITEMS

1. Case: PEN16-0153 – Mainstreet Transitional Care Facility

Applicant: MS Moreno Valley, LLC

Owner: Inland Land Group, LLC

Representative: Albert A. Webb Associates

Location: Southwest corner of Oliver Street and Filaree Avenue

Case Planner: Jeff Bradshaw

Council District: 4

Proposal: Conditional Use Permit PEN16-0153 for Mainstreet Transitional Care Facility, a one-story, 57,000 square foot 90 room transitional care facility on a 7.12 acre site.

STAFF RECOMMENDATION

A. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-28 and thereby:

1. **CERTIFY** that the Mitigated Negative Declaration prepared for Conditional Use Permit PEN16-0153 on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Mitigated Negative Declaration and the document reflects the City’s independent judgment and analysis; attached hereto as Exhibit A and

2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for Conditional Use Permit PEN16-0153, attached hereto as Exhibit B.

B. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-29, and thereby:

1. **APPROVE** Conditional Use Permit PEN16-0153 based on the findings contained in this resolution, and subject to the conditions of approval included as Exhibit A.

2.	Cases:	Specific Plan Amendment PEN16-0001 (P15-036) Tentative Parcel Map 36150 PEN16-0007 (PA15-0018) Environmental Impact Report PEN16-0002 (P15-037) Plot Plans PEN16-0003, -04, -05, -06 (PA15-0014-0018)
	Applicant:	Prologis
	Owner:	Moorpark Country Properties
	Representative:	Scott Mulkay
	Location:	Krameria Avenue south to Cardinal Avenue between Heacock Street and Indian Street
	Case Planner:	Julia Descoteaux
	Council District:	4
	Proposal:	Moreno Valley Logistics Center: The applicant is seeking approval of a Specific Plan Amendment to reduce required buffering and landscape requirements; and approval of a Tentative Parcel Map and four Plot Plans for development of 1,736,180 square feet of warehouse floor space configured in four separate buildings on property measuring a total of 89.4 acres

STAFF RECOMMENDATION

A. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-16 and thereby recommends that the Moreno Valley City Council:

1. **CERTIFY** that the Final Environmental Impact Report PEN16-0002 (EIR, P15-036) for the Moreno Valley Logistics Center project on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Final EIR and that the Final EIR reflects the City's independent judgment and analysis; and

2. **ADOPT** the Mitigation Monitoring and Reporting Program for the Final EIR for the proposed Moreno Valley Logistics Center project, attached hereto as Exhibit A; and

3. **ADOPT** the Facts, Findings and Statement of Overriding Considerations regarding the Final EIR for the Moreno Valley Logistics Center project, attached hereto as Exhibit B; and.

B. Staff recommends that the Planning Commission **APPROVE** Resolutions No. 2017-18, 2017-19, and 2017-20 and thereby recommends that the Moreno Valley City Council:

1. **APPROVE** the Specific Plan Amendment to the Moreno Valley Industrial Area Specific Plan 208 (Resolution: 2017-18)
   And

2. **APPROVE** Plot Plans PEN16-0003 (PA15-0014), PEN16-0004 (PA15-0015), PEN16-0005 (PA15-0016), and PEN16-0006 (PA15-0017), subject to the attached conditions of approval attached as Exhibits A, B, C and D (Resolution: 2017-19)

3. **APPROVE** Tentative Parcel Map 36150, PEN16-0007 (PA15-0018), subject to the attached conditions of approval attached as Exhibit A (Resolution: 2017-20).

OTHER COMMISSION BUSINESS

STAFF COMMENTS

PLANNING COMMISSIONER COMMENTS

ADJOURNMENT

Next Meeting: Planning Commission Regular Meeting, June 22, 2017 at 7:00 P.M., City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

CITY OF MORENO VALLEY PLANNING COMMISSION
REGULAR MEETING
CITY HALL COUNCIL CHAMBER – 14177 FREDERICK STREET

Thursday, May 25, 2017 at 7:00 PM

CALL TO ORDER

CHAIR BARNES – Good evening ladies and gentlemen. I would like to call this meeting of the Planning Commission Meeting to order. It is Thursday, May 25, 2017, and the time is 7:02 PM. Could I have a roll call please?

ROLL CALL

Commissioners Present:
Commissioner Lowell
Commissioner Baker
Commissioner Sims
Vice Chair Korzec
Chair Barnes

Staff Present:
Rick Sandzimier, Planning Official
Paul Early, Assistant City Attorney
Erica Tadeo, Administrative Assistant
Jeff Bradshaw, Case Planner
Ahmad Ansari, Public Works Director
Chris Ormsby, Senior Planner

Speakers:
Tom Jerele, Sr.
Kathleen Dale
Rafael Brugueras
Carole Nagengast
Susan Zeitz
David Zeitz
Lindsay Robinson
Jackie Smith
Christopher Tafoya

Minutes Acceptance: Minutes of May 25, 2017 7:00 PM (APPROVAL OF MINUTES)

PLEDGE OF ALLEGIANCE

CHAIR BARNES – Commissioner Lowell, could you lead us in the Pledge of Allegiance?

APPROVAL OF THE AGENDA

Approval of Agenda

CHAIR BARNES – Thank you. The next item on the Agenda is the approval of the Agenda for the meeting of April 27, 2017. Any comments or a motion?

COMMISSIONER BAKER – You want approval of tonight's Agenda, right?

CHAIR BARNES – Oh, approve the Agenda. Excuse me; I must be a new chairperson.

COMMISSIONER LOWELL – I'll motion to approve the Agenda.

COMMISSIONER BAKER – I'll second.

CHAIR BARNES – Motion by Commissioner Lowell, second by Commissioner Baker. All in favor……

VICE CHAIR KORZEC – Aye.

CHAIR BARNES – Aye.

COMMISSIONER BAKER – Aye.

COMMISSIONER SIMS – Aye.

COMMISSIONER LOWELL – Aye.

CHAIR BARNES – Opposed? Motion carries 5-0.

Opposed – 0

Motion carries 5 – 0

CONSENT CALENDAR

All matters listed under Consent Calendar are considered to be routine and all will be enacted by one rollcall vote. There will be no discussion of these items unless Members of the Planning Commission request specific items be removed from the Consent Calendar for separate action.

APPROVAL OF MINUTES

Planning Commission - Regular Meeting - April 27, 2017 at 7:00 PM

CHAIR BARNES – Next, we move to the Consent Calendar. Only items are the approval of the Minutes, one set from April 27, 2017. Now, any comments or adjustments to the Minutes? Would anyone like to make a motion to approve them?

VICE CHAIR KORZEC – I'll make a motion to approve.

COMMISSIONER BAKER – I'll second.

CHAIR BARNES – Motion by Vice Chair Korzec and second by Commissioner Baker. All in favor…..

VICE CHAIR KORZEC – Aye.

CHAIR BARNES – Aye.

COMMISSIONER BAKER – Aye.

COMMISSIONER SIMS – Aye.

COMMISSIONER LOWELL – Aye.

CHAIR BARNES – Opposed? Motion carries 5-0.

Opposed – 0

Motion carries 5 – 0

PUBLIC COMMENTS PROCEDURE

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CHAIR BARNES – Next on the Agenda is the Public Comment portion of the meeting. Do we have any Public Speaker Slips?

ADMINISTRATIVE ASSISTANT ERICA TADEO– We do. Do you not see them on there?

CHAIR BARNES – I do not see them on here. Oh, hold it, maybe I have to be there. Now I see them. First up, Tom Jerele, Sr.

SPEAKER TOM JERELE, SR. – Chairman Barnes, Vice Chair Korzec, Commissioners, Members of the Staff and the public both here in the chambers and watching at home or on the internet, thank you for the chance to speak. I came tonight for general interest, part of my sport of choice, but I do want to…..I hope I am not stepping out of bounds, but I got some sad news this afternoon that I think a very fine public employee has moved on, Mr. Nick Henderson. I am prayful maybe Alan or Rick can talk about him a little bit. He was functioning as a building official. He had started as an inspector, he was senior inspector. I made a little, I always like to say, a little shopping center in the low-rent, high-crime district, so we don't get A-rated or B-rated tenants. You know, you get some pretty basic people over there so we are not dealing with the corporate 500's of the world, but we got a lot of little jobs and a lot of challenging ones because people don't understands codes and the how's and where for's, but Nick has always been a real good resource and a good man to work with. So I hope whatever he is moving onto is a good thing, and I just got the news……but he was a good public servant in my opinion. Then, I would like to make a comment that would be good. I'm not happy with a 5-member Commission. I think we need to get back up to seven. I know that's not your purview, but I plan to speak to the council. They need to fill all those chairs up there. Sometimes, there are conflicts of interest, and the alternates were a great concept. I think that needs to be taken care of, so hopefully after the election of our new council we will fill all those seats up again. So those are my comments, and thank you for giving me a few minutes. Thank you.

CHAIR BARNES – Thank you Mr. Jerele. Next up, Kathleen Dale.

SPEAKER KATHLEEN DALE – Good evening Commissioners. I wanted to just address a few general issues regarding your responsibilities and authorities. First item has to do with zoning and General Plan consistency. Somewhere around 2006, there was actually a table created that was used a guide during the consistencies, re-zonings after the last General Plan update and that document either needs to be recreated or it needs to be found, dusted off, and brought out to be a reference tool because there is some misinformation floating around about what zones are consistent with what General Plan designations, and that will come up later tonight. I wanted to make sure that you were aware that you do have authority under the Municipal Code to recommend to the council that they initiate General Plan Amendments. Also, there is a tendency to rely on policies and programs kind of in a nebulous fashion to say well our General Plan says we are supposed to do this like preserve knolls or boulders and riparian areas and our truck route says trucks are only supposed to be on certain streets. To rely on those are part of an environmental review, it is okay to do that if those rules are enforced, but unfortunately this city does not have a good track record of actually implementing those provisions, so you should be wary when you see environment review documents that are just relying on compliance with those types of programs. The last thing I wanted to say is I know today I sent some comments off very late, and I just got to thinking I think they probably think I do this on purpose to just stack the record at the end and cause a scramble. I want you to know that's not the case, myself, I am an exceptionally busy person, and I think all the people who are here tonight as well are also busy people, and we don't intentionally hold our comments until the end. You know, we only get access to documents a very short time before comments are due and, once we review those documents, follow up with Staff about questions we have, do some more research, actually write things, get them put to paper, get the edited, and get them sent it, there is not much time to get them in ahead of your meetings. So I hope that you do realize that when people are here and are tired or have submitted late comments.

Minutes Acceptance: Minutes of May 25, 2017 7:00 PM (APPROVAL OF MINUTES)

CHAIR BARNES – Thank you Kathy. Now, we move to a Non-Public Hearing Item, the Fiscal Year 2017/18 Capital Improvement Plan. Do we have a report from Staff?

NON-PUBLIC HEARING ITEMS

1. Fiscal Year 2017/18 – 2018/19 Proposed Capital Improvement Plan (Report of: Community Development)

Case:	PEN17-0060
Applicant:	City of Moreno Valley
Representative:	Public Works Department
Location:	City-wide

PUBLIC WORKS DIRECTOR AHMAD ANSARI – Good evening Mr. Chair and Members of the Commission, my name is Ahmad. I'm sorry. I'm the Public Works Director and City Engineer. It's time again to bring the CIP document before the Commission. With me tonight, I have Henry Ngo, Capital Projects Division Manager. He will be presenting that item, items of the Staff Report briefly, and then we will be ready to answer any questions the Commission may have.

CAPITAL PROJECT DIVISION MANAGER HENRY NGO – Good evening Chair and Members of the Commission. My name is Henry Ngo, Capital Projects Division Manager of Public Works Department. Tonight, the CIP information that you have in your packet is a summary of the projects listed by category then the documents fiscal year 2017/2019. Proposed CIP was posted on the city internet site on April 28, 2017. A link to the document was mailed to you on the same day. The CIP is part of the city budget adoption process. There are about 400 projects listed in the document. This is a planning document that serves to identify various types of improvement that the city would need over the next five years and beyond. All projects listed are in conformance with City's General Plan and are within the State Law Guidelines. Staff brings this document before the Planning Commission for the purpose of making a finding that the document is in conformance with the City of Moreno Valley's General Plan. If Planning Commission makes a finding that the document is in conformance with the City of Moreno Valley General Plan, the document is scheduled to go before the City Council for the opening and closing of a Public Hearing and for adoption on June

20, 2017, which is 26 days from today. Staff therefore recommends the Planning Commission make a finding that the CIP is in conformance with the City of Moreno Valley's General Plan. This concludes my report, and I am available for any questions.

CHAIR BARNES – Thank you.

CAPITAL PROJECT DIVISION MANAGER HENRY NGO – Thanks.

CHAIR BARNES – Does anyone have any questions? Slam dunk. Yeah, yeah, it's a tremendous volume of work and obviously I think we rely on your expertise so I didn't have any questions. Nothing jumped out that raised any with me, so seeing no one willing to…..or wanting to ask any questions.

COMMISSIONER LOWELL – It's not a question on the actual report itself but more of an inquiry. I'm looking at the amount summaries on that first page that you gave us, and I was noticing that the fiscal year 2021 has a lot of improvements scheduled. What's forecasted that we're going to be spending 12 million, almost 13 million, on buildings and another 104 million on the bridges or streets and highways? What's the game plan for fiscal year 2021?

CAPITAL PROJECT DIVISION MANAGER HENRY NGO – The short answer Commissioner Lowell is to go after grants. Primarily, those big-ticket items that you see as bridges are the interchanges that we have planned in the TUMF program of WRCOG. However, as you know, the budgets or the allocations that have been set aside for those big-ticket items are not even a fraction of the total cost. Those are probably 60 million or 70 million each interchange, so that's basically where they are coming, but we are forecasting it to the five year and beyond at the buildout so that we have a pretty clear idea of where we are headed.

COMMISSIONER LOWELL – Do we have any specific projects slated for that timeframe or is this just wishful thinking?

CAPITAL PROJECT DIVISION MANAGER HENRY NGO – It is wishful thinking. However, it is planned. Again, those transportation types of projects, aside from the original DIFF that we were going after, we constantly are looking for state and federal grants to make those projects whole.

COMMISSIONER LOWELL – I mean, I guess what I was getting towards is like the Moreno Valley, Moreno Beach Bridge. Is that going to be expanded in that timeframe? Which improvements are possible in the next few years?

CAPITAL PROJECT DIVISION MANAGER HENRY NGO – Yeah, the Moreno Beach second phase, which is the widening of the bridge, currently we have approximately 7 or 8 million dollars in the TUMF. However, as you know, 8 million dollars is not going to be sufficient to widen the bridge, so we have to wait until that is fully funded and then supplement it with that TUMF money to be able to make the second phase possible.

COMMISSIONER LOWELL – Okay, thanks.

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chairman.

CHAIR BARNES – Yes.

PLANNING OFFICIAL RICK SANDZIMIER – If I may, I don't think they mentioned on your dais before you should be a yellow handout with an update to the CIP. That update is basically saying that we have added a resolution number, so there is actually a designated resolution number, so there is actually a designated resolution number that was not in the original packet. Then, late last week, our Public Works Staff has identified that three new projects were identified to get some additional funding, so those have been added to the Capital Improvement Program. So we want to make sure when you take your action this evening that you're recognizing that there were these additions made to that Capital Improvement Program.

CHAIR BARNES – And we'd have to recognize that in the motion?

PLANNING OFFICIAL RICK SANDZIMIER – Yes.

CHAIR BARNES – Yeah, okay, alright. Commissioner Sims.

COMMISSIONER SIMS – Mine's not per say about the particulars of the budget in of itself, but in the report it said that Staff was able or the city was able to complete 23 capital projects totaling approximately 11.2 million dollars in the fiscal year 2016/2017, so I guess that's through this June 30. So, with just the quick math I did, we're proposing like a little over 44 million dollars' worth of capital improvement so I guess my question is, is there the capacity…..I come from a public agency, so we always have a bigger think that we can do than we actually ever get done it seems like in a fiscal year but that's an over 400% increase. Is there the capacity to handle that if all the grants and funding were available?

CAPITAL PROJECT DIVISION MANAGER HENRY NGO – In summary, and I'm not sure that has been fully communicated in your Staff Report or not, but just to give you an overview of the active projects that are either in design or in construction phases total approximately 29 million. Those have been previously approved, and they get carried over. Then, the new funding for these two fiscal years for the active projects is approximately 8 million dollars. Then, new funding for the new proposed projects are 9 million dollars for a total of 47 million dollars for active, plus the new. Then, the total project cost of the completed projects is 11 million dollars, so most of it is carryover.

COMMISSIONER SIMS – So just as a…..does the city mostly use consultants to do the design work and whatnot, construction management and so forth? Staff just typically operates as project management, project facilitators or?

CAPITAL PROJECT DIVISION MANAGER HENRY NGO – That is correct.

CHAIR BARNES – Thank you. Any other comments, questions? Well, I guess we would entertain a motion then. Commissioner Sims.

COMMISSIONER SIMS – So I would propose that the Planning Commission consider recommending approval of adopting Resolution Number 2017-027 consistent with the amendments shown on the sheet that we just received today, the yellow sheet, and we're finding that the fiscal year 2017/2018 and 2018/2019 propose CIP program conformance with the City of Moreno Valley's General Plan.

ASSISTANT CITY ATTORNEY PAUL EARLY – Excuse me, Commissioner, if I may interrupt for a second. Just for clarity for the Minutes on the record, is it a motion to consider the adoption or is it a motion to adopt resolution…..

COMMISSIONER SIMS – Okay, to adopt.

ASSISTANT CITY ATTORNEY PAUL EARLY – Thank you.

CHAIR BARNES – Thank you, Paul. I have a motion from Commissioner Sims and a second from Commissioner Baker, and I don't know how to activate, or at least it's not working, the electronic voting. So can we have a roll call please?

COMMISSIONER SIMS – Oh, there it is.

COMMISSIONER LOWELL – You got to click the mover Mr. Sims?

CHAIR BARNES – Can you click the mover button?

COMMISSIONER SIMS – Certainly.

CHAIR BARNES – And the second. Very good. We're up and running, so everyone please vote. The motion is approved 5-0. Thank you Staff, thank you very much.

Opposed – 0

Motion carries 5 – 0

PUBLIC HEARING ITEMS

2\. Case: PEN17-0027 – Conditional Use Permit

Applicant: Smartlink on behalf of AT&T

Owner: Family Services Association of Western Riverside

Representative: Smartlink

Location: 21250 Box Springs Road

Case Planner: Jeff Bradshaw

Council District: 2

Proposal: PEN17-0027 – Conditional Use Permit for a 75’ tall AT&T telecommunication facility with the tower element designed as a monopalm.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-25, and thereby:

1. **RECOGNIZE** that the Conditional Use Permit PEN17-0027 will not have a significant effect on the environment and is therefore exempt from the provisions of the California Environmental Quality Act (CEQA) as a Class 32 Categorical Exemption, CEQA Guidelines, Section 15332 for In-Fill Development, per CEQA Guidelines Section 15332; and

2. **APPROVE** Conditional Use Permit PEN17-0027, subject to the attached Conditions of Approval included as Exhibit A.

CHAIR BARNES – Next, moving to the Public Hearing items. Case 2 on the Agenda, the Conditional Use Permit (PEN17-0027). Do we have a Staff Report?

CASE PLANNER JEFF BRADSHAW – Good evening Chair Barnes and Members of the Planning Commission. My name is Jeff Bradshaw. I am the case planner assigned to this project. This Conditional Use Permit proposes the development of a telecommunications facility on the location of an existing office building. The proposal would be to add a 75-foot tall pole designed to look like a palm tree. Amenities to that installation would include a 12-panel array at the top of the palm tree, support equipment that would be housed inside an equipment room inside the office building itself, the planting of some additional live palms, and the installation of an emergency generator on the site. Typically, a project of this type and at this height would not require Planning Commission approval, but it was presented to the Planning Commission as an original project in 2013. There are some unique aspects to the project……

ASSISTANT CITY ATTORNEY PAUL EARLY – Chair, Vice Chair, Members of the Commission, it has come to our attention that there were public commenters on that last item. The color of the slip was wrong, but they did put in a slip and wanted to speak, so it is my recommendation at this time that we call those public speaks and reconsider that motion after you've heard their comments. It's not a Public Hearing Item, so we don't have the public hearing complications, but I do want to make sure that they have a chance to speak before we move on.

CHAIR BARNES – So, that being said, we will put Case 2 on hold and open public comments for Case 1, the Capital Improvement Plan. Is that correct, Paul?

PLANNING OFFICIAL RICK SANDZIMIER – Yeah, that would be the appropriate…..

ASSISTANT CITY ATTORNEY PAUL EARLY – Yeah, that's my recommendation.

CHAIR BARNES – Okay, alright. We don't need a motion or anything to do that?

ASSISTANT CITY ATTORNEY PAUL EARLY – No.

CHAIR BARNES – I have the authority. I have the gavel, okay.

ASSISTANT CITY ATTORNEY PAUL EARLY – Yes.

CHAIR BARNES – Alright, thank you very much. So we will put Case 2, the CUP, on hold, and we will now hear Public Comments on the Case 1, the proposed Capital Improvement Plan. Our apologies.

SPEAKER RAFAEL BRUGUERAS – Good evening Chair, Commissioners, Staff, residents, and our guests. I was glad to hear it passed 5-0, so telling the story makes it a lot easier, fun, and enjoyable. It was 500 pages on this item alone, so I had to decide to pick what's best to show the Commissioners what they have done throughout the years when we bring development and projects into our city. So page 68 shows pictures of improvement. Pages 95 through 104 shows more pictures of before and after of decisions that you made for us in the city when you approve projects and, when those projects or developments are approved, the city generates funding. When they generate funding, these are the projects that they do for us. So, if you go to page 100, it tells you all the projects that have been funded and partially funded. This is what we do in the City of Moreno Valley. We try to bring lives to live better lives. That's what we want to do in the City of Moreno Valley. This is why the staff works hard on behalf of the city and the residents. When we grow, it makes it a lot simpler for them to get funding for us because even our state or county cannot refuse the growth of our city. They have to give us our portion that we put into the system. We put in taxes, like we get our electricity bill or our cable bill, and you see the other taxes that are being paid out. We do the same thing with our taxes. We give it out, so one day we can ask for it in return to complete these projects, so I'm deeply grateful for your votes in the past. We have new ones that we're going to look at throughout the evening. And I thank the Staff for their hard work, and I thank you for approving this because this is what makes Moreno Valley unique around the region. There are a lot of people watching us and a lot of people are investing in our city because we're moving ahead.

CHAIR BARNES – Thank you Mr. Brugueras. Next up, Tom Jerele, Sr.

SPEAKER TOM JERELE, SR. – Tom Jerele, Sr. speaking on behalf of myself and a little bit on behalf of the Sundance Center. Chairman Barnes, Vice Chair Korzec, Commissioners, and Members of the Staff and public both in the chambers and watching at home: Thank you for bringing up these public comments. I just….just before the meeting, I had a chance to speak to Mr. Lewis, and I asked him…..it's my understanding this is the first time you've had to deal with this document at the Planning Commission level. Is that correct or incorrect? It's……pardon me?

CHAIR BARNES – It's annual. We've seen this before, yes.

SPEAKER TOM JERELE, SR. – Okay, well it's a good thing that it comes to you. I know it's a huge document as Mr. Brugueras said. I mean, it's a bit burdensome. It's probably not fun reading, but it's essential reading because, when you're making decisions on various projects, they may have substandard infrastructure at the time, but if you see the capital projects and know what's coming online and when, it allows you to make better decisions whether it's this commission or another one. So I just wanted to affirm the city for bringing this forth to the Planning Commission. It's a good idea.

CHAIR BARNES – Thank you Mr. Jerele. I see no other speakers on the list. We can now close the public comment period and resume the Staff Report on Public Hearing Item No. 2.

COMMISSIONER SIMS – Do we…..I think we need to revote.

ASSISTANT CITY ATTORNEY PAUL EARLY – I don't think a new vote is necessary. It wasn't a Public Hearing Item, and the speakers were favorable to the council's motion in the first place, so you're fine to move onto Item 2.

CHAIR BARNES – That's right. You did say that. I apologize. Alright, now we will resume the Staff Report for Public Hearing Item No. 2. Mr. Bradshaw.

CASE PLANNER JEFF BRADSHAW – I'm waiting for the images to catch up here. Again, the item before you this evening is a Conditional Use Permit for a telecommunications facility. It is presented to you this evening for your review because of a number of things associated with this particular application. It is unique because of site constraints that the telecommunication facility is being proposed along the Box Springs frontage. This time, they are also asking for an emergency generator. This project was approved by the Planning Commission originally in 2013, and due to circumstances, the approval lapsed before the Applicant, AT&T, had the opportunity to construct on this site. They are still interested in being able to place a facility here. If you look at the propagation maps that were provided with the application, it shows a blank spot or a missing spot in their coverage and so this is an important location for them. So the item presented to you this evening is very similar in design, the exact same design actually, that was presented to the Planning Commission in 2013. Because of that, we're presenting to you the same project this evening. The location is somewhat unique. It's located towards the front of the site near the southeast corner of the building where it would be visible from the roadway. The design is a faux palm, and they are proposing to add two live palms that would be clustered near the other existing palms at the corner of the building. Staff has had an opportunity to review the design and consideration of the surrounding uses. This telecommunications facility is an allowable use within this zone, and based on the location and the design, we were able to accommodate the adjacent uses and the future development of multi-family project in the R15 Zone to the east….or to the west rather. Staff has reviewed this project, and based on its design and the way that it is conditioned, it is determined that this project would not have a significant effect on the environment and qualifies as an exemption under the California Environmental Quality Act as a Class 32 Exemption or In-Fill Development Exemption under section 15332. We did provide notice for the project consistent with our Municipal Code. The site was posted in advance of tonight's hearing as well as sending notices out to all property owners within 300 feet of the project site. As of tonight's meeting, I have not received any communications, phone calls, emails, or inquiries about the project. With that, Staff would recommend that the Planning Commission recognize that this project does qualify as an In-Fill Exemption and approve the project as presented to you this evening subject to the Conditions of Approval, and I am happy to answer any questions that you might have about this project.

CHAIR BARNES – Thank you Mr. Bradshaw. Commissioners, any questions? Commissioner Lowell.

COMMISSIONER LOWELL – I though this project was very familiar. It was one of the first projects I got to vote on when I was sworn in. I didn't notice any callout or mention of anything that has changed between the previous application in 2013 versus this application. Are there any changes or any modifications to the conditions that are different based on the new Building Code or Municipal Code? I'm not aware of…..I didn't see any and didn't read any.

CASE PLANNER JEFF BRADSHAW – It's conditioned for consistency with the new code. I'm not familiar with the Building Code to know what those subtleties would be, but it is conditioned to satisfy current Building Code requirements. As far as the design goes, it is basically the same proposal that the Planning Commission reviewed in 2013. The biggest difference I would say is the addition of the emergency generator, which is now a pretty standard requirement for most of these installations so they can guarantee there is no interruption in service if the power goes down. That is new. The generator is proposed to be located in the planter area at the northern most tip of the triangle shape of the property. It'll be screened with a block enclosure, which is standard for our requirements, and the developer, or Applicant rather, is also proposing to provide a sound attenuation device or cap on top of the generator to help mitigate any noise impacts during the operation of the generator. From what I understand, they would test the generator for a half hour at a time. Every couple of months, they would go out on the site to test it. That's the one difference in design from the original proposal.

COMMISSIONER LOWELL – And then my last question, it says that there is going to be 12 panel antennas on the monopalm. Is this going to be a single provider cell site, or is it going to be able to co-locate like we have done in the past?

CASE PLANNER JEFF BRADSHAW – It'll be a single site. The monopalm design makes it difficult for co-locations. I think the exception we've seen is when they come back and maybe add a microwave dish in support of the array that's already there, but by design we're not able to co-locate on the palms.

COMMISSIONER LOWELL – Thank you.

CHAIR BARNES – Any other questions? Alright, would the Applicant like to come forward?

APPLICANT ALEXIS HADLEY – Good evening Chairman Barnes and Commissioners. My name is Alexis Hadley. I'm here on behalf of AT&T tonight. I don't have anything to add necessarily to Staff comments. I greatly appreciate the swiftness with which this project was processed, but I am happy to answer any question that you all have.

CHAIR BARNES – Thank you. Anyone? Alright, we don't seem to have any questions. Do we have public speakers?

PLANNING OFFICIAL RICK SANDZIMIER – You do want to open the Public Hearing and then ask for the speakers. Then, if there are none, you'll close it. If there are some……

CHAIR BARNES – Alright, thank you. Alright, my apologies for my inexperience. Alright, so at this point we will open the Public Hearing and ask if there are any public speakers?

ADMINISTRATIVE ASSISTANT ERICA TADEO– There are. There's two.

CHAIR BARNES – And they still don't show.

ADMINISTRATIVE ASSISTANT ERICA TADEO– Okay, I'll call them up.

CHAIR BARNES – Alright, thank you.

ADMINISTRATIVE ASSISTANT ERICA TADEO– First one is Rafael Brugueras.

CHAIR BARNES – Mr. Brugueras.

SPEAKER RAFAEL BRUGUERAS – Good evening once again Chair, Commissioners, Staff, guests, and residents. I was glad when I opened up my email and I saw AT&T, another communicator provider adding to the city. With your approval tonight, we will add them to our family of communications, as this city needs other communications. A lot of us sometimes get dropped calls. You know, we want to choose other things. So by providing and approval tonight, it will help because we know that Verizon dominates the city because I've been up here a few times when Verizon is always coming up and putting in antennas throughout the city to make their communication better. So I'm glad to see AT&T and their family here. The other thing I'm glad to hear is that we're going to put palm trees because I went to this site, and I got out of my truck, and I walked on the dirt. So we're hoping that…..because there's houses across the street from this place, so we're hoping that it will look decor. So when people come out and go to school, or go to work, or Saturday walk it looks nice. You know, that's what we want. We want to make sure that corner behind the building on the side of the street looks nice for the residents that live there because they have to look at this day after day and for quite a while. The other thing that I hope whoever is maintaining it that they will cut the weeds, maintain it, make it look good because the drought has hurt this city tremendously. We have a lot, a lot of brown patches throughout the whole city. I mean, if we threw a match, it would light up. I mean, it's pretty bad out there, and I've seen a lot of it. Okay, so I like the project. I like the family coming into the city. I hope it gets approved tonight, so we can add more communication to our city.

CHAIR BARNES – Thank you Mr. Brugueras. Next speaker.

ADMINISTRATIVE ASSISTANT ERICA TADEO– Tom Jerele, Sr.

CHAIR BARNES – Mr. Jerele.

SPEAKER TOM JERELE, SR. – Tom Jerele, Sr. again speaking on behalf of myself and our little Sundance Center where I spend some time. Chair Barnes, Vice Chair Korzec, Commissioners, and members of the Staff and public, I think I've been across the board supportive of just about any communication infrastructure. You know, technology has changed, and I don't have to…everybody in this room knows that the world is cellphones. I was at the Office Depot earlier, and they got a little fax machine in there. That thing is people all day long on it. I went why is there a big demand for faxes? Well it dawned on me. Nobody has a landline at home anymore. They got to go over there and use it. You'd be amazed how many people come in all day long to use that, so it tells me people are going wireless and that can be a mixed blessing. I'd like to see every house wired just for public safety issues, but nevertheless it's something we depend on. I don't have a landline in my home, and so I'm always very supportive. It's a public safety issue. I live up in Sunnymead Ranch. This won't benefit us, and I'm with Sprint, but the reception up there is beginning to be nonexistent. I mean, I don't even try to make calls anymore until I get down the hill, and I get a lot of dropped calls down the hill. So, in short, I'm always happy to support any legitimate company expanding their infrastructure and bringing it in the city just for a public safety issue. On that subject, I really encourage the leaders of our city to encourage these providers, these service providers/major companies, to expand their service. Verizon, even though I'm not with them, they are here a lot. They do….they've done a lot, so I'm glad AT&T is expanding. So I just wanted to share that, so thank you.

CHAIR BARNES – Thank you Mr. Jerele. Any other public speakers?

ADMINISTRATIVE ASSISTANT ERICA TADEO– No. That's it.

CHAIR BARNES – Thank you very much. Alright, since we have no additional public speakers, we will close the Public Hearing and entertain any questions of the Commissioners to Staff or the Applicant. Would the Applicant like to comment on anything that came out during the Public Hearing portion?

APPLICANT ALEXIS HADLEY – Just a very brief thank you to the members of the public who spoke on my behalf. It is very rare that people come here to speak on behalf on cellphone towers, so happy to be here. Thank you.

CHAIR BARNES – Thank you. Commissioner questions or comments?

COMMISSIONER LOWELL – No Sir.

CHAIR BARNES – Seeing neither, I think the next step might be a motion.

COMMISSIONER LOWELL – I'd like to make a motion.

CHAIR BARNES – Oh, if I……we have a motion by Commissioner Lowell.

COMMISSIONER LOWELL – I'd like to make a motion that the Planning Commission approve Resolution Number 2017-25 and there by recognize that the Conditional Use Permit PEN17-0027 will not have a significant effect on the environment and is therefore exempt from the provisions of the California Environmental Quality Act (CEQA) as a Class 32 Categorical Exemption CEQA Guidelines Section 15332 for In-Fill Development per CEQA Guidelines Section 15301; and (2) approve Conditional Use Permit PEN17-0027 subject to the attached Conditions of Approval.

CASE PLANNER JEFF BRADSHAW – Commissioner Lowell. Sorry to interrupt you. There is a typo in the way that's written, so as it closes it should be section 15332 again.

COMMISSIONER LOWELL – And that's the end of?

CASE PLANNER JEFF BRADSHAW – It's the very last line of what you just read.

COMMISSIONER LOWELL – So let me amend that motion. So that would be Section 15332 for In-Fill Development per CEQA Guidelines Section 15332; and (2) approve Conditional Use Permit PEN17-0027 subject to the attached Conditions of Approval as Exhibit A.

CHAIR BARNES – Thank you Commissioner Lowell. A second?

COMMISSIONER BAKER – I'll second.

CHAIR BARNES – Commissioner Baker has seconded. Please vote. All votes are cast. Approved 5-0. Muddled through another one. Thank you very much.

Opposed – 0

Motion carries 5 – 0

COMMISSIONER BAKER – We're moving right along dude.

CHAIR BARNES – Oh my gosh, alright, next on the Agenda Case Number 3, a Conditional Use Permit (PEN16-0157). Do we have a Staff Report?

3. Case:	PEN16-0157 – Conditional Use Permit
Applicant:	Jigish Shah
Owner:	MV MMP, Inc.
Representative:	Jigish Shah
Location:	North side of Eucalyptus Avenue and 650 feet east of Day Street
Case Planner:	Jeff Bradshaw
Council District:	1
Proposal:	PEN16-0157 – Conditional Use Permit for a four-story, 106 room hotel, within the Town Gate Center in the western portion of the City.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-26, and thereby:

1. **RECOGNIZE** that hotel improvement contemplated in Conditional Use Permit PEN16-0157 will not have a significant effect on the environment and therefore qualifies for an exemption within the provisions of the California

Environmental Quality Act (CEQA), as a Class 32 Categorical Exemption, CEQA Guidelines, Section 15332 for In-Fill Development; and

2. **APPROVE** Conditional Use Permit PEN16-0157 based on the findings contained in this resolution, and subject to the attached Conditions of Approval included as Exhibit A.

CASE PLANNER JEFF BRADSHAW – We do, thank you Commissioner Barnes and members of the Planning Commission. Jeff Bradshaw, I'm the associate planner assigned to this project. This application before you this evening proposes the development of a 4-story 58,448 square foot hotel. The hotel would include 88 rooms and 18 suites for a total of 106 dwelling units in the hotel. The amenities that would be included with this hotel would be a breakfast room, outdoor patio area for dining, a fitness center, a swimming pool and spa, lounge, a food preparation room, guest laundry, and a meeting room. The project is proposed to be developed within a portion of the Town Gate Specific Plan. It is just to the south of the WinCo Shopping Center and ultimately the hotel site would be developed on 2.31 acres. This will probably be a more confusing explanation than is actually warranted. The project is currently comprised of two parcels as you can see in this exhibit, and they are oriented north/south fashion. The proposal for the development is through the lot-line adjustment developed on 2.31 acres, which would be the north half of those two parcels. That lot-line adjustment has been approved by the city, certified rather, and the document recorded as of April 11, 2017. So the 2.31 acre site is now an existing parcel, and it's the north portion of the exhibit that you see there. What that results in is 1.74 acre vacant parcel with frontage along Eucalyptus that would developed by a different property owner at a future date. So the hotel would be proposed to be developed in this manner. Access would be through existing driveways off Eucalyptus with this project providing or satisfying required parking on the site. The developer worked with us to satisfy pedestrian connections as well. It was important that we find a way to have people staying at this hotel have a safe way to connect to the shopping and the restaurants to the north and to continue to provide access to residents from across the street to the south, so pedestrian connections are part of the design and part of the Conditions of Approval for this project. The architectural design for the project includes details that help break up the long axis on the ends of the building. The developer also worked with us to provide a more established or prominent entrance along the north elevation. The building is oriented, the primary entrance oriented towards the south towards Eucalyptus but we wanted to make sure that there was an identifiable entrance on the north side where people might come from shopping and the restaurants. The other design elements include the variation in the roof line, candle-levered roof elements, and exterior finish that includes roof tones in a combination of stone and tile, glazing and other facia treatments. The surrounding area at the project site includes established or existing retail uses to the north. The Quarter project, which was recently approved, proposes a hotel development as well, along with some retail and a service station. So this use really is compatible and consistent with the retail development that has occurred to the north and to the west. It is consistent with the zone in the Specific Plan and located a sufficient distance from existing residential to the south on the other side of Eucalyptus that there would not be any other type of impacts to the existing home residents that live there. The project as designed and conditioned would not result in a significant impact on the environment. Staff has reviewed the project and determined that the project at this location qualifies for an exemption under the CEQA as a Class 32 or In-Fill Exemption under Section 15332 of the California Environmental Quality Act Guidelines. Public notice for this project was satisfied the Building Code. The site was posted 10 days in advance of the meeting. Notices were also sent out to property owners within 300 feet of the site. In the case of this project, no contact was made. We had no phone calls or inquiries of any kind from the public and, as of this evening, no inquiries or questions about the project. With that, Staff would recommend that the Planning Commission recognize that this project qualifies as an In-Fill Exemption under the California Environmental Quality Act and approve the Conditional Use Permit as presented to you this evening and subject to the Conditions of Approval as attached to Resolution 2017-26. That concludes my report. I'd be happy to answer any questions that you might have.

CHAIR BARNES – Thank you Mr. Bradshaw. Any questions? I have one. I recall seeing a condition that stated that the pedestrian access would be provided down the east side of the property.

CASE PLANNER JEFF BRADSHAW – I apologize Chair Barnes, I missed the first part of your question.

CHAIR BARNES – No problem. I seem to recall a condition. I don't remember which one it was that specified that the pedestrian access would be provided down the east side of the property?

CASE PLANNER JEFF BRADSHAW – That's correct. So if you look at the exhibit that's on the screen now, what would be the southeast corner of the site, it's an odd-shaped parcel, but the property line that they share with the fire station site.

CHAIR BARNES – Right.

CASE PLANNER JEFF BRADSHAW – There's a pedestrian connection that takes occupants of the hotel to the property line. There is an additional condition that requires the continuation of that same pathway offsite down to Eucalyptus Avenue to allow what is an informal pedestrian connection that you can see if you look at aerial photographs to continue.

CHAIR BARNES – That made perfect sense. My real question was why did you condition them to use the east side? It seemed like it would be more logical to go down the drive aisle because there would be improvements and probably setback from that…….

CASE PLANNER JEFF BRADSHAW – It goes back to looking at the aerial photograph and kind of the established pattern I guess. As you look at the aerial, you can see that people over time have created their own pathway, and it's essentially along the east side of the property near that location. The other reason for placing it there was, in working with the adjacent property owner, they were comfortable as we met with them, at least in conversation, with the idea of the pathway as long as it was in a location of the site that did not disturb or interfere with future development of the property. That is why it is placed there, rather than at the far west end.

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chairman, if I may, and Jeff is absolutely right. What we did look at was the existing aerial photography of the site, and you'll see where the paths are being burned. Basically, you'll see the dirt strips. There are actually two paths of travel that kind of make access to WinCo and what you have to do, if you pull back on the aerial photograph, you'll see the relationship to the residential development that's on the south side of Eucalyptus. It's where the people that can come from the residential development can get across the street. They then get across the street and then conveniently get across the site. When the hotel is built in here, if you look closely across the path, you'll see a diagonal. Then, because of the fire station, the west edge of the fire station lines up with that other road that is straight across the street. We're finding that people cross there and then come into the site to get to WinCo. Because the hotel will kind of block that diagonal access, it made sense to go to the east edge, and then it also gives people an opportunity still to walk up to the signal. It's not a signalized intersection, but it's a more full-access intersection that the main drive aisle goes into the WinCo, so they'll still have convenient access there.

CHAIR BARNES – Alright. Any other questions? Not at this time. Alright, hearing no other questions, we will open the Public Hearing. Do we have any speakers on this tonight? We do? I should know that because it says one. Mr. Brugueras.

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chair, before we call the public speakers, do we want to call the Applicant up to allow them to have some comments?

CHAIR BARNES – Yes, we would be happy to do that.

PLANNING OFFICIAL RICK SANDZIMIER – Okay.

CHAIR BARNES – One of these I will get right tonight, but I'm running out of chances aren't I? My apologies. The floor is yours.

APPLICANT JIGISH SHAH – Jigish Shah with the owner, developer, and partners of this hotel. Good evening Chairman and Commissioners. I don't have anything to add. Thank you, Jeff, for all your support and Mike and his team and look forward to building and operating the hotel here. Does anyone have questions for me?

CHAIR BARNES – Anyone?

VICE CHAIR KORZEC – Well I just wanted to make a comment. I really love the design, and I really like the clean lines and the fact that it is not all beige. So I think you're adding something really nice to that neighborhood, and I wish in Moreno Valley we would start to get things that look a little bit more different, so I applaud you on that.

COMMISSIONER LOWELL – No one would believe that this is right next to a concrete plant that used to be there.

CHAIR BARNES – Commissioner Sims.

COMMISSIONER SIMS – Just a question. What kind of timetable for implementation is this?

APPLICANT JIGISH SHAH – My expectation is that we'll start construction late July or early August, and it's going to take approximately 12 to 14 months before we check in our first guest.

CHAIR BARNES – Anyone else? Thank you. Now, at this time, Rick……

PLANNING OFFICIAL RICK SANDZIMIER – Now, at this time you want to open the Public Hearing.

CHAIR BARNES – Oh my gosh. Alright, at this time we will open the Public Hearing, and we have one speaker on the list, Mr. Brugueras.

SPEAKER RAFAEL BRUGUERAS – Thank you again Chair, Commissioners, Staff, guests, and our residents. It is a joy to know that we have one of the big corporations in our country, the Marriott, considering Moreno Valley to do business in. That's a privilege. We have worked very hard to clean our image in our city, and I thank the commissioners, the staff, and the residents from being partakers of that because it takes all of us to take this train forward. When I went to look for this development, I went north and south and, when I got to Eucalyptus and Day Street, I said how can this be because we already have a project being built on that corner with hotels and a gas station and restaurants. I said okay let me go and make a left, and I did and I saw the sign because that's the first thing I look for. I look for that sign that the Staff puts up, public hearing,

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then I know this is the area I need to be in. Once again, I parked my truck, threw on my hazard lights, got out of the truck, and got on the dirt. I looked around, and I was glad to see where it's at because it's going to do wonders coming down that street heading towards the freeway. I wrote a couple of things for our future guests and our builders. We have WinCo. We have the fire station. We have future development. Down the street, we have restaurants. On Day Street, we have gas stations. We have freeway entrances and exits on Eucalyptus and Day and, if they come down Alessandro, they will wind up on Eucalyptus and Day Street. We're moving ahead. People are recognizing the City of Moreno Valley, and we are grateful for all these corporations that are finally giving us a chance. I hope this project gets approved tonight because we could use the additional jobs that it brings because we know that hotels do not get cleaned by themselves, and it will bring revenue for the city, and it will bring those additional taxes that got approved by the residents in November. So we're finally moving ahead. As Ms. Korzec mentioned, it is a beautiful design, it is. When you really look at it, it is well put together. It is going to be in a beautiful area, and I believe that the houses and the apartments that are across the street from this place can put their relatives in there so they don't have to have that extra room in their house. So thank you so much Marriott for considering Moreno Valley.

CHAIR BARNES – Thank you Mr. Brugueras. Would the Applicant like to respond to anything that he heard? Perfect. Alright, with that, we will close the Public Hearing and entertain discussion from the Commission. Any comments?

COMMISSIONER BAKER – I think it's a good project. We probably need to move forward with this.

COMMISSIONER LOWELL – I also think it's a good project. I'm excited to see development in that part of town. That part of town really needs some help. Everything that goes in improves Edgemont. It improves the Box Springs Water District. It improves Eastern. It improves the whole area, and I'm glad people are willing to put some money in that part of town. I look forward to you guys coming to town.

CHAIR BARNES – Anyone else? I agree. It seems very well thought out, nice project. It fits in the location well. I think it's ideal, so with that, anyone like to make a motion?

COMMISSIONER SIMS – I'll make a motion.

CHAIR BARNES – No it isn't. It's way complicated. I may call in sick next week so Vice Chair Korzec can handle it. Ah, there we go, finally.

COMMISSIONER SIMS – Alright, I'm moving, and I recommend that the Planning Commission approve Resolution Number 2017-26 and in the balance of the conditions as proposed in the Staff Report.

CHAIR BARNES – Do we have a second?

COMMISSIONER LOWELL – I will second.

CHAIR BARNES – Commissioner Lowell. Please vote. All votes have been cast. The motion carries 5-0. Thank you very much. My last chance. Rick, go ahead.

Opposed – 0

Motion carries 5 – 0

PLANNING OFFICIAL RICK SANDZIMIER – As far as the Staff wrap-up goes, I'd just like to add a couple of comments before I give the wrap-up. First, it's refreshing to hear the comments from the commission this evening and comments from the public recognizing the design of the facility. Our staff is working very hard to make sure that the architectural style of the developments are complimentary to what's out there but also bringing a good image to the city. We appreciate recognizing the pedestrian connection because, on this particular project, we also were making pedestrian connections on the other side of the building, which weren't brought up, but we were looking at making connections to the existing street and then also to the existing developments to the people that would come and visit that hotel. I appreciate the effort from Mr. Shah and his team. They were very accommodating working with us. We tried to push this through in an expedited fashion, and so what I also wanted to do was recognize our economic development team led by Mike Lee who is working with these kinds of businesses to bring them into our town and then work with us in Planning to make sure that, as a team, we're bringing better images and better projects to the city. So I just wanted to make those few comments. As far as a wrap-up goes, this is an action taken by the Planning Commission that can be appealed to the City Council. If there is any interested party out there that feels that they want to make an appeal, they can file that appeal within 15 days of this action. That appeal should be directed to the community development director. It would be agendized for a City Council Hearing within 30 days if we do receive one.

CHAIR BARNES – Thank you Rick. Last on the Agenda, Item 4 is a Change of Zone. Case PEN16—042 (formerly PA16-0026). Can we have a Staff Report please?

4. Case:	PEN16-0042 (PA16-0026)
Applicant:	Naji Doumit
Owner:	Elie Abinader, John Klabb, and Naji Doumit
Representative:	Naji Doumit
Location:	South side of Mountain Ranch Road at Northshore Drive, northerly of Ironwood Avenue APN: 474-250-003
Case Planner:	Jeff Bradshaw
Council District:	2
Proposal:	This item was continued from the April 27, 2017, Planning Commission Agenda. Zone Change - The Applicant is seeking approval of a Zone Change from R1 to R2 for a 10 acre site along the south side of Mountain Ranch Road at Northshore Drive, making the zoning consistent with the project site’s Residential 2 General Plan Land Use Designation.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission:

1. **APPROVE** Resolution No. 2017-2 and thereby **RECOMMEND** that the City Council:

    - **ADOPT** a Negative Declaration for Zone Change application PEN16-0042, pursuant to the California Environmental Quality Act (CEQA) Guidelines; and

    - **APPROVE** Zone Change application PEN16-0042 based on the findings contained in this resolution, and as shown on the attachment included as Exhibit A.

CASE PLANNER JEFF BRADSHAW – We do and, as a surprise, I have another report for you. My name is Jeff Bradshaw. I'm the case planner assigned to this project. The application presented to you this evening is for a proposed Zone Change. This item was originally on the Planning Commission's April 27, 2017, Agenda and that was continued to this evening at the request of the Applicant who wanted an opportunity to meet with residents and discuss their concerns about the project. The project location is 10 acres located north of Ironwood Avenue on the south side of Mountain Ranch Road. The site has unique topography. It is rolling, to level, in some locations but mostly rolling topography with a prominent knoll and rocky outcroppings near the eastern portion of the site. The proposal of the Applicant would be to change the existing zoning from Residential 1 or R1 to an R2 Designation; the primary difference there being the minimum lot size going from a minimum of 40,000 square feet under the R1 Zone to 20,000 square feet under the R2 Zone. The surrounding area to the west is designated for single-family residential uses in the R2 Zone and density. The surrounding area to the south and east includes some vacant land but mostly custom homes in the R1 Zone, so the project site sits right where the R2 and the R1 meets. The unique aspect of this project is that the General Plan designation for this site is R2 with an R1 Zone. As we researched this project going back to the time of city adoption of the General Plan in 1988, the General Plan Designation for this site was R2. As the city went through a zoning consistency exercise, it appears that, from the beginning, the General Plan was R2 and the zoning was R1. So there has been a disconnect between the General Plan and the Zoning since city incorporation. By way of background, there was a previous development proposed for this property. That application, or that proposal rather, included an application for a Zone Change from R1 to R2, and it also included a Tentative Tract Map. That was presented to the Planning Commission in 2009. The Commission at the time voted to recommend approval of the Zone Change and the map and that went on to the City Council where the project was ultimately denied. This project was presented to you this evening after going through a review process with Staff. We reviewed the proposed Zone Change and requested some information from the developer in the way of a Trip Generation Analysis, which was provided. Once we had an opportunity to review that content and had an opportunity to prepare an initial study for the project, it was then scheduled for a Public Hearing in April. Through the preparation of that initial study, it was determined by Staff that the project, the Zone Change, in and of itself would not result in a significant effect on the environment. The Trip Generation Evaluation that was prepared for the project demonstrated that a full Traffic Study was not required for the project based on the low traffic generation forecasted for future buildout of the project under an R2 density, and that document was noticed, rather the availability of the document, was published in the paper 20 days in advance of the April 27, 2017, hearing date. Again, for this project, Staff worked to satisfy the City's Municipal Code Requirements for notification of a hearing. Again, the availability of the Negative Declaration was published in the newspaper 20 days in advance. Ten days in advance to the hearing, the site was posted and notices were sent to all property owners located within 300 feet of the project site. Out of that notification process, I did take a number of phone calls, and there were some inquiries about the project. I had the opportunity to speak with Susan Zeitz a number of times, and she took the time to respond in writing. A copy of her correspondence is provided to you. She also took the time to walk the project site and take a significant number of pictures, which are available in a memorandum that was prepared for you this evening, so the memo that you have is intended to…..I guess it's an extension of the Staff Report. It's an opportunity to bring the comments from the public into the record, and it includes correspondence that we received leading up to the April 27, 2017, hearing, along with the letter from Mrs. Zeitz that I mentioned and her photographs. There is another section to that memorandum that includes additional email correspondence and letters that were submitted for tonight's hearing. So those are available to you for your review and reference. Then, there was an additional email that arrived after the memo was put together, so a copy of the email letter from Kathleen Dale is also available to you for reference as well. I think it is important to acknowledge……I'm going to go back through some of the comments and relay to you some of the concerns, and then I know there are people here that will more appropriately speak for themselves. One thing that is important to acknowledge is that the surrounding properties, especially to the east, are not all vacant like described in the Staff Report. There are undeveloped or open areas to the east that are put of custom home lots in the R1 Zone. Some of the concerns stated by the residents are very similar to concerns raised during the 2009 public hearing process; concerns with changes to quality of life, concerns over additional traffic that might be generated by potential of doubling the density of the site, concerns about loss of zone that would allow for animal keeping. I'll leave it at that I guess. The comments speak for themselves very consistently among the correspondence you have. You'll see strong opposition to the change that is proposed by this development. One unique thing about the project this evening is you're having a Zone Change presented to you without a development application. That is not a requirement by our Code. I think often you see a Zone Change or General Plan Amendment accompanied by a Plot Plan or a subdivision or a development application of some type and that was what was done in 2009. What's presented to you this evening is just the request for the Zone Change, and again a development application is not a requirement of our code and these changes can be presented to you for consideration on their own merits. With that, staff would recommend that the Planning Commission recommend to the Council the adoption of a Negative Declaration for this Zone Change and approval of the Zone Change as requested by the Applicant. That concludes my report, and I'd be happy to answer any questions you might have.

PLANNING OFFICIAL RICK SANDZIMIER – Mr. Chairman, if I may, I also just want to elaborate where Mr. Bradshaw has pointed out that we have received some pretty significant comments from the area residents. We have received a handful or even more of photographs, but I want to ensure you also that our Staff has been out to the site. Myself I've been out to the site at least three times, walked the perimeter, drove the perimeter, and tried to look at it from different vantage points in terms……we're trying to make a determination on compatibility of the Zone Change. That's our requirement as your Staff, so I just want to assure you that, in addition to the residents who do live out there, we appreciate their perspective on the project, but I can tell you that our Staff has also done their due diligence and the Applicant himself has provided information about the site and photographs of the site that have all been in consideration for this item for you tonight.

CHAIR BARNES – Thank you Rick.

CASE PLANNER JEFF BRADSHAW – Amended here to the slides, we have the photographs that Susan provided to us. If those are of interest, we can show those as well.

CHAIR BARNES – Thank you Jeff. Any questions of Staff?

VICE CHAIR KORZEC – I visited the site a few times and saw a lot of outcroppings, rocks. Has there been any investigation to date on Native American artifacts because those are typically areas those might be found. I was just curious about that.

CASE PLANNER JEFF BRADSHAW – There was a cultural resource assessment done for the 2009 application. That was not required in this case because there was no actual development or impact to the site. We did have an opportunity to meet in consultation with three tribes that expressed interest in the project when we had sent the transmittal of the project to their attention. Through that process, they recognized that, without an actual development, there really wasn't anything to discuss in the way of impacts. If and when the site is developed in the future, that would be a requirement of the City that they provide an assessment of the property, something more current that would include a record search of anything that might have already been discovered in the near vicinity as well as the appropriate steps that the archeologist would take to investigate this site and that would be part of the review of any future development there.

VICE CHAIR KORZEC – And are there any endangered species in that area, kangaroo, rats, etc., burrowing owls, things like that that there are any signs of at this point?

CASE PLANNER JEFF BRADSHAW – That type of study was also done in 2009. Again, with no development, we didn't request any type of study because there would be no impact into the Zone Change until development does occur. I'm not aware of any sensitive species on the site currently. In the future when development would occur, prior to the application being presented to the Planning Commission, there would be a requirement to go back out to the site and provide studies or assessments. Burrowing owl would be one that we would have them do in particular.

PLANNING OFFICIAL RICK SANDZIMIER – If I can elaborate on that, it's not only one time. Also, when the development project comes in, say they want to subdivide the property, there would be a burrowing owl assessment done as part of that entitlement to get the tentative tract laid out. Also, as a standard condition of approval we would put on that development, before they come in and do grading because that entitlement could be in place for three years, up to 36 months and it can also be extended over time, so if they didn't build right away there is always a condition of approval put on that sort of approval that requires them to do another subsequent burrowing owl study 30 days before the grading. So that's a standard practice, so it's not that it hasn't been a careful consideration with this development.

CHAIR BARNES – Any other questions?

COMMISSIONER SIMS – On the…..is this proposed to be on septic systems or would there be a public sewer built, or is that undetermined at this point?

PLANNING OFFICIAL RICK SANDZIMIER – As Mr. Bradshaw is indicating, it's kind of a what sounds like a broken record. There actually is no development plan associated with this. No map. We can tell you, and we can refer back to the 2009 or 2008, I think it was application. There was a proposed sewer connection, but we don't know that that's going to be the case until he submits a new application. So we do have evidence that there was consideration for a sewer in the past, but we don't have an application on file to confirm that would be the case today.

CHAIR BARNES – Anyone else? I have a question. In the background section of the Staff Report, the second half of the second paragraph, it says that the Government Code further states that in the event that a Zoning Ordinance becomes inconsistent with a General Plan by reason of amendment to the plan or to any element of the plan, Zoning Ordinance shall be amended within a reasonable time so that it is consistent with the General Plan as amended. Now, in this case, the zoning and the General Plan were inconsistent at their inception. It's inconsistent due to an amendment, so this action is strictly driven by the Applicant's desire to change the zone. That is not a factor in this?

PLANNING OFFICIAL RICK SANDZIMIER – It's my understanding that you're correct in that it has been inconsistent since inception, since the General Plan and the zoning documents were first created, but I believe as part of the last project that came in there was an interest to try and make it consistent. There was some consideration in the 2006 General Plan Update to address these issues of consistency, and in each instance there had been no change made so it has remained inconsistent all along. I believe there have been previous attempts to bring it to compliance. Correct me if I'm wrong.

ASSISTANT CITY ATTORNEY PAUL EARLY – Yeah and that's my concern as well. There have been changes to the General Plan and to the Zoning Atlas as well, so whether or not this particular parcel has been touched or not, there are inconsistencies that would need to be addressed. That does not necessarily mean that the zone has to be changed. The General Plan could be changed to be consistent with the current Zoning Map and alleviate the problem in the same manner.

CHAIR BARNES – Alright, I just wanted to be clear that this is strictly driven by the Applicant's desire, not by the City's mandate based on the Government Code to make the General Plan and the zone conform.

PLANNING OFFICIAL RICK SANDZIMIER – That's correct. This is an application driven by a private property owner.

CHAIR BARNES – Alright, that was all. Minor clarification. Anybody else? Oh, yeah.

COMMISSIONER LOWELL – I have a question. I'll just take the microphone.

CHAIR BARNES – Okay, go for it.

COMMISSIONER LOWELL – On the EIR documents, the last page I guess it's page three of the environmental factors, it says the basis of this initial evaluation and it says I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project had been made by or agreed to by the project proponent a Negative Declaration will be prepared. If there is no project, how can we make that assumption or make that statement?

ASSISTANT CITY ATTORNEY PAUL EARLY – Zone Change is a project.

COMMISSIONER LOWELL – It's a Zone Change. It's not an actual project.

ASSISTANT CITY ATTORNEY PAUL EARLY – But it's a project as far as CEQA is concerned. It's considered to be a project.

COMMISSIONER LOWELL – So this specific Negative Declaration is only pertaining to the Zone Change but, if they decide to put a giant cole power plant there, they'd still have to do another CEQA and say yes this is a gross polluter or something along those lines?

CASE PLANNER JEFF BRADSHAW – That's correct. It would have to be reviewed under its own merits anything else…….

COMMISSIONER LOWELL – Okay, so this CEQA just pertains to change from R1 to R2 and that's it?

CASE PLANNER JEFF BRADSHAW – Only to the Zone Change.

COMMISSIONER LOWELL – Nothing out reaching past that?

CASE PLANNER JEFF BRADSHAW – Nope.

PLANNING OFFICIAL RICK SANDZIMIER – If I can also just, with regard to that because I think that might have been some of the comments and some of the letters and correspondence you've received. A project defined under CEQA basically says that this is an action being taken that can create a physical change to the environment, so we have to look at it as a project where it has that potential. We look at it, and we do an initial study and, as a conclusion of that initial study, we determined that there is nothing at this particular phase that would result in impacts that would be more than significant. In this case, there were not even any impacts that needed to be mitigated, so we processed the Negative Declaration. We could have identified if there were any impacts that could be addressed through mitigation. That would make it a Mitigated Negative Declaration. Then, if there were impacts that were perceived to be even greater than that or things that could not be mitigated, we would want to do an Environmental Impact Report. In this case, we went through the appropriate steps with CEQA, as this is defined as a project under CEQA, and we concluded that a Negative Declaration was the appropriate document.

SENIOR PLANNER CHRIS ORMSBY – Just one clarification for the record. I think with regard to the section of page three that you were referring to, we should delete the words (because revisions in this project have been made). There haven't been revisions to the project because the project is the Change of Zone, so that language should be struck, but basically what we're saying is that the project could have a significant impact on the environment, but it will not in this case based on the analysis that was done. The conclusion is that there would not be a significant impact on the environment, so we need to tweak that wording a little bit.

COMMISSIONER LOWELL – Okay, I would be more comfortable with that.

CHAIR BARNES – Any other questions? Would the Applicant like to respond to the Staff Report or any of our questions? The floor is yours.

APPLICANT NAJI DOUMIT – Commissioners, public, City of Moreno Valley…. everyone can hear me? Okay, Commissioners, City of Moreno Valley Planning

Department: Good evening, my name is Naji Doumit. I am the applicant here. I would like to express my feeling about the other hearing that I have been here with the City of Moreno Valley working since 2004, and I'm very happy to see that kind of projects that are going to come to the city and that's very good work from City of Moreno Valley. Also, it's going to bring employment. It's going to bring higher-wage people to the city. So tonight I will discuss the proposed Zone Change and the benefit of it. As you may know already, the project is approximately 10 acres currently zoned R1. However, the General Plan is designated R2. I am proposing a Zone Change from R1 to R2 at the north and west side of the property. The benefit of that change is it will increase the neighborhood real estate value by adding upscale homes. It will widen the street on Mountain Ranch Road from one lane to double lanes. We will build semi-custom home to meet the demand for a new home due to the creation of a new job and higher wages in the City of Moreno Valley. More homes will benefit the city and it will increase the level of employment and keeping undeveloped land will not benefit anyone, except the weed abatement company. The hearing was supposed to be on April 27, 2017, and due to the phone calls and opposition from some of the neighbors, we continued it until this month. I did send a letter within a 300 feet radius of the property to the residents to meet and discuss the zone changes and listen to their concerns in order to have a better understanding on how to develop the property. The resident's concerns were as per the following: the traffic, so the proposed change was analyzed by Urban Crossroad and the R2 Zoning will only generate seven more a.m. peak-hour trips and 10 more peak-hour trips than the current R1 Zoning Plan. In regard to the rural environment, we discussed the potential to keep the east side of the property to minimum of one acre, one story to preserve the large boulders regardless if the zone is designated to R1 or R2, so we can keep the east side on a minimum one acre. The new custom home will be built in a design that complements the neighborhood and the latest style. In regard to the animal rights, by setting back the new home and utilizing fences and hedges in the future plan, the new development will be designed to not interrupt neighborhood with animal or their privacy. Tonight I am asking the City to approve the Zone Change. Thank you.

CHAIR BARNES – Thank you Mr. Doumit.

COMMISSIONER LOWELL – I have a question for you Sir. You were giving descriptions of development and houses and semi-custom homes and widening the road, but the application tonight is just a Change of Zone. Why did you choose to apply for a Change of Zone and not submit an application for a development at the same time?

APPLICANT NAJI DOUMIT – Well the Zone Change will affect the development. In the past, we had issues back in 2007 of the opposition from the neighbors. This time I reached out to them, and by listening and hearing their concerns, I was able to propose these ideas by keeping the east side of the property as a minimum one acre development for each house just to give them the privacy and the security of it.

COMMISSIONER LOWELL – My personal preference is when we do Change of Zone applications, I like to see what the proposed use of the land would be. It kind of makes it easier to understand what your intent is. A Change of Zone on its face just…..it seems like half an idea. You seem to have a pretty sound idea and dream of what you want to do. For my benefit, it would have been better for me to see what your intent was, what your dream was, what your vision is so we can help decide whether or not the Change of Zone is a good idea or a bad idea, so it's just kind of hard to understand what's going on without seeing a map or without a plan.

APPLICANT NAJI DOUMIT – I tried to put it in words how it's going to be by widening the street, preserve the boulders on the property, and to keep the looks of it by maximizing the size of the properties per lot on the east side……

COMMISSIONER LOWELL – Correct, I understand that, but what I'm saying is that what's presented to us right now is just a Change of Zone. We can't really take into account what you're saying as part of our decision-making process because it's not evidence in front of us. It's not evidence to support the project because it's not a subjected object or a submitted report, so I just.

APPLICANT NAJI DOUMIT – Well, if you look at the property on the east side, I mean on the west side, they are R2 homes. They are all on half-an-acre lot. If you look at the north side of the Mountain Ranch Road, there are in R2 Zone as well. That's why we are going to keep the consistency of these types of residences and the size of the property to put it on half an acre on that side and maybe use the same half an acre on the north side and keep the neighbors happy to develop the property on the eastern side on one acre.

COMMISSIONER LOWELL – Well, again, a map would've been nice to have; something to help support what you're saying. Everybody is talking about consistency, well right now the project is consistent with the east and the south but, if you change it to zone, it will be consistent to the west and to the north. So, either way, it's still going to be consistent, it just matters which way you look at it. So my original point is I would've liked to have seen a map so I could've seen what was being proposed and what your desires are. It just makes it a little easier to understand.

APPLICANT NAJI DOUMIT – Yeah, it would be easier to understand. I did have a map back in 2006, and we did submit it to the City Council. It was approved by the Commission back then, but it did get denied back in 2007 with the Council due to the opposition of the neighbors. This time, I tried to reach out without doing the map to see what they are their concerns so I can…..later on when I submit the plan and I do a map, I would know how to approach it and how to submit it to the city for approval, so that is the concern of it. I don't want to go with the expense of spending a couple hundred thousand dollars again for it to not get approved and just deny the project. I'd rather resolve the issues now then spending all that money and all the time not to get it done.

COMMISSIONER LOWELL – Thank you.

CHAIR BARNES – Anybody else?

VICE CHAIR KORZEC – I just wanted to ask how many people came to the meeting that year? Can you give us a little detail of how many people you represented?

APPLICANT NAJI DOUMIT – I believe there were about 10 or 12 persons who came to the meeting.

CHAIR BARNES – I have a question of Staff. As far as I know, we cannot apply any conditions to a Change of Zone, correct?

PLANNING OFFICIAL RICK SANDZIMIER – No. we would not apply conditions.

CHAIR BARNES – I guess my question is, thinking outside the box a little bit, is there a way to memorialize his commitments for a future project in some way that would address his concerns about what it ultimately might be, his commitments to the neighbors as to what it will be, and alleviate our questions moving forward. Is there a way to do that? I know it's a tough question on short notice.

PLANNING OFFICIAL RICK SANDZIMIER – Well there is a separate application that could be submitted, which could be a Development Agreement, which would say I want to get approval for the Change of Zone; but then, in the Development Agreement, you may want to have a guarantee of a certain number of lots, and in that conversation, you're defining the total number of lots that you would get on that 10 acres of the site. In exchange, you would be saying on the east end, and you'd have to define what the east end of the property or east side of the property is would be no smaller than one-acre lots. You could do that, but it's a separate application. The reality, if you look at the site and you go back and I know it's not an application that's before us, the previous map that he had submitted most of the properties on the east side were going to be larger lots anyways because of the rock outcroppings that have already been identified and then just some of the physical constraints or challenges on the property. There is not an easy way to carve it up into something smaller than one-acre lots, and I think if you looked at that previous map that's what you would see. I attended the community meeting the other night, it was last week. There were about 10 to 12 people. There was some discussion about the previous application was only going to achieve 14 lots. Then, some of the conversation with the community was talking to the Applicant here about possibly reducing that down to 12 lots if you were to carve it up the way they were talking about with one-acre lots on one side. So we've already evaluated a worst-case condition just breaking a 10 acre lot down into half-acre lots. We've assumed up to 20 but in reality what's already been discussed and presented out there is probably going to be 14 lots or less and so, if the commission wanted to go through another process, we'd have to ask the Applicant if he wanted to submit something like a Development Agreement to kind of memorialize things. The other thing I would offer is, in my experience, it is no uncommon for an applicant to come in and do a Zone Change before they submit for a map or a Plot Plan because there is a lot of expense involved. There are applicants that are willing to come in, get the entitlement, submit for a Plot Plan, and then they come in even before that entitlement is done and they go at risk with building and grading permits because they're more eager, they're ready, and they're willing to take that risk. It just depends on the Applicant how they approach it. In this particular case, I'm hearing the Applicant say that he went through quite a bit of expense several years back, got an approval from the Planning Commission, and ultimately did not get the approvals of the City Council, and what he has told us in the processing and what I think I've heard from him tonight, is he is trying to get this first incremental approval from you and that's fine and that is acceptable in accordance with our code and provisions.

CHAIR BARNES – Well I certainly understand his reluctance to spend his money up front on the risk of a project that may or may not be approved but, before we get too far off the path, any other questions about what has been presented so far? Thank you Mr. Doumit. At this time, let's move to the Public Hearing portion. We have nine speakers, the first being Carole Nagengast. I think I pronounced that wrong. My apologies. Susan Zeitz is number two on the list.

SPEAKER CAROLE NAGENGAST – Good evening Mr. Chair, Members of the Commission, Staff, and public. My name is Carole Nagengast. That's fine. Everybody does that to it. Well I live at 26410 Ironwood Avenue in Moreno Valley. I'm a longtime property owner with land, two parcels just to the east of the proposed zoning change. The land owner, Mr. Doumit, is asking to double to 20, the potential density, of houses allowed on the parcel that we're discussing, and the City of recommending that this be approved. I remind you that, in 2009, a proposal for 14 houses on the same site was denied due to resident objections, including my own at the time and to the natural unsuitability of the parcel for development. You have seen their significant outcroppings, the rocks, and you have stated that, to the best of your knowledge, the site has never been examined for Native American or other cultural artifacts. As importantly, the planning notice of public hearing sent to me suggests that changing the zoning from R1 to R2 would make this parcel and I quote "consistent with zoning of adjacent developed single-family residential properties to the north and to the west. You've addressed this in some part. However, the above statement is rather misleading. It does not mention the adjacent undeveloped properties in the east and to the south that have been zoned R1 for decades. Secondly, it flies in the face of the 2006 General Plan Zoning of this area as R1. If the General Plan is outdated or inconsistent, and it well may be, my suggestion is that we by all means have a full discussion of it, complete with environment, historical, and cultural impact studies. Let us not make piece-meal significant changes to the General Plan without a full and fair assessment of all aspects of it. I've lived in my present home since long before incorporation of the city because I, my family, and my neighbors value its semi-rural nature. A progressive Planning Commission in any city would ensure the continued designation of any part of the city as semi-rural in order to attract the kinds of families who want horses and other animals, who want to raise their children in a natural environment that includes both wildlife and their privacy. I attended the informal discussion with the land owner last week, and I was somewhat amused and partially shocked to hear a member of his team refer to the northern part of my 5+ acres as a vacant lot. Okay, this has been addressed several times, but I make a point of it because frankly my feelings were hurt just a little bit. That land is part of my back yard. Okay, it's not a vacant lot, and it's an ever-shrinking environment for foxes, rabbits, coyotes, and a myriad of rodent, bird, and insect species. I don't know if any of them are endangered, and I suspect you all read my email since I brought it up at that time earlier today, but the memory of the Stephen's kangaroo rat saga lingers in my mind as it does perhaps in yours.

CHAIR BARNES – Carole your time is up.

SPEAKER CAROLE NAGENGAST – Already? This is not nimby. Okay, if I had known 30 years ago that this would be under constant discussion, I probably would've moved then with my family.

CHAIR BARNES – Thank you.

SPEAKER CAROLE NAGENGAST – Thank you.

CHAIR BARNES – Susan Zeitz.

SPEAKER SUSAN ZEITZ – Before my clock starts, I wanted to ask Rick, he said he……

ASSISTANT CITY ATTORNEY PAUL EARLY – We're at the Public Hearing. If you want to step up to the microphone, nothing will be recorded unless you come up there. Thank you.

SPEAKER SUSAN ZEITZ – Okay, alright, and walking that property means hiking all over it. I am against the rezoning of Mountain Ranch Road. Since February 1984, for 33 years, we have lived next to and shared our western property line with this property. The subject of the second rezoning request, this unique and challenging property has many crazy topographical features all crammed onto less than 10 acres. From his highest knoll, which is almost centered on this land, you can look around and see that you're standing on what geologically begins with the knolls located on my neighbor's property, Carole's, to the east of me that flows and blends onto and across our property. You would also see earth and boulders, two of which are extremely large. The one in the southeast corner runs east to west, is deep, has large earth that runs the width of the property to the south and is as high as their roof. The other is large and pear-shaped running alongside our shared property line between this knoll and mine. You will also see elevation differences. There are many and great. From the knoll, you can envision a line drawn down the approximate center of the property from north to south, and what you would see on the eastern half are the knolls, the boles, the boles, the largest elevation differences and the harmonious eastern property line that would be ruined by any grading. You would also see the western half has lower elevations, is mostly level, has less dramatic transitions between it and the existing properties to the west, north, and the southwest corner. I've gained an intimate knowledge of this property by 33 years of walking, hiking, and riding horses on it. I recently walked trying to capture it's unique topography with my camera because I wanted everyone to understand why it's zoned R1, why it couldn't support anything less than R1, and why it should remain R1. It's hard to imagine so many topographical challenges can be found on less than 10 acres even when you see it with your own eyes. If you haven't walked this property, I recommend it; the whole property. I submitted photos and letters, which I see that you've gotten in hopes that the photos would enable you to ascertain that it is in the best interest of this land to remain R1. Remember too that the current R1 Zone is consistent with the General Plan Designation and that the R2 General Plan Land Use Designation is for residential uses at a maximum density of two units per acre. November 9, 2017, the city council members denied this applicant's request for the Zone Change, one that had a plan that included five more home than allowed by R1 Zoning. The counselors decided that homeowners have their life savings invested, bought in this area in good faith believing it would remain R1, attended the creation of the first and subsequent Master Plans where we were assured that this northeast area would remain rural. We were told that Vista De Cerros was a natural and good dividing line between R2 and R1 and, in 2006, just to the south of this there was also a denial for a zone change citing many of the same reasons. I'd like to ask you to recommend to the City Council that they should initiate a General Plan Amendment placing this area and the Residential-1 Land Use Designation. The Planning Commission is granted this authority under the MVMC9.02.040D1. Thank you.

CHAIR BARNES –Thank you very much. David Zeitz next. Lindsay Robinson follows.

SPEAKER DAVID ZEITZ – Hi. My name is David Zeitz. My wife has just spoke, and we have the property that borders the whole east side. My land adjoins the entire east boundary of this property. That is the subject of the second rezoning request. We are against the zoning change. My family has lived there since

February of 1984 and contrary to current improper Staff Reports, prior Staff Reports, our property is not vacant or sparsely developed. It is a part of a fully utilized R1 residential lot. We are here again to fight to protect our lifestyle for ourselves and our neighbors. We bought our home because of the rural nature and the large properties to the northeast area and when it was Sunnymead. We attending the Planning and Council meetings at the season's inception to ensure the north end remains rural. Last week, the Applicant held a meeting with the residents that live within 300 feet of this property, and despite short notice, we had approximately 10 to 12 people attending but did personally contact many citizens within the 300 foot boundary who expressed their wishes to us that R1 Zoning is to be respected. Keep in mind that there are many more citizens concerned about protecting rural areas that are…..excuse me……about protecting the rural area of the northeast that were not invited to the meeting as invented by the citizens who had voiced themselves tonight. At the meeting, some of the residents proposed an alternate zoning boundary as to compromise the rezoning of the entire property. It would limit the number of lots to approximately the same number allowed by R1 Zoning but gives more flexibility and lot sizes to meet the constraints of the topography. Mr. Sandzimier and was given the document proposing this alternative, but we were sad to see that only a limited number of the details regarding these residents suggestions were given in the Staff Report. While we appreciate the Applicant's willingness to commit to a one acre minimum lot size on eastern portion line, he has not yet provided any sort of binding legal comment to do so. Being willing isn't enough. We feel that, if you take into considering existing topographical constraints and the condition along the eastern portion of the sites, it is a good alternative, and we'd be happy for him to change his request to reflect this partial rezoning on the eastern part as R1. In 2009, Plot Map…..

CHAIR BARNES – Mr. Zeitz, your time is up.

SPEAKER DAVID ZEITZ – Thank you.

CHAIR BARNES – Thank you very much. Lindsay Robinson. Kathleen Dale follows.

SPEAKER LINDSAY ROBINSON – Welcome back Mr. Baker, Mr. Lowell. I'm glad to see you guys back up there. Again, we worked very home to get up move-up homes on large lots. That's what people out on the northeast end want to live. So we don't think it's right to having to keep coming back and battle. I learned something new this weekend from Mr. Brock. Homes and the develops don't pay enough for all the public services that you receive, and if you look at this area, it's going to be a dangerous area for fires, as it is already. There's only a limited ingress and egress on Vista De Cerros and Steeplechase. Mountain Ranch Road is a dead-end, so you cannot drive the perimeter. Sorry, so I don't know how Mr. Sandzimier did it. So the residents, when you cram more houses because it's also happening further east, are left with the consequences of what these developers. They take their money, and they leave us to suffer the congestion, the noise, the traffic that we did not move out there for, so please respect the residents. Let us keep the one acre zoning, and I guess that……oh, and development agreements. Like they said, there is no plot for this. There is no plan. He is not legally bound to keep what he is saying, the knolls, the boulders, whatever. Development Agreements, we all know, get changed all the time. Again, they come in and get, oh this isn't going to work. I want to change this in my Development Agreement, so again that's not a workable solution. So we hope that you will perhaps put this off and make him come back with a Plot Plan or at least something legally binding because just wishes and dreams aren't enough. Our dreams are out there on large lots, and we hope you will respect that and keep the large lots and not do any more zone changing. A promise was made back in 2009. A line was drawn at Vista De Cerros, but the City cannot find the documents, along with several other documents, but we need that promise kept. That's what we…..and we're all vested in this city. We're involved on commissions, boards, in the arts, and everything in the city, and there aren't the jobs to support hundreds and hundreds and thousands of new homes, so again you're going to get back in the commuting issue. Just saying there is only going to be 10 extra trips a day or one extra trip is wrong. Plus, I want to apologize if you guys felt strong-armed by the residents who came and talked to you about the Ironwood Village project because we were informed at a meeting on Monday night by Alex Ramirez and Jovanni that we bullied you guys and strong-armed you because we came and spoke in opposition of Ironwood Village, so thank you.

CHAIR BARNES – Thank you. Kathleen Dale. Then, Rafael Brugueras.

SPEAKER KATHLEEN DALE – Good evening. I'm really tired. I don't normally prepare a script, but I wasn't sure I was going to be able to speak coherently tonight, so the first couple pages of what I gave you is my statement, but the important content is the exhibits that are attached at the back. My name is Kathleen Dale. I'm a lifelong resident of Moreno Valley. I'm a retired planner and environmental consultant. I am here tonight to support my many friends who live in this area and who oppose this rezoning. The three exhibits that I've given you are very important to your decision, but for some reason that information is missing from the Staff Report. These exhibits show the General Plan and development patterns for the R1 area. This information has been central to several prior decisions about zoning for this area, and nothing has changed. The Staff Report states that the rezoning and it was stated again in the oral statements that it's necessary to achieve General Plan consistency, and that's just flat out false. The Residential 2 plan designation is for uses at a maximum density at two units per acre. The less intense one acre per unit density of an R1 Zone is consistent, and if you look at the Zoning Map and the General Plan Map that are attached, this area has been designated R2 since the beginning. It's also been zoned R1 since the beginning because that less intense zoning is still consistent. This block of R1 Zoning has been protected consistently over the years with the denial of the R2 Zoning on five acres on the Ironwood frontage in 2004, with the General Plan update in 2006, and with the rezoning request on this side in 2009. The existing development pattern has been the primary consideration in this protection, and if you look, there's a map at the back that gives you all of the parcel boundaries for this area from Vista De Cerros over to Nason between Ironwood and Kalmia. There are 90 lots in that area. Eighty of them are currently developed. I think, sorry I'm losing my…..it looks like something happened…..okay, sorry 80 of the 90 lots are developed. Most of those date to before incorporation. The base map that I gave you shows the footprints of the structures, but I added asterisk so you could see the lots that are vacant. There are 10 vacant parcels that range in size from 1.6 to 3.8 acres. Twelve of the developed parcels are less than one acre in area, and all but one date back to before incorporation. There were two parcels where a lot line adjustment was done and created two parcels, one of which was less than an acre. You are under no obligation to approve this rezoning and recognizing the existing development pattern in this rural enclave and the multiple constraints on this particular site. The city has consistently upheld the existing R1 Zoning, and you should do the same. The proposed subdivision that accompanied the 2009 denied rezoning demonstrates that this site is not suitable for R2 Zoning. Can I have a few more seconds? I mean, we're not going very late here.

CHAIR BARNES – I don't think that would be appropriate.

SPEAKER KATHLEEN DALE – Wow, alright, well please deny this and also please consider initiating a Zone Change or a General Plan Amendment so these people don't have to come back and do this again.

CHAIR BARNES – Thank you Kathy. Mr. Brugueras. Jackie Smith follows.

SPEAKER RAFAEL BRUGUERAS – Good evening Chair, Commissioners, Staff, residents: I learned a lot tonight about the zoning R1 and R2. I got more educated. I've been up there twice. I was up there in April, and I enjoyed the ridge. I went up there yesterday, and I enjoyed the same ride. I looked. I got out of my truck. I went all the way up to the dead end. I got out, went around because there is a dead-end up there. Turned around, made the U-turn and come back down. I parked the truck, and I get out and I look at the land. I don't walk on land like that that's private, so I stayed within my boundary, that's the street, and I looked at all the property around it. Then, I drive off and I go through the community. On the other side of the hill, is Steeplechase. I said, okay, I go up Steeplechase and I come back down. The one thing I noticed about the neighborhood, there is a lot of people that do take care of their land, and there's a lot of people that are no longer taking care of the land because maybe it's too big, or they don't have the money, or they've gotten a lot older and they cannot handle the three acres or more any longer. Okay? Now, by approving this tonight, it does not change anything that anyone has. All we're doing is allowing more people to live on the hillside. That's all it is. A few more people, a couple of extra cars; 14 the most if only two people per house. Okay, that's not a lot. It's not going to hurt the neighborhood. It's not going to hurt the animals. It's not going to do none of that, but more people would be able to live on the hillside and enjoy the beauty just like the long-term residents that we heard tonight. That's all it is. Now, I give kudos to Ms. Robinson. She said something important, to hold, the developer, or the property owner accountable to some of the changes that he is going to make like Brian Lowell mentioned. That's very important. That, if he is going to promise something, it should be held on paper because people do pass away and people do change their minds. It is a beautiful property to be shared with others. I understand what they have and they've had for a lot of years. We're not taking that away. You're not going to take that away from them. They still have it, but that land should be shared for others to enjoy that hillside. I'm just saying let other people share half acres, 20 square foot lots up to 39,000. Those are pretty good-sized lots, and you can put nice custom-made homes on them. You really can. You're not taking anything away from the residents. You're allowing others to enjoy the beauty of the hillside in the City of Moreno Valley.

CHAIR BARNES – Thank you Mr. Brugueras. Jackie Smith. Christopher Tafoya to follow.

SPEAKER JACKIE SMITH – Good evening. My name is Jackie Smith. I have lived in Moreno Valley for over 30 years. I happen to live on the east end, and I find it interesting. I moved from the beach and any of you who have ever lived down there, the beauty of moving out here was getting away from congestion, pollution, noise. I love the ocean, but it was worth it. So here I am, and I have not been one of the active citizens. I have worked outside the city. I live here, and I went elsewhere to work. However, as a result of that, I'm one of the people who hasn't stood up for what needs to be taken care of, and that is this east end property. What I've seen are the changes that have taken the beauty away, and what I'm hearing tonight is residents who are begging to continue leaving a remaining section of Moreno Valley. I have a little trouble breathing, sorry, when I get excited. It's changed dramatically in the past 10 years. Recently, the Sonny Bono Exchange, it's such a dramatic change that it's hard to explain it. In the middle of the night one night, I woke up. What is that noise? What is that noise? And I realized it was the building of the wall and the exchange that created a huge amount of noise coming up from the freeway. I never heard it before. So I know it's easy for people to say, oh let others live there, or let's share it. You see what happened to the beaches. That doesn't make it right. Natural beauty has a place in Moreno Valley. The spaciousness that people paid money for and counted on should remain, so for that reason I ask that you deny rezoning. If I can get my breath here, I am going to read something that someone didn't get to finish. In Mr. Doumit's 2009 Plot Map, it logically shows a tier of our two lots along the west side boundary that matched the existing lots on Vista De Cerros and makes sense when you look at the site topography. The knoll that dominates the eastern half of the site makes logical boundary for R1 lots and keeps the entire knoll within the R1 range. The suggested reduced rezoning area creates logical zoning boundaries and is a way to enforce the Applicant's commitment to one acre minimum lots. I ask the Commission to deny the zoning change or to consider the residents request of limit the rezoning to the western part of the property and grant a continuance of this item to allow time for residents……

CHAIR BARNES – Ms. Smith.

SPEAKER JACKIE SMITH – Thank you.

CHAIR BARNES – Thank you very much. Christopher Tafoya. Tom Jerele, Sr. follows.

SPEAKER CHRISTOPHER TAFOYA – Good evening. My name is Chris Tafoya. I just want to read an email that I sent to the Planning Commission. I wanted to reach out regarding the Mountain Ranch Road rezoning project and to express my concerns about the proposal. As a resident of Moreno Valley's eastern community, I have seen many changes over the years that I have found disturbing. The rural community development in the 92555 area has been steadily developed over the past 10 years and has been hailed as progress by many of our city leaders, including a majority of our City Council. This could not be further from the truth in my perspective. The development that has resulted in several shopping centers, car dealerships, and most troubling logistics centers and warehouses that bring countless trucks, pollution, and noise to our neighborhood. These changes have diminished the unique quality that has endeared Eastern Moreno Valley to so many in our city. Instead of planning these projects in the area of Moreno Valley that were already properly zoned for such development, we have seen time and again developers pressure and buy approval to erect their buildings in the eastern community. That brings us to this moment, in which developers want to take yet another mile when we should not concede an inch. Rezoning the Mountain Ranch Road area for this project will further change what is meant to be a rural community. More homes on smaller plots of land will mean more of the same that we've already had to endure, congestion, pollution, and noise. Those of us that moved to this area did so for its natural environment and character, not to be subjected to the financially-motivated plans of money-motivated developers. Please take my concerns seriously. As a resident of this community for 33 years, I've seen our city roll over time and again to developers, and it would be a shame to see it happen yet again. Stand up to our residents and citizens and recommend that this area of Moreno Valley should not be rezoned for the benefit of developers and to the detriment of our community. Thank you.

CHAIR BARNES – Thank you. Mr. Jerele.

SPEAKER TOM JERELE, SR. – Tom Jerele, Sr. again speaking on behalf of myself. Chair Barnes, Vice Chair Korzec, Commissioners, Staff, and the public: First of all, I would like to say that I have an acute respect for anybody who stands up for their opinion whether for or against. That's what that flag is all about, and I'm so proud to do the Pledge of Allegiance because it guarantees our freedom to speak our mind and our grievances. I know this property very well. I've actually walked it a number of times. I built five custom homes in the 1980s just to the west of this. I designed three others. They ranged….the homes I built were from 21,000 feet to 47,000 feet. The ones I designed were in the mid-3000s, high 3000 foot range. They were built by others. I was working for another company at the time, so I know the area very well. I actually moved out here to try and acquire property just to the northeast of this tract, 10271, which has 10,000 and 12,000 foot lots on it, which are built out today. They would be just east of Lasselle and just above the property that sits to the northeast. I was on that original General Plan Committee that was approved in 1988, but the single-most important thing I can say about this application is I have personal knowledge of the developer, and I have always said determining a person's credibility, just look what they've built before. The Doumit's, I think, are a class act. They have two properties, one commercial, one residential, and they are not in the best area of town in Edgemont. They improved those areas. And think about that, I didn't realize they came here in 2004. Well, where were we in 2004? Everything was on the up. Come 2007, we were on the down. They made is through the down cycle. They are still here so, and they are maintaining their properties and doing a darn good job in my opinion. So I'm a quasi competitor and, for the record, I have no vested interest in this project. The Doumit's did not ask me. There is nothing in it for me here then community benefit, and also I know the book on most projects that come to you. I've been in the development business, and it's extremely expensive right now. I also know a little bit about trying to maintain a property. I got a 7800 foot lot and that water bill I love it in the summer, $170, $150. You know what I mean? I talked to my neighbors and it's all about the same. If you want some green grass, you're going to pay dearly for it, and I live alone so it's terrible. I do like some of the comments brought forth by both Commissioner Lowell and Chairman Barnes about trying to come up with some assurance. I learned something tonight. I didn't realize you couldn't put conditions on a Change of Zone, but I do think there needs to be some assurance for the people around the property. I think the Doumit's will do a good job. There is a desperate need for high-end housing in this city. It is so underdone. I don't see this as a very highly-aggressive project. They were talking about the history of that area. I think the question…….

CHAIR BARNES – Mr. Jerele, your three minutes are up.

SPEAKER TOM JERELE, SR. – Okay, well in short, there was a gorge on Vista De Cerros and a pile of rocks on the other side, so things change.

CHAIR BARNES – Thank you very much. This concludes the public speakers, so at this time, Mr. Doumit would you like to respond to anything you've heard?

APPLICANT NAJI DOUMIT – Good evening again. I really do feel for the residents and knowing the City of Moreno Valley since 2004 and what they are trying to achieve, it's to keep the money in Moreno Valley in Moreno Valley. The statistics show that most of the high-paid people that work in the City of Moreno Valley they don't live in Moreno Valley. They live somewhere else, and if we don't provide some high-end new homes and better places, they are not going to come to Moreno Valley. They are going to go somewhere else, and I do have a track record of I do build some custom homes. I build shopping centers. I build apartments. I build condominiums, and I always do a good job regardless what area I am, so I know for sure that I will doing a beautiful project that everybody will be happy to go and live there. I would consider the opportunities, and I would like to work with the neighbors to come to a conclusion that will benefit everybody. That property is not going to stay vacant there. It is going to get built regardless, whether their 10, whether their 14. It could be R1 Zone and people build their guest house there, and you end up with 20 homes anyway. So I think by coming up to a conclusion that would benefit the people on the easterly side of it, I am willing to work with them. That's why I am here. That's why I met them, and that's why I'm asking for your approval. Thank you.

CHAIR BARNES – Thank you Mr. Doumit. With that, we will close the Public Hearing and have some discussion. Any comments? Ah, you seem to be ready to go, so go. Commissioner Lowell.

COMMISSIONER LOWELL – I have a question for Staff real quick. Given the fact that we were presented with a map, which I probably should've downloaded on my own, the zoning versus General Plan Map or Land Use Map, and there is an obvious conflict between R1 Zoning and R2 Zoning. It is more than just this one piece of property. If someone were to develop this land right now, the zoning is R1, but the Land Use Map is R2, which governs?

PLANNING OFFICIAL RICK SANDZIMIER – The zoning regulations in the law. The General Plan is a policy document.

COMMISSIONER LOWELL – So currently the land is zoned R1 and that governs?

PLANNING OFFICIAL RICK SANDZIMIER – Yes.

COMMISSIONER LOWELL – So, since there is a discrepancy between the zoning and the General Plan, how would we rectify those to make them more consistent with one another.

PLANNING OFFICIAL RICK SANDZIMIER – I'm sorry, I didn't hear the question?

COMMISSIONER LOWELL – The map that we have here, it says the Zoning Map, it says R1, but the Land Use Map says there's a bunch of R2. How would we make them, the maps, agree on a global scale or a more macro scale, not just in this one specific property? Is there some mechanism moving down the line that we can make both of these agree?

PLANNING OFFICIAL RICK SANDZIMIER – We are getting ready, you've heard me say before, a Comprehensive General Plan Update. The Comprehensive General Plan Update is expected to take anywhere from two to two-and-a-half years from this point forward. It's a different timeframe.

COMMISSIONER LOWELL – So there's a long-term plan in progress to make these more consistent with one another?

PLANNING OFFICIAL RICK SANDZIMIER – Right. The difference between…..one of the speakers said that the R2 Land Use Designation versus the R1 Zoning Designation are somewhat consistent. I wasn't quite sure how that would work because, if you have an R2 Land Use Designation in the General Plan versus an R1 Designation in the General Plan, the R1 Designation in the General Plan is saying basically a minimum of one-acre lots or one lot per acre. Okay, R2 is two lots per acre.

COMMISSIONER LOWELL – Correct.

PLANNING OFFICIAL RICK SANDZIMIER – In the R1 Zoning, you're compromising that property owner's availability to achieve what the General Plan Policy has set forth. The General Plan Policy was assuming you could get up to two lots per acre but, because of the zoning inconsistency, they can only achieve one. In this particular case, what was outlined in the previous application years ago, they weren't going to try and get 20 lots. So, what I would say and I said this is the residents the other night, there is nothing in the R2 Zoning, not Land Use but in R2 Zoning, that precludes you from building bigger lots.

COMMISSIONER LOWELL – Correct.

PLANNING OFFICIAL RICK SANDZIMIER – You can always build bigger lots, so I guess what I'm trying to say is I think I understand the previous…..

COMMISSIONER LOWELL – Zoned R10 and only build one house.

PLANNING OFFICIAL RICK SANDZIMIER – Right, so it's just a different perspective. There was…..I don't want to go on a tangent, but I was just trying to

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make that clarification what the difference between zoning and the General Plan is.

ASSISTANT CITY ATTORNEY PAUL EARLY – If I may join in on this. Rick mentioned that the Zoning Code is the law and that is what governs for the application and, while that's true, State Law does require that your zoning laws be consistent with your General Plan and they are subject to be voiding if they are not. The courts will give deference the legislative body's determination of what constitutes consistency. So, if you have provisions in your General Plan that say we want to preserve the rural character of this particular area, what does that mean is something that the legislative body can opine on. My concern on this particular one is that we don't have that kind of abstract language. We have very specific language that says one thing in the General Plan and one thing in the Zoning Code. So my perspective is I'd like to see that brought consistent without respect to whether or not one is more or less intensive of the other but just that they are consistent. So, if this body or the Council were to not make the Zone Change as recommended, my recommendation would be that they move forward with a General Plan Amendment to once again make it consistent. So whichever way you want to go, we do believe that there does need to be a consistency between the two.

COMMISSIONER LOWELL – And what's before us tonight is a Zone Change, not a General Plan Amendment?

ASSISTANT CITY ATTORNEY PAUL EARLY – Correct. Right before you tonight is only the option to approve or not approve the Zone Change. However, as I believe Ms. Dale mentioned, it is within the Planning Commission purview to recommend the initiation of a General Plan Amendment, so it's within your power to initiate that.

COMMISSIONER LOWELL – And a General Plan Amendment would be to what end?

ASSISTANT CITY ATTORNEY PAUL EARLY – Conceivably, if you were to not approve this Zone Change, you may recommend a General Plan Amendment that would change it to the same as the current zone, which would make it R1 in the General Plan. I've got to keep them straight but yeah……

COMMISSIONER LOWELL – That's what I'm having trouble with.

ASSISTANT CITY ATTORNEY PAUL EARLY – If you don't……if you do not approve the Zone Change from R1 to R2, you could recommend that the Staff bring back a General Plan Amendment changing General Plan from R2 to R1. Was I right on that Jeff? Did I get that order right?

CHAIR BARNES – Yes.

COMMISSIONER LOWELL – But, if that's the case, then wouldn't we have an island of R1 in the General Plan?

ASSISTANT CITY ATTORNEY PAUL EARLY – Well, if there are other properties that are similarly situated, my recommendation would be to do the same thing to all properties when you brought that forward.

COMMISSIONER LOWELL – Yeah, it's a lot of land. If you look at it, it's a lot of land.

ASSISTANT CITY ATTORNEY PAUL EARLY – And it would be a significant General Plan thing to address.

COMMISSIONER LOWELL – Okay. One of the other things for Staff, since I'm talking to you guys right now, one of the…..actually several people in the past, tonight included, have been saying that public notification in the newspaper is obsolete, which I agree. What can we do to make sure the notification keeps up with modern times, posted on the website, tweeted out, some sort of modern-age notification other than the newspaper because I personally don't get the newspaper? I canceled it about eight years ago. It would just go from my driveway to the trashcan.

ASSISTANT CITY ATTORNEY PAUL EARLY – Public notification in the newspaper is required by law, so that would never change.

COMMISSIONER LOWELL – I understand that.

ASSISTANT CITY ATTORNEY PAUL EARLY – If we did anything in addition to it, it's certainly within the Council's power to request, to require that, or the City to adopt policies that require different types of notification understanding that those would probably come with additional cost to developers, so it's probably a policy decision that would come from the Council.

COMMISSIONER LOWELL – Electronic media shouldn't have too much cost.

ASSISTANT CITY ATTORNEY PAUL EARLY – It certainly could be recommended.

COMMISSIONER LOWELL – It would be like requiring to send a telegraph or a fax. Not many people have a telegraph or a fax anymore.

PLANNING OFFICIAL RICK SANDZIMIER – With regard to General Plan Amendment initiation, I just wanted to read the Code Section. It says that the initiation of a General Plan Amendment can be created by recommendation of the Planning Commission and City Council concurrence. So, you as the advisory

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body could make a recommendation, but it still requires the City Council's concurrence in order for you to initiate it.

COMMISSIONER LOWELL – Okay, well I think that's a bridge that we'll have to cross at that point in time.

CHAIR BARNES – Another point of clarification is the assumption that the upcoming General Plan Amendment with fix inconsistencies I think is not true at all because, being a policy document, it could potentially make more parcels inconsistent than it would be consistent because it's the vision moving forward. So potentially parcels would stay in their current zone and would be grandfathered, but at such time as they develop, then they move with consistency of the General Plan. So I don't think we should assume the General Plan Amendment would fix this just in and of itself.

PLANNING OFFICIAL RICK SANDZIMIER – The General Plan Amendment could fix it specifically…..

CHAIR BARNES – I meant the revised, the updated General Plan. That's what I mean, not the General Plan Amendment. Excuse me.

PLANNING OFFICIAL RICK SANDZIMIER – An updated Comprehensive General Plan Update could make is consistent. It's just going to operate under a different timeframe than this applicant is seeking approval for.

CHAIR BARNES – But that's not its goal per say because it could potentially make many other parcels inconsistent because of its directive to be a policy guideline.

PLANNING OFFICIAL RICK SANDZIMIER – Yes, and then that's why you have a certain period of time to make your Zoning Code consistent with you General Plan once you make that change. So that could be the case. We haven't got that far down the road with regard to our Comprehensive General Plan Update. We're still working on the scope. There will be lots of community meetings and a lot of interaction and input before we get down that road.

ASSISTANT CITY ATTORNEY PAUL EARLY – My point was only that you're not mandated to adopt this Zone Change at this point right now. There are other options that will fix these potential problems.

CHAIR BARNES – So in getting back to the project at hand, any other comments?

COMMISSIONER LOWELL – Yes.

CHAIR BARNES – Proceed.

COMMISSIONER LOWELL – Some of the people tonight were talking about the unsuitability of the site saying that there's knolls, valleys, crests, and rocks, and whatnot. Well, in my experience as an engineer, it is a difficult site to come up with unique solutions, and we've seen that in the past. Actually, at the last Planning Commission Meeting, we had a very unique situation where a shopping center was derelict in the back area where there was homeless, drugs, violence, and whatnot, and the property owner proposed a very unique solution to a very weird problem, and I commend that. So this site being unsuitable will generate a nice unique situation and a nice solution. So the engineer in me sees a challenge. The Planning Commissioner in me sees the Zone Change, is this really what we want to do right here and right now without an underlying map or a bigger picture being presented along with it. Going back to the idea of having a transitional plan where you have denser houses on one side and less dense on the other, I like that idea, but given what we're presented tonight Change of Zone, yes or no, we can't hold anybody to that. So I'm kind of torn, and I'd like to hear what everybody else has to say before making any other decisions.

CHAIR BARNES – Commissioner Sims.

COMMISSIONER SIMS – I'd like Staff to explain the process on a Developer Agreement with the City, how that process works. I mean, is it full Tentative Tract Map or there is sufficiency in some preliminary design work that could be done at not great expense going all the way through a full entitlement process like for a Tentative Tract Map and so forth to create some certainty that wouldn't derail a project. I mean, a General Plan Amendment, we could be here until god knows when, if and when that ever goes through a process like that. So what is the process, the actual process that the City has for Development Agreements and could that somehow be meshed into, if we were to continue this, for an appropriate period of time to generate a Development Agree? I look at this, and there are a lot of the same folks that were here for the Ironwood Village, and I look at these as to……not to be of any disrespect, I look at these as a far, far different situation that what was being proposed with…..the other's project seemed very incompatible with the rural lifestyle. The half-acre minimum is compatible with animal keeping and, over the three or four years that I've been on the Commission, there's been recurrent of Moreno Valley doesn't have a place for people who want to move up to. Well, this is a prime spot for that and I think, with the mapping if Mr. Doumit is the same applicant of the 2009 case, and this exhibit that was shown that was here. That's very, very respectful of the uniqueness of the property, and I do think from a Planning standpoint and an Engineering standpoint, there is going to be obvious development capability of the property against cost. So there will be break points on where it is 13, 12, it's not going to be 20 lots. They are not going to grade out. It's highly unlikely to grade out a rock pile. So, anyhow long story short, going back to my original question……I was pontificating there to give you time to do research, but anyhow I would like to understand what the Development Agreement process is.

PLANNING OFFICIAL RICK SANDZIMIER – Sure, first off……

COMMISSIONER SIMS – As well as the timing.

CHAIR BARNES – Yeah.

PLANNING OFFICIAL RICK SANDZIMIER – And a lot of preferences, I'm going to read some sections from the Code just to answer your question, but I want to make sure it's real clear for the record, the Applicant has not submitted an application for a Development Agreement, so that's not before you, and it shouldn't be something you're taking on saying we're approving a Development Agreement because we don't have that in front of us. A Development Agreement basically allows, it's an agreement between the property owner and the city to specify things about the density of the site, the intensity, the timing, conditions of development all associated with the real property. It gives the developer some certainty in terms of what the rules and regulations will be for him to develop his property, and it gives the city some assurances. Typically, there is an advent flow that goes back and forth in terms of what is the city going to get out of this Development Agreement? It can be….you have some freedom in the way you negotiate them, but the contents of the Development Agreement shall specify the following: first of all, the duration of the agreement. Second, the permitted uses of the property, including a plan of development unless that is waived by the City Council, but unless it's waived by the City Council you would get a plan for the development. You would specify the range of permitted density and intensity of use. You would identify maximum heights and sizes of proposed buildings, and you would identify provisions for reservation or dedications of land for public purposes or the payment of fees were in lieu thereof. Those are the five specific things in our Code that are called out. As far as the process goes, it would require a separate application. I don't have the fees in front of me, but I believe it's about an $8000 deposit. The deposit is just to get the process started, but you pay for the full cost of the services that are involved in reviewing the Development Agreement, and it's a back and forth between the Developer and the City Staff. We would also have that Development Agreement, the plans, reviewed by our Public Works Staff or Special Districts Staff or MVU Staff (The Moreno Valley Utility), the Planning Staff, the fire department, so it's a full review and all that time and cost is it could be higher than the $8000. In addition to that, the developer would be required to put together a Development Agreement document itself that would be negotiated and to the extent that we need to define those heights, intensities, and densities, and a Development Plan, there's a cost involved with that that goes back to the developer. So that somewhat in a nutshell is what a Development Agreement can do.

CHAIR BARNES – Does a Development Agreement come back to us?

PLANNING OFFICIAL RICK SANDZIMIER – A Development Agreement is a legislative decision. It comes back to you in an advisory capacity, and it's ultimately agreed to by the City Council.

CHAIR BARNES – Okay.

COMMISSIONER LOWELL – Without stepping too far out of line, is this something the Applicant would be interested in doing?

PLANNING OFFICIAL RICK SANDZIMIER – I don't know the answer to that, and tonight the application before you is a proposed Change of Zone. I think to try and negotiate this on the floor……

COMMISSIONER LOWELL – Well we wouldn't want to negotiate it tonight, maybe possibly table it for a later discussion.

CHAIR BARNES – Yeah, I think before we go there that we pursue a solution that solves tonight's dilemma, which is an action on this case, so…..

PLANNING OFFICIAL RICK SANDZIMIER – If I may, Mr. Chairman, the action tonight just to reiterate what the Staff Report said, and I know there's been some discussion about the lack of a subdivision map or a plan, a Zone Change does not require that. When that plan does come forward, it has to go through its own review, and its own review would require a Plot Plan, which comes back before this Planning Commission. So, if you're uncomfortable with the densities or the layout or lot configuration, there is going to be what I'll call another bite at the apple to go through that process to get that approved. So it's not like approving the Zone Change you give them carte blanche on what they can do with the property.

VICE CHAIR KORZEC – Well, I was just going to say, I'd have difficulty voting in favor of this. I think a Zone Change is something really serious and, without a Development Agreement in place so that we have a little more protection for the homeowners and also for the Applicant who made some nice promises or some nice concessions, just to do a Zone Change and have nothing in place that would legitimize any of these future changes I wouldn't vote in favor of.

CHAIR BARNES – Anybody else? My thought is, at this point, is a Development Agreement is not probably appropriate. At least, I wouldn't recommend it. If we're going to suggest that the client spend some money, and obviously the issue bringing this forward by itself was to avoid the cost of a Tentative Map and all the associated costs, I would think it would be more productive to put that investment into a Tentative Map so that we have something to look at because a Development Agreement still doesn't really answer the neighbors questions, and it really doesn't answer ours. Now, that being said, it seems like the discussions that have been had between the Applicant and the neighbors had been fairly

Minutes Acceptance: Minutes of May 25, 2017 7:00 PM (APPROVAL OF MINUTES)

productive, and they are not that far apart. So that would give me some confidence that there is a potential to move forward with the project and negotiate that as a process forward. Without that, I'm a little reluctant to do that, so I kind of second what you're saying, but I don't think a Development Agreement is the place to go because that still takes the can and the cost of the actual development plans down the road.

VICE CHAIR KORZEC – But when other people come here for zoning changes, don't they have most of this in place?

CHAIR BARNES – Yes, they do.

VICE CHAIR KORZEC – So I'm not understanding why this has to be different than having something in place. It's just a little bit more formal. It's just……

COMMISSIONER SIMS – I guess……are we deliberating or

VICE CHAIR KORZEC – Yeah we're deliberating.

COMMISSIONER SIMS – We're discussing that so, the story I heard tonight was an applicant went through the whole process, just as Chairman Barnes was kind of suggesting would be the preferred path to go down, and it went down in flames. So whatever he spent to go do a map and get the process and went to the Planning Commission. The Planning Commission approved it, and it died at City Council. So I wouldn't put any faith that it would be successful again because probably the same group of people that would oppose this were probably in 2009. There probably hasn't been a huge turnover…..I'm purely speculating, but who knows? The Council is different, but the homeowner, the opposition or the folks that live there that would oppose this, likely have not changed.

CHAIR BARNES – But, as we've seen on other projects, that gate at the City Council swings both ways too. So our denial of a project could be overturned at the Council level, so…..

COMMISSIONER SIMS – I'm going to be talking to the other….I'm talking to all of our Commissioners here, but the other two that have worked more on doing civil engineering type work, there is inherent constraints on this property that it is highly unlikely that there would ever be 20 or close to 20 lots on this. So that gives me some, as an engineer, some reasonableness that it's not going to develop at the intensity that would be proposed with the approval of a Zone Change.

CHAIR BARNES – We've probably already seen the maximum development, which was the previous project, which is why I'm making the point that I don't think the Applicant and the neighbors are that far apart that, if the entitlement application is processed, a negotiated settlement could be reached but without that……and it seems like the main issue is the fact that this is one of those projects that falls on the line between X and Y. If something is in the middle of X or the middle of Y, nobody has any problems approving it. But as soon as you get to the edge, the X's want to push into the Y's and the Y's want to push back. So we have to…..

COMMISSIONER LOWELL – The issue that I'm running up against is that, yes we were given a nice pretty map from the 2008/2009 application that was approved by the Planning Commission and denied by the City Council or vice versa. It shows a pretty picture of what they wanted to do 8 to 10 years ago. However, that's not in front of us today. If they want to put in 20 lots, I'm perfectly fine with 20 lots. What's before us today is a Change of Zone. The issue that I have is that I would like to see a little more, lift the vail a little bit more, to see what the ultimate goal is. The engineer in me says, yeah, let's Change the Zone. It would be awesome, but the Commissioner in me goes, um, I don't know. Let's hold up a little bit and make sure we get this right. Either way, something is going to be developed there. It's either going to be 10 homes or a maximum of 20 homes, and that ship has already sailed. Somebody wants to build this, and the neighbors to the east are going to have more houses just like theirs or the neighbors to the west are going to have more houses just like theirs. So it's a matter of who we want to appease, who wants to build here with what. If they want to come in with dynamite and blow up the knoll and grade it out, it's possible, but it's expensive so that's the prohibitive part of things. So what's in front of us is a Change of Zone. I want to see a little bit more like we have in the past with other Change of Zones where you get a little Tentative Map. You know, you get a little peak behind the curtain what's going on. In the past, I voted against Change of Zones without any underlying map. When the underlying maps are shown, I tend to vote in favor of it. I'd just like to have a little more information with what's going on.

PLANNING OFFICIAL RICK SANDZIMIER – Can I try and give a little perspective on can a project be a Zone Change on its own without a Development Plan? In the time that I've been here, just before I got here in about 2013, the City introduced R30 Zoning and mixed-use neighborhood and mixed-use overlay zoning on various properties along Alessandro. That was a Zone Change that had no specific Development Plans associated with it on a number of properties. There was also a Change of Zone that came in, a General Plan Amendment for a piece of property along Perris Boulevard just south of the Walmart site. This is next to the Home Depot site. This is zoned neighborhood commercial, and the property owner came in and said I want to change that to R30 Zoning so that it combines with the adjacent R30 Zoning. No Development Plan, no housing layout, no Site Plan, no parking. It was simply just a Change of Zone. On a much larger scale, the World Logistics Center came in for a Specific Plan, General Plan Amendment, Development Agreement, but there is no specific Plot Plan. There is no Development Plan in terms of how each of the individual sites are going to actually be developed. They still have to come in with those applications. So, on a small site, on a large corner site, and on almost 3000 acres of land, we have seen it done, and the protections that the City has it that there is an application process for these developers to have to come back in for to have a review of the Plot Plans, the Conditional Use Permits. They have to go through CEQA review. Then, the ultimately, if they are discretionary as our Code calls for, would have to come back before the Planning Commission. If they involve any sort of a legislative action or Development Agreement, may end up going to the City Council. So that's the checks and balance system we have. It's not any different here than it is in any other community. It happens a lot. That's all I would point out.

CHAIR BARNES – Go ahead Paul.

ASSISTANT CITY ATTORNEY PAUL EARLY – I just wanted to mention on the other side of that same coin, even if the application here had included a Plot Plan and other entitlements to it as well, that's not tied to the Zone Change. So if you approve the Zone Change and the Plot Plan and everything else, that's not to say that, two years down the road, the developer says I'm not going to develop that project. I'm going to resubmit a different one. The Zone Change still stays. So packaging it together with a Zone Change and a Parcel Map does not guarantee that the two will go hand in hand. The Zone Change would continue to run regardless of the other entitlements whether they did it separately or together.

CHAIR BARNES – Okay to maybe restate or summarize that, I think the point that Rick is making is that, if we approve the Zone Change to R2, that doesn't mean we are saying there are going to be 20 lots. This is all hypothetical what I'm saying here. He can come back with 16, and we could say no. He could come back with 14, and we can say no. He could come back with 12, and we'd say we like it. It's a transition project. That's what's required to address the transition. So I kind agree with what Rick is saying is that we can still approve the Change of Zone and then, remembering the discussion, apply our concerns about the transition between the two zones to whatever project were to come back before us. Is that correct?

PLANNING OFFICIAL RICK SANDZIMIER – That's very well stated because, when it comes back and you look at whether it's 20 lots, 16 lots, 14 lots, or something less, we're also still having to make findings that it is consistent with our General Plan. Our General Plan will still say you want to protect those rock outcroppings. You want to be respectful of the hillsides. Our Zoning Ordinance Standards will talk about what kind of grading and how the lot should be developed on and in respect to its site. We also want to respect views and aesthetics. We want to respect privacy, which is in our Design Guidelines, things that need to be respected, so all of those things would be inherent in the review process. Now, that's our process.

CHAIR BARNES – And, as we discuss this more, I'm giving that more and more weight personally. Knowing that we have the opportunity…..we will have the opportunity and the responsibility to review a future project and determine how that transition, which is what we're arguing about now, how that transition is adjudicated. I trust us to do that correctly.

COMMISSIONER BAKER – Yeah, I'm ready to make a motion.

CHAIR BARNES – Any more discussion?

COMMISSIONER LOWELL – No. I came into this very open-minded trying to hear both sides of the argument. In the past, I voted against Zone Changes without maps but, as Mr. Sandzimier just pointed out, that the World Logistics Center that I voted in favor of didn't have an underlying map. The R30 overlay off Alessandro didn't have a map, so I'm kind of more….I'm open-minded this entire time, and I'm kind of bouncing both ways on this so I'm……

CHAIR BARNES – Okay would someone like to make a motion?

COMMISSIONER BAKER – I'll do it.

CHAIR BARNES – Hang on. Let me try and do this correctly. It's not likely, but I'll try. Alright, there we go, can you hit that button, and we'll move forward accordingly.

COMMISSIONER BAKER – Do you want me to read the motion or not?

CHAIR BARNES – However you choose to do it. Your option.

COMMISSIONER BAKER – The Planning Commission hereby approves Resolution 201….what?

COMMISSIONER LOWELL – Make a motion, not approves.

COMMISSIONER BAKER – I move that the Planning Commission approve hereby Resolution 2017-22 and recommends that the City Council (1) adopt a Negative Declaration for application PEN16-0042 pursuant to California Environmental Quality Act Guidelines; and also (2) approve Change of Zone application PEN16-0042 based on the findings contained in this Resolution.

CHAIR BARNES – We have a second from Commissioner Sims. Please vote. All votes have been cast. The motion carries 4-1. Thank you very much. Wrap-up?

Opposed – 1

Motion carries 4 – 1

PLANNING OFFICIAL RICK SANDZIMIER – This is a legislative action that ultimate approval is by the City Council. We'll be taking your recommendation in the form of the Resolution that you just approved tonight to the City Council. We do not have a date yet set. We'll have to take a look at that scheduling. We'll advise you at our next meeting if we have that information.

OTHER COMMISSION BUSINESS

STAFF COMMENTS

PLANNING COMMISSIONER COMMENTS

CHAIR BARNES – Thank you. Any wrap-up comments from the Commission.

COMMISSIONER LOWELL –I sorely missed my fellow Commissioners that are not here and the two alternates that are also not here. I would behoove the City Council to take a shift action to replace and appoint the two missing Commissioners. We are very close to not having a quorum. I think four is a quorum. If any one of us goes on vacation or is sick, we're right on that threshold, so…..

CHAIR BARNES – That's true. Everyone get your flu shots and take your vitamins because we can't afford to be sick.

COMMISSIONER LOWELL – Yes.

COMMISSIONER SIMS – I just, kind of to tag along on that Brian, if we would have had a full panel up here, we may have had further deliberation on this difficult situation that might have been…..

COMMISSIONER LOWELL – The more people up here, the more perspectives, the better we vet a situation, and I really miss my fellow Commissioners.

ADJOURNMENT

CHAIR BARNES – Alright. Thank you everyone for your attendance. Staff, thank you very much.

ASSISTANT CITY ATTORNEY PAUL EARLY – Chair Barnes, if I may, I'm sorry. We just skipped over Staff Comments, and I did have one for you this evening, if I may.

CHAIR BARNES – Okay.

ASSISTANT CITY ATTORNEY PAUL EARLY – I just wanted to introduce the Commission to Darren Zeigler, directly behind me, new Deputy City Attorney in our office that we just hired, and we will eventually be by backup for the Planning Commission, so you may see him at some point in the future.

COMMISSIONER LOWELL – As far as the long-term, are you going to be his backup?

CHAIR BARNES – Welcome Darren.

ASSISTANT CITY ATTORNEY PAUL EARLY – So I just wanted to welcome him and introduce you all to this new face you see behind me.

CHAIR BARNES – Thank you. Anything else? With that, the meeting is adjourned to……

PLANNING OFFICIAL RICK SANDZIMIER – June 22, 2017, we expect to have two items on that Agenda.

CHAIR BARNES – June 22, 2017.

COMMISSIONER LOWELL – Everybody drive safe. Don't drink and drive. Have a great Memorial Day weekend.

CHAIR BARNES – Thank you very much. Good night. The meeting is adjourned.

NEXT MEETING

Next Meeting: Planning Commission Regular Meeting, June 22, 2017 at 7:00 PM, City of Moreno Valley, City Hall Council Chamber, 14177 Frederick Street, Moreno Valley, CA 92553.

Richard J. Sandzimier Date
Planning Official
Approved

Jeffrey Barnes Date
Chair

PLANNING COMMISSION

STAFF REPORT

Meeting Date: June 22, 2017

CONDITIONAL USE PERMIT PEN16-0153 FOR MAINSTREET TRANSITIONAL CARE FACILITY, A ONE-STORY, 57,000 SQUARE FOOT 90 ROOM TRANSITIONAL CARE FACILITY ON A 7.12 ACRE SITE.

Case:	PEN16-0153 – Mainstreet Transitional Care Facility
Applicant:	MS Moreno Valley, LLC
Owner:	Inland Land Group, LLC
Representative:	Albert A. Webb Associates
Location:	Southwest corner of Oliver Street and Filaree Avenue
Case Planner:	Jeff Bradshaw
Council District:	4

SUMMARY

The applicant, MS Moreno Valley, LLC, is seeking approval of a Conditional Use Permit to allow for the development of a 57,000 square foot, 90-room, one-story transitional care facility on a 7.12 acre site located at the southwest corner of Oliver Street and Filaree Avenue.

This transitional care facility would be the first skilled nursing facility in Moreno Valley. The facility would fulfill an important perceived community need by providing transitional care to seniors in a facility that can serve as a bridge between the hospital and living at home. This facility serves a different function, when compared to longer term assisted living and/or memory care facilities, by providing short term, transitional therapy, for community residents working with their physicians to return home after a hospital stay and to provide them with the best chance to minimize setbacks that could later result in readmission.

PROJECT DESCRIPTION

Project

On December 9, 2016, the applicant, MS Moreno Valley, LLC, submitted a Conditional Use Permit application for the Mainstreet Transitional Care facility. The one-story, 90-bed facility with all private rooms will provide 24-hour nursing care with daily activities such as physical therapy, meals, and bathing.

Each of the patient rooms will include a hospital grade bed and private bathroom. Amenities to be provided at the facility will include a dining room with adjacent kitchen, a rehabilitation therapy gym, sitting/reflection areas, nourishment areas, and outdoor recreation areas.

The floor plan identifies a centralized core area of services and offices that extend from the entrance on the north side of the building to the south. The rooms extend along the horizontal axis of the building along the main corridor both to the west and the east. This layout allows the opportunity for residents of the facility to enjoy the expansive landscaped areas. Each of the individual rooms will have views onto the landscaped grounds. The dining area will open up to an outdoor patio area on the southerly side of the building with outdoor seating.

The architectural design embraces the undulating footprint of the low profile building providing visual interest in the facades. The design accomplishes this through the use of enhanced roof treatment at the entrance of the facility, material and color changes, and cantilevered canopies on exterior elevations. Material changes include stucco, lap siding, and metal louvered canopies. The roofline varies with a combination of level and cantilevered roof elements. The exterior finishes include a blend of stone treatments, glazing, fascia and metal awnings.

Site

The project site is located at the southwest corner of Oliver Street and a vacated portion of Filaree Avenue. The project site topography is relatively flat and slopes gently from south to north. There are no trees, rock outcroppings, or structures on the site. The site has been cleared routinely for weed abatement.

The project site is a single 7.12 acre parcel (Assessor's Parcel Number 486-310-042). The General Plan land use designation and zoning designation for the site are Office (O). The Municipal Code requires approval of a Conditional Use Permit for convalescent homes, assisted living, or skilled nursing facilities in the Office zone when within 300 feet of a residential district. There are existing residences to the east across Oliver Street from the project site.

The project site is located within the Medical Use Overlay District. General Plan Policy 2.4.4 states that this overlay district limits land uses to those that are supportive and compatible with medical uses established or to be established around the Riverside County Regional Medical Center (now known as Riverside University Health Systems) and the Moreno Valley Community Hospital (now known as Kaiser).

Surrounding Area

The project is bounded on the north by vacant residential zoned land which is governed by the Aquabella Specific Plan, on the west by the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building, and to the south by Fresenius Dialysis Center and vacant Office and Neighborhood Commercial zoned land. Landmark Middle School is located across the street to the northeast and existing single-family tract homes in the Moreno Valley Ranch Specific Plan across Iris Avenue to the east.

The project as designed and conditioned will achieve the objectives of the City of Moreno Valley's General Plan and is compatible with existing and proposed land uses in the vicinity.

Access/Parking

The primary access to the proposed development will be from a driveway on Oliver Street near the northeast corner of the site. The site can also be accessed from Iris Avenue via a private driveway with an easement shared with the adjacent Kaiser hospital. This private driveway is located along the site's western property line.

The project as designed satisfies all parking requirements of the City's Municipal Code including ADA accessible parking, customer parking, employee parking and parking for fuel efficient vehicles. Per the City Code parking for convalescent and nursing homes is one parking space per three beds plus employee parking. For this 90-bed facility, the total required parking would be 70 spaces. In consideration of the unique proposed transitional care use, Webb Associates prepared a separate independent parking analysis consistent with the Institute of Transportation Engineers (ITE) Parking Generation Manual. Based on the ITE parking manual, a total of 87 parking spaces would be recommended. The project is providing 129 parking spaces which exceeds both the parking demand estimated under both the Municipal Code and the ITE parking manual.

The driveways and interior drive aisles within the site have been reviewed for adequate truck maneuvering and turnaround for delivery trucks and trash pick-up, and have been reviewed and approved by the Fire Prevention Bureau for fire truck access.

Design/Landscaping

This project, as designed and conditioned, conforms to all development standards of the Office zone and the design guidelines for medical office uses as required within the City's Municipal Code.

It is noted that signage is not a part of this approval. A condition of approval is included to ensure signage will be reviewed and approved under separate administrative permit(s).

The project has been designed to meet required landscaped standards and objectives set forth in the City's Municipal Code. The landscape elements of the project include the landscape setback areas along Oliver Street, parking lot landscape, street trees and landscape treatments around the perimeter of the site, buildings and outdoor recreation areas.

REVIEW PROCESS

The project application was submitted on December 9, 2016. In accordance with established procedures the project application materials were circulated for review by all appropriate City Departments and Divisions, as well as applicable outside agencies/entities (e.g. Utilities, ALUC, Tribes). In accordance with Municipal Code regulation the project was also reviewed through the Project Review Staff Committee (PRSC), in January 2017. Throughout this plan review process, comments and proposed conditions of approval regarding the project were provided in writing to the applicant.

Revised plans were submitted in March 2017. Upon review of revised plans, and subsequent submittals, and completion of required consultation with local Native American Tribal groups and the preparation of a Preliminary Water Quality Management Plan, a determination was made to schedule this project for a public hearing before Planning Commission on June 22, 2017.

The transitional care facility is under the City's jurisdiction for entitlement and approval. Under the State law, the facility is also under the jurisdiction of the Office of Statewide Health Planning (OSHPD) for building plan check/permitting. City staff coordinated with OSHPD to provide opportunity for their review the project entitlement and environmental analysis. The City routed both the public hearing notice and Mitigated Negative Declaration to the agency for review and consideration.

ENVIRONMENTAL

Planning staff has reviewed the project against the California Environmental Quality Act Guidelines in order to make a determination of an appropriate environmental clearance determination for the project. The project, as presented, is consistent with the site's General Plan designation of Office, all applicable General Plan policies and the Office zoning district regulations and the requirements of the Medical Use Overlay District.

The City prepared an Initial Study and based on a thorough analysis of potential environmental impacts determined that a Mitigated Negative Declaration for the project would be appropriate and consistent with the California Environmental Quality Act (CEQA). The Mitigated Negative Declaration represents the City's independent judgment and analysis. The proposed project will not have a significant effect on the environment with the implementation of mitigation measures identified. Studies prepared for this project included a traffic impact study exemption request, a cultural resource assessment, a biological assessment, a preliminary hydrology study, a geotechnical study and a preliminary water quality management plan.

Mitigation measures have been introduced with the project to ensure compliance with City General Plan policies and other requirements related to Biological Resources, Noise, and Cultural Resources.

A Mitigation Monitoring Program has been prepared to ensure implementation of the mitigation measures (see Attachment 4).

Public notice of the availability of the Initial Study / Mitigated Negative Declaration was published in the newspaper for a 20-day review period consistent with requirements of the CEQA Guidelines.

NOTIFICATION

The public hearing notice for this project was published in the local newspaper on June 2, 2017. Public notices were sent to all property owners of record within 300 feet of the project site on June 8, 2017. The public hearing notice for this project was posted on the project site on June 12, 2017.

As of the date of report preparation, staff has received no phone calls or correspondence in response to the noticing for this project.

REVIEW AGENCY COMMENTS

Staff has coordinated with outside agencies and where applicable, conditions of approval have been included to address concerns from the responding agencies, including the Riverside County Airport Land Use Commission.

STAFF RECOMMENDATION

A. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-28 and thereby:

   1. **CERTIFY** that the Mitigated Negative Declaration prepared for Conditional Use Permit PEN16-0153 on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the

Mitigated Negative Declaration and the document reflects the City's independent judgment and analysis; attached hereto as Exhibit A and

2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for Conditional Use Permit PEN16-0153, attached hereto as Exhibit B.

B. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-29, and thereby:

1. **APPROVE** Conditional Use Permit PEN16-0153 based on the findings contained in this resolution, and subject to the conditions of approval included as Exhibit A.

Prepared by:	Approved by:
Jeffrey Bradshaw	Allen Brock
Associate Planner	Community Development Director

ATTACHMENTS

1. Public Hearing Notice
2. 300' Radius Map
3. Resolution 2017-28
4. Exhibit A to Resolution 2017-28
5. Exhibit B to Resolution 2017-28
6. Resolution 2017-29
7. Aerial Photograph
8. Site Plan
9. Floor Plans
10. Roof Plans
11. Color Elevations
12. Color & Materials Board
13. Exhibit A to Resolution 2017-29

Notice of
PUBLIC HEARING

This may affect your property. Please read.

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

CASE: PEN16-0153 - Conditional Use Permit

APPLICANT: MS Moreno Valley, LLC

OWNER: Inland Land Group, LLC

REPRESENTATIVE: Albert A. Webb Associates

LOCATION: Southwest corner of Oliver Street and Filaree Avenue

PROPOSAL: A Conditional Use Permit for the Mainstreet Transitional Care Facility. A one-story, 57,000 square foot, 90 room transitional care facility located on 7.12 acres. Each of the rooms will include a private bathroom, sitting room and nourishment area. Amenities to be provided at the facility will include a dining room with adjacent kitchen, a rehabilitation therapy gym, and outdoor recreation area.

ENVIRONMENTAL DETERMINATION: Mitigated Negative Declaration

COUNCIL DISTRICT: 4

STAFF RECOMMENDATION: Approval

Any person interested in any listed proposal can contact the Community Development Department, Planning Division, at 14177 Frederick St., Moreno Valley, California, during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and Fridays from 7:30 a.m. to 4:30 p.m.), or may telephone (951) 413-3206 for further information. The associated documents will be available for public inspection at the above address.

In the case of Public Hearing items, any person may also appear and be heard in support of or opposition to the project or recommendation of adoption of the Environmental Determination at the time of the Hearing.

The Planning Commission, at the Hearing or during deliberations, could approve changes or alternatives to the proposal.

If you challenge any of these items in court, you may be limited to raising only those items you or someone else raised at the Public Hearing described in this notice, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing.

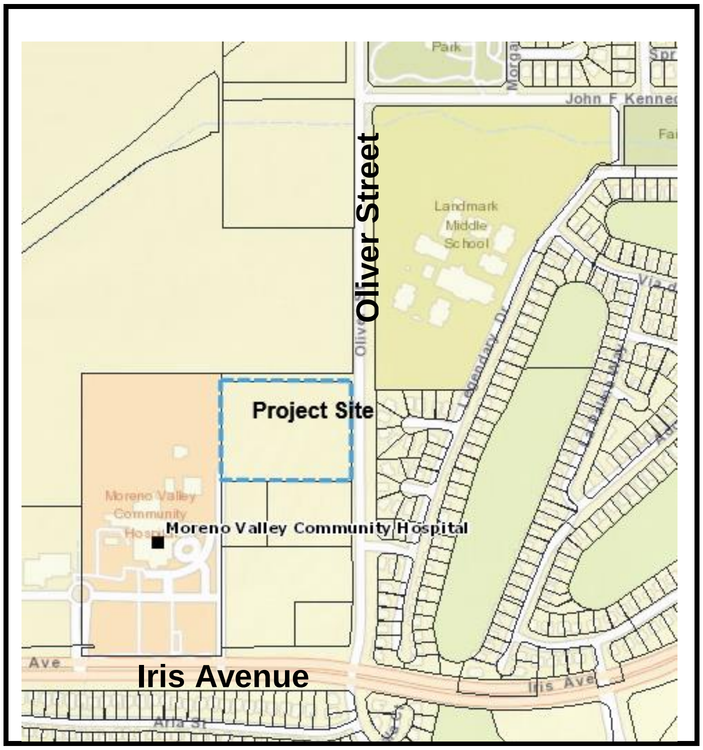

LOCATION N ↑

PLANNING COMMISSION HEARING

City Council Chamber, City Hall
14177 Frederick Street
Moreno Valley, Calif. 92553

DATE AND TIME: June 22, 2017 at 7 PM

CONTACT PLANNER: Jeff Bradshaw

PHONE: (951) 413-3224

Upon request and in compliance with the Americans with Disabilities Act of 1990, any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

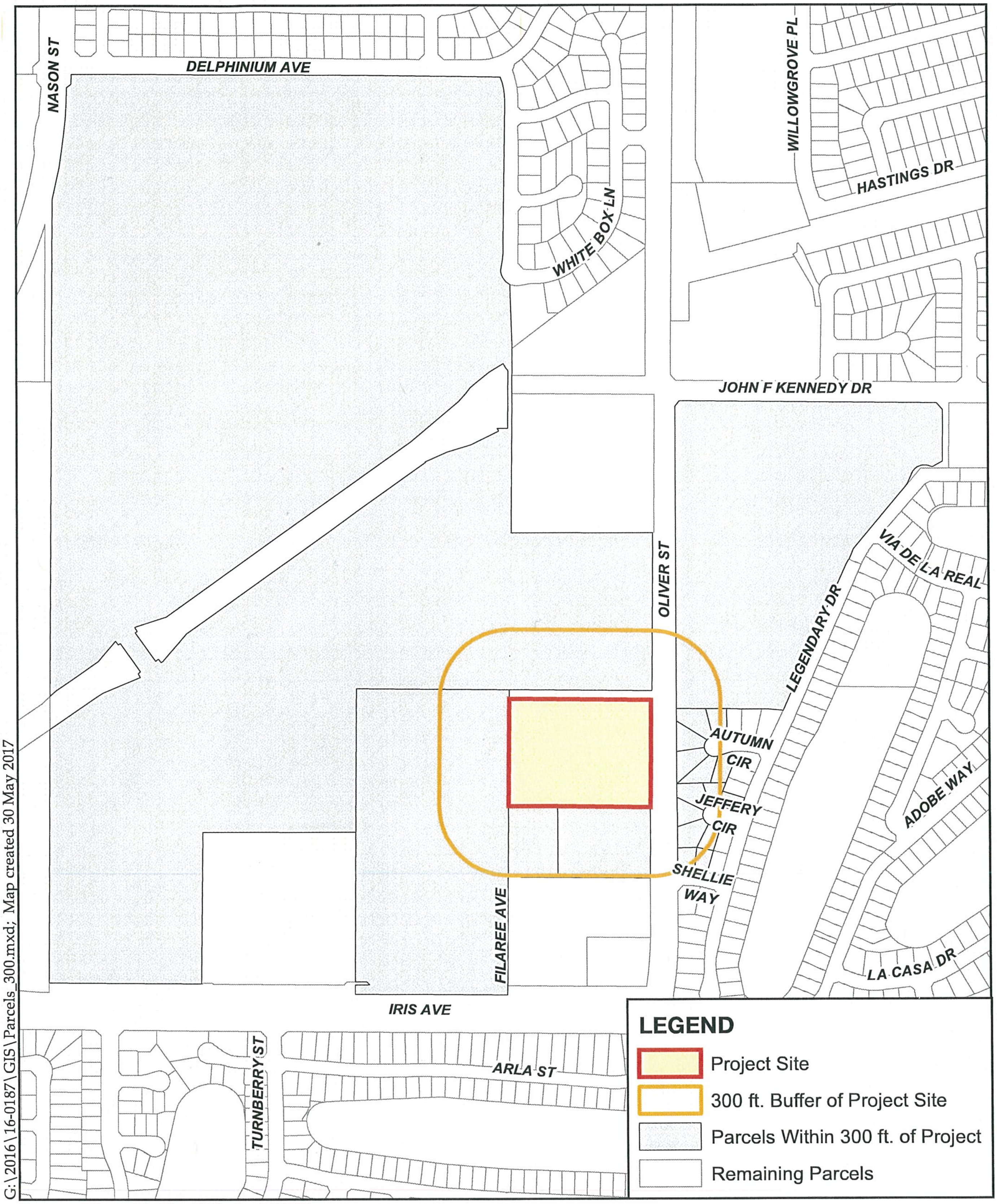

G:\2016\16-0187\GIS\Parcels_300.mxd; Map created 30 May 2017

Source: Riverside Co. GIS, April 2017.

Parcels Within 300 ft. of Project

Mainstreet Facility

ALBERT A. WEBB ASSOCIATES

Attachment: 300' Radius Map (2672 : PEN16-0153 Conditional Use Permit for Mainstreet Transitional Care Facility)

PLANNING COMMISSION RESOLUTION NO. 2017-28

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, CERTIFYING THE MITIGATED NEGATIVE DECLARATION AND APPROVING THE MITIGATION MONITORING AND REPORTING PROGRAM FOR THE MAINSTREET TRANSITIONAL CARE FACILITY (PEN16-0153).

WHEREAS, the applicant, MS Moreno Valley, LLC, filed applications for the Mainstreet Transitional Care Facility Project (“Project”), which include an Expanded Environmental Review (PEN16-01541) and Conditional Use Permit (PEN16-0153). The conditional use permit application shall not be approved unless the Final Mitigated Negative Declaration (PEN16-0154) is certified and approved; and

WHEREAS, the applications for the Project have been evaluated in accordance with established City of Moreno Valley (City) procedures, and with consideration of the General Plan and other applicable regulations; and

WHEREAS, an Initial Study, supporting technical studies, and Mitigated Negative Declaration for the Project were prepared, consistent with the California Environmental Quality Act (CEQA); and

WHEREAS, a 20-day public review period of the Initial Study and Mitigated Negative Declaration commenced on June 2, 2017 and concluded on June 21, 2017. The public notice for the Mitigated Negative Declaration was mailed to interested parties, public agencies as well as published in the local newspaper on June 2, 2017, 2016; and

WHEREAS, the City, in conducting its own independent analysis of the Final Mitigated Negative Declaration, determined that a Mitigated Negative Declaration is an appropriate environmental determination for the Project as there is substantial evidence that demonstrates the Project with mitigation would not result in any significant environmental impacts; and

WHEREAS, a Mitigation Monitoring and Reporting Program (MMRP) has been prepared in accordance with CEQA Guidelines, and is designed to ensure compliance with the identified mitigation measures outlined in the Final Mitigated Negative Declaration through Project implementation; and

WHEREAS, The City of Moreno Valley, Community Development Department, located at 14177 Frederick Street, Moreno Valley, California 92552 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to adopt the Mitigated Negative Declaration is based; and

WHEREAS, the Planning Commission of the City of Moreno Valley considered the Project, including all environmental documentation, at a public hearing held on June 22, 2017; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, the Planning Commission considered the Initial Study prepared for the Project for the purpose of compliance with the California Environmental Quality Act (CEQA), and based on the Initial Study including all supporting technical evidence, it was determined that the project impacts are expected to be less than significant with mitigation, and approval of a Mitigated Negative Declaration is an appropriate environmental determination for the Project.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY RESOLVE AS FOLLOWS:

A. This Planning Commission specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on June 22, 2017, including written and oral staff reports, and the record from the public hearing, this Planning Commission finds as follows:

1. Independent Judgment and Analysis - City staff prepared the Mitigated Negative Declaration/Initial Study and related technical studies prepared for the Mainstreet Transitional Care Facility. The documents were properly circulated for public review in accordance with the California Environmental Quality Act Guideline. The Mitigated Negative Declaration/Initial Study has been completed along with the Mitigation Monitoring and Reporting Program (MMRP) to ensure compliance with all mitigation through project implementation. All environmental documents that comprise the Mitigated Negative Declaration, including all technical studies were independently reviewed by the City. On the basis of the whole record, there is no substantial evidence that the Project as designed, conditioned, and mitigated, will have a significant effect on the environment. The Mitigated Negative Declaration prepared and completed, in accordance with the CEQA Guidelines, reflects the independent judgment and analysis of the City.

THEREFORE THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY, CALIFORNIA, DOES HEREBY APPROVE Resolution No. 2017-28, and:

1. **CERTIFY** that the Mitigated Negative Declaration prepared for Conditional Use Permit PEN16-0153 on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Mitigated Negative Declaration and the document reflects the City's independent judgment and analysis; attached hereto as Exhibit A and

2. **ADOPT** the Mitigation Monitoring and Reporting Program prepared for Conditional Use Permit PEN16-0153, attached hereto as Exhibit B.

APPROVED AND ADOPTED this 22nd day of June, 2017.

AYES:
NOES:
ABSTAIN:

Jeffrey Barnes
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

Exhibit A and Exhibit B

Exhibit A to Resolution 2017-28

DECEMBER 3, 1984

INITIAL STUDY/
ENVIRONMENTAL CHECKLIST FORM
CITY OF MORENO VALLEY

1.	Project Title:	Mainstreet Transitional Care Facility PEN16-0153 – Conditional Use Permit
2.	Lead Agency Name and Address:	City of Moreno Valley 14177 Frederick Street Moreno Valley, CA 92553
3.	Contact Person and Phone Number:	Jeff Bradshaw, Associate Planner (951) 413-3224
4.	Project Location:	Southwest corner of Oliver Street and Filaree Avenue
5.	Project Sponsor's Name and Address:	MS Moreno Valley, LLC 14390 Clay Terrace Blvd., Ste. #205 Carmel, IN 46032
6.	Existing General Plan Designation:	Office
7.	Existing Zoning:	Office (O)

8. Description of the Project:

The project is a Conditional Use Permit for a one-story, 57,000 square foot, 90 room transitional care facility located on 7.12 acres in the Office zone. Each of the rooms will include a private bathroom, sitting room and nourishment area. Amenities to be provided at the facility will include a dining room with adjacent kitchen, a rehabilitation therapy gym, and outdoor recreation area. Approval of a Conditional Use Permit is required for a convalescent home or assisted living facility in the Office zone when located within 300 feet of a residential district. There are existing single-family homes within 300 feet of the project site. The project site is also located in a portion of the Medical Use Overlay District.

9. Surrounding Land Uses and Setting:

The surrounding area is zoned for commercial and office development to the west and single-family residential development to the north, east and further south on the south side of Iris Avenue.

The site is bounded on the north by vacant residential zoned land in the Aquabella Specific Plan and the east by existing single-family residential development. Properties to the south include Fresenius Dialysis Center and vacant land in the Office and Neighborhood Commercial zone with the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building located to the west. Landmark Middle School is located across the street to the northeast. There are existing single-family tract homes located within the Moreno Valley Ranch Specific Plan to the east and further south. the Riverside County Regional Medical Center located approximately 1½ miles to the northwest.

The project site is well suited for future development of office related land uses. Overall, the proposed transitional care facility is compatible with existing land uses and the City's General Plan and Municipal Code.

10. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

The City received requests for consultation from the following Native American tribes and consultation has begun:

- Agua Caliente Band of Cahuilla Indians;
- Pechanga Band of Luiseno Indians; and
- Soboba Band of Luiseno Indians.

13. Other public agencies whose approval is required:

N/A.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below(■) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Greenhouse Gas Emissions		Population/Housing
	Agricultural Resources		Hazards & Hazardous Materials		Public Services
	Air Quality		Hydrology/Water Quality		Recreation
	Biological Resources		Land Use/Planning		Transportation/Traffic
	Cultural Resources		Mineral Resources		Utilities/Service Systems
	Geology/Soils		Noise		Mandatory Findings of Significance
	Tribal Cultural Resources				

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures have been adopted that will reduce all potential impacts to less than significant. A MITIGATED NEGATIVE DECLARATION will be prepared.	■
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potential significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

May 31, 2017

Signature Date

Jeff Bradshaw, Associate Planner

Printed Name For

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross-referenced).

5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (d). In this case, a brief discussion should identify the following:

    (a) Earlier Analysis Used. Identify and state where they are available for review.

    (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    (c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. **AESTHETICS.** Would the project:				
a) Have a substantial adverse effect on a scenic vista?				■
The Moreno Valley General Plan identifies scenic highways, panoramic viewsheds, and photographic viewing locations within the aesthetic resource element. The General Plan identifies no scenic roadways or panoramic viewsheds in the project vicinity. The project site is comprised of level topography with no rock outcroppings. As designed and conditioned, the proposed project will have no effect on a scenic vista.				
b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				■
The project property topography is flat and gently sloping from south to north. Based upon site visits by staff and review of the General Plan, the subject site does not include scenic resources. There are no rock outcroppings, trees or historic buildings on site. There are no scenic highways in the area. The site has been previously disturbed through weed abatement. As designed and conditioned, the proposed project will not substantially damage scenic resources.				
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				■
The Mainstreet Transitional Care Facility project proposes to develop the 7.12 acre site with a 57,000 square foot single-story building in the Office zoning district. Development of the site will require installation of public street improvements along the west side of Oliver Street. The project has been designed and conditioned for consistency with the City's Municipal. The proposed project as designed is aesthetically compatible with the adjacent hospital and medical office uses. The As designed and conditioned, the proposed project would not significantly degrade the existing visual character or quality of the site and surroundings.				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			■	
The project would introduce some additional new light sources into the area as the project site is currently vacant. The proposed residential development would include required street lighting and exterior wall mounted lights on the residences. The project has been conditioned for compliance with the City's light standards as referenced in Municipal Code Section 9.08.100 including the shielding of lighting and restrictions on the intensity of exterior lighting which will reduce light and glare impacts to City accepted levels on surrounding properties. Therefore, potential impacts related to substantial light or glare are less than significant and no mitigation would be required.				
II. **AGRICULTURE & FORESTRY RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project?				
a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?				■
The site is designated as 'Farmland of Local Importance' on the 2015 State Important Farmland Map. This category is described as soils that would be classified as Prime and Statewide but lack available irrigation water. The site is bounded on the north by vacant residential zoned land in the Aquabella Specific Plan and the east by existing single-family residential development. Properties to the south include a medical office building and vacant land in the Office and Neighborhood Commercial zone with the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building to the west. Landmark Middle School is located across the street to the northeast. There are currently no agriculturally productive activities occurring within the project boundaries. There will be no impact to farmlands as the development of this project will not result in the conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance.				
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				■
The site is not currently in agricultural use, or under Williamson Act control. There is no existing surrounding agricultural use, or sites under Williamson Act contract within the City limits. The Municipal Code allows for agricultural uses such as crops in all zoning districts, therefore, the proposed project does not conflict with existing zoning for agricultural use, or impact sites under Williamson Act contract.				
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				■
The project site is not zoned or designated on the City's General Plan for forest land, timberland, or timberland zoned Timberland				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Production. The City does not have any forest lands, or timberland as defined in the State Public Resources Code and Government Code within the City limits. Therefore, since the project will not result in impacts to forest land, timberland, or timberland zoned timberland production, no impacts would occur and no mitigation measures would be required.				
d) Result in the loss of forest land or conversion of forest land to non-forest use?				■
The project site is not forest land as defined by Public Resources Code section 1220(g). The project site does not involve the loss of forest land or the conversion of forest land to non-forest use. Therefore, since the project will not result in the loss of forest land or the conversion of forest land to non-forest use, no impacts would occur and no mitigation measures would be required.				
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				■
There is no immediate surrounding or proposed agricultural use. The proposed project will not involve changes to the existing environment, which will result in the conversion of farmland to non-agricultural use, or conversion of forest land to non-forest land.				
III. **AIR QUALITY:** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			■	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.			■	
(a and b) The Air Quality Management Plan (AQMP) adopted by the South Coast Air Quality Management District (SCAQMD) in 2012 sets forth a comprehensive program that will lead the air basin into compliance with all federal and state air quality standards. The proposed project is located within the boundaries of the AQMP. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from General Plan land use, population, and employment characteristics defined in consultation with local governments. Moreno Valley's General Plan Land Use Element was considered in the preparation of the 2012 AQMP. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. Based upon the criteria in the City of Moreno Valley's Traffic Impact Analysis Preparation Guide, if a project can demonstrate, based upon the most recent edition of the Trip General Manual published by the Institute of Transportation Engineers (ITE), a trip generation rate of less than 100 vehicle trips during the peak hours, the project is exempt from preparing a Traffic Impact Analysis. Based upon the results of the Traffic Study Exemption Request prepared by Albert A. Webb Associates, the project would generate less than 100 vehicle trips during peak hours, therefore, traffic resulting from the proposed project is not greater than traffic projections for build-out under the existing Office land use designation and will not exceed General Plan build out projections for the project site. The proposed project would not obstruct implementation of the AQMP or violate any air quality standard or contribute substantially to an existing or projected air quality violation.				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			■	
CEQA Section 21100 (e) addresses evaluation of cumulative effects allowing the use of approved land use documents in a cumulative impact analysis. CEQA Guidelines Section 15064 (i)(3) further stipulates that for an impact involving a resource that is addressed by an approved plan or mitigation program, the lead agency may determine that a project's incremental contribution is not cumulatively considerable if the project complies with the adopted plan or program. In addressing cumulative effects for air quality, the AQMP is the most appropriate document to use because the AQMP sets forth a comprehensive program that will lead the air basin, including the project area, into compliance with all federal and state air quality standards and utilizes control measures and related emission reduction estimates based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Based upon the results of the Traffic Study Exemption Request prepared by Albert A. Webb Associates, the project would generate less than 100 vehicle trips during peak hours, therefore, traffic resulting from the proposed project is not greater than traffic projections for build-out under the existing Office land use designation and will not exceed General Plan build out projections for the project site.. The Air Quality Management Plan (AQMP) sets forth a comprehensive program that will lead the air basin into compliance with all federal and state air quality standards. The AQMP control measures and related emission reduction estimates are based upon emissions projections for a future development scenario derived from General Plan land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with the AQMP for development projects is determined by demonstrating compliance with local land use plans and/or population projections. Therefore, it is appropriate to conclude that the project's incremental contribution to criteria pollutant emissions is not cumulatively considerable.				
d) Expose sensitive receptors to substantial pollutant concentrations?			■	

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

The nearest sensitive receptors include Landmark Middle School located across the street to the northeast. Existing single-family tract homes are located to the east on the east side of Oliver Street south (nearest home is approximately 140 feet from the property line). Considering the direction of the prevailing winds from northwest to southeast, dispersion of potential pollutants, and the quantity of potential pollutants generated, the project will not expose sensitive receptors to substantial pollutant concentrations.

e) Create objectionable odors affecting a substantial number of people?			■	

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

IV. **BIOLOGICAL RESOURCES**. Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?			■	
b) Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Wildlife Service?			■	

(a and b) The site is bounded on the north by vacant residential zoned land in the Aquabella Specific Plan and the east by existing single-family residential development. Properties to the south include a medical office building and vacant land in the Office and Neighborhood Commercial zone with the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building to the west. Landmark Middle School is located across the street to the northeast. The site is comprised of flat, gently sloping topography and has been disturbed routinely through weed abatement of the site.

A Biological Technical report was prepared for the project by Glenn Lukos Associate, Inc. on October 27, 2016. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The Project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area. The Project site is located within the burrowing owl survey area, but is not located within the NEPSSA, CAPSSA, amphibian, or mammal survey areas. Focused burrowing owl surveys were conducted for the Project site; however, no burrowing owls or burrows with owl sign were detected onsite. In compliance with the MSHCP, pre-construction burrowing owl surveys are required prior to site disturbance.

The Project site will not impact special-status plants, but will result in the loss of actual or potential habitat for special-status animals, including potential habitat for Stephens' kangaroo rat (Dipodomys stephensi) [SKR]. Impacts to SKR are covered under the SKR Habitat Conservation Plan (HCP) with payment of the SKR mitigation fee. The loss of potential habitat for other special-status animals would be less than significant due to the low degree of sensitivity of the species, the disturbed nature of the site, and the lack of adjacency to native open space. The Project site does not contain jurisdictional waters, MSHCP riparian/riverine areas, or MSHCP vernal pools.

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

Burrowing Owl

The Project site contains suitable habitat for burrowing owls; however, burrowing owls were not detected onsite during focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys prior to site grading. As such, the following measure is recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP:

<table>
<tr><th>Issues and Supporting Information</th><th>Potentially Significant Impact</th><th>Less than Significant With Mitigation Incorporated</th><th>Less Than Significant Impact</th><th>No Impact</th></tr>
<tr><td colspan="5">BR1. A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 14 days prior to site disturbance. If burrowing owls are detected onsite, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the RCA and wildlife agencies.

<u>Nesting Birds</u>

The Project site contains vegetation with the potential to support nesting birds. As discussed above, the MBTA and California Fish and Game Code prohibit impacts to nesting birds. The following measure is recommended to avoid impacts to nesting birds:

BR2. As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

Therefore, the project as conditioned and subject to the biological resource mitigation measures listed above, will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service. The project will not have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U. S. Wildlife Service.</td></tr>
<tr><td>c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</td><td></td><td></td><td></td><td>■</td></tr>
<tr><td colspan="5">The project site comprised of flat, gently sloping topography. There are no existing trees or vegetation on the project site. The site is bounded on the north by vacant residential zoned land in the Aquabella Specific Plan and the east by existing single-family residential development. Properties to the south include a medical office building and vacant land in the Office and Neighborhood Commercial zone with the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building to the west. Landmark Middle School is located across the street to the northeast. The site is comprised of flat, gently sloping topography and has been disturbed routinely through weed abatement of the site. Based upon the results of the Biological Technical report prepared for the project, the project site does not contain jurisdictional waters, MSHCP riparian/riverine areas, or MSHCP vernal pools. Therefore, no impacts would occur to federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.). through direct removal, filling, hydrological interruption, or other means, and no mitigation measures would be required.</td></tr>
<tr><td>d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?</td><td></td><td></td><td></td><td>■</td></tr>
<tr><td colspan="5">The project site comprised of flat topography. There are no existing trees or vegetation on the project site. The site is bounded on the north by vacant residential zoned land in the Aquabella Specific Plan and the east by existing single-family residential development. Properties to the south include a medical office building and vacant land in the Office and Neighborhood Commercial zone with the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building to the west. Landmark Middle School is located across the street to the northeast. Based upon the conclusions of the Biological Technical report prepared for this project, there is no evidence of resident or migratory fish or wildlife species was noted on the project site or the adjacent vacant parcel. Therefore, the project will not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites.</td></tr>
<tr><td>e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</td><td></td><td></td><td></td><td>■</td></tr>
<tr><td colspan="5">The project site comprised of flat gently sloping topography. There are no existing trees or vegetation on the project site, therefore, the project will not conflict with a tree preservation policy or ordinance, no impacts would occur and no mitigation measures would be required.</td></tr>
<tr><td>f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?</td><td></td><td></td><td>■</td><td></td></tr>
</table>

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

The project site is not located within one of the Multiple Species Habitat Conservation Plan (MSHCP) criteria areas, which are potential habitat preservation areas. The proposed project will not conflict with the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP) or MSHCP or any other known local, regional or state habitat conservation plans. The project will be conditioned to pay required SKR mitigation fees. Also, the City participates in the MSHCP, a comprehensive habitat conservation-planning program addressing multiple species' needs, including preservation of habitat and native vegetation in Western Riverside County. This project will also be subject to impact fees to support the implementation of the Multiple Species Habitat Conservation Plan as provided for by City ordinance.

V. **CULTURAL RESOURCES**. Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?			■	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			■	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			■	

(a, b and c) A Phase I Cultural Resource Assessment for the project site was prepared by Applied Earth Works, Inc. in October 2016. The cultural resources study included a record search, a Sacred Lands File search, tribal outreach, a review of historic maps and aerial photographs, an intensive survey by archaeologist Ken Moslak, and preparation of a report.

The project site is comprised of flat, gently sloping topography with no rock outcroppings or other unique geologic features. Based upon inspections of the project site in January 2017 and review of a 1987 citywide survey (Archeological Research Unit, University of California, Riverside), there are no known archaeological resources on the project site. There are no historical structures existing on the project site (General Plan, Figure 5.10-1, Historic Resources Inventory). There are no known historical paleontological or unique geological features on the project site (General Plan, Figures 5.10-2, Prehistoric Sites). Additionally, the City's Final Program EIR (June 2006), Figure 5.10-3 list the project site as low potential for paleontological sensitive area based on extensive field work (Page 5.10-10).

Based on the Cultural Resource Assessment, a record search of the project area and a one-mile radius from the Eastern Information Center (EIC) indicated that 20 cultural resources had been recorded within the search radius.

The current survey did not identify any cultural resources within the project area, therefore, no impacts to cultural resources are anticipated. However, the project site is in alluvial soils, where there is a potential for buried cultural resources. Based on this, it is recommended that an archaeological and Native American monitoring program be implemented. The monitoring program would include attendance by the archaeologist and Native American monitor(s) at a preconstruction meeting with the grading contractor and the presence of archaeological and Native American monitors during initial ground-disturbing activities on site. Both archaeological and Native American monitors would have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that cultural resources are encountered.

The following mitigation measures have been introduced to ensure compliance with City General Plan Policies and the State Public Resources Code:

CR-1: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

a. Project grading and development scheduling;
b. The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

c. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the applicant;

d. The protocols and stipulations that the Developer, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

CR-2: Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure CR-3 shall apply.

CR-3: A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until a treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).

CR-4: In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

a) The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Accommodate the process for Preservation-In-Place /Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure CR-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.

CR-5: Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

CR-6: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

CR-7: The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

CR-8: Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.

CR-9: A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.

CR-10: If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 5-days of the published finding to be given a reasonable opportunity to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

Based on the proceeding information, development of the project will not result in substantial adverse change in the significance of a historical or archaeological resource or result directly or indirectly in the destruction of a unique paleontological resource or site or unique geologic feature.

d) Disturb any human remains, including those interred outside of dedicated cemeteries?			■	

No known human remains have been identified at the project site. Compliance with mitigation measure CR-10 as identified in the response to checklist questions a, b, and c for Cultural Resources will also serve to prevent the disturbance of any human remains.

VI. **GEOLOGY AND SOILS**. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				■

According to the City's General Plan, the project site is not on, or close to, any known earthquake fault. There is no new information that would indicate the existence of a fault or fault tract in proximity of the site. Accordingly, there is no risk of ground rupture due to faulting at the proposed project site.

(ii) Strong seismic ground shaking?			■	

According to the City's General Plan, the project site is not on, or close to, any known earthquake fault. The nearest fault is the San Jacinto fault system, which is located about 4 miles to the northeast. The San Andreas fault system is more than 25 miles from the site. The active Sierra Madre and San Gabriel fault zones lie roughly 35 and 40 miles respectively to the northwest of the site. The active Elsinore and Newport-Inglewood fault zones lie approximately 20 and 45 miles, respectively, to the southwest of the site. This faulting is not considered a significant constraint to development on the site with the use of current building codes. Ground-shaking intensity could be moderately-high during a 100-year interval earthquake. Foundation designs will be reviewed to ensure incorporation of appropriate engineering recommendations to mitigate any such seismicity. There is no new information that would indicate the existence of a fault on the site.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(iii) Seismic-related ground failure, including liquefaction?			■	
According to the City's General Plan, the project site is not on, or close to, any known earthquake fault. However, ground-shaking intensity could be moderately-high during a 100-year interval earthquake. Based on available resources and the City's General Plan, the potential for seismic related failure or liquefaction on the site is minimal based on the water table and soil conditions at the site.				
(iv) Landslides?				■
The project site is not near or adjacent to mountainside areas. Due to a lack of slopes within or nearby the project site seismically induced landslides are not anticipated to pose a danger to the project site. Development of the project will not result in impacts from landslides and no mitigation measures would be required.				
(b) Result in substantial soil erosion or the loss of topsoil?			■	
The development of the site will likely result in the reduction of erosion with the placement of buildings and landscaping on the site. During construction, there is the potential for less than significant impacts for short-term soil erosion from minimal excavation and grading. This will be addressed as part of standard construction, such as watering to reduce dust and sandbagging, if required, during raining periods.				
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			■	
According to the City's environmental information, the geologic unit or soil is not known to be unstable (Western Riverside Area Soil Survey – University of California Agricultural Experiment Station, 1971). As designed and conditioned, the potential for the impacts resulting from a landslide, lateral spreading, subsidence, liquefaction or collapse is less than significant.				
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			■	
According to the City's environmental information and the results of a Geotechnical Report prepared by GeoTek, Inc. on September 16, 2016, project soils evaluated in a near surface sample have a very low expansion potential. The potential for the project to create substantial risks to life or property is less than significant.				
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?			■	
The proposed apartment project will operate on a sewer system that will be reviewed, approved and installed according to Eastern Municipal Water District requirements. The proposed project will not be introducing septic tanks or alternative water disposal systems.				
VII. **GREENHOUSE GAS EMISSIONS.** Would this project?				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			■	
Global climate change is caused by greenhouse gas (GHG) emissions throughout the world. Mitigating global climate change will require worldwide solutions. Greenhouse gases are gases emitted from the earth's surface that absorb infrared radiation in the atmosphere. Increases in these gases lead to more absorption of radiation and warm the lower atmosphere, and therefore increase evaporation rates and temperatures on the Earth's surface. The City of Moreno Valley has adopted a Climate Action Strategy. However, at this time, there are no widely accepted thresholds of significance for determining the impact of GHG emissions from an individual project, or from a cumulative standpoint. As provided for in the CEQA Guidelines (Section 15064.4), it is necessary for the lead agency to make a good-faith effort in considering GHG emissions on a project specific basis. Based on the scope of the project and consistency of the proposed transitional care facility with the existing General Plan Office land use designation and Office zoning, and consistency with the City's adopted General Circulation Element and build out scenarios, the City has chosen to rely on a qualitative analysis. To the extent possible based on scientific and factual data available, it has been determined that this project will not result in generating greenhouse gas emissions that will either directly or indirectly have a significant impact on the environment.				
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			■	
On October 9, 2012, the Moreno Valley City Council approved an Energy Efficiency and Climate Action Strategy and related Greenhouse Gas Analysis. The proposed project does not conflict with this strategy or any other applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.				
VIII. **HAZARDS AND HAZARDOUS MATERIALS.** Would the project?				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?				■
The proposed project will not involve the routine transport, use or disposal of hazardous materials. Since the project will not involve the routine transport, use or disposal of hazardous materials, there will be no potential for a significant hazard to the public or the environment.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				■
The proposed project will not involve the routine transport, use or disposal of hazardous materials. The proposed project will not create a significant hazard to the public or the environment through the routine transport, or use or disposal of hazardous materials. Since the project will not involve the routine transport, use or disposal of hazardous materials, there will be no potential for a significant hazard to the public or the environment.				
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				■
Landmark Middle School is located across the street to the northeast of the project site. The project as designed and conditioned will not emit hazardous emissions or handle hazardous materials.				
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?				■
The site was checked against the list of hazardous material sites pursuant to Government Code Section 65962.5. The project is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			■	
The nearest airport is the March Air Reserve Base located approximately four miles to the west. The distance to the runway is approximately five miles. The project site is located outside of the March Air Reserve Base/Inland Port Airport Land Use Influence Area. This project was reviewed by the Riverside County Airport Land Use Commission (ALUC) and in an email dated December 20, 2016, it was determined that the project would not require review by ALUC. The project, as conditioned, will not result in a safety hazard for future residents.				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				■
There are no private airstrips within the City of Moreno Valley. The project is not within proximity of a private airstrip. Therefore, the project would not result in a safety hazard pertaining to proximity of a private airstrip.				
g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?				■
The proposed project would not have any direct effect on an adopted emergency response plan, or emergency evacuation plan. The City's emergency plans are also consistent with the General Plan. The proposed project has been designed and conditioned to provide required circulation and required fire access to allow for ingress of emergency vehicles and egress of passenger vehicles. Therefore, the proposed project would not be in conflict in any way with the emergency response or emergency evacuation plans.				
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				■
The proposed project site is not adjacent to wildlands and is not located within the Very High Fire Hazard Severity Zone. As designed and conditioned, the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. In addition, the project is not located within a designated wildland area.				
IX. **HYDROLOGY AND WATER QUALIT**Y. Would the project:				
a) Violate any water quality standards or waste discharge requirements?			■	
Pursuant to the requirements of the Santa Ana Regional Water Quality Control Board, a project specific Water Quality Management Plan (WQMP) is required of certain projects involving discretionary approval. This project requires a WQMP to address pollutants of concern. Site Design and Source Control best management practices (BMP) are conditioned to be used throughout the project. The project has proposed the use of a bioretention basin. Treatment BMPs will be selected and implemented which are medium to highly effective in treating pollutants of concern. Final design and sizing details of all BMPs must be provided in the first submittal of the F-WQMP. The project has been conditioned to provide documentation that runoff will be treated in conformance with the "Riverside County Water Quality Management Plan for Urban Runoff" dated October 22, 2012 and approved by the Santa Ana Regional Water Quality Control Board (Guidance Document). Additionally, grading activities would temporarily expose soils to wind and water erosion that would contribute to downstream sedimentation. The proposed project would comply with all permits and development guidelines associated with urban water runoff and discharge set forth by the City of Moreno Valley and the Regional Water Quality Control Board. With the approval of the storm drainage facilities by the City Engineer and Riverside County Flood Control District (RCFCD), as well as complying with all applicable storm water discharge permits, impacts would be less than significant.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			■	
The Eastern Municipal Water District (EMWD) would provide the proposed project with potable water as opposed to utilizing individual water wells. Potable water is adequate to serve the proposed project. Although the project would cover a majority of the site with impervious surfaces, the landscaped areas would still provide a means for groundwater recharge. Impacts would be less than significant.				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			■	
There is no streambed or river on the project site, so the project will not cause a change in the existing on-site drainage pattern that would result in substantial erosion or siltation on- or off-site. During construction of the project, there is the potential for some sediments to be discharged within the storm water system. Erosion control plans are required for projects prior to issuance of grading permits for preventing substantial erosion. The project as designed and conditioned will not change the existing drainage pattern that would result in substantial erosion or siltation on- or off-site. Impacts would be less than significant.				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or surface runoff in a manner which would result in flooding on- or off site?			■	
There is no streambed or river on the project site. Historically, the project site's storm runoff has been diverted through sheet flows and the site's natural topography to a natural drainage channel located off-site and to the northwest of the project site. Based on the results of the Preliminary Drainage Study prepared by Albert A. Webb Associates in April 2017, project storm drain infrastructure will direct on-site storm runoff to the northwest corner of the site and divert the storm flows off-site through an easement to discharge into the same natural drainage channel to the northwest of the site. The study demonstrates that post-construction storm flows will not exceed historic flows from the project site. The project as designed and conditioned will not cause a change in the existing drainage pattern that would result in substantial erosion or siltation on- or off-site. Therefore, project implementation would not result in modifications that could ultimately result in substantial erosion or siltation on- or off-site. Impacts would be less than significant.				
e) Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			■	
Historically, the project site's storm runoff has been diverted through sheet flows and the site's natural topography to a natural drainage channel located off-site and to the northwest of the project site. Based on the results of the Preliminary Drainage Study prepared by Albert A. Webb Associates in April 2017, project storm drain infrastructure will direct on-site storm runoff to the northwest corner of the site and divert the storm flows off-site through an easement to discharge into the same natural drainage channel to the northwest of the site. The study demonstrates that post-construction storm flows will not exceed historic flows from the project site. The project proposes to construct on-site storm drain infrastructure and a retention basin for water quality treatment. The study demonstrates that post-construction, the project will not discharge storm water that exceeds historic capacities and will not exceed the capacity of existing or planned stormwater drainage systems. As with any urban project, runoff entering the storm drainage system would contain minor amounts of pollutants (including pesticides, fertilizers and motor oil). This would incrementally contribute to the degradation of surface and sub-surface water quality. Additionally, grading activities would temporarily expose soils to water erosion that would contribute to downstream sedimentation. However, the project is subject to the permit requirements of the Santa Ana Regional Water Quality Control Board. As the site is currently unpaved and exposed, development of the proposed project would lessen the existing site contribution to sediment runoff at project completion. Additionally, the approved Preliminary WQMP proposes Best Management Practices for water quality treatment at both the project construction and operational stages. With the approval of the storm drainage facilities by the City Engineer and RCFCD, incorporation of conditions of approval into the project's design, as well as compliance with all applicable storm water discharge permits, impacts would be less than significant.				
f) Otherwise substantially degrade water quality?			■	

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
The proposed project is consistent with the City's General Plan. All storm drainage improvements would be developed to the standards of the City Engineer and the RCFCD. Additionally, the project has been designed in accordance with the City's standard conditions of approval, which includes measures pertaining to storm drainage facilities and runoff. As with any urban project, runoff entering the storm drainage system would contain minor amounts of pollutants (including pesticides, fertilizers and motor oil). This would incrementally contribute to the degradation of surface and sub-surface water quality. Additionally, grading activities would temporarily expose soils to water erosion that would contribute to downstream sedimentation. However, the project is subject to the permit requirements of the Santa Ana Regional Water Quality Control Board. As the site is currently unpaved and exposed, development of the proposed project would lessen the existing site contribution to sediment runoff at project completion. With the approval the storm drainage facilities by the City Engineer and Riverside County Flood Control District, incorporation of conditions of approval into the project's design, as well as compliance with all applicable storm water discharge permits, impacts would be less than significant.				
g) Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			■	
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			■	
(g and h) The proposed project site is located within Federal Emergency Management Agency Zone "X" area outside of the 100-year flood hazard area. This is an area determined to be outside of the 0.2% annual chance flood plain. The project is outside of the delineated dam inundation area for Perris Dam at Lake Perris Reservoir and will not place housing or structures within a 100-year flood hazard area. There are no mountains or steep slopes in proximity to the project site, therefore, there is no chance of mudflows from local mountains. Therefore, impacts would be less than significant. The project as designed and conditioned will not place structures which would impede or redirect flood flows.				
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				■
The proposed project site is located within Federal Emergency Management Agency Zone "X" area outside of the 100-year flood hazard area. This is an area determined to be outside of the 0.2% annual chance flood plain. The project site is outside of the delineated dam inundation area for Perris Dam at Lake Perris Reservoir and will not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.				
j) Inundation by seiche, tsunami, or mudflow?				■
The project site is not identified in the General Plan as a location subject to seiche, or mudflow. The project is outside of the delineated dam inundation area for Perris Dam at Lake Perris Reservoir. Additionally, due to the position of the proposed project, mudflows from local mountains would be unlikely due to surrounding development. There would be no impacts resulting from inundation by seiche, tsunami, or mudflow.				
X. **LAND USE AND PLANNING**. Would the project:				
a) Physically divide an established community?			■	
The project proposes a conditional use permit to develop a 57,000 square foot single-story transitional care facility on 7.12 acres in the Office zone. An assisted living or skilled nursing facility is allowed in the Office zone subject to approval of a conditional use permit. The site is bounded on the north by vacant residential zoned land in the Aquabella Specific Plan and the east by existing single-family residential development. Properties to the south include a medical office building and vacant land in the Office and Neighborhood Commercial zone with the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building and a medical office building to the west. Landmark Middle School is located across the street to the northeast. Since the development proposed at this location is an extension of an established land use pattern (hospital and medical office) and is compatible with adjacent General Plan and Zoning districts and existing land uses, the project will not physically divide an established community and impacts would be less than significant under this category.				
b) Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			■	
This project, proposes development that is an allowed within the Office zone subject to approval of a conditional use permit. The project as designed and conditioned is consistent with the goals, objectives and policies of the site's Office General Plan designation. Based upon the results of the Traffic Study Exemption Request prepared by Albert A. Webb Associates, the project would generate less than 100 vehicle trips during peak hours, therefore, traffic resulting from the proposed project is not greater than traffic projections for build-out under the existing Office land use designation and will not exceed General Plan build out projections for the project site. As designed and conditioned, and subject to implementation of mitigation measures, the project will not conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project including the City's General Plan.				
c) Conflict with any applicable habitat conservation plan or natural community			■	

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
conservation plan?				

The project is not within one of the Multiple Species Habitat Conservation Plan (MSHCP) criteria areas, which are potential habitat preservation areas. The proposed project will not conflict with the Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP) or MSHCP or any other known local, regional or state habitat conservation plans. The project will be conditioned to pay the required SKR mitigation fees. Also, the City participates in the MSHCP, a comprehensive habitat conservation-planning program addressing multiple species' needs, including preservation of habitat and native vegetation in Western Riverside County. This project will also be subject to fees per City ordinance to support the implementation of the Multiple Species Habitat Conservation Plan.

XI. **MINERAL RESOURCES.** Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				■

(a and b) The project site is located in an urbanized area with additional development occurring in the vicinity. No active mines or mineral recovery programs are currently active within the project site or the surrounding area. Consequently, the development of the project site would not conflict with a mineral recovery plan as adopted by the General Plan. No significant impacts would occur.

XII. **NOISE.** Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			■	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			■	

(a and b) The General Plan Environmental Impact Report (EIR) Noise Section for the City of Moreno Valley states that "The noise generated by construction is addressed by existing city regulations. It is unlawful to create noise that annoys reasonable people of normal sensitivity. The Public Works Department has a standard condition of approval regarding the public nuisance aspect of the construction activities. Any construction within the city shall only be completed between the hour of seven a.m. to seven p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on Saturday, unless written approval is obtained from the city building official or city engineer (Municipal Code Section 8.14.040.E).

Although construction activities will result in a noise impact, this impact will be short-term and will cease upon completion of construction. The temporary nature of the impact in conjunction with existing city regulations on hours of operation will lessen the potential of a significant impact due to construction noise. However, noise sensitive land use located adjacent to construction sites may be impacted by future construction in the planning area as a result of groundborne noise levels, noise levels that exceed existing standards, and temporary or periodic increases in the ambient noise level.

Although not required as mitigation measures to reduce a potentially significant impact to acceptable levels, the following mitigation measures have been introduced to ensure compliance with City General Plan Policies regarding noise:

N-1: Construction activities shall be operated in a manner that limits noise impacts on surrounding uses (General Plan Policy 6.5.2). In order to limit noise impacts on surrounding property, the construction contractor will ensure the following:

- All construction equipment powered by gasoline or diesel engines will be required to have sound-control devices at least as effective as those originally provided by the manufacturer; no equipment will be permitted to have an unmuffled exhaust.
- Mobile noise-generating equipment and machinery will be shut off when not in use;
- Construction vehicles assessing the site will be required to use the shortest possible route to and from local freeways, provided the routes do not expose additional receptors to noise.

N-2: The staging of construction equipment and the construction trailer shall be placed as far as possible from the existing single-family residences located to the east and the school to the northeast.

The proposed development as designed and conditioned is consistent with City Municipal Code development standards and the City's design guidelines for non-residential development. It is anticipated that project traffic will operate within acceptable Levels of Service at General Plan build-out, therefore, noise levels will be consistent with General Plan criteria for noise, and noise levels will not exceed the standards set forth in the General Plan. Perceptible groundborne vibrations are typically associated with blasting operations and potentially the use of pile drivers, neither of which will be used during construction of the Proposed Project. As such, no excessive groundborne vibration would be created by the Proposed Project. A less than significant impact would occur.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			■	
The proposed, as designed and conditioned, is consistent with City Municipal Code development standards and Design Guidelines for single-family residential development. Permanent noise associated with the proposed residential development includes, but are not limited to, resident and visitor vehicular traffic, routine landscape and home maintenance, and maintenance of common landscape areas. However, these noise sources would be typical of the adjacent area and therefore, the project would not introduce unique noise sources. Although not required as mitigation measures to reduce a potentially significant impact to acceptable levels, mitigation measures N-1 and N-2 as referenced under Noise checklist questions (a) and (b) have been introduced to ensure compliance with City General Plan Policies related to noise regulation. Therefore, noise levels would be consistent with General Plan criteria for noise, and noise levels will not exceed the standards set forth in the General Plan. Impacts would be less than significant as a result of the proposed project.				
d) A substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			■	
During construction, there will be the temporary impact of noise from construction equipment. The nearest sensitive receptors are Landmark Middle School located across the street to the northeast and existing single-family tract homes located approximately 140 feet to the east on the other side of Oliver Street. The Public Works Department has a standard condition of approval regarding the public nuisance aspect of the construction activities. Any construction within the city shall only be completed between the hour of seven a.m. to seven p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on Saturday, unless written approval is obtained from the city building official or city engineer (Municipal Code Section 8.14.040.E). According to the Moreno Valley Municipal Code (9.10.030), all temporary construction activities are exempt from the noise standards as long as construction activities are limited to the daytime hours as described above and construction equipment is properly maintained with working mufflers. Although not required as mitigation measures to reduce a potentially significant impact to acceptable levels, mitigation measures N-1 and N-2 as referenced under Noise checklist questions (a) and (b) have been introduced to ensure compliance with City General Plan Policies related to noise regulation.				
e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				■
The nearest airport is the March Air Reserve Base located approximately four miles to the west. The distance to the runway is approximately five miles. The project site is located outside of the March Air Reserve Base/Inland Port Airport Land Use Influence Area. This project was reviewed by the Riverside County Airport Land Use Commission (ALUC) and in an email dated December 20, 2016, it was determined that the project would not require review by ALUC. The project will not expose people residing or working in the project area to excessive noise levels.				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				■
There is no private airstrip within the vicinity of the site, or within the City of Moreno Valley.				
XIII. **POPULATION AND HOUSING.** Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			■	
The project proposes a conditional use permit to develop a 57,000 square foot, 90 room, single-story transitional care facility on 7.12 acres in the Office zone. An assisted living or skilled nursing facility is allowed in the Office zone subject to approval of a conditional use permit. The site is bounded on the north by vacant residential zoned land in the Aquabella Specific Plan and the east by existing single-family residential development. Properties to the south include a medical office building and vacant land in the Office and Neighborhood Commercial zone with the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building to the west. Landmark Middle School is located across the street to the northeast. The project has been conditioned to construct all required on-site and off-site public infrastructure and to participate in the payment of applicable development impact fees. The project will not induce substantial growth in an area either directly or indirectly.				
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				■
(b and c) This property is currently vacant, and no housing is currently located there. No housing will be displaced by development of this project. The project will not displace any residents.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. **PUBLIC SERVICES**. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?			■	
The proposed project has incorporated the City's standard conditions of approval into its design. These standards specifically address concerns regarding the Fire Prevention Bureau. Standards such as providing approved fire hydrants, fire flow requirements; development impact fee programs and utilizing fire retardant materials have all been incorporated into the project's design. Insurance Services Office (ISO) ratings are given to firefighting districts in order to rank their operation level. This scale ranges from one (1) the highest possible score, to a ten (10), the worst possible score. The City of Moreno Valley currently has an ISO rating of four (4), which is considered high. With the implementation of the conditions of approval of the project pertaining to Fire Services, impacts would be less than significant.				
b) Police protection?			■	
The proposed project conforms to the City's Municipal Code and to the General Plan. Police protection to the project area is provided through the Moreno Valley Police Department. The Police Department was involved in the project review process. Conditions of approval have been included by Police Department to ensure health and safety is protected during construction. Development of the project site would increase the demand for services on the Police Department. The project will pay development impact fees related to Police Facilities. With payment of impact fees, the development of the proposed project would not over-burden their service ability in continuing to provide high quality police service.				
c) Schools?				■
d) Parks?				■
(c and d) The project would not directly increase the use of schools or park facilities. The project will pay development impact fees collected and administered by the Moreno Valley Unified School District.				
e) Other public facilities?			■	
There will be an incremental increase in the demand for new or altered public services including city hall, and city yard facilities. These facilities would be needed with or without the project. This project will be subject to development impact fees, which shall address the impact of the proposed development.				
XV. **RECREATION.**				
a) Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				■
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				■
(a and b) …As a non-residential use, the proposed fast food restaurant will not increase the use of parks or other recreational facilities. The proposed project does not include recreational amenities or facilities in its design.				
XVI. **TRANSPORTATION/TRAFFIC.** Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			■	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			■	
(a and b) The proposed development of a transitional care facility requires approval of a conditional use permit under the existing Zoning and General Plan designations. The project is compatible with the General Plan and does not conflict with any City plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system. Based upon the results of the Traffic Study Exemption Request prepared by Albert A. Webb Associates, the project would generate less than 100 vehicle trips during peak hours, therefore, traffic resulting from the proposed project is not greater than traffic projections for build-out under the existing Office land use designation and will not exceed General Plan build out projections for the project site. As designed and conditioned, the project will not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system and will not conflict with an applicable congestion management program, including, but not				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highway.				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				■
The nearest airport is the March Air Reserve Base located approximately four miles to the west. The distance to the runway is approximately five miles. The project site is located outside of the March Air Reserve Base/Inland Port Airport Land Use Influence Area. This project was reviewed by the Riverside County Airport Land Use Commission (ALUC) and in an email dated December 20, 2016, it was determined that the project would not require review by ALUC. This project will not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.				
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?			■	
In addition to the project's on-site drive aisles and access, the project has been conditioned by Public Works to complete street improvements where necessary along the site's Oliver Street frontage. The street improvements will include but not be limited to, pavement, curb, gutter, sidewalk, streetlights, signing and striping, and dry and wet utilities. As designed, the project will not result in hazards, but will help decrease potential hazards at this location. The project is not adjacent to any potential incompatible uses.				
e) Result in inadequate emergency access?			■	
As designed and conditioned, all driveways and drive aisles will be built to the specifications of the City Engineer and Traffic Engineer, the Fire Prevention Bureau and the General Plan. This will ensure that no hazardous traffic situations would occur during construction or with completion of the project. The site will be readily accessible for emergency access.				
f) Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				■
The project as designed and conditioned will not conflict with adopted alternative transportation policies, therefore, no adverse impacts would occur.				
XVII. **TRIBAL CULTURAL RESOURCES.** Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?				■
The Project Site does not include any historical resources, and impacts related to historic resources would not occur.				
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		■		
The City received requests for consultation from the Agua Caliente Band of Cahuilla Indians, the Pechanga Band of Luiseno Indians, and the Soboba Band of Luiseno Indians. The City met in consultation and/or coordinated with each of the above Native American Tribes in compliance with Assembly bill 52 to complete the consultation process. The City recognized the stated concerns from the tribes with regards to the participation of tribal monitors during construction (grading) to mitigate potential impacts to inadvertent finds of cultural resources or human remains and has agreed that such mitigation would be implemented for this project (see mitigation measures CR-1 through CR-10 under Section V. Cultural Resources).				
XVIII. **UTILITIES AND SERVICE SYSTEMS.** Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				■
b) Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				■
(a and b) A Prelminary Water Quality Management Plan (PWQMP) was prepared by Albert A. Webb Associates. The PWQMP identifies treatment Best Management Practices (BMP's) to address the project's pollutants of concern. The information presented in the PWQMP has been found by the City to be in general conformance with the document, "Water Quality Management Plan for the Santa Ana Region of Riverside County" dated October 22, 2012 and approved by the Santa Ana Regional Water Quality Control Board (Guidance Document). This project will not exceed the wastewater treatment requirements of the Regional Water Quality Control Board. The Eastern Municipal Water District (EMWD) is the sanitary district provider for the project. The project will not exceed wastewater treatment capacity of the Moreno Water Reclamation Facility.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			■	
The project as designed and conditioned will not require the construction of new storm drainage facilities or the expansion of existing facilities. Historically, the project site's storm runoff has been diverted through sheet flows and the site's natural topography to a natural drainage channel located off-site and to the northwest of the project site. Based on the results of the Preliminary Drainage Study prepared by Albert A. Webb Associates in April 2017, project storm drain infrastructure will direct on-site storm runoff to the northwest corner of the site and divert the storm flows off-site through an easement to discharge into the same natural drainage channel to the northwest of the site. The study demonstrates that post-construction storm flows will not exceed historic flows from the project site.				
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				■
The water purveyor, Eastern Municipal Water District (EMWD), prepared an Urban Water Management Plan in 2010 demonstrating that it has or will have sufficient water supplies available to serve urban development within the City of Moreno Valley. EMWD's plan was based on the City's General Plan Land Use Element. The proposed development is consistent with existing General Plan and Zoning designations. Therefore, sufficient water supplies exist to support the proposed project.				
e) Result in a determination by the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				■
The wastewater treatment provider is EMWD. The current wastewater treatment facility has adequate capacity to serve projects within Moreno Valley that are consistent with the General Plan and EMWD has plans for major expansions of the Moreno Water Reclamation Facility to serve future needs. Source: EIR for the 2006 General Plan Update.				
f)) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				■
Waste Management provides waste hauling service to the City of Moreno Valley. The project will be served by a landfill in the Badlands with sufficient permitted capacity to accommodate the project's solid waste disposal needs. Source: EIR for the 2006 General Plan Update.				
g) Comply with federal, state, and local statues and regulations related to solid waste?				■
City policies require compliance with State and Federal regulations regarding solid waste. This project will be required to comply with the current policies regarding solid waste. (General Plan Objective 7.8 and Municipal Code Section 6.02)				
XIX. **MANDATORY FINDINGS OF SIGNIFICANCE.**				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?			■	
There are no streambeds or riparian habitat within the project site. There were no surveyed rare plant or animal species noted on the project site. The project would not significantly degrade the quality of the environment or reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal. There are no historic structures on the site, and there will be no impact to historic resources. The project will not eliminate important examples of the major periods of California history or prehistory. The analysis in this Initial Study demonstrates that project and cumulative impacts would be less than significant. The project as designed and conditioned would not cause substantial adverse health effects on human beings.				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		■		
This project as conditioned and with mitigation will not create any impacts that would be considered cumulatively considerable when viewed in connection with existing land uses, other recently approved projects, and existing land use designations. It is not expected that the proposed project would result in incremental effects. The analysis in this Initial Study demonstrates that with the implementation of mitigation measures for cumulative impacts to traffic infrastructure, the proposed project's cumulative impacts would be less than significant.				
c) Does the project have environmental effects which will cause substantial			■	

adverse effects on human beings, either directly or indirectly?				
The project proposes a Conditional Use Permit for a 57,000 square foot, 90 room, single-story, transitional care facility on a 7.12 acre site. The project as designed and conditioned and with mitigation will not cause substantial adverse effects on human beings, either directly or indirectly for the reasons described in this checklist/initial study.				

<u>List of Key Documents and Resources:</u>

- City of Moreno Valley General Plan, adopted by City Council on July 11, 2006
- City of Moreno Valley Municipal Code, adopted by City Council in 1997
- Preliminary Water Quality Management Plan prepared by Albert A. Webb Associates, dated April 2017
- Traffic Impact Study Exemption Request prepared by Albert A. Webb Associates, dated September 14, 2016
- Riverside County Integrated Project Long Report, Riverside County Transportation and Land Management Agency,
- Western Riverside Area Soil Survey – University of California Agricultural Experiment Station, 1971
- Urban Water Management Plan, Eastern Municipal Water District, 2010
- State Important Farmland Map, 2015, http://maps.conservation.ca.gov/ciff/ciff.html
- Air Quality Management Plan (AQMP), South Coast Air Quality Management Board, 2012
- Cultural Resources Inventory, Archeological Research Unit, University of California, Riverside), October 1987
- Cultural Resource Study prepared by Applied Earth Works, Inc., dated October 2016
- Geotechnical Report prepared by Geo Tek, Inc., dated September 16, 2016
- March Air Reserve Base /Inland Port Airport Land Use Compatibility Plan, Riverside County Airport Land Use Commission, adopted November 13, 2014
- Preliminary Drainage Study, prepared by Albert A. Webb Associates, dated April 2017
- Flood Insurance Rate Map, Federal Emergency Management Agency, Map Number 06065C0770G, August 28, 2008
- State Wildland Fires Map
- Riverside County Airport Land Use Commission – email dated December 20, 2016

**The above documents and studies are incorporated by reference and available in the case file for Expanded Initial Study PEN16-0154 and the Community Development Department – Planning Division or Public Works Department – Land Development Division.

Exhibit B to Resolution 2017-28

Mainstreet Transitional Care Facility – Mitigation Monitoring and Reporting Program

Conditional Use Permit PEN16-0153

Introduction

This Mitigation Monitoring and Reporting Program has been prepared for use in implementing mitigation for the Mitigated Negative Declaration (MND) for the Mainstreet Transitional Care Facility project (Conditional Use Permit PEN16-0153). The program has been prepared in compliance with State law and the MND prepared for the project.

The California Environmental Quality Act (CEQA) requires adoption of a reporting or monitoring program for those measures places on a project to mitigated or avoid adverse effects on the environment (Public Resources Code Section 21081.6). The law states that the reporting or monitoring program shall be designed to ensure compliance during project implementation.

The monitoring program contains the following elements:

- 1. The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.
- 2. A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when, and to whom and when compliance will be reported.
- 3. The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the program. As changes are made, new monitoring compliance procedures are records will be developed and incorporated into the program.

Mitigation Monitoring and Responsibilities

As the Leady Agency, the City of Moreno Valley is responsible for ensuring full compliance with the mitigation measures adopted for the proposed project. The City will monitor and report on all mitigation activities. Mitigation measures will be implemented at different stages of development throughout the project. In this regards, the responsibilities for implementation have been assigned to the Applicant, Contractor, or a combination thereof. If during the course of project implementation, any of the mitigation measures identified herein cannot be successfully implemented, the City shall be immediately informed, and the City will then inform any affected responsible agencies. The City, in conjunction with any affected responsible agencies, will then determine if modification to the project is required and/or whether alternative mitigation is appropriate.

Exhibit B to Resolution 2017-28

Mitigation Monitoring and Reporting Program Checklist

Project: Mainstreet Transitional Care Facility (Conditional Use Permit PEN16-0153)

Applicant: MS Moreno Valley, LLC

Date: June 1, 2017

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Biological Resources						
BR-1: A pre-construction burrowing owl survey shall be performed within 30 days prior to the commencement of ground disturbing activities according to the recognized burrowing owl protocol for the MSHCP.	City of Moreno Valley Planning Division	Ongoing during grading plan check	Prior to Issuance of a grading permit	Review of and approval of pre-construction survey		Withhold Grading Permit
BR2. As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.	City of Moreno Valley Planning Division	Ongoing during grading plan check	Prior to Issuance of a grading permit	Review of and approval of pre-construction survey		Withhold Grading Permit

Exhibit B to Resolution 2017-28

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Cultural Resources						
CR-1: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include: a. Project grading and development scheduling; b. The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding	City of Moreno Valley Land Development Division and Planning Division	Once prior to Grading and during grading and construction operations.	Prior to issuance of Grading Permit	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order

Exhibit B to Resolution 2017-28

Mitigation Measure No.	**Responsible for Monitoring**	**Monitoring Frequency**	**Timing of Verification**	**Method of Verification**	**Verified Date/Initials**	**Sanctions for Non-Compliance**
Cultural Resources						
area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures						
c. Until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis. d. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the applicant; The protocols and stipulations that the Developer, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation						

Exhibit B to Resolution 2017-28

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Cultural Resources						
CR-2: Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as “Native American Tribal Representatives”) received a minimum of 30 days advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to	City of Moreno Valley Land Development Division and Planning Division	Once prior to Grading and during grading and construction operations.	Prior to issuance of Grading Permit	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order

Exhibit B to Resolution 2017-28

Mitigation Measure No.	**Responsible for Monitoring**	**Monitoring Frequency**	**Timing of Verification**	**Method of Verification**	**Verified Date/Initials**	**Sanctions for Non-Compliance**
Cultural Resources						
California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure CR-3 shall apply.						
CR-3: A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until a treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).	Project Applicant / Landowner; Project Construction Contractor; Project Archaeologist	City of Moreno Valley Planning Division	During grading operations	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order
CR-4: In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries: a) The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning	Landowner; Project Archaeologist	City of Moreno Valley Planning Division	In the event that Native American cultural resources are discovered during grading operations	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order

Exhibit B to Resolution 2017-28

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Cultural Resources						
Department: i. Accommodate the process for Preservation-In-Place /Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed; ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation; iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the						

Mitigation Measure No.	**Responsible for Monitoring**	**Monitoring Frequency**	**Timing of Verification**	**Method of Verification**	**Verified Date/Initials**	**Sanctions for Non-Compliance**
Cultural Resources						
project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.						
CR-5: Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."	Project Applicant	City of Moreno Valley Planning Division	Prior to grading permit issuance.	Review of grading plans		Withhold Grading Permit or Issuance of a Stop Work Order
CR-6: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.	Project Applicant; Project Paleontologist	City of Moreno Valley Planning Division	Prior to issuance of grading permit	Review of construction documents		Withhold Grading Permit or Issuance of a Stop Work Order
CR-7: The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to	Project Paleontologist	City of Moreno Valley Planning Division	On-going during construction	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Cultural Resources						
salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.						
CR-8: Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.	Project Paleontologist	City of Moreno Valley Planning Division	Prior to grading permit final inspection.	Review of treatment plan referenced in CR-3.		Withhold Grading Permit or Issuance of a Stop Work Order
CR-9: A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the	Project Paleontologist	City of Moreno Valley Planning Division	Prior to building final.	Review of final report referenced in CR-9.		Withhold building final.

Exhibit B to Resolution 2017-28

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Cultural Resources						
original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.						
CR-10: If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area. If human remains are discovered**, no further disturbance shall occur in the affected area until** the County Coroner **has made necessary findings as to origin**. If **the County Coroner** determine**s** that the remains are potentially Native American, the California Native American Heritage Commission **shall be notified within 5-days of the**	Project Applicant; Project Paleontologist	City of Moreno Valley Planning Division	Prior to and during grading.	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order

Exhibit B to Resolution 2017-28

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Cultural Resources						
published finding to be given a reasonable opportunity to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).						

Exhibit B to Resolution 2017-28

Mitigation Measure No.	Responsible for Monitoring	Monitoring Frequency	Timing of Verification	Method of Verification	Verified Date/Initials	Sanctions for Non-Compliance
Noise						
N-1: Construction activities shall be operated in a manner that limits noise impacts on surrounding uses (General Plan Policy 6.5.2). In order to limit noise impacts on surrounding property, the construction contractor will ensure the following: • All construction equipment powered by gasoline or diesel engines will be required to have sound-control devices at least as effective as those originally provided by the manufacturer; no equipment will be permitted to have an unmuffled exhaust. • Mobile noise-generating equipment and machinery will be shut off when not in use; • Construction vehicles assessing the site will be required to use the shortest possible route to and from local freeways, provided the routes do not expose additional receptors to noise	City of Moreno Valley Engineering and Building and Safety Planning Division	Once prior to Grading and during grading and construction operations.	Prior to issuance of Grading Permit	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order
N-2: The staging of construction equipment and the construction trailer shall be placed as far as possible from the existing single-family residences located to the east and the school to the northeast.	City of Moreno Valley Engineering and Building and Safety Planning Division	Once prior to Grading and during grading and construction operations.	Prior to issuance of Grading Permit	Review of construction documents and on-site inspection		Withhold Grading Permit or Issuance of a Stop Work Order

Attachment: Exhibit B to Resolution 2017-28 [Revision 1] (2672 : PEN16-0153 Conditional Use Permit for

PLANNING COMMISSION RESOLUTION NO. 2017-29

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY APPROVING CONDITIONAL USE PERMIT APPLICATION PEN16-0153 FOR DEVELOPMENT OF A 57,000 SQUARE FOOT, 90 ROOM, ONE-STORY TRANSITIONAL CARE FACILITY ON 7.12 ACRES OF ASSESSOR'S PARCEL NUMBER 486-310-042 LOCATED AT THE SOUTHWEST CORNER OF OLIVER STREET AND FILAREE AVENUE

WHEREAS, MS Moreno Valley, LLC, has filed an application for the approval of Conditional Use Permit PEN16-0153 for development of a transitional care facility on 7.12 acres as described in the title above; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley (City) procedures, and with consideration of the General Plan and other applicable regulations; and

WHEREAS, the City has reviewed this project and determined that it is consistent with the site's General Plan designation of Office, all applicable General Plan policies and the Office zoning district subject to approval of a conditional use permit;

WHEREAS, the City has prepared an Initial Study and Mitigated Negative Declaration for the project consistent with the California Environmental Quality Act (CEQA) and based on a thorough analysis of potential environmental impacts. The Mitigated Negative Declaration represents the City's independent judgment and analysis; and

WHEREAS, upon completion of a thorough development review process the project was appropriately agendized and noticed for a public hearing before the Planning Commission of the City of Moreno Valley (Planning Commission); and

WHEREAS, the public hearing notice for this project was published in the local newspaper on June 2, 2017. Public notice was sent to all property owners of record within 300 feet of the project site on June 8, 2017. The public hearing notice for this project was also posted on the project site on June 12, 2017;

WHEREAS, on June 22, 2017, the Planning Commission held a public hearing to consider the application; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT RESOLVED, it is hereby found, determined and resolved by the Planning Commission as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on June 22, 2017, including written and oral staff reports, public testimony and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies –** The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

   FACT: The General Plan Land Use designation for the project site is Office. General Plan Policy 2.4.7 states that the primary purpose of areas designated Office is to provide for office uses, including, administrative, professional, legal, medical and financial offices.

   The project site is located within the Medical Use Overlay District. General Plan Policy 2.4.4 states that this overlay district limits land uses to those that are supportive and compatible with medical uses to be established around the Riverside County Regional Medical Center and the Moreno Valley Community Hospital. The proposed transitional care facility would be consistent with this policy

   The proposed transitional care facility will provide 90 rooms of skilled medical care on a 7.12 acre site in close proximity to Kaiser Permanente Medical Center located to the west and the Riverside County Regional Medical Center located approximately one and one-half miles to the northwest.

   The project as designed and conditioned will achieve the objectives of the City of Moreno Valley's General Plan. The proposed project is consistent with the General Plan and does not conflict with the goals, objectives, policies, and programs established within the Plan.

2. **Conformance with Zoning Regulations –** The proposed use complies with all applicable zoning and other regulations.

   FACT: The project site is currently zoned Office which requires approval of a Conditional Use Permit for an assisted living or skilled nursing use. Conditional Use Permit PEN16-0153 proposes a 57,000 square foot, 90 room, one-story, transitional care facility. The use at this location will be compatible with and complementary to surrounding land uses that include the Fresenius Dialysis Center immediately to the north, the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office

building located to the west and the Riverside County Regional Medical Center located approximately one and one-half miles to the northwest.
The project is designed in accordance with the provisions of Chapter 9.04 Commercial Districts, Chapter 9.07.040 Medical Use Overlay District and Chapter 9.16.150 Design Guidelines of the City's Municipal Code. The project as designed and conditioned would comply with all applicable zoning and other regulations.

3. **Health, Safety and Welfare –** The proposed use will not be detrimental to the public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACT: The proposed Conditional Use Permit as designed and conditioned will provide acceptable levels of protection from natural and man-made hazards to life, health, and property consistent with General Goal 9.6.1. The project site is located approximately two miles from Fire Station No. 91 located to the west on Lasselle Street near Iris Avenue. Therefore, adequate emergency services can be provided to the site consistent with General Plan Goal 9.6.2.

The proposed project as designed and conditioned will result in a development that will minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic ground shaking and flooding as provided for in General Plan Objective 6.1 and General Plan Objective 6.2.

The project is bound to the north by vacant residential zoned land in the Aquabella Specific Plan, by the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building located to the west, and to the south by Fresenius Dialysis Center and vacant Office and Neighborhood Commercial zone land. Landmark Middle School is located across Oliver Street to the northeast which is a distance of more than 200 feet from the nearest portion of the transitional care building. Existing single-family tract homes in the Moreno Valley Ranch Specific Plan are located across Oliver Street to the east; a distance of more than 140 feet from the building.

The project has been designed consistent with the City's Municipal Code Section 9.04 Commercial Districts and will satisfy all City requirements related to light and noise. Planning staff prepared an Initial Study and Mitigated Negative Declaration in accordance with the provisions of the California Environmental Quality Act (CEQA) based on a thorough analysis of potential environmental impacts. The Mitigated Negative Declaration represents the City's independent judgment and analysis.

4. **Location, Design and Operation –** The location, design and operation of the proposed project will be compatible with existing and planned land uses in the vicinity.

FACT: The project site is located on vacant property in the Office zone and the Medical Use Overlay District adjacent to the Kaiser Permanente Medical Center and Kaiser Permanente Medical Office building located to the west and Fresenius Dialysis Center to the south. Also, the vacant land to the south of the project site is also located in the Medical Use Overlay District, and is zoned Office and Neighborhood Commercial. The project is bounded to the north by vacant residential zoned land in the Aquabella Specific Plan and to the northeast by Landmark Middle School and to the east by existing single-family tract homes in the Moreno Valley Ranch Specific Plan.

As designed and conditioned, the project is compatible with existing and proposed land uses in the vicinity.

FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development Impact Fee, Transportation Uniform Mitigation Fee (TUMF), Multi-species Habitat Conservation Plan (MSHCP) Mitigation Fee, Stephens Kangaroo Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan fee, Bridge and Thoroughfare Mitigation fee (Future) and Traffic Signal Mitigation fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this Resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PEN16-0153, incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. CITY RIGHT TO MODIFY/ADJUST; PROTEST LIMITATIONS

The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d)(1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this Resolution begins on the effective date of this Resolution and any such protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

The right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which a notice has been given similar to this, nor does it revive challenges to any fees for which the applicable statute of limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-29, and thereby:

1. **APPROVES** Conditional Use Permit PEN16-0153 based on the findings contained in this resolution, and subject to the conditions of approval included as Exhibit A.

APPROVED this 22nd day of June, 2017.

AYES:
NOES:
ABSTAIN:

Jeffrey Barnes
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

Exhibit A

MORENO VALLEY
WHERE DREAMS SOAR

Aerial Photograph

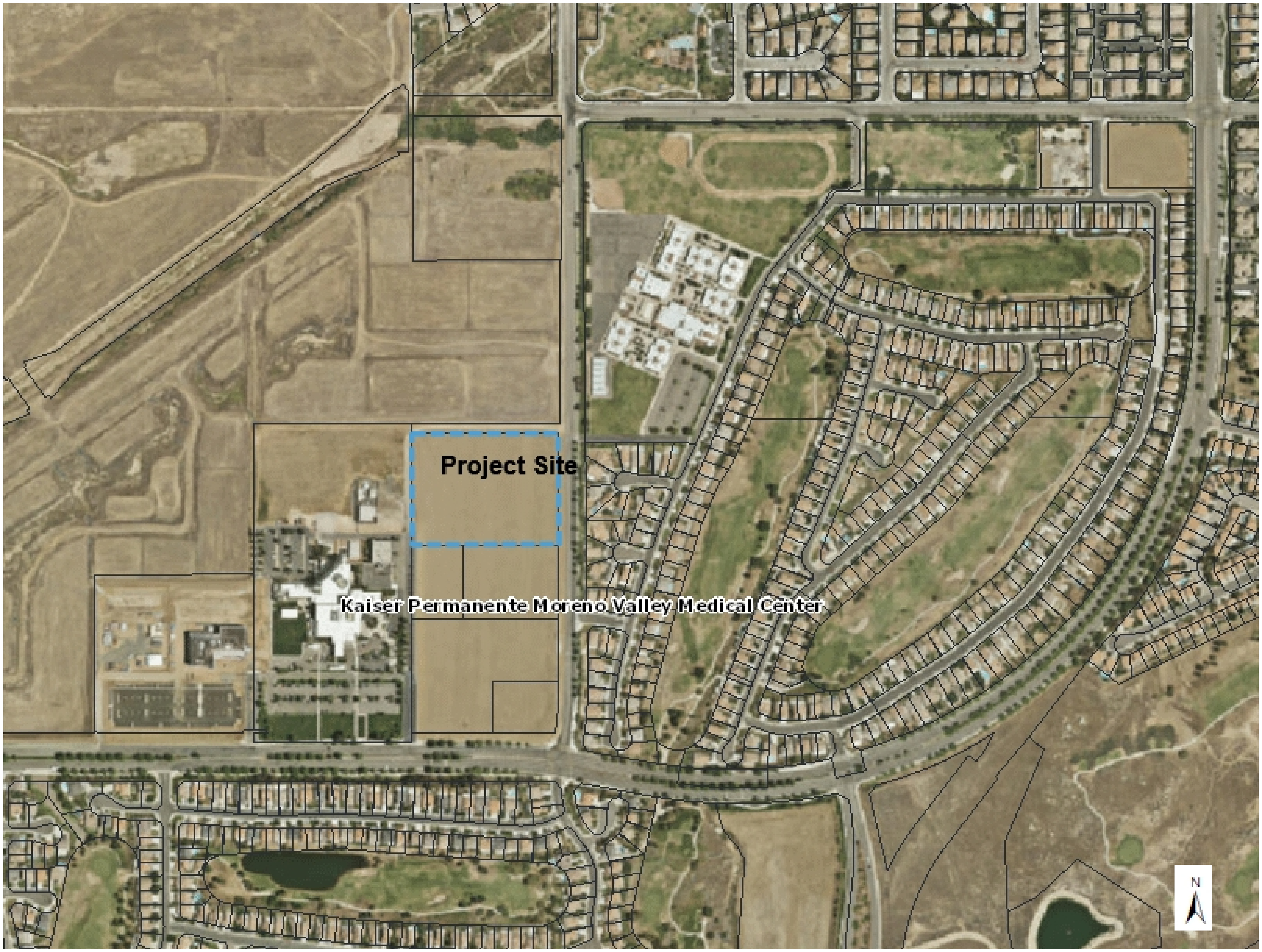

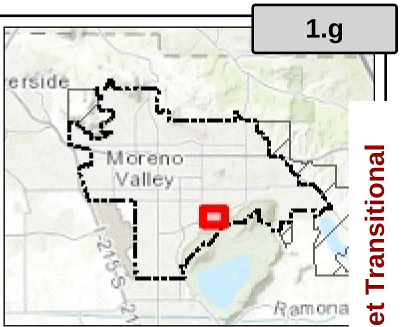

Legend

Public Facilities

- ■ Public Facilities
- ★ Fire Stations

- ☐ Parcels
- ⬚ City Boundary
- ▨ Sphere of Influence

Notes

1,261.9 0 630.96 1,261.9 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

Print Date: 6/13/2017

DISCLAIMER: The information shown on this map was compiled from the City of Moreno Valley GIS and Riverside County GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses or damages resulting from the use of this map.

Attachment: Aerial Photograph (2672 : PEN16-0153 Conditional Use Permit for Mainstreet Transitional

MAINSTREET TRANSITIONAL CARE FACILITY
CONDITIONAL USE PERMIT & CONCEPTUAL GRADING PLAN
CITY OF MORENO VALLEY, CA

ER:
ANY: INLAND LAND GROUP, LLC
ACT: GUY RONEY
ESS: 9670 RESEARCH DRIVE
IRVINE, CA 92555
E: (949) 872-2685

APPLICANT:
COMPANY: MS MORENO VALLEY, LLC
CONTACT: MICHAEL KLINGL
ADDRESS: 14390 CLAY TERRACE BLVD, SUITE 205
CARMEL, IN 46032
PHONE: (317) 582-6959

ENGINEER:
COMPANY: ALBERT A. WEBB ASSOCIATES
CONTACT: SANDY CHANDLER
ADDRESS: 3788 MCCRAY ST
RIVERSIDE, CA 92506
PHONE: (951) 686-1070
FAX: (951) 788-1256

ARCHITECT
COMPANY: DOUGLAS PANCAKE ARCHITECTS
CONTACT: JONATHAN MA
ADDRESS: 19000 MACARTHUR BLVD., SUITE 500
IRVINE, CA 92612
PHONE: (949) 720-3850
FAX: (949) 720-3843

TOPOGRAPHY:
INLAND AERIAL SURVEY
DATED: 8-26-2016

A.P.N.
486-310-042

LAND USE / ZONING:

EXISTING LAND USE:	VACANT
PROPOSED LAND USE	MEDICAL FACILITY
EXISTING ZONING/LAND USE:	OFFICE
PROPOSED ZONING/LAND USE:	OFFICE

ACREAGE

GROSS SITE AREA:	7.12 AC.
NET SITE AREA:	7.12 AC.

LANDSCAPE AREA.
51.0% PROPOSED
158,400 S.F. PROPOSED COVERAGE

EARTHWORK ESTIMATE:

CUT:	18,200	CY
FILL:	14,600	CY
SHRINKAGE:	3,600	CY
NET:	BALANCED	

UTILITY COMPANIES:

WATER:	EASTERN MUNICIPAL WATER DISTRICT PHONE: (951) 928-6107
SEWER:	EASTERN MUNICIPAL WATER DISTRICT PHONE: (951) 928-6107
ELECTRIC:	MORENO VALLEY UTILITIES PHONE: (951) 413-3500
TELEPHONE:	FRONTIER COMMUNICATIONS PHONE: 1 (855) 389-3969
GAS:	SOUTHERN CALIFORNIA GAS COMPANY PHONE: (909) 335-3928

PROJECT DESCRIPTION:
THIS PROJECT PROPOSES A 58,320 SF TRANSITIONAL CARE FACILITY ON 7.12 ACRES. THE FACILITY WILL HAVE 90 PRIVATE SUITES WITH A PRIVATE BATHROOM, SITTING ROOM, NOURISHMENT AREA, A DINNING ROOM WITH AN ADJACENT KITCHEN, A REHABILITATION THERAPY GYM, OUTDOOR RECREATION AREA, COURTYARD SPACE, A WATER QUALITY/DETENSION BASIN, AND OTHER SITE IMPROVEMENTS.

FEMA FLOOD ZONE DESIGNATION:
FEMA COMMUNITY PANEL NO. 06065C0770G ZONE X. AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

NOTES:
1. THIS PROJECT IS LOCATED WITHIN SECTION 22, TOWNSHIP 3 SOUTH, RANGE 3 WEST.
2. 2008 THOMAS BROS. MAP-PAGE 748, GRID C1
3. THIS AREA IS SUBJECT TO LOW LIQUEFACTION.
4. CONTOUR INTERVAL, ONE FOOT.
5. THIS AREA IS NOT WITHIN A SPECIFIC PLAN.
6. DRIVEWAYS ARE PER CITY STANDARD PLAN NO. MVSI-112C-0

LEGEND

▩	*PROPOSED AC PAVEMENT*
▨	*PROPOSED LANDSCAPE AREA*
▦	*PROPOSED TRUNCATED DOMES*
☐☐☐☐	*PROPOSED FIRE LANE*
- - - -	*ADA PATH OF TRAVEL*
○—⊗	*EXISTING STREET LIGHT*
●—	*PROPOSED FIRE HYDRANT*
▤	*PROPOSED ROOF DRAIN*
----------	*GRADEBREAK/RIDGELINE*
◄——···	*FLOWLINE*
—(1475)----	*EXISTING CONTOURS*
—1475——	*PROPOSED CONTOURS*
—EX W----	*EXISTING WATER LINE*
---EX SS---	*EXISTING SEWER LINE*
---- SD----	*EXISTING STORM DRAIN*
-----G----	*EXISTING GAS LINE*
-----E----	*EXISTING ELECTRICAL LINE*
EG	*EXISTING GROUND*
FF	*FINISHED FLOOR*
FL	*FLOW LINE*
FS	*FINISHED SURFACE*
GB	*GRADE BREAK*
GRND	*GROUND*
INV	*INVERT*
LS	*LANDSCAPE AREA*
LP	*LOW POINT*
MAX	*MAXIMUM*
PL	*PROPERTY LINE*
RG	*ROUGH GRADE*
R/W	*RIGHT OF WAY*
TC	*TOP OF CURB*
TYP	*TYPICAL*

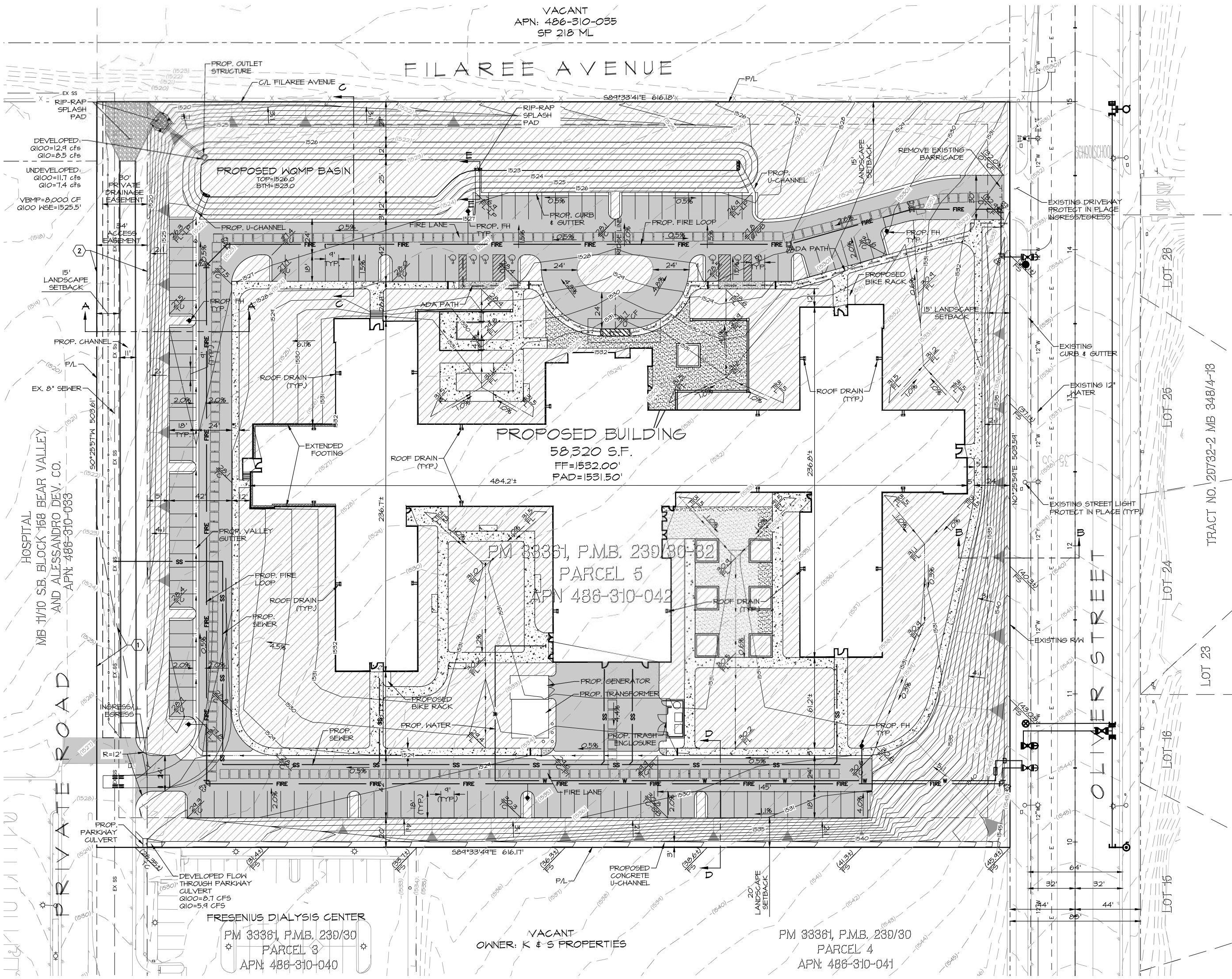

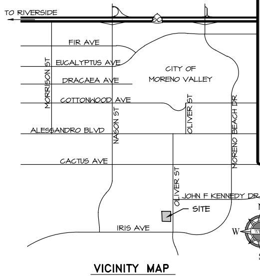

VICINITY MAP
NOT TO SCALE

EASEMENT NOTES:

① HEMET VALLEY HOSPITAL DISTRICT HOLDER OF AN EASEMENT FOR ROAD AND ACCESS PURPOSES AND INCIDENTAL PURPOSES IN THE DOCUMENT RECORDED APRIL 13, 1990 AS AN INSTRUMENT NO. 90-135412 OF OFFICIAL RECORDS.

② PRIVATE INGRESS AND EGRESS, BLANKET P.U.E. AND INCIDENTAL PURPOSES EASEMENT SHOWN OR DEDICATED ON THE MAP OF PARCEL MAP NO. 33361 RECORDED AUGUST 10, 2015 AND N FILE IN BOOK 239, PAGE 30-32, OF PARCEL MAPS.

LEGAL DESCRIPTION
TAKEN FROM FIRST AMERICAN TITLE COMPANY, COMMITMENT NO. NCS-796878-CHI2, DATED JUNE 7, 2016

THE LAND REFERRED TO IN THIS COMMITMENT IS SITUATED IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL A:

PARCEL 5 OF PARCEL MAP NO. 33361, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 239, PAGE 30 THROUGH 32 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL B:

A NONEXCLUSIVE, PERMANENT SEWER AND ACCESS EASEMENT ON OVER AND ACROSS THAT CERTAIN PARCEL OF LAND SITUATED IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, BEING A PORTION OF LOT 7 AND LOT 8 IN BLOCK 151, OF BEAR VALLEY AND ALESSANDRO DEVELOPMENT CO. AS SHOWN BY MAP ON FILE IN BOOK 11 OF MAPS, PAGE 10, RECORDS OF SAN BERNARDINO COUNTY, CALIFORNIA, LYING WITHIN SECTION 22, TOWNSHIP 3 SOUTH, RANGE 3 WEST, S.B.M. MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID LOT 7, SAID POINT ALSO BEING THE INTERSECTION OF THE CENTERLINE OF FILAREE AVENUE AND THE WEST LINE OF LOT 7 AS SHOWN ON MAP REFERENCED ABOVE AND THE TRUE POINT OF BEGINNING;

THENCE SOUTH 89° 33' 36" EAST, 694.50 FEET ALONG THE SOUTH LINE OF SAID LOT 7, SAID SOUTH LINE ALSO BEING THE CENTERLINE OF SAID FILAREE AVENUE, TO A POINT THAT LIES ON THE SOUTH LINE OF SAID LOT 8, SAID POINT BEING DISTANT 34.00 FEET FROM THE SOUTHWEST CORNER OF SAID LOT 8;

THENCE NORTH 00° 26' 02" EAST, 10.00 FEET TO A POINT THAT LIES ON A LINE THAT IS PARALLEL WITH AND 10.00 FEET NORTH OF SAID SOUTH LINE OF SAID LOT 8;

THENCE NORTH 89° 33' 36" WEST, 694.50 FEET ALONG SAID PARALLEL LINE TO A POINT ON THE WEST LINE OF SAID LOT 7, SAID PARALLEL LINE IS ALSO PARALLEL WITH THE SOUTH LINE OF SAID LOT 7;

THENCE SOUTH 00° 19' 23" WEST, 10.00 FEET ALONG SAID WEST LINE OF LOT 7 TO TRUE POINT OF BEGINNING, RECORDED SEPTEMBER 30, 2014 AS INSTRUMENT NO. 2014-0371036, OF OFFICIAL RECORDS, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

APN: 486-310-022-8 (PORTION) (OLD APN); 486-310-042-6 (NEW APN) NOT YET ASSESSED

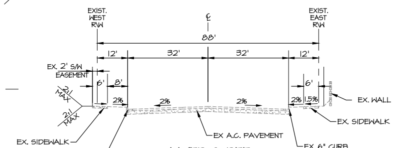

OLIVER STREET
MINOR ARTERIAL STREET
TYPICAL SECTION STD. NO. MVSI-105A-0
NOT TO SCALE

PARKING REQUIRED PER ALBERT A. WEBB PARKING ANALYSIS DATED FEBRUARY 15, 2017			
METHOD	PATIENT PARKING	NUMBER OF EMPLOYEE PARKING	TOTAL PARKING REQUIRED
MUNICIPAL CODE	1 SPACE/3 BEDS = 30 SPACES	40 STALLS	70 SPACES
ITE	0.52 SPACES PER UNIT BASED ON 85% RATE = 47 SPACES	40 STALLS	87 SPACES

PARKING TABLE	
PARKING PROVIDED	129 STALLS
HANDICAP (9'X18')	7 STALLS
STANDARD (9'X18')	122 STALLS

1" = 30'
30 15 0 30 60 90

CITY OF MORENO VALLEY

MAINSTREET TRANSITIONAL CARE FACILITY
CONDITIONAL USE PERMIT (PEN16-0153)
& CONCEPTUAL GRADING PLAN

SCALE: 1"=X'	ALBERT A. WEBB ASSOCIATES	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 16-0187
DATE: DATE			SHEET 1 OF 2 SHEETS
DESIGNED: DESIGNER			
CHECKED: CHECKER			
PLN CK REF: REF			DWG. NO. PEN16-0153
F.B. F.B.			

G:\2016\16-0187\DRAWINGS\ENTITLEMENT\16-0187-C-PP.DWG 4/4/2017 6:17:08 PM

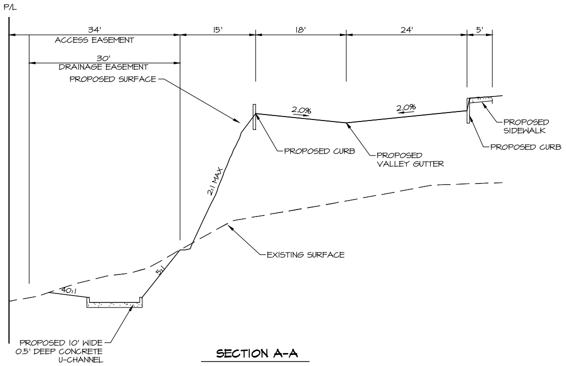

SECTION A-A

NOT TO SCALE

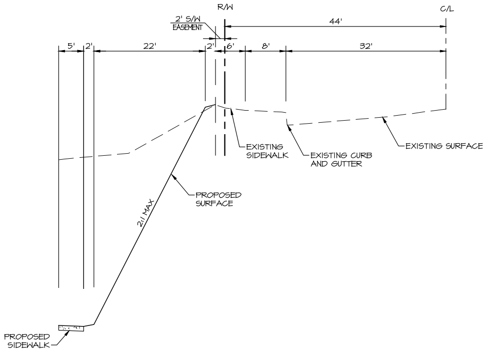

SECTION B-B

NOT TO SCALE

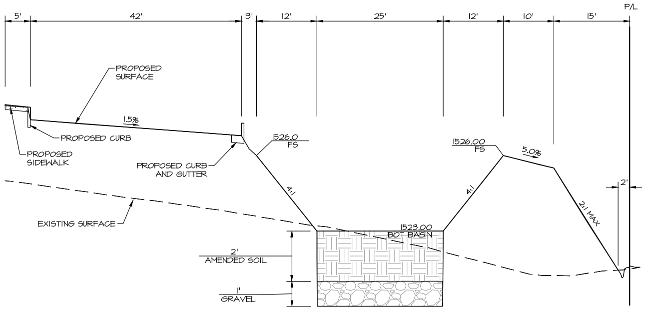

SECTION C-C

NOT TO SCALE

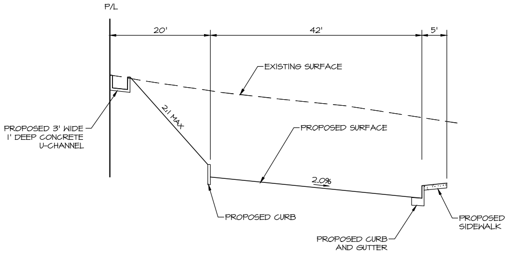

SECTION D-D

NOT TO SCALE

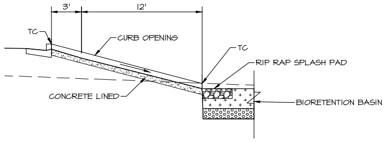

SECTION E-E

NOT TO SCALE

CITY OF MORENO VALLEY

MAINSTREET TRANSITIONAL CARE FACILITY

SECTIONS

SCALE: N/A	ALBERT A. WEBB ASSOCIATES	ENGINEERING CONSULTANTS 3788 McCRAY STREET RIVERSIDE CA. 92506 PH. (951) 686-1070 FAX (951) 788-1256	W.O. 16-0187
DATE: 4/4/17			SHEET 2
DESIGNED: DJA			OF 2 SHEETS
CHECKED: BB			
PLN CK REF:			DWG. NO. PEN16-0153
F.B.			

G:\2016\16-0187\DRAWINGS\ENTITLEMENT\16-0187-C-PP.DWG 4/4/2017 6:17:08 PM

UNIT MIX					
Unit Name	Unit Type	Beds	Qty	Area (SF)	Total (SF)
N-1A	SKILLED NURSING - 1 BED	1	86	289	24,854
N-1A ALT	SKILLED NURSING - 1 BED	1	4	357	1,428
		90	90		26,282 sq ft

1 FLOOR PLAN
SCALE: 1/16" = 1'-0"

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MORENO VALLEY SKILLED NURSING FACILITY
Mainstreet
Iris Avenue & Oliver Street, Moreno Valley, CA 92555

FLOOR PLAN
A1

PROJECT NO: 16027.00
PLOT DATE: 11/23/2016

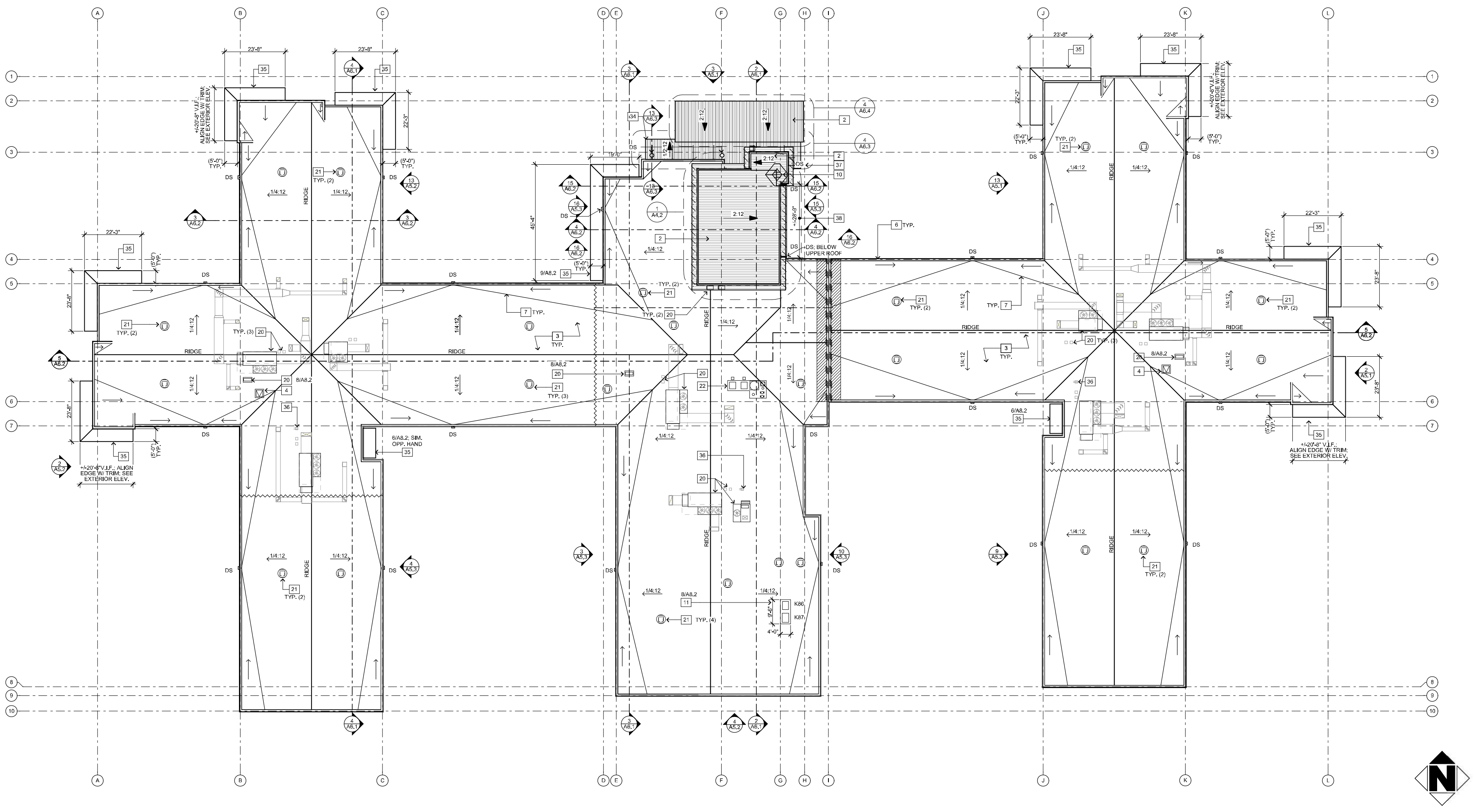

ROOF PLAN 1/16" = 1'-0" 2

A4.1

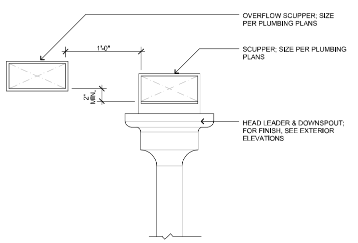

SCUPPER / OVERFLOW ELEVATION 1 1/2"= 1'-0" 17

A4.1

ROOF PLAN NOTES

1. ROOF SLOPES CREATED BY 2x RIPPED JOISTS PER DETAIL (4/A8.1)

ROOF PLAN LEGEND

⍂	ROOF ACCESS HATCH(4/A8.2) (NON-RATED); FOR ACCESS LADDER, SEE (7/A8.2) ACCESS FOR HVAC EQUIPMENT - 30" x 30"
▭ DS	DOWNSPOUT W/ SCUPPER & OVERFLOW SCUPPER (17/A4.1) (17/A8.1) COORDINATE LOCATIONS W/ EXTERIOR ELEVATIONS
○ DS	DOWNSPOUT (1/A8.2)
═	GUTTER & DOWNSPOUT (2/A8.2)
X:12 →	ROOF SLOPE DOWN
XX	KEYNOTE NUMBER
//// //// ////	2 HR FIRE WALL BELOW (15/A7.1)
▨	AREA OF 4'-0" (EA SIDE) OF 2 HR FIRE WALL *NO ROOF PENETRATIONS WITHIN THIS AREA ARE ALLOWED*
﹏﹏	SMOKE BARRIER WALL BELOW (15/A7.1)
▭	MECHANICAL EQUIPMENT (16/A8.2) SEE MECHANICAL DRAWINGS FOR EQUIPMENT SIZES
▯▯	BOILER EQUIPMENT ON SKID (8/A8.2) SEE MECHANICAL DRAWINGS FOR PAD & EQUIPMENT SIZES
◯	MECHANICAL EXHAUST FAN (16/A8.2) SEE MECHANICAL DRAWINGS FOR EQUIPMENT SIZES
·/·/·/·/·/·	SOFFIT VENT - 2" STRIP VENT *(REFER TO DETAIL SHEETS A-8.1 & A-8.2)*

ROOF PLAN KEYNOTES

1. LINE OF BUILDING BELOW
2. STANDING SEAM ROOFING - INSTALL IN ACCORDANCE WITH THE ROOFING MANUFACTURER'S IAPMO REPORT
3. CLASS A BUILT-UP ROOFING - INSTALL IN ACCORDANCE WITH THE ROOFING MANUFACTURER'S ICC ES REPORT, CBC SEC. 1507.10 AND TABLE 1507.10.2.
4. ROOF-ACCESS HATCH 30" x 30" (4/A8.2)
6. PARAPET
7. ROOF CRICKET; (4/A8.1)
9. PROVIDE 4'-0" WIDE X 5/8" PLYWOOD CATWALK ON THE ATTIC CEILING JOISTS
10. BUTTERFLY ROOF; SEE (16/A8.1)
11. FOR EQUIPMENT INFO. &SPECIFICATION, SEE FOOD-SERVICE DRAWINGS
20. MECHANICAL UNIT; FOR ATTACHMENT / ANCHORAGE, SEE MECH. & STRUCTURAL; FOR RELATED POWER, SEE ELEC.; SEE DETAIL, WHERE NOTED ON ROOF PLAN
21. EXHAUST FAN
22. EQUIPMENT ON PLATFORM PER STRUCTURAL, MECH. & PLUMBING; FOR ATTACHMENT / ANCHORAGE, SEE MECH. & STRUCTURAL; FOR PLATFORM SIZE, SEE MECH. ROOF PLAN; SEE (8/A8.2)
27. RAISED STEEL PLATFORM, SEE STRUCTURAL DRAWINGS
28. OMIT EAVE VENT IN THIS AREA; OPENINGS IN ROOF NOT PERMITTED WITHIN 10' OF EXTERIOR WALL
29. TYPE I HOOD EXHAUST
30. EXPANSION JOINT
32. RAISED STEEL PLATFORM, SEE STRUCTURAL DRAWINGS
33. KITCHEN EQUIPMENT PLATFORM
34. CANOPY - STANDING-SEAM ROOF W/ HANGAR RODS
35. CANOPY - W/ LOUVERS; TYP. DETAIL U.N.O.; (11/A8.2)
36. WEATHERPROOF ELEC. OUTLET
37. DOWNSPOUT BELOW ENTRY CANOPY; SEE EXTERIOR ELEVATION
38. GUTTER; SIZE PER PLUMBING PLANS

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Moreno Valley, CA 92555

Professional Stamp and Signature

LICENSED ARCHITECT
DOUGLAS E. PANCAKE
No. C-27254
REN. 1/31/19

OSHPD PROJECT NUMBER
H163233-33-0
CHANGE ORDER #________

OSHPD Approval Stamp

PROJECT: 16027.00
DRAWN BY: ET, KM
CHECKED BY: JM
CAD FILE NAME: 16027.00 Layout Book - MoVal
DATE OF ISSUE: 05-24-2017

A	*Backcheck 1*	*05-24-2017*
	OSHPD SUBMITTAL *90% CD*	12-15-2016

DRAWING DESCRIPTION

ROOF PLAN

DRAWING NUMBER

A4.1

NOT USED

NOT USED

NOT USED

NOT USED

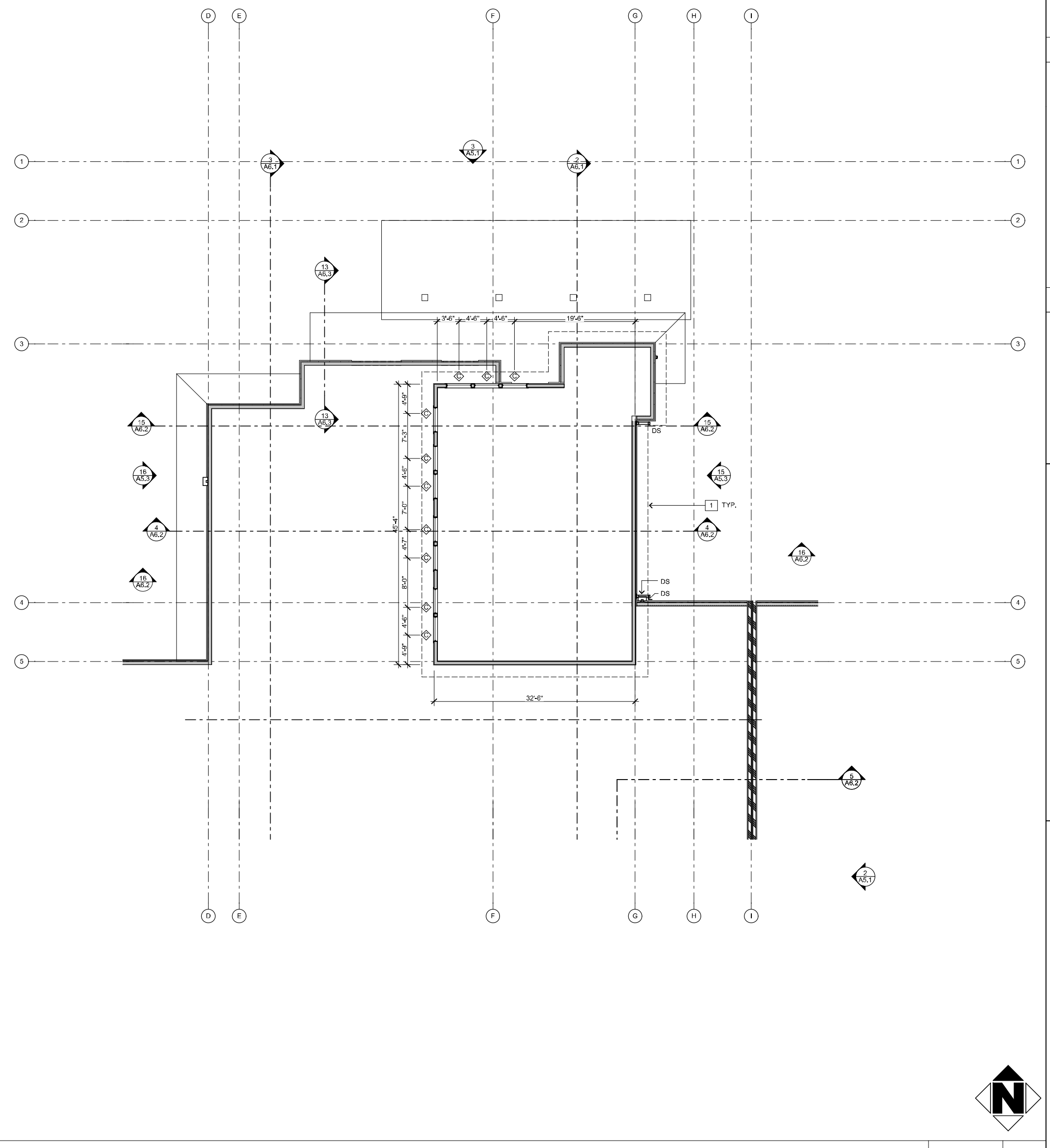

TOWER PLAN @ ROOF 1/8" = 1'-0" 1 A4.2

FLOOR PLAN LEGEND

◇ 0	WINDOW TYPE - SEE WINDOW SCHEDULE
XX	KEYNOTE NUMBER
F.E.	FIRE EXTINGUISHER (11/A7.2)
— · — · —	CORRIDOR HANDRAIL (4/A13.4)

WALL LEGEND

(1/A7.1) (2/A7.1)	1-HR EXTERIOR WALL
(4/A7.1)	1-HR FIRE PARTITION
(4/A7.1)	1-HR FIRE PARTITION STC RATED
(3/A7.1)	1-HR FIRE BARRIER
(7/A7.1)	2-HR FIRE BARRIER
(8/A7.1)	2-HR FIRE WALL
(9/A7.1)	PERMANENT PARTITION
(9/A7.1)	PERMANENT PARTITION STC RATED
(10/A7.1)	1-HR FIRE PARTITION NONCOMBUSTIBLE WALL

FLOOR PLAN GENERAL NOTES

A. EXTERIOR WALL DIMENSIONS ARE TO EXTERIOR FACE OF STUD UNLESS NOTED OTHERWISE.
B. INTERIOR WALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.
C. INTERIOR DIMENSIONS IN PARENTHESIS DESIGNATE CLEAR DIMENSIONS AND ARE TO FACE OF FINISH.
D. ALL EXTERIOR WALLS ARE 2 X 6 WOOD STUDS @ 16" O.C. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
E. ALL INTERIOR WALLS ARE 2 X 4 WOOD STUDS @ 16" O.C. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS. (2 X 6 STUDS MIN. ARE REQUIRED AT PLUMBING WALLS)
F. CONTRACTOR SHALL VERIFY THE SPACE AND ROUGH-IN REQUIREMENTS OF ALL OWNER-SUPPLIED ITEMS PRIOR TO CONSTRUCTION.
G. ALL CORRIDORS SHALL BE OF ONE-HOUR ENVELOPE CONSTRUCTION.
H. PENETRATIONS OF FIRE-RESISTIVE WALLS, FLOOR / CEILING AND ROOF / CEILING ASSEMBLIES SHALL BE 1 HR PROTECTED.
I. DUCT PENETRATIONS OF FIRE-RATED CORRIDOR CONSTRUCTION SHALL HAVE FIRE/SMOKE DAMPERS.
J. ALL WALLS AT UNIT/CORRIDOR AND UNIT/COMMON AREAS SHALL BE PER (4/A7.1)
K. PROVIDE 2 x 6 STUDS AT PLUMBING WALLS, AS REQ'D.

TOWER PLAN KEYNOTES

1. LINE OF ROOF ABOVE

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LICENSED ARCHITECT
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REN. 1/31/19
STATE OF CALIFORNIA

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A	*Backcheck 1*	*05-24-2017*
	OSHPD SUBMITTAL *90% CD*	12-15-2016

DRAWING DESCRIPTION

TOWER PLAN @ ROOF

DRAWING NUMBER

A4.2

2/28/2017 9:19 AM * BIM Server: SERVER - BIM Server 20/16027.00 Layout Book - MoVal

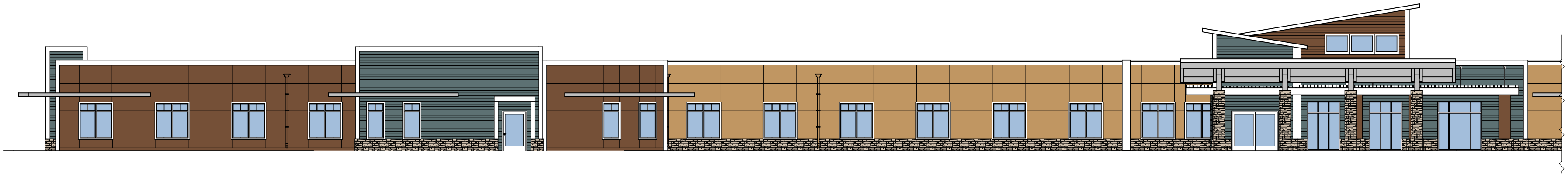

3 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

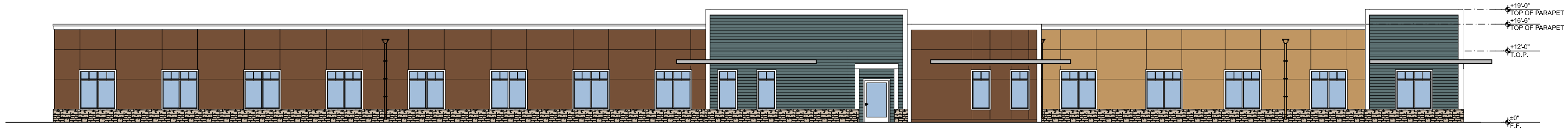

2 EAST ELEVATION
SCALE: 1/8" = 1'-0"

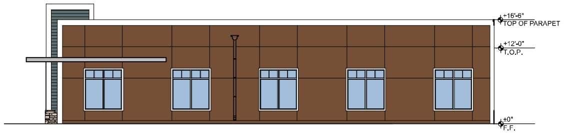

1 WEST COURTYARD ELEVATION - AREA C-1
SCALE: 1/8" = 1'-0"

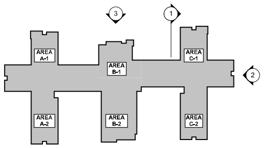

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Mainstreet
Iris Avenue & Oliver Street, Moreno Valley, CA 92555

EXTERIOR ELEVATIONS
A2

PROJECT NO: 16027.00
PLOT DATE: 1/17/2017

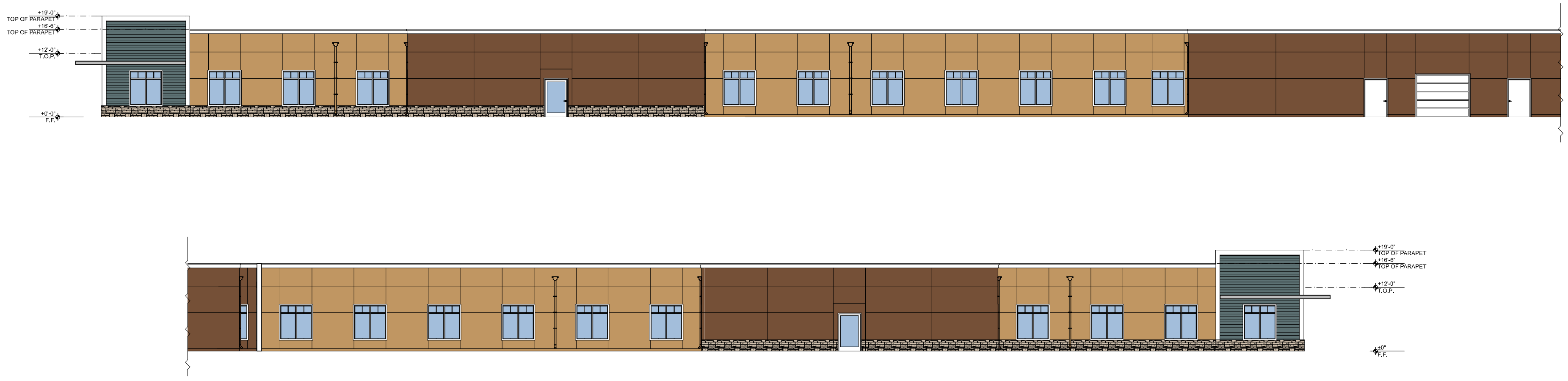

3 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

2 WEST ELEVATION
SCALE: 1/8" = 1'-0"

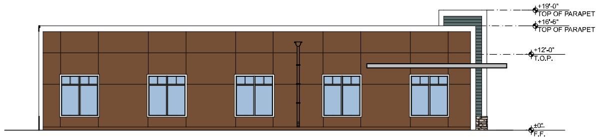

1 EAST COURTYARD ELEVATION - AREA A-1
SCALE: 1/8" = 1'-0"

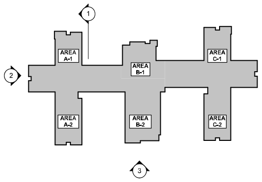

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MORENO VALLEY SKILLED NURSING FACILITY
Mainstreet
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EXTERIOR ELEVATIONS
A3

PROJECT NO: 16027.00
PLOT DATE: 1/17/2017

6 WEST COURTYARD ELEVATION - AREA B-1
SCALE: 1/8" = 1'-0"

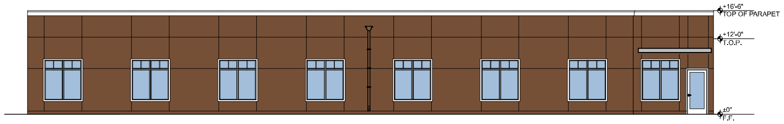

5 EAST COURTYARD ELEVATION - AREA A-2
SCALE: 1/8" = 1'-0"

4 EAST COURTYARD ELEVATION - AREA B-1
SCALE: 1/8" = 1'-0"

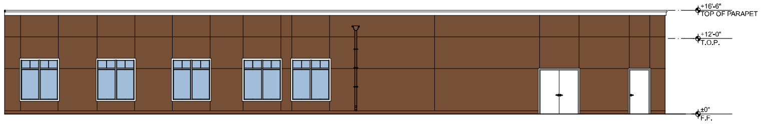

3 WEST COURYARD ELEVATION - AREA B-2
SCALE: 1/8" = 1'-0"

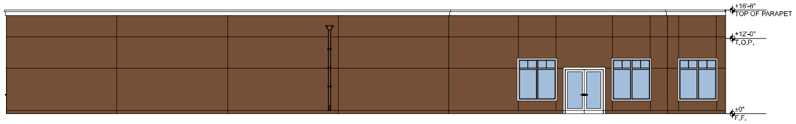

2 EAST COURTYARD ELEVATION - AREA B-2
SCALE: 1/8" = 1'-0"

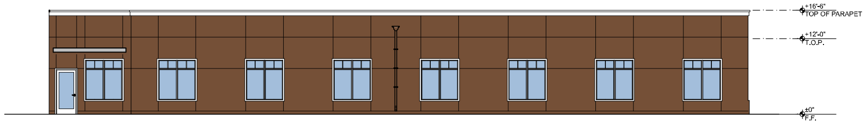

1 WEST COURTYARD ELEVATION - AREA C-2
SCALE: 1/8" = 1'-0"

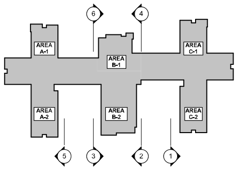

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Iris Avenue & Oliver Street, Moreno Valley, CA 92555

EXTERIOR ELEVATIONS
A4

PROJECT NO: 16027.00
PLOT DATE: 1/17/2017

MS Moreno Valley
Transitional Care Facility

PEN16-0153

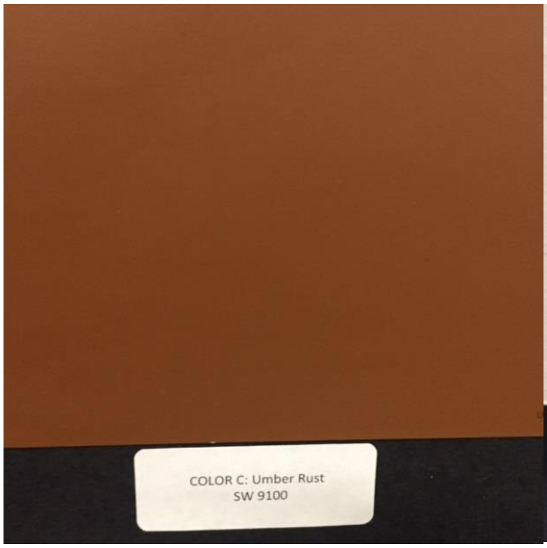

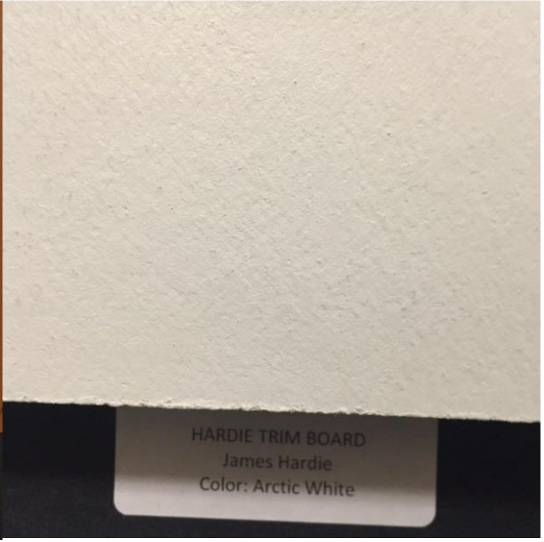

Attachment: Color & Materials Board (2672 : PEN16-0153 Conditional Use Permit for Mainstreet Transitional Care Facility)

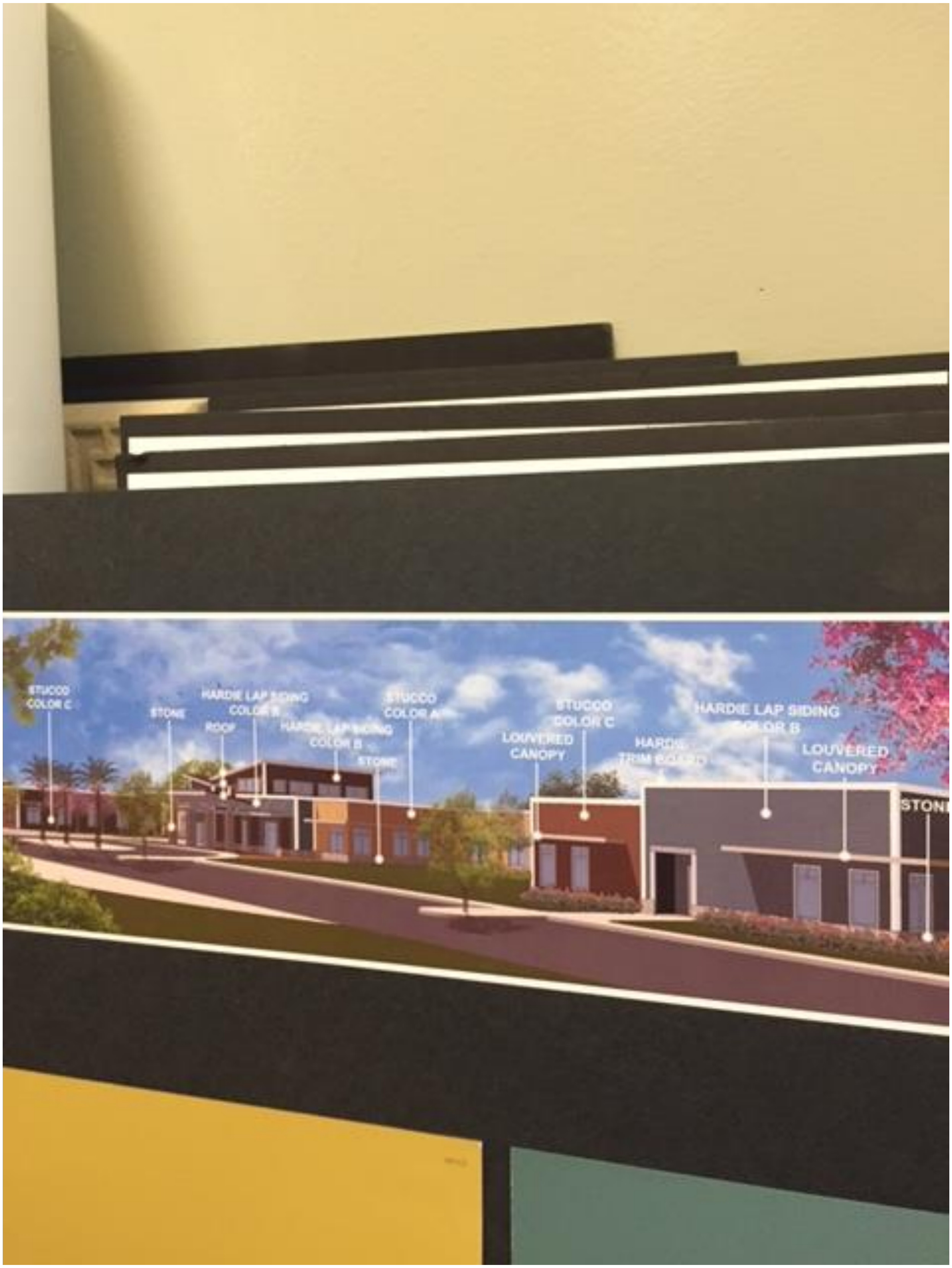

Attachment: Color & Materials Board (2672 : PEN16-0153 Conditional Use Permit for Mainstreet Transitional Care Facility)

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
Conditional Use Permit (PEN16-0153)

EFFECTIVE DATE:
EXPIRATION DATE: 6/2/2020

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

1. All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

2. Any signs indicated on the submitted plans are not included with this approval. Any signs, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

3. The site shall be developed in accordance with the approved plans on file in the Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

4. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

5. In the event the use hereby permitted ceases operation for a period of one (1) year or more, or as defined in the current Municipal Code, this permit may be revoked in accordance with provisions of the Municipal Code. (applicable to CUP's)

6. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code. (MC 9.02.230)

7. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

8. ANY expansion to this use or exterior alterations will require the submittal of a separate application(s) and shall be reviewed and approved under separate permit(s). (MC 9.02.080)

Special Conditions

9. BR1. A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 14 days prior to site disturbance. If burrowing owls are detected onsite, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the RCA and wildlife agencies.

10. BR2. As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

11. CR-1: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

    a. Project grading and development scheduling;

    b. The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.

c. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the applicant;

d. The protocols and stipulations that the Developer, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

12. CR-2: Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure CR-3 shall apply.

13. CR-3: A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until a treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).

Attachment: Exhibit A to Resolution 2017-29 (2672 : PEN16-0153 Conditional Use Permit for Mainstreet Transitional Care Facility)

14. CR-4: In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

    a. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

        i. Accommodate the process for Preservation-In-Place /Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure CR-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

        ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

        iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.

15. CR-5: Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

16. CR-6: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has

been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.

17. CR-7: The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

18. CR-8: Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.

19. CR-9: A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.

20. CR-10: If potential historic or cultural resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, or prehistoric resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

21. N-1: Construction activities shall be operated in a manner that limits noise impacts on surrounding uses (General Plan Policy 6.5.2). In order to limit noise

Attachment: Exhibit A to Resolution 2017-29 (2672 : PEN16-0153 Conditional Use Permit for Mainstreet Transitional Care Facility)

impacts on surrounding property, the construction contractor will ensure the following:

a. All construction equipment powered by gasoline or diesel engines will be required to have sound-control devices at least as effective as those originally provided by the manufacturer; no equipment will be permitted to have an unmuffled exhaust.

b. Mobile noise-generating equipment and machinery will be shut off when not in use;

c. Construction vehicles assessing the site will be required to use the shortest possible route to and from local freeways, provided the routes do not expose additional receptors to noise.

22. N-2: The staging of construction equipment and the construction trailer shall be placed as far as possible from the existing single-family residences located to the east and the school to the northeast.

23. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security shall remain in place until the project is completed or the above conditions no longer exist. (Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard).

Prior to Building Permit

24. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. All equipment shall be completely screened so as not to be visible from public view, and the screening shall be an integral part of the building.

25. Prior to or at building plan check submittal, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval prior to the issuance of a building permit. The lighting plan shall be generated on the plot plan and shall be integrated with the final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

26. Prior to or at building plan check submittal, the elevation plans shall include decorative lighting sconces on all sides of the buildings of the complex facing a parking lot, courtyard or plaza, or public right of way or open space to provide up-lighting and shadowing on the structures. Include drawings of the sconce details for each building within the elevation plans, approved by the Planning Division prior to building permit issuance.

27. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

28. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP)

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mitigation fees. (Ord)

29. Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30)

30. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Requirements and shall include:

    A. A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.

    B. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle.

    C. Diamond planters shall be provided every 3 parking stalls.

    D. Drought tolerant landscape shall be used. Sod shall be limited to gathering areas. (or No sod shall be installed) E. Street trees shall be provided every 40 feet on center in the right of way.

    F. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.

    G. Enhanced landscaping shall be provided at all driveway entries and street corner locations The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.

    H. Landscaping on three sides of any trash enclosure.

    I. All site perimeter and parking lot landscape and irrigation shall be installed prior to the release of certificate of any occupancy permits for the site or pad in question (master plot plan). [only include items above that apply to the project]

31. Prior to the issuance of building permits, covered trash enclosure(s) shall be included in the building plans or the Building submittal of the Fence and Wall plans. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides. (GP Objective 43.6, DG)

32. Prior to the issuance of building permits, the developer shall provide documentation that contact was made to the U.S. Postal Service to determine the appropriate type and location of mailboxes.

33. If potential historic, archaeological, Native American cultural resources or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61)) shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

    If human remains are discovered during grading and other construction excavation, no further disturbance shall occur until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 5-days of the published finding to be given a reasonable opportunity to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

34. Prior to issuance of grading permits, the location of the trash enclosure shall be included on the plans.

35. Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

    a. The name (if applicable) and address of the development.
    b. The developer's name, address, and a 24-hour emergency telephone number.

36. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project.

37. Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

38. Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

39. Prior to issuance of any grading permits, mitigation measures contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant within 30 days of project approval. No City permit or approval shall be issued until such fee is paid. (CEQA)

40. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approved by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect the facility with open spaces and/or recreational uses and/or parking and the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

<u>Prior to Building Final or Occupancy</u>

41. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

42. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

<u>Building Division</u>

43. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2,

Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2016 CBC.

44. The proposed project will be subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

45. The proposed development shall be subject to the payment of required development fees as required by the City's current Fee Ordinance at the time a building application is submitted or prior to the issuance of permits as determined by the City.

46. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

47. Any construction within the city shall only be completed between the hour of seven a.m. to seven p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on Saturday, unless written approval is obtained from the city building official or city engineer (Municipal Code Section 8.14.040.E).

48. Contact the Building Safety Division for permit application submittal requirements.

49. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building Safety Division at 951.413.3350.

50. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

51. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2016 California Plumbing Code Table 4-1.

FIRE DEPARTMENT

Fire Prevention Bureau

52. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from

exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

53. Prior to issuance of Certificate of Occupancy or Building Final, all commercial buildings shall display street numbers in a prominent location on the street side and rear access locations. The numerals shall be a minimum of twelve inches in height. (CFC 505.1, MVMC 8.36.060[I])

54. Prior to issuance of building permits, plans specifying the required materials for building construction shall be submitted to the Fire Prevention Bureau for approval.

55. Fire Department access driveways over 150 feet in length shall have a turn-around as determined by the Fire Prevention Bureau capable of accommodating fire apparatus. (CFC 503 and MVMC 8.36.060, CFC 501.4)

56. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall: a. Be signed by a registered civil engineer or a certified fire protection engineer; b. Contain a Fire Prevention Bureau approval signature block; and c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

57. Prior to building construction, dead end roadways and streets which have not been completed shall have a turnaround capable of accommodating fire apparatus. (CFC 503.2.5)

58. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

59. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering said waterflow for 2 hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)

60. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

61. If construction is phased, each phase shall provide an approved emergency vehicular access way for fire protection prior to any building construction. (CFC 501.4)

FINANCIAL & MANAGEMENT SERVICES DEPARTMENT

Moreno Valley Utility

62. This project is subject to a Reimbursement Agreement. The Developer is responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project. Payment shall be required prior to issuance of building permits.

63. Existing Moreno Valley Utility electrical infrastructure shall be preserved in place. The developer will be responsible, at developer's expense, for any and all costs associated with the relocation of any of Moreno Valley Utility's underground electrical distribution facilities, as determined by Moreno Valley Utility, which may be in conflict with any developer planned construction on the project site.

64. This project requires the installation of electric distribution facilities. The developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer shall execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and/or concurrent with trenching operations and other improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

    The Developer shall coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City all utility infrastructure including but not limited to, conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining, abutting, or benefiting projects as determined by Moreno Valley Utility – collectively referred to as "utility system", to and through the development, along with any appurtenant real property easements, as determined by the City Engineer necessary for the distribution and/or delivery of any and all "utility services" to and within the project. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval.

The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system.

65. This project requires the installation of electric distribution facilities. A non-exclusive easement shall be provided to Moreno Valley Utility and shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

PUBLIC WORKS DEPARTMENT

Land Development

66. The tentative map, master plot plan, plot plan, or conditional use permit shall correctly show all existing easements, traveled ways, and drainage courses. Any omission may require the map or plans associated with this application to be resubmitted for further consideration. [MC 9.14.040(A)]

67. The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]

68. In the event right-of-way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right-of-way in accordance with the Land Development Division's administrative policy. If unsuccessful, the Developer shall enter into an agreement with the City to acquire the necessary right-of-way or offsite easements and complete the improvements at such time the City acquires the right-of-way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right-of-way or easement acquisition. [GC 66462.5]

69. Prior to any plan approval, a final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved

drainage study shall be submitted to the Land Development Division.

70. The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:
(a) Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.
(b) Observance of working hours as stipulated on permits issued by the Land Development Division.
(c) The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.
(d) All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations.
Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

71. The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on mylar sheets and included in the Grading and Street Improvement plans.

72. The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]

<u>Prior to Grading Plan Approval</u>

73. For projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB) which shall be noted on the grading plans.

74. A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request.

75. The developer shall pay all remaining plan check fees.

76. The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

77. Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

78. The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

    a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

    b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

    c. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

    d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

79. Two (2) copies of the final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

    a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

    b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

    c. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

    d. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

    A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

80. Resolution of all drainage issues shall be as approved by the City Engineer.

Prior to Grading Permit

81. The developer shall pay all applicable inspection fees.

82. Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

83. Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

84. A digital (pdf) copy of all approved grading plans shall be submitted to the Land Development Division.

85. A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

Prior to Improvement Plan Approval

86. For non-subdivision projects, all street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

87. The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

88. Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

89. The developer shall pothole to determine the exact location and elevation of existing underground utilities and incorporate the results into the design of the plans. The developer shall coordinate with all affected utility companies and bear all costs of

utility relocations.

90. The plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved by the City Engineer.

91. The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

Prior to Building Permit

92. Certification to the line, grade, flow test and system invert elevations for the water quality control BMPs shall be submitted for review and approved by the City Engineer (excluding models homes).

93. For non-subdivision projects, all street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

94. For Commercial/Industrial projects, the owner may have to secure coverage under the State's General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

95. An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of "blue-top" markers installed by a registered land surveyor or licensed civil engineer.

96. The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawing if necessary.

f. Provide City with updated Engineer's Line and Grade Certification.
g. Obtain approval and complete installation of the irrigation and landscaping.

97. The applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

a. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP).

b. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted for review and approved by the City Engineer.

98. For commercial, industrial and multi-family projects, a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" can be obtained by contacting the Land Development Division.

99. For non-subdivision projects, in compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System (NPDES) as mandated by the Federal Clean Water Act, this project is subject to the following requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]

100. The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

101. All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

102. All outstanding fees shall be paid.

103. Prior to occupancy, as-built precise grading plans shall be submitted for review and approved. A digital copy (PDF) of the approved as-built plans shall be submitted once plans are approved.

104. Prior to issuance of a building permit, a 2-foot pedestrian easement at the back of sidewalk along Oliver Street shall be submitted for review, approval and recordation.

105. LD43. Prior to rough grading plan approval, the Applicant shall prepare and submit for approval a final, project-specific water quality management plan (F-WQMP). The F-WQMP shall be consistent with the approved P-WQMP, as well as in full conformance with the document; "Water Quality Management Plan - A Guidance Document for the Santa Ana Region of Riverside County" dated October 22, 2012. The F-WQMP shall be submitted and approved prior to application for and issuance of grading permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs, Treatment Control BMPs, Operation and Maintenance requirements for BMPs and sources of funding for BMP implementation.
(a) The Applicant has proposed to incorporate the use of one (1) bio-retention basin. Final design and sizing details of all BMPs must be provided in the first submittal of the F-WQMP. The Applicant acknowledges that more area than currently shown on the plans may be required to treat site runoff as required by the WQMP guidance document.
(b) The Applicant shall substantiate the applicable Hydrologic Condition of Concerns (HCOC) in Section F of the F-WQMP. The HCOC designates that the project will be exempt from mitigation requirements based on exemption 3.
(c) All proposed LID BMP's shall be designed in accordance with the RCFC&WCD's Design Handbook for Low Impact Development Best Management Practices, dated September 2011.
(d) The proposed LID BMP's as identified in the project-specific P-WQMP shall be incorporated into the Final WQMP.
(e) The NPDES notes per City Standard Drawing No. MVFE-350-0 shall be included in the grading plans.
(f) Post-construction treatment control BMPs, once placed into operation for post-construction water quality control, shall not be used to treat runoff from construction sites or unstabilized areas of the site.
(g) Prior to precise grading plan approval, the grading plan shall show any proposed trash enclosure to include a cover (roof) and sufficient size for dual bin;

one bin for trash and one bin for recyclables.

106. Prior to issuance of a grading permit, rough grading plans shall be submitted for review and approved.

107. Prior to any plan approval, an ingress and egress easement between Parcel 5 of Parcel Map 33361 and the Kaiser Hospital property (APN: 486-310-033) shall be submitted to the City for review and approval.

108. Prior to precise grading plan approval, the grading plans shall clearly show that the parking lot conforms to City standards. The parking lot shall be 5% maximum, 1% minimum, 2% maximum at or near any disabled parking stall and travel way. Ramps, curb openings and travel paths shall all conform to current ADA standards as outlined in Department of Justice's "ADA Standards for Accessible Design", Excerpt from 28 CFR Part 36. (www.usdoj.gov) and as approved by the City's Building and Safety Division.

109. The following project engineering design plans (24"x36" sheet size) shall be submitted for review and approval as well as additional plans and reports deemed necessary by the City during the plan review process:
    a. Rough Grading Plan
    b. Precise Grading Plan
    c. Final Drainage Study

110. Prior to issuance of a building permit, a 4-foot minimum pedestrian right-of-way dedication behind the proposed driveway approach on Oliver Street shall be submitted for review, approval and recordation. The driveway approach shall be constructed per City Standard MVSI-112C-0.

Special Districts Division

111. This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in

compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

112. This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

113. This project has been identified to potentially be included in the formation of a Map Act Area of Benefit Special District for the construction of major thoroughfares and/or freeway improvements. The property owner(s) shall participate in such District and pay any special tax, assessment, or fee levied upon the project property for such District. At the time of the public hearing to consider formation of the district, the property owner(s) will not protest the formation, but will retain the right to object any eventual assessment that is not equitable should the financial burden of the assessment not be reasonably proportionate to the benefit the affected property obtains from the improvements to be installed. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting an application for the first building permit to determine whether the development will be subjected to this condition. If subject to the condition, the special election requires a 90 day process in compliance with the provisions of Article 13C of the California Constitution. (Street & Highway Code, GP Objective 2.14.2, MC 9.14.100).

114. Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer's successors in interest, at no cost to the City of Moreno Valley.

115. The ongoing maintenance of any landscaping required to be installed behind the curb shall be the responsibility of the property owner.

116. The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services), Zone C (Arterial Street Lighting), and Landscape Maintenance District (LMD) 2014-02 Zone 04 (Moreno Valley Ranch - East). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C and an annual assessment for LMD 2014-02 Zone 04 for operations and capital improvements.

<u>Transportation Engineering Division</u>

117. The site driveway shall conform to the City of Moreno Valley Standard No. MVSI-112C-0 for commercial driveway approaches.

118. All proposed on-site traffic signing and striping should be accordance with the latest California Manual on Uniform Traffic Control Devices (CAMUTCD).

119. Sight distance at the proposed roadways and driveways shall conform to City of Moreno Valley Standard No. MVSI-164A,B,C-0 at the time of preparation of final grading, landscape, and street improvement plans.

120. Oliver Street is classified as a Minor Arterial (88'RW/64'CC) per City Standard Plan No. MVSI-105A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

121. Prior to the commencement of construction activity, construction traffic control plans prepared by a Registered Civil or Traffic engineer may be required to be submitted to the City for approval.

122. Prior to issuance of a Building Final or Certificate of Occupancy, all approved signing and striping shall be installed per current City Standards

PLANNING COMMISSION

STAFF REPORT

Meeting Date: June 22, 2017

MORENO VALLEY LOGISTICS CENTER: THE APPLICANT IS SEEKING APPROVAL OF A SPECIFIC PLAN AMENDMENT TO REDUCE REQUIRED BUFFERING AND LANDSCAPE REQUIREMENTS; AND APPROVAL OF A TENTATIVE PARCEL MAP AND FOUR PLOT PLANS FOR DEVELOPMENT OF 1,736,180 SQUARE FEET OF WAREHOUSE FLOOR SPACE CONFIGURED IN FOUR SEPARATE BUILDINGS ON PROPERTY MEASURING A TOTAL OF 89.4 ACRES

Cases: Specific Plan Amendment PEN16-0001 (P15-036)
Tentative Parcel Map 36150 PEN16-0007 (PA15-0018)
Environmental Impact Report PEN16-0002 (P15-037)
Plot Plans PEN16-0003, -04, -05, -06 (PA15-0014-0018)

Applicant: Prologis

Owner: Moorpark Country Properties

Representative: Scott Mulkay

Location: Krameria Avenue south to Cardinal Avenue between Heacock Street and Indian Street

Case Planner: Julia Descoteaux

Council District: 4

SUMMARY

The applicant, Prologis, is requesting approval of multiple applications for a proposed industrial project, Moreno Valley Logistics Center, to be located in the south Industrial Specific Plan Area. The project application include: 1) Specific Plan Amendment to reduce land use buffering and landscape requirements along Indian Street; 2) Tentative

Parcel Map (TPM) 36150 to consolidate three parcels into two parcels, and 3) Four separate Plot Plans for a four-building warehouse distribution center with a combined total of 1,736,180 square feet of floor space (individual buildings range in size from 97,222 square feet to 1,351,763 square feet). The project site area is 89.4 acres, located between Indian Street and Heacock Street, south of Krameria Avenue and extending to the Perris Valley Storm Drain. The project site is currently vacant.

PROJECT DESCRIPTION

Project

The proposed project applications include a Specific Plan Amendment PEN16-0001 (P15-036), Tentative Parcel Map 36150 PEN16-0007 (PA15-0018), Plot Plan PEN16-0003 (PA15-0014), Plot Plan PEN16-0004 (PA15-0015), Plot Plan PEN16-0005 (PA15-0016), and Plot Plan PEN16-0006 (PA15-0017) all intended for the development of a four building industrial warehousing campus titled the Moreno Valley Logistics Center. The project site is an 89.4 acre vacant site located between Indian Street and Heacock Street, south of Krameria Avenue and extending to the Perris Valley Storm Drain. The buildings proposed will range from 97,222 square feet to approximately 1,351,763 square feet.

PEN16-0001 (P15-036) Specific Plan Amendment

The Moreno Valley Industrial Area Plan (Specific Plan 208) was adopted in 1989 providing an area (1,540 acres) for industrial development in the southwestern portion of Moreno Valley. The Specific Plan sets forth development regulations with necessary flexibility to accommodate industrial land use interests and economic development opportunities.

The requested amendment to the Moreno Valley Industrial Area Plan (SP208) relates to the residential buffer and landscape requirements along Indian Street between Krameria Avenue and the Perris Valley Storm Drain Channel. The proposal is for the standards in that area to be made consistent with the standard adopted in a prior 2008 Specific Plan Amendment for the portion of Indian Street from Iris Avenue to Krameria Avenue. The prior Amendment reduced the buffer requirement along Indian Street and increased the required landscape area from 15 feet to 50 feet. The increase from 15 feet to a 50 foot buffer was designed to provide enhanced landscaping and water quality features along the frontage of the project site for visual screening and noise attenuation. The prior amendment has proven to be an acceptable change as demonstrated by the existing Proctor & Gamble building that was subsequently built on the site with Indian Street frontage. The proposed amendment would modify the Industrial Area Plan standards adopted in 2008 to extend the buffer requirements further along Indian Street between Krameria Avenue and the Perris Valley Storm Drain Channel and would enable a future consistent aesthetic between the existing Proctor & Gamble development and the proposed Prologis campus.

The Moreno Valley Industrial Area Plan (SP208), as amended in 2008, currently reads as follows:

“This criteria is intended to provide a buffer between residential districts within the Area Plan without affecting the integrity of lands available for industrial uses. Where parcels exceed 250 feet in depth from a major arterial, permitted uses may extend beyond this distance so as not to affect the integrity of industrial uses, if the development proposal is part of an integrated industrial or business park, as determined by the Community Development Director. The residential buffer is measured from the centerline of the street. In addition, the City will allow reduction of the 250’ buffer along Indian Street from Iris Avenue to Krameria Avenue to a minimum of 100’ provided it is maintained as a linear landscape feature accessible to the adjacent community. Minor encroachment within the 50’ enhanced landscaped buffer is acceptable to provide for screen wall articulation and water quality facilities/features as approved by the City of Moreno Valley. Any reduction shall be dependent on air quality and noise analysis showing no significant adverse impacts on adjacent residentially zoned areas.”
(Moreno Valley Industrial Plan Area, Section III, C1)

The applicant is requesting a Specific Plan Amendment to the Moreno Valley Industrial Area Plan (SP208) modifying the existing language in the plan to read as follows:

“This criteria is intended to provide a buffer between residential districts within the Area Plan without affecting the integrity of lands available for industrial uses. Where parcels exceed 250 feet in depth from a major arterial, permitted uses may extend beyond this distance so as not to affect the integrity of industrial uses, if the development proposal is part of an integrated industrial or business park, as determined by the Community Development Director. The residential buffer is measured from the centerline of the street. In addition, the City will allow reduction of the 250’ buffer along Indian Street from Iris Avenue to the Perris Valley Storm Drain Channel to a minimum of 100’ provided it is maintained as a linear landscape feature accessible to the adjacent community. Minor encroachment within the 50’ enhanced landscaped buffer is acceptable to provide for screen wall articulation and water quality facilities/features as approved by the City of Moreno Valley. Any reduction shall be dependent on air quality and noise analysis showing no significant adverse impacts on adjacent residentially zoned areas.”

Along with this request, the developer has provided a conceptual landscape plan depicting the enhanced landscaping that will be included in this project. The site will include a fourteen foot high screen wall located fifty-seven feet from the right of way, 100 feet from the centerline of Indian Street. The sidewalk will be separated from the curb providing for a landscaped area with street trees placed 40 foot on center between the curb and the sidewalk. Enhanced landscaping, including an attractive mix of drought tolerant trees and shrubs will be required in the buffer area between the sidewalk and the screen wall. The required trees within the buffer area will include one tree every 30 feet on center for the linear length of the site and one for every 30 feet of linear building length.

PEN16-0007 (PA15-0018) Tentative Parcel Map

Tentative Parcel Map (TPN) 36150 will consolidate three (3) parcels into two (2) parcels for a total of approximately 74 gross acres. The proposed Parcel 1 will be 62.6 net acres with Parcel 2 at 6.9 acres. The proposed Project would provide frontage improvements to roadways abutting the subject property, including Indian Street, Krameria Avenue, Heacock Street, and Cardinal Avenue as detailed in the City of Moreno Valley's Conditions of Approval for the Project. In addition, the Project would construct the on-site cul-de-sac segment of Cosmos Street. All improvements are required to be consistent with City of Moreno Valley roadway standards.

The two remaining parcels are included in the project but will be retained as separate parcels.

The parcel map would implement the following dedications and vacations:

A. Dedicate land as public right-of-way to the City of Moreno Valley for the construction/widening of Krameria Avenue (0.02-acre), Indian Street (1.34 acres), and Cosmos Street (1.23 acres).
B. Vacate roadway right-of-way that was previously offered to the City of Moreno Valley but never constructed. The right-of-way to be vacated is also known by the term "paper street" because the alignment exists only on maps, with no physical attributes constructed on the property. The "paper street" to be vacated by TPM No. 36150 includes an approximate 101 square foot area of unbuilt Krameria Avenue.
C. Dedicate approximately 0.01-acre to the City as right-of-way for Cardinal Avenue and vacate an approximate 0.46-acre "paper street" for Cardinal Avenue via subsequent administrative action(s).

PEN16-0003-PEN16-0006 (PA15-0014-PA15-0017), Plot Plans

The proposed Plot Plans for all buildings include detailed site plans providing the building location, ingress/egress to the site, landscaping and elevation plans. All buildings will be concrete tilt-up construction and the sites include fourteen foot high screen walls where necessary to screen truck storage areas.

All buildings will be designed with consistent architectural elements, materials, and colors to include vertical and horizontal scoring with varied roof lines at various locations. Colors for the project include whites and greys to dark grey colors for accents. Green reflective glazing and metal details will be used as accents on the building, predominately at the corners where office areas are located. Screen walls will be designed with the same details and colors as the building for consistency.

The proposed four buildings range in size from approximately 97,222 square feet to approximately 1,351,763 square feet, with a combined total of 1,736,180 square feet of floor area on the 3,695,546 square foot net site area for an aggregate floor to area ratio

(FAR) of 0.47. The Project is proposed to accommodate a maximum of 174,000 square feet of cold storage (i.e., refrigeration) to provide flexibility for future tenants (to be determined) should they require cold storage. At the time the Final EIR was prepared, the future occupants of the proposed buildings were unknown.

Building 1 is proposed/designed to accommodate a high cube warehouse or e-commerce occupant. The smaller buildings are proposed/designed to accommodate industrial, warehousing, manufacturing, assembly, e-commerce, and/or similar use tenants. The Project includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place on Parcel 2. In the event the alternate site plan is implemented, the truck trailer parking lot would be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4. Under the alternate site plan, the total building area on the Project site would be reduced to 1,613,905 square feet (for an overall FAR of 0.44).

Solid concrete walls up to 14-feet in height would be installed at various locations throughout the project site to screen truck parking and loading dock areas from public view. The concrete screen walls would be constructed with a finish and color that complements the color palette for other structures on the site. Access points into the loading dock and truck parking areas would include 8-foot tall tubular steel gates, equipped with Knox padlocks for emergency vehicle access. Landscaping is estimated to cover approximately 11-percent of the property (approximately 10.0 acres).

Building 1

Building 1 is proposed with a maximum of 1,351,763 square feet of total floor space, which includes 1,321,763 of warehouse area and 30,000 square feet of office space. The building will be located along Indian Street from Krameria Avenue to the Perris Valley Storm Drain with one ingress/egress driveway on the southern portion of the site. The street frontage along Indian Street will include a fourteen foot high screen wall, dense landscaping adjacent to the wall and a water quality feature at the far southeast corner of the site.

There are two auto parking areas for this building, one on the north with access from Krameria Avenue and one in the southeast corner of the site with access from Indian Street at the far south end of the project. Based on the Municipal Code for standard auto parking in the industrial area, 471 spaces are required and provided.

Three driveways would be provided along Krameria Avenue (the center driveway would be restricted to automobiles only), one driveway would be provided at Indian Street, and one driveway would be provided at Cosmos Street. Additionally the eastern and western truck driveways along Krameria Avenue are designed to restrict trucks from heading eastbound on Krameria Avenue.

The truck dock area proposes 200 dock doors which require a minimum of one truck parking space per dock door. The project proposes 230 truck parking spaces.

Building 2

Building 2, located on the south side of Krameria Avenue, is designed with a maximum of 122,275 square feet of total floor space which includes 112,275 of warehouse area and 10,000 square feet of office space. Cosmos Street will be improved from Krameria Avenue south providing access to both the newly created parcels and also an existing parcel which is not a part of this project.

All vehicle ingress/egress for Building 2 will be from the newly constructed cul-de-sac on Cosmos Street. Standard auto parking is included along the north and east side of the project and includes the required 89 spaces.

Truck access from Cosmos Street will extend on the southern portion of the site around to the west truck loading area with 13 dock doors and 28 trailer stalls.

Plot Plan PEN16-0004 (PA15-0015) includes an alternate site plan which would omit Building 2 and construct a 166-space truck trailer parking lot in its place.

Building 3

Building 3 PEN16-0005 (PA15-0016) is proposed with a maximum of 97,222 square feet of total floor space which includes 87,222 square feet warehouse and 10,000 square feet of office space. It is located south of the Perris Valley Storm Drain Channel on a separate parcel.

Both auto and truck vehicles for Building 3 will take access from Cardinal Way. The site design includes 17 dock doors, 82 auto parking spaces and 39 truck stalls.

Building 4

Building 4 PEN16-0006 (PA15-0017) is proposed with a maximum of 164,920 square feet of total floor space which includes 154,920 of warehouse area, 10,000 square feet office area, and 25 dock doors. It is located west of the Perris Valley Storm Drain Channel on a separate parcel.

Building 4 includes two ingress/egress locations along Heacock Street. Both allow for autos and truck traffic with 99 auto stalls and 25 trailer parking spaces.

Site and Surrounding Area

The vacant site is relatively flat land that slopes from north to south. The area within immediate proximity to the subject site is zoned predominately for industrial development. All surrounding land uses to the north, south, and west are industrial within the Moreno Valley Industrial Area Plan (SP208I). The property to the immediate east is developed with single family houses that were constructed in 1987 to 2006. The zoning of these properties is R5 (maximum of 5 residential dwelling units per acre).

The project is directly south of another industrial complex (Iris Avenue/Indian Street) project which included the completion of Cosmos Street providing truck access from Indian and Krameria Streets to Heacock Street.

Due to the proximity to March Air Reserve Base, the project was presented to the County of Riverside Airport Land Use Commission on October 8, 2015 and was found to be consistent with the 2014 Riverside County Airport Land Use Plan subject to conditions of approval. These conditions of approval have been incorporated into the City's Conditions of Approval for this project.

Overall, the proposed multi-building project is compatible with the Moreno Valley Industrial Area Specific Plan 208 and the City's General Plan for industrial development.

REVIEW PROCESS

Throughout the review process, there have been several minor modifications to the submitted plans which altered the truck access to the site from Krameria Street for Building 1. The revised design directs traffic to Cosmos Street and further north connecting to Heacock Street via Krameria Avenue (Krameria Avenue is offset at Cosmos Street) to the north with minor modifications to the parking areas to accommodate the truck traffic design. All project related modifications have been completed to the satisfaction of the City and the Applicant.

ENVIRONMENTAL

Initial Study/Notice of Preparation

An Initial Study was prepared for the project after all discretionary applications were deemed complete. The Initial Study prepared supports the finding that an Environmental Impact Report is the appropriate environmental document for this project. The Initial Study indicated that the EIR should focus on eleven (11) environmental subject areas including Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise and Transportation/Traffic.

A Notice of Preparation for the EIR was prepared with the public comment period beginning on June 17, 2015, ending on July 17, 2015 with a Scoping Meeting held on July 6, 2015.

Draft Environmental Impact Report

The draft environmental documents were prepared by an outside environmental consultant, T&B Planning, Inc., and submitted to the City for review.

A peer consultant, Placeworks, was hired under contract to the City to review T&B Planning, Inc.'s draft environmental documents for compliance with the California Environmental Quality Act (CEQA) Guidelines. In addition, staff completed an independent review of all environmental documents to ensure that the documents reflect the independent judgment and analysis of the City as the CEQA Lead Agency. Upon completion of the Draft EIR, the document was circulated for a 45-day public review period, starting on July 27, 2016 and ending on September 6, 2016. The Draft EIR was sent to all required State and local agencies and interested parties. Eight comment letters were received during the 45-day review period. The comment letters are addressed in the Final Environmental Document with detailed responses to each item addressed by the parties.

Final Environmental Impact Report

Responses to the eight comment letters received during the 45 day review period are included in the Response to Comments document and Final EIR. The Response to Comments and related documents were mailed to all interested parties and responsible agencies on February 9, 2017, to allow for review prior to the Planning Commission hearing. The Final EIR was provided for public review at City Hall, the City Library and posted on the City's website.

Significant and Unavoidable Impacts

The analysis presented in the EIR indicates that the proposed project will have potentially significant impacts, either as a direct result of the proposed project or cumulatively with other proposed projects in the environmental areas of aesthetics (lighting), air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials (airport compatibility), construction noise, transportation/traffic and hydrology and water. The EIR includes proposed mitigation measures to reduce or eliminate potentially significant impacts. Even with proposed mitigation, a number of potential impacts cannot be reduced to a less than significant level. As specifically identified in section 5.0 of the EIR document, impacts that are concluded to be significant and unavoidable include air quality, greenhouse gas emissions, Land Use/Planning, and traffic/transportation.

In cases where all impacts cannot be reduced to less than significant levels, CEQA allows a decision making body to consider adoption of the Facts, Findings and Statement of Overriding Considerations and Findings (SOC). CEQA requires the decision making agency to balance the economic, legal, social, technological or other benefits of a proposed project against its unavoidable environmental impacts when determining whether to approve the proposed project. This would include project benefits such as the creation of jobs or other desired beneficial project features versus the project impacts that cannot be feasibly mitigated to less than significant levels. If the decision making body determines that the benefits of a proposed project outweigh the unavoidable adverse environmental effects, it may adopt a SOC and approve the project. The SOC prepared for this project provides documentation of economic benefits that this project would provide including annual taxes, job creation both during construction and after, and roadway infrastructure.

As described in the Economic and Fiscal Impact Report prepared by Andrew Chang & Company, the project will have several economic benefits. The project will be completed with an estimated construction cost of $50.6 – 54.6 million which will include an additional $6.8- $7.5 million in tenant improvements during the first three years of operation. The economic and fiscal impacts on the City of Moreno Valley in the form of net fiscal revenue will be up to $960,000 annually with job creation of 340-620 new jobs specific to the City.

Mitigation Measures

The Final EIR recommends 66 mitigation measures to reduce project specific and cumulative impacts related to aesthetics (lighting), air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials (airport safety), construction noise, transportation/traffic and hydrology and water quality. Compliance with these mitigation measures will be accomplished through administrative controls over project planning and implementation. Monitoring would be accomplished under Reporting Procedures through verification and certification by City staff.

Approval and Certification

The Planning Commission will take public testimony on the proposed project and Final EIR with a recommendation provided to the City Council for their final review and approval. Based on the information provided, staff recommends that the Planning Commission recommend that the City Council adopt the Environmental Impact Report, adopt the Mitigation Monitoring and Reporting Program, adopt the Statement of Overriding Considerations, approve the Specific Plan Amendment, and approve the four separate Plot Plans and the Tentative Parcel Map 36150 with Conditions of Approval, for the approximate 1.7 million square foot Moreno Valley Logistics Center project.

NOTIFICATION

Public notice was sent to all property owners of record within 300’ of the project on June 8, 2017. The public hearing notice for this project was also posted on the project site in two locations on June 8, 2017 and published in the local newspaper on June 8, 2017. As of the preparation date of this report, staff has not received any comments or questions regarding the project.

REVIEW AGENCY COMMENTS

Staff received the following responses to the Project Review Staff Committee transmittal; which was sent to all potentially affected reviewing agencies.

Agency	Response Date	Comments

Val Verde Unified School District	April 30, 2015	Request notification of traffic flow changes that might affect any Val Verde School. Payment of school fees.
Riverside County Flood Control	April 30, 2015	The project involves a District Master Plan facilities with fees required. The project is within the Sunnymead MDP "D" and Perris Valley Channel – Lateral "A"
Airport Land Use Commission	May 4, 2015	ALUC approval received with Conditions.

STAFF RECOMMENDATION

A. Staff recommends that the Planning Commission **APPROVE** Resolution No. 2017-16 and thereby recommends that the Moreno Valley City Council:

   1. **CERTIFY** that the Final Environmental Impact Report PEN16-0002 (EIR, P15-036) for the Moreno Valley Logistics Center project on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Final EIR and that the Final EIR reflects the City's independent judgment and analysis; and

   2. **ADOPT** the Mitigation Monitoring and Reporting Program for the Final EIR for the proposed Moreno Valley Logistics Center project, attached hereto as Exhibit A; and

   3. **ADOPT** the Facts, Findings and Statement of Overriding Considerations regarding the Final EIR for the Moreno Valley Logistics Center project, attached hereto as Exhibit B; and.

B. Staff recommends that the Planning Commission **APPROVE** Resolutions No. 2017-18, 2017-19, and 2017-20 and thereby recommends that the Moreno Valley City Council:

   1. **APPROVE** the Specific Plan Amendment to the Moreno Valley Industrial Area Specific Plan 208 (Resolution: 2017-18)
      And

   2. **APPROVE** Plot Plans PEN16-0003 (PA15-0014), PEN16-0004 (PA15-0015), PEN16-0005 (PA15-0016), and PEN16-0006 (PA15-0017), subject to the attached conditions of approval attached as Exhibits A, B, C and D (Resolution: 2017-19)

3. **APPROVE** Tentative Parcel Map 36150, PEN16-0007 (PA15-0018), subject to the attached conditions of approval attached as Exhibit A (Resolution: 2017-20).

Prepared by:	Approved by:
Julia Descoteaux	Allen Brock
Associate Planner	Community Development Director

ATTACHMENTS

1. 2017-16 EIR_Resolution
2. Exhibit A to 2017-16 Finding SOC
3. Exhibit B to 2017-16 Mitigation Measures
4. 2017-18_SPA Resolution_Final
5. 2017-19_Project Plot Plans Resolution_Final
6. Exhibit A to 2017-19 Coa Building 1
7. Exhibit B to 2017-19 Coa Building 2
8. Exhibit C to 2017-19 Coa Building 3
9. Exhibit D to 2017-19 Coa Building 4
10. 2017-20_Map Resolution Final
11. 300ft notice
12. 300 foot radius map
13. Plot Plan 11x17
14. Architectural Plans
15. Engineer Plans
16. TPM 36150
17. Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced
18. A- Initial Study, Notice of Preparation, and NOP Public Comment Letters
19. B1 - Air Quality Impact Analysis
20. B2 - Mobile Source Health Risk Assessment
21. B3 - Supplemental Air Quality Analysis
22. C1 - Biological Technical Report
23. C2 - Jurisdictional Delineation
24. D1 - Phase I Cultural Resources Survey
25. D2 - Paleontological Resource and Monitoring Assessment
26. E - Greenhouse Gas Analysis
27. F - Phase I Environmental Site Assessment
28. G1 - Preliminary Hydrology Calculations
29. G2 - Preliminary Water Quality Management Plan
30. H - Noise Impact Analysis

31. I1 - Traffic Impact Analysis
32. I1(a) -Traffic Impact Analysis Appendix
33. I2 - Supplemental Basic Freeway Segment Analysis (1 of 2)
34. I2 - Supplemental Basic Freeway Segment Analysis (2 of 2)
35. I3 - Construction Traffic Evaluation
36. I4 - Fair Share Calculations
37. J - Water Supply Assessment (1 of 3)
38. J - Water Supply Assessment (2 of 3)
39. J - Water Supply Assessment (3 of 3)
40. K - Energy Analysis Report
41. L - Geotechnical Investigation
42. M - Pesticide Sampling Analysis
43. N - Vapor Migration Analysis
44. O - Fiscal Impact Study

PLANNING COMMISSION RESOLUTION NO. 2017-16

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING THE CITY COUNCIL TO CERTIFY THE FINAL ENVIRONMENTAL IMPACT REPORT (PEN16-0002) AND TO ADOPT THE FACTS, FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS AND TO APPROVE THE MITIGATION MONITORING PROGRAM FOR THE MORENO VALLEY LOGISTICS CENTER PROJECT

WHEREAS, the applicant, Prologis, LLC submitted concurrent applications for the Moreno Valley Logistics Center project including PEN16-0001, PEN16-0002, PEN16-0003, PEN16-0004, PEN16-0005, PEN16-0006, PEN16-0007 and PEN16-0008, for an Environmental Impact Report, Specific Plan Amendment, Tentative Parcel Map 36150 and four Plot Plans for the development of four warehouse buildings with a combined total of 1,736,180 square feet. The above applications shall not be approved unless the Final Environmental Impact Report (EIR) PEN16-0002 is certified and approved; and

WHEREAS, with respect to concurrently filed applications, Section 9.02.030 D of the City Municipal Code establishes that applications which are dependent on approval of other enabling application(s), of which the Specific Plan Amendment serves, the final approval authority for such dependent application(s) shall be vested with the body authorized to approve the enabling application, which in this case is the City Council; and

WHEREAS, the City of Moreno Valley (City) worked with the environmental consultant, T&B Planning, in the preparation of an Initial Study checklist and a Notice of Preparation (NOP). A Notice of Completion and Environmental Document Transmittal form were filed with the State Clearinghouse on June 17, 2015 for the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the project. The public review period of the NOP was June 17, 2015 through July 17, 2015. A public scoping meeting was held in connection with the NOP on July 6, 2015 in the Council Chamber at City Hall; and

WHEREAS, the City worked with the environmental consultant, T&B Planning, in the review of NOP response comments for the preparation of a Draft (EIR) for this project. The Draft EIR was circulated to the public and to responsible agencies for comments for a 45 day period beginning on July 22, 2016 and ending on September 6, 2016 and

WHEREAS, since July 22, 2016, copies of the Draft EIR have been made available to the public at the City's offices, on the City's website and at the City's Public Library; and

WHEREAS, in accordance with Section 15088 of the California Environmental Quality Act (CEQA) Guidelines, the City has prepared responses to comments received during the 45 day comment period on the Draft EIR, and such responses are included as a component of the Final EIR; and

WHEREAS, in accordance with Section 15089(b) of the CEQA Guidelines, on June 8, 2017, the City published a notice in the local newspaper (Press Enterprise) and distributed copies of the Final EIR to the State Clearinghouse, local agencies and other interested parties providing opportunity for their review of the document prior to approval of the project; and

WHEREAS, the Draft and Final EIR concerning the proposed Moreno Valley Logistics Center were prepared in sufficient detail and duly circulated in compliance with CEQA, the State CEQA Guidelines and the City's Rules and Procedures to Implement CEQA; and

WHEREAS, the Final EIR includes an analysis of potential impacts associated with the implementation of the Moreno Valley Logistics Center project, including, but not limited to Traffic and Circulation, Air Quality, Noise, Hydrology and Water Quality, Geology and Soils, Biological Resources, and Cultural Resources; and

WHEREAS, a Mitigation Monitoring Program has been completed to ensure that all of the mitigation measures outlined in the Final EIR will be monitored and implemented through project completion; and

WHEREAS, after careful consideration of those unavoidable environmental impacts of the project which cannot be mitigated to a level below significance (air quality, greenhouse gas, land use/planning and transportation/traffic), it was determined that even after application of feasible mitigation that these impacts would remain unavoidable. The economic, legal, social, technological and other community benefits that are expected to result from development of the project have been determined to outweigh the unavoidable adverse environmental effects, as articulated in the Facts, Findings and Statement of Overriding Considerations prepared for the project, a the Planning Commission recommends to the City Council, as the decision making body for the project,; and

WHEREAS, a Final EIR, (including the Draft EIR, and responses to comments), has been completed and is being recommended for certification, prior to the approval of discretionary permits related to the project; and

WHEREAS, on June 22, 2017**,** the Planning Commission of the City of Moreno Valley (Planning Commission) conducted a public hearing to consider the Final EIR for the proposed project; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, BE IT RESOLVED, it is hereby found, determined and resolved by the Planning Commission of the City of Moreno Valley as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting on June 8, 2017, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby finds as follows:

1. **Independent Judgment and Analysis –** The Final EIR represents the City's independent judgment and analysis.

   FACT: The City acting in its capacity as the Lead Agency for the document has subjected the draft environmental document to independent judgment and analysis, including but not limited to, its project description, objectives, technical studies, exhibits, revisions, response to comments, and recommended mitigation to the lead agency's own review and analysis. The document as completed reflects the independent judgment of the lead agency. Furthermore, City staff has participated in and provided necessary insights and direction at scoping sessions and other pertinent meetings with the public and interested parties throughout the preparation of the document. A public hearing was conducted by the Planning Commission on June 22, 2017 during which opportunity was given to the public and other interested agencies and parties to address the adequacy of the Final EIR. All comments on the Final EIR raised during the public and agency comment period and at the Public Hearing on the project were considered by City staff and the Planning Commission prior to action being taken on the project.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-16, and hereby recommends that the City Council:

1. **CERTIFY** that the Final Environmental Impact Report (EIR, PEN16-0002) for the Moreno Valley Logistics Center project on file with the Community Development Department, incorporated herein by this reference, has been completed in compliance with the California Environmental Quality Act, that the Planning Commission reviewed and considered the information contained in the Final EIR and that the Final EIR reflects the City's independent judgment and analysis; and

2. **ADOPT** the Facts, Findings and Statement of Overriding Considerations regarding the Final EIR for the Moreno Valley Logistics Center project, attached hereto as Exhibit A; and

3. **ADOPT** the Mitigation Monitoring Program for the Final EIR for the proposed Moreno Valley Logistics Center project, attached hereto as Exhibit B.

APPROVED this 22nd day of June, 2017.

Jeffrey Barnes
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

Attachments A and B

Facts, Findings and Statement of Overriding Considerations Regarding the Environmental Effects of the Approval of the Moreno Valley Logistics Center Project
State Clearinghouse No. 2015061040

Specific Plan Amendment (P15-036)
Tentative Parcel Map No. 36150 (PA15-0018)
Plot Plans (PA15-0014, PA15-0015, PA15-0016, PA15-0017)
EIR Case P15-037

I. INTRODUCTION

The City Council of the City of Moreno Valley in approving the Moreno Valley Logistics Center project (the "Project"), makes the Findings described below and adopts the Statement of Overriding Considerations presented at the end of the Findings. The Findings are based upon the entire record before the City Council, as described in Section III below, including the Environmental Impact Report ("EIR") prepared for the Project by the City, acting as lead agency under the California Environmental Quality Act ("CEQA").

II. PROJECT SUMMARY

A. PROJECT DESCRIPTION

Discretionary actions Specific Plan Amendment (P15-036), Tentative Parcel Map No. 36150 (PA15-0018), and four individual Building Plot Plans (PA15-0014, PA15-0015, PA15-0016, PA15-0017) are requested of the City of Moreno Valley to implement the Project. The Project site is 89.4 acres in size and is located in the southern portion of the City of Moreno Valley, within the boundary of the Moreno Valley Industrial Area Plan (MVIAP). The subject property is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street.

The Moreno Valley Industrial Area Plan (MVIAP), which was adopted by the City of Moreno Valley in 1989, includes a 300-foot setback requirement between industrial and residential land uses (refer to MVIAP Section III, C.1). The proposed Specific Plan Amendment (SPA) (P15-036) would amend this setback as it pertains to the Project site. The SPA proposes to amend the Project site's minimum setback distance requirement to the residential zoning located on the opposite side (east side) of Indian Street from 300 feet to 100 feet and to add the requirement to install a minimum 50-foot-wide contiguous enhanced landscaping zone within the proposed 100-foot setback area. The building constructed to the north of the Project site and currently occupied by Proctor & Gamble has a 100-foot separation from residential uses on the east side of Indian Street; the proposed Project is proposing the same distance so that there is a consistent setback along the west side of Indian Street.

Tentative Parcel Map No. 36150 (TPM No. 36150; PA15-0018) proposes to consolidate three (3) parcels comprising an approximately 74.1-gross-acre portion of the Project site into two (2) parcels. Proposed Parcel 1 would contain approximately 62.6 net acres and proposed Parcel 2 would contain approximately 6.9 net acres. In addition, TPM No. 36150 would dedicate land as public right-of-way to the City of Moreno Valley for the construction/widening of Krameria Avenue (0.02-acre), Indian Street (1.34 acres), and Cosmos Street (1.23 acres). In addition, TPM No. 36150 would vacate roadway right-of-way that were previously offered to the City of Moreno Valley but never constructed. The right-of-way to be vacated is also known by the term “paper street” because the alignment exists only on maps, with no physical attributes constructed on the property. The “paper street” to be vacated by TPM No. 36150 includes an approximately 101 s.f. area of unbuilt Krameria Avenue. The Project also would dedicate approximately 0.01-acre to the City as right-of-way for Cardinal Avenue and would vacate an approximately 0.46-acre “paper street” for Cardinal Avenue via subsequent administrative action(s). The proposed Project would provide frontage improvements to roadways abutting the subject property, including Indian Street, Krameria Avenue, Heacock Street, and Cardinal Avenue as detailed in the City of Moreno Valley’s Conditions of Approval for the Project. In addition, the Project would construct the on-site cul-de-sac segment of Cosmos Street. Improvements would be consistent with City of Moreno Valley roadway standards.

Plot Plan (PA15-0014), Plot Plan (PA15-0015), Plot Plan (PA15-0016), and Plot Plan (PA15-0017) provide detailed site plans for proposed Buildings 1, 2, 3, and 4. Each plot plan application includes a site plan, architectural plans, and landscape design. The Project’s proposed buildings would range in size from approximately 97,222 s.f. to approximately 1,351,763 s.f., with a combined total of 1,736,180 s.f. of floor area on a 3,695,546 net site area for an aggregate floor to area ratio (FAR) of 0.47. The Project is proposed to accommodate a maximum of 174,000 s.f. of cold storage (i.e., refrigeration) in the event the Project’s building occupants require cold storage. At the time the Final EIR was prepared, the future occupants of the Project site’s buildings were unknown. The buildings are designed to accommodate a high cube warehouse or e-commerce occupant in proposed Building 1 and industrial, warehousing, manufacturing, assembly, e-commerce, and similar uses in the smaller buildings. The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place on Parcel 2. In the event the alternate site plan is implemented, the truck trailer parking lot would be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4. Under the alternate site plan, the total building area on the Project site would be reduced to 1,613,905 s.f. (for an overall FAR of 0.44).

Building 1 would be constructed with a maximum of 1,351,763 s.f. of total floor space. Building 2 would be constructed with a maximum of 122,275 s.f. of total floor space. Building 3 would be constructed with a maximum of 97,222 s.f. of total floor space. Building 4 would be constructed with a maximum of 164,920 s.f. of total floor space.

Attachment: Exhibit A to 2017-16 Finding SOC (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Plot Plan (PA15-0015) also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. The proposed building exteriors would be constructed to a height of 45-feet above finished grade, with architectural projections up to 52-feet above finished grade. The buildings would be constructed of concrete tilt-up panels and low-reflective, green glass. The interiors of the proposed buildings are designed to provide a main floor, office spaces, and mezzanine. The buildings have the potential to be partitioned for multiple occupant use. The Project's buildings would be designed and constructed to qualify for the "Certified" rating (at a minimum) under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) program.

Solid concrete walls up to 14-feet in height would be installed at various locations throughout the Project site to screen truck parking and loading dock areas from public view. The concrete screen walls would be constructed with a finish and color that complements the color palette for proposed structures on the site. Access points into the loading dock and truck parking areas would include 8-foot tall tubular steel gates, equipped with Knox® padlocks to allow emergency vehicle access. Where fencing is provided to delineate property boundaries, it would consist of 8-foot high tubular steel fencing in areas visible from public viewing areas and 8-foot tall chain link fencing in areas not visible from public viewing areas. Landscaping is estimated to cover approximately 11-percent of the property (approximately 10.0 acres).

Vehicular access to the Project site would be provided by driveways distributed across the property. At Building 1, three driveways would be provided along Krameria Avenue (the center driveway would be restricted to automobiles only), one driveway would be provided at Indian Street, and one driveway would be provided at Cosmos Street. Additionally, the eastern and western truck driveways along Krameria Avenue are designed to restrict trucks from heading eastbound on Krameria Avenue. Building 1 would provide on-site parking lot striping and signage at proposed driveways along Krameria Avenue to direct exiting truck traffic to the west (i.e., toward Heacock Avenue). Building 2 would provide one driveway at Cosmos Street and would utilize a second driveway at the existing Krameria Avenue / Cosmos Street intersection, Building 3 would provide one driveway at Cardinal Avenue, and Building 4 would provide two driveways along Heacock Avenue. All driveways proposed by the Project would be stop-sign controlled. The driveways would provide access to automobile parking areas, loading areas, and truck parking areas for the respective building. Access to loading and truck parking areas located interior to the Project site would be gated. Proposed truck check-in points and driveways are positioned interior to the Project site to create interior queuing areas and minimize the potential trucks accessing the property to queue onto abutting public streets. On all four (4) buildings combined, the Project would provide a total of 255 loading bays (also called "docks") for the shipping and receiving of goods.

B. PROJECT OBJECTIVES

The Project's underlying purpose is to develop the subject property as a productive logistics center. The Project purpose would achieve this goal through the following basic objectives.

A. Implement the Moreno Valley Industrial Area Plan (MVIAP) through the construction and operation of a Class A logistics center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the MVIAP, as amended.

B. To develop and maximize the buildout potential of a vacant or underutilized property in the MVIAP area that has access to available infrastructure.

C. To attract new employment-generating businesses to the MVIAP area thereby providing a more equal jobs-housing balance both in the City of Moreno Valley and in the Riverside County/Inland Empire area and reducing the need for members of the local workforce to commute outside the area for employment.

D. To develop logistics buildings with loading bays and trailer parking within close proximity of regional transportation routes and designated City of Moreno Valley truck routes in order to facilitate the efficient movement of goods.

E. To develop logistics center buildings that are physically and economically feasible to construct and operate and that are economically competitive with other geographic markets in the Inland Empire to attract building users to Moreno Valley.

F. To develop a vacant or underutilized property with structures that have architectural design and operational characteristics that complement existing and planned warehouse development in the immediate vicinity.

G. To develop the subject property with land uses that are harmonious to the adjacent March Air Reserve Base.

III. ENIRONMENTAL REVIEW AND PUBLIC PARTICIPATION

The City has conducted an extensive environmental review of the Project to ensure that both the City's decision makers and the public are fully informed about potential significant environmental effects of the Project; to identify ways that environmental damage can be avoided or significantly reduced; to prevent significant, avoidable damage to the environment by requiring changes in the Project through the use of mitigation measures which have been found to be feasible; and to disclose to the public the reasons why the City has approved the Project in the manner chosen in light of the significant

Attachment: Exhibit A to 2017-16 Finding SOC (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

environmental effects which have been identified in the EIR. In order to do this, the City, as the lead agency under CEQA, has done all of the following:

1. Prepared and distributed an Initial Study/Notice of Preparation dated June 17, 2015, a copy of which was circulated on June 17, 2015, through the State Clearinghouse to various state agencies for their comments;

2. Sent the Initial Study/Notice of Preparation dated June 17, 2015, to each of the governmental agencies, organizations and individuals shown on the distribution list for the Notice of Preparation/Initial Study (see Appendix A to the Draft EIR), on June 17, 2015;

3. Held an EIR Scoping Meeting at the City of Moreno Valley City Hall on July 6, 2015, to solicit comments from the public regarding the scope of environmental issues that should be analyzed in the Draft EIR;

4. Sent a Notice of Completion and a copy of the Draft EIR to the State Clearinghouse on July 21, 2016;

5. Mailed the Notice of Availability to all organizations and individuals who had previously requested the Notice on July 21, 2016;

6. Mailed the Notice of Availability to all residents and property owners within 300 feet of the Project Site on July 21, 2016;

7. Provided copies of the Draft EIR to 43 public agencies, organizations and individuals on July 21, 2016;

8. Placed copies of the Draft EIR on the City's website, at the City's Planning Division's public counter and at the public library located at 25480 Alessandro Blvd. on July 21, 2016;

9. Proposed responses to comments on the Draft EIR received during and after the 45-day comment period on the Draft EIR, which have been included in the Final EIR;

10. Sent copies of the Final EIR on June 8, 2017, to all public agencies, organizations, and individuals who had submitted comments;

11. Published a Notice on June 8, 2017 in the Press Enterprise, a newspaper of general circulation which has the largest circulation in the areas affected by the Project, that the City's Planning Commission would hold a public hearing on June 22, 2017, to recommend to City Council the certification of the Final EIR as having been prepared in compliance with CEQA and the approval of the Project;

12. Mailed a notice of the Planning Commission's hearing to all residents and property owners within 300 feet of the Project site on June 8, 2017;

13. Sent notice of the Planning Commission’s hearing to all organizations and individuals who had submitted a written comment on the Draft EIR and/or previously requested notification of public meetings/hearings related to the Project on June 8, 2017;

14. Published a Notice on DATE in the Press Enterprise, a newspaper of general circulation which has the largest circulation in the areas affected by the Project, that the City Council would hold a public hearing on DATE, to consider certification of the Final EIR as having been prepared in compliance with CEQA and the approval of the Project.

15. Mailed notice of the City Council's hearing to all residents and property owners within 300 feet of the Project site on DATE;

16. Held a public hearing of the City Council to consider adequacy of the Final EIR on DATE, and after full consideration of all comments, written and oral, certified that the Final EIR had been completed in compliance with CEQA and approved the Project.

All of the documents identified above and all of the documents which are required to be part of the record pursuant to Public Resources Code § 21167.6(e) are on file with the City’s Community Development Department, Planning Division, located at 14177 Frederick Street, Moreno Valley, CA 92552-0805. Questions should be directed to Julia Descoteaux, Associate Planner in the Division.

A. INDEPENDENT JUDGMENT FINDING

Finding: The Final EIR for the Project reflects the City’s and the City Council’s independent judgment and analysis.

Factual Basis for the Finding: The Final EIR was prepared by T&B Planning, Inc., a professional consulting firm hired and funded by the Project Applicant, but working under the supervision and direction of the City’s Community Development Department, Planning Division staff. The EIR was also thoroughly reviewed by the consulting firm PlaceWorks, an expert consultant firm hired and paid by the City with funding provided by the Project Applicant to provide independent peer review and assure the exercise of thorough and independent review and judgment by the City. The City Council, as the City’s final decision making body for the Project, received and reviewed the Final EIR and the comments, both written and oral provided by public agencies and members of the public prior to certifying that the Final EIR complied with CEQA. The participation of City Staff in selection and approval both of T&B Planning, Inc. and PlaceWorks included review of the professional qualifications and reputation of the EIR Consultants, the supervision and direction of the EIR Consultants by the City Staff, the thorough and independent review of the Draft and Final EIRs, including comments and responses to comments, and their supporting technical studies by City Staff and PlaceWorks and the review and careful consideration by the City Council of the Final EIR, comments and responses to comments, which all conclusively show that the Final EIR is the product of and reflects the independent judgment and analysis of the City as the Lead Agency, and of the City Council as its governing body.

B. FINDING OF THE ABSENCE OF ANY NEED TO RECIRCULATE THE FINAL EIR

Finding: The City Council finds that the Final EIR does not add significant new information to the Draft EIR that would require recirculation of the EIR.

Factual Basis for the Finding: The City Council recognizes that the Final EIR incorporates information obtained and produced after the Draft EIR was completed and that the Final EIR contains no substantive additions, clarifications, or minor modifications to the Draft EIR. The City Council has reviewed and considered the Final EIR, and all of the information contained in it, and has determined that the new information added to the Final EIR does not involve a new significant environmental impact or a substantial increase in the severity of an environmental impact, nor does the information added to the Final EIR include a feasible mitigation measure or an alternative considerably different from others previously analyzed and that would clearly lessen the significant environmental impacts of the Project that the Project Applicant declined to adopt. No information provided to the City Council indicates that the Draft EIR was inadequate or conclusory or that the public was deprived of a meaningful opportunity to review and comment on the Draft EIR.

C. GENERAL TREATMENT OF MITIGATION MEASURES

It is the City Council's intention to adopt all mitigation measures recommended by the Final EIR. If a measure has been omitted from the Conditions of Approval, from the Findings or from the Mitigation Monitoring Program (the "MMP"), a copy of which is attached as Exhibit A and which is hereby adopted, that mitigation measure shall be deemed to be adopted pursuant to this paragraph.

In addition, all Conditions of Approval and the MMP repeating or rewording mitigation measures recommended in the Final EIR are intended to be substantially similar to the mitigation measures as stated in the Final EIR and are found to be equally effective in avoiding or lessening the identified environmental impact.

IV. ENVIRONMENTAL IMPACTS AND FINDINGS

Based on the Initial Study, Appendix A to the Final EIR, and the responses to the Notice of Preparation, the EIR analyzed eleven potential areas where significant environmental impacts could result from the development of the Project. The eleven potential areas where significant environmental impacts could result from the development of the Project are aesthetics, agricultural resources, air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use/planning, noise, and transportation/traffic. Air quality, greenhouse gas emissions, land use/planning, and transportation/traffic were found to have significant and unavoidable environmental impacts after the imposition of all feasible mitigation measures. Project-related effects to aesthetics, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, and noise were found to have either no significant and unavoidable environmental impacts or environmental impacts that could be mitigated to a level of insignificance. The description of each environmental area, the potential impacts, and the feasible mitigation measures are set forth in Section 4.0 of the Final EIR.

A. IMPACTS IDENTIFIED IN THE EIR AS POTENTIALLY SIGNIFICANT THAT HAVE BEEN MITIGATED TO LESS THAN SIGNIFICANT

1. AIR QUALITY

a. **Potential Significant Direct and Cumulatively Considerable Impact** Threshold d): Would the Project expose sensitive receptors to substantial pollutant concentrations?

Finding: Emissions during short-term construction activities would exceed the South Coast Air Quality Management District (SCAQMD's) localized significance thresholds for NO_2, PM_{10}, and $PM_{2.5}$. Accordingly, short-term construction-related emissions of NO_2, PM_{10}, and $PM_{2.5}$ are a significant direct and cumulatively considerable impact of the Project. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant impact identified in the EIR.

Factual Basis for the Finding: As shown on Final EIR Page 4.3-32, Table 4.3-8 and in the Project's Air Quality Impact Analysis (Final EIR Technical Appendix B1), short-term Project construction localized emissions of NO_2 (before mitigation) will result in a total concentration of 0.40 parts per million (ppm) (1-hour), 15.52 µg/m^3 of PM_{10} (24-hours), 2.56 µg/m3 of PM_{10} (annual), and 8.55 µg/m3 (24-Hour) of $PM_{2.5}$ which exceed the SCAQMD Localized Significance Threshold. Mitigation Measures MM 4.3-2 through MM 4.3-5, would reduce NO_2 concentrations (1-hour) to 0.15 ppm, PM_{10} concentrations (24-hours) to 4.92 µg/m^3, PM_{10} concentrations (annual) to 0.81 µg/m^3, and $PM_{2.5}$ concentrations (24-Hours) to 2.35 µg/m3 (24-Hour), as shown in Table 4.3-15 of the Final EIR and in the Project's Air Quality Impact Analysis (Final EIR Technical Appendix B1). Thus, with the implementation of Mitigation Measures MM 4.3-2 through MM 4.3-5, emissions during the Project's peak construction activity, emissions would not exceed the SCAQMD's localized significance threshold for any of the applicable emissions. Mitigation Measures MM 4.3-2 through MM 4.3-5, as set forth in the MMP attached as Exhibit A and listed below, have been imposed as conditions of approval for this Project.

MM 4.3-2: During construction activities, the construction contractor shall maintain a list of diesel-powered construction equipment used on the site, including type/engine year of equipment, number of equipment, and equipment horsepower. The construction contractor shall also maintain a log of the daily operating hours of each piece of diesel-powered equipment by horsepower hours. The construction contractor shall ensure that the usage of diesel-powered construction equipment does not exceed the horsepower-hours per day specified below. Lower tier types may be substituted for higher tier types.

Tier 0 – 3,608 horsepower-hours/day
Tier 1 – 7,760 horsepower-hours/day
Tier 2 – 1,760 horsepower-hours/day
Tier 3 – 11,128 horsepower-hours/day
Tier 4 – 37,008 horsepower-hours/day

MM 4.3-3: The Project shall comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and California

Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling" by complying with the following requirements. To ensure and enforce compliance with these requirements and thereby limit the release of diesel particulate matter, oxides of nitrogen, and other criteria pollutants into the atmosphere from the burning of fuel, prior to grading permit and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.

a) Temporary signs shall be placed on the construction site at all construction vehicle entry points and at all loading, unloading, and equipment staging areas indicating that heavy duty trucks and diesel powered construction equipment are prohibited from idling for more than five (5) minutes. The signs shall be installed before construction activities commence and remain in place during the duration of construction activities at all loading, unloading, and equipment staging areas.

b) Construction vehicles shall use the City's designated truck route.

c) Construction parking shall be located and configured to minimize traffic interference on public streets.

d) Temporary traffic controls such as a flag person shall be used at Project site construction entrances.

e) A construction management plan shall be designed to minimize the number of large construction equipment operating during any given time period.

f) To the extent feasible, construction truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.

g) CARB certified equipment shall be used for construction activities to the extent feasible.

h) Contractors shall be required to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.

i) Construction equipment engine sizes shall be limited to the minimum practical size.

j) Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.

k) Temporary traffic controls, such as a flag person shall be provided during all phases of construction to maintain smooth traffic flow.

l) Construction tucks shall be routed away from congested streets and sensitive receptor areas.

m) Construction parking areas shall be configured to minimize traffic interference.

n) Construction worker trips shall be reduced by encouraging carpooling and providing on-site food service options for the construction crew.

o) Construction workers shall be encouraged to utilize shuttle service to transit stations/multimodal center.

MM 4.3-4: The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Moreno Valley shall verify that the following notes are specified on the grading plan. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance.

These notes shall also be specified in bid documents issued to prospective construction contractors.

a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.

b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads.

c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.

d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (e.g., Install wheel shakers, wheel washers, and limit site access.)

e) Limit fugitive dust sources to 20 percent opacity.

f) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

g) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.

h) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action within 24 hours.

i) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.

j) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.

k) A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

MM 4.3-5: The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM_{10} Emissions from Paved and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. The notes also shall be specified in bid documents issued to prospective construction contractors.

a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning.

b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM_{10}-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.

2. BIOLOGICAL RESOURCES

a. Potential Significant Direct and Cumulatively Considerable Significant Impact: Threshold a): Would the Project have a **s**ubstantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?

Finding: Although the burrowing owl is not present on the Project site, the species has the potential to be impacted if it migrates onto the property prior to the commencement of ground-disturbing construction activities, which would be significant direct and cumulatively considerable impact. The burrowing owl is classified by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) as a Covered Species not yet adequately conserved. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant impact identified in the EIR.

Factual Basis for the Finding: As discussed on Pages 4.4-2, 4.4-7, 4.4-11, 4.4-16, 4.4-18, 4.4-19 of the Final EIR and in the Project's Biological Technical Report (Final EIR Technical Appendix C1), the burrowing owl is classified by the MSHCP as a Covered Species not adequately conserved by the MSHCP. Although no burrowing owl individuals or signs of burrowing owl use were observed on the Project improvement area during surveys conducted by Glenn Lukos Associates, Inc. in March 2015 (GLA), the property contains habitat suitable to burrowing owl. Accordingly, it is possible that the species could migrate onto the property prior to Project construction. If burrowing owls are present on the Project improvement area during grading activities, the Project would result in a significant direct and cumulatively considerable impact. Mitigation Measure MM 4.4-1 will be imposed on the Project to address the Project's potential impact to burrowing owl species and reduce the potential impact to below a level of significance. Mitigation Measure MM 4.4-1, as set forth in the MMP attached as Exhibit A and listed below, has been imposed as a condition of approval for this Project.

MM 4.4-1: Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl in accordance with the Burrowing Owl Survey Instructions for the Western Riverside MSHCP Area. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit and subject to the following provisions:

a) In the event that the pre-construction survey identifies that no burrowing owls are present on the property, a grading permit may be issued without restriction.

b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.

c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSHCP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either:

- Upon approval and implementation of a property-specific Determination of Biological Equivalent or Superior Preservation (DBESP) report for the western burrowing owl by the CDFW; or

- A determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing or burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate Habitat is not present as determined by the biologist, active relocation shall follow CDFW protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to issuance of a grading permit.

b. **Potential Significant Direct and Cumulatively Considerable Impact:** Threshold d): Would the Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Finding: The Project has the potential to impact nesting migratory birds protected by the Migratory Bird Treaty Act ("MBTA") and California Fish and Game Code if construction activities were to occur during the nesting season. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant impact identified in the EIR.

Factual Basis for the Finding: As discussed on Page 4.4-13 of the Final EIR and the Project's Biological Technical Report (Final EIR Technical Appendix C1), the proposed Project would result in removal of low-lying vegetation across the Project site that has the potential to support nesting migratory birds. Impacts to nesting migratory birds are prohibited under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code; therefore, the Project's potential impacts to such species represents a significant direct and cumulatively considerable impact for which mitigation is required. Thus, Mitigation Measure MM 4.4-2 is required to reduce the Project's potential impact to nesting migratory birds protected by the MBTA and California Fish and Game Code to below a level of significance. Mitigation Measure MM 4.4-2 as set forth in the MMP attached as Exhibit A and listed below, has been imposed as a condition of approval for this Project.

MM 4.4-2: As a condition of approval for all grading permits, vegetation clearing shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements:

a) A migratory nesting bird survey of all vegetation that may support nesting birds shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing.

b) A copy of the migratory nesting bird survey results report shall be provided to the City of Moreno Valley Planning Division. If the survey identifies the presence of active nests, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the City of Moreno Valley Planning Division and shall be no less than a 300-foot radius around the nest for non-raptors and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.

c. **Potential Significant Direct and Cumulatively Considerable Impact:** Threshold f): Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan.

Finding: The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the burrowing owl. Although the Project is compliant with all MSHCP provisions and although burrowing owl is absent from the subject property under existing conditions, the subject property contains habitat suitable for the species. If the species is present on the property at the time a grading permit is issued, impacts would be significant. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant impact identified in the EIR.

Factual Basis for the Finding: As discussed on Page 4.4-16 of the Final EIR and the Project's Biological Technical Report (Final EIR Technical Appendix C1), the Project site is located within the burrowing owl survey area, but is not located within the survey area for any other plant or wildlife species. GLA conducted a focused survey for the burrowing owl in March 2015 in accordance with the Western Riverside County MSHCP Burrowing Owl Survey Requirements. GLA did not observe any burrowing owls or signs of the species use of the property (i.e., scat, tracks, pellets, or feathers). However, the species is migratory and could migrate onto the property prior to ground-disturbing construction activities. Potentially significant direct and cumulatively considerable impacts will be addressed and mitigated through compliance with Mitigation Measure MM 4.4-2 and reduced to below a level of significance. Mitigation Measure MM 4.4-2, as set forth in the MMP attached as Exhibit A and listed below, has been imposed as a condition of approval for this Project.

MM 4.4-2: As a condition of approval for all grading permits, vegetation clearing shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements:

a) A migratory nesting bird survey of all vegetation that may support nesting birds shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing.

b) A copy of the migratory nesting bird survey results report shall be provided to the City of Moreno Valley Planning Division. If the survey identifies the presence of active nests, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the City of Moreno Valley Planning Division and shall be no less than a 300-foot radius around the nest for non-raptors and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.

3. CULTURAL RESOURCES

a. Potential Significant Direct and Cumulatively Considerable Impact: Threshold b): Would the Project cause a substantial adverse change in the significance of an archeological resource as defined in California Code of Regulations, Section 15064.5?

Finding: There is a remote potential to uncover archaeological resources during excavation and/or grading activities associated with the Project, as the Project area is located within the traditional use areas of the Soboba Band of Luiseño Indians, the Pechanga Band of Luiseño Indians, and the San Manuel Band of Mission Indians. Although no archaeological resources were identified on the Project site, implementation of the Project has the potential, however unlikely, to unearth and adversely impact significant archaeological resources that may be buried beneath the ground surface and discovered during Project construction activities. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant impact identified in the EIR.

Factual Basis for the Finding: As discussed on Page 4.5-8 of the Final EIR and the Project's Phase I Cultural Resources Survey (Final EIR Technical Appendix D1), Project archaeologists did not observe any prehistoric archaeological resources on the Project site during field surveys and no prehistoric archaeological resources are known to occur within a one-mile radius of the Project site, based on the results of a records search with the Eastern Information Center (EIC), at the University of California, Riverside. The Project's off-site improvement area within the Perris

Valley Storm Drain Channel has no potential to contain prehistoric archaeological resources because this area is a fully disturbed, modern man-made storm drain facility that intermittently contains flowing water and undergoes routine maintenance; if any prehistoric archaeological resources historically existed in this area they would have been removed or destroyed during construction of the Channel or would have been washed away by storm water runoff. As such, the Project has no potential to impact known archaeological resources.

Regardless, there is a remote potential to uncover archaeological resources during excavation and/or grading activities associated with the Project, as the Project area is located within the traditional use areas of the Soboba Band of Luiseño Indians, the Pechanga Band of Luiseño Indians, and the San Manuel Band of Mission Indians. If significant resources as defined in California Code of Regulations § 15064.5 are unearthed during construction, these resources could be significantly impacted if not appropriately treated. The Project’s potential to impact previously undiscovered prehistoric archaeological resources, which could result in an adverse change in the significance of the resources pursuant to California Code of Regulations § 15064.5, is a potentially significant direct and cumulatively considerable impact for which mitigation is required. Mitigation Measures MM 4.5-1 through MM 4.5-5 would reduce potential impacts to prehistoric archaeological resources to below a level of significance by requiring monitoring activities during grading and implementation of a treatment program should important resources be uncovered. Mitigation Measures MM 4.5-1 through 4.5-5, as set forth in the MMP attached as Exhibit A and listed below, have been imposed as conditions of approval.

MM 4.5-1: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the

Applicant and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural resources activities that will occur on the Project site. Details in the CRMP shall include:

a) Schedule for Project grading and development activities;

b) The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.

c) The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the Applicant; and

d) The protocols and stipulations that the Applicant, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

MM 4.5-2: Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as “Native

American Tribal Representatives") received a minimum of 30 days' advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measures MM 4.5.3 and MM 4.5.4 shall apply.

MM 4.5-3: A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until the treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).

MM 4.5-4: In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

a) The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Accommodate the process for Preservation-In-Place / Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists / researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.

MM 4.5-5: Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

“If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

b. **Potential Significant Direct and Cumulative Significant Impact:** Threshold c): Would the Project directly or indirectly destroy a unique paleontological resources or site or unique geological feature?

Finding: The Project would not impact any known paleontological resource or unique geological feature. However, the Project site and off-site improvement area contain alluvium soils with a high sensitivity for paleontological resources. Therefore, implementation of the Project has the potential to unearth and adversely impact paleontological resources that may be buried beneath the ground surface and discovered during Project-related grading and excavation activities. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant impact identified in the EIR.

Factual Basis for the Finding: As discussed on Page 4.5-9 of the Final EIR and the Project's Paleontological Resource and Monitoring Assessment (Final EIR Technical Appendix D2), although the Project site does not contain any known paleontological resources or unique geologic features and no such resources were observed during field surveys of the site, the Project site is underlain by older-Pleistocene alluvial fan deposits that have a high potential to contain significant paleontological resources. The Project's off-site improvement area within the Perris Valley Storm Drain Channel has no potential to contain paleontological or unique geological resources because the Channel is a modern, man-made storm drain facility and any such resources – if they once existed within the Channel's alignment – would have been removed/destroyed during construction of the Channel. However, because of the high paleontological sensitivity of the older alluvial deposits that exist below the ground surface on the Project site at depths greater than 4-feet, the Project could result in impacts to paleontological resources that may exist below the ground surface if they are unearthed and not properly treated. Potential significant direct and cumulatively considerable impacts will be addressed and mitigated through compliance with Mitigation Measure MM 4.5-6 through MM 4.5-9, which require paleontological monitoring during grading and a treatment program should important resources be uncovered. Mitigation

Measures MM 4.5-6 through 4.5-9, as set forth in the MMP attached as Exhibit A and listed below, have been imposed as conditions of approval.

MM 4.5-6: Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.

MM 4.5-7: The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

MM 4.5-8: Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.

MM 4.5-9: A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.

4. NOISE

a. **Potential Significant Direct and Cumulatively Considerable Impact:** Threshold c): Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? Threshold d): Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Finding: Phase I of Project-related construction activities would result in a short-term direct impact to one noise-sensitive receiver, a residential home located east of Indian Street near the Project site's southwestern corner. In the event that construction activities occur on any properties surrounding the Project site simultaneously with Project-related construction activities, and that also would contribute construction noise to this residential home, a cumulative impact may occur and the Project's construction-related noise contribution to the overall noise level at this off-site property would also be cumulatively considerable. Changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant impact identified in the EIR.

Factual Basis for the Finding: As discussed on Page 4.10-13 of the Final EIR and in the Project's Noise Impact Analysis (Final EIR Technical Appendix H), construction equipment operating on the Project site would create intermittent periods of noise when construction equipment is in operation, which would cause short-term increases in ambient noise levels. Noise sensitive receivers are located to the east and northeast of the Project site. Based on the proposed stages of Project construction, the loudest construction-related noise levels at each receiver location would occur when multiple pieces of heavy equipment are simultaneously operating near the eastern and northern Project site boundaries. In reality, it is highly unlikely that all pieces of heavy construction equipment would be operating simultaneously at the same time and at the same location adjacent to the Project site boundaries. Instead, noise levels would vary day-to-day and would vary throughout the workday as equipment moves around the site. Phase I includes the construction of proposed Buildings 1 and 2 and Phase II includes the construction of proposed Buildings 3 and 4. It is important to note that once Buildings 1 and 2 are constructed, the building structures themselves would act as noise barriers and substantially attenuate construction noise levels at sensitive receivers located east of the Project site, from construction activity noise for Buildings 3 and 4, which would be occurring west of Buildings 1 and 2. Phase I daytime construction noise levels are expected to range from 39.2 to 67.2 dBA Leq at the nearby receiver locations. Phase II daytime construction levels are expected to range from 35.8 to 57.6 dBA Leq at the nearby receiver locations. Peak noise levels would be below the 65 dBA Leq construction noise level significance threshold at all receiver locations with the exception of receiver location R8 during Phase I construction activities. Thus, Phase I construction-related noise would result in a significant impact at location R8, requiring mitigation. Location R8 is a residential home located east of Indian Street just north of the Perris Valley Storm Drain Channel and fronts on Indian Street.

To reduce significant short-term direct and cumulatively considerable impacts to a less than significant level, Mitigation Measures MM 4.10-1 and MM 4.10-2 would be imposed on the Project to reduce the construction-related noise levels at receiver location R8 to 60.3 dBA Leq, as shown on Table 4.10-14 of the Final EIR. Mitigation Measures MM 4.10-1 and 4.10-2, as set forth in the MMP attached as Exhibit A and listed below, have been imposed as conditions of approval.

MM 4.10-1: All construction activities shall comply with the City of Moreno Valley Noise Ordinance (Chapter 11.80 of the City of Moreno Valley Municipal Code). This requirement shall be noted on all grading and building plans and in bid documents issued to construction contractors.

MM 4.1-2: Prior to the issuance of grading permits and building permits that would authorize grading and paving construction activities within 280 feet of Indian Street between Superior Avenue and the Perris Valley Storm Drain Channel, the construction contractor shall install a minimum 6-foot high temporary noise control barrier at the southeast corner of Parcel 1 (the Building 1 site) extending northward approximately 400 feet along Indian Street. Alternatively, with the approval of the property owner at 16950 Indian Street (noise receiver location R8), the temporary noise barrier can instead be installed along the west property line of that existing residential home. The temporary noise control barrier must present a solid face from top to bottom and must be a minimum of 6 feet high. The temporary noise control barrier shall comply with the following:

a) The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts.

b) The noise barrier shall be maintained in good repair during the duration of grading and paving activities on Parcel 1. Any damage shall be promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.

c) The noise control barrier and associated elements shall be completely removed upon the conclusion of the grading and paving construction activity on Parcel 1.

d) In the event that the noise barrier is constructed at 16950 Indian Street (noise receiver location R8), documentation of property owner approval to construct the noise barrier shall be provided to the City of Moreno Valley Planning Division prior to construction of the barrier.

B. IMPACTS IDENTIFIED IN THE EIR AS BEING SIGNIFICANT AND UNAVOIDABLE EVEN AFTER THE IMPOSITION OF ALL FEASIBLE MITIGATION MEASURES

1. AIR QUALITY

a. **Significant Cumulatively Considerable Impact:** Threshold a): Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Finding: Although the Project's location and design features are consistent with and support the Air Quality Management Plan (AQMP's) air pollution reduction strategies, because short-term construction and long-term operational air emissions generated by the Project would exceed the SCAQMD's regional threshold criteria for daily emissions, the Project has the potential to cumulatively contribute towards obstruction of the SCAQMD's ability to meet its AQMP attainment goals. Changes or alterations have been required in, or incorporated into the Project, that lessen the significant impacts identified in the EIR; however, the City finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the identified impacts to less-than-significant levels. This impact is overridden by Project benefits as set forth in the statement of overriding considerations.

Factual Basis for the Finding: As discussed on Pages 4.3-27 through 4.3-29 of the Final EIR and in the Project's Air Quality Impact Analysis (Final EIR Technical Appendix B1), during short-term construction activities, the Project is expected to exceed criteria standards pollutant thresholds established by the SCAQMD for VOCs and NO_X and the Project would exceed the SCAQMD's regional criteria for VOCs and NO_X during long-term operation of the Project. In addition, based on the assumed buildout and phasing of the proposed Project which assumes the operation of Building 1 and 2 while Buildings 3 and 4 are being constructed, there is a potential for overlap between construction and operational activity. If these activities overlap, the Project would temporarily exceed the SCAQMD's regional criteria for VOCs, NO_X, CO, PM_{10}, and $PM_{2.5}$. Although short-term construction and long-term operational emissions generated by the Project would exceed the SCAQMD's regional threshold criteria for daily emissions, the Project's emissions are already accounted for in the 2012 AQMP and the AQMP's air quality attainment goals. That is, the land use and development intensity proposed by the Project are consistent with the City of Moreno Valley General Plan and the MVIAP and are therefore within the scope of air quality considerations reflected in the 2012 AQMP. As such, implementation of the Project would likely neither increase the frequency or severity of existing air quality violations disclosed in the AQMP. Moreover, the Project's urban location and proximity to local and regional transportation facilities act to reduce vehicle miles traveled and associated mobile (vehicle) air pollutant emissions. Additionally, the Project's incorporation of mandatory energy-efficient technologies a required by CALGreen and mandatory compliance with the SCAQMD rules and control requirements act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support the AQMP's air pollution reduction strategies and promote timely attainment of the AQMD's air quality standards. Regardless, because the Project would emit air pollutants that exceed daily emissions thresholds established by the SCAQMD, the

Attachment: Exhibit A to 2017-16 Finding SOC (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Project is determined to make a cumulatively considerable contribution to the potential obstruction of obtaining the 2012 AQMP goals.

Implementation of mandatory and applicable state and federal regulatory requirements and required mitigation (Mitigation Measures MM 4.3-1 through MM 4.3-19) will reduce Project-related emissions. However, as shown on Table 4.3-12 of the Final EIR and in the Project's Air Quality Impact Analysis (Final EIR Technical Appendix B1), even with mitigation, the Project's operational source emissions would exceed the SCAQMD numerical threshold for emissions of VOCs and NO_X. No additional mitigation measures to reduce VOC and NO_X emissions are available that are feasible for the Project Applicant to implement and for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact. As such, it is concluded that the Project's daily operational-source regional VOC and NO_X emissions would not comply with SCAQMD air quality standards. Mitigation Measures MM 4.3-1 through 4.3-19, as set forth in the MMP attached as Exhibit A and listed below, have been imposed as conditions of approval.

MM 4.3-1: Prior to building permit issuance, the City of Moreno Valley shall verify that a note is provided on all building plans specifying that compliance with SCAQMD Rule 1113 is mandatory during the application of architectural coatings. Project contractors shall be required to comply with the note and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. This note also shall indicate that only "low-volatile organic compound" paint products (no more than 50 gram/liter of VOC) shall be used. All other architectural coatings shall comply with the VOC limits prescribed by SCAQMD Rule 1113.

MM 4.3-2: During construction activities, the construction contractor shall maintain a list of diesel-powered construction equipment used on the site, including type/engine year of equipment, number of equipment, and equipment horsepower. The construction contractor shall also maintain a log of the daily operating hours of each piece of diesel-powered equipment by horsepower hours. The construction contractor shall ensure that the usage of diesel-powered construction equipment does not exceed the horsepower-hours per day specified below. Lower tier types may be substituted for higher tier types.

Tier 0 – 3,608 horsepower-hours/day
Tier 1 – 7,760 horsepower-hours/day
Tier 2 – 1,760 horsepower-hours/day
Tier 3 – 11,128 horsepower-hours/day
Tier 4 – 37,008 horsepower-hours/day

MM 4.3-3: The Project shall comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, “Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles” and California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, “Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling” by complying with the following requirements. To ensure and enforce compliance with these requirements and thereby limit the release of diesel particulate matter, oxides of nitrogen, and other criteria pollutants into the atmosphere from the burning of fuel, prior to grading permit and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.

a) Temporary signs shall be placed on the construction site at all construction vehicle entry points and at all loading, unloading, and equipment staging areas indicating that heavy duty trucks and diesel powered construction equipment are prohibited from idling for more than five (5) minutes. The signs shall be installed before construction activities commence and remain in place during the duration of construction activities at all loading, unloading, and equipment staging areas.

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b) Construction vehicles shall use the City's designated truck route.
c) Construction parking shall be located and configured to minimize traffic interference on public streets.

d) Temporary traffic controls such as a flag person shall be used at Project site construction entrances.

e) A construction management plan shall be designed to minimize the number of large construction equipment operating during any given time period.

f) To the extent feasible, construction truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.

g) CARB certified equipment shall be used for construction activities to the extent feasible.

h) Contractors shall be required to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.

i) Construction equipment engine sizes shall be limited to the minimum practical size.

j) Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.

k) Temporary traffic controls, such as a flag person shall be provided during all phases of construction to maintain smooth traffic flow.

l) Construction tucks shall be routed away from congested streets and sensitive receptor areas.

m) Construction parking areas shall be configured to minimize traffic interference.

n) Construction worker trips shall be reduced by encouraging carpooling and providing on-site food service options for the construction crew.

o) Construction workers shall be encouraged to utilize shuttle service to transit stations/multimodal center.

MM 4.3-4: The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Moreno Valley shall verify that the following notes are specified on the grading plan. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes shall also be specified in bid documents issued to prospective construction contractors.

a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.

b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads.

c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.

d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.)

e) Limit fugitive dust sources to 20 percent opacity.

f) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

g) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.

h) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action within 24 hours.

i) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.

j) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.

k) A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

MM 4.3-5: The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 “PM10 Emissions from Paved and Unpaved Roads and Livestock Operations” and Rule 1186.1, “Less-Polluting Street Sweepers” by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. The notes also shall be specified in bid documents issued to prospective construction contractors.

a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning.

b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM_{10}-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.

MM 4.3-6: The Project shall comply with the provisions of SCAQMD Rule 431.2, "Sulfur Content of Liquid Fuels" by complying with the following requirement. To ensure and enforce compliance with this requirement and thereby limit the release of sulfur dioxide (SO_X) into the atmosphere from the burning of fuel, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following note is included on the grading and building plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors.

a) All liquid fuels shall have a sulfur content of not more than 0.05 percent by weight, except as provided for by South Coast Air Quality Management District Rule 431.2.

MM 4.3-7: All indoor forklifts used in the Project's buildings shall be electric, natural gas, or propane powered. This requirement shall be noted in the buildings' sale and lease agreements and also shall be included on all tenant improvement plans submitted to the City of Moreno Valley.

MM 4.3-8: All outdoor cargo handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) that are powered by diesel fuel shall comply with the CARB/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM_{10}). This requirement shall be noted in the buildings' sale and lease agreements and also shall be noted on all tenant improvement plans.

MM 4.3-9: Prior to the issuance of a building permit, documentation shall be provided to the City of Moreno Valley demonstrating that: 1) the building is designed to achieve efficiency equal to or exceeding the 2013 California Title 24 Energy Efficiency Standards and complies with the mandatory reductions in indoor water usage required by the California Building Standards Code, including the use of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets, and water-conserving shower heads; and 2) the landscaping design uses a plant palette emphasizing drought-tolerant plants and use of water-efficient irrigation techniques.

MM 4.3-10: Prior to building final, documentation shall be provided to the City of Moreno Valley demonstrating the appliances and fixtures installed in restrooms and employee break areas are Energy Star rated and/or are U.S. EPA WaterSense labeled or equivalent.

MM 4.3-11: Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) a prohibition on the idling of trucks for more than three (3) minutes; 3) instructions for truck drivers to shut down engines after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park" and the parking break is engaged; and 4) telephone numbers of the building facilities manager and the CARB to report violations. Prior to building final, the City of Moreno Valley shall conduct a site inspection to ensure that the signs are in place.

MM 4.3-12: Prior to building final, the City of Moreno Valley shall verify that: 1) the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property; and 2) preferential parking locations are identified on the site for carpool, vanpool, EVs and CNG vehicles; and 3) secure, weather protected bicycle parking is provided for building employees.

MM 4.3-13: Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of the following and their benefits to air quality: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nandina Avenue); 5) the United States Environmental Protection Agency's SmartWay program; and 6) voluntary trip reduction programs, for which all employees shall be eligible to participate.

MM 4.3-14: Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that encourages: 1) all fleet vehicles to conform to 2010 air quality standards or better; users shall maintain compliance through normal course of business; and 2) use of electrical equipment for landscape maintenance to the extent feasible; 3) use of electrical powered equipment in lieu of gasoline-powered engines where technically feasible; and 4) reduced-fee or no-fee parking for EVs and CNG vehicles.

MM 4.3-15: Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions will be included in the building's lease agreement that 1) encourages tenants to display information about alternative transportation options in a common area of the building and 2) informs tenants about locations of the nearest existing and planned Metrolink stations and the benefits of implementing a voluntary carpool or rideshare program for employees.

MM 4.3-16: The building plans shall include conduit and plug-in locations for electric yard tractors, fork lifts, reach stackers, and sweepers.

MM 4.3-17: Prior to building final, the City of Moreno Valley shall verify that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.

MM 4.3-18: Prior to the issuance of a building permit for any building that utilizes refrigerated storage, any spaces utilizing refrigerated storage shall provide an electrical hookup for refrigeration units on delivery trucks. As a condition of occupancy permits, trucks incapable of utilizing the electrical hookup for powering refrigeration shall be prohibited from accessing the site.

MM 4.3-19: Prior to the issuance of building permits, to ensure the shading of parking lots to reduce solar gain, the City of Moreno Valley shall review landscaping plans to verify that the plans call for the planting of shade trees so that at least 50% of the automotive parking lots (excluding the truck courts where trees cannot be planted due to interference with truck maneuvering) will be shaded within 15 years after Project construction is complete.

b. **Significant and Unavoidable Direct and Cumulatively Considerable Impact:** Threshold b): Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation? Threshold c): Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors?

Finding: The Project would exceed the SCAQMD regional threshold for daily VOC and NO_X emissions during short-term construction activities. Additionally, the Project's long-term operational activities (i.e., full buildout) would exceed the regional thresholds for daily VOC and NO_X emissions. Because the Project proposes four buildings, there is a potential that operational and construction activities could overlap. If there is overlap, the Project would result in short-term VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions during the overlapping activities. As such, Project-related air emissions would violate the SCAQMD air quality standards and contribute to the non-attainment of criteria pollutants, which is a significant direct and cumulatively considerable impact. Changes or alterations have been required in, or incorporated into the Project, that lessen the significant impacts identified in the EIR; however, the City finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the identified impacts to less-than-significant levels. These impacts are overridden by Project benefits as set forth in the statement of overriding considerations.

Factual Basis for the Finding: As discussed on Pages 4.3-29 through 4.3-32 and Pages 4.3-49 through 4.4-51 of the Final EIR and the Project's Air Quality Impact Analysis (Technical Appendix B1), Project-related construction emissions would exceed criteria standards pollutant thresholds established by the SCAQMD for VOCs and NO_X. VOCs and NO_X are precursors for O_3, a pollutant for which the SCAB does not attain State standard. Accordingly, the Project would emit substantial concentrations of VOCs and NO_X during construction, primarily associated with combustion exhaust from construction equipment engines that would cause or contribute to an existing or projected air quality violation, on both a direct and cumulatively considerable basis. Thus, a significant impact would occur.

The Project also would exceed the SCAQMD's regional criteria for VOCs and NO_X during long-term operation of the Project. These emissions are primarily associated with combustion exhaust from on- and off-road vehicles. Therefore, during long-term operation, the Project's emissions of VOCs and NO_X would be a significant impact to the environment on both a direct and cumulatively considerable basis.

Based on the assumed buildout and phasing of the proposed Project which assumes the operation of

Building 1 and 2 while Buildings 3 and 4 are being constructed, there is a potential for overlap between construction and operational activity. As shown on Table 4.3-7 of the Final EIR, the Project would exceed the SCAQMD's regional criteria for VOCs, NO_X, CO, PM_{10}, and $PM_{2.5}$. Therefore, the Project's emissions of VOCs, NO_X, CO, PM_{10}, and $PM_{2.5}$ would result in a significant impact to the environment on both a direct and cumulatively considerable basis when construction and operational activities would overlap.

Implementation of mandatory and applicable state and federal regulatory requirements and required mitigation (Mitigation Measures MM 4.3-1 through MM 4.3-19) will reduce Project-related emissions. However, as indicated in Table 4.3-12, of the Final EIR, short-term construction-related NO_X emissions would not be reduced below the SCAQMD numerical threshold for daily emissions. Furthermore, as indicated in Table 4.3-13 of the Final EIR, the Project's operational source emissions would exceed the SCAQMD numerical threshold for emissions of VOCs and NO_X after the application of required mitigation. No additional feasible mitigation measures to reduce VOC and NO_X emissions are available that are feasible for the Project Applicant to implement and for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact. As such, it is concluded that the Project's regional operational source VOC and NO_X emissions would not comply with SCAQMD air quality daily standards. In addition, the Project's regional operational source VOC and NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations). Accordingly, the Project's regional operational source VOC and NO_X emissions are concluded to result in a significant and unavoidable impact on both a direct and cumulatively considerable basis. Mitigation Measures MM 4.3-1 through 4.3-19, as set forth in the MMP attached as Exhibit A and previously listed herein, have been imposed as conditions of approval.

2. GREENHOUSE GAS EMISSIONS

a. **Significant and Unavoidable Cumulatively Considerable Impact:** Threshold a): Would the Project generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?

Finding: The Project is estimated to generate approximately 42,404.68 MTCO2e annually, which would exceed the SCAQMD screening threshold of 10,000 MTCO2e. As such, the Project would generate substantial, cumulatively considerable GHG emissions that may have a significant impact on the environment. Changes or alterations have been required in, or incorporated into the Project, that lessen the significant impact identified in the EIR; however, the City finds that the changes and alterations necessary to reduce the identified impact to less-than-significant levels are within the responsibility of another public agency and not the City of Moreno Valley.

Factual Basis for Finding: As discussed in Subsection 4.6 of the Final EIR and the Project's Greenhouse Gas Analysis (Final EIR Technical Appendix E), the Project would generate approximately 42,404.68 MTCO2e per year. Of the Project's annual GHG emissions, approximately 358.25 MTCO2e (0.8%) would be from on-site, stationary emissions; approximately 5,342.10 MTCO2e (12.6%) would be from off-site, indirect emissions (energy production, water/waste treatment, etc.); and approximately 36,704.32 MTCO2e (86.6%) would be from mobile sources (passenger cars and trucks) and amortized construction emissions.

Global Climate Change (GCC) occurs as the result of global emissions of GHGs. An individual project such as the proposed Project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines § 15130[f]).

Accordingly, the Project-specific impact analysis provided in Subsection 4.6.4 of the Final EIR reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that the Project would not conflict with an applicable GHG-reduction plans, policies, or regulations but would generate cumulatively considerable GHG emissions that may have a significant impact on the environment because the Project would exceed the SCAQMD's GHG emissions threshold of 10,000 MTCO2e per year.

The application of required mitigation (MM 4.6-1 through MM 4.6-4 in the Final EIR) would reduce Project-related GHG emissions; however, these measures would not substantially reduce Project-related mobile source emissions (i.e., construction equipment, passenger cars and trucks), which comprise approximately 86.6% of the Project's total GHG emissions. Mobile source emissions are regulated by State and federal emissions and fuel use standards, and are outside of the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. No other mitigation measures are available that are feasible for the Project Applicant to implement and for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact. Mitigation Measures MM 4.6-1 through 4.6-4, as set forth in the MMP attached as Exhibit A and listed below, have been imposed as conditions of approval

MM 4.6-1: Prior to issuance of a building permit, the City of Moreno Valley shall verify that the roofs for Buildings #1, #2, #3, and #4 are designed to support solar panels. The entire roof area of each building is not required to support panels; the portion of the roof that is to support panels shall be determined by the City and the building's architect at time of building design and building permit issuance.

MM 4.6-2: Prior to building final, the City of Moreno Valley shall verify that the parking lot is marked in compliance with the California Green Building Standards Code, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle."

MM 4.6-3: Prior to issuance of building permits for the landscape plan, the City of Moreno Valley shall review landscape plans to verify that trees will be planted in locations where tree placement would assist with passive solar heating and cooling of the structure, while also avoiding interference with vehicle movements and building operations.

MM 4.6-4: Prior to the approval of permits and approvals that would permit cold storage in Buildings #1, #2, #3, and/or #4, the Project Applicant shall provide information to the City of Moreno Valley demonstrating that the cooling system design is energy efficient.

3. LAND USE/ PLANNING

a. Significant and Unavoidable Cumulatively Considerable Impact: Threshold b): Would the Project conflict with an applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental impact?

Finding: The Project would result in cumulatively considerable impacts due to a conflict with SCAQMD's AQMP and the Southern California Association of Governments (SCAG's) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS's) Goal G6 related to regional air quality, and the Riverside County Congestion Management Plan (CMP). Changes or alterations have been required in, or incorporated into the Project, that lessen the significant impacts identified in the EIR; however, the City finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce the identified impacts to less-than-significant levels.

Although mitigation measures are presented in Final EIR Subsection 4.3 to reduce the Project's significant air quality impacts and in Final EIR Subsection 4.11 to reduce the Project's traffic impacts to CMP arterial intersections and CMP freeway mainline and freeway ramp merge/diverge junctions and freeway ramps, the required mitigation would not reduce the Project's impacts to below a level of significance. There are no additional mitigation measures available to further reduce the Project's cumulatively considerable contribution to these impacts that conflict with the SCAQMD's AQMP, SCAG RTP/SCS Goal G6, and the Riverside County CMP. Mitigation Measures have been adopted and will reduce this impact, but not to a less-than-significant level. This impact is overridden by Project benefits as set forth in the statement of overriding considerations.

Factual Basis for the Finding: As discussed on Pages 4.3-27 through 4.3-29 of the Final EIR and in the Project's Air Quality Impact Analysis (Final EIR Technical Appendix B1), the Project would emit air pollutants that exceed daily emissions thresholds established by the SCAQMD. Therefore, the Project is determined to make a cumulatively considerable contribution to the potential obstruction of obtaining the 2012 AQMP goals and

RTP/SCS Goal 6 (protect the environment and health for our residents by improving air quality). Additionally, as shown in Pages 4.11-51 and 4.11-52 of the Final EIR and the Project's Traffic Impact Analysis (Final EIR Technical Appendix I1), the Project would contribute to projected deficiencies at CMP arterial intersections and CMP freeway mainlines, freeway ramps, and freeway ramp merge/diverge junctions. Mitigation measures are required to reduce the severity of these impacts – refer to Mitigation Measures MM 4.3-1 through 4.3-19 and MM 4.11-1 through 4.11-12 as set forth in the MMP attached as Exhibit A and listed herein – however, no additional mitigation measures are available that are feasible for the Project Applicant to implement and for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact.

4. TRANSPORTATION AND TRAFFIC

a. **Significant and Unavoidable Direct and Cumulative Considerable Impact:** Threshold a): Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Finding: The Project would be directly responsible for Level of Service (LOS) deficiencies at Project study area intersections and roadway segments under short-term construction and Existing plus Project traffic conditions (without and with the Indian Street Bridge). In addition, the Project would contribute to LOS deficiencies at numerous Project study area intersections and roadway segments under short-term construction, Existing plus Project, Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. Changes or alterations have been required in, or incorporated into the Project, that lessen the significant impacts identified in the EIR. Notwithstanding, the City of Moreno Valley finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce all of the identified impacts to less-than-significant levels. The City also finds that the changes and alterations necessary to reduce all of the identified impact to less-than-significant levels are within the responsibility of another public agency and not the City of Moreno Valley. The Project's impacts are overridden by Project benefits as set forth in the statement of overriding considerations.

Attachment: Exhibit A to 2017-16 Finding SOC (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Factual Basis for the Finding: Under short-term construction conditions, the Project would cause one study area intersection and one study area roadway segment to degrade from acceptable to unacceptable levels of service, Intersection #18 and Roadway Segment #35, respectively, as defined in the Final EIR. Additionally, the Project would make a cumulatively considerable contribution to level of service deficiencies at Intersections #12 and 13 and Roadway Segment #34. Application of Mitigation Measures MM 4.11-1, MM 4.11-2, and 4.11-7 would reduce all of the Project's direct and cumulative impacts to less-than-significant levels (refer to Final EIR Page 4.11-48). However, the improvements required for Intersections #12 and 13 to operate at acceptable levels are programmed by the City of Moreno Valley's Development Impact Fee (DIF) program there is no guarantee that the physical improvements required to alleviate the LOS deficiency will be in place at the time the Project begins to contribute traffic at this location during construction. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities, as discussed in detail on FEIR Pages 4.11-48 and 4.11-49. Accordingly, the Project's cumulatively considerable impacts at Intersections #12 and 13 would be significant and unavoidable under short-term construction activities.

Under Existing plus Project conditions, the Project would cause a level of service deficiency at Intersections #10, 18, 30 and Roadway Segments #35 and 36. Additionally, the Project would make a cumulatively considerable contribution to level of service deficiencies at Intersections #12 and 13 and Roadway Segment #34. Application of Mitigation Measures MM 4.11-1 through MM 4.11-6 would reduce all of the Project's direct and cumulative impacts to less-than-significant levels (refer to Final EIR Page 4.11-49). However, the improvements required for Intersection #30 are located outside the geographic limits of the City of Moreno Valley, meaning that the City cannot assure that the recommended improvements would be implemented. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities, as discussed in detail on FEIR Page 4.11- 4.11-49. Accordingly, the Project's direct impacts to Intersection #30 would be significant and unavoidable under Existing plus Project conditions.

Under Opening Year (2020) conditions, the Project would make cumulatively considerable contributions to the projected level of service deficiency at the 17 intersections specified on Final EIR Page 4.11-29 and the 23 roadway segments specified on Final EIR Page 4.11-30. Application of Mitigation Measures MM 4.11-7 through MM 4.11-11 would reduce all of the Project's cumulatively considerable impacts to less-than-significant levels (refer to Final EIR Page 4.11-50). However, the improvements required for Intersections #1, 2, 3, 4, 5, 7, 8, 9, 10, 13, 18, 28, 29, 30, 31, and 32 and Roadway Segments #1, 2, 3, 4, 5, 6, 7, 8, 9, 20, 21, 23, 24, 33, and 47 to operate at acceptable levels of service are either: 1) located outside the geographic limits of the City of Moreno Valley; 2) funded by existing mitigation funding programs, for which a timetable for construction is not yet available; and/or 3) not included in any existing mitigation funding program. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities, as discussed in detail on FEIR Page 4.11-50. Accordingly, the Project's cumulative impacts to Intersections #1, 2, 3, 4, 5, 7, 8, 9, 10, 13, 18, 28, 29, 30, 31, and 32 and Roadway Segments #1, 2, 3, 4, 5, 6, 7, 8, 9, 20, 21, 23, 24, 33, and 47 would be significant and unavoidable under Opening Year (2020) conditions.

Under General Plan Buildout (Post-2035) conditions, the Project would make cumulatively considerable contributions to the projected level of service deficiency at the 19 intersections specified on Final EIR Page 4.11-31 and the 29 roadway segments specified on Final EIR Page 4.11-32. Application of Mitigation Measures MM 4.11-7 through MM 4.11-11 would reduce all of the Project's cumulatively considerable impacts to less-than-significant levels (refer to Final EIR Page 4.11-51). However, the improvements required for Intersections #1, 2, 3, 4, 5, 7, 8, 9, 10, 13, 18, 28, 29, 30, 31, and 32 and Roadway Segments #1, 2, 5, 6, 7, 8, and 9 to operate at acceptable levels of service are either: 1) located outside the geographic limits of the City of Moreno Valley; 2) funded by existing mitigation funding programs, for which a timetable for construction is not yet available; and/or 3) not included in any existing mitigation funding program. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities, as discussed in detail on FEIR Page 4.11-50. Accordingly, the Project's cumulative impacts to Intersections #1, 2, 3, 4, 5, 7, 8, 9, 10, 13, 18, 28, 29, 30, 31, and 32 and Roadway Segments #1, 2, 5, 6, 7, 8, and 9 would be significant and unavoidable under General Plan Buildout (Post-2035) conditions.

Mitigation Measures 4.11-1 through 4.11-11, as set forth in the MMP attached as Exhibit A and listed below, have been imposed as conditions of approval.

MM 4.1-1 Prior to the issuance of the first grading permit, the traffic signal at the Heacock Street / San Michele Road intersection shall be modified to provide overlap phasing on the westbound right turn lane.

MM 4.1-2 Prior to the issuance of grading or building permits, the Project Applicant shall prepare and submit a temporary traffic control plan to the City of Moreno Valley for approval. The temporary traffic control plan shall comply with the applicable requirements of the California Manual on Uniform Traffic Control Devices. A requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractors. The temporary traffic control plan shall require the following:

a) The construction contractor shall assure that construction-related trips, including employee trips and delivery trucks, shall utilize the most direct route between the Project site and the I-215 freeway via Harley Knox Boulevard.

MM 4.11-3: Prior to building final for the Project's first building, the Project Applicant shall assure the Heacock Street / Cactus Avenue intersection is improved with the following geometrics:

a) Re-stripe the two northbound left turn lanes to provide 315 feet of lane storage for each lane.

MM 4.11-4: Prior to building final for the Project's first building, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Gentian Avenue intersection.

MM 4.11-5: Prior to building final for the Project's first building, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Iris Avenue intersection.

MM 4.11-6: In the event a bridge has been constructed over the Perris Valley Storm Drain Channel to connect Indian Street on the north/south sides of the Channel prior to building final for the Project's first building, then the Project Applicant shall use reasonable efforts to make a fee payment to the City of Perris that shall be used to modify the traffic signal at the Indian Street / Harley Knox Boulevard intersection to provide overlap phasing on the southbound right turn lane.

MM 4.11-7: Prior to issuance of building permits, the Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City (less fee credits), a portion of which is applied to reduce traffic congestion by funding the installation of roadway improvements.

MM 4.11-8: Prior to issuance of building permits, the Project shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements.

MM 4.11-9: Prior to issuance of building final for Buildings 1, 2, 3, and 4 the Project Applicant shall make a fair share fee payment to the City of Moreno Valley for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the geographical limits of the City of Moreno Valley. These roadway improvements are not included within the City of Moreno Valley's Development Impact Fee (DIF) program. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, Project Fair Share Calculations.

MM 4.11-10: Prior to issuance of the building final for Buildings 1, 2, 3, 4 and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the March Joint Powers Authority, for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the March Joint Powers Authority's jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, Project Fair Share Calculations.

MM 4.11-11: Prior to issuance of the building final for Buildings 1, 2, 3, and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the City of Perris, for the improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated November 18, 2015), that are located within the City of Perris' jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, Project Fair Share Calculations.

b. **Significant and Unavoidable Cumulatively Considerable Impact:** Threshold b): Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Finding: The Project would contribute cumulatively considerable traffic volumes at numerous intersections and freeway facilities included within the Riverside County CMP roadway networks under Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. Changes or alterations have been

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required in, or incorporated into the Project, that lessen the significant impacts identified in the EIR. Notwithstanding, the City of Moreno Valley finds that specific economic, legal, social, technological, or other considerations make it infeasible to reduce all of the identified impacts to less-than-significant levels. The City also finds that the changes and alterations necessary to reduce all of the identified impact to less-than-significant levels are within the responsibility of another public agency and not the City of Moreno Valley. The Project's impacts are overridden by Project benefits as set forth in the statement of overriding considerations.

Factual Basis for Finding: The Project would make cumulatively considerable contributions to Riverside County CMP facilities that are projected to operate at unacceptable levels of service under Opening Year (2020) and/or General Plan Buildout (Post-2035), including CMP Arterial Intersections #1, 2, 3, and 4; CMP Mainline Freeway Segments #2, 3, 8, 24, 27, 29, 30, 31, 32, 33, 34, 48, 49, 51, 52, 53, 56, and 58; CMP Freeway Ramp Merge/Diverge Junctions #1, 2, 3, 4, 5, 6, and 7; and CMP Freeway Ramps #1, 2, and 3 (as defined in the Final EIR).

Application of Mitigation Measures MM 4.11-7 through MM 4.11-11 would reduce the Project's cumulatively considerable impacts to CMP Arterial Intersections #1, 2, 3, and 4 to less-than-significant levels (refer to Final EIR Page 4.11-52). However, the improvements required for CMP Arterial Intersections #1, 2, 3, and 4 to operate at acceptable levels of service are either: 1) located outside the geographic limits of the City of Moreno Valley; 2) funded by existing mitigation funding programs, for which a timetable for construction is not yet available; and/or 3) not included in any existing mitigation funding program. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities, as discussed in detail on FEIR Page 4.11-52. Accordingly, the Project's cumulative impacts to CMP Arterial Intersections #1, 2, 3, and 4 would be significant and unavoidable under Opening Year (2020) and General Plan Buildout (Post-2035) conditions.

All freeway facilities in the Project study area, including I-215, SR-60, and SR-91 and associated merge/diverge ramp junctions areas and ramps, are under the jurisdiction of Caltrans. As such, the City of Moreno Valley cannot assure the construction of improvements to freeway facilities that may be needed to improve traffic flow. Furthermore, Caltrans does not have any funding mechanism in place to allow development projects to contribute a fair-share payment to contribute to future improvements and off-set cumulatively considerable traffic impacts. Thus, although MM 4.11-12 requires the Project Applicant to make fair share fee contributions to Caltrans to fund improvements to freeway facilities in the Project study area – in the event that Caltrans establishes a fair share funding program that is applicable to the Project – there is no assurance that planned improvements will be in place prior to the time that the Project begins to contribute traffic to the facilities. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities, as discussed in detail on FEIR Pages 4.11-51 and 4.11-52. Accordingly, the Project's traffic contribution congested freeway facilities listed above under Opening Year (2020) and/or General Plan Buildout (Post-2035) conditions would represent a significant and unavoidable cumulative impact.

Mitigation Measures 4.11-7 through 4.11-11, as set forth in the MMP attached as Exhibit A and previously listed herein, have been imposed as conditions of approval. In addition, Mitigation Measure MM 4.11-12, as set forth in the MMP and listed below, has been imposed as a condition of approval.

MM 4.11-12: In the event that Caltrans prepares a valid study, as defined below, that identifies fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary undertake improvements to I-215 and SR-91 in the Project study area, then the Project Applicant shall use reasonable efforts to pay the applicable fair share amount to Caltrans.

The study shall include fair share contributions related to private and or public development based on nexus requirements contained in the Mitigation Fee Act

(Govt. Code § 66000 et seq.) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall recognize that impacts to Caltrans I-215 and SR-91 facilities that are not attributable to development located within the City of Moreno Valley are not required to pay in excess of such developments' fair share obligations. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program.

In the event the study has been prepared, the Project Applicant shall use reasonable efforts to pay the fair share amount to Caltrans. If Caltrans chooses to accept the Project Applicant's fair share payment, Caltrans shall apply the payment to the fee program adopted by Caltrans or agreed upon by the Project Applicant and Caltrans as a result of the fair share fee study. Caltrans shall only accept the fair share payment if the fair share fee study has been completed. If, within five years from the date that the first building permit is issued for the Project, Caltrans has not completed the fair share fee study, then the Project Applicant shall have no further obligation to comply with this mitigation measure.

V. PROJECT ALTERNATIVES

A. ALTERNATIVE SITES

Finding: There exists no feasible and available alternative site for the Project which would avoid or substantially lessen the significant impacts of the Project while allowing for the feasible attainment of most of the Project's basic objectives.

Factual Basis for the Finding: The Project site is located within the geographical limits of the MVIAP, which over the past decade has been transitioning into an important industrial and economic center for the City of Moreno Valley (Final EIR Page 6-6). As discussed on Pages 6-5 through 6-6 of the Final EIR, based on review of aerial photography, the City of Moreno Valley General Plan Land Use Plan Map, and a list of approved/pending development proposals within the City of Moreno Valley (as shown on Final EIR Figure 4.0-1, Cumulative Development Location Map, and Table 4.0-1, Cumulative Project List), there are no other available, undeveloped properties of similar size (approximately 89 acres), similar land use designation (i.e., Business Park/Light Industrial), and similar zoning designation (i.e., Business Park or Industrial) in the City of Moreno Valley that could accommodate the proposed Project.

If alternative, undeveloped sites located within the City of Moreno Valley that are not already designated for "Business Park/Light Industrial" land uses or zoned for "Business Park" or "Industrial" land uses are considered, there is not any site in the City that would offer less developmental constraints, environmental constraints, and/or environmental impacts than the proposed Project site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location, with the potential for greater impacts. (Final EIR page 6-6). All undeveloped land within the City of Moreno Valley similar in size to the Project site (i.e., approximately 89 acres) and not part of an approved/pending development proposal is located farther from major regional transportation routes (I-215, SR-60, and local truck routes) than the Project site. Therefore, operational impacts associated with traffic and vehicular noise and air emissions would be greater as the vehicles would need to travel farther distances on local roads to reach the state highway system. In addition, according to SCAG's Comprehensive Regional Goods Movement Plan and Implementation Strategy, there is great demand in the SCAG region for warehouse and industrial building space on suitably zoned vacant land. Thus, it is likely that selection of an alternative site would merely displace the development activity proposed by the Project to another location resulting in the same or greater environmental effects, given the regional demand for logistics and warehousing space in the SCAG region. For these reasons, an alternative sites analysis is not required for this Project.

B. NO DEVELOPMENT ALTERNATIVE

Finding: The No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have already occurred on the property. All significant effects of the Project would be avoided or lessened by the selection of the No Development Alternative. The Project site would remain vacant and undeveloped. This Alternative would not allow for the construction and operation of a logistics center. This Alternative also would not attract new businesses or jobs to the City of Moreno Valley because the property would remain vacant. Moreover, selection of the No Development Alternative, while preventing redevelopment of the property with a logistics center, would not result in a reduction in demand for high-cube warehouse logistics development in western Riverside County; thus, it is likely for the Project's environmental impacts to occur elsewhere in the City or Inland Empire region rather than be avoided. The No Development Alternative would avoid physical impacts to the property. Operational impacts associated with the Project including air quality emissions, greenhouse gas emissions, noise, and traffic would be avoided but likely displaced to another property. For these reasons, the City of Moreno Valley rejects the No Development Alternative.

Factual Basis for the Finding: As discussed on Page 6-8 of the Final EIR, the No Development Alternative was evaluated to compare the environmental impacts of approving the proposed Project to the environmental impacts that would occur if the property were to be unchanged from existing conditions for the foreseeable future. Under the No Development Alterative, no improvements would be made to the Project site and none of the Project's on- or off-site utility and infrastructure improvements would occur. As discussed on Page 6-11 of the Final EIR, the No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have already occurred on the property. As discussed on Pages 6-8 through 6-11, and in Table 6-1 on Page 6-29 of the Final EIR, all of the Project's environmental effects would be avoided; however, ongoing weed abatement would impact biological resources and sedimentation from the vacant property would continue to occur. This Alternative would not absorb demand for logistics center space in western Riverside County; thus, it is likely that any reduced level of environmental impact achieved through this Alternative would be displaced to another property rather than avoided. This conclusion is supported by the discussion of in the Southern California Association of Governments' Regional Transportation Plan and particularly its Goods Movement Chapter, on Pages 2-4 and 2-7 of the Final EIR. As stated on Final EIR Page 2-7, according to SCAG's Comprehensive Regional Goods Movement

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Plan and Implementation Strategy, the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on a network of warehousing and distribution facilities, highway and rail connections, and intermodal rail yards. Final EIR Page 2-7 goes on to state that the SCAG region has a large demand for warehouse space and the demand will continue into the foreseeable future, resulting in a large unmet demand by the year 2035; SCAG reports that a substantial amount of available industrial land for this type of development is located in the vicinity of the SR-60 corridor, particularly in Moreno Valley, Perris, and near March Air Reserve Base (i.e., the vicinity of the Project site). The Project site is located in the Moreno Valley Industrial Area Plan area and has been planned for industrial use for the past 25 years. Leaving the property in a vacant condition would reduce the tax revenue and employment generation potential of the property and shift the demand for warehouse space to a different property, resulting in no environmental benefits. Additionally, leaving the Project site in a vacant state does not implement the Light Industrial land use designation applied to the property by the City's General Plan and results in inefficient use of land that may become blighted in a vacant state. The No Development Alternative is not justified by the environmental benefit of avoiding, but more likely displacing, the significant and unavoidable impacts associated with constructing and operating a logistics center on the property. In addition, the No Development Alternative would fail to meet all of the Project's objectives, as indicated in Final EIR Table 6-1.

C. NO PROJECT ALTERNATIVE

Finding: The No Project Alternative considers implementation of the Moreno Valley Industrial Area Plan (MVIAP) on the property with no amendment to the setback requirement along Indian Street as proposed by the Project and no design feature to limit. Under this Alternative, the property would be developed with the same building square footage as proposed by the Project, but with a setback of 300 feet along Indian Street. The 300-foot setback area would be planted with landscape materials, mostly ground covers. The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project, construct the same amount of building area, and attract the same types of building users as the proposed Project. None of the

Project's significant and unavoidable impacts would be reduced in severity or avoided by the No Project Alternative, and the No Project Alternative would result in a significant air quality impact related to diesel particulate matter (DPM) emissions (requiring mitigation) that would not occur under the Project. Under this Alternative, the site's landscaped area would increase by approximately 12.0 acres, parallel to Indian Street. The streetscape along Indian Street would be wider than occurs on Indian Street north of Krameria Avenue and would likely look disjointed and awkward, but it would not result in a significant aesthetic impact associated with visual quality and character More water would be needed for irrigation under this Alternative, which given the State of California's current drought situation, could be regarded as a wasteful and inefficient use of water and the energy needed to supply the water. The No Project Alternative would meet six of the Project's seven objectives as indicated in Final EIR Table 6-1. For these reasons, the City of Moreno Valley rejects the No Project Alternative.

Factual Basis for the Finding: As discussed on Page 6-12 of the Final EIR, under the No Project Alternative, the on-site building setback along Indian Street would be comprised of 300 feet of groundcover compared to the 100-foot setback with trees along Indian Street north of Krameria Avenue proposed by the Project. The MVIAP's intent for requiring a 300-foot setback between industrial and residential land uses was to ensure that residents would not be exposed to substantial effects from industrial operations. The reduced setback proposed by the Project would not result in any new or substantially more severe environmental effects at nearby residential receptors than would occur under the larger setback currently required by the MVIAP (and provided by the No Project Alternative) (Final EIR Page 6-17). The No Project Alternative would be less successful than the Project in screening on-site land uses as viewed from surrounding areas to the east, and the inconsistent setback and landscape treatment along the west side of Indian Street has the potential to look disjointed and awkward (Final EIR Page 6-12). As discussed on Pages 6-15 through 6-16 of the Final EIR, the 300-foot setback with groundcover would allow air pollutant emissions – particularly diesel particulate matter (DPM) emitted from vehicles circulating and idling on the Project site – more opportunity to dissipate from the air before reaching sensitive receivers, as compared to the Project that proposes an extensive number of trees in the 100-foot setback area. The increased setback area would result in approximately 12.0 acres of additional area requiring irrigation, and the supply of water for this additional irrigated area would result in a nominal increase in indirect energy source air quality and greenhouse gas emissions to supply the water (Final EIR Page 6-15 and 6-16). More water would be needed for irrigation under this Alternative, which given the State of California's current drought situation, could be regarded as a wasteful and inefficient use of water and the energy needed to supply the water (Final EIR Page 6-19). The No Project Alternative is not justified because it would produce greater air quality and greenhouse gas emissions, result in a disjointed and inconsistent building setback and community character appearance along Indian Avenue, and consume domestic water to irrigate an approximately 12-acrea area planted in groundcover that would be regarding as a wasteful and inefficient use of water considering California's drought situation.

D. REDUCED PROJECT ALTERNATIVE

Finding: The Reduced Project Alternative considers an approximately 19 percent reduction in building area compared to the proposed Project. The reduced building coverage area would be used for parking. This Alternative would reduce the severity of, but not avoid, the Project's significant and unavoidable impacts to air quality, greenhouse gas, land use/planning, and transportation/traffic. The Reduced Project Alternative would have the same physical impact footprint as the Project, so all ground-disturbing impacts would be identical to the proposed Project. All other operational-related impacts of the Project would be reduced under this Alternative due to the reduction of building area on the subject property and/or the reduction in vehicle trips. The Reduced Project Alternative would meet most – but not all – of the Project's objectives, although many objectives would be met to a lesser degree than the Project as indicated in Table 6-1 on Page 6-29 of the Final EIR, an in particular the provision of logistics building space that will provide jobs and economic advantages in the City of Moreno Valley. Operational impacts associated with the Project including air quality emissions, greenhouse gas emissions, noise, and traffic would be reduced, but would likely displaced to another property due to the demand for logistics center building space in the region. For these reasons, the City of Moreno Valley rejects the Reduced Project Alternative.

Factual Basis for the Finding: As discussed on Pages 6-20 through 6-21 of the Final EIR, under the Reduced Project Alternative, the construction schedule would be slightly reduced as compared to the proposed Project, due to the approximately 19 percent reduction in building area. As such, construction-related air quality emissions

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would occur over a slightly shorter period of time, but total daily emissions during construction activities would be the same as the proposed Project. Therefore, air quality pollutant emissions associated with short-term construction and the overlap of construction and operational activities would be identical between the proposed Project and the Reduced Project Alternative. Short-term construction-related NO_X emissions would still exceed the SCAQMD numerical thresholds for daily emissions, resulting in significant and unavoidable impacts. Because the Reduced Project Alternative would construct approximately 19 percent less building area than the Project, the Reduced Project Alternative would produce a concomitant reduction in traffic compared to the proposed Project and require a concomitant reduction of energy use. As such, mobile source and energy source air emissions and greenhouse gas emissions would be reduced compared to the Project. As discussed on Page 6-21 of the Final EIR, due to the reduction in the amount of traffic associated with the Reduced Project Alternative, mobile-source GHG emissions would decrease as compared to the proposed Project. Similarly, because air pollutant emissions would be reduced under the Reduced Project Alternative, as compared to the proposed Project, the Reduced Project Alternative would reduce the Project's degree of inconsistency with the SCAQMD's 2012 AQMP and the SCAG's RTP/SCS related to regional air quality. As discussed on Page 6-22 of the Final EIR, because a fewer number of traffic trips would be generated under the Reduced Project Alternative, the Project's significant and unavoidable cumulatively considerable traffic impact to CMP circulation facilities, including I-215 and SR-91, would be reduced but not avoided. Regardless, the Reduced Project Alternative would not avoid the Project's cumulatively considerable traffic and air quality impacts and, therefore, would not avoid the Project's significant and unavoidable cumulatively conflicts with the Riverside County CMP, SCAQMD AQMP, and SCAG RTP/SCS.

Despite the reduction in daily traffic trips by 1,234 fewer actual daily trips that would occur with selection of the Reduced Project Alternative, the Reduced Project Alternative would not avoid any of the Project's direct or cumulatively considerable and unavoidable impacts to study area intersections or roadway segments under short-term construction, Existing plus Project, Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. The Reduced Project Alternative would result in cumulatively considerable impacts to the same congested CMP facilities (freeway mainline segments, freeway ramp interchanges, freeway ramp merge/diverge areas) as the proposed Project. The Reduced Project Alternative would reduce the severity of identified impacts to CMP facilities, as compared to the Project, because the Reduced Project Alternative would generate approximately traffic trips, but impacts are expected to remain significant and unavoidable.

It is likely that any reduced level of environmental impact achieved through this Alternative would be displaced to another property rather than avoided. This conclusion is supported by the discussion of the Southern California Association of Governments' Regional Transportation Plan and particularly its Goods Movement Chapter, on Pages 2-4 and 2-7 of the Final EIR. As stated on Final EIR Page 2-7, according to SCAG's Comprehensive Regional Goods Movement Plan and Implementation Strategy, the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on a network of warehousing and distribution facilities, highway and rail connections, and intermodal rail yards. Final EIR Page 2-7 goes on to state that the SCAG region has a large demand for warehouse space and the demand will continue into the foreseeable future, resulting in a large unmet demand by the year 2035; SCAG reports that a substantial amount of available industrial land for this type of development is located in the vicinity of the SR-60 corridor, particularly in Moreno Valley, Perris, and near March Air Reserve Base (i.e., the vicinity of the Project site). The Project site is located in the Moreno Valley Industrial Area Plan area and has been planned for industrial use for the past 25 years. Developing the property with 19 percent less building space would reduce the tax revenue and employment generation potential of the property and shift the demand for warehouse space to a different property, resulting in no environmental benefits. The Reduced Project Alternative is not justified by the environmental benefits of reducing, but more likely displacing, air quality, greenhouse gas, noise and traffic impacts. In addition, the Reduced Project Alternative would meet the Project's objectives to a lesser degree, particularly related to the provision of jobs and economic opportunities to the City of Moreno Valley, as indicated in Final EIR Table 6-1.

E. ONE BUILDING PROJECT ALTERNATIVE

Finding: The One Building Alternative considers an approximately 77 percent reduction in building area compared to the proposed Project and is identified as the environmentally superior alternative. Under this Alternative, one (1) 400,000 s.f. high cube warehouse building would be constructed on the Project site northeast of the Perris Valley Storm Drain Channel. The remainder of the site would remain vacant. The One Building Alternative would avoid the Project's significant and unavoidable impacts to greenhouse gas and transportation/traffic. In addition, the One Building Alternative would reduce the severity of, but not avoid, the Project's significant and unavoidable impacts to air quality, and land use/planning. The One Building Alternative also would reduce the severity of all of the Project's less-than-significant impacts with the exception of aesthetics, which would be slightly increased due to a less cohesive visual character and a reduction in visual quality across the entire property. A portion of the Project site would remain vacant and undeveloped. Thus, this Alternative would attract fewer new businesses and jobs to the City of Moreno Valley because a portion of the property would remain vacant. Moreover, selection of the One Building Alternative would not result in a reduction in demand for warehouse logistics development in western Riverside County; thus, it is likely for the environmental impacts reduced under this Alternative to occur elsewhere in the City or Inland Empire region rather than be avoided. Operational impacts associated with the Project including air quality emissions, greenhouse gas emissions, noise, and traffic would be avoided but likely displaced to another property. For these reasons, the City of Moreno Valley rejects the No Development Alternative. The One Building Alternative would fail to meet two of the Project's objectives and would meet four other objectives less successfully than the Project, as indicated in Table 6-1.

Factual Basis for the Finding: As discussed on Page 6-24 of the Final EIR, selection of the One Building Alternative would result in a greater long-term aesthetic impact than the proposed Project because small pockets of undeveloped land interspersed between larger, on- and off-site warehouse/industrial buildings would be less compatible with the surrounding character of the MVIAP area than would a logistics warehouse and light industrial center with multiple buildings. As discussed on Page 6-26 of the Final EIR, the One Building Alternative would have a lower likelihood of impacting biological resources and previously unknown cultural resources that may be present beneath the ground surface during construction activities, because less land area would be disturbed. The One Building Alternative would be required to comply with the same regulatory requirements and mitigation measures as the proposed Project to reduce potential biological and cultural resources impacts to less-than-significant levels.

As discussed on Pages 6-25 through 6-29 of the Final EIR, because the One Building Alternative would develop a smaller area than the Project and construct substantially less building area, the extent and daily intensity of construction activities as associated construction-related air quality, noise, and greenhouse gas impacts would be reduced as compared to the Project. The One Building Alternative would avoid the Project's significant and unavoidable air quality impact during construction. During operation, the One Building Alternative would generate approximately 672 actual daily vehicle trips compared to the proposed Project's approximately 4,960 actual daily vehicle trips thus reducing operational-related air quality and greenhouse gas emissions and noise. The long-term operation of this Alternative would still exceed the SCAQMD's daily criteria pollutant threshold for $NO_{X,}$ however, and would still contribute to an existing air quality violation (i.e., violation of ozone standards). Accordingly, the One Building Alternative would reduce but not avoid the proposed Project's significant and unavoidable impact due to operational NO_X emissions. Because air pollutant emissions would be reduced under the One Building Alternative, as compared to the proposed Project, this Alternative would reduce the Project's degree of inconsistency with the SCAQMD's 2012 AQMP and the SCAG's RTP/SCS related to regional air quality. Regardless, the One Building Alternative would not avoid the Project's cumulatively considerable air quality impacts and, therefore, would not avoid the Project's significant and unavoidable cumulatively conflicts with the SCAQMD AQMP and SCAG RTP/SCS.

As discussed on Page 6-28 of the Final EIR, during the AM and PM peak hours, the One Building Alternative would generate less than 50 peak hour trips; therefore, the Alternative's contribution of traffic to the local and regional circulation network is considered less than significant and would not have the potential to cause or contribute to any direct or cumulatively considerable impacts at any intersection, roadway segment or CMP facility (including freeway facilities). The One Building Alternative would avoid all of the Project's significant and unavoidable impacts related to transportation/traffic. Regardless, this Alternative would not absorb demand for logistics center space in western Riverside County to same degree as the proposed Project and it is likely that any reduced level of environmental impact achieved through this Alternative would be displaced to another property rather than avoided. This conclusion is supported by the discussion of in the Southern California Association of Governments' Regional Transportation Plan and particularly its Goods Movement Chapter, on Pages 2-4 and 2-7 of the Final EIR. As stated on Final EIR Page 2-7, according to SCAG's Comprehensive Regional Goods Movement Plan and Implementation Strategy, the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on a network of warehousing and distribution facilities, highway and rail connections, and intermodal rail yards. Final EIR Page 2-7 goes on to state that the SCAG region has a large demand for warehouse space and the demand will continue into the foreseeable future, resulting in a large unmet demand by the year 2035; SCAG reports that a substantial amount of available industrial land for this type of development is located in the vicinity of the SR-60 corridor, particularly in Moreno Valley, Perris, and near March Air Reserve Base (i.e., the vicinity of the Project site). The Project site is located in the Moreno Valley Industrial Area Plan area and has been planned for industrial use for the past 25 years. Leaving the property in a partially vacant condition would reduce the tax revenue and employment generation potential of the property and shift the demand for warehouse space to a different property, resulting in no environmental benefits. Additionally, leaving the Project site in a partially vacant state does not implement the Light Industrial land use designation applied to the property by the City's General Plan and results in inefficient use of land that may become blighted in a vacant state. The One Building Alternative is not justified by the environmental benefit of reducing, but more likely displacing, the significant and unavoidable impacts associated with constructing and operating a larger logistics center on the property. In addition, the One Building Alternative would fail to meet two of the Project's objectives, and meet all but one of the other Project objectives to a lesser degree than the Project as indicated in Final EIR Table 6-1.

VI. STATEMENT OF OVERRIDING CONSIDERATIONS

This Section specifically addresses § 15093 of the CEQA Guidelines, which requires the City, acting as the Lead Agency, to balance the benefits of the Project against its significant and unavoidable adverse environmental impacts and determine whether the benefits which will accrue from the development of the Project outweigh its significant and unavoidable impacts. If the City finds that the major benefits of the Project outweigh its significant and unavoidable adverse environmental impacts, the City may approve the Project. Each of the separate benefits listed below are hereby determined to be, in itself, and independent of the Project's other benefits, the basis for overriding all significant and unavoidable environmental impacts identified in the EIR.

As set forth in Section IV above, most of the Project's impacts on the environment will either be less than significant or, through the imposition of mitigation measures as conditions of approval of the Project, can be reduced to less than significant. However, as set forth in subsection IV.B, above, impacts to air quality, greenhouse gas emissions, land use/planning, and transportation/traffic will remain significant and unavoidable even after the imposition of all feasible mitigation measures. Further, as set forth in Section V, above, there are no feasible alternatives to the Project which would mitigate or avoid those environmental impacts while still attaining all of the Project's basic objectives. Nevertheless, as set forth below, the City Council has determined that the benefits which will accrue from the development of the Project outweigh the significant and unavoidable impacts which the Project will produce.

Finding: As the CEQA Lead Agency for the proposed Project, the City of Moreno Valley has reviewed the Project description and the alternatives to the Project, as presented in the EIR, and the City fully understands the Project and its alternatives. Further, the City finds that all potential adverse environmental impacts and all feasible mitigation measures to reduce the impacts from the Project have been identified in the Draft EIR, Final EIR, and public testimony. Having considered the potential for the Project to cause or contribute to significant and unavoidable adverse impacts to air quality, greenhouse gas emissions, land use/planning, and transportation/traffic, as discussed in Subsection IV.B, the City hereby determines that all feasible mitigation measures with proportional nexus to the Project's impacts have been adopted to reduce or avoid the significant and unavoidable impacts identified in the

EIR, and that no additional feasible mitigation is available to further reduce significant impacts. Further, the City finds that economic, social, and other considerations of the Project outweigh the Project's unavoidable impacts to air quality, greenhouse gas emissions, land use/planning, and transportation/traffic, and that approval of the Project is appropriate. In making this finding, the City has balanced the benefits of the Project against its unavoidable environmental impacts, and has indicated its willingness to accept those effects.

Factual Basis for the Finding: As set forth in the Project Objectives on Page 3-3 of the Final EIR and in the description of the Project provided on Pages 3-1 through 3-35 of the Final EIR, approval of the Project will allow the development of a vacant and undeveloped site into a job and revenue producing facility. Based on fiscal projections prepared by Andrew Chang & Co. (Final EIR Page 5-4 and Final EIR Technical Appendix O), implementation of the Project is anticipated to result in the creation of between 340 and 620 new, recurring direct and indirect jobs in the City of Moreno Valley. In addition, Andrew Chang & Co, calculate that in its first 10 years of operations, the Project would generate between $8.0 million and $9.2 million in net fiscal revenue for the City of Moreno Valley, between $238 million and $288 million in new household earnings, and between $915 million and $1.1 billion in operations revenue (Final EIR Page 5-4 and Final EIR Technical Appendix O). The Project will allow for the implementation of Industrial land uses in conformance with the Moreno Valley Industrial Area Plan (MVIAP), and will assist the City in achieving numerous General Plan Goals, including, but not limited to, Ultimate Goal No. IV. (to achieve a community which "Enjoys a healthy economic climate that benefits both residents and businesses"), and Community Development Objective 2.5 ("Promote a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley with the establishment of industrial activities that have good access to the regional transportation system, accommodate the personal needs of workers and business visitors, and which meets the service needs of local businesses"). The Project would implement energy conservation measures and proposes conventional warehouse and industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. As part of the

Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by diesel-fueled engines that comply with the CARB/USEPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM_{10}) and all on-site indoor forklifts would be powered by electricity, compressed natural gas, or propane. Project design features, mandatory compliance with CalGreen, and the implementation of the mitigation measures contained in Section 4.3, Air Quality and Section 4.6, Greenhouse Gas Emissions, of the Final EIR, demonstrate evidence of the Project's efficient use of energy. Approving the Project also will result in the Project's monetary contributions to established fee programs such as the City's Development Impact Fee (DIF) and the western Riverside County Transportation Uniform Mitigation Fee (TUMF) that will be directed to needed local and regional road improvements. A monetary contribution also will be provided in accordance with the Western Riverside County MSHCP to assist in establishing a regional conservation and open space system, whereas the Project site itself has very little biological value.

VII. CERTIFICATION OF THE FINAL ENVIRONMENTAL IMPACT REPORT

The Moreno Valley City Council finds that it has reviewed and considered the Final EIR in evaluating the Project, that the Final EIR is an accurate and objective statement that fully complies with CEQA and the CEQA Guidelines, and that the Final EIR reflects the independent judgment of the City Council.

The Moreno Valley City Council declares that no new significant information as defined by CEQA Guidelines Section 15088.5 has been received by the City Council after the circulation of the Draft EIR that would require recirculation. All of the information added to the Final EIR merely clarifies, amplifies or makes insignificant modifications to an already adequate Draft EIR pursuant to CEQA Guidelines Section 15088.5(b).

The City Council hereby certifies the EIR based on the following findings and conclusions:

A. FINDINGS

1. WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN COMPLIANCE

The Project is in conformance with the conservation requirements of the Western Riverside County Multiple Species Conservation Plan (MSHCP) in that:

1. The Project site is located within the MSHCP Plan Area, but is not located within a Criteria Area; therefore, a Habitat Acquisition and Negotiation Strategy (HANS) application is not required to be submitted to the Western Riverside County Regional Conservation Authority (RCA).

2. Pursuant to Section 6.1.2 of the MSHCP, an assessment of potentially significant effects on Riparian/Riverine Areas and Vernal Pools is required if such resources are identified on the Project site or will impacted by the Project. The Project would permanently impact approximately 0.02-acre of unvegetated riverine habitat and temporarily impact approximately 0.18-acre of unvegetated riverine habitat within the Perris Valley Storm Drain Channel that qualifies as a MSHCP riverine area. The unvegetated riverine habitat that would be impacted by the Project does not include any riparian habitat or vernal pools. The Project's permanent impacts to MSHCP riverine areas would be less than significant due to the absence of riparian habitat, the negligible adverse effect to biological functions and values as it pertains to MSHCP Covered Species, and the small area of total impact. The Project's temporary impacts to MSHCP riverine areas would be less than significant because of the absence of riparian/wetland habitat and the negligible adverse effect to biological functions and values as it pertains to MSHCP Covered Species, and because the Project would restore all temporarily impacted areas to pre-construction conditions. The Project would result in a slight reduction in runoff flows discharged to the Perris Valley Storm Drain Channel during peak storm events, as compared with existing conditions, and has the potential to discharge less-than-significant concentrations of sediment and urban pollutants in storm water runoff that enter the Perris Valley Storm Drain Channel. The Project's minor alterations to the volume and quality of runoff stormwater runoff leaving the subject property and entering the Perris Valley Storm Drain Channel would have negligible potential to adversely impact biological functions and values as it related to downstream resources. Because the Project would not result in a loss of functions and values as it pertains to the MSHCP Covered Species within the Project footprint or within downstream areas, a Determination of Biological Equivalent or Superior Preservation (DBESP) is not required for the Project.

3. Pursuant to Section 6.1.3 of the MSHCP, habitat assessments and/or focused surveys for certain Narrow Endemic plant species are required for

properties within mapped survey areas. The Project is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA) and is not subject to focused surveys for special-status plants. As such the Project would not conflict with Volume I, Section 6.1.3 of the Western Riverside County MSHCP and no impact would occur.

4. Pursuant to Section 6.1.4 of the MSHCP, projects in close proximity to the MSHCP Conservation Area are required to incorporate mechanisms to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area, including Public/Quasi-Public lands. The Project site abuts the Perris Valley Storm Drain Channel, which is designated as the Western Riverside County MSHCP as Public/Quasi-Public lands; however, the Perris Valley Storm Drain Channel is a man-made, engineered stormwater drainage channel that is routinely maintained and does not support natural habitat or special-status biological resources under existing conditions. As such, the Project has no potential to result in substantial adverse indirect effects in proximity to a MSHCP Conservation Area that supports natural and/or sensitive biological resources. Therefore, the proposed Project is consistent with Section 6.1.4 of the Western Riverside County MSHCP.

5. Pursuant to Section 6.3.2 of the MSHCP, in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3, additional surveys may be needed for other certain plant and wildlife species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated Criteria Area Plan Species Survey Area (CAPSSA), or special wildlife species survey area (i.e., burrowing owl, amphibians, and mammals). The Project site is located within the burrowing owl survey area and the required surveys were conducted. The Project site is not located within the survey area for any other plant or wildlife species. Pre-construction surveys of the Project site and avoidance of clearing and grading activities during the nesting season are required. If the site is occupied, Mitigation Measures MM 4.4-1 and MM 4.4-2 as set forth in the MMP attached as Exhibit A, have been imposed as a condition of approval of the Project in accordance with the MSHCP.

2. CEQA COMPLIANCE

As the decision-making body for the Project, the City Council has reviewed and considered the information contained in the Findings and supporting documentation. The City Council determines that the Findings contain a complete and accurate reporting of the environmental impacts and mitigation measures associated with the Project, as well as complete and accurate reporting of the unavoidable impacts and benefits of the proposed Project as detailed in the Statement of Overriding Considerations. The City Council finds that the EIR was prepared in compliance with CEQA and that the City Council complied with CEQA's procedural and substantive requirements.

3. SIGNIFICANT UNAVOIDABLE IMPACTS/STATEMENT OF OVERRIDING CONSIDERATIONS

The Project will have significant adverse impacts even following adoption of all feasible mitigation measures which are required by the City Council. The following significant environmental impacts have been identified in the Final EIR and will require mitigation but cannot be mitigated to a level of less than significant as set forth in Subsection IV.B of these Findings: Air Quality-Conflict with or obstruct implementation of the applicable air quality plan (Threshold a), Air Quality-Violate any air quality standard or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (Thresholds b and c); Greenhouse Gas Emissions-Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment (Threshold a); Land Use/Planning-Conflict with an applicable land use plan, policy or regulation of any agency with jurisdiction over the Project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect (Threshold b); Transportation/Traffic-Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit Threshold a), Transportation/Traffic-Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highway (Threshold b).

The City Council has eliminated or substantially reduced environmental impacts where feasible and the City Council determines that the remaining unavoidable significant adverse impacts are acceptable due to the reasons set forth in the preceding Statement of Overriding Considerations.

4. CONCLUSION

The following conclusion is found to be an accurate summation of the foregoing review and findings set forth in this resolution and all the documents, studies reports, and testimony considered and independently decided upon by this City Council.

1. All potentially significant environmental impacts from implementation of the proposed Project have been identified in the Final EIR and, with the

implementation of the mitigation measures defined herein and set forth in the MMP, attached as Exhibit A, will be mitigated to a less-than-significant level, except for the impacts identified in subsection IV.B herein.

2. Other reasonable alternatives to the proposed Project that could feasibly achieve the basic objectives of the proposed Project have been considered and rejected in favor of the proposed Project.

3. Environmental, economic, social and other considerations and benefits derived from the development of the proposed Project override and make infeasible any alternatives to the proposed Project or further mitigation measures beyond those incorporated into the proposed Project.

VIII. CUSTODIAN OF RECORD

The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Moreno Valley, Community Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, California 92552. The custodian for these records is ____________________. This information is provided in compliance with Public Resources Code Section 21081.6.

Mitigation Monitoring Program

Moreno Valley Logistics Center

State Clearinghouse No. 2015061040

Prepared for:

City of Moreno Valley
Community & Economic Development Department
14177 Frederick Street
Moreno Valley, CA 92552

Prepared by:

T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, CA 92780
714-505-6360

May 2017

Exhibit B to 2017-16

INTRODUCTION

CEQA Requirements

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document that includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a Mitigation Monitoring Program (MMP) for the changes to the project that it has adopted or made a condition of project approval in order to mitigate or avoid significant environmental impacts. The appropriate reporting or monitoring plan must be designed to ensure compliance during project implementation (Public Resources Code § 21081.6).

The City of Moreno Valley & Economic Community Development Department, Planning Division, would coordinate the monitoring of the mitigation measures with each applicable City department or division, while various City departments/divisions would be responsible for monitoring and verifying compliance of specific mitigation measures (see the Mitigation Monitoring and Reporting Summary Table beginning on page 6). The City's Public Works Department would coordinate monitoring of the implementation of all mitigation measures for the project. Monitoring will include: 1) verification that each mitigation measure has been implemented; 2) recordation of the actions taken to implement each mitigation measure; and 3) retention of records in the project file.

Program Objectives

The objectives of the MMP for the proposed Moreno Valley Logistics Center Project (the "Project") include the following:

- To provide assurance and documentation that mitigation measures are implemented as planned;
- To collect analytical data to assist City administration in its determination of the effectiveness of the adopted mitigation measures;
- To report periodically regarding project compliance with mitigation measures, performance standards and/or other conditions; and
- To make available to the public, upon request, the City record of compliance with project mitigation measures.

Overview of the Project

The approximately 89.4-acre site is located in the southern portion of the City of Moreno Valley. The City of Moreno Valley is located in the northwestern portion of Riverside County, California, and is north of the City of Perris and southeast of the City of Riverside. The Project site is located approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route 60 (SR-60), and approximately 2.5 miles northwest of Lake Perris. At a local scale, the Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street.

The proposed Project involves the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (s.f.) of total floor space. No future building

Attachment: Exhibit B to 2017-16 Mitigation Measures (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans) occupants are yet identified, but the types of occupants are anticipated to include high cube warehousing in the largest building and uses such as general warehousing, industrial, manufacturing, assembly, e-commerce, and similar use types in the smaller buildings. Associated improvements to the Project site would include, but not be limited to, surface parking areas, vehicle drive aisles, truck courts, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. The Project also would construct frontage improvements to Krameria Avenue, Heacock Avenue, and Indian Street, and construct storm drain outlets to the Perris Valley Storm Drain Channel, a segment of which transects the site.

A list of the primary actions under City jurisdiction, as well as other discretionary and administrative actions that would or could be necessary to implement the Project are listed below.

Matrix of Project Approvals/Permits

Public Agency	**Approvals and Decisions**
City of Moreno Valley	
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	• Provide recommendations to the City of Moreno Valley City Council whether to approve the Specific Plan Amendment P15-036, Tentative Parcel Map No. 36150 (PA15-0018), and Plot Plans PA15-0014, PA15-0014, PA15-0015, and PA15-0016. • Provide recommendations to the City of Moreno Valley City Council regarding certification of this EIR.
City of Moreno Valley City Council	• Approve, conditionally approve, or deny Specific Plan Amendment No. P15-036. • Approve, conditionally approve, or deny Tentative Parcel Map No. 36150 (PA15-0018). • Approve, conditionally approve, or deny Plot Plan PA15-0014. • Approve, conditionally approve, or deny Plot Plan PA15-0015. • Approve, conditionally approve, or deny Plot Plan PA15-0016. • Approve, conditionally approve, or deny Plot Plan PA15-0017. • Reject or certify this EIR along with the appropriate CEQA Findings (P15-037)
Subsequent City of Moreno Valley Discretionary and Ministerial Approvals	
City of Moreno Valley Implementing Approvals	• Approve Final Maps, parcel mergers, lot line adjustments or parcel consolidations, as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Approve Street Vacations. • Accept public-right-of way dedications. • Approvals by Moreno Valley Utility associated with removing, relocating, and installing electrical infrastructure.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Water Flood Control and Water Conservation District	• Approvals for on- and off-site drainage infrastructure. • Issuance of a Water Quality Management Permit.
Eastern Municipal Water District	• Approvals for the construction of on and off-site water and sewer infrastructure.

Matrix of Project Approvals/Permits

Public Agency	Approvals and Decisions
Santa Ana Regional Water Quality Control Board	• Issuance of a Section 401 Permit. • Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit.
California Department of Fish and Wildlife	• Issuance of a Lake and Streambed Alteration agreement.
United States Army Corps of Engineers	• Issuance of a Section 404 Permit.
Riverside County Airport Land Use Commission	• Determination of consistency with the ALUCP.
Federal Emergency Management Agency	• Approval of Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) to revise Flood Insurance Rate Map.

Organization of the Mitigation Monitoring Program

The following describes the sections of this MMP:

- **Introduction** - Provides an overview of CEQA's monitoring and reporting requirements, program objectives, the project for which the program has been prepared, and the manner in which this MMP is organized.
- **MMP** - Describes the City entities responsible for implementation of the mitigation monitoring plan, the plan scope, procedures for monitoring and reporting, public availability of documents, the process for making changes to the program, types of mitigation measures, and the manner in which monitoring will be coordinated to ensure implementation of mitigation measures.
- **Mitigation Monitoring and Reporting Summary** - Outlines the Project's environmental effects and mitigation measures, responsible entities, and the timing for monitoring and reporting for each mitigation measure included in this MMP.

DESCRIPTION OF PLAN

Mitigation Monitoring Plan

This MMP delegates responsibilities for monitoring the project, and allows responsible City entities flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. The timing for monitoring and reporting is described in the monitoring and reporting summary table, below. Adequate monitoring requires demonstration of monitoring procedures and implementation of mitigation measures.

In order to enhance the effectiveness of the monitoring program, the City will utilize existing systems where appropriate. For instance, with any major construction project, the administration generally has at least one inspector assigned to monitor project construction. These inspectors are familiar with a broad range of regulatory issues and will provide first line oversight for much of the monitoring program.

Responsibilities of the City include identification of typical mitigation measure-related issues such as noisy equipment, dust, safety problems, etc. Any problems are generally corrected through directions to the contractors or through other appropriate, established mechanisms. Internal reporting procedures are already in place to document any problems and to address broader implementation issues.

Reporting Procedures

The City will be responsible for monitoring and implementing the mitigation measures included in this monitoring plan. Reporting establishes a record that a mitigation measure is being implemented and generally involves the following steps:

- The City distributes reporting forms to the appropriate City Departments (as indicated on the Mitigation Monitoring and Reporting forms) or employs the office's existing reporting process for verification of compliance.
- Responsible entities verify compliance by signing the monitoring and reporting form and/or documenting compliance using their own internal procedures when monitoring is triggered.
- Responsible entities provide the City with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented.

The reporting forms prepared by the City will document the implementation status of mitigation measures of the Project. Progress reports describe the monitoring status of all mitigation measures. The City will keep records of Project reporting forms and periodic status reports.

The City also is responsible for assisting the Project's contractor(s) with reporting responsibilities to ensure that they understand their charge and complete their reporting procedures accurately and on schedule.

Public Availability

All monitoring reporting forms, summaries, data sheets, and correction instructions related to this MMP for Moreno Valley Logistics Center will be available for public review upon request at the Community Development Department, Planning Division of the City of Moreno Valley (14177 Frederick St., Moreno Valley, CA 92553) during normal business hours.

Program Changes

If minor changes are required to this MMP, they will be made in accordance with CEQA and would be permitted after further review by the City. Such changes could include reassignment of monitoring and reporting responsibilities and/or minor modifications to mitigation measures that achieve the same or better end results. No change will be permitted unless the Mitigation Monitoring Program continues to satisfy the requirements of Public Resources Code §21081.6.

Types of Mitigation Measures Being Monitored

The Final Environmental Impact Report for the Moreno Valley Logistics Center Project is a "project specific" and "cumulative" evaluation as defined in the CEQA Guidelines.

The Final Environmental Impact Report recommends 67 project specific and cumulative mitigation measures to reduce impacts related to aesthetics, air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, and transportation/traffic. Compliance with these mitigation measures will be accomplished through administrative controls over project planning and implementation. Monitoring would be accomplished as described previously under "Reporting Procedures" through verification and certification by personnel.

In general, implementation of the MMP will require the following actions:

- Appropriate mitigation measures would be included in construction documents.
- Departments with reporting responsibilities would review the Final Environmental Impact Report, which provides general background information on the reasons for including specified mitigation measures.
- Problems with or exceptions to compliance would be addressed by the City as appropriate.
- Periodic meetings may be held during project implementation to report on compliance with mitigation measures.

Mitigation Monitoring and Reporting Summary

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
Aesthetics								
MM 4.1-1 In the event that solar panels are proposed for installation, then prior to the issuance of building permits the City of Moreno Valley shall review the construction drawings and ensure that: a) All solar panels shall be installed at a fixed angle (i.e., non-tracking); b) All solar panels shall contain a non-reflective coating or shall be otherwise designed, engineered, and/or installed to minimize glare; and c) All solar panels shall be directed toward the sky and not facing adjacent properties.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building permit issuance				
MM 4.1-2 In the event that solar panels are proposed for installation, then prior to the issuance of building permits the Project Applicant shall provide the City of Moreno Valley with evidence that the proposed solar array(s) would not result in substantial glare effects to operations at the March Air Reserve Base as determined by Sandia National Laboratories' Solar Glare Hazard Analysis Tool (or equivalent	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building permit issuance				

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
analytical model) and to the satisfaction of the Riverside County Airport Land Use Commission.								
Air Quality								
MM 4.3-1 Prior to building permit issuance, the City of Moreno Valley shall verify that a note is provided on all building plans specifying that compliance with SCAQMD Rule 1113 is mandatory during the application of architectural coatings. Project contractors shall be required to comply with the note and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. This note also shall indicate that only "low-volatile organic compound" paint products (no more than 50 gram/liter of VOC) shall be used. All other architectural coatings shall comply with the VOC limits prescribed by SCAQMD Rule 1113.	All	Project Applicant; Project Construction Contractors	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building permit issuance.				
MM 4.3-2 During construction activities, the construction contractor shall maintain a list of diesel-powered construction equipment used on the site, including type/engine year of equipment, number of equipment, and equipment horsepower. The	All	Project Applicant; Project Construction Contractors	City of Moreno Valley Building and Safety Division	During construction activities.				

Attachment: Exhibit B to 2017-16 Mitigation Measures (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017)

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING DATE	MONITORING MONITOR
construction contractor shall also maintain a log of the daily operating hours of each piece of diesel-powered equipment by horsepower hours. The construction contractor shall ensure that the usage of diesel-powered construction equipment does not exceed the horsepower-hours per day specified below. Lower tier types may be substituted for higher tier types. Tier 0 – 3,608 horsepower-hours/day Tier 1 – 7,760 horsepower-hours/day Tier 2 – 1,760 horsepower-hours/day Tier 3 – 11,128 horsepower-hours/day Tier 4 – 37,008 horsepower-hours/day								
MM 4.3-3 The Project shall comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling" by complying	All	Project Applicant; Project Construction Contractors	City of Moreno Valley Land Development Division. Building and Safety Division, and Planning Division	Prior to the issuance of a grading permits and building permits.				

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
with the following requirements. To ensure and enforce compliance with these requirements and thereby limit the release of diesel particulate matter, oxides of nitrogen, and other criteria pollutants into the atmosphere from the burning of fuel, prior to grading permit and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors. a) Temporary signs shall be placed on the construction site at all construction vehicle entry points and at all loading, unloading, and equipment staging areas indicating that heavy duty trucks and diesel powered construction equipment are prohibited from idling for more than five (5) minutes. The signs shall be installed before construction activities commence and remain in place during the duration of construction activities								

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
at all loading, unloading, and equipment staging areas. b) Construction vehicles shall use the City's designated truck route. c) Construction parking shall be located and configured to minimize traffic interference on public streets. d) Temporary traffic controls such as a flag person shall be used at Project site construction entrances. e) A construction management plan shall be designed to minimize the number of large construction equipment operating during any given time period. f) To the extent feasible, construction truck trips shall be scheduled during non-peak hours to reduce peak hour emissions. g) CARB certified equipment shall be used for construction activities to the extent feasible. h) Contractors shall be required to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes. i) Construction equipment engine sizes shall be limited to the minimum practical size.								

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
j) Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible. k) Temporary traffic controls, such as a flag person shall be provided during all phases of construction to maintain smooth traffic flow. l) Construction tucks shall be routed away from congested streets and sensitive receptor areas. m) Construction parking areas shall be configured to minimize traffic interference. n) Construction worker trips shall be reduced by encouraging carpooling and providing on-site food service options for the construction crew. o) Construction workers shall be encouraged to utilize shuttle service to transit stations/multimodal center.								
MM 4.3-4 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, “Fugitive Dust.” Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on	All	Project Applicant; Project Construction Contractors.	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of a grading permit.				

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
unpaved roads. Prior to grading permit issuance, the City of Moreno Valley shall verify that the following notes are specified on the grading plan. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes shall also be specified in bid documents issued to prospective construction contractors. a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.								

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads. c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads. d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.) e) Limit fugitive dust sources to 20 percent opacity. f) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. g) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing								

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
							DATE	MONITOR
reclaimed water trucks if visible soil materials are carried to adjacent streets. h) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action within 24 hours. i) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil. j) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403. k) A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.								
MM 4.3-5 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM_{10} Emissions from Paved	All	Project Applicant; Project Construction	City of Moreno Valley Land Development Division,	Prior to the issuance of grading permits and				

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and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. The notes also shall be specified in bid documents issued to prospective construction contractors. a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning. b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM10-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall		Contractors	Building and Safety Division, and Planning Division	building permits.				

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be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.								
MM 4.3-6 The Project shall comply with the provisions of SCAQMD Rule 431.2, "Sulfur Content of Liquid Fuels" by complying with the following requirement. To ensure and enforce compliance with this requirement and thereby limit the release of sulfur dioxide (SO_X) into the atmosphere from the burning of fuel, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following note is included on the grading and building plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors. a) All liquid fuels shall have a sulfur content of not more than 0.05 percent by weight, except as provided for by South Coast Air Quality Management District Rule 431.2.	All	Project Applicant; Project Construction Contractors	City of Moreno Valley Land Development Division & Building and Safety Division	Prior to issuance of grading permits and building permits.				

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MM 4.3-7 All indoor forklifts used in the Project's buildings shall be electric, natural gas, or propane powered. This requirement shall be noted in the buildings' sale and lease agreements and also shall be included on all tenant improvement plans submitted to the City of Moreno Valley.	All	Project Applicant	City of Moreno Valley Planning Division	Prior to issuance of occupancy permits.				
MM 4.3-8 All outdoor cargo handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) that are powered by diesel fuel shall comply with the CARB/ U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM10). This requirement shall be noted in the buildings' sale and lease agreements and also shall be noted on all tenant improvement plans.	All	Project Applicant	City of Moreno Valley Planning Division	Prior to issuance of occupancy permits.				
MM 4.3-9 Prior to the issuance of a building permit, documentation shall be provided to the City of Moreno Valley demonstrating that: 1) the building is designed to achieve efficiency equal to or exceeding the 2013 California Title 24 Energy Efficiency Standards and complies with the mandatory reductions in	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.				

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indoor water usage required by the California Building Standards Code, including the use of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets, and water-conserving shower heads; and 2) the landscaping design uses a plant palette emphasizing drought-tolerant plants and use of water-efficient irrigation techniques.								
MM 4.3-10 Prior to building final, documentation shall be provided to the City of Moreno Valley demonstrating the appliances and fixtures installed in restrooms and employee break areas are Energy Star rated and/or are U.S. EPA WaterSense labeled or equivalent.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.				
MM 4.3-11 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) a prohibition on the idling of trucks for more than three (3) minutes; 3) instructions for truck drivers to shut down engines after 300 seconds of	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.				

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continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park" and the parking break is engaged; and 4) telephone numbers of the building facilities manager and the CARB to report violations. Prior to building final, the City of Moreno Valley shall conduct a site inspection to ensure that the signs are in place.								
MM 4.3-12 Prior to building final, the City of Moreno Valley shall verify that: 1) the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property; and 2) preferential parking locations are identified on the site for carpool, vanpool, EVs and CNG vehicles; and 3) secure, weather protected bicycle parking is provided for building employees.	All	Project Applicant	City of Moreno Valley Planning Division & Transportation Division	Prior to building final.				
MM 4.3-13 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of the following and their benefits to air quality: 1) alternatively fueled	All	Project's Property Owner	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building final.				

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cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nandina Avenue); 5) the United States Environmental Protection Agency's SmartWay program; and 6) voluntary trip reduction programs, for which all employees shall be eligible to participate.								

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MM 4.3-14 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that encourages: 1) all fleet vehicles to conform to 2010 air quality standards or better; users shall maintain compliance through normal course of business; and 2) use of electrical equipment for landscape maintenance to the extent feasible; 3) use of electrical powered equipment in lieu of gasoline-powered engines where technically feasible; and 4) reduced-fee or no-fee parking for EVs and CNG vehicles.	All	Project Property Owner(s)	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building final				
MM 4.3-15 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions will be included in the building's lease agreement that 1) encourages tenants to display information about alternative transportation options in a common area of the building and 2) informs tenants about locations of the nearest existing and planned Metrolink stations and the benefits of	All	Project Property Owner(s)	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building final.				

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implementing a voluntary carpool or rideshare program for employees.								
MM 4.3-16 The building plans shall include conduit and plug-in locations for electric yard tractors, fork lifts, reach stackers, and sweepers.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.				
MM 4.3-17 Prior to building final, the City of Moreno Valley shall verify that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.	Buildings 1 and 2	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.				
MM 4.3-18 Prior to the issuance of a building permit for any building that utilizes refrigerated storage, any spaces utilizing refrigerated storage shall provide an electrical hookup for refrigeration units on delivery trucks. As a condition of occupancy permits, trucks incapable of utilizing the electrical hookup for powering refrigeration shall be prohibited from accessing the site.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.				
MM 4.3-19 Prior to the issuance of building permits, to ensure the shading of parking lots to reduce solar gain, the City of Moreno Valley shall	All	Project Applicant	City of Moreno Valley Planning Division & Building and	Prior to the issuance of building permits.				

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review landscaping plans to verify that the plans call for the planting of shade trees so that at least 50% of the automotive parking lots (excluding the truck courts where trees cannot be planted due to interference with truck maneuvering) will be shaded within 15 years after Project construction is complete.			Safety Division					
MM 4.3-20 The Project is required to comply with the provisions of SCAQMD Rule 402 “Nuisance.” To ensure and enforce compliance with this requirement, which applies to the release of odorous emissions into the atmosphere, prior to the issuance of grading and building permits, the City of Moreno Valley shall verify that the following note is included on grading and building plans. During Project construction, contractors shall be required to ensure compliance with Rule 402 and permit periodic inspection of the construction site by the City of Moreno Valley staff or its designee to confirm compliance. The note shall be specified in bid documents issued to prospective construction contractors and shall also be specified in the building’s lease agreement.	All	Project Applicant; Project Construction Contractors	City of Moreno Valley Land Development Division, Planning Division, and Building and Safety Division	Prior to the issuance of grading permits and building permits.				

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a) Compliance with South Coast Air Quality Management District (AQMD) Rule 402 "Nuisance" is required. Rule 402 states that air contaminants and other materials shall not be discharged from any source whatsoever in quantities that would cause injury, detriment, nuisance, or annoyance to a considerable number of persons or the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Public nuisance violations can occur when a considerable number of individuals complain to AQMD of odors, paint overspray, or other bothersome conditions that appear to be related to the operation of a business in the neighboring vicinity.								
Biological Resources								
MM 4.4-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl in accordance with the Burrowing Owl Survey Instructions for the Western Riverside MSHCP Area.	All	Project Applicant; Project Biologist	City of Moreno Valley Planning Division & Land Development Division	Within 30 days prior to grading activities.				

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The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey identifies that no burrowing owls are present on the property, a grading permit may be issued without restriction. b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between								

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September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit. c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSHCP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either: • Upon approval and implementation of a property-specific Determination of Biological Equivalent or Superior								

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Preservation (DBESP) report for the western burrowing owl by the CDFW; or • A determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing or burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate Habitat is not present as determined by the biologist, active relocation shall follow CDFW protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to issuance of a grading permit.								

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MM 4.4-2 As a condition of approval for all grading permits, vegetation clearing shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements: a) A migratory nesting bird survey of all vegetation that may support nesting birds shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing.	All	Project Applicant; Project Biologist	City of Moreno Valley Planning Division	Within 3 days prior to initiating vegetation clearing.				
MM 4.4-3 A copy of the migratory nesting bird survey results report shall be provided to the City of Moreno Valley Planning Division. If the survey identifies the presence of active nests, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the City of Moreno Valley Planning Division and shall be	All	Project Applicant; Project Biologist	City of Moreno Valley Planning Division	Within 3 days prior to initiating vegetation clearing.				

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no less than a 300-foot radius around the nest for non-raptors and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests								
Cultural Resources								
MM 4.5-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Applicant	All	Project Applicant	City of Moreno Valley Planning Division	Prior to the issuance of a grading permit.				

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and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural resources activities that will occur on the Project site. Details in the CRMP shall include: a) Schedule for Project grading and development activities; b) The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity								

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Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis. c) The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the Applicant; and d) The protocols and stipulations that the Applicant, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.								
MM 4.5-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days' advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB	All	Project Applicant	City of Moreno Valley Planning Division	Prior to the issuance of a grading permit.				

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18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measures MM								

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4.5.3 and MM 4.5.4 shall apply.								
MM 4.5-3 A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until the treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).	All	Project Applicant / Landowner; Project Construction Contractor; Project Archaeologist	City of Moreno Valley Planning Division	During grading operations				
MM 4.5-4 In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries: a) The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods,	All	Landowner; Project Archaeologist	City of Moreno Valley Planning Division	In the event that Native American cultural resources are discovered during grading				

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and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department: i. Accommodate the process for Preservation-In-Place / Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed; ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and				operations				

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made available to other archaeologists / researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation; iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.								
MM 4.5-5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: "If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and	All	Project Applicant	City of Moreno Valley Planning Division	Prior to grading permit issuance.				

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call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."								
MM 4.5-6 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.	All	Project Applicant; Project Paleontologist	City of Moreno Valley Planning Division	Prior to issuance of grading permit				
MM 4.5-7 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous	All	Project Paleontologist	City of Moreno Valley Planning Division	On-going during construction				

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units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.								
MM 4.5-8 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.	All	Project Paleontologist	City of Moreno Valley Planning Division	Prior to grading permit final inspection.				
MM 4.5-9 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.	All	Project Paleontologist	City of Moreno Valley Planning Division	Prior to building final.				

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Greenhouse Gas Emissions								
MM 4.6-1 Prior to issuance of a building permit, the City of Moreno Valley shall verify that the roofs for Buildings #1, #2, #3, and #4 are designed to support solar panels. The entire roof area of each building is not required to support panels; the portion of the roof that is to support panels shall be determined by the City and the building's architect at time of building design and building permit issuance.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.				
MM 4.6-2 Prior to building final, the City of Moreno Valley shall verify that the parking lot is marked in compliance with the California Green Building Standards Code, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle."	All	Project Applicant	City of Moreno Valley Planning Division	Prior to building final.				
MM 4.6-3 Prior to issuance of building permits for the landscape plan, the City of Moreno Valley shall review landscape plans to verify that trees will be planted in locations	All	Project Applicant	City of Moreno Valley Planning Division	Prior to building final.				

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where tree placement would assist with passive solar heating and cooling of the structure, while also avoiding interference with vehicle movements and building operations.								
MM 4.6-4 Prior to the approval of permits and approvals that would permit cold storage in Buildings #1, #2, #3, and/or #4, the Project Applicant shall provide information to the City of Moreno Valley demonstrating that the cooling system design is energy efficient.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the approval of permits and approvals that would permit cold storage in Buildings #1, #2, #3, and/or #4.				
Hazards and Hazardous Materials								
MM 4.7-1 Prior to the issuance of building permits, a photometric plan shall be submitted to the City of Moreno Valley and approved. Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.				
MM 4.7-2 The following uses shall be prohibited: a) Any use which would direct a steady light or flashing light of red,	All	Project Applicant	City of Moreno Valley Planning Division & Building and	Prior to the issuance of building permit; prior				

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white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator. b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport. c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and			Safety Division	to building final.				

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incinerators.) d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation. e) In Buildings 3 and 4: Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, noise sensitive outdoor nonresidential uses and hazards to flight.								
MM 4.7-3 The “Notice of Airport in Vicinity,” included in the ALUC’s October 8, 2015 staff report, shall be given to all prospective purchasers of the property and tenants of the buildings, and shall be recorded as a deed notice. Prior to building final, the Project Applicant shall provide to the City of Moreno Valley a copy of the title report and a model lease agreement for the subject property that includes the airport proximity notice.		Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.				
MM 4.7-4 The proposed detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be	All	Project Applicant	City of Moreno Valley Building and Safety Division, Land Development Division, and Planning	Prior to the issuance of grading permits; prior to the issuance of building				

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less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the detention basins located westerly of the Perris Valley Storm Drain Channel shall not include trees that produce seeds, fruits, or berries.			Division	permits.				
MM 4.7-5 March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc. All sources of electromagnetic radiation shall be noted on building plans and tenant improvement plans.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.				
MM 4.7-6 The Federal Aviation Administration has conducted	All	Project Applicant	City of Moreno Valley Planning	Prior to issuance of				

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aeronautical studies of each of the proposed buildings (Aeronautical Study Nos. 2015-AWP-8676-0E through 2015-AWP-8679-0E) and has determined that neither marking nor lighting of these structures is necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be installed in accordance with Federal Advisory Circular 70/7460-1 K Change 2 and shall be maintained therewith for the life of the Project. All voluntary marking and/or lighting shall be identified on building plans.			Division & Building and Safety Division	building permits.				
MM 4.7-7 The maximum height of Building 1 shall not exceed 60 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,549 feet above mean sea level.	Building 1	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.				
MM 4.7-8 The maximum height of Building 2 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,541 feet above mean sea level.	Building 2	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.				

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MM 4.7-9 The maximum height of Building 3 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,532 feet above mean sea level.	Building 3	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.				
MM 4.7-10 The maximum height of Building 4 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,545 feet above mean sea level.	Building 4	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.				
MM 4.7-11 The specific coordinates, heights, and top point elevations of the proposed buildings shall not be amended without further review by the Airport Land Use Commission and the Federal Aviation Administration; provided, however, that reduction in building height or elevation shall not require further review by the Airport Land Use Commission.	All	Project Applicant	City of Moreno Valley Planning Division	Prior to issuance of building permits.				
MM 4.7-12a Temporary construction equipment used during actual construction of Building 1 shall not exceed a height of 60 feet, unless separate notice is provided to the Federal Aviation Administration	Building 1	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.				

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
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through the Form 7460-1 process.								
MM 4.7-12b Temporary construction equipment used during actual construction of Buildings 2, 3, and 4 shall not exceed a height of 52 feet, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.	Buildings 2, 3, and 4	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.				
MM 4.7-13 Within five (5) days after construction of each of the buildings reaches its greatest height and prior to building final, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the project proponent or his/her designee and e-filed with the Federal Aviation Administration, with documentation provided to the City of Moreno Valley. (Instructions are available at https://oeaaa.faa.gov.) This requirement is also applicable in the event the project is abandoned or a decision is made not to construct the applicable building.	All	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Within five (5) days after construction of each building and prior to building final.				
Hydrology and Water Quality								
MM 4.8-1 Prior to building final, the Project Applicant shall provide evidence to the City of Moreno Valley that an application for a Final Letter of	Buildings 1 and 2	Project Applicant	City of Moreno Valley Building and Safety Division & Land	Prior to building final				

MITIGATION MEASURE (MM)	MM IS APPLICABLE TO WHICH BUILDING(S)	RESPONSIBLE PARTY	VERIFICATION OF COMPLIANCE	TIMING	START DATE	FINISH DATE	MONITORING	
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Map Revision (LOMR) has been submitted to FEMA to permanently remove the development area from the FEMA 100-year floodplain, and shall demonstrate to the satisfaction of the City of Moreno Valley that the finished floor height of the structure is outside the 100-year floodplain elevation as mapped by FEMA.			Development Division					
Noise								
MM 4.10-1 All construction activities shall comply with the City of Moreno Valley Noise Ordinance (Chapter 11.80 of the City of Moreno Valley Municipal Code). This requirement shall be noted on all grading and building plans and in bid documents issued to construction contractors.	All	Project Applicant; Project Construction Contractor	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to issuance of grading and building permits.				
MM 4.10-2 Prior to the issuance of grading permits and building permits that would authorize grading and paving construction activities within 280 feet of Indian Street between Superior Avenue and the Perris Valley Storm Drain Channel, the construction contractor shall install a minimum 6-foot high temporary noise control barrier at the southeast corner of Parcel 1 (the Building 1 site) extending northward approximately	Building 1	Project Applicant; Project Construction Contractor	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of grading permits and building permits that would authorize grading and paving construction activities				

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400 feet along Indian Street. Alternatively, with the approval of the property owner at 16950 Indian Street (noise receiver location R8), the temporary noise barrier can instead be installed along the west property line of that existing residential home. The temporary noise control barrier must present a solid face from top to bottom and must be a minimum of 6 feet high. The temporary noise control barrier shall comply with the following: a) The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts. b) The noise barrier shall be maintained in good repair during the duration of grading and paving activities on Parcel 1. Any damage shall be promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired. c) The noise control barrier and associated elements shall be completely removed upon the conclusion of the grading and paving construction activity on Parcel 1.				within 280 feet of Indian Street between Superior Avenue and the Perris Valley Storm Drain Channel.				

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d) In the event that the noise barrier is constructed at 16950 Indian Street (noise receiver location R8), documentation of property owner approval to construct the noise barrier shall be provided to the City of Moreno Valley Planning Division prior to construction of the barrier.								
MM 4.10-3 Prior to issuance of any grading and building permits, the City of Moreno Valley shall review grading and building plans to ensure the following notes are included on the plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. a) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with the manufacturer's standards. The construction contractor shall place all stationary equipment so that emitted noise is directed away from noise sensitive receivers located east and northeast of the Project site. b) During construction activities on	All, except sub-part b) shall only apply to Building 1	Project Applicant; Project Contractors.	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to issuance of any grading and building permits.				

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Parcel 1, construction contractors shall locate equipment staging in the vicinity of the intersection of Cosmos Street and Krameria Avenue to create distance between construction-related noise sources and noise-sensitive receivers located east and northeast of Indian Street. c) Haul truck deliveries shall use approved truck routes and occur during the same hours specified for construction equipment (7:00 a.m. to 8:00 p.m. on any given day) by the Moreno Valley Municipal Code Section 11.80.030.D.7 The construction contractor shall prepare a haul route exhibit for review and approval by the City of Moreno Valley Public Works Department, Land Development Division and shall design delivery routes to minimize exposure of sensitive land uses or residential dwellings to haul truck-related noise (Moreno Valley Municipal Code Section 8.21.050.H.7).								
MM 4.10-4 Prior to the issuance of building permits, the City of Moreno Valley shall review building plans to ensure that the following notes are included on the plans. Contractors	All	Project Applicant; Project Contractors; Project's	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.				

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shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. Additionally, prior to building permit issuance, the Project's property owner(s) shall provide documentation to the City of Moreno Valley verifying that provisions are made in the buildings' lease agreements that inform tenants of the following: a) All on-site operating equipment under the control of the building user that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers. b) Speed bumps are not allowed. Quality pavement conditions shall be maintained on the property that is free of vertical deflection (i.e. speed bumps) to minimize truck noise.		Property Owner(s).						
Transportation and Traffic								
MM 4.11-1 Prior to the issuance of the first grading permit, the traffic signal at the Heacock Street / San Michele Road intersection shall be modified to provide overlap phasing	Building 1, 2, 3, or 4, whichever is subject to the first grading	Project Applicant	City of Moreno Valley Planning Division Land Development Division, and	Prior to the issuance of the first grading permit.				

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on the westbound right turn lane.	permit.		Transportation Engineering Division					
MM 4.11-2 Prior to the issuance of grading or building permits, the Project Applicant shall prepare and submit a temporary traffic control plan to the City of Moreno Valley for approval. The temporary traffic control plan shall comply with the applicable requirements of the California Manual on Uniform Traffic Control Devices. A requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractors. The temporary traffic control plan shall require the following: a) The construction contractor shall assure that construction-related trips, including employee trips and delivery trucks, shall utilize the most direct route between the Project site and the I-215 freeway via Harley Knox Boulevard.	All	Project Applicant; Construction Contractor	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to the issuance of grading or building permits and bid documents.				
MM 4.11-3 Prior to building final for the Project's first building, the Project Applicant shall assure the Heacock	Building 1, 2, 3, or 4, whichever is	Project Applicant	City of Moreno Valley Planning Division,	Prior to building final for the				

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Street / Cactus Avenue intersection is improved with the following geometrics: a) Re-stripe the two northbound left turn lanes to provide 315 feet of lane storage for each lane.	subject to the first building final.		Building and Safety Division, and Transportation Engineering Division	first building.				
MM 4.11-4 Prior to building final for the Project's first building, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Gentian Avenue intersection.	Building 1, 2, 3, or 4, whichever is subject to the first building final.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to building final for the first building.				
MM 4.11-5 Prior to building final for the Project's first building, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Iris Avenue intersection.	Building 1, 2, 3, or 4, whichever is subject to the first building final.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to building final for the first building.				
MM 4.11-6 In the event a bridge has been constructed over the Perris Valley Storm Drain Channel to connect Indian Street on the north/south sides of the Channel prior to building final for the Project's first	Building 1, 2, 3, or 4, whichever is subject to the first building	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and	In the event a bridge has been constructed over the Perris				

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building, then the Project Applicant shall use reasonable efforts to make a fee payment to the City of Perris that shall be used to modify the traffic signal at the Indian Street / Harley Knox Boulevard intersection to provide overlap phasing on the southbound right turn lane.	final.		Transportation Engineering Division	Valley Storm Drain Channel to connect Indian Street on the north/south sides of the Channel prior to the issuance of the Project's first building final.				
MM 4.11-7 Prior to issuance of building permits, the Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City (less fee credits), a portion of which is applied to reduce traffic congestion by funding the installation of roadway improvements.	All	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, Transportation Engineering Division, and Land Development Division	Prior to the issuance of building permits.				
MM 4.11-8 Prior to issuance of building permits, the Project shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements.	All	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, Transportation	Prior to the issuance of building permits.				

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			Engineering Division, and Land Development Division					
MM 4.11-9 Prior to issuance of building final for Buildings 1, 2, 3, and 4 the Project Applicant shall make a fair share fee payment to the City of Moreno Valley for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the geographical limits of the City of Moreno Valley. These roadway improvements are not included within the City of Moreno Valley's Development Impact Fee (DIF) program. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations*.	All	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to issuance of building final for Buildings 1, 2, 3, and/or 4.				
MM 4.11-10 Prior to issuance of the building final for Buildings 1, 2, 3, 4 and 4, the Project Applicant shall use reasonable efforts to make a fair share	All	Project Applicant	City of Moreno Valley Planning Division, Building and	Prior to the issuance of building final for				

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fee payment to the March Joint Powers Authority, for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the March Joint Powers Authority's jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations*.			Safety Division, and Transportation Engineering Division	Buildings 1, 2, 3, and/or 4.				
MM 4.11-11 Prior to issuance of the building final for Buildings 1, 2, 3, and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the City of Perris, for the improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated November 18, 2015), that are located within the City of Perris' jurisdiction. The needed roadway improvements are not included within an existing mitigation	All	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to issuance of the building final for Buildings 1, 2, 3, and/or 4.				

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program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations*.								
MM 4.11-12 In the event that Caltrans prepares a valid study, as defined below, that identifies fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary undertake improvements to I-215 and SR-91 in the Project study area, then the Project Applicant shall use reasonable efforts to pay the applicable fair share amount to Caltrans. The study shall include fair share contributions related to private and or public development based on nexus requirements contained in the Mitigation Fee Act (Govt. Code § 66000 et seq.) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall recognize that impacts to Caltrans I-215 and SR-91 facilities that are not attributable to development located within the City	All	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	In the event that Caltrans prepares a valid study that identifies fair share contribution funding sources in the Project study area.				

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of Moreno Valley are not required to pay in excess of such developments' fair share obligations. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program. In the event the study has been prepared, the Project Applicant shall use reasonable efforts to pay the fair share amount to Caltrans. If Caltrans chooses to accept the Project Applicant's fair share payment, Caltrans shall apply the payment to the fee program adopted by Caltrans or agreed upon by the Project Applicant and Caltrans as a result of the fair share fee study. Caltrans shall only accept the fair share payment if the fair share fee study has been completed. If, within five years from the date that the first building permit is issued for the Project, Caltrans has not completed the fair share fee study, then the Project Applicant shall have no further obligation to comply with								

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this mitigation measure.								

PLANNING COMMISSION RESOLUTION NO. 2017-18

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING THAT THE CITY COUNCIL ADOPT AN ORDINANCE APPROVING APPLICATION NO. PEN16-0001 (P15-036): AN AMENDMENT TO THE MORENO VALLEY INDUSTRIAL AREA SPECIFIC PLAN 208, TO INCREASE THE LANDSCAPE SETBACKS AND REDUCE THE BUILDING SETBACK IN THE RESIDENTIAL BUFFER ZONE (AREA ALONG INDIAN STREET, SOUTH OF KRAMERIA STREET TO THE PERRIS VALLEY STORM CHANNEL)

WHEREAS, the applicant, Prologis, filed Application No. PEN16-0001 (P15-036), requesting an amendment to the Moreno Valley Industrial Area Specific Plan 208, as described in the title of this resolution and the attached Exhibit A; and

WHEREAS, on June 20, 2017, the Planning Commission of the City of Moreno Valley held a public hearing to consider the subject applications and all of the environmental documentation prepared for the project; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, a Final EIR, (including a Mitigation Monitoring and Reporting Program and Statement of Overriding Considerations), has been completed and is being recommended for certification, prior to action on the Specific Plan Amendment and other concurrent discretionary applications related to the project; and

NOW, THEREFORE, BE IT RESOLVED, it is hereby found, determined and resolved by the Planning Commission of the City of Moreno Valley as follows:

A. This Planning Commission hereby specifically finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the above-referenced meeting, including written and oral staff reports, and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies –** The proposed specific plan amendment is consistent with the General Plan, and its goals, objectives, policies and programs.

   FACT: The proposed Specific Plan Amendment is limited to modifications to the development standards included in the document. The proposed Specific Plan amendment to the Moreno Valley Industrial Area Plan (SP208) would allow for a reduction of the residential buffer requirements from 250 feet to 100 feet with a minimum of 50 feet of linear landscape along Indian Street.

In 2008, a Specific Plan Amendment was approved modifying the buffer along major arterials from 300 feet to 250 feet. Along with the modification, the landscape area was increased from 15 feet (major arterials) to 50 feet of landscape area required for the portion of Indian Street from Iris Avenue to Krameria Avenue. The increase from 15 foot to a 50 foot buffer was designed to provide enhanced landscaping and water quality features along the frontage of the project site for both visual screening and noise attenuation. The proposed amendment would modify the plan applying the 2008 modification to extend from Iris to the Perris Valley Storm Drain Channel.

The proposed modifications to the standards of the Moreno Valley Industrial Area Specific Plan 208 do not conflict with the goals, objectives, policies or programs of the General Plan.

2. **Conformance with Specific Plan Policies –** The proposed Specific Plan Amendment is internally consistent with the Moreno Valley Industrial Area Specific Plan (SP208), and aside from changes to the setback and landscape requirements along Indian Street all other elements of SP208 remain in-tact.

FACT: The proposed Specific Plan Amendment to the Moreno Valley Industrial Area Specific Plan (SP208) would allow for a modification to residential buffer along Indian Street from Krameria Street south to the Perris Valley Storm Channel reducing the requirement from 250 feet to 100 feet consistent with the Indian Street frontage north from Krameria to Iris Avenue. The buffer between residential is measured from the centerline of the street to the screen wall along Indian Street

To offset the proposed reduction of the residential buffer, the required landscaping along Indian Street between Krameria to the Perris Valley Storm Channel will increase from the existing required fifteen (15) feet to fifty (50) feet.

The modification to the Moreno Valley Industrial Area Specific Plan 208 shall include the following:

“This criteria is intended to provide a buffer between residential districts within the Area Plan without affecting the integrity of lands available for industrial uses. Where parcels exceed 250 feet in depth from a major arterial, permitted uses may extend beyond this distance so as not to affect the integrity of industrial uses, if the development proposal is part of an integrated industrial or business park, as determined by the Community Development Director. The residential buffer is measured from the centerline of the street. In addition, the

City will allow reduction of the 250' buffer along Indian Street from Iris Avenue to the Perris Valley Storm Drain Channel to a minimum of 100' provided it is maintained as a linear landscape feature accessible to the adjacent community. Minor encroachment within the 50' enhanced landscaped buffer is acceptable to provide for screen wall articulation and water quality facilities/features as approved by the City of Moreno Valley. Any reduction shall be dependent on air quality and noise analysis showing no significant adverse impacts on adjacent residentially zoned areas."

The Specific Plan as modified by this amendment will be consistent with all of the Specific Plan requirements identified in Chapter 9.13 of the City's Municipal Code. Further, the text amendment to the Specific Plan development standards will not affect any diagrams included in the Specific Plan that address the distribution, location and extent of the uses of land, or any other required elements of a Specific Plan as mandated in Section 65451 of the Government Code.

3. **Health, Safety and Welfare –** The proposed specific plan amendment will not be detrimental to the public health, safety or welfare.

FACT: The proposed Specific Plan Amendment will not result in unacceptable levels of protection from natural and man-made hazards to life, health, and property and is therefore consistent with General Goal 9.6.1.

The Specific Plan Amendment was considered and analyzed in the Environmental Impact Report prepared for the project, and related applications. The project includes a 1.7 million square foot warehouse project including a total of four (4) buildings. The Final EIR has been prepared to address the potential environmental impacts of the project which cannot be mitigated to a level below significance (air quality, greenhouse gas/global climate change, Land use/Planning and traffic/transportation). After careful consideration of those environmental risks, the Final EIR identified that even after application of feasible mitigation, these impacts would remain unavoidable. The economic, employment and infrastructure benefits that are expected to result from development of the project have been reviewed by the Planning Commission as the recommending body for the project, to outweigh the unavoidable adverse environmental effect, as articulated in the Facts, Findings and Statement of Overriding Considerations prepared for the project in accordance with the provisions of the California Environmental Quality Act (CEQA).

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-18, and **RECOMMENDS** that the City Council:

Attachment: 2017-18_SPA Resolution_Final [Revision 2] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1. **CERTIFY** the Final Environmental Impact Report as described in Resolution 2017-16; and

2. **ADOPT** a City ordinance approving the Specific Plan Amendment to the Moreno Valley Industrial Area Specific Plan 208

APPROVED this 22nd day of June, 2017.

AYES:

NOES:

ABSTAIN:

Jeffrey Barnes
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

ATTACHED: Specific Plan Amendment Map

PLANNING COMMISSION RESOLUTION NO. 2017-19

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING THAT THE CITY COUNCIL APPROVE PLOT PLANS PEN16-0003, PEN16-0004, PEN16-0005, and PEN16-0006 FOR THE DEVELOPMENT OF FOUR (4) WAREHOUSE BUILDINGS TOTALING 1,736,180 SQUARE FEET TO BE LOCATED ON THE WEST SIDE OF INDIAN STREET SOUTH OF KRAMERIA, ASSESSORS PARCEL NUMBERS 316-100-028, 030, 048, 051 and 052

WHEREAS, the applicant, Prologis, has filed concurrent applications for the approval of Plot Plans PEN16-0003 (PA15-0014), PEN16-0004 (PA15-0015), PEN16-0005 (PA15-0016), and PEN16-0006 (PA15-0017) for four (4) warehouse buildings as described in the title of this Resolution, which applications are being processed concurrent with a separately filed application for a Specific Plan Amendment (PEN16-0001); and

WHEREAS, with respect to concurrently filed applications, Section 9.02.030 D of the City Municipal Code establishes that applications which are dependent on approval of other enabling application(s), of which the Specific Plan Amendment serves, the final approval authority for such dependent application(s) shall be vested with the body authorized to approve the enabling application, which in this case is the City Council; and

WHEREAS, the application has been evaluated in accordance with established City of Moreno Valley procedures, and with consideration of General Plan and other applicable regulations; and

WHEREAS, upon completion of a thorough development review process, the project was appropriately agenized and noticed in the Press Enterprise and posted on the site on June 8, 2017 for a public hearing before the Planning Commission of June 22, 2017; and

WHEREAS, on June 22, 2017, the Planning Commission of the City of Moreno Valley conducted a meeting to consider the applications; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Moreno Valley as follows:

A. This Planning Commission hereby finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the meeting on June 22, 2017 including written and oral staff reports: and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. **Conformance with General Plan Policies –** The proposed use is consistent with the General Plan, and its goals, objectives, policies and programs.

FACTS: The General Plan encourages a mix of industrial uses to provide a diversified economic base and ample employment opportunities. The proposed warehouse buildings, as designed, further the benefits of the Land Use Plan described in Section 2.1.3 of the General Plan Land Use Plan, and is consistent with the Land Use Plan map in Figure 2-2 of the General Plan. The current General Plan designation is Business Park (BP), which provides for industrial uses within the southern portion of the City.

Objective 2.5 promotes "a mix of industrial uses which provide a sound and diversified economic base and ample employment opportunities for the citizens of Moreno Valley that have good access to the regional transportation system…" The placement of the facility on Indian Street provides access to State Highway 215 from Krameria Street to Heacock Street, a distance of less than two miles. Stated policies require the avoidance of adverse impacts on surrounding properties and the screening of industrial uses to reduce glare, noise, dust, vibrations and unsightly views.

The project as designed and conditioned would achieve the objectives of the City of Moreno Valley's General Plan. The proposed project is consistent with the General Plan and does not conflict with the goals, objectives, policies, and programs established within the Plan, and the Moreno Valley Industrial Specific Plan (SP 208). The project will facilitate the orderly and future expansion of the Moreno Valley Industrial area providing employment and other benefits to the community.

2. **Conformance with Zoning Regulations –** The proposed use complies with all applicable zoning and other regulations.

FACTS: The proposed warehouse facility is a permitted use within the Industrial (I) zone of the Moreno Valley Industrial Area Specific Plan 208. The Specific Plan is intended to provide locations for industrial and warehouse land uses. The proposed warehouse buildings are being built as shell buildings for single or multiple tenant occupancy with no tenants identified.

With the approval of the Specific Plan Amendment, the plot plans, as designed and conditioned, will comply with all applicable Moreno Valley Specific Plan regulations and applicable Municipal Code standards.

3. **Health, Safety and Welfare –** The proposed use will not be detrimental to public health, safety or welfare or materially injurious to properties or improvements in the vicinity.

FACTS: The proposed project, with a total of 1,736,180 square feet of warehouse space within four (4) separate buildings, is located about two (2) miles of Fire Station No. 65 and within close proximity to emergency services which is consistent with General Plan Goal 9.6.2 requiring emergency services that are adequate to meet minor emergency and major catastrophic situations.

The proposed project was reviewed by the Airport Land Use Commission. The project was evaluated for consistency with the March Air Reserve Base Land Use Compatibility Plan (ALUCP). The project was deemed consistent with the ALUCP with specific conditions of approval that have been incorporated into the City's conditions of approval.

The proposed project as designed and conditioned will not result in a development that would be inconsistent with General Plan Objective 6.1 to minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage due to seismic ground shaking and secondary effects or General Plan Objective 6.2 to minimize the potential for loss of life and protect residents, workers, and visitors to the City from physical injury and property damage, and to minimize nuisances due to flooding.

The analysis presented in the Environmental Impact Report (EIR) indicates that the proposed project will have potentially significant impacts as a direct result of the proposed project in areas of Air Quality, Biological Resources, Cultural Resources, Global Climate Change and Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Transportation/Traffic. The EIR includes proposed mitigation measures to reduce or eliminate most of the potentially significant impacts.

The Final EIR has been prepared to address the potential environmental impacts of the project and those which cannot be mitigated to a level below significance, including air quality, greenhouse gas/global climate change, Land use/Planning and traffic/transportation. After careful consideration of those environmental risks, the Final EIR identified that even after application of feasible mitigation, these impacts would remain unavoidable. The economic, employment and infrastructure benefits that are expected to result from development of the project have been found to outweigh the unavoidable adverse environmental effects of the project; this finding has been considered by the Planning Commission as the recommending body to the City Council for the project. The specific findings are articulated in the Facts, Findings and Statement of Overriding Considerations prepared for the project in accordance with the provisions of the California Environmental Quality Act (CEQA).

4. **Location, Design and Operation –** The location, design and operation of the proposed project will be compatible with existing and planned land uses in the vicinity.

FACTS: The project is located on the west side of Indian Street south of Krameria Street, east of March Air Reserve Base (MARB), and approximately one mile easterly of Interstate 215 (I-215). Land uses to the north, south, and west include vacant land and existing warehouse buildings. Properties to the east include existing single family residents. The project as designed and conditioned is compatible with existing and proposed land uses in the vicinity. The industrial use is a permitted use in the Industrial Area Specific Plan 208 Industrial Use zone. The proposed building will be compatible in use, architectural design, and scale with other developments in the general vicinity.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development Impact Fee, Transportation Uniform Mitigation Fee (TUMF), Multi-species Habitat Conservation Plan (MSHCP) Mitigation Fee, Stephens Kangaroo Rat Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan Fee, Bridge and Thoroughfare Mitigation Fee (Future) and Traffic Signal Mitigation Fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PEN16-0003 (PA15-0014), PEN16-0004 (PA15-0015), PEN16-0005 (PA15-0016), and PEN16-0006 (PA15-0017), incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. CITY RIGHT TO MODIFY/ADJUST; PROTEST LIMITATIONS

The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d) (1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this resolution begins on the effective date of this resolution and any such protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

The right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which a notice has been given similar to this, nor does it revive challenges to any fees for which the Statute of Limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-19, and **RECOMMENDS** that the City Council:

1. **APPROVE** Plot Plans PEN16-0003 (PA15-0014), PEN16-0004 (PA15-0015), PEN16-0005 (PA15-0016), and PEN16-0006 (PA15-0017), subject to the attached conditions of approval attached as Exhibits A, B, C and D respectively.

APPROVED this 22nd day of June, 2017.

AYES:

NOES:

ABSTAIN:

Jeffrey Barnes
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

Attachments

Exhibit A to 2017-19

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PEN16-0003 (PA15-0014) PLOT PLAN (BUILDING 1)
APN: 316-100-057 and 316-100-058.

APPROVAL DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. (MC 9.02.230)

P2. This project is located within Moreno Valley Industrial Area Specific Plan 208. The provisions of the specific plan, the design manual, their subsequent amendments including PEN16-0001 (P15-036), and the Conditions of Approval shall prevail unless modified herein. (MC 9.13)

P3. The site shall be developed in accordance with the approved plans on file in the Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

P4. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation
GPA – Grading Plan Approval
BP - Building Permits
MR – Map Recordation
AOS – Acceptance of Streets
CP – Construction Permit
GP - Grading Permits
BF – Building Final
P - Any permit
MA – Map Approval
WP - Water Improvement Plans
IPA – Improvement Plan Approval
SI – Street Improvements

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan
MC - Municipal Code
Ord - Ordinance
Res - Resolution
UBC - Uniform Building Code
SBM - Subdivision Map Act
MC – Municipal Code
CEQA - California Environmental Quality Act
Ldscp - Landscape Development Guidelines and Specs
UFC - Uniform Fire Code

P5. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P6. Any signs indicated on the submitted plans are not included with this approval. Any signs, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

P7. All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P8. The site has been approved for a 1,351,763 square foot industrial warehouse building (Building 1) to be located on approximately 62.61 acres in the Moreno Valley Industrial Area Specific Plan 208. The approval includes 200 dock doors, loading bays, required parking for autos and truck trailers per the approved plans. A change or modification shall require separate approval.

P9. Operational noise impacts shall be equal to or less than 65 Ldn at the property line per the Moreno Valley Industrial Area Plan. Loading or unloading activities shall be conducted from the truck bays or designated loading areas.

P10. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security shall remain in place until the project is completed or the construction condition no longer exists. (Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard).

Prior to Issuance of Grading Permits

P11. Prior to issuance of any grading permit~~s~~, any mitigation measures for this building, based on the timing contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant prior to any site disturbance and/or Grading/Building Plan submittal. No City permit or approval shall be issued until such fee is paid. A separate monitoring application/fee is required for each building. (CEQA)

P12. Prior to issuance of any grading or building permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P13. Prior to the issuance of a grading permit, building permit or building final, as specified in the conditions, the applicant shall demonstrate to the City of Moreno Valley that the Airport Land Use Commission Conditions of Approval have been satisfied.

P14. If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61) , Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 5-days of the published finding to be given a reasonable opportunity to identify the “most likely descendant.” The “most likely descendant” shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

P15. Prior to issuance of grading permits, the developer shall pay the applicable Stephens’ Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P16. Prior to approval of any grading permit, if trees are located on the site, a tree plan shall be submitted to and approved by the Planning Division. The plan shall identify all mature trees (4 inch trunk diameter or larger) on the subject property and City right-of-way. Using the grading plan as a base, the plan shall indicate trees to be relocated, retained, and removed. Replacement trees shall be shown on the plan, be a minimum size of 24 inch box, and meet a ratio of three replacement trees for each mature tree removed or as approved by the Planning Official. (GP Objective 4.4, 4.5, DG)

P17. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

   a. Project grading and development scheduling;

b. The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.

c. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the applicant;

d. The protocols and stipulations that the Developer, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation. (MM 4.5-1)

P18. Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseno Indians and Soboba Band of Luiseno Indians tribal representatives (hereafter referred to as “Native American Tribal Representatives”) received a minimum of 30 days advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5.3 shall apply. (MM 4.5-2)

P19. In the event that Native American cultural resources are discovered during the course of grading a treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until a treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). (MM 4.5-3)

P20. In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

a. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

   i. Accommodate the process for Preservation-In-Place /Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

   ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

   iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default. (MM 4.5-4)

P21. Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find." (MM4.5-5)

P22. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities from the affected areas in the event that suspected paleontological resources are unearthed. (MM 4.5-6)

P23. The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources. (MM 4.5-7)

P24. Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries. (MM 4.5-8)

P25. Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

P26. Prior to issuance of grading permits, the location of any proposed trash enclosures shall be included on the plans.

P27. Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.
b. The developer's name, address, and a 24-hour emergency telephone number.

P28. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approve by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking and/or the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

P29. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project outside of the right-of-way.

P30. Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:

a. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height requirement.
c. Proposed screening walls for truck loading areas and required loading docks shall also include decorative walls with reveals (projections) and color combinations consistent with the building design/colors, with a height up to fourteen (14) feet to fully screen trucks and the truck storage and loading areas.
d. Walls and fences for visual screening are required when there are adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

<u>Prior to Building Permits</u>

P31. Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)

P32. Prior to issuance of any building or grading permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P33. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. All equipment shall be completely screened so as not to be visible from public view, designed to be an integral part of the building and not exceed the building height approved.

P34. Prior to the issuance of building permits, proposed covered trash enclosure(s) shall be included in the Planning review of the Fence and Wall plans. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides unless located within the truck loading area. Approved design plans shall be included in a Building submittal (Fence and walls or building design plans).(GP Objective 43.6, DG)

P35. Prior to or at building plan check submittal, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval prior to the issuance of a building permit. The lighting plan shall be generated on the plot plan and shall be integrated with the final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

P36. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

P37. The developer/owner or developer's/owner's successor-in-interest may pay Transportation Uniform Mitigation Fees and Development Impact Fees as early as the issuance of building permit. Payment is required no later than building final.

P38. Prior to issuance of building permits, for projects that will be phased, a phasing plan shall be submitted to and approved by the Planning Division.

P39. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Requirements and shall include:

a. A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle in the auto parking areas.
c. Diamond planters shall be provided every 3 parking stalls if double loaded

Attachment: Exhibit A to 2017-19 Coa Building 1 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

parking is provided.

d. Drought tolerant landscape shall be used. No sod shall be installed
e. Street trees shall be provided every 40 feet on center in the right of way.
f. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.
g. Enhanced landscaping shall be provided at all driveway entries and street corner locations.
h. Landscaping along Indian Street shall include 2 rows of trees (in addition to F.) and bushes (not including street trees) to provide a dense lush landscape area as approved by the Planning Official.
i. The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.
j. Landscaping on three sides of any trash enclosure (unless the enclosure is in the truck storage area).
k. All site perimeter and parking lot landscape and irrigation shall be installed prior to Building final.

P40. Prior to or at building plan check submittal, the elevation plans shall include decorative lighting sconces on the corner office areas and specifically on the northeast side of the building adjacent to the corner of Indian Street and Krameria Street. The lights shall be decorative, but low shine to provide down-lighting and shadowing on the structure. Include drawings of the sconce details for each building within the elevation plans, approved by the Planning Division prior to building permit issuance.

Prior to Building Final

P41. Prior to building final, the developer/owner or developer's/owner’s successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City’s adopted Development Impact Fees. (Ord)

P42. Prior to building final, Planning Division approved/stamped photometric and landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

P43. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

P44. Prior to building final, the applicant shall demonstrate that the Airport Land Use Commission Conditions of Approval have been met to the satisfaction of the Airport Land Use Commission.

P45. Prior to building final, a final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens shall be provided to the City of Moreno Valley Planning Division. (MM 4.5-9)

P46. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

P47. Prior to building final all Mitigation Measures related to this building and the associated Parcel Map 36150 shall be completed and signed off by the appropriate Division in accordance with the Mitigation Monitoring Program approved with this project.

BUILDING AND SAFETY DIVISION (B)

B1. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area, occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2016 CBC.

B2. All new buildings 10,000 square feet and over, shall include building commissioning in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (OPR). All requirements in The 2016 California Green Building Standards Code, sections 5.410.2 - 5.410.2.6 must be met.

B3. The proposed non-residential project shall comply with 2016 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

B4. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building and Safety Division at 951.413.3350.

B5. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2016 California Plumbing Code Table 4-1.

B6. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

B7. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

B8. The proposed development is subject to the payment of applicable processing fees as required by the City's current Fee Ordinance at the time a building permit application is submitted or prior to the issuance of permits as determined by the City.

B9. The proposed project is subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

B10. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)

B11. Any construction within the city shall only be as follows: Monday through Friday (except for holidays) seven a.m. to seven p.m.; Saturday from eight a.m. to four p.m., unless written approval is first obtained from the Building Official or City Engineer per City of Moreno Valley Municipal Code (MC 8.14.040E).

B12. Contact the Building and Safety Division for permit application submittal requirements.

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

EDD1. New Moreno Valley businesses are encouraged to hire local residents.

EDD2. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center ("ERC").

The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

- Job Announcements
- Applicant testing / pre-screening
- Interviewing
- Job Fair support
- Training space

EDD3. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

EDD4. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

EDD5. New Moreno Valley businesses may adopt a "First Source" approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

FIRE PREVENTION BUREAU

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. Buildings greater than 300,000 square feet in area shall be provided with a Fire Command Center (F.C.C.) for fire department operations. The F.C.C. shall be located adjacent to the main lobby, be accessible from the exterior, and be at the level of the fire department vehicular access. The F.C.C. shall be a minimum of 200 square feet in area with a minimum dimension of 10 feet. The F.C.C. shall be separated from the remainder of the building by not less than a two hour fire barrier constructed in accordance with the California Building Code. The F.C.C. shall contain features 3, 5, 8, 10, 12, 13, and 14 listed in section 508.1.5 of the California Fire Code. All other features listed in section 508.1.5 of the California Fire Code shall be provided in the F.C.C. when the building contains those respective features. (MVMC 508.1)

F2. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering 4000 g.p.m. for 4 hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)

F3. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected with a fire sprinkler system. The size and number of outlets required for the approved fire hydrants are (6” x 4” x 2 ½” x 2 ½”) (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

F4. The Fire Department emergency vehicular access road shall be (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

F5. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

Attachment: Exhibit A to 2017-19 Coa Building 1 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

F6. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

F7. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet for building below 35 feet in height and thirty (30) feet for buildings over 35 feet in height and an unobstructed vertical clearance of not less than thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])

F8. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (CFC 501.3)

F9. Prior to issuance of Certificate of Occupancy or Building Final, “Blue Reflective Markers” shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1 and MVLT 440A-0 through MVLT 440C-0)

F10. Prior to issuance of Certificate of Occupancy or Building Final, street address numbers shall be displayed in a prominent location on the street side. The numerals shall be a minimum of 12 inches in height. (CFC 505.1, MVMC 8.36.060[I])

F11. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9, MVMC 8.36.100[D])

F12. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

F13. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

F14. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a. Be signed by a registered civil engineer or a certified fire protection engineer;
b. Contain a Fire Prevention Bureau approval signature block; and
c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F15. Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507, 501.3)

a. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F16. Prior to issuance of a Certificate of Occupancy or Building Final, a “Knox Box Rapid Entry System” shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Code Official. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F17. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

F18. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

PUBLIC WORKS, LAND DEVELOPMENT

(TPM 36150 and Building 1&2)

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City’s Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]

LD2. (G) The tentative map shall correctly show all existing easements, traveled ways, and drainage courses. Any omission may require the map or plans associated with this application to be resubmitted for further consideration. [MC 9.14.040(A)]

LD3. (G) In the event right of way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right of way in accordance with the Land Development Division's administrative policy. If unsuccessful, the Developer shall enter into an agreement with the City to acquire the necessary right of way or offsite easements and complete the improvements at such time the City acquires the right of way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right of way or easement acquisition. [GC 66462.5]

LD4. (G) If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the City Engineer may require that the engineer's estimate for improvements associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the PIA or issuance of a permit.

LD5. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Land Development Division.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations.

Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD6. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc.). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]

LD7. (G) Public drainage easements, when required, shall be a minimum of 25 feet wide and shall be shown on the map and plan, and noted as follows: *"Drainage Easement – no structures, obstructions, or encroachments by landfills are* *allowed."* In addition, the grade within the easement area shall not exceed a 3:1 (H: V) slope, unless approved by the City Engineer.

LD8. (G) Prior to any plan approval, a final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

LD9. (G) Water quality best management practices (BMPs) designed to meet Water Quality Management Plan (WQMP) requirements for industrial development shall not be used as a construction BMP. Water quality BMPs shall be maintained for the entire duration of the project construction and be used to treat runoff from those developed portions of the project. Water quality BMPs shall be protected from upstream construction related runoff by having proper best management practices in place and maintained.

LD10. In first submittal of the Final WQMP, applicant shall submit a project-specific document that is in general conformance with the approved Preliminary WQMP.

LD11. (G) The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on Mylar sheets and included in the Grading and Street Improvement plans.

LD12. (G) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

Prior to Grading Plan Approval

LD13. (GPA) Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD14. (GPA) Landscape & Irrigation plans (prepared by a registered/licensed landscape architect) for water quality BMPs shall be submitted for review and approved by the City Engineer per the current submittal requirements, if applicable.

LD15. (GPA) The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

c. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

LD16. (GPA) The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

LD17. (GPA) For projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB) which shall be noted on the grading plans.

LD18. (GPA) Two (2) copies of the final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

c. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

d. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

LD19. (GPA) A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current Construction Activities Storm Water

General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request.

LD20. (GPA) The developer shall comply with the rules and regulations of FEMA and City Municipal Code 8.12 for development within a flood hazard area (defined as Zones X Shaded, and A0).

a. For developments required to submit a CLOMR/LOMR, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

    i. Prior to plan approval, a Conditional Letter of Map Revision (CLOMR) including Base Flood Elevation (BFE) shall be approved by the City Engineer.

    ii. Prior to issuance of the first building permit, submittal of Letter of Map Revision (LOMR) package with appropriate fees to FEMA unless otherwise approved by the City Engineer.

    iii. Prior to issuance of individual certificate of occupancy, a final elevation certificate. Developer acknowledges and agrees to disclose that owners of lots in the flood plain may need to pay flood insurance until such time LOMR is approved.

    iv. Prior to ninety percent reduction of public improvement securities, a LOMR approved by FEMA shall be submitted to the City.

b. For developments required to submit a CLOMR-F/LOMR-F, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

    i. Prior to plan approval, a Floodplain Development Permit (application available at the City).

    ii. A CLOMR-F (residential structures) unless otherwise approved by the City Engineer.

    iii. Determination of BFE. Machinery and equipment servicing the structures shall be designed to be located above the BFE. For habitable structures, the lowest floor must be certified to be a minimum of one foot above the BFE; non-residential structures must be additionally dry flood proofed; for qualified non-habitable structures, the lowest floor must be wet flood proofed to one foot minimum above BFE.

    iv. Prior to issuance of first building permit for residential structures, submittal of LOMR-F package with appropriate fees to FEMA, unless otherwise approved by the City Engineer.

    v. Prior to issuance of individual certificate of occupancy, a final elevation/flood proof certificate (dependent on type of structure(s)).

vi. Prior to ninety percent reduction of public improvement securities, a LOMR-F approved by FEMA shall be submitted to the City.

LD21. (GPA) The developer shall pay all remaining plan check fees.

LD22. (GPA) Resolution of all drainage issues shall be as approved by the City Engineer.

<u>Prior to Grading Permit</u>

LD23. (GP) The developer shall submit recorded slope easements from adjacent property owners in all areas where grading resulting in slopes is proposed to take place outside of the project boundaries. For all other offsite grading, written permission from adjacent property owners shall be submitted.

LD24. (GP) If the project does not involve the subdivision of land and if the developer chooses to construct the project in phases, a Construction Phasing Plan for all on-site public and private improvements shall be submitted for review and approved by the City Engineer.

LD25. (GP) Resolution of all drainage issues shall be as approved by the City Engineer.

LD26. (GP) A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

LD27. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

LD28. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

LD29. (GP) The developer shall pay all applicable inspection fees.

LD30. (GP) A digital (pdf) copy of the approved grading plans shall be submitted to the Land Development Division.

LD31. (GP) Indian Street is eligible for DIF credit. Prior to the payment of the Development Impact Fee (DIF), the developer may enter into a DIF Improvement Credit Agreement to secure credit for the construction of applicable improvements. If the developer fails to complete this agreement prior to the timing specified above, no credits will be given. The developer shall pay current DIF fees adopted by the City Council. [Ord. 695 § 1.1 (part), 2005] [MC 3.38.030, 040, 050]

<u>Prior to Map Approval</u>

LD32. (MA) Final maps (prepared by a registered civil engineer and/or licensed surveyor) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD33. (MA) Resolution of all drainage issues shall be as approved by the City Engineer.

LD34. (MA) Where Covenants, Conditions and Restrictions (CC&Rs) are applicable, the CC&R shall be submitted for review and approved by the City Engineer. The CC&Rs shall include, but not be limited to, access easements, reciprocal access, private and/or public utility easements as may be relevant to the project. In addition, for single-family residential development, bylaws and articles of incorporation shall also be included as part of the maintenance agreement for any water quality BMPs.

LD35. (MA) All street dedications shall be free of all encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

LD36. (MA) The developer shall guarantee the completion of all related improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

LD37. (MA) All public improvement plans required for this project shall be approved by the City Engineer in order to execute the Public Improvement Agreement (PIA).

LD38. (MA) Where applicable the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD39. (MA) The developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

LD40. (MA) If the project involves the subdivision of land, maps may be developed in phases with the approval of the City Engineer. Financial security shall be provided for all public improvements associated with each phase of the map. The boundaries of any multiple map increment shall be subject to the approval of the City Engineer. If the project does not involve the subdivision of land and it is necessary to dedicate right of way/easements, the developer shall make the appropriate offer of dedication by separate instrument. In either case, the City Engineer may require the dedication and construction of necessary utility, street or other improvements beyond the project boundary, if the improvements are needed for circulation, parking, access, or for the welfare or safety of the public. [MC 9.14.080(B)(C), GC 66412 & 66462.5]

LD41. (MA) After recordation, a digital (pdf) copy of the recorded map shall be submitted to the Land Development Division.

Prior to Improvement Plan Approval

LD42. (IPA) All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

Attachment: Exhibit A to 2017-19 Coa Building 1 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

LD43. (IPA) The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

LD44. (IPA) The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

LD45. (IPA) The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

LD46. (IPA) The plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved by the City Engineer.

LD47. Prior to precise grading plan approval, all dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

LD48. (IPA) The developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD49. (IPA) Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

LD50. (IPA) The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

LD51. (IPA) All street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

Prior to Encroachment Permit

LD52. (EP) All work performed within public right of way requires an encroachment permit. Security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. For non-subdivision projects, the City Engineer may require the execution of a Public Improvement Agreement (PIA) as a condition of the issuance of a construction or encroachment permit. All inspection fees shall be paid prior to issuance of construction permit. [MC 9.14.100(C.4)]

LD53. (EP) A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

LD54. (EP) All applicable inspection fees shall be paid.

Prior to Building Permit

LD55. (BP) For all subdivision projects, the map shall be recorded. [MC 9.14.190]

LD56. (BP) For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

LD57. (BP) For non-subdivision projects, the developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

LD58. (BP) For non-subdivision projects, the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD59. (BP) Certification to the line, grade, flow test, and system invert elevations for the water quality control BMPs shall be submitted or review and approved by the City Engineer (excluding models homes).

LD60. (BP) An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of “blue-top” markers installed by a registered land surveyor or licensed civil engineer.

LD61. (BP) For Commercial/Industrial projects, the owner may have to secure coverage under the State’s General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

Prior to Occupancy

LD62. (CO) All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD63. (CO) The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

LD64. (CO) All outstanding fees shall be paid.

LD65. (CO) For non-subdivision projects, in compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System (NPDES) as mandated by the Federal Clean Water Act, this project is subject to the following requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

    i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

    ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]

LD66. (CO) The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights, signing, striping, under sidewalk drains, landscaping and irrigation, medians, redwood header boards, pavement tapers/transitions and traffic control devices as appropriate.

b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, open channels, catch basins and local depressions.

c. City-owned utilities.

d. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

LD67. (CO) For commercial, industrial and multi-family projects, a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" can be obtained by contacting the Land Development Division.

LD68. ALL PROPOSED Treatment Control BMP's, and infiltration testing shall be in accordance with the County's LID BMP Design Handbook

LD69. In first submittal of Final WQMP, Applicant shall submit a landscape plan detailing all planting and tree types located adjacent to all surface BMPs.

LD70. In first submittal of Final WQMP, Applicant shall submit a copy of the site's utility plan to verify that no proposed utilities or light structures, if applicable, will be located within, or conflict, with any BMPs.

LD71. In first submittal of Final WQMP, Applicant shall provide documentation within the document that supports the maximum depth utilized in calculations showing that all flows within the proposed Treatment Control BMPs and will filter within 72 hours.

LD72. (CO) The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawings if necessary.

f. Provide City with updated Engineer's Line and Grade Certification.

g. Obtain approval and complete installation of the irrigation and landscaping.

LD73. (CO) The applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

i. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP).

ii. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted for review and approved by the City Engineer.

Special Conditions

LD74. After obtaining entitlements, this project will be required to submit design plans for plan review (Rough Grading Plans, Precise Grading Plans Street Improvement Plans, Signing and Striping Plans, Traffic Control Plans, Traffic Signal Plans, Storm Drain Plans, Sewer and Water Plans, Final Parcel Map, and other plans to the Land Development Division) (24”x36” sheet size).

LD75. (GPA) Prior to rough grading plan approval, this project shall demonstrate, via a final drainage study that either the downstream facilities are capable of handling this development’s increased runoff or that the increased runoff resulting from the development of this site is mitigated. Unless the downstream facilities are adequate, during no storm event shall the flow leaving the site in the developed condition be larger than that of the pre-developed condition. The drainage study shall analyze the following events: 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events. The applicant understands that additional detention measures, beyond those shown on the tentative map and preliminary drainage study, may be required.

LD76. (GPA) Prior to precise grading plan approval, this project shall meet all FEMA (Federal Emergency Management Agency) and City requirements for building in a 100 year flood zone (Zone X Shaded and Zone AO). This project shall submit for review to the City that it has been removed from the flood zone or submitted for approval to FEMA a CLOMR-F. All requirements, as set forth by FEMA shall be adhered to, particularly the completion and submittal of FEMA application form MT-1, as well as all City Ordinance 8.12.130 requirements. The CLOMR-F shall be approved by FEMA prior to precise grading plan. The LOMR-F shall be acquired by FEMA after construction. The developer shall contact FEMA for CLOMR-F / LOMR-F requirements. As an alternative to the submittal of a CLOMR-F / LOMR-F, the developer may opt to flood proof the building per all City department requirements and City Ordinance 8.12.170 and as approved by FEMA. See FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93. Website: http://www.fema.gov/ Ph.: 1-877-336-2627

LD77. (GPA) Prior to precise grading plan approval, the developer shall submit for review and approval a final soils report including site grading recommendations, especially pertaining to any import/fill relating to the CLOMR-F / LOMR-F requirement.

LD78. (GPA) Prior to precise grading plan approval, the grading plans shall clearly demonstrate that drainage is properly collected and conveyed. The plans shall

Attachment: Exhibit A to 2017-19 Coa Building 1 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

show all necessary on-site and off-site drainage improvements to properly collect and convey drainage entering, within and leaving the project. This may include, but not be limited to on-site and perimeter drainage improvements to properly convey drainage within and along the project site, and downstream off-site improvements. The developer will be required to obtain the necessary permission for offsite construction including easements, including an encroachment permit for the connection(s) to the Riverside County Flood Control and Water Conservation District (RCFC&WCD) channel.

LD79. (GPA) Prior to precise grading plan approval, the plans shall clearly demonstrate that all applicable recommendations from the geotechnical investigation, and/or any subsequent report, have been adhered to including, but not limited to, grading operation procedures, structural section design, slab design, wall design, etc.

LD80. (GPA) Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin trash enclosures, one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan MVGF-627, modified to include a fully covered, solid roof.

LD81. This project will be required to make the appropriate street R/W dedication(s) via map/separate instrument, including extra R/W per Std. MVSI -112C and corner cutbacks per Std. MVSI-165-0.

LD82. This project will be required to construct Indian Street as a Minor Arterial, City Standard MVSI -105A; Krameria Avenue and Cosmos Street as Industrial Collectors, City Standard MVSI -106A, including any additional right-of-way dedications. Any damage Krameria and Indian Avenue, due to development construction shall be repair/replaced as directed by the City prior to the release of any bonds.

LD83. All ramps and traveled ways shall comply with current ADA standards.

LD84. Pavement core samples of existing pavement may be taken and findings submitted to the City for review and consideration of a lesser width of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement section is found to be adequate, then a lesser width than that specified above for street pavement improvements may be allowed, as approved by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall construct the streets to the limits as listed above.

LD85. Existing utilities will need to be abandoned or relocated.

LD86. All overhead utilities less than 115,000 volts within and along the project boundary will be required to be placed underground and all power poles removed.

LD87. A Final WQMP will be required to be reviewed and approved prior to grading plan approval.

LD88. A Final Drainage Plan will be required to be reviewed and approved prior to grading plan

LD89. Site design and source control BMPs shall be used to the greatest extent before incorporating treatment control BMPs.

LD90. Cosmos Street, Industrial Collector, City Standard MVSI-106A-0 (78’ RW / 56’ CC) shall be constructed. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities. The cul-de-sac at the south end of the Cosmos Street terminus shall be constructed per City Standard MVSI-163A-0 unless otherwise approved by the City Engineer.

LD91. (MA) Prior to parcel map approval, the map shall show the following:

a. A portion of the knuckle at Krameria Avenue east of Cosmos Street may be vacation along the north property line of Parcel 1.

b. Existing utilities will need to be abandoned or relocated in the vacated easements.

c. The dedication of 4’ behind the existing right-of-way at each driveway for pedestrian sidewalk access on Krameria and Indian streets.

d. The dedication of a 4’ easement behind the existing right-of-way for pedestrian sidewalk access along Indian streets, or where any sidewalk is constructed outside of the right-of-way.

e. Dedication of an additional 24’ of right-of-way on Indian Avenue for public street and utilities purposes, along the east property line of Parcels 1, for a 44’ centerline to right-of-way half street width per City Standard MVSI-105A-0, if said dedication has not already of recordation.

LD92. The Preparer shall provide complete and documented calculations for the proposed treatment control BMPs.

LD93. The Applicant shall prepare and submit for approval a Project Specific Final Water Quality Management Plan (F-WQMP) for PA15-0014 formerly P14-023. The F-WQMP shall be consistent with the approved P-WQMP and in full conformance with the document; "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006. The F-WQMP shall be submitted and approved prior to application for and issuance of grading or building permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs; Treatment Control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation

LD94. The Applicant shall, prior to building or grading permit closeout or the issuance of a certificate of occupancy, demonstrate:

a. That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;

b. That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;

c. That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and

d. That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.

LD95. The following project engineering design plans submitted on 24"x36" sheet size shall be submitted for review and approval, as well as additional plans that are deemed necessary, prior to the time as noted below or as maybe require by the City during the plan review process for plans not listed below:

a. Rough Grading Plan : prior to approval for Precise Grading

b. Precise Grading Plan: prior to Building permits

c. Improvement Plan (off-site, street, striping/signage): prior to Building permits

d. Final Drainage Study: upon submittal of any grading/improvement plans

e. Final WQMP: prior to Building permits

f. Lot Line Adjustment prior to Building permits

g. As-Built Plans of all "plans" listed above: prior to last Occupancy or final building permit issued.

PUBLIC WORKS DEPARTMENT – SPECIAL DISTRICTS DIVISION

Conditions are standard to all or most development projects. Some special conditions, modified conditions or clarification of conditions may be included. Please review conditions as listed and contact the Division at 951.413.3480 for any questions.

Acknowledgement of Conditions

The following are the Special Districts Division's Conditions of Approval for PEN16-0003 through PEN16-0006 (PA15-0014 through PA15-0017(; this project shall be completed at no cost to any Government Agency. All questions regarding the following Conditions including but not limited to intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services) and Zone C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C for operations and capital improvements.

SD-2 Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer's successors in interest, at no cost to the City of Moreno Valley.

SD-3 The ongoing maintenance of any landscaping required to be installed behind the curb on Indian Street, Cardinal Avenue, Krameria Avenue and Heacock Street shall be the responsibility of the applicable property owner.

SD-4 Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

Prior to Grading Permit

SD-5 This project is included within the future annexation boundaries for Community Facilities District No. 7 (CFD No. 7). The Local Component portion of the Area Drainage Plan (ADP) fee for Riverside County Flood Control and Water Conservation District (RCFCWCD) has been allocated toward the debt service payments on CFD No. 7 bonds and/or paid directly for acquisition of RCFCD facilities.

In order for the Developer to meet its financial obligation, it must notify the Special Districts Division when submitting the application for grading permit and select one of the funding options outlined below.

Or

If a grading permit is not required, the Developer must notify the Special Districts Division at 951.413.3480 or specialdistricts@moval.org when submitting the application for building permit issuance and select one of the funding options outlined below.

a. Participate in a special election to annex into CFD No. 7 and pay the equivalent to the Local Component portion of the ADP fee including interest as a special tax levied annually on the Riverside County property tax bill; or

b. Pay the Local Component portion of the ADP fee directly to the City of Moreno Valley, Special Districts Division which shall be used for any authorized purpose for CFD No. 7.

If the funding option selected is participation in a special election, a minimum of 90 days is needed to complete the special election process. This allows adequate time to complete the special election process in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

Annexation to CFD No. 7 shall be completed or proof of payment of the Local Component portion of the ADP fee shall be provided to the Special Districts Division prior to the issuance of the first building permit for this project.

Prior to Building Permit Issuance

SD-6 (BP) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

SD-7 (BP) This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, if any. Financing may be structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or
ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-8 (BP) This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-9 *Commercial* (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

SD-10 (BP) Prior to the issuance of the first building permit for this project, the Developer shall pay Advanced Energy fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges, and Rates adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division *(specialdistricts@moval.org).* Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

PUBLIC WORKS, TRANSPORTATION ENGINEERING DIVISION GENERAL CONDITIONS

TE1. All driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code – Design Guidelines and City of Moreno Valley Standard Plan No. MVSI-112C-0 for commercial driveway approach or as approved by the City Engineer.

TE2. Sight distance at the project driveways shall conform to City of Moreno Valley Standard No. MVSI-164A-0, MVSI-164B-0, and MVSI-164C-0 at the time of preparation of final grading, landscape, and street improvement plans.

TE3. All on-site signing and striping shall be installed per the current California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

TE4. Krameria Avenue is designated an Industrial Collector (78'RW/56'CC) per City Standard Plan No. MVSI-106A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

TE5. Indian Street is designated a Minor Arterial (88'RW/64'CC) per City Standard Plan No. MVSI-105A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

TE6. Indian Street, north of San Michele Road, is not a designated truck route. All truck traffic shall be directed to use Krameria Avenue (west of Indian), Cardinal Avenue, and Cosmos Street as the primary truck access routes. Applicant shall install truck directional signage per the approved signing and striping plans for the project.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE7. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE8. Prior to the commencement of construction activity, construction traffic control plans prepared by a Registered Civil or Traffic Engineer may be required to be submitted to the City for plan approval.

PRIOR TO ISSUANCE OF BUILDING PERMIT IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE9. (BP) Prior to issuance of a building permit for Building 1, the project applicant shall make fair-share contributions to the City of Moreno Valley for improvements at the following intersections:

1. Elsworth Street / Cactus Avenue -	$16,912
2. Graham Street / Cactus Avenue -	$1,575
3. Heacock Street / Cactus Avenue -	$22,794
4. Heacock Street / Iris Avenue -	$6,881
5. Heacock Street / San Michele Road -	$6,546
6. Indian Street / Krameria Avenue -	$4,592
7. Indian Street / San Michele Road -	$4,783
8. Indian Street / Nandina Avenue -	$8,621
9. Perris Boulevard / Cactus Avenue -	$5,615
10. Perris Boulevard / Krameria Avenue -	$3,777
Total	$82,096

TE10. (BP) Prior to issuance of a building permit for Building 1, the project applicant shall make fair-share contributions to the City of Perris for improvements at the following intersections:

11. Western Way / Harley Knox Boulevard -	$12,097
12. Patterson Avenue / Harley Knox Boulevard -	$3,412
13. Webster Avenue / Harley Knox Boulevard -	$33,437
14. Indian Street / Harley Knox Boulevard -	$5,161
Total	$54,107

Attachment: Exhibit A to 2017-19 Coa Building 1 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE11. (CO) Prior to issuance of a building occupancy for Building 1 or 2, the following improvements shall be constructed:

1. Restripe the northbound left turn lanes at Heacock Street and Cactus Avenue to provide for 315 feet of vehicle storage.
2. Modify the existing traffic signal at Heacock Street and San Michele Road to provide overlap phasing for the westbound right turn lane.

TE12. (CO) Prior to issuance of a building final for Building 1 or 2, all approved signing and striping shall be installed per current City Standards and the approved plans. On-site signing and striping (outside the public right of way) shall be per the latest version of the CAMUTCD.

TE13. (CO) Prior to issuance of a building final for Building 1, Communication conduits shall be installed along the Indian Street project frontage per City Standard Plan No. MVSI-186-0.

PRIOR TO ACCEPTANCE OF STREETS INTO THE CITY-MAINTAINED ROAD SYSTEM

TE14. Prior to the acceptance of streets into the City-maintained road system, all approved traffic control and signing and striping shall be installed per current City Standards and the approved plans.

FINANCE AND MANAGEMENT SERVICES DEPARTMENT

Moreno Valley Utility

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project PEN16-0003-PEN16-0006. PEN16-0002 (PA15-0014-0018, P15-037); this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Finance and Management Services Department 951.413.3500, mvuengineering@moval.org. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO ENERGIZING MVU ELECTRIC UTILITY SYSTEM AND CERTIFICATE OF OCCUPANCY

MVU-1 (R) This project requires the installation of electric distribution facilities. A non-exclusive easement shall be provided to Moreno Valley Utility and shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

MVU-2 (BP) City of Moreno Valley Municipal Utility Service – Electrical Distribution: Prior to constructing the MVU Electric Utility System, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer **shall** execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

The Developer **shall** coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City's designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as "utility system" (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all "utility services" to each lot and unit within the Tentative Map. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval.

The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system.

MVU-3 This project is subject to a Reimbursement Agreement and is responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project.
Payment shall be required prior to issuance of building permits.

MVU-4 For all new projects, existing Moreno Valley Utility electrical infrastructure shall be preserved in place. The developer will be responsible, at developer expense, for any and all costs associated with the relocation of any of Moreno

Valley Utility’s underground electrical distribution facilities, as determined by Moreno Valley Utility, which may be in conflict with any developer planned construction on the project site.

PARKS & COMMUNITY SERVICES (PCS)

PCS-GC-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks and Community Services). All assessable parcels therein shall be subject to the annual Zone ‘A’ charge for operations and capital improvements. Proof of such shall be supplied to Parks and Community Services upon Final Map and at Building Permits.

PCS-GC-2 This project is subject to current Development Impact Fees.

Exhibit B to 2017-19

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PEN16-0004 (PA15-0015) PLOT PLAN (BUILDING 2)
APN: 316-100-055

APPROVAL DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. (MC 9.02.230)

P2. This project is located within Moreno Valley Industrial Area Specific Plan 208. The provisions of the specific plan, the design manual, their subsequent amendments, and the Conditions of Approval shall prevail unless modified herein. (MC 9.13)

P3. The site shall be developed in accordance with the approved plans on file in the Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

P4. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation
GPA – Grading Plan Approval
BP - Building Permits
MR – Map Recordation
AOS – Acceptance of Streets
CP – Construction Permit
GP - Grading Permits
BF – Building Final
P - Any permit
MA – Map Approval
WP - Water Improvement Plans
IPA – Improvement Plan Approval
SI – Street Improvements

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan
MC - Municipal Code
Ord - Ordinance
Res - Resolution
UBC - Uniform Building Code
SBM - Subdivision Map Act
MC – Municipal Code
CEQA - California Environmental Quality Act
Ldscp - Landscape Development Guidelines and Specs
UFC - Uniform Fire Code

P5. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P6. Any signs indicated on the submitted plans are not included with this approval. Any signs, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

P7. All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P8. The site has been approved for an option of two separate uses which include a 122,275 square foot industrial warehouse building (Building 2) and a Truck Trailer Yard to be located on approximately 6.95 acres in the Moreno Valley Industrial Area Specific Plan 208. The warehouse approval includes 13 dock doors, loading bays, required parking for autos and truck trailers per the approved plans. The secondary approval provides a truck trailer yard for approximately 166 Trailers. A change or modification shall require separate approval.

P9. Operational noise impacts shall be equal to or less than 65 Ldn at the property line per the Moreno Valley Industrial Area Plan. Loading or unloading activities shall be conducted from the truck bays or designated loading areas.

P10. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security shall remain in place until the project is completed or the construction condition no longer exists. (Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard).

Prior to Issuance of Grading Permits

P11. Prior to issuance of any grading permit~~s~~, any mitigation measures for this building, based on the timing contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant prior to any site disturbance and/or Grading/Building Plan submittal. No City permit or approval shall be issued until such fee is paid. A separate monitoring application/fee is required for each building. (CEQA)

P12. Prior to issuance of any grading or building permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P13. Prior to the issuance of a grading permit, Building Permit or Building Final, the applicant shall demonstrate to the City of Moreno Valley that the Airport Land Use Conditions of Approval have been satisfied.

P14. If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61) , Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, no further disturbance shall occur in the affected area until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 5-days of the published finding to be given a reasonable opportunity to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

P15. Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P16. Prior to approval of any grading permit, if trees are located on the site, a tree plan shall be submitted to and approved by the Panning Division. The plan shall identify all mature trees (4 inch trunk diameter or larger) on the subject property and City right-of-way. Using the grading plan as a base, the plan shall indicate trees to be relocated, retained, and removed. Replacement trees shall be shown on the plan, be a minimum size of 24 inch box, and meet a ratio of three replacement trees for each mature tree removed or as approved by the Planning Official. (GP Objective 4.4, 4.5, DG)

P17. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

a. Project grading and development scheduling;
b. The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.
c. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the applicant;
d. The protocols and stipulations that the Developer, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation. (MM 4.5-1)

Attachment: Exhibit B to 2017-19 Coa Building 2 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

P18. Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseno Indians and Soboba Band of Luiseno Indians tribal representatives (hereafter referred to as “Native American Tribal Representatives”) received a minimum of 30 days advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5.3 shall apply. (MM 4.5-2)

P19. In the event that Native American cultural resources are discovered during the course of grading a treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until a treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). (MM 4.5-3)

P20. In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

a. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

   i. Accommodate the process for Preservation-In-Place /Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default. (MM 4.5-4)

P21. Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find." (MM4.5-5)

P22. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the affected areas in the event that suspected paleontological resources are unearthed. (MM 4.5-6)

P23. The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources. (MM 4.5-7)

P24. Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries. (MM 4.5-8)

P25. Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

P26. Prior to issuance of grading permits, the location of any proposed trash enclosures shall be included on the plans.

P27. Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.
b. The developer’s name, address, and a 24-hour emergency telephone number.

P28. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approve by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking and/or the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

P29. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project outside of the right-of-way.

P30. Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:

a. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height

requirement.

c. Proposed screening walls for truck loading areas and required loading docks shall also include decorative walls with reveals (projections) and color combinations consistent with the building design/colors, with a height up to fourteen (14) feet to fully screen trucks and the truck storage and loading areas.

d. Walls and fences for visual screening are required when there are adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

Prior to Building Permits

P31. Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)

P32. Prior to issuance of any building or grading permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P33. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. All equipment shall be completely screened so as not to be visible from public view, designed to be an integral part of the building and not exceed the building height approved.

P34. Prior to the issuance of building permits, proposed covered trash enclosure(s) shall be included in the Planning review of the Fence and Wall plans. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides unless located within the truck loading area. Approved design plans shall be included in a Building submittal (Fence and walls or building design plans).(GP Objective 43.6, DG)

P35. Prior to or at building plan check submittal, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval prior to the issuance of a building permit. The lighting plan shall be generated on the plot plan and shall be integrated with the

final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

P36. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

P37. The developer/owner or developer's/owner's successor-in-interest may pay Transportation Uniform Mitigation Fees and Development Impact Fees as early as the issuance of building permit. Payment is required no later than building final.

P38. Prior to issuance of building permits, for projects that will be phased, a phasing plan shall be submitted to and approved by the Planning Division.

P39. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Requirements and shall include:

a. A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle in the auto parking areas.
c. Diamond planters shall be provided every 3 parking stalls if double loaded parking is provided.
d. Drought tolerant landscape shall be used. No sod shall be installed
e. Street trees shall be provided every 40 feet on center in the right of way.
f. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.
g. Enhanced landscaping shall be provided at all driveway entries and street corner locations.
h. The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.
i. Landscaping on three sides of any trash enclosure (unless the enclosure

is in the truck storage area).

j. All site perimeter and parking lot landscape and irrigation shall be installed prior to Building final.

Prior to Building Final

P40. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

P41. Prior to building final, Planning Division approved/stamped photometric and landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

P42. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

P43. Prior to building final, the applicant shall demonstrate that the Airport Land Use Commission Conditions of Approval have been met to the satisfaction of the Airport Land Use Commission.

P44. Prior to building final, a final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens shall be provided to the City of Moreno Valley Planning Division. (MM 4.5-9)

P45. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

P46. Prior to building final all Mitigation Measures related to this building and the associated Parcel Map 36150 shall be completed and signed off by the appropriate Division in accordance with the Mitigation Monitoring Program approved with this project.

BUILDING AND SAFETY DIVISION (B)

B1. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area,

occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2016 CBC.

B2. All new buildings 10,000 square feet and over, shall include building commissioning in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (OPR). All requirements in The 2016 California Green Building Standards Code, sections 5.410.2 - 5.410.2.6 must be met.

B3. The proposed non-residential project shall comply with 2016 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

B4. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building and Safety Division at 951.413.3350.

B5. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2016 California Plumbing Code Table 4-1.

B6. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

B7. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

B8. The proposed development is subject to the payment of applicable processing fees as required by the City's current Fee Ordinance at the time a building permit application is submitted or prior to the issuance of permits as determined by the City.

B9. The proposed project is subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

B10. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)

B11. Any construction within the city shall only be as follows: Monday through Friday (except for holidays) seven a.m. to seven p.m.; Saturday from eight a.m. to four p.m., unless written approval is first obtained from the Building Official or City Engineer per City of Moreno Valley Municipal Code (MC 8.14.040E).

B12. Contact the Building and Safety Division for permit application submittal requirements.

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

EDD1. New Moreno Valley businesses are encouraged to hire local residents.

EDD2. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center (“ERC”).

The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

- Job Announcements
- Applicant testing / pre-screening
- Interviewing
- Job Fair support
- Training space

EDD3. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

EDD4. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

EDD5. New Moreno Valley businesses may adopt a “First Source” approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

FIRE PREVENTION BUREAU

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering 4000 g.p.m. for 4 hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)

F2. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected with a fire sprinkler system. The size and number of outlets required for the approved fire hydrants are (6” x 4” x 2 ½” x 2 ½”) (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

F3. The Fire Department emergency vehicular access road shall be (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

F4. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

F5. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

F6. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet for building below 35 feet in height and thirty (30) feet for buildings over 35 feet in height and an unobstructed vertical clearance of not less than thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])

F7. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (CFC 501.3)

F8. Prior to issuance of Certificate of Occupancy or Building Final, “Blue Reflective Markers” shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1 and MVLT 440A-0 through MVLT 440C-0)

F9. Prior to issuance of Certificate of Occupancy or Building Final, street address numbers shall be displayed in a prominent location on the street side. The numerals shall be a minimum of 12 inches in height. (CFC 505.1, MVMC 8.36.060[I])

F10. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9, MVMC 8.36.100[D])

F11. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

F12. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

F13. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a. Be signed by a registered civil engineer or a certified fire protection engineer;
b. Contain a Fire Prevention Bureau approval signature block; and
c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F14. Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507, 501.3)

a. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F16. Prior to issuance of a Certificate of Occupancy or Building Final, a "Knox Box Rapid Entry System" shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Code Official. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F17. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

F18. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

PUBLIC WORKS, LAND DEVELOPMENT

(TPM 36150 and Building 1&2)

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City's Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]

LD2. (G) The tentative map shall correctly show all existing easements, traveled ways, and drainage courses. Any omission may require the map or plans associated with this application to be resubmitted for further consideration. [MC 9.14.040(A)]

LD3. (G) In the event right of way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right of way in accordance with the Land Development Division's administrative policy. If unsuccessful, the Developer shall enter into an agreement with the City to acquire the necessary right of way or offsite easements and complete the improvements at such time the City acquires the right of way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right of way or easement acquisition. [GC 66462.5]

LD4. (G) If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the

City Engineer may require that the engineer's estimate for improvements associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the PIA or issuance of a permit.

LD5. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Land Development Division.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations.

Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD6. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc.). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]

LD7. (G) Public drainage easements, when required, shall be a minimum of 25 feet wide and shall be shown on the map and plan, and noted as follows: *"Drainage Easement – no structures, obstructions, or encroachments by landfills are allowed."* In addition, the grade within the easement area shall not exceed a 3:1 (H: V) slope, unless approved by the City Engineer.

LD8. (G) Prior to any plan approval, a final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

LD9. (G) Water quality best management practices (BMPs) designed to meet Water Quality Management Plan (WQMP) requirements for industrial development shall not be used as a construction BMP. Water quality BMPs shall be maintained for the entire duration of the project construction and be used to treat runoff from those developed portions of the project. Water quality BMPs shall be protected from upstream construction related runoff by having proper best management practices in place and maintained.

LD10. In first submittal of the Final WQMP, applicant shall submit a project-specific document that is in general conformance with the approved Preliminary WQMP.

LD11. (G) The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on Mylar sheets and included in the Grading and Street Improvement plans.

LD12. (G) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

Prior to Grading Plan Approval

LD13. (GPA) Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD14. (GPA) Landscape & Irrigation plans (prepared by a registered/licensed landscape architect) for water quality BMPs shall be submitted for review and approved by the City Engineer per the current submittal requirements, if applicable.

LD15. (GPA) The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

c. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

LD16. (GPA) The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

LD17. (GPA) For projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB) which shall be noted on the grading plans.

LD18. (GPA) Two (2) copies of the final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

c. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

d. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

LD19. (GPA) A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request.

Attachment: Exhibit B to 2017-19 Coa Building 2 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

LD20. (GPA) The developer shall comply with the rules and regulations of FEMA and City Municipal Code 8.12 for development within a flood hazard area (defined as Zones X Shaded, and A0).

a. For developments required to submit a CLOMR/LOMR, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

  i. Prior to plan approval, a Conditional Letter of Map Revision (CLOMR) including Base Flood Elevation (BFE) shall be approved by the City Engineer.

  ii. Prior to issuance of the first building permit, submittal of Letter of Map Revision (LOMR) package with appropriate fees to FEMA unless otherwise approved by the City Engineer.

  iii. Prior to issuance of individual certificate of occupancy, a final elevation certificate. Developer acknowledges and agrees to disclose that owners of lots in the flood plain may need to pay flood insurance until such time LOMR is approved.

  iv. Prior to ninety percent reduction of public improvement securities, a LOMR approved by FEMA shall be submitted to the City.

b. For developments required to submit a CLOMR-F/LOMR-F, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

  i. Prior to plan approval, a Floodplain Development Permit (application available at the City).

  ii. A CLOMR-F (residential structures) unless otherwise approved by the City Engineer.

  iii. Determination of BFE. Machinery and equipment servicing the structures shall be designed to be located above the BFE. For habitable structures, the lowest floor must be certified to be a minimum of one foot above the BFE; non-residential structures must be additionally dry flood proofed; for qualified non-habitable structures, the lowest floor must be wet flood proofed to one foot minimum above BFE.

  iv. Prior to issuance of first building permit for residential structures, submittal of LOMR-F package with appropriate fees to FEMA, unless otherwise approved by the City Engineer.

  v. Prior to issuance of individual certificate of occupancy, a final elevation/flood proof certificate (dependent on type of structure(s)).

vi. Prior to ninety percent reduction of public improvement securities, a LOMR-F approved by FEMA shall be submitted to the City.

LD21. (GPA) The developer shall pay all remaining plan check fees.

LD22. (GPA) Resolution of all drainage issues shall be as approved by the City Engineer.

Prior to Grading Permit

LD23. (GP) The developer shall submit recorded slope easements from adjacent property owners in all areas where grading resulting in slopes is proposed to take place outside of the project boundaries. For all other offsite grading, written permission from adjacent property owners shall be submitted.

LD24. (GP) If the project does not involve the subdivision of land and if the developer chooses to construct the project in phases, a Construction Phasing Plan for all on-site public and private improvements shall be submitted for review and approved by the City Engineer.

LD25. (GP) Resolution of all drainage issues shall be as approved by the City Engineer.

LD26. (GP) A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

LD27. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

LD28. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

LD29. (GP) The developer shall pay all applicable inspection fees.

LD30. (GP) A digital (pdf) copy of the approved grading plans shall be submitted to the Land Development Division.

LD31. (GP) Indian Street is eligible for DIF credit. Prior to the payment of the Development Impact Fee (DIF), the developer may enter into a DIF Improvement Credit Agreement to secure credit for the construction of applicable improvements. If the developer fails to complete this agreement prior to the timing specified above, no credits will be given. The developer shall pay current DIF fees adopted by the City Council. [Ord. 695 § 1.1 (part), 2005] [MC 3.38.030, 040, 050]

Prior to Map Approval

LD32. (MA) Final maps (prepared by a registered civil engineer and/or licensed surveyor) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD33. (MA) Resolution of all drainage issues shall be as approved by the City Engineer.

LD34. (MA) Where Covenants, Conditions and Restrictions (CC&Rs) are applicable, the CC&R shall be submitted for review and approved by the City Engineer. The CC&Rs shall include, but not be limited to, access easements, reciprocal access, private and/or public utility easements as may be relevant to the project. In addition, for single-family residential development, bylaws and articles of incorporation shall also be included as part of the maintenance agreement for any water quality BMPs.

LD35. (MA) All street dedications shall be free of all encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

LD36. (MA) The developer shall guarantee the completion of all related improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

LD37. (MA) All public improvement plans required for this project shall be approved by the City Engineer in order to execute the Public Improvement Agreement (PIA).

LD38. (MA) Where applicable the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD39. (MA) The developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

LD40. (MA) If the project involves the subdivision of land, maps may be developed in phases with the approval of the City Engineer. Financial security shall be provided for all public improvements associated with each phase of the map. The boundaries of any multiple map increment shall be subject to the approval of the City Engineer. If the project does not involve the subdivision of land and it is necessary to dedicate right of way/easements, the developer shall make the appropriate offer of dedication by separate instrument. In either case, the City Engineer may require the dedication and construction of necessary utility, street or other improvements beyond the project boundary, if the improvements are needed for circulation, parking, access, or for the welfare or safety of the public. [MC 9.14.080(B)(C), GC 66412 & 66462.5]

LD41. (MA) After recordation, a digital (pdf) copy of the recorded map shall be submitted to the Land Development Division.

Prior to Improvement Plan Approval

LD42. (IPA) All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD43. (IPA) The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

LD44. (IPA) The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

LD45. (IPA) The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

LD46. (IPA) The plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved by the City Engineer.

LD47. Prior to precise grading plan approval, all dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

LD48. (IPA) The developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD49. (IPA) Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

LD50. (IPA) The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

LD51. (IPA) All street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

Prior to Encroachment Permit

LD52. (EP) All work performed within public right of way requires an encroachment permit. Security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. For non-subdivision projects, the City Engineer may require the execution of a Public Improvement Agreement (PIA) as a condition of the issuance of a construction or encroachment permit. All inspection fees shall be paid prior to issuance of construction permit. [MC 9.14.100(C.4)]

LD53. (EP) A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

LD54. (EP) All applicable inspection fees shall be paid.

Prior to Building Permit

LD55. (BP) For all subdivision projects, the map shall be recorded. [MC 9.14.190]

LD56. (BP) For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

LD57. (BP) For non-subdivision projects, the developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

LD58. (BP) For non-subdivision projects, the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD59. (BP) Certification to the line, grade, flow test, and system invert elevations for the water quality control BMPs shall be submitted or review and approved by the City Engineer (excluding models homes).

LD60. (BP) An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of "blue-top" markers installed by a registered land surveyor or licensed civil engineer.

LD61. (BP) For Commercial/Industrial projects, the owner may have to secure coverage under the State's General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

Prior to Occupancy

LD62. (CO) All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD63. (CO) The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

LD64. (CO) All outstanding fees shall be paid.

LD65. (CO) For non-subdivision projects, in compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System (NPDES) as mandated by the Federal Clean Water Act, this project is subject to the following requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

    i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

    ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]

LD66. (CO) The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights, signing, striping, under sidewalk drains, landscaping and irrigation, medians, redwood header boards, pavement tapers/transitions and traffic control devices as appropriate.

b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, open channels, catch basins and local depressions.

c. City-owned utilities.

d. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

LD67. (CO) For commercial, industrial and multi-family projects, a "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the "Stormwater Treatment Device and Control Measure Access and Maintenance Covenant" can be obtained by contacting the Land Development Division.

LD68. ALL PROPOSED Treatment Control BMP's, and infiltration testing shall be in accordance with the County's LID BMP Design Handbook

LD69. In first submittal of Final WQMP, Applicant shall submit a landscape plan detailing all planting and tree types located adjacent to all surface BMPs.

LD70. In first submittal of Final WQMP, Applicant shall submit a copy of the site's utility plan to verify that no proposed utilities or light structures, if applicable, will be located within, or conflict, with any BMPs.

LD71. In first submittal of Final WQMP, Applicant shall provide documentation within the document that supports the maximum depth utilized in calculations showing that all flows within the proposed Treatment Control BMPs and will filter within 72 hours.

LD72. (CO) The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawings if necessary.

f. Provide City with updated Engineer's Line and Grade Certification.

g. Obtain approval and complete installation of the irrigation and landscaping.

LD73. (CO) The applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

a. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP).

b. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted for review and approved by the City Engineer.

Special Conditions

LD74. After obtaining entitlements, this project will be required to submit design plans for plan review (Rough Grading Plans, Precise Grading Plans Street Improvement Plans, Signing and Striping Plans, Traffic Control Plans, Traffic Signal Plans, Storm Drain Plans, Sewer and Water Plans, Final Parcel Map, and other plans to the Land Development Division) (24"x36" sheet size).

LD75. (GPA) Prior to rough grading plan approval, this project shall demonstrate, via a final drainage study that either the downstream facilities are capable of handling this development's increased runoff or that the increased runoff resulting from the development of this site is mitigated. Unless the downstream facilities are adequate, during no storm event shall the flow leaving the site in the developed condition be larger than that of the pre-developed condition. The drainage study shall analyze the following events: 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events. The applicant understands that additional detention measures, beyond those shown on the tentative map and preliminary drainage study, may be required.

LD76. (GPA) Prior to precise grading plan approval, this project shall meet all FEMA (Federal Emergency Management Agency) and City requirements for building in a 100 year flood zone (Zone X Shaded and Zone AO). This project shall submit

Attachment: Exhibit B to 2017-19 Coa Building 2 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans) for review to the City that it has been removed from the flood zone or submitted for approval to FEMA a CLOMR-F. All requirements, as set forth by FEMA shall be adhered to, particularly the completion and submittal of FEMA application form MT-1, as well as all City Ordinance 8.12.130 requirements. The CLOMR-F shall be approved by FEMA prior to precise grading plan. The LOMR-F shall be acquired by FEMA after construction. The developer shall contact FEMA for CLOMR-F / LOMR-F requirements. As an alternative to the submittal of a CLOMR-F / LOMR-F, the developer may opt to flood proof the building per all City department requirements and City Ordinance 8.12.170 and as approved by FEMA. See FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93. Website: http://www.fema.gov/ Ph.: 1-877-336-2627

LD77. (GPA) Prior to precise grading plan approval, the developer shall submit for review and approval a final soils report including site grading recommendations, especially pertaining to any import/fill relating to the CLOMR-F / LOMR-F requirement.

LD78. (GPA) Prior to precise grading plan approval, the grading plans shall clearly demonstrate that drainage is properly collected and conveyed. The plans shall show all necessary on-site and off-site drainage improvements to properly collect and convey drainage entering, within and leaving the project. This may include, but not be limited to on-site and perimeter drainage improvements to properly convey drainage within and along the project site, and downstream off-site improvements. The developer will be required to obtain the necessary permission for offsite construction including easements, including an encroachment permit for the connection(s) to the Riverside County Flood Control and Water Conservation District (RCFC&WCD) channel.

LD79. (GPA) Prior to precise grading plan approval, the plans shall clearly demonstrate that all applicable recommendations from the geotechnical investigation, and/or any subsequent report, have been adhered to including, but not limited to, grading operation procedures, structural section design, slab design, wall design, etc.

LD80. (GPA) Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin trash enclosures, one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan MVGF-627, modified to include a fully covered, solid roof.

LD81. This project will be required to make the appropriate street R/W dedication(s) via map/separate instrument, including extra R/W per Std. MVSI -112C and corner cutbacks per Std. MVSI-165-0.

LD82. This project will be required to construct Indian Street as a Minor Arterial, City Standard MVSI -105A; Krameria Avenue and Cosmos Street as Industrial Collectors, City Standard MVSI -106A, including any additional right-of-way dedications. Any damage Krameria and Indian Avenue, due to development construction shall be repair/replaced as directed by the City prior to the release of any bonds.

LD83. All ramps and traveled ways shall comply with current ADA standards.

LD84. Pavement core samples of existing pavement may be taken and findings submitted to the City for review and consideration of a lesser width of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement section is found to be adequate, then a lesser width than that specified above for street pavement improvements may be allowed, as approved by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall construct the streets to the limits as listed above.

LD85. Existing utilities will need to be abandoned or relocated.

LD86. All overhead utilities less than 115,000 volts within and along the project boundary will be required to be placed underground and all power poles removed.

LD87. A Final WQMP will be required to be reviewed and approved prior to grading plan approval.

LD88. A Final Drainage Plan will be required to be reviewed and approved prior to grading plan

LD89. Site design and source control BMPs shall be used to the greatest extent before incorporating treatment control BMPs.

LD90. Cosmos Street, Industrial Collector, City Standard MVSI-106A-0 (78’ RW / 56’ CC) shall be constructed. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities. The cul-de-sac at the south end of the Cosmos Street terminus shall be constructed per City Standard MVSI-163A-0 unless otherwise approved by the City Engineer.

LD91. (MA) Prior to parcel map approval, the map shall show the following:

a. A portion of the knuckle at Krameria Avenue east of Cosmos Street may be vacation along the north property line of Parcel 1.

b. Existing utilities will need to be abandoned or relocated in the vacated easements.

c. The dedication of 4’ behind the existing right-of-way at each driveway for pedestrian sidewalk access on Krameria and Indian streets.

d. The dedication of a 4’ easement behind the existing right-of-way for pedestrian sidewalk access along Indian streets, or where any sidewalk is constructed outside of the right-of-way.

e. Dedication of an additional 24’ of right-of-way on Indian Avenue for public street and utilities purposes, along the east property line of Parcels 1, for a 44’ centerline to right-of-way half street width per City Standard MVSI-105A-0, if said dedication has not already of recordation.

LD92. The Preparer shall provide complete and documented calculations for the proposed treatment control BMPs.

LD93. The Applicant shall prepare and submit for approval a Project Specific Final Water Quality Management Plan (F-WQMP) for PA15-0014 formerly P14-023. The F-WQMP shall be consistent with the approved P-WQMP and in full conformance with the document; "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006. The F-WQMP shall be submitted and approved prior to application for and issuance of grading or building permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs; Treatment Control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation

LD94. The Applicant shall, prior to building or grading permit closeout or the issuance of a certificate of occupancy, demonstrate:

a. That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;

b. That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;

c. That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and

d. That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.

LD95. The following project engineering design plans submitted on 24”x36” sheet size shall be submitted for review and approval, as well as additional plans that are deemed necessary, prior to the time as noted below or as maybe require by the City during the plan review process for plans not listed below:

a. Rough Grading Plan : prior to approval for Precise Grading
b. Precise Grading Plan: prior to Building permits
c. Improvement Plan (off-site, street, striping/signage): prior to Building permits
d. Final Drainage Study: upon submittal of any grading/improvement plans
e. Final WQMP: prior to Building permits

f. Lot Line Adjustment prior to Building permits

g. As-Built Plans of all “plans” listed above: prior to last Occupancy or final building permit issued.

PUBLIC WORKS DEPARTMENT – SPECIAL DISTRICTS DIVISION

Conditions are standard to all or most development projects. Some special conditions, modified conditions or clarification of conditions may be included. Please review conditions as listed and contact the Division at 951.413.3480 for any questions.

Acknowledgement of Conditions

The following are the Special Districts Division’s Conditions of Approval for PEN16-0003 through PEN16-0006 (PA15-0014 through PA15-0017); this project shall be completed at no cost to any Government Agency. All questions regarding the following Conditions including but not limited to intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services) and Zone C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C for operations and capital improvements.

SD-2 Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer’s successors in interest, at no cost to the City of Moreno Valley.

SD-3 The ongoing maintenance of any landscaping required to be installed behind the curb on Indian Street, Cardinal Avenue, Krameria Avenue and Heacock Street shall be the responsibility of the applicable property owner.

SD-4 Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

Prior to Grading Permit

SD-5 This project is included within the future annexation boundaries for Community Facilities District No. 7 (CFD No. 7). The Local Component portion of the Area Drainage Plan (ADP) fee for Riverside County Flood Control and Water Conservation District (RCFCWCD) has been allocated toward the debt service payments on CFD No. 7 bonds and/or paid directly for acquisition of RCFCD facilities.

In order for the Developer to meet its financial obligation, it must notify the Special Districts Division when submitting the application for grading permit and select one of the funding options outlined below.

Or

If a grading permit is not required, the Developer must notify the Special Districts Division at 951.413.3480 or specialdistricts@moval.org when submitting the application for building permit issuance and select one of the funding options outlined below.

a. Participate in a special election to annex into CFD No. 7 and pay the equivalent to the Local Component portion of the ADP fee including interest as a special tax levied annually on the Riverside County property tax bill; or

b. Pay the Local Component portion of the ADP fee directly to the City of Moreno Valley, Special Districts Division which shall be used for any authorized purpose for CFD No. 7.

If the funding option selected is participation in a special election, a minimum of 90 days is needed to complete the special election process. This allows adequate time to complete the special election process in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

Annexation to CFD No. 7 shall be completed or proof of payment of the Local Component portion of the ADP fee shall be provided to the Special Districts Division prior to the issuance of the first building permit for this project.

Prior to Building Permit Issuance

SD-6 (BP) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and

Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

SD-7 (BP) This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, if any. Financing may be structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or
ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-8 (BP) This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-9 *Commercial* (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

SD-10 (BP) Prior to the issuance of the first building permit for this project, the Developer shall pay Advanced Energy fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges, and Rates adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division *(specialdistricts@moval.org).* Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

PUBLIC WORKS, TRANSPORTATION ENGINEERING DIVISION

GENERAL CONDITIONS

TE1. All driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code – Design Guidelines and City of Moreno Valley Standard Plan No. MVSI-112C-0 for commercial driveway approach or as approved by the City Engineer.

TE2. Sight distance at the project driveways shall conform to City of Moreno Valley Standard No. MVSI-164A-0, MVSI-164B-0, and MVSI-164C-0 at the time of preparation of final grading, landscape, and street improvement plans.

TE3. All on-site signing and striping shall be installed per the current California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

TE4. Krameria Avenue is designated an Industrial Collector (78'RW/56'CC) per City Standard Plan No. MVSI-106A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

TE5. Indian Street is designated a Minor Arterial (88'RW/64'CC) per City Standard Plan No. MVSI-105A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

TE6. Indian Street, north of San Michele Road, is not a designated truck route. All truck traffic shall be directed to use Krameria Avenue (west of Indian), Cardinal Avenue, and Cosmos Street as the primary truck access routes. Applicant shall install truck directional signage per the approved signing and striping plans for the project.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE7. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE8. Prior to the commencement of construction activity, construction traffic control plans prepared by a Registered Civil or Traffic Engineer may be required to be submitted to the City for plan approval.

PRIOR TO ISSUANCE OF BUILDING PERMIT IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE9. (BP) Prior to issuance of a building permit for Building 2, the project applicant shall make fair-share contributions to the City of Moreno Valley for improvements at the following intersections:

1. Elsworth Street / Cactus Avenue -	$10,973
2. Graham Street / Cactus Avenue -	$1,050
3. Heacock Street / Cactus Avenue -	$14,039
4. Heacock Street / Iris Avenue -	$4,704
5. Heacock Street / San Michele Road -	$3,923
6. Indian Street / Krameria Avenue -	$2,843
7. Indian Street / San Michele Road -	$2,853
8. Indian Street / Nandina Avenue -	$5,438
9. Perris Boulevard / Cactus Avenue -	$3,392
10. Perris Boulevard / Krameria Avenue -	$2,202
Total	$51,417

TE10. (BP) Prior to issuance of a building permit for Building 2, the project applicant shall make fair-share contributions to the City of Perris for improvements at the following intersections:

11. Western Way / Harley Knox Boulevard -	$7,710
12. Patterson Avenue / Harley Knox Boulevard -	$2,099
13. Webster Avenue / Harley Knox Boulevard -	$20,862
14. Indian Street / Harley Knox Boulevard -	$3,193
Total	$33,864

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE11. (CO) Prior to issuance of a building final for Building 1 or 2, the following improvements shall be constructed:

1. Restripe the northbound left turn lanes at Heacock Street and Cactus Avenue to provide for 315 feet of vehicle storage.
2. Modify the existing traffic signal at Heacock Street and San Michele Road to provide overlap phasing for the westbound right turn lane.

TE12. (CO) Prior to issuance of a building final for Building 1 or 2, all approved signing and striping shall be installed per current City Standards and the approved plans. On-site signing and striping (outside the public right of way) shall be per the latest version of the CAMUTCD.

PRIOR TO ACCEPTANCE OF STREETS INTO THE CITY-MAINTAINED ROAD SYSTEM

TE13. Prior to the acceptance of streets into the City-maintained road system, all approved traffic control and signing and striping shall be installed per current City Standards and the approved plans.

FINANCE AND MANAGEMENT SERVICES DEPARTMENT

Moreno Valley Utility

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project PEN16-0003-PEN16-0006, PEN16-0002 (PA15-0014-0018, P15-037); this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Finance and Management Services Department 951.413.3500, mvuengineering@moval.org. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO ENERGIZING MVU ELECTRIC UTILITY SYSTEM AND CERTIFICATE OF OCCUPANCY

MVU-1 (R) This project requires the installation of electric distribution facilities. A non-exclusive easement shall be provided to Moreno Valley Utility and shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

MVU-2 (BP) City of Moreno Valley Municipal Utility Service – Electrical Distribution: Prior to constructing the MVU Electric Utility System, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer **shall** execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

The Developer shall coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City's designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as "utility system" (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all "utility services" to each lot and unit within the Tentative Map. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval.

The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system.

MVU-3 This project is subject to a Reimbursement Agreement and is responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project.
Payment shall be required prior to issuance of building permits.

MVU-4 For all new projects, existing Moreno Valley Utility electrical infrastructure shall be preserved in place. The developer will be responsible, at developer expense, for any and all costs associated with the relocation of any of Moreno Valley Utility's underground electrical distribution facilities, as determined by Moreno Valley Utility, which may be in conflict with any developer planned construction on the project site.

PARKS & COMMUNITY SERVICES (PCS)

PCS-GC-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks and Community Services). All assessable parcels therein shall be subject to the annual Zone 'A' charge for operations and capital improvements. Proof of such shall be supplied to Parks and Community Services upon Final Map and at Building Permits.

PCS-GC-2 This project is subject to current Development Impact Fees.

Exhibit C to 2017-19

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PEN16-0005 (PA15-0016) PLOT PLAN (BUILDING 3)
APN: 316-100-048

APPROVAL DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. (MC 9.02.230)

P2. This project is located within Moreno Valley Industrial Area Specific Plan 208. The provisions of the specific plan, the design manual, their subsequent amendments, and the Conditions of Approval shall prevail unless modified herein. (MC 9.13)

P3. The site shall be developed in accordance with the approved plans on file in the Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

P4. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation
GPA – Grading Plan Approval
BP - Building Permits
MR – Map Recordation
AOS – Acceptance of Streets
CP – Construction Permit
GP - Grading Permits
BF – Building Final
P - Any permit
MA – Map Approval
WP - Water Improvement Plans
IPA – Improvement Plan Approval
SI – Street Improvements

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan
MC - Municipal Code
Ord - Ordinance
Res - Resolution
UBC - Uniform Building Code
SBM - Subdivision Map Act
MC – Municipal Code
CEQA - California Environmental Quality Act
Ldscp - Landscape Development Guidelines and Specs
UFC - Uniform Fire Code

P5. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P6. Any signs indicated on the submitted plans are not included with this approval. Any signs, whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag), require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

P7. All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P8. The site has been approved for a 97,222 square foot industrial warehouse building (Building 3) to be located on approximately 6.6 acres in the Moreno Valley Industrial Area Specific Plan 208. The approval includes 17 dock doors, loading bays, required parking for autos and truck trailers per the approved plans. A change or modification shall require separate approval.

P9. Operational noise impacts shall be equal to or less than 65 Ldn at the property line per the Moreno Valley Industrial Area Plan. Loading or unloading activities shall be conducted from the truck bays or designated loading areas.

P10. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security shall remain in place until the project is completed or the construction condition no longer exists. (Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard).

Prior to Issuance of Grading Permits

P11. Prior to issuance of any grading permit~~s~~, any mitigation measures for this building, based on the timing contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant prior to any site disturbance and/or Grading/Building Plan submittal. No City permit or approval shall be issued until such fee is paid. A separate monitoring application/fee is required for each building. (CEQA)

P12. Prior to issuance of any grading or building permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P13. Prior to the issuance of a grading permit, building permit or building final, the applicant shall demonstrate to the City of Moreno Valley that the Airport Land Use Conditions of Approval have been satisfied.

P14. If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61) , Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, no further disturbance in the affected area shall occur until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 5-days of the published finding to be given a reasonable opportunity to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

P15. Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P16. Prior to approval of any grading permit, if trees are located on the site, a tree plan shall be submitted to and approved by the Panning Division. The plan shall identify all mature trees (4 inch trunk diameter or larger) on the subject property and City right-of-way. Using the grading plan as a base, the plan shall indicate trees to be relocated, retained, and removed. Replacement trees shall be shown on the plan, be a minimum size of 24 inch box, and meet a ratio of three replacement trees for each mature tree removed or as approved by the Planning Official. (GP Objective 4.4, 4.5, DG)

Attachment: Exhibit C to 2017-19 Coa Building 3 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

P17. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

a. Project grading and development scheduling;

b. The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.

c. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the applicant;

d. The protocols and stipulations that the Developer, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation. (MM 4.5-1)

P18. Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseno Indians and Soboba Band of Luiseno Indians tribal representatives (hereafter referred to as “Native American Tribal Representatives”) received a minimum of 30 days advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5.3 shall apply. (MM 4.5-2)

P19. In the event that Native American cultural resources are discovered during the course of grading a treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until a treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). (MM 4.5-3)

P20. In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

a) The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Accommodate the process for Preservation-In-Place /Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default. (MM 4.5-4)

P21. Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find." (MM4.5-5)

P22. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities from the affected areas in the event that suspected paleontological resources are unearthed. (MM 4.5-6)

P23. The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources. (MM 4.5-7)

P24. Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries. (MM 4.5-8)

P25. Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

P26. Prior to issuance of grading permits, the location of any proposed trash enclosures shall be included on the plans.

P27. Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.
b. The developer’s name, address, and a 24-hour emergency telephone number.

P28. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approve by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking~~.~~ and/or the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

P29. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project outside of the right-of-way.

P30. Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:

a. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height

requirement.

c. Proposed screening walls for truck loading areas and required loading docks shall also include decorative walls with reveals (projections) and color combinations consistent with the building design/colors, with a height up to fourteen (14) feet to fully screen trucks and the truck storage and loading areas.
d. Walls and fences for visual screening are required when there are adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

Prior to Building Permits

P31. Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)

P32. Prior to issuance of any building or grading permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P33. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. All equipment shall be completely screened so as not to be visible from public view, designed to be an integral part of the building and not exceed the building height approved.

P34. Prior to the issuance of building permits, proposed covered trash enclosure(s) shall be included in the Planning review of the Fence and Wall plans. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides unless located within the truck loading area. Approved design plans shall be included in a Building submittal (Fence and walls or building design plans).(GP Objective 43.6, DG)

P35. Prior to or at building plan check submittal, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval prior to the issuance of a building permit. The lighting plan shall be generated on the plot plan and shall be integrated with the

final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

P36. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

P37. The developer/owner or developer's/owner's successor-in-interest may pay Transportation Uniform Mitigation Fees and Development Impact Fees as early as the issuance of building permit. Payment is required no later than building final.

P38. Prior to issuance of building permits, for projects that will be phased, a phasing plan shall be submitted to and approved by the Planning Division.

P39. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Requirements and shall include:

a. A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle in the auto parking areas.
c. Diamond planters shall be provided every 3 parking stalls if double loaded parking is provided.
d. Drought tolerant landscape shall be used. No sod shall be installed
e. Street trees shall be provided every 40 feet on center in the right of way.
f. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.
g. Enhanced landscaping shall be provided at all driveway entries and street corner locations.
h. The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.
i. Landscaping on three sides of any trash enclosure (unless the enclosure

is in the truck storage area).

j. All site perimeter and parking lot landscape and irrigation shall be installed prior to Building final.

Prior to Building Final

P40. Prior to building final, the developer/owner or developer's/owner's successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City's adopted Development Impact Fees. (Ord)

P41. Prior to building final, Planning Division approved/stamped photometric and landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

P42. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

P43. Prior to building final, the applicant shall demonstrate that the Airport Land Use Commission Conditions of Approval have been met to the satisfaction of the Airport Land Use Commission.

P44. Prior to building final, a final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens shall be provided to the City of Moreno Valley Planning Division. (MM 4.5-9)

P45. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

P46. Prior to building final all Mitigation Measures related to this building and the associated Parcel Map 36150 shall be completed and signed off by the appropriate Division in accordance with the Mitigation Monitoring Program approved with this project.

BUILDING AND SAFETY DIVISION (B)

B1. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area,

occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2016 CBC.

B2. All new buildings 10,000 square feet and over, shall include building commissioning in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (OPR). All requirements in The 2016 California Green Building Standards Code, sections 5.410.2 - 5.410.2.6 must be met.

B3. The proposed non-residential project shall comply with 2016 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

B4. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building and Safety Division at 951.413.3350.

B5. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2016 California Plumbing Code Table 4-1.

B6. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

B7. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

B8. The proposed development is subject to the payment of applicable processing fees as required by the City's current Fee Ordinance at the time a building permit application is submitted or prior to the issuance of permits as determined by the City.

B9. The proposed project is subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

B10. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)

B11. Any construction within the city shall only be as follows: Monday through Friday (except for holidays) seven a.m. to seven p.m.; Saturday from eight a.m. to four p.m., unless written approval is first obtained from the Building Official or City Engineer per City of Moreno Valley Municipal Code (MC 8.14.040E).

B12. Contact the Building and Safety Division for permit application submittal requirements.

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

EDD1. New Moreno Valley businesses are encouraged to hire local residents.

EDD2. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center (“ERC”).

The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

- Job Announcements
- Applicant testing / pre-screening
- Interviewing
- Job Fair support
- Training space

EDD3. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

EDD4. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

EDD5. New Moreno Valley businesses may adopt a “First Source” approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

FIRE PREVENTION BUREAU

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering 4000 g.p.m. for 4 hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)

F2. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected with a fire sprinkler system. The size and number of outlets required for the approved fire hydrants are (6” x 4” x 2 ½” x 2 ½”) (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

F3. The Fire Department emergency vehicular access road shall be (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

F4. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

F5. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

F6. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet for building below 35 feet in height and thirty (30) feet for buildings over 35 feet in height and an unobstructed vertical clearance of not less than thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])

F7. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (CFC 501.3)

F8. Prior to issuance of Certificate of Occupancy or Building Final, “Blue Reflective Markers” shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1 and MVLT 440A-0 through MVLT 440C-0)

F9. Prior to issuance of Certificate of Occupancy or Building Final, street address numbers shall be displayed in a prominent location on the street side. The numerals shall be a minimum of 12 inches in height. (CFC 505.1, MVMC 8.36.060[I])

F10. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9, MVMC 8.36.100[D])

F11. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

F12. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

F13. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a. Be signed by a registered civil engineer or a certified fire protection engineer;
b. Contain a Fire Prevention Bureau approval signature block; and
c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F14. Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507, 501.3)

a. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F16. Prior to issuance of a Certificate of Occupancy or Building Final, a “Knox Box Rapid Entry System” shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Code Official. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F17. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

F18. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

PUBLIC WORKS, LAND DEVELOPMENT

Building 3 Conditions of Approval

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City’s Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]

LD2. (G) The tentative plans shall correctly show all existing easements, traveled ways, and drainage courses. Any omission may require the plans associated with this application to be resubmitted for further consideration. [MC 9.14.040(A)]

LD3. (G) In the event right of way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right of way in accordance with the Land Development Division’s administrative policy. If unsuccessful, the Developer shall enter into an agreement with the City to acquire the necessary right of way or offsite easements and complete the improvements at such time the City acquires the right of way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right of way or easement acquisition. [GC 66462.5]

LD4. (G) If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the City Engineer may require that the engineer's estimate for improvements associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the PIA or issuance of a permit.

LD5. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Land Development Division.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations.

Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD6. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc.). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]

LD7. (G) Public drainage easements, when required, shall be a minimum of 25 feet wide and shall be shown on the map and plan, and noted as follows: *"Drainage Easement – no structures, obstructions, or encroachments by landfills are allowed."* In addition, the grade within the easement area shall not exceed a 3:1 (H: V) slope, unless approved by the City Engineer.

LD8. (G) Prior to any plan approval, a final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

LD9. (G) Water quality best management practices (BMPs) designed to meet Water Quality Management Plan (WQMP) requirements for industrial development shall not be used as a construction BMP. Water quality BMPs shall be maintained for the entire duration of the project construction and be used to treat runoff from those developed portions of the project. Water quality BMPs shall be protected from upstream construction related runoff by having proper best management practices in place and maintained.

LD10. In first submittal of the Final WQMP, applicant shall submit a project-specific document that is in general conformance with the approved Preliminary WQMP.

LD11. (G) The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on Mylar sheets and included in the Grading and Street Improvement plans.

LD12. (G) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

Prior to Grading Plan Approval

LD13. (GPA) Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD14. (GPA) Landscape & Irrigation plans (prepared by a registered/licensed landscape architect) for water quality BMPs shall be submitted for review and approved by the City Engineer per the current submittal requirements, if applicable.

LD15. (GPA) The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

c. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

LD16. (GPA) The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

LD17. (GPA) For projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB) which shall be noted on the grading plans.

LD18. (GPA) Two (2) copies of the final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

c. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

d. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

LD19. (GPA) A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current Construction Activities Storm Water

General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request.

LD20. (GPA) The developer shall comply with the rules and regulations of FEMA and City Municipal Code 8.12 for development within a flood hazard area (defined as Zones X Shaded, and A0).

a. For developments required to submit a CLOMR/LOMR, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

   i. Prior to plan approval, a Conditional Letter of Map Revision (CLOMR) including Base Flood Elevation (BFE) shall be approved by the City Engineer.

   ii. Prior to issuance of the first building permit, submittal of Letter of Map Revision (LOMR) package with appropriate fees to FEMA unless otherwise approved by the City Engineer.

   iii. Prior to issuance of individual certificate of occupancy, a final elevation certificate. Developer acknowledges and agrees to disclose that owners of lots in the flood plain may need to pay flood insurance until such time LOMR is approved.

   iv. Prior to ninety percent reduction of public improvement securities, a LOMR approved by FEMA shall be submitted to the City.

b. For developments required to submit a CLOMR-F/LOMR-F, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

   i. Prior to plan approval, a Floodplain Development Permit (application available at the City).

   ii. A CLOMR-F (residential structures) unless otherwise approved by the City Engineer.

   iii. Determination of BFE. Machinery and equipment servicing the structures shall be designed to be located above the BFE. For habitable structures, the lowest floor must be certified to be a minimum of one foot above the BFE; non-residential structures must be additionally dry flood proofed; for qualified non-habitable structures, the lowest floor must be wet flood proofed to one foot minimum above BFE.

   iv. Prior to issuance of first building permit for residential structures, submittal of LOMR-F package with appropriate fees to FEMA, unless otherwise approved by the City Engineer.

   v. Prior to issuance of individual certificate of occupancy, a final elevation/flood proof certificate (dependent on type of structure(s)).

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vi. Prior to ninety percent reduction of public improvement securities, a LOMR-F approved by FEMA shall be submitted to the City.

LD21. (GPA) The developer shall pay all remaining plan check fees.

LD22. (GPA) Resolution of all drainage issues shall be as approved by the City Engineer.

LD23. (GPA) Prior to precise grading plan approval, all dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

Prior to Grading Permit

LD24. (GP) The developer shall submit recorded slope easements from adjacent property owners in all areas where grading resulting in slopes is proposed to take place outside of the project boundaries. For all other offsite grading, written permission from adjacent property owners shall be submitted.

LD25. (GP) A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

LD26. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

LD27. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

LD28. (GP) The developer shall pay all applicable inspection fees.

LD29. (GP) A digital (pdf) copy of the approved grading plans shall be submitted to the Land Development Division.

LD30. (GP) Resolution of all drainage issues shall be as approved by the City Engineer.

Prior to Improvement Plan Approval

LD31. (IPA) All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD32. (IPA) The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

LD33. (IPA) The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

LD34. (IPA) The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

LD35. (IPA) The plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved by the City Engineer.

LD36. (IPA) The developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD37. (IPA) Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

LD38. (IPA) The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

LD39. (IPA) All street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

LD40. (IPA) The developer shall guarantee the completion of all related improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security prior to an encroachment permit. [MC 9.14.220]

Prior to Encroachment Permit

LD41. (EP) All work performed within public right of way requires an encroachment permit. Security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. For non-subdivision projects, the City Engineer may require the execution of a Public Improvement Agreement (PIA) as a condition of the issuance of a construction or encroachment permit. All inspection fees shall be paid prior to issuance of construction permit. [MC 9.14.100(C.4)]

LD42. (EP) A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

LD43. (EP) All applicable inspection fees shall be paid.

Prior to Building Permit

LD44. (BP) For all subdivision projects, the map shall be recorded. [MC 9.14.190]

LD45. (BP) For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

LD46. (BP) For non-subdivision projects, the developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

LD47. (BP) For non-subdivision projects, the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD48. (BP) Certification to the line, grade, flow test, and system invert elevations for the water quality control BMPs shall be submitted or review and approved by the City Engineer (excluding models homes).

LD49. (BP) An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of “blue-top” markers installed by a registered land surveyor or licensed civil engineer.

LD50. (BP) For Commercial/Industrial projects, the owner may have to secure coverage under the State’s General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

Prior to Occupancy

LD51. (CO) All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD52. (CO) The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

LD53. (CO) All outstanding fees shall be paid.

LD54. (CO) For non-subdivision projects, in compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System (NPDES) as mandated by the Federal Clean Water Act, this project is subject to the following requirements:

  a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

    i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

    ii. Establish an endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

  b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]

LD55. (CO) The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

  a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights, signing, striping, under sidewalk drains, landscaping and irrigation, medians, redwood header boards, pavement tapers/transitions and traffic control devices as appropriate.

  b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, open channels, catch basins and local depressions.

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   c. City-owned utilities.

   d. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

   e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

   f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

LD56. (CO) For commercial, industrial and multi-family projects, a “Stormwater Treatment Device and Control Measure Access and Maintenance Covenant” shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the “Stormwater Treatment Device and Control Measure Access and Maintenance Covenant” can be obtained by contacting the Land Development Division.

LD57. ALL PROPOSED Treatment Control BMP’s, and infiltration testing shall be in accordance with the County’s LID BMP Design Handbook

LD58. In first submittal of Final WQMP, Applicant shall submit a landscape plan detailing all planting and tree types located adjacent to all surface BMPs.

LD59. In first submittal of Final WQMP, Applicant shall submit a copy of the site’s utility plan to verify that no proposed utilities or light structures, if applicable, will be located within, or conflict, with any BMPs.

LD60. In first submittal of Final WQMP, Applicant shall provide documentation within the document that supports the maximum depth utilized in calculations showing that all flows within the proposed Treatment Control BMPs and will filter within 72 hours.

LD61. (CO) The Developer shall comply with the following water quality related items:

   a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

   b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

   c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

   d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

   e. Clean and repair the water quality BMP's, including re-grading to approved civil drawings if necessary.

   f. Provide City with updated Engineer’s Line and Grade Certification.

g. Obtain approval and complete installation of the irrigation and landscaping.

LD62. (CO) The applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

a. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP).

b. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted for review and approved by the City Engineer.

Special Conditions

LD63. After obtaining entitlements, this project will be required to submit design plans for plan review (Rough Grading Plans, Precise Grading Plans Street Improvement Plans, Signing and Striping Plans, Traffic Control Plans, Traffic Signal Plans, Storm Drain Plans, Sewer and Water Plans, Final Parcel Map, and other plans to the Land Development Division) (24”x36” sheet size).

LD64. (GPA) Prior to rough grading plan approval, this project shall demonstrate, via a final drainage study that either the downstream facilities are capable of handling this development’s increased runoff or that the increased runoff resulting from the development of this site is mitigated. Unless the downstream facilities are adequate, during no storm event shall the flow leaving the site in the developed condition be larger than that of the pre-developed condition. The drainage study shall analyze the following events: 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events. The applicant understands that additional detention measures, beyond those shown on the tentative map and preliminary drainage study, may be required.

LD65. (GPA) Prior to precise grading plan approval, this project shall meet all FEMA (Federal Emergency Management Agency) and City requirements for building in a 100 year flood zone (Zone X Shaded and Zone AO). This project shall submit for review to the City that it has been removed from the flood zone or submitted for approval to FEMA a CLOMR-F. All requirements, as set forth by FEMA shall be adhered to, particularly the completion and submittal of FEMA application form MT-1, as well as all City Ordinance 8.12.130 requirements. The CLOMR-F shall be approved by FEMA prior to precise grading plan. The LOMR-F shall be acquired by FEMA after construction. The developer shall contact FEMA for CLOMR-F / LOMR-F requirements. As an alternative to the submittal of a CLOMR-F / LOMR-F, the developer may opt to flood proof the building per all City department requirements and City Ordinance 8.12.170 and as approved by FEMA. See FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93. Website: http://www.fema.gov/ Ph.: 1-877-336-2627

LD66. (GPA) Prior to precise grading plan approval, the developer shall submit for review and approval a final soils report including site grading recommendations, especially pertaining to any import/fill relating to the CLOMR-F / LOMR-F requirement.

LD67. (GPA) Prior to precise grading plan approval, the grading plans shall clearly demonstrate that drainage is properly collected and conveyed. The plans shall show all necessary on-site and off-site drainage improvements to properly collect and convey drainage entering, within and leaving the project. This may include, but not be limited to on-site and perimeter drainage improvements to properly convey drainage within and along the project site, and downstream off-site improvements. The developer will be required to obtain the necessary permission for offsite construction including easements, including an encroachment permit for the connection(s) to the Riverside County Flood Control and Water Conservation District (RCFC&WCD) channel.

LD68. (GPA) Prior to precise grading plan approval, the plans shall clearly demonstrate that all applicable recommendations from the geotechnical investigation, and/or any subsequent report, have been adhered to including, but not limited to, grading operation procedures, structural section design, slab design, wall design, etc.

LD69. (GPA) Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin trash enclosures, one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan MVGF-627, modified to include a fully covered, solid roof.

LD70. This project will be required to make the appropriate street R/W dedication(s) via map/separate instrument, including extra R/W per Std. MVSI -112C and corner cutbacks per Std. MVSI-165-0.

LD71. All ramps and traveled ways shall comply with current ADA standards.

LD72. Pavement core samples of existing pavement may be taken and findings submitted to the City for review and consideration of a lesser width of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement section is found to be adequate, then a lesser width than that specified above for street pavement improvements may be allowed, as approved by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall construct the streets to the limits as listed above.

LD73. Existing utilities will need to be abandoned or relocated.

LD74. All overhead utilities less than 115,000 volts within and along the project boundary will be required to be placed underground and all power poles removed.

LD75. A Final WQMP will be required to be reviewed and approved prior to grading plan approval.

LD76. A Final Drainage Plan will be required to be reviewed and approved prior to grading plan

LD77. Site design and source control BMPs shall be used to the greatest extent before incorporating treatment control BMPs.

LD78. Cardinal Avenue, Industrial Collector, City Standard MVSI-106A-0 (78' RW / 56' CC) shall be constructed including additional right-of-way dedications. Any damage to the existing Cardinal Street, due to development construction shall be repair/replaced as directed by the City prior to the release of any bonds. Improvements shall consist of, but not be limited to, pavement, base, curb, gutter, sidewalk, driveway approaches, drainage structures, any necessary offsite improvement transition/joins to existing, streetlights, pedestrian ramps, and dry and wet utilities. The cul-de-sac at the south end of the Cardinal Avenue terminus shall be constructed per City Standard MVSI-163A-0 unless otherwise approved by the City Engineer.

LD79. (MA) Prior to Building Permit approval, the developer shall complete the following:

  a. The vacation of existing Cardinal Avenue 30' of right-of-way along the south property line of Parcels 3.

  b. Existing utilities will need to be abandoned or relocated in the vacated easements.

  c. The dedication of 4' behind the existing right-of-way at each driveway for pedestrian sidewalk access on Cardinal Avenue.

  d. The dedication of a 4' easement behind the existing right-of-way for pedestrian sidewalk access along Cardinal Avenue, or where any sidewalk is constructed outside of the right-of-way.

LD80. The Preparer shall provide complete and documented calculations for the proposed treatment control BMPs.

LD81. The Applicant shall prepare and submit for approval a Project Specific Final Water Quality Management Plan (F-WQMP) for PA15-0014 formerly P14-023. The F-WQMP shall be consistent with the approved P-WQMP and in full conformance with the document; "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006. The F-WQMP shall be submitted and approved prior to application for and issuance of grading or building permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs; Treatment Control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation

LD82. The Applicant shall, prior to building or grading permit closeout or the issuance of a certificate of occupancy, demonstrate:

a. That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;

b. That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;

c. That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and

d. That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.

LD83. The following project engineering design plans submitted on 24”x36” sheet size shall be submitted for review and approval, as well as additional plans that are deemed necessary, prior to the time as noted below or as maybe require by the City during the plan review process for plans not listed below:

a. Rough Grading Plan : prior to approval for Precise Grading
b. Precise Grading Plan: prior to Building permits
c. Improvement Plan (off-site, street, striping/signage): prior to Building permits
d. Final Drainage Study: upon submittal of any grading/improvement plans
e. Final WQMP: prior to Building permits
f. Lot Line Adjustment prior to Building permits
g. As-Built Plans of all “plans” listed above: prior to last Occupancy or final building permit issued.

PUBLIC WORKS DEPARTMENT – SPECIAL DISTRICTS DIVISION

Conditions are standard to all or most development projects. Some special conditions, modified conditions or clarification of conditions may be included. Please review conditions as listed and contact the Division at 951.413.3480 for any questions.

Acknowledgement of Conditions

The following are the Special Districts Division’s Conditions of Approval for PEN16-0003-PEN16-0006 (PA15-0014 through PA15-0017); this project shall be completed at no cost to any Government Agency. All questions regarding the following Conditions including but not limited to intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services) and Zone C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C for operations and capital improvements.

SD-2 Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer's successors in interest, at no cost to the City of Moreno Valley.

SD-3 The ongoing maintenance of any landscaping required to be installed behind the curb on Indian Street, Cardinal Avenue, Krameria Avenue and Heacock Street shall be the responsibility of the applicable property owner.

SD-4 Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

Prior to Grading Permit

SD-5 This project is included within the future annexation boundaries for Community Facilities District No. 7 (CFD No. 7). The Local Component portion of the Area Drainage Plan (ADP) fee for Riverside County Flood Control and Water Conservation District (RCFCWCD) has been allocated toward the debt service payments on CFD No. 7 bonds and/or paid directly for acquisition of RCFCD facilities.

In order for the Developer to meet its financial obligation, it must notify the Special Districts Division when submitting the application for grading permit and select one of the funding options outlined below.

Or

If a grading permit is not required, the Developer must notify the Special Districts Division at 951.413.3480 or specialdistricts@moval.org when submitting the application for building permit issuance and select one of the funding options outlined below.

a. Participate in a special election to annex into CFD No. 7 and pay the equivalent to the Local Component portion of the ADP fee including interest as a special tax levied annually on the Riverside County property tax bill; or

b. Pay the Local Component portion of the ADP fee directly to the City of Moreno Valley, Special Districts Division which shall be used for any authorized purpose for CFD No. 7.

If the funding option selected is participation in a special election, a minimum of 90 days is needed to complete the special election process. This allows adequate time to complete the special election process in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

Annexation to CFD No. 7 shall be completed or proof of payment of the Local Component portion of the ADP fee shall be provided to the Special Districts Division prior to the issuance of the first building permit for this project.

Prior to Building Permit Issuance

SD-6 (BP) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

SD-7 (BP) This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, if any. Financing may be structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or
ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-8 (BP) This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-9 *Commercial* (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

SD-10 (BP) Prior to the issuance of the first building permit for this project, the Developer shall pay Advanced Energy fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges, and Rates adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division *(specialdistricts@moval.org).* Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

PUBLIC WORKS, TRANSPORTATION ENGINEERING DIVISION

GENERAL CONDITIONS

TE1. All driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code – Design Guidelines and City of Moreno Valley Standard Plan No. MVSI-112C-0 for commercial driveway approach or as approved by the City Engineer.

TE2. Sight distance at the project driveways shall conform to City of Moreno Valley Standard No. MVSI-164A-0, MVSI-164B-0, and MVSI-164C-0 at the time of preparation of final grading, landscape, and street improvement plans.

TE3. All on-site signing and striping shall be installed per the current California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

TE4. Cardinal Avenue is designated as an Industrial Collector (78'RW/56'CC) per City Standard Plan MVSI-106A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE5. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE6. Prior to the commencement of construction activity, construction traffic control plans prepared by a Registered Civil or Traffic Engineer may be required to be submitted to the City for plan approval.

PRIOR TO ISSUANCE OF BUILDING PERMIT IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE7. (BP) Prior to issuance of a building permit for Building 3, the project applicant shall make fair-share contributions to the City of Moreno Valley for improvements at the following intersections:

1. Elsworth Street / Cactus Avenue -	$9,277
2. Graham Street / Cactus Avenue -	$892
3. Heacock Street / Cactus Avenue -	$11,345
4. Heacock Street / Iris Avenue -	$3,392
5. Heacock Street / San Michele Road -	$3,267

6. Indian Street / Krameria Avenue -	$2,187
7. Indian Street / San Michele Road -	$2,377
8. Indian Street / Nandina Avenue -	$3,846
9. Perris Boulevard / Cactus Avenue -	$2,282
10. Perris Boulevard / Krameria Avenue -	$1,677
Total	$40,542

TE9. (BP) Prior to issuance of a building permit for Building 3, the project applicant shall make fair-share contributions to the City of Perris for improvements at the following intersections:

1. Western Way / Harley Knox Boulevard -	$6,022
2. Patterson Avenue / Harley Knox Boulevard -	$1,662
3. Webster Avenue / Harley Knox Boulevard -	$16,422
4. Indian Street / Harley Knox Boulevard -	$2,537
Total	$26,643

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE11. (CO) Prior to building final or issuance of a certificate of occupancy for Building 3, all approved signing and striping shall be installed per current City Standards and the approved plans. On-site signing and striping (outside the public right of way) shall be per the latest version of the CAMUTCD.

PRIOR TO ACCEPTANCE OF STREETS INTO THE CITY-MAINTAINED ROAD SYSTEM

TE13. Prior to the acceptance of streets into the City-maintained road system, all approved traffic control and signing and striping shall be installed per current City Standards and the approved plans.

FINANCE AND MANAGEMENT SERVICES DEPARTMENT

Moreno Valley Utility

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project PEN16-0003-PEN16-0006 (PA15-0014-0018), PEN16-0002 (P15-037); this project shall be completed at no cost to any Government Agency. All questions regarding

Moreno Valley Utility’s Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Finance and Management Services Department 951.413.3500, mvuengineering@moval.org. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO ENERGIZING MVU ELECTRIC UTILITY SYSTEM AND CERTIFICATE OF OCCUPANCY

MVU-1 (R) This project requires the installation of electric distribution facilities. A non-exclusive easement shall be provided to Moreno Valley Utility and shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

MVU-2 (BP) City of Moreno Valley Municipal Utility Service – Electrical Distribution: Prior to constructing the MVU Electric Utility System, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer shall execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

The Developer shall coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City’s designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, and “bring-up” facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as “utility system” (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all “utility services” to each lot and unit within the Tentative Map. For purposes of this condition, “utility services” shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. “Utility services” shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval.

The City, or the City’s designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system.

MVU-3 This project is subject to a Reimbursement Agreement and is responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project.
Payment shall be required prior to issuance of building permits.

MVU-4 For all new projects, existing Moreno Valley Utility electrical infrastructure shall be preserved in place. The developer will be responsible, at developer expense, for any and all costs associated with the relocation of any of Moreno Valley Utility's underground electrical distribution facilities, as determined by Moreno Valley Utility, which may be in conflict with any developer planned construction on the project site.

PARKS & COMMUNITY SERVICES (PCS)

PCS-GC-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks and Community Services). All assessable parcels therein shall be subject to the annual Zone 'A' charge for operations and capital improvements. Proof of such shall be supplied to Parks and Community Services upon Final Map and at Building Permits.

PCS-GC-2 This project is subject to current Development Impact Fees.

Exhibit D to 2017-19

CITY OF MORENO VALLEY
CONDITIONS OF APPROVAL
PEN16-0006 (PA15-0017) PLOT PLAN (BUILDING 4)
APN: 316-100-048

APPROVAL DATE:
EXPIRATION DATE:

COMMUNITY DEVELOPMENT DEPARTMENT

Planning Division

For questions regarding any Planning condition of approval, please contact the Planning Division at (951) 413-3206.

GENERAL CONDITIONS

P1. This approval shall expire three years after the approval date of this project unless used or extended as provided for by the City of Moreno Valley Municipal Code; otherwise it shall become null and void and of no effect whatsoever. (MC 9.02.230)

P2. This project is located within Moreno Valley Industrial Area Specific Plan 208. The provisions of the specific plan, the design manual, their subsequent amendments, and the Conditions of Approval shall prevail unless modified herein. (MC 9.13)

P3. The site shall be developed in accordance with the approved plans on file in the Community Development Department - Planning Division, the Municipal Code regulations, General Plan, and the conditions contained herein. Prior to any use of the project site or business activity being commenced thereon, all Conditions of Approval shall be completed to the satisfaction of the Planning Official. (MC 9.14.020)

P4. The developer, or the developer's successor-in-interest, shall be responsible for maintaining any undeveloped portion of the site in a manner that provides for the control of weeds, erosion and dust. (MC 9.02.030)

Timing Mechanisms for Conditions (see abbreviation at beginning of affected condition):

R - Map Recordation
GPA – Grading Plan Approval
BP - Building Permits
MR – Map Recordation
AOS – Acceptance of Streets
CP – Construction Permit
GP - Grading Permits
BF – Building Final
P - Any permit
MA – Map Approval
WP - Water Improvement Plans
IPA – Improvement Plan Approval
SI – Street Improvements

Governing Document (see abbreviation at the end of the affected condition):

GP - General Plan
MC - Municipal Code
Ord - Ordinance
Res - Resolution
UBC - Uniform Building Code
SBM - Subdivision Map Act
MC – Municipal Code
CEQA - California Environmental Quality Act
Ldscp - Landscape Development Guidelines and Specs
UFC - Uniform Fire Code

P5. All landscaped areas shall be maintained in a healthy and thriving condition, free from weeds, trash and debris. (MC 9.02.030)

P6. Any signs indicated on the submitted plans are not included with this approval. Any signs, <u>whether permanent (e.g. wall, monument) or temporary (e.g. banner, flag),</u> require separate application and approval by the Planning Division. No signs are permitted in the public right of way. (MC 9.12)

P7. All site plans, grading plans, landscape and irrigation plans, fence/wall plans, lighting plans and street improvement plans shall be coordinated for consistency with this approval.

Special Conditions

P8. The site has been approved for a 164,920 square foot industrial warehouse building (Building 4) to be located on approximately 8.7 acres in the Moreno Valley Industrial Area Specific Plan 208. The approval includes 25 dock doors, loading bays, required parking for autos and truck trailers per the approved plans. A change or modification shall require separate approval.

P9. Operational noise impacts shall be equal to or less than 65 Ldn at the property line per the Moreno Valley Industrial Area Plan. Loading or unloading activities shall be conducted from the truck bays or designated loading areas.

P10. Prior to the start of any construction, temporary security fencing shall be erected. The fencing shall be a minimum of six (6) feet high with locking, gated access and shall remain through the duration of construction. Security shall remain in place until the project is completed or the construction condition no longer exists. (Security fencing is required if there is: construction, unsecured structures, unenclosed storage of materials and/or equipment, and/or the condition of the site constitutes a public hazard).

Prior to Issuance of Grading Permits

P11. Prior to issuance of any grading permit~~s~~, any mitigation measures for this building, based on the timing contained in the Mitigation Monitoring Program approved with this project shall be implemented as provided therein. A mitigation monitoring fee, as provided by City ordinance, shall be paid by the applicant prior to any site disturbance and/or Grading/Building Plan submittal. No City permit or approval shall be issued until such fee is paid. A separate monitoring application/fee is required for each building. (CEQA)

P12. Prior to issuance of any grading or building permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P13. Prior to the issuance of a grading permit, building permit or building final, as specified in the conditions, the applicant shall demonstrate to the City of Moreno Valley that the Airport Land Use Commission Conditions of Approval have been satisfied.

P14. If potential historic, archaeological, or paleontological resources are uncovered during excavation or construction activities at the project site, work in the affected area must cease immediately and a qualified person (meeting the Secretary of the Interior's standards (36CFR61) , Tribal Representatives, and all site monitors per the Mitigation Measures, shall be consulted by the applicant to evaluate the find, and as appropriate recommend alternative measures to avoid, minimize or mitigate negative effects on the historic, prehistoric, or paleontological resource. Determinations and recommendations by the consultant shall be immediately submitted to the Planning Division for consideration, and implemented as deemed appropriate by the Community Development Director, in consultation with the State Historic Preservation Officer (SHPO) and any and all affected Native American Tribes before any further work commences in the affected area.

If human remains are discovered, no further disturbance in the affected area shall occur until the County Coroner has made necessary findings as to origin. If the County Coroner determines that the remains are potentially Native American, the California Native American Heritage Commission shall be notified within 5-days of the published finding to be given a reasonable opportunity to identify the "most likely descendant." The "most likely descendant" shall then make recommendations, and engage in consultations concerning the treatment of the remains (California Public Resources Code 5097.98). (GP Objective 23.3, CEQA).

P15. Prior to issuance of grading permits, the developer shall pay the applicable Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan mitigation fee. (Ord)

P16. Prior to approval of any grading permit, if trees are located on the site, a tree plan shall be submitted to and approved by the Panning Division. The plan shall identify all mature trees (4 inch trunk diameter or larger) on the subject property and City right-of-way. Using the grading plan as a base, the plan shall indicate trees to be relocated, retained, and removed. Replacement trees shall be shown on the plan, be a minimum size of 24 inch box, and meet a ratio of three replacement trees for each mature tree removed or as approved by the Planning Official. (GP Objective 4.4, 4.5, DG)

Attachment: Exhibit D to 2017-19 Coa Building 4 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

P17. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a professional archaeologist has been retained by the Applicant to conduct monitoring of all mass grading and trenching activities. The Project Archaeologist shall have the authority to temporarily redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Developer and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the Plan shall include:

a. Project grading and development scheduling;
b. The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.
c. The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the applicant;
d. The protocols and stipulations that the Developer, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation. (MM 4.5-1)

P18. Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseno Indians and Soboba Band of Luiseno Indians tribal representatives (hereafter referred to as “Native American Tribal Representatives”) received a minimum of 30 days advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5.3 shall apply. (MM 4.5-2)

P19. In the event that Native American cultural resources are discovered during the course of grading a treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until a treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). (MM 4.5-3)

P20. In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

a. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

    i. Accommodate the process for Preservation-In-Place /Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default. (MM 4.5-4)

P21. Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

“If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find." (MM4.5-5)

P22. Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities from the affected areas in the event that suspected paleontological resources are unearthed. (MM 4.5-6)

P23. The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources. (MM 4.5-7)

P24. Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries. (MM 4.5-8)

P25. Within thirty (30) days prior to any grading or other land disturbance, a pre-construction survey for Burrowing Owls shall be conducted pursuant to the established guidelines of Multiple Species Habitat Conservation Plan. The pre-construction survey shall be submitted to the Planning Division prior to any disturbance of the site and/or grading permit issuance.

P26. Prior to issuance of grading permits, the location of any proposed trash enclosures shall be included on the plans.

P27. Prior to the issuance of grading permits, a temporary project identification sign shall be erected on the site in a secure and visible manner. The sign shall be conspicuously posted at the site and remain in place until occupancy of the project. The sign shall include the following:

a. The name (if applicable) and address of the development.
b. The developer’s name, address, and a 24-hour emergency telephone number.

P28. Prior to the issuance of grading permits, decorative (e.g. colored/scored concrete or as approve by the Planning Official) pedestrian pathways across circulation aisles/paths shall be provided throughout the development to connect dwellings with open spaces and/or recreational uses or commercial/industrial buildings with open space and/or parking~~.~~ and/or the public right-of-way. The pathways shall be shown on the precise grading plan. (GP Objective 46.8, DG)

P29. Prior to the issuance of grading permits, the site plan and grading plans shall show decorative hardscape (e.g. colored concrete, stamped concrete, pavers or as approved by the Planning Official) consistent and compatible with the design, color and materials of the proposed development for all driveway ingress/egress locations of the project outside of the right-of-way.

P30. Prior to issuance of grading permits, the developer shall submit wall/fence plans to the Planning Division for review and approval as follows:

a. A 3 foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Any proposed retaining walls shall also be decorative in nature, while the combination of retaining and other walls on top shall not exceed the height

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requirement.

c. Proposed screening walls for truck loading areas and required loading docks shall also include decorative walls with reveals (projections) and color combinations consistent with the building design/colors, with a height up to fourteen (14) feet to fully screen trucks and the truck storage and loading areas.
d. Walls and fences for visual screening are required when there are adjacent residential uses or residentially zone property. The height, placement and design will be based on a site specific review of the project. All walls are subject to the approval of the Planning Official. (DC 9.08.070)

Prior to Building Permits

P31. Prior to issuance of building permits, the Planning Division shall review and approve the location and method of enclosure or screening of transformer cabinets, commercial gas meters and back flow preventers as shown on the final working drawings. Location and screening shall comply with the following criteria: transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or landscaping; multiple electrical meters shall be fully enclosed and incorporated into the overall architectural design of the building(s); back-flow preventers shall be screened by landscaping. (GP Objective 43.30, DG)

P32. Prior to issuance of any building or grading permits, all Conditions of Approval, Mitigation Measures and Airport Land Use Commission Conditions shall be printed on the grading and building plans.

P33. Prior to issuance of building permits, screening details shall be addressed on the building plans for roof top equipment submitted for Planning Division review and approval through the building plan check process. All equipment shall be completely screened so as not to be visible from public view, designed to be an integral part of the building and not exceed the building height approved.

P34. Prior to the issuance of building permits, proposed covered trash enclosure(s) shall be included in the Planning review of the Fence and Wall plans. The trash enclosure(s), including the roof materials, shall be compatible with the architecture, color and materials of the building(s) design. Trash enclosure areas shall include landscaping on three sides unless located within the truck loading area. Approved design plans shall be included in a Building submittal (Fence and walls or building design plans).(GP Objective 43.6, DG)

P35. Prior to or at building plan check submittal, two copies of a detailed, on-site, computer generated, point-by-point comparison lighting plan, including exterior building, parking lot, and landscaping lighting, shall be submitted to the Planning Division for review and approval prior to the issuance of a building permit. The lighting plan shall be generated on the plot plan and shall be integrated with the

final landscape plan. The plan shall indicate the manufacturer's specifications for light fixtures used, shall include style, illumination, location, height and method of shielding per the City's Municipal Code requirements. After the third plan check review for lighting plans, an additional plan check fee will apply. (MC 9.08.100, 9.16.280)

P36. Prior to issuance of a building permit, the developer/property owner or developer's successor-in-interest shall pay all applicable impact fees due at permit issuance, including but not limited to Multi-species Habitat Conservation Plan (MSHCP) mitigation fees. (Ord)

P37. The developer/owner or developer's/owner's successor-in-interest may pay Transportation Uniform Mitigation Fees and Development Impact Fees as early as the issuance of building permit. Payment is required no later than building final.

P38. Prior to issuance of building permits, for projects that will be phased, a phasing plan shall be submitted to and approved by the Planning Division.

P39. Prior to issuance of any building permits, final landscaping and irrigation plans shall be submitted for review and approved by the Planning Division. After the third plan check review for landscape plans, an additional plan check fee shall apply. The plans shall be prepared in accordance with the City's Landscape Requirements and shall include:

a. A three (3) foot high decorative wall, solid hedge or berm shall be placed in any setback areas between a public right of way and a parking lot for screening.
b. Finger and end planters with required step outs and curbing shall be provided every 12 parking stalls as well as at the terminus of each aisle in the auto parking areas.
c. Diamond planters shall be provided every 3 parking stalls if double loaded parking is provided.
d. Drought tolerant landscape shall be used. No sod shall be installed
e. Street trees shall be provided every 40 feet on center in the right of way.
f. On-site trees shall be planted at an equivalent of one (1) tree per thirty (30) linear feet of the perimeter of a parking lot and per thirty linear feet of a building dimension for the portions of the building visible from a parking lot or right of way. Trees may be massed for pleasing aesthetic effects.
g. Enhanced landscaping shall be provided at all driveway entries and street corner locations.
h. The review of all utility boxes, transformers etc. shall be coordinated to provide adequate screening from public view.
i. Landscaping on three sides of any trash enclosure (unless the enclosure is in the truck storage area).

j. All site perimeter and parking lot landscape and irrigation shall be installed prior to Building final.

Prior to Building Final

P40. Prior to building final, the developer/owner or developer's/owner’s successor-in-interest shall pay all applicable impact fees, including but not limited to Transportation Uniform Mitigation fees (TUMF), and the City’s adopted Development Impact Fees. (Ord)

P41. Prior to building final, Planning Division approved/stamped photometric and landscape plans shall be provided to the Community Development Department – Planning Division on a CD disk.

P42. Prior to building final, all required landscaping and irrigation shall be installed per plan, certified by the Landscape Architect and inspected by the Planning Division. (MC 9.03.040, MC 9.17).

P43. Prior to building final, the applicant shall demonstrate that the Airport Land Use Commission Conditions of Approval have been met to the satisfaction of the Airport Land Use Commission.

P44. Prior to building final, a final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens shall be provided to the City of Moreno Valley Planning Division. (MM 4.5-9)

P45. Prior to building final, all required and proposed fences and walls shall be constructed according to the approved plans on file in the Planning Division. (MC 9.080.070).

P46. Prior to building final all Mitigation Measures related to this building and the associated Parcel Map 36150 shall be completed and signed off by the appropriate Division in accordance with the Mitigation Monitoring Program approved with this project.

BUILDING AND SAFETY DIVISION (B)

B1. All new structures shall be designed in conformance to the latest design standards adopted by the State of California in the California Building Code, (CBC) Part 2, Title 24, California Code of Regulations including requirements for allowable area,

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occupancy separations, fire suppression systems, accessibility, etc. The current code edition is the 2016 CBC.

B2. All new buildings 10,000 square feet and over, shall include building commissioning in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (OPR). All requirements in The 2016 California Green Building Standards Code, sections 5.410.2 - 5.410.2.6 must be met.

B3. he proposed non-residential project shall comply with 2016 California Green Building Standards Code, Section 5.106.5.3, mandatory requirements for Electric Vehicle Charging Station (EVCS).

B4. Prior to submittal, all new development, including residential second units, are required to obtain a valid property address prior to permit application. Addresses can be obtained by contacting the Building and Safety Division at 951.413.3350.

B5. The proposed project's occupancy shall be classified by the Building Official and must comply with exiting, occupancy separation(s) and minimum plumbing fixture requirements of the 2016 California Plumbing Code Table 4-1.

B6. Building plans submitted shall be signed and sealed by a California licensed design professional as required by the State Business and Professions Code.

B7. The proposed non-residential project shall comply with the latest Federal Law, Americans with Disabilities Act, and State Law, California Code of Regulations, Title 24, Chapter 11B for accessibility standards for the disabled including access to the site, exits, bathrooms, work spaces, etc.

B8. The proposed development is subject to the payment of applicable processing fees as required by the City's current Fee Ordinance at the time a building permit application is submitted or prior to the issuance of permits as determined by the City.

B9. The proposed project is subject to approval by the Eastern Municipal Water District and all applicable fees and charges shall be paid prior to permit issuance. Contact the water district at 951.928.3777 for specific details.

B10. Prior to permit issuance, every applicant shall submit a properly completed Waste Management Plan (WMP), as a portion of the building or demolition permit process. (MC 8.80.030)

B11. Any construction within the city shall only be as follows: Monday through Friday (except for holidays) seven a.m. to seven p.m.; Saturday from eight a.m. to four p.m., unless written approval is first obtained from the Building Official or City Engineer per City of Moreno Valley Municipal Code (MC 8.14.040E).

B12. Contact the Building and Safety Division for permit application submittal requirements.

ECONOMIC DEVELOPMENT DEPARTMENT (EDD)

EDD1. New Moreno Valley businesses are encouraged to hire local residents.

EDD2. New Moreno Valley businesses may utilize the workforce recruitment services provided by the Moreno Valley Employment Resource Center (“ERC”).

The ERC offers no cost assistance to businesses recruiting and training potential employees. Complimentary services include:

- Job Announcements
- Applicant testing / pre-screening
- Interviewing
- Job Fair support
- Training space

EDD3. New Moreno Valley businesses may work with the Economic Development Department to coordinate job recruitment fairs.

EDD4. New Moreno Valley businesses are encouraged to provide a job fair flyer and/or web announcement to the City in advance of job recruitments, so that the City can assist in publicizing these events.

EDD5. New Moreno Valley businesses may adopt a “First Source” approach to employee recruitment that gives notice of job openings to Moreno Valley residents for one week in advance of the public recruitment.

FIRE PREVENTION BUREAU

With respect to the conditions of approval, the following fire protection measures shall be provided in accordance with Moreno Valley City Ordinances and/or recognized fire protection standards:

F1. The Fire Prevention Bureau is required to set a minimum fire flow for the remodel or construction of all commercial buildings per CFC Appendix B and Table

B105.1. The applicant/developer shall provide documentation to show there exists a water system capable of delivering 4000 g.p.m. for 4 hour(s) duration at 20-PSI residual operating pressure. The required fire flow may be adjusted during the approval process to reflect changes in design, construction type, or automatic fire protection measures as approved by the Fire Prevention Bureau. Specific requirements for the project will be determined at time of submittal. (CFC 507.3, Appendix B)

F2. The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the C.F.C., MVMC, and NFPA 24. Fire hydrants shall be located no closer than 40 feet to a building. A fire hydrant shall be located within 50 feet of the fire department connection for buildings protected with a fire sprinkler system. The size and number of outlets required for the approved fire hydrants are (6” x 4” x 2 ½” x 2 ½”) (CFC 507.5.1, 507.5.7, Appendix C, NFPA 24-7.2.3, MVMC 912.2.1)

F3. The Fire Department emergency vehicular access road shall be (all weather surface) capable of sustaining an imposed load of 80,000 lbs. GVW, based on street standards approved by the Public Works Director and the Fire Prevention Bureau. The approved fire access road shall be in place during the time of construction. Temporary fire access roads shall be approved by the Fire Prevention Bureau. (CFC 501.4, and MV City Standard Engineering Plan 108d)

F4. All Fire Department access roads or driveways shall not exceed 12 percent grade. (CFC 503.2.7 and MVMC 8.36.060[G])

F5. The angle of approach and departure for any means of Fire Department access shall not exceed 1 ft drop in 20 ft (0.3 m drop in 6 m), and the design limitations of the fire apparatus of the Fire Department shall be subject to approval by the AHJ. (CFC 503 and MVMC 8.36.060)

F6. Fire lanes and fire apparatus access roads shall have an unobstructed width of not less than twenty–four (24) feet for building below 35 feet in height and thirty (30) feet for buildings over 35 feet in height and an unobstructed vertical clearance of not less than thirteen (13) feet six (6) inches. (CFC 503.2.1 and MVMC 8.36.060[E])

F7. Prior to issuance of Building Permits, the applicant/developer shall provide the Fire Prevention Bureau with an approved site plan for Fire Lanes and signage. (CFC 501.3)

F8. Prior to issuance of Certificate of Occupancy or Building Final, “Blue Reflective Markers” shall be installed to identify fire hydrant locations in accordance with City specifications. (CFC 509.1 and MVLT 440A-0 through MVLT 440C-0)

F9. Prior to issuance of Certificate of Occupancy or Building Final, street address numbers shall be displayed in a prominent location on the street side. The numerals shall be a minimum of 12 inches in height. (CFC 505.1, MVMC 8.36.060[I])

F10. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire sprinkler system based on square footage and type of construction, occupancy or use. Fire sprinkler plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9, MVMC 8.36.100[D])

F11. Prior to issuance of Certificate of Occupancy or Building Final, the applicant/developer shall install a fire alarm system monitored by an approved Underwriters Laboratory listed central station based on a requirement for monitoring the sprinkler system, occupancy or use. Fire alarm panel shall be accessible from exterior of building in an approved location. Plans shall be submitted to the Fire Prevention Bureau for approval prior to installation. (CFC Chapter 9 and MVMC 8.36.100)

F12. Plans for private water mains supplying fire sprinkler systems and/or private fire hydrants shall be submitted to the Fire Prevention Bureau for approval. (CFC 105 and CFC 3312.1)

F13. Prior to issuance of Building Permits, the applicant/developer shall furnish one copy of the water system plans to the Fire Prevention Bureau for review. Plans shall:

a. Be signed by a registered civil engineer or a certified fire protection engineer;
b. Contain a Fire Prevention Bureau approval signature block; and
c. Conform to hydrant type, location, spacing of new and existing hydrants and minimum fire flow required as determined by the Fire Prevention Bureau.

The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F14. Existing fire hydrants on public streets are allowed to be considered available. Existing fire hydrants on adjacent properties shall not be considered available unless fire apparatus access roads extend between properties and easements are established to prevent obstruction of such roads. (CFC 507, 501.3)

a. The required water system, including fire hydrants, shall be installed, made serviceable, and be accepted by the Moreno Valley Fire Department prior to beginning construction. They shall be maintained accessible.

F15. Prior to issuance of a Certificate of Occupancy or Building Final, a “Knox Box Rapid Entry System” shall be provided. The Knox-Box shall be installed in an accessible location approved by the Fire Code Official. All exterior security emergency access gates shall be electronically operated and be provided with Knox key switches for access by emergency personnel. (CFC 506.1)

F16. The Fire Code Official is authorized to enforce the fire safety during construction requirements of Chapter 33. (CFC Chapter 33 & CBC Chapter 33)

F17. Prior to construction, all traffic calming designs/devices must be approved by the Fire Marshal and City Engineer.

PUBLIC WORKS, LAND DEVELOPMENT

Building 4 Conditions of Approval

General Conditions

LD1. (G) The developer shall comply with all applicable City ordinances and resolutions including the City’s Municipal Code (MC) and if subdividing land, the Government Code (GC) of the State of California, specifically Sections 66410 through 66499.58, said sections also referred to as the Subdivision Map Act (SMA). [MC 9.14.010]

LD2. (G) The tentative plans shall correctly show all existing easements, traveled ways, and drainage courses. Any omission may require the plans associated with this application to be resubmitted for further consideration. [MC 9.14.040(A)]

LD3. (G) In the event right of way or offsite easements are required to construct offsite improvements necessary for the orderly development of the surrounding area to meet the public health and safety needs, the developer shall make a good faith effort to acquire the needed right of way in accordance with the Land Development Division’s administrative policy. If unsuccessful, the Developer shall enter into an agreement with the City to acquire the necessary right of way or offsite easements and complete the improvements at such time the City acquires the right of way or offsite easements which will permit the improvements to be made. The developer shall be responsible for all costs associated with the right of way or easement acquisition. [GC 66462.5]

LD4. (G) If improvements associated with this project are not initiated within two (2) years of the date of approval of the Public Improvement Agreement (PIA), the City Engineer may require that the engineer's estimate for improvements associated with the project be modified to reflect current City construction costs in effect at the time of request for an extension of time for the PIA or issuance of a permit.

LD5. (G) The developer shall monitor, supervise and control all construction and construction supportive activities, so as to prevent these activities from causing a public nuisance, including but not limited to, insuring strict adherence to the following:

a. Removal of dirt, debris, or other construction material deposited on any public street no later than the end of each working day.

b. Observance of working hours as stipulated on permits issued by the Land Development Division.

c. The construction site shall accommodate the parking of all motor vehicles used by persons working at or providing deliveries to the site.

d. All dust control measures per South Coast Air Quality Management District (SCAQMD) requirements during the grading operations.

Violation of any condition, restriction or prohibition set forth in these conditions shall subject the owner, applicant, developer or contractor(s) to remedy as noted in City Municipal Code 8.14.090. In addition, the City Engineer or Building Official may suspend all construction related activities for violation of any condition, restriction or prohibition set forth in these conditions until such time as it has been determined that all operations and activities are in conformance with these conditions.

LD6. (G) The developer shall protect downstream properties from damage caused by alteration of drainage patterns (i.e. concentration or diversion of flow, etc.). Protection shall be provided by constructing adequate drainage facilities, including, but not limited to, modifying existing facilities or by securing a drainage easement. [MC 9.14.110]

LD7. (G) Public drainage easements, when required, shall be a minimum of 25 feet wide and shall be shown on the map and plan, and noted as follows: *“Drainage Easement – no structures, obstructions, or encroachments by landfills are allowed.”* In addition, the grade within the easement area shall not exceed a 3:1 (H: V) slope, unless approved by the City Engineer.

LD8. (G) Prior to any plan approval, a final detailed drainage study (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer. The study shall include existing and proposed hydrologic conditions as well as hydraulic calculations for all drainage control devices and storm drain lines. [MC 9.14.110(A.1)]. A digital (pdf) copy of the approved drainage study shall be submitted to the Land Development Division.

LD9. (G) Water quality best management practices (BMPs) designed to meet Water Quality Management Plan (WQMP) requirements for industrial development shall not be used as a construction BMP. Water quality BMPs shall be maintained for

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the entire duration of the project construction and be used to treat runoff from those developed portions of the project. Water quality BMPs shall be protected from upstream construction related runoff by having proper best management practices in place and maintained.

LD10. In first submittal of the Final WQMP, applicant shall submit a project-specific document that is in general conformance with the approved Preliminary WQMP.

LD11. (G) The final approved conditions of approval (COAs) and any applicable Mitigation Measures issued by the Planning Division shall be photographically or electronically placed on Mylar sheets and included in the Grading and Street Improvement plans.

LD12. (G) Aggregate slurry, as defined in Section 203-5 of Standard Specifications for Public Works Construction, may be required just prior to the end of the one-year warranty period of the public streets at the discretion of the City Engineer. If slurry is required, a slurry mix design shall be submitted for review and approved by the City Engineer. The latex additive shall be Ultra Pave 70 (for anionic) or Ultra Pave 65 K (for cationic) or an approved equal per the geotechnical report. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of two to two-and-one-half (2 to 2½) parts to one-hundred (100) parts of emulsion by volume. Any existing striping shall be removed prior to slurry application and replaced per City standards.

LD13. (G) Where applicable the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD14. (G) The developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

Prior to Grading Plan Approval

LD15. (GPA) Grading plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD16. (GPA) Landscape & Irrigation plans (prepared by a registered/licensed landscape architect) for water quality BMPs shall be submitted for review and approved by the City Engineer per the current submittal requirements, if applicable.

LD17. (GPA) The developer shall ensure compliance with the City Grading ordinance, these Conditions of Approval and the following criteria:

a. The project street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage area and outlet points. Unless otherwise approved by the City Engineer, lot lines shall be located at the top of slopes.

b. Any grading that creates cut or fill slopes adjacent to the street shall provide erosion control, sight distance control, and slope easements as approved by the City Engineer.

c. All improvement plans are substantially complete and appropriate clearance letters are provided to the City.

d. A soils/geotechnical report (addressing the soil's stability and geological conditions of the site) shall be submitted to the Land Development Division for review. A digital (pdf) copy of the soils/geotechnical report shall be submitted to the Land Development Division.

LD18. (GPA) The developer shall select Low Impact Development (LID) Best Management Practices (BMPs) designed per the latest version of the Water Quality Management Plan (WQMP) - a guidance document for the Santa Ana region of Riverside County.

LD19. (GPA) For projects that will result in discharges of storm water associated with construction with a soil disturbance of one or more acres of land, the developer shall submit a Notice of Intent (NOI) and obtain a Waste Discharger's Identification number (WDID#) from the State Water Quality Control Board (SWQCB) which shall be noted on the grading plans.

LD20. (GPA) Two (2) copies of the final project-specific Water Quality Management Plan (WQMP) shall be submitted for review and approved by the City Engineer, which:

a. Addresses Site Design Best Management Practices (BMPs) such as minimizing impervious areas, maximizing permeability, minimizes directly connected impervious areas to the City's street and storm drain systems, and conserves natural areas;

b. Incorporates Source Control BMPs and provides a detailed description of their implementation;

c. Describes the long-term operation and maintenance requirements for BMPs requiring maintenance; and

d. Describes the mechanism for funding the long-term operation and maintenance of the BMPs.

A copy of the final WQMP template can be obtained on the City's Website or by contacting the Land Development Division. A digital (pdf) copy of the approved final project-specific Water Quality Management Plan (WQMP) shall be submitted to the Land Development Division.

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LD21. (GPA) A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared in conformance with the State's current Construction Activities Storm Water General Permit. A copy of the current SWPPP shall be kept at the project site and be available for review upon request.

LD22. (GPA) The developer shall comply with the rules and regulations of FEMA and City Municipal Code 8.12 for development within a flood hazard area (defined as Zones X Shaded, and A0).

a. For developments required to submit a CLOMR/LOMR, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

   i. Prior to plan approval, a Conditional Letter of Map Revision (CLOMR) including Base Flood Elevation (BFE) shall be approved by the City Engineer.

   ii. Prior to issuance of the first building permit, submittal of Letter of Map Revision (LOMR) package with appropriate fees to FEMA unless otherwise approved by the City Engineer.

   iii. Prior to issuance of individual certificate of occupancy, a final elevation certificate. Developer acknowledges and agrees to disclose that owners of lots in the flood plain may need to pay flood insurance until such time LOMR is approved.

   iv. Prior to ninety percent reduction of public improvement securities, a LOMR approved by FEMA shall be submitted to the City.

b. For developments required to submit a CLOMR-F/LOMR-F, the following items (prepared by a licensed civil engineer or land surveyor) shall be submitted:

   i. Prior to plan approval, a Floodplain Development Permit (application available at the City).

   ii. A CLOMR-F (residential structures) unless otherwise approved by the City Engineer.

   iii. Determination of BFE. Machinery and equipment servicing the structures shall be designed to be located above the BFE. For habitable structures, the lowest floor must be certified to be a minimum of one foot above the BFE; non-residential structures must be additionally dry flood proofed; for qualified non-habitable structures, the lowest floor must be wet flood proofed to one foot minimum above BFE.

   iv. Prior to issuance of first building permit for residential structures, submittal of LOMR-F package with appropriate fees to FEMA, unless otherwise approved by the City Engineer.

Attachment: Exhibit D to 2017-19 Coa Building 4 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

v. Prior to issuance of individual certificate of occupancy, a final elevation/flood proof certificate (dependent on type of structure(s)).

vi. Prior to ninety percent reduction of public improvement securities, a LOMR-F approved by FEMA shall be submitted to the City.

LD23. (GPA) The developer shall pay all remaining plan check fees.

LD24. (GPA) Resolution of all drainage issues shall be as approved by the City Engineer.

LD25. (GPA) Prior to precise grading plan approval, all dry and wet utilities shall be shown on the plans and any crossings shall be potholed to determine actual location and elevation. Any conflicts shall be identified and addressed on the plans. The pothole survey data shall be submitted to Land Development with the public improvement plans for reference purposes only. The developer is responsible to coordinate with all affected utility companies and bear all costs of any utility relocation.

Prior to Grading Permit

LD26. (GP) The developer shall submit recorded slope easements from adjacent property owners in all areas where grading resulting in slopes is proposed to take place outside of the project boundaries. For all other offsite grading, written permission from adjacent property owners shall be submitted.

LD27. (GP) A receipt showing payment of the Area Drainage Plan (ADP) fee to Riverside County Flood Control and Water Conservation District shall be submitted. [MC 9.14.100(O)]

LD28. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the completion of the grading operations for the project. [MC 8.21.070]

LD29. (GP) Security, in the form of a cash deposit (preferable), or letter of credit shall be submitted as a guarantee of the implementation and maintenance of erosion control measures. At least twenty-five (25) percent of the required security shall be in the form of a cash deposit with the City. [MC 8.21.160(H)]

LD30. (GP) The developer shall pay all applicable inspection fees.

LD31. (GP) A digital (pdf) copy of the approved grading plans shall be submitted to the Land Development Division.

LD32. (GP) Resolution of all drainage issues shall be as approved by the City Engineer.

Prior to Improvement Plan Approval

LD33. (IPA) All public improvement plans (prepared by a licensed/registered civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD34. (IPA) The developer shall submit clearances from all applicable agencies, and pay all applicable plan check fees.

LD35. (IPA) The street improvement plans shall comply with current City policies, plans and applicable City standards (i.e. MVSI-160 series, etc.) throughout this project.

LD36. (IPA) The design plan and profile shall be based upon a centerline, extending beyond the project boundaries a minimum distance of 300 feet at a grade and alignment approved by the City Engineer.

LD37. (IPA) The plans shall indicate any restrictions on trench repair pavement cuts to reflect the City's moratorium on disturbing newly-constructed pavement less than three (3) years old and recently slurry sealed streets less than one (1) year old. Pavement cuts for trench repairs may be allowed for emergency repairs or as specifically approved by the City Engineer.

LD38. (IPA) The developer is required to bring any existing access ramps adjacent to and fronting the project to current ADA (Americans with Disabilities Act) requirements. However, when work is required in an intersection that involves or impacts existing access ramps, all access ramps in that intersection shall be retrofitted to comply with current ADA requirements, unless approved otherwise by the City Engineer.

LD39. (IPA) Drainage facilities (i.e. catch basins, etc.) with sump conditions shall be designed to convey the tributary 100-year storm flows. Secondary emergency escape shall also be provided.

LD40. (IPA) The hydrology study shall be designed to accept and properly convey all off-site drainage flowing onto or through the site. All storm drain design and improvements shall be submitted for review and approved of the City Engineer. In the event that the City Engineer permits the use of streets for drainage purposes, the provisions of current City standards shall apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, as in the case where one travel lane in each direction shall not be used for drainage conveyance for emergency vehicle access on streets classified as minor arterials and greater, the developer shall provide adequate facilities as approved by the City Engineer. [MC 9.14.110 A.2]

LD41. (IPA) All street dedications shall be free of encumbrances, irrevocably offered to the public and shall continue in force until the City accepts or abandons such offers, unless otherwise approved by the City Engineer.

LD42. (IPA) The developer shall guarantee the completion of all related improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security prior to an encroachment permit. [MC 9.14.220]

Prior to Encroachment Permit

LD43. (EP) All work performed within public right of way requires an encroachment permit. Security (in the form of a cash deposit or other approved means) may be required as determined by the City Engineer. For non-subdivision projects, the City Engineer may require the execution of a Public Improvement Agreement (PIA) as a condition of the issuance of a construction or encroachment permit. All inspection fees shall be paid prior to issuance of construction permit. [MC 9.14.100(C.4)]

LD44. (EP) A digital (pdf) copy of all approved improvement plans shall be submitted to the Land Development Division.

LD45. (EP) All applicable inspection fees shall be paid.

Prior to Building Permit

LD46. (BP) For all subdivision projects, the map shall be recorded. [MC 9.14.190]

LD47. (BP) For non-subdivision projects, the developer shall guarantee the completion of all related public improvements required for this project by executing a Public Improvement Agreement (PIA) with the City and posting the required security. [MC 9.14.220]

LD48. (BP) For non-subdivision projects, the developer shall comply with the requirements of the City Engineer based on recommendations of the Riverside County Flood Control District regarding the construction of County Master Plan Facilities.

LD49. (BP) For non-subdivision projects, the developer shall enter into a Cooperative Agreement with the City and Riverside County Flood Control and Water Conservation District establishing the terms and conditions covering the inspection, operation and maintenance of Master Drainage Plan facilities required to be constructed as part of the project.

LD50. (BP) Certification to the line, grade, flow test, and system invert elevations for the water quality control BMPs shall be submitted or review and approved by the City Engineer (excluding models homes).

LD51. (BP) An engineered-fill certification, rough grade certification and compaction report shall be submitted for review and approved by the City Engineer. A digital (pdf) copy of the approved compaction report shall be submitted to the Land Development Division. All pads shall meet pad elevations per approved grading plans as noted by the setting of “blue-top” markers installed by a registered land surveyor or licensed civil engineer.

LD52. (BP) For Commercial/Industrial projects, the owner may have to secure coverage under the State’s General Industrial Activities Storm Water Permit as issued by the State Water Resources Control Board.

Attachment: Exhibit D to 2017-19 Coa Building 4 [Revision 1] (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Prior to Occupancy

LD53. (CO) All required as-built plans (prepared by a registered/licensed civil engineer) shall be submitted for review and approved by the City Engineer per the current submittal requirements.

LD54. (CO) The engineered final/precise grade certification shall be submitted for review and approved by the City Engineer.

LD55. (CO) All outstanding fees shall be paid.

LD56. (CO) For non-subdivision projects, in compliance with Proposition 218, the developer shall agree to approve the City of Moreno Valley NPDES Regulatory Rate Schedule that is in place at the time of certificate of occupancy issuance. Under the current permit for storm water activities required as part of the National Pollutant Discharge Elimination System (NPDES) as mandated by the Federal Clean Water Act, this project is subject to the following requirements:

a. Select one of the following options to meet the financial responsibility to provide storm water utilities services for the required continuous operation, maintenance, monitoring system evaluations and enhancements, remediation and/or replacement, all in accordance with Resolution No. 2002-46.

    i. Participate in the mail ballot proceeding in compliance with Proposition 218, for the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule and pay all associated costs with the ballot process; or

    ii. endowment to cover future City costs as specified in the Common Interest, Commercial, Industrial and Quasi-Public Use NPDES Regulatory Rate Schedule.

b. Notify the Special Districts Division of the intent to request building permits 90 days prior to their issuance and the financial option selected. The financial option selected shall be in place prior to the issuance of certificate of occupancy. [California Government Code & Municipal Code]

LD57. (CO) The developer shall complete all public improvements in conformance with current City standards, except as noted in the Special Conditions, including but not limited to the following:

a. Street improvements including, but not limited to: pavement, base, curb and/or gutter, cross gutters, spandrel, sidewalks, drive approaches, pedestrian ramps, street lights, signing, striping, under sidewalk drains, landscaping and irrigation, medians, redwood header boards, pavement tapers/transitions and traffic control devices as appropriate.

b. Storm drain facilities including, but not limited to: storm drain pipe, storm drain laterals, open channels, catch basins and local depressions.

c. City-owned utilities.

d. Sewer and water systems including, but not limited to: sanitary sewer, potable water and recycled water.

e. Under grounding of all existing and proposed utilities adjacent to and on-site. [MC 9.14.130]

f. Relocation of overhead electrical utility lines including, but not limited to: electrical, cable and telephone.

LD58. (CO) For commercial, industrial and multi-family projects, a “Stormwater Treatment Device and Control Measure Access and Maintenance Covenant” shall be recorded to provide public notice of the maintenance requirements to be implemented per the approved final project-specific WQMP. A boilerplate copy of the “Stormwater Treatment Device and Control Measure Access and Maintenance Covenant” can be obtained by contacting the Land Development Division.

LD59. ALL PROPOSED Treatment Control BMP’s, and infiltration testing shall be in accordance with the County’s LID BMP Design Handbook

LD60. In first submittal of Final WQMP, Applicant shall submit a landscape plan detailing all planting and tree types located adjacent to all surface BMPs.

LD61. In first submittal of Final WQMP, Applicant shall submit a copy of the site’s utility plan to verify that no proposed utilities or light structures, if applicable, will be located within, or conflict, with any BMPs.

LD62. In first submittal of Final WQMP, Applicant shall provide documentation within the document that supports the maximum depth utilized in calculations showing that all flows within the proposed Treatment Control BMPs and will filter within 72 hours.

LD63. (CO) The Developer shall comply with the following water quality related items:

a. Notify the Land Development Division prior to construction and installation of all structural BMPs so that an inspection can be performed.

b. Demonstrate that all structural BMPs described in the approved final project-specific WQMP have been constructed and installed in conformance with the approved plans and specifications;

c. Demonstrate that Developer is prepared to implement all non-structural BMPs described in the approved final project-specific WQMP; and

d. Demonstrate that an adequate number of copies of the approved final project-specific WQMP are available for future owners/occupants.

e. Clean and repair the water quality BMP's, including re-grading to approved civil drawings if necessary.

f. Provide City with updated Engineer’s Line and Grade Certification.

g. Obtain approval and complete installation of the irrigation and landscaping.

LD64. (CO) The applicant shall ensure the following, pursuant to Section XII. I. of the 2010 NPDES Permit:

a. Field verification that structural Site Design, Source Control and Treatment Control BMPs are designed, constructed and functional in accordance with the approved Final Water Quality Management Plan (WQMP).

b. Certification of best management practices (BMPs) from a state licensed civil engineer. An original WQMP BMP Certification shall be submitted for review and approved by the City Engineer.

Special Conditions

LD65. After obtaining entitlements, this project will be required to submit design plans for plan review (Rough Grading Plans, Precise Grading Plans Street Improvement Plans, Signing and Striping Plans, Traffic Control Plans, Traffic Signal Plans, Storm Drain Plans, Sewer and Water Plans, Final Parcel Map, and other plans to the Land Development Division) (24”x36” sheet size).

LD66. (GPA) Prior to rough grading plan approval, this project shall demonstrate, via a final drainage study that either the downstream facilities are capable of handling this development’s increased runoff or that the increased runoff resulting from the development of this site is mitigated. Unless the downstream facilities are adequate, during no storm event shall the flow leaving the site in the developed condition be larger than that of the pre-developed condition. The drainage study shall analyze the following events: 1, 3, 6 and 24-hour duration events for the 2, 5, 10 and 100-year storm events. The applicant understands that additional detention measures, beyond those shown on the tentative map and preliminary drainage study, may be required.

LD67. (GPA) Prior to precise grading plan approval, this project shall meet all FEMA (Federal Emergency Management Agency) and City requirements for building in a 100 year flood zone (Zone X Shaded and Zone AO). This project shall submit for review to the City that it has been removed from the flood zone or submitted for approval to FEMA a CLOMR-F. All requirements, as set forth by FEMA shall be adhered to, particularly the completion and submittal of FEMA application form MT-1, as well as all City Ordinance 8.12.130 requirements. The CLOMR-F shall be approved by FEMA prior to precise grading plan. The LOMR-F shall be acquired by FEMA after construction. The developer shall contact FEMA for CLOMR-F / LOMR-F requirements. As an alternative to the submittal of a CLOMR-F / LOMR-F, the developer may opt to flood proof the building per all City department requirements and City Ordinance 8.12.170 and as approved by FEMA. See FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93. Website: http://www.fema.gov/ Ph.: 1-877-336-2627

LD68. (GPA) Prior to precise grading plan approval, the developer shall submit for review and approval a final soils report including site grading recommendations, especially pertaining to any import/fill relating to the CLOMR-F / LOMR-F requirement.

LD69. (GPA) Prior to precise grading plan approval, the grading plans shall clearly demonstrate that drainage is properly collected and conveyed. The plans shall show all necessary on-site and off-site drainage improvements to properly collect and convey drainage entering, within and leaving the project. This may include, but not be limited to on-site and perimeter drainage improvements to properly convey drainage within and along the project site, and downstream off-site improvements. The developer will be required to obtain the necessary permission for offsite construction including easements, including an encroachment permit for the connection(s) to the Riverside County Flood Control and Water Conservation District (RCFC&WCD) channel.

LD70. (GPA) Prior to precise grading plan approval, the plans shall clearly demonstrate that all applicable recommendations from the geotechnical investigation, and/or any subsequent report, have been adhered to including, but not limited to, grading operation procedures, structural section design, slab design, wall design, etc.

LD71. (GPA) Prior to precise grading plan approval, the grading plans shall show any proposed trash enclosure as dual bin trash enclosures, one bin for trash and one bin for recyclables. The trash enclosure shall be per City Standard Plan MVGF-627, modified to include a fully covered, solid roof.

LD72. This project will be required to make the appropriate street R/W dedication(s) via map/separate instrument, including extra R/W per Std. MVSI -112C and corner cutbacks per Std. MVSI-165-0.

LD73. Any damage to the existing Heacock Street, due to development construction, shall be repair/replaced as directed by the City prior to the release of any bonds.

LD74. All ramps and traveled ways shall comply with current ADA standards.

LD75. Pavement core samples of existing pavement may be taken and findings submitted to the City for review and consideration of a lesser width of pavement improvements. The City will determine the adequacy of the existing pavement structural section. If the existing pavement section is found to be adequate, then a lesser width than that specified above for street pavement improvements may be allowed, as approved by the City Engineer. If the existing pavement section is found to be inadequate, the Developer shall construct the streets to the limits as listed above.

LD76. Existing utilities will need to be abandoned or relocated.

LD77. All overhead utilities less than 115,000 volts within and along the project boundary will be required to be placed underground and all power poles removed.

LD78. A Final WQMP will be required to be reviewed and approved prior to grading plan approval.

LD79. A Final Drainage Plan will be required to be reviewed and approved prior to grading plan

LD80. Site design and source control BMPs shall be used to the greatest extent before incorporating treatment control BMPs.

LD81. Prior to Building Permit approval, the developer shall ensure the following:

  a. The dedication of 4' behind the existing right-of-way at each driveway for pedestrian sidewalk access as necessary.

  b. The dedication of a 4' easement behind the existing right-of-way for pedestrian sidewalk access along Heacock Street, or where any sidewalk is constructed outside of the right-of-way.

LD82. The Preparer shall provide complete and documented calculations for the proposed treatment control BMPs.

LD83. The Applicant shall prepare and submit for approval a Project Specific Final Water Quality Management Plan (F-WQMP) for PA15-0014 formerly P14-023. The F-WQMP shall be consistent with the approved P-WQMP and in full conformance with the document; "Riverside County Water Quality Management Plan for Urban Runoff" dated July 24, 2006. The F-WQMP shall be submitted and approved prior to application for and issuance of grading or building permits. At a minimum, the F-WQMP shall include the following: Site Design BMPs; Source Control BMPs; Treatment Control BMPs; Operation and Maintenance requirements for BMPs; and sources of funding for BMP implementation

LD84. The Applicant shall, prior to building or grading permit closeout or the issuance of a certificate of occupancy, demonstrate:

  a. That all structural BMPs have been constructed and installed in conformance with the approved plans and specifications;

  b. That all structural BMPs described in the F-WQMP have been implemented in accordance with approved plans and specifications;

  c. That the Applicant is prepared to implement all non-structural BMPs included in the F-WQMP, conditions of approval, and building/grading permit conditions; and

  d. That an adequate number of copies of the approved F-WQMP are available for the future owners/occupants of the project.

LD85. The following project engineering design plans submitted on 24”x36” sheet size shall be submitted for review and approval, as well as additional plans that are deemed necessary, prior to the time as noted below or as maybe require by the City during the plan review process for plans not listed below:

a. Rough Grading Plan : prior to approval for Precise Grading

b. Precise Grading Plan: prior to Building permits

c. Improvement Plan (off-site, street, striping/signage): prior to Building permits

d. Final Drainage Study: upon submittal of any grading/improvement plans

e. Final WQMP: prior to Building permits

f. Lot Line Adjustment prior to Building permits

g. As-Built Plans of all “plans” listed above: prior to last Occupancy or final building permit issued.

PUBLIC WORKS DEPARTMENT – SPECIAL DISTRICTS DIVISION

Conditions are standard to all or most development projects. Some special conditions, modified conditions or clarification of conditions may be included. Please review conditions as listed and contact the Division at 951.413.3480 for any questions.

Acknowledgement of Conditions

The following are the Special Districts Division’s Conditions of Approval for PEN16-0003-PEN16-0006 (PA15-0014 through PA15-0017); this project shall be completed at no cost to any Government Agency. All questions regarding the following Conditions including but not limited to intent, requests for change/modification, variance and/or request for extension of time shall be sought from the Special Districts Division of the Public Works Department 951.413.3480 or by emailing specialdistricts@moval.org.

General Conditions

SD-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks & Community Services) and Zone C (Arterial Street Lighting). All assessable parcels therein shall be subject to annual parcel taxes for Zone A and Zone C for operations and capital improvements.

SD-2 Any damage to existing landscape areas maintained by the City of Moreno Valley due to project construction shall be repaired/replaced by the Developer, or Developer’s successors in interest, at no cost to the City of Moreno Valley.

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SD-3 The ongoing maintenance of any landscaping required to be installed behind the curb on Indian Street, Cardinal Avenue, Krameria Avenue and Heacock Street shall be the responsibility of the applicable property owner.

SD-4 Street Light Authorization forms for all street lights that are conditioned to be installed as part of this project must be submitted to the Special Districts Division for approval, prior to street light installation. The Street Light Authorization form can be obtained from the utility company providing electric service to the project, either Moreno Valley Utility or Southern California Edison. For questions, contact the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

Prior to Grading Permit

SD-5 This project is included within the future annexation boundaries for Community Facilities District No. 7 (CFD No. 7). The Local Component portion of the Area Drainage Plan (ADP) fee for Riverside County Flood Control and Water Conservation District (RCFCWCD) has been allocated toward the debt service payments on CFD No. 7 bonds and/or paid directly for acquisition of RCFCD facilities.

In order for the Developer to meet its financial obligation, it must notify the Special Districts Division when submitting the application for grading permit and select one of the funding options outlined below.

Or

If a grading permit is not required, the Developer must notify the Special Districts Division at 951.413.3480 or specialdistricts@moval.org when submitting the application for building permit issuance and select one of the funding options outlined below.

a. Participate in a special election to annex into CFD No. 7 and pay the equivalent to the Local Component portion of the ADP fee including interest as a special tax levied annually on the Riverside County property tax bill; or

b. Pay the Local Component portion of the ADP fee directly to the City of Moreno Valley, Special Districts Division which shall be used for any authorized purpose for CFD No. 7.

If the funding option selected is participation in a special election, a minimum of 90 days is needed to complete the special election process. This allows adequate time to complete the special election process in compliance with the provisions of Article 13C of the California Constitution for conducting a special election.

Annexation to CFD No. 7 shall be completed or proof of payment of the Local Component portion of the ADP fee shall be provided to the Special Districts Division prior to the issuance of the first building permit for this project.

Prior to Building Permit Issuance

SD-6 (BP) This project has been identified to be included in the formation of a Community Facilities District (Mello-Roos) for Public Safety services, including but not limited to Police, Fire Protection, Paramedic Services, Park Rangers, and Animal Control services. The property owner(s) shall not protest the formation; however, they retain the right to object to the rate and method of maximum special tax. In compliance with Proposition 218, the property owner shall agree to approve the mail ballot proceeding (special election) for either formation of the CFD or annexation into an existing district. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance to determine the requirement for participation. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the condition applies, the special election will require a minimum of 90 days prior to issuance of the first building permit. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution. (California Government Code Section 53313 et. seq.)

SD-7 (BP) This project is conditioned to provide a funding source for the following special financing program(s):

a. Street Lighting Services for capital improvements, energy charges, and maintenance.

The Developer's responsibility is to provide a funding source for the capital improvements and the continued maintenance. The Developer shall satisfy this condition with one of the options below.

i. Participate in a special election (mail ballot proceeding) and pay all associated costs of the special election and formation, if any. Financing may be structured through a Community Services District zone, Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or
ii. Establish a Property Owner's Association (POA) or Home Owner's Association (HOA) which will be responsible for any and all operation and maintenance costs

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option when submitting the application for building permit issuance. The option for participating in a special election requires approximately 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-8 (BP) This project is conditioned for a proposed district to provide a funding source for the operation and maintenance of public improvements and/or services associated with new development in that territory. The Developer shall satisfy this condition with one of the options outlined below.

a. Participate in a special election for maintenance/services and pay all associated costs of the election process and formation, if any. Financing may be structured through a Community Facilities District, Landscape and Lighting Maintenance District, or other financing structure as determined by the City; or

b. Establish an endowment fund to cover the future maintenance and/or service costs.

The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org when submitting the application for building permit issuance. If the first building permit is pulled prior to formation of the district, this condition will not apply. If the district has been or is in the process of being formed the Developer must inform the Special Districts Division of its selected financing option (a. or b. above). The option for participating in a special election requires 90 days to complete the special election process. This allows adequate time to be in compliance with the provisions of Article 13C of the California Constitution.

The financial option selected shall be in place prior to the issuance of the first certificate of occupancy for the project.

SD-9 *Commercial* (BP) If Land Development, a Division of the Public Works Department, requires this project to supply a funding source necessary to provide for, but not limited to, stormwater utilities services for the continuous operation, remediation and/or replacement, monitoring, systems evaluations and enhancement of on-site facilities and performing annual inspections of the affected areas to ensure compliance with state mandated stormwater regulations, a funding source needs to be established. The Developer must notify the Special Districts Division at 951.413.3480 or at specialdistricts@moval.org of its selected financial option for the National Pollution Discharge Elimination System (NPDES) program when submitting the application for the first building permit issuance (see Land Development's related condition). Participating in a special election the process requires a 90 day period prior to the City's issuance of a building permit. This allows adequate time to be in compliance with the provisions of Article 13D of the California Constitution. (California Health and Safety Code Sections 5473 through 5473.8 (Ord. 708 Section 3.1, 2006) & City of Moreno Valley Municipal Code Title 3, Section 3.50.050.)

SD-10 (BP) Prior to the issuance of the first building permit for this project, the Developer shall pay Advanced Energy fees for all applicable Residential and Arterial Street Lights required for this development. Payment shall be made to the City of Moreno Valley and collected by the Land Development Division. Fees are based upon the Advanced Energy fee rate in place at the time of payment, as set forth in the current Listing of City Fees, Charges, and Rates adopted by City Council. The Developer shall provide a copy of the receipt to the Special Districts Division *(specialdistricts@moval.org).* Any change in the project which may increase the number of street lights to be installed will require payment of additional Advanced Energy fees at the then current fee. Questions may be directed to the Special Districts Division at 951.413.3480 or specialdistricts@moval.org.

PUBLIC WORKS, TRANSPORTATION ENGINEERING DIVISION

GENERAL CONDITIONS

TE1. All driveways shall conform to Section 9.11.080, and Table 9.11.080-14 of the City's Development Code – Design Guidelines and City of Moreno Valley Standard Plan No. MVSI-112C-0 for commercial driveway approach or as approved by the City Engineer.

TE2. Sight distance at the project driveways shall conform to City of Moreno Valley Standard No. MVSI-164A-0, MVSI-164B-0, and MVSI-164C-0 at the time of preparation of final grading, landscape, and street improvement plans.

TE3. All on-site signing and striping shall be installed per the current California Manual on Uniform Traffic Control Devices (CA MUTCD) standards.

TE4. Heacock Street is designated an Arterial (100'RW/76'CC) per City Standard Plan MVSI-104A-0. Any improvements undertaken by this project shall be consistent with the City's standards for this facility.

PRIOR TO IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE5. Prior to the final approval of the street improvement plans, a signing and striping plan shall be prepared per City of Moreno Valley Standard Plans - Section 4 for all streets with a cross section of 66'/44' and wider.

TE6. Prior to the commencement of construction activity, construction traffic control plans prepared by a Registered Civil or Traffic Engineer may be required to be submitted to the City for plan approval.

PRIOR TO ISSUANCE OF BUILDING PERMIT IMPROVEMENT PLAN APPROVAL OR CONSTRUCTION PERMIT

TE7. (BP) Prior to issuance of a building permit for Building 4, the project applicant shall make fair-share contributions to the City of Moreno Valley for improvements at the following intersections:

1.	Elsworth Street / Cactus Avenue -	$15,215
2.	Graham Street / Cactus Avenue -	$1,487
3.	Heacock Street / Cactus Avenue -	$19,429
4.	Heacock Street / Iris Avenue -	$6,454
5.	Heacock Street / San Michele Road -	$5,454
6.	Indian Street / Krameria Avenue -	$3,936
7.	Indian Street / San Michele Road -	$3,825
8.	Indian Street / Nandina Avenue -	$7,029
9.	Perris Boulevard / Cactus Avenue -	$4,503
10.	Perris Boulevard / Krameria Avenue -	$3,254
Total		$70,578

TE8. (BP) Prior to issuance of a building permit for Building 4, the project applicant shall make fair-share contributions to the City of Perris for improvements at the following intersections:

1.	Western Way / Harley Knox Boulevard -	$10,409
2.	Patterson Avenue / Harley Knox Boulevard -	$2,886
3.	Webster Avenue / Harley Knox Boulevard -	$28,259
4.	Indian Street / Harley Knox Boulevard -	$3,849
Total		$45,403

PRIOR TO CERTIFICATE OF OCCUPANCY OR BUILDING FINAL

TE9. (CO) Prior to issuance of a building final or certificate of occupancy for Building 4, all approved signing and striping shall be installed per current City Standards and the approved plans. On-site signing and striping (outside the public right of way) shall be per the latest version of the CAMUTCD.

TE10. (CO) Prior to issuance of a building final or certificate of occupancy for Building 4, Communication conduits shall be installed along the Heacock Street project frontage per City Standard Plan No. MVSI-186-0.

PRIOR TO ACCEPTANCE OF STREETS INTO THE CITY-MAINTAINED ROADSYSTEM

TE11. Prior to the acceptance of streets into the City-maintained road system, all approved traffic control and signing and striping shall be installed per current City Standards and the approved plans.

FINANCE AND MANAGEMENT SERVICES DEPARTMENT

Moreno Valley Utility

Acknowledgement of Conditions

The following items are Moreno Valley Utility's Conditions of Approval for project PEN16-0003-PEN16-0006 (PA15-0014-0018), PEN16-0002 (P15-037); this project shall be completed at no cost to any Government Agency. All questions regarding Moreno Valley Utility's Conditions including but not limited to, intent, requests for change/modification, variance and/or request for extension of time shall be sought from Moreno Valley Utility (the Electric Utility Division) of the Finance and Management Services Department 951.413.3500, mvuengineering@moval.org. The applicant is fully responsible for communicating with Moreno Valley Utility staff regarding their conditions.

PRIOR TO ENERGIZING MVU ELECTRIC UTILITY SYSTEM AND CERTIFICATE OF OCCUPANCY

MVU-1 (R) This project requires the installation of electric distribution facilities. A non-exclusive easement shall be provided to Moreno Valley Utility and shall include the rights of ingress and egress for the purpose of operation, maintenance, facility repair, and meter reading.

MVU-2 (BP) City of Moreno Valley Municipal Utility Service – Electrical Distribution: Prior to constructing the MVU Electric Utility System, the developer shall submit a detailed engineering plan showing design, location and schematics for the utility system to be approved by the City Engineer. In accordance with Government Code Section 66462, the Developer shall execute an agreement with the City providing for the installation, construction, improvement and dedication of the utility system following recordation of final map and concurrent with trenching operations and other subdivision improvements so long as said agreement incorporates the approved engineering plan and provides financial security to guarantee completion and dedication of the utility system.

The Developer shall coordinate and receive approval from the City Engineer to install, construct, improve, and dedicate to the City, or the City's designee, all utility infrastructure (including but not limited to conduit, equipment, vaults, ducts, wires, switches, conductors, transformers, and "bring-up" facilities including electrical capacity to serve the identified development and other adjoining/abutting/ or benefiting projects as determined by Moreno Valley Utility) – collectively referred to as "utility system" (to and through the development), along with any appurtenant real property easements, as determined by the City Engineer to be necessary for the distribution and /or delivery of any and all "utility services" to each lot and unit within the Tentative Map. For purposes of this condition, "utility services" shall mean electric, cable television, telecommunication (including video, voice, and data) and other similar services designated by the City Engineer. "Utility services" shall not include sewer, water, and natural gas services, which are addressed by other conditions of approval.

The City, or the City's designee, shall utilize dedicated utility facilities to ensure safe, reliable, sustainable and cost effective delivery of utility services and maintain the integrity of streets and other public infrastructure. Developer shall, at developer's sole expense, install or cause the installation of such interconnection facilities as may be necessary to connect the electrical distribution infrastructure within the project to the Moreno Valley Utility owned and controlled electric distribution system.

MVU-3 This project is subject to a Reimbursement Agreement and is responsible for a proportionate share of costs associated with electrical distribution infrastructure previously installed that directly benefits the project.
Payment shall be required prior to issuance of building permits.

MVU-4 For all new projects, existing Moreno Valley Utility electrical infrastructure shall be preserved in place. The developer will be responsible, at developer expense, for any and all costs associated with the relocation of any of Moreno Valley Utility's underground electrical distribution facilities, as determined by Moreno Valley Utility, which may be in conflict with any developer planned construction on the project site.

PARKS & COMMUNITY SERVICES (PCS)

PCS-GC-1 The parcel(s) associated with this project have been incorporated into the Moreno Valley Community Services District Zone A (Parks and Community Services). All assessable parcels therein shall be subject to the annual Zone 'A' charge for operations and capital improvements. Proof of such shall be supplied to Parks and Community Services upon Final Map and at Building Permits.

PCS-GC-2 This project is subject to current Development Impact Fees.

PLANNING COMMISSION RESOLUTION NO. 2017-20

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORENO VALLEY RECOMMENDING THAT THE CITY COUNCIL APPROVE PEN16-0007 (PA15-0018), TENTATIVE PARCEL MAP 36150 TO COMBINE THREE (3) PARCELS INTO TWO (2) PARCELS FOR A TOTAL OF 73.4 ACRES LOCATED ON THE WEST SIDE OF INDIAN STREET SOUTH OF KRAMERIA, ASSESSORS PARCEL NUMBERS 316-100-028, 030, and 052.

WHEREAS, the applicant, Prologis, has filed an application for the approval of PEN16-0007 (PA15-0018) Tentative Parcel Map 36150 as described in the title of this Resolution, which application has been filed concurrent with other project applications including PEN16-0001 for a Specific Plan Amendment; and

WHEREAS, with respect to concurrently filed applications, Section 9.02.030 D of the City Municipal Code establishes that applications which are dependent on approval of other enabling application(s), of which the Specific Plan Amendment serves, the final approval authority for such dependent application(s) shall be vested with the body authorized to approve the enabling application, which in this case is the City Council; and

WHEREAS, the Tentative Parcel Map application has been evaluated in accordance with established City of Moreno Valley procedures, and with consideration of General Plan and other applicable regulations; and

WHEREAS, upon completion of a thorough development review process the project was appropriately agenized and noticed in the Press Enterprise and posted on the site on June 8, 2017 for a public hearing before the Planning Commission of June 22, 2017; and

WHEREAS, on June 22, 2017, the Planning Commission of the City of Moreno Valley held a public hearing to consider the subject applications and all of the environmental documentation prepared for the project; and

WHEREAS, a Final Environmental Impact Report (EIR), including the Draft EIR, and responses to comments, has been completed and is being recommended for certification, prior to the approval of the Tentative Parcel Map 36150, the Specific Plan Amendment and the Plot Plans related to the project; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred; and

WHEREAS, pursuant to Government Code Section 66020(d)(1), **NOTICE IS HEREBY GIVEN** that this project is subject to certain fees, dedications, reservations and other exactions as provided herein.

NOW, THEREFORE, BE IT RESOLVED, by the Planning Commission of the City of Moreno Valley as follows:

A. This Planning Commission hereby finds that all of the facts set forth above in this Resolution are true and correct.

B. Based upon substantial evidence presented to this Planning Commission during the meeting on June 22, 2017 including written and oral staff reports: and the record from the public hearing, this Planning Commission hereby specifically finds as follows:

1. That the proposed land division is consistent with applicable general and specific plans.

FACTS: The General Plan encourages a mix of industrial uses to provide a diversified economic base and ample employment opportunities. The proposed high cube warehouse buildings as designed furthers the identified benefits of the Land Use Plan described in Section 2.1.3 of the General Plan Land Use Plan, and is consistent with the Land Use Plan map in Figure 2-2 of the General Plan. The current General Plan designation is Business Park (BP), which provides for industrial uses within the southern portion of the City.

The tentative parcel map as designed and conditioned would achieve the objectives of the City of Moreno Valley's General Plan. The proposed project is consistent with the General Plan and does not conflict with the goals, objectives, policies, and programs established within the Plan, and the Moreno Valley Industrial Specific Plan (SP208).

2. That the design or improvement of the proposed land division is consistent with the applicable general and specific plans.

FACTS: The proposed parcel map is consistent with the Business Park designation of the General Plan which provides for industrial type development. In addition, the proposed parcel map is consistent with the Moreno Valley Industrial Area Specific Plan 208 with a zoning designation of Industrial. The parcel map would create two parcels that are consistent with the development standards of the Industrial (I) zone of the Moreno Valley Industrial

Area Specific Plan. The site is currently divided into three parcels. The parcel map proposes two parcels that exceed the minimum depth and width, both in excess of the 150 foot requirement.

The Tentative Parcel Map 31650 as designed and conditioned with the certification of the Environmental Impact Report and the Specific Plan Amendment will comply with all applicable specific plan regulations and applicable Municipal Code standards.

3. That the site of the proposed land division is physically suitable for the type of development and density.

FACTS: The tentative parcel map is located on the west side of Indian Street south of Krameria Street, east of March Air Reserve Base (MARB), and approximately one mile easterly of Interstate 215 (I-215). Land uses to the north, south, and west include vacant land and existing warehouse buildings. The proposed parcel map combines three (3) parcels into two (2) parcels. Properties to the east include existing single family residents. The tentative parcel map as designed and conditioned is compatible with existing and proposed land uses in the vicinity.

With the approval of the Specific Plan Amendment, the residential buffer will be reduced with an increase the landscape setback along Indian Street. The industrial use is a permitted use in the Industrial Area Specific Plan 208 Industrial Use zone. The proposed building will be compatible in use, architectural design, and scale with other developments in the general vicinity.

4. That the design of the proposed land division or the proposed improvements, are not likely to cause substantial environmental damage or substantially and unavoidably injure fish or wildlife or their habitat.

FACTS: The parcel map would not likely have the potential for a significant impact on the environment if considered as a separate application. Since it is a related application to separate concurrent Plot Plan applications submitted for up to 1,736,180 square feet of warehouse projects, it has been fully evaluated in the Environmental Impact Report for the project.

The project will have potentially significant impacts as a direct result of the proposed project in areas of Air Quality, Biological Resources, Cultural Resources, Global Climate Change and Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Transportation/Traffic. The EIR includes proposed mitigation measures to reduce or eliminate most of the potentially significant impacts. There are no impacts that would injure wildlife.

The Final EIR has been prepared to address the potential environmental impacts of the project and those which cannot be mitigated to a level below significance, including air quality, greenhouse gas/global climate change, Land use/Planning and traffic/transportation. After careful consideration of those environmental risks, the Final EIR identified that even after application of feasible mitigation, these impacts would remain unavoidable. The economic, employment and infrastructure benefits that are expected to result from development of the project have been reviewed by the Planning Commission as the recommending body for the project, to outweigh the unavoidable adverse environmental effect, as articulated in the Facts, Findings and Statement of Overriding Considerations prepared for the project in accordance with the provisions of the California Environmental Quality Act (CEQA).

5. That the design of the proposed land division or the type of improvements are unlikely to cause serious public health problems.

FACTS: The tentative parcel map is located on the west side of Indian Street south of Krameria Street, east of March Air Reserve Base (MARB), and approximately one mile easterly of Interstate 215 (I-215). Land uses to the north, south, and west include vacant land and existing warehouse buildings. The proposed parcel map combines three (3) parcels into two (2) parcels. Properties to the east include existing single family residents. The tentative parcel map as designed and conditioned is compatible with existing and proposed land uses in the vicinity.

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The project will have potentially significant impacts as a direct result of the proposed project in areas of Air Quality, Biological Resources, Cultural Resources, Global Climate Change and Greenhouse Gas Emissions, Hazards and Hazardous Materials, and Transportation/Traffic. The EIR includes proposed mitigation measures to reduce or eliminate most of the potentially significant impacts.

The Final EIR has been prepared to address the potential environmental impacts of the project and those which cannot be mitigated to a level below significance, including air quality, greenhouse gas/global climate change, Land use/Planning and traffic/transportation. After careful consideration of those environmental risks, the Final EIR identified that even after application of feasible mitigation, these impacts would remain unavoidable. The economic, employment and infrastructure benefits that are expected to result from development of the project have been reviewed by the Planning Commission as the recommending body for the project, to outweigh the unavoidable adverse environmental effect, as articulated in the Facts, Findings and Statement of Overriding Considerations prepared for the project in accordance with the provisions of the California Environmental Quality Act (CEQA).

6. That the design of the proposed land division or type of improvements will not conflict with easements acquired by the public at large for access through or use of property within the proposed subdivision.

FACTS: The easements have been addressed on the Tentative Tract Map. All parcels will include independent utilities and private easements are not proposed for the project.

7. That the design of the map will not conflict with the requirements under the Williamson Act.

FACTS: The site is not under a Williamson Act contract entered into pursuant to the California Land Conservation Act. Therefore, proposed map is not subject to the Williamson Act.

8. That the proposed land division and the associated design and improvements are consistent with the applicable ordinances of the city.

FACTS: The tentative parcel map is located on the west side of Indian Street south of Krameria Street, east of March Air Reserve Base (MARB), and approximately one mile easterly of Interstate 215 (I-215). Land uses to the north, south, and west include vacant land and existing warehouse buildings. The proposed parcel map combines three (3) parcels into two (2) parcels. The tentative parcel map has been designed to be consistent with the proposed project. The tentative parcel map as designed and conditioned is consistent with the City's Municipal Code.

C. FEES, DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

1. FEES

Impact, mitigation and other fees are due and payable under currently applicable ordinances and resolutions. These fees may include but are not limited to: Development Impact Fee, Transportation Uniform Mitigation Fee (TUMF), Multi-species Habitat Conservation Plan (MSHCP) Mitigation Fee, Stephens Kangaroo Rat Habitat Conservation fee, Underground Utilities in lieu Fee, Area Drainage Plan Fee, Bridge and Thoroughfare Mitigation Fee (Future) and Traffic Signal Mitigation Fee. The final amount of fees payable is dependent upon information provided by the applicant and will be determined at the time the fees become due and payable.

Unless otherwise provided for by this resolution, all impact fees shall be calculated and collected at the time and in the manner provided in Chapter 3.32 of the City of Moreno Valley Municipal Code or as so provided in the applicable ordinances and resolutions. The City expressly reserves the right to amend the fees and the fee calculations consistent with applicable law.

2. DEDICATIONS, RESERVATIONS, AND OTHER EXACTIONS

The adopted Conditions of Approval for PEN16-0003 – PEN16-0006 (PA15-0014-PA15-0018), incorporated herein by reference, may include dedications, reservations, and exactions pursuant to Government Code Section 66020 (d) (1).

3. CITY RIGHT TO MODIFY/ADJUST; PROTEST LIMITATIONS

The City expressly reserves the right to establish, modify or adjust any fee, dedication, reservation or other exaction to the extent permitted and as authorized by law.

Pursuant to Government Code Section 66020(d) (1), NOTICE IS FURTHER GIVEN that the 90 day period to protest the imposition of any impact fee, dedication, reservation, or other exaction described in this resolution begins on the effective date of this resolution and any such protest must be in a manner that complies with Section 66020(a) and failure to timely follow this procedure will bar any subsequent legal action to attack, review, set aside, void or annul imposition.

The right to protest the fees, dedications, reservations, or other exactions does not apply to planning, zoning, grading, or other similar application processing fees or service fees in connection with this project and it does not apply to any fees, dedication, reservations, or other exactions of which a notice has been given similar to this, nor does it revive challenges to any fees for which the Statute of Limitations has previously expired.

BE IT FURTHER RESOLVED that the Planning Commission **HEREBY APPROVES** Resolution No. 2017-20, and **RECOMMENDS** that the City Council:

1. **APPROVE** Tentative Parcel Map 36150, PEN16-0007, subject to the attached conditions of approval attached as Exhibit A.

APPROVED this 22nd day of June, 2017.

AYES:

NOES:

ABSTAIN:

Jeffrey Barnes
Chair, Planning Commission

ATTEST:

Richard J. Sandzimier, Planning Official
Secretary to the Planning Commission

APPROVED AS TO FORM:

City Attorney

Attachments

This may affect your property

Notice of
PUBLIC HEARING

Notice is hereby given that a Public Hearing will be held by the Planning Commission of the City of Moreno Valley on the following item(s):

Project: Plot Plans PEN16-0003-PEN16-0006
Tentative Parcel Map PEN16-0007
Specific Plan Amendment PEN16-0001
Environmental Impact Report
PEN16-0002
Applicant: Prologis
Owner: Moorpark Country Properties
Representative: Scott Mulkay
A.P. No(s): 316-100-028, 030 and portions of 052
Location: Krameria Avenue south to Cardinal Avenue between Heacock Street and Indian Street

Proposal: The project includes: 1) Specific Plan Amendment to modify land use buffering and landscape requirements; Tentative Parcel Map 36150 to consolidate 73.4-are from three parcels into two, and 3) four Plot Plans for a warehouse distribution center with four buildings ranging in size from 97,222 square feet to 1.3 million square feet with a combined 1,737,518 square feet of total floor space, associated site development (e.g. access, parking, landscape, walls). The project site is vacant and in the Moreno Valley Industrial Area Specific Plan 208. Approval of the project will require the certification of an Environmental Impact Report.

Council District: 4

The project has been evaluated against criteria set forth in the California Environmental Quality Act (CEQA) Guidelines. An Environmental Impact Report, Mitigation Monitoring and Reporting Program and Statement of Overriding Considerations have been prepared (SCH#2015061040). The draft document was circulated to the public (including interested parties/responsible agencies) for review from July 22, 2016 to September 6, 2016. The final document is available online at www.moval.org.

A public hearing before the Planning Commission has been scheduled for the project. Any person interested in commenting on the proposal and recommended environmental determination may speak at the hearing or provide written testimony at or prior to the hearing. The project application, supporting plans and environmental documents may be inspected at the Community Development Department at 14177 Frederick Street, Moreno Valley, California during normal business hours (7:30 a.m. to 5:30 p.m., Monday through Thursday and 7:30 a.m. to 4:30 p.m., Friday), or you may telephone (951) 413-3206 for further information.

The Planning Commission, at the Hearing or durin deliberations, could approve changes or alternatives to th proposal. If you challenge any of these items in court, yo may be limited to raising only those items you or someon else raised at the Public Hearing described in this notice or in written correspondence delivered to the Plannin Commission at, or prior to, the Public Hearing.

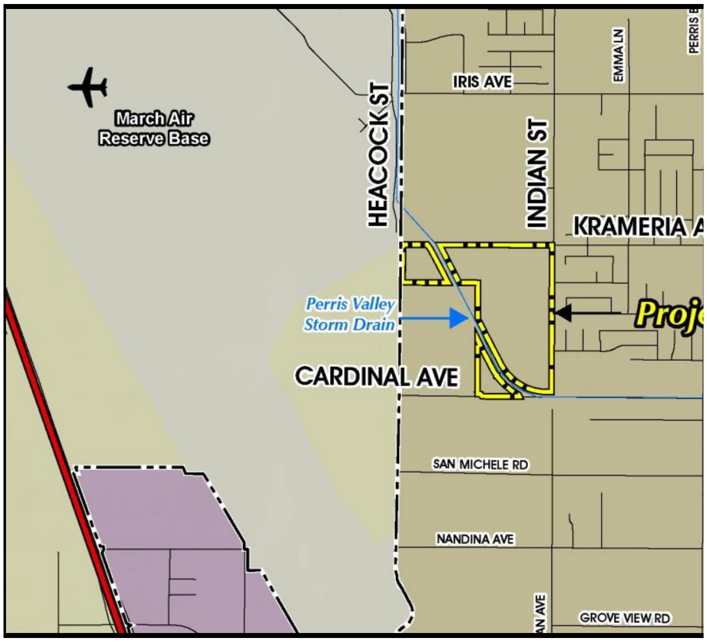

LOCATION N ↑

PLANNING COMMISSION HEARING

City Council Chamber, City Hall
14177 Frederick Street
Moreno Valley, Calif. 92553

DATE AND TIME: June 22, 2017 at 7PM
CONTACT PLANNER: Julia Descoteaux
PHONE: (951)413-3209

Upon request and in compliance with the Americans with Disabilities Ac of 1990, any person with a disability who requires a modification o accommodation in order to participate in a meeting should direct suc request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 4 hours before the meeting. The 48-hour notification will enable the City t make reasonable arrangements to ensure accessibility to this meeting.

Feb 2017

300' RADIUS MAP

MORENO VALLEY LOGISTICS CENTER

SHEET 1 OF 1

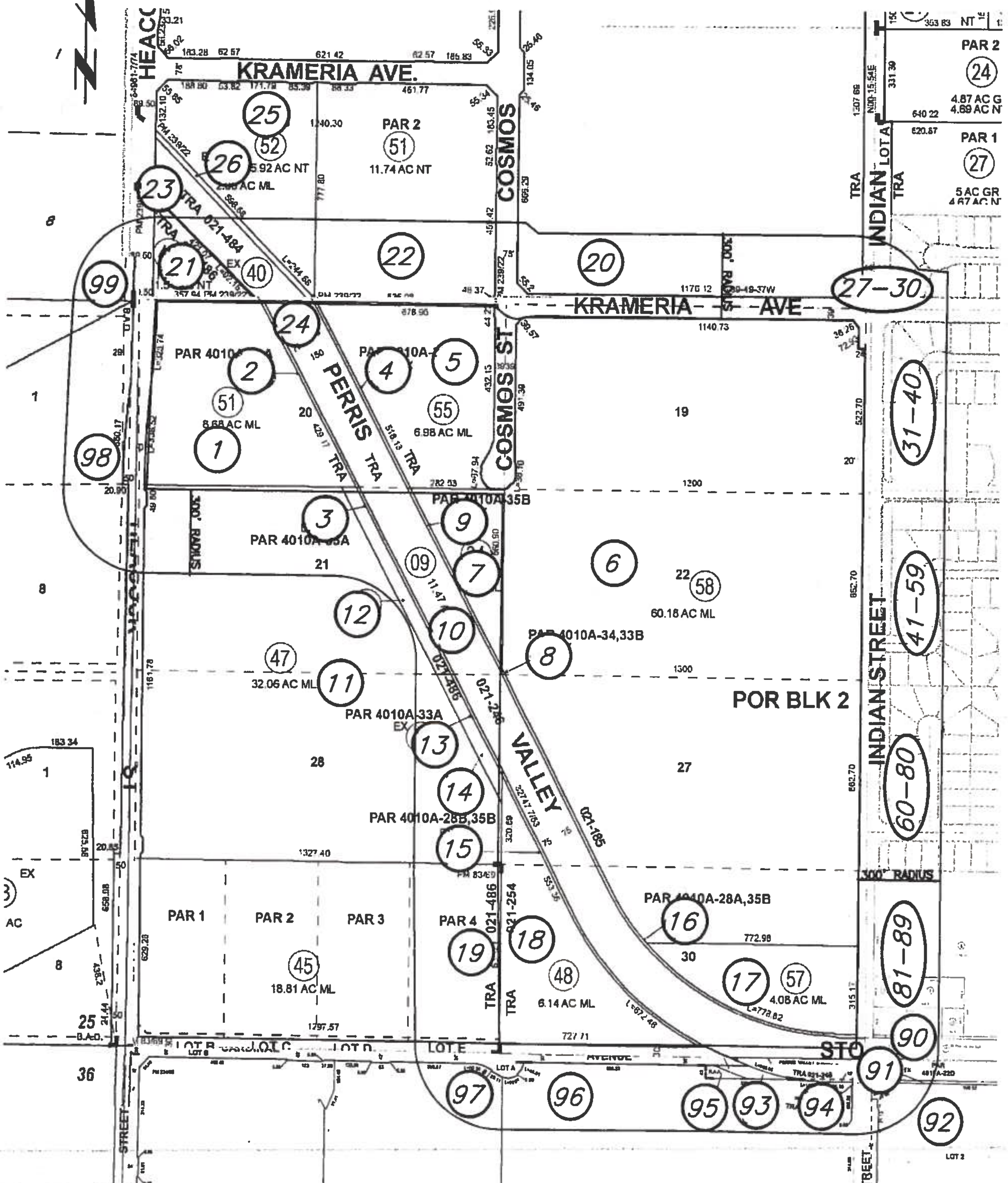

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

LAST UPDATED FEB 2017

PROLOGIS
2817 E. CEDAR STREET, SUITE 200
ONTARIO, CALIFORNIA 91761
PHONE: (909) 673-8700
FAX: (213) 673-8702
ATTN: SCOTT MULKAY

HPA, INC.
18831 BARDEEN AV., SUITE 100
IRVINE, CALIFORNIA 92612
PHONE: (949) 863-1770
FAX: (949) 863-0851
ATTN: JAMIE CRUZ

MORENO VALLEY LOGISTICS CENTER

MOORPARK COUNTY PROPERTIES
c/o LAMB & KAWAKAMI LLP
333 SOUTH GRAND AVENUE, SUITE 4200
LOS ANGELES, CA 90071
PHONE: (213) 630-55
FAX: (213) 630-5555

XISTING EASEMENTS:

E FOLLOWING EASEMENTS AS LISTED IN FIRST AMERICAN TITLE COMPANY MMITMENT NO. NCS-656783-CC WITH AMENDMENT TE OF AUGUST 11, 2016.

ICATES NUMBER AS LISTED IN ABOVE COMMITMENT.

⑥ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 3, 1926 IN BOOK 674 OF DEEDS, PAGE 527. (PLOTTED HEREON, NO WIDTH GIVEN).

⑦ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 14, 1926 IN BOOK 667 OF DEEDS, PAGE 496. (PLOTTED HEREON, NO WIDTH GIVEN).

⑧ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 20, 1926 IN BOOK 675 OF DEEDS, PAGE 152 (PLOTTED HEREON, NO WIDTH GIVEN).

⑩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF GENERAL TELEPHONE COMPANY OF CALIFORNIA, A CORPORATION, RECORDED MARCH 27, 1987 AS DOCUMENT NO. 87-83617 OF OFFICIAL RECORDS. (PLOTTED HEREON).

㉒ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED AUGUST 9, 2013 AS DOCUMENT NO. 2013-0390062, O.R. (PLOTTED HEREON).

㉘ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 14, 2009 AS DOCUMENT NO. 2009-00182723, O.R. (PLOTTED HEREON).

㉙ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 17, 2014 AS DOCUMENT NO. 2014-0140476, O.R. (PLOTTED HEREON).

㉚ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED MARCH 6, 2015 AS DOCUMENT NO. 2015-0091438, O.R. (PLOTTED HEREON). (PORTIONS OF COSMOS STREET TO BE VACATED AND DEDICATED DUE TO A DRIVEWAY LOCATION REVISION)

㉛ A RECIPROCAL EASEMENT FOR PEDESTRIAN AND VEHICULAR INGRESS AND EGRESS BETWEEN THE ADJOINNIG PROPERTY TO THE NORTH AND PARCELS 1 & 2, RECORDED JUNE 3, 2016 AS DOCUMENT NO. 2016-0228346, O.R. (PLOTTED HEREON).

PROPOSED EASEMENTS:

EACH PARCEL IS UTILITIED INDEPENDENT AND PRIVATE EASEMENTS ARE NOT PROPOSED.

FOR PUBLIC DEDICATIONS AND VACATIONS SEE "AREA SUMMARY".

EXISTING LEGAL DESCRIPTIONS:

BUILDING 1:
ASSIGNED BUT NOT ASSESSED APN: 316-100-058
EXISTING APN: 316-100-028 AND PORTIONS OF 316-100-030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-057
EXISTING APN: A PORTION OF 316-100-030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

BUILDING 2:
ASSIGNED BUT NOT ASSESSED APN: 316-100-055
EXISTING APN: A PORTION OF 316-100-052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

BUILDING 3:
EXISTING APN: 316-100-048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629751 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4:
EXISTING APN: 316-100-051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629752 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF HEACOCK STREET BEING N 00°26'39" E AS PER RECORD OF SURVEY R.S. 97/29-36, IN THE CITY OF MORENO VALLEY, RECORDS OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

PROJECT NOTES:

1. OWNER INFORMATION:

OWNER FOR BUILDINGS 1 AND 2:
MOORPARK COUNTRY PROPERTIES, A CALIFORNIA CORPORATION, AS TO AN UNDIVIDED 90% INTEREST AND HARRY MURANAKA AND ROY MURANAKA, TRUSTEES OF THE C-R COUSINS, INC. MONEY PURCHASE PENSION TRUST AS TO AN UNDIVIDED 10% INTEREST.

OWNER FOR BUILDINGS 3 AND 4:
MOORPARK COUNTRY PROPERTIES, A CALIFORNIA CORPORATION, AS TO AN UNDIVIDED 90% INTEREST, AND C-R COUSINS, INC. MONEY PURCHASE PLAN, AS TO AN UNDIVIDED 10% INTEREST.

ASSESSOR PARCEL NUMBERS:

BUILDINGS 1 AND 2		BUILDINGS 3 AND 4
EXISTING APN:	ASSIGNED BUT NOT ASSESSED APN:	EXISTING APN:
316-100-028	316-100-055	316-100-048
316-100-030	316-100-057	316-100-051
316-100-052	316-100-058	

2. PROJECT ADDRESSES:

BUILDING 1:	24400 KRAMERIA AVENUE
BUILDING 2:	16575 COSMOS STREET
BUILDING 3:	24300 CARDINAL AVENUE
BUILDING 4:	16550 HEACOCK STREET

3. SUBJECT SITE IS ZONED: "BP" (INDUSTRIAL)
SPECIFIC PLAN: "SP-208" (SPECIFIC PLAN 208)

4. A PORTION OF THE PROPERTY SHOWN HEREON IS SITUATED WITHIN ZONE "X-UNSHADED", ZONE "X-SHADED", ZONE "AO" AND ZONE "D" AS SHOWN ON A FLOOD INSURANCE RATE MAP (F.I.R.M.) WITH MAP NO. 06065C-0765G, EFFECTIVE DATE: AUGUST 28, 2008, COMMUNITY NUMBER: 065074 FOR CITY OF MORENO VALLEY AND 060245 FOR RIVERSIDE COUNTY, BOTH WITH PANEL NUMBER: 0765, SUFFIX: "G", AND AS ALSO SHOWN ON A FLOOD INSURANCE RATE MAP (F.I.R.M.) WITH MAP NO. 06065C-1430G, EFFECTIVE DATE: AUGUST 28, 2008, COMMUNITY NUMBER: 065074 FOR CITY OF MORENO VALLEY, 060258 FOR CITY OF PERRIS AND 060245 FOR RIVERSIDE COUNTY, ALL WITH PANEL NUMBER: 1430, SUFFIX: "G".

5. SUBJECT SITE IS VACANT UNDEVELOPED WITH NO EXISTING STRUCTURES.

6 GEOLOGICAL HAZARDS:

A. ALQUIST-PRIOLO SPECIAL STUDIES ZONES:
SUBJECT PROPERTY IS OUTSIDE OF ANY ALQUIST PRIOLO SPECIAL STUDIES ZONES AS SHOWN ON SPECIAL STUDIES ZONES OFFICIAL MAP FOR SUNNYMEAD QUADRANGLE, EFFECTIVE JULY 1, 1974.

B. SEISMIC HAZARD ZONES:
THE STATE OF CALIFORNIA HAS NOT PROVIDED SUFFICIENT INFORMATION TO DETERMINE IF THE SUBJECT PROPERTY IS OUTSIDE OF ANY ZONE REQUIRING INVESTIGATION FOR LIQUEFACTION OR FOR EARTHQUAKE-INDUCED LANDSLIDES BECAUSE NO SEISMIC HAZARD ZONES OFFICIAL MAP FOR SUNNYMEAD QUADRANGLE HAS BEEN PUBLISHED AS OF THIS DATE.

7. ALL DRIVEWAYS TO BE BUILT TO CITY STANDARD NO. MVSI-112-C, MODIFIED TO PROJECT SPECIFICS.

8. A PRELIMINARY WQMP IS INCLUDED IN THE SUBMITTAL PACKAGE.

9. SUBJECT SITE CONTAINS NO KNOWN EXISTING SCEPTIC, SEWER, IRRIGATION, OR UNDERGROUND STORM DRAIN FACILITIES.

10. SUBJECT SITE IS ENCUMBERED BY THE EFFECT OF AN INSTRUMENT DECLARING SAID LAND TO BE WITHIN THE MARCH AIR FORCE BASE REDEVELOPMENT PROJECT AREA, RECORDED FEBRUARY 6, 2004 AS INST. NO. 04-86467 AND JUNE 11, 2007 AS INST. NO.. 2007-0380610, BOTH OF O.R.

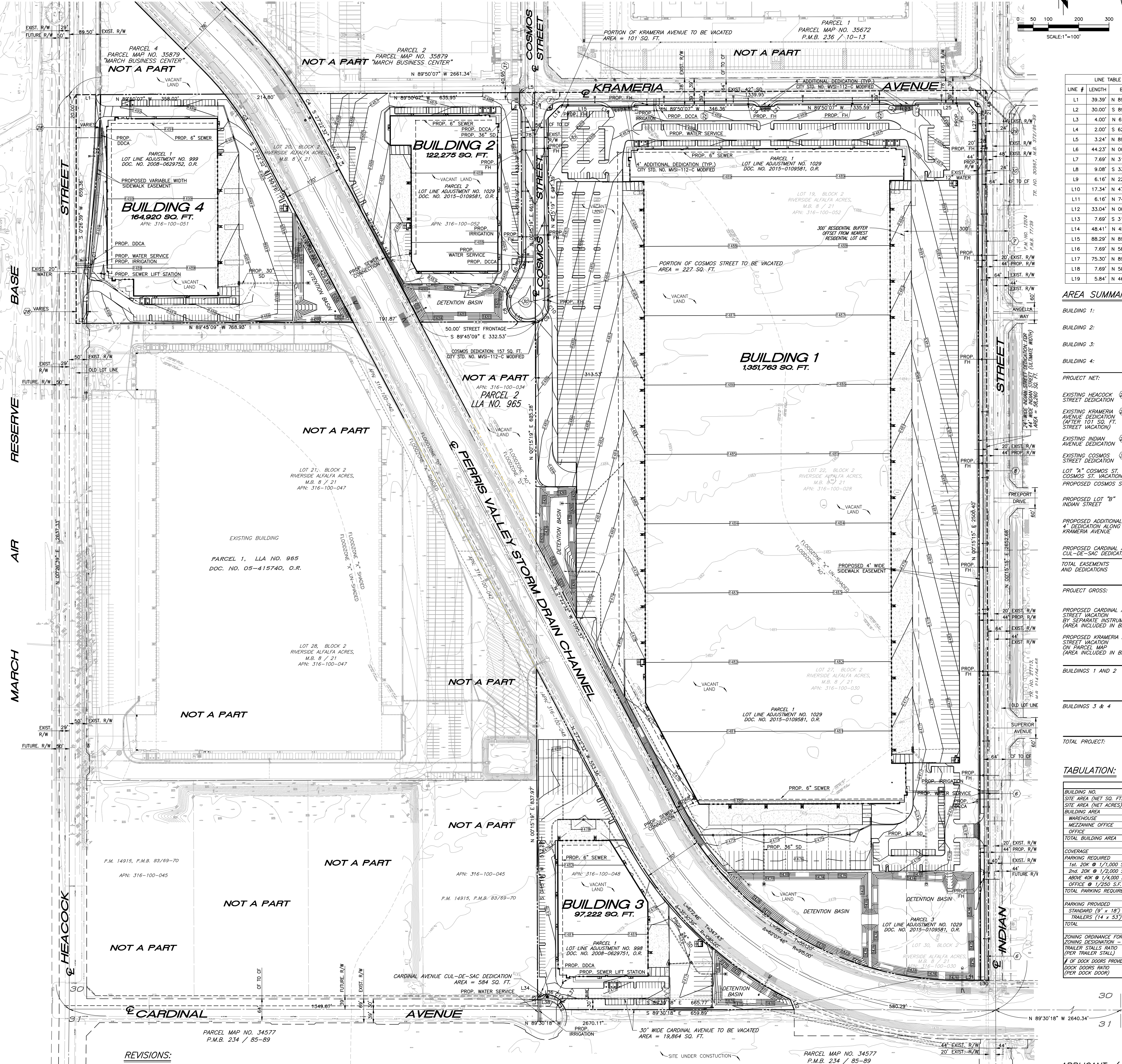

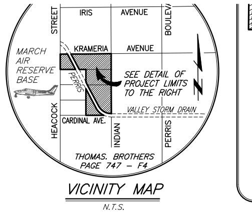

VICINITY MAP
N.T.S.

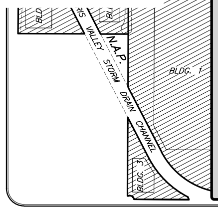

DETAIL OF PROJECT LIMITS
NOT TO SCALE

LINE TABLE		
LINE #	LENGTH	BEARING
L1	39.39'	N 89°50'07" W
L2	30.00'	S 89°45'09" E
L3	4.00'	N 62°37'28" E
L4	2.00'	S 62°37'28" W
L5	3.24'	N 89°50'07" W
L6	44.23'	N 00°15'19" E
L7	7.69'	N 31°05'32" W
L8	9.08'	S 33°33'14" W
L9	6.16'	N 22°10'25" W
L10	17.34'	N 47°40'23" W
L11	6.16'	N 74°39'14" E
L12	33.04'	N 00°15'19" E
L13	7.69'	S 31°06'17" E
L14	48.41'	N 45°12'12" E
L15	88.29'	N 89°50'07" W
L16	7.69'	N 58°28'37" W
L17	75.30'	N 89°50'07" W
L18	7.69'	N 58°48'23" E
L19	5.84'	N 46°38'37" W

LINE TABLE		
LINE #	LENGTH	BEARING
L20	50.25'	N 89°50'07" W
L21	5.84'	N 46°58'23" E
L22	7.69'	N 58°28'37" W
L23	75.30'	N 89°50'07" W
L24	7.69'	N 58°48'23" E
L25	134.87'	N 89°50'07" W
L26	36.26'	N 39°11'57" W
L27	72.93'	N 00°15'15" E
L28	24.00'	N 89°44'45" W
L29	140.00'	N 00°15'15" E
L30	24.00'	S 89°30'18" E
L31	62.17'	S 89°30'18" E
L32	32.32'	S 21°19'41" E
L33	9.00'	N 00°15'15" E
L34	12.88'	S 89°30'18" E
L35	5.84'	N 47°14'44" E
L36	5.85'	S 89°30'18" E
L37	4.11'	S 58°15'53" W
L38	54.83'	S 89°30'18" E

CURVE TABLE			
#	DELTA	RADIUS	LENGTH
C1	6°33'08"	2950.00'	337.35'
C2	6°04'55"	3050.00'	323.76'
C3	11°08'26"	911.00'	177.14'
C4	4°02'47"	1087.00'	76.77'
C5	4°47'18"	100.00'	8.36'
C6	19°14'44"	96.00'	32.25'
C7	8°39'04"	65.00'	9.81'
C8	63°48'37"	61.00'	67.94'
C9	32°46'17"	61.00'	34.89'
C10	31°49'20"	65.00'	36.10'
C11	73°40'32"	88.00'	113.16'
C12	25°06'45"	61.00'	26.74'

AREA SUMMARY:

BUILDING 1:	2,727,285 SQ. FT. (NET) 62.61 ACRES (NET)
BUILDING 2:	302,839 SQ. FT. (NET) 6.94 ACRES (NET)
BUILDING 3:	286,912 SQ. FT. (NET) 6.59 ACRES (NET)
BUILDING 4:	377,844 SQ. FT. (NET) 8.67 ACRES (NET)
PROJECT NET:	3,694,880 SQ. FT. (NET) 84.82 ACRES (NET)
EXISTING HEACOCK ㉘ STREET DEDICATION	32,388 SQ. FT. 0.74 ACRES
EXISTING KRAMERIA ㉒ AVENUE DEDICATION (AFTER 101 SQ. FT. STREET VACATION)	53,203 SQ. FT. 1.22 ACRES
EXISTING INDIAN ㉙ AVENUE DEDICATION	1,750 SQ. FT. 0.04 ACRES
EXISTING COSMOS ㉚ STREET DEDICATION	53,820 SQ. FT.
LOT "A" COSMOS ST. DEDICATION:	157 SQ. FT.
COSMOS ST. VACATION:	227 SQ. FT.
PROPOSED COSMOS ST.	53,750 SQ. FT. 1.23 ACRES
PROPOSED LOT "B" INDIAN STREET	58,260 SQ. FT. 1.34 ACRES
PROPOSED ADDITIONAL 4' DEDICATION ALONG KRAMERIA AVENUE	843 SQ. FT. 0.02 ACRES
PROPOSED CARDINAL AVE. CUL-DE-SAC DEDICATION	584 SQ. FT. 0.01 ACRES
TOTAL EASEMENTS AND DEDICATIONS	200,778 SQ. FT. 4.61 ACRES
PROJECT GROSS:	3,895,658 SQ. FT. (GROSS) 89.43 ACRES (GROSS)
PROPOSED CARDINAL AVE. STREET VACATION BY SEPARATE INSTRUMENT (AREA INCLUDED IN BLDG. 3 NET)	19,864 SQ. FT. 0.46 ACRES
PROPOSED KRAMERIA AVE. STREET VACATION ON PARCEL MAP (AREA INCLUDED IN BLDG. 1 NET)	101 SQ. FT.
BUILDINGS 1 AND 2	3,197,930 SQ. FT. (GROSS) 73.41 ACRES (GROSS) 3,030,124 SQ. FT. (NET) 69.56 ACRES (NET)
BUILDINGS 3 & 4	697,728 SQ. FT. (GROSS) 16.02 ACRES (GROSS) 664,756 SQ. FT. (NET) 15.26 ACRES (NET)
TOTAL PROJECT:	3,895,658 SQ. FT. (GROSS) 89.43 ACRES (GROSS) 3,694,779 SQ. FT. (NET) 84.82 ACRES (NET)

LEGEND:

—··—··—	EXISTING PARCEL BOUNDARY
– – – –	FEE OWNERSHIP
———	PROPOSED PROPERTY LINE
— — —	PROPOSED FIRE LINE
—— ——	PROPOSED WATER LINE
- - - -	PROPOSED SEWER LINE
======	PROPOSED STORM DRAIN
------	GRADE BREAK LINE
—1484—	EXIST. CONTOUR
—[1484]—	PROP. CONTOUR
☼—●	LIGHT POLE
⊢○⊣	FIRE HYDRANT

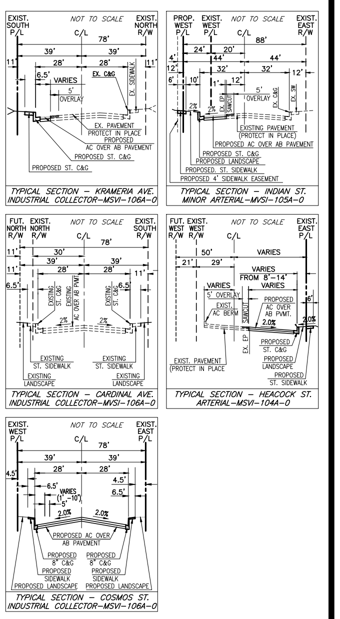

TYPICAL SECTION – KRAMERIA AVE. INDUSTRIAL COLLECTOR–MSVI–106A–0

TYPICAL SECTION – INDIAN ST. MINOR ARTERIAL–MSVI–105A–0

TYPICAL SECTION – CARDINAL AVE. INDUSTRIAL COLLECTOR–MVSI–106A–0

TYPICAL SECTION – HEACOCK ST. ARTERIAL–MSVI–104A–0

TYPICAL SECTION – COSMOS ST. INDUSTRIAL COLLECTOR–MSVI–106A–0

TABULATION:

						EXISTING PUBLIC ST.	PROPOSED PUBLIC ST.	GROSS TOTAL
BUILDING NO.	BUILDING 1	BUILDING 2	BUILDING 3	BUILDING 4	NET TOTAL			
SITE AREA (NET SQ. FT.)	2,727,285	302,839	286,912	377,844	3,694,880	140,934	59,844	3,895,658
SITE AREA (NET ACRES)	62.61	6.95	5.59	8.67	84.82	3.24	1.37	89.43
BUILDING AREA								
WAREHOUSE	1,321,763	112,275	87,222	154,920	1,676,180			
MEZZANINE OFFICE	20,000	5,000	5,000	5,000	35,000			
OFFICE	10,000	5,000	5,000	5,000	25,000			
TOTAL BUILDING AREA	1,351,763	122,275	97,222	164,920	1,736,180			
COVERAGE	49.6%	40.4%	33.9%	43.6%	47.0%			
PARKING REQUIRED								
1st. 20K @ 1/1,000 S.F.	20	20	10	20	80			80
2nd. 20K @ 1/2,000 S.F.	10	10	20	10	40			40
ABOVE 40K @ 1/4,000 S.F.	321	19	12	29	381			381
OFFICE @ 1/250 S.F.	120	40	40	40	240			240
TOTAL PARKING REQUIRED	471	89	82	99	741			741
PARKING PROVIDED								
STANDARD (9' x 18')	471	89	82	99	741			741
TRAILERS (14 x 53')	236	22	39	26	323			323
TOTAL	707	111	121	125	1,064			1,064
ZONING ORDINANCE FOR CITY ZONING DESIGNATION – BP (BUSINESS PARK / LIGHT INDUSTRIAL)								
TRAILER STALLS RATIO (PER TRAILER STALL)	5728	5558	2493	6343	5375			
# OF DOCK DOORS PROVIDED	223	25	19	24	291			
DOCK DOORS RATIO (PER DOCK DOOR)	6062	4891	5117	6872	5966			

NOTE: PROPOSED VACATIONS OF CARDINAL AVENUE 19,864 SQ. FT., KRAMERIA AVENUE 101 SQ. FT. AND COSMOS STREET 227 SQ. FT. INCLUDED IN ABOVE NET AREAS.

REVISIONS:

NO.	DESCRIPTION	DATE
1	–	–
2	–	–
3	–	–
4	–	–
5	–	–

UTILITY PROVIDERS/AGENCIES:

SEWER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD., P.O. BOX 8300
PERRIS, CALIFORNIA 92572
ATTN: REBECCA TIBAYAN
(951) 928-3777

DOMESTIC WATER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD., P.O. BOX 8300
PERRIS, CALIFORNIA 92572
ATTN: REBECCA TIBAYAN
(951) 928-3777

NATURAL GAS SERVICE:
SOUTHERN CALIFORNIA GAS CO.
1981 W. LUGONIA AVENUE
REDLANDS, CALIFORNIA 92374
ATTN: PAUL MULLINS
(909) 335-7725

CABLE TELEVISION:
TIME WARNER CABLE
17777 CENTER CT. DR., 8th FL.
CERRITOS, CALIFORNIA 90703
ATTN: MANUEL DEHESA
(858) 635-8428

SOLID WASTE
WASTE MANAGEMENT
800 S. TEMESCAL ST.
CORONA, CA 92879
(951) 280-5400

TELEPHONE SERVICE:
VERIZON
9 SOUTH 4th STREET
REDLANDS, CALIFORNIA 92373
ATTN: HARMEET KAUR
(909) 748-6647

ELECTRIC SERVICE:
MORENO VALLEY UTILITY (MVU)
P.O. BOX 88005
MORENO VALLEY, CA 92552-0805
ATTN: JOHN GOATCHER
(951) 413-3517

APPLICANT / REPRESENTATIVE:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

SURVEYOR:

PREPARED UNDER THE DIRECTION OF:

02 / 10 / 17
DATE

BRIAN L. THIENES
P.L.S. NO. 5750
REG. EXP. 12/31/17

BRIAN L. THIENES
NO. 5750

Last Update: 2/10/17
O:\2890\TPM\2890-PLOTPLAN.dwg

CASE NUMBER PA15-0014 – PA15-0018, RELATED CASE NUMBER P14-023

CAUTION: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT

Existing legal descriptions

FOR TENTATIVE PARCEL MAP NO. 36150:

ASSIGNED BUT NOT ASSESSED APN: 316–100–058
EXISTING APN: 316–100–028 AND PORTIONS OF 316–100–030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316–100–055
EXISTING APN: A PORTION OF 316–100–052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316–100–057
EXISTING APN: A PORTION OF 316–100–030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316–100–048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629751 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4
EXISTING APN: 316–100–051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629752 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

project information

Owner / Applicant
PROLOGIS
2817 EAST CEDAR ST, STE 200
ONTARIO, CA. 91761
TEL: (909) 673–8730 (DIRECT)
CONTACT: SCOTT MULKAY

Civil Engineer
THIENES ENGINEERING
14349 FIRESTONE BLVD.
LA MIRADA, CA 90638
TEL: (714) 521–4811
CONTACT: HIEN LE

Architect
HPA, INC.
18831 BARDEEN AVE. SUITE #100
IRVINE, CA 92612
TEL: (949) 863–1770
CONTACT: JAIME CRUZ

Landscape Architect
HUNTER LANDSCAPE
711 FEE ANA STREET
PLACENTIA, CA 92870
TEL: (714) 986–2400
CONTACT: TOM HAYES

Zoning
BP (BUSINESS PARK / LIGHT INDUSTRIAL)

Assessors Parcel Number
BUILDING 1: 316–100–057
316–100–058
BUILDING 2: 316–100–055
BUILDING 3: 316–100–048
BUILDING 4: 316–100–051

site plan general notes

1. THE SOILS REPORT IS TO BE PART OF THESE CONTRACT DOCUMENTS
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM. PRIOR TO INSTALLATION & AT LEAST 60 DAYS BEFORE BLDG. COMPLETION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF–SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS.
9. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". SEE "L" DRAWINGS FOR FINISH.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE PLANNING DIVISION AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
13. PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PLANNING DIVISION.
14. ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PLANNING DIVISION.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. APPROVED CONCEPTUAL LANDSCAPE PLAN PRIOR TO GRADING PERMIT
17. ALL ROOF DRAINS SHALL BE DIRECTED TO A LANDSCAPE AREA.

Tabulation

	BLDG. 1	BLDG. 2	BLDG. 3	BLDG. 4	NET TOTAL	EXISTING PUBLIC ST.	PROPOSED PUBLIC ST.	GROSS TOTAL	
Site area (in sq.ft.)	2,727,285	302,839	286,912	377,844	**3,694,880**	140,934	59,844	**3,895,658**	s.f.
Site area (in acres)	62.61	6.95	6.59	8.67	**84.82**	3.24	1.37	**89.43**	ac
Building area									
warehouse	1,321,763	112,275	87,222	154,920	1,676,180				
mezzanine office	20,000	5,000	5,000	5,000	35,000				
office	10,000	5,000	5,000	5,000	25,000				
Total	1,351,763	122,275	97,222	164,920	**1,736,180**				
Coverage	49.6%	40.4%	33.9%	43.6%	**47.0%**				
Parking Required									
1st. 20K @ 1/1,000 sf	20	20	20	20	80			80	stalls
2nd. 20K @ 1/2,000 sf	10	10	10	10	40			40	stalls
above 40K @ 1/4,000 sf	321	19	12	29	381			381	stalls
office @ 1/250 sf	120	40	40	40	240			240	stalls
Total	471	89	82	99	**741**			**741**	stalls
Parking Provided									
standard (9'x18')	471	89	82	99	741			741	stalls
trailers (14'x53')	236	22	39	26	323			323	stalls
Total	707	111	121	125	**1,064**			**1,064**	stalls

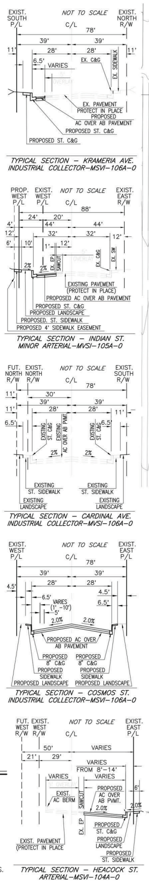

TYPICAL SECTION – KRAMERIA AVE. INDUSTRIAL COLLECTOR–MSVI–106A–0

TYPICAL SECTION – INDIAN ST. MINOR ARTERIAL–MSVI–105A–0

TYPICAL SECTION – CARDINAL AVE. INDUSTRIAL COLLECTOR–MSVI–106A–0

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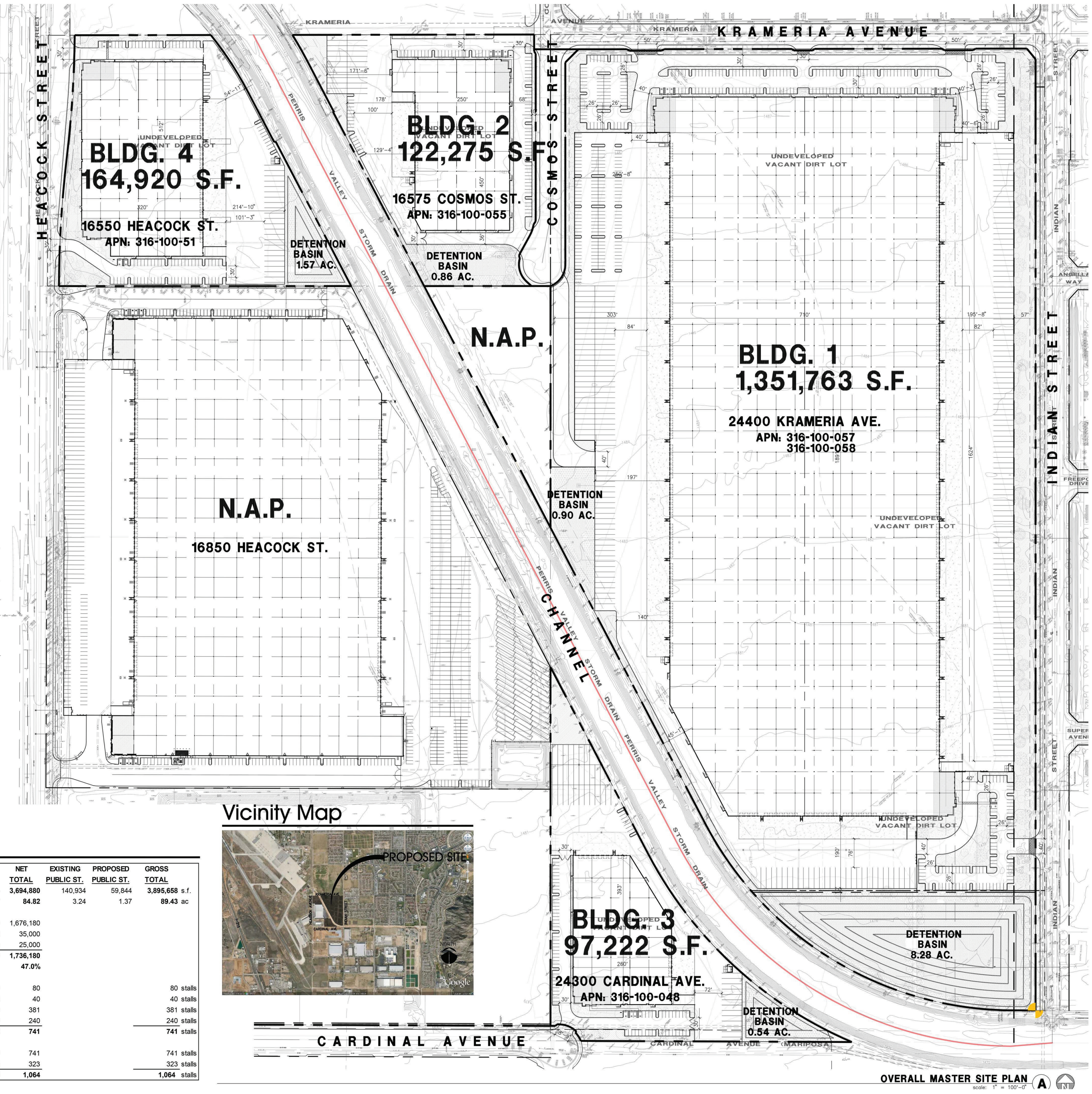

![HPA architecture]

hpa, inc.
18831 bardeen avenue - ste. #100
irvine, ca
92612
tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761
tel: 909•673•8730

Project:
MORENO VALLEY
LOGISTICS CENTER
BUILDINGS 1, 2, 3 & 4
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: Overall Master Site Plan

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
DA 1.0
2.n
018

CAUTION: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT

Existing legal descriptions

FOR TENTATIVE PARCEL MAP NO. 36150:

ASSIGNED BUT NOT ASSESSED APN: 316–100–058
EXISTING APN: 316–100–028 AND PORTIONS OF 316–100–030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

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EXISTING APN: A PORTION OF 316–100–052

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EXISTING APN: A PORTION OF 316–100–030

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CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316–100–048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629751 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4
EXISTING APN: 316–100–051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629752 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

project information

Owner / Applicant
PROLOGIS
2817 EAST CEDAR ST, STE 200
ONTARIO, CA. 91761
TEL: (909) 673–8730 (DIRECT)
CONTACT: SCOTT MULKAY

Civil Engineer
THIENES ENGINEERING
14349 FIRESTONE BLVD.
LA MIRADA, CA 90638
TEL: (714) 521–4811
CONTACT: HIEN LE

Architect
HPA, INC.
18831 BARDEEN AVE. SUITE #100
IRVINE, CA 92612
TEL: (949) 863–1770
CONTACT: JAIME CRUZ

Landscape Architect
HUNTER LANDSCAPE
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TEL: (714) 986–2400
CONTACT: TOM HAYES

Zoning
BP (BUSINESS PARK / LIGHT INDUSTRIAL)

Assessors Parcel Number
BUILDING 1: 316–100–057
316–100–058
BUILDING 2: 316–100–055
BUILDING 3: 316–100–048
BUILDING 4: 316–100–051

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3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM. PRIOR TO INSTALLATION & AT LEAST 60 DAYS BEFORE BLDG. COMPLETION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF–SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS.
9. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". SEE "L" DRAWINGS FOR FINISH.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE PLANNING DIVISION AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
13. PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PLANNING DIVISION.
14. ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PLANNING DIVISION.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. APPROVED CONCEPTUAL LANDSCAPE PLAN PRIOR TO GRADING PERMIT
17. ALL ROOF DRAINS SHALL BE DIRECTED TO A LANDSCAPE AREA.

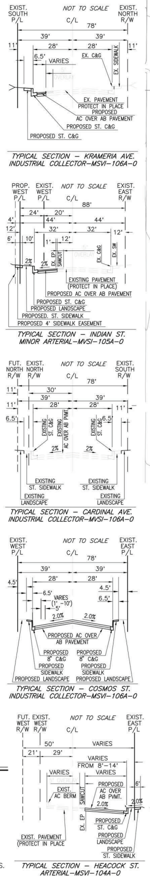

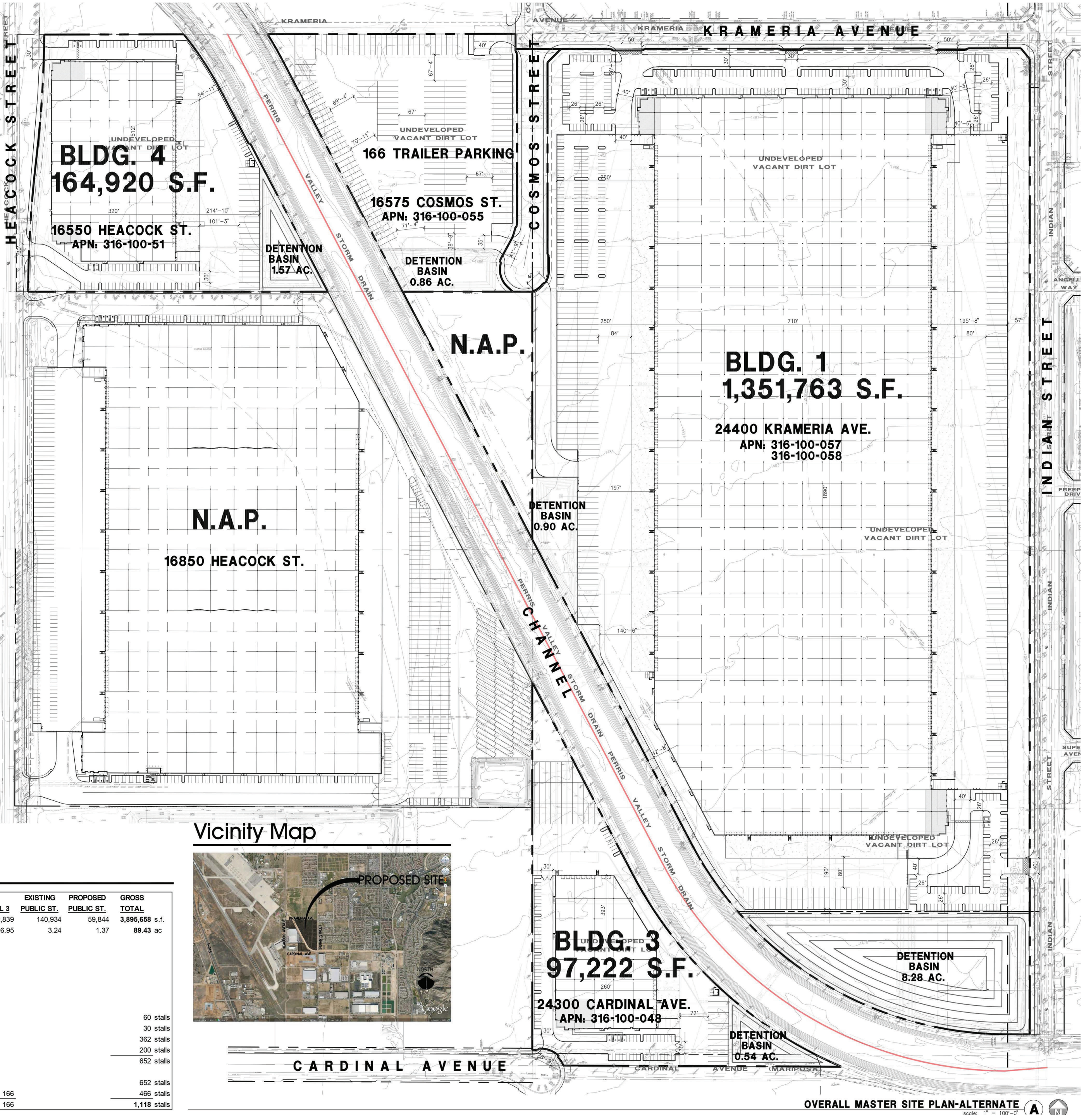

Tabulation

	BLDG. 1	BLDG. 3	BLDG. 4	NET TOTAL	PARCEL 3	EXISTING PUBLIC ST.	PROPOSED PUBLIC ST.	GROSS TOTAL
Site area (in sq.ft.)	2,727,285	286,912	377,844	3,392,041	302,839	140,934	59,844	**3,895,658** s.f.
Site area (in acres)	62.61	6.59	8.67	77.87	6.95	3.24	1.37	**89.43** ac
Building area								
warehouse	1,321,763	87,222	154,920	1,563,905				
mezzanine office	20,000	5,000	5,000	30,000				
office	10,000	5,000	5,000	20,000				
Total	1,351,763	97,222	164,920	1,613,905				
Coverage	49.6%	33.9%	43.6%	47.6%				
Parking Required								
1st. 20K @ 1/1,000 sf	20	20	20	60				60 stalls
2nd. 20K @ 1/2,000 sf	10	10	10	30				30 stalls
above 40K @ 1/4,000 sf	321	12	29	362				362 stalls
office @ 1/250 sf	120	40	40	200				200 stalls
Total	471	82	99	652				652 stalls
Parking Provided								
standard (9'x18')	471	82	99	652				652 stalls
trailers (14'x53')	236	39	25	300	166			466 stalls
Total	707	121	124	952	166			**1,118** stalls

HPA
architecture

hpa, inc.
18831 bardeen avenue - ste. #100
irvine, ca
92612
tel: 949·863·1770
fax: 949·863·0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909·673·8730

Project:
MORENO VALLEY
LOGISTICS CENTER

BUILDINGS 1, 3 & 4

Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: Overall Master Site Plan-Alt

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
DA 0A
018

2.n

CAUTION: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT

Existing legal descriptions

FOR TENTATIVE PARCEL MAP NO. 36150:

ASSIGNED BUT NOT ASSESSED APN: 316-100-058
EXISTING APN: 316-100-028 AND PORTIONS OF 316-100-030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-055
EXISTING APN: A PORTION OF 316-100-052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-057
EXISTING APN: A PORTION OF 316-100-030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316-100-048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629751 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4
EXISTING APN: 316-100-051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629752 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

project information

Owner / Applicant
PROLOGIS
2817 EAST CEDAR ST, STE 200
ONTARIO, CA. 91761
TEL: (909) 673-8730 (DIRECT)
CONTACT: SCOTT MULKAY

Civil Engineer
THIENES ENGINEERING
14349 FIRESTONE BLVD.
LA MIRADA, CA 90638
TEL: (714) 521-4811
CONTACT: HIEN LE

Architect
HPA, INC.
18831 BARDEEN AVE. SUITE #100
IRVINE, CA 92612
TEL: (949) 863-1770
CONTACT: JAIME CRUZ

Landscape Architect
HUNTER LANDSCAPE
711 FEE ANA STREET
PLACENTIA, CA 92870
TEL: (714) 986-2400
CONTACT: TOM HAYES

Zoning
BP (BUSINESS PARK / LIGHT INDUSTRIAL)

Assessors Parcel Number
BUILDING 1: 316-100-057
316-100-058

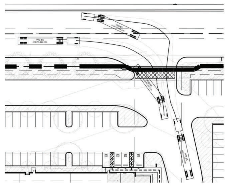

NORTH-EAST TRUCK ENTRY (B)
scale: 1" = 60'-0"

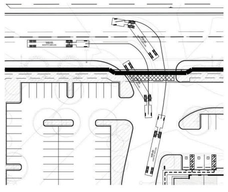

NORTH-WEST TRUCK ENTRY (C)
scale: 1" = 60'-0"

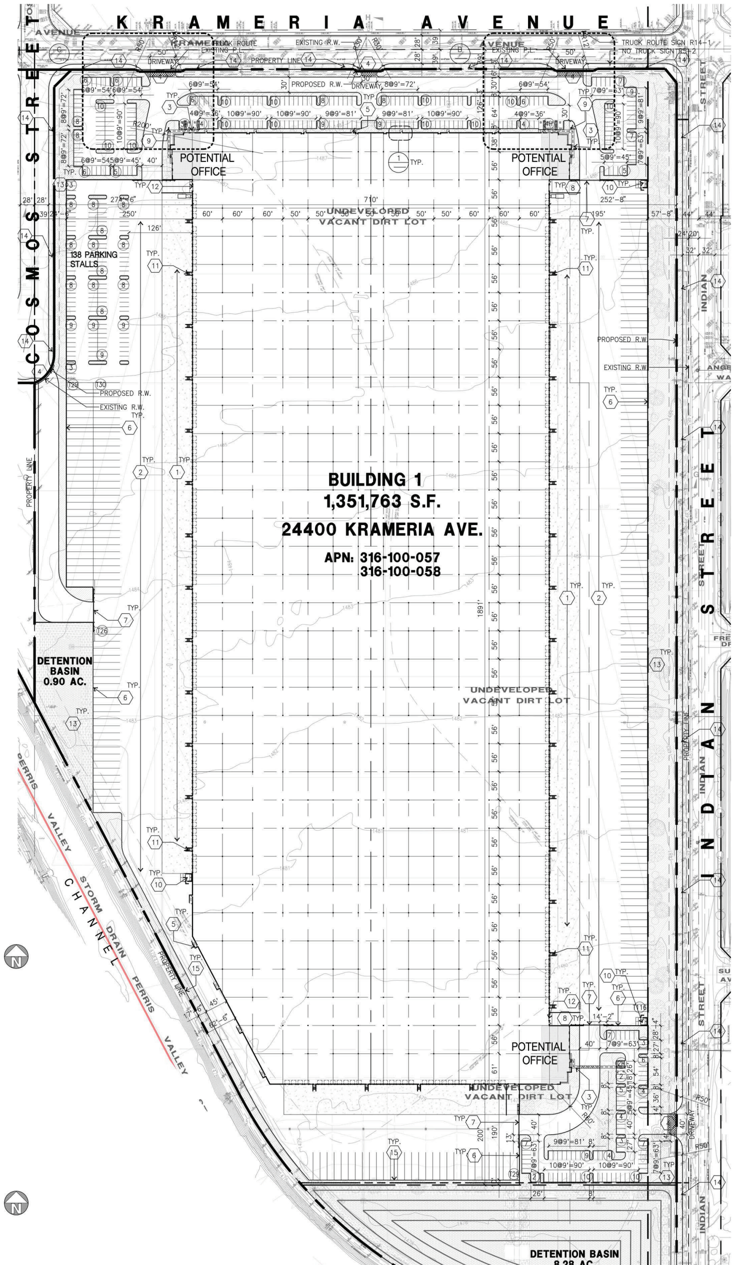

OVERALL SITE PLAN BUILDING 1 (A)
scale: 1" = 100'-0"

ALTERNATE AUTO PARKING PLAN

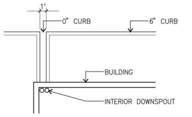

CURB CUTS, TYP. (2)
scale: 1/8" = 1'-0"

site plan general notes

1. THE SOILS REPORT IS TO BE PART OF THESE CONTRACT DOCUMENTS
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM. PRIOR TO INSTALLATION & AT LEAST 60 DAYS BEFORE BLDG. COMPLETION.
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8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS.
9. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS. SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". SEE "L" DRAWINGS FOR FINISH.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE PLANNING DIVISION AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
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17. ALL ROOF DRAINS SHALL BE DIRECTED TO A LANDSCAPE AREA.

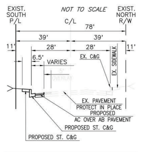

TYPICAL SECTION – KRAMERIA AVE.
INDUSTRIAL COLLECTOR-MSVI-106A-0

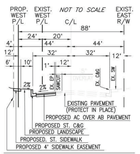

TYPICAL SECTION – INDIAN ST.
MINOR ARTERIAL-MVSI-105A-0

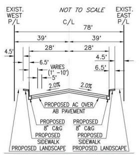

TYPICAL SECTION – COSMOS ST.
INDUSTRIAL COLLECTOR-MSVI-106A-0

tabulation

	BLDG. 1	s.f.
Site area (in sq.ft.)	2,727,285	ac
Site area (in acres)	62.61	
Building area		s.f.
warehouse	1,321,763	s.f.
office mezzanine	20,000	s.f.
office	10,000	s.f.
Total	1,351,763	
Coverage	49.6%	
Parking Required		
1st. 20K @ 1/1,000 sf	20	stalls
2nd. 20K @ 1/2,000 sf	10	stalls
above 40K @ 1/4,000 sf	321	stalls
office and mezzanine @ 1/250 sf	120	stalls
Total	471	
Parking Provided		
standard (9'x18')	324	stalls
handicap (9'x18')	9	stalls
parking in truckyard (9'x18')	138	stalls
Total	471	stalls
Trailer Parking Required		
1 trailer parking per dock door		
New dock doors	200	
Trailer Parking Provided		
trailers (14'x53')	230	stalls
Landscape Provided		
in sq. ft.	274,241	s.f.
Percentage	10%	

1" = 100'-0"
0 100 200 300
REFERENCE NORTH
TRUE NORTH

OVERALL SITE PLAN

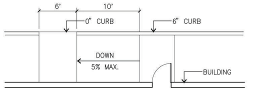

EXIT RAMP, TYP (1)
scale: 1/8" = 1'-0"

site plan keynotes

① 6" THICK MINIMUM, REINFORCED CONCRETE TRUCK APRON, W/ #3 @ 18" O.C.E.W. 3500 PSI W. CONSTRUCTION AND/OR EXPANSION JOINTS A MAXIMUM OF 18'-0" O.C. EXPANSION JOINTS TO BE A MIN. OF 1-1/2" DEEP AND A MAXIMUM ULTIMATE WIDTH OF 1/4". VERIFY WITH SOILS ENGINEER. PROVIDE HEAVY BROOM FINISH. ALL JOINTS TO BE CLEANED AN FILLED W/ ASPHALTIC CAULKING.
② ASPHALT CONCRETE (AC) PAVING PER SOILS ENGINEER RECOMMENDATION AS APPROVED BY THE CITY.
③ CONCRETE WALKWAY
④ DRIVEWAY APRONS TO BE CONSTRUCTED PER CITY STANDARD 118C MODIFIED. PROVIDE STAMPED CONCRETE W/ LIGHT BROOM FIN. AT ALL DRIVE LOCATIONS. PROVIDE VERTICAL & HORIZONTAL EXPANSION JOINTS AT A MAXIMUM OF 15' O.C. SPACING.
⑤ 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH PROVIDE WALK TO PUBLIC WAY OR DRIVE WAY AS REQ. BY CITY INSPECTOR.
⑥ 14' HIGH CONCRETE TILT-UP SCREEN WALL
⑦ 8'H WROUGHT IRON SLIDING GATE.
⑧ CONCRETE RAMP
⑨ BIKE RACK, EACH RACK HOLDS 7 BIKES
⑩ TRASH ENCLOSURE TO BE TWO BIN AND FULLY COVERED PER CITY STANDARD.
⑪ CONCRETE STAIRS AND LANDING
⑫ 12' X 14' DRIVE-IN DOOR
⑬ LANDSCAPE. SEE CONCEPTUAL LANDSCAPE PLAN.
⑭ FIRE HYDRANT LOCATION
⑮ 8'H WROUGHT IRON FENCE.

utility information

TELEPHONE:
VERIZON
150 SO JUANITA ST.
HEMET, CA 92543
PHONE: (951) 658-7305
CONTACT: PHIL BRILLINGER

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
MORENO VALLEY, CA 92552
PHONE: (951) 413-3480
CONTACT: MICHELLE PIERCE

GAS
THE GAS COMPANY
25200 TRUMBLE ROAD SC 8058
ROMOLAND, CA 92380
PHONE: (951) 335-3902
CONTACT: DAVE MULLIGAN

WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928 - 3777
CONTACT: NEW BUSINESS

SEWER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928-3777
CONTACT: NEW BUSINESS

CABLE – TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
PHONE: (951) 975-3380
(951) 390-4777
CONTACT: MARK DAUENHAUER

site legend

▨	LANDSCAPED AREA
▭	AC. PAVING
▨	CONCRETE PAVING
▭	STANDARD PARKING STALL 9' X 18'
▨	HANDICAP PARKING STALL, 9' X 18' W/ 2' O.H.
— — — —	EXISTING RIGHT OF WAY
━ ━ ━ ━	PROPOSED R.W, OR EXISTING P.L.
- - - - -	ADA PATH OF TRAVEL

vicinity map

NORTH
N.T.S.

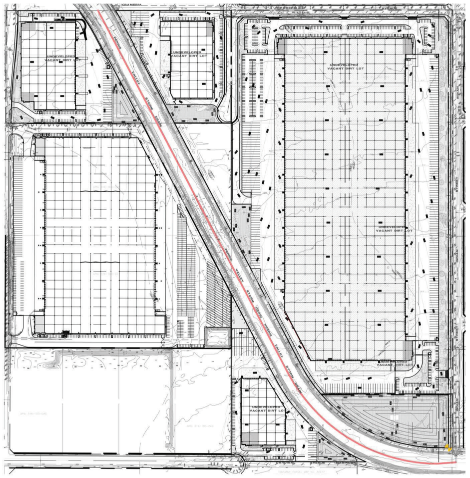

KEY MAP (B)
scale: NTS

HPA architecture

hpa, inc.
18831 bardeen avenue - ste. #100
irvine, ca
92612
tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:
MORENO VALLEY LOGISTICS CENTER

BUILDING 1

24400 Krameria ave.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: overall site plan

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
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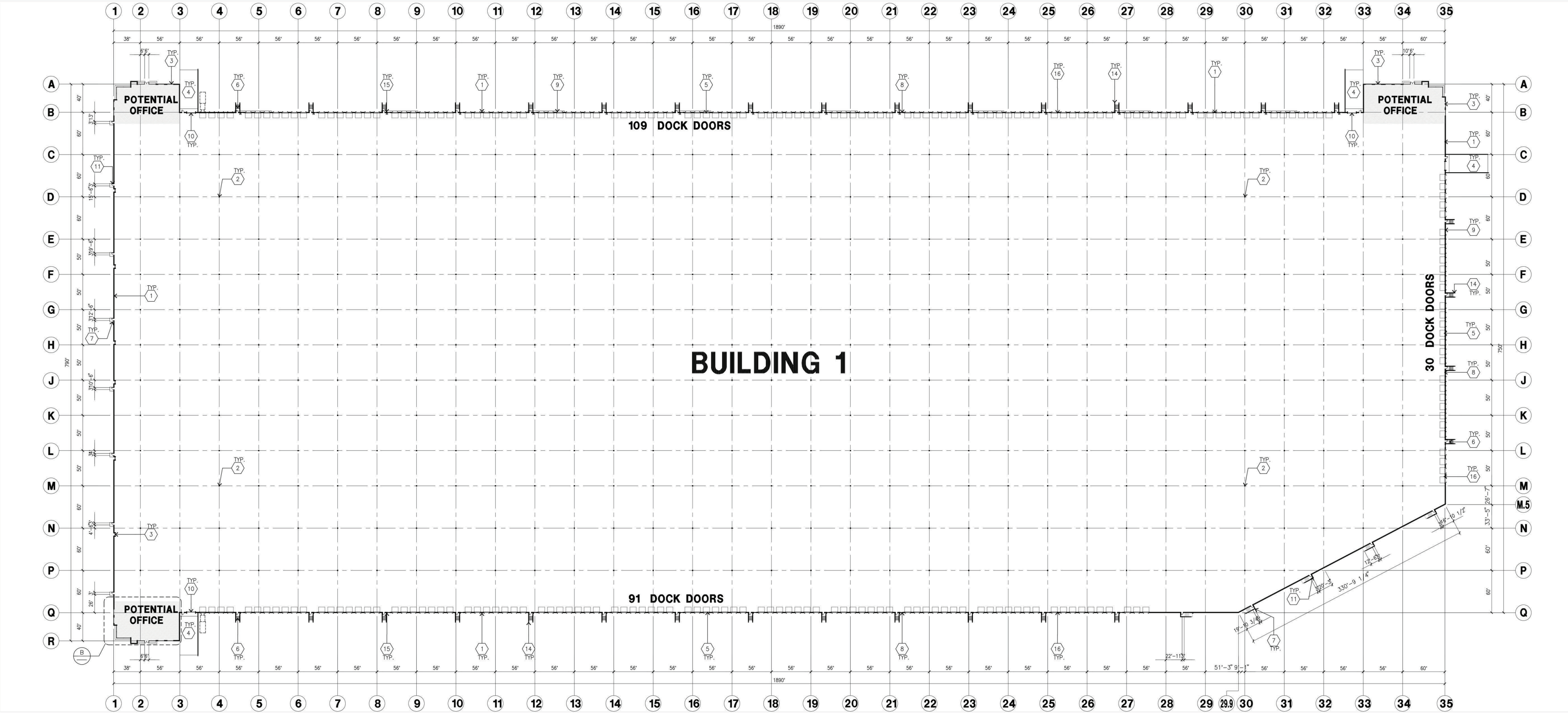

OVERALL FLOOR PLAN (A)
scale: 1"=60'-0"

SCALE: 1" = 60'-0"
0 60' 120' 180'
TRUE NORTH

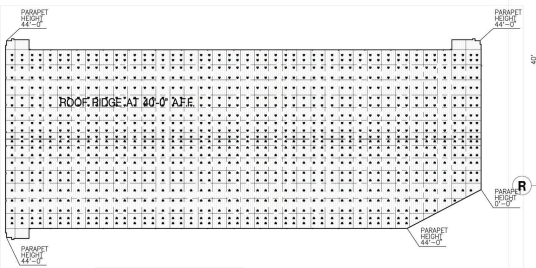

NOTE: ROOF TO BE PAINTED LIGHT COLOR TO ADDRESS ENERGY EFFICIENCY

OVERALL ROOF PLAN (C)
scale: 1"=200'-0"

SCALE: 1"=200'-0"
0 200' 400' 600'
TRUE NORTH

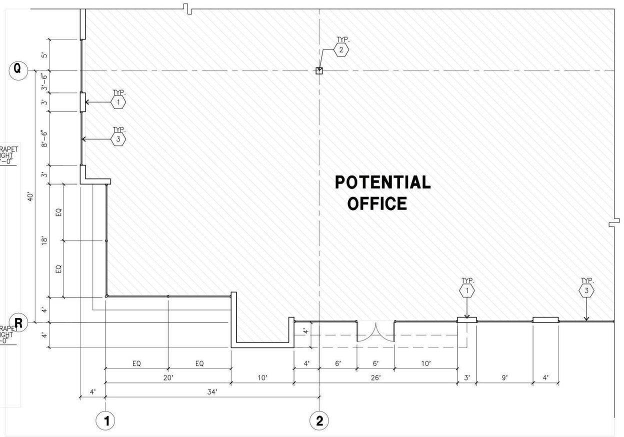

ENLARGED FLOOR PLAN (B)
scale: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"
0 8' 16' 24'
TRUE NORTH

KEYNOTES - FLOOR PLAN

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE OFFICE BLOW-UP AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42"HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP.
5. 9'-0" X 10' TRUCK DOOR, SECTIONAL O'H., STANDARD GRADE.
6. EXTERIOR CONCRETE STAIR
7. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4" : 12" MAX. PROVIDE WALK TO HARD SURFACE PER CITY REQUIREMENTS.
8. LOUVERED OPENING FOR VENTILATION.
9. DOCK DOOR BUMPER.
10. 12' X 14' DRIVE THRU. SECTIONAL OH., STANDARD GRADE. DESIGNED TO RESIST WIND 110 MPH., EXPOSURE "C".
11. 3'X7' HOLLOW METAL EXTERIOR MAN DOOR. DESIGNED TO RESIST WIN 110 MPH., EXPOSURE "C".
12. SOFFIT LINE ABOVE
13. BRACE FRAME.
14. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 42"H.
15. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPERS,
16. Z GUARD
17. APPROXIMATE LOCATION OF ROOF TOP UNIT.
18. INTERIOR ROOFDRAIN WITH OVERFLOW SCUPPERS,

GENERAL NOTES - FLOOR PLAN

A. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 100' MAXIMUM O.C. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS.
B. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.
C. THE BUILDING FLOOR SLAB IS SLOPED, SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.
D. NOT USED
E. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL GYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.
F. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS.
G. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.
H. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.
I. FOR DOOR TYPES AND SIZES. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.
J. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.
K. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN. HARDWARE. ⊗
L. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.
M. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.
N. NON-ACCESSIBLE DOOR. PROVIDE WARNING SIGN LOCATED IN THE INTERIOR SIDE PER CBC 1133B.1.1.1
O. ALL ROOF MOUNTED MATERIALS SHALL BE FULLY SCREENED FROM PUBLIC VIEW,

FLOOR SLAB AND POUR STRIPS REQ.

THESE NOTES ARE VERY MIN. REQUIREMENT.

1. FLOOR COMPACTION – 95%
2. TRENCH COMPACTION – 90%
3. BUILDING FLOOR SLAB:
    - A. 6" THICK MIN. UNREINFORCED CONCRETE OVER COMPACTED SOILS
    - B. 3/4" – 16"LONG @ 12" O.C. DOWELS AT ALL CONSTRUCTION JOINTS
      3/4" – 16"LONG @ 24" O.C. DOWELS IN DOWEL BASKET AT ALL CONTROL JOINTS.
    - C. 4,000 P.S.I. REQUIREMENT.
    - D. SLUMP TO BE 4" +/– 1"
    - E. JOINT SPACING PER A.C.I. 302-IR-96
    - F. SAW-CUT DEPTH 1/4 T; SOFT SAW-CUTTING WITHIN 2 HRS OF FINISHING
4. CONTRACTOR TO BUILD FOR CLASS V FLOOR PER A.C.I. 302-IR-96
5. NOT USED
6. CONCRETE SLAB TO HAVE STEEL FLOAT HARD TROWEL BURNISHED FINISH.
7. CONTRACTOR TO CURE SLAB TO BE WET CURING USING BURLINE FOR 7 DAYS MIN.
8. ALL EQUIPMENT & MOVING VEHICLES SHALL BE DIAPERED.
9. NO CRANES, CONCRETE TRUCKS, OR ANYTHING HEAVIER WILL BE PLACED ON THE SLAB.
10. SLAB TO BE FF35 FL24 MEASURED WITHIN 24 HOURS.
11. NO FLY ASH IN THE CONCRETE
12. WHERE ▨ INDICATED, PROVIDE VAPOR BARRIER (15MIL STEGO OR EQUAL) UNDER THE CONCRETE SLAB. PROVIDE SAND PER SOILS ENGINEER OR MANUFACTURER'S RECOMMENDATION.
    CONCRETE SLAB IN FUTURE OFFICE AREAS, WHERE SAND OVER VIQUEEN ARE REQUIRED, SHALL BE NATURALLY HYDRATED WITHOUT USE OF BURLENE, CURING COMPOUND, OR RELEASE AGENTS.
    CONTROL/CONSTRUCTION JOINTS SHALL NOT BE FILLED WITH MM-80 JOINT FILLER IN FUTURE OFFICE AREAS.
13. SEAL CONCRETE SLAB W/ "LIPIDOLITH" SEALER

HPA architecture

hpa, inc.
18831 bardeen avenue - ste. #100
irvine, ca
92612
tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:
MORENO VALLEY
LOGISTICS CENTER

BUILDING 1

24400 Krameria Ave.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: OVERALL FLOOR PLAN

Project Number:	14092
Drawn by:	J.E.C.
Date:	8-26-2016

Revision:

Sheet:
1-D 2.n 2.1
018

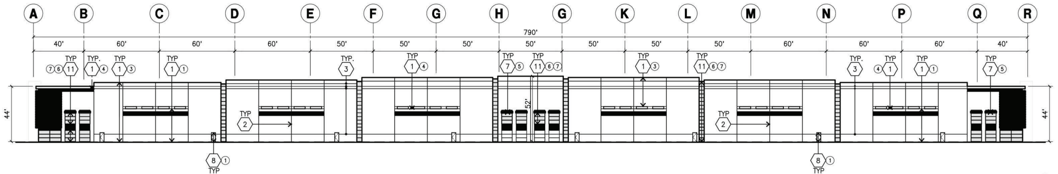

NORTH ELEVATION (A)
scale: 1"=40'–0

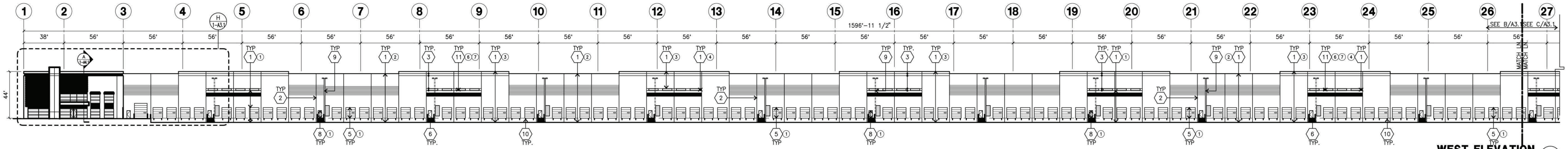

WEST ELEVATION (B)
scale: 1"=40'–0

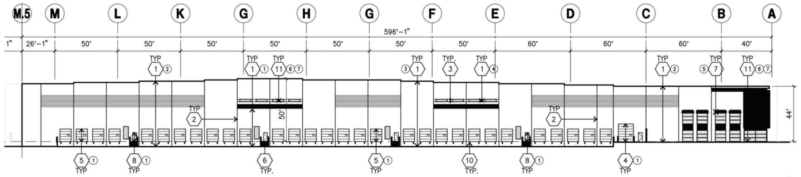

SOUTH ELEVATION (D)
scale: 1"=40'–0

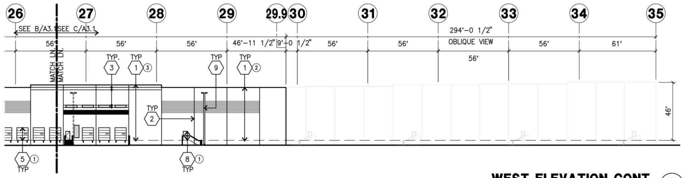

WEST ELEVATION CONT. (C)
scale: 1"=40'–0

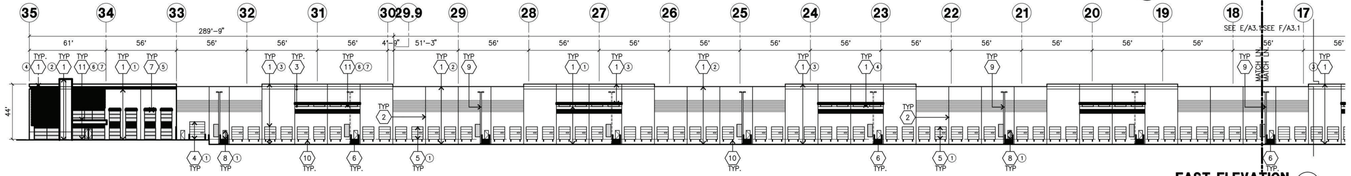

EAST ELEVATION (F)
scale: 1"=40'–0

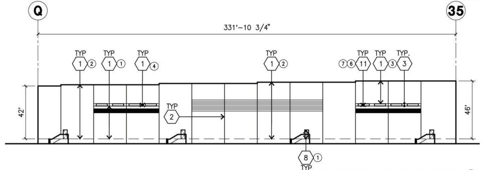

SOUTH WEST ELEVATION (E)
scale: 1"=40'–0

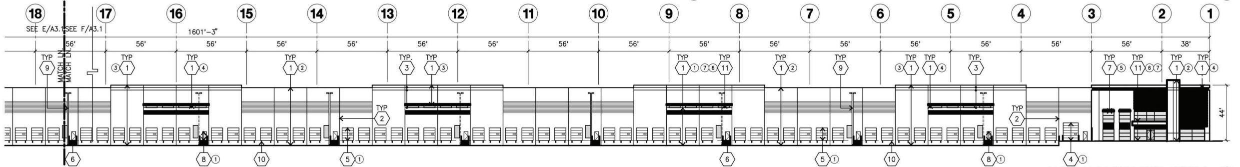

EAST ELEVATION CONT. (G)
scale: 1"=40'–0

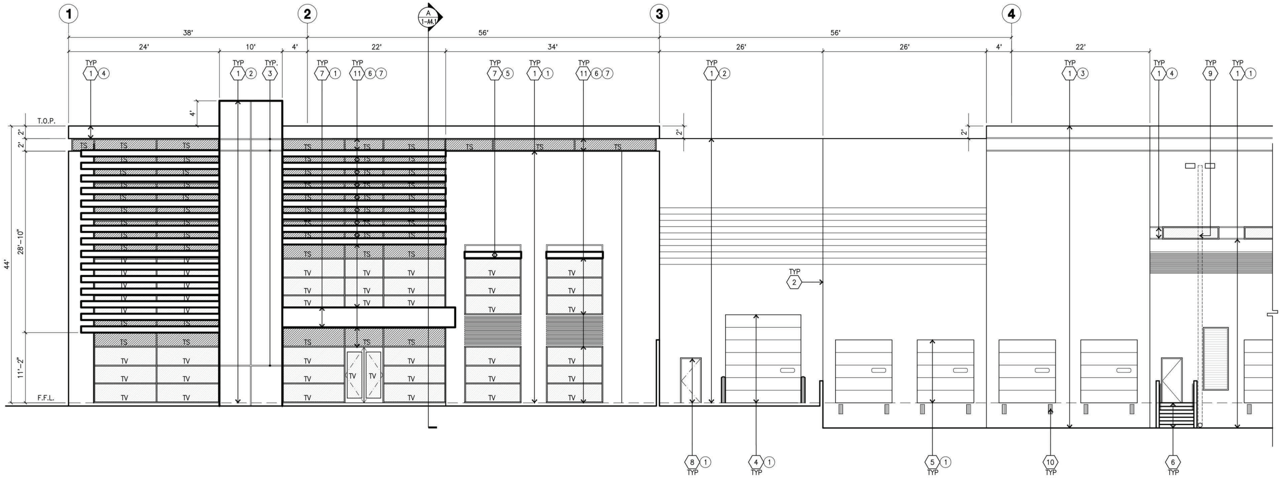

ENLARGED WEST ELEVATION @ POTENTIAL OFFICE AREA (H)
scale: 1/8" = 1'–0"

KEYNOTES - ELEVATIONS

1. CONCRETE TILT–UP PANEL(PAINTED). FINISH GRADE VARIES. SEE "C" DRAWINGS. WATERPROOF ALL WALLS WHERE GRADE IS HIGHER AND EXPOSED TO THE WEATHER ONE SIDE. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN. NOT REQUIRED AT DOCK HIGH CONDITION OR AT RAMP WALLS.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER–STRIPPING PROTECTION ALL AROUND.
5. OVERHEAD DOOR @ DOCK HIGH. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER–STRIPPING PROTECTION ALL AROUND.
6. CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL. PROVIDE NON SKID NOSING TO MEET ADA REQUIREMENTS. PROVIDE CONTRASTING COLORED 3" WIDE WARNING STRIPE INTEGRAL TO CONCRETE AT TOP LANDING AND BOTTOM TREAD PER ADA REQUIREMENTS.
7. CANOPY
8. HOLLOW METAL DOORS. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR. PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
9. EXTERIOR DOWNSPOUT AND OVERFLOW SCUPPERS
10. DOCK BUMPER
11. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING AT ALL DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION.
12. INTERIOR ROOF DRAIN AND OVERFLOW SCUPPERS

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. EL.= TOP OF PARAPET ELEVATION.
D. F.F. = FINISH FLOOR ELEVATION.
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
K. THE FIRST COAT OF PAINT TO BE ROLLED–ON AND THE SECOND COAT TO BE SPRAYED–ON

COLOR SCHED. - ELEVATIONS

①	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–9 PURE WHITE
②	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–6 SABLE
③	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–8 JAGUAR
④	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–7 LIQUORICE TINT
⑤	CANOPY	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–7 (CLEARCOAT)
⑥	MULLIONS	PAINT BRAND	CLEAR ANODIZED
⑦	GLAZING	COLOR	GREEN REFLECTIVE GLAZING

GLAZING LEGEND

▨ TS	TEMPERED SPANDREL GLASS
☐ TV	TEMPERED VISION GLASS

PAINT AND MATERIAL LEGEND

☐ ① ▒ ② ▩ ③ ▨ ④ ░ ⑤

HPA
architecture

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18831 bardeen avenue - ste. #100
irvine, ca
92612
tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

Owner:
PROLOGIS
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Ontario, CA 91761

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Project:
MORENO VALLEY
LOGISTICS CENTER

BUILDING 1

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Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: Elevations

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
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1-D A3.1
018

2.n

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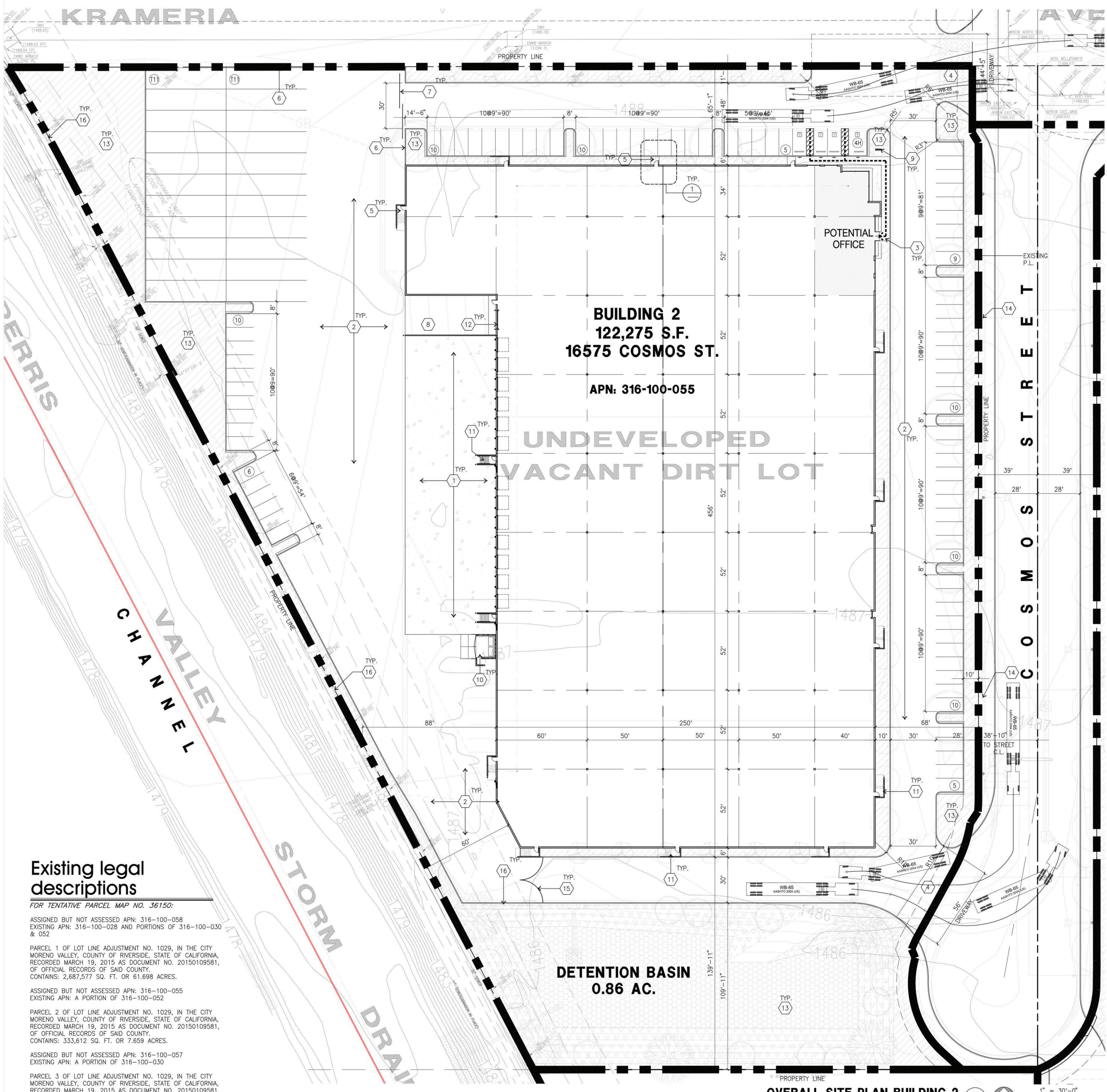

OVERALL SITE PLAN BUILDING 2 (A)
scale: 1" = 30'-0"

REFERENCE NORTH TRUE NORTH

OVERALL SITE PLAN

site plan general notes

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2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
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8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS.
9. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS. SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
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15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. APPROVED CONCEPTUAL LANDSCAPE PLAN PRIOR TO GRADING PERMIT
17. ALL ROOF DRAINS SHALL BE DIRECTED TO A LANDSCAPE AREA.

project information

Owner / Applicant
PROLOGIS
2817 EAST CEDAR ST, STE 200
ONTARIO, CA. 91761
TEL: (909) 673-8730 (DIRECT)
CONTACT: SCOTT MULKAY

Civil Engineer
THIENES ENGINEERING
14349 FIRESTONE BLVD.
LA MIRADA, CA 90638
TEL: (714) 521-4811
CONTACT: HIEN LE

Architect
HPA, INC.
18831 BARDEEN AVE. SUITE #100
IRVINE, CA 92612
TEL: (949) 863-1770
CONTACT: JAIME CRUZ

Landscape Architect
HUNTER LANDSCAPE
711 FEE ANA STREET
PLACENTIA, CA 92870
TEL: (714) 986-2400
CONTACT: TOM HAYES

Zoning
BP (BUSINESS PARK / LIGHT INDUSTRIAL)

Assessors Parcel Number
316-100-055

site plan keynotes

① 6" THICK MINIMUM, REINFORCED CONCRETE TRUCK APRON, W/ #3 @ 18" O.C.E.W. 3500 PSI W. CONSTRUCTION AND/OR EXPANSION JOINTS A MAXIMUM OF 18'-0" O.C. EXPANSION JOINTS TO BE A MIN. OF 1-1/2" DEEP AND A MAXIMUM ULTIMATE WIDTH OF 1/4". VERIFY WITH SOILS ENGINEER. PROVIDE HEAVY BROOM FINISH. ALL JOINTS TO BE CLEANED AN FILLED W/ ASPHALTIC CAULKING.
② ASPHALT CONCRETE (AC) PAVING PER SOILS ENGINEER RECOMMENDATION AS APPROVED BY THE CITY.
③ CONCRETE WALKWAY
④ DRIVEWAY APRONS TO BE CONSTRUCTED PER CITY STANDARD 118C MODIFIED. PROVIDE STAMPED CONCRETE W/ LIGHT BROOM FIN. AT ALL DRIVE LOCATIONS. PROVIDE VERTICAL & HORIZONTAL EXPANSION JOINTS AT A MAXIMUM OF 15' O.C. SPACING.
⑤ 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH PROVIDE WALK TO PUBLIC WAY OR DRIVE WAY AS REQ. BY CITY INSPECTOR.
⑥ 14' HIGH CONCRETE TILT-UP SCREEN WALL
⑦ 8'H WROUGHT IRON SLIDING GATE.
⑧ CONCRETE RAMP
⑨ BIKE RACK, EACH RACK HOLDS 7 BIKES
⑩ TRASH ENCLOSURE TO BE TWO BIN AND FULLY COVERED PER CITY STANDARD.
⑪ CONCRETE STAIRS AND LANDING
⑫ 12' X 14' DRIVE-IN DOOR
⑬ LANDSCAPE. SEE CONCEPTUAL LANDSCAPE PLAN.
⑭ FIRE HYDRANT LOCATION
⑮ 8'H WROUGHT IRON SWING GATE.
⑯ 8'H WROUGHT IRON FENCE.

site legend

▨	LANDSCAPED AREA
☐	AC. PAVING
☐	CONCRETE PAVING
☐	STANDARD PARKING STALL 9' X 18'
▨	HANDICAP PARKING STALL, 9' X 18' W/ 2' O.H.
▬ ■ ■ ▬	EXISTING P.L.
------	ADA PATH OF TRAVEL

tabulation

	BLDG. 2	s.f.
Site area (in sq.ft.)	302,839	ac
Site area (in acres)	6.95	
Building area		s.f.
warehouse	112,275	s.f.
mezzanine office	5,000	s.f.
office	5,000	s.f.
Total	122,275	
Coverage	40.4%	
Parking Required		stalls
1st. 20K @ 1/1,000 sf	20	stalls
2nd. 20K @ 1/2,000 sf	10	stalls
above 40K @ 1/4,000 sf	19	stalls
office @ 1/250 sf	40	stalls
Total	89	stalls
Parking Provided		
standard (9'x18')	85	stalls
handicap (9'x18')	4	stalls
Total	89	stalls
Trailer Parking Required		
1 trailer parking per dock door		
New dock doors	13	
Trailer Parking Provided		
trailers (14'x53')	28	stalls
Landscape Provided		
in sq. ft.	39,489	s.f.
Percentage	13%	

utility information

TELEPHONE:
VERIZON
150 SO JUANITA ST.
HEMET, CA 92543
PHONE: (951) 658-7305
CONTACT: PHIL BRILLINGER

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
MORENO VALLEY, CA 92552
PHONE: (951) 413-3480
CONTACT: MICHELLE PIERCE

GAS
THE GAS COMPANY
25200 TRUMBLE ROAD SC 8058
ROMOLAND, CA 92380
PHONE: (951) 335-3902
CONTACT: DAVE MULLIGAN

WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928 - 3777
CONTACT: NEW BUSINESS

SEWER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928-3777
CONTACT: NEW BUSINESS

CABLE - TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
PHONE: (951) 975-3380
(951) 390-4777
CONTACT: MARK DAUENHAUER

vicinity map

NORTH N.T.S.

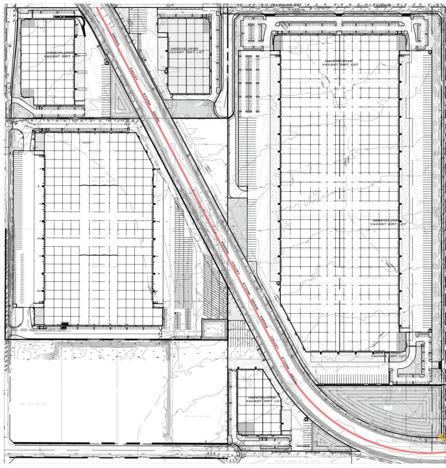

KEY MAP (B)
scale: NTS

Existing legal descriptions

FOR TENTATIVE PARCEL MAP NO. 36150:

ASSIGNED BUT NOT ASSESSED APN: 316-100-058
EXISTING APN: 316-100-028 AND PORTIONS OF 316-100-030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-055
EXISTING APN: A PORTION OF 316-100-052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-057
EXISTING APN: A PORTION OF 316-100-030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316-100-048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629751 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4
EXISTING APN: 316-100-051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629752 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

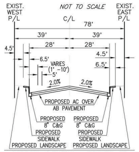

TYPICAL SECTION – COSMOS ST.
INDUSTRIAL COLLECTOR–MSVI–106A–0

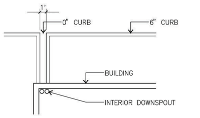

CURB CUT, TYP. (2)
scale: 1/8" = 1'-0"

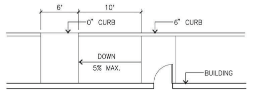

EXIT RAMP, TYP (1)
scale: 1/8" = 1'-0"

HPA architecture

hpa, inc.
18831 bardeen avenue - ste. #100
irvine, ca
92612
tel: 949·863·1770
fax: 949·863·0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909·673·8730

Project:
MORENO VALLEY
LOGISTICS CENTER

BUILDING 2

16575 Cosmos St.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: overall site plan

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
2-D A1.1

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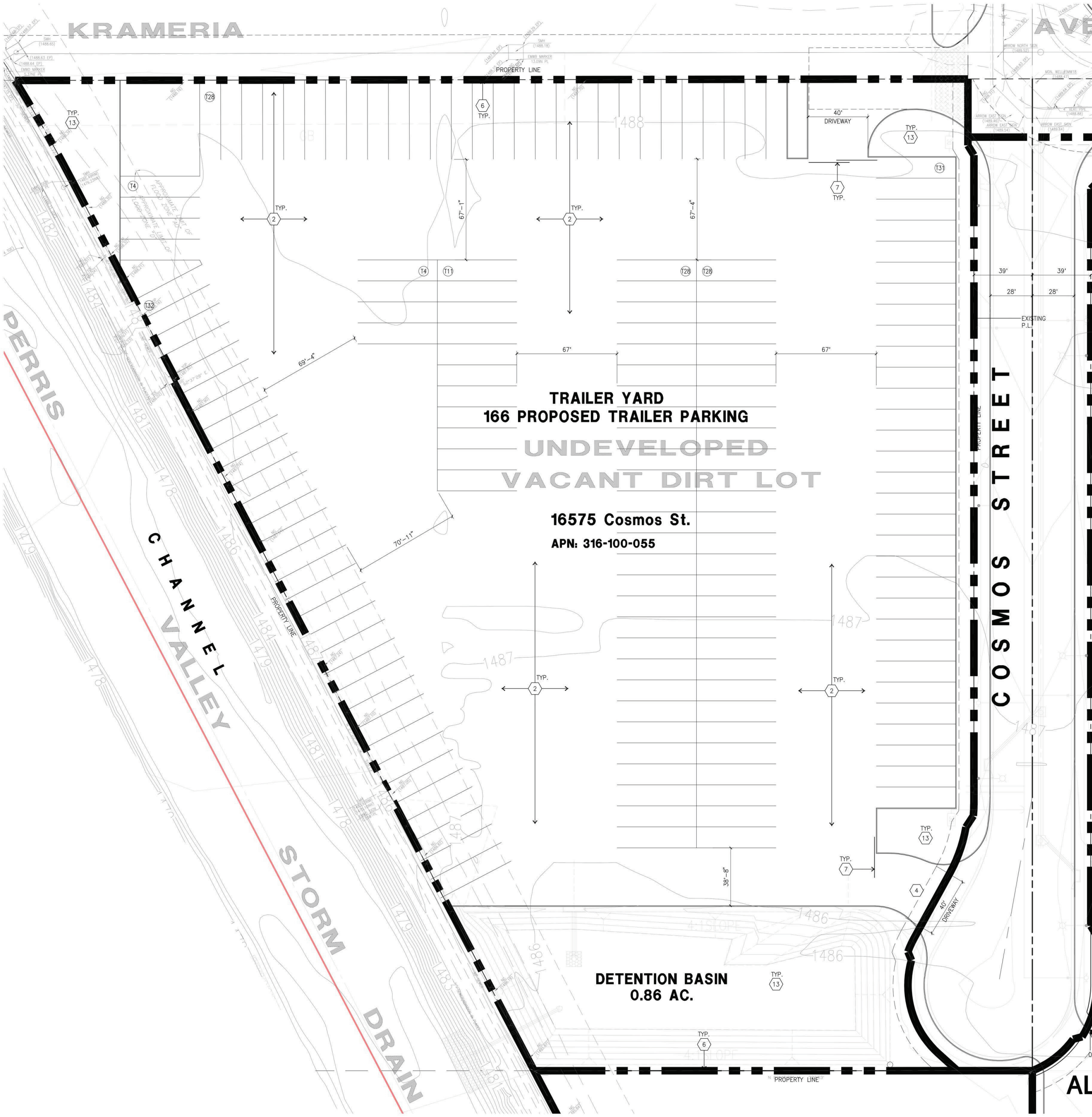

ALTERNATE SITE PLAN - TRAILER YARD A
scale: 1" = 30'-0"

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ASSIGNED BUT NOT ASSESSED APN: 316-100-058
EXISTING APN: 316-100-028 AND PORTIONS OF 316-100-030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-055
EXISTING APN: A PORTION OF 316-100-052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-057
EXISTING APN: A PORTION OF 316-100-030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316-100-048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629751 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4
EXISTING APN: 316-100-051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008-0629752 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

project information

Owner / Applicant
PROLOGIS
2817 EAST CEDAR ST, STE 200
ONTARIO, CA. 91761
TEL: (909) 673-8730 (DIRECT)
CONTACT: SCOTT MULKAY

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CONTACT: TOM HAYES

Zoning
BP (BUSINESS PARK / LIGHT INDUSTRIAL)

Assessors Parcel Number
316-100-055

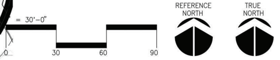

ALTERNATE SITE PLAN

site plan keynotes

① NOT USED
② ASPHALT CONCRETE (AC) PAVING PER SOILS ENGINEER RECOMMENDATION AS APPROVED BY THE CITY.
③ NOT USED
④ DRIVEWAY APRONS TO BE CONSTRUCTED PER CITY STANDARD 118C MODIFIED. PROVIDE STAMPED CONCRETE W/ LIGHT BROOM FIN. AT ALL DRIVE LOCATIONS. PROVIDE VERTICAL & HORIZONTAL EXPANSION JOINTS AT A MAXIMUM OF 15' O.C. SPACING.
⑤ NOT USED
⑥ 14' HIGH CONCRETE TILT-UP SCREEN WALL
⑦ 8'H WROUGHT IRON SLIDING GATE.
⑧ NOT USED
⑨ NOT USED
⑩ NOT USED
⑪ NOT USED
⑫ NOT USED
⑬ LANDSCAPE. SEE CONCEPTUAL LANDSCAPE PLAN.

utility information

TELEPHONE:
VERIZON
150 SO JUANITA ST.
HEMET, CA 92543
PHONE: (951) 658-7305
CONTACT: PHIL BRILLINGER

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
MORENO VALLEY, CA 92552
PHONE: (951) 413-3480
CONTACT: MICHELLE PIERCE

GAS
THE GAS COMPANY
25200 TRUMBLE ROAD SC 8058
ROMOLAND, CA 92380
PHONE: (951) 335-3902
CONTACT: DAVE MULLIGAN

WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928 - 3777
CONTACT: NEW BUSINESS

SEWER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
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CABLE - TV
TIME WARNER
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ONTARIO, CA 91761
PHONE: (951) 975-3380
(951) 390-4777
CONTACT: MARK DAUENHAUER

site legend

▨	LANDSCAPED AREA
☐	AC. PAVING
☐	CONCRETE PAVING
☐	STANDARD PARKING STALL 9' X 18'
▨	HANDICAP PARKING STALL, 9' X 18' W/ 2' O.H.
▬ ■ ■ ▬	PROPOSED R.W., EXISTING P.L.

vicinity map

NORTH N.T.S.

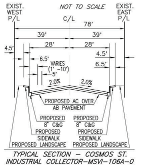

TYPICAL SECTION - COSMOS ST.
INDUSTRIAL COLLECTOR-MSVI-106A-0

HPA architecture

hpa, inc.
18831 bardeen avenue - ste. #100
irvine, ca
92612
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fax: 949·863·0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909·673·8730

Project:
MORENO VALLEY LOGISTICS CENTER

BUILDING 2

16575 Cosmos St.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: enlarged site plan

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
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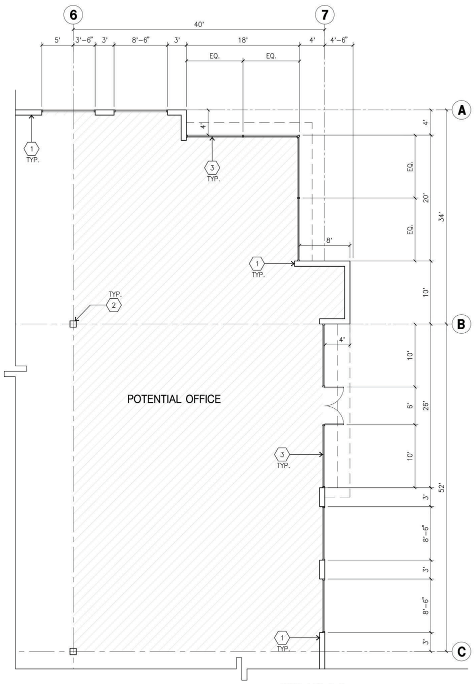

ENLARGED FLOOR PLAN (B)
scale: 1/8"=1'-0"
SCALE: 1/8"=1'-0"
0' 8' 16' 24'
TRUE NORTH

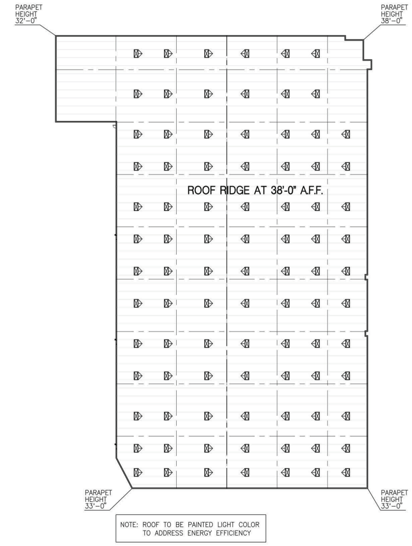

NOTE: ROOF TO BE PAINTED LIGHT COLOR TO ADDRESS ENERGY EFFICIENCY

OVERALL ROOF PLAN (C)
scale: 1" = 50'-0"
SCALE: 1" = 50'-0"
0' 50' 100' 150'
TRUE NORTH

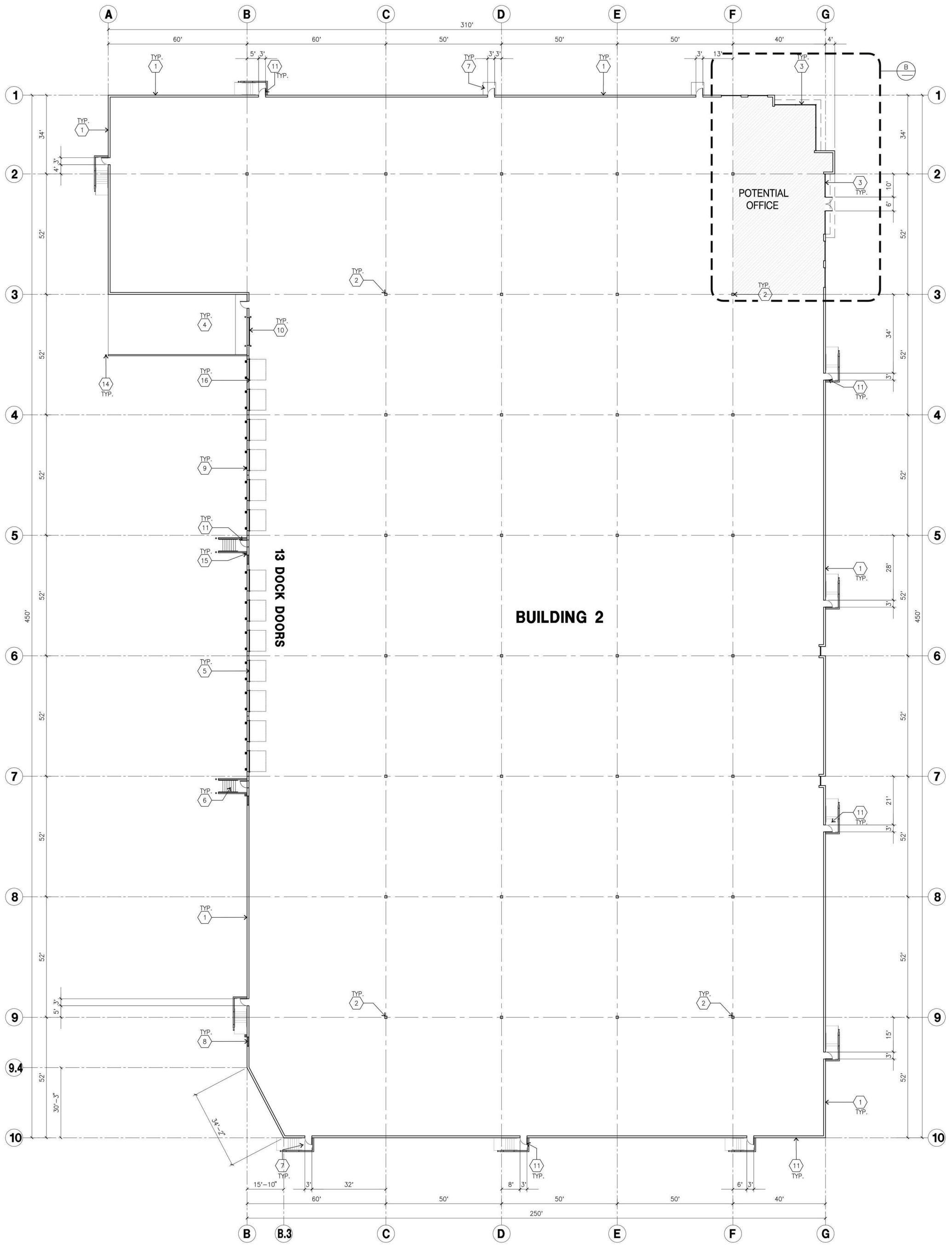

OVERALL FLOOR PLAN (A)
scale: 1"=20'-0"
SCALE: 1" = 20'-0"
0' 20' 40' 60'
TRUE NORTH

KEYNOTES - FLOOR PLAN

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE OFFICE BLOW-UP AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42"HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP.
5. 9'-0" X 10' TRUCK DOOR, SECTIONAL O'H., STANDARD GRADE.
6. EXTERIOR CONCRETE STAIR
7. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4" : 12" MAX. PROVIDE WALK TO HARD SURFACE PER CITY REQUIREMENTS.
8. LOUVERED OPENING FOR VENTILATION.
9. DOCK DOOR BUMPER.
10. 12' X 14' DRIVE THRU. SECTIONAL OH., STANDARD GRADE. DESIGNED TO RESIST WIND 110 MPH., EXPOSURE "C".
11. 3'X7' HOLLOW METAL EXTERIOR MAN DOOR. DESIGNED TO RESIST WIN 110 MPH., EXPOSURE "C".
12. SOFFIT LINE ABOVE
13. BRACE FRAME.
14. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 42"H.
15. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPERS,
16. Z GUARD
17. APPROXIMATE LOCATION OF ROOF TOP UNIT.
18. INTERIOR ROOFDRAIN WITH OVERFLOW SCUPPERS,

FLOOR SLAB AND POUR STRIPS REQ.

THESE NOTES ARE VERY MIN. REQUIREMENT.

1. FLOOR COMPACTION – 95%
2. TRENCH COMPACTION – 90%
3. BUILDING FLOOR SLAB:
   - A. 6" THICK MIN. UNREINFORCED CONCRETE OVER COMPACTED SOILS
   - B. 3/4" – 16"LONG @ 12" O.C. DOWELS AT ALL CONSTRUCTION JOINTS
     3/4" – 16"LONG @ 24" O.C. DOWELS IN DOWEL BASKET AT ALL CONTROL JOINTS.
   - C. 4,000 P.S.I. REQUIREMENT.
   - D. SLUMP TO BE 4" +/- 1"
   - E. JOINT SPACING PER A.C.I. 302-IR-96
   - F. SAW-CUT DEPTH 1/4 T; SOFT SAW-CUTTING WITHIN 2 HRS OF FINISHING
4. CONTRACTOR TO BUILD FOR CLASS V FLOOR PER A.C.I. 302-IR-96
5. NOT USED
6. CONCRETE SLAB TO HAVE STEEL FLOAT HARD TROWEL BURNISHED FINISH.
7. CONTRACTOR TO CURE SLAB TO BE WET CURING USING BURLINE FOR 7 DAYS MIN.
8. ALL EQUIPMENT & MOVING VEHICLES SHALL BE DIAPERED.
9. NO CRANES, CONCRETE TRUCKS, OR ANYTHING HEAVIER WILL BE PLACED ON THE SLAB.
10. SLAB TO BE FF35 FL24 MEASURED WITHIN 24 HOURS.
11. NO FLY ASH IN THE CONCRETE
12. WHERE ▨ INDICATED, PROVIDE VAPOR BARRIER (15MIL STEGO OR EQUAL) UNDER THE CONCRETE SLAB. PROVIDE SAND PER SOILS ENGINEER OR MANUFACTURER'S RECOMMENDATION.
    CONCRETE SLAB IN FUTURE OFFICE AREAS, WHERE SAND OVER VIQUEEN ARE REQUIRED, SHALL BE NATURALLY HYDRATED WITHOUT USE OF BURLENE, CURING COMPOUND, OR RELEASE AGENTS.
    CONTROL/CONSTRUCTION JOINTS SHALL NOT BE FILLED WITH MM-80 JOINT FILLER IN FUTURE OFFICE AREAS.
13. SEAL CONCRETE SLAB W/ "LIPIDOLITH" SEALER

GENERAL NOTES - FLOOR PLAN

A. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 100' MAXIMUM O.C. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS.
B. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.
C. THE BUILDING FLOOR SLAB IS SLOPED, SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.
D. NOT USED
E. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL GYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.
F. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS.
G. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.
H. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.
I. FOR DOOR TYPES AND SIZES. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.
J. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.
K. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN. HARDWARE. ⊗
L. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.
M. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.
N. NON-ACCESSIBLE DOOR. PROVIDE WARNING SIGN LOCATED IN THE INTERIOR SIDE PER CBC 1133B.1.1.1
O. ALL ROOF MOUNTED MATERIALS SHALL BE FULLY SCREENED FROM PUBLIC VIEW,

HPA architecture

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Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:
MORENO VALLEY
LOGISTICS CENTER

BUILDING 2

16575 Cosmos St.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: OVERALL FLOOR PLAN

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
2-D 2.1
018

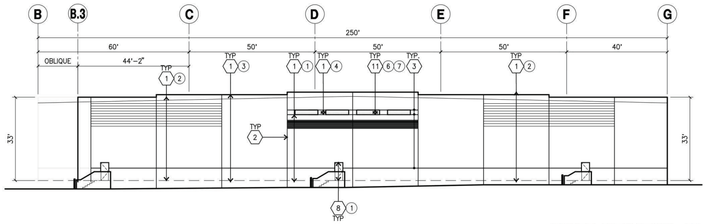

SOUTH ELEVATION Ⓐ
scale: 1"=20'-0

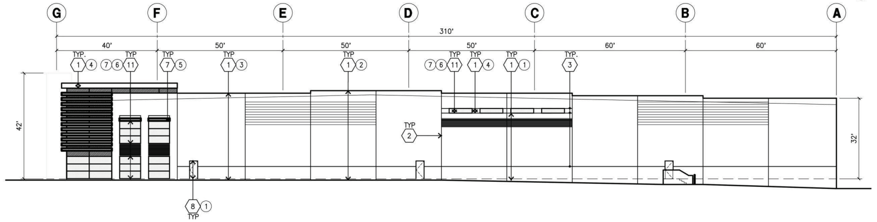

NORTH ELEVATION Ⓑ
scale: 1"=20'-0

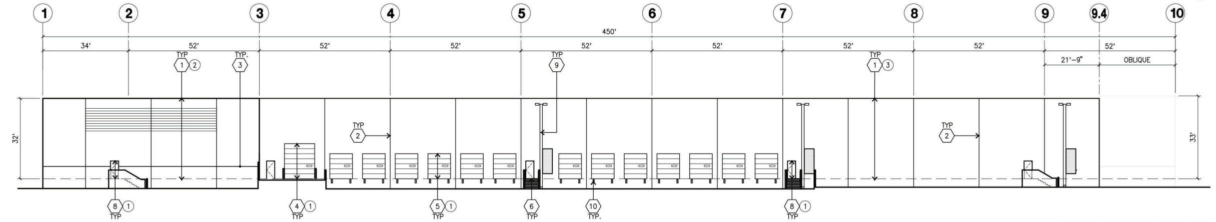

WEST ELEVATION Ⓒ
scale: 1"=20'-0

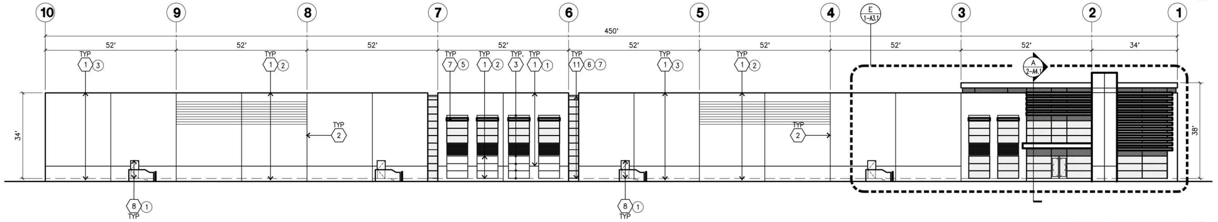

EAST ELEVATION Ⓓ
scale: 1"=20'-0

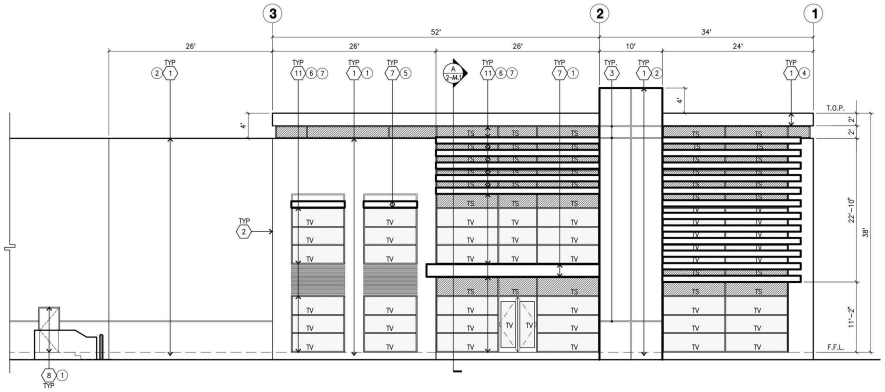

ENLARGED EAST ELEVATION @ POTENTIAL OFFICE AREA Ⓔ
scale: 1/8" = 1'-0"

KEYNOTES - ELEVATIONS

1. CONCRETE TILT-UP PANEL(PAINTED).
   FINISH GRADE VARIES. SEE "C" DRAWINGS. WATERPROOF ALL WALLS WHERE GRADE IS HIGHER AND EXPOSED TO THE WEATHER ONE SIDE. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN.
   NOT REQUIRED AT DOCK HIGH CONDITION OR AT RAMP WALLS.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
5. OVERHEAD DOOR @ DOCK HIGH. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
6. CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL. PROVIDE NON SKID NOSING TO MEET ADA REQUIREMENTS. PROVIDE CONTRASTING COLORED 3" WIDE WARNING STRIPE INTEGRAL TO CONCRETE AT TOP LANDING AND BOTTOM TREAD PER ADA REQUIREMENTS.
7. CANOPY
8. HOLLOW METAL DOORS. SEE DOOR SCHEDULE.
   PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR.
   PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
9. EXTERIOR DOWNSPOUT AND OVERFLOW SCUPPERS
10. DOCK BUMPER
11. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING AT ALL DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION.
12. INTERIOR ROOF DRAIN AND OVERFLOW SCUPPERS

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. EL.= TOP OF PARAPET ELEVATION.
D. F.F. = FINISH FLOOR ELEVATION.
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
K. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON

COLOR SCHED. - ELEVATIONS

①	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-9 PURE WHITE
②	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-6 SABLE
③	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-8 JAGUAR
④	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-7 LIQUORICE TINT
⑤	CANOPY	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-7 (CLEARCOAT)
⑥	MULLIONS	PAINT BRAND	CLEAR ANODIZED
⑦	GLAZING	COLOR	GREEN REFLECTIVE GLAZING

GLAZING LEGEND

▨ TS	TEMPERED SPANDREL GLASS
☐ TV	TEMPERED VISION GLASS

PAINT AND MATERIAL LEGEND

①	②	③	④	⑤
☐	⁘	▩	▨	░

HPA architecture

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Owner:
PROLOGIS
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2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:

MORENO VALLEY LOGISTICS CENTER

BUILDING 2

16575 Cosmos St.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title:	Elevations
Project Number:	14092
Drawn by:	J.E.C.
Date:	8-26-2016
Revision:	

Sheet:
2-D A3.1
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CAUTION: IF THIS SHEET IS NOT 30"X42" IT IS A REDUCED PRINT

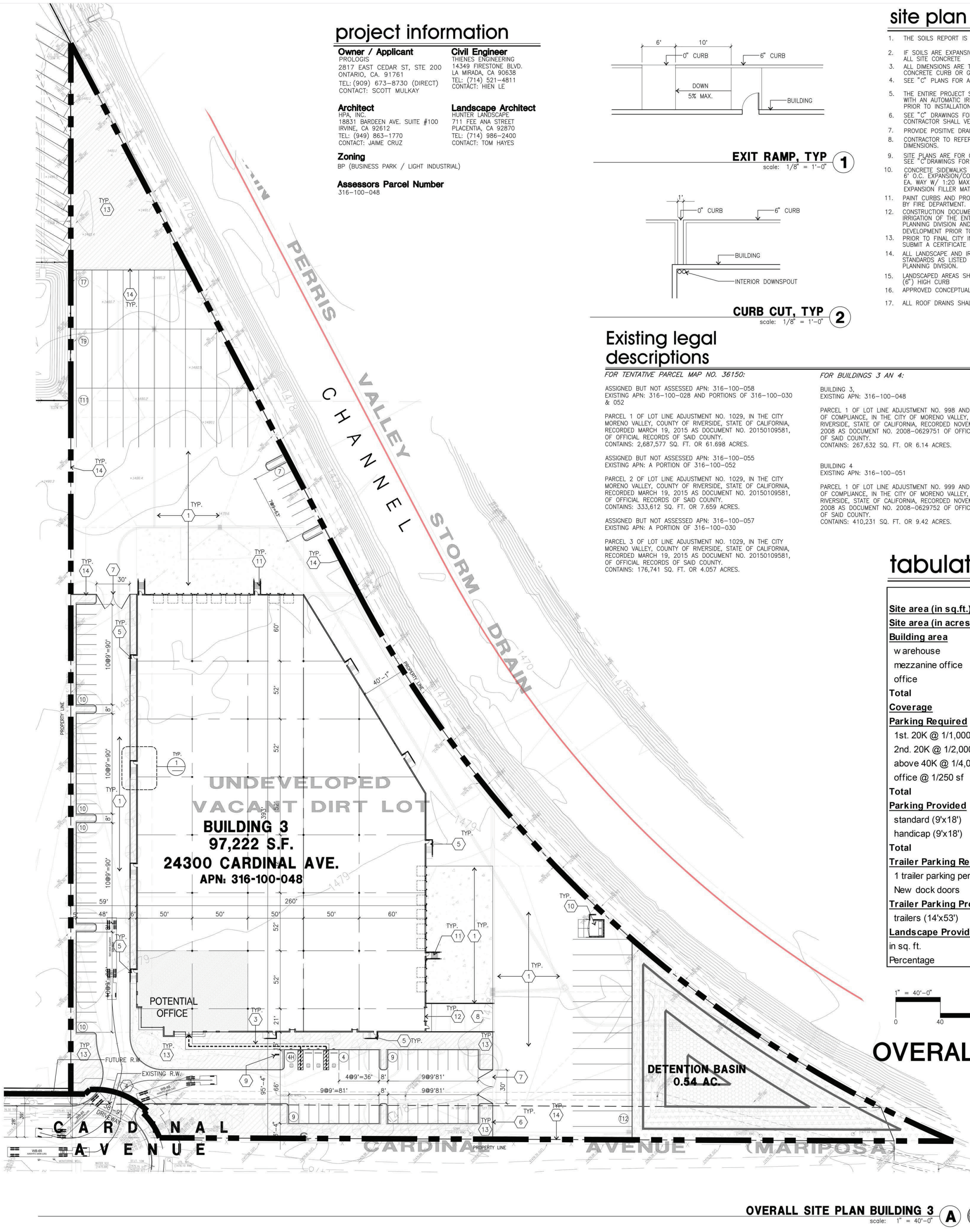

EXIT RAMP, TYP ①
scale: 1/8" = 1'-0"

CURB CUT, TYP ②
scale: 1/8" = 1'-0"

OVERALL SITE PLAN BUILDING 3 Ⓐ
scale: 1" = 40'-0"

project information

Owner / Applicant
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2817 EAST CEDAR ST, STE 200
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Landscape Architect
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711 FEE ANA STREET
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TEL: (714) 986-2400
CONTACT: TOM HAYES

Zoning
BP (BUSINESS PARK / LIGHT INDUSTRIAL)

Assessors Parcel Number
316-100-048

Existing legal descriptions

FOR TENTATIVE PARCEL MAP NO. 36150:

ASSIGNED BUT NOT ASSESSED APN: 316-100-058
EXISTING APN: 316-100-028 AND PORTIONS OF 316-100-030 & 052

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FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316-100-048

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CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

site plan general notes

1. THE SOILS REPORT IS TO BE PART OF THESE CONTRACT DOCUMENTS
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM. PRIOR TO INSTALLATION & AT LEAST 60 DAYS BEFORE BLDG. COMPLETION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS.
9. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS. SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". SEE "L" DRAWINGS FOR FINISH.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE PLANNING DIVISION AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
13. PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PLANNING DIVISION.
14. ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PLANNING DIVISION.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. APPROVED CONCEPTUAL LANDSCAPE PLAN PRIOR TO GRADING PERMIT
17. ALL ROOF DRAINS SHALL BE DIRECTED TO A LANDSCAPE AREA.

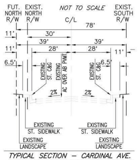

TYPICAL SECTION – CARDINAL AVE.
INDUSTRIAL COLLECTOR–MVSI–106A–0

tabulation

	BLDG. 3
Site area (in sq.ft.)	286,912 s.f.
Site area (in acres)	6.59 ac
Building area	
warehouse	87,222 s.f.
mezzanine office	5,000 s.f.
office	5,000 s.f.
Total	97,222 s.f.
Coverage	33.9%
Parking Required	
1st. 20K @ 1/1,000 sf	10 stalls
2nd. 20K @ 1/2,000 sf	20 stalls
above 40K @ 1/4,000 sf	12 stalls
office @ 1/250 sf	40 stalls
Total	82 stalls
Parking Provided	
standard (9'x18')	78 stalls
handicap (9'x18')	4 stalls
Total	82 stalls
Trailer Parking Required	
1 trailer parking per dock door	
New dock doors	17
Trailer Parking Provided	
trailers (14'x53')	39 stalls
Landscape Provided	
in sq. ft.	52,530 s.f.
Percentage	18%

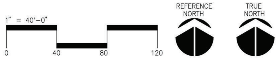

OVERALL SITE PLAN

site plan keynotes

① 6" THICK MINIMUM, REINFORCED CONCRETE TRUCK APRON, W/ #3 @ 18" O.C.E.W. 3500 PSI W. CONSTRUCTION AND/OR EXPANSION JOINTS A MAXIMUM OF 18'-0" O.C. EXPANSION JOINTS TO BE A MIN. OF 1-1/2" DEEP AND A MAXIMUM ULTIMATE WIDTH OF 1/4". VERIFY WITH SOILS ENGINEER. PROVIDE HEAVY BROOM FINISH. ALL JOINTS TO BE CLEANED AN FILLED W/ ASPHALTIC CAULKING.
② ASPHALT CONCRETE (AC) PAVING PER SOILS ENGINEER RECOMMENDATION AS APPROVED BY THE CITY.
③ CONCRETE WALKWAY
④ DRIVEWAY APRONS TO BE CONSTRUCTED PER CITY STANDARD 118C MODIFIED. PROVIDE STAMPED CONCRETE W/ LIGHT BROOM FIN. AT ALL DRIVE LOCATIONS. PROVIDE VERTICAL & HORIZONTAL EXPANSION JOINTS AT A MAXIMUM OF 15' O.C. SPACING.
⑤ 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH PROVIDE WALK TO PUBLIC WAY OR DRIVE WAY AS REQ. BY CITY INSPECTOR.
⑥ 14' HIGH CONCRETE TILT-UP SCREEN WALL
⑦ 8'H WROUGHT IRON SWING GATE.
⑧ CONCRETE RAMP
⑨ BIKE RACK, EACH RACK HOLDS 7 BIKES
⑩ TRASH ENCLOSURE TO BE TWO BIN AND FULLY COVERED PER CITY STANDARD.
⑪ CONCRETE STAIRS AND LANDING
⑫ 12' X 14' DRIVE-IN DOOR
⑬ LANDSCAPE. SEE CONCEPTUAL LANDSCAPE PLAN.
⑭ 8'H WROUGHT IRON FENCE.

utility information

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150 SO JUANITA ST.
HEMET, CA 92543
PHONE: (951) 658-7305
CONTACT: PHIL BRILLINGER

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
MORENO VALLEY, CA 92552
PHONE: (951) 413-3480
CONTACT: MICHELLE PIERCE

GAS
THE GAS COMPANY
25200 TRUMBLE ROAD SC 8058
ROMOLAND, CA 92380
PHONE: (951) 335-3902
CONTACT: DAVE MULLIGAN

WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928 - 3777
CONTACT: NEW BUSINESS

SEWER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928-3777
CONTACT: NEW BUSINESS

CABLE – TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
PHONE: (951) 975-3380
(951) 390-4777
CONTACT: MARK DAUENHAUER

site legend

▨	LANDSCAPED AREA
☐	AC. PAVING
☐	CONCRETE PAVING
☐	STANDARD PARKING STALL 9' X 18'
▨	HANDICAP PARKING STALL, 9' X 18' W/ 2' O.H.
— — — —	EXISTING P.L.
▬ ■ ■ ▬	PROPERTY LINE
------	ADA PATH OF TRAVEL

vicinity map

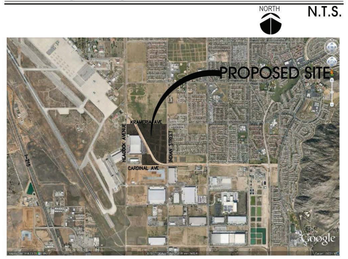

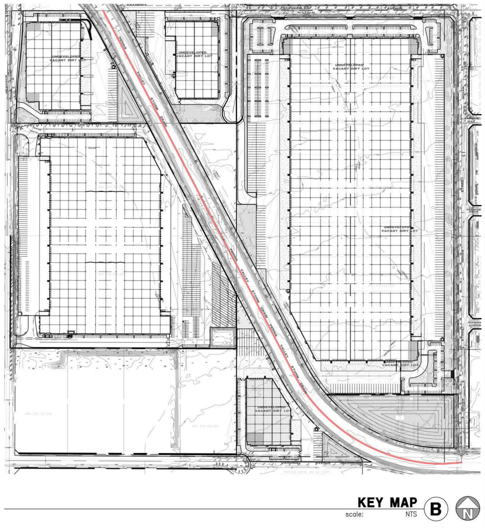

KEY MAP Ⓑ
scale: NTS

HPA architecture

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18831 bardeen avenue - ste. #100
irvine, ca
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fax: 949·863·0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909·673·8730

Project:
MORENO VALLEY LOGISTICS CENTER

BUILDING 3

24300 Cardinal Ave.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: OVERALL SITE PLAN

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
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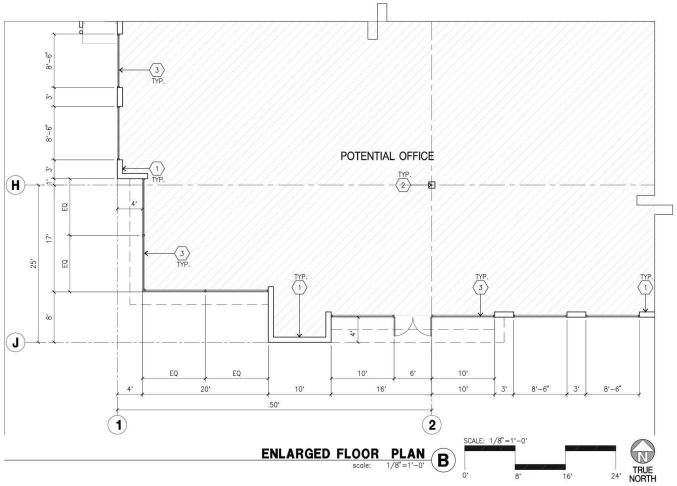

ENLARGED FLOOR PLAN (B)
scale: 1/8"=1'-0"

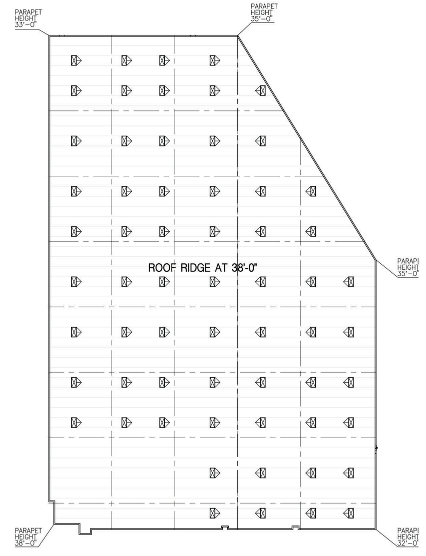

NOTE: ROOF TO BE PAINTED LIGHT COLOR TO ADDRESS ENERGY EFFICIENCY

OVERALL ROOF PLAN (B)
scale: 1"=40'-0"

SCALE: 1"=40'-0" 0' 40' 80' 120' TRUE NORTH

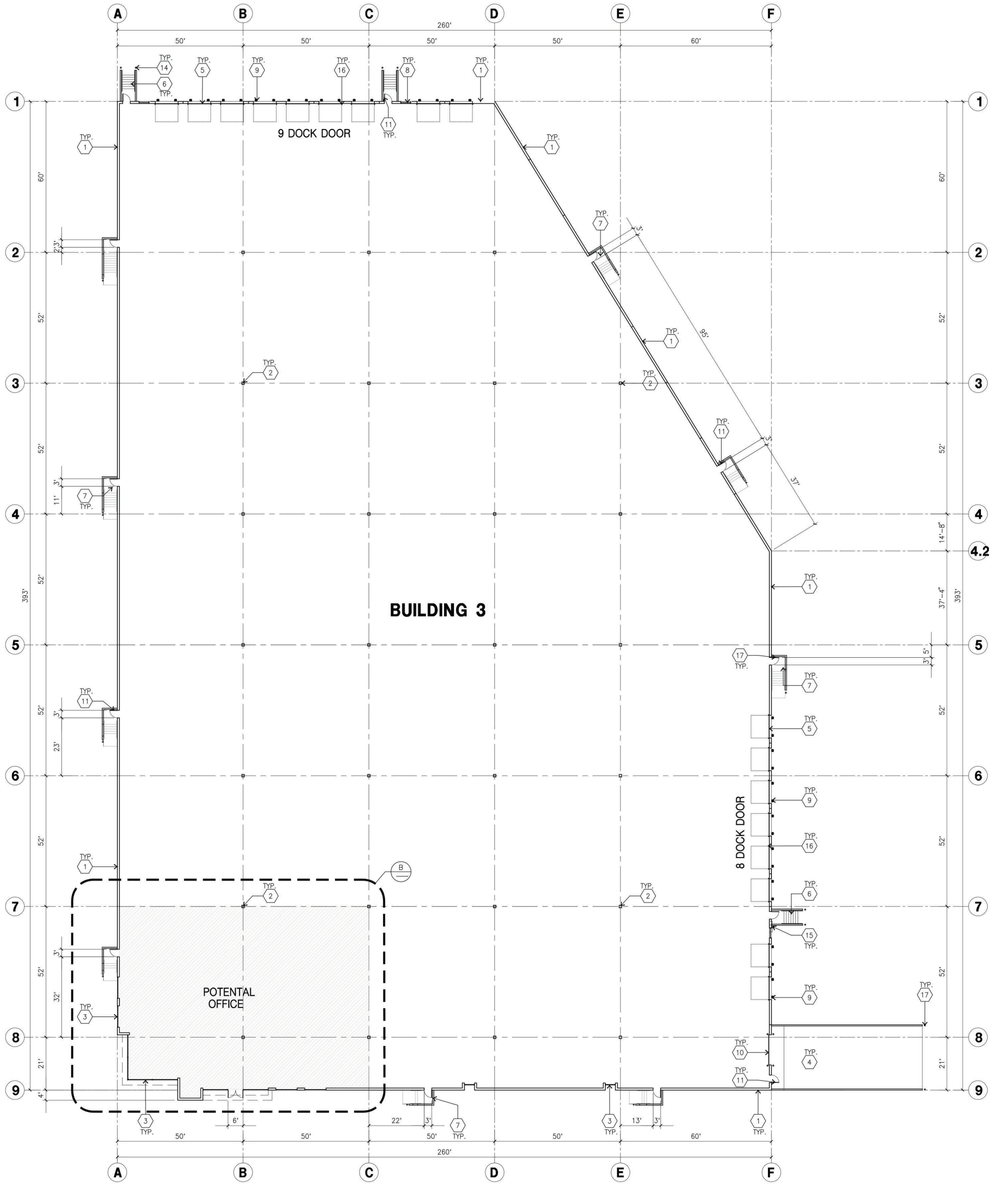

OVERALL FLOOR PLAN (A)
scale: 1"=20'-0"

SCALE: 1" = 20'-0" 0' 20' 40' 60' TRUE NORTH

KEYNOTES - FLOOR PLAN

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE OFFICE BLOW-UP AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42" HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP.
5. 9'-0" X 10' TRUCK DOOR, SECTIONAL O'H., STANDARD GRADE.
6. EXTERIOR CONCRETE STAIR
7. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4" : 12" MAX. PROVIDE WALK TO HARD SURFACE PER CITY REQUIREMENTS.
8. LOUVERED OPENING FOR VENTILATION.
9. DOCK DOOR BUMPER.
10. 12' X 14' DRIVE THRU. SECTIONAL OH., STANDARD GRADE. DESIGNED TO RESIST WIND 110 MPH., EXPOSURE "C".
11. 3'X7' HOLLOW METAL EXTERIOR MAN DOOR. DESIGNED TO RESIST WIN 110 MPH., EXPOSURE "C".
12. SOFFIT LINE ABOVE
13. BRACE FRAME.
14. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 42"H.
15. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPERS,
16. Z GUARD
17. APPROXIMATE LOCATION OF ROOF TOP UNIT.
18. INTERIOR ROOFDRAIN WITH OVERFLOW SCUPPERS,

GENERAL NOTES - FLOOR PLAN

A. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 100' MAXIMUM O.C. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS.
B. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.
C. THE BUILDING FLOOR SLAB IS SLOPED, SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.
D. NOT USED
E. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL GYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.
F. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS.
G. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.
H. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.
I. FOR DOOR TYPES AND SIZES. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.
J. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.
K. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN. HARDWARE. ⊗
L. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.
M. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.
N. NON-ACCESSIBLE DOOR. PROVIDE WARNING SIGN LOCATED IN THE INTERIOR SIDE PER CBC 1133B.1.1.1
O. ALL ROOF MOUNTED MATERIALS SHALL BE FULLY SCREENED FROM PUBLIC VIEW,

FLOOR SLAB AND POUR STRIPS REQ.

THESE NOTES ARE VERY MIN. REQUIREMENT.

1. FLOOR COMPACTION - 95%
2. TRENCH COMPACTION - 90%
3. BUILDING FLOOR SLAB:
   A. 6" THICK MIN. UNREINFORCED CONCRETE OVER COMPACTED SOILS
   B. 3/4" - 16" LONG @ 12" O.C. DOWELS AT ALL CONSTRUCTION JOINTS
   3/4" - 16" LONG @ 24" O.C. DOWELS IN DOWEL BASKET AT ALL CONTROL JOINTS.
   C. 4,000 P.S.I. REQUIREMENT.
   D. SLUMP TO BE 4" +/- 1"
   E. JOINT SPACING PER A.C.I. 302-IR-96
   F. SAW-CUT DEPTH 1/4 T; SOFT SAW-CUTTING WITHIN 2 HRS OF FINISHING
4. CONTRACTOR TO BUILD FOR CLASS V FLOOR PER A.C.I. 302-IR-96
5. NOT USED
6. CONCRETE SLAB TO HAVE STEEL FLOAT HARD TROWEL BURNISHED FINISH.
7. CONTRACTOR TO CURE SLAB TO BE WET CURING USING BURLINE FOR 7 DAYS MIN.
8. ALL EQUIPMENT & MOVING VEHICLES SHALL BE DIAPERED.
9. NO CRANES, CONCRETE TRUCKS, OR ANYTHING HEAVIER WILL BE PLACED ON THE SLAB.
10. SLAB TO BE FF35 FL24 MEASURED WITHIN 24 HOURS.
11. NO FLY ASH IN THE CONCRETE
12. WHERE ▨ INDICATED, PROVIDE VAPOR BARRIER (15MIL STEGO OR EQUAL) UNDER THE CONCRETE SLAB. PROVIDE SAND PER SOILS ENGINEER OR MANUFACTURER'S RECOMMENDATION.
    CONCRETE SLAB IN FUTURE OFFICE AREAS, WHERE SAND OVER VIQUEEN ARE REQUIRED, SHALL BE NATURALLY HYDRATED WITHOUT USE OF BURLENE, CURING COMPOUND, OR RELEASE AGENTS.
    CONTROL/CONSTRUCTION JOINTS SHALL NOT BE FILLED WITH MM-80 JOINT FILLER IN FUTURE OFFICE AREAS.
13. SEAL CONCRETE SLAB W/ "LIPIDOLITH" SEALER

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Project:
MORENO VALLEY
LOGISTICS CENTER

BUILDING 3

24300 Cardinal Ave.
Moreno Valley, CA 92551

Consultants:
Civil: Thienes Engineering
Structural: -
Mechanical: -
Plumbing: -
Electrical: -
Landscape: Hunter Landscape
Fire Protection: -
Soils Engineer: -

Title: OVERALL FLOOR PLAN

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
3-D 2.1
018

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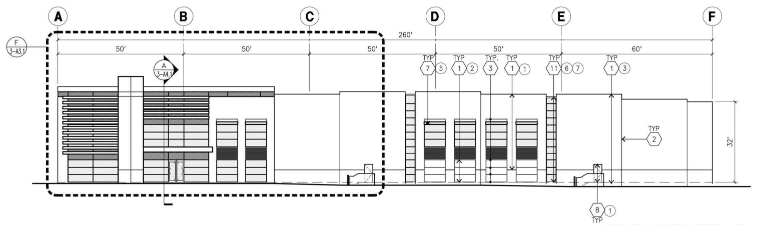

SOUTH ELEVATION A
scale: 1"=20'-0

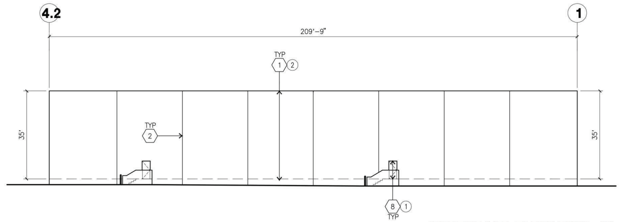

NORTHEAST ELEVATION C
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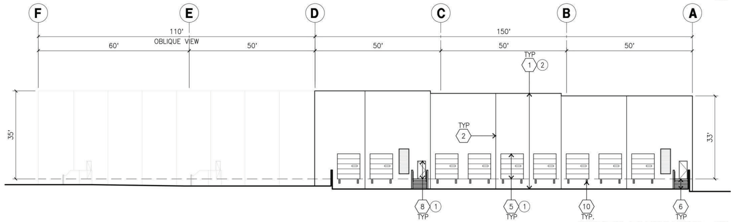

NORTH ELEVATION B
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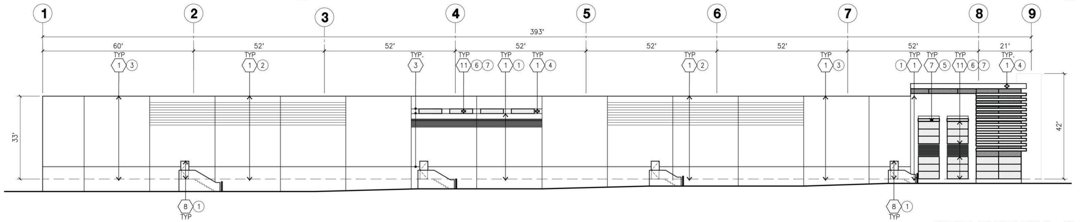

WEST ELEVATION D
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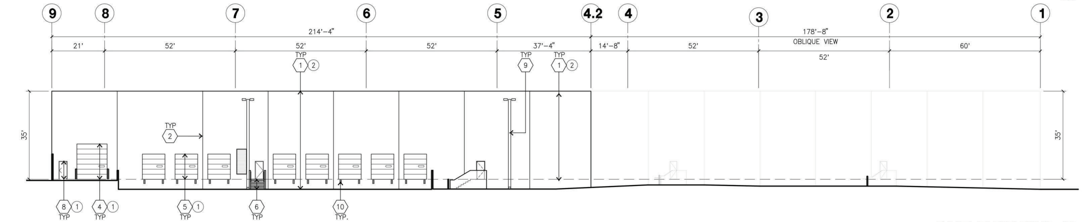

EAST ELEVATION E
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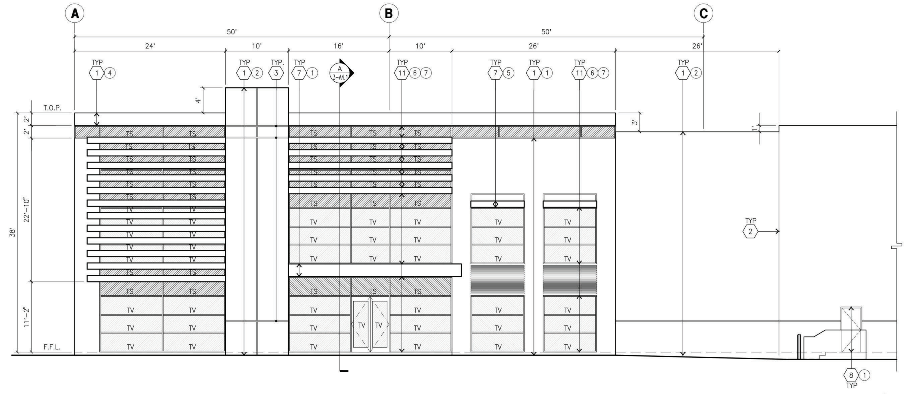

ENLARGED SOUTH ELEVATION @ POTENTIAL OFFICE AREA F
scale: 1/8" = 1'-0"

KEYNOTES - ELEVATIONS

1. CONCRETE TILT-UP PANEL(PAINTED). FINISH GRADE VARIES. SEE "C" DRAWINGS. WATERPROOF ALL WALLS WHERE GRADE IS HIGHER AND EXPOSED TO THE WEATHER ONE SIDE. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN. NOT REQUIRED AT DOCK HIGH CONDITION OR AT RAMP WALLS.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
5. OVERHEAD DOOR @ DOCK HIGH. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
6. CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL. PROVIDE NON SKID NOSING TO MEET ADA REQUIREMENTS. PROVIDE CONTRASTING COLORED 3" WIDE WARNING STRIPE INTEGRAL TO CONCRETE AT TOP LANDING AND BOTTOM TREAD PER ADA REQUIREMENTS.
7. CANOPY
8. HOLLOW METAL DOORS. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR. PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
9. EXTERIOR DOWNSPOUT AND OVERFLOW SCUPPERS
10. DOCK BUMPER
11. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING AT ALL DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION.
12. INTERIOR ROOF DRAIN AND OVERFLOW SCUPPERS

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. EL.= TOP OF PARAPET ELEVATION.
D. F.F. = FINISH FLOOR ELEVATION.
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
K. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON

COLOR SCHED. - ELEVATIONS

①	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-9 PURE WHITE
②	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-6 SABLE
③	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-8 JAGUAR
④	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-7 LIQUORICE TINT
⑤	CANOPY	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD-7 (CLEARCOAT)
⑥	MULLIONS	PAINT BRAND	CLEAR ANODIZED
⑦	GLAZING	COLOR	GREEN REFLECTIVE GLAZING

GLAZING LEGEND

▨ TS	TEMPERED SPANDREL GLASS
TV	TEMPERED VISION GLASS

PAINT AND MATERIAL LEGEND

☐	▒	▩	▨	░
①	②	③	④	⑤

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architecture

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tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:
MORENO VALLEY LOGISTICS CENTER

BUILDING 3

24300 Cardinal Ave.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title:	Elevations
Project Number:	14092
Drawn by:	J.E.C.
Date:	8-26-2016
Revision:	

Sheet:
3-D A3.1
2.n
018

Attachment: Architectural Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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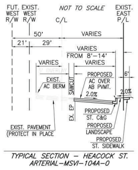

TYPICAL SECTION – HEACOCK ST.
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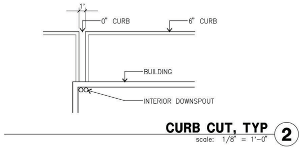

CURB CUT, TYP ②
scale: 1/8" = 1'–0"

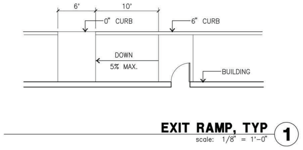

EXIT RAMP, TYP ①
scale: 1/8" = 1'–0"

tabulation

	BLDG. 4
Site area (in sq.ft.)	377,844 s.f.
Site area (in acres)	8.67 ac
Building area	
warehouse	154,920 s.f.
mezzanine office	5,000 s.f.
office	5,000 s.f.
Total	164,920 s.f.
Coverage	43.6%
Parking Required	
1st. 20K @ 1/1,000 sf	20 stalls
2nd. 20K @ 1/2,000 sf	10 stalls
above 40K @ 1/4,000 sf	29 stalls
office @ 1/250 sf	40 stalls
Total	99 stalls
Parking Provided	
standard (9'x18')	95 stalls
handicap (9'x18')	4 stalls
Total	99 stalls
Trailer Parking Required	
1 trailer parking per dock door	
New dock doors	25
Trailer Parking Provided	
trailers (14'x53')	25 stalls
Landscape Provided	
in sq. ft.	72,086 s.f.
Percentage	19%

vicinity map

N.T.S.

site plan keynotes

- ① 6" THICK MINIMUM, REINFORCED CONCRETE TRUCK APRON, W/ #3 @ 18" O.C.E.W. 3500 PSI W. CONSTRUCTION AND/OR EXPANSION JOINTS A MAXIMUM OF 18'–0" O.C. EXPANSION JOINTS TO BE A MIN. OF 1–1/2" DEEP AND A MAXIMUM ULTIMATE WIDTH OF 1/4". VERIFY WITH SOILS ENGINEER. PROVIDE HEAVY BROOM FINISH. ALL JOINTS TO BE CLEANED AN FILLED W/ ASPHALTIC CAULKING.
- ② ASPHALT CONCRETE (AC) PAVING PER SOILS ENGINEER RECOMMENDATION AS APPROVED BY THE CITY.
- ③ CONCRETE WALKWAY
- ④ DRIVEWAY APRONS TO BE CONSTRUCTED PER CITY STANDARD 118C MODIFIED. PROVIDE STAMPED CONCRETE W/ LIGHT BROOM FIN. AT ALL DRIVE LOCATIONS. PROVIDE VERTICAL & HORIZONTAL EXPANSION JOINTS AT A MAXIMUM OF 15' O.C. SPACING.
- ⑤ 5'–6"X5'–6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH PROVIDE WALK TO PUBLIC WAY OR DRIVE WAY AS REQ. BY CITY INSPECTOR.
- ⑥ 14' HIGH CONCRETE TILT–UP SCREEN WALL
- ⑦ 8'H WROUGHT IRON SLIDING GATE.
- ⑧ CONCRETE RAMP
- ⑨ BIKE RACK, EACH RACK HOLDS 7 BIKES
- ⑩ TRASH ENCLOSURE TO BE TWO BIN AND FULLY COVERED PER CITY STANDARD.
- ⑪ CONCRETE STAIRS AND LANDING
- ⑫ 12' X 14' DRIVE–IN DOOR
- ⑬ LANDSCAPE. SEE CONCEPTUAL LANDSCAPE PLAN.
- ⑭ 8'H WROUGHT IRON FENCE.

site plan general notes

1. THE SOILS REPORT IS TO BE PART OF THESE CONTRACT DOCUMENTS
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES.
5. THE ENTIRE PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM. PRIOR TO INSTALLATION & AT LEAST 60 DAYS BEFORE BLDG. COMPLETION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF–SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS.
9. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". SEE "L" DRAWINGS FOR FINISH.
11. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
12. CONSTRUCTION DOCUMENTS PERTAINING TO THE LANDSCAPE AND IRRIGATION OF THE ENTIRE PROJECT SITE SHALL BE SUBMITTED TO THE PLANNING DIVISION AND APPROVED BY PUBLIC FACILITIES DEVELOPMENT PRIOR TO ISSUANCE OF BUILDING PERMITS.
13. PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO PLANNING DIVISION.
14. ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CURRENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PLANNING DIVISION.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. APPROVED CONCEPTUAL LANDSCAPE PLAN PRIOR TO GRADING PERMIT
17. ALL ROOF DRAINS SHALL BE DIRECTED TO A LANDSCAPE AREA.

utility information

TELEPHONE:
VERIZON
150 SO JUANITA ST.
HEMET, CA 92543
PHONE: (951) 658–7305
CONTACT: PHIL BRILLINGER

ELECTRIC
MORENO VALLEY UTILITIES
14177 FREDERICK ST.
MORENO VALLEY, CA 92552
PHONE: (951) 413–3480
CONTACT: MICHELLE PIERCE

GAS
THE GAS COMPANY
25200 TRUMBLE ROAD SC 8058
ROMOLAND, CA 92380
PHONE: (951) 335–3902
CONTACT: DAVE MULLIGAN

WATER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928 – 3777
CONTACT: NEW BUSINESS

SEWER
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE ROAD
PERRIS, CA 92571
PHONE: (951) 928–3777
CONTACT: NEW BUSINESS

CABLE – TV
TIME WARNER
1500 AUTO CENTER DR.
ONTARIO, CA 91761
PHONE: (951) 975–3380
(951) 390–4777
CONTACT: MARK DAUENHAUER

site legend

▨	LANDSCAPED AREA
☐	AC. PAVING
░	CONCRETE PAVING
☐	STANDARD PARKING STALL 9' X 18'
▨	HANDICAP PARKING STALL, 9' X 18' W/ 2' O.H.
▬ ■ ■ ▬	PROPERTY LINE OR R.W.
-------	ADA PATH OF TRAVEL

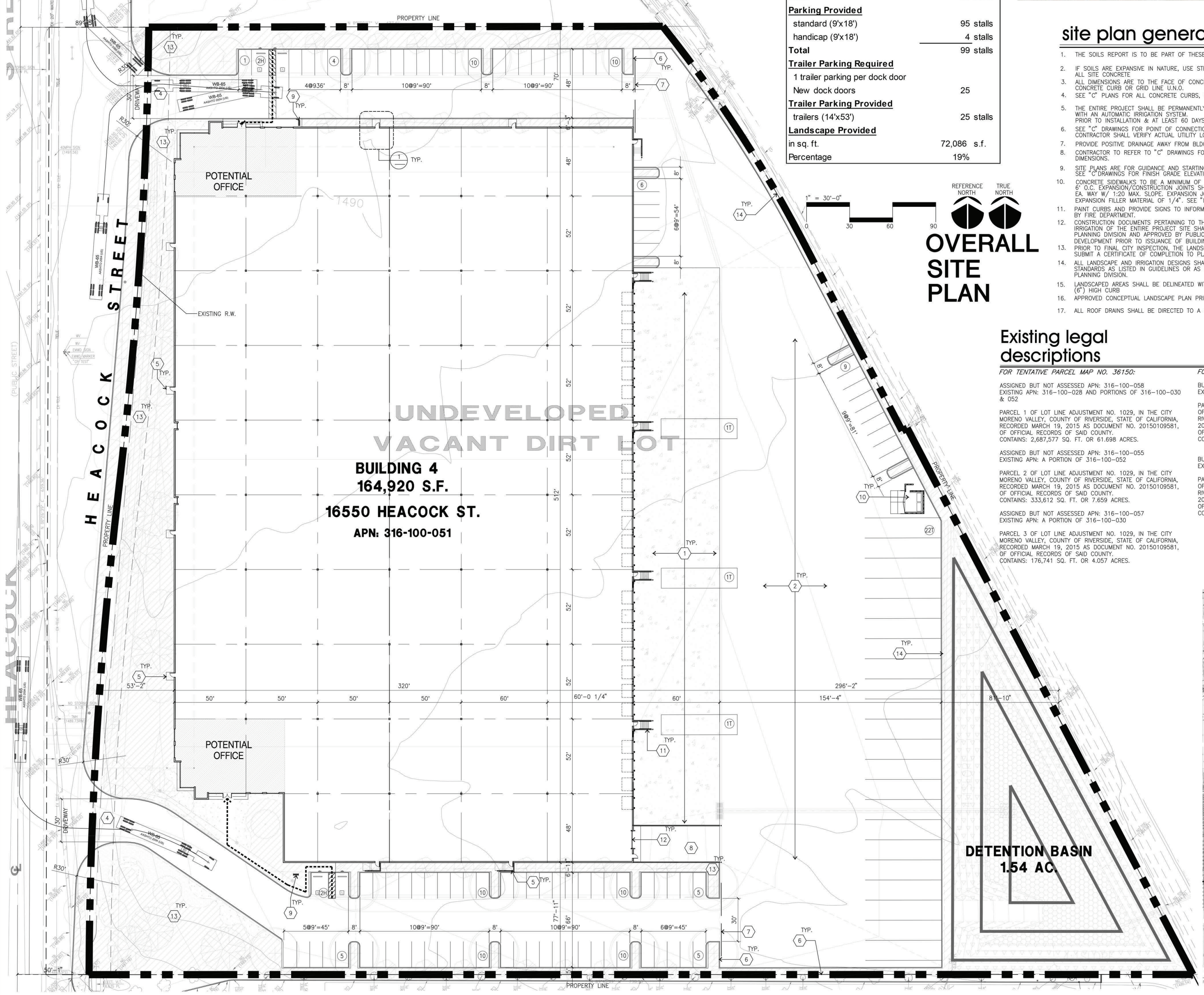

OVERALL SITE PLAN

BUILDING 4
164,920 S.F.
16550 HEACOCK ST.
APN: 316-100-051

OVERALL SITE PLAN BUILDING 4 Ⓐ
scale: 1" = 30'–0"

Existing legal descriptions

FOR TENTATIVE PARCEL MAP NO. 36150:

ASSIGNED BUT NOT ASSESSED APN: 316–100–058
EXISTING APN: 316–100–028 AND PORTIONS OF 316–100–030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316–100–055
EXISTING APN: A PORTION OF 316–100–052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316–100–057
EXISTING APN: A PORTION OF 316–100–030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316–100–048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629751 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4
EXISTING APN: 316–100–051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629752 OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

project information

Owner / Applicant
PROLOGIS
2817 EAST CEDAR ST, STE 200
ONTARIO, CA. 91761
TEL: (909) 673–8730 (DIRECT)
CONTACT: SCOTT MULKAY

Civil Engineer
THIENES ENGINEERING
14349 FIRESTONE BLVD.
LA MIRADA, CA 90638
TEL: (714) 521–4811
CONTACT: HIEN LE

Architect
HPA, INC.
18831 BARDEEN AVE. SUITE #100
IRVINE, CA 92612
TEL: (949) 863–1770
CONTACT: JAIME CRUZ

Landscape Architect
HUNTER LANDSCAPE
711 FEE ANA STREET
PLACENTIA, CA 92870
TEL: (714) 986–2400
CONTACT: TOM HAYES

Zoning
BP (BUSINESS PARK / LIGHT INDUSTRIAL)

Assessors Parcel Number
316–100–051

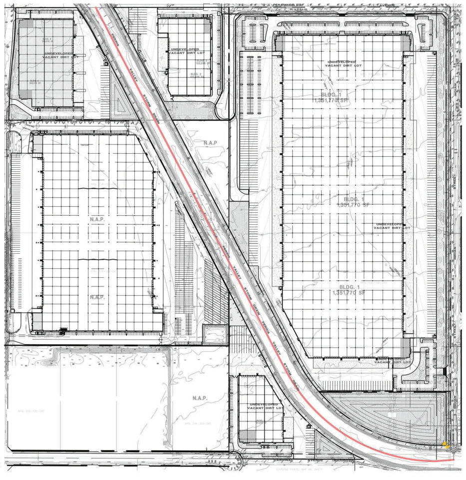

KEY MAP Ⓑ
scale: NTS

HPA
architecture

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92612
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email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:

MORENO VALLEY
LOGISTICS CENTER

BUILDING 4

16550 Heacock St.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title:	overall site plan
Project Number:	14092
Drawn by:	J.E.C.
Date:	8-26-2016
Revision:	

Sheet:
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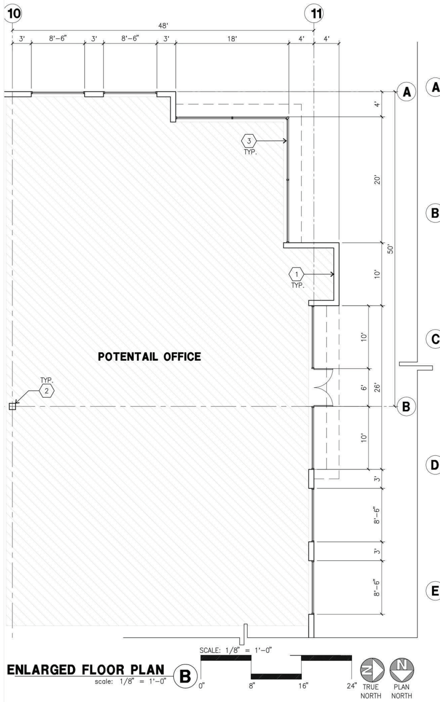

ENLARGED FLOOR PLAN B
scale: 1/8" = 1'-0"

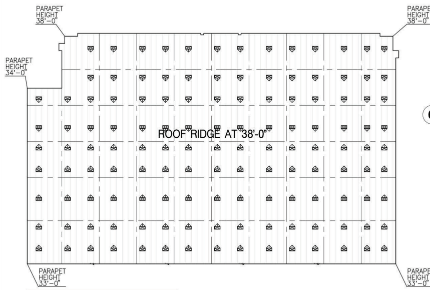

NOTE: ROOF TO BE PAINTED LIGHT COLOR TO ADDRESS ENERGY EFFICIENCY

OVERALL ROOF PLAN B
scale: 1" = 70'-0"

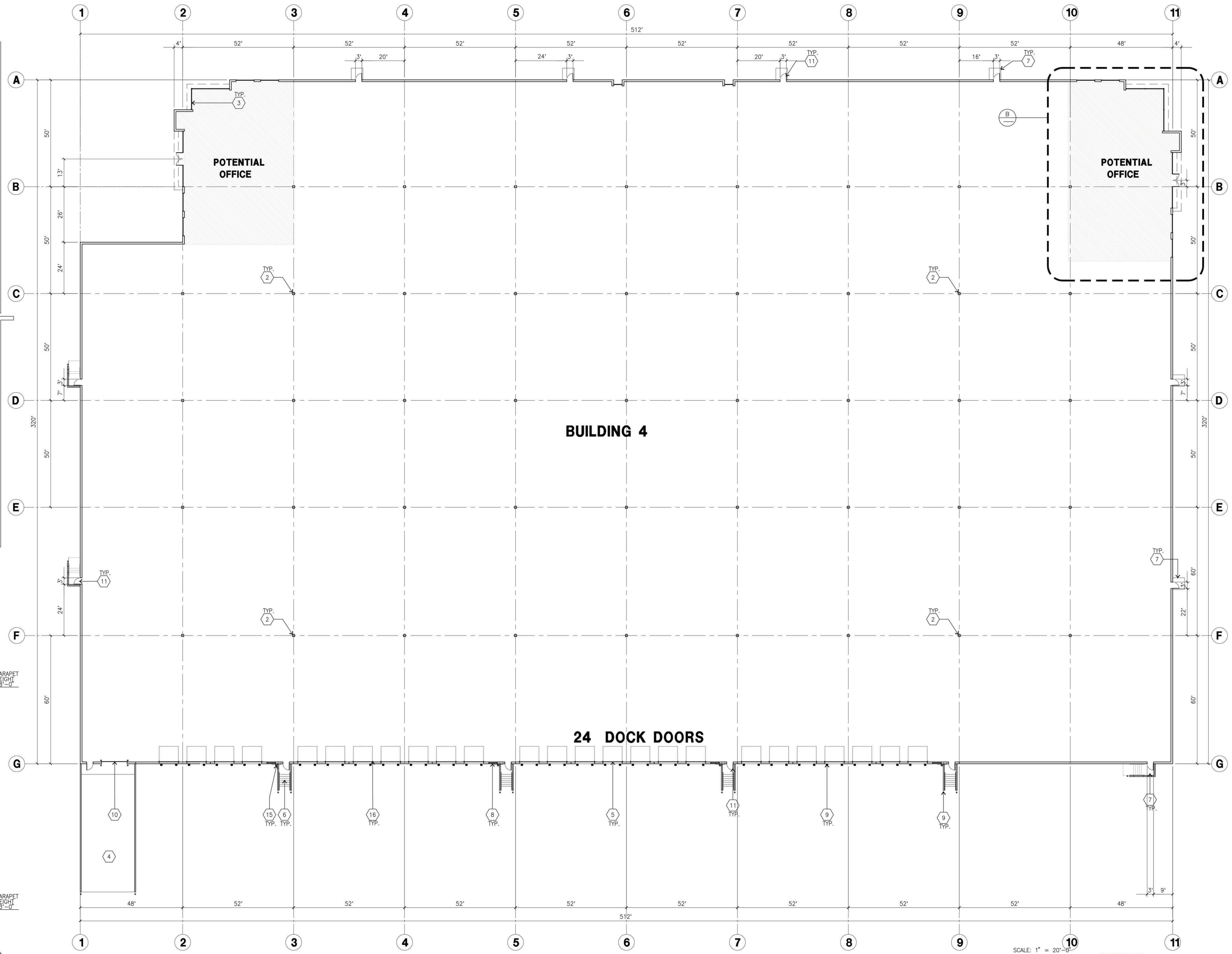

OVERALL FLOOR PLAN A
scale: 1" = 20'-0"

KEYNOTES - FLOOR PLAN

1. CONCRETE TILT-UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE OFFICE BLOW-UP AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42"HIGH CONC TILT-UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP.
5. 9'-0" X 10' TRUCK DOOR, SECTIONAL O'H., STANDARD GRADE.
6. EXTERIOR CONCRETE STAIR
7. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4" : 12" MAX. PROVIDE WALK TO HARD SURFACE PER CITY REQUIREMENTS.
8. LOUVERED OPENING FOR VENTILATION.
9. DOCK DOOR BUMPER.
10. 12' X 14' DRIVE THRU. SECTIONAL OH., STANDARD GRADE. DESIGNED TO RESIST WIND 110 MPH., EXPOSURE "C".
11. 3'X7' HOLLOW METAL EXTERIOR MAN DOOR. DESIGNED TO RESIST WIN 110 MPH., EXPOSURE "C".
12. SOFFIT LINE ABOVE
13. BRACE FRAME.
14. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 42"H.
15. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPERS,
16. Z GUARD
17. APPROXIMATE LOCATION OF ROOF TOP UNIT.
18. INTERIOR ROOFDRAIN WITH OVERFLOW SCUPPERS,

GENERAL NOTES - FLOOR PLAN

A. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 100' MAXIMUM O.C. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS.

B. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.

C. THE BUILDING FLOOR SLAB IS SLOPED, SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.

D. NOT USED

E. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL GYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.

F. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS.

G. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.

H. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.

I. FOR DOOR TYPES AND SIZES. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.

J. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.

K. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN. HARDWARE. ⊗

L. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.

M. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.

N. NON-ACCESSIBLE DOOR. PROVIDE WARNING SIGN LOCATED IN THE INTERIOR SIDE PER CBC 1133B.1.1.1

O. ALL ROOF MOUNTED MATERIALS SHALL BE FULLY SCREENED FROM PUBLIC VIEW,

FLOOR SLAB AND POUR STRIPS REQ.

THESE NOTES ARE VERY MIN. REQUIREMENT.

1. FLOOR COMPACTION – 95%
2. TRENCH COMPACTION – 90%
3. BUILDING FLOOR SLAB:
   - A. 6" THICK MIN. UNREINFORCED CONCRETE OVER COMPACTED SOILS
   - B. 3/4" – 16"LONG @ 12" O.C. DOWELS AT ALL CONSTRUCTION JOINTS
     3/4" – 16"LONG @ 24" O.C. DOWELS IN DOWEL BASKET AT ALL CONTROL JOINTS.
   - C. 4,000 P.S.I. REQUIREMENT.
   - D. SLUMP TO BE 4" +/- 1"
   - E. JOINT SPACING PER A.C.I. 302-IR-96
   - F. SAW-CUT DEPTH 1/4 T; SOFT SAW-CUTTING WITHIN 2 HRS OF FINISHING
4. CONTRACTOR TO BUILD FOR CLASS V FLOOR PER A.C.I. 302-IR-96
5. NOT USED
6. CONCRETE SLAB TO HAVE STEEL FLOAT HARD TROWEL BURNISHED FINISH.
7. CONTRACTOR TO CURE SLAB TO BE WET CURING USING BURLINE FOR 7 DAYS MIN.
8. ALL EQUIPMENT & MOVING VEHICLES SHALL BE DIAPERED.
9. NO CRANES, CONCRETE TRUCKS, OR ANYTHING HEAVIER WILL BE PLACED ON THE SLAB.
10. SLAB TO BE FF35 FL24 MEASURED WITHIN 24 HOURS.
11. NO FLY ASH IN THE CONCRETE
12. WHERE ▨ INDICATED, PROVIDE VAPOR BARRIER (15MIL STEGO OR EQUAL) UNDER THE CONCRETE SLAB. PROVIDE SAND PER SOILS ENGINEER OR MANUFACTURER'S RECOMMENDATION.
    CONCRETE SLAB IN FUTURE OFFICE AREAS, WHERE SAND OVER VIQUEEN ARE REQUIRED, SHALL BE NATURALLY HYDRATED WITHOUT USE OF BURLENE, CURING COMPOUND, OR RELEASE AGENTS.
    CONTROL/CONSTRUCTION JOINTS SHALL NOT BE FILLED WITH MM-80 JOINT FILLER IN FUTURE OFFICE AREAS.
13. SEAL CONCRETE SLAB W/ "LIPIDOLITH" SEALER

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92612
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fax: 949•863•0851
email: hpa@hparchs.com

Owner:
PROLOGIS

PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:
MORENO VALLEY LOGISTICS CENTER

BUILDING 4

16500 Heacock St.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: OVERALL FLOOR PLAN

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
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018

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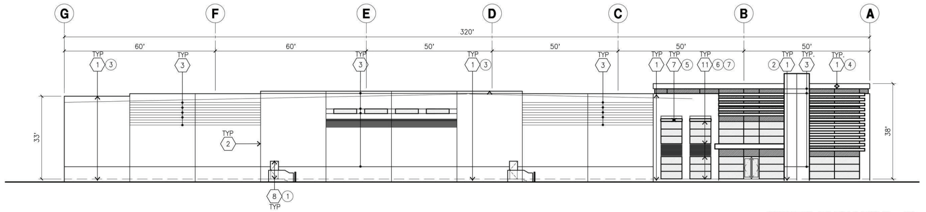

NORTH ELEVATION A
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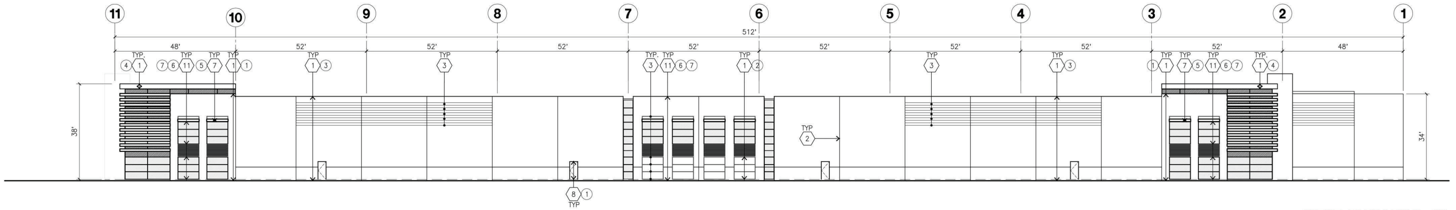

WEST ELEVATION B
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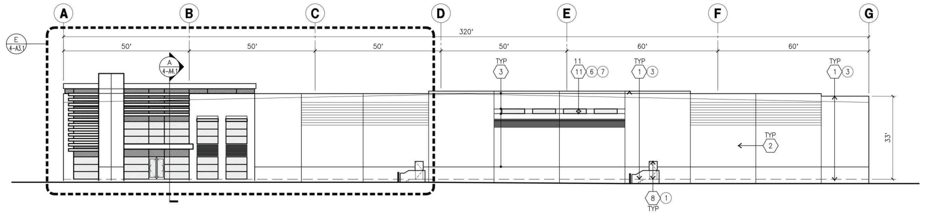

SOUTH ELEVATION C
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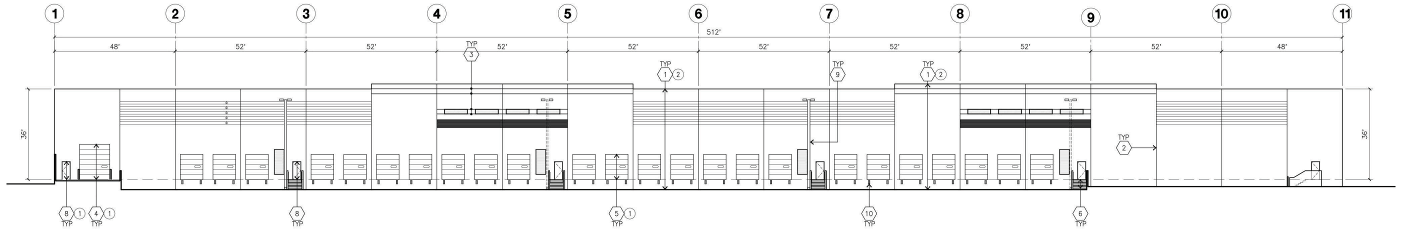

EAST ELEVATION D
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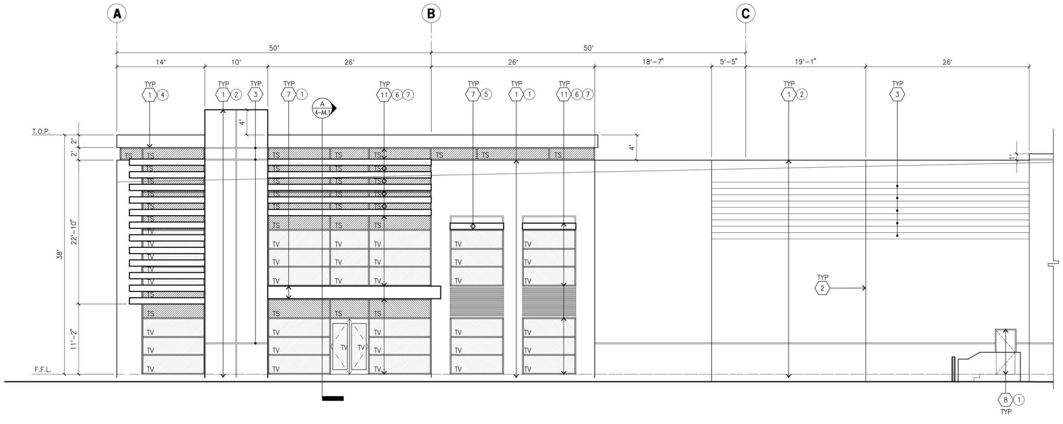

ENLARGED SOUTH ELEVATION AT POTENTIAL OFFICE AREA F

KEYNOTES - ELEVATIONS

1. CONCRETE TILT–UP PANEL(PAINTED). FINISH GRADE VARIES. SEE "C" DRAWINGS. WATERPROOF ALL WALLS WHERE GRADE IS HIGHER AND EXPOSED TO THE WEATHER ONE SIDE. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN. NOT REQUIRED AT DOCK HIGH CONDITION OR AT RAMP WALLS.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER–STRIPPING PROTECTION ALL AROUND.
5. OVERHEAD DOOR @ DOCK HIGH. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER–STRIPPING PROTECTION ALL AROUND.
6. CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL. PROVIDE NON SKID NOSING TO MEET ADA REQUIREMENTS. PROVIDE CONTRASTING COLORED 3" WIDE WARNING STRIPE INTEGRAL TO CONCRETE AT TOP LANDING AND BOTTOM TREAD PER ADA REQUIREMENTS.
7. CANOPY
8. HOLLOW METAL DOORS. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR. PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
9. EXTERIOR DOWNSPOUT AND OVERFLOW SCUPPERS
10. DOCK BUMPER
11. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING AT ALL DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION.
12. INTERIOR ROOF DRAIN AND OVERFLOW SCUPPERS

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. EL.= TOP OF PARAPET ELEVATION.
D. F.F. = FINISH FLOOR ELEVATION.
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
K. THE FIRST COAT OF PAINT TO BE ROLLED–ON AND THE SECOND COAT TO BE SPRAYED–ON

COLOR SCHED. - ELEVATIONS

①	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–9 PURE WHITE
②	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–6 SABLE
③	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–8 JAGUAR
④	CONCRETE TILT–UP PANEL	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–7 LIQUORICE TINT
⑤	CANOPY	PAINT BRAND	SHERWIN WILLIAMS. CUSTOM TO MATCH PROLOGIS STD. PLD–7 (CLEARCOAT)
⑥	MULLIONS	PAINT BRAND	CLEAR ANODIZED
⑦	GLAZING	COLOR	GREEN REFLECTIVE GLAZING

GLAZING LEGEND

▨ TS	TEMPERED SPANDREL GLASS	TV	TEMPERED VISION GLASS

PAINT AND MATERIAL LEGEND

☐ ▨ ▩ ▨ ▒

HPA
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fax: 949•863•0851
email: hpa@hparchs.com

Owner:
PROLOGIS
PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:

MORENO VALLEY
LOGISTICS CENTER

BUILDING 4

16500 Heacock St.
Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title:	Elevations
Project Number:	14092
Drawn by:	J.E.C.
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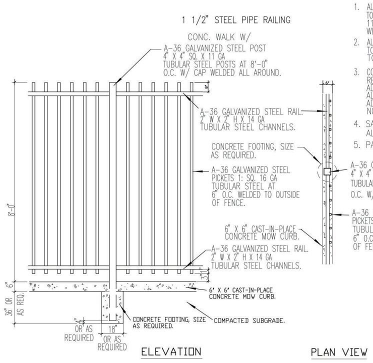

NOTES:

1. ALL TERMINAL POSTS TO BE 4' W X 4" D X 11 GA STELL TUBES W/ CAP WELDED ALL AROUND.
2. ALL FENCE COMPONENTS TO BE PRIMED AND PAINTED TO MATCH BLD'G.
3. CONCRETE MOW CURB IS REQUIRED WHEN FENCE IS ADJACENT TO TURF AREAS ONLY. ALL OTHER PLANTER AREAS ADJACENT TO FENCE WILL NOT HAVE MOW CURB.
4. SAND AND GRIND ALL WELDS SMOOTH.
5. PAINT BLACK PER THE SPEC.

METAL FENCE DETAIL F
scale: N.T.S.

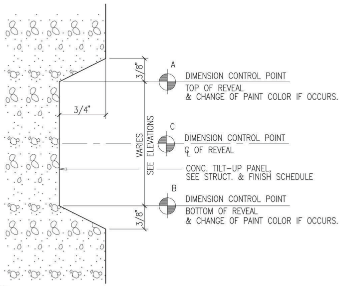

NOTES:

1. DIMENSION CONTROL POINTS AT REVEALS AND EDGE OF CONCRETE OPENINGS WHERE OCCUR, SEE WALL SECTIONS.
2. PAINT COLOR CHANGES TO ALWAYS OCCUR AT CONTROL POINT "A" OR "B"

TYP. CONCRETE REVEAL E
scale: N.T.S.

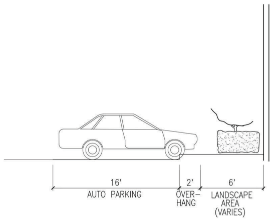

TYPICAL PARKING SECTION B
scale: N.T.S.

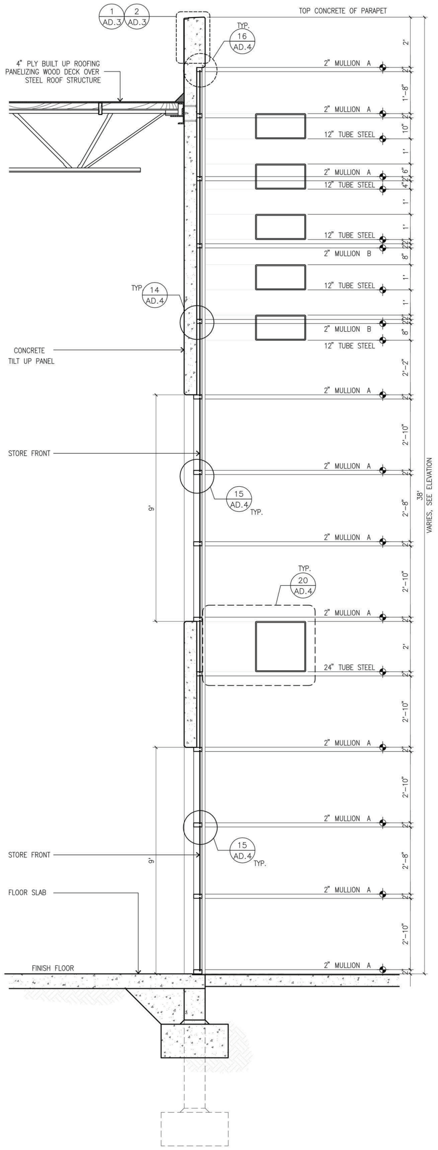

WALL SECTION @ OFFICE A
scale: 1/2"=1'-0"

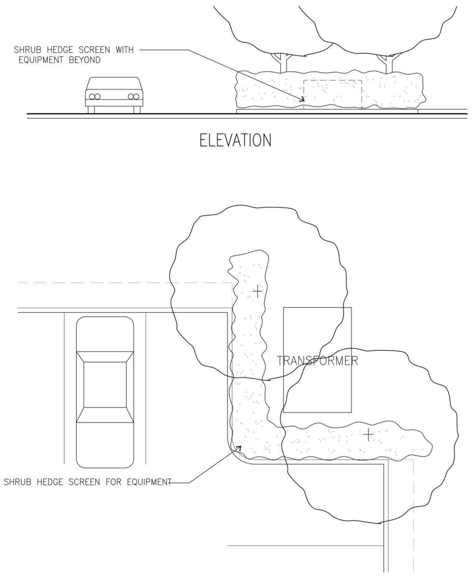

GROUND MOUNTED EQUIPMENT SCREENING, TYP. C
scale: N.T.S.

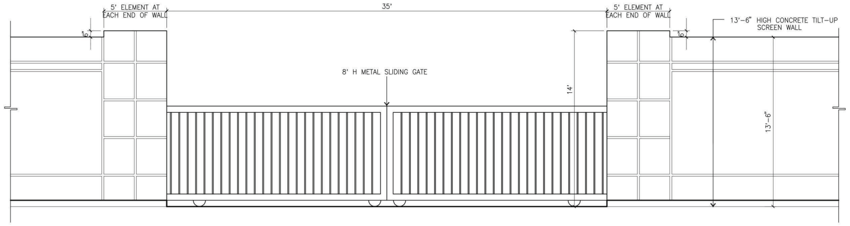

ENLARGED SCREEN WALL AND GATE ELEVATION D
scale: 1/4" = 1'-0"

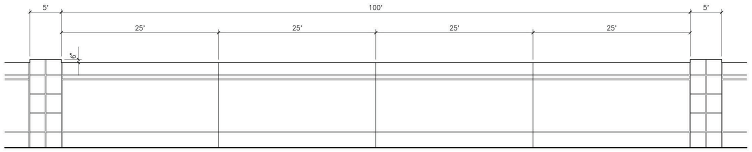

ENLARGED SCREEN WALL, TYP. E
scale: 1/8" = 1'-0"

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Owner:
PROLOGIS

PROLOGIS
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tel: 909•673•8730

Project:

MORENO VALLEY
LOGISTICS CENTER

BUILDINGS 1,2, 3 & 4

Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title:
section

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:

DA 4.1

2.n

018

Attachment: Architectural Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

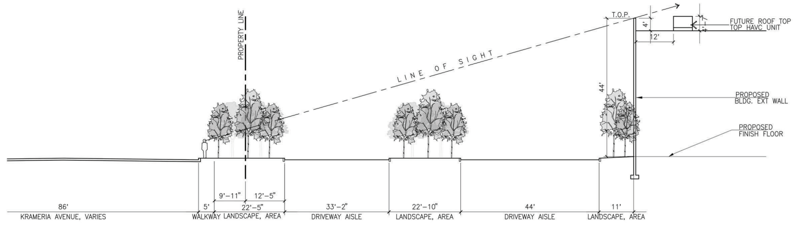

CROSS SECTION AT KRAMERA AVENUE BUILDING 1 Ⓐ
scale: 1/16"=1'-0"

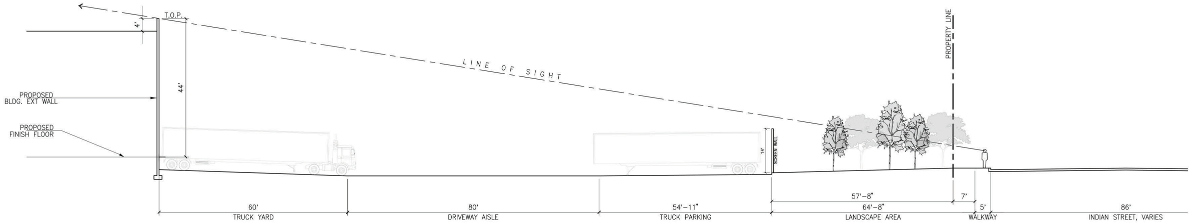

CROSS SECTION AT INDIAN STREET BUILDING 1 Ⓑ
scale: 1/16"=1'-0"

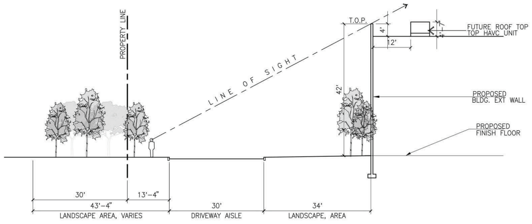

CROSS SECTION AT BUILDING 3 Ⓓ
scale: 1/16"=1'-0"

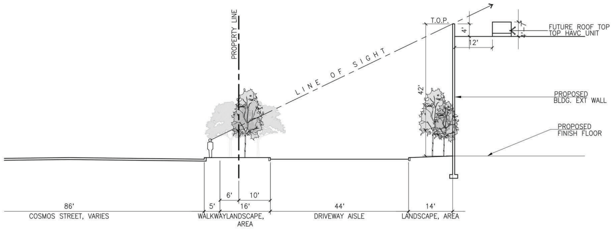

CROSS SECTION AT COSMOS AVENUE BUILDING 2 Ⓒ
scale: 1/16"=1'-0"

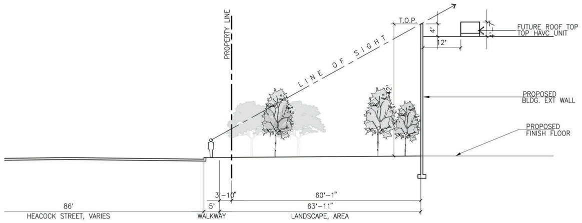

CROSS SECTION AT HEACOCK STREET BUILDING 4 Ⓔ
scale: 1/16"=1'-0"

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Owner:
PROLOGIS

PROLOGIS
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Ontario, CA 91761

tel: 909 • 673 • 8730

Project:

MORENO VALLEY
LOGISTICS CENTER

BUILDINGS 1, 2, 3 & 4

Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: Site Sections

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:

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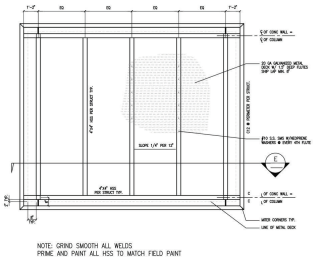

TRASH ENCLOSURE ROOF PLAN D
scale: 1/4" = 1'-0"

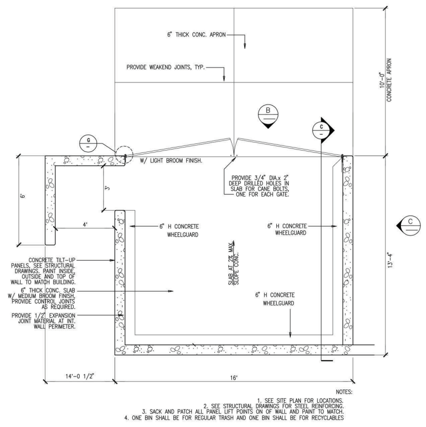

NOTES:
1. SEE SITE PLAN FOR LOCATIONS.
2. SEE STRUCTURAL DRAWINGS FOR STEEL REINFORCING.
3. SACK AND PATCH ALL PANEL LIFT POINTS ON OF WALL AND PAINT TO MATCH.
4. ONE BIN SHALL BE FOR REGULAR TRASH AND ONE BIN SHALL BE FOR RECYCLABLES

ENLARGED TRASH ENCLOSURE PLAN A
SCALE: 1"=10'-0"

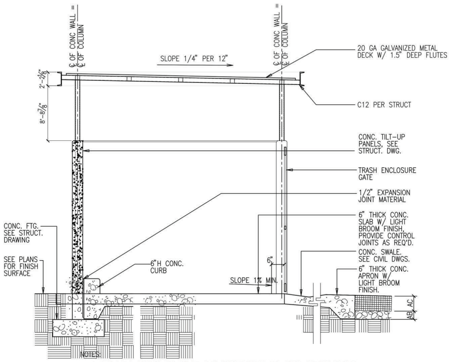

NOTES:
1. SEE SOILS REPORT FOR BELOW SLAB PREPARATIONS AND STEEL REINFORCEMENT RECOMMENDATIONS.

TRASH ENCLOSURE SECTION E
scale: NTS

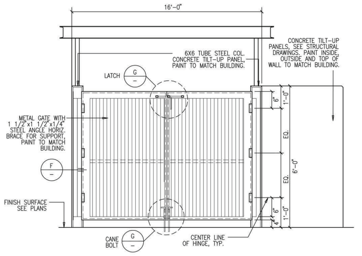

TRASH ENCLOSURE GATE ELEVATION B
scale: 1/4" = 1'-0"

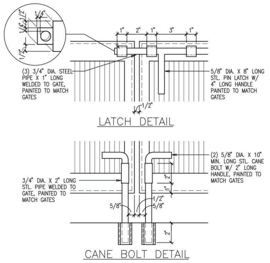

TRASH ENCLOSURE GATE LATCHES G
SCALE: NTS

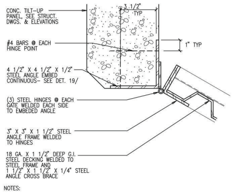

NOTES:
1. PAINT ALL METAL TO MATCH ENCLOSURE PER SPECIFICATIONS, UNLESS OTHERWISE NOTED ON ELEVATIONS

TRASH ENCLOSURE GATE & HINGE F
SCALE: NTS

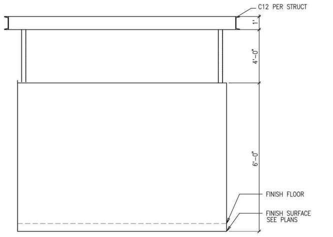

TRASH ENCLOSURE GATE ELEVATION C
SCALE: 1/2" = 1'-0"

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Owner:
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PROLOGIS
2817 East Cedar Street - Ste.#200
Ontario, CA 91761

tel: 909•673•8730

Project:
MORENO VALLEY
LOGISTICS CENTER

BUILDING 1, 2, 3 & 4

Moreno Valley, CA 92551

Consultants:

Civil:	Thienes Engineering
Structural:	-
Mechanical:	-
Plumbing:	-
Electrical:	-
Landscape:	Hunter Landscape
Fire Protection:	-
Soils Engineer:	-

Title: Trash enclosure

Project Number: 14092
Drawn by: J.E.C.
Date: 8-26-2016
Revision:

Sheet:
DA 4.3
018

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Attachment: Architectural Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AREA SUMMARY:

PARCEL 1: (BUILDING 1)	2,727,285 SQ. FT. (NET)	62.61 ACRES (NET)
PARCEL 2: (BUILDING 2)	302,839 SQ. FT. (NET)	6.94 ACRES (NET)
LLA NO. 998 (BUILDING 3)	286,912 SQ. FT. (NET)	6.59 ACRES (NET)
LLA NO. 999 (BUILDING 4)	377,844 SQ. FT. (NET)	8.67 ACRES (NET)
PROJECT NET:	3,694,880 SQ. FT. (NET)	84.82 ACRES (NET)
EXISTING HEACOCK ⟨28⟩ STREET DEDICATION	32,388 SQ. FT.	0.74 ACRES
EXISTING KRAMERIA ⟨22⟩ AVENUE DEDICATION (AFTER 101 SQ. FT. STREET VACATION)	53,203 SQ. FT.	1.22 ACRES
EXISTING INDIAN ⟨29⟩ AVENUE DEDICATION	1,750 SQ. FT.	0.04 ACRES
EXISTING COSMOS ⟨30⟩ STREET DEDICATION	53,820 SQ. FT.	
LOT "A" COSMOS ST. DEDICATION:	157 SQ. FT.	
COSMOS ST. VACATION:	227 SQ. FT.	
PROPOSED COSMOS ST.	53,750 SQ. FT.	1.23 ACRES

PROPOSED LOT "B" INDIAN STREET ON PARCEL MAP	58,260 SQ. FT.	1.34 ACRES
PROPOSED ADDITIONAL 4' DEDICATION ALONG KRAMERIA AVENUE ON PARCEL MAP	843 SQ. FT.	0.02 ACRES
PROPOSED CARDINAL AVE. CUL-DE-SAC DEDICATION BY SEPARATE INSTRUMENT	584 SQ. FT.	0.01 ACRES
PROJECT GROSS:	3,895,658 SQ. FT. (GROSS)	89.43 ACRES (GROSS)
PROPOSED CARDINAL AVE. STREET VACATION BY SEPARATE INSTRUMENT (AREA INCLUDED IN PARCEL 3 NET)	19,864 SQ. FT.	0.46 ACRES
PROPOSED KRAMERIA AVE. STREET VACATION ON PARCEL MAP (AREA INCLUDED IN PARCEL 1 NET)	101 SQ. FT.	
TENTATIVE PARCEL MAP NO. 36150	3,197,930 SQ. FT. (GROSS)	73.41 ACRES (GROSS)
	3,030,124 SQ. FT. (NET)	69.56 ACRES (NET)
BUILDINGS 3 & 4	697,728 SQ. FT. (GROSS)	16.02 ACRES (GROSS)
	664,756 SQ. FT. (NET)	15.26 ACRES (NET)
TOTAL PROJECT:	3,895,658 SQ. FT. (GROSS)	89.43 ACRES (GROSS)
	3,694,779 SQ. FT. (NET)	84.82 ACRES (NET)

TABULATION:

PARCEL MAP NO. 36150	PARCEL 1	PARCEL 2	SEE "DETAIL OF PROJECT LIMITS" ABOVE					
						EXISTING	PROPOSED	GROSS
BUILDING NO.	BUILDING 1	BUILDING 2	BUILDING 3	BUILDING 4	NET TOTAL	PUBLIC ST.	PUBLIC ST.	TOTAL
SITE AREA (NET SQ. FT.)	2,727,285	302,839	286,912	377,844	3,694,880	140,934	59,844	3,895,658
SITE AREA (NET ACRES)	62.61	6.95	5.59	8.67	84.82	3.24	1.37	89.43
BUILDING AREA								
WAREHOUSE	1,321,763	112,275	87,222	154,920	1,676,180			
MEZZANINE OFFICE	20,000	5,000	5,000	5,000	35,000			
OFFICE	10,000	5,000	5,000	5,000	25,000			
TOTAL BUILDING AREA	1,351,763	122,275	97,222	164,920	1,736,180			
COVERAGE	49.6%	40.4%	33.9%	43.6%	47.0%			
PARKING REQUIRED								
1st. 20K @ 1/1,000 S.F.	20	20	10	20	80			80
2nd. 20K @ 1/2,000 S.F.	10	10	20	10	40			40
ABOVE 40K @ 1/4,000 S.F.	321	19	12	29	381			381
OFFICE @ 1/250 S.F.	120	40	40	40	240			240
TOTAL PARKING REQUIRED	471	89	82	99	741			741
PARKING PROVIDED								
STANDARD (9' x 18')	471	89	82	99	741			741
TRAILERS (14 x 53')	236	22	39	26	323			323
TOTAL	707	111	121	125	1,064			1,064
ZONING ORDINANCE FOR CITY ZONING DESIGNATION – BP (BUSINESS PARK / LIGHT INDUSTRIAL)								
TRAILER STALLS RATIO (PER TRAILER STALL)	5728	5558	2493	6343	5375			
# OF DOCK DOORS PROVIDED	223	25	19	24	291			
DOCK DOORS RATIO (PER DOCK DOOR)	6062	4891	5117	6872	5966			

PROJECT NOTES:

NOTE: PROPOSED VACATIONS OF CARDINAL AVENUE 19,864 SQ. FT., KRAMERIA AVENUE 101 SQ. FT. AND COSMOS STREET 227 SQ. FT. INCLUDED IN ABOVE NET AREAS.

1. OWNER INFORMATION:

   OWNER FOR TENTATIVE PARCEL MAP NO. 36150:

   MOORPARK COUNTRY PROPERTIES, A CALIFORNIA CORPORATION, AS TO AN UNDIVIDED 90% INTEREST AND HARRY MURANAKA AND ROY MURANAKA, TRUSTEES OF THE C–R COUSINS, INC. MONEY PURCHASE PENSION TRUST AS TO AN UNDIVIDED 10% INTEREST.

   OWNER FOR BUILDINGS 3 AND 4:

   MOORPARK COUNTRY PROPERTIES, A CALIFORNIA CORPORATION, AS TO AN UNDIVIDED 90% INTEREST, AND C–R COUSINS, INC. MONEY PURCHASE PLAN, AS TO AN UNDIVIDED 10% INTEREST.

TENTATIVE PARCEL MAP NO. 36150		BUILDINGS 3 AND 4
EXISTING APN:	ASSIGNED BUT NOT ASSESSED APN:	EXISTING APN:
316–100–028	316–100–055	316–100–048
316–100–030	316–100–057	316–100–051
316–100–052	316–100–058	

2. PROJECT ADDRESSES:
   BUILDING 1: 24400 KRAMERIA AVENUE
   BUILDING 2: 16575 COSMOS STREET
   BUILDING 3: 24300 CARDINAL AVENUE
   BUILDING 4: 16550 HEACOCK STREET
3. SUBJECT SITE IS ZONED: "BP" (INDUSTRIAL)
   SPECIFIC PLAN: "SP–208" (SPECIFIC PLAN 208)
4. A PORTION OF THE PROPERTY SHOWN HEREON IS SITUATED WITHIN ZONE "X–UNSHADED", ZONE "X–SHADED", ZONE "AO" AND ZONE "D" AS SHOWN ON A FLOOD INSURANCE RATE MAP (F.I.R.M.) WITH MAP NO. 06065C–0765G, EFFECTIVE DATE: AUGUST 28, 2008, COMMUNITY NUMBER: 065074 FOR CITY OF MORENO VALLEY AND 060245 FOR RIVERSIDE COUNTY, BOTH WITH PANEL NUMBER: 0765, SUFFIX: "G", AND AS ALSO SHOWN ON A FLOOD INSURANCE RATE MAP (F.I.R.M.) WITH MAP NO. 06065C–1430G, EFFECTIVE DATE: AUGUST 28, 2008, COMMUNITY NUMBER: 065074 FOR CITY OF MORENO VALLEY, 060258 FOR CITY OF PERRIS AND 060245 FOR RIVERSIDE COUNTY, ALL WITH PANEL NUMBER: 1430, SUFFIX: "G".
5. SUBJECT SITE IS VACANT UNDEVELOPED WITH NO EXISTING STRUCTURES.
6. GEOLOGICAL HAZARDS:

   A. ALQUIST–PRIOLO SPECIAL STUDIES ZONES:
   SUBJECT PROPERTY IS OUTSIDE OF ANY ALQUIST PRIOLO SPECIAL STUDIES ZONES AS SHOWN ON SPECIAL STUDIES ZONES OFFICIAL MAP FOR SUNNYMEAD QUADRANGLE, EFFECTIVE JULY 1, 1974.

   B. SEISMIC HAZARD ZONES:
   THE STATE OF CALIFORNIA HAS NOT PROVIDED SUFFICIENT INFORMATION TO DETERMINE IF THE SUBJECT PROPERTY IS OUTSIDE OF ANY ZONE REQUIRING INVESTIGATION FOR LIQUEFACTION OR FOR EARTHQUAKE–INDUCED LANDSLIDES BECAUSE NO SEISMIC HAZARD ZONES OFFICIAL MAP FOR SUNNYMEAD QUADRANGLE HAS BEEN PUBLISHED AS OF THIS DATE.
7. ALL DRIVEWAYS TO BE BUILT TO CITY STANDARD NO. MVSI–112–C, MODIFIED TO PROJECT SPECIFICS.
8. A PRELIMINARY WQMP IS INCLUDED IN THE SUBMITTAL PACKAGE.
9. SUBJECT SITE CONTAINS NO KNOWN EXISTING SCEPTIC, SEWER, IRRIGATION, OR UNDERGROUND STORM DRAIN FACILITIES.

PROJECT NOTES(CONT.):

10. SUBJECT SITE IS ENCUMBERED BY THE EFFECT OF AN INSTRUMENT DECLARING SAID LAND TO BE WITHIN THE MARCH AIR FORCE BASE REDEVELOPMENT PROJECT AREA, RECORDED FEBRUARY 6, 2004 AS INST. NO. 04–86467 AND JUNE 11, 2007 AS INST. NO.. 2007–0380610, BOTH OF O.R.

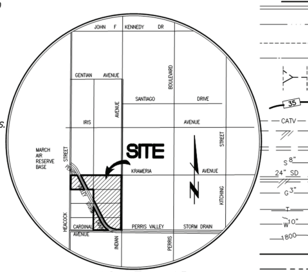

VICINITY MAP
N.T.S.

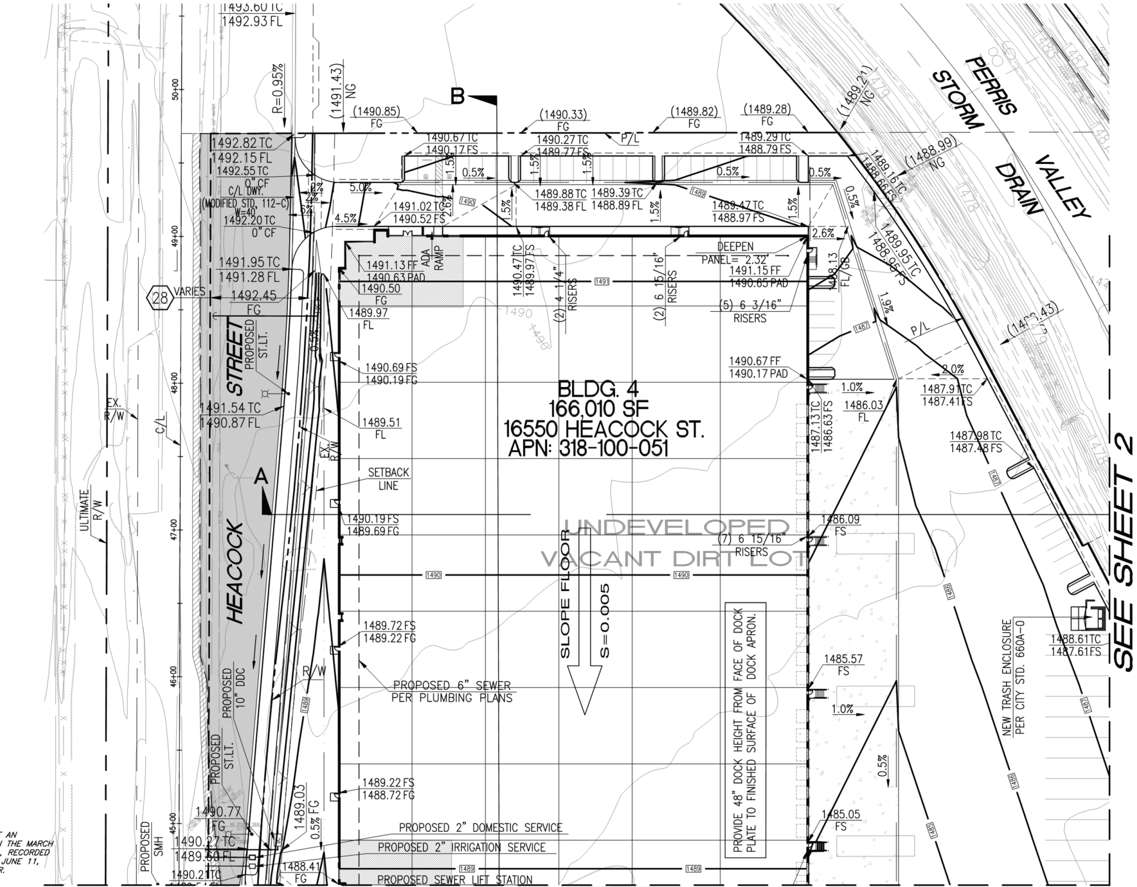

EARTHWORK ANALYSIS: BUILDING #4

MATERIAL AVAILABLE:		MATERIAL REQUIRED:	
TOTAL EXCAVATION	13,691 C.Y.	FILL	4,789 C.Y.
		SUBSIDENCE (0.15')	2,099 C.Y.
OVER EXCAVATION	31,411 C.Y.	SHRINKAGE (15%)	2,091 C.Y.
		OVEREXCAVATION SHRINKAGE (15%)	4,712 C.Y.
		TOTAL FILL	13,691 C.Y.
		APPROXIMATE EXPORT	0 C.Y.

NOTE: EARTHWORK FIGURES SHOWN ARE APPROXIMATE FIGURES, AND ARE TO BE USED BY BUILDING DEPARTMENT ONLY. CONTRACTOR SHALL CALCULATE HIS OWN EARTHWORK QUANTITIES AND BID A COMPLETE JOB.

LEGENDS

- SCREEN WALL
- FLOW LINE
- GRADE BRAKE
- CENTER LINE
- SLOPE
- 35 PROPOSED CONTOUR
- CATV EXIST. CABLE TV CONDUIT
- EXIST. EDGE OF AC PAVEMENT
- EXIST. CURB AND GUTTER
- S 8" EXIST. SANITARY SEWER
- 24" SD EXIST. STORM DRAIN
- G 3" EXIST. GAS LINE
- T EXIST. TELEPHONE CONDUIT
- W 10" EXIST. WATER LINE
- 1800 EXIST. CONTOUR
- NEW PIPE LINE
- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE

EARTHWORK ANALYSIS: BUILDING #1

MATERIAL AVAILABLE:		MATERIAL REQUIRED:	
TOTAL EXCAVATION	130,215 C.Y.	FILL	58,595 C.Y.
		SUBSIDENCE (0.15')	15,152 C.Y.
OVER EXCAVATION	251,909 C.Y.	SHRINKAGE (15%)	18,682 C.Y.
		OVEREXCAVATION SHRINKAGE (15%)	37,786 C.Y.
		TOTAL FILL	130,215 C.Y.
		APPROXIMATE EXPORT	0 C.Y.

NOTE: EARTHWORK FIGURES SHOWN ARE APPROXIMATE FIGURES, AND ARE TO BE USED BY BUILDING DEPARTMENT ONLY. CONTRACTOR SHALL CALCULATE HIS OWN EARTHWORK QUANTITIES AND BID A COMPLETE JOB.

EARTHWORK ANALYSIS: BUILDING #2

MATERIAL AVAILABLE:		MATERIAL REQUIRED:	
TOTAL EXCAVATION	13,737 C.Y.	FILL	6,527 C.Y.
		SUBSIDENCE (0.15')	1,677 C.Y.
OVER EXCAVATION	23,215 C.Y.	SHRINKAGE (15%)	2,051 C.Y.
		OVEREXCAVATION SHRINKAGE (15%)	3,482 C.Y.
		TOTAL FILL	13,737 C.Y.
		APPROXIMATE EXPORT	0 C.Y.

NOTE: EARTHWORK FIGURES SHOWN ARE APPROXIMATE FIGURES, AND ARE TO BE USED BY BUILDING DEPARTMENT ONLY. CONTRACTOR SHALL CALCULATE HIS OWN EARTHWORK QUANTITIES AND BID A COMPLETE JOB.

EARTHWORK ANALYSIS: BUILDING #3

MATERIAL AVAILABLE:		MATERIAL REQUIRED:	
TOTAL EXCAVATION	11,540 C.Y.	FILL	5,199 C.Y.
		SUBSIDENCE (0.15')	1,595 C.Y.
OVER EXCAVATION	18,759 C.Y.	SHRINKAGE (15%)	1,932 C.Y.
		OVEREXCAVATION SHRINKAGE (15%)	2,814 C.Y.
		TOTAL FILL	11,540 C.Y.
		APPROXIMATE EXPORT	0 C.Y.

NOTE: EARTHWORK FIGURES SHOWN ARE APPROXIMATE FIGURES, AND ARE TO BE USED BY BUILDING DEPARTMENT ONLY. CONTRACTOR SHALL CALCULATE HIS OWN EARTHWORK QUANTITIES AND BID A COMPLETE JOB.

EXISTING LEGAL DESCRIPTIONS:

FOR TENTATIVE PARCEL MAP NO. 36150:
ASSIGNED BUT NOT ASSESSED APN: 316–100–058
EXISTING APN: 316–100–028 AND PORTIONS OF 316–100–030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY. CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316–100–055
EXISTING APN: A PORTION OF 316–100–052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY. CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316–100–057
EXISTING APN: A PORTION OF 316–100–030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY. CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

SHEET INDEX

1-12 CONCEPTUAL GRADING PLANS
13-14 SECTIONS
15-18 CONCEPTUAL UTILITY PLANS

EXISTING LEGAL DESCRIPTIONS:

FOR BUILDINGS 3 AN 4:

BUILDING 3,
EXISTING APN: 316–100–048

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 998 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629751 OF OFFICIAL RECORDS OF SAID COUNTY. CONTAINS: 267,632 SQ. FT. OR 6.14 ACRES.

BUILDING 4
EXISTING APN: 316–100–051

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 999 AND CERTIFICATE OF COMPLIANCE, IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED NOVEMBER 26, 2008 AS DOCUMENT NO. 2008–0629752 OF OFFICIAL RECORDS OF SAID COUNTY. CONTAINS: 410,231 SQ. FT. OR 9.42 ACRES.

CASE NUMBER : PA15–0014, PA15–0018

ENGINEER:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521–4811 FAX(714)521–4173

PREPARED FOR:

MOORPARK COUNTY PRPERTIES
c/o LAMB & KAWAKAMI LLP
333 S. GRAND AVENUE #4200
LOS ANGELES , CA 90071
PHONE: (213) 630–5575
FAX: (213) 630–5555

EXISTING EASEMENT:

⟨28⟩ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 14, 2009 AS DOCUMENT NO. 2009–00182723, O.R.

LEGENDS:

- ▨ ST. OVERLAY EXISTING AC PAVEMENT.
- ■ ST. NEW AC PAVEMENT

UTILITY PROVIDERS/AGENCIES:

SEWER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD., P.O. BOX 8300
PERRIS, CALIFORNIA 92572
ATTN: BRENDA DUMAS
(909) 928–3777

NATURAL GAS SERVICE:
SOUTHERN CALIFORNIA GAS CO.
25200 TRUMBLE ROAD
ROMOLAND, CALIFORNIA 92585
ATTN: VINCE BELLEVILLE
(909) 335–3903

SOLID WASTE
WASTE MANAGEMENT
800 S. TEMESCAL ST.
CORONA, CA 92879
(951) 280–5400

ELECTRIC SERVICE:
MORENO VALLEY UTILITY (MVU)
P.O. BOX 88005
MORENO VALLEY, CA 92552–0805
ATTN: DARCY RAMIREZ
(951) 413–3487

DOMESTIC WATER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD., P.O. BOX 8300
PERRIS, CALIFORNIA 92572
ATTN: BRENDA DUMAS
(909) 928–3777

CABLE TELEVISION:
TIME WARNER CABLE
1581 COMMERCE STREET
CORONA, CALIFORNIA 92880
ATTN: DAVID ANDERSON
(951) 549–3977 EXT. 113

TELEPHONE SERVICE:
VERIZON
1980 ORANGE TREE LN, STE. 100
REDLANDS, CALIFORNIA 92374
ATTN: VICKI RODRIGUEZ
(909) 748–6640

TOPOGRAPHY BY THIENES ENG, INC.
09-08-2015

FEMA FLOOD ZONE DESIGNATION: "X" UNSHADED, "X" SHADED & "AO"
ZONING DESIGNATION: SP–208–I (INDUSTRIAL)

CLOMR :
TO BE SUBMITTED 10–2016
ESTIMATE APPROVAL 08–2017
LOMR:
TO BE SUBMITTED AFTER PROJECT COMPLETED
ESTIMATED 4 MONTHS FOR APPROVAL FROM DATE OF SUBMITTED

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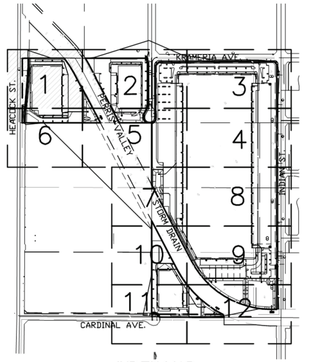

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Last Update: 8/22/16
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK

24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ____
Date ____
Checked by ____
Date ____
Designed by ____
Date ____
Checked by ____
Date ____

Aproved by
Date ____
Public Works Director
R.C.E. ____

Sheet 1 18 Sheets

2890D/ 1 OF 18 SHEET

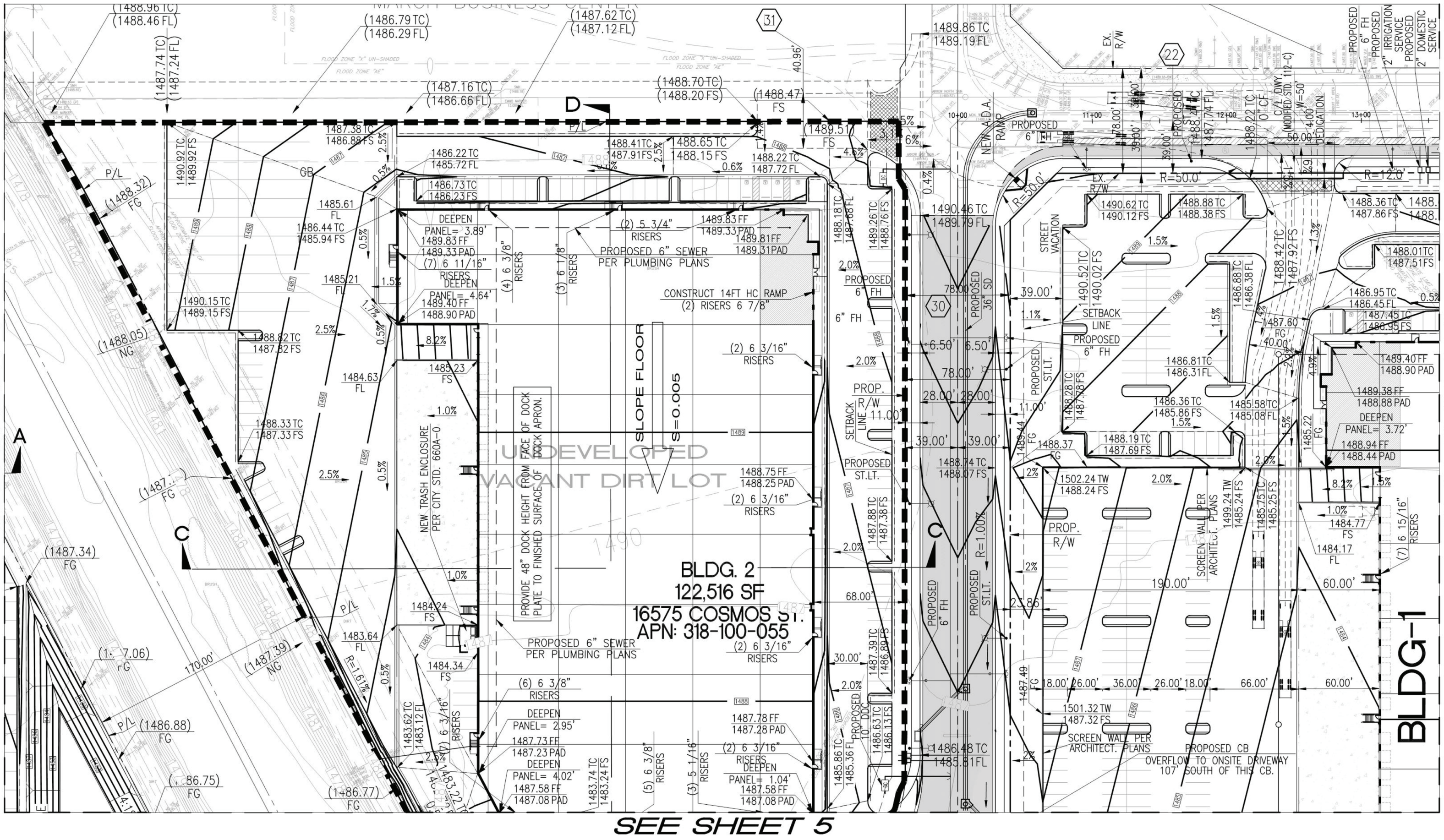

EXISTING EASEMENTS:

㉒ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED AUGUST 9, 2013 AS DOCUMENT NO. 2013-0390062, O.R.

㉚ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED MARCH 6, 2015 AS DOCUMENT NO. 2015-0091438, O.R.

(PORTIONS OF COSMOS STREET TO BE VACATED AND DEDICATED DUE TO A DRIVEWAY LOCATION REVISION)

㉛ A RECIPROCAL EASEMENT FOR PEDESTRIAN AND VEHICULAR INGRESS AND EGRESS BETWEEN THE ADJOINNIG PROPERTY TO THE NORTH AND PARCELS 1 & 2, RECORDED JUNE 3, 2016 AS DOCUMENT NO. 2016-0228346, O.R.

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■ ST. NEW AC PAVEMENT

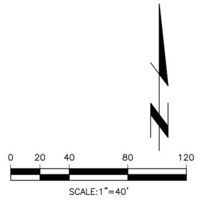

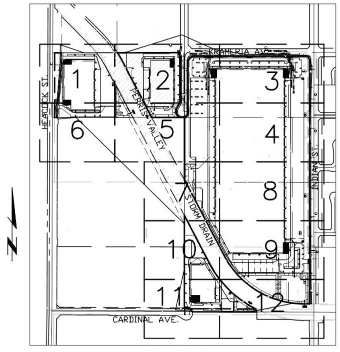

INDEX MAP
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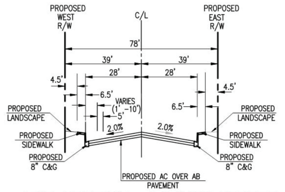

TYP. SECTION - COSMOS STREET
N.T.S.
INDUSTRIAL COLLECTOR
(STD. NO. MVSI-106A-0)
(T.I.=10)

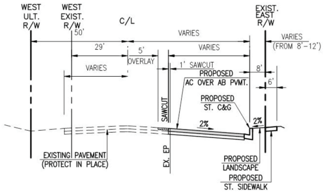

TYPICAL SECTION - HEACOCK STREET
N.T.S.
ARTERIAL
(STD. NO. MVSI-104A-0)
(T.I.=10)

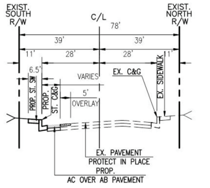

TYPICAL SECTION - KRAMERIA AVENUE
N.T.S.
INDUSTRIAL COLLECTOR
(STD. NO. MVSI-106A-0)
(T.I.=10)

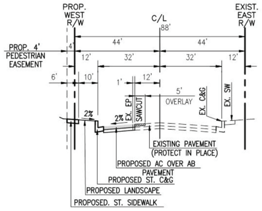

TYPICAL SECTION - INDIAN STREET
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MINOR ARTERIAL
(STD. NO. MVSI-105A-0)
(T.I. = 10.0)

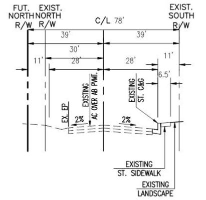

TYPICAL SECTION - CARDINAL AVENUE
N.T.S.
INDUSTRIAL COLLECTOR
(STD. NO. MVSI-106A-0)
(T.I.=10)

Last Update: 8/22/16
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ENGINEER:

Thienes Engineering, Inc.
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PREPARED FOR:

MOORPARK COUNTY PRPERTIES
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333 S. GRAND AVENUE #4200
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PHONE: (213) 630-5575
FAX: (213) 630-5555

CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK

24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ______
Date ______
Checked by ______
Date ______
Designed by ______
Date ______
Checked by ______
Date ______

Aproved by Date ______

Public Works Director R.C.E. ______

Sheet 2 of 18 Sheets

2890D/ 2 OF 18 SHEET

2.0

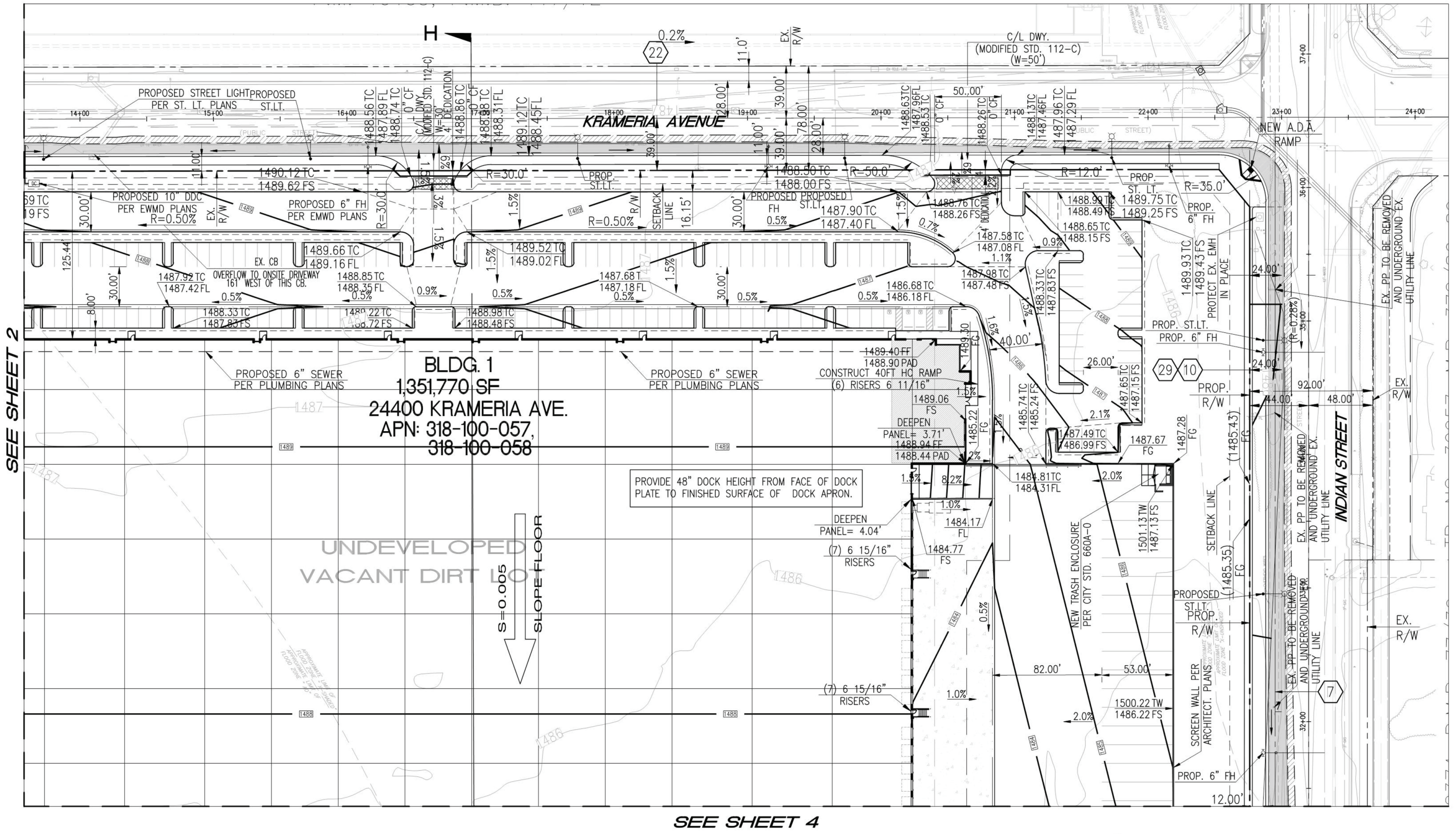

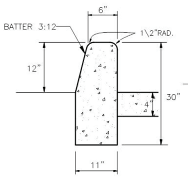

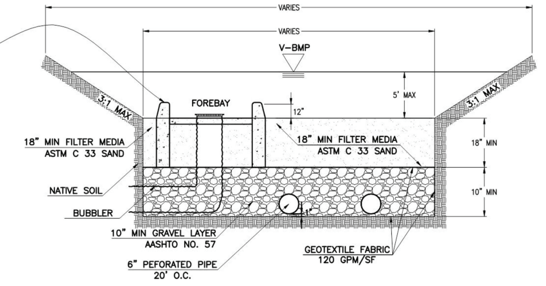

TYPICAL SECTION FOR SAND FILTER BASIN

NTS

EXISTING EASEMENTS:

⑦ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 14, 1926 IN BOOK 667 OF DEEDS, PAGE 496. (NO WIDTH GIVEN)

⑩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF GENERAL TELEPHONE COMPANY OF CALIFORNIA, A CORPORATION, RECORDED MARCH 27, 1987 AS DOCUMENT NO. 87-83617 OF OFFICIAL RECORDS.

㉒ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED AUGUST 9, 2013 AS DOCUMENT NO. 2013-0390062, O.R.

㉙ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 17, 2014 AS DOCUMENT NO. 2014-0140476, O.R.

LEGENDS:

▨ ST. OVERLAY EXISTING AC PAVEMENT.

░ ST. NEW AC PAVEMENT

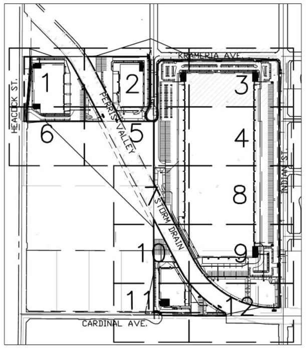

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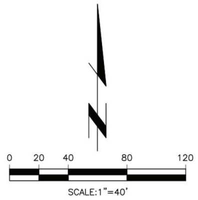

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ENGINEER:

Thienes Engineering, Inc.
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PHONE: (213) 630-5575
FAX: (213) 630-5555

CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK

24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ____
Date ____
Checked by ____
Date ____
Designed by ____
Date ____
Checked by ____
Date ____

Aproved by Date ____
Public Works Director R.C.E.____
Sheet 3 18 Sheets

2890D/ 3 OF 18 SHEET

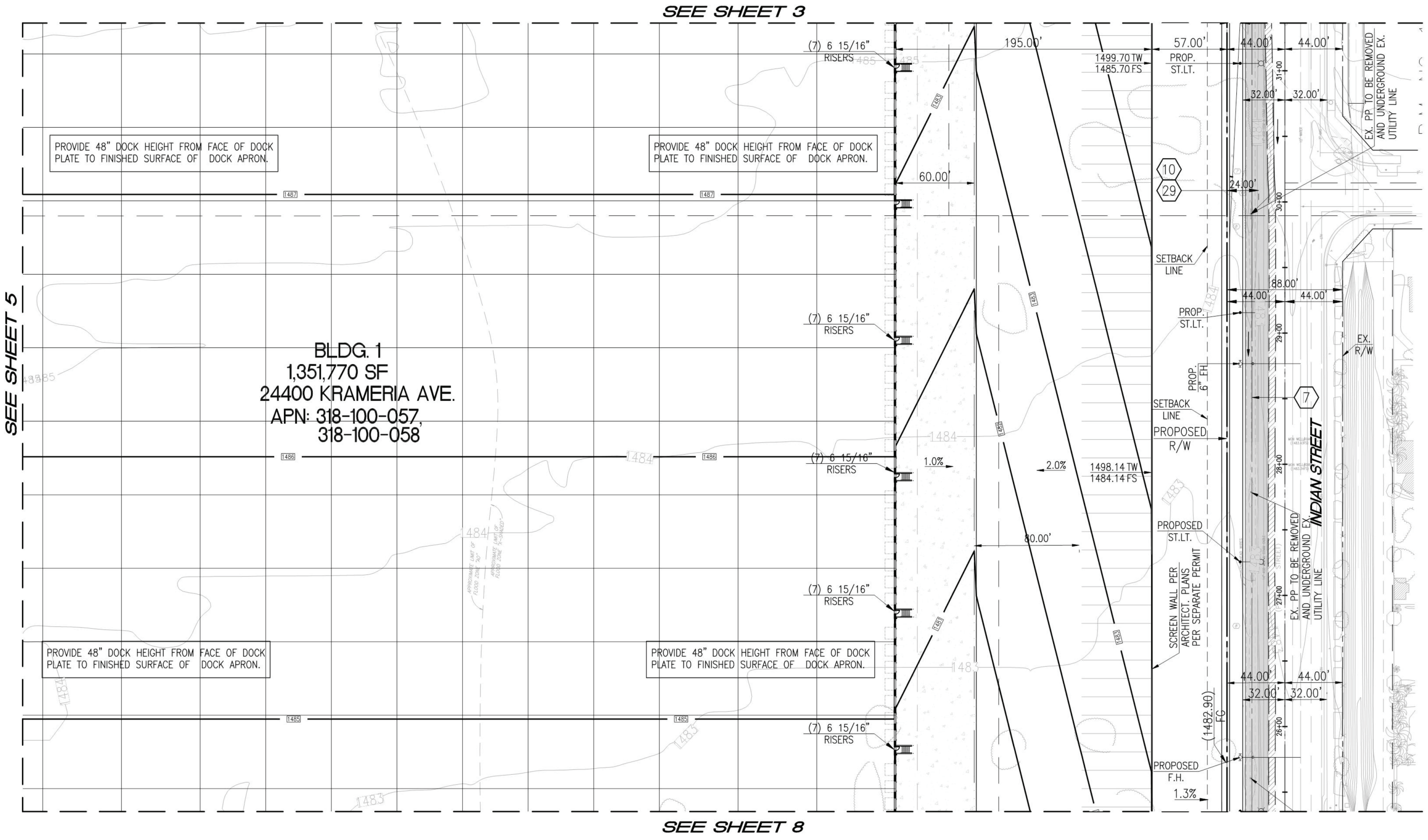

EXISTING EASEMENTS:

⟨7⟩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 14, 1926 IN BOOK 667 OF DEEDS, PAGE 496. (NO WIDTH GIVEN)

⟨10⟩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF GENERAL TELEPHONE COMPANY OF CALIFORNIA, A CORPORATION, RECORDED MARCH 27, 1987 AS DOCUMENT NO. 87-83617 OF OFFICIAL RECORDS.

⟨29⟩ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 17, 2014 AS DOCUMENT NO. 2014-0140476, O.R.

LEGENDS:

▨ ST. OVERLAY EXISTING AC PAVEMENT.

▩ ST. NEW AC PAVEMENT

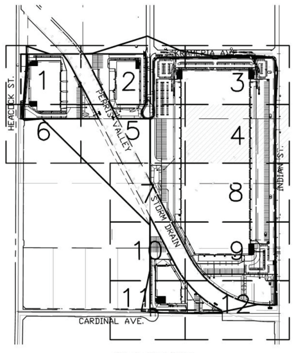

INDEX MAP
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SCALE:1"=40'

ENGINEER:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
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PREPARED FOR:

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c/o LAMB & KAWAKAMI LLP
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PHONE: (213) 630-5575
FAX: (213) 630-5555

Last Update: 8/22/16
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK

24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ____
Date ____
Checked by ____
Date ____
Designed by ____
Date ____
Checked by ____
Date ____

Aproved by Date ____
Public Works Director R.C.E. ____

Sheet 4 18 Sheets

2890D/ 4 OF 18 SHEET

2.0

Attachment: Engineer Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

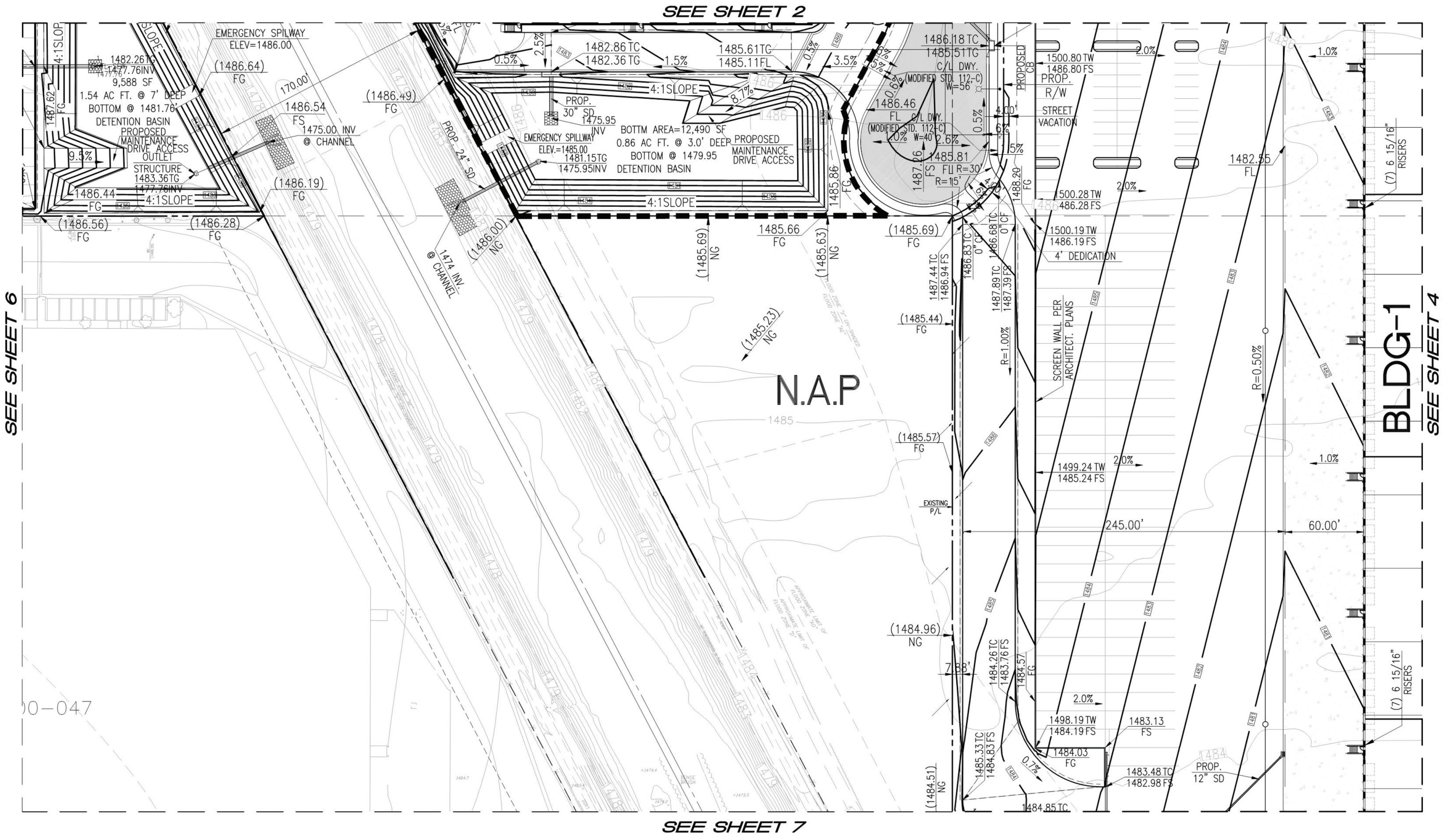

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▨ ST. NEW AC PAVEMENT

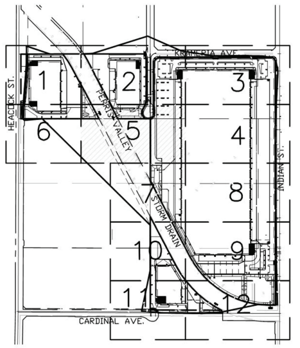

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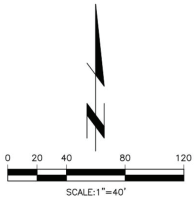

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ENGINEER:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

PREPARED FOR:

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c/o LAMB & KAWAKAMI LLP
333 S. GRAND AVENUE #4200
LOS ANGELES , CA 90071
PHONE: (213) 630-5575
FAX: (213) 630-5555

CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK
24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ______
Date ______
Checked by ______
Date ______
Designed by ______
Date ______
Checked by ______
Date ______

Aproved by Date ______

Public Works Director R.C.E. ______

Sheet 5 of 18 Sheets

2890D/ 5 OF 18 SHEET

2.0

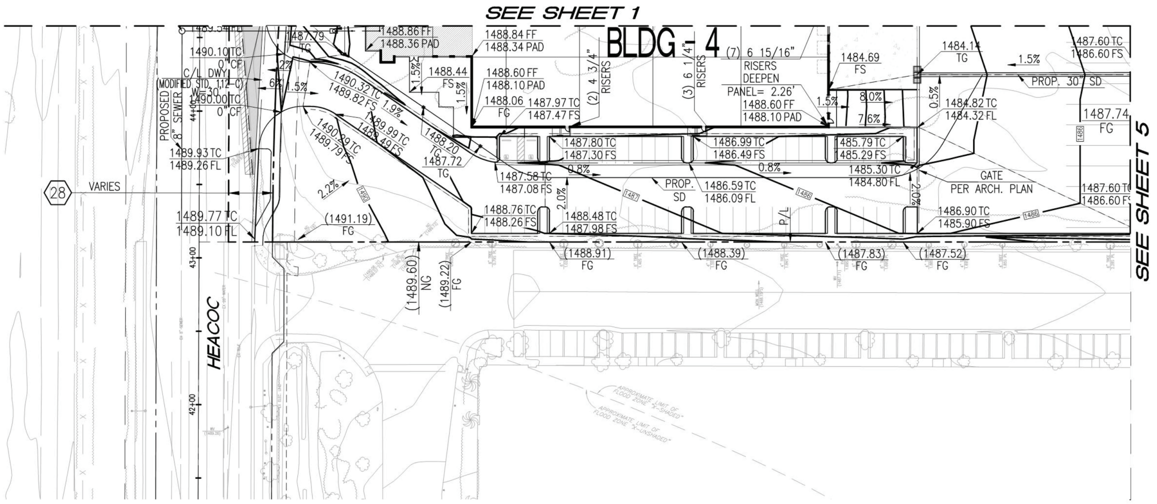

EXISTING EASEMENT:

(28) AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 14, 2009 AS DOCUMENT NO. 2009-00182723, O.R.

LEGENDS:

▨	ST. OVERLAY EXISTING AC PAVEMENT.
■	ST. NEW AC PAVEMENT

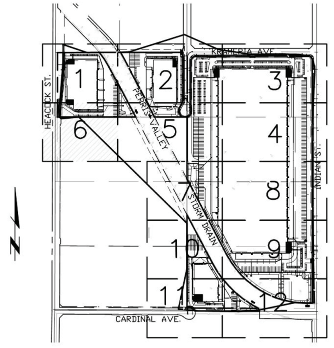

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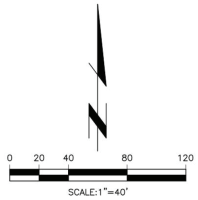

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ENGINEER:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

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c/o LAMB & KAWAKAMI LLP
333 S. GRAND AVENUE #4200
LOS ANGELES , CA 90071
PHONE: (213) 630-5575
FAX: (213) 630-5555

CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK
24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ____
Date ____
Checked by ____
Date ____
Designed by ____
Date ____
Checked by ____
Date ____

Aproved by Date ____

Public Works Director R.C.E. ____

Sheet 6 18 Sheets

2890D/ 6 OF 18 SHEET

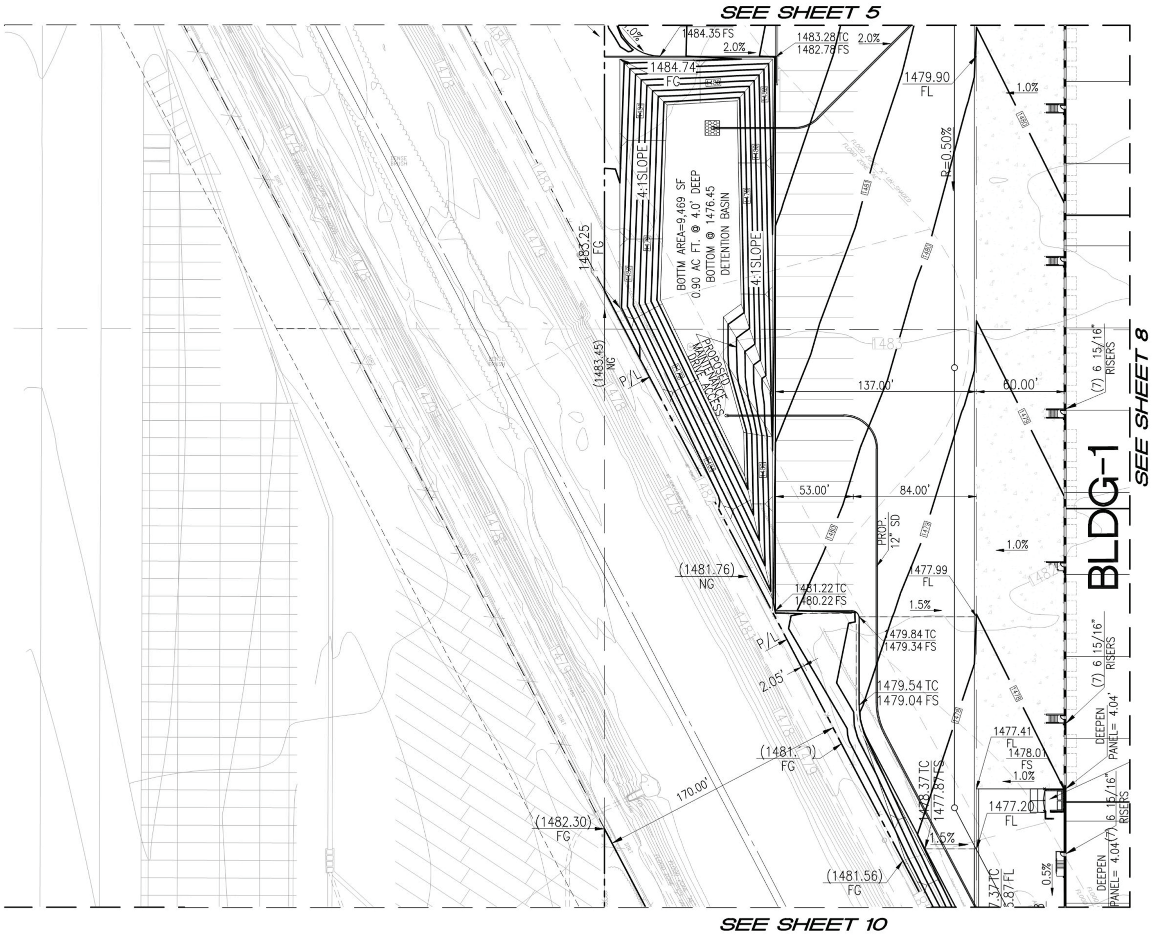

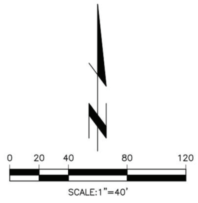

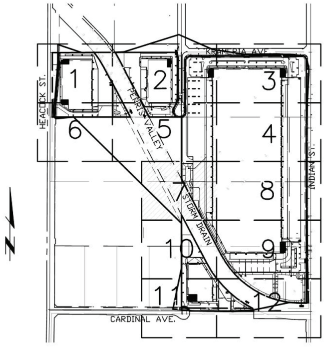

INDEX MAP
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ENGINEER:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

PREPARED FOR:

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c/o LAMB & KAWAKAMI LLP
333 S. GRAND AVENUE #4200
LOS ANGELES , CA 90071
PHONE: (213) 630-5575
FAX: (213) 630-5555

CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK
24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ______
Date ______
Checked by ______
Date ______
Designed by ______
Date ______
Checked by ______
Date ______

Aproved by Date ______

Public Works Director R.C.E. ______

Sheet 7 18 Sheets

2890D/ 7 OF 18 SHEET

2.0

Attachment: Engineer Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

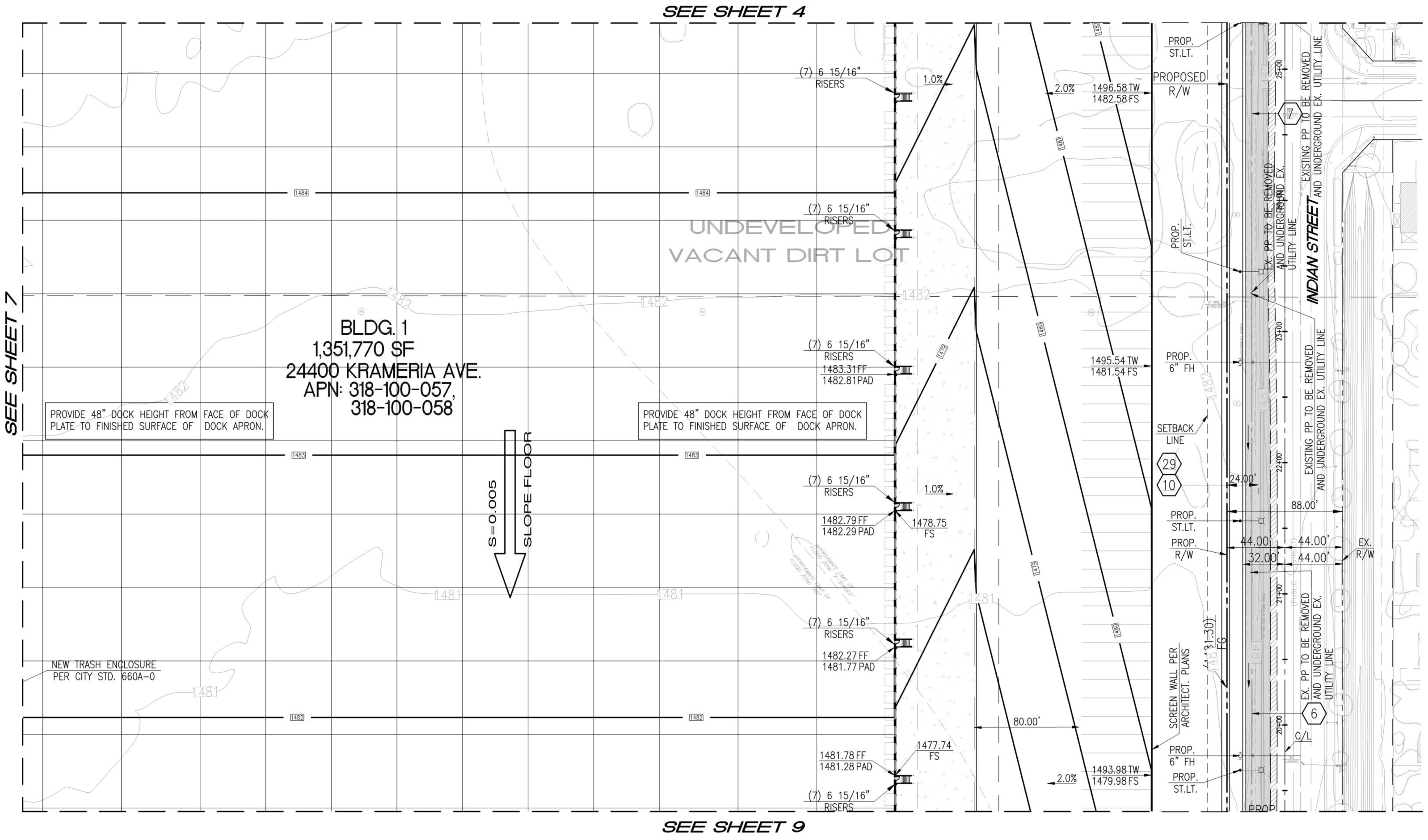

EXISTING EASEMENTS:

⑥ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 3, 1926 IN BOOK 674 OF DEEDS, PAGE 527. (NO WIDTH GIVEN)

⑦ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 14, 1926 IN BOOK 667 OF DEEDS, PAGE 496. (NO WIDTH GIVEN)

⑩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF GENERAL TELEPHONE COMPANY OF CALIFORNIA, A CORPORATION, RECORDED MARCH 27, 1987 AS DOCUMENT NO. 87-83617 OF OFFICIAL RECORDS.

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LEGENDS:

▨ ST. OVERLAY EXISTING AC PAVEMENT.

■ ST. NEW AC PAVEMENT

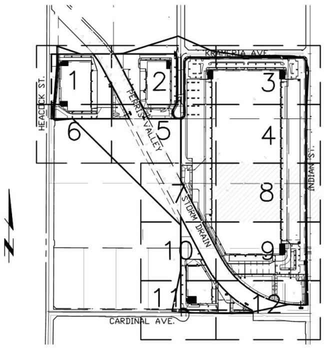

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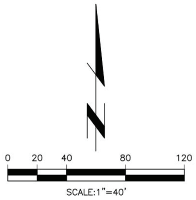

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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK

24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ____
Date ____
Checked by ____
Date ____
Designed by ____
Date ____
Checked by ____
Date ____

Aproved by ____ Date ____

Public Works Director R.C.E.____

Sheet 8 18 Sheets

2890D/ 8 OF 18 SHEET

2.0

Attachment: Engineer Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

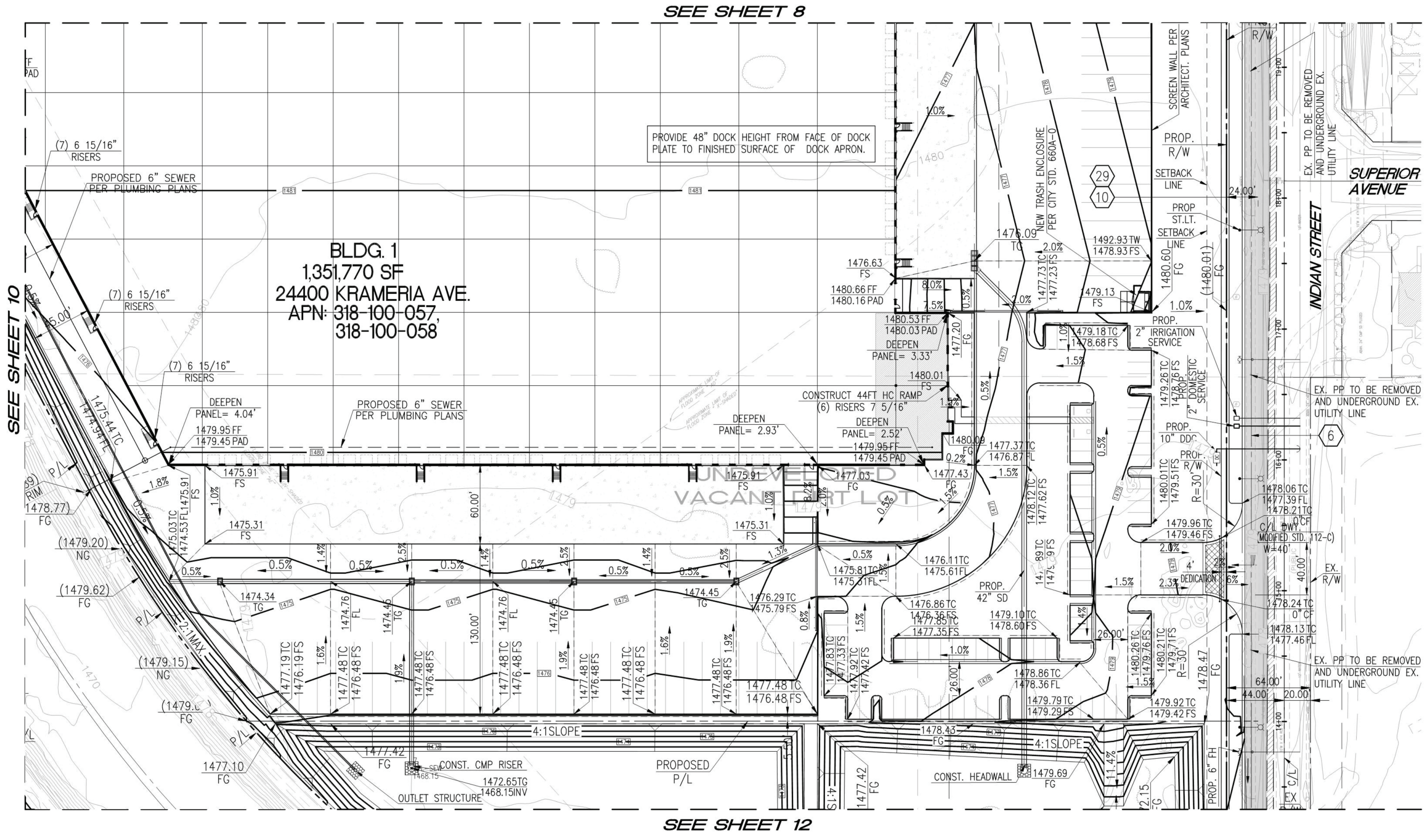

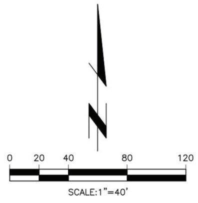

EXISTING EASEMENTS:

⑥ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 3, 1926 IN BOOK 674 OF DEEDS, PAGE 527. (NO WIDTH GIVEN)

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LEGENDS:

▨ ST. OVERLAY EXISTING AC PAVEMENT.

▩ ST. NEW AC PAVEMENT

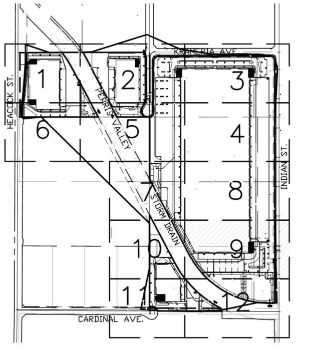

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ENGINEER:

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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK
24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ______	Aproved by	Date ______
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Designed by ______	Public Works Director	R.C.E. ______
Date ______		
Checked by ______	Sheet 9	18 Sheets
Date ______		

2890D/ 9 OF 18 SHEET

2.0

Attachment: Engineer Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

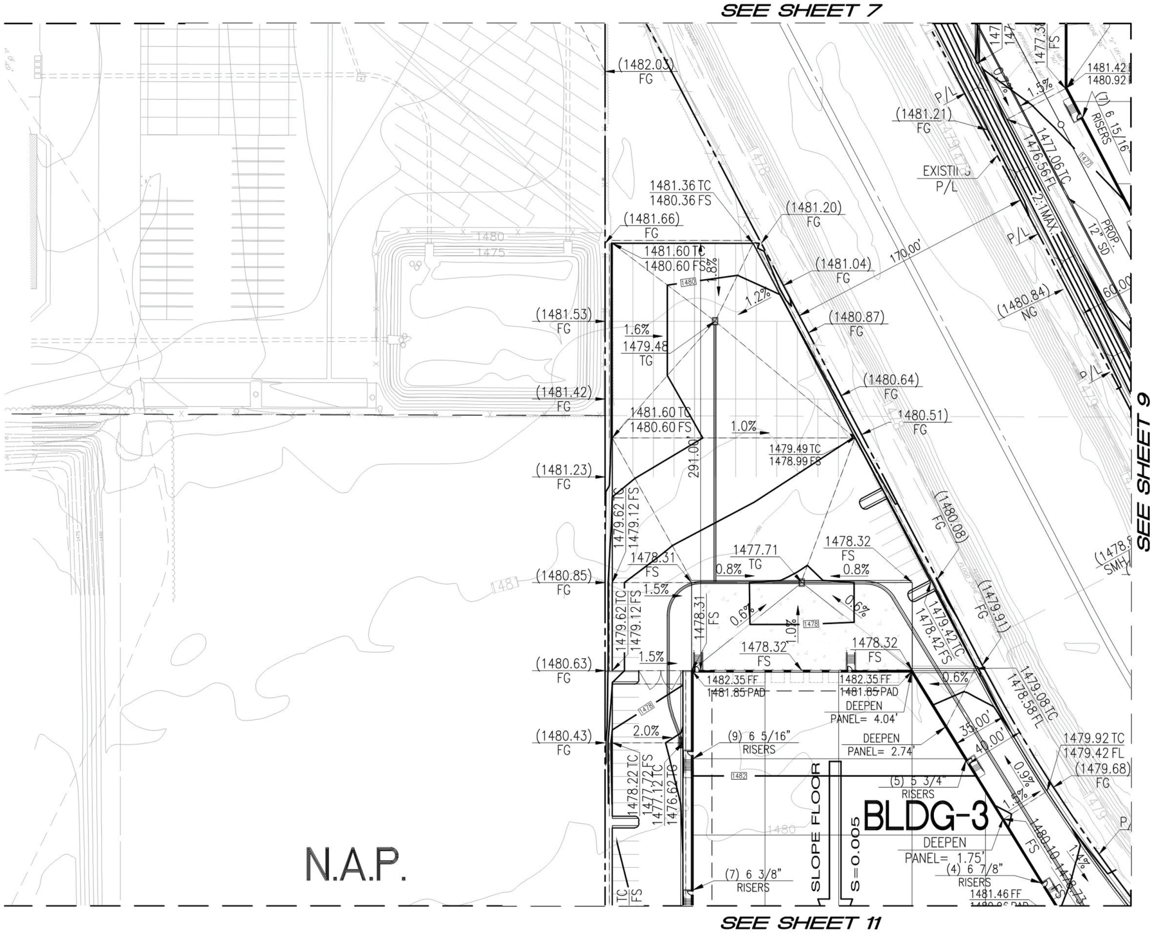

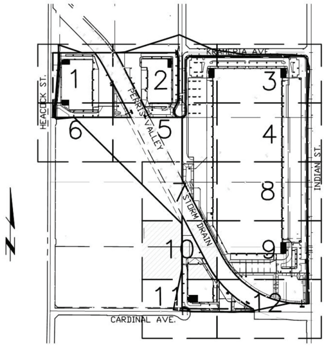

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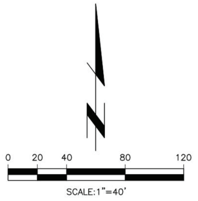

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Public Works Director R.C.E. ______

0 of 18 Sheets

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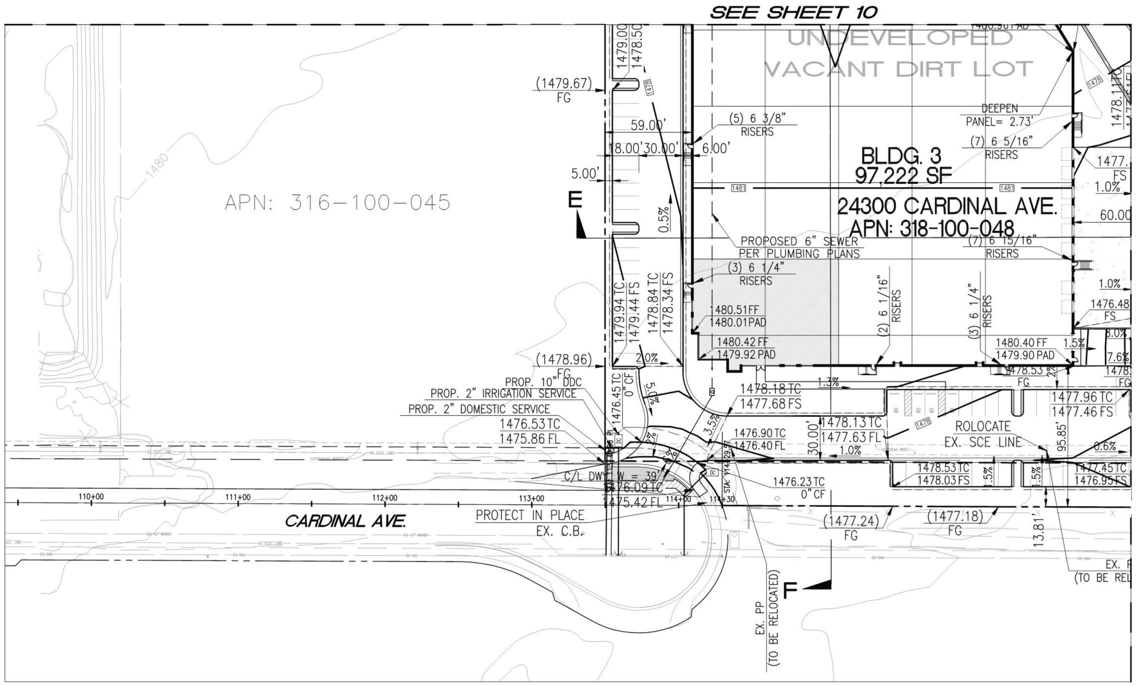

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■ ST. NEW AC PAVEMENT

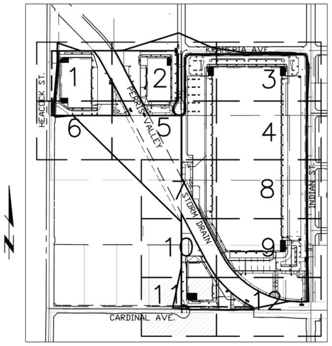

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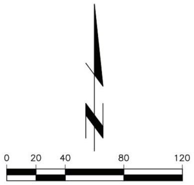

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Date ________
Public Works Director
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Sheet 11 18 Sheets

2890D/ 11 OF 18 SHEET

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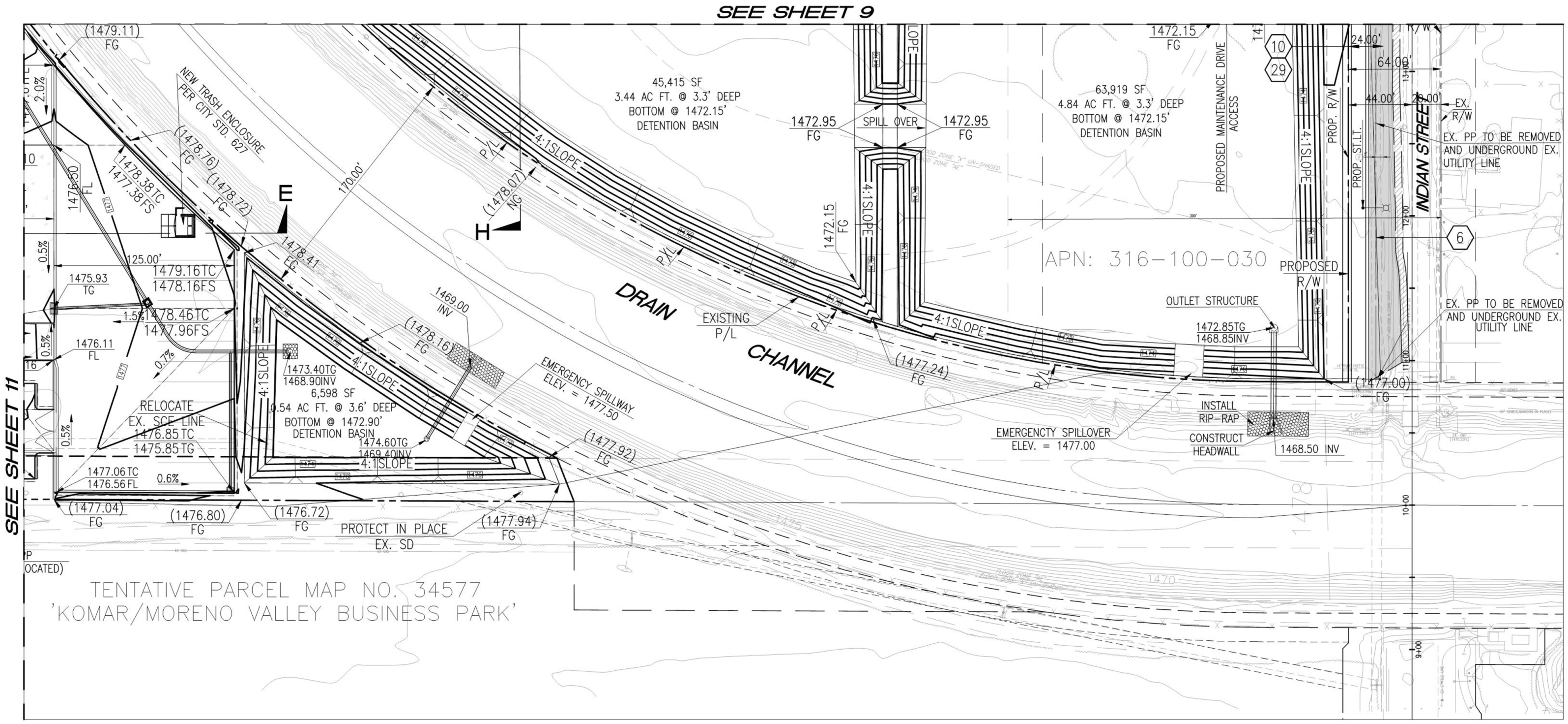

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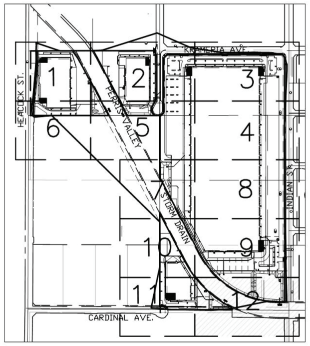

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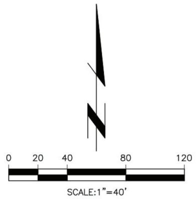

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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK

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16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ____
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Checked by ____
Date ____
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Aproved by Date ____

Public Works Director R.C.E. ____

Sheet 12 18 Sheets

2890D/ 12 OF 18 SHEET

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Attachment: Engineer Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

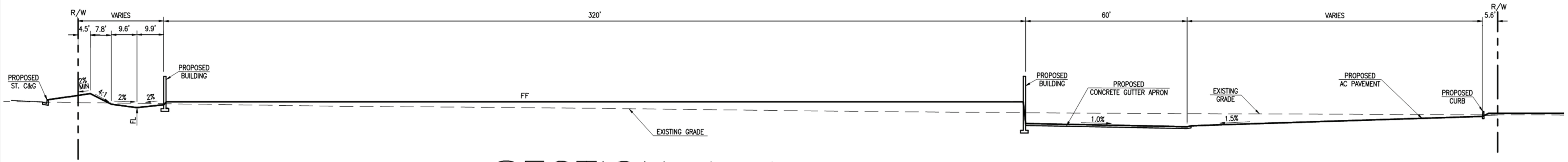

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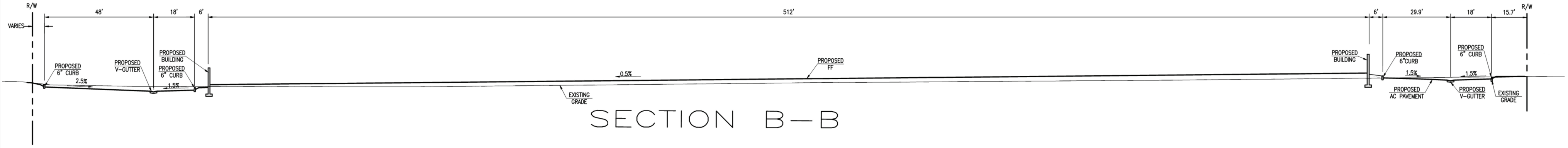

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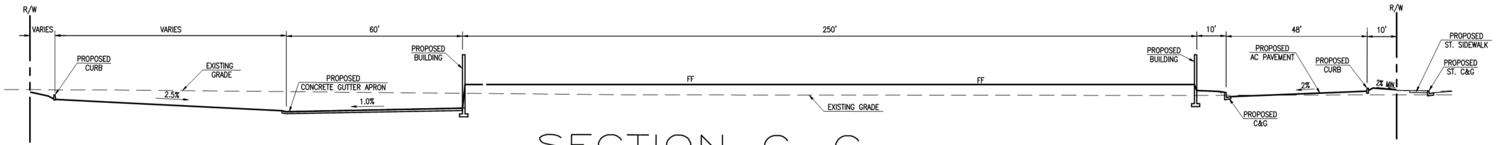

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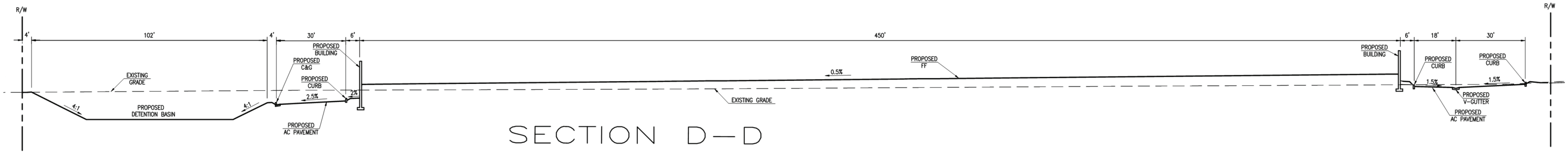

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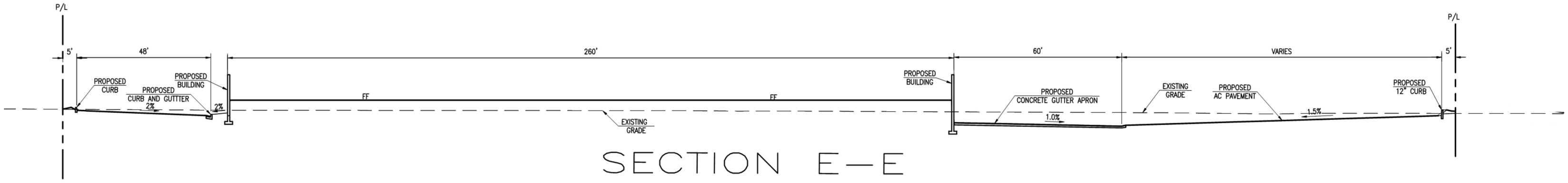

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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

CONCEPTUAL GRADING PLAN

INDIAN BUSINESS PARK

24400 KRAMERIA AVE.
16575 COSMOS ST.
16550 HEACOCK ST.
24300 CARDINAL AVE.

Designed by ____
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Aproved by
Date ____

Public Works Director
R.C.E. ____

Sheet 13 18 Sheets

2890D/ 13 OF 18 SHEET

2.0

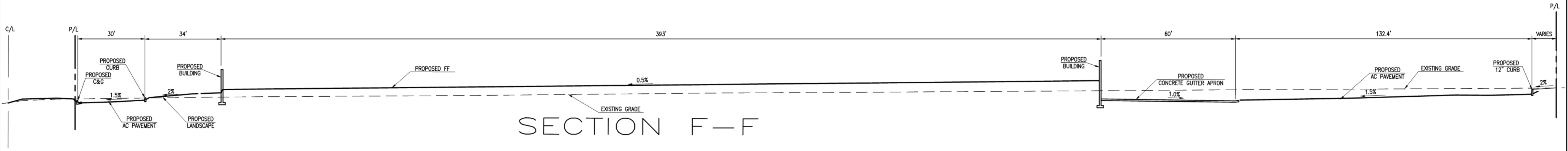

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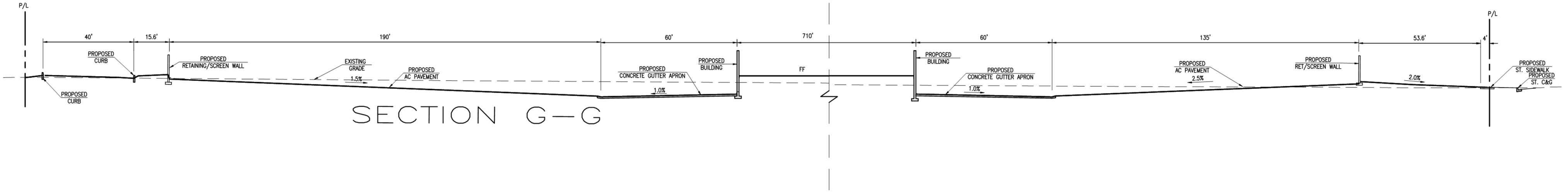

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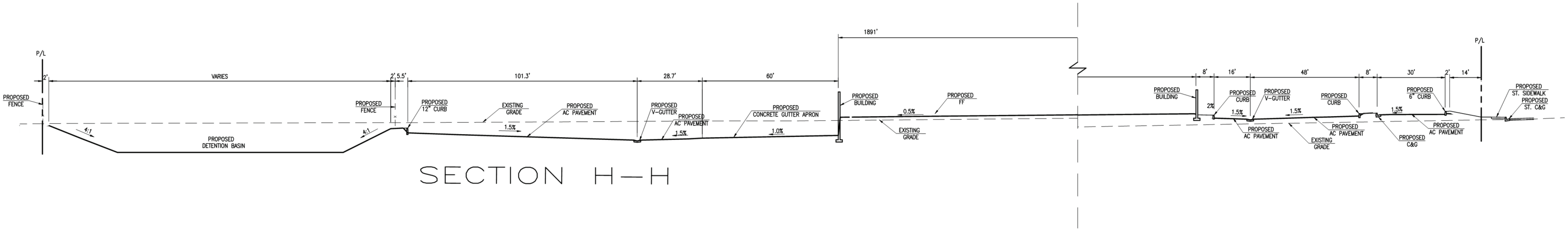

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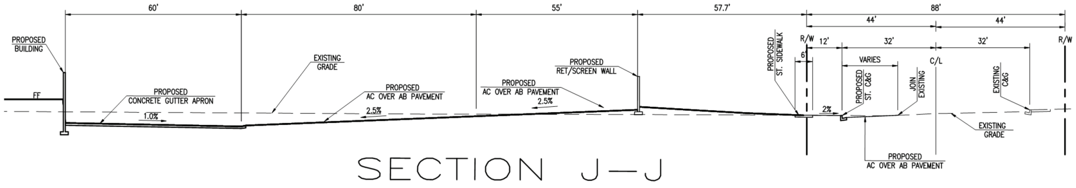

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PUBLIC WORKS DEPARTMENT

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R.C.E. ______

Sheet 14 18 Sheets

2890D/ 14 OF 18 SHEET

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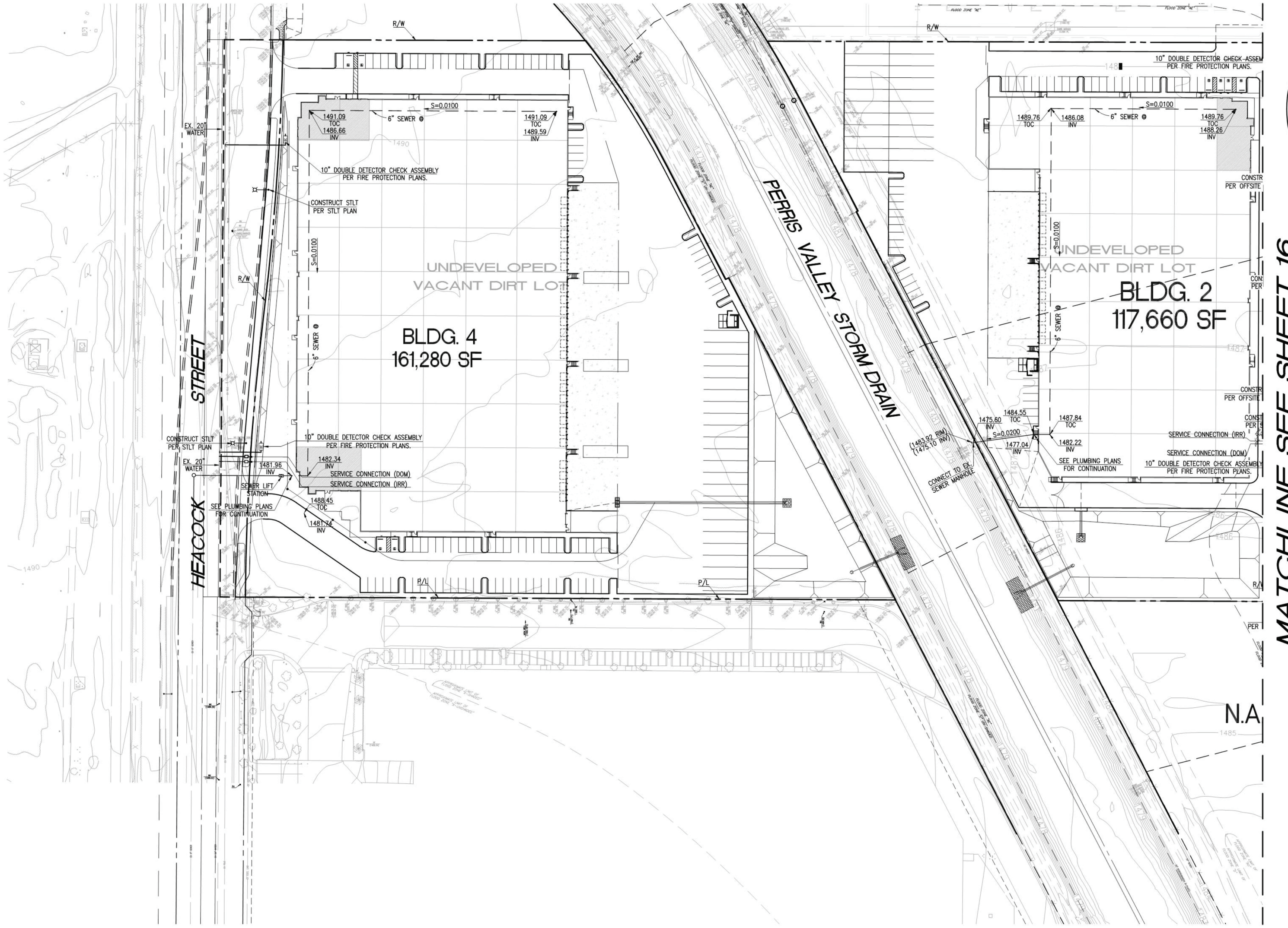

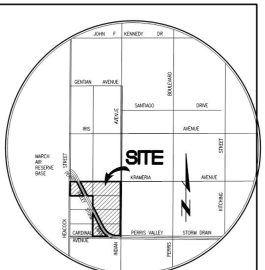

VICINITY MAP

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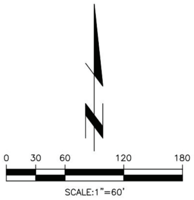

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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

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Public Works Director R.C.E. ______

Sheet 15 18 Sheets

2890D/ 15 OF 18 SHEET

2.0

Attachment: Engineer Plans (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

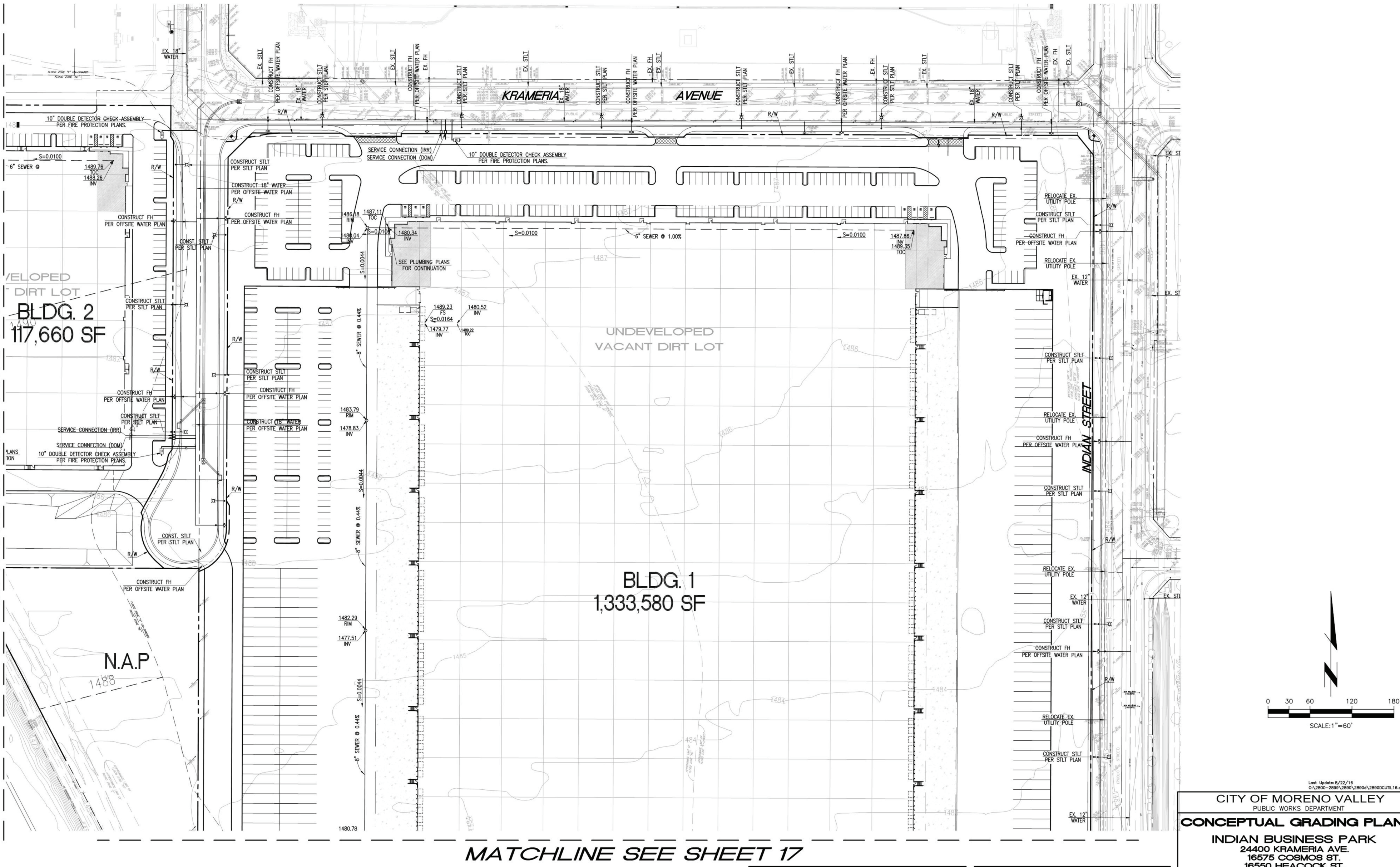

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CITY OF MORENO VALLEY
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Date	Sheet 16 of 18 Sheets	

2890D/ 16 OF 18 SHEET

ENGINEER:

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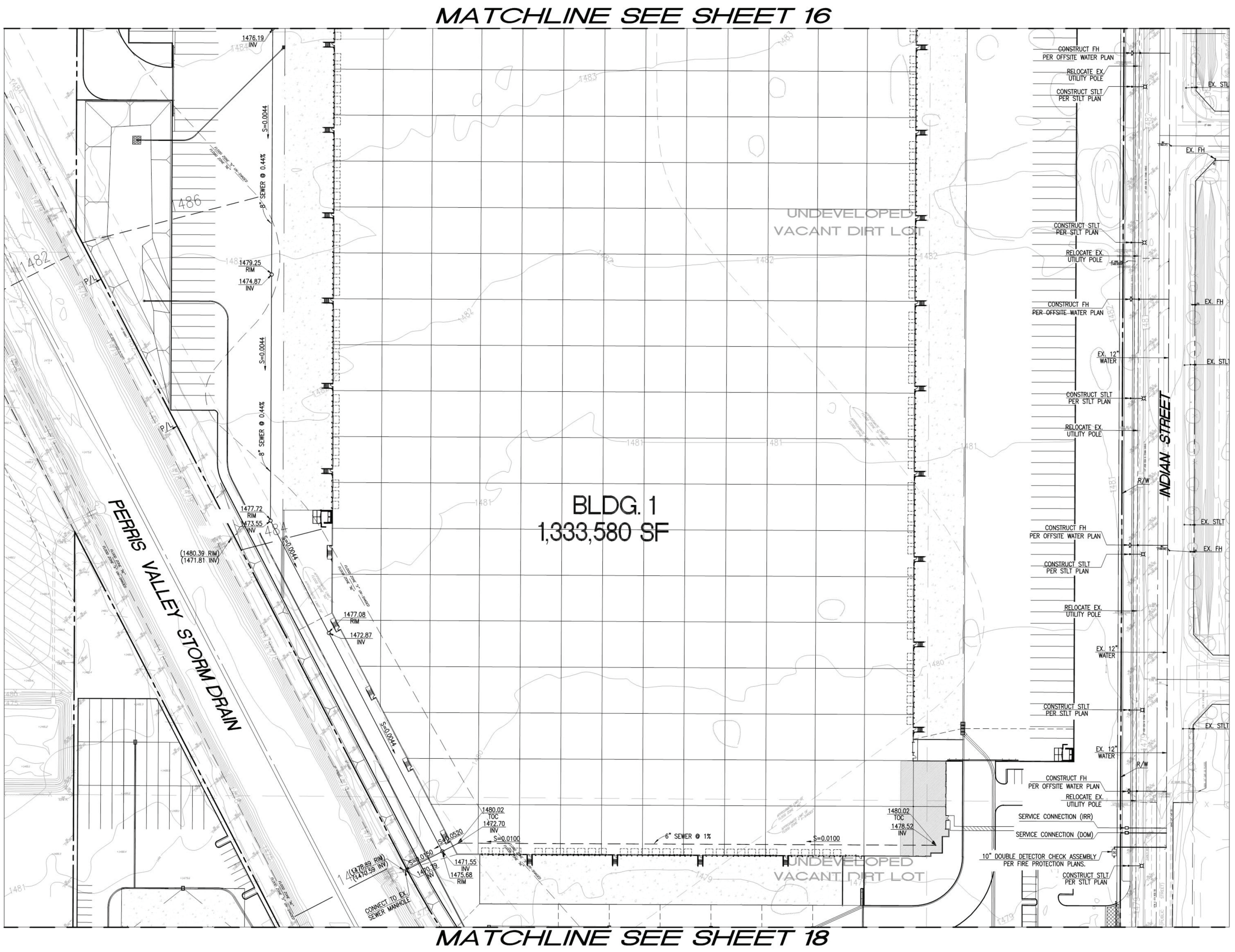

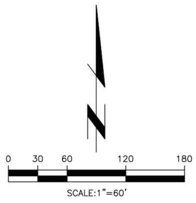

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Sheet 17 18 Sheets

2890D/ 17 OF 18 SHEET

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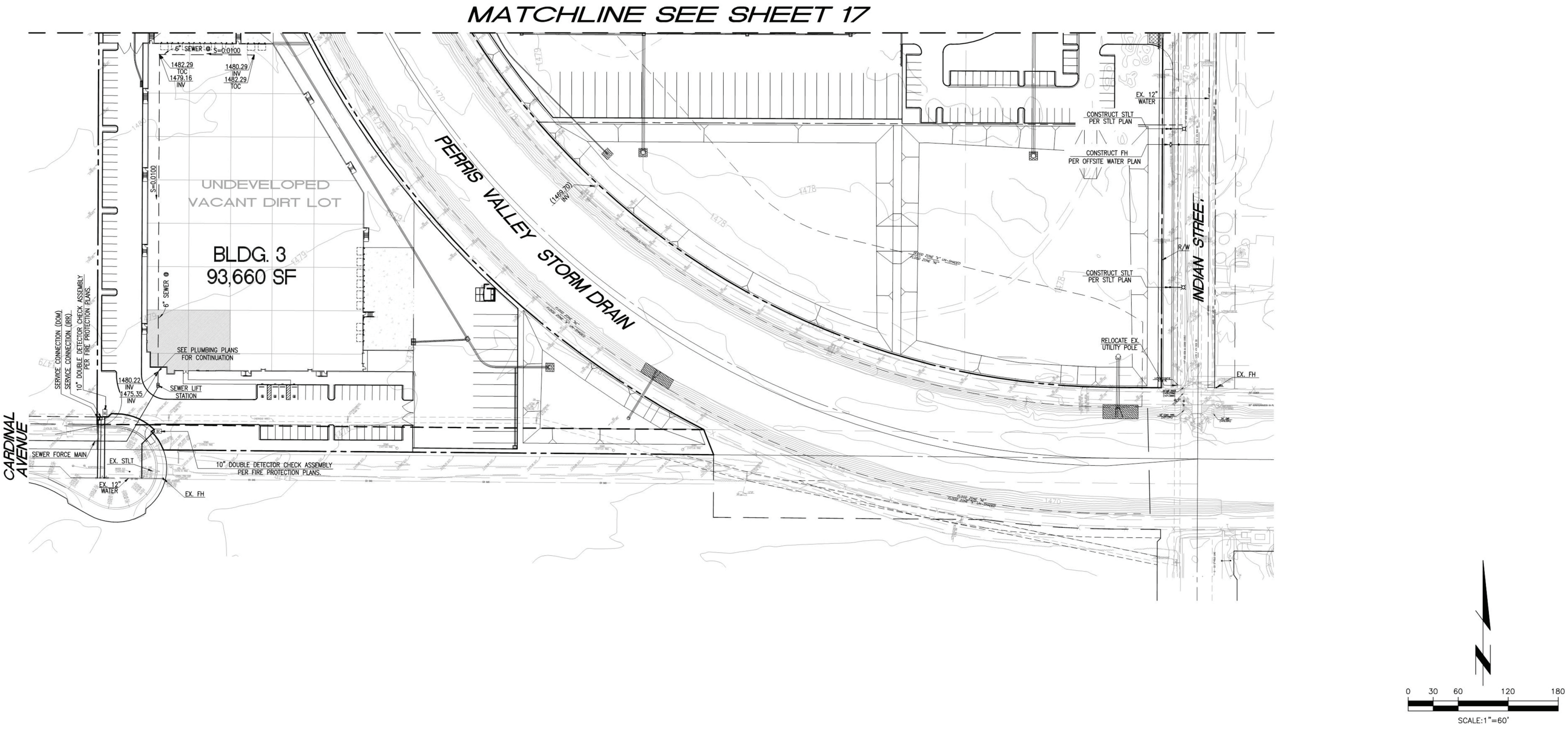

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R.C.E. ____

Sheet 18 18 Sheets

2890D/ 18 OF 18 SHEET

PROLOGIS
2817 E. CEDAR STREET, SUITE 200
ONTARIO, CALIFORNIA 91761
PHONE: (909) 673-8700
FAX: (213) 673-8702
ATTN: SCOTT MULKAY

HPA, INC.
18831 BARDEEN AV., SUITE 100
IRVINE, CALIFORNIA 92612
PHONE: (949) 863-1770
FAX: (949) 863-0851
ATTN: JAMIE CRUZ

IN THE CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
BEING A SUBDIVISION OF LOT 19 AND PORTIONS OF LOTS 20, 22, 27 AND 30, BLOCK 2 OF RIVERSIDE ALFALFA ACRES, AS PER MAP FILED IN BOOK 8, PAGE 21 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

MOORPARK COUNTY PROPERTIES
c/o LAMB & KAWAKAMI LLP
333 SOUTH GRAND AVENUE, SUITE 4200
LOS ANGELES, CA 90071
PHONE: (213) 630-55
FAX: (213) 630-5555

0 50 100 200 300
SCALE:1"=100'

EXISTING EASEMENTS:

THE FOLLOWING EASEMENTS AS LISTED IN FIRST AMERICAN TITLE COMPANY COMMITMENT NO. NCS-656783-CC WITH AMENDMENT DATE OF AUGUST 11, 2016.

⟨#⟩ INDICATES NUMBER AS LISTED IN ABOVE COMMITMENT.

⟨6⟩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 3, 1926 IN BOOK 674 OF DEEDS, PAGE 527. (PLOTTED HEREON, NO WIDTH GIVEN).

⟨7⟩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 14, 1926 IN BOOK 667 OF DEEDS, PAGE 496. (PLOTTED HEREON, NO WIDTH GIVEN).

⟨8⟩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF THE SOUTHERN SIERRA POWER COMPANY, RECORDED APRIL 20, 1926 IN BOOK 675 OF DEEDS, PAGE 152 (PLOTTED HEREON, NO WIDTH GIVEN).

⟨10⟩ AN EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES, IN FAVOR OF GENERAL TELEPHONE COMPANY OF CALIFORNIA, A CORPORATION, RECORDED MARCH 27, 1987 AS DOCUMENT NO. 87-83617 OF OFFICIAL RECORDS. (PLOTTED HEREON).

⟨22⟩ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED AUGUST 9, 2013 AS DOCUMENT NO. 2013-0390062, O.R. (PLOTTED HEREON).

⟨28⟩ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 14, 2009 AS DOCUMENT NO. 2009-00182723, O.R. (PLOTTED HEREON).

⟨29⟩ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED APRIL 17, 2014 AS DOCUMENT NO. 2014-0140476, O.R. (PLOTTED HEREON).

⟨30⟩ AN EASEMENT FOR PUBLIC HIGHWAY PURPOSES INCLUDING PUBLIC UTILITY, IN FAVOR OF THE CITY OF MORENO VALLEY, RECORDED MARCH 6, 2015 AS DOCUMENT NO. 2015-0091438, O.R. (PLOTTED HEREON). (PORTIONS OF COSMOS STREET TO BE VACATED AND DEDICATED DUE TO A DRIVEWAY LOCATION REVISION)

⟨31⟩ A RECIPROCAL EASEMENT FOR PEDESTRIAN AND VEHICULAR INGRESS AND EGRESS BETWEEN THE ADJOINNIG PROPERTY TO THE NORTH AND PARCELS 1 & 2, RECORDED JUNE 3, 2016 AS DOCUMENT NO. 2016-0228346, O.R. (PLOTTED HEREON).

PROPOSED EASEMENTS:

EACH PARCEL IS UTILITIED INDEPENDENT AND PRIVATE EASEMENTS ARE NOT PROPOSED.

FOR PUBLIC DEDICATIONS AND VACATIONS SEE "AREA SUMMARY".

EXISTING LEGAL DESCRIPTIONS:

BUILDING 1:
ASSIGNED BUT NOT ASSESSED APN: 316-100-058
EXISTING APN: 316-100-028 AND PORTIONS OF 316-100-030 & 052

PARCEL 1 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 2,687,577 SQ. FT. OR 61.698 ACRES.

ASSIGNED BUT NOT ASSESSED APN: 316-100-057
EXISTING APN: A PORTION OF 316-100-030

PARCEL 3 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 176,741 SQ. FT. OR 4.057 ACRES.

BUILDING 2:
ASSIGNED BUT NOT ASSESSED APN: 316-100-055
EXISTING APN: A PORTION OF 316-100-052

PARCEL 2 OF LOT LINE ADJUSTMENT NO. 1029, IN THE CITY MORENO VALLEY, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, RECORDED MARCH 19, 2015 AS DOCUMENT NO. 20150109581, OF OFFICIAL RECORDS OF SAID COUNTY.
CONTAINS: 333,612 SQ. FT. OR 7.659 ACRES.

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF HEACOCK STREET BEING N 00°26'39" E AS PER RECORD OF SURVEY R.S. 97/29-36, IN THE CITY OF MORENO VALLEY, RECORDS OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA.

PROJECT NOTES:

1. OWNER INFORMATION:

   MOORPARK COUNTRY PROPERTIES, A CALIFORNIA CORPORATION, AS TO AN UNDIVIDED 90% INTEREST AND HARRY MURANAKA AND ROY MURANAKA, TRUSTEES OF THE C-R COUSINS, INC. MONEY PURCHASE PENSION TRUST AS TO AN UNDIVIDED 10% INTEREST.

   ASSESSOR PARCEL NUMBERS:

EXISTING APN:	ASSIGNED BUT NOT ASSESSED APN:
316-100-028	316-100-055
316-100-030	316-100-057
316-100-052	316-100-058

2. PROJECT ADDRESSES: BUILDING 1: 24400 KRAMERIA AVENUE
   BUILDING 2: 16575 COSMOS STREET

3. SUBJECT SITE IS ZONED: "BP" (INDUSTRIAL)
   SPECIFIC PLAN: "SP-208" (SPECIFIC PLAN 208)

4. A PORTION OF THE PROPERTY SHOWN HEREON IS SITUATED WITHIN ZONE "X-UNSHADED", ZONE "X-SHADED", ZONE "AO" AND ZONE "D" AS SHOWN ON A FLOOD INSURANCE RATE MAP (F.I.R.M.) WITH MAP NO. 06065C-0765G, EFFECTIVE DATE: AUGUST 28, 2008, COMMUNITY NUMBER: 065074 FOR CITY OF MORENO VALLEY AND 060245 FOR RIVERSIDE COUNTY, BOTH WITH PANEL NUMBER: 0765, SUFFIX: "G", AND AS ALSO SHOWN ON A FLOOD INSURANCE RATE MAP (F.I.R.M.) WITH MAP NO. 06065C-1430G, EFFECTIVE DATE: AUGUST 28, 2008, COMMUNITY NUMBER: 065074 FOR CITY OF MORENO VALLEY, 060258 FOR CITY OF PERRIS AND 060245 FOR RIVERSIDE COUNTY, ALL WITH PANEL NUMBER: 1430, SUFFIX: "G".

5. SUBJECT SITE IS VACANT UNDEVELOPED WITH NO EXISTING STRUCTURES.

6 GEOLOGICAL HAZARDS:

   A. ALQUIST-PRIOLO SPECIAL STUDIES ZONES:
   SUBJECT PROPERTY IS OUTSIDE OF ANY ALQUIST PRIOLO SPECIAL STUDIES ZONES AS SHOWN ON SPECIAL STUDIES ZONES OFFICIAL MAP FOR SUNNYMEAD QUADRANGLE, EFFECTIVE JULY 1, 1974.

   B. SEISMIC HAZARD ZONES:
   THE STATE OF CALIFORNIA HAS NOT PROVIDED SUFFICIENT INFORMATION TO DETERMINE IF THE SUBJECT PROPERTY IS OUTSIDE OF ANY ZONE REQUIRING INVESTIGATION FOR LIQUEFACTION OR FOR EARTHQUAKE-INDUCED LANDSLIDES BECAUSE NO SEISMIC HAZARD ZONES OFFICIAL MAP FOR SUNNYMEAD QUADRANGLE HAS BEEN PUBLISHED AS OF THIS DATE.

7. ALL DRIVEWAYS TO BE BUILT TO CITY STANDARD NO. MVSI-112-C, MODIFIED TO PROJECT SPECIFICS.

8. A PRELIMINARY WQMP IS INCLUDED IN THE SUBMITTAL PACKAGE.

9. SUBJECT SITE CONTAINS NO KNOWN EXISTING SCEPTIC, SEWER, IRRIGATION, OR UNDERGROUND STORM DRAIN FACILITIES.

10. SUBJECT SITE IS ENCUMBERED BY THE EFFECT OF AN INSTRUMENT DECLARING SAID LAND TO BE WITHIN THE MARCH AIR FORCE BASE REDEVELOPMENT PROJECT AREA, RECORDED FEBRUARY 6, 2004 AS INST. NO. 04-86467 AND JUNE 11, 2007 AS INST. NO.. 2007-0380610, BOTH OF O.R.

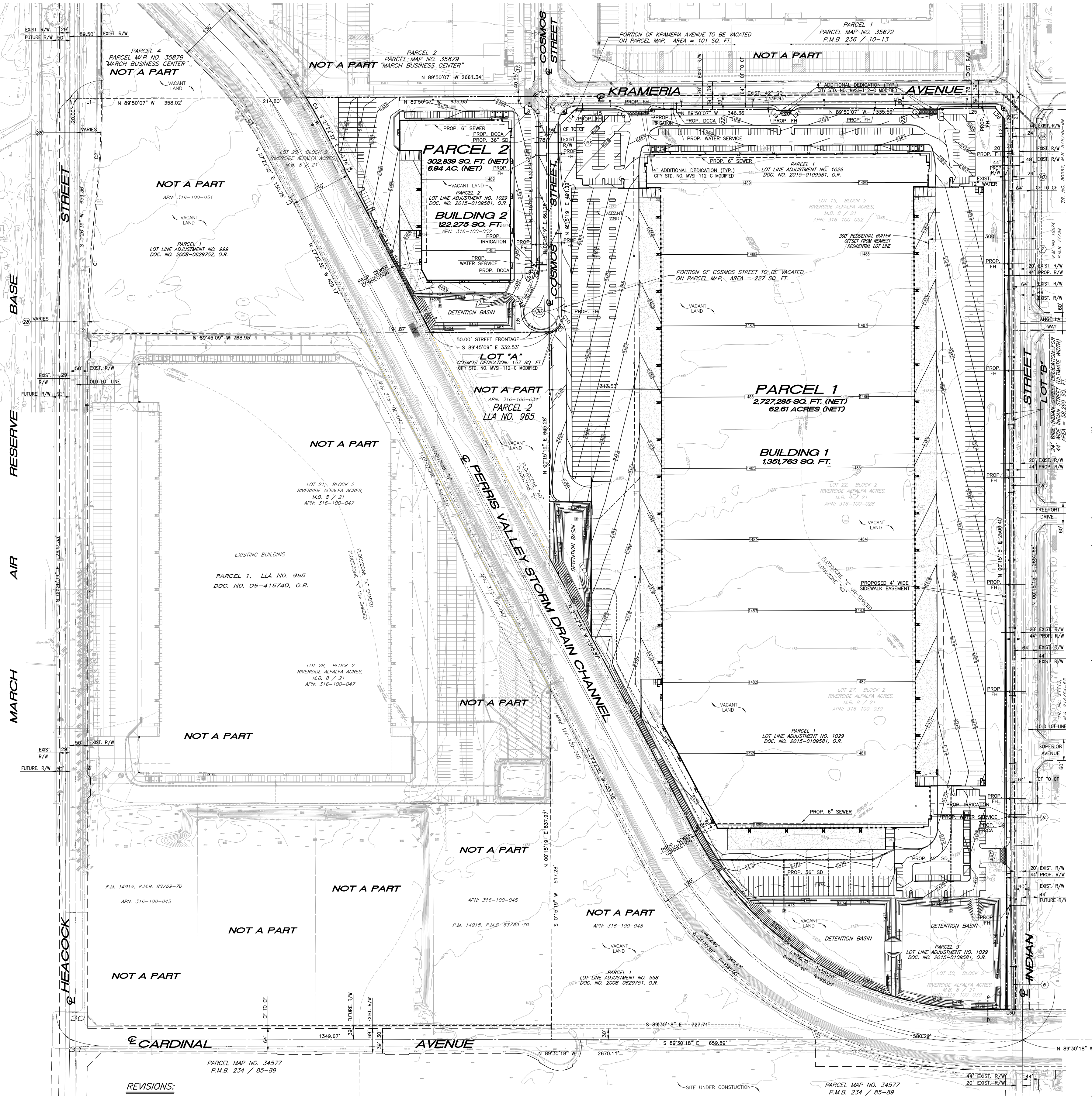

PARCEL MAP NO. 34577
P.M.B. 234 / 85-89

REVISIONS:

NO.	DESCRIPTION	DATE
1	–	–
2	–	–
3	–	–
4	–	–
5	–	–

UTILITY PROVIDERS/AGENCIES:

SEWER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD., P.O. BOX 8300
PERRIS, CALIFORNIA 92572
ATTN: REBECCA TIBAYAN
(951) 928-3777

DOMESTIC WATER:
EASTERN MUNICIPAL WATER DISTRICT
2270 TRUMBLE RD., P.O. BOX 8300
PERRIS, CALIFORNIA 92572
ATTN: REBECCA TIBAYAN
(951) 928-3777

NATURAL GAS SERVICE:
SOUTHERN CALIFORNIA GAS CO.
1981 W. LUGONIA AVENUE
REDLANDS, CALIFORNIA 92374
ATTN: PAUL MULLINS
(909) 335-7725

CABLE TELEVISION:
TIME WARNER CABLE
17777 CENTER CT. DR., 8th FL.
CERRITOS, CALIFORNIA 90703
ATTN: MANUEL DEHESA
(858) 635-8428

SOLID WASTE
WASTE MANAGEMENT
800 S. TEMESCAL ST.
CORONA, CA 92879
(951) 280-5400

TELEPHONE SERVICE:
VERIZON
9 SOUTH 4th STREET
REDLANDS, CALIFORNIA 92373
ATTN: HARMEET KAUR
(909) 748-6647

ELECTRIC SERVICE:
MORENO VALLEY UTILITY (MVU)
P.O. BOX 88005
MORENO VALLEY, CA 92552-0805
ATTN: JOHN GOATCHER
(951) 413-3517

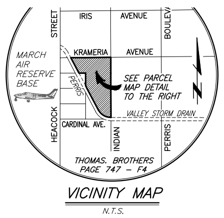

VICINITY MAP

N.T.S.

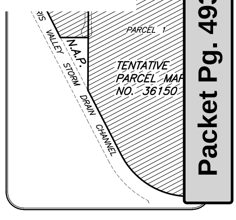

PARCEL MAP DETAIL

NOT TO SCALE

LINE TABLE		
LINE #	LENGTH	BEARING
L1	39.39'	N 89°50'07" W
L2	30.00'	S 89°45'09" E
L3	4.00'	N 62°37'28" E
L4	2.00'	S 62°37'28" W
L5	3.24'	N 89°50'07" W
L6	44.23'	N 00°15'19" E
L7	7.69'	N 31°05'32" W
L8	9.08'	S 33°33'14" W
L9	6.16'	N 22°10'25" W
L10	17.34'	N 47°40'23" W
L11	6.16'	N 74°39'14" E
L12	33.04'	N 00°15'19" E
L13	7.69'	S 31°06'17" E
L14	48.41'	N 45°12'12" E
L15	88.29'	N 89°50'07" W
L16	7.69'	N 58°28'37" W

LINE TABLE		
LINE #	LENGTH	BEARING
L17	75.30'	N 89°50'07" W
L18	7.69'	N 58°48'23" E
L19	5.84'	N 46°38'37" W
L20	50.25'	N 89°50'07" W
L21	5.84'	N 46°58'23" E
L22	7.69'	N 58°28'37" W
L23	75.30'	N 89°50'07" W
L24	7.69'	N 58°48'23" E
L25	134.87'	N 89°50'07" W
L26	36.26'	N 39°11'57" W
L27	72.93'	N 00°15'15" E
L28	24.00'	N 89°44'45" W
L29	140.00'	N 00°15'15" E
L30	24.00'	S 89°30'18" E
L31	62.17'	S 89°30'18" E
L32	32.32'	S 21°19'41" E

CURVE TABLE			
#	DELTA	RADIUS	LENGTH
C1	6°33'08"	2950.00'	337.35'
C2	6°04'55"	3050.00'	323.76'
C3	11°08'26"	911.00'	177.14'
C4	4°02'47"	1087.00'	76.77'
C5	4°47'18"	100.00'	8.36'
C6	19°14'44"	96.00'	32.25'
C7	8°39'04"	65.00'	9.81'
C8	63°48'37"	61.00'	67.94'
C9	32°46'17"	61.00'	34.89'
C10	31°49'20"	65.00'	36.10'
C11	73°40'32"	88.00'	113.16'

LEGEND:

EXISTING PARCEL BOUNDARY
FEE OWNERSHIP
PROPOSED PROPERTY LINE
PROPOSED FIRE LINE
PROPOSED WATER LINE
PROPOSED SEWER LINE
PROPOSED STORM DRAIN
GRADE BREAK LINE
1484 EXIST. CONTOUR
1484 PROP. CONTOUR
LIGHT POLE
FIRE HYDRANT

AREA SUMMARY:

PARCEL 1: (BUILDING 1)	2,727,285 SQ. FT. (NET) 62.61 ACRES (NET)
PARCEL 2: (BUILDING 2)	302,839 SQ. FT. (NET) 6.94 ACRES (NET)
PARCEL MAP NET:	3,030,124 SQ. FT. (NET) 69.56 ACRES (NET)
EXISTING KRAMERIA AVENUE DEDICATION ⟨22⟩ (AFTER 101 SQ. FT. STREET VACATION)	53,203 SQ. FT. 1.22 ACRES
EXISTING INDIAN AVENUE DEDICATION ⟨29⟩	1,750 SQ. FT. 0.04 ACRES
EXISTING COSMOS STREET DEDICATION ⟨30⟩	53,820 SQ. FT.
LOT "A" COSMOS ST. DEDICATION:	157 SQ. FT.
COSMOS ST. VACATION:	227 SQ. FT.
PROPOSED COSMOS ST.	53,750 SQ. FT. 1.23 ACRES
PROPOSED LOT "B" INDIAN STREET ON PARCEL MAP	58,260 SQ. FT. 1.34 ACRES
PROPOSED ADDITIONAL 4' DEDICATION ALONG KRAMERIA AVENUE ON PARCEL MAP	843 SQ. FT. 0.02 ACRES
TOTAL EASEMENTS AND DEDICATIONS	167,806 SQ. FT. 3.85 ACRES
PARCEL MAP GROSS:	3,197,930 SQ. FT. (GROSS) 73.41 ACRES (GROSS)
PROPOSED KRAMERIA AVE. STREET VACATION ON PARCEL MAP (AREA INCLUDED IN PARCEL 1 NET)	101 SQ. FT.

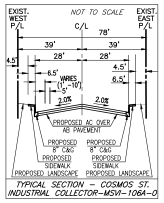

TYPICAL SECTION – COSMOS ST.
INDUSTRIAL COLLECTOR–MSVI–106A–0

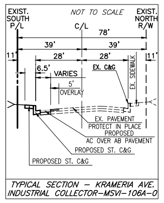

TYPICAL SECTION – KRAMERIA AVE.
INDUSTRIAL COLLECTOR–MSVI–106A–0

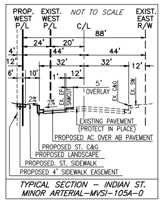

TYPICAL SECTION – INDIAN ST.
MINOR ARTERIAL–MVSI–105A–0

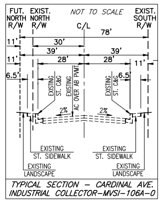

TYPICAL SECTION – CARDINAL AVE.
INDUSTRIAL COLLECTOR–MVSI–106A–0

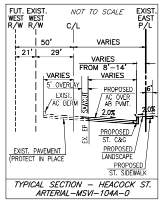

TYPICAL SECTION – HEACOCK ST.
ARTERIAL–MSVI–104A–0

TABULATION:

PARCEL MAP NO. 36150	PARCEL 1	PARCEL 2		EXISTING	PROPOSED	GROSS
BUILDING NO.	BUILDING 1	BUILDING 2	NET TOTAL	PUBLIC ST.	PUBLIC ST.	TOTAL
SITE AREA (NET SQ. FT.)	2,727,285	302,839	3,030,124	108,773	59,033	3,197,930
SITE AREA (NET ACRES)	62.61	6.95	69.56	2.50	1.35	73.41
BUILDING AREA						
WAREHOUSE	1,321,763	112,275	1,434,038			
MEZZANINE OFFICE	20,000	5,000	25,000			
OFFICE	10,000	5,000	15,000			
TOTAL BUILDING AREA	1,351,763	122,275	1,474,038			
COVERAGE	49.6%	40.4%	45.0%			
PARKING REQUIRED						
1st. 20K @ 1/1,000 S.F.	20	20	40			40
2nd. 20K @ 1/2,000 S.F.	10	10	20			20
ABOVE 40K @ 1/4,000 S.F.	321	19	340			340
OFFICE @ 1/250 S.F.	120	40	160			160
TOTAL PARKING REQUIRED	471	89	560			560
PARKING PROVIDED						
STANDARD (9' x 18')	471	89	560			560
TRAILERS (14 x 53')	236	22	258			258
TOTAL	707	111	818			818
ZONING ORDINANCE FOR CITY ZONING DESIGNATION – BP (BUSINESS PARK / LIGHT INDUSTRIAL)						
TRAILER STALLS RATIO (PER TRAILER STALL)	5728	5558				
# OF DOCK DOORS PROVIDED	223	25				
DOCK DOORS RATIO (PER DOCK DOOR)	6062	4891				

NOTE: PROPOSED VACATIONS OF KRAMERIA AVENUE 101 SQ. FT. AND COSMOS STREET 227 SQ. FT. INCLUDED IN ABOVE NET AREAS.

SURVEYOR:

PREPARED UNDER THE DIRECTION OF:

02 / 10 / 17
DATE

BRIAN L. THIENES
P.L.S. NO. 5750
REG. EXP. 12/31/17

PROFESSIONAL LAND SURVEYOR
BRIAN L. THIENES
NO. 5750
STATE OF CALIFORNIA

APPLICANT / REPRESENTATIVE:

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

Last Update: 2/10/17
O:\2890\TPM\2890TPM.dwg

CASE NUMBER PA15-0014 – PA15-0018, RELATED CASE NUMBER P14-023

Final Environmental Impact Report
SCH No. 2015061040

Moreno Valley Logistics Center
City of Moreno Valley, California

Lead Agency
City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

May 2017

Final Environmental Impact Report
SCH No. 2015061040

Moreno Valley Logistics Center
City of Moreno Valley, California

Lead Agency
City of Moreno Valley
14177 Frederick Street
PO Box 88005
Moreno Valley, CA 92552

CEQA Consultant
T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, CA 92780

Project Applicant
Prologis LP
2817 E. Cedar Street, #200
Ontario, CA 91761

Lead Agency Discretionary Permits
Specific Plan Amendment P15-036
Tentative Parcel Map No. 36150 PA15-0018
Building Plot Plans PA15-0014, PA15-0015, PA15-0016, and PA15-0017

May 2017

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B2: Mobile Source Diesel Health Risk Assessment
B3: Supplemental Air Quality Analysis
C1: Biological Technical Report
C2: Jurisdictional Delineation
D1: Phase I Cultural Resources Survey
D2: Paleontological Resource and Monitoring Assessment
E: Greenhouse Gas Analysis
F: Phase I Environmental Site Assessment
G1: Preliminary Hydrology Calculations
G2: Project Specific Preliminary Water Quality Management Plan
H: Noise Impact Analysis
I1: Traffic Impact Analysis
I2: Supplemental Basis Freeway Segment Impact Analysis
I3: Construction Traffic Evaluation
I4: Fair Share Calculations
J: Water Supply Assessment Report
K: Energy Analysis
L. Geotechnical Investigation
M. Pesticide Sampling Analysis
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Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

ACRONYMS AND ABBREVIATIONS

Acronym	Definition
§	Section
>	greater than
≥	greater than or equal to
a.m.	Ante Meridiem (between the hours of midnight and noon)
AB	Assembly Bill
ACOE	Army Corps of Engineers
ADP	Area Drainage Plan
ADT	Average Daily Traffic
AFY	acre feet a year
AIA	Airport Influence Area
AICUZ	Air Installation Compatible Use Zone
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	Above Mean Sea Level
APS	Alternative Planning Strategy
APN	Assessor Parcel Number
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	Air Reserve Base
ARB/IRP	March Air Reserve Base/Inland Port Airport
ASTs	Above ground storage tanks
Av.	Avenue
AWS	All-way Stop
BAAQMD	Bay Area Air Quality Management District
BP	Business Park/Light Industrial (land use designation)
BFSA	Brian F. Smith & Associates
Bl.	Boulevard
BMPs	Best Management Practices
C_2F_6	Hexaflouroethane
C_2H_6	Ethane
CF_4	Tetraflouromethane
CF_3CH_2F	Tetrafluoroethane
CH_4	Methane
CH_3CHF_2	Difluorethane
CHF_3	Trifluormethane
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CA	California

Acronym	**Definition**
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CadnaA	Computer Aided Noise Abatement software
CalEEMod™	California Emissions Estimator Model™
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Caltech	California Institute of Technology
Caltrans	California Department of Transportation
Calveno	California Vehicle Noise
CAPCOA	California Air Pollution Control Officers Association
CAPSSA	Criteria Area Plant Species Survey Area
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations
cfs	cubic feet per second
CHE	Cargo Handling Equipment
CLCA	California Land Conservation Act
CLOMR	Conditional Letter of Map Revision
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
COHb	carboxyhemoglobin
CORPS	United States Army Corps of Engineers
CPUC	California Public Utilities Commission
CCC	Cross-street Stop
CCR	California Code of Regulations
CTP	Clean Truck Program
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
Db	Decibel
dBA	A-weighted Decibels
DBESP	Determination of Biologically Superior Preservation
DEH	Department of Environmental Health
DIF	Development Impact Fee

Acronym	**Definition**
DOT	Department of Transportation
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
du/ac	dwelling units per acre
e/o	East of
ECHO	Enforcement and Compliance History
EDR	Environmental Data Review
EIC	Eastern Information Center
EIR	Environmental Impact Report
EMFAC	Emissions Factor Model
EMWD	Eastern Municipal Water District
EO	Executive Office
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
ESA	Environmental Site Assessment
et seq.	*et sequentia*, meaning "and the following"
F	Fahrenheit
FAR	floor area ratio
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GCC	Global Climate Change
GCCC	Global Climate Change Center
Gg	gigagrams
GgCO2e	Gigagrams of carbon dioxide equivalent
GHGs	Greenhouse Gases
GIS	Geographic Information System
GLA	Glenn Lukos Associates, Inc.
GVWR	Gross Vehicle Weight Rating
GWP	Global Warming Potential
H_2O	Water Vapor
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFCs	Hydrofluorocarbons
HHD	Heavy-Duty Trucks
HI	Hazard Index

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Acronym	Definition
HMBEP	Hazardous Materials Business Emergency Plan
hp	horsepower
HRS	Hazard Ranking System
HSAA	Hazardous Substance Account Act
HVWAP	Harvest Valley/Winchester Area Plan
HWCL	Hazardous Waste Control Law
I-15	Interstate 15
I-215	Interstate 215
i.e.	that is
IA	Implementing Agreement
IEPR	Integrated Energy Policy Report
IPA	Inland Port Airport
IPCC	Intergovernmental Panel on Climate Change
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
JPA	Joint Powers Authority
JPR	Joint Project Review
kBTU/yr	kilo-British Thermal Units per year
kWh/yr	kilowatt-hours of electricity per year
LCA	Life-cycle analysis
LCFS	Low Carbon Fuel Standard
LDA	Light-Duty-Auto Vehicles
LDMF	Local Development Mitigation Fee
LDN	Day-Night Sound Level
LEED	Leadership in Energy & Environmental Design
Leq	equivalent continuous sound level
LHD	Light-Heavy-Duty-Trucks
LNAP	Lakeview/Nuevo Area Plan
LOMR	Letter of Map Revision
LOS	Level of Service
LSTs	Localized Significance Thresholds
M^3	Cubic Meter
March ARB	March Air Reserve Base
March ARB/IPA	March Air Reserve Base/Inland Port Airport
MATES	Multiple Air Toxics Exposure Study in the South Coast Air Basin
MBTA	Migratory Bird Treaty Act
MDP	Master Drainage Plan
MEIR	maximally exposed individual receptor
MEISC	maximally exposed individual school child
MEIW	maximally exposed individual worker

Acronym	Definition
MHD	Medium-Heavy-Duty Trucks
MICR	Maximum Individual Cancer Risk
MM	Mitigation Measure
MMTs	million metric tons
$MTCO_{2e}$	Metric Tons of Carbon Dioxide Equivalent
MMTCO2e	million metric tons of carbon dioxide equivalent
Mph	Miles per hour
MPO	Metropolitan Planning Organization
MMT	Million Metric Tons
MPG	Miles per gallon
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
MVAP	Mead Valley Area Plan
MVFD	Moreno Valley Fire Department
MVIAP	Moreno Valley Industrial Area Plan
MWD	Metropolitan Water District
n/o	North of
N_2	Nitrogen
n.d.	no date
NAHC	Native American Heritage Commission
NAAQS	National Ambient Air Quality Standards
NB	Northbound
NEPSSA	Narrow Endemic Plant Species Survey Area
No.	Number
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
N_2	Nitrogen
N_2O	Nitrous Oxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
n.p.	no page
NPL	National Priorities List
O_2	Oxygen
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	Ordinary High Water Mark
OPR	Office of Planning and Research
Ord.	Ordinance
Pb	Lead
PCE	Passenger Car Equivalent

Acronym	Definition
PFCs	Perfluorocarbons
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Particulate Matter
$PM_{2.5}$	Fine Particulate Matter (2.5 microns or smaller)
PM_{10}	Fine Particulate Matter (10 microns or smaller)
ppb	parts per billion
ppm	parts per million
pp.	pages
ppt	parts per trillion
PPV	Peak Particle Velocity
PUC	Public Utilities Commission
RCALUP	Riverside County Airport Land Use Plan
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RCLIS	Riverside County Land Information System
Rd.	Road
RECLAIM	Regional Clean Air Incentives Market
Regs	Regulations
REL	Reference Exposure Level
REMEL	Reference Mean Emission Level
RHSA	Regional System of Highways and Arterials
RivTAM	Riverside County Transportation Analysis Model
ROGs	Reactive Organic Gasses
RPS	Renewable Portfolio Standards
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
s/o	south of
s.f.	square feet
SARA	Superfund Act and Reauthorization Act
SWPA	Santa Ana Watershed Project Authority
SB	Southbound
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Acronym	**Definition**
SFS	Sustainable Freight Strategy
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides
SPA	Specific Plan Amendment
SR-60	State Route 60
SR-74	State Route 74
SR-91	State Route 91
SRA	Source Receptor Area
St.	Street
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Regional Control Board
TAC	Toxic Air Contaminants
TEA	Transportation Equity Act
TPM	Tentative Parcel Map
TS	Traffic Signal
TSF	Thousand Square Feet
TUMF	Transportation Uniform Mitigation Fee
µg	microgram
UNFCCC	United Nations Framework Convention on Climate Change
U.S.	United States
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USDA	U.S. Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United Stated Geological Society
USTs	Underground storage tanks
UTR	Utility Tractor
VdB	Vibration Decibels
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
w/o	West of
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WSA	Water Supply Assessment
Wy.	Way
YBP	Years before Present

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

F.0 FINAL ENVIRONMENTAL IMPACT REPORT

F.1 Introduction

This Final Environmental Impact Report (FEIR) was prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code § 21000 *et seq.*) and CEQA Guidelines (Title 14, California Code of Regulations, § 15000 *et seq.*).

According to CEQA Guidelines § 15132, a FEIR shall consist of:

a) The Draft EIR (DEIR) or a revision of the draft;

b) Comments and recommendations received on the DEIR either verbatim or in summary;

c) A list of persons, organizations, and public agencies commenting on the DEIR;

d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and

e) Any other information added by the Lead Agency.

In accordance with the above listed requirements, this FEIR for the proposed Moreno Valley Logistics Center project (hereafter, the "Project") and associated discretionary and administrative actions consists of the following:

1. Comment letters and responses to public comment; and

2. The circulated Moreno Valley Logistics Center DEIR and Technical Appendices, SCH No. 2015061040 with additions shown as underline text and deletions shown as ~~stricken~~ text in Section F.3, *Additions, Corrections, and Revisions to the DEIR*, below.

This FEIR document was prepared in accordance with CEQA and the CEQA Guidelines and represents the independent judgment of the CEQA Lead Agency (City of Moreno Valley).

F.2 Responses to DEIR Comments

Six comment letters were received during the DEIR's 45-day public review period which closed on September 6, 2016. Two additional comment letters were received after the close of the public review period. A list of agencies, organizations, and persons that submitted comments on the DEIR during the public review period is presented in Table F-1, *Organizations, Persons, & Public Agencies that Commented on the DEIR*.

Table F-1 Organizations, Persons, & Public Agencies that Commented on the DEIR

COMMENT LETTER	COMMENTING ORGANIZATION, PERSON, OR PUBLIC AGENCY	DATE
A	Riverside County Airport Land Use Commission	August 26, 2016
B	City of Moreno Valley Environmental Health and Preservation Board	August 26, 2016
C	South Coast Air Quality Management District	August 26, 2016
D	Department of the Air Force	August 16, 2016
E	Lozeau Drury LLP	September 1, 2016
F	SoCal Environmental Justice Alliance	August 29, 2016
G	State Clearinghouse	September 7, 2016*
H	Santa Ana Regional Water Quality Control Board	September 27, 2016*

*Letter received after the close of the 45-day DEIR review period.

F.2.1 CEQA Guidance

CEQA Guidelines § 15088 requires the Lead Agency (City of Moreno Valley) to evaluate comments on environmental issues received from public agencies and interested parties who reviewed the DEIR and to provide written responses to any substantive comments received.

CEQA Guidelines § 15204(a) outlines the parameters for public agencies and interested parties to submit comments and the Lead Agency's responsibility for responding to specific comments. Per CEQA Guidelines § 15204(a), comments should be related to:

> *…the sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible…CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or suggested by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.*

CEQA Guidelines § 15204(c) further advises that, "[r]eviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to CEQA Guidelines § 15064, an effect shall not be considered significant in the absence of substantial evidence." Additionally, CEQA Guidelines § 15204(d) notes that, "[e]ach responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility;" but, pursuant to CEQA Guidelines § 15204(e), "[t]his section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section [CEQA Guidelines § 15204]."

F.2.2 Responses

Copies of each of the eight comment letters referenced in Table F-1 are provided on the following pages. Responses to each specific, individual comment are presented side-by-side with the original comment. No comments submitted to the City of Moreno Valley regarding the DEIR have produced substantial new information requiring recirculation or additional environmental review under CEQA Guidelines § 15088.5.

COMMENT LETTERS

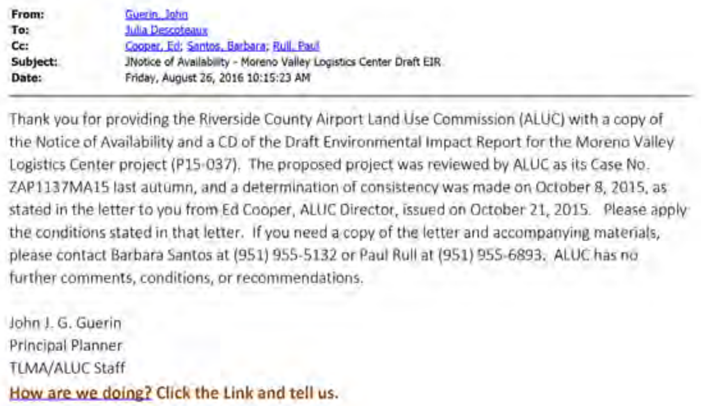

From: Guerin, John
To: Julia Descoteaux
Cc: Cooper, Ed; Santos, Barbara; Rull, Paul
Subject: JNotice of Availability - Moreno Valley Logistics Center Draft EIR
Date: Friday, August 26, 2016 10:15:23 AM

Thank you for providing the Riverside County Airport Land Use Commission (ALUC) with a copy of the Notice of Availability and a CD of the Draft Environmental Impact Report for the Moreno Valley Logistics Center project (P15-037). The proposed project was reviewed by ALUC as its Case No. ZAP1137MA15 last autumn, and a determination of consistency was made on October 8, 2015, as stated in the letter to you from Ed Cooper, ALUC Director, issued on October 21, 2015. Please apply the conditions stated in that letter. If you need a copy of the letter and accompanying materials, please contact Barbara Santos at (951) 955-5132 or Paul Rull at (951) 955-6893. ALUC has no further comments, conditions, or recommendations. A-1

John J. G. Guerin
Principal Planner
TLMA/ALUC Staff
How are we doing? Click the Link and tell us.

RESPONSES

A-1 The City of Moreno Valley acknowledges that the Riverside County Airport Land Use Commission (ALUC) found the Project to be consistent with the March Air Reserve Base Airport Land Use Compatibility Plan, as disclosed in the DEIR on Page 4.7-10, and has no further comments regarding the Project. The conditions assigned to the Project by the Riverside County ALUC are required by DEIR Mitigation Measures 4.7-1 through 4.7-13.

COMMENT LETTERS

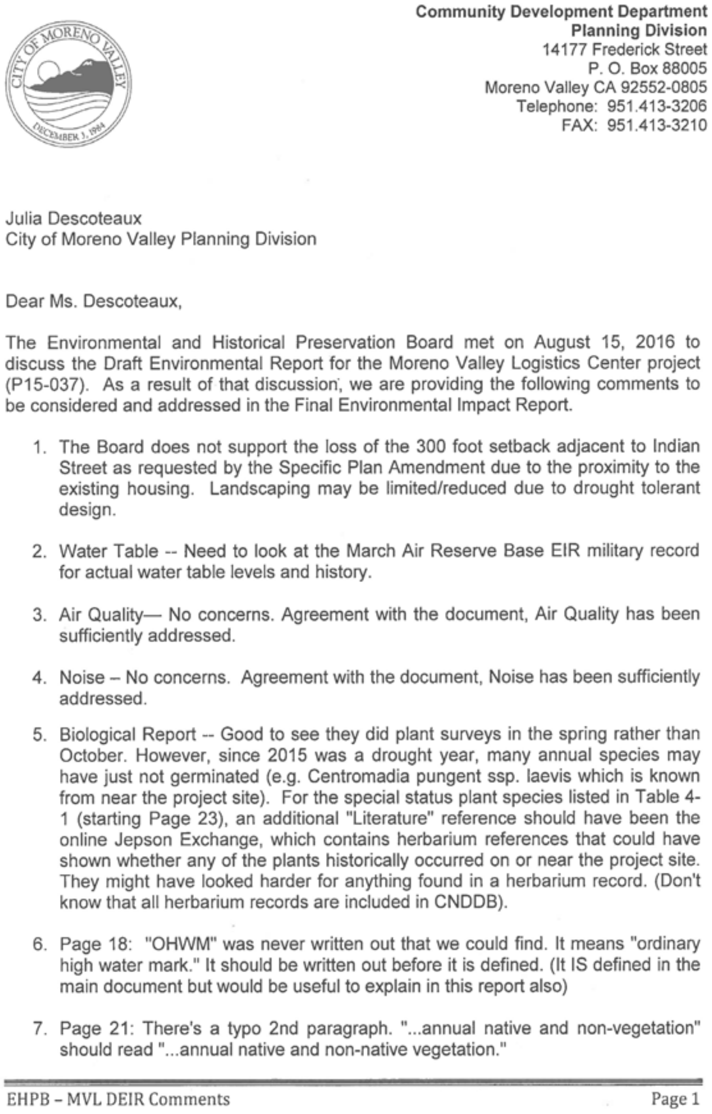

DECEMBER 3, 1984

Community Development Department
Planning Division
14177 Frederick Street
P. O. Box 88005
Moreno Valley CA 92552-0805
Telephone: 951.413-3206
FAX: 951.413-3210

Julia Descoteaux
City of Moreno Valley Planning Division

Dear Ms. Descoteaux,

The Environmental and Historical Preservation Board met on August 15, 2016 to discuss the Draft Environmental Report for the Moreno Valley Logistics Center project (P15-037). As a result of that discussion, we are providing the following comments to be considered and addressed in the Final Environmental Impact Report.

B-1

1. The Board does not support the loss of the 300 foot setback adjacent to Indian Street as requested by the Specific Plan Amendment due to the proximity to the existing housing. Landscaping may be limited/reduced due to drought tolerant design.

B-2

2. Water Table -- Need to look at the March Air Reserve Base EIR military record for actual water table levels and history.

B-3

3. Air Quality— No concerns. Agreement with the document, Air Quality has been sufficiently addressed.

B-4

4. Noise – No concerns. Agreement with the document, Noise has been sufficiently addressed.

B-5

5. Biological Report -- Good to see they did plant surveys in the spring rather than October. However, since 2015 was a drought year, many annual species may have just not germinated (e.g. Centromadia pungent ssp. laevis which is known from near the project site). For the special status plant species listed in Table 4-1 (starting Page 23), an additional "Literature" reference should have been the online Jepson Exchange, which contains herbarium references that could have shown whether any of the plants historically occurred on or near the project site. They might have looked harder for anything found in a herbarium record. (Don't know that all herbarium records are included in CNDDB).

B-6

6. Page 18: "OHWM" was never written out that we could find. It means "ordinary high water mark." It should be written out before it is defined. (It IS defined in the main document but would be useful to explain in this report also)

B-7

7. Page 21: There's a typo 2nd paragraph. "...annual native and non-vegetation" should read "...annual native and non-native vegetation."

B-8

RESPONSES

B-1 The City acknowledges that the City of Moreno Valley Environmental and Historical Preservation Board (EHPB) discussed the Project at their August 15, 2016 meeting.

B-2 The City of Moreno Valley acknowledges the EHPB's opinion regarding the Project's proposed setback along Indian Street. As disclosed in the DEIR, operations on the Project site would not result in any significant adverse impacts to existing residences along Indian Street, including impacts related to aesthetics, air quality, health risks, and noise. The Project's landscape concept plan, which is included as part of proposed Plot Plans PA15-0014, -0015, -0016, and -0017, is depicted on DEIR Figures 3-19 and 3-20. As set forth in the DEIR, the Project's landscape plan will create an aesthetically pleasing buffer to the residential development to the east. As illustrated in the DEIR, the Project Applicant proposes to install a screen wall, berm, and landscaping including over 125 trees, shrubs, and groundcover along the Project site's frontage with Indian Street that will screen the Project's Building 1 – and associated vehicle loading and vehicular use areas – from passersby and residences along Indian Street. Future Project-related building permits will be required to provide landscaping that is in substantial conformance with the landscape concepts for Plot Plans PA15-0014, -0015, -0016, and -0017 and which will ensure that the level of visual screening provided by the Project is consistent with the information disclosed in the DEIR. All plant materials, including the over 125 trees, shrubs, and groundcover along Indian Street, is required to be consistent with the City's water efficiency requirements, as established in Moreno Valley Municipal Code Chapter 9.17. The species selected will ensure screening and compliance with the Municipal Code.

Moreover, to the extent the 300-foot buffer set forth in the Specific Plan was intended to serve as a design feature to ensure less-than-significant impacts to residences adjacent to Indian Street, as stated above and in the DEIR, operation of the Project will not result in any significant impacts to residences along Indian Street and thus implementation of the proposed Project would create

Comment Letters		Responses
	B-2 (cont.)	the same less-than-significant impacts that were assumed (but not demonstrated) with respect to the Specific Plan's original 300 foot setback. Thus, adherence to the 300-foot setback is not necessary to reduce or eliminate any significant impacts. In addition, the Project's proposed reduction in the setback distance only affects approximately 19 of the more than 300 residential dwelling units that comprise the existing subdivision to the east because 19 residential properties are located adjacent to Indian Street. Thus, even assuming that the Project were to create any significant impacts, and it does not, the reduction of the setback from 300 feet to 100 feet as proposed by the Project would not create a CEQA impact for the additional reason that CEQA is concerned with impacts to the larger environment, not alleged impact to individuals. (*See Porterville Citizens for Responsible Development v. City of Porterville* (2007) 157 Cal. App.4th 885, 903.) Lastly, implementation of the 300-foot buffer on this property would be inconsistent with the City's previous approval of the Proctor & Gamble project to the immediate north of the Project site, which has a 100-foot setback to Indian Street. This inconsistent setback would serve no environmental impact mitigation purpose because the Project does not create any significant environmental impacts and the lesser amount of building space resulting from implementing a 300-foot setback would detract from the jobs-producing economic benefits of the Project. Thus, while the City respects this comment made by the EHPB regarding the 300-foot setback, the setback is not necessary to mitigate an environmental effect of the Project to below a level of significance.
	B-3	As disclosed on Page 4.8-7 of the DEIR, groundwater occurs between 100 and 150 feet below ground surface in the vicinity of the Project site as verified by EMWD. As stated on Page 4.8-12 of the DEIR, the Project would neither substantially deplete groundwater supplies nor substantially interfere with groundwater

B-3 (cont.) recharge. As such, the Project would not result in a significant effect to its groundwater basin (i.e., the Perris North Zone of the West San Jacinto Groundwater Management Area). Furthermore, in 1995, the Eastern Municipal Water District (EMWD) began implementing a Groundwater Management Plan to protect the quality and volume of water within the West San Jacinto Groundwater Basin. The Groundwater Management Plan identifies the annual safe yield within the Basin – the amount of water than can be drawn annually from the Basin by EMWD without substantially depleting groundwater resources – and establishes procedures to be implemented by EMWD to maintain the groundwater basin in a healthy state. Because the Project would not adversely affect groundwater supplies and because EMWD is implementing a groundwater protection plan that is maintaining a healthy groundwater basin, there is no potential for the Project to cause or contribute to adverse effects to groundwater resources.

Moreover, the Water Supply Assessment prepared for the proposed Project and included as EIR Technical Appendix J concluded that EMWD has adequate water supply to serve the Project.

B-4 The City acknowledges that the EHPB agrees with the DEIR's conclusions regarding the Project's potential air quality impacts.

B-5 The City acknowledges that the EHPB agrees with the DEIR's conclusions regarding the Project's potential noise impacts.

B-6 As noted on Page 23 of biological technical report, regional database records identified by the CNDDB and CNPS were one factor used to decide which species to evaluate. Though not explicitly stated in the report, the records reviewed through CNPS included the Consortium of California Herbaria, which is the same database that is linked through Jepson Interchange (not "exchange" as indicated in the comment). Accordingly, existing

B-6 (cont.) databases were adequately searched for special-status species with the potential to occur on the Project site. There were no records of special-status plants on or immediately adjacent to the Project site, but as noted in Table 4-1, smooth tarplant (*Centromadia pungens ssp. laevis*) has been documented in proximity to the site. An on-site field survey was conducted by the Project's expert biologist from Glenn Lukos Associates (GLA). The Project's expert biologist has over 17 years of experience and has performed hundreds of field surveys throughout his career and determined, based on his expert opinion, that further field studies were not necessary. Thus, the on-site field study and database research was thorough and the conclusions set forth in the biological technical report were based on the presence/absence of suitable habitat and the biologist's expert opinion. As stated, GLA surveyed the Project site and did not detect any special-status plants, including smooth tarplant. The commenter makes reference to 2015 as a drought year stating that many annual species "may have just not germinated;" however, there were other records of smooth tarplant in the region in 2015; therefore, there was adequate rainfall region-wide to support the germination of smooth tarplant. In GLA's expert opinion, the biological analysis prepared to analyze the Project's potential impacts to biological resources is certainly adequate to document potential Project impacts.

B-7 The term "Ordinary High Water Mark" and the acronym "OWHM" were introduced on Page 9 of the biological technical report included as DEIR Technical Appendix C1. No revisions to the report are necessary.

B-8 In the 2nd paragraph on Page 21, the biological technical report clearly discloses that the Project site contains "non-native vegetation." The typo that appears elsewhere in the same paragraph does not alter the findings of the biological technical report nor prevent the reader from acquiring a reasonable

COMMENT LETTERS	RESPONSES
	B-8 (cont.) understanding of the Project's impacts. No revision to the biological technical report is needed.

COMMENT LETTERS

8. Page 34: Impacts to Special-status Animals -- not sure why they say no impact to San Diego black-tailed jackrabbit since they actually found them on site. Their habitat will be eliminated.

9. There are several references to detention basins designed to "avoid infiltration over a known groundwater plume." "Groundwater plume" of what? This needs to be explained.

Respectfully,

Keith Mullins
Chair
Environmental and Historical Preservation Board

Date: Aug 26, 2016

EHPB – MVL DEIR Comments Page 2

B-9

B-10

RESPONSES

B-9 The biological technical report acknowledges that the Project would impact the San Diego black-tailed jackrabbit (refer to the second sentence in the last paragraph on Page 34). Notwithstanding, the biological technical report concludes that the Project's impact to the San Diego black-tailed jackrabbit would be less than significant because of the marginal quality of habitat on-site and because the species is adequately conserved by the Western Riverside County Multiple Species Habitat Conservation Plan (i.e., "MSHCP Covered Species"). The information and analysis from the biological technical report is summarized in the DEIR on Pages 4.4-2 and 4.4-11.

B-10 A groundwater plume is a volume of contaminated groundwater that extends downward and outward from the March Air Reserve Base. The groundwater plume was caused by past operational activities on the March Air Reserve Base site. The groundwater plume is acknowledged in the biological technical report for context but is not relevant to the evaluation of the Project's potential biological impacts and its reference does not hamper the analysis in the report. No revisions to the biological technical report are required.

The Project's stormwater drainage system is designed to mimic existing groundwater infiltration conditions to the maximum feasible extent and would not exacerbate adverse effects related to the existing groundwater plume.

COMMENT LETTERS

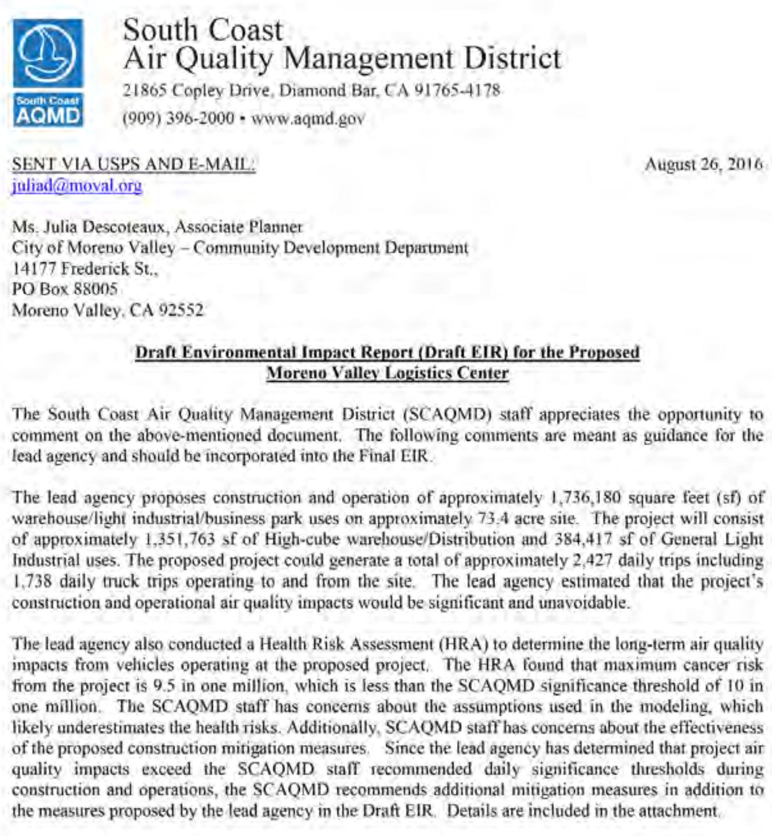

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA USPS AND E-MAIL:
juliad@moval.org

August 26, 2016

Ms. Julia Descoteaux, Associate Planner
City of Moreno Valley – Community Development Department
14177 Frederick St.,
PO Box 88005
Moreno Valley, CA 92552

Draft Environmental Impact Report (Draft EIR) for the Proposed Moreno Valley Logistics Center

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the lead agency and should be incorporated into the Final EIR. C-1

The lead agency proposes construction and operation of approximately 1,736,180 square feet (sf) of warehouse/light industrial/business park uses on approximately 73.4 acre site. The project will consist of approximately 1,351,763 sf of High-cube warehouse/Distribution and 384,417 sf of General Light Industrial uses. The proposed project could generate a total of approximately 2,427 daily trips including 1,738 daily truck trips operating to and from the site. The lead agency estimated that the project's construction and operational air quality impacts would be significant and unavoidable. C-2

The lead agency also conducted a Health Risk Assessment (HRA) to determine the long-term air quality impacts from vehicles operating at the proposed project. The HRA found that maximum cancer risk from the project is 9.5 in one million, which is less than the SCAQMD significance threshold of 10 in one million. The SCAQMD staff has concerns about the assumptions used in the modeling, which likely underestimates the health risks. C-3 Additionally, SCAQMD staff has concerns about the effectiveness of the proposed construction mitigation measures. Since the lead agency has determined that project air quality impacts exceed the SCAQMD staff recommended daily significance thresholds during construction and operations, the SCAQMD recommends additional mitigation measures in addition to the measures proposed by the lead agency in the Draft EIR. Details are included in the attachment. C-4

RESPONSES

C-1 The City of Moreno Valley acknowledges receipt of the South Coast Air Quality Management District's (SCAQMD) comments. Responses are provided below.

C-2 The SCAQMD's summary of the Project's proposed land uses and building area are correct; however, this comment contains two inaccuracies: 1) The Project site is approximately 89.4 acres and not the 73.4 acres cited in this comment; and 2) The cited traffic volumes – 2,427 daily trips, including 1,738 truck trips – represent the Project's estimated traffic volume (actual vehicles) during construction only, as disclosed on DEIR Page 4.11-20. The Project's estimated operational traffic volumes (actual vehicles) are calculated as 4,960 vehicle trips per day, including 1,441 daily truck trips, as disclosed on DEIR Page 4.11-20.

C-3 This comment correctly summarizes the significance threshold utilized in the DEIR analysis (i.e., 10 in one million). Refer to Response C-6 for justification of the methodology used in the health risk assessment analysis.

C-4 Refer to Responses C-7 through C-15.

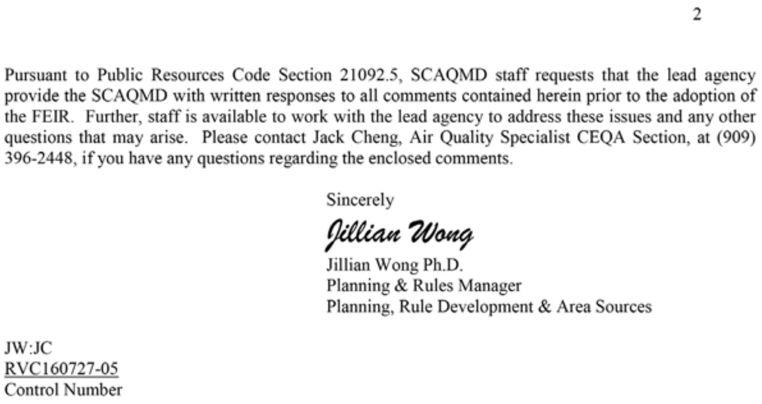

2

Pursuant to Public Resources Code Section 21092.5, SCAQMD staff requests that the lead agency provide the SCAQMD with written responses to all comments contained herein prior to the adoption of the FEIR. Further, staff is available to work with the lead agency to address these issues and any other questions that may arise. Please contact Jack Cheng, Air Quality Specialist CEQA Section, at (909) 396-2448, if you have any questions regarding the enclosed comments.

Sincerely

Jillian Wong

Jillian Wong Ph.D.
Planning & Rules Manager
Planning, Rule Development & Area Sources

JW:JC
RVC160727-05
Control Number

C-5

C-5 The City of Moreno Valley acknowledges that Mr. Jack Cheng is the SCAQMD contact person for additional questions. The City will provide a copy of the Final EIR (FEIR) to SCAQMD, including written responses to all comments regarding the DEIR, a minimum of 10 days prior to considering the Project for approval and certification of the FEIR.

COMMENT LETTERS

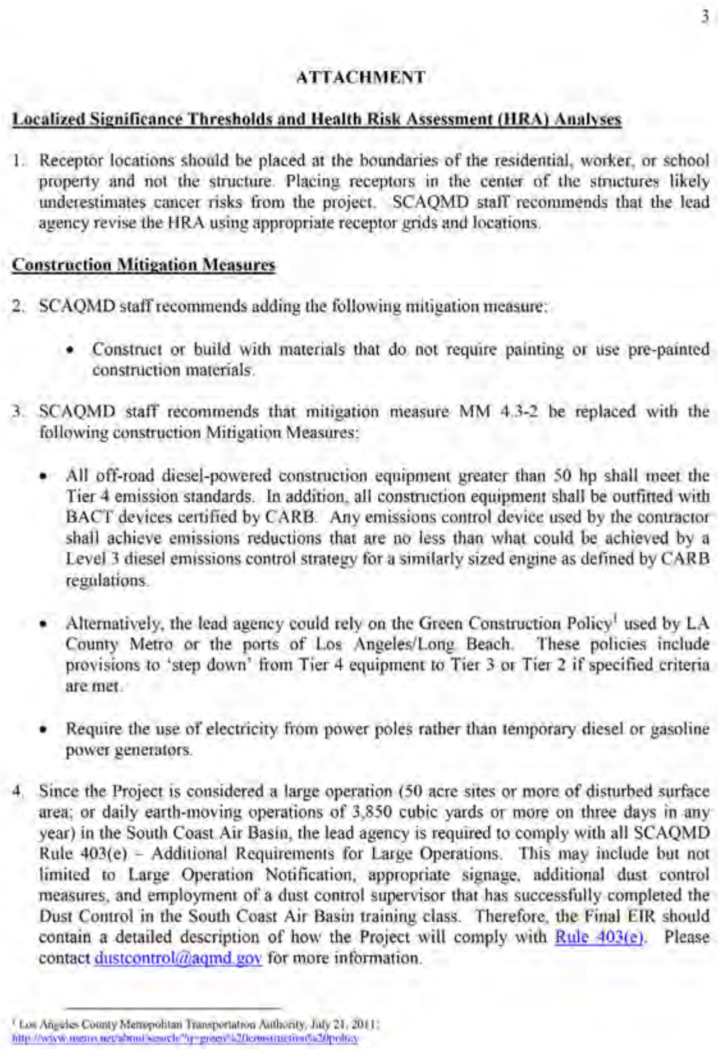

3

ATTACHMENT

Localized Significance Thresholds and Health Risk Assessment (HRA) Analyses

1. Receptor locations should be placed at the boundaries of the residential, worker, or school property and not the structure. Placing receptors in the center of the structures likely underestimates cancer risks from the project. SCAQMD staff recommends that the lead agency revise the HRA using appropriate receptor grids and locations. C-6

Construction Mitigation Measures

2. SCAQMD staff recommends adding the following mitigation measure: C-7
   - Construct or build with materials that do not require painting or use pre-painted construction materials.
3. SCAQMD staff recommends that mitigation measure MM 4.3-2 be replaced with the following construction Mitigation Measures: C-8
   - All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.
   - Alternatively, the lead agency could rely on the Green Construction Policy[1] used by LA County Metro or the ports of Los Angeles/Long Beach. These policies include provisions to 'step down' from Tier 4 equipment to Tier 3 or Tier 2 if specified criteria are met. C-9
   - Require the use of electricity from power poles rather than temporary diesel or gasoline power generators. C-10
4. Since the Project is considered a large operation (50 acre sites or more of disturbed surface area; or daily earth-moving operations of 3,850 cubic yards or more on three days in any year) in the South Coast Air Basin, the lead agency is required to comply with all SCAQMD Rule 403(e) – Additional Requirements for Large Operations. This may include but not limited to Large Operation Notification, appropriate signage, additional dust control measures, and employment of a dust control supervisor that has successfully completed the Dust Control in the South Coast Air Basin training class. Therefore, the Final EIR should contain a detailed description of how the Project will comply with Rule 403(e). Please contact dustcontrol@aqmd.gov for more information. C-11

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[1] Los Angeles County Metropolitan Transportation Authority, July 21, 2011:
http://www.metro.net/about/search/?q=green%20construction%20policy

RESPONSES

C-6 SCAQMD provides no technical justification to support its claim that receptor locations should be placed at boundaries of residential, worker, or school properties and not at the structure. Neither SCAQMD, other air districts in California (e.g., Bay Area Air Quality Management District), nor the Office of Environmental Health (OEHHA) had adopted requirements to model receptors at property boundaries as part of health risk analyses. It should be noted that the primary purpose of receptor placement is focused on long-term exposure. For example, the Project's health risk assessment (HRA, EIR Technical Appendix B2) evaluates the potential health risks to residential, worker, and school children over a period of 70, 40, and 9 years of exposure, respectively. As such, it is within reason and appropriate to assume that a resident, worker, or school child would spend the majority of the exposure daily exposure period (i.e., 12 or 24 hours per day) within the structure they reside, work, or attend school in. It is unreasonable to assume that that any person would be outside on the property line for 70, 40, and 9 years. The City's experts disagree with the comments stated.

C-7 The DEIR already includes appropriate mitigation measures to address emissions associated with painting (VOC) emissions. As required by DEIR Mitigation Measure 4.3-1:

"Prior to building permit issuance, the City of Moreno Valley shall verify that a note is provided on all building plans specifying that compliance with SCAQMD Rule 1113 is mandatory during the application of architectural coatings. Project contractors shall be required to comply with the note and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. This note also shall indicate that only "low-volatile organic compound" paint products (no more than 50 gram/liter of VOC) shall be used. All other architectural coatings shall comply with the VOC limits prescribed by SCAQMD Rule 1113."

Because Mitigation Measure 4.3-1 applies to all surface coatings and the Project has a less-than-significant VOC impact after

COMMENT LETTERS

RESPONSES

C-7 (cont.) implementation of Mitigation Measure 4.3-1, the request for additional mitigation is not necessary. Furthermore, even if pre-painted construction materials could be procured, it would not substantially lessen or avoid potential impacts identified in the DEIR due to the scope of potential overlapping construction activities. The City's experts disagree with the comments stated.

C-8 The City of Moreno Valley recognizes that technological advancements which aim to reduce air pollutant emissions by construction vehicles are emerging and advancing in the commercial marketplace. However, the equipment suggested in this comment is not yet widely available to require 100 percent of the Project's construction fleet (greater than 50 horsepower) to meet Tier IV emissions standards. A review of data available from the California Air Resources Board's (CARB) OFFROAD2011 Model shows that heavy duty off road construction equipment meeting Tier 4 emission standards account for only approximately 13 percent of the statewide fleet. With a low availability of Tier 4 compliant equipment, it would not be feasible to require all construction equipment to meet these requirements. Underscoring the lack of available Tier 4 compliant equipment, the United States Environmental Protection Agency allows construction fleets to defer converting to Tier 4 requirements until at least 2020[1]. It is important to note that DEIR Mitigation Measure 4.3-2 already requires that a minimum of 60 percent of the daily construction equipment horsepower-hours meet Tier 4 standards.

According to local construction contractors, retrofitting construction equipment with BACT devices is not a common practice of construction contractors because BACT devices present operator safety hazards (because they are not installed under the

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[1] http://www.oemoffhighway.com/article/10226787/what-epa-tier-4-flexibility-rules-mean-for-manufacturers-of-non-road-equipment

C-8 (cont.) vehicle's hood), require constant monitoring and adjustment by the equipment operator, and also tend to cause costly damage to construction vehicles by causing motor overheating.

Furthermore, application of the suggested mitigation measure would neither avoid nor substantially reduce the Project's significant impact related to construction NOx emissions. If all of the Project's construction equipment 50 horsepower or greater was required to meet Tier 4 emissions standards, the Project's peak construction NOx emissions would be approximately 215 pounds per day, which is still more than 100 percent greater than SCAQMD's maximum daily threshold (i.e., 100 pounds).

C-9 The lead agencies cited in this comment (Port of Long Beach, Port of Los Angeles, and the Los Angeles County Metropolitan Transit Authority (Metro) are public or quasi-public agencies that undertake fundamentally different types of construction projects (infrastructure in urban settings) than the type of construction that is proposed to occur on the Project site (new industrial park development in the City of Moreno Valley). The size, scale, and funding of Port projects in the Los Angeles metro area are massive in scale compared to the Moreno Valley Logistics Center project proposed in the City of Moreno Valley. Further, the Ports undertake projects that are funded by millions of dollars annually to test, pilot, and demonstrate new technologies which are continually emerging and advancing such as those recommended in this comment. Similarly, the Metro's Green Construction Policy only applies to projects that receive Metro funding from federal, state, county and city tax dollars as well as bonds and fare box revenue funds for their projects, and as such, the cost of implementation are borne by public funds as would the vehicle safety and maintenance risks. Not one example of a comparable private enterprise project was supplied. For these reasons, it is not reasonable for the City of Moreno Valley to require and enforce the use of a continually advancing and emerging clean air technology during the construction of a development project by a private enterprise, including but not limited to the Moreno Valley

COMMENT LETTERS

RESPONSES

C-9 (cont.) Logistics Center. Such a requirement would be technologically and economically infeasible. Notwithstanding, DEIR Mitigation Measure 4.3-2 requires that a minimum of 81 percent of the Project's daily construction equipment horsepower-hours meet Tier 2, 3, or 4 standards. Moreover, decades' worth of regulatory efforts have led to dramatic improvements in air quality in the Air Basin, including substantial reductions in ambient concentrations of criteria pollutants and toxic air contaminants, as documented in detail on DEIR Pages 4.3-7 through 4.3-13.

C-10 As a Project design feature, the Project would utilize power poles for electricity during construction, where feasible. Areas that would receive electricity from power poles during construction include the contractor's on-site offices and long-term equipment and materials staging areas. However, because the entire Project site would be affected by construction, a majority of the equipment that would be utilized during construction is mobile (e.g., dozers, scrapers, cranes), and because construction would occur on different locations of the Project site from day-to-day, it is infeasible to rely on electricity for 100 percent of the Project's construction energy needs. Further, given the significant size of the site, installing the electrical infrastructure requested without incurring voltage drop due to the distance and thereby reducing functionality and effectiveness of using all electrical powered equipment is not practical.

C-11 As stated in the DEIR and required by DEIR Mitigation Measure 4.3-4, the Project will be required to comply with SCAQMD's Rule 403. It is impossible to provide a point-by-point description of how the Project will comply with SCAQMD's Rule 403 at this time because these details are determined in part by the contractor and no contractor has yet been selected for this project, and thus the specific construction activities have not been determined by a contractor. Notwithstanding, as required by Mitigation Measure 4.3-4, the construction contractor shall implement a

COMMENT LETTERS

RESPONSES

C-11 (cont.) plan to comply with SCAQMD Rule 403, which shall be subject to periodic inspection by the City of Moreno Valley or its designee. As such, no additional mitigation measures are required as the DEIR already includes a requirement that the Project comply with SCAQMD's Rule 403.

COMMENT LETTERS

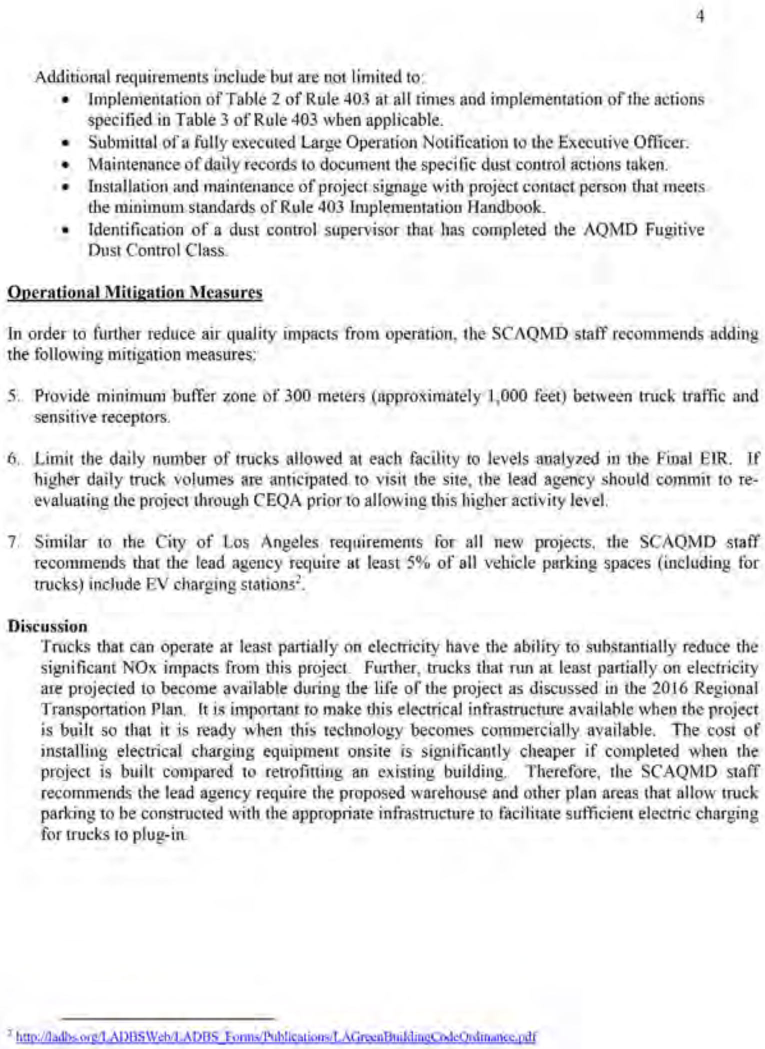

4

Additional requirements include but are not limited to:

- Implementation of Table 2 of Rule 403 at all times and implementation of the actions specified in Table 3 of Rule 403 when applicable.
- Submittal of a fully executed Large Operation Notification to the Executive Officer.
- Maintenance of daily records to document the specific dust control actions taken.
- Installation and maintenance of project signage with project contact person that meets the minimum standards of Rule 403 Implementation Handbook.
- Identification of a dust control supervisor that has completed the AQMD Fugitive Dust Control Class.

C-12

Operational Mitigation Measures

In order to further reduce air quality impacts from operation, the SCAQMD staff recommends adding the following mitigation measures:

5. Provide minimum buffer zone of 300 meters (approximately 1,000 feet) between truck traffic and sensitive receptors.

C-13

6. Limit the daily number of trucks allowed at each facility to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the lead agency should commit to re-evaluating the project through CEQA prior to allowing this higher activity level.

C-14

7. Similar to the City of Los Angeles requirements for all new projects, the SCAQMD staff recommends that the lead agency require at least 5% of all vehicle parking spaces (including for trucks) include EV charging stations[2].

Discussion

Trucks that can operate at least partially on electricity have the ability to substantially reduce the significant NOx impacts from this project. Further, trucks that run at least partially on electricity are projected to become available during the life of the project as discussed in the 2016 Regional Transportation Plan. It is important to make this electrical infrastructure available when the project is built so that it is ready when this technology becomes commercially available. The cost of installing electrical charging equipment onsite is significantly cheaper if completed when the project is built compared to retrofitting an existing building. Therefore, the SCAQMD staff recommends the lead agency require the proposed warehouse and other plan areas that allow truck parking to be constructed with the appropriate infrastructure to facilitate sufficient electric charging for trucks to plug-in.

C-15

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[2] http://ladbs.org/LADBSWeb/LADBS_Forms/Publications/LAGreenBuildingCodeOrdinance.pdf

RESPONSES

C-12 Refer to Response C-11.

C-13 The City of Moreno Valley appreciates the SCAQMD's concern with respect to the Project's potential impacts on the surrounding community. The SCAQMD's recommended buffer of 300 meters (1,000 feet) is presumed to be based on the CARB Land Use Handbook ("Handbook," April 2005) which recommends a buffer distance of at least 1,000 feet between land uses that will generate/attract 100 or more trucks per day. However, CARB's guidance acknowledges that the 1,000-foot buffer distance is an advisory, only, and to determine the *actual* risk near a particular facility (*emphasis added*, refer to Page 5 of the Handbook). The handbook further states that "these recommendations are designed to fill a gap where information about existing facilities may not be readily available and are not designed to substitute for more specific information if it exists."

The DEIR and its technical studies – which includes an air quality impact analysis and a HRA - are actually consistent with the CARB handbook. The DEIR includes a site-specific health risk assessment based on the geospatial location of the proposed Project and existing sensitive land uses in the vicinity of the Project site and the truck travel routes that are expected to be utilized. As disclosed in the DEIR, the Project would not pose a significant health risk associated with diesel particulate matter (DPM) to sensitive receptors in the Project vicinity (refer to DEIR Pages 4.3-34 and 4.3-35). Therefore, an additional buffer beyond the buffer already provided by the Project is not warranted.

Lastly, imposing a 1,000-foot-wide buffer between the Project site and existing residential land uses located east of Indian Street would preclude the Project from achieving a majority of its objectives, as specified in the DEIR (refer to DEIR Page 3-3), because a large portion of the Building 1 site would be rendered undevelopable.

C-14 The Project proposes a design to accommodate high-cube warehouse and light industrial building occupants. CEQA requires that an EIR evaluate the proposed Project based on reasonable assumptions and foreseeable actions. The number of truck trips that the Project is expected to generate is based on Institute of Transportation Engineers (ITE) and SCAQMD recommendations, which rely on surveyed data from other high cube warehouse and light industrial buildings, which is reasonable and reliable information. The comment does not present any evidence that truck trips associated with the Project would be greater than disclosed in the DEIR. Instituting a cap on the number of trucks that can access the Project's building is not required under CEQA, nor would it be feasible for the City of Moreno Valley to monitor and enforce such a requirement. The DEIR has made reasonable assumptions based on substantial evidence by using ITE and SCAQMD recommendations based on the Project's design and expected occupant type. For this reason, the City rejects the SCAQMD's recommendation to impose and enforce a numerical cap on the number of trucks that the Project attracts during its operation.

C-15 The comment references the 2016 Regional Transportation Plan (RTP), which has a time horizon at the year 2040, and asserts that trucks that run at least partially on electricity are projected to become available "during the life of the project." It is unclear whether this statement refers to the life of the RTP or the life of the proposed Project. Nonetheless, given that electric vehicles are still an emerging technology, charging stations are assumed to "fill in the gap" so that electric vehicles, which still tend to have short distance ranges, can refuel and would not be stranded in areas where recharging facilities are scarce. Also, while there is current and emerging technology for partial electric vehicle ((PEV) or hybrid) trucks that travel short distances, there are not any commercially available electric powered trucks for long-haul commercial trucks. Providing more extensive electric charging facilities, especially with respect to trucks, based on the assumption

C-15 (cont.) that long-haul commercial electrical trucks will be in common use in the future, is very speculative. Such an approach presupposes that the electrical recharging infrastructure can be provided now when the future technology for commercial electrical trucks is not currently available. It is possible that electrical infrastructure installed now would not support future, presently unknown, technology.

Further, this comment also pre-supposes that, in a future where commercial electrical vehicles are in widespread use, electrical refueling would be provided at logistics and light industrial facilities and presumably other private businesses, in contrast to the way fuel is now dispensed, via gas stations where fuel is paid for "at the pump." In fact, some gasoline service stations now provide electrical refueling in addition to gasoline. It is just as likely, and arguably more likely, that electrical fuel would be supplied and dispensed in the future in a similar manner as gasoline is currently provided.

Additionally, installing infrastructure alone to support electric vehicle charging stations would not result in any demonstrable, quantifiable reduction in NOx emissions and would therefore not avoid or substantially lessen the Project's significant air quality impact.

The comment's reference to the City of Los Angeles requirement that 5 percent of all vehicle parking spaces (including trucks) include charging stations is not comparable to the proposed Project. Trucks that access the Project site are expected to spend only a minimal amount of time on-site (enough time to unload/load their trailer and complete any necessary administrative tasks). Based on expected building occupant types, is not anticipated that trucks will spend enough time on-site to connect to a charging station and recharge a battery. As disclosed in the DEIR, there is the potential for one or more buildings on the site to contain refrigerated storage; however, in such an event, the DEIR already requires that buildings with refrigerated space provide electrical hookups at the loading bays for trucks with transport refrigeration units (refer to DEIR Mitigation Measure 4.3-18).

COMMENT LETTERS

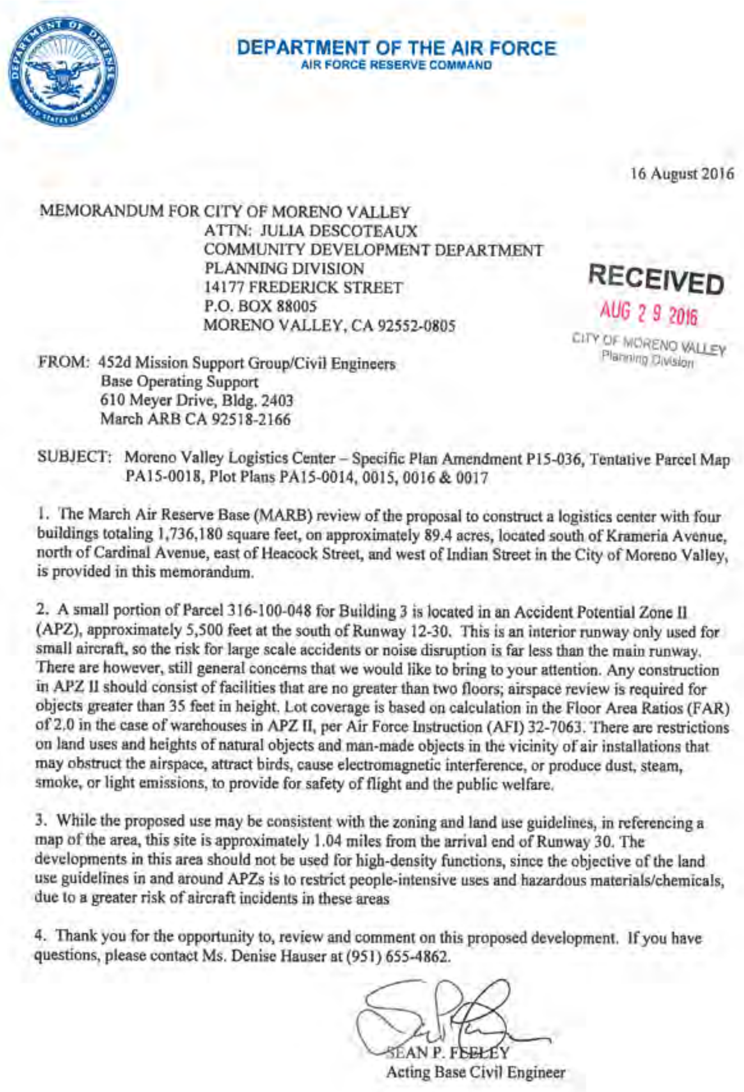

DEPARTMENT OF THE AIR FORCE
AIR FORCE RESERVE COMMAND

16 August 2016

MEMORANDUM FOR CITY OF MORENO VALLEY
ATTN: JULIA DESCOTEAUX
COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
14177 FREDERICK STREET
P.O. BOX 88005
MORENO VALLEY, CA 92552-0805

RECEIVED
AUG 2 9 2016
CITY OF MORENO VALLEY
Planning Division

FROM: 452d Mission Support Group/Civil Engineers
Base Operating Support
610 Meyer Drive, Bldg. 2403
March ARB CA 92518-2166

SUBJECT: Moreno Valley Logistics Center – Specific Plan Amendment P15-036, Tentative Parcel Map PA15-0018, Plot Plans PA15-0014, 0015, 0016 & 0017

1. The March Air Reserve Base (MARB) review of the proposal to construct a logistics center with four buildings totaling 1,736,180 square feet, on approximately 89.4 acres, located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street, and west of Indian Street in the City of Moreno Valley, is provided in this memorandum.

D-1

2. A small portion of Parcel 316-100-048 for Building 3 is located in an Accident Potential Zone II (APZ), approximately 5,500 feet at the south of Runway 12-30. This is an interior runway only used for small aircraft, so the risk for large scale accidents or noise disruption is far less than the main runway. There are however, still general concerns that we would like to bring to your attention. Any construction in APZ II should consist of facilities that are no greater than two floors; airspace review is required for objects greater than 35 feet in height. Lot coverage is based on calculation in the Floor Area Ratios (FAR) of 2.0 in the case of warehouses in APZ II, per Air Force Instruction (AFI) 32-7063. There are restrictions on land uses and heights of natural objects and man-made objects in the vicinity of air installations that may obstruct the airspace, attract birds, cause electromagnetic interference, or produce dust, steam, smoke, or light emissions, to provide for safety of flight and the public welfare.

D-2

3. While the proposed use may be consistent with the zoning and land use guidelines, in referencing a map of the area, this site is approximately 1.04 miles from the arrival end of Runway 30. The developments in this area should not be used for high-density functions, since the objective of the land use guidelines in and around APZs is to restrict people-intensive uses and hazardous materials/chemicals, due to a greater risk of aircraft incidents in these areas

D-3

4. Thank you for the opportunity to, review and comment on this proposed development. If you have questions, please contact Ms. Denise Hauser at (951) 655-4862.

D-4

SEAN P. FEELEY
Acting Base Civil Engineer

RESPONSES

D-1 The City of Moreno Valley acknowledges this comment, which accurately summarizes information presented in DEIR Section 3.0, *Project Description*.

D-2 The Project would be required to comply with the conditions of approval applied by the Riverside County ALUC, which are identified as Mitigation Measures 4.7-1 through 4.7-13 in the DEIR. These mitigation measures establish design standards for future development on the Project site that would ensure the Project site is developed with land uses that are compatible with flight operations at March Air Reserve Base and would avoid and/or minimize to less-than-significant levels potential safety hazards associated with the Base. Furthermore, the Federal Aviation Administration (FAA) has conducted airspace and aeronautical studies of all four buildings proposed by the Project and determined that no Project buildings exceed height obstruction standards or pose a hazard to air navigation.

D-3 Refer to Response D-2.

D-4 The City of Moreno Valley acknowledges that Ms. Denise Hauser is the Department of the Air Force contact person for additional questions.

COMMENT LETTERS

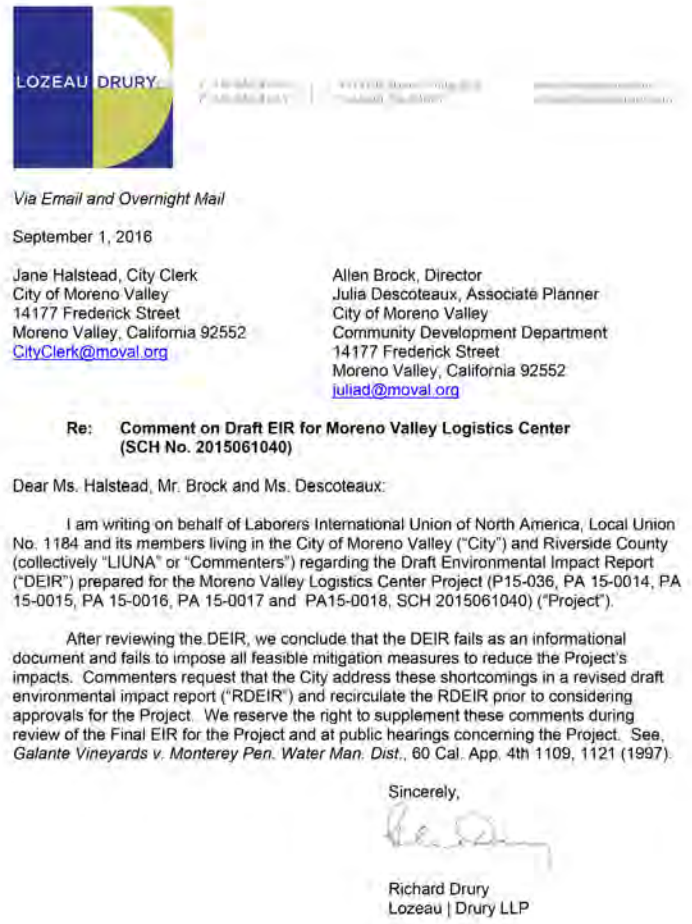

LOZEAU DRURY

Via Email and Overnight Mail

September 1, 2016

Jane Halstead, City Clerk
City of Moreno Valley
14177 Frederick Street
Moreno Valley, California 92552
CityClerk@moval.org

Allen Brock, Director
Julia Descoteaux, Associate Planner
City of Moreno Valley
Community Development Department
14177 Frederick Street
Moreno Valley, California 92552
juliad@moval.org

Re: Comment on Draft EIR for Moreno Valley Logistics Center (SCH No. 2015061040)

Dear Ms. Halstead, Mr. Brock and Ms. Descoteaux:

I am writing on behalf of Laborers International Union of North America, Local Union No. 1184 and its members living in the City of Moreno Valley ("City") and Riverside County (collectively "LIUNA" or "Commenters") regarding the Draft Environmental Impact Report ("DEIR") prepared for the Moreno Valley Logistics Center Project (P15-036, PA 15-0014, PA 15-0015, PA 15-0016, PA 15-0017 and PA15-0018, SCH 2015061040) ("Project").

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. Commenters request that the City address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR prior to considering approvals for the Project. We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings concerning the Project. See, *Galante Vineyards v. Monterey Pen. Water Man. Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

Sincerely,

Richard Drury
Lozeau | Drury LLP

E-1

RESPONSES

E-1 The City respectfully disagrees with this comment. The DEIR was prepared in accordance with Article 9 of the CEQA Guidelines (§§ 15120 to 15132) and the DEIR's conclusions are based on substantial evidence in the public record. Furthermore, the commenter fails to provide any justification to support their claim that the DEIR is inadequate. The City maintains that the DEIR complied with the requirements of CEQA and thoroughly disclosed, evaluated, and mitigated (as feasible) the Project's potential impacts to the environment. No recirculation of the DEIR is required.

COMMENT LETTERS

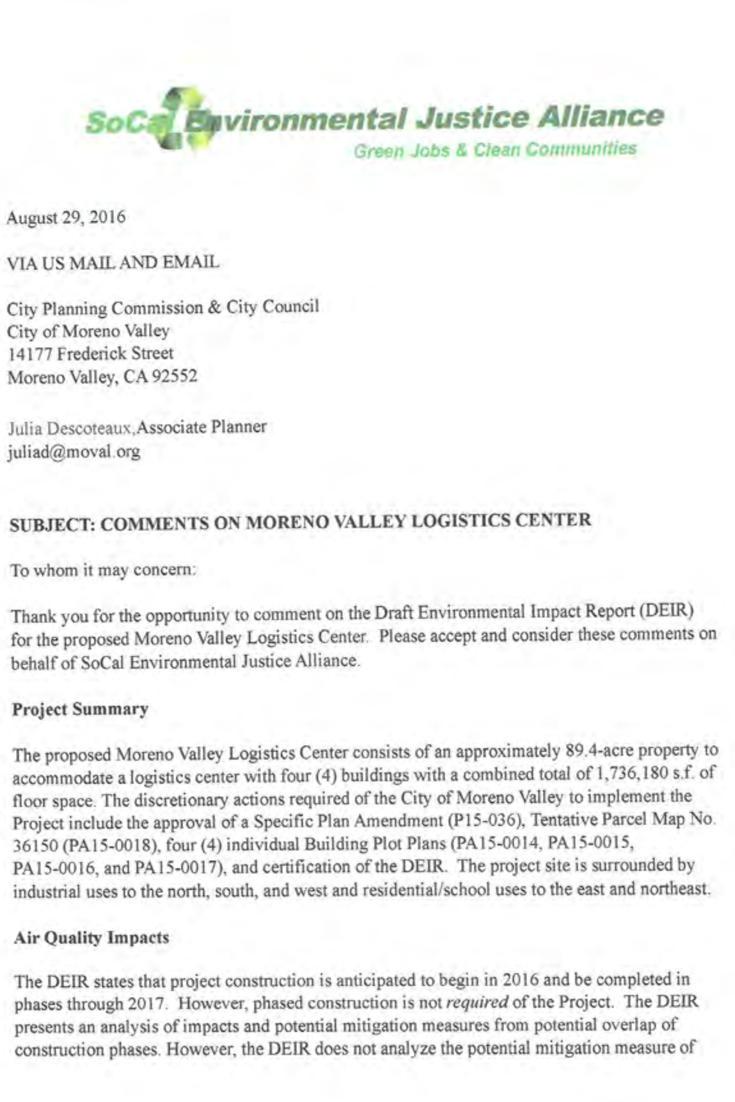

SoCal Environmental Justice Alliance
Green Jobs & Clean Communities

August 29, 2016

VIA US MAIL AND EMAIL

City Planning Commission & City Council
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Julia Descoteaux, Associate Planner
juliad@moval.org

SUBJECT: COMMENTS ON MORENO VALLEY LOGISTICS CENTER

To whom it may concern:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Moreno Valley Logistics Center. Please accept and consider these comments on behalf of SoCal Environmental Justice Alliance.

Project Summary

The proposed Moreno Valley Logistics Center consists of an approximately 89.4-acre property to accommodate a logistics center with four (4) buildings with a combined total of 1,736,180 s.f. of floor space. The discretionary actions required of the City of Moreno Valley to implement the Project include the approval of a Specific Plan Amendment (P15-036), Tentative Parcel Map No. 36150 (PA15-0018), four (4) individual Building Plot Plans (PA15-0014, PA15-0015, PA15-0016, and PA15-0017), and certification of the DEIR. The project site is surrounded by industrial uses to the north, south, and west and residential/school uses to the east and northeast. F-1

Air Quality Impacts

The DEIR states that project construction is anticipated to begin in 2016 and be completed in phases through 2017. However, phased construction is not *required* of the Project. The DEIR presents an analysis of impacts and potential mitigation measures from potential overlap of construction phases. However, the DEIR does not analyze the potential mitigation measure of F-2

RESPONSES

F-1 The City of Moreno Valley acknowledges this comment, which summarizes information from DEIR Section 2.0, *Environmental Setting*, and DEIR Section 3.0, *Project Description*. Industrial land uses are located north, south, and west of the Project site, while residential land uses are located east of the Project site. The March Air Reserve Base also is located west of the Project site. The Project site is located approximately 0.6-mile southwest of the Rainbow Ridge Elementary School, 0.6-mile west of the Morning Dove Christian Academy, 0.9-mile west of Mary McLeod Bethune Elementary School, and 1.25-mile west of Vista Verde Middle School.

F-2 The City's experts disagree with this comment. Due to the scale and complexity of the Project, it is necessary that some degree of overlap of construction activities occur. As such, the construction schedule that was disclosed and evaluated in the DEIR was conservative and reasonable. Furthermore, the commenter provides no technical evidence to support their claim that the elimination of overlapping construction activities would be more effective at minimizing Project-related construction effects than the mitigation measures already included in the DEIR. As addressed in detail in Response F-3, below, the DEIR already includes mitigation that would ensure that daily, construction-related air quality impacts do not exceed the peak levels disclosed in the DEIR.

Comment Letters

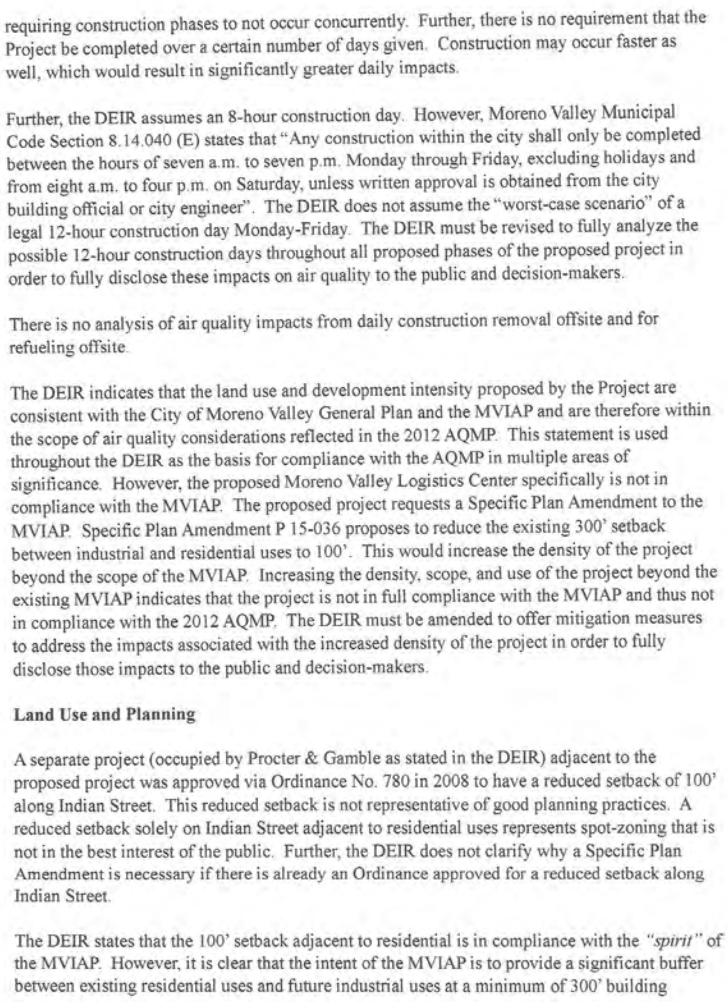

F-2 (cont.)

requiring construction phases to not occur concurrently. Further, there is no requirement that the Project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

F-3

Further, the DEIR assumes an 8-hour construction day. However, Moreno Valley Municipal Code Section 8.14.040 (E) states that "Any construction within the city shall only be completed between the hours of seven a.m. to seven p.m. Monday through Friday, excluding holidays and from eight a.m. to four p.m. on Saturday, unless written approval is obtained from the city building official or city engineer". The DEIR does not assume the "worst-case scenario" of a legal 12-hour construction day Monday-Friday. The DEIR must be revised to fully analyze the possible 12-hour construction days throughout all proposed phases of the proposed project in order to fully disclose these impacts on air quality to the public and decision-makers.

F-4

There is no analysis of air quality impacts from daily construction removal offsite and for refueling offsite.

F-5

The DEIR indicates that the land use and development intensity proposed by the Project are consistent with the City of Moreno Valley General Plan and the MVIAP and are therefore within the scope of air quality considerations reflected in the 2012 AQMP. This statement is used throughout the DEIR as the basis for compliance with the AQMP in multiple areas of significance. However, the proposed Moreno Valley Logistics Center specifically is not in compliance with the MVIAP. The proposed project requests a Specific Plan Amendment to the MVIAP. Specific Plan Amendment P 15-036 proposes to reduce the existing 300' setback between industrial and residential uses to 100'. This would increase the density of the project beyond the scope of the MVIAP. Increasing the density, scope, and use of the project beyond the existing MVIAP indicates that the project is not in full compliance with the MVIAP and thus not in compliance with the 2012 AQMP. The DEIR must be amended to offer mitigation measures to address the impacts associated with the increased density of the project in order to fully disclose those impacts to the public and decision-makers.

Land Use and Planning

F-6

A separate project (occupied by Procter & Gamble as stated in the DEIR) adjacent to the proposed project was approved via Ordinance No. 780 in 2008 to have a reduced setback of 100' along Indian Street. This reduced setback is not representative of good planning practices. A reduced setback solely on Indian Street adjacent to residential uses represents spot-zoning that is not in the best interest of the public. Further, the DEIR does not clarify why a Specific Plan Amendment is necessary if there is already an Ordinance approved for a reduced setback along Indian Street.

F-7

The DEIR states that the 100' setback adjacent to residential is in compliance with the *"spirit"* of the MVIAP. However, it is clear that the intent of the MVIAP is to provide a significant buffer between existing residential uses and future industrial uses at a minimum of 300' building

Responses

F-3 The City's experts disagree with the asserted comment. DEIR Mitigation Measure 4.3-2 establishes a cap on the maximum intensity of daily construction activities on the Project site. The cap is measured in horsepower-hours per day (i.e., the amount of horsepower for a piece of equipment multiplied by the numbers of hours in a day that piece of equipment is in operation). The Project's compliance with Mitigation Measure 4.3-2 would ensure construction-related air quality effects do not exceed the levels disclosed in the DEIR, as construction activities would be required to cease once the daily cap is met. The number of hours that construction activities are legally *allowed* on the Project site is immaterial because the DEIR places restrictions on the intensity at which equipment that emits air pollution can be used on the site per day. Accordingly, the DEIR disclosed the Project's "worst-case scenario" for construction-related air quality effects and no revisions to the EIR are warranted.

F-4 The City's experts disagree with the asserted comment. The Project's construction air quality analysis was performed using the California Emissions Estimator Model (CalEEMod). CalEEMod accounts for construction delivery and refueling trips. These activities are classified as "vendor trips" (refer to DEIR Technical Appendix B1, Page 31). Air pollutant emissions from vendor trips are included as part of the Project's overall construction emissions disclosed in DEIR Table 4.3-5. No revisions to the EIR are warranted.

F-5 The City's experts disagree with the asserted comment. As stated in the DEIR, the regional air quality forecasts included in the 2012 SCAQMD Air Quality Management Plan (AQMP) are based on growth projections that are a function of the type and intensity of allowable land uses. The Moreno Valley Industrial Area Plan (MVIAP) designates the Project site for "Industrial" land uses. The high-cube warehousing and light industrial land uses proposed by the Project are permitted by the MVIAP (refer to MVIAP Pages III-3 through III-8). In Moreno Valley, allowable

F-5 (cont.) land use intensity is established by the City's General Plan (both the MVIAP and the City's Municipal Code are silent on allowable land use intensity). Pursuant to City of Moreno Valley General Plan Policy 2.5.1, the General Plan allows the Project site to be developed at a maximum of 1.0 FAR (floor-to-area ratio). As disclosed on DEIR Page 3-15, the Project's FAR is 0.47 which is less than half of the maximum intensity allowed by the General Plan. Because the Project is consistent with the land use and intensity factors that were applied to the Project site by the City of Moreno Valley and that were utilized as the basis of forecasts in the 2012 AQMP, the Project would not exceed the AQMP's buildout assumptions.

It is important to note that the Specific Plan Amendment proposed by the Project would merely modify the minimum setback for development along Indian Street and would have no effect on the type or intensity of land uses allowed on the Project site.

F-6 Ordinance No. 780 amended the MVIAP to reduce the minimum setback between industrial and residential land uses from 300 feet to 100 feet along Indian Street, only between Iris Avenue and Krameria Avenue. The Project requires a Specific Plan Amendment to extend the minimum 100-foot setback south of Krameria Avenue, to Indian Street's terminus at the Perris Valley Channel. The Project's proposed Specific Plan Amendment would eliminate the existing appearance of spot-zoning along Indian Street because there would be a unified setback between Iris Avenue and the Perris Valley Channel.

F-7 The City's experts disagree with the asserted comment. The MVIAP established 300-foot setback between industrial and residential land uses in order to attempt to minimize potential adverse effects to residential uses related to aesthetics (screening), air contaminant emissions, noise / vibration, odor, and humidity / heat / glare (refer to MVIAP Pages III-13 through III-18). As

F-7 (cont.) described throughout the DEIR, the Project would not cause or contribute to any substantial adverse effects related to aesthetics, air contaminant emissions, noise / vibration, odor, or humidity / heat / glare, after the application of mitigation (refer to DEIR Sections 4.1, 4.3, and 4.10, respectively). Accordingly, because the Project would specifically avoid significant impacts to issue areas that were identified as issues of concern in the MVIAP, it is appropriate to conclude that the Project is consistent with the intent of the MVIAP. DEIR Section 4.1, *Aesthetics*, provides a comprehensive analysis of the Project's potential to result in adverse aesthetics effects – which include visual character / quality (massing) and light / glare – to adjacent residential uses.

COMMENT LETTERS

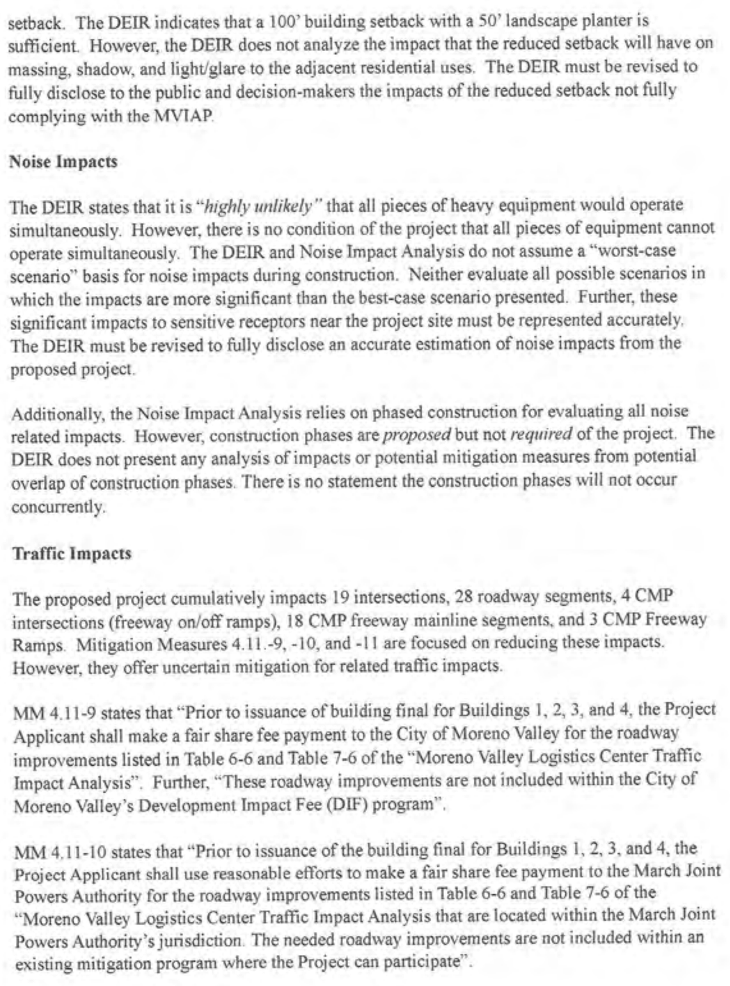

setback. The DEIR indicates that a 100' building setback with a 50' landscape planter is sufficient. However, the DEIR does not analyze the impact that the reduced setback will have on massing, shadow, and light/glare to the adjacent residential uses. The DEIR must be revised to fully disclose to the public and decision-makers the impacts of the reduced setback not fully complying with the MVIAP.

Noise Impacts

The DEIR states that it is "*highly unlikely*" that all pieces of heavy equipment would operate simultaneously. However, there is no condition of the project that all pieces of equipment cannot operate simultaneously. The DEIR and Noise Impact Analysis do not assume a "worst-case scenario" basis for noise impacts during construction. Neither evaluate all possible scenarios in which the impacts are more significant than the best-case scenario presented. Further, these significant impacts to sensitive receptors near the project site must be represented accurately. The DEIR must be revised to fully disclose an accurate estimation of noise impacts from the proposed project.

Additionally, the Noise Impact Analysis relies on phased construction for evaluating all noise related impacts. However, construction phases are *proposed* but not *required* of the project. The DEIR does not present any analysis of impacts or potential mitigation measures from potential overlap of construction phases. There is no statement the construction phases will not occur concurrently.

Traffic Impacts

The proposed project cumulatively impacts 19 intersections, 28 roadway segments, 4 CMP intersections (freeway on/off ramps), 18 CMP freeway mainline segments, and 3 CMP Freeway Ramps. Mitigation Measures 4.11.-9, -10, and -11 are focused on reducing these impacts. However, they offer uncertain mitigation for related traffic impacts.

MM 4.11-9 states that "Prior to issuance of building final for Buildings 1, 2, 3, and 4, the Project Applicant shall make a fair share fee payment to the City of Moreno Valley for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis". Further, "These roadway improvements are not included within the City of Moreno Valley's Development Impact Fee (DIF) program".

MM 4.11-10 states that "Prior to issuance of the building final for Buildings 1, 2, 3, and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the March Joint Powers Authority for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis that are located within the March Joint Powers Authority's jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate".

F-7
(cont.)

F-8

F-9

F-10

RESPONSES

F-8 Contrary to the commenter's assertion, the noise analysis presented in the DEIR assumes that all pieces of construction equipment would be operating simultaneously at the same location on the Project site, which would represent the "worst-case scenario." The "worst-case scenario" construction noise levels are summarized on DEIR Tables 4.10-6 through 4.10-9. The DEIR acknowledges that it is highly unlikely for all pieces of heavy equipment to operate simultaneously on the Project site to inform the reader that the Project would be unlikely to achieve the noise levels summarized in DEIR Tables 4.10-6 through 4.10-9. Accordingly, the City's experts disagree with the asserted comment and no revisions to the DEIR are warranted.

F-9 Refer to Response F-2.

F-10 The DEIR makes no attempt to claim that Mitigation Measures 4.11-9 through 4.11-11 are bona fide mitigation fee programs. The DEIR describes in detail the variety of potential limitations associated with Mitigation Measures 4.11-9 through 4.11-11 – all of which are outside of the control of the Project – and, due to the uncertainty of the mitigation, concludes that the Project's impacts are ***significant and unavoidable*** (*emphasis added*). Due to the scope of the Project and the Project's level of impact, there are no other feasible mitigation measures that would avoid or reduce the Project's cumulatively considerable traffic impacts that would have a proportional nexus to the Project's impact. Refer to the discussion on DEIR Pages 4.11-49 through 4.11-51.

COMMENT LETTERS

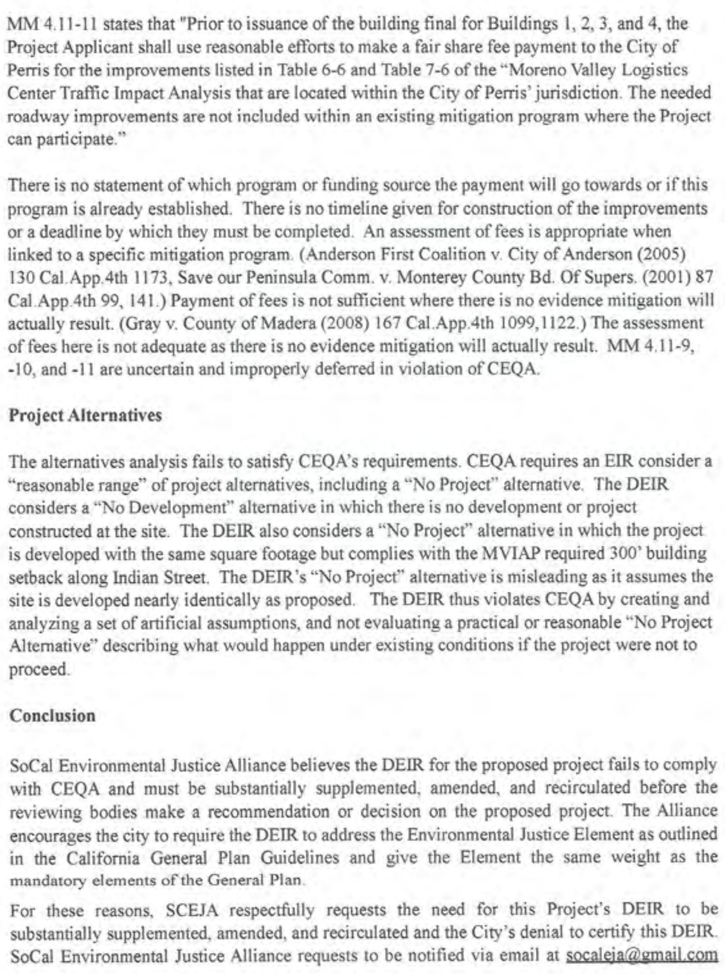

MM 4.11-11 states that "Prior to issuance of the building final for Buildings 1, 2, 3, and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the City of Perris for the improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis that are located within the City of Perris' jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate."

There is no statement of which program or funding source the payment will go towards or if this program is already established. There is no timeline given for construction of the improvements or a deadline by which they must be completed. An assessment of fees is appropriate when linked to a specific mitigation program. (Anderson First Coalition v. City of Anderson (2005) 130 Cal.App.4th 1173, Save our Peninsula Comm. v. Monterey County Bd. Of Supers. (2001) 87 Cal.App.4th 99, 141.) Payment of fees is not sufficient where there is no evidence mitigation will actually result. (Gray v. County of Madera (2008) 167 Cal.App.4th 1099,1122.) The assessment of fees here is not adequate as there is no evidence mitigation will actually result. MM 4.11-9, -10, and -11 are uncertain and improperly deferred in violation of CEQA. F-10 (cont.)

Project Alternatives

The alternatives analysis fails to satisfy CEQA's requirements. CEQA requires an EIR consider a "reasonable range" of project alternatives, including a "No Project" alternative. The DEIR considers a "No Development" alternative in which there is no development or project constructed at the site. The DEIR also considers a "No Project" alternative in which the project is developed with the same square footage but complies with the MVIAP required 300' building setback along Indian Street. The DEIR's "No Project" alternative is misleading as it assumes the site is developed nearly identically as proposed. The DEIR thus violates CEQA by creating and analyzing a set of artificial assumptions, and not evaluating a practical or reasonable "No Project Alternative" describing what would happen under existing conditions if the project were not to proceed. F-11

Conclusion

SoCal Environmental Justice Alliance believes the DEIR for the proposed project fails to comply with CEQA and must be substantially supplemented, amended, and recirculated before the reviewing bodies make a recommendation or decision on the proposed project. F-12 The Alliance encourages the city to require the DEIR to address the Environmental Justice Element as outlined in the California General Plan Guidelines and give the Element the same weight as the mandatory elements of the General Plan. F-13

For these reasons, SCEJA respectfully requests the need for this Project's DEIR to be substantially supplemented, amended, and recirculated and the City's denial to certify this DEIR. F-14 SoCal Environmental Justice Alliance requests to be notified via email at socaleja@gmail.com F-15

RESPONSES

F-11 CEQA defines the "No Project Alternative" two ways. When a project is the revision of an existing land use or regulatory plan, the "No Project Alternative" will be the continuation of the existing plan into the future (CEQA Guidelines § 15126.6(e)(3)(A)). For a development project, the "No Project Alternative" is the circumstance under which the project does not proceed (CEQA Guidelines § 15126.6(e)(3)(B)). The proposed Project contains both a regulatory component (the proposed Specific Plan Amendment) and a development component (the proposed Tentative Parcel Maps and Plot Plans). As such, the DEIR's "No Development Alternative" is provided to satisfy CEQA Guidelines § 15126.6(e)(3)(B) and the "No Project Alternative" is provided to satisfy CEQA Guidelines § 15126.6(e)(3)(A). The City of Moreno Valley determines that the DEIR's alternatives analysis satisfies CEQA's requirements and no revisions are warranted.

F-12 The City respectfully disagrees with this comment. The DEIR was prepared in accordance with Article 9 of the CEQA Guidelines (§§ 15120 to 15132) and the DEIR's conclusions are based on substantial evidence in the public record. As specified in Responses F-2 through F-11, the City maintains that the DEIR complied with the requirements of CEQA and thoroughly disclosed, evaluated, and mitigated (as feasible) the Project's potential impacts to the environment. No recirculation of the DEIR is required.

F-13 The City of Moreno Valley General Plan does not include an Environmental Justice Element and CEQA does not require an analysis of environmental justice. No revisions to the DEIR are warranted.

F-14 Refer to Response F-12.

COMMENT LETTERS

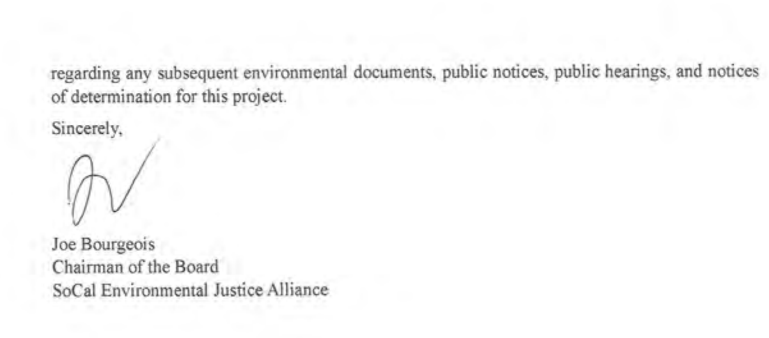

regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

Sincerely,

Joe Bourgeois
Chairman of the Board
SoCal Environmental Justice Alliance

F-15
(cont.)

RESPONSES

F-15 The City of Moreno Valley acknowledges the request that the SoCal Environmental Justice Alliance receive future notices regarding the Project.

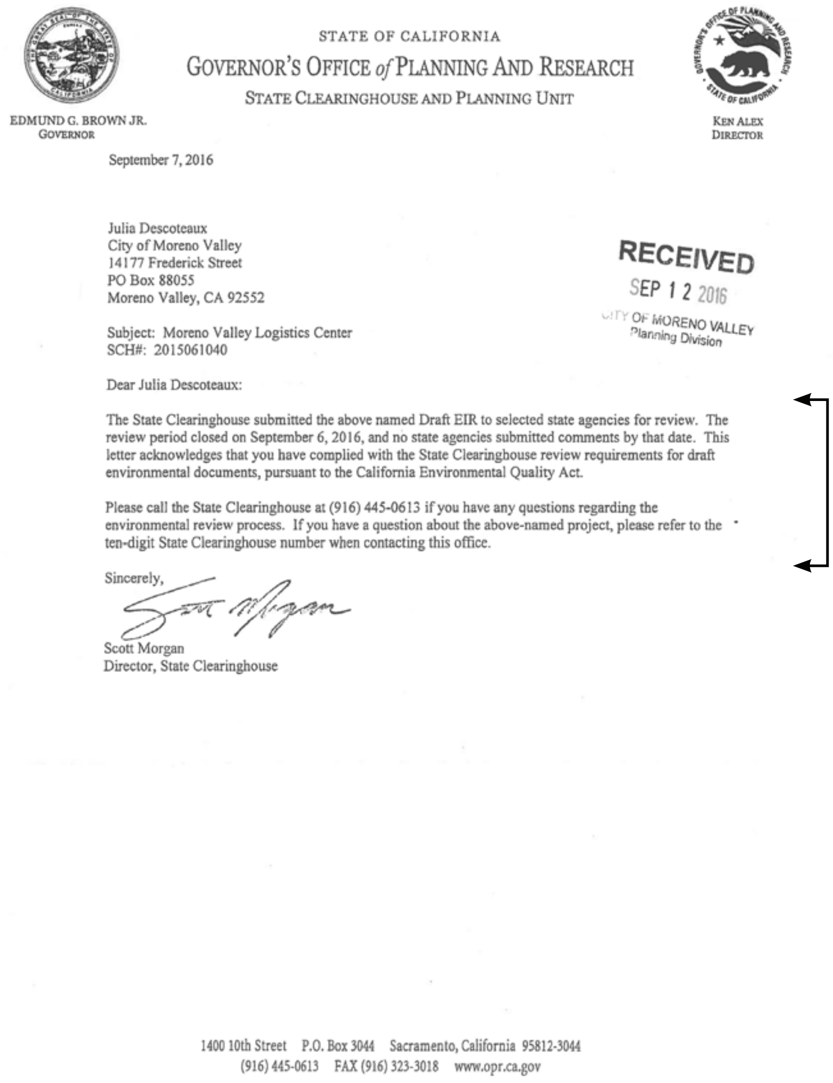

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

September 7, 2016

Julia Descoteaux
City of Moreno Valley
14177 Frederick Street
PO Box 88055
Moreno Valley, CA 92552

RECEIVED
SEP 12 2016
CITY OF MORENO VALLEY
Planning Division

Subject: Moreno Valley Logistics Center
SCH#: 2015061040

Dear Julia Descoteaux:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on September 6, 2016, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

G-1

G-1 The City of Moreno Valley acknowledges this letter, which confirms the close of the DEIR public review period. The City further acknowledges that the Project has complied with the State Clearinghouse review requirements for draft CEQA documents.

COMMENT LETTERS

RESPONSES

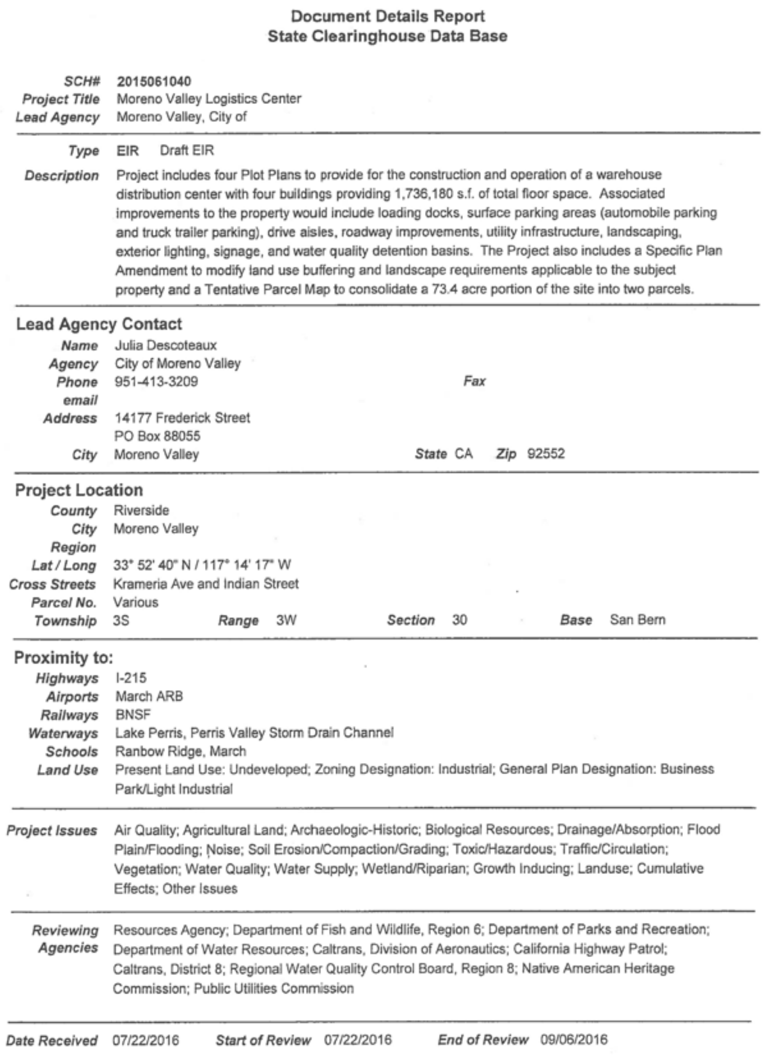

Document Details Report
State Clearinghouse Data Base

SCH# **2015061040**
Project Title Moreno Valley Logistics Center
Lead Agency Moreno Valley, City of

Type EIR Draft EIR

Description Project includes four Plot Plans to provide for the construction and operation of a warehouse distribution center with four buildings providing 1,736,180 s.f. of total floor space. Associated improvements to the property would include loading docks, surface parking areas (automobile parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The Project also includes a Specific Plan Amendment to modify land use buffering and landscape requirements applicable to the subject property and a Tentative Parcel Map to consolidate a 73.4 acre portion of the site into two parcels.

Lead Agency Contact
Name Julia Descoteaux
Agency City of Moreno Valley
Phone 951-413-3209 ***Fax***
email
Address 14177 Frederick Street
PO Box 88055
City Moreno Valley ***State*** CA ***Zip*** 92552

Project Location
County Riverside
City Moreno Valley
Region
Lat / Long 33° 52' 40" N / 117° 14' 17" W
Cross Streets Krameria Ave and Indian Street
Parcel No. Various
Township 3S ***Range*** 3W ***Section*** 30 ***Base*** San Bern

---

Proximity to:
Highways I-215
Airports March ARB
Railways BNSF
Waterways Lake Perris, Perris Valley Storm Drain Channel
Schools Ranbow Ridge, March
Land Use Present Land Use: Undeveloped; Zoning Designation: Industrial; General Plan Designation: Business Park/Light Industrial

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Project Issues Air Quality; Agricultural Land; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Noise; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

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Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 6; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 8; Regional Water Quality Control Board, Region 8; Native American Heritage Commission; Public Utilities Commission

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Date Received 07/22/2016 ***Start of Review*** 07/22/2016 ***End of Review*** 09/06/2016

COMMENT LETTERS

RESPONSES

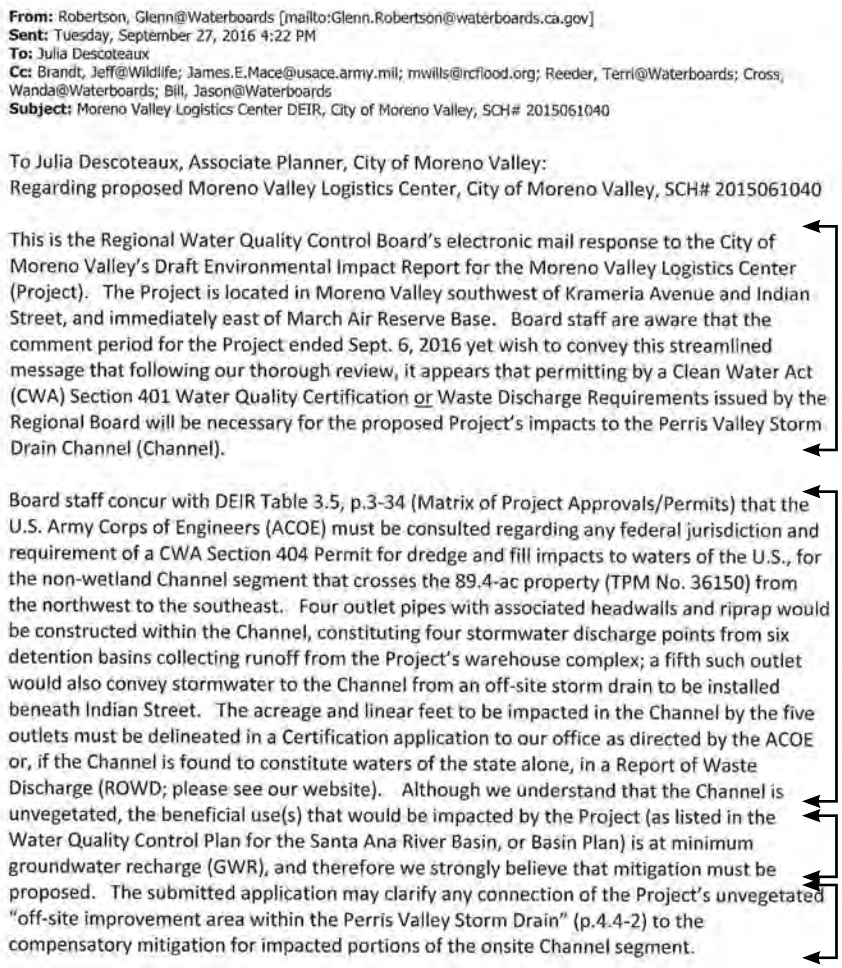

From: Robertson, Glenn@Waterboards [mailto:Glenn.Robertson@waterboards.ca.gov]
Sent: Tuesday, September 27, 2016 4:22 PM
To: Julia Descoteaux
Cc: Brandt, Jeff@Wildlife; James.E.Mace@usace.army.mil; mwills@rcflood.org; Reeder, Terri@Waterboards; Cross, Wanda@Waterboards; Bill, Jason@Waterboards
Subject: Moreno Valley Logistics Center DEIR, City of Moreno Valley, SCH# 2015061040

To Julia Descoteaux, Associate Planner, City of Moreno Valley:
Regarding proposed Moreno Valley Logistics Center, City of Moreno Valley, SCH# 2015061040

This is the Regional Water Quality Control Board's electronic mail response to the City of Moreno Valley's Draft Environmental Impact Report for the Moreno Valley Logistics Center (Project). The Project is located in Moreno Valley southwest of Krameria Avenue and Indian Street, and immediately east of March Air Reserve Base. Board staff are aware that the comment period for the Project ended Sept. 6, 2016 yet wish to convey this streamlined message that following our thorough review, it appears that permitting by a Clean Water Act (CWA) Section 401 Water Quality Certification or Waste Discharge Requirements issued by the Regional Board will be necessary for the proposed Project's impacts to the Perris Valley Storm Drain Channel (Channel). H-1

Board staff concur with DEIR Table 3.5, p.3-34 (Matrix of Project Approvals/Permits) that the U.S. Army Corps of Engineers (ACOE) must be consulted regarding any federal jurisdiction and requirement of a CWA Section 404 Permit for dredge and fill impacts to waters of the U.S., for the non-wetland Channel segment that crosses the 89.4-ac property (TPM No. 36150) from the northwest to the southeast. Four outlet pipes with associated headwalls and riprap would be constructed within the Channel, constituting four stormwater discharge points from six detention basins collecting runoff from the Project's warehouse complex; a fifth such outlet would also convey stormwater to the Channel from an off-site storm drain to be installed beneath Indian Street. The acreage and linear feet to be impacted in the Channel by the five outlets must be delineated in a Certification application to our office as directed by the ACOE or, if the Channel is found to constitute waters of the state alone, in a Report of Waste Discharge (ROWD; please see our website). H-2 Although we understand that the Channel is unvegetated, the beneficial use(s) that would be impacted by the Project (as listed in the Water Quality Control Plan for the Santa Ana River Basin, or Basin Plan) is at minimum groundwater recharge (GWR), and therefore we strongly believe that mitigation must be proposed. H-3 The submitted application may clarify any connection of the Project's unvegetated "off-site improvement area within the Perris Valley Storm Drain" (p.4.4-2) to the compensatory mitigation for impacted portions of the onsite Channel segment. H-4

H-1 The City of Moreno Valley acknowledges receipt of the comments from the Santa Ana Regional Water Quality Control Board (RWQCB) regarding the Moreno Valley Logistics Center project. As disclosed in the DEIR (refer to Page 3-34); the Project's biological technical report (DEIR Technical Appendix C1, refer to Page 35), and the Project's jurisdictional delineation (DEIR Technical Appendix C2, refer to Page 3 of Appendix A), the Project's implementing actions will be subject to the Santa Ana RWQCB's Section 401 Water Quality Certification process.

H-2 As disclosed on DEIR Page 3-13, the Project would construct five (5) storm drain outlet structures within the Perris Valley Storm Drain Channel (Channel). Four (4) storm drain outlet structures would be located adjacent to the Project site and one (1) storm drain structure would be located at the southern terminus of Indian Street. Each storm drain outlet structure would include a headwall and a riprap energy dissipater. The areas within the Channel that would be permanently and temporarily impacted by the proposed storm drain outlet structures comprise non-wetland waters under the jurisdiction of the U.S. Army Corps of Engineers and the Santa Ana RWQCB, and unvegetated streambed under the jurisdiction of the California Department of Fish and Wildlife (CDFW). Accordingly, as disclosed on DEIR Page 3-34 – and described in detail in DEIR Appendix C1 (refer to Page 36) – the Project's implementing actions would be subject to consultation with the RWQCB, U.S. Army Corps of Engineers (Corps), and CDFW via the Section 401, Section 404, and the Lake and Streambed Alteration processes, respectively.

H-3 The DEIR concluded that the Project would result in a less-than-significant impact to groundwater recharge, on both a direct and cumulative basis. The DEIR's conclusion is based on substantial evidence in the public record, as cited in the DEIR and summarized below. The Project's stormwater drainage system, which includes six (6) water quality/detention basins – is designed to imitate existing runoff conditions. As disclosed on DEIR Pages 4.8-13 and

H-3 (cont.) 4.8-15, the Project would discharge runoff flows into the Channel at a rate and volume that is similar to existing conditions (also refer to the Project's hydrology report, DEIR Technical Appendix G1). Accordingly, the Project would not substantially alter the amount of stormwater runoff within the Channel and would not result in substantial, adverse effects to groundwater recharge within the Channel or downstream. Additionally, the six water quality/detention basins and approximately 10 acres of landscaping on the Project site would provide for infiltration of stormwater runoff on-site. Lastly, the EIR for the City of Moreno Valley General Plan (SCH No. 200091075) concluded that cumulative development allowed by the General Plan would result in less-than-significant impact related to groundwater recharge. The Project's proposed land uses and development intensity are consistent with the General Plan; therefore, the Project's EIR can rely on and tier from the City's General Plan EIR pursuant to CEQA Guidelines Sections 15152(e) & (f) to similarly conclude that the Project would make less-than-significant contributions to cumulative groundwater recharge effects. The commenter fails to provide any evidence to support the assertions that the Project would result in a substantial adverse effect to groundwater recharge or that mitigation is required for potential effects related to groundwater recharge. Accordingly, no revision to the EIR is warranted.

H-4 No portion of the Channel is located on the Project site (i.e., on-site). The Channel is located on property owned by the Riverside County Flood Control and Water Conservation District that abuts the Project site and physically separates the western and eastern portions of the site. All of the Project's construction activities within the Channel occur within the "off-site improvement area" that is referenced by this comment. The applicability of mitigation for Project-related impacts within the Channel are addressed in Response H-6.

COMMENT LETTERS

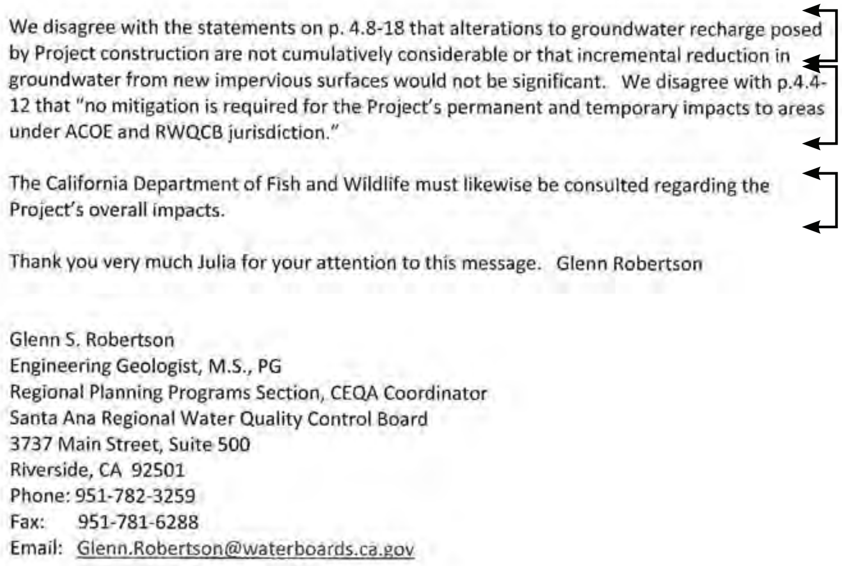

We disagree with the statements on p. 4.8-18 that alterations to groundwater recharge posed by Project construction are not cumulatively considerable or that incremental reduction in groundwater from new impervious surfaces would not be significant. We disagree with p.4.4-12 that "no mitigation is required for the Project's permanent and temporary impacts to areas under ACOE and RWQCB jurisdiction." H-5 H-6

The California Department of Fish and Wildlife must likewise be consulted regarding the Project's overall impacts. H-7

Thank you very much Julia for your attention to this message. Glenn Robertson

Glenn S. Robertson
Engineering Geologist, M.S., PG
Regional Planning Programs Section, CEQA Coordinator
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501
Phone: 951-782-3259
Fax: 951-781-6288
Email: Glenn.Robertson@waterboards.ca.gov

RESPONSES

H-5 Refer to Response H-3.

H-6 The analysis presented on DEIR Page 4.4-12 addresses two separate CEQA thresholds of significance:

1) Would the Project have a substantially adverse effect on any *riparian habitat* or other *sensitive natural community* identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Wildlife Service (*emphasis added*); and

2) Would the Project have a substantial adverse effect on *federally protected wetlands as defined by Section 404 of the Clean Water Act* (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (*emphasis added*)?

Regarding the first threshold of significance listed above, the Project would permanently impact 0.002-acre of non-wetland waters under the jurisdiction of the Corps and RWQCB within the Channel. The Project also would temporarily impact 0.09-acre of non-wetland waters under the jurisdiction of the Corps and RWQCB within the Channel. The Project's permanent and temporary impact areas within the Channel do not support riparian habitat (refer to DEIR Page 4.4-5 and Page 35 of DEIR Technical Appendix C1). Also, the Channel is a man-made flood control facility and does not qualify as a sensitive natural community. Because the Project's impacts to Corps and RWQCB jurisdictional areas within the Channel do not meet the definition of riparian habitat or sensitive natural community, the Project's impacts do not rise to a level of significance under this CEQA significance threshold and no mitigation is required.

Regarding the second threshold of significance listed above, none of the areas impacted by the Project within the Channel meet the Section 404 definition of a "wetland" (refer to DEIR Page 4.4-5 and Page 35 of DEIR Technical Appendix C1). Because the Project's impacts to Corps and RWQCB jurisdictional areas within the Channel do not meet the definition of a federally

H-6 (cont.) protected wetland, the Project's impacts do not rise to a level of significance under this CEQA significance threshold and no mitigation is required.

Notwithstanding the information presented above, the DEIR discloses that the Project would restore all temporary impacts within the Channel to pre-construction (i.e., existing) conditions (refer to DEIR Page 4.4-12). In essence, the Project's temporary impacts would be completely erased upon completion of restoration efforts. The commenter does not provide justification to support the claim that mitigation is warranted for temporary impacts in addition to the restoration efforts already disclosed in the DEIR. Furthermore, the Project's permanent impacts to Corps and RWQCB jurisdictional areas within the Channel were determined to have a negligible adverse effect to biological function (refer to DEIR Page 4.4-12 and Page 35 of DEIR Technical Appendix C1). The commenter does not provide justification to support the claim that mitigation is warranted for permanent impacts that do not result in substantial adverse environmental effects.

H-7 The City of Moreno Valley acknowledges this comment. The DEIR disclosed that the CDFW would be consulted regarding the Project's impacts as part of the Section 1602 Streambed Alteration process (refer to Page 3-34 of the DEIR; Page 35 of DEIR Technical Appendix C1, and Page 3 of Appendix A from DEIR Technical Appendix C2).

F.3 Additions, Corrections, and Revisions to the DEIR

Changes made to the text, tables and/or exhibits of the DEIR in response to public comments on the DEIR are itemized in Table F-2, *Errata Table of Additions, Corrections, and/or Revisions*. Additions are shown in Table F-2 as underline text and deletions shown as ~~stricken text~~. All additions/revisions listed in Table F-2 were the result of the City's consultation with local Native American tribes pursuant to the Senate Bill (SB) 18 process. No corrections or additions made to the DEIR are considered substantial new information requiring recirculation or additional environmental review under CEQA Guidelines § 15088.5.

Table F-2 Errata Table of Additions, Corrections, and/or Revisions

Page(s)	Section	Additions, Corrections, and/or Revisions
4.5-12 ES-29	4.5, *Cultural Resources* ES, *Executive Summary*	Based on the City of Moreno Valley's consultation with local Native American tribes during the SB 18 process for the Project, DEIR Mitigation Measure MM 4.5.1 was revised as follows: MM 4.5.1 Prior to issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a ~~qualified~~ professional archaeologist ~~archaeological~~ monitor has been retained by the ~~Project~~ Applicant to conduct monitoring of all mass grading and trenching activities. ~~in previously undisturbed soils and has~~ The Project Archaeologist shall have the authority to temporarily ~~halt and~~ redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Applicant and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural resources activities that will occur on the Project site. Details in the CRMP shall include: a) Schedule for Project grading and development activities; b) The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring

Table F-2 Errata Table of Additions, Corrections, and/or Revisions

Page(s)	Section	Additions, Corrections, and/or Revisions
		Tribe(s) shall make themselves available to provide the training on an as-needed basis. c) The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the Applicant; and d) The protocols and stipulations that the Applicant, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.
4.5-13 ES-31	4.5, *Cultural Resources* ES, *Executive Summary*	Based on the City of Moreno Valley's consultation with local Native American tribes during the SB 18 process for the Project, DEIR Mitigation Measure MM 4.5.2 and MM 4.5.3 were consolidated into a single mitigation measure (MM 4.5.2) and revised as follows: ~~MM 4.5.2 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) shall be allowed to monitor and have received or will receive a minimum of 15 days advance notice of mass grading activities in previously undisturbed soils.~~ ~~MM 4.5.3 During grading operations in previously undisturbed soils, a professional archaeological monitor shall observe the grading operation until such time as the monitor determines that there is no longer any potential to uncover buried cultural deposits. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s) and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s), the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5.4 shall apply.~~ MM 4.5-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days' advance notice of all mass grading and trenching activities, and any

Table F-2 Errata Table of Additions, Corrections, and/or Revisions

Page(s)	Section	Additions, Corrections, and/or Revisions
		monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measures MM 4.5.3 and MM 4.5.4 shall apply.
4.5-14 ES-33	4.5, *Cultural Resources* ES, *Executive Summary*	Based on the City of Moreno Valley's consultation with local Native American tribes during the SB 18 consultation process for the Project, DEIR Mitigation Measure MM 4.5-4 was revised (and renumbered as MM 4.5-3) and new Mitigation Measure 4.5-4 was added as follows: MM 4.5-3 A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until the treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).~~If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American~~

Table F-2 Errata Table of Additions, Corrections, and/or Revisions

Page(s)	Section	Additions, Corrections, and/or Revisions
		~~origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center.~~ MM 4.5-4 In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries: a. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department: i. Accommodate the process for Preservation-In-Place/Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed; ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation; iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.

Table F-2 Errata Table of Additions, Corrections, and/or Revisions

Page(s)	Section	Additions, Corrections, and/or Revisions
4.5-15 ES-35	4.5, *Cultural Resources* ES, *Executive Summary*	Based on the City of Moreno Valley's consultation with local Native American tribes during the SB 18 process for the Project, a new mitigation measure was added to the FEIR as MM 4.5-5. <u>MM 4.5-5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:</u> <u>"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."</u>
4.5-15 ES-36	4.5, *Cultural Resources* ES, *Executive Summary*	Draft EIR Mitigation Measures MM 4.5-5 through 4.5-8 have been renumbered in the Final EIR as MM 4.5-6 through 4.5-9 to reflect the revisions described on the preceding pages.

F.4 No Recirculation of the DEIR Required

CEQA Guidelines § 15088.5 describes the conditions under which a DEIR that was circulated for public review is required to be re-circulated for additional public review and comment. CEQA Guidelines § 15088.5 states that new information added to a DEIR is not significant unless the DEIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:

a) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

b) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

c) A feasible project alternative or mitigation measure considerably different from the others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.

d) The DEIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

As summarized in Subsection F.3, *Additions, Corrections, and Revisions to the DEIR*, and based on the comment letters and responses thereto presented in Subsection F.2, *Responses to DEIR Comments*, there were no public comments or changes to the text or analysis contained in the DEIR that resulted in the identification of any new significant environmental effect or a substantial increase in the severity of an environmental effects that were disclosed in the DEIR. Based on the City's coordination with local Native American tribes pursuant to the SB 18 process, a few of the Project's mitigation requirements were altered, as described above in Table F-2, *Errata Table of Additions, Corrections, and/or Revisions*; however, the changes to the mitigation measures were minor and procedural in nature and did not alter the mitigation activities required of the Project. As such, all mitigation measures that would clearly lessen the significant and unavoidable environmental impacts of the Project were already included in the DEIR. Additionally, the DEIR was fundamentally and basically adequate, and all conclusions within the DEIR were supported by evidence provided within the DEIR or the administrative record for the proposed Project. Furthermore, public comment letters on the DEIR did not identify any alternatives to the proposed Project considerably different from those analyzed in the DEIR that would substantially lessen the significant environmental impacts of the proposed Project while still attaining the Project's basic objectives.

Based on the foregoing, additional recirculation of the DEIR is not warranted according to the guidance set forth in § 15088.5 of the CEQA Guidelines.

ES EXECUTIVE SUMMARY

ES.1 Introduction

The California Environmental Quality Act (CEQA), Public Resources Code § 21000, et seq. requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR), having California State Clearinghouse (SCH) No. 2015061040 was prepared in accordance with CEQA Guidelines Article 9, § 15120 to § 15132, to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed Moreno Valley Logistics Center (hereafter, the "Project" or "proposed Project"). This EIR does not recommend approval, approval with modification, or denial of the proposed Project; rather, this EIR is a source of impartial information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the City of Moreno Valley will consider certifying the Final EIR and adopting required findings in conjunction with Project approval. In the case that there are any adverse environmental impacts that cannot be fully mitigated, the City of Moreno Valley must adopt a Statement of Overriding Considerations, stating why the City is taking action to approve the Project with or without modification despite its unavoidable impacts.

This Executive Summary complies with CEQA Guidelines § 15123, "Summary." This EIR document includes a description of the proposed Project and evaluates the physical environmental effects that could result from Project implementation. The City of Moreno Valley determined that the scope of this EIR should cover ten (10) subject areas. The scope was determined through the completion of an Initial Study accepted by the City of Moreno Valley's independent judgment pursuant to CEQA Guidelines § 15063, and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP, are attached to this EIR as *Technical Appendix A*. As determined by the Initial Study and in consideration of public comment on the NOP, the eleven (11) environmental subject areas that could be reasonably and significantly affected by planning, constructing, and/or operating the proposed Project are analyzed herein, including:

1. Aesthetics
2. Agricultural Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Greenhouse Gas Emissions
7. Hazards and Hazardous Materials
8. Hydrology and Water Quality
9. Land Use and Planning
10. Noise
11. Transportation and Traffic

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. As mentioned, the scope of this EIR includes these ten (10) subject areas as determined through the completion of an Initial Study pursuant to CEQA Guidelines §15063, and in consideration of public comment to this EIR's NOP. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR are addressed in EIR Section 5.0, *Other CEQA Considerations*. For each of the ten (10) subject areas analyzed in detail in Section 4.0, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (June 17, 2015); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that have a proportional nexus to the Project's impacts and that would reduce or avoid significant adverse environmental impacts that the proposed Project may cause. A summary of the proposed Project's significant environmental impacts and the mitigation measures imposed by the City of Moreno Valley on the Project to lessen or avoid those impacts is included in this Executive Summary as Table ES-1, *Mitigation, Monitoring, and Reporting Program*.

This EIR also discusses alternatives to the proposed Project. Alternatives are described that would attain most of the Project's objectives while avoiding or substantially lessening the proposed Project's significant adverse environmental effects. A full discussion of Project alternatives is found in EIR Section 6.0, *Alternatives*.

ES.2 Project Overview

ES.2.1 Location and Regional Setting

The approximately 89.4-acre site is located in the southern portion of the City of Moreno Valley. The City of Moreno Valley is located in the northwestern portion of Riverside County, California, and is north of the City of Perris and southeast of the City of Riverside. The site's location in a regional context is shown on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*. The Project site is located approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route 60 (SR-60), and approximately 2.5 miles northwest of Lake Perris. Refer to EIR Section 2.1, *Regional Setting and Location*, for more information about the Project's regional setting.

At a local scale, the Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street. Figure 3-2, *Vicinity Map*, in EIR Section 3.0, *Project Description* shows the specific location of the Project site. As shown on Figure 3-2, *Vicinity Map*, the Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site is located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site is located east of the Perris Valley Storm Drain Channel. The property lies within the southwestern portion of Section 30, Township 3 South, Range 3 West (San Bernardino Base and Meridian) and includes Assessor Parcel Numbers (APNs): 316-100-028, 316-100-030, 316-100-048, 316-100-051, and 316-100-052. Refer to EIR Section 2.0, *Environmental Setting*, for more information about the Project's local setting.

ES.2.2 Project Objectives

The Project's underlying purpose is to develop the subject property as a productive logistics center. The Project would achieve this purpose through the following basic objectives.

A. Implement the Moreno Valley Industrial Area Plan (MVIAP) through the construction and operation of a Class A logistics center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the MVIAP, as amended.

B. To develop and maximize the buildout potential of a vacant or underutilized property in the MVIAP area that has access to available infrastructure.

C. To attract new employment-generating businesses to the MVIAP area thereby providing a more equal jobs-housing balance both in the City of Moreno Valley and in the Riverside County/Inland Empire area and reducing the need for members of the local workforce to commute outside the area for employment.

D. To develop logistics buildings with loading bays and trailer parking within close proximity of regional transportation routes and designated City of Moreno Valley truck routes in order to facilitate the efficient movement of goods.

E. To develop logistics center buildings that are physically and economically feasible to construct and operate and that are economically competitive with other geographic markets in the Inland Empire to attract building users to Moreno Valley.

F. To develop a vacant or underutilized property with structures that have architectural design and operational characteristics that complement existing and planned warehouse development in the immediate vicinity.

G. To develop the subject property with land uses that are harmonious to the adjacent March Air Reserve Base.

ES.2.3 Project Description Summary

The Project consists of a proposal to develop an approximately 89.4-acre property to accommodate a logistics center with four (4) buildings with a combined total of 1,736,180 s.f. of floor space. The principal discretionary actions required of the City of Moreno Valley to implement the Project include the approval of a Specific Plan Amendment (P15-036), Tentative Parcel Map No. 36150 (PA15-0018), and four (4) individual Building Plot Plans (PA15-0014, PA15-0015, PA15-0016, and PA15-0017), and certification of this EIR. Other approvals and actions that are necessary to fully implement the proposed Project are listed in Table 3-5, *Matrix of Project Approvals/Permits*, in EIR Section 3.0, *Project Description*.

A. Specific Plan Amendment (P15-036)

The MVIAP, which was adopted by the City of Moreno Valley in 1989, includes a 300-foot setback requirement between industrial and residential land uses (refer to MVIAP Section III, C.1). The proposed Specific Plan Amendment (SPA) would amend this setback as it pertains to the Project site. The SPA proposes to amend the Project site's minimum setback distance requirement to the residential uses located on the opposite side (east side) of Indian Street from 300 feet to 100 feet and to add the requirement to install a minimum 50-foot-wide contiguous enhanced landscaping zone within the proposed 100-foot setback area. The building constructed to the north of the Project site and currently occupied by Proctor & Gamble has a 100-foot separation from residential uses on the east side of Indian Street; the proposed Project is proposing the same distance so that there is a consistent setback along the west side of Indian Street.

B. Tentative Parcel Map No. 36150

Tentative Parcel Map No. 36150 (TPM No. 36150; PA15-0018) proposes to consolidate three (3) parcels comprising an approximately 74.1-gross-acre portion of the Project site into two (2) parcels, as depicted on Figure 3-4, *Tentative Parcel Map No. 36150* of EIR Section 3.0, *Project Description.* Proposed Parcel 1 would contain approximately 62.6 net acres and proposed Parcel 2 would contain approximately 6.9 net acres. In addition, TPM No. 36150 identifies areas of public road dedication and vacation, and the size and location of proposed utility infrastructure improvements.

C. Plot Plans PA15-0014, PA15-0015, PA15-0016, PA15-0017

Four (4) individual Plot Plans are proposed as part of the Project. The individual Plot Plans provide site plans, including a detailed architectural and landscape designs, for Building 1 (PA15-0014), Building 2 (PA15-0015), Building 3 (PA15-0016), and Building 4 (PA15-0017). The site plans for Buildings 1 through 4 are presented on Figure 3-10 through Figure 3-13 of EIR Section 3.0, *Project Description*. Figure 3-14, *Moreno Valley Logistics Center Site Plan*, in EIR Section 3.0, *Project Description*, illustrates the full context of proposed development.

As summarized in Table 3-1, *Moreno Valley Logistics Center Statistical Summary*, of EIR Section 3.0, *Project Description*, the Project's proposed buildings would range in size from approximately 97,222 s.f. to approximately 1,351,763 s.f., with a combined total of 1,736,180 s.f. of floor area. The Project is proposed to accommodate a maximum of 174,000 s.f. of cold storage (i.e., refrigeration) in the event Project's building occupants require cold storage. At the time this EIR was prepared, the future occupants of the Project site's buildings are unknown. The buildings are designed to accommodate a high cube warehouse occupant in proposed Building 1 and industrial, warehousing, manufacturing, assembly, e-commerce, and similar uses in the smaller buildings.

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place on Parcel 2. In the event the alternate site plan is implemented, the truck trailer parking lot would be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4. Under the alternate site plan, the total building area on the Project site would be reduced to 1,613,905 s.f. (for an overall floor area ratio, FAR, of 0.44).

Vehicular access to the Project site would be provided by driveways distributed across the property. At Building 1, three driveways would be provided along Krameria Avenue (the center driveway would be restricted to automobiles only), one driveway would be provided at Indian Street, and one driveway would be provided at Cosmos Street. Building 1 would provide on-site parking lot striping and signage at proposed driveways along Krameria Avenue to direct exiting truck traffic to the west (i.e., toward Heacock Avenue). Building 2 would provide one driveway at Cosmos Street, Building 3 would provide one driveway at Cardinal Avenue, and Building 4 would provide two driveways along Heacock Avenue. All driveways proposed by the Project would be stop-sign controlled. The driveways would provide access to automobile parking areas, loading areas, and truck parking areas for the respective building. Access to loading and truck parking areas located interior to the Project site would be gated. Proposed truck check-in points and driveways are positioned interior to the Project site to create interior queuing areas and minimize the potential trucks accessing the property to stack onto abutting public streets.

Figure 3-10 through Figure 3-13 in EIR Section 3.0, *Project Description*, depict the proposed locations of parking spaces and loading bays (also called “docks”) for each building. Table 3-2, *Parking and Loading Summary*, in EIR Section 3.0, *Project Description*, summarizes the number of parking spaces and loading bays proposed for each building. On all four (4) buildings combined, the Project would provide a total of 255 loading bays (also called “docks”) for the shipping and receiving of goods.

ES.3 EIR Process

As a first step in complying with the procedural requirements of CEQA for an EIR, an Initial Study was prepared by the City of Moreno Valley to determine whether any aspect of the proposed Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to EIR *Technical Appendix A* for a copy of the Initial Study). For this Project, the Initial Study indicated that this EIR should focus on ten (10) environmental subject areas listed above in Subsection ES.1. After completion of the Initial Study, the City filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. In turn, the Initial Study and NOP were distributed for a 30-day public review period, which began on June 17, 2015. The City of Moreno Valley received written comments on the scope of the EIR during those 30 days, which were considered by the City during the preparation of this EIR. In addition, and pursuant to CEQA Guidelines § 15082(c)(1), an advertised public meeting (called a scoping session) was held at the City of Moreno Valley City Hall on July 6, 2015.

This EIR will be circulated to the California State Clearinghouse, Trustee and Responsible Agencies, other public agencies that may be affected by or have an interest in the proposed Project, surrounding property owners, and other interested parties, agencies, and organizations for a 45-day review and comment period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, an advertisement will be published in the *Press Enterprise* (newspaper of general circulation in the Project area), and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, the City will prepare and publish responses to written comments it received on the environmental effects of the proposed Project. The Final EIR will be considered by the City of Moreno Valley Planning Commission and City Council, prior to deciding to approve, approve with modification, or reject the proposed Project. Approval of the proposed Project would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The MMRP will ensure CEQA compliance during Project construction and operation.

ES.4 Areas of Controversy and Issues to be Resolved

CEQA Guidelines § 15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Moreno Valley) be identified in the EIR's *Executive Summary*. The City of Moreno Valley applies mitigation measures which it determines a) are feasible and practical for project applicants to implement, b) are feasible and practical for the City of Moreno Valley to monitor and enforce, c) are legal for the City to impose, d) have an essential nexus to the Project's impacts, and e) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to analyze an exhaustive list of every imaginable mitigation measure, and measures that are duplicative of mandatory regulatory requirements. This is identified as an area of controversy.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the City, that are identified in the Initial Study prepared for the Project, and that were identified in the comment letters that the City of Moreno Valley received on this EIR's NOP (refer to *Technical Appendix A* of this EIR). Environmental topics raised in written comment to the NOP are summarized in Table 1-2, *Summary of NOP Comments*, in Section 1.0 of this EIR and include but are not limited to the topics of aesthetics, air quality, biological resources, cultural resources, noise, and transportation/traffic.

ES.5 Alternatives to the Proposed Project

In compliance with CEQA Guidelines § 15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the location of the Project. Each alternative must be able to feasibly attain most of the Project's objectives and avoid or substantially lessen the Project's significant effects on the environment. A detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in EIR Section 6.0, *Alternatives to the Proposed Project*. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis.

In reviewing the alternatives, the Southern California Association of Governments' (SCAG's) *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* chapter titled "Goods Movement" is relevant. It explains that goods movement is essential to supporting the SCAG regional economy and quality of life. The *RTP/SCS* states that the SCAG region hosts one of the largest clusters of logistics activity in North America and that logistics activities, and the jobs that go with them, depend on a goods movement network, including warehousing and distribution facilities. According to SCAG, the SCAG region will run out of suitably zoned vacant land designated for warehouse facilities in about the year 2028. (SCAG, 2013, pp. 4-39). Thus, it is likely that the selection of any alternative that reduces building square footage on the Project site, which is designated and zoned for industrial development, is likely to displace the additional square footage to another property, which would result in the same or greater environmental effects, given the strong regional demand for logistics and warehousing space in the SCAG region.

ES.5.1 No Development Alternative

Under the No Development Alternative, no improvements would be made to the Project site and none of the Project's on- or off-site utility and infrastructure improvements would occur. Refer to the detailed description of the Project site's existing physical conditions in Section 2.0, *Environmental Analysis* of this EIR. The No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have already occurred on the property. All significant effects of the Project would be avoided or lessened by the selection of the No Development Alternative.

ES.5.2 No Project Alternative

The No Project Alternative considers implementation of the MVIAP on the property with no amendment to the setback requirement. Under this Alternative, the property would be developed with the same building square footage as proposed by the Project (by adding mezzanine space to Building #1), with a 300-foot setback along Indian Street (as measured from the centerline of Indian Street). The 300-foot setback area would be planted with landscape materials.

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project, construct the same amount of building area, and attract the same types of building users as the proposed Project. None of the Project's significant and unavoidable impacts would be reduced in severity or avoided by the No Project Alternative, and the No Project Alternative would result in a significant air quality impact related to diesel particulate matter (DPM) emissions (requiring mitigation) that would not occur under the Project. The No Project Alternative would meet most of the Project's objectives, although some of them would be met to a lesser degree than the Project.

ES.5.3 Reduced Project Alternative

Under the Reduced Project Alternative, the Project's building area would be reduced by 326,385 s.f., which is an approximately 19 percent reduction in building area compared to the proposed Project. Under this Alternative, 1,409,795 s.f. of building space would be provided in three (3) buildings, as compared to the Project's proposal to provide four (4) buildings with a combined total of 1,736,180 s.f. of floor space. The analysis for this Alternative assumes 1,153,550 s.f. of high cube warehouse space in one (1) building and 256,245 s.f. of light industrial space in two (2) buildings.

The Reduced Project Alternative would reduce – but not avoid – the Project's significant and unavoidable impacts to air quality, greenhouse gas, land use/planning, and transportation/traffic. The Reduced Project Alternative would have the same physical footprint as the Project, so all ground-disturbing impacts would be identical to the proposed Project. All other operational-related impacts of the Project would be reduced under this Alternative due to the reduction of building area on the subject property and/or the reduction in vehicle trips. The Reduced Project Alternative would meet most, but not all, of the Project's objectives, although many objectives would be met to a lesser degree than the Project.

ES.5.4 One Building Alternative

The One Building Alternative was selected by the Lead Agency to evaluate limited development on the Project site that would reduce all of the Project's significant and unavoidable environmental effects (air quality, greenhouse gas emissions, land use/planning, and traffic/transportation) to levels of less than significant. Under this Alternative, one (1) 400,000 s.f. high cube warehouse building would be constructed on the Project site northeast of the Perris Valley Storm Drain Channel. The remainder of the site would remain vacant. Under this Alternative, the Project's building area would be reduced by 1,336,180 s.f., which is an approximately 77 percent reduction in building area compared to the proposed Project.

The One Building Alternative is anticipated to avoid the Project's significant and unavoidable impacts to greenhouse gas and transportation traffic. In addition, the One Building Alternative is anticipated to reduce the severity of, but not avoid, the Project's significant and unavoidable impacts to air quality, and land use/planning. The One Building Alternative also would reduce the severity of all of the Project's less-than-significant impacts with the exception of aesthetics, which would be slightly increased due to a less cohesive visual character and a reduction in visual quality across the entire property. The One Building Alternative would fail to meet two of the Project's objectives and would meet four other objectives less successfully than the Project. The One Building Alternative is identified as the environmentally superior alternative.

ES.6 Summary of Impacts, Mitigation Measures, and Conclusions

ES.6.1 Effects Found not to be Significant

The scope of this EIR includes ten (10) subject areas determined through the completion of an Initial Study prepared by the City of Moreno Valley pursuant to CEQA Guidelines § 15063 and CEQA Statute § 21002(e), as well as consideration of public comments received by the City on this EIR's NOP and during the July 26, 2015 public scoping session. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A*. Subject areas for which the City concluded that impacts clearly would be less than significant and that do not warrant further analysis in this EIR include: Geology and Soils; Mineral Resources; Population and Housing; Public Services; Recreation; and Utilities and Service Systems. This EIR addresses these topics in EIR Subsection 5.0, *Other CEQA Considerations*.

ES.6.2 Impacts of the Proposed Project

Table ES-1, *Mitigation Monitoring and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines § 15123(a). Also presented are the mitigation measures imposed on the Project by the City of Moreno Valley to further avoid adverse environmental impacts or to reduce their level of significance.

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.1 Aesthetics					
Summary of Impacts					
Threshold a): Less-than-Significant Impact. The Project site does not comprise all or part of a scenic vista and does not contain any visually prominent scenic features. No unique views to scenic vistas are visible from the property. The Project would not substantially change a scenic view or substantially block or obscure a scenic vista; therefore, impacts to scenic vistas would be less than significant.	No mitigation is required	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b): Less-than-Significant Impact. The Project has no potential to damage scenic resources within a scenic highway corridor because Project site is not located within the viewshed of a scenic highway and the Project site does not contain any scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings.	No mitigation is required	N/A	N/A	N/A	No Impact.
Threshold c): Less-than-Significant Impact. The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the Project would change the visual character of the site from a vacant property to a developed logistics center, the Project proposes a number of site design, architectural, and landscaping elements to ensure that the surrounding visual character and quality is not substantially affected. A landscaped parkway, 50-foot-wide	No mitigation is required	N/A	N/A	N/A	Less-than-Significant Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
landscape buffer, and 14-foot-high screen wall are proposed along Indian Street to screen the Project from residential uses to the east. The Project would be consistent with the industrial character of the site and surrounding area to the north, south, and west, which is made up of warehouse and industrial facilities and the March Air Reserve Base.					
Threshold d): Less-than-Significant Impact. The Project would not create substantial light or glare. Compliance with the MVIAP requirements for lighting and mandatory compliance with City of Moreno Valley Municipal Code § 9.08.100 would ensure less-than-significant impacts associated with light and glare affecting day or nighttime views in the area.	**MM 4.1-1** In the event that solar panels are proposed for installation, then prior to the issuance of building permits the City of Moreno Valley shall review the construction drawings and ensure that: a) All solar panels shall be installed at a fixed angle (i.e., non-tracking); b) All solar panels shall contain a non-reflective coating or shall be otherwise designed, engineered, and/or installed to minimize glare; and c) All solar panels shall be directed toward the sky and not facing adjacent properties.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building permit issuance	Less-than-Significant Impact
	MM 4.1-2 In the event that solar panels are proposed for installation, then prior to the issuance of building permits the Project Applicant shall provide the City of Moreno Valley with evidence that the proposed solar array(s) would not result in substantial glare effects to operations at the March Air Reserve Base as determined by Sandia National Laboratories' Solar Glare Hazard Analysis Tool (or equivalent analytical model) and to the satisfaction of the Riverside County Airport Land Use Commission.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building permit issuance	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.2 Agricultural Resources					
Summary of Impacts					
Threshold a): Less-than-Significant Impact. The Project site contains soils that are classified as Farmland of Local Importance but have severe limitations for agricultural use. The Project would not convert Farmland (i.e., Prime Farmland, Unique Farmland, or Farmland of Statewide Importance designated by the FMMP) to non-agricultural use.	No mitigation is required	N/A	N/A	N/A	Less-than-Significant
Threshold b): No Impact. No agricultural zoning or active Williamson Act contract occurs on the Project site or in the Project site's surrounding area. As such, there is no potential for the Project to result in changes to the environment that would conflict with agricultural zoning or a Williamson Act contract.	No mitigation is required	N/A	N/A	N/A	No Impact
Threshold c): No Impact. The Project site is not used for agriculture under existing conditions, contains poor-quality agricultural soils, does not contain Farmland, and is not located in the vicinity of Farmland; therefore, there is no potential for the Project to result in the direct or indirect conversion of Farmland or important agricultural resources to non-agricultural uses.	No mitigation is required	N/A	N/A	N/A	No Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.3 Air Quality					
Summary of Impacts					
Threshold a): Significant Cumulatively Considerable Impact. Although the Project's location and design features are consistent with and support the AQMP's air pollution reduction strategies, because short-term construction and long-term operational air emissions generated by the Project would exceed the SCAQMD's regional threshold criteria for daily emissions, the Project has the potential to cumulatively contribute towards obstruction of the SCAQMD's ability to meet its AQMP attainment goals.	See Mitigation Measures MM 4.3-1 through MM 4.3-19 below.				Significant Cumulatively Considerable Impact
Threshold b) and c): Significant Direct and Cumulatively Considerable Impact. The Project would exceed the SCAQMD regional threshold for daily VOC and NO_X emissions during short-term construction activities. Additionally, the Project's long-term operational activities (i.e., full buildout) would exceed the regional thresholds for daily VOC and NO_X emissions. Because the Project proposes four buildings, there is a potential that operational and construction activities could overlap. If there is overlap, the Project would result in short-term VOC, NO_X, CO_2 PM_{10} and $PM_{2.5}$ emissions during the overlapping activities. As such, Project-related air emissions would violate the SCAQMD air quality standards and contribute to the non-attainment of criteria pollutants, which is a significant direct and cumulatively considerable impact.	**MM 4.3-1** Prior to building permit issuance, the City of Moreno Valley shall verify that a note is provided on all building plans specifying that compliance with SCAQMD Rule 1113 is mandatory during the application of architectural coatings. Project contractors shall be required to comply with the note and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. This note also shall indicate that only "low-volatile organic compound" paint products (no more than 50 gram/liter of VOC) shall be used. All other architectural coatings shall comply with the VOC limits prescribed by SCAQMD Rule 1113.	Project Applicant; Project Construction Contractors	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building permit issuance.	Significant and Unavoidable Direct and Cumulatively Considerable Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.3-2 During construction activities, the construction contractor shall maintain a list of diesel-powered construction equipment used on the site, including type/engine year of equipment, number of equipment, and equipment horsepower. The construction contractor shall also maintain a log of the daily operating hours of each piece of diesel-powered equipment by horsepower hours. The construction contractor shall ensure that the usage of diesel-powered construction equipment does not exceed the horsepower-hours per day specified below. Lower tier types may be substituted for higher tier types. Tier 0 – 3,608 horsepower-hours/day Tier 1 – 7,760 horsepower-hours/day Tier 2 – 1,760 horsepower-hours/day Tier 3 – 11,128 horsepower-hours/day Tier 4 – 37,008 horsepower-hours/day	Project Applicant; Project Construction Contractors	City of Moreno Valley Building and Safety Division	During construction activities.	
	MM 4.3-3 The Project shall comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling" by complying with the following requirements. To ensure and enforce compliance with these requirements and thereby limit the release of diesel particulate matter, oxides of nitrogen, and other criteria pollutants into the atmosphere from the burning of fuel, prior to grading permit and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the	Project Applicant; Project Construction Contractors	City of Moreno Valley Land Development Division. Building and Safety Division, and Planning Division	Prior to the issuance of a grading permits and building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors. a) Temporary signs shall be placed on the construction site at all construction vehicle entry points and at all loading, unloading, and equipment staging areas indicating that heavy duty trucks and diesel powered construction equipment are prohibited from idling for more than five (5) minutes. The signs shall be installed before construction activities commence and remain in place during the duration of construction activities at all loading, unloading, and equipment staging areas. b) Construction vehicles shall use the City's designated truck route. c) Construction parking shall be located and configured to minimize traffic interference on public streets. d) Temporary traffic controls such as a flag person shall be used at Project site construction entrances. e) A construction management plan shall be designed to minimize the number of large construction equipment operating during any given time period. f) To the extent feasible, construction truck trips shall be scheduled during non-peak hours to reduce peak hour emissions. g) CARB certified equipment shall be used for construction activities to the extent feasible.				

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	h) Contractors shall be required to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes. i) Construction equipment engine sizes shall be limited to the minimum practical size. j) Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible. k) Temporary traffic controls, such as a flag person shall be provided during all phases of construction to maintain smooth traffic flow. l) Construction tucks shall be routed away from congested streets and sensitive receptor areas. m) Construction parking areas shall be configured to minimize traffic interference. n) Construction worker trips shall be reduced by encouraging carpooling and providing on-site food service options for the construction crew. o) Construction workers shall be encouraged to utilize shuttle service to transit stations/multimodal center.				
	MM 4.3-4 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Moreno Valley shall verify that the following notes are specified on the grading plan. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by	Project Applicant; Project Construction Contractors.	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of a grading permit.	

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	City of Moreno Valley staff or its designee to confirm compliance. These notes shall also be specified in bid documents issued to prospective construction contractors. a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads. c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads. d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.) e) Limit fugitive dust sources to 20 percent opacity. f) When materials are transported off-site, all				

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. g) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets. h) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action within 24 hours. i) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil. j) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403. k) A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.				
	MM 4.3-5 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM_{10} Emissions from Paved and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit	Project Applicant; Project Construction Contractors	City of Moreno Valley Land Development Division, Building and Safety Division, and Planning Division	Prior to the issuance of grading permits and building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. The notes also shall be specified in bid documents issued to prospective construction contractors. a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning. b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM10-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.				
	MM 4.3-6 The Project shall comply with the provisions of SCAQMD Rule 431.2, "Sulfur Content of Liquid Fuels" by complying with the following requirement. To ensure and enforce compliance with this requirement and thereby limit the release of sulfur dioxide (SO_X) into the atmosphere from the burning of fuel, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following note is included on the grading and building plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm	Project Applicant; Project Construction Contractors	City of Moreno Valley Land Development Division & Building and Safety Division	Prior to issuance of grading permits and building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	compliance. This note also shall be specified in bid documents issued to prospective construction contractors. a) All liquid fuels shall have a sulfur content of not more than 0.05 percent by weight, except as provided for by South Coast Air Quality Management District Rule 431.2.				
	MM 4.3-7 All indoor forklifts used in the Project's buildings shall be electric, natural gas, or propane powered. This requirement shall be noted in the buildings' sale and lease agreements and also shall be included on all tenant improvement plans submitted to the City of Moreno Valley.	Project Applicant	City of Moreno Valley Planning Division	Prior to issuance of occupancy permits.	
	MM 4.3-8 All outdoor cargo handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) that are powered by diesel fuel shall comply with the CARB/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM10). This requirement shall be noted in the buildings' sale and lease agreements and also shall be noted on all tenant improvement plans.	Project Applicant	City of Moreno Valley Planning Division	Prior to issuance of occupancy permits.	
	MM 4.3-9 Prior to the issuance of a building permit, documentation shall be provided to the City of Moreno Valley demonstrating that: 1) the building is designed to achieve efficiency equal to or exceeding the 2013 California Title 24 Energy Efficiency Standards and complies with the mandatory reductions in indoor water usage required by the California Building Standards Code, including the use of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets, and water-	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.	

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	conserving shower heads; and 2) the landscaping design uses a plant palette emphasizing drought-tolerant plants and use of water-efficient irrigation techniques.				
	MM 4.3-10 Prior to building final, documentation shall be provided to the City of Moreno Valley demonstrating the appliances and fixtures installed in restrooms and employee break areas are Energy Star rated and/or are U.S. EPA WaterSense labeled or equivalent.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.	
	MM 4.3-11 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) a prohibition on the idling of trucks for more than three (3) minutes; 3) instructions for truck drivers to shut down engines after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park" and the parking break is engaged; and 4) telephone numbers of the building facilities manager and the CARB to report violations. Prior to building final, the City of Moreno Valley shall conduct a site inspection to ensure that the signs are in place.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.	
	MM 4.3-12 Prior to building final, the City of Moreno Valley shall verify that: 1) the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property; and 2) preferential parking locations are identified on the site for carpool, vanpool, EVs and CNG vehicles; and 3) secure, weather protected bicycle parking is provided for building employees.	Project Applicant	City of Moreno Valley Planning Division & Transportation Division	Prior to building final.	

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.3-13 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of the following and their benefits to air quality: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nandina Avenue); 5) the United States Environmental Protection Agency's SmartWay program; and 6) voluntary trip reduction programs, for which all employees shall be eligible to participate.		City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building final.	
	MM 4.3-14 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that encourages: 1) all fleet vehicles to conform to 2010 air quality standards or better; users shall maintain compliance through normal course of business; and 2) use of electrical equipment for landscape maintenance to the extent feasible; 3) use of electrical powered equipment in lieu of gasoline-powered engines where technically feasible; and 4) reduced-fee or no-fee parking for EVs and CNG vehicles.	Project Property Owner(s)	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building final	
	MM 4.3-15 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions will be included in the building's lease	Project Property Owner(s)	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building final.	

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	agreement that 1) encourages tenants to display information about alternative transportation options in a common area of the building and 2) informs tenants about locations of the nearest existing and planned Metrolink stations and the benefits of implementing a voluntary carpool or rideshare program for employees.				
	MM 4.3-16 The building plans shall include conduit and plug-in locations for electric yard tractors, fork lifts, reach stackers, and sweepers.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.	
	MM 4.3-17 Prior to building final, the City of Moreno Valley shall verify that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.	
	MM 4.3-18 Prior to the issuance of a building permit for any building that utilizes refrigerated storage, any spaces utilizing refrigerated storage shall provide an electrical hookup for refrigeration units on delivery trucks. As a condition of occupancy permits, trucks incapable of utilizing the electrical hookup for powering refrigeration shall be prohibited from accessing the site.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.	
	MM 4.3-19 Prior to the issuance of building permits, to ensure the shading of parking lots to reduce solar gain, the City of Moreno Valley shall review landscaping plans to verify that the plans call for the planting of shade trees so that at least 50% of the automotive parking lots (excluding the truck courts where trees cannot be planted due to interference with truck maneuvering) will be shaded within 15 years after Project construction is complete.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.	

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold d): Significant Direct and Cumulatively Considerable Impact. Emissions during short-term construction activities would exceed the SCAQMD's localized significance thresholds for NO_2, PM_{10}, and $PM_{2.5}$.	See MM 4.3-1 through MM 4.3-19.				Less-than-Significant Impact
Threshold e): Less-than-Significant Impact. The Project would not produce unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project would comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.	**MM 4.3-20** The Project is required to comply with the provisions of SCAQMD Rule 402 "Nuisance." To ensure and enforce compliance with this requirement, which applies to the release of odorous emissions into the atmosphere, prior to the issuance of grading and building permits, the City of Moreno Valley shall verify that the following note is included on grading and building plans. During Project construction, contractors shall be required to ensure compliance with Rule 402 and permit periodic inspection of the construction site by the City of Moreno Valley staff or its designee to confirm compliance. The note shall be specified in bid documents issued to prospective construction contractors and shall also be specified in the building's lease agreement. a) Compliance with South Coast Air Quality Management District (AQMD) Rule 402 "Nuisance" is required. Rule 402 states that air contaminants and other materials shall not be discharged from any source whatsoever in quantities that would cause injury, detriment, nuisance, or annoyance to a considerable number of persons or the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Public nuisance violations can occur when a considerable number of individuals	Project Applicant; Project Construction Contractors	City of Moreno Valley Land Development Division, Planning Division, and Building and Safety Division	Prior to the issuance of grading permits and building permits.	Less-than-Significant Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	complain to AQMD of odors, paint overspray, or other bothersome conditions that appear to be related to the operation of a business in the neighboring vicinity.				
4.4 Biological Resources					
Summary of Impacts					
Threshold a): Significant Direct and Cumulatively Considerable Impact. No candidate, sensitive, or special-status plant species are located on the Project site. The loss of habitat for the San Diego black-tailed jackrabbit, as well as Western Riverside County MSHCP Covered Species with the potential to occupy or utilize the Project site would be less than significant with mandatory Western Riverside County MSHCP compliance. Although the burrowing owl is not present on the Project site, the species could be impacted if it migrates onto the property prior to the commencement of ground-disturbing construction activities, which is a potentially significant direct and cumulatively considerable impact.	**MM 4.4-1** Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl in accordance with the Burrowing Owl Survey Instructions for the Western Riverside MSHCP Area. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit and subject to the following provisions: a) In the event that the pre-construction survey identifies that no burrowing owls are present on the property, a grading permit may be issued without restriction. b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive	Project Applicant; Project Biologist	City of Moreno Valley Planning Division & Land Development Division	Within 30 days prior to grading activities.	Less-than-Significant Impact

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit. c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSHCP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either: • Upon approval and implementation of a property-specific Determination of Biological Equivalent or Superior Preservation (DBESP) report for the western burrowing owl by the CDFW; or • A determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing or burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive				

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate Habitat is not present as determined by the biologist, active relocation shall follow CDFW protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to issuance of a grading permit.				
Threshold b): Less-than-Significant Impact. The Project would impact disturbed/ruderal habitat (on- and off-site) and unvegetated riverine habitat (off-site). Portions of the unvegetated riverine habitat that would be impacted by the Project are under the jurisdiction of the ACOE, RWQCB, and/or CDFW. The Project's impacts to jurisdictional areas would not result in substantial adverse effects to biological form and function and would be less than significant. The Project would not impact any riparian habitat.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c): Less-than-Significant Impact. There are no federally protected wetlands on the Project site or within the off-site improvement area. Although the Project would discharge storm water runoff directly into the Perris Valley Storm Drain Channel, the discharge of storm water flows into the Perris Valley Storm Drain Channel would not result in substantial adverse effects to the form or function of any downstream natural habitats.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold d): Significant Direct and Cumulatively Considerable Impact. There is no potential for the Project to interfere with the movement of any resident migratory fish or with established native resident migratory corridors or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and California Fish and Game Code.	**MM 4.4-2** As a condition of approval for all grading permits, vegetation clearing shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements: a) A migratory nesting bird survey of all vegetation that may support nesting birds shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing. **MM 4.4-3** A copy of the migratory nesting bird survey results report shall be provided to the City of Moreno Valley Planning Division. If the survey identifies the presence of active nests, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the City of Moreno Valley Planning Division and shall be no less than a 300-foot radius around the nest for non-raptors and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests	Project Applicant; Project Biologist	City of Moreno Valley Planning Division	Within 3 days prior to initiating vegetation clearing.	Less-than-Significant Impact

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold e): Less-than-Significant Impact. The Project would not conflict with any local policies or ordinances governing biological resources.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f): Significant Direct and Cumulative Impact. The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the burrowing owl. Although the Project is compliant with all MSHCP provisions and although burrowing owl is absent from the subject property under existing conditions, the subject property contains habitat suitable for the species. If the species is present on the property at the time a grading permit is issued, impacts would be significant.	See MM 4.4-1.	Project Applicant; Project Biologist	City of Moreno Valley Planning Division	Prior to grading activities.	Less-than-Significant Impact
4.5 Cultural Resources					
Summary of Impacts					
Threshold a): No Impact. The Project would not impact a historic resource. No historic resources are present on the Project site or the Project's off-site improvement area; therefore, no historic resources could be altered or destroyed by construction or operation of the proposed Project.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold b): Significant Direct and Cumulatively Considerable Impact. Although no archaeological resources were identified on the Project site, implementation of the Project has the potential, however unlikely, to unearth and adversely impact significant archaeological	**MM 4.5-1** Prior to issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a ~~qualified~~ professional ~~archaeological monitor~~ archaeologist has been retained by the ~~Project~~ Applicant to conduct monitoring of all mass grading and trenching activities. ~~in previously undisturbed soils and has~~	Project Applicant; Project Archaeologist	City of Moreno Valley Planning Division	Prior to the issuance of a grading permit.	Less-than-Significant Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
resources that may be buried beneath the ground surface and discovered during Project construction activities.	The Project Archaeologist shall have the authority to temporarily ~~halt and~~ redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Applicant and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural resources activities that will occur on the Project site. Details in the CRMP shall include: a) Schedule for Project grading and development activities; b) The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.				

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	c) The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the Applicant; and d) The protocols and stipulations that the Applicant, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.				
	MM 4.5-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days' advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected	Project Applicant; Project Archaeologist	City of Moreno Valley Planning Division	Prior to the issuance of a grading permit.	

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-

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THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measures MM 4.5.3 and MM 4.5.4 shall apply. ~~Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) shall be allowed to monitor and have received or will receive a minimum of 15 days advance notice of mass grading activities in previously undisturbed soils.~~				
	~~**MM 4.5-3** During grading operations in previously undisturbed soils, a professional archaeological monitor shall observe the grading operation until such time as the monitor determines that there is no longer any potential to uncover buried cultural deposits. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s) and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s), the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, MM 4.5-3 shall apply.~~	~~Project Archaeological Monitor~~	~~City of Moreno Valley Planning Division~~	~~During grading operations in previously undisturbed soils.~~	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.5-3 A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until the treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).~~If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center.~~	Project Applicant / Landowner; Project Construction Contractor; Project Archaeologist	City of Moreno Valley Planning Division	During ground-disturbing activities.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.5-4 In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries: a) The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department: i. Accommodate the process for Preservation-In-Place/Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed; ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;	Project Applicant / Landowner; Project Archaeologist	City of Moreno Valley Planning Division	In the event that Native American cultural resources are discovered during ground disturbing activities.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.				
	MM 4.5-5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan: “If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."	Project Applicant; Project Construction Contractor	City of Moreno Valley Building & Safety Division	Prior to issuance of grading permit	
Threshold c): Significant Direct and Cumulatively Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project site and off-site improvement area contain alluvium soils with a high sensitivity for paleontological resources. Implementation of the Project has the potential to unearth and adversely impact paleontological resources that may be buried beneath the ground surface and discovered during Project-related grading and excavation activities.	**MM 4.5-6** Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.	Project Applicant; Project Paleontologist	City of Moreno Valley Planning Division	Prior to issuance of grading permit	Less-than-Significant Impact
	MM 4.5-7 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old	Project Paleontologist	City of Moreno Valley Planning Division	On-going during construction	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.				
	MM 4.5-8 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.	Project Paleontologist	City of Moreno Valley Planning Division	Prior to grading permit final inspection.	
	MM 4.5-9 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.	Project Paleontologist	City of Moreno Valley Planning Division	Prior to building final.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold d): Less-than-Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code §7050.5 and California Public Resources Code §5097 et. seq. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.	No Mitigation is Required.	N/A	N/A	N/A	Less-than-Significant Impact
4.6 Greenhouse Gas Emissions					
Summary of Impacts					
Threshold a): Significant Cumulatively Considerable Impact. The Project is estimated to generate approximately 42,404.68 MTCO2e annually, which would exceed the SCAQMD screening threshold of 10,000 MTCO2e. As such, the Project would generate substantial, cumulatively considerable GHG emissions that may have a significant impact on the environment.	**MM 4.6-1** Prior to issuance of a building permit, the City of Moreno Valley shall verify that the roofs for Buildings #1, #2, #3, and #4 are designed to support solar panels. The entire roof area of each building is not required to support panels; the portion of the roof that is to support panels shall be determined by the City and the building's architect at time of building design and building permit issuance.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.	Significant and Unavoidable Cumulatively Considerable Impact.
	MM 4.6-2 Prior to building final, the City of Moreno Valley shall verify that the parking lot is marked in compliance with the California Green Building Standards Code, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle."	Project Applicant	City of Moreno Valley Planning Division	Prior to building final.	
	MM 4.6-3 Prior to issuance of building permits for the landscape plan, the City of Moreno Valley shall review landscape plans to verify that trees will be	Project Applicant	City of Moreno Valley Planning Division	Prior to building final.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	planted in locations where tree placement would assist with passive solar heating and cooling of the structure, while also avoiding interference with vehicle movements and building operations.				
	MM 4.6-4 Prior to the approval of permits and approvals that would permit cold storage in Buildings #1, #2, #3, and/or #4, the Project Applicant shall provide information to the City of Moreno Valley demonstrating that the cooling system design is energy efficient.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the approval of permits and approvals that would permit cold storage in Buildings #1, #2, #3, and/or #4.	
<u>Threshold b): Less-than-Significant Impact</u>. The Project would be consistent with the CARB Scoping Plan and would not conflict with the GHG reduction mandates of AB 32. In addition, the Project would be consistent with applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions, including the City of Moreno Valley's Energy Efficiency and Climate Action Strategy.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.7 Hazards and Hazardous Materials					
Summary of Impacts					
<u>Threshold a) and b): Less-than-Significant Impact</u>. During Project construction and operation, mandatory compliance to federal, state, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials.	Less-than-Significant Impact	N/A	N/A	N/A	Less-than-Significant Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<u>Threshold c): No Impact.</u> The Project site is not located within one-quarter mile of any existing or proposed school. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	No mitigation is required.	N/A	N/A	N/A	No Impact
<u>Threshold d): No Impact</u>. The Project site is not located on any list of hazardous materials sites complied pursuant to Government Code §65962.5.	No mitigation is required.	N/A	N/A	N/A	No impact
<u>Threshold e): Less-than-Significant Impact</u>. The Project is consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan, assuming mandatory compliance with standard ALUC conditions of approval. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area	**MM 4.7-1** Prior to the issuance of building permits, a photometric plan shall be submitted to the City of Moreno Valley and approved. Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.	Less-than-Significant Impact
	MM 4.7-2 The following uses shall be prohibited: a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator. b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permit; prior to building final.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	engaged in a straight final approach towards a landing at an airport. c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.) d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation. e) In Buildings 3 and 4: Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, noise sensitive outdoor nonresidential uses and hazards to flight.				
	MM 4.7-3 The "Notice of Airport in Vicinity," included in the ALUC's October 8, 2015 staff report, shall be given to all prospective purchasers of the property and tenants of the buildings, and shall be recorded as a deed notice. Prior to building final, the Project Applicant shall provide to the City of Moreno Valley a copy of the title report and a model lease agreement for the subject property that includes the airport proximity notice.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to building final.	
	MM 4.7-4 The proposed detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the	Project Applicant	City of Moreno Valley Building and Safety Division, Land Development Division,	Prior to the issuance of grading permits; prior to the issuance of building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the detention basins located westerly of the Perris Valley Storm Drain Channel shall not include trees that produce seeds, fruits, or berries.		and Planning Division		
	MM 4.7-5 March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc. All sources of electromagnetic radiation shall be noted on building plans and tenant improvement plans.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.	
	MM 4.7-6 The Federal Aviation Administration has conducted aeronautical studies of each of the proposed buildings (Aeronautical Study Nos. 2015-AWP-8676-0E through 2015-AWP-8679-0E) and has determined that neither marking nor lighting of these structures is necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be installed in accordance with Federal Advisory Circular 70/7460-1 K Change 2 and shall be maintained therewith for the life of the Project. All voluntary marking and/or lighting shall be identified on building plans.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.7-7 The maximum height of Building 1 shall not exceed 60 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,549 feet above mean sea level.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.	
	MM 4.7-8 The maximum height of Building 2 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,541 feet above mean sea level.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.	
	MM 4.7-9 The maximum height of Building 3 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,532 feet above mean sea level	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.	
	MM 4.7-10 The maximum height of Building 4 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,545 feet above mean sea level	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.	
	MM 4.7-11 The specific coordinates, heights, and top point elevations of the proposed buildings shall not be amended without further review by the Airport Land Use Commission and the Federal Aviation Administration; provided, however, that reduction in building height or elevation shall not require further review by the Airport Land Use Commission.	Project Applicant	City of Moreno Valley Planning Division	Prior to issuance of building permits.	
	MM 4.7-12 Temporary construction equipment used during actual construction of Building 1 shall not exceed a height of 60 feet and temporary construction equipment used during actual construction of Buildings 2, 3, and 4 shall not exceed a height of 52	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Prior to issuance of building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	feet, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process. **MM 4.7-13** Within five (5) days after construction of each of the buildings reaches its greatest height and prior to building final, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the project proponent or his/her designee and e-filed with the Federal Aviation Administration, with documentation provided to the City of Moreno Valley. (Instructions are available at https://oeaaa.faa.gov.) This requirement is also applicable in the event the project is abandoned or a decision is made not to construct the applicable building.	Project Applicant	City of Moreno Valley Planning Division & Building and Safety Division	Within five (5) days after construction of each building and prior to building final.	
Threshold f): No Impact. The Project site is not located within the vicinity of a private airstrip or a helipad. Accordingly, implementation of the Project would have no potential to expose on-site workers to safety hazards associated with a private airfield or an airstrip.	No mitigation is required.	N/A	N/A	N/A	No impact
Threshold g): Less-than-Significant Impact. The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the adequate emergency access is required to be provided for emergency vehicles. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.	No mitigation is required.	N/A	N/A	N/A	No impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold h): No Impact. The Project site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.	No mitigation is required.	N/A	N/A	N/A	No impact
4.8 Hydrology and Water Quality					
Summary of Impacts					
Threshold a): Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements on a direct or cumulatively considerable basis. The Project is required to prepare a SWPPP to address construction-related water quality issues, and is required to comply with a site-specific WQMP and its associated BMPs.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b): Less-than-Significant Impact. The Project does not propose the installation of any water wells on the Project site that would extract groundwater. Also, the proposed Project would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table level.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold c): Less-than-Significant Impact. The Project would maintain the existing general drainage pattern of the site and would not result in substantial erosion or siltation on- or off-site.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold d): Less-than-Significant Impact. The Project would not significantly increase flood hazards and would not result in a substantial increase in the rate of surface runoff in a manner that would result in increased flood hazards on- or off-site.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold e): Less-than-Significant Impact. The Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold f): No Impact. There are no conditions associated with the proposed Project that would otherwise result in the substantial degradation of water quality.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold g): No Impact. The Project does not propose housing and would not place housing within a 100-year flood hazard area.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold h): Less-than-Significant Impact. The Project would construct buildings within an area subject to shallow flooding (i.e., depths of one-foot or less) during a 100-year storm event; however, the Project is designed to ensure that redirected flood flows would not result in substantial adverse effects to on-site and/or off-site areas	**MM 4.8-1** Prior to building final, the Project Applicant shall provide evidence to the City of Moreno Valley that an application for a Final Letter of Map Revision (LOMR) has been submitted to FEMA to permanently remove the development area from the FEMA 100-year floodplain, and shall demonstrate to the satisfaction of the City of Moreno Valley that the finished floor height of the structure is outside the 100-year floodplain elevation as mapped by FEMA.	Project Applicant	City of Moreno Valley Building and Safety Division & Land Development Division	Prior to building final	Less-than-Significant Impact

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold i): Less-than-Significant Impact. The proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold j): No impact. The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.9 Land Use and Planning					
Summary of Impacts					
Threshold a): No impact. The proposed Project would not physically divide an established community.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold b): Significant Cumulatively Considerable Impact. The proposed Project would result in cumulatively considerable impacts due to a conflict with SCAQMD's AQMP and the SCAG's RTP/SCS's Goal G6 related to regional air quality, and the Riverside County CMP. Although mitigation measures are presented in EIR Subsections 4.3, *Air Quality*, and 4.11, *Traffic/Transportation*, to reduce the Project's significant air quality impacts and traffic impacts to CMP arterial intersections and CMP freeway mainline, freeway ramp merge/diverge junctions and freeway ramps, the required mitigation would not reduce the Project's impacts to below a level of significance.	Refer to all mitigation measures presented in this EIR. No additional, feasible mitigation measures are available to mitigate the Project's air quality impacts and traffic impacts to CMP facilities beyond the mitigation already provided in EIR Subsections 4.3 and 4.11.				Significant and Unavoidable Cumulatively Considerable Impact.

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold c): No Impact. The proposed Project would not conflict with the Western Riverside County MSHCP.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.10 Noise					
Summary of Impacts					
Threshold a): Less-than-Significant Impact. The Project would not generate noise levels in excess of the noise levels allowed by the Moreno Valley Municipal Code.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold b): Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible human response (annoyance) to vibration because vibration levels at sensitive receiver locations would be below 80 vibration decibels (VdB).	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Thresholds c) and d): Significant Short-Term Direct and Cumulatively Considerable Impact. Phase I of Project-related construction activities would result in a short-term direct impact to one noise-sensitive receiver, a residential home located east of Indian Street near the Project site's southwestern corner. In the event that construction activities occur on any properties surrounding the Project site simultaneously with Project-related construction activities, and that also would contribute construction noise to this residential home, a cumulative impact may occur and the Project's construction-related noise contribution to the overall noise level at this off-site property would also be cumulatively considerable.	**MM 4.10-1** All construction activities shall comply with the City of Moreno Valley Noise Ordinance (Chapter 11.80 of the City of Moreno Valley Municipal Code). This requirement shall be noted on all grading and building plans and in bid documents issued to construction contractors.	Project Applicant; Project Construction Contractor	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to issuance of grading and building permits.	Less-than-Significant Impact

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.10-2 Prior to the issuance of grading permits and building permits that would authorize grading and paving construction activities within 280 feet of Indian Street between Superior Avenue and the Perris Valley Storm Drain Channel, the construction contractor shall install a minimum 6-foot high temporary noise control barrier at the southeast corner of Parcel 1 (the Building 1 site) extending northward approximately 400 feet along Indian Street. Alternatively, with the approval of the property owner at 16950 Indian Street (noise receiver location R8), the temporary noise barrier can instead be installed along the west property line of that existing residential home. The temporary noise control barrier must present a solid face from top to bottom and must be a minimum of 6 feet high. The temporary noise control barrier shall comply with the following: a) The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts. b) The noise barrier shall be maintained in good repair during the duration of grading and paving activities on Parcel 1. Any damage shall be promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired. c) The noise control barrier and associated elements shall be completely removed upon the conclusion of the grading and paving construction activity on Parcel 1. d) In the event that the noise barrier is constructed at 16950 Indian Street (noise receiver location R8), documentation of property owner approval to	Project Applicant; Project Construction Contractor	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to the issuance of grading permits and building permits that would authorize grading and paving construction activities within 280 feet of Indian Street between Superior Avenue and the Perris Valley Storm Drain Channel.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	construct the noise barrier shall be provided to the City of Moreno Valley Planning Division prior to construction of the barrier.				
	MM 4.10-3 Prior to issuance of any grading and building permits, the City of Moreno Valley shall review grading and building plans to ensure the following notes are included on the plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. a) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with the manufacturer's standards. The construction contractor shall place all stationary equipment so that emitted noise is directed away from noise sensitive receivers located east and northeast of the Project site. b) During construction activities on Parcel 1, construction contractors shall locate equipment staging in the vicinity of the intersection of Cosmos Street and Krameria Avenue to create distance between construction-related noise sources and noise-sensitive receivers located east and northeast of Indian Street. c) Haul truck deliveries shall use approved truck routes and occur during the same hours specified for construction equipment (7:00 a.m. to 8:00 p.m. on any given day) by the Moreno Valley Municipal Code Section 11.80.030.D.7 The construction contractor shall prepare a haul route exhibit for review and approval by the City of Moreno Valley Public Works Department, Land Development	Project Applicant; Project Contractors.	City of Moreno Valley Planning Division, Building and Safety Division, and Land Development Division	Prior to issuance of any grading and building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	Division and shall design delivery routes to minimize exposure of sensitive land uses or residential dwellings to haul truck-related noise (Moreno Valley Municipal Code Section 8.21.050.H.7).				
	MM 4.10-4 Prior to the issuance of building permits, the City of Moreno Valley shall review building plans to ensure that the following notes are included on the plans. Contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. Additionally, prior to building permit issuance, the Project's property owner(s) shall provide documentation to the City of Moreno Valley verifying that provisions are made in the buildings' lease agreements that inform tenants of the following: a) All on-site operating equipment under the control of the building user that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers. b) Speed bumps are not allowed. Quality pavement conditions shall be maintained on the property that is free of vertical deflection (i.e. speed bumps) to minimize truck noise.	Project Applicant; Project Contractors; Project's Property Owner(s).	City of Moreno Valley Planning Division & Building and Safety Division	Prior to the issuance of building permits.	
Threshold e): Less-than-Significant Impact. The Project site is within the March Air Reserve Base Airport Influence Area boundary but outside of the 60 CNEL range for aircraft noise. In addition, the Project does not propose noise sensitive land uses that could be disturbed by periodic aircraft noise.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold f): No Impact. There are no private airfields or private airstrips in the vicinity of the Project site. Therefore, the proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip.	No mitigation is required.	N/A	N/A	N/A	No Impact.
4.11 Transportation and Traffic					
Summary of Impacts					
Threshold a): Significant Direct and Cumulatively Considerable Impact. The Project would be directly responsible for LOS deficiencies at Project study area intersections and roadway segments under short-term construction and Existing plus Project traffic conditions (without and with the Indian Street Bridge). In addition, the Project would contribute to LOS deficiencies at numerous Project study area intersections and roadway segments under short-term construction, Existing plus Project, Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions.	**MM 4.11-1** Prior to the issuance of the first grading permit, the traffic signal at the Heacock Street / San Michele Road intersection shall be modified to provide overlap phasing on the westbound right turn lane.	Project Applicant	City of Moreno Valley Planning Division Land Development Division, and Transportation Engineering Division	Prior to the issuance of the first grading permit.	Significant and Unavoidable Direct and Cumulatively Considerable Impact.
	MM 4.11-2 Prior to the issuance of grading or building permits, the Project Applicant shall prepare and submit a temporary traffic control plan to the City of Moreno Valley for approval. The temporary traffic control plan shall comply with the applicable requirements of the California Manual on Uniform Traffic Control Devices. A requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractors. The temporary traffic control plan shall require the following: a) The construction contractor shall assure that construction-related trips, including employee trips and delivery trucks, shall utilize the most direct route between the Project site and the I-215 freeway via Harley Knox Boulevard.	Project Applicant; Construction Contractor	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to the issuance of grading or building permits and bid documents.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	MM 4.11-3 Prior to building final for the Project's first building, the Project Applicant shall assure the Heacock Street / Cactus Avenue intersection is improved with the following geometrics: a) Re-stripe the two northbound left turn lanes to provide 315 feet of lane storage for each lane.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to building final for the first building.	
	MM 4.11-4 Prior to building final for the Project's first building, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Gentian Avenue intersection.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to building final for the first building.	
	MM 4.11-5 Prior to building final for the Project's first building, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Iris Avenue intersection.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to building final for the first building.	
	MM 4.11-6 In the event a bridge has been constructed over the Perris Valley Storm Drain Channel to connect Indian Street on the north/south sides of the Channel prior to building final for the Project's first building, then the Project Applicant shall use reasonable efforts to make a fee payment to the City of Perris that shall be used to modify the traffic signal at the Indian Street / Harley Knox Boulevard intersection to provide overlap phasing on the southbound right turn lane.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	In the event a bridge has been constructed over the Perris Valley Storm Drain Channel to connect Indian Street on the north/south sides of the Channel prior to the issuance of the Project's first building final.	
	MM 4.11-7 Prior to issuance of building permits, the Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City (less fee	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, Transportation	Prior to the issuance of building permits.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	credits), a portion of which is applied to reduce traffic congestion by funding the installation of roadway improvements.		Engineering Division, and Land Development Division		
	MM 4.11-8 Prior to issuance of building permits, the Project shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, Transportation Engineering Division, and Land Development Division	Prior to the issuance of building permits.	
	MM 4.11-9 Prior to issuance of building final for Buildings 1, 2, 3, and 4 the Project Applicant shall make a fair share fee payment to the City of Moreno Valley for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the geographical limits of the City of Moreno Valley. These roadway improvements are not included within the City of Moreno Valley's Development Impact Fee (DIF) program. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations*.	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to issuance of building final for Buildings 1, 2, 3, and/or 4.	
	MM 4.11-10 Prior to issuance of the building final for Buildings 1, 2, 3, 4 and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the March Joint Powers Authority, for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the March Joint Powers	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to the issuance of building final for Buildings 1, 2, 3, and/or 4.	

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	Authority's jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations.*				
	MM 4.11-11 Prior to issuance of the building final for Buildings 1, 2, 3, and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the City of Perris, for the improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated November 18, 2015), that are located within the City of Perris' jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations.*	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	Prior to issuance of the building final for Buildings 1, 2, 3, and/or 4.	
<u>Threshold b): Cumulatively Considerable Impact.</u> The Project would contribute cumulatively considerable traffic volumes at numerous intersections and freeway facilities included within the Riverside County CMP roadway networks under Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions.	**MM 4.11-12** In the event that Caltrans prepares a valid study, as defined below, that identifies fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary undertake improvements to I-215 and SR-91 in the Project study area, then the Project Applicant shall use reasonable efforts to pay the applicable fair share amount to Caltrans. The study shall include fair share contributions related to private and or public development based on	Project Applicant	City of Moreno Valley Planning Division, Building and Safety Division, and Transportation Engineering Division	In the event that Caltrans prepares a valid study that identifies fair share contribution funding sources in the Project study area.	Significant and Unavoidable Cumulatively Considerable Impact.

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	nexus requirements contained in the Mitigation Fee Act (Govt. Code § 66000 et seq.) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall recognize that impacts to Caltrans I-215 and SR-91 facilities that are not attributable to development located within the City of Moreno Valley are not required to pay in excess of such developments' fair share obligations. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program. In the event the study has been prepared, the Project Applicant shall use reasonable efforts to pay the fair share amount to Caltrans. If Caltrans chooses to accept the Project Applicant's fair share payment, Caltrans shall apply the payment to the fee program adopted by Caltrans or agreed upon by the Project Applicant and Caltrans as a result of the fair share fee study. Caltrans shall only accept the fair share payment if the fair share fee study has been completed. If, within five years from the date that the first building permit is issued for the Project, Caltrans has not completed the fair share fee study, then the Project Applicant shall have no further obligation to comply with this mitigation measure.				
<u>Threshold c): Less-than-Significant Impact.</u> The proposed Project does not include an air travel component and would not affect local air traffic levels. In addition, the Project would not introduce any feature into	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.

Table ES-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
the local area that would alter or obstruct air traffic patterns.					
Threshold d): Less-than-Significant Impact. Implementation of the proposed Project would not substantially increase transportation safety hazards due to incompatible uses or design features.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
Threshold e): Less-than-Significant Impact. Adequate emergency access would be provided to the Project site during both short-term construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant
Threshold f): Less-than-Significant Impact. The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities, and is designed to minimize potential conflicts with non-vehicular means of transportation. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

1.0 INTRODUCTION

1.1 Purposes of CEQA and this EIR

As stated by the California Environmental Quality Act (CEQA) Guidelines Section (§) 15002(a), the basic purposes of CEQA are to:

- *"Inform governmental decision makers and the public about the potential, significant environmental effects of proposed government actions" (CEQA Guidelines § 15002(a)(1));*

- *"Identify the ways that environmental damage can be avoided or significantly reduced" (CEQA Guidelines § 15002(a)(2));*

- *"Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible" (CEQA Guidelines § 15002(a)(3);*" and

- *"Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved (CEQA Guidelines § 15002(a)(4)."*

This Environmental Impact Report (EIR P15-037) is an informational document that represents the independent judgment of the City of Moreno Valley and discloses the physical environmental effects that could result from constructing and operating the proposed Moreno Valley Logistics Center project (hereafter, the "Project"). Governmental approvals requested from the City of Moreno Valley by the Project Applicant to implement the Project include a Specific Plan Amendment (P15-036), Tentative Parcel Map Number (No.) 36150 (PA15-0018), four (4) individual Building Plot Plans (PA15-0014, PA15-0015, PA15-0016, and PA15-0017), and other related discretionary and administrative actions that are required to construct and operate the Project described in this EIR.

As a first step in the CEQA compliance process, an Initial Study was prepared by the City of Moreno Valley pursuant to CEQA Guidelines § 15063 to determine if the Project could have a significant effect on the environment. The Initial Study determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by CEQA Guidelines § 15161, is required. Pursuant to CEQA Guidelines § 15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation."

Accordingly, and in conformance with CEQA Guidelines § 15121(a), the purposes of this Project EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 Summary of the Project Evaluated by this EIR

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the Moreno Valley Logistics Center as proposed and all of the activities associated with its implementation including planning, construction, and ongoing operation. In summary, the Project proposes to develop an 89.4-acre property as a logistics center with four (4) buildings together providing up to 1,736,180 square feet (s.f.) of total floor space. Associated improvements to the property would include loading docks, surface parking areas, drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The Project proposes the following discretionary actions that are under consideration by the City of Moreno Valley:

- **Specific Plan Amendment (P15-036)** proposes to amend the setback requirement between industrial and residential uses specified in the Moreno Valley Industrial Area Plan (MVIAP) (Specific Plan 208) as it pertains to the Project site. The Specific Plan Amendment (SPA) proposes to reduce the Project site's minimum setback distance to residential zones from 300 feet to 100 feet in order to provide a consistent setback with the warehouse building already constructed immediately north of the Project site, and to add the requirement for a contiguous enhanced landscaping zone that is at least 50 feet wide within the 100-foot setback area.

- **Tentative Parcel Map No. 36150 (PA15-0018)** proposes to consolidate three (3) parcels on an approximately 73.4-gross-acre portion of the Project site into two (2) parcels. Proposed Parcel 1 would contain approximately 62.6 net acres and proposed Parcel 2 would contain approximately 6.9 net acres. In addition, the Tentative Parcel Map identifies areas of public road dedication and vacation and the sizes and locations of proposed utility infrastructure improvements.

- **Plot Plan (PA15-0014)**, **Plot Plan (PA15-0015), Plot Plan (PA15-0016), and Plot Plan (PA15-0017)** provide detailed site plans for proposed Buildings 1, 2, 3, and 4. Each plot plan application includes a site plan, architectural plans, and landscape design. Building 1 would be constructed with a maximum of 1,351,763 s.f. of total floor space. Building 2 would be constructed with a maximum of 122,275 s.f. of total floor space. Building 3 would be constructed with a maximum of 97,222 s.f. of total floor space. Building 4 would be constructed with a maximum of 164,920 s.f. of total floor space. Plot Plan (PA15-0015) also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place.

Refer to Section 3.0, *Project Description*, for a detailed description of the proposed Project, including a list of permits and actions that would be required of the City of Moreno Valley and other agencies to construct and operate the Project.

1.3 Prior CEQA Review

The Project site is located within the geographical limits of the MVIAP. The MVIAP was originally titled the "Oleander Specific Plan" when first approved by the City of Moreno Valley in 1989 and was the subject of previous environmental review under CEQA as part of an EIR certified for the Specific Plan (SCH No. 1988080813). The Specific Plan was renamed the MVIAP in 2001 after 40 acres of additional area was added to the Specific Plan boundaries, bringing the total land area within the MVIAP to 1,540 acres. The City amended the MVIAP again in 2002 to consolidate the "Business Park," "Mixed Use," "Light Industry," and "Heavy Industry" land use designations of the original Specific Plan into a single "Industrial" land use designation in order to more readily accommodate and attract economic development opportunities (MVIAP, 2002).

The Project site also was evaluated more recently as part of the Program EIR (SCH No. 2000091075) for the 2006 update to the City of Moreno Valley General Plan. The General Plan EIR assumed full buildout of the Project site in accordance with the land use designation applied by the General Plan and MVIAP (i.e., "Business Park/Light Industrial (BP)," which allows the site to be developed with up to approximately 3.8 million square feet of industrial building area). The General Plan also assumed full buildout of the MVIAP area in accordance with the land use designations applied by the General Plan and MVIAP, including both the development of vacant lands and the redevelopment of underdeveloped property.

In summary, the Project site was the subject of previous environmental reviews conducted under CEQA as part of the EIR certified in 1989 for the Oleander Specific Plan (SCH No. 1988080813) and the EIR certified in 2006 for the City of Moreno Valley General Plan (SCH No. 2000091075). These previously certified EIR are herein incorporated by reference and are available for review at the City of Moreno Valley, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92553. Both of these EIRs analyzed development of the Project site with industrial land uses in accordance with CEQA; as such, use of the property for industrial purposes does not need to be re-evaluated. This EIR focuses on the particular aspects of the Tentative Parcel Map, Plot Plans, and Specific Plan Amendment proposed by the Project Applicant to implement the industrial land use designation.

1.4 Legal Authority

This EIR has been prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code § 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, § 15000 *et seq.*).

Pursuant to CEQA § 21067 and CEQA Guidelines Article 4 and § 15367, the City of Moreno Valley is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as the Lead Agency and before taking action to approve the Project, the City of Moreno Valley has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the City of Moreno Valley's independent judgment; (4) ensure that all significant effects on the environment are eliminated or substantially lessened where feasible; and, if necessary, (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§ 15090 through 15093).

Pursuant to CEQA Guidelines §§ 15040 through 15043, and upon completion of the CEQA review process, the City of Moreno Valley will have the legal authority to do any of the following:

- Approve the proposed Project;
- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;
- Deny approval of the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even through the Project would cause a significant effect on the environment if the City makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed Specific Plan Amendment (P15-036), Tentative Parcel Map No. 36150 (PA15-0018), and four (4) individual Building Plot Plans (PA15-0014, PA15-0015, PA15-0016, and PA15-0017), and all other governmental discretionary and administrative actions related to the Project.

1.5 Responsible and Trustee Agencies

The California Public Resource Code (§ 21104) requires that all EIRs be reviewed by state responsible and trustee agencies (see also CEQA Guidelines § 15082 and § 15086(a)). As defined by CEQA Guidelines § 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A Trustee Agency is defined in CEQA Guidelines § 15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For the proposed Project, the Santa Ana Regional Water Quality Control Board (RWQCB) is identified as a Trustee Agency that is responsible for the protection of the State's water resources. The Santa Ana RWQCB is responsible for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit to ensure that during and after Project construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality. Responsible Agencies for the Project include: the United States Army Corps of Engineers (USACE), Riverside County Airport Land Use Commission (RCALUC), Riverside County Flood Control and

Water Conservation District (RCFCWCD), Southern California Edison (SCE), and the Eastern Municipal Water District (EMWD). The USACE is responsible for administering and enforcing the provisions of Section 404 of the Clean Water Act. The RCALUC is responsible for determining consistency with the Riverside County Airport Land Use Plan. The RCFCWCD is responsible for issuance of permits for the Project to connect to the Perris Valley Storm Drain Channel. SCE is responsible for approvals associated with removing and relocating power lines, polies, and associated facilities. EMWD is responsible for approval of a Water Supply Assessment (WSA) for the Project as well as approval of domestic water and sewer system design.

1.6 EIR Scope, Format, and Content

1.6.1 EIR Scope

As a first step in complying with the procedural requirements of CEQA, the City of Moreno Valley prepared an Initial Study to preliminarily identify the environmental issue areas that may be adversely impacted by the Project. Following completion of the Initial Study, the City filed a Notice of Preparation (NOP) with the California Office of Planning and Research (OPR) (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to property owners located within 300 feet of the Project site, Responsible Agencies, Trustee Agencies, and other interested parties on June 17, 2015, for a 30-day public review period. The City of Moreno Valley also advertised the NOP in the *Press Enterprise*, a newspaper of general circulation in the Project area, and posted the Initial Study and NOP to its website (http://www.moval.org/index.shtml) for review by the general public. The City distributed the NOP for public review to solicit responses that may assist the City in identifying the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. In addition, a publicly noticed EIR Scoping Meeting was held at the City of Moreno Valley City Hall on July 6, 2015, which provided members of the general public an additional opportunity to comment on the scope and range of potential environmental concerns to be addressed in this EIR. Four (4) members of the general public attended the EIR Scoping Meeting.

Based on the information contained in the Initial Study and in consideration of all comments received by the City on the NOP and during the Scoping Meeting, this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Noise
- Transportation/Traffic

CEQA Guidelines § 15183(a) mandates that projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In the case of the Project site, use of the subject property by Industrial land uses was previously and adequately evaluated in accordance with CEQA by two prior EIRs (an EIR certified in 1989 for the MVIAP and an EIR certified in 2006 for the City's General Plan, as previously noted). Because the land use proposed by the Project would be consistent with the City's existing General Plan and zoning, this EIR does not need to re-analyze planned use of the subject property for industrial land uses pursuant to CEQA Guidelines § 15183(a). Therefore, this EIR focuses on the specific effects that are peculiar to the proposed Project and its 89.4-acre property.

The Initial Study, NOP, public review distribution list, and written comments received by the City of Moreno Valley during the NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP are summarized below in Table 1-1, *Summary of NOP Comments*. The purpose of this table is to present the primary environmental issues of concern raised during the NOP review period. The table is not intended to list every comment received by the City during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP and at the EIR Scoping Meeting are addressed in this EIR.

Table 1-1 Summary of NOP Comments

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
State Clearinghouse	June 16, 2015	Acknowledge receipt of NOP and distribution to State Agencies for review and comment.	Informational comment. No response necessary.
San Manuel Band of Mission Indians	June 22, 2015	The Project site is located within the Tribe's ancestral territory. No record of significant Native American cultural resources at Project site.	EIR Subsection 4.5, *Cultural Resources* EIR Subsection 4.5, *Cultural Resources*
California Department of Transportation (Caltrans)	June 23, 2015	Request that traffic impact report be prepared in accordance with criteria listed in letter.	EIR Subsection 4.11, *Transportation / Traffic* & EIR Technical Appendices I1, I2, & I3
California Department of Fish and Wildlife (CDFW)	July 2, 2015	Recommend that a biological resources assessment be prepared in accordance with the criteria listed in letter. Request that EIR include an analysis of potential direct, indirect, and cumulative impacts to biological resources and provide mitigation, if necessary.	EIR Technical Appendix C1 EIR Subsection 4.4, *Biological Resources*

Table 1-1 Summary of NOP Comments

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
David Padilla	July 6, 2015 (EIR Scoping Meeting)	Request that EIR include analysis of potential traffic impacts and noise impacts on nearby residential uses.	EIR Subsections 4.10, *Noise*, and 4.11, *Transportation/Traffic*
		Request that EIR include analysis of potential fiscal impacts to City public services.	EIR Section 5.0, *Other CEQA Considerations*
Johnson & Sedlack	July 8, 2015	Request that EIR evaluate potential cumulative impacts.	EIR Subsections 4.1 through 4.11 and EIR Section 5.0.
		Request that EIR include health risk analysis related to cancer and non-cancer risks from diesel air emissions.	EIR Subsection 4.3, *Air Quality* & EIR Technical Appendix B2
		Request that EIR evaluate potential impacts associated with Project alternative site plan.	All EIR sections, as applicable
		Request than EIR evaluate Project alternatives that do not require SPA or include warehouse uses.	EIR Section 6.0, *Alternatives to the Proposed Project*
		Request that EIR evaluate potential impacts to Perris Valley Storm Drain Channel and downstream areas.	All EIR sections, when applicable.
		Request that EIR evaluate potential impacts to wildlife species and biological resources.	EIR Subsection 4.4, *Biological Resources* & EIR Technical Appendix C1
		Request that EIR include fiscal impact analysis of potential impacts to public services.	EIR Subsection 5.0, *Other CEQA Considerations* & EIR Technical Appendix O
		Request preparation of a Water Supply Assessment.	EIR Subsection 5.0, *Other CEQA Considerations* & EIR Technical Appendix J
		Request EIR include evaluation of Project-related greenhouse gas emissions in relation to State regulations and policy goals.	EIR Subsection 4.6, *Greenhouse Gas Emissions*
South Coast Air Quality Management District (SCAQMD)	July 9, 2015	Request that air quality impact analysis be prepared in accordance with criteria listed in letter.	EIR Subsection 4.3, *Air Quality* & EIR Technical Appendices B1 and B2

Table 1-1 Summary of NOP Comments

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
Stephanie Grosveld	July 13, 2015	Concerned about the amount of pollution and noise that the Project could cause to properties on the opposite side of Krameria Avenue and Indian Street.	EIR Subsections 4.3, *Air Quality*, and 4.10, *Noise*
		Concerned about pollution from large trucks.	EIR Subsection 4.3, *Air Quality*
Riverside County Airport Land Use Commission	July 14, 2015	Acknowledge the Project will require review before the RCALUC	EIR Subsection 4.8, *Land Use and Planning*
		Request the EIR include an analysis of potential glare impacts.	EIR Subsection 4.1, *Aesthetics*
		Request EIR include a discussion of Project design measures to minimize potential hazards to air traffic.	EIR Subsection 4.11, *Transportation/Traffic*
Lozeau Drury, LLP	July 15, 2015	Request for notice of future CEQA actions and public hearings.	Informational item; no response necessary.
Southern California Association of Governments (SCAG)	July 16, 2015	Encourage side-by-side comparison of SCAG's RTP/SCS goals with discussion of consistency with supported analysis	EIR Section 5.0, *Other CEQA Considerations*
Eastern Municipal Water District (EMWD)	July 16, 2015	Acknowledge the Project's future Plan of Service will be subject to EMWD review.	EIR Section 3.0, *Project Description*
Pechanga Band of Luiseño Indians	July 20, 2015	The Project site is located in located within the Tribe's ancestral territory.	EIR Subsection 4.5, *Cultural Resources*
		Recommend that an archaeological study be prepared for the Project.	EIR Technical Appendix D1
		Request EIR include analysis of potential direct and cumulative impacts to tribal resources.	EIR Subsection 4.5, *Cultural Resources*

The Lead Agency has not identified any issues of controversy associated with the proposed Project after consideration of all comments received in response to the NOP. The Lead Agency identified issues of local concern, including potential direct and cumulative impacts to air quality, biological resources, cultural resources, noise, and traffic, but the City does not consider these concerns to be controversial.

1.6.2 EIR Format and Content

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, § 21000 *et. seq*. and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA Required Topics in this EIR*, provides a quick reference in locating the CEQA-required sections within this document.

In summary, the content and format of this EIR is as follows:

- **Section 1.0, Introduction**, provides introductory information about the CEQA process and the responsibilities of the City of Moreno Valley, serving as the Lead Agency of this EIR.

- **Section 2.0, Environmental Setting,** describes the environmental setting, including descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the approximate date this EIR's NOP was released for public review (June 17, 2015).

- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate pursuant to CEQA Guidelines § 15123.

- **Section 4.0, Environmental Analysis,** provides an analysis of potential direct, indirect and cumulative impacts that may occur with implementation of the proposed Project. A conclusion concerning significance is reached for each discussion; mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The CEQA Guidelines also identify the terms "effects" and "impacts" as being synonymous (CEQA Guidelines § 15358). In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementation of the proposed Project. The analyses are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would occur without undue speculation, feasible mitigation measures are recommended to reduce or avoid the significant effect. In most cases, implementation of the mitigation measures would reduce the adverse environmental impact to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a statement of overriding considerations would need to be adopted by the City of Moreno Valley pursuant to CEQA § 15093.

Table 1-2 Location of CEQA Required Topics in this EIR

CEQA Required Topic	CEQA Guidelines Reference	Location in this EIR
Table of Contents	§ 15122	Table of Contents
Summary	§ 15123	Section S.0
Project Description	§ 15124	Section 3.0
Environmental Setting	§ 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§ 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§ 15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented	§ 15126.2(c)	Subsection 5.2
Growth-Inducing Impact of the Proposed Project	§ 15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§ 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§ 15126.6	Section 6.0
Effects Not Found to be Significant	§ 15128	Subsection 5.5
Organizations and Persons Consulted	§ 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§ 15130	Section 4.0
Energy Conservation	Appendix F	Subsection 5.4

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, potential growth-inducing impacts of the proposed Project, as well as an evaluation of the Project's energy consumption. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during this EIR's Initial Study and NOP process and that, therefore, do not require a detailed evaluation in this EIR.

- **Section 6.0, Project Alternatives,** describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of three (3) alternatives is presented in Section 6.0.

- **Section 7.0, References,** cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

- **Technical Appendices.** CEQA Guidelines § 15147 states that the "information contained in an EIR shall include summarized…information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review at the City of Moreno Valley Community Development Department Planning Division, 14177 Frederick Street, Moreno Valley, California, 92552, during the City's regular business hours or can be requested in electronic form by contacting the City Planning Division. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

A.	Initial Study, Notice of Preparation, and Written Comments on the NOP
B1.	Air Quality Impact Analysis
B2.	Mobile Source Diesel Health Risk Assessment
B3.	Supplemental Air Quality Analysis
C1.	Biological Technical Report
C2.	Jurisdictional Delineation
D1.	Phase I Cultural Resources Survey
D2.	Paleontological Resource and Monitoring Assessment
E.	Greenhouse Gas Analysis
F.	Phase I Environmental Site Assessment
G1.	Preliminary Hydrology Calculations
G2.	Project Specific Preliminary Water Quality Management Plan
H.	Noise Impact Analysis
I1.	Traffic Impact Analysis
I2.	Supplemental Basic Freeway Segment Impact Analysis
I3.	Construction Traffic Evaluation
I4.	Fair Share Calculations
J.	Water Supply Assessment Report
K.	Energy Analysis
L.	Geotechnical Investigation

M. Pesticide Sampling Analysis
N. Vapor Migration Analysis
O. Fiscal Impact Study

- **Documents Incorporated by Reference**. CEQA Guidelines § 15150 allows for the incorporation "by reference all or portions of another document…[and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." Documents, analyses, and reports that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

2.0 ENVIRONMENTAL SETTING

As required by CEQA Guidelines § 15125(c), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans, and place special emphasis on resources that are rare or unique to that region and would be affected by the project. The Project Applicant proposes to develop a master-planned logistics center on a vacant, disturbed property, in accordance with the MVIAP's Industrial land use designation. Refer to Subsection 2.4, *Planning Context*, for additional information about applicable plans. There are no rare or unique resources on the property.

2.1 Regional Setting and Location

The approximately 89.4-acre Project site is located in the City of Moreno Valley, in western Riverside County, California. Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west, and San Diego County to the south. Los Angeles County is located further to the northwest. The Project site's location in a regional context is shown on Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*.

Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square mile region comprising San Bernardino County, Riverside County, and the eastern tip of Los Angeles County. The Southern California Association of Governments (SCAG) estimates that the majority of growth in the entire Southern California region will take place in Riverside and San Bernardino Counties (SCAG, 2012a). According to U.S Census data, the 2010 population of Riverside County was 2,189,641 (USCB, 2014). SCAG forecast models predict that the population of Riverside County will grow to approximately 3.324 million persons (an approximate 1.1-million-person increase) by the Year 2035 (SCAG, 2012b).

2.2 Local Setting and Location

The Project site is located in the southern portion of the City of Moreno Valley, south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street. The Project site is located approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route 60 (SR-60), and 2.5 miles northwest of Lake Perris. The property lies within the southwestern portion of Section 30, Township 3 South, Range 3 West (San Bernardino Base and Meridian) and includes Assessor Parcel Numbers (APNs): 316-100-028, 316-100-030, 316-100-048, 316-100-051, and 316-100-052. Figure 3-2, *Vicinity Map* in EIR Section 3.0, *Project Description* identifies the location of the Project site.

The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel.

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.3 Surrounding Land Uses and Development

The Project site is located within the geographical limits of the MVIAP, which covers approximately 1,500 acres in southern Moreno Valley. Property in the MVIAP was once rural in nature; but, over the past decade has been transitioning into an important industrial and economic center for the City of Moreno Valley, as planned by the MVIAP. The pace of industrial development in the MVIAP area was very slow until about 2007 when the warehouse distribution industry began to locate distribution warehouse facilities in the MVIAP area. Since that time, development has occurred swiftly, with more than 15 large warehouse buildings located in the MVIAP as of June 2016. Land uses in the immediate vicinity of the Project site are illustrated on Figure 2-1, *Surrounding Land Uses and Development*, and summarized below.

North. The Project site is bordered by land on the northwest that is under construction as a warehouse distribution center (March Business Center). A large warehouse building occupied by Proctor & Gamble abuts the Project site on the north (north of Krameria Avenue). Located farther north of the Project site is Iris Avenue, undeveloped land, and residential development. Approximately 0.6-mile northeast of the Project site is Rainbow Ridge Elementary School and March Middle School.

South. The Project site is bordered on the south by partially developed Cardinal Avenue, a large warehouse building occupied by Amazon, and the Perris Valley Storm Drain Channel. Located farther south are a collection of warehouse distribution buildings (including but not limited to buildings currently occupied by Harbor Freight Tools and O’Reilly Auto Parts), undeveloped lands that are designated for future industrial development, and small parcels that contain small commercial, industrial, or manufacturing structures.

East. Immediately to the east of the Project site is Indian Street. East of Indian Street is land developed primarily with single-family residential land uses, with pockets of undeveloped land designated for future residential development. Further east are Morning Dove Christian Academy (approximately 0.6-mile), Mary McLeod Bethune Elementary School (approximately 0.9-mile), and Vista Verde Middle School (approximately 1.25 miles).

West. The Project site is bordered on the west by a large warehouse building occupied by Lowe’s, an industrial building occupied by Cardinal Glass Industries, and Heacock Street. West of Heacock Street is the March Air Reserve Base. The March Air Reserve Base was established as a military airport in 1918 and operated as March Air Force Base until 1996 when it was transitioned to a reserve base. Today, the property contains an airfield, active military uses, aviation-related uses, and areas designated for civilian development called the March Inland Port Airport (IPA).

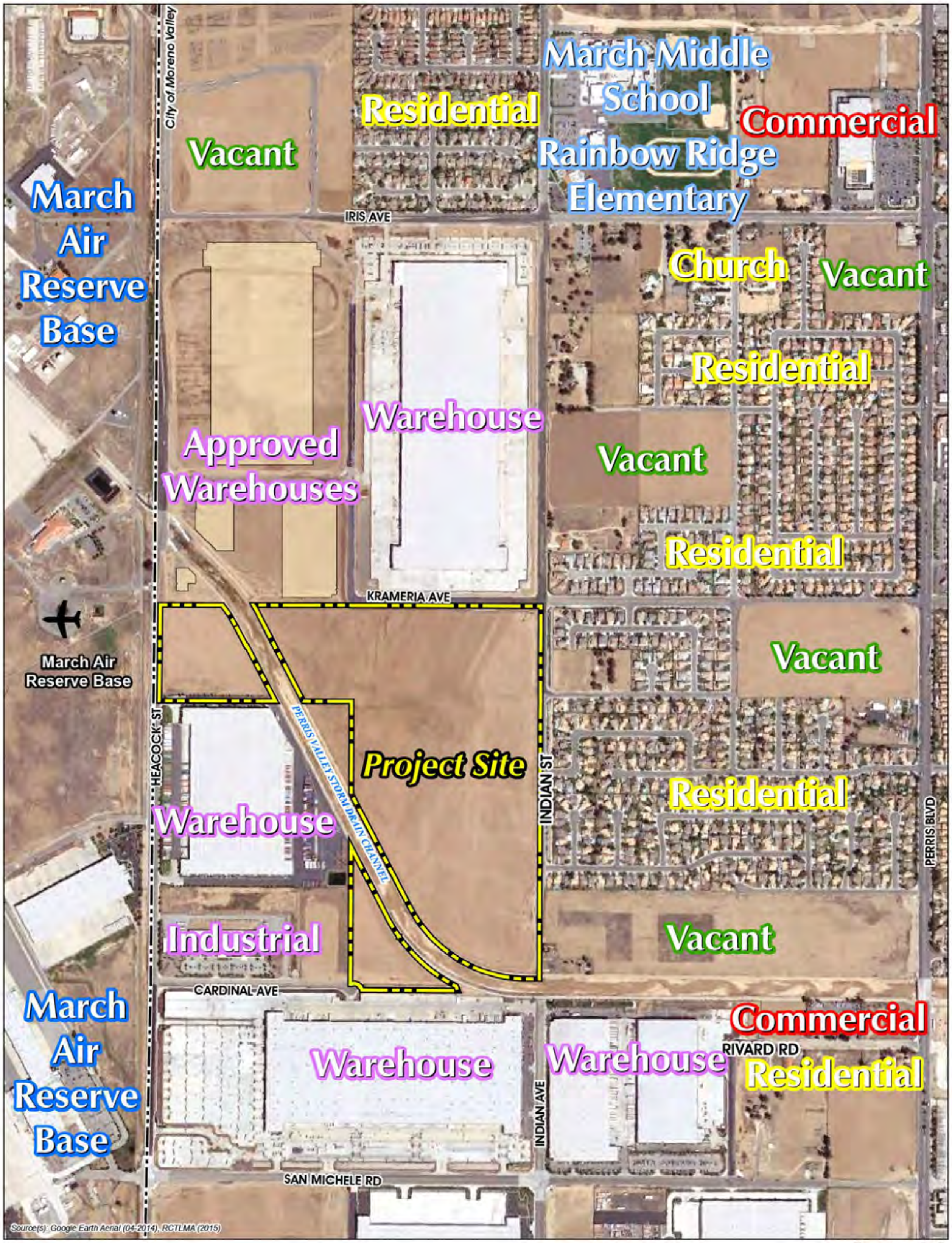

Source(s): Google Earth Aerial (04-2014), RCTLMA (2015)

Figure 2-1

SURROUNDING LAND USES AND DEVELOPMENT

2.4 Planning Context

2.4.1 City of Moreno Valley General Plan

The prevailing planning document for the Project site and its surrounding area is the City of Moreno Valley General Plan. The General Plan designates the Project site for "Business Park/Light Industrial (BP)" land uses (refer to Figure 2-2, *Existing General Plan Land Use Designations*). The BP land use designation provides for employee intensive uses, including manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities, with a building intensity up to a floor area ratio (FAR) of 1.0.

2.4.2 Moreno Valley Industrial Area Plan (Specific Plan 208)

The Project site is located within the geographical boundaries of the MVIAP. The MVIAP "establishes development regulations and design standards that will ensure quality development which will contribute to the City's industrial employment base…" (City of Moreno Valley, 2002, pp. I-4). The MVIAP includes specific zoning designations and standards for development within its geographical boundaries. As shown on Figure 2-3, *Moreno Valley Industrial Area Plan Land Use Map*, the MVIAP applies an "Industrial" zoning designation to the Project site. The Industrial zoning designation permits industrial and distribution warehousing uses proposed by the Project.

2.4.3 City of Moreno Valley Zoning

The development regulations and design standards contained within the MVIAP supersede the zoning standards contained in the City's Municipal Code for the Project site. The MVIAP applies the Industrial zoning designation to the proposed Project site. Refer to MVIAP Section III, *Development Standards and Guidelines*, and Section IV, *Development Framework*, for more information on the specific development regulations and design standards that apply to the Project site. The MVIAP is herein incorporated by reference pursuant to CEQA Guidelines § 15150 and is available for review at the physical location indicated in EIR Section 7.0, *References*.

2.4.4 SCAG Regional Transportation Plan (RTP)

SCAG is a Joint Powers Authority (JPA) under California state law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under state law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region.

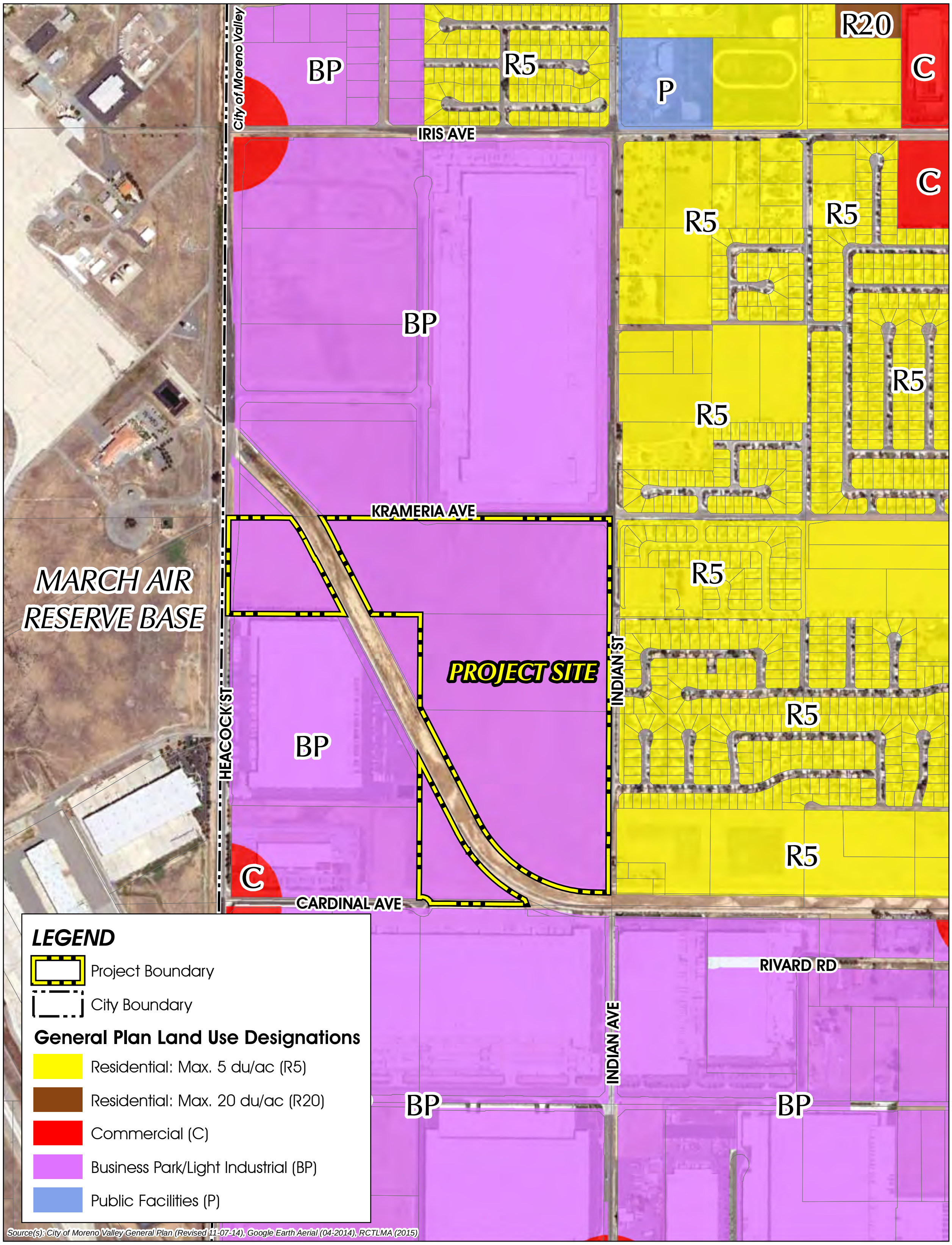

Source(s): City of Moreno Valley General Plan (Revised 11-07-14), Google Earth Aerial (04-2014), RCTLMA (2015)

Figure 2-2

EXISTING GENERAL PLAN LAND USE DESIGNATIONS

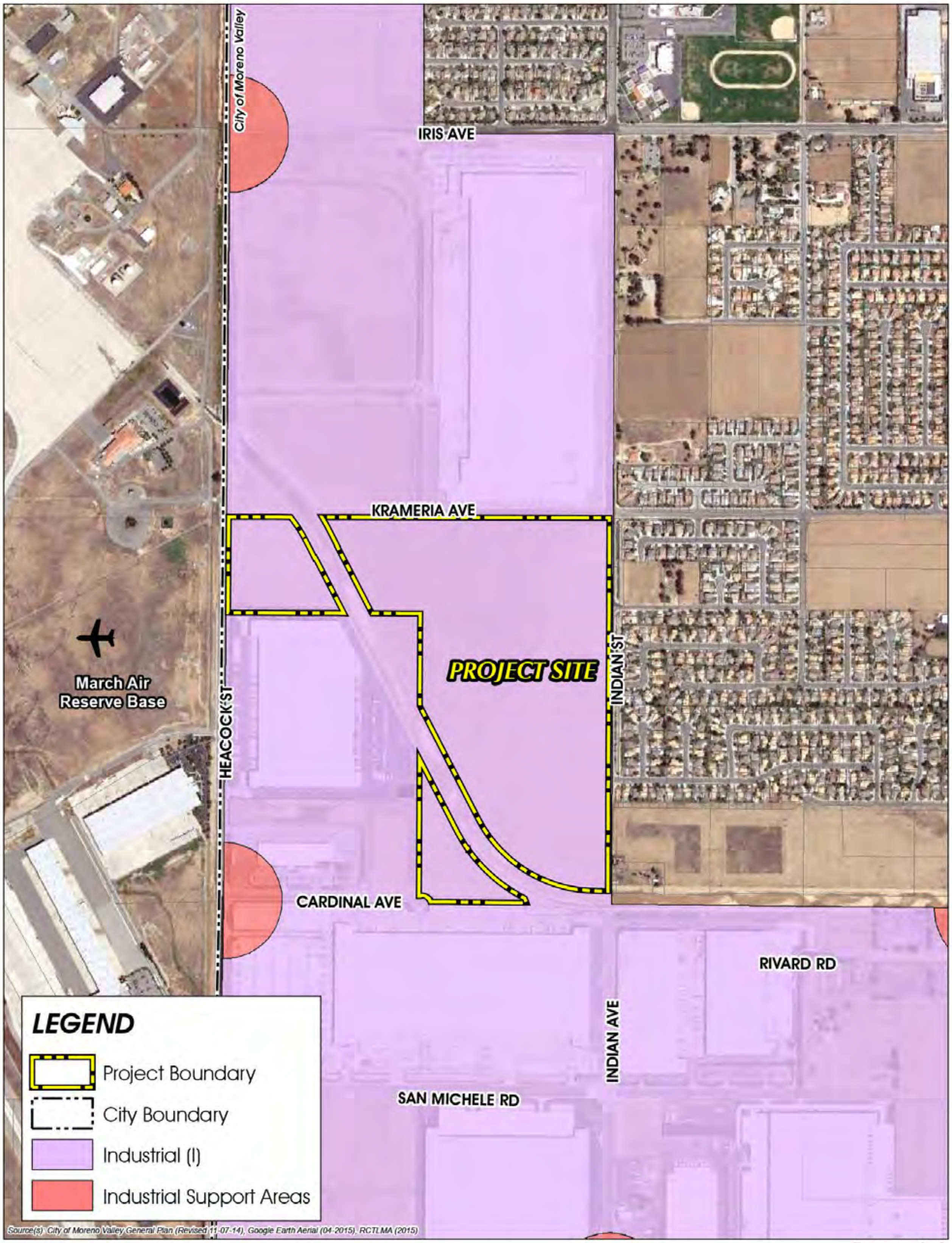

Source(s): City of Moreno Valley General Plan (Revised 11-07-14), Google Earth Aerial (04-2015), RCTLMA (2015)

Figure 2-3
MORENO VALLEY INDUSTRIAL AREA PLAN
LAND USE MAP

As a MPO and public agency, SCAG develops transportation and housing plans that transcend jurisdictional boundaries that affect the quality of life for Southern Californian as a whole. SCAG's *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* includes a chapter titled "Goods Movement" that is applicable to the Project because the Project proposes four industrial buildings in the SCAG region that would provide for a variety of light industrial, distribution warehousing, and logistics tenants. The Goods Movement chapter states that the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on a network of warehousing and distribution facilities, highway and rail connections, and intermodal rail yards. To that end, the *Goods Movement Appendix* of the *RTP/SCS* sets forth regional strategies to achieve an efficient movement of goods which states the following:

> *"Goods movement and freight transportation are essential to supporting the SCAG regional economy and quality of life. The goods movement system in the SCAG region is a multimodal, coordinated network that includes deep water marine ports, international border crossings, Class I rail lines, interstate highways, state routes and local roads, air cargo facilities, intermodal facilities, and regional distribution and warehousing clusters. In 2010, over 1.15 billion tons of cargo valued at almost $2 trillion moved across the region's transportation system. Whether carrying imported goods from the San Pedro Bay Ports to regional distribution centers, supplying materials for local manufacturers, or delivering consumer goods to SCAG residents, the movement of freight provides the goods and services needed to sustain regional industries and consumers on a daily basis."* (SCAG, 2012a, p. 1)

According to SCAG's *Comprehensive Regional Goods Movement Plan and Implementation Strategy*, the SCAG region has a large demand for warehouse space and the demand will continue into the foreseeable future, resulting in a large unmet demand by the year 2035 (SCAG, 2013, pp. 4-39 and 4-40). SCAG reports that a substantial amount of available industrial land for this type of development is located in the vicinity of the SR-60 corridor, particularly in Moreno Valley, Perris, and near March Air Reserve Base (i.e., the vicinity of the Project site) (SCAG, 2013, p. 6-16).

2.4.5 Riverside County Airport Land Use Compatibility Plan

The March Air Reserve Base Airport Land Use Compatibility Plan (ALUCP) identifies land use standards and design criteria for new development located in the proximity of the March Air Reserve Base to ensure compatibility between the airport and surrounding land uses and to maximize public safety. The Project site is located within the influence area of March Air Reserve base and is subject to the March Air Reserve Base ALUCP. The portions of the Project site located west of the Perris Valley Storm Drain Channel are located within "Compatibility Zone C1" and the portions of the Project site located east of the Perris Valley Storm Drain Channel are located within "Compatibility Zone D." Within Compatibility Zone C1, noise-sensitive land uses (e.g., schools, libraries, hospitals) and land uses that accommodate the habitation/congregation of very large groups of people are discouraged and design features that may pose a hazard to flight are prohibited (e.g., extremely tall objects, visual or electronic forms of interference). Within Compatibility Zone D, there are no land use or design restrictions, with the exception of hazards to flight. (RCALUC, 2014, p. 9, Map MA-1)

Refer to EIR Subsections 4.7, *Hazards and Hazardous Materials*, and 4.9, *Land Use/Planning*, for a detailed discussion of the Project's compatibility with the March Air Reserve Base ALUCP.

2.4.6 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Plan (MSHCP) is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their habitats in Western Riverside County. The Project site is located within the Reche Canyon/Badlands Area Plan of the Western Riverside County MSHCP but is not located within a Cell Group, Criteria Cell, or Sub-Unit and is not targeted for conservation (Riverside County, 2015).

2.5 Existing Physical Site Conditions

Pursuant to CEQA Guidelines § 15125, the physical environmental conditions for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on June 17, 2015, and the following subsections provide a description of the Project site's physical environmental conditions as of that approximate date ("existing conditions"). More information regarding the Project site's environmental setting is provided in the various subsections of EIR Section 4.0, *Environmental Analysis*.

2.5.1 Land Use

Under existing conditions, the Project site is vacant and does not contain any buildings or permanent structures/facilities, with the exception of overhead utility lines located along the eastern property boundary adjacent to Indian Street. The Project site is routinely maintained (i.e., disced) to remove vegetation from the site to reduce the risk of fire as required by the Riverside County Fire Department. Figure 2-4, *Aerial Photograph*, depicts the existing condition of the Project site.

Historically, the Project site has been either vacant or used for agricultural activities since at least 1938. An ephemeral stream bed transected the Project site in a northwest to southwest direction until the time period between the mid-1950s and mid-1960s, when the stream bed was channelized as part of the man-made Perris Valley Storm Drain Channel. (Farallon Consulting, 2015, p. 5-1)

2.5.2 Aesthetic and Topographic Features

The Project site is located within a flat valley floor surrounded by rugged hills and mountains. The Project site is relatively flat with elevations ranging from approximately 1,497 feet above mean sea level (AMSL) at its northern boundary to approximately 1,468 AMSL at the southeast corner of the property. The topographic relief of the Project site is approximately 29 feet. There are no rock outcroppings or unique topographic features on the Project site. Figure 3-3, *USGS Topographic Map*, of EIR Section 3.0, *Project Description*, depicts the site's existing topographic conditions.

Source(s): Google Earth (04-2014), RCTLMA (2015)

Figure 2-4

AERIAL PHOTOGRAPH

The Project site does not contain any ornamental landscaping; the vegetation that does exist on the property is characterized by ruderal plants and weeds and is routinely disced as part of weed abatement activities. No buildings, permanent man-made structures/facilities or other discernable man-made features are present on the Project site, with the exception of overhead utility lines located along the eastern property boundary adjacent to Indian Street and the Perris Valley Storm Drain Channel that bisects the property.

Refer to EIR Subsections 4.1, *Aesthetics*, for a more detailed account of the Project site's existing aesthetic and topographic features.

2.5.3 Air Quality and Climate

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and state air quality standards. As documented in the Project's air quality report (*Technical Appendix B1* to this EIR), although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year.

Air quality in the SCAB is documented by the SCAQMD to have dramatically improved over the past several decades. Ambient concentrations of ozone (O_3), nitrogen oxides (NO_X), volatile organic compounds (VOCs), and carbon monoxide (CO) have decreased within the SCAB since 1975 due to regulatory controls and advances in technology and are projected by the SCAQMD to continue to decrease through at least 2020. Additionally, overall trends in particulate matter (PM_{10} and $PM_{2.5}$) emissions have improved since 1975 due to improved management practices. Regardless, the SCAB is currently not in attainment of state and/or federal standards established for ozone (O_3) one-hour and eight-hour, particulate matter (PM_{10} and $PM_{2.5}$), and also not in attainment for lead (Pb) in Los Angeles County. (Urban Crossroads, 2015a, pp. 13-23)

Similarly, toxic air contaminant (TAC) concentrations within the SCAB have fallen substantially since the mid-1980s, when the California Air Resources Board (CARB) adopted regulations to curtail TAC emissions. TACs are responsible for most of the known cancer risk associated with airborne pollutants in California. Diesel particulate matter (DPM), a pollutant generated by diesel combustion engines, is responsible for approximately 70 percent of the TAC-associated cancer risk in the SCAB. Statewide, DPM emissions declined by approximately 68 percent between 1984 and

2000 and are projected to decline by an additional 71 percent between 2000 and 2020 due to the use of cleaner fuels, fleet upgrades (i.e., replacing older, more polluting diesel-fueled trucks with newer, cleaner trucks), and other regulatory requirements. The SCAQMD conducts in-depth analysis of toxic air contaminants and their resulting health risks for the SCAB and documents their findings in a report titled *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (2015). Overall, the 2015 iteration of this study (referred to as *MATES-IV*) reported that the ambient, excess cancer risk in the SCAB fell by more than 50 percent between the 2008 iteration (*MATES-III*) and *MATES-IV*. According to *MATES-IV*, the ambient excess cancer risk for the vicinity of the Project site is approximately 211 in one million. (Urban Crossroads, 2015a, pp. 24-26; SCAQMD, 2015b; SCAQMD, 2015c)

Refer to EIR Subsections 4.3, *Air Quality* and 4.6, *Greenhouse Gas Emissions*, for a more detailed discussion of the Project site's existing air quality and climatic setting.

2.5.4 Cultural Resources

From an archaeological perspective, regional prehistory within the Project area is defined by the *Paleo-Indian Period* (11,500 to 9,000 years ago), the *Archaic Period* (9,000 to 1,300 years ago), and the *Late Prehistoric Period* (approximately 1,300 years ago). Each of these periods in prehistory are discussed in EIR Subsection 4.5, *Cultural Resources*. In summary, human habitation of Southern California dates back to approximately 11,500 years ago. Over a series of cultural periods, the area transitioned from a hunting and gathering society, to settlements of small groups of people, to large occupations near natural water sources, to formations of distinct ethnographic groups. Moreno Valley is located in the traditional tribal use areas of several Native American Tribes, particularly the Cahuilla, Gabrielino, and Luiseño Indians. (BFSA, 2106a, pp. 3.0-1 to 3.0-4) According to correspondence received by the City of Moreno Valley in relation to the Project, three Native American tribes indicate that the Project site is located within their ancestral tribal territory: San Manuel Band of Mission Indians, Soboba Band of Luiseño Indians, and the Pechanga Band of Luiseño Indians.

The Project site is not known to have historical significance to the region and is not listed on the national, state, or local registers of historic places (BFSA, 2106a,p. 5.0-1).

Refer to EIR Subsection 4.5, *Cultural Resources*, for a more thorough discussion of the Project's site existing cultural setting.

2.5.5 Geology and Soils

The Project site is located within the Peninsular Range Geomorphic Province, a prominent natural geomorphic province that extends from the Santa Monica Mountains approximately 900 miles south to the tip of Baja California, Mexico, and is bounded on the east by the Colorado Desert. The Peninsular Range is characterized by steep, elongated ranges and valleys that generally trend northwesterly (California Department of Conservation, 2002). More specifically, the Project site is situated within the Perris Block unit, which is mass of granitic rock. The Perris Block is bounded by the San Jacinto fault zone to the northeast, the Elsinore fault zone to the southwest, and the Santa Ana River (City of Moreno Valley, 2006b, p. 5.6-1). Geologic formations underlying the Project site include lower Pleistocene deposits and very old alluvial fan deposits (BFSA, 2016b, p. 1).

The Project site is not located within an active Alquist-Priolo earthquake zone or a City-designated fault hazard zone, meaning that no active faults are mapped or known to exist on the Project site or in the immediate surrounding area (SoCalGeo, 2015, p. 10) (City of Moreno Valley, 2006a,pp. 6-16-6-17, Figure 6-3). The nearest known active fault to the Project site, the San Jacinto Valley section of the San Jacinto Fault Zone (Casa Loma Fault), is located approximately six miles to the east of the subject property (USGS, 2015).

Native alluvial soils are present across the Project site, from ground surface to at least 30 feet below ground surface. The on-site alluvial soils generally consist of very stiff to hard sandy clays, clayey silts and silty clays as well as medium dense to very dense sands, silty sands and clayey sands. (SoCalGeo, 2015, p. 6)

2.5.6 Hydrology

The Project site is located in the Santa Ana River Watershed (San Jacinto Sub-Watershed). The Santa Ana River Watershed drains a 2,650 square-mile area and is the principal surface flow water body within the region. The Santa Ana River's headwaters are in the San Bernardino Mountains from which the River flows southwesterly for approximately 96 miles across San Bernardino, Riverside, Los Angeles, and Orange counties before spilling into the Pacific Ocean. (SAWPA, 2012)

The Perris Valley Storm Drain Channel, which transects the Project site in a northwest to southeast direction, is one of three major storm drains that serve the City of Moreno Valley. The Perris Valley Storm Drain Channel confluences with the San Jacinto River and discharges to Canyon Lake, and ultimately to Lake Elsinore. Under existing conditions, stormwater runoff generally surface drains southeasterly across the Project site as sheet flow into the Perris Valley Storm Drain Channel. (Thienes, 2016a, p. n.p.)

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panels 06065C0765G and 06065C1430H, the north-central portion of the Project site is located within Flood Zone AO, while the remaining portions of the Project site are located within Flood Zone X (un-shaded). Areas within Flood Zone AO are subject to inundation by 1-percent-annual-chance shallow flooding (average depths between one and three feet). Flood Zone X (unshaded) is classified by FEMA as an area of minimal flood hazard and is located above the 0.2-percent-annual-flood-chance floodplain. (FEMA, 2015)

The Project site does not contain any surface water. Free water was encountered during geologic field investigations in one (1) subsurface boring on the Project site at a depth of approximately 27 feet below the ground surface. Based on the observed moisture content of recovered soil samples and a review of historic groundwater documentation, Southern California Geotechnical, Inc.

determined the static groundwater table at the Project site exists at depths in excess of 30 feet below the existing ground surface. (SoCalGeo, 2015, pp. 6, 17)

Refer to EIR Subsection 4.8, *Hydrology/Water Quality*, for a more detailed discussion of the Project site's existing hydraulic setting.

2.5.7 Noise

Primary sources of noise in the Project site's vicinity include vehicle noise and aircraft noise. To determine the existing acoustical setting, 24-hour noise measurements were taken by Urban Crossroads, Inc. at nine locations in the Project study area on March 9, 2015. Measured hourly noise levels ranged from 50.2 to 75.3 equivalent-level decibels (dBA Leq), which correlates to a Community Noise Equivalent Level (CNEL) ranging from 58.2 dBA CNEL to 79.7 dBA CNEL (Urban Crossroads, 2015d, p. 31).

Refer to EIR Subsection 4.10, *Noise*, for a more detailed discussion of the Project site's existing noise setting.

2.5.8 Transportation

Major vehicular travel routes in the Project region include I-215, SR-60, State Route 91 (SR-91), and Interstate 15 (I-15). The Project site is located approximately 1.3 miles east of the Harley Knox Boulevard/I-215 interchange in the City of Perris. From the Harley Knox interchange, I-215 connects with SR-60 approximately six roadway miles to the north, and connects with SR-91 approximately 11 roadway miles to the north, and connects with I-15 approximately 24 roadway miles to the south.

The Project site is located south of Krameria Avenue, north of Cardinal Avenue, west of Indian Street, and east of Heacock Street. Other primary roadways in the vicinity of the Project site include Perris Boulevard, Cactus Avenue, and Harley Knox Boulevard (located in the City of Perris). Existing traffic on nearby roadways consists of both passenger vehicles and heavy trucks.

Refer to EIR Subsection 4.11, *Transportation/Traffic*, for a detailed discussion of the Project area's existing transportation and circulation setting, including local roadways in the City of Moreno Valley and City of Perris that would be used by Project-related traffic.

2.5.9 Utilities and Service Systems

The Project site is located in the service area of the Eastern Municipal Water District (EMWD) for domestic water and sewer service. EMWD manages the domestic water supply and delivery service within its 555 square mile service area, including the City of Moreno Valley, all or portions of six other cities, and a portion of unincorporated Riverside County. As documented in EMWD's *2010 Urban Water Management Plan*, EMWD's water supply is obtained from four sources: 1) imported water from the Metropolitan Water District (MWD); 2) recycled water; 3) local groundwater production; and 4) desalted groundwater (EMWD, 2011, p. Ch. 3). EMWD has an adopted Water Shortage Contingency Plan (EMWD Ordinance 117.2) that applies regulations and restrictions on the delivery of and consumption of water during water shortages.

Wastewater flows generated within the Project area are conveyed to two different EMWD wastewater treatment facilities: the Moreno Valley Regional Water Reclamation Facility or the Perris Valley Regional Water Reclamation Facility. The Moreno Valley Regional Water Reclamation Facility generally receives wastewater flows produced in areas north and east of the Perris Valley Storm Drain Channel, while the Perris Valley Regional Water Reclamation Facility generally receives wastewater flows produced in areas south of the Perris Valley Storm Drain Channel.

Solid waste collection and disposal in the Project area is conducted by Waste Management of the Inland Empire, a division of Waste Management, Inc. Landfills that have the potential of receiving solid waste from the Project site include the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill.

2.5.10 Vegetation

The entire Project site has been disturbed, either by past agricultural activities or by on-going weed abatement (i.e., discing). According to a biological field survey conducted on the Project site by Glenn Lukos Associates (GLA), vegetation observed on-site includes common species, such as London rocket (*Sisymbrium irio*), common goldfields (*Lasthenia californica*), common fiddleneck (*Amsinkia menziessii var. intermedia*), redstem filaree (*Erodium cicutarium*), cultivated barley (*Hordeum vulgare*), wild oat (*Avena fatua*), Russian thistle (*Salsola tragus*), cheeseweed (*Malva parviflora*), red brome (*Bromus madritensis ssp. rubens*), stinknet (*Oncosiphon piluliferum*), wild radish (*Raphanus sativus*), minature lupine (*Lupinus bicolor*), and summer mustard (*Brassica geniculata*). (GLA, 2015, p. 20) A complete list of plant species observed on the Project site is included in *Technical Appendix B1*. GLA did not observe any special-status plants on the Project site (GLA, 2015, p. 21).

Refer to EIR Subsection 4.4, *Biological Resources*, for a detailed discussion of the Project site's existing biological setting.

2.5.11 Wildlife

One special-status wildlife species was observed on the Project site during GLA's biological survey: the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). A complete list of animals species observed on the Project site is included in *Technical Appendix B1*. Although no other special-status wildlife species were observed on the Project site, based on the physical characteristics of the site and surrounding area, the following nine species have the potential of occupy or use (e.g., forage, nest) the subject property: burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), Los Angeles pocket mouse (*Perognathus* *longimembris brevinasus*), Northwestern San Diego pocket mouse (*Chaetoipus fallax fallax*), and Stephens' kangaroo rat (*Dipodomys stephensi*). (GLA, 2015, pp. 24-28)

Refer to EIR Subsection 4.4, *Biological Resources*, for a detailed discussion of the Project site's existing biological setting.

3.0 PROJECT DESCRIPTION

This section provides all of the information required of an EIR Project Description by CEQA Guidelines § 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR, including a list of the government agencies that are expected to use this EIR in their decision-making processes; a list of the permits and approvals that are required to implement the Project; and a list of related environmental review and consultation requirements.

Under existing conditions, the approximately 89.4-acre Project site is vacant and undeveloped. The proposed Project involves the construction and operation of a logistics center with four (4) buildings and a combined 1,736,180 square feet (s.f.) of total floor space. No future building occupants are yet identified, but the types of occupants are anticipated to include high cube warehousing in the largest building and uses such as general warehousing, industrial, manufacturing, assembly, e-commerce, and similar use types in the smaller buildings. Associated improvements to the Project site would include, but not be limited to, surface parking areas, vehicle drive aisles, truck courts, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. The Project also would construct frontage improvements to Krameria Avenue, Heacock Avenue, and Indian Street, and construct storm drain outlets to the Perris Valley Storm Drain Channel, a segment of which bifurcates the site.

This EIR (P15-037) analyzes the physical environmental effects associated with all components of the Project, including planning, construction, and on-going operation. Governmental approvals requested from the City of Moreno Valley by the Project Applicant to implement the Project include a Specific Plan Amendment (P15-036), a Tentative Parcel Map (PA15-0018), and four individual Building Plot Plans (PA15-0014, 15-0015, PA15-0016, and PA15-0017). These applications, as submitted to the City of Moreno Valley by the Project Applicant, are herein incorporated by reference pursuant to CEQA Guidelines § 15150 and are available for review at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552. No other discretionary actions are required on the part of the City of Moreno Valley to approve the Project; nonetheless, any and all other discretionary and administrative approvals that may be required of the City of Moreno Valley or other governmental agencies to fully implement the proposed Project are also within the scope of the Project analyzed in this EIR.

3.1 Project Location

The Project site is located in the southern portion of the City of Moreno Valley. The City of Moreno Valley is located in the northwestern portion of Riverside County, California, and is north of the City of Perris and southeast of the City of Riverside. As shown on Figure 3-1, *Regional Map*, the Project site is located approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route 60 (SR-60) and approximately 2.5 miles northwest of Lake Perris.

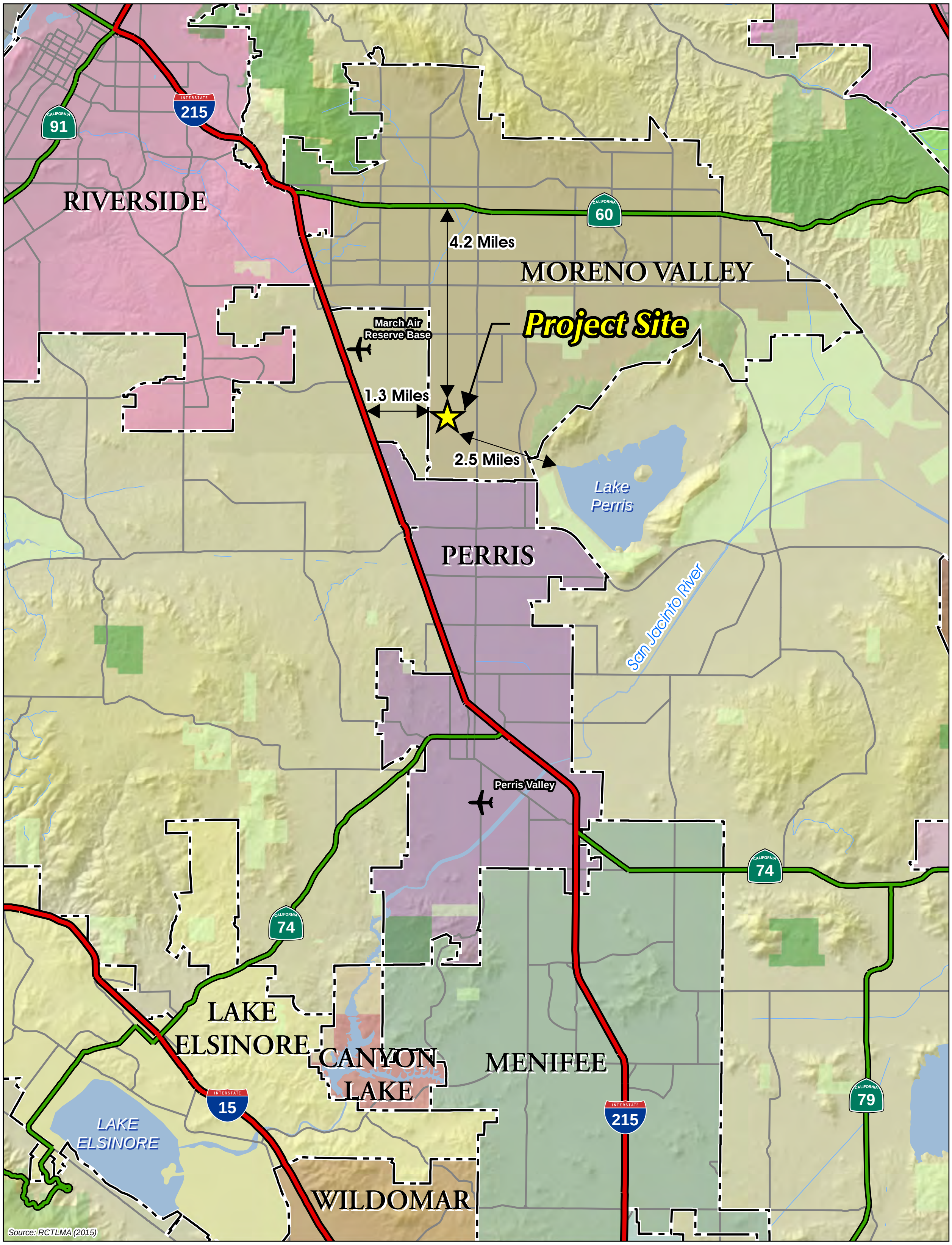

Source: RCTLMA (2015)

Figure 3-1

REGIONAL MAP

Specifically, the Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street (see Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGS Topographic Map*). The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site is located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site is located east of the Perris Valley Storm Drain Channel.

A detailed discussion of the Project site's location and setting is provided in EIR Section 2.0, *Environmental Setting*.

3.2 Statement of Objectives

The Project's goal is to develop the subject property as a productive logistics center. The Project would achieve this goal through the following basic objectives.

A. Implement the Moreno Valley Industrial Area Plan (MVIAP) through the construction and operation of a Class A logistics center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the MVIAP, as amended.

B. To develop and maximize the buildout potential of a vacant or underutilized property in the MVIAP area that has access to available infrastructure.

C. To attract new employment-generating businesses to the MVIAP area thereby providing a more equal jobs-housing balance both in the City of Moreno Valley and in the Riverside County/Inland Empire area and reducing the need for members of the local workforce to commute outside the area for employment.

D. To develop logistics buildings with loading bays and trailer parking within close proximity of regional transportation routes and designated City of Moreno Valley truck routes in order to facilitate the efficient movement of goods.

E. To develop logistics center buildings that are physically and economically feasible to construct and operate and that are economically competitive with other geographic markets in the Inland Empire to attract building users to Moreno Valley.

F. To develop a vacant or underutilized property with structures that have architectural design and operational characteristics that complement existing and planned warehouse development in the immediate vicinity.

G. To develop the subject property with land uses that are harmonious to the adjacent March Air Reserve Base.

Source: ESRI (2014), RCTLMA (2015)

0 0.125 0.25 0.5
Miles

Figure 3-2

VICINITY MAP

Source: ESRI (2015)

Copyright:© 2013 National Geographic Society, i-cubed

Figure 3-3

0 500 1,000 2,000 Feet

USGS TOPOGRAPHIC MAP

3.3 Project's Component Parts

The Project consists of a proposal to develop an approximately 89.4-acre property to accommodate a logistics center with four (4) buildings with a combined total of 1,736,180 s.f. of floor space. The principal discretionary actions required of the City of Moreno Valley to implement the Project include the approval of a Specific Plan Amendment (P15-036), Tentative Parcel Map No. 36150 (PA15-0018), and four (4) individual Building Plot Plans (PA15-0014, PA15-0015, PA15-0016, and PA15-0017), and certification of this EIR. Other approvals and actions that are necessary to fully implement the proposed Project are listed in Table 3-5, *Matrix of Project Approvals/Permits*, at the end of this EIR section. A detailed description of the proposed Project is provided in the following subsections.

3.3.1 Specific Plan Amendment (P15-036)

The MVIAP, which was adopted by the City of Moreno Valley in 1989, includes a 300-foot setback requirement between industrial and residential land uses (refer to MVIAP Section III, C.1). The proposed Specific Plan Amendment (SPA) would amend this setback as it pertains to the Project site. The SPA proposes to amend the Project site's minimum setback distance requirement to the residential zoning located on the opposite side (east side) of Indian Street from 300 feet to 100 feet and to add the requirement to install a minimum 50-foot-wide contiguous enhanced landscaping zone within the proposed 100-foot setback area. The building constructed to the north of the Project site and currently occupied by Proctor & Gamble has a 100-foot separation from residential uses on the east side of Indian Street; the proposed Project is proposing the same distance so that there is a consistent setback along the west side of Indian Street.

3.3.2 Tentative Parcel Map No. 36150

A. General Description

Tentative Parcel Map No. 36150 (TPM No. 36150; PA15-0018) proposes to consolidate three (3) parcels comprising an approximately 74.1-gross-acre portion of the Project site into two (2) parcels, as depicted on Figure 3-4, *Tentative Parcel Map No. 36150.* Proposed Parcel 1 would contain approximately 62.6 net acres and proposed Parcel 2 would contain approximately 6.9 net acres. In addition, TPM No. 36150 identifies areas of public road dedication and vacation, and the size and location of proposed utility infrastructure improvements.

B. Public Roadway Vacations, Dedications, and Improvements

TPM No. 36150 would dedicate land as public right-of-way to the City of Moreno Valley for the construction/widening of Krameria Avenue (0.02-acre), Indian Street (1.34 acres), Cosmos Street (1.23 acres). In addition, TPM No. 36150, would vacate roadway right-of-way that were previously offered to the City of Moreno Valley but never constructed. The right-of-way to be vacated is also known by the term "paper street" because the alignment exists only on maps, with no physical attributes constructed on the property. The "paper street" to be vacated by TPM No. 36150 includes

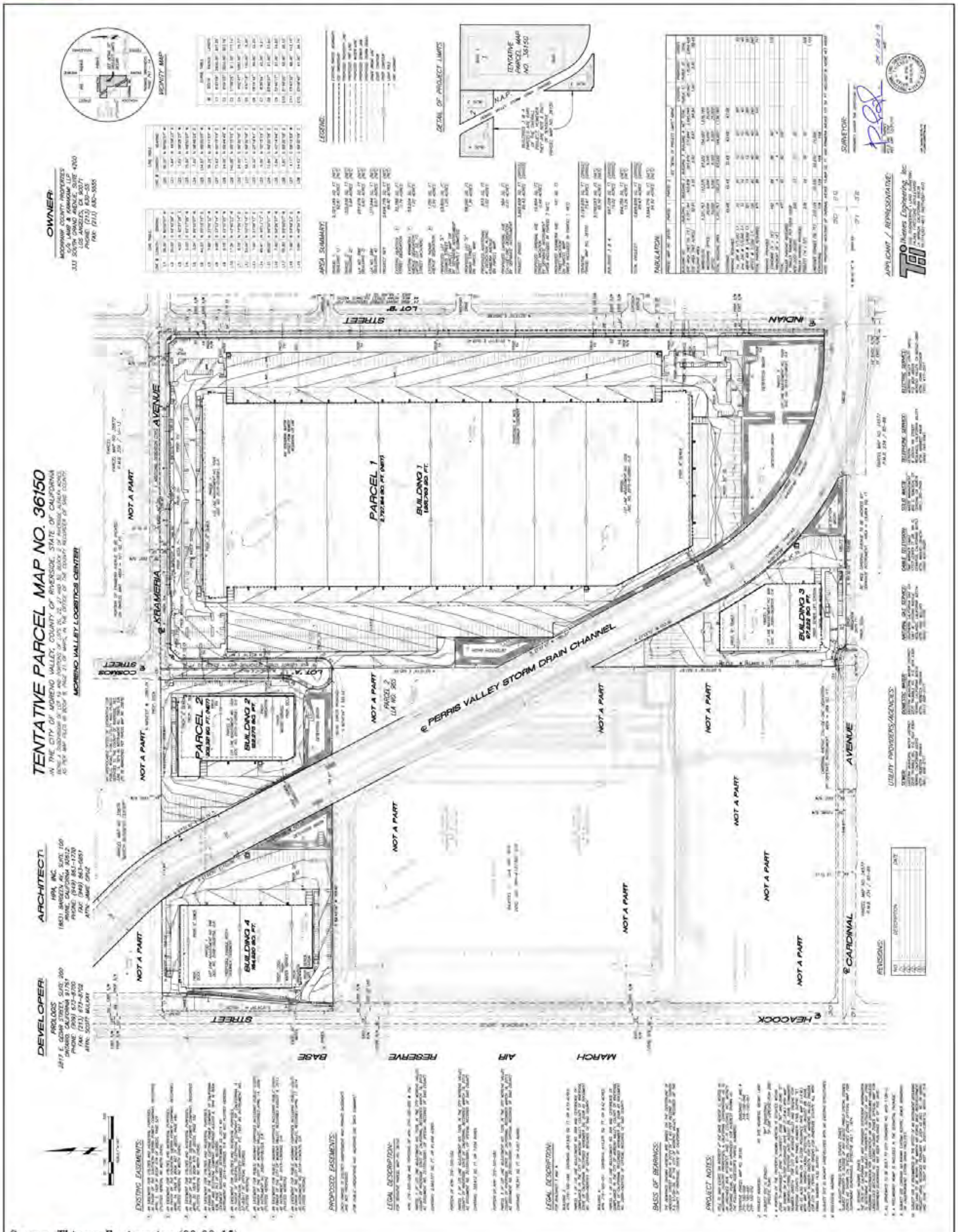

Source: Thienes Engineering (09-08-15)

Figure 3-4

NOT TO SCALE

TENTATIVE PARCEL MAP NO. 36150

an approximately 101 s.f. area of unbuilt Krameria Avenue. The Project also would dedicate approximately 0.01-acre to the City as right-of-way for Cardinal Avenue and would vacate an approximately 0.46-acre "paper street" for Cardinal Avenue via subsequent administrative action(s). The proposed Project would provide frontage improvements to roadways abutting the subject property, including Indian Street, Krameria Avenue, Heacock Street, and Cardinal Avenue as detailed in the City of Moreno Valley's Conditions of Approval for the Project and shown on Figure 3-5, *Roadway Cross-Sections*. In addition, the Project would construct the on-site cul-de-sac segment of Cosmos Street. Improvements would be consistent with City of Moreno Valley roadway standards.

C. Utility Infrastructure Improvements

❑ Water Service Facilities

The Eastern Municipal Water District (EMWD) would provide water service to the Project. As depicted on Figure 3-6, *Water Plan*, TPM No. 36150 proposes numerous connection points to the existing water lines installed beneath Indian Street, Krameria Avenue, Heacock Street, and Cardinal Avenue for indoor, outdoor (i.e., landscape irrigation), and fire protection (i.e., fire hydrant) services. Additionally, TPM No. 36150 would install a water line beneath the proposed on-site segment of Cosmos Avenue for the purposes of on-site indoor, outdoor, and fire protection services. All proposed water facilities would be designed and constructed in accordance with EMWD standards.

❑ Wastewater Service Facilities

EMWD would provide wastewater conveyance and treatment services to the Project. As shown on Figure 3-7, *Sewer Plan*, TPM No. 36150 would extend the existing sewer line installed beneath Heacock Street approximately 90 feet to the north to provide sewer service to the northwest portion of the Project site (i.e., proposed Building 4) and would construct a sewer line beneath Cardinal Avenue to provide sewer service to the southwest portion of the Project site (i.e., proposed Building 3). TPM No. 36150 also specifies the installation of two private sewer lift stations on the northwest and southwest portions of the Project site to facilitate sewer service to proposed Buildings 3 and 4. The eastern portion of the Project site (i.e., proposed Buildings 1 and 2) would receive wastewater service via two proposed connections to the existing sewer line installed along the eastern edge of the Perris Valley Storm Drain Channel. All proposed wastewater facilities are required to be designed and constructed in accordance with EMWD standards.

❑ Stormwater Drainage Plan

The drainage system for TPM No. 36150 is depicted on Figure 3-8, *Drainage Plan*. Stormwater flows from the parcels for Buildings 1, 2, 3, and 4 would be captured by on-site storm drains and routed to one of six (6) on-site water quality/detention basins. In addition to stormwater drainage functions, these basins also would provide water quality functions. The water quality/detention basins would be designed to treat and temporarily detain stormwater runoff to ensure that post-development discharge from the site is less than, or equal to, pre-development conditions. All on-site

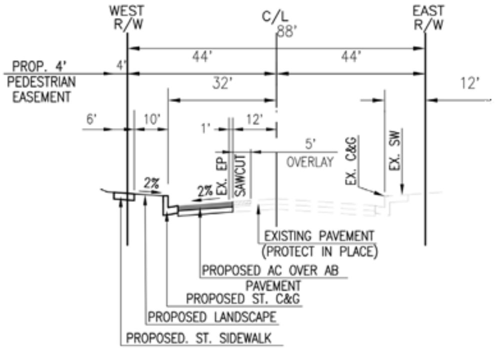

TYPICAL SECTION - INDIAN STREET
N.T.S.
MINOR ARTERIAL
(STD. NO. MVSI–105A–0)
(T.I. = 10.0)

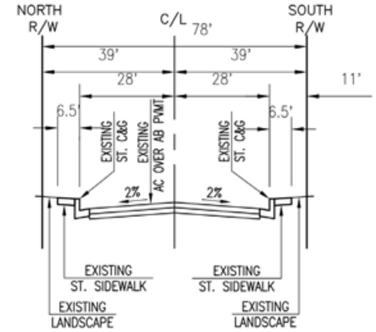

TYPICAL SECTION - CARDINAL AVENUE
N.T.S.
INDUSTRIAL COLLECTOR
(STD. NO. MVSI–106A–0)
(T.I.=10)

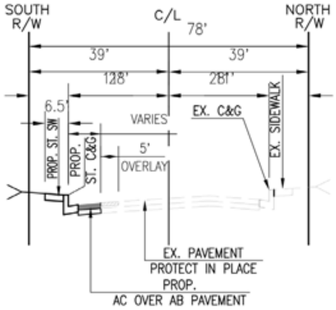

TYPICAL SECTION - KRAMERIA AVENUE
N.T.S.
INDUSTRIAL COLLECTOR
(STD. NO. MVSI–106A–0)
(T.I.=10)

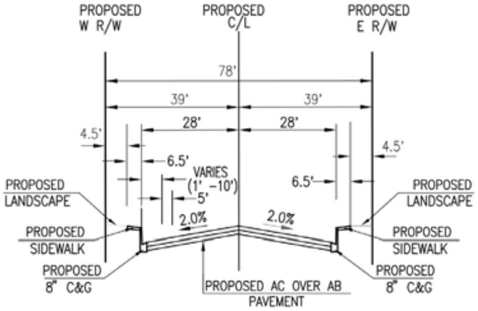

TYP. SECTION - COSMOS STREET
N.T.S.
INDUSTRIAL COLLECTOR
(STD. NO. MVSI–106A–0)
(T.I.=10)

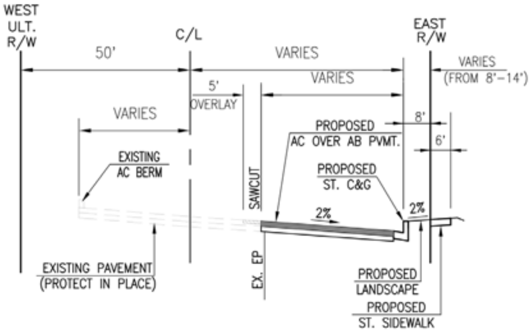

TYPICAL SECTION - HEACOCK STREET
N.T.S.
ARTERIAL
(STD. NO. MVSI–104A–0)
(T.I.=10)

Source: Thienes Engineering (09-08-15)

Figure 3-5

NOT TO SCALE

ROADWAY CROSS-SECTIONS

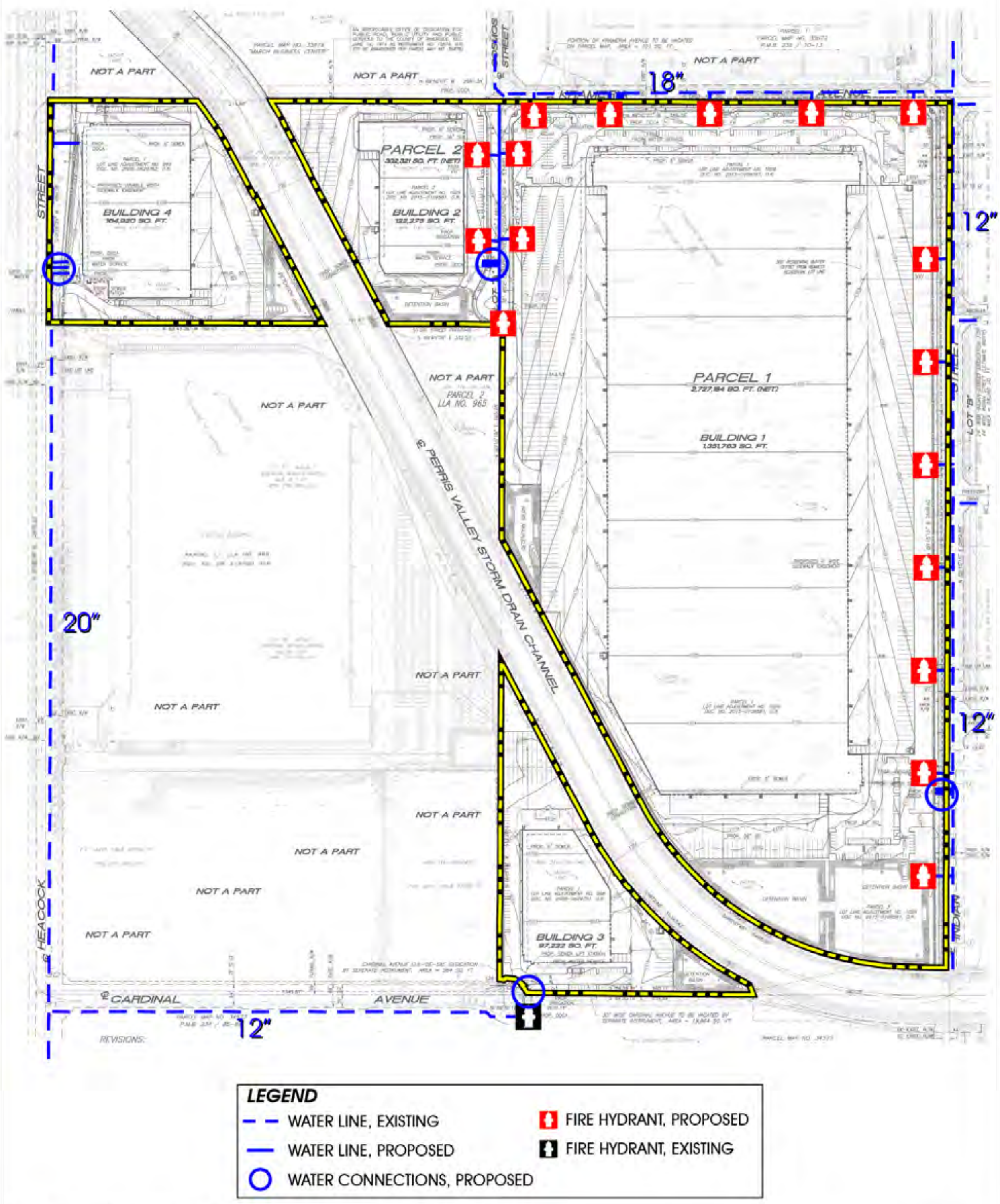

Source: Thienes Engineering (09-08-15)

NOT TO SCALE

Figure 3-6

WATER PLAN

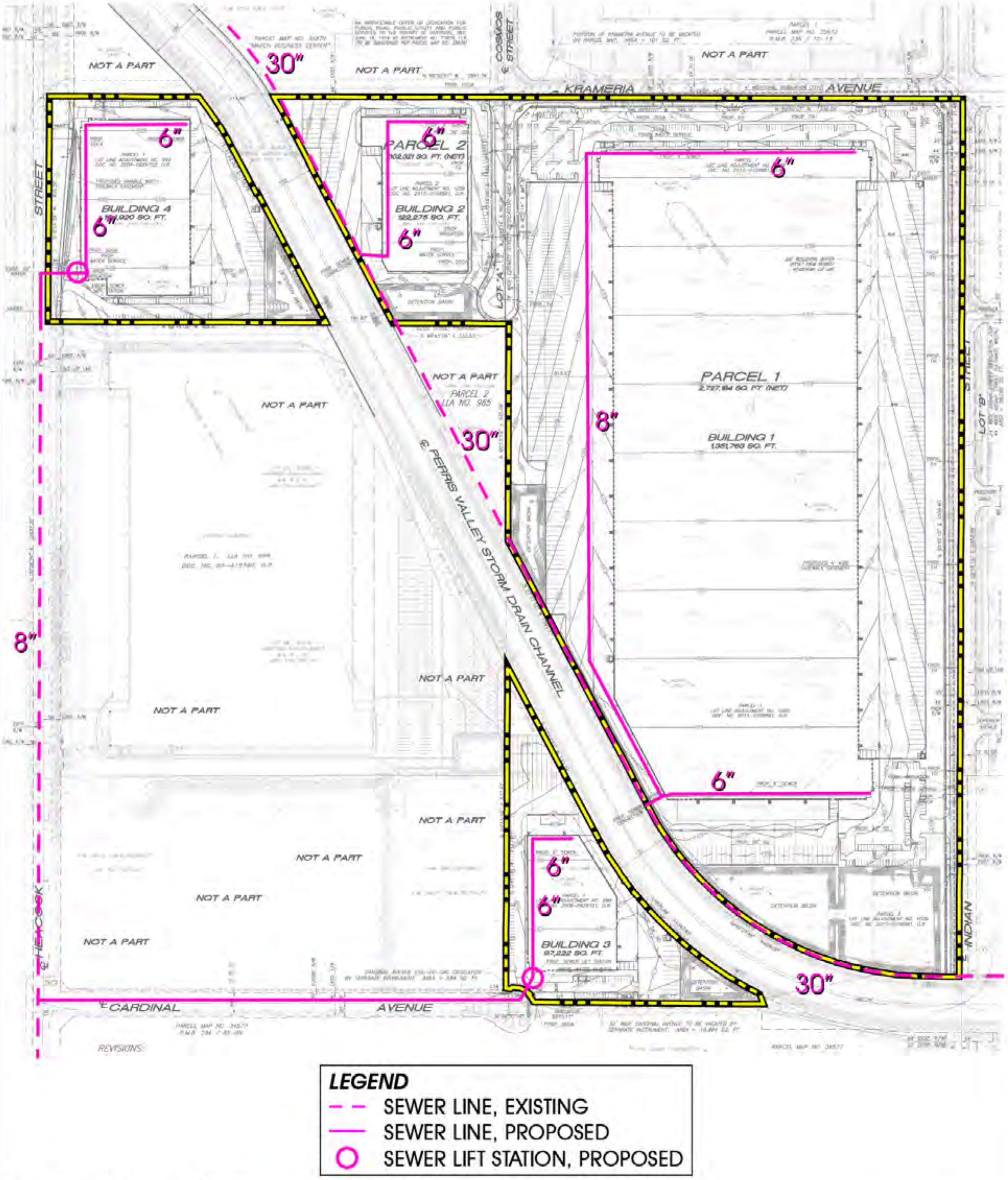

Source: Thienes Engineering (09-08-15)

Figure 3-7

SEWER PLAN

Source: Thienes Engineering (09-08-15)

Figure 3-8

DRAINAGE PLAN

NOT TO SCALE

water quality/detention basins would drain completely within 48 hours after storm events. Stormwater runoff would be conveyed from the on-site water quality/detention basins to one of four (4) discharge points to the Perris Valley Storm Drain Channel via a network of underground storm drain pipes. Runoff flows within Cosmos Street would be captured by a proposed system of storm drains within the street and then would be routed to existing storm drain facilities installed beneath Krameria Avenue.

TPM No. 36150 would install an off-site storm drain segment beneath the Krameria Avenue/Indian Street intersection to connect the existing storm drain line beneath Krameria Avenue to an existing open storm drain channel abutting the eastern edge of Indian Street. TPM No. 36150 also would install an off-site segment of storm drain beneath a portion of Indian Avenue to capture stormwater runoff that originates within Indian Avenue south of Superior Avenue and convey the captured flows into the Perris Valley Storm Drain Channel. Within the Perris Valley Storm Drain Channel, proposed improvements include the construction of outlet structures and headwalls at the four (4) discharge points from the Project's on-site water quality/detention basins and the discharge point for the new off-site storm drain line beneath Indian Street (as described above). Rip-rap would be installed within the Perris Valley Channel at all proposed drainage outlets to preclude scour and erosion.

All proposed stormwater drainage improvements are required to be designed and constructed in accordance with Riverside County Flood Control and Water Conservation District (RCFCWCD) and City of Moreno Valley standards.

D. Earthwork and Grading

As shown on Figure 3-9, *Conceptual Grading Plan*, grading would occur over the entire Project site. No area of the site would be left undisturbed. Proposed earthwork and grading activities, considering excavation and over-excavation quantities, fill quantities, and material subsidence and shrinkage, would balance on each of the four (4) development parcels. At proposed building pads and parking areas, the maximum depth of excavation would range between three (3) and five (5) feet below the ground surface. At proposed detention basin areas, the maximum depth of excavation could reach up to nine (9) feet below ground surface. Collectively, earthwork would involve 494,477 cubic yards of cut (including over-excavation) and 169,183 cubic yards of fill. Due to the expected shrinkage and compaction of on-site soils, earthwork activities are expected to balance and no import or export of soil materials would be required. When grading is complete, the Project site would have a slight, northwest-to-southeast slope; the highest point of the site would be approximately 1,493 feet above mean sea level (AMSL) at the northwest corner of the site and would slope downward to an elevation of approximately 1,476 AMSL in the southeast portion of the Project site. Proposed grading would not create manufactured slopes except around the proposed water/quality detention basins in the eastern portion of the site, where proposed slopes would measure up to five (5) feet in height with a maximum incline of 4:1.

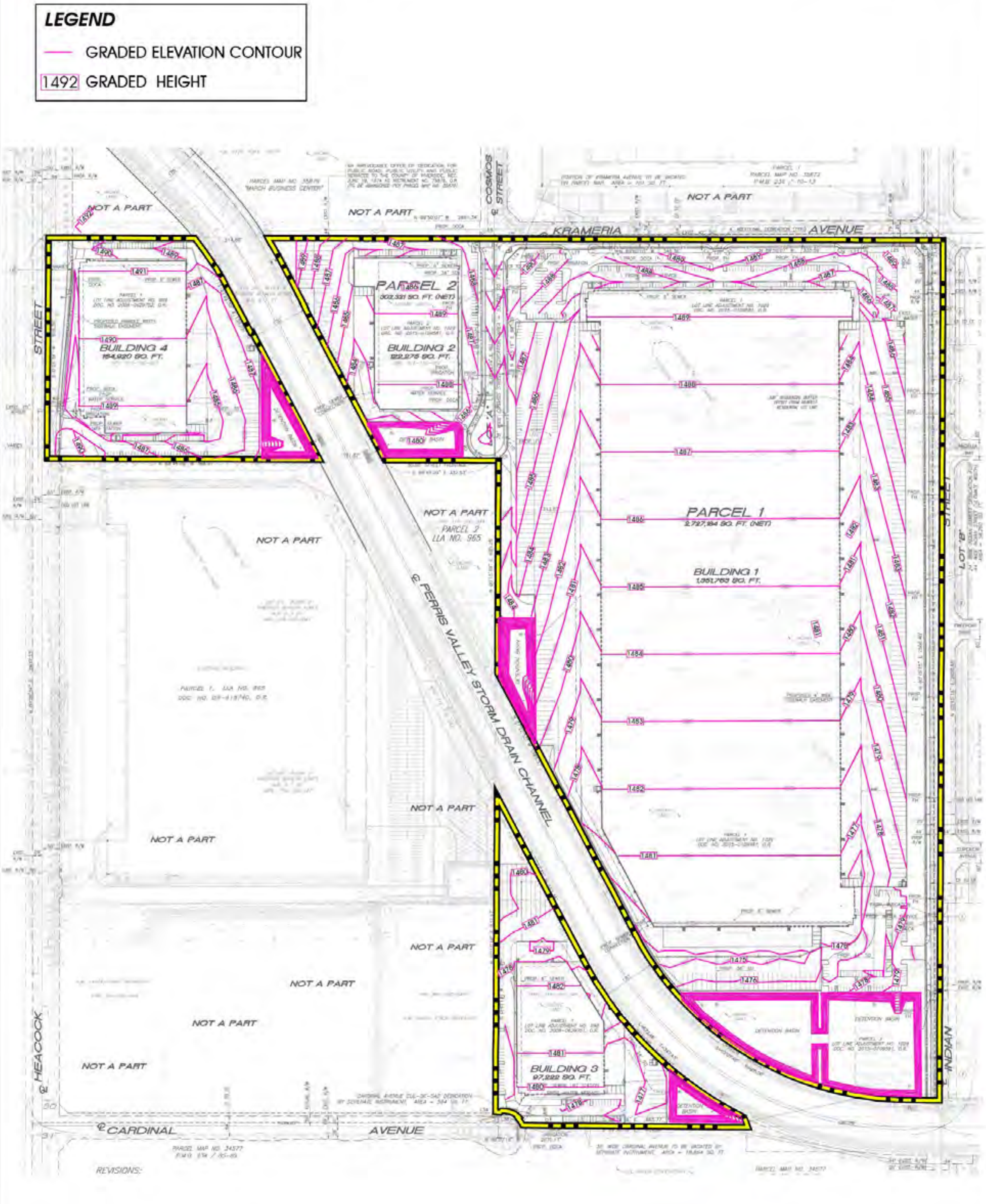

Source: Thienes Engineering (09-04-15)

NOT TO SCALE

Figure 3-9

CONCEPTUAL GRADING PLAN

3.4 Plot Plans PA15-0014, PA15-0015, PA15-0016, PA15-0017

Four (4) individual Plot Plans are proposed as part of the Project. The individual Plot Plans provide site plans, including a detailed architectural and landscape designs, for Building 1 (PA15-0014), Building 2 (PA15-0015), Building 3 (PA15-0016), and Building 4 (PA15-0017). The site plans for Buildings 1 through 4 are presented on Figure 3-10 through Figure 3-13. Figure 3-14, *Moreno Valley Logistics Center Site Plan*, illustrates the full context of proposed development.

A. General Description

As summarized in Table 3-1, *Moreno Valley Logistics Center Statistical Summary*, the Project's proposed buildings would range in size from approximately 97,222 s.f. to approximately 1,351,763 s.f., with a combined total of 1,736,180 s.f. of floor area. The Project is proposed to accommodate a maximum of 174,000 s.f. of cold storage (i.e., refrigeration) in the event Project's building occupants require cold storage. At the time this EIR was prepared, the future occupants of the Project site's buildings are unknown. The buildings are designed to accommodate a high cube warehouse occupant in proposed Building 1 and industrial, warehousing, manufacturing, assembly, e-commerce, and similar uses in the smaller buildings.

Table 3-1 Moreno Valley Logistics Center Statistical Summary

Building	Net Site Area (s.f.)	Total Building Area (s.f.)	FAR
1	2,727,184	1,351,763	0.50
2	302,839	122,275	0.40
3	287,679	97,222	0.34
4	377,844	164,920	0.44
Total	**3,695,546**	**1,736,180**	**0.47**

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place on Parcel 2. In the event the alternate site plan is implemented, the truck trailer parking lot would be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4. Under the alternate site plan, the total building area on the Project site would be reduced to 1,613,905 s.f. (for an overall floor area ratio, FAR, of 0.44).

Vehicular access to the Project site would be provided by driveways distributed across the property. At Building 1, three driveways would be provided along Krameria Avenue (the center driveway would be restricted to automobiles only), one driveway would be provided at Indian Street, and one driveway would be provided at Cosmos Street. Building 1 would provide on-site parking lot striping and signage at proposed driveways along Krameria Avenue to direct exiting truck traffic to the west (i.e., toward Heacock Avenue). Building 2 would provide one driveway at Cosmos Street, Building 3 would provide one driveway at Cardinal Avenue, and Building 4 would provide two driveways along Heacock Avenue. All driveways proposed by the Project would be stop-sign controlled. The

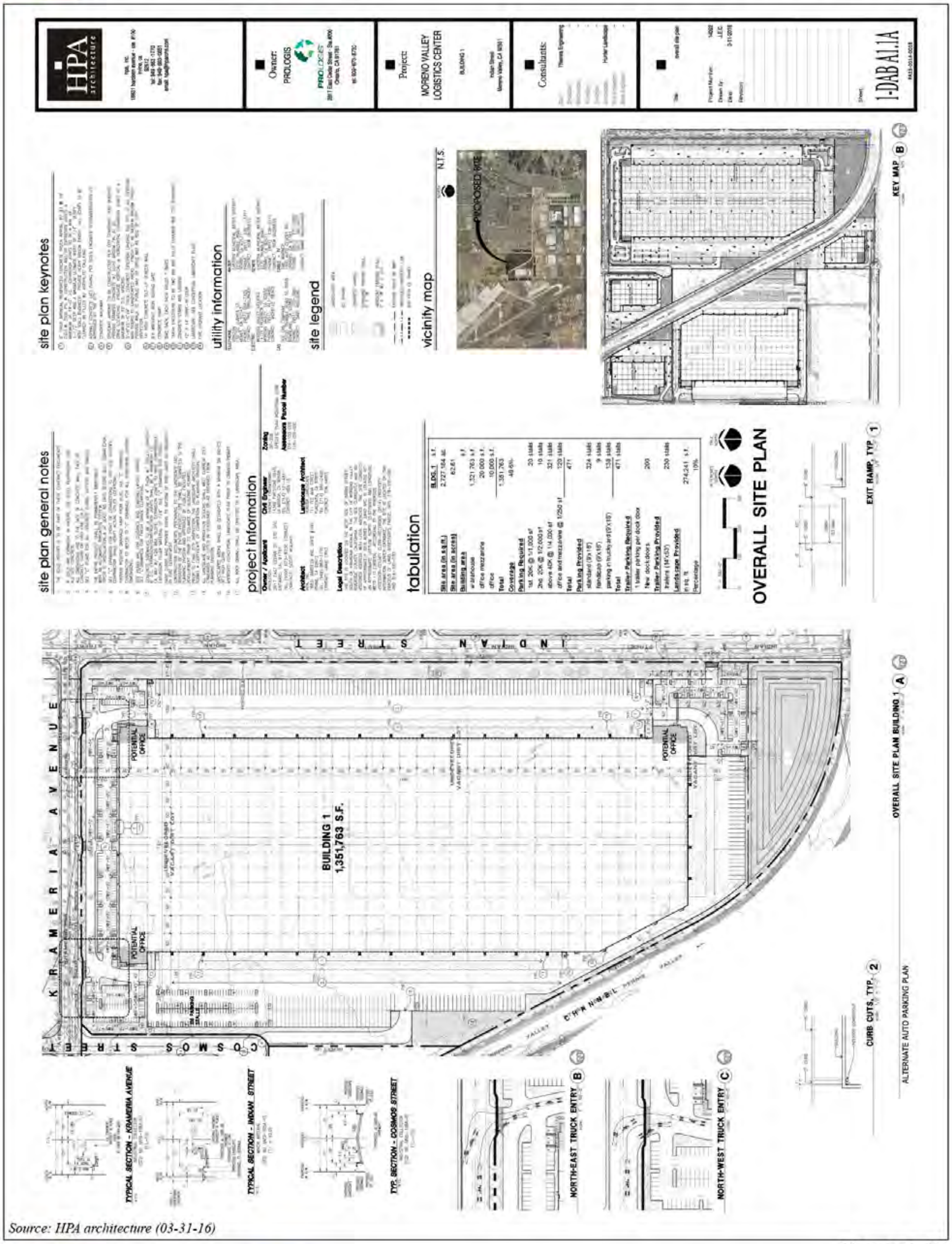

Source: HPA architecture (03-31-16)

NOT TO SCALE

Figure 3-10

BUILDING 1 PLOT PLAN

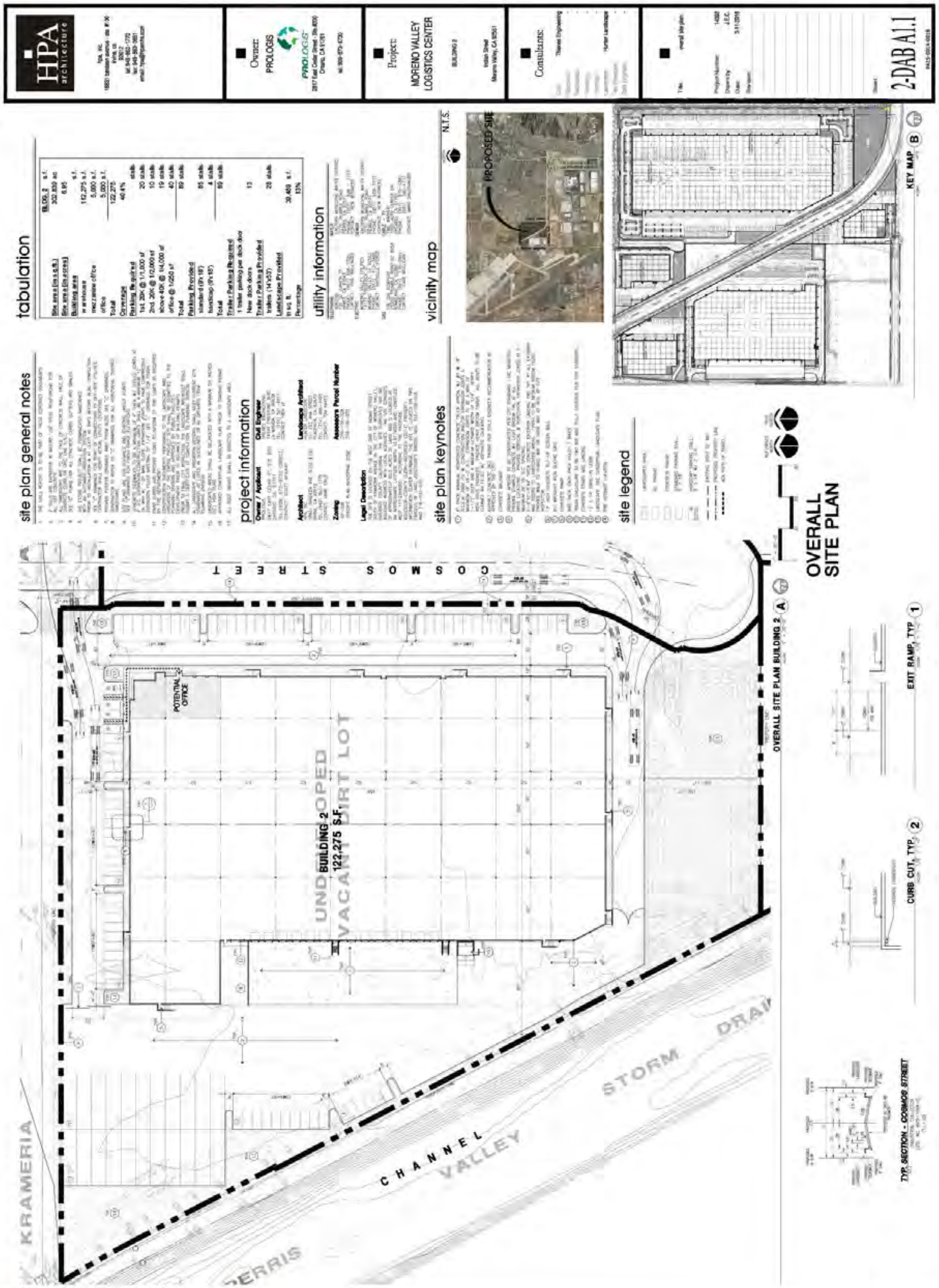

Source: HPA architecture (03-31-16)

Figure 3-11

BUILDING 2 PLOT PLAN

NOT TO SCALE

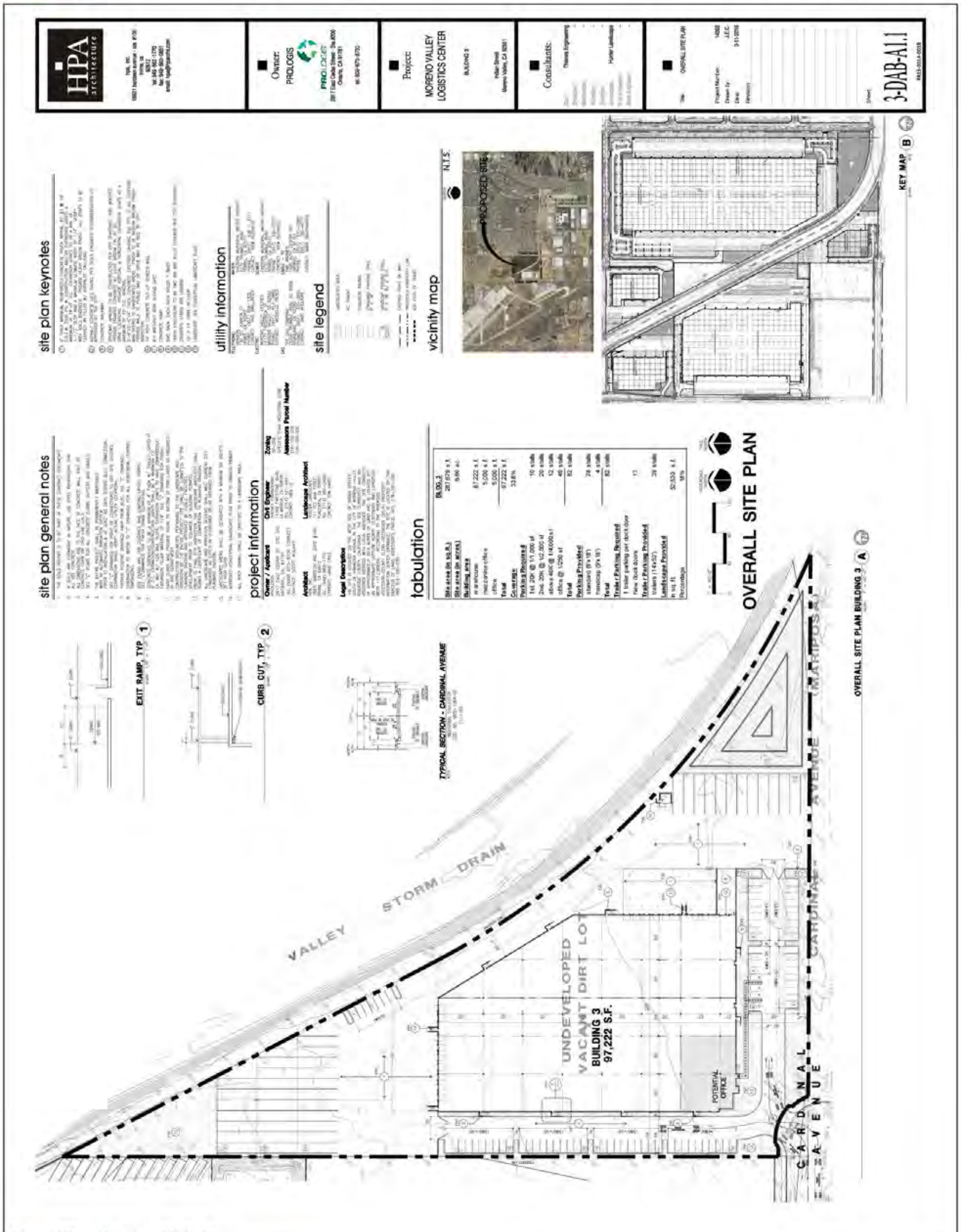

Source: HPA architecture (03-31-16)

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Figure 3-12

BUILDING 3 PLOT PLAN

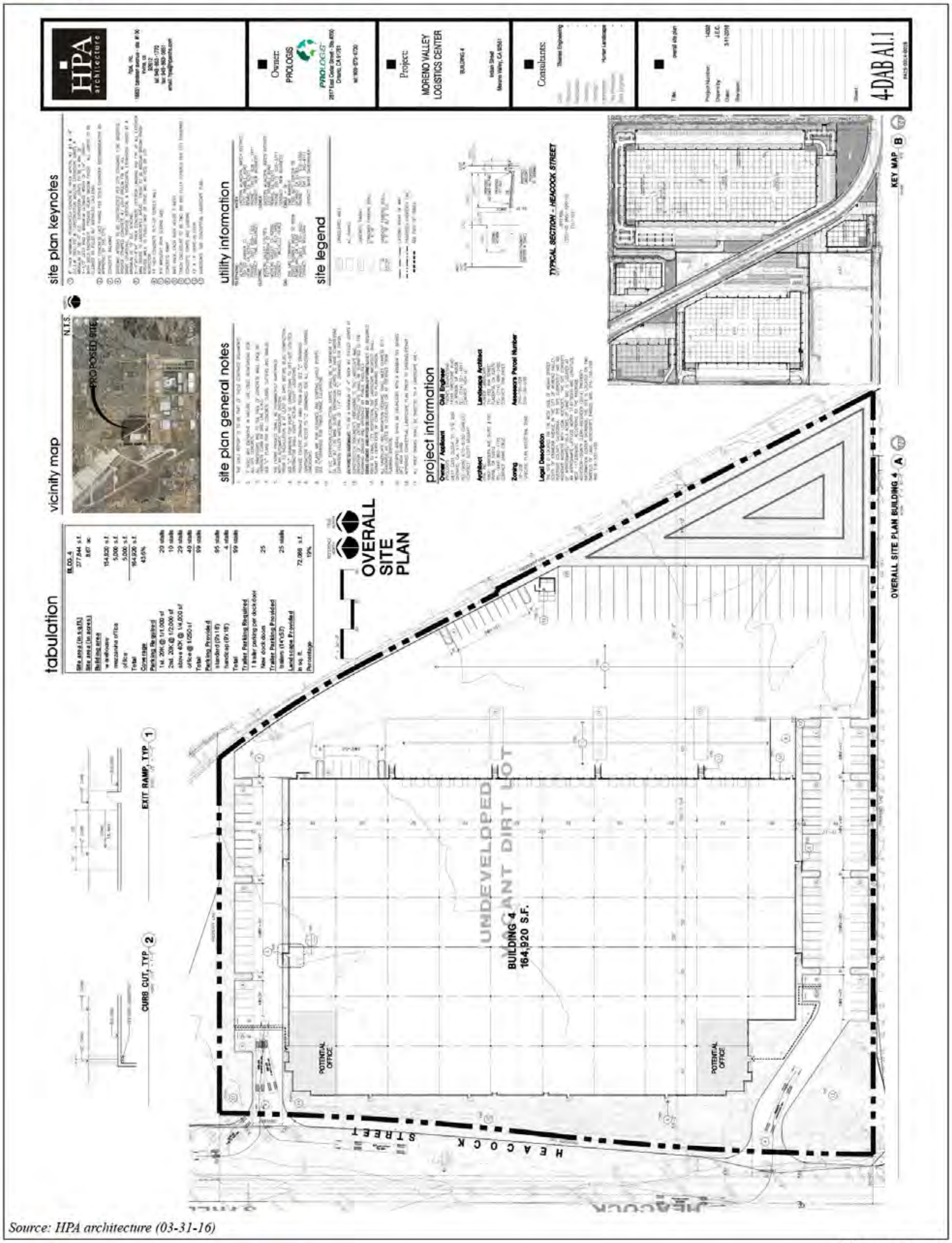

Source: HPA architecture (03-31-16)

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Figure 3-13

BUILDING 4 PLOT PLAN

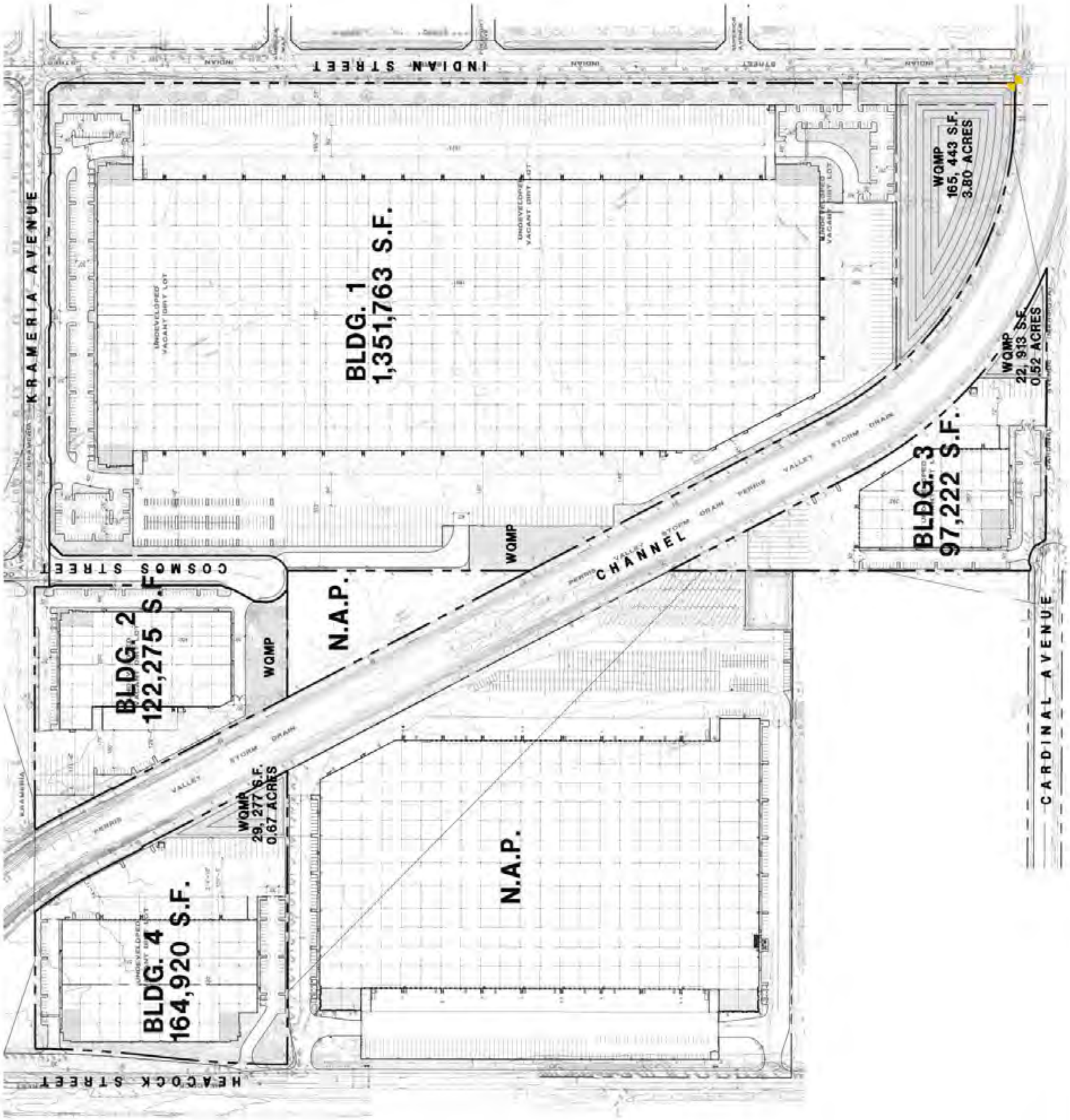

Source: *HPA architecture (03-31-16)*

Figure 3-14

NOT TO SCALE

MORENO VALLEY LOGISTICS CENTER SITE PLAN

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

driveways would provide access to automobile parking areas, loading areas, and truck parking areas for the respective building. Access to loading and truck parking areas located interior to the Project site would be gated. Proposed truck check-in points and driveways are positioned interior to the Project site to create interior queuing areas and minimize the potential trucks accessing the property to stack onto abutting public streets.

B. Parking and Loading

Figure 3-10 through Figure 3-13 depict the proposed locations of parking spaces and loading bays (also called "docks") for each building. Table 3-2, *Parking and Loading Summary*, summarizes the number of parking spaces and loading bays proposed for each building. The parking spaces provided by the Project would satisfy the City of Moreno Valley Municipal Code requirements for off-street parking. The proposed Project also would be required to meet the City of Moreno Valley Municipal Code requirement to provide bicycle parking equal to five percent of the required automobile parking spaces.

Table 3-2 Parking and Loading Summary

	Building 1	**Building 2**	**Building 3**	**Building 4**
Parking Spaces				
Automobile	471	92	92	100
Truck Trailer	236	28	39	26
Loading Bays				
Dock Doors	200	13	17	25

Note: Under the alternative site plan, Building 2 would be replaced by a parking lot with 166 truck trailer spaces.

On all four (4) buildings combined, the Project would provide a total of 255 loading bays (also called "docks") for the shipping and receiving of goods. At a warehouse building, loading bays are used for the receiving of goods and the shipment of goods. Quite often, these docks are on different sides of the building (called a cross-dock, as is proposed by Building 1), with one side of the building primarily for the receiving of goods and the other side primarily for the shipment of goods. Although all of the loading bays are rarely used simultaneously, most warehouse users like to have as many bays as possible to facilitate operations inside the structure, where goods are sorted and stored. When trucks have the option to dock close to the area where their cargo is sorted and stored inside the structure, workers inside the building have a shorter distance to cover when moving goods from the truck to the inside storage area and vice versa.

C. Architecture, Walls, and Fences

Figure 3-15 through Figure 3-18 depict the conceptual architectural elevations of Buildings 1, 2, 3, and 4. The proposed building exteriors would be constructed to a height of 45 feet above finished grade, with architectural projections up to 52 feet above finished grade. The buildings would be constructed of concrete tilt-up panels and low-reflective, green glass. Articulated building elements, including mullions and metal canopies, are proposed as decorative elements. The proposed exterior architectural color palette is comprised of various shades of gray, silver, white, and green.

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

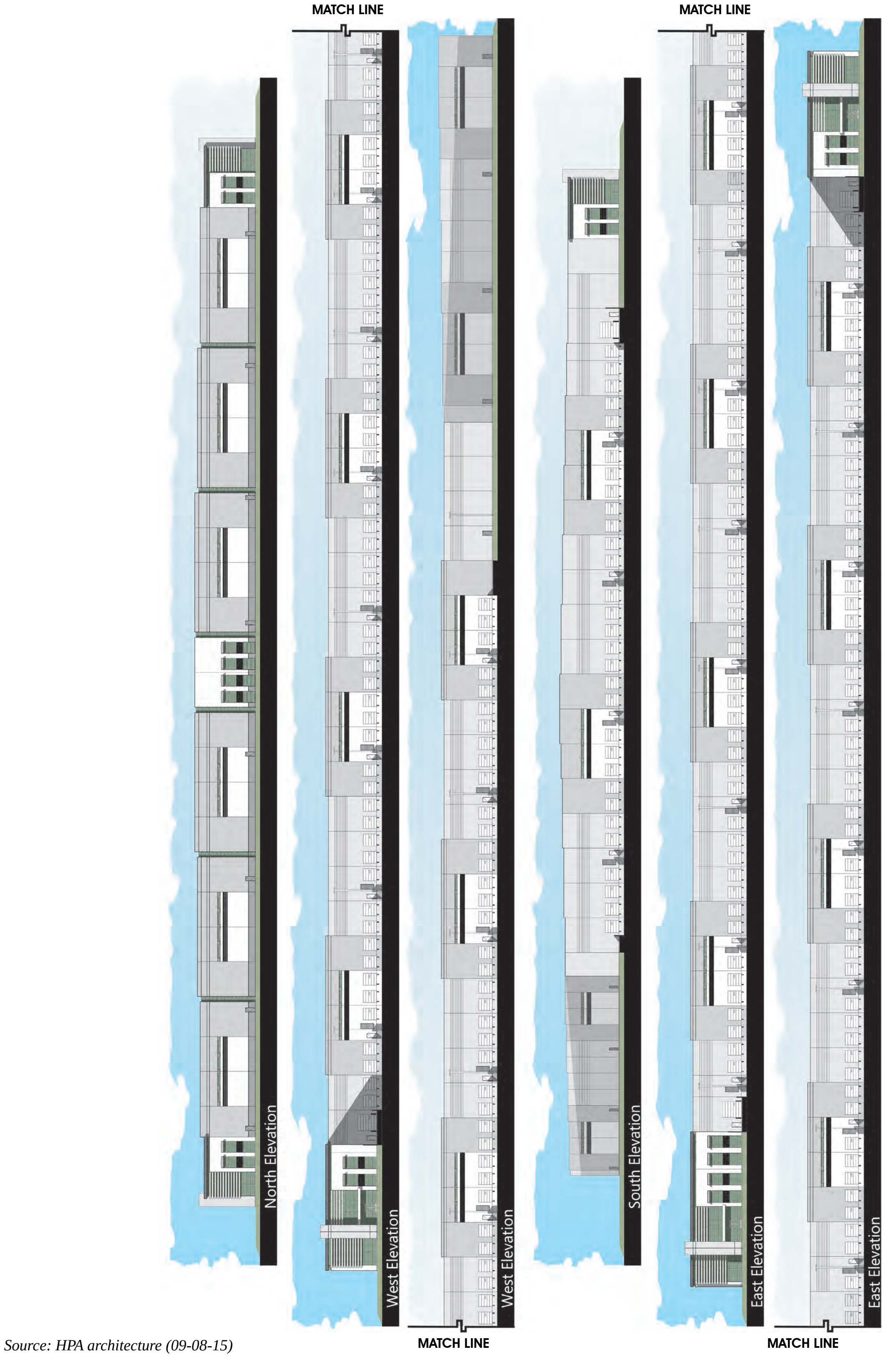

Source: HPA architecture (09-08-15)

Figure 3-15

BUILDING 1 ARCHITECTURAL ELEVATIONS

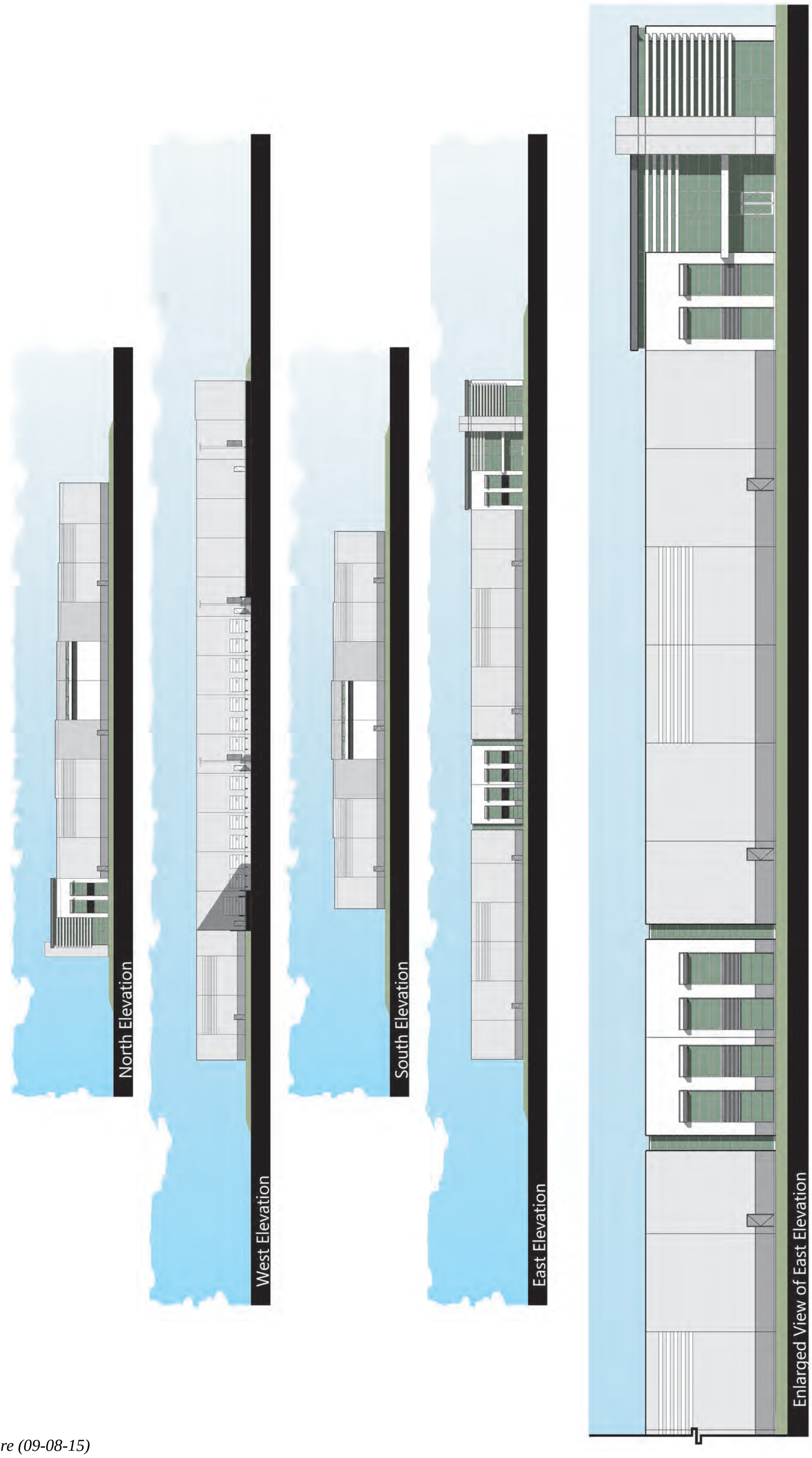

Source: HPA architecture (09-08-15)

Figure 3-16

NOT TO SCALE

BUILDING 2 ARCHITECTURAL ELEVATIONS

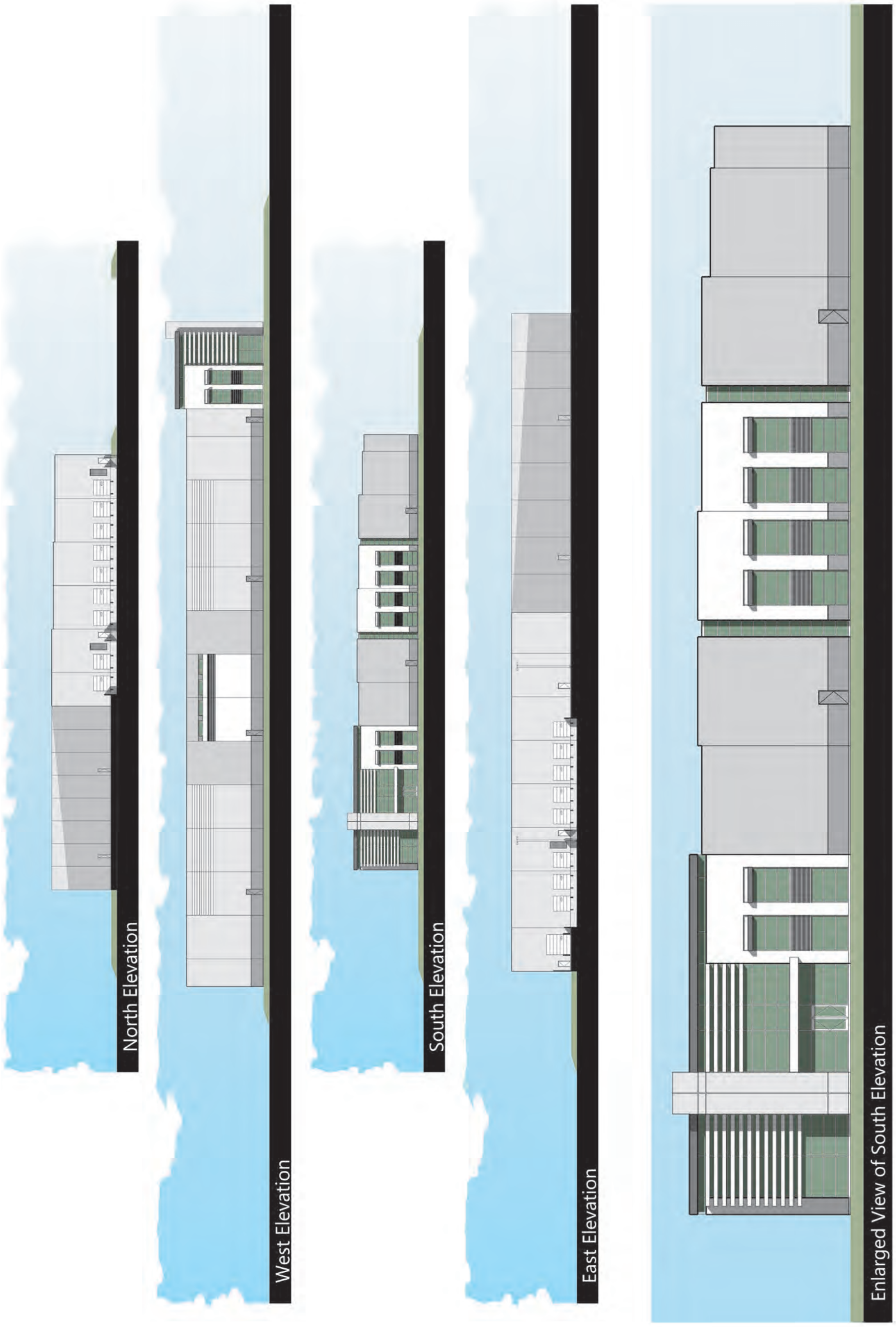

Source: HPA architecture (09-08-15)

Figure 3-17

NOT TO SCALE

BUILDING 3 ARCHITECTURAL ELEVATIONS

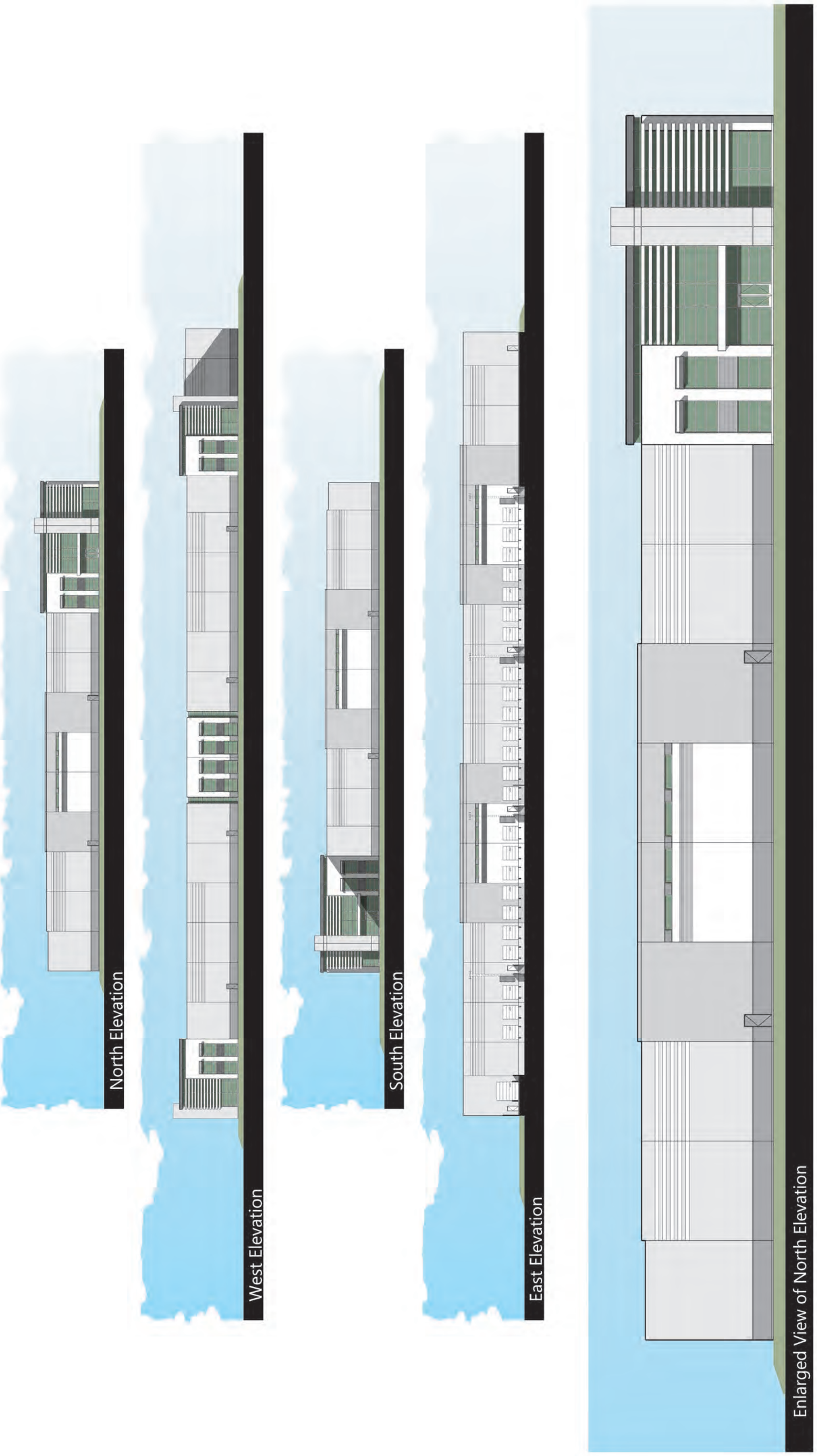

Source: HPA architecture (09-08-15)

Figure 3-18

NOT TO SCALE

BUILDING 4 ARCHITECTURAL ELEVATIONS

The interiors of the proposed buildings are designed to provide a main floor, office spaces, and mezzanine. The buildings have the potential to be partitioned for multiple occupant use. The Project's buildings would be designed and constructed to qualify for the "Certified" rating (at a minimum) under the United States Green Building Council's Leadership in Energy & Environmental Design (LEED) program.

Solid concrete walls up to 14 feet in height would be installed at various locations throughout the Project site to screen truck parking and loading dock areas from public view. The concrete screen walls would be constructed with a finish and color that complements the color palette for proposed structures on the site. Access points into the loading dock and truck parking areas would include manually operated, eight (8)-foot tall tubular steel gates, equipped with Knox® padlocks to allow emergency vehicle access. Where fencing is provided to delineate property boundaries, it would consist 8-foot high tubular steel fencing in areas visible from public viewing areas and 8-foot tall chain link fencing in areas not visible from public viewing areas.

D. Conceptual Landscape Plan

The Project's proposed conceptual landscape plan is depicted on Figure 3-19, *Conceptual Landscape Plan*. As shown, drought-tolerant trees, shrubs, and groundcovers are proposed to be planted along street frontages of Krameria Avenue, Indian Street, and Heacock Street (including landscaping within public rights-of-way). Flowering accent and shade trees along with shrubs planted in clusters would be installed along the Project site boundaries for screening purposes. A cross-section of the landscaping proposed along the Project site's frontage with Indian Street is shown in Figure 3-20, *Indian Street Frontage Landscape Treatment*. As shown, a landscaped parkway with street trees is proposed adjacent to the street curb and a sidewalk would occur behind the parkway. On the Project site and outside of the right-of-way would be a berm up to six (6) feet in height, densely planted with a variety of trees, shrubs, and ground cover. A 14-foot-high concrete tilt-up wall is proposed between the landscaped area and the Project's parking area. In total, the distance between the Indian Street centerline and the Project's parking area would be 100 linear feet. Landscaping also would occur at building entries, in-and-around automobile parking areas, in-and-around the site's water quality/detention basins, and along proposed screen walls. Landscaping is estimated to cover approximately 11-percent of the property (approximately 10.0 acres). Proposed landscaping would be ornamental in nature, except within water quality/detention basins where plant materials would be selected to serve water quality functions.

Prior to the issuance of a building permit to implement the Project, the Project Applicant would be required to submit specific planting and irrigation plans to the City of Moreno Valley for review and approval. The plans are required to comply with Chapter 9.17 of the City of Moreno Valley Municipal Code, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency.

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

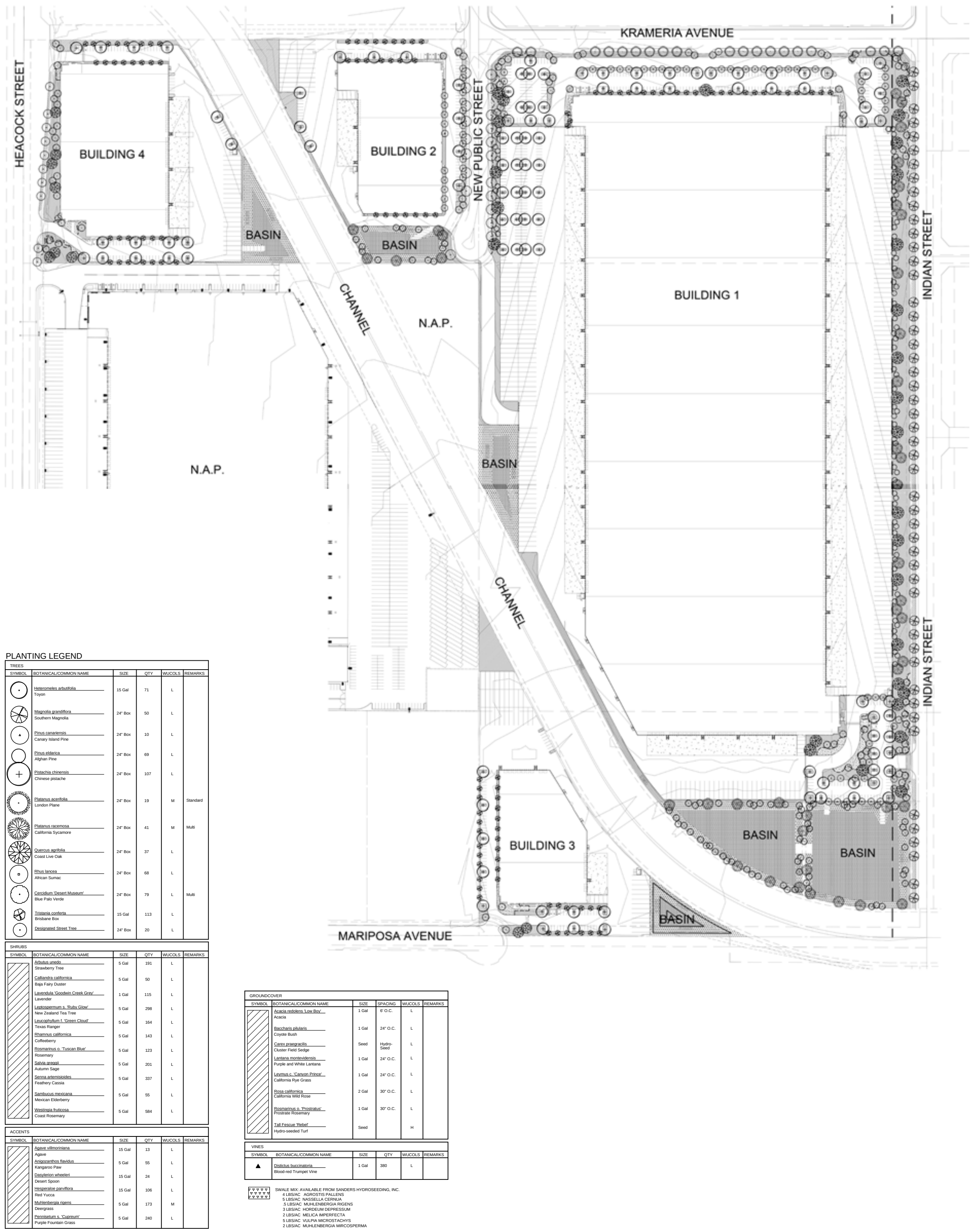

PLANTING LEDGEND

TREES					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
⊙	Heteromeles arbutifolia Toyon	15 Gal	71	L	
⊛	Magnolia grandiflora Southern Magnolia	24" Box	50	L	
○	Pinus canariensis Canary Island Pine	24" Box	10	L	
○	Pinus eldarica Afghan Pine	24" Box	69	L	
⊕	Pistachia chinensis Chinese pistache	24" Box	107	L	
✺	Platanus acerifolia London Plane	24" Box	19	M	Standard
✺	Platanus racemosa California Sycamore	24" Box	41	M	Multi
⊛	Quercus agrifolia Coast Live Oak	24" Box	37	L	
▣	Rhus lancea African Sumac	24" Box	68	L	
⊙	Cercidium 'Desert Museum' Blue Palo Verde	24" Box	79	L	Multi
⊛	Tristania conferta Brisbane Box	15 Gal	113	L	
⊙	Designated Street Tree	24" Box	20	L	

SHRUBS					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
▨	Arbutus unedo Strawberry Tree	5 Gal	191	L	
	Calliandra californica Baja Fairy Duster	5 Gal	50	L	
	Lavendula 'Goodwin Creek Grey' Lavender	1 Gal	115	L	
	Leptospermum s. 'Ruby Glow' New Zealand Tea Tree	5 Gal	298	L	
	Leucophyllum f. 'Green Cloud' Texas Ranger	5 Gal	164	L	
	Rhamnus californica Coffeeberry	5 Gal	143	L	
	Rosmarinus o. 'Tuscan Blue' Rosemary	5 Gal	123	L	
	Salvia greggii Autumn Sage	5 Gal	201	L	
	Senna artemisioides Feathery Cassia	5 Gal	337	L	
	Sambucus mexicana Mexican Elderberry	5 Gal	55	L	
	Westingia fruticosa Coast Rosemary	5 Gal	584	L	

ACCENTS					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
▨	Agave villmoriniana Agave	15 Gal	13	L	
	Anigozanthos flavidus Kangaroo Paw	5 Gal	55	L	
	Dasylerion wheeleri Desert Spoon	15 Gal	24	L	
	Hesperaloe parviflora Red Yucca	15 Gal	106	L	
	Muhlenbergia rigens Deergrass	5 Gal	173	M	
	Pennisetum s. 'Cupreum' Purple Fountain Grass	5 Gal	240	L	

GROUNDCOVER					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
▨	Acacia redolens 'Low Boy' Acacia	1 Gal	6' O.C.	L	
	Baccharis pilularis Coyote Bush	1 Gal	24" O.C.	L	
	Carex praegracilis Cluster Field Sedge	Seed	Hydro-Seed	L	
	Lantana montevidensis Purple and White Lantana	1 Gal	24" O.C.	L	
	Leymus c. 'Canyon Prince' California Rye Grass	1 Gal	24" O.C.	L	
	Rosa californica California Wild Rose	2 Gal	30" O.C.	L	
	Rosmarinus o. 'Prostratus' Prostrate Rosemary	1 Gal	30" O.C.	L	
	Tall Fescue 'Rebel' Hydro-seeded Turf	Seed		H	

VINES					
SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
▲	Distictus buccinatoria Blood-red Trumpet Vine	1 Gal	380	L	

▽ SWALE MIX: AVAILABLE FROM SANDERS HYDROSEEDING, INC.
4 LBS/AC AGROSTIS PALLENS
5 LBS/AC NASSELLA CERNUA
.5 LBS/AC MUHLENBERGIA RIGENS
3 LBS/AC HORDEUM DEPRESSUM
2 LBS/AC MELICA IMPERFECTA
5 LBS/AC VULPIA MICROSTACHYS
2 LBS/AC MUHLENBERGIA MIRCOSPERMA

Source: Hunter Landscaping (03-11-16)

NOT TO SCALE

Figure 3-19

CONCEPTUAL LANDSCAPING PLAN

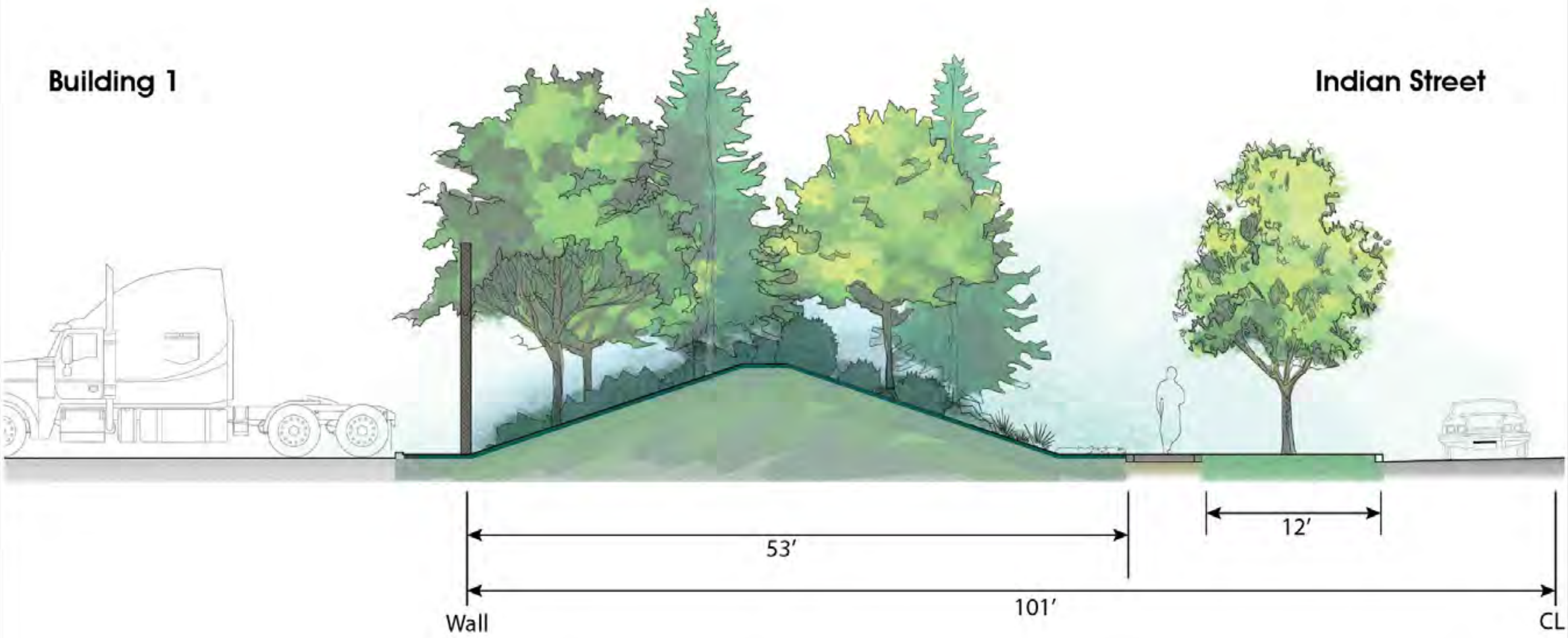

Source: Hunter Landscape (03-14-16)

Figure 3-20

NOT TO SCALE

INDIAN STREET FRONTAGE LANDSCAPE TREATMENT

3.4.2 Project Construction and Operational Characteristics

A. Construction Details

The proposed Project would be constructed in multiple phases over the course of approximately 12 months, as summarized in Table 3-3, *Construction Activity Schedule*. Construction is expected to commence in the spring of 2016 and last through the spring of 2017.

Table 3-3 Construction Activity Schedule

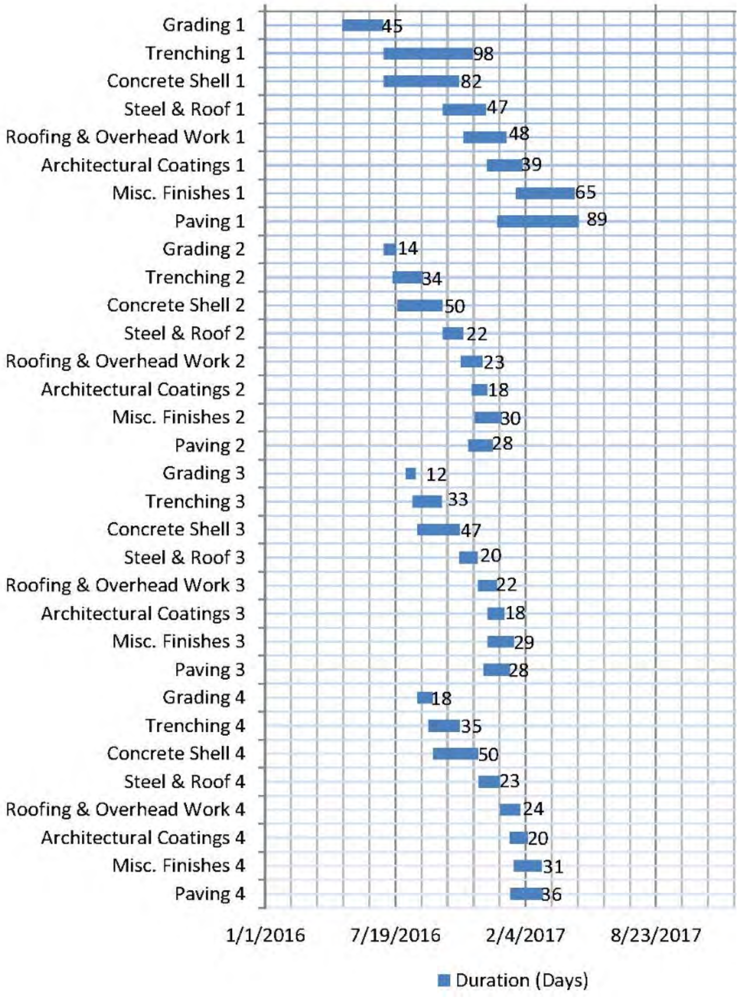

Source: Urban Crossroads, 2015a, Table 3-4

For each phase of Project construction, construction activities would commence with site preparation and the installation of underground infrastructure. As part of the construction of Project site infrastructure, seven (7) existing above-ground Southern California Edison (SCE) power lines located along the western edge of Indian Street would be either undergrounded or removed. Next, surface materials would be poured and the building would be erected, connected to the underground utility system, and painted. Lastly, landscaping, fencing/walls and other site improvements would be installed and fine grading would occur.

During typical construction activities, equipment is expected to operate on the Project site eight (8) hours per day, five (5) days per week during daytime hours. Should construction activities need to occur at night (such as concrete pouring activities that require air temperatures to be lower than occur during the day), the Project Applicant would be required to obtain authorization for nighttime work from the City of Moreno Valley under Municipal Code Section 11.80.030 (E) or Section 11.80.040. The types and numbers of heavy equipment that the Project Applicant expects to be used during construction activities are listed in Table 3-4, *Construction Equipment to be Used*. For purposes of evaluation, it is assumed that the Project would be operational in the Year 2017.

Table 3-4 Construction Equipment to be Used

Phase Name	Vehicle Type	Number	Hours Per Day	CalEEMod Name	Horsepower
Building 1					
Grading	657 Scraper	8	8	Scraper	452
	Cat D9L	1	8	Crawler Tractor	410
	934 Dozer/Compactor	1	8	Rubber Tired Dozer	451
	631 Water Pull	2	8	Off-Highway Tractors	485
	4000 gal Water Truck	2	8	Other Construction Equip.	354
	Cat 14 Blade	1	8	Grader	302
	210 Skip Loader	1	8	Rubber Tired Loader	350
	623 Elevating Scraper	3	8	Other General Industrial Equipment	330
Trenching	Skip Loader	2	8	Rubber Tired Loader	350
	Cat 460 Backhoe	2	8	Tractors/Loaders/Backhoes	110
	966 Front End	2	8	Other Material Handling Equipment	249
	330 Excavator	2	8	Excavator	268
	Water Truck	2	8	Other Construction Equip.	354
Concrete Shell	Backhoe	4	8	Tractors/Loaders/Backhoes	110
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Lazerscreed	1	8	Other Construction Equip.	354
	Finishing Machine	1	8	Other Construction Equip.	354
	Boom Pump	1	8	Other Construction Equip.	354
	Gradall	2	8	Other Construction Equip.	354
Steel & Roof	30 Ton Crane	2	8	Crane	215
	Weld Machine	2	8	Other Construction Equip.	354
	Gradall	1	8	Other Construction Equip.	354
Roofing & Overhead Work	Gradall	1	8	Other Construction Equip.	354
	Forklift	2	8	Forklifts	110
	Tanker (Tar)	2	8	Other Construction Equip.	354
	Scissor Lift	3	8	Aerial Lifts	48
Architectural Coating	Boom Lift	4	8	Other Construction Equip.	354
Misc. Finishes	Scissor Lift	2	8	Aerial Lifts	48
	Boom Lift	2	8	Other Construction Equip.	354
Paving	Lazerscreed	1	8	Other Construction Equip.	354
	Skip Loader	2	8	Rubber Tired Loader	350
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Trenching Machine	1	8	Trencher	81

Table 3-4 Construction Equipment to be Used

Phase Name	Vehicle Type	Number	Hours Per Day	CalEEMod Name	Horsepower
Buildings 2,3,4 (each)					
Grading	657 Scraper	3	8	Scraper	452
	Cat D9L	1	8	Crawler Tractor	410
	4000 gal Water Truck	1	8	Other Construction Equip.	354
	Cat 14 Blade	1	8	Grader	302
	210 Skip Loader	1	8	Rubber Tired Loader	350
	623 Elevating Scraper	1	8	Other General Industrial Equipment	330
Trenching	Skip Loader	1	8	Rubber Tired Loader	350
	Cat 460 Backhoe	1	8	Tractors/Loaders/Backhoes	110
	966 Front End	1	8	Other Material Handling Equipment	249
	330 Excavator	1	8	Excavator	268
	Water Truck	1	8	Other Construction Equip.	354
Concrete Shell	Backhoe	2	8	Tractors/Loaders/Backhoes	110
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Lazerscreed	1	8	Other Construction Equip.	354
	Finishing Machine	1	8	Other Construction Equip.	354
	Boom Pump	1	8	Other Construction Equip.	354
	Gradall	1	8	Other Construction Equip.	354
Steel & Roof	30 Ton Crane	1	8	Crane	215
	Weld Machine	1	8	Other Construction Equip.	354
	Gradall	1	8	Other Construction Equip.	354
Roofing & Overhead Work	Gradall	1	8	Other Construction Equip.	354
	Forklift	1	8	Forklifts	110
	Tanker (Tar)	1	8	Other Construction Equip.	354
	Scissor Lift	1	8	Aerial Lifts	48
Architectural Coating	Boom Lift	1	8	Other Construction Equip.	354
Misc. Finishes	Scissor Lift	1	8	Aerial Lifts	48
	Boom Lift	1	8	Other Construction Equip.	354
Paving	Lazerscreed	1	8	Other Construction Equip.	354
	Skip Loader	1	8	Rubber Tired Loader	350
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Trenching Machine	1	8	Trencher	81

Source: Urban Crossroads, 2015a, Table 3-3

B. Operational Details

At the time this EIR was prepared, the future occupants of the Project site were unknown. The buildings are designed to accommodate a high cube warehouse occupant in proposed Building 1 and industrial, warehousing, manufacturing, assembly, e-commerce, and similar uses in the three smaller buildings. Up to 174,000 s.f. of the Project could be used for refrigerated uses (also referred to as "cold storage") in the event future building occupants require cold storage. During long-term operating conditions, the Project is calculated to generate approximately 3,519 automobile trips

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

(actual trips) and approximately 1,441 truck trips (actual trips) on a daily basis (refer to EIR Section 4.11, *Transportation/Traffic*, for more detail).

For purposes of analysis in this EIR, the buildings are assumed to be operational 24 hours per day, seven days per week, with exterior loading and parking areas illuminated at night. The proposed buildings are designed such that business operations would be conducted primarily within each enclosed building, with the exception of traffic movement, parking, and the loading and unloading of trailers at loading bays. The outdoor cargo handling equipment used during loading and unloading of trailers (e.g., yard trucks, hostlers, yard goats, pallet jacks, forklifts) would be powered by diesel-fueled engines that comply with the California Air Resources Board (CARB)/United States Environmental Protection Agency Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 grams of particulate matter – PM_{10} – per brake horsepower-hour), while all indoor cargo handling equipment would be powered by electricity, compressed natural gas, or propane.

Because users of the Project's buildings are not yet known, the number of jobs that the Project would generate cannot be precisely determined; therefore, for purposes of analysis, employment estimates have been calculated using economic and fiscal data compiled by Andrew Chang & Co. (Andrew Chang). Using this data, the Project is estimated to create between 340 and 620 new, recurring direct and indirect jobs (Andrew Chang, 2016, p. 22).

According to a Water Supply Assessment prepared for the Project by EMWD (*Technical Appendix J* to this EIR), land uses proposed by the Project are estimated to result in a demand for approximately 55 acre-feet of water per year, which correlates to approximately 49,170 gallons per day (EMWD, 2015, p. 17). The Project also is estimated to result in an average daily demand of 67,810 gallons of wastewater treatment capacity (based on EMWD's wastewater generation factor of 1,700 gallons per day per acre for light industrial building area). The Project is anticipated to demand 15,535,696 kilowatt hours of electricity per year (kWh/yr) and 22,828,640 kilo-British Thermal Energy Units of natural gas per year (kBTU/yr) (*Technical Appendix K*).

3.5 Standard Requirements and Conditions of Approval

The proposed Project (i.e., P15-036, PA15-0018, PA15-0014, 15-0015, PA15-0016, and PA15-0017) and its technical aspects were reviewed in detail by the appropriate City of Moreno Valley departments and divisions. These departments and divisions are responsible for reviewing land use applications for compliance with City codes and regulations. They also were responsible for reviewing this EIR (P15-037) for technical accuracy and compliance with CEQA. The City of Moreno Valley departments and divisions responsible for technical review include:

- Community Development Department, Building and Safety Division
- Community Development Department, Planning Division
- Public Works Department, Land Development Division
- Public Works Department, Transportation Engineering Division
- Public Works Department, Special Districts Division
- Fire Prevention Bureau
- Moreno Valley Utility

Review of the proposed Project by the City of Moreno Valley departments and divisions listed above will result in the production of a comprehensive set of draft Conditions of Approval that will be available for public review prior to consideration of the proposed Project by the Moreno Valley City Council. These conditions will be considered by the Council in conjunction with their consideration of the proposed Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plans (PA15-0014, 15-0015, PA15-0016, and PA15-0017). If approved, the Project will be required to comply with all imposed Conditions of Approval.

Conditions of Approval and other applicable regulations, codes, and requirements to which the Project is required to comply and that result in the reduction or avoidance of an environmental impact are specified in each subsection of EIR Section 4.0, *Environmental Analysis*.

3.6 Summary of Requested Actions

The City of Moreno Valley has primary approval responsibility for the proposed Project. As such, the City serves as the Lead Agency for this EIR pursuant to CEQA Guidelines § 15050. (The role of the Lead Agency was previously described in detail in Subsection 1.4 of this EIR.) The City Planning Commission will consider the Project’s requested discretionary permit applications and approvals and make advisory recommendations to the Moreno Valley City Council. The City Council will have final authority over approval, approval with changes, or denial of the requested actions that within the City’s jurisdiction. The City will consider the information contained in this EIR and this EIR’s Administrative Record in its decision-making processes. Upon approval of the Project and certification of this EIR, the City would conduct administrative reviews and grant ministerial permits and approvals to implement Project requirements and conditions of approval. A list of the primary actions under City jurisdiction is provided in Table 3-5, *Matrix of Project Approvals/Permits*.

Table 3-5 Matrix of Project Approvals/Permits

Public Agency	Approvals and Decisions
City of Moreno Valley	
Proposed Project – City of Moreno Valley Discretionary Approvals	
City of Moreno Valley Planning Commission	• Provide recommendations to the City of Moreno Valley City Council whether to approve the Specific Plan Amendment P15-036, Tentative Parcel Map No. 36150 (PA15-0018), and Plot Plans PA15-0014, PA15-0014, PA15-0015, and PA15-0016. • Provide recommendations to the City of Moreno Valley City Council regarding certification of this EIR.
City of Moreno Valley City Council	• Approve, conditionally approve, or deny Specific Plan Amendment No. P15-036. • Approve, conditionally approve, or deny Tentative Parcel Map No. 36150 (PA15-0018). • Approve, conditionally approve, or deny Plot Plan PA15-0014. • Approve, conditionally approve, or deny Plot Plan PA15-0015. • Approve, conditionally approve, or deny Plot Plan PA15-0016. • Approve, conditionally approve, or deny Plot Plan PA15-0017. • Reject or certify this EIR along with the appropriate CEQA Findings (P15-037)
Subsequent City of Moreno Valley Discretionary and Ministerial Approvals	
City of Moreno Valley Implementing Approvals	• Approve Final Maps, parcel mergers, lot line adjustments or parcel consolidations, as may be appropriate. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Approve Street Vacations. • Accept public-right-of way dedications. • Approvals by Moreno Valley Utility associated with removing, relocating, and installing electrical infrastructure.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Water Flood Control and Water Conservation District	• Approvals for on- and off-site drainage infrastructure. • Issuance of a Water Quality Management Permit.
Eastern Municipal Water District	• Approvals for the construction of on and off-site water and sewer infrastructure.
Santa Ana Regional Water Quality Control Board	• Issuance of a Section 401 Permit. • Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit.
California Department of Fish and Wildlife	• Issuance of a Lake and Streambed Alteration agreement.
United States Army Corps of Engineers	• Issuance of a Section 404 Permit.
Riverside County Airport Land Use Commission	• Determination of consistency with the ALUCP.
Federal Emergency Management Agency	• Approval of Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) to revise Flood Insurance Rate Map.

3.7 Related Environmental Review and Consultation Requirements

Subsequent to approval of the Project by the City of Moreno Valley, additional discretionary and/or administrative actions would be necessary to implement the proposed Project. Table 3-5 lists the agencies that are expected to use this EIR and provides a summary of the subsequent actions associated with the Project. This EIR covers all federal, state, local government and quasi-government approvals which may be needed to construct or implement the Project, whether or not they are explicitly listed in Table 3-5, or elsewhere in this EIR (CEQA Guidelines § 15124(d)).

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 Summary of EIR Scope

In accordance with CEQA Guidelines §§ 15126-15126.4, this EIR Section 4.0, *Environmental Analysis*, provides analyses of potential direct, indirect, and cumulatively considerable impacts that could occur from planning, constructing, and operating the proposed Project.

In compliance with the procedural requirements of CEQA, an Initial Study was prepared to determine the scope of environmental analysis for this EIR. Public comment on the scope consisted of written comments received by the City of Moreno Valley in response to the NOP issued for this EIR and oral comments provided by members of the public at the EIR scoping meeting held on July 6, 2015, at Moreno Valley City Hall. Taking all known information and public comments into consideration, 11 primary environmental subject areas are evaluated in this Section 4.0, as listed below. Each subsection evaluates several specific subject matters related to the general topic of the subsection. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1 Aesthetics
4.2 Agricultural Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Greenhouse Gas Emissions
4.7 Hazards & Hazardous Materials
4.8 Hydrology & Water Quality
4.9 Land Use/Planning
4.10 Noise
4.11 Transportation/Traffic

Public Resources Code (PRC) § 21100(b)(3) and CEQA Guidelines § 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Accordingly, this EIR also will address the topic of energy conservation (refer to EIR Section 5.0, *Other CEQA Considerations*).

Six (6) environmental subjects were determined by the City to have no potential to be significantly impacted by the Project, as concluded by the Project's Initial Study (included in *Technical Appendix A* to this EIR) and after consideration of all comments received by the City on the scope of this EIR and documented in the City's administrative record. These six (6) subjects are discussed briefly in EIR Section 5.0 and include: Geology/Soils, Mineral Resources, Population/Housing, Public Services, Recreation, and Utilities/Service Systems.

4.0.2 Scope of Cumulative Effects Analysis

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines § 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines § 15130(a)(1)). As defined in CEQA Guidelines § 15355:

> *'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*
>
> *(a) The individual effects may be changes resulting from a single project or a number of separate projects.*
>
> *(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

CEQA Guidelines § 15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ['the list of projects approach'], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact ['the summary of projections approach']."

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic and vehicular-related air quality, greenhouse gas, and noise impacts. The analysis of cumulative traffic impacts uses the list of projects approach, as is required to be used by the *City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis Preparation Guide* (August 2007), and also utilizes a summary of projections approach to provide a conservative analysis. Therefore, the cumulative analyses of vehicular-related air quality, greenhouse gas, and noise impacts, which rely on the traffic study, also employ the list projects approach plus summary of projections approach for the cumulative analysis. As such, the air quality, greenhouse gas, noise, and traffic analyses provide a conservative analysis that would overstate the Project's potential cumulative impacts as compared to an analysis that relied solely on the list of projects approach or the summary of projections approach.

Using the summary of projections approach, the cumulative study area includes the City of Moreno Valley, the City of Perris, the City of Riverside, and the Harvest Valley/Winchester Area Plan (HVWAP), Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), all of which are part of the Riverside County General Plan. These three cities and the three Riverside County Area Plans encompass portions of western Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses the Perris Valley, which is largely bounded by prominent topographic landforms, such as Reche Canyon to the north, the

Badlands to the east, and the Lakeview Mountains to the southeast. This study area exhibits similar characteristics in terms of climate, geology, and hydrology, and therefore is also likely to have similar biological characteristics and cultural resources. This study area also encompasses the service areas of the Project's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that are different from those of the Project area, or are simply too far from the proposed Project site to produce environmental effects that could be cumulatively considerable.

Environmental impacts associated with buildout of the Riverside County General Plan were evaluated in a Program EIR certified by Riverside County in 2003 (SCH No. 2002051143). The Riverside County General Plan EIR is herein incorporated by reference, and is available for review at the County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside CA 92502. Likewise, the environmental impacts associated with the buildout of the City of Perris General Plan were evaluated in a Program EIR that was certified by the Perris City Council on April 26, 2005 (SCH No. 2004031135). The City of Perris General Plan EIR is also incorporated by reference, and is available for review at the City of Perris Department of Community Development, 135 North "D" Street, Perris CA 92570. Finally, the environmental impacts associated with the buildout of the City of Riverside General Plan was evaluated in a Program-level EIR that was certified by the Riverside City Council in November 2007 (SCH No. 2004021108). The City of Riverside General Plan EIR is also incorporated by reference, and is available for review at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, CA 92522.

A specific cumulative study area was established using the "list of projects approach" to assess the cumulative effect of the Project's impacts to traffic and transportation, as required by the City of *Moreno Valley Transportation Engineering Division Traffic Impact Analysis Preparation Guide*. The cumulative study area for traffic generally includes approved and pending development project in proximity to the Project site that would contribute traffic to the same facilities as the Project, as well as several large, traffic-intensive projects farther from the Project site that have the potential to affect regional transportation facilities. As such, the cumulative impact analysis of traffic impacts in EIR Subsection 4.11, *Transportation/Traffic*, analyzes 301 other past, present, and reasonably foreseeable projects within this study area. This methodology recognizes development projects that have the potential to contribute measurable traffic to the same intersections, roadway segments, and/or state highway system facilities as the proposed Project and have the potential to be made fully operational in the foreseeable future. Specific development projects included in the cumulative analysis are shown in Figure 4.0-1, *Cumulative Development Location Map*, and Table 4.0-1, *Cumulative Project List*. As noted above, the cumulative impact analyses for the issue areas of air quality, greenhouse gas, noise, and traffic employ the list projects approach (which includes the projects listed Table 4.0-1) plus the summary of projections approach. As such, the air quality, greenhouse gas, noise, and traffic analyses provide a conservative analysis that would overstate the Project's potential cumulative impacts as compared to an analysis that relied solely on the list of projects approach or the summary of projections approach.

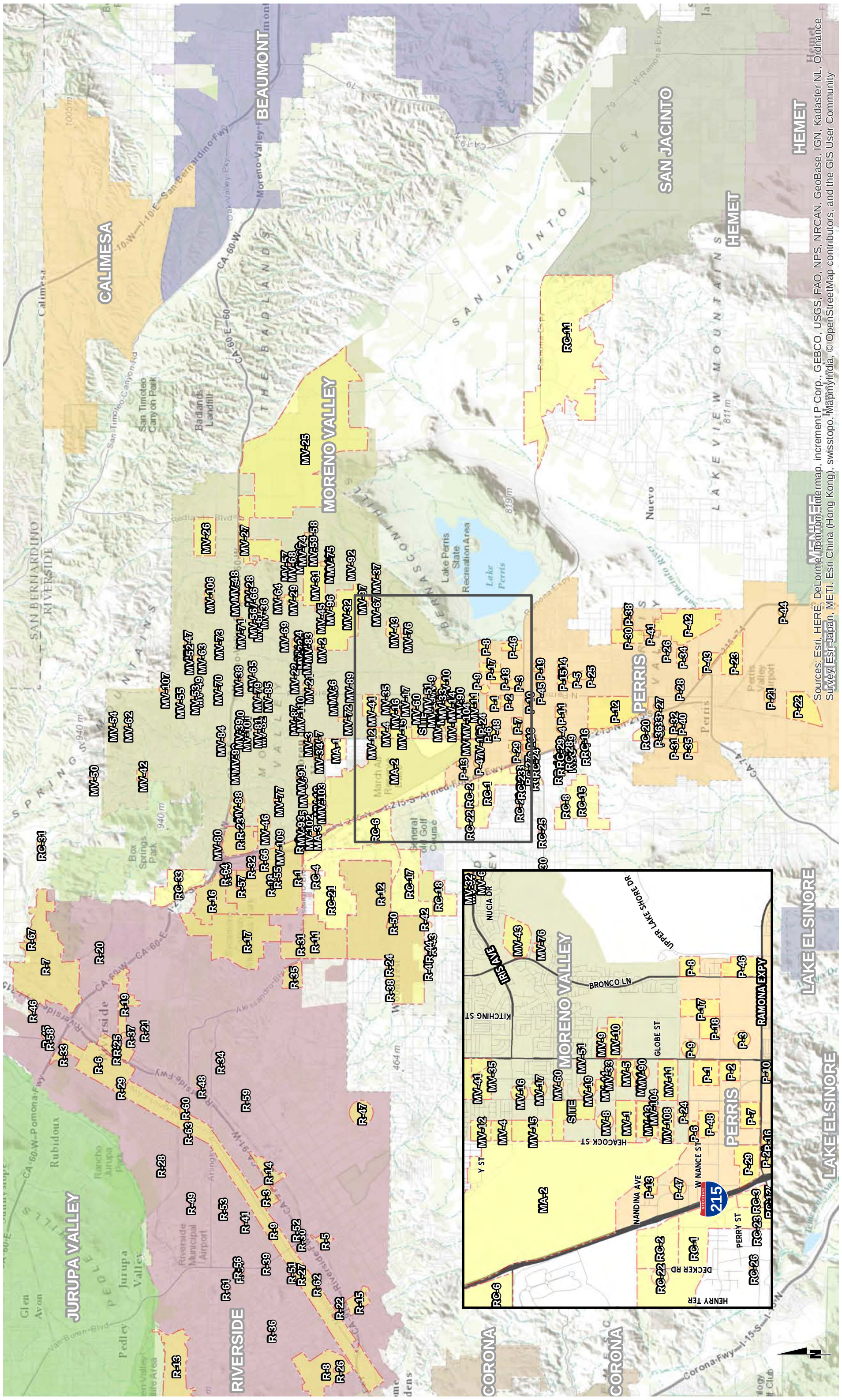

Source: Urban Crossroads (11-18-15)

Figure 4.0-1

NOT TO SCALE

CUMULATIVE DEVELOPMENT LOCATION MAP

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Table 4.0-1 Cumulative Project List

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
	CITY OF MORENO VALLEY			
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	483.767	TSF
MV-2	Bella Vista Apartments	Apartments	220.00	DU
MV-3	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
MV-4	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
MV-5	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
MV-6	TM 33607	Condo/Townhomes	52	DU
MV-7	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
MV-8	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	287.100	TSF
MV-9	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
MV-10	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF
MV-11	PA 09-0004 (Vogel)	High-Cube Warehouse	800.000	TSF
	Sares Regis	High-Cube Warehouse	1600.000	TSF
MV-12	TM 34748	SFDR	135	DU
MV-13	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF
MV-14	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
MV-15	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1380.246	TSF
MV-16	TM 33810	SFDR	16	DU
MV-17	TM 34151	SFDR	37	DU
MV-18	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
MV-19	TM 32716	SFDR	57	DU
MV-20	TM 33417	Condo/Townhomes	60	DU
MV-21	TM 34988	Condo/Townhomes	271	DU
MV-22	TM 34216	Condo/Townhomes	39	DU
MV-23	TM 34681	Condo/Townhomes	49	DU
MV-24	PA 08-0079-0081 (Winco Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
MV-25	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU
MV-26	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU
	e TR 30998 (Pacific Communities)	SFDR	47	DU
MV-27	a P06-158 (Gascon)	Commercial Retail	116.360	TSF
	b Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	c ProLogis	SFDR	126	DU
		High-Cube Warehouse	1529.498	TSF
	d TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-28	TR 36340	SFDR	275	DU
MV-29	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
MV-30	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-31	a Senior Assisted Living	Assisted Living Units	139	DU
	b TR 31590 (Winchester Associates)	SFDR	96	DU
	c TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	d TR 32218 (Whitney)	SFDR	63	DU
	e Medical Plaza	Medical Offices	311.633	TSF

Table 4.0-1 Cumulative Project List

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-32	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF
MV-33	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-34	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-35	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-36	TR 31305 / Richmond American	Residential	87	DU
MV-37	TR 34329 / Granite Capitol	Residential	90	DU
MV-38	TR 31814 / Moreno Valley Investors	Residential	60	DU
MV-39	TR 33771 / Creative Design Associates	Residential	12	DU
MV-40	TR 35663 / Kha	Residential	12	DU
MV-41	TR 22180 / Young Homes	Residential	140	DU
MV-42	TR 32515	Residential	161	DU
MV-43	TR 32142	Residential	81	DU
MV-44	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-45	Commercial Medical Plaza	Medical Offices	311.633	TSF
MV-46	Edgemont Street, South of Eucalyptus Av. (PA14-0042)	Apartments	112	DU
MV-47	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
MV-48	20636 Pacific Communities	SFDR	67	DU
MV-49	31297 Randy McFarland	SFDR	7	DU
MV-50	31394 Pigeon Pass, Ltd.	SFDR	78	DU
MV-51	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
MV-52	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU
MV-53	31621 Peter Sanchez	SFDR	25	DU
MV-54	32005 Red Hill Village, LLC	SFDR	214	DU
MV-55	32126 Salvador Torres	SFDR	35	DU
MV-56	32194 Arman Pezeshkifar	SFDR	32	DU
MV-57	32408 Sanstone Inc.	SFDR	80	DU
MV-58	32844 Winchester Associates	SFDR	17	DU
MV-59	32978 Focus Estates	SFDR	19	DU
MV-60	33024 Adam Wislar	SFDR	8	DU
MV-61	33275 Jose Guzman	SFDR	4	DU
MV-62	33388 SCH Development, LLC	SFDR	16	DU
MV-63	33436 Winchester Associates	SFDR	105	DU
MV-64	33963 Rance Garrett	SFDR	31	DU
MV-65	34043 RM3 Building and Development	SFDR	12	DU
MV-66	31621 Beazer Homes	SFDR	274	DU
MV-67	30268 Pacific Communities	SFDR	83	DU
MV-68	31414 GRF - Majestic Hills	SFDR	31	DU
	Tract 31618	SFDR	55	DU
MV-69	31494 Winchester Associates	SFDR	12	DU
MV-70	32715 GFR - Trinity	SFDR	30	DU
MV-71	33256 Granite Homes	SFDR	79	DU
MV-72	32711 Isaac Genah	SFDR	9	DU
MV-73	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR	1,105	DU
MV-74	35534 Leedco Engineers	SFDR	12	DU
MV-75	36436 CV Communities	SFDR	159	DU
MV-76	36401 Continental East Fund III, LLC	SFDR	92	DU
MV-77	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
MV-78	32756 Jimmy Lee	MFDR	24	DU
MV-79	35369 Tason Myers Property	MFDR	12	DU
MV-80	35414 Lincoln Property Co. Southwest	MFDR	266	DU
MV-81	35769 Michael Chen	MFDR	16	DU
MV-82	PA09-0006 Jim Nydam	MFDR	15	DU
MV-83	35861 Frederick Homes	MFDR	24	DU
MV-84	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
MV-85	35304 Jimmy Lee	MFDR	12	DU
MV-86	Alessandro & Lasselle	Shopping Center	140.000	TSF
MV-87	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
MV-88	El Paso (food court)	Fast Food no Drive Thru	--	TSF
MV-89	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
	PA15-004	Retail/Restaurant/Fast Food	2.973	TSF
MV-90	Moval Assemblage	High-Cube Warehouse	456.337	TSF

Table 4.0-1 Cumulative Project List

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-91	Restaurant	Restaurant	9.000	TSF
MV-92	Rancho Belago Plaza - Retail	Retail	14.000	TSF
MV-93	Yum Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.351	TSF
MV-94	Hawthorn Inn & Suites	Hotel	79	RMS
MV-95	Sleep Inn Suites	Hotel	66	RMS
MV-96	Integrated Care Communities	Nursing Home	44.000	TSF
MV-97	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF
MV-98	Moreno Valley Professional Center	General Office	84.000	TSF
MV-99	Olivewood Plaza - Office Building	General Office	23.000	TSF
MV-100	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	44	DU
MV-101	Riverside County Office Building	General Office	52.000	TSF
MV-102	Gateway Business Park	Residential Condo/Townhouse	34	DU
MV-103	Shaw Development	High-Cube Warehouse	367.000	TSF
MV-104	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697.000	TSF
MV-105	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5700.000	TSF
MV-106	Ironwood Residential	SFDR	144	DU
MV-107	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU
MV-108	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-109	P06-1408	Retail	75.300	TSF
MV-110	PA13-009	Gas Station	16	VFP
MARCH JOINT POWERS AUTHORITY				
MA-1	March Lifecare Campus Specific Plan[4]	Medical Offices	190.000	TSF
		Commercial Retail	210.000	TSF
		Research & Education	200.000	TSF
		Hospital	50	Beds
		Institutional Residential	660	Beds
MA-2	Airport Master Plan	Airport Use	559.000	TSF
MA-3	Freeway Business Center (March JPA)	High-Cube Warehouse	710.083	TSF
COUNTY OF RIVERSIDE				
RC-1	SP 341; PP 21552 (Majestic Freeway Business Center)	High-Cube Warehouse	6100.715	TSF
RC-2	PP 20699 (Oleander Business Park)	Warehousing	1206.710	TSF
RC-3	Ramona Metrolink Station	Light Rail Transit Station	300	SP
RC-4	PP 22925 (Amstar/Kaliber Development)	Office (258.102 TSF)	258.102	TSF
		Warehousing	409.312	TSF
		General Light Industrial	42.222	TSF
		Retail	10.000	TSF
RC-5	Alessandro Metrolink Station	Light Rail Transit Station	300	SP
RC-6	Meridian Business Park North	Industrial Park	5985.000	TSF
RC-7	PP 18908	General Light Industrial	133.000	TSF
RC-8	Tract 33869	SFDR	39.000	DU
RC-9	PP 16976	General Light Industrial	85.000	TSF
RC-10	PP 21144	Industrial Park	190.802	TSF
RC-11	a Villages of Lakeview	SFDR	860	DU
		Condo/Townhomes	1,920	DU
		Elementary School	1,200	STU
		Commercial Retail	100.000	TSF
		Soccer Complex	12	Fields
		City Park	8.9	AC
		County Park	8.1	AC
		Regional Park	107.1	AC
	b Motte Lakeview Ranch	SFDR	847	DU
		Condo/Townhomes	686	DU
		Apartments	467	DU
		Elementary School	650	STU
		Middle School	300	STU
		Commercial Retail	120.000	TSF
		Regional Park	177.0	AC
RC-12	CUP03315	Gas Station w/ Market	17	VFP
		Fast Food w/o Drive Thru	5.600	TSF
		High-Turnover Restaurant	6.500	TSF
RC-13	PP23342	Industrial Park	180.600	TSF
RC-14	TR30592	SFDR	131	DU
RC-15	Rider Street Quarry	Quarry	2500.0	AC
RC-16	PP 20711	Manufacturing	20.0	AC
	Yocum Baldwin	Warehousing	46.8	AC

Table 4.0-1 Cumulative Project List

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
RC-17	March Business Center - South Campus	Shopping Center	108.900	TSF
		Industrial Park	1336.700	TSF
		Large Industrial Park	3269.000	TSF
		General Office Building	140.600	TSF
		Manufacturing	215.600	TSF
		Warehousing	1379.200	TSF
		Park	50.0	AC
		R&D	1611.800	TSF
RC-18	Ben Clark Training Facility	Students	5,045	STU
		Employees	354	EMP
RC-19	PP 20103	Gen. Light Industrial	290.985	TSF
RC-20	Nuevo Business Park	Gen. Light Industrial	357.156	TSF
		Warehousing	1767.618	TSF
RC-21	Meridian (March Business Park SP)	Business Park	41917.000	TSF
RC-22	Blanding Assemblage	High-Cube Warehouse	707.880	TSF
RC-23	CUP 03527	Warehousing	8.000	TSF
RC-24	CUP 03599	Hotel	52.798	TSF
RC-25	PP 24608	Retail	9.280	TSF
RC-26	PM 32699	SFDR	2.00	DU
RC-27	PP 25699	Fast-Food w/Drive Thru	2.800	TSF
		Retail	19.000	TSF
RC-28	TR 30592	SFDR	131.00	DU
RC-29	PP 25768	Manufacturing	52.450	TSF
RC-30	CUP 03620R1	Gas Station w/ Market	8.00	VFP
RC-31	TTM 33410 Box Springs	SFDR	142	DU
RC-32	Knox Logistics	High-Cube Warehouse	1,259.050	TSF
RC-33	University Highlands	SFDR	405	DU
		Condo/Townhomes	320	DU
		Apartments	1,475	DU
		Shopping Center	50.0	TSF
		Parks	42.4	AC
CITY OF RIVERSIDE				
R-1	P07-1028 (Alessandro Business Park)	General Light Industrial	662.018	TSF
	Alessandro and Gorgonio	Fast Food w/Drive Thru	4.050	TSF
R-2	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848)	Commercial and Industrial Complex	101.580	TSF
R-3	California Baptist University Specific Plan	University	157.0	AC
R-4	Canyon Springs Specific Plan	Hospital	280	BEDS
		Medical-Dental Office	370.000	TSF
		Senior Adult Housing-Attached	234	DU
		Assisted Living	267	BEDS
R-5	Citrus Business Park Specific Plan	Industrial Business Park	49.0	AC
R-6	Downtown Specific Plan	Residential	5,000	DU
R-7	Hunter Business Park	Industrial	1300.0	AC
R-8	La Sierra University Specific Plan	Mixed-Use		
R-9	Magnolia Avenue Specific Plan	Mixed-Use/Very High Residential	1473.0	AC
R-10	Marketplace Specific Plan	Commercial Retail/Office	200.0	AC
R-11	Mission Grove Specific Plan	Business/Office Park	56.8	AC
		Commercial Retail	68.1	AC
		High Density Residential	53.8	AC
		Low Density Residential	78.4	AC
		Medium Density Residential	155.3	AC
R-12	Orangecrest Specific Plan	Rural Residential	2.1	AC
		Business/Office Park	2.7	AC
		Commercial Retail	139.0	AC
		High Density Residential	13.7	AC
		Low Density Residential	540.8	AC
		Medium Density Residential	1217.8	AC
		Public Facilities/Institutions	121.6	AC
		Public Park	59.5	AC
R-13	Rancho La Sierra Specific Plan	SFDR	598	DU
R-14	Riverside Auto Center Specific Plan	Auto Center		
R-15	Riverwalk Vista Specific Plan	Residential	402	DU

Table 4.0-1 Cumulative Project List

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-16	Sycamore Canyon Specific Plan	Hillside Residential	41.8	AC
		Low Density Residential	97.3	AC
		Medium Density Residential	14.8	AC
		Very Low Density Residential	884.2	AC
		Public Park	27.9	AC
R-17	Sycamore Canyon Business Park Specific Plan	Business/Office Park	847.2	AC
		Commercial Retail	10.3	AC
R-18	Sycamore-Highlands Specific Plan	Commercial Retail	14.6	AC
		High Density Residential	52.2	AC
		Medium Density Residential	99.1	AC
		Public Facilities	1.6	AC
			144.2	AC
		Very Low Density Residential	49.1	AC
R-19	University Avenue Specific Plan	Mixed-Use	Varies	
R-20	807 Blaine Street (P09-0717; P09-0718)	Apartments	55	DU
R-21	2340 Fourteenth Street (P09-0808; P08-0809)	Senior Housing	134	BEDS
R-22	Park Sierra Avenue (P14-0026; P14-0027)	Fast Food w/Drive Thru	3.500	TSF
R-23	6287 Day Street (P10-0090; P10-0091)	Gas Station	2	VFP
	2570 Canyon Springs Parkway (P08-0274; P08-0275)	Bank w/ Drive Thru	2.746	TSF
	6211 Valley Springs Parkway (Steak 'N Shake Restaurant; P14-0536)	Fast Food w/Drive Thru	3.750	TSF
R-24	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	Fast Food w/Drive Thru	2.361	TSF
R-25	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-0046; P14-0047; P14-0048; P14-0049)	Apartments	208	DU
R-26	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	Convenience Store	2.400	TSF
		Coffee Shop	3.946	TSF
R-27	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	Condo/Townhomes	62	DU
R-28	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	Senior Housing	37	DU
R-29	4445 Magnolia Avenue (P13-0207; P13-0208; P13-0209; P13-0210; P13-0211)	Hospital Expansion	Varies	
R-30	SR-91/Van Buren Commercial	Commercial Retail	23.565	TSF
R-31	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	Bank	3.858	TSF
R-32	6465 Sycamore Canyon Boulevard	Health Club	4.000	TSF
R-33	2450 Market Street (P13-0087; P13-0262)	Apartments	77	DU
R-34	6091 Victoria Avenue (P13-0432)	Day Care	1.831	TSF
R-35	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	SFDR	10	DU
	TM 32180 (P07-1073)	SFDR	9	DU
	18875 Moss Road	SFDR	8	DU
	South of Clarke St., west of Crystal View Terrace (PM 34583' {09-0141; P09-173)	SFDR	3	DU
R-36	4824 Jones Avenue (P13-0181; P13-0182)	Church	23.124	TSF
R-37	2586 University avenue (P13-0650; P13-0651)	Bed and Breakfast	3.618	TSF
R-38	18580 Van Buren Boulevard (P08-0402; P13-0822)	Auto Repair Shop	8.142	TSF
R-39	4247 Van Buren Boulevard (P13-0785; P13-0787)	Church Expansion	12.166	TSF
R-40	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM 32301)	SFDR	20	DU
R-41	8616 California Avenue (P08-0084; PM 35852)	Condo/Townhomes	21	DU
R-42	19811 Lurin Avenue (P06-1355; TM 33480)	SFDR	32	DU
R-43	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	SFDR	25	DU
R-44	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	SFDR	29	DU
R-45	3719 Strong Street (P05-0269; P08-0416; TM 33550)	SFDR	9	DU
R-46	1006 & 1008 Clark Street (P06-0782; TM 34908)	SFDR	15	DU
R-47	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087; TM 34509)	SFDR	50	DU
R-48	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	Condo/Townhomes	36	DU
R-49	6639 Hillside Avenue (P08-0727; PM 35901)	Industrial	5	LOTS
R-50	19985 Van Buren Boulevard (P10-0118; Gless Ranch)	Commercial Retail	425.447	TSF
R-51	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	Condo/Townhomes	102	DU
R-52	NEC of Martha Way & Everest Avenue (P13-0389; TM 36579)	SFDR	5	DU
R-53	4325, 4335, 4345, 4355, 4375 Adams Street (P13-0723; P13-0724; P13-0725; TM 36654)	SFDR	62	DU
R-54	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	Free Standing Discount Store	22.272	TSF
R-55	P06-0160	Gen. Light Industrial	316.224	TSF
	P06-1281	Warehousing	107.732	TSF

Table 4.0-1 Cumulative Project List

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-56	9241 & 9265 Audrey Avenue (P12-0184; P12-0185; P12-0187; Azar Plaza)	Commercial Retail	6.150	TSF
R-57	Office, Magnon & Panattoni	Office	131.000	TSF
		Warehousing	1400.000	TSF
		Warehousing	300.000	TSF
		Warehousing	216.000	TSF
R-58	1710 Main Street (P12-0717)	Family Dollar Store	8.039	TSF
R-59	2861 Mary Street (P12-0442; P12-0443; P12-0444)	Shopping Center	56.101	TSF
R-60	3545 Central Avenue (P12-0741; P12-0743)	Riverside Plaza Renovations	35.0	AC
R-61	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13 0201)	Apartments	30	DU
R-62	3705 Tyler Street (P13-0501; P13-0502)	Restaurant	6.000	TSF
R-63	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	Fast Food w/Drive Thru	3.795	TSF
R-64	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-0065)	Apartments	275	DU
R-65	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608; P0609; P13-0854)	General Light Industrial	171.616	TSF
R-66	P06-0591	Office	37.939	TSF
		Warehousing	782.188	TSF
		Manufacturing	168.294	TSF
R-67	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966)	High-Cube Warehouse	1461.449	TSF
CITY OF PERRIS				
P-1	P 05-0113 (IDI)	High-Cube Warehouse	1750.000	TSF
P-2	P 05-0192 (Oakmont I)	High-Cube Warehouse	697.600	TSF
P-3	P 05-0477	High-Cube Warehouse	462.692	TSF
P-4	Rados Distribution Center	High-Cube Warehouse	1200.000	TSF
P-5	Investment Development Services (IDS) II	High-Cube Warehouse	350.000	TSF
P-6	P 07-09-0018	Warehousing	170.000	TSF
P-7	P 07-07-0029 (Oakmont II)	High-Cube Warehouse	1600.000	TSF
P-8	TR 32707	SFDR	137	DU
P-9	TR 34716	SFDR	318	DU
P-10	P 05-0493 (Ridge I)	High-Cube Warehouse	700.000	TSF
P-11	Ridge II	High-Cube Warehouse	2000.000	TSF
P-12	Harvest Landing Specific Plan	SFDR	717	DU
		Condo/Townhomes	1,139	DU
		Sports Park	16.7	AC
		Business Park	1233.401	TSF
		Shopping Center	73.181	TSF
	Perris Marketplace	Shopping Center	450.000	TSF
P-13	P 06-0411 (Concrete Batch Plant)	Manufacturing	2.000	TSF
P-14	Jordan Distribution	High-Cube Warehouse	378.000	TSF
P-15	Aiere	High-Cube Warehouse	642.000	TSF
P-16	P 08-11-0005; P 08-11-0006 (Starcrest)	High-Cube Warehouse	454.088	TSF
P-17	Stratford Ranch Specific Plan	High-Cube Warehouse	1725.411	TSF
P-18	Stratford Ranch Specific Plan	High-Cube Warehouse	480.000	TSF
		General Light Industrial	120.000	TSF
P-19	P05-0493	Logistics	597.370	TSF
P-20	Starcrest, P011-0005; 08-11-0006	General Light Industrial	454.088	TSF
P-21	South Perris Industrial Phase 1	Logistics	787.700	TSF
P-22	South Perris Industrial Phase 2	Logistics	3448.734	TSF
P-23	South Perris Industrial Phase 3	Logistics	3166.857	TSF
P-24	P 04-0343	Warehousing	41.650	TSF
P-25	P 06-0228	General Light Industrial	149.738	TSF
P-26	P 06-0378	Senior Housing	429	DU
P-27	P 11-09-0011	Retail	80.000	TSF
P-28	P 12-05-0013	Apartments	75	DU
P-29	P 12-10-0005	High-Cube Warehouse	1463.887	TSF
P-30	TR 30850	Residential	496	DU
P-31	TR 30973	Residential	35	DU
P-32	TR 31225	Residential	57	DU
P-33	TR 31226	Residential	82	DU
P-34	TR 31240	Residential	114	DU
P-35	TR 31407	Residential	243	DU

Table 4.0-1 Cumulative Project List

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
P-36	TR 31650	SFDR	61	DU
P-37	TR 31659	SFDR	161	DU
P-38	TR 32041	Residential	122	DU
P-39	TR 32406	SFDR	15	DU
P-40	TR 33193	Townhomes	94	DU
P-41	TR 33338	Residential	75	DU
P-42	Park West Specific Plan	SFDR	521	DU
		Elementary School	750	STU
		Neighborhood Park	5.0	AC
P-43	The Venue	Commercial Retail	642.627	TSF
	Retail on San Jacinto	Commercial Retail	217.800	TSF
	Retail on Redlands	Fast Food w/ Drive Thru	4.500	TSF
		Pharmacy w/ Drive Thru	14.000	TSF
		Specialty Retail	31.500	TSF
P-44	South Perris Metrolink Station	Light Rail Transit Station	680	SP
P-45	IDS 04-0464	High-Cube Warehouse	1686.760	TSF
P-46	TTM 32708 (50% Complete)	SFDR	238	DU
P-47	PM 34199	Gen. Light Industrial	46.500	TSF
	DPR 05-0387	Gen. Light Industrial	9.854	TSF
	DPR 05-0452	Warehousing	31.200	TSF
	TPM 34697	Gen. Light Industrial	47.400	TSF
	DPR 06-0396	Warehousing	159.823	TSF
P-48	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF

[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

Source: Urban Crossroads, 2015e, Table 4-4.

4.0.3 Identification of Impacts

Subsections 4.1 through 4.11 of this EIR evaluate the 11 environmental subjects warranting detailed analysis, as determined by this EIR's Initial Study and in consideration of public comment on this EIR's NOP. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant. The thresholds of significance used in this EIR are based on the thresholds presented in CEQA Guidelines Appendix G and as applied by the City of Moreno Valley to create the Project's Initial Study Checklist (included in *Technical Appendix A* to this EIR). The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

Serving as the CEQA Lead Agency for this EIR, the City of Moreno Valley is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. The standards of significance used in this EIR are based on the judgment of the City of Moreno Valley, taking into consideration CEQA Guidelines Appendix G, the City of Moreno Valley's Municipal Code and adopted City policies, the judgment of the technical experts that prepared this EIR's Technical Appendices, performance standards adopted, implemented, and monitored by regulatory agencies, significance standards recommended by regulatory agencies, and the standards in CEQA that trigger the preparation of an EIR.

As required by CEQA Guidelines § 15126.2(a), impacts are identified in this EIR as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project. A summarized "impact statement" is provided in each subsection following the analysis. The following terms are used to describe the level of significance related to the physical conditions within the area affected by the proposed Project:

- No Impact: An adverse change in the physical environment would not occur.
- Less-than-Significant Impact: An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.
- Significant Impact: A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations) that the Project is required to comply with (if any). If impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less-than-Significant Impact with Mitigation: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less than significant level through the application of feasible mitigation measures.
- Significant and Unavoidable Impact: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible and enforceable mitigation measures that have a proportional nexus to the Project's impact are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, the City of Moreno Valley would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines § 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.

4.1 Aesthetics

This Subsection describes the aesthetic qualities and visual resources on the Project site and in the site's vicinity. This Subsection also analyzes the potential effects that the Project could have on these resources. In particular, descriptions of existing visual characteristics, both on site and in the vicinity of the Project site, are provided. Potential aesthetic impacts that could result from implementing the proposed Project are based in part upon field observations and site photographs collected by T&B Planning, Inc. in November 2014, analysis of aerial photography (Google Earth imagery dated 2013), Project application materials submitted to the City of Moreno Valley and described in Section 3.0, *Project Description*, of this EIR, and information provided in reports appended to this EIR. This Subsection also is based in part on information contained in Chapter 7, *Conservation*, of the City of Moreno Valley General Plan and Section 5.11, *Aesthetic*s, of the certified Final EIR prepared for the City of Moreno Valley General Plan (SCH No. 200091075). All references used in this Subsection are included in EIR Section 7.0, *References*.

4.1.1 Existing Conditions

The Project site is located in the southern portion of the City of Moreno Valley. The Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street (see EIR Figure 2-2, *Vicinity Map*). The Project site is located in a portion of Moreno Valley that is developing as a center for distribution warehousing, e-commerce, and light industrial land uses. Under existing conditions, the Project site is bordered on the northwest by property that is under development as a warehouse distribution center (March Business Center). To the immediate north is Krameria Avenue, north of which is a large warehouse building occupied by Proctor & Gamble. To the south is partially developed Cardinal Avenue, a large warehouse building occupied by Amazon, and the Perris Valley Storm Drain Channel. Located farther south are a collection of warehouse distribution buildings including but not limited to buildings currently occupied by Harbor Freight Tools and O'Reilly Auto Parts. To the west is a large warehouse building occupied by Lowe's, an industrial building occupied by Cardinal Glass Industries, and Heacock Street. West of Heacock Street is the March Air Reserve Base. Immediately to the east of the Project site is Indian Street. East of Indian Street is land developed primarily with single-family residential land uses, with pockets of undeveloped land designated for future residential development.

The Project site is relatively flat with elevations ranging from 1,497 feet above mean sea level (AMSL) at its northern boundary to 1,468 AMSL at the southeast corner of the property. As shown in EIR Figure 2-4, *Aerial Photograph*, the Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel.

Pursuant to CEQA Guidelines § 15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released on June 17, 2015. As of that date, the

Project site consists of vacant, undeveloped land that is routinely disturbed (i.e., disced) as part of weed abatement activities. Pole-mounted electrical utility lines run along the eastern boundary of the Project site adjacent to Indian Avenue and along the portion of the southern Project boundary located west of the Perris Valley Storm Drain Channel.

A photographic inventory was prepared to illustrate the existing aesthetic conditions of the Project site in more detail. Figure 4.1-1, *Site Photographs Key Map*, depicts the locations of seven (7) public views of the Project site. The photographs shown in Figure 4.1-2 through Figure 4.1-5 provide a representative inventory of the site's visual characteristics as seen from surrounding publicly-accessible vantage points.

- Site Photograph 1 (Figure 4.1-2). Site Photograph 1 provides a 90-degree view from the northwest corner of the Project site, looking east to south. The left-hand side of the photograph provides a view along the site's northern boundary. The center of the photograph provides a view across the Project site, looking southeast. The right-hand side of the photograph provides a view along the site's western boundary, adjacent to Heacock Street. Visible in the foreground of the photograph is vacant, undeveloped land with scattered, weedy vegetation. Existing off-site warehouse buildings are visible in the background of the left-hand side of the photograph and the mid-ground of the right-hand side of the photograph. Heacock Street is visible in the mid-ground of the right-hand side of the photograph and extends to the horizon. Mount Russell and its associated foothills are visible on the horizon. Mount Russell is located approximately 5.1 miles northeast of the Project site.

- Site Photograph 2 (Figure 4.1-2). Site Photograph 2 provides a 90-degree view from the western edge of the Project site along Heacock Street, looking north to east. The left-hand portion of the photograph provides a view along the Project site's western boundary and Heacock Street. The center of the photograph provides a view across the site looking northeast. The right-hand side of the photograph provides a view of the interface between the Project site and existing off-site warehouse land uses. Undeveloped land with scattered weedy vegetation is visible in the foreground of the photograph. Visible in the center of the photograph is the same off-site warehouse building visible in the left-hand portion of Photograph 1. An existing off-site warehouse building and associated landscaping is visible in the right-hand portion. Mount Russell and its associated foothills are visible on the horizon.

- Site Photograph 3 (Figure 4.1-3). Site Photograph 3 provides a 90-degree view from the northeast corner of the Project site at the corner of Krameria Avenue and Indian Street, looking south to west. The left-hand portion of the photograph provides a view along the eastern boundary of the Project site abutting Indian Street. The center of the photograph provides a view across the site looking southwest. The right-hand portion of the photograph provides a view along the northern Project boundary abutting Krameria Avenue. Visible in the foreground and mid-ground of the photograph is vacant undeveloped land with scattered

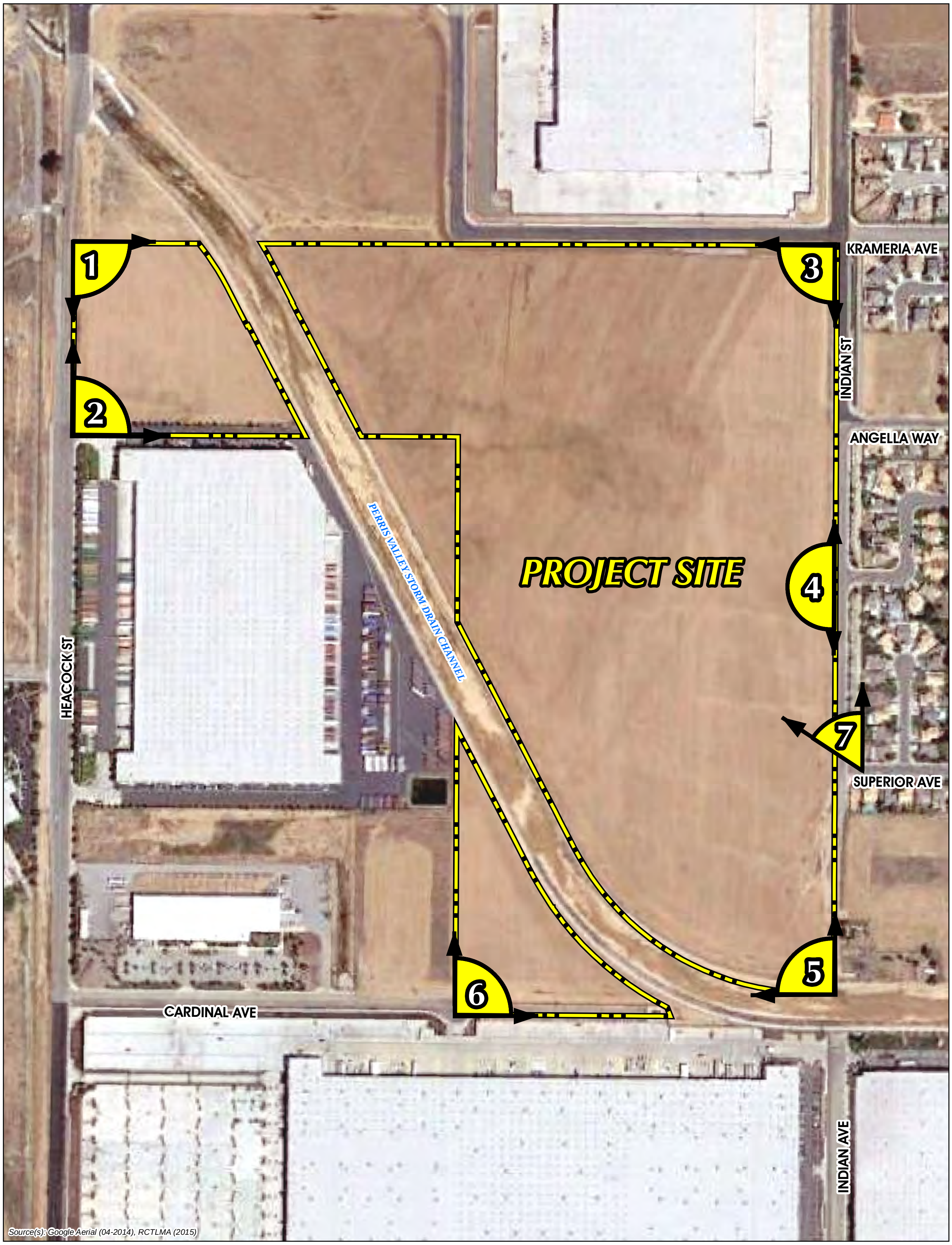

Source(s): Google Aerial (04-2014), RCTLMA (2015)

Figure 4.1-1

SITE PHOTOGRAPHS KEY MAP

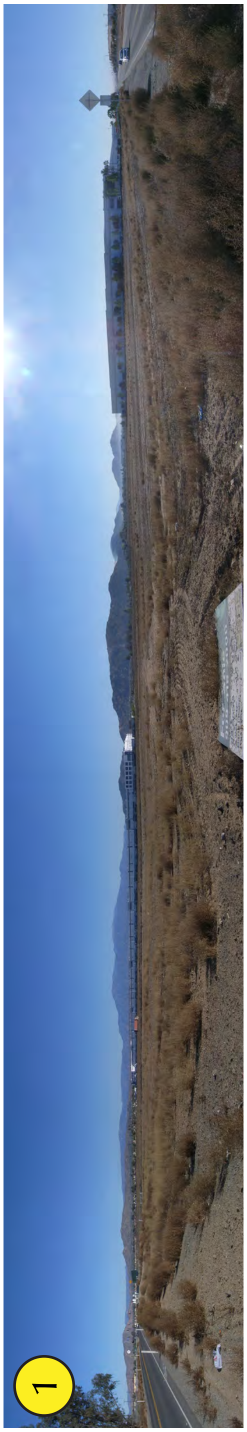

Site Photograph 1 - From northwest corner of the Project Site along Heacock Street, looking east to south.

Site Photograph 2 - From western edge of the Project Site along Heacock Street, looking north to east.

Figure 4.1-2

NOT TO SCALE

SITE PHOTOGRAPHS 1 AND 2

Site Photograph 7 - From northeast corner of the intersection of Indian Street and Superior Avenue, looking northwest to north.

Figure 4.1-5

NOT TO SCALE

SITE PHOTOGRAPH 7

weedy vegetation that extends across the Project site. Visible in the left-hand side of the photograph is a manhole for underground utilities and utility poles. An off-site large warehouse building is visible in the center of the photograph along the horizon. Krameria Avenue is visible in the foreground on the right-hand side of the photograph and extends to the horizon. Located off-site and to the right of Krameria Avenue are a sidewalk, utility poles, trees, and a warehouse building.

- Site Photograph 4 (Figure 4.1-3). Site Photograph 4 provides a 180-degree view from the approximate mid-point of the Project site's eastern boundary abutting Indian Street, looking south, west, and north. The left-hand portion of the photograph provides a view looking toward Indian Street to the south. The center of the photograph provides a view across the site looking west. The right-hand portion of the photograph provides a view looking toward Indian Street to the north. Vacant undeveloped land with scattered weedy vegetation and miscellaneous debris is visible in the foreground and mid-ground of the photograph. Visible in the left-hand portion of the photograph are on-site utility poles, left of which is the southern portion of Indian Street. Visible near the horizon in the center and right-hand portions of the photograph are off-site warehouse buildings. Utility poles and the northern portion of Indian Street are visible in the right-hand portion of the photograph.

- Site Photograph 5 (Figure 4.1-4). Site Photograph 5 provides a 90-degree view from the southeast corner of the Project site along Indian Street, looking west to north. The left-hand portion of the photograph provides a view from the southern corner of the Project site boundary. The center of the photograph provides a view across Project site the looking northwest. The right-hand side of the photograph provides a view of the eastern boundary of the Project site abutting Indian Street, looking north. Vacant undeveloped land with scattered weedy vegetation and miscellaneous debris is visible in the foreground and mid-ground of the photograph. Utility poles are visible in the foreground and mid-ground on the left-hand and right-hand sides of the photographs. A chain link fence is visible in the photograph and forms the boundary between the Project site and the Perris Valley Storm Drain Channel. Off-site warehouse buildings are visible in the foreground (on the left-hand side of the photograph) and along the horizon (on the central and right-hand sides of the photograph).

- Site Photograph 6 (Figure 4.1-4). Site Photograph 6 provides a 90-degree view of the Project site from its southwest corner, west of the Perris Valley Storm Drain Channel and abutting Cardinal Avenue. The left-hand portion of the photograph provides a view along the southwestern boundary of the Project site looking north. The center of the photograph provides a view across the site looking northeast. The right-hand portion of the photograph provides a view along the southern boundary of the Project site looking east. Vacant undeveloped land with weedy vegetation is visible in the foreground of the photograph. Visible in the left-hand portion of the photograph, along the horizon, are off-site warehouse buildings. Visible in the right-hand portion of the photograph are on-site utility poles and an off-site a warehouse building. Mount Russell and its associated foothills are visible on the horizon.

Site Photograph 5 - From southeast corner of Project Site along Indian Street, looking west to north.

Site Photograph 6 - From southwest corner of Project Site at the end of the Cardinal Avenue cul-de-sac, looking north to east.

Figure 4.1-4

NOT TO SCALE

SITE PHOTOGRAPHS 5 AND 6

- Site Photograph 7 (Figure 4.1-5). Site Photograph 7 provides a view of the interface between the residential homes located east of the Project site and Indian Street. The location shown is at the intersection of Superior Avenue and Indian Street, which is representative of the interface that occurs between every existing home and Indian Street from Superior Avenue to Krameria Avenue. Between the homes and Indian Street are a solid wall, gated access easement, concrete-lined drainage channel, a chain-link fence, a strip of landscaping containing large shrubs and medium-height trees, street lights, and a sidewalk. The distance between the solid wall and the Indian Street curb is approximately 50 feet.

B. Scenic Vistas and Scenic Resources

The Project site is located within a relatively flat valley floor surrounded by rugged hills and mountains. Major scenic resources in Moreno Valley that contribute to scenic vistas include the Box Springs Mountains and Reche Canyon to the north of the City, the Badlands to the east of the City, and the Mount Russell area to the south of the City. As shown on Figure 4.1-6, *Major Scenic Resources*, the Project site is not located within a City-designated view corridor for the Box Springs Mountains, Reche Canyon, the Badlands, or Mount Russell.

The Project site also is not located within or adjacent to a scenic highway corridor and does not contain scenic resources, such as trees of scenic value, rock outcroppings, or historic buildings (as depicted on Figure 4.1-2 through Figure 4.1-5). There are no State-designated or eligible scenic highways within the City of Moreno Valley. The nearest State-eligible scenic highway segment to the Project site is a short segment of I-215 (between SR-74 near Perris to SR-74 near Romoland), which is located approximately 6.0 miles south of the Project site (DOT, 2015). The City of Moreno Valley General Plan identifies SR-60 as a "Scenic Route;" the Project site is located approximately 4.2 miles south of SR-60 (see Figure 4.1-4) and is not visible from SR-60.

C. Light and Glare

The Project site is vacant undeveloped land and no sources of artificial light or glare are present on the site under existing conditions. Artificial light sources occur in the immediate vicinity of the Project site, with the most notable sources of light emanating from the March Air Reserve Base located to the west of the property and west of Heacock Street, warehouse buildings that surround the Project site to the north and south, and the residential community located east of Indian Street.

Mt. Palomar Observatory is located approximately 41.5 miles southeast of the Project site, on the top of Palomar Mountain in north San Diego County. The Observatory contains three active research telescopes owned and operated by the California Institute of Technology (Caltech). Since at least the 1980s, CalTech has worked with the surrounding communities to mitigate and minimize the effects of ambient light occurring from increased urbanization on the Observatory's research mission (CalTech, 2014). Properties located within a 45-mile radius of the Mt. Palomar Observatory are considered to have the potential to contribute to lighting impacts on the Observatory. Although the City of Moreno Valley General Plan does not address the Mt. Palomar Observatory, the Project site

Site Photograph 7 - From northeast corner of the intersection of Indian Street and Superior Avenue, looking northwest to north.

Figure 4.1-5

NOT TO SCALE

SITE PHOTOGRAPH 7

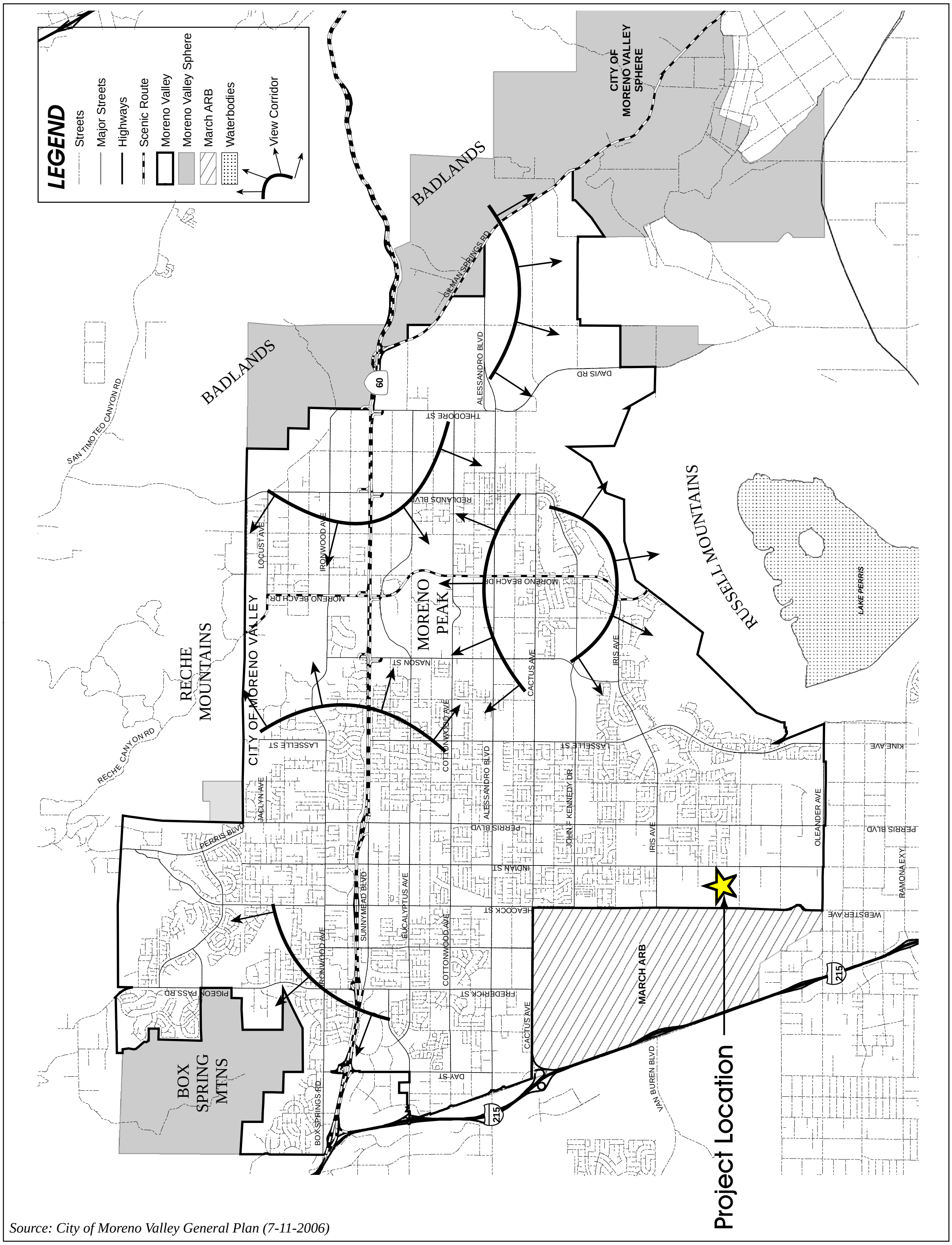

Source: City of Moreno Valley General Plan (7-11-2006)

Figure 4.1-6

NOT TO SCALE

MAJOR SCENIC RESOURCES

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

is identified by the Riverside County General Plan as being located within a 45-mile distance of the facility, which is referred to as "Zone B" of the "Mt. Palomar Nighttime Lighting Policy Area" (County of Riverside, 2003, Figure 6, Reche Canyon/Badlands Area Plan Mt. Palomar Nighttime Lighting Policy). Within Zone B, outdoor lighting fixtures should be designed and shielded to preclude the emission of substantial light into the night sky and lighting not essential for outdoor safety/security should be extinguished during night-time hours.

D. Applicable Regulatory Requirements

☐ City of Moreno Valley General Plan

The City of Moreno Valley General Plan Conservation Element Subsection 7.7, *Scenic Resources*, identifies SR-60 as the major transportation route in the area from which scenic views are possible and designates SR-60 as a local scenic route. The General Plan identifies the Badlands in the eastern portion of the City, Box Springs Mountains to the immediate north of SR-60 and the Mount Russell foothills to the south of SR-60 as the mountain ranges displaying the most scenic views from this route. Although specific polices related to land development are not identified in the Conservation Element, Subsection 7.7 states that the location and design of buildings, landscaping, and other features is important in an effort to protect and enhance views from scenic roadways.

☐ Moreno Valley Industrial Area Plan (MVIAP)

The MVIAP includes development standards and guidelines that guide the development of the properties located within the boundary of the MVIAP. The MVIAP sets forth general design guidelines that address placement of buildings, architecture, landscape architecture, and lighting. The MVIAP includes standards for lighting within the Area Plan as follows:

> *Exterior light fixtures shall be designed and placed so as not to provide light spillage on adjacent properties or public rights-or-way. The use of "full cut off' fixtures should be used adjacent to the MARB/MIP to reduce nighttime glare towards the flight line* (Moreno Valley, 2002, pp. III-19).

☐ City of Moreno Valley Municipal Code

The City of Moreno Valley Municipal Code § 9.08.100 regulates light and glare associated with new development in the City, and requires the following of non-residential development:

> *All outdoor lighting associated with nonresidential uses shall be fully shielded and directed away from surrounding residential uses. Such lighting shall not exceed one-quarter foot-candle minimum maintained lighting measured from within five feet of any property line, and shall not blink, flash, oscillate, or be of unusually high intensity or brightness (City of Moreno Valley n.d.).*

4.1.2 Basis for Determining Significance

The proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would:

a) *Have a substantial adverse effect on a scenic vista;*

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*

c) *Substantially degrade the existing visual character or quality of the site and its surroundings; or*

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

4.1.3 Impact Analysis

The analysis of the Project's potential aesthetics impacts presented on the following pages reflects the Project's technical, architectural, and engineering characteristics as described in EIR Section 3.0, *Project Description*, as well as all conditions of approval (including but not limited to those conditions of approval issued by the City of Moreno Valley and the Riverside County Airport Land Use Commission) and other applicable regulations, codes, and requirements to which the Project is required to comply.

Threshold a) Would the Project have a substantial adverse effect on a scenic vista?

The site photographs provided on Figure 4.1-2 through Figure 4.1-5 depict the Project site under existing conditions. As shown, the Project site consists of vacant, undeveloped land that is routinely disturbed (i.e., disced) as part of weed abatement activities. The Project site does not contribute to a scenic vista under existing conditions, and the City of Moreno Valley General Plan Final Program EIR does not identify any scenic vistas or scenic corridors within the vicinity of the Project site (City of Moreno Valley , 2006a, Figure 7-2).

Scenic vistas within Moreno Valley are defined by the Box Springs Mountains and Reche Canyon area to the north, the "Badlands" to the northeast, and the Russell Mountains to the east (City of Moreno Valley , 2006a, pp. 7-2). The Project site is located within a relatively flat valley floor approximately 5.5 miles south of the Box Springs Mountains and Reche Canyon, 7.5 miles west of the Badlands, 1.5 miles west of Russell Mountain foothills and 5.1 miles to the peak of Mount Russell.

Under existing conditions, views of the Russell Mountains are available from the Project site, although partially obstructed by existing, off-site development. The Project would construct four buildings on-site. The largest building would have a height up to 52 feet above finished grade, while the three smaller buildings would have heights up to 42 feet above finished grade. The proposed Project would not block views of the Russell Mountains from public viewing areas that abut the

Project site to the west, north and south, including Heacock Street, Krameria Avenue, and Cardinal Avenue, because views of the Mountains would still be visible beyond the proposed buildings and along the horizon. Views of the Russell Mountains from the Project site's eastern boundary (i.e., Indian Street) would not be affected by the Project due to the easterly location of the Mountains in relation to the Project site. Furthermore, the City General Plan designates the scenic viewshed for the Russell Mountains as occurring from the north (i.e., from land to the north of the Russell Mountains looking south toward the Mountains), whereas the Project site is located to the west of the Mountains. Accordingly, the Project would not impact a City-designated scenic view corridor for the Russell Mountains.

The Project also would have less-than-significant impacts on public views of the Box Spring Mountains, Reche Canyon, and the Badlands. Due to their distance and orientation in relation to the Project site, prominent, distinct views of the Box Spring Mountains and Reche Canyon are not available from the Project site under existing conditions. The views that are available under existing conditions, primarily from the Project's western and eastern boundaries would not be obstructed by development of the Project because a viewer would need to look due north to see the mountain view, and not east or west across the Project site. Furthermore, the Project would not block views of these landforms from public viewing areas (e.g., public roads). The Project site does not afford any views of the Badlands; therefore, implementation of the proposed Project would not adversely impact any public view of the Badlands.

Based on the foregoing analysis, the proposed Project would not have a substantial adverse effect on scenic vistas, and a less-than-significant impact would occur.

Threshold b) ***Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?***

The Project site is not located within or adjacent to a scenic highway corridor and does not contain scenic resources, such as trees of scenic value, rock outcroppings, or historic buildings. Furthermore, there are no State-designated or eligible scenic highways within the City of Moreno Valley (DOT, 2015).

The nearest State-eligible scenic highway to the Project site is I-215 (between SR-74 near Perris to SR-74 near Romoland), which is located approximately 6.0 miles south of the Project site. Additionally, the Project site is located approximately 4.2 miles south of SR-60, which the City of Moreno Valley General Plan identifies as a local scenic route as illustrated on Figure 4.1-6. The proposed Project's buildings and other features would not be visible from the aforementioned segments I-215 or SR-60 due to intervening development and distance.

Because the Project site is not visible from a State scenic highway and contains no scenic resources, the proposed Project would not adversely impact the viewshed within a scenic highway corridor and

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would not damage important scenic resources within a scenic highway corridor, including trees, rock outcroppings, and historic buildings. No impact would occur.

Threshold c) Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

❑ Temporary Construction Related Activities

The proposed Project would be constructed over the course of approximately 14 months. Temporary construction activities would involve the use of heavy machinery that would be visible from the immediately surrounding areas. Construction activities are a common occurrence in the City of Moreno Valley, especially within the rapidly developing MVIAP area, as well as the larger Inland Empire region and are not considered to substantially degrade the area's visual quality. Furthermore, except for the short-term use of cranes during building construction and lifts during the architectural coating phase, construction equipment is expected to be low in height and not substantially visible to the surrounding area, including the residential lots located east of the Project site which are set back from Indian Street by 50 feet and separated from Indian Street by a solid wall, gated access easement, concrete-lined drainage channel, a chain-link fence, and a strip of landscaping containing large shrubs and medium-height trees. All Project-related construction activities would be temporary in nature and all construction equipment would be removed from the Project site following completion of the Project's construction activities. Thus, Project-related changes to local visual character and quality would be less than significant during temporary, short-term construction activities.

❑ Project Buildout

Upon buildout of the Project, the visual character of the site would change from a vacant undeveloped property to a developed property containing one large warehouse building and three smaller light industrial buildings. In order to determine of the proposed Project would substantially degrade the existing visual character or quality of the site and its surroundings, an analysis of the post-development conditions at Site Photographs 1 through 7 (refer to Figure 4.1-2 and Figure 4.1-5) is provided below. Refer also to the Project's proposed site plans (Figures 3-10 through 3-13), architectural plans (Figures 3-15 through 3-18), and landscape plan (Figure 3-19) for illustrations of the proposed site layout and architectural and landscape design.

- Site Photograph 1 (Figure 4.1-2). Site Photograph 1 was taken from the Project site's northwest corner looking east and south. The northwest corner of Building 4 as well as a portion of the Building's northern and western building façades would be visible from this location. Upon buildout of the Project the immediate foreground on the left-hand and right-hand sides of the photograph would contain ornamental landscaping, including deciduous and evergreen trees, shrubs, and groundcover. A driveway and drive aisle would also be visible in the foreground from this vantage point (from the center of the photograph extending to the left-hand side). In the mid-ground (center of the photograph), the northwest corner of Building 4 would be visible. The corner of the Building would house an office area and the exterior of the building would feature enhanced architectural treatments. The western and northern facades of Building 4 would be visible in the mid-ground of the photograph (left-hand side and right-hand side) extending toward the horizon. The visual prominence of the Building would be reduced by densely planted flowering accent trees, large canopied deciduous trees, and evergreen coniferous trees along Heacock Street and evenly spaced evergreen trees (as well as colorful shrubs and groundcovers) along the northern edge of the Building. The proposed Project would not block or substantially obscure the visual prominence of the Russell Mountains from this vantage point; the Mountains would be visible above the proposed Project and along the horizon.

- Site Photograph 2 (Figure 4.1-2). Site Photograph 2 provides a view of the southwest corner of the Building 4 site. From this location, the southwestern corner of Building 4 would be partially visible in the mid-ground, although mostly screened by densely planted ornamental landscaping in the foreground (trees, shrubs, and groundcover). The corner of the Building would house an office area featuring enhanced architectural treatments. On the left-hand side of the photograph, from the mid-ground extending toward the horizon, the western façade of Building 4 would be partially visible behind an ornamental landscape buffer planted adjacent to Heacock Street. On the right-hand side of the photograph (in the mid-ground extending toward the horizon) the southern façade of Building 4 and an automobile parking lot would be visible. Landscaping would be planted adjacent to the southern façade of Building 4 to minimize its scale; landscaping also would be provided along the perimeter of the parking lot and interior to the parking lot (via finger islands) to provide visual interest and shade over pavement areas. The proposed Project would not block or substantially obscure the visual prominence of the Russell Mountains from this vantage point; the Mountains would be visible above the proposed Project and along the horizon.

- Site Photograph 3 (Figure 4.1-3). Site Photograph 3 provides a view of the northeast corner of the Building 1 site. At this location, parkways planted with trees and groundcovers would be visible in the foreground (and extending toward the horizon) on the left-hand side of the photograph abutting Indian Street and on the right-hand side of the photograph abutting Krameria Avenue. In the center of the photograph (foreground), an approximately 50-foot-wide landscape buffer area (planted with flowering accent trees and large-canopied evergreen and deciduous trees) would be visible, beyond which would be an automobile parking lot. On the left-hand side of the photograph, in the mid-ground, a 50-foot-wide landscape buffer area would be visible. The plant material within the landscape buffer would minimize the perceived scale of a 14-foot-tall screen wall that is proposed to be installed parallel to Indian Street. The landscaping and screen wall provided on the eastern edge of the Building 1 site would obscure views of the Building 1 loading bays and truck parking area. In the center of the photograph (in the mid-ground), the corner of Building 1 would be partially visible (behind proposed landscaping planted in the foreground). The corner of Building 1 would house an office area and the exterior of the building would feature enhanced architectural treatments. In the right-hand side of the photograph (in the mid-ground extending toward the horizon), the northern façade of Building 1 and an automobile parking lot would be visible. Landscaping would be planted adjacent to the northern façade of Building 1 to minimize its scale and visual prominence. Landscaping also would be provided along the perimeter of the parking lot and interior to the parking lot (via finger islands) to provide visual interest and shade over pavement areas.

- Site Photograph 4 (Figure 4.1-3). Site Photograph 4 provides a view of the mid-point of the Building 1 site. At buildout, this vantage point would provide a view of the eastern edge of Building 1. Views of the foreground from this vantage point would include a landscaped parkway adjacent to Indian Street and an on-site landscape buffer area. Both the landscape parkway and buffer area would be planted with trees, shrubs, and groundcovers. Beyond the landscape buffer, a 14-foot-tall concrete screen wall painted to match the Building's color would be constructed parallel to Indian Street. The landscaping and screen wall provided on the eastern edge of the Building 1 site would obscure views of the Building's loading bays and truck parking area. Above the landscaping and screen wall, the top of the eastern edge of Building 1 would be partially visible along the horizon.

- Site Photograph 5 (Figure 4.1-4). Site Photograph 5 provides a view of the southeast corner of the Building 1 site. From this location, the southwest corner of Building 1 would be partially visible in the center of the photograph (partially obscured by landscaping), with the Building's southern edge extending along the left-hand side of the photograph and its eastern edge extending along the right-hand side of the photograph. Panning from the left-hand side to the right-hand side of the photograph, the foreground would be dominated by landscaping (trees and groundcover) planted along the perimeter of the proposed water quality/detention basin. Beyond the water quality/detention basin, a loading and truck parking area would be partially visible on the left-hand side of the photograph (partially obscured by proposed landscaping and fencing), the southwest corner of Building 1 would be visible in the center of the photograph, and an automobile parking lot would be visible on the right-hand site of the photograph. The corner of the Building would house an office area and the exterior of the building would feature enhanced architectural treatments. The entrance to the office area would be framed by landscaping, including trees, shrubs, and groundcovers. Landscaping would be planted along the perimeter of the parking lot and interior to the parking lot (via finger islands) to provide visual interest and shade over pavement areas. The top of the southern and eastern facades of Building 1 would be visible along the horizon.

- Site Photograph 6 (Figure 4.1-4). Site Photograph 6 provides a view of the southwest corner of the Building 3 site. From this location, landscape areas planted with ornamental deciduous and evergreen trees, shrubs, and ground covers would flank the site's driveway in the foreground. In the mid-ground of the photograph, drive aisles and automobile parking lots would be visible in the left-hand and right-hand sides of the photograph; Building 3 would be located in the center of the photograph. Landscaping would be planted along the perimeter of the parking lot and interior to the parking lot (via finger islands) to provide visual interest and shade over pavement areas. Landscaping would be planted along the western and southern facades of Building 3 to minimize the scale of the building. The corner of Building 3 would feature enhanced architectural treatments and landscaping for visual interest. The proposed

Project would not detract from the visual prominence of the Russell Mountains from this vantage point; the Mountains would be visible above the proposed Project and along the horizon on the central and right-hand portions of the photograph.

- Site Photograph 7 (Figure 4.1-5). Site Photograph 7 provides a view of the interface between the residential homes located east of the Project site and Indian Street. As shown, a solid wall, gated access easement, concrete-lined drainage channel, a chain-link fence, a strip of land containing plant material of varying heights consisting of large shrubs and medium-height trees, street lights, and a sidewalk already separate these homes from Indian Street. The Project site occurs on the opposite side of Indian Street. The Project proposes to protect in place the existing Indian Street improvements on the east side (residential side) of the road and widen the road on the west side. A 10-foot-wide landscape parkway and 4-foot-wide sidewalk are proposed to be installed in the public right-of-way along the Project's frontage with Indian Street, west of which would be a 50-foot wide landscape buffer area planted with trees, shrubs, and groundcovers. Beyond the landscape buffer, a 14-foot-tall concrete screen wall painted to match the color of Building 1 would be constructed. Upon the maturity of the trees planted in the landscaped buffer, the wall would be barely visible from Indian Street. Together, the landscaping and screen wall would obscure views of Building 1 and its loading bays and vehicular use area. Above the landscaping and screen wall, the very top of Building 1 would be partially visible along the horizon.

Although the aesthetic changes to the Project site would be substantial compared to existing conditions (change from vacant undeveloped land to an industrial center), the proposed Project incorporates a number of features to enhance the aesthetic quality of the Project. The Project's architecture incorporates a classic color palette that would not be visually offensive and also incorporates accent elements, such as colored glass and decorative building elements at entries for visual interest. The landscaping theme incorporates attractive plant species that can maintain vibrancy during drought conditions. Additionally, the Project incorporates walls to screen views to Project-related loading and docking bays from public viewing areas along abutting public streets. The visual prominence of the screen walls would be reduced through the installation of landscaping (trees, shrubs, and groundcover) in front of the walls. The proposed visual features of the Project would ensure a high-quality aesthetic for the site that complements surrounding development and would be consistent with the design standards for industrial development called for by the MVIAP, including but not limited to the MVIAP's general design guidelines for building orientation, access and circulation, parking areas, architectural materials, architectural design, exterior light fixtures, and landscaping (Moreno Valley, 2002).

With respect to the visual character of the surrounding area, the proposed Project would be visually compatible with the existing industrial land uses to the north, south, and west of the Project site, as well as the under-construction industrial land uses to the northwest of the Project site. Further, the 50-foot wide landscape buffer along the Project's eastern boundary paralleling Indian Street would provide a visual transition to the existing residential community to the east and ensure that the visual character of the residential community is not substantially degraded. Refer to Figure 3-20 in EIR

Section 3.0 for an illustrated cross-section. As shown, the residential lots on the east side of Indian Street would be separated and screened from Building 1 and its vehicular use areas by the proposed 10-foot-wide landscape parkway, 50-foot wide landscape buffer area featuring a berm and densely planted with trees, shrubs, and groundcovers, and 14-foot-tall solid screen wall that are proposed by the Project on the west side of Indian Street. A line-of-sight exhibit is provided as Figure 4.1-7, *Indian Street Line-of-Sight Cross-Section*, which shows that no views of Building 1 or its parking areas would be visible to a pedestrian using the Indian Street sidewalk. Looking west toward the Project site, people using Indian Street by foot, bicycle, or motorized vehicle would see the densely landscaped berm and any views that may be possible through the landscaping would be of the 14-foot screen wall and/or skyline above proposed Building 1. On the east side of Indian Street are a solid wall, gated access easement, concrete-lined drainage channel, chain-link fence, and strip of landscaping containing large shrubs and medium-height trees, beyond which are private residential lots. Public views toward the west from the east side of Indian Street would also be screened by the features proposed by the Project and shown on Figure 3-20 and Figure 4.1-7. With these features, the Project's design features along Indian Street would obscure views of Building 1 and its loading bays and vehicular use area. As such, the Project would have less-than-significant potential to substantially degrade the visual character and quality of the adjacent residential community or of any other property in the surrounding area. For these reasons, impacts are considered to be less than significant.

Threshold d) Would the Project create a new source of substantial light or glare, which would adversely affect daytime or nighttime view of the area?

The Project is designed to adhere to the requirements of both the MVIAP lighting standards and City of Moreno Valley Municipal Code § 9.08.100, and future implementing permits and approvals (i.e., building permits) would be required to demonstrate compliance with these standards. Mandatory compliance with the applicable lighting requirements of the MVIAP and the City's Municipal Code would ensure that the proposed Project does not produce substantial amounts of light or glare from artificial lighting sources that would adversely affect the day or nighttime views of adjacent properties.

With respect to daytime glare impacts, the proposed Project would involve the construction of four (4) buildings with exterior building surfaces that consist of concrete tilt-up panels and green glass. While window glazing has the potential to result in minor glare effects, such effects would be minimal because the glass proposed for use by the Project is low-reflective and would not be mirrored. Furthermore, unobstructed views of on-site building surfaces utilizing glass would be rare due to the extensive use of landscaping, screen walls, and fences on the Project site.

As noted previously, the Project site is located approximately 41.5 miles from the Mt. Palomar Observatory. The potential effects of artificial lighting caused by increased urbanization in a 45-mile radius of the Observatory is not specifically addressed by the City of Moreno Valley's General Plan or Municipal Code; however, the 45-mile radius surrounding the Mt. Palomar Observatory is defined

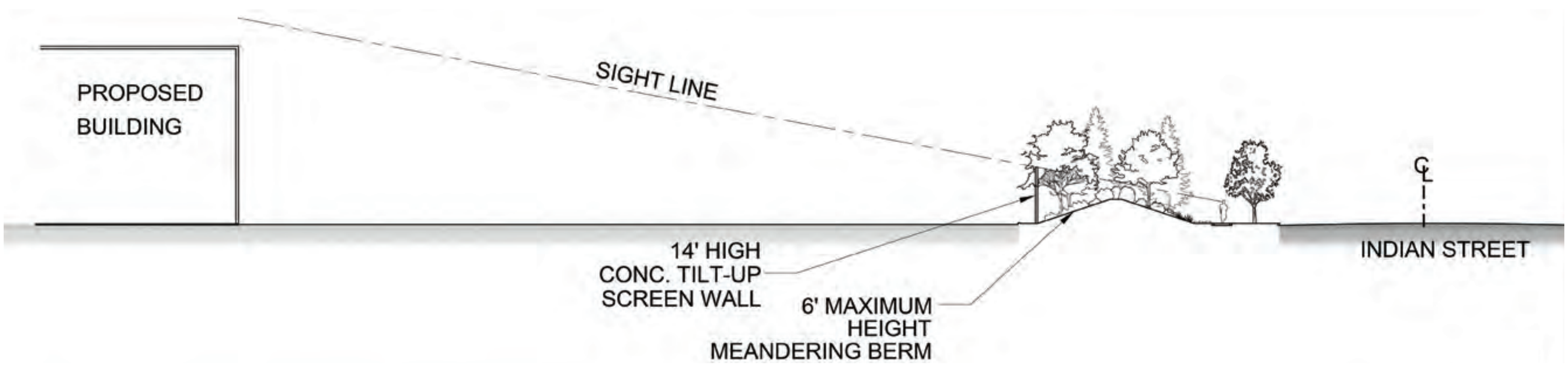

Source: Hunter Landscape (03-14-16)

Figure 4.1-7

INDIAN STREET LINE-OF-SIGHT CROSS-SECTION by Riverside County Ordinance No. 655 as an area in which light pollution may impact the functionality of the Observatory. Any development project within a 45-mile radius of the Observatory that would add artificial light sources has the potential to contribute to sky glow effects, which could adversely affect the telescopes' range of visibility. Although the Project site is located in the City of Moreno Valley and is not subject to Riverside County Ordinance No. 655, the potential light pollution effects of the Project on the Mt. Palomar Observatory are still recognized in this EIR. To ensure that impacts would be less than significant, the proposed Project would be required to comply with City of Moreno Valley Municipal Code § 9.08.100, which requires shielded fixtures and prohibits unusually high intensity or brightness to minimize light pollution. The shielding of light fixtures is effective at minimizing potential impacts associated with artificial lighting, including but not limited to effects on nighttime observations at the Mt. Palomar Observatory.

Based on the foregoing analysis, the Project would not introduce substantial sources of artificial lighting and glare and would result in a less-than-significant impact to daytime and nighttime views in the area.

The Project does not propose to install rooftop solar panels; however, the roofs of all Project buildings are designed to accommodate the potential future installation of solar panels. Because solar panels absorb light – and do not reflect it – they are not expected to result in substantial adverse glare effects. Potential glare impacts would be less than significant. Regardless, because the Project site is located close to the March Air Reserve Base, and at the request of the Riverside County Airport Land Use Commission (ALUC) during their review of the Project for consistency with the March Air Reserve Base/Inland Port Land Use Compatibility Plan, mitigation is recommended in this EIR at the request of the ALUC to verify that solar panels that may be installed on the Project site in the future do not produce any amount of glare that could affect air traffic operations at March Air Reserve Base.

4.1.4 Cumulative Impact Analysis

The City of Moreno Valley General Plan EIR concluded that buildout of the City in accordance with its General Plan would not have any significant direct or cumulative impacts to local or regional aesthetics with enforcement of the City's General Plan and Specific Plans (City of Moreno Valley, 2006b, pp. 5-6). As previously stated, the proposed Project is consistent with the City's General Plan and MVIAP and would therefore not result in any cumulatively considerable aesthetics impacts. Furthermore, and as noted under the discussion of Threshold a), the Project site contains vacant undeveloped land under existing conditions and is not part of a scenic vista. Views of the Box Springs Mountains, Reche Canyon area, and the Russell Mountains are available from public viewing areas adjacent to the Project site; however, such views are available throughout the City of Moreno Valley and are not unique to the Project site's vicinity. Additionally, and as shown on Figure 4.1-6, the City of Moreno Valley General Plan does not identify any scenic routes or view corridors within close proximity of the Project site. With buildout of the proposed Project and other developments within the Project's viewshed, which would include buildout of the MVIAP and surrounding areas, there would be a less than significant cumulative effect to any existing scenic vistas. Accordingly, no cumulatively considerable impact to scenic vistas would occur with buildout of the proposed Project.

As noted under Threshold b), the Project site is not located within close proximity to any designated scenic routes and does not contain any scenic resources under existing conditions, including, but not limited to, trees, rock outcroppings, and historic buildings. Therefore, the proposed Project has no potential to directly impact a scenic resource or to contribute to a cumulatively significant scenic resource impact.

With respect to visual quality and character of the site and surrounding area, under cumulative conditions the geographic area of the MVIAP would be industrial in character as the MVIAP area would be fully built-out with industrial land uses. As with the proposed Project, development within the MVIAP would be subject to the development regulations and design standards contained in the MVIAP. Mandatory compliance to these development regulations and design standards would ensure that the industrial development within the remaining undeveloped portions of the MVIAP incorporate high quality building materials, site design, and landscaping to minimize the potential for adverse effects associated with visual quality. The buildings that would be constructed on the Project site and other buildings within the MVIAP would be similar in character and would display the aesthetic qualities required by the MVIAP. These qualities have been incorporated into the proposed Project's design as described in EIR Section 3.0, *Project Description*. In addition, the Project proposes a 50-foot-wide landscape buffer that is not required by the MVIAP. The buffer is proposed, in part, to compensate for the Project's proposal to align its proposed Building 1 with the setback distance physically established by the warehouse building located to the immediate north that is currently occupied by Proctor & Gamble. To align the buildings, the Project proposes a Specific Plan Amendment (SPA) to the MVIAP to amend its setback requirement along Indian Street from 300 feet to 100 feet and to add the requirement to install a minimum 50-foot-wide contiguous enhanced landscaping zone within the proposed 100-foot setback area. With the installation of the 50-foot-wide landscape buffer, the developed Project site would be more aesthetically pleasing than complying with the 300-foot setback requirement without the landscaped buffer. For this reason, the Project's impact to community character as viewed from Indian Street would be less than significant and less than cumulatively considerable. The proposed Project would not considerably contribute to an adverse cumulative impact to the existing visual character or quality of the Project site or its surroundings.

With respect to potential cumulative light and glare impacts, City of Moreno Valley Municipal Code §9.08.100 sets a maximum limit of 0.25 foot candles of "spill over" lighting that can directly or indirectly affect adjacent properties and requires light fixtures to incorporate shielding to prevent potential glare impacts. Similarly, the County of Riverside and cities in the surrounding area enforce similar light pollution regulations (Riverside County Ord. 655, City of Perris Zoning Ord. Sec. 19.01 et. seq., City of Riverside Municipal Code Sec. 19.590.070). As noted previously, the Project site is located within a 45-mile radius of the Mt. Palomar Observatory. Areas within 45 miles of the Mt. Palomar Observatory have been identified by the County of Riverside as having the potential to adversely affect nighttime operations at the Observatory. However, as noted above, all development with artificial light sources located within the City of Moreno Valley and surrounding areas are required to comply with the applicable lighting restrictions of the City Municipal Code §9.08.100 (or the applicable lighting restrictions applied by their respective City/County). The restriction on "spill over" lighting enforced by these lighting regulations has the effect of minimizing light and glare that would create sky glow. Additionally, development projects with artificial light sources in surrounding jurisdictions would be required to comply with the light reduction requirements applicable in their respective jurisdiction. Therefore, because City of Moreno Valley Municipal Code §9.08.100 and the light control regulations of other jurisdictions within the 45-mile radius of the Observatory would minimize the amount of sky glow that could affect nighttime operations at the observatory the cumulative effect would be less than significant. Because the proposed Project is mandated to comply with the City's Municipal Code, the Project's contribution to sky glow impacts to the Mt. Palomar Observatory is determined to be less than cumulatively considerable.

4.1.5 Significance of Impacts before Mitigation

Threshold a): Less-than-Significant Impact. The Project site does not comprise all or part of a scenic vista and does not contain any visually prominent scenic features. No unique views to scenic vistas are visible from the property. The Project would not substantially change a scenic view or substantially block or obscure a scenic vista; therefore, impacts to scenic vistas would be less than significant.

Threshold b): No Impact. The Project has no potential to damage scenic resources within a scenic highway corridor because Project site is not located within the viewshed of a scenic highway and the Project site does not contain any scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings.

Threshold c): Less-than-Significant Impact. The Project would not substantially degrade the existing visual character or quality of the site or its surrounding areas during Project construction or operation. Although the Project would change the visual character of the site from a vacant property to a developed logistics center, the Project proposes a number of site design, architectural, and landscaping elements to ensure that the surrounding visual character and quality is not substantially affected. A landscaped parkway, 50-foot-wide landscape buffer and 14-foot-high screen wall are proposed along Indian Street to screen the Project from residential uses to the east. The Project would be consistent with the industrial character of the site and surrounding area to the north, south, and west, which is made up of warehouse and industrial facilities and the March Air Reserve Base.

Threshold d): Less-than-Significant Impact. The Project would not create substantial light or glare. Compliance with the MVIAP requirements for lighting and mandatory compliance with City of Moreno Valley Municipal Code § 9.08.100 would ensure less-than-significant impacts associated with light and glare affecting day or nighttime views in the area.

4.1.6 Mitigation

The Project Applicant does not propose to install solar panels on the Project's buildings but the buildings' rooftops are designed to support the potential future installation of solar panels. Because solar panels are light-absorbing and not light-reflective, no glare impact would occur. Regardless, at the request of the Riverside County ALUC during their review of the Project for consistency with the March Air Reserve Base/Inland Port Land Use Compatibility Plan, the following mitigation measures are included at the request of the ALUC to verify that solar panels, which have the potential for installation in the future, do not produce any amount of glare that could affect air traffic operations at March Air Reserve Base.

MM 4.1-1 In the event that solar panels are proposed for installation, then prior to the issuance of building permits the City of Moreno Valley shall review the construction drawings and ensure that:

a) All solar panels shall be installed at a fixed angle (i.e., non-tracking);
b) All solar panels shall contain a non-reflective coating or shall be otherwise designed, engineered, and/or installed to minimize glare; and
c) All solar panels shall be directed toward the sky and not facing adjacent properties.

MM 4.1-2 In the event that solar panels are proposed for installation, then prior to the issuance of building permits the Project Applicant shall provide the City of Moreno Valley with evidence that the proposed solar array(s) would not result in substantial glare effects to operations at the March Air Reserve Base as determined by Sandia National Laboratories' Solar Glare Hazard Analysis Tool (or equivalent analytical model) and to the satisfaction of the Riverside County Airport Land Use Commission.

4.2 Agricultural Resources

The information and analysis in this Subsection is based in part on information obtained from the California Department of Conservation (CDC) Farmland Mapping & Monitoring Program and (CDC, 2004), and the City of Moreno Valley General Plan Final EIR (City of Moreno Valley, 2006b). Refer to Section 7.0, *References*, for a complete list of these and other reference sources.

4.2.1 Existing Conditions

A. Existing Project Area and Site Conditions

Historical aerial photographs show that agricultural activities were prevalent in the Project site's vicinity from the early 1900s until the late 1970s. Between the mid-1980s and mid-1990s, agricultural activities in areas to the east and north of the Project site ceased and were replaced by residential land uses, with pockets of undeveloped, vacant land interspersed. Beginning in the early-2000s through present day, areas to the north and south of the Project site have transitioned from agriculture to industrial development. (Farallon, 2015, Appendix D) No active agricultural uses occur within a one-half-mile radius of the Project site under existing conditions (Google, 2015).

The Project site consisted of either vacant land or land utilized for agricultural activities (dryland crops), since at least 1938 (Farallon, 2015, Appendix D). Under existing conditions, the Project site consists of vacant, undeveloped land that is routinely disturbed (i.e., disced) as part of weed abatement activities. No agricultural activities occur on the Project site under existing conditions.

B. Zoning

As described in EIR Section 2.0, *Environmental Setting*, the Project site is located within the geographical boundaries of the City of Moreno Valley's MVIAP. The MVIAP establishes specific zoning designations and standards for the Project site and all other areas within the MVIAP geographical boundaries. The MVIAP applies the "Industrial" zoning designation to the Project site. The Industrial zoning designation is intended to provide for development of the types of uses that are proposed by the Project evaluated in this EIR (i.e., high-cube warehouse and light industrial).

Areas immediately abutting the Project site to the north, south, and west are also located in the MVIAP and are zoned Industrial. Areas to the east of the Project site are located outside of the MVIAP and are zoned by the City of Moreno Valley for suburban residential development ("R5" zoning designation). The R5 zoning designation is intended to provide for residential development on common sized suburban lots. March ARB is located west of the Project site. March ARB is an active air reserve base (i.e., airport) and is zoned for "Aviation." There are no properties zoned for agricultural uses within a one-half-mile radius of the Project site under existing conditions. (Moreno Valley, n.d., March Joint Powers Authority, 2012, p. 2-3)

C. Agricultural Land Designations

❑ Farmland Mapping & Monitoring Program Categories

The California Department of Conservation (CDC) identifies farmlands throughout California as part of its Farmland Mapping & Monitoring Program (FMMP), pursuant to the provisions of California Government Code § 65570. The FMMP utilizes data from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey and current land use information to categorize lands into eight separate mapping categories: Prime Farmlands, Farmland of Statewide Importance, Unique Farmlands, Farmland of Local Importance, Grazing Land, Urban and Built-up Land, Other Land, and Water. These eight classifications are described briefly and are dependent on soil characteristics, climatic conditions, and water supply. (CDC, 2004, pp. 6-7)

- <u>Prime Farmland:</u> Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Lands must have been used for irrigated agricultural productions at some time during the four years prior to the mapping date.

- <u>Farmland of Statewide Importance:</u> Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for agricultural production at some time during the four years prior to the mapping date.

- <u>Unique Farmland:</u> Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been used for agricultural production at some time during the four years prior to the mapping date.

- <u>Farmland of Local Importance:</u> Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

- <u>Grazing Land:</u> Land on which the existing vegetation is suited to grazing of livestock. The minimum mapping unit for Grazing Land is 40 acres.

- <u>Urban and Built-Up Land:</u> Land occupied by structures and used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

- <u>Other Land:</u> Land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock; poultry or aquaculture facilities; strip mines; borrow pits; and water bodies smaller than 40 acres.

- Water: Perennial water bodies with an extent of at least 40 acres.

"Farmland" is defined in Section II (a) of Appendix G of the CEQA Guidelines to mean "Prime Farmland," "Farmland of Statewide Importance," or "Unique Farmland."

As shown in Figure 4.2-1, *FMMP Farmlands Map*, the FMMP classifies the Project site as Farmland of Local Importance. Land abutting the Project site to the north and south also is classified by the FMMP as Farmland of Local Importance. Land to the west and east is classified by the FMMP as Urban and Built-Up Land. No Prime Farmland, Farmland of Statewide Importance, or Unique Farmland occurs within a one-half-mile radius of the Project site under existing conditions.

❑ Storie Index

The Storie Index is a rating system first developed by R. Earl Storie in 1933 that determines the value of farmland by evaluating the soil type on a given property. The Storie Index rating system ranks each soil according to four general factors: 1) the characteristics of the soil profile and its depth; 2) the texture of the surface soil; 3) the slope of the land on which the soil is located; and 4) other factors, including drainage, salt content, erosion, and alkali. A score ranging from 0 to 100 percent is determined for each factor, and the scores are then multiplied together to derive an index rating. Soils are graded according to their index on a scale of 1 through 6. (University of California, 1978)

Grade 1 soils (excellent) score between 80 and 100 percent and have few or no limitations that restrict their use for crops. Grade 2 soils (good) score between 60 and 79 percent and have few special management needs and are suitable for most crops, but they have minor limitations that narrow the choice of crops. Grade 3 soils (fair) score between 40 and 59 percent and are suited to a few crops or to special crops and require special management. Grade 4 soils (poor) score between 20 and 39 percent and are severely limited for crops, and if used, it requires careful management. Grade 5 soils (very poor) score between 10 and 19 percent and generally are not suited to cultivated crops but can be used for pasture and range. Grade 6 soils (nonagricultural) consist of soils and land types that score less than 10 percent and generally are not suited to farming. (University of California, 1978)

A map showing the distribution of soils across the Project site is illustrated on Figure 4.2-2, *Soils Map*. Table 4.2-1, *Soil Types*, summarizes the soil types found on the Project site and their associated Storie Index rating.

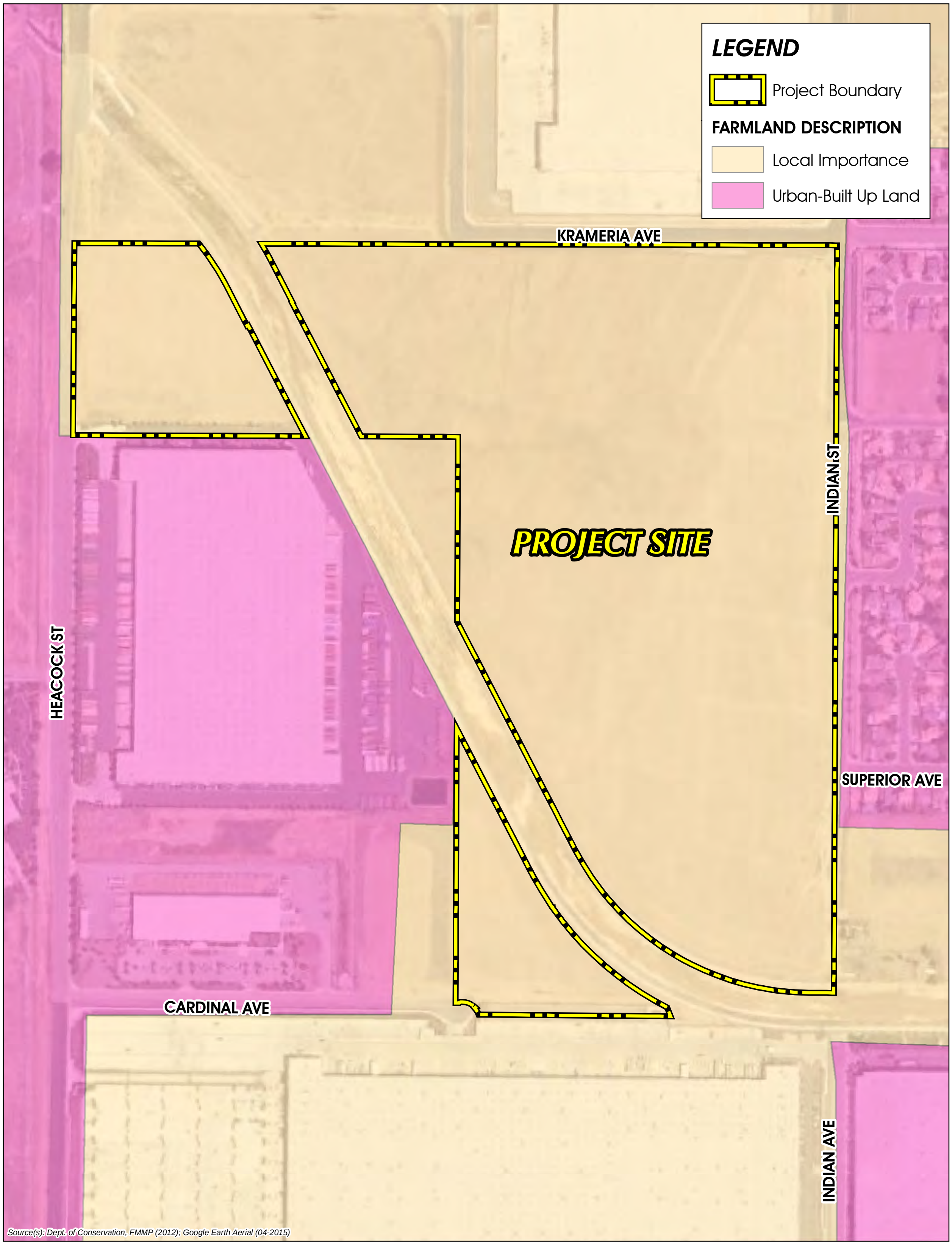

Source(s): Dept. of Conservation, FMMP (2012); Google Earth Aerial (04-2015)

Figure 4.2-1

FMMP FARMLANDS MAPPING

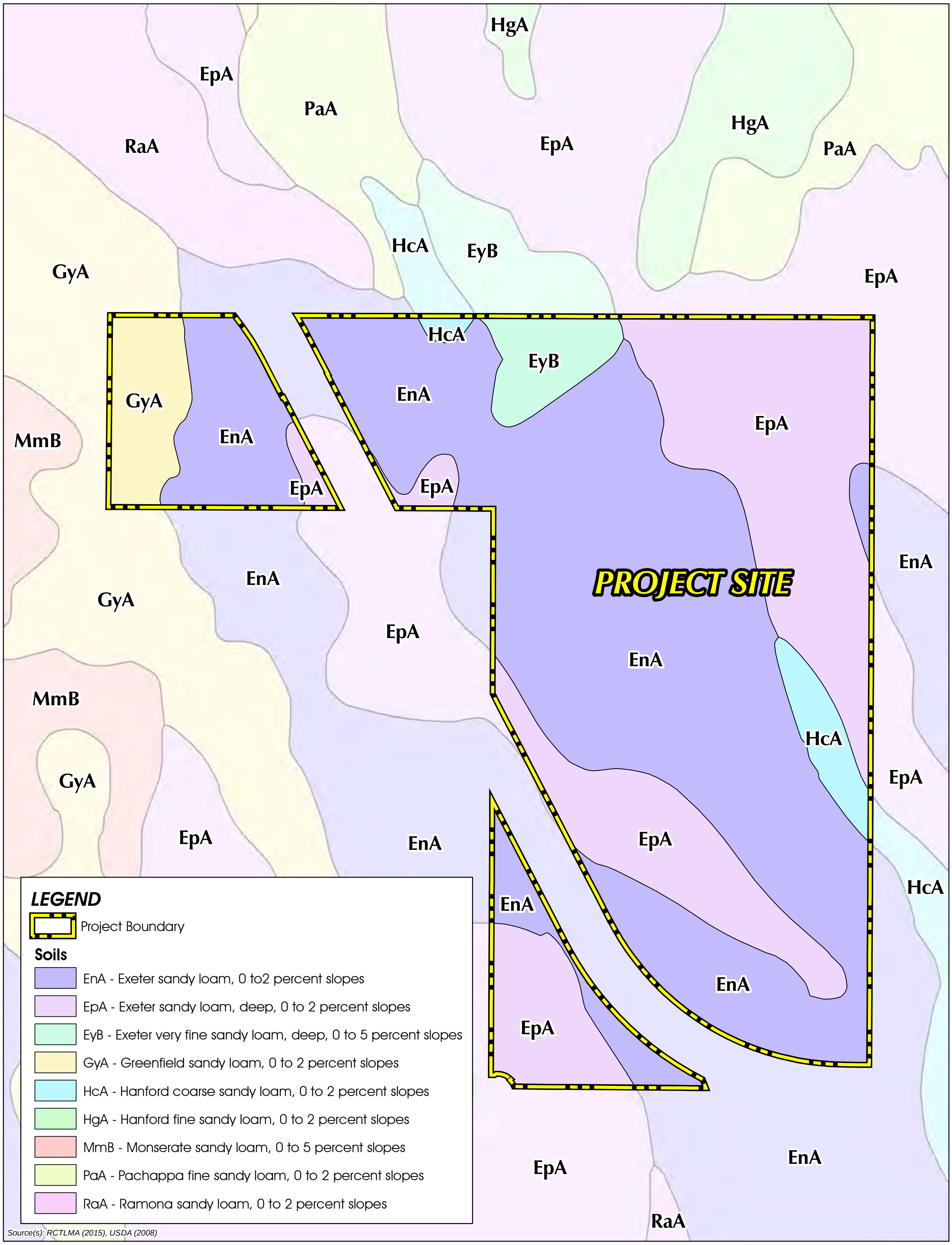

Source(s): RCTLMA (2015), USDA (2008)

Figure 4.2-2

SOILS MAP

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Table 4.2-1 Soil Types

Soil Symbol	Soil Unit Name	Acreage	% of Project Site	Storie Index Rating
EnA	Exeter sandy loam, 0 to 2 percent slopes	52.2	58.4	4 – Poor
EpA	Exeter sandy loam, deep, 0 to 2 percent slopes	28.6	31.9	4 – Poor
EyB	Exeter very fine sandy loam, deep, 0 to 5 percent slopes	2.7	3.1	4 – Poor
GyA	Greenfield sandy loam, 0 to 2 percent slopes	3.7	4.1	2 – Good
HcA	Hanford coarse sandy loam, 0 to 2 percent slopes	2.2	2.5	2 - Good

Source: (USDA, n.d.)

D. Applicable Environmental Regulations

The following is a brief description of the state and local environmental laws and related regulations governing the protection of agricultural and forest resources.

❑ California Land Conservation Act

The California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act (CA Gov. Code § 51200, *et seq*.), allows owners of agricultural land to have their properties assessed for tax purposes on the basis of agricultural production rather than current market value. The main purpose of the Williamson Act is to encourage property owners to continue to farm their land, and to prevent the premature conversion of farmland to urban uses. The Williamson Act allows local governments to enter into contracts with landowners to restrict property to agricultural or related open space uses for a minimum of 10 years in exchange for a lower property tax assessment to the landowner. The contract remains in effect until the land owner or local government cancels the contract by filing a notice of non-renewal. Once canceled, the land is protected under the “non-renewal” status for a period of 10 years, during which time tax rates gradually increase during the non-renewal period, until they reach normal (i.e., non-restricted) levels upon termination of the contract.

No land under active Williamson Act contract is present within the City of Moreno Valley under existing conditions (CDC, 2012; City of Moreno Valley, 2006b, p. 5.8-6).

4.2.2 Basis for Significance

The proposed Project would result in a significant impact to agricultural resources if the Project or any Project-related component would:

a) *Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use;*

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract; or*

c) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.*

4.2.3 Impact Analysis

Threshold a)	***Would the project convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?***

The FMMP classifies the Project site as Farmland of Local Importance (refer to Figure 4.2-1), presumably because the property was farmed in the past. The land is not currently farmed; based on a review of historic aerial photographs, agricultural activities on the Project site ceased prior to 1989 (Farallon, 2015, Appendix D). According to Table 4.2-1, 93.4 percent of the Project site is covered with soils that have a Storie Index Rating of Grade 4, which is a poor rating and indicates that these soils present severe limitations to crop production. The Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and, therefore, would not convert such lands to a non-agricultural use. Due to the lack of suitable soils on the Project site, the Project's impact would be less than significant.

Threshold b)	***Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

The Project site is zoned for industrial land uses and land to the north, south, and west also is zoned for industrial use. In addition, the March Air Reserve Base is zoned for aviation uses. Property to the east of the Project site and east of Indian Street is zoned as suburban residential. (Moreno Valley, n.d., March Joint Powers Authority, 2012, p. 2-3) Because neither the Project site nor Project's immediate surroundings are zoned for agricultural uses, there is no potential for the Project to conflict with existing zoning for agricultural use.

There are no properties in the City of Moreno Valley encumbered by an active Williamson Act contract, including the Project site. As such, there is no potential for the Project to conflict with a Williamson Act contract. No impact would occur.

Threshold c)	***Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses?***

The Project site is not used for agricultural activities under existing conditions, but was intermittently for agriculture since at least 1938. According to the FMMP, the property is classified as Farmland of Local Importance (refer to Figure 4.2-1), presumably because the property was farmed in the past. Although the FMMP applies this classification, approximately 93.4 percent (83.5 acres) of the Project site is rated by the Storie Index as having "poor" agricultural soils and only 6.6 percent (5.9 acres) of the site is rated by the Storie Index as "good" agricultural soils (refer to Table 4.2-1). Furthermore, the small portions of the Project site that are classified as "good" agricultural soils are non-contiguous, with 3.7 acres occurring west of the Perris Valley Stormwater Channel (abutting Heacock Street) and 2.2 acres occurring east of the Channel (abutting Indian Street). As such, due to the lack of prevalent, contiguous, high-quality agricultural soils on the Project site, the site is not classified as an important agricultural resource. Further, as indicated in Threshold a) above, the Project would not directly convert Farmland, as defined by Appendix G of the CEQA Guidelines (i.e. Prime Farmland, Unique Farmland, or Unique Farmland as mapped by the FMMP), from agricultural to non-agricultural use. As such, development of the Project site as proposed would not result in the conversion of on-site Farmland to a non-agricultural use.

Off-site, there is no Farmland within a one-half-mile radius of the Project site; therefore, the Project's likelihood of resulting in indirect changes in the environment that could result in the conversion of Farmland to non-agricultural uses is extremely low.

Because the Project site is not used for agriculture under existing conditions, does not contain high-quality agricultural soils, does not contain Farmland, and is not located in the vicinity of Farmland, there is no potential for the Project to result in the direct or indirect conversion of Farmland or important agricultural resources to non-agricultural uses. No impact would occur.

4.2.4 Cumulative Impact Analysis

The Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Although the Project would convert Farmland of Local Importance to a non-agricultural use, approximately 93.4 percent (83.5 acres) of the Project site is rated by the Storie Index as having "poor" agricultural soils, indicating that the property is not suitable for ongoing farming. As such, development of the Project site as proposed would not result in the conversion of on-site Farmland to a non-agricultural use. Therefore, the Project would not contribute to the cumulative conversion of Farmland to non-agricultural use.

The Project site is not zoned for agricultural use and is not encumbered by an active Williamson Act contract. Similarly, there are no properties zoned for agricultural use or subject to a Williamson Act contract in the vicinity of the Project site. As such, the Project has no potential to result in a cumulatively considerable conflict with a Williamson Act Contract or zoning for an agricultural use.

The Project site is not used for agricultural purposes under existing conditions and 93.4 percent of the on-site soils are primarily comprised of low-quality agricultural soils. Accordingly, the Project site is not considered to be an important agricultural resource. Further, the Project site is not classified as Farmland as defined by Appendix G of the CEQA Guidelines (i.e. Prime Farmland, Unique Farmland, or Unique Farmland as mapped by the FMMP) and no Farmlands or active agricultural operations are located in the immediate vicinity of the Project site. Development of the Project has no potential to contribute to substantial changes to the environment that would convert Farmland or other important agricultural resources to non-agricultural use and no cumulatively considerable impacts to agricultural resources would occur.

4.2.5 Significance of Impacts before Mitigation

Threshold a): Less-than-Significant Impact. The Project site contains soils that are classified as Farmland of Local Importance but have severe limitations for agricultural use. The Project would not convert Farmland (i.e., Prime Farmland, Unique Farmland or Farmland of Statewide Importance designated by the FMMP) to non-agricultural use.

Threshold b): No Impact. No agricultural zoning or active Williamson Act contract occurs on the Project site or in the Project site's surrounding area. As such, there is no potential for the Project to result in changes to the environment that would conflict with agricultural zoning or a Williamson Act contract.

Threshold c): No Impact. The Project site is not used for agriculture under existing conditions, contains poor-quality agricultural soils, does not contain Farmland, and is not located in the vicinity of Farmland; therefore, there is no potential for the Project to result in the direct or indirect conversion of Farmland or important agricultural resources to non-agricultural uses.

4.2.6 Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.3 Air Quality

This Subsection is based in part on two technical studies that were prepared by Urban Crossroads, Inc. to evaluate the Project's potential to adversely affect local and regional air quality. The air quality impact analysis prepared for the Project is titled "Moreno Valley Logistics Center Air Quality Impact Analysis, City of Moreno Valley," dated March 17, 2016, and appended to this EIR as *Technical Appendix B1* (Urban Crossroads, Inc., 2016a). The mobile source health risk assessment prepared for the Project is titled "Mobile Source Diesel Health Risk Assessment, City of Moreno Valley," dated June 3, 2016 and appended to this EIR as *Technical Appendix B2* (Urban Crossroads, Inc., 2016b).

4.3.1 Existing Conditions

A. Air Basin

The Project site is located in the South Coast Air Basin (SCAB, or "Basin"), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and the Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south. (Urban Crossroads, Inc., 2016a, p. 7)

B. Regional Climate and Meteorology

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The distinctive climate of the SCAB is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The annual average temperatures throughout the SCAB vary from the low to middle 60s, measured in degrees Fahrenheit (F). Inland areas of the SCAB, including where the Project site is located, show more variability in annual minimum and maximum temperatures than coastal areas within the SCAB due to a decreased marine influence. (Urban Crossroads, Inc., 2016a, pp. 7-9)

The climate of the SCAB is characterized as semi-arid; however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB and the relative high humidity heightens the conversion of sulfur dioxide to sulfates. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. (Urban Crossroads, Inc., 2016a, pp. 7-9)

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast. Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. (Urban Crossroads, Inc., 2016a, pp. 7-9)

Dominant airflow direction and speed are the driving mechanisms for transport and dispersion of air pollution. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with storms moving through the region from the northwest. This period also brings five to 10 periods of strong, dry offshore winds, locally termed “Santa Anas” each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. During the nighttime, heavy, cool air descends mountain slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. (Urban Crossroads, Inc., 2016a, pp. 7-9)

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off of the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides and carbon monoxide, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, Inc., 2016a, pp. 7-9)

C. Air Quality Pollutants and Associated Human Health Effects

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as “criteria pollutants.” An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages (refer also to Section 2.6 of *Technical Appendix B1*).

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Therefore, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. The most common symptoms associated with CO poisoning include headache, nausea, vomiting, dizziness, fatigue, and weakness. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency.

- **Sulfur Dioxide (SO_2)** is a colorless gas or liquid. SO_2 enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X). SO_2 is a respiratory irritant to people afflicted with asthma. After a few minutes' exposure to low levels of SO_2, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO_2 exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

- **Nitrogen Oxides (NO_X)** consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2. Short-term exposure to NO_2 can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_2 can result decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individual are more susceptible to the effects of NO_X than healthy individuals.

- **Ozone (O_3)** is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

- **Particulate Matter less than 10 microns (PM_{10})** is an air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to enter the lungs where they may be deposited, resulting in the adverse health effects discussed below for $PM_{2.5}$. PM_{10} also causes visibility reduction.

- **Particulate Matter less than 2.5 microns ($PM_{2.5}$)** is a similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions. Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children, appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.

- **Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs)** are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes.

VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints. Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system.

- **Lead (Pb)** is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air quality monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure.

D. Existing Air Quality

Air quality is evaluated in the context of ambient air quality standards published by the federal and State governments. These standards are the levels of air quality that are considered safe with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well as health effects of each pollutant regulated under these standards are detailed in Table 4.3-1, *Ambient Air Quality Standards*.

A region's air quality is determined to be healthful or unhealthful by comparing contaminant levels in ambient air samples to the State and federal standards presented in Table 4.3-1. The air quality in a region is considered to be in attainment by the State of California if the measured ambient air pollutant levels for ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O_3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. (Urban Crossroads, Inc., 2016a, p. 9)

Table 4.3-1 Ambient Air Quality Standards

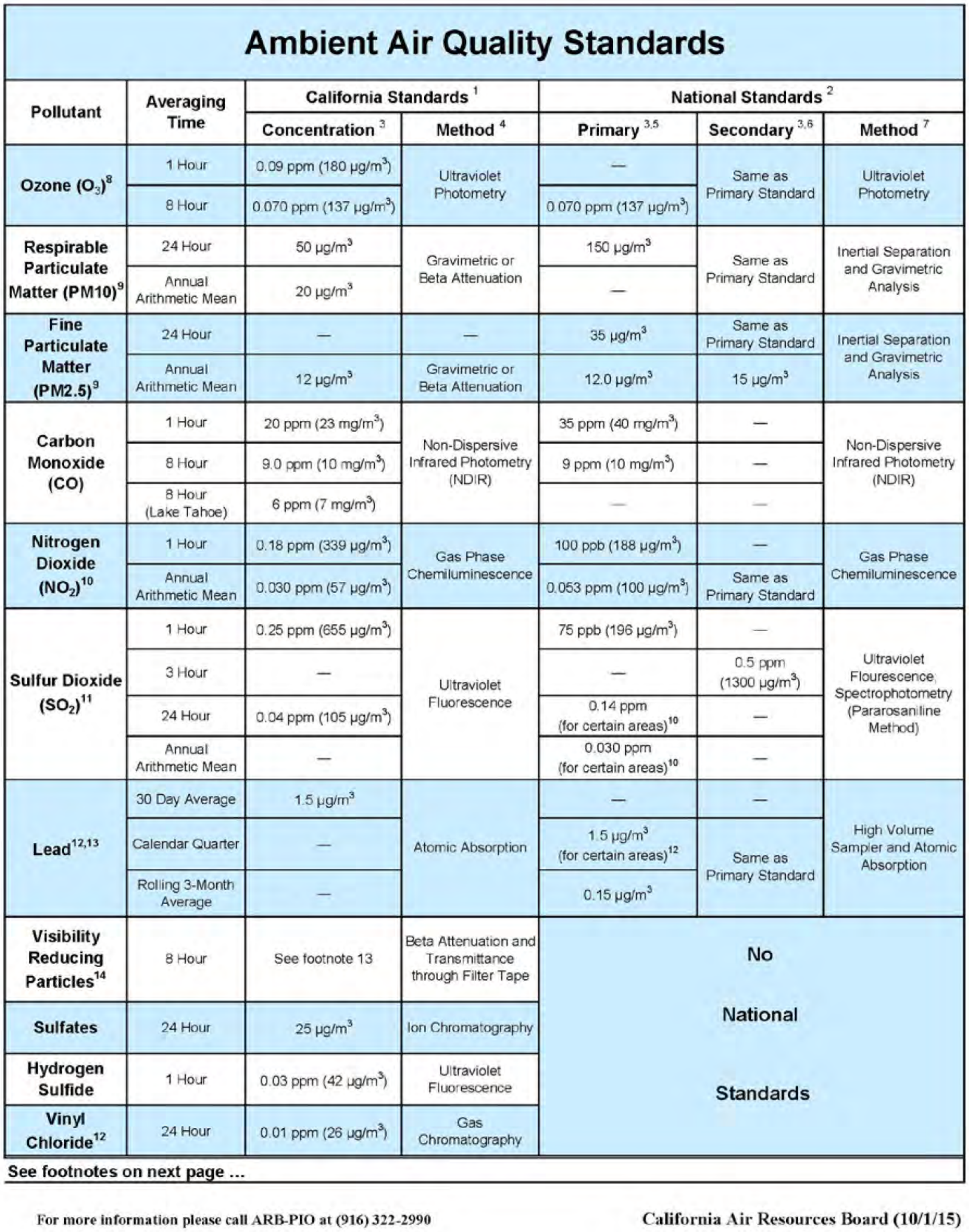

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 μg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 μg/m^3)		0.070 ppm (137 μg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 μg/m^3	Gravimetric or Beta Attenuation	150 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 μg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 μg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 μg/m^3	Gravimetric or Beta Attenuation	12.0 μg/m^3	15 μg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 μg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 μg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 μg/m^3)		0.053 ppm (100 μg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 μg/m^3)	Ultraviolet Fluorescence	75 ppb (196 μg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 μg/m^3)	
	24 Hour	0.04 ppm (105 μg/m^3)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[12,13]	30 Day Average	1.5 μg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 μg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 μg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 μg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 μg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 μg/m^3)	Gas Chromatography			

See footnotes on next page ...

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See footnotes in *Technical Appendix B1*.
Source: (Urban Crossroads, Inc., 2016a, Table 2-1)

❑ Attainment Status of Criteria Area Pollutants

The federal government designated seven pollutants that are pervasive enough across the nation to warrant national health standards. Called "criteria pollutants," these are O_3, NO_2, PM_{10}, $PM_{2.5}$, CO, Pb, and SO_2. (SCAQMD, 2015a, p. 2) The SCAQMD monitors levels of various criteria air pollutants at 30 monitoring stations throughout its jurisdiction. In 2014, the most recent year for which detailed data was available at the time the NOP for this EIR was issued (June 17, 2015), the federal and State ambient air quality standard (NAAQS and CAQQS) were exceeded on at least one or more days for O_3, PM_{10}, and $PM_{2.5}$. No areas of the SCAB exceeded federal or state standards for NO_2, SO_2, CO, SO_2, or Pb. The attainment status for criteria pollutants within the SCAB is summarized in Table 4.3-2, *Attainment Status of Criteria Pollutants in the SCAB*. (Urban Crossroads, Inc., 2016a, Page 12 and Table 2-2)

Table 4.3-2 Attainment Status of Criteria Pollutants in the SCAB

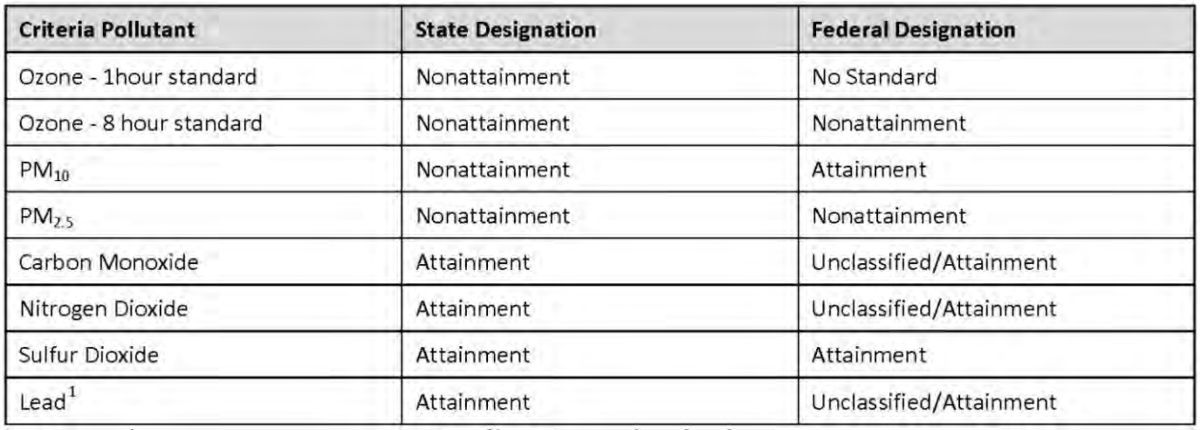

Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Attainment
Lead[1]	Attainment	Unclassified/Attainment

[1] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB. See Appendix 3.1 of *Technical Appendix B1* for a detailed map of State/National Area Designations within the SCAB.

Source: (Urban Crossroads, Inc., 2016a Table 2-2)

❑ Air Quality History and Trends

Criteria Pollutants

The SCAB has experienced unhealthful air since World War II and historically has been one of the most unhealthful air basins in the United States; however, as a result of the region's air pollution control efforts over the last ±66 years, air pollution concentrations in the SCAB have dramatically reduced. This overall air quality within the SCAB is dramatically improving as the result of regulatory programs and is expected to continue to improve in the future as government regulations become more stringent. For example, peak ozone levels were cut by almost three-fourths since air monitoring began in the 1950s and population exposure to ozone was cut in half during the 1980s alone. (SCAQMD, 2015a, p. 2)

The SCAQMD's *Final 2012 Air Quality Management Plan* states, "the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs." Ozone, NOx, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020. These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NOx and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. Ozone contour maps show that the number of days exceeding the national 8-hour standard decreased between 1997 and 2007. The overall trends of PM_{10} and $PM_{2.5}$ in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. (Urban Crossroads, Inc., 2016a, pp. 20-23) Further, according to SCQMD:

> *"Ozone levels have fallen by about three-quarters since peaks in the mid-1950s. Nitrogen dioxide, sulfur dioxide, and carbon monoxide levels have gone down from nonattainment to full attainment of federal health standards. In November 2008, U.S. EPA revised the lead standard from a 1.5 µg/m3* [micrograms of gaseous pollutant per cubic meter of ambient air] *quarterly average to a 0.15 µg/m3 rolling 3-month average and added new near-source monitoring requirements. The Los Angeles County portion of the Basin has since been designated non-attainment for lead due to monitored concentrations near one facility. However, the most recent 2013 data shows that the Basin meets the current lead standard. U.S. EPA revised the 8-hour ozone standard, effective May 2008, from concentrations exceeding 0.08 ppm to concentrations exceeding 0.075 ppm* [parts per million]. *In 2013, the current federal 8-hour ozone standard was exceeded on 94 days, the second lowest number of exceedance days ever recorded, based on preliminary 2014 data. The federal ozone standard was exceeded on 88 days in 2013 and 111 days in 2012. The maximum observed ozone levels show some year-to-year variability, but have generally been decreasing over years. The highest 8-hour ozone level in the 2014 preliminary data was 0.114ppm, compared to 0.122 ppm and 0.112 ppm in 2013 and 2012 respectively.*
>
> *In 2007, the U.S. EPA formally redesignated the Basin from nonattainment to full attainment of the federal health standard for carbon monoxide. Basin-wide maximum levels of carbon monoxide have been consistently measured at more than 30% below the federal standard since 2004. In 2010, US EPA established a new NO_2 1-hour standard at a level of 100 ppb* [parts per billion] *(0.100 ppm) and SO_2 1-hour standard at a level of 75 ppb (0.075 ppm). In 2014, one site exceeded the 1-hour NO_2 standard in one day in the preliminary data; however, this does not jeopardize the attainment status.*
>
> *In 2006, the U.S. EPA rescinded the annual federal standard for PM_{10} but retained the 24-hour standard. Ambient levels of PM_{10} in the Basin meet the federal 24-hour*

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> *PM_{10} standard. U.S. EPA has redesignated the Basin as in attainment of the health based standard for PM_{10}. $PM_{2.5}$ levels have decreased dramatically in the Basin since the beginning of the decade; however design value concentrations are still slightly above the federal annual and 24-hour standards at one monitoring station. While air quality in the Basin continues to improve, the South Coast Air Basin remains one of the most unhealthful areas in the nation in terms of air quality."* (SCAQMD, 2015a, pp. 3-4)

The graphs on the following pages show trend information as reported by the SCAQMD.

Continued improvement in air quality is expected to occur in the SCAB through the continued implementation of federal, State, and SCAQMD regulations, such as California's low-sulfur diesel fuel programs, CARB's truck and bus regulations, and statewide renewable electricity standards. The California Air Resources Board (CARB) and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). Specifically, the CARB Drayage Truck Regulation, the CARB statewide On-Road Truck and Bus Regulation, and the Ports of Los Angeles and Long Beach "Clean Truck Program (CTP)." Through these programs, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements. (Urban Crossroads, Inc., 2016a, p. 26)

Refer to Section 2.8 of the Project's Air Quality Impact Analysis (*Technical Appendix B1*) for a detailed summary of regional air quality improvements in the SCAB.

South Coast Air Basin Ozone Trend

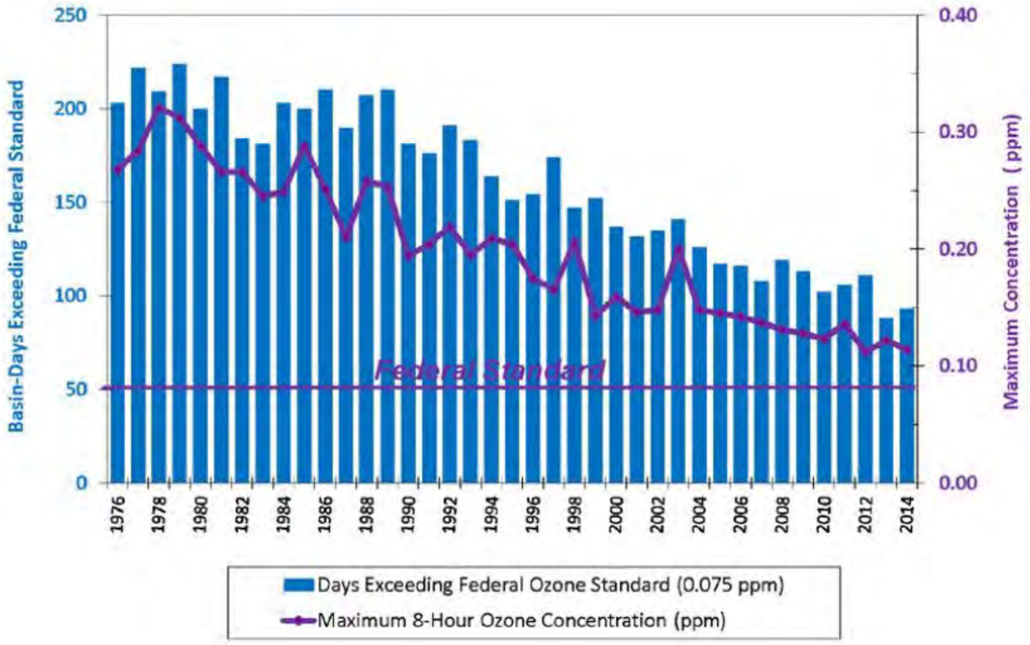

South Coast Air Basin PM10 Trend

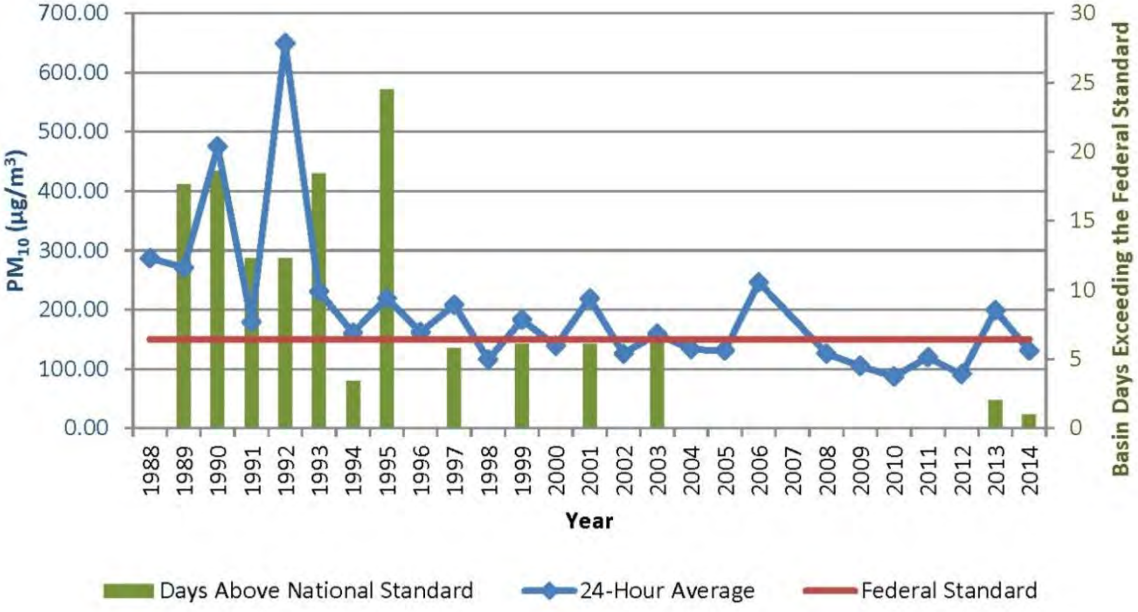

South Coast Air Basin PM2.5 Trend

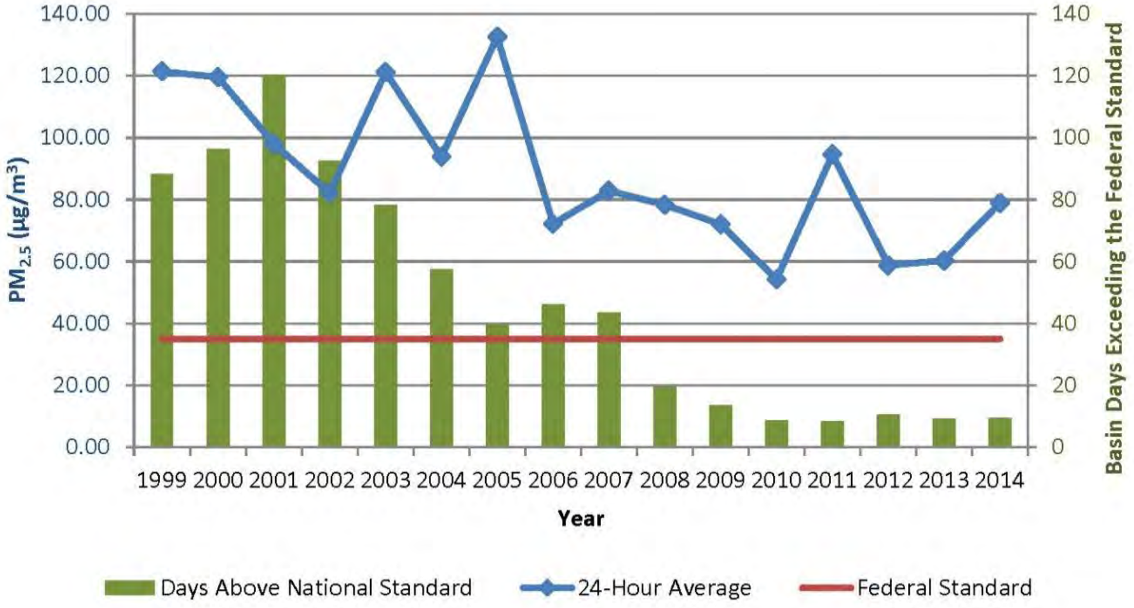

South Coast Air Basin Carbon Monoxide Trend

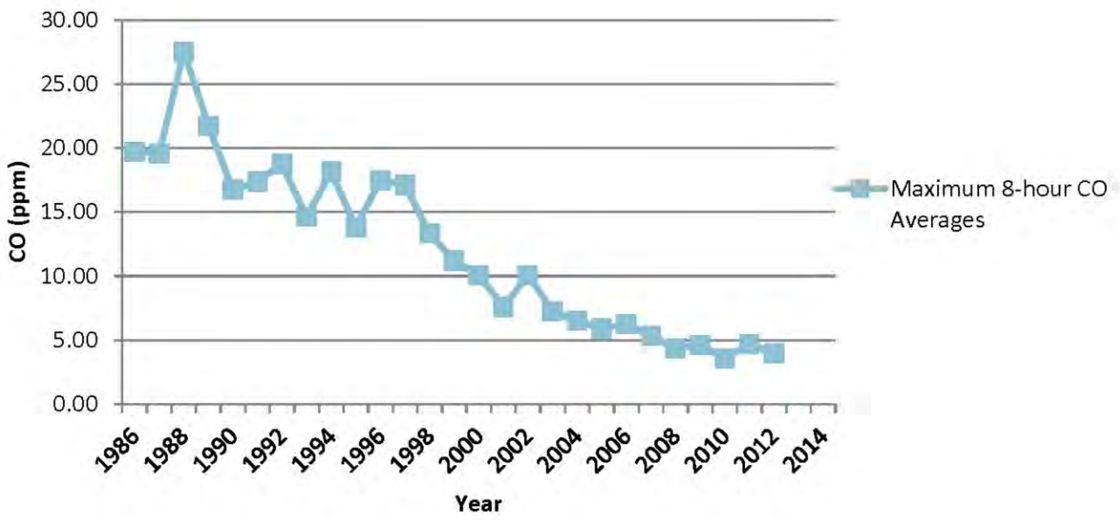

South Coast Air Basin Nitrogen Dioxide Trend

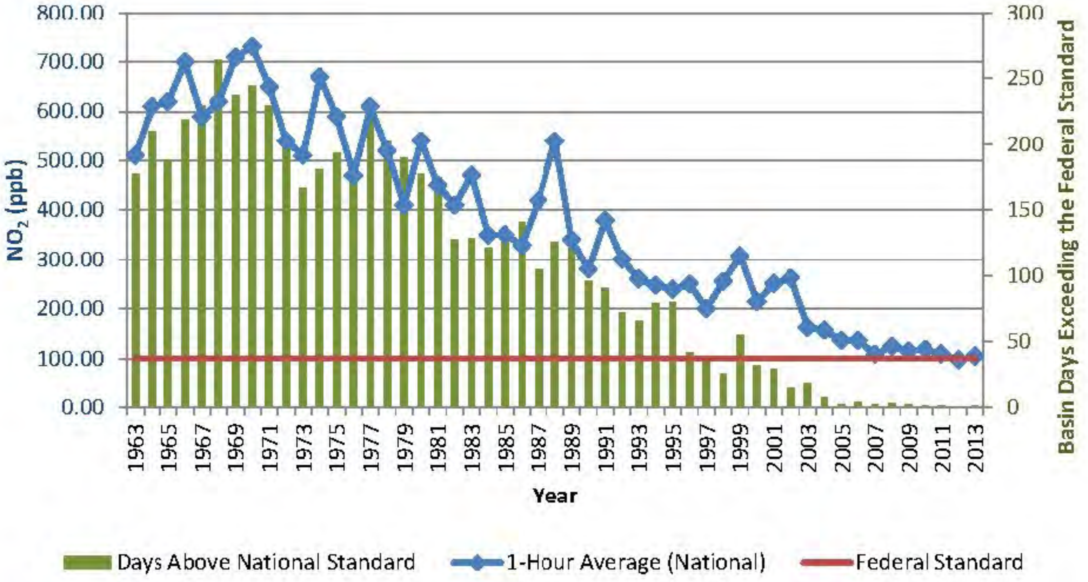

Toxic Air Contaminants (TAC)

Toxic air contaminants (TACs) are a classification of air pollutants that have been attributed to carcinogenic and non-carcinogenic health risks. Beginning in the mid-1980s, the CARB has adopted a series of regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and stationary sources, such as cars, trucks, stationary products, and consumer products. As a result of CARB's regulatory efforts, ambient concentrations of TACs have declined substantially across the state. (Urban Crossroads, Inc., 2016a, p. 24)

To reduce TAC emissions from mobile sources, CARB has required that all light- and medium-duty vehicles sold in California since 1996 be outfitted with an on-board diagnostic system to alert drivers of potential engine problems (as approximately half of all tailpipe emissions result from malfunctioning emissions control devices). Also, since 1996, CARB has required the use of cleaner burning, reformulated gasoline in all light- and medium-duty vehicles. These two regulations resulted in an over 80 percent reduction in TAC emissions from light- and medium-duty vehicles in the State between 1990 and 2012 despite an approximately 30 percent increase in the State's population over that time period. The CARB also implemented programs to retrofit diesel-fueled engines and facilitate the use of diesel fuels with ultra-low sulfur content to minimize the amount diesel emissions and their associated TACs. As a result of CARB's programs, diesel emissions and their associated TACs have fallen by approximately 68 percent between 1990 and 2012 despite an approximately 81 percent increase in diesel vehicle miles driven over that time period. (Urban Crossroads, Inc., 2016a, p. 25)

CARB's efforts at reducing area source TACs have been focused mainly on the dry cleaning and paint/architectural coating industries, which have resulted in a greater than 85 percent reduction of stationary source TACs across the State between 1990 and 2012. (Urban Crossroads, Inc., 2016a, p. 26)

In 2000, the SCAQMD prepared a comprehensive urban toxic air pollution study to evaluate the TAC concentration levels in the SCAB and their associated health risks, called *MATES-II* (*Multiple Air Toxics Exposure Study in the South Coast Air Basin*). *MATES-II* showed the average excess cancer risk within the SCAB ranging from 1,100 in one million persons to 1,750 in one million persons, with an average excess regional risk of about 1,400 in one million. As part of the *MATES-II* study, the SCAQMD concluded that DPM accounted for more than 70 percent of the identified cancer risk. (Urban Crossroads, Inc., 2016a, p. 27)

The SCAQMD updated their urban toxic air pollution survey twice since 2000, with the 2008 (*MATES-III*) and 2014 updates (*MATES-IV*) showing a lowering of the average cancer risk within the SCAB as compared to *MATES-II*. The current version of the urban toxic air pollution survey, *MATES-IV*, is the most comprehensive dataset of ambient air toxic levels and health risks within the SCAB. The SCAQMD based the average Basin-wide excess cancer risk estimates on monitoring data collected at ten fixed sites within the SCAB. None of the fixed monitoring sites are within the local area of the Project site. However, *MATES-IV* extrapolates the excess cancer risk levels throughout the SCAB by modeling specific geographic grids. The *MATES-IV* report estimates the average Basin-wide excess cancer risk level within the SCAB to be 418 million, an approximately 70 percent improvement from the findings of *MATES-II* report just 14 years earlier. According to SCAQMD, DPM accounts for approximately 68 percent of the total risk shown in *MATES-IV*. (SCAQMD, 2015b, ES-1 through ES-2) The *MATES-IV* Interactive Map of the SCAB predicts an estimated excess carcinogenic risk of 518.16 in one million for the Project area (Urban Crossroads, Inc., 2016a, p. 27).

Refer to Section 2.8 of the Project's Air Quality Impact Analysis (*Technical Appendix B1*) for a more detailed account of Statewide and regional trends in TAC emissions.

☐ Local Air Quality

Relative to the Project site, the nearest long-term monitoring site for O_3 and PM_{10} is the SCAQMD Perris monitoring station (SRA 24), located approximately 8.0 miles south of the Project site. Data for CO, NO_2, and $PM_{2.5}$ was obtained from the Metropolitan Riverside County 2 Monitoring Station (SRA 23), located approximately 15.5 miles northwest of the Project site. It is noted that the SRA 23 was utilized in lieu of SRA 24 only in instances where data was not available from SRA 24. (Urban Crossroads, Inc., 2016a, p. 12)

Table 4.3-3, *Project Area Air Quality Monitoring Summary 2012-2014*, provides a summary of ambient air quality conditions in the general vicinity of the Project site over the most recent three-year period for which air quality is available, that being the years of 2012-2014. It is noted that data for SO_2 was omitted because the SCAB regularly attains the applicable NAAQS and CAAQS and few monitoring stations measure SO_2 concentrations.

E. Applicable Environmental Regulations

☐ Federal Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting and enforcing the federal air quality standards (the NAAQS) for O_3, CO, NO_X, SO_2, PM_{10}, and Pb. The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB. (Urban Crossroads, Inc., 2016a, pp. 17-18)

The Federal Clean Air Act (CAA) was first enacted in 1955 and was amended numerous times in subsequent years. The federal CAA establishes the NAAQS and specifies dates for achieving compliance. The federal CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. (Urban Crossroads, Inc., 2016a, p. 18)

Table 4.3-3 Project Area Air Quality Monitoring Summary 2012-2014

POLLUTANT[2]	STANDARD	YEAR		
		2012	2013	2014
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.111	0.108	0.104
Maximum 8-Hour Concentration (ppm)		0.093	0.090	0.086
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	28	17	4
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	64	60	13
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	0	0	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	48	34	6
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	--	2.0
Maximum 8-Hour Concentration (ppm)		1.5	1.6	1.4
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	--	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)		0.060	0.058	0.056
Annual Arithmetic Mean Concentration (ppm)		0.017	0.016	0.016
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration ($\mu g/m^3$)		62	70	87
Annual Arithmetic Mean ($\mu g/m^3$)		--	--	--
Number of Samples		60	57	60
Number of Samples Exceeding State Standard	> 50 $\mu g/m^3$	1	10	8
Number of Samples Exceeding Federal Standard	> 150 $\mu g/m^3$	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)				
Maximum 24-Hour Concentration ($\mu g/m^3$)		30.2	53.7	30.9
Annual Arithmetic Mean ($\mu g/m^3$)		11.4	11.2	10.9
Number of Samples Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	0	0	0

\- = Data not available from SCQMD or EPA

[2] Data for O_3 and PM_{10} taken from SRA 24 (Perris Valley); Data for CO and NO_2 taken from SRA 25 (Lake Elsinore); Data for $PM_{2.5}$ taken from SRA 23 (Riverside County 2).

Source: (Urban Crossroads, Inc., 2016a, Table 2-3)

The 1990 amendments to the federal CAA that identify specific emission reduction goals for areas not meeting the NAAQS, require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the federal CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. (Urban Crossroads, Inc., 2016a, p. 18) Table 4.3-3 provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with federal CAA Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X, which is a collective term that includes all forms of nitrogen oxides (NO, NO_2, NO_3) which are emitted as byproducts of the combustion process. (Urban Crossroads, Inc., 2016a, pp. 18-19)

☐ State Regulations

The California Air Resources Board (CARB), which became part of the California EPA in 1991, is responsible for ensuring implementation of the California CAA (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the California Ambient Air Quality Standards (CAAQS) for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. At this time, however, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS. (Urban Crossroads, Inc., 2016a, p. 18)

All air pollution control districts in California are formally designated as being in attainment or non-attainment for each CAAQS. Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. However, air basins may use alternative emission reduction strategies that achieves a reduction of less than 5 percent per year under certain circumstances. (Urban Crossroads, Inc., 2016a, pp. 18-19)

☐ Air Quality Management Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code § 40702 et seq. and the California CAA, the SCAQMD adopted an Air Quality Management Plan (AQMP) to plan for the regional improvement of air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The most recent AQMP was adopted by the AQMD Governing Board on December 7, 2012. The *Final 2012 Air Quality Management Plan* incorporates the latest scientific and technological information and planning assumptions, including the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* published by the Southern California Association of Governments (SCAG) and updated emission inventory methodologies for various source categories. The *2012 AQMP* is based on assumptions provided by the 2011 Emission FACtor model (EMFAC2011) developed by CARB for motor vehicle information and assumptions provided by SCAG for demographics. The air quality levels projected in the *Final 2012 Air Quality Management Plan* are based on the assumption that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its *2012 RTP/SCS.* The *Final 2012 Air Quality Management Plan* also assumes that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. (Urban Crossroads, Inc., 2016a, p. 55)

4.3.2 Methodology for Calculating Project-Related Air Quality Impacts

The Air Quality Impact Analysis (*Technical Appendix B1*) and Mobile Source Diesel Health Risk Assessment (*Technical Appendix B2*) analyze potential air quality effects associated with the construction and operation of a logistics center with 1,351,770 s.f. of high-cube warehouse land uses (1 building) and 385,748 s.f. of light industrial land uses (3 buildings) with a site layout identical to the proposed Project. In comparison to the proposal evaluated in *Technical Appendices B1* and *B2*, the Project proposes to develop the subject property with seven (7) fewer square feet of high-cube warehouse land uses and 1,331 fewer square feet of light industrial land uses. Because the proposal analyzed by *Technical Appendix B1* and *Technical Appendix B2* was more intense than the proposed Project, the analyses presented therein and summarized in this EIR provides a conservative, worst-case analysis of the Project's potential air quality effects.

A. Methodology for Calculating Project Construction Emissions

Construction-related emissions would be expected from the following construction activities:

- Grading
- Trenching
- Concrete Shell
- Steel and Roof
- Roofing and Overhead Work
- Architectural Coating
- Miscellaneous Finishes
- Construction Workers Commuting

On October 2, 2013, the SCAQMD released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. Urban Crossroads, Inc. used this model to calculate Project-construction-source criteria pollutants NO_X, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO. (Urban Crossroads, Inc., 2016a, p. 30)

The assumptions for each phase of Project construction were input by Urban Crossroads, Inc. into the CalEEMod model using anticipated construction characteristics (e.g., construction activities, construction equipment list, and anticipated construction schedule provided by the Project Applicant, and an estimated opening year of 2017). A list of the construction equipment and anticipated construction schedule (including overlapping construction activities) assumed in the analysis of Project-related construction emissions is provided in EIR Section 3.0, *Project Description*. Construction is expected to commence in April 2016 and last through May 2017. The Project is expected to be developed in two phases, with Phase 1 involving the construction of Buildings 1 and 2 and Phase 2 involving the construction of Buildings 3 and 4. Refer to Section 3.4 *Construction Emissions* of the Air Quality Impact Analysis *(Technical Appendix B1*) for more detail on the methodology utilized to estimate Project-related construction emissions. Refer to Appendix 3.2 of *Technical Appendix B1* for specific detailed modeling inputs/outputs used in the analysis. (Urban Crossroads, Inc., 2016a, pp. 30-31 and p. 35)

❑ Construction Localized Pollutant Emissions

Localized emissions associated with Project-related construction activities were estimated and evaluated in accordance with SCAQMD's *Final Localized Significance Threshold Methodology*. The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively these are referred to as Localized Significance Thresholds (LSTs). (Urban Crossroads, Inc., 2016a, p. 46)

SRA 24 was used as the baseline LST for ambient air quality because it is the closest monitoring station to the Project site for which air quality data is available. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-construction, the following process was undertaken by Urban Crossroads, Inc. (Urban Crossroads, Inc., 2016a, pp. 46-47):

- The CalEEMod model was utilized to determine the maximum daily on-site emissions that would occur during construction activity.

- The SCAQMD's Fact Sheet for Applying CalEEMod to LSTs was used to determine the maximum site acreage that would be actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.

- If the total acreage disturbed was calculated to be less than or equal to five acres per day, then the SCAQMD's screening look-up tables were utilized to determine if the Project has the potential to result in a significant impact (the SCAQMD recommends that Projects exceeding the screening look-up tables undergo dispersion modeling to determine actual impacts). The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.

- If the total acreage disturbed was calculated to be greater than five acres per day, then the SCAQMD recommends dispersion modeling be conducted to determine the actual pollutant concentrations for applicable LSTs in the air. In other words, the maximum daily on-site emissions as calculated in CalEEMod are modeled via air dispersion modeling to calculate the actual concentration in the air (e.g. parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$)) in order to determine if any applicable thresholds are exceeded.

SCAQMDs *Final Localized Significance Threshold Methodology* clearly states that “off-site mobile emissions from the Project should not be included in the emissions compared to LSTs. Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod on-site emissions outputs were considered by Urban Crossroads, Inc. in the Air Quality Impact Analysis (*Technical Appendix B1*). (Urban Crossroads, Inc., 2016a, p. 47)

Based on the SCAQMD’s LST look-up tables, the proposed Project could actively disturb approximately 12.5 acres per day during the peak grading phase of construction. As such, dispersion modeling is utilized to calculate emissions for LSTs for peak grading activity which represents a conservative i.e. “worst-case” analytical scenario for purposes of construction LSTs. In order to estimate localized pollutant concentrations resulting from Project construction, the SCAQMD-approved AERMOD dispersion model was utilized. Refer to Section 3.6 of *Technical Appendix B1* for more detail on dispersion modeling and sources used by Urban Crossroads, Inc. in their analysis. (Urban Crossroads, Inc., 2016a, pp. 47-48)

❑ Methodology for Calculating Project Operational Emissions

Operational Regional Pollutant Emissions

Operational activities associated with the proposed Project would result in emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources (Urban Crossroads, Inc., 2016a, p. 37):

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Equipment Emissions

Architectural Coatings

Over a period of time, the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 37)

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 37)

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 37)

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 37)

On-Site Equipment Emissions

It is common for buildings with loading docks to use cargo handling equipment to move empty containers and empty chassis around on the property. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD; high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. Urban Crossroads, Inc. analyzed the use of seven (7), 200 horsepower (hp) yard tractors operating 4 hours a day for 365 days of the year. In addition, seven (7), 89 hp yard forklifts were assumed to be operational 4 hours a day for 365 days of the year interior to the buildings. For purposes of the Air Quality Impact Analysis (*Technical Appendix B1*) the on-site indoor forklifts are assumed to be non-diesel consistent with industry standards, therefore, health risk calculations for on-site indoor non-diesel forklifts was not included in Urban Crossroads, Inc. analysis. Urban Crossroads, Inc. assumed all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by diesel fueled engines that comply with the CARB/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM_{10}) and all on-site indoor forklifts would be powered by electricity, compressed natural gas, or propane. (Urban Crossroads, Inc., 2016a, p. 41)

Vehicles

Air pollutant emissions would result from the operation of motor vehicles by building occupants, visitors, employees, and customers. Project-related vehicular air pollutant emissions are dependent on the Project's daily vehicle trip generation and the characteristics of those trips. Information related to the Project's daily vehicle trip generation and vehicle trip characteristics was obtained from the Project's Traffic Impact Analysis contained as *Technical Appendix I1* to this EIR.

For purposes of the Air Quality Impact Analysis, (*Technical Appendix B1*) the following Institute of Transportation Engineers (ITE) land use codes and vehicle mixes were utilized for Project-related vehicle trips:

- Based on the land uses intended for these buildings, ITE land use code 110 (General Light Industrial) was used by Urban Crossroads, Inc. to derive site specific trip generation estimates for Buildings 2 through 4. The ITE Trip Generation manual includes limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix was obtained from a separate report; the *City of Fontana Truck Trip Generation Study* (August 2003) for the general light industrial uses proposed as part of the Project. Buildings 2 through 4 are proposed to be occupied by light industrial building users. The "Light Industrial" vehicle mix data was utilized for all 3 buildings. As identified in the Project's Traffic Impact Analysis (*Technical Appendix I1*), the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the light industrial land uses: 37.40% of the total trucks as 2-axle trucks, 18.23% of the total trucks as 3-axle trucks, and 44.37% of the total trucks as 4+-axle trucks. (Urban Crossroads, Inc., 2016a, p. 38)

- Similarly, because of the land use, ITE land use code 152 (High-Cube Warehousing) was used by Urban Crossroads, Inc. to derive site specific trip generation estimates for Building 1. Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the SCAQMD recommended truck mix, by axle type. The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emissions represent more than 90 percent of air quality impacts from such projects. The percentage of trucks was determined from the ITE Trip Generation manual. As noted in the ITE Trip Generation Manual, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of three different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of the air quality impact analysis (*Technical Appendix B1)*, the percentage of trucks, by axle type, was obtained from the SCAQMD interim recommended truck mix. The SCAQMD performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the high-cube warehouse land uses: 22.0% of the total trucks as 2-axle trucks, 17.7% of the total trucks as 3-axle trucks, and 60.3% of the total trucks as 4+-axle trucks. (Urban Crossroads, Inc., 2016a, pp. 38-39)

The Project's Traffic Impact Analysis (*Technical Appendix I1*) presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. For purposes of the air quality impact analysis (*Technical Appendix B1*), however, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis to more accurately estimate and model vehicular-source emissions. (Urban Crossroads, Inc., 2016a, p. 38)

A limitation inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project multiplied by average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for an industrial business park such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, calculations of the Project's vehicular-source emissions reported in this EIR are likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips. (Urban Crossroads, Inc., 2016a, p. 39)

The CalEEMod™ and the URBan EMISsions models use a default trip length of approximately 12.6 miles. However, 12.6 miles may not be representative of the actual average trip length for warehouse, distribution center, and industrial land use projects. SCAQMD asserts that most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles and/or to other long-haul destinations. For this reason, SCAQMD generally recommends the use of a 40-mile one-way trip length. In comparison, SCAG's most recent (2008) transportation validation for the 2003 Regional Model indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks. (Urban Crossroads, Inc., 2016a, p. 40)

To maintain analytic consistency and establish the maximum impact scenario noted above, the following approach was utilized by Urban Crossroads, Inc. in calculating emissions associated with vehicles accessing the Project:

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For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the SCAB. It is appropriate to stop the VMT calculation at the boundary of the SCAB because this approach is also consistent with professional industry practice and accurately captures all potential foreseeable impacts. (Urban Crossroads, Inc., 2016a, p. 40)

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;
- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50 percent of all delivery trips would travel to and from the Project site and the Port of Los Angeles/Long Beach, 10 percent go east on State Route 60 (SR-60), 20 percent go to San Diego, 10 percent go to the Inland Empire, 5 percent go to Perris destinations, and 5 percent go to Moreno Valley destinations, the average Project-related truck trip length is calculated as 61 miles. (Urban Crossroads, Inc., 2016a, p. 40)

Two separate model runs were utilized by Urban Crossroads, Inc. The first model run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100 percent Light-Duty-Auto vehicles (LDA). The second model run analyzed truck emissions, which incorporated an average truck trip length of 61 miles and a fleet mix of 22.03 percent Light-Heavy-Duty Trucks (LHD), 17.66 percent Medium-Heavy-Duty Trucks (MHD), and 60.31 percent Heavy-Duty Trucks (HHD) was used for High-Cube Warehouse and a fleet mix of 37.40 percent LHD, 18.23 percent MHD, and 44.37 percent HHD was used for General Light Industrial Warehouse. (Urban Crossroads, Inc., 2016a, pp. 40-41)

Fugitive Dust from Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimate for travel on paved roads were calculated using the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 41)

Operational Localized Pollutant Emissions

For operational LSTs, on-site passenger car and truck travel emissions were modeled in AERMOD using emission factors for CO, NO_2, PM_{10}, and $PM_{2.5}$ generated with the 2014 version of the Emission FACtor model (EMFAC) developed by the ARB. EMFAC 2014 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to estimate changes in future emissions from on-road mobile sources. Outputs from the model runs for operational LSTs are provided in Appendix 3.3 of *Technical Appendix B1*. For this Project, criteria pollutant emission factors were generated by running EMFAC 2014 in EMFAC Mode for vehicles in the SCAQMD

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within Riverside County. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below. (Urban Crossroads, Inc., 2016a, p. 52)

- Idling – assumed 15 minutes of idling for passenger cars and trucks
- 5 miles per hour – on-site vehicle movement including driving and maneuvering

Although the Project would be required to comply with CARB's idling limit of 5 minutes, pursuant to SCAQMD staff recommendations, Urban Crossroads, Inc. calculated on-site emissions for 15 minutes of truck idling which occurs while trucks are waiting to pull up to truck bays, idling at truck bays, and idling at check-in and check-out, etc. (Urban Crossroads, Inc., 2016a, p. 52)

On-site equipment was modeled using area sources encompassing the Project's loading docks adjacent to the building boundaries. Associated transport refrigeration units (TRUs) were modeled using point sources representative across loading dock areas. (Urban Crossroads, Inc., 2016a, p. 52)

Diesel Particulate Emissions

Vehicle DPM emissions were calculated using emission factors for PM_{10} generated with the 2014 version of the EMFAC developed by the CARB. Refer to Section 2.2 *Emissions Estimation*, of the Project's Mobile Source Diesel Health Risk Assessment (*Technical Appendix B2*) for a detailed description of the model inputs and equations used in the estimation of the Project-related DPM emissions. (Urban Crossroads, Inc., 2016b, pp. 18-27)

The potential health risks of Project-related DPM emissions were quantified in accordance with the guidelines in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. Pursuant to SCAQMD's recommendations, emissions were modeled using the U.S. EPA's AERMOD software program. For informational purposes, potential health risks were modeled using both the 2003 and 2015 California Office of Environmental Health Hazard Assessment (OEHHA) receptor exposure parameters. Refer to Section 2.3, *Exposure Quantification*, of the Mobile Source Diesel Health Risk Assessment (*Technical Appendix B2*) for a detailed description of the model inputs and equations used in the calculation of average particulate concentrations associated with operations at the Project site. (Urban Crossroads, Inc., 2016b, pp. 27-30)

Excessive health risks associated with exposure to DPM emissions are defined in terms of the probability of developing cancer or adverse, chronic non-cancer health effects as a result of exposure to DPM emissions at a given concentration. The cancer and non-cancer risk probabilities are determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. The equations and input factors utilized in the Project analysis were obtained from OEHHA. Refer to Section 2.4, *Carcinogenic Chemical Risk,* of the Project's Mobile Source

Diesel Health Risk Assessment *(Technical Appendix B2*) for a detailed description of the variable inputs and equations used in the estimation of receptor population health risks associated with Project operations. (Urban Crossroads, Inc., 2016b, pp. 30-31)

In their analysis of DPMs, Urban Crossroads, Inc. considered Project-related DPM-source cancer and non-cancer risks for residential, worker, and school child exposures within a 1,320-foot radius of the Project site and the Project's primary truck route for two traffic scenarios: 1) Without Indian Street Bridge and 2) With Indian Street Bridge. (Urban Crossroads, Inc., 2016b, pp. 27-28) A 1,320 feet distance was selected considered because CARB and SCAQMD emissions and modeling analyses indicates that an 80-percent drop-off in DPM concentrations is occurs at approximately 1,000 feet from the emissions source. (Urban Crossroads, Inc., 2016b, pp. 31-32)

Potential receptor population health risks were calculated for the maximally exposed residential receptor (MEIR), the maximally exposed individual worker receptor (MEIW), and the maximally exposed school child receptor (MEISC). The residential land use with the greatest potential exposure to Project DPM source emissions is located approximately 161 feet east of the Project site across Indian Street. The worker receptor land use with the greatest potential exposure to Project DMP source emissions is located immediately adjacent to the north of proposed Building 2. The school site land use with the greatest potential exposure to Project DPM is located at the Serrano Elementary School at 24100 Delphinium Avenue in Moreno Valley, located more than 1.0-mile (5,280 feet) north of the Project site. (Urban Crossroads, Inc., 2016b, pp. 32-33)

4.3.3 Basis for Determining Significance

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

Within the context of the above threshold considerations, emissions generated by a development project would be significant under Thresholds (a) and (b) if emissions are projected to exceed the

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regional emissions thresholds established by the SCAQMD for criteria pollutants as shown on Table 4.3-4, *Maximum Daily Regional Emissions Thresholds*.

Table 4.3-4 Maximum Daily Regional Emissions Thresholds

Pollutant	**Construction**	**Operations**
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

Source: (Urban Crossroads, Inc., 2016a. Table 3-1)

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO_2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$ both of which are non-attainment pollutants. (Urban Crossroads, Inc., 2016a, p. 46) Applicable localized thresholds as follows:

- California State 1-hour CO standard of 20.0 ppm;
- California State 8-hour CO standard of 9.0 ppm;
- California State 1-hour NO_2 standard of 0.18 ppm;
- California State Annual NO_2 standard of 0.03 ppm;
- SCAQMD 24-hour operational PM_{10} LST of 2.5 µg/m3;
- SCAQMD Annual-operational PM_{10} LST of 1.0 µg/m3;
- SCAQMD 24-hour operational $PM_{2.5}$ LST of 2.5 µg/m3

Pursuant to SCAQMD guidance, any development project in the SCAB with daily emissions that would exceed any of the indicated thresholds would be considered to have a significant impact on both a direct (individual) and cumulatively considerable basis.

The SCAQMD published a report titled *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution.* The report provides direction on how to address cumulative impacts from air pollution. The AQMD states in Appendix D of the paper, Cumulative Impact Analysis Requirements Pursuant to CEQA:

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI ≥ 1.0 while the cumulative (facility-wide) is HI ≥ 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."* (SCAQMD, 2003)

Given this direction from the SCAQMD, the proposed Project evaluated in this EIR would result in a significant direct and cumulatively considerable impact under Threshold (d) if it would emit toxic air contaminants, like DPM, to such a degree that it would expose sensitive receptor populations to an incremental cancer risk of greater than 10 in one million. A risk level of 10 in one million corresponds to the potential that up to 10 persons, out of one million equally exposed people, would develop cancer if exposed continuously (24 hours per day) to a project's levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics. To put this risk in perspective, the risk of dying from accidental drowning is 1,000 in a million which is 100 times more likely than the SCAQMD's carcinogenic risk threshold of 10 in one million. For additional perspective, the SCAQMD carcinogenic risk threshold of 10 in one million is only slightly greater than the likelihood that a person will be struck by lightning in their lifetime (seven in one million chance). (Urban Crossroads, Inc., 2016b, p. 9)

The SCAQMD has also established non-carcinogenic risk parameters. Non-carcinogenic risks are quantified by calculating a "hazard index (HI)" expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A HI less than one (1.0) means that adverse health effects are not expected. Thus, non-carcinogenic exposure of less than 1.0 are considered less-than-significant on a direct and cumulatively considerable basis under Threshold (d). (Urban Crossroads, Inc., 2016b, p. 10)

4.3.4 Impact Analysis

Threshold a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The SCAQMD *Final 2012 Air Quality Management Plan* is the applicable air quality plan for the Project area which estimates long-term air quality conditions for the SCAB. The air quality conditions presented in the *Final 2012 AQMP* are based in part on the growth forecasts identified by SCAG in its *2012-2035 RTP/SCS.* The *RTP/SCS* assumes that development in the various incorporated and unincorporated areas within the SCAB will occur in accordance with the adopted general plans for these areas. In addition, the air quality conditions presented in the *Final 2012 Air Quality Management Plan* are based on the assumption that future development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. Accordingly, if a proposed project is consistent with these growth forecasts, and if available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is considered to be consistent with the *Final 2012 Air Quality Management Plan*. (Urban Crossroads, Inc., 2016a, p. 55)

The SCAQMD has established criteria for determining consistency with the *Final 2012 AQMP*. These criteria are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD's CEQA Air Quality Handbook and are discussed below.

- *Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. Violations of the CAAQS and NAAQS would occur if LSTs were exceeded. The Project would not exceed LSTs for any criteria pollutant during its construction or during long-term operation. Accordingly, localized emissions resulting from the Project's construction and long-term operation would neither contribute substantially to an existing or potential future violation nor delay the attainment of applicable air quality standards. (Urban Crossroads, Inc., 2016a, p. 56)

As discussed in the impact analysis of Thresholds (b) and (c), during short-term construction activities, the Project is expected to exceed criteria standards pollutant thresholds established by the SCAQMD for VOCs and NO_X and the Project would exceed the SCAQMD's regional criteria for VOCs and NO_X during long-term operation of the Project. In addition, based on the assumed buildout and phasing of the proposed Project which assumes the operation of Building 1 and 2 while Buildings 3 and 4 are being constructed, there is a potential for overlap between construction and operational activity. If these activities overlap, the Project would temporarily exceed the SCAQMD's regional criteria for VOCs, NO_X, CO, PM_{10}, and $PM_{2.5}$. Although short-term construction and long-term operational emissions generated by the Project would exceed the SCAQMD's regional threshold criteria for daily emissions, the Project's emissions are already accounted for in the *2012 AQMP* and the AQMP's air quality attainment goals. That is, the land use and development intensity proposed by the Project are consistent with the City of Moreno Valley General Plan and the MVIAP and are therefore within the scope of air quality considerations reflected in the 2012 AQMP. As such, implementation of the Project would likely neither increase the frequency or severity of existing air quality violations disclosed in the AQMP. Moreover, the Project's urban location and proximity to local and regional transportation facilities act to reduce vehicle miles traveled and associated mobile (vehicle) air pollutant emissions. Additionally, the Project's incorporation of mandatory energy-efficient technologies a required by CALGreen and mandatory compliance with the SCAQMD rules and control requirements act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support the AQMP's air pollution reduction strategies and promote timely attainment of the AQMD's air quality standards. Regardless, because the Project would emit air pollutants that exceed daily emissions thresholds established by the SCAQMD, the Project is determined to make a cumulatively considerable contribution to the potential obstruction of obtaining the 2012 AQMP goals. For this reason, the Project is determined to be inconsistent with Consistency Criterion No. 1.

- *Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP based on the years of project buildout phase.*

The growth forecasts used in the AQMP to project future emissions levels are based in part on land use data provided by lead agency general plan documentation. Projects that propose to increase the intensity of use on a subject property may result in increased stationary area source emissions and/or vehicle source emissions when compared to the AQMP assumptions. If a project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the AQMP.

As shown in EIR Section 2.0, *Environmental Setting*, Figure 2-2, *Existing General Plan Land Use Designations*, the City of Moreno Valley General Plan designates the Project site for "Business Park/Light Industrial (BP)" land uses. As discussed in EIR Section 3.0, *Project Description*, the Project consists of a proposal to develop an approximately 89.4-acre property to accommodate a logistics center with four buildings. The principal discretionary actions required of the City of Moreno Valley to implement the Project include the approval of a Specific Plan Amendment (P15-036), Tentative Parcel Map No. 36150 (PA15-0018), and four individual Building Plot Plans (PA15-0014, PA15-0015, PA15-0016, and PA15-0017). The Project does not propose to increase the intensity of use on the subject property and therefore would not exceed the growth projections in the applicable local general plan (City of Moreno Valley General Plan) or the MVIAP. Accordingly, the Project is considered to be consistent with the growth assumptions in the *2012 AQMP*. Additionally, the Project is required to incorporate mandatory energy-efficient technologies a required by the California Building Standards Code (CALGreen) and is required to comply with the SCAQMD rules and control requirements act to reduce stationary-source air emissions.

In summary, because the proposed Project satisfies both of the aforementioned criteria for determining consistency with the AQMP, the Project is deemed consistent with the *2012 AQMP*. As such, the Project would not conflict with or result in the obstruction of the applicable AQMP and a less-than-significant impact would occur.

Threshold b)	***Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***
Threshold c)	***Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

A. Construction Emissions Impact Analysis

For purposes of analysis, the air quality impact analysis (*Technical Appendix B1*) and the analysis herein assumes that the Project's construction would commence in April 2016 and last through May 2017. A detailed description of the Project's expected construction schedule and construction activities is provided in EIR Section 3.0, *Project Description*. If construction activities occur at a later date than assumed by the analysis presented in *Technical Appendix B1* and herein, emission quantities associated with construction equipment exhaust would be less than disclosed in *Technical Appendix B*1 and herein, due to the application of more restrictive regulatory requirements for construction equipment and on-going replacement of older construction fleet equipment with newer, lower emission equipment by construction contractors. (Urban Crossroads, Inc., 2016a, pp. 30-35) The estimated maximum daily construction emissions associated with the Project's construction phase are shown in Table 4.3-5, *Project Construction Emissions Summary*. Detailed construction-related emissions model inputs are provided in Appendix 3.2 of *Technical Appendix B1* to this EIR.

Table 4.3-5 Project Construction Emissions Summary

Year	Emissions (pounds per day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2016	248.05	578.66	439.05	0.97	38.32	23.18
2017	241.74	287.45	253.34	0.59	25.57	12.98
Maximum Daily Emissions	**248.05**	**578.66**	**439.05**	**0.97**	**38.32**	**23.18**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, Inc., 2016a, Table 3-6)

As identified in Table 4.3-5, Project-related construction emissions would not exceed criteria standards pollutant thresholds for CO, SO_X, PM_{10}, and $PM_{2.5}$. However, the Project-related construction emissions would exceed criteria standards pollutant thresholds established by the SCAQMD for VOCs and NO_X. VOCs and NO_X are precursors for O_3, a pollutant for which the SCAB does not attain State standards (Refer to Table 4.3-2) Accordingly, the Project would emit substantial concentrations of VOCs and NO_X during construction, primarily associated with combustion exhaust from construction equipment engines that would cause or contribute to an existing or projected air quality violation, on both a direct and cumulatively considerable basis. Thus, a significant impact would occur. Refer to Subsection 4.3.7 for standard regulatory requirements and the recommended mitigation measures provided to reduce the Project's construction-related emissions of VOCs and NO_X. (Urban Crossroads, Inc., 2016a, p. 36)

B. Operational Emissions Impact Analysis

For purposes of analysis, the air quality impact analysis (*Technical Appendix B1*) and the analysis herein assumed the Project would be operational in the year 2017. Emissions associated with the Project operations are presented in Table 4.3-6, *Project Peak Operational Emissions.* Detailed emission model outputs are presented in Appendices 3.2 and 3.3 of *Technical Appendix B1*.

As shown on Table 4.3-6, the Project would exceed the SCAQMD's regional criteria for VOCs and NO_X during long-term operation of the Project. These emissions are primarily associated with combustion exhaust from on- and off-road vehicles. Therefore, during long-term operation, the Project's emissions of VOCs and NO_X would be a significant impact to the environment on both a direct and cumulatively considerable basis. Refer to Subsection 4.3.7 for recommended mitigation measures that would reduce the Project's operational-related emissions of VOCs and NO_X. (Urban Crossroads, Inc., 2016a, pp. 42-43)

Based on the assumed buildout and phasing of the proposed Project which assumes the operation of Building 1 and 2 while Buildings 3 and 4 are being constructed, there is a potential for overlap between construction and operational activity. As shown on Table 4.3-7, *Potential Overlap of Project Construction and Operational Activities*, the Project would exceed the SCAQMD's regional criteria for VOCs, NO_X, CO, PM_{10}, and $PM_{2.5.}$ Therefore, the Project's emissions of VOCs, NO_X, CO, PM_{10}, and $PM_{2.5}$ would result in a significant impact to the environment on both a direct and cumulatively considerable basis when construction and operational activities would overlap. Refer to Subsection 4.3.7 for recommended mitigation measures that would reduce the Project's construction-related and operational-related activities when the assumed buildout and phasing of the Project would overlap.

Table 4.3-6 Project Peak Operational Emissions Summary

Operational Activities – Summer Scenario	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	0.02	0.23	0.23
Mobile (Trucks)	19.77	429.98	184.46	1.35	51.09	19.58
Mobile (Passenger Cars)	2.98	3.73	51.42	0.17	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.28	244.17	107.13	0.78	32.55	11.96
Mobile (Passenger Cars)	4.48	5.60	77.31	0.26	24.98	6.70
On-site Equipment	0.3801	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.64**	**689.62**	**425.85**	**2.60**	**125.70**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Operational Activities – Winter Scenario	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	2.00E-02	0.23	0.23
Mobile (Trucks)	20.11	447.95	194.22	1.35	51.10	19.58
Mobile (Passenger Cars)	2.78	3.94	43.52	0.16	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.46	254.51	111.97	0.78	32.56	11.96
Mobile (Passenger Cars)	4.18	5.93	65.44	0.24	24.98	6.70
On-site Equipment	0.38	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.66**	**718.46**	**420.68**	**2.57**	**125.72**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, Inc., 2016a, Table 3-7)

Table 4.3-7 Potential Overlap of Project Construction and Operational Activities

Summer Scenario- Maximum Daily Emissions	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Peak Emissions	248.05	578.66	439.05	0.97	38.32	23.18
Operational Total Emissions	100.64	689.62	425.85	2.60	125.70	43.17
Total Maximum Daily Emissions	**348.69**	**1,268.28**	**864.90**	**3.57**	**164.02**	**66.35**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**

Winter Scenario- Maximum Daily Emissions	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Peak Emissions	241.74	287.45	253.34	0.59	25.57	12.98
Operational Total Emissions	100.66	718.46	420.68	2.57	125.72	43.17
Total Maximum Daily Emissions	**342.40**	**1,005.91**	**674.02**	**3.16**	**151.29**	**56.15**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**

Source: (Urban Crossroads, Inc., 2016a Table 3-10)

Threshold d) Would the Project expose sensitive receptors to substantial pollutant concentrations?

A. Construction-Related Localized Emissions Impact Analysis

The nearest sensitive receptor to the Project site during the Project's construction phase is the single-family residential home located approximately 101 feet (31 meters) east of the Project site boundary. Table 4.3-8, *Project Construction Localized Emissions Summary*, summarizes the Project's localized emissions during peak construction activity. As shown in Table 4.3-8, the Project's peak construction-related emissions would exceed the SCAQMD's localized significance thresholds for NO_2, PM_{10}, and $PM_{2.5}$. Accordingly, impacts would be significant and mitigation is required. Refer to Subsection 4.3.7 for applicable mitigation. (Urban Crossroads, Inc., 2016a, p. 51)

Table 4.3-8 Project Construction Localized Emissions Summary

Peak Construction	**CO**		**NO_2**	**PM_{10}**		**$PM_{2.5}$**
	Averaging Time					
	1-Hour	8-Hour	1-Hour	24-Hours	Annual	24-Hours
Peak Day Localized Emissions	0.42	0.35	0.34	15.52	2.56	8.55
Background Concentration [A]	2.00	1.90	0.06			
Total Concentration	**2.42**	**2.25**	**0.40**	**15.52**	**2.56**	**8.55**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	1	10.4
Threshold Exceeded?	**NO**	**NO**	**YES**	**YES**	**YES**	**YES**

[A] Highest concentration from the last three years of available data.
Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in μg/m^3. All others are expressed in Parts per Million (PPM).
Source: (Urban Crossroads, Inc., 2016a, Table 3-12)

B. Operational-Related Localized Emissions Impact Analysis

❑ Criteria Pollutant Emissions

Table 4.3-9, *Project Operations Localized Emissions Summary*, presents the Project's estimated daily localized emissions during long-term operation. As shown on Table 4.3-9, the Project's estimated operational localized emissions associated with CO, NO$_2$, PM$_{10}$ and PM$_{2.5}$ would not exceed localized thresholds established by the SCAQMD. Accordingly, long-term operation of the proposed Project would not expose any sensitive receptors which are located within 1.0 mile of the Project site to substantial point source emissions on a direct or cumulatively considerable basis. Impacts are less than significant. Although the Project would not generate substantial point source emissions on a direct or cumulatively considerable basis, mitigation measures are provided in Subsection 4.3.7 that would further reduce the levels disclosed in Table 4.3-9. (Urban Crossroads, Inc., 2016a, pp. 52-53)

Table 4.3-9 Project Operations Localized Emissions Summary

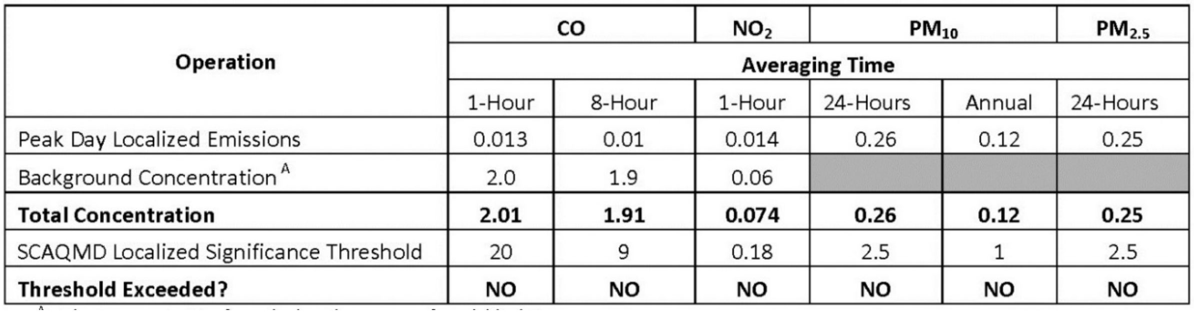

Operation	CO		NO$_2$	PM$_{10}$		PM$_{2.5}$
	Averaging Time					
	1-Hour	8-Hour	1-Hour	24-Hours	Annual	24-Hours
Peak Day Localized Emissions	0.013	0.01	0.014	0.26	0.12	0.25
Background Concentration[A]	2.0	1.9	0.06			
Total Concentration	**2.01**	**1.91**	**0.074**	**0.26**	**0.12**	**0.25**
SCAQMD Localized Significance Threshold	20	9	0.18	2.5	1	2.5
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data

Note: PM$_{10}$ and PM$_{2.5}$ concentrations are expressed in µg/m^3. All others are expressed in ppm.

Source: (Urban Crossroads, Inc., 2016a, Table 3-14)

❑ CO Hot Spot Impact Analysis

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. A CO "hot spot" analysis was not performed by Urban Crossroads, Inc. to evaluate the effect of Project-related vehicular emissions of CO because CO attainment was thoroughly analyzed as part of SCAQMD's *2003 AQMP* and the *1992 Federal Attainment for Carbon Monoxide (1992 CO Plan)*. As identified in the SCAQMD's *2003 AQMP* and the *1992 CO Plan*, peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" was conducted in 2003 at four busy intersections in Los Angeles at the peak morning and afternoon periods. The busiest intersection had a daily traffic volume of 100,000 vehicles per day. The *2003 AQMP* estimated that the CO 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day. In comparison, at buildout of the proposed Project, the highest average daily trips on a segment of road would be 12,297 daily trips at the intersection of Graham Street/Riverside Drive and Cactus Avenue, which is lower than the daily trip volumes studied by SCAQMD that had no impact. Refer to Table

3-17 of *Technical Appendix B1* for the Project peak hour traffic volumes. (Urban Crossroads, Inc., 2016a, pp. 53-55)

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. The Bay Area Air Quality Management District (BAAQMD) concluded that in order to generate a significant CO impact under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and or horizontal air does not mix. The proposed Project would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the Los Angeles "hot spot" study or based on representative BAAQMD CO threshold considerations. Accordingly, Project-related vehicular emissions would not result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and sensitive receptors would not be exposed to substantial CO concentrations generated by the Project's vehicular traffic. (Urban Crossroads, Inc., 2016a, p. 54)

☐ Diesel Particulate Emissions Impact Analysis

The Project's operational activities would generate/attract diesel-fueled trucks that produce DPM as a by-product of fuel combustion. To evaluate the Project's potential to expose nearby sensitive receptors so substantial amounts of DPM during long-term operation, a Mobile Source Diesel Health Risk Assessment (*Technical Appendix B2*) was prepared for the proposed Project by Urban Crossroads, Inc. In their analysis of DPMs, Urban Crossroads, Inc. considered Project-related DPM-source cancer and non-cancer risks for residential, worker, and school child exposures for two traffic scenarios: 1) Without Indian Street Bridge and 2) With Indian Street Bridge as discussed below.

Without Indian Street Bridge

The residential land use with the greatest potential for exposure to Project DPM source emissions is located approximately 161 feet east of the Project site and east of Indian Street. Although another sensitive receptor location is located closer to the Project site at 101 feet to the east, this location is not analyzed in the Without Indian Street Bridge scenario because no Project-related truck traffic would pass that receptor location. For that reason, the receptor location at 161 feet, which is closer to the Project's operational truck traffic, has the greatest potential to be impacted by DPM emissions. At the MEIR, the maximum incremental cancer risk attributable to Project DPM source emissions is calculated to be 6.06 in one million under the 2003 OEHHA exposure parameters and 9.50 in one million under the 2015 OEHHA exposure parameters, respectively, which are less than the SCAQMD cancer risk of 10 in one million. At the same location, non-cancer risks are calculated to be 0.0004 under the 2003 OEHHA exposure parameters and 0.005 under the 2015 OEHHA exposure parameters, respectively, neither of which would exceed the applicable threshold of 1.0. (Urban Crossroads, Inc., 2016b, pp. 32, 40)

The closest worker receptor land use with the greatest potential for exposure to Project DPM source emissions is located immediately adjacent to the north of proposed Building 2. At the MEIW, the maximum incremental cancer risk attributable to Project DPM source emissions is calculated to be

0.24 in one million under the 2003 OEHHA exposure parameters and 0.31 in one million under the 2015 OEHHA exposure parameters, respectively, which are less than the threshold of 10 in one million. At this same location, non-cancer risks are calculated to be 0.0008 under the 2003 OEHHA exposure parameters and 0.0009 under the 2015 OEHHA exposure parameters, respectively, neither of which would exceed the applicable threshold of 1.0. (Urban Crossroads, Inc., 2016b, pp. 32-33, 40)

The school site land use with the greatest potential exposure to Project DPM source emissions is Serrano Elementary School, located more than 1.0-mile north of the Project site at 24100 Delphinium Avenue in Moreno Valley. At the MEISC, the maximum incremental cancer risk attributable to Project DPM source emissions is calculated to be 0.26 in one million under the 2003 OEHHA exposure parameters and 060 in one million under the 2015 OEHHA exposure parameters, respectively, which are less than the threshold of 10 in one million. Maximum non-cancer risks at this location are calculated to be 0.001 under both the 2003 and 2015 OEHHA exposure parameters, which would not exceed the applicable threshold of 1.0. It is noted that there are other school locations that are located closer to the Project site that were also included in the assessment conducted by Urban Crossroads, Inc., however, the Serrano Elementary School represents the school site that is located within close proximity to the Project's primary truck route adjacent to Heacock Street. (Urban Crossroads, Inc., 2016a, pp. 33, 40)

With Indian Street Bridge

The residential land use with the greatest potential exposure to Project DPM source emissions is located approximately 161 feet east of the Project site across Indian Street. At the MEIR, the maximum incremental cancer risk attributable to Project DPM source emissions is calculated at 5.97 in million under the 2003 OEHHA exposure parameters and 9.45 in one million under the 2015 OEHHA exposure parameters, respectively, which are less than the threshold of 10 in one million. At this same location, non-cancer risks are calculated to be 0.0004 under the 2003 OEHHA exposure parameters and 0.005 under the 2015 OEHHA exposure parameters, respectively, neither of which would exceed the applicable threshold of 1.0. (Urban Crossroads, Inc., 2016b, pp. 33, 41)

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located south of the Project site at the O'Reilly Auto Parts warehouse located at 24520 San Michele Road in Moreno Valley. At the MEIW, the maximum incremental cancer risk attributable to Project DPM source emissions is calculated to be 0.26 in one million under the 2003 OEHHA exposure parameters and 0.35 in one million under the 2015 OEHHA exposure parameters, respectively, which are less than the threshold of 10 in one million. At this same location, non-cancer risks are calculated to be 0.0007 under the 2003 OEHHA exposure parameters and 0.009 under the 2015 OEHHA exposure parameters, respectively, neither of which would exceed the applicable threshold of 1.0. (Urban Crossroads, Inc., 2016b, pp. 33, 41)

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary School located more than 1.0 (5,280 feet) mile north of the Project site. At the MEISC, the maximum incremental cancer risk attributable to the Project DPM source emissions is calculated to be 0.19 in one million under the 2003 OEHHA exposure parameters and 0.43 in one million under the 2015 OEHHA exposure parameters, respectively, which are less than the threshold of 10 in one million. At this same location, non-cancer risks are calculated to be 0.001 under both the 2003 and 2015 OEHHA exposure parameters, which would not exceed the significance threshold of 1.0. (Urban Crossroads, Inc., 2016b, pp. 33-34, 41)

Accordingly, long-term operations at the Project site would not directly cause or contribute in a cumulatively considerable manner to the exposure of the MEIR, MEIW, or MEISC to substantial DPM emissions. Therefore, implementation of the proposed Project would result in a less-than-significant impact to expose MEIR, MEIW, and MEISC which are located within 1.0 mile of the Project site to project substantial point source DPM emissions. Although implementation of the Project would result in a less-than-significant impact associated with DPM emissions, the mitigation measures recommended in Subsection 4.3.7 would further reduce DPM emissions associated with long-term operation of the Project.

Threshold e) Would the Project create objectionable odors affecting a substantial number of people?

Under existing conditions, the Project site is vacant and does not contain any buildings or permanent structures/facilities, with the exception of overhead utility lines located along the eastern property boundary adjacent to Indian Street. Accordingly, the Project does not contain land uses typically associated with emitting objectionable odors. The Project could produce odors during proposed construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize odor emissions and their associated impacts. Furthermore, any odors emitted during construction activities would be temporary, short-term, and intermittent in nature, and would cease upon completion of construction activities. In addition, construction activities on the Project site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction activities. Therefore, implementation of the Project would result in less-than-significant odor impacts during short-term construction activities. Thus, no mitigation is required. (Urban Crossroads, Inc., 2016a, p. 58)

Under long-term operational conditions, the Project would include “Business Park/Light Industrial (BP)” land uses which are not typically associated with objectionable odors. The Project proposes a sewer lift station on-site, at the southwest corner of proposed Building 3. Based on an aerial photograph, the sewer lift station would be located approximately 2,600 feet from the nearest sensitive receptor and is, therefore, not within close proximity of sensitive receptors, which are generally located east of proposed Building 1, east of Indian Street. Due to distance from sensitive receptors and the requirements for containment in the event of a lift station failure, potential odor impacts associated with the lift station would be less than significant. (Urban Crossroads, Inc., 2016a, p. 58)

The temporary storage of refuse associated with the Project's long-term operational use could be a potential source of odor; however, Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the County's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance during long-term operation of the Project. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial number of people. Thus, a less-than-significant impact would occur.

4.3.5 Cumulative Impact Analysis

A. AQMP Consistency

As discussed in the analysis of Threshold (a), short-term construction and long-term operational emissions generated by the Project would exceed the SCAQMD's regional threshold criteria for several air quality pollutants; thus, the Project is determined to have a significant and cumulatively considerable potential to obstruct implementation of the 2012 AQMP. Regardless of that conclusion, it is important to note that the Project's emissions were accounted for in the 2012 AQMP and the AQMP's air quality attainment goals. That is, the land use and development intensity proposed by the Project are consistent with the City of Moreno Valley General Plan and the MVIAP and are therefore within the scope of air quality considerations reflected in the 2012 AQMP. As such, implementation of the Project would neither increase the frequency or severity of existing air quality violations disclosed in the AQMP. Moreover, the Project's urban location and proximity to local and regional transportation facilities act to reduce vehicle miles traveled and associated mobile (vehicle) air pollutant emissions. Additionally, the Project's incorporation of mandatory energy-efficient technologies a required by CALGreen and mandatory compliance with the SCAQMD rules and control requirements act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support the AQMP's air pollution reduction strategies and promote timely attainment of the AQMD's air quality standards.

B. Criteria Pollutant Emissions

As indicated in the analysis of Thresholds (b) and (c), the Project would exceed SCAQMD numerical thresholds for VOCs and NO_X during short-term construction activities and long-term operation. VOCs and NO_X are precursors for ozone (O_3), a pollutant for which the SCAB is in non-attainment under both federal and State criteria; therefore, the Project's short-term construction emissions and long-term operational emissions would cumulatively contribute a criteria pollutant for which the Project region is in non-attainment (O_3). Accordingly, the Project's short-and-long term impacts are considered to be cumulatively considerable. As also indicated in the analysis of Thresholds (b) and (c), the Project's emissions of VOCs, NO_X, CO, PM_{10}, and $PM_{2.5}$ would result in a significant impact to the environment on both a direct and cumulatively considerable basis in the event that on-site construction and operational activities overlap.

C. *Substantial Pollutant Concentrations*

As discussed in the analysis of Threshold (d), Project-related vehicular emissions would not result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and sensitive receptors would not be exposed to substantial CO concentrations generated by the Project's vehicular traffic.

As also discussed in the analysis of Threshold (d), long-term operations at the Project site would not exceed SCAQMD's cancer or non-cancer health risk thresholds at the MEIR, MEIW, or MEISC. Because the Project's direct contribution to health risk hazards in the local area would not exceed the SCAQMD's significance thresholds at any receptor location, SCAQMD considers to the Project's DPM emissions to be less than cumulatively considerable.

As previously disclosed, the Project is located in an urbanized area within an air basin (i.e., the SCAB) with poor air quality. For informational purposes, the cumulative carcinogenic health risk from DPM emissions in the Project vicinity is presented in Table 4.3-10 and Table 4.3-11. Table 4.3-10 quantifies estimated DPM carcinogenic health risks for existing, ambient air conditions in the surrounding area, as well as expected DPM carcinogenic risks from the Project (without the Indian Street Bridge) and cumulative development projects in the Project vicinity (i.e., within 1,320 feet of the Project site and its primary trucking route), while Table 4.3-11 performs the same analysis but under a theoretical scenario where the Indian Street Bridge over the Perris Valley Storm Drain Channel is operational at the time of the Project's opening year (2017). As shown in Table 4.3-10 and Table 4.3-11, the existing ambient carcinogenic health risk in the Project study area associated with ambient air quality conditions is 518.6 in one million. When the cumulative air pollutant emissions from nearby development projects and the Project are added to existing ambient air conditions, sensitive receptors in the Project study area would be exposed to combined excess carcinogenic health risks between approximately 915 and 925 in one million. Notwithstanding the information presented above, the carcinogenic health risk within the SCAB has been reduced drastically over the last 30+ years with the adoption of new regulations and emerging technologies and the trend of improving air quality is expected to continue in the future (refer to EIR Pages 4.3-12 and 4.3-13).

D. *Odors*

As discussed in the analysis of Threshold (e), there are no components of the proposed Project's construction or long-term operation that would generate substantial, objectionable odors. Because the Project would not create objectionable odors, there is no potential for odors from the Project site to commingle with odors from nearby development projects and expose nearby sensitive receptors to substantial, offensive odors. Accordingly, the Project would have a less-than-significant cumulatively considerable impact.

Table 4.3-10 Cumulative Carcinogenic Health Risk (without Indian Street Bridge)

2003 OEHHA Exposure Parameters

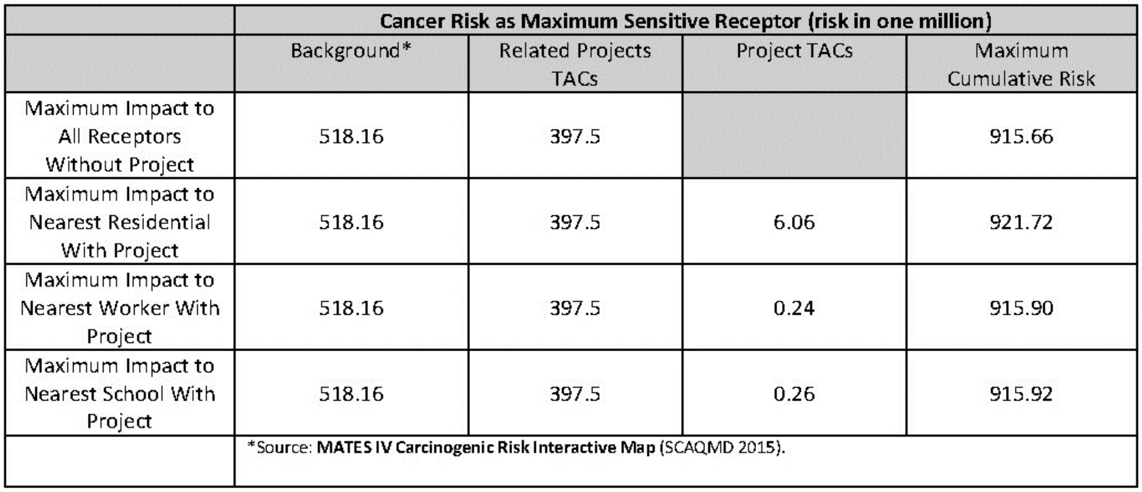

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	6.06	921.72
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.24	915.90
Maximum Impact to Nearest School With Project	518.16	397.5	0.26	915.92
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

2015 OEHHA Exposure Parameters

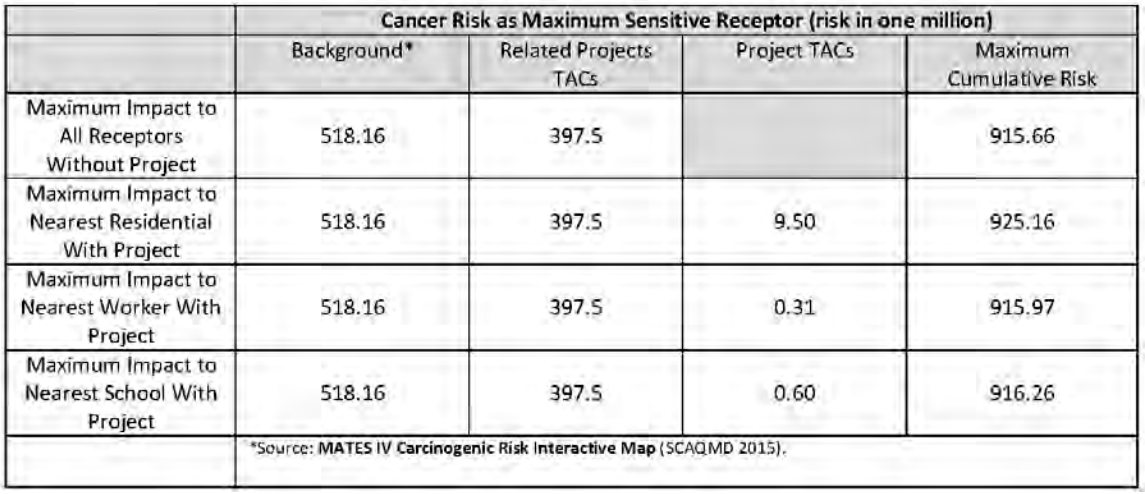

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	9.50	925.16
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.31	915.97
Maximum Impact to Nearest School With Project	518.16	397.5	0.60	916.26
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

Source: (Urban Crossroads, Inc., 2016b, Table 2-6 and Table 2-8)

Table 4.3-11 Cumulative Carcinogenic Health Risk (with Indian Street Bridge)

2003 OEHHA Exposure Parameters

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	6.05	921.71
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.26	915.92
Maximum Impact to Nearest School With Project	518.16	397.5	0.19	915.85
	*Source: MATES IV Carcinogenic Risk Interactive Map (SCAQMD 2015).			

2015 OEHHA Exposure Parameters

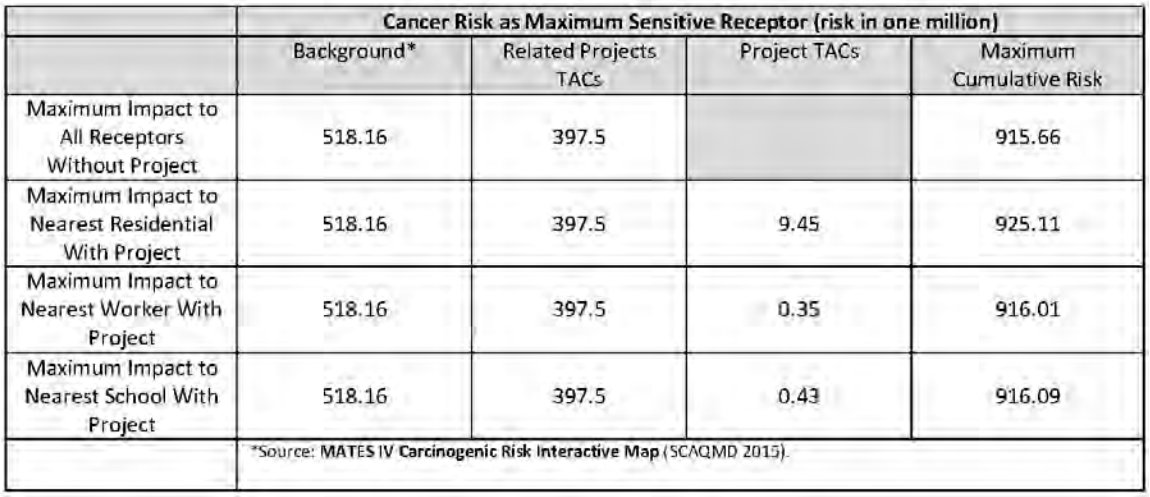

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	9.45	925.11
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.35	916.01
Maximum Impact to Nearest School With Project	518.16	397.5	0.43	916.09
	*Source: MATES IV Carcinogenic Risk Interactive Map (SCAQMD 2015).			

Source: (Urban Crossroads, Inc., 2016b, Table 2-7 and Table 2-9)

4.3.6 Significance of Impacts before Mitigation

Threshold a): Significant Cumulatively Considerable Impact. Although the Project's location and design features are consistent with and support the AQMP's air pollution reduction strategies, because short-term construction and long-term operational air emissions generated by the Project would exceed the SCAQMD's regional threshold criteria for daily emissions, the Project has the potential to cumulatively contribute towards obstruction of the SCAQMD's ability to meet its AQMP attainment goals.

Threshold b) and c): Significant Direct and Cumulatively Considerable Impact. The Project would exceed the SCAQMD regional threshold for daily VOC and NO_X emissions during short-term construction activities. Additionally, the Project's long-term operational activities (i.e., full buildout) would exceed the regional thresholds for daily VOC and NO_X emissions. Because the Project proposes four buildings, there is a potential that operational and construction activities could overlap. If there is overlap, the Project would result in short-term VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ emissions during the overlapping activities. As such, Project-related air emissions would violate the SCAQMD air quality standards and contribute to the non-attainment of criteria pollutants, which is a significant direct and cumulatively considerable impact.

Threshold d): Significant Direct and Cumulatively Considerable Impact. Emissions during short-term construction activities would exceed the SCAQMD's localized significance thresholds for NO_2, PM_{10}, and PM $_{2.5}$.

Threshold e): Less-than-Significant Impact. The Project would not produce unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project would comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.

4.3.7 Mitigation

The following measure is required to reduce construction-related VOC emissions.

MM 4.3-1 Prior to building permit issuance, the City of Moreno Valley shall verify that a note is provided on all building plans specifying that compliance with SCAQMD Rule 1113 is mandatory during application of all architectural coatings. Project contractors shall be required to comply with the note and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. This note also shall indicate that only "low-volatile organic compound" paint products (no more than 50 gram/liter of VOC) shall be used. All other architectural coatings shall comply with the VOC limits prescribed by SCAQMD Rule 1113.

The following measures are required to reduce construction-related NOx emissions.

MM 4.3-2 During construction activities, the construction contractor shall maintain a list of diesel-powered construction equipment used on the site, including type/engine year of equipment, number of equipment, and equipment horsepower. The construction contractor shall also maintain a log of the daily operating hours of each piece of diesel-powered equipment by horsepower hours. The construction contractor shall ensure that the usage of diesel-powered construction equipment does not exceed the horsepower-hours per day specified below. Lower tier types may be substituted for higher tier types.

Tier 0 – 3,608 horsepower-hours/day
Tier 1 – 7,760 horsepower-hours/day

Tier 2 – 1,760 horsepower-hours/day
Tier 3 – 11,128 horsepower-hours/day
Tier 4 – 37,008 horsepower-hours/day

MM 4.3-3 The Project shall comply with California Code of Regulations Title 13, Division 3, Chapter 1, Article 4.5, Section 2025, "Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles" and California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, "Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling" by complying with the following requirements. To ensure and enforce compliance with these requirements and thereby limit the release of diesel particulate matter, oxides of nitrogen, and other criteria pollutants into the atmosphere from the burning of fuel, prior to grading permit and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.

a) Temporary signs shall be placed on the construction site at all construction vehicle entry points and at all loading, unloading, and equipment staging areas indicating that heavy duty trucks and diesel powered construction equipment are prohibited from idling for more than five (5) minutes. The signs shall be installed before construction activities commence and remain in place during the duration of construction activities at all loading, unloading, and equipment staging areas.

b) Construction vehicles shall use the City's designated truck route.

c) Construction parking shall be located and configured to minimize traffic interference on public streets.

d) Temporary traffic controls such as a flag person shall be used at Project site construction entrances.

e) A construction management plan shall be designed to minimize the number of large construction equipment operating during any given time period.

f) To the extent feasible, construction truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.

g) CARB certified equipment shall be used for construction activities to the extent feasible.

h) Contractors shall be required to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.

i) Construction equipment engine sizes shall be limited to the minimum practical size.
j) Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.

k) Temporary traffic controls, such as a flag person shall be provided during all phases of construction to maintain smooth traffic flow.

l) Construction tucks shall be routed away from congested streets and sensitive receptor areas.

m) Construction parking areas shall be configured to minimize traffic interference.

n) Construction worker trips shall be reduced by encouraging carpooling and providing on-site food service options for the construction crew.

o) Construction workers shall be encouraged to utilize shuttle service to transit stations/multimodal center.

Although emissions of particulate matter during Project construction would be less than significant, the following measures are required to reduce the less-than-significant construction-related particulate matter (PM_{10} and $PM_{2.5}$) emissions.

MM 4.3-4 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, the City of Moreno Valley shall verify that the following notes are specified on the grading plan. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. These notes shall also be specified in bid documents issued to prospective construction contractors.

a) During grading and ground-disturbing construction activities, the construction contractor shall ensure that all unpaved roads, active soil stockpiles, and areas undergoing active ground disturbance within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas by water truck, sprinkler system, or other comparable means, shall occur in the mid-morning, afternoon, and after work is done for the day. The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.

b) Temporary signs shall be installed on the construction site along all unpaved roads indicating a maximum speed limit of 15 miles per hour (MPH). The signs shall be installed before construction activities commence and remain in place for the duration of construction activities that include vehicle activities on unpaved roads.

c) Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.

d) Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.)

e) Limit fugitive dust sources to 20 percent opacity.

f) When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

g) All street frontages adjacent to the construction site shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.

h) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action within 24 hours.

i) Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.

j) Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.

k) A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.

MM 4.3-5 The Project shall comply with the provisions of South Coast Air Quality Management District Rule 1186 "PM10 Emissions from Paved and Unpaved Roads and Livestock Operations" and Rule 1186.1, "Less-Polluting Street Sweepers" by complying with the following requirements. To ensure and enforce compliance with these requirements, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following notes are included on the grading and building plans. Project construction contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. The notes also shall be specified in bid documents issued to prospective construction contractors.

a) If visible dirt or accumulated dust is carried onto paved roads during construction, the contractor shall remove such dirt and dust at the end of each work day by street cleaning.

b) Street sweepers shall be certified by the South Coast Air Quality Management District as meeting the Rule 1186 sweeper certification procedures and requirements for PM_{10}-efficient sweepers. All street sweepers having a gross vehicle weight of 14,000 pounds or more shall be powered with alternative (non-diesel) fuel or otherwise comply with South Coast Air Quality Management District Rule 1186.1.

Although the Project's construction emissions of SO_X would be less than significant, the following mitigation measure is required to further reduce the Project's less-than-significant impact.

MM 4.3-6 The Project shall comply with the provisions of SCAQMD Rule 431.2, "Sulfur Content of Liquid Fuels" by complying with the following requirement. To ensure and enforce compliance with this requirement and thereby limit the release of sulfur dioxide (SO_X) into the atmosphere from the burning of fuel, prior to grading and building permit issuance, the City of Moreno Valley shall verify that the following note is included on the grading and building plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by City of Moreno Valley staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors.

a) All liquid fuels shall have a sulfur content of not more than 0.05 percent by weight, except as provided for by South Coast Air Quality Management District Rule 431.2.

The following measures are required to reduce the Project's significant long-term operational-related impact associated with the emissions of NO_X and the contributions of this pollutant to the SCAB's non-attainment status for ozone. These measures also would further reduce the Project's less-than-significant impact associated with long-term emissions of localized criteria pollutants and diesel particulate matter.

MM 4.3-7 All indoor forklifts used in the Project's buildings shall be electric, natural gas, or propane powered. This requirement shall be noted in the buildings' sale and lease agreements and also shall be included on all tenant improvement plans submitted to the City of Moreno Valley.

MM 4.3-8 All outdoor cargo handling equipment (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) that are powered by diesel fuel shall comply with the CARB/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM_{10}). This requirement shall be noted in the buildings' sale and lease agreements and also shall be noted on all tenant improvement plans.

MM 4.3-9 Prior to the issuance of a building permit, documentation shall be provided to the City of Moreno Valley demonstrating that: 1) the building is designed to achieve efficiency equal to or exceeding the 2013 California Title 24 Energy Efficiency Standards and complies with the mandatory reductions in indoor water usage required by the California Building Standards Code, including the use of U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets, and water-conserving shower heads; and 2) the landscaping design uses a plant palette emphasizing drought-tolerant plants and use of water-efficient irrigation techniques.

MM 4.3-10 Prior to building final, documentation shall be provided to the City of Moreno Valley demonstrating the appliances and fixtures installed in restrooms and employee break areas are Energy Star rated and/or are U.S. EPA WaterSense labeled or equivalent.

MM 4.3-11 Legible, durable, weather-proof signs shall be placed at truck access gates, loading docks, and truck parking areas that identify applicable California Air Resources Board (CARB) anti-idling regulations. At a minimum each sign shall include: 1) instructions for truck drivers to shut off engines when not in use; 2) a prohibition on the idling of trucks for more than three (3) minutes; 3) instructions for truck drivers to shut down engines after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park" and the parking break is engaged; and 4) telephone numbers of the building facilities manager and the CARB to report violations. Prior to building final, the City of Moreno Valley shall conduct a site inspection to ensure that the signs are in place.

MM 4.3-12 Prior to building final, the City of Moreno Valley shall verify that: 1) the parking lot striping and security gating plan allows for adequate truck stacking at gates to prevent queuing of trucks outside the property; and 2) preferential parking locations are identified on the site for carpool, vanpool, EVs and CNG vehicles; and 3) secure, weather protected bicycle parking is provided for building employees.

MM 4.3-13 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that inform tenants about the availability of the following and their benefits to air quality: 1) alternatively fueled cargo handling equipment; 2) grant programs for diesel fueled vehicle engine retrofit and/or replacement; 3) designated truck parking locations in the City of Moreno Valley; 4) access to alternative fueling stations in the City of Moreno Valley that supply compressed natural gas (closest station is located on Indian Street, south of Nandina Avenue); 5) the United States Environmental Protection Agency's SmartWay program; and 6) voluntary trip reduction programs, for which all employees shall be eligible to participate.

MM 4.3-14 Prior to the issuance of building final, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions are included in the building's lease agreement that encourages: 1) all fleet vehicles to conform to 2010 air quality standards or better; users shall maintain compliance through normal course of business; and 2) use of electrical equipment for landscape maintenance to the extent feasible; 3) use of electrical powered equipment in lieu of gasoline-powered engines where technically feasible; and 4) reduced-fee or no-fee parking for EVs and CNG vehicles.

MM 4.3-15 Prior to the issuance of occupancy permits, the Project's property owner shall provide a model lease agreement to the Planning Division verifying that provisions will be included in the building's lease agreement that 1) encourages tenants to display information about alternative transportation options in a common area of the building and 2) informs tenants about locations of the nearest existing and planned Metrolink stations and the benefits of implementing a voluntary carpool or rideshare program for employees.

MM 4.3-16 The building plans shall include conduit and plug-in locations for electric yard tractors, fork lifts, reach stackers, and sweepers.

MM 4.3-17 Prior to the issuance of occupancy permits, the City of Moreno Valley shall verify that a sign has been installed at each exit driveway, providing directional information to the City's truck route. Text on the sign shall read "To Truck Route" with a directional arrow.

MM 4.3-18 Prior to the issuance of a building permit for any building that utilizes refrigerated storage, any spaces utilizing refrigerated storage shall provide an electrical hookup for refrigeration units on delivery trucks. As a condition of occupancy permits, trucks incapable of utilizing the electrical hookup for powering refrigeration shall be prohibited from accessing the site.

MM 4.3-19 Prior to the issuance of building permits, to ensure the shading of parking lots to reduce solar gain, the City of Moreno Valley shall review landscaping plans to verify that the plans call for the planting of shade trees so that at least 50% of the automotive parking lots (excluding the truck courts where trees cannot be planted due to interference with truck maneuvering) will be shaded within 15 years after Project construction is complete.

Although the Project's short-term construction and long-term operational odor impacts would be less than significant, the following mitigation measure is required to ensure compliance with SCAQMD Rule 402 and minimize the potential for odors on the Project site.

MM 4.3-20 The Project is required to comply with the provisions of SCAQMD Rule 402 "Nuisance." To ensure and enforce compliance with this requirement, which applies to the release of odorous emissions into the atmosphere, prior to the issuance of grading and building permits, the City of Moreno Valley shall verify that the following note is included on grading and building plans. During Project construction, contractors shall be required to ensure compliance with Rule 402 and permit periodic inspection of the construction site by the City of Moreno Valley staff or its designee to confirm compliance. The note shall be specified in bid documents issued to prospective construction contractors and shall also be specified in the building's lease agreement.

a) Compliance with South Coast Air Quality Management District (AQMD) Rule 402 "Nuisance" is required. Rule 402 states that air contaminants and other materials shall not be discharged from any source whatsoever in quantities that would cause injury, detriment, nuisance, or annoyance to a considerable number of persons or the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Public nuisance violations can occur when a considerable number of individuals complain to AQMD of odors, paint overspray, or other bothersome conditions that appear to be related to the operation of a business in the neighboring vicinity.

4.3.8 Significance of Impacts after Mitigation

<u>Threshold a): Significant Cumulatively Considerable Impact.</u> Because the SCAQMD's daily significance thresholds for air pollutants would be exceeded during the Project's construction and

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

operation even after the implementation of feasible mitigation measures, the Project would not fully mitigate its cumulatively considerable potential to obstruct the SCAQMD's ability to attain the air quality goals presented in the 2012 AQMP.

Thresholds b) and c): Significant and Unavoidable Direct and Cumulatively Considerable Impact. As indicated in Table 4.3-12, *Project Construction Emissions Summary (With Mitigation)*, mitigation measures would reduce the Project's short-term construction-related VOCs to below a level of significance; however, short-term construction-related NO_X emissions would not be reduced below the SCAQMD numerical threshold for daily emissions.

Table 4.3-12 Project Construction Emissions Summary (With Mitigation)

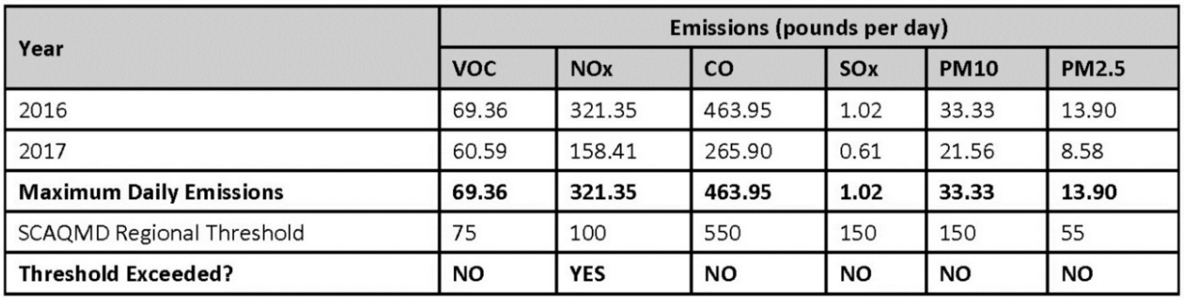

Year	Emissions (pounds per day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2016	69.36	321.35	463.95	1.02	33.33	13.90
2017	60.59	158.41	265.90	0.61	21.56	8.58
Maximum Daily Emissions	**69.36**	**321.35**	**463.95**	**1.02**	**33.33**	**13.90**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, Inc., 2016a, Table 3-6)

As indicated in Table 4.3-13, *Summary of Peak Operational Emissions (With Mitigation)*, even with mitigation, for regional emissions, the Project's operational source emissions would exceed the SCAQMD numerical threshold for emissions of VOCs and NO_X. This EIR recommends all feasible mitigation to reduce regional operational source VOC and NO_X emissions and no additional feasible mitigation is available to reduce regional source VOC and NO_X emissions to below a level of significance. No other mitigation measures are available that are feasible for the Project Applicant to implement and for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact. As such, it is concluded that the Project's regional operational source VOC and NO_X emissions would not comply with SCAQMD air quality daily standards. In addition, the Project's regional operational source VOC and NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations). Accordingly, the Project's regional operational source VOC and NO_X emissions are concluded to result in a significant and unavoidable impact on both a direct and cumulatively considerable basis.

Table 4.3-13 Project Peak Operational Emissions Summary (With Mitigation)

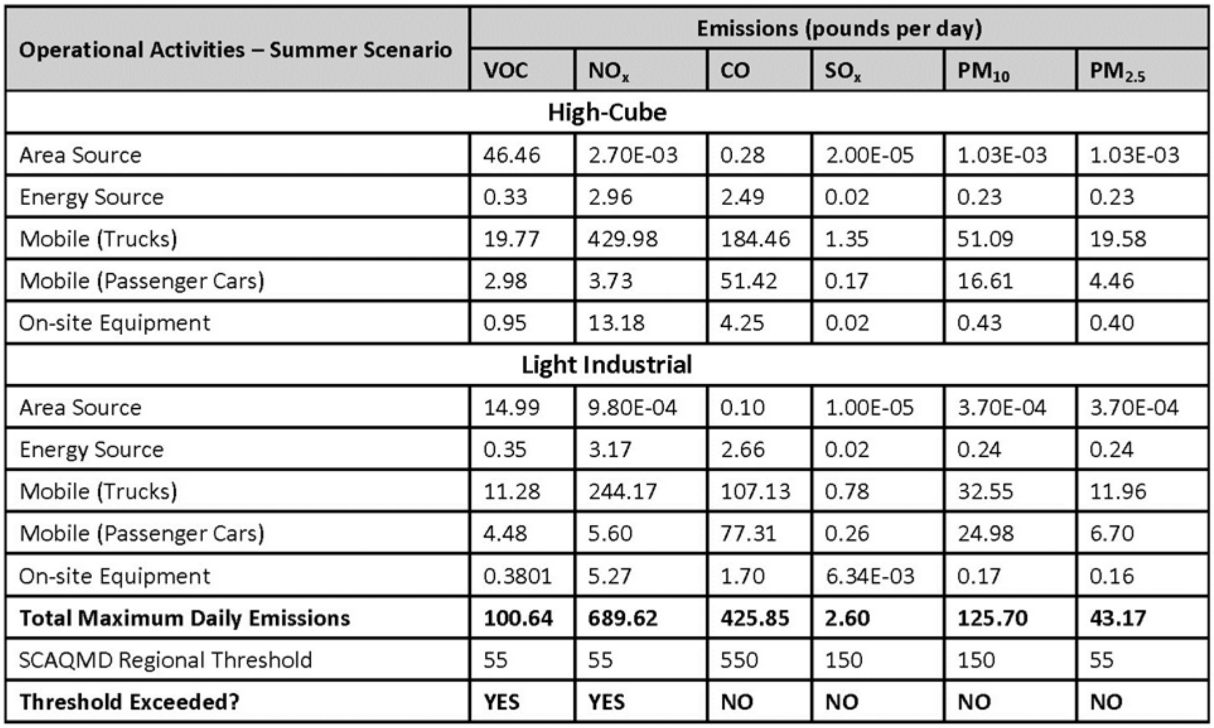

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	0.02	0.23	0.23
Mobile (Trucks)	19.77	429.98	184.46	1.35	51.09	19.58
Mobile (Passenger Cars)	2.98	3.73	51.42	0.17	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.28	244.17	107.13	0.78	32.55	11.96
Mobile (Passenger Cars)	4.48	5.60	77.31	0.26	24.98	6.70
On-site Equipment	0.3801	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.64**	**689.62**	**425.85**	**2.60**	**125.70**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

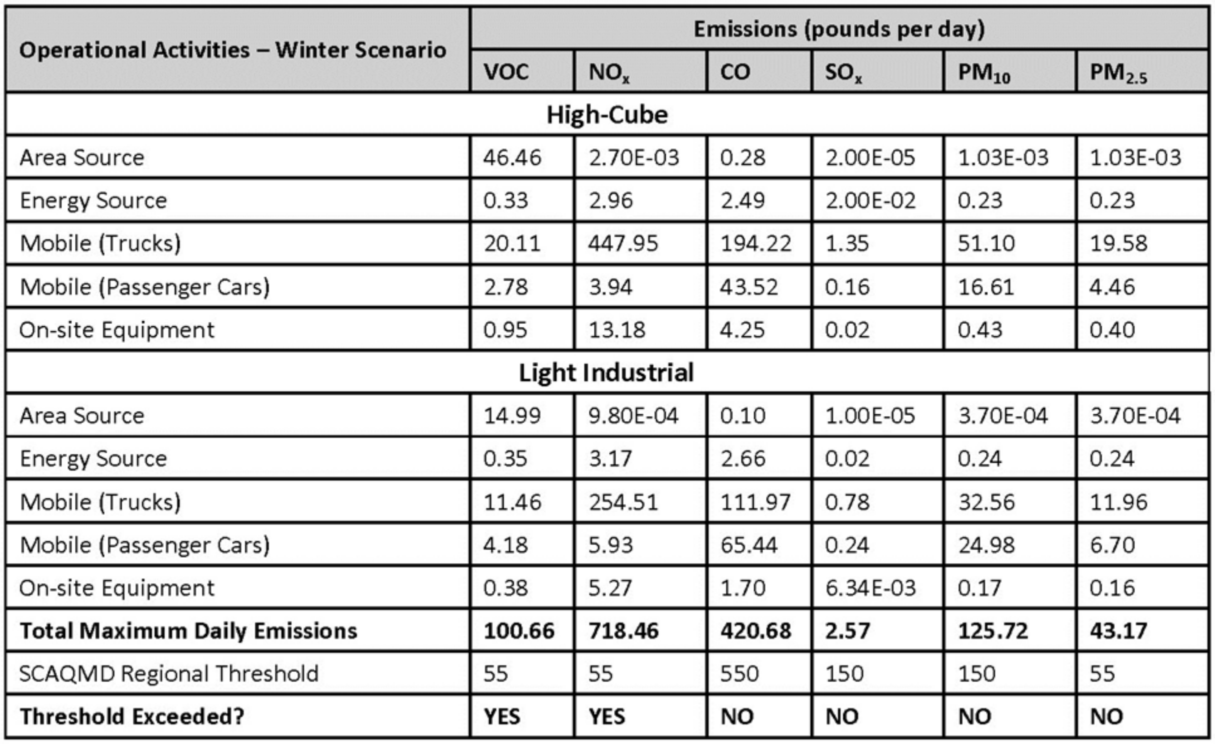

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	2.00E-02	0.23	0.23
Mobile (Trucks)	20.11	447.95	194.22	1.35	51.10	19.58
Mobile (Passenger Cars)	2.78	3.94	43.52	0.16	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.46	254.51	111.97	0.78	32.56	11.96
Mobile (Passenger Cars)	4.18	5.93	65.44	0.24	24.98	6.70
On-site Equipment	0.38	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.66**	**718.46**	**420.68**	**2.57**	**125.72**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, Inc., 2016a, Table 3-8)

As indicated on Table 4.3-14, *Potential Overlap of Project Construction and Operational Activities (With Mitigation)*, mitigation measures would reduce the Project's overlapping short-term construction and long-term operational emissions of VOC, NO_X, CO, NO_X, and PM_{10} and $PM_{2.5}$; but not to below a level of significance. Therefore, in the event that short-term construction activity and long-term operational activities overlap, impacts would be significant, unavoidable direct and cumulatively considerable for emissions of VOC, NO_X, CO, NO_X, and PM_{10} and $PM_{2.5}$. This EIR recommends all feasible mitigation to reduce VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ emissions and no additional feasible mitigation is available to reduce emissions to below a level of significance. No other mitigation measures are available that are feasible for the Project Applicant to implement and for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact. As such, it is concluded that when the Project's short-term construction and long-term operational activities overlap, VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ emissions would violate the SCAQMD air quality standards.

Table 4.3-14 Potential Overlap of Project Construction and Operational Activities (With Mitigation)

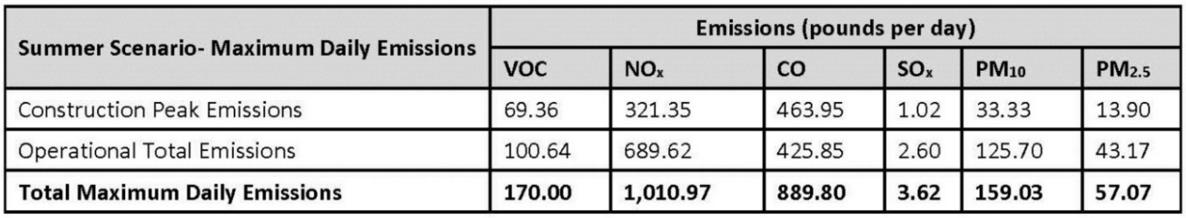

Summer Scenario- Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Construction Peak Emissions	69.36	321.35	463.95	1.02	33.33	13.90
Operational Total Emissions	100.64	689.62	425.85	2.60	125.70	43.17
Total Maximum Daily Emissions	**170.00**	**1,010.97**	**889.80**	**3.62**	**159.03**	**57.07**

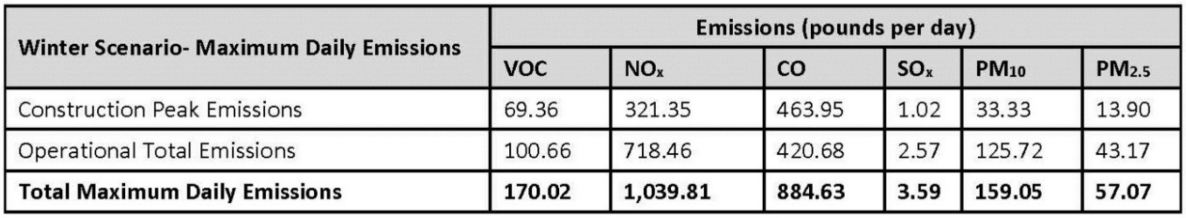

Winter Scenario- Maximum Daily Emissions	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Construction Peak Emissions	69.36	321.35	463.95	1.02	33.33	13.90
Operational Total Emissions	100.66	718.46	420.68	2.57	125.72	43.17
Total Maximum Daily Emissions	**170.02**	**1,039.81**	**884.63**	**3.59**	**159.05**	**57.07**

Source: (Urban Crossroads, Inc., 2016a, Table 3-10)

Threshold d): Less-than-Significant Impact. As indicated in Table 4.3-15, *Project Construction Localized Emissions Summary (With Mitigation)*, with the implementation of mitigation measures, emissions during the Project's peak construction activity, emissions would not exceed the SCAQMD's localized significance threshold for any of the applicable emissions. Thus, with the implementation of mitigation measures, impacts would be less than significant.

Table 4.3-15 Project Construction Localized Emissions Summary (With Mitigation)

Peak Construction	CO		NO_2	PM_{10}		$PM_{2.5}$
	Averaging Time					
	1-Hour	8-Hour	1-Hour	24-Hours	Annual	24-Hours
Peak Day Localized Emissions	0.32	0.27	0.09	4.92	0.81	2.35
Background Concentration [A]	2.0	1.9	0.06	▨	▨	▨
Total Concentration	**2.32**	**2.17**	**0.15**	**4.92**	**0.81**	**2.35**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	1	10.4
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data.

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in µg/m^3. All others are expressed in Parts per Million (PPM).

Source: (Urban Crossroads, Inc., 2016a, Table 3-13)

4.4 Biological Resources

This Subsection assesses the proposed Project's potential to impact sensitive biological resources that may be present on the subject property or within the Project's off-site improvement area. As described in EIR Section 3.0, *Project Description*, the Project's off-site improvement area with the potential to impact biological resources includes portions of the Perris Valley Storm Drain Channel that abut the Project site and are associated with the construction of storm drain outlet structures.

The information and analysis presented in this Subsection is based on a site-specific biological technical report prepared by Glenn Lukos Associates, Inc. (hereafter, GLA) titled, "Biological Technical Report for the Moreno Valley Logistics Center," dated March 17, 2016 (GLA, 2016). The Biological Technical Report is appended to this EIR as *Technical Appendix C1*. This Subsection also is based on a site-specific jurisdictional report prepared by GLA, titled, "Jurisdictional Delineation of the Moreno Valley Logistics Center Project Area," dated May 12, 2015, and appended to this EIR as *Technical Appendix C2* (GLA, 2015).

GLA conducted a site-specific evaluation of biological resources present or potentially present on the Project site or within its off-site improvement area. The biological resources evaluation included the review of relevant literature, field surveys, and a geographic information system (GIS)-based analysis of vegetation communities. Field surveys performed by GLA included: 1) general biological surveys and vegetation mapping; 2) site-specific habitat assessments and biological surveys; 3) focused burrowing owl mapping and focused burrowing owl surveys; and 4) delineation of aquatic resources (including wetland and riparian habitat) subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW), as well as Western Riverside Multiple Species Habitat Conservation Program (MSHCP) riparian/riverine resources. Refer to *Technical Appendices C1* and *C2* for detailed descriptions of the survey dates, scope of study, and research and survey methodologies used for the Biological Technical Report and the Jurisdictional Delineation.

4.4.1 Existing Conditions

Historically, the Project site has been either vacant or used for agricultural activities since at least 1938. An ephemeral stream bed transected the Project site in a northwest to southwest direction until the time period between the mid-1950s and mid-1960s, when the stream bed was channelized as part of the man-made Perris Valley Storm Drain Channel. Under existing conditions, the Project site consists of vacant, undeveloped land that is routinely disturbed (i.e., disced) as part of weed abatement activities and supports ruderal non-native vegetation. No trees are present on the Project site, or within the off-site improvement area under existing conditions. (GLA, 2016, p. 21, Appendix A)

A. Vegetation Communities

GLA determined that the Project site is highly disturbed as a result of historic agricultural and weed abatement (discing) activities. As such, the entire 89.4-acre Project site is characterized as ruderal/disturbed habitat, which is not considered a special-status or sensitive natural vegetation community. The Project's off-site improvement area within the Perris Valley Storm Drain is characterized by unvegetated riverine habitat (approximately 0.20-acre) and ruderal/disturbed habitat (approximately 0.14-acre). The unvegetated riverine habitat within the Project's off-site improvement area qualifies as Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) riverine habitat, but does not support riparian vegetation or vernal pools. (GLA, 2016, pp. 21-22, 31, Exhibit 5) The vegetation communities observed on the Project site and within the Project's off-site improvement area are illustrated on Figure 4.4-1, *Existing Vegetation Communities*.

B. Special-Status Plants

No special-status plant species were observed – or are expected to occur – on the Project site or within the Project's off-site improvement area (GLA, 2016, pp. 21-22). All plant species observed by GLA during surveys of the Project site and off-site improvement area are listed in Appendix A of *Technical Appendix C1*.

C. Special-Status Wildlife

GLA detected one special-status wildlife species, the San Diego black-tailed jackrabbit, on the Project site (GLA, 2016, p. 25). All wildlife species observed by GLA during surveys of the Project site and off-site improvement area are listed in Appendix B of *Technical Appendix C1*.

Although only one special-status wildlife species was observed by GLA during field surveys of the Project site and off-site improvement area, nine additional special-status wildlife species have the potential to occur within the area based on the physical characteristics of property and the current and historical distribution of the wildlife species. The special-status wildlife species with the potential to occur within the Project improvement area are summarized below.

- **Burrowing Owl.** The western burrowing owl is a California Species of Special Concern. The species is a Covered Species under the Western Riverside County MSHCP. No burrowing owls or signs of their use of the property (i.e., scat, tracks, pellets, or feathers) were observed during focused surveys for the species conducted by GLA biologists; however, the Project site contains foraging and nesting habitat (i.e., burrows) that could be used by the species. (GLA, 2016, pp. 27, 39)

- **Ferruginous Hawk.** The ferruginous hawk is a Federal Bird of Conservation Concern, a California Watch List species, and is a Covered Species under the Western Riverside County MSHCP. The Project area contains low-quality foraging habitat for the species; however, the large, contiguous open areas within the Project site has the low potential to attract the ferruginous hawk as a winter visitor. The species does not have the potential to nest within the Project site. (GLA, 2016, p. 27)

Legend

🟧 Ruderal/Disturbed
🟩 Unvegetated Riverine
☐ Project Boundary

Source: *Glenn Lukos Associates (05-2015)*

Figure 4.4-1

NOT TO SCALE

EXISTING VEGETATION COMMUNITIES

- **Golden Eagle.** The golden eagle is a Federal Bird of Conservation Concern, a California Watch List and Fully Protected species, and is a Covered Species under the Western Riverside County MSHCP. The Project area contains low-quality foraging habitat for the species; however, the large, contiguous open areas within the Project site has the low potential to attract the golden eagle as a winter visitor. The species does not have the potential to nest within the Project site. (GLA, 2016, p. 27)

- **Loggerhead shrike.** The loggerhead shrike is a California Species of Special Concern and is a Covered Species under the Western Riverside County MSHCP. The Project site contains marginal habitat for the species and the species has low-to-moderate potential to use the Project site for foraging. (GLA, 2016, pp. 28, 34)

- **Northern harrier.** The northern harrier is classified as a California Species of Special Concern and is a Covered Species under the Western Riverside County MSHCP. No nesting habitat for the northern harrier is present within the Project area; however, the species has low potential to forage on the Project site. (GLA, 2016, p. 28)

- **White-tailed kite.** The white-tailed kite is listed as a California Fully-Protected Species and is a Covered Species under the Western Riverside County MSHCP. The Project area lacks the trees and shrubs this species requires for nesting; however, the white-tailed kite has a low potential to forage over the site. (GLA, 2016, p. 28)

- **Los Angeles pocket mouse.** The Los Angeles pocket mouse is a California Species of Special Concern and is a Covered Species under the Western Riverside County MSHCP. The species has a low potential to occur in the Project area due to the lack of suitable habitat. (GLA, 2016, p. 29)

- **Northwestern San Diego pocket mouse.** The Northwestern San Diego pocket mouse is a California Species of Special Concern and is a Covered Species under the Western Riverside County MSHCP. The species has a low potential to occur in the Project area due to the lack of suitable habitat. (GLA, 2016, p. 29)

- **Stephens' kangaroo rat.** The Stephens' kangaroo rat is a Federally Endangered species, a California Threatened species, and is covered under the Western Riverside County MSHCP. The species has a low to moderate potential to occur in the Project area due to low quality habitat and routine disturbance (i.e., discing). (GLA, 2016, p. 29)

D. Nesting Birds

The Project site does not contain suitable nesting habitat for raptors, due to the lack of large trees on the property. However, the Project site contains ground cover that provides suitable nesting habitat for smaller, migratory birds. Although GLA did not observe nesting migratory birds on the Project site, there is the potential that migratory birds could nest on the property. (GLA, 2016, pp. 27-28,

30) The Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code prohibit impacts to nesting native birds and nesting migratory birds.

E. Jurisdictional Waters and Wetlands

The Project site does not support any drainages, water courses, vernal pools, or wetland habitats that would be under the jurisdiction of the United States Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and/or the Regional Water Quality Control Board (RWQCB) (GLA, 2015, Exhibit 3).

The Project site abuts the Perris Valley Storm Drain Channel, which is a water course that is within the jurisdiction of the ACOE, CDFW, and RWQCB. The Project would impact an approximately 0.34-acre portion of the Perris Valley Storm Drain Channel to accommodate the construction of storm drain outlet structures. Approximately 0.092-acre of ACOE and RWQCB jurisdictional area (none of which are jurisdictional wetlands) and approximately 0.20-acre of CDFW jurisdictional area (none of which supports riparian vegetation) occurs within the Project's off-site improvement area in the Perris Valley Storm Drain Channel. (GLA, 2016, p. 31)

F. Regulatory Setting

The Project site and associated off-site improvement area are subject to state and federal regulations that were developed to protect natural resources, including: endangered plants and animals; aquatic resources, including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities. Provided below is a brief overview of applicable federal, state, and regional laws, regulations, and requirements that are applicable to the Project site. Refer to *Technical Appendices C1* and *C2* for a detailed summary of applicable regulations related to biological resources.

☐ Western Riverside County MSHCP

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP) focusing on conservation of species and their habitats in Western Riverside County. The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFW, and participating entities (including the City of Moreno Valley). Rather than focusing on one species at a time, implementation of the Western Riverside County MSHCP Section 10 Permit preserves native vegetation and meet the habitat needs of multiple species.

The Project site is located within the Reche Canyon/Badlands Area Plan of the Western Riverside County MSHCP but is not located within a Cell Group, Criteria Cell, or Sub-Unit and is not targeted for conservation. The Project site is located within the MSHCP Burrowing Owl Survey Area but is not located within the Narrow Endemic Plan Species Survey Area (NEPSSA), the Criteria Area Plant

Species Survey Area (CAPSSA), or the MSHCP Mammal and Amphibian Survey Areas. (Riverside County, 2015)

❑ Stephens' Kangaroo Rat Habitat Conservation Plan

The Stephens' Kangaroo Rat HCP is a comprehensive, multi-jurisdictional HCP focusing on the conservation of the endangered Stephens' Kangaroo Rat and its habitat. The Stephens' Kangaroo Rat HCP was adopted in August 1990 and an Implementing Agreement (IA) was executed between the USFWS, CDFW, and participating entities (including the City of Moreno Valley). The Stephens' Kangaroo Rat HCP provides for the permanent establishment, mitigation, and monitoring of a reserve network for the Stephens' Kangaroo Rat. The Project site is not located within the Stephens' Kangaroo Rat survey area but is located within the Stephens' Kangaroo Rat mitigation fee area. (GLA, 2016, p. 13)

❑ State and/or Federally Listed Plants and Wildlife

State of California Endangered Species Act

California's Endangered Species Act (CESA) provides definitions for endangered species, threatened species, and candidate species of California. Listed endangered and threatened species are protected by the CESA and candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 provides definitions for endangered species and threatened species of the U.S. Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the United States Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and wildlife species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7(a)(2) of the FESA of 1973 stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat.

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCPs) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the Section 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

Take Authorization Pursuant to the Western Riverside County MSHCP

The Western Riverside County MSHCP provides coverage (including take authorization for listed species) for special-status plant and wildlife species, as well as mitigation for impacts to sensitive species. Through agreements with the USFWS and the CDFW, the Western Riverside County MSHCP designates 146 special-status wildlife and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the Western Riverside County MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through compliance with the Western Riverside County MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. The Project site is located within the Western Riverside County MSHCP burrowing owl survey area, which requires project-specific survey requirements for the species because it is designated as a "Covered Species not yet adequately conserved."

Take Authorization Pursuant to the Stephens' Kangaroo Rat Conservation Plan

The Stephens' Kangaroo Rat HCP provides coverage (including incidental take authorization) for the Stephens' Kangaroo Rat, pursuant to agreements with the USFWS and the CDFW, as well as a mitigation program to further long-term conservation efforts for the species.

☐ Regulations Relating to Nesting Birds

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. Applied to development projects, the MBTA prohibits the impact to the active nests of birds protected by the MBTA.

California Fish and Game Code

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except under certain circumstances defined by the Code. Section 3503.5 of the California Fish and Game Code more specifically applies to birds-of-prey and states that it is unlawful to take, possess, or destroy any birds in the orders *Falconiformes* or *Strigiformes* (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Similar to the MBTA provisions, the California Fish and Game Code sections prohibits development projects from impacting active nests.

☐ Regulations Related to Jurisdictional Waters and Wetlands

United States Army Corps of Engineers (ACOE)

Pursuant to Section 404 of the Federal Clean Water Act (CWA), the ACOE regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in ACOE regulations at 33 CFR Part 328.3(a) and generally includes waters used in interstate or foreign commerce; all interstate waters and interstate wetlands; waters that would adversely affect foreign commerce in the instance of their destruction; impoundments of waters of the United States; or tributaries of the aforementioned waters. The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) which is defined at 33 CFR 328.3(e).

Regional Water Quality Control Board (RWQCB)

CWA Section 401 requires federal agencies to obtain a Water Quality Certification from the RWQCB before issuing permits that would result in increased pollutant loads to a water body. A

Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards. In addition, any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State is required to file a report of discharge with the RWQCB. The term "waters of the State" is defined as any surface water or groundwater, including saline waters, within the boundaries of California. While all waters of the United States that occur within the borders of California are also waters of the State, the converse is always not true – waters of the United States are a subset of waters of the State.

California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Wildlife Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake if the activity will:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank if, any river, stream or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flakes, or ground pavement where it may pass into any river, stream or lake.

This notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. It may also apply to work undertaken within the flood plain of a body of water.

4.4.2 Basis for Determining Significance

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, § 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in § 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines § 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish*

> *or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species"*

Therefore, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service;*

b) *Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U. S. Fish Wildlife Service;*

c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*

d) *Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites;*

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*

f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan.*

4.4.3 Impact Analysis

The Project would result in permanent impacts to approximately 89.4 acres of ruderal/disturbed habitat on the Project site and approximately 0.14-acre of ruderal/disturbed habitat within the Perris Valley Storm Drain Channel. The Project also would result in permanent impacts to approximately 0.02-acre and temporary impacts to approximately 0.18-acre of unvegetated riverine habitat within the Perris Valley Storm Drain Channel. Following the completion of construction activities, the Project would restore areas within the Perris Valley Storm Drain Channel that are subject to temporary impacts to pre-construction conditions.

Threshold a)	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?***

A. Impacts to Special-Status Plants

As documented by GLA, no special-status plants were detected or have the potential to occur within the Project site or the Project's off-site improvement area (GLA, 2016, pp. 22-24. 34). Therefore, there is no potential for the Project to directly impact special-status plant species. No impact would occur and mitigation is not required.

B. Impacts to Special-Status Wildlife

One special-status wildlife species was observed on the Project site during biological field surveys: the San Diego black-tailed jackrabbit. An additional nine special-status wildlife species have the potential to occur on the Project site or its off-site improvement area: burrowing owl, ferruginous hawk, golden eagle, loggerhead shrike, northern harrier, white-tailed kite, Los Angeles pocket mouse, northwestern San Diego pocket mouse, and the Stephens' kangaroo rat. With the exception of the burrowing owl, all special-status wildlife species observed or with the potential to occur on the Project site or within its off-site improvement area are covered by the Western Riverside County MSHCP or the Stephens' Kangaroo Rat HCP. For properties such as the Project site that are located outside of a Western Riverside County MSHCP Criteria Area or a Stephens' Kangaroo Rat Reserve Area, impacts to plant and wildlife species listed in the Western Riverside County MSHCP Criteria Area or the Stephens' Kangaroo Rat HCP are authorized by the incidental take permits associated with the respective plans. The Project Applicant will be required to pay the City of Moreno Valley's Western Riverside County MSHCP Mitigation Fee as well as the Stephens' Kangaroo Rat HCP Mitigation Fee, which pays for new development's share of the financing, acquisition, and long-term management of lands supporting species covered by the Western Riverside County MSHCP Criteria Area and the Stephens' Kangaroo Rat HCP. As such, the Project's impact to the San Diego black-tailed jackrabbit and potential impacts to the ferruginous hawk, golden eagle, loggerhead shrike, northern harrier, white-tailed kite, Los Angeles pocket mouse, northwestern San Diego pocket mouse, and the Stephens' kangaroo rat would be less than significant.

The burrowing owl is classified by the MSHCP as a Covered Species not adequately conserved by the MSHCP. Although no burrowing owl individuals or signs of burrowing owl use were observed on the Project improvement area during surveys conducted by GLA, the property contains habitat suitable to burrowing owl (GLA, 2016, p. 27). Accordingly, it is possible that the species could migrate onto the property prior to Project construction. If burrowing owls are present on the Project improvement area during grading activities, the Project's impact to the species would be significant; thus, mitigation is required.

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Threshold b)	***Would the Project have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Wildlife Service?***
Threshold c)	***Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

The Project's permanent impact to approximately 89.4 acres of ruderal/disturbed habitat on the Project site and approximately 0.14-acre of ruderal/disturbed habitat within the Perris Valley Storm Drain Channel would be less than significant because ruderal habitat is not classified as riparian habitat or as a sensitive natural community and also is not a federally protected wetland.

The Project would result in permanent and temporary impacts to areas within the Perris Valley Storm Drain Channel that are under the jurisdiction of the ACOE and RWQCB. The Project would obtain a Section 401 Permit for impacts to areas under the jurisdiction of the RWQCB and a Section 404 Permit for impacts to areas under the jurisdiction of the ACOE. Permanent impacts to ACOE and RWQCB jurisdictional areas would total approximately 0.002-acre and temporary impacts to ACOE and RWQCB jurisdictional areas would total approximately 0.09-acre. None of the areas proposed for impact (either permanently or temporarily) are classified as wetlands. The Project's permanent impacts to ACOE and RWQCB jurisdictional areas would be less than significant due to the absence of riparian/wetland habitat, the negligible adverse effect to biological function, and the small area of total impact. The Project's temporary impacts to ACOE and RWQCB jurisdiction would be less than significant because of the absence of riparian/wetland habitat and the negligible adverse effect to biological function, and because the Project would restore all temporarily impacted areas to pre-construction conditions. (GLA, 2016, p. 35) No mitigation is required for the Project's permanent and temporary impacts to areas under ACOE and RWQCB jurisdiction.

The Project would result in permanent and temporary impacts to areas within the Perris Valley Storm Drain Channel that are under the jurisdiction of the CDFW. The Project would obtain a Lake and Streambed Alteration agreement for impacts to areas under the jurisdiction of CDFW. Permanent impacts to CDFW jurisdictional areas would total approximately 0.02-acre and temporary impacts to CDFW jurisdictional areas would total approximately 0.18-acre. None of the areas proposed for impact (either permanently or temporarily) are classified as riparian habitat. The Project's permanent impacts to CDFW jurisdictional areas would be less than significant due to the absence of riparian/wetland habitat, the negligible adverse effect to biological function, and the small area of total impact. The Project's temporary impacts to CDFW jurisdiction would be less than significant because of the absence of riparian/wetland habitat and the negligible adverse effect to biological function, and because the Project would restore all temporarily impacted areas to pre-construction conditions. (GLA, 2016, p. 35) No mitigation is required for the Project's permanent and temporary impacts to areas under CDFW jurisdiction.

As described in more detail in EIR Subsection 4.8, *Hydrology and Water Quality*, the Project would result in a slight reduction in runoff flows discharged to the Perris Valley Storm Drain Channel during peak storm events, as compared with existing conditions, and has the potential to discharge less-than-significant concentrations of sediment and urban pollutants in storm water runoff that enter the Perris Valley Storm Drain Channel. The Project's minor alterations to the volume and quality of runoff stormwater runoff leaving the subject property and entering the Perris Valley Storm Drain Channel would have negligible potential to adversely impact biological functions and values as it related to downstream biological resources (GLA, 2016, pp. 36-37).

In summary, the Project would not have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or United States Fish and Wildlife Service (USFWS). Additionally, the Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA. Impacts would be less than significant.

Threshold d) ***Would the Project interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

There are no natural water bodies on the Project site or within the Project's off-site improvement area that could support fish; therefore, there is no potential for the Project to interfere with the movement of fish. There are also no native wildlife nurseries on-site or within the Project's off-site improvement area; therefore, there is no potential for the Project to impede the use of a native wildlife nursery site. As such, no impact would occur.

Although wildlife could move through or within the Project site, the existing urban land uses that surround the site impede substantial wildlife movement throughout the Project site's vicinity. In addition, implementation of the Project would not have the ability to interfere with an established migratory wildlife corridor, because the site does not serve as a corridor nor is it connected to an established corridor. Additionally, the Project site is not located adjacent to the Western Riverside County MSHCP Criteria Area or any MSHCP Preserve; thus, the Project has no potential to result in wildlife movement impacts within a MSHCP Preserve (GLA, 2016, p. 37). As such, the Project would result in a less-than-significant impact on wildlife movement.

The proposed Project would, result in removal of low-lying vegetation across the Project site that has the potential to support nesting migratory birds (GLA, 2016, p. 39). Impacts to nesting migratory birds are prohibited under the MBTA and California Fish and Game Code and the Project's potential impacts to such species represents a significant impact for which mitigation is required. As previously described, neither the Project site nor the Project's off-site improvement area support vegetation that would support nesting raptor species (GLA, 2016, p. 34).

Threshold e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The City of Moreno Valley Municipal Code contains provisions for the protection of the Stephens' Kangaroo Rat pursuant to the Stephens' Kangaroo Rat HCP (refer to Title 8, Chapter 8.60 of the Municipal Code). The Project site is not located within an identified reserve area for the Stephens' Kangaroo Rat and the species has a low to moderate potential to occur on the Project site. In addition, the species was not observed during biological surveys of the Project site or the off-site improvement area. (GLA, 2016, p. 37) Accordingly, the Project is exempt from the focused survey requirements for the Stephens' Kangaroo Rat established by the City's Municipal Code. The Project Applicant is required to contribute a local development impact and mitigation fee, which requires a fee payment to assist the City in implementing the habitat conservation plan for the Stephens' Kangaroo Rat. With mandatory compliance with standard regulatory requirements (i.e., development impact and mitigation fee payment), the proposed Project would not conflict with any City policies or ordinances related to the protection of the Stephens' Kangaroo Rat.

The City of Moreno Valley Municipal Code also contains provisions for the collection of mitigation fees to further the implementation of the Western Riverside County MSHCP (refer to Title 3, Chapter 3.48 of the Municipal Code). The Project Applicant is required to contribute a local mitigation fee, which requires a fee payment to assist the City in implementing the Western Riverside County MSHCP reserve system (including the acquisition, management, and long-term maintenance of sensitive habitat areas). With mandatory compliance with standard regulatory requirements (i.e., mitigation fee payment), the proposed Project would not conflict with any City policies or ordinances related to the mitigation fee program associated with Western Riverside County MSHCP.

The City of Moreno Valley does not have any additional policies or ordinances in place to protect biological resources that are applicable to the Project.

Threshold f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or state habitat conservation plan?

The following analysis evaluates the Project's compliance with the Western Riverside County MSHCP's Reserve Assembly Requirements as well as other applicable MSHCP requirements pursuant to the following sections of the MSHCP: Section 6.1.2, P*rotection of Species Associated with Riparian/Riverine Areas and Vernal Pools*; Section 6.1.3, P*rotection of Narrow Endemic Plant Species*; Section 6.1.4, *Guidelines Pertaining to the Urban/Wildland Interface*; and Section 6.3.2, *Additional Survey Needs and Procedures*.

❑ Project Relation to Reserve Assembly

The Project site occurs within the overall Plan Area of the Western Riverside County MSHCP. As indicated in the discussion below, all surveys required by the Western Riverside County MSHCP have been conducted on the Project site and off-site improvement areas. The Project site does not occur within a Western Riverside County MSHCP Criteria Area. As such, the proposed Project is not required to set aside conservation lands pursuant to the Western Riverside County MSHCP, and the proposed Project is not subject to the MSHCP's Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process, or Joint Project Review (JPR). Although the Perris Valley Storm Drain Channel is designated by the MSHCP as "Public/Quasi Public Lands," the Project would not adversely affect the biological functions of the Channel, as it relates to MSHCP Covered Species within the Channel adjacent to the Project site or downstream; therefore, the Project would not affect potential wildlife movement within the Channel. Accordingly, the proposed Project would not conflict with the Western Riverside County MSHCP Reserve Assembly requirements and no impact would occur.

❑ Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

The Project would permanently impact approximately 0.02-acre of unvegetated riverine habitat and temporarily impact approximately 0.18-acre of unvegetated riverine habitat within the Perris Valley Storm Drain Channel that qualifies as a MSHCP riverine area. The unvegetated riverine habitat that would be impacted by the Project does not include any riparian habitat or vernal pools.

The Project's permanent impacts to MSHCP riverine areas would be less than significant due to the absence of riparian habitat, the negligible adverse effect to biological functions and values as it pertains to MSHCP Covered Species, and the small area of total impact. The Project's temporary impacts to MSHCP riverine areas would be less than significant because of the absence of riparian/wetland habitat and the negligible adverse effect to biological functions and values as it pertains to MSHCP Covered Species, and because the Project would restore all temporarily impacted areas to pre-construction conditions. (GLA, 2016, pp. 36-37) No mitigation is required for the Project's permanent and temporary impacts to MSHCP riverine areas.

As described in more detail in EIR Subsection 4.8, *Hydrology and Water Quality*, the Project would result in a slight reduction in runoff flows discharged to the Perris Valley Storm Drain Channel during peak storm events, as compared with existing conditions, and has the potential to discharge less-than-significant concentrations of sediment and urban pollutants in storm water runoff that enter the Perris Valley Storm Drain Channel. The Project's minor alterations to the volume and quality of runoff stormwater runoff leaving the subject property and entering the Perris Valley Storm Drain Channel would have negligible potential to adversely impact biological functions and values as it related to downstream resources (GLA, 2016, pp. 36-37).

Because the Project would not result in a loss of functions and values as it pertains to the MSHCP Covered Species within the Project footprint or within downstream areas, a Determination of

Biological Equivalent or Superior Preservation (DBESP) is not required for the Project. The Project would be consistent with *Section 6.1.2* of the Western Riverside County MSHCP (GLA, 2016, p. 37).

❑ Protection of Narrow Endemic Plants

The Project is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA) and is not subject to focused surveys for special-status plants. The Project would be consistent with *Section 6.1.3* of the Western Riverside County MSHCP (GLA, 2016, pp. 41-42).

❑ Guidelines Pertaining to Urban/Wildland Interface

The Western Riverside County MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area, including Public/Quasi-Public lands. As the Western Riverside County MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area and edge effects with the potential to adversely affect biological resources within the Conservation Area are required to be evaluated. The Project site abuts the Perris Valley Storm Drain Channel, which is designated as the Western Riverside County MSHCP as Public/Quasi-Public lands; however, the Perris Valley Storm Drain Channel is a man-made, engineered stormwater drainage channel that is routinely maintained and does not support natural habitat or special-status biological resources under existing conditions. As such, the Project has no potential to result in substantial adverse indirect effects in proximity to a MSHCP Conservation Area that supports natural and/or sensitive biological resources. The proposed Project, would be consistent with *Section 6.1.4* of the Western Riverside County MSHCP. (GLA, 2016, p. 42)

❑ Additional Needs Survey and Procedures

Western Riverside County MSHCP Section 6.3.2 identifies that in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3, additional surveys may be needed for other certain plant and wildlife species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated CAPSSA, or special wildlife species survey area (i.e., burrowing owl, amphibians, and mammals).

The Project site is located within the burrowing owl survey area, but is not located within the survey area for any other plant or wildlife species. GLA conducted a focused survey for the burrowing owl in 2015 in accordance with the Western Riverside County MSHCP Burrowing Owl Survey Requirements. As discussed above under Threshold a), GLA did not observe any burrowing owls or signs of the species use of the property (i.e., scat, tracks, pellets, or feathers). However, the species is migratory and could migrate onto the property prior to ground-disturbing construction activities. (GLA, 2016, p. 42) Therefore, this EIR recommends a pre-construction survey for the species as mitigation (refer to Subsection 4.4.6) to ensure Project consistency with *Section 6.3.2* of the Western Riverside County MSHCP.

4.4.4 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region within the boundaries of the Western Riverside County MSHCP.

The primary effects of the proposed Project, when considered with the build out of long-range plans in the region, would be the cumulative loss of vacant land that can support habitat for sensitive plant and/or wildlife species. With respect to special-status species, no special-status plant species were observed on the Project site or within the Project's off-site improvement area and no special-status plant species are expected to occur in these areas due to a lack of suitable habitat (GLA, 2016, pp. 38-39). Therefore, there is no potential for the Project to contribute to adverse cumulative impacts to special status plant species. With respect to special-status wildlife species, although the habitat offered on the Project site is of substantially lesser quality than habitat that is found in undisturbed natural areas within the geographic area covered by the Western Riverside County MSHCP, it still provides open spaces for wildlife foraging, refuge, nesting, and areas that can be used for species reproduction.

Anticipated cumulative impacts within the region are addressed by the Western Riverside County MSHCP. The Western Riverside County MSHCP addresses 146 Covered Species that represent a broad range of habitats and geographical areas within Western Riverside County, including threatened and endangered species and regionally- or locally-sensitive species that have specific habitat requirements and conservation and management needs. The Western Riverside County MSHCP addresses biological impacts for take of Covered Species within the Western Riverside County MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the Western Riverside County MSHCP address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the Western Riverside County MSHCP states that:

> *The MSHCP was specifically designed to cover a large geographical area so that it would protect numerous endangered species and habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and multiple endangered species.*

It goes on to state that:

> *The LDMF [Local Development Mitigation Fee] is to be charged throughout the Plan Area to all future development within the western part of the County and the Cities in order to provide a coordinated conservation area and implementation program that will facilitate the preservation of biological diversity, as well as maintain the region's quality of life.*

The reason for the imposition of the Mitigation Fee over the entire region is that the loss of habitat for endangered species is a regional problem resulting from the cumulative effect of continuing development throughout all of the jurisdictions in Western Riverside County. Finally, Section 5.1 of the Western Riverside County MSHCP states that:

> *It is anticipated that new development in the Plan Area will fund not only the mitigation of the impacts associated with its proportionate share of regional development, but also the impacts associated with the future development of more than 332,000 residential units and commercial and industrial development projected to be built in the Plan Area over the next 25 years.*

Accordingly, for development outside of designated Western Riverside County MSHCP preservation areas cumulative impacts to biological resources would be less than significant, with the exception of MSHCP non-covered species (or Covered Species not yet adequately conserved). As discussed above under Threshold f, the proposed Project would comply with the requirements of the Western Riverside County MSHCP and, thus, would not conflict with its adopted policies. Furthermore, the Project Applicant is required to pay the required Western Riverside County MSHCP mitigation fees per the City of Moreno Valley Municipal Code Title 3, Chapter 3.48. Accordingly, because the proposed Project would comply with the Western Riverside County MSHCP and is required to pay the required MSHCP mitigation fee, the proposed Project would result less-than-significant cumulative impacts to wildlife species covered by the Western Riverside County MSHCP.

The Project has the potential to impact the burrowing owl, which is classified by the MSHCP as a Covered Species not yet adequately conserved. The burrowing owl is fairly ubiquitous within the Project vicinity; as such, it is reasonable to conclude that impacts to habitat for this species are occurring throughout the cumulative study area. As such, cumulative impacts are significant and the proposed Project's potential impacts to burrowing owls that may be located on the site prior to Project construction would be cumulatively considerable. Mitigation would be required.

The Project would result in minimal temporary and permanent impacts to unvegetated riverine habitat within the Perris Valley Storm Drain Channel that falls under the jurisdiction of the ACOE, RWQCB, and CDFW. None of the areas that would be impacted by the Project qualify as wetland or riparian habitat. The Project's temporary impacts to areas under the ACOE, RWQCB, and CDFW jurisdiction would be restored to pre-construction conditions following the completion of construction activities and would not be cumulatively considerable. The Project's permanent impact to ACOE and RWQCB jurisdictional area (approximately 0.002-acre) and CDFW jurisdictional area (approximately 0.02-acre) would not be cumulatively considerable due to the absence of riparian/wetland habitat, the negligible adverse effect to biological function adjacent to the Project site and downstream, and the small area of total impact. Impacts would be less than significant.

As indicated under the discussion and analysis of Threshold d) the proposed Project would not significantly impact wildlife movement corridors because such corridors already are accommodated by the Western Riverside County MSHCP and the Project site is not targeted for conservation as part of any proposed or existing linkages by the MSHCP. While Western Riverside County is becoming increasingly urbanized, which could restrict wildlife movement, the MSHCP, and the Conservation Areas established therein, was developed with several goals that specifically support wildlife movement. As concluded by the MSHCP's Final EIR/EIS, "The MSHCP provides for the movement of native resident and migratory species and for genetic flow identified for Covered Species. Therefore, impacts related to cores and linkages resulting from the Plan are considered less than significant" (MSHCP Volume 4: Final EIR/EIS, Section 4.1.5). Accordingly, the Project's cumulative impacts to wildlife movement are less than significant. In addition, there are no native wildlife nursery sites within the Project vicinity; therefore, the proposed Project would not result in cumulatively considerable impacts to native wildlife nursery sites.

The proposed Project would remove vegetation from the site that has the potential to provide groundcover for and support nesting migratory birds protected by the MBTA and California Fish and Game Code. Other projects within the Western Riverside County area would similarly have the potential to impact protected nesting migratory birds and also be subject to compliance with the MBTA. The Project's potential impact to nesting birds would be cumulatively considerable absent compliance to the MBTA.

The proposed Project would not conflict with any local policies or ordinances protecting biological resources. Other development projects in the City of Moreno Valley also would be required to comply with the City's Municipal Code. Accordingly, cumulative effects associated with compliance to local policies or ordinances protecting biological resources would be less than significant and the proposed Project's contribution would be less than cumulatively considerable.

4.4.5 Significance of Impacts before Mitigation

Threshold a): Significant Direct and Cumulatively Considerable Impact. No candidate, sensitive, or special-status plant species are located on the Project site. The loss of habitat for the San Diego black-tailed jackrabbit, as well as Western Riverside County MSHCP Covered Species with the potential to occupy or utilize the Project site would be less than significant with mandatory Western Riverside County MSHCP compliance. Although the burrowing owl is not present on the Project site, the species could be impacted if it migrates onto the property prior to the commencement of ground-disturbing construction activities, which is a potentially significant direct and cumulatively considerable impact.

Threshold b): Less-than-Significant Impact. The Project would impact disturbed/ruderal habitat (on- and off-site) and unvegetated riverine habitat (off-site). Portions of the unvegetated riverine habitat that would be impacted by the Project are under the jurisdiction of the ACOE, RWQCB, and/or CDFW. The Project's impacts to jurisdictional areas would not result in substantial adverse effects to biological form and function and would be less than significant. The Project would not impact any riparian habitat.

Threshold c): Less-than-Significant Impact. There are no federally protected wetlands on the Project site or within the off-site improvement area. Although the Project would discharge storm water runoff directly into the Perris Valley Storm Drain Channel, the discharge of storm water flows into the Perris Valley Storm Drain Channel would not result in substantial adverse effects to the form or function of any downstream natural habitats.

Threshold d): Significant Direct and Cumulatively Considerable Impact. There is no potential for the Project to interfere with the movement of any resident migratory fish or with established native resident migratory corridors or impede the use of a native wildlife nursery site. However, the Project has the potential to impact nesting migratory birds protected by the MBTA and California Fish and Game Code.

Threshold e): Less-than-Significant Impact. The Project would not conflict with any local policies or ordinances governing biological resources.

Threshold f): Significant Direct and Cumulative Impact. The Project site is subject to the Western Riverside County MSHCP and its survey requirements for the burrowing owl. Although the Project is compliant with all MSHCP provisions and although burrowing owl is absent from the subject property under existing conditions, the subject property contains habitat suitable for the species. If the species is present on the property at the time a grading permit is issued, impacts would be significant.

4.4.6 Mitigation

The following mitigation measures are required to reduce the Project's potential impact to the burrowing owl.

MM 4.4-1 Within 30 days prior to grading, a qualified biologist shall conduct a survey of the property and make a determination regarding the presence or absence of the burrowing owl in accordance with the Bu*rrowing Owl Survey Instructions for the Western Riverside MSHCP Area*. The determination shall be documented in a report and shall be submitted, reviewed, and accepted by the City of Moreno Valley Planning Division prior to the issuance of a grading permit and subject to the following provisions:

a) In the event that the pre-construction survey identifies that no burrowing owls are present on the property, a grading permit may be issued without restriction.

b) In the event that the pre-construction survey identifies the presence of at least one individual but less than three (3) mating pairs of burrowing owl, then prior to the issuance of a grading permit and prior to the commencement of ground-disturbing activities on the property, the qualified biologist shall passively or actively relocate any burrowing owls. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing of burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate habitat is not present as determined by the biologist, active relocation shall follow CDFW relocation protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to the issuance of a grading permit.

c) In the event that the pre-construction survey identifies the presence of three (3) or more mating pairs of burrowing owl, the requirements of MSHCP Species-Specific Conservation Objectives 5 for the burrowing owl shall be followed. Objective 5 states that if the site (including adjacent areas) supports three (3) or more pairs of burrowing owls and supports greater than 35 acres of suitable Habitat, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite until it is demonstrated that Objectives 1-4 have been met. A grading permit shall only be issued, either:

- Upon approval and implementation of a property-specific Determination of Biological Equivalent or Superior Preservation (DBESP) report for the western burrowing owl by the CDFW; or

- A determination by the biologist that the site is part of an area supporting less than 35 acres of suitable Habitat, and upon passive or active relocation of the species following accepted CDFW protocols. Passive relocation, including the required use of one-way doors to exclude owls from the site and the collapsing or burrows, will occur if the biologist determines that the proximity and availability of alternate habitat is suitable for successful passive relocation. Passive relocation shall follow CDFW relocation protocol and shall only occur between September 15 and February 1. If proximate alternate Habitat is not present as determined by the biologist, active relocation shall follow CDFW protocol. The biologist shall confirm in writing that the species has fledged the site or been relocated prior to issuance of a grading permit.

The following mitigation measure is required to reduce the Project's potential impact on nesting migratory birds.

MM 4.4-2 As a condition of approval for all grading permits, vegetation clearing shall be prohibited during the migratory bird nesting season (February 1 through September 15), unless a migratory bird nesting survey is completed in accordance with the following requirements:

a) A migratory nesting bird survey of all vegetation that may support nesting birds shall be conducted by a qualified biologist within three (3) days prior to initiating vegetation clearing.

b) A copy of the migratory nesting bird survey results report shall be provided to the City of Moreno Valley Planning Division. If the survey identifies the presence of active nests, then the qualified biologist shall provide the City of Moreno Valley Planning Division with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the City of Moreno Valley Planning Division and shall be no less than a 300-foot radius around the nest for non-raptors and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and City Planning Division verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.

4.4.7 Significance of Impacts after Mitigation

Threshold a): Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measure MM 4.4-1 would ensure that pre-construction surveys are conducted for the burrowing owl to determine the presence or absence of the species on the Project site or within the Project's off-site improvement area prior to Project-related grading activities. If the species is present, the mitigation requires avoidance and/or relocation of burrowing owls in conformance with accepted protocols for the species. As such, impacts would be less-than-significant with mitigation.

Threshold d). Less-than-Significant with Mitigation. Implementation of MM 4.4-2 would ensure that pre-construction surveys are conducted for nesting migratory birds to determine presence or absence prior to Project-related vegetation clearing activities. If nesting birds are determined to be present, the mitigation requires avoidance of bird nests during the breeding season in conformance with accepted protocols and regulatory requirements. With implementation of the required mitigation, potential direct and cumulatively considerable impacts to nesting migratory birds would be reduced to below a level of significance.

4.5 Cultural Resources

The analysis in this Subsection is based in part on the site-specific cultural resources assessment prepared by Brian F. Smith and Associates, Inc. (hereafter, BFSA) titled, "Phase I Cultural Resources Survey for the Moreno Valley Logistics Center Project," and dated March 4, 2016. The Phase I Cultural Resources Survey is appended to this EIR as *Technical Appendix D1*. The analysis in this Subsection also is based on the site-specific paleontological assessment prepared by BFSA titled, "Paleontological Resource and Monitoring Assessment," dated March 3, 2016. The Paleontological Resource and Monitoring Assessment is appended to this EIR as *Technical Appendix D2*. Information used to support the analysis in this Subsection also was obtained from the Cultural Resources section (Section 5.10, pp. 5.10-1 – 16) of the certified Final Program EIR prepared for the City of Moreno Valley General Plan (SCH No. 2000091075), dated July 2006 (Moreno Valley 2006b). Refer to Section 7.0, *References*, for a complete list of these and other reference sources.

4.5.1 Existing Conditions

☐ Paleontological Setting

According to the City of Moreno Valley General Plan Final EIR, the City of Moreno Valley contains sedimentary rock units with potential to contain significant nonrenewable paleontological (fossil) resources. These sedimentary units are referred to as the Mt. Eden Formation and the San Timoteo Formation. The Mt. Eden Formation is described as being primarily reddish sandstone and dark green and brown clay with local reddish fanglomerate and conglomerate. Fossilized fauna within the Mt. Eden Formation include cricetine rodent, horse and proboscidean (extinct animals related to elephants). The San Timoteo Formation is a widespread deposit of sands, gravels, and clays that extends northward from the foothills of the San Jacinto Mountains for a distance of nearly 20 miles. The San Timoteo Formation contains fossils of land animals and plant species, and represents sediments deposited from about 3.5 to 0.7 million years ago during late- Pleistocene to middle-Pleistocene time. The presence of non-marine fossils within a sequence of rocks spanning such a long time has led to several studies of the depositional environments and paleontology of the formation. (City of Moreno Valley, 2006b, p. 5.10-10) On the Project site, native sediments were observed at the ground surface and extending below the ground surface at depth (i.e., at least 30 feet below ground surface) (SoCalGeo, 2015, p. 6).

According to the Moreno Valley General Plan Final EIR, the Project area is characterized as having a "Low" potential for containing paleontological resource deposits because the area is covered with recent alluvium. The recent sediments overlie fossiliferous sedimentary units of the Mt. Eden Formation and the San Timoteo Formation; however, excavation to depths normal for development generally would not penetrate recent alluvial sediments to encounter fossiliferous deposits. Areas within the City that are thought to have the greatest potential for encountering paleontological resources occur in the hills in the east end of the City, in an area known as the "Badlands." The Project site is not located in this portion of the City. (City of Moreno Valley, 2006b, pp. 5.10-11, 5.10-15)

Contrary to the information contained in the Moreno Valley General Plan Final EIR, the County of Riverside classifies the entire Project site as having a "High Potential/Sensitivity (High B)" for paleontological resources. The category "High B" indicates that fossils are likely to be encountered at or below four (4) feet of depth, and may be impacted during excavation by construction activities. (BFSA, 2016b, p. 1-2)

B. Paleontological Resources

No paleontological or unique geological resources were observed by BFSA on the Project site. The Project's off-site improvement area within the Perris Valley Storm Drain Channel has no potential to contain paleontological or unique geological resources because the Channel is a modern, man-made storm drain facility and any such resources – if they once existed within the Channel's alignment – would have been removed/destroyed during construction of the Channel. Based on a paleontological literature review and records search conducted by the Geological Sciences Division of the San Bernardino County Museum in Redlands, California, no fossil localities are known to occur within the Project site or within a one-half-mile radius of the site. (BFSA, 2016b, pp. 1-2)

C. Prehistoric Setting

The Project site is located in the southwestern portion of the City of Moreno Valley, in western Riverside County, California. The Paleo-Indian, Archaic Period, Late Prehistoric Shoshonean, and Protohistoric groups are the four general prehistoric cultural periods represented in western Riverside County, as briefly summarized briefly below. Refer to *Technical Appendix D1* for a more detailed summary of the prehistoric cultural periods in western Riverside County.

- Paleo-Indian Period (Late Pleistocene, 11,500 to circa 9,000 years before present). The Paleo-Indian Period is associated with the terminus of the late-Pleistocene era. The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands. However, by the terminus of the late-Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes. Paleo-Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores, and likely subsisted using a more generalized hunting, gathering, and collecting adaptation, utilizing a variety of resources including birds, mollusks, and both large and small mammals. (BFSA, 2016a, pp. 3.0-4)

- Archaic Period (Early and Middle Holocene, circa 9,000 to 1,300 years before present). Between 9,000 and 8,000 years before present, a widespread complex was established in the southern California region, primarily along the coast. This complex is known as the La Jolla Complex which is regionally associated with the Encinitas Tradition and shared cultural components with the widespread Milling Stone Horizon. At the beginning of this time period, sea levels stabilized, rocky shores declined, lagoons filled with sediment, and sandy beaches became established. The sedimentation of the lagoons resulted in the decline in larger shellfish and the loss of drinking water. This resulted in a major depopulation of the coastal regions as peoples shifted inland to reliable freshwater sources and intensified their exploration of terrestrial small game and plants. By 5,000 years before present, an inland expression of the La Jolla Complex is evident in the archaeological record. These inland sites have been termed the "Pauma Complex." By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have a greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex, it appears that these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. (BFSA, 2016a, 3.0-1 through 3.0-3)

- Late-Prehistoric Period (Late-Holocene, 1,300 YBP to 1790). Approximately 1,350 years before present, a Shoshonean-speaking group from the Great Basin region moved into Riverside County marking the transition to the Late-Prehistoric Period. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period, with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow, as well as the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including the Cottonwood series points. (BFSA, 2016a, 3.0-3 through 3.0-4)

- Protohistoric Period (Late Holocene 1790 to Present). Ethnohistorical and ethnographic evidence indicates that three Shoshonean-speaking groups occupied portions of western Riverside County during the Protohistoric Period, including the Cahuilla, the Gabrielino, and the Luiseño. At the time of Spanish contact in the sixteenth century, the Cahuilla occupied territory that included the San Bernardino Mountains, Orocopia Mountain, and the Chocolate Mountains to the east, the Salton Sea and Borrego Springs to the south, Palomar Mountain and Lake Mathews to the west, and the Santa Ana River to the north. At the time of Spanish contact, the territory of the Gabrielino was located in much of present-day Los Angeles and Orange counties. The Luiseño were a seasonal hunting and gathering people with cultural elements that were very distinct from the Archaic Period peoples, including cremation, the use of the bow and arrow, and the use of the acorn as a main food staple. The elaborate kinship and clan systems between the Luiseño and other groups facilitated a wide-reaching trade network. (BFSA, 2016a, pp. 3.0-4)

D. Prehistoric Resources

BFSA conducted a pedestrian survey of the Project site on November 18, 2014. The pedestrian survey covered the entire Project site, with BFSA archaeologists walking parallel, linear transects spaces approximately five meters apart. Approximately 85 percent of the ground surface was visible during the pedestrian survey. No prehistoric archaeological resources were identified during the pedestrian survey conducted by BFSA. (BFSA, 2016a, pp. 4.0-1, 5.0-2) The Project's off-site improvement area within the Perris Valley Storm Drain Channel was not surveyed because this area is a fully disturbed, modern man-made storm drain facility that intermittently contains flowing water; if any prehistoric archaeological resources once existed in this area they would have been removed or destroyed during construction of the Channel or would have been washed away by storm water runoff and would no longer be present under existing conditions.

BFSA also conducted a literature records search with the Eastern Information Center (EIC), at the University of California, Riverside. The record search included a review of all available cultural resource survey and excavation reports and site records for the area within a one-mile radius of the Project site. The literature and records search identified 17 cultural resource surveys that were previously conducted within a one-mile radius of the Project site, including two previous surveys of portions of the Project site and the Project’s entire off-site impact area. The record search indicated that no prehistoric archaeological resources were discovered within the Project vicinity by any past survey (i.e., no prehistoric archaeological resources were discovered within a one-mile radius of the Project site). (BFSA, 2016a, pp. 4.0-1, 5.0-1) Additionally, BFSA conducted a Sacred Lands File search with the California Native American Heritage Commission (NAHC). The search results did not identify any known Native American cultural resources on the Project site or within a one-mile radius of the site (BFSA, 2016a, p. 5.0-2).

E. Historical Setting

The historic background of the Project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations as well as expanding the knowledge of and access to new resources in the region. In the late eighteenth century, the San Gabriel (Los Angeles County), San Juan Capistrano (Orange County), and San Luis Rey (San Diego County) missions began colonizing Southern California and gradually expanded their use of the interior valley (Western Riverside County) for raising grain and cattle to support the missions. While no missions were ever built in what would become Riverside County, many mission outposts were established in the early years of the nineteenth century which extended the missions’ influence to the backcountry. The San Gabriel Mission claimed lands in what are now Jurupa, Riverside, San Jacinto, and the San Gorgonio Pass, while the San Luis Rey Mission claimed land in what is now Lake Elsinore, Temecula, and Murrieta. (BFSA, 2016a, pp. 3.0-5)

Mexico gained independence in 1822 and desecularized the missions in 1832 signifying the end of the Mission Period. By this time, the missions owned some of the best and most fertile land in southern California and the new government began distributing the vast mission holdings to wealthy and politically connected Mexican citizens. These land grants (ranchos) included Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potero, and San Jacinto Viejo, which were all located in present-day Riverside County. Rancho Jurupa, which was given to Juan Bandini in 1838, was the first land grant located in present-day Riverside County. The Project area is located within this grant. The ranchos included in the grant were all located in the valley environments typical of Western Riverside County. (BFSA, 2016a, 3.0-5 through 3.0-6)

In 1846, war erupted between Mexico and the United States. In 1848, with the signing of the Treaty of Guadalupe Hidalgo, the region was annexed as a territory of the United States, leading to California becoming a state in 1850. These events generated a steady flow of settlers into the area. With completion of the transcontinental railroad in 1869, land speculators, developers, and colonists began to invest in southern California. The first colony to exist in Riverside County was known as the Riverside colony. Judge John Wesley North, an abolitionist from Tennessee, brought a group of associates and co-investors to southern California and founded Riverside on part of the Jurupa Rancho. A few years later, the navel orange was planted and found to be such a success that it quickly became the agricultural staple of the region. In May of 1893, voters living within portions of San Bernardino County and San Diego County approved the formation of Riverside County (BFSA, 2016a, 3.0-6 through 3.0-7)

The Moreno Valley of today was unclaimed public land until 1870, when approximately 13,500 acres of land was purchased from the U.S. government. This land transaction consisted of the 11,500 acre Alessandro Tract and the town of Alessandro (present-day March ARB) which were offered to settlers in 1887. The initial land development failed and the Alessandro Tract was obtained by the Bear Valley Land and Water Interest, which created the Bear Valley reservoir and the Redlands colony. In the early 1890's, water from the Bear Valley reservoir enabled the development of New Haven (Moreno) and Midland communities. These communities were abandoned in the late 1890's when the area experienced periods of drought which left the Bear Valley reservoir unable to deliver water. In the early 20th century, the Moreno Valley area started to recover. In 1912, 1,100 acres of the Alessandro Tract was subdivided into the Sunnymead Orchard Tract, which changed the previous community of Midland to Sunnymead. In 1923, several land developments located west of Sunnymead resulted in the development of Edgemont. In 1918, March Field was constructed by the U.S. Army Air Corps; between 1918 and 1922, the base was used primarily to train fighter pilots. The base was closed in 1922 and reopened in 1927 to become a fully-operational Army Air Force Base, and later a major B-52 bomber base after formation of the U.S Air Force in 1947. The base brought jobs and people into the Moreno Valley area and was the primary impetus for growth in the communities of Moreno, Sunnymead, and Edgemont. In 1984, the three communities were incorporated as the City of Moreno Valley.

F. Historic Resources

The Project site does not contain any structures under existing conditions. During pedestrian surveys of the Project site, BFSA did not observe any feature that could meet the classification of a historic resource (e.g., historic building remnants, historic refuse scatters/piles) (BFSA, 2016a, p. 5.0-2). The Project's off-site improvement area within the Perris Valley Storm Drain Channel is a modern, man-made storm drain facility that does not contain any structures, is routinely maintained (i.e., trash/debris removal), and intermittently contains flowing water; if any historic archaeological resources once existed in this area they would have been removed or destroyed during construction of the Channel, washed away during storm events, or removed during routine maintenance activities and would no longer be present under existing conditions.

BFSA conducted a literature records search with the EIC, at the University of California, Riverside. The record search included a review of all available cultural resource survey and excavation reports and site records for the area within a one-mile radius of the Project site. The literature and records search identified 17 cultural resource surveys that were previously conducted within a one-mile radius of the Project site, including two previous surveys of portions of the Project site and the Project's entire off-site impact area. As part of these past surveys, six historic sites were found within a one-mile radius of the Project site, as summarized in Table 4.5-1, *Historic Resources in Project Vicinity*. None of the historic resources listed in Table 4.5-1 are located – or previously located – on the Project site or within the Project's off-site improvement area. (BFSA, 2016a, pp. 5.0-1 through 5.0-2, Appendix B)

Table 4.5-1 Historic Resources in Project Vicinity

Site	Description
P-33-005562	Historic glass shards
P-33-007649	Historic World War II military barracks
P-33-011604	Historic well
P-33-011757	Historic residence
P-330015864	Historic standpipe, well, and brick remnants
RIV-11,291	Historic foundation of a grain mill facility

Source: (BFSA, 2016a, Table 5.1-1)

G. Applicable Regulatory Setting

☐ Senate Bill (SB) 18

California Senate Bill (SB) 18 requires that lead agencies consult with California Native American tribes during the local planning process for the purposes of protecting Traditional Tribal Cultural Places whenever a project proposes to amend or adopt any general plan or specific plan, or designate land as open space. The consultation process must be completed prior to project approval. Because the proposed Project includes a Specific Plan Amendment, the City of Moreno Valley is subject to all requirements associated with the SB 18 process for Native American consultation. The City of Moreno Valley initiated the SB 18 process on April 16, 2015, by advertising the Project to Native American tribes with traditional tribal cultural places in the vicinity of Moreno Valley. The City received responses from three tribes claiming that the Project site is located within their traditional tribal areas: San Manuel Band of Mission Indians, Soboba Band of Luiseño Indians, and the Pechanga Band of Luiseño Indians. The Pechanga Band of Luiseño Indians requested formal consultation with the City of Moreno Valley pursuant to SB 18. The City met with the Pechanga Band of Luiseño Indians on April 25, 2016.

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☐ Assembly Bill (AB) 52

California Assembly Bill (AB) 52 requires a CEQA lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project regarding the project's potential impacts to tribal cultural resources, prior to determining whether a Negative Declaration (ND), Mitigated Negative Declaration (MND), or EIR is required for a project. The lead agency shall only conduct the consultation if requested by the California Native American tribe, in writing, within a specified timeframe. AB 52 went into effect on July 1, 2015, and only applies to projects that either: 1) did not file a Notice of Intent to adopt a ND or MND prior to July 1, 2015, or 2) did not file a NOP prior to July 1, 2015. The Project's NOP was filed on June 17, 2015 (i.e., before AB 52 took effect); therefore, the Project is exempt from AB 52.

☐ California Code of Regulations Title 14, Chapter 3, § 15064.5

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 establishes the procedure for determining the significance of impacts to archeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in § 15064.5.

☐ California Health and Safety Code, Division 7, Chapter 2, § 7050.5

California Health and Safety Code § 7050.5 prohibits disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery without authority of law and establishes procedures for the identification and proper handling human remains that were discovered inadvertently.

☐ California Public Resources Code, Division 5, Chapter 1.75, § 5097.98

In the event of discovery of Native American human remains, California Public Resources Code § 5097.98 requires the California NAHC to contact the most likely descendant of the deceased Native American within 48 hours of discovery. California Public Resources Code § 5097.98 also establishes procedures to allow the most likely descendant to inspect the remains and recommend a means of disposition.

4.5.2 Basis for Determining Significance

The proposed Project would result in a significant impact to cultural resources if the Project or any Project-related component would:

a) *Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5;*

b) *Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section15064.5;*

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or*

d) *Disturb any human remains, including those interred outside of formal cemeteries.*

4.5.3 Impact Analysis

Threshold a)	***Would the Project cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?***

No historic sites or historic archaeological resources are present on the Project site or within the Project's off-site impact area (BFSA, 2016a, pp. 5.0-1 through 5.0-2, Appendix B). Therefore, Project has no potential to result in a substantial adverse change to any historic resource as defined by California Code of Regulations § 15064.5. No impact would occur.

Threshold b)	***Would the Project cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations, Section 15064.5?***

BFSA archaeologists did not observe any prehistoric archaeological resources on the Project site during field surveys and no prehistoric archaeological resources are known to occur within a one-mile radius of the Project site, based on the results of a records search with the EIC, at the University of California, Riverside (BFSA, 2016a, pp. 5.0-1 through 5.0-2, Appendix B). The Project's off-site improvement area within the Perris Valley Storm Drain Channel has no potential to contain prehistoric archaeological resources because this area is a fully disturbed, modern man-made storm drain facility that intermittently contains flowing water and undergoes routine maintenance; if any prehistoric archaeological resources historically existed in this area they would have been removed or destroyed during construction of the Channel or would have been washed away by storm water runoff. As such, the Project has no potential to impact known archaeological resources.

Regardless, there is a remote potential to uncover archaeological resources during excavation and/or grading activities associated with the Project, as the Project area is located within the traditional use areas of the Soboba Band of Luiseño Indians, the Pechanga Band of Luiseño Indians, and the San Manuel Band of Mission Indians (refer to *Technical Appendix A* of this EIR). If significant resources as defined in California Code of Regulations § 15064.5 are unearthed during construction, these resources could be significantly impacted if not appropriately treated. The Project's potential to impact previously undiscovered prehistoric archaeological resources, which could result in an adverse change in the significance of the resources pursuant to California Code of Regulations § 15064.5, is a significant impact for which mitigation is required.

Threshold c) ***Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?***

Although the Project site does not contain any known paleontological resources or unique geologic features and no such resources were observed during field surveys of the site, the Project site is underlain by older-Pleistocene alluvial fan deposits that have a high potential to contain significant paleontological resources (BFSA, 2016b, p. 2). The Project's off-site improvement area within the Perris Valley Storm Drain Channel has no potential to contain paleontological or unique geological resources because the Channel is a modern, man-made storm drain facility and any such resources – if they once existed within the Channel's alignment – would have been removed/destroyed during construction of the Channel.

Because of the high paleontological sensitivity of the older alluvial deposits that exist below the ground surface on the Project site at depths greater than four (4) feet, the Project could result in impacts to paleontological resources that may exist below the ground surface if they are unearthed and not properly treated. Therefore, the Project's potential to directly or indirectly destroy unique paleontological resources buried beneath the ground surface is a significant impact and mitigation is required.

Threshold d) ***Would the Project disturb any human remains, including those interred outside of formal cemeteries?***

The Project site does not contain a cemetery and no known formal cemeteries are located within the immediate site vicinity. Field surveys conducted on the Project site did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site (BFSA, 2016a, pp. 5.0-1 through 5.0-2, Appendix B). Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code, § 7050.5. Pursuant to § 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact the NAHC by telephone within 24 hours. Pursuant to California Public Resources Code § 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code § 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. With mandatory compliance to California Health and Safety Code § 7050.5 and Public Resources Code § 5097.98, any potential impacts to human remains, including human remains of Native American descent, would be less than significant.

With mandatory compliance to California Health and Safety Code § 7050.5 and Public Resources Code § 5097.98, any potential impacts to human remains, including human remains of Native American descent, would be less than significant and mitigation is not required.

4.5.4 Cumulative Impact Analysis

This cumulative impact analysis considers development of the Project site in conjunction with other development projects in the vicinity of the Project site resulting from full General Plan buildout in the City of Moreno Valley and other jurisdictions in the region identified in EIR Subsection 4.0, *Environmental Analysis*.

Record searches and field surveys of the Project area indicate the absence of significant historical sites and resources on the Project site and within the Project's off-site improvement area (BFSA, 2016a, pp. 5.0-1 through 5.0-2). Therefore, the Project has no potential to contribute towards a significant cumulative impact to historical sites and resources, as defined in California Code of Regulations, § 15064.5.

No prehistoric archaeological resources were identified on or near the Project site during record searches and field surveys conducted by BFSA (BFSA, 2016a, pp. 5.0-1 through 5.0-2, Appendix B). Accordingly, the Project would not directly result in a substantial adverse change in the significance of any known archaeological resources, as defined in California Code of Regulations § 15064.5. In the unlikely event that such resources are buried beneath the surface of the Project site and/or off-site improvement area, and unearthed during Project construction activities and not properly treated, the Project would significantly impact archeological resources. Other projects within region would similarly have the potential to impact unknown, subsurface prehistoric archaeological resources during ground-disturbing activities. Therefore, the Project's potential to directly impact subsurface archaeological deposits is a potential cumulatively considerable impact for which mitigation is required.

As described in detail in EIR Subsection 4.3, *Air Quality*, the Project would generate air pollutant emissions during its construction and operational phases. Air pollution has been identified as a contributing factor in the deterioration of open-air prehistoric rock art. Accordingly, the air pollutant emissions generated by the Project (and other development projects in the SCAB) could theoretically contribute to rock art deterioration in the SCAB. Other environmental conditions that contribute to prehistoric rock art deterioration include diurnal heating and cooling events, wind, soil chemistry, and rock composition. No scientific studies have been conducted to measure the rate of deterioration of

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open-air prehistoric rock art or to determine the magnitude of air pollution's role in the deterioration of prehistoric rock art. Further, most prehistoric rock art sites in the SCAB are associated with granite rock, which is less susceptible to air pollution-related deterioration than rock types with high concentrations of calcite (e.g., marbles, limestones, sandstones). (BFSA, 2016a, p. 6.0-1) Because there is no scientific data to quantify air pollution's role in the deterioration of prehistoric rock art – or to quantify the pollution level at which deterioration would be exacerbated – and because prehistoric rock art sites in the SCAB have a relatively low sensitivity to air pollution, it would be speculative to claim that the Project's air pollutant emissions would considerably contribute to a substantial cumulative adverse effect to prehistoric rock art sites. Accordingly, the Project's potential to considerably contribute to an indirect cumulative impact to prehistoric rock art sites associated with air pollutant emissions would be less than significant.

No paleontological resources have been identified on-or-near the Project site; however, the Project would disturb alluvium soils with a high potential to contain fossils. Other development projects in the cumulative study area with similar geologic characteristics as the Project site would have a similar potential to uncover unique paleontological resources. Therefore, the Project's potential to result in a cumulatively considerable impact to unique paleontological resources is a significant impact for which mitigation is required.

Finally, due to mandatory compliance required of all ground-disturbing construction activities with the provisions of California Health and Safety Code § 7050.5 as well as Public Resources Code § 5097 *et. seq.*, human remains would be assured proper treatment if encountered. Because all other development projects within the City of Moreno Valley and elsewhere in the region similarly would be required to comply with state law, any cumulative impact associated with human remains discovery would be reduced to below a level of significance.

4.5.5 Significance of Impacts before Mitigation

Threshold a): No Impact. The Project would not impact a historic resource. No historic resources are present on the Project site or the Project's off-site improvement area; therefore, no historic resources could be altered or destroyed by construction or operation of the proposed Project.

Threshold b): Significant Direct and Cumulatively Considerable Impact. Although no archaeological resources were identified on the Project site, implementation of the Project has the potential, however unlikely, to unearth and adversely impact significant archaeological resources that may be buried beneath the ground surface and discovered during Project construction activities.

Threshold c): Significant Direct and Cumulatively Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project site and off-site improvement area contain alluvium soils with a high sensitivity for paleontological resources. Implementation of the Project has the potential to unearth and adversely impact paleontological resources that may be buried beneath the ground surface and discovered during Project-related grading and excavation activities.

Threshold d): Less-than-Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code §7050.5 and California Public Resources Code §5097 *et. seq*. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.

4.5.6 Mitigation

The following mitigation measures are required to reduce the Project's potential to result in significant impacts to prehistoric archeological resources, as defined in California Code of Regulations § 15064.5.

MM 4.5-1 Prior to issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a ~~qualified~~ professional archaeologist ~~archaeological monitor~~ has been retained by the ~~Project~~ Applicant to conduct monitoring of all mass grading and trenching activities. ~~in previously undisturbed soils and has~~ The Project Archaeologist shall have the authority to temporarily ~~halt and~~ redirect earthmoving activities in the event that suspected archaeological resources are unearthed during Project construction. The Project Archaeologist, in consultation with the Monitoring Tribe(s), the Applicant and the City, shall develop a Cultural Resources Monitoring Plan (CRMP) to address the details, timing and responsibility of all archaeological and cultural resources activities that will occur on the Project site. Details in the CRMP shall include:

a) Schedule for Project grading and development activities;

b) The Project archeologist and the Monitoring Tribes(s) shall attend the pre-grading meeting with the City, the construction manager and any contractors and will conduct a mandatory Cultural Resources Worker Sensitivity Training to those in attendance. The Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. All new construction personnel that will conduct earthwork or grading activities that begin work on the Project following the initial Training must take the Cultural Sensitivity Training prior to beginning work and the Project archaeologist and Monitoring Tribe(s) shall make themselves available to provide the training on an as-needed basis.

c) The coordination of a monitoring schedule as agreed upon by the Monitoring Tribe(s), the Project archaeologist, and the Applicant; and

d) The protocols and stipulations that the Applicant, City, Monitoring Tribe(s) and Project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

~~MM 4.5-2 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that appropriate Native American representative(s) shall be allowed to monitor and have received or will receive a minimum of 15 days advance notice of mass grading activities in previously undisturbed soils.~~

MM 4.5-2 Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Moreno Valley that appropriate Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians tribal representatives (hereafter referred to as "Native American Tribal Representatives") received a minimum of 30 days' advance notice of all mass grading and trenching activities, and any monitoring agreements between the applicant and the Tribes as requested through the SB 18 process. Native American Tribal Representatives shall provide a copy of the signed agreement(s) prior to the issuance of a grading permit and the Tribal Representatives shall be notified of and allowed to attend the pre-grading meeting with the City and Project construction contractors and/or monitor all Project mass grading and trenching activities. The Native American Tribal Representatives shall have the authority to temporarily halt and redirect earth moving activities in the affected area in the event that suspected archaeological resources are unearthed. If the Native American Tribal Representatives suspect that an archaeological resource may have been unearthed, the Project Archaeologist or the Tribal Representatives shall immediately redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. In consultation with the Native American Tribal Representatives, the Project Archaeologist shall evaluate the suspected resource and make a determination of significance pursuant to California Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measures MM 4.5.3 and MM 4.5.4 shall apply.

~~MM 4.5-3 During grading operations in previously undisturbed soils, a professional archaeological monitor shall observe the grading operation until such time as the monitor determines that there is no longer any potential to uncover buried cultural deposits. If the monitor suspects that an archaeological resource may have been unearthed, the monitor shall immediately halt and redirect grading operations in a 100-foot radius around the find to allow identification and evaluation of the suspected resource. If the monitor determines that the suspected resource is potentially significant, the archaeologist shall notify the appropriate Native American Tribe(s) and invite a tribal representative to consult on the resource evaluation. In consultation with the appropriate Native American Tribe(s), the archaeological monitor shall evaluate the suspected resource and make a determination of significance pursuant to California~~

~~Public Resources Code Section 21083.2. If the resource is significant, Mitigation Measure MM 4.5.4 shall apply.~~

MM 4.5-3~~5-4~~ A treatment plan shall be prepared by the Project Archaeologist and expeditiously reviewed by the interested Native American Tribal Representatives and the City Planning Division and implemented by the Project Archaeologist to protect the identified archaeological resource(s) from damage and destruction. If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be temporarily suspended 100 feet around the resource(s) until the treatment plan is implemented. The Project Archaeologist, interested Native American Tribal Representatives, and the City Planning Division shall confer regarding mitigation of the discovered resource(s).~~If a significant archaeological resource(s) is discovered on the property, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor and a representative of the appropriate Native American Tribe(s), the Project Applicant, and the City Planning Division shall confer regarding mitigation of the discovered resource(s). A treatment plan shall be prepared and implemented by the archaeologist to protect the identified archaeological resource(s) from damage and destruction. The landowner shall relinquish ownership of all archaeological artifacts that are of Native American origin found on the Project site to the culturally affiliated Native American tribe for proper treatment and disposition. A final report containing the significance and treatment findings shall be prepared by the archaeologist and submitted to the City Planning Division, the appropriate Native American tribe(s), and the Eastern Information Center.~~

MM 4.5-4 In the event that Native American cultural resources are discovered during the course of grading, the following procedures shall be carried out for treatment and final disposition of the discoveries:

a) The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The artifacts shall be relinquished through one or more of the following methods and evidence of such shall be provided to the City of Moreno Valley Planning Department:

i. Accommodate the process for Preservation-In-Place/Onsite reburial of the discovered items with the consulting Native American tribes or bands, as detailed in the treatment plan prepared by the Project Archaeologist under Mitigation Measure MM 4.5-3. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79; therefore, the resources would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation;

iii. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the Western Science Center by default.

MM 4.5-5 Prior to grading permit issuance, the City shall verify that the following note is included on the Grading Plan:

"If any suspected archaeological resources are discovered during ground-disturbing activities and the Project Archaeologist or Native American Tribal Representatives are not present, the construction supervisor is obligated to halt work in a 100-foot radius around the find and call the Project Archaeologist and the Tribal Representatives to the site to assess the significance of the find."

The following mitigation measures are required to reduce the Project's potential impact to paleontological resources that have the potential to be present beneath the Project site and discovered during ground-disturbing construction activities.

MM 4.5-~~5~~6 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Moreno Valley that a qualified paleontologist has been retained by the Project Applicant to conduct monitoring of excavation activities and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.

MM 4.5-~~6~~7 The paleontological monitor shall conduct full-time monitoring during grading and excavation operations in undisturbed, very old alluvial fan sediments and shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontological monitor shall be empowered to temporarily halt or divert equipment to allow of removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

MM 4.5-~~7~~8 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage, such as the Western Science Museum in Hemet, California, is required for significant discoveries.

MM 4.5-~~8~~9 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Moreno Valley prior to building final.

4.5.7 Significance of Impacts after Mitigation

Threshold b): Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measures MM 4.5-1 through MM ~~4.5-4~~ 4.5-5 would ensure that an archaeological monitoring program is implemented during ground disturbing activities, and would ensure that any archaeological resources that may be uncovered are appropriately treated as recommended by a qualified archaeologist. With implementation of the required mitigation, the Project's potential impact to prehistoric archaeological resources would be less than significant.

Threshold c): Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measures MM ~~4.5-5~~ 4.5-6 through MM ~~4.5-8~~ 4.5-9 would ensure the proper identification and subsequent treatment of any paleontological resources that may be encountered during ground-disturbing activities associated with implementation of the proposed Project. With implementation of the required mitigation, the Project's potential impact to paleontological resources would be less than significant.

4.6 Greenhouse Gas Emissions

The analysis in this Subsection is based in part on a report prepared by Urban Crossroads, Inc. titled "Moreno Valley Logistics Center Greenhouse Gas Analysis," dated March 17, 2016, and included as *Technical Appendix E* to this EIR (Urban Crossroads, 2016c). The technical report and analysis in this Subsection assess the proposed Project's potential to generate greenhouse gas emissions that could contribute to global climate change and its associated environmental effects.

4.6.1 Existing Conditions

A. Introduction to Global Climate Change

Global Climate Change (GCC) refers to change in average meteorological conditions on the Earth with respect to temperature, wind patterns, precipitation, and storms. Debate exists within the scientific community regarding the extent to which GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred naturally over the course of thousands or millions of years and that these historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since approximately year 1900 is occurring at a quicker rate and magnitude than in the past as a result of human activity and industrialization. (Urban Crossroads, 2016c, p. 8)

Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. These gases that trap heat in the atmosphere are referred to collectively in this EIR as greenhouse gases (GHGs), which are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural GHG effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than current conditions. (Urban Crossroads, 2016c, pp. 9-10)

It is not possible for an individual development project, like the proposed Project, to generate enough GHG emissions to make a discernible change in global climate. However, the proposed Project may participate in the potential for GCC through its incremental contribution of GHG emissions when considered in combination with other worldwide sources of GHGs. (Urban Crossroads, 2016c, p. 8)

B. Greenhouse Gases

Carbon dioxide (CO_2), methane (CH_4), and Nitrous Oxide (N_2O) emissions are the focus of evaluation in this Subsection because these gases are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well defined and no accepted emissions factors or methodology exist to accurately calculate these gases. (Urban Crossroads, 2016c, pp. 9-10)

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. CO_2 is used as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of common GHGs are summarized in Table 4.6-1, *GWP and Atmospheric Lifetime of Select GHGs*. As shown in Table 4.6-1, the GWPs for common GHGs range from 1 for CO_2 to 22,800 for sulfur hexafluoride (SF_6) (Urban Crossroads, 2016c, p. 11)

Table 4.6-1 GWP and Atmospheric Lifetime of Select GHGs

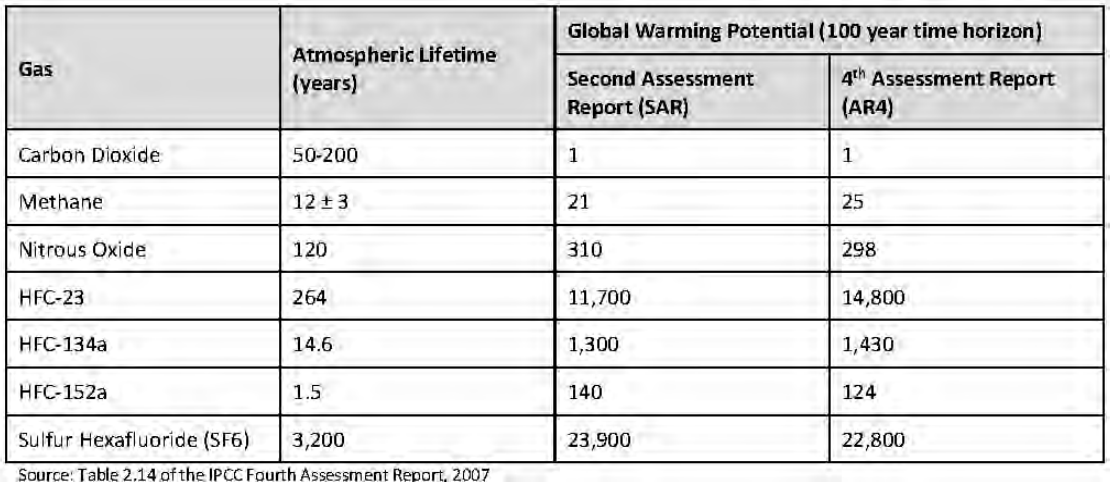

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)	
		Second Assessment Report (SAR)	4th Assessment Report (AR4)
Carbon Dioxide	50-200	1	1
Methane	12 ± 3	21	25
Nitrous Oxide	120	310	298
HFC-23	264	11,700	14,800
HFC-134a	14.6	1,300	1,430
HFC-152a	1.5	140	124
Sulfur Hexafluoride (SF6)	3,200	23,900	22,800

Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

Source: (Urban Crossroads, 2016c, Table 2-2)

Provided below is a description of the common gases that contribute to GCC. For more information about these gases and their associated human health effects, refer to Section 2.4 of *Technical Appendix E* to this EIR and the reference sources cited therein.

- Water Vapor (H_2O) is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation, thereby allowing less energy to reach the

Earth's surface and heat it up. There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. (Urban Crossroads, 2016c, pp. 10, 15)

- Carbon Dioxide (CO_2) is an odorless and colorless GHG that is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Manmade sources include: the burning of coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases CO_2 emissions has increased dramatically. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Exposure to CO_2 in high concentrations can cause human health effects, but outdoor levels are not high enough to adversely affect human health. (Urban Crossroads, 2016c, pp. 11, 15)

- Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years) compared to other GHGs. Methane has both natural and manmade sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other manmade sources include fossil-fuel combustion and biomass burning. No human health effects are known to occur from atmospheric exposure to methane; however, methane is an asphyxiant that may displace oxygen in enclosed spaces. (Urban Crossroads, 2016c, pp. 11, 15)

- Nitrous Oxide (N_2O) concentrations began to rise in the atmosphere at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is used as an aerosol spray propellant, (e.g., in whipped cream bottles), in potato chip bags to keep chips fresh, and in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction. N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause brain damage. (Urban Crossroads, 2016c, pp. 11, 15)

- Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 and have no natural source. CFCs were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, due to their long atmospheric lifetime, some of the CFCs will remain in the atmosphere for over 100 years. (Urban Crossroads, 2016c, pp. 11-12)

- Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order largest to smallest), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23 emissions. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No human health effects are known to result from exposure to HFCs, which are manmade and used for applications such as automobile air conditioners and refrigerants. (Urban Crossroads, 2016c, p. 12)

- Perfluorocarbons (PFCs) are primarily produced for aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The U.S. EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt. No human health effects are known to result from exposure to PFCs. (Urban Crossroads, 2016c, p. 12)

- Sulfur Hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (22,800). The U.S. Environmental Protection Agency (EPA) indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. (Urban Crossroads, 2016c, p. 12)

C. Greenhouse Gas Emissions Inventories

❑ Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). For the Year 2011, the most recent year for which GHG emissions data is available for Annex I nations, the sum of these emissions totaled approximately 25,285,543 gigagrams (Gg) of carbon dioxide equivalent (CO_2e), as shown in Table 4.6-2, *Top GHG-Producing Countries*. (Urban Crossroads, 2016c, p. 8)

Table 4.6-2 Top GHG-Producing Countries

Emitting Countries	GHG Emissions (Gg CO2e)
China	10,975,500
United States	6,665,700
European Union (28 member countries)	4,544,224
Russian Federation	2,322,220
India	3,013,770
Japan	1,344,580
Total	**28,865,994**

Source: (Urban Crossroads, 2016c, Table 2-1)

❑ United States

As noted in Table 4.6-2, the United States produced the second-highest amount of GHG emission in the world in 2011. The primary GHG emitted by anthropogenic sources in the United States was CO_2, which accounted for approximately 83 percent of the United States' total GHG emissions. Approximately 78 percent of the Unites States' CO_2 emissions resulted from fossil fuel combustion. (Urban Crossroads, 2016c, p. 8)

❑ State of California

The California Air Resources Board (CARB) compiles the GHG inventory for sources across California. Based upon 2008 GHG inventory data (which is the most recent year for which data is available), California emitted 474 million metric tons (MMT) of CO_2e including emissions resulting from imported electrical power. Based on the CARB inventory data and GHG inventories compiled by the World Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is ranked first). (Urban Crossroads, 2016c, p. 8)

❑ Project Site

Under existing conditions, the Project site is undeveloped and contained no buildings or structures. The only potential sources of GHG emissions on-site were from the use of landscaping equipment associated with on-going weed abatement activities (i.e., discing). For purposes of analysis, this EIR assumes that the Project site emits no GHG gases under existing conditions.

D. Potential Effects of Climate Change in California

The California Climate Change Center (CCCC) published a report titled "Scenarios of Climate Change in California: An Overview" (herein called the "Climate Scenarios report") in February 2006 that is generally instructive about effects of climate change in California. The Climate Scenarios report used a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.4°F); medium warming range (5.5-7.8°F); and higher warming range (8.0-10.4°F) (CCCC, 2006, p. 7).

In addition, the California Natural Resources Agency adopted a "California Climate Adaptation Strategy" in 2009. This report details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes, and responds to the Governor's Executive Order (EO) S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts (California Natural Resources Agency, 2009).

According to these reports, substantial temperature increases arising from increased GHG emissions worldwide could result in a variety of effects to the people, economy, and environment of California, with the severity of the effects depending upon actual future emissions of GHGs and associated degree of warming. Table 4.6-3, *Summary of Potential GCC Impact, 2070-2099*, summarizes potential impacts of GCC within California.

Based on the estimated scenarios presented in the Climate Scenario and California Climate Adaption Strategy reports, the climate change impacts in California have the potential to include, but are not limited to, the following areas:

- Human Health Effects. Climate change can affect the health of Californians by increasing the frequency, duration, and intensity of conditions conducive to air pollution formation, oppressive heat, and wildfires. The primary concern is not the change in average climate, but rather the projected increase in extreme conditions that are responsible for the most serious health consequences. In addition, climate change has the potential to influence asthma symptoms and the incidence of infectious disease. (CCCC, 2006, p. 26)

- Water Resource/Supple Effects. Although most climate model simulations predict relatively moderate changes in precipitation over the 21st century, rising temperatures are expected to lead to diminishing snow accumulation in mountainous watersheds, including the Sierra Nevada. Warmer conditions during the last few decades across the western United States have already produced a shift toward more precipitation falling as rain instead of snow, and snowpacks over the region have been melting earlier in the spring. Delays in snow accumulation and earlier snowmelt can have cascading effects on water supplies, natural ecosystems, and winter recreation. (CCCC, 2006, p. 14)

- Agricultural Effects. Agriculture, along with forestry, is the sector of the California economy that is most likely to be affected by a change in climate. California agriculture is a $68 billion industry. California is the largest agricultural producer in the nation and accounts for 13% of all U.S. agricultural sales, including half of the nation's total fruits and vegetables. Regional analyses of climate trends over agricultural regions of California suggest that climate change is already affecting the agriculture industry. Over the period 1951 to 2000, the growing season has lengthened by about a day per decade, and warming temperatures

Table 4.6-3 Summary of Potential GCC Impact, 2070-2099

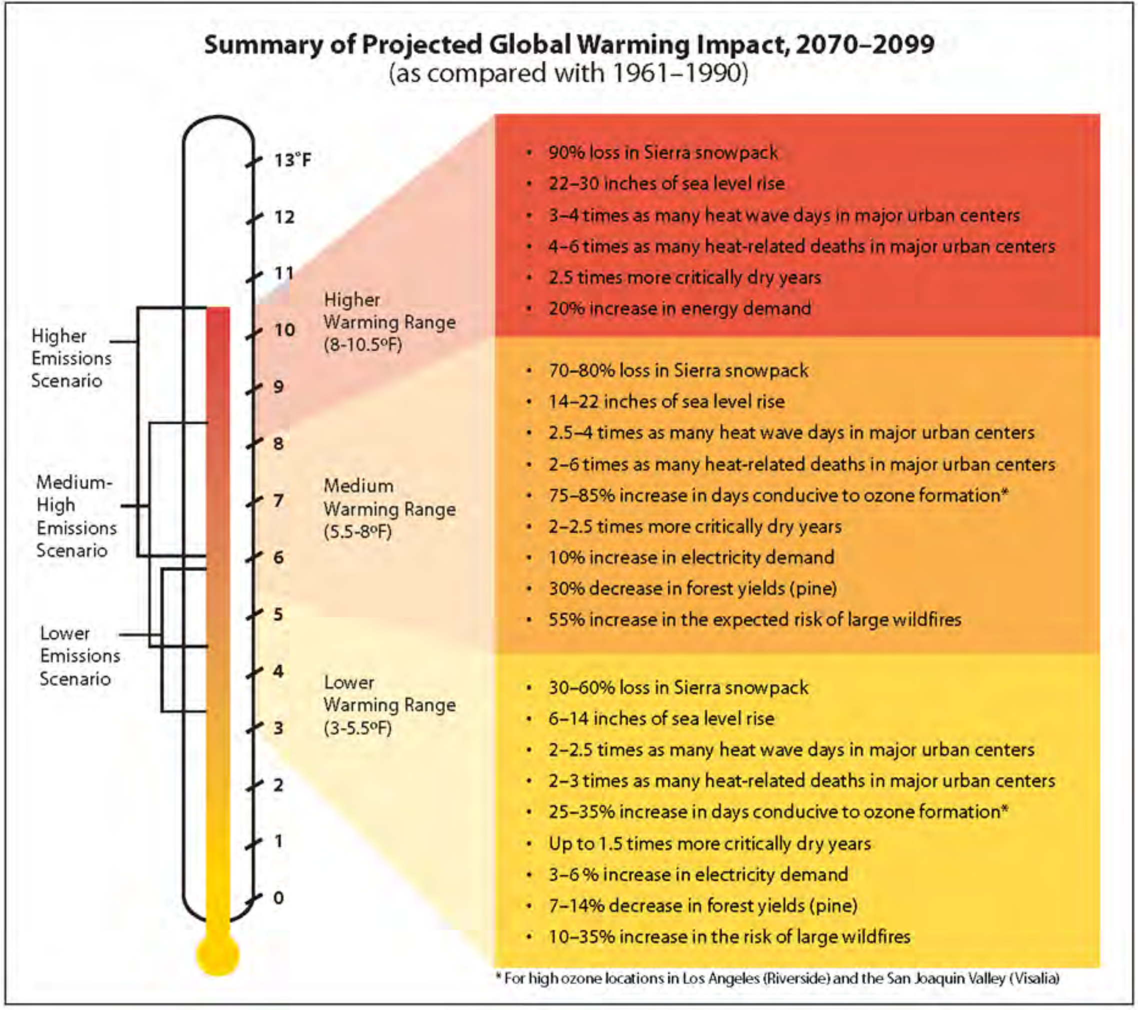

Source: (Urban Crossroads, 2016c, Exhibit 2-A)

resulted in an increase of 30 to 70 growing degree days per decade, with much of the increase occurring in the spring. Climate change affects agriculture directly through increasing temperatures and rising CO_2 concentrations, and indirectly through changes in water availability and pests. (CCCC, 2006, p. 19)

- Forests and Natural Landscape Effects. Climate changes and increased CO_2 concentrations are expected to alter the extent and character of forests and other ecosystems. The distribution of species is expected to shift; the risk of climate-related disturbance such as wildfires, disease, and drought is expected to rise; and forest productivity is projected to increase or decrease – depending on species and region. In California, these ecological changes could have measurable implications for both market (e.g., timber industry, fire suppression and damages costs, public health) and nonmarket (e.g., ecosystem services) values. (CCCC, 2006, p. 22)

- <u>Sea Level Effects.</u> Coastal observations and global model projections indicate that California's open coast and estuaries will experience rising sea levels during the next century. Sea level rise already has affected much of the coast in southern California, Central California, and the San Francisco Bay and estuary. These historical trends, quantified from a small set of California tide gages, have approached 0.08 inches per year (in/yr), which are rates very similar to those estimated for global mean sea level. So far, there is little evidence that the rate of rise has accelerated, and indeed the rate of rise at California tide gages has actually flattened since about 1980. However, projections indicate that substantial sea level rise, even faster than the historical rates, could occur during the next century. Sea level rise projections range from 5.1–24.4 inches (in.) higher than the 2000 sea level for simulations under the lower emissions scenario, from 7.1–29.9 in. for the medium-high emission scenario, and from 8.5–35.2 in. for the higher emissions scenario. (CCCC, 2006, p. 10)

E. Regulatory Setting

Below is an account of the regulatory programs, policies, laws, and regulations that are applicable to GHG emissions and GCC in California. For more information, refer to Section 2.7 of *Technical Appendix E* and the reference sources cited therein.

❑ <u>International Regulation and the Kyoto Protocol</u>

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail GCC. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Notably, while the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto. (Urban Crossroads, 2016c, pp. 16-17)

❑ <u>United Nations Paris Climate Change Conference</u>

On December 12, 2015, 195 nations – including the United States and China – agreed upon a strategy for combatting GCC. The meeting, known as the 21st Annual Conference of Parties (COP21), established a framework for reducing GHG emissions, to go in effect in 2020. In mitigating global climate change, COP 21 participating nations agreed upon a universal, long-term goal of keeping the global temperature to less than 3.6°F above pre-industrial levels. In addition to that, nations agreed to minimize their GHG emissions as soon as possible, with the recognition that developing countries may take longer to reach this goal than developed countries. Thereafter, nations are to undergo rapid reductions in accordance to best available technological advances. Nations are to submit national

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climate action plans that detail future objectives to address climate change. (Urban Crossroads, 2016c, p. 17)

☐ Federal Regulation and the Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under §202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975. (Urban Crossroads, 2016c, p. 18)

☐ California Assembly Bill No. 1493 (AB 1493)

AB 1493 directed CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. To meet the requirements of AB 1493, CARB amended to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 §§ 1900 and 1961 and adoption of § 1961.1 require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. (Urban Crossroads, 2016c, pp. 19-21)

☐ Executive Order S-3-05

Executive Order S-3-05 was signed by Governor Arnold Schwarzenegger in June 2005, and establishes the following GHG reduction targets for statewide GHG emissions: by 2010, reduce

GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. (Urban Crossroads, 2016c, p. 21)

❑ California Assembly Bill 32 (AB 32)

In September 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006 (AB 32). AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

AB 32 required that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also included guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs). Accordingly, 427 MMTs of CO_2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the reductions to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plans, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO_2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. Table 4.6-4, *CARB Scoping Plan GHG Reduction Measures*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the Year 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5.0 $MMTCO_2e$, which is approximately three percent of the 2020 GHG emissions reduction goal. In addition, local government actions and targets are anticipated to reduce vehicle miles by approximately two percent through land use planning, resulting in a potential GHG reduction of 2.0 $MMTCO_2e$ (or approximately 1.2 percent of the GHG reduction target). In recognition of the critical role local governments will play in successful implementation of AB 32, CARB recommended a GHG reduction goal of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target.

Table 4.6-4 CARB Scoping Plan GHG Reduction Measures

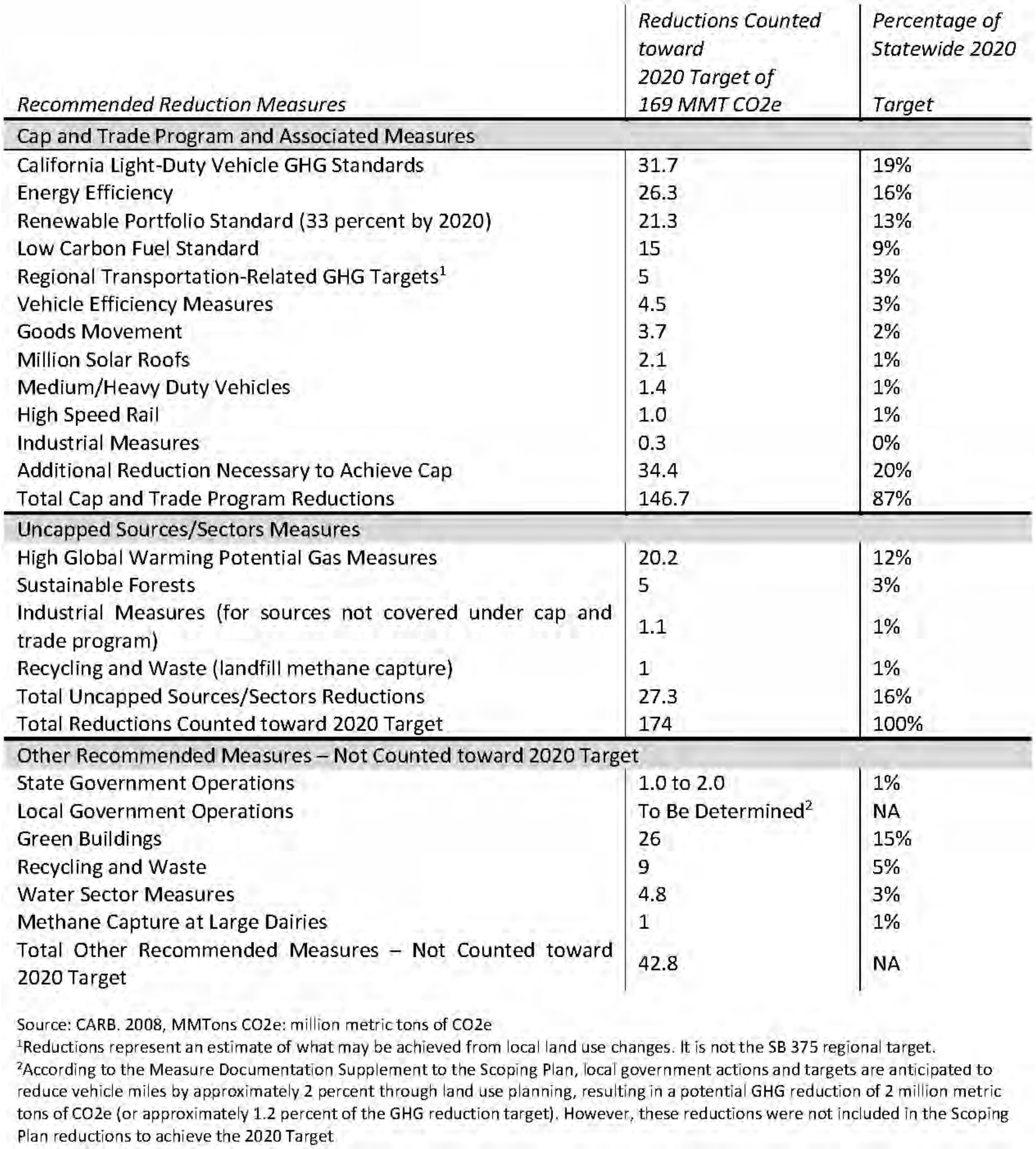

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e

[1] Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2] According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

Source: (Urban Crossroads, 2016c, Table 2-3)

In May 2014, CARB adopted the first update to the original Scoping Plan which was necessary to establish long-term GHG policies to make deep GHG emission reductions to achieve an 80 percent reduction below 1990 levels by 2050. The update includes key recommendations for six key economic sectors (energy, transportation, agriculture, water, waste management, and natural and working lands) as well as short-lived climate pollutants, green buildings, and the Cap-and-Trade Program. The findings largely affect regulatory measures that will indirectly reduce GHG emissions and generate a need to update local policies. (Urban Crossroads, 2016c, pp. 21-24)

☐ California Senate Bill 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill 1368 (SB 1368), which directs the California Public Utilities Commission (CPUC) to adopt a greenhouse gas emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, SB 1368 effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368. (Urban Crossroads, 2016c, pp. 24-25)

☐ Senate Bill 97 (SB 97)

SB 97 requires the Office of Planning and Research to prepare and transmit to the Resources Agency guidelines and directed amendments to the CEQA statute specifically for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions. As directed by SB 97, the Natural Resources Agency adopted Amendments to the CEQA Guidelines for greenhouse gas emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The Amendments became effective on March 18, 2010, and are primarily included as § 15064.4 of the CEQA Guidelines. Additionally, Appendix G to the CEQA Guidelines also was changed to identify two distinct thresholds for the evaluation of GHGs, which are presented in Subsection 4.6.4, below. (Urban Crossroads, 2016c, p. 25)

☐ Executive Order S-01-07

Executive Order S-01-07 was signed by Governor Schwarzenegger in January 2007 and is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020. The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold. (Urban Crossroads, 2016c, p. 26)

☐ Executive Order S-14-08

Executive Order S-14-08 was signed by Governor Schwarzenegger on November 2008 and is effectively known as the Renewable Portfolio Standard (RPS). According to S-14-08, the RPS will require that all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020. State government agencies are directed to take all appropriate actions to implement this target in all regulatory proceedings, including siting, permitting, and procurement for renewable energy power plants and transmission lines. (Urban Crossroads, 2016c, p. 26)

❑ Senate Bill 375 (SB 375)

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight (8) years but can be updated every four (4) years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs did not meet the GHG reduction targets, transportation projects are not eligible for funding programmed after January 1, 2012. (Urban Crossroads, 2016c, p. 27)

The Southern California Association of Governments (SCAG) *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* is applicable to the Project area.

❑ Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 greenhouse gas emissions levels by 2050). Executive Order B-30-15 establishes a policy goal and is disclosed herein for informational purposes; it does not require local agencies to take any action to meet the new interim GHG reduction threshold. It is important to note that Executive Order B-30-15 was not adopted by a public agency through a public review process that requires analysis pursuant to CEQA Guidelines section 15064.4 and that it has not been subsequently validated by a statute as an official GHG reduction target of the State of California. It is anticipated that a regulatory requirement for statewide GHG reductions for 2030 is expected to be adopted by the California Legislature at a future date. (Urban Crossroads, 2016c, pp. 26-27)

❑ California Title 24 Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions (2013 Building Energy Efficiency Standards) were adopted in 2012 and became effective on July 1,

2014. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than the previous Building Energy Efficiency Standards for residential construction and 30 percent more efficient than the previous Standards for nonresidential construction.

Part 11 of the Title 24 is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (Urban Crossroads, 2016c, pp. 19-20)

❑ CARB Draft Sustainable Freight Strategy

Specific to the warehouse, logistics, and goods movement industries, CARB released a concepts list in 2014 regarding their efforts to develop a Sustainable Freight Strategy (SFS). In 2015 (after the publication of the NOP for this EIR), CARB released a draft report named "Sustainable Freight: Pathways to Zero and Near-Zero Emissions" that focuses on ways for California to move toward a zero emissions transportation system (CARB, 2015). The report describes possible ways for this transition to occur, but does not impose any requirements or restrictions. A final SFS is anticipated to be published by CARB in 2016.

❑ City of Moreno Valley Climate Action Strategy

On October 9, 2012, the Moreno Valley City Council approved an *Energy Efficiency and Climate Action Strategy* and related GHG analysis. The *Energy Efficiency and Climate Action Strategy* document identifies potential programs and policies to reduce overall City energy consumption and increase the use of renewable energy. The majority of the policies are directed at municipal operations of the City, but the document also contains recommended policies for the community at large (including private development projects). These recommended policies include but are not limited to: energy efficiency, water use reduction, trip reduction, solid waste diversion, and educational policies. The overall goal of the *Energy Efficiency and Climate Action Strategy* is to ensure that the City is consistent with and would not otherwise conflict with the provisions of AB 32. (Urban Crossroads, 2016c, pp. 30-31)

4.6.2 Methodology for Estimating GHG Emissions

CEQA Guidelines § 15064.4(b)(1) states that a CEQA lead agency may use a model or methodology to quantify GHG emissions associated with a project. On October 2, 2013, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version (v2013.2.2.) of the California Emissions Estimator Model (CalEEMod). The purpose of this model is to estimate air quality and GHG emissions from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures. As such, the October 2013 (v2013.2.2.) CalEEMod was used to estimate Project-related emissions to determine construction and operational air quality impacts (Urban Crossroads, 2016c, p. 38). Output from the model runs for both Project-related construction and operational activity are provided in Appendix 3.1 of EIR *Technical Appendix E*.

Technical Appendix E analyzes potential GHG emissions associated with the construction and operation of a logistics center with 1,351,770 s.f. of high-cube warehouse land uses (1 building) and 385,748 s.f. of light industrial land uses (3 buildings) with a site layout identical to the proposed Project. In comparison to the proposal evaluated in *Technical Appendix E*, the Project proposes to develop the subject property with seven (7) fewer square feet of high-cube warehouse land uses and 1,331 fewer square feet of light industrial land uses. Because the proposal analyzed by *Technical Appendix E* was more intense than the proposed Project, the analyses presented therein and summarized in this EIR provides a conservative, worst-case analysis of the Project's potential GHG emissions.

A life-cycle analysis (LCA), which assesses economy-wide GHG emissions from construction (i.e., the processes in manufacturing and transporting all raw materials used in the project development and infrastructure) and operation, was not conducted for the Project due to the lack of scientific consensus on LCA methodology. A LCA depends on emission factors or econometric factors that are not well established for all processes as of the date this EIR was written (2015). Additionally, SCAQMD recommends analyzing a project's direct and indirect GHG emissions generated within California in-lieu of a LCA because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate. (Urban Crossroads, 2016c, p. 38)

A. Methodology for Estimating Construction-Related GHG Emissions

The Project's construction-related GHG emissions were calculated using the same methodology, construction schedule information, and equipment fleet information that were used to calculate the Project's criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.3, *Air Quality*. Refer to EIR Subsection 4.3 and *Technical Appendix E* for a detailed description of the methodology used for calculated the Project's construction-related GHG emissions.

In accordance with SCAQMD recommendations and for purposes of analysis, the Project's construction-related GHG emissions were quantified, amortized over a 30-year period, and then added to the Project's annual, operational GHG emissions. As such, the Project's construction-related GHG emissions are accounted for in the quantification of the Project's annual, operational GHG emissions. (Urban Crossroads, 2016c, pp. 38-39)

B. Methodology for Estimating Operational GHG Emissions

The Project's operational GHG emissions were calculated using the same methodology, on-site equipment information, and truck fleet information that were used to calculate the Project's criteria air pollutant emissions, and as previously described in detail in EIR Subsection 4.3, *Air Quality*. Refer to EIR Subsection 4.3 and *Technical Appendix E* for a detailed description of the methodology used for calculated the Project's operational GHG emissions.

4.6.3 Basis for Determining Significance

In order to assess the significance of the Project's environmental impacts, it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed in Subsection 4.6.1 above, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on GCC is *de minimis* considering the worldwide scope of climate change. There is no evidence at this time that would indicate that the small quantity of emissions from a project the size of the proposed Project would directly or indirectly affect the global climate.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project has no potential to result in a direct impact to GCC; rather, Project-related contributions to GCC, if any, only have potential significance on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively considerable way.

The CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to:

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or*

b) *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

The City of Moreno Valley has not adopted a numerical threshold for determining the significance of GHG emissions; however, the City has discretion to select an appropriate significance criterion used by other agencies, based on substantial evidence. The SCAQMD adopted a numerical GHG emissions threshold for industrial projects for which SCAQMD is the lead agency. The threshold adopted by SCAQMD, 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year, is a widely accepted threshold used by numerous lead agencies in the South Coast Air Basin (SCAB) and was established based on the recommendations of the California Air Pollution Controls Officers Association (CAPCOA) in a report titled "CEQA and Climate Change" (dated January 2008), which serves as a resource for public agencies as they establish agency procedures for reviewing GHG emissions from projects under CEQA. The CAPCOA report provides three recommendations for evaluating a development project's GHG emissions. When establishing their significance threshold, SCAQMD selected the CAPCOA non-zero approach which establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development (Approach 2, Threshold 2.5). A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified projects would be subject to evaluation under CEQA. Based on SCAQMD's research of 1,297 major, industrial source point (i.e., stationary) emission sources in the SCAB, SCAQMD found that source point industrial facilities that generate at least 10,000 $MTCO_2e$ per year produce approximately 90 percent of the carbon dioxide equivalent emissions in the SCAB per year. As such, SCAQMD established their significance criterion at 10,000 $MTCO_2e$ as that threshold would capture 90 percent of total emissions from future industrial development in accordance with CAPCOA recommendations. (CAPCOA, 2008, pp. 46-47; SCAQMD, 2008, pp. 3-5)

Based on the foregoing, the City of Moreno Valley selects SCAQMD's industrial threshold of 10,000 $MTCO_2e$ as the threshold of significance for the Project's GHG emissions. If the Project would emit less than 10,000 $MTCO_2e$ of GHGs per year, the project would not be considered a substantial GHG emitter. On the other hand, if an industrial project's GHG emissions would exceed 10,000 $MTCO_2e$ per year, the project would be considered a substantial source of GHG emissions. The SCAQMD's industrial threshold was selected by the City because the proposed Project's operating characteristics, which include large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid-stream functions in the goods movement chain between manufacturers and consumers, are characteristic of an industrial land use more so than any other land use type, including commercial and/or residential. Furthermore, evaluating the Project's GHG emissions against SCAQMD's industrial threshold will provide a conservative analysis, as SCAQMD only intended their threshold be used to evaluate stationary source GHG emissions, while the analysis presented in this Subsection and *Technical Appendix E* applies the threshold to all of the GHG emissions related to the Project (stationary source, mobile source, area source, or other). (Urban Crossroads, 2016c, pp. 37-38)

4.6.4 Impact Analysis

Threshold a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project's annual GHG emissions are summarized in Table 4.6-5, *Project Annual GHG Emissions*. As shown in Table 4.6-5, the Project would generate approximately 42,404.68 $MTCO_2e$ per year. Of the Project's annual GHG emissions, approximately 358.25 $MTCO_2e$ (0.8%) would be from on-site, stationary emissions; approximately 5,342.10 $MTCO_2e$ (12.6%) would be from off-site, indirect emissions (energy production, water/waste treatment, etc.); and approximately 36,704.32 $MTCO_2e$ (86.6%) would be from mobile sources (passenger cars and trucks) and amortized construction emissions. The Project would generate GHG emissions that exceed the significance criterion of 10,000 $MTCO_2e$ per year; therefore, the Project's GHG emissions could have a significant impact on the environment and would be considered cumulatively considerable.

Table 4.6-5 Project Annual GHG Emissions

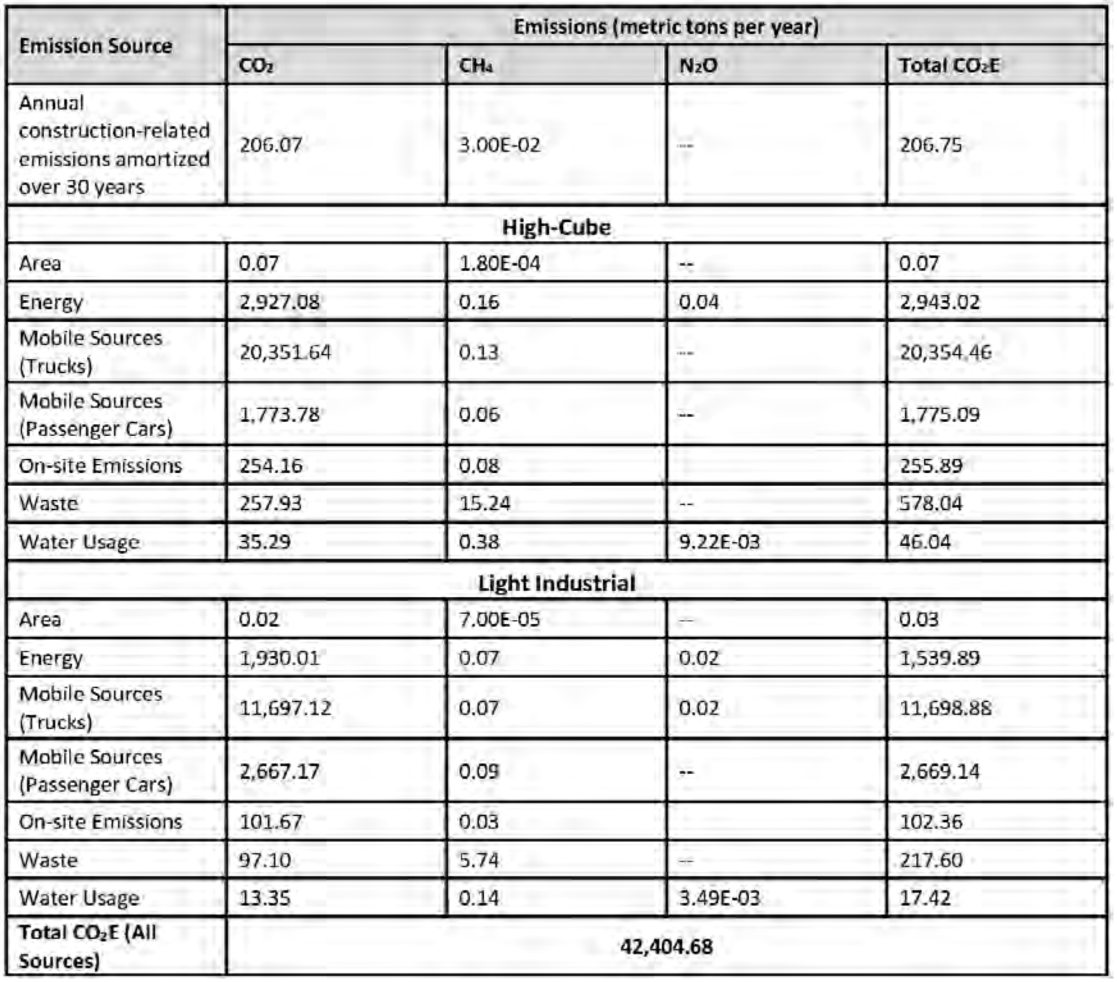

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	206.07	3.00E-02	--	206.75
High-Cube				
Area	0.07	1.80E-04	--	0.07
Energy	2,927.08	0.16	0.04	2,943.02
Mobile Sources (Trucks)	20,351.64	0.13	--	20,354.46
Mobile Sources (Passenger Cars)	1,773.78	0.06	--	1,775.09
On-site Emissions	254.16	0.08		255.89
Waste	257.93	15.24	--	578.04
Water Usage	35.29	0.38	9.22E-03	46.04
Light Industrial				
Area	0.02	7.00E-05	--	0.03
Energy	1,930.01	0.07	0.02	1,539.89
Mobile Sources (Trucks)	11,697.12	0.07	0.02	11,698.88
Mobile Sources (Passenger Cars)	2,667.17	0.09	--	2,669.14
On-site Emissions	101.67	0.03		102.36
Waste	97.10	5.74	--	217.60
Water Usage	13.35	0.14	3.49E-03	17.42
Total CO_2E (All Sources)	**42,404.68**			

Source: (Urban Crossroads, 2016c, Table 3-2)

Threshold b) Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As previously discussed in Subsection 4.6.1E, CARB identified measures in its Scoping Plan that would reduce statewide GHG emissions and achieve the emissions reductions goals of AB 32. Thus, projects that are consistent with the CARB Scoping Plan would not conflict with AB 32's mandate to reduce state GHG emissions. Table 4.6-6, *CARB Scoping Plan Consistency*, presents the 39 recommended actions identified by CARB in its Scoping Plan. Of the 39 measures identified, those that would be applicable to the Project consist primarily of actions related to transportation, electricity and natural gas use, green building design, and industrial land uses. A summary of the Project's consistency with the CARB Scoping Plan recommended actions is presented on the following pages and described in detail in Section 2.11 of *Technical Appendix D* to this EIR. The Project's consistency with applicable measures of the CARB Scoping Plan is also summarized in Table 4.6-6.

Table 4.6-6 CARB Scoping Plan Consistency

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

SOURCE: CARB, 2008.

Source: (Urban Crossroads, 2016c, Table 2-5)

- <u>Transportation:</u> Actions T-1, T-2, T-3, and T-4 are related to legislative and public awareness activities required of the State of California and regional planning activities required of metropolitan planning organizations, which are not within the purview of the Project. Actions T-5 and T-6 address operations at ports; because the Project is not located within a port, these actions are not applicable to the Project. Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology. The Project would not conflict with this action; however, fleet operators would have the responsibility for demonstrating consistency with this action. Action T-8 requires the creation of a regulatory and/or incentive program to encourage the use of hybrid vehicles and is outside the purview of the Project. Action T-9 addresses a high-speed rail system and is not applicable to the Project. Accordingly, the Project would not conflict with or preclude implementation of the CARB Scoping Plan transportation actions.

- <u>Electricity and Natural Gas & Green Buildings:</u> Actions E-1, CR-1, and GB-1 target regulatory and building practices to increase energy efficiency. The Project would surpass the incumbent Title 24 Energy Efficiency standards and would not conflict with these actions. Actions E-2 and E-3 concern electric utilities and are not applicable to development proposals like the Project. Action E-4 is related to public awareness and incentive programs to promote the use of photovoltaic solar electricity systems. The Project's building is designed to support photovoltaic cells, should they be installed in the future, and the Project would not conflict with Action E-4. Action CR-2 is related to public awareness and incentive programs required of the State of California to promote solar water heaters; this action is not applicable to the Project. Based on the foregoing, the Project would not conflict with or preclude implementation of the CARB Scoping Plan electricity and natural gas or green building actions.

- <u>Water Use:</u> Only Actions W-1 and W-3 are applicable to development proposals like the Project; however, because the Project would not exceed the audit threshold for these actions, the Project is considered consistent with Actions W-1 and W-3 and no specific action or activity is required of the Project. Based on the foregoing, the Project would not conflict with or preclude implementation of the CARB Scoping Plan water use actions.

- <u>Industrial Use:</u> All but one of the Industrial actions are related to oil and gas extraction, refining, and/or transmission and are not applicable to the Project. The Project would not exceed the audit threshold for the one applicable action, Action I-1, and; therefore, is not considered a large emitter of GHGs. Accordingly, the Project would not conflict with Action I-1. Based on the foregoing, the Project would not conflict with or preclude implementation of the CARB Scoping Plan industrial use actions.

- <u>Agriculture:</u> The Project does not include agricultural uses and the Project site does not contain agricultural uses under existing conditions. Therefore, Agriculture Action A-1 is not applicable to the Project and the Project would not conflict with or preclude implementation of the CARB Scoping Plan agriculture actions.

The Project also would comply with a number of regulations, policies, plans, and policy goals that would further reduce GHG emissions, including the following regulations that are particularly applicable to the Project and that would assist in the reduction of GHG emissions:

- Senate Bill 375 (SB 375). In accordance with the mandate of SB375, SCAG prepared their *2012 Regional Transportation Plan/Sustainable Communities Strategy* (*RTP/SCS*) with the goal of reducing regional per capita vehicle miles traveled and GHG emissions. The Project would be consistent with the subject property's land use designations and would not increase the development intensity on the property beyond what is currently anticipated by the City of Moreno Valley's General Plan. Because the Project would be consistent with the adopted General Plan, the Project also would be consistent with SCAG's *2012 RTP/SCS*, which is based on the land use pattern and transportation network contained in local general plans. The Project's consistency with the land use and transportation assumptions within the *2012 RTP/SCS* ensures the Project would not conflict with the *2012 RTP/SCS*'s goal to reduce regional GHG emissions by reducing regional per capita vehicle miles traveled.

- Pavely Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for model year 2009-2016 passenger cars and light trucks. AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to-and-from the Project site are required to comply. The CARB anticipates that implementation of the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 30 percent in 2016 compared to emissions that occurred prior to AB 1493's enactment.

- Title 20 and 24 California Code of Regulations (Appliance Energy Efficiency Standards and Building Standards Code). Establishes energy efficiency requirements for new (and altered) buildings and appliances. The Project is required to comply with these regulations during the design and construction phase.

- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10 percent less by 2020. Because the Low Carbon Fuel Standard applies to any transportation fuel that is sold, supplied, or offered for sale in California, and to any person who, as a regulated party, is responsible for a transportation fuel in a calendar year, all vehicles accessing the Project site will be required to comply with the Standard.

- California Water Conservation in Landscaping Act of 2006 (AB1881). Required local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent to ensure efficient landscapes in new development and reduced water waste in existing landscapes by January 1, 2010. The Project is required to comply with the City of Moreno Valley's adopted water efficient landscape requirements and would therefore be consistent with the requirements of AB1881.

- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions. Energy directly or indirectly supplied to the Project by retail providers would be required to comply with SB 1368.

- Renewable Portfolio Standards (SB 1078). Requires electric utilities to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020. Energy directly or indirectly supplied to the Project by electric utilities would be required to comply with SB 1078.

- Executive Orders B-30-15 and S-3-05. Establish policy goals to reduce GHG emissions in California to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. According to the 2014 update to the CARB Scoping Plan, California is on a trajectory to meet or exceed the 2030 and 2050 GHG reduction goals set forth in Executive Orders B-30-15 and S-3-05 via existing regulations and the Scoping Plan measures (CARB, 2014, p. 34). As described above, the Project would not conflict with the Scoping Plan or preclude its implementation; therefore, the Project would not conflict with the GHG emissions reduction policy goals of Executive Orders B-30-15 and S-3-05.

- Moreno Valley Energy Efficiency and Climate Action Strategy. As summarized in Table 4.6-7, *Moreno Valley Energy Efficiency and Climate Action Strategy Consistency*, the Project would not conflict with the City of Moreno Valley's adopted *Energy Efficiency and Climate Action Strategy*.

There are no other plans, policies, or regulations that have been adopted for the purpose of reducing the emissions of GHGs that are applicable to the proposed Project.

As described on the preceding pages, the Project would not conflict with the State's ability to achieve the reduction targets defined in AB 32 and would be consistent with applicable policies and plans related to GHG emissions reduction. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and would result in a less-than-significant impact.

Table 4.6-7 Moreno Valley Energy Efficiency and Climate Action Strategy Consistency

ID#	Policy	Project Consistency
R2-T1:	Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.	City policy goal; not applicable to private development projects.
R2-T3:	Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.	Consistent with implementation of recommended Mitigation Measure (MM) 4.3-14.
R2-E1:	New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards. (Reach Code)	Not applicable to the Project; this policy applies to residential projects.
R2-E2:	New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.	Not applicable to the Project; this policy applies to residential projects.
R2-E5:	New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the current Title 24 standards. (Reach Code)	The Project would be consistent with this policy. The City's Climate Action Strategy was established under an older version of Title 24. The current, applicable Title 24 standards are more stringent than previous versions of the code and would achieve greater than the 10% energy reduction envisioned by R2-E5.
R3-E1:	Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.	City policy goal; not applicable to private development projects.
R3-L2:	Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.	The Project would comply with the City of Moreno Valley's landscaping requirements and would be consistent with this policy.
R2-W1:	Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.	The Project would be required to comply with California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2, which requires that indoor water use be reduced by 20 percent, and Section 5.304.3, which requires irrigation controllers and sensors. Furthermore, MM 4.3-9 and MM 4.3-10 require to Project to incorporate water-efficient design measures. Based on the foregoing, the Project would be consistent with this strategy.
R3-W1:	Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.	City policy goal; not applicable to private development projects.
R2-S1:	City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.	The Project would be required to comply with the City of Moreno Valley's citywide goal of solid waste reduction. Additionally, the Project would be required to be compliant with the City of Moreno Valley's Municipal Code 8.80.030 by implementing a Waste Management Plan. Accordingly, the Project would be consistent with this policy.

4.6.5 Cumulative Impact Analysis

GCC occurs as the result of global emissions of GHGs. An individual project such as the proposed Project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines § 15130[f]).

Accordingly, the Project-specific impact analysis provided in Subsection 4.6.4 reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that the Project would not conflict with an applicable GHG-reduction plans, policies, or regulations but would generate cumulatively considerable GHG emissions that may have a significant impact on the environment because the Project would exceed the SCAQMD's GHG emissions threshold of 10,000 $MTCO_2e$ per year.

4.6.6 Significance of Impacts before Mitigation

Threshold a): Significant Cumulatively Considerable Impact. The Project is estimated to generate approximately 42,404.68 $MTCO_2e$ annually, which would exceed the SCAQMD screening threshold of 10,000 $MTCO_2e$. As such, the Project would generate substantial, cumulatively considerable GHG emissions that may have a significant impact on the environment.

Threshold b): Less-than-Significant Impact. The Project would be consistent with the CARB Scoping Plan and would not conflict with the GHG reduction mandates of AB 32. In addition, the Project would be consistent with applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions, including the City of Moreno Valley's *Energy Efficiency and Climate Action Strategy*.

4.6.7 Mitigation

The following mitigation measures (MM) are required to minimize the Project's GHG emissions to the maximum practical extent. In addition, MM 4.3-2, MM 4.3-3, and MM 4.3-7 through MM 4.3-17 in EIR Subsection 4.3, *Air Quality*, also would reduce the Project's GHG emissions.

MM 4.6-1 Prior to issuance of a building permit, the City of Moreno Valley shall verify that the roofs for Buildings #1, #2, #3, and #4 are designed to support solar panels. The entire roof area of each building is not required to support panels; the portion of the roof that is to support panels shall be determined by the City and the building's architect at time of building design and building permit issuance.

MM 4.6-2 Prior to building final, the City of Moreno Valley shall verify that the parking lot is marked in compliance with the California Green Building Standards Code, which requires that a certain number of parking spaces be designated for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles. The designated parking stalls are required to be painted "Clean Air Vehicle."

MM 4.6-3 Prior to issuance of building permits for the landscape plan, the City of Moreno Valley shall review landscape plans to verify that trees will be planted in locations where tree placement would assist with passive solar heating and cooling of the structure, while also avoiding interference with vehicle movements and building operations.

MM 4.6-4 Prior to the approval of permits and approvals that would permit cold storage in Buildings #1, #2, #3, and/or #4, the Project Applicant shall provide information to the City of Moreno Valley demonstrating that the cooling system design is energy efficient.

4.6.8 Significance of Impacts after Mitigation

<u>Threshold a): Significant and Unavoidable Cumulatively Considerable Impact.</u> The application of MM 4.6-1 through MM 4.6-4 and MM 4.3-2, MM 4.3-3, and MM 4.3-7 through MM 4.3-17 in EIR Subsection 4.3 would reduce Project-related GHG emissions; however, these measures would not substantially reduce Project-related mobile source emissions (i.e., construction equipment, passenger cars and trucks), which comprise approximately 86.6% of the Project's total GHG emissions. Mobile source emissions are regulated by State and federal emissions and fuel use standards, and are outside of the control of the Project Applicant, future Project tenants, and the City of Moreno Valley. CEQA Guidelines § 15091 provides that mitigation measures must be within the responsibility and jurisdiction of the Lead Agency in order to be implemented. No other mitigation measures are available that are feasible for the Project Applicant to implement and for the City of Moreno Valley to enforce that have a proportional nexus to the Project's level of impact.

4.7 Hazards & Hazardous Materials

The information and analysis presented in this Subsection is based on the site-specific Phase I Environmental Site Assessment (ESA) prepared by Farallon Consulting (hereafter, Farallon) titled, "Phase I Environmental Site Assessment Report," and dated March 23, 2015. The Phase I Environmental Site Assessment Report is appended to this EIR as *Technical Appendix F*. In addition, this Subsection incorporates the results of a Pesticide Sampling Analysis performed by Farallon and dated January 8, 2016, and a Vapor Migration Analysis prepared by Farrallon and dated May 10, 2016. The Pesticide Sampling Analysis is appended to this EIR as *Technical Appendix M* and the Vapor Migration Analysis is appended to this EIR as *Technical Appendix N*. This Subsection also is based on information from Section 5.5, *Hazards*, of the certified Final EIR prepared for the City of Moreno Valley General Plan (SCH No. 200091075). Refer to Section 7.0, *References*, for a complete list of reference sources.

For the purposes of this EIR, the term "toxic substance" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

"Hazardous material" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness. Hazardous waste is defined in the California Code of Regulations, Title 22, §66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the United States Environmental Protection Agency (USEPA) as capable of inducing systemic damage to humans or animals). Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, §§66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous natures or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

4.7.1 Existing Conditions

As shown in EIR Section 2.0, Figure 2-4, *Aerial Photograph*, the Project site is vacant undeveloped land that is transected by the Perris Valley Storm Drain Channel in a northwest to southeast direction. Overhead utility lines are located along the eastern property boundary adjacent to Indian Street. The Project site is routinely maintained (i.e., disced) to remove vegetation from the site to reduce the risk of fire as required by the Riverside County Fire Department.

A. Project Site Historical Review, Environmental Record Review, Site Inspection

❑ Project Site Historical Review

Farallon reviewed various sources of information to determine the historical use of the Project site, including historical aerial photographs, historical topographic maps, Environmental Data Resources (EDR)-Sanborn collection of maps and regulatory database records, city directories, historical site occupants, and historical site ownership records. Refer to *Technical Appendix F* of this EIR for a more detailed description Farallon's research results.

The Project site has consisted of undeveloped land, either vacant or used for dryland crops since at least 1938. From at least 1938 to 1967, a stream meandered through the western/southwestern portion of the site near the location of the current Perris Valley Storm Drain Channel. By 1967, the stream was replaced by the Perris Valley Storm Drain Channel. From at least 1967 to 1977, a small structure or pond was present on the site near the center of the eastern property line; this feature is no longer visible on the subject property by 1989. During the years 1989 to 2006 Indian Street was paved and many surrounding properties were developed. No hazardous materials or hazardous conditions were apparent on the Project site as a result of Farallon's review of available aerial photographs and historical maps. (Farallon, 2015, pp. 5-1 through 5-2)

❑ Environmental Record Review

Farallon researched federal, state, and local environmental records databases to identify properties within one mile of the Project site with reported environmental issues. A summary of the research results is provided below; a detailed description of the environmental record review results is included in *Technical Appendix F* of this EIR.

Project Site

The Project site was not identified on any federal, state, or local environmental records databases (Farallon, 2015, 7-2).

Surrounding Off-Site Areas

Any facilities reported on federal, state, or local environmental records databases within 0.25 mile up-gradient of the Project site, 0.125-mile cross-gradient of the Project site, or adjacent and down-gradient would be located close enough to the Project site to cause a potential impact on the site. Facilities listed in the database search report but not identified as a reported release facility (e.g., a facility listed as a hazardous waste generator but not as having had a release) and facilities listed as "closed" were not considered to have potentially impacted the Project site, unless the facility was located on an adjacent property.

One property proximate to the Project site, March Air Reserve Base, was identified during the environmental record review. March Air Reserve Base is located west of the Project site, west of Heacock Street, and is identified on several databases that relate to the release of volatile organic compounds (VOCs) in groundwater. VOCs from operations at the Air Base have impacted groundwater in the region, including groundwater beneath the Project site. March Air Reserve Base currently performs groundwater extraction and aboveground treatment to clean contaminated groundwater. The March Air Reserve Base groundwater plume, identified as Operable Unit #1, Site 7, is listed as performing ongoing long-term groundwater monitoring, extraction, and treatment for a solvent groundwater plume. (Farallon, 2015, 9-1) The EPA lists the impacted area as restricted from residential use (Farallon, 2015, 3-2). The location of VOC monitoring wells near the Project site are shown in Figure 2 of Appendix F of the Phase I Environmental Site Assessment Report appended to this EIR as *Technical Appendix F*.

Farallon conducted a review of local agency records and reviewed the Geotracker online database maintained by the State Water Resources Control Board (SWRCB) for releases associated with the Project site and surrounding properties. A search of the GeoTracker databases did not identify any listings for the Project site or adjacent properties, with the exception of the March Air Reserve Base property. The EnviroStor online database maintained by the California Department of Toxic Substances Control (DTSC) and the Enforcement and Compliance History (ECHO) online database maintained by the Environmental Protection Agency (EPA) also did not identify any listings for the Project site or adjacent properties, with the exception of the March Air Reserve Base. (Farallon, 2015, 7-4)

☐ Site Reconnaissance

Farallon conducted an inspection of the Project site on March 16, 2015. During the site visit, Farallon did not observe any on-site features that are potentially relevant to hazardous materials. At the time of site reconnaissance, Farallon observed the property to consist of graded, vacant land containing no structures and covered with weeds. No evidence of storage or handling of hazardous substances was observed. Also, no evidence of stained soil, stressed vegetation, fill material, above ground storage tanks (ASTs), underground storage tanks (USTs), or significant chemical release was observed on the Project site. No water wells were observed on the site, although there are several groundwater monitoring wells on adjacent, off-site properties associated with the March Air Reserve Base groundwater monitoring program. Additionally, Farallon observed tires, construction debris, and minor trash throughout the Project site, primarily along the eastern property line; however, none of the observed waste contained hazardous materials. (Farallon, 2015 ,6-3)

B. Airport Hazards

March Air Reserve Base is located west of Heacock Street, which borders the Project site on the northwest. The *March Air Reserve Base/Inland Port Land Use Compatibility Plan* was adopted by the Riverside County Land Use Commission on November 13, 2014. The *March Air Reserve Base/Inland Port Land Use (March ARB/IPA) Compatibility Plan* is primarily based upon the U.S. Air Force's Air Installation Compatibility Use Zones Study (AICUZ) dated August 2005. The compatibility zones and associated criteria set forth in the *March ARB/IPA Land Use Compatibility Plan* provide noise and safety compatibility protection equivalent or greater than the Air Force recommended criteria presented in the AICUZ.

The land uses in the vicinity of March ARB/IPA are generally compatible with base operations (Mead & Hunt, 2014, MA-2). According to *March ARB/IPA Compatibility Plan Draft EIR* (SCH #2013071042) Figure 2-2, *Compatibility Map*, the off-site Perris Valley Storm Drain Channel which traverses the Project site in a northwest to southeast direction forms the boundary between Compatibility Zones within the March Air Reserve Base/Inland Port Airport Influence Area (AIA). Projects located within the AIA require review by the Riverside County Airport Land Use Commission (ALUC) for consistency with the March ARB/IPA Compatibility Plan. The portion of the Project site located west of the Perris Valley Storm Drain Channel (proposed Buildings 3 and 4) are located within Compatibility Zone C1 and the portion of the Project site located east of the Perris Valley Storm Drain Channel (Buildings 1 and 2) are located within Compatibility Zone D. Zone C1 limits the average intensity to 100 people per acre with a maximum single-acre intensity of 250 people. Zone D does not specify any restrictions on residential or non-residential intensity.

The Project site is not located within an Accident Potential Zone, is not located within a General Approach/Departure Traffic Pattern (approximately 80% of aircraft overflights estimated to occur within these limits), and is not located within a Closed Circuit Traffic Pattern Envelope (approximately 80% of large aircraft overflights estimated to occur within these limits) (Mead & Hunt, 2014, Exhibit MA-5). In addition, according to City of Moreno Valley General Plan FEIR Figure 5.5-3, *City Areas Affected by Aircraft Hazard Zones*, the Project site is not located within an Accident Potential Zone or "Clear Zone" (i.e., high risk areas 3,000 feet from each end of the runway).

C. Wildland Fire Hazards

According to City of Moreno Valley General Plan FEIR Figure 5.5-2, *Floodplains and High Fire Hazard Areas*, the Project site is not located in a "High Fire Hazard Area". Also, according to the California Department of Forestry and Fire Protection (Cal Fire) the Project site is not located in a "Very High Fire Hazard Severity Zone" (Cal Fire, 2008). No wildlands are located on the Project site and the Project site is surrounded on all sides by developed properties, paved roads, maintained vacant sites, and/or the Perris Valley Storm Drain Channel. Also, under existing conditions, weed abatement (i.e., discing) occurs on the Project site as required by the Moreno Valley Fire Prevention Bureau to clear vegetative cover and reduce the risks of fires. The closest area to the Project site identified as "Substantial Fire Risk" is the terrain surrounding Lake Perris which is located approximately 2.5 miles southeast of the Project site (City of Moreno Valley, 2006b, Figure 5.5-2).

D. Applicable Environmental Regulations

Hazardous materials and hazardous wastes are regulated by various federal, state, and local regulations to protect public health and the environment. This section summarizes the overall regulatory framework governing hazardous materials management.

❑ Federal Regulations

The United States Environmental Protection Agency (USEPA) is responsible for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations related to hazardous materials include: the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and the Superfund Act and Reauthorization Act (SARA). Federal regulations pertaining to hazardous materials and wastes are contained in the Code of Federal Regulations (40 CFR).

RCRA, which was enacted in 1976, is the principal federal law that regulates the generation, management, and transportation of hazardous materials and hazardous wastes. Other specific areas covered by the amendment include regulation of carcinogens; listing of hazardous wastes; permitting for hazardous waste facilities; and leaking underground storage tanks. The USEPA maintains lists of the facilities that generate or transport large quantities of hazardous materials.

CERCLA, enacted in 1980, is a federal law enacted to address abandoned hazardous substance facilities. This act also is referred to as the Superfund Act, and the sites listed under it are referred to as Superfund sites. In 1986, Congress passed the SARA. The SARA required Superfund actions to consider the standards and requirements found in other State and Federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased State involvement in every phase of the Superfund program; and increased the focus on human health problems posed by hazardous waste sites. SARA also required EPA to revise the Hazard Ranking System (HRS) to ensure that it accurately assessed the relative degree of risk to human health and the environment posed by uncontrolled hazardous waste sites that may be placed on the National Priorities List (NPL).

❑ State Regulations

The California DTSC and the RWQCBs are the primary state agencies charged with regulating hazardous materials in California. The RWQCBs are authorized by the SSWRCB to enforce the provisions of the Porter-Cologne Water Quality Control Act of 1969. The Porter-Cologne Water Quality Control Act gives the RWQCBs authority to require water quality investigations and remediation, if necessary, if groundwater or surface water of the state is threatened. The DTSC is authorized by the USEPA to regulate the management of hazardous waste.

California’s hazardous materials laws incorporate federal standards but are often more stringent than comparable federal laws. The primary laws regulating hazardous materials in California include the California Hazardous Waste Control Law (HWCL), the state equivalent of RCRA, and the Carpenter-Presley-Tanner Hazardous Substance Account Act (HSAA), the state equivalent of CERCLA. State hazardous materials and waste laws are contained in the California Health and Safety Code and the California Water Code, and these regulations are contained in the California Code of Regulations, Titles 22 and 26.

The California Health and Safety Code (Division 20, Chapter 6.95, §25500) establishes minimum statewide standards for Hazardous Materials Business Emergency Plans (HMBEPs). HMBEPs contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state. Businesses are required to prepare a HMBEP if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following: 1) 500 pounds of a solid substance; 2) 55 gallons of a liquid; 3) 200 cubic feet of compressed gas; 4) a hazardous compressed gas in any amount; or 5) hazardous waste in any quantity.

❑ Local Regulations

Federal and state hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous materials permit and submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA also ensures local compliance with all applicable hazardous materials regulations. The CUPA with responsibility for the City of Moreno Valley is the Riverside County Department of Environmental Health (DEH). The Riverside County DEH also manages and oversees 22 programs related to hazardous materials/waste, including programs related to the handling and storage of hazardous materials, hazardous materials remediation, petroleum storage tanks, green waste, solid waste, liquid waste, universal waste and environmental cleanup. The DEH also manages and oversees programs related to emergency response and enforcement, vector control and water quality. (DEH, 2015).

4.7.2 Basis for Determining Significance

The proposed Project would result in a significant impact to hazards and hazardous material if the Project or any Project-related component would:

a) *Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;*

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment;*

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;

f) For a project within the vicinity of a private airstrip or heliport, result in a safety hazard for people residing or working in the project area;

g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands area adjacent to urbanized areas or where residences are intermixed with wildlands.

4.7.3 Impact Analysis

Threshold a)	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold b)	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

❑ Impacts Analysis for Existing Site Conditions

During Farallon's field reconnaissance of the Project site in 2015, no evidence of hazardous materials was storage or handling was found. There was no evidence of stained soil, stressed vegetation, fill material, ASTs, USTs, or significant chemical release. As discussed above in Subsection 4.7.1, the Project site has consisted of undeveloped land, either vacant or used for dryland crops from at least 1938. Based on review or aerial photography, the site was likely used sporadically for dryland farming and agricultural use on the property appears to have ceased prior to 1989.

Because the Project site was used in the past for agricultural activities, there is the potential that pesticides were used on the property. However, because the Project proposes to develop the site with industrial uses and the presence of agricultural chemicals in soil is considered de minimis by regulatory agencies in a commercial/industrial setting, impacts are considered less than significant. (Farallon, 2015, p. v) Furthermore, Farallon tested a representative sample of on-site soils (i.e., 19 total samples, a minimum of two samples from each proposed building site) for the presence of organochloride pesticides (pesticides), and determined that pesticide concentrations in on-site soils did not exceed the California Office of Environmental Health Hazard Assessment (OEHHA) screening levels for residential or commercial/industrial use scenarios (Farallon, 2016a, p. 2). Lastly, removal of soils from the Project site during Project construction is not proposed, so there is no potential for on-site soils to be placed outside of a commercial/industrial setting. For these reasons, potential past pesticide use on the subject property would not pose a significant hazard to the public or the environment.

As discussed in Subsection 4.7.1, the March Air Reserve Base groundwater plume, identified as Operable Unit #1, Site 7, is listed as performing ongoing long-term groundwater monitoring, extraction, and treatment for a solvent groundwater plume. (Farallon, 2015, 9-1) According to the most recent available groundwater quality monitoring data, the VOC with the highest vapor intrusion risk – trichloroethene (TCE) – was detected at a concentration of 150 micrograms per liter in a groundwater well located west of the Project site and adjacent to Heacock Street, while TCE was detected at concentrations up to 12 micrograms per liter on the Project site. The California Regional Water Quality Control Board has established Environmental Screening Levels (ESLs) for various chemicals, including TCE. An ESL does not represent a guideline for remediation, rather, an ESL is a conservative screening level to determine if further evaluation is warranted. The ESL for TCE in a non-residential setting, like the proposed Project, is 1,500 micrograms per liter. (Farallon, 2016b, p. 2) Because of the very low concentrations of VOCs reported in groundwater wells proximate to the Project site and the fact that VOC levels are anticipated to decrease over time as the March ARB continues groundwater remediation activities, the presence of VOCs in groundwater is not anticipated to pose a concern to occupants of the property under a non-residential use and development of the Project site would not pose a hazard to the environment (Farallon, 2016b, p. 2). Therefore, a less-than-significant impact would occur.

❑ Temporary Construction-Related Activities

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the subject property during construction of the Project. This heavy equipment may be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be temporarily located on the Project site during construction activities. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the proposed Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, state, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited requirements imposed by the USEPA, DTSC, and the Santa Ana RWQCB. With mandatory compliance with applicable hazardous materials regulations, the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during the construction phase. Thus, the Project's potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials is less than significant.

❑ Long-Term Operation

The future building user(s) that would occupy the Project site are not yet identified. The types of occupants that are anticipated include high cube warehousing in the largest building (Building 1) and uses such as general warehousing, industrial, manufacturing, assembly, e-commerce, and similar use types in the smaller buildings (Buildings 2, 3, and 4). Up to approximately 174,000 s.f. of cold storage (i.e., refrigeration) space is assumed in the analysis, to account for the potential of a building user to require chilled, refrigerated, or freezer storage space.

It is possible that hazardous materials could be used during the course of a future building user's daily operations. For example, cold storage requires the use and storage of a refrigerant, such as ammonia, which is a hazardous substance. Federal and state Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals that may be used by businesses on the Project site. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies a building on the Project site and that handles/stores substantial quantities of hazardous materials (as defined in §25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the County of Riverside, Health Services Agency, Department of Health Hazardous Materials Division in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the County of Riverside Fire Department and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business, and to prepare a HMBEP. A HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material.

If businesses that use or store hazardous materials occupy the Project site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, use, emission, and disposal of hazardous substances (as described above). With mandatory regulatory compliance, the Project is not expected to pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment. With mandatory regulatory compliance, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant and no mitigation is required.

Threshold c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No existing or proposed schools are located within one-quarter mile of the Project site. The nearest schools to the Project site are Rainbow Ridge Elementary School, located at 15950 Indian Street, approximately 0.60-mile north of the Project site and Morning Dove Christian School, located at 25065 Morning Dove Way, approximately 0.60-mile east of the Project site (Google Earth , 2013). According to the City of Moreno Valley General Plan and the MVIAP, there are no school sites planned to be constructed within 0.25 miles of the Project site. Accordingly, the proposed Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. As described above under the analysis for Thresholds (a) and (b), the transport of hazardous substances or materials to-

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and-from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations to preclude substantial public safety hazards. Accordingly, there would be no potential for existing or proposed schools to be exposed to substantial safety hazards associated with the routine transport of hazardous substances or materials to-and-from the Project site. Thus, no impact would occur and no mitigation is required. Refer to EIR Subsection 4.2, *Air Quality*, for analysis pertaining to human health risks associated with air pollutant emissions, including risks to the maximally exposed school child located more than one-quarter mile from the Project site.

Threshold d) ***Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?***

As discussed in Subsection 4.7.1, the Project site is not located on any list of hazardous materials sites complied pursuant to Government Code Section 65962.5 (Ca.l EPA, n.d.) (Cal. EPA, 2011) (DTSC, 2011) (SWRCB, n.d.) (SWRCB, 2015). Accordingly, no impact would occur.

Threshold e) ***For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

As discussed in Subsection 4.7.1, according to the *March ARB/IPA Compatibility Plan Draft EIR* (SCH #2013071042) Figure 2-2, *Compatibility Map*, the Project site is located within Compatibility Zones C1 and D and is located within the Airport Influence Area (AIA) Boundary. The proposed Project was subject to review by the Riverside County ALUC on October 8, 2015, which concluded that the Project would be fully consistent with the March ARB/IPA Compatibility Plan. A copy of the ALUC staff report that contains the conditions of approval imposed on the Project by the ALUC are included in Project's Administrative Record for this EIR on file with the City of Moreno Valley. The ALUC's conditions are repeated as mitigation measures in EIR Subsection 4.7.6. Provided below is a summary of the ALUC's findings with relation to the proposed Project.

- <u>Non-Residential Average Land Use Intensity</u>. The March ARB/IPA Compatibility Plan limits average non-residential intensity within Zone C1 to 100 people per acre, while Zone D does not specify any restrictions on intensity. For the approximately 15.27 acres of the Project site located within Zone C1, the Project proposes a total of 243,232 square feet of warehouse area, 10,000 square feet of first floor office space, and 10,000 square feet of second floor (mezzanine) office space within Buildings 3 and 4. The occupancy rates specified in Appendix C, Table C-1, of the Riverside County Airport Land Use Compatibility Plan, and March Air Reserve Base/Inland Port Airport Compatibility Plan Policy 2.4, indicate that warehouse buildings exceeding 250,000 square feet in gross floor area generate one employee per 500 square feet, while office uses result in one employee per 200 square feet (assuming a 50% reduction due to the ancillary nature of the office uses). Thus, the portion of the Project located within Zone C1 is calculated to generate up to 586 people on 15.27 acres, which results in an average of 38 people per acre. This is below the Zone C1 average acre criterion of 100 people per acre. (ALUC, 2015a)

A second method that the ALUC uses to determine total occupancy involves multiplying the number of parking spaces provided or required (whichever is greater) by average vehicle occupancy (assumed to be 1.5 persons per standard vehicle and 1.0 persons per truck trailer parking/dock space in the absence of more precise data). Based on the number of standard parking spaces provided for Buildings 3 and 4 (212 parking spaces) and truck trailer spaces of 65, the total occupancy is estimated at 383 people. This total occupancy within the 15.27-acre area results in an average intensity of 25 people per acre, which is also consistent with the Zone Cl average acre criterion of 100 people per acre. (ALUC, 2015a) Accordingly, no conflict was identified by the ALUC.

- <u>Non-Residential Single-Acre Land Use Intensity</u>. Compatibility Zone Cl limits maximum single-acre intensity to 250 people. Zone D does not limit non-residential intensity. There are no risk reduction design bonuses available, as March Air Reserve Base/Inland Port Airport is primarily utilized by large aircraft weighing more than 12,500 pounds. For the 243,232 square feet of warehouse area, 10,000 square feet of first floor office space, and 10,000 square feet of second floor (mezzanine) office space within Buildings 3 and 4 and within Compatibility Zone C1, the maximum single-acre area for either Building 3 or 4 would consist of 5,000 square feet of first floor office area, 5,000 square feet of second floor office area, and 38,560 square feet of warehouse area. This would result in a single-acre occupancy of 127, which would be consistent with the Zone C1 single-acre criterion of 250 people per acre. (ALUC, 2015a) Accordingly, no conflict was identified by the ALUC.

- <u>Prohibited and Discouraged Uses</u>. The Project does not propose any uses that are prohibited or discouraged in Compatibility Zones C1 or D. Accordingly, no conflict was identified by the ALUC.

- <u>Noise</u>. The March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan depicts the Project site as being in an area below the 60 CNEL range from aircraft noise. Therefore, the Project would not require special measures to mitigate aircraft-generated noise. Accordingly, no conflict was identified by the ALUC.

- <u>Part 77 Requirements</u>. The elevation of Runway 14-32 at its southerly terminus is 1,488 feet above mean sea level, which is the closest runway to the Project site. At a distance of approximately 3,811 feet from the runway to the closest portion of the Project site, Federal Aviation Administration (FAA) review would be required for any structures with top of roof exceeding 1,526 feet AMSL. On-site elevations range from 1,480 to 1,492 feet AMSL. With a maximum building height of 50 feet, the top point elevation could exceed 1,526 feet AMSL. Therefore, review by the FAA Obstruction Evaluation Service was required. The proposed Plot Plans and their associated architectural elevations were submitted to the FAA Obstruction Evaluation Service and each received a Determination of No Hazard to Air Navigation (copies of which are included in the Project's Administrative Record for this EIR on file with the City of Moreno Valley).

Based on the foregoing analysis, and assuming compliance with the conditions of approval imposed on the Project by the ALUC, the Project would not result in a conflict with any of the policies or requirements of the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. Because the Compatibility Plan is intended to minimize potential hazards associated with the March Air Reserve Base/Inland Port Airport, it is concluded that the Project would not result in a safety hazard for people residing or working in the Project area. Accordingly, impacts would be less than significant. Although mitigation is not required, the Project would be subject to several conditions of approval imposed on the Project by the ALUC, which are incorporated below as mitigation measures in EIR Subsection 4.7.6.

Threshold f)	***For a project within the vicinity of a private airstrip or heliport, would the project result in a safety hazard for people residing or working in the project area?***

The Project site is not located within the vicinity of a private airstrip or heliport (Google Earth , 2013). As such, implementation of the Project would have no potential to expose on-site workers to safety hazards associated with a private airfield or an airstrip. Thus, no impact would occur and no mitigation is required.

Threshold g)	***Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles. As part of the City's discretionary review process, the City of Moreno Valley reviewed the Project's application materials to ensure that appropriate emergency ingress and egress would be available to-and-from the Project site and the Project's four (4) proposed buildings. The City determined that the Project would not substantially impede emergency response times in the local area. Accordingly, implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impact would occur.

Threshold h) ***Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands area adjacent to urbanized areas or where residences are intermixed with wildlands?***

According to City of Moreno Valley General Plan FEIR Figure 5.5-2, *Floodplains and High Fire Hazard Areas*, the Project site is not located in a "High Fire Hazard Area". Also, according to the California Department of Forestry and Fire Protection (Cal Fire) the Project site is not located in a "Very High Fire Hazard Severity Zone" (Cal Fire, 2008). No wildlands are located on the Project site and the Project site is surrounded on all sides by developed properties, paved roads, maintained vacant sites, and/or the Perris Valley Storm Drain Channel. Also, under existing conditions, weed abatement (i.e., discing) occurs on the Project site as required by the Moreno Valley Fire Prevention Bureau to clear vegetative cover and reduce the risks of fires. Accordingly, implementation of the proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires and no impact would occur.

4.7.4 Cumulative Impact Analysis

As discussed above under Thresholds (a) and (b), although the future occupants of the Project's proposed buildings are not presently known, if businesses that use or store hazardous materials occupy the Project site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Such uses also would be subject to additional review and permitting requirements by the Moreno Valley Fire Department and Riverside County DEH. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal, state, and local regulations, and such uses would be subject to additional review and permits from their applicable fire department and Riverside County DEH. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less than cumulatively significant level. Accordingly, the Project's potential to contribute to a cumulatively significant hazardous materials impact would be less than significant.

The Project site is not located within one-quarter mile of an existing or planned school, therefore the Project would not contribute to a cumulatively significant hazards/hazardous materials impact on any public or private schools located within one-quarter mile of the site.

The Project site is not located on the list of hazardous materials sites compiled pursuant to Government Code § 65962.5. In the unlikely event that hazardous materials are encountered beneath the surface of the site during grading or construction, the materials would be handled and disposed of in accordance with regulatory requirements. Therefore, the Project would not contribute to a cumulatively significant hazardous materials impact associated with a listed hazardous materials site.

As discussed under Threshold (e), the ALUC found the proposed Project to be fully consistent with the March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan, subject to standard conditions of approval imposed by the ALUC. Other developments within the March ARB/IPA's AIA would similarly be required to demonstrate consistency with the Compatibility Plan. As such, cumulatively considerable impacts associated with airport-related hazards would be less than significant and no mitigation would be required beyond mandatory compliance with the conditions of approval imposed on the Project by the ALUC.

The Project site is not located within the vicinity of any private airstrips or helipads. Thus, the Project has no potential to result in cumulatively significant impacts associated with such facilities.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route; thus, there is no potential for the Project to contribute to any cumulative impacts associated with an adopted emergency response plan or emergency evacuation plan.

As discussed under Threshold (h), the Project site is not located within or in close proximity to areas identified as being subject to wildland fire hazards. Additionally, as the surrounding area continues to develop, lands that are currently vacant would be developed in a manner consistent with jurisdictional requirements for fire protection, and would generally decrease the fire hazard potential in the local area. As such, within the cumulative context of the Project vicinity, fire hazards are anticipated to decline over time, and the Project's contribution to cumulative wildfire potential is less than cumulatively considerable.

4.7.5 Significance of Impacts before Mitigation

Threshold a) and b): Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, state, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials.

Threshold c): No Impact. The Project site is not located within one-quarter mile of any existing or proposed school. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Threshold d): No Impact. The Project site is not located on any list of hazardous materials sites complied pursuant to Government Code § 65962.5.

Threshold e): Less-than-Significant Impact. The Project is consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan, assuming mandatory compliance with standard ALUC conditions of approval. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.

Threshold f): No Impact. The Project site is not located within the vicinity of a private airstrip or a helipad. Accordingly, implementation of the Project would have no potential to expose on-site workers to safety hazards associated with a private airfield or an airstrip.

Threshold g): Less-than-Significant Impact. The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the adequate emergency access is required to be provided for emergency vehicles. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.

Threshold h): No Impact. The Project site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.

4.7.6 Mitigation

Although the Project's impacts to hazards and hazardous materials would be less than significant, the following conditions of approval were imposed on the Project by the ALUC as part of its October 8, 2015 consistency determination. In order to ensure Project compliance with the ALUC determination, the ALUC's conditions of approval are incorporated below as mitigation measures.

MM 4.7-1 Prior to the issuance of building permits, a photometric plan shall be submitted to the City of Moreno Valley and approved. Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.

MM 4.7-2 The following uses shall be prohibited:

a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)

d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

e) In Buildings 3 and 4: Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, noise sensitive outdoor nonresidential uses and hazards to flight.

MM 4.7-3 The “Notice of Airport In Vicinity,” included in the ALUC’s October 8, 2015 staff report, shall be given to all prospective purchasers of the property and tenants of the buildings, and shall be recorded as a deed notice. Prior to building final, the Project Applicant shall provide to the City of Moreno Valley a copy of the title report and a model lease agreement for the subject property that includes the airport proximity notice.

MM 4.7-4 The proposed detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the detention basins located westerly of the Perris Valley Storm Drain Channel shall not include trees that produce seeds, fruits, or berries.

MM 4.7-5 March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc. All sources of electromagnetic radiation shall be noted on building plans and tenant improvement plans.

MM 4.7-6 The Federal Aviation Administration has conducted aeronautical studies of each of the proposed buildings (Aeronautical Study Nos. 2015-AWP-8676-0E through 2015-AWP-8679-0E) and has determined that neither marking nor lighting of these structures is necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be installed in accordance with Federal Advisory Circular 70/7460-1 K Change 2 and shall be maintained therewith for the life of the Project. All voluntary marking and/or lighting shall be identified on building plans.

MM 4.7-7 The maximum height of Building 1 shall not exceed 60 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,549 feet above mean sea level.

MM 4.7-8 The maximum height of Building 2 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,541 feet above mean sea level.

MM 4.7-9 The maximum height of Building 3 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,532 feet above mean sea level.

MM 4.7-10 The maximum height of Building 4 shall not exceed 52 feet above ground level, and the maximum elevation at top point (including any roof-mounted equipment) shall not exceed 1,545 feet above mean sea level.

MM 4.7-11 The specific coordinates, heights, and top point elevations of the proposed buildings shall not be amended without further review by the Airport Land Use Commission and the Federal Aviation Administration; provided, however, that reduction in building height or elevation shall not require further review by the Airport Land Use Commission.

MM 4.7-12 Temporary construction equipment used during actual construction of Building 1 shall not exceed a height of 60 feet and temporary construction equipment used during actual construction of Buildings 2, 3, and 4 shall not exceed a height of 52 feet, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.

MM 4.7-13 Within five (5) days after construction of each of the buildings reaches its greatest height and prior to building final, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the project proponent or his/her designee and e-filed with the Federal Aviation Administration, with documentation provided to the City of Moreno Valley. (Instructions are available at https://oeaaa.faa.gov.) This requirement is also applicable in the event the project is abandoned or a decision is made not to construct the applicable building.

4.8 Hydrology/Water Quality

The analysis in this Subsection is based on two reports prepared by Thienes Engineering, titled: 1) "Preliminary Hydrology Calculations," dated March 10, 2016, and appended to this EIR as *Technical Appendix G1*; and 2) "Project Specific Preliminary Water Quality Management Plan (WQMP)," dated March 10, 2016, and appended to this EIR as *Technical Appendix G2*.

The Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). Accordingly, water quality information for this Subsection was obtained from the Santa Ana RWQCB's *Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin* (updated June 2011). Additionally, the Riverside County Flood Control and Water Conservation District (RCFCWCD) is the agency responsible for the regional flood control system in the Project area. The Project site is located within the boundary of the RCFCWCD's *Perris Valley Master Drainage Plan* and the RCFCWCD's *Sunnymead Master Drainage Plan*. The above-listed documents are available at the website addresses provided in EIR Section 7.0, *References*.

4.8.1 Existing Conditions

A. Regional Hydrology

The Project site is located in the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region. The Santa Ana River rises in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The total length of the Santa Ana River and its major tributaries is approximately 700 miles. (SAWPA, 2014, Ch. 3) The Project site's location within the Santa Ana River Watershed is depicted on Figure 4.8-1, *Santa Ana River Watershed Map.*

The San Jacinto River drains the area in the vicinity of the Project site. It starts in the San Jacinto Mountains approximately 30 miles southeast of the Project site, runs west through the City of Canyon Lake, and discharges into Lake Elsinore, which in turn discharges to the Santa Ana River. The Santa Ana River ultimately discharges into the Pacific Ocean. (SAWPA, 2014, Ch. 3)

The Perris Valley Storm Drain Channel, which transects the Project site in a northwest to southeast direction, is one of three major storm drains that serve the City of Moreno Valley. The Perris Valley Storm Drain Channel drains to the San Jacinto River.

B. Site Hydrology

Figure 4.8-2, *Existing Conditions Hydrology Map,* illustrates the drainage pattern of the Project site under existing conditions. As illustrated on Figure 4.8-2, storm water runoff from the western portions of the Project site (i.e., west of the Perris Valley Storm Drain Channel) drains across the subject property in a southeasterly direction as sheet flow before discharging into the Channel. Stormwater runoff from the eastern portion of the Project site (i.e., east of the Perris Valley Storm

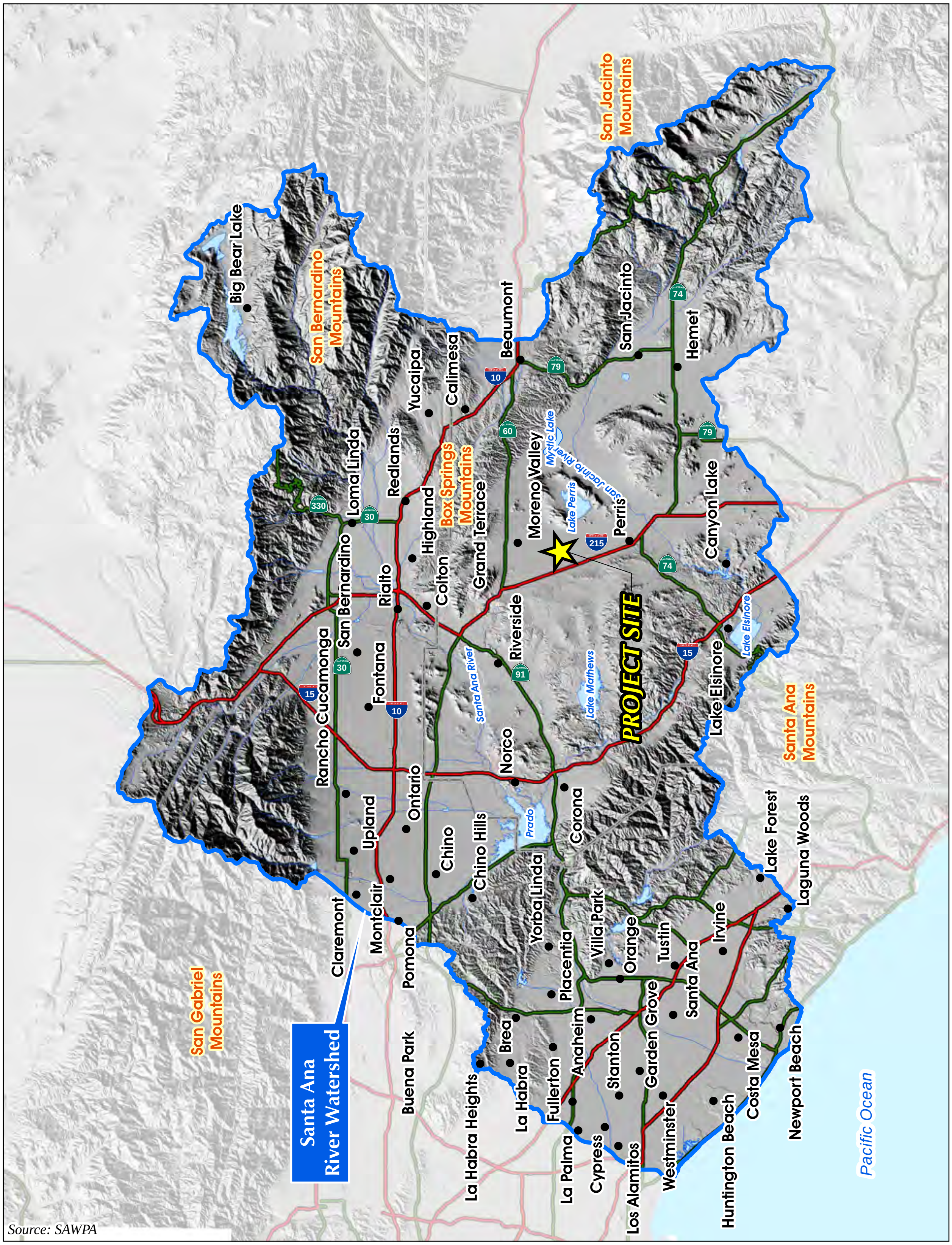

0 1.625 3.25 6.5
Miles

Figure 4.8-1

SANTA ANA RIVER WATERSHED MAP

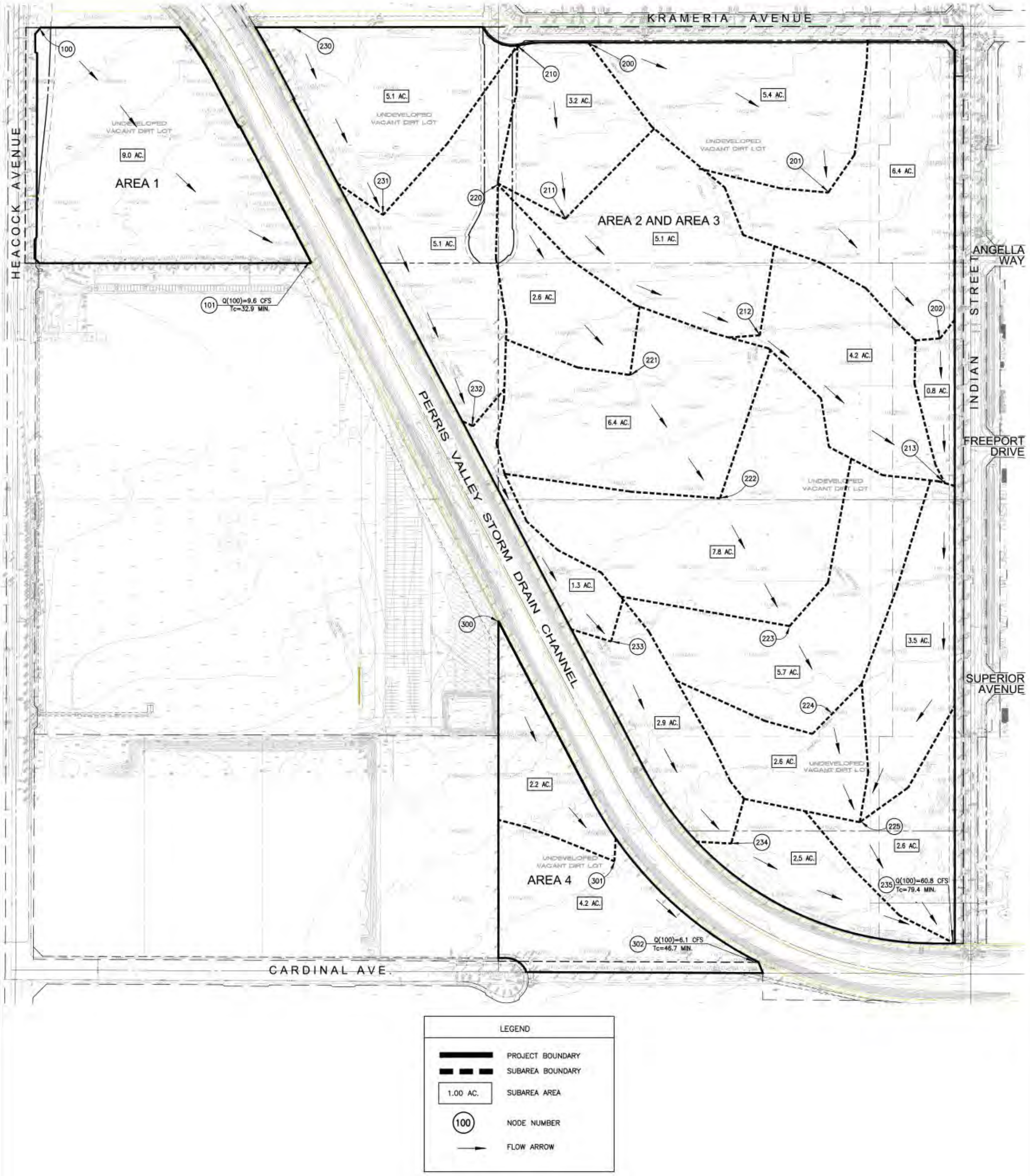

Source: *Thienes Engineering (10-30-14)*

Figure 4.8-2

NOT TO SCALE

EXISTING CONDITION HYDROLOGY MAP

Drain Channel) drains across the subject property in a southeasterly direction as sheet flow before concentrating at the site's southeast corner and discharging into the Channel. Under existing conditions, peak stormwater runoff flows on the subject property are approximately 76.5 cubic feet per second (cfs) during a 100-year storm event. (Thienes, 2016a, n.p.)

C. Perris Valley and Sunnymead Master Drainage Plans

The RCFCWCD prepared a number of Master Drainage Plans (MDPs) to identify master-planned drainage and flood control facilities that are needed to safely convey the peak runoff of a 100-year frequency storm. As depicted on Figure 4.8-2, *Perris Valley and Sunnymead Master Drainage Plans*, the portion of the Project site located west of the Perris Valley Storm Drain Channel is located within the Perris Valley Master Drainage Plan and the portion of the Project site located east of the Perris Valley Storm Drain Channel is located within the Sunnymead Master Drainage Plan. The Perris Valley MDP was completed in May 1987 and revised in 1991, while the Sunnymead MDP was completed in October 1978. The Perris Valley Area Drainage Plan (ADP) and the Sunnymead ADP are the financing mechanisms for the planned facilities identified in the Perris Valley and Sunnymead MDPs, respectively. The MDPs address the current and future drainage needs of the Project area and specify facilities capable of economically relieving flooding problems within the plan areas. The MDPs and ADPs include estimates of facility capacity, sizes, and costs. The ADPs act as a financing mechanism used to offset taxpayer costs for planned master drainage facilities by imposing fees on new development within the ADP areas.

As shown on Figure 4.8-2, the Perris Valley and Sunnymead MDPs identify two master-planned drainage facilities in the vicinity of the Project site: 1) the Perris Valley Storm Drain Channel (Line A), which transects the Project site in a northwest to southeast direction; and 2) an open, trapezoidal drainage channel on the east side of Indian Street (Line D) that outlets into the Perris Valley Storm Drain Channel. The Perris Valley Storm Drain Channel is a major regional storm drain facility that has a 28-foot bottom, 11-foot depth and a capacity to convey approximately 5,900 cubic feet per second. Line D is a small, neighborhood-level facility that drains areas adjacent to Indian Street. (RCFCWCD, 1978, pp. 6-7)

D. Flood Hazards

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panels 06065C0765G and 06065C1430H, the north-central portion of the Project site is located within Flood Zone AO, while the remaining portions of the Project site are located within Flood Zone X (un-shaded). Areas on the Project site within Flood Zone AO are subject to shallow flooding (depths of one foot or less) from the Perris Valley Storm Drain Channel during 100-year storm events. Flood Zone X (unshaded) is classified by FEMA as an area of minimal flood hazard and is subject to potential flooding during extremely rare storm events (i.e., 500-year storm events). (FEMA, 2015) The FEMA FIRM for the Project area is depicted on Figure 4.8-4, *FEMA Flood Insurance Rate Map*.

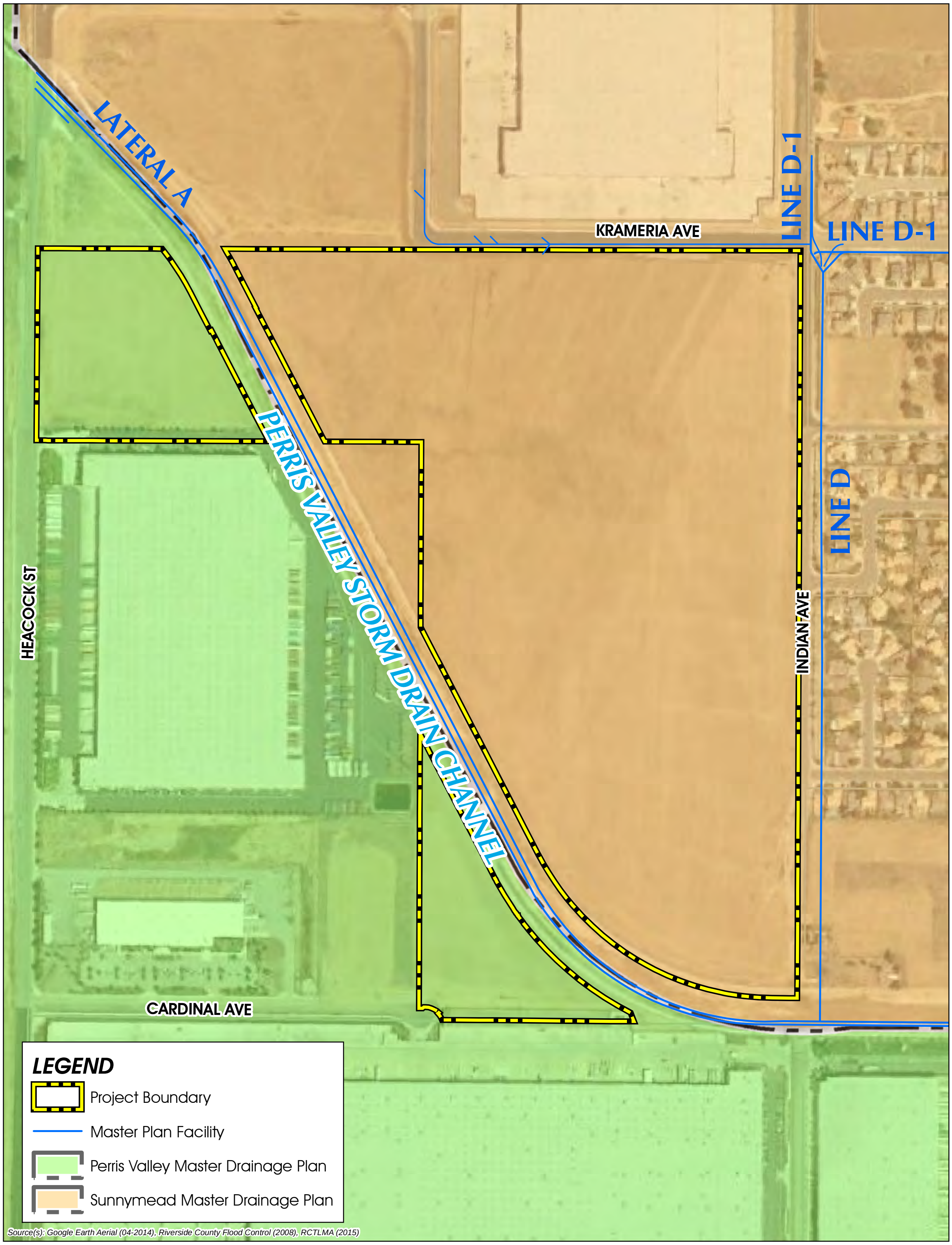

Source(s): Google Earth Aerial (04-2014), Riverside County Flood Control (2008), RCTLMA (2015)

0 125 250 500
Feet

Figure 4.8-3
PERRIS VALLEY AND
SUNNYMEAD MASTER DRAINAGE PLANS

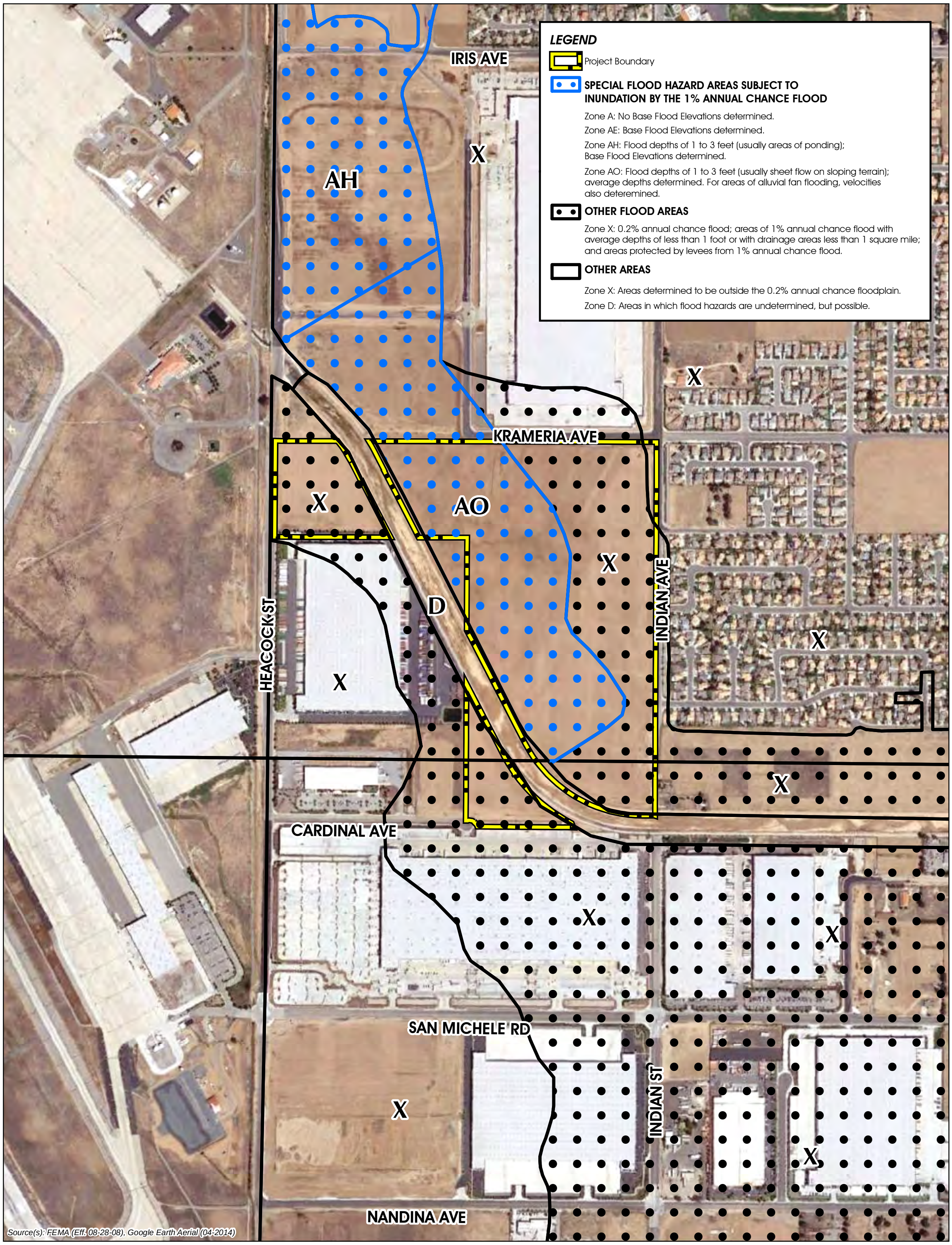

Source(s): FEMA (Eff. 08-28-08), Google Earth Aerial (04-2014)

Figure 4.8-4

FEMA FLOOD INSURANCE RATE MAP

E. Water Quality

The California Porter-Cologne Water Quality Control Act (Section 13000 *et seq*. of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require that comprehensive water quality control plans be developed for all waters in the State of California. In order to accomplish this, the California State Water Resources Control Board divided the state into planning regions and the present system of nine Regional Water Quality Control Boards (RWQCBs). The Project site and vicinity are located in the Santa Ana River Watershed, which is within the purview of the Santa Ana RWQCB. The Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* is the governing water quality plan for the region, which sets forth goals and objectives for protecting water quality within the region (SARWQCB, 2011).

The Perris Valley Storm Drain Channel receives all storm water runoff flows from the Project site. Water conveyed by the Perris Valley Storm Channel flows to downstream reaches of the San Jacinto River (Reaches 1 through 3), Lake Elsinore, Temescal Creek (Reaches 1 through 6), the Santa Ana River (Reaches 1 through 3), and, ultimately, the Pacific Ocean (Thienes, 2016b, p. 7). Refer to *Technical Appendix G2* for a detailed list of all the Project site's receiving waters.

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards due to excessive concentrations of pollutants are placed on a list of impaired waters pursuant to Section 303(d) of the CWA. Several of the Project site's receiving waters are included on the CWA's Section 303(d) list of impaired waters because of excessive concentrations of 10 pollutants ("Pollutants of Concern"), including: nutrients (Canyon Lake and Lake Elsinore), pathogens (Canyon Lake and Santa Ana River Reach 3), organic enrichment/low dissolved oxygen (Lake Elsinore), indicator bacteria (Lake Elsinore, Temescal Creek Reach 6, and Santa Ana River Reach 2), nitrate (Santa Ana River Reach 3), copper (Santa Ana River Reach 3), lead (Santa Ana River Reach 3), enterococcus (tidal prism of Santa Ana River and Newport Slough), fecal coliform (tidal prism of Santa Ana River and Newport Slough), and total coliform (tidal prism of Santa Ana River and Newport Slough) (Thienes, 2016b, p. 7).

F. Groundwater

The City of Moreno Valley is underlain by groundwater resources associated with the Perris North and San Jacinto Groundwater Basins. The Eastern Municipal Water Department (EMWD) relies on groundwater resources from each of these groundwater basins for a portion of their total water supply. The Project site is underlain by the Perris North Groundwater Basin (EMWD, 2015, Figure 7-1). Groundwater occurs between 100 and 150 feet below ground surface in the vicinity of the Project site (Farallon, 2015, p. 3-2).

No potable water wells are located on or adjacent to the Project site under existing conditions. However, several groundwater monitoring wells are located on properties adjacent to the Project site. The groundwater monitoring wells were installed to monitor groundwater contamination associated with the March Air Reserve Base (ARB). Groundwater beneath the Project site and surrounding area is thought to be affected by plumes of polluted groundwater from the March ARB. There is no evidence that any activities that occur or have occurred on the Project site contributed to groundwater contamination. (Farallon, 2015, p. 3-2)

G. Applicable Policies and Regulations

❑ Federal Policies and Regulations

The Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)) is the principal federal statute that addresses water resources. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The broad goal is to restore and maintain the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA requires all states to conduct water quality assessments of their water resources and identify water bodies that do not meet water quality standards. The Environmental Protection Agency (EPA) publishes recommended water quality criteria. States are not required to adopt the exact criteria, but state standards must be approved by the EPA and provide the same level of protection as EPA's standards. In California, water quality standards are established by the nine RWQCBs. The Project site is located in the Santa Ana region, and the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* is applicable to the Project site and vicinity (SARWQCB, 2011).

The provisions of the CWA applicable to the proposed Project are as follows, which also apply to all construction sites of over one acre in size:

- CWA Section 401 requires federal agencies to obtain a Water Quality Certification from states, territories, and Indian tribes before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards; and

- CWA Section 402 authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities and obtain authorization to discharge stormwater under an NPDES construction stormwater permit. The NDPES program also requires certain land uses (e.g., industrial uses) to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted. On April 1, 2014, the California State Water Resources Control Board adopted an updated new NPDES permit for storm water discharge associated with industrial activities (referred to as the "Industrial General Permit"). The new Industrial General Permit, which is more stringent than the existing Industrial General Permit, became effective on July 1, 2015.

❑ State Policies and Regulations

The California Water Code (including the Porter-Cologne Water Quality Control Act (Division 7)) is the principal state law regulating water quality in California. The Porter-Cologne Water Quality Control Act establishes a comprehensive program to protect water quality and the beneficial uses of water, and applies to both surface and groundwater. As mentioned above, the State Water Resources Control Board adopts statewide water quality control plans and its nine RWQCBs are required to develop and adopt regional water quality control plans ("basin plans") that conform to state water quality policy. As mentioned above, the Project site is located in the Santa Ana region. As such, the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Plan* is applicable to the Project site; it designates beneficial uses of water bodies to be protected and establishes water quality objectives.

❑ Local Policies and Regulations

Chapter 8.10 *et seq*. (Stormwater/Urban Runoff Management and Discharge Controls) and Section 8.21.170 (National Pollutant Discharge Elimination Systems) of the City of Moreno Valley Municipal Code requires the City to participate as a "Co-permittee" under the NPDES permit program to accomplish the requirements of the CWA. Pursuant to this chapter, the City is required to participate in the improvement of water quality and comply with Federal requirements for the control of urban pollutants to storm water runoff.

4.8.2 Basis for Determining Significance

The proposed Project would result in a significant impact to hydrology/water quality if the Project or any Project-related component would:

a) *Violate any water quality standards or waste discharge requirements;*

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);*

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;*

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or surface runoff in a manner which would result in flooding on- or off site;

e) Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

f) Otherwise substantially degrade water quality;

g) Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or

j) Be subject to inundation by seiche, tsunami, or mudflow?

4.8.3 Impact Analysis

Threshold a) Would the project violate any water quality standards or waste discharge requirements?

A. Construction-Related Water Quality Impacts

Construction of the Project would involve grading, paving, utility installation, building construction, and landscaping installation, which would result in the generation of potential water quality pollutants such as silt, debris, chemicals, paints, and other pollutants with the potential to affect water quality. As such, short-term water quality impacts have the potential to occur during construction of the Project in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and the City Moreno Valley (Municipal Code Chapter 8.10 *et seq.* and § 8.21.170), the Project would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, soil stockpiling, grading, and/or excavation that disturb at least one (1) acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydroseeding. Mandatory compliance with the SWPPP would ensure that the proposed Project does violate any water quality standards or waste discharge requirements during construction activities. Therefore, water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required.

B. Post-Development Water Quality Impacts

Storm water pollutants commonly associated with the land uses proposed by the Project include bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash and debris, and oil and grease. Based on current receiving water impairments (pursuant to the CWA's Section 303(d) list), the Project's pollutants of concern are bacterial indicators, metals, nutrients, and toxic organic compounds. (Thienes, 2016b, p. 22)

Pursuant to the Moreno Valley Municipal Code (Chapter 8.10 *et seq*. and § 8.21.170), the Project would be required to implement a Water Quality Management Plan (WQMP) to demonstrate compliance with the City's NPDES permit and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the pollutants of concern of a development project via BMPs, implementation of which ensures the on-going protection of the watershed basin. The Project's Preliminary WQMP, prepared by Thienes Engineering, is included as *Technical Appendix G2* appended to this EIR. As identified in *Technical Appendix G2*, the proposed Project is designed to include on-site, structural source control BMPs (consisting of six water quality/detention basins) as well as operational source controls (including but not limited to: the installation of water-efficient landscape irrigation systems, storm drain system stenciling and signage, and implementation of common area maintenance programs) to minimize, prevent, and/or otherwise appropriately treat storm water runoff flows before they are discharged from the site. Compliance with the WQMP would be required as a condition of Project approval pursuant to Municipal Code Chapter 8.10 and Municipal Code § 8.21.170, and long-term maintenance of on-site BMPs would be required to ensure their long-term effectiveness. Therefore, water quality impacts associated with long-term operational activities would be less than significant.

In addition to the WQMP, the NDPES program also requires certain land uses, including industrial land uses as proposed by the Project, to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted. On April 1, 2014, the California State Water Resources Control Board adopted an updated new NPDES permit for storm water discharge associated with industrial activities (referred to as the "Industrial General Permit"). The new Industrial General Permit, which is more stringent than the existing Industrial General Permit, became effective on July 1, 2015. Under the newly effective NPDES Industrial General Permit, the Project would be required to prepare a SWPPP for operational activities and implement a long-term water quality sampling and monitoring program or receive an exemption. Because the permit is dependent upon the operational activities of the buildings, and the

Project's future building occupants and their operations are not known at this time, details of the SWPPP (including BMPs) or potential exemption to the SWPPP operational activities requirement cannot be determined at this time. However, based on the requirements of the NPDES Industrial General Permit, it is anticipated that the Project's mandatory compliance with all applicable regulations would further reduce potential water quality impacts during long-term operation.

Based on the foregoing analysis, the Project would not violate any water quality standards or waste discharge requirements during long-term operation. Impacts would be less than significant.

Threshold b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No potable groundwater wells are proposed by the Project. The proposed Project would be served with potable water by the EMWD. The EMWD relies on local potable groundwater as a source of its water supply (in addition to imported water from the Metropolitan Water District of Southern California, desalted ground water, and recycled water). The EMWD has indicated it has sufficient available water resources, including groundwater resources, to adequately serve the Project in addition to past, present, and future commitments to supply water (refer to *Technical Appendix J*). Therefore, the proposed Project would not substantially deplete groundwater supplies and the Project's impact to groundwater supplies would be less than significant.

Development of the Project would increase impervious surface coverage on the property, which would reduce the amount of water percolating down into the underground aquifer that underlies the Project site and a majority of the City. However, and as noted in the City's General Plan EIR (City of Moreno Valley, 2006b, pp. 5.7-12), "the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source." Additionally, water captured by the proposed Project's water quality/detention basins and landscaped areas would have the opportunity to percolate into the ground. With buildout of the Project, the local groundwater levels would not be adversely affected. Accordingly, buildout of the Project with these design features would not interfere substantially with groundwater recharge.

For the reasons stated above, the Project would neither substantially deplete groundwater supplies nor interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Impacts would be less than significant.

Threshold c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

The proposed Project would alter existing ground contours of the Project site, which would result in changes to the site's existing drainage patterns; however, surface water runoff discharged from the Project site would follow a similar overall pattern across the Project site and would ultimately discharge into the Perris Valley Storm Drain Channel as occurs under existing conditions (Thienes, 2016a, n.p.). The post-development drainage characteristics of the Project site are illustrated on Figure 4.8-5, *Proposed Condition Hydrology Map*. The Project proposes to construct an integrated system of underground storm drain pipes, catch basins, and water quality/detention basins to capture on-site storm water runoff flows, convey the runoff across the site, and treat the runoff to minimize the amount of water-borne pollutants carried from the Project site. As summarized in the Project's WQMP (refer to *Technical Appendix G2)*, the Project's proposed BMPs, including the water quality/detention basins, are effective at removing sediment from surface water runoff (Thienes, 2016b). Compliance with the WQMP would be required as a condition of Project approval and long-term maintenance of on-site water quality features would be required to ensure their long-term effectiveness (pursuant to Municipal Code Chapter 8.10 *et seq*. and § 8.21.170). Therefore, surface water runoff flows leaving the Project site would not carry substantial amounts of sediment. Additionally, the Project would install rip-rap at each of the proposed storm drain outlets within the Perris Valley Storm Drain Channel to dissipate the energy of surface water runoff flows and preclude substantial erosive impacts within the Perris Valley Storm Drain Channel. Because the Project would retain the site's general drainage pattern and because the Project would incorporate features designed to minimize sediment within surface water runoff, the Project would not result in substantial erosion or siltation on- site or off-site and a less-than-significant impact would occur.

Threshold d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of surface runoff in a manner which would result in flooding on- or off site?

In both the pre- and post-development conditions (long-term), all surface water runoff would travel across the Project site in a southeasterly direction and would be discharged into the Perris Valley Storm Drain Channel. Under existing conditions, peak surface water runoff flows on the subject property are approximately 76.5 cfs during the 100-year storm event. Under long-term development conditions, the Project's peak surface water runoff flows are projected to be approximately 170 cfs during the 100-year storm event (without accounting for the Project's proposed storm drain system). However, as demonstrated in the Project's site-specific hydrology study (*Technical Appendix G1*), the Project's proposed water quality/detention basins are designed to accommodate the incremental increase in on-site surface water runoff volume that would result from development of the Project.

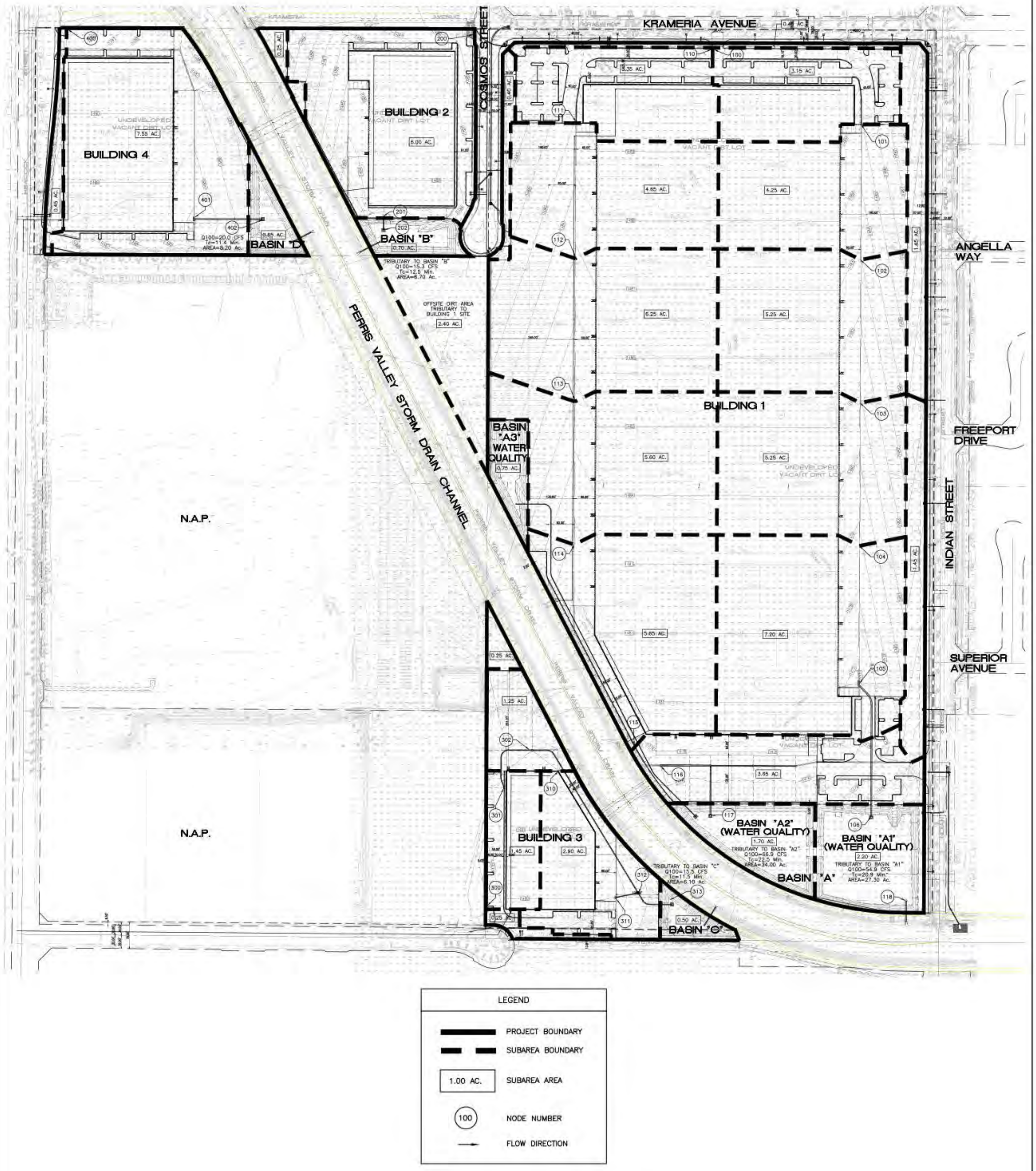

Source: Thienes Engineering (10-30-14)

Figure 4.8-5

NOT TO SCALE

PROPOSED CONDITION HYDROLOGY MAP

Furthermore, the proposed water quality/detention basins are designed to gradually release surface water runoff flows from the Project site into the Perris Valley Storm Drain Channel so that post-development flow conditions would resemble existing conditions. (Thienes, 2016a, n.p.) Based on the foregoing information, the Project would not substantially alter the existing drainage pattern of the Project site or substantially increase the rate of surface water runoff from the site in a manner that would result in flooding on- or off-site. A less-than-significant impact would occur.

Threshold e) Would the project create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As discussed above under the analysis of Threshold d), the proposed Project is designed to ensure that post-development surface water runoff rates and volumes closely resemble those that occur under existing conditions. According to hydrology calculations prepared by Thienes Engineering, the Perris Valley Storm Drain has sufficient available capacity under existing conditions to accommodate the Project site's surface water runoff flows. (Thienes, 2016a, n.p.) Accordingly, the Project would not create or contribute runoff which would exceed the capacity of any planned stormwater drainage system, and impacts would be less than significant.

As discussed under the analysis of Threshold a), the proposed Project would be required to comply with a future SWPPP and the Project's WQMP (*Technical Appendix G2*), which identify required BMPs to be incorporated into the Project to ensure that near-term construction activities and long-term post-development activities of the proposed Project would not result in substantial amounts of polluted runoff. Therefore, with mandatory compliance with the Project's SWPPP and WQMP, the proposed Project would not create or contribute substantial additional sources of polluted runoff, and impacts would be less than significant.

Threshold f) Would the project otherwise substantially degrade water quality?

There are no conditions associated with the proposed Project that would otherwise result in the substantial degradation of water quality beyond what is described above in Thresholds a), c) and/or e). Thus, the Project would not otherwise substantially degrade water quality. No impact would occur.

Threshold g) Would the project place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Project does not include housing. Therefore, there is no potential for the Project to place housing within a 100-year flood hazard area. No impact would occur as a result of the Project.

Threshold h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The north-central portion of the Project site is located within the 100-year floodplain (Zone AO), as mapped by FEMA on FIRM Panels 06065C0765G and 06065C1430H (refer to Figure 4.8-4). The portions of the Project site located within Zone AO are subject to flood depths up to one-foot.

The Project's proposed grading plan, included as part of Tentative Parcel Map No. 36150 (PA15-0018), is designed such that the building pads of all buildings located within Zone AO would be raised by approximately two to three feet above existing conditions and would be above the base flood elevation of the 100-year floodplain. Furthermore, an approved development project located upstream of the Project site (March Business Center, SCH No. 2011061033) constructed improvements to the local storm drain network that – combined with Project-related improvements described in detail in EIR Section 3.0, *Project Description* – would remove the Project site from the 100-year floodplain and would safely convey runoff flows downstream (Thienes, 2016a). Accordingly, the Project would not result in increased flood hazards to off-site properties.

As a condition of approval from the City of Moreno Valley, the Project will be required to secure a Conditional Letter of Map Revision (CLOMR) and Permanent Letter of Map Revision (LOMR) from FEMA to demonstrate that proposed Project structures would be located outside of a 100-year flood hazard area. To obtain a CLOMR, the Project Applicant must prepare detailed construction drawings and flood hazard analyses as well as a standard application package (including project information forms, exhibits, etc.) for review by FEMA. If the proposed Project meets the minimum floodplain management criteria of the National Flood Insurance Program (NFIP), then FEMA will issue a CLOMR, which would allow full construction activities to occur on-site and upon issuance of the appropriate permits by the City of Moreno Valley. Upon completion of construction activities, but prior to occupancy of any structure in the mapped floodplain, the Project Applicant must provide FEMA with detailed "as-built" drawings and flood hazard analyses, as well as a standard application package, to demonstrate that the Project was constructed in accordance with preliminary plans reviewed and approved by FEMA as part of the CLOMR process. If FEMA determines that the Project is consistent with the original CLOMR approval and meets the minimum floodplain management criteria of the NFIP, then a LOMR is issued and the FIRM is officially revised to remove the affected areas of the subject property from the floodplain. Mitigation Measure MM 4.8-1 is provided to ensure that the LOMR is in place at the time of need.

Threshold i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The nearest dam to the Project site is Lake Perris, located approximately 2.5 miles southeast of the Project site. According to City of Moreno Valley General Plan FEIR Figure 5.5-2, *Floodplains and High Fire Hazard Areas*, the Project site is not located in an identified dam inundation area for Lake

Perris. The Perris Valley Storm Drain Channel, a Riverside County flood control facility that transects the Project site in a northwest to southeast direction is not considered a levee and no levees occur in the Project vicinity. Accordingly, the Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Impacts would be less than significant.

Threshold j) Would the project be subject to inundation by seiche, tsunami, or mudflow?

The Pacific Ocean is located more than 40 miles from the Project site. Thus, there is no potential for tsunamis to impact the Project site. In addition, the Project site and immediate surrounding area do not contain steep hillsides subject to mudflow. The nearest water body to the Project site is Lake Perris which is located approximately 2.5 miles southeast and downstream of the Project site. Due to the distance from Lake Perris to the Project site and the topographic characteristics of the area, a seiche in Lake Perris would have no impact on the Project site. Although the Perris Valley Storm Drain Channel traverses a portion of the Project site, it is not an enclosed or semi-enclosed basin that would be conducive to reverberation and creation of seiches. Therefore, the Project site would not be subject to seiches, mudflows, and/or tsunamis. Thus, no impact would occur.

4.8.4 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Moreno Valley and surrounding areas. The analysis of potential cumulative impacts to hydrology/water quality is divided into six general topics of discussion by combining the Thresholds of Significance (as listed above in Subsection 4.8.3) into groupings of like topics as follows:

A. Water Quality

During Project construction, the proposed Project and other development projects within the Santa Ana River watershed would have the potential to result in a cumulative water quality impact, including erosion and sedimentation. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb one or more acres of land area are required to obtain a NPDES permit and obtain coverage for construction activities. In order to obtain coverage, an effective site-specific SWPPP is required to be developed and implemented for all development projects. The SWPPP must identify potential on-site pollutants and identify and implement an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. In addition, the Project and all cumulative developments would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*. With compliance to these mandatory regulatory requirements, the Project's contribution to water quality impairments during Project construction would not be cumulatively considerable and mitigation is not required.

As discussed in detail under the analysis of Threshold a), a Project-specific WQMP has been prepared to identify pollutants of concern within the Project site's watershed and to identify specific BMPs to address those pollutants in Project-related surface water runoff discharge under long-term operational conditions. Compliance with the WQMP would be required as a condition of Project approval pursuant to Municipal Code Chapter 8.10 *et seq.* and § 8.21.170. Other developments within the watershed would similarly be required to prepare site-specific WQMPs and to incorporate BMPs into site design as necessary to ensure that runoff does not substantially contribute to existing water quality violations. With implementation of the Project as designed – including the proposed water quality/detention basins – and mandatory compliance to the Project's WQMP (*Technical Appendix G2*), the Project's surface water runoff would not contribute to a violation of water quality standards or waste discharge requirements or exacerbate an existing violation. Accordingly, the Project's long-term operational impacts to water quality would not be cumulatively considerable and no mitigation would be required.

B. Groundwater Supply and Recharge

Although the proposed Project would increase the amount of impervious surfaces on the site, the Project incorporates design features that would allow some surface runoff to infiltrate into the groundwater basin, including water quality/detention basins and permeable landscape areas. Also, as previously noted, the City's General Plan EIR evaluated potential impacts to the groundwater basins beneath the City and concluded that the incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source (City of Moreno Valley, 2006b, pp. 5.7-12). Furthermore, groundwater beneath the proposed Project site is thought to be contaminated due to operations at the adjacent March ARB, indicating that groundwater beneath the proposed Project site is not suitable as a source of potable water. For these reasons, the proposed Project would not result in cumulatively considerable impacts associated with the depletion of groundwater supplies or substantial interference with groundwater recharge.

C. Erosion and Siltation

As discussed under the analysis of Threshold c), although the Project would alter the drainage characteristics interior to the Project site as compared to existing conditions, these alterations would not be substantial because the site's general drainage pattern and discharge points would be maintained. Additionally, all on-site runoff would be treated by the Project's BMPs, which were selected for their ability to remove sediment from storm water runoff. Accordingly, due to the design of the proposed Project, there is less-than-significant potential for the Project to make a cumulatively considerable impact associated with substantial alterations to the existing drainage pattern of the site or area which could result in substantial erosion or siltation on- or off-site

D. Flood Hazards

The proposed Project would generally maintain the existing drainage pattern of the site and the proposed Project would not affect the course of any streams or rivers. In addition, the Project's proposed storm water drainage system is designed to ensure that peak flood volumes and flows are substantially similar to those that occur under existing conditions. Accordingly, because the Project would not increase flooding potential either on or off the site, the Project would have a less than significant cumulatively considerable impact associated with flooding.

The Project does not involve the construction of residential uses, nor would the Project increase flood hazards on off-site properties such that residential structures could be impacted by floods. Accordingly, the Project has no potential to contribute to cumulative impacts associated with flooding of residential properties.

The proposed Project would place structures within an existing 100-year flood hazard area that is subject to inundation up to one-foot in depth. The proposed grading plan for the Project is designed such that all building pads would be raised above the base flood elevation of the 100-year floodplain to ensure on-site structures would not be subject to flood hazards. Furthermore, an approved development project located upstream of the Project site (March Business Center, SCH No. 2011061033) constructed improvements to the local storm drain network that – combined with Project-related improvements described in detail in EIR Section 3.0, *Project Description* – would remove the Project site from the 100-year floodplain and would safely convey runoff flows downstream. Because of the site-specific nature of this impact, the Project would not contribute to cumulative impacts associated with other existing, planned, or proposed development.

The Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Thus, the Project has no potential to contribute to a cumulatively considerable impact associated with a levee or a dam.

E. Stormwater Drainage System Capacity

The Project's proposed storm drain improvements would have sufficient capacity to accommodate and convey storm water runoff flows generated by the Project and would convey the expected future storm water runoff flows associated with buildout of the *Perris Valley MDP* and *Sunnymead MDP* areas. All development projects in the *Perris Valley MDP* and *Sunnymead MDP* areas are required to demonstrate that storm drain capacity is available to service their anticipated flows. As such, cumulative impacts would be less than significant and the proposed Project's contribution of flows would thus be less than cumulatively considerable.

F. Other Hazards

The Project site is not subject to hazards associated with seiches, tsunamis, or mudflows. There are no components of the proposed Project that would increase the potential for seiches, tsunamis, or mudflows. Accordingly, the Project has no potential to cumulatively contribute to other hazards.

4.8.5 Significance of Impacts before Mitigation

Threshold a): Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements on a direct or cumulatively considerable basis. The

Project is required to prepare a SWPPP to address construction-related water quality issues, and is required to comply with a site-specific WQMP and its associated BMPs.

Threshold b): Less-than-Significant Impact. The Project does not propose the installation of any water wells on the Project site that would extract groundwater. Also, the proposed Project would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table level.

Threshold c): Less-than-Significant Impact. The Project would maintain the existing general drainage pattern of the site and would not result in substantial erosion or siltation on- or off-site.

Threshold d): Less-than-Significant Impact. The Project would not significantly increase flood hazards and would not result in a substantial increase in the rate of surface runoff in a manner that would result in increased flood hazards on- or off-site.

Threshold e): Less-than-Significant Impact. The Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of polluted runoff.

Threshold f): No Impact. There are no conditions associated with the proposed Project that would otherwise result in the substantial degradation of water quality.

Threshold g): No Impact. The Project does not propose housing and would not place housing within a 100-year flood hazard area.

Threshold h): Less-than-Significant Impact. The Project would construct buildings within an area subject to shallow flooding (i.e., depths of one-foot or less) during a 100-year storm event; however, the Project is designed to ensure that redirected flood flows would not result in substantial adverse effects to on-site and/or off-site areas.

Threshold i): Less-than-Significant Impact. The proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Threshold j): No impact. The Project site is not subject to hazards associated with seiches, tsunamis, or mudflow.

4.8.6 Mitigation

The following mitigation measure would ensure compliance to conditions of approval issued by the City of Moreno Valley:

MM 4.8-1 Prior to building final, the Project Applicant shall provide evidence to the City of Moreno Valley that an application for a Final Letter of Map Revision (LOMR) has been submitted to FEMA to permanently remove the development area from the FEMA 100-year floodplain, and shall demonstrate to the satisfaction of the City of Moreno Valley that the finished floor height of the structure is outside the 100-year floodplain elevation as mapped by FEMA.

4.9 Land Use/Planning

This Subsection discusses consistency of the proposed Project with applicable land use and planning policies adopted by the City of Moreno Valley and other governing agencies for the purpose of reducing adverse effects on the physical environment.

The proposed Project (described in Section 3.0, *Project Description*) is consistent with the property's land use designations as applied by the City of Moreno Valley General Plan and the Moreno Valley Industrial Area Plan (Specific Plan 208), as well as the property's zoning designation. CEQA Guidelines § 15183(a) mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified, shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. In this case, the subject property was evaluated as part of an EIR certified in 1989 for Specific Plan 208 (State Clearinghouse Number 1988080813) and as part of the City's General Plan Program EIR certified in 2006 (State Clearinghouse Number 2000091075). These EIRs are hereby incorporated by reference and available for public review at the locations indicted in EIR Section 7.0, *References*. The analysis below focuses on the Project-specific details associated with implementation of the Project Applicant's proposal to implement the site's Industrial land use and zoning designations.

4.9.1 Existing Conditions

A. Existing Land Use and Development

Refer to Section 2.0, *Environmental Setting*, for a full description of existing on-site and surrounding land uses. In summary, the Project site is a vacant undeveloped 89.4-acre site that is transected by the Perris Valley Storm Drain Channel in a northwest to southeast direction. Approximately 15.3 acres of the Project site is located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site is located east of the Perris Valley Storm Drain Channel. The Project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (MVIAP) (Specific Plan (SP) 208) in a portion of the City of Moreno Valley that is developing as a center for distribution warehousing, e-commerce, and light industrial land uses. The MVIAP area has been designated for these types of uses since 1989 (approximately 26 years ago).

The Project site is bordered by vacant, undeveloped land on the northwest and a large warehouse building on the northeast occupied by Proctor & Gamble. The vacant, undeveloped land located northwest of the Project site is approved for development as a warehouse distribution center (March Business Center). Located farther north of the Project site is Iris Avenue, undeveloped land, and residential development. The Project site is bordered on the south by partially developed Cardinal Avenue, a large warehouse building occupied by Amazon, and the Perris Valley Storm Drain Channel. Located farther south and southeast are a collection of warehouse distribution buildings, undeveloped parcels that are designated for future industrial development, and small parcels that contain small commercial, industrial, or manufacturing structures. Immediately to the east of the Project site is Indian Street. East of Indian Street are single-family residential homes, with pockets of undeveloped land designated for future residential development. The Project site is bordered on the west by two large warehouse/industrial buildings and Heacock Street. West of Heacock Street is the March Air Reserve Base.

B. Applicable Land Use and Planning Policies

❑ City of Moreno Valley General Plan

As discussed in EIR Section 2.0, *Environmental Setting*, and depicted on Figure 2-2, *Existing General Plan Land Use Designations*, the City's General Plan designates the Project site for "Business Park/Light Industrial (BP)" land uses. Surrounding land use designations consist of "Business Park/Light Industrial (BP)" land uses to the north and south; "Residential R5" (maximum 5 dwelling units per acre (du/ac)) to the east; and the March Air Reserve Base to the west.

The City of Moreno Valley General Plan (July 11, 2006) is a policy document that reflects the City's vision for the future of Moreno Valley. The General Plan is organized into seven separate elements, including: Community Development; Economic Development; Parks, Recreation and Open Space; Circulation; Safety; Conservation; and Housing. Each element is associated with a series of policies to guide the City's vision for future development. The following is a summary of the City's General Plan Elements.

Community Development Element

The Community Development Element functions as a land use guide for future development in the City. The Element identifies the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, recreation, floodplains, and public facilities. These designations are reflected on the General Plan Land Use Map, which are applied on a parcel-by-parcel basis throughout the City. The Community Development Element also provides standards for residential density and non-residential intensity. It governs how land is to be used; therefore, many of the issues and policies contained in other elements of the General Plan are linked in some degree to this Element. (City of Moreno Valley, 2006a, Ch. 2)

Economic Development Element

The Economic Development Element is an element that is intended to be added to the General Plan in the future, following completion of an Economic Development Strategy, which is presently being conducted by the City. At the time the Project's Notice of Preparation (NOP) was distributed for public review on June 17, 2015, no policy guidance had been established as part of the General Plan's Economic Development Element. (City of Moreno Valley, 2006a, Ch. 3)

Parks, Recreation and Open Space Element

The Parks, Recreation and Open Space Element includes specific policies related to open space preservation, outdoor recreation and recreation facilities, and trails. (City of Moreno Valley, 2006a, Ch. 4)

Circulation Element

The purpose of the Circulation Element is to develop a safe, efficient, environmentally and financially sound, integrated vehicular circulation system. It also is intended to provide for safe and adequate non-vehicular transportation, including pedestrian, bicycle, and public transportation systems. General Plan EIR Figure 5.2-1, *Circulation Plan*, identifies the adopted circulation plan that identifies the City of Moreno Valley's existing system of major roadways, freeways and arterial streets. General Plan EIR Figure 5.2-6, *Proposed Circulation Plan*, shows the proposed Circulation Plan. As shown on General Plan Figure 5.2-6, Heacock Street is identified for development as an "Arterial (100-foot right-of-way)," while Krameria Avenue and Indian Street are identified for improvement as "Minor Arterial" roadways (88-foot right-of-way). The Circulation Element also depicts level of service (LOS) standards for Circulation Element roadways throughout the City. As shown on General Plan EIR Figure 5.2-7, *LOS Standards*, Heacock Street, Krameria Avenue and Indian Street are identified as having a LOS D standard. As identified in General Plan Table 5.2-1, *Level of Service (LOS) Descriptions*, LOS D traffic flow conditions are identified as high-density, but stable flow. (City of Moreno Valley, 2006b, Table 5.2-1)

The City's Circulation Element also plans for alternative transportation systems including a bikeway system and a public transit system. For transit service, Moreno Valley is primarily served by the Riverside Transit Agency (RTA), which provides bus service to most of Riverside County, including the City of Moreno Valley and the Project site. In addition, the Riverside County Transportation Commission (RCTC) owns several Metrolink stations that serve Riverside County, including the Moreno Valley/March Field Station on Alessandro Boulevard immediately west of Interstate 215. Refer to the discussion below under "City of Moreno Valley Bicycle Master Plan" for information on existing and planned bicycle facilities surrounding the Project site.

Safety Element

The goal of the Safety Element is to assist the City in achieving acceptable levels of protection from natural and man-made hazards to life, health, and property, and to ensure that emergency services in the City are adequate to meet the City's needs during both minor emergencies and major catastrophic situations. (City of Moreno Valley, 2006a, Ch. 6)

Conservation Element

The Conservation Element is intended to achieve the wise use of natural resources within the City and immediate environs. Issues addressed by the Conservation Element include erosion, water quality and supply, biological resources and associated habitat, energy conservation, historical/archaeological resources, visual quality, and solid waste and recycling. (City of Moreno Valley, 2006a, Ch. 7)

Housing Element

The Housing Element identifies and establishes the City's policies with respect to meeting the needs of existing and future residents of the City. Specific components of the Housing Element, which also

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are requirements of state law, include the following: an assessment of housing needs and inventory; an analysis and program for preserving assisted housing developments; a statement of community goals, quantified objectives, and policies relative to the maintenance, preservation, improvement, and development of housing; and a program which sets forth a five-year schedule of actions that the City is undertaking, or intends to undertake, to implement the policies set forth in the Housing Element. (City of Moreno Valley, 2006a, Ch. 8)

❑ Moreno Valley Industrial Area Plan (Specific Plan 208)

The Project site is located within the geographical boundaries of the Moreno Valley Industrial Area Plan (MVIAP). The MVIAP "establishes development regulations and design standards that will ensure quality development which will contribute to the City's industrial employment base…" (MVIAP, 2002, I-4) The MVIAP includes specific zoning designations and standards for development within its geographical boundaries. As shown in Figure 2-3, *Moreno Valley Industrial Area Plan Land Use Map*, of EIR Section 2.0, *Environmental Setting*, the MVIAP applies an "Industrial" zoning designation to the Project site. The "Industrial" designation permits a wide range of industrial and industrial/business related support uses, including the uses proposed by the Project.

As also shown on Figure 2-3, the MVIAP identifies a 300-foot residential buffer along the eastern boundary of the Project site, along Indian Street. The MVIAP *300-Foot Proximity to Residential District* criteria is intended to provide a buffer between residential districts within the MVIAP without affecting the integrity of lands available for industrial uses. Where parcels exceed 300 feet in depth from a Major Arterial, permitted uses may extend beyond this distance so as not to affect the integrity of industrial uses, if the development proposal is part of an integrated industrial or business park, as determined by the Community & Economic Director. (MVIAP, 2002, III-2)

In association with the approval of the warehouse building occupied by Proctor & Gamble that is located immediately north of the Project site, on August 26, 2008, the City approved an amendment to the *300-Foot Proximity to Residential District* by Ordinance No. 780, an ordinance of the City Council of Moreno Valley approving P07-121, (Specific Plan Amendment). The Specific Plan Amendment increased the landscape setback and reduced the building setback in the Residential Buffer Zone along Indian Street, north of Krameria Avenue up to Iris Avenue. The Specific Plan Amendment resulted in an amended Page III-2, Section III, C1: *300 Foot Proximity to Residential District of the MVIAP*, as follows:

> *"The criteria is intended to provide a buffer between residential districts within the Area Plan without affecting the integrity of lands available for industrial uses. Where parcels exceed 250 feet in depth from a Major Arterial, permitted uses may extend beyond this distance so as not to affect the integrity of lands available for industrial uses, if the development proposal is part of an integrated industrial or business park, as determined by the Community Development Director. The residential buffer is measured from the centerline of the street. In addition, the City will allow reduction of the 250 foot buffer along Indian Street from Iris Avenue to*

> *Krameria Avenue to a minimum of 100 feet provided it is maintained as a linear landscape feature accessible to the adjacent community. Minor encroachment within the 50 foot enhanced landscaped buffer is acceptable to provide for screen wall articulation and water quality facilities/features as approved by the City of Moreno Valley. Any reduction shall be dependent on air quality and noise analysis showing no significant adverse impacts on adjacent residentially zoned areas."* (City of Moreno Valley, 2008)

Section IV of the MVIAP, *Development Framework*, identifies planned roadway improvements. The MVIAP identifies Heacock Street as a Major Arterial (100-foot right-of-way width and a 76-foot curb-to-curb width, with two travel lanes in each direction) and Krameria Avenue and Indian Street as Minor Arterials (88-foot right-of way width and a curb-to curb width of 64 feet). (MVIAP, 2002, IV-7) Additionally, the MVIAP identifies specific goals and objectives related to land use compatibility, urban design, and public facilities and services. Guidelines are provided related to urban design, urban form, landscape design, special corridors, open space/trails, and entries. In addition, the MVIAP provides development standards related to drainage and flood control, water and wastewater, and public services, and includes policies related to implementation of the MVIAP. The proposed Project's consistency with the applicable portions of the MVIAP is discussed below in Subsection 4.9.3.

❑ City of Moreno Valley Zoning Ordinance

Development of the Project site is regulated by the development regulations and design standards contained in the MVIAP. As discussed above, the MVIAP applies the "Industrial" zoning designation to the proposed Project site. The development regulations and design standards contained within the MVIAP supersede the zoning standards contained in the City's Zoning Ordinance. The MVIAP is herein incorporated by reference pursuant to CEQA Guidelines § 15150 and is available for review at the physical location indicated in EIR Section 7.0, *References*.

❑ City of Moreno Valley Bicycle Master Plan

The City of Moreno Valley Bicycle Master Plan, published in November 2014, was prepared by the City to conform to the Western Riverside Council of Governments' (WRCOG) Non-Motorized Transportation Plan, as well as other regional plans. The Plan identifies deficiencies and opportunities in the City's existing bicycle facility system and presents a long-range plan for the provision of a safe, convenient and efficient environment for bicycle travel in Moreno Valley. On and surrounding the Project site, the Plan calls for a Class 2 bike lane along Krameria Avenue east of Indian Street (east of the Project site), a Class 2 bike lane on Indian Street between Krameria Avenue and the Perris Valley Storm Drain Channel (along the Project site's frontage), a Class 3 bike route on Indian Street south of the Perris Valley Storm Drain Channel (south of the Project site), a Class 2 bike lane on Heacock Street (along the Project site's frontage) and a Class 1 Multi-Use Path along the Perris Valley Storm Drain Channel (transects the Project site), called the "South City Aqueduct Path" that traverses from Heacock Street to Kitching Street. Refer to EIR Subsection 4.11, *Transportation/Traffic*, for an analysis of the Project's consistency with the City of Moreno Valley Bicycle Master Plan.

❑ SCAQMD Air Quality Management Plan

Currently, the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are exceeded in most parts of the South Coast Air Basin (SCAB). In response, and in conformance with California Health & Safety Code § 40702 et seq. and the California Clean Air Act, the South Coast Air Quality Management District (SCAQMD) adopted an Air Quality Management Plan (AQMP) to plan for the regional improvement of air quality. AQMPs are updated regularly to more effectively reduce emissions and accommodate growth. Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The most recent AQMP was adopted by the SCAQMD Governing Board on December 7, 2012. The 2012 AQMP incorporated the latest scientific and technological information and planning assumptions, including the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* prepared by the Southern California Association of Governments (SCAG) and updated emission inventory methodologies for various source categories. The air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the 2012 AQMP assumed that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its *2012-2035 RTP/SCS*. The 2012 AQMP also assumes that such development projects will implement strategies to reduce air emissions generated during the construction and operational phases of development. Accordingly, if a proposed project is consistent with these growth forecasts, and if available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is considered to be consistent with the 2012 AQMP. The proposed Project's consistency with the SCAQMD Air Quality Management Plan is discussed in detail in EIR Section 4.3, *Air Quality*.

❑ SCAG Regional Transportation Plan (RTP)

The SCAG is a Joint Powers Authority (JPA) under California state law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. (SCAG, 2015).

As a MPO and public agency, SCAG develops transportation and housing plans that transcend jurisdictional boundaries that affect the quality of life for Southern Californian as a whole. SCAG's *2012-2035 RTP/SCS* includes a chapter titled "Goods Movement" that is applicable to the proposed Project. It states that the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on a network of warehousing and distribution facilities, highway and rail connections, and intermodal rail yards. The Goods Movement Chapter of the *2012-2035 RTP/SCS* identifies the Project site as being within a warehouse cluster (SCAG, 2013, Figure 3-4). The Goods Movement section states:

> *"Goods movement and freight transportation are essential to supporting the SCAG regional economy and quality of life. The goods movement system in the SCAG region is a multimodal, coordinated network that includes deep water marine ports, international border crossings, Class I rail lines, interstate highways, state routes and local roads, air cargo facilities, intermodal facilities, and regional distribution and warehousing clusters. In 2010, over 1.15 billion tons of cargo valued at almost $2 trillion moved across the region's transportation system. Whether carrying imported goods from the San Pedro Bay Ports to regional distribution centers, supplying materials for local manufacturers, or delivering consumer goods to SCAG residents, the movement of freight provides the goods and services needed to sustain regional industries and consumers on a daily basis."* (SCAG, 2013, p. 1)

According to SCAG's *Comprehensive Regional Goods Movement Plan and Implementation Strategy*, the SCAG region has a large demand for warehouse space and the demand will continue into the foreseeable future, resulting in a large unmet demand by the year 2035 (SCAG, 2013, pp. 4-39 and 4-40). SCAG reports that a substantial amount of available industrial land for this type of development is located in the vicinity of the SR-60 corridor, particularly in Moreno Valley, Perris, and near March Air Reserve Base (i.e., the vicinity of the Project site) (SCAG, 2013, p. 6-16). The proposed Project's consistency with the RTP is discussed in detail in EIR Section 4.11, *Transportation/Traffic*.

Although SCAG approved an update to the *RTP/SCS* in April 2016, the 2012 version is appropriate for analysis herein because it was the version in effect when the NOP for this EIR was published in June 2015.

❑ Riverside County Congestion Management Plan (CMP)

The Riverside County Congestion Management Plan (CMP) was prepared by the Riverside County Transportation Commission (RCTC) in accordance with Proposition 111, which was passed in June 1990. The CMP was established in the State of California to more directly link land use, transportation, and air quality and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Deficiencies along the CMP system are identified by the RCTC when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact along a critical CMP corridor is intended to conserve scarce funding resources and help target those resources appropriately. The proposed Project's consistency with the CMP is discussed in detail in EIR Section 4.11, *Transportation/Traffic.*

❑ Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The Western Riverside County MSHCP, a regional Habitat Conservation Plan (HCP), was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and participating entities. The intent of the Western Riverside County MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the Western Riverside County MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the Western Riverside County MSHCP and to provide for an overall conservation area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The Western Riverside County MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the USFWS and the CDFW, the Western Riverside County MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the Western Riverside County MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through compliance with the Western Riverside County MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA.

As shown on Figure 2-5, *MSHCP Criteria Areas* in EIR Section 2.0, *Environmental Setting*, the Project site is not located within any MSHCP Criteria Cells. The nearest MSHCP Criteria Cells are located approximately 2.8 miles to the southwest of the Project site. Although the Project site is not designated for conservation under the MSHCP, the Project site is located within the MSHCP burrowing owl survey area. The burrowing owl species is a species on the *Additional Survey Needs and Procedures* (Section 6.3.2) list and surveys for burrowing owl are required as part of the project review process within the burrowing owl survey area where suitable habitat is present. Burrowing owls located as a result of survey efforts are required to be addressed in accordance with procedures described in Section 6.3.2, MSHCP, Volume I. (RCA, Volume I Section 9) The proposed Project's consistency with the Western Riverside County MSHCP is discussed in detail in EIR Section 4.4, *Biological Resources*.

❑ March Air Reserve Base/Inland Port Land Use Compatibility Plan

March Air Reserve Base is located west of Heacock Street which borders the Project site on the northwest. March Joint Powers Authority (JPA) is a public entity created for the purpose of addressing the use, reuse, and joint use of realigned March AFB. The four individual public entities that cooperatively formed the JPA are the cities of Perris, Moreno Valley, and Riverside, and the County of Riverside (March JPA, n.d.). The *March Air Reserve Base/Inland Port (March ARB/IPA) Land Use Compatibility Plan* was adopted by the Riverside County Land Use Commission on November 13, 2014. The compatibility zones and associated criteria set forth in the *Compatibility Plan* provide noise and safety compatibility protection equivalent or greater than the Air Force recommended criteria presented in their Air Installation Compatibility Use Zone Study (AICUZ) dated August 2005. The land uses in the vicinity of March ARB/IPA are generally compatible with base operations (Mead & Hunt, 2014, pp. MA-2).

The off-site Perris Valley Storm Drain Channel which traverses the Project site in a northwest to southeast direction forms the boundary between Compatibility Zones within the March Air Reserve Base/Inland Port Airport Influence Area (AIA). Projects located within the AIA require review by the Riverside County Airport Land Use Commission (ALUC) for consistency with the *March ARB/IPA Land Use Compatibility Plan*. The portion of the Project site located west of the Perris Valley Storm Drain Channel (proposed Buildings 3 and 4) are located within Compatibility Zone C1 of the AIA and the portion of the Project site located east of the Perris Valley Storm Drain Channel (proposed Buildings 1 and 2) are located within Compatibility Zone D of the AIA. Zone C1 limits the average intensity to 100 people per acre with a maximum single-acre intensity of 250 people, while Zone D does not specify any restrictions on residential or non-residential intensity. (ALUC, 2015a)

The City of Moreno Valley has established an Air Installation Compatibility Use Overlay District as part of its Municipal Code (Section 9.07.060). According to City code, "It is the intent and purpose of this air installation compatibility use overlay (AICUZ overlay) district to limit public exposure to aircraft accidents and noise and to encourage future development that is compatible with continued operation of March Air Force Base" (ESA, 2014, 3.2-7) According to City of Moreno Valley Municipal Code 9.070.60, the AICUZ overlay district shall apply within the Accident Potential Zone I and II as depicted on the official zoning atlas. The provisions of the AICUZ overlay shall apply in addition to the provisions of the underlying district. Development within the AICUZ overlay district shall avoid uses which concentrate large numbers of people, are noise sensitive, create hazards to aircraft operations, pose special health and safety hazards in the event of an aircraft accident; or involve public facilities and utilities for which disruption would have an adverse impact on large numbers of people.

The proposed Project's consistency with the *March ARB/IPA Land Use Compatibility Plan* is discussed in detail in EIR Subsection 4.7, *Hazards & Hazardous Materials*.

4.9.2 Basis for Determining Significance

The proposed Project would result in a significant impact to land use/planning if the Project or any Project-related component would:

a) *Physically divide an established community;*

b) *Conflict with an applicable land use plan, policy or regulation of any agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or*

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan.*

4.9.3 Impact Analysis

Threshold a) Physically divide an established community?

The Project site consists of vacant and undeveloped land that is located within the geographical limits of the MVIAP in a developing area of the City of Moreno Valley that is designated for industrial development. Thus, development of the Project site as a logistics center would not physically disrupt or divide the arrangement of an established community. The property is proposed to be developed in accordance with its assigned General Plan land use designation and MVIAP zoning designation. Properties adjacent to the Project site to the north, south, and west have either been developed or are planned for long-term development with industrial land uses. Property to the east is developed with single-family homes. The Project site has been designated for industrial development by the MVIAP since 1989. Development of the Project site as proposed by the Project would not isolate divide the residential neighborhood to the east from any neighboring communities. The Project site is positioned at the border of planned industrial development, west of existing and planned residential development. Thus, the Project would not result in the division of an established community. No impact would occur.

Threshold b) Conflict with an applicable land use plan, policy or regulation of any agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Provided below is a discussion of the Project's consistency with the land use planning and policy documents described above in Subsection 4.9.1 that are applicable to the proposed Project.

❑ City of Moreno Valley General Plan

The City of Moreno Valley General Plan designates the Project site for "Business Park/Light Industrial (BP)" land use, and the Project proposes no change to the site's existing land use designation. The proposed Project involves the construction and operation of a warehouse distribution logistics center with four (4) buildings offering up to 1,737,518 s.f. of total building space. Associated improvements to the property would include loading docks, surface parking areas, drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. As discussed in more detail in EIR Section 3.0, *Project Description*, the four (4) buildings are designed to range in size from approximately 97,222 s.f. to approximately 1,351,770 s.f. with a minimum FAR of 0.34 and a maximum FAR of 0.50. The FAR for the overall Project site would be 0.47. At the time this EIR was prepared, the future occupants of the proposed buildings are unknown; however, Building 1 is intended to accommodate high cube warehouse distribution users (e.g., dry goods storage/distribution) while Buildings 2, 3, and 4 are intended to accommodate light industrial users (e.g., light manufacturing). The planned uses for the site would be fully consistent with the site's existing General Plan "Business Park/Light Industrial (BP)" land use designation. The proposed Project would not conflict with any specific policies in the

General Plan Community Development; Economic Development; Parks, Recreation and Open Spaces; Circulation; Safety; or Housing Elements that were adopted for the purpose of avoiding or mitigating an environmental effect.

Additionally, the General Plan Conservation Element includes a number of policies intended to avoid or mitigate an environmental effect. These policies are categorized under the subheadings of Biological Resources; Cultural and Historical Resources; Solid Waste; Soils; Water Resources; Energy Resources; Agricultural Resources; Scenic Resources; and Mineral Resources. Specific policies related to these issue areas are contained in Chapter 9 of the General Plan. Although implementation of the Project would result in environmental effects to several of these issue areas (e.g., Biological Resources, Soils, etc.), such effects are addressed under the appropriate Subsections within this EIR, and mitigation is proposed to reduce impacts to less-than-significant levels. Because the Project would not result in any significant, unavoidable impacts to environmental resources protected by the General Plan Conservation Element, the Project is determined to be consistent with the Conservation Element policies.

Accordingly, the proposed Project would be fully consistent with the Moreno Valley General Plan and would not conflict with any policies adopted for the purpose of reducing or avoiding an environmental effect, and no impact would occur.

❑ Moreno Valley Industrial Area Plan (Specific Plan 208)

The Project site is located in the MVIAP which encompasses 1,540 acres of land that is designated "Industrial." The proposed Project involves the construction and operation of a logistics center providing four (4) buildings with loading docks and supported by surface parking areas, drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The land use proposed by the Project is consistent with the MVIAP's "Industrial" designation.

As discussed in more detail above in Subsection 4.9.1, the MVIAP calls for a 300-foot setback along the eastern boundary of the Project site. As applied to the Project, the setback is measured from the nearest residential zoning designation (i.e., centerline of Indian Street) and primary high cube warehouse/light industrial uses on the Project site. The MVIAP *300-Foot Proximity to Residential District* criteria is intended to provide a buffer between residential districts and industrial development within the MVIAP without affecting the integrity of lands available for industrial uses. The *300-Foot Proximity to Residential District* was amended by Ordinance No. 780 (approved and adopted August 26, 2008), which reduced the required 300-foot setback along Indian Street between Krameria Avenue and Iris Avenue to a minimum distance of 100 feet (measured from the centerline of Indian Street), provided that a 50-foot-wide enhanced landscape buffer is provided between the industrial development and existing residential uses.

The Project proposes a Specific Plan Amendment (SPA) that would amend the setback requirement specified in the MVIAP as it applies to the segment of Indian Street between Krameria Avenue and the Perris Valley Storm Drain Channel to match the previously approved Ordinance No. 780. The amendment would reduce the required setback along this portion of Indian Street from 300 feet to 100 feet (measured from the roadway centerline), while adding a new requirement to maintain a minimum 50-foot wide enhanced landscaping zone within the 100-foot buffer area. The modified buffer proposed by the Project would be consistent with the spirit of the MVIAP's original buffer requirements because the enhanced landscape zone proposed by the Project would maximize the amount of screening on the eastern boundary of the Project site (and would provide substantially more landscaping than originally required by the MVIAP), thereby obscuring proposed on-site warehouse distribution and light industrial uses when viewed from nearby, off-site residential uses as well as creating a creating visual and physical separation between on- and off-site uses. The required minimum 50-foot enhanced landscape zone has been accommodated by the Project's design, as shown on EIR Figure 3-4, and would be accessible to the adjacent residential community via a proposed sidewalk along the Project's eastern boundary.

Environmental impacts associated with the reduced buffer zone have been evaluated throughout this EIR, including but not limited to the following Subsections: 4.3, *Air Quality*; 4.7, *Hazards and Hazardous Materials*; and 4.10, *Noise*. The results of the analysis in these Subsections as it relates to the reduced buffer requirement are briefly discussed below:

- <u>Air Quality:</u> The analysis in EIR Subsection 4.3, *Air Quality*, demonstrates that, with implementation of Mitigation Measures and Best Available Control Technologies (BACT), the proposed Project would not expose nearby sensitive receptors (i.e., residential uses located east of Indian Street) to substantial pollutant concentrations, including diesel particulate matter emissions, and would not expose sensitive receptors to substantial odor impacts.

- <u>Hazards and Hazardous Materials:</u> As concluded in EIR Subsection 4.7, *Hazards and Hazardous Materials*, the Project would not result in significant hazards to the public or environment associated with near-term construction or long-term operation.

- <u>Noise:</u> The analysis in Subsection 4.10, *Noise*, concludes that operation of the proposed Project would not expose any residential properties to noise levels exceeding City standards.

Based on the foregoing analysis and the analysis within EIR Subsections 4.3, 4.7, and 4.10, the reduction in the required buffer distance from 300 feet, as currently required by the MVIAP, to the 100-foot buffer with a required 50-foot wide enhanced landscape area proposed by the Project, would result in less-than-significant impacts affecting nearby residential uses. Additionally, with approval of the Project's proposed SPA, the Project would not conflict with any MVIAP policies adopted for the purpose of avoiding or mitigating an environmental effect. Accordingly, impacts due to a conflict with the MVIAP would be less than significant.

☐ SCAQMD Air Quality Management Plan

The 2012 SCAQMD AQMP is the applicable air quality plan for the Project area, and the SCAQMD has established two criteria for determining consistency with the 2012 AQMP pursuant to Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. Refer to EIR Subsection 4.3, *Air Quality*, for a detailed analysis of the Project's consistency with the AQMP. As discussed in the analysis in Subsection 4.3, the Project is expected to exceed criteria standards pollutant thresholds established by the SCAQMD for VOCs and NO_X during Project construction, VOC, NO_X, CO, NO_X, and PM_{10} and $PM_{2.5}$ during short-term periods when construction and operational activities may overlap, and VOC and NO_X emissions during the Project's long-term operation, the Project has the potential to cumulatively contribute toward obstructing the SCAQMD's ability to implement the AQMP. It is important to note, however, that the Project's emissions were anticipated by the *2012 AQMP* and the AQMP's air quality attainment goals. That is, the land use and development intensity proposed by the Project are consistent with the City of Moreno Valley General Plan and the MVIAP and are therefore within the scope of air quality considerations reflected in the 2012 AQMP. As such, implementation of the Project would neither increase the frequency or severity of existing air quality violations disclosed in the AQMP. Moreover, the Project's urban location and proximity to local and regional transportation facilities act to reduce vehicle miles traveled and associated mobile (vehicle) air pollutant emissions. Additionally, the Project's incorporation of mandatory energy-efficient technologies a required by CALGreen and mandatory compliance with the SCAQMD rules and control requirements act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support the AQMP's air pollution reduction strategies and promote timely attainment of the AQMD's air quality standards.

☐ SCAG Regional Transportation Plan and Regional Comprehensive Plan

SCAG's 2008 RCP and 2012 *RTP/SCS* are the applicable SCAG planning documents that apply to the proposed Project. The RCP and *RTP/SCS* goals are meant to provide guidance for considering the proposed Project within the context of regional goals and policies. As shown in Table 4.9-1, *Analysis of Consistency with SCAG 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Goals*, implementation of the proposed Project would not be consistent with the adopted *RTP/SCS*'s Goal G6, related to regional air quality. Thus, the Project's contribution to regional air quality in the context of *RTP/SCS* consistency would be cumulatively considerable.

Table 4.9-1 Analysis of Consistency with SCAG 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Goals

RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
G1	Align the plan investments and policies with improving regional economic development and competitiveness.	No inconsistency identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts.
G2	Maximize mobility and accessibility for all people and goods in the region.	No inconsistency identified. EIR Subsection 4.11, *Transportation/ Traffic*, evaluates Project-related traffic impacts and specifies mitigation measures to ensure that roadway and intersection and intersection improvements needed to accommodate Project traffic volumes are implemented concurrent with proposed development.
G3	Ensure travel safety and reliability for all people and goods in the region.	No inconsistency identified. The proposed Project would implement improvements to the local circulation network that would enhance travel safety and reliability in the local area.
G4	Preserve and ensure a sustainable regional transportation system.	No inconsistency identified. This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts.
G5	Maximize the productivity of our transportation system.	No inconsistency identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would be consistent with the City of Moreno Valley's General Plan Circulation Element, which meets this goal to maximize productivity.
G6	Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	Inconsistency identified. The proposed Project would not conflict with any General Plan policies related to non-motorized transportation, as no such facilities are planned in the Project area (except for bike lanes on surrounding roadways, which would be accommodated by the Project). The analysis in EIR Subsection 4.3, *Air Quality*, demonstrates that, with mitigation measures and BACT, the Project's air quality emissions would be substantially reduced; however, the Project's operational emissions of VOCs and NO_X would exceed the SCAQMD thresholds of significance, which would contribute to existing air quality violations within the region (i.e., ozone). Accordingly, the Project would not be consistent with *RTP/SCS* Goal G6.
G7	Actively encourage and create incentives for energy efficiency, where possible.	No inconsistency identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts.

Table 4.9-1 Analysis of Consistency with SCAG 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Goals

RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
G8	Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	No inconsistency identified. The Project complies with all General Plan and MVIAP policies related to transit and non-motorized transportation.
G9	Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	No inconsistency identified. This policy provides guidance to the City of Moreno Valley to monitor the transportation network and to coordinate with other agencies as appropriate.

Source: *SCAG 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy*. (Refer to the following web site for more information: http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf

❑ Riverside County Congestion Management Plan (CMP)

As indicated in EIR Subsection 4.11, *Transportation/Traffic*, although implementation of the proposed Project would not result in any direct impacts to CMP facilities, under Opening Year (2020) conditions and General Plan Buildout (Post 2035) conditions Project traffic would contribute to projected deficiencies at CMP arterial intersections and CMP freeway mainline, freeway ramp merge/diverge junctions and freeway ramps. As concluded in EIR Subsection 4.11, although mitigation measures are proposed to reduce the Project's traffic-related impacts to the maximum feasible extent, mitigation is not available to reduce all of the Project's cumulatively considerable impacts to CMP facilities to less-than-significant levels. As such, the Project's cumulative contribution to traffic under Opening Year (2020) and General Plan Buildout (Post 2035) conditions represents a conflict with the CMP for which additional mitigation is not available. Thus, the Project's impacts due to a conflict with the CMP would be cumulatively considerable.

❑ Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

As discussed under the analysis of Threshold f) within EIR Subsection 4.4, *Biological Resources*, with implementation of Mitigation Measures MM 4.4-1 and 4.4-2, the proposed Project would be fully consistent with the Western Riverside County MSHCP, including MSHCP requirements related to Reserve Assembly; Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools; Protection of Narrow Endemic Plants; Guidelines Pertaining to Urban/Wildland Interface; and Additional Needs Survey and Procedures. Refer to EIR Subsection 4.4, *Biological Resources* for a complete analysis of the proposed Project's consistency with the MSHCP. Accordingly, the Project is determined to be consistent with the MSHCP requirements and no impact due to a conflict with the MSHCP would occur.

☐ March Air Reserve Base/Inland Port Land Use Compatibility Plan

The Project site is located within the March Air Reserve Base/Inland Port Airport Influence Area (AIA). The portion of the Project site located west of the Perris Valley Storm Drain Channel (proposed Buildings 3 and 4) are located within Compatibility Zone C1 of the AIA and the portion of the Project site located east of the Perris Valley Storm Drain Channel (Buildings 1 and 2) are located within Compatibility Zone D of the AIA. On October 8, 2015, the Riverside County ALUC evaluated the proposed Project for consistency with the *March ARB/IPA Land Use Compatibility Plan*. The ALUC determined that the Project is compatible and issued conditions of approval on the Project which are included as mitigation measures in EIR Subsection 4.7, *Hazards and Hazardous Materials*. Please refer to EIR Subsection 4.7 for a thorough discussion of the ALUC's determination and the Project's consistency with the *Compatibility Plan*. (ALUC, 2015) Accordingly, the Project would not conflict with the March ARB/IPA Compatibility Plan, and a less-than-significant impact would occur.

☐ Conclusion

Based on the analysis presented above, the proposed Project would result in significant impacts due to a conflict with the SCAG's *RTP/SCS* and the Riverside County CMP. Mitigation measures are identified in this EIR to reduce the Project's air quality and traffic impacts to the maximum feasible extent; however, additional mitigation measures are not available to reduce the associated air quality and cumulatively considerable transportation impacts to below levels of significance. Accordingly, the Project's conflicts with the SCAG's *RTP/SCS* and the Riverside County CMP represent significant and unavoidable impacts of the proposed Project.

Threshold c) Conflict with any applicable habitat conservation plan or natural community conservation plan

The only applicable habitat conservation plan or natural community plan is the Western Riverside County MSHCP. As indicated in the analysis of the Project's consistency in EIR Subsection 4.4, *Biological Resources*, and as summarized above under the discussion and analysis of Threshold b), the proposed Project would be consistent with the policies of the Western Riverside County MSHCP. As such, the proposed Project would not conflict with any applicable habitat conservation plan or natural community conservation plan. Thus, no impact would occur.

4.9.4 Cumulative Impact Analysis

Regarding Threshold (a), the Project site does not provide access to established communities. Therefore, the proposed Project would not isolate communities or residences from neighborhood communities. As such, the Project has no potential to result in cumulatively considerable impacts associated with the physical arrangement of an established community.

Regarding Threshold (b), the Project would result in significant and unavoidable impacts due to a conflict with the SCAG's *RTP/SCS* and the Riverside County CMP. These conflicts result from the

Project's significant and unavoidable emissions of VOC, NO_X, CO, NO_X, and PM_{10} and $PM_{2.5;}$, and due to the contribution of Project traffic to projected deficiencies at CMP arterial intersections and CMP freeway mainline, freeway ramp merge/diverge junctions and freeway ramps. Other cumulative developments within the region also have the potential to result in air quality pollutant emissions and/or would contribute traffic to the CMP arterial intersections and CMP freeway mainline, freeway ramp merge/diverge junctions and freeway ramps that would receive traffic from the Project. Accordingly, the Project's significant and unavoidable impact due to conflicts with the SCAG's *RTP/SCS* and the Riverside County CMP would be cumulatively considerable.

As discussed under Threshold (c), the proposed Project would not conflict with the Western Riverside County MSHCP. Accordingly, there is no potential to contribute cumulatively significant impacts due to a conflict with any applicable habitat conservation plan or natural community conservation plan, and impacts would be less-than-cumulatively considerable.

4.9.5 Significance of Impacts before Mitigation

Threshold a): No impact. The proposed Project would not physically divide an established community.

Threshold b): Significant Cumulatively Considerable Impact. The Project would result in cumulatively considerable impacts due to a conflict with SCAQMD's AQMP and the SCAG's *RTP/SCS*'s Goal G6 related to regional air quality, and the Riverside County CMP.

Threshold c): No Impact. The proposed Project would not conflict with the Western Riverside County MSHCP.

4.9.6 Mitigation

Refer to all mitigation measures presented in this EIR. No additional, feasible mitigation measures are available to mitigate the Project's air quality impacts and traffic impacts to CMP facilities beyond the mitigation already provided in EIR Subsections 4.3 and 4.11.

4.9.7 Significance of Impacts after Mitigation

Threshold b): Significant and Unavoidable Cumulatively Considerable Impact. Although mitigation measures are presented in EIR Subsections 4.3 and 4.11 to reduce the Project's significant air quality impacts and the Project's traffic impacts to CMP arterial intersections and CMP freeway mainline, freeway ramp merge/diverge junctions and freeway ramps, the required mitigation would not reduce the Project's impacts to below a level of significance. There are no additional mitigation measures available to further reduce the Project's cumulatively considerable contribution these impacts that conflict with the SCAQMD's AQMP, SCAG's *RTP/SCS* Goal G6, and the Riverside County CMP.

4.10 Noise

This Subsection addresses the environmental issue of noise. The information contained herein is based in part on a technical report prepared by Urban Crossroads, Inc. titled, "Moreno Valley Logistics Center Noise Impact Analysis, City of Moreno Valley," dated February 25, 2016 and appended to this EIR as *Technical Appendix H* (Urban Crossroads, Inc., 2016d). All references used in this Subsection are listed in EIR Section 7.0, *References*.

As described in Section 3.0, *Project Description*, the Project proposes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event that the alternate site plan is implemented, the parking lot would be used as overflow parking for Building 1. If Building 2 is not constructed, the potential operational noise sources within the Project site would be concomitantly reduced, thereby reducing the total operational noise levels expected at the nearby receiver locations. In addition, the omission of Building 2 would reduce the duration of construction equipment used during Project construction activities, thereby reducing the construction-related noise levels expected at nearby receiver locations. (Urban Crossroads, Inc., 2016d, pp. 69 and 95) For this reason, the analysis herein addresses the Project with proposed Building 2, which has the potential for a greater noise impact than the alternate site plan.

4.10.1 Existing Conditions

A. Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum; dBA are adjusted to reflect only those frequencies that are audible to the human ear. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). For example, normal human voice conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet. (Urban Crossroads, Inc., 2016d, pp. 11-12)

B. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent sound level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in dBA. The Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment. (Urban Crossroads, Inc., 2016d, p. 12)

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Day-

Night Average Noise Level (LDN) and the Community Noise Equivalent Level (CNEL), which represent composite 24-hour noise levels, are utilized. The LDN and the CNEL are weighted averages of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The LDN time of day corrections include the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. The CNEL time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., in addition to the corrections for LDN. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. LDN and CNEL do not represent the actual sound heard at any particular time, but rather represent the total sound exposure. The City of Moreno Valley relies on the 24-hour CNEL level to apply the more conservative evening hour corrections to the 24-hour noise levels. (Urban Crossroads, Inc., 2016d, p. 12)

C. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on geometric spreading, ground absorption, atmospheric effects, and shielding, as described below.

❑ Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a "line source," which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (Urban Crossroads, Inc., 2016d, p. 12)

❑ Ground Absorption of Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in traffic noise models: soft site and hard site conditions. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading of sound waves, the excess ground attenuation results in an overall noise drop-off rate of 4.5 dB per doubling of distance from a line source. (Urban Crossroads, Inc., 2016d, pp. 12-13)

❑ Atmospheric Effects

Compared to calm conditions, when the wind is blowing, receptors located downwind from a noise source can experience increased noise levels, whereas locations upwind can experience lowered noise levels. Sound levels also can be increased at large distances (e.g., more than 500 feet.) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors that may affect noise levels include air temperature, humidity, and turbulence. (Urban Crossroads, Inc., 2016d, p. 13)

❑ Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the barrier and the frequency content of the noise source. Solid objects or barriers such as walls are most effective at attenuating noise. Effective noise barriers can reduce noise levels by 10 to 15 dBA. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise level tends to decrease when vegetation blocks the line-of-sight to nearby noise receivers. (Urban Crossroads, Inc., 2016d, p. 13)

D. Traffic Noise Prediction

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, provided by the FHWA, the level of traffic noise depends on three primary factors: 1) the volume of the traffic, 2) the speed of the traffic, and 3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on CNEL. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. (Urban Crossroads, Inc., 2016d, p. 13)

E. Community Response to Noise

A variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that approximately ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of 1 dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels: a) an increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, b) a change of 3 dBA is considered barely perceptible, and c) changes of 5 dBA or more are considered readily perceptible. (Urban Crossroads, Inc., 2016d, pp. 14-15)

F. Vibration

Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency. Vibration is usually expressed in peak particle velocity (PPV) in inches per second (in/sec) and described in units of velocity (inches per second) and decibels (dB) and is denoted as VdB. The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. (Urban Crossroads, Inc., 2016d, pp. 15-16) The Federal Transit Administration (FTA) indicates that vibration-velocity levels of 90 VdB or greater have the potential to result in damage to buildings (Urban Crossroads, Inc., 2016d, p. 20)

4.10.2 Existing Noise Conditions

A. Existing Ambient Noise Environment

To assess existing noise levels in the Project's study area, Urban Crossroads collected 24-hour noise level measurements from Monday March 9 to Tuesday March 10, 2015, at nine sensitive receiver locations located around the Project site and along local roads that Project-related traffic is expected to use. The noise measurement locations are identified in Figure 4.10-1, *Noise Measurement Locations*. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. To describe the existing noise environment, it is not necessary to collect measurements at every sensitive receiver location because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. (Urban Crossroads, Inc., 2016d, p. 27) The nine sensitive receiver locations shown on Figure 4.10-1 are representative of all locations that have the potential to be most affected by the proposed Project's construction and operational noise.

Table 4.10-1, *24-Hour Ambient Noise Level Measurements*, identifies the hourly daytime (8:00 a.m. to 10:00 p.m.) and nighttime (10:01 p.m. to 7:59 a.m.) noise levels collected at each noise level measurement location. More detail about the existing hourly ambient noise levels described below is contained in Appendix 5.2 of *Technical Appendix H.*

- **Location L1** represents the noise levels at the southeast corner of Cactus Avenue and Unity Court adjacent to existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 79.7 dBA CNEL. The hourly noise levels measured at location L1 ranged from 73.0 to 77.2 dBA Leq during the daytime hours and from 68.2 to 76.5 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 75.3 dBA Leq with an average nighttime noise level of 73.0 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 29)

- **Location L2** represents the existing noise levels on Heacock Street north of Meyer Drive near existing residential homes. The noise level measurements collected show an overall 24-

hour exterior noise level of 72.1 dBA CNEL. The hourly noise levels measured at location L2 ranged from 64.3 to 68.0 dBA Leq during the daytime hours and from 61.3 to 68.3 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 65.9 dBA Leq with an average nighttime noise level of 65.6 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 29)

- **Location L3** represents the noise levels at the southeast corner of 6th Street and Midway Street near an existing baseball diamond and park. The 24-hour CNEL indicates that the overall exterior noise level is 58.9 dBA CNEL. At location L3 the background ambient noise levels ranged from 44.8 to 53.4 dBA Leq during the daytime hours to levels of 46.7 to 56.7 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 50.2 dBA Leq with an average nighttime noise level of 52.9 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 29)

- **Location L4** represents the existing noise levels on Heacock Street north of Gentian Avenue adjacent to an existing residential community. The noise level measurements collected show an overall 24-hour exterior noise level of 74.7 dBA CNEL. The hourly noise levels measured at location L4 ranged from 65.9 to 70.6 dBA Leq during the daytime hours and from 62.0 to 72.2 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 68.8 dBA Leq with an average nighttime noise level of 68.1 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 29)

- **Location L5** represents the noise levels on Iris Avenue west of Indian Street and the Rainbow Ridge Elementary School. An existing logistics warehouse is located south of this location across Iris Avenue. The noise level measurements collected show an overall 24-hour exterior noise level of 73.1 dBA CNEL. The hourly noise levels measured at location L5 ranged from 62.6 to 68.0 dBA Leq during the daytime hours and from 55.6 to 72.8 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 66.2 dBA Leq with an average nighttime noise level of 67.0 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 29)

- **Location L6** represents the existing noise levels north of the Project site on Indian Street near an existing residential home. The noise level measurements collected show an overall 24-hour exterior noise level of 68.8 dBA CNEL. The hourly noise levels measured at location L6 ranged from 56.5 to 67.1 dBA Leq during the daytime hours and from 51.8 to 67.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 61.5 dBA Leq with an average nighttime noise level of 62.5 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 30)

- **Location L7** represents the noise levels on Indian Street south of Krameria Avenue near existing residential homes located northeast of the Project site. The noise measurements collected show an overall 24-hour exterior noise level of 67.2 dBA CNEL. The background ambient noise levels ranged from 59.6 to 67.9 dBA Leq during the daytime hours to levels of

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50.8 to 66.0 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 64.1 dBA Leq with an average nighttime noise level of 60.6 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 30)

- **Location L8** located east of the Project site, represents the existing noise levels on Indian Street near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 66.4 dBA CNEL. The hourly noise levels measured at location L8 ranged from 57.8 to 62.9 dBA Leq during the daytime hours and from 50.7 to 65.0 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 60.8 dBA Leq with an average nighttime noise level of 60.2 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 30)

- **Location L9** represents the noise levels east of the Project site on Indian Street, south of Superior Avenue near existing residential homes. The 24-hour CNEL indicates that the overall exterior noise level is 58.2 dBA CNEL. The background ambient noise levels ranged from 47.7 to 56.5 dBA Leq during the daytime hours to levels of 45.1 to 55.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 53.1 dBA Leq with an average nighttime noise level of 51.7 dBA Leq. (Urban Crossroads, Inc., 2016d, p. 30)

Table 4.10-1 provides the energy average noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed by Urban Crossroads, Inc. during these time periods expressed as a single number. Appendix 5.2 of *Technical Appendix H* provides a summary of the hourly noise levels for each hour as well as the minimum and maximum noise levels recorded during the daytime and nighttime period. The background ambient noise levels in the Project study area are dominated by the transportation related noise associated with the arterial roadway network that includes the auto and heavy truck activities near the noise level measurement locations. Secondary background ambient noise is also included in the noise level measurements from existing stationary noise sources in the Project study area, such as existing truck loading activities north of the Project site; however, these noise sources are generally overshadowed by vehicular traffic noise levels. (Urban Crossroads, Inc., 2016d, pp. 30-31)

B. Existing Ground-Borne Vibration

The Project site is located approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route 60 (SR-60), and 2.5 miles northwest of Lake Perris. On a local level, the Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street. Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way. (Urban Crossroads, Inc., 2016d, p. 41) There is no

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ground-borne vibration perceptible to humans experienced at the Project site under existing conditions.

C. *Airport Noise*

The Project site is within the March Air Reserve Base Airport Influence Area boundary. As depicted on Exhibit MA-4 of the *March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan*, the Project site is located outside of the 60 CNEL range from aircraft noise. (Riverside County ALUC, 2014, Exhibit MA-7D and Exhibit MA-4) (County of Riverside ALUC, 2015, p. 3) Therefore, aircraft noise is not typically perceptible at the Project site.

D. *City of Moreno Valley Noise Standards*

The Noise Ordinance included in Chapter 11.80 of the Moreno Valley Municipal Code provides performance standards and noise control guidelines for operational activities and for construction activities, as described below.

☐ Operational Noise Standards

Moreno Valley Municipal Code Section 11.80.030.C, *Nonimpulsive Sound Decibel Limits*, provides the following restriction:

> *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.* (Moreno Valley n.d. Section 11.80.030.C)

For industrial and commercial land uses, based on the commercial land use standard of Moreno Valley Municipal Code Table 11.80.030-2, the operational noise level limits are 65 dBA Leq during the daytime hours (8:00 a.m. to 10:00 p.m.) and 60 dBA Leq during the nighttime hours (10:01 p.m. to 7:59 a.m.). Therefore, at a distance of 200 feet from the property line, operational noise from commercial and industrial buildings is not permitted to exceed 65 dBA Leq during the day and 60 dBA Leq during the night. (Urban Crossroads, Inc., 2016d, p. 19)

☐ Construction Noise Standards

The City of Moreno Valley Municipal Code has established restrictions on the time of day that construction activities can occur. Moreno Valley Municipal Code Section 11.80.030.D.7, *Construction and Demolition*, states:

> *No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 8:00 p.m. and 7:00 a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee.*

A noise disturbance is defined by the Moreno Valley Municipal Code as any sound which: a) disturbs a reasonable person of normal sensitivities; b) exceeds the sound level limits set forth in Municipal Code Table 11.80.030-2; or c) is plainly audible as defined in Municipal Code Section 11.80.030. Where no specific distance is set forth for the determination of audibility, references to noise disturbance are deemed to mean plainly audible at a distance of 200 feet from the real property line of the source of the sound on private property or from the source of the sound on roads or other publicly owned property.

4.10.3 Methodology for Calculating Project-Related Impacts

The Project's Noise Impact Analysis (*Technical Appendix H*) analyzes potential noise effects associated with the construction and operation of a logistics center with 1,351,770 s.f. of high-cube warehouse land uses (1 building) and 385,748 s.f. of light industrial land uses (3 buildings) with a site layout identical to the proposed Project. In comparison to the proposal evaluated in *Technical Appendix H*, the Project proposes to develop the subject property with seven (7) fewer square feet of high-cube warehouse land uses and 1,331 fewer square feet of light industrial land uses. Because the proposal analyzed by *Technical Appendix H* was more intense than the proposed Project, the analyses presented therein and summarized in this EIR provides a conservative, worst-case analysis of the Project's potential noise effects.

A. Construction Noise Analysis Methodology

The proposed Project would be constructed in phases over approximately 14 months, as described in Section 3.0, *Project Description.* The types and numbers of heavy equipment that the Project Applicant expects to use during construction activities are listed in Table 3-4, *Construction Equipment to be Used*. In order to assess the expected noise levels that would be generated by the Project's construction activities, Urban Crossroads collected reference noise level measurements at similar construction sites at which the same types of construction equipment were operating. Table 4.10-2, *Construction Reference Noise Levels,* provides a summary of the 16 construction reference noise level measurements collected by Urban Crossroads. All construction noise level measurements presented in Table 4.10-2 were adjusted by Urban Crossroads to describe a common reference distance of 50 feet. Refer to Appendix 10.1 of *Technical Appendix H* for a more detailed discussion of construction reference noise levels. (Urban Crossroads, Inc., 2016d, pp. 72-73)

Noise levels diminish with distance from the noise source at a rate of 6 dBA per doubling of distance. For example, a noise level of 72 dBA measured at 50 feet from the noise source to the receiver would be reduced to 66 dBA at 100 feet from the source to the receiver, and would be further reduced to 60 dBA at 200 feet from the source to the receiver.

To assess the potential for short-term construction noise impacts, as well as long-term operational impacts, analysis of the Project's construction noise level impacts were completed for eight representative noise-sensitive receiver locations (R1 through R8) which represent the nearest sensitive receivers to the Project site. As shown in Figure 4.10-2, *Noise Receiver Locations*, representative noise-sensitive receivers in the vicinity of the Project site include the single-family residential homes at locations R1 and R3 through R8, and Rainbow Ridge Elementary School at location R2. Location R8 is the closest noise-sensitive receiver where an existing residential home is located approximately 101 feet east of the Project site's southeastern boundary. (Urban Crossroads, Inc., 2016d, p. 59)

B. Stationary Operational Noise Analysis Methodology

The proposed Project's future building occupants are unknown at the present time. Therefore, the noise impact analysis in *Technical Appendix H* assumes the Project would be operational 24 hours per day, seven days per week, with the potential for a portion of the total building square footage to be occupied by a cold storage (refrigeration) space. Business operations would primarily be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays. (Urban Crossroads, Inc., 2016d, pp. 61-62)

Because the future tenants of the proposed Project are unknown, the Project's operational noise levels were estimated based on reference noise level measurements collected by Urban Crossroads at other similar operating buildings. The reference noise levels are intended to describe the expected operational noise sources that may include idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. To estimate the off-site operational noise impacts associated with the proposed Project, the reference noise level measurements were collected from operating logistics warehouse buildings that produce similar operational noise sources as would be expected at the Project site. See Section 9.3 of *Technical Appendix H* for more detail about the reference noise level measurements collected by Urban Crossroads. (Urban Crossroads, Inc., 2016d, p. 62)

As shown on Table 4.10-3, Reference Noise Level Measurements, the loudest reference noise level of 70.1 dBA was measured at a distance of 30 feet at a height of 8 feet. While the actual operational noise levels at the Project site will depend on the eventual building users' intensity of activity and hours of operation, a reference noise level of 70.1 dBA Leq is used to describe the expected peak Project operational noise activity since it was the loudest noise level recorded at the reference sites that have similar warehouse, distribution storage, and industrial operational characteristics to building users expected at the Project site. (Urban Crossroads, Inc., 2016d, p. 64)

C. Transportation-Related Noise Analysis Methodology

❑ Federal Highway Administration Traffic Noise Prediction Model

The estimated roadway noise impacts from vehicular traffic were calculated by Urban Crossroads using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model FHWA-RD-77-108. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMEL to account for: 1) the roadway classification (e.g., collector, secondary, major or arterial), 2) the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), 3) the total average daily traffic (ADT), 4) the travel speed, 5) the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, 6) the roadway grade, 7) the angle of view (e.g., whether the roadway view is blocked), 8) the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and 9) the percentage of total ADT which flows each hour throughout a 24-hour period. (Urban Crossroads, Inc., 2016d, p. 33)

❑ Off-Site Traffic Noise Prediction Model Inputs

Table 4.10-4, *Off-Site Roadway Parameters*, presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 4.10-4 identifies the 24 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications according to the City of Moreno Valley General Plan Circulation Element, and the posted vehicle speeds. For the purpose of the off-site analysis, soft site conditions were used to analyze the traffic noise impacts on each roadway segment in the Project study area because landscaping typically exists between the street surface and the noise receiver. (Urban Crossroads, Inc., 2016d, p. 33)

To quantify off-site traffic noise levels, the Project's vehicular trips, the Existing (without and with Indian Street Bridge), Opening Year (2020), and General Plan Buildout (2035) conditions average daily traffic (ADT) volumes were based on the Project's traffic impact analysis (*Technical Appendix J1*). While the traffic volumes presented in *Technical Appendix J1* are expressed as Passenger Car Equivalent (PCE) trips, the site-specific noise analysis (*Technical Appendix H)* relies on the net Project trips to accurately account for the noise effects of individual truck trips on the study area roadway network. (Urban Crossroads, Inc., 2016d, pp. 33 and 36)

To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix. The Project truck trip-ends trucks were assigned to the 24 study area roadway segments based on the estimated Project truck trip distribution percentages. Using the Project truck trips in combination with the Project trip distribution, the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments were calculated. (Urban Crossroads, Inc., 2016d, p. 36)

D. Vibration Analysis Methodology

Operational and construction activities can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and the soil type. Construction vibration is generally associated with pile driving and rock blasting, neither of which are proposed on the Project site. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generate little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. While not enforceable regulations within the City of Moreno Valley, the FTA guidelines of 80 VdB for sensitive land uses provide the basis for determining the relative significance of potential Project-related vibration impacts due to on-site operational and construction activities. (Urban Crossroads, Inc., 2015d, p. 20)

Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity. However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized in Table 4.10-5, *Vibration Source Levels for Construction Equipment*. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the vibration assessment methods defined by the FTA. (Urban Crossroads, Inc., 2016d, p. 41)

4.10.4 Basis for Determining Significance

The proposed Project would result in a significant impact to noise if the Project or any Project-related component would result in:

a) *Exposure to persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;*

c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*

d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;*

e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

In relation to Threshold a., the City of Moreno Valley General Plan does not include a noise element or specific transportation related noise standards; rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. While the General Plan provides background and noise fundamentals, it does not identify criteria to assess potential noise-related impacts. Therefore, for purposes of evaluating potential noise impacts under Threshold a., noise standards contained in the City of Moreno Valley Municipal Code are relied upon as the basis for determining significance. Refer above to Subsection 4.10.2D, *City of Moreno Valley Noise Standards.*

While the City of Moreno Valley Municipal Mode provides noise standards that are sufficient to assess the significance of noise impacts under Threshold a., the Municipal Code does not define the levels at which noise and vibration increases are considered substantial for use under Thresholds b., c., or d. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise and vibration levels, and the location of sensitive receptors in order to determine if a noise or vibration increase represents a substantial increase and thus a significant adverse environmental impact. For purposes of this EIR and based in part on the noise compatibility criteria by land use category provided in the *General Plan Guidelines*, a publication of the California Office of Planning and Research (OPR, 2003, p. 250), and the noise level increases that are normally perceptible to humans (Urban Crossroads, Inc., 2016d, pp. 14-15), noise level increases associated with the Project's operation will be considered significant based on the following:

When the noise levels at existing and planned non-noise sensitive land uses (e.g. business park, industrial, etc.):

- Are less than the OPR *General Plan Guidelines'* normally acceptable 70 dBA and the Project creates a readily perceptible 5 dBA or greater noise level increase; or
- Are greater than the OPR *General Plan Guidelines* normally acceptable 70 dBA and the Project creates a barely perceptible 3 dBA or greater Project noise level increase.

When the noise levels at existing and planned noise-sensitive land uses (e.g. residential, etc.):

- Are less than 60 dBA and the Project creates a 5 dBA or greater noise level increase;
- Range from 60 to 65 dBA and the Project creates a 3 dBA or greater noise level increase; or
- Already exceed 65 dBA, and the Project creates a 1.5 dBA or greater noise level increase.

The City's Municipal Code does not set a noise level limit on construction activities. It only regulates the hours of construction, not the noise levels. Therefore, this EIR applies the Municipal

Code's operational noise limits of 65 dBA Leq during the daytime hours (8:00 a.m. to 10:00 p.m.) and 60 dBA Leq during the nighttime hours (10:01 p.m. to 7:59 a.m.) as the thresholds of significance for construction noise at any noise-sensitive receiver location.

For purposes of this EIR and based in part on the FTA's Transit Noise and Vibration Impact Assessment, if Project generated vibration levels exceed the FTA maximum acceptable vibration standard of 80 vibration decibels (VdB) at sensitive receiver locations, impacts will be considered significant. The FTA guidelines allow 80 VdB for residential uses and buildings where people normally sleep. Furthermore, the 80 VdB threshold is below the vibration level at which building damage has the potential to occur (i.e., 90 VdB). (Urban Crossroads, Inc., 2016d, p. 20)

4.10.5 Impact Analysis

Threshold a)	***Would the project result in exposure to persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***
Threshold c)	***Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***
Threshold d)	***Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?***

A. Construction Noise Impact Analysis

Construction equipment operating on the Project site would create intermittent periods of noise when construction equipment is in operation, which would cause short-term increases in ambient noise levels. Urban Crossroads, Inc. used Computer Aided Noise Abatement (CadnaA) software to graphically represent the noise level contour boundaries for each stage of the Project's construction. CadnaA has the ability to analyze the noise level of multiple types of noise sources and calculate the noise levels at any location. The program also calculates the noise reduction effects of topography, buildings, and other barriers. (Urban Crossroads, Inc., 2016d, p. 72)

Noise sensitive receivers are located to the east and northeast of the Project site. Based on the proposed stages of Project construction, the loudest construction-related noise levels at each receiver location would occur when multiple pieces of heavy equipment are simultaneously operating near the eastern and northern Project site boundaries. In reality, it is highly unlikely that all pieces of heavy construction equipment would be operating simultaneously at the same time and at the same location adjacent to the Project site boundaries. Instead, noise levels would vary day-to-day and would vary throughout the workday as equipment moves around the site. Tables 10-2 through 10-6 of *Technical Appendix H* report the expected construction noise levels during each phase of construction. Phase I includes the construction of proposed Buildings 1 and 2 and Phase II includes the construction of proposed Buildings 3 and 4. It is important to note that once Buildings 1 and 2 are constructed, the building structures themselves would act as noise barriers and substantially attenuate construction noise levels at sensitive receivers located east of the Project site, from construction activity noise for Buildings 3 and 4, which would be occurring west of Buildings 1 and 2. (Urban Crossroads, Inc., 2016d, pp. 74-76)

❑ Analysis of Daytime Construction Noise

Figure 4.10-3 through Figure 4.10-5 show the noise contours by stage for Phase I daytime construction activities. Figure 4.10-6 through Figure 4.10-8 show the noise contours by stage for Phase II daytime construction activities. Table 4.10-6, *Phase I Daytime Construction Noise Levels at Receiver Locations*, shows that Phase I daytime construction noise levels are expected to range from 39.2 to 67.2 dBA Leq at the nearby receiver locations. Table 4.10-7, *Phase 2 Daytime Construction Noise Levels at Receiver Locations*, shows that Phase II daytime construction levels are expected to range from 35.8 to 57.6 dBA Leq at the nearby receiver locations. Peak noise levels would be below the 65 dBA Leq construction noise level significance threshold at all receiver locations with the exception of receiver location R8 during Phase I construction activities. Thus, Phase I construction-related noise would result in a significant impact at location R8, requiring mitigation. Location R8 is a residential home located east of Indian Street just north of the Perris Valley Storm Drain Channel and fronts on Indian Street. There is no barrier wall in this location under existing conditions.

❑ Analysis of Nighttime Construction Noise

Construction activity on the Project site would occur during daytime hours. However, there is a potential that the construction contractor would elect to conduct some limited work at night, such as the pouring of concrete that requires cooler air temperatures than may be possible during the day. The City of Moreno Valley Municipal Code Section 11.80.030.D.7 states that "no person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 8:00 p.m. and 7:00 a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee." Should nighttime concrete pour activities occur during the building construction and paving stages of Project construction, Figure 4.10-9 and Figure 4.10-10 show noise contours by stage for Phase I nighttime construction activities and Figure 4.10-11 and Figure 4.10-12 show noise contours by stage for Phase II nighttime construction activities. Table 4.10-8, *Phase I Nighttime Construction Noise Levels at Receiver* Locations, shows that the Phase I nighttime activity noise levels are expected to range from 31.2 to 59.3 dBA Leq at the nearby receiver locations. Table 4.10-9, *Phase II Nighttime Construction Noise Levels at Receiver* Locations, shows that the Phase II nighttime activity noise levels are expected to range from 27.8 to 49.6 dBA Leq at the nearby receiver locations. Peak noise levels would be below the 60 dBA Leq nighttime noise level construction noise level significance threshold at all receiver locations. Thus, Phase I and Phase II nighttime construction activities would result in less-than-significant noise impacts and no mitigation is required.

B. Stationary Operational Noise Impact Analysis

Stationary noise sources associated with the Project's long-term operation are expected to include idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as the loading and unloading of dry goods. The Project proposes a 100-foot setback at the eastern property boundary, within which would be a 50-foot-wide contiguous enhanced landscaping zone. Adjacent to the west side of the landscaped area would be a 14-foot high solid screen wall, which would provide noise attenuation as well as screen the truck parking and loading areas from view along Indian Street.

Table 4.10-10, *Operational Noise Level Projections at Receiver Locations*, presents the calculated exterior noise levels, including the attenuation provided by the existing 6-foot high wall located on the east side of Indian Street shown on Figure 4.10-13, *Operational Noise Source Locations*. As indicated in Table 4.10-10, the hourly noise levels associated with the Project at the closest noise sensitive receivers are expected to range from 24.4 to 46.6 dBA Leq. The operational noise level calculations are included in Appendix 9.2 of *Technical Appendix H*. (Urban Crossroads, Inc., 2016d, p. 66)

As indicated on Table 4.10-11, *Daytime Operational Noise Level Contributions*, the Project is expected to generate the loudest daytime operational noise level contribution of up to 0.9 dBA at noise receiver location R7. Because the existing ambient noise level at noise sensitive receiver R7 is less than 60 dBA and the Project would create less than a readily perceptible Project-related noise level increase (less than 5 dBA), pursuant to the operational noise significance threshold described in Subsection 4.10.4 and as shown in Table 4.10-11, the Project-related operational noise level contributions to the daytime ambient noise levels at nearby sensitive receiver locations would be less than significant and no mitigation is required. (Urban Crossroads, Inc., 2016d, p. 67)

Table 4.10-12, *Nighttime Operation Noise Level Contributions*, the Project is expected to generate the loudest nighttime operational noise level contribution of up to 1.2 dBA Leq at noise receiver location R7. Because the existing ambient noise level at noise sensitive receiver R7 is less than 60 dBA and the Project would create a less than readily perceptible Project-related noise level (less than 5 dBA), pursuant to the operational noise threshold of significance described in Subsection 4.10.4 and as shown in Table 4.10-12, the Project-related operational noise level contributions to the nighttime ambient noise levels at nearby sensitive receivers would be less than significant and no mitigation is required. (Urban Crossroads, Inc., 2016d, pp. 67-68)

In summary, Project operational noise levels associated with idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as the loading and unloading of dry goods, would not exceed the City of Moreno Valley operational noise standard of 65 dBA Leq daytime and 60 dBA Leq nighttime at any of the noise sensitive receivers within 200 feet and closer than 200 feet of the Project boundaries. Accordingly, the Project's operation would not result in exposure to persons to or generation of noise levels in excess of standards established in the Moreno Valley Municipal Code, or applicable standards of other agencies; the Project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project; and the Project would not result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project. Accordingly, Project- related operational noise impacts are less than significant and no mitigation is required.

C. Transportation-Related Noise Impact Analysis

Urban Crossroads, Inc. used noise contours to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. In addition, since the noise contours reflect modeling of vehicular noise on study area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. A summary of the traffic noise level contours for each of the traffic scenarios is included in Appendix 7.1 of *Technical Appendix H*. The study area includes intersections where the Project is calculated to contribute 50 or more peak hour trips. Roads carrying less than 50 peak hour Project-related trips have no potential to be significantly impacted by Project-related noise because the Project's traffic volume would be too low to increase noise levels above significance thresholds. (Urban Crossroads, Inc., 2016d, p. 44)

❑ Existing plus Project Conditions

Table 4.10-13, *Existing plus Project Off-Site Traffic Noise Impact – Without Indian Street Bridge*, presents a comparison of existing noise levels to noise levels that would result under the scenario with implementation of the proposed Project (without the Indian Street Bridge) in the absence of cumulative development and ambient growth. As shown in Table 4.10-13, the Project would generate noise level increases approaching 0.8 dBA CNEL under the Existing plus Project (with Indian Street Bridge) conditions. Therefore, based on the significance criteria presented in Subsection 4.10.4 and above, the Project-related noise increases would not cause Existing plus Project (without the Indian Street bridge) noise levels to exceed the significance criteria. Furthermore, the Project's contribution of off-site traffic-related noise along Project study area roadway segments would actually decrease under the theoretical Existing plus Project with Indian Street Bridge scenario, as compared to the scenario without the Indian Street Bridge (refer to Table 4.10-14, *Existing plus Project Off-Site Traffic Noise Impacts – With Indian Street Bridge*). As shown in Table 4.10-14, under the theoretical Existing plus Project with Indian Street Bridge scenario, the Project would contribute noise level increases along study area roadway segments up to 0.6 dBA CNEL, which would not exceed the significance criteria presented in Subsection 4.10.4. Accordingly, under the Existing with Project conditions traffic scenario, the Project's off-site, traffic-related noise contributions would be less than significant and no mitigation is required. (Urban Crossroads, Inc., 2016d, p. 44)

❑ Opening Year (2020) with Project Conditions

Table 4.10-15, *Opening Year (2020) Off-Site Project-Related Traffic Noise Impacts*, presents a comparison of the Opening Year (2020) without and with Project conditions CNEL noise levels. As shown on Table 4.10-15, the Project would generate noise level increases approaching 0.4 dBA CNEL. Therefore, based on the significance criteria presented in Subsection 4.10.4 and above, Project-related noise increases at the adjacent land uses would not exceed the significance criteria. Accordingly, under the Opening Year (2020) with Project conditions traffic scenario, the Project-related off-site noise increases at the adjacent land uses would be less than significant and no mitigation is required. (Urban Crossroads, Inc., 2016d, p. 44)

❑ General Plan Buildout (2035) Project Conditions

Table 4.10-16, *General Plan Buildout (2035) Project-Related Traffic Noise Impacts*, presents a comparison of General Plan Buildout (2035) without and with Project conditions CNEL noise levels. As shown on Table 4.10-16, the Project would generate noise level increases approaching 0.3 dBA CNEL. Therefore, based on the significance criteria presented in Subsection 4.10.4 and above, under the Opening Year (2020) with Project Conditions traffic scenario, the Project-related off-site noise level increases at the adjacent land uses would be less than significant and no mitigation is required. (Urban Crossroads, Inc., 2016d, p. 52)

D. Analysis of Consistency with the City's Noise Ordinance

The proposed Project includes the operation of a logistics center with four buildings. The reference noise level of 70.1 dBA Leq represents a worse-case operational scenario that assumes operational activities occurring 24-hours per day, seven days per week and also accounts for potential noise associated with cold storage (refrigeration). (Urban Crossroads, Inc., 2016d, p. 64)

As shown on Table 4.10-17, Operational Noise Level Projections at a Distance of 200 Feet, the Project operational noise levels at a distance of 200 feet are estimated at 53.6 dBA Leq. Based on the operational noise standard described in Subsection 4.10.4 and as shown in Table 4.10-17, the Project's operational noise levels would satisfy the City of Moreno Valley Municipal Code daytime 65 dBA Leq and nighttime 60 dBA Leq exterior noise level standards for industrial and commercial land uses, at a distance of 200 feet. Therefore, stationary operational noise levels would comply with the Municipal Code and impacts would be less than significant under Threshold a). No mitigation is required. (Urban Crossroads, Inc., 2016d, p. 66)

Although Project-related operational noise levels would be less than significant based on the City of Moreno Valley Municipal Code standards measured at 200 feet, some receiver locations are located within 200 feet from the Project site boundaries. Therefore, to determine the potential Project-related operational noise impacts at each receiver, including those located within 200 feet of the Project boundaries, Urban Crossroads, Inc. evaluated the Project-related noise level contribution at nearby receiver locations, as described below.

Threshold b) ***Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?***

A. Short-Term Construction Ground-Borne Vibration Levels

It is expected that ground-borne vibration from the Project's construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are heavy mobile construction equipment and trucks hauling building materials to the Project site. Using the vibration source level of construction equipment provided in Table 4.10-18, *Construction Equipment Vibration Levels*, and the construction vibration assessment methodology published by the FTA, Urban Crossroads estimated the Project's vibration levels. Table 4.10-18, *Construction Equipment Vibration Levels*, presents the expected Project-related vibration levels at the eight receiver locations. (Urban Crossroads, Inc., 2016d, p. 94)

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference level of 87 VdB at a distance of 25 feet. At distances to the nearest sensitive receivers range from 101 to 2,853 feet from the Project site, construction vibration levels are expected to range from 25.3 to 68.8 VdB. Based on the FTA maximum acceptable vibration standard of 80 VdB at sensitive receiver locations (see Subsection 4.10.4), the proposed Project's construction activities would not include or require equipment, facilities, or activities that would result in a perceptible human response (annoyance) or damage to buildings. Therefore, the Project's vibration associated construction impacts would be less than significant. Furthermore, vibration levels at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. Therefore, the potential for the Project to result in exposure of persons to, or generation of, excessive ground-borne vibration would be less than significant and no mitigation is required (Urban Crossroads, Inc., 2016d, p. 95)

B. Long-Term Operational Vibration

Although the human threshold of perception is around 65 VdB, human response to vibration is not usually significant unless the vibration level exceeds 70 VdB. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement condition. Typical vibration levels for heavy trucks at normal traffic speeds do not exceed 65 VdB and therefore would be below 80 VdB at nearby sensitive receiver locations. During long-term operation of the Project, trucks would travel to and from the Project site on surrounding roadways; however, vibration levels for heavy trucks operating at the posted speed limits on smooth, paved surfaces as is expected on the Project site and surrounding roadways, are typically below the human threshold of perception (65 VdB) and therefore below the FTA maximum acceptable vibration standard of 80 VdB as presented in Subsection 4.10.4. Accordingly, the Project's long-term operational vibration impacts would not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Thus, impacts are less than significant and no mitigation is required.

Threshold e) ***For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

As discussed in Subsection 4.10.1, the Project site is within the March Air Reserve Base Airport Influence Area boundary and in an area below the 60 CNEL range from aircraft noise. (Riverside County ALUC, 2014, Exhibit MA-7D and Exhibit MA-4) (County of Riverside ALUC, 2015, p. 3) Also, the Project proposes a logistics center with four building and does not propose noise sensitive land uses. Accordingly, for a project located within an airport land use plan, within two miles of a public airport or public use airport, the Project would not expose people working in the Project area to excessive noise levels. Thus, impacts are less than significant and no mitigation is required.

Threshold f) ***For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels***

There are no private airfields or private airstrips in the vicinity of the Project site. Therefore, the proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip. Thus, no impact would occur.

4.10.6 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site resulting from full General Plan buildout and buildout in the surrounding areas.

A. Construction-Related Noise Impacts

Construction activities associated with the Project, especially activities involving heavy construction equipment would create intermittent periods of noise when construction equipment is in operation and cause a short-term increase in ambient noise levels. The peak noise level anticipated during construction activities would occur during Phase I daytime grading, paving, and building construction and application of architectural coatings. As previously shown in Table 4.10-6, *Phase I Daytime Construction Noise Levels at Receiver Locations*, the Project's Phase I daytime construction activities would expose noise sensitive receiver location R8 to noise levels in excess of 65 dBA Leq during daytime hours. Project construction noise levels combined with ambient noise and vehicular noise from potential cumulative development projects would have a cumulative noise effect on noise receiver location R8. In the event that construction activities occur on any properties surrounding the Project site simultaneously with Project-related construction activities and that also contribute construction noise to receiver R8, a cumulative impact may occur and the Project's construction-related noise contribution to the overall noise level in the Project study area would be cumulatively considerable. Such noise levels would represent a cumulatively considerable substantial or periodic increase in ambient noise levels in the Project study area above levels existing without the Project.

Accordingly, the Project's short-term construction-related noise impacts would result in a cumulatively considerable short-term impact. Because construction noise would be temporary in nature, Project construction activities would result in a less than cumulatively considerable substantial permanent (long-term) increase in ambient noise levels in the Project study area above levels existing without the Project.

B. Stationary Noise Impacts

As shown on Table 4.10-11, *Daytime Operational Noise Level Contributions*, the Project is expected to generate a daytime operational noise level contribution of up to 0.1 dBA at receiver location R6, 0.9 dBA at noise receiver location R7, and 0.7 dBA at receiver location R8. These locations are positioned east of Indian Street directly across the street from the Project site. When the Project's proposed Building 1 and Building 2 are in place, these structures will act as barriers and attenuate noise from other operational activities occurring in the area to the north and west. Stationary noise that these receiver locations may experience from the warehouse building located immediately north of the Project site is considered as part of the existing conditions noise measurements. Because the existing ambient noise level at noise sensitive receiver locations R6, R7, and R8 are less than 60 dBA and the Project creates a readily perceptible Project-related noise level increase of less than 5 dBA, pursuant to the operational noise significance threshold described in Subsection 4.10.4 and as shown in Table 4.10-11, the Project-related operational noise level contributions to the daytime ambient noise levels at nearby sensitive receiver locations would be less than significant and less than cumulatively considerable. No mitigation is required. (Urban Crossroads, Inc., 2016d, p. 67)

As shown on Table 4.10-12, *Nighttime Operation Noise Level Contributions*, the Project is expected to generate a nighttime operational noise level contribution of up to 0.1 dBA at receiver location R5, 0.2 dBA at receiver location R6, 1.2 dBA at noise receiver location R7, and 0.9 dBA at receiver location R8. When the Project's proposed Building 1 and Building 2 are in place, these structures will act as barriers and attenuate noise from other operational activities occurring in the area to the north and west. Stationary noise that these receiver locations may experience from the warehouse building located immediately north of the Project site is considered as part of the existing conditions noise measurements. Because the existing ambient noise levels at these locations are less than 60 dBA and the Project creates a readily perceptible Project-related noise level less than 5 dBA, pursuant to the operational noise threshold of significance described in Subsection 4.10.4 and as shown in Table 4.10-12, the Project-related operational noise level contributions to the nighttime ambient noise levels at nearby sensitive receivers would be less than significant and less than cumulatively considerable. No mitigation is required. (Urban Crossroads, Inc., 2016d, pp. 67-68)

C. Transportation-Related Noise Impacts

The level of significance attributed to a cumulative noise impact is based on a comparison of the Existing with Project noise levels with the General Plan Buildout (2035) without Project noise levels. Table 4.10-19, *General Plan Buildout (2035) Off-Site Cumulative Traffic Noise Impacts*, shows that the cumulative increase from Existing to General Plan Buildout (2035) without Project conditions would range from 0.7 to 16.4 dBA CNEL. Based on the significance criteria, the cumulative increase represents a significant cumulative impact on 10 of the study area roadway segments. However, to determine if the Project-related contribution to the cumulative noise impact is cumulatively considerable and thus potentially significant, the Existing without Project noise levels are subtracted from the General Plan Buildout (2035) with Project noise levels to determine the Project plus cumulative noise increase. As shown on Table 4.10-19, the actual Project-related contribution to the cumulative noise increases would approach 0.3 dBA CNEL and therefore would not exceed the significance thresholds. Therefore, because the Project-related off-site traffic noise level increases represent a less than significant contribution to the cumulative noise impacts, the Project-related traffic noise level increases would be less than cumulatively considerable. No mitigation is required. (Urban Crossroads, Inc., 2016d, p. 52)

D. Ground-Borne Vibration or Ground-Borne Noise

Based on the FTA maximum acceptable vibration standard of 80 vibration decibels (VdB) at sensitive receiver locations (see Subsection 4.10.4), the proposed Project's construction activities would not include or require equipment, facilities, or activities that would result in a perceptible human response (annoyance). Therefore, the Project's vibration-associated construction impacts would be less than significant. Furthermore, vibration levels at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. Therefore, the potential for the Project to result in cumulatively considerable ground-borne vibration would be less than significant.

Under long-term conditions, the operational activities of the proposed Project would not include or require equipment, facilities, or activities that would result in perceptible ground-borne vibration. Trucks would travel to and from the Project site on surrounding roadways; however, vibration levels for heavy trucks operating at the posted speed limits on smooth, paved surfaces as is expected on the Project site and surrounding roadways, are typically below the human threshold of perception (65 VdB) and therefore below the FTA maximum acceptable vibration standard of 80 (VdB) as presented in Subsection 4.10.4. Accordingly, long-term operation of the Project would not expose people to or generate excessive ground-borne vibration or ground-borne noise levels. For this reason, impacts would be less than cumulatively considerable.

E. Airport Noise

The proposed Project does not involve the construction, operation, or use of any public airports, public use airports, or private airstrips. There are no conditions associated with the proposed Project that would contribute airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport, public use airport, or private airstrip. Additionally, the Project is in an area below the 60 CNEL range from March Air Reserve Base Airport aircraft noise and the Project is not a noise-sensitive land use and would not contribute towards the exposure of people to excessive airport-related noise.

4.10.7 Significance of Impacts before Mitigation

Threshold a): Less-than-Significant Impact. The Project would not generate noise levels in excess of the noise levels allowed by the Moreno Valley Municipal Code.

Threshold b): Less-than-Significant Impact. The Project's construction and operational activities would not result in a perceptible human response (annoyance) to vibration because vibration levels at sensitive receiver locations would be below 80 vibration decibels (VdB).

Thresholds c) and d): Significant Short-Term Direct and Cumulatively Considerable Impact. Phase I of Project-related construction activities would result in a short-term direct impact to one noise-sensitive receiver, a residential home located east of Indian Street near the Project site's southwestern corner. In the event that construction activities occur on any properties surrounding the Project site simultaneously with Project-related construction activities, and that also would contribute construction noise to this residential home, a cumulative impact may occur and the Project's construction-related noise contribution to the overall noise level at this off-site property would also be cumulatively considerable.

Threshold e): Less-than-Significant Impact. The Project site is within the March Air Reserve Base Airport Influence Area boundary but outside of the 60 CNEL range for aircraft noise. In addition, the Project does not propose noise sensitive land uses that could be disturbed by periodic aircraft noise.

Threshold f): No Impact. There are no private airfields or private airstrips in the vicinity of the Project site. Therefore, the proposed Project would not expose people to excessive noise levels associated with operations at a private airstrip.

4.10.8 Mitigation

The following mitigation measures would reduce noise level increases produced by the Project's Phase I construction-related activities to nearby noise-sensitive receivers.

MM 4.10-1 All construction activities shall comply with the City of Moreno Valley Noise Ordinance (Chapter 11.80 of the City of Moreno Valley Municipal Code). This requirement shall be noted on all grading and building plans and in bid documents issued to construction contractors.

MM 4.10-2 Prior to the issuance of grading permits and building permits that would authorize grading and paving construction activities within 280 feet of Indian Street between Superior Avenue and the Perris Valley Storm Drain Channel, the construction contractor shall install a minimum 6-foot high temporary noise control barrier at the southeast corner of Parcel 1 (the Building 1 site) extending northward approximately 400 feet along Indian Street. Alternatively, with the approval of the property owner at 16950 Indian Street (noise receiver location R8), the temporary noise barrier can instead be installed along the west property line of that existing residential home. The temporary noise control barrier must present a solid face from top to bottom and must be a minimum of 6 feet high. The temporary noise control barrier shall comply with the following:

a) The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts.

b) The noise barrier shall be maintained in good repair during the duration of grading and paving activities on Parcel 1. Any damage shall be promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.

c) The noise control barrier and associated elements shall be completely removed upon the conclusion of the grading and paving construction activity on Parcel 1.

d) In the event that the noise barrier is constructed at 16950 Indian Street (noise receiver location R8), documentation of property owner approval to construct the noise barrier shall be provided to the City of Moreno Valley Planning Division prior to construction of the barrier.

MM 4.10-3 Prior to issuance of any grading and building permits, the City of Moreno Valley shall review grading and building plans to ensure the following notes are included on the plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request.

a) Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with the manufacturer’s standards. The construction contractor shall place all stationary equipment so that emitted noise is directed away from noise sensitive receivers located east and northeast of the Project site.

b) During construction activities on Parcel 1, construction contractors shall locate equipment staging in the vicinity of the intersection of Cosmos Street and Krameria Avenue to create distance between construction-related noise sources and noise-sensitive receivers located east and northeast of Indian Street.

c) Haul truck deliveries shall use approved truck routes and occur during the same hours specified for construction equipment (7:00 a.m. to 8:00 p.m. on any given day) by the Moreno Valley Municipal Code Section 11.80.030.D.7 The construction contractor shall prepare a haul route exhibit for review and approval by the City of Moreno Valley Public Works Department, Land Development Division and shall design delivery routes to minimize exposure of sensitive land uses or residential dwellings to haul truck-related noise (Moreno Valley Municipal Code Section 8.21.050.H.7).

Although operational-related noise impacts would be less than significant, the following mitigation measure is required to further reduce the Project’s operational noise levels.

MM 4.10-4 Prior to the issuance of building permits, the City of Moreno Valley shall review building plans to ensure that the following notes are included on the plans. Contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the City of Moreno Valley upon request. Additionally, prior to building permit issuance, the Project’s property owner(s) shall provide documentation to the City of Moreno Valley verifying that provisions are made in the buildings’ lease agreements that inform tenants of the following:

a) All on-site operating equipment under the control of the building user that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers.

b) Speed bumps are not allowed. Quality pavement conditions shall be maintained on the property that is free of vertical deflection (i.e. speed bumps) to minimize truck noise.

4.10.9 Significance of Impacts after Mitigation

<u>Threshold c) and d): Less-than-Significant Impact</u>. Implementation of Mitigation Measures MM 4.10-1 through MM 4.10-2 would reduce the construction-related noise levels at receiver location R8 to 60.3 dBA Leq, primarily from the attenuation provided by a minimum 6-foot high temporary construction noise barrier during the Phase 1 grading and paving stages of construction. Therefore, with implementation of Mitigation Measure MM 4.10-2, impacts would be less than significant. Refer to Figure 4.10-14, *Phase I Grading and Paving-Location of Temporary Construction Barrier*.

Table 4.10-1 24-Hour Ambient Noise Level Measurements

Location[1]	Distance To Project Boundary (Feet)	Description	Hourly Noise Level (dBA Leq)[2]		CNEL
			Daytime	Nighttime	
L1	10,500'	Located at the southeast corner of Cactus Avenue and Unity Court adjacent to existing residential homes.	75.3	73.0	79.7
L2	8,330'	Located on Heacock Street north of Meyer Drive near existing residential homes.	65.9	65.6	72.1
L3	5,360'	Located at the southeast corner of 6th Street and Midway Street near an existing baseball diamond and park.	50.2	52.9	58.9
L4	5,880'	Located on Heacock Street north of Gentian Avenue adjacent to an existing residential community.	68.8	68.1	74.7
L5	2,740'	Located on Iris Avenue west of Indian Street and the Rainbow Ridge Elementary School. An existing logistics warehouse is located south of Iris Avenue.	66.2	67.0	73.1
L6	1,250'	Located north of the Project site on Indian Street near an existing residential home.	61.5	62.5	68.8
L7	90'	Located on Indian Street south of Krameria Avenue near existing residential homes and northeast of the Project site.	64.1	60.6	67.2
L8	100'	Located east of the Project site on Indian Street near existing residential homes.	60.8	60.2	66.4
L9	75'	Located east of the Project site on Indian Street, south of Superior Avenue near existing residential homes.	53.1	51.7	58.2

[1] See Figure 4.10-1 for noise measurement locations.

[2] Energy (logarithmic) average hourly levels. The long-term 24-hour measurement printouts are included in Appendix 5.2 of *Technical Appendix H*.

Daytime = 8:00 a.m. to 10:00 p.m. Nighttime = 10:01 p.m. to 7:59 p.m.

Source: (Urban Crossroads, Inc., 2016d, Table 5-1)

Table 4.10-2 Construction Reference Noise Levels

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance		Reference Noise Levels @ 50 Feet[5]	
			dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	68.1	59.2	63.7
2	Dozer Activity[1]	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching[2]	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities[2]	30'	77.9	84.8	73.5	80.4
6	Water Truck Pass-By & Backup Alarm[3]	30'	76.3	82.3	71.9	77.9
7	Dozer Pass-By[3]	30'	84.0	89.9	79.6	85.5
8	Two Scrapers & Water Truck Pass-By[3]	30'	83.4	89.0	79.0	84.6
9	Two Scrapers Pass-By[3]	30'	83.7	86.9	79.3	82.5
10	Scraper, Water Truck, & Dozer Activity[3]	30'	79.7	87.7	75.3	83.3
11	Concrete Mixer Truck Movements[4]	50'	71.2	73.1	71.2	73.1
12	Concrete Paver Activities[4]	30'	70.0	75.7	65.6	71.3
13	Concrete Mixer Pour & Paving Activities[4]	30'	70.3	76.3	65.9	71.9
14	Concrete Mixer Backup Alarms & Air Brakes[4]	50'	71.6	78.8	71.6	78.8
15	Concrete Mixer Pour Activities[4]	50'	67.7	79.2	67.7	79.2

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.

[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.

[3] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.

[4] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. and 2:00 a.m. on 7/1/15.

[5] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

Source: (Urban Crossroads, Inc., 2016d, Table 10-1)

Table 4.10-3 Reference Noise Level Measurements

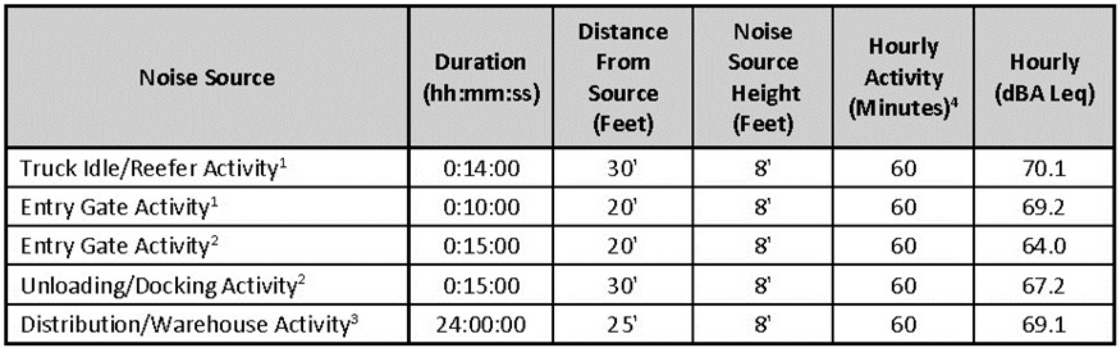

Noise Source	Duration (hh:mm:ss)	Distance From Source (Feet)	Noise Source Height (Feet)	Hourly Activity (Minutes)[4]	Hourly (dBA Leq)
Truck Idle/Reefer Activity[1]	0:14:00	30'	8'	60	70.1
Entry Gate Activity[1]	0:10:00	20'	8'	60	69.2
Entry Gate Activity[2]	0:15:00	20'	8'	60	64.0
Unloading/Docking Activity[2]	0:15:00	30'	8'	60	67.2
Distribution/Warehouse Activity[3]	24:00:00	25'	8'	60	69.1

[1] Reference noise level measurements were collected from the existing operations of the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. The reference noise level measurements were collected on Wednesday, January 7, 2015.

[2] Reference noise level measurements were collected from the existing operations of the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino. The reference noise level measurements were collected on Wednesday, January 7, 2015.

[3] The reference noise level measurements include the daytime and nighttime noise levels associated with idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. Reference noise level measurements were collected from the existing 24-hour operations of Veg Fresh Farms and FedEx distribution facility located at 500 East Orangethorpe Avenue in the City of Anaheim. The reference noise level measurements were collected on Tuesday, January 22, 2013.

[4] Duration (minutes within the hour) of noise activity during peak hourly conditions.

Source: (Urban Crossroads, Inc., 2016d, Table 9-1)

Table 4.10-4 Off-Site Roadway Parameters

ID	Roadway	Segment	Adjacent Planned Land Use[1]	Distance from Centerline to Nearest Adjacent Land Use (Feet)[2]	Posted Vehicle Speed (mph)
1	Graham St.	n/o Cactus Av.	Light Industrial	44'	45
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	44'	45
3	Heacock St.	n/o Cactus Av.	Residential	50'	45
4	Heacock St.	s/o Cactus Av.	Residential	50'	45
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	50'	50
6	Heacock St.	s/o Gentian Av.	Business Park	50'	50
7	Heacock St.	s/o Iris Av.	Business Park	50'	50
8	Heacock St.	s/o Krameria Av. (North)	Business Park	50'	50
9	Heacock St.	n/o Cardinal Av.	Business Park	50'	40
10	Heacock St.	s/o Cardinal Av.	Business Park	50'	40
11	Heacock St.	s/o San Michele Rd.	Business Park	50'	50
12	Heacock St.	s/o Nandina Av.	Open Space	50'	25
13	Indian St.	n/o Krameria Av.	Residential	44'	50
14	Indian St.	s/o Krameria Av.	Residential	44'	50
15	Cactus Av.	w/o Elsworth St.	Business Park	44'	50
16	Cactus Av.	e/o Elsworth St.	Business Park	44'	50
17	Cactus Av.	e/o Frederick St.	Light Industrial	44'	50
18	Cactus Av.	e/o Graham St.	Light Industrial	44'	50
19	Cactus Av.	e/o Heacock St.	Residential	44'	45
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	50'	45
21	Krameria Av.	e/o Indian St.	Residential	44'	40
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	50'	45
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	50'	45
24	Harley Knox Bl.	e/o Webster Av.	Business Park	50'	45

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] Distance to adjacent land use is based on right-of-way distances for each functional roadway classification provided in the General Plan Circulation Element.

Source: (Urban Crossroads, Inc., 2016d, Table 6-1)

Table 4.10-5 Vibration Source Levels for Construction Equipment

Equipment	Vibration Decibels (VdB) at 25 feet[1]
Small bulldozer	58
Jackhammer	79
Loaded Trucks	86
Large bulldozer	87

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Source: (Urban Crossroads, Inc., 2016d, Table 6-9)

Table 4.10-6 Phase I Daytime Construction Noise Levels at Receiver Locations

Receiver Location[1]	Type of Noise/ Attenuation	Daytime Construction Noise Levels (dBA Leq)						Threshold Exceeded?[3]
		Grading	Trenching	Building Const.	Arch. Coating	Paving	Peak	
R1	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	39.2	No
	Distance to Construction[3]	2,743'	2,743'	2,813'	2,813'	2,743'		
	Distance Attenuation4	-22.7	-22.7	-23.0	-23.0	-22.7		
	Existing Barrier Attenuation[5]	-5.6	-5.6	-5.6	-5.6	-5.6		
	Noise Level at Receiver:	39.2	33.1	39.0	39.0	39.2		
R2	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	44.5	No
	Distance to Construction[3]	2,844'	2,844'	2,987'	2,987'	2,844'		
	Distance Attenuation4	-23.1	-23.1	-23.5	-23.5	-23.1		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	44.5	38.4	44.0	44.0	44.5		
R3	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	49.8	No
	Distance to Construction[3]	1,543'	1,543'	1,696'	1,696'	1,543'		
	Distance Attenuation4	-17.7	-17.7	-18.6	-18.6	-17.7		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	49.8	43.7	49.0	49.0	49.8		
R4	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	54.6	No
	Distance to Construction[3]	471'	471'	678'	678'	471'		
	Distance Attenuation4	-7.4	-7.4	-10.6	-10.6	-7.4		
	Existing Barrier Attenuation[5]	-5.5	-5.5	-5.4	-5.4	-5.5		
	Noise Level at Receiver:	54.6	48.5	51.5	51.5	54.6		
R5	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	64.7	No
	Distance to Construction[3]	152'	152'	392'	392'	152'		
	Distance Attenuation4	2.4	2.4	-5.8	-5.8	2.4		
	Existing Barrier Attenuation[5]	-5.2	-5.2	-5.3	-5.3	-5.2		
	Noise Level at Receiver:	64.7	58.6	56.4	56.4	64.7		
R6	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	63.0	No
	Distance to Construction[3]	176'	176'	429'	429'	176'		
	Distance Attenuation4	1.1	1.1	-6.6	-6.6	1.1		
	Existing Barrier Attenuation[5]	-5.6	-5.6	-5.5	-5.5	-5.6		
	Noise Level at Receiver:	63.0	56.9	55.4	55.4	63.0		
R7	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	64.5	No
	Distance to Construction[3]	153'	153'	362'	362'	153'		
	Distance Attenuation4	2.3	2.3	-5.2	-5.2	2.3		
	Existing Barrier Attenuation[5]	-5.3	-5.3	-5.4	-5.4	-5.3		
	Noise Level at Receiver:	64.5	58.4	57.0	57.0	64.5		
R8	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	67.2	Yes
	Distance to Construction[3]	207'	207'	492'	492'	207'		
	Distance Attenuation4	-0.3	-0.3	-7.8	-7.8	-0.3		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	67.2	61.1	59.7	59.7	67.2		

[1] Noise receiver locations are shown on Figure 4.10-2.

[2] Noise level of the closest construction stage to each receiver, as provided on as provided in *Technical Appendix H*, Table 10-7, Construction Equipment Noise Level Summary at 200 Feet.

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2 of *Technical Appendix H*) provided by the existing barriers and buildings in the Project study area, as shown on Figure 4.10-2.

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hour?

Source: (Urban Crossroads, Inc., 2016d Table 10-8)

Table 4.10-7 Phase 2 Daytime Construction Noise Levels at Receiver Locations

Receiver Location[1]	Type of Noise/ Attenuation	Daytime Construction Noise Levels (dBA Leq)						Threshold Exceeded?[3]
		Grading	Trenching	Building Const.	Arch. Coating	Paving	Peak	
R1	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	38.4	No
	Distance to Construction[3]	3,006'	3,006'	3,088'	3,088'	3,006'		
	Distance Attenuation4	-23.5	-23.5	-23.8	-23.8	-23.5		
	Existing Barrier Attenuation[5]	-5.6	-5.6	-5.5	-5.5	-5.6		
	Noise Level at Receiver:	38.4	32.3	38.2	38.2	38.4		
R2	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	35.8	No
	Distance to Construction[3]	3,692'	3,692'	3,773'	3,773'	3,692'		
	Distance Attenuation4	-25.3	-25.3	-25.5	-25.5	-25.3		
	Existing Barrier Attenuation[5]	-6.4	-6.4	-6.3	-6.3	-6.4		
	Noise Level at Receiver:	35.8	29.7	35.7	35.7	35.8		
R3	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	37.1	No
	Distance to Construction[3]	2,782'	2,782'	2,864'	2,864'	2,782'		
	Distance Attenuation4	-22.9	-22.9	-23.1	-23.1	-22.9		
	Existing Barrier Attenuation[5]	-7.6	-7.6	-7.5	-7.5	-7.6		
	Noise Level at Receiver:	37.1	31.0	36.9	36.9	37.1		
R4	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	41.0	No
	Distance to Construction[3]	2,245'	2,245'	2,422'	2,422'	2,245'		
	Distance Attenuation4	-21.0	-21.0	-21.7	-21.7	-21.0		
	Existing Barrier Attenuation[5]	-5.5	-5.5	-8.5	-8.5	-5.5		
	Noise Level at Receiver:	41.0	34.9	37.4	37.4	41.0		
R5	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	39.1	No
	Distance to Construction[3]	2,022'	2,022'	2,318'	2,318'	2,022'		
	Distance Attenuation4	-20.1	-20.1	-21.3	-21.3	-20.1		
	Existing Barrier Attenuation[5]	-8.3	-8.3	-7.9	-7.9	-8.3		
	Noise Level at Receiver:	39.1	33.0	38.3	38.3	39.1		
R6	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	38.6	No
	Distance to Construction[3]	1,654'	1,654'	1,792'	1,792'	1,654'		
	Distance Attenuation4	-18.4	-18.4	-19.0	-19.0	-18.4		
	Existing Barrier Attenuation[5]	-10.6	-10.6	-10.6	-10.6	-10.6		
	Noise Level at Receiver:	38.6	32.5	37.9	37.9	38.6		
R7	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	48.4	No
	Distance to Construction[3]	962'	962'	1,184'	1,184'	962'		
	Distance Attenuation4	-13.6	-13.6	-15.4	-15.4	-13.6		
	Existing Barrier Attenuation[5]	-5.5	-5.5	-5.5	-5.5	-5.5		
	Noise Level at Receiver:	48.4	42.3	46.6	46.6	48.4		
R8	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	57.6	No
	Distance to Construction[3]	629'	629'	1,008'	1,008'	629'		
	Distance Attenuation4	-10.0	-10.0	-14.0	-14.0	-10.0		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	57.6	51.5	53.5	53.5	57.6		

[1] Noise receiver locations are shown on Figure 4.10-2.

2 Noise level of the closest construction stage to each receiver, as provided in *Technical Appendix H*, Table 10-7, Construction Equipment Noise Level Summary at 200 Feet..

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2 of *Technical Appendix H*) provided by the existing barriers and buildings in the Project study area, as shown on Figure 4.10-2.

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

Source: (Urban Crossroads, Inc., 2016d, Table 10-9)

Table 4.10-8 Phase I Nighttime Construction Noise Levels at Receiver Locations

Receiver Location[1]	Type of Noise/ Attenuation	Nighttime Construction Noise Levels (dBA Leq)			Threshold Exceeded?[3]
		Building Const.	Paving	Peak	
R1	Equipment Noise Level[2]	59.6	59.6	31.2	No
	Distance to Construction[3]	2,813'	2,743'		
	Distance Attenuation4	-23.0	-22.7		
	Existing Barrier Attenuation[5]	-5.6	-5.6		
	Noise Level at Receiver:	31.0	31.2		
R2	Equipment Noise Level[2]	59.6	59.6	36.5	No
	Distance to Construction[3]	2,987'	2,844'		
	Distance Attenuation4	-23.5	-23.1		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	36.1	36.5		
R3	Equipment Noise Level[2]	59.6	59.6	41.8	No
	Distance to Construction[3]	1,696'	1,543'		
	Distance Attenuation4	-18.6	-17.7		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	41.0	41.8		
R4	Equipment Noise Level[2]	59.6	59.6	46.6	No
	Distance to Construction[3]	678'	471'		
	Distance Attenuation4	-10.6	-7.4		
	Existing Barrier Attenuation[5]	-5.4	-5.5		
	Noise Level at Receiver:	43.6	46.6		
R5	Equipment Noise Level[2]	59.6	59.6	56.7	No
	Distance to Construction[3]	392'	152'		
	Distance Attenuation4	-5.8	2.4		
	Existing Barrier Attenuation[5]	-5.3	-5.2		
	Noise Level at Receiver:	48.4	56.7		
R6	Equipment Noise Level[2]	59.6	59.6	55.1	No
	Distance to Construction[3]	429'	176'		
	Distance Attenuation4	-6.6	1.1		
	Existing Barrier Attenuation[5]	-5.5	-5.6		
	Noise Level at Receiver:	47.4	55.1		
R7	Equipment Noise Level[2]	59.6	59.6	56.6	No
	Distance to Construction[3]	362'	153'		
	Distance Attenuation4	-5.2	2.3		
	Existing Barrier Attenuation[5]	-5.4	-5.3		
	Noise Level at Receiver:	49.0	56.6		
R8	Equipment Noise Level[2]	59.6	59.6	59.3	No
	Distance to Construction[3]	492'	207'		
	Distance Attenuation4	-7.8	-0.3		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	51.7	59.3		

[1] Noise receiver locations are shown on Figure 4.10-2.

[2] Noise level of the closest construction stage to each receiver, as provided on as provided in *Technical Appendix H*, Table 10-7, Construction Equipment Noise Level Summary at 200 Feet.

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2 of *Technical Appendix H)* provided by the existing barriers and buildings in the Project study area, as shown on Figure 4.10-2.

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

Source: (Urban Crossroads, Inc., 2016d, Table 10-10)

Table 4.10-9 Phase II Nighttime Construction Noise Levels at Receiver Locations

Receiver Location[1]	Type of Noise/ Attenuation	Nighttime Construction Noise Levels (dBA Leq)			Threshold Exceeded?[3]
		Building Const.	Paving	Peak	
R1	Equipment Noise Level[2]	59.6	59.6	30.4	No
	Distance to Construction[3]	3,088'	3,006'		
	Distance Attenuation4	-23.8	-23.5		
	Existing Barrier Attenuation[5]	-5.5	-5.6		
	Noise Level at Receiver:	30.3	30.4		
R2	Equipment Noise Level[2]	59.6	59.6	27.8	No
	Distance to Construction[3]	3,773'	3,692'		
	Distance Attenuation4	-25.5	-25.3		
	Existing Barrier Attenuation[5]	-6.3	-6.4		
	Noise Level at Receiver:	27.7	27.8		
R3	Equipment Noise Level[2]	59.6	59.6	29.1	No
	Distance to Construction[3]	2,864'	2,782'		
	Distance Attenuation4	-23.1	-22.9		
	Existing Barrier Attenuation[5]	-7.5	-7.6		
	Noise Level at Receiver:	28.9	29.1		
R4	Equipment Noise Level[2]	59.6	59.6	33.1	No
	Distance to Construction[3]	2,422'	2,245'		
	Distance Attenuation4	-21.7	-21.0		
	Existing Barrier Attenuation[5]	-8.5	-5.5		
	Noise Level at Receiver:	29.4	33.1		
R5	Equipment Noise Level[2]	59.6	59.6	31.2	No
	Distance to Construction[3]	2,318'	2,022'		
	Distance Attenuation4	-21.3	-20.1		
	Existing Barrier Attenuation[5]	-7.9	-8.3		
	Noise Level at Receiver:	30.4	31.2		
R6	Equipment Noise Level[2]	59.6	59.6	30.6	No
	Distance to Construction[3]	1,792'	1,654'		
	Distance Attenuation4	-19.0	-18.4		
	Existing Barrier Attenuation[5]	-10.6	-10.6		
	Noise Level at Receiver:	29.9	30.6		
R7	Equipment Noise Level[2]	59.6	59.6	40.4	No
	Distance to Construction[3]	1,184'	962'		
	Distance Attenuation4	-15.4	-13.6		
	Existing Barrier Attenuation[5]	-5.5	-5.5		
	Noise Level at Receiver:	38.6	40.4		
R8	Equipment Noise Level[2]	59.6	59.6	49.6	No
	Distance to Construction[3]	1,008'	629'		
	Distance Attenuation4	-14.0	-10.0		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	45.5	49.6		

[1] Noise receiver locations are shown on Figure 4.10-2.

[2] Noise level of the closest construction stage to each receiver, as provided on as provided in *Technical Appendix H*, Table 10-7, Construction Equipment Noise Level Summary at 200 Feet..

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2 of *Technical Appendix H*) provided by the existing barriers and buildings in the Project study area, as shown on Figure 4.10-2

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

Source: (Urban Crossroads, Inc., 2016d, Table 10-11)

Table 4.10-10 Operational Noise Level Projections at Receiver Locations

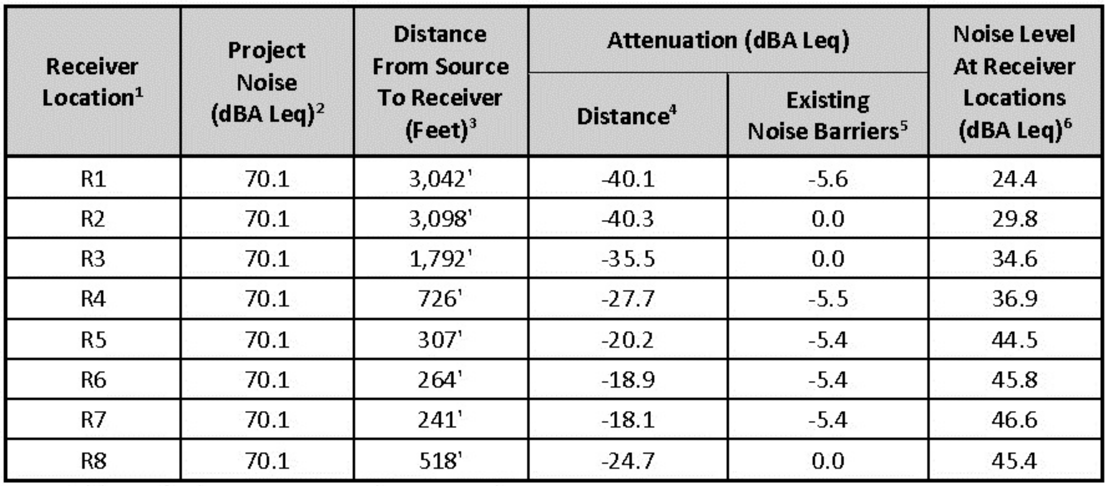

Receiver Location[1]	Project Noise (dBA Leq)[2]	Distance From Source To Receiver (Feet)[3]	Attenuation (dBA Leq)		Noise Level At Receiver Locations (dBA Leq)[6]
			Distance[4]	Existing Noise Barriers[5]	
R1	70.1	3,042'	-40.1	-5.6	24.4
R2	70.1	3,098'	-40.3	0.0	29.8
R3	70.1	1,792'	-35.5	0.0	34.6
R4	70.1	726'	-27.7	-5.5	36.9
R5	70.1	307'	-20.2	-5.4	44.5
R6	70.1	264'	-18.9	-5.4	45.8
R7	70.1	241'	-18.1	-5.4	46.6
R8	70.1	518'	-24.7	0.0	45.4

[1] See Exhibit 9-A for the noise receiver and noise source locations.
[2] Worst-case Project-only reference noise level from Table 4.10-3.
[3] Estimated distances to nearest loading dock activities.
[4] Noise levels diminish at a rate 6 dBA per doubling of distance and a reference distance of 30 feet.
[5] Calculated noise attenuation provided by the recommended barriers.
[6] Calculated Project stationary source noise levels (Appendix 9.2 of *Technical Appendix H*).
Source: (Urban Crossroads, Inc., 2016d, Table 9-3)

Table 4.10-11 Daytime Operational Noise Level Contributions

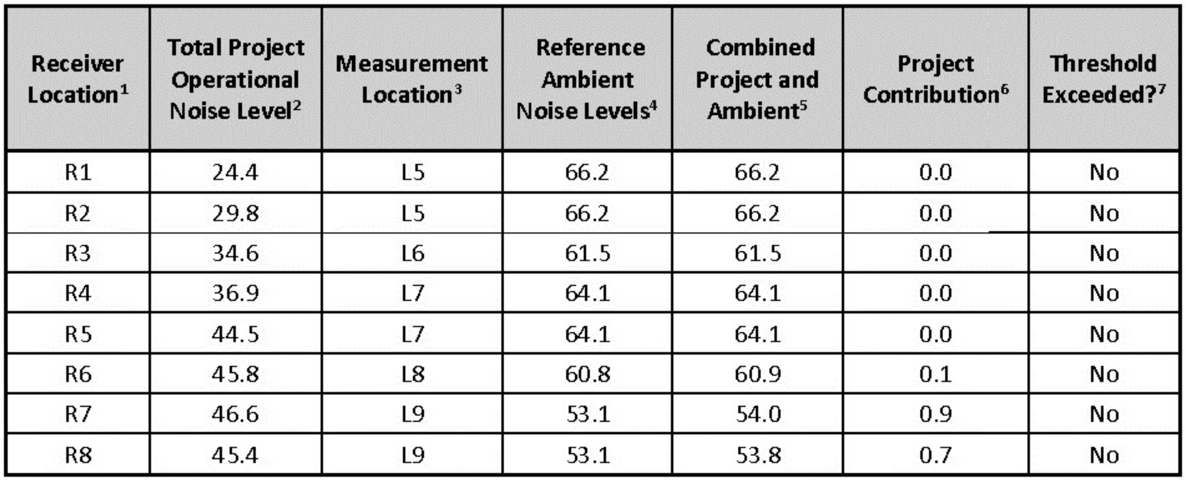

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Contribution[6]	Threshold Exceeded?[7]
R1	24.4	L5	66.2	66.2	0.0	No
R2	29.8	L5	66.2	66.2	0.0	No
R3	34.6	L6	61.5	61.5	0.0	No
R4	36.9	L7	64.1	64.1	0.0	No
R5	44.5	L7	64.1	64.1	0.0	No
R6	45.8	L8	60.8	60.9	0.1	No
R7	46.6	L9	53.1	54.0	0.9	No
R8	45.4	L9	53.1	53.8	0.7	No

[1] See Figure 4.10-2 for the sensitive receiver locations.
[2] Total Project operational noise levels.
[3] Reference noise level measurement locations as shown on Figure 4.10-1.
[4] Observed daytime ambient noise levels.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance Criteria.
Source: (Urban Crossroads, Inc., 2016d, Table 9-4)

Table 4.10-12 Nighttime Operation Noise Level Contributions

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Contribution[6]	Threshold Exceeded?[7]
R1	24.4	L5	67.0	67.0	0.0	No
R2	29.8	L5	67.0	67.0	0.0	No
R3	34.6	L6	62.5	62.5	0.0	No
R4	36.9	L7	60.6	60.6	0.0	No
R5	44.5	L7	60.6	60.7	0.1	No
R6	45.8	L8	60.2	60.4	0.2	No
R7	46.6	L9	51.7	52.9	1.2	No
R8	45.4	L9	51.7	52.6	0.9	No

[1] See Figure 4.10-2 for the sensitive receiver locations.
[2] Total Project operational noise levels.
[3] Reference noise level measurement locations.
[4] Observed nighttime ambient noise levels.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance Criteria.
Source: (Urban Crossroads, Inc., 2016d, Table 9-5)

Table 4.10-13 Existing plus Project Off-Site Traffic Noise Impact – Without Indian Street Bridge

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	64.8	64.8	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	65.7	65.7	0.0	No	No
3	Heacock St.	n/o Cactus Av.	Residential	68.8	68.8	0.0	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.1	71.4	0.3	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.3	71.7	0.4	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	70.2	70.7	0.5	No	No
7	Heacock St.	s/o Iris Av.	Business Park	67.5	68.3	0.8	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	67.2	67.8	0.6	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	65.6	65.9	0.3	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	64.8	65.3	0.5	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	63.2	63.2	0.0	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	45.2	0.0	No	No
13	Indian St.	n/o Krameria Av.	Residential	64.1	64.2	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	60.7	60.9	0.2	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	73.3	73.5	0.2	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	73.1	73.3	0.2	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	73.5	73.7	0.2	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	73.5	73.7	0.2	No	No
19	Cactus Av.	e/o Heacock St.	Residential	69.9	70.0	0.1	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	66.6	66.6	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	61.6	61.8	0.2	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	68.6	68.8	0.2	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	66.6	67.0	0.4	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	66.6	67.0	0.4	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria.

Source: (Urban Crossroads, Inc., 2016d, Table 7-8)

Table 4.10-14 Existing plus Project Off-Site Traffic Noise Impacts – With Indian Street Bridge

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	64.8	64.8	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	65.7	65.7	0.0	No	No
3	Heacock St.	n/o Cactus Av.	Residential	68.8	68.8	0.0	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.1	71.3	0.2	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.3	71.6	0.3	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	70.2	70.6	0.4	No	No
7	Heacock St.	s/o Iris Av.	Business Park	67.5	68.1	0.6	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	67.2	67.4	0.2	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	65.6	65.9	0.3	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	64.8	65.3	0.5	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	63.2	63.2	0.0	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	45.2	0.0	No	No
13	Indian St.	n/o Krameria Av.	Residential	64.1	64.2	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	60.7	60.9	0.2	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	73.3	73.4	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	73.1	73.2	0.1	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	73.5	73.6	0.1	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	73.5	73.6	0.1	No	No
19	Cactus Av.	e/o Heacock St.	Residential	69.9	70.0	0.1	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	66.6	66.6	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	61.6	61.8	0.2	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	68.6	68.9	0.3	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	66.6	67.2	0.6	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	66.6	67.2	0.6	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria.

Source: (Urban Crossroads, Inc., 2016d, Table 7-9)

Table 4.10-15 Opening Year (2020) Off-Site Project-Related Traffic Noise Impacts

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	66.7	66.7	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	68.0	68.0	0.0	No	No
3	Heacock St.	n/o Cactus Av.	Residential	69.1	69.1	0.0	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.4	71.7	0.3	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.9	72.2	0.3	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	70.9	71.3	0.4	No	No
7	Heacock St.	s/o Iris Av.	Business Park	70.3	70.7	0.4	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	70.8	71.1	0.3	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	69.1	69.3	0.2	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	68.8	69.0	0.2	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	64.2	64.2	0.0	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	45.2	0.0	No	No
13	Indian St.	n/o Krameria Av.	Residential	65.7	65.8	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	61.0	61.1	0.1	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	75.4	75.5	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	75.5	75.6	0.1	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.6	75.7	0.1	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	74.7	74.9	0.2	No	No
19	Cactus Av.	e/o Heacock St.	Residential	72.0	72.0	0.0	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	67.4	67.4	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	62.8	63.0	0.2	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	71.5	71.6	0.1	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	70.4	70.6	0.2	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	70.3	70.5	0.2	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria.

Source: (Urban Crossroads, Inc., 2016d, Table 7-10)

Table 4.10-16 General Plan Buildout (2035) Project-Related Traffic Noise Impacts

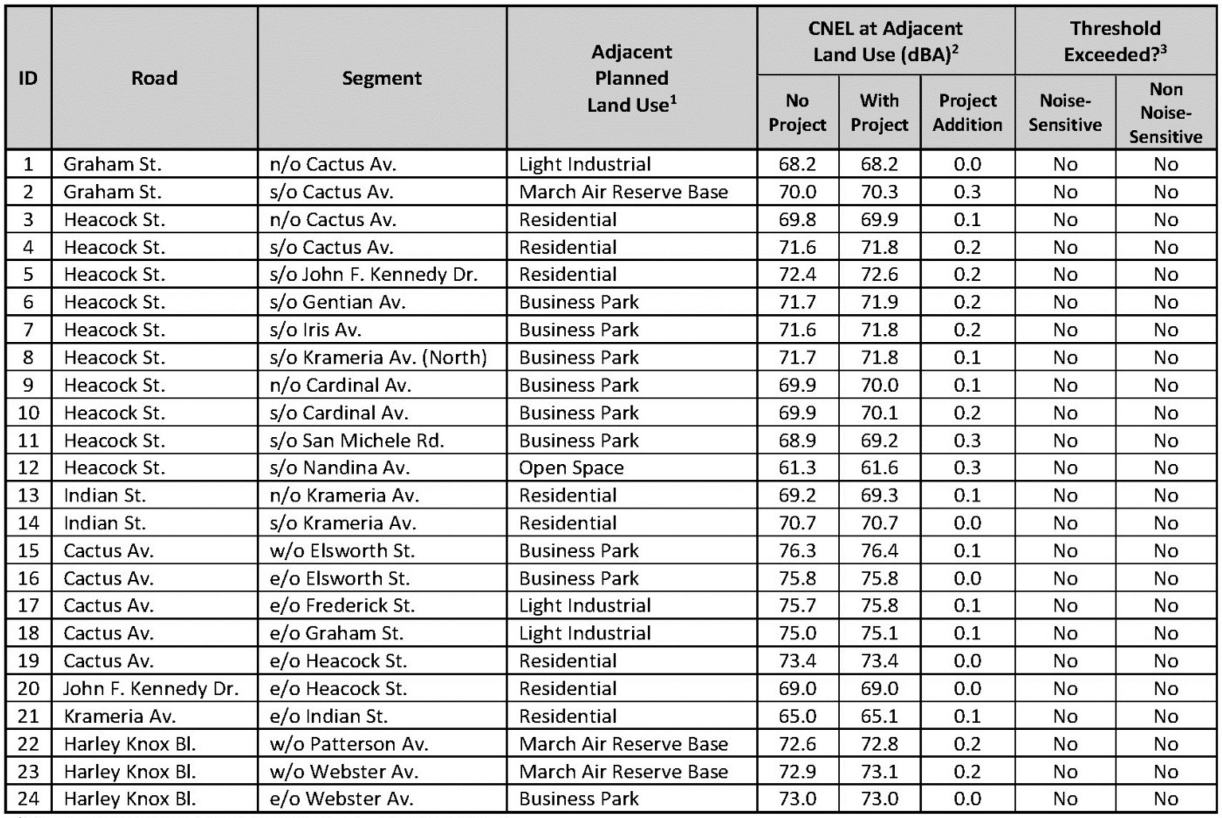

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	68.2	68.2	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	70.0	70.3	0.3	No	No
3	Heacock St.	n/o Cactus Av.	Residential	69.8	69.9	0.1	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.6	71.8	0.2	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	72.4	72.6	0.2	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	71.7	71.9	0.2	No	No
7	Heacock St.	s/o Iris Av.	Business Park	71.6	71.8	0.2	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	71.7	71.8	0.1	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	69.9	70.0	0.1	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	69.9	70.1	0.2	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	68.9	69.2	0.3	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	61.3	61.6	0.3	No	No
13	Indian St.	n/o Krameria Av.	Residential	69.2	69.3	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	70.7	70.7	0.0	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	76.3	76.4	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	75.8	75.8	0.0	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.7	75.8	0.1	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	75.0	75.1	0.1	No	No
19	Cactus Av.	e/o Heacock St.	Residential	73.4	73.4	0.0	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	69.0	69.0	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	65.0	65.1	0.1	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	72.6	72.8	0.2	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	72.9	73.1	0.2	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	73.0	73.0	0.0	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria.

Source: (Urban Crossroads, Inc., 2016d, Table 7-11)

Table 4.10-17 Operational Noise Level Projections at a Distance of 200 Feet

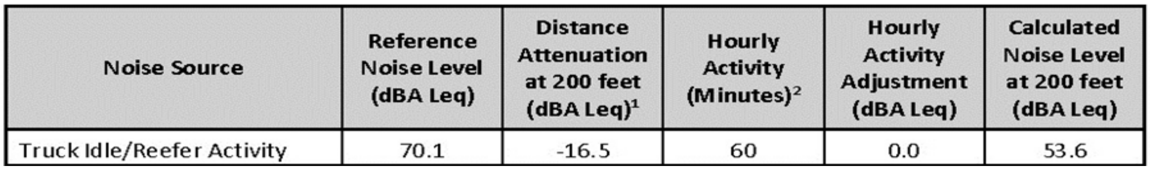

Noise Source	Reference Noise Level (dBA Leq)	Distance Attenuation at 200 feet (dBA Leq)[1]	Hourly Activity (Minutes)[2]	Hourly Activity Adjustment (dBA Leq)	Calculated Noise Level at 200 feet (dBA Leq)
Truck Idle/Reefer Activity	70.1	-16.5	60	0.0	53.6

[1] Drop off rate of 6 dBA per doubling of distance (point source).

[2] Duration (minutes within the hour) of noise activity during peak hourly conditions.

Source: (Urban Crossroads, Inc., 2016d, Table 9-2)

Table 4.10-18 Construction Equipment Vibration Levels

Receiver[1]	Distance To Construction Activity (Feet)	Receiver Vibration Levels (VdB)[2]					Threshold Exceeded?[3]
		Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer	Peak Vibration	
R1	2,744'	0.0	17.8	24.8	25.8	25.8	No
R2	2,853'	0.0	17.3	24.3	25.3	25.3	No
R3	1,544'	4.3	25.3	32.3	33.3	33.3	No
R4	471'	19.7	40.7	47.7	48.7	48.7	No
R5	133'	36.2	57.2	64.2	65.2	65.2	No
R6	161'	33.7	54.7	61.7	62.7	62.7	No
R7	144'	35.2	56.2	63.2	64.2	64.2	No
R8	101'	39.8	60.8	67.8	68.8	68.8	No

[1] Noise receiver locations.

[2] Based on the Vibration Source Levels of Construction Equipment included on as provided in *Technical Appendix H*, Table 10-7, Construction Equipment Noise Level Summary at 200 Feet..

[3] Does the peak vibration exceed the FTA maximum acceptable vibration standard of 80 (VdB)?

Source: (Urban Crossroads, Inc., 2016d, Table 10-13)

Table 4.10-19 General Plan Buildout (2035) Off-Site Cumulative Traffic Noise Impacts

ID	Road	Segment	CNEL at Adjacent Land Use[1]		Cumulative-Related			Project-Related				Cumulatively Considerable Project Contributions?		
			Existing Without Project	Year 2035 Without Project	Cumulative Increase From Existing[2]	Threshold Exceeded?[3]		Year 2035 With Project[1]	Project Increase From Existing[4]	Threshold Exceeded?[3]		Project Contr.[5]	Cumulatively Considerable?[6]	
						Noise-Sensitive	Non-Noise-Sensitive			Noise-Sensitive	Non-Noise-Sensitive		Noise-Sensitive	Non-Noise-Sensitive
1	Graham St.	n/o Cactus Av.	64.8	68.2	3.4	No	No	68.2	3.4	No	No	0.0	No	No
2	Graham St.	s/o Cactus Av.	65.7	70.0	4.3	No	No	70.3	4.6	No	No	0.3	No	No
3	Heacock St.	n/o Cactus Av.	68.8	69.8	1.0	No	No	69.9	1.1	No	No	0.1	No	No
4	Heacock St.	s/o Cactus Av.	71.1	71.6	0.5	No	No	71.8	0.7	No	No	0.2	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	71.3	72.4	1.1	No	No	72.6	1.3	No	No	0.2	No	No
6	Heacock St.	s/o Gentian Av.	70.2	71.7	1.5	No	No	71.9	1.7	No	No	0.2	No	No
7	Heacock St.	s/o Iris Av.	67.5	71.6	4.1	No	No	71.8	4.3	No	No	0.2	No	No
8	Heacock St.	s/o Krameria Av. (North)	67.2	71.7	4.5	No	No	71.8	4.6	No	No	0.1	No	No
9	Heacock St.	n/o Cardinal Av.	65.6	69.9	4.3	No	No	70.0	4.4	No	No	0.1	No	No
10	Heacock St.	s/o Cardinal Av.	64.8	69.9	5.1	No	Yes	70.1	5.3	No	Yes	0.2	No	No
11	Heacock St.	s/o San Michele Rd.	63.2	68.9	5.7	No	Yes	69.2	6.0	No	Yes	0.3	No	No
12	Heacock St.	s/o Nandina Av.	45.2	61.3	16.1	No	Yes	61.6	16.4	No	Yes	0.3	No	No
13	Indian St.	n/o Krameria Av.	64.1	69.2	5.1	Yes	No	69.3	5.2	Yes	No	0.1	No	No
14	Indian St.	s/o Krameria Av.	60.7	70.7	10.0	Yes	No	70.7	10.0	Yes	No	0.0	No	No
15	Cactus Av.	w/o Elsworth St.	73.3	76.3	3.0	No	Yes	76.4	3.1	No	Yes	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	73.1	75.8	2.7	No	No	75.8	2.7	No	No	0.0	No	No
17	Cactus Av.	e/o Frederick St.	73.5	75.7	2.2	No	No	75.8	2.3	No	No	0.1	No	No
18	Cactus Av.	e/o Graham St.	73.5	75.0	1.5	No	No	75.1	1.6	No	No	0.1	No	No
19	Cactus Av.	e/o Heacock St.	69.9	73.4	3.5	Yes	No	73.4	3.5	Yes	No	0.0	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	66.6	69.0	2.4	Yes	No	69.0	2.4	No	No	0.0	No	No
21	Krameria Av.	e/o Indian St.	61.6	65.0	3.4	Yes	No	65.1	3.5	Yes	No	0.1	No	No
22	Harley Knox Bl.	w/o Patterson Av.	68.6	72.6	4.0	No	No	72.8	4.2	No	No	0.2	No	No
23	Harley Knox Bl.	w/o Webster Av.	66.6	72.9	6.3	No	Yes	73.1	6.5	No	Yes	0.2	No	No
24	Harley Knox Bl.	e/o Webster Av.	66.6	73.0	6.4	No	Yes	73.0	6.4	No	Yes	0.0	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria.

Source: (Urban Crossroads, Inc., 2016d, Table 7-12)

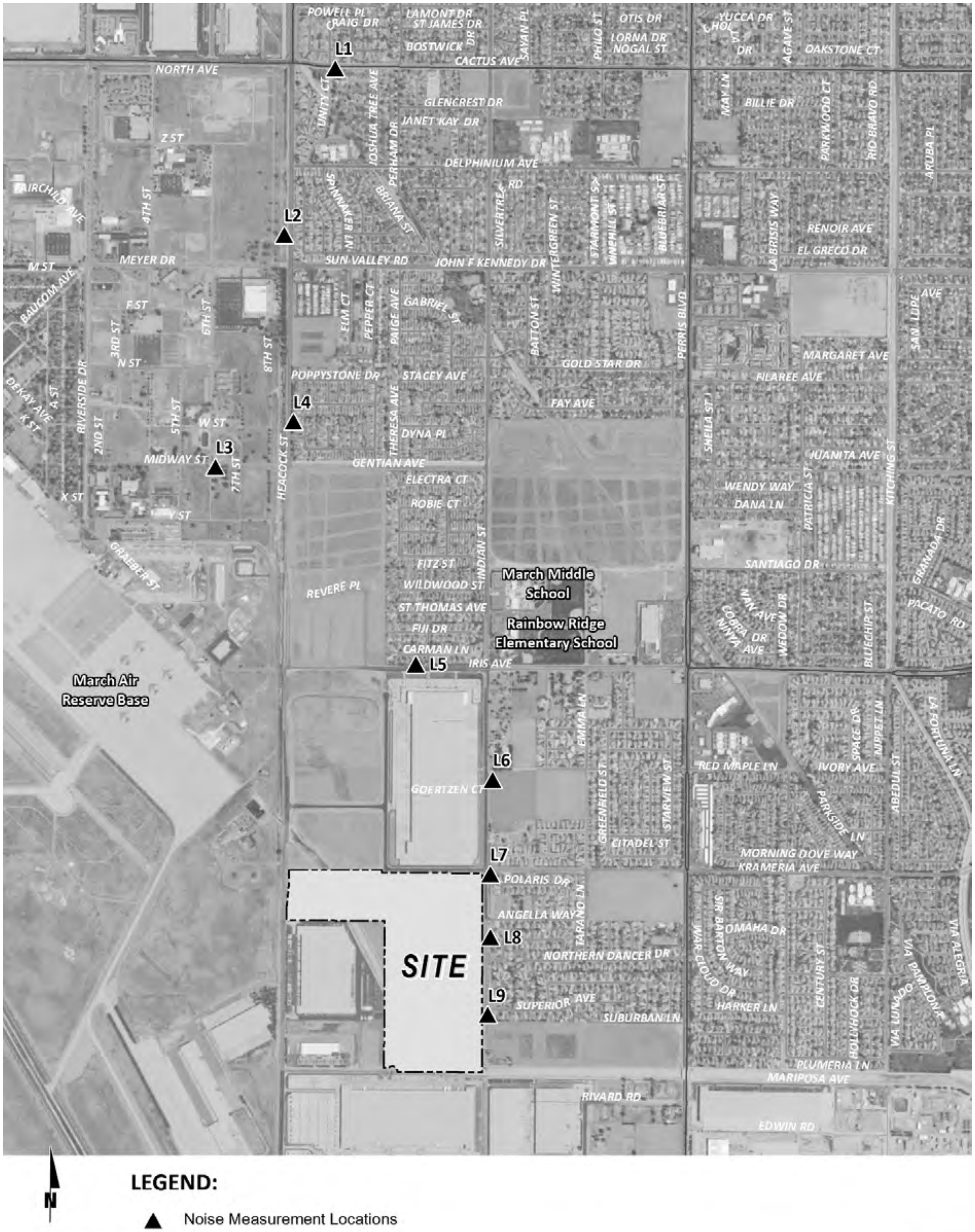

Source: Urban Crossroads (11-23-15)

Figure 4.10-1

NOISE MEASUREMENT LOCATIONS

Source: Urban Crossroads (11-23-15)

Figure 4.10-2

NOT TO SCALE

NOISE RECEIVER LOCATIONS

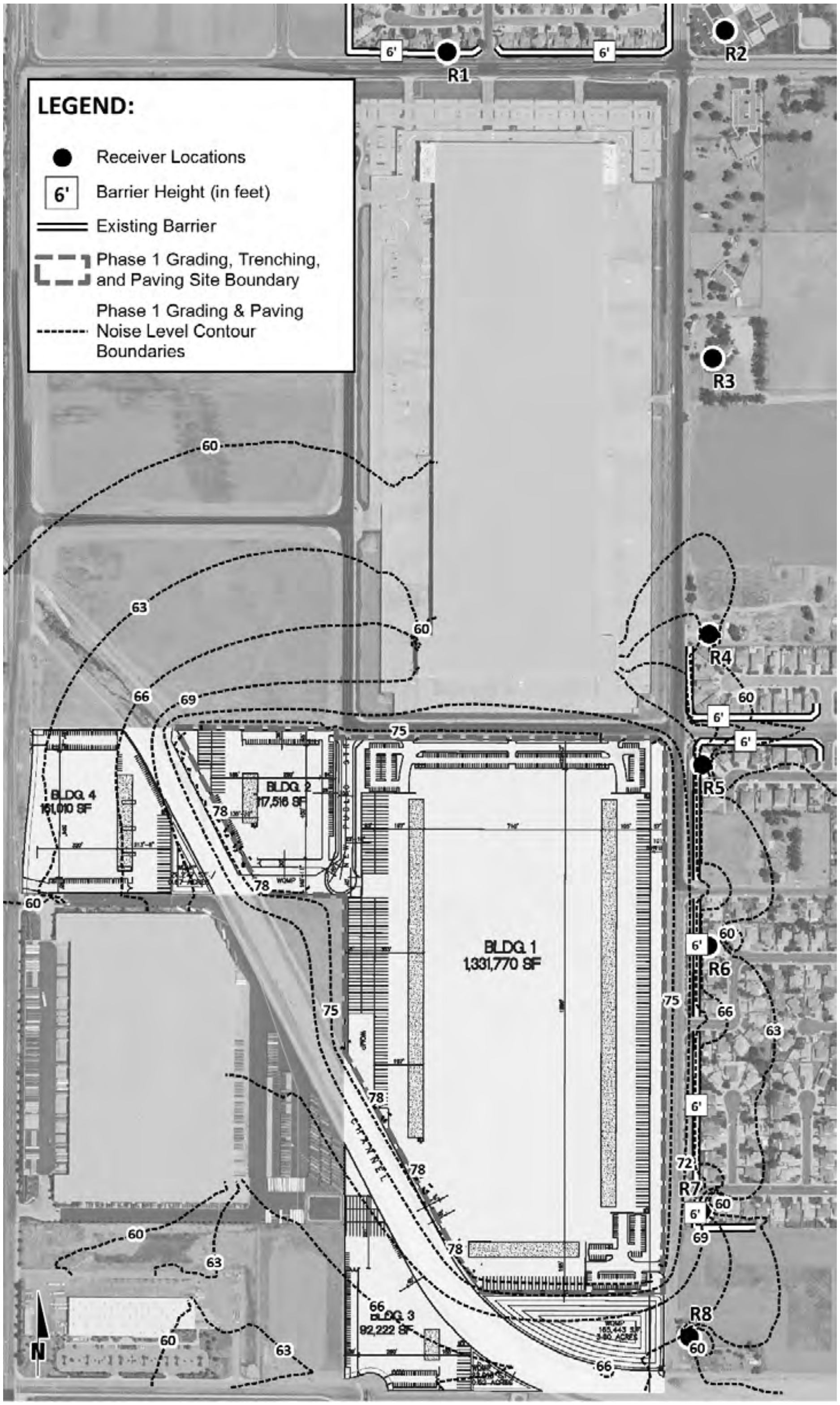

Source: Urban Crossroads (11-23-15)

Figure 4.10-3
PHASE 1 GRADING AND PAVING
EQUIPMENT NOISE CONTOURS

NOT TO SCALE

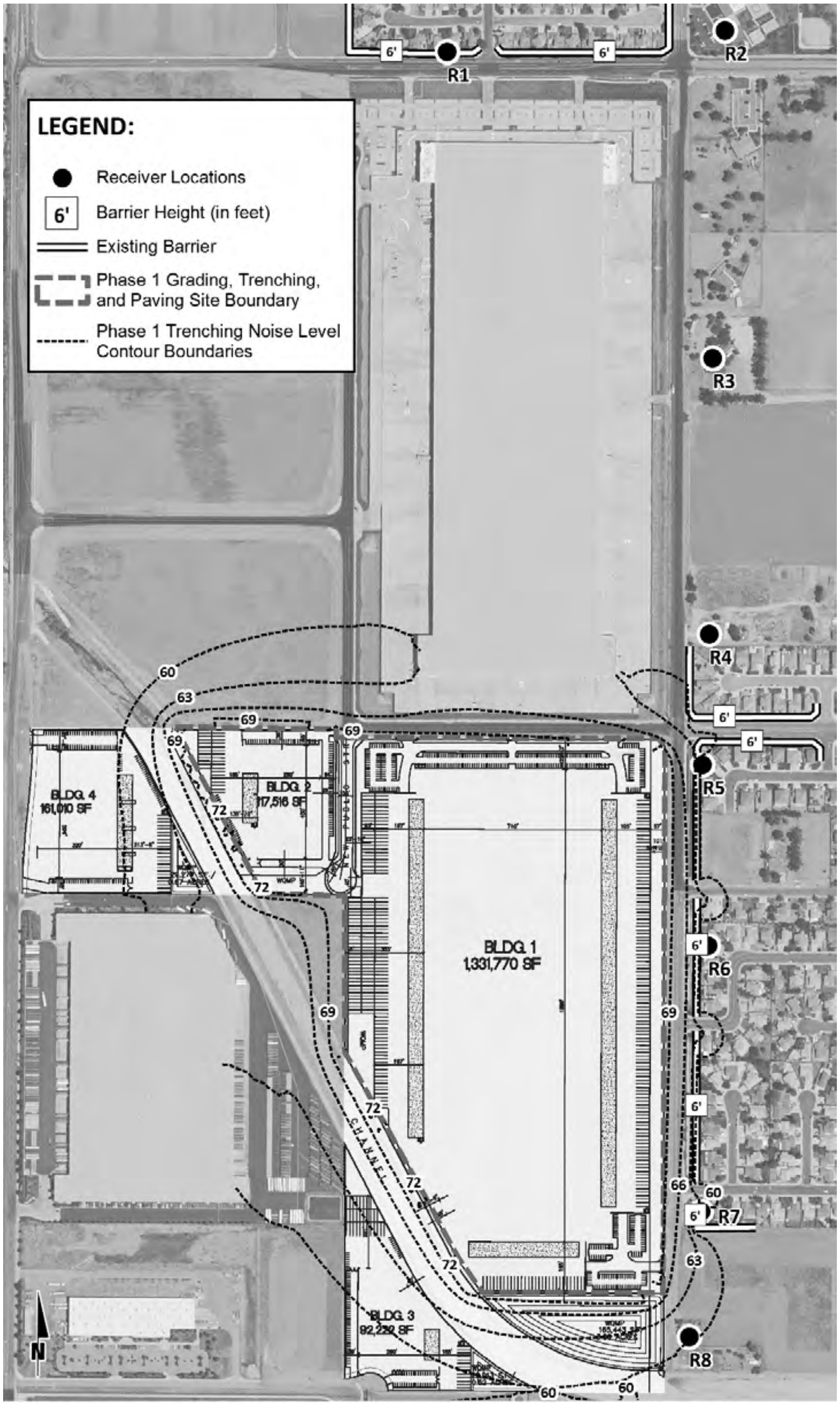

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-4
PHASE 1 TRENCHING EQUIPMENT NOISE CONTOURS

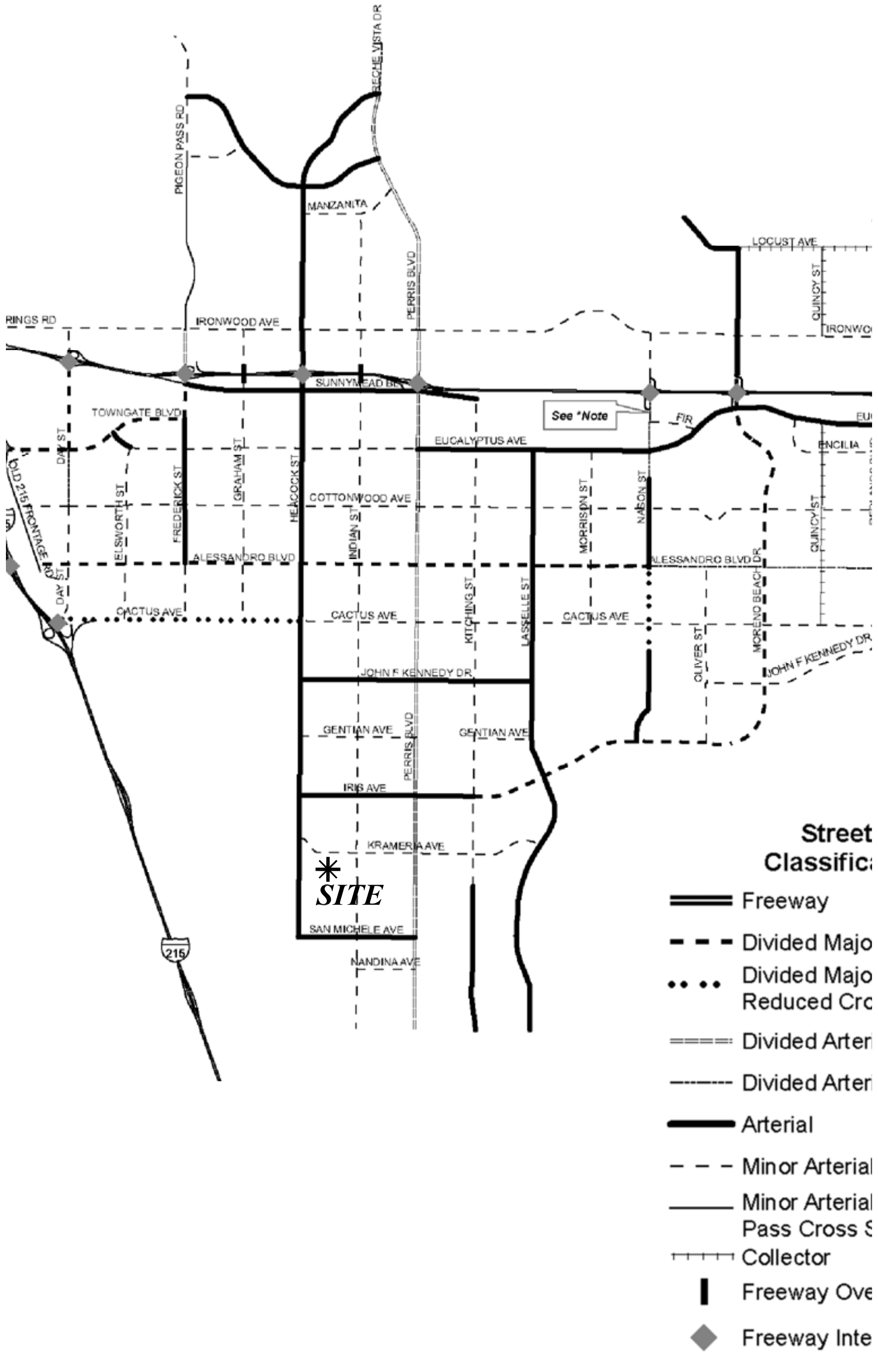

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-5

PHASE 1 BUILDING CONSTRUCTION AND ARCHITECTURAL COATING NOISE CONTOURS

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

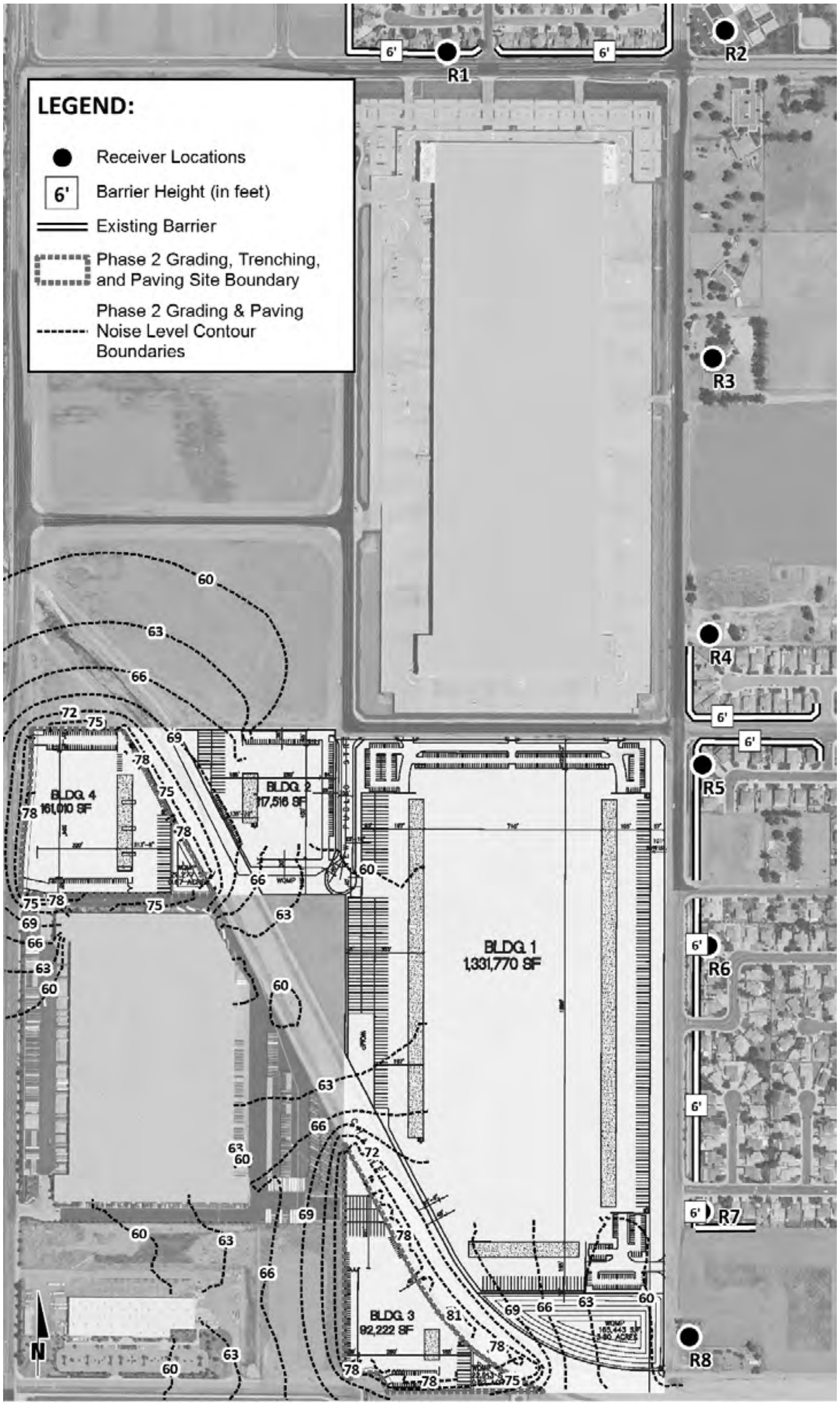

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-6
PHASE 2 GRADING AND PAVING
EQUIPMENT NOISE CONTOURS

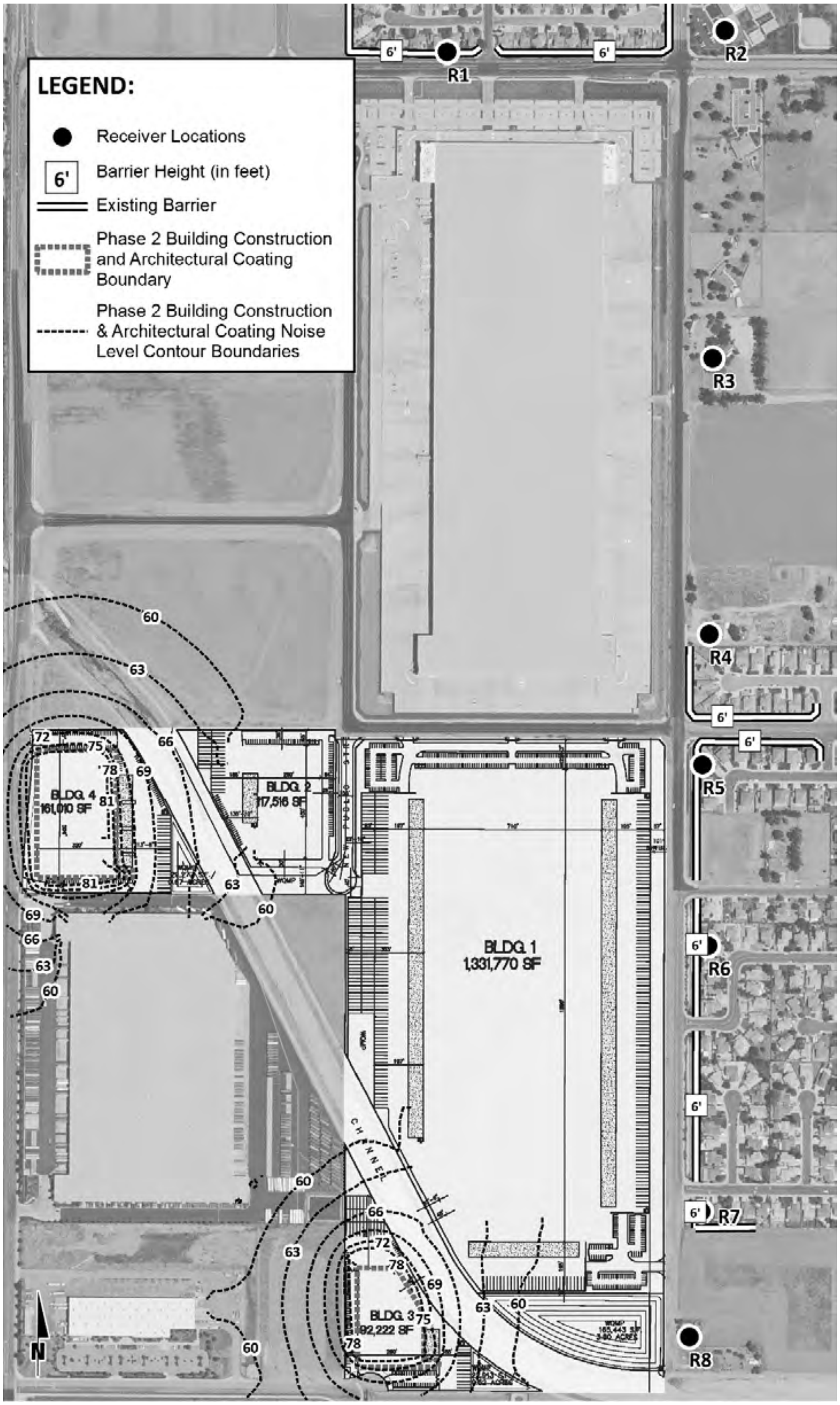

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-7
PHASE 2 BUILDING CONSTRUCTION AND
ARCHITECTURAL COATING NOISE CONTOURS

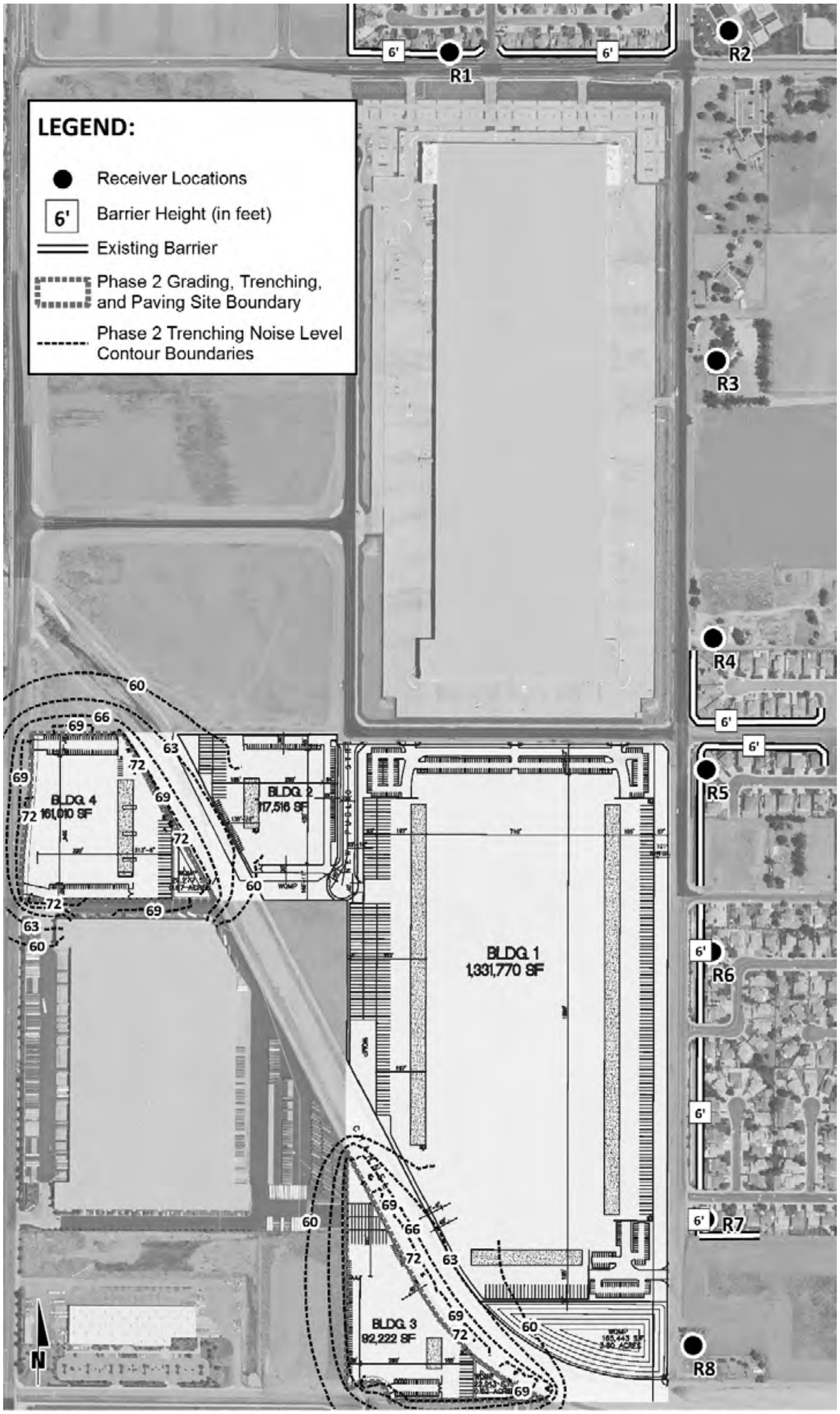

Source: Urban Crossroads (11-23-15)

Figure 4.10-8
PHASE 2 TRENCHING EQUIPMENT
NOISE CONTOURS

NOT TO SCALE

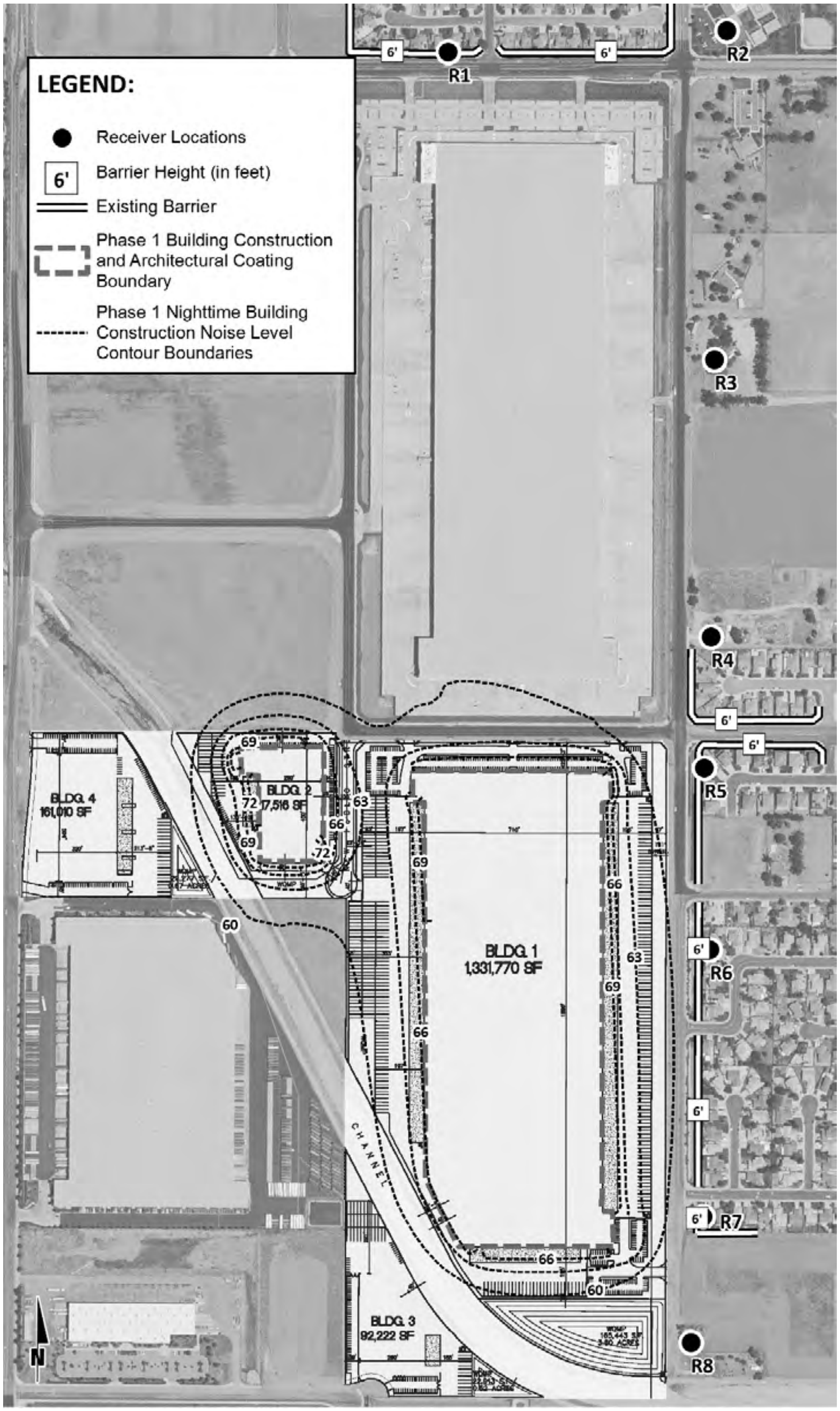

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-9
PHASE 1 NIGHTTIME BUILDING CONSTRUCTION EQUIPMENT NOISE CONTOURS

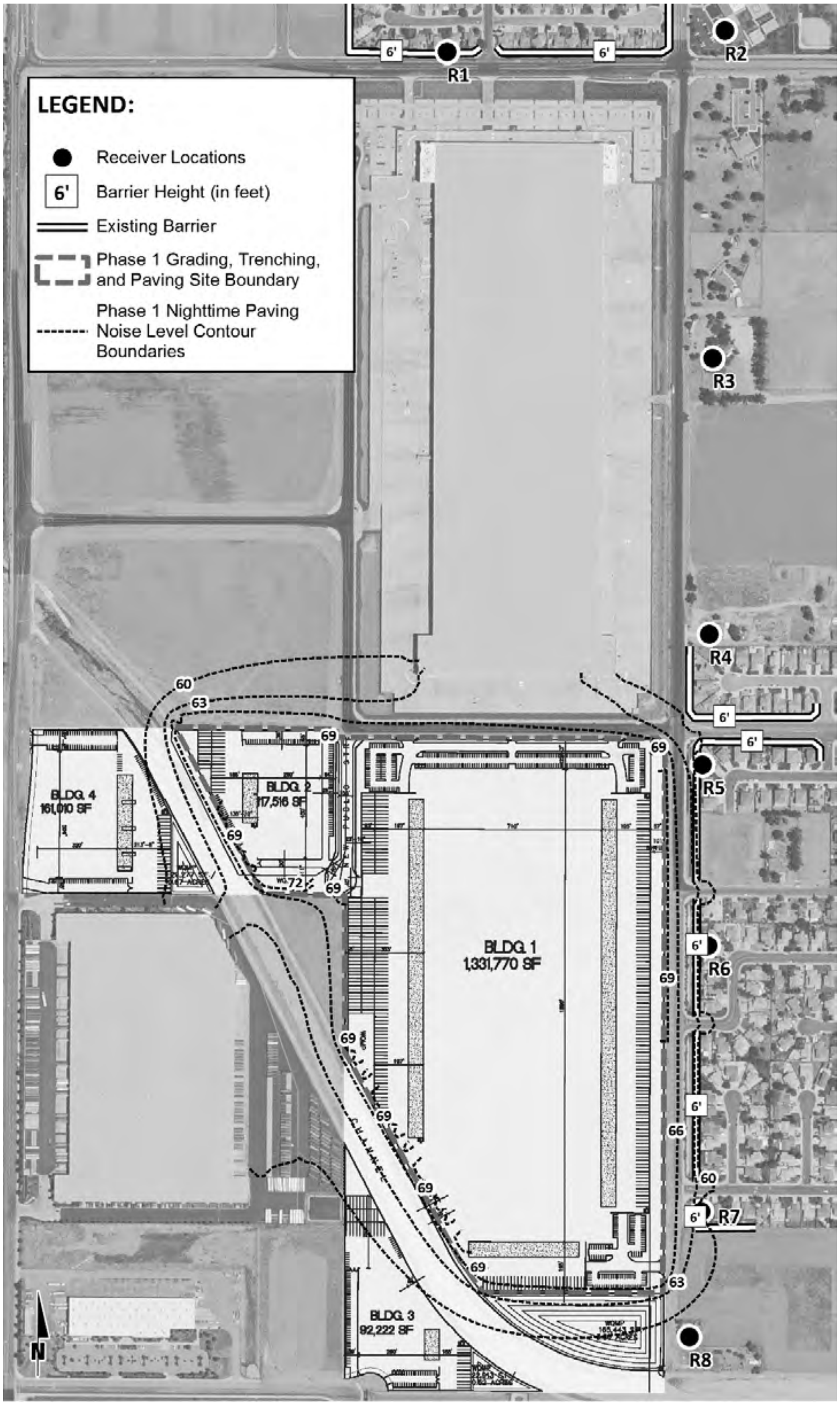

Source: Urban Crossroads (11-23-15)

Figure 4.10-10
PHASE 1 NIGHTTIME PAVING EQUIPMENT
NOISE CONTOURS

NOT TO SCALE

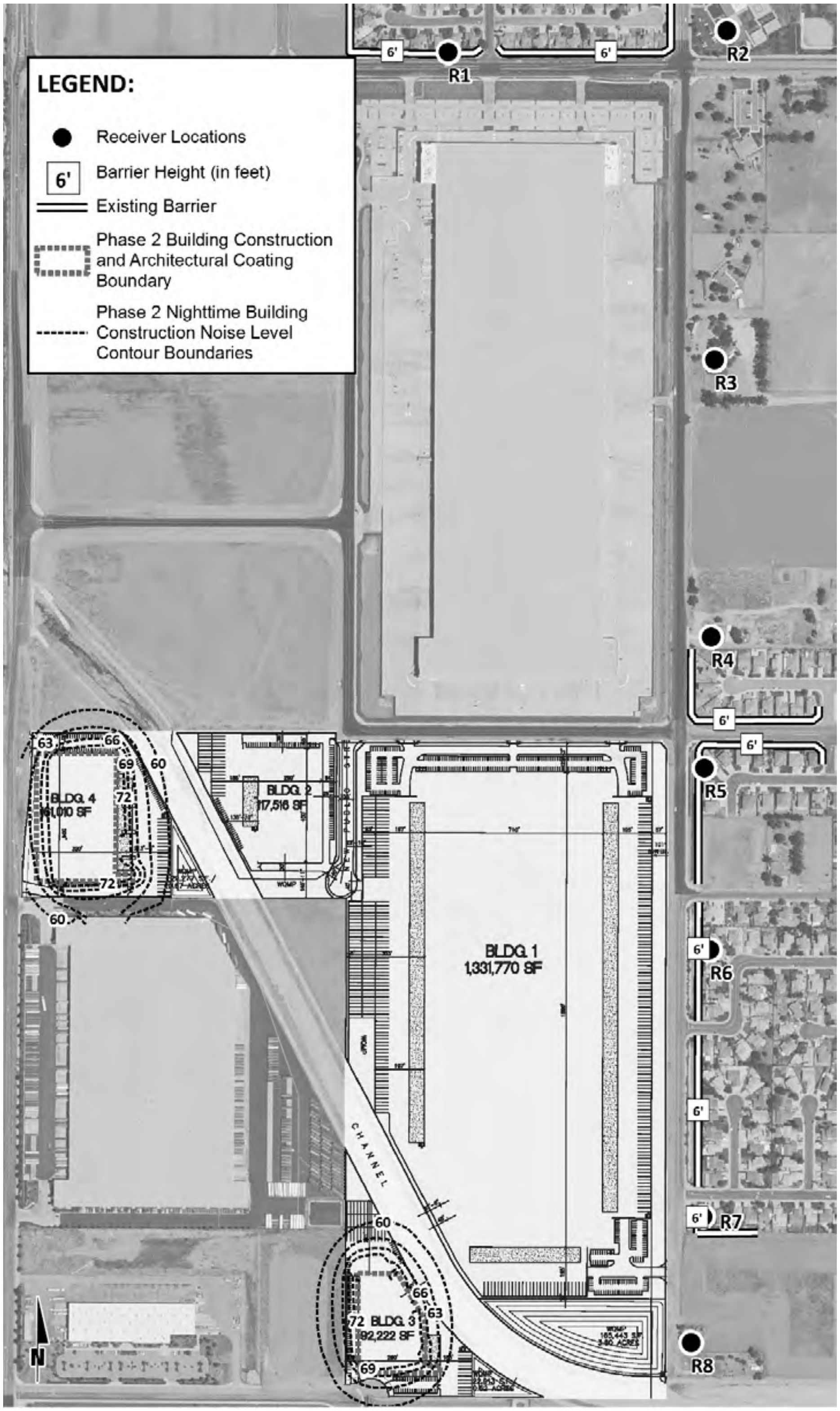

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-11
PHASE 2 NIGHTTIME BUILDING CONSTRUCTION EQUIPMENT NOISE CONTOURS

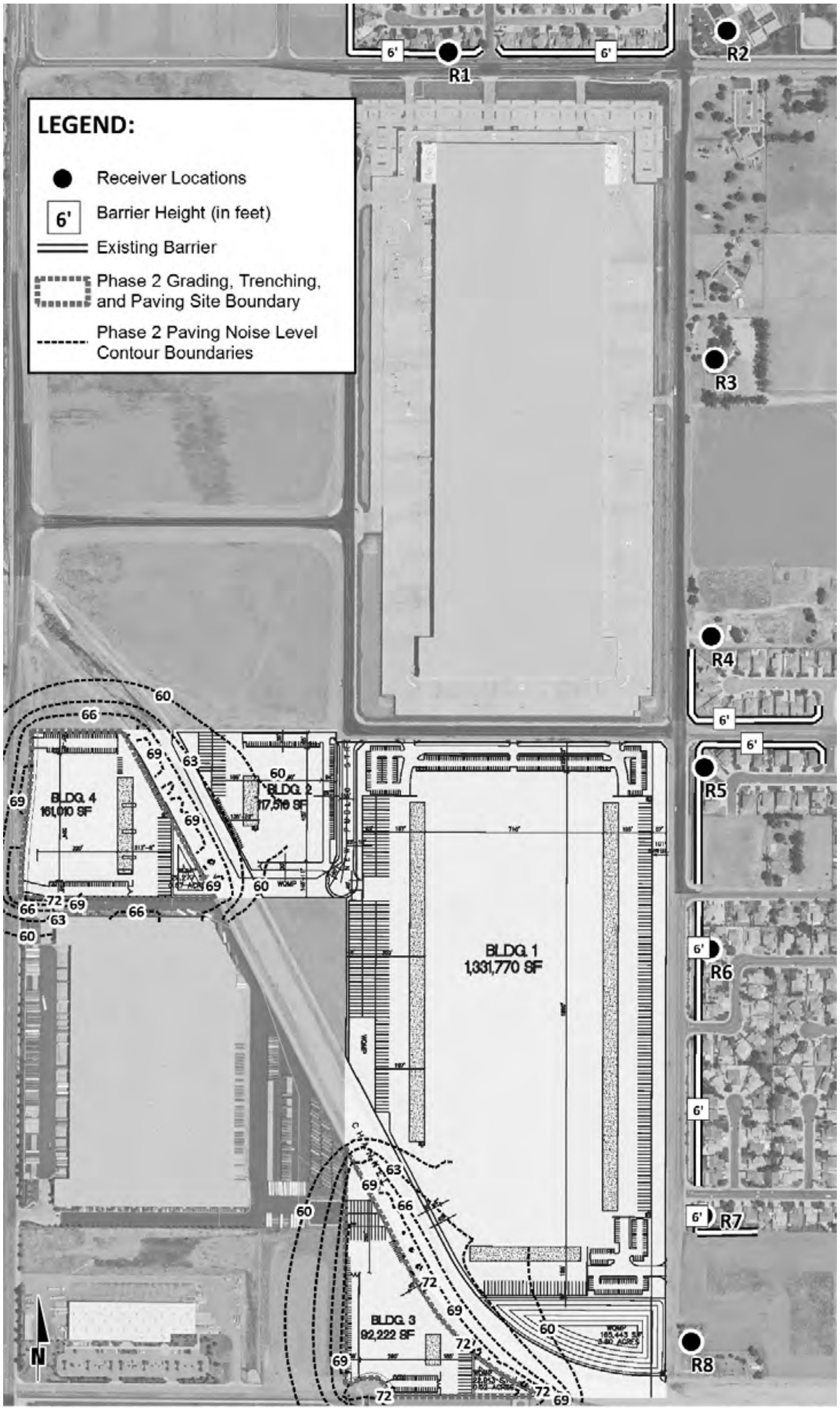

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-12

PHASE 2 NIGHTTIME PAVING EQUIPMENT
NOISE CONTOURS

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

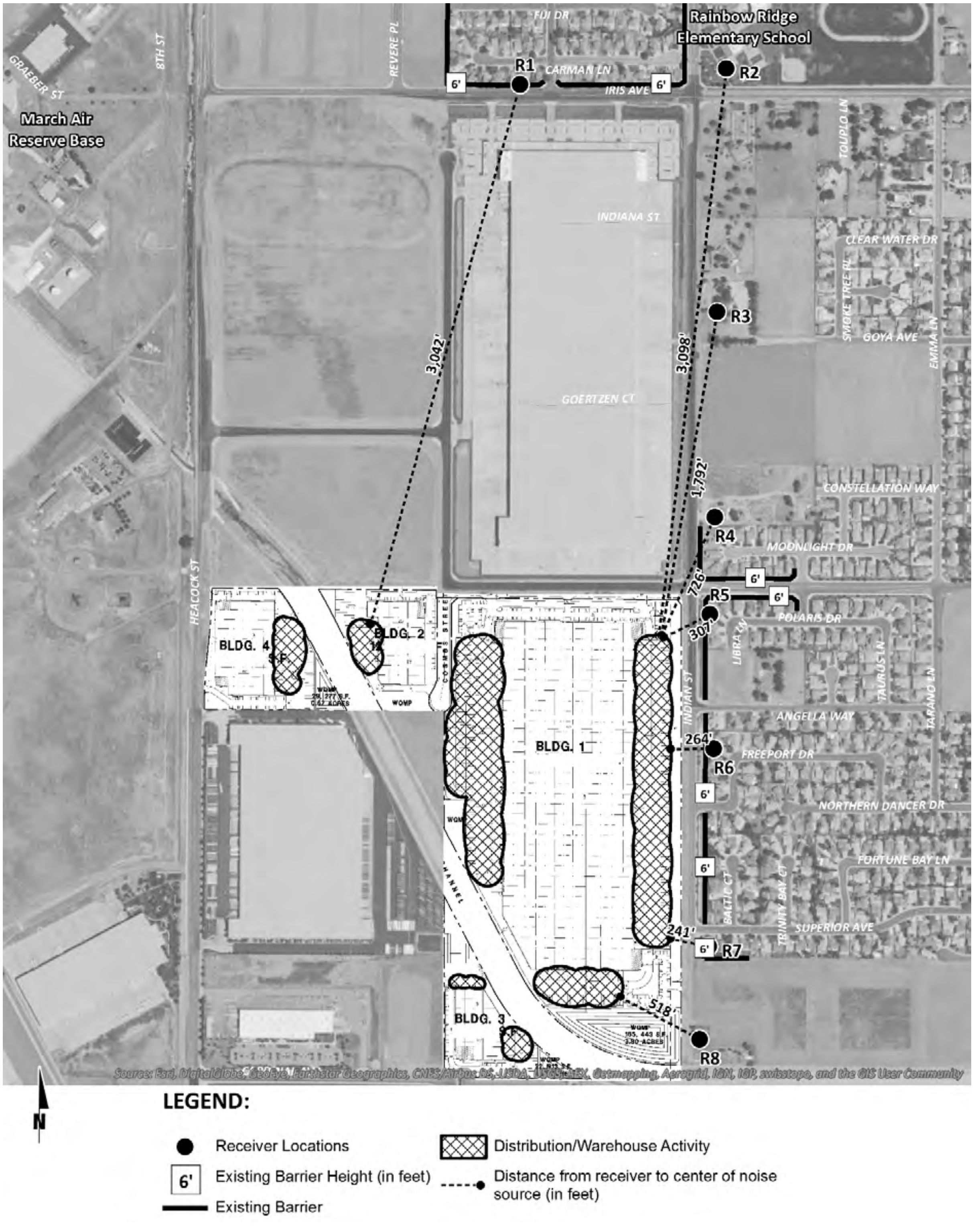

Source: Urban Crossroads (11-23-15)

Figure 4.10-13

NOT TO SCALE

OPERATIONAL NOISE SOURCE LOCATIONS

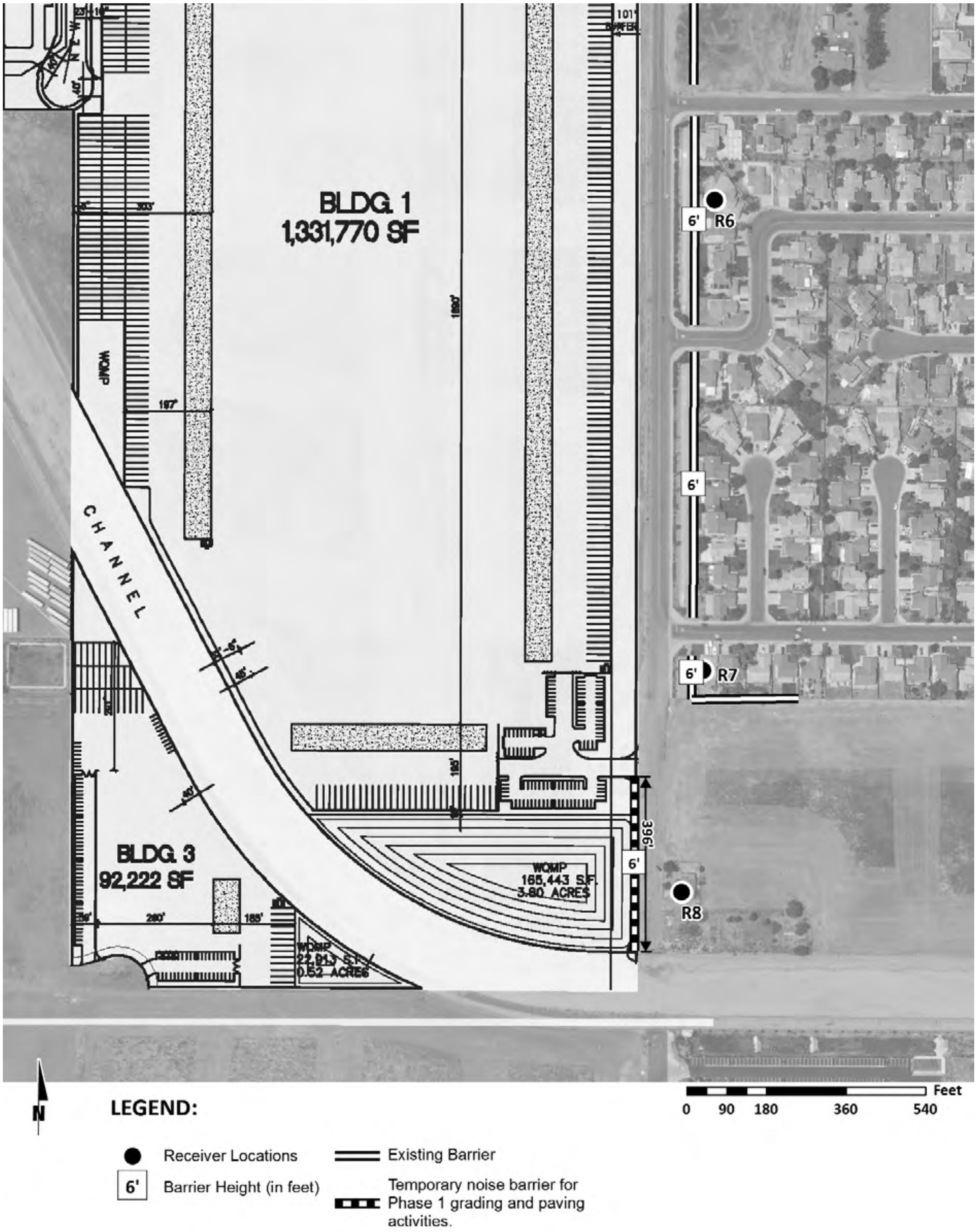

Source: Urban Crossroads (11-23-15)

NOT TO SCALE

Figure 4.10-14
PHASE 1 GRADING AND PAVING-LOCATION OF TEMPORARY CONSTRUCTION BARRIER

4.11 Transportation/Traffic

The following analysis is based on three technical studies prepared by Urban Crossroads, Inc. that evaluate the Project's potential to adversely affect local and regional circulation. These studies include: 1) "Moreno Valley Logistics Center Traffic Impact Analysis, City of Moreno Valley, California" (dated June 17, 2016), which is included as *Technical Appendix I1* to this EIR (Urban Crossroads, 2016e); 2) "Moreno Valley Logistics Center Supplemental Basic Freeway Segment Analysis" (dated September 23, 2015), which is included as *Technical Appendix I2* to this EIR (Urban Crossroads, 2015a); 3) "Moreno Valley Logistics Center Construction Traffic Evaluation" (dated November 17, 2015), which is included as *Technical Appendix I3* to this EIR (Urban Crossroads, 2015b); and 4) "Moreno Valley Logistics Center Fair Share Calculations" (dated June 17, 2016), which is included as *Technical Appendix I4* to this EIR (Urban Crossroads, 2016f).

The above-listed reports were prepared in accordance with the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* (August 2007). The scoping agreement for the Project's Traffic Impact Analysis (*Technical Appendix I1*) was approved by the City of Moreno Valley prior to the commencement of the Analysis and is included as Appendix 1.1 to *Technical Appendix I1*. Also, where appropriate, *Technical Appendices I1*, *I2*, and *I3* address requirements as identified by the County of Riverside Congestion Management Program (CMP) and the California Department of Transportation (Caltrans) *Guide for the Preparation of Traffic Impact Studies* (December 2002).

4.11.1 Study Area Description

The geographic area that was evaluated for Project-related effects to the transportation and circulation network (hereafter referred to as the "Project study area") is defined as follows:

A. Intersections

The Project study area includes all intersections at which the proposed Project would add 50 or more peak-hour trips (Urban Crossroads, 2016e, p. 5). A "peak hour trip" is defined as a trip that occurs between the hours of 7:00 AM and 9:00 AM (AM peak hour) or between the hours of 4:00 PM and 6:00 PM (PM peak hour) in conformance with the requirements of the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* and based on direction provided by City of Moreno Valley Transportation Engineering Division staff. The "50 peak hour trip" criteria utilized by the City of Moreno Valley is consistent with the methodology utilized by many other jurisdictions, including the County of Riverside, and generally represents a threshold of trips at which a typical intersection would have the potential to be significantly impacted. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area (Urban Crossroads, 2016e, p. 6). Intersections that would not receive more than 50 peak hour trips from the Project are not required to be included in the study area, because the contribution of fewer than 50 peak hour trips to an intersection is considered to be a less than significant impact on both a direct and cumulatively considerable basis.

Thirty-two (32) intersections are located within the Project study area, as listed in Table 4.11-1, *Project Study Area Intersections*. For ease of reference throughout this EIR Subsection, identification numbers are assigned to each intersection listed Table 4.11-1 and correspond to the intersection locations identified on Figure 4.11-1, *Project Study Area Intersection Locations*. The Project's study area includes intersections wholly or partially under the jurisdictions of the City of Moreno Valley, the City of Perris, the County of Riverside, Caltrans, and the March Joint Powers Authority (JPA).

B. Roadway Segments

In conformance with the requirements of the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* and based on direction provided by City of Moreno Valley Transportation Engineering Division staff, the Project's study area includes all roadway segments that would receive 50 or more peak hour trips from the Project in the AM or PM peak hours. A total of 48 roadway segments are located within the Project study area; these segments are listed in Table 4.11-2, Project Study Area Roadway Segments. (Urban Crossroads, 2016e, p. 8) For ease of reference throughout this EIR Subsection, identification numbers are assigned to each roadway segment listed in Table 4.11-2. The Project's study area includes roadways segments under the jurisdictions of the City of Moreno Valley and the City of Perris.

C. Freeway Mainline Segments

All freeway mainline segments are under the jurisdiction of Caltrans. To facilitate management of the State highway system, Caltrans is divided into individual districts with each district responsible for State highway system facilities within their geographic area. The Caltrans district with jurisdiction over the Project's geographic area, District 8, requests that quantitative traffic impact analyses for proposed development projects within the MVIAP area evaluate potential impacts to freeway mainline segments when that project is anticipated to contribute 50 or more two-way peak hour trips to a freeway mainline segment. Because impacts to freeway segments dissipate with distance from the point of entry to the State highway system (i.e., at ramps receiving a project's traffic), Caltrans District 8 has indicated that when a project's traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the State highway system. Thus, Caltrans does not require a project's entire vehicular travel path on State highway facilities to be studied. (Caltrans, 2014)

The Project study area includes all freeway mainline segments that would receive 25 or more two-way peak hour trips from the Project, which results in a more conservative (i.e., larger) study area than typically requested by Caltrans District 8 for development projects located in the MVIAP area (as described above). The 58 freeway mainline segments located within the Project study area are listed in Table 4.11-3, *Project Study Area Freeway Mainline Segments*. For ease of reference throughout this EIR Subsection, identification numbers are assigned to each roadway segment listed Table 4.11-3. The Project study area includes northbound and southbound segments of I-215, eastbound and westbound segments of SR-60, and eastbound and westbound segments of SR-91.

The Project would not contribute 25 or more peak hour trips to any eastbound or westbound segment of SR-60 east of Frederick Street (Urban Crossroads, 2015a, p. 2).

Because I-215 and SR-60 overlap between I-215 and SR-91, the overlapping freeway segments can be referred to as either “I-215” or “SR-60.” For purposes of analysis in this Subsection and *Technical Appendix I2*, all SR-60 eastbound/westbound mainline segments located west of I-215 and east of SR-91 are referred to as northbound/southbound segments of I-215 (refer to Table 4.11-3).

D. Freeway Ramp Junction Merge/Diverge Ramp Junctions

The Project study area includes seven freeway ramp junction merge/diverge ramp junction locations for I-215, in both the northbound and southbound locations. These locations are where the highest volumes of Project traffic (i.e., 50 or more peak hour trips) would merge and diverge across freeway lanes and potentially disrupt traffic flow (Urban Crossroads, 2016e, p. 10). The freeway ramp junction merge/diverge areas located within the Project study area and their corresponding identification numbers are listed in Table 4.11-4, *Project Study Area Freeway Ramp Merge/Diverge Junctions*. All freeway ramp junctions are under the jurisdiction of Caltrans.

E. Freeway Ramps

The Project’s traffic would access I-215 at Harley Knox Boulevard and Cactus Avenue. Consistent with Caltrans traffic study guidelines, the I-215 off-ramp intersections at Harley Knox Boulevard and Cactus Avenue are included in the Project study area. (Urban Crossroads, 2016e, p. 36)

4.11.2 Existing Conditions

The Project site is located in the southern portion of the City of Moreno Valley and north of the City of Perris. Figure 4.11-2, *City of Moreno Valley General Plan Circulation Plan*, and Figure 4.11-3, *City of Perris General Plan Circulation Plan*, depict the two cities’ roadway network for major roads located adjacent to and surrounding the Project site. The Project site is located approximately 1.3 miles east of I-215, approximately 4.2 miles south of SR-60, and approximately 10 miles southeast of SR-91.

A. Existing Intersection Conditions

Manual AM and PM peak hour turning movement counts were collected at all study area intersections in April 2015, with the exception of the Patterson Avenue / Harley Knox Boulevard and Heacock Street / Harley Knox Boulevard intersections. At the time that traffic counts were collected in April 2015, the City of Perris was widening Harley Knox Boulevard between Western Way and Perris Boulevard and, due to construction activities, operations at the Patterson Avenue / Harley Knox Boulevard and Heacock Street / Harley Knox Boulevard intersections were considered atypical. Accordingly, baseline traffic conditions at Patterson Avenue / Harley Knox Boulevard intersection are based on available traffic count data from February 2014 and baseline traffic conditions at the Heacock Street / Harley Knox Boulevard intersection are based on available traffic data from May 2013. The City of Moreno Valley Transportation Engineering Division determined the 2013 and 2014 traffic count data from these intersections to be representative of normal historical operating conditions at these intersections. To approximate expected normal, existing conditions at the Patterson Avenue / Harley Knox Boulevard and Heacock Street / Harley Knox Boulevard intersections, a two percent annual growth rate was applied to the 2013 and 2014 traffic count data; this approach was reviewed and approved by the City of Moreno Valley. (Urban Crossroads, 2016e, p. 60)

The traffic count data includes a tabulation of passenger cars, 2-axle trucks, 3-axle trucks, and 4-or-more axle trucks, in accordance with City of Moreno Valley traffic report requirements. Larger vehicles take up more space on the roadway and take longer to accelerate and decelerate than smaller, passenger vehicles; therefore, converting larger vehicle to into passenger car equivalents (PCEs) allows for traffic to be represented as a standardized unit. For purposes of the analysis, a PCE factor of 1.5 was applied to 2-axle truck trips, 2.0 was applied to 3-axle truck trips, and 3.0 was applied for 4-or-more-axle truck trips. (Urban Crossroads, 2016e, p. 60) A detailed description of the methodology used to classify peak hour and daily traffic trips is provided in *Technical Appendix I1*.

Figure 4.11-4, *Existing Peak Hour Intersection Traffic Volumes*, illustrates weekday, peak hour traffic volumes at Project study area intersections. Except where specifically noted, all of the vehicle trips/volumes presented on Figure 4.11-4 and used in the analysis presented in this EIR Subsection and *Technical Appendix I1* are shown in terms of PCEs.

☐ Existing Intersection Levels of Service

Existing peak hour traffic operations were evaluated at Project study area intersections based on the analysis methodologies presented in Subsection 4.11.3. The levels of service (LOS) for Project study area intersections during peak hours are summarized in Table 4.11-5, *Existing Intersection Levels of Service*. As shown in Table 4.11-5, all existing intersections in the Project study area operate at acceptable LOS during peak hours under existing conditions, with the exception of the following intersections (Urban Crossroads, 2016e, p. 62):

- Heacock Street / Gentian Avenue (Intersection #12) in the PM peak hour; and
- Heacock Street / Iris Avenue (Intersection #13) in the PM peak hour.

Under existing conditions, Intersection #12, Intersection #13, and the Western Way / Harley Knox Boulevard intersection (Intersection #7) warrant a traffic signal (Urban Crossroads, 2016e, p. 69). Meeting this signal warrant condition does not require that a traffic control signal be installed at a particular intersection location. It means that other traffic factors and conditions should be evaluated in order to determine whether the signal is truly justified. Ultimately, the need for a traffic signal at any location should be evaluated by the City Engineer.

B. Existing Roadway Segment Conditions

Average daily traffic (ADT) along Project study area roadways was determined using a combination of traffic count devices (i.e., road tubes) deployed in April 2015 plus calculations based on the manual peak hour intersection volume data described above under Subsection 4.11.2A (Urban Crossroads, 2016e, p. 62). A detailed description of the methodology used to quantify daily traffic trips on Project study area roadway segments is provided in *Technical Appendix I1*. Figure 4.11-5, *Existing Average Daily Traffic*, illustrates average daily weekday traffic along Project study area roadway segments.

❑ Existing Roadway Segment Levels of Service

Existing daily operating conditions at existing Project study area roadway segments were evaluated based on the analysis methodologies presented in Subsection 4.11.3. The LOS for Project study area roadway segments are summarized in Table 4.11-6, *Existing Roadway Segment Levels of Service*. As shown in Table 4.11-6, all roadway segments within Project study area operate at acceptable LOS under existing conditions, with the exception of the segment of Heacock Street south of Gentian (Roadway #34) (Urban Crossroads, 2016e, p. 69).

C. Existing Freeway Conditions

Freeway mainline segment and interchange traffic volume data was obtained from Caltrans' Performance System (PeMS) website in April 2015. In an effort to conduct a conservative analysis, the maximum value observed within the three-day period was utilized for the weekday AM and weekday PM peak hours (Urban Crossroads, 2016e, p. 40).

Consistent with industry-standard methodology (i.e., Transportation Research Board's *Highway Capacity Manual*) actual vehicles, as opposed to PCE volumes, were utilized to calculate density and the associated LOS letter grade for each freeway segment. Truck traffic, expressed as a percentage of total traffic, is included as part of the data used to perform the density calculation in an effort to not overstate traffic volumes and potential impacts (Urban Crossroads, 2016e, pp. 39-40). Existing, peak hour traffic volumes along freeway mainline segments in the Project study area are summarized in Table 4.11-7, *Existing and Existing plus Project Freeway Mainline Levels of Service*.

❑ Existing Freeway Mainline Segments Levels of Service

Existing peak hour operations along freeway mainline segments in the Project study area were evaluated using the analysis methodologies presented in Subsection 4.11.3. All freeway mainline segments located in the Project study area operate at acceptable LOS during the AM and PM peak hours under existing conditions (Urban Crossroads, 2015a, p. 6). The peak hour LOS for study freeway mainline segments are summarized in Table 4.11-7.

❑ Existing Freeway Ramp Junction Merge/Diverge Levels of Service

Existing peak hour operations at freeway ramp junction merge/diverge areas within the Project study area were evaluated using the analysis methodologies presented in Subsection 4.11.3. All Project study area freeway ramp junction merge/diverge areas operate at acceptable LOS during peak hours under existing conditions (Urban Crossroads, 2016e, p. 69). The existing peak hour LOS for the freeway ramp junction merge/diverge areas are summarized in Table 4.11-8, *Existing Freeway Ramp Junction Merge/Diverge Levels* of Service.

☐ Existing Freeway Ramp Levels of Service

Existing freeway ramp queuing in the Project study area was evaluated using the methodologies presented in Subsection 4.11.3. As summarized in Table 4.11-9, *Existing Freeway Off-Ramp Levels of Service*, all freeway ramps in the Project study area feature acceptable stacking lengths under existing conditions.

D. Existing Mass Transit

The Riverside Transit Agency (RTA) is responsible for providing bus transit service within the Project study area. Two bus routes, Route 19 and Route 20, operate in close proximity to the Project site. Route 19 provides year-round service between the Moreno Valley Mall and Perris Station Transit Center via Perris Boulevard; the nearest Route 19 bus station to the Project site is located at the Krameria Avenue / Perris Boulevard intersection (approximately 0.50-mile east of the site). Route 20 provides seasonal service in the Project vicinity (i.e., during the school year) between Magnolia Center and Moreno Valley College; the nearest Route 20 bus station to the Project site is located at the Krameria Avenue / Emma Lane intersection (approximately 0.25-mile east of the site).

There is no commuter rail service in the City of Moreno Valley under existing conditions; however, the "Perris Valley Line," a 24-mile extension of the Metrolink commuter rail service from Downtown Riverside to Perris, is expected to become operational in December 2015. The Perris Valley Line will connect to Metrolink's 91 Line which runs through Corona and Fullerton to Los Angeles. The Perris Valley Line will run along the west side of I-215 and the nearest station to the Project site (Moreno Valley/March Field Station, 14160 Meridian Parkway, Riverside, CA) is located approximately 5.0 roadway miles from the Project site. (Downey, 2015)

E. Existing Pedestrian and Bicycle Facilities

Field observations conducted by Urban Crossroads indicate nominal pedestrian and bicycle activity within the study area (Urban Crossroads, 2016e, p. 60). According to City of Moreno Valley General Plan, the Project site abuts Class III bikeways on Heacock Street, Krameria Avenue, and Indian Street. Class III bikeways are designated bikeways, not striped, and are shared with vehicles (City of Moreno Valley, 2006a, pp. 5-3). In January 2015, the City of Moreno Valley adopted a Bicycle Master Plan, which updates and supersedes the recommendations of the General Plan. The Bicycle Master Plan identifies a planned Class I, multi-use bike path along the segment of the Perris Valley Storm Drain Channel that traverses the Project site (within property owned by the Riverside County Flood Control and Water Conservation District) as well as Class II (striped) bike lanes along the segments of Heacock Street and Indian Street that abut the Project site.

F. Existing Truck Routes

Pursuant to City of Moreno Valley Municipal Code § 12.36.010, the street segments listed below are designated as truck routes:

- Alessandro Boulevard (I-215 to the easterly City limits)
- Cactus Avenue (I-215 to Perris Boulevard)
- Elsworth Avenue (Alessandro Boulevard to Cactus Avenue)
- Frederick Street (Cactus Avenue to Sunnymead Boulevard)
- Gilman Springs Road (SR-60 to the easterly City limits)
- Graham Street (Alessandro Boulevard to Cactus Avenue)
- Heacock Street (San Michele Road to Reche Vista Drive)
- Indian Street (San Michelle Road to the southerly City limits)
- Ironwood Avenue (Pigeon Pass to Perris Boulevard)
- Moreno Beach Drive (Alessandro Boulevard to the SR-60 westbound ramps)
- Nandina Avenue (Perris Boulevard to Indian Street)
- Perris Boulevard (Ironwood Avenue to the southerly City limits)
- Pigeon Pass Road (Sunnymead Boulevard to Ironwood Avenue)
- Reche Vista Road (Heacock Street to the northerly City limits)
- Redlands Boulevard (SR-60 eastbound ramps to the northerly City limits)
- San Michelle Road (Perris Boulevard to Heacock Street)
- Sunnymead Boulevard (Frederick Street to Perris Boulevard); and
- Theodore Street (Alessandro Boulevard to Ironwood Avenue).

The City of Perris also has established truck routes. City of Perris-designated truck routes in the vicinity of the Project site include Harley Knox Boulevard, Indian Street, and Perris Boulevard (City of Perris, 2005, Exhibit CE-9).

G. Existing Airport Facilities

The Project site is located adjacent to the March Air Reserve Base. Due to the proximity of the Project site to the March Air Reserve Base, the Project site is subject to the March Air Reserve Base Airport Land Use Compatibility Plan (ALUCP). The March Air Reserve Base ALUCP identifies land use standards and design criteria for new development located in the proximity of the March Air Reserve Base to ensure compatibility between the airport and surrounding land uses and to maximize public safety. The portions of the Project site located west of the Perris Valley Storm Drain Channel are located within "Compatibility Zone C1" and the portions of the Project site located east of the Perris Valley Storm Drain Channel are located within "Compatibility Zone D." Within Compatibility Zone C1, noise-sensitive land uses (e.g., schools, libraries, hospitals) and land uses that accommodate the habitation/congregation of very large groups of people are discouraged and design features that may pose a hazard to flight are prohibited (e.g., extremely tall objects, visual or electronic forms of interference). Within Compatibility Zone D, there are no land use or design restrictions, with the exception of hazards to flight. (RCALUC, 2014, p. 9, Map MA-1)

H. Applicable Plans, Regulations, and Policies

❑ SCAG Regional Transportation Plan (RTP)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. On April 4, 2012, SCAG adopted the *2012-2035 Regional Transportation Plan / Sustainable Communities Strategy* (*RTP/SCS*) with goals to: 1) maximize mobility and accessibility for all people and goods in the region; 2) ensure travel safety and reliability for all people and goods in the region; 3) preserve and ensure a sustainable transportation system; 4) maximize productivity of the transportation system; 5) protect the environment, improve air quality, and promote energy efficiency; 6) encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and 7) maximize the security of the transportation system (SCAG, 2012a, p. 13).

❑ County of Riverside Congestion Management Program

The Riverside County Congestion Management Program (CMP) was prepared by the Riverside County Transportation Commission (RCTC). The intent of the CMP is to more directly link land use, transportation, and air quality planning and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The Riverside County CMP was first adopted in December 1992 and has been updated 11 times, with the most recent comprehensive update in December 2011. The CMP states that deficiencies along the CMP system must be identified when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical CMP corridor is intended to conserve scarce funding resources and help target those resources appropriately.

The Riverside County CMP roadway network includes the following intersections in the Project study area (Urban Crossroads, 2016e, pp. 5-6):

- I-215 southbound ramps / Cactus Avenue (Intersection #1);
- I-215 southbound ramps / Harley Knox Boulevard (Intersection #2);
- I-215 northbound ramps / Cactus Avenue (Intersection #3); and
- I-215 northbound ramps / Harley Knox Boulevard (Intersection #4).

In addition, three CMP roadway network freeways are located within the Project study area: I-215, SR-60; and SR-91 (RCTC, 2011, p. 2-3).

☐ Transportation Uniform Mitigation Fee (TUMF) Program

In 2000, the Western Riverside Council of Governments (WRCOG) established the Transportation Uniform Mitigation Fee (TUMF) Program to mitigate the cumulative regional impacts of projected future growth and new development on the region's arterial highway system. The TUMF Program applies a uniform mitigation fee to new development projects that is collected by each WRCOG member agency, including the City of Moreno Valley. The collected funds are pooled and used by WRCOG to fund transportation network improvements, including roads, bridges, interchanges, and railroad grade separations, identified by the public works departments of WRCOG member agencies and listed in the *Regional System of Highways and Arterials* (*RHSA*). (WRCOG, 2014, pp. 4-5)

☐ City of Moreno Valley Development Impact Fee (DIF) Program

The City of Moreno Valley created its Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding local improvements necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The identification of specific roadway and intersection improvement projects and the timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. (Urban Crossroads, 2016e, p. 16)

☐ Cities of Moreno Valley and Perris General Plan Circulation Elements

The General Plans for the Cities of Moreno Valley and Perris each contain a Circulation Element that is intended to guide the development of the local circulation system in a manner that is compatible with the respective General Plan Land Use Element. To help meet traffic demands and achieve balanced growth, both cities have adopted specific goals and policies, which serve as the basis for their Circulation Element. Refer to *Technical Appendix I1* for a detailed summary of the General Plan Circulation Elements for the Cities of Moreno Valley and Perris.

4.11.3 Methodology for Calculating Project-Related Traffic Impacts

The Project's traffic impact analyses (*Technical Appendices I1* through *I3*) analyze potential transportation/traffic effects associated with the construction and operation of a logistics center with 1,351,770 s.f. of high-cube warehouse land uses (1 building) and 385,748 s.f. of light industrial land uses (3 buildings) with a site layout identical to the proposed Project. In comparison to the proposal evaluated in *Technical Appendices I1* through *I3,* the Project proposes to develop the subject property with seven (7) fewer square feet of high-cube warehouse land uses and 1,331 fewer square feet of light industrial land uses. Because the proposal analyzed by *Technical Appendices I1* through *I3* was more intense than the proposed Project, the analyses presented therein and summarized in this EIR provides a conservative, worst-case analysis of the Project's potential transportation/traffic effects.

A. Level of Service (LOS)

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS has been used as the basis for determining the significance of traffic impacts as standard practice in CEQA documents for decades. LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. In 2013, California Senate Bill (SB) 743 was passed, which is intended to balance the need for LOS for traffic planning with the need to build infill housing and mixed use commercial developments within walking distance of mass transit facilities, downtowns, and town centers and to provide greater flexibility to local governments to balance these sometimes competing needs. At full implementation of SB 743, the California Governor's Office of Planning and Research (OPR) is expected to replace LOS as the metric against which traffic impacts are evaluated, with a metric based on vehicle miles traveled (VMT). At the time the NOP for this EIR was released (June 2015), a VMT metric was not adopted by OPR, and the City of Moreno Valley in its capacity as Lead Agency, as well as surrounding local agencies in which the Project's traffic would circulate, use LOS as the significance criteria for evaluating a Project's traffic impacts. For this reason, a LOS metric and not a VMT metric is appropriately used as the significance criterion in this EIR.

Six LOS levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow. Table 4.11-10 and Table 4.11-11 summarize typical operational conditions at signalized and unsignalized intersections for each LOS classification, respectively. (Urban Crossroads, 2016e, pp. 33-35)

Based on LOS standards utilized by the City of Moreno Valley, the target LOS C or LOS D should be maintained along City roads (including intersections) wherever possible. LOS D is the limit of acceptable traffic operations along City of Moreno Valley roads (including intersections) that are adjacent to freeway on/off ramps and/or adjacent to employment generating land uses (Urban Crossroads, 2016e, p. 42). All of the City of Moreno Valley roads within the Project study area are located adjacent to freeway on/off ramps and/or to employment generating land uses; therefore, LOS D is considered to be the limit of acceptable service for purposes of this analysis. Based on the LOS standards utilized by the City of Perris, County of Riverside, March JPA, intersections that operate at LOS E or F are considered deficient. The City of Perris considers roadway segments that operate at LOS E or F to be deficient. (Urban Crossroads, 2016e, pp. 41, 43)

For CMP facilities, the Riverside County CMP defines LOS F as the deficient service level for CMP highways and roadways (including intersections). However, as a conservative measure, the analysis presented in this Subsection and *Technical Appendices I1* through *I3* considers LOS E and LOS F to be deficient along CMP facilities. (Urban Crossroads, 2016e, p. 43)

Caltrans has established LOS performance criteria to determine the significance of impacts on the circulation network within their jurisdiction. Generally, Caltrans considers LOS D to be the limit of acceptable traffic operations during the peak hour (Urban Crossroads, 2016e, p. 43). Table 4.11-12 and Table 4.11-13 summarize the typical freeway operational conditions for each LOS classification.

B. Intersection Capacity Analysis

The intersection LOS analysis is based on the traffic volumes observed during peak hour conditions. The following peak hours were selected for analysis because these hours are typically experience the most traffic during a 24-hour period:

- Weekday AM peak hour (between 7:00 AM and 9:00 AM)
- Weekday PM peak hour (between 4:00 PM and 6:00 PM)

For signalized intersections, the Cities of Moreno Valley and Perris, the County of Riverside, and the March JPA require operations analysis based on the methodology described in the *Highway Capacity Manual* (*HCM*). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. At signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.11-10. (Urban Crossroads, 2016e, p. 33)

Per the Caltrans *Guide for the Preparation of Traffic Impact Studies*, the traffic modeling and signal timing optimization software package Synchro (Version 8 Build 806) was used to analyze signalized intersections under Caltrans' jurisdiction, which include the I-215 ramps at Harley Knox Boulevard and Cactus Avenue. All other Project study area intersections outside of Caltrans' jurisdiction also were analyzed using the Synchro (Version 8 Build 806) software package (Urban Crossroads, 2016e, pp. 33-34).

For unsignalized intersections, the Cities of Moreno Valley and Perris, the County of Riverside, and the March JPA require that operations be evaluated using the methodology described in the *HCM*. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (Urban Crossroads, 2016e, p. 35). The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.11-11.

For a more detailed discussion on intersection capacity analysis methodology, refer to Subsection 2.2 of *Technical Appendix I1*.

C. Traffic Signal Warrant Analysis

The term "signal warrants" refers to the list of criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an unsignalized intersection. The signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices* (*MUTCD*), as amended by the *MUTCD 2014 California Supplement*, is used for all unsignalized study area intersections (Urban Crossroads, 2016e, pp. 37-38). For more information on signal warrant methodology, refer to Subsection 2.5 of *Technical Appendix I1*.

Traffic signal warrant analyses were performed for all Project study area intersections that were not signalized under existing conditions (refer to Table 4.11-14, *Traffic Signal Warrant Analysis Intersections*). A signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular intersection location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant. (Urban Crossroads, 2016e, pp. 37-38)

D. Roadway Segment Capacity Analysis

Roadway segment operations were evaluated using the daily capacity values contained in the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* and the City of Perris General Plan Circulation Element. These roadway capacities, as summarized in Table 4.11-15, *Roadway Segment Capacity LOS Thresholds*, are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration, and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic), and pedestrian and bicycle traffic. As such, where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis are undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes (Urban Crossroads, 2016e, pp. 35-36).

E. Freeway Mainline Segment Analysis

For purposes of analysis, the freeway system in the study area has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments evaluated in *Technical Appendix I2* are based upon peak hour directional volumes, and the freeway segment analysis is based on the methodology described in the *HCM* and performed using HCS2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 4.11-12 summarizes the freeway segment LOS thresholds for each density range utilized for the analysis. For a more detailed discussion of freeway mainline segment analysis methodology, refer to Subsection 2.6 of *Technical Appendix I1* and *Technical Appendix I2*.

F. Freeway Ramp Junction Merge/Diverge Ramp Junction Analysis

The freeway ramp junction merge/diverge analysis is based on the *HCM* ramps and ramp junction analysis method and performed using HCS2010 software. Although the *HCM* indicates the influence area for a freeway ramp merge/diverge junction is 1,500 feet, the Project's analysis has been performed at all ramp locations with respect to the nearest on- or off-ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects in the region. The results – reported in passenger car per mile per lane – are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramps both at the analysis junction and at upstream and downstream locations (if applicable), and acceleration/deceleration lengths at each freeway ramp merge/diverge junction. (Urban Crossroads, 2016e, pp. 40-41). Table 4.11-13 summarizes the freeway ramp junction merge/diverge LOS thresholds utilized in the analysis. For more information on the freeway ramp junction merge/diverge analysis methodology, refer to Subsection 2.7 of *Technical Appendix I1*.

G. Freeway Ramp Queuing Analysis

The traffic progression analysis tool and *HCM* intersection analysis program, Synchro, was used to assess the potential impacts/needs of the freeway ramps with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps are based upon the 95th percentile queue resulting from the Synchro progression analysis. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group (Urban Crossroads, 2016e, pp. 36-37). For more information on the freeway ramp queuing analysis methodology, refer to Subsection 2.4 of *Technical Appendix I1*.

H. Cumulative Impact Analysis

CEQA Guidelines § 15130 requires that an EIR disclose the impact from the Project along with the incremental impacts from closely related past, present, and reasonably foreseeable future projects (i.e., cumulative impact analysis). As previously described in EIR Subsection 4.0, *Environmental Analysis*, the analysis of the Project's potential cumulative traffic impacts utilizes a summary of projections approach plus a list of projects approach in order to provide a conservative, worst-case analysis. Data for the summary of projections approach was obtained from the sources previously described in EIR Subsection 4.0. The list of 301 cumulative projects was identified in consultation with planning and engineering staff from the Cities of Moreno Valley, Riverside and Perris, and the County of Riverside based on their records of past, pending, and foreseeable future projects in Moreno Valley and surrounding jurisdictions as of approximately June 2015 (the date that the NOP for this EIR was issued). For purposes of analysis in *Technical Appendices I1, I2,* and *I3* and this Subsection, the cumulative projects were grouped into 261 traffic analysis zones based on their physical locations (Urban Crossroads, 2016e, pp. 102, 105, 109-115). The list of the 301 projects considered in the cumulative impact analysis is included in EIR Subsection 4.0. Descriptive and locational information about each project considered in the cumulative impact analysis can be found in Section 4.7 of *Technical Appendix I1*.

I. Future Year Background Traffic

☐ Opening Year (2020) Background Traffic

As directed by City of Moreno Valley Transportation Engineering Division staff, Opening Year background traffic forecasts are defined as existing (2015) traffic conditions plus five (5) years of ambient growth (i.e., Year 2020). Opening Year (2020) background traffic forecasts are based upon a background, or ambient, growth rate of two percent per year, compounded annually. Accordingly, the total ambient growth rate assumed for the Project is 10.41 percent. This ambient growth factor is intended to approximate area-wide growth not accounted by known cumulative development projects. According to regional population projections included in SCAG's *2012 RTP/SCS*, Moreno Valley's population is projected to increase by approximately 36.2 percent between 2008 and 2035, which corresponds to an approximately 1.15 percent annual growth rate, compounded annually. During the same time period, job growth is estimated to increase by approximately 99.4 percent, which corresponds to an approximately 2.59 percent annual growth rate, compounded annually. Accordingly, the 2 percent annual growth rate utilized in *Technical Appendices I1* and *I2* and this Subsection approximates the anticipated growth in regional traffic volumes, especially when considered in addition to Project-related traffic and traffic generated by other known development projects. This methodology would tend to overstate, as opposed to understate, potential impacts to traffic and circulation. (Urban Crossroads, 2016e, p. 102)

☐ General Plan Buildout (Post-2035) Background Traffic

For purposes of the analysis in *Technical Appendices I1* and *I2* and this Subsection, the General Plan Buildout (Post-2035) background traffic conditions were derived from the Riverside County Transportation Analysis Model (RivTAM). The RivTAM model reflects land use and circulation network data from cities and public agencies within Riverside County and is consistent with SCAG's traffic model for the southern California region. To provide a more detailed long-range (Post-2035) traffic impact analysis for the Project as presented in *Technical Appendices I1* and *I2* and this EIR Subsection, Urban Crossroads supplemented and modified the RivTAM model using industry-accepted procedures for model forecast refinement and smoothing rather than rely on RivTAM model defaults. The modifications performed by Urban Crossroads provide for a conservative analysis of the Project's potential impacts under General Plan Buildout (Post-2035) conditions that would overstate – as opposed to understate – the Project's potential impacts. Refer to Subsection 4.8 of *Technical Appendix I1* for a detailed description of the refinements made to the RivTAM model for purposes of the Project's traffic impact analysis. (Urban Crossroads, 2016e, pp. 116-117)

J. Future Year Roadway Conditions

☐ Opening Year (2020) Roadway Conditions

The Project's traffic analyses assume that the traffic facilities listed below will be place for the Project's Opening Year (2020) traffic analysis scenario, in addition to the lane configurations and traffic controls in place under existing conditions (Urban Crossroads, 2016e, p. 141):

- Project driveways and those facilities assumed to be constructed by the Project to provide access to the Project site; and
- Driveways and those facilities assumed to be constructed by nearby cumulative development projects to provide site access.

The traffic analysis also assumes that several freeway mainline improvements that are currently in various stages of planning, design, and construction will be completed by the Project's Opening Year (2020). The planned enhancements to the regional freeway system in the Project vicinity that are assumed to be in place by Year 2020 are summarized below (Urban Crossroads, 2015a, pp. 5-6). It is reasonable to anticipate that these facilities will be in place under Opening Year (2020) conditions because these improvements are planned capital improvements of Caltrans.

- I-215: The I-215/Cactus Avenue interchange will be improved to extend the northbound auxiliary lane between Alessandro Boulevard and Cactus Avenue (expected to be completed by 2018); and
- SR-91: Several construction projects are underway to improve traffic mobility along SR-91, including the including the construction of one carpool lane in each direction between Adams Street and the SR-60/SR-91/I-215 freeway interchange (expected to be complete by the end of 2015); the addition of two tolled express lanes and one mixed flow lane in each direction between SR-71 and I-15; and the addition of an eastbound mixed flow lane between I-15 and Pierce Street (expected to be complete by 2017).

Refer to *Technical Appendix I2* for additional information on these planned freeway mainline improvements.

❑ General Plan Buildout (Post-2035) Roadway Conditions

The Project's traffic analyses assume that the traffic facilities listed below will be place under General Plan Buildout (Post-2035) conditions, in addition to the lane configurations and traffic controls in place under existing conditions (Urban Crossroads, 2016e, p. 167). It is reasonable to anticipate that these facilities will be in place under General Plan Buildout (Post-2035) conditions because these improvements are planned capital improvements that have funding programs in place for their eventual construction.

- Project driveways and those facilities assumed to be constructed by the Project to provide access to the Project site;
- Driveways and those facilities assumed to be constructed by nearby cumulative development projects to provide site access;
- Heacock Street extension, from its existing terminus to Harley Knox Boulevard;
- Indian Street bridge crossing to connect Indian Street on both sides of the Perris Valley Storm Drain Channel; and

- Other parallel facilities, that although not included within the Project study area, are anticipated to be in place for General Plan Buildout traffic conditions and would affect the travel patterns within the Project study area (e.g., Nandina Avenue, Markham Street).

The traffic analysis also assumes that several freeway mainline improvements that are currently in various stages of planning, design, and construction will be completed by the General Plan Buildout (Post-2035) scenario. The reasonably foreseeable, planned enhancements to the regional freeway system in the Project vicinity that are assumed to be in place by Year 2035 or later are summarized below and are in addition to the improvements expected for the Opening Year (2020) scenario as described above (Urban Crossroads, 2015a, p. 6). It is reasonable to anticipate that these facilities will be in place under General Plan Buildout (Post-2035) conditions because these improvements are planned capital improvements of Caltrans.

- I-215: An approximately 10.75-mile segment of I-215, between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside, will be widened to add one carpool lane (high-occupancy vehicle lane) in each direction; however, a completion date for the I-215 expansion project has not been set due to budget constraints. Once the I-215 expansion costs and funding are determined, the planning, design and construction process is estimated to last approximately 8.5 years.

Refer to *Technical Appendix I2* for additional information on these planned freeway mainline improvements.

K. Fair Share Calculation

In instances where the Project is projected to contribute to cumulatively considerable impact to a roadway facility, and the recommended mitigation measure is a “fair share” monetary contribution toward the construction of roadway improvements needed to correct the circulation deficiency, the Project’s fair share contribution is determined by the following equations (Urban Crossroads, 2016e, p. 44):

If the intersection is operating at deficient LOS under existing conditions, the Project’s fair share cost of improvements would be determined by the ratio of Project traffic to total traffic.

Project Fair Share % = Project Traffic / General Plan Buildout Total Traffic

If the intersection is operating at acceptable LOS under existing conditions, the Project’s fair share cost of improvements would be determined by the ratio of Project traffic to new traffic.

Project Fair Share % = Project Traffic / (Post-2035 Traffic - Existing Traffic)

These calculations are reasonable mitigation under CEQA because they establish a proportional nexus between the Project’s impact and the recommended mitigation. Refer to Subsection 2.10 of

Technical Appendix I1 for more information on the methodology used to calculate the Project's fair share contribution toward future roadway improvements.

4.11.4 Basis for Determining Significance

The proposed Project would result in a significant impact to the transportation/traffic system if the Project or any Project-related component would:

a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;*

b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;*

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;*

d) *Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);*

e) *Result in inadequate emergency access; or*

f) *Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.*

A. Determining Significance of Impacts

☐ Intersections and Roadway Segments

For purposes of determining the significance of traffic impacts under this Subsection and in accordance with the City of Moreno Valley's *Traffic Impact Analysis Preparation Guide*, and applicable City of Perris, County of Riverside, March JPA, and Caltrans traffic impact evaluation guidelines, a significant direct traffic impact would occur when the addition of Project traffic to existing (2015) traffic conditions causes an intersection or roadway segment that operates at an acceptable LOS under existing (2015) traffic conditions (i.e., LOS D or better) to fall to LOS E or F. If a roadway segment operates at LOS E or LOS F but the intersections at both extents of the roadway segment operates at LOS D or better, then traffic flow through the roadway segment is considered acceptable. (Urban Crossroads, 2016e, pp. 35-36, 43-44)

Cumulative traffic impacts are deficiencies that are not directly caused by the Project, but occur as a result of regional growth combined with that or other nearby cumulative development projects. The Project's contribution of traffic to a particular cumulative transportation deficiency is deemed cumulatively considerable if the Project adds substantial traffic to the forecasted deficiency (as measured by the 50 or more peak hour trip threshold) (Urban Crossroads, 2016e, pp. 43-44). A Project's contribution to a cumulative impact can be reduced to less than significant if the Project is required to implement or fund its fair share of physical improvements designed to alleviate the potential cumulative impact. If full funding of future physical improvements is not reasonably assured, a short-term unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed.

☐ Freeway Mainline Segments and Ramp Junctions

For purposes of the analysis in this EIR Subsection, if a freeway mainline segment or ramp junction is projected to operate at an acceptable level of service (i.e., LOS D or better) without the Project and the Project would contribute traffic that is expected to cause the facility to operate at an unacceptable level of service (i.e., LOS E or F), the Project's impact is considered direct and significant. If the facility would operate at a deficient LOS without the Project and the Project would contribute traffic to the deficiency, the addition of Project traffic would be considered cumulatively considerable. (Urban Crossroads, 2016e, p. 44)

☐ Freeway Ramp Queuing

To determine whether the addition of Project traffic at a freeway ramp results in a significant impact, the stacking distance is measured to determine if the addition of Project traffic would result in a deficiency. Stacking distance on freeway ramps is acceptable if the required 95th percentile stacking distance is less than or equal to the stacking distance provided. Therefore, a significant impact would occur if the 95th percentile stacking distance need was greater than the stacking distance provided.

4.11.5 Impact Analysis

The roadway improvements proposed by the Project are described in EIR Section 3.0, *Project Description*, the construction of which would be ensured as part of the Project's conditions of approval issued by the City of Moreno Valley in association with the Project's approval process. The construction of proposed roadway improvements, including driveway connections, is assumed throughout the analysis presented in *Technical Appendices I1*, *I2*, and *I3* and summarized in this Subsection.

Threshold a) ***Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

The analysis of Threshold (a) focuses on potential impacts to local roadways (including intersections), based on acceptable LOS standards established by the Cities of Moreno Valley and Perris, as well as applicable March JPA and Caltrans standards. Refer to Threshold (b) for an analysis of potential impacts to the Riverside County CMP roadway network, including potential impacts to mainline segments of I-215, SR-60, and SR-91 in the Project study area.

❑ Project Vehicle Trip Generation

Vehicle trip generation represents the amount of traffic that is both attracted to and produced by a development project. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed by a given project. The vehicle trip generation rates utilized to estimate the amount of traffic that would be generated by the Project are based on data collected by the Institute of Transportation Engineers (ITE) and presented in the most recent edition of their *Trip Generation* manual (9th Edition, 2012).

Construction Vehicle Trip Generation

During the Project's construction stage, traffic to and from the Project site would be generated by activities such as construction employee trips, delivery of construction materials, and use of heavy equipment. Project-related construction trips are expected to vary from day to day, as the number of employees on-site would fluctuate during the various stages of Project construction and deliveries of building materials/equipment would occur periodically based on need. Regardless, to provide a conservative analysis of potential worst-case impacts during the Project's construction period, the theoretical maximum number of vehicle trips were quantified for the Project's most intensive stage of construction. The most intensive stage of construction is estimated to occur in January 2017, when Buildings 1, 2, 3, and 4 would be under different stages of active construction. For analysis purposes, the estimation of Project-related construction traffic not only assumes that all four building sites would be fully staffed by construction workers but that all four building sites would receive substantial deliveries of construction materials at the same time. Based on these assumptions, the Project is estimated to generate up to 2,427 vehicle trips per day, including 689 passenger car trips and 1,738 truck trips, during construction (Urban Crossroads, 2015b, p. 3).

After converting the Project's construction-related vehicle trips to PCE using the conversion factors previously described in Subsection 4.11.1A, the Project is estimated to generate a maximum of 4,239 daily PCE trips, including 110 AM peak hour trips and 422 PM peak hour trips, as summarized in Table 4.11-16, *Project Construction Trip Generation Summary (Passenger Car Equivalent)*. AM peak hour trips are estimated to be substantially lower than PM peak hour trips because most construction workers are anticipated to arrive at the Project site before the AM peak hour (i.e., before 7:00 AM) but would leave the Project site during the PM peak hour (i.e., around 4:00 PM). The converted trip rates presented in Table 4.11-16 are utilized throughout the analysis in *Technical Appendix I3* and this EIR Subsection to determine the Project's effect to the transportation and circulation network. (Urban Crossroads, 2015b, p. 3)

For more information on the vehicle trip generation methodology, refer to *Technical Appendix I3*.

Operational Vehicle Trip Generation

Due to the size and proposed use of Building 1, the Building is evaluated as a high-cube warehouse (ITE Land Use Code 152) which has a weighted average daily vehicle trip generation rate of 1.68 trips per thousand square feet of building space. The vehicle mix (i.e., percentage of passenger car trips vs. truck trips) for Building 1 is based on values contained in the ITE's *Trip Generation* manual. For truck trips, the ITE's *Trip Generation* manual provides no guidance on truck fleet mix (i.e., percentage of 2-axle, 3-axle, and 4-axle trips); therefore, data regarding truck vehicle mix is based on recommendations provided the by the South Coast Air Quality Management District's (SCAQMD). The SCAQMD recommends the use of a specific truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects. (Urban Crossroads, 2016e, pp. 77-78)

Buildings 2, 3, and 4 are proposed for light industrial users and have been evaluated as such (ITE Land Use Code 110). The weighted average daily vehicle trip generation rate for light industrial land uses is 6.97 trips per thousand square feet of building space. The ITE's *Trip Generation* manual contains limited data for vehicle mix and truck fleet for light industrial land uses; therefore, the vehicle mix and truck fleet for Buildings 2, 3, and 4 are based on information from a survey of industrial buildings in the City of Fontana which is documented in a report titled *Truck Trip Generation Study*. (Urban Crossroads, 2016e, pp. 78, 80)

Based on the trip generation assumptions for Buildings 1, 2, 3, and 4, the Project is estimated to generate approximately 4,960 vehicle trips per day, including 3,519 daily passenger car trips and 1,441 daily truck trips (Urban Crossroads, 2016e, p. 82).

Table 4.11-17, *Project Trip Generation (Passenger Car Equivalent)*, summarizes the trip generation rates and vehicle mix for the land use proposed by the Project, with PCE factors applied. Consistent with standard traffic engineering practice in southern California, PCE factors are applied to Project-related traffic due to the expected heavy truck component of the Project's traffic. PCE factors allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit – the passenger car – for the purposes of capacity and LOS analyses. (Urban Crossroads, 2016e, p. 79) After converting to PCE, the Project is estimated to generate 6,975 daily PCE trips, including 660 trips during the AM peak hour and 718 trips during the PM peak hour, as summarized in Table 4.11-18, *Project Trip Generation Summary (Passenger Car Equivalent)*. The converted trip rates presented in Table 4.11-18 are utilized throughout the analysis in *Technical Appendices I1* and *I2* and this EIR Subsection to determine the Project's effect to the transportation and circulation network.

For more information on the trip generation methodology, refer to Subsection 4.1 of *Technical Appendix I1*.

❑ Project Vehicle Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project's traffic would distribute. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the Project site, the location of surrounding uses, and the proximity to the regional freeway system. The trip distribution patterns for truck traffic are strongly influenced by the location of designated local truck routes.

Construction Vehicle Trip Distribution

The Project's construction-related trip distribution, as illustrated on Figure 4.11-6 and Figure 4.11-7, was developed based on anticipated travel patterns to and from the Project site for both construction workers and vendors. Figure 4.11-8, *Project Construction Traffic Volumes*, depicts the Project's construction-related ADT along Project study area roadways (presented in PCE) and AM and PM peak hour volumes at Project study area intersections (presented in PCE).

Operational Vehicle Trip Distribution

The Project's operational trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic and based on the estimated completion of on-going/planned improvements to the local roadway network that could affect travel patterns in the Project area (Urban Crossroads, 2016e, p. 80). The near- and long-range (Post-2035) traffic distribution patterns for Project-related passenger car and truck trips are graphically depicted on Figure 4.11-9 through Figure 4.11-14. The Project's near- and long-range (Post-2035) ADT along Project study area roadways (presented in PCE) and peak hour volumes at Project study area intersections (presented in PCE) are illustrated on Figure 4.11-15 through Figure 4.11-17.

❑ Analysis Scenarios

The Project's potential impacts to the transportation and circulation network are assessed for each of the conditions listed below.

- Short-Term Construction Conditions
- Existing plus Project Conditions
- Opening Year (2020) Conditions
- General Plan Buildout (Post-2035) Conditions

The Short-Term Construction Conditions analysis determines the potential for Project construction-related traffic or construction-related activities (i.e., construction activities within the public right-of-way) to result in an adverse effect to the local roadway system, based on existing (2015) traffic conditions. Types of traffic anticipated during construction include but is not limited to employees traveling to/from the Project site as well as deliveries of construction materials to the Project site.

Information for existing conditions is disclosed in Subsection 4.11.2, above, and represents the baseline traffic conditions as they existed when the NOP for the EIR was circulated for public review in 2015. The Existing plus Project analysis determines traffic impacts that would occur on the existing roadway system with the addition of Project traffic in the theoretical scenario of the Project being placed upon existing conditions. The Existing plus Project scenario is presented to disclose direct impacts as required by CEQA. In the case of the proposed Project, the estimated time period between the distribution of the NOP for the Project's EIR (2015) and estimated Project buildout (2017) is two years. During this time period, traffic conditions are not static – other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the Existing plus Project scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment will exist when the proposed Project is constructed and becomes operational. Regardless, the Existing plus Project scenario is evaluated to satisfy CEQA requirements to identify the Project's impacts to the existing environment. At the request of the City of Moreno Valley Transportation Engineering staff, the Existing plus Project analysis also evaluates local traffic conditions under the theoretical scenario where a bridge is constructed over the Perris Valley Storm Drain Channel to connect Indian Street on both sides of the Channel by the time the Project completes construction.[1]

The Opening Year (2020) analysis includes an evaluation of traffic conditions at the "opening" of the Project. Pursuant to the methodology established by the City of Moreno Valley Transportation Engineering Division in their *Traffic Impact Analysis Preparation Guide*, "opening year" is defined as existing conditions plus five (5) years. In the case of the Project, 2015 represents the existing condition; therefore, the Opening Year is defined as 2020. The Opening Year (2020) analysis is utilized to determine if improvements funded through local and regional transportation mitigation fee

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[1] The Indian Street bridge over the Perris Valley Storm Drain Channel is planned by the City of Moreno Valley General Plan Circulation Element; however, the bridge crossing is not included on any near-term capital improvement program and its construction cannot be assured prior to 2035.

programs such as the Transportation Uniform Mitigation Fee (TUMF) program, City of Moreno Valley Development Impact Fee (DIF) program, or other approved funding mechanisms can accommodate near-term future anticipated traffic plus the Project at the applicable target LOS. If the funded improvements can provide the target LOS, then the Project's payment into these mandatory fee programs will be considered as cumulative mitigation through Conditions of Approval applied on the Project by the City of Moreno Valley.

The General Plan Buildout (Post-2035) analysis is utilized to determine if planned local and regional transportation improvements, which are funded through local and regional transportation mitigation fee programs such as the Transportation Uniform Mitigation Fee (TUMF) program, City of Moreno Valley Development Impact Fee (DIF) program, and other approved funding mechanisms, can accommodate expected long-term growth and development at the applicable target LOS. Under the General Plan Buildout (Post-2035) scenario, the bridge over the Perris Valley Storm Drain Channel that connects Indian Street on both sides of the Channel would be completed. If the funded improvements can provide the target LOS, then the Project's payment into these mandatory fee programs will be considered as cumulative mitigation through Conditions of Approval applied on the Project by the City of Moreno Valley.

A. Short-Term Construction Traffic Impact Analysis

Projected roadway segment ADT volumes under short-term construction conditions are illustrated on Figure 4.11-18, *Short-Term Construction Average Daily Traffic*. Projected peak hour intersection turning movement volumes under short-term construction conditions are illustrated on Figure 4.11-19, *Short-Term Construction Peak Hour Intersection Volumes*.

☐ Intersection Operations Analysis

Table 4.11-19, *Short-Term Construction Intersection Analysis*, summarizes the peak hour LOS at Project study area intersections under the Project's short-term construction conditions. The analysis presented in Table 4.11-19 indicates that all intersections in the Project study area would operate at acceptable LOS during Project construction with the exception of the following intersections:

- Heacock Street / Gentian Avenue (Intersection #12) in the PM peak hour;
- Heacock Street / Iris Avenue (Intersection #13) in the PM peak hour; and
- Heacock Street / San Michele Road (Intersection #18) in the PM peak hour.

As previously disclosed under Subsection 4.11.2A, Intersections #12 and #13 operate at unacceptable LOS during the PM peak hour under existing conditions without Project-related construction traffic. Although the Project's construction-related traffic would not cause Intersections #12 and #13 to operate at deficient LOS, the Project would contribute substantial traffic to the cumulative LOS deficiencies at these Intersections. The Project's contribution to the significant impact would be cumulatively considerable and mitigation is required. Because the Project's construction-related traffic would not cause the LOS deficiencies at Intersections #12 and #13, the Project's mitigation only is required to offset the Project's incremental traffic contribution to these Intersections and would not be required to correct the existing transportation deficiencies.

Notwithstanding the above, the Project's construction-related traffic would cause the LOS at Intersection #18 to degrade from acceptable to unacceptable levels during the PM peak hour (refer to Table 4.11-19). The Project would result in a significant impact at Intersection #18 during short-term construction activities and mitigation is required.

☐ Traffic Signal Warrant Analysis

Under the Project's short-term construction conditions, no additional unsignalized intersections within the Project study area warrant consideration for a traffic signal beyond the three intersections – Intersections #7, #12, and #13 – where a traffic signal is already warranted under existing conditions (without Project construction-related traffic), as previously described in 4.11.2A (Urban Crossroads, 2015b, p. 6).

Meeting a traffic signal warrant does not inherently require that a traffic signal be installed at a particular intersection. Rather, a traffic signal warrant means that other traffic factors and conditions should be evaluated to determine whether a signal is justified. As shown in Table 4.11-19, Intersection #7 is estimated to operate at acceptable LOS during the Project's short-term construction conditions without a traffic signal. Because Intersection #7 can maintain acceptable LOS despite meeting a traffic signal warrant, *Technical Appendix I3* does not recommend a traffic signal at this Intersection (Urban Crossroads, 2015b, pp. 7-8). The Project would result in a less-than-significant impact to the traffic signal warrant at Intersection #7 under short-term construction conditions.

As shown in Table 4.11-19, Intersections #12 and #13 are projected to experience unacceptable LOS during the Project's short-term construction conditions; therefore, *Technical Appendix I3* recommends a traffic signal at these Intersections to improve traffic flow (Urban Crossroads, 2015b, pp. 7-8). Although the Project's construction-related traffic would not cause Intersections #12 and #13 to warrant a traffic signal, the Project would contribute substantial traffic to the cumulative traffic signal warrant at these Intersections. The Project's contribution to these significant impacts would be cumulatively considerable and mitigation is required. Because the Project's construction-related traffic would not cause the traffic signal warrant at either Intersections #12 and #13, the Project's mitigation only is required to offset the Project's incremental contribution of traffic to these Intersections and would not be required to correct the existing transportation deficiencies.

☐ Roadway Segment Operations Analysis

Table 4.11-20, *Short-Term Construction Roadway Segment Analysis*, summarizes the LOS along Project study area roadway segments under short-term construction conditions. As shown on Table 4.11-20, the following two roadway segments are projected to operate at unacceptable LOS during Project construction:

- Heacock Street, south of Gentian Avenue (Roadway #34); and

- Heacock Street, north of Iris Avenue (Roadway #35).

The Project's construction-related traffic would not cause the LOS deficiency along Roadway #34 as this Roadway Segment operates at unacceptable LOS under existing conditions without Project-related construction traffic (refer to Table 4.11-20). Although the Project's construction-related traffic would not cause Roadway #34 to operate at deficient LOS, the Project would contribute substantial traffic to the cumulative LOS deficiency along this Roadway Segment. The Project's contribution to the significant impact would be cumulatively considerable and mitigation is required. Because the Project's construction-related traffic would not cause the LOS deficiencies along Roadway #34, the Project's mitigation only is required to offset the Project's incremental traffic contribution to this Roadway Segment and would not be required to correct the existing transportation deficiency.

Notwithstanding the above, the Project's construction-related traffic would cause the LOS along Roadway #35 to degrade from acceptable to unacceptable levels (refer to Table 4.11-20). The Project would result in a significant impact along Roadway #35 during short-term construction activities and mitigation is required.

B. Existing plus Project Traffic Impact Analysis

Projected roadway segment ADT volumes under Existing plus Project conditions (without and with the Indian Street Bridge) are illustrated on Figure 4.11-20 and Figure 4.11-21, respectively. Projected peak hour intersection turning movement volumes under Existing plus Project conditions (without and with the Indian Street Bridge) are illustrated on Figure 4.11-22 and Figure 4.11-23, respectively.

❑ Intersection Operations Analysis

Without Indian Street Bridge

Table 4.11-21, *Existing plus Project Intersection Analysis*, summarizes the peak hour LOS at Project study area intersections under Existing plus Project conditions without the Indian Street Bridge. As shown in Table 4.11-21, all intersections in the Project study area would operate at acceptable LOS with the exception of the following intersections:

- Heacock Street / Gentian Avenue (Intersection #12) in the AM and PM peak hours;
- Heacock Street / Iris Avenue (Intersection #13) in the AM and PM peak hours; and
- Heacock Street / San Michele Road (Intersection #18) in the PM peak hour.

As previously disclosed under Subsection 4.11.2A, Intersections #12 and #13 operate at unacceptable LOS during the PM peak hour under existing conditions without Project-related traffic. The Project would not cause the PM peak hour LOS deficiency at Intersections #12 and #13 but would contribute substantial traffic to the cumulative LOS deficiencies at these Intersections; therefore, the Project's contribution to the significant impact would be cumulatively considerable under Existing plus Project conditions (without the Indian Street Bridge) and mitigation is required.

Notwithstanding the above, the Project would cause the LOS deficiencies at Intersections #12 and #13 (during the AM peak hour) and Intersection #18 (during the PM peak hour) (refer to Table 4.11-21). The Project's AM peak hour impacts to Intersections #12 and #13 and PM peak hour impact to Intersection #18 would be significant under Existing plus Project conditions (without the Indian Street Bridge) and mitigation is required.

The Heacock Street / Cactus Avenue intersection (Intersection #10) would operate at an acceptable, overall LOS under Existing plus Project conditions (without the Indian Street Bridge). However, with the addition of Project-related traffic, the performance of the northbound left turn lane would degrade to unacceptable LOS during the AM and PM peak hours. The Project's impact to the northbound left turn lane at Intersection #10 would be significant and mitigation is required.

With Indian Street Bridge

Under Existing plus Project conditions with the Indian Street Bridge, all intersections listed above that experience a LOS deficiency without the Bridge – Intersections #12, #13, and #18 – would continue to experience LOS deficiencies during the PM peak hour (refer to Table 4.11-21). Thus, under the theoretical scenario where the Indian Street Bridge is constructed under existing conditions, the Project's impacts at Intersections #12, #13, and #18 would be similar to the impacts that would occur without the Bridge, as described above.

Although Intersection #10 would operate at acceptable LOS under Existing plus Project conditions with the Indian Street Bridge, the northbound left turn lane at this Intersection would perform at unacceptable LOS during the AM and PM peak hours due to the addition of Project-related traffic. Thus, under the theoretical scenario where the Indian Street Bridge is constructed under existing conditions, the Project's impact to the northbound left turn lane at Intersection #10 would be similar to the impact that would occur without the Bridge, as described above.

In addition, under Existing plus Project conditions with the Indian Street Bridge, the intersection of Indian Street / Harley Knox Boulevard (Intersection #30) would operate at deficient LOS during the PM peak hour with the addition Project-related traffic (refer to Table 4.11-21). Accordingly, under the theoretical scenario where the Indian Street Bridge is constructed under existing conditions, the Project would result in a significant impact at Intersection #30 and mitigation is required.

❑ Traffic Signal Warrant Analysis

Without Indian Street Bridge

Under Existing plus Project conditions without the Indian Street Bridge, traffic signals would be warranted at the same three intersections that warrant a traffic signal under existing conditions (i.e., Intersections #7, #12, and #13). In addition, the intersections of Heacock Street / Cardinal Avenue (Intersection #17) and Indian Street / Krameria Avenue (Intersection #26) would also meet the numeric threshold for consideration of a traffic signal under the Existing plus Project conditions without the Indian Street Bridge. (Urban Crossroads, 2016e, p. 130)

As previously noted, meeting a traffic signal warrant does not inherently require that a traffic signal be installed at a particular intersection location. Rather, a traffic signal warrant means that other traffic factors and conditions should be evaluated in order to determine whether a signal is actually justified. As shown in Table 4.11-21, Intersections #7, #17, and #26 are projected to operate at acceptable LOS without a traffic signal after the addition of Project traffic (without the Indian Street Bridge). Because these Intersections can maintain acceptable LOS despite meeting a traffic signal warrant, *Technical Appendix I1* does not recommend a traffic signal at these locations (Urban Crossroads, 2016e, pp. 130, 132, 138-139). The Project's impact to the traffic signal warrant at Intersections #7, #17, and #26 would be less than significant under Existing plus Project conditions without the Indian Street Bridge.

As shown in Table 4.11-21, Intersections #12 and #13 are projected to experience unacceptable LOS under Existing plus Project conditions without the Indian Street Bridge; therefore, *Technical Appendix I1* recommends a traffic signal at these Intersections to improve traffic flow (Urban Crossroads, 2016e, pp. 130, 132, 138-139). Although the Project's traffic would not cause Intersections #12 and #13 to warrant a traffic signal, the Project would contribute substantial traffic to the cumulative traffic signal warrant at these Intersections. The Project's contribution to these significant impacts would be cumulatively considerable under Existing plus Project conditions (without the Indian Street Bridge) and mitigation is required. Because the Project would not cause the traffic signal warrant at either Intersections #12 and #13, the Project's mitigation only is required to offset the Project's incremental contribution of traffic to these Intersections and would not be required to correct existing transportation deficiencies.

With Indian Street Bridge

Under Existing plus Project conditions with the Indian Street Bridge, all intersections listed above that warrant a traffic signal without the Bridge – Intersections #7, 12, #13, #17, and #18 – would continue to warrant a traffic signal (refer to Table 4.11-21). Traffic signals are recommended at Intersections #12 and #13 under Existing plus Project conditions with the Indian Street Bridge because these intersections experience unstable traffic flow, whereas traffic signals are not be recommended at Intersections #7, #17, and #18 because these intersections experience little traffic flow interruption without a traffic signal despite meeting the mathematical warrant for a signal. (Urban Crossroads, 2016e, pp. 130, 132, 138-139) Thus, under the theoretical scenario where the Indian Street Bridge is constructed under existing conditions, the Project's impacts to traffic signal warrants at Intersections #7, 12, #13, #17, and #18 would be similar to the impacts that would occur without the Bridge, as described above.

In addition, the intersection of Heacock Street / Nandina Avenue (Intersection #19) would meet the mathematical warrant for consideration of a traffic signal under Existing plus Project conditions with the Indian Street Bridge. However, as shown in Table 4.11-21, Intersection #19 is projected to operate at acceptable LOS under Existing plus Project conditions (with the Indian Street Bridge). Because Intersection #19 can maintain acceptable LOS despite meeting a traffic signal warrant, *Technical Appendix I1* does not recommend a traffic signal at the Intersection. (Urban Crossroads, 2016e, pp. 130, 132, 138-139) Because a traffic signal is not recommended at Intersection #19, the Project's impact to the traffic signal warrant at this Intersection would be less than significant under Existing plus Project conditions with the Indian Street Bridge.

❑ Roadway Segment Operations Analysis

Without Indian Street Bridge

Table 4.11-22, *Existing plus Project Roadway Segment Analysis*, summarizes the LOS along Project study area roadway segments under Existing plus Project conditions without the Indian Street Bridge. As shown in Table 4.11-22, all roadway segments in the Project study area would operate at acceptable LOS with the exception of the following segments:

- Heacock Street, south of Gentian Avenue (Roadway #34);
- Heacock Street, north of Iris Avenue (Roadway #35); and
- Heacock Street, Iris Avenue to Krameria Avenue (Roadway #36).

Project-related traffic would not cause the LOS deficiency along Roadway #34 as this Roadway Segment operates at unacceptable LOS (i.e., LOS F) under existing conditions without Project-related construction traffic (refer to Table 4.11-22). Although the Project would not cause Roadway #34 to operate at deficient LOS, the Project would contribute substantial traffic to the cumulative LOS deficiency along this Roadway Segment. The Project's contribution to the significant impact would be cumulatively considerable under Existing plus Project conditions (without the Indian Street Bridge) and mitigation is required. Because the Project would not cause the LOS deficiency along Roadway #34, the Project's mitigation only is required to offset the Project's incremental traffic contribution to this Roadway Segment and would not be required to correct the existing transportation deficiency.

Notwithstanding the above, addition of Project traffic to Roadway Segments #35 and #36 under Existing plus Project conditions without the Indian Street Bridge would cause the LOS along these Roadway Segments to degrade from acceptable to unacceptable levels (refer to Table 4.11-22). Accordingly, the Project would result in a significant impact along Roadway Segments #35 and #36 under Existing plus Project conditions without the Indian Street Bridge and mitigation is required.

With Indian Street Bridge

Under Existing plus Project conditions with the Indian Street Bridge, the roadway segments that would experience deficient LOS without the Bridge – Roadway Segments #34, #35, and #36 – would continue to operate at deficient LOS (refer to Table 4.11-22). No additional roadway segments would operate at deficient LOS under Existing plus Project conditions with the Indian Street Bridge, as compared to the scenario without the Bridge. Therefore, under the theoretical scenario where the

Indian Street Bridge is constructed under existing conditions, the Project's impacts to study area roadway segments would be similar to the impacts that would occur without the Bridge, as described above.

C. Opening Year (2020) Traffic Impact Analysis

Projected roadway segment ADT volumes and peak hour intersection turning movement volumes under Opening Year (2020) traffic conditions are illustrated on Figure 4.11-24, *Opening Year (2020) Average Daily Traffic*, and Figure 4.11-25, *Opening Year (2020) Peak Hour Intersection Volumes*.

☐ Intersection Operations Analysis

Table 4.11-23, *Opening Year (2020) Intersection Analysis*, summarizes the LOS at Project study area intersections during the AM and PM peak hours under Opening Year (2020) conditions. As shown in Table 4.11-23, the following 17 intersections would operate at unacceptable LOS under Opening Year (2020) conditions:

- I-215 southbound ramps / Cactus Avenue (Intersection #1) in AM and PM peak hours;
- I-215 southbound ramps / Harley Knox Boulevard (Intersection #2) in the AM and PM peak hours;
- I-215 northbound ramps / Cactus Avenue (Intersection #3) in the AM and PM peak hours;
- I-215 northbound ramps / Harley Knox Boulevard (Intersection #4) in the PM peak hour;
- Elsworth Street / Cactus Avenue (Intersection #5) in the AM peak hour;
- Western Way / Harley Knox Boulevard (Intersection #7) in the PM peak hour;
- Graham Street / Cactus Avenue (Intersection #8) in the AM and PM peak hours;
- Patterson Avenue / Harley Knox Boulevard (Intersection #9) in the AM and PM peak hours;
- Heacock Street / Cactus Avenue (Intersection #10) in the AM and PM peak hours;
- Heacock Street / Gentian Avenue (Intersection #12) in the AM and PM peak hours;
- Heacock Street / Iris Avenue (Intersection #13) in the AM and PM peak hours;
- Heacock Street / San Michele Road (Intersection #18) in the AM and PM peak hours;
- Indian Street / San Michele Road (Intersection #28) in the AM and PM peak hours;
- Indian Street / Nandina Avenue (Intersection #29) in the AM and PM peak hours;
- Indian Street / Harley Knox Boulevard (Intersection #30) in the PM peak hour;
- Perris Boulevard / Cactus Avenue (Intersection #31) in the AM and PM peak hours; and
- Perris Boulevard / Krameria Avenue (Intersection #32) in the PM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the intersections listed above. Therefore, the Project's contribution to the significant impacts at the above-listed intersections would be cumulatively considerable under Opening Year (2020) conditions and mitigation is required.

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❑ Traffic Signal Warrant Analysis

Under Opening Year (2020) traffic conditions, traffic signals warrant consideration at the same five traffic signals that warrant a traffic signal under Existing plus Project conditions, as described above (i.e., Intersections #7, #12, #13, #17, and #26) (Urban Crossroads, 2016e, p. 155).

As previously noted, meeting a traffic signal warrant does not inherently require that a traffic signal be installed at a particular intersection location. Rather, a traffic signal warrant means that other traffic factors and conditions should be evaluated in order to determine whether a signal is actually justified. As shown in Table 4.11-23, Intersections #17 and #26 are projected to operate at acceptable LOS under Opening Year (2020) traffic conditions without a traffic signal. Because Intersections #17 and #26 can maintain acceptable LOS despite meeting a traffic signal warrant, *Technical Appendix I1* does not recommend a traffic signal at these Intersections (Urban Crossroads, 2016e, pp. 147, 160-161). Accordingly, the Project's impact to the traffic signal warrants at Intersections #17 and #26 would be less than significant under Opening Year (2020) conditions.

Intersections #7, #12, and #13 are projected to experience unacceptable LOS under Opening Year (2020) conditions (refer to Table 4.11-23); therefore, *Technical Appendix I1* recommends traffic signals at these Intersections to improve traffic flow (Urban Crossroads, 2016e, pp. 160-161). The Project would contribute substantial traffic to the significant traffic signal warrant at Intersections #7, #12, and #13; therefore, the Project's contribution to the signal warrants at these Intersections would be cumulatively considerable under Opening Year (2020) conditions.

❑ Roadway Segment Operations Analysis

Table 4.11-24, *Opening Year (2020) Roadway Segment Analysis*, summarizes the LOS along Project study area roadways in the Opening Year (2020). As shown in Table 4.11-24, the following 23 roadway segments would operate at unacceptable LOS under Opening Year (2020) traffic conditions:

- Cactus Avenue, I-215 southbound ramps to I-215 northbound ramps (Roadway #1);
- Cactus Avenue, east of I-215 ramps (Roadway #2);
- Cactus Avenue, west of Elsworth Street (Roadway #3);
- Cactus Avenue, east of Elsworth Street (Roadway #4);
- Cactus Avenue, west of Frederick Street (Roadway #5);
- Cactus Avenue, east of Frederick Street (Roadway #6);
- Cactus Avenue, west of Graham Street (Roadway #7);
- Cactus Avenue, east of Graham Street (Roadway #8);
- Cactus Avenue, west of Heacock Street (Roadway #9);
- San Michele Road, east of Heacock Street (Roadway #20);
- San Michele Road, west of Indian Street (Roadway #21);
- Harley Knox Boulevard, I-215 northbound ramps to Western Way (Roadway #23);
- Harley Knox Boulevard, east of Western Way (Roadway #24);
- Harley Knox Boulevard, west of Patterson Avenue (Roadway #25);

- Harley Knox Boulevard, east of Patterson Avenue (Roadway #26);
- Harley Knox Boulevard, west of Webster Avenue (Roadway #27);
- Harley Knox Boulevard, east of Webster Avenue (Roadway #28);
- Harley Knox Boulevard, west of Indian Street (Roadway #29);
- Heacock Street, north of Gentian Avenue (Roadway #33);
- Heacock Street, south of Gentian Avenue (Roadway #34);
- Heacock Street, north of Iris Avenue (Roadway #35);
- Heacock Street, Iris Avenue to Krameria Avenue (Roadway #36); and
- Indian Street, south of Nandina Avenue (Roadway #47).

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the roadway segments listed above. Therefore, the Project's contribution to the significant impacts at the above-listed intersections would be cumulatively considerable under Opening Year (2020) conditions and mitigation is required.

D. General Plan Buildout (Post-2035) Traffic Impact Analysis

Projected roadway segment ADT volumes and peak hour intersection turning movement volumes under General Plan Buildout (Post-2035) traffic conditions are illustrated on Figure 4.11-26, *General Plan Buildout (Post-2035) Average Daily Traffic*, and Figure 4.11-27, *General Plan Buildout (Post-2035) Peak Hour Intersection Volumes*.

❑ Intersection Operations Analysis

Table 4.11-25, *General Plan Buildout (Post-2035) Intersection Analysis*, summarizes the LOS at Project study area intersections during the AM and PM peak hours under General Plan Buildout (Post-2035) traffic conditions. As shown in Table 4.11-25, all intersections in the Project study area would operate at acceptable LOS with the exception of the 17 intersections that would operate at deficient LOS under Opening Year (2020) conditions, as previously described, and the additional intersections listed below:

- Webster Avenue / Harley Knox Boulevard (Intersection #20) in the PM peak hour; and
- Indian Street / Krameria Avenue (Intersection #26) in the AM and PM peak hours.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the intersections listed above. Therefore, the Project's contribution to the significant impacts at the above-listed intersections would be cumulatively considerable under General Plan Buildout (Post-2035) conditions and mitigation is required.

❑ Traffic Signal Warrant Analysis

Under General Plan Buildout (Post-2035) conditions, the Webster Avenue / Harley Knox Boulevard intersection (Intersection #20) warrants consideration for a traffic signal (Urban Crossroads, 2016e, p. 181). As shown in Table 4.11-25, Intersection #20 is projected to operate at deficient LOS under

General Plan Buildout (Post-2035) condition; therefore, *Technical Appendix I1* recommends traffic signals at this Intersection to improve traffic flow (Urban Crossroads, 2016e, p. 188). The Project would contribute substantial traffic to the significant traffic signal warrant at Intersection #20; therefore, the Project's contribution to the signal warrants at this Intersection would be cumulatively considerable under General Plan Buildout (Post-2035) conditions.

❑ Roadway Segment Operations Analysis

Table 4.11-26, *General Plan Buildout (Post-2035) Roadway Segment Analysis*, summarizes the LOS along Project study area roadway segments under General Plan Buildout (Post-2035) traffic conditions. As shown in Table 4.11-26, all roadway segments in the Project study area would operate at acceptable LOS with the exception of the 23 segments that would operate at deficient LOS under Opening Year (2020) conditions, as previously described, and the additional segments listed below:

- Cactus Avenue, east of Heacock Street (Roadway #10);
- Krameria Street, Heacock Street to Cosmos Street (Roadway #12);
- Cactus Avenue, west of Perris Boulevard (Roadway #18);
- Heacock Street, Cardinal Avenue to San Michele Road (Roadway #40);
- Indian Street, San Michele Road to Nandina Avenue (Roadway #46); and
- Indian Street, north of Harley Knox Boulevard (Roadway #48).

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies along the roadways listed above. Therefore, the Project's contribution to the significant impacts at the above-listed roadway segments would be cumulatively considerable under General Plan Buildout (Post-2035) conditions and mitigation is required.

Threshold b)	***Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?***

The Riverside County CMP prepared by RCTC is applicable to the Project because of the subject property's proximity to freeway mainline segments and major intersections that are designated as part of the CMP roadway system. The CMP facilities located within the Project study area were previously described in Subsection 4.11.2H.

As described above under Threshold (a), the Project would result in cumulatively considerable traffic impacts to the following CMP intersections that are projected to operate at deficient LOS during the Opening Year (2020) and General Plan Buildout (Post-2035) traffic scenarios:

- I-215 southbound ramps / Cactus Avenue (Intersection #1);
- I-215 southbound ramps / Harley Knox Boulevard (Intersection #2);

- I-215 northbound ramps / Cactus Avenue (Intersection #3); and
- I-215 northbound ramps / Harley Knox Boulevard (Intersection #4).

Accordingly, the Project's contribution to the projected, significant conflict with the Riverside County CMP LOS standards for the CMP arterial roadway network at the above-listed intersections would be cumulatively considerable and mitigation is required.

The remainder of the analysis under this Threshold will focus on the Project's potential effects to regional freeway facilities that are part of the Riverside County CMP freeway network, including I-215, SR-60, and SR-91. For purposes of analysis, freeway segments located near the Project site are broken into smaller segments defined by the freeway-to-arterial interchange locations. The findings of the freeway impact analysis are presented below and in *Technical Appendices I1, I2,* and *I3*.

A. Short-Term Construction CMP Impact Analysis

As previously described under the analysis for Threshold (a), above, the Project's peak construction period would generate less daily and peak hour traffic volumes than would occur during Project operation. Accordingly, the Project's construction-related traffic would be less impactful to the CMP freeway network than the Project's operational traffic. As shown in Table 4.11-7, Table 4.11-28, Table 4.11-27, and described in detail below, all freeway mainline segments, ramp merge/diverge junctions, and off-ramps would operate at acceptable LOS under Existing plus Project (operational) conditions. Because the Project study area CMP freeway mainline segments, ramp merge/diverge junctions, and off-ramps would operate at acceptable LOS with the addition of the Project's operational traffic and because the Project's peak construction traffic would be less impactful than the Project's operational traffic, the Project would result in less-than-significant impacts to CMP freeway facilities under short-term construction conditions.

B. Existing plus Project CMP Impact Analysis

☐ Freeway Mainline Segment Operations Analysis

Under Existing plus Project conditions, freeway mainline segments in the Project study area are projected to operate at the LOS summarized in Table 4.11-7. As shown in Table 4.11-7, all freeway mainline segments in the Project study area would operate at acceptable LOS under Existing plus Project conditions. Accordingly, the Project's contribution of traffic to CMP freeway mainline segments would not cause or contribute to a projected LOS deficiency under Existing plus Project conditions and the Project's impact to CMP freeway mainline segments is determined to be less than significant on a direct and cumulative basis.

The freeway mainline segments listed in Table 4.11-7 include the segments that would receive the highest concentration of traffic from the Project. However, Project-related traffic does not stop at the limits of the freeway mainline segments listed in Table 4.11-7. Rather, Project-related traffic continues to travel throughout the southern California region along the State highway system, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to Riverside County CMP segments of SR-60, SR-91, I-15, I-215, and I-10, as well as freeway segments located outside of Riverside County, such as I-5, I-15, I-110, I-405, and I-710, among others. All State highway system facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would not contribute substantial traffic to congested freeway segment beyond the Project's study area, the Project's effect to Riverside County CMP freeway facilities and other freeway facilities located outside of Riverside County would be less than significant under Existing plus Project conditions.

❑ Freeway Ramp Junction Merge/Diverge Operations Analysis

Table 4.11-27, *Existing plus Project Freeway Ramp Junction Merge/Diverge Analysis*, summarizes freeway ramp junction merge/diverge operations within the Project study area during the AM and PM peak hours under Existing plus Project traffic conditions. As shown on Table 4.11-27, all freeway ramp merge/diverge junctions in the Project study area are projected to operate at acceptable LOS during the AM and PM peak hours under Existing plus Project traffic conditions. Accordingly, the Project would not cause or contribute to deficient operations at Project study area freeway ramp merge/diverge junctions under Existing plus Project conditions and the Project's impact to CMP freeway ramp merge/diverge junctions is determined to be less than significant on a direct and cumulative basis.

❑ Freeway Ramp Operations Analysis

Table 4.11-28, *Existing plus Project Off-Ramp Queuing Analysis*, summarizes freeway ramp queuing within the Project study area during the AM and PM peak hours under Existing plus Project traffic conditions. As shown on Table 4.11-28, all freeway ramps in the Project study area are projected to experience acceptable stacking lengths during the AM and PM peak hours under Existing plus Project traffic conditions, which would preclude "spill back" of traffic from this interchange onto adjacent freeway mainline segments. Accordingly, the Project would not cause or contribute to deficient operations at Project study area freeway off-ramps under Existing plus Project conditions and the Project's impact to CMP freeway off-ramps is determined to be less than significant on a direct and cumulative basis.

C. Opening Year (2020) CMP Impact Analysis

❑ Freeway Mainline Segment Operations Analysis

Table 4.11-29, *Opening Year (2020) Freeway Mainline Segment Analysis*, summarizes the LOS along freeway mainline segments within the Project study area under Opening Year (2020) conditions. As shown in Table 4.11-29, all freeway mainline segments within the Project study area would operate at acceptable LOS under Opening Year (2020) conditions, with the exception of the following seven segments:

- I-215 southbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #24) in the PM peak hour;

- I-215 southbound, Ramona Expressway to Nuevo Road (Freeway Segment #29) in the PM peak hour;
- SR-91 westbound, Riverwalk Parkway to Magnolia Avenue (Freeway Segment #32) in the PM peak hour;
- I-215 northbound, University Avenue to Martin Luther King Boulevard (Freeway Segment #48) in the AM peak hour;
- I-215 northbound, Box Springs Road to SR-60/I-215 (Freeway Segment #51) in the PM peak hour;
- I-215 northbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #53) in the AM and PM peak hours; and
- I-215 northbound, Ramona Expressway to Nuevo Road (Freeway Segment #58) in the AM and PM peak hours.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies along the freeway mainline segments listed above. Therefore, the Project's contribution to the significant impacts at the above-listed CMP freeway mainline segments would be cumulatively considerable under Opening Year (2020) conditions and mitigation is required.

The freeway mainline segments listed in Table 4.11-29 include the segments that would receive the highest concentration of traffic from the Project. However, Project-related traffic does not stop at the limits of the freeway mainline segments listed in Table 4.11-29. Rather, Project-related traffic continues to travel throughout the southern California region along the State highway system, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to Riverside County CMP segments of SR-60, SR-91, I-15, I-215, and I-10, as well as freeway segments located outside of Riverside County, such as I-5, I-15, I-110, I-405, and I-710, among others. All State highway system facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would not contribute substantial traffic to congested freeway segment beyond the Project's study area, the Project's effect to Riverside County CMP freeway facilities and other freeway facilities located outside of Riverside County would be less than significant under Opening Year (2020) conditions.

❑ Freeway Ramp Junction Merge/Diverge Operations Analysis

Table 4.11-30, *Opening Year (2020) Freeway Ramp Junction Merge/Diverge Analysis*, summarizes freeway ramp junction merge/diverge operations within the Project study area during the AM and PM peak hours under Opening Year (2020) conditions. As shown in Table 4.11-30, all freeway ramp merge/diverge junction in the Project study area are projected to operate at acceptable LOS under Opening Year (2020) conditions with the exception of the following ramp junctions:

- I-215 southbound, loop off-ramp (upstream) at Cactus Avenue (Ramp Junction #1) in the AM and PM peak hours;

- I-215 southbound, loop off-ramp (downstream) at Cactus Avenue (Ramp Junction #2) in the AM and PM peak hours; and
- I-25 southbound, off-ramp at Harley Knox Boulevard (Ramp Junction #3) in the AM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the freeway ramp merge/diverge junctions listed above. Therefore, the Project's contribution to the significant impacts at the above-listed CMP freeway ramp merge/diverge junctions would be cumulatively considerable under Opening Year (2020) conditions and mitigation is required.

❑ Freeway Ramp Operations Analysis

Table 4.11-31, *Opening Year (2020) Off-Ramp Queuing Analysis*, summarizes queuing at freeway ramps in the Project study area during the AM and PM peak hours under Opening Year (2020) conditions. As shown in Table 4.11-31, all freeway ramps experience acceptable stacking lengths under Opening Year (2020) conditions with the exception of the following ramp:

- I-215 southbound ramps / Harley Knox Boulevard (Ramp #2), southbound shared left-through lane in the AM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiency at the freeway ramp listed above. Therefore, the Project's contribution to the significant impacts at the above-listed CMP freeway ramp would be cumulatively considerable under Opening Year (2020) conditions and mitigation is required.

D. General Plan Buildout (Post-2035) CMP Impact Analysis

❑ Freeway Mainline Segment Operations Analysis

Table 4.11-32, *General Plan Buildout (Post-2035) Freeway Mainline Segment Analysis*, summarizes the LOS along freeway mainline segments within the Project study area under General Plan Buildout (Post-2035) conditions. As shown in Table 4.11-32, all freeway mainline segments within the Project study area would operate at acceptable LOS, with the exception of the seven segments that would operate at deficient LOS under Opening Year (2020) conditions, as previously described, and the additional segments listed below:

- SR-91 eastbound, McKinley Street to Riverwalk Parkway (Freeway Segment #2) in the AM and PM peak hours;
- SR-91 eastbound, Riverwalk Parkway to Magnolia Avenue (Freeway Segment #3) in the AM and PM peak hours;
- SR-91 eastbound, Adams Street to Madison Street (Freeway Segment #8) in the AM and PM peak hours;
- I-215 southbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #27) in the AM and PM peak hours;

- SR-91 westbound, I-15 to McKinley Street (Freeway Segment #30) in the AM and PM peak hours;
- SR-91 westbound, McKinley Street to Riverwalk Parkway (Freeway Segment #31) in the AM and PM peak hours;
- SR-91 westbound, Magnolia Avenue to La Sierra Avenue (Freeway Segment #33) in the AM and PM peak hours;
- SR-91 westbound, La Sierra Avenue to Tyler Avenue (Freeway Segment #34) in the AM and PM peak hours;
- I-215 northbound, Martin Luther King Boulevard to Central Avenue (Freeway Segment #49) in the AM and PM peak hours;
- I-215 northbound, SR-60 to Eucalyptus Avenue (Freeway Segment #52) in the AM and PM peak hours; and
- I-215 northbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #56) in the AM and PM peak hours.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies along the freeway mainline segments listed above. Therefore, the Project's contribution to the significant impacts at the above-listed CMP freeway mainline segments would be cumulatively considerable under General Plan Buildout (Post-2035) conditions and mitigation is required.

The freeway mainline segments listed in Table 4.11-32 include the segments that would receive the highest concentration of traffic from the Project. However, Project-related traffic does not stop at the limits of the freeway mainline segments listed in Table 4.11-32. Rather, Project-related traffic continues to travel throughout the southern California region along the State highway system, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to Riverside County CMP segments of SR-60, SR-91, I-15, I-215, and I-10, as well as freeway segments located outside of Riverside County, such as I-5, I-15, I-110, I-405, and I-710, among others. All State highway system facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would not contribute substantial traffic to congested freeway segment beyond the Project's study area, the Project's effect to Riverside County CMP freeway facilities and other freeway facilities located outside of Riverside County would be less than significant under General Plan Buildout (Post-2035) conditions.

❑ Freeway Ramp Junction Merge/Diverge Operations Analysis

Table 4.11-33, *General Plan Buildout (Post-2035) Freeway Ramp Junction Merge/Diverge Analysis*, summarizes freeway ramp junction merge/diverge operations within the Project study area during the AM and PM peak hours under General Plan Buildout (Post-2035) conditions. As shown in Table 4.11-33, all freeway ramp merge/diverge junction in the Project study area are projected to operate at acceptable LOS with the exception of the ramp junctions that would operate at deficient LOS under Opening Year (2020) conditions, as previously described, and the additional ramp junctions listed below:

- I-215 southbound, on-ramp at Harley Knox Boulevard (Ramp Junction #4) in the PM peak hour;
- I-215 northbound, on-ramp at Cactus Avenue (Ramp Junction #5) in the AM and PM peak hours;
- I-215 northbound, on-ramp at Harley Knox Boulevard (Ramp Junction #6) in the AM and Peak hours; and
- I-215 northbound, off-ramp at Harley Knox Boulevard (Ramp Junction #7) in the AM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the freeway ramp merge/diverge junctions listed above. Therefore, the Project's contribution to the significant impacts at the above-listed CMP freeway ramp merge/diverge junctions would be cumulatively considerable under General Plan Buildout (Post-2035) conditions and mitigation is required.

☐ Freeway Ramp Operations Analysis

Table 4.11-34, *General Plan Buildout (Post-2035) Off-Ramp Queuing Analysis*, summarizes queuing at freeway ramps in the Project study area during the AM and PM peak hours under General Plan Buildout (Post-2035) conditions. As shown in Table 4.11-34, all freeway ramps would experience acceptable stacking lengths with the exception of the ramp that would operate at deficient LOS under Opening Year (2020) conditions, as previously described, and the additional ramps listed below:

- I-215 southbound ramps / Cactus Avenue (Ramp Junction #1), southbound right turn lane in the AM peak hour; and
- I-215 northbound ramps / Cactus Avenue (Ramp Junction #3), northbound left turn lane in the AM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiency at the freeway ramps listed above. Therefore, the Project's contribution to the significant impacts at the above-listed CMP freeway ramps would be cumulatively considerable under General Plan Buildout (Post-2035) conditions and mitigation is required.

Threshold c)	***Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?***

The proposed Project does not contain an air travel component (e.g., runways, helipads); thus, air traffic levels in the vicinity of the March Air Reserve Base would not be changed as a result of the Project.

As previously described in EIR Section 3.0, *Project Description*, the Project would develop the subject property with four warehouse distribution/light industrial buildings and related improvements, including parking areas, loading bays, detention basins, and landscaping. The tallest features on the Project site would be the proposed buildings, which would not exceed a height of 52 feet above finished grade, and would not include any component that would obstruct the flight path or change air traffic patterns at the March Air Reserve Base. Furthermore, the Project was subject to review by the Riverside County ALUC, which found that the Project would be fully consistent with the March Air Reserve Base ALUCP and would not contain design features that would alter air traffic patterns and/or result in a substantial safety risk to flight. A copy of the ALUC staff report that contains the conditions of approval imposed on the Project by the ALUC are included in Project's Administrative Record for this EIR on file with the City of Moreno Valley.

Based on the foregoing information, the Project would not have the potential to affect air traffic patterns, including an increase in traffic levels or a change in flight path location that results in substantial safety risks. No impact would occur.

Threshold d) Would the Project substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

The Project would be compatible with existing and planned warehouse distribution and light industrial uses to the north, south, and west of the Project site. The Project also would prohibit Project-related truck traffic on Indian Street and would be located in close proximity to several City-designated truck routes, which would eliminate potential incompatibilities with residentially-zoned properties and primary bicycle and pedestrian travel ways. As such, there would be no transportation hazards created as a result of an incompatible land use.

All proposed improvements within the public right-of-ways would be installed in conformance with City design standards. The City of Moreno Valley Public Works Department reviewed the Project's application materials (refer to EIR Section 3.0, *Project Description*) and determined that no hazardous transportation design features would be introduced by the Project. Additionally, a construction traffic control plan is recommended by this EIR (refer to Subsection 4.11.8) to safely route traffic along abutting roadways during temporary construction activities and to maintain adequate emergency access.

Accordingly, the proposed Project would not create or substantially increase safety hazards due to a design feature or incompatible use. The Project would result in a less-than-significant impact.

Threshold e) Would the Project result in inadequate emergency access?

During the course of the City of Moreno Valley's review of the proposed Project, the City evaluated the Project's design, including but not limited to proposed driveway locations and parking lot/drive aisle configuration, to ensure that adequate access would be provided for emergency vehicles at Project build out. Furthermore, as described above under the response to Threshold (d), the Project would provide adequate emergency access along abutting roadways during temporary construction activities within the roadways (i.e., the installation of utility infrastructure). Therefore, the Project would not result in inadequate emergency access and a less-than-significant impact would occur.

Threshold f) ***Would the Project conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?***

The Project is designed to accommodate pedestrians via sidewalks provided along adjacent public roadways. Landscaping is designed to be installed along the Project's perimeter, which would separate the adjacent public roadway rights-of-way (and their associated streetscapes and sidewalks) from the proposed Project's interior, eliminating any conflict between Project operations and the sidewalks along perimeter roadways. Furthermore, all Project driveways would be stop-sign controlled and sight distances at each Project driveway would be reviewed by the City of Moreno Valley at the time improvement plans are submitted to ensure that sight distance meets minimum City safety standards.

According to City of Moreno Valley General Plan, the Project site abuts Class III bikeways on Heacock Street, Krameria Avenue, and Indian Street. Class III bikeways are designated bikeways, not striped, and are shared with vehicles. In January 2015, the City of Moreno Valley adopted a Bicycle Master Plan, which updates and supersedes the recommendations of the General Plan. The Bicycle Master Plan identifies a planned Class I, multi-use bike path along the segment of the Perris Valley Storm Drain Channel that traverses the Project site (within property owned by the Riverside County Flood Control and Water Conservation District) as well as Class II (striped) bike lanes along the segments of Heacock Street and Indian Street that abut the Project site. The Project does not include any element that would prevent the implementation of or preclude the use of the planned Class I and Class II bicycle facilities adjacent to the Project site.

Two bus routes, Route 19 and Route 20, operate in close proximity to the Project site; however, neither bus route operates along roads that abut the Project site. There are no other public transit services in the vicinity of the Project site under existing conditions. Accordingly, the Project could not conflict with local public transit service.

Off site, trucks accessing the Project are required to use approved truck routes designated by the Cities of Moreno Valley and Perris. Mandatory use of designated truck routes would minimize potential real and perceived conflicts between trucks and passenger vehicles, bicyclists, and pedestrians and would maximize the safety of the multi-model circulation system.

As demonstrated by the foregoing analysis, the Project would not conflict with adopted policies, plans or programs related to alternative transportation, or otherwise substantially decrease the performance or safety of such facilities, and a less-than-significant impact would occur.

4.11.6 Cumulative Impact Analysis

The analysis under Threshold (a) disclosed the Project's potential to affect the transportation network on a direct and cumulative basis. As concluded under Threshold (a), the Project would contribute considerable traffic volumes at intersections and roadway segments within the Project study area that are projected to experience significant, cumulative impacts under short-term construction, Existing plus Project, Opening Year (2020) and/or General Plan Buildout (Post-2035) traffic conditions. The intersections and roadway segments that would receive cumulatively considerable impacts from the Project are listed below:

Cumulatively Impacted Intersections

- I-215 southbound ramps / Cactus Avenue (Intersection #1);
- I-215 southbound ramps / Harley Knox Boulevard (Intersection #2);
- I-215 northbound ramps / Cactus Avenue (Intersection #3);
- I-215 northbound ramps / Harley Knox Boulevard (Intersection #4);
- Elsworth Street / Cactus Avenue (Intersection #5);
- Western Way / Harley Knox Boulevard (Intersection #7);
- Graham Street / Cactus Avenue (Intersection #8);
- Patterson Avenue / Harley Knox Boulevard (Intersection #9);
- Heacock Street / Cactus Avenue (Intersection #10);
- Heacock Street / Gentian Avenue (Intersection #12);
- Heacock Street / Iris Avenue (Intersection #13);
- Heacock Street / San Michele Road (Intersection #18);
- Webster Avenue / Harley Knox Boulevard (Intersection #20);
- Indian Street / Krameria Avenue (Intersection #26);
- Indian Street / San Michele Road (Intersection #28);
- Indian Street / Nandina Avenue (Intersection #29);
- Indian Street / Harley Knox Boulevard (Intersection #30);
- Perris Boulevard / Cactus Avenue (Intersection #31); and
- Perris Boulevard / Krameria Avenue (Intersection #32).

Cumulatively Impacted Roadway Segments

- Cactus Avenue, I-215 southbound ramps to I-215 northbound ramps (Roadway #1);
- Cactus Avenue, east of I-215 ramps (Roadway #2);
- Cactus Avenue, west of Elsworth Street (Roadway #3);
- Cactus Avenue, east of Elsworth Street (Roadway #4);
- Cactus Avenue, west of Frederick Street (Roadway #5);
- Cactus Avenue, east of Frederick Street (Roadway #6);
- Cactus Avenue, west of Graham Street (Roadway #7);
- Cactus Avenue, east of Graham Street (Roadway #8);
- Cactus Avenue, west of Heacock Street (Roadway #9);

- Cactus Avenue, east of Heacock Street (Roadway #10);
- Krameria Street, Heacock Street to Cosmos Street (Roadway #12);
- Cactus Avenue, west of Perris Boulevard (Roadway #18);
- San Michele Road, east of Heacock Street (Roadway #20);
- San Michele Road, west of Indian Street (Roadway #21);
- Harley Knox Boulevard, I-215 northbound ramps to Western Way (Roadway #23);
- Harley Knox Boulevard, east of Western Way (Roadway #24);
- Harley Knox Boulevard, west of Patterson Avenue (Roadway #25);
- Harley Knox Boulevard, east of Patterson Avenue (Roadway #26);
- Harley Knox Boulevard, west of Webster Avenue (Roadway #27);
- Harley Knox Boulevard, east of Webster Avenue (Roadway #28);
- Harley Knox Boulevard, west of Indian Street (Roadway #29);
- Heacock Street, north of Gentian Avenue (Roadway #33);
- Heacock Street, south of Gentian Avenue (Roadway #34);
- Heacock Street, Iris Avenue to Krameria Avenue (Roadway #36);
- Heacock Street, Cardinal Avenue to San Michele Road (Roadway #40);
- Indian Street, San Michele Road to Nandina Avenue (Roadway #46);
- Indian Street, south of Nandina Avenue (Roadway #47); and
- Indian Street, north of Harley Knox Boulevard (Roadway #48).

The analysis under Threshold (b) evaluated the Project's potential to result in substantial adverse effects to the Riverside County CMP roadway network, including CMP arterial roadways and freeway facilities. As concluded under Threshold (b), the addition of Project traffic to the existing and planned CMP roadway network would result in cumulatively considerable impacts to the following CMP intersections (all of which were previously identified under the cumulative analysis for Threshold One, above):

Cumulatively Impacted CMP Intersections

- I-215 southbound ramps / Cactus Avenue (Intersection #1);
- I-215 southbound ramps / Harley Knox Boulevard (Intersection #2);
- I-215 northbound ramps / Cactus Avenue (Intersection #3); and
- I-215 northbound ramps / Harley Knox Boulevard (Intersection #4).

In addition to the CMP intersections listed above, Project would contribute considerable traffic volumes to CMP freeway mainline segments, merge/diverge ramp junctions, and ramps within the Project study area that are projected to experience significant, cumulative impacts under Opening Year (2020) and/or General Plan Buildout (Post-2035) traffic conditions. The CMP freeway facilities that would receive cumulatively considerable impacts from the Project are listed below:

Cumulatively Impacted CMP Freeway Mainline Segments

- SR-91 eastbound, McKinley Street to Riverwalk Parkway (Freeway Segment #2);

- SR-91 eastbound, Riverwalk Parkway to Magnolia Avenue (Freeway Segment #3);
- SR-91 eastbound, Adams Street to Madison Street (Freeway Segment #8);
- I-215 southbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #24);
- I-215 southbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #27);
- I-215 southbound, Ramona Expressway to Nuevo Road (Freeway Segment #29);
- SR-91 westbound, I-15 to McKinley Street (Freeway Segment #30);
- SR-91 westbound, McKinley Street to Riverwalk Parkway (Freeway Segment #31);
- SR-91 westbound, Riverwalk Parkway to Magnolia Avenue (Freeway Segment #32);
- SR-91 westbound, Magnolia Avenue to La Sierra Avenue (Freeway Segment #33);
- SR-91 westbound, La Sierra Avenue to Tyler Avenue (Freeway Segment #34);
- I-215 northbound, University Avenue to Martin Luther King Boulevard (Freeway Segment #48);
- I-215 northbound, Martin Luther King Boulevard to Central Avenue (Freeway Segment #49);
- I-215 northbound, Box Springs Road to SR-60/I-215 (Freeway Segment #51);
- I-215 northbound, SR-60 to Eucalyptus Avenue (Freeway Segment #52);
- I-215 northbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #53);
- I-215 northbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #56); and
- I-215 northbound, Ramona Expressway to Nuevo Road (Freeway Segment #58).

Cumulatively Impacted CMP Freeway Ramp Merge/Diverge Junctions

- I-215 southbound, loop off-ramp (upstream) at Cactus Avenue (Ramp Junction #1);
- I-215 southbound, loop off-ramp (downstream) at Cactus Avenue (Ramp Junction #2);
- I-215 southbound, off-ramp at Harley Knox Boulevard (Ramp Junction #3);
- I-215 southbound, on-ramp at Harley Knox Boulevard (Ramp Junction #4);
- I-215 northbound, on-ramp at Cactus Avenue (Ramp Junction #5);
- I-215 northbound, on-ramp at Harley Knox Boulevard (Ramp Junction #6); and
- I-215 northbound, off-ramp at Harley Knox Boulevard (Ramp Junction #7).

Cumulatively Impacted CMP Freeway Ramps

- I-215 southbound ramps / Cactus Avenue (Ramp Junction #1), southbound right turn lane;
- I-215 southbound ramps / Harley Knox Boulevard (Ramp #2), southbound shared left-through lane; and
- I-215 northbound ramps / Cactus Avenue (Ramp Junction #3), northbound left turn lane.

The proposed Project has no potential to contribute to a significant cumulative impact under the topics discussed under Thresholds 3, 4, and 5, because the Project has no potential to result in changes to air traffic patterns, to result in transportation design safety concerns, or to adversely affect emergency access on a direct or cumulative basis.

As presented under Threshold (f), the proposed Project would not conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities and thus has no potential to contribute to a cumulative impact. The Project would have a less-than-significant cumulatively considerable impact to adopted policies and programs regarding public transit, bicycle, and pedestrian facilities, as well as a less-than-significant cumulatively considerable impact to the performance of such facilities.

4.11.7 Significance of Impacts before Mitigation

Threshold a): Significant Direct and Cumulatively Considerable Impact. The Project would be directly responsible for LOS deficiencies at Project study area intersections and roadway segments under short-term construction and Existing plus Project traffic conditions (without and with the Indian Street Bridge). In addition, the Project would contribute to LOS deficiencies at numerous Project study area intersections and roadway segments under short-term construction, Existing plus Project, Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions.

Threshold b): Cumulatively Considerable Impact. The Project would contribute cumulatively considerable traffic volumes at numerous intersections and freeway facilities included within the Riverside County CMP roadway networks under Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions.

Threshold c): Less-than-Significant Impact. The proposed Project does not include an air travel component and would not affect local air traffic levels. In addition, the Project would not introduce any feature into the local area that would alter or obstruct air traffic patterns.

Threshold d): Less-than-Significant Impact. Implementation of the proposed Project would not substantially increase transportation safety hazards due to incompatible uses or design features.

Threshold e): Less-than-Significant Impact. Adequate emergency access would be provided to the Project site during both short-term construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.

Threshold f): Less-than-Significant Impact. The proposed Project is consistent with adopted policies and programs regarding public transit, bicycle, and pedestrian facilities, and is designed to minimize potential conflicts with non-vehicular means of transportation. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.

4.11.8 Mitigation

The following mitigation measures would minimize the Project's direct impact to the intersection of Heacock Street / San Michele Road (Intersection #18) under near-term construction activities and Existing plus Project conditions:

MM 4.11-1 Prior to the issuance of the first grading permit, the traffic signal at the Heacock Street / San Michele Road intersection shall be modified to provide overlap phasing on the westbound right turn lane.

The following mitigation measure would minimize the Project's direct impact to the Heacock Street segment north of Iris (Roadway #35) and the Project's cumulatively considerable impact to the Heacock Street segment south of Gentian (Roadway #34) under near-term construction activities.

MM 4.11-2 Prior to the issuance of grading or building permits, the Project Applicant shall prepare and submit a temporary traffic control plan to the City of Moreno Valley for approval. The temporary traffic control plan shall comply with the applicable requirements of the *California Manual on Uniform Traffic Control Devices*. A requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractors. The temporary traffic control plan shall require the following:

a) The construction contractor shall assure that construction-related trips, including employee trips and delivery trucks, shall utilize the most direct route between the Project site and the I-215 freeway via Harley Knox Boulevard.

The following mitigation measure would minimize the Project's direct impact under Existing plus Project conditions to the intersection of Heacock Street / Cactus Avenue (Intersection #10):

MM 4.11-3 Prior to building final for Project's the first building, the Project Applicant shall assure the Heacock Street / Cactus Avenue intersection is improved with the following geometrics:

a) Re-stripe the two northbound left turn lanes to provide 315 feet of lane storage for each lane.

The following mitigation measure would minimize the Project's direct impacts under Existing plus Project conditions to the intersection of Heacock Street / Gentian Avenue (Intersection #12) and the Heacock Street roadway segment north of Iris Avenue (Roadway #35):

MM 4.11-4 Prior to building final for the Project's first building, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Gentian Avenue intersection.

The following mitigation measure would to minimize the Project's direct impacts under Existing plus Project conditions to the intersection of Heacock Street / Iris Avenue (Intersection #13), the Heacock Street roadway segment north of Iris Avenue (Roadway #35), and the Heacock Street roadway segment between Iris Avenue and Krameria Avenue (Roadway #36):

MM 4.11-5 Prior to building final for the Project's first building the issuance of the Project's first occupancy permit, a traffic signal (as programmed under the City of Moreno Valley Development Impact Fee program) shall be installed at the Heacock Street / Iris Avenue intersection.

The following mitigation measure would minimize the Project's direct impact to the intersection of Indian Street / Harley Knox Boulevard (Intersection #30) under the theoretical Existing plus Project with Indian Street Bridge traffic scenario:

MM 4.11-6 In the event a bridge has been constructed over the Perris Valley Storm Drain Channel to connect Indian Street on the north/south sides of the Channel prior to building final for the Project's first building, then the Project Applicant shall use reasonable efforts to make a fee payment to the City of Perris that shall be used to modify the traffic signal at the Indian Street / Harley Knox Boulevard intersection to provide overlap phasing on the southbound right turn lane.

The following mitigation measures would minimize the Project's cumulative impacts to the local roadway network under short-term construction, Existing plus Project (without and with Indian Street Bridge), Opening Year (2020), and General Plan Buildout (Post-2035) conditions:

MM 4.11-7 Prior to issuance of building permits, the Project shall comply with the City of Moreno Valley Development Impact Fee (DIF) program, which requires the payment of a fee to the City (less fee credits), a portion of which is applied to reduce traffic congestion by funding the installation of roadway improvements.

MM 4.11-8 Prior to issuance of building permits, the Project shall comply with the Transportation Uniform Mitigation Fee (TUMF) program, which funds off-site regional transportation improvements.

MM 4.11-9 Prior to issuance of building final for Buildings 1, 2, 3, and 4, the Project Applicant shall make a fair share fee payment to the City of Moreno Valley for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the geographical limits of the City of Moreno Valley. These roadway improvements are not included within the City of Moreno Valley's Development Impact Fee (DIF) program. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations*.

MM 4.11-10 Prior to issuance of the building final for Buildings 1, 2, 3, and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the March Joint Powers Authority for the roadway improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated February 26, 2016), that are located within the March Joint Powers Authority's jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations*.

MM 4.11-11 Prior to issuance of the building final for Buildings 1, 2, 3, and 4, the Project Applicant shall use reasonable efforts to make a fair share fee payment to the City of Perris for the improvements listed in Table 6-6 and Table 7-6 of the "Moreno Valley Logistics Center Traffic Impact Analysis," prepared by Urban Crossroads (dated November 18, 2015), that are located within the City of Perris' jurisdiction. The needed roadway improvements are not included within an existing mitigation program where the Project can participate. The fair share fee attributable to Buildings 1, 2, 3, and 4 shall be calculated according to the percentages specified in EIR Table 4.11-35, *Project Fair Share Calculations*.

The following mitigation measures would minimize the Project's cumulative impacts to freeway mainline segments, ramp merge/diverge junctions, and off-ramps under Opening Year (2020) and General Plan Buildout (Post-2035) conditions:

MM 4.11-12 In the event that Caltrans prepares a valid study, as defined below, that identifies fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary undertake improvements to I-215 and SR-91 in the Project study area, then the Project Applicant shall use reasonable efforts to pay the applicable fair share amount to Caltrans.

The study shall include fair share contributions related to private and or public development based on nexus requirements contained in the Mitigation Fee Act (Govt. Code § 66000 et seq.) and 14 Cal. Code of Regs. § 15126.4(a)(4) and, to this end, the study shall recognize that impacts to Caltrans I-215 and SR-91 facilities that are not attributable to development located within the City of Moreno Valley are not required to pay in excess of such developments' fair share obligations. The fee study shall also be compliant with Government Code § 66001(g) and any other applicable provisions of law. The study shall set forth a timeline and other relevant criteria for implementation of the recommendations contained within the study to the extent the other agencies agree to participate in the fee study program.

In the event the study has been prepared, the Project Applicant shall use reasonable efforts to pay the fair share amount to Caltrans. If Caltrans chooses to accept the Project Applicant's fair share payment, Caltrans shall apply the payment to the fee program adopted by Caltrans or agreed upon by the Project Applicant and Caltrans as a result of the fair share fee study. Caltrans shall only accept the fair share payment if the fair share fee study has been completed. If, within five years from the date that the first building permit is issued for the Project, Caltrans has not completed the fair share fee study, then the Project Applicant shall have no further obligation to comply with this mitigation measure.

4.11.9 Significance of Impacts after Mitigation

Threshold a): Significant and Unavoidable Direct and Cumulatively Considerable Impact. Implementation of mitigation measures (MM) MM 4.11-2 through MM 4.11-1 would require the Project to construct roadway improvements, pay development impact fees, and participate in fair share funding programs to address the Project's direct and cumulative impacts to the local roadway network. The ability of MM 4.11-2 through MM 4.11-1 to alleviate the Project's impacts under each analysis scenario is discussed below.

Short-Term Construction Conditions

As shown in Table 4.11-36, *Short-Term Construction Intersection Analysis – With Mitigation*, Intersection #16 would operate at acceptable LOS under short-term construction conditions with implementation of MM 4.11-1. Therefore, the Project's direct impact to Intersection #16 during the PM peak hour under short-term construction traffic conditions would be less than significant with mitigation.

With implementation of MM 4.11-2, the Project would not contribute traffic to Roadway #35 during short-term construction activities and, therefore, would not cause the LOS deficiency along this Roadway. Accordingly, MM 4.11-2 would reduce the Project's direct impact to Roadway #35 under short-term construction traffic conditions to less than significant.

Implementation of MM 4.11-2 would avoid the Project's cumulatively considerable impact to Roadway #34 under short-term construction conditions. MM 4.11-7 would require the Project to make DIF contributions to fund the DIF-programmed improvements needed to improve Intersections #12 and #13 to acceptable LOS (refer to Table 4.11-36 for operating conditions at these Intersections after recommended improvements). The payment of mitigation fees toward a planned improvement with reasonable assurance of implementation is adequate mitigation under CEQA. Therefore, because the Project would make a DIF fee payment, from which a portion would be allocated toward the programmed improvements at Intersections #12 and #13, fee payment is appropriate mitigation for the Project's impact at this intersection. However, there is no guarantee that the physical improvements required to alleviate the LOS deficiency will be in place at the time the Project begins to contribute traffic at this location during construction. Therefore, although MM 4.11-7 would fully mitigate the Project's cumulatively considerable impacts to Intersections #12 and #13, there will likely be a period of time when the intersection is receiving Project traffic and still operating at a deficient LOS. This is a cumulatively considerable, and unavoidable impact of the Project.

Existing plus Project Conditions

As shown in Table 4.11-37, *Existing Plus Project Intersection Analysis – With Mitigation*, Intersections #12, #13, and #18 would operate at acceptable LOS under Existing plus Project conditions (without and with the Indian Street Bridge) with implementation of MM 4.11-1 through MM 4.11-5. Accordingly, the Project's impacts to Intersections #12 and #13 during the AM peak hour (direct) and PM peak hour (cumulative) and direct impact to Intersection #18 during the PM peak hour would be less than significant with mitigation.

Additionally, as shown in Table 4.11-37, Intersection #30 would operate at acceptable LOS with recommended improvements under the theoretical Existing plus Project with Indian Street Bridge traffic scenario. Most of the recommended improvements at Intersection #30 have been constructed since the release of the Project's NOP and are fully operational as of the writing of this EIR (i.e., two eastbound through lanes and two westbound through lanes). One of the improvements recommended to resolve the Project's direct impact at Intersection #30 under the theoretical Existing plus Project with Indian Street Bridge traffic scenario – traffic signal for the southbound right turn lane with overlap phasing – has not been constructed as of the writing of this EIR and is still recommended for the Project. However, Intersection #30 is located outside of the geographic limits of the City of Moreno Valley, meaning the City of Moreno Valley cannot assure that the recommended improvement would be implemented, and are not included in any existing mitigation funding program that is applicable to the Project. Under the theoretical scenario where the Indian Street Bridge is constructed and operational prior to occupancy of the Project, MM 4.11-6 would require the Project Applicant to contribute fees to fund the needed improvement; however, there is no assurance that the transfer of the funds and/or the required improvement would be operational at the time of need. Under the theoretical Existing plus Project scenario where the Indian Street Bridge is constructed and operational prior to occupancy of the Project, the Project's direct impact to Intersection #30 would be significant and unavoidable.

The intersections that abut Roadways #34, #35, and #36 (i.e., Intersections #12, #13, and #14) are projected to operate at an acceptable LOS under Existing plus Project conditions with the improvements MM 4.11-1 through MM 4.11-5 (both without and with the Indian Street Bridge, refer to Table 4.11-37). (*Note:* Intersection #14 would operate at acceptable LOS under Existing plus Project conditions and would not require any improvements, refer to Table 4.11-21.) Intersection operations are an indicator of roadway segment performance, as small delays indicate that traffic flows smoothly along the roadway segment while large delays indicate unstable movement along the roadway segment. Because the intersections adjacent to Roadways #34, #35, and #36 would experience acceptable traffic flow with the improvements identified in MM 4.11-1 through MM 4.11-5, traffic operations along the Roadways would be considered acceptable. (Urban Crossroads, 2016e, p. 139) Accordingly, the Project's cumulative impacts to Roadway #34 and direct impacts to Roadways #35 and #36 would be less than significant after mitigation.

Opening Year (2020) Conditions

As shown in Table 4.11-38, *Opening Year (2020) Intersection Analysis – With Mitigation*, all intersections in the Project study area would operate at acceptable LOS with recommended improvements. However, Intersections #1, #2, #3, #4, #5, #7, #8, #9, #10, #13, #18, #28, #29, #30, #31, and #32 would require improvements that are: 1) located outside the geographic limits of the City of Moreno Valley (meaning the City of Moreno Valley cannot assure that the recommended improvements would be implemented); 2) funded by existing mitigation funding programs, for which a timetable for construction is not yet available (meaning the necessary improvements may not be in place when the Project becomes operational and starts to contribute traffic to the facilities); and/or 3) not included in any existing mitigation funding program (meaning there is no mechanism available for development projects to contribute toward the construction of needed improvements). Because the Lead Agency (City of Moreno Valley) cannot assure the recommended improvements would be implemented and/or in place at the time of need, the Project's cumulative impacts to Intersections #1, #2, #3, #4, #5, #7, #8, #9, #10, #13, #18, #28, #29, #30, #31, and #32 under the Opening Year (2020) scenario are recognized as significant and unavoidable. No other feasible mitigation measures for these cumulatively considerable impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities.

As shown in Table 4.11-39, *Opening Year (2020) Roadway Segment Analysis – With Mitigation*, all intersections in the Project study area would operate at acceptable LOS with recommended improvements with the exception of Roadways #1, #2, #3, #4, #5, #6, #7, #8, #9, #20, #21, #23, #24, #33, and #47. Although these Roadways would operate at unacceptable LOS based on volume-based metrics, the intersections that abut these Roadways would operate at acceptable LOS with implementation of recommended improvements (refer to Table 4.11-38). As described previously, in instances where intersections at both legs of a roadway segment operate at acceptable LOS, then the roadway segment is considered to experience acceptable traffic flow. Thus, with implementation of recommended improvements all intersections and roadway segments in the Project study area would operate at acceptable levels under Opening Year (2020) conditions (refer to Table 4.11-38 and Table 4.11-39). However, the improvements required to Project study area intersections and roadway segments are: 1) located outside the geographic limits of the City of Moreno Valley; 2) funded by existing mitigation funding programs, for which a timetable for construction is not yet available; and/or 3) not included in any existing mitigation funding program; therefore, there is no mechanism available for development projects to contribute toward the construction of needed improvements. Because the Lead Agency (City of Moreno Valley) cannot assure the recommended improvements would be implemented and/or in place at the time of need, the Project's cumulative impacts to Roadways #1, #2, #3, #4, #5, #6, #7, #8, #9, #20, #21, #23, #24, #33, and #47 under the Opening Year (2020) scenario are recognized as significant and unavoidable. No other feasible mitigation measures for these cumulatively considerable impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities.

General Plan Buildout (Post-2035) Conditions

As shown in Table 4.11-40, *General Plan Buildout (Post-2035) Intersection Analysis – With Mitigation*, all intersections in the Project study area would operate at acceptable LOS with recommended improvements. However, Intersections #1, #2, #3, #4, #5, #7, #8, #9, #10, #13, #18, #28, #29, #30, #31, and #32 would require improvements that are: 1) located outside the geographic limits of the City of Moreno Valley; 2) funded by existing mitigation funding programs, for which a timetable for construction is not yet available; and/or 3) not included in any existing mitigation funding program. Because the Lead Agency (City of Moreno Valley) cannot assure the recommended improvements would be implemented and/or in place at the time of need, the Project's cumulative impacts to Intersections #1, #2, #3, #4, #5, #7, #8, #9, #10, #13, #18, #28, #29, #30, #31, and #32 under the General Plan Buildout (Post-2035) scenario are recognized as significant and unavoidable. No other feasible mitigation measures for these cumulatively considerable impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities.

As shown in Table 4.11-41, *General Plan Buildout (Post-2035) Roadway Segment Analysis – With Mitigation*, all intersections in the Project study area would operate at acceptable LOS with recommended improvements with the exception of Roadways #1, #2, #5, #6, #7, #8, and #9. Although these Roadways would operate at unacceptable LOS based on volume-based metrics, the intersections that abut these Roadways would operate at acceptable LOS with implementation of recommended improvements (refer to Table 4.11-40). As described previously, in instances where intersections at both legs of a roadway segment operate at acceptable LOS, then the roadway segment is considered to experience acceptable traffic flow. Thus, with implementation of recommended improvements all intersections and roadway segments in the Project study area would operate at acceptable levels under General Plan Buildout (Post-2035) conditions (refer to Table 4.11-40 and Table 4.11-39). However, the improvements required to Project study area intersections and roadway segments are: 1) located outside the geographic limits of the City of Moreno Valley; 2) funded by existing mitigation funding programs, for which a timetable for construction is not yet available; and/or 3) not included in any existing mitigation funding program. Because the Lead Agency (City of Moreno Valley) cannot assure the recommended improvements would be implemented and/or in place at the time of need, the Project's cumulative impacts to #1, #2, #5, #6, #7, #8, and #9 under the General Plan Buildout (Post-2035) conditions scenario are recognized as significant and unavoidable. No other feasible mitigation measures for these cumulatively considerable impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities.

Threshold b): Significant and Unavoidable Cumulatively Considerable Impact. All freeway facilities in the Project study area, including I-215, SR-60, and SR-91 and associated merge/diverge ramp junctions areas and ramps, are under the jurisdiction of Caltrans. As such, the City of Moreno Valley cannot assure the construction of improvements to freeway facilities that may be needed to improve traffic flow. Furthermore, Caltrans does not have any funding mechanism in place to allow development projects to contribute a fair-share payment to contribute to future improvements and off-set cumulatively considerable traffic impacts. Thus, although MM 4.11-12 requires the Project Applicant to make fair share fee contributions to Caltrans to fund improvements to freeway facilities in the Project study area – in the event that Caltrans establishes a fair share funding program that is applicable to the Project – there is no assurance that planned improvements will be in place prior to the time that the Project begins to contribute traffic to the facilities. Accordingly, the Project's contribution of traffic to previously identified, congested freeway facilities under Opening Year (2020) and/or General Plan Buildout (Post-2035) conditions would represent a significant and unavoidable cumulative impact.

As shown in Table 4.11-37 and Table 4.11-39, Intersections #1, #2, #3, and #4, would operate at acceptable LOS under Opening Year (2020) and General Plan Buildout (Post-2035) conditions with the addition of recommended improvements. The improvements recommended for Intersections #1, #2, #3, and #4 are programmed – but not yet fully funded – by TUMF. The Project would contribute to the TUMF program via MM 4.11-8. Furthermore, Intersections #1, #2, #3, and #4 are located outside of the geographic limits of the City of Moreno Valley, meaning the City cannot assure would not be in place when the Project becomes operational and starts to contribute traffic to the facilities. Because there is no timetable for constructing the TUMF-programmed improvements Intersections #1, #2, #3, and #4 and because the City cannot assure the construction of the recommended improvements by their time of need, the Project's cumulative impact at these Intersections is determined to be significant and unavoidable under Opening Year (2020) and General Plan Buildout (Post-2035) conditions.

Table 4.11-1 Project Study Area Intersections

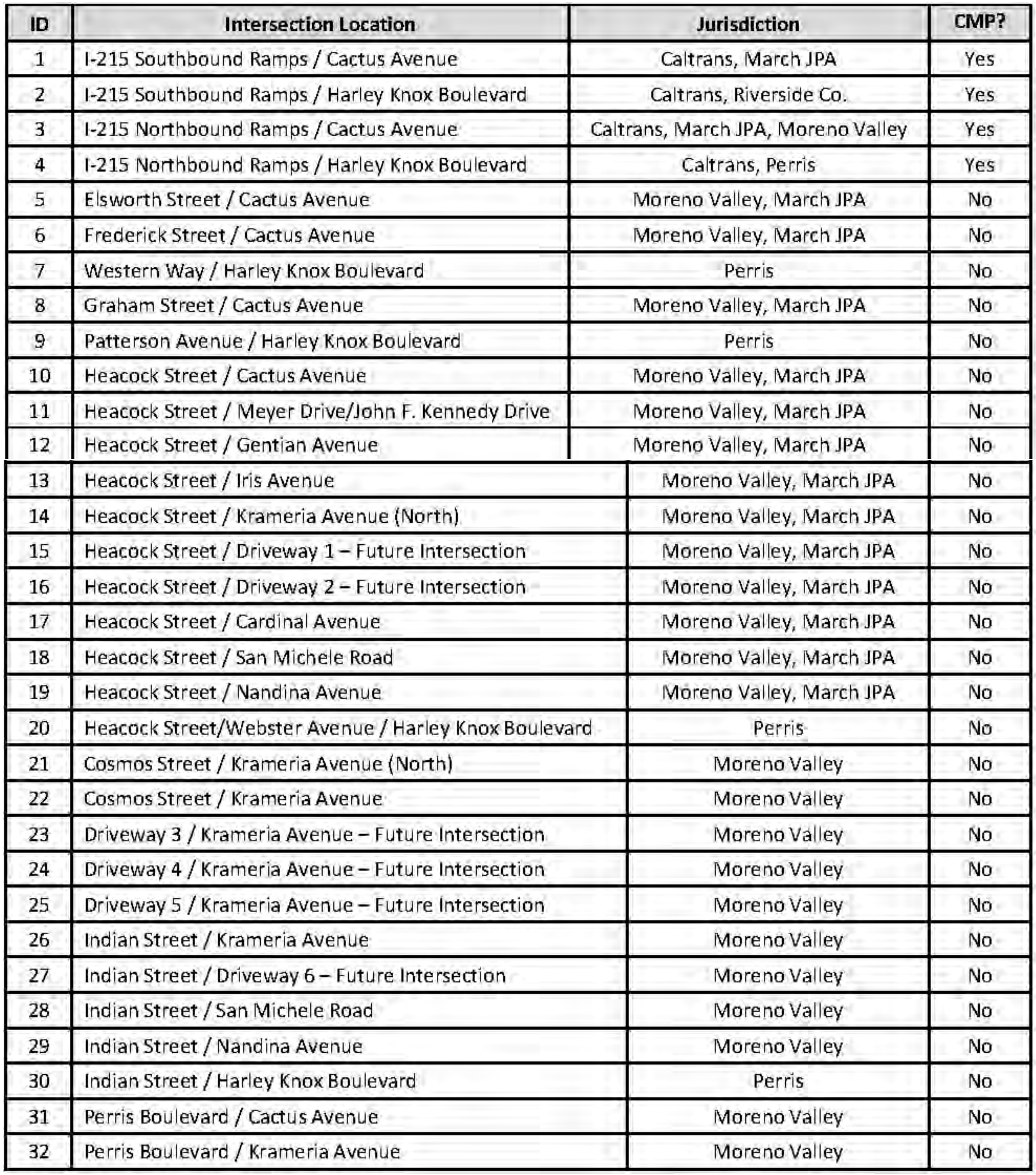

ID	Intersection Location	Jurisdiction	CMP?
1	I-215 Southbound Ramps / Cactus Avenue	Caltrans, March JPA	Yes
2	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans, Riverside Co.	Yes
3	I-215 Northbound Ramps / Cactus Avenue	Caltrans, March JPA, Moreno Valley	Yes
4	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans, Perris	Yes
5	Elsworth Street / Cactus Avenue	Moreno Valley, March JPA	No
6	Frederick Street / Cactus Avenue	Moreno Valley, March JPA	No
7	Western Way / Harley Knox Boulevard	Perris	No
8	Graham Street / Cactus Avenue	Moreno Valley, March JPA	No
9	Patterson Avenue / Harley Knox Boulevard	Perris	No
10	Heacock Street / Cactus Avenue	Moreno Valley, March JPA	No
11	Heacock Street / Meyer Drive/John F. Kennedy Drive	Moreno Valley, March JPA	No
12	Heacock Street / Gentian Avenue	Moreno Valley, March JPA	No
13	Heacock Street / Iris Avenue	Moreno Valley, March JPA	No
14	Heacock Street / Krameria Avenue (North)	Moreno Valley, March JPA	No
15	Heacock Street / Driveway 1 – Future Intersection	Moreno Valley, March JPA	No
16	Heacock Street / Driveway 2 – Future Intersection	Moreno Valley, March JPA	No
17	Heacock Street / Cardinal Avenue	Moreno Valley, March JPA	No
18	Heacock Street / San Michele Road	Moreno Valley, March JPA	No
19	Heacock Street / Nandina Avenue	Moreno Valley, March JPA	No
20	Heacock Street/Webster Avenue / Harley Knox Boulevard	Perris	No
21	Cosmos Street / Krameria Avenue (North)	Moreno Valley	No
22	Cosmos Street / Krameria Avenue	Moreno Valley	No
23	Driveway 3 / Krameria Avenue – Future Intersection	Moreno Valley	No
24	Driveway 4 / Krameria Avenue – Future Intersection	Moreno Valley	No
25	Driveway 5 / Krameria Avenue – Future Intersection	Moreno Valley	No
26	Indian Street / Krameria Avenue	Moreno Valley	No
27	Indian Street / Driveway 6 – Future Intersection	Moreno Valley	No
28	Indian Street / San Michele Road	Moreno Valley	No
29	Indian Street / Nandina Avenue	Moreno Valley	No
30	Indian Street / Harley Knox Boulevard	Perris	No
31	Perris Boulevard / Cactus Avenue	Moreno Valley	No
32	Perris Boulevard / Krameria Avenue	Moreno Valley	No

Source: (Urban Crossroads, 2016e, Table 1-1)

Table 4.11-2 Project Study Area Roadway Segments

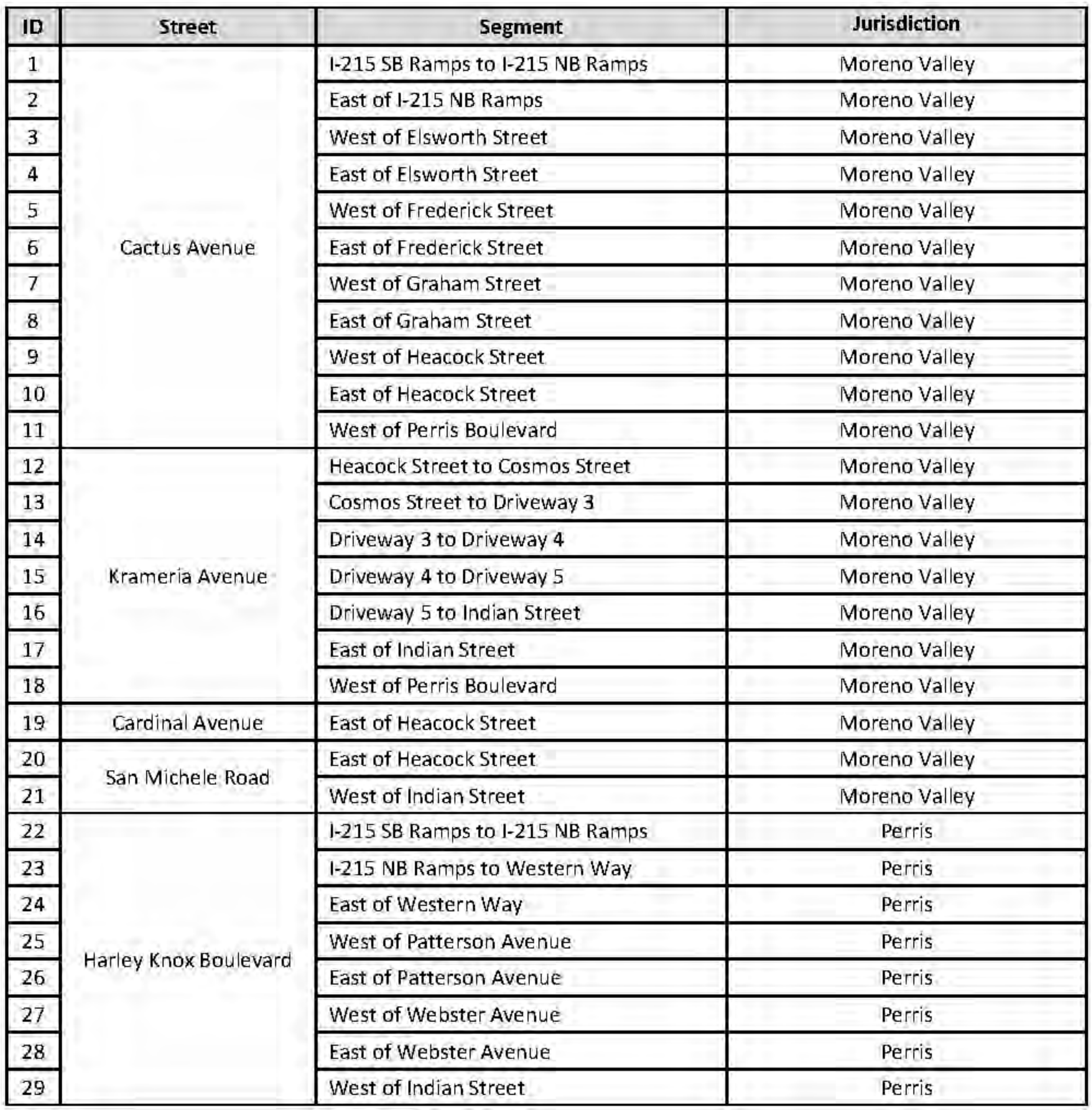

ID	Street	Segment	Jurisdiction
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	Moreno Valley
2		East of I-215 NB Ramps	Moreno Valley
3		West of Elsworth Street	Moreno Valley
4		East of Elsworth Street	Moreno Valley
5		West of Frederick Street	Moreno Valley
6		East of Frederick Street	Moreno Valley
7		West of Graham Street	Moreno Valley
8		East of Graham Street	Moreno Valley
9		West of Heacock Street	Moreno Valley
10		East of Heacock Street	Moreno Valley
11		West of Perris Boulevard	Moreno Valley
12	Krameria Avenue	Heacock Street to Cosmos Street	Moreno Valley
13		Cosmos Street to Driveway 3	Moreno Valley
14		Driveway 3 to Driveway 4	Moreno Valley
15		Driveway 4 to Driveway 5	Moreno Valley
16		Driveway 5 to Indian Street	Moreno Valley
17		East of Indian Street	Moreno Valley
18		West of Perris Boulevard	Moreno Valley
19	Cardinal Avenue	East of Heacock Street	Moreno Valley
20	San Michele Road	East of Heacock Street	Moreno Valley
21		West of Indian Street	Moreno Valley
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	Perris
23		I-215 NB Ramps to Western Way	Perris
24		East of Western Way	Perris
25		West of Patterson Avenue	Perris
26		East of Patterson Avenue	Perris
27		West of Webster Avenue	Perris
28		East of Webster Avenue	Perris
29		West of Indian Street	Perris

Table 4.11-2 Project Study Area Roadway Segments

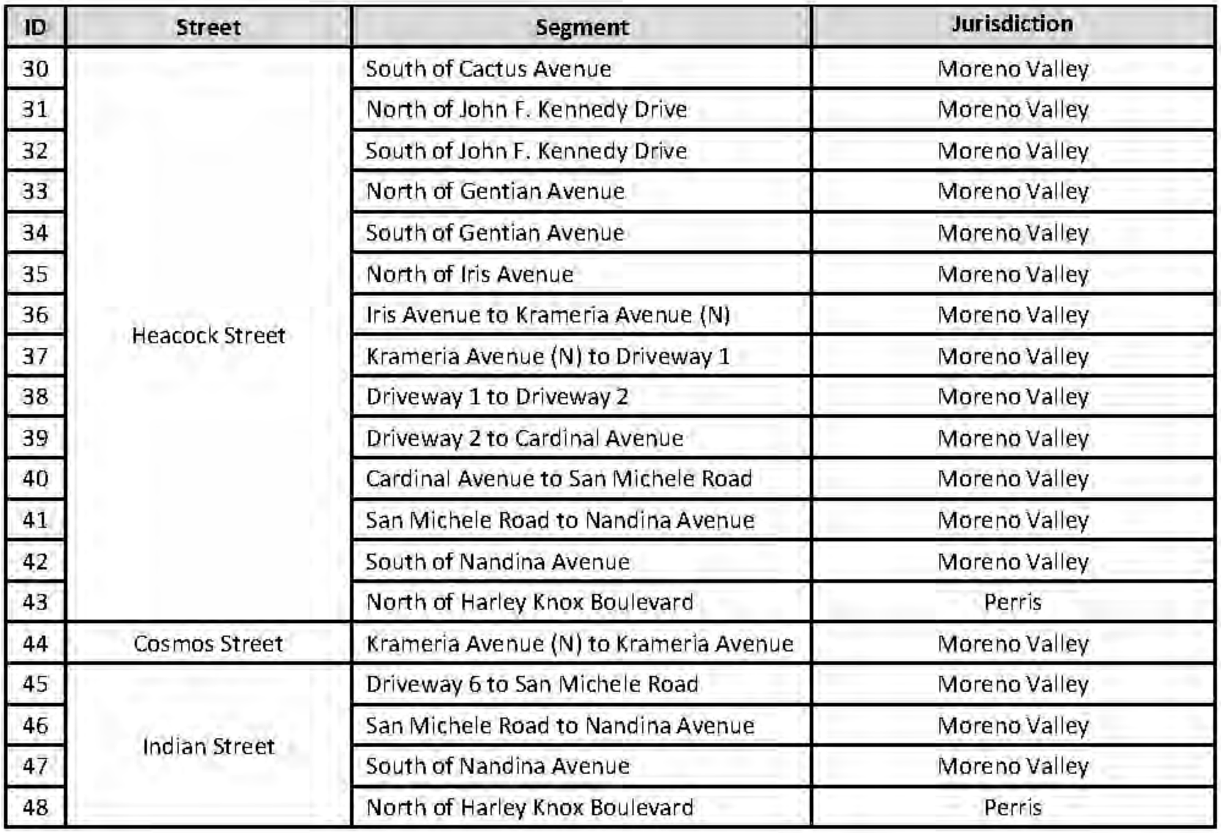

ID	Street	Segment	Jurisdiction
30	Heacock Street	South of Cactus Avenue	Moreno Valley
31		North of John F. Kennedy Drive	Moreno Valley
32		South of John F. Kennedy Drive	Moreno Valley
33		North of Gentian Avenue	Moreno Valley
34		South of Gentian Avenue	Moreno Valley
35		North of Iris Avenue	Moreno Valley
36		Iris Avenue to Krameria Avenue (N)	Moreno Valley
37		Krameria Avenue (N) to Driveway 1	Moreno Valley
38		Driveway 1 to Driveway 2	Moreno Valley
39		Driveway 2 to Cardinal Avenue	Moreno Valley
40		Cardinal Avenue to San Michele Road	Moreno Valley
41		San Michele Road to Nandina Avenue	Moreno Valley
42		South of Nandina Avenue	Moreno Valley
43		North of Harley Knox Boulevard	Perris
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	Moreno Valley
45	Indian Street	Driveway 6 to San Michele Road	Moreno Valley
46		San Michele Road to Nandina Avenue	Moreno Valley
47		South of Nandina Avenue	Moreno Valley
48		North of Harley Knox Boulevard	Perris

Source: (Urban Crossroads, 2016e, Table 1-2)

Table 4.11-3 Project Study Area Freeway Mainline Segments

ID	Freeway	Direction	Segment
1	SR-91	Eastbound	I-15 Freeway to McKinley St.
2	SR-91	Eastbound	McKinley St. to Riverwalk Pkwy.
3	SR-91	Eastbound	Riverwalk Pkwy. To Magnolia Av.
4	SR-91	Eastbound	Magnolia Av. to La Sierra Av.
5	SR-91	Eastbound	La Sierra Av. to Tyler Av.
6	SR-91	Eastbound	Tyler Av. to Van Buren Bl.
7	SR-91	Eastbound	Van Buren Bl. to Adams St.
8	SR-91	Eastbound	Adams St. to Madison St.
9	SR-91	Eastbound	Madison St. to Arlington Av.
10	SR-91	Eastbound	Arlington Av. to Central Av.
11	SR-91	Eastbound	Central Av. to 14th St.
12	SR-91	Eastbound	14th St. to University Av.
13	SR-91	Eastbound	University Av. to Spruce St.
14	SR-91	Eastbound	Spruce St. to I-215 Freeway
15	SR-60	Westbound	I-215 Freeway to Day St.
16	SR-60	Westbound	Day St. to Frederick St.
17	I-215	Southbound	SR-60/SR-91 Freeway to Blaine St.
18	I-215	Southbound	Blaine St. to University Av.
19	I-215	Southbound	University Av. to Martin Luther King Bl.
20	I-215	Southbound	Martin Luther King Bl. to Central Av.
21	I-215	Southbound	Central Av. to Box Springs Rd.
22	I-215	Southbound	Box Springs Rd. to SR-60/I-215 Freeway
23	I-215	Southbound	SR-60 Freeway to Eucalyptus Av.
24	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.
25	I-215	Southbound	Alessandro Bl. to Cactus Av.
26	I-215	Southbound	Cactus Av. to Van Buren Bl.
27	I-215	Southbound	Van Buren Bl. to Harley Knox Bl.
28	I-215	Southbound	Harley Knox Bl. to Ramona Exwy.
29	I-215	Southbound	Ramona Exwy. to Nuevo Rd.
30	SR-91	Westbound	I-15 Freeway to McKinley St.
31	SR-91	Westbound	McKinley St. to Riverwalk Pkwy.
32	SR-91	Westbound	Riverwalk Pkwy. To Magnolia Av.
33	SR-91	Westbound	Magnolia Av. to La Sierra Av.
34	SR-91	Westbound	La Sierra Av. to Tyler Av.
35	SR-91	Westbound	Tyler Av. to Van Buren Bl.
36	SR-91	Westbound	Van Buren Bl. to Adams St.
37	SR-91	Westbound	Adams St. to Madison St.
38	SR-91	Westbound	Madison St. to Arlington Av.
39	SR-91	Westbound	Arlington Av. to Central Av.
40	SR-91	Westbound	Central Av. to 14th St.
41	SR-91	Westbound	14th St. to University Av.

Table 4.11-3 Project Study Area Freeway Mainline Segments

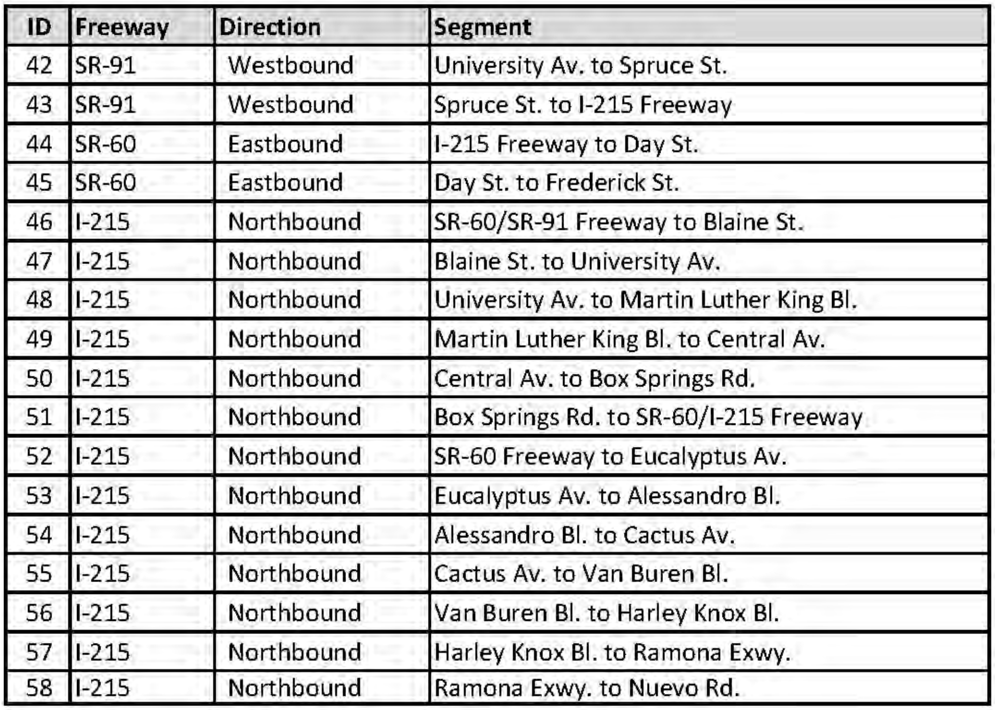

ID	Freeway	Direction	Segment
42	SR-91	Westbound	University Av. to Spruce St.
43	SR-91	Westbound	Spruce St. to I-215 Freeway
44	SR-60	Eastbound	I-215 Freeway to Day St.
45	SR-60	Eastbound	Day St. to Frederick St.
46	I-215	Northbound	SR-60/SR-91 Freeway to Blaine St.
47	I-215	Northbound	Blaine St. to University Av.
48	I-215	Northbound	University Av. to Martin Luther King Bl.
49	I-215	Northbound	Martin Luther King Bl. to Central Av.
50	I-215	Northbound	Central Av. to Box Springs Rd.
51	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway
52	I-215	Northbound	SR-60 Freeway to Eucalyptus Av.
53	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.
54	I-215	Northbound	Alessandro Bl. to Cactus Av.
55	I-215	Northbound	Cactus Av. to Van Buren Bl.
56	I-215	Northbound	Van Buren Bl. to Harley Knox Bl.
57	I-215	Northbound	Harley Knox Bl. to Ramona Exwy.
58	I-215	Northbound	Ramona Exwy. to Nuevo Rd.

Source: (Urban Crossroads, 2015a, Table 1)

Table 4.11-4 Project Study Area Freeway Ramp Merge/Diverge Junctions

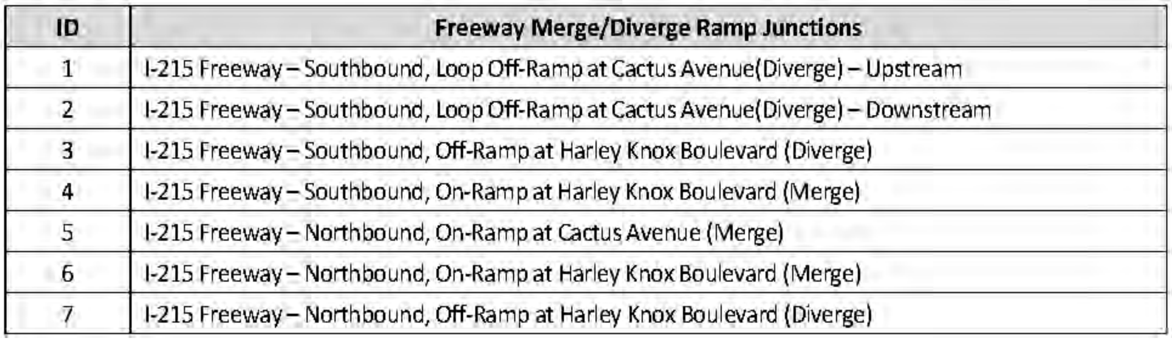

ID	Freeway Merge/Diverge Ramp Junctions
1	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue(Diverge) – Upstream
2	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue(Diverge) – Downstream
3	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard (Diverge)
4	I-215 Freeway – Southbound, On-Ramp at Harley Knox Boulevard (Merge)
5	I-215 Freeway – Northbound, On-Ramp at Cactus Avenue (Merge)
6	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard (Merge)
7	I-215 Freeway – Northbound, Off-Ramp at Harley Knox Boulevard (Diverge)

Source: (Urban Crossroads, 2016e, Table 1-4)

Table 4.11-5 Existing Intersection Levels of Service

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	0	0	1>>	0	0	1	0	2	1	1	2	0	14.4	39.0	B	D
2	I-215 SB Ramps / Harley Knox Bl	TS	0	0	0	0	1	1	0	2	d	1	2	0	33.8	31.2	C	C
3	I-215 NB Ramps / Cactus Av	TS	1	1	0	1	1	0	1	2	0	0	2	0	19.1	13.7	B	B
4	I-215 NB Ramps / Harley Knox Bl	TS	0	1	1	0	0	0	1	2	0	0	2	d	13.6	17.0	B	B
5	Elsworth St / Cactus Av	TS	1	1	0	1	1	1>	1	3	1>>	1	3	1	38.9	30.2	D	C
6	Frederick St / Cactus Av	TS	0	0	0	2	0	1>	1	2	0	0	3	1>	24.9	21.9	C	C
7	Western Wy / Harley Knox Bl	CSS	0	0	0	0	1	0	0	2	0	0	2	d	12.0	12.1	B	B
8	Graham St / Cactus Av	TS	2	2	0	1	2	1>	1	2	1>>	1	3	0	21.3	24.5	C	C
9	Patterson Av / Harley Knox Bl	TS	0	1	0	0	1	d	1	1	1	1	1	0	27.6	26.3	C	C
10	Heacock St / Cactus Av	TS	2	2	0	1	2	0	1	2	1>	1	2	0	34.3	18.6	C	B
11	Heacock St / John F. Kennedy Dr	TS	1	2	d	1	2	d	1	1	1	1	2	0	23.3	21.8	C	C
12	Heacock St / Gentian Av	CSS	0	1	1	1	1	0	0	0	0	0	1	d	22.8	**58.0**	C	**F**
13	Heacock St / Iris Av	AWS	0	1	0	1	1	0	0	0	0	1	0	d	15.2	**37.5**	C	**E**
14	Heacock St / Krameria Av (North)	TS	0	1	1	1	1	0	0	0	0	1	0	1	11.1	9.0	B	A
15	Heacock St / Driveway 1		Future Intersection															
16	Heacock St / Driveway 2		Future Intersection															
17	Heacock St / Cardinal Av	CSS	0	2	d	1	1	0	0	0	0	1	0	1	9.0	13.4	A	B
18	Heacock St / San Michele Rd	TS	1	1	1	1	1	1	1	1	1	1	1	1	25.6	39.5	C	D
19	Heacock St / Nandina Av	CSS	0	1	0	1	1	0	0	0	0	1	0	1	8.4	8.6	A	A
20	Webster Av / Harley Knox Bl	CSS	0	0	1	0	0	0	0	1	0	0	1	0	10.0	10.1	B	B
21	Cosmos St / Krameria Av (North)	CSS	1	1	d	1	1	0	0	1	0	0	1	0	9.8	9.3	A	A
22	Cosmos St / Krameria Av		Future Intersection															
23	Driveway 3 / Krameria Av		Future Intersection															
24	Driveway 4 / Krameria Av		Future Intersection															
25	Driveway 5 / Krameria Av		Future Intersection															
26	Indian St / Krameria Av	AWS	1	1	1	1	1	1	1	1	0	1	1	1	10.7	9.2	B	A
27	Indian St / Driveway 6		Future Intersection															
28	Indian St / San Michele Rd	TS	2	1	1	1	2	0	1	1	1>	1	2	d	29.3	35.8	C	D
29	Indian St / Nandina Av	TS	1	2	0	1	2	0	1	1	1	1	1	d	18.4	19.9	B	B
30	Indian St / Harley Knox Bl	TS	2	2	1	1	2	0	1	1	1	2	2	0	17.0	24.2	B	C
31	Perris Bl / Cactus Av	TS	1	3	0	1	2	1	1	2	0	1	2	0	24.8	32.4	C	C
32	Perris Bl / Krameria Av	TS	1	3	0	1	3	0	0	1	1	0	2	1	31.2	22.9	C	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal; AWS= All ways stop

Source: (Urban Crossroads, 2016e, Table 3-1)

Table 4.11-6 Existing Roadway Segment Levels of Service

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	25,080	0.67	B	D
2		East of I-215 NB Ramps	4D	37,500	31,154	0.83	D	D
3		West of Elsworth Street	6D	56,300	34,154	0.61	B	D
4		East of Elsworth Street	6D	56,300	31,029	0.55	A	D
5		West of Frederick Street	5D	46,900	32,583	0.69	B	D
6		East of Frederick Street	5D	46,900	35,981	0.77	C	D
7		West of Graham Street	5D	46,900	36,044	0.77	C	D
8		East of Graham Street	5D	46,900	31,120	0.66	B	D
9		West of Heacock Street	5D	46,900	35,778	0.76	C	D
10		East of Heacock Street	4D	37,500	19,360	0.52	A	C
11		West of Perris Boulevard	4D	37,500	15,973	0.43	A	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	1,076	0.09	A	D
13		Cosmos Street to Driveway 3	2U	12,500	620	0.05	A	D
14		Driveway 3 to Driveway 4	2U	12,500	620	0.05	A	D
15		Driveway 4 to Driveway 5	2U	12,500	620	0.05	A	D
16		Driveway 5 to Indian Street	2D	18,750	620	0.03	A	D
17		East of Indian Street	2D	18,750	3,716	0.20	A	D
18		West of Perris Boulevard	2U	12,500	3,040	0.24	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	46	0.00	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	4,269	0.23	A	D
21		West of Indian Street	2D	18,750	10,411	0.56	A	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	11,390	0.32	A	D
23		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	D
24		East of Western Way	4U	25,900	13,901	0.54	A	D
25		West of Patterson Avenue	4U	25,900	11,444	0.44	A	D
26		East of Patterson Avenue	2D	18,000	10,492	0.58	A	D
27		West of Webster Avenue	2D	18,000	9,144	0.51	A	D
28		East of Webster Avenue	2D	18,000	9,156	0.51	A	D
29		West of Indian Street	3D	26,925	11,624	0.43	A	D
30	Heacock Street	South of Cactus Avenue	4D	37,500	24,824	0.66	B	D
31		North of John F. Kennedy Drive	4D	37,500	22,764	0.61	B	D
32		South of John F. Kennedy Drive	4D	37,500	21,272	0.57	A	D
33		North of Gentian Avenue	3D	28,150	19,047	0.68	B	D
34		South of Gentian Avenue	2U	12,500	**17,054**	**1.36**	**F**	D
35		North of Iris Avenue	2D	18,750	16,730	0.89	D	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	9,113	0.73	C	D
37		Krameria Avenue (N) to Driveway 1	2U	12,500	8,516	0.68	B	D
38		Driveway 1 to Driveway 2	2U	12,500	8,516	0.68	B	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	8,874	0.24	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	7,400	0.26	A	D
41		San Michele Road to Nandina Avenue	2D	18,750	3,427	0.18	A	D
42		South of Nandina Avenue	2U	12,500	228	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	620	0.05	A	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	0	0.00	A	D
46		San Michele Road to Nandina Avenue	4D	37,500	10,793	0.29	A	D
47		South of Nandina Avenue	2D	18,750	12,523	0.67	B	D
48		North of Harley Knox Boulevard	4D	35,900	13,201	0.37	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Source: (Urban Crossroads, 2016e, Table 3-2)

Table 4.11-7 Existing and Existing plus Project Freeway Mainline Levels of Service

Freeway	Directio	Mainline Segment	Lanes^1	Time Period	Existing (2015)			E+P		
					Volume	Density^2	LOS	Volume	Density^2	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	4	AM	5,085	20.1	C	5,117	20.2	C
				PM	3,209	12.8	B	3,217	12.9	B
		McKinley St. to Riverwalk Pkwy.	3	AM	4,463	24.5	C	4,497	24.8	C
				PM	4,472	24.6	C	4,480	24.7	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,783	26.7	D	4,816	26.9	D
				PM	4,886	26.9	D	4,894	27.2	D
		Magnolia Av. to La Sierra Av.	4	AM	4,725	18.6	C	4,762	18.7	C
				PM	4,790	18.8	C	4,799	18.9	C
		La Sierra Av. to Tyler Av.	4	AM	4,021	16.0	B	4,066	16.3	B
				PM	4,049	16.1	B	4,060	16.2	B
		Tyler Av. to Van Buren Bl.	4	AM	4,009	16.0	B	4,054	16.3	B
				PM	3,833	15.3	B	3,844	15.3	B
		Van Buren Bl. to Adams St.	4	AM	4,104	16.0	B	4,149	16.3	B
				PM	4,092	16.0	B	4,103	16.0	B
		Adams St. to Madison St.	3	AM	3,610	18.8	C	3,666	19.2	C
				PM	3,711	19.4	C	3,725	19.4	C
		Madison St. to Arlington Av.	4	AM	5,988	24.6	C	6,044	25.0	C
				PM	6,211	25.8	C	6,225	25.8	C
		Arlington Av. to Central Av.	4	AM	4,886	19.2	C	4,942	19.6	C
				PM	5,573	22.3	C	5,587	22.3	C
		Central Av. to 14th St.	3	AM	3,777	20.0	C	3,844	20.5	C
				PM	3,236	17.0	B	3,253	17.1	B
		14th St. to University Av.	4	AM	5,490	22.0	C	5,557	22.4	C
				PM	4,573	18.0	C	4,590	18.1	C
		University Av. to Spruce St.	5	AM	5,756	18.3	C	5,828	18.6	C
				PM	4,939	15.7	B	4,957	15.8	B
		Spruce St. to I-215 Freeway	4	AM	4,135	16.5	B	4,207	16.7	B
				PM	3,436	13.7	B	3,454	13.7	B
SR-60 Fwy	Westbound	I-215 Freeway to Day St.	3	AM	2,957	15.4	B	2,989	15.5	B
				PM	2,937	15.3	B	2,944	15.3	B
		Day St. to Frederick St.	3	AM	2,772	15.2	B	2,798	15.4	B
				PM	4,660	26.3	D	4,666	26.3	D
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,287	13.6	B	4,393	14.1	B
				PM	5,907	18.8	C	5,934	18.9	C
		Blaine St. to University Av.	4	AM	4,344	17.4	B	4,450	17.9	B
				PM	4,209	16.5	B	4,236	16.7	B
		University Av. to Martin Luther King Bl.	4	AM	4,640	19.0	C	4,746	19.5	C
				PM	5,182	20.8	C	5,209	20.9	C
		Martin Luther King Bl. to Central Av.	5	AM	3,460	11.0	A	3,573	11.4	B
				PM	4,518	14.2	B	4,546	14.3	B
		Central Av. to Box Springs Rd.	5	AM	5,093	16.3	B	5,208	16.7	B
				PM	6,720	21.2	C	6,749	21.3	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	4,643	18.2	C	4,778	18.9	C
				PM	5,966	23.9	C	6,000	24.0	C
		SR-60 Freeway to Eucalyptus Av.	5	AM	6,260	19.9	C	6,427	20.6	C
				PM	6,485	20.7	C	6,526	21.0	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,456	18.7	C	3,623	19.8	C
				PM	5,159	30.6	D	5,200	31.2	D
		Alessandro Bl. to Cactus Av.	4	AM	4,985	19.9	C	5,152	20.8	C
				PM	5,540	22.5	C	5,581	22.7	C
		Cactus Av. to Van Buren Bl.	4	AM	4,693	18.6	C	4,739	18.8	C
				PM	5,354	21.5	C	5,365	21.5	C
		Van Buren Bl. to Harley Knox Bl.	3	AM	2,544	13.4	B	2,590	13.7	B
				PM	3,855	20.5	C	3,866	20.7	C
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,186	11.4	B	2,202	11.6	B
				PM	3,445	18.1	C	3,519	18.6	C
		Ramona Exwy. to Nuevo Rd.	3	AM	4,578	25.2	C	4,613	25.4	C
				PM	5,313	31.0	D	5,321	31.1	D

Table 4.11-7 Existing and Existing plus Project Freeway Mainline Levels of Service

Freeway	Directio	Mainline Segment	Lanes[1]	Time Period	Existing (2015)			E+P		
					Volume	Density[2]	LOS	Volume	Density[2]	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	5,139	20.3	C	5,146	20.3	C
				PM	5,872	23.4	C	5,906	23.6	C
		McKinley St. to Riverwalk Pkwy.	3	AM	3,525	18.6	C	3,532	18.7	C
				PM	3,780	20.1	C	3,816	20.3	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,410	25.1	C	4,417	25.1	C
				PM	4,755	27.5	D	4,791	28.0	D
		Magnolia Av. to La Sierra Av.	3	AM	4,207	22.9	C	4,215	23.0	C
				PM	4,566	24.9	C	4,605	25.2	C
		La Sierra Av. to Tyler Av.	3	AM	3,556	18.9	C	3,566	19.0	C
				PM	3,719	19.8	C	3,767	20.1	C
		Tyler Av. to Van Buren Bl.	4	AM	3,465	13.7	B	3,475	13.8	B
				PM	3,896	15.5	B	3,944	15.7	B
		Van Buren Bl. to Adams St.	4	AM	4,554	18.1	C	4,564	18.2	C
				PM	4,602	18.3	C	4,650	18.5	C
		Adams St. to Madison St.	4	AM	4,595	18.0	C	4,607	18.1	C
				PM	5,028	19.6	C	5,088	20.0	C
		Madison St. to Arlington Av.	3	AM	3,699	19.6	C	3,711	19.7	C
				PM	4,072	21.8	C	4,132	22.3	C
		Arlington Av. to Central Av.	4	AM	4,708	18.7	C	4,720	18.7	C
				PM	4,840	19.2	C	4,900	19.6	C
		Central Av. to 14th St.	3	AM	4,270	23.1	C	4,285	23.2	C
				PM	4,794	26.8	D	4,866	27.5	D
		14th St. to University Av.	4	AM	2,745	10.9	A	2,760	11.0	A
				PM	2,234	8.8	A	2,306	9.2	A
		University Av. to Spruce St.	6	AM	4,520	11.9	B	4,536	11.9	B
				PM	3,786	9.8	A	3,863	10.1	A
		Spruce St. to I-215 Freeway	4	AM	4,246	16.9	B	4,262	17.0	B
				PM	4,513	18.0	B	4,590	18.4	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	3,030	9.8	A	3,037	9.8	A
				PM	3,159	10.0	A	3,192	10.1	A
		Day St. to Frederick St.	4	AM	1,607	6.5	A	1,612	6.5	A
				PM	2,809	11.0	A	2,836	11.1	A
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	3,532	11.2	B	3,555	11.3	B
				PM	3,453	11.0	A	3,568	11.5	B
		Blaine St. to University Av.	5	AM	4,615	14.8	B	4,638	15.0	B
				PM	3,913	12.8	B	4,028	13.3	B
		University Av. to Martin Luther King Bl.	4	AM	6,526	27.7	D	6,549	27.9	D
				PM	5,849	24.3	C	5,964	25.0	C
		Martin Luther King Bl. to Central Av.	4	AM	5,255	21.4	C	5,280	21.5	C
				PM	5,332	21.9	C	5,454	22.6	C
		Central Av. to Box Springs Rd.	5	AM	5,098	16.5	B	5,123	16.6	B
				PM	5,614	18.7	C	5,738	19.1	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,028	24.3.	C	6,058	24.5	C
				PM	6,305	25.6	C	6,452	26.7	D
		SR-60 Freeway to Eucalyptus Av.	3	AM	3,567	18.8	C	3,604	19.0	C
				PM	3,832	20.4	C	4,012	21.6	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	4,693	26.0	D	4,730	26.3	D
				PM	5,354	31.4	D	5,534	33.4	D
		Alessandro Bl. to Cactus Av.	4	AM	2,724	10.9	A	2,761	11.1	A
				PM	2,523	10.0	A	2,703	10.9	A
		Cactus Av. to Van Buren Bl.	4	AM	3,679	14.6	B	3,689	14.7	B
				PM	2,678	10.6	A	2,727	10.8	A
		Van Buren Bl. to Harley Knox Bl.	3	AM	4,092	22.0	C	4,102	22.0	C
				PM	3,247	17.1	B	3,296	17.4	B
		Harley Knox Bl. to Ramona Exwy.	3	AM	3,721	19.6	C	3,783	20.1	C
				PM	2,779	14.6	B	2,794	14.7	B
		Ramona Exwy. to Nuevo Rd.	3	AM	4,693	26.0	D	4,701	26.1	D
				PM	5,354	31.4	D	5,391	31.8	D

- **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2016e, Table 3)

Table 4.11-8 Existing Freeway Ramp Junction Merge/Diverge Levels of Service

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	26.9	C	30.2	D
		Loop Off-Ramp at Cactus Avenue - Downstream	4	26.9	C	30.2	D
		Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.6	C
	NB	On-Ramp at Cactus Avenue	3	20.2	C	19.8	B
		On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2016e, Table 3-5)

Table 4.11-9 Existing Freeway Off-Ramp Levels of Service

Intersection	Movement	Stacking Distance (Feet)	95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	51	285[2]	Yes	Yes
	SBR	1,115	87	0	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	382	336	Yes	Yes
	SBR	270	44	59	Yes	Yes
I-215 NB Ramps / Cactus Av.	NBL	145	321[2]	26	Yes[3]	Yes
	NBT	1,650	164	26	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	13	22	Yes	Yes
	NBR	265	47	51	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound left turn lane without spilling back and affecting the I-215 Freeway mainline.

Source: (Urban Crossroads, 2016e, Table 3-3)

Table 4.11-10 Signalized Intersection LOS Thresholds

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: (Urban Crossroads, 2016e, Table 2-1)

Table 4.11-11 Unsignalized Intersection LOS Thresholds

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: (Urban Crossroads, 2016e , Table 2-2)

Table 4.11-12 Freeway Mainline Segment LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM

Source: (Urban Crossroads, 2016e, Table 2-5)

Table 4.11-13 Freeway Ramp Junction Merge/Diverge LOS Thresholds

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM

Source: (Urban Crossroads, 2016e, Table 2-6)

Table 4.11-14 Traffic Signal Warrant Analysis Intersections

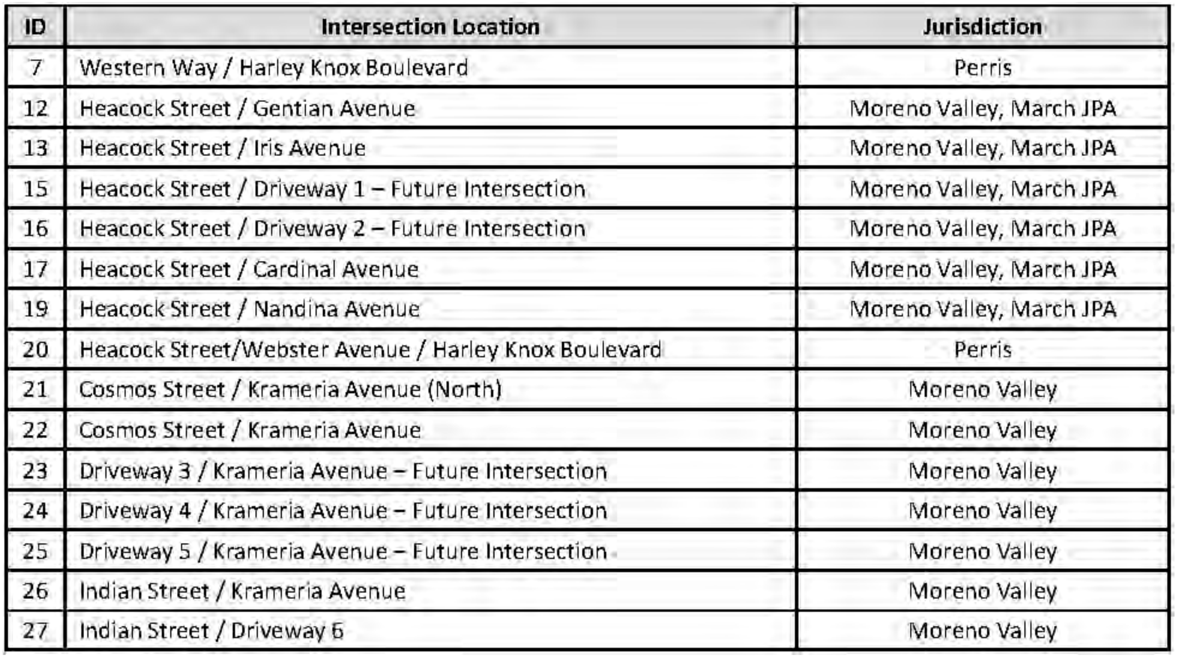

ID	Intersection Location	Jurisdiction
7	Western Way / Harley Knox Boulevard	Perris
12	Heacock Street / Gentian Avenue	Moreno Valley, March JPA
13	Heacock Street / Iris Avenue	Moreno Valley, March JPA
15	Heacock Street / Driveway 1 – Future Intersection	Moreno Valley, March JPA
16	Heacock Street / Driveway 2 – Future Intersection	Moreno Valley, March JPA
17	Heacock Street / Cardinal Avenue	Moreno Valley, March JPA
19	Heacock Street / Nandina Avenue	Moreno Valley, March JPA
20	Heacock Street/Webster Avenue / Harley Knox Boulevard	Perris
21	Cosmos Street / Krameria Avenue (North)	Moreno Valley
22	Cosmos Street / Krameria Avenue	Moreno Valley
23	Driveway 3 / Krameria Avenue – Future Intersection	Moreno Valley
24	Driveway 4 / Krameria Avenue – Future Intersection	Moreno Valley
25	Driveway 5 / Krameria Avenue – Future Intersection	Moreno Valley
26	Indian Street / Krameria Avenue	Moreno Valley
27	Indian Street / Driveway 6	Moreno Valley

Source: (Urban Crossroads, 2016e, Table 2-4)

Table 4.11-15 Roadway Segment Capacity LOS Thresholds

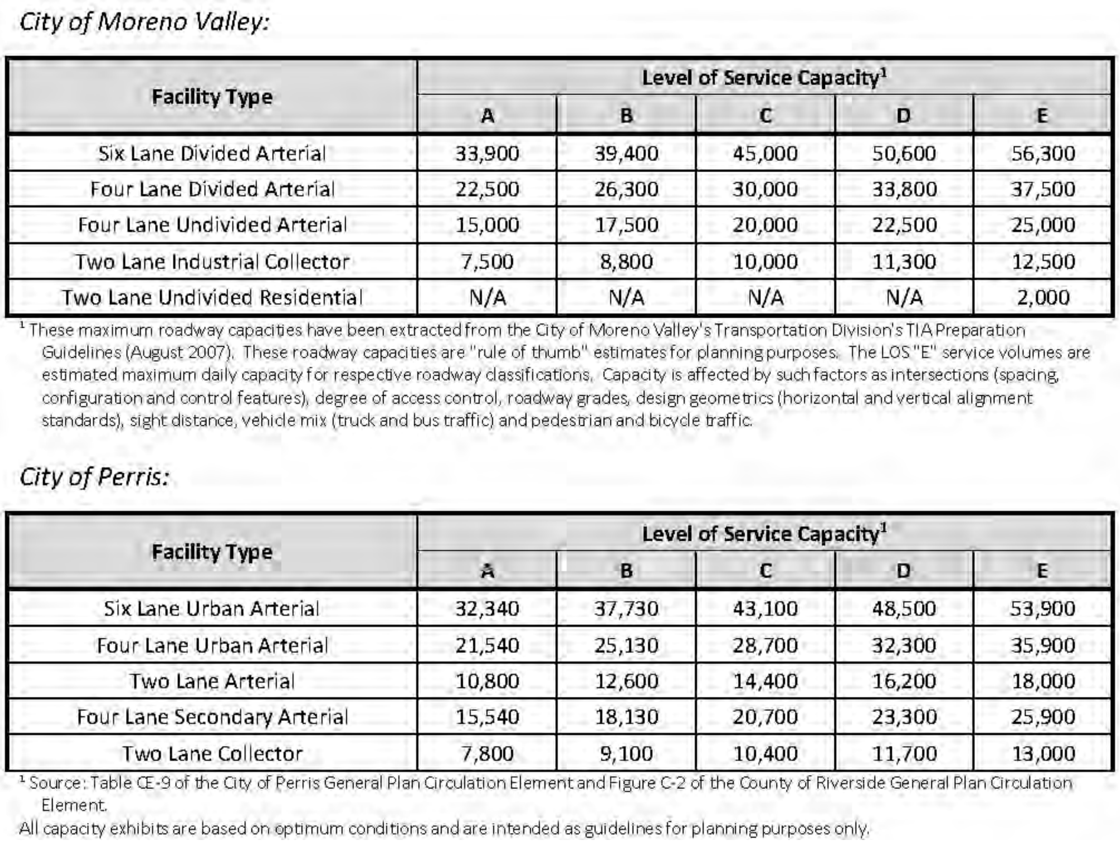

City of Moreno Valley:

Facility Type	Level of Service Capacity[1]				
	A	B	C	D	E
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's TIA Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective roadway classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

City of Perris:

Facility Type	Level of Service Capacity[1]				
	A	B	C	D	E
Six Lane Urban Arterial	32,340	37,730	43,100	48,500	53,900
Four Lane Urban Arterial	21,540	25,130	28,700	32,300	35,900
Two Lane Arterial	10,800	12,600	14,400	16,200	18,000
Four Lane Secondary Arterial	15,540	18,130	20,700	23,300	25,900
Two Lane Collector	7,800	9,100	10,400	11,700	13,000

[1] Source: Table CE-9 of the City of Perris General Plan Circulation Element and Figure C-2 of the County of Riverside General Plan Circulation Element.

All capacity exhibits are based on optimum conditions and are intended as guidelines for planning purposes only.

Source: (Urban Crossroads, 2016e, Table 2-3)

Table 4.11-16 Project Construction Trip Generation Summary (Passenger Car Equivalent)

	AM Peak Hour			PM Peak Hour			
Construction Activity[2]	In	Out	Total	In	Out	Total	Daily
Roof/Overhead 1							
Employee Trips:	6	1	6	6	57	63	125
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Architectural Coatings 1							
Employee Trips:	10	1	11	11	96	107	213
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Paving 1							
Employee Trips:	0	0	1	1	5	5	10
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	138
Miscellaneous Finishes 2							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Architectural Coatings 3							
Employee Trips:	10	1	11	11	96	107	213
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Micellaneous Finishes 3							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Paving 3							
Employee Trips:	0	0	0	0	4	4	8
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	84
Roof/Overhead 4							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
TOTAL (in PCE)	**107**	**79**	**186**	**111**	**388**	**498**	**4,239**

[1] Heavy heavy duty (4+-Axle) vendor truck trips are related to night-time pours and are anticipated to occur after 6 PM.

[2] PCE factors of 2.0 utilized for 3-Axle and 3.0 utlized for 4+-Axle heavy trucks.

Source: (Urban Crossroads, 2015b, Table 3)

Table 4.11-17 Project Trip Generation (Passenger Car Equivalent)

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial[3]	TSF	110	0.810	0.110	0.920	0.120	0.850	0.970	6.970
Passenger Cars			0.637	0.086	0.723	0.094	0.668	0.762	5.478
2-Axle Trucks (PCE = 1.5)			0.097	0.013	0.110	0.014	0.102	0.116	0.836
3-Axle Trucks (PCE = 2.0)			0.063	0.009	0.072	0.009	0.066	0.076	0.544
4-Axle+ Trucks (PCE = 3.0)			0.231	0.031	0.262	0.034	0.242	0.276	1.986
High-Cube Warehouse/Distribution Center[4]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks (PCE = 1.5)			0.007	0.003	0.010	0.004	0.009	0.013	0.211
3-Axle Trucks (PCE = 2.0)			0.007	0.003	0.011	0.004	0.010	0.014	0.226
4-Axle+ Trucks (PCE = 3.0)			0.037	0.017	0.054	0.022	0.050	0.072	1.158

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Ninth Edition (2012).

[2] TSF = thousand square feet

[3] Light Industrial Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 150, August 2003. PCE rates are per SANBAG.

[4] High Cube Warehouse Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual.

Truck mix (by axle type) source from SCAQMD. PCE rates are per SANBAG.

AM peak hour = 72.7% passenger cars, 6.01% 2-Axle trucks, 4.83% 3-Axle trucks, 16.46% 4-Axle trucks

PM peak hour = 66.7% passenger cars, 7.33% 2-Axle trucks, 5.89% 3-Axle trucks, 20.08% 4-Axle trucks

ADT = 61.9% passenger cars, 8.38% 2-Axle trucks, 6.74% 3-Axle trucks, 22.98% 4-Axle trucks

Source: (Urban Crossroads, 2016e, Table 4-1)

Table 4.11-18 Project Trip Generation Summary (Passenger Car Equivalent)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Building 1 (High-Cube Warehouse)	1,351.770	TSF							
Passenger Cars:			75	34	108	34	75	108	1,406
Truck Trips:									
2-axle:			*9*	*4*	*13*	*6*	*12*	*18*	*285*
3-axle:			*10*	*4*	*14*	*6*	*13*	*19*	*306*
4+-axle:			*51*	*23*	*73*	*30*	*67*	*98*	*1,566*
- Net Truck Trips (PCE) [2]			*70*	*31*	*101*	*42*	*93*	*135*	*2,157*
BUILDING 1 TOTAL NET TRIPS (PCE) [3]			***144***	***65***	***209***	***75***	***168***	***243***	***3,563***
Building 2 (Light Industrial)	122.516	TSF							
Passenger Cars:			78	11	89	12	82	93	671
Truck Trips:									
2-axle:			*12*	*2*	*14*	*2*	*12*	*14*	*102*
3-axle:			*8*	*1*	*9*	*1*	*8*	*9*	*67*
4+-axle:			*28*	*4*	*32*	*4*	*30*	*34*	*243*
- Net Truck Trips (PCE) [2]			*48*	*7*	*54*	*7*	*50*	*57*	*412*
BUILDING 2 TOTAL NET TRIPS (PCE) [3]			***126***	***17***	***143***	***19***	***132***	***151***	***1,084***
Building 3 (Light Industrial)	97.222	TSF							
Passenger Cars:			62	8	70	9	65	74	533
Truck Trips:									
2-axle:			*9*	*1*	*11*	*1*	*10*	*11*	*81*
3-axle:			*6*	*1*	*7*	*1*	*6*	*7*	*53*
4+-axle:			*22*	*3*	*25*	*3*	*24*	*27*	*193*
- Net Truck Trips (PCE) [2]			*38*	*5*	*43*	*6*	*40*	*46*	*327*
BUILDING 3 TOTAL NET TRIPS (PCE) [3]			***100***	***14***	***114***	***15***	***105***	***120***	***860***
Building 4 (Light Industrial)	166.010	TSF							
Passenger Cars:			106	14	120	16	111	127	909
Truck Trips:									
2-axle:			*16*	*2*	*18*	*2*	*17*	*19*	*139*
3-axle:			*10*	*1*	*12*	*2*	*11*	*13*	*90*
4+-axle:			*38*	*5*	*44*	*6*	*40*	*46*	*330*
- Net Truck Trips (PCE) [2]			*65*	*9*	*74*	*10*	*68*	*78*	*559*
BUILDING 4 TOTAL NET TRIPS (PCE) [3]			***171***	***23***	***194***	***25***	***179***	***204***	***1,468***
TOTAL (PCE)			**541**	**119**	**660**	**134**	**584**	**718**	**6,975**

[1] TSF = thousand square feet

[2] Light Industrial Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 110, August 2003. PCE rates are per SANBAG.
High Cube Warehouse Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual.
Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

Source: (Urban Crossroads, 2016e, Table 4-2)

Table 4.11-19 Short-Term Construction Intersection Analysis

#	Intersection	Traffic Control [3]	Existing (2015)[1]				E+P (Construction Traffic)			
			Delay [2] (secs.)		Level of Service		Delay [2] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	14.4	39.0	B	D	14.6	51.7	B	D
2	I-215 SB Ramps / Harley Knox Bl	TS	33.8	31.2	C	C	33.9	37.8	C	D
3	I-215 NB Ramps / Cactus Av	TS	19.1	13.7	B	B	19.4	14.9	B	B
4	I-215 NB Ramps / Harley Knox Bl	TS	13.6	17.0	B	B	14.1	18.0	B	B
5	Elsworth St / Cactus Av	TS	38.9	30.2	D	C	38.9	30.2	D	C
6	Frederick St / Cactus Av	TS	24.9	21.9	C	C	25.2	22.9	C	C
7	Western Wy / Harley Knox Bl	CSS	12.0	12.1	B	B	12.3	14.1	B	B
8	Graham St / Cactus Av	TS	21.3	24.5	C	C	22.6	25.2	C	C
9	Patterson Av / Harley Knox Bl	TS	27.6	26.3	C	C	35.8	51.1	D	D
10	Heacock St / Cactus Av	TS	34.3	18.6	C	B	38.0	32.1	D	C
11	Heacock St / John F. Kennedy Dr	TS	23.3	21.8	C	C	25.5	23.3	C	C
12	Heacock St / Gentian Av	CSS	22.8	**58.0**	C	**F**	25.4	**78.6**	D	**F**
13	Heacock St / Iris Av	AWS	15.2	**37.5**	C	**E**	16.7	**53.4**	C	**F**
14	Heacock St / Krameria Av (North)	TS	11.1	9.0	B	A	14.7	20.2	B	C
15	Heacock St / Cardinal Av	CSS	9.0	13.4	A	B	9.2	18.0	A	C
16	Heacock St / San Michele Rd	TS	25.6	39.5	C	D	28.2	**65.7**	C	**E**
17	Heacock St / Nandina Av	CSS	8.4	8.6	A	A	8.4	8.6	A	A
18	Webster Av / Harley Knox Bl	CSS	10.0	10.1	B	B	10.4	10.3	B	B
19	Cosmos St / Krameria Av (North)	CSS	9.8	9.3	A	A	9.8	12.7	A	B
20	Cosmos St / Krameria Av	**AWS**	Future Intersection				8.1	11.5	A	B
21	Indian St / Krameria Av	AWS	10.7	9.2	B	A	10.8	9.8	B	A
22	Indian St / San Michele Rd	TS	29.3	35.8	C	D	31.3	36.4	C	D
23	Indian St / Nandina Av	TS	18.4	19.9	B	B	20.2	20.1	C	C
24	Indian St / Harley Knox Bl	TS	17.0	24.2	B	C	19.1	51.5	B	D
25	Perris Bl / Cactus Av	TS	24.8	32.4	C	C	24.8	32.6	C	C
26	Perris Bl / Krameria Av	TS	31.2	22.9	C	C	31.2	30.6	C	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Delay and LOS results are from the Moreno Valley Logistics Traffic Impact Analysis

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal; AWS= All-way stop

Source: (Urban Crossroads, 2015b , Table 4)

Table 4.11-20 Short-Term Construction Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015[4]	V/C[2]	LOS[3]	E+P (Construction Traffic)	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	25,080	0.67	B	25,903	0.69	B	D
2		East of I-215 NB Ramps	4D	37,500	31,154	0.83	D	32,801	0.87	D	D
3		West of Elsworth Street	6D	56,300	34,154	0.61	B	35,801	0.64	B	D
4		East of Elsworth Street	6D	56,300	31,029	0.55	A	32,676	0.58	A	D
5		West of Frederick Street	5D	46,900	32,583	0.69	B	34,230	0.73	C	D
6		East of Frederick Street	5D	46,900	35,981	0.77	C	37,628	0.80	C	D
7		West of Graham Street	5D	46,900	36,044	0.77	C	37,691	0.80	C	D
8		East of Graham Street	5D	46,900	31,120	0.66	B	32,767	0.70	B	D
9		West of Heacock Street	5D	46,900	35,778	0.76	C	37,425	0.80	C	D
10		East of Heacock Street	4D	37,500	19,360	0.52	A	19,360	0.52	A	C
11		West of Perris Boulevard	4D	37,500	15,973	0.43	A	15,973	0.43	A	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	1,076	0.09	A	5,177	0.41	A	D
13		Cosmos Street to Indian Street	2U	12,500	620	0.05	A	2,719	0.22	A	D
17		East of Indian Street	2D	18,750	3,716	0.20	A	3,854	0.21	A	D
18		West of Perris Boulevard	2U	12,500	3,040	0.24	A	3,178	0.25	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	46	0.00	A	46	0.00	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	4,269	0.23	A	6,368	0.34	A	D
21		West of Indian Street	2D	18,750	10,411	0.56	A	12,510	0.67	B	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	11,390	0.32	A	12,440	0.35	A	D
23		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	19,915	0.55	A	D
24		East of Western Way	4U	25,900	13,901	0.54	A	16,000	0.62	B	D
25		West of Patterson Avenue	4U	25,900	11,444	0.44	A	13,543	0.52	A	D
26		East of Patterson Avenue	2D	18,000	10,492	0.58	A	12,591	0.70	B	D
27		West of Webster Avenue	2D	18,000	9,144	0.51	A	11,243	0.62	B	D
28		East of Webster Avenue	2D	18,000	9,156	0.51	A	11,255	0.63	B	D
29		West of Indian Street	3D	26,925	11,624	0.43	A	13,723	0.51	A	D

Table 4.11-20 Short-Term Construction Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015[4]	V/C[2]	LOS[3]	E+P (Construction Traffic)	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	24,824	0.66	B	26,827	0.72	C	D
31		North of John F. Kennedy Drive	4D	37,500	22,764	0.61	B	24,766	0.66	B	D
32		South of John F. Kennedy Drive	4D	37,500	21,272	0.57	A	23,274	0.62	B	D
33		North of Gentian Avenue	3D	28,150	19,047	0.68	B	21,049	0.75	C	D
34		South of Gentian Avenue	2U	12,500	**17,054**	**1.36**	**F**	**19,056**	**1.52**	**F**	D
35		North of Iris Avenue	2D	18,750	16,730	0.89	D	**18,732**	**1.00**	**E**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	9,113	0.73	C	11,115	0.89	D	D
37		Krameria Avenue (N) to Cardinal Avenue	3D	28,150	8,516	0.30	A	10,615	0.38	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	7,400	0.26	A	9,499	0.34	A	D
41		San Michele Road to Nandina Avenue	2D	18,750	3,427	0.18	A	3,427	0.18	A	D
42		South of Nandina Avenue	2U	12,500	228	0.02	A	228	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	0	0.00	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	620	0.05	A	4,721	0.38	A	D
45	Indian Street	San Michele Road to Nandina Avenue	4D	37,500	10,793	0.29	A	12,892	0.34	A	D
46		South of Nandina Avenue	2D	18,750	12,523	0.67	B	14,622	0.78	C	D
47		North of Harley Knox Boulevard	4D	35,900	13,201	0.37	A	15,300	0.43	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

[4] V/C and LOS results are from the Moreno Valley Logistics Traffic Impact Analysis.

Source: (Urban Crossroads, 2015b, Table 5)

Table 4.11-21 Existing plus Project Intersection Analysis

#	Intersection	Traffic Control [2]	Existing (2015)				E+P w/o Indian				E+P With Indian			
			Delay [1] (secs.)		Level of Service		Delay [1] (secs.)		Level of Service		Delay [1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	14.4	39.0	B	D	19.4	39.0	B	D	16.4	39.0	B	D
2	I-215 SB Ramps / Harley Knox Bl	TS	33.8	31.2	C	C	34.5	36.0	C	D	35.5	36.0	D	D
3	I-215 NB Ramps / Cactus Av	TS	19.1	13.7	B	B	19.5	15.7	B	B	19.3	14.9	B	B
4	I-215 NB Ramps / Harley Knox Bl	TS	13.6	17.0	B	B	14.8	18.0	B	B	14.3	19.0	B	B
5	Elsworth St / Cactus Av	TS	38.9	30.2	D	C	38.9	30.2	D	C	38.9	30.2	D	C
6	Frederick St / Cactus Av	TS	24.9	21.9	C	C	25.5	23.2	C	C	25.3	22.7	C	C
7	Western Wy / Harley Knox Bl	CSS	12.0	12.1	B	B	12.1	14.1	B	B	12.3	14.8	B	B
8	Graham St / Cactus Av	TS	21.3	24.5	C	C	21.9	25.1	C	C	22.1	25.3	C	C
9	Patterson Av / Harley Knox Bl	TS	27.6	26.3	C	C	32.2	45.7	C	D	28.7	28.7	C	C
10	Heacock St / Cactus Av	TS	34.3	18.6	C	B	39.9	44.5	D	D	38.3	33.7	D	C
11	Heacock St / John F. Kennedy Dr	TS	23.3	21.8	C	C	24.4	27.9	C	C	27.8	25.3	C	C
12	Heacock St / Gentian Av	CSS	22.8	**58.0**	C	**F**	**35.0**	**>100.0**	**E**	**F**	31.7	**93.0**	D	**F**
13	Heacock St / Iris Av	AWS	15.2	**37.5**	C	**E**	**36.1**	**56.1**	**E**	**F**	25.7	**53.9**	D	**F**
14	Heacock St / Krameria Av (North)	TS	11.1	9.0	B	A	14.3	30.6	B	C	13.7	21.7	B	C
15	Heacock St / Driveway 1	CSS	Future Intersection				10.9	12.4	B	B	10.8	12.8	B	B
16	Heacock St / Driveway 2	CSS	Future Intersection				10.7	12.4	B	B	10.9	13.1	B	B
17	Heacock St / Cardinal Av	CSS	9.0	13.4	A	B	12.9	18.1	B	C	12.8	17.5	B	C
18	Heacock St / San Michele Rd	TS	25.6	39.5	C	D	37.0	**70.9**	D	**E**	35.7	**59.9**	D	**E**
19	Heacock St / Nandina Av	CSS	8.4	8.6	A	A	8.4	8.6	A	A	8.4	8.6	A	A
20	Webster Av / Harley Knox Bl	CSS	10.0	10.1	B	B	11.4	10.2	B	B	12.1	10.4	B	B
21	Cosmos St / Krameria Av (North)	CSS	9.8	9.3	A	A	10.2	11.5	B	B	9.6	10.4	A	B
22	Cosmos St / Krameria Av	AWS	Future Intersection				8.5	8.5	A	A	8.0	8.1	A	A
23	Driveway 3 / Krameria Av	CSS	Future Intersection				9.5	9.6	A	A	9.2	9.3	A	A
24	Driveway 4 / Krameria Av	CSS	Future Intersection				9.1	9.2	A	A	8.7	8.9	A	A
25	Driveway 5 / Krameria Av	CSS	Future Intersection				9.3	9.4	A	A	9.2	9.3	A	A
26	Indian St / Krameria Av	AWS	10.7	9.2	B	A	11.1	9.9	B	A	11.2	9.9	B	A
27	Indian St / Driveway 6	CSS	Future Intersection				8.7	8.8	A	A	8.4	8.7	A	A
28	Indian St / San Michele Rd	TS	29.3	35.8	C	D	31.0	36.4	C	D	29.9	36.6	C	D
29	Indian St / Nandina Av	TS	18.4	19.9	B	B	18.5	20.0	B	C	23.2	20.1	C	C
30	Indian St / Harley Knox Bl	TS	17.0	24.2	B	C	17.7	50.8	B	D	22.4	**72.3**	C	**E**
31	Perris Bl / Cactus Av	TS	24.8	32.4	C	C	25.1	32.9	C	C	25.1	32.9	C	C
32	Perris Bl / Krameria Av	TS	31.2	22.9	C	C	32.3	30.1	C	C	32.3	30.1	C	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; AWS= All-way stop

Source: (Urban Crossroads, 2016e, Table 5-1)

Table 4.11-22 Existing plus Project Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015	V/C[2]	LOS[3]	E+P w/o Indian	V/C[2]	LOS[3]	E+P w/ Indian	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	25,080	0.67	B	26,470	0.71	C	26,031	0.69	B	D
2		East of I-215 NB Ramps	4D	37,500	31,154	0.83	D	33,935	0.90	D	33,056	0.88	D	D
3		West of Elsworth Street	6D	56,300	34,154	0.61	B	36,935	0.66	B	36,056	0.64	B	D
4		East of Elsworth Street	6D	56,300	31,029	0.55	A	33,810	0.60	A	32,931	0.58	A	D
5		West of Frederick Street	5D	46,900	32,583	0.69	B	35,364	0.75	C	34,485	0.74	C	D
6		East of Frederick Street	5D	46,900	35,981	0.77	C	38,762	0.83	D	37,883	0.81	D	D
7		West of Graham Street	5D	46,900	36,044	0.77	C	38,825	0.83	D	37,946	0.81	D	D
8		East of Graham Street	5D	46,900	31,120	0.66	B	33,901	0.72	C	33,022	0.70	B	D
9		West of Heacock Street	5D	46,900	35,778	0.76	C	38,559	0.82	D	37,680	0.80	C	D
10		East of Heacock Street	4D	37,500	19,360	0.52	A	19,818	0.53	A	19,818	0.53	A	C
11		West of Perris Boulevard	4D	37,500	15,973	0.43	A	16,431	0.44	A	16,431	0.44	A	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	1,076	0.09	A	4,022	0.32	A	2,864	0.23	A	D
13		Cosmos Street to Driveway 3	2U	12,500	620	0.05	A	2,602	0.21	A	1,866	0.15	A	D
14		Driveway 3 to Driveway 4	2U	12,500	620	0.05	A	1,902	0.15	A	1,634	0.13	A	D
15		Driveway 4 to Driveway 5	2U	12,500	620	0.05	A	1,866	0.15	A	1,811	0.14	A	D
16		Driveway 5 to Indian Street	2D	18,750	620	0.03	A	1,324	0.07	A	1,606	0.09	A	D
17		East of Indian Street	2D	18,750	3,716	0.20	A	4,244	0.23	A	4,244	0.23	A	D
18		West of Perris Boulevard	2U	12,500	3,040	0.24	A	3,568	0.29	A	3,568	0.29	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	46	0.00	A	1,198	0.10	A	1,198	0.10	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	4,269	0.23	A	6,534	0.35	A	6,256	0.33	A	D
21		West of Indian Street	2D	18,750	10,411	0.56	A	12,676	0.68	B	12,398	0.66	B	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	11,390	0.32	A	12,346	0.34	A	12,786	0.36	A	D
23		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	19,727	0.55	A	20,607	0.57	A	D
24		East of Western Way	4U	25,900	13,901	0.54	A	15,814	0.61	B	16,693	0.64	B	D
25		West of Patterson Avenue	4U	25,900	11,444	0.44	A	13,357	0.52	A	14,236	0.55	A	D
26		East of Patterson Avenue	2D	18,000	10,492	0.58	A	12,581	0.70	B	13,460	0.75	C	D
27		West of Webster Avenue	2D	18,000	9,144	0.51	A	11,233	0.62	B	12,112	0.67	B	D
28		East of Webster Avenue	2D	18,000	9,156	0.51	A	11,245	0.62	B	12,124	0.67	B	D
29		West of Indian Street	3D	26,925	11,624	0.43	A	13,713	0.51	A	14,592	0.54	A	D

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-

Table 4.11-22 Existing plus Project Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015	V/C[2]	LOS[3]	E+P w/o Indian	V/C[2]	LOS[3]	E+P w/ Indian	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	24,824	0.66	B	28,549	0.76	C	27,670	0.74	C	D
31		North of John F. Kennedy Drive	4D	37,500	22,764	0.61	B	26,489	0.71	C	25,610	0.68	B	D
32		South of John F. Kennedy Drive	4D	37,500	21,272	0.57	A	25,103	0.67	B	24,224	0.65	B	D
33		North of Gentian Avenue	3D	28,150	19,047	0.68	B	22,877	0.81	D	21,998	0.78	C	D
34		South of Gentian Avenue	2U	12,500	**17,054**	**1.36**	**F**	**20,884**	**1.67**	**F**	**20,005**	**1.60**	**F**	D
35		North of Iris Avenue	2D	18,750	16,730	0.89	D	**20,560**	**1.10**	**F**	**19,681**	**1.05**	**F**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	9,113	0.73	C	**12,943**	**1.04**	**F**	**12,064**	**0.97**	**E**	D
37		Krameria Avenue (N) to Driveway 1	3D	28,150	8,516	0.30	A	10,668	0.38	A	9,679	0.34	A	D
38		Driveway 1 to Driveway 2	3D	28,150	8,516	0.30	A	10,386	0.37	A	9,748	0.35	A	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	8,874	0.24	A	10,984	0.29	A	10,768	0.29	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	7,400	0.26	A	9,666	0.34	A	9,387	0.33	A	D
41		San Michele Road to Nandina Avenue	2D	18,750	3,427	0.18	A	3,427	0.18	A	3,427	0.18	A	D
42		South of Nandina Avenue	2U	12,500	228	0.02	A	228	0.02	A	228	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	0	0.00	A	0	0.00	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	620	0.05	A	3,566	0.29	A	2,408	0.19	A	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	0	0.00	A	0	0.00	A	1,158	0.03	A	D
46		San Michele Road to Nandina Avenue	4D	37,500	10,793	0.29	A	13,058	0.35	A	13,938	0.37	A	D
47		South of Nandina Avenue	2D	18,750	12,523	0.67	B	14,788	0.79	C	15,667	0.84	D	D
48		North of Harley Knox Boulevard	4D	35,900	13,201	0.37	A	15,466	0.43	A	16,345	0.46	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Source: (Urban Crossroads, 2016e, Table 5-2)

Table 4.11-23 Opening Year (2020) Intersection Analysis

#	Intersection	Traffic Control[2]	2020 Without Project				2020 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	**117.6**	**172.3**	**F**	**F**	**183.6**	**172.3**	**F**	**F**
2	I-215 SB Ramps / Harley Knox Bl	TS	**>200.0**	**118.6**	**F**	**F**	**>200.0**	**158.4**	**F**	**F**
3	I-215 NB Ramps / Cactus Av	TS	**174.3**	**126.7**	**F**	**F**	**174.7**	**153.7**	**F**	**F**
4	I-215 NB Ramps / Harley Knox Bl	TS	19.2	**>200.0**	B	**F**	25.9	**>200.0**	C	**F**
5	Elsworth St / Cactus Av	TS	**88.7**	43.5	**F**	D	**97.0**	53.6	**F**	D
6	Frederick St / Cactus Av	TS	30.0	47.9	C	D	33.0	51.1	C	D
7	Western Wy / Harley Knox Bl	CSS	18.6	**>100.0**	C	**F**	18.1	**>100.0**	C	**F**
8	Graham St / Cactus Av	TS	**123.8**	**117.6**	**F**	**F**	**125.3**	**117.8**	**F**	**F**
9	Patterson Av / Harley Knox Bl	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
10	Heacock St / Cactus Av	TS	**59.3**	48.9	**E**	D	**64.6**	**85.6**	**E**	**F**
11	Heacock St / John F. Kennedy Dr	TS	25.9	24.1	C	C	26.9	36.7	C	D
12	Heacock St / Gentian Av	CSS	33.2	**>100.0**	D	**F**	**53.8**	**>100.0**	**F**	**F**
13	Heacock St / Iris Av	AWS	**46.2**	**58.5**	**E**	**F**	**57.2**	**59.6**	**F**	**F**
14	Heacock St / Krameria Av (North)	TS	17.1	36.4	B	D	21.2	52.0	C	D
15	Heacock St / Driveway 1	CSS	Future Intersection				15.0	20.8	C	C
16	Heacock St / Driveway 2	CSS	Future Intersection				14.9	20.9	B	C
17	Heacock St / Cardinal Av	CSS	11.3	26.6	B	D	23.8	28.4	C	D
18	Heacock St / San Michele Rd	TS	**198.9**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
19	Heacock St / Nandina Av	CSS	8.5	8.9	A	A	8.5	8.9	A	A
20	Webster Av / Harley Knox Bl	CSS	0.0	18.4	A	C	0.0	18.4	A	C
21	Cosmos St / Krameria Av (North)	CSS	13.6	15.3	B	C	21.6	25.7	C	D
22	Cosmos St / Krameria Av	AWS	Future Intersection				10.1	10.2	B	B
23	Driveway 3 / Krameria Av	CSS	Future Intersection				10.2	10.6	B	B
24	Driveway 4 / Krameria Av	CSS	Future Intersection				9.8	9.9	A	A
25	Driveway 5 / Krameria Av	CSS	Future Intersection				9.9	10.2	A	B
26	Indian St / Krameria Av	AWS	14.0	10.7	B	B	14.9	12.0	B	B
27	Indian St / Driveway 6	CSS	Future Intersection				8.7	8.8	A	A
28	Indian St / San Michele Rd	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
29	Indian St / Nandina Av	TS	**125.5**	**135.1**	**F**	**F**	**137.9**	**169.4**	**F**	**F**
30	Indian St / Harley Knox Bl	TS	19.1	**181.4**	B	**F**	19.5	**>200.0**	B	**F**
31	Perris Bl / Cactus Av	TS	**77.5**	**155.6**	**E**	**F**	**79.6**	**165.4**	**E**	**F**
32	Perris Bl / Krameria Av	TS	46.8	**60.4**	D	**E**	48.4	**74.8**	D	**E**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal: AWS= All-way stop

Source: (Urban Crossroads, 2016e, Table 6-1)

Table 4.11-24 Opening Year (2020) Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity^1	2020 w/o Project	V/C^2	LOS^3	2020 w/ Project	V/C^2	LOS^3	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	**52,440**	**1.40**	**F**	**53,830**	**1.44**	**F**	D
2		East of I-215 NB Ramps	4D	37,500	**52,541**	**1.40**	**F**	**55,322**	**1.48**	**F**	D
3		West of Elsworth Street	6D	56,300	**57,997**	**1.03**	**F**	**60,778**	**1.08**	**F**	D
4		East of Elsworth Street	6D	56,300	**54,501**	**0.97**	**E**	**57,282**	**1.02**	**F**	D
5		West of Frederick Street	5D	46,900	**58,823**	**1.25**	**F**	**61,604**	**1.31**	**F**	D
6		East of Frederick Street	5D	46,900	**60,223**	**1.28**	**F**	**63,004**	**1.34**	**F**	D
7		West of Graham Street	5D	46,900	**59,505**	**1.27**	**F**	**62,286**	**1.33**	**F**	D
8		East of Graham Street	5D	46,900	**48,625**	**1.04**	**F**	**51,406**	**1.10**	**F**	D
9		West of Heacock Street	5D	46,900	**49,854**	**1.06**	**F**	**52,635**	**1.12**	**F**	D
10		East of Heacock Street	4D	37,500	32,432	0.86	D	32,890	0.88	D	C
11		West of Perris Boulevard	4D	37,500	23,845	0.64	B	24,303	0.65	B	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	7,254	0.58	A	10,200	0.82	D	D
13		Cosmos Street to Driveway 3	2U	12,500	3,420	0.27	A	5,402	0.43	A	D
14		Driveway 3 to Driveway 4	2U	12,500	3,420	0.27	A	4,702	0.38	A	D
15		Driveway 4 to Driveway 5	2U	12,500	3,420	0.27	A	4,666	0.37	A	D
16		Driveway 5 to Indian Street	2D	18,750	3,420	0.18	A	4,124	0.22	A	D
17		East of Indian Street	2D	18,750	5,173	0.28	A	5,701	0.30	A	D
18		West of Perris Boulevard	2U	12,500	4,290	0.34	A	4,818	0.39	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	51	0.00	A	1,203	0.10	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	**18,781**	**1.00**	**E**	**21,046**	**1.12**	**F**	D
21		West of Indian Street	2D	18,750	**24,254**	**1.29**	**F**	**26,519**	**1.41**	**F**	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	22,314	0.62	A	23,270	0.65	B	D
23		I-215 NB Ramps to Western Way	4D	35,900	**32,527**	**0.91**	**E**	**34,439**	**0.96**	**E**	D
24		East of Western Way	4U	25,900	**28,206**	**1.09**	**F**	**30,119**	**1.16**	**F**	D
25		West of Patterson Avenue	4U	25,900	**25,493**	**0.98**	**E**	**27,406**	**1.06**	**F**	D
26		East of Patterson Avenue	2D	18,000	**24,066**	**1.34**	**F**	**26,155**	**1.45**	**F**	D
27		West of Webster Avenue	2D	18,000	**22,578**	**1.25**	**F**	**24,667**	**1.37**	**F**	D
28		East of Webster Avenue	2D	18,000	**22,247**	**1.24**	**F**	**24,336**	**1.35**	**F**	D
29		West of Indian Street	3D	26,925	**24,971**	**0.93**	**E**	**27,060**	**1.01**	**F**	D

Table 4.11-24 Opening Year (2020) Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2020 w/o Project	V/C[2]	LOS[3]	2020 w/ Project	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	28,260	0.75	C	31,985	0.85	D	D
31		North of John F. Kennedy Drive	4D	37,500	27,327	0.73	C	31,052	0.83	D	D
32		South of John F. Kennedy Drive	4D	37,500	25,704	0.69	B	29,535	0.79	C	D
33		North of Gentian Avenue	3D	28,150	23,211	0.82	D	**27,041**	**0.96**	**E**	D
34		South of Gentian Avenue	2U	12,500	**20,916**	**1.67**	**F**	**24,746**	**1.98**	**F**	D
35		North of Iris Avenue	2D	18,750	**20,558**	**1.10**	**F**	**24,388**	**1.30**	**F**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	**17,912**	**1.43**	**F**	**21,742**	**1.74**	**F**	D
37		Krameria Avenue (N) to Driveway 1	3D	28,150	20,115	0.71	C	22,267	0.79	C	D
38		Driveway 1 to Driveway 2	3D	28,150	20,115	0.71	C	21,985	0.78	C	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	20,511	0.55	A	22,621	0.60	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	18,883	0.67	B	21,149	0.75	C	D
41		San Michele Road to Nandina Avenue	2D	18,750	4,465	0.24	A	4,465	0.24	A	D
42		South of Nandina Avenue	2U	12,500	252	0.02	A	252	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	0	0.00	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	3,420	0.27	A	6,366	0.51	A	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	174	0.00	A	174	0.00	A	D
46		San Michele Road to Nandina Avenue	4D	37,500	28,062	0.75	C	30,327	0.81	D	D
47		South of Nandina Avenue	2D	18,750	**31,663**	**1.69**	**F**	**33,928**	**1.81**	**F**	D
48		North of Harley Knox Boulevard	4D	35,900	22,657	0.63	B	24,922	0.69	B	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Source: (Urban Crossroads, 2016e, Table 6-2)

Table 4.11-25 General Plan Buildout (Post-2035) Intersection Analysis

			Post-2035 Without Project				Post-2035 With Project			
			Delay [1] (secs.)		Level of Service		Delay [1] (secs.)		Level of Service	
#	Intersection	Traffic Control [2]	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	**144.4**	**148.0**	**F**	**F**	**166.4**	**148.0**	**F**	**F**
2	I-215 SB Ramps / Harley Knox Bl	TS	**136.9**	**122.0**	**F**	**F**	**175.6**	**141.6**	**F**	**F**
3	I-215 NB Ramps / Cactus Av	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
4	I-215 NB Ramps / Harley Knox Bl	TS	**67.5**	**>200.0**	**E**	**F**	**85.9**	**>200.0**	**F**	**F**
5	Elsworth St / Cactus Av	TS	**116.3**	**72.9**	**F**	**E**	**133.8**	**81.9**	**F**	**F**
6	Frederick St / Cactus Av	TS	32.7	49.0	C	D	34.3	51.5	C	D
7	Western Wy / Harley Knox Bl	CSS	**47.1**	**>100.0**	**E**	**F**	**70.3**	**>100.0**	**F**	**F**
8	Graham St / Cactus Av	TS	**94.3**	**82.2**	**F**	**F**	**95.5**	**82.9**	**F**	**F**
9	Patterson Av / Harley Knox Bl	TS	**169.3**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
10	Heacock St / Cactus Av	TS	**94.7**	**148.0**	**F**	**F**	**98.0**	**166.3**	**F**	**F**
11	Heacock St / John F. Kennedy Dr	TS	38.5	38.3	D	D	40.5	46.8	D	D
12	Heacock St / Gentian Av	CSS	**97.6**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
13	Heacock St / Iris Av	AWS	**60.8**	**60.6**	**F**	**F**	**61.7**	**61.2**	**F**	**F**
14	Heacock St / Krameria Av (North)	TS	22.6	41.4	C	D	32.5	53.0	C	D
15	Heacock St / Driveway 1	CSS	Future Intersection				20.3	24.9	C	C
16	Heacock St / Driveway 2	CSS	Future Intersection				18.1	20.3	C	C
17	Heacock St / Cardinal Av	CSS	12.1	22.2	B	C	24.9	32.2	C	D
18	Heacock St / San Michele Rd	TS	**102.8**	**198.5**	**F**	**F**	**103.1**	**199.6**	**F**	**F**
19	Heacock St / Nandina Av	CSS	13.7	17.9	B	C	14.7	22.6	B	C
20	Webster Av / Harley Knox Bl	CSS	17.1	**>100.0**	C	**F**	21.4	**>100.0**	C	**F**
21	Cosmos St / Krameria Av (North)	CSS	14.2	16.3	B	C	17.7	21.5	C	C
22	Cosmos St / Krameria Av	AWS	Future Intersection				9.5	9.6	A	A
23	Driveway 3 / Krameria Av	CSS	Future Intersection				9.9	10.1	A	B
24	Driveway 4 / Krameria Av	CSS	Future Intersection				9.4	9.5	A	A
25	Driveway 5 / Krameria Av	CSS	Future Intersection				9.9	10.2	A	B
26	Indian St / Krameria Av	AWS	**67.8**	**72.4**	**F**	**F**	**69.7**	**74.9**	**F**	**F**
27	Indian St / Driveway 6	CSS	Future Intersection				10.6	16.2	B	C
28	Indian St / San Michele Rd	TS	**73.1**	**>200.0**	**E**	**F**	**105.4**	**>200.0**	**F**	**F**
29	Indian St / Nandina Av	TS	**136.5**	**>200.0**	**F**	**F**	**146.3**	**>200.0**	**F**	**F**
30	Indian St / Harley Knox Bl	TS	**120.5**	**>200.0**	**F**	**F**	**125.9**	**>200.0**	**F**	**F**
31	Perris Bl / Cactus Av	TS	**112.6**	**185.1**	**F**	**F**	**115.4**	**188.7**	**F**	**F**
32	Perris Bl / Krameria Av	TS	**111.7**	**148.8**	**F**	**F**	**119.6**	**157.8**	**F**	**F**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual move movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; AWS= All-way stop

Source: (Urban Crossroads, 2016e, Table 7-1)

Table 4.11-26 General Plan Buildout (Post-2035) Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Post-2035 w/o Project	V/C[2]	LOS[3]	Post-2035 w/ Project	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	**52,522**	**1.40**	**F**	**53,473**	**1.43**	**F**	D
2		East of I-215 NB Ramps	4D	37,500	**68,405**	**1.82**	**F**	**70,307**	**1.87**	**F**	D
3		West of Elsworth Street	6D	56,300	**63,400**	**1.13**	**F**	**65,302**	**1.16**	**F**	D
4		East of Elsworth Street	6D	56,300	**58,900**	**1.05**	**F**	**60,802**	**1.08**	**F**	D
5		West of Frederick Street	5D	46,900	**60,581**	**1.29**	**F**	**62,483**	**1.33**	**F**	D
6		East of Frederick Street	5D	46,900	**62,838**	**1.34**	**F**	**64,740**	**1.38**	**F**	D
7		West of Graham Street	5D	46,900	**59,572**	**1.27**	**F**	**61,474**	**1.31**	**F**	D
8		East of Graham Street	5D	46,900	**55,142**	**1.18**	**F**	**57,044**	**1.22**	**F**	D
9		West of Heacock Street	5D	46,900	**50,768**	**1.08**	**F**	**52,670**	**1.12**	**F**	D
10		East of Heacock Street	4D	37,500	**43,555**	**1.16**	**F**	**44,013**	**1.17**	**F**	C
11		West of Perris Boulevard	4D	37,500	**37,000**	**0.99**	**E**	**37,458**	**1.00**	**E**	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	11,144	0.89	D	**12,862**	**1.03**	**F**	D
13		Cosmos Street to Driveway 3	2U	12,500	9,000	0.72	C	10,318	0.83	D	D
14		Driveway 3 to Driveway 4	2U	12,500	9,000	0.72	C	10,084	0.81	D	D
15		Driveway 4 to Driveway 5	2U	12,500	9,000	0.72	C	10,262	0.82	D	D
16		Driveway 5 to Indian Street	2D	18,750	9,000	0.48	A	10,056	0.54	A	D
17		East of Indian Street	2D	18,750	8,096	0.43	A	8,624	0.46	A	D
18		West of Perris Boulevard	2U	12,500	**12,689**	**1.02**	**F**	**13,217**	**1.06**	**F**	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	51	0.00	A	1,197	0.10	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	**22,852**	**1.22**	**F**	**22,852**	**1.22**	**F**	D
21		West of Indian Street	2D	18,750	**27,208**	**1.45**	**F**	**27,208**	**1.45**	**F**	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	29,627	0.83	D	31,023	0.86	D	D
23		I-215 NB Ramps to Western Way	4D	35,900	**36,697**	**1.02**	**F**	**39,489**	**1.10**	**F**	D
24		East of Western Way	4U	25,900	**35,500**	**1.37**	**F**	**38,292**	**1.48**	**F**	D
25		West of Patterson Avenue	4U	25,900	**35,500**	**1.37**	**F**	**38,292**	**1.48**	**F**	D
26		East of Patterson Avenue	2D	18,000	**34,800**	**1.93**	**F**	**37,768**	**2.10**	**F**	D
27		West of Webster Avenue	2D	18,000	**39,288**	**2.18**	**F**	**42,257**	**2.35**	**F**	D
28		East of Webster Avenue	2D	18,000	**39,576**	**2.20**	**F**	**40,630**	**2.26**	**F**	D
29		West of Indian Street	3D	26,925	**36,988**	**1.37**	**F**	**38,042**	**1.41**	**F**	D

Table 4.11-26 General Plan Buildout (Post-2035) Roadway Segment Analysis

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Post-2035 w/o Project	V/C[2]	LOS[3]	Post-2035 w/ Project	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	28,080	0.75	C	30,926	0.82	D	D
31		North of John F. Kennedy Drive	4D	37,500	26,995	0.72	C	29,841	0.80	C	D
32		South of John F. Kennedy Drive	4D	37,500	27,192	0.73	C	30,144	0.80	C	D
33		North of Gentian Avenue	3D	28,150	25,192	0.89	D	**28,143**	**1.00**	**E**	D
34		South of Gentian Avenue	2U	12,500	**24,000**	**1.92**	**F**	**26,951**	**2.16**	**F**	D
35		North of Iris Avenue	2D	18,750	**25,655**	**1.37**	**F**	**28,606**	**1.53**	**F**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	**22,634**	**1.81**	**F**	**25,585**	**2.05**	**F**	D
37		Krameria Avenue (N) to Driveway 1	3D	28,150	23,898	0.85	D	25,132	0.89	D	D
38		Driveway 1 to Driveway 2	3D	28,150	23,898	0.85	D	25,201	0.90	D	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	23,898	0.64	B	25,726	0.69	B	D
40		Cardinal Avenue to San Michele Road	3D	28,150	23,898	0.85	D	**25,813**	**0.92**	**E**	D
41		San Michele Road to Nandina Avenue	2D	18,750	12,472	0.67	B	14,387	0.77	C	D
42		South of Nandina Avenue	2U	12,500	8,101	0.65	B	10,016	0.80	C	D
43		North of Harley Knox Boulevard	2U	13,000	4,051	0.31	A	5,966	0.46	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	9,000	0.72	C	10,718	0.86	D	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	23,076	0.62	B	24,306	0.65	B	D
46		San Michele Road to Nandina Avenue	4D	37,500	**36,880**	**0.98**	**E**	**38,110**	**1.02**	**F**	D
47		South of Nandina Avenue	2D	18,750	**42,480**	**2.27**	**F**	**43,710**	**2.33**	**F**	D
48		North of Harley Knox Boulevard	4D	35,900	**43,160**	**1.20**	**F**	**44,390**	**1.24**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Source: (Urban Crossroads, 2016e , Table 7-2)

Table 4.11-27 Existing plus Project Freeway Ramp Junction Merge/Diverge Analysis

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				E+P w/o Indian				E+P w/ Indian			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	26.9	C	30.2	D	28.6	D	30.6	D	28.4	D	30.6	D
		Loop Off-Ramp at Cactus Avenue - Downstream	4	26.9	C	30.2	D	28.6	D	30.6	D	28.4	D	30.6	D
		Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C	20.6	C	27.6	C	20.9	C	27.7	C
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.6	C	15.3	B	22.3	C	15.3	B	22.3	C
	NB	On-Ramp at Cactus Avenue	3	20.2	C	19.8	B	20.5	C	21.3	C	20.5	C	21.2	C
		On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C	25.9	C	22.3	C	26.0	C	22.7	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B	25.6	C	20.1	C	25.6	C	20.1	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2016e, Table 5-5)

Table 4.11-28 Existing plus Project Off-Ramp Queuing Analysis

Intersection	Movement	Stacking Distance (Feet)	E+P Without Indian Street Bridge				E+P With Indian Street Bridge			
			95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]		95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	249 [2]	334 [2]	Yes	Yes	192 [2]	318 [2]	Yes	Yes
	SBR	1,115	87	0	Yes	Yes	87	0	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	427	348	Yes	Yes	472	360	Yes	Yes
	SBR	270	41	58	Yes	Yes	39	57	Yes	Yes
I-215 NB Ramps / Cactus Av.	NBL	145	321 [2]	26	Yes[3]	Yes	321 [2]	26	Yes[3]	Yes
	NBT	1,650	164	26	Yes	Yes	164	26	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	13	22	Yes	Yes	13	22	Yes	Yes
	NBR	265	62	54	Yes	Yes	62	54	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound left turn lane without spilling back and affecting the I-215 Freeway mainline.

Source: (Urban Crossroads, 2016e, Table 5-3)

Table 4.11-29 Opening Year (2020) Freeway Mainline Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2020 Without Project			2020 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	5	AM	5,814	18.4	C	5,846	18.5	C
				PM	3,676	11.8	B	3,683	11.8	B
		McKinley St. to Riverwalk Pkwy.	4	AM	5,138	21.0	C	5,172	21.1	C
				PM	5,077	20.5	C	5,085	20.5	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	5,502	33.3	D	5,536	33.7	D
				PM	5,541	32.9	D	5,549	33.0	D
		Magnolia Av. to La Sierra Av.	4	AM	5,449	21.9	C	5,485	22.1	C
				PM	5,442	21.8	C	5,451	21.8	C
		La Sierra Av. to Tyler Av.	4	AM	4,682	18.9	C	4,726	19.1	C
				PM	4,631	18.6	C	4,642	18.7	C
		Tyler Av. to Van Buren Bl.	4	AM	4,679	18.8	C	4,724	19.1	C
				PM	4,399	17.6	B	4,410	17.7	B
		Van Buren Bl. to Adams St.	4	AM	4,837	19.2	C	4,881	19.4	C
				PM	4,720	18.5	C	4,731	18.6	C
		Adams St. to Madison St.	3	AM	4,302	23.3	C	4,358	23.8	C
				PM	4,306	23.1	C	4,320	23.3	C
		Madison St. to Arlington Av.	4	AM	5,967	24.9	C	6,015	25.2	C
				PM	6,083	25.4	C	6,095	25.5	C
		Arlington Av. to Central Av.	4	AM	4,929	19.7	C	4,977	20.0	C
				PM	5,484	22.1	C	5,495	22.1	C
		Central Av. to 14th St.	3	AM	3,922	21.3	C	3,979	21.6	C
				PM	3,295	17.6	B	3,309	17.6	B
		14th St. to University Av.	4	AM	5,557	22.7	C	5,615	23.1	C
				PM	4,570	18.2	C	4,584	18.3	C
		University Av. to Spruce St.	5	AM	5,819	18.8	C	5,880	19.0	C
				PM	4,924	15.8	B	4,939	15.9	B
		Spruce St. to I-215 Freeway	4	AM	4,289	17.3	B	4,350	17.6	B
				PM	3,502	14.1	B	3,518	14.2	B
SR-60 Fwy	Westboun	I-215 Freeway to Day St.	3	AM	3,330	17.4	B	3,362	17.5	B
				PM	3,286	17.1	B	3,293	17.1	B
		Day St. to Frederick St.	3	AM	3,113	17.1	B	3,138	17.2	B
				PM	5,179	30.5	D	5,185	30.6	D
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	5,260	17.0	B	5,366	17.4	B
				PM	6,871	22.4	C	6,897	22.5	C
		Blaine St. to University Av.	4	AM	5,382	22.2	C	5,488	22.9	C
				PM	5,035	20.1	C	5,061	20.3	C
		University Av. to Martin Luther King Bl.	4	AM	5,767	24.6	C	5,873	25.3	C
				PM	6,148	25.7	C	6,174	25.9	C
		Martin Luther King Bl. to Central Av.	5	AM	4,523	14.6	B	4,635	15.0	B
				PM	5,453	17.3	B	5,481	17.4	B
		Central Av. to Box Springs Rd.	5	AM	6,384	20.8	C	6,499	21.4	C
				PM	7,923	26.3	D	7,952	26.4	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	5,946	24.5	C	6,081	25.4	C
				PM	7,129	30.9	D	7,164	31.1	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	8,082	27.7	D	8,250	28.6	D
				PM	7,935	26.9	D	7,976	27.1	D
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,052	30.5	D	5,219	32.3	D
				PM	6,514	**48.5**	**F**	6,555	**49.3**	**F**
		Alessandro Bl. to Cactus Av.	4	AM	6,805	30.1	C	6,972	31.5	D
				PM	6,978	30.8	D	7,019	31.1	D
		Cactus Av. to Van Buren Bl.	4	AM	6,203	26.0	D	6,250	26.3	D
				PM	7,416	33.7	D	7,427	33.8	D
		Van Buren Bl. to Harley Knox Bl.	3	AM	3,813	21.2	C	3,859	21.5	C
				PM	5,326	32.6	D	5,337	32.7	D
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,842	15.2	B	2,858	15.3	B
				PM	4,882	28.4	D	4,956	29.0	D
		Ramona Exwy. to Nuevo Rd.	3	AM	5,440	32.7	D	5,475	33.1	D
				PM	6,836	**52.9**	**F**	6,844	**53.1**	**F**

Table 4.11-29 Opening Year (2020) Freeway Mainline Segment Analysis

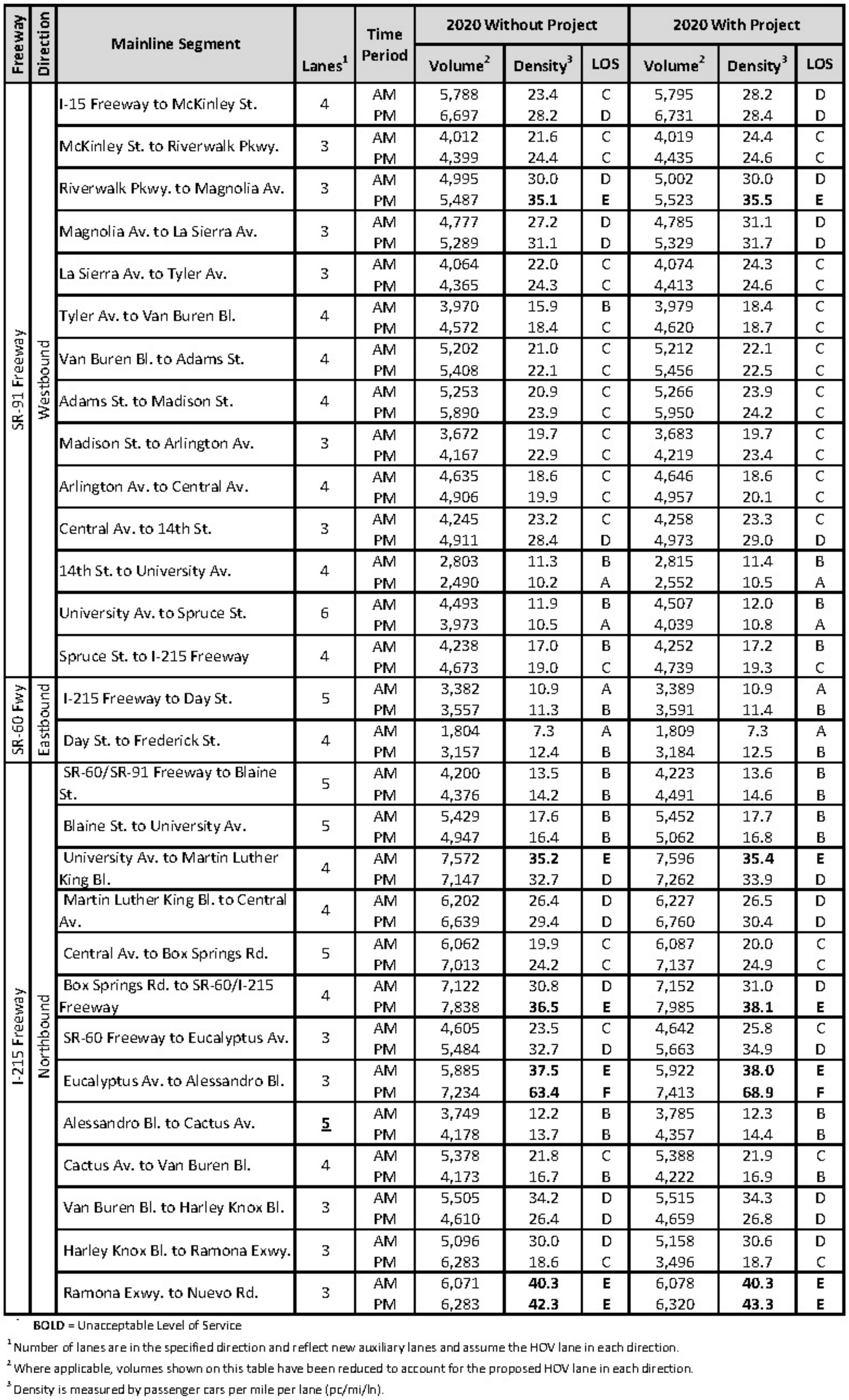

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2020 Without Project			2020 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	5,788	23.4	C	5,795	28.2	D
				PM	6,697	28.2	D	6,731	28.4	D
		McKinley St. to Riverwalk Pkwy.	3	AM	4,012	21.6	C	4,019	24.4	C
				PM	4,399	24.4	C	4,435	24.6	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,995	30.0	D	5,002	30.0	D
				PM	5,487	**35.1**	**E**	5,523	**35.5**	**E**
		Magnolia Av. to La Sierra Av.	3	AM	4,777	27.2	D	4,785	31.1	D
				PM	5,289	31.1	D	5,329	31.7	D
		La Sierra Av. to Tyler Av.	3	AM	4,064	22.0	C	4,074	24.3	C
				PM	4,365	24.3	C	4,413	24.6	C
		Tyler Av. to Van Buren Bl.	4	AM	3,970	15.9	B	3,979	18.4	C
				PM	4,572	18.4	C	4,620	18.7	C
		Van Buren Bl. to Adams St.	4	AM	5,202	21.0	C	5,212	22.1	C
				PM	5,408	22.1	C	5,456	22.5	C
		Adams St. to Madison St.	4	AM	5,253	20.9	C	5,266	23.9	C
				PM	5,890	23.9	C	5,950	24.2	C
		Madison St. to Arlington Av.	3	AM	3,672	19.7	C	3,683	19.7	C
				PM	4,167	22.9	C	4,219	23.4	C
		Arlington Av. to Central Av.	4	AM	4,635	18.6	C	4,646	18.6	C
				PM	4,906	19.9	C	4,957	20.1	C
		Central Av. to 14th St.	3	AM	4,245	23.2	C	4,258	23.3	C
				PM	4,911	28.4	D	4,973	29.0	D
		14th St. to University Av.	4	AM	2,803	11.3	B	2,815	11.4	B
				PM	2,490	10.2	A	2,552	10.5	A
		University Av. to Spruce St.	6	AM	4,493	11.9	B	4,507	12.0	B
				PM	3,973	10.5	A	4,039	10.8	A
		Spruce St. to I-215 Freeway	4	AM	4,238	17.0	B	4,252	17.2	B
				PM	4,673	19.0	C	4,739	19.3	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	3,382	10.9	A	3,389	10.9	A
				PM	3,557	11.3	B	3,591	11.4	B
		Day St. to Frederick St.	4	AM	1,804	7.3	A	1,809	7.3	A
				PM	3,157	12.4	B	3,184	12.5	B
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,200	13.5	B	4,223	13.6	B
				PM	4,376	14.2	B	4,491	14.6	B
		Blaine St. to University Av.	5	AM	5,429	17.6	B	5,452	17.7	B
				PM	4,947	16.4	B	5,062	16.8	B
		University Av. to Martin Luther King Bl.	4	AM	7,572	**35.2**	**E**	7,596	**35.4**	**E**
				PM	7,147	32.7	D	7,262	33.9	D
		Martin Luther King Bl. to Central Av.	4	AM	6,202	26.4	D	6,227	26.5	D
				PM	6,639	29.4	D	6,760	30.4	D
		Central Av. to Box Springs Rd.	5	AM	6,062	19.9	C	6,087	20.0	C
				PM	7,013	24.2	C	7,137	24.9	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	7,122	30.8	D	7,152	31.0	D
				PM	7,838	**36.5**	**E**	7,985	**38.1**	**E**
		SR-60 Freeway to Eucalyptus Av.	3	AM	4,605	23.5	C	4,642	25.8	C
				PM	5,484	32.7	D	5,663	34.9	D
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,885	**37.5**	**E**	5,922	**38.0**	**E**
				PM	7,234	**63.4**	**F**	7,413	**68.9**	**F**
		Alessandro Bl. to Cactus Av.	**5**	AM	3,749	12.2	B	3,785	12.3	B
				PM	4,178	13.7	B	4,357	14.4	B
		Cactus Av. to Van Buren Bl.	4	AM	5,378	21.8	C	5,388	21.9	C
				PM	4,173	16.7	B	4,222	16.9	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,505	34.2	D	5,515	34.3	D
				PM	4,610	26.4	D	4,659	26.8	D
		Harley Knox Bl. to Ramona Exwy.	3	AM	5,096	30.0	D	5,158	30.6	D
				PM	6,283	18.6	C	3,496	18.7	C
		Ramona Exwy. to Nuevo Rd.	3	AM	6,071	**40.3**	**E**	6,078	**40.3**	**E**
				PM	6,283	**42.3**	**E**	6,320	**43.3**	**E**

BOLD = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and reflect new auxiliary lanes and assume the HOV lane in each direction.

[2] Where applicable, volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015a, Table 4)

Table 4.11-30 Opening Year (2020) Freeway Ramp Junction Merge/Diverge Analysis

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	2020 Without Project				2020 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	**36.0**	**E**	**37.6**	**E**	**37.7**	**E**	**38.0**	**E**
		Loop Off-Ramp at Cactus Avenue - Downstream	4	**36.0**	**E**	**37.6**	**E**	**37.7**	**E**	**38.0**	**E**
		Off-Ramp at Harley Knox Boulevard	3	29.7	D	**35.7**	**E**	30.1	D	**35.8**	**E**
		On-Ramp at Harley Knox Boulevard	3	19.0	B	30.5	D	19.2	B	31.2	D
	NB	On-Ramp at Cactus Avenue	3	26.3	C	30.1	D	26.6	C	31.8	D
		On-Ramp at Harley Knox Boulevard	3	34.4	D	32.1	D	34.5	D	32.6	D
		Off-Ramp at Harley Knox Boulevard	3	32.7	D	34.3	C	33.1	D	24.4	C

- **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2016e, Table 6-5)

Table 4.11-31 Opening Year (2020) Off-Ramp Queuing Analysis

Intersection	Movement	Stacking Distance (Feet)	2020 Without Project				2020 With Project			
			95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]		95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.										
	NBR	1,850	498 [2]	584 [2]	Yes	Yes	677 [2]	631 [2]	Yes	Yes
	SBR	1,115	392 [2]	66	Yes	Yes	392 [2]	66	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.										
	SBL/T	1,330	**2,096 [2]**	891 [2]	**No**	Yes	**2,208 [2]**	920 [2]	**No**	Yes
	SBR	270	198	111	Yes	Yes	202	115	Yes	Yes
I-215 NB Ramps / Cactus Av.										
	NBL	145	800 [2]	93	Yes[3]	Yes	800 [2]	93	Yes[3]	Yes
	NBT	1,650	235 [2]	58	Yes	Yes	235 [2]	59	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.										
	NBL/T	1,120	110	76	Yes	Yes	110	76	Yes	Yes
	NBR	265	375 [2]	113	Yes[3]	Yes	534 [2]	139	Yes[3]	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound turn lane without spilling back and affecting the I-215 Freeway mainline.

Source: (Urban Crossroads, 2016e, Table 6-3)

Table 4.11-32 General Plan Buildout (Post-2035) Freeway Mainline Segment Analysis

Freeway	Directio	Mainline Segment	Lanes[1]	Time Period	Post 2035 Without Project			Post 2035 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	5	AM	8,731	31.5	D	8,763	31.7	D
				PM	8,724	31.5	D	8,732	31.6	D
		McKinley St. to Riverwalk Pkwy.	4	AM	8,098	**40.7**	**E**	8,132	**41.0**	**E**
				PM	8,091	**40.6**	**E**	8,099	**40.7**	**E**
		Riverwalk Pkwy. to Magnolia Av.	3	AM	7,826	**85.4**	**F**	7,860	**87.2**	**F**
				PM	7,819	**85.1**	**F**	7,828	**85.6**	**F**
		Magnolia Av. to La Sierra Av.	4	AM	7,408	34.5	D	7,445	34.8	D
				PM	7,401	34.4	D	7,410	34.5	D
		La Sierra Av. to Tyler Av.	4	AM	6,956	31.6	D	7,001	31.9	D
				PM	6,949	31.5	D	6,960	31.6	D
		Tyler Av. to Van Buren Bl.	4	AM	6,922	30.6	D	6,967	30.9	D
				PM	6,915	30.6	D	6,926	30.7	D
		Van Buren Bl. to Adams St.	4	AM	6,491	27.3	D	6,536	27.8	D
				PM	6,484	27.3	D	6,495	27.3	D
		Adams St. to Madison St.	3	AM	6,351	**43.8**	**E**	6,407	**45.2**	**F**
				PM	6,344	**43.7**	**E**	6,358	**43.9**	**E**
		Madison St. to Arlington Av.	4	AM	6,465	27.7	D	6,513	28.0	D
				PM	6,459	27.7	D	6,471	27.8	D
		Arlington Av. to Central Av.	4	AM	5,130	20.9	C	5,178	21.3	C
				PM	5,984	25.0	C	5,996	25.1	C
		Central Av. to 14th St.	3	AM	4,976	29.4	D	5,034	30.1	D
				PM	4,970	29.3	D	4,984	29.4	D
		14th St. to University Av.	4	AM	6,389	27.3	D	6,447	27.8	D
				PM	5,523	22.8	C	5,537	22.9	C
		University Av. to Spruce St.	5	AM	6,321	20.6	C	6,383	20.8	C
				PM	5,455	17.7	B	5,471	17.8	B
		Spruce St. to I-215 Freeway	4	AM	5,224	21.2	C	5,285	21.7	C
				PM	4,358	17.7	B	4,373	17.7	B
SR-60 Fwy	Westboun	I-215 Freeway to Day St.	3	AM	4,216	24.1	C	4,248	24.3	C
				PM	4,383	25.2	C	4,390	25.2	C
		Day St. to Frederick St.	3	AM	4,106	23.2	C	4,131	23.4	C
				PM	3,505	19.6	C	3,511	19.6	C
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	7,082	24.2	C	7,174	24.7	C
				PM	7,070	24.1	C	7,093	24.2	C
		Blaine St. to University Av.	4	AM	6,725	30.6	D	6,816	31.5	D
				PM	6,713	30.6	D	6,736	30.7	D
		University Av. to Martin Luther King Bl.	4	AM	6,904	32.1	D	6,996	32.8	D
				PM	6,892	32.1	D	6,915	32.2	D
		Martin Luther King Bl. to Central Av.	5	AM	7,908	27.6	D	8,005	28.3	D
				PM	7,895	27.6	D	7,920	27.7	D
		Central Av. to Box Springs Rd.	5	AM	8,788	31.6	D	8,886	32.2	D
				PM	8,775	31.6	D	8,800	31.7	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,588	29.9	D	6,704	30.7	D
				PM	6,575	29.6	D	6,605	30.0	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	7,095	25.4	C	7,239	26.3	D
				PM	7,076	25.3	C	7,111	25.5	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,219	31.8	D	5,363	33.5	D
				PM	6,490	**47.0**	**F**	6,525	**48.2**	**F**
		Alessandro Bl. to Cactus Av.	4	AM	6,662	29.2	D	6,805	30.5	D
				PM	6,641	29.0	D	6,676	29.2	D
		Cactus Av. to Van Buren Bl.	4	AM	6,381	26.9	D	6,438	27.4	D
				PM	7,396	34.1	D	7,410	34.2	D
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,921	**37.6**	**E**	5,991	**38.9**	**E**
				PM	5,900	**37.4**	**E**	5,918	**37.6**	**E**
		Harley Knox Bl. to Ramona Exwy.	3	AM	4,171	22.8	C	7,146	22.9	C
				PM	5,222	30.2	D	5,294	31.1	D
		Ramona Exwy. to Nuevo Rd.	3	AM	5,332	31.2	D	5,362	31.3	D
				PM	6,202	**40.4**	**E**	6,210	**40.5**	**E**

Table 4.11-32 General Plan Buildout (Post-2035) Freeway Mainline Segment Analysis

Freeway	Directio	Mainline Segment	Lanes[1]	Time Period	Post 2035 Without Project			Post 2035 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	8,723	**48.5**	**F**	8,730	**48.6**	**F**
				PM	8,734	**48.6**	**F**	8,768	**49.1**	**F**
		McKinley St. to Riverwalk Pkwy.	3	AM	8,090	**100.3**	**F**	8,097	**100.8**	**F**
				PM	8,101	**101.2**	**F**	8,137	**103.5**	**F**
		Riverwalk Pkwy. to Magnolia Av.	3	AM	7,818	**85.1**	**F**	7,826	**85.4**	**F**
				PM	7,829	**85.6**	**F**	7,865	**87.4**	**F**
		Magnolia Av. to La Sierra Av.	3	AM	7,400	**68.4**	**F**	7,408	**68.7**	**F**
				PM	7,411	**68.9**	**F**	7,450	**70.1**	**F**
		La Sierra Av. to Tyler Av.	3	AM	6,948	**57.6**	**F**	6,958	**57.9**	**F**
				PM	6,959	**57.9**	**F**	7,007	**59.2**	**F**
		Tyler Av. to Van Buren Bl.	4	AM	6,914	30.6	D	6,924	30.6	D
				PM	6,925	30.7	D	6,973	31.0	D
		Van Buren Bl. to Adams St.	4	AM	6,483	27.3	D	6,493	27.3	D
				PM	6,494	27.3	D	6,542	27.8	D
		Adams St. to Madison St.	4	AM	6,343	26.8	D	6,355	26.9	D
				PM	6,354	26.9	D	6,414	27.4	D
		Madison St. to Arlington Av.	3	AM	4,738	27.2	D	4,748	27.3	D
				PM	4,747	27.3	D	4,799	27.9	D
		Arlington Av. to Central Av.	4	AM	5,123	20.9	C	5,134	20.9	C
				PM	5,562	22.8	C	5,614	23.2	C
		Central Av. to 14th St.	3	AM	4,969	29.3	D	4,982	29.4	D
				PM	5,409	33.2	D	5,470	34.1	D
		14th St. to University Av.	4	AM	5,092	20.9	C	5,105	20.9	C
				PM	5,102	20.9	C	5,163	21.2	C
		University Av. to Spruce St.	6	AM	5,024	13.6	B	5,038	13.7	B
				PM	5,034	13.6	B	5,100	13.9	B
		Spruce St. to I-215 Freeway	4	AM	5,217	21.2	C	5,230	21.4	C
				PM	5,226	21.3	C	5,293	21.7	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	4,559	15.1	B	4,566	15.1	B
				PM	5,843	19.1	C	5,876	19.2	C
		Day St. to Frederick St.	4	AM	3,862	16.0	B	3,867	16.0	B
				PM	4,817	19.8	C	4,844	20.0	C
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	7,069	24.1	C	7,089	24.2	C
				PM	7,087	24.2	C	7,186	24.8	C
		Blaine St. to University Av.	5	AM	6,711	22.7	C	6,731	22.7	C
				PM	6,729	22.7	C	6,828	23.3	C
		University Av. to Martin Luther King Bl.	4	AM	6,891	32.1	D	6,911	32.2	D
				PM	6,909	32.2	D	7,008	32.9	D
		Martin Luther King Bl. to Central Av.	4	AM	7,894	**39.8**	**E**	7,915	**40.0**	**E**
				PM	7,912	**40.0**	**E**	8,017	**41.4**	**E**
		Central Av. to Box Springs Rd.	5	AM	8,773	31.5	D	8,795	31.7	D
				PM	8,792	31.7	D	8,898	32.3	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,573	29.6	D	6,599	30.0	D
				PM	7,452	**36.0**	**E**	7,578	**37.4**	**E**
		SR-60 Freeway to Eucalyptus Av.	3	AM	5,353	**37.7**	**E**	5,385	**38.1**	**E**
				PM	5,380	**38.1**	**E**	5,535	**40.6**	**E**
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,198	31.4	D	5,229	31.9	D
				PM	6,945	**56.0**	**F**	7,099	**60.7**	**F**
		Alessandro Bl. to Cactus Av.	5	AM	5,349	17.4	B	5,380	17.5	B
				PM	5,377	17.5	B	5,532	18.2	C
		Cactus Av. to Van Buren Bl.	4	AM	6,315	26.8	D	6,327	27.1	D
				PM	4,347	17.3	B	4,410	17.6	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,898	**37.4**	**E**	5,913	**37.5**	**E**
				PM	5,926	**37.7**	**E**	6,002	**39.0**	**E**
		Harley Knox Bl. to Ramona Exwy.	3	AM	5,275	30.7	D	5,334	31.5	D
				PM	4,317	23.5	C	4,321	23.7	C
		Ramona Exwy. to Nuevo Rd.	3	AM	5,771	**35.0**	**E**	5,777	**35.1**	**E**
				PM	5,762	**35.2**	**E**	5,794	**35.8**	**E**

BOLD = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and reflect new auxiliary lanes and assume the HOV lane in each direction.

[2] Where applicable, volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015a, Table 5)

Table 4.11-33 General Plan Buildout (Post-2035) Freeway Ramp Junction Merge/Diverge Analysis

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Post-2035 Without Project				Post-2035 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	**38.0**	**E**	**40.5**	**E**	**39.4**	**E**	**40.9**	**E**
		Loop Off-Ramp at Cactus Avenue - Downstream	4	**38.0**	**E**	**40.5**	**E**	**39.4**	**E**	**40.9**	**E**
		Off-Ramp at Harley Knox Boulevard	3	**44.9**	**F**	**44.7**	**F**	**46.0**	**F**	**44.9**	**F**
		On-Ramp at Harley Knox Boulevard	3	31.3	D	**37.6**	**E**	31.5	D	**38.3**	**E**
	NB	On-Ramp at Cactus Avenue	3	**40.4**	**E**	**41.9**	**E**	**40.7**	**E**	**43.4**	**F**
		On-Ramp at Harley Knox Boulevard	3	41.6	D	**44.9**	**F**	41.8	F	**45.8**	**F**
		Off-Ramp at Harley Knox Boulevard	3	**37.7**	**E**	33.5	D	**38.5**	**E**	33.7	D

- **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2016e, Table 7-5)

Table 4.11-34 General Plan Buildout (Post-2035) Off-Ramp Queuing Analysis

Intersection	Movement	Stacking Distance (Feet)	Post-2035 Without Project				Post-2035 With Project			
			95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]		95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	579 [2]	937 [2]	Yes	Yes	879 [2]	1,015 [2]	Yes	Yes
	SBR	1,115	**1,418** [2]	655 [2]	**No**	Yes	**1,476** [2]	668 [2]	**No**	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	**1,909** [2]	1,078 [2]	**No**	Yes	**2,172** [2]	1,136 [2]	**No**	Yes
	SBR	270	**460**	**884** [2]	**No**	**No**	**479**	**884** [2]	**No**	**No**
I-215 NB Ramps / Cactus Av.	NBL	145	**1,047** [2]	274 [2]	**No**	Yes[3]	**957** [2]	274 [2]	**No**	Yes[3]
	NBT	1,650	1,025 [2]	598 [2]	Yes	Yes	1,109 [2]	598 [2]	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	146	591 [2]	Yes	Yes	128	591 [2]	Yes	Yes
	NBR	265	414 [2]	144	Yes[3]	Yes	464 [2]	174	Yes[3]	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound turn lane without spilling back and affecting the I-215 Freeway mainline.

Source: (Urban Crossroads, 2016e, Table 7-3)

Table 4.11-35 Project Fair Share Calculations

#	Intersection	Building 1	Building 2	Building 3	Building 4	Total Project Fair Share[1]
5	Elsworth St / Cactus Av	2.0%	1.3%	1.1%	1.8%	**6.2%**
7	Western Wy / Harley Knox Bl	3.6%	2.3%	1.8%	3.1%	**10.7%**
8	Graham St / Cactus Av	1.8%	1.2%	1.0%	1.7%	**5.7%**
9	Patterson Av / Harley Knox Bl	3.9%	2.4%	1.9%	3.3%	**11.5%**
10	Heacock St / Cactus Av	3.4%	2.1%	1.7%	2.9%	**10.0%**
13	Heacock St / Iris Av	3.1%	2.1%	1.7%	2.9%	**9.8%**
18	Heacock St / San Michele Rd	3.0%	1.8%	1.5%	2.5%	**8.8%**
20	Webster Av / Harley Knox Bl	4.5%	2.8%	2.2%	3.8%	**13.4%**
26	Indian St / Krameria Av	2.1%	1.3%	1.0%	1.8%	**6.2%**
28	Indian St / San Michele Rd	1.0%	0.6%	0.5%	0.8%	**2.9%**
29	Indian St / Nandina Av	1.1%	0.7%	0.5%	0.9%	**3.1%**
30	Indian St / Harley Knox Bl	0.8%	0.5%	0.4%	0.6%	**2.2%**
31	Perris Bl / Cactus Av	0.5%	0.3%	0.2%	0.4%	**1.4%**
32	Perris Bl / Krameria Av	0.7%	0.4%	0.3%	0.6%	**2.1%**

[1] From Table 1-9 of *EIR Technical Appendix I1.*

Source: (Urban Crossroads, 2016f, Table 1)

Table 4.11-36 Short-Term Construction Intersection Analysis – With Mitigation

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
12	Heacock St / Gentian Av																	
	- Existing (2015)	CSS	0	1	1	1	1	0	0	0	0	0	1	d	22.8	**58.0**	C	**F**
	With Improvements	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	12.4	14.7	B	B
	- E+P (Construction Traffic)	CSS	0	1	1	1	1	0	0	0	0	0	1	d	25.4	**78.6**	D	**F**
	With Improvements	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	19.9	15.8	B	B
13	Heacock St / Iris Av																	
	- Existing (2015)	AWS	0	1	0	1	1	0	0	0	0	1	0	d	15.2	**37.5**	C	**E**
	With Improvements	**TS**	0	1	0	1	1	0	0	0	0	1	0	d	26.7	38.5	C	D
	- E+P (Construction Traffic)	AWS	0	1	0	1	1	0	0	0	0	1	0	d	16.7	**53.4**	C	**F**
	With Improvements	**TS**	0	1	0	1	1	0	0	0	0	1	0	d	32.4	47.2	C	D
16	Heacock St / San Michele Rd																	
	- Existing (2015)	TS	1	1	1	1	1	1	1	1	1	1	1	1	25.6	39.5	C	D
	With Improvements		Improvements Not Necessary															
	- E+P (Construction Traffic)	TS	1	1	1	1	1	1	1	1	1	1	1	1	28.2	**65.7**	C	**E**
	With Improvements	TS	1	1	1	1	1	1	1	1	1	1	1	**1>**	16.9	20.7	B	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for rigl turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal c all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

Source: (Urban Crossroads, 2015b, Table 9)

Table 4.11-37 Existing Plus Project Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
12	Heacock St / Gentian Av																	
	- Existing (2015)	CSS	0	1	1	1	1	0	0	0	0	0	1	d	22.8	**58.0**	C	**F**
	- Without Improvements																	
	Without Indian St Bridge	CSS	0	1	1	1	1	0	0	0	0	0	1	d	**35.0**	**>100.0**	**E**	**F**
	With Indian St Bridge	CSS	0	1	1	1	1	0	0	0	0	0	1	d	31.7	**93.0**	D	**F**
	- With Improvements																	
	Existing (2015)	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	12.4	14.7	B	B
	Without Indian St Bridge	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	20.0	26.1	C	C
	With Indian St Bridge	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	19.5	27.1	B	C
13	Heacock St / Iris Av																	
	- Existing (2015)	AWS	0	1	0	1	1	0	0	0	0	1	0	d	15.2	**37.5**	C	**E**
	- Without Improvements																	
	Without Indian St Bridge	AWS	0	1	0	1	1	0	0	0	0	1	0	d	**36.1**	**56.1**	**E**	**F**
	With Indian St Bridge	AWS	0	1	0	1	1	0	0	0	0	1	0	d	25.7	**53.9**	D	**F**
	- With Improvements																	
	Existing (2015)	**TS**	0	1	0	1	1	0	0	0	0	1	0	d	26.7	38.5	C	D
	Without Indian St Bridge	**TS**	0	1	0	1	1	0	0	0	0	1	0	**1>**	25.5	48.9	C	D
	With Indian St Bridge	**TS**	0	1	0	1	1	0	0	0	0	1	0	**1>**	21.7	43.0	C	D
18	Heacock St / San Michele Rd																	
	- Existing (2015)	TS	1	1	1	1	1	1	1	1	1	1	1	1	25.6	39.5	C	D
	- Without Improvements																	
	Without Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	1	37.0	**70.9**	D	**E**
	With Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	1	35.7	**59.9**	D	**E**
	- With Improvements																	
	Existing (2015)		Improvements Not Necessary															
	Without Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	**1>**	17.9	20.9	B	C
	With Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	**1>**	17.7	20.5	B	C
30	Indian St / Harley Knox Bl																	
	- Existing (2015)	TS	2	2	1	1	2	0	1	1	1	2	2	0	17.0	24.2	B	C
	- Without Improvements																	
	Without Indian St Bridge	TS	2	2	1	1	2	0	1	1	1	2	2	0	17.7	50.8	B	D
	With Indian St Bridge	TS	2	2	1	1	2	0	1	1	1	2	2	0	22.4	**72.3**	C	**E**
	- With Improvements																	
	Existing (2015)		Improvements Not Necessary															
	Without Indian St Bridge		Improvements Not Necessary															
	With Indian St Bridge[4]	TS	2	2	1	1	2	**1>**	1	**3**	**0**	**1**	**3**	0	20.8	17.8	C	B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for rigl turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane;1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal c all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussion with City staff, the improvements are anticipated to be completed by Fall 2015

Source: (Urban Crossroads, 2016e, Table 5-6)

Table 4.11-38 Opening Year (2020) Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av																	
	- Without Project	TS	0	0	0	0	0	2	0	2	1	2	2	0	30.0	27.9	C	C
	- With Project	TS	0	0	0	0	0	2	0	2	1	2	2	0	30.1	27.9	C	C
2	I-215 SB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	0	0	2	1	0	0	2	d	2	2	0	27.6	30.3	C	C
	- With Project	TS	0	0	0	2	1	0	0	2	d	2	2	0	28.1	30.9	C	C
3	I-215 NB Ramps / Cactus Av																	
	- Without Project[4]	TS	2	1	0	1	1	0	1	3	0	0	3	0	37.2	20.3	D	C
	- With Project[4]	TS	2	1	0	1	1	0	1	3	0	0	3	0	37.6	27.2	D	C
4	I-215 NB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	1	1	0	0	0	2	2	0	0	2	1>>	22.4	27.1	C	C
	- With Project	TS	0	1	1	0	0	0	2	2	0	0	2	1>>	23.8	42.1	C	D
5	Elsworth St / Cactus Av																	
	- Without Project[4]	TS	1	1	0	1	1	1>	1	3	1>>	1	3	1	35.0	44.0	C	D
	- With Project[4]	TS	1	1	0	1	1	1>	1	3	1>>	1	3	1	37.2	52.9	D	D
7	Western Wy / Harley Knox Bl																	
	- Without Project	TS	0	0	0	0	1	0	1	2	0	0	2	d	25.9	23.2	C	C
	- With Project	TS	0	0	0	0	1	0	1	2	0	0	2	d	39.1	34.9	D	C
8	Graham St / Cactus Av																	
	- Without Project	TS	2	2	0	1	2	1>	1	3	1>>	1	3	0	26.7	24.6	C	C
	- With Project	TS	2	2	0	1	2	1>	1	3	1>>	1	3	0	26.7	24.8	C	C
9	Patterson Av / Harley Knox Bl																	
	- Without Project[5]	TS	0	1	0	0	1	d	1	2	1	1	2	1	25.6	24.0	C	C
	- With Project[5]	TS	0	1	0	0	1	d	1	2	1	1	2	1	34.3	30.0	C	C
10	Heacock St / Cactus Av																	
	- Without Project[6]	TS	2	2	0	1	2	0	1	2	1>	1	2	0	50.7	44.8	D	D
	- With Project[6]	TS	2	2	0	1	2	0	1	2	1>	1	2	0	54.6	52.0	D	D
12	Heacock St / Gentian Av																	
	- Without Project	TS	0	1	1	1	1	0	0	0	0	0	1	d	12.5	17.8	B	B
	- With Project	TS	0	1	1	1	1	0	0	0	0	0	1	d	19.2	19.6	B	B
13	Heacock St / Iris Av																	
	- Without Project	TS	0	2	0	2	2	0	0	0	0	1	0	1>	20.9	31.1	C	C
	- With Project	TS	0	2	0	2	2	0	0	0	0	1	0	1>	21.0	33.4	B	C
18	Heacock St / San Michele Rd																	
	- Without Project	TS	1	1	1	2	1	1	1	1	1	1	1	1>	29.1	49.6	C	D
	- With Project	TS	1	1	1	2	1	1	1	1	1	1	1	1>	38.7	49.8	D	D

Table 4.11-38 Opening Year (2020) Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
28	Indian St / San Michele Rd																	
	- Without Project	TS	2	1	1	1	2	0	1	2	1>	1	2	d	35.4	52.4	D	D
	- With Project	TS	2	1	1	1	2	0	1	2	1>	1	2	d	54.0	53.6	D	D
29	Indian St / Nandina Av																	
	- Without Project	TS	1	2	0	1	2	0	1	1	1>	1	1	d	21.1	32.2	C	C
	- With Project	TS	1	2	0	1	2	0	1	1	1>	1	1	d	22.3	53.8	C	D
30	Indian St / Harley Knox Bl																	
	- Without Project	TS	2	2	1	1	2	1>	1	3	0	1	3	0	15.0	29.8	B	C
	- With Project	TS	2	2	1	1	2	1>	1	3	0	1	3	0	22.2	32.2	C	C
31	Perris Bl / Cactus Av																	
	- Without Project	TS	1	3	0	1	2	1	1	2	1>	1	2	0	52.0	52.9	D	D
	- With Project	TS	1	3	0	1	2	1	1	2	1>	1	2	0	54.1	54.5	D	D
32	Perris Bl / Krameria Av																	
	- Without Project[7]	TS	1	3	0	1	3	0	1	1	0	1	1	1	52.4	49.3	D	D
	- With Project[7]	TS	1	3	0	1	3	0	1	1	0	1	1	1	54.7	52.0	D	D

* Note: The recommended improvements shown in this table are based on conservative traffic forecasts for Opening Year Cumulative traffic conditions and are driven by the amount of cumulative developments as opposed to the Project. These improvements may not be necessary, depending on the amount of growth that actually occurs over the next 5 years.

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] Improvements also include implementing protected left-turn phasing for the northbound and southbound approaches.

[5] The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussions with City staff, the improvements are anticipated to be completed by Fall 2015.

[6] Improvement includes removing the southbound crosswalk (on the west leg) to accommodate additional green time along Cactus Avenue.

[7] Improvements also include implementing protected left-turn phasing for the eastbound and westbound approaches.

Source: (Urban Crossroads, 2016e, Table 6-6)

Table 4.11-39 Opening Year (2020) Roadway Segment Analysis – With Mitigation

#	Roadway	Segment Limits	Roadway Section[1]	LOS Capacity[2]	2020 w/o Project	V/C[3]	LOS[4]	2020 w/ Project	V/C[3]	LOS[4]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	6D	56,300	**52,440**	**0.93**	**E**	**53,830**	**0.96**	**E**	D
2		East of I-215 NB Ramps	6D	56,300	**52,541**	**0.93**	**E**	**55,322**	**0.98**	**E**	D
3		West of Elsworth Street[5]	6D	56,300	**57,997**	**1.03**	**F**	**60,778**	**1.08**	**F**	D
4		East of Elsworth Street[5]	6D	56,300	**54,501**	**0.97**	**E**	**57,282**	**1.02**	**F**	D
5		West of Frederick Street[5]	5D	46,900	**58,823**	**1.25**	**F**	**61,604**	**1.31**	**F**	D
6		East of Frederick Street[5]	5D	46,900	**60,223**	**1.28**	**F**	**63,004**	**1.34**	**F**	D
7		West of Graham Street	6D	56,300	**59,505**	**1.06**	**F**	**62,286**	**1.11**	**F**	D
8		East of Graham Street	6D	56,300	48,625	0.86	D	**51,406**	**0.91**	**E**	D
9		West of Heacock Street	6D	56,300	49,854	0.89	D	**52,635**	**0.93**	**E**	D
10		East of Heacock Street	6D	56,300	32,432	0.58	A	32,890	0.58	A	C
20	San Michele Road	East of Heacock Street	4D	35,900	18,781	0.52	A	21,046	0.59	A	D
21		West of Indian Street	4D	35,900	24,254	0.68	B	26,519	0.74	C	D
23	Harley Knox Boulevard	I-215 NB Ramps to Western Way[5]	4D	35,900	**32,527**	**0.91**	**E**	**34,439**	**0.96**	**E**	D
24		East of Western Way[5]	4U	25,900	**28,206**	**1.09**	**F**	**30,119**	**1.16**	**F**	D
25		West of Patterson Avenue	4D	35,900	25,493	0.71	C	27,406	0.76	C	D
26		East of Patterson Avenue	4D	35,900	24,066	0.67	B	26,155	0.73	C	D
27		West of Webster Avenue	6D	53,900	22,578	0.42	A	24,667	0.46	A	D
28		East of Webster Avenue	6D	53,900	22,247	0.41	A	24,336	0.45	A	D
29		West of Indian Street	6D	53,900	24,971	0.46	A	27,060	0.50	A	D
33	Heacock Street	North of Gentian Avenue[5]	3D	28,150	23,211	0.82	D	**27,041**	**0.96**	**E**	D
34		South of Gentian Avenue[5]	2U	12,500	**20,916**	**1.67**	**F**	**24,746**	**1.98**	**F**	D
35		North of Iris Avenue	4D	37,500	20,558	0.55	A	24,388	0.65	B	D
36		Iris Avenue to Krameria Avenue (N)	4D	37,500	17,912	0.48	A	21,742	0.58	A	D
47	Indian Street	South of Nandina Avenue[5]	2D	18,750	**31,663**	**1.69**	**F**	**33,928**	**1.81**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Roadway section improvements are consistent with the through lanes recommended as part of the intersection improvements shown on Table 6-6.

[2] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[3] V/C = Volume to Capacity Ratio

[4] LOS = Level of Service

[5] Additional roadway widening has not been recommended for these deficient roadway segments as the adjacent study area intersections are anticipated to operate at acceptable LOS during the peak hours.

Source: (Urban Crossroads, 2016e, Table 6-7)

Table 4.11-40 General Plan Buildout (Post-2035) Intersection Analysis – With Mitigation

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av																	
	- Without Project	TS	0	0	0	0	0	2	0	2	1	2	2	0	40.2	54.1	D	D
	- With Project	TS	0	0	0	0	0	2	0	2	1	2	2	0	40.2	54.1	D	D
2	I-215 SB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	0	0	2	1	0	0	2	d	2	2	0	34.5	52.2	C	D
	- With Project	TS	0	0	0	2	1	0	0	2	d	2	2	0	35.6	52.5	D	D
3	I-215 NB Ramps / Cactus Av																	
	- Without Project[4]	TS	2	2	0	2	1	2>	2	3	1>>	0	3	0	40.4	42.3	D	D
	- With Project[4]	TS	2	2	0	2	1	2>	2	3	1>>	0	3	0	40.6	47.1	D	D
4	I-215 NB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	1	1	0	0	0	2	2	0	0	2	1>>	51.4	53.6	D	D
	- With Project	TS	0	1	1	0	0	0	2	2	0	0	2	1>>	53.9	54.0	D	D
5	Elsworth St / Cactus Av																	
	- Without Project[4]	TS	2	1	0	1	1	1>	1	4	1>>	1	4	1	33.1	50.2	C	D
	- With Project[4]	TS	2	1	0	1	1	1>	1	4	1>>	1	4	1	33.1	50.3	C	D
7	Western Wy / Harley Knox Bl																	
	- Without Project	TS	0	0	0	0	1	0	1	3	0	0	3	d	16.3	16.3	B	B
	- With Project	TS	0	0	0	0	1	0	1	3	0	0	3	d	16.9	19.3	B	B
8	Graham St / Cactus Av																	
	- Without Project	TS	2	2	0	1	2	1>	2	3	1>>	1	3	0	48.5	48.1	D	D
	- With Project	TS	2	2	0	1	2	1>	2	3	1>>	1	3	0	54.2	52.4	D	D
9	Patterson Av / Harley Knox Bl																	
	- Without Project	TS	0	1	0	0	1	d	1	3	1	1	3	1	19.5	20.1	B	C
	- With Project	TS	0	1	0	0	1	d	1	3	1	1	3	1	22.5	21.4	C	C
10	Heacock St / Cactus Av																	
	- Without Project	TS	2	2	0	1	2	0	1	3	1>	1	3	0	51.6	29.3	D	C
	- With Project	TS	2	2	0	1	2	0	1	3	1>	1	3	0	54.7	37.6	D	D
12	Heacock St / Gentian Av																	
	- Without Project	TS	0	2	1	1	2	0	0	0	0	0	1	d	15.2	12.7	B	B
	- With Project	TS	0	2	1	1	2	0	0	0	0	0	1	d	16.2	14.8	B	B
13	Heacock St / Iris Av																	
	- Without Project	TS	0	2	0	2	2	0	0	0	0	1	0	1>	23.6	40.5	C	D
	- With Project	TS	0	2	0	2	2	0	0	0	0	1	0	1>	26.9	54.2	C	D

Table 4.11-40 General Plan Buildout (Post-2035) Intersection Analysis – With Mitigation

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
18	Heacock St / San Michele Rd																	
	- Without Project	TS	1	2	1	2	2	1	1	1	1	1	1	1>	31.1	38.7	C	D
	- With Project	TS	1	2	1	2	2	1	1	1	1	1	1	1>	31.3	39.8	C	D
20	Webster Av / Harley Knox Bl																	
	- Without Project	TS	0	1	0	0	1	0	1	3	0	1	3	0	27.8	26.0	C	C
	- With Project	TS	0	1	0	0	1	0	1	3	0	1	3	0	32.4	26.8	C	C
26	Indian St / Krameria Av																	
	- Without Project	TS	1	2	1	1	2	1	1	1	1>	1	1	1	35.7	41.9	D	D
	- With Project	TS	1	2	1	1	2	1	1	1	1>	1	1	1	37.9	42.2	D	D
28	Indian St / San Michele Rd																	
	- Without Project	TS	2	2	1>	1	2	0	2	2	2>	2	2	1>	24.8	26.7	C	C
	- With Project	TS	2	2	1>	1	2	0	2	2	2>	2	2	1>	25.4	26.8	C	C
29	Indian St / Nandina Av																	
	- Without Project	TS	2	2	1>	1	3	0	1	1	1>	1	1	d	34.5	28.3	C	C
	- With Project	TS	2	2	1>	1	3	0	1	1	1>	1	1	d	35.6	32.7	D	C
30	Indian St / Harley Knox Bl																	
	- Without Project	TS	2	2	1	2	2	1>	2	3	1>	2	3	1>	40.4	44.7	D	D
	- With Project	TS	2	2	1	2	2	1>	2	3	1>	2	3	1>	40.2	50.5	D	D
31	Perris Bl / Cactus Av																	
	- Without Project	TS	2	3	1	1	3	1	2	3	1>	1	2	0	53.8	43.1	D	D
	- With Project	TS	2	3	1	1	3	1	2	3	1>	1	2	0	54.4	43.4	D	D
32	Perris Bl / Krameria Av																	
	- Without Project[6]	TS	2	3	1	2	3	0	1	2	0	1	2	1	44.0	49.2	D	D
	- With Project[6]	TS	2	3	1	2	3	0	1	2	0	1	2	1	45.7	51.2	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for righ turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane;1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal c all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] Improvements also include implementing protected left-turn phasing for the northbound and southbound approaches

[5] The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussion with City staff, the improvements are anticipated to be completed by Fall 2015

[6] Improvements also include implementing protected left-turn phasing for the eastbound and westbound approaches

Source: (Urban Crossroads, 2016e, Table 7-6)

Table 4.11-41 General Plan Buildout (Post-2035) Roadway Segment Analysis – With Mitigation

#	Roadway	Segment Limits	Roadway Section[1]	LOS Capacity[2]	Post-2035 w/o Project	V/C[3]	LOS[4]	Post-2035 w/ Project	V/C[3]	LOS[4]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	**6D**	56,300	**52,522**	**0.93**	**E**	**53,473**	**0.95**	**E**	D
2		East of I-215 NB Ramps	**6D**	56,300	**68,405**	**1.22**	**F**	**70,307**	**1.25**	**F**	D
3		West of Elsworth Street	**8D**	75,100	63,400	0.84	D	65,302	0.87	D	D
4		East of Elsworth Street	**8D**	75,100	58,900	0.78	C	60,802	0.81	D	D
5		West of Frederick Street	**6D**	56,300	**60,581**	**1.08**	**F**	**62,483**	**1.11**	**F**	D
6		East of Frederick Street	**6D**	56,300	**62,838**	**1.12**	**F**	**64,740**	**1.15**	**F**	D
7		West of Graham Street	**6D**	56,300	**59,572**	**1.06**	**F**	**61,474**	**1.09**	**F**	D
8		East of Graham Street	**6D**	56,300	**55,142**	**0.98**	**E**	**57,044**	**1.01**	**F**	D
9		West of Heacock Street	**6D**	56,300	**50,768**	**0.90**	**E**	**52,670**	**0.94**	**E**	D
10		East of Heacock Street	**6D**	56,300	43,555	0.77	C	44,013	0.78	C	C
11		West of Perris Boulevard	**6D**	56,300	37,000	0.66	B	37,458	0.67	B	C
12	Krameria Avenue	Heacock Street to Cosmos Street	**2D**	18,750	11,144	0.59	A	12,862	0.69	B	D
18		West of Perris Boulevard	**4D**	37,500	12,689	0.34	A	13,217	0.35	A	D
20	San Michele Road	East of Heacock Street	**4D**	37,500	22,852	0.61	B	22,852	0.61	B	D
21		West of Indian Street	**4D**	37,500	27,208	0.73	C	27,208	0.73	C	D
23	Harley Knox Boulevard	I-215 NB Ramps to Western Way	**6D**	53,900	36,697	0.68	B	39,489	0.73	C	D
24		East of Western Way	**6D**	53,900	35,500	0.66	B	38,292	0.71	C	D
25		West of Patterson Avenue	**6D**	53,900	35,500	0.66	B	38,292	0.71	C	D
26		East of Patterson Avenue	**6D**	53,900	34,800	0.65	B	37,768	0.70	B	D
27		West of Webster Avenue	**6D**	53,900	39,288	0.73	C	42,257	0.78	C	D
28		East of Webster Avenue	**6D**	53,900	39,576	0.73	C	40,630	0.75	C	D
29		West of Indian Street	**6D**	53,900	36,988	0.69	B	38,042	0.71	C	D
33	Heacock Street	North of Gentian Avenue	**4D**	37,500	25,192	0.67	B	28,143	0.75	C	D
34		South of Gentian Avenue	**4D**	37,500	24,000	0.64	B	26,951	0.72	C	D
35		North of Iris Avenue	**4D**	37,500	25,655	0.68	B	28,606	0.76	C	D
36		Iris Avenue to Krameria Avenue (N)	**4D**	37,500	22,634	0.60	A	25,585	0.68	C	D
37		Krameria Avenue (N) to Driveway 1	**4D**	37,500	23,898	0.64	B	25,132	0.67	B	D
38		Driveway 1 to Driveway 2	**4D**	37,500	23,898	0.64	B	25,201	0.67	B	D
39		Driveway 2 to Cardinal Avenue	**4D**	37,500	23,898	0.64	B	25,726	0.69	B	D
40		Cardinal Avenue to San Michele Road	**4D**	37,500	23,898	0.64	B	25,813	0.69	B	D
41		San Michele Road to Nandina Avenue	**4D**	37,500	12,472	0.33	A	14,387	0.38	C	D
46	Indian Street	San Michele Road to Nandina Avenue	**5D**	46,900	36,880	0.79	C	38,110	0.81	D	D
47		South of Nandina Avenue	**5D**	46,900	**42,480**	**0.91**	**E**	**43,710**	**0.93**	**E**	D
48		North of Harley Knox Boulevard[5]	4D	37,500	**43,160**	**1.15**	**F**	**44,390**	**1.18**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Roadway section improvements are consistent with the through lanes recommended as part of the intersection improvements shown on Table 7-6.

[2] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[3] V/C = Volume to Capacity Ratio

[4] LOS = Level of Service

[5] Additional roadway widening has not been recommended for these deficient roadway segments as the adjacent study area intersections are anticipated to operate at acceptable LOS during the peak hours.

Source: (Urban Crossroads, 2016e, Table 7-7)

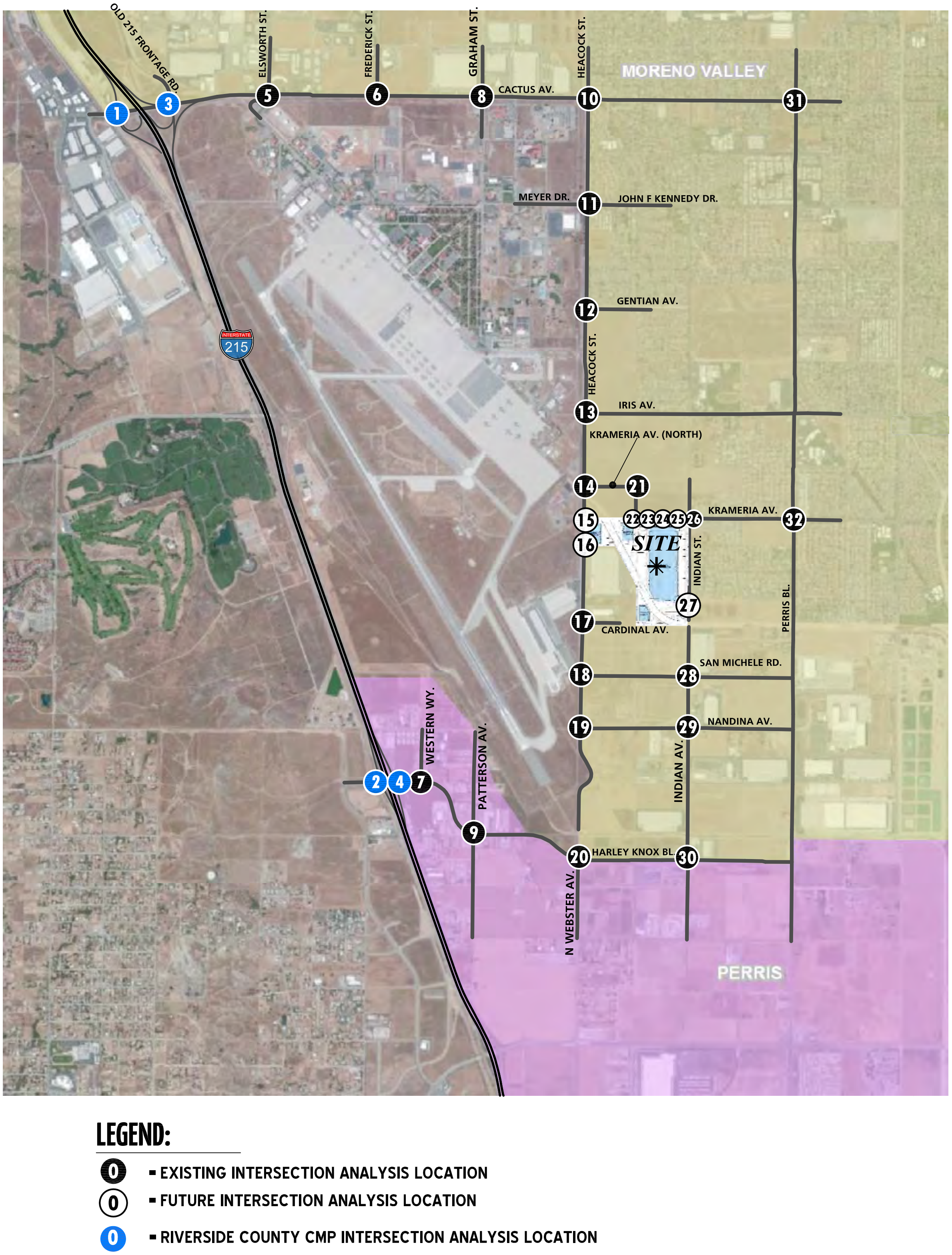

Source: Urban Crossroads (11-18-15)

Figure 4.11-1

NOT TO SCALE

PROJECT STUDY AREA INTERSECTION LOCATIONS

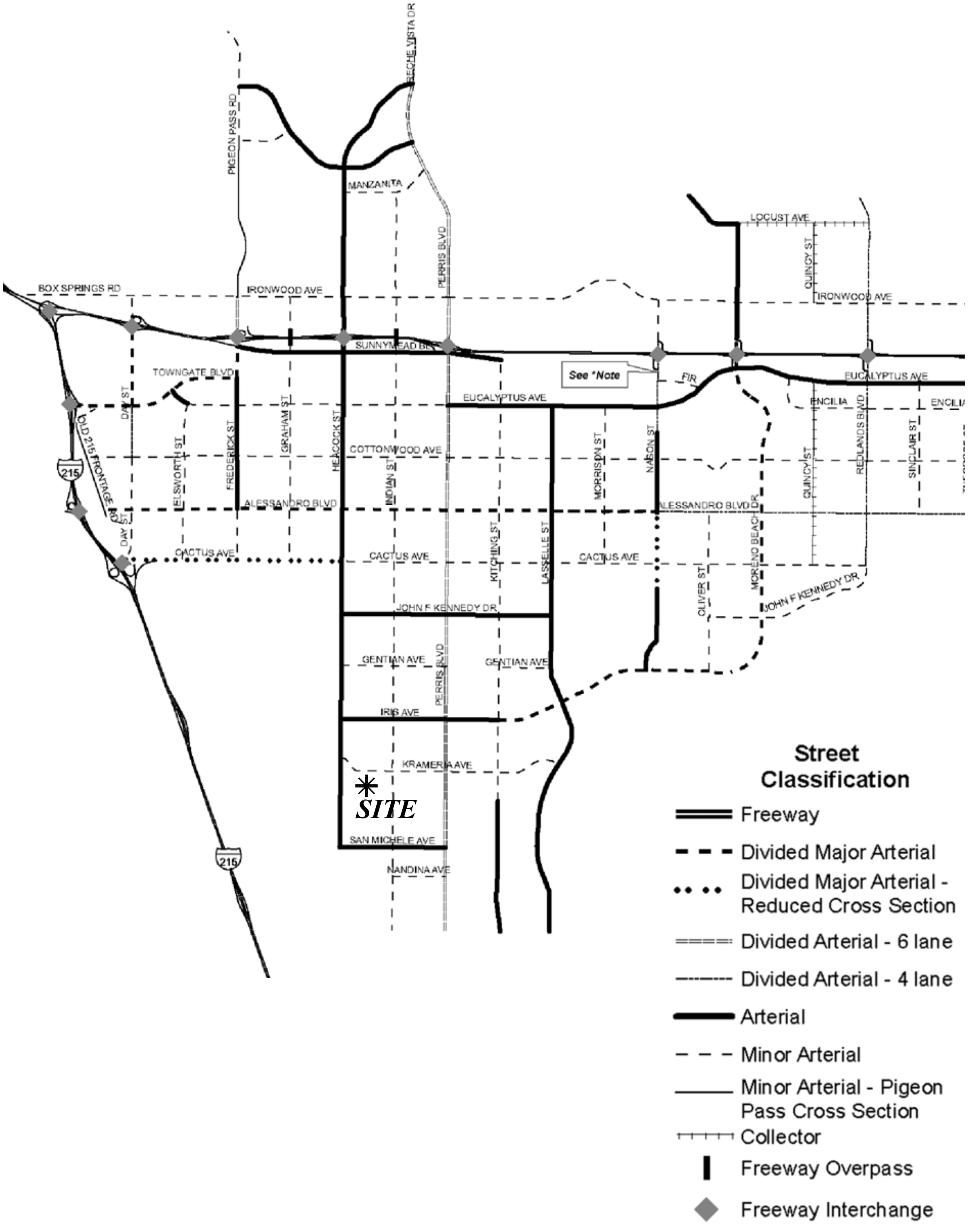

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-2
CITY OF MORENO VALLEY
GENERAL PLAN CIRCULATION PLAN

Attachment: Moreno Valley Logistics Center EIR - Final EIR (05-08-17) - reduced (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis)

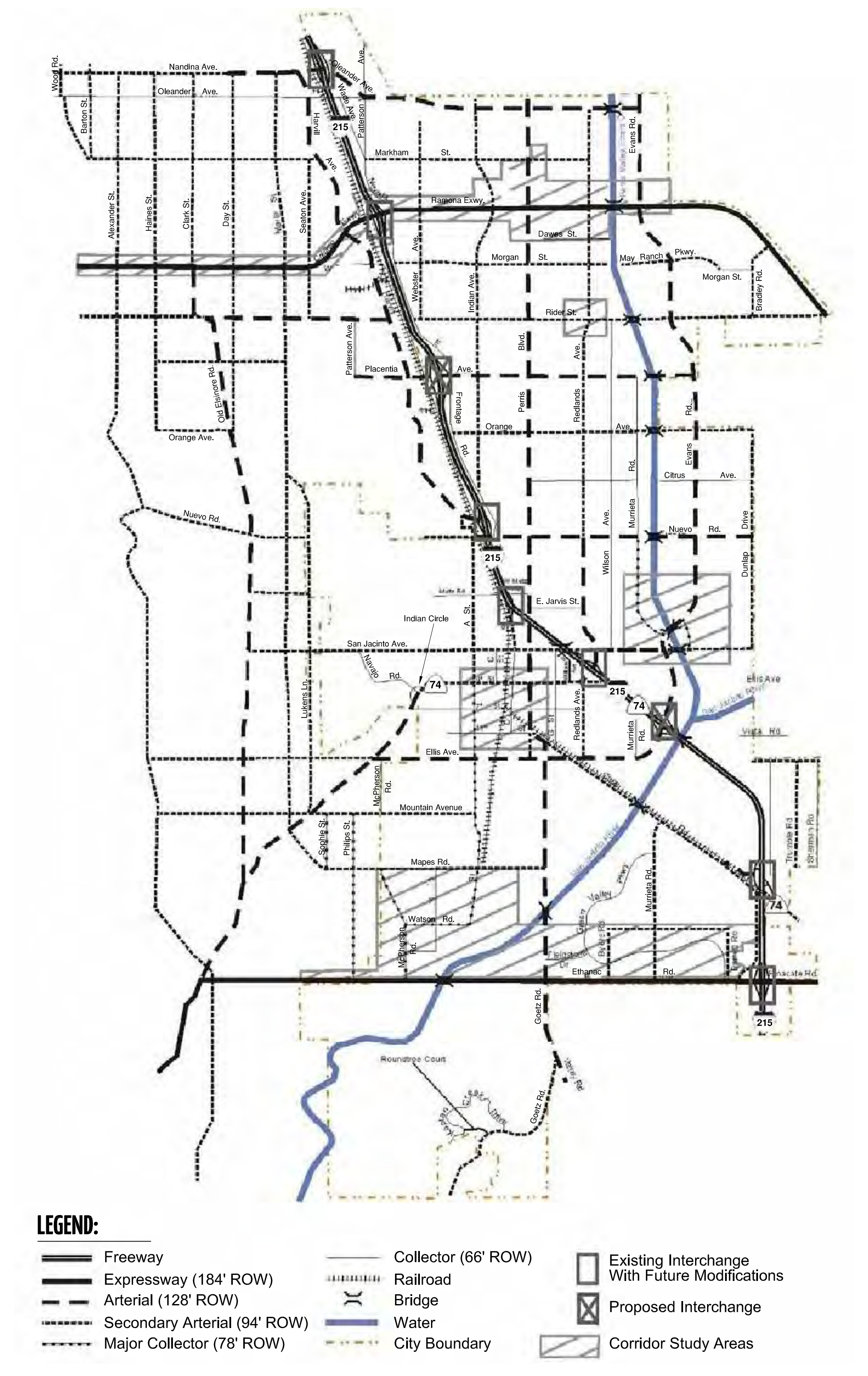

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-3
CITY OF PERRIS GENERAL PLAN
CIRCULATION PLAN

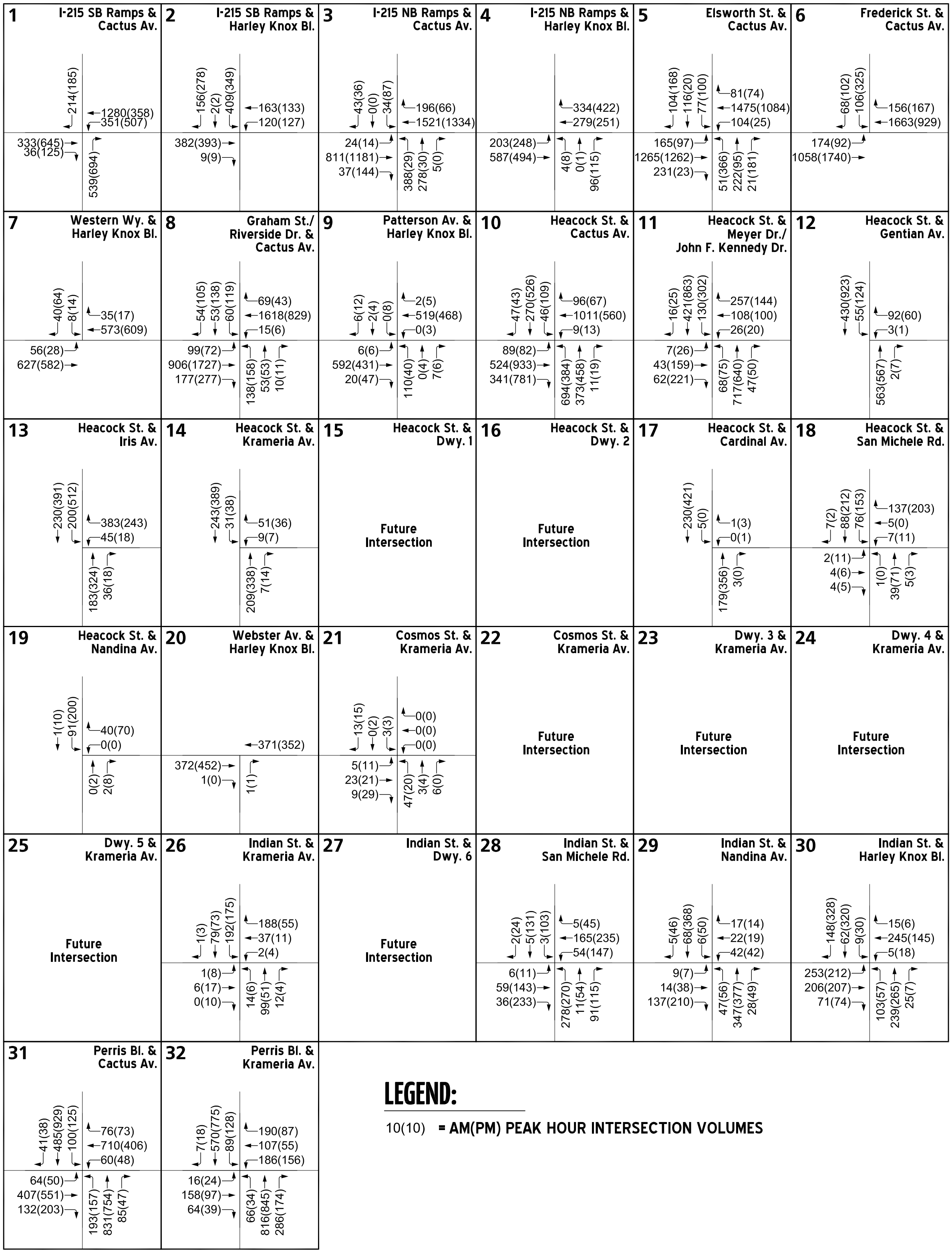

Source: Urban Crossroads (11-18-15)

Figure 4.11-4

NOT TO SCALE

EXISTING PEAK HOUR INTERSECTION TRAFFIC VOLUMES

Source: Urban Crossroads (11-18-15)

Figure 4.11-5

NOT TO SCALE

EXISTING AVERAGE DAILY TRAFFIC

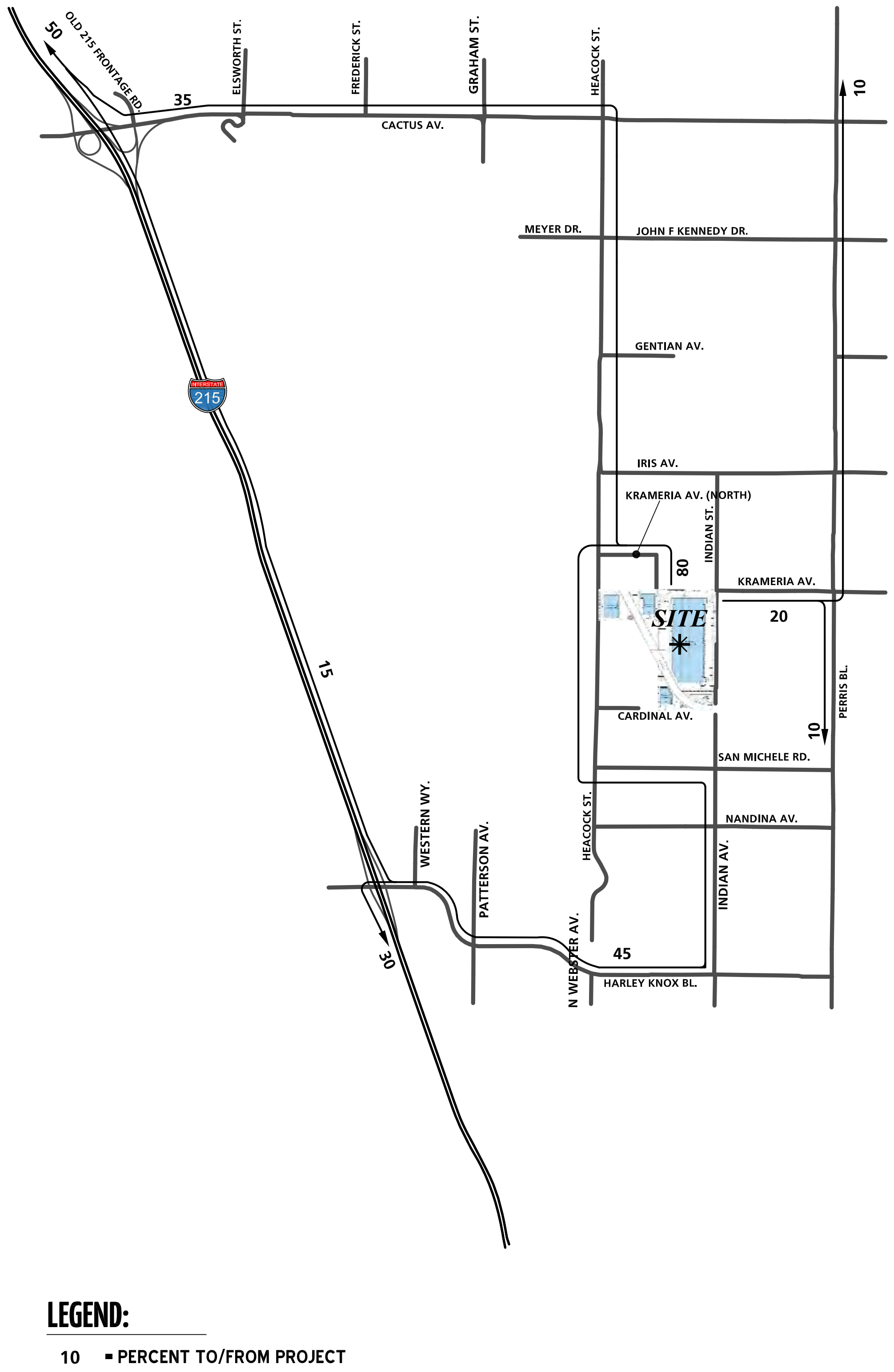

Source: Urban Crossroads (11-17-15)

Figure 4.11-6

NOT TO SCALE

PROJECT CONSTRUCTION EMPLOYEE TRIP DISTRIBUTION

Source: Urban Crossroads (11-17-15)

Figure 4.11-7
PROJECT CONSTRUCTION
TRUCK TRIP DISTRIBUTION

Source: Urban Crossroads (11-17-15)

Figure 4.11-8

NOT TO SCALE

PROJECT CONSTRUCTION TRAFFIC VOLUMES (1 OF 2)

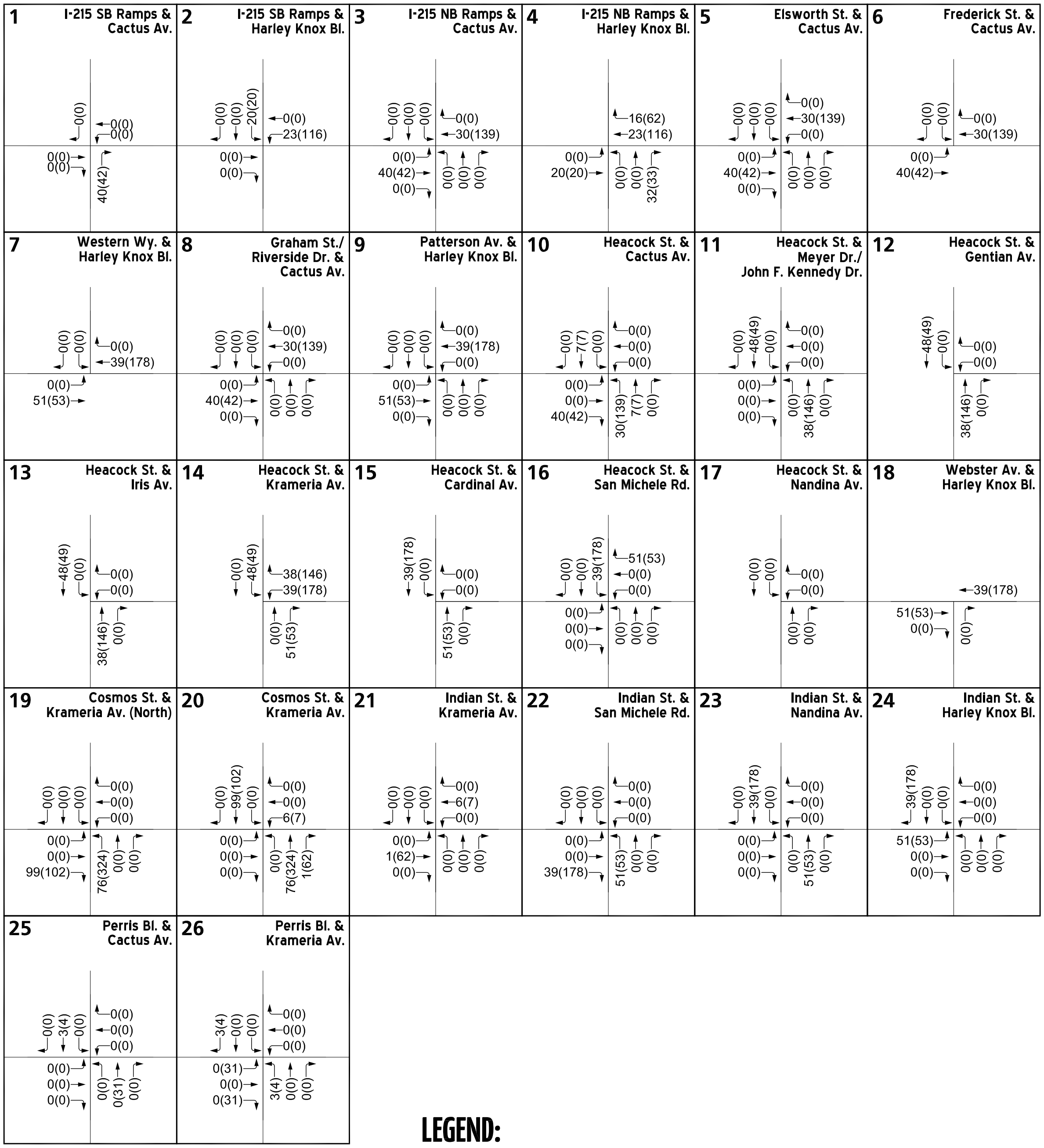

LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

Source: Urban Crossroads (11-17-15)

Figure 4.11-8

NOT TO SCALE

PROJECT CONSTRUCTION TRAFFIC VOLUMES (2 OF 2)

NOTE: TO BE UTILIZED FOR E+P
(WITHOUT INDIAN STREET BRIDGE)
AND OPENING YEAR CUMULATIVE CONDITIONS

LEGEND:

10 = PERCENT TO/FROM PROJECT

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-9

PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE) (1 OF 2)

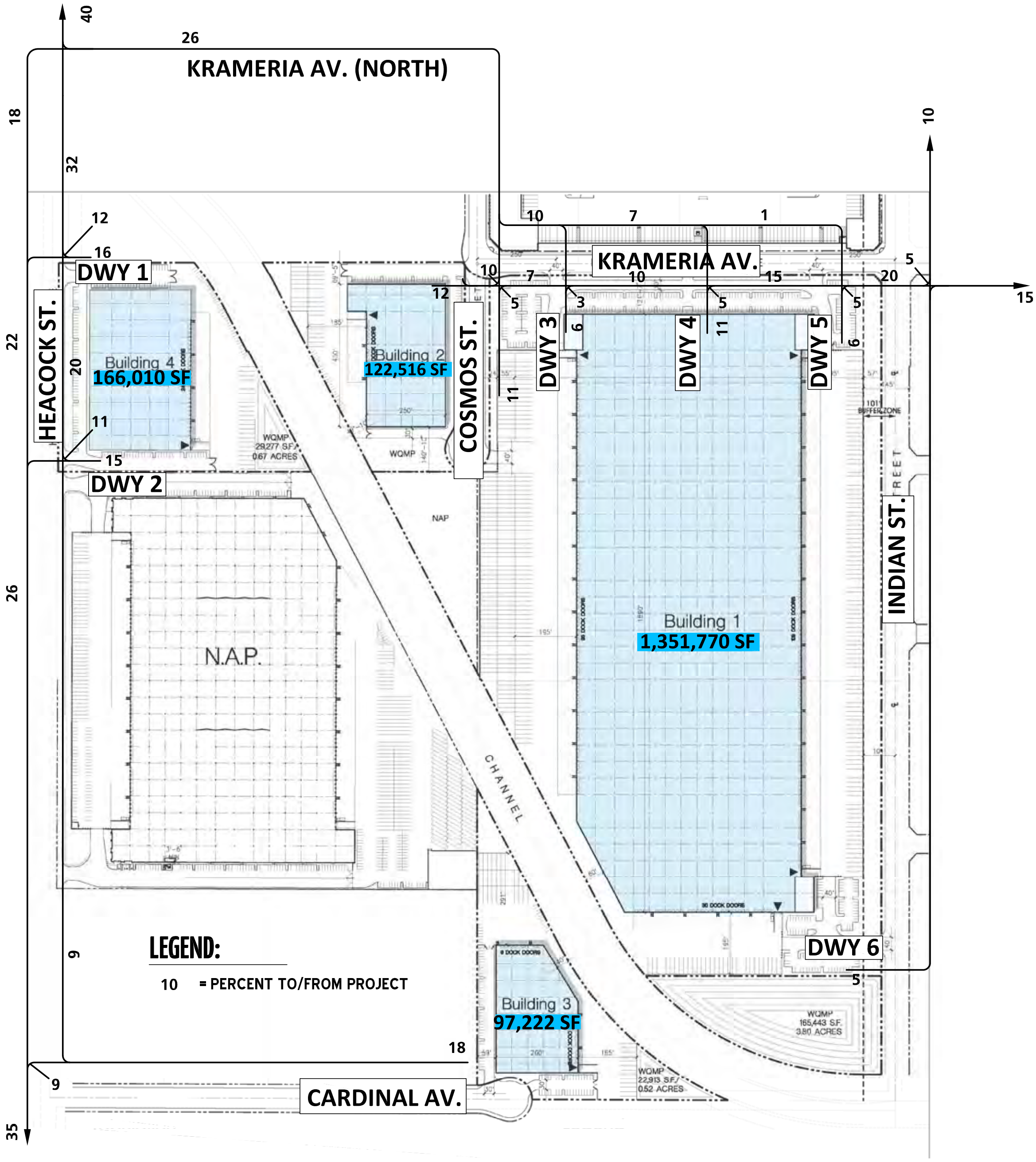

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-9
PROJECT PASSENGER CAR TRIP DISTRIBUTION
(WITHOUT INDIAN STREET BRIDGE) (2 OF 2)

NOTE: TO BE UTILIZED FOR E+P
(WITHOUT INDIAN STREET BRIDGE)
AND OPENING YEAR CUMULATIVE CONDITIONS

LEGEND:

10 = PERCENT TO/FROM PROJECT

← = OUTBOUND

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-10

PROJECT TRUCK TRIP DISTRIBUTION
(WITHOUT INDIAN STREET BRIDGE) (1 OF 2)

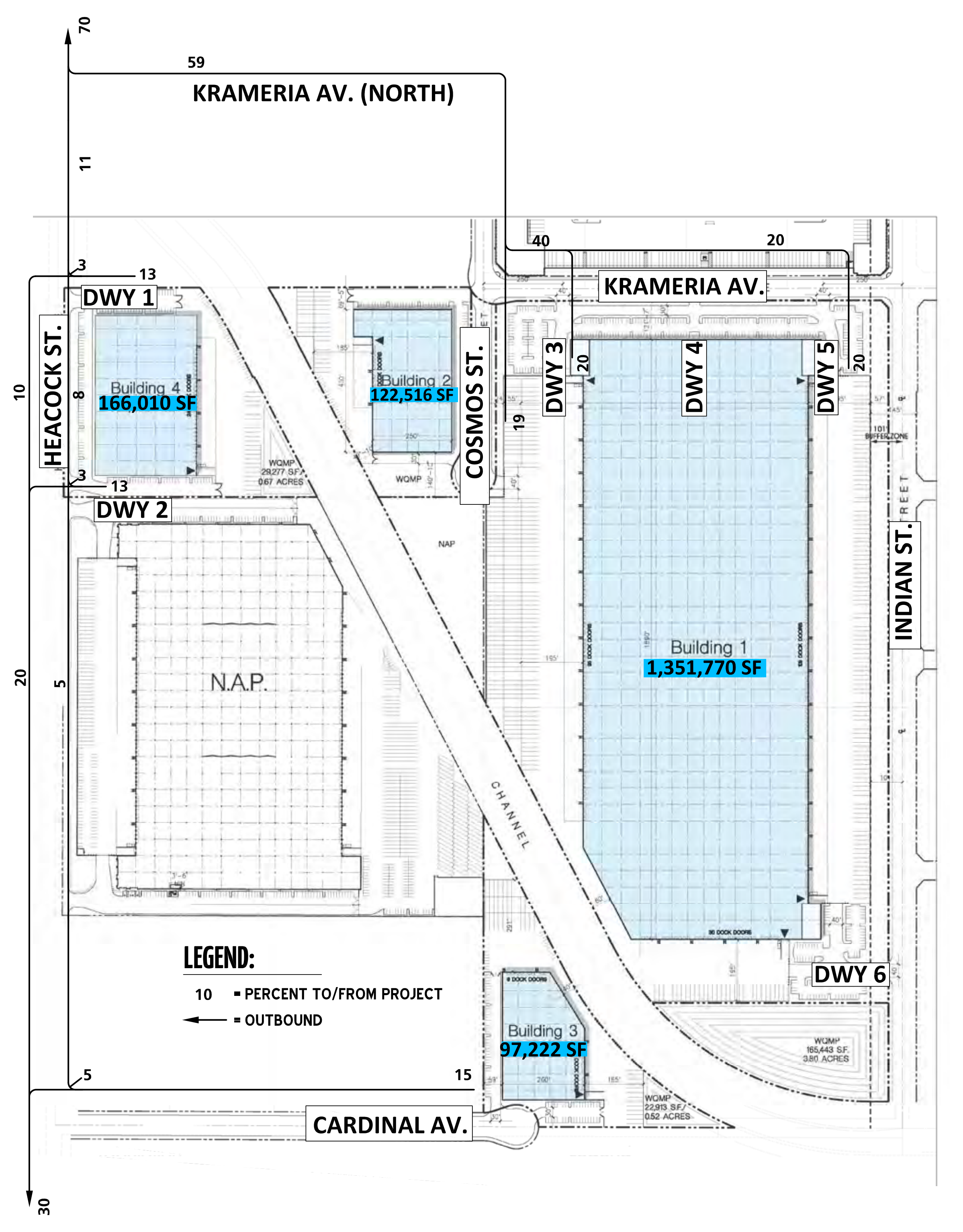

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-10
PROJECT TRUCK TRIP DISTRIBUTION
(WITHOUT INDIAN STREET BRIDGE) (2 OF 2)

NOTE: TO BE UTILIZED FOR E+P
(WITH INDIAN STREET BRIDGE)
CONDITIONS

LEGEND:

10 = PERCENT TO/FROM PROJECT

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-11

PROJECT PASSENGER CAR TRIP DISTRIBUTION
(WITH INDIAN STREET BRIDGE) (1 OF 2)

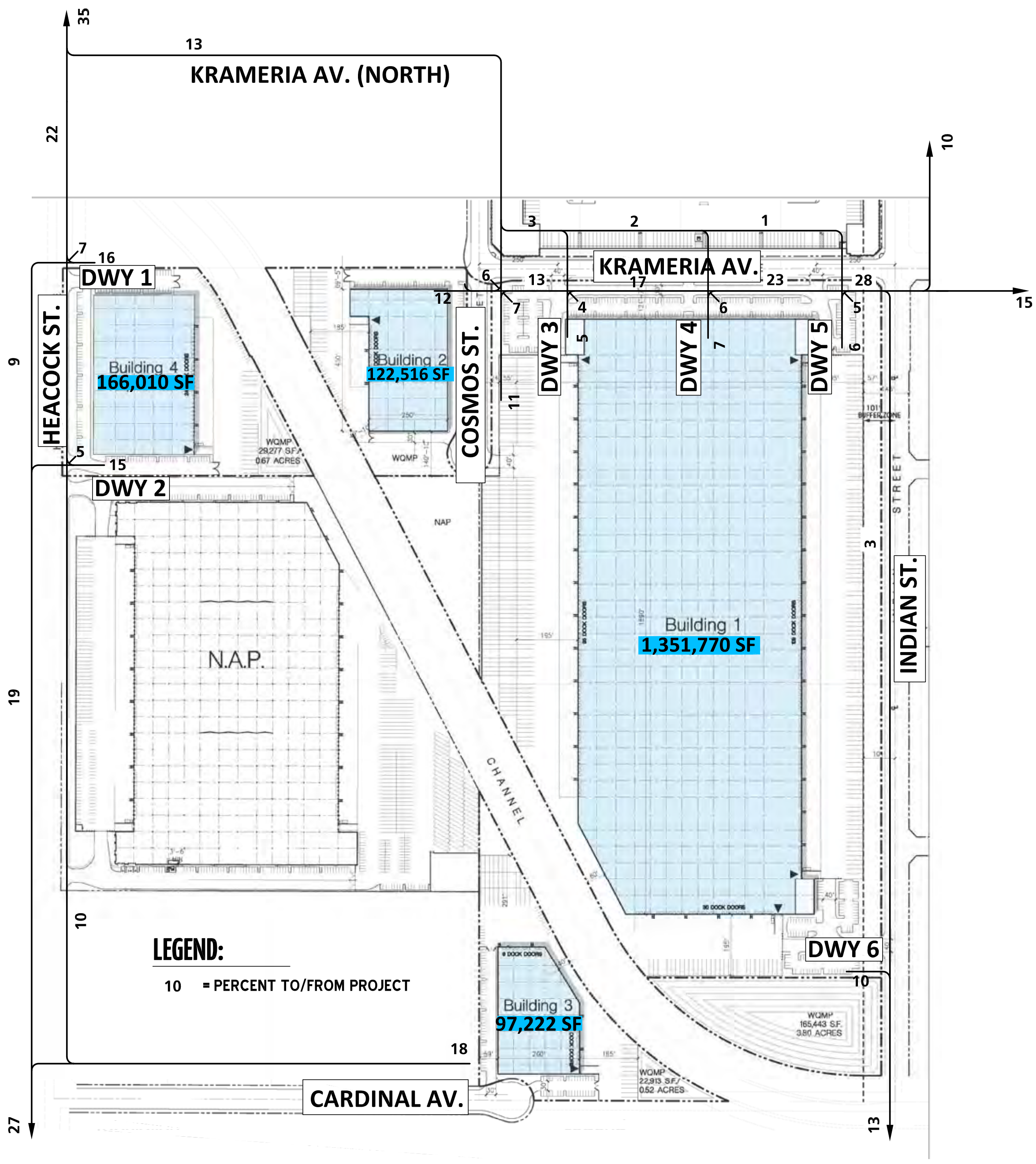

Source: Urban Crossroads (11-18-15)

Figure 4.11-11
PROJECT PASSENGER CAR TRIP DISTRIBUTION
(WITH INDIAN STREET BRIDGE) (2 OF 2)

NOT TO SCALE

NOTE: TO BE UTILIZED FOR E+P
(WITH INDIAN STREET BRIDGE)
CONDITIONS

LEGEND:

10 = PERCENT TO/FROM PROJECT

← = OUTBOUND

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-12

PROJECT TRUCK TRIP DISTRIBUTION
(WITH INDIAN STREET BRIDGE) (1 OF 2)

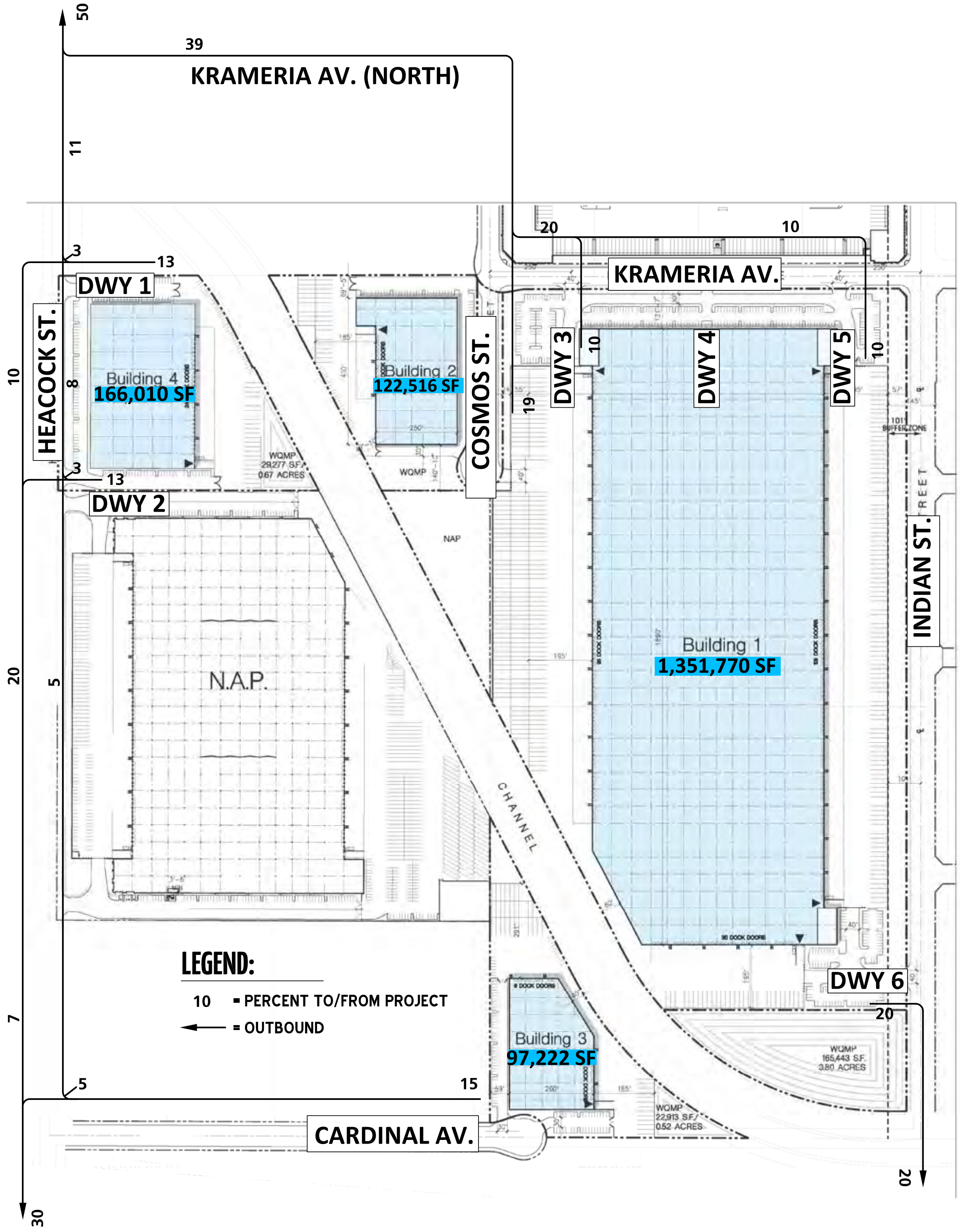

Source: *Urban Crossroads (11-18-15)*

NOT TO SCALE

Figure 4.11-12
PROJECT TRUCK TRIP DISTRIBUTION
(WITH INDIAN STREET BRIDGE) (2 OF 2)

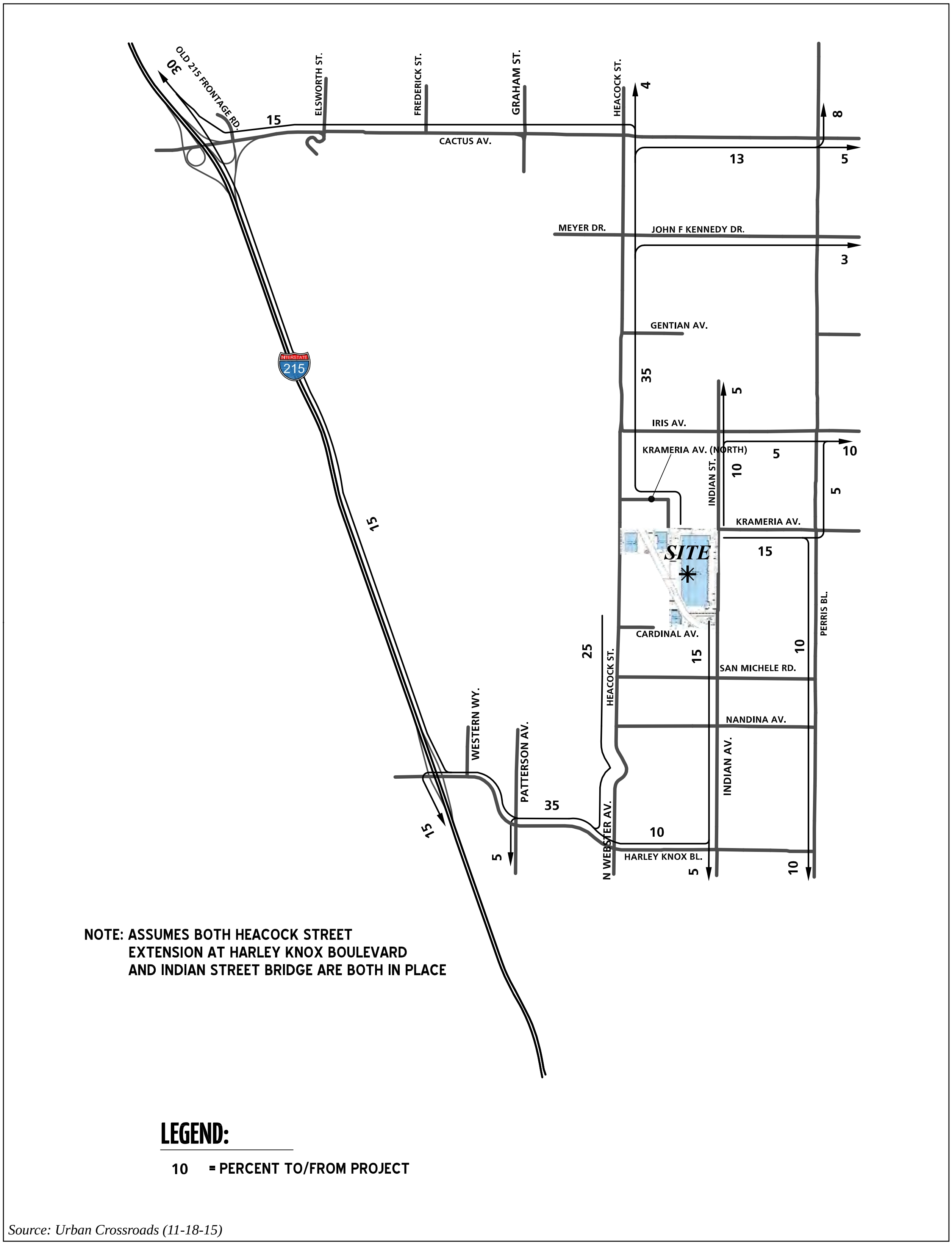

NOTE: ASSUMES BOTH HEACOCK STREET
EXTENSION AT HARLEY KNOX BOULEVARD
AND INDIAN STREET BRIDGE ARE BOTH IN PLACE

LEGEND:

10 = PERCENT TO/FROM PROJECT

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-13

PROJECT PASSENGER CAR TRIP DISTRIBUTION
(GENERAL PLAN BUILDOUT) (1 OF 2)

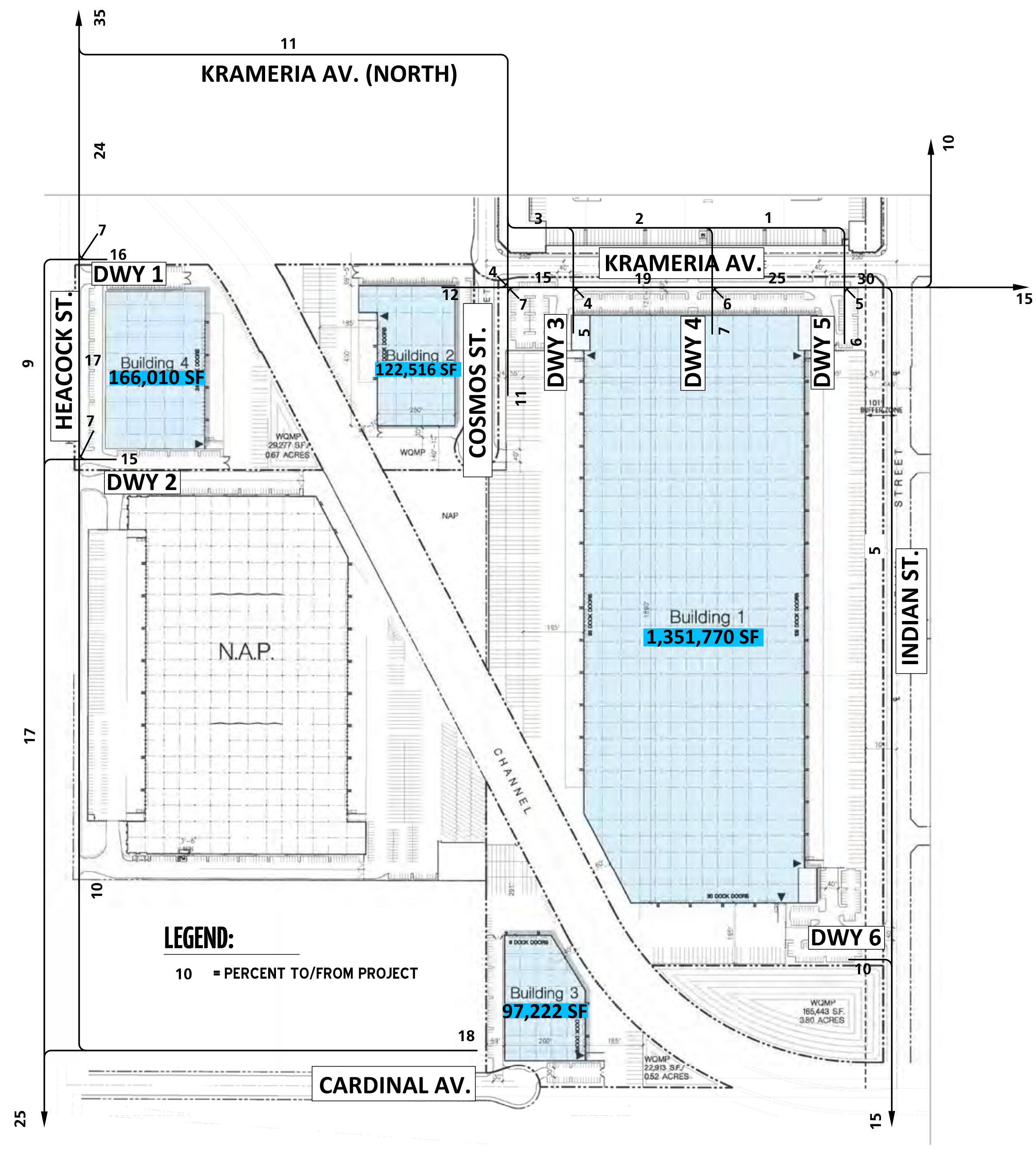

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-13
PROJECT PASSENGER CAR TRIP DISTRIBUTION (GENERAL PLAN BUILDOUT) (2 OF 2)

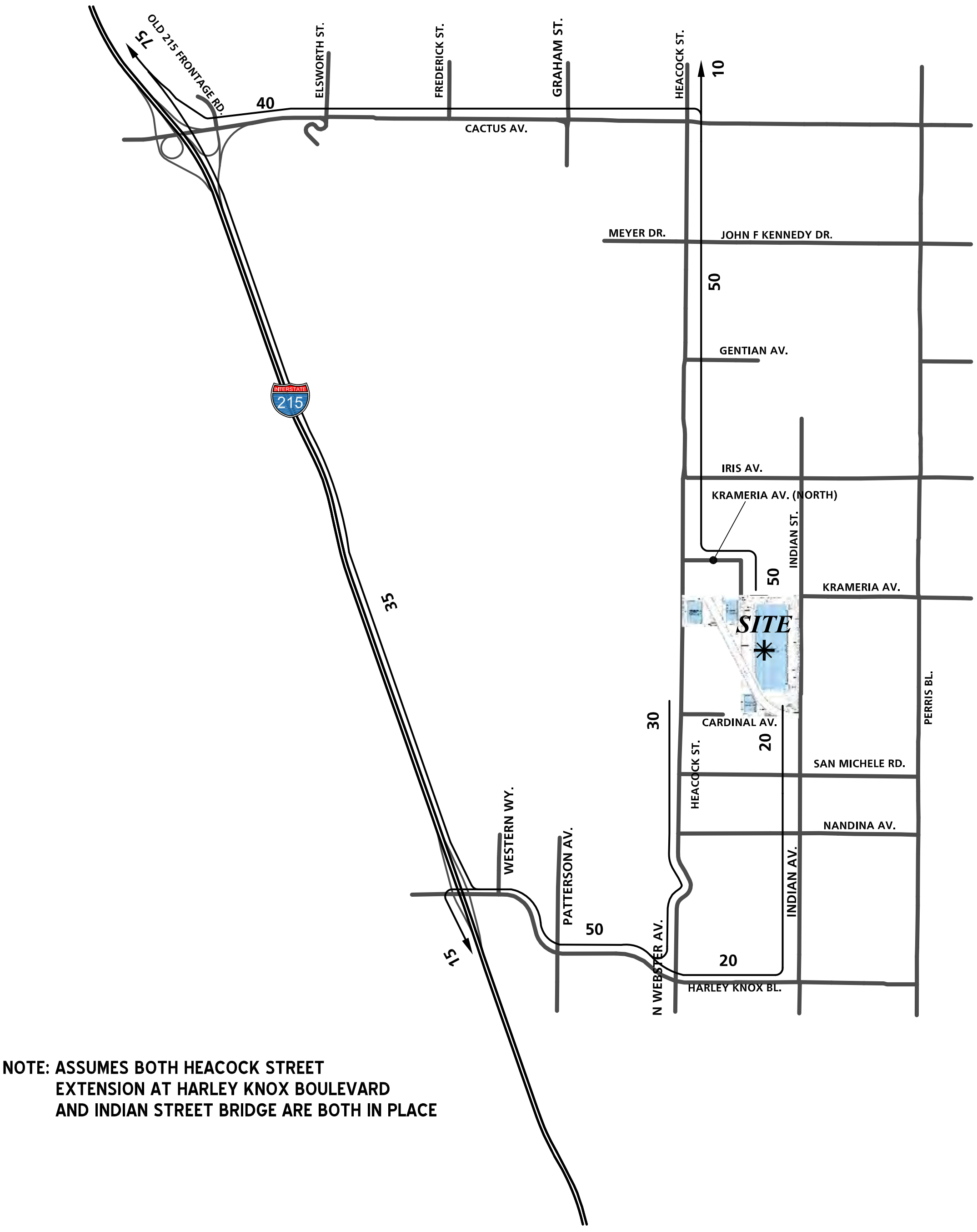

NOTE: ASSUMES BOTH HEACOCK STREET EXTENSION AT HARLEY KNOX BOULEVARD AND INDIAN STREET BRIDGE ARE BOTH IN PLACE

LEGEND:

10 = PERCENT TO/FROM PROJECT

← = OUTBOUND

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-14

PROJECT TRUCK TRIP DISTRIBUTION (GENERAL PLAN BUILDOUT) (1 OF 2)

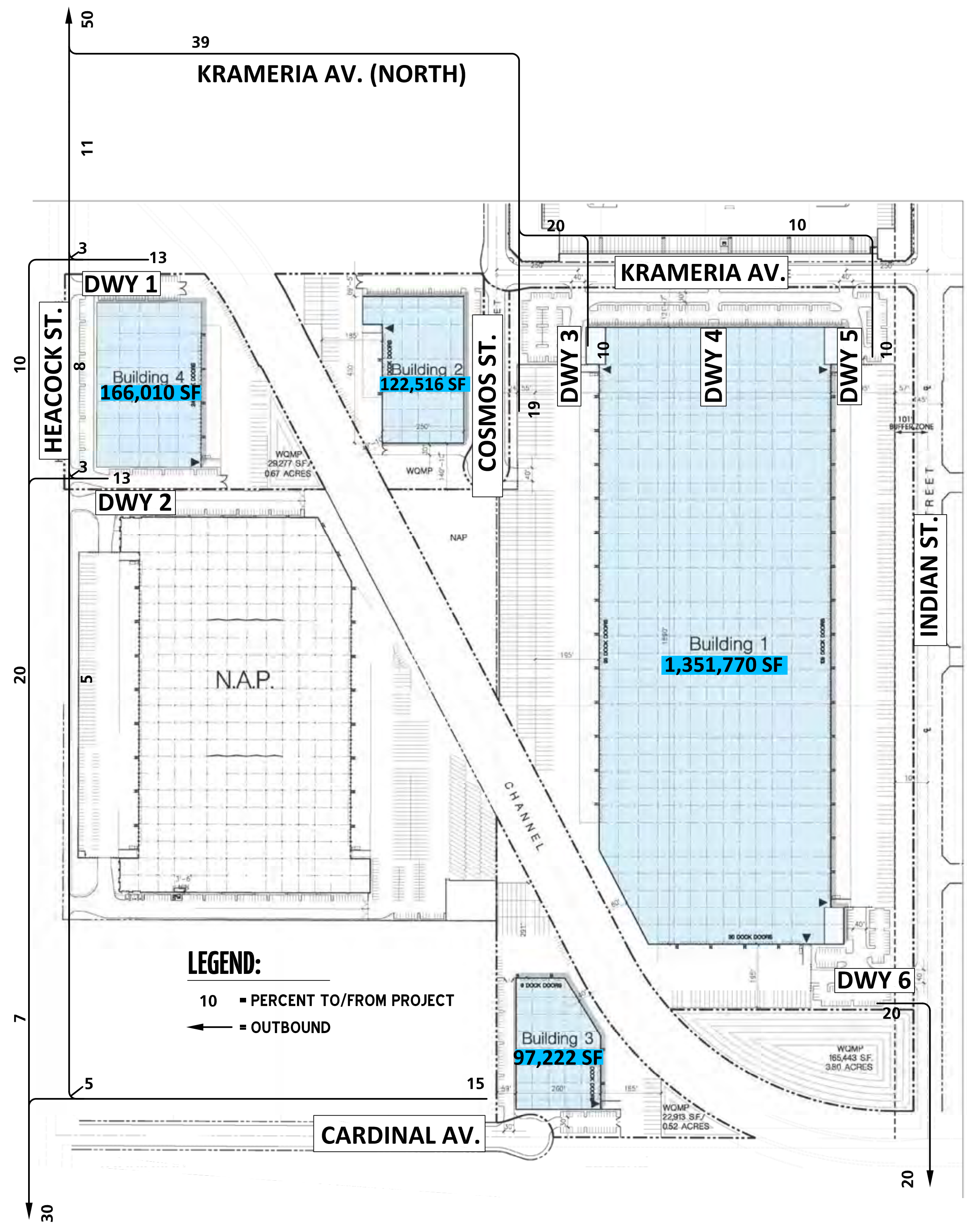

Source: *Urban Crossroads (11-18-15)*

NOT TO SCALE

Figure 4.11-14

PROJECT TRUCK TRIP DISTRIBUTION (GENERAL PLAN BUILDOUT) (2 OF 2)

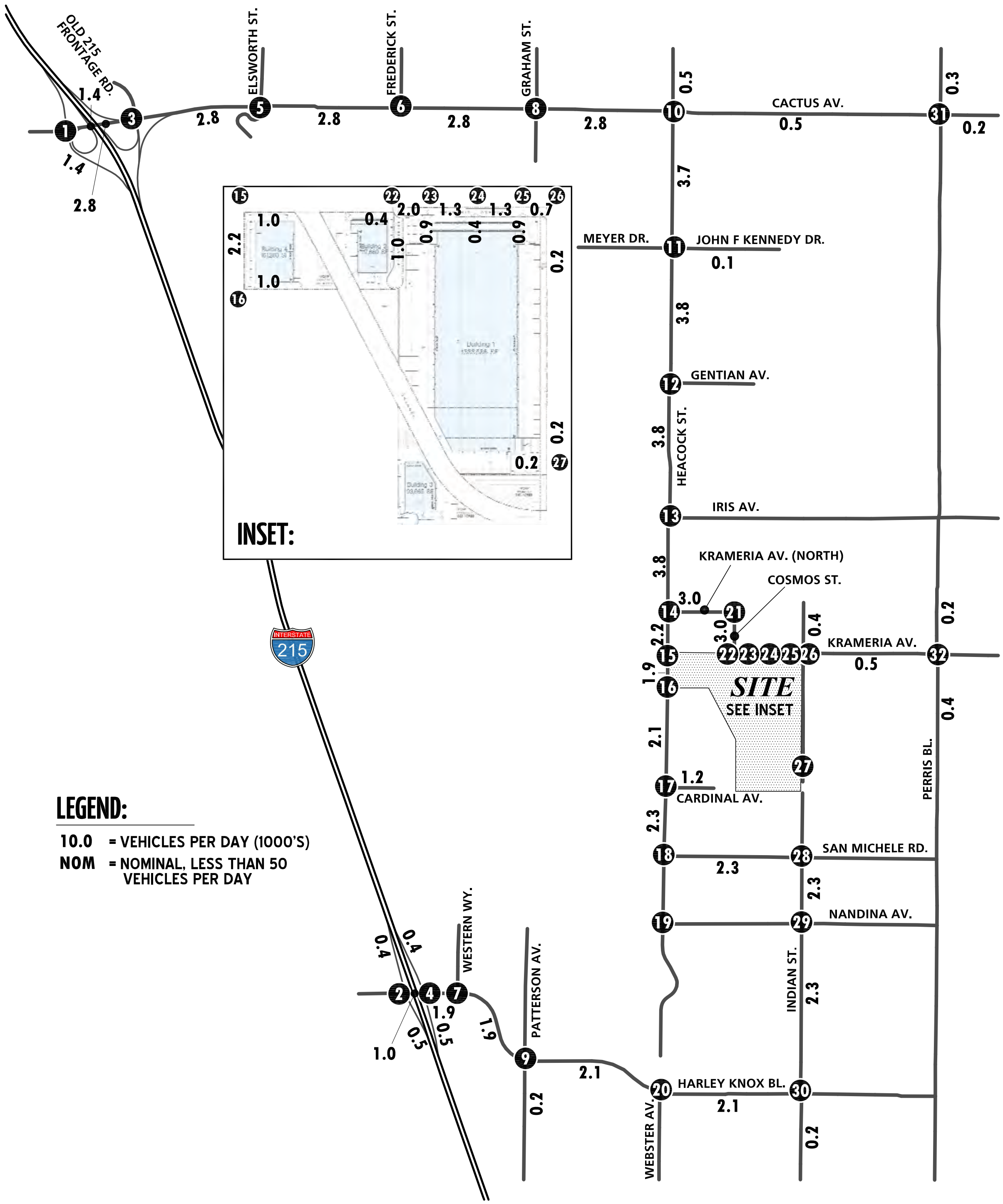

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-15

PROJECT TRAFFIC VOLUMES
(WITHOUT INDIAN STREET BRIDGE) (1 OF 2)

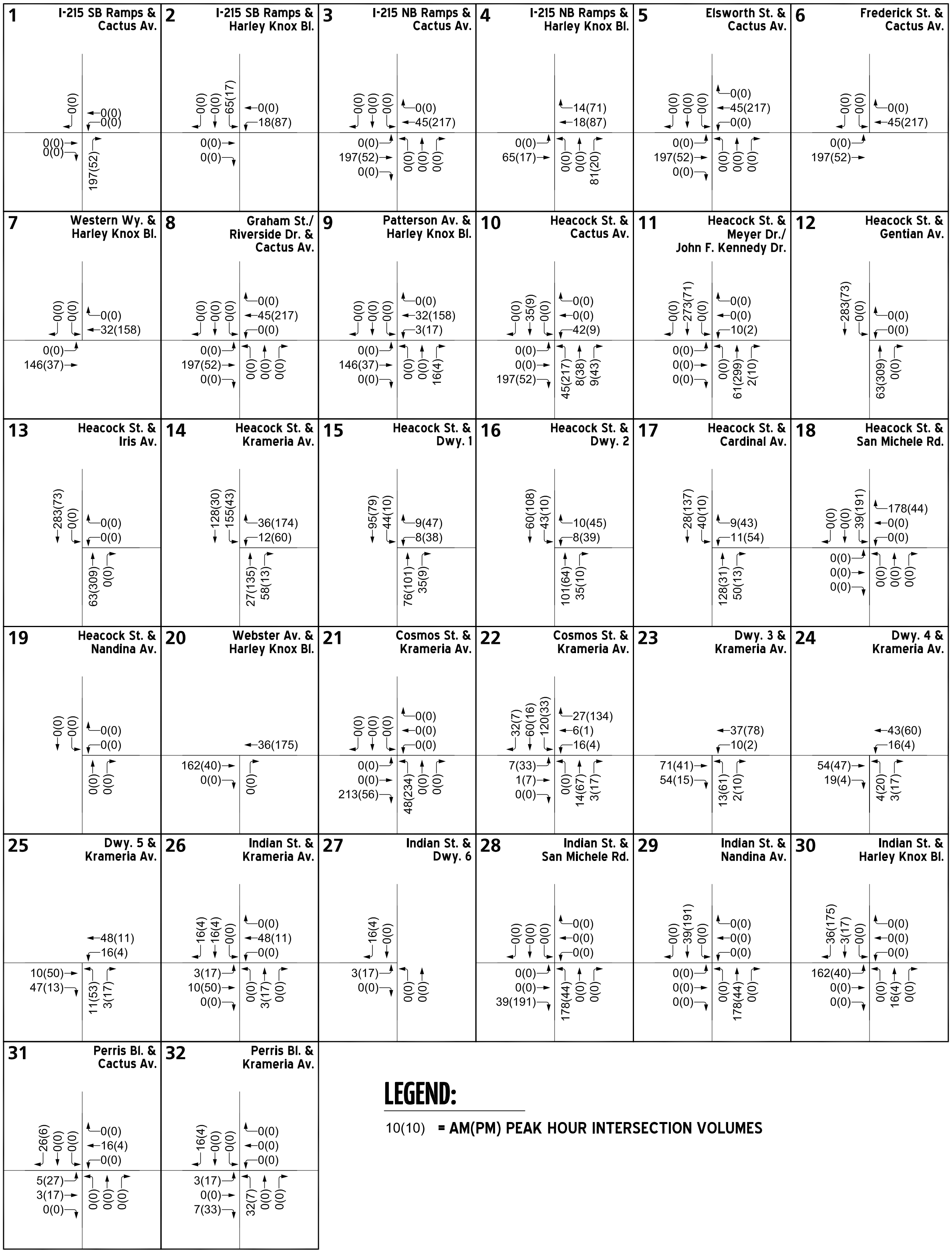

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-15

PROJECT TRAFFIC VOLUMES
(WITHOUT INDIAN STREET BRIDGE) (2 OF 2)

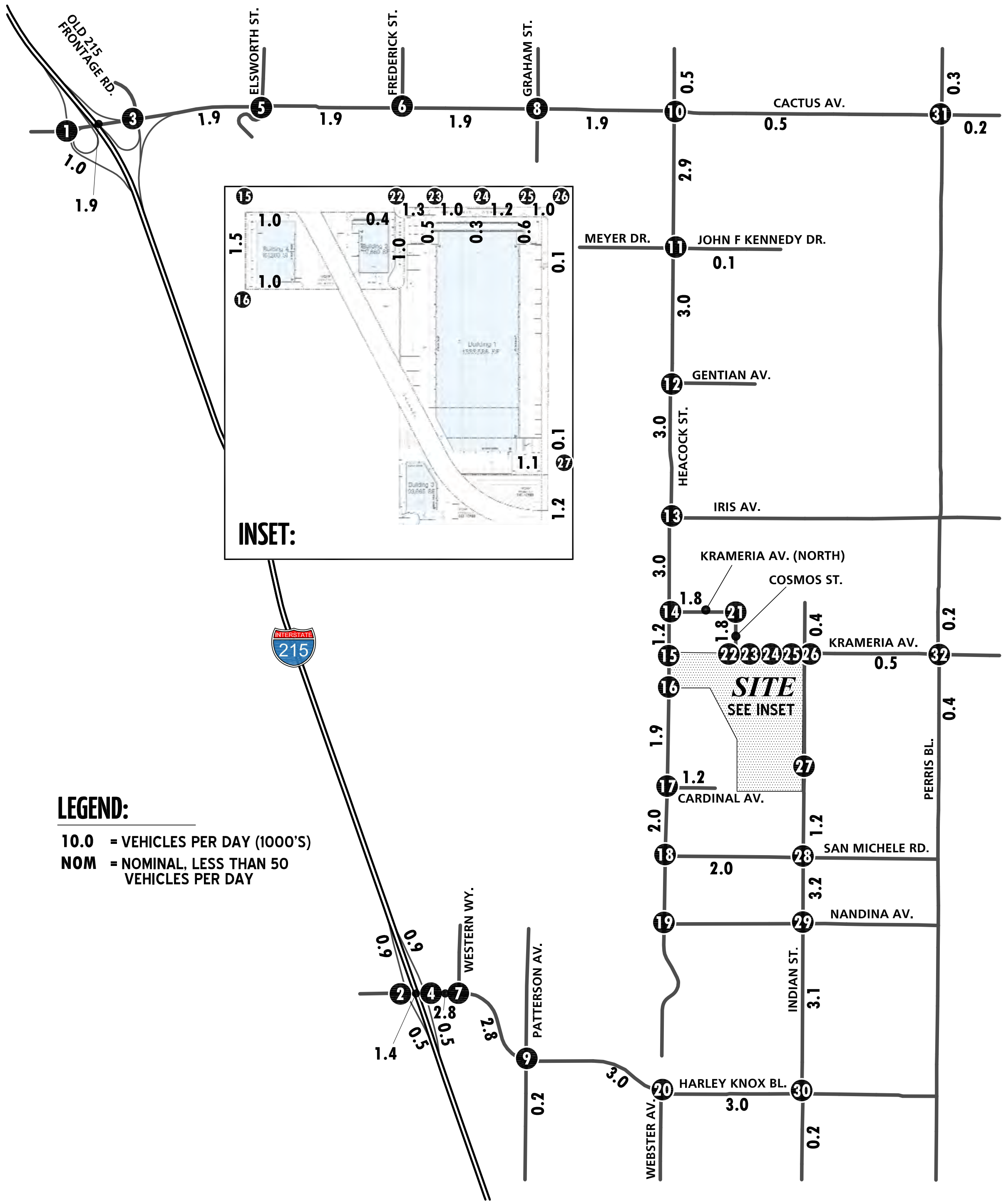

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-16

PROJECT TRAFFIC VOLUMES
(WITH INDIAN STREET BRIDGE) (1 OF 2)

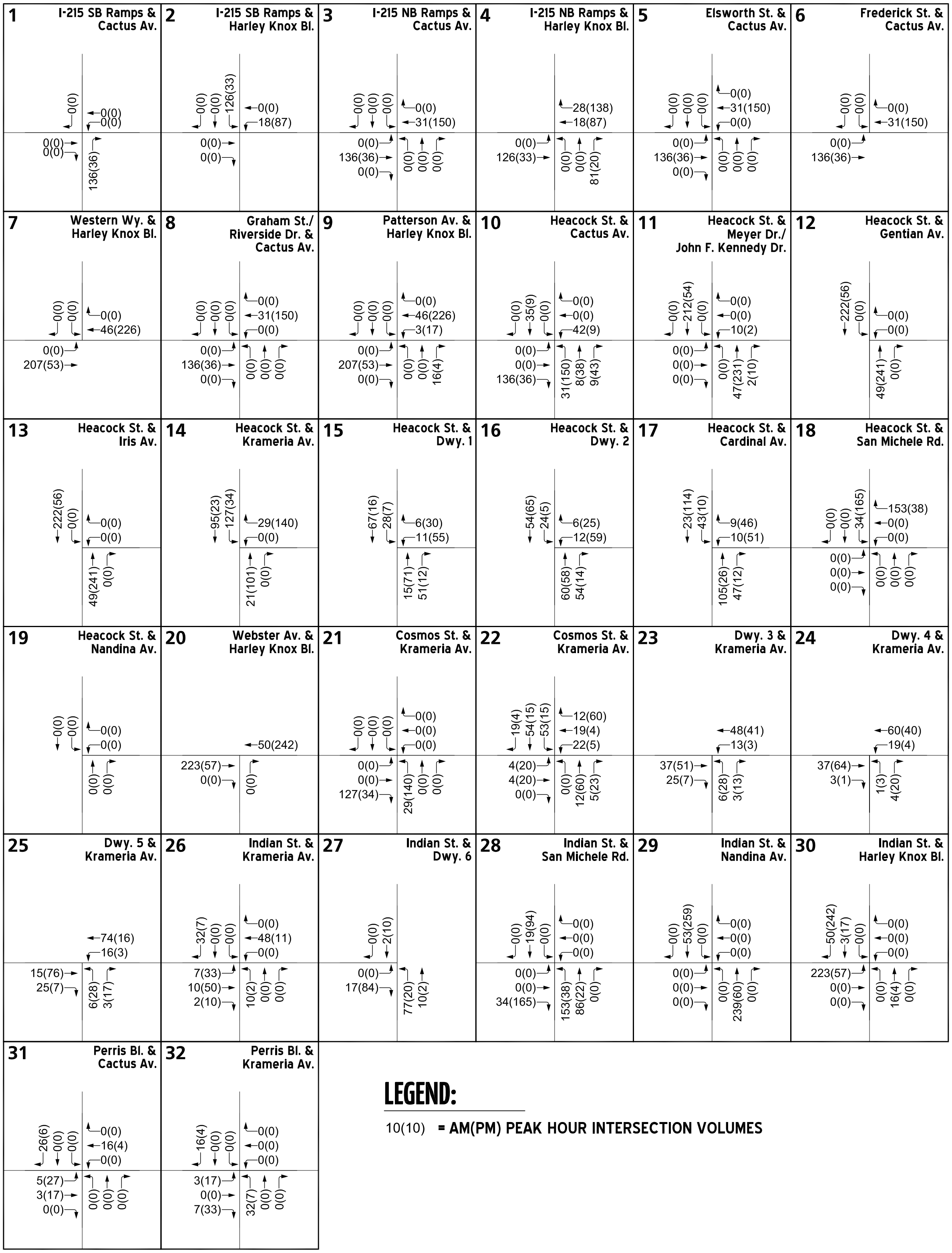

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-16

PROJECT TRAFFIC VOLUMES
(WITH INDIAN STREET BRIDGE) (2 OF 2)

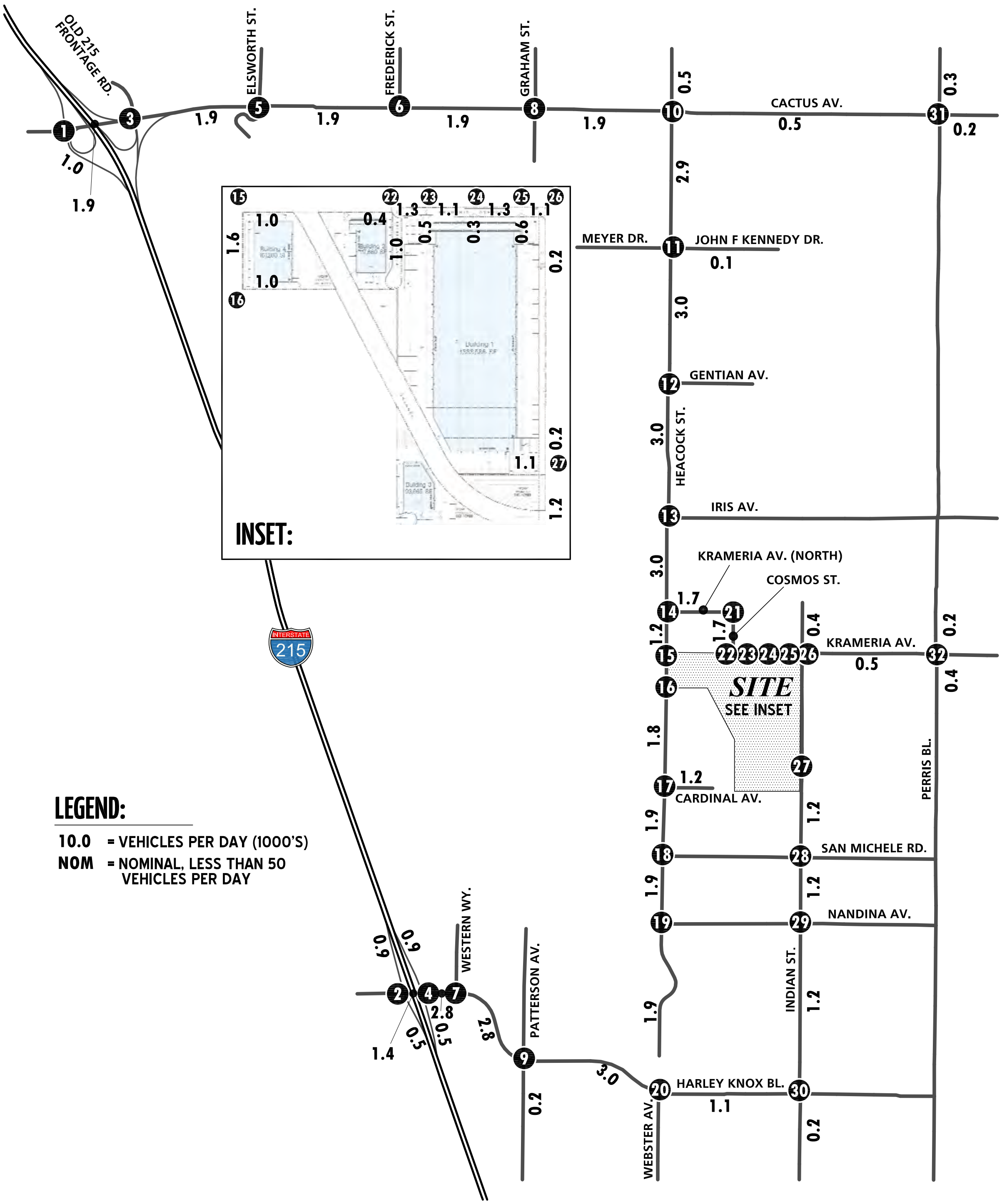

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-17

PROJECT TRAFFIC VOLUMES (GENERAL PLAN BUILDOUT) (1 OF 2)

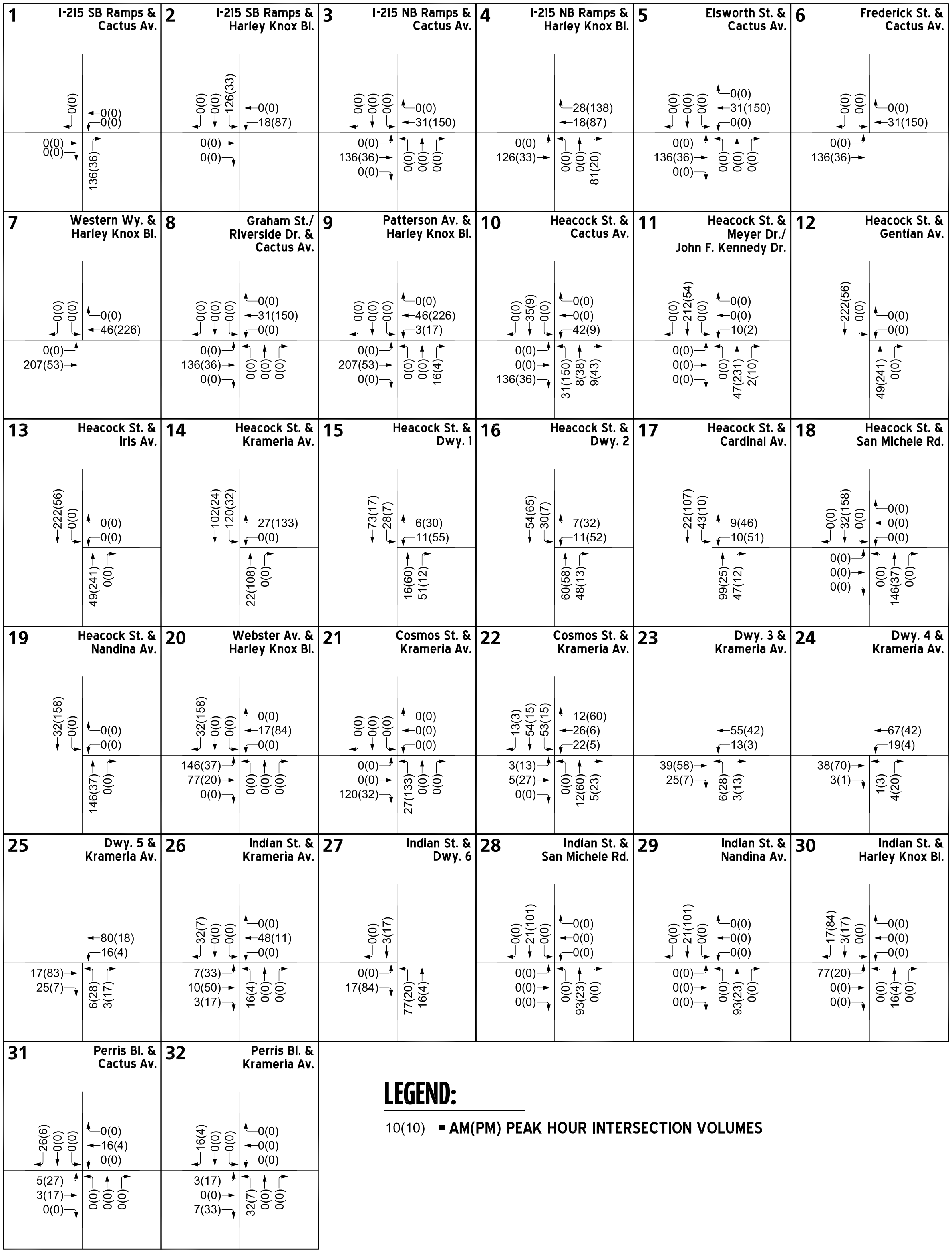

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-17

PROJECT TRAFFIC VOLUMES (GENERAL PLAN BUILDOUT) (2 OF 2)

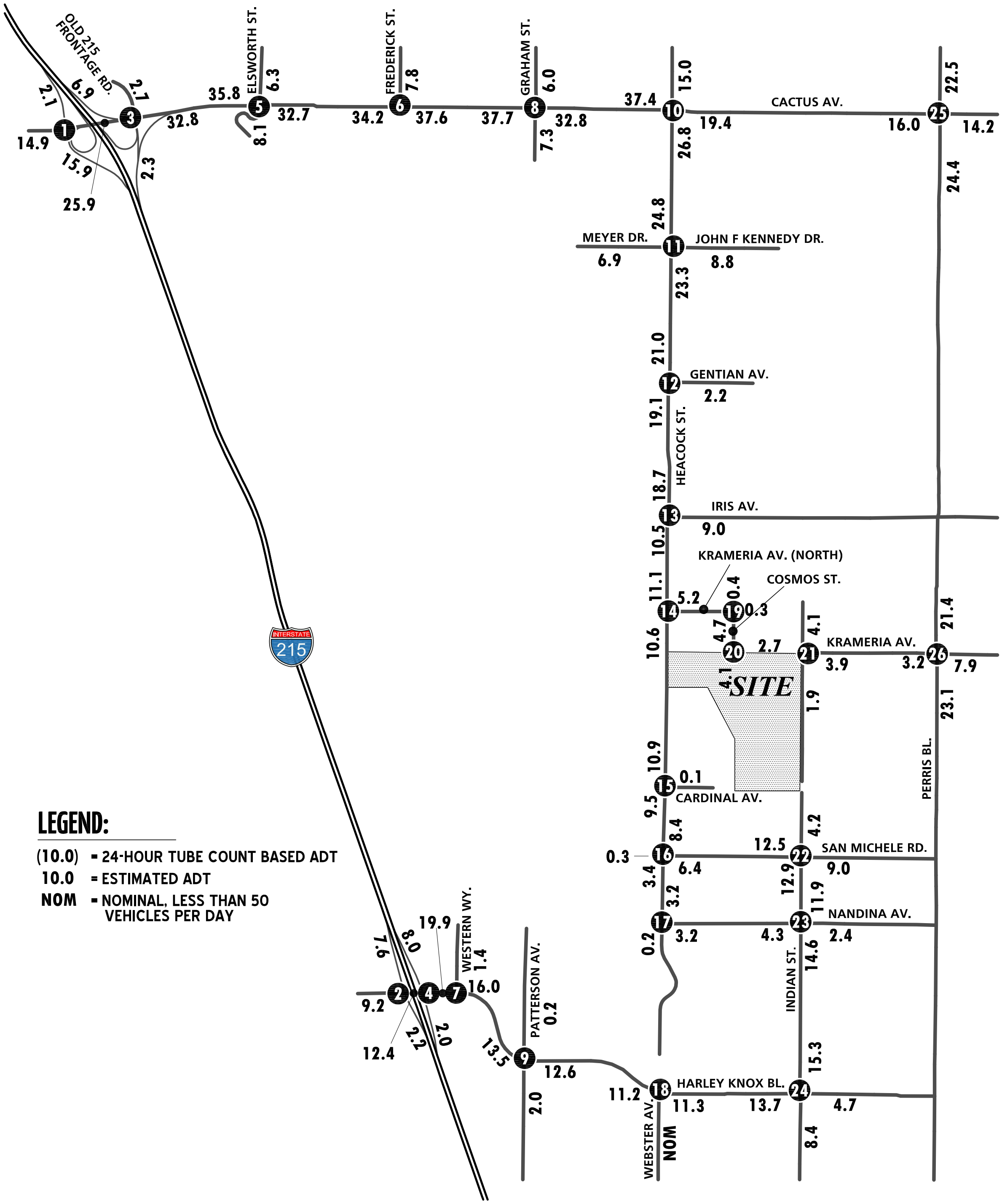

Source: Urban Crossroads (11-17-15)

Figure 4.11-18

SHORT-TERM CONSTRUCTION AVERAGE DAILY TRAFFIC

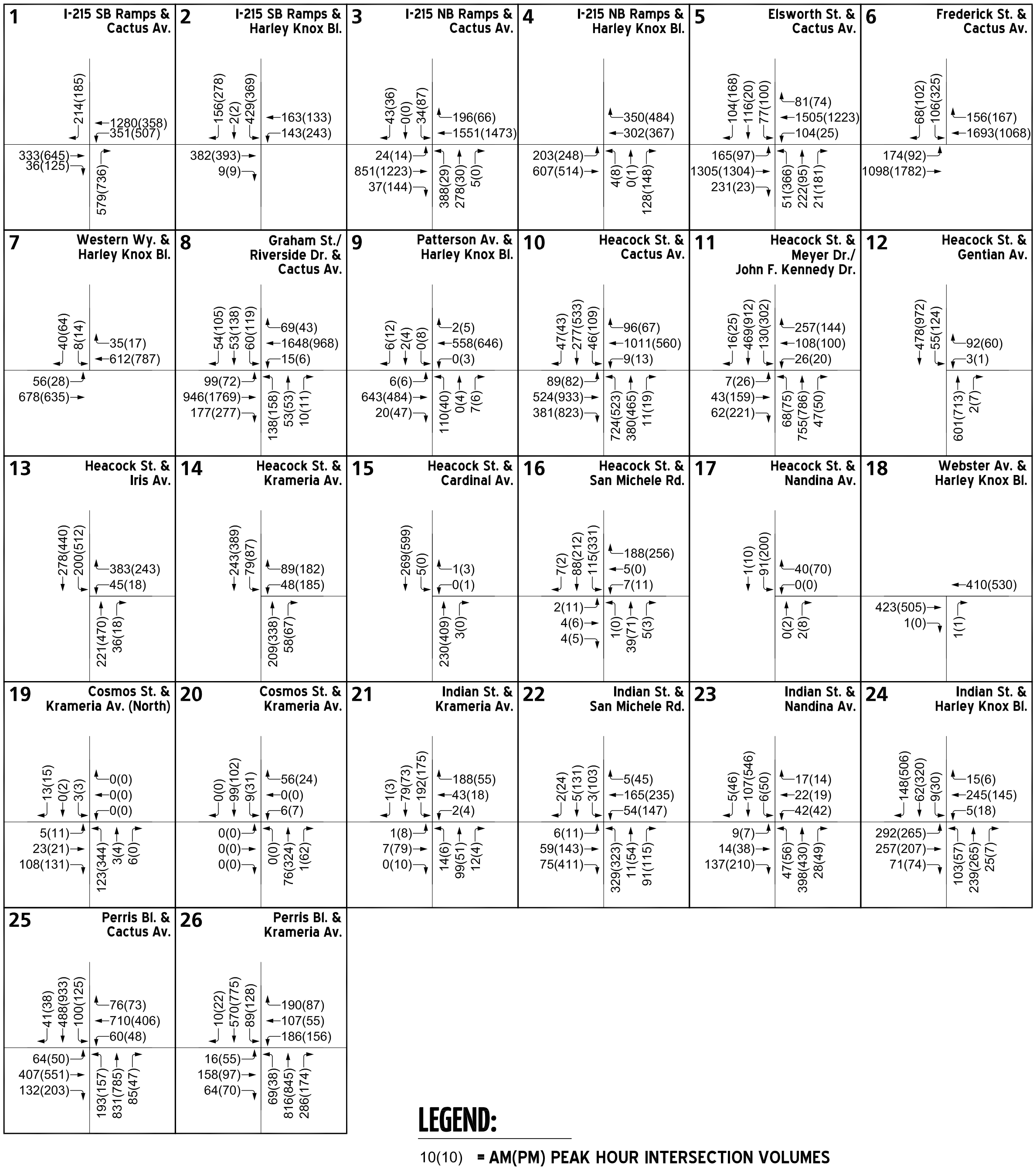

Source: Urban Crossroads (11-17-15)

NOT TO SCALE

Figure 4.11-19
SHORT-TERM CONSTRUCTION
PEAK HOUR INTERSECTION VOLUMES

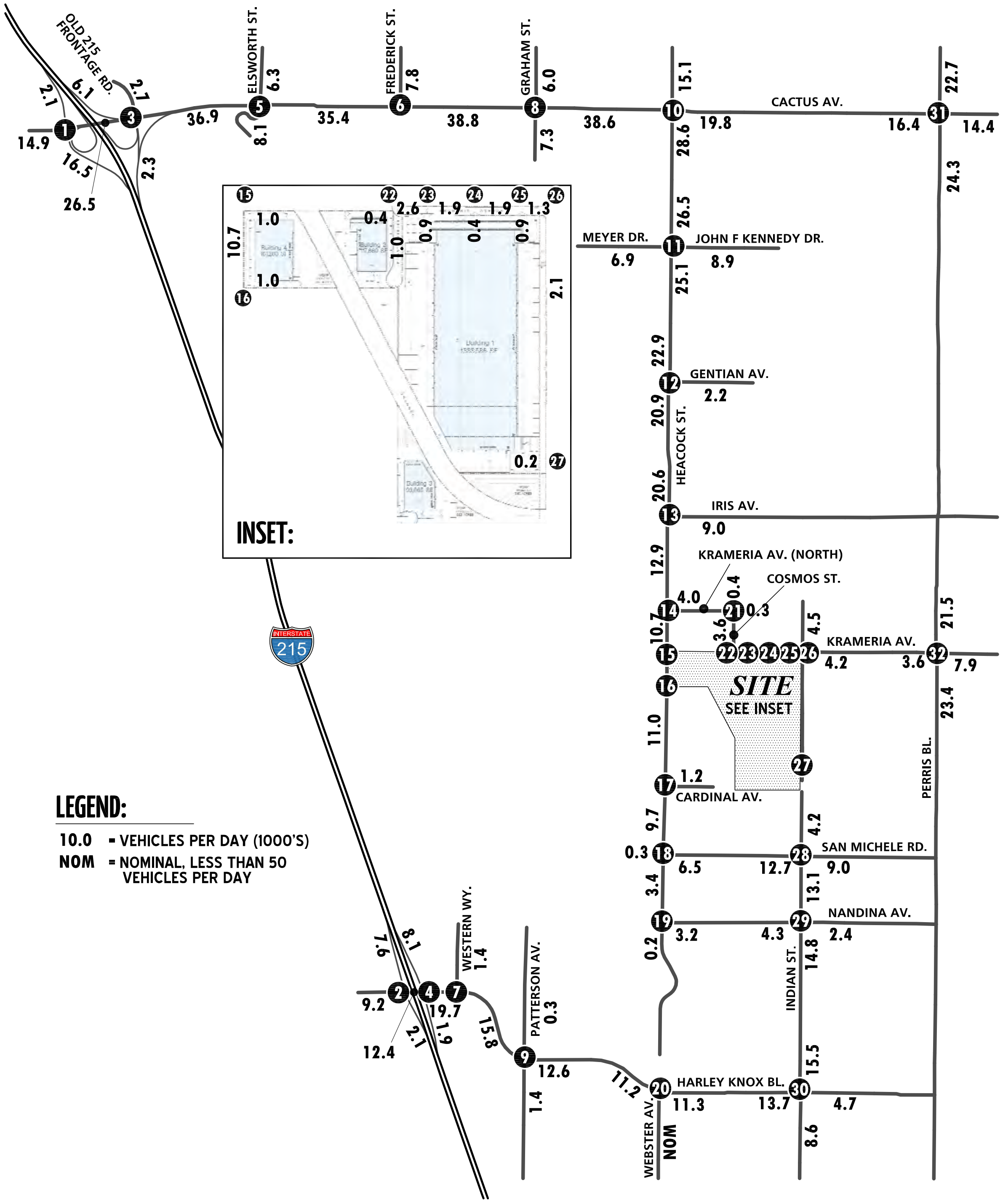

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-20

EXISTING PLUS PROJECT AVERAGE DAILY TRAFFIC (WITHOUT INDIAN STREET BRIDGE)

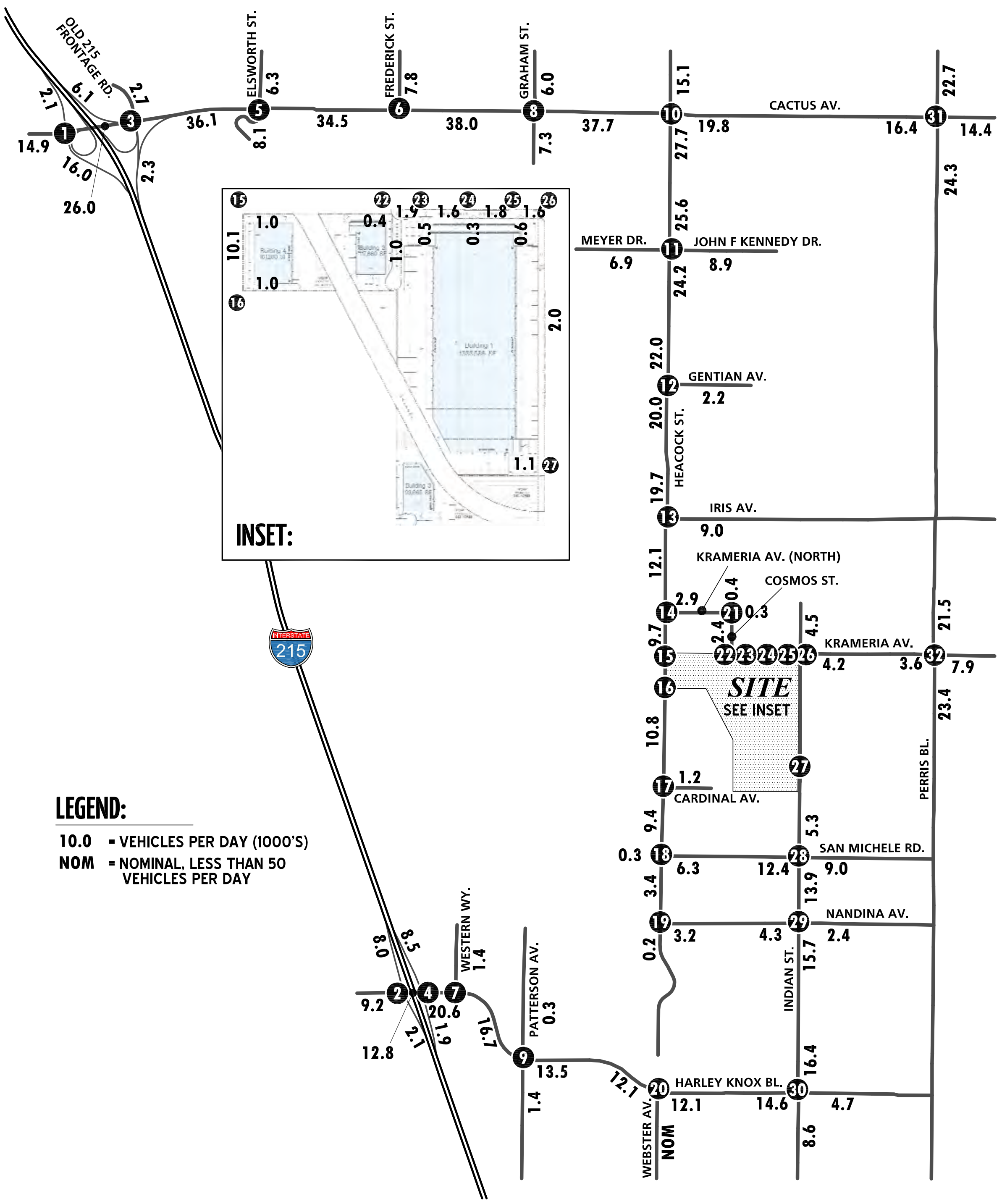

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-21

EXISTING PLUS PROJECT AVERAGE DAILY TRAFFIC (WITH INDIAN STREET BRIDGE)

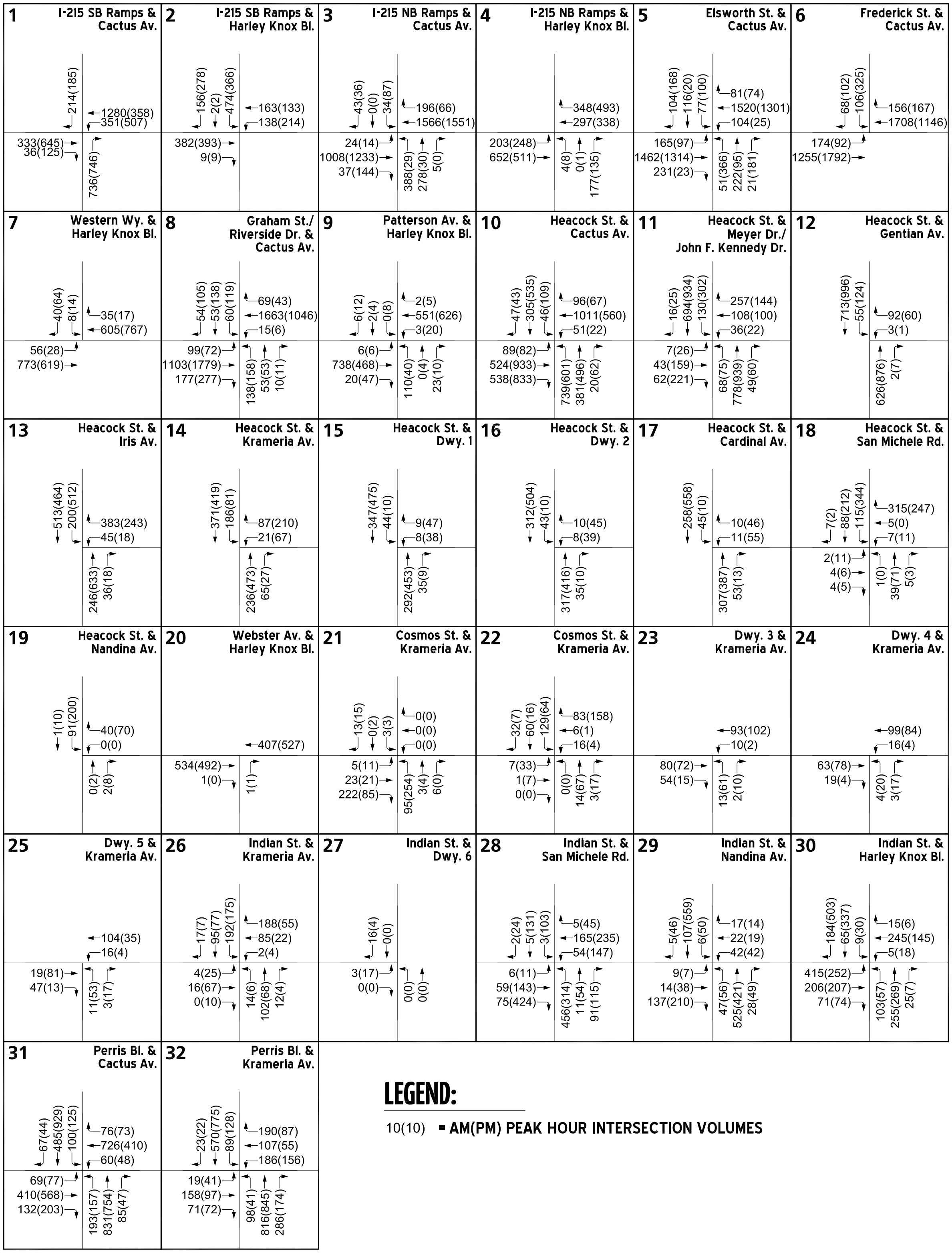

Source: Urban Crossroads (11-18-15)

Figure 4.11-22

EXISTING PLUS PROJECT PEAK HOUR INTERSECTION VOLUMES (WITHOUT INDIAN STREET BRIDGE)

NOT TO SCALE

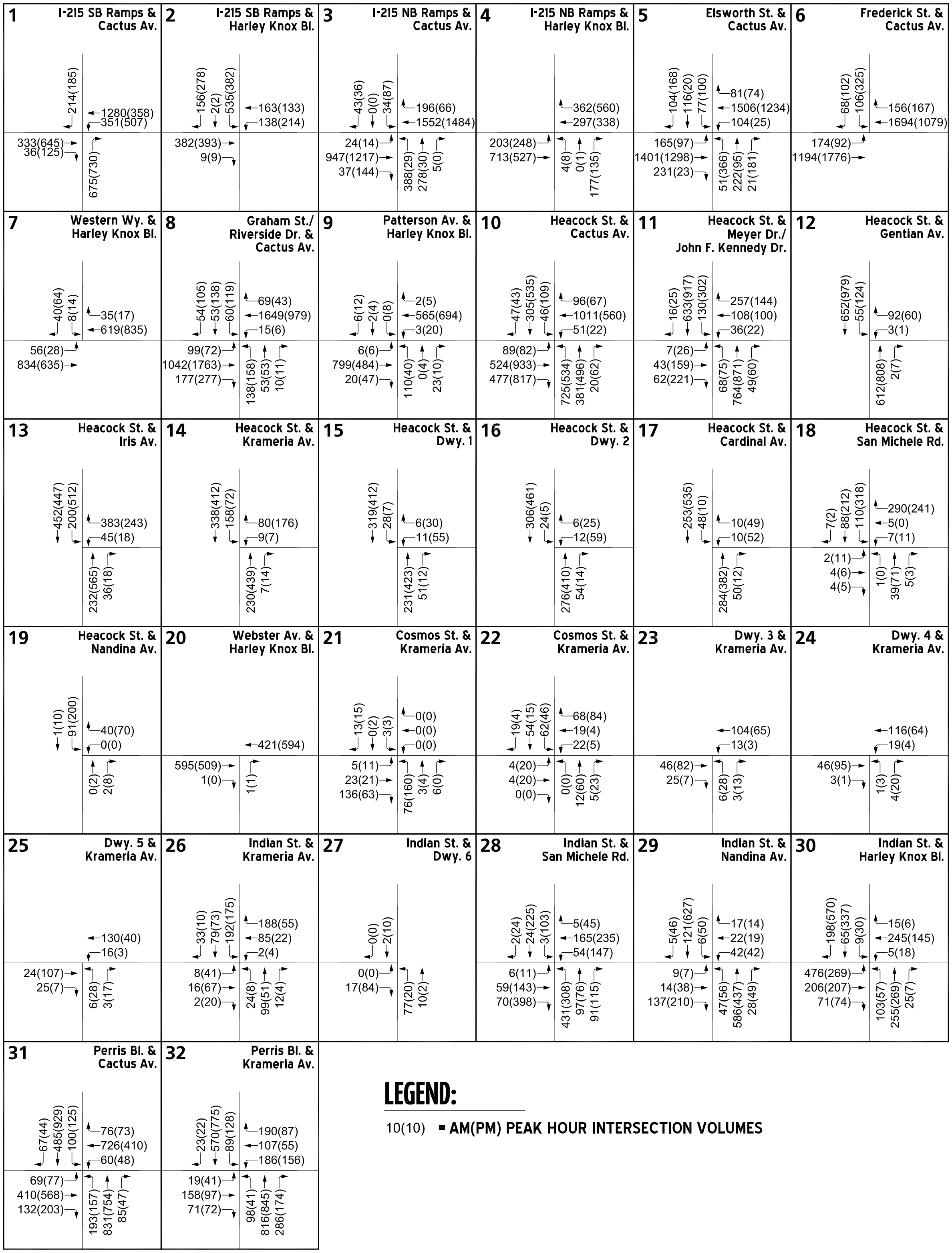

Source: Urban Crossroads (11-18-15)

Figure 4.11-23

EXISTING PLUS PROJECT PEAK HOUR INTERSECTION VOLUMES (WITH INDIAN STREET BRIDGE)

NOT TO SCALE

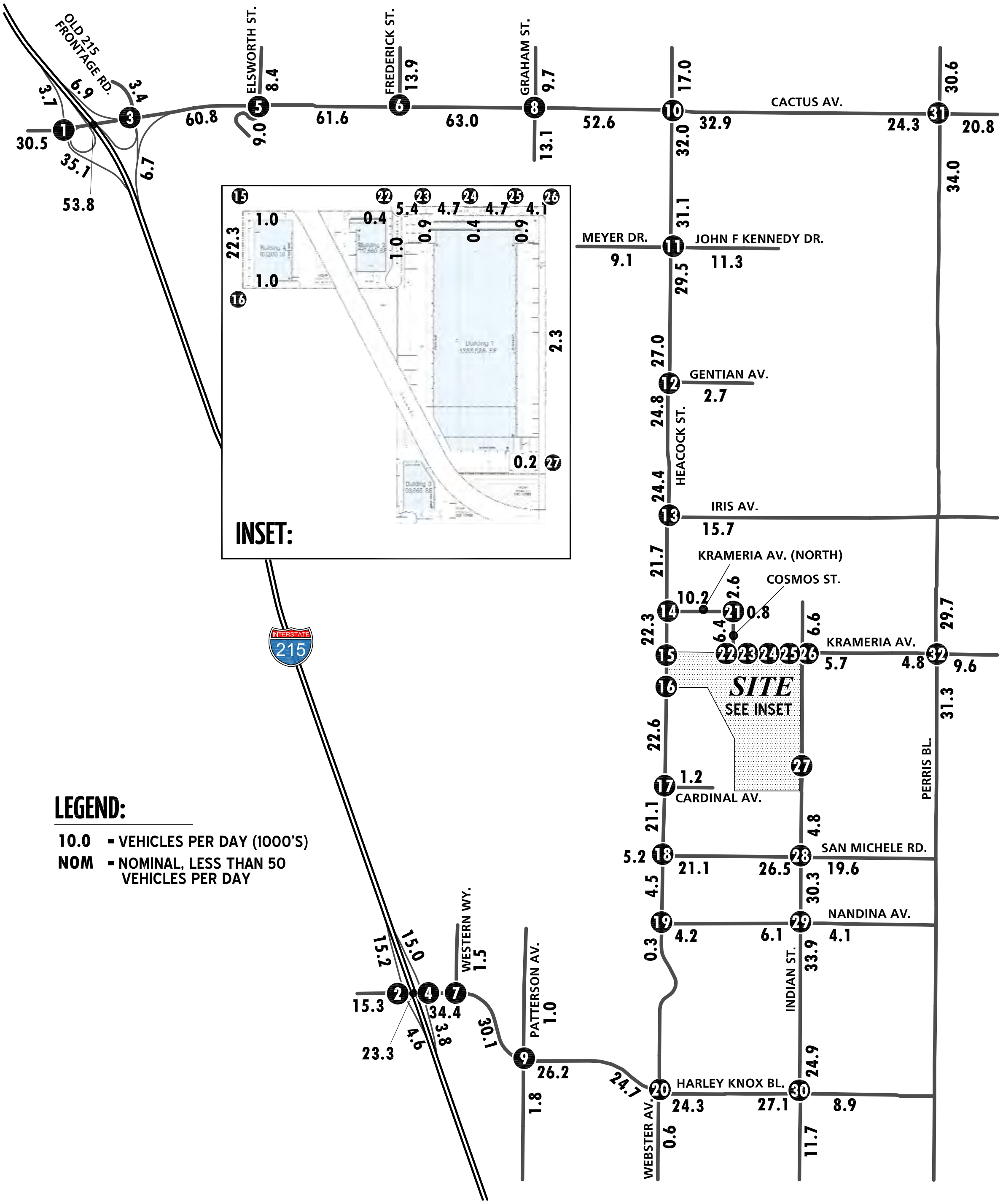

Source: Urban Crossroads (11-18-15)

Figure 4.11-24

NOT TO SCALE

OPENING YEAR (2020) AVERAGE DAILY TRAFFIC

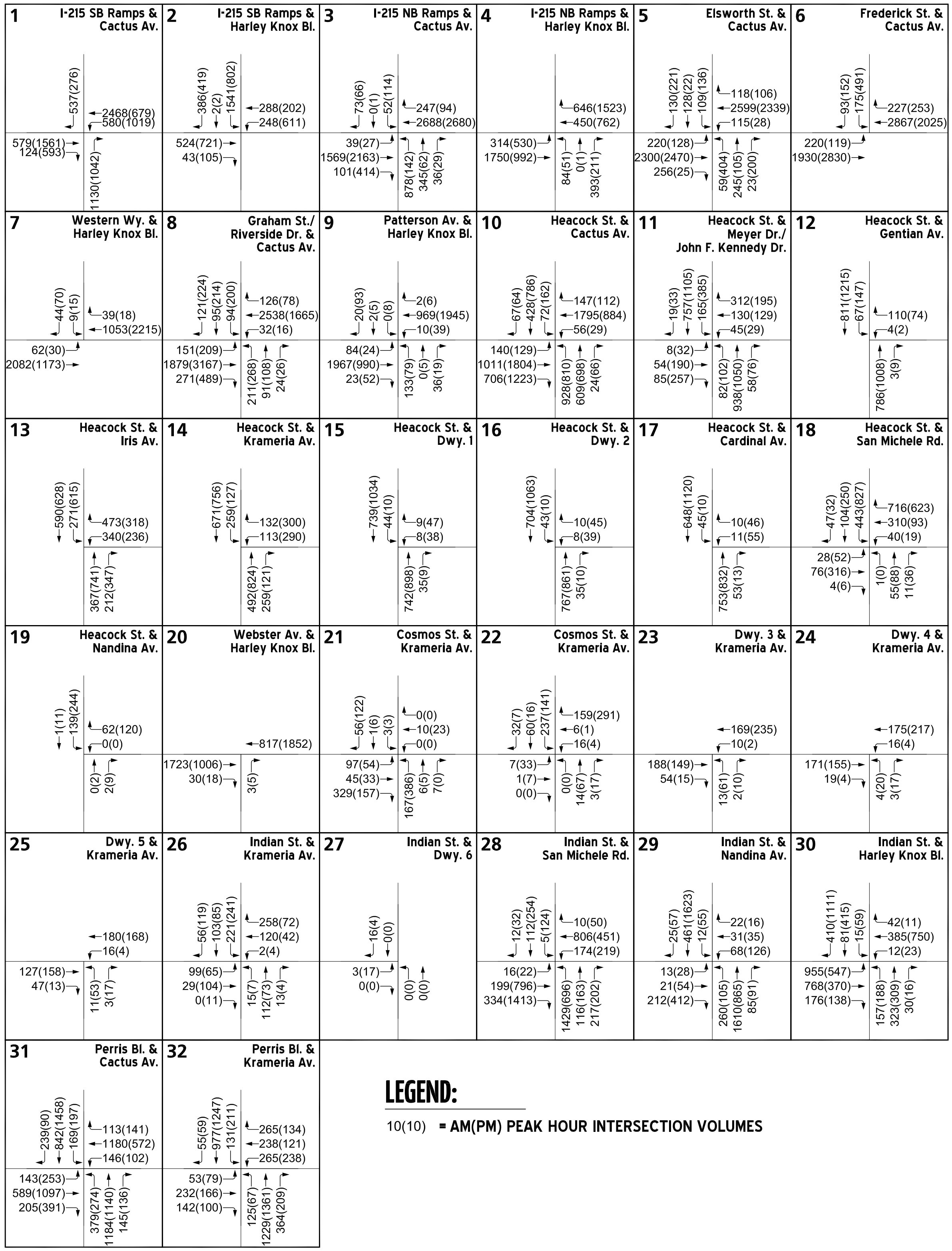

Source: Urban Crossroads (11-18-15)

Figure 4.11-25

NOT TO SCALE

OPENING YEAR (2020) PEAK HOUR INTERSECTION VOLUMES

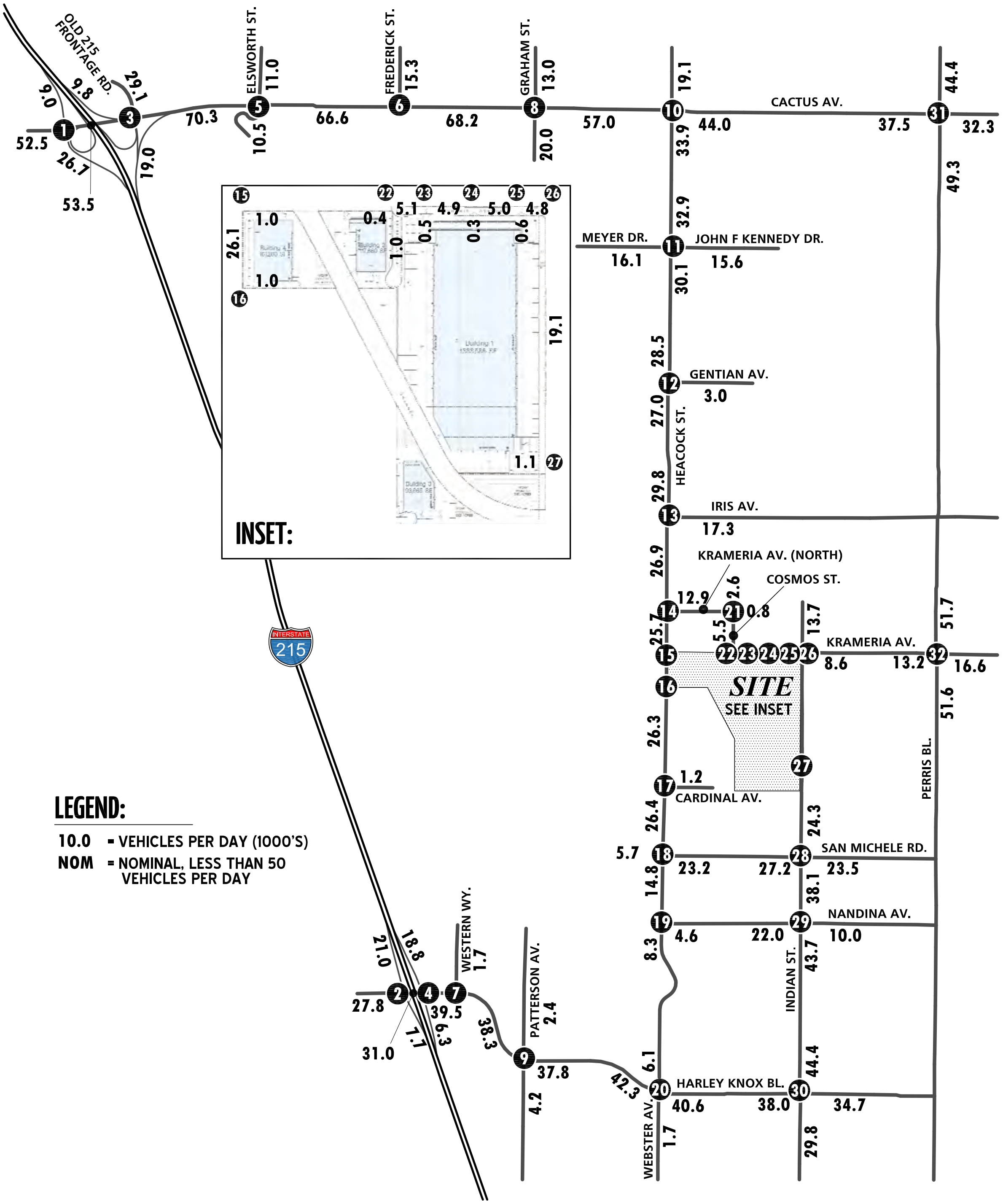

LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-26
GENERAL PLAN BUILDOUT
(POST-2035) AVERAGE DAILY TRAFFIC

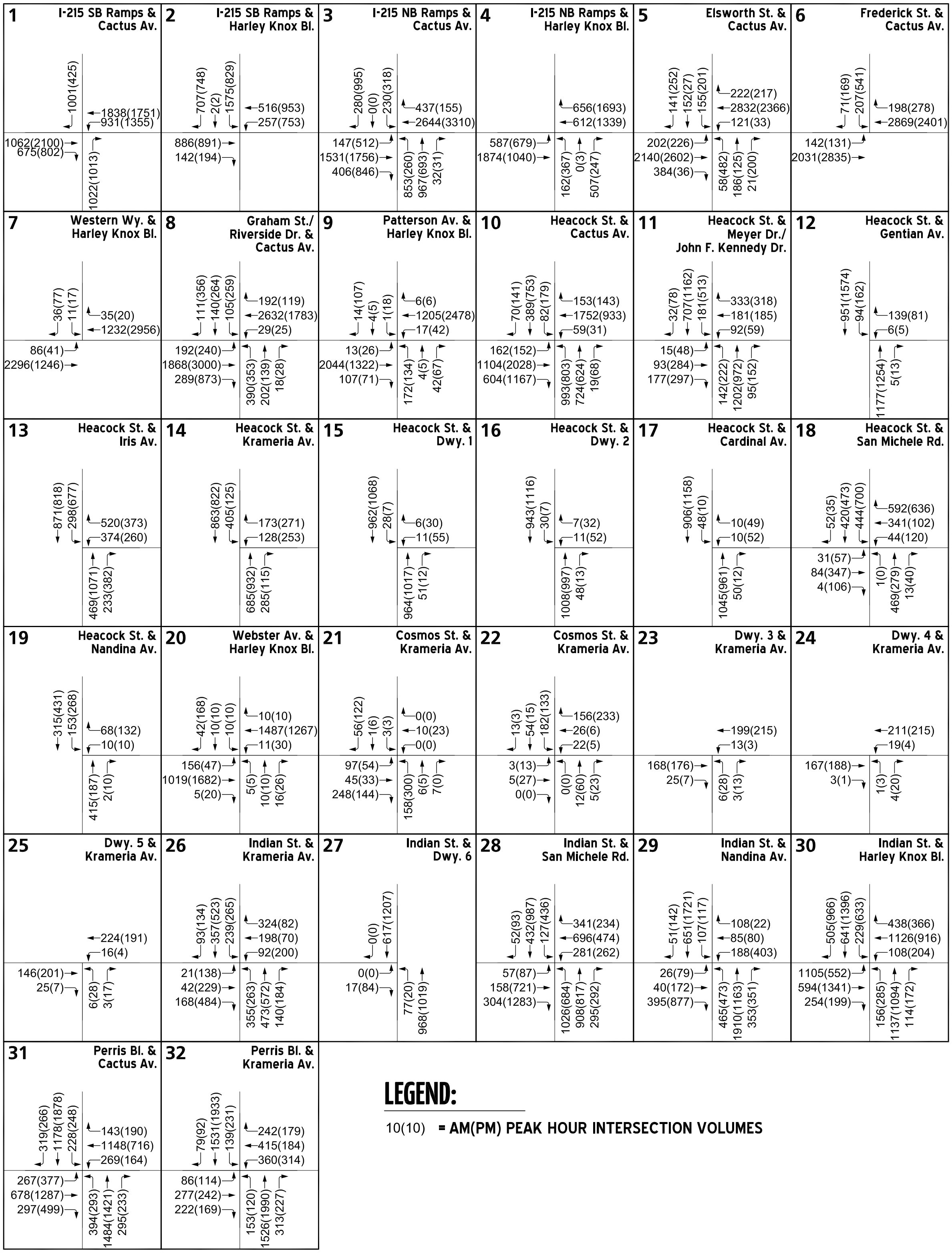

LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

Source: Urban Crossroads (11-18-15)

NOT TO SCALE

Figure 4.11-27

GENERAL PLAN BUILDOUT
(POST-2035) PEAK HOUR INTERSECTION VOLUMES

5.0 OTHER CEQA CONSIDERATIONS

5.1 Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines § 15126(b)). As described in detail in Section 4.0 of this EIR, the proposed Project is anticipated to result in impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Air Quality Threshold a): Significant Cumulatively Considerable Impact. Because air emissions from Project construction and operation would exceed the SCAQMD's daily significance thresholds even after the implementation of feasible mitigation measures, the Project would not fully mitigate its cumulatively considerable potential to obstruct the SCAQMD's ability to attain the air quality goals presented in the 2012 AQMP.

- Air Quality Thresholds b) and c): Significant and Unavoidable Direct and Cumulatively Considerable Impacts. After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, short-term construction-related NO_X emissions and long-term operational-related VOC and NO_X emissions would still exceed the SCAQMD numerical thresholds for daily emissions. These construction-related emissions are unavoidable, significant direct and cumulatively considerable air quality impacts. In the event that short-term construction activity and long-term operational activities overlap, the Project's short-term overlapping emissions of VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ would exceed the SCAQMD numerical thresholds for daily emissions, which also are considered unavoidable, significant direct and cumulatively considerable air quality impacts. In addition, the Project's VOC and NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations, which do not meet regional attainment status).

- Greenhouse Gas Emissions Threshold a): Significant and Unavoidable Cumulatively Considerable Impact. A majority of the Project's GHG emissions would be produced by mobile sources (i.e., construction equipment, trucks and cars). The application of Project design features, mandatory regulatory requirements, and mitigation measures would reduce Project-related GHG emissions; however, these measures would not substantially reduce Project-related mobile source (e.g., equipment and vehicle tailpipe) GHG emissions, which comprise 86.6 percent of the Project's total GHG emissions. Mobile source emissions are regulated by state and federal emissions and fuel use standards, and are outside of the control of the Project Applicant, future Project tenants, and the City of Moreno Valley.

- Land Use/Planning Threshold b): Significant and Unavoidable Cumulatively Considerable Impact. Although mitigation measures are presented in EIR Subsections 4.3 and 4.11 to reduce the Project's significant air quality impacts and significant traffic impacts to I-215, these impacts would not be reduced to below levels of significance. The Project's air emissions would cumulatively contribute to inconsistency with the SCAQMD's *2012 AQMP* and the SCAG's *RTP/SCS* Goal G6 related to regional air quality, and the Project's contribution of traffic to I-215 would cumulatively contribute to inconsistency with the Riverside County Congestion Management Plan (CMP).

- Transportation/Traffic Threshold a): Significant and Unavoidable Direct and Cumulatively Considerable Impact. The addition of Project-related traffic to the existing and planned circulation network would make a cumulatively considerable contribution to deficient operating conditions at two (2) intersections during Project construction and up to 16 intersections during Project operation that would operate at deficient LOS. The Project also would result in a direct impact to one (1) intersection during Project operation. The Project would mitigate its direct and cumulatively considerable impacts through payment of fees pursuant to the Moreno Valley DIF and TUMF and other fair share fee programs that may be established; however, because improvements to the affected facilities may not be in place before the Project becomes operational, and because several of the impacted intersections are not located in the City of Moreno Valley and the City cannot compel other agencies to make roadway segment and intersection improvements, this EIR recognizes the impacts as significant and unavoidable, until planned improvements are implemented.

- Traffic/Transportation Threshold b): Significant and Unavoidable Cumulatively Considerable Impact. The Project would contribute cumulatively considerable impacts to LOS deficiencies along the Riverside County CMP roadway network, including mainline segments of I-215, SR-60, and SR-91. In addition, the Project would have a cumulatively considerable impact to unacceptable LOS at the Harley Knox Boulevard/I-215 interchange and Cactus Avenue/I-215 interchange. Caltrans has not established a mitigation fee program for freeway mainline segments. The Harley Knox/I-215 interchange and the Cactus Avenue/I-215 interchange are scheduled for improvements funded by the TUMF program, but the interchanges are not scheduled to be improved before the proposed Project is expected to become operational. Because these facilities are under the jurisdiction of Caltrans, the City of Moreno Valley cannot assure that the improvements needed to relieve the LOS deficiencies will be in place before the Project begins to contribute traffic to the State Highway System.

5.2 Significant Irreversible Environmental Changes which would be caused by the Proposed Project Should it be Implemented

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines § 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment. However, development of the Project site as proposed would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels). Additionally, the Project is required by law to comply with the California Building Standards Code (CALGreen), which will minimize the Project's demand for energy, including energy produced from non-renewable sources. A more detailed discussion of energy consumption is provided below in Subsection 5.4.

As demonstrated in the analysis presented throughout EIR Section 4.0, *Environmental Analysis*, implementation of the proposed Project would result in significant and unavoidable environmental effects under three environmental subject areas that cannot be feasibly reduced to below levels of significance. These are: 1) air quality; 2) land use and planning related to inconsistencies with the SCAG's RTP/SCS Goal G6 concerning regional air quality and with the Riverside County CMP related to traffic on I-215; and 3) traffic/transportation.

Although the Project would cause or contribute to significant unavoidable impacts associated with air quality, land use/planning, and transportation, these effects would not commit surrounding properties to land uses other than the uses currently planned for those properties by the City of Moreno Valley. As discussed in Section 2.0, *Environmental Setting*, the Project site is located within the geographical limits of the MVIAP, which covers approximately 1,500 acres in southern Moreno Valley which over the past decade has been transitioning into an important industrial and economic center for the City of Moreno Valley. The pace of industrial development in the MVIAP area was very slow until about 2007 when the warehouse distribution industry began to locate distribution warehouse facilities in the MVIAP area. Since that time, development has occurred swiftly, with more than 15 large warehouse buildings located in the MVIAP as of June 2016. To the west of the Project site and the MVIAP area is the March Air Reserve Base (MARB), that is designed for military and airport related uses. The Riverside County Airport Land Use Commission (ALUC) conducted a review of the proposed Project and found the Project compatible with the *March Air Reserve Base/Inland Port Land Use (March ARB/IPA) Compatibility Plan*. Therefore, use of the subject property with a logistics center is compatible in character with the surrounding development. Thus, the Project would not create any primary or secondary effects that would preclude the use of surrounding properties for their existing and intended industrial uses.

EIR Subsection 4.7, *Hazards and Hazardous Materials*, provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, compliance with federal, state, and local regulations related to hazardous materials would be required of all contractors working on the property during the Project's construction and of all users that occupy the Project's buildings. As such, construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

As discussed under Subsection 5.4, the Project would not result in a wasteful consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

5.3 Growth-Inducing Impacts of the Proposed Project

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines § 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

Because users of the Project's building are not yet known, the number of jobs that the Project would generate cannot be precisely determined. According to economic and fiscal projections compiled by Andrew Chang & Co (Andrew Chang), the Project would create and sustain between 340 and 620 new direct and indirect jobs in the City of Moreno Valley (Andrew Chang, 2016, p. 22). It is expected that the majority of the new jobs would be filled by members of the existing labor force that would be available in the City of Moreno Valley and the surrounding local area, as the City – and Riverside County as a whole – has a shortage of jobs (Moreno Valley, 2014, p. 41; Riverside County, 2015, p. H-57).

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees. Economic growth would result from construction and operation of the proposed Project. In its first 10 years of operations, the Project is estimated to generate between $915 million and $1.1 billion in operations revenue; between approximately $8.0 million and $9.2 million in net revenue for the City of Moreno Valley (after accounting for City expenditures related to the Project); and between $238 million and $288 million in new household earnings (Andrew Chang, 2016, pp. 15-16, 18, 20, 24). However, because the Project is consistent with the existing City of Moreno Valley General Plan and the MVIAP, the intensity of projected economic growth would be consistent with economic growth anticipated by the General Plan EIR.

The Project's construction-related and operational-related employees would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services needs is expected to be marginal, accommodated by existing goods and service providers, and highly unlikely to result in any new physical impacts to the environment based on the amount of existing commercial and retail services available in the Project area. Therefore, while the Project would create economic opportunities caused by use of the property as a logistics center, it would not induce substantial – or unanticipated – new growth in the region.

In addition, the proposed Project is consistent with the *SCAG 2012-2035 RTP/SCS*'s chapter entitled "Goods Movement" that is applicable to the proposed Project. The *RTP/SCS* states that the SCAG region hosts one of the largest clusters of distribution warehouse logistics activity in North America (SCAG, 2012a, p. 65). Logistics activities, and the jobs that go with them, depend on a network of warehousing and distribution facilities, highway and rail connections, and intermodal rail yards. The "Goods Movement" Appendix of the *RTP/SCS* states that goods movement and freight transportation are essential to supporting the SCAG regional economy and quality of life (SCAG, 2013, p. 1) Thus, the proposed Project helps to fill a regional need for warehouse space and accommodates projected growth and the Southern California economy, rather than inducing growth.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The Project site is bordered by land on the northwest that is under construction as a warehouse distribution center (March Business Center) and a large warehouse building occupied by Proctor & Gamble abuts the Project site on the north (north of Krameria Avenue). The Project site is bordered on the south by partially developed Cardinal Avenue, a large warehouse building occupied by Amazon, and the Perris Valley Storm Drain Channel. Located farther south are a collection of warehouse distribution buildings (including but not limited to buildings currently occupied by Harbor Freight Tools and O'Reilly Auto Parts), undeveloped lands that are designated for future industrial development, and small parcels that contain small commercial, industrial, or manufacturing structures. To the west is a large warehouse building occupied by Lowe's, an industrial building occupied by Cardinal Glass Industries, and Heacock Street. West of Heacock Street is the MARB, which contains an airfield, active military uses, aviation-related uses, and areas designated for civilian development called the March Inland Port Airport (IPA). Immediately to the east of the Project site is Indian Street and east of Indian Street is land developed primarily with single-family residential land uses, with pockets of undeveloped land designated for future residential development. Thus, the Project site is nearly completely surrounded by developed property and property undergoing development. Implementation of the proposed Project would, thus, have no potential to directly promote growth on these adjacent and surrounding properties.

Furthermore, the proposed Project's improvements to the public infrastructure, including roads, drainage infrastructure, and other utility improvements are consistent with the City of Moreno Valley General Plan and the MVIAP and would not indirectly induce substantial population growth in the local area.

5.4 Energy Conservation

This Subsection is based in part on a technical report prepared by Urban Crossroads, Inc. titled, "Moreno Valley Logistics Center Energy Analysis, City of Moreno Valley, dated March 17, 2016 and appended to this EIR as *Technical Appendix K.*

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation (DOT), the United States Department of Energy (DOE), and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the Public Utilities Commission (PUC) and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below. Project consistency with applicable federal and state regulations is presented below each regulation.

5.4.1 Applicable Federal and State Policies and Requirements

A. Federal Regulations

1. Intermodal Surface Transportation Efficiency

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. (Urban Crossroads, Inc., 2016g, p. 17)

Project Consistency: Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site. (Urban Crossroads, Inc., 2016g, p. 17)

2. Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of wise transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. (Urban Crossroads, Inc., 2016g, p. 17)

Project Consistency: The Project site is located near major transportation corridors with proximate access to the interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21. (Urban Crossroads, Inc., 2016g, p. 17)

B. California Regulations

1. Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations. The *2014 Integrated Energy Policy Report Update (2014 IEPR Update),* focuses on next steps for transforming transportation energy use in California. The *2014 IEPR Update* addresses the role of transportation in meeting state climate, air quality, and energy goals; the Alternative and Renewable Fuel and Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure deployment; measuring success and defining metrics within the Alternative and Renewable Fuel and Vehicle Technology Program; market transformation benefits resulting from Alternative and Renewable Fuel and Vehicle Technology Program investments; the state of hydrogen, zero-emission vehicle, biofuels, and natural gas technologies over the next ten years; transportation linkages with natural gas infrastructure; evaluation of methane emissions from the natural gas system and implications for the transportation system; changing trends in California's sources of crude oil; the increasing use of crude-by-rail in California; the integration of environmental information in renewable energy planning processes; an update on electricity reliability planning for Southern California energy infrastructure; and an update to the electricity demand forecast. (Urban Crossroads, Inc., 2016g, pp. 18-19)

Project Consistency: 2014 IEPR Update is a State Policy report. An individual development project such as the proposed Project has no ability to comply with or conflict with this report.

2. State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. (Urban Crossroads, Inc., 2016g, p. 19)

Project Consistency: The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through the development of industrial uses on a site designated for industrial uses by the City of Moreno Valley General Plan and the MVIAP. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan. (Urban Crossroads, Inc., 2016g, p. 19)

3. California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. California's building efficiency standards are updated on an approximately three-year cycle. The 2013 Standards for building construction, which went into effect on July 1, 2014, improved upon the former 2008 Standards for residential and nonresidential buildings. (Urban Crossroads, Inc., 2016g, pp. 19-20)

Project Consistency: The Project is required by State law to be designed, constructed, and operated to meet or exceed Title 24 Energy Efficiency Standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards. (Urban Crossroads, Inc., 2016g, p. 20)

4. Pavley Fuel Efficiency Standards (AB 1493)

In California, AB 1493 establishes fuel efficiency ratings for model year 2009-2016 passenger cars and light trucks.

Project Consistency: AB 1493 is applicable to the Project because model year 2009-2016 passenger cars and light duty truck vehicles traveling to and from the Project site are required by law to comply with the legislation's fuel efficiency requirements. On this basis, the Project is determined to be consistent, with, and would not interfere with, nor otherwise obstruct implementation of AB 1493.

5. California Renewable Portfolio Standards (SB 1078)

SB 1078 requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020.

Project Consistency: Energy directly or indirectly supplied to the Project by electric corporations is required by law to comply with SB 1078.

5.4.2 Energy Consumption Analysis

In compliance with CEQA Guidelines Appendix F, below is an analysis of the proposed Project's anticipated energy use to determine if the Project would result in the wasteful, inefficient or unnecessary consumption of energy, or result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

In addition, CEQA Guidelines Appendix F states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

A. Introduction

As discussed in EIR Section 3.0, *Project Description*, the Project includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event that the alternate site plan is implemented, the truck trailer parking lot would be utilized as overflow parking for Building 1. In the event that the alternate site plan is implemented, no changes would occur to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4 and the total building area would be reduced. Accordingly, should the alternative site plan be implemented, energy consumption would not exceed the level of energy consumption analyzed for the proposed Project herein, which includes four buildings. As such, the analysis in *Technical Appendix K* and herein represents a "worst-case" energy consumption scenario.

B. Construction Equipment Electricity Usage Estimates

Based on the *2015 National Constructor Estimator*, the typical power cost per 1,000 s.f. of building construction per month is estimated to be $2.28. The Project plans to develop approximately 1,737,520 s.f. of building space over the course of 12 months. Based on these numbers, the total power cost of on-site electricity usage during the construction of the proposed Project is estimated to be approximately $47,538.55. As of February 2015, SCE's general service rate for an industrial land use is $.07 per kilowatt hours (kWh) of electricity. Accordingly, the total electricity usage from on-site Project construction-related activities is calculated by Urban Crossroads, Inc. to be approximately 679,122 kWh. (Urban Crossroads, Inc., 2016g, p. 21)

C. Energy and Fuel Use for Project Construction

The Project's construction process would consume electrical energy and fuel. Project construction would represent a "single-event" electric energy and fuel demand and would not require on-going or permanent commitment of energy or diesel fuel resources for this purpose. In summary, the Project's construction process is estimated to consume approximately 679,122 kWh of electricity and an estimated 334,992 gallons of diesel fuel (see detailed discussion below). (Urban Crossroads, Inc., 2016g, pp. 20-21)

Diesel fuel would be supplied by city and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved through the use of bulk purchases, transport, and use of construction materials. The 2014 IEPR published by the CEC shows that fuel efficiencies are improving for on and off-road vehicle engines due to more stringent government requirements. This amount of energy and fuel use anticipated by the Project's construction activities are typical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. CCR Title 13, Title 13, Motor Vehicles, Section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Applicable Mitigation Measures contained in EIR Section 4.3, *Air Quality* will inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

1. Construction Equipment Fuel Use

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hours per gallon (hp-hr-gal.), obtained from CARB 2013 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. For the purposes of the Energy Analysis (*Technical Appendix K*) and the analysis presented herein, the calculations are based on all construction equipment being diesel-powered which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving Riverside County and the region. Project construction activities would consume an estimated 334,992 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, Inc., 2016g, p. 22)

2. Construction Worker Fuel Use

Urban Crossroads, Inc. applied a reasonable assumption in their Energy Analysis (*Technical Appendix K*) that all construction worker trips to and from the Project site would be in light duty autos (LDA) along area roadways. With respect to estimated vehicle miles traveled (VMT), the construction worker trips would generate an estimated 1,084,375 VMT based on a 14.7-mile average trip length and the number of construction days reported in EIR Section 3.0, *Project Description.*

As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2017 have a fuel efficiency of 26.27 miles per gallon (MPG). Urban Crossroads, Inc. calculated that 41,278 gallons of fuel would be consumed related to construction worker trips for the proposed Project. Project construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose. (Urban Crossroads, Inc., 2016g, p. 28) Refer to Table 4-4 of *Technical Appendix K* for the construction worker fuel consumption calculations.

3. Construction Vendor / Hauling Fuel Use

With respect to estimated VMT, the Project's construction vendor trips would generate an estimated 1,832,316 VMT along area roadways based on a 6.9-mile average trip length and the number of construction days reported in EIR Section 3.0, Project Description. In their analysis, Urban Crossroads, Inc. applied a reasonable assumption that all hauling trips for concrete pours and site slabs (modeled in CalEEMod through Concrete Shell phases and Paving phases, respectively) would be from heavy-heavy duty trucks (HHD), and assumed that 50% of all vendor trips would be from medium-heavy duty trucks (MHD) and the other 50% from heavy-heavy duty trucks (HHD). These assumptions are consistent with the 2013.2.2 CalEEMod defaults utilized within the Project's Air Quality Impact Analysis (*Technical Appendix B1*). Vehicle fuel efficiencies for MHD and HHD trucks were based on information generated within EMFAC 2014. For purposes of the Energy Analysis (*Technical Appendix K)* and herein, EMFAC 2014 was run for the MHD and HHD vehicle class within the California sub-area for a 2017 calendar year (consistent with the opening year of the Project). As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2017 are calculated to have a fuel efficiency of 8.13 MPG. Additionally, HHD trucks are estimated to have a fuel efficiency of 5.70 MPG. Data from EMFAC 2014 is shown in Appendix 3.2 of *Technical Appendix K.* (Urban Crossroads, Inc., 2016g, p. 32)

Fuel consumption from construction hauling and vendor trips (medium and heavy duty trucks) would total approximately 241,866 gallons. Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, Inc., 2016g, p. 32) Refer to Table 4-5 and 4-6 of *Technical Appendix K* for the construction vendor fuel consumption calculations.

D. Energy Use for Project Operation

1. Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. As summarized in Table 5-1, *Annual Vehicle Fuel Consumption for Project Operation*, Urban Crossroads, Inc. calculates that the Project would result in 49,651,053 annual VMT and an estimated annual fuel consumption of 4,896,551 gallons of fuel. (Urban Crossroads, Inc., 2016g, pp. 38-39)

Table 5-1 Annual Vehicle Fuel Consumption for Project Operation

Vehicle Type	Annual Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Light Duty Autos	19,836,014	762,505
LHD Trucks	8,397,486	656,510
MHD Trucks	5,333,173	655,710
HHD Trucks	16,084,379	2,821,826
Total (All Vehicles)	**49,651,053**	**4,896,551**

Source: (Urban Crossroads, Inc., 2016g, Table 4-11)

Fuel would be provided by commercial vendors. Trip generation and VMT generated by the Project are consistent with other warehouse uses of similar scale and configuration, as reflected in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Ed., 2012); and CalEEMod v2013.2.2. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. (Urban Crossroads, Inc., 2016g, p. 40)

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of LDVs and HDVs to alternative energy sources (e.g., electricity, natural gas, bio fuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project also would implement sidewalks, that would facilitate and encourage pedestrian access and at the subsequently reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, Inc., 2016g, pp. 40-41) Also, depending on the nature of the building occupants' operating characteristics, VMT may actually be reduced as a result of the Project site being located closer to origins and destinations for the building occupant's goods and services. For example, QVC reported in 2015 that its occupancy of a building in the Inland Empire, similarly sized to the Project's proposed Building 1, is projected to reduce the company's national trucking VMT by more than 10 million miles annually (PR Newswire, 2015).

2. Facility Energy Demands

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use or "plug-in" energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.). (Urban Crossroads, Inc., 2016g, p. 39)

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by diesel-fueled engines that comply with the CARB/USEPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM_{10}) and all on-site indoor forklifts would be powered by electricity, compressed natural gas, or propane. (Urban Crossroads, Inc., 2016g, pp. 1-2) Natural gas would be supplied to the Project by The Gas Company and electricity would be supplied to the Project by Southern California Edison (SCE). Annual natural gas and electricity demands of the Project are summarized in Table 5-2, *Project Annual Operational Energy Demand Summary*. As shown on Table 5-2, Project facility operational energy demands are estimated at 22,828,640 kBTU/year of natural gas; and 15,535,696 kWh/year of electricity. (Urban Crossroads, Inc., 2016g, p. 39)

Table 5-2 Project Annual Operational Energy Demand Summary

Natural Gas Demand	kBTU/year
Parking Lot	0
Refrigerated Warehouse	8,923,800
Unrefrigerated Warehouse	2,108,660
General Light Industrial	11,796,180
Total Project Natural Gas Demand	**22,828,640**

Electricity Demand	kWh/year
Parking Lot	703,296
Refrigerated Warehouse	7,113,330
Unrefrigerated Warehouse	3,676,430
General Light Industrial	4,042,640
Total Project Electricity Demand	**15,535,696**

Note: Refrigerated Warehouse Natural Gas and Electricity Demand is based on the maximum estimate of 10% cold storage building use.
Source: (Urban Crossroads, Inc., 2016g, Table 4-12)

The Project proposes conventional warehouse and industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other warehouse projects of similar scale and configuration. Based on the preceding, Project facilities energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

E. Energy Consumption Summary

Project design features, mandatory compliance with CalGreen, and the implementation of the mitigation measures contained in the site-specific Air Quality Impact Analysis (*Technical Appendix B1*), Mobile Source Diesel Health Risk Assessment (*Technical Appendix B2*), and the Greenhouse Gas Analysis (*Technical Appendix E*), demonstrate evidence of the Project's efficient use of energy. The Project would provide for, and promote, energy efficiencies beyond those required under other applicable federal or State of California standards and regulations; therefore, the Project would meet or exceed all CalGreen regulations. Moreover, energy consumed by the Project is calculated by Urban Crossroads, Inc. to be comparable to, or less than, energy consumed by other individual warehouse and industrial uses of similar scale and intensity than are currently constructed and operating in California. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems. (Urban Crossroads, Inc., 2016g, p. 2) The Project's air quality impact analysis (*Technical Appendix B1*) establishes mitigation measures for the Project's construction activities that would reduce air pollutant air emissions generated by subsequent development proposals within the Project site. Although such mitigation measures could act to reduce energy consumption, there is insufficient data to support any reductions associated with the mitigation measures identified in EIR Section 4.3, *Air Quality*. Thus, as a conservative measure no reductions in energy consumption are taken for the construction-activity mitigation measures contained in EIR Section 4.3, *Air Quality*. (Urban Crossroads, Inc., 2016g, p. 2)

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the demand of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in the wasteful or inefficient uses of energy and the Project aims to achieve energy conservation goals within the State of California. Thus, the Project would not have any long-term effects on an energy providers' future energy development or energy conservation strategies. (Urban Crossroads, Inc., 2016g, p. 41)

5.5 Effects Found not to be Significant as Part of the Initial Study Process

CEQA Guidelines § 15128 requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study was prepared for the proposed Project, which is included as *Technical Appendix A* to this EIR. Through the Initial Study process, the City of Moreno Valley determined that the proposed Project could potentially cause adverse effects, and an EIR is required. Six (6) environmental issues were found not to have the potential to cause significant adverse effects: Geology and Soils, Mineral Resources, Population and Housing, Public Services, Recreation, and Utilities and Service Systems. Therefore, these issue areas are not required to be discussed in Section 4.0, *Environmental Analysis*, of this EIR. A brief summary of issues found not to be significant is presented below, with a more detailed analysis provided in the Project's Initial Study contained in *Technical Appendix A*.

5.5.1 Geology and Soils

No known earthquake faults are located on the Project site (United States Geological Survey 2010, California Department of Conservation 2010), and the nearest mapped fault is located approximately 10.0 miles east of the Project site as mapped on City Moreno Valley General Plan FEIR Figure 5.6-2, *Seismic Hazards*. Because there are no faults located on the Project site, there is no potential that the proposed Project could expose people or structures to substantial adverse effects, including the risk of loss, injury or death involving ground rupture. Thus, no impact would occur.

The Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the proposed Project. As a mandatory condition of Project approval, the Project would be required to construct the proposed buildings in accordance with the California Building Standards Code (CBSC), also known as California Code of Regulations (CCR), Title 24 (Part 2), and the City of Moreno Valley Building Code, which is based on the CBSC with local amendments. In addition, the Project would comply with the site-specific ground preparation and construction recommendations contained in the Project's geotechnical investigation report (*Technical Appendix L*). Thus, with mandatory compliance with these standard and site-specific design and construction measures, potential impacts related to seismic ground shaking would be less than significant. As such, the Project would not expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Thus, impacts would be less-than-significant.

According to General Plan FEIR Figure 5.6-2 *Seismic Hazards*, the Project site is not located in an area with the potential for liquefaction. Also, according to Riverside County Land Information System (RCLIS), the property is located within a zone of low liquefaction susceptibility. Additionally, the geotechnical investigation prepared for the property concludes that based on observed subsurface conditions, liquefaction is not considered a design concern for the proposed

Project (SoCalGeo, 2015, p. 11). As a condition of Project approval, the Project site would be developed in accordance with the latest applicable seismic safety guidelines, including the standard requirements of the CBSC and the City of Moreno Valley Building Code. Furthermore, the Project would be required to comply with the site-specific grading and construction recommendations contained within the Project's geotechnical investigation (*Technical Appendix L*), which the City would impose as conditions of Project approval, to further reduce the risk of seismic-related ground failure due to liquefaction. Thus, the Project's impacts to expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction, would be less than significant.

The Project site is relatively flat with an elevation range from 1,497 above mean sea level (AMSL) at its northern boundary and 1,468 AMSL at the property's lowest point at the southeast corner of the property. Also, there are no hillside or steep slopes on or in the immediate vicinity of the Project site. Accordingly, the Project site is located in an area with a low potential for landslides. When grading is complete, the Project site would have a slight, northwest-to-southeast slope; the highest point of the site would be approximately 1,493 AMSL at the northwest corner of the site and would slope downward to an elevation of approximately 1,476 AMSL in the southeast portion of the Project site. Proposed grading would not create manufactured slopes except around the proposed water/quality detention basins in the eastern portion of the site, where proposed slopes would measure up to five feet in height with a maximum incline of 4:1. Thus, development of the proposed Project would not expose people or structures to potential substantial adverse effects from landslides and a less than significant impact would occur.

Development of the Project site as proposed by the Project would disturb the site during grading and construction and expose the underlying soils, which would temporarily increase erosion susceptibility. Based on the granular content of the existing on-site soils, some of the on-site soils may be susceptible to erosion during construction (SoCalGeo, 2015, p. 16). In the long-term, development of the subject property would increase the extent of impervious surface cover and landscaping on the Project site, thereby reducing the potential for erosion and the loss of topsoil. The Project would be required to adhere to standard regulatory requirements, including, but not limited to, requirements imposed by the City of Moreno Valley's NPDES Municipal Stormwater Permit (State Water Resources Control Board Order No. 99-08-DWQ) and a Project-specific Water Quality Management Plan (WQMP) that includes Best Management Practices (BMPs) to minimize water pollutants including sedimentation in stormwater runoff. With mandatory compliance with the City of Moreno Valley's NPDES Municipal Stormwater Permit and the Project's WQMP contained as *Technical Appendix G2* of this EIR, the Project's potential to result in substantial soil erosion or the loss of topsoil would be less than significant.

Under existing conditions, the alluvial soils that underlie the subject property generally consist of very stiff to hard sandy clays, clayey silts and silty clays as well as medium dense to very dense sands, silty sands and clayey sands extending to 30± feet (SoCalGeo, 2015, p. 6). The native alluvial soils at depths of 2 to 4 feet possess generally lower strengths and higher collapse potential than the native alluvial soils at greater depths. The near surface clayey soils also are dry and possess a moderate potential for swelling and soil heave when exposed to cyclical wetting and drying (SoCalGeo, 2015, pp. 11-12). However, the Project's geotechnical investigation report (*Technical Appendix L*) indicates that the site's shrinkage/swelling, subsidence and settlement potential would be fully attenuated through the proposed removal of near surface soils down to competent materials and replacement with properly compacted fill, which is included as a recommendation in the Project's geotechnical report (*Technical Appendix L*) (SoCalGeo, 2015, pp. 10-24). Through standard conditions of approval, the proposed Project would be required by the City to incorporate the recommendations contained within the Project geotechnical report into the grading plan for the Project. As such, implementation of the Project would result in less-than-significant impacts associated with soil shrinkage/subsidence and collapse. Therefore, as discussed above, development of the subject property would result in a less-than-significant impact involving unstable geologic conditions including ground failure and subsidence.

Regarding the potential for soil expansion, because the near surface soils on the property generally consist of sandy clays, silty clays, and clayey sands, Southern California Geotechnical concluded that the near surface on-site soils a possess a low-to-medium expansion potential (Expansion Index ranging from 0 to 66) (SoCalGeo, 2015, p. 9). The Project's geotechnical investigation (*Technical Appendix L*) indicates that any potential expansive soils on the subject property would be attenuated through soil moisture conditioning during grading activities, which is included as a recommendation in *Technical Appendix L* (SoCalGeo, 2015, p. 16). Through standard conditions of approval, the proposed Project would be required by the City to incorporate the recommendations contained within the Projects geotechnical investigation into the grading plan for the Project. As such, implementation of the Project would result in less-than-significant impacts associated with expansive soils and would not create substantial risks to life or property

Wastewater service is available to the Project area under existing conditions via an existing sewer line in Heacock Street and an existing sewer line along the eastern edge of the Perris Valley Storm Drain Channel. The proposed Project would not install septic tanks or alternative wastewater disposal systems on the Project site. Accordingly, no impact related to alternative wastewater systems would occur.

5.5.2 Mineral Resources

The proposed Project is not located within and area known to be underlain by regionally-or locally important mineral resources or within an area that has the potential to be underlain by regionally or locally important mineral resources, as disclosed by the City of Moreno Valley General Plan. Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. Accordingly, impacts to the environmental issue of Mineral Resources would not occur.

5.5.3 Population and Housing

Under existing conditions, the subject property is vacant, undeveloped land that does not contain any residential structures. Therefore, the proposed Project would not displace substantial numbers of existing housing and would not necessitate the construction of replacement housing elsewhere.

The proposed Project would develop the subject property with a logistics center with four buildings in accordance with the "Business Park/Light Industrial" land use designation applied to the property by the City of Moreno Valley General Plan and the "Industrial" zoning designation applied to the subject property by the MVIAP. Although increased employment opportunities would occur as a result of implementation of the Project, the availability of jobs would not induce substantial population growth beyond what is planned as part of the City's General Plan buildout. Accordingly, the Project would not result in growth that was not already anticipated by the City of Moreno Valley General Plan and evaluated in the City of Moreno Valley General Plan FEIR.

The Project site is served by existing roadways and utility infrastructure is already installed beneath public rights-of-way that abut the subject property; therefore, the Project would not induce growth as a result of utility extensions. The Project's improvements to public infrastructure, including roads, drainage infrastructure, and other utility improvements are consistent with the City of Moreno Valley General Plan and the MVIAP. For these reasons, implementation of the proposed Project would not result in direct or indirect growth in the area.

Therefore, for the reasons stated above, the proposed Project would result in less-than-significant impact to Population and Housing.

5.5.4 Public Services

A. Fire Protection Services

Fire protection services to the Project site are provided by the Moreno Valley Fire Department (MVFD). The proposed Project is required to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system and paved access. College Park Fire Station (Station No. 91) is located at 16110 Lasselle Street, approximately 1.5 roadway miles to the northeast of the Project site. Secondary service is provided by the Kennedy Park Fire Station (Station No. 65) located at 15111 Indian Avenue, approximately 1.8 roadway miles to the northwest of the Project site. The Project site would be adequately serviced by these stations. To supplement their existing fire stations, the MVFD plans to construct a fire station within the MVIAP to provide primary service to all properties within the MVIAP and immediately adjacent areas. The MVFD has already acquired a property for the future fire station within the MVIAP area, on San Michele Road, between Perris Boulevard and Indian Avenue. Construction of the new fire station is dependent on funding collected by the City through the City of Moreno Valley's Development Impact Fee (DIF) Ordinance (Ordinance No. 695). This new fire station is already planned and the Project would not cause the need for the new station. Based on the Project site's proximity to existing fire stations and a new station that is already planned, the proposed Project would be adequately served by existing or planned fire protection services, and no new or expanded unplanned facilities would be required. The proposed Project is required to comply with the provisions of the City of Moreno Valley's DIF, which requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. Mandatory compliance with the DIF would be required prior to the issuance of a building permit.

Based on the foregoing, the proposed Project would receive adequate fire protection service and would not result in the need for new or physically altered fire protection facilities. As a condition of Project approval, the Project would be required to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system, and paved access to the subject property which would minimize the risk of fire on the subject property and maximize the MVFD's ability to provide fire protection services to the Project. Thus, impacts to fire protection facilities would be less than significant.

B. Police Protection Services

The development of the subject property with a logistics center would introduce new building structures and employees to the Project site which would result in an incremental increase in demand for police protection services, but which is not anticipated to require or result in the construction of new or physically altered police facilities. Prior to the issuance of building permits, the Project Applicant would be required to comply with the provisions of the City of Moreno DIF, which requires a fee payment that the City applies to the funding of public facilities, including police protection facilities. Mandatory compliance with the DIF would be required prior to the issuance of a building permit. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered fire protection facilities. Therefore, impacts to police protection facilities would therefore be less than significant.

C. Schools

Development of the Project site as proposed by the Project would not create a direct demand for public school services, as the subject property would contain non-residential uses that would not generate any school-aged children requiring public education. The addition of employment-generating uses on the Project site would assist the City in achieving its goal to provide a better jobs/housing balance within the City and the larger western Riverside County region. The proposed Project is not expected to draw a substantial number of new residents to the region and would therefore not indirectly generate school-aged students requiring public education. Because the proposed Project would not directly generate students and is not expected to indirectly draw students to the area, the proposed Project would not cause or contribute to a need to construct new or physically altered public school facilities. Although the Project would not create a demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the Val Verde Unified School District in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of building permits. Therefore, impacts to public schools would be less than significant.

D. Parks

As discussed below in Subsection 5.5.5, the proposed Project would not create a demand for public park facilities and would not result in the need to modify existing park facilities or construct new park facilities. Accordingly, implementation of the proposed Project would not adversely affect any park facility. Thus, no impact would occur.

E. Other Public Facilities

The proposed Project is not expected to result in a demand for other public facilities/services, including libraries, community recreation centers, post offices, and animal shelters. As such, implementation of the proposed Project would not adversely affect other public facilities or require the construction of new or modified public facilities. Thus, no impact would occur.

5.5.5 Recreation

The Project proposes to develop the subject property with a logistics center containing four buildings and does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood or regional parks or other recreational facilities. Accordingly, implementation of the proposed Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park. In addition, the Project does not propose to construct any new on- or off-site recreation facilities. Therefore, adverse environmental impacts related to the construction or expansion of recreational facilities would not occur with implementation of the Project. Accordingly, no impacts would occur to the environmental issue of Recreation as a result of implementation of the Project.

5.5.6 Utilities and Service Systems

Wastewater service is provided to the Project site by Eastern Municipal Water District (EMWD). EMWD is required to operate all of its treatment facilities in accordance with the waste treatment and discharge standards and requirements set forth by the Regional Water Quality Control Board (RWQCB). The proposed Project would not install or utilize septic systems or alternative wastewater treatment systems; therefore, the Project would have no potential to exceed applicable wastewater treatment requirements established by the RWQCB.

Domestic water and wastewater services are provided to the Project site by EMWD. The proposed Project would install connections to water and wastewater conveyance lines that exist beneath abutting public roadways. With the exception of new on-site water and sewer service lines, the Project would not create the need for any new or expanded water or wastewater facility (such as treatment facilities, storage tanks, pump stations or trunk sewers). The construction of on-site water and sewer lines would result in physical impacts to the surface and subsurface of the Project site, with small encroachments into adjacent public rights-of-way of developed/paved streets to connect to existing lines; however, these impacts are inherent to the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where significant impacts have been identified for the Project's construction phase, mitigation measures are recommended for each applicable Subsection of this EIR, as feasible.

The Project would involve the construction of on- and off-site stormwater drainage facilities, including water quality/detention basins, storm drain pipes, and storm drain outlet structures. The construction of stormwater drainage facilities proposed by the Project would result in physical impacts to the surface and subsurface of the Project site, as well as physical impacts within the Krameria Avenue/Indian Street intersection (to accommodate a proposed storm drain line segment), a portion of Indian Avenue (to accommodate a proposed storm drain line segment), and within the Perris Valley Storm Drain Channel (to accommodate five proposed storm drain outlets). These impacts are considered to be part of the Project's construction phase and are evaluated throughout this EIR accordingly. In instances where potentially significant impacts may occur during the Project's construction phase, such potential impacts are identified under the appropriate issue area in this EIR. The construction of storm drain infrastructure on- and off-site as necessary to serve the proposed Project would not result in any potentially significant physical effects on the environment that are not already identified and disclosed as part of this EIR.

The proposed Project would result in an increase in potable water demand from the local water purveyor, EMWD. However, the proposed Project is fully consistent with the assumptions made in EMWD's *2010 Urban Water Management Plan*. EMWD's *2010 Urban Water Management Plan* concludes that the EMWD has sufficient water supplies available to serve planned land uses within its service area through at least 2035. EMWD projections for future water demand are based on population projections of the SCAG, which rely on the adopted land use designations contained within the general plans that cover the geographic area of EMWD's service area. The proposed Project is consistent with the "Business Park/Light Industrial (BP)" land use designation applied to the subject property by the City of Moreno Valley General Plan. As such, development of the Project site with industrial uses such as those proposed by the Project was assumed by EMWD in its projections of future water supply and demand. Furthermore, EMWD prepared a water supply assessment for the proposed Project that assesses the ultimate effect of the Project's water demands and service needs. The Project's water supply assessment (*Technical Appendix J*) was prepared in accordance with Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221). As documented in the Project's water supply assessment (*Technical Appendix J)*, EMWD calculated that the Project would generate a water demand of 55 acre feet a year (AFY). Based on review of existing and anticipated future water supplies and demands, EMWD determined that adequate water supplies are available to service proposed development (see *Technical Appendix J*). Accordingly, sufficient water supplies are available to service the Project and implementation of the Project would not require any new or expanded water entitlements. Accordingly, the Project's effect to EMWD's water network would be less than significant.

Wastewater flows generated by the Project would be conveyed to the Perris Valley Regional Water Reclamation Facility, which is owned and operated by EMWD. In April 2014, an expansion project was completed on the Perris Valley Regional Water Reclamation Facility to expand its daily treatment capacity from 14 million gallons per day to 22 million gallons per day to provide sufficient treatment for anticipated regional growth. The facility receives approximately 14 million gallons of wastewater flows per day and, therefore, has an excess treatment capacity of approximately eight million gallons per day. The Project is anticipated to generate approximately 67,809 gallons of wastewater per day, based on EMWD's wastewater generation factor of 1,700 gallons per day per acre of light industrial building area. This corresponds to approximately eight-tenths of one percent (0.8%) of the existing treatment capacity at the Perris Valley Regional Water Reclamation Facility. Due to the relatively small amount of wastewater that would be generated by the proposed Project and the amount of existing and planned available capacity at this facility, it is determined that the Perris Valley Regional Water Reclamation Facility would have sufficient capacity to treat wastewater generated by the Project. As such, impacts would be less than significant.

Implementation of the proposed Project would generate solid waste requiring off-site disposal during short-term construction and long-term operation. Waste generated by the construction process would primarily consist of discarded materials and packaging. Based on the Project's building square footage of 1,736,180 and the US EPA's construction waste generation factor of 4.34 pounds per square foot, approximately 4,000 tons of waste would be generated during the entire estimated 14-month construction process which amounts to approximately 10 tons per day (USEPA, 2009).

Non-recyclable construction waste generated by the Project would be disposed at the Badlands Sanitary Landfill, the El Sobrante Landfill, and/or the Lamb Canyon Landfill. The Badlands Landfill has a permitted disposal capacity of 4,000 tons per day and is estimated to reach capacity, at the earliest time, in the year 2024; however, future landfill expansion opportunities exist at this site (CalRecycle, 2015). During the 1st Quarter of 2015, which is the most recent time period for which reporting data is available, the Badlands Landfill accepted approximately 218,685.05 tons of waste (Riverside County Department of Waste Resources, 2015). The Lamb Canyon Landfill has a permitted disposal capacity of 5,000 tons per day and is estimated to reach capacity, at the earliest, in the year 2021; however, future landfill expansion opportunities exist at this site (CalRecycle, 2015). During the 1st Quarter of 2015, which is the most recent time period for which reporting data is available, the Lamb Canyon Landfill accepted approximately 153,524.67 tons of waste (Riverside County Department of Waste Resources, 2015). The El Sobrante Landfill has a permitted disposal capacity of 16,054.00 tons per day and is estimated to reach capacity, at the earliest time, in the year 2045; however, future landfill expansion opportunities exist at this site (CalRecycle, 2015). During the 1st Quarter of 2015, which is the most recent time period for which reporting data is available, the El Sobrante Landfill accepted approximately 553,854.16 tons of waste (Riverside County Department of Waste Resources, 2015).

These landfills all receive well below their maximum permitted daily disposal volume; thus, construction waste generated by the Project is not anticipated to cause these landfills to exceed their maximum permitted daily disposal volume. Furthermore, none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction period. The Badlands Sanitary Landfill, the El Sobrante Landfill, and the Lamb Canyon Landfill would have sufficient daily capacity to accept solid waste generated by the Project's construction phase; therefore, impacts to landfill capacity associated with the Project's near-term construction activities would be less than significant.

Based on a daily waste generation factor of 1.42 pounds of waste per 100 square feet of building area obtained from CalRecycle, long-term, on-going operation of the proposed 1,736,180 s.f. logistics center would generate approximately 12 tons of waste per day. At least 50% is required to be recycled pursuant to State law. Solid waste generated by the proposed Project would be disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. Each of these landfills receive well below their maximum permitted daily disposal volume and each have the potential for future expansion, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction or operational periods. The landfills have sufficient capacity to accept solid waste generated by the Project's construction and operational phases; therefore, impacts would be less than significant.

The Project would be required to comply with the City of Moreno Valley's waste reduction programs, including recycling and other diversion programs to divert the amount of solid waste deposited in landfills. As such, the Project's building tenants would be required to work with future refuse haulers to develop and implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the proposed Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. The implementation of these programs would reduce the amount of solid waste generated by the proposed Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project would comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA Guidelines § 15126.6(a) describes the scope of analysis that is required when evaluating alternatives to proposed projects, as follows:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in Section 4.0, *Environmental Analysis*, the proposed Project would result in significant adverse environmental effects that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality Threshold a): Significant and Unavoidable Cumulatively Considerable Impact. Because air emissions from Project construction and operation would exceed the SCAQMD's daily significance thresholds for criteria air pollutants after the implementation of feasible mitigation measures, the Project would not fully mitigate its cumulatively considerable potential to obstruct the SCAQMD's ability to attain the air quality goals presented in the 2012 AQMP.

- Air Quality Thresholds b) and c): Significant and Unavoidable Direct and Cumulatively Considerable Impacts. After the application of Project design features, mandatory regulatory requirements, and feasible mitigation measures, short-term construction-related NO_X emissions and long-term operational-related VOC and NO_X emissions would exceed the SCAQMD numerical thresholds for daily emissions. Further, in the event that short-term construction activities and long-term operational activities overlap, the Project's emissions of VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ would exceed the SCAQMD numerical thresholds for daily emissions during the overlapping time period. In addition, the Project's VOC and NO_X emissions would contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations, which do not meet regional attainment status).

- Greenhouse Gas Emissions Threshold a): Significant and Unavoidable Cumulatively Considerable Impact. The Project is estimated to generate approximately 42,404.68 MTCO2e annually, which would exceed the SCAQMD screening threshold of 10,000 MTCO2e. As such, the Project would generate substantial, cumulatively considerable GHG emissions that may have a significant impact on the environment. The application of Project design features, mandatory regulatory requirements, and mitigation measures would reduce Project-related GHG emissions; however, these measures would not substantially reduce Project-related mobile source emissions (i.e., construction equipment, passenger cars and trucks), which comprise approximately 86.6 percent of the Project's total GHG emissions. Mobile source emissions are regulated by State and federal emissions and fuel use standards, and are outside of the control of the Project Applicant, future Project occupants, and the City of Moreno Valley.

- Land Use/ Planning Threshold b): Significant and Unavoidable Cumulatively Considerable Impact. The Project would conflict with provisions of the SCAQMD's AQMP, SCAG's *RTP/SCS*, and the Riverside County Congestion Management Plan (CMP). Although mitigation measures are presented in EIR Subsections 4.3 and 4.11 to reduce the Project's air quality impacts as well as the Project's impacts to CMP circulation facilities, the required mitigation would not reduce the Project's impacts to below a level of significance or eliminate the Project's inconsistencies with the AQMP, *RTP/SCS*, and Riverside County CMP.

- Transportation/Traffic Threshold a): Significant and Unavoidable Direct and Cumulatively Considerable Impact. The Project would be directly responsible for LOS deficiencies at Project study area intersections and roadway segments under short-term construction and Existing plus Project traffic conditions (without and with the Indian Street Bridge). In addition, the Project would contribute to LOS deficiencies at numerous Project study area intersections and roadway segments under short-term construction, Existing plus Project, Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. A number of the affected intersections and roadways segments are located outside of the City of Moreno Valley and/or require improvements beyond those planned by existing transportation mitigation fee programs. Because there is no guarantee that improvements located outside of the City of Moreno Valley or improvements beyond the scope of existing mitigation fee programs will be in place at the time the Project contributes traffic to the affected facilities, this EIR recognizes the impacts as significant and unavoidable.

- Transportation/Traffic Threshold b): Significant and Unavoidable Cumulatively Considerable Impact. The Project would contribute cumulatively considerable traffic volumes at numerous intersections and freeway facilities, including I-215 and SR-91, included within the Riverside County CMP roadway networks under Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. All freeway facilities are under the jurisdiction of Caltrans. As such, the City of Moreno Valley cannot assure the construction of improvements to freeway facilities that may be needed to improve traffic flow. Furthermore, Caltrans does not have any funding mechanism in place to allow development projects to contribute a fair-share payment to contribute to future improvements and off-set cumulatively considerable traffic impacts. Thus, there is no assurance that needed freeway improvements will be in place prior to the time that the Project begins to contribute traffic to the facilities. In addition, the Project's cumulatively considerable impacts to the Harley Knox/I-215 and the

Cactus Avenue/I-215 interchanges would be unavoidable because although these intersections are programmed to be improved via the TUMF program, the improvements are not expected to be in place before the Project becomes operational.

6.1 Alternatives under Consideration

CEQA Guidelines § 15126.6(e) requires that an EIR include an alternative that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., "no project" alternative). For development projects that include a revision to an existing land use plan, the "no project" alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan (for example, a development project on an identifiable property), the "no project" alternative is considered to be a circumstance under which the project does not proceed (CEQA Guidelines § 15126(e)(3)(A-B). For the alternatives analysis herein, the scenario where the Project does not proceed is considered to be the "No Development Alternative," while the scenario where the existing land use plan is continued into the future is considered to be the "No Project Alternative." The following scenarios are identified by the City of Moreno Valley as potential alternatives to implementation of the proposed Project.

6.1.1 No Development Alternative

The No Development Alternative considers no development/disturbance on the Project site beyond that which occurs under existing conditions. As such, the entire 89.4-acre site would remain vacant and undeveloped. Under this Alternative, no improvements would be made to the Project site and none of the Project's on- or off-site utility and infrastructure improvements would occur. This Alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing condition.

6.1.2 No Project Alternative

The Project implements the land uses envisioned by the City of Moreno Valley General Plan and the MVIAP, with a proposed amendment to the MVIAP to reduce a setback requirement between industrial and residential land uses. The MVIAP requires a minimum 300-foot-wide setback between industrial and residential land uses. The Project Applicant proposes to amend the setback requirement as it pertains to the eastern boundary of the Project site from a minimum width of 300 feet to a minimum width of 100 feet and to add a requirement to install a minimum 50-foot-wide contiguous enhanced landscaping zone within the proposed 100-foot setback area. The No Project Alternative considers implementation of the MVIAP on the property with no amendment to the setback requirement between industrial and residential. Under this Alternative, the property would be developed with the same building square footage as proposed by the Project, with a setback of 300 feet along Indian Street. The 300-foot setback area would be planted with landscape materials, mostly ground covers. A screen wall, with trees and shrubs planted adjacent to the wall's exterior face, would be provided at the interface between the 300-foot setback and the truck yard on the eastern portion of the Building 1 site.

6.1.3 Reduced Project Alternative

The Reduced Project Alternative was selected by the Lead Agency to evaluate the comparative environmental benefits of constructing a project with less building square footage. Under this Alternative, the Project's building area would be reduced by 326,385 s.f., which is an approximately 19 percent reduction in building area compared to the proposed Project. Under this Alternative, 1,409,795 s.f. of building space would be provided in three (3) buildings, as compared to the Project's proposal to provide four (4) buildings with a combined total of 1,736,180 s.f. of floor space. The analysis for this Alternative assumes 1,153,550 s.f. of high cube warehouse space in one (1) building and 256,245 s.f. of light industrial space in two (2) buildings.

6.1.4 One Building Alternative

The One Building Alternative was selected by the Lead Agency to evaluate limited development on the Project site that would reduce and/or avoid all of the Project's significant and unavoidable environmental effects (air quality, greenhouse gas emissions, land use/planning, and traffic/transportation). Under this Alternative, one (1) 400,000 s.f. high cube warehouse building would be constructed on the Project site northeast of the Perris Valley Storm Drain Channel. The remainder of the site would remain vacant. Under this Alternative, the Project's building area would be reduced by 1,336,180 s.f. which is an approximately 77 percent reduction in building area compared to the proposed Project.

6.2 Alternatives Considered and Rejected

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines § 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines § 15126.6(f) (1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, two possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate.

A summary of the alternatives that were considered but rejected from further evaluation are described on the following pages.

6.2.1 Truck Trailer Parking Alternative

An alternative that considered using the entire Project site for truck trailer parking and storage was considered by the City of Moreno Valley but rejected from further consideration because such an alternative would not meet the Project's objectives. A truck trailer parking alternative would not result in the development of a Class A logistics center, would not maximize the buildout potential of a vacant or underutilized property in the MVIAP area that has access to available infrastructure, and would not attract new employment-generating businesses to the MVIAP area thereby providing a more equal jobs-housing balance both in the City of Moreno Valley and in the Riverside County/Inland Empire area. In addition, a truck trailer storage yard would be less economically feasible to construct and operate and bring fewer if any direct and indirect economic benefits to the City and surrounding area.

6.2.2 Alternative Sites

CEQA does not require that an EIR always include an analysis of alternative sites. However, if the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "*key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR*" (CEQA Guidelines § 15126.6(f)(2)).

Under existing conditions, the approximately 89.4-acre Project site is vacant and undeveloped. The entire property is disturbed, either by past agricultural activities or by on-going weed abatement (i.e., discing). The Project site does not contain any ornamental landscaping and the vegetation that exists on the property is characterized by ruderal plants and weeds. No buildings, man-made structures/facilities, or other discernable man-made features are present on the Project site, with the exception of overhead utility lines located along the eastern property boundary adjacent to Indian Street and the Perris Valley Storm Drain Channel that bisects the property in a northwest to southeast direction.

Additionally, the Project site is located within the geographical limits of the MVIAP, which over the past decade has been transitioning into an important industrial and economic center for the City of Moreno Valley. Surrounding land uses include the following:

- North. The Project site is bordered by land on the northwest that is under construction as a warehouse distribution center (March Business Center). A large warehouse building occupied by Proctor & Gamble abuts the Project site on the north (north of Krameria Avenue). Located farther north of the Project site is Iris Avenue, undeveloped land, and residential development.

- South. The Project site is bordered on the south by partially developed Cardinal Avenue, a large warehouse building occupied by Amazon, and the Perris Valley Storm Drain Channel.

Located farther south are a collection of warehouse distribution buildings (including but not limited to buildings currently occupied by Harbor Freight Tools and O'Reilly Auto Parts), undeveloped lands that are designated for future industrial development, and small parcels that contain small commercial, industrial, or manufacturing structures.

- East. Immediately to the east of the Project site is Indian Street. East of Indian Street is land developed primarily with single-family residential land uses, with pockets of undeveloped land designated for future residential development.

- West. The Project site is bordered on the west by a large warehouse building occupied by Lowe's, an industrial building occupied by Cardinal Glass Industries, and Heacock Street. West of Heacock Street is the March Air Reserve Base.

Based on review of aerial photography, the City of Moreno Valley General Plan Land Use Plan Map, and a list of approved/pending development proposals within the City of Moreno Valley (refer to Figure 4.0-1, *Cumulative Development Location Map*, and Table 4.0-1, *Cumulative Project List*), there are no other available, undeveloped properties of similar size (approximately 89 acres), similar land use (i.e., Business Park/Light Industrial), and similar zoning (i.e., Business Park or Industrial) in the City of Moreno Valley.

If alternative, undeveloped sites located within the City of Moreno Valley that are not already designated for "Business Park/Light Industrial" land uses or zoned for "Business Park" or "Industrial" land uses are considered, there is not any site in the City that would offer less developmental constraints, environmental constraints, and/or environmental impacts than the proposed Project site. Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location, with the potential for greater impacts. All undeveloped land within the City of Moreno Valley similar in size to the Project site (i.e., approximately 89 acres) and not part of an approved/pending development proposal is located farther from major regional transportation routes (I-215, SR-60, and local truck routes) than the Project site. Therefore, operational impacts associated with traffic and vehicular noise and air emissions would be greater as the vehicles would need to travel farther distances on local roads to reach the state highway system. Therefore, operational impacts associated with traffic and vehicular noise and air emissions would be greater as the vehicles would need to travel farther distances on local roads to reach the state highway system.

In addition, according to SCAG's *Comprehensive Regional Goods Movement Plan and Implementation Strategy*, there is great demand in the SCAG region for warehouse and industrial building space on suitably zoned vacant land (SCAG, 2013, pp. 4-39). Thus, it is likely that selection of an alternative site would merely displace the development activity proposed by the Project to another location resulting in the same or greater environmental effects, given the regional demand for logistics and warehousing space in the SCAG region.

For the foregoing reasons, an alternative sites analysis is not required for the proposed Project.

6.3 Alternative Analysis

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in Section 4.0, *Environmental Analysis*, of this EIR. A conclusion is provided to indicate if selection of the alternative would result in one of the following: (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-1 at the end of this section compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of each alternative to meet the basic objectives of the Project.

The Project's goal is to develop the subject property as a productive logistics center. As described in EIR Subsection 3.2, *Statement of Objectives*, the proposed Project's basic objectives are as follows:

A. Implement the Moreno Valley Industrial Area Plan (MVIAP) through the construction and operation of a Class A logistics center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the MVIAP, as amended.

B. To develop and maximize the buildout potential of a vacant or underutilized property in the MVIAP area that has access to available infrastructure.

C. To attract new employment-generating businesses to the MVIAP area thereby providing a more equal jobs-housing balance both in the City of Moreno Valley and in the Riverside County/Inland Empire area and reducing the need for members of the local workforce to commute outside the area for employment.

D. To develop logistics buildings with loading bays and trailer parking within close proximity of regional transportation routes and designated City of Moreno Valley truck routes in order to facilitate the efficient movement of goods.

E. To develop logistics center buildings that are physically and economically feasible to construct and operate and that are economically competitive with other geographic markets in the Inland Empire to attract building users to Moreno Valley.

F. To develop a vacant or underutilized property with structures that have architectural design and operational characteristics that complement existing and planned warehouse development in the immediate vicinity.

G. To develop the subject property with land uses that are harmonious to the adjacent March Air Reserve Base.

6.3.1 No Development Alternative

The No Development Alternative allows decision-makers to compare the environmental impacts of approving the proposed Project to the environmental impacts that would occur if the property were to be unchanged from existing conditions for the foreseeable future. Under existing conditions, the approximately 89.4-acre Project site is vacant and undeveloped. The entire property is disturbed, either by past agricultural activities or by on-going weed abatement (i.e., discing). The Project site does not contain any ornamental landscaping and the vegetation that exists on the property is characterized by ruderal plants and weeds. No buildings, permanent man-made structures/facilities or other discernable man-made features are present on the Project site, with the exception of overhead utility lines located along the eastern property boundary adjacent to Indian Street and the Perris Valley Storm Drain Channel that bisects the property in a northwest to southeast direction. The Project site is relatively flat with elevations ranging from approximately 1,497 feet above mean sea level (AMSL) at its northern boundary to approximately 1,468 AMSL at the southeast corner of the property and there are no rock outcroppings or unique topographic features on the Project site.

Under this alterative, no improvements would be made to the Project site and none of the Project's on- or off-site utility and infrastructure improvements would occur. Refer to the detailed description of the Project site's existing physical conditions in Section 2.0, *Environmental Analysis* of this EIR.

A. Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. The site is vacant and undeveloped and is transected in a northwest to southeast direction by the Perris Valley Storm Drain Channel. Under the No Development Alternative, the visual character and quality of the site would be maintained in its existing condition. No structures or landscaping would be introduced on the property beyond that which occurs under existing conditions. Buildout of the site with the proposed Project would create a cohesive development that would utilize the entire site. The Project would be landscaped including a 50-foot-wide enhanced landscape area along Indian Street, and would complete street improvements on roadway frontages. In these regards, the proposed Project would have a higher aesthetic value than this Alternative. Selection of this Alternative would result in a greater long-term aesthetic impact than the proposed Project because a large vacant lot would be less compatible with the surrounding character of the MVIAP area than would a logistics warehouse and light industrial center that provides an enhanced landscape zone along Indian Street.

B. Agricultural Resources

The property contains soils that have severe limitations for agricultural use and the site does not contain Prime Farmland, Unique Farmland or Farmland of Statewide Importance designated by the State of California's Farmland Mapping and Monitoring Program (FMMP). Similar to the proposed Project, this Alternative would not impact significant agricultural resources.

C. Air Quality

Under the No Development Alternative, no development would occur on the Project site; therefore, there would be no potential sources of short-term (construction) or long-term (operational) air pollutant emissions associated with warehouse and light industrial land uses. All of the Project's short- and long-term air quality impacts would be avoided under the Alternative. Although selection of the No Development Alternative would prevent the Project site from new development, it would not necessarily prevent the Project or another project of its nature from being developed in another location in response to the demand for warehouse and industrial land use space in western Riverside County. As such, it is possible that selection of the No Development Alternative would merely displace the Project's air pollutant emissions to another location in the South Coast Air Basin resulting in the same or greater environmental effects.

D. Biological Resources

The No Development Alternative would leave the property in its existing condition; however, routine weed abatement (discing) would continue. Although disturbance of the property would occur under this Alternative due to mandatory maintenance obligations imposed by the Fire Department for weed abatement, impacts would be less than the proposed Project because the property would be disturbed temporarily and periodically as compared to permanent disturbance that would occur as the result of the Project's proposed development. Accordingly, the No Development Alternative would avoid all of the Project's potential impacts to special-status wildlife species and protected, nesting migratory birds.

Additionally, the Project site abuts the Perris Valley Storm Drain Channel, which is a man-made drainage facility that contains areas under the jurisdiction of the ACOE, CDFW, and RWQCB. Under this Alternative, there would be no physical impact to the Channel.

E. Cultural Resources

No known historic, archaeological, paleontological resources, unique geological features, or human remains are present on the Project site under existing conditions. While no grading would occur on the Project site under the No Development Alternative, periodic weed abatement activities would continue, although the depth of discing would be shallow. Therefore, this Alternative has no potential to impact subsurface archeological or paleontological resources that may exist in undisturbed soils beneath the ground surface. Therefore, selection of this Alternative would avoid all site disturbances on the property and the Project's less-than-significant impacts (after mitigation) to cultural resources would not occur.

F. Greenhouse Gas Emissions

Under the No Development Alternative, no new development would occur on the Project site; therefore, there would be no potential sources of near-term or long-term GHG emissions. Selection of this Alternative would avoid all of the proposed Project's near- and long-term effects associated with GHG emissions. Although selection of the No Development Alternative would prevent the

Project site from new development, it would not necessarily prevent the Project or another project of its nature from being developed in another location in response to the demand for warehouse and industrial land use space in western Riverside County. As such, it is possible that selection of the No Development Alternative would merely displace the Project's GHG emissions to another location in the South Coast Air Basin resulting in the same or greater environmental effects.

G. Hazards and Hazardous Materials

Because no development would occur under the No Development Alternative, no impacts related to hazards or hazardous materials would occur. Routine discing would continue to occur on the Project site to remove dry/dead vegetation that has the potential to pose a fire hazard, as required by the Moreno Valley Fire Department. Selection of this Alternative would avoid the Project's less-than-significant impacts related to hazards and hazardous materials.

H. Hydrology and Water Quality

No changes to existing hydrology and drainage conditions would occur under the No Development Alternative. No storm water improvements would be constructed and rainfall would be discharged from the site as sheet flow, as occurs under existing conditions. Although the proposed Project would alter existing ground contours of the Project site, which would result in changes to the site's existing drainage patterns, surface water runoff discharged from the Project site would follow a similar overall pattern across the Project site and would ultimately discharge into the Perris Valley Storm Drain Channel as occurs under existing conditions and would occur under the No Development Alternative. Accordingly, implementation of the proposed Project and the No Development Alternative would both result in less-than-significant impacts to existing drainage patterns.

Because buildings, roadways, and surface parking areas would not be developed on-site under this Alternative, there would be no increase in impervious surfaces or urban pollutants at the Project site. However, under this Alternative, much of the stormwater leaving the site would not be filtered via Best Management Practices (BMPs), and therefore would continue to contain sediment, as occurs under existing conditions. Selection of this Alternative would reduce the Project's impacts to water quality as compared to the proposed Project, with the exception of long-term sedimentation impacts which would continue to occur and would be greater than impacts that would occur under the proposed Project.

I. Land Use/Planning

The No Development Alternative would leave the property in its existing condition as vacant, disturbed, undeveloped land and the property would not be developed in accordance with the General Plan "Business Park/Light Industrial" land use designation and the land use plan of the MVIAP. Thus, selection of the No Development Alternative would not fulfill the City of Moreno Valley's vision for the subject property.

Because the No Development Alternative would leave the property in its existing condition as vacant, undeveloped land, the No Development Alternative would eliminate the Project's cumulatively considerable conflicts with the SCAQMD's AQMP, SCAG's *RTP/SCS*, and the Riverside County CMP.

J. Noise

Because no development would occur on the Project site, there would be no new sources of stationary noise and no new traffic trips would be generated; thus, the No Development Alternative would not contribute to an incremental increase in area-wide noise levels. Selection of this Alternative would avoid all Project-related impacts.

K. Transportation/Traffic

Under the No Development Alternative, no new development would occur on the property and no additional traffic would be generated. Because there would be no new development on the Project site under this Alternative, the significant and unavoidable traffic impacts of the proposed would be avoided through selection of the No Development Alternative. However, because there would be no new development on the Project site under this Alternative, no monetary contributions would be made by the Project Applicant to the Moreno Valley DIF program or the TUMF program to assist in the funding of needed local and regional circulation network improvements.

L. Conclusion

The No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have already occurred on the property. All significant effects of the Project would be avoided or lessened by the selection of the No Development Alternative. Because this Alternative would avoid all of the Project's impacts, it warrants consideration as the "environmentally superior alternative." However, pursuant to CEQA Guidelines § 15126.6(e)(2), if a no project alternative is identified as the "environmentally superior alternative" then the EIR shall also identify an environmentally superior alternative among the other alternatives. The One Building Alternative, as described in Subsection 6.3.4, below, is identified as the "environmentally superior alternative." The No Development Alternative would fail to meet all of the Project's objectives, as indicated in Table 6-3, *Alternatives-Comparison of Environmental Impacts* (see the end of this EIR Section).

6.3.2 No Project Alternative

The No Project Alternative allows decision-makers to compare the environmental impacts of approving the proposed Project to the environmental impacts that would occur if the property were to be developed in accordance with the MVIAP. The proposed Project implements the City of Moreno Valley General Plan and the MVIAP, with a proposed amendment to the MVIAP to reduce a setback requirement. The MVIAP, which was adopted by the City of Moreno Valley in 1989, includes a minimum 300-foot setback requirement between industrial and residential land uses. The Project Applicant proposes to amend the minimum setback requirement as it pertains to the eastern boundary of the Project site from 300 feet to 100 feet and to add a requirement to install a minimum 50-foot-wide contiguous enhanced landscaping zone within the proposed 100-foot setback area. The building constructed to the north of the Project site and currently occupied by Proctor & Gamble has a 100-foot separation from residential uses on the east side of Indian Street; the proposed Project is proposing the same distance so that there is a consistent setback along the west side of Indian Street between Iris Avenue and the Perris Valley Storm Drain Channel. The No Project Alternative considers implementation of the MVIAP on the property with no amendment to the setback requirement. Under this Alternative, the property would be developed with the same building square footage as proposed by the Project (by adding mezzanine space to Building 1), with a setback of 300 feet along Indian Street (as measured from the centerline of Indian Street). The 300-foot setback area would be planted with landscape materials, mostly ground covers. Compared to the Project, there would be an increase of approximately 12.0 acres of landscaping in this location (approximately 200 feet over the length of approximately 0.5-mile abutting Indian Street). A screen wall, with trees and shrubs planted adjacent to the wall's exterior face, would be provided at the interface between the 300-foot setback and the truck yard on the eastern portion of the Building 1 site.

A. Aesthetics

Under the No Project Alternative, the visual character and quality of the site and the amount of artificial light that would be introduced on the property would be very similar to the proposed Project with the exception that the setback area along the west side of Indian Street would be increased from 100 feet to 300 feet and planted with less intensive landscaping than the Project. In this same location, the Project proposes a 50-foot wide enhanced landscaped zone along Indian Street densely planted with trees, shrubs, and groundcover. Figure 6-1, *Indian Street Setback – No Project Alternative vs. Proposed Project*, illustrates the differences between the Indian Street setback conditions proposed by the No Project Alternative and the Project. Figure 6-2, *Indian Street Setback Line of Sight Cross-Section – No Project Alternative*, illustrates the line of sight for pedestrians along Indian Street under the No Project Alternative scenario. As shown on Figure 6-1 and Figure 6-2, landscaping within the Indian Street setback area would not be as densely planted under the No Project Alternative as compared to the Project, resulting in clear, unobstructed views of the top of Building 1 to pedestrians along Indian Street and from residential areas east of Indian Street (whereas the Project would completely screen views of Building 1, refer to Figure 4.1-7). Because the No Project Alternative would be less successful than the Project in screening on-site land uses (as viewed from surrounding areas), the No Project Alternative would have an increased impact to local visual quality as compared to the Project. Furthermore, under the No Project Alternative, the building on Parcel 1 would be set back farther from Indian Street compared to the existing building located immediately north of Krameria Avenue that is occupied by Proctor & Gamble (for which a reduced, 100-foot setback was approved in 2008). The inconsistent setback and landscape treatment along the west side of Indian Street has the potential to look disjointed and awkward, but it would not result in a significant aesthetic impact associated with visual quality and character.

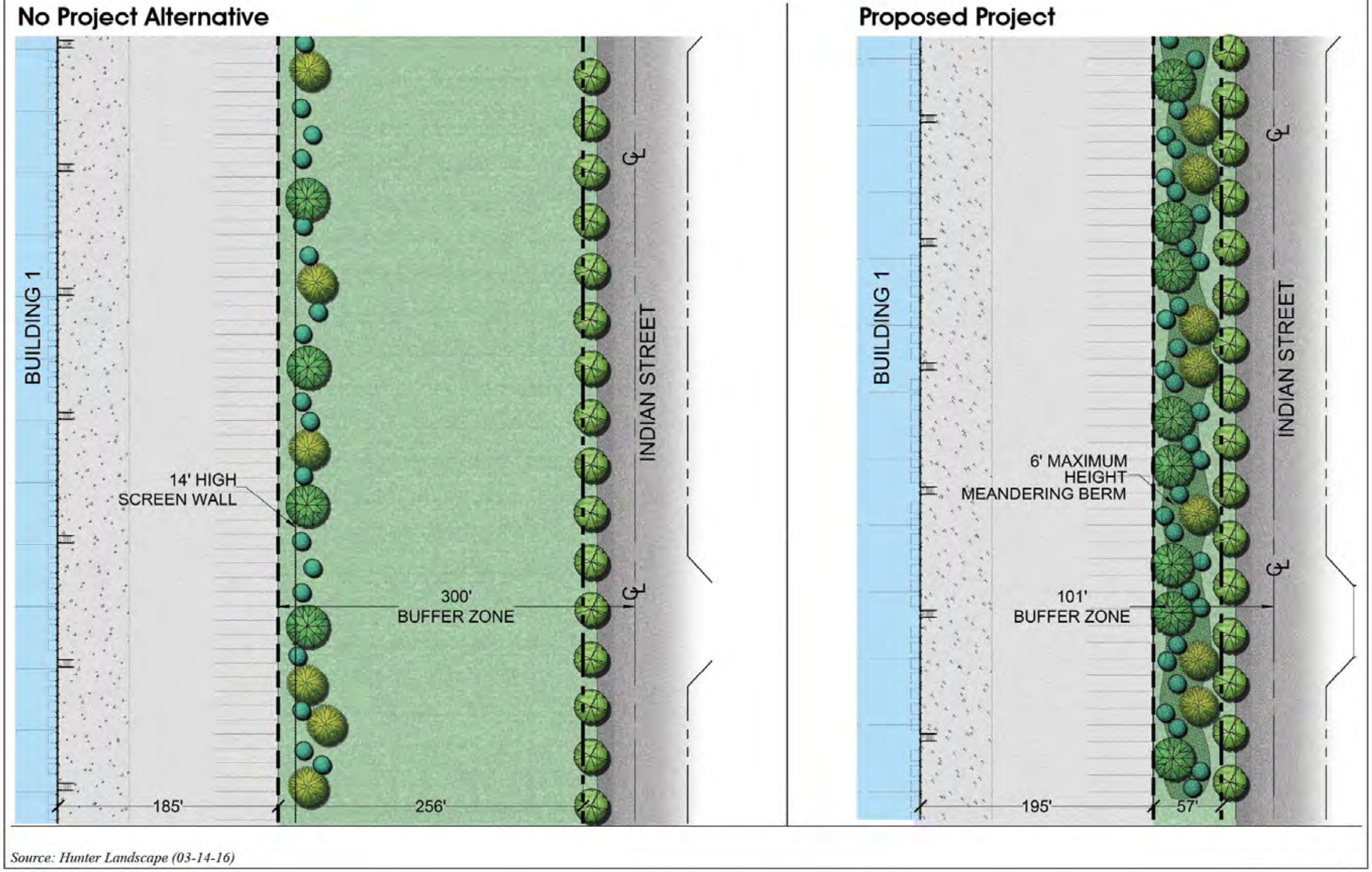

Source: Hunter Landscape (03-14-16)

Figure 6-1

NOT TO SCALE

INDIAN STREET SETBACK - NO PROJECT ALTERNATIVE VS. PROPOSED PROJECT

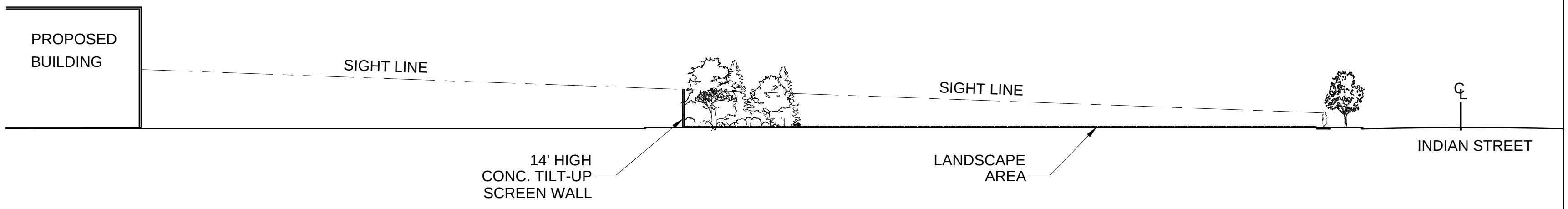

Source: Hunter Landscape (03-14-16)

NOT TO SCALE

Figure 6-2

INDIAN STREET SETBACK LINE-OF-SIGHT CROSS-SECTION - NO PROJECT ALTERNATIVE

B. Agricultural Resources

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project. The property contains soils that have severe limitations for agricultural use and the site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance designated by the State of California's Farmland Mapping and Monitoring Program (FMMP). Similar to the proposed Project, this Alternative would not impact significant agricultural resources.

C. Air Quality

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project and construct the same amount of building square footage. Therefore, air quality pollutant emissions associated with short-term construction and the overlapping of construction and operational activities would be identical between the proposed Project and the No Project Alternative. After the application of the same mandatory regulatory requirements and feasible mitigation measures as the Project, the No Project Alternatives' short-term construction-related NO_X emissions would still exceed the SCAQMD numerical thresholds for daily emissions, resulting in significant and unavoidable impacts. In the event that short-term construction activity and long-term operational activities overlap under the No Project Alternative, the short-term overlapping emissions of VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ would exceed the SCAQMD numerical thresholds for daily emissions, resulting in significant and unavoidable impacts.

Because the No Project Alternative would construct the same amount of building area and would be occupied by the same building users as the Project, the No Project Alternative would produce the same amount of traffic as the proposed Project and require the same amounts of energy use. As such, mobile source and energy source emissions would be nearly identical. A nominal increase in indirect energy source emissions would occur to treat and supply the water needed to irrigate the additional 12.0 acres of landscaping (primarily grass) along Indian Street. After the application of the same regulatory requirements and feasible mitigation measures as the Project, the No Project Alternative's long-term operational-related VOC and NO_X emissions would still exceed the SCAQMD numerical thresholds for daily emissions. In addition, the No Project Alternatives' VOC and NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations, which do not meet regional attainment status).

Under the No Project Alternative, Building 1 would be set back 200 feet farther from sensitive receptors located east of Indian Street as compared to the Project. This increased setback would allow air pollutant emissions – particularly diesel particulate matter (DPM) emitted from vehicles circulating and idling on the Project site – more opportunity to dissipate from the air before reaching sensitive receivers, as compared to the Project. However, the No Project Alternative would utilize industry-standard indoor and outdoor cargo handling equipment, which produce more diesel particulate matter (DPM) emissions than the advanced technology cargo handling equipment that would be utilized by the Project, and the use of this equipment would outweigh any potential benefit gained from the additional setback. The No Project Alternative is calculated to expose residential receptors located east of Indian Street to DPM emission concentrations that are more intense than the

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Project and that also would exceed the SCAQMD carcinogenic risk threshold of 10 in one million. The No Project Alternative would require mitigation to reduce the effects of DPM emissions to nearby residential receptors to less-than-significant levels. The No Project Alternative would expose nearby worker and school child receptors to slightly greater DPM concentrations than the Project; however, as with the Project, the No Project Alternative's DPM-related impact to workers and school children would be far less than the SCAQMD significance thresholds and impacts would be less than significant. (Urban Crossroads, 2016h, pp. 1-3).

D. Biological Resources

This Alternative would have an identical physical impact footprint as the proposed Project. As such, impacts to biological resources that would occur under this Alternative are the same as those of the proposed Project. Both the proposed Project and this Alternative would be subject to the same regulatory requirements and mitigation measures that would reduce impacts to less-than-significant.

E. Cultural Resources

No known historic, archaeological, paleontological resources, unique geological features, or human remains are present on the Project site under existing conditions. This Alternative would have an identical physical impact footprint as the proposed Project. As such, potential impacts to cultural resources that would occur under this Alternative are the same as those of the proposed Project. Both the proposed Project and this Alternative would be subject to the same regulatory requirements and mitigation measures that would reduce impacts to less-than-significant.

F. Greenhouse Gas Emissions

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project and construct the same amount of building square footage. The No Project Alternative would use the same fleet of construction equipment and generate the same volume of vehicle traffic as the proposed Project (which accounts for approximately 86.6 percent of the Project's GHG emissions). The No Project Alternative and the proposed Project would directly use the same amount of energy (which accounts for the other 13.4 percent of GHG emissions); however, the No Project Alternative would result in a nominal increase in indirect energy source GHG emissions to supply the water needed to irrigate the additional 12.0 acres of landscaping along Indian Street under the No Project Alternative. Under both the No Project Alternative and the proposed Project, GHG emissions would be a significant and unavoidable cumulatively considerable impact even after the application of the same design features, mandatory regulatory requirements, and feasible mitigation measures. A majority of the GHG emissions under both the No Project Alternative and Project would be produced by mobile sources and mobile source emissions are regulated by state and federal emissions and fuel use standards, and are outside of the control of the Project Applicant, future Project occupants, and the City of Moreno Valley.

G. Hazards and Hazardous Materials

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project, construct the same amount of building square footage, and attract the same types of building occupants. For these reasons, this Alternative's potential hazards and hazardous materials impacts would be identical to the proposed Project. As with the proposed Project, during construction and operation, mandatory compliance to federal, state, and local regulations would ensure that the proposed development would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. Assuming mandatory compliance with standard ALUC conditions of approval, the buildings constructed under the No Project Alternative would have the same building heights as proposed by the Project which were determined by the Riverside County Airport Land Use Commission (ALUC) to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Impacts would be less than significant under both the proposed Project and the No Project Alternative.

H. Hydrology and Water Quality

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project, attract the same types of building occupants, and have a near-identical storm water drainage system design. The Alternative, however, would reduce the impervious surface coverage on the site by about 12.0 acres by providing a 300-foot setback along Indian Street that would be planted with landscaping. Irrigation water and natural rainfall in this area would have the opportunity to infiltrate, and would not be directed through the Project's storm water and water quality systems. Similar to the proposed Project, this Alternative would require preparation of a Storm Water Pollution Prevention Plan (SWPPP) to address construction-related water quality issues, as well as compliance with a site-specific Water Quality Management Plan (WQMP) and its associated BMPs. Therefore, similar to the proposed Project, implementation of this Alternative would result in less-than-significant impacts with preparation of a SWPPP and compliance with a site-specific WQMP and its associated BMPs.

I. Land Use/Planning

The proposed Project implements the City of Moreno Valley General Plan and the MVIAP, with a proposed amendment to the MVIAP to reduce a setback requirement. The Project would amend the setback requirement as it pertains to the eastern boundary of the Project site from a minimum of 300 feet to a minimum of 100 feet and to add a requirement to install a minimum 50-foot-wide contiguous enhanced landscaping zone within the proposed 100-foot setback area. The MVIAP's intent for requiring a 300-foot setback between industrial and residential land uses was to ensure that residents would not be exposed to substantial effects from industrial operations. The reduced setback proposed by the Project would not result in any new or substantially more severe environmental effects at nearby residential receptors than would occur under the larger setback currently required by the MVIAP (and provided by the No Project Alternative). As such, both the Project and the No Project Alternative would result in similar, less-than-significant impacts related to the compatibility of industrial land uses that abut residential land uses.

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project and construct the same amount of building area. Because the same volume of vehicle traffic would be generated under the No Project Alternative and the proposed Project, the same significant and unavoidable traffic impact would occur to CMP facilities, resulting in a significant and unavoidable impact associated with inconsistency with the Riverside County CMP. Similarly, because air pollutant emissions would be the same under this Alternative and the proposed Project, both would cumulatively contribute to inconsistency with the SCAQMD's 2012 AQMP and the SCAG's *RTP/SCS* related to regional air quality. Significant and unavoidable cumulatively considerable impacts would occur under both the No Project Alternative and the proposed Project, associated with their potential conflicts with the Riverside County CMP, SCAQMD AQMP, and SCAG *RTP/SCS*.

J. Noise

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project and construct the same amount of building square footage. Therefore, noise associated with short-term construction would be identical between the proposed Project and the No Project Alternative. Although building construction activities would be located 200 feet further away from receiver locations along Indian Street as compared to the Project, site preparation, grading, and landscape installation activities would still occur in the 200 feet. Noise associated with grading would be the same under this Alternative and the proposed Project, and the grading phase of construction is the noisiest. The same mitigation measure would be required, which is the installation of a temporary sound barrier during construction to reduce construction-related noise impacts to less than significant.

Because the same amount of building area would be constructed, the No Project Alternative would produce the same amount of traffic as the proposed Project and produce the same amount of vehicular noise, which is calculated to be less than significant. Because Building 1 would be set back 200 feet farther from sensitive receptors located east of Indian Street under the No Project Alternative, noise associated with exterior building operations would have the potential to be less than the Project, as experienced by nearby receivers, but any such reduction would be nominal because both the proposed Project and this Alternative would install a perimeter wall along the property's Indian Street frontage that would act as a sound attenuating barrier. For these reasons, both the proposed Project and this Alternative would comply with the City of Moreno Valley Noise Ordinance and impacts associated with noise increases would be less than significant under both the proposed Project and the No Project Alternative.

K. Transportation/Traffic

The No Project Alternative would develop the subject property with the same building area as the Project and would be occupied by the same types of warehouse and light industrial users as the Project. Accordingly, the No Project Alternative would generate the same amount of traffic as the Project and would produce identical traffic impacts as the Project. Under both scenarios, the addition of traffic would be directly responsible for LOS deficiencies at Project study area intersections and roadway segments under short-term construction and Existing plus Project traffic conditions and would make cumulatively considerable contributions to LOS deficiencies at numerous Project study area intersections and roadway segments under short-term construction, Existing plus Project, Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. In addition, under both scenarios the addition of traffic would result in cumulatively considerable contributions to LOS deficiencies at several intersections and freeway facilities, including I-215 and SR-91, included within the Riverside County CMP roadway network under Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. The No Project Alternative would be required to implement the same mitigation measures as the Project; however, the required mitigation would be insufficient to reduce all direct and cumulatively considerable impacts to less-than-significant levels.

L. Conclusion

The No Project Alternative would have the same ground-disturbing physical impacts as the proposed Project, construct the same amount of building area, and attract the same types of building users as the proposed Project. None of the Project's significant and unavoidable impacts would be reduced in severity or avoided by the No Project Alternative, and the No Project Alternative would result in a significant air quality impact related to diesel particulate matter (DPM) emissions (requiring mitigation) that would not occur under the Project. Under this Alternative, the site's pervious surface area would increase by approximately 12.0 acres, which would be a landscaped area parallel to Indian Street. The streetscape along Indian Street would be wider than occurs on Indian Street north of Krameria Avenue and would likely look disjointed and awkward, but it would not result in a significant aesthetic impact associated with visual quality and character. More water would be needed for irrigation under this Alternative, which given the State of California's current drought situation, could be regarded as a wasteful and inefficient use of water and the energy needed to supply the water. The No Project Alternative would meet most of the Project's objectives, although some of them would be met to a lesser degree than the Project as indicated in Table 6-2 (see the end of this EIR Section).

6.3.3 Reduced Project Alternative

The Reduced Project Alternative was selected by the Lead Agency to evaluate the comparative environmental benefits of constructing a project with less building square footage. Under this Alternative, the Project's building area would be reduced by 326,385 s.f., which is an approximately 19 percent reduction in building area compared to the proposed Project. The reduced building coverage area would be used for parking. Under this Alternative, 1,409,800 s.f. of building space would be provided in three (3) buildings with the remainder of the property used as truck parking, as compared to the Project's proposal to provide four (4) buildings with a combined total of 1,736,180 s.f. of floor space. The analysis for this Alternative assumes 1,153,550 s.f. of high cube warehouse space in one (1) building and 256,245 s.f. of light industrial space in two (2) buildings.

A. Aesthetics

Under the Reduced Project Alternative, the visual character and quality of the site and the amount of artificial light that would be introduced on the property would be very similar to the proposed Project. As previously described in EIR Subsection 4.1, the Project site is not visible from any state- or locally-designated scenic highway. Accordingly, neither the proposed Project nor this Alternative would negatively impact a scenic highway. Also, neither this Alternative nor the proposed Project would damage scenic on-site resources, because such resources are not present on the property. The aesthetic quality and character of the property after development of this Alternative would be similar to that of the proposed Project. Although less building square footage would be constructed under this Alternative, the reduction in building intensity would occur interior to the subject property and the aesthetics of the site, as seen from off-site, would be very similar. Neither the proposed Project nor this Alternative would result in significant direct or cumulatively considerable impact to aesthetics. Impacts would be less than significant under both the proposed Project and the Reduced Project Alternative.

B. Agricultural Resources

The Reduced Project Alternative would have the same ground-disturbing physical impacts as the proposed Project. The property contains soils that have severe limitations for agricultural use and the site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance designated by the State of California’s Farmland Mapping and Monitoring Program (FMMP). Similar to the proposed Project, this Alternative would not impact significant agricultural resources.

C. Air Quality

Under this Alternative, the construction schedule would be slightly reduced as compared to the proposed Project, due to the approximately 19 percent reduction in building area. As such, construction-related air quality emissions would occur over a slightly shorter period of time, but total daily emissions during construction activities would be the same as the proposed Project. Therefore, air quality pollutant emissions associated with short-term construction and the overlap of construction and operational activities would be identical between the proposed Project and the Reduced Project Alternative. After the application of the same design features, mandatory regulatory requirements, and feasible mitigation measures as the Project, short-term construction-related NO_X emissions would still exceed the SCAQMD numerical thresholds for daily emissions, resulting in significant and unavoidable impacts. In the event that short-term construction activity and long-term operational activities overlap, the short-term overlapping emissions of VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ would exceed the SCAQMD numerical thresholds for daily emissions, resulting in significant and unavoidable impacts.

Because the Reduced Project Alternative would construct approximately 19 percent less building area than the Project, the Alternative would produce a concomitant reduction in traffic compared to the proposed Project and require a concomitant reduction of energy use. As such, mobile source and energy source air emissions would be reduced compared to the Project. None of the Project’s significant impacts would be avoided and none of the Project's significant and unavoidable impacts would be eliminated. After the application of design features, mandatory regulatory requirements, and feasible mitigation measures, the Reduced Project's long-term operational-related VOC and NO_X emissions would still exceed the SCAQMD numerical thresholds for daily emissions. In addition, the VOC and NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NO_X and O_3 concentrations, which do not meet regional attainment status).

The Project would expose nearby sensitive receptors to DPM emissions concentrations that fall below the SCAQMD significance threshold of 10 in one million. Thus, the Project's impacts associated with the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Because the Reduced Project Alternative would generate less traffic than the Project, there would be a concomitant reduction in DPM emissions at the Project site, which would further reduce the Project's less-than-significant impact.

D. Biological Resources

This Alternative would have an identical physical impact footprint as the proposed Project. As such, impacts to biological resources that would occur under this Alternative are the same as those of the proposed Project. Both the proposed Project and this Alternative would be subject to the same regulatory requirements and mitigation measures that would reduce impacts to less-than-significant.

E. Cultural Resources

No known historic, archaeological, paleontological resources, unique geological features, or human remains are present on the Project site under existing conditions. This Alternative would have an identical physical impact footprint as the proposed Project. As such, potential impacts to cultural resources that would occur under this Alternative are the same as those of the proposed Project. Both the proposed Project and this Alternative would be subject to the same regulatory requirements and mitigation measures that would reduce impacts to less-than-significant.

F. Greenhouse Gas Emissions

Due to the reduction in the amount of traffic associated with Reduced Project Alternative, mobile-source GHG emissions would decrease as compared to the proposed Project. Additionally, because the Reduced Project Alternative would involve less building area than the Project, non-mobile source operational GHG emissions (fossil fuel use for building operation) also would be reduced under this Alternative. Therefore, the Project's less-than-significant GHG impacts would be reduced under this alternative in comparison to the proposed Project. Regulatory requirements and mitigation measures to reduce GHG emissions, similar to those required of the proposed Project, also would be required of this Alternative. However, even with compliance with applicable regulations and implementation of mitigation measures, GHG emissions generated by the Reduced Project Alternative would still exceed the SCAQMD significance threshold of 10,000 $MTCO_2e$. Therefore, this Alternative would reduce the severity of Project's unavoidable cumulatively considerable GHG emissions impact, but not to below a level of significance.

G. Hazards and Hazardous Materials

The Reduced Project Alternative would have the same ground-disturbing physical impacts as the proposed Project and attract the same types of building occupants. For these reasons, this Alternative's potential hazards and hazardous materials impacts would be very similar to the proposed Project. As with the proposed Project, mandatory compliance to federal, state, and local regulations during construction and long-term operation would ensure that the proposed development would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. Assuming mandatory compliance with standard ALUC conditions of approval, the buildings constructed under the Reduced Project Alternative would have the same building heights as proposed by the Project, which were determined by the Riverside County Airport Land Use Commission (ALUC) to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Impacts would be less than significant under both the proposed Project and the Reduced Project Alternative.

H. Hydrology and Water Quality

The Reduced Project Alternative would have the same ground-disturbing physical impacts as the proposed Project, attract the same types of building occupants, and have a near-identical drainage system design. Impervious surface coverage also would be approximately the same because the reduction in building coverage would be offset by increased vehicle parking areas. Because this Alternative would have the same drainage system design as the proposed Project, this Alternative's hydrology and water quality impacts would be nearly identical to the proposed Project. Similar to the Proposed Project, implementation of this Alternative would require preparation of a Storm Water Pollution Prevention Plan (SWPPP) to address construction-related water quality issues, as well as compliance with a site-specific Water Quality Management Plan (WQMP) and its associated BMPs. Therefore, implementation of this Alternative would result in less-than-significant impacts with preparation of a SWPPP and compliance with a site-specific WQMP and its associated BMPs. The Reduced Project Alternative would result in similar hydrology and water quality impacts as the Project.

I. Land Use/Planning

Because a fewer number of traffic trips would be generated under the Reduced Project Alternative, the Project's significant and unavoidable cumulatively considerable traffic impact to CMP circulation facilities, including I-215 and SR-91, would be reduced but not avoided. Similarly, because air pollutant emissions would be reduced under this Alternative, as compared to the proposed Project, this Alternative would reduce the Project's degree of inconsistency with the SCAQMD's 2012 AQMP and the SCAG's *RTP/SCS* related to regional air quality. Regardless, this Alternative would not avoid the Project's cumulatively considerable traffic and air quality impacts and, therefore, would not avoid the Project's significant and unavoidable cumulatively conflicts with the Riverside County CMP, SCAQMD AQMP, and SCAG *RTP/SCS*.

J. Noise

As with the proposed Project, noise associated with this Alternative would occur during near-term construction activities and under long-term operation. The Reduced Project Alternative would have the same ground-disturbing physical impacts as the proposed Project and construct the same amount of building square footage. Therefore, noise associated with short-term construction would be identical between the proposed Project and the Reduced Project Alternative. Although building construction activities would be less intense associated with the smaller building sizes, construction would be located the same distance away from receiver locations. The same mitigation measure would be required, which is the installation of a temporary sound barrier during construction to reduce construction-related noise impacts to less than significant.

Similar to the proposed Project, under long-term operations, noise generated by this Alternative would be associated with vehicles traveling to and from the site and on-site vehicle idling, maneuvering and parking. This Alternative would generate fewer vehicle trips than would be generated by the proposed Project. As a result, the implementation of this Alternative would result in a reduction of long-term noise levels as compared to the proposed Project.

As with the proposed Project, a concrete tilt-up screen wall would be constructed along the site's frontage with Indian Street. The screen wall would act as a noise barrier for operational noise emitted from the site, thus nearby sensitive receptors would not experience operational noise levels above the City of Moreno Valley's noise standard. Both the proposed Project and this Alternative would be subject to the same regulatory requirements and mitigation measures that would reduce impacts to less-than-significant levels.

K. Transportation/Traffic

The Reduced Project Alternative is estimated to generate approximately 3,726 actual vehicle trips on a daily basis (utilizing the ITE trips generation rates for high-cube and light industrial land uses, not adjusted for PCE). For comparison purposes, the proposed Project would generate approximately 4,960 actual vehicle trips on a daily basis (not adjusted for PCE).

Despite the reduction in daily traffic trips that would occur with selection of this Alternative, this Alternative is not expected to avoid any of the Project's direct or cumulatively considerable and unavoidable impacts to study area intersections or roadway segments under short-term construction, Existing plus Project, Opening Year (2020) and General Plan Buildout (Post-2035) traffic conditions. The severity of impacts to study area intersections and roadway segments would be reduced under the Reduced Project Alternative, as compared to the Project, but would not be avoided.

This Alternative is anticipated to result in cumulatively considerable impacts to the same congested CMP facilities (freeway mainline segments, freeway ramp interchanges, freeway ramp merge/diverge areas) as the proposed Project. The Reduced Project Alternative would reduce the severity of identified impacts to CMP facilities, as compared to the Project, because this Alternative would generate approximately 1,234 fewer actual daily traffic trips, but all impacts are expected to remain significant and unavoidable.

L. Conclusion

The Reduced Project Alternative would reduce the severity of, but not avoid, the Project's significant and unavoidable impacts to air quality, greenhouse gas, land use/planning, and transportation/traffic. The Reduced Project Alternative would have the same physical footprint as the Project, so all ground-disturbing impacts would be identical to the proposed Project. All other operational-related impacts of the Project would be reduced under this Alternative due to the reduction of building area on the subject property and/or the reduction in vehicle trips. The Reduced Project Alternative would meet most – but not all – of the Project's objectives, although many objectives would be met to a lesser degree than the Project as indicated in Table 6-3 (see the end of this EIR Section).

6.3.4 One Building Alternative

The One Building Alternative was selected by the Lead Agency to evaluate limited development on the Project site that would reduce all of the Project's significant and unavoidable environmental effects (air quality, greenhouse gas emissions, land use/planning, and traffic/transportation) to levels of less than significant. Under this Alternative, one (1) 400,000 s.f. high cube warehouse building would be constructed on the Project site northeast of the Perris Valley Storm Drain Channel. The remainder of the site would remain vacant. Under this Alternative, the Project's building area would be reduced by 1,336,180 s.f., which is an approximately 77 percent reduction in building area compared to the proposed Project.

A. Aesthetics

The One Building Alternative would develop a high cube warehouse building on the eastern portion of the subject property. Therefore, as viewed from existing residential land uses east of Indian Street, the One Building Alternative would look similar to the proposed Project. The remaining portions of the Project site (i.e., areas located west of the Perris Valley Storm Drain Channel and abutting Cosmos Street would be left undeveloped and maintained in its existing condition. Buildout of the site with the proposed Project would create a visually cohesive development that would utilize the entire site and improve the quality of the street scene along frontage roadways via the introduction of sidewalks and landscaping. In these regards, the proposed Project would have a higher aesthetic value than this Alternative. Selection of this Alternative would result in a greater long-term aesthetic impact than the proposed Project because small pockets of undeveloped land interspersed between larger, on- and off-site warehouse/industrial buildings would be less compatible with the surrounding character of the MVIAP area than would a logistics warehouse and light industrial center with multiple buildings.

B. Agricultural Resources

The One Building Alternative would impact a smaller area than the Project; however, the subject property contains soils that have severe limitations for agricultural use and the site does not contain

Prime Farmland, Unique Farmland or Farmland of Statewide Importance designated by the State of California's Farmland Mapping and Monitoring Program (FMMP). Therefore, as with the proposed Project, this Alternative would result in a less-than-significant impact to important agricultural resources.

C. Air Quality

The One Building Alternative would develop a smaller area than the Project and would construct a substantially less building area than the Project (an approximately 77 percent reduction); therefore, the extent and daily intensity of construction activities would be substantially reduced as compared to the Project. Regardless, the One Building Alternative is expected to require similar mitigation measures as the Project to reduce the amount of pollutant emissions. However, unlike the Project, application of the mitigation measures is expected to reduce all construction-related air pollutant emissions to below SCAQMD significant thresholds. Accordingly, the One Building Alternative is anticipated to avoid the Project's significant and unavoidable air quality impact during construction.

The One Building Alternative would generate approximately 672 actual daily vehicle trips (utilizing the ITE trip rate for high cube warehouses, without adjusting for PCE). The Project would generate approximately 4,960 actual daily vehicle trips (not adjusted for PCE). Because average daily vehicle trips associated with long-term operation of the One Building Alternative would be substantially reduced as compared to the Project, this Alternative would substantially reduce the Project's long-term criteria air pollutant emissions. However, this alternative would not avoid the Project's significant air quality effects. This Alternative would require implementation of mitigation measures similar to those imposed on the proposed Project and even with incorporation of these measures, long-term operation of this Alternative would exceed the SCAQMD's daily criteria pollutant threshold for NO_X and would contribute to an existing air quality violation (i.e., violation of ozone standards). Accordingly, this alternative would reduce but not avoid the proposed Project's significant and unavoidable impact due to operational NO_X emissions.

As with the proposed Project, impacts to nearby sensitive receptors would be less than significant under this Alternative. Like the Project, construction (short-term) and operational (long-term) criteria pollutant emissions under this Alternative would be below the SCAQMD localized thresholds of significance, and diesel particulate emissions would not expose sensitive receptors to significant cancer and non-cancer health risks. However, these less-than-significant impacts to sensitive receptors would be reduced under this Alternative in comparison to the proposed Project due to the reduction in daily vehicular trips (i.e., 672 actual daily vehicle trips, as compared to 4,960 actual daily vehicle trips under the proposed Project, not adjusted for PCE).

D. Biological Resources

The One Building Alternative would permanently impact a portion of the property to accommodate the development of a high cube logistics building while the remaining portions of the Project site would be less in its existing condition. The undeveloped portions of the Project site would continue to be subject to mandatory weed abatement (i.e., discing). Although the One Building Alternative would permanently impact a smaller portion of the subject property than the Project, this Alternative would be subject to the same regulatory requirements and mitigation measures as the Project to reduce impacts to less-than-significant levels.

E. Cultural Resources

No known historic, archaeological, paleontological resources, unique geological features, or human remains are present on the Project site under existing conditions. One Building Alternative would have a smaller physical impact footprint than the proposed Project; therefore, this Alternative would have a lower likelihood of impacting previously unknown cultural resources that may be present beneath the ground surface during construction activities. The One Building Alternative would be required to comply with the same regulatory requirements and mitigation measures as the proposed Project to reduce potential cultural resources impacts to less-than-significant levels.

F. Greenhouse Gas Emissions

The One Building Alternative would involve the construction and operation of 400,000 s.f. of high cube warehouse uses, which would generate approximately 672 actual daily vehicle trips (not adjusted for PCE). Mobile-source (i.e., vehicle-related) emissions account for approximately 86 percent of the Project's GHG emissions. Therefore, due to the substantial reduction in the amount of actual daily vehicle trips associated with this Alternative (approximately 4,288 fewer actual daily vehicle trips than the Project), the One Building Alternative is anticipated to substantially reduce the Project's mobile source GHG emissions. Additionally, because this alternative would involve less building area, non-mobile source operational GHG emissions (fossil fuel use for building operation) also would be reduced under this Alternative. Mitigation measures to reduce GHG emissions, similar to those applied to the proposed Project, would be required of this Alternative, including those imposed to address air quality impacts. With compliance to these mitigation measures to reduce near and long-term GHG emissions, combined with the substantial reduction in building intensity that would occur under this Alternative, this Alternative would reduce the cumulatively considerable impact associated with the Project's GHG emissions to less-than-significant levels.

G. Hazards and Hazardous Materials

The One Building Alternative would attract the same types of building occupants as the Project; therefore, operational impacts related to hazards and hazardous materials would be similar to the Project (although the impacts would occur over a smaller physical area). In addition, potential construction-related hazards and hazardous materials impacts would be reduced under this Alternative due to the reduction of the physical area proposed for development. As with the proposed Project, mandatory compliance to federal, state, and local regulations during construction and long-term operation would ensure that the proposed development would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. Assuming mandatory compliance with standard ALUC conditions of approval, the buildings constructed under the Reduced Project Alternative would have the same building heights as proposed by the Project, which were determined by the Riverside County Airport Land Use Commission

(ALUC) to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Impacts would be less than significant under both the proposed Project and the Reduced Project Alternative.

H. Hydrology and Water Quality

Although the One Building Alternative would disturb a smaller physical area than the proposed Project, neither the proposed Project nor the One Building Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects (with mandatory compliance with a SWPPP). Accordingly, implementation of either the proposed Project or the One Building Alternative would result in less than significant impacts to existing drainage patterns. In the long-term, potential hydrology and water quality effects on the undeveloped portions of the Project site would be identical to existing conditions. On the developed, eastern portion of the property, this Alternative would introduce high cube/light industrial land uses to the subject property, which would result in the potential for urban pollutants to be carried off-site by storm water runoff. However, like the proposed Project, this Alternative would require compliance with a site-specific WQMP and its associated BMPs. Therefore, implementation of this Alternative would result in less-than-significant impacts with compliance to a SWPPP and a site-specific WQMP and its associated BMPs. The One Building Alternative would result in similar hydrology and water quality impacts as the Project.

I. Land Use/Planning

The One Building Alternative would not result in any direct or cumulative impacts to Riverside County CMP facilities; therefore, this Alternative would avoid the Project's cumulatively considerable conflict with the Riverside County CMP. Because air pollutant emissions would be reduced under this Alternative, as compared to the proposed Project, this Alternative would reduce the Project's degree of inconsistency with the SCAQMD's 2012 AQMP and the SCAG's *RTP/SCS* related to regional air quality. Regardless, this Alternative would not avoid the Project's cumulatively considerable air quality impacts and, therefore, would not avoid the Project's significant and unavoidable cumulatively conflicts with the SCAQMD AQMP and SCAG *RTP/SCS.*

J. Noise

As with the proposed Project, noise associated with this Alternative would occur during near-term construction activities and under long-term operation. The One Building Alternative would have similar ground-disturbing physical impacts as the proposed Project along the eastern portion of the Project site, which is the portion of the property nearest to sensitive receptors. Therefore, noise associated with short-term grading activities would be similar between the proposed Project and the One Building Alternative. Building construction activities would be less intense under the One Building Alternative, and would result in less noise impacts than the Project, due to the smaller building area and the reduced amount of equipment on-site. Because the most intensive noise levels occur during grading activities, and the Project and the One Building Alternative would have similar grading impacts, the same mitigation measure would be required, which is the installation of a temporary sound barrier during construction to reduce construction-related noise impacts to less than significant.

Similar to the proposed Project, under long-term operations, noise generated by this Alternative would be associated with vehicles traveling to and from the site and on-site vehicle idling, maneuvering and parking. This Alternative would generate fewer vehicle trips than would be generated by the proposed Project and therefore would generate less vehicle-related noise than the Project. As with the proposed Project, a concrete tilt-up screen wall would be constructed along the site's frontage with Indian Street. The screen wall would act as a noise barrier for operational noise emitted from the site, thus nearby sensitive receptors would not experience operational noise levels above the City of Moreno Valley's noise standard. Both the proposed Project and this Alternative would be subject to the same regulatory requirements and mitigation measures that would reduce impacts to less-than-significant levels.

K. Transportation/Traffic

The One Building Alternative is estimated to generate approximately 672 actual vehicle trips on a daily basis (utilizing the ITE trips generation rates for high-cube warehouse uses, not adjusted for PCE). For comparison purposes, the proposed Project would generate approximately 4,960 actual vehicle trips on a daily basis (not adjusted for PCE). During the AM and PM peak hours, the One Building Alternative would generate less than 50 peak hour trips; therefore, the Alternative's contribution of traffic to the local and regional circulation network is considered less than substantial and would not have the potential to cause or contribute to any direct or cumulatively considerable impacts at any intersection, roadway segment or CMP facility (including freeway facilities). The One Building Alternative would avoid all of the Project's significant and unavoidable impacts related to transportation/traffic.

L. Conclusion

The One Building Alternative is anticipated to avoid the Project's significant and unavoidable impacts to greenhouse gas and transportation traffic. In addition, the One Building Alternative is anticipated to reduce the severity of, but not avoid, the Project's significant and unavoidable impacts to air quality, and land use/planning. The One Building Alternative also would reduce the severity of all of the Project's less-than-significant impacts with the exception of aesthetics, which would be slightly increased due to a less cohesive visual character and a reduction in visual quality across the entire property. The One Building Alternative would fail to meet two of the Project's objectives and would meet four other objectives less successfully than the Project, as indicated in Table 6-2 (see the end of this EIR Section). The One Building Alternative is identified as the environmentally superior alternative.

Table 6-1 Alternatives to the Proposed Project - Comparison of Environmental Impacts

Environmental Topic	Proposed Project Significance of Impacts After Mitigation	Level of Impact Compared to the Proposed Project			
		No Development Alternative	No Project Alternative	Reduced Project Alternative	One Building Alternative
Aesthetics	Less-than-Significant Impact	No Impact	Similar to Project	Similar to the Project	Increased
Agricultural Resources	Less-than-Significant Impact	No Impact	Identical to Project	Identical to Project	Reduced
Air Quality	Significant and Unavoidable Direct and Cumulatively Considerable Impact	No Impact	Increased	Reduced, Not Avoided	Reduced, Not Avoided
Biological Resources	Less-than-Significant Impact	Temporary Impacts from Weed Abatement	Identical to Project	Identical to Project	Reduced
Cultural Resources	Less-than-Significant Impact	No Impact	Identical to Project	Identical to Project	Reduced
Greenhouse Gas Emissions	Significant and Unavoidable Direct and Cumulatively Considerable Impact	No Impact	Identical to Project	Reduced, Not Avoided	Avoided
Hazards and Hazardous Materials	Less-than-Significant Impact	No Impact	Identical to Project	Similar to Project	Reduced
Hydrology / Water Quality	Less-than-Significant Impact	Increased Sedimentation	Nominal Reduction	Similar to Project	Reduced
Land Use / Planning	Significant and Unavoidable Cumulatively Considerable Impact	No Impact	Similar to Project	Reduced, Not Avoided	Avoided
Noise	Less-then-Significant Impact	No Impact	Nominal Reduction	Reduced, Not Avoided	Reduced
Transportation / Traffic	Significant and Unavoidable Direct and Cumulatively Considerable Impact	No Impact	Identical to Project	Reduced, Not Avoided	Avoided
Ability to Meet the Basic Objectives of the Project					
Objective A: Implement the Moreno Valley Industrial Area Plan (MVIAP) through the construction and operation of a Class A logistics center in conformance with the land use designations applied to the property by the City of Moreno Valley General Plan and the MVIAP, as amended.		No	Yes	Yes, but to a lesser extent	No
Objective B: To develop and maximize the buildout potential of a vacant or underutilized property in the MVIAP area that has access to available infrastructure.		No	Yes	No	No
Objective C: To attract new employment-generating businesses to the MVIAP area thereby providing a more equal jobs-housing balance both in the City of Moreno Valley and in the Riverside County/Inland Empire area and reducing the need for members of the local workforce to commute outside the area for employment.		No	Yes	Yes, but to a lesser extent	Yes, but to a lesser extent
Objective D: To develop logistics buildings with loading bays and trailer parking within close proximity of regional transportation routes and designated City of Moreno Valley truck routes in order to facilitate the efficient movement of goods.		No	Yes	Yes, but to a lesser extent	Yes, but to a lesser extent

Table 6-1 Alternatives to the Proposed Project - Comparison of Environmental Impacts

ABILITY TO MEET THE BASIC OBJECTIVES OF THE PROJECT				
Objective E: To develop logistics center buildings that are physically and economically feasible to construct and operate and that are economically competitive with other geographic markets in the Inland Empire to attract building users to Moreno Valley.	No	Yes	Yes, but to a lesser extent	Yes, but to a lesser extent
Objective F: To develop a vacant or underutilized property with structures that have architectural design and operational characteristics that complement existing and planned warehouse development in the immediate vicinity.	No	No	Yes, but to a lesser extent	Yes, but to a lesser extent
Objective G: To develop the subject property with land uses that are harmonious to the adjacent March Air Reserve.	No	Yes	Yes	Yes

7.0 REFERENCES

7.1 Persons Involved in Preparation of the EIR

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7.2 Documents Appended to this EIR

The following reports, studies, and supporting documentation were used in preparing the Moreno Valley Logistics Center EIR and are bound separately as Technical Appendices. A copy of the Moreno Valley Logistics Center EIR Technical Appendices is available for review at the City of Moreno Valley Community & Economic Development Department 14177 Frederick Street, Moreno Valley, CA 92552.

Appendix A	Initial Study for Moreno Valley Logistics Center, Notice or Preparation, and Written Comments
Appendix B1	Urban Crossroads, Inc. 2016a. *Moreno Valley Logistics Center Air Quality Impact Analysis, City of Moreno Valley*. March 17, 2016.
Appendix B2	Urban Crossroads, Inc. 2016b. *Moreno Valley Logistics Center Mobile Source Diesel Health Risk Assessment, City of Moreno Valley*. June 3, 2016.
Appendix B3	Urban Crossroads, Inc. 2016h. *Moreno Valley Logistics Center 300-foot Setback Site Plan*. March 17, 2016.
Appendix C1	Glenn Lukos Associates, Inc. 2016. *Biological Technical Report for the Moreno Valley Logistics Center*. March 17, 2016.
Appendix C2	Glenn Lukos Associates, Inc, 2015. *Jurisdictional Delineation of the Moreno Valley Logistics Center Project Study Area*. May 12, 2015.
Appendix D1	Brian F. Smith and Associates, Inc. 2016a. *Phase I Cultural Resources Survey for the Moreno Valley Logistics Center Project*. March 4, 2016.
Appendix D2	Brian F. Smith and Associates, Inc. 2016b. *Paleontological Resource and Monitoring Assessment, Moreno Valley Logistics Center Project*. March 3, 2016.
Appendix E	Urban Crossroads, Inc. 2016c. *Moreno Valley Logistics Center Greenhouse Gas Analysis, City of Moreno Valley*. March 17, 2016.
Appendix F	Farallon Consulting. 2015. *Phase I Environmental Site Assessment Report.* March 23, 2015.
Appendix G1	Thienes Engineering. 2016a Preliminary *Hydrology Conditions*. March 10, 2016.
Appendix G2	Thienes Engineering. 2016b. *Project Specific Final Water Quality Management Plan (WQMP).* March 10, 2016.

Appendix H	Urban Crossroads, Inc. 2016d. *Moreno Valley Logistics Center Noise Impact Analysis, City of Moreno Valley*. February 25, 2016.
Appendix I1	Urban Crossroads, Inc. 2016e. *Moreno Valley Logistics Center Traffic Impact Analysis, City of Moreno Valley*. June 17, 2016.
Appendix I2	Urban Crossroads, Inc. 2015a. *Moreno Valley Logistics Center Supplemental Basic Freeway Segment Analysis.* September 23, 2015.
Appendix I3	Urban Crossroads, Inc. 2015b. *Moreno Valley Logistics Center Construction Traffic Evaluation.* November 17, 2015.
Appendix I4	Urban Crossroads, Inc. 2016f. *Moreno Valley Logistics Center Fair Share Calculations*. June 17, 2016.
Appendix J	Eastern Municipal Water District. 2015. *Water Supply Assessment Report for the Moreno Valley Logistics Center*. September 16, 2015.
Appendix K	Urban Crossroads, Inc. 2016g. *Moreno Valley Logistics Center Energy Analysis, City of Moreno Valley*. March 17, 2016.
Appendix L	Southern California Geotechnical. 2015. *Geotechnical Investigation Proposed Moreno Valley Logistics Center*. March 24, 2015.
Appendix M	Farallon Consulting. 2016a. *Soil Testing for Organochlorine Pesticides Moreno Valley Logistics Center*. January 8, 2016.
Appendix N	Farallon Consulting. 2016b. *Vapor Migration Analysis Moreno Valley Logistics Center*. May 10, 2016.
Appendix O	Andrew Chang & Co. 2016. *Moreno Valley Logistics Center Economic and Fiscal Impact Report*. June 2016.

7.3 Documents Incorporated by Reference

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documents is a matter of public record and is available to the public at the location listed.

Moreno Valley, City of. 2006a. Moreno Valley General Plan. Approved July 11, 2006. Available at the City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552. Web. Available at: http://www.moreno-valley.ca.us/city_hall/general_plan.shtml

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7.4 References Used in Preparation of this EIR

The following reports, studies, and supporting documentation were used in preparation of this EIR.

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CEQA Initial Study

Moreno Valley Logistics Center

Lead Agency: City of Moreno Valley

City of Moreno Valley
Planning Division
P.O. Box 88005
Moreno Valley, CA 92552
6/17/2015

City of Moreno Valley

California Environmental Quality Act (CEQA) Initial Study

MORENO VALLEY LOGISTICS CENTER

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Community & Economic Development Department
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<u>Lead Agency Discretionary Permits</u>
Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018); Plot Plan (PA15-0014), Plot Plan (PA15-0015), Plot Plan (PA15-0016), and Plot Plan (PA15-0017)

June 17, 2015

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1.0 INTRODUCTION

1.0 INTRODUCTION

1.1 Document Purpose and Scope

The California Environmental Quality Act (CEQA) is a statewide environmental law contained in Public Resources Code §§21000-21177. CEQA applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to adversely affect the environment. The overarching goal of CEQA is to protect the physical environment. To achieve that goal, CEQA requires that public agencies analyze and acknowledge the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant adverse impacts to the environment when avoidance or reduction is feasible. The CEQA compliance process also gives other public agencies, interested parties, and the general public an opportunity to comment on a proposed project's environmental effects.

This Initial Study (IS) assesses the potential of the proposed Moreno Valley Logistics Center project (the "Project") to impact the physical environment. The Project involves the construction and operation of a warehouse distribution center with four (4) buildings providing 1,737,518 s.f. of total building space. Associated improvements to the property would include loading docks, surface parking areas (automobile parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The Project site is located within the boundary of the Moreno Valley Industrial Area Plan (MVIAP) (Specific Plan 208).

As part of the City of Moreno Valley's permitting process, the proposed Project is required to undergo an initial environmental review pursuant to §15063 of the CEQA Guidelines. This IS is a preliminary analysis prepared by the City of Moreno Valley Department of Community & Economic Development, Planning Division, acting in its capacity as the CEQA Lead Agency, to determine the level of environmental review and analysis that will be required for the Project. The results of the IS determine which type of CEQA compliance document will be prepared, which could consist of either an environmental impact report (EIR); mitigated negative declaration (MND); negative declaration (ND); addendum to a previously-prepared EIR; or a tiered analysis that relies on the findings and conclusions of a previously-prepared EIR. If the IS concludes, based on substantial evidence in the City's records, that the Project has the potential to result in a significant effect on the environment that cannot be avoided, reduced, or mitigated to below stated thresholds of significance, the City of Moreno Valley is required to prepare an EIR.

This IS is an informational document that provides the City of Moreno Valley, other public agencies, interested parties, and the public at-large with an objective assessment of the potential environmental impacts that could result from implementation of the proposed Project.

1.2 Potential Environmental Effects

The analysis presented in this IS indicates that the proposed Project has the potential to result in one or more significant direct, indirect, and/or cumulative environmental effects to the following environmental subjects:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Noise
- Transportation/Traffic
- Mandatory Findings of Significance

Based on the analysis provided in the Environmental Checklist portion of this IS, the proposed Project has the potential to result in significant effects on the environment for which feasible mitigation measures may not be available to reduce all of those effects to below thresholds of significance applied by the City of Moreno Valley. Accordingly, and pursuant to §15063(b)(1) of the CEQA Guidelines, an EIR will be prepared for the Project and will focus on the subjects listed above.

1.3 Document Organization

This IS includes the following sections:

- Section 1.0, Introduction, provides information about CEQA and its requirements for environmental review and explains that an EIR will be prepared by the City of Moreno Valley to evaluate the proposed Project's potential to impact the physical environment.

- Section 2.0, Project Description and Setting, provides information about the proposed Project's location and planning objectives and includes a description of the proposed Project's physical features and construction and operational characteristics.

- Section 3.0, Environmental Checklist, includes the Environmental Checklist and evaluates the proposed Project's potential to result in significant adverse effects to the physical environment.

- Section 4.0, References, provides reference information for all information sources consulted during the preparation of this IS.

2.0 PROJECT DESCRIPTION AND SETTING

2.0 PROJECT DESCRIPTION AND SETTING

2.1 Project Overview

The proposed Project involves the development of an approximately 89.4 gross-acre property located at the southwest corner of the intersection of Krameria Avenue and Indian Street in the City of Moreno Valley, Riverside County, California. Development of the property would involve the construction and operation of a warehouse distribution center with one (1) high cube warehouse building and three (3) light industrial buildings. The Project Applicant is pursuing the Project on a speculative basis, meaning that the proposed buildings' future tenants are not yet identified. Additional details regarding the Project's location, environmental setting, and design are included in this Section, on the following pages.

2.2 Project Background

The Project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (MVIAP) (Specific Plan (SP) 208). The MVIAP was originally referred to as the Oleander Specific Plan when first approved by the City of Moreno Valley in 1989. The Specific Plan was renamed the MVIAP in 2001 after 40 acres of additional area was added to the Specific Plan boundaries, bringing the total land area within the MVIAP to 1,540 aces. The City amended the MVIAP again in 2002 to consolidate the "Business Park," "Mixed Use," "Light Industry," and "Heavy Industry" land use designations of the original Specific Plan as a single "Industrial" land use designation in order to more readily accommodate and attract economic development opportunities (Moreno Valley, 2002). The pace of industrial development and economic activity in the MVIAP area was very slow until about 2007 when the warehouse distribution industry began to locate distribution warehouse and e-commerce facilities in the MVIAP area. The MVIAP "Industrial" land use designation is applied to the approximately 89.4-acre Moreno Valley Logistics Center property, which is the subject of this IS.

The buildout of MVIAP, including the Project site, was the subject of previous environmental review under CEQA as part of an EIR certified in 1989 (State Clearinghouse Number 1988080813), which is herein incorporated by reference and is available for public review at the City of Moreno Valley Community & Economic Development Department, Planning Division.

This IS evaluates the potential environmental effects that could result from the implementation of applications for a Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plan applications (PA15-0014, PA15-0015, PA15-0016, and PA15-0017), which collectively propose to develop the subject property with a logistics center accommodating four buildings. The applications for the Project were submitted to the City of Moreno Valley in March 2015, as described below in Subsection 2.6.

2.3 Project Location

The Project site is located in the southern portion of the City of Moreno Valley. The City of Moreno Valley is located in the northwestern portion of Riverside County, California, and is north of the City of Perris and southeast of the City of Riverside. As shown on Figure 2-1, *Regional Map*, the Project site is located approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route

60 (SR-60), and 2.5 miles northwest of Lake Perris. At the local scale, the Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street (see Figure 2-2, *Vicinity Map*). The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel.

The site is located within the southwestern portion of Section 30, Township 3 South, Range 3 West (San Bernardino Base and Meridian) and includes Assessor Parcel Numbers (APN): 316-100-028, 316-100-030, 316-100-048, 316-100-051, and 316-100-052.

2.4 Environmental Setting and Surrounding Land Uses

As shown on Figure 2-3, *USGS Topographic Map*, the Project site is relatively flat with elevations ranging from 1,497 feet above mean sea level (AMSL) at its northern boundary to 1,468 AMSL at the southeast corner of the property. As shown on Figure 2-4, *Aerial Photograph*, the Project site consists of vacant, undeveloped land that is routinely disturbed (i.e., disced) as part of weed abatement activities. The Project site is transected in a northwest to southeast direction by the Perris Valley Storm Drain Channel.

The Project site is located in a portion of the City of Moreno Valley that is developing as a center for distribution warehousing, e-commerce, and light industrial land uses. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are designated by the MVIAP for future industrial development; to the west by March Air Reserve Base, and to the east by a single-family residential neighborhood (refer to Figure 2-5, *Surrounding Land Uses*). Land uses surrounding the Project site include the following:

North: The Project site is bordered by vacant, undeveloped land on the northwest and a large warehouse building on the northeast currently occupied by Proctor & Gamble. The vacant, undeveloped land located northwest of the Project site is approved for future development as a warehouse distribution center (March Business Center). Located farther north of the Project site is Iris Avenue, undeveloped land, and residential development. Approximately 0.6-mile northeast of the Project site is Rainbow Ridge Elementary School and March Middle School.

South: The Project site is bordered on the south by partially developed Cardinal Avenue, a large warehouse building occupied by Amazon, and the Perris Valley Storm Drain Channel. Located farther south are a collection of warehouse distribution buildings (including but not limited to buildings currently occupied by Harbor Freight Tools and O’Reilly Auto Parts), undeveloped lands that are designated for future industrial development, and small parcels that contain small commercial, industrial, or manufacturing structures.

Attachment: A- Initial Study, Notice of Preparation, and NOP Public Comment Letters (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017)

Figure 2-1 Regional Map

Figure 2-2 Vicinity Map

Figure 2-3 USGS Topographic Map

Figure 2-4 Aerial Photograph

Attachment: A- Initial Study, Notice of Preparation, and NOP Public Comment Letters (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017)

Figure 2-5 Surrounding Land Uses

Attachment: A- Initial Study, Notice of Preparation, and NOP Public Comment Letters (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017)

East: Immediately to the east of the Project site is Indian Street. East of Indian Street is developed primarily with single-family residential land uses, with pockets of undeveloped land designated for future residential development. The Morning Dove Christian Academy (approximately 0.6-mile), Mary McLeod Bethune Elementary School (approximately 0.9-mile), and Vista Verde Middle School (approximately 1.25 miles) are located farther east of the Project site.

West: The Project site is bordered on the west by a large warehouse building occupied by Lowe's, an industrial building occupied by Cardinal Glass Industries, and Heacock Street. West of Heacock Street is the March Air Reserve Base.

2.5 Existing General Plan Designations and Zoning

The City of Moreno Valley General Plan designates the Project site as "Business Park/Light Industrial (BP)." According to General Plan Policy 2.5.1, the primary purpose of areas designated "Business Park/Light Industrial (BP)" is to provide manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. Uses allowable within areas with the BP land use designation include manufacturing, research and development, warehousing and distribution, office, and support commercial activities.

As previously discussed, the Project site is located within the geographical limits of the MVIAP. The MVIAP applies an "Industrial" zoning designation to the Project site. The "Industrial" designation permits a wide range of industrial and industrial/business related support uses, including light manufacturing and storage and distribution facilities.

2.6 Description of the Proposed Project

The proposed Project consists of an application for a Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plan applications (PA15-0014, PA15-0015, PA15-0016, and PA15-0017) to construct and operate a logistics center with four (4) buildings providing 1,737,518 square feet (s.f.) of total building space. Associated improvements to the property would include loading docks, surface parking areas (passenger car parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The Project also includes public street vacations and street dedications.

2.6.1 Specific Plan Amendment (P15-036)

The proposed Specific Plan Amendment (P15-036) would amend the land use buffer requirement specified in the MVIAP as it pertains to the Project site. MVIAP Section III, C.1, intends to provide a buffer between industrial and residential uses, without affecting the integrity of industrial land. The Specific Plan Amendment (SPA) proposes to reduce the minimum buffer distance specified in the MVIAP from 300 feet to 100 feet in order to provide a consistent setback with the distribution warehouse building already constructed immediately north of the Project site, and to add the requirement for a minimum 50-foot-wide enhanced landscaping zone within the 100-foot buffer area.

2.6.2 Tentative Parcel Map No. 36150 (PA15-0018)

Tentative Parcel Map No. 36150 (TPM No. 36150, PA15-0018) proposes to consolidate an approximately 74.1-gross-acre portion of the Project site into two (2) parcels as depicted on Figure 2-6, *Tentative Parcel Map No. 36150*. Proposed Parcel 1 would contain approximately 62.6 net acres and proposed Parcel 2 would contain approximately 6.9 net acres. In addition, TPM No. 36150 identifies areas of public road dedication and vacation, and the size and location of proposed utility infrastructure improvements.

A. Public Roadway Vacations, Dedications, and Improvements

The Project would dedicate land as public right-of-way to the City of Moreno Valley for the construction/widening of Krameria Avenue (0.02-acre), Indian Street (1.34 acres), Cosmos Street (1.23 acres), and Cardinal Avenue (0.01-acre). As part of the Project, two (2) roadway rights-of-way that were previously offered to the City of Moreno Valley but never constructed for public use are proposed to be vacated. The rights-of-way to be vacated are also known by the term “paper street” because the alignment exists only on maps, with no physical attributes constructed on the property. The “paper streets” to be vacated by the Project include 101 s.f. of Krameria Avenue and 0.46-acre of Cardinal Avenue.

The proposed Project would include frontage improvements to roadway rights of way abutting the Project site including: Indian Street, Krameria Avenue, Heacock Street, and Cardinal Avenue. In addition, the Project would construct the on-site cul-de-sac segment of Cosmos Street. Improvements would be consistent with City of Moreno Valley roadway standards.

B. Utility Infrastructure Improvements

❑ Water Service Facilities

Water service would be provided to the Project by Eastern Municipal Water District (EMWD). The Project proposes numerous connection points to the existing water lines installed beneath Indian Street, Krameria Avenue, Heacock Street, and Cardinal Avenue for domestic, irrigation, and fire hydrant services. Additionally, the Project would construct an 18-inch diameter water line in the proposed on-site segment of Cosmos Avenue for the purposes of on-site domestic, irrigation, and fire hydrant water services. All proposed water facilities are required to be designed in accordance with EMWD standards.

❑ Wastewater Service Facilities

The Project would extend the existing sewer line installed beneath Heacock Street by approximately 90 feet from the north to provide sewer service to the northwest portion of the Project site and would construct a sewer line beneath Cardinal Avenue to provide sewer service to the southwest portion of the Project site. The Project also would install two private sewer lift stations on the northwest and southwest portions of the Project site to facilitate sewer service to the site. The eastern portion of the Project site would receive wastewater service via two proposed connections to the existing sewer line installed along the eastern edge of the Perris Valley Storm Drain Channel. All proposed wastewater facilities are required to be designed in accordance with EMWD standards.

Figure 2-6 Tentative Parcel Map No. 36150

❑ Stormwater Drainage Plan

The Project's on-site drainage system would consist of underground storm drain pipes and water quality/detention basins. Stormwater flows would be captured by on-site storm drains and routed to one of six (6) proposed on-site water quality/detention basins before ultimately discharging from the site at one of four proposed outlets to the Perris Valley Storm Drain Channel, a regional storm drain facility that is designed by the Riverside County Flood Control and Water Conservation District (RCFCWCD) to collect and convey water discharged from properties in the Channel's drainage area. Runoff flows within Cosmos Street would be captured by a proposed system of storm drains within the street and then would be routed to existing storm drain facilities installed beneath Krameria Avenue.

The Project would install an off-site storm drain segment beneath the Krameria Avenue/Indian Street intersection to connect the existing storm drain line beneath Krameria Avenue to an existing open storm drain channel abutting the eastern edge of Indian Street. The Project also would install an off-site segment of storm drain beneath a portion of Indian Avenue to capture and convey stormwater runoff that originates within Indian Avenue south of Superior Avenue and discharge the captured flows into the Perris Valley Storm Drain Channel. Within the Perris Valley Storm Drain Channel, proposed improvements include the construction of outlet structures and headwalls at the four discharge points from the Project's on-site water quality/detention basins and the discharge point for the new off-site storm drain line beneath Indian Street (as described above). Rip-rap would be installed within the Perris Valley Channel at all proposed drainage outlets to preclude scour and erosion.

All proposed stormwater drainage improvements are required to be designed in accordance with Riverside County Flood Control and Water Conservation District (RCFCWCD) and City of Moreno Valley standards.

C. Earthwork and Grading

Grading would occur over the entire Project site. No area of the site would be left undisturbed. Proposed earthwork and grading activities would occur in two (2) phases and would involve 494,477 cubic yards of cut (including over-excavation) and 169,183 cubic yards of fill. Due to the proposed compaction of the over-excavated soils and expected soil subsidence and shrinkage as calculated by the Project's geotechnical engineer, proposed earthwork and grading activities are anticipated to balance and no import or export of soil would be required. When grading is complete, the Project site would have a slight, northwest-to-southeast slope. Proposed grading would not create manufactured slopes except around the proposed water/quality detention basins in the eastern portion of the site, where proposed slopes would measure up to five (5) feet in height with a maximum incline of 4:1.

2.6.3 Plot Plans PA15-0014, PA15-0015, PA15-0016, and PA15-0017

Four (4) individual Building Plot Plans are proposed as part of the Project. The individual Building Plots Plans provide site plans, including a detailed architectural and landscape design for Building 1 (PA15-0014), Building 2 (PA15-0015), Building 3 (PA15-0016), and Building 4 (PA15-0017). Plot Plans for Building 1 through Building 4 are presented in Figure 2-7 through Figure 2-10. Figure 2-11, *Moreno Valley Logistics Center Site Plan*, illustrates the relationship between the proposed on-site structures and improvements. The buildings are designed to range in size from approximately 97,222 s.f. to approximately 1,351,770 s.f. (for a total of 1,737,518 s.f.) with a minimum FAR of 0.34 and a maximum FAR of 0.50 (for an overall FAR of 0.47). At the time this IS was prepared, the future tenants of the Project site's buildings are unknown. The buildings are designed to accommodate warehouse distribution, e-logistics, fulfillment center, or light-industrial operator(s), and may accommodate up to approximately 174,000 s.f. of cold storage (i.e., refrigeration) in the event building tenants require cold storage.

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. The alternative site plan would not involve any changes to the size, location, configuration, or design of proposed Buildings 1, 3, or 4. Under the alternate site plan, the total building area on the Project site would be 1,615,002 s.f. (for an overall FAR of 0.44).

A. Parking and Loading

Figure 2-7 through Figure 2-10 depict the proposed locations of parking spaces and loading bays (also called "docks") for each building. The number of parking spaces and loading bays proposed for each building are summarized as follows:

	Building 1	Building 2	Building 3	Building 4
Parking Spaces				
Automobile	349[1]	92	92	120
Truck Trailer	317[1]	29	39	26
Loading Bays				
Dock Doors	200	13	17	24

[1] The parking lot for Building 1 has the option to be striped to provide 472 automobile parking spaces and 242 truck trailer parking spaces, if required by the tenant(s) that occupy the structure.

Note: Under the alternative site plan, Building 2 would be replaced by a parking lot with 166 truck trailer spaces.

B. Architecture, Walls and Fences

The proposed buildings would be constructed to a height of 45 feet above finished grade, with architectural projections up to 54 feet above finished grade. The buildings would be constructed with concrete tilt-up panels and low-reflective, green glass. Articulated building elements, including mullions and metal canopies, are proposed as decorative elements. The proposed exterior architectural color palette is comprised of various shades of gray, silver, white, and green. The interior of the proposed buildings are designed to provide a main floor, office spaces, and mezzanine. The buildings have the potential to be partitioned for multiple tenant use.

Figure 2-7 Building 1 Plot Plan

Figure 2-8 Building 2 Plot Plan

Figure 2-9 Building 3 Plot Plan

Figure 2-10 Building 4 Plot Plan

Figure 2-11 Moreno Valley Logistics Center Site Plan

Solid concrete walls up to 14 feet in height would be installed at various locations throughout the Project site to screen truck parking and loading dock areas from public view. The concrete screen walls would be constructed with a finish and color that complements the color palette for proposed structures on the site. Access points into the loading dock and truck parking areas would include manually operated, eight (8)-foot tall tubular steel gates, equipped with Knox® padlocks to allow emergency vehicle access. Where fencing is provided to delineate property boundaries it would consist of the following: 8-foot high wrought iron fencing would be provided in areas visible from public viewing areas while 8-foot tall chain link fencing would be provided in areas not visible from public viewing areas.

C. Landscaping

Drought-tolerant trees, shrubs, and groundcovers are proposed to be planted along street frontages of Krameria Avenue, Indian Street, and Heacock Street (including landscaping within public rights-of-way). Flowering accent and shade trees along with clusters of shrub planting would be installed along the Project site boundaries for screening purposes. Landscaping also would occur at building entries, in and around automobile parking areas, in and around the site's water quality/detention basins, and along proposed screen walls. Landscaping is estimated to cover approximately 11.0% of the property (approximately 9.8 acres). Proposed landscaping would be ornamental in nature, except within water quality/detention basins where plant materials would be selected to serve water quality functions. The Project's conceptual landscaping plan is illustrated on Figure 2-12, *Conceptual Landscape Plan*.

2.7 Discretionary Actions

This IS addresses the potential environmental effects of the proposed Moreno Valley Logistics Center project, including all of the discretionary actions and approvals required to implement the Project, as well as subsequent construction and operational activities. As part of the proposed Project, the City of Moreno Valley will consider approval of a Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plan applications (PA15-0014, PA15-0015, PA15-0016, and PA15-0017). Additionally, permits and approvals may be required from other public entities, including, but not limited to, the Riverside County Airport Land Use Commission (ALUC), the Santa Ana Regional Water Quality Control Board (RWQCB), the United States Army Corps of Engineers (ACOE), the Riverside County Flood Control and Water Conservation District (RCFCWCD), and the Eastern Municipal Water District (EMWD).

Figure 2-12 Conceptual Landscape Plan

3.0 ENVIRONMENTAL CHECKLIST

INITIAL STUDY/
ENVIRONMENTAL CHECKLIST FORM
CITY OF MORENO VALLEY

1. **Project Title:** Moreno Valley Logistics Center (P15-036, PA15-0014, PA15-0015, PA15-0016, PA15-0017, and PA15-0018)

2. **Lead Agency Name and Address:** City of Moreno Valley Community & Economic Development Department, Planning Division, 14177 Frederick Street, Moreno Valley, CA 92552

3. **Contact Person and Phone Number:** Julia Descoteaux, Associate Planner, (951) 413-3209

4. **Project Location:** South of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street.

5. **Project Sponsor's Name and Address:** Prologis L.P., 2817 E. Cedar St. Ste. 200, Ontario, CA 91761

6. **General Plan Designation:** Business Park/Light Industrial (BP)

7. **Zoning:** Moreno Valley Industrial Area Plan (Specific Plan No. 208) "Industrial"

8. **Description of the Project:** Refer to Section 2.0 of this Initial Study.

9. **Surrounding Land Uses and Setting:** The Project site is located in a portion of the City of Moreno Valley that is developing as a center for distribution warehousing, e-commerce, and light industrial land uses. The Project site is bordered by vacant, undeveloped land on the northwest and a large warehouse building on the northeast. The vacant, undeveloped land located northwest of the Project site is approved for future development as a warehouse distribution center (March Business Center). Located farther north of the Project site is Iris Avenue, undeveloped land, and residential development. The Project site is bordered on the south by partially developed Cardinal Avenue, a large warehouse building, and the Perris Valley Storm Drain Channel. Located farther south are a collection of warehouse distribution buildings, undeveloped lands that are designated for future industrial development, and small parcels that contain small commercial, industrial, or manufacturing structures. Immediately to the east of the Project site is Indian Street. East of Indian Street are single-family residential homes, with pockets of undeveloped land designated for future residential development. The Project site is bordered on the west by two large warehouse/industrial buildings and Heacock Street. West of Heacock Street is the March Air Reserve Base.

10. **Other public agencies whose approval is required:** Riverside County Airport Land Use Commission (Airport Land Use Plan Consistency Determination); Santa Ana Regional Water Quality Control Board (NPDES Permit); United States Army Corps of Engineers (Section 404 Permit); Riverside County Flood Control and Water Conservation District (Water Quality Management Permit and storm drain design), and Eastern Municipal Water District (domestic water and sewer system design).

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below(■) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

■	Aesthetics	■	Greenhouse Gas Emissions		Population/Housing
■	Agricultural Resources	■	Hazards & Hazardous Materials		Public Services
■	Air Quality	■	Hydrology/Water Quality		Recreation
■	Biological Resources	■	Land Use/Planning	■	Transportation/Traffic
■	Cultural Resources		Mineral Resources		Utilities/Service Systems
	Geology/Soils	■	Noise	■	Mandatory Findings of Significance

ENERGY CONSERVATION

Public Resources Code (PRC) Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Therefore, the State Resources Agency created Appendix F to the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Thus, the EIR also will address the topic of energy conservation.

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	■
I find that the proposed project MAY have a "potential significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Signature Date

Julia Descoteaux, Associate Planner
Printed Name

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

4) “Negative Declaration: Potentially Significant Unless Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analysis,” as described in (5) below, may be cross-referenced).

5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c) (3) (d). In this case, a brief discussion should identify the following:

   (a) Earlier Analysis Used. Identify and state where they are available for review.

   (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   (c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.

9) The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?				■

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan Figure 7-2, Major Scenic Resources; On-site Inspection (2015))

The Project site is located within the City of Moreno Valley which lies within a relatively flat valley floor surrounded by rugged hills and mountains. Topographic features of Moreno Valley that provide vistas include the Box Springs Mountains and Reche Canyon to the north, the Badlands to the east and the Mount Russell area to the south. According to General Plan Figure 7-2, *Major Scenic Resources*, the Project site is not located within a view corridor for the Box Springs Mountains, Reche Canyon, the Badlands, or Mount Russell. Accordingly, implementation of the proposed Project would not have a substantial effect on a scenic vista. Thus, no impact would occur and no further analysis is required on this subject.

b) Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				■

Source: California Scenic Highway Program (Caltrans Mapping System); City of Moreno Valley General Plan Conservation Element; City of Moreno Valley General Plan Figure 7-2, Major Scenic Resources; Google Earth; On-site Inspection (2015))

The Project site is not located within or adjacent to a scenic highway corridor and does not contain scenic resources, such as trees of scenic value, rock outcroppings, or historic buildings. There are no State-designated or eligible scenic highways within the City of Moreno Valley. The Project site is located approximately 6.0 miles north of Highway 74, which is the only facility within the Project vicinity that is designated as a State-eligible scenic highway. Additionally, the Project site is located approximately 4.2 miles south of State Route 60, which the City of Moreno Valley General Plan Figure 7-2 identifies as a "Scenic Route." Due to the distance and intervening topography and development, the Project would not be visible from State Highway 74 or State Route 60. Accordingly, the Project site is not located within a state scenic highway corridor and implementation of the proposed Project would not have a substantial effect on scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway corridor. Thus, no impact would occur and no further analysis is required on this subject.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?	■			

(Source: Project Application Materials; On-site Inspection (2015); Moreno Valley Industrial Area Plan)

Implementation of the proposed Project would convert land that was previously vacant and undeveloped to a logistics center with four (4) large buildings and associated loading docks and parking spaces, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality/detention basins. The Project site is located in a portion of the City of Moreno Valley that is developing as a center for distribution warehousing, e-commerce, and light industrial land uses. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are planned for future industrial development; to the west by March Air Reserve Base, and to the east by single-family residential homes.

Although the Project incorporates architectural features that would ensure that the proposed buildings would not be visually offensive and despite the fact that the proposed buildings would be compatible with the size, scale height and aesthetic qualities of other industrial buildings in the Project vicinity, because implementation of the proposed Project would change the property from undeveloped, vacant land to land that is developed with industrial uses, further analysis of the Project's potential to substantially degrade the existing visual character or quality of the site and its surroundings is required. Thus, the Project's potential to substantially degrade the existing visual character or quality of the site and its surroundings could be a potentially significant impact requiring further analysis in the required EIR.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	■			

(Source: Project Application Materials; Moreno Valley Industrial Area Plan; City of Moreno Municipal Code Chapter 9.08.100)

The Project site does not contain any artificial light sources or sources of glare under existing conditions. The proposed Project would include exterior lighting; however, the installation of exterior lighting would be ancillary to the proposed industrial buildings. The proposed Project would be required to adhere to the lighting requirements as set forth in the MVIAP and the City of Moreno Municipal Code. The MVIAP includes standards for lighting of property's within the MVIAP's boundaries as follows: "Exterior light fixtures shall be designed and placed so as not to provide light spillage on adjacent properties or public rights-of way." The use of "full cut off" fixtures should be used adjacent to the March Air Reserve Base to reduce nighttime lighting glare towards the flight line (Moreno Valley, 2002, pp. III-19). Additionally, City of Moreno Valley Municipal Code Chapter 9.08.100 establishes that all outdoor lighting associated with nonresidential uses shall be fully shielded and directed away from surrounding residential uses to reduce glare and light trespass, and shall not exceed one-quarter-foot-candle minimum maintained lighting measured from within five (5) feet of any property line. Furthermore, the City's Municipal Code also specifies that exterior lighting associated with nonresidential uses shall not blink, flash, or oscillate or be of unusually high intensity or brightness. The Project would be required to demonstrate compliance with these requirements to the City of Moreno Valley prior to issuance of building permits. Project compliance with the lighting requirements of the MVIAP and the City of Moreno Valley Municipal Code would ensure that the proposed Project would not produce a new source of substantial light or glare from artificial lighting sources that would adversely affect day or nighttime views in the area.

With respect to daytime glare impacts, the proposed Project would involve the construction of four (4) buildings with exterior building surfaces that consist of concrete tilt-up panels and low-reflective, green glass. While window glazing has a potential to result in minor glare effects, such effects would not adversely affect daytime views of any surrounding properties, including motorists on adjacent roadways, because the buildings would be surrounded along roadway perimeters with screen walls and/or landscaping. Additionally, areas proposed for window glazing would be limited, as shown on the Project's application materials. Solar panel arrays have the potential to be placed on portions of the building roofs. The installation of solar panels could cause glare impacts to adjacent properties, including the March Air Reserve Base. The potential for glare occurrence from solar panels would be minimal, because the angle of most roof mounted solar panels are directed into the sky and not at adjacent properties, and panels are absorptive, not reflective; regardless, the potential does exist for solar panels to create a new source of glare that could adversely affect views in the area. Accordingly, the potential for daytime and nighttime glare impacts is required to be studied in the required EIR.

II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project?

a) Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?				■

(Source: City of Moreno Valley General Plan FEIR Figure 5.8-1, Important Farmlands, California Department of Conservation, "Riverside County Important Farmland.")

According to City of Moreno Valley General Plan FEIR Figure 5.8-1, *Important Farmlands*, and mapping available from the California Department of Conservation Farmland Mapping & Monitoring Program (FMMP), the Project site contains lands classified as "Farmland of Local Importance." Accordingly, the Project site does not contain any lands mapped by the State Department of Conservation as Farmland, Unique Farmland, or Farmland of Statewide Importance. As such, the Project would not convert Prime

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

Farmland, Unique Farmland or Farmland of Statewide Importance. Thus, no impact would occur to Prime Farmland, Unique Farmland or Farmland of Statewide Importance.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				■

(Source: Moreno Valley Industrial Area Plan; Riverside County Land Information System (RCLIS); Moreno Valley Map Viewer)

No land within the City of Moreno Valley, including the Project site, is currently under a Williamson contract (City of Moreno Valley, 2006b, pp. 5.8-6). The Project site is zoned "Industrial" and surrounding land uses are zoned "Industrial" (areas to the north and south), "Residential (R5)" (areas to the east) and the March Air Reserve Base on the west. Accordingly, because the Project site is not located on or adjacent to land zoned for agricultural use and is also not subject to a Williamson Act contract, the proposed Project has no potential to conflict with existing zoning for agricultural use or a Williamson Act contract. As such, no impact would occur and no further analysis of this subject is required.

c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	■			

(Source: Moreno Valley Industrial Area Plan; Riverside County Land Information System (RCLIS); California Department of Conservation, Farmland Mapping and Monitoring Program)

As previously discussed under Item II(a), the Project site is classified as "Farmland of Local Importance" by the California Department of Conservation. The Project site is undeveloped and has been vacant or used for agricultural activities since at least 1938; however, there are no active agricultural uses on the subject property under existing conditions. Implementation of the Project would convert areas on the subject property classified as farmland (i.e., "Farmland of Local Importance") to non-agricultural use. Thus, the potential impacts resulting from the Project's conversion of farmland to non-agricultural use shall be fully analyzed in the EIR.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	■			

(Source: South Coast Air Quality Management District Final 2012 Air Quality Management Plan; City of Moreno Valley General Plan FEIR, Chapter 5.3 - Air Quality)

The Project site is located in the South Coast Air Basin. Air quality within the South Coast Air Basin is regulated by the South Coast Air Quality Management District (SCAQMD). Standards for air quality are documented in the SCAQMD's Air Quality Management Plan (AQMP), adopted in December 2012. The proposed Project would result in the emission of pollutants into the Air Basin during short-term construction and long-term operational activities. The pollutant levels emitted by the Project's construction and operation have the potential to exceed the daily significance thresholds established by the SCAQMD, thereby potentially conflicting with or obstructing implementation of the SCAQMD's 2012 Air Quality Management Plan. As such, an air quality technical report shall be prepared and the required EIR shall evaluate the proposed Project's potential to conflict with the adopted SCAQMD's Air Quality Management Plan.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.	■			

(Source: South Coast Air Quality Management District Final 2012 Air Quality Management Plan; City of Moreno Valley General Plan FEIR, Chapter 5.3 - Air Quality)

Air quality within the South Coast Air Basin is regulated by the SCAQMD and standards for air quality are documented in the SCAQMD Air Quality Management Plan adopted in 2012. Development of the Project site as proposed by the Project has the potential to violate daily air pollutant emission significance thresholds established by the SCAQMD's Air Quality Management Plan, particularly related to Project construction and mobile source emissions associated with the Project's long-term operation. Accordingly, an air quality technical report shall be prepared and Project-related air emissions shall be modeled using the SCAQMD's California Emissions Estimator Model (CalEEMod). The purpose of this model is to estimate construction-source and operational-source air quality emissions for criteria pollutants from direct and indirect sources. The required EIR shall quantify the Project's expected pollutant levels and evaluate the proposed Project's potential to violate local air quality standards and/or contribute substantially to an existing or projected air quality violation.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	■			

(Source: South Coast Air Quality Management District Final 2012 Air Quality Management Plan; City of Moreno Valley General Plan FEIR, Chapter 5.3 - Air Quality)

The South Coast Air Basin is a non-attainment area for various state and federal air quality standards, including state and federal ozone standards (1-hour and 8-hour) and particulate matter standards (PM_{10} and $PM_{2.5}$). Development of the Project site as proposed by the Project could cumulatively contribute to a net increase of criteria pollutants in the region. Therefore, the required EIR shall address the Project's potential to result in a cumulatively considerable increase of pollutants for which the South Coast Air Basin is in non-attainment.

d) Expose sensitive receptors to substantial pollutant concentrations?	■			

(Source: South Coast Air Quality Management District Final 2012 Air Quality Management Plan; City of Moreno Valley General Plan FEIR, Chapter 5.3 - Air Quality; Google Earth)

The Project does not propose any sensitive receptors or land uses that may be considered point source emitters; however, the Project has the potential to expose nearby sensitive receptors to diesel particulate matter emissions from mobile sources associated with the Project (*i.e.*, diesel-fueled vehicles and equipment). Diesel particulate matter dissipates greatly beyond approximately 1,000 feet from the source but there are sensitive receptors (e.g., single-family homes) located within 1,000 feet of the Project site and/or its primary truck route. Therefore, a diesel health risk assessment shall be prepared that evaluates impacts to maximum exposed sensitive receivers in the immediate vicinity of the Project site and its primary truck route. The health risk assessment also shall evaluate the proposed Project's potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards. This information shall be disclosed in the required EIR.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Create objectionable odors affecting a substantial number of people?			■	

(Source: Project Application Materials)

The Project could produce odors during proposed construction activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction, and short-term impacts would be less than significant.

During long-term operation, the proposed Project site would contain a logistics center, the operating characteristics of which are not typically associated with objectionable odors. The temporary storage of refuse associated with the proposed Project's long-term operational use could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the proposed Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial number of people.

IV. BIOLOGICAL RESOURCES. Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?	■			

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.9 – Biological Resources, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP); On-Site Inspection (2015))

The Project site consists of undeveloped land that is routinely disturbed (i.e., disced) as part of weed abatement activities. Additionally, the Project site is transected by the Perris Valley Storm Drain Channel, an engineered storm drain channel, in a northwest to southeast direction. Although the Project site has been disturbed, the site has the potential to support sensitive species such as small mammals and migratory birds including the western burrowing owl. Because the Project site has the potential to contain species and/or habitat that supports species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service, the EIR shall evaluate the proposed Project's potential to impact candidate, sensitive, or special status species which may be present on the site. A qualified biologist shall evaluate the site's existing biological resources and determine the presence or absence of any sensitive species. The results of the biological resources assessment(s) shall be disclosed and evaluated in the required EIR.

b) Have a substantially adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service?	■			

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.9 – Biological Resources, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), On-Site Inspection (2015))

The Project site consists of disturbed land and does not contain any sensitive native vegetation. The Project site is transected by the Perris Valley Storm Drain Channel in a northwest to southeast direction and the Project would construct outlets within the Channel to release storm water runoff from the Project site. The Perris Valley Storm Drain Channel ultimately discharges to the Santa Ana River. Thus, there is the potential for the Project to affect riparian or other sensitive natural community identified in local or regional

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

plans, policies, regulations or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service. A qualified biologist shall evaluate the Project's impact area to determine if the property contains riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U. S. Fish and Wildlife Service. The results of the biological resources assessment shall be disclosed and evaluated in the required EIR.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	■			

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.9 – Biological Resources, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), On-Site Inspection(2015))

The Project site consists of undeveloped land that is routinely disturbed (i.e., disced) as part of weed abatement activities. The Project proposes storm drain outlet structures that would connect to the Perris Valley Storm Drain Channel. The Perris Valley Storm Drain Channel is under the jurisdiction of the U.S. Army Corps of Engineers. Therefore, a qualified biologist shall evaluate the Project's potential to impact federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.). The results of the biological resources assessment shall be disclosed and evaluated in the required EIR.

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?	■			

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.9 – Biological Resources, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), On-Site Inspection (2015))

The Project site is disturbed and does not support a diversity of native wildlife. Paved roads, fencing, and developed land surrounding the Project site block terrestrial wildlife movement from all directions. Wildlife movement corridors in western Riverside County and the City of Moreno Valley are addressed by the conservation requirements specified in the Western Riverside County MSHCP, and the Project site is not identified for conservation as part of the MSHCP. Accordingly, the site is not considered to be a wildlife movement corridor. Nonetheless, development of the Project site as proposed by the Project has some minimal potential to impact avian species that are protected by the federal Migratory Bird Treaty Act. The Project's potential to impact migratory birds during construction and long-term operation shall be evaluated in the required EIR.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	■			

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.9 – Biological Resources, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP); Google Earth: City of Moreno Valley Municipal Code Chapter 9.17.03)

The only applicable local ordinance protecting biological resources is the City's Landscape and Irrigation Design Standards ("Landscape Ordinance," Municipal Code Chapter 9.17.030). The Landscape Ordinance specifies requirements that would apply to projects that require the removal of existing mature trees. The Project site contains a few trees along Indian Street. As such, a discussion of the Landscape Ordinance shall be discussed in the required EIR. Additionally, as discussed above under Item IV(d) the Project site shall adhere to the policies of the MSHCP.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	■			

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.9 – Biological Resources, Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP); City of Moreno Valley Municipal Code Title 3 Chapter 3.48 and Chapter 8.60; Riverside County Land Information System (RCLIS)

The Project site is subject to the provisions of the Western Riverside County MSHCP. The proposed Project will be required to comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, “Western Riverside County Multiple Species Habitat Conservation Plan Fee Program,” which requires a per-acre local development mitigation fee to implement the MSHCP. The Project site is not located within one of the targeted conservation cells of the MSHCP. The Project site is, however, subject to the survey and conservation requirements of MSHCP Section 6.3.2 (Species Survey Requirements), which requires the preparation of a habitat assessment for the western burrowing owl. Pursuant to Section 6.3.2 of the MHSCP, a burrowing owl site assessment shall be submitted for the Project site, and the findings of the site assessment shall be evaluated in the required EIR to determine the Project’s consistency with the MSHCP.

The Project site also is located in the Stephens’ Kangaroo Rat (SKR) Habitat Conservation Plan (HCP). Impacts to SKR habitat throughout the HCP area are mitigated by complying with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, which requires a per-acre local development mitigation fee pursuant to the City’s adopted “The Habitat Conservation Plan for the Stephens’ Kangaroo Rat in Western Riverside County, California” and as established pursuant to Fee Resolution 89-92. Thus, the biological resources assessment shall also evaluate the presence or absence of SKR and its potential to occur on the Project site. The findings of the site assessment shall be evaluated in the required EIR to determine the Project’s consistency with the MSHCP.

V. CULTURAL RESOURCES. Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				■

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.10 – Cultural Resources)

The Project site is undeveloped and contains no developed features (i.e., structures). The Project site was not identified as containing a historic resource as part of the historic resource inventory that was conducted as part of the City of Moreno Valley General Plan FEIR, as depicted on FEIR Exhibit 5.10-1, *Locations of Listed Historic Resource Inventory Structures.* Accordingly, the Project has no potential to impact a historical resource as defined by CEQA.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	■			

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.10 – Cultural Resources)

According to the Moreno Valley General Plan FEIR, the subject property is not a part of any known Native American village complex. A majority of archaeological locations in the City of Moreno Valley are milling stations where bedrock metates (more or less flat grinding surfaces), commonly referred to as ‘slicks,’ and bedrock mortars are found. These locations “are generally situated around valley edges where suitable rock outcrops occur” (City of Moreno Valley, 2006b, pp. 5.10-6). Additionally, according to General Plan FEIR Figure 5.10-2, *Locations of Prehistoric Resources*, the Project site is not identified by the City of Moreno Valley as an identified location of prehistoric sites. The Project site is not located on a valley edge and does not contain any rock outcrops and, based on the information presented in the General Plan FEIR, does not have a high likelihood for the discovery of archaeological resources. However, a site-specific survey have never been conducted to evaluate the potential archaeological

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

sensitivity of the Project site. A site-specific cultural resources assessment shall be conducted by a professional archaeologist to determine likelihood for the presence/absence of archaeological resources to be located on or beneath the surface of the Project site. The results of the site-specific cultural resources assessment shall be disclosed in the required EIR.

During site excavation and/or grading activities that would occur on the property during Project construction activities, there is a potential to uncover resources buried beneath the surface of the site. The Project's potential to impact previously undiscovered archaeological resources beneath the surface of the site, which could result in an adverse change in the significance of the resources pursuant to California Code of Regulations §15064.5, shall be evaluated in the required EIR.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	■			

(Source: City of Moreno Valley General Plan Conservation Element; City of Moreno Valley General Plan FEIR, Chapter 5.10 – Cultural Resources; County of Riverside General Plan)

The Project site is not known to contain unique geologic features. The Project site is identified by the City's General Plan FEIR Exhibit 5-10-3, *Paleontological Resource Sensitive Area*s, as having a "Low Potential" to contain unique paleontological resources but is identified by the County of Riverside General Plan as having a "high" potential to contain paleontological resources. During site excavation and/or grading activities that would occur on the property during Project construction activities, there is a potential to uncover fossils that may be buried beneath the surface of the site. Thus, the Project's potential to impact previously undiscovered paleontological resources beneath the surface of the site shall be evaluated in the required EIR.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?			■	

(Source: Project Application Materials; On-Site Inspection (2015))

The Project site does not contain a known cemetery. While not anticipated, in the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code §7050.5 as well as Public Resources Code §5097 et. seq. Mandatory compliance with these provisions of California state law would ensure that impacts to human remains, if unearthed during construction activities, would be appropriately treated and ensure that potential impacts are less than significant. No further analysis is required on this subject.

VI. GEOLOGY AND SOILS. Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				■

(Source: City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.6 – Geology and Soils, California Department of Conservation "Alquist-Priolo Earthquake Fault Zone Maps,"; United States Geological Survey Earthquake Hazards Program; "Geotechnical Investigation Proposed Moreno Valley Logistics Center" prepared by Southern California Geotechnical, dated March 24, 2015)

No known earthquake faults are located on the Project site (United States Geological Survey 2010, California Department of Conservation 2010), and the nearest mapped fault is located approximately 10.0 miles east of the Project site as mapped on City Moreno Valley General Plan FEIR Figure 5.6-2, *Seismic Hazards*. Because there are no faults located on the Project site, there is no potential that the proposed Project could expose people or structures to substantial adverse effects, including the risk of loss, injury or death involving ground rupture. Thus, no impact would occur and no further analysis of this subject is required.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(ii) Strong seismic ground shaking?			■	

(Source: City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.6 – Geology and Soils; Geotechnical Investigation Proposed Moreno Valley Logistics Center" prepared by Southern California Geotechnical, dated March 24, 2015)

The Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the proposed Project. As a mandatory condition of Project approval, the Project would be required to construct the proposed warehouse building in accordance with the California Building Standards Code (CBSC), also known as California Code of Regulations (CCR), Title 24 (Part 2), and the City of Moreno Valley Building Code, which is based on the CBSC with local amendments. The CBSC and City of Moreno Valley Building Code provide standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures, and have been specifically tailored for California earthquake conditions. In addition, the CBSC (Chapter 18) and the City of San Bernardino Building Code (Chapter 8.21) require development projects to prepare geologic engineering reports to identify site-specific geologic and seismic conditions and implement the site-specific recommendations contained therein to preclude adverse effects involving unstable soils and strong seismic ground-shaking, including, but not limited to, recommendations related to ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems. The Project has prepared such a report, which is on file with the City of Moreno Valley, and the City would condition the Project to comply with the site-specific ground preparation and construction recommendations contained in this report. With mandatory compliance with these standard and site-specific design and construction measures, potential impacts related to seismic ground shaking would be less than significant. As such, the Project would not expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Impacts would be less-than-significant.

(iii) Seismic-related ground failure, including liquefaction?			■	

(Source: City of Moreno Valley General Plan FEIR, Chapter 5.6 – Geology and Soils; "Geotechnical Investigation Proposed Moreno Valley Logistics Center" prepared by Southern California Geotechnical, dated March 24, 2015: Riverside County Land Information System)

According to General Plan FEIR Figure 5.6-2 *Seismic Hazards*, the Project site is not located in an area with the potential for liquefaction. Also, according to Riverside County Land Information System (RCLIS), the property is located within a zone of low liquefaction susceptibility. Additionally, the geotechnical investigation prepared for the property concludes that based on observed subsurface conditions, liquefaction is not considered a design concern for the proposed Project (SoCalGeo, 2015, p. 11). The City of Moreno Valley will require that the property be developed in accordance with the latest applicable seismic safety guidelines, including the standard requirements of the CBSC and the City of Moreno Valley Building Code. Furthermore, the Project would be required to comply with the site-specific grading and construction recommendations contained within the Project's geotechnical report (on file with the City of Moreno Valley), which the City would impose as a standard condition of Project approval, to further reduce the risk of seismic-related ground failure due to liquefaction. Thus, the Project's impacts to expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction, would be less than significant and no further analysis of this subject is required.

(iv) Landslides?			■	

(Source: On-site Inspection (2015), Project Application Materials, City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.6 – Geology and Soils; Geotechnical Investigation Proposed Moreno Valley Logistics Center" prepared by Southern California Geotechnical, dated March 24, 2015)

The Project site is relatively flat with an elevation range from 1,497 AMSL at its northern boundary and 1,468 AMSL at the property's lowest point at the southeast corner of the property. Also, there are no hillside or steep slopes on or in the vicinity of the Project site. Accordingly, the Project site is located in an area with a low potential for landslides. When grading is complete, the

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

Project site would have a slight, northwest-to-southeast slope; the highest point of the site would be approximately 1,493 AMSL at the northwest corner of the site and would slope downward to an elevation of approximately 1,476 AMSL in the southeast portion of the Project site. Proposed grading would not create manufactured slopes except around the proposed water/quality detention basins in the eastern portion of the site, where proposed slopes would measure up to five (5) feet in height with a maximum incline of 4:1. Thus, development of the proposed Project would not expose people or structures to potential substantial adverse effects from landslides and a less than significant impact would occur. No further analysis of this subject is required.

(b) Result in substantial soil erosion or the loss of topsoil?			■	

(Source: On-site Inspection (2015), Project Application Materials, City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.6 – Geology and Soils; Geotechnical Investigation Proposed Moreno Valley Logistics Center" prepared by Southern California Geotechnical, dated March 24, 2015)

Development of the Project site as proposed by the Project would disturb the site during grading and construction and expose the underlying soils, which would temporarily increase erosion susceptibility. Based on the granular content of the existing on-site soils, some of the on-site soils may be susceptible to erosion during construction (SoCalGeo, 2015, p. 16). In the long-term, development of the subject property would increase the extent of impervious surface cover and landscaping on the Project site, thereby reducing the potential for erosion and loss of topsoil. The Project would be required to adhere to standard regulatory requirements, including, but not limited to, requirements imposed by the City of Moreno Valley's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (State Water Resources Control Board Order No. 99-08-DWQ) and a Project-specific Water Quality Management Plan (WQMP) that includes Best Management Practices (BMPs) to minimize water pollutants including sedimentation in stormwater runoff. With mandatory compliance with the City of Moreno Valley's NPDES Municipal Stormwater Permit and the Project's WQMP, the Project's potential to result in substantial soil erosion of the loss of topsoil would be less than significant and no further analysis of this subject is required.

(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			■	

(Source: Project Application Materials, City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.6 – Geology and Soils; Geotechnical Investigation Proposed Moreno Valley Logistics Center" prepared by Southern California Geotechnical, dated March 24, 2015)

Under existing conditions, native alluvial soils underlie the subject property. The alluvial soils generally consist of very stiff to hard sandy clays, clayey silts and silty clays as well as medium dense to very dense sands, silty sands and clayey sands extending to 30± feet (SoCalGeo, 2015, p. 6). The native alluvial soils at depths of 2 to 4 feet possess generally lower strengths than the native alluvial soils at greater depths. The native soils at depths of 2 to 4 feet also possess significant collapse potential and moderate susceptibility to load-induced consolidation, under existing conditions. Additionally, numerous samples of the near surface clayey soils are dry and possess a moderate potential for swelling and soil heave when exposed to cyclical wetting and drying, under existing conditions. (SoCalGeo, 2015, pp. 11-12)

However, the Project's geotechnical report (on file with the City of Moreno Valley) indicates that the site's shrinkage/swelling, subsidence and settlement potential would be attenuated through the proposed removal of near surface soils down to competent materials and replacement with properly compacted fill, which is included as a recommendation in the Project's geotechnical report (SoCalGeo, 2015, pp. 10-24). Through standard conditions of approval, the proposed Project would be required by the City to incorporate the recommendations contained within the Project geotechnical report into the grading plan for the Project. As such, implementation of the Project would result in less-than-significant impacts associated with soil shrinkage/subsidence and collapse.

As discussed in Item IV (a), (iii) and (iv), development of the property as proposed by the Project would result in a less than

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

significant impact involving ground failure, including liquefaction, and a less than significant impact involving landslides.

(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			■	

(Source: Project Application Materials, City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.6 – Geology and Soils; Geotechnical Investigation Proposed Moreno Valley Logistics Center" prepared by Southern California Geotechnical, dated March 24, 2015)

The near surface soils on the property generally consist of sandy clays, silty clays, and clayey sands (SoCalGeo, 2015, p. 12). As determined by Southern California Geotechnical, the near surface on-site soils are determined to possess a low-to-medium expansion potential (Expansion Index ranging from 0 to 66) (SoCalGeo, 2015, p. 9). The Project's geotechnical report (on file with the City of Moreno Valley) indicates that expansive soils on the subject property would be attenuated through soil moisture conditioning during grading activities, which is included as a recommendation in the Project's geotechnical report (SoCalGeo, 2015, p. 16). Through standard conditions of approval, the proposed Project would be required by the City to incorporate the recommendations contained within the Project geotechnical report into the grading plan for the Project. As such, implementation of the Project would result in less-than-significant impacts associated with expansive soils and would not create substantial risks to life or property.

[Note: Item VI.d is based on Appendix G of the CEQA Guidelines and references Table 18-1-B of the 1994 Uniform Building Code (UBC). This Table no longer exists. The Building Code currently in effect, the 2013 CBC, references ASTM D-4829, a standard procedure for testing and evaluating the expansion index (or expansion potential) of soils established by ASTM International, which was formerly known as the American Society for Testing and Materials (ASTM).]

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				■

(Source: Project Application Materials)

Wastewater service is available to the Project area under existing conditions via an existing 8-inch diameter sewer line in Heacock Street and via an existing 30-inch diameter sewer line along the eastern edge of the Perris Valley Storm Drain Channel. The proposed Project would not install septic tanks or alternative wastewater disposal systems on the Project site. Accordingly, no impact would occur.

VII. GREENHOUSE GAS EMISSIONS. Would this project?

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	■			

(Source: Project Application Materials; California Assembly Bill 32 (2006))

Greenhouse gas (GHG) emissions associated with the proposed Project would primarily be associated with Project-related traffic. In addition, Project-related construction activities, energy consumption, water consumption, and solid waste generation also would contribute to the Project's overall generation of GHGs. The City of Moreno Valley has not adopted any numerical thresholds of significance for GHG emissions. Significance of the proposed Project's GHG impacts will be based on compliance with Assembly Bill 32 (AB 32, 2006). AB 32 establishes goals for the statewide reduction of GHG emissions. On October 9, 2012, the Moreno Valley City Council approved an *Energy Efficiency and Climate Action Strategy* document that identifies potential programs and policies to reduce overall City energy consumption and increase the use of renewable energy. The majority of the policies are directed at municipal operations of the City, but the document also contains recommended policies for the community at large (including private development projects). The overall goal of the *Energy Efficiency and Climate Action Strategy* is to ensure that the City is consistent with and would not otherwise conflict with the provisions of AB 32. Thus, consistency with AB 32 is the

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

appropriate significance threshold to apply to evaluate Project consistency. Due to the Project's potential to emit GHGs, a Project-specific GHG emissions report shall be prepared for the Project. The results of the GHG emissions report shall be disclosed in the required EIR.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	■			

(Source: Project Application Materials; California Assembly Bill 32 (2006))

AB 32 is the primary plan, policy or regulation adopted in the State of California to reduce GHG emissions, and the proposed Project would have a significant impact related to GHG emissions if it does not comply with the reduction goals developed under AB 32. As noted above under the discussion of Item VII (a), a Project-specific GHG emissions report shall be prepared to determine whether the Project would be consistent with the GHG reduction goals established by AB 32. The required EIR shall document the findings of the Project-specific GHG emissions report and shall evaluate the Project for consistency with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions.

VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project?

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	■			

(Source: Project Application Materials; Moreno Valley Industrial Area Plan)

The Project site consists of vacant undeveloped land that is routinely disturbed (i.e., disced) and does not contain any structures. Because the Project site is vacant and undeveloped under existing conditions, no substantial hazards or hazardous materials are expected to occur; regardless, a site-specific environmental assessment technical report shall be prepared for the proposed Project to determine the presence or absence of hazardous materials on the Project site, including the potential for the Project site to be impacted by a contaminated groundwater plume originating from March Air Reserve Base. The results of the site-specific technical report shall be disclosed and evaluated in the required EIR.

During construction of the proposed Project, a limited amount of hazardous materials would be transported to, stored, and used on the property (fuel, paint, etc.), that are typical in a construction operation and do not create a significant hazard to the public or environment.

The specific businesses or tenants that will occupy the Project's proposed buildings are not known at this time. The Project site is located within the MVIAP, and is designated for "Industrial" land uses. Based on the list of land uses permitted in the MVIAP's Industrial zone, it is possible that hazardous materials could be used during the course of daily operations, including the storage and use of refrigerant that may be used on-site (in the event that cold storage is provided on-site). The Project's potential to create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials during long-term operation shall be fully analyzed in the required EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	■			

(Source: Project Application Materials; Moreno Valley Industrial Area Plan)

See response to Item VIII(a), above.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				■

(Source: Project Application Materials; Google Earth, City of Moreno Valley General Plan FEIR Section 5.13-Public Services and Utilities)

No existing or proposed schools occur within one-quarter mile of the Project site. The nearest school sites to the Project site are Rainbow Ridge Elementary School, located at 15950 Indian Street, approximately 0.60-mile north of the Project site and Morning Dove Christian School, located at 25065 Morning Dove Way, approximately 0.60-mile east of the Project site. Accordingly, the proposed Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur and no further analysis of this subject is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result would it create a significant hazard to the public or the environment?				■

(Source: Project Application Materials; Moreno Valley Industrial Area Plan; City of Moreno Valley General Plan FEIR Section 5.5 Hazards; California Environmental Protection Agency (CalEPA); California Department of Toxic Substance Control)

The Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Accordingly, no impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			■	

(Source: City of Moreno Valley General Plan Safety Element Figure 6-5, Air Crash Hazards, City of Moreno Valley General Plan FEIR, Chapter 5.5 – Hazards; March ARB/Inland Port Airport Joint Land Use Study)

The Project site is located adjacent to and east of the March Air Reserve Base. According to City of Moreno Valley General Plan FEIR Figure 5.5-3, *City Areas Affected by Aircraft Hazard Zones,* and March Air Reserve Base/Inland Port Land Use Study, Exhibit 2-14, *Accident Potential Zones,* the Project site is not located within an Accident Potential Zone or "Clear Zone" (i.e., high risk areas 3,000 feet from each end of the runway). Thus, because the Project site is not located in an area identified as an Accident Potential Zone or a Clear Zone, implementation of the proposed Project would not result in a safety hazard for people living or working on the Project area and impacts would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				■

(Source: City of Moreno Valley General Plan Safety Element; City of Moreno Valley General Plan FEIR, Chapter 5.5 – Hazards; Google Earth)

There are no private airfields or airstrips in the vicinity of the Project site. Thus, there is no potential for the implementation of the Project to result in a safety hazard for people residing or working in the Project area. No impact would occur and no further analysis of this subject is required.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?			■	

(Source: Project Application Materials, City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.5 – Hazards)

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, the proposed Project would be required to maintain adequate emergency access for emergency vehicles as required by the City. Because the proposed Project would not interfere with an adopted emergency response or evacuation plan, impacts would be less than significant and no further analysis of this subject is required.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				■

(Source: Project Application Materials, City of Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR Section 5-5, Hazards; On-Site Inspection (2015))

According to City of Moreno Valley General Plan FEIR figure 5.5-2, *Floodplains and High Fire Hazard Areas*, the Project site is not located in an area of substantial or high fire risk. The Project site is located in an area that has been largely developed, with the March Air Reserve Base located to the west of the Project site. No wildlands are located on or adjacent to the Project site and the Project site is largely devoid of vegetation and surrounded on all sides by developed properties, paved roads, maintained sites, and/or the Perris Valley Storm Drain Channel. Thus, implementation of the proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. No impact would occur and no further analysis of this subject is required.

IX. HYDROLOGY AND WATER QUALITY. Would the project:

a) Violate any water quality standards or waste discharge requirements?	■			

(Source: Project Application Materials, City of Moreno Valley General Plan FEIR, Chapter 5.7 – Hydrology/Water Quality)

The California Porter-Cologne Water Quality Control Act (Section 13000 ("Water Quality") et seq., of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require that comprehensive water quality control plans be developed for all waters within the State of California. The Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). Construction of the Project would involve grading, paving, utility installation, building construction, and landscaping installation, which would result in the generation of potential water quality pollutants such as silt, debris, chemicals paints, and other solvents with the potential to affect water quality. Long-term operation of the Project site with land uses allowed within the MVIAP's "Industrial" zone are anticipated to generate storm water pollutants such as bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash and debris, and oil and grease. The Project's potential to violate any water quality standards or waste discharge requirements during short-term construction and/or long-term operational activities shall be fully analyzed in the required EIR.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			■	

(Source: Project Application Materials, City of Moreno Valley General Plan FEIR-Section 5.7 – Hydrology/Water Quality)

As depicted on City of Moreno Valley General Plan FEIR Figure 5.7-2, *Groundwater Basins*, the Project site is located within the

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Perris North Groundwater Basin. There are few domestic uses for groundwater within the City, due to salinity/water quality issues, and the City primarily relies on imported water from EMWD for its domestic water supply. The Project does not propose the installation of any water wells that would directly extract groundwater; however, the increase in impervious surface cover that would occur with development of the site could reduce the amount of water percolating down into the underground aquifer that underlies the Project site and a majority of the City. However, and as noted in the City's General Plan EIR (City of Moreno Valley, 2006b, pp. 5.7-12), "the impact of an incremental reduction in groundwater would not be significant as domestic water supplies are not reliant on groundwater as a primary source." Additionally, water captured by the proposed Project's water quality/detention basins and landscaped areas would have the opportunity to percolate into the ground. With buildout of the Project, the local groundwater levels would not be adversely affected. Therefore, impacts to groundwater supplies and recharge would be less than significant, and no further analysis is required on this subject.				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	■			
(Source: Project Application Materials) Construction of the proposed Project would involve mass grading of the site which would change the site's existing ground contours and alter the site's existing drainage pattern. Upon buildout of the Project, stormwater runoff from all portions of the Project site except for Cosmos Street would be captured by on-site storm drains and routed to one of six (6) on-site water quality/detention basins. Runoff flows within Cosmos Street would be captured by a proposed on-site system of storm drains that would be routed to existing storm drain facilities installed beneath Krameria Avenue. All Project runoff flows would ultimately be discharged to the Perris Valley Storm Drain Channel similar to existing conditions. The required EIR shall evaluate whether proposed alterations to the site's existing drainage pattern would result in substantial erosion or siltation on- or off-site.				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or surface runoff in a manner which would result in flooding on- or off site?	■			
(Source: Project Application Materials) As described above under Item IX(c), mass grading of the site would alter the existing drainage pattern of the site. A site-specific hydrology study shall be prepared to evaluate whether the proposed alterations to the site's existing drainage pattern would substantially increase the rate or amount of runoff leaving the subject property and, should such an increase occur, whether or not flooding would occur on- or off-site. The findings of the site-specific hydrology study shall be disclosed in the EIR.				
e) Create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	■			
(Source: Project Application Materials) Refer to Items IX(a), (c), and (d), above.				
f) Otherwise substantially degrade water quality?	■			
(Source: Project Application Materials) Refer to Items IX(a), (c), and (d), above.				

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				■

(Source: Project Application Materials, City of Moreno Valley General Plan FEIR Section 5.5- Hazards; Federal Emergency Management Agency (FEMA) Flood Map Service Center (online))

The Project consists of the construction and operation of a logistics center and does not propose any housing. Because the Project does not propose housing, there is no potential for the Project to place housing within a 100-year floodplain. Thus, no impact would occur and no further analysis of this subject is required.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	■			

(Source: Project Application Materials, City of Moreno Valley General Plan FEIR Section 5.5 - Hazards; Federal Emergency Management Agency (FEMA) Flood Map Service Center (online))

According to City of Moreno Valley General Plan FEIR Figure 5.5-2, *Floodplains and High Fire Hazards Area*s, portions of the Project site are located within a 100-year floodplain. Also, according to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, the western and eastern portions of the Project site are located within Flood Zone “X (Shaded)” which corresponds to areas with low-to-moderate flood hazards (i.e., greater than 0.2% annual chance of flood) while the central portion of the Project site is located within Flood Zone “AO (Depth 1’)” which is subject to flooding during the 100-year storm event at depths less than one-foot (1’). Accordingly, the Project has the potential to place within a 100-year flood hazard structures that would impede or redirect flows. Thus, the Project’s potential to impede or redirect flood flows shall be fully analyzed in the required EIR.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			■	

(Source: Project Application Materials, City of Moreno Valley General Plan FEIR Section 5.5 – Hazards)

The nearest dam to the Project site is Lake Perris, located approximately 2.5 miles southeast of the Project site. According to City of Moreno Valley General Plan FEIR Figure 5.5-2, *Floodplains and High Fire Hazard Areas*, the Project site is not located in an identified dam inundation area. The Perris Valley Storm Drain Channel, a Riverside County Flood facility that transects the Project site in a northwest to southeast direction is not considered a levee and no levees occur in the Project vicinity. Accordingly, impacts would be less than significant and no further analysis of this subject is required.

j) Inundation by seiche, tsunami, or mudflow?				■

(Source: Project Application Materials, City of Moreno Valley General Plan FEIR Section 5.5 – Hazards: Google Earth)

The Pacific Ocean is located more than 40 miles from the Project site; consequently there is no potential for tsunamis to impact the Project site. In addition, the Project site and immediate surrounding area do not contain steep hillsides subject to mudflow. The nearest water body to the Project site is Lake Perris which is located approximately 2.5 miles southeast and downstream of the Project site. Due to the distance from Lake Perris to the Project site and the topographic characteristics of the area, a seiche in Lake Perris would have no impact on the Project site. Although the Perris Valley Storm Drain Channel traverses a portion of the Project site, it is not an enclosed or semi-enclosed basin that would be conducive to reverberation and creation of seiches. Therefore, the Project site would not be subject to seiches, mudflows, and/or tsunamis. Thus, no impact would occur and no further analysis of this subject is required.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

X. LAND USE AND PLANNING. Would the project:

a) Physically divide an established community?				■

(Source: Project Application Materials, On-Site Inspection (2015); Google Earth)

The Project site consists of vacant and undeveloped land that is located within the geographical limits of the MVIAP. The Project site is located in a developing area of the City of Moreno Valley that is designated for industrial development. Development of the Project site as a logistics center would not physically disrupt or divide the arrangement of an established community. The property is proposed to be developed in accordance with its assigned General Plan land use designation and MVIAP zoning designation. Properties adjacent to the Project site to the north, south, and west have either been developed or are planned for long-term development with industrial land uses. Property to the east is developed with single-family homes and the MVIAP requires that a buffer be provided between residential and industrial development. The Project would not isolate the residential neighborhood to the east from any neighboring communities, as the Project site is positioned at the border of planned industrial development and existing residential development. Division of an established community would not occur and no further analysis of this subject is required.

b) Conflict with an applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	■			

(Source: Project Materials; City of Moreno Valley General Plan Land Use Map; City of Moreno Valley General Plan Community Development Element; Moreno Valley Industrial Area Plan)

The Project proposes to develop the subject property with a logistics center which would be consistent with the “Business Park/Light Industrial” land use designation applied to the site by the City of Moreno Valley General Plan and the “Industrial” zoning designation applied to the Project site by the MVIAP. The Project proposes a Specific Plan Amendment that would amend the land use buffer requirement specified in the MVIAP as it pertains to the Project site. MVIAP Section III, C.1, intends to provide a buffer between industrial and residential uses, without affecting the integrity of industrial land. The Project’s SPA proposes to reduce the minimum buffer distance specified in the MVIAP along Indian Street from 300 feet to 100 feet (measured from the roadway centerline) in order to provide a consistent setback with the distribution warehouse building already constructed immediately north of the Project site, and to add the requirement for a minimum 50-foot-wide enhanced landscaping zone within the 100-foot buffer area. The required EIR shall include an analysis of the environmental effects associated with proposed revisions to the buffer requirements.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?			■	

(Source: City of Moreno Valley General Plan Conservation Element; City of Moreno Valley General Plan FEIR, Chapter 5.9 – Biological Resources; Western Riverside County Multiple Species Habitat Conservation Plan (MHSCP))

As described under the response to Item IV(f), the Project site is subject to the provisions of the western Riverside County MSHCP. The proposed Project will be required to comply with City of Moreno Valley Municipal Code Title 3, Chapter 3.48, “Western Riverside County Multiple Species Habitat Conservation Plan Fee Program,” which requires a per-acre local development mitigation fee to implement the MSHCP. The Project site is not located within one of the targeted conservation cells of the MSHCP. The Project site is, however, subject to the survey and conservation requirements of MSHCP Section 6.3.2 (Species Survey Requirements), which requires the preparation of a habitat assessment for the western burrowing owl. Pursuant to Section 6.3.2 of the MHSCP, a burrowing owl site assessment shall be submitted for the Project site, and the findings of the site assessment shall be evaluated in the required EIR to determine the Project’s consistency with the MSHCP. The Project site also is located in the Stephens’ Kangaroo Rat (SKR) Habitat Conservation Plan (HCP). Impacts to SKR habitat throughout the HCP area are mitigated by complying with City of Moreno Valley Municipal Code Title 3, Chapter 8.60, which requires a per-acre local development

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

mitigation fee pursuant to the City's adopted "The Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California" and as established pursuant to Fee Resolution 89-92. The Project's potential to conflict with the policies of the MSHCP shall be addressed in the required EIR under the discussion and analysis of Item IV(f). No further analysis of this topic is required.

XI. MINERAL RESOURCES. Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				■

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.14 – Mineral Resources)

The Project site is not located within an area known to be underlain by regionally- or locally-important mineral resources or within an area that has the potential to be underlain by regionally- or locally-important mineral resources, as disclosed by the City's General Plan and the associated General Plan FEIR. Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. In addition, the City's General Plan does not identify any locally-important mineral resource recovery sites on-site or within close proximity to the Project site. Accordingly, no further analysis of this subject is required.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				■

(Source: City of Moreno Valley General Plan Conservation Element, City of Moreno Valley General Plan FEIR, Chapter 5.14 – Mineral Resources)

Please refer to the response to Item XI(a), above.

XII. NOISE. Would the project result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	■			

(Source: Project Application Materials; City of Moreno Valley General Plan FEIR Chapter 5.4 - Noise; City of Moreno Valley Municipal Code, Chapter 11.80 – Noise Regulation)

Project-related construction activities, as well as long-term operational activities (including on-site logistics warehouse operations and the projected increases in vehicular travel along area roadways), may expose persons in the vicinity of the Project site to noise levels in excess of standards established by the City's General Plan and Chapter 11.80, Noise Regulation, of the City's Municipal Code. An acoustical analysis shall be prepared and the required EIR shall analyze the potential for the Project to expose people, on- or off-site, to noise levels in excess of established noise standards.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	■			

(Source: Project Application Materials)

Construction activities on the Project site may produce groundborne vibration or groundborne noise levels during earthwork/grading and/or during the operation of heavy machinery. The required EIR shall analyze the potential of the Project to expose persons to excessive groundborne vibration. Long-term operation of the proposed Project is not anticipated to result in perceptible levels of groundborne vibration or groundborne noise; regardless, the Project's EIR shall also evaluate the proposed Project's potential to

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

generate groundborne vibration and noise in the long-term.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	■			

(Source: Project Application Materials; City of Moreno Valley General Plan FEIR Chapter 5.4 - Noise; City of Moreno Valley Municipal Code, Chapter 11.80 – Noise Regulation)

Development of the Project site as proposed by the Project would generate increased vehicular traffic that has the potential to cause an increase in ambient noise levels. On-site operational activities associated with the four proposed buildings have the potential to increase ambient noise levels. A site-specific acoustical study shall be prepared for the proposed Project to identify potential increases in ambient noise and to analyze the potential for Project-related noise to increase ambient noise to a level that would be considered substantial and permanent compared to existing conditions. The results of the acoustical study shall be summarized and incorporated into the required EIR.

d) A substantially temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	■			

(Source: Project Application Materials; City of Moreno Valley General Plan FEIR Chapter 5.4 - Noise; City of Moreno Valley Municipal Code, Chapter 11.80 – Noise Regulation)

During Project-related construction activities, there could be a temporary or periodic increase in ambient noise levels in the Project vicinity above existing levels due to temporary construction traffic and the temporary and periodic operation of construction equipment. A site-specific acoustical study shall be prepared for the Project to identify the potential for temporary or periodic increases in ambient noise levels that would be considered substantial compared to existing conditions. The results of the acoustical study shall be summarized and incorporated into the required EIR.

e) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			■	

(Source: Project Application Materials; City of Moreno Valley General Plan FEIR Section 5.4 – Noise; March ARB/Inland Port Airport Joint Land Use Study)

The northwestern portion of the Project site is bordered by Heacock Street. The March Air Reserve Base is located directly west of Heacock Street. Accordingly, the Project site is located within two miles of a public airport. According to General Plan Figure 5.4-1, *March Reserve Air Base Noise Impact Area*, the Project site is located outside of the 60 dBA CNEL noise contour and would not be subjected to excessive noise levels due to operations at the March Air Reserve Base. Because the Project site is not located within the March ARB noise contours, the Project would not expose people residing or working in the Project area to excessive noise levels due to its location within two miles of a public airport. A less than significant impact would occur and no further analysis of this subject is required.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				■

(Source: Project Application Materials; Google Earth)

The Project site is not located near any private airfields or airstrips. Therefore, the proposed Project has no potential to expose people to excessive noise levels associated with operations at a private airstrip. No further analysis of this subject is required.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				■

(Source: Project Application Materials; City of Moreno Valley General Plan Land Use Map; City of Moreno Valley General Plan FEIR, Chapter 5.12 – Population and Housing; Moreno Valley Industrial Area Plan)

The proposed Project would develop the subject property with a logistics center with four (4) buildings in accordance with the "Business Park/Light Industrial" land uses designation applied to the site by the City of Moreno Valley General Plan and the "Industrial" zoning designation applied to the site by the MVIAP. Accordingly, the proposed Project would not result in growth that was not already anticipated by the City of Moreno Valley General Plan and evaluated in the City of Moreno Valley General Plan FEIR. The Project site is served by existing public roadways and utility infrastructure is already installed beneath public rights of way that abut the property, so the Project would not induce growth as a result of utility extensions. For these reasons, implementation of the proposed Project would not result in direct or indirect growth in the area, and impacts would be less than significant. No further analysis of this subject is required.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				■

(Source: On-Site Inspection (2015); Google Earth)

The Project site does not contain any residential structures under existing conditions. Accordingly, implementation of the Project would not displace substantial numbers of existing housing and would not necessitate the construction of replacement housing elsewhere. No impact would occur and no further analysis of this subject is required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				■

(Source: On-Site Inspection (2015); Google Earth)

As described above under response to Item XIII(b), the Project site does not contain any residential structures; therefore, no people live on the subject property under existing conditions. Accordingly, implementation of the proposed Project would not displace substantial numbers of people and would not necessitate the construction of replacement housing elsewhere. No impact would occur and no further analysis of this subject is required.

XIV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?			■	

(Source: Project Application Materials; City of Moreno Valley General Plan Safety Element; City of Moreno Valley General Plan FEIR, Chapter 5.13-Public Services and Utilities; Riverside County Fire Department Strategic Plan; Riverside County Fire Department GIS ; City of Moreno Valley Municipal Code, Chapter 3.42, Commercial and Development Impact Fees (Ordinance No. 695))

Fire protection services to the Project site are provided by the Moreno Valley Fire Department (MVFD). The proposed Project is required to provide a minimum of fire safety and support fire suppression activities, including type of building construction, fire sprinklers, a fire hydrant system and paved access. College Park Fire Station (Station No. 91) is located at 16110 Lasselle Street, approximately 1.5 roadway miles to the northeast of the Project site. Secondary service is provided by the Kennedy Park Fire Station

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

(Station No. 65) located at 15111 Indian Avenue, approximately 1.8 roadway miles to the northwest of the Project site. The Project site would be adequately serviced by these stations. To supplement their existing fire stations, the MVFD plans to construct a fire station within the MVIAP to provide primary service to all properties within the MVIAP and immediately adjacent areas. The MVFD has already acquired a property for the future fire station within the MVIAP area, on San Michele Road, between Perris Boulevard and Indian Avenue. Construction of the new fire station is dependent on funding collected by the City through the City of Moreno Valley's Development Impact Fee (DIF) Ordinance (Ordinance No. 695). This new fire station is already planned and the Project would not cause the need for the new station. Based on the Project site's proximity two existing fire stations and a new station that is already planned, the proposed Project would be adequately served by fire protection services, and no new or expanded unplanned facilities would be required. The proposed Project is required to comply with the provisions of the City of Moreno Valley's Development Impact Fee (DIF) Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including fire protection facilities. Mandatory compliance with the DIF Ordinance would be required prior to the issuance of a building permit.

Based on the foregoing, the proposed Project would receive adequate fire protection service and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities would be less than significant and no further analysis of this subject is required.

b) Police protection?			■	

(Source: Project Application Materials, Moreno Valley General Plan Safety Element, City of Moreno Valley General Plan FEIR, Chapter 5.13-Public Services and Utilities, City of Moreno Valley Municipal Code, Chapter 3.42, Commercial and Development Impact Fees (Ordinance No. 695))

The development of the subject property with a logistics center would introduce new building structures and employees to the Project site which would result in an incremental increase in demand for police protection services, but which is not anticipated to require or result in the construction of new or physically altered police facilities. Prior to the issuance of building permits, the Project Applicant would be required to comply with the provisions of Moreno Valley's Development Impact Fee (DIF) Ordinance (Ordinance No. 695), which requires a fee payment that the City applies to the funding of public facilities, including police protection facilities. Mandatory compliance with the DIF Ordinance would be required prior to the issuance of a building permit. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered fire protection facilities. Impacts to police protection facilities would therefore be less than significant and no further analysis of this issue area is warranted.

c) Schools?				■

(Source: Project Application Materials, California Senate Bill 50 (Greene), California Government Code Section 65995, City of Moreno Valley General Plan FEIR, Chapter 5.1, Land Use)

Development of the Project site as proposed by the Project would not create a direct demand for public school services, as the subject property would contain non-residential uses that would not generate any school-aged children requiring public education. The addition of employment-generating uses on the Project site would assist the City in achieving its goal to provide a better jobs/housing balance within the City and the larger western Riverside County region (City of Moreno Valley 2006b). The proposed Project is not expected to draw a substantial number of new residents to the region and would therefore not indirectly generate school-aged students requiring public education. Because the proposed Project would not directly generate students and is not expected to indirectly draw students to the area, the proposed Project would not cause or contribute to a need to construct new or physically altered public school facilities. Although the Project would not create a demand for additional public school services, the Project Applicant would be required to contribute development impact fees to the Val Verde Unified School District in compliance with California Senate Bill 50 (Greene). Mandatory payment of school fees would be required prior to the issuance of building permits. Impacts to public schools would be less than significant and no further analysis of this subject is required.

<table>
<tr><th>Issues and Supporting Information</th><th>Potentially Significant Impact</th><th>Less than Significant With Mitigation Incorporated</th><th>Less Than Significant Impact</th><th>No Impact</th></tr>
<tr><td>d) Parks?</td><td></td><td></td><td></td><td>■</td></tr>
<tr><td colspan="5"><i>(Source: Project Application Materials)</i>

As discussed under items XV(a) and XV(b) below, the proposed Project would not create a demand for public park facilities and would not result in the need to modify existing or construct new park facilities. Accordingly, implementation of the proposed Project would not adversely affect any park facility. Thus, no impact would occur and no further analysis of this subject is required.</td></tr>
<tr><td>e) Other public facilities?</td><td></td><td></td><td></td><td>■</td></tr>
<tr><td colspan="5"><i>(Source: Project Application Materials)</i>

The proposed Project is not expected to result in a demand for other public facilities/services, including libraries, community recreation centers, post offices, and animal shelters. As such, implementation of the proposed Project would not adversely affect other public facilities or require the construction of new or modified public facilities. Thus, no impact would occur and no further analysis of this subject is required.</td></tr>
<tr><td colspan="5">XV. RECREATION</td></tr>
<tr><td>a) Would the project increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?</td><td></td><td></td><td></td><td>■</td></tr>
<tr><td colspan="5"><i>(Source: Project Application Materials)</i>

The Project proposes to develop the Project site with industrial land uses. The Project does not propose any type of residential use or other land use that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. Accordingly, implementation of the proposed Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park, thus, no impact would occur and no further analysis of this subject is required.</td></tr>
<tr><td>b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?</td><td></td><td></td><td></td><td>■</td></tr>
<tr><td colspan="5"><i>(Source: Project Application Materials)</i>

The Project proposes to develop the Project site with industrial land uses. The Project does not propose to construct any new on- or off-site recreation facilities. Additionally, the Project would not expand any existing off-site recreational facilities. Thus, environmental effects related to the construction or expansion of recreational facilities would not occur with implementation of the proposed Project. Thus, no impact would occur and no further analysis of this subject is required.</td></tr>
</table>

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	■			

(Source: Project Application Materials; Caltrans District 8 (Kopulsky))

The proposed Project would contribute an increased volume of vehicular traffic to the local roadway network and has the potential to adversely affect the performance of the local circulation system on a direct and/or cumulative level. A site-specific traffic study shall be prepared according to the City of Moreno Valley Traffic Report Preparation Guidelines. The study shall quantify the volume of vehicular traffic anticipated to travel to and from the Project site. Given the property's location, it is anticipated that a majority of the proposed Project's truck traffic would route north toward the Cactus Avenue interchange at I-215 and south toward the Harley Knox Boulevard interchange at I-215. The traffic study shall model the effects of Project-related traffic on the local circulation system, taking all modes of transportation into account. The traffic analysis study area for local roads will be defined as intersections of collector roads or higher that receive 50 or more Project-related peak hour trips in accordance with City of Moreno Valley traffic report guidelines. The traffic analysis study area for freeway mainline segments will include all freeway mainline segments that would receive 50 or more Project-related peak hour trips. Based on communication with Caltrans District 8, analysis of freeway mainline segments that receive less than 50 Project-related peak hour trips is not required because when Project-related traffic volumes dissipate to fewer than 50 peak hour trips they become unrecognizable from other traffic on the state highway system (Kopulsky 2014). The required EIR shall disclose the findings of the site-specific traffic study and evaluate the Project's potential to conflict with applicable plans, ordinances, and policies that establish a minimum level of performance for the local circulation system.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	■			

(Source: Project Application Materials, Riverside County Congestion Management Program)

Traffic generated by the proposed Project has the potential to impact the Riverside County Congestion Management Plan (CMP) roadway network. Potential effects to the CMP roadway system shall be evaluated in a site-specific traffic study, and the results of this study shall be used in the required EIR to determine the Project's consistency with the Riverside County CMP, including applicable level of service standards and travel demand/congestion management measures. As described above under Item XVI(a), the Project's traffic analysis study area will include all freeway mainline segments that would receive 50 or more Project-related peak hour trips.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				■

(Source: Project Application Materials, March ARB/Inland Port Airport Joint Land Use Study)

The proposed Project would involve the construction of four (4) buildings with a maximum height of 45 feet above finished grade, with architectural projections up to 52 feet above finished grade, which is less than the height limit established for the subject property by the March ARB/Inland Port Airport Joint Land Use Study. In addition, the proposed Project would not include an air travel component (i.e., helipad) and products transported to and from the Project site would not be done so by direct air. Accordingly, the proposed Project would not have any effect on air traffic patterns, including an increase in traffic levels or a change in flight path location that results in substantial safety risks. As such, no impact would occur and additional analysis of this issue is not required.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?			■	

(Source: Project Application Materials)

Based on City staff review of the proposed Project's application materials submitted to the City of Moreno Valley, no unsafe design features are proposed as part of the Project. All improvements planned as part of the Project would be in conformance with applicable City of Moreno Valley standards and would not result in any hazards due to a design feature. Additionally, the proposed Project would be compatible in transportation design with the existing City of Moreno Valley General Plan designation of "Business Park/Light Industrial (BP)" and the MVIAP "Industrial" zoning designation. Thus, impacts would be less than significant and no further analysis is required on this subject.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?			■	

(Source: Project Application Materials)

Implementation of the proposed Project would result in the construction and operation of a logistics center on the subject property which would increase the need for emergency access to and from the site. During the course of the City of Moreno Valley's required review of the Project's applications, the Project's design would be reviewed to ensure that adequate access to and from the site and around the proposed buildings is provided for emergency vehicles. With required adherence to City of Moreno Valley requirements for emergency vehicle access, impacts would be less than significant.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			■	

(Source: Project Application Materials; Moreno Valley General Plan Figure 9-4, Bikeway Plan; Moreno Valley Bicycle Master Plan; Google Earth)

The proposed Project would contain a logistics center, which is a land use that is not likely to attract large volumes of pedestrian, bicycle, or transit traffic. Regardless, the Project is designed to comply with all applicable City of Moreno Valley transportation policies.

According to City of Moreno Valley General Plan Figure 9-4, *Bikeway Plan*, the Project site abuts Class III bikeways on Heacock Street, Krameria Avenue, and Indian Street. Class III bikeways are designated bikeways, not striped, and are shared with vehicles (City of Moreno Valley, 2006a, pp. 5-3). In 2015, the City of Moreno Valley adopted a *Bicycle Master Plan*, which updates and supersedes the recommendations of the General Plan. The *Bicycle Master Plan* identifies a planned Class I, multi-use bike path adjacent to the segment of the Perris Valley Storm Drain Channel that traverses the Project site and Class II (striped) bike lanes along the segments of Heacock Street and Indian Street that abut the Project site. The Project does not include any element that would preclude the use of the planned Class I and Class II bicycle facilities adjacent to the Project site. The Project's driveways would be stop-sign controlled and sight distance at each Project driveway would be reviewed by the City of Moreno Valley at the time future improvement plans are considered to ensure that sight distance meets applicable City standards and provides for safe bicycle and pedestrian circulation. Furthermore, bicycle parking would be provided on the Project site in accordance with City Municipal Code requirements for bicycle parking facilities.

The Project area is served by the Regional Transportation Authority (RTA), which provides bus service along Krameria Avenue (east of Indian Street), Iris Avenue (east of Indian Street) and along Perris Boulevard (east of Indian Street). Because the Project site does

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

not abut any public transit facilities, there is no potential for the Project to conflict with local public transit service.

As demonstrated by the foregoing analysis, the Project would not conflict with adopted policies, plans, or programs related to alternative transportation, or otherwise substantially decrease the performance or safety of such facilities. Impacts would be less than significant.

XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			■	

(Source: Project Application Materials)

Wastewater service is provided to the Project site by Eastern Municipal Water District (EMWD). EMWD is required to operate all of its treatment facilities in accordance with the waste treatment and discharge standards and requirements set forth by the Regional Water Quality Control Board (RWQCB). The proposed Project would not install or utilize septic systems or alternative wastewater treatment systems; therefore, the Project would have no potential to exceed applicable wastewater treatment requirements established by the RWQCB. Accordingly, impacts would be less than significant.

b) Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			■	

(Source: Project Application Materials)

Domestic water and wastewater services are provided to the Project site by EMWD. The proposed Project would install connections to water and wastewater conveyance lines that exist beneath abutting public roadways. Except for small encroachments into adjacent public rights of way of developed/paved streets to connect to existing lines, and the construction of water and sewer lines on-site, no physical disturbance for the installation of water or wastewater facilities would be required to service the proposed Project. As such, there would be no environmental impacts beyond those that would otherwise occur from grading and development on the Project site, which will be evaluated by the topics identified for analysis in the required EIR.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			■	

(Source: Project Application Materials)

The Project would involve the construction of on- and off-site stormwater drainage facilities, including water quality/detention basins, storm drain pipes, and storm drain outlet structures. The construction of stormwater drainage facilities proposed by the Project would result in physical impacts to the surface and subsurface of the Project site, as well as physical impacts within the Krameria Avenue/Indian Street intersection (to accommodate a proposed storm drain line segment), a portion of Indian Avenue (to accommodate a proposed storm drain line segment), and within the Perris Valley Storm Drain Channel (to accommodate five proposed storm drain outlets). These impacts are considered to be part of the Project's construction phase and are evaluated throughout this Initial Study accordingly. In instances where potentially significant impacts may occur during the Project's construction phase, such potential impacts have been identified under the appropriate issue area in this Initial Study. The construction of storm drain infrastructure on- and off-site as necessary to serve the proposed Project would not result in any potentially significant physical effects on the environment that are not already identified and disclosed as part of this Initial Study.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			■	

(Source: Project Application Materials; EMWD 2010 Urban Water Management Plan)

The proposed Project would result in an increase in potable water demand from the local water purveyor, EMWD. However, the proposed Project is fully consistent with the assumptions made in EMWD's 2010 Urban Water Management Plan. EMWD's 2010 Urban Water Management Plan concludes that the EMWD has sufficient water supplies available to serve planned land uses within its service area through at least 2035. The proposed Project is subject to the provisions of Senate Bill 610 (Costa) (California Public Resources Code Section 21151.9 and Water Code Section 10910 et seq.) because the proposed Project involves an "industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 s.f. of floor area." As such, the EMWD is required to conduct a Water Supply Assessment to verify that the proposed development can be served by sufficient water supplies without the need for new or expanded entitlements. The results of the Project-specific Water Supply Assessment shall be incorporated and disclosed in the required EIR. With EMWD approval of a Water Supply Assessment, no further analysis of this subject is required.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project determined that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			■	

(Source: Project Application Materials; Press Enterprise "Eastern completes massive expansion at treatment plant")

Wastewater flows generated by the Project would be conveyed to the Perris Valley Regional Water Reclamation Facility, which is owned and operated by EMWD. In April 2014, an expansion project was completed on the Perris Valley Regional Water Reclamation Facility to expand its daily treatment capacity from 14 million gallons per day to 22 million gallons per day to provide sufficient treatment for anticipated regional growth. The facility receives approximately 14 million gallons of wastewater flows per day and, therefore, has an excess treatment capacity of approximately eight million gallons per day (Schulte 2014). The Project is anticipated to generate approximately 67,809 gallons of wastewater per day, based on EMWD's wastewater generation factor of 1,700 gallons per day per acre of light industrial building area. This corresponds to approximately eight-tenths of one percent (0.8%) of the existing treatment capacity at the Perris Valley Regional Water Reclamation Facility. Due to the relatively small amount of wastewater that would be generated by proposed Project and the amount of existing and planned available capacity at this facility, it is determined that the Perris Valley Regional Water Reclamation Facility would have sufficient capacity to treat wastewater generated by the Project. As such, impacts would be less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			■	

(Source: Project Application Materials; City of Moreno Valley Ordinance No. 706, Recycling and Diversion of Construction Waste: Riverside County Waste Management District "Countywide Disposal Tonnage Tracking System Disposal Reports"; United States Environmental Protection Agency (USEPA), "Estimating 2003 Building- Related Construction and Demolition Amounts")

Implementation of the proposed Project would generate an incremental increase in solid waste volumes requiring off-site disposal during short-term construction and long-term operational activities. The Project would be required to comply with City of Moreno Valley Ordinance No. 706, which requires a minimum of 50 percent of all construction waste and debris to be recycled. Additionally, the Project would be required to comply with mandatory waste reduction requirements as described below in Item XVII(g).

Solid waste generated by the proposed Project would be disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. Existing capacities at each of these landfills is discussed below.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact

The Badlands Landfill has a permitted disposal capacity of 4,000 tons per day. The Badlands Landfill is estimated to reach capacity, at the earliest time, in the year 2024; however, future landfill expansion opportunities exist at this site. During the third quarter of 2014, which is the most recent time period for which reporting data is available, the Badlands Landfill accepted approximately 225,671.04 tons of waste ((RCWMD, 2014).

The Lamb Canyon Landfill has a permitted disposal capacity of 5,000 tons per day. The landfill is estimated to reach capacity, at the earliest, in the year 2021; however, future landfill expansion opportunities exist at this site. During the third quarter of 2014, which is the most recent time period for which reporting data is available, the Lamb Canyon Landfill accepted approximately 145,607.60 tons of waste (RCWMD, 2014).

The El Sobrante Landfill is estimated to reach capacity, at the earliest time, in the year 2045; however, future landfill expansion opportunities exist at this site. During the third quarter of 2014, which is the most recent time period for which reporting data is available, the El Sobrante Landfill accepted approximately 555,793.26 tons of waste (RCWMD, 2014).

Each of these landfills receive well below their maximum permitted daily disposal volume and have the potential for future expansion, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction or operational periods. The landfills have sufficient capacity to accept solid waste generated by the Project's construction and operational phases, Thus, impacts would be less than significant.

Project Construction Waste

Waste would be generated by the construction process, primarily consisting of discarded materials and packaging. Based on the building square footage of 1,702,518 and the US EPA's construction waste generation factor of 4.34 pounds per s.f., approximately 3,694 tons of waste would be generated during the entire estimated 14-16 month construction process (USEPA, 2009) which amounts to approximately 10.5 to 12 tons per day.

Non-recyclable construction waste generated by the Project would be disposed at the Badlands Sanitary Landfill, the El Sobrante Landfill, and/or the Lamb Canyon Landfill. These landfills all receive well below their maximum permitted daily disposal volume; thus, construction waste generated by the Project is not anticipated to cause these landfills to exceed their maximum permitted daily disposal volume. Furthermore, none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction period. The Badlands Sanitary Landfill, the El Sobrante Landfill, and Lamb Canyon Landfill would have sufficient daily capacity to accept solid waste generated by the Project's construction phase; therefore, impacts to landfill capacity associated with the Project's near-term construction activities would be less than significant.

Project Operational Waste

Based on a daily waste generation factor of 1.42 pounds of waste per 100 square feet of building area obtained from CalRecycle, long-term, on-going operation of the proposed 1,702,518 square foot light industrial warehouse building would generate approximately 12 tons of waste per day (CalRecycle, 2013). At least 50% is required to be recycled pursuant to State law.

Solid waste generated by the proposed Project would be disposed at the El Sobrante Landfill, the Badlands Sanitary Landfill, and/or the Lamb Canyon Sanitary Landfill. Each of these landfills receive well below their maximum permitted daily disposal volume and have the potential for future expansion, and none of these regional landfill facilities are expected to reach their total maximum permitted disposal capacities during the Project's construction or operational periods. The landfills have sufficient capacity to accept solid waste generated by the Project's construction and operational phases; therefore, impacts would be less than significant and no further analysis of this subject is required.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Comply with federal, state, and local statues and regulations related to solid waste?			■	

(Project Application Materials)

The Project would be required to comply with the City of Moreno Valley's waste reduction programs, including recycling and other diversion programs to divert the amount of solid waste deposited in landfills. As such, the Project's building tenants would be required to work with future refuse haulers to develop and implement feasible waste reduction programs, including source reduction, recycling, and composting. Additionally, in accordance with the California Solid Waste Reuse and Recycling Act of 1991 (Cal Pub Res. Code § 42911), the proposed Project would provide adequate areas for collecting and loading recyclable materials where solid waste is collected. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. The implementation of these programs would reduce the amount of solid waste generated by the proposed Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project would comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	■			

(Project Application Materials)

The Project would alter the property from vacant undeveloped land to property that would contain a warehouse distribution center with four (4) buildings, associated loading docks and parking spaces, drive aisles, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. Accordingly, the Project has the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. The required EIR shall evaluate the Project's potential to degrade the quality of the environment and/or result in substantial adverse effects to biological and cultural resources.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	■			

(Source: Project Application Materials; Moreno Valley Industrial Area Plan)

The Project site is located in a portion of the City of Moreno Valley that is developing with logistics, e-commerce, and industrial warehousing uses, which implement the City's adopted General Plan and MVIAP. The widespread development of this area with industrial uses was previously evaluated by the MVIAP EIR in 1989 (SCH No. 1988080813) and by the City's General Plan Program EIR (SCH No. 2000091075), certified July 11, 2006. Development of the Project site as proposed by the Project, in addition to concurrent construction and operation of other development projects in the area, has the potential to result in cumulatively considerable impacts, particularly with respect to the following issue areas: air quality, greenhouse gas emissions, noise, and transportation/traffic. The required EIR shall evaluate the Project's potential to result in cumulatively considerable contributions to cumulatively significant impacts.

Issues and Supporting Information	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	■			

(Source: Project Application Materials)

The potential for the proposed Project to directly or indirectly affect human beings will be evaluated in the required EIR particularly with respect to the following issue areas: air quality, greenhouse gas emissions, and noise.

4.0 REFERENCES

4.0 REFERENCES

This Initial Study was prepared by:

City of Moreno Valley
Richard Sandzimier, Planning Official
Julia Descoteaux, Associate Planner

T&B Planning, Inc.
Tracy Zinn, Principal
David Ornelas, Project Manager
Connie Anderson, Environmental Analyst
Eric Horowitz, GIS Manager
Steve Lusk, GIS/Graphics Specialist

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Attachment: A- Initial Study, Notice of Preparation, and NOP Public Comment Letters (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017)

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DECEMBER 3, 1984

Community Development Department
Planning Division
14177 Frederick Street
P. O. Box 88005
Moreno Valley CA 92552-0805
Telephone: 951.413-3206
FAX: 951.413-3210

Date: June 17, 2015

To: Responsible and Trustee Agencies/Interested Organizations and Individuals

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Lead Agency:

CITY OF MORENO VALLEY
Community Development Department
14177 Frederick Street
PO Box 88005
Moreno Valley, California 92552
(951) 413-3209
Contact: Julia Descoteaux, Associate Planner

EIR Consulting Firm:

T&B PLANNING, INC.
17542 East 17th Street
Suite 100
Tustin, California 92780
(714) 397-4224
Contact: Tracy Zinn, Principal

This Notice of Preparation (NOP) includes an Initial Study (IS) that describes the proposed project and the issues to be examined in an Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA). The documentation is provided in the attached CD for your review and comment.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice or July 17, 2015.

Please send your response to Ms. Julia Descoteaux at the City of Moreno Valley address shown above. Please include the name, phone number, and address of a contact person in your response. If your agency or organization will be a responsible or trustee agency for this Project, please so indicate.

Project Title: **Moreno Valley Logistics Center (Specific Plan Amendment P15-036, Tentative Parcel Map PA15-0018; Plot Plan PA15-0014, Plot Plan PA15-0015, Plot Plan PA15-0016, and Plot Plan PA15-0017)**

Location: The project site is located in the southern portion of the City of Moreno Valley, approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route 60 (SR-60), and 2.5 miles northwest of Lake Perris. The project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (MVIAP, Specific Plan 208), which is an area of the City of Moreno Valley designated for Industrial development. At the local scale, the Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street. The site lies within the southwestern portion of Section 30, Township 3 South, Range 3 West

(San Bernardino Base and Meridian) and includes Assessor Parcel Numbers 316-100-028, -030, -048, -051, and -052.

Description: The proposed Project is described in the IS attached to this NOP. The Project includes the following proposed discretionary actions by the City of Moreno Valley:

1) **Specific Plan Amendment (P15-036)** would amend the MVIAP to reduce the land use buffer distance between the project site and existing residential development to the east from 300 feet to 100 feet in order to provide a consistent setback with the distribution warehouse building already constructed immediately north of the project site and to add the requirement for a minimum 50-foot-wide enhanced landscaping zone within the proposed 100-foot buffer area.

2) **Tentative Parcel Map No. 36150 (PA15-0018)** proposes to consolidate an approximately 73.4-gross-acre portion of the Project site into two (2) parcels. Proposed Parcel 1 would contain approximately 62.6 net acres and proposed Parcel 2 would contain approximately 6.9 net acres. In addition, TPM No. 36150 identifies areas of public road dedication and vacation, and the size and location of proposed utility infrastructure improvements.

3) **Plot Plan PA15-0014** proposes a detailed site plan for Building 1, and includes a land use plan, architectural plans, and landscape design. Building 1 would be constructed with a maximum of 1,351,770 s.f. of total floor space area.

4) **Plot Plan PA15-0015** proposes a detailed site plan for Building 2, and includes a land use plan, architectural plans, and landscape design. Building 2 would be constructed with a maximum of 122,516 s.f. of total floor space area.

5) **Plot Plan PA15-0016** proposes a detailed site plan for Building 3, and includes a land use plan, architectural plans, and landscape design. Building 3 would be constructed with a maximum of 97,222 s.f. of total floor space area.

6) **Plot Plan PA15-0017** proposes a detailed site plan for Building 4, and includes a land use plan, architectural plans, and landscape design. Building 4 would be constructed with a maximum of 166,010 s.f. of total floor space area.

ENVIRONMENTAL ISSUES TO BE EVALUATED IN THE EIR

The initial environmental review of projects, such as the proposed Moreno Valley Logistics Center project, is normally a three-step process governed by the California Environmental Quality Act (CEQA). The first step is for the lead agency, the City of Moreno Valley, to determine whether a project is exempt from CEQA review. The City has determined that this project is not exempt. The typical second step is the preparation of an IS to determine potential impacts of the project on the environment. If the IS determines that the project has the potential to cause one or more significant environmental impacts, the usual third step is to determine whether or not an EIR must be prepared.

In this case, the City of Moreno Valley has already determined that an EIR will need to be prepared based on the scale of the project and the potential for the project to cause environmental effects. Therefore, an EIR will be prepared to evaluate those effects.

This NOP and the accompanying IS evaluate submitted applications for a Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plan applications (PA15-0014, PA15-0015, PA15-0016, and PA15-0017) to construct and operate a warehouse distribution center on an approximately 89.4 acre property with four (4) buildings providing 1,737,518 square feet (s.f.) of total floor area. Associated improvements to the property would include loading docks, surface parking areas, drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins.

Based on the information presented in the IS, the following environmental factors will be evaluated in detail in the EIR for the proposed Moreno Valley Logistics Center project:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Noise
- Transportation/Traffic
- Mandatory Findings of Significance

The IS further describes the anticipated scope of the environmental analysis for each issue.

The EIR will address the short- and long-term effects of the Project on the environment. The EIR also will evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce or avoid environmental impacts that are determined to be significant in the EIR. A mitigation monitoring program also will be developed as required by Section (§) 15150 of the CEQA Guidelines.

The environmental determination in this NOP is subject to a 30-day public review period per Public Resources Code §21080.4 and CEQA Guidelines §15082. During the public review period, public agencies, interested organizations, and individuals have the opportunity to comment on the proposed Project and identify those environmental issues that have the potential to be affected by the Project and should be addressed further by the City of Moreno Valley in the EIR.

SCOPING MEETING

Because the Project meets the CEQA Guidelines §15206 definition of a project having statewide, regional, or areawide significance, the City of Moreno Valley will hold a scoping meeting as specified in CEQA Guidelines §15082(c). The scoping meeting will be held at:

Monday, July 6, 2015
6:00 – 7:00 p.m.
City of Moreno Valley, City Hall
City Council Chambers
14177 Frederick Street
Moreno Valley, California 92552

At this meeting, agencies, organizations, and members of the public will be able to hear a brief presentation of the project and provide comments on the scope of the environmental review process for the proposed Moreno Valley Logistics Center project.

Please contact the Community Development Department at (951) 413-3209 if you have any questions.

Sincerely,

Julia Descoteaux
Associate Planner

Richard Sandzimier
Planning Official

DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
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CHARLTON H. BONHAM, Director

July 02, 2015

Ms. Julia Descoteaux
Associate Planner
City of Moreno Valley
14177 Frederick Street
Moreno Valley, CA 92552

Subject: Notice of Preparation of a Draft Environmental Impact Report
Moreno Valley Logistics Center Project
State Clearinghouse No. 2015061040

Dear Ms. Descoteaux:

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Moreno Valley Logistics Center Project (project) [State Clearinghouse No. 2015061040]. The Department is responding to the NOP as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act [CEQA] Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 *et seq.*) and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1).

The proposed project includes a specific plan amendment, tentative parcel map, and four plot plans on Assessor Parcel Numbers (APNs) 316-100-028, -030, -048, -051, and -052, located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street, in the southern portion of the City of Moreno Valley, Riverside County, California. The Project site totals approximately 89.4 acres and is bisected by a flood control channel. Specific details of the proposed project include:

1. Specific Plan Amendment to the Moreno Valley Industrial Area Plan (MVIAP, Specific Plan 208) to reduce the land use buffer distance between the Project site and existing residential development to the east from 300 feet to 100 feet, and to add the requirement for a minimum 50-foot-wide enhanced landscaping zone within the proposed 100-foot buffer area.

2. Tentative Parcel Map (TPM) to consolidate an approximately 73.4-gross-acre portion of the Project site into two (2) parcels and identify areas of public road dedication and vacation, and the size and location of proposed utility infrastructure improvements.
3. Four Plot Plans for Buildings 1 through 4, including land use plans, architectural plans, and landscape design. Buildings 1 and 2 would be constructed on the east side of the flood control channel and would have a maximum floor area of 1,351,770 square feet and 122,516 square feet, respectively. Buildings 3 and 4 would be constructed on the west side of the flood control channel and would have a maximum floor area of 97,222 square feet and 166,010 square feet respectively.

COMMENTS AND RECOMMENDATIONS

The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species (i.e., biological resources); and administers the Natural Community Conservation Planning Program (NCCP Program). The Department offers the comments and recommendations presented below to assist the City of Moreno Valley (City; the CEQA lead agency) in adequately identifying and/or mitigating the project's significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable the Department to adequately review and comment on the proposed project with respect to impacts on biological resources and the project's consistency with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The Department recommends that the forthcoming DEIR address the following:

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable Department staff to adequately review and comment on the project, the DEIR should include a complete assessment of the flora and fauna within and adjacent to the project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. The Department recommends that the DEIR specifically include:

1. An assessment of the various habitat types located within the project footprint, and a map that identifies the location of each habitat type. The Department recommends that floristic, alliance- and/or association based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

Aerial photography of the Project site reveals vegetation growth patterns over several years that suggest the potential presence of a vernal complex on the site; therefore, the Department recommends that the DEIR include a vernal pool survey and delineation.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project. The Department's California Natural Diversity Database (CNDDB) in Sacramento should be contacted at (916) 322-2493 or bdb@dfg.ca.gov to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed project. The Department recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at: http://www.dfg.ca.gov/biogeodata/cnddb/submitting_data_to_cnddb.asp

   Please note that the Department's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. The Department recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the project footprint and within offsite areas with the potential to be effected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the project area and should not be limited to resident species. Focused species-specific/MSHCP surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service, where necessary. Note that the Department generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed project may warrant periodic updated surveys for certain sensitive taxa, particularly if the project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following the Department's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see

https://www.wildlife.ca.gov/Conservation/Plants);

5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]);

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the project. To ensure that project impacts to biological resources are fully analyzed, the following information should be included in the DEIR:

1. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by zoning of development projects or other project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address project-related changes on drainage patterns and water quality within, upstream, and downstream of the project site, including: volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site.

2. A discussion of potential indirect project impacts on biological resources, including resources in areas adjacent to the project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Natural Community Conservation Plan, or other conserved lands).

3. An evaluation of impacts to adjacent open space lands from both the construction of the project and any long-term operational and maintenance needs.

4. A cumulative effects analysis developed as described under CEQA Guidelines § 15130. Please include all potential direct and indirect project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation Measures for Project Impacts to Biological Resources

The DEIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the construction and long-term operation and maintenance of the project. When proposing measures to avoid, minimize, or mitigate impacts, the Department recommends consideration of the following:

1. *Sensitive Plant Communities*: The Department considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.

2. *Mitigation*: The Department considers adverse project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DEIR should include mitigation measures for adverse project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

   The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, including, but not limited to measures to ensure domestic animals (e.g., cats and dogs) cannot access mitigation areas, and removal procedures to implement if they do; proposed land dedications; long-term monitoring and management programs; control of illegal dumping; water pollution; and increased human intrusion, etc.

3. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring

of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

The Department recommends that local onsite propagules from the project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various project components as appropriate.

Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

4. *Nesting Birds and Migratory Bird Treaty Act:* Please note that it is the project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) also afford protective measures as follows: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

   The Department recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the project site. If pre-construction surveys are proposed in the DEIR, the Department recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

5. *Translocation of Species*: The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful.

California Endangered Species Act

The Department is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to the California Endangered Species Act (CESA). The Department recommends that a CESA ITP be obtained if the project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the project. CESA ITPs are issued to conserve, protect, enhance, and restore State-listed CESA species and their habitats. The Department encourages early consultation, as significant modification to the proposed project and mitigation measures may be necessary to obtain a CESA ITP. Revisions to the California Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA ITP unless the Project CEQA document addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit.

Western Riverside County Multiple Species Habitat Conservation Plan

Within the Inland Deserts Region, the Department issued Natural Community Conservation Plan Approval and Take Authorization for the Western Riverside County MSHCP per Section 2800, *et seq*., of the California Fish and Game Code on June 22, 2004. The MSHCP establishes a multiple species conservation program to minimize and mitigate habitat loss and provides for the incidental take of covered species in association with activities covered under the permit.

Compliance with approved habitat plans, such as the MSHCP, is discussed in CEQA. Specifically, Section 15125(d) of the CEQA Guidelines requires that the CEQA document discuss any inconsistencies between a proposed Project and applicable general plans and regional plans, including habitat conservation plans and natural community conservation plans. An assessment of the impacts to the MSHCP as a result of this Project is necessary to address CEQA requirements. To obtain additional information regarding the MSHCP please go to: http://rctlma.org/epd/WR-MSHCP.

The proposed Project occurs within the MSHCP area and is subject to the provisions and policies of the MSHCP. In order to be considered a covered activity, Permittees must demonstrate that proposed actions are consistent with the MSHCP and its associated Implementing Agreement. The City of Moreno Valley is the Lead Agency and is signatory to the Implementing Agreement of the MSHCP. The project is located within the Reche Canyon/Badlands Area Plan of the MSHCP. MSHCP policies and procedures that apply to the proposed project include the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP section 6.1.2) and Additional Survey Needs and Procedures for burrowing owl (MSHCP section 6.3.2).

The DEIR needs to address how the proposed project will affect the policies and procedures of the MSHCP. Therefore, all surveys required by the MSHCP policies and procedures listed above to determine consistency with the MSHCP should be conducted and results included in the DEIR so that the Department can adequately assess whether the project will impact the MSHCP.

Stephens' Kangaroo Rat Habitat Conservation Plan

The project occurs within the Stephens' kangaroo rat (*Dipodomys stephensi*) Habitat Conservation Plan (SKR HCP) fee area boundary. The SKR HCP provides Take Authorization for Stephens' kangaroo rat within its boundaries, and the MSHCP provides Take Authorization for Stephens' kangaroo rat outside of the boundaries of the SKR HCP, but within the MSHCP area boundaries. The DEIR should identify if any portion of the project will occur on SKR HCP lands, or on Stephens' kangaroo rat habitat lands outside of the SKR HCP, but within the MSHCP. Note that the SKR HCP allows for encroachment into the Stephens' kangaroo rat Core Reserve for public projects, however, there are no provisions for encroachment into the Core Reserve for privately owned projects. If impacts to Stephens' kangaroo rat habitat will occur from the proposed project, the DEIR must specifically identify the total number of permanent impacts to Stephens' kangaroo rat core habitat and the appropriate mitigation to compensate for those impacts.

Lake and Streambed Alteration Program

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed, the project applicant (or "entity") is required to provide written notification to the Department pursuant to Section 1602 of the Fish and Game Code. Please note that streams include all those that flow at least episodically, including ephemeral streams, desert washes, and watercourses with subsurface flow. Based on the notification and supporting information, the Department determines if the proposed project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required.

The Department's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). Therefore, to facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to https://www.wildlife.ca.gov/Conservation/LSA/Forms.

Further Coordination

The Department appreciates the opportunity to comment on the NOP of a DEIR for the Moreno Valley Logistics Center Project (SCH No. 2015061040) and recommends that the City of Moreno Valley address the Department's comments and concerns in the forthcoming DEIR. If you should have any questions pertaining to the comments provided in this letter, please contact Gabriele Quillman at (909) 980-3818 or at gabriele.quillman@wildlife.ca.gov.

Sincerely,

Bruce Kinney, EPM(A)
for
Leslie MacNair
Regional Manager

cc: State Clearinghouse, Sacramento

Literature Cited

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2^{nd} ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

ST vernor

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING (MS 722)
464 WEST 4th STREET, 6th Floor
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
FAX (909) 383-5936
TTY (909) 383-6300
www.dot.ca.gov/dist8

Serious drought
Help save water!

June 23, 2015

City of Moreno Valley
Community Development
Planning Department
Julia Descoteaux
Associate Planner
29714 Haun Road
Menifee, CA 92586

Moreno Valley Logistics Center (SPA P15-036, Tentative Parcel Map PA15-0018, Plot Plan PA15-0014, Plot Plan PA15-0015, Plot Plan PA15-0016, and Plot Plan PA15-0017) RIV 215 PM R31.83

Ms. Descoteaux,

We have completed our initial review for the above mentioned proposal of the Notice of Preparation (NOP) of the construction of four (4) distribution warehousing buildings. Building 1-1,351,770 s.f., Building 2-122,516 s.f., building 3-97,222 s.f., and building 4-166,010 s.f.

As the owner and operator of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. Under the California Environmental Quality Act (CEQA), we are required to make recommendations to offset associated impacts with the proposed project. Although the project is under the jurisdiction of the City of Moreno Valley due to the Project's potential impact to State facilities it is also subject to the policies and regulations that govern the SHS.

We recommend the following to be provided:

Traffic Study

- A Traffic Impact Study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities and to propose appropriate mitigation measures. The study should be based on Caltrans' *Guide for the Preparation of Traffic Impact Studies (TIS)* which is located at the following website:
  http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf
  Minimum contents of the traffic impact study are listed in Appendix "A" of the TIS guide.

- Traffic Impact further away from the project is typically not required because a project's potential impacts to the SHS dissipate to less than significant levels as traffic disperses throughout the transportation system.

- The data used in the TIS should not be more than 2 years old.

- The geographic area examined in the traffic study should include as a minimum all regionally significant arterial system segments and intersections, including State highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.

- Traffic Analysis Scenarios should clearly be exhibited as exiting, existing + project, existing + project + cumulative, and existing + project + cumulative + ambient growth.

- Caltrans endeavors that any direct and cumulative impacts to the State highway system be eliminated or reduced to a level of insignificance pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) standards.

- The LOS for operating State highway facilities is based upon Measures of Effectiveness (MOE) identified in the Highway Capacity Manual (HCM). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing MOE should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is "D". For undeveloped or not densely developed locations, the goal may be to achieve LOS "C".

- Clearly indicate LOS with and without improvements.

- It is recommended that the Synchro Analysis includes all intersections from the Project site to the proposed study areas. A PHF of 0.92 in urban areas is recommended to be used in the Synchro Analysis.

- All freeway entrance and exit ramps where a proposed project will add a significant number of peak-hour trips that may cause any traffic queues to exceed storage capacities should be analyzed. If ramp metering is to occur, a ramp queue analysis for all nearby Caltrans metered on-ramps is required to identify the delay to motorists using the on-ramps and the storage necessary to accommodate the queuing. The effects of ramp metering should be analyzed in the traffic study. For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

- Proposed improvements should be exhibited in preliminary drawings that indicate the LOS with improvements.

- Please submit a hard copy of all Traffic Impact Analysis documents and an electronic Synchro Analysis file.

The City of Moreno Valley and the County of Riverside must ensure the collection of the projects fair share of Transportation Uniform Mitigation Fees (TUMF) and the County Development Impact Fees (DIF) and completion of proposed mitigations.

Prior to your submission for an Encroachment Permit, a follow-up Traffic Study Report letter will be required from the Department of Planning.

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 806-3957 or myself at (909) 383-4557 for assistance.

Sincerely,

MARK ROBERTS
Office Chief
Intergovernmental Review, Community and Regional Planning

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

July 16, 2015

Attn: Julia Descoteaux, Associate Planner
City of Moreno Valley
Community Development Department
P.O. Box 88005
Moreno Valley, CA 92552

Subject: Notice of Preparation of Draft EIR: Moreno Valley Logistics Center (SPA P15-036; TPM PA15-0018; Plot Plan PA1515-0014; Plot Plan PA15-0015; Plot Plan PA15-0016; Plot Plan PA15-0017. APN's: 316-100-028, -030, -048, -051, -052)

The subject project requires water, sewer and recycled water services from EMWD. The details of said service connection points will be further detailed in a separate document, known as EMWD's Plan of Service (POS), to be developed by the project proponent.

On December 8, 2014, the subject project was reviewed for Due Diligence with EMWD's New Business Department, with a Project Number WS2014-716.

To date, EMWD has not received a Work Order deposit to develop Plan Of Service for this project.

EMWD's preliminary project requirements include: 1- Construction of on-site and off-site pipeline facilities; 2- The evaluation of potential conflicts between proposed project improvements and existing EMWD facilities; 3- Review of applicable facility easements, such as ensuring un-impeded access to existing easements, and the possibility of securing additional accessibility easements; 4- If proposed medians are located over existing EMWD facilities, such facilities shall be relocated at developer's cost, in accordance with EMWD standards.

If you have questions or concerns, please do not hesitate to contact me.

Sincerely,

Maroun El-Hage, M.S., P.E.
Senior Civil Engineer
New Business Development
(951) 928-3777 x4468
El-hagem@emwd.org
ME:emn

Attachment: City of Moreno Valley Notice of Preparation of a Draft EIR

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet: www.emwd.org

Community Development Department
Planning Division
14177 Frederick Street
P. O. Box 88005
Moreno Valley CA 92552-0805
Telephone: 951.413-3206
FAX: 951.413-3210

Date: June 17, 2015

To: Responsible and Trustee Agencies/Interested Organizations and Individuals

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Lead Agency:	**EIR Consulting Firm:**
CITY OF MORENO VALLEY Community Development Department 14177 Frederick Street PO Box 88005 Moreno Valley, California 92552 (951) 413-3209 Contact: Julia Descoteaux, Associate Planner	T&B PLANNING, INC. 17542 East 17th Street Suite 100 Tustin, California 92780 (714) 397-4224 Contact: Tracy Zinn, Principal

This Notice of Preparation (NOP) includes an Initial Study (IS) that describes the proposed project and the issues to be examined in an Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA). The documentation is provided in the attached CD for your review and comment.

> Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice or July 17, 2015.

Please send your response to Ms. Julia Descoteaux at the City of Moreno Valley address shown above. Please include the name, phone number, and address of a contact person in your response. If your agency or organization will be a responsible or trustee agency for this Project, please so indicate.

Project Title: **Moreno Valley Logistics Center (Specific Plan Amendment P15-036, Tentative Parcel Map PA15-0018; Plot Plan PA15-0014, Plot Plan PA15-0015, Plot Plan PA15-0016, and Plot Plan PA15-0017)**

Location: The project site is located in the southern portion of the City of Moreno Valley, approximately 1.3 miles east of Interstate 215 (I-215), 4.2 miles south of State Route 60 (SR-60), and 2.5 miles northwest of Lake Perris. The project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (MVIAP, Specific Plan 208), which is an area of the City of Moreno Valley designated for Industrial development. At the local scale, the Project site is located south of Krameria Avenue, north of Cardinal Avenue, east of Heacock Street and the March Air Reserve Base, and west of Indian Street. The site lies within the southwestern portion of Section 30, Township 3 South, Range 3 West

(San Bernardino Base and Meridian) and includes Assessor Parcel Numbers 316-100-028, -030, -048, -051, and -052.

Description: The proposed Project is described in the IS attached to this NOP. The Project includes the following proposed discretionary actions by the City of Moreno Valley:

1) **Specific Plan Amendment (P15-036)** would amend the MVIAP to reduce the land use buffer distance between the project site and existing residential development to the east from 300 feet to 100 feet in order to provide a consistent setback with the distribution warehouse building already constructed immediately north of the project site and to add the requirement for a minimum 50-foot-wide enhanced landscaping zone within the proposed 100-foot buffer area.

2) **Tentative Parcel Map No. 36150 (PA15-0018)** proposes to consolidate an approximately 73.4-gross-acre portion of the Project site into two (2) parcels. Proposed Parcel 1 would contain approximately 62.6 net acres and proposed Parcel 2 would contain approximately 6.9 net acres. In addition, TPM No. 36150 identifies areas of public road dedication and vacation, and the size and location of proposed utility infrastructure improvements.

3) **Plot Plan PA15-0014** proposes a detailed site plan for Building 1, and includes a land use plan, architectural plans, and landscape design. Building 1 would be constructed with a maximum of 1,351,770 s.f. of total floor space area.

4) **Plot Plan PA15-0015** proposes a detailed site plan for Building 2, and includes a land use plan, architectural plans, and landscape design. Building 2 would be constructed with a maximum of 122,516 s.f. of total floor space area.

5) **Plot Plan PA15-0016** proposes a detailed site plan for Building 3, and includes a land use plan, architectural plans, and landscape design. Building 3 would be constructed with a maximum of 97,222 s.f. of total floor space area.

6) **Plot Plan PA15-0017** proposes a detailed site plan for Building 4, and includes a land use plan, architectural plans, and landscape design. Building 4 would be constructed with a maximum of 166,010 s.f. of total floor space area.

ENVIRONMENTAL ISSUES TO BE EVALUATED IN THE EIR

The initial environmental review of projects, such as the proposed Moreno Valley Logistics Center project, is normally a three-step process governed by the California Environmental Quality Act (CEQA). The first step is for the lead agency, the City of Moreno Valley, to determine whether a project is exempt from CEQA review. The City has determined that this project is not exempt. The typical second step is the preparation of an IS to determine potential impacts of the project on the environment. If the IS determines that the project has the potential to cause one or more significant environmental impacts, the usual third step is to determine whether or not an EIR must be prepared.

In this case, the City of Moreno Valley has already determined that an EIR will need to be prepared based on the scale of the project and the potential for the project to cause environmental effects. Therefore, an EIR will be prepared to evaluate those effects.

This NOP and the accompanying IS evaluate submitted applications for a Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plan applications (PA15-0014, PA15-0015, PA15-0016, and PA15-0017) to construct and operate a warehouse distribution center on an approximately 89.4 acre property with four (4) buildings providing 1,737,518 square feet (s.f.) of total floor area. Associated improvements to the property would include loading docks, surface parking areas, drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins.

Based on the information presented in the IS, the following environmental factors will be evaluated in detail in the EIR for the proposed Moreno Valley Logistics Center project:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Noise
- Transportation/Traffic
- Mandatory Findings of Significance

The IS further describes the anticipated scope of the environmental analysis for each issue.

The EIR will address the short- and long-term effects of the Project on the environment. The EIR also will evaluate the potential for the Project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed Project will be evaluated that may reduce or avoid environmental impacts that are determined to be significant in the EIR. A mitigation monitoring program also will be developed as required by Section (§) 15150 of the CEQA Guidelines.

The environmental determination in this NOP is subject to a 30-day public review period per Public Resources Code §21080.4 and CEQA Guidelines §15082. During the public review period, public agencies, interested organizations, and individuals have the opportunity to comment on the proposed Project and identify those environmental issues that have the potential to be affected by the Project and should be addressed further by the City of Moreno Valley in the EIR.

SCOPING MEETING

Because the Project meets the CEQA Guidelines §15206 definition of a project having statewide, regional, or areawide significance, the City of Moreno Valley will hold a scoping meeting as specified in CEQA Guidelines §15082(c). The scoping meeting will be held at:

Monday, July 6, 2015
6:00 – 7:00 p.m.
City of Moreno Valley, City Hall
City Council Chambers
14177 Frederick Street
Moreno Valley, California 92552

At this meeting, agencies, organizations, and members of the public will be able to hear a brief presentation of the project and provide comments on the scope of the environmental review process for the proposed Moreno Valley Logistics Center project.

Please contact the Community Development Department at (951) 413-3209 if you have any questions.

Sincerely,

Julia Descoteaux
Associate Planner

Richard Sandzimier
Planning Official

Johnson & Sedlack
ATTORNEYS at LAW

Raymond W. Johnson, Esq., AICP, LEED GA
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Abigail A. Smith, Esq.
Kimberly Foy, Esq.
Kendall Holbrook, Esq.

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July 8, 2015

Ms. Julia Descoteaux, Associate Planner
14177 Frederick Street
PO Box 88005
Moreno Valley, California 92552
(951) 413-3209
juliad@moval.org

VIA E-MAIL and U.S. MAIL

RE: Comments on Notice of Preparation and Initial Study for Moreno Valley Logistics Center (Specific Plan Amendment P15-036, Tentative Parcel Map PA15-0018; Plot Plan PA15-0014, Plot Plan PA15-0015, Plot Plan PA15-0016, and Plot Plan PA15-0017)

Greetings:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) and Initial Study (IS) prepared for the Proposed Moreno Valley Logistics Center (Specific Plan Amendment P15-036, Tentative Parcel Map PA15-0018; Plot Plan PA15-0014, Plot Plan PA15-0015, Plot Plan PA15-0016, and Plot Plan PA15-0017). Please accept these comments on behalf of Sierra Club and Residents for a Livable Moreno Valley.

The proposed Project involves the development of an approximately 89.4 gross-acre property located at the southwest corner of the intersection of Krameria Avenue and Indian Street in the City of Moreno Valley, Riverside County, California. Development of the property would involve the construction and operation of a warehouse distribution center with one (1) high cube warehouse building and three (3) light industrial buildings with a total building space of 1,737,518 square feet. The Project will include loading docks, surface parking areas (passenger car parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The Project Applicant is pursuing the Project on a speculative basis, meaning that the proposed buildings' future tenants are not yet identified.

At present there are an enormous number of logistics warehouse buildings approved, built, and proposed in Moreno Valley and surrounding jurisdictions which will rely on the same roadways and highways as this Project. The EIR prepared for this Project should adequately address cumulative traffic, noise, air quality, and health risk impacts from this Project to local and regional roads including at least Perris Boulevard, Cactus Avenue, Harley Knox Boulevard, I-215, and SR-60. Additionally, Project traffic impacts should be considered beyond an arbitrary radius (e.g. 5 miles) if the Project will potentially impact traffic, individually or cumulatively, at a greater physical distance from the Project site. Traffic impacts to the state highway network should be evaluated pursuant to Caltrans guidelines. Caltrans should be consulted to develop mitigation measures, such as a fair share fee program, for Project and cumulative impacts to the state highway system.

Health risk impacts to sensitive receptors including nearby residences and children attending Rainbow Ridge Elementary School, March Middle School, and/or any other school passed by trucks for this Project should be analyzed and mitigated. Any health risk assessment prepared for the Project should also disclose not only cancer risks associated with diesel PM but also long-term, non-cancer health risks including cardiovascular, respiratory, reproductive, neurological, and developmental problems. The EIR should address whether it is feasible to incorporate or work toward incorporating zero-emission truck technology for this Project.

The IS states, "The parking lot for Building 1 has the option to be striped to provide 472 automobile parking spaces and 242 truck trailer parking spaces, if required by the tenant(s) that occupy the structure.... Under the alternative site plan, Building 2 would be replaced by a parking lot with 166 truck trailer spaces." (IS p. 14) The EIR must evaluate the traffic, air quality, health, GHGs, noise, and other impacts if this option is implemented as this alternative would increase truck-trailer parking at Buildings 1&2 from 346 to 408 total spaces; and would increase automobile parking from 441 to 472 spaces. It is not clear what effect this alternative would have on dock doors, but this should also be addressed in the EIR.

The proposed project Building 1 evidently fails to provide the parking required by City standards. The EIR should address this issue and its potential environmental effects.

The Project proposes a Specific Plan Amendment that would amend the land use buffer requirement specified in the Moreno Valley Industrial Area Plan (MVIAP) Section III, C.1. The amendment would reduce the minimum buffer distance along Indian Street between the Project and the neighboring residents from 300 feet to 100 feet. A 300 foot buffer provides residents some protection from a variety of environmental harms caused by the Project, including noise impacts, greenhouse gases, vibration impacts, glare from the glass, and air quality issues such as diesel particulate matter and odors. Reduction of the buffer zone by 200 feet will cause an increase of environmental harm toward the local residents.

As stated in the MVIAP, the 300 foot setback was intended to provide a buffer between residences and the industrial uses without affecting the integrity of lands available for industrial uses. The EIR should thus consider an alternative to the Project which does not include this Specific Plan Amendment and maintains the required setback of 300 feet. The EIR should also consider alternative projects which would develop the site to other commercial uses, industrial support uses, and/or only other types of industrial, non-warehouse uses (e.g. manufacturing, fabrication).

Cumulative impacts should be thoroughly considered. With respect to traffic, air quality, health risk, biological resources, water quality, and other effects, the EIR should be sure to consider the Shaw Development Company Moreno Valley Distribution Center, First Nandina Logistics, First Inland Logistics Center, Modular Logistics Center, Integra Perris Distribution Center, Optimus Logistics Center (Perris), and the World Logistics Center. Cumulative impacts to agricultural and biological resources should also be evaluated in detail where the Project would further convert agricultural land to warehouse uses and compromise foraging, nesting, and burrowing owl habitat.

The EIR should analyze the potential impacts from constructing storm water runoff outlets into the Perris Valley Storm Drain Channel, which transects the Project site. These outlets could potentially release hazardous materials and create a significant hazard to the public and environment during both the construction and operational phases of the Project. The negative environmental impact includes areas such as the riparian habitats along the channel which connects to the Santa Ana River. Additionally, impacts to hydrology and flood control in the Channel must be evaluated and mitigated where the City has historically experienced drainage problems.

The construction phase of the Project will involve grading, paving, utility installation, building construction, and landscape installation, which would result in the generation of potential water quality pollutants such as silt, debris, and chemicals like paints and solvents. Long-term operation of the Project is anticipated to generate storm water pollutants such as bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash and debris, and oil and grease. The EIR should fully analyze the impacts of the discharging these pollutants into the Perris Valley Storm Drain Channel and should consider diverting the runoff so that it may be treated before being discharged into the channel.

Soils onsite should be tested for contamination from herbicides, pesticides, and fertilizers to ensure that hazardous materials are not emitted from the Project and will not create a hazard to the public or the environment. Sampling must be conducted onsite and the methodology and results of such sampling disclosed in the EIR. Mere sampling of soils transported off-site for disposal is insufficient to ensure the safety of persons and the environment.

A qualified biologist should evaluate the site's existing biological resources and determine the presence or absence of any sensitive species. The results of the biological resources assessment(s) should be disclosed and evaluated in the EIR, paying particular attention to any potential impacts to burrowing owls and available mitigation for such effects.

The IS does not explain why Municipal Code Chapter 9.17.030 requires the removal of existing mature trees on Indian Street. Municipal Code Chapter 9.17.030(E)(7) says "Existing mature trees that cannot be preserved in-place, shall be transplanted elsewhere on the site, unless transplantation is infeasible due to the type or condition of the trees." Therefore, the trees along Indian Street cannot simply be "removed" but instead must be preserved pursuant to these standards.

The IS states that the Project is required to comply with the provisions of the City of Moreno Valley's Development Impact Fee (DIF) Ordinance No. 695 in order to fund public services such as police and fire protection. The EIR should discuss the DIF payments as well as show evidence that the program does in fact have sufficient resources to provide these services and that it already has the services entered into their program. Electricity supply and water supply needs of the building should be disclosed in the EIR, particularly given the effects of these demands on GHGs/ climate change and water supply.

A Water Supply Assessment should be prepared which examines real-world water supply, not "paper water"; accounts for the recent drought; and evaluates whether the Project will comply with the Governor's Executive Order relative to water supply. The IS claims that the Project is consistent with the assumptions made in Eastern Municipal Water District's (EMWD) 2010 Urban Water Management Plan (UWMP). It claims that EMWD has sufficient water supplies available to serve planned land uses within its service area at least through 2035. However, the UWMP does not account for the drought restrictions placed on the entire state by Governor Brown's Executive Order B-29-15. This order places a mandatory 25% reduction on urban water usage based on 2013 usage rates. This reduction when compared to usage from July through September 2014 means that EMWD will actually be forced to reduce their usage by 28%.

As of June 1, 2015, EMWD has moved into stage 4 of its Water Shortage Contingency Plan which means that customers are asked to reduce outdoor watering by 50% and all water used above the amount provided for indoor and outdoor water use will be charged at the highest rate (Tier 4 (Wasteful) water use rate). The EIR should consider the ongoing drought and requirements of Executive Order B-29-15 when evaluating whether or not EMWD can sufficiently supply the water necessary for the project.

Additionally, the EIR should evaluate how the Project will meet the goals of Governor Brown's Executive Order B-30-15 regarding greenhouse gas emissions. The Executive Order places a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40% below 1990 levels by 2030. The discussion should include what measures the Project will take to meet this goal.

Thank you for your consideration of these comments in your preparation of an EIR for this Project.

Sincerely,

Raymond Johnson, Esq., AICP, LEED GA
JOHNSON & SEDLACK

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Via Email and U.S. Mail

July 15, 2015

Jane Halstead, City Clerk
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Moreno Valley, California 92552
CityClerk@moval.org

Richard Sandzimier, Planning Official
Julia Descoteaux, Associate Planner
City of Moreno Valley Planning and
Economic Development Department
14177 Frederick Street
Moreno Valley, California 92552
juliad@moval.org

Re: CEQA and Land Use Notice Request for the Moreno Valley Logistics Center

Dear All:

I am writing on behalf of the Laborers International Union of North America (“LiUNA”), Local Union 1184 and its members living in the City of Moreno Valley in Riverside County, regarding the Moreno Valley Logistics Center Project (P15-036, PA 15-0014, PA 15-0015, PA 15-0016, PA 15-0017 and PA15-0018, SCH 2015061040), including all actions related or referring to the development of construction and operation of a warehouse distribution center with one (1) high cube warehouse building and three (3) light industrial buildings on the approximately 89.4 gross-acre property located at the southwest corner of the intersection of Krameria Avenue and Indian Street in the City of Moreno Valley, Riverside County, California.(“Project”)

We hereby request that the City of Moreno Valley (“City”) send by mail and electronic mail to our firm at the address below notice of any and all actions or hearings related to activities undertaken, authorized, approved, permitted, licensed, or certified by the City and any of its subdivisions, and/or supported, in whole or in part, through contracts, grants, subsidies, loans or other forms of assistance from the City, including, but not limited to the following:

- Notice of any public hearing in connection with the Project as required by California Planning and Zoning Law pursuant to Government Code Section 65091.

- Any and all notices prepared for the Project pursuant to the California Environmental Quality Act ("CEQA"), including, but not limited to:

    - Notices of any public hearing held pursuant to CEQA.
    - Notices of determination that an Environmental Impact Report ("EIR") is required for a project, prepared pursuant to Public Resources Code Section 21080.4.
    - Notices of any scoping meeting held pursuant to Public Resources Code Section 21083.9.
    - Notices of preparation of an EIR or a negative declaration for a project, prepared pursuant to Public Resources Code Section 21092.
    - Notices of availability of an EIR or a negative declaration for a project, prepared pursuant to Public Resources Code Section 21152 and Section 15087 of Title 14 of the California Code of Regulations.
    - Notices of approval and/or determination to carry out a project, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
    - Notices of approval or certification of any EIR or negative declaration, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
    - Notices of determination that a project is exempt from CEQA, prepared pursuant to Public Resources Code section 21152 or any other provision of law.
    - Notice of any Final EIR prepared pursuant to CEQA.

Please note that we are requesting notices of CEQA actions and notices of any public hearings to be held under any provision of Title 7 of the California Government Code governing California Planning and Zoning Law. **This request is filed pursuant to Public Resources Code Sections 21092.2 and 21167(f), and Government Code Section 65092**, which requires agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

In addition, we request that the City of Moreno Valley send to us via mail and/or email a copy of all Planning Commission and City Council meeting and/or hearing agendas.

Please send notice by mail and electronic mail to:

Richard Drury
Theresa Rettinghouse
Lozeau Drury LLP
410 12th Street, Suite 250
Oakland, CA 94607
510-836-4200
richard@lozeaudrury.com; theresa@lozeaudrury.com

Please call should you have any questions. Thank you for your attention to this matter.

Sincerely,

Theresa Rettinghouse

Theresa Rettinghouse
Paralegal
Lozeau | Drury LLP

PECHANGA CULTURAL RESOURCES
Temecula Band of Luiseño Mission Indians

Post Office. Box 2183 • Temecula, CA 92593
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Anna Hoover

July 20, 2015

VIA E-MAIL and USPS

Ms. Julia Descoteaux
Project Planner
City of Moreno Valley
Planning Department
14177 Frederick Street
Moreno Valley, CA 92552-0805

Re: Pechanga Tribe Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Moreno Valley Logistics Center, Tentative Tract Map No. PA15-0018 (36150); SPA P15-036; PP PA15-0014 to -0017

Dear Ms. Descoteaux:

This comment letter is written on behalf of the Pechanga Band of Luiseño Indians (hereinafter, "the Tribe"), a federally recognized Indian tribe and sovereign government in response to the Notice of Preparation (NOP) for the above named Project dated June 17, 2015. The Tribe formally requests, pursuant to Public Resources Code §21092.2, to be notified and involved in the entire CEQA environmental review process for the duration of the above referenced project (the "Project"). If you have not done so already, please add the Tribe to your distribution list(s) for public notices and circulation of all documents, including environmental review documents, archeological reports, and all documents pertaining to this Project. The Tribe further requests to be directly notified of all public hearings and scheduled approvals concerning this Project. Please also incorporate these comments into the record of approval for this Project.

The Tribe submits these comments concerning the Project's potential impacts to cultural resources in conjunction with the environmental review of the Project and to assist the City in developing appropriate avoidance and preservation standards for the potentially significant Payómkawichum (Luiseño) cultural resources that the Project could impact. The Project area is located within a culturally significant area of Payómkawichum territory and could contain significant and important cultural resources.

The Tribe has not had the opportunity to survey the Property so we do not have specific data on resources located within the Project boundaries. However, as we are not aware of a current archaeological study (within the past 5 years), we recommend that an updated study be conducted, with Pechanga participation, as part of the Draft Environmental Impact (DEIR) analysis. The Tribe also recommends that the final archaeological report include an adequate analysis not only of the Project but of the region as well. This area supported a dense pre-contact population and is associated with the Payómkawichum village of *Qaxáalku.*

THE CITY OF MORENO VALLEY MUST INCLUDE INVOLVEMENT OF AND CONSULTATION WITH THE PECHANGA TRIBE IN ITS ENVIRONMENTAL REVIEW PROCESS

It has been the intent of the Federal Government[1] and the State of California[2] that Indian tribes be consulted with regard to issues which impact cultural and spiritual resources, as well as other governmental concerns. The responsibility to consult with Indian tribes stems from the unique government-to-government relationship between the United States and Indian tribes. This arises when tribal interests are affected by the actions of governmental agencies and departments. In this case, it is undisputed that the project lies within the Pechanga Tribe's traditional territory. Therefore, in order to comply with CEQA and other applicable Federal and California law, it is imperative that the City of Moreno Valley consult with the Tribe in order to guarantee an adequate knowledge base for an appropriate evaluation of the Project effects, as well as generating adequate mitigation measures.

LEAD AGENCY CONSULTATION WITH THE PECHANGA TRIBE REQUIRED PURSUANT TO CAL. GOVT. C. §§ 65351, 65352, 65352.3, AND 65352.4 (SENATE BILL 18 – TRADITIONAL TRIBAL CULTURAL PLACES LAW)

As a Specific Plan Amendment is being processed for this Project, the Lead Agency should consult with the Pechanga Tribe pursuant to a State law entitled Traditional Tribal Cultural Places (also known as SB 18; Cal. Govt. C. § 65352.3). The purpose of consultation is to identify any Native American sacred places and any geographical areas which could potentially yield sacred places, identify proper means of treatment and management of such places, and to ensure the protection and preservation of such places through agreed upon mitigation (Cal. Govt. C. 65352.3; SB18, Chapter 905, Section 1(4)(b)(3)). Consultation must be government-to-government, meaning directly between the Tribe and the Lead Agency, seeking agreement where feasible (Cal. Govt. C. § 65352.4; SB18, Chapter 905, Section 1(4)(b)(3)). Lastly, any information conveyed to the Lead Agency concerning Native American sacred places shall be confidential in terms of the specific identity, location, character and use of those places and associated features and objects. This information is not subject to public disclosure pursuant the California Public Records Act (Cal. Govt. C. 6254(r)). The Tribe has received its SB 18 notice from the City and submitted a response letter on May 15, 2015. We look forward to beginning our consultation on this Project.

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[1] See e.g., Executive Memorandum of April 29, 1994 on Government-to-Government Relations with Native American Tribal Governments, Executive Order of November 6, 2000 on Consultation and Coordination with Indian Tribal Governments, Executive Memorandum of September 23, 2004 on Government-to-Government Relationships with Tribal Governments, and Executive Memorandum of November 5, 2009 on Tribal Consultation.

[2] See California Public Resource Code §5097.9 et seq.; California Government Code §§65351, 65352.3 and 65352.4

PECHANGA CULTURAL AFFILIATION TO PROJECT AREA

The Pechanga Tribe asserts that the Project area is part of *Payómkawichum* (Luiseño), and therefore the Tribe's, aboriginal territory as evidenced by the existence of *Payómkawichum* place names, *tóota yixélval* (rock art, pictographs, petroglyphs), a village complex (*Qaxáalku*) and an extensive Luiseño artifact record in the vicinity of the Project. The Tribe further asserts that this culturally sensitive area is affiliated specifically with the Pechanga Band of Luiseño Indians because of the Tribe's specific cultural ties to this area. The Tribe considers any resources located on this Project property to be Pechanga cultural resources.

The Pechanga Tribe's knowledge of our ancestral boundaries is based on reliable information passed down to us from our elders; published academic works in the areas of anthropology, history and ethno-history; and through recorded ethnographic and linguistic accounts. Of the many anthropologists and historians who have presented boundaries of the *Payómkawichum* (Luiseño) traditional territory, few have excluded the Project area in their descriptions (Drucker 1937; Heiser and Whipple 1957; Kroeber 1925; Smith and Freers 1994), and such territory descriptions correspond with what was communicated to the Pechanga people by our elders. While we agree that anthropological and linguistic theories as well as historic accounts are important in determining traditional Luiseño territory, the most critical sources of information used to define our traditional territories are our songs, creation accounts and oral traditions.

Payómkawichum history originates with the creation of all things at *'éxva Teméeku*, in the present day City of Temecula, and dispersing out to all corners of creation (what is today known as Luiseño territory). It was at Temecula that the Luiseño deity *Wuyóot* lived and taught the people, and here that he became sick, finally expiring at Lake Elsinore. Many of our songs relate the tale of the people taking the dying *Wuyóot* to the many hot springs in the area and finally to the hot springs at Elsinore, where he died (DuBois 1908). He was cremated at *'éxva Teméeku*. It is the Luiseño creation account that connects Elsinore to Temecula, and thus to the Temecula people who were evicted and moved to the Pechanga Reservation, and now known as the Pechanga Band of Luiseño Mission Indians (the Pechanga Tribe). From Elsinore, the people spread out, establishing villages and marking their territories in the surrounding areas such as Moreno Valley, Perris, Mead Valley, etc. The first people also became the mountains, plants, animals and heavenly bodies.

Many traditions and stories are passed from generation to generation by songs. One of the Luiseño songs recounts the travels of the people to Elsinore after a great flood (DuBois 1908). From here, they again spread out to the north, south, east and west. Three songs, called *Káamalam/Moníivol*, are songs of the places and landmarks that were destinations of the Luiseño ancestors, several of which are located near the Project area. They describe the exact route of the Temecula (Pechanga) people and the landmarks made by each to claim title to places in their migrations (DuBois 1908:110). In addition, Pechanga elders state that the Temecula/Pechanga people had usage/gathering rights to an area extending from Rawson Canyon on the east, over to

Lake Mathews on the northwest, down Temescal Canyon to Temecula, eastward to Aguanga, and then along the crest of the Cahuilla range back to Rawson Canyon. The Project area is located within the central area of this culturally affiliated territory. The Native American Heritage Commission (NAHC) Most Likely Descendent (MLD) files substantiate this habitation and migration record from oral tradition. These examples illustrate a direct correlation between the oral tradition and the physical place; proving the importance of songs and stories as a valid source of information outside of the published anthropological data.

Tóota yixélval (rock art) is also an important element in the determination of Luiseño territorial boundaries. *Tóota yixélval* can consist of petroglyphs (incised) elements, or pictographs (painted) elements. The science of archaeology tells us that places can be described through these elements. Riverside and Northern San Diego Counties are home to red-pigmented pictograph panels. Archaeologists have adopted the name for these pictograph-versions, as defined by Ken Hedges of the Museum of Man, as the San Luis Rey style. The San Luis Rey style incorporates elements which include chevrons, zig-zags, dot patterns, sunbursts, handprints, net/chain, anthropomorphic (human-like) and zoomorphic (animal-like) designs. Tribal historians and photographs inform us that some design elements are reminiscent of Luiseño ground paintings. A few of these design elements, particularly the flower motifs, the net/chain and zig-zags, were sometimes depicted in Luiseño basket designs and can be observed in remaining baskets and textiles today.

An additional type of *tóota yixélval*, identified by archaeologists also as rock art or petroglyphs, are cupules. Throughout Luiseño territory, there are certain types of large boulders, taking the shape of mushrooms or waves, which contain numerous small pecked and ground indentations, or cupules. Many of these cupule boulders have been identified within a few miles of the Project. Additionally, according to historian Constance DuBois:

> When the people scattered from Ekvo Temeko, Temecula, they were very powerful. When they got to a place, they would sing a song to make water come there, and would call that place theirs; or they would scoop out a hollow in a rock with their hands to have that for their mark as a claim upon the land. The different parties of people had their own marks. For instance, Albañas's ancestors had theirs, and Lucario's people had theirs, and their own songs of Munival to tell how they traveled from Temecula, of the spots where they stopped and about the different places they claimed (1908:158).

This Project property is located to the east of one of the densest Payómkawichum village complexes known as *Qaxáalku.* The etymology of the Spanish word Cajalco derives from the Luiseño word for "place of quail." The suffix "ku" is considered a more archaic form of the suffix "anga," which means "place of" (as in Pech-anga…place of dripping water). Throughout the region containing *Qaxáalku* there are still quail but almost as important are the *kukúulam*, or burrowing owl, that once lived there in large numbers. The areas separated by low-lying bedrock boulders provide an ideal habitat for the owls. J.P. Harrington's/Pechanga informant

Celestine Ahuayo relates*: "the (that type of) area was known as kukúulam pomkí, which means where the ground owl houses." Kukúul*/burrowing owl is important for the Luiseño because of his status in our Creation Story. Father Boscana wrote of the burrowing owl's role in the Story: *'It was determined by (the lower animals) that Father Wuyóot should received his death by means of poison. Kukúulmal (the small burrowing owl) perceived this and immediately gave the information to Wuyóot.'* Eventually, *Wuyóot* did succumb to poison but the burrowing owl gained a distinction in our Luiseño songs as a good messenger. The Payómkawichum would have revered the area where this "good apostle" lived by living there as well.

Within the *Qaxáalku* complex, there are at least seven recorded cupule boulders and many others with painted markings (pictographs). Additionally, beyond the numerous bedrock mortars and slicks, are four ancestral quartz quarries. Quartz points were important to the *Payómkawichum* because it is taught that *$uukat* (deer), who gave his life for the starving People in our Creation Story, could only be taken by a point made of quartz.

The Project area, located on the northern end of the floor of Perris Valley, is surrounded by culturally sensitive features. As stated above, to the west is the *Qaxáalku* complex; to the south is the San Jacinto River and to the southeast is Lake Perris, which includes known sacred/ceremonial sites. Further, our oral traditions state that there were trade and transportation routes that passed through this area. In relation to documented archaeological studies, the Project is immediately adjacent to March Air Reserve Base (MARB). The Tribe has been designated as the affiliated Tribe by LSA Associates for the March Joint Powers Authority and the MARB (Schroth 1999).

Thus, our songs and stories, our indigenous place names, as well as academic works, demonstrate that the Luiseño people who occupied what we know today as Moreno Valley and the areas in between, are ancestors of the present-day Payómkawichum, and as such, Pechanga is culturally affiliated to this geographic area.

The Tribe welcomes the opportunity to meet with the City to further explain and provide documentation concerning our specific cultural affiliation to lands associated with this Project.

PROJECT IMPACTS TO CULTURAL RESOURCES AND TRIBAL INVOLVEMENT

The proposed Project is located in a sensitive region of Payómkawichum territory and the Tribe knows that the current development has the potential to destroy sensitive and important cultural resources. The Tribe has over thirty-five (35) years of experience in working with various types of construction projects throughout its territory. The combination of this knowledge and experience, along with the knowledge of the culturally-sensitive areas and oral tradition, is what the Tribe relies on to make fairly accurate predictions regarding the likelihood of subsurface resources in a particular location.

The Pechanga Tribe is not opposed to this Project; however, we are opposed to any impacts this Project may have to tribal cultural resources. The Tribe's primary concerns stem from the Project's proposed impacts on Native American cultural resources. The Tribe is concerned about both the protection of unique and irreplaceable cultural resources, such as Luiseño village sites, sacred sites and archaeological items which would be displaced by ground disturbing work on the Project, and on the proper and lawful treatment of cultural items, Native American human remains and sacred items likely to be discovered in the course of the work. The Tribe requests to be involved and participate with the City of Moreno Valley in assuring that an adequate environmental assessment is completed, including all archaeological studies and analysis, and in developing all preservation, avoidance, monitoring and mitigation plans and measures for the duration of the Project.

The CEQA Guidelines state that lead agencies should make provisions for inadvertent discoveries of cultural resources (CEQA Guidelines §15064.5). The Tribe believes that adequate cultural resources assessments and management must always include a component which addresses inadvertent discoveries. Every major State and Federal law dealing with cultural resources includes provisions addressing inadvertent discoveries (See e.g.: CEQA (Cal. Pub. Resources Code §21083.2(i); 14 CCR §15065.5(f)); Section 106 (36 CFR §800.13); NAGPRA (43 CFR §10.4). Moreover, most state and federal agencies have guidelines or provisions for addressing inadvertent discoveries (See e.g.: FHWA, Section 4(f) Regulations - 771.135(g); CALTRANS, Standard Environmental Reference - 5- 10.2 and 5-10.3). Because of the extensive presence of the Tribe's ancestors within the Project area, it is not unreasonable to expect to find vestiges of that presence. Such cultural resources and artifacts are significant to the Tribe as they are reminders of their ancestors. Moreover, the Tribe is expected to protect and assure that all cultural sites of its ancestors are appropriately treated in a respectful manner. Therefore, as noted previously, it is crucial to adequately address the potential for inadvertent discoveries.

Further, the Pechanga Tribe believes that if human remains are discovered, State law would apply and the mitigation measures in the EIR must account for this. According to the California Public Resources Code, § 5097.98, if Native American human remains are discovered, the Native American Heritage Commission must name a "most likely descendant," who shall be consulted as to the appropriate disposition of the remains. Given the Project's location in Pechanga territory, the Pechanga Tribe intends to assert its right pursuant to California law with regard to any remains or items discovered in the course of this Project.

RECOMMENDATIONS FOR DEIR ANALYSIS

The Tribe further believes that a DEIR is not complete unless all impacts to cultural resources has been thoroughly vetted and analyzed, especially concerning the auditory and visual impacts, cumulative impacts and the growth-related or long-term impacts that a Project will have. As discussed above, numerous habitation areas are located in close proximity to the Project. The development of the proposed warehouse/industrial buildings may directly impact the sightlines of these habitations to the Lake Perris area and could potentially obscure the viewsheds of sacred/ceremonial sites from Lake Perris to *Qaxáalku*. The sheer size of the building will be seen and the truck traffic will be heard for miles and may be a visual impediment to the scenic beauty of this region. It will further affect the natural quietness of the area. Because of the size, complexity and impact the Project will have on the surrounding landscape, visual and auditory impacts to cultural resources should be thoroughly evaluated within the final document, including potentially conducting a viewshed analysis document, to determine whether line-of-sight obstructions will impact the sensitive resources in the area. The DEIR should take into account not only any cultural resources that are located within the Project boundaries (including any off-site improvements), but also the villages surrounding the Project, regardless whether they exist within an arbitrary one-mile radius, that might be impacted as well.

Cumulative impacts are also a major concern for the Tribe. The destruction of any "individual" cultural resource is detrimental to the whole cultural landscape and serves to further destroy the Tribe's traditional ancestral places. Unfortunately, most of the traditional ancestral places of the Tribe are on private and public lands which are constantly threatened by development. The Tribe is not anti-development; however, we increasingly struggle with lead agencies to protect and preserve our invaluable resources which continue to be destroyed and impacted on nearly a daily basis. Improper recordation and analysis of features within a larger community or habitation context allows for the piecemealing of sites and which can result in improper eligibility determinations which leads ultimately to damage or destruction. It is important to acknowledge in Project documentation that these are not renewable resources and thus the impairment or destruction of any site or resource IS a cumulative impact.

Additionally, with the proposed Project, the huge influx of truck traffic and vehicles will increase air pollution. The smog and other pollutants build up on adjacent boulder outcrops. Very little research has been conducted to determine the effects of air pollutants on boulder outcrops and rock art; however, the Tribe knows that the constant exposure of acidic elements in the air will erode the delicate pigments left on the rocks. This kind of indirect and cumulative impact needs to be addressed in more detail in the final document as there are significant *tóota yixélval* within a very close proximity to the Project. As such, the document must address these kinds of impacts.

Finally, the Tribe is concerned about growth-related impacts to this area and their effects on cultural resources. We know that development brings people, and if people are not educated or aware of the importance of cultural resources, the resources will suffer through vandalism, looting, graffiti or destruction. Based upon the current archaeological methodology, there is a high probability that these sites will to be subjected to site-by-site analysis and not viewed in their proper context. Because the Project's archaeological reports, including all archaeological studies, will be submitted to the Eastern Information Center (EIC) – the clearinghouse for such documents and the location archaeologists first go to for information, the Tribe requests that the City of Moreno Valley set a precedent and require that the Project archaeologist address the both

Project sites and the regional context in the study in order to assist future archaeologists and developers with awareness, preservation and avoidance.

The Tribe reserves the right to fully participate in the environmental review process, as well as to provide further comment on the Project's impacts to cultural resources and potential mitigation for such impacts.

The Pechanga Tribe looks forward to working together with the City of Moreno Valley in protecting the invaluable Pechanga cultural resources found in the Project area. Please contact me at 951-770-8104 or at ahoover@pechanga-nsn.gov so we can schedule a meeting if desired. Thank you.

Sincerely,

Anna Hoover
Cultural Analyst

Cc Pechanga Office of the General Counsel

Riverside County
Airport Land Use Commission
RCALUC

AIRPORT LAND USE COMMISSION
RIVERSIDE COUNTY

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July 14, 2015

Ms. Julia Descoteaux, Associate Planner
City of Moreno Valley Community Development Department
Planning Division
14177 Frederick Street
P. O. Box 88005
Moreno Valley, CA 92552-0805

RE: Moreno Valley Logistics Center (PA15-0014 through PA15-0018 and P15-036) Initial Study and Notice of Preparation

Dear Ms. Descoteaux:

Thank you for providing the Riverside County Airport Land Use Commission (ALUC) with a copy of the Notice of Preparation of a Draft Environmental Impact Report (EIR) and a CD copy of the Initial Study for City of Moreno Valley Planning Case Nos. PA15-0014 through PA15-0018 and P15-036, corresponding to a proposal for development of a four-building warehouse and logistics center with a combined floor area of 1,702,518 square feet, along with an amendment to Specific Plan No. 208 and a tentative parcel map.

As noted in previous correspondence, an official submittal of the project to ALUC for a determination as to consistency is mandatory.

The Initial Study (page 26) cites glare as a potentially significant impact to be studied in the required EIR and points out the possibility that roof mounted solar panels could potentially be installed on portions of the building roofs. We recommend that the Solar Glare Hazard Analysis Tool (SGHAT) (as recognized by the Federal Aviation Administration) be utilized to evaluate the potential for glare impacts on aviation activities, particularly aircraft departing from or approaching the runway at March Air Reserve Base/Inland Port Airport.

While the excellent Project Description acknowledges (page 20) that "permits and approvals may be required from other public entities," citing ALUC among their number, the discussion of issues in the remainder of the Initial Study does not address the criteria of the 2014 March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. On page 37, the discussion of safety hazards references the fact that the property is not in an Accident Potential Zone as a basis for concluding that "implementation of the proposed Project would not result in a safety hazard" and that this issue does not require further study in the required EIR. However, this conclusion may be premature in that the project has not yet been reviewed for consistency with the intensity limits of Compatibility Zone C1.

Additionally, the Environmental Impact Report should address the measures that will be taken to ensure that the on-site detention basins will not become a wildlife attractant that could impact the safety of aircraft in flight.

If you have any questions, please contact John Guerin, ALUC Principal Planner, at (951) 955-0982.

Sincerely,
RIVERSIDE COUNTY AIRPORT LAND USE COMMISSION

Edward C. Cooper, ALUC Director

cc: Richard Sandzimier, Planning Official, City of Moreno Valley

Y:\AIRPORT CASE FILES\March\Mo Val Logistics Center NOP Initial Study - ltr to Mo Val.doc

David Ornelas

From: Daniel McCarthy <DMcCarthy@sanmanuel-nsn.gov>
Sent: Monday, June 22, 2015 4:45 PM
To: Julia Descoteaux
Subject: Moreno Valley Logistics Center SPA P15-036, et al

Julia,

I received the NOP for the proposed Logistic Center today. The project is located within the Tribe's ancestral territory. We do not have any information about significant Native American cultural resources at the project location, but are aware that there are such resources in the general area. Please forward a copy of the archaeological records search results when available as well as a copy of the draft cultural resources report(s) for continued review. After reviewing these documents we will be able to provide further comments.

Please keep the Tribe on your list to receive future project notices and documentation, as well.

Thank you,
Daniel

Daniel McCarthy MS, RPA
Director - CRM Department
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA 92346

50 YEARS
SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

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Deborah Robertson, Rialto

Transportation
Alan Wapner, San Bernardino Associated Governments

July 16, 2015

Ms. Julia Descoteaux, Associate Planner
City of Moreno Valley, Community Development Department
14177 Frederick Street
PO Box 88005
Moreno Valley, California 92552
Phone: (951) 413-3209
Email: juliad@moval.org

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Moreno Valley Logistics Center [SCAG NO. IGR8534]

Dear Ms. Descoteaux,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Moreno Valley Logistics Center ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including its Sustainable Communities Strategy (SCS) component pursuant to SB 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of the regional goals and policies in the RTP/SCS.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Moreno Valley Logistics Center in Riverside County. The proposed project includes construction of four industrial buildings totaling 1,737,518 square feet on a 73.4 acre project site. The proposed project also includes a Specific Plan Amendment to reduce current land use buffer distances between the project site and existing residential development and a Tentative Parcel Map to consolidate the project site into two parcels.

When available, please send environmental documentation to SCAG's *office in Los Angeles or by email to sunl@scag.ca.gov* providing, at a minimum, the full public comment period for review. If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Lijin Sun, Esq., Senior Regional Planner, at (213) 236-1882 or sunl@scag.ca.gov. Thank you.

Sincerely,

Ping Chang

Ping Chang
Program Manager II, Land Use and Environmental Planning

---

[1] SB 375 amends CEQA to add Chapter 4.2 Implementation of the Sustainable Communities Strategy, which allows for certain CEQA streamlining for projects consistent with the RTP/SCS. Lead agencies (including local jurisdictions) maintain the discretion and will be solely responsible for determining "consistency" of any future project with the SCS. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a finding of consistency under SB 375 for purposes of CEQA streamlining.

COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE MORENO VALLEY LOGISTICS CENTER [SCAG NO. IGR8534]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS.

2012 RTP/SCS GOALS

The SCAG Regional Council adopted the 2012 RTP/SCS in April 2012. The 2012 RTP/SCS links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic and commercial limitations (see http://rtpscs.scag.ca.gov). The goals included in the 2012 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2012 RTP/SCS are the following:

SCAG 2012 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and non-motorized transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the policy and supportive analysis in a table format. Suggested format is as follows:

SCAG 2012 RTP/SCS GOALS		
	Goal	Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.		etc.

RTP/SCS STRATEGIES

To achieve the goals of the 2012 RTP/SCS, a wide range of strategies are included in SCS Chapter (starting on page 152) of the RTP/SCS focusing on four key areas: 1) Land Use Actions and Strategies; 2) Transportation Network Actions and Strategies; 3) Transportation Demand Management (TDM) Actions and Strategies and; 4) Transportation System Management (TSM) Actions and Strategies. If applicable to the proposed project, please refer to these strategies as guidance for considering the proposed project within the context of regional goals and policies. To access a listing of the strategies, please visit http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf (Tables 4.3 – 4.7, beginning on page 152).

REGIONAL GROWTH FORECASTS

At the time of this letter, the most recently adopted SCAG forecasts consists of the 2020 and 2035 RTP/SCS population, household and employment forecasts. To view them, please visit http://scag.ca.gov/Documents/2012AdoptedGrowthForecastPDF.pdf. The forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts		**Adopted City of Moreno Valley Forecasts**	
	Year 2020	**Year 2035**	**Year 2020**	**Year 2035**
Population	19,663,000	22,091,000	213,700	255,200
Households	6,458,000	7,325,000	60,000	72,800
Employment	8,414,000	9,441,000	48,000	64,400

MITIGATION

SCAG staff recommends that you review the SCAG 2012 RTP/SCS Final Program EIR Mitigation Measures for guidance, as appropriate. See Chapter 6 (beginning on page 143) at:
http://rtpscs.scag.ca.gov/Documents/peir/2012/final/Final2012PEIR.pdf

As referenced in Chapter 6, a comprehensive list of example mitigation measures that may be considered as appropriate is included in Appendix G: *Examples of Measures that Could Reduce Impacts from Planning, Development and Transportation Projects.* Appendix G can be accessed at:
http://rtpscs.scag.ca.gov/Documents/peir/2012/final/2012fPEIR_AppendixG_ExampleMeasures.pdf

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

South Coast
AQMD

RECEIVED
JUL 2 1 2015
CITY OF MORENO VALLEY
Planning Division

July 9, 2015

Julia Descoteaux, Associate Planner
City of Moreno Valley
Community Development Department
14177 Frederick Street
PO Box 8805
Moreno Valley, CA 92552

Notice of Preparation of a Draft EIR Document for the
Moreno Valley Logistics Center

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft EIR document. Please send the SCAQMD a copy of the CEQA document upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the Draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993).

SCAQMD staff also recommends that the lead agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

In addition to analyzing regional air quality impacts the SCAQMD recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LST's can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized significance analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at http://www.aqmd.gov/ceqa/handbook/LST/LST.html.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment (*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*) can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. This document may be helpful when evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to state CEQA Guidelines §15126.4 (a), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD mitigation measures and control efficiencies CEQA web pages at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies.
- CAPCOA *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies/greenhouse-gases.
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions http://www.aqmd.gov/home/programs/business/training-403-403-1-fugitive-dust.
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. This document can be found at the following internet address:

http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4.

SCAQMD Recommendation for Truck Trip Rates for High Cube Warehouse Projects
SCAQMD recommends the use of truck trip rates from the Institute of Transportation Engineers (ITE) for high cube warehouse projects located in SCAQMD (i.e. 1.68 average daily vehicle trips per 1,000 s.f. and 0.64 average daily truck trips per 1,000 s.f.). Consistent with CEQA Guidelines, the EIR may use a non-default trip rate if there is substantial evidence indicating another rate is more appropriate for the air quality analysis.

For high cube warehouse projects, the SCAQMD staff has been working on a Warehouse Truck Trip Study to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. Details regarding this study can be found online here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/high-cube-warehouse

Data Sources
SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at Bradlein@aqmd.gov or call me at (909) 396-2716.

Sincerely,

Barbara Radlein
Program Supervisor
Planning, Rule Development & Area Sources

RVC150619-03
Control Number

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

RECEIVED
JUN 2 2 2015
CITY OF MORENO VALLEY
Planning Division

June 16, 2015

To: Reviewing Agencies

Re: Moreno Valley Logistics Center
SCH# 2015061040

Attached for your review and comment is the Notice of Preparation (NOP) for the Moreno Valley Logistics Center draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Julia Descoteaux
City of Moreno Valley
14177 Frederick Street
PO Box 88055
Moreno Valley, CA 92552

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

SCH#	**2015061040**
Project Title	Moreno Valley Logistics Center
Lead Agency	Moreno Valley, City of

Type	**NOP** Notice of Preparation
Description	Project includes four Plot Plans to provide for the construction and operation of a warehouse distribution center with four buildings providing 1,737,518 s.f. of total floor space. Associated improvements to the property would include loading docks, surface parking areas (automobile parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The Project also includes a Specific Plan Amendment to modify land use buffering and landscape requirements applicable to the subject property and a Tentative Parcel Map to consolidate a 73.4 acre portion of the site into two parcels.

Lead Agency Contact

Name	Julia Descoteaux				
Agency	City of Moreno Valley				
Phone	951-413-3209	***Fax***			
email					
Address	14177 Frederick Street PO Box 88055				
City	Moreno Valley	***State***	CA	***Zip***	92552

Project Location

County	Riverside						
City	Moreno Valley						
Region							
Cross Streets	Krameria Ave and Indian Street						
Lat / Long	33° 52' 40" N / 117° 14' 17" W						
Parcel No.	Various						
Township	3S	***Range***	3W	***Section***	30	***Base***	San Bern

---

Proximity to:

Highways	I-215
Airports	March ARB
Railways	BNSF
Waterways	Lake Perris, Perris Valley Storm Drain Channel
Schools	Ranbow Ridge, March
Land Use	Present Land Use: Undeveloped; Zoning Designation: Industrial; General Plan Designation: Business Park/Light Industrial

---

Project Issues	Aesthetic/Visual; Air Quality; Agricultural Land; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Noise; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects; Other Issues

---

Reviewing Agencies	Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 6; Native American Heritage Commission; Caltrans, District 8; Air Resources Board; Regional Water Quality Control Board, Region 8

Date Received	06/16/2015	***Start of Review***	06/16/2015	***End of Review***	07/15/2015

Note: Blanks in data fields result from insufficient information provided by lead agency.

2015061040

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Moreno Valley Logistics Center

Lead Agency: City of Moreno Valley
Contact Person: Julia Descoteaux
Mailing Address: 14177 Frederick Street, P.O. Box 88055
Phone: (951) 413-3209
City: Moreno Valley
Zip: 92552
County: Riverside

Project Location: County: Riverside
City/Nearest Community: Moreno Valley
Cross Streets: Krameria Avenue and Indian Street
Zip Code: 92551
Longitude/Latitude (degrees, minutes and seconds): 33 ° 52 ′ 40 ″ N / 117 ° 14 ′ 17 ″ W
Total Acres: 89.4
Assessor's Parcel No.: * See bottom of page
Section: 30 Twp.: 3 South Range: 3 West Base: San Bern.
Within 2 Miles: State Hwy #: I-215
Waterways: Lake Perris, Perris Valley Storm Drain Channel
Airports: March ARB
Railways: BNSF
Schools: Rainbow Ridge, March

Document Type:

CEQA:
☒ NOP
☐ Early Cons
☐ Neg Dec
☐ Mit Neg Dec
☐ Draft EIR
☐ Supplement/Subsequent EIR
(Prior SCH No.) ______
Other: ______

NEPA:
☐ NOI
☐ EA
☐ Draft EIS
☐ FONSI

Other:
☐ Joint Document
☐ Final Document
☐ Other: ______

RECEIVED
JUN 16 2015
STATE CLEARING HOUSE

Local Action Type:

☐ General Plan Update
☐ General Plan Amendment
☐ General Plan Element
☐ Community Plan
☒ Specific Plan
☐ Master Plan
☐ Planned Unit Development
☒ Site Plan
☐ Rezone
☐ Prezone
☐ Use Permit
☒ Land Division (Subdivision, etc.)
☐ Annexation
☐ Redevelopment
☐ Coastal Permit
☐ Other: ______

Development Type:

☐ Residential: Units ______ Acres ______
☐ Office: Sq.ft. ______ Acres ______ Employees ______
☐ Commercial: Sq.ft. ______ Acres ______ Employees ______
☒ Industrial: Sq.ft. 1.7m Acres 89.4 Employees ______
☐ Educational: ______
☐ Recreational: ______
☐ Water Facilities: Type ______ MGD ______
☐ Transportation: Type ______
☐ Mining: Mineral ______
☐ Power: Type ______ MW ______
☐ Waste Treatment: Type ______ MGD ______
☐ Hazardous Waste: Type ______
☐ Other: ______

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☐ Geologic/Seismic
☐ Minerals
☒ Noise
☐ Population/Housing Balance
☐ Public Services/Facilities
☐ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☐ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☒ Wetland/Riparian
☒ Growth Inducement
☒ Land Use
☒ Cumulative Effects
☒ Other: Greenhouse Gas

Present Land Use/Zoning/General Plan Designation:

Present Land Use: Undeveloped; Zoning Designation: Industrial; General Plan Designation: Business Park/Light Industrial

Project Description: *(please use a separate page if necessary)*

The Project includes four Plot Plans to provide for the construction and operation of a warehouse distribution center with four buildings providing 1,737,518 s.f. of total floor space. Associated improvements to the property would include loading docks, surface parking areas (automobile parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure, landscaping, exterior lighting, signage, and water quality detention basins. The Project also includes a Specific Plan Amendment to modify land use buffering and landscape requirements applicable to the subject property and a Tentative Parcel Map to consolidate a 73.4-acre portion of the site into two parcels.

*APNs: 316-100-028, 316-100-030, 316-100-048, 316-100-051, and 316-100-052.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

NOP Distribution List

JB

County: RIVERSIDE

SCH# 2015061040

sources Agency

Resources Agency
Nadell Gayou

☐ **Dept. of Boating & Waterways**
Denise Peterson

☐ **California Coastal Commission**
Elizabeth A. Fuchs

☐ **Colorado River Board**
Lisa Johansen

☐ **Dept. of Conservation**
Elizabeth Carpenter

☐ **California Energy Commission**
Eric Knight

☐ **Cal Fire**
Dan Foster

☐ **Central Valley Flood Protection Board**
James Herota

☐ **Office of Historic Preservation**
Ron Parsons

Dept of Parks & Recreation
Environmental Stewardship Section

☐ **California Department of Resources, Recycling & Recovery**
Sue O'Leary

☐ **S.F. Bay Conservation & Dev't. Comm.**
Steve McAdam

☒ **Dept. of Water Resources**
Resources Agency
Nadell Gayou

Fish and Game

☐ **Depart. of Fish & Wildlife**
Scott Flint
Environmental Services Division

☐ **Fish & Wildlife Region 1**
Curt Babcock

☐ **Fish & Wildlife Region 1E**
Laurie Harnsberger

☐ **Fish & Wildlife Region 2**
Jeff Drongesen

☐ **Fish & Wildlife Region 3**
Charles Armor

☐ **Fish & Wildlife Region 4**
Julie Vance

☐ **Fish & Wildlife Region 5**
Leslie Newton-Reed
Habitat Conservation Program

☒ **Fish & Wildlife Region 6**
Tiffany Ellis
Habitat Conservation Program

☐ **Fish & Wildlife Region 6 I/M**
Heidi Calvert
Inyo/Mono, Habitat Conservation Program

☐ **Dept. of Fish & Wildlife M**
George Isaac
Marine Region

Other Departments

☐ **Food & Agriculture**
Sandra Schubert
Dept. of Food and Agriculture

☐ **Depart. of General Services**
Public School Construction

☐ **Dept. of General Services**
Anna Garbeff
Environmental Services Section

☐ **Delta Stewardship Council**
Kevan Samsam

☐ **Housing & Comm. Dev.**
CEQA Coordinator
Housing Policy Division

Independent Commissions,Boards

☐ **Delta Protection Commission**
Michael Machado

☐ **OES (Office of Emergency Services)**
Marcia Scully

■ **Native American Heritage Comm.**
Debbie Treadway

☐ **Public Utilities Commission**
Leo Wong

☐ **Santa Monica Bay Restoration**
Guangyu Wang

☐ **State Lands Commission**
Jennifer Deleong

☐ **Tahoe Regional Planning Agency (TRPA)**
Cherry Jacques

Cal State Transportation Agency CalSTA

☐ **Caltrans - Division of Aeronautics**
Philip Crimmins

☐ **Caltrans – Planning HQ LD-IGR**
Terri Pencovic

☐ **California Highway Patrol**
Suzann Ikeuchi
Office of Special Projects

Dept. of Transportation

☐ **Caltrans, District 1**
Rex Jackman

☐ **Caltrans, District 2**
Marcelino Gonzalez

☐ **Caltrans, District 3**
Eric Federicks – South
Susan Zanchi - North

☐ **Caltrans, District 4**
Patricia Maurice

☐ **Caltrans, District 5**
Larry Newland

☐ **Caltrans, District 6**
Michael Navarro

☐ **Caltrans, District 7**
Dianna Watson

☒ **Caltrans, District 8**
Mark Roberts

☐ **Caltrans, District 9**
Gayle Rosander

☐ **Caltrans, District 10**
Tom Dumas

☐ **Caltrans, District 11**
Jacob Armstrong

☐ **Caltrans, District 12**
Maureen El Harake

Cal EPA

Air Resources Board

■ All Other Projects
Cathi Slaminski

☐ Transportation Projects
Nesamani Kalandiyur

☐ Industrial/Energy Projects
Mike Tollstrup

☐ **State Water Resources Control Board**
Regional Programs Unit
Division of Financial Assistance

☐ **State Water Resources Control Board**
Jeffery Werth
Division of Drinking Water

☐ **State Water Resources Control Board**
Student Intern, 401 Water Quality Certification Unit
Division of Water Quality

☐ **State Water Resouces Control Board**
Phil Crader
Division of Water Rights

☐ **Dept. of Toxic Substances Control**
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☐ **Department of Pesticide Regulation**
CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

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Cathleen Hudson
North Coast Region (1)

☐ **RWQCB 2**
Environmental Document Coordinator
San Francisco Bay Region (2)

☐ **RWQCB 3**
Central Coast Region (3)

☐ **RWQCB 4**
Teresa Rodgers
Los Angeles Region (4)

☐ **RWQCB 5S**
Central Valley Region (5)

☐ **RWQCB 5F**
Central Valley Region (5
Fresno Branch Office

☐ **RWQCB 5R**
Central Valley Region (5
Redding Branch Office

☐ **RWQCB 6**
Lahontan Region (6)

☐ **RWQCB 6V**
Lahontan Region (6)
Victorville Branch Office

☐ **RWQCB 7**
Colorado River Basin Region (7)

☒ **RWQCB 8**
Santa Ana Region (8)

☐ **RWQCB 9**
San Diego Region (9)

☐ **Other** ____________________
____
____

☐ ____________________
Conservancy

Last Updated 3/17/

David Ornelas

From: David Ornelas
Sent: Monday, July 13, 2015 11:25 AM
To: Julia Descoteaux (juliad@moval.org)
Cc: Tracy Zinn
Subject: Moreno Valley Logistics Center - Public Comment

Hi, Julia:

One of the attendees from the EIR Scoping Meeting, Ms. Stephanie Grosveld, called T&B Planning this morning with comments regarding the CEQA analysis for the Moreno Valley Logistics Center project. The comments provided by Ms. Grosveld are below; please include these comments in the project's file with the other NOP and Scoping Meeting comments.

Comments received by Tracy Zinn of T&B Planning on the Moreno Valley Logistics Center EIR NOP, from Stephanie Grosveld - by phone on July 13, 2015, 10:19-10:29 AM.

1. Concerned about low attendance at the scoping meeting. Concerned that there was not enough notification of the meeting to surrounding property owners.
2. Concerned that the future occupants of the buildings are not yet identified.
3. Concerned about the vacancy rates of warehouse buildings - she indicated that several are empty.
4. Concerned about the amount of pollution and noise that the project would cause to properties on the opposite side of Krameria Avenue and Indian Street.
5. Concerned about pollution from large trucks.
6. Concerned that the public school system is not training for jobs that the warehouses would create. Would like to see changes in the education system for specific job training.
7. Concerned about the amount of money that the public school system is spending on education, to train for jobs that don't exist in the U.S.
8. Concerned that the warehouses in Moreno Valley are storage spaces for goods produced overseas. Would like to see U.S. manufacturing jobs in Moreno Valley and the surrounding area. Concerned that the warehouses are furthering the much larger problem of foreign good imports, which are taking away from U.S. jobs.

David Ornelas
Project Manager

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Moreno Valley Logistics Center

AIR QUALITY IMPACT ANALYSIS

CITY OF MORENO VALLEY

PREPARED BY:

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March 17, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg/m3	Microgram per Cubic Meter
AADT	Annual Average Daily Trips
AQIA	Air Quality Impact Analysis
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
BACMs	Best Available Control Measures
BMPs	Best Management Practices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DPM	Diesel Particulate Matter
EPA	Environmental Protection Agency
LST	Localized Significance Threshold
MMs	Mitigation Measures
NAAQS	National Ambient Air Quality Standards
NO2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
Pb	Lead
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
Project	Moreno Valley Logistics Center
ROG	Reactive Organic Gases
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIPs	State Implementation Plans
SRA	Source Receptor Area

TAC	Toxic Air Contaminant
TIA	Traffic Impact Analysis
TOG	Total Organic Gases
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

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EXECUTIVE SUMMARY

CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project will exceed the numerical thresholds of significance established by the South Coast Air Quality Management District (SCAQMD) for emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) prior to implementation of applicable Best Available Control measures (BACMs) and mitigation measures (MMs).

Even after implementation of the applicable BACMs and MMs, construction activity emissions will exceed the numerical thresholds established by the SCAQMD for emissions of NO_x. Thus a significant impact will occur even with the implementation of applicable BACMs and MMs. Project construction-source NO_x emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

LOCALIZED IMPACTS

Without BACMs and MMs, emissions during construction activity will exceed the SCAQMD's localized significance threshold for emissions of NO_2, PM_{10}, and $PM_{2.5}$. It should be noted that the impacts without BACMs do not take credit for reductions achieved standard regulatory requirements (Rule 403). After implementation of applicable BACMs and MMs, the emissions resulting from short-term construction activity will not exceed the SCAQMD LST thresholds.

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOCs and NO_x. Even with implementation of applicable MMs, no feasible mitigation measures exist (as shown in Section 4.6) that would reduce these emissions to levels that are less-than-significant. Project operational-source VOCs and NO_x emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8, thus a less than significant impact to sensitive receptors during operational activity is expected.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

1 INTRODUCTION

This report presents the results of the air quality impact analysis (AQIA) prepared by Urban Crossroads, Inc., for the proposed Moreno Valley Logistics Center ("Project"). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project, and recommend measures to mitigate impacts considered potentially significant in comparison to established regulatory thresholds.

1.1 SITE LOCATION

The proposed Moreno Valley Logistics Center site is located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. The Project site is currently vacant. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are designated by the Moreno Valley Industrial Area Plan (MVIAP) for future industrial development; to the west by March Air Reserve Base, and to the east by a single-family residential neighborhood. The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel. (2) The Interstate 215 (I-215) Freeway is located approximately 1.3 miles west of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1). Building 2, located on the southwest corner of Cosmos Street and Krameria Avenue, is proposed to consist of 122,516 sf of general light industrial use; Building 3, located at the eastern terminus of Cardinal Avenue, is proposed to consist of 97,222 sf of general light industrial use; and Building 4, located on the east of Heacock Street and south of Krameria Avenue (North), is proposed to consist of 166,010 sf of general light industrial use, as shown on Exhibit 1-B[1]. This analysis accounts for emissions and impacts associated with tenants that require cold storage (refrigeration). For analytical purposes, a maximum of 10% cold storage is proposed and analyzed. The Project is anticipated to be constructed and occupied by Year 2017.

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event the alternate site plan is implemented, the truck trailer parking lot will be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be

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[1] This report analyzes a slightly higher general light industrial square footage (385,748 square feet compared to 384,417 square feet) than what was analyzed in the EIR. As such, the report represents a more conservative estimate of emissions.

powered by diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

EXHIBIT 1-A: LOCATION MAP

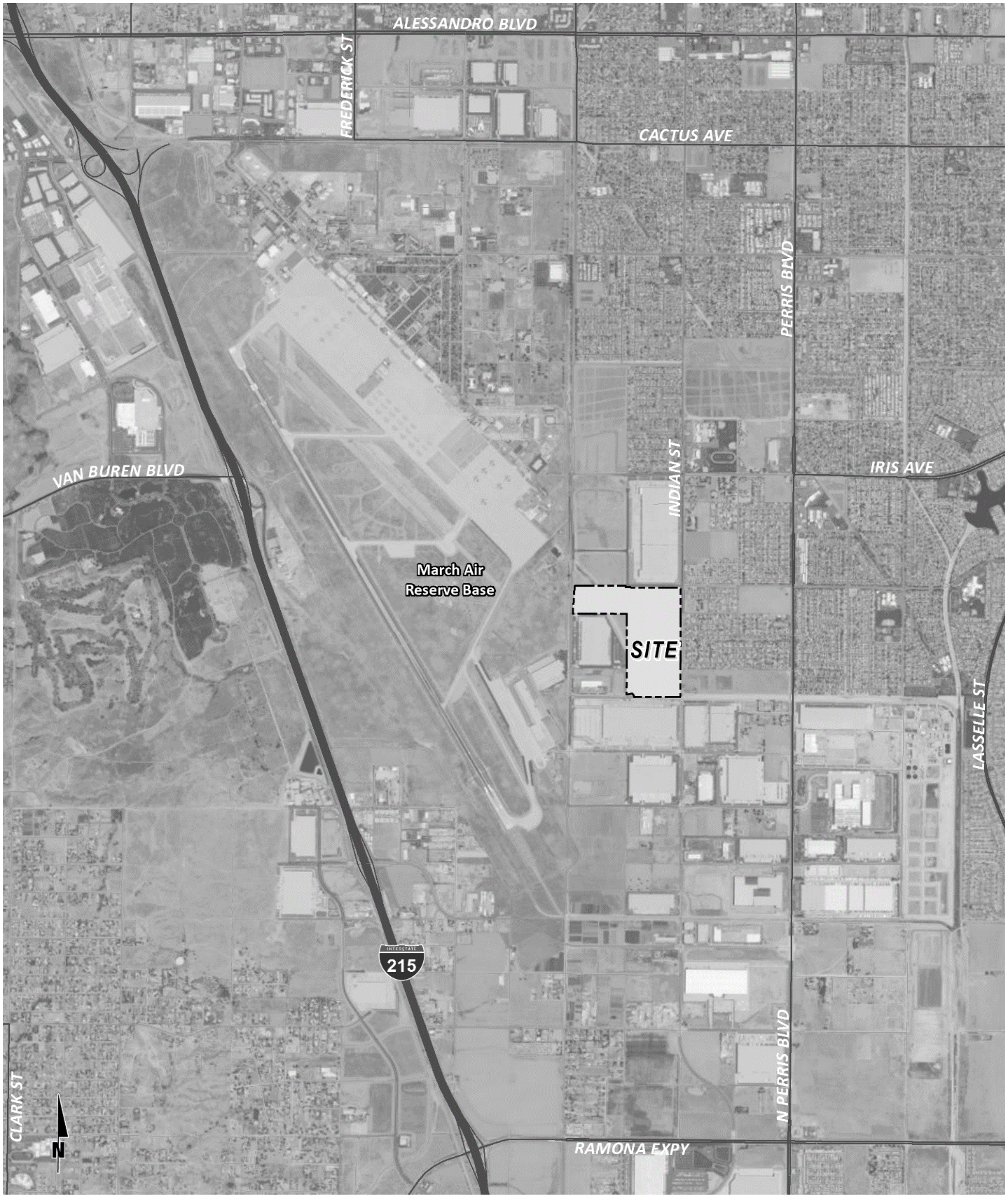

EXHIBIT 1-B: SITE PLAN

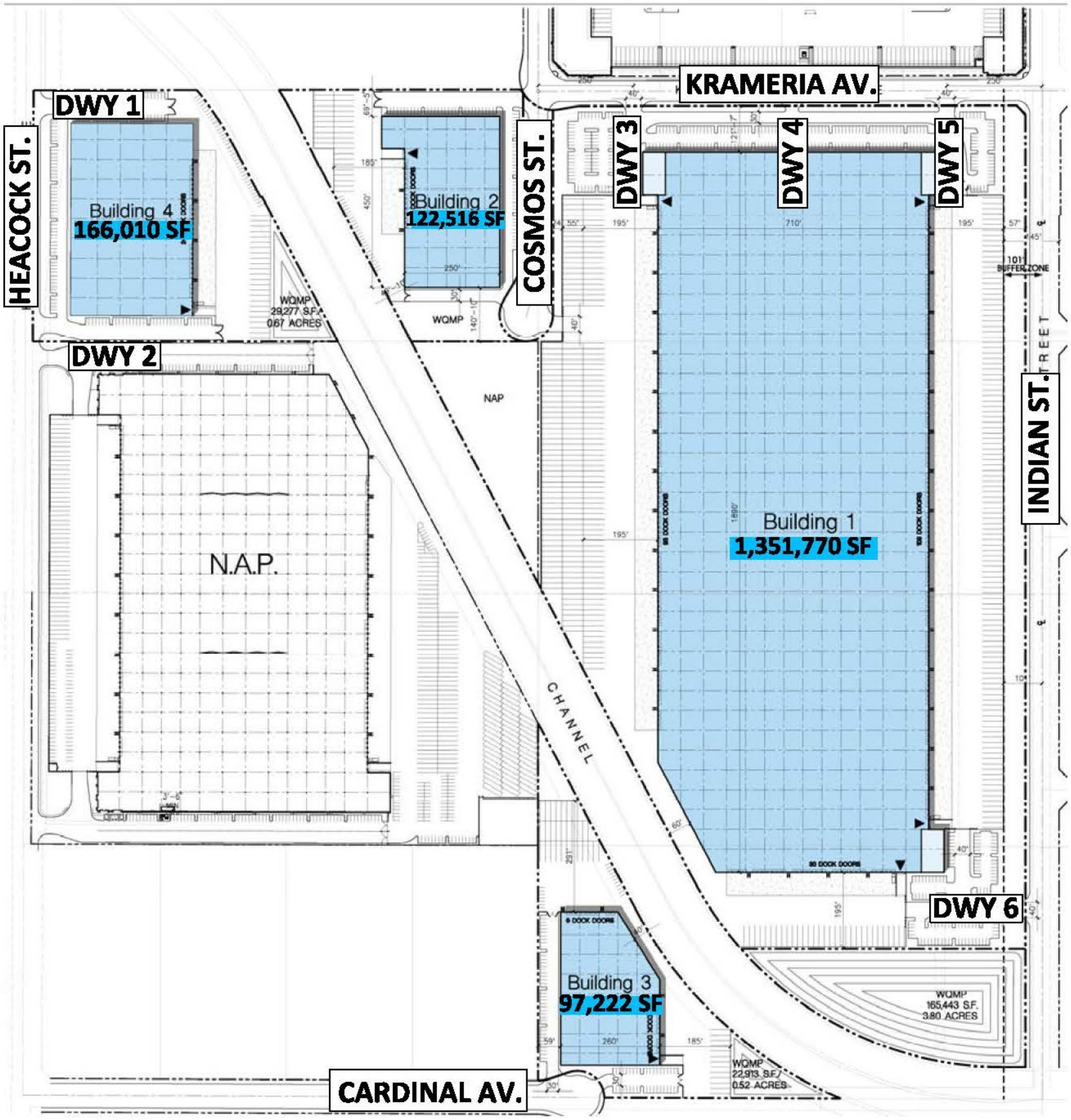

2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (3). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As discussed above, the Project site is located within the South Coast Air Basin, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The larger South Coast district boundary includes 10,743 square miles.

The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Los Angeles County portion of the Mojave Desert Air Basin is bound by the San Gabriel Mountains to the south and west, the Los Angeles / Kern County border to the north, and the Los Angeles / San Bernardino County border to the east. The Riverside County portion of the Salton Sea Air Basin is bound by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley.

2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s (degrees Fahrenheit). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.

Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14 1/2 hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as NOX and CO from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

2.3 WIND PATTERNS AND PROJECT LOCATION

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The Basin is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly on-shore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well health effects of each pollutant regulated under these standards are shown in Table 2-1 (4) (5).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards presented in Table 2-1. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O3, CO, SO2, NO2, PM10, and PM2.5 are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O3, PM10, PM2.5, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O3 standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

TABLE 2-1 (1 OF 2): AMBIENT AIR QUALITY STANDARDS

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	**Method[4]**	**Primary[3,5]**	**Secondary[3,6]**	**Method[7]**
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 $\mu g/m^3$)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 $\mu g/m^3$)		0.070 ppm (137 $\mu g/m^3$)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 $\mu g/m^3$	Gravimetric or Beta Attenuation	150 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 $\mu g/m^3$		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 $\mu g/m^3$	Gravimetric or Beta Attenuation	12.0 $\mu g/m^3$	15 $\mu g/m^3$	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 $\mu g/m^3$)	Gas Phase Chemiluminescence	100 ppb (188 $\mu g/m^3$)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)		0.053 ppm (100 $\mu g/m^3$)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 $\mu g/m^3$)	Ultraviolet Fluorescence	75 ppb (196 $\mu g/m^3$)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 $\mu g/m^3$)	
	24 Hour	0.04 ppm (105 $\mu g/m^3$)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[12,13]	30 Day Average	1.5 $\mu g/m^3$	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 $\mu g/m^3$ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 $\mu g/m^3$		
Visibility Reducing Particles[14]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 $\mu g/m^3$	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 $\mu g/m^3$)	Gas Chromatography			

See footnotes on next page …

For more information please call ARB-PIO at (916) 322-2990

California Air Resources Board (10/1/15)

TABLE 2-1 (2 OF 2): AMBIENT AIR QUALITY STANDARDS

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (10/1/15)**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.5 REGIONAL AIR QUALITY

The SCAQMD monitors levels of various criteria pollutants at 30 monitoring stations throughout the air district. In 2014, the federal and state ambient air quality standards (NAAQS and CAAQS) were exceeded on one or more days for ozone, PM10, and PM2.5 at most monitoring locations (6). No areas of the SCAB exceeded federal or state standards for NO2, SO2, CO, sulfates or lead. See Table 2-2 for attainment designations for the SCAB (7) (8). Appendix 3.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

TABLE 2-2: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SOUTH COAST AIR BASIN (SCAB)

Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Attainment
Lead[2]	Attainment	Unclassified/Attainment

Source: State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm
Note: See Appendix 3.1 for a detailed map of State/National Area Designations within the South Coast Air Basin

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for Ozone (O_3) and Particulate Matter ≤ 10 Microns (PM_{10}) is the South Coast Air Quality Management District Perris monitoring station (SRA 24), located approximately 8 miles south of the Project site (9). Data for Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), and Ultra-Fine Particulates ($PM_{2.5}$) was obtained from the Metropolitan Riverside County 2 monitoring station (SRA 23), located approximately 15.5 miles northwest of the project site. It should be noted that the Metropolitan Riverside County 2 monitoring stations was utilized in lieu of the Perris monitoring station only where data was not available from the nearest monitoring site.

The most recent three (3) years of data available is shown on Table 2-3 and identifies the number of days ambient air quality standards were exceeded for the study area, which is ~~was~~ considered to be representative of the local air quality at the Project site (6) (10). Additionally, data for SO2 has been omitted as attainment is regularly met in the South Coast Air Basin and few monitoring stations measure SO2 concentrations.

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[2] The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

TABLE 2-3: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2012-2014

POLLUTANT	STANDARD	YEAR		
		2012	2013	2014
Ozone (O_3)				
Maximum 1-Hour Concentration (ppm)		0.111	0.108	0.104
Maximum 8-Hour Concentration (ppm)		0.093	0.090	0.086
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	28	17	4
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	64	60	13
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	0	0	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	48	34	6
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	0
Carbon Monoxide (CO)				
Maximum 1-Hour Concentration (ppm)		--	--	2.0
Maximum 8-Hour Concentration (ppm)		1.5	1.6	1.4
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	--	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2)				
Maximum 1-Hour Concentration (ppm)		0.060	0.058	0.056
Annual Arithmetic Mean Concentration (ppm)		0.017	0.016	0.016
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10})				
Maximum 24-Hour Concentration (μg/m^3)		62	70	87
Annual Arithmetic Mean (μg/m^3)		--	--	--
Number of Samples		60	57	60
Number of Samples Exceeding State Standard	> 50 μg/m^3	1	10	8
Number of Samples Exceeding Federal Standard	> 150 μg/m^3	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)				
Maximum 24-Hour Concentration (μg/m^3)		30.2	53.7	30.9
Annual Arithmetic Mean (μg/m^3)		11.4	11.2	10.9
Number of Samples Exceeding Federal 24-Hour Standard	> 35 μg/m^3	0	0	0

-- = data not available from SCAQMD or EPA

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and effects are identified below:

- Carbon Monoxide (CO): Is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- Sulfur Dioxide (SO2): Is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4). Collectively, these pollutants are referred to as sulfur oxides (SOX).
- Nitrogen Oxides (Oxides of Nitrogen, or NOx): Nitrogen oxides (NOx) consist of nitric oxide (NO), nitrogen dioxide (NO2) and nitrous oxide (N2O) and are formed when nitrogen (N2) combines with oxygen (O2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO2 is the most abundant in the atmosphere. As ambient concentrations of NO2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO2 than those indicated by regional monitors.
- Ozone (O3): Is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOX), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- PM10 (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. PM10 also causes visibility reduction and is a criteria air pollutant.
- PM2.5 (Particulate Matter less than 2.5 microns): A similar air pollutant consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO2 release from power plants and industrial facilities and nitrates that are formed from NOX release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM2.5 is a criteria air pollutant.
- Volatile Organic Compounds (VOC): Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or

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carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

- Reactive Organic Gases (ROG): Similar to VOC, Reactive Organic Gases (ROG) are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O3, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC (see previous) interchangeably.
- Lead (Pb): Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. It should be noted that the Project is not anticipated to generate a quantifiable amount of lead emissions. Lead is a criteria air pollutant.

Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Ozone exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Reduction in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO, resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels; these include pre-term births and heart abnormalities.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM10 and PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in PM2.5 concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with longterm exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM10 and PM2.5.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO2.

Sulfur Dioxide

A few minutes of exposure to low levels of SO2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are

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observed after acute exposure to SO2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Animal studies suggest that despite SO2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. In these studies, efforts to separate the effects of SO2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

Odors

The science of odor as a health concern is still new. Merely identifying the hundreds of VOCs that cause odors poses a big challenge. Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The U.S. EPA is responsible for setting and enforcing the NAAQS for O3, CO, NOx, SO2, PM10, and lead (4). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (11). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O3, NO2, SO2, PM10, CO, PM2.5, and lead. The NAAQS were amended in July 1997 to include an additional standard for O3 and to adopt a NAAQS for PM2.5. Table 2-1 (previously presented) provides the NAAQS within the basin.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides (NOx). NOx is a collective term that includes all forms of nitrogen oxides (NO, NO2, NO3) which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

The CARB, which became part of the California EPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. However at this time, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (5) (4).

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

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- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for ROGs, NOx, CO and PM10. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than five percent per year under certain circumstances.

2.7.3 AIR QUALITY MANAGEMENT PLANNING

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards (12). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.8.

2.8 REGIONAL AIR QUALITY IMPROVEMENT

The Project is within the jurisdiction of the SCAQMD. In 1976, California adopted the Lewis Air Quality Management Act which created SCAQMD from a voluntary association of air pollution control districts in Los Angeles, Orange, Riverside, and San Bernardino counties. The geographic area of which SCAQMD consists is known as the Basin. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting state standards by the earliest date achievable, using reasonably available control measures.

SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in Basin air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the Basin. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the state level by CARB.

As discussed above, the SCAQMD is the lead agency charged with regulating air quality emission reductions for the entire Basin. SCAQMD created AQMPs which represent a regional blueprint for achieving healthful air on behalf of the 16 million residents of the South Coast Basin. The remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its Air Quality Management Plans (AQMPs) and by utilizing uniform CEQA review throughout the Basin.

The 2012 AQMP states, " the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs," (13). Ozone, NOx, VOC, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020 (14). These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NOx and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. Ozone contour maps show that the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In the 2007 period, there was an overall decrease in exceedance days compared with the 1997 period. The overall trends of PM10 and PM2.5 in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM10 have remained somewhat constant in the Basin and direct emissions of PM2.5 have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions.

Ozone levels in the SCAB have decreased substantially over the last 30 years as shown in Table 2-4 (15). Today, the maximum measured concentrations are approximately one-third of concentrations within the late 70's.

As with other pollutants, the most recent PM10 statistics also show overall improvement as illustrated in Table 2-5. During the period for which data are available, the 24-hour national annual average decreased by almost 45 percent, from 103.7 $\mu g/m^3$ in 1989 to 57.6 $\mu g/m^3$ in 2014. Although the values in the late 1990's show some variability, this is probably due to meteorology rather than a change in emissions. Despite the overall decrease, ambient concentrations still exceed the State annual and 24-hour PM10 standards. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM10 standards has also shown an overall drop. During 1995, there were 25 calculated days above the national standard. By 2014, there was one calculated national standard exceedance days (16).

Table 2-6 shows the most recent 24-hour average $PM_{2.5}$ concentrations (national) in the SCAB from 1999 through 2014. Overall, the annual average concentrations have decreased by almost 52 percent. The calculated number of days above the national standard also decreased, from about 88 days in 1999 to about 9 days in 2014. The SCAB is currently designated as nonattainment for the State and national $PM_{2.5}$ standards. Measures adopted as part of the upcoming $PM_{2.5}$ SIP, as well as programs to reduce ozone and diesel PM will help in reducing public exposure to $PM_{2.5}$ in this region.

The most recent Carbon dioxide concentrations in the SCAB 1986 are shown in Table 2-7 (17). Carbon monoxide concentrations in the SCAB have decreased markedly — a total decrease of more about 80 percent in the peak 8-hour concentration since 1986. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

TABLE 2-4: SOUTH COAST AIR BASIN OZONE TREND

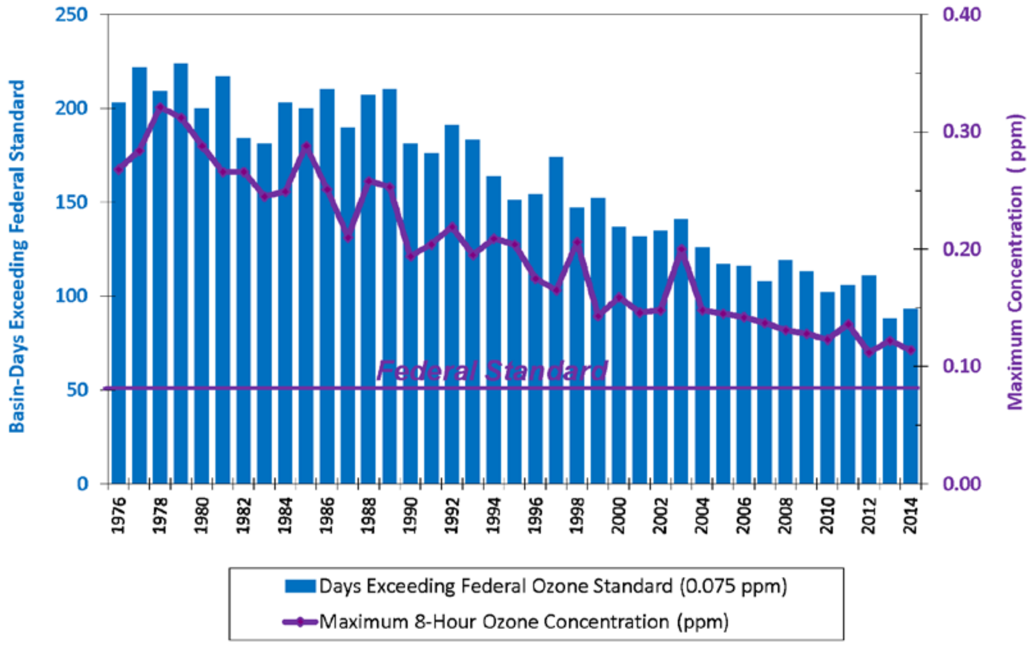

TABLE 2-5: SOUTH COAST AIR BASIN PM10 TREND

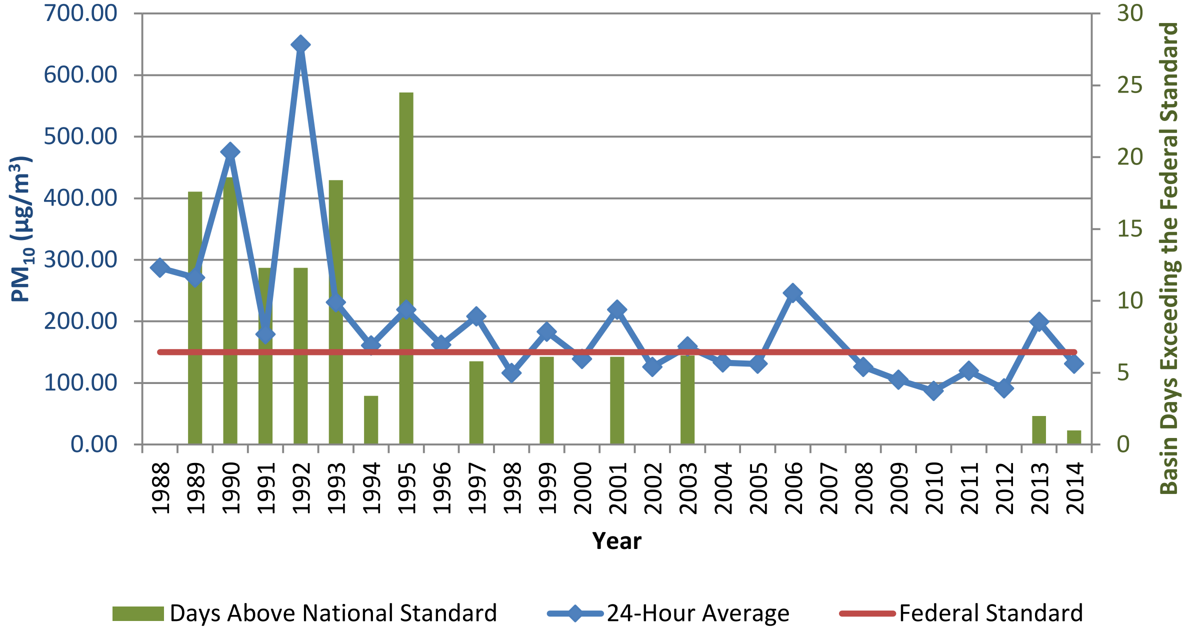

TABLE 2-6: SOUTH COAST AIR BASIN PM$_{2.5}$ TREND

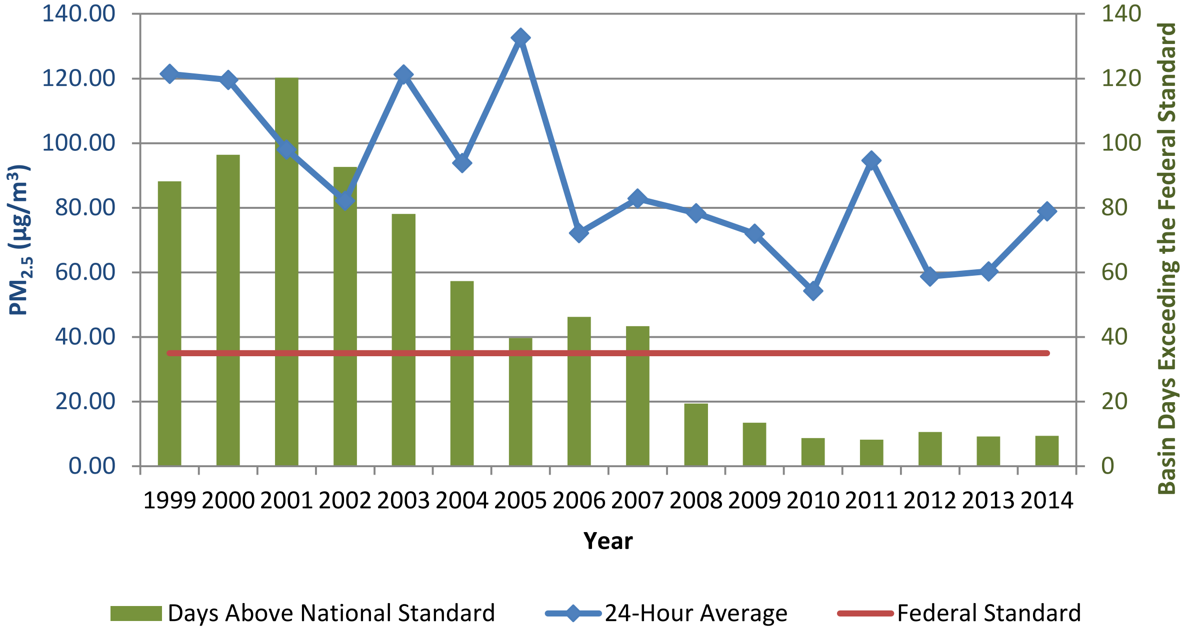

TABLE 2-7: SOUTH COAST AIR BASIN CARBON MONOXIDE TREND

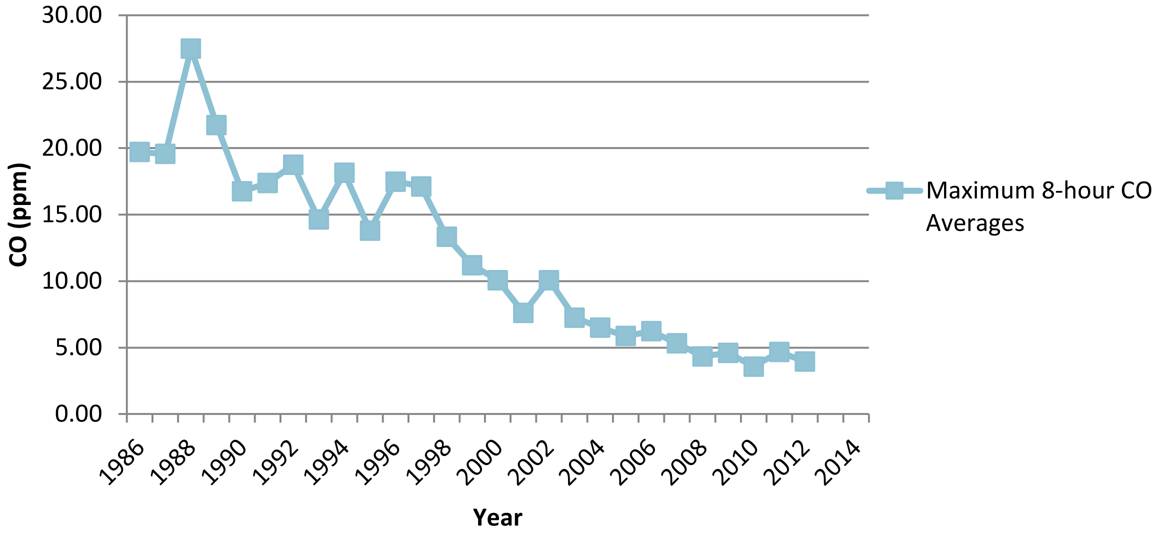

Part of the control process of the SCAQMD's duty to greatly improve the air quality in the Basin is the uniform CEQA review procedures required by SCAQMD's CEQA Handbook (18). The single threshold of significance used to assess Project direct and cumulative impacts has in fact "worked" as evidenced by the track record of the air quality in the Basin dramatically improving over the course of the past decades. As stated by the SCAQMD the District's thresholds of significance are based on factual and scientific data and are therefore appropriate thresholds of significance to use for this Project.

The most recent NO_2 data for the SCAB is shown in Table 2-8 (17). Over the last 50 years, NO_2 values have decreased significantly; the peak 1-hour average for 2013 was almost 74 percent lower than what it was during 1963. The SCAB attained the State 1-hour NO_2 standard in 1994, bringing the entire State into attainment. A new state annual average standard of 0.030 parts per million was adopted by the ARB in February 2007 (19). The new standard is just barely exceeded in the South Coast. NO_2 is formed from NO_x emissions, which also contribute to ozone. As a result, the majority of the future emission control measures will be implemented as part of the overall ozone control strategy. Many of these control measures will target mobile sources, which account for more than three-quarters of California's NO_x emissions. These measures are expected to bring the South Coast into attainment of the State annual average standard.

The American Lung Association website includes data collected from State air quality monitors that are used to compile an annual State of the Air report. These reports have been published over the last 13 years. The latest State of the Air Report compiled for the Basin was in 2010 (20). As noted in this report, air quality in the Basin has significantly improved in terms of both pollution levels and high pollution days over the past three decades. The area's average number of high ozone days dropped from 189.5 day per year in the initial 2000 State of the Air report (1996–1998) to 141.8 in the 2006–2008 report. The region has seen dramatic reduction in particle pollution since the initial State of the Air report (20).

TABLE 2-8: SOUTH COAST AIR BASIN NITROGEN DIOXIDE TREND

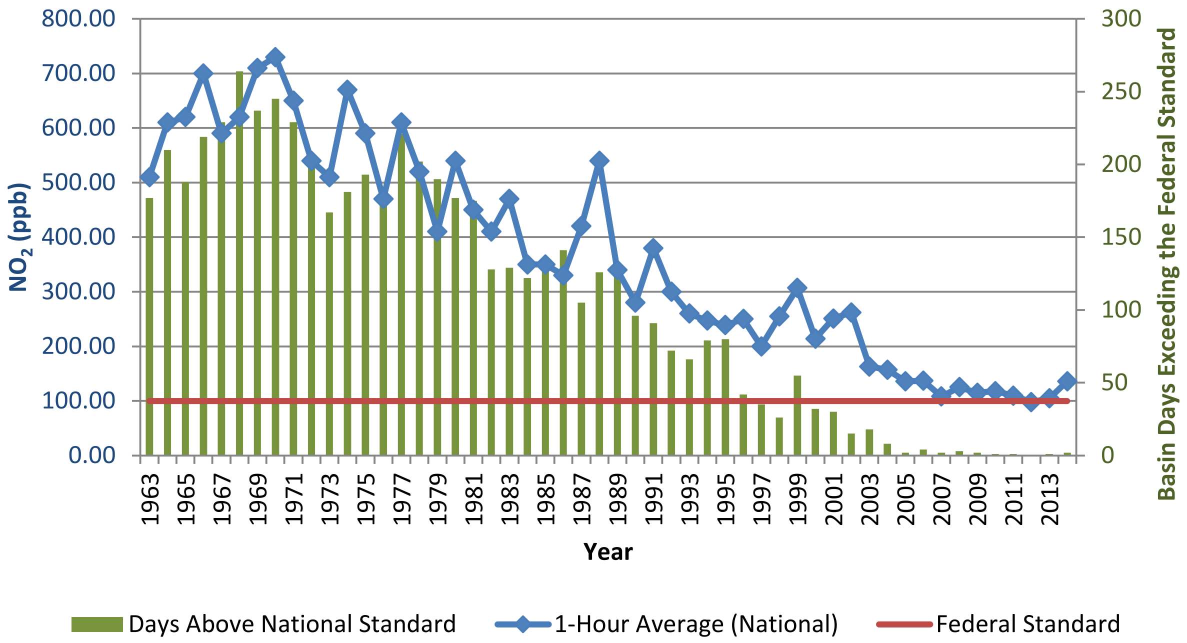

TOXIC AIR CONTAMINANTS (TACS) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, the CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. According to the *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (21). The seven TACs studied shown below include those that are derived from mobile sources: diesel particulate matter (DPM), benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde[3]. TACs data was gathered at monitoring sites from both the Bay Area and South Coast Air Basins, as shown on Exhibit 2-A; Several of the sites in the SCAB include Reseda, Compton, Rubidoux, Burbank, and Fontana. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

EXHIBIT 2-A: CALIFORNIA TOXIC AIR CONTAMINANT SITES

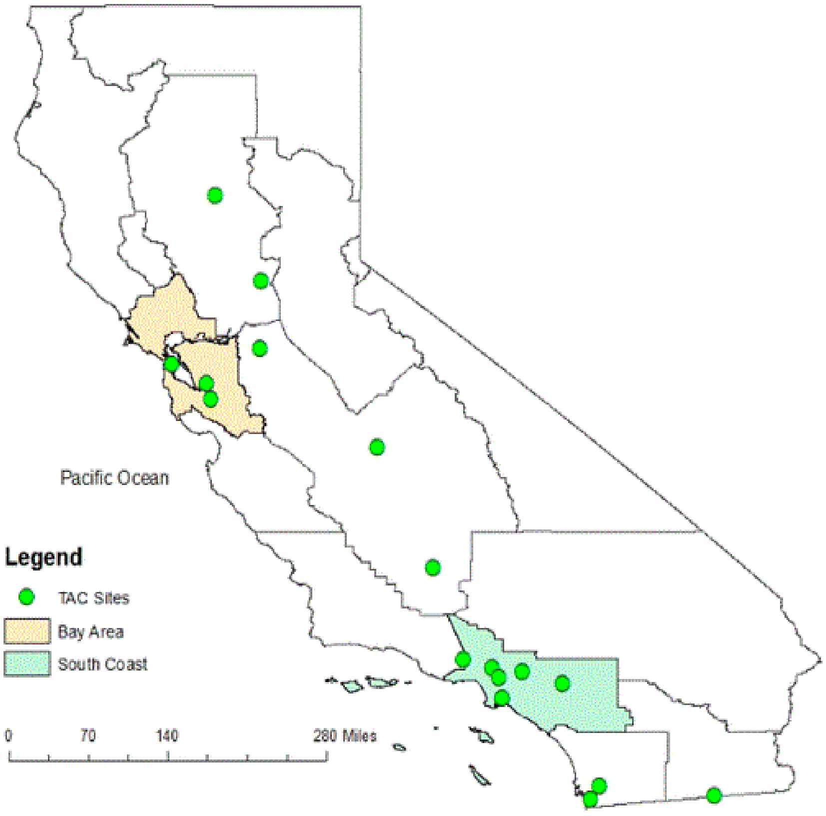

Source: California Air Resources Board

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[3] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

Mobile Source TACs

The CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. Since 1996, light-duty vehicles sold in California are equipped with California's second-generation On-Board Diagnostic (OBD-II) system as a result of about half of total car emissions stemming from emissions control device malfunctions. CARB's phase II Reformulated Gasoline (RFG-2) regulation, adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the motor vehicle regulations (21).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68%, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, ARB expects a DPM decline of 71% for 2000-2020.

EXHIBIT 2-B: DIESEL PARTICULATE MATTER AND DIESEL VEHICLE MILES TREND

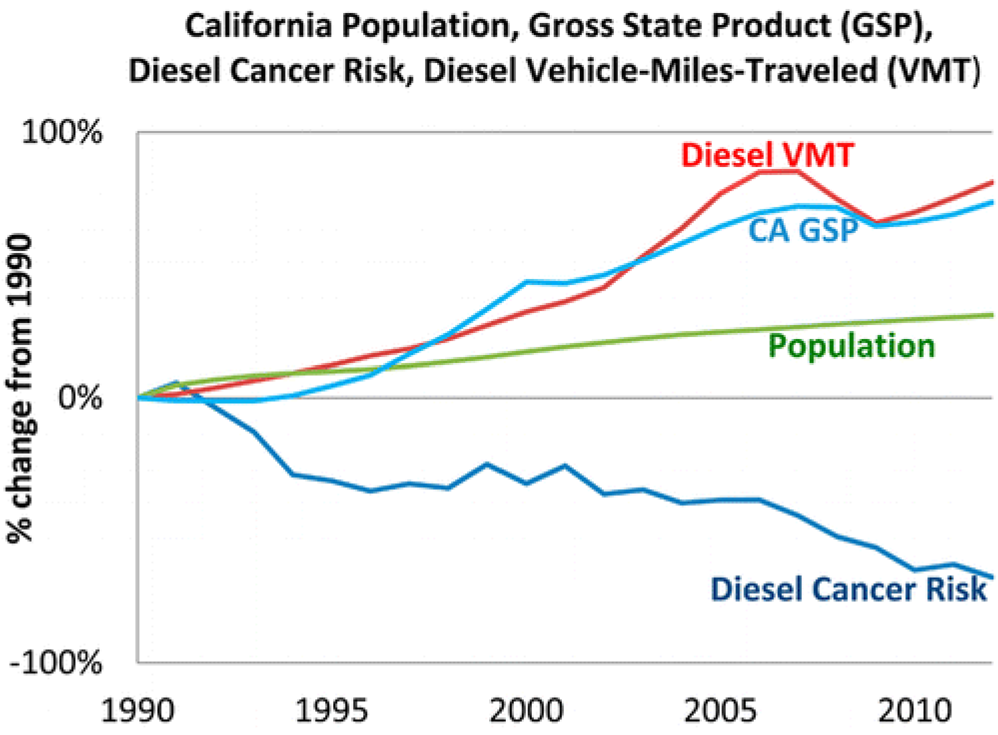

Source: California Air Resources Board

Stationary Source TACs

Various regulations led to a decrease in perchloroethylene and hexavalent chromium, with a 92% and 86% decline, respectively. By 1993, several local air districts required dry cleaning businesses to use a carbon absorber and refrigerated condenser, as well as, dry-to-dry machines and closed-looped machines instead of vented transfer machines. Starting in 2003, California provided financial incentives for dry cleaners to use other solvents and soon after, the CARB banned the use of perchloroethylene in automotive products, aerosol coatings, and most consumer products. In 2007, CARB's dry cleaning regulation was amended to require phase-out of perchloroethylene machines by 2023, which would further reduce emissions to minimal levels (21).

Hexavalent chromium emissions began to decline in 1988 with the ARB-regulated regulations contributing to more than 97% emission reduction within four years. The various regulations include prohibiting the use of hexavalent chromium in cooling towers (1989), in motor vehicle and mobile equipment coatings (2001), and in thermal spraying operations (2005). By 2005, hexavalent chromium emissions were 99.97% less than in 1987, far exceeding expectations. In 2006, hexavalent chromium emissions were further reduced with the 2006 ARB regulation requiring add-on air pollution control devices and chemical fume suppressants.

Secondary TACs

Between 1996-2012, ambient concentrations of formaldehyde and acetaldehyde declined 22% and 21%, respectively. The decline in these TACs are attributed from increasingly stringent motor vehicle exhaust emission standards, vehicle fleet turnover, fuel reformulation, and the switch from MTBE (formaldehyde precursor) to ethanol in gasoline (21).

As previously discussed, ambient and emissions levels of TACs have reduced significantly from 1990-2012. The overall declining trend in TACs is expected to continue in California from implementation of toxic air controls.

DIESEL REGULATIONS

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). More specifically, the CARB Drayage Truck Regulation (22), the CARB statewide On-road Truck and Bus Regulation (23), and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (24). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HHDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the basin has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, the State of California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). MATES-II showed that average cancer risk in the SCAB ranges from 1,100 in a million to 1,750 in a million, with an average regional risk of about 1,400 in a million. Moreover, diesel particulate matter (DPM) accounts for more than 70 percent of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is approximately 1,200 in one million basin-wide (a decrease in a regional risk by 200 in a million in comparison to the MATES-II study).

Nonetheless, the SCAQMD's most recent in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California was from the *Multiple Air Toxics Exposure Study in the South Coast Air Basin, MATES IV,"* which shows that cancer risk has decreased more than 50% between MATES III (2005) and MATES IV (2012) (25).

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV estimates the average excess cancer risk level from exposure to TACs is less than 400 in one million basin-wide. These model estimates were based on monitoring data collected at ten fixed sites within the South Coast Air Basin. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 518.16 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. Cumulative Project generated TACs are limited to DPM.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the SCAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (26):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

Within the context of the above threshold considerations, and based on the SCAQMD's CEQA Air Quality Handbook (1993), a project's localized CO emissions impacts would be significant if they exceed the following California standards for localized CO concentrations (18):

- 1-hour CO standard of 20.0 parts per million (ppm)
- 8-hour CO standard of 9.0 ppm.

The SCAQMD has also developed regional thresholds for other regulated pollutants, as summarized at Table 3-1 (27). The SCAQMD's CEQA Air Quality Significance Thresholds (March 2011) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 3-1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Construction	Operations
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

3.3 PROJECT-RELATED SOURCES OF POTENTIAL IMPACT

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (28). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.2.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of CO, VOCs, NOx, SOx, PM10, and PM2.5. Construction related emissions are expected from the following construction activities:

- Grading
- Trenching
- Concrete Shell
- Steel & Roof
- Roofing & Overhead Work
- Architectural Coating
- Misc. Finishes
- Construction Workers Commuting

Construction is expected to commence in April 2016 and will last through May 2017. Construction duration by phase is shown on Table 3-2. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[4] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity was estimated based on consultation with the applicant and a 2017 opening year. Associated equipment was estimated based on consultation with the applicant and past project experience. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.2 of this analysis. A detailed summary of construction equipment assumptions by phase is provided at Table 3-3. It should be noted that the construction equipment estimates provided at Table 3-3 represent a "worst-case" (i.e. overestimation) of actual construction equipment that will likely be used during construction activities.

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions". Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). The CalEEMod model was utilized to calculate fugitive dust emissions resulting from this phase of activity. A review of aerial images show there are no existing structures, thus no demolition is needed. It is our understanding that the site is expected to balance, therefore no import/export of soil is needed.

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from the applicant and the CalEEMod model.

OFF-SITE UTILITY AND INFRASTRUCTURE IMPROVEMENTS

Construction emissions associated with off-site utility and infrastructure improvements may occur, however at this time, a specific schedule of off-site utility and infrastructure improvements is unknown. However impacts associated with these expected activities are not expected to exceed the emissions identified for project-related construction activities. As such, no impacts beyond what has already been identified in this report are expected to occur.

ALTERNATE SITE PLAN CONSTRUCTION IMPACTS

As previously discussed, the alternate site plan replaces construction of Building 2 with the construction of additional truck trailer parking in its place, thus reducing total building area. Should the alternate site plan be implemented, construction-source impacts would not exceed the level of construction-source impacts analyzed within the current Project scenario. As such, the Project scenario analysis represents a "worst-case" analysis scenario.

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[4] As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2013.2, Table 3.4 "OFFROAD Equipment Emission Factors" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-2: CONSTRUCTION DURATION

Schedule	CalEEMod Name	Start Date	End Date	Number of days
Phase 1				
Building 1				
Grading 1	Grading	4/29/2016	6/30/2016	45
Trenching 1	Trenching	7/1/2016	11/15/2016	98
Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	82
Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	47
Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	48
Architectural Coatings 1	Architectural Coating	12/7/2016	1/30/2017	39
Misc. Finishes 1	Paving	1/20/2017	4/20/2017	65
Paving 1	Paving	12/23/2016	4/26/2017	89
Building 2				
Grading 2	Grading	7/1/2016	7/20/2016	14
Trenching 2	Trenching	7/15/2016	8/31/2016	34
Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	50
Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	22
Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	23
Architectural Coatings 2	Architectural Coating	11/14/2016	12/7/2016	18
Misc. Finishes 2	Paving	11/18/2016	12/29/2016	30
Paving 2	Paving	11/8/2016	12/15/2016	28
Phase 2				
Building 3				
Grading 3	Grading	8/4/2016	8/19/2016	12
Trenching 3	Trenching	8/15/2016	9/28/2016	33
Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	47
Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	20
Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	22
Architectural Coatings 3	Architectural Coating	12/8/2016	1/2/2016	18
Misc. Finishes 3	Paving	12/8/2016	1/17/2017	29
Paving 3	Paving	12/2/2016	1/10/2017	28
Building 4				
Grading 4	Grading	8/22/2016	9/14/2016	18
Trenching 4	Trenching	9/8/2016	10/26/2016	35
Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	50
Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	23
Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	24
Architectural Coatings 4	Architectural Coating	1/11/2017	2/7/2017	20
Misc. Finishes 4	Paving	1/17/2017	2/28/2017	31
Paving 4	Paving	1/12/2017	3/2/2017	36

TABLE 3-3: CONSTRUCTION EQUIPMENT (1 OF 2)

Phase Name	Vehicle Type	Number	Hours Per Day	CalEEMod Name	Horsepower
Building 1					
Grading	657 Scraper	8	8	Scraper	452
	Cat D9L	1	8	Crawler Tractor	410
	934 Dozer/Compactor	1	8	Rubber Tired Dozer	451
	631 Water Pull	2	8	Off-Highway Tractors	485
	4000 gal Water Truck	2	8	Other Construction Equip.	354
	Cat 14 Blade	1	8	Grader	302
	210 Skip Loader	1	8	Rubber Tired Loader	350
	623 Elevating Scraper	3	8	Other General Industrial Equipment	330
Trenching	Skip Loader	2	8	Rubber Tired Loader	350
	Cat 460 Backhoe	2	8	Tractors/Loaders/Backhoes	110
	966 Front End	2	8	Other Material Handling Equipment	249
	330 Excavator	2	8	Excavator	268
	Water Truck	2	8	Other Construction Equip.	354
Concrete Shell	Backhoe	4	8	Tractors/Loaders/Backhoes	110
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Lazerscreed	1	8	Other Construction Equip.	354
	Finishing Machine	1	8	Other Construction Equip.	354
	Boom Pump	1	8	Other Construction Equip.	354
	Gradall	2	8	Other Construction Equip.	354
Steel & Roof	30 Ton Crane	2	8	Crane	215
	Weld Machine	2	8	Other Construction Equip.	354
	Gradall	1	8	Other Construction Equip.	354
Roofing & Overhead Work	Gradall	1	8	Other Construction Equip.	354
	Forklift	2	8	Forklifts	110
	Tanker (Tar)	2	8	Other Construction Equip.	354
	Scissor Lift	3	8	Aerial Lifts	48
Architectural Coating	Boom Lift	4	8	Other Construction Equip.	354
Misc. Finishes	Scissor Lift	2	8	Aerial Lifts	48
	Boom Lift	2	8	Other Construction Equip.	354
Paving	Lazerscreed	1	8	Other Construction Equip.	354
	Skip Loader	2	8	Rubber Tired Loader	350
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Trenching Machine	1	8	Trencher	81

TABLE 3-3: CONSTRUCTION EQUIPMENT (2 OF 2)

Phase Name	Vehicle Type	Number	Hours Per Day	CalEEMod Name	Horsepower
Buildings 2,3,4 (each)					
Grading	657 Scraper	3	8	Scraper	452
	Cat D9L	1	8	Crawler Tractor	410
	4000 gal Water Truck	1	8	Other Construction Equip.	354
	Cat 14 Blade	1	8	Grader	302
	210 Skip Loader	1	8	Rubber Tired Loader	350
	623 Elevating Scraper	1	8	Other General Industrial Equipment	330
Trenching	Skip Loader	1	8	Rubber Tired Loader	350
	Cat 460 Backhoe	1	8	Tractors/Loaders/Backhoes	110
	966 Front End	1	8	Other Material Handling Equipment	249
	330 Excavator	1	8	Excavator	268
	Water Truck	1	8	Other Construction Equip.	354
Concrete Shell	Backhoe	2	8	Tractors/Loaders/Backhoes	110
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Lazerscreed	1	8	Other Construction Equip.	354
	Finishing Machine	1	8	Other Construction Equip.	354
	Boom Pump	1	8	Other Construction Equip.	354
	Gradall	1	8	Other Construction Equip.	354
Steel & Roof	30 Ton Crane	1	8	Crane	215
	Weld Machine	1	8	Other Construction Equip.	354
	Gradall	1	8	Other Construction Equip.	354
Roofing & Overhead Work	Gradall	1	8	Other Construction Equip.	354
	Forklift	1	8	Forklifts	110
	Tanker (Tar)	1	8	Other Construction Equip.	354
	Scissor Lift	1	8	Aerial Lifts	48
Architectural Coating	Boom Lift	1	8	Other Construction Equip.	354
Misc. Finishes	Scissor Lift	1	8	Aerial Lifts	48
	Boom Lift	1	8	Other Construction Equip.	354
Paving	Lazerscreed	1	8	Other Construction Equip.	354
	Skip Loader	1	8	Rubber Tired Loader	350
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section			
	Trenching Machine	1	8	Trencher	81

OVERLAP OF CONSTRUCTION-RELATED ACTIVITIES

The Project is anticipated to be developed in two phases, with phase 1 involving construction of buildings 1 and 2 and with phase 2 involving construction of buildings 3 and 4. It should be noted that the number at the end of each construction phase corresponds to the respective buildings. Based on the construction schedule detailed in Table 3-2, Trenching 1 phase has the potential to overlap with Concrete Shell 1 phase, Concrete Shell 2 phase, Trenching 3 phase, Concrete Shell 3 phase, Grading 4 phase, and Trenching 4 phase. Roofing & Overhead Work 1 phase has the potential to overlap with Architectural Coatings 1 phase, Paving 1 phase, Misc. Finishes 2 phase, Architectural Coatings 3 phase, Misc. Finishes 3 phase, Paving 3 phase, and Roofing & Overhead work 4 phase. The overlapping construction activity shown on Table 3-4 may affect the maximum peak daily construction emissions levels for criteria pollutants.

TABLE 3-4: SCHEDULE OF CONSTRUCTION ACTIVITIES

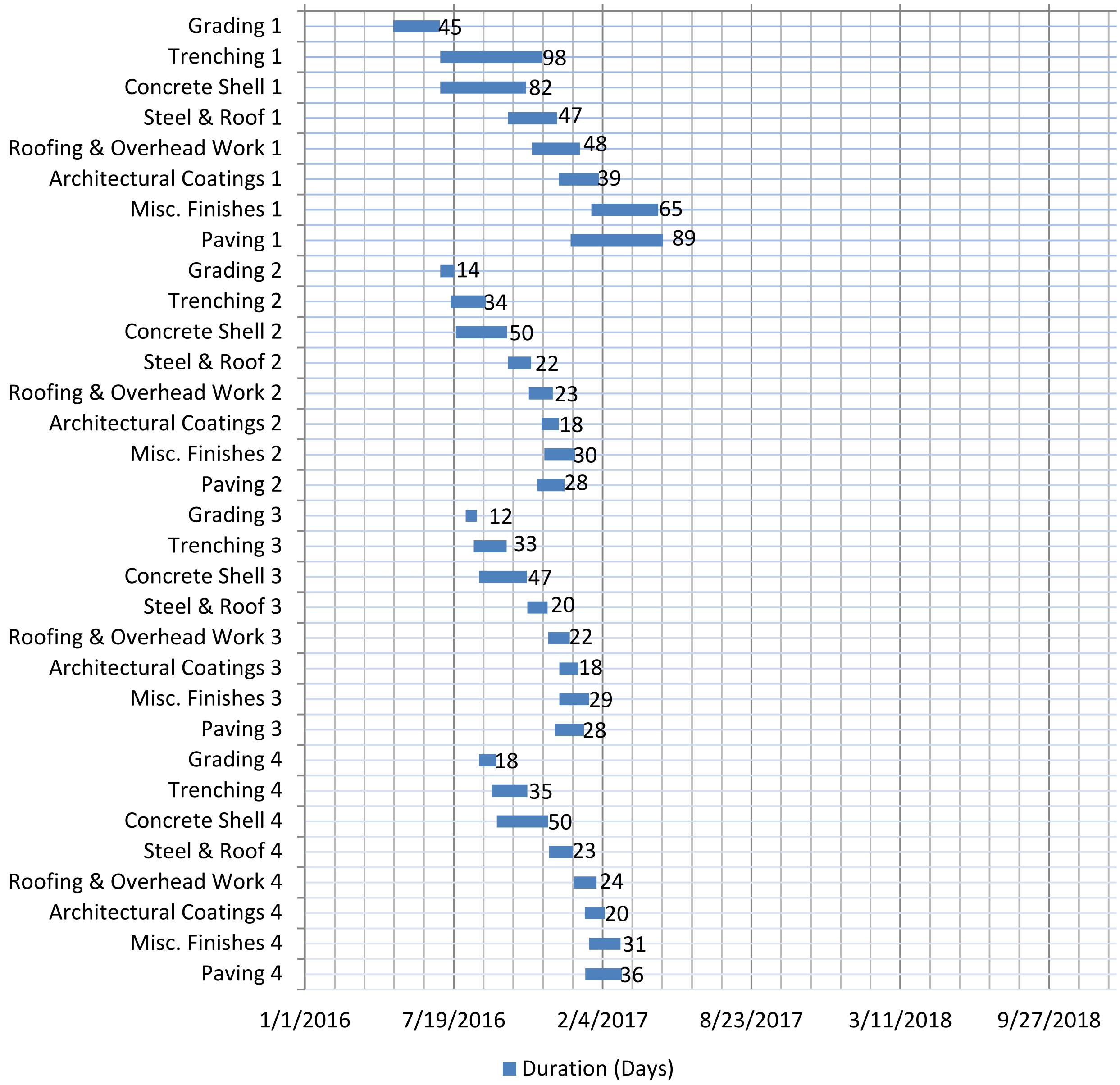

3.4.1 CONSTRUCTION EMISSIONS SUMMARY

Impacts without BACMs and Mitigation

The estimated maximum daily construction emissions without mitigation are summarized on Table 3-5. Detailed construction model outputs are presented in Appendix 3.2. Under the assumed scenarios, emissions resulting from the Project construction will exceed criteria pollutant thresholds established by the SCAQMD for emissions of VOCs and NO_X (before mitigation). It should be noted that the impacts without Best Available Control Measures (BACMs) do not take credit for reductions achieved through BACMs and standard regulatory requirements (SCAQMD's Rule 403).

TABLE 3-5: EMISSIONS SUMMARY OF OVERALL CONSTRUCTION (WITHOUT MITIGATION)

Year	**Emissions (pounds per day)**					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2016	248.05	578.66	439.05	0.97	38.32	23.18
2017	241.74	287.45	253.34	0.59	25.57	12.98
Maximum Daily Emissions	**248.05**	**578.66**	**439.05**	**0.97**	**38.32**	**23.18**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Impacts with BACMs and Mitigation

The estimated maximum daily construction emissions with mitigation are summarized on Table 3-6. Detailed construction model outputs are presented in Appendix 3.2. Best available control measures BACM AQ-1 and mitigation measures MM AQ-1 and MM AQ-2 are recommended to reduce the severity of the impact. After implementation of the best available control measures, standard regulatory requirements, and the recommended mitigation measures, construction activity emissions will exceed the numerical thresholds established by the SCAQMD for NO_X. Thus a significant impact would still occur with implementation of the applicable mitigation measures.

TABLE 3-6: EMISSIONS SUMMARY OF OVERALL CONSTRUCTION (WITH MITIGATION)

Year	**Emissions (pounds per day)**					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2016	69.36	321.35	463.95	1.02	33.33	13.90
2017	60.59	158.41	265.90	0.61	21.56	8.58
Maximum Daily Emissions	**69.36**	**321.35**	**463.95**	**1.02**	**33.33**	**13.90**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of ROG, NOx, CO, SOx, PM10, and PM2.5. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Equipment Emissions

3.5.1 AREA SOURCE EMISSIONS

Architectural Coatings

Over a period of time the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model.

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within the CalEEMod model.

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model.

3.5.3 MOBILE SOURCE EMISSIONS

Vehicles

Project operational (vehicular) impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Neither the Project Applicant nor the City has any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Moreno Valley Logistics Center Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (29). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- ITE land use code 110 (General Light Industrial) has been used to derive site specific trip generation estimates for Buildings 2 through 4. The ITE Trip Generation manual includes very limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix has been obtained from a separate report; the City of Fontana Truck Trip Generation Study (August 2003) for the general light industrial uses proposed as part of the Project. Buildings 2 through 4 have been identified as light industrial. The "Light Industrial" vehicle mix data has been utilized for all 3 buildings. As identified in the Project's TIA, 78.6% of the fleet mix consists of passenger cars and 21.4% of the fleet mix consists of trucks. The following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the light industrial land uses: 37.40% of the total trucks as 2-axle trucks, 18.23% of the total trucks as 3-axle trucks, and 44.37% of the total trucks as 4+-axle trucks.
- ITE land use code 152 (High-Cube Warehousing) has been used to derive site specific trip generation estimates for Building 1. Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type (30). The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects,

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies being prepared for the Project. The percentage of trucks has been determined from the table shown on page 267 of the ITE Trip Generation manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. As identified in the Project's TIA, 61.9% of the fleet mix consists of passenger cars and 31.8% of the fleet mix consists of trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, was obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the high-cube warehouse land uses: 22.0% of the total trucks as 2-axle trucks, 17.7% of the total trucks as 3-axle trucks, and 60.3% of the total trucks as 4+-axle trucks.

3.5.3.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this AQIA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (31). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 subregional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this AQIA report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates. Though the VMT analyzed in this analysis may differ from the Project's traffic impact analysis, to maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project. This approach is consistent with professional industry practice (32) (33) (34).

For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows.

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;
- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

For each land use (High-Cube Warehouse and General Light Industrial Warehouse), two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 61 miles. A fleet mix of 22.03% LHD, 17.66% MHD, and 60.31% HHD was used for High-Cube Warehouse and a fleet mix of 37.40% LHD, 18.23% MHD, and 44.37% HHD was used for General Light Industrial Warehouse. The estimated emissions resulting from vehicle operations are summarized in Table 3-7 (presented later in this report.) Detailed emission calculations are provided in Appendix 3.2.

Fugitive Dust Related to Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model.

3.5.4 ON-SITE EQUIPMENT EMISSIONS

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp (35). Based on the latest available information from SCAQMD (36); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. For this particular Project, on-site modeled operational equipment includes seven 200 hp yard tractors operating at 4 hours a day (37) for 365 days of the year[5]. In addition to the use of yard trucks operating at the Project site, forklifts are a common piece of equipment used in warehouse operations. The Project includes seven 89 hp yard forklifts operating at 4 hours a day for 365 days of the year interior to the building. However for purposes of the AQIA forklifts are not included in the health risk calculations since there is no diesel exhaust associated with the forklifts as they are assumed to be non-diesel consistent with industry standards.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by diesel fueled diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

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[5] 4 hour daily on-site operation of the yard trucks is based on the Southern California International Gateway Recirculated Draft EIR. Table C1.2-BL-17 *Activity Data for Existing Business CHE – 2010 Baseline* indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forkflifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pices of equipment equals 52. As such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to 4 hours for analytical purposes.

3.5.5 ALTERNATE SITE PLAN OPERATIONAL IMPACTS

As previously discussed, the alternate site plan omits Building 2 with the addition of truck trailer parking in its place, thus decreasing operational capacity. Should the alternate site plan be implemented, operational-source impacts would not exceed the level of operational-source impacts analyzed within the current Project scenario. As such, the Project scenario analysis represents a "worst-case" analysis scenario.

3.5.6 OPERATIONAL EMISSIONS SUMMARY

Impacts without Mitigation

Operational-source emissions without implementation of mitigation measures are summarized on Table 3-7. For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOCs and NO_X.

TABLE 3-7: SUMMARY OF PEAK OPERATIONAL EMISSIONS (WITHOUT MITIGATION) (1 OF 2)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	0.02	0.23	0.23
Mobile (Trucks)	19.77	429.98	184.46	1.35	51.09	19.58
Mobile (Passenger Cars)	2.98	3.73	51.42	0.17	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.28	244.17	107.13	0.78	32.55	11.96
Mobile (Passenger Cars)	4.48	5.60	77.31	0.26	24.98	6.70
On-site Equipment	0.3801	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.64**	**689.62**	**425.85**	**2.60**	**125.70**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 3-7: SUMMARY OF PEAK OPERATIONAL EMISSIONS (WITHOUT MITIGATION) (2 OF 2)

Operational Activities – Winter Scenario	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	2.00E-02	0.23	0.23
Mobile (Trucks)	20.11	447.95	194.22	1.35	51.10	19.58
Mobile (Passenger Cars)	2.78	3.94	43.52	0.16	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.46	254.51	111.97	0.78	32.56	11.96
Mobile (Passenger Cars)	4.18	5.93	65.44	0.24	24.98	6.70
On-site Equipment	0.38	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.66**	**718.46**	**420.68**	**2.57**	**125.72**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Impacts with Mitigation

Operational-source emissions with implementation of mitigation measures are summarized on Table 3-8. For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOCs and NOx. Even with implementation of MM AQ-3 through MM AQ-8, no feasible mitigation measures exist that would reduce these emissions to levels that are less-than-significant. Project operational-source VOCs and NOx emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

TABLE 3-8: SUMMARY OF PEAK OPERATIONAL EMISSIONS (WITH MITIGATION) (1 OF 2)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	0.02	0.23	0.23
Mobile (Trucks)	19.77	429.98	184.46	1.35	51.09	19.58
Mobile (Passenger Cars)	2.98	3.73	51.42	0.17	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.28	244.17	107.13	0.78	32.55	11.96
Mobile (Passenger Cars)	4.48	5.60	77.31	0.26	24.98	6.70
On-site Equipment	0.3801	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.64**	**689.62**	**425.85**	**2.60**	**125.70**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

TABLE 3-8: SUMMARY OF PEAK OPERATIONAL EMISSIONS (WITH MITIGATION) (2 OF 2)

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
High-Cube						
Area Source	46.46	2.70E-03	0.28	2.00E-05	1.03E-03	1.03E-03
Energy Source	0.33	2.96	2.49	2.00E-02	0.23	0.23
Mobile (Trucks)	20.11	447.95	194.22	1.35	51.10	19.58
Mobile (Passenger Cars)	2.78	3.94	43.52	0.16	16.61	4.46
On-site Equipment	0.95	13.18	4.25	0.02	0.43	0.40
Light Industrial						
Area Source	14.99	9.80E-04	0.10	1.00E-05	3.70E-04	3.70E-04
Energy Source	0.35	3.17	2.66	0.02	0.24	0.24
Mobile (Trucks)	11.46	254.51	111.97	0.78	32.56	11.96
Mobile (Passenger Cars)	4.18	5.93	65.44	0.24	24.98	6.70
On-site Equipment	0.38	5.27	1.70	6.34E-03	0.17	0.16
Total Maximum Daily Emissions	**100.66**	**718.46**	**420.68**	**2.57**	**125.72**	**43.17**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

3.5.7 POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY

Based on the assumed buildout and phasing of the proposed Project, there is potential for overlap between construction and operational activity. As a conservative measure, the total unmitigated and mitigated emissions of the overlap of construction and operational activities are shown in Tables 3-9 and 3-10, respectively. As such, the potential emissions from overlapping construction and operational activity is provided for informational purposes.

TABLE 3-9: POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY (WITHOUT BACMS AND MITIGATION)

Summer Scenario- Maximum Daily Emissions	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Peak Emissions	248.05	578.66	439.05	0.97	38.32	23.18
Operational Total Emissions	100.64	689.62	425.85	2.60	125.70	43.17
Total Maximum Daily Emissions	**348.69**	**1,268.28**	**864.90**	**3.57**	**164.02**	**66.35**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**

Winter Scenario- Maximum Daily Emissions	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Peak Emissions	241.74	287.45	253.34	0.59	25.57	12.98
Operational Total Emissions	100.66	718.46	420.68	2.57	125.72	43.17
Total Maximum Daily Emissions	**342.40**	**1,005.91**	**674.02**	**3.16**	**151.29**	**56.15**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**

TABLE 3-10: POTENTIAL OVERLAP OF CONSTRUCTION AND OPERATIONAL ACTIVITY (WITH BACMS AND MITIGATION)

Summer Scenario- Maximum Daily Emissions	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Peak Emissions	69.36	321.35	463.95	1.02	33.33	13.90
Operational Total Emissions	100.64	689.62	425.85	2.60	125.70	43.17
Total Maximum Daily Emissions	**170.00**	**1,010.97**	**889.80**	**3.62**	**159.03**	**57.07**

Winter Scenario- Maximum Daily Emissions	**Emissions (pounds per day)**					
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Construction Peak Emissions	69.36	321.35	463.95	1.02	33.33	13.90
Operational Total Emissions	100.66	718.46	420.68	2.57	125.72	43.17
Total Maximum Daily Emissions	**170.02**	**1,039.81**	**884.63**	**3.59**	**159.05**	**57.07**

3.6 LOCALIZED SIGNIFIANCE - CONSTRUCTION ACTIVITY

BACKGROUND ON LOCALIZED SIGNIFICANCE THRESHOLD (LST) DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (Methodology) (38). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM10 and PM2.5; both of which are non-attainment pollutants and have thresholds that have an allowable measurable change of 10.4 $\mu g/m^3$ for construction-source and 2.5 $\mu g/m^3$ for operational-source emissions (see Tables 3-10 and 3-11).

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology) (39).

APPLICABILITY OF LSTS FOR THE PROJECT

For this Project, the appropriate Source Receptor Area (SRA) for the LST is the Metropolitan Perris monitoring station (SRA 24). LSTs apply to carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter ≤ 10 microns (PM10), and particulate matter ≤ 2.5 microns (PM2.5). The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- The CalEEMod model is utilized to determine the maximum daily on-site emissions that will occur during construction activity.

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- The SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (40) is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact (the SCAQMD recommends that Projects exceeding the screening look-up tables undergo dispersion modeling to determine actual impacts). The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than five acres per day, then the SCAQMD recommends dispersion modeling to be conducted to determine the actual pollutant concentrations for applicable LSTs in the air. In other words, the maximum daily on-site emissions as calculated in CalEEMod are modeled via air dispersion modeling to calculate the actual concentration in the air (e.g., parts per million or micrograms per cubic meter) in order to determine if any applicable thresholds are exceeded.

EMISSIONS CONSIDERED

SCAQMD's Methodology clearly states that "off-site mobile emissions from the Project should NOT be included in the emissions compared to LSTs (41)." Therefore, for purposes of the construction LST analysis only emissions included in the CalEEMod "on-site" emissions outputs were considered.

MAXIMUM DAILY DISTURBED-ACREAGE

Table 3-11 is used to determine the maximum daily disturbed-acreage for use in determining the applicability of the SCAQMD's LST look-up tables. Based on Table 3-11, the maximum acres the Project could actively disturb are approximately 12.5 acres per day during the peak grading phase. As such, dispersion modeling is utilized to calculate emissions for LSTs for peak grading activity which represents a conservative i.e. "worst-case" analytical scenario for purposes of construction LSTs.

TABLE 3-11: MAXIMUM DAILY DISTURBED-ACREAGE

Construction Phase	Equipment Type	Equipment Quantity	Acres graded per 8 hour day	Operating Hours per Day	Acres graded per day
Grading	Rubber Tired Dozers	1	0.5	8	0.5
	Crawler Tractors	1	0.5	8	0.5
	Graders	1	0.5	8	0.5
	Scrapers[a]	11	1	8	11
Total acres graded per day during Grading					12.5

[a] The total amount of scrapers used includes «623 Elevating Scrapers», modeled as «Other General Industrial Equipment» in CalEEMod.

Dispersion Modeling

In order to estimate localized pollutant concentrations resulting from Project construction, the SCAQMD-approved AERMOD dispersion model was utilized. The modeling approach utilized is discussed as follows:

Sources

As discussed above, construction activity is anticipated to disturb a maximum area of approximately 12.5 acres on any given day (during peak rough grading activity), thus it was conservatively estimated that emissions would be concentrated over this area. It should be noted that in order to model worst-case conditions, the highest daily peak emissions resulting from grading activity were utilized.

In order to model fugitive dust emissions (PM_{10} and $PM_{2.5}$) resulting from Project grading activity, an area source of 6.0 acres was utilized. Per SCAQMD LST methodology, a ground level release height and a 1 meter (~3.28 feet) initial vertical dimension (sigma z) were utilized in order to account for the vertical spread of emissions. Additionally, dry depletion parameters consistent with LST methodology were utilized.

In order to account for equipment exhaust emissions of PM_{10}, $PM_{2.5}$, NO_2, and CO, a total of 25 volume sources measuring 45 meters by 45 meters were spread over an area of approximately 12.5 acres. In order to represent equipment exhaust emissions, a release height of 5.0 meters was utilized, which is consistent with SCAQMD's LST guidance.

Sensitive Receptors

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as "sensitive receptors"; they are also known to be locations where an individual can remain for 24 hours.

Sensitive receptors in the vicinity of the Project site are illustrated at Exhibit 3-A, and include the single-family residential dwellings located at receptor locations R1 and R3 to R8. The closest sensitive receptor is represented by location R8 at a distance of approximately 101 feet/31 meters east of the Project site.

Localized air quality impacts were evaluated at sensitive receptor land uses nearest the Project site. To assess the stationary source operational and construction air impacts, the following 8 sensitive receptor locations, as shown on Exhibit 3-A, were identified.

R1: Located approximately 2,744 feet north of the Project site on Iris Avenue, R1 represents existing single-family residential homes.

R2: Location R2 represents Rainbow Ridge Elementary School located roughly 2,853 feet northeast of the Project site.

R3: Location R3 represents the existing residential homes situated north of the Project site at a distance of approximately 1,544 feet on Indian Street.

R4: Location R4 represents the existing residential homes situated approximately 471 feet northeast of the Project site.

R5: At a distance of approximately 133 feet, location R5 represents single-family residential homes adjacent to Indian Street, east of the Project site.

R6: Location R6 represents the existing residential homes situated east of the Project site at a distance of approximately 161 feet across Indian Street.

R7: Location R7 represents the existing residential homes situated approximately 144 feet east of the Project site across Indian Street.

R8: At a distance of approximately 101 feet, location R8 represents a single-family residential home southeast of the Project site.

EXHIBIT 3-A: SENSITIVE RECEPTORS

LEGEND:

● Receptor Locations ----• Distance from receptor to Project site boundary (in feet)

Meteorological Data and Model Options

In order to account for meteorological conditions at the Project site, data from the Perris monitoring station was utilized, as this is the nearest station to the Project site for which meteorological data is available. Additionally, per SCAQMD LST methodology, a receptor height of 2.0 meters and regulatory default options, and the urban dispersion coefficient were utilized.

Impacts without BACMs and Mitigation

Without BACMs and mitigation, emissions during the peak construction activity will exceed the SCAQMD's localized significance thresholds for emissions of NO_2, PM_{10}, and $PM_{2.5}$. Table 3-12 identifies the localized impacts without BACMs and mitigation at the nearest receptor location in the vicinity of the Project.

TABLE 3-12: LOCALIZED SIGNIFICANCE SUMMARY PEAK CONSTRUCTION (WITHOUT MITIGATION)

Peak Construction	**CO**		**NO_2**	**PM_{10}**		**$PM_{2.5}$**
	Averaging Time					
	1-Hour	8-Hour	1-Hour	24-Hours	Annual	24-Hours
Peak Day Localized Emissions	0.42	0.35	0.34	15.52	2.56	8.55
Background Concentration ^{A}	2.00	1.90	0.06			
Total Concentration	**2.42**	**2.25**	**0.40**	**15.52**	**2.56**	**8.55**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	1	10.4
Threshold Exceeded?	**NO**	**NO**	**YES**	**YES**	**YES**	**YES**

^{A} Highest concentration from the last three years of available data

Note: PM10 and PM2.5 concentrations are expressed in μg/m3. All others are expressed in ppm

Impacts with BACMs and Mitigation

After the implementation of applicable BACMs and mitigation measures (outlined in Section 4.0), emissions during the peak construction activity will not exceed the SCAQMD's localized significance threshold for any of the applicable emissions. Table 3-13 identifies the localized impacts with implementation of BACMs and mitigation measures at the nearest receptor location in the vicinity of the Project. Outputs from the model runs for construction LSTs are provided in Appendix 3.3.

TABLE 3-13: LOCALIZED SIGNIFICANCE SUMMARY PEAK CONSTRUCTION (WITH MITIGATION)

Peak Construction	CO		NO_2	PM_{10}		$PM_{2.5}$
	Averaging Time					
	1-Hour	8-Hour	1-Hour	24-Hours	Annual	24-Hours
Peak Day Localized Emissions	0.32	0.27	0.09	4.92	0.81	2.35
Background Concentration [A]	2.0	1.9	0.06			
Total Concentration	**2.32**	**2.17**	**0.15**	**4.92**	**0.81**	**2.35**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	1	10.4
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in μg/m^3. All others are expressed in ppm

3.7 LOCALIZED SIGNIFICANCE – LONG-TERM OPERATIONAL ACTIVITY

For operational LSTS, on-site passenger car and truck travel emissions were modeled in AERMOD using emission factors for CO, NO2, PM10, and PM2.5 generated with the 2014 version of the Emission FACtor model (EMFAC) developed by the ARB. EMFAC 2014 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (42). Outputs from the model runs for operational LSTs are provided in Appendix 3.3.

For this Project, criteria pollutant emission factors were generated by running EMFAC 2014 in EMFAC Mode for vehicles in the SCAQMD district. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below.

- Idling – assumed 15 minutes of idling for passenger cars and trucks [6]
- 5 miles per hour – on-site vehicle movement including driving and maneuvering

Additionally, on-site equipment was modeled using area sources encompassing the Project's loading docks adjacent to the Project's building boundaries. Associated transport refrigeration units (TRUs) were modeled using point sources representative across loading dock areas.

Meteorological data, receptor locations, and dispersion modeling parameters discussed in Section 3.6 of this report are applicable to the operational activity localized emissions modeling.

As shown on Table 3-14, operational emissions would not exceed the SCAQMD's localized significance thresholds for any criteria pollutant at the nearest sensitive receptor. Therefore,

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[6] Although the Project is required to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (personal communication, phone call, with James Koizumi, May 6, 2009), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

the Project will have a less than significant localized impact during operational activity, and no mitigation is required.

TABLE 3-14: LOCALIZED SIGNIFICANCE SUMMARY OPERATIONS

Operation	CO		NO_2	PM_{10}		$PM_{2.5}$
	Averaging Time					
	1-Hour	8-Hour	1-Hour	24-Hours	Annual	24-Hours
Peak Day Localized Emissions	0.013	0.01	0.014	0.26	0.12	0.25
Background Concentration [A]	2.0	1.9	0.06			
Total Concentration	**2.01**	**1.91**	**0.074**	**0.26**	**0.12**	**0.25**
SCAQMD Localized Significance Threshold	20	9	0.18	2.5	1	2.5
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentration from the last three years of available data

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in μg/m^3. All others are expressed in ppm

3.8 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific carbon monoxide (CO) "hot spots" is not needed to reach this conclusion.

It has long been recognized that adverse localized CO concentrations ("hot spots") are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentrations in the air basin have steadily declined, as indicated by historical emissions data presented previously at Table 2-7.

A CO "hotspot" would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SCAB was designated nonattainment under the California AAQS and National AAQS for CO (43).

As identified within SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection (44). To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: Long Beach Blvd. and Imperial Highway (Lynwood); Wilshire Blvd. and Veteran Ave. (Westwood); Sunset Blvd. and Highland Ave. (Hollywood); and La Cienega Blvd. and Century Blvd. (Inglewood). These analyses did not predict a violation of CO standards, as shown on Table 3-15. Traffic volumes generating the CO concentrations for the analysis are shown on Table 3-16. It can therefore be reasonably concluded that projects (such as the proposed

Moreno Valley Logistics Center) that are not subject to the extremes in vehicle volumes and vehicle congestion that was evidenced in the 2003 Los Angeles hot spot analysis would similarly not create or result in CO hot spots.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (45). The proposed Project considered herein would not produce the volume of traffic required to generate a CO hotspot either in the context of the 2003 Los Angeles hot spot study, or based on representative BAAQMD CO threshold considerations (see Table 3-17). Therefore, CO hotspots are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-15: CO MODEL RESULTS

Intersection Location	**Carbon Monoxide Concentrations (ppm)**		
	Morning 1-hour	**Afternoon 1-hour**	**8-hour**
Wilshire-Veteran	4.6	3.5	4.2
Sunset-Highland	4	4.5	3.9
La Cienega-Century	3.7	3.1	5.8
Long Beach-Imperial	3	3.1	9.3

Notes: ppm- parts per million

TABLE 3-16: TRAFFIC VOLUMES FOR INTERSECTIONS EVALUATED IN AQMP

Intersection Location	**Peak Traffic Volumes (vph)**				
	Eastbound (AM/PM)	**Westbound (AM/PM)**	**Southbound (AM/PM)**	**Northbound (AM/PM)**	**Total (AM/PM)**
Wilshire-Veteran	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset-Highland	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega-Century	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach-Imperial	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Notes: vph- vehicles per hour

TABLE 3-17: PROJECT PEAK HOUR TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Elsworth St./ Cactus Ave.	327/709	367/379	2,776/2,623	2,832/320	6,302/4,031
Graham St./Riverside Dr. & Cactus Ave.	326/402	310/638	2,301/3,865	2,696/1,759	5,633/6,664
Heacock St. / Cactus Ave.	1,561/1,572	567/1,012	1,157/3,156	1,998/1,025	5,283/6,765
Perris Bl./ Cactus Ave.	1,708/1,550	1,250/1,745	937/1,741	1,439/815	5,334/5,851

Source: Moreno Valley Logistics Center Traffic Impact Analysis (Urban Crossroads, Inc., 2015).
Notes: vph- vehicles per hour

3.9 AIR QUALITY MANAGEMENT PLANNING

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the Basin. In response, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The Final 2012 AQMP was adopted by the AQMD Governing Board on December 7, 2012 (12). The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy and updated emission inventory methodologies for various source categories.

Similar to the 2007 AQMP, the 2012 AQMP was based on assumptions provided by both CARB and SCAG in the latest available EMFAC model for the most recent motor vehicle and demographics information, respectively. The air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the 2012 AQMP has assumed that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its 2012 RTP. The 2012 AQMP also has assumed that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. The Project's consistency with the 2012 AQMP is discussed as follows:

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993) (18). These indicators are discussed below:

- Consistency Criterion No. 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Construction Impacts

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized significance thresholds (LSTs) or regional significance thresholds were exceeded. Although the Project LST analysis demonstrates that Project construction-source emissions would not exceed applicable LSTs, the Project would however exceed the applicable SCAQMD regional thresholds for construction activity as shown on Tables 3-5 and 3-6 (previously presented). Therefore the Project has the potential to conflict with the AQMP according to this criterion.

Operational Impacts

Although the Project LST analysis demonstrates that Project operational-source emissions would not exceed applicable LSTs, the Project would however exceed the applicable SCAQMD regional thresholds for operational activity as shown on Tables 3-7 and 3-8 (previously presented). Therefore the Project has the potential to conflict with the AQMP according to this criterion.

On the basis of the preceding discussion, the Project is not consistent with the first criterion.

- Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

Overview

The 2012 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City's General Plan is considered to be consistent with the AQMP.

Construction Impacts

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities.

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Operational Impacts

The City of Moreno Valley General Plan designates the Project site as "Business Park/Light Industrial (BP)." According to General Plan Policy 2.5.1, the primary purpose of areas designated "Business Park/Light Industrial (BP)" is to provide manufacturing, research and development, warehousing and distribution, as well as office and support commercial activities. Uses allowable within areas with the BP land use designation include manufacturing, research and development, warehousing and distribution, office, and support commercial activities.

The Project site is located within the geographical limits of the Moreno Valley Industrial Area Plan (MVIAP). The MVIAP applies an "Industrial" zoning designation to the Project site. The "Industrial" designation permits a wide range of industrial and industrial/business related support uses, including light manufacturing and storage and distribution facilities.

As such, development proposed by the Project is consistent with the growth projections in the General Plan and is therefore considered to be consistent with the AQMP. Furthermore, the Project will incorporate contemporary energy-efficient technologies and operational programs, and comply with SCAQMD emissions reductions and control requirements that act to reduce stationary-source air emissions. These Project attributes and features are consistent with and support AQMP air pollution reduction strategies and generally promote timely attainment of AQMP air quality standards.

On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.

AQMP Consistency Conclusion

The Project would not result in or cause NAAQS or CAAQS violations. The Project's proposed land use designation for the subject site does not increase the development intensities as reflected in the adopted General Plan. However, since the Project will result in operational exceedances of VOC and NOx emissions, the Project has the potential to conflict with the AQMP.

3.10 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, child care centers, and athletic facilities can also be considered as sensitive receptors.

Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during construction (with BACMs). Therefore sensitive receptors would not be subject to a significant air quality impact during Project construction.

Results of the LST analysis indicate that the Project will not exceed the SCAQMD localized significance thresholds during operational activity. The proposed Project would not result in a CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the

Project result in a significant adverse health impact as discussed in Section 3.8. Thus a less than significant impact to sensitive receptors during operational activity is expected.

3.11 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations.

The Project includes a Sewer Lift Station that is located on the southwest corner of Building 3. Based on an aerial view, the sewer lift station is located approximately 2,600 feet from the nearest sensitive receptor and is therefore, not within close proximity of sensitive receptors, which are generally located east of Building 1.

The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

3.12 CUMULATIVE IMPACTS

The Project area is designated as an extreme non-attainment area for ozone, and a non-attainment area for PM_{10}, $PM_{2.5}$, and lead.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (46). In this report the AQMD clearly states (Page D-3):

"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. For this Project, a significant project-specific and thus cumulatively considerable impact would occur since the Project's emissions exceed the SCAQMD thresholds for on-going construction and operational activity.

CRITERION 1; REGIONAL ANALYSIS

Construction Impacts

Prior to implementation of BACMs and MMs, the Project-specific evaluation of emissions presented in the preceding analysis demonstrates that Project construction-source air pollutant emissions will result in exceedances of regional threshold of VOCs and $NO_{X.}$ Even after implementation of applicable BACMs and MMs, Project construction-source air pollutant emissions will result in exceedances of regional thresholds of NO_x. Per SCAQMD significance guidance, NO_x impacts are considered cumulatively significant and would persist over the life of the Project. NO_x emissions are ozone precursors and would therefore have the potential to contribute considerably to existing ozone non-attainment conditions within the Basin. As such, Project construction-source emissions would be considered significant on a project-specific and cumulative basis.

Operational Impacts

Project operational-source VOC and NOx emissions will exceed applicable SCAQMD regional thresholds. Per SCAQMD significance guidance, these impacts at the Project level are also considered cumulatively significant and would persist over the life of the Project. VOC and NO_x emissions are ozone precursors and would therefore contribute considerably to existing ozone non-attainment conditions within the Basin. This is a cumulatively significant impact persisting over the life of the Project.

CRITERION 2; LIST APPROACH

A list approach is used, in accordance with Section 15130(b) of the CEQA Guidelines, which states the following:

> *The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.*

The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby projects.

The cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Moreno Valley. As shown on Table 3-18, the cumulative project list includes known and foreseeable projects that are anticipated to contribute emissions to the air basin in the vicinity of the Project.

Cumulative projects could contribute to an existing or projected air quality exceedance because the Basin is currently nonattainment for ozone, PM10, and PM2.5. As previously noted, since the Project results in a project-specific impact for emissions of VOCs and NOx, cumulative impacts are determined to be significant and unavoidable.

TABLE 3-18: CUMULATIVE DEVELOPMENT LIST

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
CITY OF MORENO VALLEY				
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	483.767	TSF
MV-2	Bella Vista Apartments	Apartments	220.00	DU
MV-3	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
MV-4	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
MV-5	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
MV-6	TM 33607	Condo/Townhomes	52	DU
MV-7	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
MV-8	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	287.100	TSF
MV-9	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
MV-10	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF
MV-11	PA 09-0004 (Vogel)	High-Cube Warehouse	800.000	TSF
	Sares Regis	High-Cube Warehouse	1600.000	TSF
MV-12	TM 34748	SFDR	135	DU
MV-13	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF
MV-14	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
MV-15	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1380.246	TSF
MV-16	TM 33810	SFDR	16	DU
MV-17	TM 34151	SFDR	37	DU
MV-18	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
MV-19	TM 32716	SFDR	57	DU
MV-20	TM 33417	Condo/Townhomes	60	DU
MV-21	TM 34988	Condo/Townhomes	271	DU
MV-22	TM 34216	Condo/Townhomes	39	DU
MV-23	TM 34681	Condo/Townhomes	49	DU
MV-24	PA 08-0079-0081 (Winco Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
MV-25	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU
MV-26	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
	e TR 30998 (Pacific Communities)	SFDR	47	DU
MV-27	a P06-158 (Gascon)	Commercial Retail	116.360	TSF
	b Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	c ProLogis	SFDR	126	DU
		High-Cube Warehouse	1529.498	TSF
	d TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-28	TR 36340	SFDR	275	DU
MV-29	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
MV-30	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-31	a Senior Assisted Living	Assisted Living Units	139	DU
	b TR 31590 (Winchester Associates)	SFDR	96	DU
	c TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	d TR 32218 (Whitney)	SFDR	63	DU
	e Medical Plaza	Medical Offices	311.633	TSF
MV-32	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF
MV-33	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-34	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-35	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-36	TR 31305 / Richmond American	Residential	87	DU
MV-37	TR 34329 / Granite Capitol	Residential	90	DU
MV-38	TR 31814 / Moreno Valley Investors	Residential	60	DU
MV-39	TR 33771 / Creative Design Associates	Residential	12	DU
MV-40	TR 35663 / Kha	Residential	12	DU
MV-41	TR 22180 / Young Homes	Residential	140	DU
MV-42	TR 32515	Residential	161	DU
MV-43	TR 32142	Residential	81	DU
MV-44	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-45	Commercial Medical Plaza	Medical Offices	311.633	TSF
MV-46	Edgemont Street, South of Eucalyptus Av. (PA14-0042)	Apartments	112	DU
MV-47	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
MV-48	20636 Pacific Communities	SFDR	67	DU
MV-49	31297 Randy McFarland	SFDR	7	DU
MV-50	31394 Pigeon Pass, Ltd.	SFDR	78	DU
MV-51	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
MV-52	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU
MV-53	31621 Peter Sanchez	SFDR	25	DU
MV-54	32005 Red Hill Village, LLC	SFDR	214	DU

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-55	32126 Salvador Torres	SFDR	35	DU
MV-56	32194 Arman Pezeshkifar	SFDR	32	DU
MV-57	32408 Sanstone Inc.	SFDR	80	DU
MV-58	32844 Winchester Associates	SFDR	17	DU
MV-59	32978 Focus Estates	SFDR	19	DU
MV-60	33024 Adam Wislar	SFDR	8	DU
MV-61	33275 Jose Guzman	SFDR	4	DU
MV-62	33388 SCH Development, LLC	SFDR	16	DU
MV-63	33436 Winchester Associates	SFDR	105	DU
MV-64	33963 Rance Garrett	SFDR	31	DU
MV-65	34043 RM3 Building and Development	SFDR	12	DU
MV-66	31621 Beazer Homes	SFDR	274	DU
MV-67	30268 Pacific Communities	SFDR	83	DU
MV-68	31414 GRF - Majestic Hills	SFDR	31	DU
	Tract 31618	SFDR	55	DU
MV-69	31494 Winchester Associates	SFDR	12	DU
MV-70	32715 GFR - Trinity	SFDR	30	DU
MV-71	33256 Granite Homes	SFDR	79	DU
MV-72	32711 Isaac Genah	SFDR	9	DU
MV-73	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR	1,105	DU
MV-74	35534 Leedco Engineers	SFDR	12	DU
MV-75	36436 CV Communities	SFDR	159	DU
MV-76	36401 Continental East Fund III, LLC	SFDR	92	DU
MV-77	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
MV-78	32756 Jimmy Lee	MFDR	24	DU
MV-79	35369 Tason Myers Property	MFDR	12	DU
MV-80	35414 Lincoln Property Co. Southwest	MFDR	266	DU
MV-81	35769 Michael Chen	MFDR	16	DU
MV-82	PA09-0006 Jim Nydam	MFDR	15	DU
MV-83	35861 Frederick Homes	MFDR	24	DU
MV-84	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
MV-85	35304 Jimmy Lee	MFDR	12	DU
MV-86	Alessandro & Lasselle	Shopping Center	140.000	TSF
MV-87	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
MV-88	El Paso (food court)	Fast Food no Drive Thru	--	TSF
MV-89	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
	PA15-004	Retail/Restaurant/Fast Food	2.973	TSF
MV-90	Moval Assemblage	High-Cube Warehouse	456.337	TSF
MV-91	Restaurant	Restaurant	9.000	TSF
MV-92	Rancho Belago Plaza - Retail	Retail	14.000	TSF
MV-93	Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.351	TSF
MV-94	Hawthorn Inn & Suites	Hotel	79	RMS
MV-95	Sleep Inn Suites	Hotel	66	RMS
MV-96	Integrated Care Communities	Nursing Home	44.000	TSF
MV-97	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-98	Moreno Valley Professional Center	General Office	84.000	TSF
MV-99	Olivewood Plaza - Office Building	General Office	23.000	TSF
MV-100	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	44	DU
MV-101	Riverside County Office Building	General Office	52.000	TSF
MV-102	Gateway Business Park	Residential Condo/Townhouse	34	DU
MV-103	Shaw Development	High-Cube Warehouse	367.000	TSF
MV-104	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697.000	TSF
MV-105	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5700.000	TSF
MV-106	Ironwood Residential	SFDR	144	DU
MV-107	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU
MV-108	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-109	P06-1408	Retail	75.300	TSF
MV-110	PA13-009	Gas Station	16	VFP
MARCH JOINT POWERS AUTHORITY				
MA-1	March Lifecare Campus Specific Plan[4]	Medical Offices	190.000	TSF
		Commercial Retail	210.000	TSF
		Research & Education	200.000	TSF
		Hospital	50	Beds
		Institutional Residential	660	Beds
MA-2	Airport Master Plan	Airport Use	559.000	TSF
MA-3	Freeway Business Center (March JPA)	High-Cube Warehouse	710.083	TSF
COUNTY OF RIVERSIDE				
RC-1	SP 341; PP 21552 (Majestic Freeway Business Center)	High-Cube Warehouse	6100.715	TSF
RC-2	PP 20699 (Oleander Business Park)	Warehousing	1206.710	TSF
RC-3	Ramona Metrolink Station	Light Rail Transit Station	300	SP
RC-4	PP 22925 (Amstar/Kaliber Development)	Office (258.102 TSF)	258.102	TSF
		Warehousing	409.312	TSF
		General Light Industrial	42.222	TSF
		Retail	10.000	TSF
RC-5	Alessandro Metrolink Station	Light Rail Transit Station	300	SP
RC-6	Meridian Business Park North	Industrial Park	5985.000	TSF
RC-7	PP 18908	General Light Industrial	133.000	TSF
RC-8	Tract 33869	SFDR	39.000	DU
RC-9	PP 16976	General Light Industrial	85.000	TSF
RC-10	PP 21144	Industrial Park	190.802	TSF
RC-11	a Villages of Lakeview	SFDR	860	DU
		Condo/Townhomes	1,920	DU
		Elementary School	1,200	STU
		Commercial Retail	100.000	TSF
		Soccer Complex	12	Fields
		City Park	8.9	AC
		County Park	8.1	AC
		Regional Park	107.1	AC
	b Motte Lakeview Ranch	SFDR	847	DU

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
		Condo/Townhomes	686	DU
		Apartments	467	DU
		Elementary School	650	STU
		Middle School	300	STU
		Commercial Retail	120.000	TSF
		Regional Park	177.0	AC
RC-12	CUP03315	Gas Station w/ Market	17	VFP
		Fast Food w/o Drive Thru	5.600	TSF
		High-Turnover Restaurant	6.500	TSF
RC-13	PP23342	Industrial Park	180.600	TSF
RC-14	TR30592	SFDR	131	DU
RC-15	Rider Street Quarry	Quarry	2500.0	AC
RC-16	PP 20711	Manufacturing	20.0	AC
	Yocum Baldwin	Warehousing	46.8	AC
RC-17	March Business Center - South Campus	Shopping Center	108.900	TSF
		Industrial Park	1336.700	TSF
		Large Industrial Park	3269.000	TSF
		General Office Building	140.600	TSF
		Manufacturing	215.600	TSF
		Warehousing	1379.200	TSF
		Park	50.0	AC
		R&D	1611.800	TSF
RC-18	Ben Clark Training Facility	Students	5,045	STU
		Employees	354	EMP
RC-19	PP 20103	Gen. Light Industrial	290.985	TSF
RC-20	Nuevo Business Park	Gen. Light Industrial	357.156	TSF
		Warehousing	1767.618	TSF
RC-21	Meridian (March Business Park SP)	Business Park	41917.000	TSF
RC-22	Blanding Assemblage	High-Cube Warehouse	707.880	TSF
RC-23	CUP 03527	Warehousing	8.000	TSF
RC-24	CUP 03599	Hotel	52.798	TSF
RC-25	PP 24608	Retail	9.280	TSF
RC-26	PM 32699	SFDR	2.00	DU
RC-27	PP 25699	Fast-Food w/Drive Thru	2.800	TSF
		Retail	19.000	TSF
RC-28	TR 30592	SFDR	131.00	DU
RC-29	PP 25768	Manufacturing	52.450	TSF
RC-30	CUP 03620R1	Gas Station w/ Market	8.00	VFP
RC-31	TTM 33410 Box Springs	SFDR	142	DU
RC-32	Knox Logistics	High-Cube Warehouse	1,259.050	TSF
RC-33	University Highlands	SFDR	405	DU
		Condo/Townhomes	320	DU
		Apartments	1,475	DU
		Shopping Center	50.0	TSF
		Parks	42.4	AC

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
		CITY OF RIVERSIDE		
R-1	P07-1028 (Alessandro Business Park)	General Light Industrial	662.018	TSF
	Alessandro and Gorgonio	Fast Food w/Drive Thru	4.050	TSF
R-2	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848)	Commercial and Industrial Complex	101.580	TSF
R-3	California Baptist University Specific Plan	University	157.0	AC
R-4	Canyon Springs Specific Plan	Hospital	280	BEDS
		Medical-Dental Office	370.000	TSF
		Senior Adult Housing-Attached	234	DU
		Assisted Living	267	BEDS
R-5	Citrus Business Park Specific Plan	Industrial Business Park	49.0	AC
R-6	Downtown Specific Plan	Residential	5,000	DU
R-7	Hunter Business Park	Industrial	1300.0	AC
R-8	La Sierra University Specific Plan	Mixed-Use		
R-9	Magnolia Avenue Specific Plan	Mixed-Use/Very High Residential	1473.0	AC
R-10	Marketplace Specific Plan	Commercial Retail/Office	200.0	AC
R-11	Mission Grove Specific Plan	Business/Office Park	56.8	AC
		Commercial Retail	68.1	AC
		High Density Residential	53.8	AC
		Low Density Residential	78.4	AC
		Medium Density Residential	155.3	AC
R-12	Orangecrest Specific Plan	Rural Residential	2.1	AC
		Business/Office Park	2.7	AC
		Commercial Retail	139.0	AC
		High Density Residential	13.7	AC
		Low Density Residential	540.8	AC
		Medium Density Residential	1217.8	AC
		Public Facilities/Institutions	121.6	AC
		Public Park	59.5	AC
R-13	Rancho La Sierra Specific Plan	SFDR	598	DU
R-14	Riverside Auto Center Specific Plan	Auto Center		
R-15	Riverwalk Vista Specific Plan	Residential	402	DU
R-16	Sycamore Canyon Specific Plan	Hillside Residential	41.8	AC
		Low Density Residential	97.3	AC
		Medium Density Residential	14.8	AC
		Very Low Density Residential	884.2	AC
		Public Park	27.9	AC
R-17	Sycamore Canyon Business Park Specific Plan	Business/Office Park	847.2	AC

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
		Commercial Retail	10.3	AC
R-18	Sycamore-Highlands Specific Plan	Commercial Retail	14.6	AC
		High Density Residential	52.2	AC
		Medium Density Residential	99.1	AC
		Public Facilities	1.6	AC
			144.2	AC
		Very Low Density Residential	49.1	AC
R-19	University Avenue Specific Plan	Mixed-Use	Varies	
R-20	807 Blaine Street (P09-0717; P09-0718)	Apartments	55	DU
R-21	2340 Fourteenth Street (P09-0808; P08-0809)	Senior Housing	134	BEDS
R-22	Park Sierra Avenue (P14-0026; P14-0027)	Fast Food w/Drive Thru	3.500	TSF
R-23	6287 Day Street (P10-0090; P10-0091)	Gas Station	2	VFP
	2570 Canyon Springs Parkway (P08-0274; P08-0275)	Bank w/ Drive Thru	2.746	TSF
	6211 Valley Springs Parkway (Steak 'N Shake Restaurant; P14-0536)	Fast Food w/Drive Thru	3.750	TSF
R-24	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	Fast Food w/Drive Thru	2.361	TSF
R-25	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-0046; P14-0047; P14-0048; P14-0049)	Apartments	208	DU
R-26	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	Convenience Store	2.400	TSF
		Coffee Shop	3.946	TSF
R-27	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	Condo/Townhomes	62	DU
R-28	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	Senior Housing	37	DU
R-29	4445 Magnolia Avenue (P13-0207; P13-0208; P13-0209; P13-0210; P13-0211)	Hospital Expansion	Varies	
R-30	SR-91/Van Buren Commercial	Commercial Retail	23.565	TSF
R-31	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	Bank	3.858	TSF
R-32	6465 Sycamore Canyon Boulevard	Health Club	4.000	TSF
R-33	2450 Market Street (P13-0087; P13-0262)	Apartments	77	DU
R-34	6091 Victoria Avenue (P13-0432)	Day Care	1.831	TSF
R-35	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	SFDR	10	DU
	TM 32180 (P07-1073)	SFDR	9	DU
	18875 Moss Road	SFDR	8	DU
	South of Clarke St., west of Crystal View Terrace (PM 34583' {09-0141; P09-173)	SFDR	3	DU
R-36	4824 Jones Avenue (P13-0181; P13-0182)	Church	23.124	TSF
R-37	2586 University avenue (P13-0650; P13-0651)	Bed and Breakfast	3.618	TSF
R-38	18580 Van Buren Boulevard (P08-0402; P13-0822)	Auto Repair Shop	8.142	TSF
R-39	4247 Van Buren Boulevard (P13-0785; P13-0787)	Church Expansion	12.166	TSF
R-40	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM 32301)	SFDR	20	DU

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-41	8616 California Avenue (P08-0084; PM 35852)	Condo/Townhomes	21	DU
R-42	19811 Lurin Avenue (P06-1355; TM 33480)	SFDR	32	DU
R-43	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	SFDR	25	DU
R-44	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	SFDR	29	DU
R-45	3719 Strong Street (P05-0269; P08-0416; TM 33550)	SFDR	9	DU
R-46	1006 & 1008 Clark Street (P06-0782; TM 34908)	SFDR	15	DU
R-47	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087; TM 34509)	SFDR	50	DU
R-48	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	Condo/Townhomes	36	DU
R-49	6639 Hillside Avenue (P08-0727; PM 35901)	Industrial	5	LOTS
R-50	19985 Van Buren Boulevard (P10-0118; Gless Ranch)	Commercial Retail	425.447	TSF
R-51	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	Condo/Townhomes	102	DU
R-52	NEC of Martha Way & Everest Avenue (P13-0389; TM 36579)	SFDR	5	DU
R-53	4325, 4335, 4345, 4355, 4375 Adams Street (P13-0723; P13-0724; P13-0725; TM 36654)	SFDR	62	DU
R-54	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	Free Standing Discount Store	22.272	TSF
R-55	P06-0160	Gen. Light Industrial	316.224	TSF
	P06-1281	Warehousing	107.732	TSF
R-56	9241 & 9265 Audrey Avenue (P12-0184; P12-0185; P12-0187; Azar Plaza)	Commercial Retail	6.150	TSF
R-57	Office, Magnon & Panattoni	Office	131.000	TSF
		Warehousing	1400.000	TSF
		Warehousing	300.000	TSF
		Warehousing	216.000	TSF
R-58	1710 Main Street (P12-0717)	Family Dollar Store	8.039	TSF
R-59	2861 Mary Street (P12-0442; P12-0443; P12-0444)	Shopping Center	56.101	TSF
R-60	3545 Central Avenue (P12-0741; P12-0743)	Riverside Plaza Renovations	35.0	AC
R-61	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13-0201)	Apartments	30	DU
R-62	3705 Tyler Street (P13-0501; P13-0502)	Restaurant	6.000	TSF
R-63	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	Fast Food w/Drive Thru	3.795	TSF
R-64	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-0065)	Apartments	275	DU
R-65	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608; P0609; P13-0854)	General Light Industrial	171.616	TSF
R-66	P06-0591	Office	37.939	TSF
		Warehousing	782.188	TSF
		Manufacturing	168.294	TSF
R-67	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966)	High-Cube Warehouse	1461.449	TSF

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
		CITY OF PERRIS		
P-1	P 05-0113 (IDI)	High-Cube Warehouse	1750.000	TSF
P-2	P 05-0192 (Oakmont I)	High-Cube Warehouse	697.600	TSF
P-3	P 05-0477	High-Cube Warehouse	462.692	TSF
P-4	Rados Distribution Center	High-Cube Warehouse	1200.000	TSF
P-5	Investment Development Services (IDS) II	High-Cube Warehouse	350.000	TSF
P-6	P 07-09-0018	Warehousing	170.000	TSF
P-7	P 07-07-0029 (Oakmont II)	High-Cube Warehouse	1600.000	TSF
P-8	TR 32707	SFDR	137	DU
P-9	TR 34716	SFDR	318	DU
P-10	P 05-0493 (Ridge I)	High-Cube Warehouse	700.000	TSF
P-11	Ridge II	High-Cube Warehouse	2000.000	TSF
P-12	Harvest Landing Specific Plan	SFDR	717	DU
		Condo/Townhomes	1,139	DU
		Sports Park	16.7	AC
		Business Park	1233.401	TSF
		Shopping Center	73.181	TSF
	Perris Marketplace	Shopping Center	450.000	TSF
P-13	P 06-0411 (Concrete Batch Plant)	Manufacturing	2.000	TSF
P-14	Jordan Distribution	High-Cube Warehouse	378.000	TSF
P-15	Aiere	High-Cube Warehouse	642.000	TSF
P-16	P 08-11-0005; P 08-11-0006 (Starcrest)	High-Cube Warehouse	454.088	TSF
P-17	Stratford Ranch Specific Plan	High-Cube Warehouse	1725.411	TSF
P-18	Stratford Ranch Specific Plan	High-Cube Warehouse	480.000	TSF
		General Light Industrial	120.000	TSF
P-19	P05-0493	Logistics	597.370	TSF
P-20	Starcrest, P011-0005; 08-11-0006	General Light Industrial	454.088	TSF
P-21	South Perris Industrial Phase 1	Logistics	787.700	TSF
P-22	South Perris Industrial Phase 2	Logistics	3448.734	TSF
P-23	South Perris Industrial Phase 3	Logistics	3166.857	TSF
P-24	P 04-0343	Warehousing	41.650	TSF
P-25	P 06-0228	General Light Industrial	149.738	TSF
P-26	P 06-0378	Senior Housing	429	DU
P-27	P 11-09-0011	Retail	80.000	TSF
P-28	P 12-05-0013	Apartments	75	DU
P-29	P 12-10-0005	High-Cube Warehouse	1463.887	TSF
P-30	TR 30850	Residential	496	DU
P-31	TR 30973	Residential	35	DU
P-32	TR 31225	Residential	57	DU
P-33	TR 31226	Residential	82	DU
P-34	TR 31240	Residential	114	DU
P-35	TR 31407	Residential	243	DU
P-36	TR 31650	SFDR	61	DU
P-37	TR 31659	SFDR	161	DU
P-38	TR 32041	Residential	122	DU
P-39	TR 32406	SFDR	15	DU
P-40	TR 33193	Townhomes	94	DU

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
P-41	TR 33338	Residential	75	DU
P-42	Park West Specific Plan	SFDR	521	DU
		Elementary School	750	STU
		Neighborhood Park	5.0	AC
P-43	The Venue	Commercial Retail	642.627	TSF
	Retail on San Jacinto	Commercial Retail	217.800	TSF
	Retail on Redlands	Fast Food w/ Drive Thru	4.500	TSF
		Pharmacy w/ Drive Thru	14.000	TSF
		Specialty Retail	31.500	TSF
P-44	South Perris Metrolink Station	Light Rail Transit Station	680	SP
P-45	IDS 04-0464	High-Cube Warehouse	1686.760	TSF
P-46	TTM 32708 (50% Complete)	SFDR	238	DU
P-47	PM 34199	Gen. Light Industrial	46.500	TSF
	DPR 05-0387	Gen. Light Industrial	9.854	TSF
	DPR 05-0452	Warehousing	31.200	TSF
	TPM 34697	Gen. Light Industrial	47.400	TSF
	DPR 06-0396	Warehousing	159.823	TSF
P-48	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF

1 SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential
2 DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees
3 Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).
4 Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

4 FINDINGS & CONCLUSIONS

4.1 CONSTRUCTION-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project will exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOCs and NO_x prior to implementation of applicable BACMs and MMs.

Even after implementation of the applicable BACMs and MMs, construction activity emissions will exceed the numerical thresholds established by the SCAQMD for emissions of NO_x. Thus a significant impact will occur even with the implementation of applicable BACMs and MMs. Project construction-source NO_x emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

LOCALIZED IMPACTS

Without BACMs and MMs, emissions during construction activity will exceed the SCAQMD's localized significance threshold for emissions of NO_2, PM_{10}, and $PM_{2.5}$. It should be noted that the impacts without BACMs do not take credit for reductions achieved through implementation of standard regulatory requirements (e.g., Rule 403)[7]. After implementation of applicable BACMs and MMs, the emissions resulting from short-term construction activity will not exceed the SCAQMD LST thresholds and are therefore considered less-than-significant.

ODORS

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

4.2 OPERATIONAL-SOURCE EMISSIONS

REGIONAL IMPACTS

For regional emissions, the Project would exceed the numerical thresholds of significance established by the SCAQMD for emissions of VOCs and NO_x. Even with implementation of applicable MMs, no feasible mitigation measures exist (as shown in Section 4.6) that would reduce these emissions to levels that are less-than-significant. Project operational-source VOCs and NO_x emissions exceedances of applicable SCAQMD regional thresholds are therefore considered significant and unavoidable.

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[7] The CalEEMod emissions inventory model has a limitation whereby regulatory requirements such as Rule 403 which requires watering, are not reflected in the "unmitigated" emissions output.

LOCALIZED IMPACTS

Project operational-source emissions would not result in or cause a significant localized air quality impact as discussed in the operational LSTs section of this report. The proposed Project would not result in a significant CO "hotspot" as a result of Project related traffic during ongoing operations, nor would the Project result in a significant adverse health impact as discussed in Section 3.8, thus a less than significant impact to sensitive receptors during operational activity is expected.

ODORS

Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential sources of operational odors generated by the Project would include disposal of miscellaneous refuse. Moreover, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances (1). Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations. Potential operational-source odor impacts are therefore considered less-than-significant.

4.3 STANDARD REGULATORY REQUIREMENTS/BEST AVAILABLE CONTROL MEASURES (BACMS)

Measures listed below (or equivalent language) shall appear on all Project grading plans, construction specifications and bid documents, and the City shall ensure such language is incorporated prior to issuance of any development permits. City monitoring of construction activities shall be conducted to ensure mitigation compliance.

SCAQMD Rules that are currently applicable during construction activity for this Project include but are not limited to: Rule 1113 (Architectural Coatings) (47); Rule 431.2 (Low Sulfur Fuel) (43); Rule 403 (Fugitive Dust) (48); and Rule 1186 / 1186.1 (Street Sweepers) (49). In order to facilitate monitoring and compliance, applicable SCAQMD regulatory requirements are summarized below.

BACM AQ-1

The following measures shall be incorporated into Project plans and specifications as implementation of Rule 403 (48):

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 miles per hour or less.

4.4 CONSTRUCTION-SOURCE MITIGATION MEASURES

MM AQ-1

Only "Low-Volatile Organic Compounds" paints (no more than 50 gram/liter of VOC) consistent with South Coast Air Quality Management District Rule 1113 shall be used.

MM AQ-2

Based on consultation with the client, construction equipment shall be mitigated consistent with the engine tier specifications as follows,(Additional details on engine tier specification by equipment is provided at Appendix 3.4).

During Grading activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 0: 3,608 horsepower-hours per day

Tier 1: 7,760 horsepower-hours per day

Tier 3: 14,000 horsepower-hours per day

Tier 4: 37,008 horsepower-hours per day

During Trenching activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 3: 11,648 horsepower-hours per day

Tier 4: 9,648 horsepower-hours per day

During Concrete Shell activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 3: 3,520 horsepower-hours per day

Tier 4: 14,160 horsepower-hours per day

During Steel & Roof activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 0: 3,440 horsepower-hours per day

Tier 4: 8,496 horsepower-hours per day

During Roofing & Overhead Work activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 0: 1,152 horsepower-hours per day

Tier 2: 1,760 horsepower-hours per day

Tier 4: 8,496 horsepower-hours per day

During Architectural Coating activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 4: 11,328 horsepower-hours per day

During Misc. Finishes activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 0: 768 horsepower-hours per day

Tier 4: 5,664 horsepower-hours per day

During Paving activity for Building 1, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 3: 6,248 horsepower-hours per day

Tier 4: 2,832 horsepower-hours per day

During Grading activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 3: 8,720 horsepower-hours per day

Tier 4: 16,096 horsepower-hours per day

During Trenching activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 3: 5,824 horsepower-hours per day

Tier 4: 4,824 horsepower-hours per day

During Concrete Shell activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 3: 1,760 horsepower-hours per day

Tier 4: 11,328 horsepower-hours per day

During Steel & Roof activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 0: 1,720 horsepower-hours per day

Tier 4: 5,664 horsepower-hours per day

During Roofing & Overhead Work activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 0: 384 horsepower-hours per day

Tier 2: 880 horsepower-hours per day

Tier 4: 5,664 horsepower-hours per day

During Architectural Coating activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 4: 2,832 horsepower-hours per day

During Misc. Finishes activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 0: 384 horsepower-hours per day

Tier 4: 2,832 horsepower-hours per day

During Paving activity for Buildings 2, 3, and 4 each, on-site off-road construction equipment shall adhere to the following horsepower-hours by California Air Resources Board (CARB) engine tiers as follows:

Tier 3: 3,448 horsepower-hours per day

Tier 4: 2,832 horsepower-hours per day

4.5 OPERATIONAL-SOURCE MITIGATION MEASURES

MM AQ-3:

Prior to the issuance of building permits, the Project applicant shall ensure that the Project is designed to achieve efficiency equal to or exceeding then incumbent (2013 or later) California Building Code Title 24 requirements.

MM AQ-4:

To reduce water consumption and the associated energy-usage, the Project will be designed to comply with the mandatory reductions in indoor water usage contained in the incumbent

CalGreen Code (50) and any mandated reduction in outdoor water usage contained in the City's water efficient landscape requirements. Additionally, the Project shall implement the following:

- Landscaping palette emphasizing drought tolerant plants;
- Use of water-efficient irrigation techniques;
- U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

MM AQ-5:

The Project will reduce vehicle miles traveled and emissions associated with by implementing the following measures:

- Pedestrian and bicycle connections shall be provided to surrounding areas consistent with the City's General Plan.
- Implement a voluntary trip reduction program, for which all employees shall be eligible to participate.

MM AQ-6:

The truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:

a) Truck drivers shall turn off engines when not in use;

b) Diesel delivery trucks servicing the Project shall not idle for more than five (5) minutes[1]; and

c) Telephone numbers of the building facilities manager and the CARB to report violations.

MM AQ-7:

- Site design shall allow for trucks to check-in within the facility area to prevent queuing of trucks outside the facility.[2]
- Signs shall be posted in loading dock areas that instruct truck drivers to shut down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park", and the parking brake is engaged (51).

MM AQ-8

A frequent CEQA petitioner in the Inland Empire routinely asks lead agencies to impose dozens and dozens of a variety of mitigation measures. This list includes suggestions that are often duplicative of current SCAQMD Rules and are duplicative in and of themselves. In an effort to hopefully forestall a future dispute on air quality issues, this assessment has already included most of the mitigation measures from this list that are not already duplicative of existing Rules, State law, and other mitigation measures. As a conservative measure, no reduction for any of the measures listed under MM AQ-8 is taken in the analysis.

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[1] While restricted idling is required per MM HRA-1, the analysis presented here takes no quantified credit or reduction in emissions for restricted idling, and reflects an assumed 15-minute "worst case" idling condition.
[2] As above, no quantified credit or reduction in emissions is taken for site design requirements reflected in MM HRA-2

Construction Impacts

- Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.
- Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.)
- Limit fugitive dust sources to 20 percent opacity.
- Require a dust control plan for earthmoving operations.
- When materials are transported off-site, all material shall be covered or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All streets shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.
- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and initiate corrective action within 24 hours.
- Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.
- Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.
- A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.
- Implement activity management techniques including
- Development of a comprehensive construction management plan designed to minimize the number of large construction equipment operating during any given time period;
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emission to the extent feasible;
- Require the use of CARB certified equipment for construction activities to the extent feasible.
- The developer shall require all contractors to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.
- Restrict engine size of construction equipment to minimum practical size.
- Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.
- Reroute construction trucks away from congested streets and sensitive receptor areas.
- Configure construction parking to minimize traffic interference.
- Minimize construction worker trips by encouraging carpooling and providing for lunch onsite.

- Provide on-site food service options for the construction crew.
- Encourage construction workers to utilize shuttle service to transit stations/multimodal center.

Operational Emissions

- Encourage all fleet vehicles to conform to 2010 air quality standards or better. Users shall maintain compliance through normal course of business. Any spaces utilizing refrigerated storage shall provide an electrical hookup for refrigeration units on delivery trucks. Trucks incapable of utilizing the electrical hookup for powering refrigeration shall be prohibited from accessing the site.
- Electrical powered equipment should be utilized in-lieu of gasoline-powered engines where technically feasible.
- Utilize electrical equipment for landscape maintenance to the extent feasible.
- All forklifts shall be electric, natural gas, or propane powered.
- Prohibit idling of trucks for periods exceeding three minutes.
- Charge reduced or no parking fee for EVs and CNG vehicles.
- Provide preferential parking locations for EVs and CNG vehicles.
- To ensure the shading of parking lots to reduce solar gain, plant shade trees so that at least 50% of the automotive parking lots (excluding the truck courts where trees cannot be planted due to interference with truck maneuvering) will be shaded within 15 years after Project construction is complete.
- Provide preferential parking for carpool/vanpool vehicles.
- Provide secure, weather protected bicycle parking for employees.

4.6 EVALUATION OF APPLICABILITY OF SCAQMD-RECOMMENDED MITIGATION MEASURES

The South Coast Air Quality Management District (SCAQMD) typically provides a comment letter on the Notice of Preparation for CEQA documents. The SCAQMD's comment letters include a reference to several sources to consider for purposes of mitigating significant air quality impacts. The following table evaluates the applicability of the SCAQMD's recommended measures.

TABLE 4-1: APPLICABILITY OF SCAQMD-RECOMMENDED MITIGATION MEASURES

Mitigation Measure	Applicability
Chapter 11 of the SCAQMD *CEQA Air Quality Handbook* (Construction)	The applicable mitigation measures listed in Chapter 11 (Tables 11-2, 11-3, and 11-4) of the SCAQMD *CEQA Air Quality Handbook* have been reviewed. However, none of the mitigation measures would reduce the significant NOx impacts during construction activity.
Chapter 11 of the SCAQMD *CEQA Air Quality Handbook* (Operations)	The applicable mitigation measures listed in Chapter 11 (Tables 11-6c and 11-7c) of the SCAQMD *CEQA Air Quality Handbook* have been reviewed. Some of the mitigation measures recommended here are already included in the Project, specifically: MM AQ-3 through MM AQ-8 are generally consistent with several measures recommended by SCAQMD. However, none of the additional mitigation measures beyond those identified above would reduce the significant VOC or NOx impact to less than significant levels. It should be noted the SCAQMD *CEQA Air Quality Handbook* has not been updated since 2003. Additionally, several of the measures listed provide a negligible VOC and NOx reduction, with a number of them designated by SCAQMD as having no quantified benefit or negligible benefit. Therefore implementation of these measures would not avoid or substantially lessen mobile source VOC or NOx emissions attributable to the project.
SCAQMD CEQA Web Pages (Fugitive Dust)	With application of BACMs and recommended MMs, the Project would not have a significant impact for construction or operational related PM10 or PM2.5 emissions. Therefore, no additional mitigation measures are required to reduce fugitive dust emissions.
SCAQMD CEQA Web Pages (Greenhouse Gases)	Same as "CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures"* discussion. See below.
SCAQMD CEQA Web Pages (Harbor Craft, Locomotives, Ocean Going Vessels)	The following mitigation measures are not applicable to the proposed Project. It is not expected that the Project would include the use of a harbor craft, locomotives, or ocean going vessels.

Mitigation Measure	Applicability
SCAQMD CEQA Web Pages (Off-Road Engines)	Mitigation measures that would apply to off-road engines have been reviewed. Notwithstanding, implementation of these measures would not avoid or substantially lessen mobile source NOx emissions attributable to the project. Additionally, the project Applicant as part of its project design will require on-site cargo handling equipment to be CARB Tier IV compliant or non-diesel.
SCAQMD CEQA Web Pages (On-Road Engines)	The California Air Resources Board (CARB) has worked closely with the U.S. Environmental Protection Agency (U.S. EPA), engine and vehicle manufacturers, and other interested parties to reduce emissions from heavy-duty diesel vehicles in California, through a combination of measures including regulations requiring the use of ultra-low sulfur diesel fuel, new emission standards, restrictions on idling, addition of post-combustion filter and catalyst equipment, and retrofits for diesel truck fleets. These programs are expected to result in significant reductions in particulate matter (PM), nitrous oxides (NOX), volatile organic compounds (VOC), and carbon oxide (CO) emissions as they are fully implemented. Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Pursuant to such regulation, older, heavier trucks, i.e., those with pre-2000 year engines and a gross vehicle weight rating (GVWR) greater than 26,000 pounds are already required to have installed a PM filter and must be replaced with a 2010 engine between 2015 and 2020, depending on the model year. By 2015, all heavier pre-1994 trucks must be upgraded to 2010 engines and newer trucks are thereafter required to be replaced over the next eight years. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean 2007-2009 engines are not required to be replaced until 2023. Lighter trucks (those with a GVWR of 14,001 to 26,000 pounds) must adhere to a similar schedule, and will all be replaced by 2020. Further, nearly all trucks that are not required under the Truck and Bus Regulation to be replaced by 2015 are required to be upgraded with a PM filter by that date. Therefore, most heavy-duty trucks entering the project site will meet or exceed U.S. EPA 2007 and 2010 emission standards within a relatively short period of time after the project becomes operational in 2017, and all such trucks entering the property will meet or exceed such standards by 2023.

Mitigation Measure	Applicability
	Federal and state agencies regulate and enforce vehicle emission standards. It is not feasible for the City of Moreno Valley staff to effectively enforce a prohibition on trucks from entering the property that are otherwise permitted to operate in California and access other properties in the County, region, and state. And, even if the County were to apply such a restriction, it would merely cause warehouse operators using truck fleets older than 2007/2010 to locate in another location in the South Coast Air Basin where the restriction does not apply, thereby resulting in no improvement to regional air quality. Further if a truck that did not meet this requirement were to attempt access to the stie and be denied, there would be more idling emissions and travel emissions associated with that truck. Additionally, SCAQMD has made similar comments in the past however the examples SCAQMD has provided on other projects do not demonstrate successful implementation of the measures. More specifically: Banning Gateway [Business Park] (City of Banning) demonstrates that limiting trucks to 2010 compliant engines can render a project unmarketable and unattractive to tenants. Based on information supplied to us by the proponents of this project, SCAQMD implored the Banning City Council to apply a condition to this project limiting trucks to 2010 or better CARB compliant engines. The City relented and applied the condition. However, over the course of several years, the project's proponents have found that the project is not marketable with that condition applied and that no perspective tenants will take the project with that condition The project's proponents have been in discussions with the City of Banning and SCAQMD attempting to get relief from the condition, however an outcome is unknown at this time. Thus, it is our understanding that the AQMD is fully aware that a 2010 or better engine restriction was not feasible for the Banning Gateway project to implement and that this condition is generally problematic and infeasible for speculative builders of warehouse projects to practically implement. In conclusion, this prior example cited by the AQMD is not an example of a successfully implemented mitigation measure. In fact, it is an example of the measure's unacceptability in the marketplace and how it can render a project unviable.
CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*	All feasible and applicable mitigation measures listed in the Energy, Water, and Transportation sections (as shown in Chart 6-1 and Chart 6-2 of the CAPCOA document) have been applied

Mitigation Measure	Applicability
	to the analysis. However these measures are aimed at reducing GHG emissions and implementation of these measures would not avoid or substantially lessen mobile source NOx emissions attributable to the project.
SCAQMD Rule 403	As stated in Section 4.3 and identified in BACM AQ-1 the Project would need to comply with applicable SCAQMD Rules including, but not limited to Rule 403.
SCAQMD's Guidance Document for addressing Air Quality Issues in General Plans and Local Planning	These measures are not applicable to the proposed Project because the measures listed are aimed towards local governments as a guidance to reduce community exposure to source-specific air pollution impacts.

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6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Moreno Valley Logistics Center Project. The information contained in this air quality impact report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

2013
Area Designations for State Ambient Air Quality Standards
OZONE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2013
Area Designations for State Ambient Air Quality Standards
PM10

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

2013
Area Designations for State Ambient Air Quality Standards
PM2.5

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

2013
Area Designations for State Ambient Air Quality Standards
CARBON MONOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

2013
Area Designations for State Ambient Air Quality Standards
NITROGEN DIOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

2013
Area Designations for State Ambient Air Quality Standards
SULFUR DIOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

2013
Area Designations for State Ambient Air Quality Standards
LEAD

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Area Designations for National Ambient Air Quality Standards
8-HOUR OZONE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Area Designations for National Ambient Air Quality Standards PM10

Source Date:
September 2013
Air Quality Planning Branch, AQPSD

Area Designations for National Ambient Air Quality Standards PM2.5

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Area Designations for National Ambient Air Quality Standards CARBON MONOXIDE

☐ Unclassified/Attainment

▨ Nonattainment

━ Air Basin

— County

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Area Designations for National Ambient Air Quality Standards NITROGEN DIOXIDE

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Area Designations for National Ambient Air Quality Standards SULFUR DIOXIDE

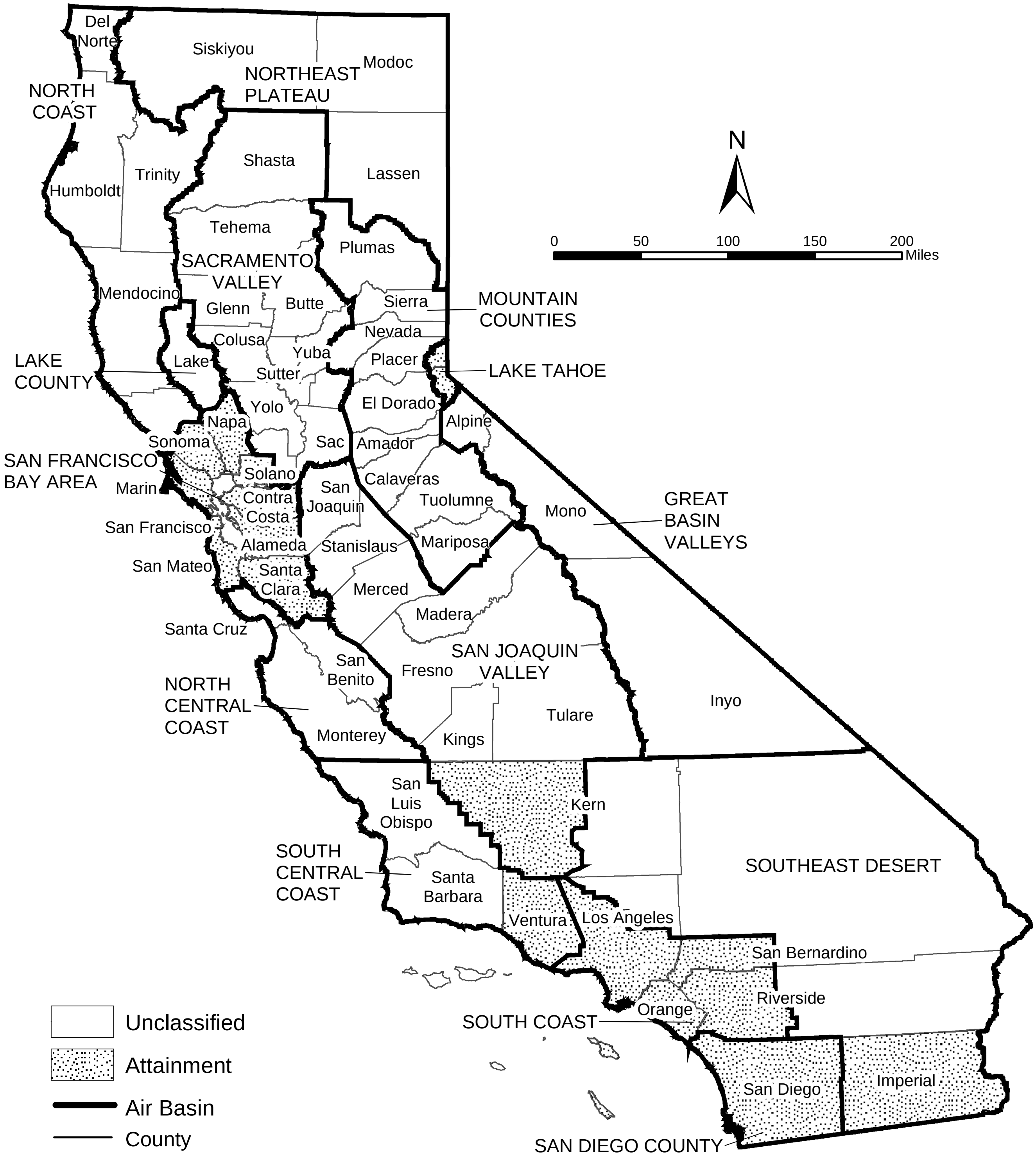

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

Area Designations for National Ambient Air Quality Standards LEAD

Source Date:
June 2013
Air Quality Planning Branch, AQPSD

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APPENDIX 3.2:

CALEEMOD EMISSIONS MODEL OUTPUTS

MoVal Logistics Center- Construction

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	385.75	1000sqft	16.70	385,748.00	0
Unrefrigerated Warehouse-No Rail	1,351.77	1000sqft	50.14	1,351,770.00	0
Parking Lot	1,998.00	Space	17.98	799,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage:84.82; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking=3.27 parking spaces.

Construction Phase - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Trips and VMT - Based on client specifications

Grading -

Architectural Coating - Based on client specifications

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - Based on client specifications

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	51,832.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	51,832.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	61.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	17.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	110.00	18.00
tblConstructionPhase	NumDays	110.00	39.00
tblConstructionPhase	NumDays	110.00	18.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDays	1,550.00	47.00
tblConstructionPhase	NumDays	1,550.00	50.00
tblConstructionPhase	NumDays	1,550.00	47.00
tblConstructionPhase	NumDays	1,550.00	22.00
tblConstructionPhase	NumDays	1,550.00	20.00
tblConstructionPhase	NumDays	1,550.00	23.00
tblConstructionPhase	NumDays	1,550.00	48.00

tblConstructionPhase	NumDays	1,550.00	30.00
tblConstructionPhase	NumDays	1,550.00	22.00
tblConstructionPhase	NumDays	1,550.00	23.00
tblConstructionPhase	NumDays	1,550.00	29.00
tblConstructionPhase	NumDays	1,550.00	24.00
tblConstructionPhase	NumDays	1,550.00	31.00
tblConstructionPhase	NumDays	1,550.00	65.00
tblConstructionPhase	NumDays	1,550.00	82.00
tblConstructionPhase	NumDays	1,550.00	50.00
tblConstructionPhase	NumDays	155.00	45.00
tblConstructionPhase	NumDays	155.00	14.00
tblConstructionPhase	NumDays	155.00	12.00
tblConstructionPhase	NumDays	155.00	18.00
tblConstructionPhase	NumDays	110.00	28.00
tblConstructionPhase	NumDays	110.00	28.00
tblConstructionPhase	NumDays	110.00	89.00
tblConstructionPhase	NumDays	110.00	36.00
tblConstructionPhase	PhaseEndDate	1/10/2017	12/7/2016
tblConstructionPhase	PhaseEndDate	3/6/2017	1/30/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	1/2/2017
tblConstructionPhase	PhaseEndDate	2/24/2017	2/7/2017
tblConstructionPhase	PhaseEndDate	11/18/2016	10/25/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	11/23/2016
tblConstructionPhase	PhaseEndDate	1/27/2017	12/5/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	10/31/2016
tblConstructionPhase	PhaseEndDate	11/28/2016	11/22/2016
tblConstructionPhase	PhaseEndDate	12/23/2016	11/29/2016
tblConstructionPhase	PhaseEndDate	2/3/2017	1/5/2017

tblConstructionPhase	PhaseEndDate	1/18/2017	12/29/2016
tblConstructionPhase	PhaseEndDate	1/30/2017	12/22/2016
tblConstructionPhase	PhaseEndDate	1/24/2017	12/26/2016
tblConstructionPhase	PhaseEndDate	3/10/2017	1/17/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	1/27/2017
tblConstructionPhase	PhaseEndDate	4/14/2017	2/28/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	4/20/2017
tblConstructionPhase	PhaseEndDate	3/9/2017	10/24/2016
tblConstructionPhase	PhaseEndDate	11/9/2016	9/29/2016
tblConstructionPhase	PhaseEndDate	10/17/2016	8/19/2016
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tblConstructionPhase	PhaseEndDate	2/14/2017	12/15/2016
tblConstructionPhase	PhaseEndDate	2/2/2017	1/10/2017
tblConstructionPhase	PhaseEndDate	5/5/2017	4/26/2017
tblConstructionPhase	PhaseEndDate	3/29/2017	3/2/2017
tblConstructionPhase	PhaseEndDate	12/13/2016	10/26/2016
tblConstructionPhase	PhaseEndDate	12/5/2016	11/15/2016
tblConstructionPhase	PhaseEndDate	12/9/2016	8/31/2016
tblConstructionPhase	PhaseEndDate	10/5/2016	9/28/2016
tblConstructionPhase	PhaseStartDate	12/16/2016	11/14/2016
tblConstructionPhase	PhaseStartDate	1/11/2017	12/7/2016
tblConstructionPhase	PhaseStartDate	1/18/2017	12/8/2016
tblConstructionPhase	PhaseStartDate	1/28/2017	1/11/2017
tblConstructionPhase	PhaseStartDate	9/15/2016	8/22/2016
tblConstructionPhase	PhaseStartDate	10/27/2016	9/15/2016
tblConstructionPhase	PhaseStartDate	11/24/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	12/6/2016	9/30/2016
tblConstructionPhase	PhaseStartDate	11/1/2016	10/26/2016

tblConstructionPhase	PhaseStartDate	11/23/2016	10/28/2016
tblConstructionPhase	PhaseStartDate	11/30/2016	11/1/2016
tblConstructionPhase	PhaseStartDate	12/8/2016	11/18/2016
tblConstructionPhase	PhaseStartDate	12/30/2016	11/23/2016
tblConstructionPhase	PhaseStartDate	12/23/2016	11/24/2016
tblConstructionPhase	PhaseStartDate	1/31/2017	12/8/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	12/27/2016
tblConstructionPhase	PhaseStartDate	3/3/2017	1/17/2017
tblConstructionPhase	PhaseStartDate	3/1/2017	1/20/2017
tblConstructionPhase	PhaseStartDate	11/16/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	9/1/2016	7/22/2016
tblConstructionPhase	PhaseStartDate	9/30/2016	8/4/2016
tblConstructionPhase	PhaseStartDate	9/29/2016	8/22/2016
tblConstructionPhase	PhaseStartDate	1/6/2017	11/8/2016
tblConstructionPhase	PhaseStartDate	12/27/2016	12/2/2016
tblConstructionPhase	PhaseStartDate	1/3/2017	12/23/2016
tblConstructionPhase	PhaseStartDate	2/8/2017	1/12/2017
tblConstructionPhase	PhaseStartDate	10/26/2016	9/8/2016
tblConstructionPhase	PhaseStartDate	7/21/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	10/25/2016	7/15/2016
tblConstructionPhase	PhaseStartDate	8/20/2016	8/15/2016
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00

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tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	385,750.00	385,748.00
tblLandUse	LotAcreage	8.86	16.70
tblLandUse	LotAcreage	31.03	50.14
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
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tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	174.00	302.00
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tblOffRoadEquipment	HorsePower	174.00	302.00
tblOffRoadEquipment	HorsePower	174.00	302.00
tblOffRoadEquipment	HorsePower	255.00	451.00
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tblOffRoadEquipment	HorsePower	361.00	452.00
tblOffRoadEquipment	HorsePower	361.00	452.00
tblOffRoadEquipment	HorsePower	361.00	452.00

tblOffRoadEquipment	HorsePower	97.00	110.00
tblOffRoadEquipment	HorsePower	97.00	110.00
tblOffRoadEquipment	HorsePower	97.00	110.00
tblOffRoadEquipment	HorsePower	97.00	110.00
tblOffRoadEquipment	HorsePower	97.00	110.00
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tblOffRoadEquipment	HorsePower	226.00	215.00
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tblOffRoadEquipment	HorsePower	208.00	410.00
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tblOffRoadEquipment	HorsePower	208.00	410.00
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tblOffRoadEquipment	HorsePower	97.00	110.00
tblOffRoadEquipment	HorsePower	80.00	81.00

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tblOffRoadEquipment	HorsePower	80.00	81.00
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tblOffRoadEquipment	LoadFactor	0.40	0.43
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	8.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	478.33	0.00
tblSolidWaste	SolidWasteGenerationRate	1,270.66	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	539.00
tblTripsAndVMT	HaulingTripNumber	0.00	879.00
tblTripsAndVMT	HaulingTripNumber	0.00	364.00
tblTripsAndVMT	HaulingTripNumber	0.00	389.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,076.00
tblTripsAndVMT	HaulingTripNumber	0.00	419.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,192.00
tblTripsAndVMT	HaulingTripNumber	0.00	687.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
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tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00

tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
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tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.00
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tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
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tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	89,204,687.50	0.00
tblWater	IndoorWaterUseRate	312,596,812.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	247.3022	575.0550	415.6460	0.9674	23.2902	20.8912	38.2923	6.5022	19.2190	23.1610	0.0000	97,603.1242	97,603.1242	15.6793	0.0000	97,932.3901
2017	241.2676	284.6262	241.9155	0.5946	16.3290	9.2220	25.5510	4.4853	8.4838	12.9691	0.0000	57,855.0551	57,855.0551	7.3266	0.0000	58,008.9141
Total	**488.5698**	**859.6812**	**657.5615**	**1.5620**	**39.6191**	**30.1132**	**63.8432**	**10.9875**	**27.7028**	**36.1301**	**0.0000**	**155,458.1793**	**155,458.1793**	**23.0060**	**0.0000**	**155,941.3043**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	235.4059	290.5056	423.3582	0.9674	23.2902	8.0288	30.3608	6.5022	7.6298	13.0826	0.0000	97,603.1241	97,603.1241	15.6793	0.0000	97,932.3901
2017	231.4579	146.2168	247.8175	0.5946	16.3290	3.8278	20.1568	4.4853	3.6119	8.0972	0.0000	57,855.0551	57,855.0551	7.3266	0.0000	58,008.9141
Total	**466.8638**	**436.7223**	**671.1758**	**1.5620**	**39.6191**	**11.8566**	**50.5175**	**10.9875**	**11.2416**	**21.1798**	**0.0000**	**155,458.1792**	**155,458.1792**	**23.0060**	**0.0000**	**155,941.3042**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**4.44**	**49.20**	**-2.07**	**0.00**	**0.00**	**60.63**	**20.87**	**0.00**	**59.42**	**41.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading 1	Grading	4/29/2016	6/30/2016	5	45	
2	Grading 2	Grading	7/1/2016	7/20/2016	5	14	
3	Trenching 1	Trenching	7/1/2016	11/15/2016	5	98	
4	Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	5	82	
5	Trenching 2	Trenching	7/15/2016	8/31/2016	5	34	
6	Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	5	50	
7	Grading 3	Grading	8/4/2016	8/19/2016	5	12	
8	Trenching 3	Trenching	8/15/2016	9/28/2016	5	33	
9	Grading 4	Grading	8/22/2016	9/14/2016	5	18	
10	Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	5	47	
11	Trenching 4	Trenching	9/8/2016	10/26/2016	5	35	
12	Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	5	50	
13	Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	5	47	
14	Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	5	22	
15	Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	5	20	
16	Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	5	23	
17	Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	5	48	
18	Paving 2	Paving	11/8/2016	12/15/2016	5	28	
19	Architectural Coating 2	Architectural Coating	11/14/2016	12/7/2016	5	18	

20	Misc. Finishes 2	Building Construction	11/18/2016	12/29/2016	5	30	
21	Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	5	22	
22	Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	5	23	
23	Paving 3	Paving	12/2/2016	1/10/2017	5	28	
24	Architectural Coating 1	Architectural Coating	12/7/2016	1/30/2017	5	39	
25	Misc. Finishes 3	Building Construction	12/8/2016	1/17/2017	5	29	
26	Architectural Coating 3	Architectural Coating	12/8/2016	1/2/2017	5	18	
27	Paving 1	Paving	12/23/2016	4/26/2017	5	89	
28	Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	5	24	
29	Architectural Coating 4	Architectural Coating	1/11/2017	2/7/2017	5	20	
30	Paving 4	Paving	1/12/2017	3/2/2017	5	36	
31	Misc. Finishes 4	Building Construction	1/17/2017	2/28/2017	5	31	
32	Misc. Finishes 1	Building Construction	1/20/2017	4/20/2017	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 51,832; Non-Residential Outdoor: 51,832 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading 1	Crawler Tractors	1	8.00	410	0.43
Grading 1	Excavators	0	8.00	162	0.38
Grading 1	Graders	1	8.00	302	0.41
Grading 1	Off-Highway Tractors	2	8.00	485	0.44
Grading 1	Other Construction Equipment	2	8.00	354	0.44
Grading 1	Other General Industrial Equipment	3	8.00	330	0.37

Grading 1	Rubber Tired Dozers	1	8.00	451	0.40
Grading 1	Rubber Tired Loaders	1	8.00	350	0.36
Grading 1	Scrapers	8	8.00	452	0.48
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Cranes	0	7.00	226	0.29
Grading 2	Crawler Tractors	1	8.00	410	0.43
Grading 2	Excavators	0	8.00	162	0.38
Grading 2	Forklifts	0	8.00	89	0.20
Grading 2	Generator Sets	0	8.00	84	0.74
Grading 2	Graders	1	8.00	302	0.41
Grading 2	Other Construction Equipment	1	8.00	354	0.42
Grading 2	Other General Industrial Equipment	1	8.00	330	0.37
Grading 2	Pavers	0	8.00	125	0.42
Grading 2	Paving Equipment	0	8.00	49	0.36
Grading 2	Rollers	0	8.00	80	0.38
Grading 2	Rubber Tired Dozers	0	8.00	255	0.40
Grading 2	Rubber Tired Loaders	1	8.00	350	0.36
Grading 2	Scrapers	3	8.00	452	0.48
Grading 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 2	Welders	0	8.00	46	0.45
Trenching 1	Excavators	2	8.00	268	0.38
Trenching 1	Other Construction Equipment	2	8.00	354	0.42
Trenching 1	Other Material Handling Equipment	2	8.00	249	0.40
Trenching 1	Rubber Tired Loaders	2	8.00	350	0.36
Trenching 1	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 1	Cranes	0	7.00	226	0.29
Concrete Shell 1	Excavators	0	8.00	268	0.38
Concrete Shell 1	Forklifts	0	8.00	89	0.20

Concrete Shell 1	Generator Sets	0	8.00	84	0.74
Concrete Shell 1	Other Construction Equipment	5	8.00	354	0.42
Concrete Shell 1	Other Material Handling Equipment	0	8.00	249	0.43
Concrete Shell 1	Pavers	0	8.00	125	0.42
Concrete Shell 1	Paving Equipment	0	8.00	49	0.36
Concrete Shell 1	Rollers	0	8.00	80	0.38
Concrete Shell 1	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 1	Surfacing Equipment	0	8.00	350	0.30
Concrete Shell 1	Tractors/Loaders/Backhoes	4	8.00	110	0.37
Concrete Shell 1	Welders	0	8.00	46	0.45
Trenching 2	Excavators	1	8.00	268	0.38
Trenching 2	Other Construction Equipment	1	8.00	354	0.42
Trenching 2	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 2	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 2	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 2	Air Compressors	0	6.00	78	0.48
Concrete Shell 2	Cranes	0	7.00	226	0.29
Concrete Shell 2	Forklifts	0	8.00	89	0.20
Concrete Shell 2	Generator Sets	0	8.00	84	0.74
Concrete Shell 2	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 2	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 2	Welders	0	8.00	46	0.45
Grading 3	Air Compressors	0	6.00	78	0.48
Grading 3	Cranes	0	8.00	215	0.29
Grading 3	Crawler Tractors	1	8.00	410	0.43
Grading 3	Excavators	0	8.00	162	0.38
Grading 3	Forklifts	0	8.00	89	0.20
Grading 3	Generator Sets	0	8.00	84	0.74

Grading 3	Graders	1	8.00	302	0.41
Grading 3	Off-Highway Tractors	0	8.00	485	0.44
Grading 3	Other Construction Equipment	1	8.00	354	0.42
Grading 3	Other General Industrial Equipment	1	8.00	330	0.34
Grading 3	Rubber Tired Dozers	0	8.00	255	0.40
Grading 3	Rubber Tired Loaders	1	8.00	350	0.36
Grading 3	Scrapers	3	8.00	452	0.48
Grading 3	Surfacing Equipment	0	8.00	350	0.30
Grading 3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 3	Welders	0	8.00	46	0.45
Trenching 3	Excavators	1	8.00	268	0.38
Trenching 3	Other Construction Equipment	1	8.00	354	0.42
Trenching 3	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 3	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 3	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Grading 4	Aerial Lifts	0	8.00	48	0.31
Grading 4	Cranes	0	8.00	215	0.29
Grading 4	Crawler Tractors	1	8.00	410	0.43
Grading 4	Excavators	0	8.00	162	0.38
Grading 4	Forklifts	0	8.00	110	0.20
Grading 4	Generator Sets	0	8.00	84	0.74
Grading 4	Graders	1	8.00	302	0.41
Grading 4	Other Construction Equipment	1	8.00	354	0.42
Grading 4	Other General Industrial Equipment	1	8.00	330	0.34
Grading 4	Rubber Tired Dozers	0	8.00	255	0.40
Grading 4	Rubber Tired Loaders	1	8.00	350	0.36
Grading 4	Scrapers	3	8.00	452	0.48
Grading 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37

Grading 4	Welders	0	8.00	46	0.45
Concrete Shell 3	Cranes	0	7.00	226	0.29
Concrete Shell 3	Forklifts	0	8.00	89	0.20
Concrete Shell 3	Generator Sets	0	8.00	84	0.74
Concrete Shell 3	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 3	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 3	Welders	0	8.00	46	0.45
Trenching 4	Excavators	1	8.00	268	0.38
Trenching 4	Other Construction Equipment	1	8.00	354	0.42
Trenching 4	Other Material Handling Equipment	1	8.00	249	0.40
Trenching 4	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 4	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 4	Air Compressors	0	6.00	78	0.48
Concrete Shell 4	Cranes	0	7.00	226	0.29
Concrete Shell 4	Excavators	0	8.00	268	0.38
Concrete Shell 4	Forklifts	0	8.00	89	0.20
Concrete Shell 4	Generator Sets	0	8.00	84	0.74
Concrete Shell 4	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 4	Other Material Handling Equipment	0	8.00	249	0.40
Concrete Shell 4	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 4	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 4	Welders	0	8.00	46	0.45
Steel & Roof 1	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 1	Air Compressors	0	6.00	78	0.48
Steel & Roof 1	Cranes	2	8.00	215	0.29
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Generator Sets	0	8.00	84	0.74

Steel & Roof 1	Other Construction Equipment	3	8.00	354	0.42
Steel & Roof 1	Pavers	0	8.00	125	0.42
Steel & Roof 1	Paving Equipment	0	8.00	130	0.36
Steel & Roof 1	Rollers	0	8.00	80	0.38
Steel & Roof 1	Rubber Tired Loaders	0	8.00	350	0.36
Steel & Roof 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 1	Trenchers	0	8.00	81	0.50
Steel & Roof 1	Welders	0	8.00	46	0.45
Steel & Roof 2	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 2	Air Compressors	0	6.00	78	0.48
Steel & Roof 2	Cranes	1	8.00	215	0.29
Steel & Roof 2	Crawler Tractors	0	8.00	410	0.43
Steel & Roof 2	Excavators	0	8.00	162	0.38
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Generator Sets	0	8.00	84	0.74
Steel & Roof 2	Graders	0	8.00	302	0.41
Steel & Roof 2	Off-Highway Tractors	0	8.00	485	0.44
Steel & Roof 2	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 2	Rubber Tired Dozers	0	8.00	255	0.40
Steel & Roof 2	Scrapers	0	8.00	452	0.48
Steel & Roof 2	Surfacing Equipment	0	8.00	350	0.30
Steel & Roof 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 2	Welders	0	8.00	46	0.45
Steel & Roof 3	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 3	Cranes	1	8.00	215	0.29
Steel & Roof 3	Forklifts	0	8.00	110	0.20
Steel & Roof 3	Generator Sets	0	8.00	84	0.74

Steel & Roof 3	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Steel & Roof 3	Welders	0	8.00	46	0.45
Roofing & Overhead Work 2	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 2	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 2	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 2	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 2	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 2	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 2	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 2	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 2	Other General Industrial Equipment	0	8.00	330	0.34
Roofing & Overhead Work 2	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 2	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 2	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 2	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 2	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 2	Scrapers	0	8.00	330	0.48
Roofing & Overhead Work 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 1	Aerial Lifts	3	8.00	48	0.31
Roofing & Overhead Work 1	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 1	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 1	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 1	Forklifts	2	8.00	110	0.20

Roofing & Overhead Work 1	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 1	Other Construction Equipment	3	8.00	354	0.42
Roofing & Overhead Work 1	Other Material Handling Equipment	0	8.00	249	0.43
Roofing & Overhead Work 1	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 1	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 1	Welders	0	8.00	46	0.45
Paving 2	Aerial Lifts	0	8.00	48	0.31
Paving 2	Cranes	0	7.00	226	0.29
Paving 2	Crawler Tractors	0	8.00	249	0.43
Paving 2	Excavators	0	8.00	268	0.38
Paving 2	Forklifts	0	8.00	110	0.20
Paving 2	Generator Sets	0	8.00	84	0.74
Paving 2	Graders	0	8.00	174	0.41
Paving 2	Other Construction Equipment	1	8.00	354	0.42
Paving 2	Pavers	0	8.00	125	0.42
Paving 2	Paving Equipment	0	8.00	130	0.36
Paving 2	Rollers	0	8.00	80	0.38
Paving 2	Rubber Tired Dozers	0	8.00	255	0.40
Paving 2	Rubber Tired Loaders	1	8.00	350	0.36
Paving 2	Scrapers	0	8.00	361	0.48
Paving 2	Surfacing Equipment	0	8.00	350	0.30
Paving 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Paving 2	Trenchers	1	8.00	81	0.50
Paving 2	Welders	0	8.00	46	0.45
Architectural Coating 2	Air Compressors	0	6.00	78	0.48
Architectural Coating 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 2	Cranes	0	7.00	226	0.29

Misc. Finishes 2	Forklifts	0	8.00	89	0.20
Misc. Finishes 2	Generator Sets	0	8.00	84	0.74
Misc. Finishes 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 3	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 3	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 3	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 3	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 3	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 3	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 3	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 3	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 3	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 3	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 3	Welders	0	8.00	46	0.45
Steel & Roof 4	Cranes	1	8.00	215	0.29
Steel & Roof 4	Forklifts	0	8.00	89	0.20
Steel & Roof 4	Generator Sets	0	8.00	84	0.74
Steel & Roof 4	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 4	Welders	0	8.00	46	0.45
Paving 3	Other Construction Equipment	1	8.00	354	0.42
Paving 3	Pavers	0	8.00	125	0.42
Paving 3	Paving Equipment	0	8.00	130	0.36
Paving 3	Rollers	0	8.00	80	0.38
Paving 3	Rubber Tired Loaders	1	8.00	350	0.36

Paving 3	Trenchers	1	8.00	81	0.50
Architectural Coating 1	Air Compressors	0	6.00	78	0.48
Architectural Coating 1	Other Construction Equipment	4	8.00	354	0.42
Misc. Finishes 3	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 3	Cranes	0	7.00	226	0.29
Misc. Finishes 3	Forklifts	0	8.00	89	0.20
Misc. Finishes 3	Generator Sets	0	8.00	84	0.74
Misc. Finishes 3	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 3	Welders	0	8.00	46	0.45
Architectural Coating 3	Air Compressors	0	6.00	78	0.48
Architectural Coating 3	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	0	8.00	130	0.36
Paving 1	Rollers	0	8.00	80	0.38
Paving 1	Rubber Tired Loaders	2	8.00	350	0.36
Paving 1	Trenchers	1	8.00	81	0.50
Roofing & Overhead Work 4	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 4	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 4	Concrete/Industrial Saws	0	8.00	81	0.73
Roofing & Overhead Work 4	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	410	0.43
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 4	Excavators	0	8.00	162	0.38
Roofing & Overhead Work 4	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 4	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 4	Generator Sets	0	8.00	84	0.74

Roofing & Overhead Work 4	Graders	0	8.00	302	0.41
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	485	0.44
Roofing & Overhead Work 4	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 4	Other General Industrial Equipment	0	8.00	330	0.37
Roofing & Overhead Work 4	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 4	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 4	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 4	Rubber Tired Dozers	0	8.00	451	0.40
Roofing & Overhead Work 4	Rubber Tired Loaders	0	8.00	350	0.37
Roofing & Overhead Work 4	Scrapers	0	8.00	452	0.48
Roofing & Overhead Work 4	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Roofing & Overhead Work 4	Welders	0	8.00	46	0.45
Architectural Coating 4	Air Compressors	0	6.00	78	0.48
Architectural Coating 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Pavers	0	8.00	125	0.42
Paving 4	Paving Equipment	0	8.00	130	0.36
Paving 4	Rollers	0	8.00	80	0.38
Paving 4	Rubber Tired Loaders	1	8.00	350	0.36
Paving 4	Trenchers	1	8.00	81	0.50
Misc. Finishes 4	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 4	Cranes	0	7.00	226	0.29
Misc. Finishes 4	Forklifts	0	8.00	89	0.20
Misc. Finishes 4	Generator Sets	0	8.00	84	0.74

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Misc. Finishes 4	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 4	Welders	0	8.00	46	0.45
Misc. Finishes 1	Aerial Lifts	2	8.00	48	0.31
Misc. Finishes 1	Cranes	0	7.00	226	0.29
Misc. Finishes 1	Forklifts	0	8.00	89	0.20
Misc. Finishes 1	Generator Sets	0	8.00	84	0.74
Misc. Finishes 1	Other Construction Equipment	2	8.00	354	0.42
Misc. Finishes 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 1	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading 1	19	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 1	9	125.00	416.00	5,192.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 2	6	40.00	416.00	687.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 3	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 4	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 3	6	40.00	416.00	539.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 4	6	40.00	416.00	879.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 1	5	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 2	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Steel & Roof 3	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 2	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 1	8	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	3	8.00	0.00	364.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 2	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 3	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 4	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 3	3	8.00	0.00	389.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	4	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 3	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 3	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 1	4	10.00	0.00	2,076.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 4	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 4	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 4	3	8.00	0.00	419.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 4	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 1	4	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Grading 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.5666	0.0000	15.5666	4.3408	0.0000	4.3408			0.0000			0.0000
Off-Road	22.7740	284.8071	173.9787	0.2600		11.4365	11.4365		10.5216	10.5216		27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**22.7740**	**284.8071**	**173.9787**	**0.2600**	**15.5666**	**11.4365**	**27.0031**	**4.3408**	**10.5216**	**14.8624**		**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1839	0.2172	2.7221	6.4400e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		532.5992	532.5992	0.0230		533.0816
Total	**0.1839**	**0.2172**	**2.7221**	**6.4400e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**532.5992**	**532.5992**	**0.0230**		**533.0816**

3.2 Grading 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.5666	0.0000	15.5666	4.3408	0.0000	4.3408			0.0000			0.0000
Off-Road	5.9025	61.8452	133.4419	0.2600		2.4855	2.4855		2.3942	2.3942	0.0000	27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**5.9025**	**61.8452**	**133.4419**	**0.2600**	**15.5666**	**2.4855**	**18.0521**	**4.3408**	**2.3942**	**6.7350**	**0.0000**	**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1839	0.2172	2.7221	6.4400e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		532.5992	532.5992	0.0230		533.0816
Total	**0.1839**	**0.2172**	**2.7221**	**6.4400e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**532.5992**	**532.5992**	**0.0230**		**533.0816**

3.3 Grading 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5729	120.5012	69.6816	0.1160		4.7379	4.7379		4.3589	4.3589		12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**9.5729**	**120.5012**	**69.6816**	**0.1160**	**4.2420**	**4.7379**	**8.9799**	**0.4580**	**4.3589**	**4.8169**		**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.3 Grading 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	1.8754	21.5998	55.2898	0.1160		0.7890	0.7890		0.7890	0.7890	0.0000	12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**1.8754**	**21.5998**	**55.2898**	**0.1160**	**4.2420**	**0.7890**	**5.0310**	**0.4580**	**0.7890**	**1.2470**	**0.0000**	**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.4 Trenching 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.2895	77.7646	37.2357	0.0888		3.1203	3.1203		2.8707	2.8707		9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**6.2895**	**77.7646**	**37.2357**	**0.0888**		**3.1203**	**3.1203**		**2.8707**	**2.8707**		**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0958	0.1131	1.4178	3.3500e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		277.3954	277.3954	0.0120		277.6467
Total	**0.0958**	**0.1131**	**1.4178**	**3.3500e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**277.3954**	**277.3954**	**0.0120**		**277.6467**

3.4 Trenching 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6622	24.8561	45.4748	0.0888		1.0530	1.0530		1.0530	1.0530	0.0000	9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**1.6622**	**24.8561**	**45.4748**	**0.0888**		**1.0530**	**1.0530**		**1.0530**	**1.0530**	**0.0000**	**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0958	0.1131	1.4178	3.3500e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		277.3954	277.3954	0.0120		277.6467
Total	**0.0958**	**0.1131**	**1.4178**	**3.3500e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**277.3954**	**277.3954**	**0.0120**		**277.6467**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.5772	68.3870	40.9017	0.0785		3.1121	3.1121		2.8631	2.8631		8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**5.5772**	**68.3870**	**40.9017**	**0.0785**		**3.1121**	**3.1121**		**2.8631**	**2.8631**		**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9482	16.7780	10.7110	0.0451	1.1045	0.3071	1.4116	0.3025	0.2825	0.5850		4,546.9774	4,546.9774	0.0287		4,547.5807
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**4.6624**	**52.2524**	**54.3548**	**0.1494**	**5.1190**	**0.9934**	**6.1124**	**1.4207**	**0.9136**	**2.3342**		**14,723.2099**	**14,723.2099**	**0.1457**		**14,726.2703**

3.5 Concrete Shell 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1312	11.2763	39.4687	0.0785		0.6562	0.6562		0.6562	0.6562	0.0000	8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**1.1312**	**11.2763**	**39.4687**	**0.0785**		**0.6562**	**0.6562**		**0.6562**	**0.6562**	**0.0000**	**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9482	16.7780	10.7110	0.0451	1.1045	0.3071	1.4116	0.3025	0.2825	0.5850		4,546.9774	4,546.9774	0.0287		4,547.5807
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**4.6624**	**52.2524**	**54.3548**	**0.1494**	**5.1190**	**0.9934**	**6.1124**	**1.4207**	**0.9136**	**2.3342**		**14,723.2099**	**14,723.2099**	**0.1457**		**14,726.2703**

3.6 Trenching 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.6 Trenching 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2058	3.6409	2.3243	9.7800e-003	0.2397	0.0666	0.3063	0.0657	0.0613	0.1269		986.7081	986.7081	6.2300e-003		986.8390
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.5942**	**38.7307**	**41.1478**	**0.1027**	**3.3041**	**0.7470**	**4.0511**	**0.9318**	**0.6870**	**1.6188**		**10,219.7962**	**10,219.7962**	**0.0826**		**10,221.5300**

3.7 Concrete Shell 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2058	3.6409	2.3243	9.7800e-003	0.2397	0.0666	0.3063	0.0657	0.0613	0.1269		986.7081	986.7081	6.2300e-003		986.8390
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.5942**	**38.7307**	**41.1478**	**0.1027**	**3.3041**	**0.7470**	**4.0511**	**0.9318**	**0.6870**	**1.6188**		**10,219.7962**	**10,219.7962**	**0.0826**		**10,221.5300**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.8 Grading 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.8 Grading 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**4.2420**	**0.7736**	**5.0156**	**0.4580**	**0.7736**	**1.2317**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.9 Trenching 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.9 Trenching 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.10 Grading 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.10 Grading 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**4.2420**	**0.7736**	**5.0156**	**0.4580**	**0.7736**	**1.2317**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.11 Concrete Shell 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1717	3.0389	1.9400	8.1700e-003	0.2001	0.0556	0.2557	0.0548	0.0512	0.1060		823.5555	823.5555	5.2000e-003		823.6648
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.5602**	**38.1287**	**40.7634**	**0.1011**	**3.2644**	**0.7360**	**4.0004**	**0.9210**	**0.6768**	**1.5978**		**10,056.6436**	**10,056.6436**	**0.0815**		**10,058.3557**

3.11 Concrete Shell 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1717	3.0389	1.9400	8.1700e-003	0.2001	0.0556	0.2557	0.0548	0.0512	0.1060		823.5555	823.5555	5.2000e-003		823.6648
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.5602**	**38.1287**	**40.7634**	**0.1011**	**3.2644**	**0.7360**	**4.0004**	**0.9210**	**0.6768**	**1.5978**		**10,056.6436**	**10,056.6436**	**0.0815**		**10,058.3557**

3.12 Trenching 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1448	38.8823	18.6179	0.0444		1.5602	1.5602		1.4353	1.4353		4,609.5529	4,609.5529	1.3904		4,638.7514
Total	**3.1448**	**38.8823**	**18.6179**	**0.0444**		**1.5602**	**1.5602**		**1.4353**	**1.4353**		**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.12 Trenching 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8311	12.4281	22.7374	0.0444		0.5265	0.5265		0.5265	0.5265	0.0000	4,609.5529	4,609.5529	1.3904		4,638.7513
Total	**0.8311**	**12.4281**	**22.7374**	**0.0444**		**0.5265**	**0.5265**		**0.5265**	**0.5265**	**0.0000**	**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7513**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.13 Concrete Shell 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2633	4.6584	2.9739	0.0125	0.3067	0.0853	0.3919	0.0840	0.0784	0.1624		1,262.4693	1,262.4693	7.9800e-003		1,262.6368
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.6517**	**39.7483**	**41.7974**	**0.1054**	**3.3711**	**0.7656**	**4.1367**	**0.9502**	**0.7041**	**1.6542**		**10,495.5574**	**10,495.5574**	**0.0843**		**10,497.3278**

3.13 Concrete Shell 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2633	4.6584	2.9739	0.0125	0.3067	0.0853	0.3919	0.0840	0.0784	0.1624		1,262.4693	1,262.4693	7.9800e-003		1,262.6368
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.6517**	**39.7483**	**41.7974**	**0.1054**	**3.3711**	**0.7656**	**4.1367**	**0.9502**	**0.7041**	**1.6542**		**10,495.5574**	**10,495.5574**	**0.0843**		**10,497.3278**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7894	48.4056	23.6538	0.0493		1.9217	1.9217		1.7680	1.7680		5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**3.7894**	**48.4056**	**23.6538**	**0.0493**		**1.9217**	**1.9217**		**1.7680**	**1.7680**		**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.14 Steel & Roof 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8420	18.2779	22.9861	0.0493		0.7995	0.7995		0.7406	0.7406	0.0000	5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**1.8420**	**18.2779**	**22.9861**	**0.0493**		**0.7995**	**0.7995**		**0.7406**	**0.7406**	**0.0000**	**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.15 Steel & Roof 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.16 Steel & Roof 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.17 Roofing & Overhead Work 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1597	39.8954	23.6141	0.0467		1.6713	1.6713		1.5376	1.5376		4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**3.1597**	**39.8954**	**23.6141**	**0.0467**		**1.6713**	**1.6713**		**1.5376**	**1.5376**		**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.18 Roofing & Overhead Work 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	9.7677	22.9463	0.0467		0.5491	0.5491		0.5102	0.5102	0.0000	4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**1.2123**	**9.7677**	**22.9463**	**0.0467**		**0.5491**	**0.5491**		**0.5102**	**0.5102**	**0.0000**	**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9659	36.9597	22.2694	0.0466		1.5220	1.5220		1.4002	1.4002		4,764.8981	4,764.8981	1.4600		4,795.5572
Total	**2.9659**	**36.9597**	**22.2694**	**0.0466**		**1.5220**	**1.5220**		**1.4002**	**1.4002**		**4,764.8981**	**4,764.8981**	**1.4600**		**4,795.5572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

3.18 Roofing & Overhead Work 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1581	9.2917	22.8897	0.0466		0.4976	0.4976		0.4628	0.4628	0.0000	4,764.8981	4,764.8981	1.4600		4,795.5572
Total	**1.1581**	**9.2917**	**22.8897**	**0.0466**		**0.4976**	**0.4976**		**0.4628**	**0.4628**	**0.0000**	**4,764.8981**	**4,764.8981**	**1.4600**		**4,795.5572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

3.19 Paving 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1947	3.4448	2.1991	9.2600e-003	0.2268	0.0631	0.2898	0.0621	0.0580	0.1201		933.5666	933.5666	5.9000e-003		933.6905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.2253**	**3.4810**	**2.6528**	**0.0103**	**0.3162**	**0.0636**	**0.3798**	**0.0858**	**0.0585**	**0.1443**		**1,022.3332**	**1,022.3332**	**9.7300e-003**		**1,022.5374**

3.19 Paving 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1947	3.4448	2.1991	9.2600e-003	0.2268	0.0631	0.2898	0.0621	0.0580	0.1201		933.5666	933.5666	5.9000e-003		933.6905
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.2253**	**3.4810**	**2.6528**	**0.0103**	**0.3162**	**0.0636**	**0.3798**	**0.0858**	**0.0585**	**0.1443**		**1,022.3332**	**1,022.3332**	**9.7300e-003**		**1,022.5374**

3.20 Architectural Coating 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	66.7337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**67.5402**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.20 Architectural Coating 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	66.7337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**66.8910**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.21 Misc. Finishes 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.22 Roofing & Overhead Work 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.23 Steel & Roof 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.23 Steel & Roof 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.24 Paving 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2081	3.6814	2.3502	9.8900e-003	0.3036	0.0674	0.3710	0.0814	0.0620	0.1434		997.6852	997.6852	6.3000e-003		997.8176
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.2387**	**3.7176**	**2.8039**	**0.0110**	**0.3930**	**0.0679**	**0.4609**	**0.1051**	**0.0625**	**0.1676**		**1,086.4518**	**1,086.4518**	**0.0101**		**1,086.6645**

3.24 Paving 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2081	3.6814	2.3502	9.8900e-003	0.3036	0.0674	0.3710	0.0814	0.0620	0.1434		997.6852	997.6852	6.3000e-003		997.8176
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.2387**	**3.7176**	**2.8039**	**0.0110**	**0.3930**	**0.0679**	**0.4609**	**0.1051**	**0.0625**	**0.1676**		**1,086.4518**	**1,086.4518**	**0.0101**		**1,086.6645**

3.24 Paving 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.8069**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1933	3.3684	2.2391	9.8800e-003	0.7934	0.0620	0.8554	0.2016	0.0570	0.2586		980.7766	980.7766	6.1500e-003		980.9059
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.2207**	**3.4009**	**2.6466**	**0.0110**	**0.8828**	**0.0625**	**0.9453**	**0.2254**	**0.0575**	**0.2829**		**1,066.0291**	**1,066.0291**	**9.6600e-003**		**1,066.2321**

3.24 Paving 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1933	3.3684	2.2391	9.8800e-003	0.7934	0.0620	0.8554	0.2016	0.0570	0.2586		980.7766	980.7766	6.1500e-003		980.9059
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.2207**	**3.4009**	**2.6466**	**0.0110**	**0.8828**	**0.0625**	**0.9453**	**0.2254**	**0.0575**	**0.2829**		**1,066.0291**	**1,066.0291**	**9.6600e-003**		**1,066.2321**

3.25 Architectural Coating 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.2259	42.8974	23.9663	0.0515		1.5802	1.5802		1.4538	1.4538		5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**147.6673**	**42.8974**	**23.9663**	**0.0515**		**1.5802**	**1.5802**		**1.4538**	**1.4538**		**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.25 Architectural Coating 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0515		0.0839	0.0839		0.0839	0.0839	0.0000	5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**145.0708**	**2.7272**	**23.0759**	**0.0515**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.25 Architectural Coating 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.0399	39.6179	22.2488	0.0514		1.4498	1.4498		1.3338	1.3338		5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**147.4813**	**39.6179**	**22.2488**	**0.0514**		**1.4498**	**1.4498**		**1.3338**	**1.3338**		**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.25 Architectural Coating 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0514		0.0839	0.0839		0.0839	0.0839	0.0000	5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**145.0708**	**2.7272**	**23.0759**	**0.0514**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.26 Misc. Finishes 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.26 Misc. Finishes 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.27 Architectural Coating 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**57.1295**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.27 Architectural Coating 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**56.4803**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.27 Architectural Coating 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**57.0829**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.27 Architectural Coating 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**56.4803**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.28 Paving 1 - 2016

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	3.1077	36.2213	18.4186	0.0378		1.5543	1.5543		1.4299	1.4299		3,924.9846	3,924.9846	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6370**	**36.2213**	**18.4186**	**0.0378**		**1.5543**	**1.5543**		**1.4299**	**1.4299**		**3,924.9846**	**3,924.9846**	**1.1839**		**3,949.8468**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.3493	6.1810	3.9459	0.0166	4.6730	0.1131	4.7861	1.1586	0.1041	1.2626		1,675.0945	1,675.0945	0.0106		1,675.3167
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0383	0.0453	0.5671	1.3400e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		110.9582	110.9582	4.7900e-003		111.0587
Total	**0.3876**	**6.2262**	**4.5130**	**0.0180**	**4.7848**	**0.1138**	**4.8986**	**1.1882**	**0.1047**	**1.2929**		**1,786.0527**	**1,786.0527**	**0.0154**		**1,786.3754**

3.28 Paving 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,924.9845	3,924.9845	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,924.9845**	**3,924.9845**	**1.1839**		**3,949.8468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3493	6.1810	3.9459	0.0166	4.6730	0.1131	4.7861	1.1586	0.1041	1.2626		1,675.0945	1,675.0945	0.0106		1,675.3167
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0383	0.0453	0.5671	1.3400e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		110.9582	110.9582	4.7900e-003		111.0587
Total	**0.3876**	**6.2262**	**4.5130**	**0.0180**	**4.7848**	**0.1138**	**4.8986**	**1.1882**	**0.1047**	**1.2929**		**1,786.0527**	**1,786.0527**	**0.0154**		**1,786.3754**

3.28 Paving 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9451	33.5783	17.5545	0.0378		1.4486	1.4486		1.3327	1.3327		3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4744**	**33.5783**	**17.5545**	**0.0378**		**1.4486**	**1.4486**		**1.3327**	**1.3327**		**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3245	5.6555	3.7595	0.0166	0.4292	0.1040	0.5333	0.1169	0.0957	0.2126		1,646.7053	1,646.7053	0.0103		1,646.9223
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0406	0.5093	1.3400e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		106.5656	106.5656	4.3900e-003		106.6578
Total	**0.3588**	**5.6961**	**4.2688**	**0.0179**	**0.5410**	**0.1047**	**0.6457**	**0.1466**	**0.0963**	**0.2429**		**1,753.2709**	**1,753.2709**	**0.0147**		**1,753.5801**

3.28 Paving 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3245	5.6555	3.7595	0.0166	0.4292	0.1040	0.5333	0.1169	0.0957	0.2126		1,646.7053	1,646.7053	0.0103		1,646.9223
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0406	0.5093	1.3400e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		106.5656	106.5656	4.3900e-003		106.6578
Total	**0.3588**	**5.6961**	**4.2688**	**0.0179**	**0.5410**	**0.1047**	**0.6457**	**0.1466**	**0.0963**	**0.2429**		**1,753.2709**	**1,753.2709**	**0.0147**		**1,753.5801**

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.29 Roofing & Overhead Work 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8355	22.9768	13.4999	0.0290		0.9319	0.9319		0.8573	0.8573		2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**1.8355**	**22.9768**	**13.4999**	**0.0290**		**0.9319**	**0.9319**		**0.8573**	**0.8573**		**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.29 Roofing & Overhead Work 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6303	4.5315	13.9135	0.0290		0.2489	0.2489		0.2324	0.2324	0.0000	2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**0.6303**	**4.5315**	**13.9135**	**0.0290**		**0.2489**	**0.2489**		**0.2324**	**0.2324**	**0.0000**	**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.30 Architectural Coating 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.3674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**71.1274**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.30 Architectural Coating 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.3674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**70.5248**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.31 Paving 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4330**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1619	2.8219	1.8759	8.2700e-003	0.2030	0.0519	0.2550	0.0556	0.0478	0.1034		821.6560	821.6560	5.1600e-003		821.7643
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.1894**	**2.8544**	**2.2833**	**9.3400e-003**	**0.2925**	**0.0525**	**0.3449**	**0.0793**	**0.0483**	**0.1276**		**906.9085**	**906.9085**	**8.6700e-003**		**907.0906**

3.31 Paving 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8183**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1619	2.8219	1.8759	8.2700e-003	0.2030	0.0519	0.2550	0.0556	0.0478	0.1034		821.6560	821.6560	5.1600e-003		821.7643
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.1894**	**2.8544**	**2.2833**	**9.3400e-003**	**0.2925**	**0.0525**	**0.3449**	**0.0793**	**0.0483**	**0.1276**		**906.9085**	**906.9085**	**8.6700e-003**		**907.0906**

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.32 Misc. Finishes 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6297	21.6300	12.7878	0.0286		0.7663	0.7663		0.7050	0.7050		2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**1.6297**	**21.6300**	**12.7878**	**0.0286**		**0.7663**	**0.7663**		**0.7050**	**0.7050**		**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

3.33 Misc. Finishes 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4244	3.1847	13.2014	0.0286		0.0834	0.0834		0.0801	0.0801	0.0000	2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**0.4244**	**3.1847**	**13.2014**	**0.0286**		**0.0834**	**0.0834**		**0.0801**	**0.0801**	**0.0000**	**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Unmitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

MoVal Logistics Center- Construction

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	385.75	1000sqft	16.70	385,748.00	0
Unrefrigerated Warehouse-No Rail	1,351.77	1000sqft	50.14	1,351,770.00	0
Parking Lot	1,998.00	Space	17.98	799,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage:84.82; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking=3.27 parking spaces.

Construction Phase - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications
Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Trips and VMT - Based on client specifications

Grading -

Architectural Coating - Based on client specifications

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - Based on client specifications

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	51,832.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	51,832.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	61.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	17.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	1,550.00	47.00
tblConstructionPhase	NumDays	1,550.00	50.00
tblConstructionPhase	NumDays	1,550.00	47.00
tblConstructionPhase	NumDays	1,550.00	22.00
tblConstructionPhase	NumDays	1,550.00	20.00
tblConstructionPhase	NumDays	1,550.00	23.00
tblConstructionPhase	NumDays	1,550.00	48.00

tblConstructionPhase	NumDays	1,550.00	30.00
tblConstructionPhase	NumDays	1,550.00	22.00
tblConstructionPhase	NumDays	1,550.00	23.00
tblConstructionPhase	NumDays	1,550.00	29.00
tblConstructionPhase	NumDays	1,550.00	24.00
tblConstructionPhase	NumDays	1,550.00	31.00
tblConstructionPhase	NumDays	1,550.00	65.00
tblConstructionPhase	NumDays	1,550.00	82.00
tblConstructionPhase	NumDays	1,550.00	50.00
tblConstructionPhase	NumDays	155.00	45.00
tblConstructionPhase	NumDays	155.00	14.00
tblConstructionPhase	NumDays	155.00	12.00
tblConstructionPhase	NumDays	155.00	18.00
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tblConstructionPhase	NumDays	110.00	28.00
tblConstructionPhase	NumDays	110.00	89.00
tblConstructionPhase	NumDays	110.00	36.00
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tblConstructionPhase	PhaseEndDate	3/6/2017	1/30/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	1/2/2017
tblConstructionPhase	PhaseEndDate	2/24/2017	2/7/2017
tblConstructionPhase	PhaseEndDate	11/18/2016	10/25/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	11/23/2016
tblConstructionPhase	PhaseEndDate	1/27/2017	12/5/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	10/31/2016
tblConstructionPhase	PhaseEndDate	11/28/2016	11/22/2016
tblConstructionPhase	PhaseEndDate	12/23/2016	11/29/2016
tblConstructionPhase	PhaseEndDate	2/3/2017	1/5/2017

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tblConstructionPhase	PhaseEndDate	1/18/2017	12/29/2016
tblConstructionPhase	PhaseEndDate	1/30/2017	12/22/2016
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tblConstructionPhase	PhaseEndDate	10/24/2016	9/14/2016
tblConstructionPhase	PhaseEndDate	2/14/2017	12/15/2016
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tblConstructionPhase	PhaseEndDate	12/5/2016	11/15/2016
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tblConstructionPhase	PhaseStartDate	12/8/2016	11/18/2016
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tblConstructionPhase	PhaseStartDate	12/27/2016	12/2/2016
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tblConstructionPhase	PhaseStartDate	2/8/2017	1/12/2017
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tblConstructionPhase	PhaseStartDate	8/20/2016	8/15/2016
tblEnergyUse	LightingElect	3.36	0.00
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tblEnergyUse	LightingElect	1.75	0.00
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tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00

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tblLandscapeEquipment	NumberSummerDays	250	1
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

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tblProjectCharacteristics	OperationalYear	2014	2017
tblRoadDust	RoadPercentPave	100	0
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tblSolidWaste	SolidWasteGenerationRate	1,270.66	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	539.00
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tblTripsAndVMT	HaulingTripNumber	0.00	389.00
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tblTripsAndVMT	HaulingTripNumber	0.00	687.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
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tblVehicleEF	LDA	0.46	0.00
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tblVehicleEF	LHD1	0.05	0.00
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tblVehicleEF	MCY	6.4540e-003	0.00
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tblVehicleEF	MDV	0.17	0.00
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tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00

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tblVehicleTrips	ST_TR	1.32	0.00
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tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
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tblWater	IndoorWaterUseRate	89,204,687.50	0.00
tblWater	IndoorWaterUseRate	312,596,812.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	248.0490	578.6604	439.0475	0.9590	23.2902	20.9103	38.3235	6.5022	19.2366	23.1785	0.0000	96,816.4476	96,816.4476	15.6858	0.0000	97,145.8484
2017	241.7437	287.4535	253.3370	0.5849	16.3290	9.2377	25.5667	4.4853	8.4983	12.9836	0.0000	57,026.9360	57,026.9360	7.3328	0.0000	57,180.9242
Total	**489.7927**	**866.1139**	**692.3845**	**1.5439**	**39.6191**	**30.1480**	**63.8902**	**10.9875**	**27.7349**	**36.1621**	**0.0000**	**153,843.3837**	**153,843.3837**	**23.0185**	**0.0000**	**154,326.7726**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	236.1528	295.9420	446.7597	0.9590	23.2902	8.0600	30.3974	6.5022	7.6585	13.1163	0.0000	96,816.4476	96,816.4476	15.6858	0.0000	97,145.8484
2017	231.9339	149.0440	259.2390	0.5849	16.3290	3.8435	20.1725	4.4853	3.6264	8.1117	0.0000	57,026.9360	57,026.9360	7.3328	0.0000	57,180.9242
Total	**468.0867**	**444.9860**	**705.9987**	**1.5439**	**39.6191**	**11.9036**	**50.5700**	**10.9875**	**11.2849**	**21.2280**	**0.0000**	**153,843.3836**	**153,843.3836**	**23.0185**	**0.0000**	**154,326.7726**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**4.43**	**48.62**	**-1.97**	**0.00**	**0.00**	**60.52**	**20.85**	**0.00**	**59.31**	**41.30**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading 1	Grading	4/29/2016	6/30/2016	5	45	
2	Grading 2	Grading	7/1/2016	7/20/2016	5	14	
3	Trenching 1	Trenching	7/1/2016	11/15/2016	5	98	
4	Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	5	82	
5	Trenching 2	Trenching	7/15/2016	8/31/2016	5	34	
6	Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	5	50	
7	Grading 3	Grading	8/4/2016	8/19/2016	5	12	
8	Trenching 3	Trenching	8/15/2016	9/28/2016	5	33	
9	Grading 4	Grading	8/22/2016	9/14/2016	5	18	
10	Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	5	47	
11	Trenching 4	Trenching	9/8/2016	10/26/2016	5	35	
12	Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	5	50	
13	Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	5	47	
14	Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	5	22	
15	Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	5	20	
16	Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	5	23	
17	Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	5	48	
18	Paving 2	Paving	11/8/2016	12/15/2016	5	28	
19	Architectural Coating 2	Architectural Coating	11/14/2016	12/7/2016	5	18	

20	Misc. Finishes 2	Building Construction	11/18/2016	12/29/2016	5	30	
21	Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	5	22	
22	Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	5	23	
23	Paving 3	Paving	12/2/2016	1/10/2017	5	28	
24	Architectural Coating 1	Architectural Coating	12/7/2016	1/30/2017	5	39	
25	Misc. Finishes 3	Building Construction	12/8/2016	1/17/2017	5	29	
26	Architectural Coating 3	Architectural Coating	12/8/2016	1/2/2017	5	18	
27	Paving 1	Paving	12/23/2016	4/26/2017	5	89	
28	Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	5	24	
29	Architectural Coating 4	Architectural Coating	1/11/2017	2/7/2017	5	20	
30	Paving 4	Paving	1/12/2017	3/2/2017	5	36	
31	Misc. Finishes 4	Building Construction	1/17/2017	2/28/2017	5	31	
32	Misc. Finishes 1	Building Construction	1/20/2017	4/20/2017	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 51,832; Non-Residential Outdoor: 51,832 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading 1	Crawler Tractors	1	8.00	410	0.43
Grading 1	Excavators	0	8.00	162	0.38
Grading 1	Graders	1	8.00	302	0.41
Grading 1	Off-Highway Tractors	2	8.00	485	0.44
Grading 1	Other Construction Equipment	2	8.00	354	0.44
Grading 1	Other General Industrial Equipment	3	8.00	330	0.37

Grading 1	Rubber Tired Dozers	1	8.00	451	0.40
Grading 1	Rubber Tired Loaders	1	8.00	350	0.36
Grading 1	Scrapers	8	8.00	452	0.48
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Cranes	0	7.00	226	0.29
Grading 2	Crawler Tractors	1	8.00	410	0.43
Grading 2	Excavators	0	8.00	162	0.38
Grading 2	Forklifts	0	8.00	89	0.20
Grading 2	Generator Sets	0	8.00	84	0.74
Grading 2	Graders	1	8.00	302	0.41
Grading 2	Other Construction Equipment	1	8.00	354	0.42
Grading 2	Other General Industrial Equipment	1	8.00	330	0.37
Grading 2	Pavers	0	8.00	125	0.42
Grading 2	Paving Equipment	0	8.00	49	0.36
Grading 2	Rollers	0	8.00	80	0.38
Grading 2	Rubber Tired Dozers	0	8.00	255	0.40
Grading 2	Rubber Tired Loaders	1	8.00	350	0.36
Grading 2	Scrapers	3	8.00	452	0.48
Grading 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 2	Welders	0	8.00	46	0.45
Trenching 1	Excavators	2	8.00	268	0.38
Trenching 1	Other Construction Equipment	2	8.00	354	0.42
Trenching 1	Other Material Handling Equipment	2	8.00	249	0.40
Trenching 1	Rubber Tired Loaders	2	8.00	350	0.36
Trenching 1	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 1	Cranes	0	7.00	226	0.29
Concrete Shell 1	Excavators	0	8.00	268	0.38
Concrete Shell 1	Forklifts	0	8.00	89	0.20

Concrete Shell 1	Generator Sets	0	8.00	84	0.74
Concrete Shell 1	Other Construction Equipment	5	8.00	354	0.42
Concrete Shell 1	Other Material Handling Equipment	0	8.00	249	0.43
Concrete Shell 1	Pavers	0	8.00	125	0.42
Concrete Shell 1	Paving Equipment	0	8.00	49	0.36
Concrete Shell 1	Rollers	0	8.00	80	0.38
Concrete Shell 1	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 1	Surfacing Equipment	0	8.00	350	0.30
Concrete Shell 1	Tractors/Loaders/Backhoes	4	8.00	110	0.37
Concrete Shell 1	Welders	0	8.00	46	0.45
Trenching 2	Excavators	1	8.00	268	0.38
Trenching 2	Other Construction Equipment	1	8.00	354	0.42
Trenching 2	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 2	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 2	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 2	Air Compressors	0	6.00	78	0.48
Concrete Shell 2	Cranes	0	7.00	226	0.29
Concrete Shell 2	Forklifts	0	8.00	89	0.20
Concrete Shell 2	Generator Sets	0	8.00	84	0.74
Concrete Shell 2	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 2	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 2	Welders	0	8.00	46	0.45
Grading 3	Air Compressors	0	6.00	78	0.48
Grading 3	Cranes	0	8.00	215	0.29
Grading 3	Crawler Tractors	1	8.00	410	0.43
Grading 3	Excavators	0	8.00	162	0.38
Grading 3	Forklifts	0	8.00	89	0.20
Grading 3	Generator Sets	0	8.00	84	0.74

Grading 3	Graders	1	8.00	302	0.41
Grading 3	Off-Highway Tractors	0	8.00	485	0.44
Grading 3	Other Construction Equipment	1	8.00	354	0.42
Grading 3	Other General Industrial Equipment	1	8.00	330	0.34
Grading 3	Rubber Tired Dozers	0	8.00	255	0.40
Grading 3	Rubber Tired Loaders	1	8.00	350	0.36
Grading 3	Scrapers	3	8.00	452	0.48
Grading 3	Surfacing Equipment	0	8.00	350	0.30
Grading 3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 3	Welders	0	8.00	46	0.45
Trenching 3	Excavators	1	8.00	268	0.38
Trenching 3	Other Construction Equipment	1	8.00	354	0.42
Trenching 3	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 3	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 3	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Grading 4	Aerial Lifts	0	8.00	48	0.31
Grading 4	Cranes	0	8.00	215	0.29
Grading 4	Crawler Tractors	1	8.00	410	0.43
Grading 4	Excavators	0	8.00	162	0.38
Grading 4	Forklifts	0	8.00	110	0.20
Grading 4	Generator Sets	0	8.00	84	0.74
Grading 4	Graders	1	8.00	302	0.41
Grading 4	Other Construction Equipment	1	8.00	354	0.42
Grading 4	Other General Industrial Equipment	1	8.00	330	0.34
Grading 4	Rubber Tired Dozers	0	8.00	255	0.40
Grading 4	Rubber Tired Loaders	1	8.00	350	0.36
Grading 4	Scrapers	3	8.00	452	0.48
Grading 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Grading 4	Welders	0	8.00	46	0.45
Concrete Shell 3	Cranes	0	7.00	226	0.29
Concrete Shell 3	Forklifts	0	8.00	89	0.20
Concrete Shell 3	Generator Sets	0	8.00	84	0.74
Concrete Shell 3	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 3	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 3	Welders	0	8.00	46	0.45
Trenching 4	Excavators	1	8.00	268	0.38
Trenching 4	Other Construction Equipment	1	8.00	354	0.42
Trenching 4	Other Material Handling Equipment	1	8.00	249	0.40
Trenching 4	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 4	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 4	Air Compressors	0	6.00	78	0.48
Concrete Shell 4	Cranes	0	7.00	226	0.29
Concrete Shell 4	Excavators	0	8.00	268	0.38
Concrete Shell 4	Forklifts	0	8.00	89	0.20
Concrete Shell 4	Generator Sets	0	8.00	84	0.74
Concrete Shell 4	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 4	Other Material Handling Equipment	0	8.00	249	0.40
Concrete Shell 4	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 4	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 4	Welders	0	8.00	46	0.45
Steel & Roof 1	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 1	Air Compressors	0	6.00	78	0.48
Steel & Roof 1	Cranes	2	8.00	215	0.29
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Generator Sets	0	8.00	84	0.74

Steel & Roof 1	Other Construction Equipment	3	8.00	354	0.42
Steel & Roof 1	Pavers	0	8.00	125	0.42
Steel & Roof 1	Paving Equipment	0	8.00	130	0.36
Steel & Roof 1	Rollers	0	8.00	80	0.38
Steel & Roof 1	Rubber Tired Loaders	0	8.00	350	0.36
Steel & Roof 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 1	Trenchers	0	8.00	81	0.50
Steel & Roof 1	Welders	0	8.00	46	0.45
Steel & Roof 2	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 2	Air Compressors	0	6.00	78	0.48
Steel & Roof 2	Cranes	1	8.00	215	0.29
Steel & Roof 2	Crawler Tractors	0	8.00	410	0.43
Steel & Roof 2	Excavators	0	8.00	162	0.38
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Generator Sets	0	8.00	84	0.74
Steel & Roof 2	Graders	0	8.00	302	0.41
Steel & Roof 2	Off-Highway Tractors	0	8.00	485	0.44
Steel & Roof 2	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 2	Rubber Tired Dozers	0	8.00	255	0.40
Steel & Roof 2	Scrapers	0	8.00	452	0.48
Steel & Roof 2	Surfacing Equipment	0	8.00	350	0.30
Steel & Roof 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 2	Welders	0	8.00	46	0.45
Steel & Roof 3	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 3	Cranes	1	8.00	215	0.29
Steel & Roof 3	Forklifts	0	8.00	110	0.20
Steel & Roof 3	Generator Sets	0	8.00	84	0.74

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Steel & Roof 3	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Steel & Roof 3	Welders	0	8.00	46	0.45
Roofing & Overhead Work 2	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 2	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 2	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 2	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 2	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 2	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 2	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 2	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 2	Other General Industrial Equipment	0	8.00	330	0.34
Roofing & Overhead Work 2	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 2	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 2	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 2	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 2	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 2	Scrapers	0	8.00	330	0.48
Roofing & Overhead Work 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 1	Aerial Lifts	3	8.00	48	0.31
Roofing & Overhead Work 1	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 1	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 1	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 1	Forklifts	2	8.00	110	0.20

Roofing & Overhead Work 1	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 1	Other Construction Equipment	3	8.00	354	0.42
Roofing & Overhead Work 1	Other Material Handling Equipment	0	8.00	249	0.43
Roofing & Overhead Work 1	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 1	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 1	Welders	0	8.00	46	0.45
Paving 2	Aerial Lifts	0	8.00	48	0.31
Paving 2	Cranes	0	7.00	226	0.29
Paving 2	Crawler Tractors	0	8.00	249	0.43
Paving 2	Excavators	0	8.00	268	0.38
Paving 2	Forklifts	0	8.00	110	0.20
Paving 2	Generator Sets	0	8.00	84	0.74
Paving 2	Graders	0	8.00	174	0.41
Paving 2	Other Construction Equipment	1	8.00	354	0.42
Paving 2	Pavers	0	8.00	125	0.42
Paving 2	Paving Equipment	0	8.00	130	0.36
Paving 2	Rollers	0	8.00	80	0.38
Paving 2	Rubber Tired Dozers	0	8.00	255	0.40
Paving 2	Rubber Tired Loaders	1	8.00	350	0.36
Paving 2	Scrapers	0	8.00	361	0.48
Paving 2	Surfacing Equipment	0	8.00	350	0.30
Paving 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Paving 2	Trenchers	1	8.00	81	0.50
Paving 2	Welders	0	8.00	46	0.45
Architectural Coating 2	Air Compressors	0	6.00	78	0.48
Architectural Coating 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 2	Cranes	0	7.00	226	0.29

Misc. Finishes 2	Forklifts	0	8.00	89	0.20
Misc. Finishes 2	Generator Sets	0	8.00	84	0.74
Misc. Finishes 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 3	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 3	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 3	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 3	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 3	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 3	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 3	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 3	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 3	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 3	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 3	Welders	0	8.00	46	0.45
Steel & Roof 4	Cranes	1	8.00	215	0.29
Steel & Roof 4	Forklifts	0	8.00	89	0.20
Steel & Roof 4	Generator Sets	0	8.00	84	0.74
Steel & Roof 4	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 4	Welders	0	8.00	46	0.45
Paving 3	Other Construction Equipment	1	8.00	354	0.42
Paving 3	Pavers	0	8.00	125	0.42
Paving 3	Paving Equipment	0	8.00	130	0.36
Paving 3	Rollers	0	8.00	80	0.38
Paving 3	Rubber Tired Loaders	1	8.00	350	0.36

Paving 3	Trenchers	1	8.00	81	0.50
Architectural Coating 1	Air Compressors	0	6.00	78	0.48
Architectural Coating 1	Other Construction Equipment	4	8.00	354	0.42
Misc. Finishes 3	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 3	Cranes	0	7.00	226	0.29
Misc. Finishes 3	Forklifts	0	8.00	89	0.20
Misc. Finishes 3	Generator Sets	0	8.00	84	0.74
Misc. Finishes 3	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 3	Welders	0	8.00	46	0.45
Architectural Coating 3	Air Compressors	0	6.00	78	0.48
Architectural Coating 3	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	0	8.00	130	0.36
Paving 1	Rollers	0	8.00	80	0.38
Paving 1	Rubber Tired Loaders	2	8.00	350	0.36
Paving 1	Trenchers	1	8.00	81	0.50
Roofing & Overhead Work 4	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 4	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 4	Concrete/Industrial Saws	0	8.00	81	0.73
Roofing & Overhead Work 4	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	410	0.43
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 4	Excavators	0	8.00	162	0.38
Roofing & Overhead Work 4	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 4	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 4	Generator Sets	0	8.00	84	0.74

Roofing & Overhead Work 4	Graders	0	8.00	302	0.41
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	485	0.44
Roofing & Overhead Work 4	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 4	Other General Industrial Equipment	0	8.00	330	0.37
Roofing & Overhead Work 4	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 4	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 4	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 4	Rubber Tired Dozers	0	8.00	451	0.40
Roofing & Overhead Work 4	Rubber Tired Loaders	0	8.00	350	0.37
Roofing & Overhead Work 4	Scrapers	0	8.00	452	0.48
Roofing & Overhead Work 4	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Roofing & Overhead Work 4	Welders	0	8.00	46	0.45
Architectural Coating 4	Air Compressors	0	6.00	78	0.48
Architectural Coating 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Pavers	0	8.00	125	0.42
Paving 4	Paving Equipment	0	8.00	130	0.36
Paving 4	Rollers	0	8.00	80	0.38
Paving 4	Rubber Tired Loaders	1	8.00	350	0.36
Paving 4	Trenchers	1	8.00	81	0.50
Misc. Finishes 4	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 4	Cranes	0	7.00	226	0.29
Misc. Finishes 4	Forklifts	0	8.00	89	0.20
Misc. Finishes 4	Generator Sets	0	8.00	84	0.74

Misc. Finishes 4	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 4	Welders	0	8.00	46	0.45
Misc. Finishes 1	Aerial Lifts	2	8.00	48	0.31
Misc. Finishes 1	Cranes	0	7.00	226	0.29
Misc. Finishes 1	Forklifts	0	8.00	89	0.20
Misc. Finishes 1	Generator Sets	0	8.00	84	0.74
Misc. Finishes 1	Other Construction Equipment	2	8.00	354	0.42
Misc. Finishes 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 1	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading 1	19	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 1	9	125.00	416.00	5,192.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 2	6	40.00	416.00	687.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 3	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 4	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 3	6	40.00	416.00	539.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 4	6	40.00	416.00	879.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 1	5	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 2	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Steel & Roof 3	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 2	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 1	8	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	3	8.00	0.00	364.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 2	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 3	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 4	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 3	3	8.00	0.00	389.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	4	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 3	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 3	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 1	4	10.00	0.00	2,076.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 4	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 4	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 4	3	8.00	0.00	419.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 4	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 1	4	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Clean Paved Roads

3.2 Grading 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.5666	0.0000	15.5666	4.3408	0.0000	4.3408			0.0000			0.0000
Off-Road	22.7740	284.8071	173.9787	0.2600		11.4365	11.4365		10.5216	10.5216		27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**22.7740**	**284.8071**	**173.9787**	**0.2600**	**15.5666**	**11.4365**	**27.0031**	**4.3408**	**10.5216**	**14.8624**		**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1755	0.2314	2.3455	5.8800e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		486.7137	486.7137	0.0230		487.1961
Total	**0.1755**	**0.2314**	**2.3455**	**5.8800e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**486.7137**	**486.7137**	**0.0230**		**487.1961**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.2 Grading 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.5666	0.0000	15.5666	4.3408	0.0000	4.3408			0.0000			0.0000
Off-Road	5.9025	61.8452	133.4419	0.2600		2.4855	2.4855		2.3942	2.3942	0.0000	27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**5.9025**	**61.8452**	**133.4419**	**0.2600**	**15.5666**	**2.4855**	**18.0521**	**4.3408**	**2.3942**	**6.7350**	**0.0000**	**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1755	0.2314	2.3455	5.8800e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		486.7137	486.7137	0.0230		487.1961
Total	**0.1755**	**0.2314**	**2.3455**	**5.8800e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**486.7137**	**486.7137**	**0.0230**		**487.1961**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.3 Grading 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5729	120.5012	69.6816	0.1160		4.7379	4.7379		4.3589	4.3589		12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**9.5729**	**120.5012**	**69.6816**	**0.1160**	**4.2420**	**4.7379**	**8.9799**	**0.4580**	**4.3589**	**4.8169**		**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.3 Grading 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	1.8754	21.5998	55.2898	0.1160		0.7890	0.7890		0.7890	0.7890	0.0000	12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**1.8754**	**21.5998**	**55.2898**	**0.1160**	**4.2420**	**0.7890**	**5.0310**	**0.4580**	**0.7890**	**1.2470**	**0.0000**	**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.4 Trenching 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.2895	77.7646	37.2357	0.0888		3.1203	3.1203		2.8707	2.8707		9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**6.2895**	**77.7646**	**37.2357**	**0.0888**		**3.1203**	**3.1203**		**2.8707**	**2.8707**		**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0914	0.1205	1.2216	3.0600e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		253.4967	253.4967	0.0120		253.7480
Total	**0.0914**	**0.1205**	**1.2216**	**3.0600e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**253.4967**	**253.4967**	**0.0120**		**253.7480**

3.4 Trenching 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6622	24.8561	45.4748	0.0888		1.0530	1.0530		1.0530	1.0530	0.0000	9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**1.6622**	**24.8561**	**45.4748**	**0.0888**		**1.0530**	**1.0530**		**1.0530**	**1.0530**	**0.0000**	**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0914	0.1205	1.2216	3.0600e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		253.4967	253.4967	0.0120		253.7480
Total	**0.0914**	**0.1205**	**1.2216**	**3.0600e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**253.4967**	**253.4967**	**0.0120**		**253.7480**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.5772	68.3870	40.9017	0.0785		3.1121	3.1121		2.8631	2.8631		8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**5.5772**	**68.3870**	**40.9017**	**0.0785**		**3.1121**	**3.1121**		**2.8631**	**2.8631**		**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9868	17.4173	11.7817	0.0450	1.1045	0.3077	1.4122	0.3025	0.2830	0.5856		4,535.7892	4,535.7892	0.0292		4,536.4019
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**4.8918**	**53.8053**	**59.4530**	**0.1471**	**5.1190**	**1.0001**	**6.1191**	**1.4207**	**0.9197**	**2.3404**		**14,516.4625**	**14,516.4625**	**0.1481**		**14,519.5729**

3.5 Concrete Shell 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1312	11.2763	39.4687	0.0785		0.6562	0.6562		0.6562	0.6562	0.0000	8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**1.1312**	**11.2763**	**39.4687**	**0.0785**		**0.6562**	**0.6562**		**0.6562**	**0.6562**	**0.0000**	**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9868	17.4173	11.7817	0.0450	1.1045	0.3077	1.4122	0.3025	0.2830	0.5856		4,535.7892	4,535.7892	0.0292		4,536.4019
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**4.8918**	**53.8053**	**59.4530**	**0.1471**	**5.1190**	**1.0001**	**6.1191**	**1.4207**	**0.9197**	**2.3404**		**14,516.4625**	**14,516.4625**	**0.1481**		**14,519.5729**

3.6 Trenching 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.6 Trenching 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2141	3.7796	2.5567	9.7600e-003	0.2397	0.0668	0.3065	0.0657	0.0614	0.1271		984.2802	984.2802	6.3300e-003		984.4132
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.8085**	**39.7579**	**46.0744**	**0.1015**	**3.3041**	**0.7532**	**4.0573**	**0.9318**	**0.6927**	**1.6245**		**10,103.0646**	**10,103.0646**	**0.0846**		**10,104.8410**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.7 Concrete Shell 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2141	3.7796	2.5567	9.7600e-003	0.2397	0.0668	0.3065	0.0657	0.0614	0.1271		984.2802	984.2802	6.3300e-003		984.4132
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.8085**	**39.7579**	**46.0744**	**0.1015**	**3.3041**	**0.7532**	**4.0573**	**0.9318**	**0.6927**	**1.6245**		**10,103.0646**	**10,103.0646**	**0.0846**		**10,104.8410**

3.8 Grading 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.8 Grading 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**4.2420**	**0.7736**	**5.0156**	**0.4580**	**0.7736**	**1.2317**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.9 Trenching 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.9 Trenching 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.10 Grading 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.10 Grading 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**4.2420**	**0.7736**	**5.0156**	**0.4580**	**0.7736**	**1.2317**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.11 Concrete Shell 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1787	3.1546	2.1339	8.1500e-003	0.2001	0.0557	0.2558	0.0548	0.0513	0.1061		821.5291	821.5291	5.2800e-003		821.6400
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.7730**	**39.1330**	**45.6517**	**0.0999**	**3.2644**	**0.7422**	**4.0066**	**0.9210**	**0.6825**	**1.6035**		**9,940.3135**	**9,940.3135**	**0.0835**		**9,942.0679**

3.11 Concrete Shell 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1787	3.1546	2.1339	8.1500e-003	0.2001	0.0557	0.2558	0.0548	0.0513	0.1061		821.5291	821.5291	5.2800e-003		821.6400
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.7730**	**39.1330**	**45.6517**	**0.0999**	**3.2644**	**0.7422**	**4.0066**	**0.9210**	**0.6825**	**1.6035**		**9,940.3135**	**9,940.3135**	**0.0835**		**9,942.0679**

3.12 Trenching 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1448	38.8823	18.6179	0.0444		1.5602	1.5602		1.4353	1.4353		4,609.5529	4,609.5529	1.3904		4,638.7514
Total	**3.1448**	**38.8823**	**18.6179**	**0.0444**		**1.5602**	**1.5602**		**1.4353**	**1.4353**		**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.12 Trenching 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8311	12.4281	22.7374	0.0444		0.5265	0.5265		0.5265	0.5265	0.0000	4,609.5529	4,609.5529	1.3904		4,638.7513
Total	**0.8311**	**12.4281**	**22.7374**	**0.0444**		**0.5265**	**0.5265**		**0.5265**	**0.5265**	**0.0000**	**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7513**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.13 Concrete Shell 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2740	4.8359	3.2712	0.0125	0.3067	0.0854	0.3921	0.0840	0.0786	0.1626		1,259.3629	1,259.3629	8.1000e-003		1,259.5330
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.8683**	**40.8143**	**46.7889**	**0.1042**	**3.3711**	**0.7719**	**4.1429**	**0.9502**	**0.7098**	**1.6600**		**10,378.1473**	**10,378.1473**	**0.0864**		**10,379.9609**

3.13 Concrete Shell 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2740	4.8359	3.2712	0.0125	0.3067	0.0854	0.3921	0.0840	0.0786	0.1626		1,259.3629	1,259.3629	8.1000e-003		1,259.5330
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.8683**	**40.8143**	**46.7889**	**0.1042**	**3.3711**	**0.7719**	**4.1429**	**0.9502**	**0.7098**	**1.6600**		**10,378.1473**	**10,378.1473**	**0.0864**		**10,379.9609**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7894	48.4056	23.6538	0.0493		1.9217	1.9217		1.7680	1.7680		5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**3.7894**	**48.4056**	**23.6538**	**0.0493**		**1.9217**	**1.9217**		**1.7680**	**1.7680**		**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.14 Steel & Roof 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8420	18.2779	22.9861	0.0493		0.7995	0.7995		0.7406	0.7406	0.0000	5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**1.8420**	**18.2779**	**22.9861**	**0.0493**		**0.7995**	**0.7995**		**0.7406**	**0.7406**	**0.0000**	**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.15 Steel & Roof 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.16 Steel & Roof 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.17 Roofing & Overhead Work 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1597	39.8954	23.6141	0.0467		1.6713	1.6713		1.5376	1.5376		4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**3.1597**	**39.8954**	**23.6141**	**0.0467**		**1.6713**	**1.6713**		**1.5376**	**1.5376**		**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.18 Roofing & Overhead Work 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	9.7677	22.9463	0.0467		0.5491	0.5491		0.5102	0.5102	0.0000	4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**1.2123**	**9.7677**	**22.9463**	**0.0467**		**0.5491**	**0.5491**		**0.5102**	**0.5102**	**0.0000**	**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9659	36.9597	22.2694	0.0466		1.5220	1.5220		1.4002	1.4002		4,764.8981	4,764.8981	1.4600		4,795.5572
Total	**2.9659**	**36.9597**	**22.2694**	**0.0466**		**1.5220**	**1.5220**		**1.4002**	**1.4002**		**4,764.8981**	**4,764.8981**	**1.4600**		**4,795.5572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.1639	1,217.1639	0.0549		1,218.3162
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.9941**	**9,782.9941**	**0.1119**		**9,785.3448**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.18 Roofing & Overhead Work 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1581	9.2917	22.8897	0.0466		0.4976	0.4976		0.4628	0.4628	0.0000	4,764.898 1	4,764.898 1	1.4600		4,795.557 2
Total	**1.1581**	**9.2917**	**22.8897**	**0.0466**		**0.4976**	**0.4976**		**0.4628**	**0.4628**	**0.0000**	**4,764.898 1**	**4,764.898 1**	**1.4600**		**4,795.557 2**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.830 2	8,565.830 2	0.0571		8,567.028 6
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.163 9	1,217.163 9	0.0549		1,218.316 2
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.994 1**	**9,782.994 1**	**0.1119**		**9,785.344 8**

3.19 Paving 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2026	3.5760	2.4190	9.2400e-003	0.2268	0.0632	0.2900	0.0621	0.0581	0.1202		931.2695	931.2695	5.9900e-003		931.3953
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.2318**	**3.6146**	**2.8099**	**0.0102**	**0.3162**	**0.0637**	**0.3799**	**0.0858**	**0.0586**	**0.1445**		**1,012.3885**	**1,012.3885**	**9.8200e-003**		**1,012.5947**

3.19 Paving 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2026	3.5760	2.4190	9.2400e-003	0.2268	0.0632	0.2900	0.0621	0.0581	0.1202		931.2695	931.2695	5.9900e-003		931.3953
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.2318**	**3.6146**	**2.8099**	**0.0102**	**0.3162**	**0.0637**	**0.3799**	**0.0858**	**0.0586**	**0.1445**		**1,012.3885**	**1,012.3885**	**9.8200e-003**		**1,012.5947**

3.20 Architectural Coating 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	66.7337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**67.5402**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.20 Architectural Coating 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	66.7337					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**66.8910**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.21 Misc. Finishes 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.22 Roofing & Overhead Work 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.23 Steel & Roof 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.23 Steel & Roof 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.24 Paving 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2165	3.8217	2.5851	9.8700e-003	0.3036	0.0675	0.3711	0.0814	0.0621	0.1435		995.2303	995.2303	6.4000e-003		995.3648
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.2458**	**3.8602**	**2.9760**	**0.0109**	**0.3930**	**0.0681**	**0.4611**	**0.1051**	**0.0626**	**0.1677**		**1,076.3493**	**1,076.3493**	**0.0102**		**1,076.5641**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.24 Paving 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2165	3.8217	2.5851	9.8700e-003	0.3036	0.0675	0.3711	0.0814	0.0621	0.1435		995.2303	995.2303	6.4000e-003		995.3648
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.2458**	**3.8602**	**2.9760**	**0.0109**	**0.3930**	**0.0681**	**0.4611**	**0.1051**	**0.0626**	**0.1677**		**1,076.3493**	**1,076.3493**	**0.0102**		**1,076.5641**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.24 Paving 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.8069**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2007	3.4963	2.4852	9.8500e-003	0.7934	0.0621	0.8555	0.2016	0.0571	0.2588		978.3600	978.3600	6.2500e-003		978.4913
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.2268**	**3.5309**	**2.8352**	**0.0108**	**0.8828**	**0.0626**	**0.9455**	**0.2254**	**0.0576**	**0.2830**		**1,056.2585**	**1,056.2585**	**9.7600e-003**		**1,056.4636**

3.24 Paving 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2007	3.4963	2.4852	9.8500e-003	0.7934	0.0621	0.8555	0.2016	0.0571	0.2588		978.3600	978.3600	6.2500e-003		978.4913
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.2268**	**3.5309**	**2.8352**	**0.0108**	**0.8828**	**0.0626**	**0.9455**	**0.2254**	**0.0576**	**0.2830**		**1,056.2585**	**1,056.2585**	**9.7600e-003**		**1,056.4636**

3.25 Architectural Coating 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.2259	42.8974	23.9663	0.0515		1.5802	1.5802		1.4538	1.4538		5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**147.6673**	**42.8974**	**23.9663**	**0.0515**		**1.5802**	**1.5802**		**1.4538**	**1.4538**		**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.25 Architectural Coating 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0515		0.0839	0.0839		0.0839	0.0839	0.0000	5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**145.0708**	**2.7272**	**23.0759**	**0.0515**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.25 Architectural Coating 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.0399	39.6179	22.2488	0.0514		1.4498	1.4498		1.3338	1.3338		5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**147.4813**	**39.6179**	**22.2488**	**0.0514**		**1.4498**	**1.4498**		**1.3338**	**1.3338**		**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.25 Architectural Coating 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	144.4415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0514		0.0839	0.0839		0.0839	0.0839	0.0000	5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**145.0708**	**2.7272**	**23.0759**	**0.0514**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.26 Misc. Finishes 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.26 Misc. Finishes 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.27 Architectural Coating 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**57.1295**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.27 Architectural Coating 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**56.4803**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.27 Architectural Coating 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**57.0829**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.27 Architectural Coating 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	56.3230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**56.4803**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.28 Paving 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1077	36.2213	18.4186	0.0378		1.5543	1.5543		1.4299	1.4299		3,924.9846	3,924.9846	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6370**	**36.2213**	**18.4186**	**0.0378**		**1.5543**	**1.5543**		**1.4299**	**1.4299**		**3,924.9846**	**3,924.9846**	**1.1839**		**3,949.8468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3635	6.4165	4.3404	0.0166	4.6730	0.1134	4.7864	1.1586	0.1043	1.2629		1,670.9728	1,670.9728	0.0108		1,671.1985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0366	0.0482	0.4887	1.2200e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		101.3987	101.3987	4.7900e-003		101.4992
Total	**0.4001**	**6.4647**	**4.8290**	**0.0178**	**4.7848**	**0.1141**	**4.8989**	**1.1882**	**0.1049**	**1.2932**		**1,772.3715**	**1,772.3715**	**0.0155**		**1,772.6977**

3.28 Paving 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,924.9845	3,924.9845	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,924.9845**	**3,924.9845**	**1.1839**		**3,949.8468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3635	6.4165	4.3404	0.0166	4.6730	0.1134	4.7864	1.1586	0.1043	1.2629		1,670.9728	1,670.9728	0.0108		1,671.1985
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0366	0.0482	0.4887	1.2200e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		101.3987	101.3987	4.7900e-003		101.4992
Total	**0.4001**	**6.4647**	**4.8290**	**0.0178**	**4.7848**	**0.1141**	**4.8989**	**1.1882**	**0.1049**	**1.2932**		**1,772.3715**	**1,772.3715**	**0.0155**		**1,772.6977**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.28 Paving 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9451	33.5783	17.5545	0.0378		1.4486	1.4486		1.3327	1.3327		3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4744**	**33.5783**	**17.5545**	**0.0378**		**1.4486**	**1.4486**		**1.3327**	**1.3327**		**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3370	5.8702	4.1726	0.0166	0.4292	0.1042	0.5335	0.1169	0.0959	0.2128		1,642.6478	1,642.6478	0.0105		1,642.8683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0327	0.0432	0.4376	1.2200e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		97.3731	97.3731	4.3900e-003		97.4653
Total	**0.3696**	**5.9134**	**4.6101**	**0.0178**	**0.5410**	**0.1049**	**0.6459**	**0.1466**	**0.0965**	**0.2431**		**1,740.0209**	**1,740.0209**	**0.0149**		**1,740.3336**

3.28 Paving 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3370	5.8702	4.1726	0.0166	0.4292	0.1042	0.5335	0.1169	0.0959	0.2128		1,642.6478	1,642.6478	0.0105		1,642.8683
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0327	0.0432	0.4376	1.2200e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		97.3731	97.3731	4.3900e-003		97.4653
Total	**0.3696**	**5.9134**	**4.6101**	**0.0178**	**0.5410**	**0.1049**	**0.6459**	**0.1466**	**0.0965**	**0.2431**		**1,740.0209**	**1,740.0209**	**0.0149**		**1,740.3336**

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.29 Roofing & Overhead Work 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8355	22.9768	13.4999	0.0290		0.9319	0.9319		0.8573	0.8573		2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**1.8355**	**22.9768**	**13.4999**	**0.0290**		**0.9319**	**0.9319**		**0.8573**	**0.8573**		**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.29 Roofing & Overhead Work 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6303	4.5315	13.9135	0.0290		0.2489	0.2489		0.2324	0.2324	0.0000	2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**0.6303**	**4.5315**	**13.9135**	**0.0290**		**0.2489**	**0.2489**		**0.2324**	**0.2324**	**0.0000**	**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.30 Architectural Coating 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.3674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**71.1274**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.30 Architectural Coating 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	70.3674					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**70.5248**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.31 Paving 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4330**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1682	2.9291	2.0820	8.2600e-003	0.2030	0.0520	0.2551	0.0556	0.0479	0.1035		819.6315	819.6315	5.2400e-003		819.7415
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.1943**	**2.9636**	**2.4320**	**9.2400e-003**	**0.2925**	**0.0526**	**0.3450**	**0.0793**	**0.0484**	**0.1277**		**897.5300**	**897.5300**	**8.7500e-003**		**897.7138**

3.31 Paving 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8183**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1682	2.9291	2.0820	8.2600e-003	0.2030	0.0520	0.2551	0.0556	0.0479	0.1035		819.6315	819.6315	5.2400e-003		819.7415
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.1943**	**2.9636**	**2.4320**	**9.2400e-003**	**0.2925**	**0.0526**	**0.3450**	**0.0793**	**0.0484**	**0.1277**		**897.5300**	**897.5300**	**8.7500e-003**		**897.7138**

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.32 Misc. Finishes 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6297	21.6300	12.7878	0.0286		0.7663	0.7663		0.7050	0.7050		2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**1.6297**	**21.6300**	**12.7878**	**0.0286**		**0.7663**	**0.7663**		**0.7050**	**0.7050**		**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.1639	1,217.1639	0.0549		1,218.3162
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.9941**	**9,782.9941**	**0.1119**		**9,785.3448**

3.33 Misc. Finishes 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4244	3.1847	13.2014	0.0286		0.0834	0.0834		0.0801	0.0801	0.0000	2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**0.4244**	**3.1847**	**13.2014**	**0.0286**		**0.0834**	**0.0834**		**0.0801**	**0.0801**	**0.0000**	**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.1639	1,217.1639	0.0549		1,218.3162
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.9941**	**9,782.9941**	**0.1119**		**9,785.3448**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Unmitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

MoVal Logistics Center- Construction

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	385.75	1000sqft	16.70	385,748.00	0
Unrefrigerated Warehouse-No Rail	1,351.77	1000sqft	50.14	1,351,770.00	0
Parking Lot	1,998.00	Space	17.98	799,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage:84.82; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking=3.27 parking spaces.

Construction Phase - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications
Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Trips and VMT - Based on client specifications

Grading -

Architectural Coating - Based on client specifications; Use 50g/L Low VOC Paint

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - Based on client specifications

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	51,832.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	51,832.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	61.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	15.00
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tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDays	110.00	39.00
tblConstructionPhase	NumDays	110.00	18.00

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tblConstructionPhase	NumDays	110.00	28.00
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tblConstructionPhase	NumDays	110.00	36.00
tblConstructionPhase	PhaseEndDate	1/10/2017	12/7/2016
tblConstructionPhase	PhaseEndDate	3/6/2017	1/30/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	1/2/2017

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblConstructionPhase	PhaseEndDate	2/24/2017	2/7/2017
tblConstructionPhase	PhaseEndDate	11/18/2016	10/25/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	11/23/2016
tblConstructionPhase	PhaseEndDate	1/27/2017	12/5/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	10/31/2016
tblConstructionPhase	PhaseEndDate	11/28/2016	11/22/2016
tblConstructionPhase	PhaseEndDate	12/23/2016	11/29/2016
tblConstructionPhase	PhaseEndDate	2/3/2017	1/5/2017
tblConstructionPhase	PhaseEndDate	1/18/2017	12/29/2016
tblConstructionPhase	PhaseEndDate	1/30/2017	12/22/2016
tblConstructionPhase	PhaseEndDate	1/24/2017	12/26/2016
tblConstructionPhase	PhaseEndDate	3/10/2017	1/17/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	1/27/2017
tblConstructionPhase	PhaseEndDate	4/14/2017	2/28/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	4/20/2017
tblConstructionPhase	PhaseEndDate	3/9/2017	10/24/2016
tblConstructionPhase	PhaseEndDate	11/9/2016	9/29/2016
tblConstructionPhase	PhaseEndDate	10/17/2016	8/19/2016
tblConstructionPhase	PhaseEndDate	10/24/2016	9/14/2016
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tblConstructionPhase	PhaseEndDate	2/2/2017	1/10/2017
tblConstructionPhase	PhaseEndDate	5/5/2017	4/26/2017
tblConstructionPhase	PhaseEndDate	3/29/2017	3/2/2017
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tblConstructionPhase	PhaseEndDate	12/5/2016	11/15/2016
tblConstructionPhase	PhaseEndDate	12/9/2016	8/31/2016
tblConstructionPhase	PhaseEndDate	10/5/2016	9/28/2016
tblConstructionPhase	PhaseStartDate	12/16/2016	11/14/2016

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblConstructionPhase	PhaseStartDate	1/11/2017	12/7/2016
tblConstructionPhase	PhaseStartDate	1/18/2017	12/8/2016
tblConstructionPhase	PhaseStartDate	1/28/2017	1/11/2017
tblConstructionPhase	PhaseStartDate	9/15/2016	8/22/2016
tblConstructionPhase	PhaseStartDate	10/27/2016	9/15/2016
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tblConstructionPhase	PhaseStartDate	11/23/2016	10/28/2016
tblConstructionPhase	PhaseStartDate	11/30/2016	11/1/2016
tblConstructionPhase	PhaseStartDate	12/8/2016	11/18/2016
tblConstructionPhase	PhaseStartDate	12/30/2016	11/23/2016
tblConstructionPhase	PhaseStartDate	12/23/2016	11/24/2016
tblConstructionPhase	PhaseStartDate	1/31/2017	12/8/2016
tblConstructionPhase	PhaseStartDate	4/27/2017	12/27/2016
tblConstructionPhase	PhaseStartDate	3/3/2017	1/17/2017
tblConstructionPhase	PhaseStartDate	3/1/2017	1/20/2017
tblConstructionPhase	PhaseStartDate	11/16/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	9/1/2016	7/22/2016
tblConstructionPhase	PhaseStartDate	9/30/2016	8/4/2016
tblConstructionPhase	PhaseStartDate	9/29/2016	8/22/2016
tblConstructionPhase	PhaseStartDate	1/6/2017	11/8/2016
tblConstructionPhase	PhaseStartDate	12/27/2016	12/2/2016
tblConstructionPhase	PhaseStartDate	1/3/2017	12/23/2016
tblConstructionPhase	PhaseStartDate	2/8/2017	1/12/2017
tblConstructionPhase	PhaseStartDate	10/26/2016	9/8/2016
tblConstructionPhase	PhaseStartDate	7/21/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	10/25/2016	7/15/2016

tblConstructionPhase	PhaseStartDate	8/20/2016	8/15/2016
tblEnergyUse	LightingElect	3.36	0.00
tblEnergyUse	LightingElect	0.88	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	385,750.00	385,748.00
tblLandUse	LotAcreage	8.86	16.70
tblLandUse	LotAcreage	31.03	50.14
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
tblOffRoadEquipment	HorsePower	226.00	215.00
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tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	174.00	302.00

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblOffRoadEquipment	HorsePower	174.00	302.00
tblOffRoadEquipment	HorsePower	174.00	302.00
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tblOffRoadEquipment	HorsePower	255.00	451.00
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tblOffRoadEquipment	HorsePower	162.00	268.00
tblOffRoadEquipment	HorsePower	89.00	110.00

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblOffRoadEquipment	HorsePower	89.00	110.00
tblOffRoadEquipment	HorsePower	174.00	302.00
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tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	478.33	0.00
tblSolidWaste	SolidWasteGenerationRate	1,270.66	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,078.00
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tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	89,204,687.50	0.00

tblWater	IndoorWaterUseRate	312,596,812.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	80.9373	598.5127	431.2709	1.0331	28.1237	21.3206	40.3515	7.5128	19.6139	23.9788	0.0000	104,236.1265	104,236.1265	15.7195	0.0000	104,566.2359
2017	69.9069	293.6501	247.9141	0.6211	17.5516	9.3880	26.9396	4.8039	8.6365	13.4404	0.0000	60,482.5370	60,482.5370	7.3431	0.0000	60,636.7423
Total	**150.8443**	**892.1628**	**679.1850**	**1.6542**	**45.6753**	**30.7085**	**67.2910**	**12.3167**	**28.2504**	**37.4192**	**0.0000**	**164,718.6635**	**164,718.6635**	**23.0626**	**0.0000**	**165,202.9782**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	68.3919	314.9808	438.9831	1.0331	28.1237	8.4767	33.3071	7.5128	8.0418	13.8719	0.0000	104,236.1264	104,236.1264	15.7195	0.0000	104,566.2359
2017	60.0972	155.2407	253.8161	0.6211	17.5516	3.9938	21.5454	4.8039	3.7646	8.5684	0.0000	60,482.5370	60,482.5370	7.3431	0.0000	60,636.7423
Total	**128.4891**	**470.2214**	**692.7992**	**1.6542**	**45.6753**	**12.4705**	**54.8525**	**12.3167**	**11.8064**	**22.4403**	**0.0000**	**164,718.6634**	**164,718.6634**	**23.0626**	**0.0000**	**165,202.9781**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	14.82	47.29	-2.00	0.00	0.00	59.39	18.48	0.00	58.21	40.03	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading 1	Grading	4/29/2016	6/30/2016	5	45	
2	Grading 2	Grading	7/1/2016	7/20/2016	5	14	
3	Trenching 1	Trenching	7/1/2016	11/15/2016	5	98	
4	Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	5	82	
5	Trenching 2	Trenching	7/15/2016	8/31/2016	5	34	
6	Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	5	50	
7	Grading 3	Grading	8/4/2016	8/19/2016	5	12	
8	Trenching 3	Trenching	8/15/2016	9/28/2016	5	33	
9	Grading 4	Grading	8/22/2016	9/14/2016	5	18	
10	Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	5	47	
11	Trenching 4	Trenching	9/8/2016	10/26/2016	5	35	
12	Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	5	50	
13	Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	5	47	
14	Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	5	22	
15	Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	5	20	
16	Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	5	23	
17	Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	5	48	
18	Paving 2	Paving	11/8/2016	12/15/2016	5	28	
19	Architectural Coating 2	Architectural Coating	11/14/2016	12/7/2016	5	18	

20	Misc. Finishes 2	Building Construction	11/18/2016	12/29/2016	5	30	
21	Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	5	22	
22	Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	5	23	
23	Paving 3	Paving	12/2/2016	1/10/2017	5	28	
24	Architectural Coating 1	Architectural Coating	12/7/2016	1/30/2017	5	39	
25	Misc. Finishes 3	Building Construction	12/8/2016	1/17/2017	5	29	
26	Architectural Coating 3	Architectural Coating	12/8/2016	1/2/2017	5	18	
27	Paving 1	Paving	12/23/2016	4/26/2017	5	89	
28	Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	5	24	
29	Architectural Coating 4	Architectural Coating	1/11/2017	2/7/2017	5	20	
30	Paving 4	Paving	1/12/2017	3/2/2017	5	36	
31	Misc. Finishes 4	Building Construction	1/17/2017	2/28/2017	5	31	
32	Misc. Finishes 1	Building Construction	1/20/2017	4/20/2017	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 51,832; Non-Residential Outdoor: 51,832 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading 1	Crawler Tractors	1	8.00	410	0.43
Grading 1	Excavators	0	8.00	162	0.38
Grading 1	Graders	1	8.00	302	0.41
Grading 1	Off-Highway Tractors	2	8.00	485	0.44
Grading 1	Other Construction Equipment	2	8.00	354	0.44
Grading 1	Other General Industrial Equipment	3	8.00	330	0.37

Grading 1	Rubber Tired Dozers	1	8.00	451	0.40
Grading 1	Rubber Tired Loaders	1	8.00	350	0.36
Grading 1	Scrapers	8	8.00	452	0.48
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Cranes	0	7.00	226	0.29
Grading 2	Crawler Tractors	1	8.00	410	0.43
Grading 2	Excavators	0	8.00	162	0.38
Grading 2	Forklifts	0	8.00	89	0.20
Grading 2	Generator Sets	0	8.00	84	0.74
Grading 2	Graders	1	8.00	302	0.41
Grading 2	Other Construction Equipment	1	8.00	354	0.42
Grading 2	Other General Industrial Equipment	1	8.00	330	0.37
Grading 2	Pavers	0	8.00	125	0.42
Grading 2	Paving Equipment	0	8.00	49	0.36
Grading 2	Rollers	0	8.00	80	0.38
Grading 2	Rubber Tired Dozers	0	8.00	255	0.40
Grading 2	Rubber Tired Loaders	1	8.00	350	0.36
Grading 2	Scrapers	3	8.00	452	0.48
Grading 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 2	Welders	0	8.00	46	0.45
Trenching 1	Excavators	2	8.00	268	0.38
Trenching 1	Other Construction Equipment	2	8.00	354	0.42
Trenching 1	Other Material Handling Equipment	2	8.00	249	0.40
Trenching 1	Rubber Tired Loaders	2	8.00	350	0.36
Trenching 1	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 1	Cranes	0	7.00	226	0.29
Concrete Shell 1	Excavators	0	8.00	268	0.38
Concrete Shell 1	Forklifts	0	8.00	89	0.20

Concrete Shell 1	Generator Sets	0	8.00	84	0.74
Concrete Shell 1	Other Construction Equipment	5	8.00	354	0.42
Concrete Shell 1	Other Material Handling Equipment	0	8.00	249	0.43
Concrete Shell 1	Pavers	0	8.00	125	0.42
Concrete Shell 1	Paving Equipment	0	8.00	49	0.36
Concrete Shell 1	Rollers	0	8.00	80	0.38
Concrete Shell 1	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 1	Surfacing Equipment	0	8.00	350	0.30
Concrete Shell 1	Tractors/Loaders/Backhoes	4	8.00	110	0.37
Concrete Shell 1	Welders	0	8.00	46	0.45
Trenching 2	Excavators	1	8.00	268	0.38
Trenching 2	Other Construction Equipment	1	8.00	354	0.42
Trenching 2	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 2	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 2	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 2	Air Compressors	0	6.00	78	0.48
Concrete Shell 2	Cranes	0	7.00	226	0.29
Concrete Shell 2	Forklifts	0	8.00	89	0.20
Concrete Shell 2	Generator Sets	0	8.00	84	0.74
Concrete Shell 2	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 2	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 2	Welders	0	8.00	46	0.45
Grading 3	Air Compressors	0	6.00	78	0.48
Grading 3	Cranes	0	8.00	215	0.29
Grading 3	Crawler Tractors	1	8.00	410	0.43
Grading 3	Excavators	0	8.00	162	0.38
Grading 3	Forklifts	0	8.00	89	0.20
Grading 3	Generator Sets	0	8.00	84	0.74

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Grading 3	Graders	1	8.00	302	0.41
Grading 3	Off-Highway Tractors	0	8.00	485	0.44
Grading 3	Other Construction Equipment	1	8.00	354	0.42
Grading 3	Other General Industrial Equipment	1	8.00	330	0.34
Grading 3	Rubber Tired Dozers	0	8.00	255	0.40
Grading 3	Rubber Tired Loaders	1	8.00	350	0.36
Grading 3	Scrapers	3	8.00	452	0.48
Grading 3	Surfacing Equipment	0	8.00	350	0.30
Grading 3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 3	Welders	0	8.00	46	0.45
Trenching 3	Excavators	1	8.00	268	0.38
Trenching 3	Other Construction Equipment	1	8.00	354	0.42
Trenching 3	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 3	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 3	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Grading 4	Aerial Lifts	0	8.00	48	0.31
Grading 4	Cranes	0	8.00	215	0.29
Grading 4	Crawler Tractors	1	8.00	410	0.43
Grading 4	Excavators	0	8.00	162	0.38
Grading 4	Forklifts	0	8.00	110	0.20
Grading 4	Generator Sets	0	8.00	84	0.74
Grading 4	Graders	1	8.00	302	0.41
Grading 4	Other Construction Equipment	1	8.00	354	0.42
Grading 4	Other General Industrial Equipment	1	8.00	330	0.34
Grading 4	Rubber Tired Dozers	0	8.00	255	0.40
Grading 4	Rubber Tired Loaders	1	8.00	350	0.36
Grading 4	Scrapers	3	8.00	452	0.48
Grading 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37

Grading 4	Welders	0	8.00	46	0.45
Concrete Shell 3	Cranes	0	7.00	226	0.29
Concrete Shell 3	Forklifts	0	8.00	89	0.20
Concrete Shell 3	Generator Sets	0	8.00	84	0.74
Concrete Shell 3	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 3	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 3	Welders	0	8.00	46	0.45
Trenching 4	Excavators	1	8.00	268	0.38
Trenching 4	Other Construction Equipment	1	8.00	354	0.42
Trenching 4	Other Material Handling Equipment	1	8.00	249	0.40
Trenching 4	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 4	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 4	Air Compressors	0	6.00	78	0.48
Concrete Shell 4	Cranes	0	7.00	226	0.29
Concrete Shell 4	Excavators	0	8.00	268	0.38
Concrete Shell 4	Forklifts	0	8.00	89	0.20
Concrete Shell 4	Generator Sets	0	8.00	84	0.74
Concrete Shell 4	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 4	Other Material Handling Equipment	0	8.00	249	0.40
Concrete Shell 4	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 4	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 4	Welders	0	8.00	46	0.45
Steel & Roof 1	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 1	Air Compressors	0	6.00	78	0.48
Steel & Roof 1	Cranes	2	8.00	215	0.29
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Generator Sets	0	8.00	84	0.74

Steel & Roof 1	Other Construction Equipment	3	8.00	354	0.42
Steel & Roof 1	Pavers	0	8.00	125	0.42
Steel & Roof 1	Paving Equipment	0	8.00	130	0.36
Steel & Roof 1	Rollers	0	8.00	80	0.38
Steel & Roof 1	Rubber Tired Loaders	0	8.00	350	0.36
Steel & Roof 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 1	Trenchers	0	8.00	81	0.50
Steel & Roof 1	Welders	0	8.00	46	0.45
Steel & Roof 2	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 2	Air Compressors	0	6.00	78	0.48
Steel & Roof 2	Cranes	1	8.00	215	0.29
Steel & Roof 2	Crawler Tractors	0	8.00	410	0.43
Steel & Roof 2	Excavators	0	8.00	162	0.38
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Generator Sets	0	8.00	84	0.74
Steel & Roof 2	Graders	0	8.00	302	0.41
Steel & Roof 2	Off-Highway Tractors	0	8.00	485	0.44
Steel & Roof 2	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 2	Rubber Tired Dozers	0	8.00	255	0.40
Steel & Roof 2	Scrapers	0	8.00	452	0.48
Steel & Roof 2	Surfacing Equipment	0	8.00	350	0.30
Steel & Roof 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 2	Welders	0	8.00	46	0.45
Steel & Roof 3	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 3	Cranes	1	8.00	215	0.29
Steel & Roof 3	Forklifts	0	8.00	110	0.20
Steel & Roof 3	Generator Sets	0	8.00	84	0.74

Steel & Roof 3	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Steel & Roof 3	Welders	0	8.00	46	0.45
Roofing & Overhead Work 2	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 2	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 2	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 2	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 2	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 2	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 2	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 2	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 2	Other General Industrial Equipment	0	8.00	330	0.34
Roofing & Overhead Work 2	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 2	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 2	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 2	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 2	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 2	Scrapers	0	8.00	330	0.48
Roofing & Overhead Work 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 1	Aerial Lifts	3	8.00	48	0.31
Roofing & Overhead Work 1	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 1	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 1	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 1	Forklifts	2	8.00	110	0.20

Roofing & Overhead Work 1	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 1	Other Construction Equipment	3	8.00	354	0.42
Roofing & Overhead Work 1	Other Material Handling Equipment	0	8.00	249	0.43
Roofing & Overhead Work 1	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 1	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 1	Welders	0	8.00	46	0.45
Paving 2	Aerial Lifts	0	8.00	48	0.31
Paving 2	Cranes	0	7.00	226	0.29
Paving 2	Crawler Tractors	0	8.00	249	0.43
Paving 2	Excavators	0	8.00	268	0.38
Paving 2	Forklifts	0	8.00	110	0.20
Paving 2	Generator Sets	0	8.00	84	0.74
Paving 2	Graders	0	8.00	174	0.41
Paving 2	Other Construction Equipment	1	8.00	354	0.42
Paving 2	Pavers	0	8.00	125	0.42
Paving 2	Paving Equipment	0	8.00	130	0.36
Paving 2	Rollers	0	8.00	80	0.38
Paving 2	Rubber Tired Dozers	0	8.00	255	0.40
Paving 2	Rubber Tired Loaders	1	8.00	350	0.36
Paving 2	Scrapers	0	8.00	361	0.48
Paving 2	Surfacing Equipment	0	8.00	350	0.30
Paving 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Paving 2	Trenchers	1	8.00	81	0.50
Paving 2	Welders	0	8.00	46	0.45
Architectural Coating 2	Air Compressors	0	6.00	78	0.48
Architectural Coating 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 2	Cranes	0	7.00	226	0.29

Misc. Finishes 2	Forklifts	0	8.00	89	0.20
Misc. Finishes 2	Generator Sets	0	8.00	84	0.74
Misc. Finishes 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 3	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 3	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 3	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 3	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 3	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 3	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 3	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 3	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 3	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 3	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 3	Welders	0	8.00	46	0.45
Steel & Roof 4	Cranes	1	8.00	215	0.29
Steel & Roof 4	Forklifts	0	8.00	89	0.20
Steel & Roof 4	Generator Sets	0	8.00	84	0.74
Steel & Roof 4	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 4	Welders	0	8.00	46	0.45
Paving 3	Other Construction Equipment	1	8.00	354	0.42
Paving 3	Pavers	0	8.00	125	0.42
Paving 3	Paving Equipment	0	8.00	130	0.36
Paving 3	Rollers	0	8.00	80	0.38
Paving 3	Rubber Tired Loaders	1	8.00	350	0.36

Paving 3	Trenchers	1	8.00	81	0.50
Architectural Coating 1	Air Compressors	0	6.00	78	0.48
Architectural Coating 1	Other Construction Equipment	4	8.00	354	0.42
Misc. Finishes 3	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 3	Cranes	0	7.00	226	0.29
Misc. Finishes 3	Forklifts	0	8.00	89	0.20
Misc. Finishes 3	Generator Sets	0	8.00	84	0.74
Misc. Finishes 3	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 3	Welders	0	8.00	46	0.45
Architectural Coating 3	Air Compressors	0	6.00	78	0.48
Architectural Coating 3	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	0	8.00	130	0.36
Paving 1	Rollers	0	8.00	80	0.38
Paving 1	Rubber Tired Loaders	2	8.00	350	0.36
Paving 1	Trenchers	1	8.00	81	0.50
Roofing & Overhead Work 4	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 4	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 4	Concrete/Industrial Saws	0	8.00	81	0.73
Roofing & Overhead Work 4	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	410	0.43
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 4	Excavators	0	8.00	162	0.38
Roofing & Overhead Work 4	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 4	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 4	Generator Sets	0	8.00	84	0.74

Roofing & Overhead Work 4	Graders	0	8.00	302	0.41
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	485	0.44
Roofing & Overhead Work 4	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 4	Other General Industrial Equipment	0	8.00	330	0.37
Roofing & Overhead Work 4	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 4	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 4	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 4	Rubber Tired Dozers	0	8.00	451	0.40
Roofing & Overhead Work 4	Rubber Tired Loaders	0	8.00	350	0.37
Roofing & Overhead Work 4	Scrapers	0	8.00	452	0.48
Roofing & Overhead Work 4	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Roofing & Overhead Work 4	Welders	0	8.00	46	0.45
Architectural Coating 4	Air Compressors	0	6.00	78	0.48
Architectural Coating 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Pavers	0	8.00	125	0.42
Paving 4	Paving Equipment	0	8.00	130	0.36
Paving 4	Rollers	0	8.00	80	0.38
Paving 4	Rubber Tired Loaders	1	8.00	350	0.36
Paving 4	Trenchers	1	8.00	81	0.50
Misc. Finishes 4	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 4	Cranes	0	7.00	226	0.29
Misc. Finishes 4	Forklifts	0	8.00	89	0.20
Misc. Finishes 4	Generator Sets	0	8.00	84	0.74

Misc. Finishes 4	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 4	Welders	0	8.00	46	0.45
Misc. Finishes 1	Aerial Lifts	2	8.00	48	0.31
Misc. Finishes 1	Cranes	0	7.00	226	0.29
Misc. Finishes 1	Forklifts	0	8.00	89	0.20
Misc. Finishes 1	Generator Sets	0	8.00	84	0.74
Misc. Finishes 1	Other Construction Equipment	2	8.00	354	0.42
Misc. Finishes 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 1	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading 1	19	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 1	9	125.00	416.00	10,384.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 2	6	40.00	416.00	1,374.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 3	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 4	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 3	6	40.00	416.00	1,078.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 4	6	40.00	416.00	1,758.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 1	5	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 2	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Steel & Roof 3	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 2	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 1	8	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	3	8.00	0.00	728.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 2	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 3	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 4	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 3	3	8.00	0.00	778.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	4	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 3	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 3	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 1	4	10.00	0.00	4,152.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 4	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 4	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 4	3	8.00	0.00	838.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 4	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 1	4	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Grading 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.5666	0.0000	15.5666	4.3408	0.0000	4.3408			0.0000			0.0000
Off-Road	22.7740	284.8071	173.9787	0.2600		11.4365	11.4365		10.5216	10.5216		27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**22.7740**	**284.8071**	**173.9787**	**0.2600**	**15.5666**	**11.4365**	**27.0031**	**4.3408**	**10.5216**	**14.8624**		**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1839	0.2172	2.7221	6.4400e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		532.5992	532.5992	0.0230		533.0816
Total	**0.1839**	**0.2172**	**2.7221**	**6.4400e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**532.5992**	**532.5992**	**0.0230**		**533.0816**

3.2 Grading 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0710	0.0000	6.0710	1.6929	0.0000	1.6929			0.0000			0.0000
Off-Road	5.9025	61.8452	133.4419	0.2600		2.4855	2.4855		2.3942	2.3942	0.0000	27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**5.9025**	**61.8452**	**133.4419**	**0.2600**	**6.0710**	**2.4855**	**8.5565**	**1.6929**	**2.3942**	**4.0871**	**0.0000**	**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1839	0.2172	2.7221	6.4400e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		532.5992	532.5992	0.0230		533.0816
Total	**0.1839**	**0.2172**	**2.7221**	**6.4400e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**532.5992**	**532.5992**	**0.0230**		**533.0816**

3.3 Grading 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5729	120.5012	69.6816	0.1160		4.7379	4.7379		4.3589	4.3589		12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**9.5729**	**120.5012**	**69.6816**	**0.1160**	**4.2420**	**4.7379**	**8.9799**	**0.4580**	**4.3589**	**4.8169**		**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.3 Grading 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6544	0.0000	1.6544	0.1786	0.0000	0.1786			0.0000			0.0000
Off-Road	1.8754	21.5998	55.2898	0.1160		0.7890	0.7890		0.7890	0.7890	0.0000	12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**1.8754**	**21.5998**	**55.2898**	**0.1160**	**1.6544**	**0.7890**	**2.4434**	**0.1786**	**0.7890**	**0.9676**	**0.0000**	**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.4 Trenching 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.2895	77.7646	37.2357	0.0888		3.1203	3.1203		2.8707	2.8707		9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**6.2895**	**77.7646**	**37.2357**	**0.0888**		**3.1203**	**3.1203**		**2.8707**	**2.8707**		**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0958	0.1131	1.4178	3.3500e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		277.3954	277.3954	0.0120		277.6467
Total	**0.0958**	**0.1131**	**1.4178**	**3.3500e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**277.3954**	**277.3954**	**0.0120**		**277.6467**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.4 Trenching 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6622	24.8561	45.4748	0.0888		1.0530	1.0530		1.0530	1.0530	0.0000	9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**1.6622**	**24.8561**	**45.4748**	**0.0888**		**1.0530**	**1.0530**		**1.0530**	**1.0530**	**0.0000**	**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0958	0.1131	1.4178	3.3500e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		277.3954	277.3954	0.0120		277.6467
Total	**0.0958**	**0.1131**	**1.4178**	**3.3500e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**277.3954**	**277.3954**	**0.0120**		**277.6467**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.5772	68.3870	40.9017	0.0785		3.1121	3.1121		2.8631	2.8631		8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**5.5772**	**68.3870**	**40.9017**	**0.0785**		**3.1121**	**3.1121**		**2.8631**	**2.8631**		**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.8964	33.5559	21.4219	0.0902	2.2090	0.6141	2.8232	0.6051	0.5649	1.1700		9,093.9549	9,093.9549	0.0575		9,095.1614
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**5.6106**	**69.0303**	**65.0658**	**0.1945**	**6.2235**	**1.3004**	**7.5239**	**1.7232**	**1.1960**	**2.9192**		**19,270.1873**	**19,270.1873**	**0.1745**		**19,273.8510**

3.5 Concrete Shell 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1312	11.2763	39.4687	0.0785		0.6562	0.6562		0.6562	0.6562	0.0000	8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**1.1312**	**11.2763**	**39.4687**	**0.0785**		**0.6562**	**0.6562**		**0.6562**	**0.6562**	**0.0000**	**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.8964	33.5559	21.4219	0.0902	2.2090	0.6141	2.8232	0.6051	0.5649	1.1700		9,093.9549	9,093.9549	0.0575		9,095.1614
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**5.6106**	**69.0303**	**65.0658**	**0.1945**	**6.2235**	**1.3004**	**7.5239**	**1.7232**	**1.1960**	**2.9192**		**19,270.1873**	**19,270.1873**	**0.1745**		**19,273.8510**

3.6 Trenching 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.6 Trenching 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4115	7.2817	4.6486	0.0196	0.4794	0.1333	0.6126	0.1313	0.1226	0.2539		1,973.4162	1,973.4162	0.0125		1,973.6781
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.8000**	**42.3716**	**43.4721**	**0.1125**	**3.5437**	**0.8137**	**4.3574**	**0.9975**	**0.7483**	**1.7457**		**11,206.5043**	**11,206.5043**	**0.0888**		**11,208.3690**

3.7 Concrete Shell 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4115	7.2817	4.6486	0.0196	0.4794	0.1333	0.6126	0.1313	0.1226	0.2539		1,973.4162	1,973.4162	0.0125		1,973.6781
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.8000**	**42.3716**	**43.4721**	**0.1125**	**3.5437**	**0.8137**	**4.3574**	**0.9975**	**0.7483**	**1.7457**		**11,206.5043**	**11,206.5043**	**0.0888**		**11,208.3690**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.8 Grading 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.8 Grading 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6544	0.0000	1.6544	0.1786	0.0000	0.1786			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**1.6544**	**0.7736**	**2.4280**	**0.1786**	**0.7736**	**0.9522**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.9 Trenching 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.9 Trenching 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.10 Grading 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.10 Grading 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6544	0.0000	1.6544	0.1786	0.0000	0.1786			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**1.6544**	**0.7736**	**2.4280**	**0.1786**	**0.7736**	**0.9522**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0766	0.0905	1.1342	2.6800e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		221.9163	221.9163	9.5700e-003		222.1173
Total	**0.0766**	**0.0905**	**1.1342**	**2.6800e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**221.9163**	**221.9163**	**9.5700e-003**		**222.1173**

3.11 Concrete Shell 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3435	6.0777	3.8800	0.0163	0.4001	0.1112	0.5113	0.1096	0.1023	0.2119		1,647.1110	1,647.1110	0.0104		1,647.3296
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.7319**	**41.1676**	**42.7034**	**0.1092**	**3.4645**	**0.7916**	**4.2561**	**0.9758**	**0.7280**	**1.7037**		**10,880.1991**	**10,880.1991**	**0.0867**		**10,882.0205**

3.11 Concrete Shell 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3435	6.0777	3.8800	0.0163	0.4001	0.1112	0.5113	0.1096	0.1023	0.2119		1,647.1110	1,647.1110	0.0104		1,647.3296
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.7319**	**41.1676**	**42.7034**	**0.1092**	**3.4645**	**0.7916**	**4.2561**	**0.9758**	**0.7280**	**1.7037**		**10,880.1991**	**10,880.1991**	**0.0867**		**10,882.0205**

3.12 Trenching 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1448	38.8823	18.6179	0.0444		1.5602	1.5602		1.4353	1.4353		4,609.5529	4,609.5529	1.3904		4,638.7514
Total	**3.1448**	**38.8823**	**18.6179**	**0.0444**		**1.5602**	**1.5602**		**1.4353**	**1.4353**		**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.12 Trenching 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8311	12.4281	22.7374	0.0444		0.5265	0.5265		0.5265	0.5265	0.0000	4,609.5529	4,609.5529	1.3904		4,638.7513
Total	**0.8311**	**12.4281**	**22.7374**	**0.0444**		**0.5265**	**0.5265**		**0.5265**	**0.5265**	**0.0000**	**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7513**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0498	0.0588	0.7372	1.7400e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		144.2456	144.2456	6.2200e-003		144.3763
Total	**0.0498**	**0.0588**	**0.7372**	**1.7400e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**144.2456**	**144.2456**	**6.2200e-003**		**144.3763**

3.13 Concrete Shell 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5265	9.3168	5.9478	0.0250	0.6133	0.1705	0.7839	0.1680	0.1569	0.3248		2,524.9387	2,524.9387	0.0160		2,525.2737
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.9150**	**44.4067**	**44.7713**	**0.1179**	**3.6777**	**0.8509**	**4.5286**	**1.0342**	**0.7825**	**1.8167**		**11,758.0268**	**11,758.0268**	**0.0923**		**11,759.9646**

3.13 Concrete Shell 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5265	9.3168	5.9478	0.0250	0.6133	0.1705	0.7839	0.1680	0.1569	0.3248		2,524.9387	2,524.9387	0.0160		2,525.2737
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.9150**	**44.4067**	**44.7713**	**0.1179**	**3.6777**	**0.8509**	**4.5286**	**1.0342**	**0.7825**	**1.8167**		**11,758.0268**	**11,758.0268**	**0.0923**		**11,759.9646**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7894	48.4056	23.6538	0.0493		1.9217	1.9217		1.7680	1.7680		5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**3.7894**	**48.4056**	**23.6538**	**0.0493**		**1.9217**	**1.9217**		**1.7680**	**1.7680**		**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.14 Steel & Roof 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8420	18.2779	22.9861	0.0493		0.7995	0.7995		0.7406	0.7406	0.0000	5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**1.8420**	**18.2779**	**22.9861**	**0.0493**		**0.7995**	**0.7995**		**0.7406**	**0.7406**	**0.0000**	**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.15 Steel & Roof 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.16 Steel & Roof 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.17 Roofing & Overhead Work 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1597	39.8954	23.6141	0.0467		1.6713	1.6713		1.5376	1.5376		4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**3.1597**	**39.8954**	**23.6141**	**0.0467**		**1.6713**	**1.6713**		**1.5376**	**1.5376**		**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.18 Roofing & Overhead Work 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	9.7677	22.9463	0.0467		0.5491	0.5491		0.5102	0.5102	0.0000	4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**1.2123**	**9.7677**	**22.9463**	**0.0467**		**0.5491**	**0.5491**		**0.5102**	**0.5102**	**0.0000**	**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.4790	0.5656	7.0888	0.0168	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,386.9770	1,386.9770	0.0598		1,388.2333
Total	**3.7141**	**35.4744**	**43.6439**	**0.1043**	**4.0145**	**0.6863**	**4.7008**	**1.1181**	**0.6311**	**1.7493**		**10,176.2325**	**10,176.2325**	**0.1170**		**10,178.6896**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9659	36.9597	22.2694	0.0466		1.5220	1.5220		1.4002	1.4002		4,764.8981	4,764.8981	1.4600		4,795.5572
Total	**2.9659**	**36.9597**	**22.2694**	**0.0466**		**1.5220**	**1.5220**		**1.4002**	**1.4002**		**4,764.8981**	**4,764.8981**	**1.4600**		**4,795.5572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

3.18 Roofing & Overhead Work 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1581	9.2917	22.8897	0.0466		0.4976	0.4976		0.4628	0.4628	0.0000	4,764.8981	4,764.8981	1.4600		4,795.5572
Total	**1.1581**	**9.2917**	**22.8897**	**0.0466**		**0.4976**	**0.4976**		**0.4628**	**0.4628**	**0.0000**	**4,764.8981**	**4,764.8981**	**1.4600**		**4,795.5572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

3.19 Paving 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3894	6.8896	4.3983	0.0185	0.4536	0.1261	0.5796	0.1242	0.1160	0.2402		1,867.1333	1,867.1333	0.0118		1,867.3810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.4200**	**6.9258**	**4.8519**	**0.0196**	**0.5430**	**0.1267**	**0.6696**	**0.1479**	**0.1165**	**0.2644**		**1,955.8998**	**1,955.8998**	**0.0156**		**1,956.2279**

3.19 Paving 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3894	6.8896	4.3983	0.0185	0.4536	0.1261	0.5796	0.1242	0.1160	0.2402		1,867.1333	1,867.1333	0.0118		1,867.3810
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.4200**	**6.9258**	**4.8519**	**0.0196**	**0.5430**	**0.1267**	**0.6696**	**0.1479**	**0.1165**	**0.2644**		**1,955.8998**	**1,955.8998**	**0.0156**		**1,956.2279**

3.20 Architectural Coating 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.3467					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**14.1532**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.20 Architectural Coating 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.3467					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**13.5041**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.21 Misc. Finishes 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.22 Roofing & Overhead Work 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.23 Steel & Roof 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.23 Steel & Roof 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.24 Paving 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4161	7.3628	4.7003	0.0198	0.6072	0.1348	0.7419	0.1628	0.1240	0.2868		1,995.3704	1,995.3704	0.0126		1,995.6352
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.4468**	**7.3990**	**5.1540**	**0.0209**	**0.6966**	**0.1353**	**0.8319**	**0.1865**	**0.1245**	**0.3110**		**2,084.1370**	**2,084.1370**	**0.0164**		**2,084.4821**

3.24 Paving 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4161	7.3628	4.7003	0.0198	0.6072	0.1348	0.7419	0.1628	0.1240	0.2868		1,995.3704	1,995.3704	0.0126		1,995.6352
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0307	0.0362	0.4537	1.0700e-003	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		88.7665	88.7665	3.8300e-003		88.8469
Total	**0.4468**	**7.3990**	**5.1540**	**0.0209**	**0.6966**	**0.1353**	**0.8319**	**0.1865**	**0.1245**	**0.3110**		**2,084.1370**	**2,084.1370**	**0.0164**		**2,084.4821**

3.24 Paving 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.8069**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3866	6.7368	4.4783	0.0198	1.5868	0.1239	1.7107	0.4033	0.1140	0.5173		1,961.5532	1,961.5532	0.0123		1,961.8117
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.4140**	**6.7693**	**4.8857**	**0.0208**	**1.6762**	**0.1245**	**1.8007**	**0.4270**	**0.1145**	**0.5415**		**2,046.8057**	**2,046.8057**	**0.0158**		**2,047.1380**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.24 Paving 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3866	6.7368	4.4783	0.0198	1.5868	0.1239	1.7107	0.4033	0.1140	0.5173		1,961.5532	1,961.5532	0.0123		1,961.8117
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.4140**	**6.7693**	**4.8857**	**0.0208**	**1.6762**	**0.1245**	**1.8007**	**0.4270**	**0.1145**	**0.5415**		**2,046.8057**	**2,046.8057**	**0.0158**		**2,047.1380**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.25 Architectural Coating 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.2259	42.8974	23.9663	0.0515		1.5802	1.5802		1.4538	1.4538		5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**32.1142**	**42.8974**	**23.9663**	**0.0515**		**1.5802**	**1.5802**		**1.4538**	**1.4538**		**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.25 Architectural Coating 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0515		0.0839	0.0839		0.0839	0.0839	0.0000	5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**29.5176**	**2.7272**	**23.0759**	**0.0515**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.25 Architectural Coating 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.0399	39.6179	22.2488	0.0514		1.4498	1.4498		1.3338	1.3338		5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**31.9282**	**39.6179**	**22.2488**	**0.0514**		**1.4498**	**1.4498**		**1.3338**	**1.3338**		**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.25 Architectural Coating 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0514		0.0839	0.0839		0.0839	0.0839	0.0000	5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**29.5176**	**2.7272**	**23.0759**	**0.0514**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.26 Misc. Finishes 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.26 Misc. Finishes 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.27 Architectural Coating 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**12.0711**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

3.27 Architectural Coating 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**11.4219**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.8161	0.9637	12.0794	0.0286	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,363.4089	2,363.4089	0.1019		2,365.5495
Total	**0.8161**	**0.9637**	**12.0794**	**0.0286**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,363.4089**	**2,363.4089**	**0.1019**		**2,365.5495**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.27 Architectural Coating 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**12.0246**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.27 Architectural Coating 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**11.4219**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.28 Paving 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1077	36.2213	18.4186	0.0378		1.5543	1.5543		1.4299	1.4299		3,924.9846	3,924.9846	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6370**	**36.2213**	**18.4186**	**0.0378**		**1.5543**	**1.5543**		**1.4299**	**1.4299**		**3,924.9846**	**3,924.9846**	**1.1839**		**3,949.8468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6986	12.3619	7.8918	0.0332	9.3460	0.2262	9.5723	2.3172	0.2081	2.5253		3,350.1890	3,350.1890	0.0212		3,350.6335
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0383	0.0453	0.5671	1.3400e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		110.9582	110.9582	4.7900e-003		111.0587
Total	**0.7370**	**12.4072**	**8.4589**	**0.0346**	**9.4578**	**0.2269**	**9.6847**	**2.3468**	**0.2088**	**2.5556**		**3,461.1472**	**3,461.1472**	**0.0260**		**3,461.6921**

3.28 Paving 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,924.9845	3,924.9845	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,924.9845**	**3,924.9845**	**1.1839**		**3,949.8468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6986	12.3619	7.8918	0.0332	9.3460	0.2262	9.5723	2.3172	0.2081	2.5253		3,350.1890	3,350.1890	0.0212		3,350.6335
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0383	0.0453	0.5671	1.3400e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		110.9582	110.9582	4.7900e-003		111.0587
Total	**0.7370**	**12.4072**	**8.4589**	**0.0346**	**9.4578**	**0.2269**	**9.6847**	**2.3468**	**0.2088**	**2.5556**		**3,461.1472**	**3,461.1472**	**0.0260**		**3,461.6921**

3.28 Paving 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9451	33.5783	17.5545	0.0378		1.4486	1.4486		1.3327	1.3327		3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4744**	**33.5783**	**17.5545**	**0.0378**		**1.4486**	**1.4486**		**1.3327**	**1.3327**		**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6490	11.3110	7.5189	0.0332	0.8584	0.2081	1.0665	0.2339	0.1914	0.4253		3,293.4105	3,293.4105	0.0207		3,293.8445
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0406	0.5093	1.3400e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		106.5656	106.5656	4.3900e-003		106.6578
Total	**0.6834**	**11.3516**	**8.0282**	**0.0345**	**0.9702**	**0.2088**	**1.1790**	**0.2635**	**0.1921**	**0.4556**		**3,399.9762**	**3,399.9762**	**0.0251**		**3,400.5023**

3.28 Paving 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6490	11.3110	7.5189	0.0332	0.8584	0.2081	1.0665	0.2339	0.1914	0.4253		3,293.4105	3,293.4105	0.0207		3,293.8445
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0343	0.0406	0.5093	1.3400e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		106.5656	106.5656	4.3900e-003		106.6578
Total	**0.6834**	**11.3516**	**8.0282**	**0.0345**	**0.9702**	**0.2088**	**1.1790**	**0.2635**	**0.1921**	**0.4556**		**3,399.9762**	**3,399.9762**	**0.0251**		**3,400.5023**

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

3.29 Roofing & Overhead Work 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2352	34.9089	36.5550	0.0875	2.6173	0.6776	3.2949	0.7476	0.6231	1.3707		8,789.2554	8,789.2554	0.0572		8,790.4563
Worker	0.1533	0.1810	2.2684	5.3700e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		443.8327	443.8327	0.0191		444.2347
Total	**3.3884**	**35.0899**	**38.8235**	**0.0929**	**3.0644**	**0.6804**	**3.7448**	**0.8662**	**0.6257**	**1.4918**		**9,233.0881**	**9,233.0881**	**0.0763**		**9,234.6910**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8355	22.9768	13.4999	0.0290		0.9319	0.9319		0.8573	0.8573		2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**1.8355**	**22.9768**	**13.4999**	**0.0290**		**0.9319**	**0.9319**		**0.8573**	**0.8573**		**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.29 Roofing & Overhead Work 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6303	4.5315	13.9135	0.0290		0.2489	0.2489		0.2324	0.2324	0.0000	2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**0.6303**	**4.5315**	**13.9135**	**0.0290**		**0.2489**	**0.2489**		**0.2324**	**0.2324**	**0.0000**	**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.30 Architectural Coating 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**14.8334**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.30 Architectural Coating 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**14.2308**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7311	0.8647	10.8482	0.0286	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,269.8479	2,269.8479	0.0935		2,271.8114
Total	**0.7311**	**0.8647**	**10.8482**	**0.0286**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,269.8479**	**2,269.8479**	**0.0935**		**2,271.8114**

3.31 Paving 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4330**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3239	5.6438	3.7517	0.0166	0.4061	0.1038	0.5099	0.1112	0.0955	0.2067		1,643.3121	1,643.3121	0.0103		1,643.5286
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.3513**	**5.6763**	**4.1592**	**0.0176**	**0.4955**	**0.1044**	**0.5999**	**0.1349**	**0.0960**	**0.2310**		**1,728.5646**	**1,728.5646**	**0.0138**		**1,728.8549**

3.31 Paving 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8183**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3239	5.6438	3.7517	0.0166	0.4061	0.1038	0.5099	0.1112	0.0955	0.2067		1,643.3121	1,643.3121	0.0103		1,643.5286
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0325	0.4075	1.0700e-003	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		85.2525	85.2525	3.5100e-003		85.3263
Total	**0.3513**	**5.6763**	**4.1592**	**0.0176**	**0.4955**	**0.1044**	**0.5999**	**0.1349**	**0.0960**	**0.2310**		**1,728.5646**	**1,728.5646**	**0.0138**		**1,728.8549**

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.32 Misc. Finishes 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.1373	0.1624	2.0372	5.3600e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		426.2625	426.2625	0.0176		426.6312
Total	**3.0565**	**31.8253**	**36.1568**	**0.0927**	**3.0645**	**0.6100**	**3.6744**	**0.8662**	**0.5610**	**1.4272**		**9,067.1095**	**9,067.1095**	**0.0727**		**9,068.6355**

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6297	21.6300	12.7878	0.0286		0.7663	0.7663		0.7050	0.7050		2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**1.6297**	**21.6300**	**12.7878**	**0.0286**		**0.7663**	**0.7663**		**0.7050**	**0.7050**		**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

3.33 Misc. Finishes 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4244	3.1847	13.2014	0.0286		0.0834	0.0834		0.0801	0.0801	0.0000	2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**0.4244**	**3.1847**	**13.2014**	**0.0286**		**0.0834**	**0.0834**		**0.0801**	**0.0801**	**0.0000**	**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.9192	31.6630	34.1196	0.0874	2.6174	0.6072	3.2246	0.7476	0.5585	1.3061		8,640.8470	8,640.8470	0.0551		8,642.0043
Worker	0.4290	0.5075	6.3663	0.0168	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,332.0704	1,332.0704	0.0549		1,333.2226
Total	**3.3482**	**32.1704**	**40.4859**	**0.1041**	**4.0146**	**0.6157**	**4.6303**	**1.1182**	**0.5663**	**1.6845**		**9,972.9174**	**9,972.9174**	**0.1100**		**9,975.2269**

4.0 Operational Detail - Mobile

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Unmitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

MoVal Logistics Center- Construction

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	385.75	1000sqft	16.70	385,748.00	0
Unrefrigerated Warehouse-No Rail	1,351.77	1000sqft	50.14	1,351,770.00	0
Parking Lot	1,998.00	Space	17.98	799,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage:84.82; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking=3.27 parking spaces.

Construction Phase - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Off-road Equipment - Based on client specifications
Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Trips and VMT - Based on client specifications

Grading -

Architectural Coating - Based on client specifications; Use 50g/L Low VOC Paint

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - Based on client specifications

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	880,747.00	51,832.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	243,073.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	43,746.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	60,727.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,642,241.00	51,832.00
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tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00

tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	ReapplicationRatePercent	10	0
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	61.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 1
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
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tblConstructionPhase	NumDays	110.00	39.00
tblConstructionPhase	NumDays	110.00	18.00

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tblConstructionPhase	NumDays	1,550.00	20.00
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tblConstructionPhase	NumDays	155.00	45.00
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tblConstructionPhase	NumDays	155.00	12.00
tblConstructionPhase	NumDays	155.00	18.00
tblConstructionPhase	NumDays	110.00	28.00
tblConstructionPhase	NumDays	110.00	28.00
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tblConstructionPhase	NumDays	110.00	36.00
tblConstructionPhase	PhaseEndDate	1/10/2017	12/7/2016
tblConstructionPhase	PhaseEndDate	3/6/2017	1/30/2017
tblConstructionPhase	PhaseEndDate	2/10/2017	1/2/2017

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblConstructionPhase	PhaseEndDate	2/24/2017	2/7/2017
tblConstructionPhase	PhaseEndDate	11/18/2016	10/25/2016
tblConstructionPhase	PhaseEndDate	1/4/2017	11/23/2016
tblConstructionPhase	PhaseEndDate	1/27/2017	12/5/2016
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tblConstructionPhase	PhaseEndDate	11/28/2016	11/22/2016
tblConstructionPhase	PhaseEndDate	12/23/2016	11/29/2016
tblConstructionPhase	PhaseEndDate	2/3/2017	1/5/2017
tblConstructionPhase	PhaseEndDate	1/18/2017	12/29/2016
tblConstructionPhase	PhaseEndDate	1/30/2017	12/22/2016
tblConstructionPhase	PhaseEndDate	1/24/2017	12/26/2016
tblConstructionPhase	PhaseEndDate	3/10/2017	1/17/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	1/27/2017
tblConstructionPhase	PhaseEndDate	4/14/2017	2/28/2017
tblConstructionPhase	PhaseEndDate	5/30/2017	4/20/2017
tblConstructionPhase	PhaseEndDate	3/9/2017	10/24/2016
tblConstructionPhase	PhaseEndDate	11/9/2016	9/29/2016
tblConstructionPhase	PhaseEndDate	10/17/2016	8/19/2016
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tblConstructionPhase	PhaseEndDate	2/14/2017	12/15/2016
tblConstructionPhase	PhaseEndDate	2/2/2017	1/10/2017
tblConstructionPhase	PhaseEndDate	5/5/2017	4/26/2017
tblConstructionPhase	PhaseEndDate	3/29/2017	3/2/2017
tblConstructionPhase	PhaseEndDate	12/13/2016	10/26/2016
tblConstructionPhase	PhaseEndDate	12/5/2016	11/15/2016
tblConstructionPhase	PhaseEndDate	12/9/2016	8/31/2016
tblConstructionPhase	PhaseEndDate	10/5/2016	9/28/2016
tblConstructionPhase	PhaseStartDate	12/16/2016	11/14/2016

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tblConstructionPhase	PhaseStartDate	1/18/2017	12/8/2016
tblConstructionPhase	PhaseStartDate	1/28/2017	1/11/2017
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tblConstructionPhase	PhaseStartDate	10/27/2016	9/15/2016
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tblConstructionPhase	PhaseStartDate	1/6/2017	11/8/2016
tblConstructionPhase	PhaseStartDate	12/27/2016	12/2/2016
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tblConstructionPhase	PhaseStartDate	10/26/2016	9/8/2016
tblConstructionPhase	PhaseStartDate	7/21/2016	7/1/2016
tblConstructionPhase	PhaseStartDate	10/25/2016	7/15/2016

tblConstructionPhase	PhaseStartDate	8/20/2016	8/15/2016
tblEnergyUse	LightingElect	3.36	0.00
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tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	NT24E	5.02	0.00
tblEnergyUse	NT24E	0.82	0.00
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	NT24NG	0.03	0.00
tblEnergyUse	T24E	2.69	0.00
tblEnergyUse	T24E	0.45	0.00
tblEnergyUse	T24NG	16.16	0.00
tblEnergyUse	T24NG	2.11	0.00
tblLandscapeEquipment	NumberSummerDays	250	1
tblLandUse	LandUseSquareFeet	385,750.00	385,748.00
tblLandUse	LotAcreage	8.86	16.70
tblLandUse	LotAcreage	31.03	50.14
tblOffRoadEquipment	HorsePower	226.00	215.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	7.00	8.00

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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	478.33	0.00
tblSolidWaste	SolidWasteGenerationRate	1,270.66	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,078.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,758.00
tblTripsAndVMT	HaulingTripNumber	0.00	728.00
tblTripsAndVMT	HaulingTripNumber	0.00	778.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,152.00
tblTripsAndVMT	HaulingTripNumber	0.00	838.00
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tblTripsAndVMT	HaulingTripNumber	0.00	1,374.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
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tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
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tblVehicleEF	LDA	0.46	0.00
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tblVehicleEF	LDT1	0.07	0.00
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tblVehicleEF	LDT2	0.18	0.00
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tblVehicleEF	LHD1	0.05	0.00
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tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
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tblVehicleEF	MCY	6.4540e-003	0.00
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tblVehicleEF	OBUS	9.5400e-004	0.00
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tblVehicleEF	SBUS	8.8400e-004	0.00
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tblVehicleTrips	ST_TR	1.32	0.00
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tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	89,204,687.50	0.00

tblWater	IndoorWaterUseRate	312,596,812.50	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	81.9065	603.0119	456.2343	1.0246	28.1237	21.3405	40.3836	7.5128	19.6323	23.9972	0.0000	103,433.1289	103,433.1289	15.7265	0.0000	103,763.3862
2017	70.4017	296.8200	259.9947	0.6113	17.5516	9.4041	26.9557	4.8039	8.6513	13.4552	0.0000	59,647.9438	59,647.9438	7.3495	0.0000	59,802.2838
Total	**152.3082**	**899.8319**	**716.2290**	**1.6359**	**45.6753**	**30.7446**	**67.3393**	**12.3167**	**28.2836**	**37.4524**	**0.0000**	**163,081.0727**	**163,081.0727**	**23.0761**	**0.0000**	**163,565.6701**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	69.3611	321.3498	463.9466	1.0246	28.1237	8.5089	33.3321	7.5128	8.0714	13.9015	0.0000	103,433.1288	103,433.1288	15.7265	0.0000	103,763.3862
2017	60.5920	158.4106	265.8967	0.6113	17.5516	4.0099	21.5615	4.8039	3.7794	8.5832	0.0000	59,647.9438	59,647.9438	7.3495	0.0000	59,802.2838
Total	**129.9530**	**479.7604**	**729.8433**	**1.6359**	**45.6753**	**12.5188**	**54.8936**	**12.3167**	**11.8508**	**22.4847**	**0.0000**	**163,081.0726**	**163,081.0726**	**23.0761**	**0.0000**	**163,565.6700**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	14.68	46.68	-1.90	0.00	0.00	59.28	18.48	0.00	58.10	39.96	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**	**0.0000**	**1.4000e-003**	**1.4000e-003**	**0.0000**	**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**	**0.0000**	**0.8653**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading 1	Grading	4/29/2016	6/30/2016	5	45	
2	Grading 2	Grading	7/1/2016	7/20/2016	5	14	
3	Trenching 1	Trenching	7/1/2016	11/15/2016	5	98	
4	Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	5	82	
5	Trenching 2	Trenching	7/15/2016	8/31/2016	5	34	
6	Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	5	50	
7	Grading 3	Grading	8/4/2016	8/19/2016	5	12	
8	Trenching 3	Trenching	8/15/2016	9/28/2016	5	33	
9	Grading 4	Grading	8/22/2016	9/14/2016	5	18	
10	Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	5	47	
11	Trenching 4	Trenching	9/8/2016	10/26/2016	5	35	
12	Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	5	50	
13	Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	5	47	
14	Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	5	22	
15	Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	5	20	
16	Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	5	23	
17	Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	5	48	
18	Paving 2	Paving	11/8/2016	12/15/2016	5	28	
19	Architectural Coating 2	Architectural Coating	11/14/2016	12/7/2016	5	18	

20	Misc. Finishes 2	Building Construction	11/18/2016	12/29/2016	5	30	
21	Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	5	22	
22	Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	5	23	
23	Paving 3	Paving	12/2/2016	1/10/2017	5	28	
24	Architectural Coating 1	Architectural Coating	12/7/2016	1/30/2017	5	39	
25	Misc. Finishes 3	Building Construction	12/8/2016	1/17/2017	5	29	
26	Architectural Coating 3	Architectural Coating	12/8/2016	1/2/2017	5	18	
27	Paving 1	Paving	12/23/2016	4/26/2017	5	89	
28	Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	5	24	
29	Architectural Coating 4	Architectural Coating	1/11/2017	2/7/2017	5	20	
30	Paving 4	Paving	1/12/2017	3/2/2017	5	36	
31	Misc. Finishes 4	Building Construction	1/17/2017	2/28/2017	5	31	
32	Misc. Finishes 1	Building Construction	1/20/2017	4/20/2017	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 51,832; Non-Residential Outdoor: 51,832 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading 1	Crawler Tractors	1	8.00	410	0.43
Grading 1	Excavators	0	8.00	162	0.38
Grading 1	Graders	1	8.00	302	0.41
Grading 1	Off-Highway Tractors	2	8.00	485	0.44
Grading 1	Other Construction Equipment	2	8.00	354	0.44
Grading 1	Other General Industrial Equipment	3	8.00	330	0.37

Grading 1	Rubber Tired Dozers	1	8.00	451	0.40
Grading 1	Rubber Tired Loaders	1	8.00	350	0.36
Grading 1	Scrapers	8	8.00	452	0.48
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Cranes	0	7.00	226	0.29
Grading 2	Crawler Tractors	1	8.00	410	0.43
Grading 2	Excavators	0	8.00	162	0.38
Grading 2	Forklifts	0	8.00	89	0.20
Grading 2	Generator Sets	0	8.00	84	0.74
Grading 2	Graders	1	8.00	302	0.41
Grading 2	Other Construction Equipment	1	8.00	354	0.42
Grading 2	Other General Industrial Equipment	1	8.00	330	0.37
Grading 2	Pavers	0	8.00	125	0.42
Grading 2	Paving Equipment	0	8.00	49	0.36
Grading 2	Rollers	0	8.00	80	0.38
Grading 2	Rubber Tired Dozers	0	8.00	255	0.40
Grading 2	Rubber Tired Loaders	1	8.00	350	0.36
Grading 2	Scrapers	3	8.00	452	0.48
Grading 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 2	Welders	0	8.00	46	0.45
Trenching 1	Excavators	2	8.00	268	0.38
Trenching 1	Other Construction Equipment	2	8.00	354	0.42
Trenching 1	Other Material Handling Equipment	2	8.00	249	0.40
Trenching 1	Rubber Tired Loaders	2	8.00	350	0.36
Trenching 1	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 1	Cranes	0	7.00	226	0.29
Concrete Shell 1	Excavators	0	8.00	268	0.38
Concrete Shell 1	Forklifts	0	8.00	89	0.20

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Concrete Shell 1	Generator Sets	0	8.00	84	0.74
Concrete Shell 1	Other Construction Equipment	5	8.00	354	0.42
Concrete Shell 1	Other Material Handling Equipment	0	8.00	249	0.43
Concrete Shell 1	Pavers	0	8.00	125	0.42
Concrete Shell 1	Paving Equipment	0	8.00	49	0.36
Concrete Shell 1	Rollers	0	8.00	80	0.38
Concrete Shell 1	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 1	Surfacing Equipment	0	8.00	350	0.30
Concrete Shell 1	Tractors/Loaders/Backhoes	4	8.00	110	0.37
Concrete Shell 1	Welders	0	8.00	46	0.45
Trenching 2	Excavators	1	8.00	268	0.38
Trenching 2	Other Construction Equipment	1	8.00	354	0.42
Trenching 2	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 2	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 2	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 2	Air Compressors	0	6.00	78	0.48
Concrete Shell 2	Cranes	0	7.00	226	0.29
Concrete Shell 2	Forklifts	0	8.00	89	0.20
Concrete Shell 2	Generator Sets	0	8.00	84	0.74
Concrete Shell 2	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 2	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 2	Welders	0	8.00	46	0.45
Grading 3	Air Compressors	0	6.00	78	0.48
Grading 3	Cranes	0	8.00	215	0.29
Grading 3	Crawler Tractors	1	8.00	410	0.43
Grading 3	Excavators	0	8.00	162	0.38
Grading 3	Forklifts	0	8.00	89	0.20
Grading 3	Generator Sets	0	8.00	84	0.74

Grading 3	Graders	1	8.00	302	0.41
Grading 3	Off-Highway Tractors	0	8.00	485	0.44
Grading 3	Other Construction Equipment	1	8.00	354	0.42
Grading 3	Other General Industrial Equipment	1	8.00	330	0.34
Grading 3	Rubber Tired Dozers	0	8.00	255	0.40
Grading 3	Rubber Tired Loaders	1	8.00	350	0.36
Grading 3	Scrapers	3	8.00	452	0.48
Grading 3	Surfacing Equipment	0	8.00	350	0.30
Grading 3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 3	Welders	0	8.00	46	0.45
Trenching 3	Excavators	1	8.00	268	0.38
Trenching 3	Other Construction Equipment	1	8.00	354	0.42
Trenching 3	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 3	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 3	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Grading 4	Aerial Lifts	0	8.00	48	0.31
Grading 4	Cranes	0	8.00	215	0.29
Grading 4	Crawler Tractors	1	8.00	410	0.43
Grading 4	Excavators	0	8.00	162	0.38
Grading 4	Forklifts	0	8.00	110	0.20
Grading 4	Generator Sets	0	8.00	84	0.74
Grading 4	Graders	1	8.00	302	0.41
Grading 4	Other Construction Equipment	1	8.00	354	0.42
Grading 4	Other General Industrial Equipment	1	8.00	330	0.34
Grading 4	Rubber Tired Dozers	0	8.00	255	0.40
Grading 4	Rubber Tired Loaders	1	8.00	350	0.36
Grading 4	Scrapers	3	8.00	452	0.48
Grading 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37

Grading 4	Welders	0	8.00	46	0.45
Concrete Shell 3	Cranes	0	7.00	226	0.29
Concrete Shell 3	Forklifts	0	8.00	89	0.20
Concrete Shell 3	Generator Sets	0	8.00	84	0.74
Concrete Shell 3	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 3	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 3	Welders	0	8.00	46	0.45
Trenching 4	Excavators	1	8.00	268	0.38
Trenching 4	Other Construction Equipment	1	8.00	354	0.42
Trenching 4	Other Material Handling Equipment	1	8.00	249	0.40
Trenching 4	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 4	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 4	Air Compressors	0	6.00	78	0.48
Concrete Shell 4	Cranes	0	7.00	226	0.29
Concrete Shell 4	Excavators	0	8.00	268	0.38
Concrete Shell 4	Forklifts	0	8.00	89	0.20
Concrete Shell 4	Generator Sets	0	8.00	84	0.74
Concrete Shell 4	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 4	Other Material Handling Equipment	0	8.00	249	0.40
Concrete Shell 4	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 4	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 4	Welders	0	8.00	46	0.45
Steel & Roof 1	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 1	Air Compressors	0	6.00	78	0.48
Steel & Roof 1	Cranes	2	8.00	215	0.29
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Generator Sets	0	8.00	84	0.74

Steel & Roof 1	Other Construction Equipment	3	8.00	354	0.42
Steel & Roof 1	Pavers	0	8.00	125	0.42
Steel & Roof 1	Paving Equipment	0	8.00	130	0.36
Steel & Roof 1	Rollers	0	8.00	80	0.38
Steel & Roof 1	Rubber Tired Loaders	0	8.00	350	0.36
Steel & Roof 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 1	Trenchers	0	8.00	81	0.50
Steel & Roof 1	Welders	0	8.00	46	0.45
Steel & Roof 2	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 2	Air Compressors	0	6.00	78	0.48
Steel & Roof 2	Cranes	1	8.00	215	0.29
Steel & Roof 2	Crawler Tractors	0	8.00	410	0.43
Steel & Roof 2	Excavators	0	8.00	162	0.38
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Generator Sets	0	8.00	84	0.74
Steel & Roof 2	Graders	0	8.00	302	0.41
Steel & Roof 2	Off-Highway Tractors	0	8.00	485	0.44
Steel & Roof 2	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 2	Rubber Tired Dozers	0	8.00	255	0.40
Steel & Roof 2	Scrapers	0	8.00	452	0.48
Steel & Roof 2	Surfacing Equipment	0	8.00	350	0.30
Steel & Roof 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 2	Welders	0	8.00	46	0.45
Steel & Roof 3	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 3	Cranes	1	8.00	215	0.29
Steel & Roof 3	Forklifts	0	8.00	110	0.20
Steel & Roof 3	Generator Sets	0	8.00	84	0.74

Steel & Roof 3	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Steel & Roof 3	Welders	0	8.00	46	0.45
Roofing & Overhead Work 2	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 2	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 2	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 2	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 2	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 2	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 2	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 2	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 2	Other General Industrial Equipment	0	8.00	330	0.34
Roofing & Overhead Work 2	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 2	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 2	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 2	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 2	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 2	Scrapers	0	8.00	330	0.48
Roofing & Overhead Work 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 1	Aerial Lifts	3	8.00	48	0.31
Roofing & Overhead Work 1	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 1	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 1	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 1	Forklifts	2	8.00	110	0.20

Roofing & Overhead Work 1	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 1	Other Construction Equipment	3	8.00	354	0.42
Roofing & Overhead Work 1	Other Material Handling Equipment	0	8.00	249	0.43
Roofing & Overhead Work 1	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 1	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 1	Welders	0	8.00	46	0.45
Paving 2	Aerial Lifts	0	8.00	48	0.31
Paving 2	Cranes	0	7.00	226	0.29
Paving 2	Crawler Tractors	0	8.00	249	0.43
Paving 2	Excavators	0	8.00	268	0.38
Paving 2	Forklifts	0	8.00	110	0.20
Paving 2	Generator Sets	0	8.00	84	0.74
Paving 2	Graders	0	8.00	174	0.41
Paving 2	Other Construction Equipment	1	8.00	354	0.42
Paving 2	Pavers	0	8.00	125	0.42
Paving 2	Paving Equipment	0	8.00	130	0.36
Paving 2	Rollers	0	8.00	80	0.38
Paving 2	Rubber Tired Dozers	0	8.00	255	0.40
Paving 2	Rubber Tired Loaders	1	8.00	350	0.36
Paving 2	Scrapers	0	8.00	361	0.48
Paving 2	Surfacing Equipment	0	8.00	350	0.30
Paving 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Paving 2	Trenchers	1	8.00	81	0.50
Paving 2	Welders	0	8.00	46	0.45
Architectural Coating 2	Air Compressors	0	6.00	78	0.48
Architectural Coating 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 2	Cranes	0	7.00	226	0.29

Misc. Finishes 2	Forklifts	0	8.00	89	0.20
Misc. Finishes 2	Generator Sets	0	8.00	84	0.74
Misc. Finishes 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 3	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 3	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 3	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 3	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 3	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 3	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 3	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 3	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 3	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 3	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 3	Welders	0	8.00	46	0.45
Steel & Roof 4	Cranes	1	8.00	215	0.29
Steel & Roof 4	Forklifts	0	8.00	89	0.20
Steel & Roof 4	Generator Sets	0	8.00	84	0.74
Steel & Roof 4	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 4	Welders	0	8.00	46	0.45
Paving 3	Other Construction Equipment	1	8.00	354	0.42
Paving 3	Pavers	0	8.00	125	0.42
Paving 3	Paving Equipment	0	8.00	130	0.36
Paving 3	Rollers	0	8.00	80	0.38
Paving 3	Rubber Tired Loaders	1	8.00	350	0.36

Paving 3	Trenchers	1	8.00	81	0.50
Architectural Coating 1	Air Compressors	0	6.00	78	0.48
Architectural Coating 1	Other Construction Equipment	4	8.00	354	0.42
Misc. Finishes 3	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 3	Cranes	0	7.00	226	0.29
Misc. Finishes 3	Forklifts	0	8.00	89	0.20
Misc. Finishes 3	Generator Sets	0	8.00	84	0.74
Misc. Finishes 3	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 3	Welders	0	8.00	46	0.45
Architectural Coating 3	Air Compressors	0	6.00	78	0.48
Architectural Coating 3	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	0	8.00	130	0.36
Paving 1	Rollers	0	8.00	80	0.38
Paving 1	Rubber Tired Loaders	2	8.00	350	0.36
Paving 1	Trenchers	1	8.00	81	0.50
Roofing & Overhead Work 4	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 4	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 4	Concrete/Industrial Saws	0	8.00	81	0.73
Roofing & Overhead Work 4	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	410	0.43
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 4	Excavators	0	8.00	162	0.38
Roofing & Overhead Work 4	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 4	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 4	Generator Sets	0	8.00	84	0.74

Roofing & Overhead Work 4	Graders	0	8.00	302	0.41
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	485	0.44
Roofing & Overhead Work 4	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 4	Other General Industrial Equipment	0	8.00	330	0.37
Roofing & Overhead Work 4	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 4	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 4	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 4	Rubber Tired Dozers	0	8.00	451	0.40
Roofing & Overhead Work 4	Rubber Tired Loaders	0	8.00	350	0.37
Roofing & Overhead Work 4	Scrapers	0	8.00	452	0.48
Roofing & Overhead Work 4	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Roofing & Overhead Work 4	Welders	0	8.00	46	0.45
Architectural Coating 4	Air Compressors	0	6.00	78	0.48
Architectural Coating 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Pavers	0	8.00	125	0.42
Paving 4	Paving Equipment	0	8.00	130	0.36
Paving 4	Rollers	0	8.00	80	0.38
Paving 4	Rubber Tired Loaders	1	8.00	350	0.36
Paving 4	Trenchers	1	8.00	81	0.50
Misc. Finishes 4	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 4	Cranes	0	7.00	226	0.29
Misc. Finishes 4	Forklifts	0	8.00	89	0.20
Misc. Finishes 4	Generator Sets	0	8.00	84	0.74

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Misc. Finishes 4	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 4	Welders	0	8.00	46	0.45
Misc. Finishes 1	Aerial Lifts	2	8.00	48	0.31
Misc. Finishes 1	Cranes	0	7.00	226	0.29
Misc. Finishes 1	Forklifts	0	8.00	89	0.20
Misc. Finishes 1	Generator Sets	0	8.00	84	0.74
Misc. Finishes 1	Other Construction Equipment	2	8.00	354	0.42
Misc. Finishes 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 1	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading 1	19	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 1	9	125.00	416.00	10,384.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 2	6	40.00	416.00	1,374.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 3	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 4	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 3	6	40.00	416.00	1,078.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 4	6	40.00	416.00	1,758.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 1	5	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 2	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Steel & Roof 3	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 2	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 1	8	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	3	8.00	0.00	728.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 2	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 3	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 4	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 3	3	8.00	0.00	778.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	4	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 3	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 3	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 1	4	10.00	0.00	4,152.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 4	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 4	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 4	3	8.00	0.00	838.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 4	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 1	4	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.2 Grading 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					15.5666	0.0000	15.5666	4.3408	0.0000	4.3408			0.0000			0.0000
Off-Road	22.7740	284.8071	173.9787	0.2600		11.4365	11.4365		10.5216	10.5216		27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**22.7740**	**284.8071**	**173.9787**	**0.2600**	**15.5666**	**11.4365**	**27.0031**	**4.3408**	**10.5216**	**14.8624**		**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1755	0.2314	2.3455	5.8800e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		486.7137	486.7137	0.0230		487.1961
Total	**0.1755**	**0.2314**	**2.3455**	**5.8800e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**486.7137**	**486.7137**	**0.0230**		**487.1961**

3.2 Grading 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0710	0.0000	6.0710	1.6929	0.0000	1.6929			0.0000			0.0000
Off-Road	5.9025	61.8452	133.4419	0.2600		2.4855	2.4855		2.3942	2.3942	0.0000	27,015.1809	27,015.1809	8.1487		27,186.3044
Total	**5.9025**	**61.8452**	**133.4419**	**0.2600**	**6.0710**	**2.4855**	**8.5565**	**1.6929**	**2.3942**	**4.0871**	**0.0000**	**27,015.1809**	**27,015.1809**	**8.1487**		**27,186.3044**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1755	0.2314	2.3455	5.8800e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		486.7137	486.7137	0.0230		487.1961
Total	**0.1755**	**0.2314**	**2.3455**	**5.8800e-003**	**0.5365**	**3.3500e-003**	**0.5399**	**0.1423**	**3.0800e-003**	**0.1454**		**486.7137**	**486.7137**	**0.0230**		**487.1961**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.3 Grading 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5729	120.5012	69.6816	0.1160		4.7379	4.7379		4.3589	4.3589		12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**9.5729**	**120.5012**	**69.6816**	**0.1160**	**4.2420**	**4.7379**	**8.9799**	**0.4580**	**4.3589**	**4.8169**		**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.3 Grading 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6544	0.0000	1.6544	0.1786	0.0000	0.1786			0.0000			0.0000
Off-Road	1.8754	21.5998	55.2898	0.1160		0.7890	0.7890		0.7890	0.7890	0.0000	12,046.3077	12,046.3077	3.6336		12,122.6131
Total	**1.8754**	**21.5998**	**55.2898**	**0.1160**	**1.6544**	**0.7890**	**2.4434**	**0.1786**	**0.7890**	**0.9676**	**0.0000**	**12,046.3077**	**12,046.3077**	**3.6336**		**12,122.6131**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.4 Trenching 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.2895	77.7646	37.2357	0.0888		3.1203	3.1203		2.8707	2.8707		9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**6.2895**	**77.7646**	**37.2357**	**0.0888**		**3.1203**	**3.1203**		**2.8707**	**2.8707**		**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0914	0.1205	1.2216	3.0600e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		253.4967	253.4967	0.0120		253.7480
Total	**0.0914**	**0.1205**	**1.2216**	**3.0600e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**253.4967**	**253.4967**	**0.0120**		**253.7480**

3.4 Trenching 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6622	24.8561	45.4748	0.0888		1.0530	1.0530		1.0530	1.0530	0.0000	9,219.1057	9,219.1057	2.7808		9,277.5027
Total	**1.6622**	**24.8561**	**45.4748**	**0.0888**		**1.0530**	**1.0530**		**1.0530**	**1.0530**	**0.0000**	**9,219.1057**	**9,219.1057**	**2.7808**		**9,277.5027**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0914	0.1205	1.2216	3.0600e-003	0.2794	1.7500e-003	0.2812	0.0741	1.6100e-003	0.0757		253.4967	253.4967	0.0120		253.7480
Total	**0.0914**	**0.1205**	**1.2216**	**3.0600e-003**	**0.2794**	**1.7500e-003**	**0.2812**	**0.0741**	**1.6100e-003**	**0.0757**		**253.4967**	**253.4967**	**0.0120**		**253.7480**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	5.5772	68.3870	40.9017	0.0785		3.1121	3.1121		2.8631	2.8631		8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**5.5772**	**68.3870**	**40.9017**	**0.0785**		**3.1121**	**3.1121**		**2.8631**	**2.8631**		**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9736	34.8345	23.5634	0.0900	2.2090	0.6154	2.8244	0.6051	0.5661	1.1711		9,071.5785	9,071.5785	0.0584		9,072.8037
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**5.8786**	**71.2225**	**71.2347**	**0.1921**	**6.2235**	**1.3078**	**7.5313**	**1.7232**	**1.2028**	**2.9260**		**19,052.2517**	**19,052.2517**	**0.1773**		**19,055.9747**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.5 Concrete Shell 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1312	11.2763	39.4687	0.0785		0.6562	0.6562		0.6562	0.6562	0.0000	8,151.1535	8,151.1535	2.4587		8,202.7857
Total	**1.1312**	**11.2763**	**39.4687**	**0.0785**		**0.6562**	**0.6562**		**0.6562**	**0.6562**	**0.0000**	**8,151.1535**	**8,151.1535**	**2.4587**		**8,202.7857**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9736	34.8345	23.5634	0.0900	2.2090	0.6154	2.8244	0.6051	0.5661	1.1711		9,071.5785	9,071.5785	0.0584		9,072.8037
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**5.8786**	**71.2225**	**71.2347**	**0.1921**	**6.2235**	**1.3078**	**7.5313**	**1.7232**	**1.2028**	**2.9260**		**19,052.2517**	**19,052.2517**	**0.1773**		**19,055.9747**

3.6 Trenching 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.6 Trenching 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4283	7.5592	5.1133	0.0195	0.4794	0.1336	0.6129	0.1313	0.1228	0.2541		1,968.5605	1,968.5605	0.0127		1,968.8264
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**4.0226**	**43.5375**	**48.6311**	**0.1113**	**3.5437**	**0.8200**	**4.3637**	**0.9975**	**0.7541**	**1.7515**		**11,087.3449**	**11,087.3449**	**0.0909**		**11,089.2542**

3.7 Concrete Shell 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4283	7.5592	5.1133	0.0195	0.4794	0.1336	0.6129	0.1313	0.1228	0.2541		1,968.5605	1,968.5605	0.0127		1,968.8264
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**4.0226**	**43.5375**	**48.6311**	**0.1113**	**3.5437**	**0.8200**	**4.3637**	**0.9975**	**0.7541**	**1.7515**		**11,087.3449**	**11,087.3449**	**0.0909**		**11,089.2542**

3.8 Grading 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.8 Grading 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6544	0.0000	1.6544	0.1786	0.0000	0.1786			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**1.6544**	**0.7736**	**2.4280**	**0.1786**	**0.7736**	**0.9522**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.9 Trenching 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1973	39.5669	18.8343	0.0450		1.5850	1.5850		1.4582	1.4582		4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**3.1973**	**39.5669**	**18.8343**	**0.0450**		**1.5850**	**1.5850**		**1.4582**	**1.4582**		**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.9 Trenching 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8390	12.4623	23.0273	0.0450		0.5275	0.5275		0.5275	0.5275	0.0000	4,676.1560	4,676.1560	1.4105		4,705.7764
Total	**0.8390**	**12.4623**	**23.0273**	**0.0450**		**0.5275**	**0.5275**		**0.5275**	**0.5275**	**0.0000**	**4,676.1560**	**4,676.1560**	**1.4105**		**4,705.7764**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.10 Grading 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.2420	0.0000	4.2420	0.4580	0.0000	0.4580			0.0000			0.0000
Off-Road	9.5131	119.7766	69.2684	0.1151		4.7102	4.7102		4.3334	4.3334		11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**9.5131**	**119.7766**	**69.2684**	**0.1151**	**4.2420**	**4.7102**	**8.9522**	**0.4580**	**4.3334**	**4.7914**		**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.10 Grading 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6544	0.0000	1.6544	0.1786	0.0000	0.1786			0.0000			0.0000
Off-Road	1.8544	21.1947	54.8358	0.1151		0.7736	0.7736		0.7736	0.7736	0.0000	11,957.7675	11,957.7675	3.6069		12,033.5122
Total	**1.8544**	**21.1947**	**54.8358**	**0.1151**	**1.6544**	**0.7736**	**2.4280**	**0.1786**	**0.7736**	**0.9522**	**0.0000**	**11,957.7675**	**11,957.7675**	**3.6069**		**12,033.5122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0731	0.0964	0.9773	2.4500e-003	0.2236	1.4000e-003	0.2250	0.0593	1.2800e-003	0.0606		202.7974	202.7974	9.5700e-003		202.9984
Total	**0.0731**	**0.0964**	**0.9773**	**2.4500e-003**	**0.2236**	**1.4000e-003**	**0.2250**	**0.0593**	**1.2800e-003**	**0.0606**		**202.7974**	**202.7974**	**9.5700e-003**		**202.9984**

3.11 Concrete Shell 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3575	6.3093	4.2678	0.0163	0.4001	0.1115	0.5116	0.1096	0.1025	0.2121		1,643.0582	1,643.0582	0.0106		1,643.2801
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.9518**	**42.2876**	**47.7856**	**0.1081**	**3.4645**	**0.7979**	**4.2624**	**0.9758**	**0.7338**	**1.7095**		**10,761.8425**	**10,761.8425**	**0.0888**		**10,763.7079**

3.11 Concrete Shell 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3575	6.3093	4.2678	0.0163	0.4001	0.1115	0.5116	0.1096	0.1025	0.2121		1,643.0582	1,643.0582	0.0106		1,643.2801
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.9518**	**42.2876**	**47.7856**	**0.1081**	**3.4645**	**0.7979**	**4.2624**	**0.9758**	**0.7338**	**1.7095**		**10,761.8425**	**10,761.8425**	**0.0888**		**10,763.7079**

3.12 Trenching 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1448	38.8823	18.6179	0.0444		1.5602	1.5602		1.4353	1.4353		4,609.5529	4,609.5529	1.3904		4,638.7514
Total	**3.1448**	**38.8823**	**18.6179**	**0.0444**		**1.5602**	**1.5602**		**1.4353**	**1.4353**		**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.12 Trenching 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8311	12.4281	22.7374	0.0444		0.5265	0.5265		0.5265	0.5265	0.0000	4,609.5529	4,609.5529	1.3904		4,638.7513
Total	**0.8311**	**12.4281**	**22.7374**	**0.0444**		**0.5265**	**0.5265**		**0.5265**	**0.5265**	**0.0000**	**4,609.5529**	**4,609.5529**	**1.3904**		**4,638.7513**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0475	0.0627	0.6352	1.5900e-003	0.1453	9.1000e-004	0.1462	0.0385	8.4000e-004	0.0394		131.8183	131.8183	6.2200e-003		131.9490
Total	**0.0475**	**0.0627**	**0.6352**	**1.5900e-003**	**0.1453**	**9.1000e-004**	**0.1462**	**0.0385**	**8.4000e-004**	**0.0394**		**131.8183**	**131.8183**	**6.2200e-003**		**131.9490**

3.13 Concrete Shell 4 - 2016

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	3.9983	50.2800	29.4382	0.0586		2.1486	2.1486		1.9767	1.9767		6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**3.9983**	**50.2800**	**29.4382**	**0.0586**		**2.1486**	**2.1486**		**1.9767**	**1.9767**		**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.5480	9.6718	6.5424	0.0250	0.6133	0.1709	0.7842	0.1680	0.1572	0.3252		2,518.7259	2,518.7259	0.0162		2,519.0661
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**4.1423**	**45.6502**	**50.0601**	**0.1167**	**3.6777**	**0.8573**	**4.5350**	**1.0342**	**0.7884**	**1.8226**		**11,637.5102**	**11,637.5102**	**0.0945**		**11,639.4939**

3.13 Concrete Shell 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8016	6.6608	28.3879	0.0586		0.3596	0.3596		0.3596	0.3596	0.0000	6,080.4547	6,080.4547	1.8341		6,118.9704
Total	**0.8016**	**6.6608**	**28.3879**	**0.0586**		**0.3596**	**0.3596**		**0.3596**	**0.3596**	**0.0000**	**6,080.4547**	**6,080.4547**	**1.8341**		**6,118.9704**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5480	9.6718	6.5424	0.0250	0.6133	0.1709	0.7842	0.1680	0.1572	0.3252		2,518.7259	2,518.7259	0.0162		2,519.0661
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**4.1423**	**45.6502**	**50.0601**	**0.1167**	**3.6777**	**0.8573**	**4.5350**	**1.0342**	**0.7884**	**1.8226**		**11,637.5102**	**11,637.5102**	**0.0945**		**11,639.4939**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7894	48.4056	23.6538	0.0493		1.9217	1.9217		1.7680	1.7680		5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**3.7894**	**48.4056**	**23.6538**	**0.0493**		**1.9217**	**1.9217**		**1.7680**	**1.7680**		**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.14 Steel & Roof 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8420	18.2779	22.9861	0.0493		0.7995	0.7995		0.7406	0.7406	0.0000	5,125.1584	5,125.1584	1.5459		5,157.6229
Total	**1.8420**	**18.2779**	**22.9861**	**0.0493**		**0.7995**	**0.7995**		**0.7406**	**0.7406**	**0.0000**	**5,125.1584**	**5,125.1584**	**1.5459**		**5,157.6229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.15 Steel & Roof 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.16 Steel & Roof 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.17 Roofing & Overhead Work 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1597	39.8954	23.6141	0.0467		1.6713	1.6713		1.5376	1.5376		4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**3.1597**	**39.8954**	**23.6141**	**0.0467**		**1.6713**	**1.6713**		**1.5376**	**1.5376**		**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.18 Roofing & Overhead Work 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2123	9.7677	22.9463	0.0467		0.5491	0.5491		0.5102	0.5102	0.0000	4,845.3578	4,845.3578	1.4615		4,876.0499
Total	**1.2123**	**9.7677**	**22.9463**	**0.0467**		**0.5491**	**0.5491**		**0.5102**	**0.5102**	**0.0000**	**4,845.3578**	**4,845.3578**	**1.4615**		**4,876.0499**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.4569	0.6025	6.1081	0.0153	1.3972	8.7300e-003	1.4059	0.3706	8.0300e-003	0.3786		1,267.4836	1,267.4836	0.0598		1,268.7399
Total	**3.9050**	**36.3880**	**47.6713**	**0.1022**	**4.0145**	**0.6924**	**4.7069**	**1.1181**	**0.6367**	**1.7548**		**9,980.6733**	**9,980.6733**	**0.1189**		**9,983.1710**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9659	36.9597	22.2694	0.0466		1.5220	1.5220		1.4002	1.4002		4,764.8981	4,764.8981	1.4600		4,795.5572
Total	**2.9659**	**36.9597**	**22.2694**	**0.0466**		**1.5220**	**1.5220**		**1.4002**	**1.4002**		**4,764.8981**	**4,764.8981**	**1.4600**		**4,795.5572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.1639	1,217.1639	0.0549		1,218.3162
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.9941**	**9,782.9941**	**0.1119**		**9,785.3448**

3.18 Roofing & Overhead Work 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1581	9.2917	22.8897	0.0466		0.4976	0.4976		0.4628	0.4628	0.0000	4,764.8981	4,764.8981	1.4600		4,795.5572
Total	**1.1581**	**9.2917**	**22.8897**	**0.0466**		**0.4976**	**0.4976**		**0.4628**	**0.4628**	**0.0000**	**4,764.8981**	**4,764.8981**	**1.4600**		**4,795.5572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.1639	1,217.1639	0.0549		1,218.3162
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.9941**	**9,782.9941**	**0.1119**		**9,785.3448**

3.19 Paving 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4052	7.1521	4.8380	0.0185	0.4536	0.1264	0.5799	0.1242	0.1162	0.2405		1,862.5390	1,862.5390	0.0120		1,862.7906
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.4345**	**7.1906**	**5.2289**	**0.0195**	**0.5430**	**0.1269**	**0.6699**	**0.1479**	**0.1167**	**0.2647**		**1,943.6580**	**1,943.6580**	**0.0158**		**1,943.9900**

3.19 Paving 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4052	7.1521	4.8380	0.0185	0.4536	0.1264	0.5799	0.1242	0.1162	0.2405		1,862.5390	1,862.5390	0.0120		1,862.7906
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.4345**	**7.1906**	**5.2289**	**0.0195**	**0.5430**	**0.1269**	**0.6699**	**0.1479**	**0.1167**	**0.2647**		**1,943.6580**	**1,943.6580**	**0.0158**		**1,943.9900**

3.20 Architectural Coating 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.3467					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**14.1532**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.20 Architectural Coating 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.3467					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**13.5041**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.21 Misc. Finishes 2 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.22 Roofing & Overhead Work 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.23 Steel & Roof 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2979	29.5650	14.8227	0.0311		1.1584	1.1584		1.0657	1.0657		3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**2.2979**	**29.5650**	**14.8227**	**0.0311**		**1.1584**	**1.1584**		**1.0657**	**1.0657**		**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.23 Steel & Roof 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9997	9.4799	14.3775	0.0311		0.4102	0.4102		0.3808	0.3808	0.0000	3,230.8719	3,230.8719	0.9746		3,251.3373
Total	**0.9997**	**9.4799**	**14.3775**	**0.0311**		**0.4102**	**0.4102**		**0.3808**	**0.3808**	**0.0000**	**3,230.8719**	**3,230.8719**	**0.9746**		**3,251.3373**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.24 Paving 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2385	25.9379	13.6295	0.0271		1.1680	1.1680		1.0746	1.0746		2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.9209**	**25.9379**	**13.6295**	**0.0271**		**1.1680**	**1.1680**		**1.0746**	**1.0746**		**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4330	7.6433	5.1702	0.0197	0.6072	0.1350	0.7422	0.1628	0.1242	0.2870		1,990.4607	1,990.4607	0.0128		1,990.7295
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.4623**	**7.6819**	**5.5611**	**0.0207**	**0.6966**	**0.1356**	**0.8322**	**0.1865**	**0.1247**	**0.3113**		**2,071.5796**	**2,071.5796**	**0.0166**		**2,071.9289**

3.24 Paving 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,812.8961	2,812.8961	0.8485		2,830.7140
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,812.8961**	**2,812.8961**	**0.8485**		**2,830.7140**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4330	7.6433	5.1702	0.0197	0.6072	0.1350	0.7422	0.1628	0.1242	0.2870		1,990.4607	1,990.4607	0.0128		1,990.7295
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0292	0.0386	0.3909	9.8000e-004	0.0894	5.6000e-004	0.0900	0.0237	5.1000e-004	0.0242		81.1190	81.1190	3.8300e-003		81.1994
Total	**0.4623**	**7.6819**	**5.5611**	**0.0207**	**0.6966**	**0.1356**	**0.8322**	**0.1865**	**0.1247**	**0.3113**		**2,071.5796**	**2,071.5796**	**0.0166**		**2,071.9289**

3.24 Paving 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.8069**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4014	6.9926	4.9704	0.0197	1.5868	0.1242	1.7110	0.4033	0.1142	0.5175		1,956.7200	1,956.7200	0.0125		1,956.9827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.4275**	**7.0272**	**5.3204**	**0.0207**	**1.6762**	**0.1247**	**1.8009**	**0.4270**	**0.1147**	**0.5417**		**2,034.6185**	**2,034.6185**	**0.0160**		**2,034.9549**

3.24 Paving 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1921**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4014	6.9926	4.9704	0.0197	1.5868	0.1242	1.7110	0.4033	0.1142	0.5175		1,956.7200	1,956.7200	0.0125		1,956.9827
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.4275**	**7.0272**	**5.3204**	**0.0207**	**1.6762**	**0.1247**	**1.8009**	**0.4270**	**0.1147**	**0.5417**		**2,034.6185**	**2,034.6185**	**0.0160**		**2,034.9549**

3.25 Architectural Coating 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.2259	42.8974	23.9663	0.0515		1.5802	1.5802		1.4538	1.4538		5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**32.1142**	**42.8974**	**23.9663**	**0.0515**		**1.5802**	**1.5802**		**1.4538**	**1.4538**		**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.25 Architectural Coating 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0515		0.0839	0.0839		0.0839	0.0839	0.0000	5,346.3413	5,346.3413	1.6127		5,380.2069
Total	**29.5176**	**2.7272**	**23.0759**	**0.0515**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,346.3413**	**5,346.3413**	**1.6127**		**5,380.2069**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.25 Architectural Coating 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	3.0399	39.6179	22.2488	0.0514		1.4498	1.4498		1.3338	1.3338		5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**31.9282**	**39.6179**	**22.2488**	**0.0514**		**1.4498**	**1.4498**		**1.3338**	**1.3338**		**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.25 Architectural Coating 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.8883					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6293	2.7272	23.0759	0.0514		0.0839	0.0839		0.0839	0.0839	0.0000	5,256.3799	5,256.3799	1.6106		5,290.2014
Total	**29.5176**	**2.7272**	**23.0759**	**0.0514**		**0.0839**	**0.0839**		**0.0839**	**0.0839**	**0.0000**	**5,256.3799**	**5,256.3799**	**1.6106**		**5,290.2014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8663	11.6890	6.8307	0.0143		0.4225	0.4225		0.3887	0.3887		1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.8663**	**11.6890**	**6.8307**	**0.0143**		**0.4225**	**0.4225**		**0.3887**	**0.3887**		**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.26 Misc. Finishes 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2171	1.6464	6.6081	0.0143		0.0484	0.0484		0.0462	0.0462	0.0000	1,484.3371	1,484.3371	0.4477		1,493.7394
Total	**0.2171**	**1.6464**	**6.6081**	**0.0143**		**0.0484**	**0.0484**		**0.0462**	**0.0462**	**0.0000**	**1,484.3371**	**1,484.3371**	**0.4477**		**1,493.7394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.26 Misc. Finishes 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.27 Architectural Coating 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.8065	10.7243	5.9916	0.0129		0.3951	0.3951		0.3635	0.3635		1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**12.0711**	**10.7243**	**5.9916**	**0.0129**		**0.3951**	**0.3951**		**0.3635**	**0.3635**		**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.27 Architectural Coating 3 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,336.5853	1,336.5853	0.4032		1,345.0517
Total	**11.4219**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,336.5853**	**1,336.5853**	**0.4032**		**1,345.0517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.7786	1.0266	10.4082	0.0261	2.3808	0.0149	2.3957	0.6314	0.0137	0.6451		2,159.7921	2,159.7921	0.1019		2,161.9328
Total	**0.7786**	**1.0266**	**10.4082**	**0.0261**	**2.3808**	**0.0149**	**2.3957**	**0.6314**	**0.0137**	**0.6451**		**2,159.7921**	**2,159.7921**	**0.1019**		**2,161.9328**

3.27 Architectural Coating 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**12.0246**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.27 Architectural Coating 3 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	11.2646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**11.4219**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.28 Paving 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1077	36.2213	18.4186	0.0378		1.5543	1.5543		1.4299	1.4299		3,924.9846	3,924.9846	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.6370**	**36.2213**	**18.4186**	**0.0378**		**1.5543**	**1.5543**		**1.4299**	**1.4299**		**3,924.9846**	**3,924.9846**	**1.1839**		**3,949.8468**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7271	12.8330	8.6807	0.0331	9.3460	0.2267	9.5727	2.3172	0.2085	2.5257		3,341.9456	3,341.9456	0.0215		3,342.3970
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0366	0.0482	0.4887	1.2200e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		101.3987	101.3987	4.7900e-003		101.4992
Total	**0.7636**	**12.8812**	**9.1694**	**0.0344**	**9.4578**	**0.2274**	**9.6852**	**2.3468**	**0.2092**	**2.5560**		**3,443.3443**	**3,443.3443**	**0.0263**		**3,443.8962**

3.28 Paving 1 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,924.9845	3,924.9845	1.1839		3,949.8468
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,924.9845**	**3,924.9845**	**1.1839**		**3,949.8468**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7271	12.8330	8.6807	0.0331	9.3460	0.2267	9.5727	2.3172	0.2085	2.5257		3,341.9456	3,341.9456	0.0215		3,342.3970
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0366	0.0482	0.4887	1.2200e-003	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		101.3987	101.3987	4.7900e-003		101.4992
Total	**0.7636**	**12.8812**	**9.1694**	**0.0344**	**9.4578**	**0.2274**	**9.6852**	**2.3468**	**0.2092**	**2.5560**		**3,443.3443**	**3,443.3443**	**0.0263**		**3,443.8962**

3.28 Paving 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9451	33.5783	17.5545	0.0378		1.4486	1.4486		1.3327	1.3327		3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4744**	**33.5783**	**17.5545**	**0.0378**		**1.4486**	**1.4486**		**1.3327**	**1.3327**		**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6740	11.7404	8.3451	0.0331	0.8584	0.2085	1.0669	0.2339	0.1918	0.4257		3,285.2956	3,285.2956	0.0210		3,285.7366
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0327	0.0432	0.4376	1.2200e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		97.3731	97.3731	4.3900e-003		97.4653
Total	**0.7066**	**11.7837**	**8.7827**	**0.0343**	**0.9702**	**0.2092**	**1.1794**	**0.2635**	**0.1924**	**0.4559**		**3,382.6687**	**3,382.6687**	**0.0254**		**3,383.2019**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.28 Paving 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7764	12.9503	19.9676	0.0378		0.5492	0.5492		0.5492	0.5492	0.0000	3,860.5983	3,860.5983	1.1829		3,885.4388
Paving	0.5293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3057**	**12.9503**	**19.9676**	**0.0378**		**0.5492**	**0.5492**		**0.5492**	**0.5492**	**0.0000**	**3,860.5983**	**3,860.5983**	**1.1829**		**3,885.4388**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6740	11.7404	8.3451	0.0331	0.8584	0.2085	1.0669	0.2339	0.1918	0.4257		3,285.2956	3,285.2956	0.0210		3,285.7366
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0327	0.0432	0.4376	1.2200e-003	0.1118	6.8000e-004	0.1125	0.0296	6.3000e-004	0.0303		97.3731	97.3731	4.3900e-003		97.4653
Total	**0.7066**	**11.7837**	**8.7827**	**0.0343**	**0.9702**	**0.2092**	**1.1794**	**0.2635**	**0.1924**	**0.4559**		**3,382.6687**	**3,382.6687**	**0.0254**		**3,383.2019**

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9532	24.8275	14.3833	0.0291		1.0194	1.0194		0.9379	0.9379		3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**1.9532**	**24.8275**	**14.3833**	**0.0291**		**1.0194**	**1.0194**		**0.9379**	**0.9379**		**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.29 Roofing & Overhead Work 4 - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6549	4.7424	13.9381	0.0291		0.2713	0.2713		0.2529	0.2529	0.0000	3,017.0957	3,017.0957	0.9101		3,036.2070
Total	**0.6549**	**4.7424**	**13.9381**	**0.0291**		**0.2713**	**0.2713**		**0.2529**	**0.2529**	**0.0000**	**3,017.0957**	**3,017.0957**	**0.9101**		**3,036.2070**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4481	35.7856	41.5632	0.0869	2.6173	0.6836	3.3009	0.7476	0.6287	1.3763		8,713.1896	8,713.1896	0.0591		8,714.4311
Worker	0.1462	0.1928	1.9546	4.9000e-003	0.4471	2.8000e-003	0.4499	0.1186	2.5700e-003	0.1211		405.5948	405.5948	0.0191		405.9968
Total	**3.5943**	**35.9783**	**43.5177**	**0.0918**	**3.0644**	**0.6864**	**3.7508**	**0.8662**	**0.6312**	**1.4974**		**9,118.7844**	**9,118.7844**	**0.0783**		**9,120.4278**

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8355	22.9768	13.4999	0.0290		0.9319	0.9319		0.8573	0.8573		2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**1.8355**	**22.9768**	**13.4999**	**0.0290**		**0.9319**	**0.9319**		**0.8573**	**0.8573**		**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.29 Roofing & Overhead Work 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6303	4.5315	13.9135	0.0290		0.2489	0.2489		0.2324	0.2324	0.0000	2,966.7690	2,966.7690	0.9090		2,985.8582
Total	**0.6303**	**4.5315**	**13.9135**	**0.0290**		**0.2489**	**0.2489**		**0.2324**	**0.2324**	**0.0000**	**2,966.7690**	**2,966.7690**	**0.9090**		**2,985.8582**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.30 Architectural Coating 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.7600	9.9045	5.5622	0.0129		0.3625	0.3625		0.3335	0.3335		1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**14.8334**	**9.9045**	**5.5622**	**0.0129**		**0.3625**	**0.3625**		**0.3335**	**0.3335**		**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

3.30 Architectural Coating 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.0735					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1573	0.6818	5.7690	0.0129		0.0210	0.0210		0.0210	0.0210	0.0000	1,314.0950	1,314.0950	0.4026		1,322.5504
Total	**14.2308**	**0.6818**	**5.7690**	**0.0129**		**0.0210**	**0.0210**		**0.0210**	**0.0210**	**0.0000**	**1,314.0950**	**1,314.0950**	**0.4026**		**1,322.5504**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6955	0.9203	9.3201	0.0261	2.3808	0.0145	2.3953	0.6314	0.0134	0.6448		2,074.0473	2,074.0473	0.0935		2,076.0107
Total	**0.6955**	**0.9203**	**9.3201**	**0.0261**	**2.3808**	**0.0145**	**2.3953**	**0.6314**	**0.0134**	**0.6448**		**2,074.0473**	**2,074.0473**	**0.0935**		**2,076.0107**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.31 Paving 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1245	24.1267	12.9756	0.0271		1.0924	1.0924		1.0050	1.0050		2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**3.4330**	**24.1267**	**12.9756**	**0.0271**		**1.0924**	**1.0924**		**1.0050**	**1.0050**		**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3363	5.8581	4.1640	0.0165	0.4061	0.1040	0.5101	0.1112	0.0957	0.2069		1,639.2630	1,639.2630	0.0105		1,639.4830
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.3624**	**5.8927**	**4.5140**	**0.0175**	**0.4955**	**0.1046**	**0.6001**	**0.1349**	**0.0962**	**0.2312**		**1,717.1615**	**1,717.1615**	**0.0140**		**1,717.4553**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.31 Paving 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5097	7.7946	14.1898	0.0271		0.3537	0.3537		0.3537	0.3537	0.0000	2,766.6324	2,766.6324	0.8477		2,784.4339
Paving	1.3085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.8183**	**7.7946**	**14.1898**	**0.0271**		**0.3537**	**0.3537**		**0.3537**	**0.3537**	**0.0000**	**2,766.6324**	**2,766.6324**	**0.8477**		**2,784.4339**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3363	5.8581	4.1640	0.0165	0.4061	0.1040	0.5101	0.1112	0.0957	0.2069		1,639.2630	1,639.2630	0.0105		1,639.4830
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0261	0.0346	0.3501	9.8000e-004	0.0894	5.4000e-004	0.0900	0.0237	5.0000e-004	0.0242		77.8985	77.8985	3.5100e-003		77.9722
Total	**0.3624**	**5.8927**	**4.5140**	**0.0175**	**0.4955**	**0.1046**	**0.6001**	**0.1349**	**0.0962**	**0.2312**		**1,717.1615**	**1,717.1615**	**0.0140**		**1,717.4553**

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8148	10.8150	6.3939	0.0143		0.3832	0.3832		0.3525	0.3525		1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.8148**	**10.8150**	**6.3939**	**0.0143**		**0.3832**	**0.3832**		**0.3525**	**0.3525**		**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.32 Misc. Finishes 4 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2122	1.5923	6.6007	0.0143		0.0417	0.0417		0.0400	0.0400	0.0000	1,459.5501	1,459.5501	0.4472		1,468.9414
Total	**0.2122**	**1.5923**	**6.6007**	**0.0143**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**1,459.5501**	**1,459.5501**	**0.4472**		**1,468.9414**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.1306	0.1728	1.7503	4.9000e-003	0.4471	2.7200e-003	0.4498	0.1186	2.5100e-003	0.1211		389.4924	389.4924	0.0176		389.8612
Total	**3.2383**	**32.6075**	**41.0093**	**0.0916**	**3.0645**	**0.6151**	**3.6796**	**0.8662**	**0.5657**	**1.4319**		**8,955.3226**	**8,955.3226**	**0.0746**		**8,956.8898**

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6297	21.6300	12.7878	0.0286		0.7663	0.7663		0.7050	0.7050		2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**1.6297**	**21.6300**	**12.7878**	**0.0286**		**0.7663**	**0.7663**		**0.7050**	**0.7050**		**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.1639	1,217.1639	0.0549		1,218.3162
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.9941**	**9,782.9941**	**0.1119**		**9,785.3448**

3.33 Misc. Finishes 1 - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4244	3.1847	13.2014	0.0286		0.0834	0.0834		0.0801	0.0801	0.0000	2,919.1003	2,919.1003	0.8944		2,937.8828
Total	**0.4244**	**3.1847**	**13.2014**	**0.0286**		**0.0834**	**0.0834**		**0.0801**	**0.0801**	**0.0000**	**2,919.1003**	**2,919.1003**	**0.8944**		**2,937.8828**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.1077	32.4347	39.2591	0.0867	2.6174	0.6124	3.2297	0.7476	0.5632	1.3109		8,565.8302	8,565.8302	0.0571		8,567.0286
Worker	0.4082	0.5401	5.4695	0.0153	1.3972	8.4900e-003	1.4057	0.3706	7.8400e-003	0.3784		1,217.1639	1,217.1639	0.0549		1,218.3162
Total	**3.5159**	**32.9748**	**44.7286**	**0.1020**	**4.0146**	**0.6209**	**4.6354**	**1.1182**	**0.5711**	**1.6892**		**9,782.9941**	**9,782.9941**	**0.1119**		**9,785.3448**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Unmitigated	50.2645	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	50.2270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0375	3.6800e-003	0.3886	3.0000e-005		1.4000e-003	1.4000e-003		1.4000e-003	1.4000e-003		0.8175	0.8175	2.2800e-003		0.8653
Total	**50.2645**	**3.6800e-003**	**0.3886**	**3.0000e-005**		**1.4000e-003**	**1.4000e-003**		**1.4000e-003**	**1.4000e-003**		**0.8175**	**0.8175**	**2.2800e-003**		**0.8653**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

MoVal Logistics Center- Operational High Cube (Trucks)

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operational run only

Trips and VMT - Operational Run Only.

Vehicle Trips - ITE Truck Trip Rate for High-Cube Warehouse.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24NG	2.11	1.76
tblEnergyUse	T24NG	3.42	2.85
tblLandUse	LotAcreage	27.04	41.61
tblLandUse	LotAcreage	3.99	4.62
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MDV	0.17	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

tblVehicleTrips	WD_TR	2.59	0.64
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	19.7722	429.9794	184.4630	1.3460	42.6974	8.3941	51.0915	11.8526	7.7224	19.5750		133,430.7588	133,430.7588	0.8864		133,449.3730
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**67.5063**	**446.1277**	**191.4893**	**1.3797**	**42.6974**	**9.0504**	**51.7478**	**11.8526**	**8.3442**	**20.1969**		**138,606.5167**	**138,606.5167**	**1.4529**	**0.0652**	**138,657.2260**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	19.7722	429.9794	184.4630	1.3460	42.6974	8.3941	51.0915	11.8526	7.7224	19.5750		133,430.7588	133,430.7588	0.8864		133,449.3730
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**67.5063**	**446.1277**	**191.4893**	**1.3797**	**42.6974**	**9.0504**	**51.7478**	**11.8526**	**8.3442**	**20.1969**		**138,606.5167**	**138,606.5167**	**1.4529**	**0.0652**	**138,657.2260**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.41**	**2.96**	**2.22**	**1.15**	**0.00**	**4.75**	**0.83**	**0.00**	**4.74**	**1.96**	**0.00**	**1.17**	**1.17**	**34.19**	**0.00**	**1.18**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	19.7722	429.9794	184.4630	1.3460	42.6974	8.3941	51.0915	11.8526	7.7224	19.5750		133,430.7588	133,430.7588	0.8864		133,449.3730
Mitigated	19.7722	429.9794	184.4630	1.3460	42.6974	8.3941	51.0915	11.8526	7.7224	19.5750		133,430.7588	133,430.7588	0.8864		133,449.3730

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	753.93	753.93	753.93	15,611,175	15,611,175
Refrigerated Warehouse-No Rail	111.20	111.20	111.20	2,302,543	2,302,543
Total	865.13	865.13	865.13	17,913,718	17,913,718

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Refrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
NaturalGas Mitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	24446.6	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Unrefrigerated Warehouse-No Rail	5762.68	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	5.76268	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	24.4466	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Mitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/Backhoes	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**0.9503**	**13.1839**	**4.2537**	**0.0159**		**0.4302**	**0.4302**		**0.3958**	**0.3958**		**1,621.1261**	**1,621.1261**	**0.4967**		**1,631.5570**

10.0 Vegetation

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MoVal Logistics Center- Operational High Cube (Trucks)

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operational run only

Trips and VMT - Operational Run Only.

Vehicle Trips - ITE Truck Trip Rate for High-Cube Warehouse.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24NG	2.11	1.76
tblEnergyUse	T24NG	3.42	2.85
tblLandUse	LotAcreage	27.04	41.61
tblLandUse	LotAcreage	3.99	4.62
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00

tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MDV	0.17	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64

tblVehicleTrips	WD_TR	2.59	0.64
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	20.1132	447.9493	194.2242	1.3450	42.6974	8.4011	51.0985	11.8526	7.7288	19.5814		133,311.4735	133,311.4735	0.8905		133,330.1738
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**67.8474**	**464.0976**	**201.2505**	**1.3786**	**42.6974**	**9.0574**	**51.7548**	**11.8526**	**8.3506**	**20.2033**		**138,487.2313**	**138,487.2313**	**1.4570**	**0.0652**	**138,538.0268**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	20.1132	447.9493	194.2242	1.3450	42.6974	8.4011	51.0985	11.8526	7.7288	19.5814		133,311.4735	133,311.4735	0.8905		133,330.1738
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**67.8474**	**464.0976**	**201.2505**	**1.3786**	**42.6974**	**9.0574**	**51.7548**	**11.8526**	**8.3506**	**20.2033**		**138,487.2313**	**138,487.2313**	**1.4570**	**0.0652**	**138,538.0268**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.40**	**2.84**	**2.11**	**1.15**	**0.00**	**4.75**	**0.83**	**0.00**	**4.74**	**1.96**	**0.00**	**1.17**	**1.17**	**34.09**	**0.00**	**1.18**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	20.1132	447.9493	194.2242	1.3450	42.6974	8.4011	51.0985	11.8526	7.7288	19.5814		133,311.4735	133,311.4735	0.8905		133,330.1738
Mitigated	20.1132	447.9493	194.2242	1.3450	42.6974	8.4011	51.0985	11.8526	7.7288	19.5814		133,311.4735	133,311.4735	0.8905		133,330.1738

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	753.93	753.93	753.93	15,611,175	15,611,175
Refrigerated Warehouse-No Rail	111.20	111.20	111.20	2,302,543	2,302,543
Total	865.13	865.13	865.13	17,913,718	17,913,718

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Refrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
NaturalGas Mitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	24446.6	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Unrefrigerated Warehouse-No Rail	5762.68	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	24.4466	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Unrefrigerated Warehouse-No Rail	5.76268	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Mitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

7.0 Water Detail

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.126 1	1,621.126 1	0.4967		1,631.557 0
Total	**0.9503**	**13.1839**	**4.2537**	**0.0159**		**0.4302**	**0.4302**		**0.3958**	**0.3958**		**1,621.126 1**	**1,621.126 1**	**0.4967**		**1,631.557 0**

10.0 Vegetation

MoVal Logistics Center- Operational High Cube (Passenger Car)

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization Urban

Wind Speed (m/s) 2.4

Precipitation Freq (Days) 28

Climate Zone 10

Operational Year 2017

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 515.4741

CH4 Intensity (lb/MWhr) 0.029

N2O Intensity (lb/MWhr) 0.006

1.3 User Entered Comments & Non-Default Data

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocation," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

Vehicle Trips - ITE Passenger Cars Trip Rate for High-Cube Warehouse. For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00

tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.4741
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	2.9820	3.7273	51.4152	0.1747	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		13,532.2083	13,532.2083	0.4631		13,541.9334
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**50.7162**	**19.8756**	**58.4415**	**0.2084**	**16.5359**	**0.7341**	**17.2699**	**4.3835**	**0.6936**	**5.0771**		**18,707.9661**	**18,707.9661**	**1.0296**	**0.0652**	**18,749.7864**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	2.9820	3.7273	51.4152	0.1747	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		13,532.2083	13,532.2083	0.4631		13,541.9334
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**50.7162**	**19.8756**	**58.4415**	**0.2084**	**16.5359**	**0.7341**	**17.2699**	**4.3835**	**0.6936**	**5.0771**		**18,707.9661**	**18,707.9661**	**1.0296**	**0.0652**	**18,749.7864**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.87**	**66.33**	**7.28**	**7.61**	**0.00**	**58.60**	**2.49**	**0.00**	**57.06**	**7.80**	**0.00**	**8.67**	**8.67**	**48.24**	**0.00**	**8.70**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

<u>Trips and VMT</u>

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

<u>Unmitigated Construction On-Site</u>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

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3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	2.9820	3.7273	51.4152	0.1747	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		13,532.2083	13,532.2083	0.4631		13,541.9334
Mitigated	2.9820	3.7273	51.4152	0.1747	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		13,532.2083	13,532.2083	0.4631		13,541.9334

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	180.70	180.70	180.70	1,018,358	1,018,358
Unrefrigerated Warehouse-No Rail	1,225.14	1,225.14	1225.14	6,904,440	6,904,440
Total	1,405.84	1,405.84	1,405.84	7,922,799	7,922,799

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
NaturalGas Mitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	24446.6	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Unrefrigerated Warehouse-No Rail	5762.68	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Unrefrigerated Warehouse-No Rail	5.76268	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	24.4466	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Mitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**0.9503**	**13.1839**	**4.2537**	**0.0159**		**0.4302**	**0.4302**		**0.3958**	**0.3958**		**1,621.1261**	**1,621.1261**	**0.4967**		**1,631.5570**

10.0 Vegetation

MoVal Logistics Center- Operational High Cube (Passenger Car)

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.4741	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocation," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

Vehicle Trips - ITE Passenger Cars Trip Rate for High-Cube Warehouse. For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00

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tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.4741
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04

tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	2.7817	3.9444	43.5173	0.1591	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		12,337.6639	12,337.6639	0.4631		12,347.3890
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**50.5159**	**20.0927**	**50.5437**	**0.1927**	**16.5359**	**0.7341**	**17.2699**	**4.3835**	**0.6936**	**5.0771**		**17,513.4217**	**17,513.4217**	**1.0296**	**0.0652**	**17,555.2420**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Energy	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
Mobile	2.7817	3.9444	43.5173	0.1591	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		12,337.6639	12,337.6639	0.4631		12,347.3890
Offroad	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**50.5159**	**20.0927**	**50.5437**	**0.1927**	**16.5359**	**0.7341**	**17.2699**	**4.3835**	**0.6936**	**5.0771**		**17,513.4217**	**17,513.4217**	**1.0296**	**0.0652**	**17,555.2420**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.88**	**65.62**	**8.42**	**8.23**	**0.00**	**58.60**	**2.49**	**0.00**	**57.06**	**7.80**	**0.00**	**9.26**	**9.26**	**48.24**	**0.00**	**9.29**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	2.7817	3.9444	43.5173	0.1591	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		12,337.6639	12,337.6639	0.4631		12,347.3890
Mitigated	2.7817	3.9444	43.5173	0.1591	16.5359	0.0778	16.6136	4.3835	0.0717	4.4552		12,337.6639	12,337.6639	0.4631		12,347.3890

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	180.70	180.70	180.70	1,018,358	1,018,358
Unrefrigerated Warehouse-No Rail	1,225.14	1,225.14	1225.14	6,904,440	6,904,440
Total	1,405.84	1,405.84	1,405.84	7,922,799	7,922,799

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618
NaturalGas Mitigated	0.3258	2.9617	2.4878	0.0178		0.2251	0.2251		0.2251	0.2251		3,554.0325	3,554.0325	0.0681	0.0652	3,575.6618

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	24446.6	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Unrefrigerated Warehouse-No Rail	5762.68	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Refrigerated Warehouse-No Rail	24.4466	0.2636	2.3967	2.0133	0.0144		0.1822	0.1822		0.1822	0.1822		2,876.0702	2,876.0702	0.0551	0.0527	2,893.5735
Unrefrigerated Warehouse-No Rail	5.76268	0.0622	0.5650	0.4746	3.3900e-003		0.0429	0.0429		0.0429	0.0429		677.9624	677.9624	0.0130	0.0124	682.0883
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3258**	**2.9617**	**2.4878**	**0.0178**		**0.2251**	**0.2251**		**0.2251**	**0.2251**		**3,554.0326**	**3,554.0326**	**0.0681**	**0.0652**	**3,575.6618**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Mitigated	46.4581	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	37.7422					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0275	2.7000e-003	0.2848	2.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003		0.5992	0.5992	1.6700e-003		0.6342
Total	**46.4581**	**2.7000e-003**	**0.2848**	**2.0000e-005**		**1.0300e-003**	**1.0300e-003**		**1.0300e-003**	**1.0300e-003**		**0.5992**	**0.5992**	**1.6700e-003**		**0.6342**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.9503	13.1839	4.2537	0.0159		0.4302	0.4302		0.3958	0.3958		1,621.1261	1,621.1261	0.4967		1,631.5570
Total	**0.9503**	**13.1839**	**4.2537**	**0.0159**		**0.4302**	**0.4302**		**0.3958**	**0.3958**		**1,621.1261**	**1,621.1261**	**0.4967**		**1,631.5570**

10.0 Vegetation

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

MoVal Logistics Center- Operations Light Industrial (Trucks)

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Truck Trip Rate based on Traffic Study

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Energy	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904
Mobile	11.2750	244.1738	107.1268	0.7757	27.9996	4.5520	32.5516	7.7694	4.1877	11.9571		76,675.4233	76,675.4233	0.5762		76,687.5239
Offroad	0.3801	5.2736	1.7015	6.3400e-003		0.1721	0.1721		0.1583	0.1583		648.4504	648.4504	0.1987		652.6228
Total	**26.9944**	**252.6168**	**111.5936**	**0.8010**	**27.9996**	**4.9652**	**32.9648**	**7.7694**	**4.5872**	**12.3566**		**81,126.2432**	**81,126.2432**	**0.8484**	**0.0697**	**81,165.6682**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Energy	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904
Mobile	11.2750	244.1738	107.1268	0.7757	27.9996	4.5520	32.5516	7.7694	4.1877	11.9571		76,675.4233	76,675.4233	0.5762		76,687.5239
Offroad	0.3801	5.2736	1.7015	6.3400e-003		0.1721	0.1721		0.1583	0.1583		648.4504	648.4504	0.1987		652.6228
Total	**26.9944**	**252.6168**	**111.5936**	**0.8010**	**27.9996**	**4.9652**	**32.9648**	**7.7694**	**4.5872**	**12.3566**		**81,126.2432**	**81,126.2432**	**0.8484**	**0.0697**	**81,165.6682**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.41**	**2.09**	**1.52**	**0.79**	**0.00**	**3.47**	**0.52**	**0.00**	**3.45**	**1.28**	**0.00**	**0.80**	**0.80**	**23.42**	**0.00**	**0.80**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	11.2750	244.1738	107.1268	0.7757	27.9996	4.5520	32.5516	7.7694	4.1877	11.9571		76,675.4233	76,675.4233	0.5762		76,687.5239
Mitigated	11.2750	244.1738	107.1268	0.7757	27.9996	4.5520	32.5516	7.7694	4.1877	11.9571		76,675.4233	76,675.4233	0.5762		76,687.5239

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	182.55	182.55	182.55	3,780,038	3,780,038
General Light Industry	144.86	144.86	144.86	2,999,472	2,999,472
General Light Industry	247.35	247.35	247.35	5,121,810	5,121,810
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	574.77	574.77	574.77	11,901,321	11,901,321

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.374000	0.000000	0.182300	0.443700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904
NaturalGas Mitigated	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	10264.5	0.1107	1.0063	0.8453	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.5872	1,207.5872	0.0232	0.0221	1,214.9364
General Light Industry	13908.5	0.1500	1.3636	1.1454	8.1800e-003		0.1036	0.1036		0.1036	0.1036		1,636.2887	1,636.2887	0.0314	0.0300	1,646.2469
General Light Industry	8145.34	0.0878	0.7986	0.6708	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.2752	958.2752	0.0184	0.0176	964.1071
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3485**	**3.1685**	**2.6615**	**0.0190**		**0.2408**	**0.2408**		**0.2408**	**0.2408**		**3,802.1511**	**3,802.1511**	**0.0729**	**0.0697**	**3,825.2904**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	8.14534	0.0878	0.7986	0.6708	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.2752	958.2752	0.0184	0.0176	964.1071
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	10.2645	0.1107	1.0063	0.8453	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.5872	1,207.5872	0.0232	0.0221	1,214.9364
General Light Industry	13.9085	0.1500	1.3636	1.1454	8.1800e-003		0.1036	0.1036		0.1036	0.1036		1,636.2887	1,636.2887	0.0314	0.0300	1,646.2469
Total		**0.3485**	**3.1685**	**2.6615**	**0.0190**		**0.2408**	**0.2408**		**0.2408**	**0.2408**		**3,802.1511**	**3,802.1511**	**0.0729**	**0.0697**	**3,825.2904**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Mitigated	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.4849					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0100	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Total	**14.9907**	**9.8000e-004**	**0.1038**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2184**	**0.2184**	**6.1000e-004**		**0.2311**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.4849					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0100	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Total	**14.9907**	**9.8000e-004**	**0.1038**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2184**	**0.2184**	**6.1000e-004**		**0.2311**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.3801	5.2736	1.7015	6.3400e-003		0.1721	0.1721		0.1583	0.1583		648.4504	648.4504	0.1987		652.6228
Total	**0.3801**	**5.2736**	**1.7015**	**6.3400e-003**		**0.1721**	**0.1721**		**0.1583**	**0.1583**		**648.4504**	**648.4504**	**0.1987**		**652.6228**

10.0 Vegetation

MoVal Logistics Center- Operations Light Industrial (Trucks)

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Truck Trip Rate based on Traffic Study

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00

tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Energy	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904
Mobile	11.4610	254.5137	111.9694	0.7751	27.9996	4.5559	32.5555	7.7694	4.1913	11.9607		76,611.4989	76,611.4989	0.5783		76,623.6430
Offroad	0.3801	5.2736	1.7015	6.3400e-003		0.1721	0.1721		0.1583	0.1583		648.4504	648.4504	0.1987		652.6228
Total	**27.1804**	**262.9567**	**116.4362**	**0.8005**	**27.9996**	**4.9691**	**32.9687**	**7.7694**	**4.5908**	**12.3602**		**81,062.3188**	**81,062.3188**	**0.8505**	**0.0697**	**81,101.7873**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Energy	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904
Mobile	11.4610	254.5137	111.9694	0.7751	27.9996	4.5559	32.5555	7.7694	4.1913	11.9607		76,611.4989	76,611.4989	0.5783		76,623.6430
Offroad	0.3801	5.2736	1.7015	6.3400e-003		0.1721	0.1721		0.1583	0.1583		648.4504	648.4504	0.1987		652.6228
Total	**27.1804**	**262.9567**	**116.4362**	**0.8005**	**27.9996**	**4.9691**	**32.9687**	**7.7694**	**4.5908**	**12.3602**		**81,062.3188**	**81,062.3188**	**0.8505**	**0.0697**	**81,101.7873**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.40**	**2.01**	**1.46**	**0.79**	**0.00**	**3.46**	**0.52**	**0.00**	**3.45**	**1.28**	**0.00**	**0.80**	**0.80**	**23.36**	**0.00**	**0.80**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Demolition - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	11.4610	254.5137	111.9694	0.7751	27.9996	4.5559	32.5555	7.7694	4.1913	11.9607		76,611.4989	76,611.4989	0.5783		76,623.6430
Mitigated	11.4610	254.5137	111.9694	0.7751	27.9996	4.5559	32.5555	7.7694	4.1913	11.9607		76,611.4989	76,611.4989	0.5783		76,623.6430

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	182.55	182.55	182.55	3,780,038	3,780,038
General Light Industry	144.86	144.86	144.86	2,999,472	2,999,472
General Light Industry	247.35	247.35	247.35	5,121,810	5,121,810
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	574.77	574.77	574.77	11,901,321	11,901,321

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.374000	0.000000	0.182300	0.443700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Unmitigated	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904
NaturalGas Mitigated	0.3485	3.1685	2.6615	0.0190		0.2408	0.2408		0.2408	0.2408		3,802.1511	3,802.1511	0.0729	0.0697	3,825.2904

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	10264.5	0.1107	1.0063	0.8453	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.5872	1,207.5872	0.0232	0.0221	1,214.9364
General Light Industry	13908.5	0.1500	1.3636	1.1454	8.1800e-003		0.1036	0.1036		0.1036	0.1036		1,636.2887	1,636.2887	0.0314	0.0300	1,646.2469
General Light Industry	8145.34	0.0878	0.7986	0.6708	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.2752	958.2752	0.0184	0.0176	964.1071
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.3485**	**3.1685**	**2.6615**	**0.0190**		**0.2408**	**0.2408**		**0.2408**	**0.2408**		**3,802.1511**	**3,802.1511**	**0.0729**	**0.0697**	**3,825.2904**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	8.14534	0.0878	0.7986	0.6708	4.7900e-003		0.0607	0.0607		0.0607	0.0607		958.2752	958.2752	0.0184	0.0176	964.1071
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	10.2645	0.1107	1.0063	0.8453	6.0400e-003		0.0765	0.0765		0.0765	0.0765		1,207.5872	1,207.5872	0.0232	0.0221	1,214.9364
General Light Industry	13.9085	0.1500	1.3636	1.1454	8.1800e-003		0.1036	0.1036		0.1036	0.1036		1,636.2887	1,636.2887	0.0314	0.0300	1,646.2469
Total		**0.3485**	**3.1685**	**2.6615**	**0.0190**		**0.2408**	**0.2408**		**0.2408**	**0.2408**		**3,802.1511**	**3,802.1511**	**0.0729**	**0.0697**	**3,825.2904**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Unmitigated	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Mitigated	14.9907	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.4849					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0100	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Total	**14.9907**	**9.8000e-004**	**0.1038**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2184**	**0.2184**	**6.1000e-004**		**0.2311**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	12.4849					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0100	9.8000e-004	0.1038	1.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		0.2184	0.2184	6.1000e-004		0.2311
Total	**14.9907**	**9.8000e-004**	**0.1038**	**1.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**0.2184**	**0.2184**	**6.1000e-004**		**0.2311**

7.0 Water Detail

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Tractors/Loaders/ Backhoes	0.3801	5.2736	1.7015	6.3400e-003		0.1721	0.1721		0.1583	0.1583		648.4504	648.4504	0.1987		652.6228
Total	**0.3801**	**5.2736**	**1.7015**	**6.3400e-003**		**0.1721**	**0.1721**		**0.1583**	**0.1583**		**648.4504**	**648.4504**	**0.1987**		**652.6228**

10.0 Vegetation

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

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APPENDIX 3.3

AERMOD LSTS

Aermod LST Construction Outputs

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 10/21/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\CO\CO.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\CO\CO.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2100516
   POLLUTID CO
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL CO.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1       AREA       478047.969  3748187.953      450.000
   LOCATION VOL1        VOLUME     478070.839  3748388.229      451.000
   LOCATION VOL2        VOLUME     478109.978  3748388.492      451.000
   LOCATION VOL3        VOLUME     478155.664  3748388.861      451.000
   LOCATION VOL4        VOLUME     478201.945  3748387.710      451.000
   LOCATION VOL5        VOLUME     478248.464  3748387.596      451.000
   LOCATION VOL6        VOLUME     478071.156  3748341.530      451.000
   LOCATION VOL7        VOLUME     478116.367  3748340.884      451.000
   LOCATION VOL8        VOLUME     478162.533  3748340.603      451.000
   LOCATION VOL9        VOLUME     478207.913  3748340.800      451.000
   LOCATION VOL10       VOLUME     478250.063  3748341.249      451.000
   LOCATION VOL11       VOLUME     478072.131  3748294.893      450.000
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
   LOCATION VOL12        VOLUME     478118.375  3748294.833      450.000
   LOCATION VOL13        VOLUME     478164.707  3748295.848      450.000
   LOCATION VOL14        VOLUME     478210.020  3748295.988      450.000
   LOCATION VOL15        VOLUME     478250.725  3748295.874      450.000
   LOCATION VOL16        VOLUME     478072.771  3748248.193      450.000
   LOCATION VOL17        VOLUME     478118.951  3748248.839      450.000
   LOCATION VOL18        VOLUME     478164.794  3748249.205      450.000
   LOCATION VOL19        VOLUME     478209.850  3748250.048      450.000
   LOCATION VOL20        VOLUME     478250.063  3748249.851      450.000
   LOCATION VOL21        VOLUME     478072.125  3748211.052      450.000
   LOCATION VOL22        VOLUME     478117.659  3748212.344      450.000
   LOCATION VOL23        VOLUME     478163.502  3748213.679      450.000
   LOCATION VOL24        VOLUME     478208.559  3748213.553      450.000
   LOCATION VOL25        VOLUME     478250.063  3748212.387      450.000
** Source Parameters **
   SRCPARAM AREA1              0.0     0.000   224.913   224.913     0.000
1.000
   SRCPARAM VOL1         0.1096048003     5.000    10.465     2.326
   SRCPARAM VOL2            0.1096     5.000    10.465     2.326
   SRCPARAM VOL3            0.1096     5.000    10.465     2.330
   SRCPARAM VOL4            0.1096     5.000    10.465     2.330
   SRCPARAM VOL5            0.1096     5.000    10.465     2.330
   SRCPARAM VOL6            0.1096     5.000    10.465     2.330
   SRCPARAM VOL7            0.1096     5.000    10.465     2.330
   SRCPARAM VOL8            0.1096     5.000    10.465     2.330
   SRCPARAM VOL9            0.1096     5.000    10.465     2.330
   SRCPARAM VOL10           0.1096     5.000    10.465     2.330
   SRCPARAM VOL11           0.1096     5.000    10.465     2.330
   SRCPARAM VOL12           0.1096     5.000    10.465     2.330
   SRCPARAM VOL13           0.1096     5.000    10.465     2.330
   SRCPARAM VOL14           0.1096     5.000    10.465     2.330
   SRCPARAM VOL15           0.1096     5.000    10.465     2.330
   SRCPARAM VOL16           0.1096     5.000    10.465     2.330
   SRCPARAM VOL17           0.1096     5.000    10.465     2.330
   SRCPARAM VOL18           0.1096     5.000    10.465     2.330
   SRCPARAM VOL19           0.1096     5.000    10.465     2.330
   SRCPARAM VOL20           0.1096     5.000    10.465     2.330
   SRCPARAM VOL21           0.1096     5.000    10.465     2.330
   SRCPARAM VOL22           0.1096     5.000    10.465     2.330
   SRCPARAM VOL23           0.1096     5.000    10.465     2.330
   SRCPARAM VOL24           0.1096     5.000    10.465     2.330
   SRCPARAM VOL25           0.1096     5.000    10.465     2.330
   URBANSRC ALL
   CONCUNIT 873.2 GRAMS/SEC PPM
   SRCGROUP ALL
SO FINISHED
**
****************************************
```

Aermod LST Construction Outputs

```
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED CO.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST CO.AD\01H1GALL.PLT 31
   PLOTFILE 8 ALL 1ST CO.AD\08H1GALL.PLT 32
   SUMMFILE CO.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
```

```
                *** NONE ***


   ********   WARNING MESSAGES   ********
 SO W320      64        APARM: Input Parameter May Be Out-of-Range for Parameter
        QS
 ME W531     116       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    26 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions
```

```
                        Aermod LST Construction Outputs

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  CO

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:     26 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:     25 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                               ;
Emission Rate Unit Factor =    873.20
                  Output Units   = PPM

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   CO.err

 **File for Summary of Results:   CO.sum
```

Aermod LST Construction Outputs

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN



                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 VOL1              0   0.10960E+00  478070.8 3748388.2   451.0     5.00    10.47
2.33     YES
 VOL2              0   0.10960E+00  478110.0 3748388.5   451.0     5.00    10.47
2.33     YES
 VOL3              0   0.10960E+00  478155.7 3748388.9   451.0     5.00    10.47
2.33     YES
 VOL4              0   0.10960E+00  478201.9 3748387.7   451.0     5.00    10.47
2.33     YES
 VOL5              0   0.10960E+00  478248.5 3748387.6   451.0     5.00    10.47
2.33     YES
 VOL6              0   0.10960E+00  478071.2 3748341.5   451.0     5.00    10.47
2.33     YES
 VOL7              0   0.10960E+00  478116.4 3748340.9   451.0     5.00    10.47
2.33     YES
 VOL8              0   0.10960E+00  478162.5 3748340.6   451.0     5.00    10.47
2.33     YES
 VOL9              0   0.10960E+00  478207.9 3748340.8   451.0     5.00    10.47
2.33     YES
 VOL10             0   0.10960E+00  478250.1 3748341.2   451.0     5.00    10.47
2.33     YES
 VOL11             0   0.10960E+00  478072.1 3748294.9   450.0     5.00    10.47
2.33     YES
 VOL12             0   0.10960E+00  478118.4 3748294.8   450.0     5.00    10.47
2.33     YES
 VOL13             0   0.10960E+00  478164.7 3748295.8   450.0     5.00    10.47
2.33     YES
 VOL14             0   0.10960E+00  478210.0 3748296.0   450.0     5.00    10.47
2.33     YES
```

```
 VOL15            0   0.10960E+00  478250.7 3748295.9   450.0     5.00    10.47
2.33     YES
 VOL16            0   0.10960E+00  478072.8 3748248.2   450.0     5.00    10.47
2.33     YES
 VOL17            0   0.10960E+00  478119.0 3748248.8   450.0     5.00    10.47
2.33     YES
 VOL18            0   0.10960E+00  478164.8 3748249.2   450.0     5.00    10.47
2.33     YES
 VOL19            0   0.10960E+00  478209.8 3748250.0   450.0     5.00    10.47
2.33     YES
 VOL20            0   0.10960E+00  478250.1 3748249.9   450.0     5.00    10.47
2.33     YES
 VOL21            0   0.10960E+00  478072.1 3748211.1   450.0     5.00    10.47
2.33     YES
 VOL22            0   0.10960E+00  478117.7 3748212.3   450.0     5.00    10.47
2.33     YES
 VOL23            0   0.10960E+00  478163.5 3748213.7   450.0     5.00    10.47
2.33     YES
 VOL24            0   0.10960E+00  478208.6 3748213.6   450.0     5.00    10.47
2.33     YES
 VOL25            0   0.10960E+00  478250.1 3748212.4   450.0     5.00    10.47
2.33     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** AREA SOURCE DATA ***


               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE   SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.00000E+00  478048.0 3748188.0   450.0     0.00    224.91
224.91      0.00     1.00      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40
```

```
                                            PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                    *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


  ALL         AREA1        , VOL1         , VOL2         , VOL3         , VOL4         ,
VOL5         , VOL6         , VOL7         ,

              VOL8         , VOL9         , VOL10        , VOL11        , VOL12        ,
VOL13        , VOL14        , VOL15        ,

              VOL16        , VOL17        , VOL18        , VOL19        , VOL20        ,
VOL21        , VOL22        , VOL23        ,

              VOL24        , VOL25        ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                            PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                   *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                     SOURCE IDs
  --------    ---------                                     ----------


               2100516.   AREA1        , VOL1         , VOL2         , VOL3         ,
VOL4         , VOL5         , VOL6         ,
 VOL7        ,

              VOL8         , VOL9         , VOL10        , VOL11        , VOL12        ,
VOL13        , VOL14        , VOL15        ,

              VOL16        , VOL17        , VOL18        , VOL19        , VOL20        ,
VOL21        , VOL22        , VOL23        ,
```

```
                           Aermod LST Construction Outputs
             VOL24        , VOL25        ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,       2.0);          ( 478348.6,
3749820.7,     458.3,     458.3,       2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,       2.0);          ( 478321.9,
3749107.7,     454.0,     454.0,       2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,       2.0);          ( 478314.5,
3748704.1,     452.0,     452.0,       2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,       2.0);          ( 478302.7,
3748248.4,     450.0,     450.0,       2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

```
                              Aermod LST Construction Outputs

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                           (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                   Upper air station no.:     3190
                  Name: UNKNOWN                                    Name: UNKNOWN

                  Year:   2007                                     Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01     5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01     9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     AREA1       , VOL1
 , VOL2         , VOL3         , VOL4         ,
                VOL5         , VOL6         , VOL7         , VOL8         , VOL9
 , VOL10        , VOL11        , VOL12        ,
                VOL13        , VOL14        , VOL15        , VOL16        , VOL17
 , VOL18        , VOL19        , VOL20        ,
                VOL21        , VOL22        , VOL23        , VOL24        , VOL25
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF CO       IN PPM
                    **

      X-COORD (M)  Y-COORD (M)       CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50       0.06367  (08082923)               478348.59
 3749820.73        0.06358  (11062823)
        478323.98   3749446.94       0.08062  (10102506)               478321.90
 3749107.70        0.08854  (09051904)
        478311.50   3748947.34       0.07648  (09051904)               478314.46
 3748704.06        0.12969  (08101020)
        478309.66   3748401.33       0.37505  (08010616)               478302.71
 3748248.43        0.42150  (08092419)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                   Aermod LST Construction Outputs
                                           INCLUDING SOURCE(S):     AREA1       , VOL1
 , VOL2         , VOL3         , VOL4         ,
                  VOL5         , VOL6         , VOL7         , VOL8         , VOL9
 , VOL10        , VOL11        , VOL12        ,
                  VOL13        , VOL14        , VOL15        , VOL16        , VOL17
 , VOL18        , VOL19        , VOL20        ,
                  VOL21        , VOL22        , VOL23        , VOL24        , VOL25
 ,

                                                      *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                                 ** CONC OF CO       IN PPM
                             **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.03205  (08110424)               478348.59
 3749820.73        0.02719m (11010808)
        478323.98   3749446.94        0.03869  (07120724)               478321.90
 3749107.70        0.04660  (07120724)
        478311.50   3748947.34        0.03972  (07120724)               478314.46
 3748704.06        0.07676  (07120724)
        478309.66   3748401.33        0.24053  (09120524)               478302.71
 3748248.43        0.34694m (10060508)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        09:00:40

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                         *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                             ** CONC OF CO       IN PPM
                         **

                                                               DATE
                                            NETWORK
GROUP ID                                 AVERAGE CONC      (YYMMDDHH)            RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
ALL      HIGH   1ST HIGH VALUE IS       0.42150  ON 08092419: AT (  478302.71,
3748248.43,   450.00,   450.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                ***  THE SUMMARY OF HIGHEST  8-HR
RESULTS ***


                                    ** CONC OF CO       IN PPM
                ** 


                                                      DATE
                                              NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - 

ALL      HIGH   1ST HIGH VALUE IS       0.34694m ON 10060508: AT (  478302.71,
3748248.43,   450.00,   450.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\CO\CO.isc                  ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:00:40

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***
```

Aermod LST Construction Outputs

```
 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            2 Warning Message(s)
A Total of         1895 Informational Message(s)

A Total of        43824 Hours Were Processed

A Total of           90 Calm Hours Identified

A Total of         1805 Missing Hours Identified (  4.12 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***



   ********   WARNING MESSAGES   ********
SO W320      64        APARM: Input Parameter May Be Out-of-Range for Parameter
       QS
ME W531     116       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
 SURFDATA

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 10/21/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\COMit\COMit.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\COMit\COMit.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 8
```

```
   URBANOPT 2100516
   POLLUTID CO
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL COMit.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1         AREA       478047.969  3748187.953      450.000
   LOCATION VOL1          VOLUME     478070.839  3748388.229      451.000
   LOCATION VOL2          VOLUME     478109.978  3748388.492      451.000
   LOCATION VOL3          VOLUME     478155.664  3748388.861      451.000
   LOCATION VOL4          VOLUME     478201.945  3748387.710      451.000
   LOCATION VOL5          VOLUME     478248.464  3748387.596      451.000
   LOCATION VOL6          VOLUME     478071.156  3748341.530      451.000
   LOCATION VOL7          VOLUME     478116.367  3748340.884      451.000
   LOCATION VOL8          VOLUME     478162.533  3748340.603      451.000
   LOCATION VOL9          VOLUME     478207.913  3748340.800      451.000
   LOCATION VOL10         VOLUME     478250.063  3748341.249      451.000
   LOCATION VOL11         VOLUME     478072.131  3748294.893      450.000
   LOCATION VOL12         VOLUME     478118.375  3748294.833      450.000
   LOCATION VOL13         VOLUME     478164.707  3748295.848      450.000
   LOCATION VOL14         VOLUME     478210.020  3748295.988      450.000
   LOCATION VOL15         VOLUME     478250.725  3748295.874      450.000
   LOCATION VOL16         VOLUME     478072.771  3748248.193      450.000
   LOCATION VOL17         VOLUME     478118.951  3748248.839      450.000
   LOCATION VOL18         VOLUME     478164.794  3748249.205      450.000
   LOCATION VOL19         VOLUME     478209.850  3748250.048      450.000
   LOCATION VOL20         VOLUME     478250.063  3748249.851      450.000
   LOCATION VOL21         VOLUME     478072.125  3748211.052      450.000
   LOCATION VOL22         VOLUME     478117.659  3748212.344      450.000
   LOCATION VOL23         VOLUME     478163.502  3748213.679      450.000
   LOCATION VOL24         VOLUME     478208.559  3748213.553      450.000
   LOCATION VOL25         VOLUME     478250.063  3748212.387      450.000
** Source Parameters **
   SRCPARAM AREA1              0.0     0.000   224.913   224.913     0.000
1.000
   SRCPARAM VOL1          0.0840670459     5.000    10.465     2.326
   SRCPARAM VOL2            0.08407     5.000    10.465     2.326
   SRCPARAM VOL3            0.08407     5.000    10.465     2.330
   SRCPARAM VOL4            0.08407     5.000    10.465     2.330
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
   SRCPARAM VOL5           0.08407     5.000    10.465     2.330
   SRCPARAM VOL6           0.08407     5.000    10.465     2.330
   SRCPARAM VOL7           0.08407     5.000    10.465     2.330
   SRCPARAM VOL8           0.08407     5.000    10.465     2.330
   SRCPARAM VOL9           0.08407     5.000    10.465     2.330
   SRCPARAM VOL10          0.08407     5.000    10.465     2.330
   SRCPARAM VOL11          0.08407     5.000    10.465     2.330
   SRCPARAM VOL12          0.08407     5.000    10.465     2.330
   SRCPARAM VOL13          0.08407     5.000    10.465     2.330
   SRCPARAM VOL14          0.08407     5.000    10.465     2.330
   SRCPARAM VOL15          0.08407     5.000    10.465     2.330
   SRCPARAM VOL16          0.08407     5.000    10.465     2.330
   SRCPARAM VOL17          0.08407     5.000    10.465     2.330
   SRCPARAM VOL18          0.08407     5.000    10.465     2.330
   SRCPARAM VOL19          0.08407     5.000    10.465     2.330
   SRCPARAM VOL20          0.08407     5.000    10.465     2.330
   SRCPARAM VOL21          0.08407     5.000    10.465     2.330
   SRCPARAM VOL22          0.08407     5.000    10.465     2.330
   SRCPARAM VOL23          0.08407     5.000    10.465     2.330
   SRCPARAM VOL24          0.08407     5.000    10.465     2.330
   SRCPARAM VOL25          0.08407     5.000    10.465     2.330
   URBANSRC ALL
   CONCUNIT 873.2 GRAMS/SEC PPM
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED COMit.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
```

```
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST COMIT.AD\01H1GALL.PLT 31
   PLOTFILE 8 ALL 1ST COMIT.AD\08H1GALL.PLT 32
   SUMMFILE COMit.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320      64        APARM: Input Parameter May Be Out-of-Range for Parameter
        QS
 ME W531     116       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

```
                                  Aermod LST Construction Outputs
                                                    ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    26 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  CO

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:     26 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:     25 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134
```

```
 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                             ;
Emission Rate Unit Factor =    873.20
                  Output Units   = PPM

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   COMit.err

 **File for Summary of Results:   COMit.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 VOL1              0   0.84067E-01  478070.8 3748388.2   451.0     5.00    10.47
```

```
2.33      YES
 VOL2                0   0.84070E-01   478110.0 3748388.5    451.0      5.00     10.47
2.33      YES
 VOL3                0   0.84070E-01   478155.7 3748388.9    451.0      5.00     10.47
2.33      YES
 VOL4                0   0.84070E-01   478201.9 3748387.7    451.0      5.00     10.47
2.33      YES
 VOL5                0   0.84070E-01   478248.5 3748387.6    451.0      5.00     10.47
2.33      YES
 VOL6                0   0.84070E-01   478071.2 3748341.5    451.0      5.00     10.47
2.33      YES
 VOL7                0   0.84070E-01   478116.4 3748340.9    451.0      5.00     10.47
2.33      YES
 VOL8                0   0.84070E-01   478162.5 3748340.6    451.0      5.00     10.47
2.33      YES
 VOL9                0   0.84070E-01   478207.9 3748340.8    451.0      5.00     10.47
2.33      YES
 VOL10               0   0.84070E-01   478250.1 3748341.2    451.0      5.00     10.47
2.33      YES
 VOL11               0   0.84070E-01   478072.1 3748294.9    450.0      5.00     10.47
2.33      YES
 VOL12               0   0.84070E-01   478118.4 3748294.8    450.0      5.00     10.47
2.33      YES
 VOL13               0   0.84070E-01   478164.7 3748295.8    450.0      5.00     10.47
2.33      YES
 VOL14               0   0.84070E-01   478210.0 3748296.0    450.0      5.00     10.47
2.33      YES
 VOL15               0   0.84070E-01   478250.7 3748295.9    450.0      5.00     10.47
2.33      YES
 VOL16               0   0.84070E-01   478072.8 3748248.2    450.0      5.00     10.47
2.33      YES
 VOL17               0   0.84070E-01   478119.0 3748248.8    450.0      5.00     10.47
2.33      YES
 VOL18               0   0.84070E-01   478164.8 3748249.2    450.0      5.00     10.47
2.33      YES
 VOL19               0   0.84070E-01   478209.8 3748250.0    450.0      5.00     10.47
2.33      YES
 VOL20               0   0.84070E-01   478250.1 3748249.9    450.0      5.00     10.47
2.33      YES
 VOL21               0   0.84070E-01   478072.1 3748211.1    450.0      5.00     10.47
2.33      YES
 VOL22               0   0.84070E-01   478117.7 3748212.3    450.0      5.00     10.47
2.33      YES
 VOL23               0   0.84070E-01   478163.5 3748213.7    450.0      5.00     10.47
2.33      YES
 VOL24               0   0.84070E-01   478208.6 3748213.6    450.0      5.00     10.47
2.33      YES
 VOL25               0   0.84070E-01   478250.1 3748212.4    450.0      5.00     10.47
```

```
2.33     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        09:04:00

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.00000E+00  478048.0 3748188.0   450.0     0.00    224.91
224.91      0.00     1.00      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        09:04:00

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


  ALL         AREA1       , VOL1        , VOL2        , VOL3        , VOL4        ,
VOL5        , VOL6        , VOL7        ,

              VOL8        , VOL9        , VOL10       , VOL11       , VOL12       ,
VOL13       , VOL14       , VOL15       ,

              VOL16       , VOL17       , VOL18       , VOL19       , VOL20       ,
VOL21       , VOL22       , VOL23       ,
```

```
             VOL24       , VOL25       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        09:04:00

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN



                                         *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------



              2100516.   AREA1       , VOL1        , VOL2        , VOL3        ,
VOL4        , VOL5        , VOL6        ,
 VOL7        ,

             VOL8        , VOL9        , VOL10       , VOL11       , VOL12       ,
VOL13       , VOL14       , VOL15       ,

             VOL16       , VOL17       , VOL18       , VOL19       , VOL20       ,
VOL21       , VOL22       , VOL23       ,

             VOL24       , VOL25       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        09:04:00

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,       2.0);         ( 478348.6,
3749820.7,     458.3,     458.3,       2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,       2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,       2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,       2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,       2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,       2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,       2.0);
```

```
                          Aermod LST Construction Outputs
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                           (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                        (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
```

```
                          Aermod LST Construction Outputs
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                Upper air station no.:     3190
                  Name: UNKNOWN                                  Name: UNKNOWN

                  Year:   2007                                   Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 07 01 01    1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01    1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01    1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01    1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01    1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01    1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01    1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01    1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01    1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01    1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01    1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01    1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01    1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01    1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
```

```
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     AREA1        , VOL1
 , VOL2         , VOL3         , VOL4         ,
                 VOL5         , VOL6         , VOL7         , VOL8         , VOL9
 , VOL10        , VOL11        , VOL12        ,
                 VOL13        , VOL14        , VOL15        , VOL16        , VOL17
 , VOL18        , VOL19        , VOL20        ,
                 VOL21        , VOL22        , VOL23        , VOL24        , VOL25
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
```

```
***

                                   ** CONC OF CO       IN PPM
                     **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.04884  (08082923)                478348.59
 3749820.73        0.04877  (11062823)
        478323.98   3749446.94        0.06184  (10102506)                478321.90
 3749107.70        0.06792  (09051904)
        478311.50   3748947.34        0.05866  (09051904)                478314.46
 3748704.06        0.09948  (08101020)
        478309.66   3748401.33        0.28769  (08010616)                478302.71
 3748248.43        0.32331  (08092419)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       , VOL1
 , VOL2        , VOL3        , VOL4        ,
                 VOL5        , VOL6        , VOL7        , VOL8        , VOL9
 , VOL10       , VOL11       , VOL12       ,
                 VOL13       , VOL14       , VOL15       , VOL16       , VOL17
 , VOL18       , VOL19       , VOL20       ,
                 VOL21       , VOL22       , VOL23       , VOL24       , VOL25
 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                   ** CONC OF CO       IN PPM
                     **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.02458  (08110424)                478348.59
 3749820.73        0.02085m (11010808)
```

```
        478323.98   3749446.94        0.02968  (07120724)                478321.90
 3749107.70        0.03575  (07120724)
        478311.50   3748947.34        0.03047  (07120724)                478314.46
 3748704.06        0.05888  (07120724)
        478309.66   3748401.33        0.18450  (09120524)                478302.71
 3748248.43        0.26612m (10060508)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                    ** CONC OF CO       IN PPM
                **

                                                          DATE
                                          NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.32331  ON 08092419: AT (  478302.71,
3748248.43,   450.00,   450.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** THE SUMMARY OF HIGHEST  8-HR
RESULTS ***
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                               Aermod LST Construction Outputs
                                        ** CONC OF CO       IN PPM
                  **

                                                              DATE
                                                  NETWORK
GROUP ID                                  AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


ALL      HIGH   1ST HIGH VALUE IS       0.26612m ON 10060508: AT (  478302.71,
3748248.43,   450.00,   450.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\COMit\COMit.isc            ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:04:00

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           2 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320      64        APARM: Input Parameter May Be Out-of-Range for Parameter
        QS
```

```
 ME W531     116       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 10/21/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\NOx\NOx.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\NOx\NOx.isc
   MODELOPT DFAULT CONC ARM
   AVERTIME 1 ANNUAL
   URBANOPT 2100516
   POLLUTID NO2 H1H
   FLAGPOLE 2.00
   RUNORNOT RUN
** NO2 Conversion Options
   ARMRATIO 0.800 0.750
   ERRORFIL NOx.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       478047.969  3748187.953      450.000
   LOCATION VOL1         VOLUME     478070.839  3748388.229      451.000
   LOCATION VOL2         VOLUME     478109.978  3748388.492      451.000
```

```
   LOCATION VOL3         VOLUME     478155.664  3748388.861      451.000
   LOCATION VOL4         VOLUME     478201.945  3748387.710      451.000
   LOCATION VOL5         VOLUME     478248.464  3748387.596      451.000
   LOCATION VOL6         VOLUME     478071.156  3748341.530      451.000
   LOCATION VOL7         VOLUME     478116.367  3748340.884      451.000
   LOCATION VOL8         VOLUME     478162.533  3748340.603      451.000
   LOCATION VOL9         VOLUME     478207.913  3748340.800      451.000
   LOCATION VOL10        VOLUME     478250.063  3748341.249      451.000
   LOCATION VOL11        VOLUME     478072.131  3748294.893      450.000
   LOCATION VOL12        VOLUME     478118.375  3748294.833      450.000
   LOCATION VOL13        VOLUME     478164.707  3748295.848      450.000
   LOCATION VOL14        VOLUME     478210.020  3748295.988      450.000
   LOCATION VOL15        VOLUME     478250.725  3748295.874      450.000
   LOCATION VOL16        VOLUME     478072.771  3748248.193      450.000
   LOCATION VOL17        VOLUME     478118.951  3748248.839      450.000
   LOCATION VOL18        VOLUME     478164.794  3748249.205      450.000
   LOCATION VOL19        VOLUME     478209.850  3748250.048      450.000
   LOCATION VOL20        VOLUME     478250.063  3748249.851      450.000
   LOCATION VOL21        VOLUME     478072.125  3748211.052      450.000
   LOCATION VOL22        VOLUME     478117.659  3748212.344      450.000
   LOCATION VOL23        VOLUME     478163.502  3748213.679      450.000
   LOCATION VOL24        VOLUME     478208.559  3748213.553      450.000
   LOCATION VOL25        VOLUME     478250.063  3748212.387      450.000
** Source Parameters **
   SRCPARAM AREA1              0.0     0.000   224.913   224.913     0.000
1.000
   SRCPARAM VOL1         0.1794260218     5.000    10.465     2.326
   SRCPARAM VOL2            0.1794     5.000    10.465     2.326
   SRCPARAM VOL3            0.1794     5.000    10.465     2.330
   SRCPARAM VOL4            0.1794     5.000    10.465     2.330
   SRCPARAM VOL5            0.1794     5.000    10.465     2.330
   SRCPARAM VOL6            0.1794     5.000    10.465     2.330
   SRCPARAM VOL7            0.1794     5.000    10.465     2.330
   SRCPARAM VOL8            0.1794     5.000    10.465     2.330
   SRCPARAM VOL9            0.1794     5.000    10.465     2.330
   SRCPARAM VOL10           0.1794     5.000    10.465     2.330
   SRCPARAM VOL11           0.1794     5.000    10.465     2.330
   SRCPARAM VOL12           0.1794     5.000    10.465     2.330
   SRCPARAM VOL13           0.1794     5.000    10.465     2.330
   SRCPARAM VOL14           0.1794     5.000    10.465     2.330
   SRCPARAM VOL15           0.1794     5.000    10.465     2.330
   SRCPARAM VOL16           0.1794     5.000    10.465     2.330
   SRCPARAM VOL17           0.1794     5.000    10.465     2.330
   SRCPARAM VOL18           0.1794     5.000    10.465     2.330
   SRCPARAM VOL19           0.1794     5.000    10.465     2.330
   SRCPARAM VOL20           0.1794     5.000    10.465     2.330
   SRCPARAM VOL21           0.1794     5.000    10.465     2.330
   SRCPARAM VOL22           0.1794     5.000    10.465     2.330
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
   SRCPARAM VOL23           0.1794     5.000    10.465     2.330
   SRCPARAM VOL24           0.1794     5.000    10.465     2.330
   SRCPARAM VOL25           0.1794     5.000    10.465     2.330
   URBANSRC ALL
   CONCUNIT 531.5 GRAMS/SEC PPM
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED NOx.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NOX.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL NOX.AD\AN00GALL.PLT 32
   SUMMFILE NOx.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***
```

```
                           Aermod LST Construction Outputs
 --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           3 Warning Message(s)
 A Total of           0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***   NONE   ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled
   NO2 H1H
 SO W320      66        APARM: Input Parameter May Be Out-of-Range for Parameter
        QS
 ME W531     118       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:44:52

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    26 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m
```

```
 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Ambient Ratio Method (ARM) Used for NO2 Conversion
            with a  1-hour NO2/NOx Ratio of  0.800
            with an Annual NO2/NOx Ratio of  0.750
         7. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  NO2

 **NOTE: Special processing requirements applicable for the 1-hour NO2 NAAQS have
been disabled!!!
         User has specified H1H on the POLLUTID keyword.
         High ranked 1-hour values are NOT averaged across the number of years
modeled, and
         complete years of data are NOT required.

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:     26 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:     25 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
```

```
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                            ;
Emission Rate Unit Factor =    531.50
                  Output Units   = PPM

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   NOx.err

 **File for Summary of Results:   NOx.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:44:52

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 VOL1              0   0.17943E+00  478070.8 3748388.2   451.0     5.00    10.47
2.33     YES
 VOL2              0   0.17940E+00  478110.0 3748388.5   451.0     5.00    10.47
2.33     YES
 VOL3              0   0.17940E+00  478155.7 3748388.9   451.0     5.00    10.47
2.33     YES
```

```
 VOL4                 0   0.17940E+00  478201.9 3748387.7   451.0     5.00    10.47
2.33     YES
 VOL5                 0   0.17940E+00  478248.5 3748387.6   451.0     5.00    10.47
2.33     YES
 VOL6                 0   0.17940E+00  478071.2 3748341.5   451.0     5.00    10.47
2.33     YES
 VOL7                 0   0.17940E+00  478116.4 3748340.9   451.0     5.00    10.47
2.33     YES
 VOL8                 0   0.17940E+00  478162.5 3748340.6   451.0     5.00    10.47
2.33     YES
 VOL9                 0   0.17940E+00  478207.9 3748340.8   451.0     5.00    10.47
2.33     YES
 VOL10                0   0.17940E+00  478250.1 3748341.2   451.0     5.00    10.47
2.33     YES
 VOL11                0   0.17940E+00  478072.1 3748294.9   450.0     5.00    10.47
2.33     YES
 VOL12                0   0.17940E+00  478118.4 3748294.8   450.0     5.00    10.47
2.33     YES
 VOL13                0   0.17940E+00  478164.7 3748295.8   450.0     5.00    10.47
2.33     YES
 VOL14                0   0.17940E+00  478210.0 3748296.0   450.0     5.00    10.47
2.33     YES
 VOL15                0   0.17940E+00  478250.7 3748295.9   450.0     5.00    10.47
2.33     YES
 VOL16                0   0.17940E+00  478072.8 3748248.2   450.0     5.00    10.47
2.33     YES
 VOL17                0   0.17940E+00  478119.0 3748248.8   450.0     5.00    10.47
2.33     YES
 VOL18                0   0.17940E+00  478164.8 3748249.2   450.0     5.00    10.47
2.33     YES
 VOL19                0   0.17940E+00  478209.8 3748250.0   450.0     5.00    10.47
2.33     YES
 VOL20                0   0.17940E+00  478250.1 3748249.9   450.0     5.00    10.47
2.33     YES
 VOL21                0   0.17940E+00  478072.1 3748211.1   450.0     5.00    10.47
2.33     YES
 VOL22                0   0.17940E+00  478117.7 3748212.3   450.0     5.00    10.47
2.33     YES
 VOL23                0   0.17940E+00  478163.5 3748213.7   450.0     5.00    10.47
2.33     YES
 VOL24                0   0.17940E+00  478208.6 3748213.6   450.0     5.00    10.47
2.33     YES
 VOL25                0   0.17940E+00  478250.1 3748212.4   450.0     5.00    10.47
2.33     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                    ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                               ***        10:44:52
```

```
                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN


                                                  *** AREA SOURCE DATA ***


               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 AREA1            0   0.00000E+00  478048.0 3748188.0   450.0     0.00    224.91
224.91      0.00     1.00     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***       10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:44:52

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


  ALL          AREA1       , VOL1        , VOL2        , VOL3        , VOL4        ,
VOL5        , VOL6        , VOL7        ,

             VOL8        , VOL9        , VOL10       , VOL11       , VOL12       ,
VOL13       , VOL14       , VOL15       ,

             VOL16       , VOL17       , VOL18       , VOL19       , VOL20       ,
VOL21       , VOL22       , VOL23       ,

             VOL24       , VOL25       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***       10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:44:52
```

```
                                        PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                     SOURCE IDs
  --------   ---------                                     ----------


             2100516.   AREA1       , VOL1        , VOL2        , VOL3        ,
VOL4        , VOL5        , VOL6        ,
 VOL7        ,

            VOL8        , VOL9        , VOL10       , VOL11       , VOL12       ,
VOL13       , VOL14       , VOL15       ,

            VOL16       , VOL17       , VOL18       , VOL19       , VOL20       ,
VOL21       , VOL22       , VOL23       ,

            VOL24       , VOL25       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***       10/21/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        10:44:52

                                        PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                                              *** DISCRETE CARTESIAN RECEPTORS ***
                                             (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                             (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,      2.0);        ( 478348.6,
3749820.7,     458.3,     458.3,      2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,      2.0);        ( 478321.9,
3749107.7,     454.0,     454.0,      2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,      2.0);        ( 478314.5,
3748704.1,     452.0,     452.0,      2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,      2.0);        ( 478302.7,
3748248.4,     450.0,     450.0,      2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***       10/21/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        10:44:52
```

```
                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:44:52

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL
```

```
                   Aermod LST Construction Outputs

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2007                                  Year:   2007

  First 24 hours of scalar data
  YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - 
  07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
  07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
  07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
  07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
  07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
  07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
  07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
  07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
  07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
  07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
  07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
  07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
  07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
  07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
  07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
  07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
  07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
```

```
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:44:52

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       , VOL1
 , VOL2         , VOL3         , VOL4         ,
                 VOL5         , VOL6         , VOL7         , VOL8         , VOL9
 , VOL10        , VOL11        , VOL12        ,
                 VOL13        , VOL14        , VOL15        , VOL16        , VOL17
 , VOL18        , VOL19        , VOL20        ,
                 VOL21        , VOL22        , VOL23        , VOL24        , VOL25
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF NO2      IN PPM
                   **
```

```
                                  Aermod LST Construction Outputs
       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00245                         478348.59
3749820.73        0.00205
         478323.98    3749446.94        0.00317                         478321.90
3749107.70        0.00524
         478311.50    3748947.34        0.00724                         478314.46
3748704.06        0.01504
         478309.66    3748401.33        0.08123                         478302.71
3748248.43        0.12850
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***    ***
                         ***         10:44:52

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                  INCLUDING SOURCE(S):     AREA1       , VOL1
 , VOL2        , VOL3        , VOL4        ,
                  VOL5        , VOL6        , VOL7        , VOL8        , VOL9
 , VOL10       , VOL11       , VOL12       ,
                  VOL13       , VOL14       , VOL15       , VOL16       , VOL17
 , VOL18       , VOL19       , VOL20       ,
                  VOL21       , VOL22       , VOL23       , VOL24       , VOL25
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF NO2      IN PPM
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.05075  (08082923)               478348.59
 3749820.73        0.05068  (11062823)
        478323.98   3749446.94        0.06426  (10102506)               478321.90
 3749107.70        0.07057  (09051904)
        478311.50   3748947.34        0.06096  (09051904)               478314.46
 3748704.06        0.10337  (08101020)
        478309.66   3748401.33        0.29894  (08010616)               478302.71
```

```
                          Aermod LST Construction Outputs
 3748248.43        0.33596  (08092419)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                       ***         10:44:52

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF NO2      IN PPM
                **



                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.12850 AT (  478302.71,  3748248.43,
450.00,   450.00,    2.00)  DC
          2ND HIGHEST VALUE IS       0.08123 AT (  478309.66,  3748401.33,
451.00,   451.00,    2.00)  DC
          3RD HIGHEST VALUE IS       0.01504 AT (  478314.46,  3748704.06,
452.00,   452.00,    2.00)  DC
          4TH HIGHEST VALUE IS       0.00724 AT (  478311.50,  3748947.34,
453.00,   453.00,    2.00)  DC
          5TH HIGHEST VALUE IS       0.00524 AT (  478321.90,  3749107.70,
454.00,   454.00,    2.00)  DC
          6TH HIGHEST VALUE IS       0.00317 AT (  478323.98,  3749446.94,
456.00,   456.00,    2.00)  DC
          7TH HIGHEST VALUE IS       0.00245 AT (  477994.17,  3749818.50,
458.00,   458.00,    2.00)  DC
          8TH HIGHEST VALUE IS       0.00205 AT (  478348.59,  3749820.73,
458.30,   458.30,    2.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
```

```
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:44:52

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

                                                ***  THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                    ** CONC OF NO2      IN PPM
                **

                                                      DATE
                                            NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)            RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.33596  ON 08092419: AT (  478302.71,
3748248.43,   450.00,   450.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOx\NOx.isc                ***        10/21/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:44:52

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    ARM       URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           3 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed
```

Aermod LST Construction Outputs

```
 A Total of           90 Calm Hours Identified

 A Total of         1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***



    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled
   NO2 H1H
 SO W320      66        APARM: Input Parameter May Be Out-of-Range for Parameter
        QS
 ME W531     118       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/3/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\NOxMit\NOxMit.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc
   MODELOPT CONC OLM
   AVERTIME 1
   URBANOPT 2100516
   POLLUTID NO2 H1H
   RUNORNOT RUN
** NO2 Conversion Options
   NO2STACK 0.050
   NO2EQUIL 0.950
```

```
** Hourly Ozone Data File: C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\..\..\PERI_Ozone\O3PERI2007-11.prn.txt
   OZONEFIL ..\..\PERI_Ozone\O3PERI2007-11.prn.txt PPB
   ERRORFIL NOxMit.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION VOL1         VOLUME     478070.839  3748388.229      451.000
   LOCATION VOL2         VOLUME     478109.978  3748388.492      451.000
   LOCATION VOL3         VOLUME     478155.664  3748388.861      451.000
   LOCATION VOL4         VOLUME     478201.945  3748387.710      451.000
   LOCATION VOL5         VOLUME     478248.464  3748387.596      451.000
   LOCATION VOL6         VOLUME     478071.156  3748341.530      451.000
   LOCATION VOL7         VOLUME     478116.367  3748340.884      451.000
   LOCATION VOL8         VOLUME     478162.533  3748340.603      451.000
   LOCATION VOL9         VOLUME     478207.913  3748340.800      451.000
   LOCATION VOL10        VOLUME     478250.063  3748341.249      451.000
   LOCATION VOL11        VOLUME     478072.131  3748294.893      450.000
   LOCATION VOL12        VOLUME     478118.375  3748294.833      450.000
   LOCATION VOL13        VOLUME     478164.707  3748295.848      450.000
   LOCATION VOL14        VOLUME     478210.020  3748295.988      450.000
   LOCATION VOL15        VOLUME     478250.725  3748295.874      450.000
   LOCATION VOL16        VOLUME     478072.771  3748248.193      450.000
   LOCATION VOL17        VOLUME     478118.951  3748248.839      450.000
   LOCATION VOL18        VOLUME     478164.794  3748249.205      450.000
   LOCATION VOL19        VOLUME     478209.850  3748250.048      450.000
   LOCATION VOL20        VOLUME     478250.063  3748249.851      450.000
   LOCATION VOL21        VOLUME     478072.125  3748211.052      450.000
   LOCATION VOL22        VOLUME     478117.659  3748212.344      450.000
   LOCATION VOL23        VOLUME     478163.502  3748213.679      450.000
   LOCATION VOL24        VOLUME     478208.559  3748213.553      450.000
   LOCATION VOL25        VOLUME     478250.063  3748212.387      450.000
** Source Parameters **
   SRCPARAM VOL1         0.0389618206     5.000    10.465     2.326
   SRCPARAM VOL2           0.03896     5.000    10.465     2.326
   SRCPARAM VOL3           0.03896     5.000    10.465     2.330
   SRCPARAM VOL4           0.03896     5.000    10.465     2.330
   SRCPARAM VOL5           0.03896     5.000    10.465     2.330
   SRCPARAM VOL6           0.03896     5.000    10.465     2.330
   SRCPARAM VOL7           0.03896     5.000    10.465     2.330
   SRCPARAM VOL8           0.03896     5.000    10.465     2.330
```

```
   SRCPARAM VOL9             0.03896     5.000    10.465     2.330
   SRCPARAM VOL10            0.03896     5.000    10.465     2.330
   SRCPARAM VOL11            0.03896     5.000    10.465     2.330
   SRCPARAM VOL12            0.03896     5.000    10.465     2.330
   SRCPARAM VOL13            0.03896     5.000    10.465     2.330
   SRCPARAM VOL14            0.03896     5.000    10.465     2.330
   SRCPARAM VOL15            0.03896     5.000    10.465     2.330
   SRCPARAM VOL16            0.03896     5.000    10.465     2.330
   SRCPARAM VOL17            0.03896     5.000    10.465     2.330
   SRCPARAM VOL18            0.03896     5.000    10.465     2.330
   SRCPARAM VOL19            0.03896     5.000    10.465     2.330
   SRCPARAM VOL20            0.03896     5.000    10.465     2.330
   SRCPARAM VOL21            0.03896     5.000    10.465     2.330
   SRCPARAM VOL22            0.03896     5.000    10.465     2.330
   SRCPARAM VOL23            0.03896     5.000    10.465     2.330
   SRCPARAM VOL24            0.03896     5.000    10.465     2.330
   SRCPARAM VOL25            0.03896     5.000    10.465     2.330
   URBANSRC ALL
   CONCUNIT 531.5 GRAMS/SEC PPM
   NO2RATIO VOL1-VOL25 0.05
** OLM Source Groups for Combined Plumes
   OLMGROUP ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED NOxMit.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
```

Aermod LST Construction Outputs

```
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NOXMIT.AD\01H1GALL.PLT 31
   SUMMFILE NOxMit.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***   NONE   ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled
   NO2 H1H
 CO W271      31       COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

 ME W531     121       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:59:05

                                   PAGE   1
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM      URBAN

                                                     ***     MODEL SETUP OPTIONS SUMMARY
```

```
 ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -


 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    25 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Ozone Limiting Method (OLM) Used for NO2 Conversion
            with an Equilibrium NO2/NOx Ratio of  0.950 and
            with   1 OLMGROUP(s)
         7. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  NO2

 **NOTE: Special processing requirements applicable for the 1-hour NO2 NAAQS have
been disabled!!!
         User has specified H1H on the POLLUTID keyword.
         High ranked 1-hour values are NOT averaged across the number of years
modeled, and
         complete years of data are NOT required.

 **Model Calculates  1 Short Term Average(s) of:   1-HR

 **This Run Includes:     25 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                          Aermod LST Construction Outputs
                 and:     25 VOLUME source(s)
                 and:      0 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **This Run Includes OZONE    Values for a Single Sector
              HOURLY OZONE    Values are Available

 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                            ;
Emission Rate Unit Factor =    531.50
                  Output Units   = PPM

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   NOxMit.err

 **File for Summary of Results:   NOxMit.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:59:05

                                   PAGE   2
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN
```

```
                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 VOL1              0   0.38962E-01  478070.8 3748388.2   451.0      5.00    10.47
2.33      YES
 VOL2              0   0.38960E-01  478110.0 3748388.5   451.0      5.00    10.47
2.33      YES
 VOL3              0   0.38960E-01  478155.7 3748388.9   451.0      5.00    10.47
2.33      YES
 VOL4              0   0.38960E-01  478201.9 3748387.7   451.0      5.00    10.47
2.33      YES
 VOL5              0   0.38960E-01  478248.5 3748387.6   451.0      5.00    10.47
2.33      YES
 VOL6              0   0.38960E-01  478071.2 3748341.5   451.0      5.00    10.47
2.33      YES
 VOL7              0   0.38960E-01  478116.4 3748340.9   451.0      5.00    10.47
2.33      YES
 VOL8              0   0.38960E-01  478162.5 3748340.6   451.0      5.00    10.47
2.33      YES
 VOL9              0   0.38960E-01  478207.9 3748340.8   451.0      5.00    10.47
2.33      YES
 VOL10             0   0.38960E-01  478250.1 3748341.2   451.0      5.00    10.47
2.33      YES
 VOL11             0   0.38960E-01  478072.1 3748294.9   450.0      5.00    10.47
2.33      YES
 VOL12             0   0.38960E-01  478118.4 3748294.8   450.0      5.00    10.47
2.33      YES
 VOL13             0   0.38960E-01  478164.7 3748295.8   450.0      5.00    10.47
2.33      YES
 VOL14             0   0.38960E-01  478210.0 3748296.0   450.0      5.00    10.47
2.33      YES
 VOL15             0   0.38960E-01  478250.7 3748295.9   450.0      5.00    10.47
2.33      YES
 VOL16             0   0.38960E-01  478072.8 3748248.2   450.0      5.00    10.47
2.33      YES
 VOL17             0   0.38960E-01  478119.0 3748248.8   450.0      5.00    10.47
2.33      YES
 VOL18             0   0.38960E-01  478164.8 3748249.2   450.0      5.00    10.47
2.33      YES
 VOL19             0   0.38960E-01  478209.8 3748250.0   450.0      5.00    10.47
```

```
2.33     YES
 VOL20            0   0.38960E-01  478250.1 3748249.9   450.0     5.00    10.47
2.33     YES
 VOL21            0   0.38960E-01  478072.1 3748211.1   450.0     5.00    10.47
2.33     YES
 VOL22            0   0.38960E-01  478117.7 3748212.3   450.0     5.00    10.47
2.33     YES
 VOL23            0   0.38960E-01  478163.5 3748213.7   450.0     5.00    10.47
2.33     YES
 VOL24            0   0.38960E-01  478208.6 3748213.6   450.0     5.00    10.47
2.33     YES
 VOL25            0   0.38960E-01  478250.1 3748212.4   450.0     5.00    10.47
2.33     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        09:59:05

                                   PAGE   3
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
 -----------                                                      ----------


  ALL        VOL1        , VOL2        , VOL3        , VOL4        , VOL5        ,
VOL6        , VOL7        , VOL8        ,

             VOL9        , VOL10       , VOL11       , VOL12       , VOL13       ,
VOL14       , VOL15       , VOL16       ,

             VOL17       , VOL18       , VOL19       , VOL20       , VOL21       ,
VOL22       , VOL23       , VOL24       ,

             VOL25       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        09:59:05

                                   PAGE   4
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN
```

```
                                   *** SOURCE IDs DEFINING OLM SOURCE GROUPS
***
                                   ***       FOR COMBINING PLUMES
***

 OLMGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL       VOL1        , VOL2        , VOL3        , VOL4        , VOL5        ,
VOL6        , VOL7        , VOL8        ,

            VOL9        , VOL10       , VOL11       , VOL12       , VOL13       ,
VOL14       , VOL15       , VOL16       ,

            VOL17       , VOL18       , VOL19       , VOL20       , VOL21       ,
VOL22       , VOL23       , VOL24       ,

            VOL25       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:59:05

                                   PAGE   5
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN


                                    *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
  --------   ---------                                   ----------


             2100516.   VOL1        , VOL2        , VOL3        , VOL4        ,
VOL5        , VOL6        , VOL7        ,
 VOL8        ,

            VOL9        , VOL10       , VOL11       , VOL12       , VOL13       ,
VOL14       , VOL15       , VOL16       ,

            VOL17       , VOL18       , VOL19       , VOL20       , VOL21       ,
VOL22       , VOL23       , VOL24       ,

            VOL25       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
```

```
 *** AERMET - VERSION  14134 ***    ***
                        ***         09:59:05

                                    PAGE   6
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN


                                        *** IN-STACK NO2 RATIOS FOR OLM/PVMRM
OPTIONS ***


 SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO
 SOURCE_ID    NO2_RATIO

 VOL1            0.050       VOL2            0.050       VOL3            0.050
 VOL4            0.050
 VOL5            0.050       VOL6            0.050       VOL7            0.050
 VOL8            0.050
 VOL9            0.050       VOL10           0.050       VOL11           0.050
 VOL12           0.050
 VOL13           0.050       VOL14           0.050       VOL15           0.050
 VOL16           0.050
 VOL17           0.050       VOL18           0.050       VOL19           0.050
 VOL20           0.050
 VOL21           0.050       VOL22           0.050       VOL23           0.050
 VOL24           0.050
 VOL25           0.050
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         09:59:05

                                    PAGE   7
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                                              *** DISCRETE CARTESIAN RECEPTORS ***
                                            (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                            (METERS)


     ( 477994.2, 3749818.5,     458.0,     458.0,      0.0);         ( 478348.6,
3749820.7,     458.3,     458.3,      0.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,      0.0);         ( 478321.9,
3749107.7,     454.0,     454.0,      0.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,      0.0);         ( 478314.5,
3748704.1,     452.0,     452.0,      0.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,      0.0);         ( 478302.7,
3748248.4,     450.0,     450.0,      0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
```

```
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:59:05

                                   PAGE   8
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.




                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:59:05

                                   PAGE   9
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***
```

```
                         Aermod LST Construction Outputs

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                 Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        09:59:05

                                     PAGE  10
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                    INCLUDING SOURCE(S):     VOL1        , VOL2
 , VOL3        , VOL4        , VOL5        ,
                 VOL6        , VOL7        , VOL8        , VOL9        , VOL10
 , VOL11       , VOL12       , VOL13       ,
                 VOL14       , VOL15       , VOL16       , VOL17       , VOL18
 , VOL19       , VOL20       , VOL21       ,
                 VOL22       , VOL23       , VOL24       , VOL25       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***
```

```
                                ** CONC OF NO2      IN PPM
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.01188  (08060323)                478348.59
 3749820.73        0.01199  (08060820)
        478323.98   3749446.94        0.01181  (09040723)                478321.90
 3749107.70        0.01212  (09051904)
        478311.50   3748947.34        0.01578  (09051904)                478314.46
 3748704.06        0.02680  (08101020)
        478309.66   3748401.33        0.07728  (08110118)                478302.71
 3748248.43        0.08747  (08092419)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        09:59:05

                                   PAGE  11
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                    ** CONC OF NO2      IN PPM
                ** 

                                                      DATE
                                        NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)            RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


ALL      HIGH   1ST HIGH VALUE IS       0.08747  ON 08092419: AT (  478302.71,
3748248.43,   450.00,   450.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\NOxMit\NOxMit.isc          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                 Aermod LST Construction Outputs
                               ***          09:59:05

                                            PAGE  12
 **MODELOPTs:   NonDFAULT CONC      ELEV      OLM       URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           3 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled
   NO2 H1H
 CO W271      31       COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

 ME W531     121       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 10/20/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM2\PM2.ADI
**
****************************************
**
**
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Aermod LST Construction Outputs

```
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM2\PM2.isc
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2100516
   POLLUTID PM_2.5
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL PM2.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       478047.969  3748187.953      450.000
** Source Parameters **
   SRCPARAM AREA1        4.6274E-06     0.000   224.913   224.913     0.000
1.000
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED PM2.rou
RE FINISHED
**
```

Aermod LST Construction Outputs

```
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM2.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL PM2.AD\AN00GALL.PLT 32
   SUMMFILE PM2.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of             0 Fatal Error Message(s)
 A Total of             1 Warning Message(s)
 A Total of             0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********  WARNING MESSAGES  ********
 ME W531      72      MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
```

```
                          Aermod LST Construction Outputs
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                *** 	  10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:51:31

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:  24-HR
    and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);      1 Source Group(s); and      8
Receptor(s)
```

```
                         Aermod LST Construction Outputs
               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:      0 VOLUME source(s)
                and:      1 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   PM2.err

 **File for Summary of Results:   PM2.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:51:31

                                    PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

```
                                                       *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.46274E-05  478048.0 3748188.0   450.0     0.00    224.91
224.91      0.00     1.00     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                         ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        17:51:31

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN



                                                    *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------



  ALL         AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                         ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        17:51:31

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN



                                                   *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
  --------   ---------                                   ----------



              2100516.   AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
```

```
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:51:31

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00
  17   .00000E+00     18   .00000E+00
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:51:31

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** DISCRETE CARTESIAN RECEPTORS ***
                                              (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                              (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,      2.0);         ( 478348.6,
3749820.7,     458.3,     458.3,      2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,      2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,      2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,      2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,      2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,      2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,      2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
```

```
 *** AERMET - VERSION  14134 ***    ***
                        ***        17:51:31

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                            (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                         (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        17:51:31

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***
```

```
                          Aermod LST Construction Outputs
   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                  Upper air station no.:     3190
                  Name: UNKNOWN                                    Name: UNKNOWN

                  Year:   2007                                     Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD      HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 07 01 01    1 01    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01    1 02    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01    1 03    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01    1 04    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01    1 05    -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01    1 06    -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01    1 07    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01    1 08    -0.4  0.026 -9.000 -9.000 -999.    10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01    1 09    27.8  0.091  0.542  0.005  196.    66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01    1 10    76.9  0.104  1.050  0.005  516.    81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01    1 11   110.0  0.109  1.374  0.009  810.    87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01    1 12   125.7  0.201  1.589  0.018 1095.   216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01    1 13   121.7  0.287  1.641  0.022 1248.   369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01    1 14   102.8  0.414  1.559  0.021 1265.   639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01    1 15    69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
```

```
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:51:31

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
         477994.17    3749818.50        0.02354                      478348.59
3749820.73        0.02335
         478323.98    3749446.94        0.03488                      478321.90
3749107.70        0.05651
         478311.50    3748947.34        0.07861                      478314.46
3748704.06        0.15433
         478309.66    3748401.33        0.74882                      478302.71
3748248.43        1.40965
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:51:31

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)            X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.72676  (07011424)                478348.59
 3749820.73        0.75383  (08010924)
        478323.98   3749446.94        1.00775  (09122124)                478321.90
 3749107.70        1.34737  (09122124)
        478311.50   3748947.34        1.60336  (08011524)                478314.46
 3748704.06        2.52849m (07020624)
        478309.66   3748401.33        8.54513  (08010624)                478302.71
 3748248.43        8.31493m (08010224)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:51:31

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***
```

```
                              Aermod LST Construction Outputs


                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                **


                         NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       1.40965 AT (  478302.71,  3748248.43,
450.00,   450.00,    2.00)  DC
          2ND HIGHEST VALUE IS       0.74882 AT (  478309.66,  3748401.33,
451.00,   451.00,    2.00)  DC
          3RD HIGHEST VALUE IS       0.15433 AT (  478314.46,  3748704.06,
452.00,   452.00,    2.00)  DC
          4TH HIGHEST VALUE IS       0.07861 AT (  478311.50,  3748947.34,
453.00,   453.00,    2.00)  DC
          5TH HIGHEST VALUE IS       0.05651 AT (  478321.90,  3749107.70,
454.00,   454.00,    2.00)  DC
          6TH HIGHEST VALUE IS       0.03488 AT (  478323.98,  3749446.94,
456.00,   456.00,    2.00)  DC
          7TH HIGHEST VALUE IS       0.02354 AT (  477994.17,  3749818.50,
458.00,   458.00,    2.00)  DC
          8TH HIGHEST VALUE IS       0.02335 AT (  478348.59,  3749820.73,
458.30,   458.30,    2.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                           ***        17:51:31

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                 *** THE SUMMARY OF HIGHEST 24-HR
RESULTS ***
```

```
                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                **

                                                              DATE
                                                NETWORK
GROUP ID                                AVERAGE CONC     (YYMMDDHH)            RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)          OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       8.54513  ON 08010624: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2\PM2.isc                ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:51:31

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 ME W531      72       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 10/20/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2100516
   POLLUTID PM_2.5
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL PM2Mit.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       478047.969  3748187.953      450.000
** Source Parameters **
   SRCPARAM AREA1        1.2725E-06     0.000   224.913   224.913     0.000
1.000
   URBANSRC ALL
```

```
                          Aermod LST Construction Outputs
** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1       HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED PM2Mit.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM2MIT.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL PM2MIT.AD\AN00GALL.PLT 32
   SUMMFILE PM2Mit.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***
```

```
  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of           0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***   NONE   ***


    ********   WARNING MESSAGES   ********
 ME W531      72       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:53:22

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
```

```
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm

and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
```

```
                          Aermod LST Construction Outputs
Emission Rate Unit Factor =   0.10000E+07
                  Output Units    = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   PM2Mit.err

 **File for Summary of Results:   PM2Mit.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        17:53:22

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** AREA SOURCE DATA ***


               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y       ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 AREA1            0   0.12725E-05  478048.0 3748188.0   450.0     0.00    224.91
224.91      0.00      1.00      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        17:53:22

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


  ALL        AREA1       ,
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:53:22

                                    PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------



              2100516.   AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:53:22

                                    PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00
  17   .00000E+00     18   .00000E+00
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:53:22
```

```
                                            PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                    (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,      2.0);         ( 478348.6,
3749820.7,     458.3,     458.3,      2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,      2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,      2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,      2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,      2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,      2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,      2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:53:22

                                            PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                     *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                        (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1
1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.
```

```
                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:53:22

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                    Upper air station no.:     3190
                  Name: UNKNOWN                                     Name: UNKNOWN

                  Year:   2007                                      Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 07 01 01    1 01    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01    1 02    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01    1 03    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01    1 04    -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01    1 05    -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01    1 06    -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
```

Aermod LST Construction Outputs

```
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        17:53:22
```

```
                                            PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                          *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL       ***
                                          INCLUDING SOURCE(S):     AREA1       ,

                                                     *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                                ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00647                         478348.59
3749820.73        0.00642
         478323.98    3749446.94        0.00959                         478321.90
3749107.70        0.01554
         478311.50    3748947.34        0.02162                         478314.46
3748704.06        0.04244
         478309.66    3748401.33        0.20592                         478302.71
3748248.43        0.38764
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        17:53:22

                                            PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                       *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                          INCLUDING SOURCE(S):     AREA1       ,

                                                     *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                                ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                          Aermod LST Construction Outputs
        477994.17   3749818.50        0.19985  (07011424)                478348.59
 3749820.73        0.20730  (08010924)
        478323.98   3749446.94        0.27712  (09122124)                478321.90
 3749107.70        0.37052  (09122124)
        478311.50   3748947.34        0.44091  (08011524)                478314.46
 3748704.06        0.69531m (07020624)
        478309.66   3748401.33        2.34985  (08010624)                478302.71
 3748248.43        2.28654m (08010224)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:53:22

                                    PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                     ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                **



                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - 

ALL       1ST HIGHEST VALUE IS       0.38764 AT (  478302.71,  3748248.43,
450.00,   450.00,    2.00)  DC
          2ND HIGHEST VALUE IS       0.20592 AT (  478309.66,  3748401.33,
451.00,   451.00,    2.00)  DC
          3RD HIGHEST VALUE IS       0.04244 AT (  478314.46,  3748704.06,
452.00,   452.00,    2.00)  DC
          4TH HIGHEST VALUE IS       0.02162 AT (  478311.50,  3748947.34,
453.00,   453.00,    2.00)  DC
          5TH HIGHEST VALUE IS       0.01554 AT (  478321.90,  3749107.70,
454.00,   454.00,    2.00)  DC
          6TH HIGHEST VALUE IS       0.00959 AT (  478323.98,  3749446.94,
456.00,   456.00,    2.00)  DC
          7TH HIGHEST VALUE IS       0.00647 AT (  477994.17,  3749818.50,
458.00,   458.00,    2.00)  DC
          8TH HIGHEST VALUE IS       0.00642 AT (  478348.59,  3749820.73,
458.30,   458.30,    2.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
```

```
                           Aermod LST Construction Outputs
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:53:22

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** THE SUMMARY OF HIGHEST 24-HR
RESULTS ***


                                    ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                **


                                                         DATE
                                          NETWORK
GROUP ID                                 AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       2.34985  ON 08010624: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM2Mit\PM2Mit.isc          ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:53:22

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                            Aermod LST Construction Outputs
  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531      72       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************


**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 10/20/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2100516
```

```
   POLLUTID PM_10
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL PM10UnMit.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       478047.969  3748187.953      450.000
** Source Parameters **
   SRCPARAM AREA1        8.4074E-06     0.000   224.913   224.913     0.000
1.000
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED PM10UnMit.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
```

```
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM10UNMIT.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL PM10UNMIT.AD\AN00GALL.PLT 32
   SUMMFILE PM10UnMit.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***



    ********   WARNING MESSAGES   ********
 ME W531      72       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

```
                                Aermod LST Construction Outputs
                                                  ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  1 Short Term Average(s) of:  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.
```

```
                          Aermod LST Construction Outputs
 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   PM10UnMit.err

 **File for Summary of Results:   PM10UnMit.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** AREA SOURCE DATA ***


               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 AREA1            0   0.84074E-05  478048.0 3748188.0   450.0     0.00    224.91
224.91      0.00     1.00     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


  ALL        AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
  --------   ---------                                   ----------


              2100516.   AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                           Aermod LST Construction Outputs
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00
  17   .00000E+00     18   .00000E+00
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                            (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,       2.0);         ( 478348.6,
3749820.7,     458.3,     458.3,       2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,       2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,       2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,       2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,       2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,       2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,       2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                (1=YES; 0=NO)
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                           (METERS/SEC)

                                                   1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                   Upper air station no.:     3190
                  Name: UNKNOWN                                     Name: UNKNOWN
```

```
                               Aermod LST Construction Outputs

                     Year:   2007                                       Year:   2007

  First 24 hours of scalar data
  YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
 ALBEDO  REF WS   WD      HT  REF TA     HT
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - - - - - -
  07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
 1.00    0.50  133.     9.1  279.9    5.5
  07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
 1.00    0.50  192.     9.1  279.2    5.5
  07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
 1.00    0.50  160.     9.1  277.5    5.5
  07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
 1.00    0.50   75.     9.1  277.5    5.5
  07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
 1.00    0.50  282.     9.1  278.8    5.5
  07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
 1.00    0.50   96.     9.1  277.5    5.5
  07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
 1.00    0.50  129.     9.1  278.1    5.5
  07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
 0.54    0.50   99.     9.1  277.5    5.5
  07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
 0.33    0.50  133.     9.1  278.1    5.5
  07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
 0.26    0.50  174.     9.1  281.4    5.5
  07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
 0.23    0.50   95.     9.1  284.9    5.5
  07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
 0.22    1.30   94.     9.1  288.1    5.5
  07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
 0.22    2.20   24.     9.1  291.4    5.5
  07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
 0.23    3.60   13.     9.1  292.5    5.5
  07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
 0.27    5.80  318.     9.1  292.0    5.5
  07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
 0.36    5.80  329.     9.1  291.4    5.5
  07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
 0.64    4.50  333.     9.1  289.9    5.5
  07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
 1.00    3.60  305.     9.1  288.8    5.5
  07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
 1.00    4.50  276.     9.1  287.5    5.5
  07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
 1.00    3.60  323.     9.1  287.5    5.5
```

```
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.04277                         478348.59
3749820.73        0.04242
         478323.98    3749446.94        0.06337                         478321.90
3749107.70        0.10267
         478311.50    3748947.34        0.14283                         478314.46
3748704.06        0.28040
         478309.66    3748401.33        1.36051                         478302.71
3748248.43        2.56115
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
```

```
                          Aermod LST Construction Outputs
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:47:37

                                    PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                               *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                   INCLUDING SOURCE(S):     AREA1       ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)         CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        1.32043  (07011424)               478348.59
 3749820.73         1.36961  (08010924)
        478323.98   3749446.94        1.83095  (09122124)               478321.90
 3749107.70         2.44800  (09122124)
        478311.50   3748947.34        2.91310  (08011524)               478314.46
 3748704.06         4.59394m (07020624)
        478309.66   3748401.33       15.52542  (08010624)               478302.71
 3748248.43        15.10718m (08010224)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:47:37

                                    PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                     ** CONC OF PM_10    IN MICROGRAMS/M**3
                **


                         NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                          Aermod LST Construction Outputs
- - - - - - - - - - - - - - - - - - 

ALL       1ST HIGHEST VALUE IS       2.56115 AT (  478302.71,  3748248.43,
450.00,   450.00,    2.00)  DC
          2ND HIGHEST VALUE IS       1.36051 AT (  478309.66,  3748401.33,
451.00,   451.00,    2.00)  DC
          3RD HIGHEST VALUE IS       0.28040 AT (  478314.46,  3748704.06,
452.00,   452.00,    2.00)  DC
          4TH HIGHEST VALUE IS       0.14283 AT (  478311.50,  3748947.34,
453.00,   453.00,    2.00)  DC
          5TH HIGHEST VALUE IS       0.10267 AT (  478321.90,  3749107.70,
454.00,   454.00,    2.00)  DC
          6TH HIGHEST VALUE IS       0.06337 AT (  478323.98,  3749446.94,
456.00,   456.00,    2.00)  DC
          7TH HIGHEST VALUE IS       0.04277 AT (  477994.17,  3749818.50,
458.00,   458.00,    2.00)  DC
          8TH HIGHEST VALUE IS       0.04242 AT (  478348.59,  3749820.73,
458.30,   458.30,    2.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** THE SUMMARY OF HIGHEST 24-HR
RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                **

                                                      DATE
                                        NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)            RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS      15.52542  ON 08010624: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10UnMit\PM10UnMit.isc    ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:47:37

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of         1895 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           90 Calm Hours Identified

 A Total of         1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531      72       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
```

```
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 10/20/2015
** File: C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2100516
   POLLUTID PM_10
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL PM10Mit.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION AREA1        AREA       478047.969  3748187.953      450.000
** Source Parameters **
   SRCPARAM AREA1        2.664E-06     0.000   224.913   224.913     0.000
1.000
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Construction"
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT AREA1        HROFDY 1.0 1.0 1.0 0.0 0.0 0.0
   EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
```

```
                          Aermod LST Construction Outputs
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED PM10Mit.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM10MIT.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL PM10MIT.AD\AN00GALL.PLT 32
   SUMMFILE PM10Mit.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
```

Aermod LST Construction Outputs

```
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
 ME W531      72       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                           ***        17:49:34

                                      PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                               ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.
```

```
                               Aermod LST Construction Outputs

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  1 Short Term Average(s) of:  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.5 MB of RAM.

 **Detailed Error/Message File:   PM10Mit.err

 **File for Summary of Results:   PM10Mit.sum
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 AREA1            0   0.26640E-05  478048.0 3748188.0   450.0     0.00    224.91
224.91      0.00     1.00     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
 -----------                                                  ----------


  ALL        AREA1      ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                     *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                           SOURCE IDs
  --------   ---------                                           ----------



              2100516.   AREA1       ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:49:34

                                    PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .00000E+00      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .00000E+00
  17   .00000E+00     18   .00000E+00
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         17:49:34

                                    PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                 *** DISCRETE CARTESIAN RECEPTORS ***
                                               (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,       2.0);         ( 478348.6,
```

```
3749820.7,     458.3,     458.3,       2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,       2.0);          ( 478321.9,
3749107.7,     454.0,     454.0,       2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,       2.0);          ( 478314.5,
3748704.1,     452.0,     452.0,       2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,       2.0);          ( 478302.7,
3748248.4,     450.0,     450.0,       2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        17:49:34

                                    PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                             *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
```

```
                           Aermod LST Construction Outputs
 *** AERMET - VERSION  14134 ***    ***
                         ***        17:49:34

                                    PAGE   8
 **MODELOPTs:   RegDFAULT CONC       ELEV      FLGPOL    URBAN

                                     *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                  Upper air station no.:     3190
                  Name: UNKNOWN                                   Name: UNKNOWN

                  Year:   2007                                    Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
```

```
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
```

```
***

                                  ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.01355                        478348.59
3749820.73        0.01344
         478323.98    3749446.94        0.02008                        478321.90
3749107.70        0.03253
         478311.50    3748947.34        0.04526                        478314.46
3748704.06        0.08885
         478309.66    3748401.33        0.43110                        478302.71
3748248.43        0.81154
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     AREA1       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                  ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)            X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.41840  (07011424)             478348.59
 3749820.73        0.43398  (08010924)
        478323.98   3749446.94        0.58016  (09122124)             478321.90
 3749107.70        0.77568  (09122124)
        478311.50   3748947.34        0.92306  (08011524)             478314.46
 3748704.06        1.45565m (07020624)
        478309.66   3748401.33        4.91944  (08010624)             478302.71
 3748248.43        4.78692m (08010224)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
```

```
                          Aermod LST Construction Outputs
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                **



                         NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -


ALL       1ST HIGHEST VALUE IS       0.81154 AT (  478302.71,  3748248.43,
450.00,   450.00,    2.00)  DC
          2ND HIGHEST VALUE IS       0.43110 AT (  478309.66,  3748401.33,
451.00,   451.00,    2.00)  DC
          3RD HIGHEST VALUE IS       0.08885 AT (  478314.46,  3748704.06,
452.00,   452.00,    2.00)  DC
          4TH HIGHEST VALUE IS       0.04526 AT (  478311.50,  3748947.34,
453.00,   453.00,    2.00)  DC
          5TH HIGHEST VALUE IS       0.03253 AT (  478321.90,  3749107.70,
454.00,   454.00,    2.00)  DC
          6TH HIGHEST VALUE IS       0.02008 AT (  478323.98,  3749446.94,
456.00,   456.00,    2.00)  DC
          7TH HIGHEST VALUE IS       0.01355 AT (  477994.17,  3749818.50,
458.00,   458.00,    2.00)  DC
          8TH HIGHEST VALUE IS       0.01344 AT (  478348.59,  3749820.73,
458.30,   458.30,    2.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
```

```
                          Aermod LST Construction Outputs
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** THE SUMMARY OF HIGHEST 24-HR
RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                **

                                                          DATE
                                          NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


ALL      HIGH   1ST HIGH VALUE IS       4.91944  ON 08010624: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\ConstructionLSTs\PM10Mit\PM10Mit.isc        ***        10/20/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        17:49:34

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of             0 Fatal Error Message(s)
 A Total of             1 Warning Message(s)
 A Total of          1895 Informational Message(s)

 A Total of         43824 Hours Were Processed

 A Total of            90 Calm Hours Identified
```

Aermod LST Construction Outputs

```
A Total of         1805 Missing Hours Identified (  4.12 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W531      72       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
 SURFDATA

   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

```
                         AERMOD LSTs Operational Output
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/3/2015
** File: C:\Lakes\AERMOD View\MVL\OperationalLSTs\CO\CO.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\OperationalLSTs\CO\CO.isc
   MODELOPT DFAULT CONC
   AVERTIME 1 8
   URBANOPT 2100516
   POLLUTID CO
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL CO.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.01468
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
```

```
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0001762     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0001763     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0001764     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0001765     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0001766     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0001767     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0001768     VOLUME   478217.023 3748596.254 452.00
   LOCATION L0001769     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0001770     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0001771     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0001772     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0001773     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0001774     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0001775     VOLUME   478217.984 3748806.252 452.66
   LOCATION L0001776     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0001777     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0001778     VOLUME   478218.396 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.01253
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.00, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0001779     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0001780     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0001781     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0001782     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0001783     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0001784     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0001785     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0001786     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0001787     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0001788     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0001789     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0001790     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0001791     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0001792     VOLUME   477947.233 3748891.110 453.00
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
** End of LINE VOLUME Source ID = SLINE3
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.006603
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.03, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001793     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0001794     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0001795     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0001796     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0001797     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0001798     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0001799     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0001800     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.005232
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 451.00, 4.00, 3.95
** 477936.827, 3748338.755, 450.99, 4.00, 3.95
** 477944.157, 3748337.839, 450.98, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.00, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001801     VOLUME   477900.151 3748339.028 451.00
   LOCATION L0001802     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0001803     VOLUME   477917.150 3748338.902 451.00
   LOCATION L0001804     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0001805     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0001806     VOLUME   477942.605 3748338.033 451.00
```

```
   LOCATION L0001807     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0001808     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0001809     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0001810     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0001811     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0001812     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0001813     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0001814     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0001815     VOLUME   477977.265 3748271.460 450.00
   LOCATION L0001816     VOLUME   477978.288 3748263.022 450.00
   LOCATION L0001817     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0001818     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0001819     VOLUME   477978.207 3748237.527 450.00
   LOCATION L0001820     VOLUME   477978.153 3748229.027 450.00
   LOCATION L0001821     VOLUME   477978.100 3748220.527 450.00
** End of LINE VOLUME Source ID = SLINE5
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.008948
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0001822     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0001823     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0001824     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0001825     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0001826     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0001827     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0001828     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0001829     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0001830     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0001831     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0001832     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0001833     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0001834     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0001835     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0001836     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                           AERMOD LSTs Operational Output
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.004041
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 450.99, 0.00, 13.95
** 478166.972, 3748332.512, 450.89, 0.00, 13.95
** ------------------------------------------------------------------
   LOCATION L0001837     VOLUME   478043.005 3748335.195 451.00
   LOCATION L0001838     VOLUME   478072.998 3748334.546 451.00
   LOCATION L0001839     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0001840     VOLUME   478132.984 3748333.248 451.00
   LOCATION L0001841     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.04674
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 453.00, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 453.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 450.99, 4.00, 3.95
** 478215.801, 3748338.412, 450.97, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 453.00, 4.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0001842     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0001843     VOLUME   477952.164 3748962.918 453.00
   LOCATION L0001844     VOLUME   477952.001 3748954.420 453.00
   LOCATION L0001845     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0001846     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0001847     VOLUME   477948.989 3748929.132 453.00
   LOCATION L0001848     VOLUME   477948.245 3748920.681 453.00
   LOCATION L0001849     VOLUME   477948.087 3748912.183 453.00
```

```
LOCATION L0001850     VOLUME   477947.928 3748903.684 453.00
LOCATION L0001851     VOLUME   477947.769 3748895.186 453.00
LOCATION L0001852     VOLUME   477947.610 3748886.687 453.00
LOCATION L0001853     VOLUME   477947.452 3748878.189 453.00
LOCATION L0001854     VOLUME   477947.294 3748869.690 453.00
LOCATION L0001855     VOLUME   477947.226 3748861.191 453.00
LOCATION L0001856     VOLUME   477947.157 3748852.691 453.00
LOCATION L0001857     VOLUME   477947.089 3748844.191 453.00
LOCATION L0001858     VOLUME   477947.021 3748835.691 453.00
LOCATION L0001859     VOLUME   477946.952 3748827.192 453.00
LOCATION L0001860     VOLUME   477946.884 3748818.692 453.00
LOCATION L0001861     VOLUME   477946.816 3748810.192 453.00
LOCATION L0001862     VOLUME   477946.747 3748801.692 453.00
LOCATION L0001863     VOLUME   477946.679 3748793.193 453.00
LOCATION L0001864     VOLUME   477946.610 3748784.693 453.00
LOCATION L0001865     VOLUME   477946.542 3748776.193 453.00
LOCATION L0001866     VOLUME   477946.474 3748767.694 453.00
LOCATION L0001867     VOLUME   477946.405 3748759.194 453.00
LOCATION L0001868     VOLUME   477946.337 3748750.694 453.00
LOCATION L0001869     VOLUME   477946.269 3748742.194 453.00
LOCATION L0001870     VOLUME   477946.200 3748733.695 453.00
LOCATION L0001871     VOLUME   477946.132 3748725.195 453.00
LOCATION L0001872     VOLUME   477946.063 3748716.695 453.00
LOCATION L0001873     VOLUME   477945.995 3748708.195 453.00
LOCATION L0001874     VOLUME   477945.927 3748699.696 453.00
LOCATION L0001875     VOLUME   477945.858 3748691.196 452.82
LOCATION L0001876     VOLUME   477945.790 3748682.696 452.54
LOCATION L0001877     VOLUME   477945.722 3748674.197 452.25
LOCATION L0001878     VOLUME   477945.653 3748665.697 452.00
LOCATION L0001879     VOLUME   477945.585 3748657.197 452.00
LOCATION L0001880     VOLUME   477945.517 3748648.697 452.00
LOCATION L0001881     VOLUME   477945.448 3748640.198 452.00
LOCATION L0001882     VOLUME   477945.380 3748631.698 452.00
LOCATION L0001883     VOLUME   477945.311 3748623.198 452.00
LOCATION L0001884     VOLUME   477945.243 3748614.699 452.00
LOCATION L0001885     VOLUME   477945.175 3748606.199 452.00
LOCATION L0001886     VOLUME   477945.106 3748597.699 452.00
LOCATION L0001887     VOLUME   477945.038 3748589.199 452.00
LOCATION L0001888     VOLUME   477944.970 3748580.700 452.00
LOCATION L0001889     VOLUME   477944.901 3748572.200 452.00
LOCATION L0001890     VOLUME   477944.833 3748563.700 452.00
LOCATION L0001891     VOLUME   477944.764 3748555.200 452.00
LOCATION L0001892     VOLUME   477944.696 3748546.701 452.00
LOCATION L0001893     VOLUME   477944.628 3748538.201 452.00
LOCATION L0001894     VOLUME   477944.559 3748529.701 452.00
LOCATION L0001895     VOLUME   477944.491 3748521.202 452.00
LOCATION L0001896     VOLUME   477944.423 3748512.702 451.87
LOCATION L0001897     VOLUME   477944.354 3748504.202 451.59
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                        AERMOD LSTs Operational Output
LOCATION L0001898     VOLUME   477944.286 3748495.702 451.30
LOCATION L0001899     VOLUME   477944.728 3748487.329 451.03
LOCATION L0001900     VOLUME   477948.744 3748479.837 451.00
LOCATION L0001901     VOLUME   477952.760 3748472.346 451.00
LOCATION L0001902     VOLUME   477956.776 3748464.855 451.00
LOCATION L0001903     VOLUME   477960.792 3748457.363 451.00
LOCATION L0001904     VOLUME   477964.809 3748449.872 451.00
LOCATION L0001905     VOLUME   477968.825 3748442.381 451.00
LOCATION L0001906     VOLUME   477972.841 3748434.889 451.00
LOCATION L0001907     VOLUME   477976.857 3748427.398 451.00
LOCATION L0001908     VOLUME   477980.874 3748419.907 451.00
LOCATION L0001909     VOLUME   477984.890 3748412.415 451.00
LOCATION L0001910     VOLUME   477988.906 3748404.924 451.00
LOCATION L0001911     VOLUME   477992.922 3748397.433 451.00
LOCATION L0001912     VOLUME   477996.939 3748389.941 451.00
LOCATION L0001913     VOLUME   478000.955 3748382.450 451.00
LOCATION L0001914     VOLUME   478004.971 3748374.959 451.00
LOCATION L0001915     VOLUME   478008.987 3748367.468 451.00
LOCATION L0001916     VOLUME   478013.004 3748359.976 451.00
LOCATION L0001917     VOLUME   478017.122 3748352.545 451.00
LOCATION L0001918     VOLUME   478021.740 3748345.409 451.00
LOCATION L0001919     VOLUME   478026.357 3748338.273 451.00
LOCATION L0001920     VOLUME   478033.820 3748336.434 451.00
LOCATION L0001921     VOLUME   478042.319 3748336.526 451.00
LOCATION L0001922     VOLUME   478050.819 3748336.619 451.00
LOCATION L0001923     VOLUME   478059.318 3748336.711 451.00
LOCATION L0001924     VOLUME   478067.818 3748336.803 451.00
LOCATION L0001925     VOLUME   478076.317 3748336.896 451.00
LOCATION L0001926     VOLUME   478084.817 3748336.988 451.00
LOCATION L0001927     VOLUME   478093.316 3748337.080 451.00
LOCATION L0001928     VOLUME   478101.816 3748337.173 451.00
LOCATION L0001929     VOLUME   478110.315 3748337.265 451.00
LOCATION L0001930     VOLUME   478118.815 3748337.358 451.00
LOCATION L0001931     VOLUME   478127.314 3748337.450 451.00
LOCATION L0001932     VOLUME   478135.814 3748337.542 451.00
LOCATION L0001933     VOLUME   478144.313 3748337.635 451.00
LOCATION L0001934     VOLUME   478152.813 3748337.727 451.00
LOCATION L0001935     VOLUME   478161.312 3748337.820 451.00
LOCATION L0001936     VOLUME   478169.812 3748337.912 451.00
LOCATION L0001937     VOLUME   478178.311 3748338.004 451.00
LOCATION L0001938     VOLUME   478186.811 3748338.097 451.00
LOCATION L0001939     VOLUME   478195.310 3748338.189 451.00
LOCATION L0001940     VOLUME   478203.810 3748338.282 451.00
LOCATION L0001941     VOLUME   478212.309 3748338.374 451.00
LOCATION L0001942     VOLUME   478215.837 3748343.420 451.00
LOCATION L0001943     VOLUME   478215.897 3748351.920 451.00
LOCATION L0001944     VOLUME   478215.958 3748360.419 451.00
LOCATION L0001945     VOLUME   478216.018 3748368.919 451.00
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LOCATION L0001946     VOLUME   478216.079 3748377.419 451.00
LOCATION L0001947     VOLUME   478216.139 3748385.919 451.00
LOCATION L0001948     VOLUME   478216.200 3748394.419 451.00
LOCATION L0001949     VOLUME   478216.260 3748402.918 451.00
LOCATION L0001950     VOLUME   478216.321 3748411.418 451.00
LOCATION L0001951     VOLUME   478216.381 3748419.918 451.00
LOCATION L0001952     VOLUME   478216.442 3748428.418 451.00
LOCATION L0001953     VOLUME   478216.502 3748436.918 451.00
LOCATION L0001954     VOLUME   478216.563 3748445.417 451.00
LOCATION L0001955     VOLUME   478216.623 3748453.917 451.00
LOCATION L0001956     VOLUME   478216.683 3748462.417 451.04
LOCATION L0001957     VOLUME   478216.744 3748470.917 451.11
LOCATION L0001958     VOLUME   478216.804 3748479.416 451.18
LOCATION L0001959     VOLUME   478216.865 3748487.916 451.27
LOCATION L0001960     VOLUME   478216.925 3748496.416 451.49
LOCATION L0001961     VOLUME   478216.986 3748504.916 451.70
LOCATION L0001962     VOLUME   478217.046 3748513.416 451.92
LOCATION L0001963     VOLUME   478217.107 3748521.915 452.00
LOCATION L0001964     VOLUME   478217.167 3748530.415 452.00
LOCATION L0001965     VOLUME   478217.228 3748538.915 452.00
LOCATION L0001966     VOLUME   478217.288 3748547.415 452.00
LOCATION L0001967     VOLUME   478217.349 3748555.915 452.00
LOCATION L0001968     VOLUME   478217.409 3748564.414 452.00
LOCATION L0001969     VOLUME   478217.470 3748572.914 452.00
LOCATION L0001970     VOLUME   478217.530 3748581.414 452.00
LOCATION L0001971     VOLUME   478217.591 3748589.914 452.00
LOCATION L0001972     VOLUME   478217.651 3748598.413 452.00
LOCATION L0001973     VOLUME   478217.712 3748606.913 452.00
LOCATION L0001974     VOLUME   478217.772 3748615.413 452.00
LOCATION L0001975     VOLUME   478217.833 3748623.913 452.00
LOCATION L0001976     VOLUME   478217.893 3748632.413 452.00
LOCATION L0001977     VOLUME   478217.954 3748640.912 452.00
LOCATION L0001978     VOLUME   478218.014 3748649.412 452.00
LOCATION L0001979     VOLUME   478218.075 3748657.912 452.00
LOCATION L0001980     VOLUME   478218.135 3748666.412 452.00
LOCATION L0001981     VOLUME   478218.196 3748674.912 452.00
LOCATION L0001982     VOLUME   478218.256 3748683.411 452.00
LOCATION L0001983     VOLUME   478218.317 3748691.911 452.00
LOCATION L0001984     VOLUME   478218.377 3748700.411 452.00
LOCATION L0001985     VOLUME   478218.438 3748708.911 452.00
LOCATION L0001986     VOLUME   478218.498 3748717.410 452.00
LOCATION L0001987     VOLUME   478218.559 3748725.910 452.00
LOCATION L0001988     VOLUME   478218.619 3748734.410 452.00
LOCATION L0001989     VOLUME   478218.680 3748742.910 452.00
LOCATION L0001990     VOLUME   478218.740 3748751.410 452.00
LOCATION L0001991     VOLUME   478218.801 3748759.909 452.00
LOCATION L0001992     VOLUME   478218.861 3748768.409 452.00
LOCATION L0001993     VOLUME   478218.922 3748776.909 452.00
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   LOCATION L0001994     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0001995     VOLUME   478219.043 3748793.908 452.25
   LOCATION L0001996     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0001997     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0001998     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0001999     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0002000     VOLUME   478219.345 3748836.407 453.00
   LOCATION L0002001     VOLUME   478219.405 3748844.907 453.00
   LOCATION L0002002     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0002003     VOLUME   478219.526 3748861.907 453.00
   LOCATION L0002004     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0002005     VOLUME   478219.647 3748878.906 453.00
   LOCATION L0002006     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0002007     VOLUME   478219.768 3748895.906 453.00
   LOCATION L0002008     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0002009     VOLUME   478219.889 3748912.905 453.00
   LOCATION L0002010     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0002011     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0002012     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0002013     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0002014     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0002015     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0002016     VOLUME   478202.675 3748969.843 453.00
** End of LINE VOLUME Source ID = SLINE7
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.003356
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.09, 4.00, 3.95
** 477742.747, 3748979.421, 454.00, 4.00, 3.95
** 477742.213, 3748884.901, 453.70, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.00, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0002017     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0002018     VOLUME   477852.822 3748843.717 453.00
   LOCATION L0002019     VOLUME   477852.867 3748852.217 453.00
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LOCATION L0002020     VOLUME   477852.913 3748860.717 453.00
LOCATION L0002021     VOLUME   477852.959 3748869.216 453.00
LOCATION L0002022     VOLUME   477853.005 3748877.716 453.00
LOCATION L0002023     VOLUME   477853.051 3748886.216 453.00
LOCATION L0002024     VOLUME   477853.096 3748894.716 453.00
LOCATION L0002025     VOLUME   477853.142 3748903.216 453.00
LOCATION L0002026     VOLUME   477853.188 3748911.716 453.00
LOCATION L0002027     VOLUME   477853.234 3748920.216 453.00
LOCATION L0002028     VOLUME   477853.279 3748928.716 453.00
LOCATION L0002029     VOLUME   477853.325 3748937.215 453.00
LOCATION L0002030     VOLUME   477853.371 3748945.715 453.00
LOCATION L0002031     VOLUME   477853.417 3748954.215 453.00
LOCATION L0002032     VOLUME   477853.463 3748962.715 453.00
LOCATION L0002033     VOLUME   477853.508 3748971.215 453.16
LOCATION L0002034     VOLUME   477853.527 3748979.688 453.44
LOCATION L0002035     VOLUME   477845.027 3748979.667 453.53
LOCATION L0002036     VOLUME   477836.527 3748979.647 453.69
LOCATION L0002037     VOLUME   477828.027 3748979.626 453.85
LOCATION L0002038     VOLUME   477819.527 3748979.606 454.00
LOCATION L0002039     VOLUME   477811.027 3748979.586 454.00
LOCATION L0002040     VOLUME   477802.527 3748979.565 454.00
LOCATION L0002041     VOLUME   477794.027 3748979.545 454.00
LOCATION L0002042     VOLUME   477785.527 3748979.524 454.00
LOCATION L0002043     VOLUME   477777.027 3748979.504 454.00
LOCATION L0002044     VOLUME   477768.527 3748979.483 454.00
LOCATION L0002045     VOLUME   477760.027 3748979.463 454.00
LOCATION L0002046     VOLUME   477751.527 3748979.442 454.00
LOCATION L0002047     VOLUME   477743.027 3748979.422 454.00
LOCATION L0002048     VOLUME   477742.701 3748971.202 454.00
LOCATION L0002049     VOLUME   477742.653 3748962.702 454.00
LOCATION L0002050     VOLUME   477742.605 3748954.202 454.00
LOCATION L0002051     VOLUME   477742.557 3748945.702 454.00
LOCATION L0002052     VOLUME   477742.508 3748937.202 454.00
LOCATION L0002053     VOLUME   477742.460 3748928.702 453.89
LOCATION L0002054     VOLUME   477742.412 3748920.202 453.77
LOCATION L0002055     VOLUME   477742.364 3748911.703 453.65
LOCATION L0002056     VOLUME   477742.316 3748903.203 453.58
LOCATION L0002057     VOLUME   477742.268 3748894.703 453.58
LOCATION L0002058     VOLUME   477742.220 3748886.203 453.59
LOCATION L0002059     VOLUME   477744.174 3748877.975 453.52
LOCATION L0002060     VOLUME   477746.490 3748869.797 453.57
LOCATION L0002061     VOLUME   477748.805 3748861.618 453.68
LOCATION L0002062     VOLUME   477751.121 3748853.440 453.84
LOCATION L0002063     VOLUME   477753.436 3748845.261 453.96
LOCATION L0002064     VOLUME   477757.468 3748838.153 453.72
LOCATION L0002065     VOLUME   477763.797 3748832.479 453.46
LOCATION L0002066     VOLUME   477770.126 3748826.806 453.22
LOCATION L0002067     VOLUME   477778.582 3748826.536 453.12
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   LOCATION L0002068     VOLUME   477787.080 3748826.374 453.03
   LOCATION L0002069     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0002070     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0002071     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0002072     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0002073     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0002074     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0002075     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.002196
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 450.85, 4.00, 3.95
** 477886.421, 3748337.112, 451.00, 4.00, 3.95
** 477917.002, 3748339.979, 451.00, 4.00, 3.95
** 477941.530, 3748338.068, 451.00, 4.00, 3.95
** 477951.087, 3748325.007, 450.71, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.00, 4.00, 3.95
** 477993.877, 3748210.463, 450.00, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0002076     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0002077     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0002078     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0002079     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0002080     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0002081     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0002082     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0002083     VOLUME   477885.558 3748263.233 450.92
   LOCATION L0002084     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0002085     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0002086     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0002087     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0002088     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0002089     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0002090     VOLUME   477886.253 3748322.729 451.00
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   LOCATION L0002091     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0002092     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0002093     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0002094     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0002095     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0002096     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0002097     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0002098     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0002099     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0002100     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0002101     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0002102     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0002103     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0002104     VOLUME   477968.225 3748296.672 450.00
   LOCATION L0002105     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0002106     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0002107     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0002108     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0002109     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0002110     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0002111     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0002112     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0002113     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0002114     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0002115     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0002116     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0002117     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0002118     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0002119     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0002120     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0002121     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0002122     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0002123     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0002124     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.003825
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 454.06, 4.00, 3.95
** 477598.310, 3748973.915, 454.00, 4.00, 3.95
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** 477610.497, 3748965.249, 454.00, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 454.00, 4.00, 3.95
** 477487.823, 3748799.247, 454.00, 4.00, 3.95
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   LOCATION L0002125     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0002126     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0002127     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0002128     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0002129     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0002130     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0002131     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0002132     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0002133     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0002134     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0002135     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0002136     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0002137     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0002138     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0002139     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0002140     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0002141     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0002142     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0002143     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0002144     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0002145     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0002146     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0002147     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0002148     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0002149     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0002150     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0002151     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0002152     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0002153     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0002154     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0002155     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0002156     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0002157     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0002158     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0002159     VOLUME   477618.478 3748795.702 454.00
   LOCATION L0002160     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0002161     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0002162     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0002163     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0002164     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0002165     VOLUME   477567.497 3748797.085 454.00
   LOCATION L0002166     VOLUME   477559.000 3748797.316 454.00
```

AERMOD LSTs Operational Output

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   LOCATION L0002167     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0002168     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0002169     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0002170     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0002171     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0002172     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0002173     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0002174     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** ---------------------------------------------------------------------
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                       AERMOD LSTs Operational Output
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC PC On-Site Idling North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.009725
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0002175     VOLUME   477922.279 3748920.131 453.00
   LOCATION L0002176     VOLUME   477921.884 3748928.621 453.00
   LOCATION L0002177     VOLUME   477921.489 3748937.112 453.00
   LOCATION L0002178     VOLUME   477921.095 3748945.603 453.00
   LOCATION L0002179     VOLUME   477920.700 3748954.094 453.00
   LOCATION L0002180     VOLUME   477927.678 3748955.589 453.00
   LOCATION L0002181     VOLUME   477936.177 3748955.641 453.00
   LOCATION L0002182     VOLUME   477944.677 3748955.692 453.00
   LOCATION L0002183     VOLUME   477953.177 3748955.744 453.00
   LOCATION L0002184     VOLUME   477961.677 3748955.795 453.00
   LOCATION L0002185     VOLUME   477970.177 3748955.847 453.00
   LOCATION L0002186     VOLUME   477978.677 3748955.898 453.00
   LOCATION L0002187     VOLUME   477987.177 3748955.950 453.00
   LOCATION L0002188     VOLUME   477995.676 3748956.001 453.00
   LOCATION L0002189     VOLUME   478004.176 3748956.053 453.00
   LOCATION L0002190     VOLUME   478012.676 3748956.104 453.00
   LOCATION L0002191     VOLUME   478021.176 3748956.156 453.00
   LOCATION L0002192     VOLUME   478029.676 3748956.208 453.00
   LOCATION L0002193     VOLUME   478038.176 3748956.259 453.00
   LOCATION L0002194     VOLUME   478046.675 3748956.311 453.00
   LOCATION L0002195     VOLUME   478055.175 3748956.362 453.00
   LOCATION L0002196     VOLUME   478063.675 3748956.414 453.00
   LOCATION L0002197     VOLUME   478072.175 3748956.465 453.00
   LOCATION L0002198     VOLUME   478080.675 3748956.517 453.00
   LOCATION L0002199     VOLUME   478089.175 3748956.568 453.00
   LOCATION L0002200     VOLUME   478097.675 3748956.620 453.00
   LOCATION L0002201     VOLUME   478106.174 3748956.671 453.00
   LOCATION L0002202     VOLUME   478114.674 3748956.723 453.00
   LOCATION L0002203     VOLUME   478123.174 3748956.774 453.00
   LOCATION L0002204     VOLUME   478131.674 3748956.826 453.00
   LOCATION L0002205     VOLUME   478140.174 3748956.877 453.00
   LOCATION L0002206     VOLUME   478148.674 3748956.929 453.00
   LOCATION L0002207     VOLUME   478157.173 3748956.980 453.00
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   LOCATION L0002208     VOLUME   478165.673 3748957.032 453.00
   LOCATION L0002209     VOLUME   478174.173 3748957.083 453.00
   LOCATION L0002210     VOLUME   478182.673 3748957.135 453.00
   LOCATION L0002211     VOLUME   478191.173 3748957.186 453.00
   LOCATION L0002212     VOLUME   478199.673 3748957.238 453.00
   LOCATION L0002213     VOLUME   478208.172 3748957.289 453.00
   LOCATION L0002214     VOLUME   478216.672 3748957.341 453.00
   LOCATION L0002215     VOLUME   478225.010 3748957.229 453.00
   LOCATION L0002216     VOLUME   478225.010 3748948.729 453.00
   LOCATION L0002217     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0002218     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0002219     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE11
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE16
** DESCRSRC PC On-Site Travel North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.003675
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002220     VOLUME   477922.279 3748920.131 453.00
   LOCATION L0002221     VOLUME   477921.884 3748928.621 453.00
   LOCATION L0002222     VOLUME   477921.489 3748937.112 453.00
   LOCATION L0002223     VOLUME   477921.095 3748945.603 453.00
   LOCATION L0002224     VOLUME   477920.700 3748954.094 453.00
   LOCATION L0002225     VOLUME   477927.678 3748955.589 453.00
   LOCATION L0002226     VOLUME   477936.177 3748955.641 453.00
   LOCATION L0002227     VOLUME   477944.677 3748955.692 453.00
   LOCATION L0002228     VOLUME   477953.177 3748955.744 453.00
   LOCATION L0002229     VOLUME   477961.677 3748955.795 453.00
   LOCATION L0002230     VOLUME   477970.177 3748955.847 453.00
   LOCATION L0002231     VOLUME   477978.677 3748955.898 453.00
   LOCATION L0002232     VOLUME   477987.177 3748955.950 453.00
   LOCATION L0002233     VOLUME   477995.676 3748956.001 453.00
   LOCATION L0002234     VOLUME   478004.176 3748956.053 453.00
   LOCATION L0002235     VOLUME   478012.676 3748956.104 453.00
   LOCATION L0002236     VOLUME   478021.176 3748956.156 453.00
   LOCATION L0002237     VOLUME   478029.676 3748956.208 453.00
   LOCATION L0002238     VOLUME   478038.176 3748956.259 453.00
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   LOCATION L0002239     VOLUME   478046.675 3748956.311 453.00
   LOCATION L0002240     VOLUME   478055.175 3748956.362 453.00
   LOCATION L0002241     VOLUME   478063.675 3748956.414 453.00
   LOCATION L0002242     VOLUME   478072.175 3748956.465 453.00
   LOCATION L0002243     VOLUME   478080.675 3748956.517 453.00
   LOCATION L0002244     VOLUME   478089.175 3748956.568 453.00
   LOCATION L0002245     VOLUME   478097.675 3748956.620 453.00
   LOCATION L0002246     VOLUME   478106.174 3748956.671 453.00
   LOCATION L0002247     VOLUME   478114.674 3748956.723 453.00
   LOCATION L0002248     VOLUME   478123.174 3748956.774 453.00
   LOCATION L0002249     VOLUME   478131.674 3748956.826 453.00
   LOCATION L0002250     VOLUME   478140.174 3748956.877 453.00
   LOCATION L0002251     VOLUME   478148.674 3748956.929 453.00
   LOCATION L0002252     VOLUME   478157.173 3748956.980 453.00
   LOCATION L0002253     VOLUME   478165.673 3748957.032 453.00
   LOCATION L0002254     VOLUME   478174.173 3748957.083 453.00
   LOCATION L0002255     VOLUME   478182.673 3748957.135 453.00
   LOCATION L0002256     VOLUME   478191.173 3748957.186 453.00
   LOCATION L0002257     VOLUME   478199.673 3748957.238 453.00
   LOCATION L0002258     VOLUME   478208.172 3748957.289 453.00
   LOCATION L0002259     VOLUME   478216.672 3748957.341 453.00
   LOCATION L0002260     VOLUME   478225.010 3748957.229 453.00
   LOCATION L0002261     VOLUME   478225.010 3748948.729 453.00
   LOCATION L0002262     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0002263     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0002264     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE16
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC PC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.009725
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002265     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0002266     VOLUME   478185.936 3748323.096 450.00
   LOCATION L0002267     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0002268     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0002269     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0002270     VOLUME   478219.914 3748321.882 450.00
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   LOCATION L0002271     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0002272     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0002273     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0002274     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0002275     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0002276     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0002277     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0002278     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0002279     VOLUME   478233.496 3748380.968 451.00
   LOCATION L0002280     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE12
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE17
** DESCRSRC PC On-Site Travel South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.001343
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0002281     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0002282     VOLUME   478185.936 3748323.096 450.00
   LOCATION L0002283     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0002284     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0002285     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0002286     VOLUME   478219.914 3748321.882 450.00
   LOCATION L0002287     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0002288     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0002289     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0002290     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0002291     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0002292     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0002293     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0002294     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0002295     VOLUME   478233.496 3748380.968 451.00
   LOCATION L0002296     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE17
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC PC On-Site Idling Building 2
** PREFIX
```

```
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.009282
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001660     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0001661     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0001662     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0001663     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0001664     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0001665     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0001666     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0001667     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0001668     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0001669     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0001670     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0001671     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0001672     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0001673     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0001674     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0001675     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0001676     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0001677     VOLUME   477853.699 3748947.227 453.00
   LOCATION L0001678     VOLUME   477853.614 3748938.727 453.00
   LOCATION L0001679     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0001680     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0001681     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0001682     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0001683     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0001684     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0001685     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0001686     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0001687     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0001688     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0001689     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0001690     VOLUME   477852.587 3748836.732 453.00
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE18
** DESCRSRC PC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
```

```
                          AERMOD LSTs Operational Output
** Configuration = Adjacent
** Emission Rate = 0.002405
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0001691     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0001692     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0001693     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0001694     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0001695     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0001696     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0001697     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0001698     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0001699     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0001700     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0001701     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0001702     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0001703     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0001704     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0001705     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0001706     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0001707     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0001708     VOLUME   477853.699 3748947.227 453.00
   LOCATION L0001709     VOLUME   477853.614 3748938.727 453.00
   LOCATION L0001710     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0001711     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0001712     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0001713     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0001714     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0001715     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0001716     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0001717     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0001718     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0001719     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0001720     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0001721     VOLUME   477852.587 3748836.732 453.00
** End of LINE VOLUME Source ID = SLINE18
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC PC On-Site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
```

```
** Emission Rate = 0.007373
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0001722     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0001723     VOLUME   477942.912 3748197.691 450.00
   LOCATION L0001724     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0001725     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0001726     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0001727     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0001728     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0001729     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE14
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE19
** DESCRSRC PC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0004713
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0002297     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0002298     VOLUME   477942.912 3748197.691 450.00
   LOCATION L0002299     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0002300     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0002301     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0002302     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0002303     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0002304     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE19
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC PC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.01257
** Vertical Dimension = 3.00
```

```
** SZINIT = 1.40
** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001738     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0001739     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0001740     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0001741     VOLUME   477524.946 3748975.832 454.00
   LOCATION L0001742     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0001743     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0001744     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0001745     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0001746     VOLUME   477567.434 3748974.837 454.00
   LOCATION L0001747     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0001748     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0001749     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE15
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE20
** DESCRSRC PC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.001326
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0002305     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0002306     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0002307     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0002308     VOLUME   477524.946 3748975.832 454.00
   LOCATION L0002309     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0002310     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0002311     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0002312     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0002313     VOLUME   477567.434 3748974.837 454.00
   LOCATION L0002314     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0002315     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0002316     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE20
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001762     0.0008635294      4.00     13.95      1.86
```

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                        AERMOD LSTs Operational Output
   SRCPARAM L0001763     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001764     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001765     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001766     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001767     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001768     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001769     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001770     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001771     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001772     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001773     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001774     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001775     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001776     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001777     0.0008635294      4.00     13.95      1.86
   SRCPARAM L0001778     0.0008635294      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0001779      0.000895      4.00     13.95      1.86
   SRCPARAM L0001780      0.000895      4.00     13.95      1.86
   SRCPARAM L0001781      0.000895      4.00     13.95      1.86
   SRCPARAM L0001782      0.000895      4.00     13.95      1.86
   SRCPARAM L0001783      0.000895      4.00     13.95      1.86
   SRCPARAM L0001784      0.000895      4.00     13.95      1.86
   SRCPARAM L0001785      0.000895      4.00     13.95      1.86
   SRCPARAM L0001786      0.000895      4.00     13.95      1.86
   SRCPARAM L0001787      0.000895      4.00     13.95      1.86
   SRCPARAM L0001788      0.000895      4.00     13.95      1.86
   SRCPARAM L0001789      0.000895      4.00     13.95      1.86
   SRCPARAM L0001790      0.000895      4.00     13.95      1.86
   SRCPARAM L0001791      0.000895      4.00     13.95      1.86
   SRCPARAM L0001792      0.000895      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0001793     0.000825375      4.00      3.95      1.86
   SRCPARAM L0001794     0.000825375      4.00      3.95      1.86
   SRCPARAM L0001795     0.000825375      4.00      3.95      1.86
   SRCPARAM L0001796     0.000825375      4.00      3.95      1.86
   SRCPARAM L0001797     0.000825375      4.00      3.95      1.86
   SRCPARAM L0001798     0.000825375      4.00      3.95      1.86
   SRCPARAM L0001799     0.000825375      4.00      3.95      1.86
   SRCPARAM L0001800     0.000825375      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0001801     0.0002491429      4.00      3.95      1.86
   SRCPARAM L0001802     0.0002491429      4.00      3.95      1.86
   SRCPARAM L0001803     0.0002491429      4.00      3.95      1.86
   SRCPARAM L0001804     0.0002491429      4.00      3.95      1.86
```

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   SRCPARAM L0001805     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001806     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001807     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001808     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001809     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001810     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001811     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001812     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001813     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001814     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001815     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001816     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001817     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001818     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001819     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001820     0.0002491429      4.00       3.95       1.86
   SRCPARAM L0001821     0.0002491429      4.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0001822     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001823     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001824     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001825     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001826     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001827     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001828     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001829     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001830     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001831     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001832     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001833     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001834     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001835     0.0005965333      0.00       3.95       1.86
   SRCPARAM L0001836     0.0005965333      0.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001837     0.0008082      0.00     13.95      1.86
   SRCPARAM L0001838     0.0008082      0.00     13.95      1.86
   SRCPARAM L0001839     0.0008082      0.00     13.95      1.86
   SRCPARAM L0001840     0.0008082      0.00     13.95      1.86
   SRCPARAM L0001841     0.0008082      0.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0001842     0.0002670857      4.00       3.95       1.86
   SRCPARAM L0001843     0.0002670857      4.00       3.95       1.86
   SRCPARAM L0001844     0.0002670857      4.00       3.95       1.86
   SRCPARAM L0001845     0.0002670857      4.00       3.95       1.86
   SRCPARAM L0001846     0.0002670857      4.00       3.95       1.86
```

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                    AERMOD LSTs Operational Output
SRCPARAM L0001847      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001848      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001849      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001850      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001851      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001852      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001853      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001854      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001855      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001856      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001857      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001858      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001859      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001860      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001861      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001862      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001863      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001864      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001865      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001866      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001867      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001868      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001869      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001870      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001871      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001872      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001873      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001874      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001875      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001876      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001877      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001878      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001879      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001880      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001881      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001882      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001883      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001884      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001885      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001886      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001887      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001888      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001889      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001890      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001891      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001892      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001893      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001894      0.0002670857       4.00       3.95       1.86
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SRCPARAM L0001895     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001896     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001897     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001898     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001899     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001900     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001901     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001902     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001903     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001904     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001905     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001906     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001907     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001908     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001909     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001910     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001911     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001912     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001913     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001914     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001915     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001916     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001917     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001918     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001919     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001920     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001921     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001922     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001923     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001924     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001925     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001926     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001927     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001928     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001929     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001930     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001931     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001932     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001933     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001934     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001935     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001936     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001937     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001938     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001939     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001940     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001941     0.0002670857      4.00      3.95      1.86
SRCPARAM L0001942     0.0002670857      4.00      3.95      1.86
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                         AERMOD LSTs Operational Output
SRCPARAM L0001943      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001944      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001945      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001946      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001947      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001948      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001949      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001950      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001951      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001952      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001953      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001954      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001955      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001956      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001957      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001958      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001959      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001960      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001961      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001962      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001963      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001964      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001965      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001966      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001967      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001968      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001969      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001970      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001971      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001972      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001973      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001974      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001975      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001976      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001977      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001978      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001979      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001980      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001981      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001982      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001983      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001984      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001985      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001986      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001987      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001988      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001989      0.0002670857       4.00       3.95       1.86
SRCPARAM L0001990      0.0002670857       4.00       3.95       1.86
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   SRCPARAM L0001991     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001992     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001993     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001994     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001995     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001996     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001997     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001998     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0001999     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002000     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002001     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002002     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002003     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002004     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002005     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002006     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002007     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002008     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002009     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002010     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002011     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002012     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002013     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002014     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002015     0.0002670857      4.00      3.95      1.86
   SRCPARAM L0002016     0.0002670857      4.00      3.95      1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0002017     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002018     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002019     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002020     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002021     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002022     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002023     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002024     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002025     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002026     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002027     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002028     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002029     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002030     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002031     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002032     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002033     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002034     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002035     0.0000568814      4.00      3.95      1.86
   SRCPARAM L0002036     0.0000568814      4.00      3.95      1.86
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                          AERMOD LSTs Operational Output
   SRCPARAM L0002037     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002038     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002039     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002040     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002041     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002042     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002043     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002044     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002045     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002046     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002047     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002048     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002049     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002050     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002051     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002052     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002053     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002054     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002055     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002056     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002057     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002058     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002059     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002060     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002061     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002062     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002063     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002064     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002065     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002066     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002067     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002068     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002069     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002070     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002071     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002072     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002073     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002074     0.0000568814       4.00       3.95       1.86
   SRCPARAM L0002075     0.0000568814       4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0002076     0.0000448163       4.00       3.95       1.86
   SRCPARAM L0002077     0.0000448163       4.00       3.95       1.86
   SRCPARAM L0002078     0.0000448163       4.00       3.95       1.86
   SRCPARAM L0002079     0.0000448163       4.00       3.95       1.86
   SRCPARAM L0002080     0.0000448163       4.00       3.95       1.86
   SRCPARAM L0002081     0.0000448163       4.00       3.95       1.86
   SRCPARAM L0002082     0.0000448163       4.00       3.95       1.86
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                        AERMOD LSTs Operational Output
   SRCPARAM L0002083     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002084     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002085     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002086     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002087     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002088     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002089     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002090     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002091     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002092     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002093     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002094     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002095     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002096     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002097     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002098     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002099     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002100     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002101     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002102     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002103     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002104     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002105     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002106     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002107     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002108     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002109     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002110     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002111     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002112     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002113     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002114     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002115     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002116     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002117     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002118     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002119     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002120     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002121     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002122     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002123     0.0000448163      4.00      3.95      1.86
   SRCPARAM L0002124     0.0000448163      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0002125     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002126     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002127     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002128     0.0000765      4.00      3.95      1.86
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                       AERMOD LSTs Operational Output
   SRCPARAM L0002129     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002130     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002131     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002132     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002133     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002134     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002135     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002136     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002137     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002138     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002139     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002140     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002141     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002142     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002143     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002144     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002145     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002146     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002147     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002148     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002149     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002150     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002151     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002152     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002153     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002154     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002155     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002156     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002157     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002158     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002159     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002160     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002161     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002162     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002163     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002164     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002165     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002166     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002167     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002168     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002169     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002170     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002171     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002172     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002173     0.0000765      4.00      3.95      1.86
   SRCPARAM L0002174     0.0000765      4.00      3.95      1.86
** --------------------------------------------------------------------
   SRCPARAM AREA1        2.3237E-07      5.000     75.040    426.520      0.000
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   SRCPARAM AREA2        2.4601E-07     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.6212E-07     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7038E-07     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6524E-07     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5324E-07     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.001359712     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.001077368     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.00184267     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0002175     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002176     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002177     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002178     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002179     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002180     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002181     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002182     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002183     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002184     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002185     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002186     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002187     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002188     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002189     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002190     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002191     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002192     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002193     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002194     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002195     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002196     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002197     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002198     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002199     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002200     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002201     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002202     0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002203     0.0002161111      0.00      3.95      1.40
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                        AERMOD LSTs Operational Output
   SRCPARAM L0002204      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002205      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002206      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002207      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002208      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002209      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002210      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002211      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002212      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002213      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002214      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002215      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002216      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002217      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002218      0.0002161111      0.00      3.95      1.40
   SRCPARAM L0002219      0.0002161111      0.00      3.95      1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE16
   SRCPARAM L0002220      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002221      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002222      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002223      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002224      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002225      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002226      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002227      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002228      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002229      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002230      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002231      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002232      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002233      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002234      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002235      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002236      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002237      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002238      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002239      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002240      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002241      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002242      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002243      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002244      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002245      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002246      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002247      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002248      0.0000816667      0.00      3.95      1.40
   SRCPARAM L0002249      0.0000816667      0.00      3.95      1.40
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                       AERMOD LSTs Operational Output
   SRCPARAM L0002250     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002251     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002252     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002253     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002254     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002255     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002256     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002257     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002258     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002259     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002260     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002261     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002262     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002263     0.0000816667      0.00       3.95       1.40
   SRCPARAM L0002264     0.0000816667      0.00       3.95       1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0002265     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002266     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002267     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002268     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002269     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002270     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002271     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002272     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002273     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002274     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002275     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002276     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002277     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002278     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002279     0.0006078125      0.00       3.95       1.40
   SRCPARAM L0002280     0.0006078125      0.00       3.95       1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE17
   SRCPARAM L0002281     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002282     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002283     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002284     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002285     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002286     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002287     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002288     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002289     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002290     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002291     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002292     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002293     0.0000839375      0.00       3.95       1.40
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   SRCPARAM L0002294     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002295     0.0000839375      0.00       3.95       1.40
   SRCPARAM L0002296     0.0000839375      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0001660     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001661     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001662     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001663     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001664     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001665     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001666     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001667     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001668     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001669     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001670     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001671     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001672     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001673     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001674     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001675     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001676     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001677     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001678     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001679     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001680     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001681     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001682     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001683     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001684     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001685     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001686     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001687     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001688     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001689     0.0002994194      0.00       3.95       1.40
   SRCPARAM L0001690     0.0002994194      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE18
   SRCPARAM L0001691     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001692     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001693     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001694     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001695     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001696     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001697     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001698     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001699     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001700     0.0000775806      0.00       3.95       1.40
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   SRCPARAM L0001701     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001702     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001703     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001704     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001705     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001706     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001707     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001708     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001709     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001710     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001711     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001712     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001713     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001714     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001715     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001716     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001717     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001718     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001719     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001720     0.0000775806      0.00       3.95       1.40
   SRCPARAM L0001721     0.0000775806      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0001722     0.000921625      0.00       3.95       1.40
   SRCPARAM L0001723     0.000921625      0.00       3.95       1.40
   SRCPARAM L0001724     0.000921625      0.00       3.95       1.40
   SRCPARAM L0001725     0.000921625      0.00       3.95       1.40
   SRCPARAM L0001726     0.000921625      0.00       3.95       1.40
   SRCPARAM L0001727     0.000921625      0.00       3.95       1.40
   SRCPARAM L0001728     0.000921625      0.00       3.95       1.40
   SRCPARAM L0001729     0.000921625      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE19
   SRCPARAM L0002297     0.0000589125      0.00       3.95       1.40
   SRCPARAM L0002298     0.0000589125      0.00       3.95       1.40
   SRCPARAM L0002299     0.0000589125      0.00       3.95       1.40
   SRCPARAM L0002300     0.0000589125      0.00       3.95       1.40
   SRCPARAM L0002301     0.0000589125      0.00       3.95       1.40
   SRCPARAM L0002302     0.0000589125      0.00       3.95       1.40
   SRCPARAM L0002303     0.0000589125      0.00       3.95       1.40
   SRCPARAM L0002304     0.0000589125      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0001738     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001739     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001740     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001741     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001742     0.0010475      0.00       3.95       1.40
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   SRCPARAM L0001743     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001744     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001745     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001746     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001747     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001748     0.0010475      0.00       3.95       1.40
   SRCPARAM L0001749     0.0010475      0.00       3.95       1.40
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE20
   SRCPARAM L0002305     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002306     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002307     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002308     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002309     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002310     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002311     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002312     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002313     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002314     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002315     0.0001105      0.00       3.95       1.40
   SRCPARAM L0002316     0.0001105      0.00       3.95       1.40
** --------------------------------------------------------------------
   URBANSRC ALL
   CONCUNIT 873.2 GRAMS/SEC PPM
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED CO.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
```

```
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
   RECTABLE 8 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST CO.AD\01H1GALL.PLT 31
   PLOTFILE 8 ALL 1ST CO.AD\08H1GALL.PLT 32
   SUMMFILE CO.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of           0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    1777       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:26:14

                                  PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                           ***     MODEL SETUP OPTIONS SUMMARY
```

```
                              AERMOD LSTs Operational Output
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -


 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   656 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  CO

 **Model Calculates  2 Short Term Average(s) of:   1-HR   8-HR

 **This Run Includes:    656 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    637 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                           AERMOD LSTs Operational Output
 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE 
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE 
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE 
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing 
Hours
                                                                 b for Both Calm 
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay 
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                 ; 
Emission Rate Unit Factor =    873.20
                  Output Units   = PPM

 **Approximate Storage Requirements of Model =      3.9 MB of RAM.

 **Detailed Error/Message File:   CO.err

 **File for Summary of Results:   CO.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD 
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***                                      
                        ***        12:26:14

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** POINT SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     STACK   STACK   
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.    HEIGHT  TEMP.   
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K) 
(M/SEC)  (METERS)                  VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1           0   0.64271E-03  478197.3 3748887.5   453.0     3.96   501.00   
49.98     0.04     NO       YES   NO
```

```
                                AERMOD LSTs Operational Output
 STCK2            0   0.64271E-03  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK3            0   0.64271E-03  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK4            0   0.64271E-03  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK5            0   0.64271E-03  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK6            0   0.64271E-03  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK7            0   0.64271E-03  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK8            0   0.64271E-03  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK9            0   0.64271E-03  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK10           0   0.64271E-03  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK11           0   0.13597E-02  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK12           0   0.10774E-02  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK13           0   0.18427E-02  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO      YES   NO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001762         0   0.86353E-03  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES
 L0001763         0   0.86353E-03  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES
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 L0001764        0   0.86353E-03  478216.5 3748476.3    451.2      4.00    13.95
1.86     YES
 L0001765        0   0.86353E-03  478216.6 3748506.3    451.7      4.00    13.95
1.86     YES
 L0001766        0   0.86353E-03  478216.7 3748536.3    452.0      4.00    13.95
1.86     YES
 L0001767        0   0.86353E-03  478216.9 3748566.3    452.0      4.00    13.95
1.86     YES
 L0001768        0   0.86353E-03  478217.0 3748596.3    452.0      4.00    13.95
1.86     YES
 L0001769        0   0.86353E-03  478217.2 3748626.3    452.0      4.00    13.95
1.86     YES
 L0001770        0   0.86353E-03  478217.3 3748656.3    452.0      4.00    13.95
1.86     YES
 L0001771        0   0.86353E-03  478217.4 3748686.3    452.0      4.00    13.95
1.86     YES
 L0001772        0   0.86353E-03  478217.6 3748716.3    452.0      4.00    13.95
1.86     YES
 L0001773        0   0.86353E-03  478217.7 3748746.3    452.0      4.00    13.95
1.86     YES
 L0001774        0   0.86353E-03  478217.8 3748776.3    452.0      4.00    13.95
1.86     YES
 L0001775        0   0.86353E-03  478218.0 3748806.3    452.7      4.00    13.95
1.86     YES
 L0001776        0   0.86353E-03  478218.1 3748836.3    453.0      4.00    13.95
1.86     YES
 L0001777        0   0.86353E-03  478218.3 3748866.3    453.0      4.00    13.95
1.86     YES
 L0001778        0   0.86353E-03  478218.4 3748896.3    453.0      4.00    13.95
1.86     YES
 L0001779        0   0.89500E-03  477943.9 3748501.1    451.5      4.00    13.95
1.86     YES
 L0001780        0   0.89500E-03  477944.1 3748531.1    452.0      4.00    13.95
1.86     YES
 L0001781        0   0.89500E-03  477944.4 3748561.1    452.0      4.00    13.95
1.86     YES
 L0001782        0   0.89500E-03  477944.7 3748591.1    452.0      4.00    13.95
1.86     YES
 L0001783        0   0.89500E-03  477944.9 3748621.1    452.0      4.00    13.95
1.86     YES
 L0001784        0   0.89500E-03  477945.2 3748651.1    452.0      4.00    13.95
1.86     YES
 L0001785        0   0.89500E-03  477945.4 3748681.1    452.5      4.00    13.95
1.86     YES
 L0001786        0   0.89500E-03  477945.7 3748711.1    453.0      4.00    13.95
1.86     YES
 L0001787        0   0.89500E-03  477945.9 3748741.1    453.0      4.00    13.95
1.86     YES
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 L0001788         0   0.89500E-03  477946.2 3748771.1   453.0     4.00    13.95
1.86     YES
 L0001789         0   0.89500E-03  477946.5 3748801.1   453.0     4.00    13.95
1.86     YES
 L0001790         0   0.89500E-03  477946.7 3748831.1   453.0     4.00    13.95
1.86     YES
 L0001791         0   0.89500E-03  477947.0 3748861.1   453.0     4.00    13.95
1.86     YES
 L0001792         0   0.89500E-03  477947.2 3748891.1   453.0     4.00    13.95
1.86     YES
 L0001793         0   0.82538E-03  477756.7 3748938.5   454.0     4.00     3.95
1.86     YES
 L0001794         0   0.82538E-03  477756.7 3748930.0   453.8     4.00     3.95
1.86     YES
 L0001795         0   0.82538E-03  477756.7 3748921.5   453.6     4.00     3.95
1.86     YES
 L0001796         0   0.82538E-03  477756.7 3748913.0   453.3     4.00     3.95
1.86     YES
 L0001797         0   0.82538E-03  477756.7 3748904.5   453.1     4.00     3.95
1.86     YES
 L0001798         0   0.82538E-03  477756.7 3748896.0   453.1     4.00     3.95
1.86     YES
 L0001799         0   0.82538E-03  477756.7 3748887.5   453.1     4.00     3.95
1.86     YES
 L0001800         0   0.82538E-03  477756.7 3748879.0   453.1     4.00     3.95
1.86     YES
 L0001801         0   0.24914E-03  477900.2 3748339.0   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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                              AERMOD LSTs Operational Output
 L0001802         0   0.24914E-03  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES
 L0001803         0   0.24914E-03  477917.1 3748338.9   451.0     4.00     3.95
1.86     YES
 L0001804         0   0.24914E-03  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES
 L0001805         0   0.24914E-03  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES
 L0001806         0   0.24914E-03  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES
 L0001807         0   0.24914E-03  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES
 L0001808         0   0.24914E-03  477951.8 3748324.5   451.0     4.00     3.95
1.86     YES
 L0001809         0   0.24914E-03  477956.1 3748317.1   450.0     4.00     3.95
1.86     YES
 L0001810         0   0.24914E-03  477960.3 3748309.7   450.0     4.00     3.95
1.86     YES
 L0001811         0   0.24914E-03  477964.6 3748302.3   450.0     4.00     3.95
1.86     YES
 L0001812         0   0.24914E-03  477968.8 3748295.0   450.0     4.00     3.95
1.86     YES
 L0001813         0   0.24914E-03  477973.0 3748287.6   450.0     4.00     3.95
1.86     YES
 L0001814         0   0.24914E-03  477976.2 3748279.9   450.0     4.00     3.95
1.86     YES
 L0001815         0   0.24914E-03  477977.3 3748271.5   450.0     4.00     3.95
1.86     YES
 L0001816         0   0.24914E-03  477978.3 3748263.0   450.0     4.00     3.95
1.86     YES
 L0001817         0   0.24914E-03  477978.3 3748254.5   450.0     4.00     3.95
1.86     YES
 L0001818         0   0.24914E-03  477978.3 3748246.0   450.0     4.00     3.95
1.86     YES
 L0001819         0   0.24914E-03  477978.2 3748237.5   450.0     4.00     3.95
1.86     YES
 L0001820         0   0.24914E-03  477978.2 3748229.0   450.0     4.00     3.95
1.86     YES
 L0001821         0   0.24914E-03  477978.1 3748220.5   450.0     4.00     3.95
1.86     YES
 L0001822         0   0.59653E-03  477608.7 3748929.3   454.0     0.00     3.95
1.86     YES
 L0001823         0   0.59653E-03  477608.7 3748920.8   454.0     0.00     3.95
1.86     YES
 L0001824         0   0.59653E-03  477608.7 3748912.3   454.0     0.00     3.95
1.86     YES
 L0001825         0   0.59653E-03  477608.7 3748903.8   454.0     0.00     3.95
1.86     YES
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 L0001826        0   0.59653E-03  477608.7 3748895.3   454.0     0.00     3.95
1.86     YES
 L0001827        0   0.59653E-03  477608.7 3748886.8   454.0     0.00     3.95
1.86     YES
 L0001828        0   0.59653E-03  477608.7 3748878.3   454.0     0.00     3.95
1.86     YES
 L0001829        0   0.59653E-03  477608.7 3748869.8   454.0     0.00     3.95
1.86     YES
 L0001830        0   0.59653E-03  477608.7 3748861.3   454.0     0.00     3.95
1.86     YES
 L0001831        0   0.59653E-03  477608.7 3748852.8   454.0     0.00     3.95
1.86     YES
 L0001832        0   0.59653E-03  477608.7 3748844.3   454.0     0.00     3.95
1.86     YES
 L0001833        0   0.59653E-03  477608.7 3748835.8   454.0     0.00     3.95
1.86     YES
 L0001834        0   0.59653E-03  477608.7 3748827.3   454.0     0.00     3.95
1.86     YES
 L0001835        0   0.59653E-03  477608.7 3748818.8   454.0     0.00     3.95
1.86     YES
 L0001836        0   0.59653E-03  477608.7 3748810.3   454.0     0.00     3.95
1.86     YES
 L0001837        0   0.80820E-03  478043.0 3748335.2   451.0     0.00    13.95
1.86     YES
 L0001838        0   0.80820E-03  478073.0 3748334.5   451.0     0.00    13.95
1.86     YES
 L0001839        0   0.80820E-03  478103.0 3748333.9   451.0     0.00    13.95
1.86     YES
 L0001840        0   0.80820E-03  478133.0 3748333.2   451.0     0.00    13.95
1.86     YES
 L0001841        0   0.80820E-03  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                 *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)      X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
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                            AERMOD LSTs Operational Output
(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001842        0   0.26709E-03  477952.3 3748971.4    453.0     4.00     3.95
1.86     YES
 L0001843        0   0.26709E-03  477952.2 3748962.9    453.0     4.00     3.95
1.86     YES
 L0001844        0   0.26709E-03  477952.0 3748954.4    453.0     4.00     3.95
1.86     YES
 L0001845        0   0.26709E-03  477951.4 3748946.0    453.0     4.00     3.95
1.86     YES
 L0001846        0   0.26709E-03  477950.2 3748937.5    453.0     4.00     3.95
1.86     YES
 L0001847        0   0.26709E-03  477949.0 3748929.1    453.0     4.00     3.95
1.86     YES
 L0001848        0   0.26709E-03  477948.2 3748920.7    453.0     4.00     3.95
1.86     YES
 L0001849        0   0.26709E-03  477948.1 3748912.2    453.0     4.00     3.95
1.86     YES
 L0001850        0   0.26709E-03  477947.9 3748903.7    453.0     4.00     3.95
1.86     YES
 L0001851        0   0.26709E-03  477947.8 3748895.2    453.0     4.00     3.95
1.86     YES
 L0001852        0   0.26709E-03  477947.6 3748886.7    453.0     4.00     3.95
1.86     YES
 L0001853        0   0.26709E-03  477947.5 3748878.2    453.0     4.00     3.95
1.86     YES
 L0001854        0   0.26709E-03  477947.3 3748869.7    453.0     4.00     3.95
1.86     YES
 L0001855        0   0.26709E-03  477947.2 3748861.2    453.0     4.00     3.95
1.86     YES
 L0001856        0   0.26709E-03  477947.2 3748852.7    453.0     4.00     3.95
1.86     YES
 L0001857        0   0.26709E-03  477947.1 3748844.2    453.0     4.00     3.95
1.86     YES
 L0001858        0   0.26709E-03  477947.0 3748835.7    453.0     4.00     3.95
1.86     YES
 L0001859        0   0.26709E-03  477947.0 3748827.2    453.0     4.00     3.95
1.86     YES
 L0001860        0   0.26709E-03  477946.9 3748818.7    453.0     4.00     3.95
1.86     YES
 L0001861        0   0.26709E-03  477946.8 3748810.2    453.0     4.00     3.95
1.86     YES
 L0001862        0   0.26709E-03  477946.7 3748801.7    453.0     4.00     3.95
1.86     YES
 L0001863        0   0.26709E-03  477946.7 3748793.2    453.0     4.00     3.95
1.86     YES
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                           AERMOD LSTs Operational Output
 L0001864         0   0.26709E-03  477946.6 3748784.7   453.0     4.00     3.95
1.86     YES
 L0001865         0   0.26709E-03  477946.5 3748776.2   453.0     4.00     3.95
1.86     YES
 L0001866         0   0.26709E-03  477946.5 3748767.7   453.0     4.00     3.95
1.86     YES
 L0001867         0   0.26709E-03  477946.4 3748759.2   453.0     4.00     3.95
1.86     YES
 L0001868         0   0.26709E-03  477946.3 3748750.7   453.0     4.00     3.95
1.86     YES
 L0001869         0   0.26709E-03  477946.3 3748742.2   453.0     4.00     3.95
1.86     YES
 L0001870         0   0.26709E-03  477946.2 3748733.7   453.0     4.00     3.95
1.86     YES
 L0001871         0   0.26709E-03  477946.1 3748725.2   453.0     4.00     3.95
1.86     YES
 L0001872         0   0.26709E-03  477946.1 3748716.7   453.0     4.00     3.95
1.86     YES
 L0001873         0   0.26709E-03  477946.0 3748708.2   453.0     4.00     3.95
1.86     YES
 L0001874         0   0.26709E-03  477945.9 3748699.7   453.0     4.00     3.95
1.86     YES
 L0001875         0   0.26709E-03  477945.9 3748691.2   452.8     4.00     3.95
1.86     YES
 L0001876         0   0.26709E-03  477945.8 3748682.7   452.5     4.00     3.95
1.86     YES
 L0001877         0   0.26709E-03  477945.7 3748674.2   452.2     4.00     3.95
1.86     YES
 L0001878         0   0.26709E-03  477945.7 3748665.7   452.0     4.00     3.95
1.86     YES
 L0001879         0   0.26709E-03  477945.6 3748657.2   452.0     4.00     3.95
1.86     YES
 L0001880         0   0.26709E-03  477945.5 3748648.7   452.0     4.00     3.95
1.86     YES
 L0001881         0   0.26709E-03  477945.4 3748640.2   452.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        12:26:14

                                   PAGE   6
 **MODELOPTs:    RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
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```
                            AERMOD LSTs Operational Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0001882         0   0.26709E-03  477945.4 3748631.7   452.0     4.00     3.95
1.86     YES
 L0001883         0   0.26709E-03  477945.3 3748623.2   452.0     4.00     3.95
1.86     YES
 L0001884         0   0.26709E-03  477945.2 3748614.7   452.0     4.00     3.95
1.86     YES
 L0001885         0   0.26709E-03  477945.2 3748606.2   452.0     4.00     3.95
1.86     YES
 L0001886         0   0.26709E-03  477945.1 3748597.7   452.0     4.00     3.95
1.86     YES
 L0001887         0   0.26709E-03  477945.0 3748589.2   452.0     4.00     3.95
1.86     YES
 L0001888         0   0.26709E-03  477945.0 3748580.7   452.0     4.00     3.95
1.86     YES
 L0001889         0   0.26709E-03  477944.9 3748572.2   452.0     4.00     3.95
1.86     YES
 L0001890         0   0.26709E-03  477944.8 3748563.7   452.0     4.00     3.95
1.86     YES
 L0001891         0   0.26709E-03  477944.8 3748555.2   452.0     4.00     3.95
1.86     YES
 L0001892         0   0.26709E-03  477944.7 3748546.7   452.0     4.00     3.95
1.86     YES
 L0001893         0   0.26709E-03  477944.6 3748538.2   452.0     4.00     3.95
1.86     YES
 L0001894         0   0.26709E-03  477944.6 3748529.7   452.0     4.00     3.95
1.86     YES
 L0001895         0   0.26709E-03  477944.5 3748521.2   452.0     4.00     3.95
1.86     YES
 L0001896         0   0.26709E-03  477944.4 3748512.7   451.9     4.00     3.95
1.86     YES
 L0001897         0   0.26709E-03  477944.4 3748504.2   451.6     4.00     3.95
1.86     YES
 L0001898         0   0.26709E-03  477944.3 3748495.7   451.3     4.00     3.95
1.86     YES
 L0001899         0   0.26709E-03  477944.7 3748487.3   451.0     4.00     3.95
1.86     YES
 L0001900         0   0.26709E-03  477948.7 3748479.8   451.0     4.00     3.95
1.86     YES
 L0001901         0   0.26709E-03  477952.8 3748472.3   451.0     4.00     3.95
1.86     YES
```

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                           AERMOD LSTs Operational Output
 L0001902         0   0.26709E-03  477956.8 3748464.9   451.0     4.00     3.95
1.86     YES
 L0001903         0   0.26709E-03  477960.8 3748457.4   451.0     4.00     3.95
1.86     YES
 L0001904         0   0.26709E-03  477964.8 3748449.9   451.0     4.00     3.95
1.86     YES
 L0001905         0   0.26709E-03  477968.8 3748442.4   451.0     4.00     3.95
1.86     YES
 L0001906         0   0.26709E-03  477972.8 3748434.9   451.0     4.00     3.95
1.86     YES
 L0001907         0   0.26709E-03  477976.9 3748427.4   451.0     4.00     3.95
1.86     YES
 L0001908         0   0.26709E-03  477980.9 3748419.9   451.0     4.00     3.95
1.86     YES
 L0001909         0   0.26709E-03  477984.9 3748412.4   451.0     4.00     3.95
1.86     YES
 L0001910         0   0.26709E-03  477988.9 3748404.9   451.0     4.00     3.95
1.86     YES
 L0001911         0   0.26709E-03  477992.9 3748397.4   451.0     4.00     3.95
1.86     YES
 L0001912         0   0.26709E-03  477996.9 3748389.9   451.0     4.00     3.95
1.86     YES
 L0001913         0   0.26709E-03  478001.0 3748382.4   451.0     4.00     3.95
1.86     YES
 L0001914         0   0.26709E-03  478005.0 3748375.0   451.0     4.00     3.95
1.86     YES
 L0001915         0   0.26709E-03  478009.0 3748367.5   451.0     4.00     3.95
1.86     YES
 L0001916         0   0.26709E-03  478013.0 3748360.0   451.0     4.00     3.95
1.86     YES
 L0001917         0   0.26709E-03  478017.1 3748352.5   451.0     4.00     3.95
1.86     YES
 L0001918         0   0.26709E-03  478021.7 3748345.4   451.0     4.00     3.95
1.86     YES
 L0001919         0   0.26709E-03  478026.4 3748338.3   451.0     4.00     3.95
1.86     YES
 L0001920         0   0.26709E-03  478033.8 3748336.4   451.0     4.00     3.95
1.86     YES
 L0001921         0   0.26709E-03  478042.3 3748336.5   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
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AERMOD LSTs Operational Output

```
                                                     *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                         BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE        PART. (USER UNITS)     X         Y       ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID          CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0001922         0   0.26709E-03  478050.8 3748336.6   451.0     4.00     3.95
1.86     YES
 L0001923         0   0.26709E-03  478059.3 3748336.7   451.0     4.00     3.95
1.86     YES
 L0001924         0   0.26709E-03  478067.8 3748336.8   451.0     4.00     3.95
1.86     YES
 L0001925         0   0.26709E-03  478076.3 3748336.9   451.0     4.00     3.95
1.86     YES
 L0001926         0   0.26709E-03  478084.8 3748337.0   451.0     4.00     3.95
1.86     YES
 L0001927         0   0.26709E-03  478093.3 3748337.1   451.0     4.00     3.95
1.86     YES
 L0001928         0   0.26709E-03  478101.8 3748337.2   451.0     4.00     3.95
1.86     YES
 L0001929         0   0.26709E-03  478110.3 3748337.3   451.0     4.00     3.95
1.86     YES
 L0001930         0   0.26709E-03  478118.8 3748337.4   451.0     4.00     3.95
1.86     YES
 L0001931         0   0.26709E-03  478127.3 3748337.4   451.0     4.00     3.95
1.86     YES
 L0001932         0   0.26709E-03  478135.8 3748337.5   451.0     4.00     3.95
1.86     YES
 L0001933         0   0.26709E-03  478144.3 3748337.6   451.0     4.00     3.95
1.86     YES
 L0001934         0   0.26709E-03  478152.8 3748337.7   451.0     4.00     3.95
1.86     YES
 L0001935         0   0.26709E-03  478161.3 3748337.8   451.0     4.00     3.95
1.86     YES
 L0001936         0   0.26709E-03  478169.8 3748337.9   451.0     4.00     3.95
1.86     YES
 L0001937         0   0.26709E-03  478178.3 3748338.0   451.0     4.00     3.95
1.86     YES
 L0001938         0   0.26709E-03  478186.8 3748338.1   451.0     4.00     3.95
1.86     YES
 L0001939         0   0.26709E-03  478195.3 3748338.2   451.0     4.00     3.95
1.86     YES
```

```
                          AERMOD LSTs Operational Output
 L0001940        0   0.26709E-03  478203.8 3748338.3   451.0     4.00     3.95
1.86     YES
 L0001941        0   0.26709E-03  478212.3 3748338.4   451.0     4.00     3.95
1.86     YES
 L0001942        0   0.26709E-03  478215.8 3748343.4   451.0     4.00     3.95
1.86     YES
 L0001943        0   0.26709E-03  478215.9 3748351.9   451.0     4.00     3.95
1.86     YES
 L0001944        0   0.26709E-03  478216.0 3748360.4   451.0     4.00     3.95
1.86     YES
 L0001945        0   0.26709E-03  478216.0 3748368.9   451.0     4.00     3.95
1.86     YES
 L0001946        0   0.26709E-03  478216.1 3748377.4   451.0     4.00     3.95
1.86     YES
 L0001947        0   0.26709E-03  478216.1 3748385.9   451.0     4.00     3.95
1.86     YES
 L0001948        0   0.26709E-03  478216.2 3748394.4   451.0     4.00     3.95
1.86     YES
 L0001949        0   0.26709E-03  478216.3 3748402.9   451.0     4.00     3.95
1.86     YES
 L0001950        0   0.26709E-03  478216.3 3748411.4   451.0     4.00     3.95
1.86     YES
 L0001951        0   0.26709E-03  478216.4 3748419.9   451.0     4.00     3.95
1.86     YES
 L0001952        0   0.26709E-03  478216.4 3748428.4   451.0     4.00     3.95
1.86     YES
 L0001953        0   0.26709E-03  478216.5 3748436.9   451.0     4.00     3.95
1.86     YES
 L0001954        0   0.26709E-03  478216.6 3748445.4   451.0     4.00     3.95
1.86     YES
 L0001955        0   0.26709E-03  478216.6 3748453.9   451.0     4.00     3.95
1.86     YES
 L0001956        0   0.26709E-03  478216.7 3748462.4   451.0     4.00     3.95
1.86     YES
 L0001957        0   0.26709E-03  478216.7 3748470.9   451.1     4.00     3.95
1.86     YES
 L0001958        0   0.26709E-03  478216.8 3748479.4   451.2     4.00     3.95
1.86     YES
 L0001959        0   0.26709E-03  478216.9 3748487.9   451.3     4.00     3.95
1.86     YES
 L0001960        0   0.26709E-03  478216.9 3748496.4   451.5     4.00     3.95
1.86     YES
 L0001961        0   0.26709E-03  478217.0 3748504.9   451.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                  ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:26:14
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                               AERMOD LSTs Operational Output

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 **MODELOPTs:   RegDFAULT CONC       ELEV      FLGPOL    URBAN


                                                            *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0001962         0   0.26709E-03  478217.0 3748513.4   451.9     4.00     3.95
1.86      YES
 L0001963         0   0.26709E-03  478217.1 3748521.9   452.0     4.00     3.95
1.86      YES
 L0001964         0   0.26709E-03  478217.2 3748530.4   452.0     4.00     3.95
1.86      YES
 L0001965         0   0.26709E-03  478217.2 3748538.9   452.0     4.00     3.95
1.86      YES
 L0001966         0   0.26709E-03  478217.3 3748547.4   452.0     4.00     3.95
1.86      YES
 L0001967         0   0.26709E-03  478217.3 3748555.9   452.0     4.00     3.95
1.86      YES
 L0001968         0   0.26709E-03  478217.4 3748564.4   452.0     4.00     3.95
1.86      YES
 L0001969         0   0.26709E-03  478217.5 3748572.9   452.0     4.00     3.95
1.86      YES
 L0001970         0   0.26709E-03  478217.5 3748581.4   452.0     4.00     3.95
1.86      YES
 L0001971         0   0.26709E-03  478217.6 3748589.9   452.0     4.00     3.95
1.86      YES
 L0001972         0   0.26709E-03  478217.7 3748598.4   452.0     4.00     3.95
1.86      YES
 L0001973         0   0.26709E-03  478217.7 3748606.9   452.0     4.00     3.95
1.86      YES
 L0001974         0   0.26709E-03  478217.8 3748615.4   452.0     4.00     3.95
1.86      YES
 L0001975         0   0.26709E-03  478217.8 3748623.9   452.0     4.00     3.95
1.86      YES
 L0001976         0   0.26709E-03  478217.9 3748632.4   452.0     4.00     3.95
1.86      YES
 L0001977         0   0.26709E-03  478218.0 3748640.9   452.0     4.00     3.95
1.86      YES
```

AERMOD LSTs Operational Output

```
 L0001978        0   0.26709E-03  478218.0 3748649.4   452.0     4.00     3.95
1.86     YES
 L0001979        0   0.26709E-03  478218.1 3748657.9   452.0     4.00     3.95
1.86     YES
 L0001980        0   0.26709E-03  478218.1 3748666.4   452.0     4.00     3.95
1.86     YES
 L0001981        0   0.26709E-03  478218.2 3748674.9   452.0     4.00     3.95
1.86     YES
 L0001982        0   0.26709E-03  478218.3 3748683.4   452.0     4.00     3.95
1.86     YES
 L0001983        0   0.26709E-03  478218.3 3748691.9   452.0     4.00     3.95
1.86     YES
 L0001984        0   0.26709E-03  478218.4 3748700.4   452.0     4.00     3.95
1.86     YES
 L0001985        0   0.26709E-03  478218.4 3748708.9   452.0     4.00     3.95
1.86     YES
 L0001986        0   0.26709E-03  478218.5 3748717.4   452.0     4.00     3.95
1.86     YES
 L0001987        0   0.26709E-03  478218.6 3748725.9   452.0     4.00     3.95
1.86     YES
 L0001988        0   0.26709E-03  478218.6 3748734.4   452.0     4.00     3.95
1.86     YES
 L0001989        0   0.26709E-03  478218.7 3748742.9   452.0     4.00     3.95
1.86     YES
 L0001990        0   0.26709E-03  478218.7 3748751.4   452.0     4.00     3.95
1.86     YES
 L0001991        0   0.26709E-03  478218.8 3748759.9   452.0     4.00     3.95
1.86     YES
 L0001992        0   0.26709E-03  478218.9 3748768.4   452.0     4.00     3.95
1.86     YES
 L0001993        0   0.26709E-03  478218.9 3748776.9   452.0     4.00     3.95
1.86     YES
 L0001994        0   0.26709E-03  478219.0 3748785.4   452.0     4.00     3.95
1.86     YES
 L0001995        0   0.26709E-03  478219.0 3748793.9   452.2     4.00     3.95
1.86     YES
 L0001996        0   0.26709E-03  478219.1 3748802.4   452.5     4.00     3.95
1.86     YES
 L0001997        0   0.26709E-03  478219.2 3748810.9   452.8     4.00     3.95
1.86     YES
 L0001998        0   0.26709E-03  478219.2 3748819.4   453.0     4.00     3.95
1.86     YES
 L0001999        0   0.26709E-03  478219.3 3748827.9   453.0     4.00     3.95
1.86     YES
 L0002000        0   0.26709E-03  478219.3 3748836.4   453.0     4.00     3.95
1.86     YES
 L0002001        0   0.26709E-03  478219.4 3748844.9   453.0     4.00     3.95
1.86     YES
```

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                              AERMOD LSTs Operational Output
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        12:26:14

                                    PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -


 L0002002        0   0.26709E-03  478219.5 3748853.4   453.0     4.00     3.95
1.86     YES
 L0002003        0   0.26709E-03  478219.5 3748861.9   453.0     4.00     3.95
1.86     YES
 L0002004        0   0.26709E-03  478219.6 3748870.4   453.0     4.00     3.95
1.86     YES
 L0002005        0   0.26709E-03  478219.6 3748878.9   453.0     4.00     3.95
1.86     YES
 L0002006        0   0.26709E-03  478219.7 3748887.4   453.0     4.00     3.95
1.86     YES
 L0002007        0   0.26709E-03  478219.8 3748895.9   453.0     4.00     3.95
1.86     YES
 L0002008        0   0.26709E-03  478219.8 3748904.4   453.0     4.00     3.95
1.86     YES
 L0002009        0   0.26709E-03  478219.9 3748912.9   453.0     4.00     3.95
1.86     YES
 L0002010        0   0.26709E-03  478217.5 3748921.1   453.0     4.00     3.95
1.86     YES
 L0002011        0   0.26709E-03  478215.0 3748929.2   453.0     4.00     3.95
1.86     YES
 L0002012        0   0.26709E-03  478212.6 3748937.3   453.0     4.00     3.95
1.86     YES
 L0002013        0   0.26709E-03  478210.1 3748945.4   453.0     4.00     3.95
1.86     YES
 L0002014        0   0.26709E-03  478207.6 3748953.6   453.0     4.00     3.95
1.86     YES
 L0002015        0   0.26709E-03  478205.1 3748961.7   453.0     4.00     3.95
1.86     YES
```

```
 L0002016         0   0.26709E-03  478202.7 3748969.8    453.0      4.00      3.95
1.86     YES
 L0002017         0   0.56881E-04  477852.8 3748835.2    453.0      4.00      3.95
1.86     YES
 L0002018         0   0.56881E-04  477852.8 3748843.7    453.0      4.00      3.95
1.86     YES
 L0002019         0   0.56881E-04  477852.9 3748852.2    453.0      4.00      3.95
1.86     YES
 L0002020         0   0.56881E-04  477852.9 3748860.7    453.0      4.00      3.95
1.86     YES
 L0002021         0   0.56881E-04  477853.0 3748869.2    453.0      4.00      3.95
1.86     YES
 L0002022         0   0.56881E-04  477853.0 3748877.7    453.0      4.00      3.95
1.86     YES
 L0002023         0   0.56881E-04  477853.1 3748886.2    453.0      4.00      3.95
1.86     YES
 L0002024         0   0.56881E-04  477853.1 3748894.7    453.0      4.00      3.95
1.86     YES
 L0002025         0   0.56881E-04  477853.1 3748903.2    453.0      4.00      3.95
1.86     YES
 L0002026         0   0.56881E-04  477853.2 3748911.7    453.0      4.00      3.95
1.86     YES
 L0002027         0   0.56881E-04  477853.2 3748920.2    453.0      4.00      3.95
1.86     YES
 L0002028         0   0.56881E-04  477853.3 3748928.7    453.0      4.00      3.95
1.86     YES
 L0002029         0   0.56881E-04  477853.3 3748937.2    453.0      4.00      3.95
1.86     YES
 L0002030         0   0.56881E-04  477853.4 3748945.7    453.0      4.00      3.95
1.86     YES
 L0002031         0   0.56881E-04  477853.4 3748954.2    453.0      4.00      3.95
1.86     YES
 L0002032         0   0.56881E-04  477853.5 3748962.7    453.0      4.00      3.95
1.86     YES
 L0002033         0   0.56881E-04  477853.5 3748971.2    453.2      4.00      3.95
1.86     YES
 L0002034         0   0.56881E-04  477853.5 3748979.7    453.4      4.00      3.95
1.86     YES
 L0002035         0   0.56881E-04  477845.0 3748979.7    453.5      4.00      3.95
1.86     YES
 L0002036         0   0.56881E-04  477836.5 3748979.6    453.7      4.00      3.95
1.86     YES
 L0002037         0   0.56881E-04  477828.0 3748979.6    453.9      4.00      3.95
1.86     YES
 L0002038         0   0.56881E-04  477819.5 3748979.6    454.0      4.00      3.95
1.86     YES
 L0002039         0   0.56881E-04  477811.0 3748979.6    454.0      4.00      3.95
1.86     YES
```

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                           AERMOD LSTs Operational Output
 L0002040        0   0.56881E-04  477802.5 3748979.6   454.0     4.00     3.95
1.86     YES
 L0002041        0   0.56881E-04  477794.0 3748979.5   454.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***         12:26:14

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
      ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0002042        0   0.56881E-04  477785.5 3748979.5   454.0     4.00     3.95
1.86     YES
 L0002043        0   0.56881E-04  477777.0 3748979.5   454.0     4.00     3.95
1.86     YES
 L0002044        0   0.56881E-04  477768.5 3748979.5   454.0     4.00     3.95
1.86     YES
 L0002045        0   0.56881E-04  477760.0 3748979.5   454.0     4.00     3.95
1.86     YES
 L0002046        0   0.56881E-04  477751.5 3748979.4   454.0     4.00     3.95
1.86     YES
 L0002047        0   0.56881E-04  477743.0 3748979.4   454.0     4.00     3.95
1.86     YES
 L0002048        0   0.56881E-04  477742.7 3748971.2   454.0     4.00     3.95
1.86     YES
 L0002049        0   0.56881E-04  477742.7 3748962.7   454.0     4.00     3.95
1.86     YES
 L0002050        0   0.56881E-04  477742.6 3748954.2   454.0     4.00     3.95
1.86     YES
 L0002051        0   0.56881E-04  477742.6 3748945.7   454.0     4.00     3.95
1.86     YES
 L0002052        0   0.56881E-04  477742.5 3748937.2   454.0     4.00     3.95
1.86     YES
 L0002053        0   0.56881E-04  477742.5 3748928.7   453.9     4.00     3.95
1.86     YES
```

AERMOD LSTs Operational Output

```
 L0002054         0   0.56881E-04  477742.4 3748920.2    453.8      4.00      3.95
1.86     YES
 L0002055         0   0.56881E-04  477742.4 3748911.7    453.7      4.00      3.95
1.86     YES
 L0002056         0   0.56881E-04  477742.3 3748903.2    453.6      4.00      3.95
1.86     YES
 L0002057         0   0.56881E-04  477742.3 3748894.7    453.6      4.00      3.95
1.86     YES
 L0002058         0   0.56881E-04  477742.2 3748886.2    453.6      4.00      3.95
1.86     YES
 L0002059         0   0.56881E-04  477744.2 3748878.0    453.5      4.00      3.95
1.86     YES
 L0002060         0   0.56881E-04  477746.5 3748869.8    453.6      4.00      3.95
1.86     YES
 L0002061         0   0.56881E-04  477748.8 3748861.6    453.7      4.00      3.95
1.86     YES
 L0002062         0   0.56881E-04  477751.1 3748853.4    453.8      4.00      3.95
1.86     YES
 L0002063         0   0.56881E-04  477753.4 3748845.3    454.0      4.00      3.95
1.86     YES
 L0002064         0   0.56881E-04  477757.5 3748838.2    453.7      4.00      3.95
1.86     YES
 L0002065         0   0.56881E-04  477763.8 3748832.5    453.5      4.00      3.95
1.86     YES
 L0002066         0   0.56881E-04  477770.1 3748826.8    453.2      4.00      3.95
1.86     YES
 L0002067         0   0.56881E-04  477778.6 3748826.5    453.1      4.00      3.95
1.86     YES
 L0002068         0   0.56881E-04  477787.1 3748826.4    453.0      4.00      3.95
1.86     YES
 L0002069         0   0.56881E-04  477795.6 3748826.2    453.0      4.00      3.95
1.86     YES
 L0002070         0   0.56881E-04  477804.1 3748826.1    453.0      4.00      3.95
1.86     YES
 L0002071         0   0.56881E-04  477812.6 3748826.1    453.0      4.00      3.95
1.86     YES
 L0002072         0   0.56881E-04  477821.1 3748826.0    453.0      4.00      3.95
1.86     YES
 L0002073         0   0.56881E-04  477829.6 3748826.0    453.0      4.00      3.95
1.86     YES
 L0002074         0   0.56881E-04  477838.1 3748825.9    453.0      4.00      3.95
1.86     YES
 L0002075         0   0.56881E-04  477846.6 3748825.8    453.0      4.00      3.95
1.86     YES
 L0002076         0   0.44816E-04  477886.6 3748203.7    450.0      4.00      3.95
1.86     YES
 L0002077         0   0.44816E-04  477886.4 3748212.2    450.0      4.00      3.95
1.86     YES
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 L0002078         0   0.44816E-04  477886.3 3748220.7   450.1     4.00     3.95
1.86     YES
 L0002079         0   0.44816E-04  477886.1 3748229.2   450.3     4.00     3.95
1.86     YES
 L0002080         0   0.44816E-04  477885.9 3748237.7   450.6     4.00     3.95
1.86     YES
 L0002081         0   0.44816E-04  477885.7 3748246.2   450.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         12:26:14

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0002082         0   0.44816E-04  477885.5 3748254.7   450.9     4.00     3.95
1.86     YES
 L0002083         0   0.44816E-04  477885.6 3748263.2   450.9     4.00     3.95
1.86     YES
 L0002084         0   0.44816E-04  477885.7 3748271.7   451.0     4.00     3.95
1.86     YES
 L0002085         0   0.44816E-04  477885.8 3748280.2   451.0     4.00     3.95
1.86     YES
 L0002086         0   0.44816E-04  477885.9 3748288.7   451.0     4.00     3.95
1.86     YES
 L0002087         0   0.44816E-04  477886.0 3748297.2   451.0     4.00     3.95
1.86     YES
 L0002088         0   0.44816E-04  477886.1 3748305.7   451.0     4.00     3.95
1.86     YES
 L0002089         0   0.44816E-04  477886.2 3748314.2   451.0     4.00     3.95
1.86     YES
 L0002090         0   0.44816E-04  477886.3 3748322.7   451.0     4.00     3.95
1.86     YES
 L0002091         0   0.44816E-04  477886.4 3748331.2   451.0     4.00     3.95
1.86     YES
```

```
 L0002092         0   0.44816E-04  477889.0 3748337.4    451.0      4.00      3.95
1.86     YES
 L0002093         0   0.44816E-04  477897.5 3748338.1    451.0      4.00      3.95
1.86     YES
 L0002094         0   0.44816E-04  477906.0 3748338.9    451.0      4.00      3.95
1.86     YES
 L0002095         0   0.44816E-04  477914.4 3748339.7    451.0      4.00      3.95
1.86     YES
 L0002096         0   0.44816E-04  477922.9 3748339.5    451.0      4.00      3.95
1.86     YES
 L0002097         0   0.44816E-04  477931.4 3748338.9    451.0      4.00      3.95
1.86     YES
 L0002098         0   0.44816E-04  477939.8 3748338.2    451.0      4.00      3.95
1.86     YES
 L0002099         0   0.44816E-04  477945.5 3748332.6    451.0      4.00      3.95
1.86     YES
 L0002100         0   0.44816E-04  477950.6 3748325.7    451.0      4.00      3.95
1.86     YES
 L0002101         0   0.44816E-04  477955.0 3748318.5    450.0      4.00      3.95
1.86     YES
 L0002102         0   0.44816E-04  477959.4 3748311.2    450.0      4.00      3.95
1.86     YES
 L0002103         0   0.44816E-04  477963.8 3748303.9    450.0      4.00      3.95
1.86     YES
 L0002104         0   0.44816E-04  477968.2 3748296.7    450.0      4.00      3.95
1.86     YES
 L0002105         0   0.44816E-04  477972.6 3748289.4    450.0      4.00      3.95
1.86     YES
 L0002106         0   0.44816E-04  477975.8 3748281.7    450.0      4.00      3.95
1.86     YES
 L0002107         0   0.44816E-04  477977.7 3748273.4    450.0      4.00      3.95
1.86     YES
 L0002108         0   0.44816E-04  477979.6 3748265.1    450.0      4.00      3.95
1.86     YES
 L0002109         0   0.44816E-04  477981.3 3748256.8    450.0      4.00      3.95
1.86     YES
 L0002110         0   0.44816E-04  477980.6 3748248.3    450.0      4.00      3.95
1.86     YES
 L0002111         0   0.44816E-04  477979.9 3748239.8    450.0      4.00      3.95
1.86     YES
 L0002112         0   0.44816E-04  477979.2 3748231.4    450.0      4.00      3.95
1.86     YES
 L0002113         0   0.44816E-04  477978.4 3748222.9    450.0      4.00      3.95
1.86     YES
 L0002114         0   0.44816E-04  477982.6 3748217.0    450.0      4.00      3.95
1.86     YES
 L0002115         0   0.44816E-04  477990.0 3748212.7    450.0      4.00      3.95
1.86     YES
```

```
 L0002116         0   0.44816E-04  477994.0 3748206.5    450.0     4.00     3.95
1.86     YES
 L0002117         0   0.44816E-04  477994.1 3748198.0    450.0     4.00     3.95
1.86     YES
 L0002118         0   0.44816E-04  477986.1 3748197.5    450.0     4.00     3.95
1.86     YES
 L0002119         0   0.44816E-04  477977.6 3748197.5    450.0     4.00     3.95
1.86     YES
 L0002120         0   0.44816E-04  477969.1 3748197.5    450.0     4.00     3.95
1.86     YES
 L0002121         0   0.44816E-04  477960.6 3748197.5    450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        12:26:14

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                 *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -


 L0002122         0   0.44816E-04  477952.1 3748197.5    450.0     4.00     3.95
1.86     YES
 L0002123         0   0.44816E-04  477943.6 3748197.5    450.0     4.00     3.95
1.86     YES
 L0002124         0   0.44816E-04  477935.1 3748197.5    450.0     4.00     3.95
1.86     YES
 L0002125         0   0.76500E-04  477505.1 3748975.7    454.2     4.00     3.95
1.86     YES
 L0002126         0   0.76500E-04  477513.6 3748975.6    454.1     4.00     3.95
1.86     YES
 L0002127         0   0.76500E-04  477522.1 3748975.4    454.0     4.00     3.95
1.86     YES
 L0002128         0   0.76500E-04  477530.6 3748975.2    454.0     4.00     3.95
1.86     YES
 L0002129         0   0.76500E-04  477539.1 3748975.1    454.0     4.00     3.95
1.86     YES
```

AERMOD LSTs Operational Output

```
 L0002130         0   0.76500E-04  477547.6 3748974.9   454.0      4.00      3.95
1.86     YES
 L0002131         0   0.76500E-04  477556.1 3748974.7   454.0      4.00      3.95
1.86     YES
 L0002132         0   0.76500E-04  477564.6 3748974.6   454.0      4.00      3.95
1.86     YES
 L0002133         0   0.76500E-04  477573.1 3748974.4   454.0      4.00      3.95
1.86     YES
 L0002134         0   0.76500E-04  477581.6 3748974.2   454.0      4.00      3.95
1.86     YES
 L0002135         0   0.76500E-04  477590.1 3748974.1   454.0      4.00      3.95
1.86     YES
 L0002136         0   0.76500E-04  477598.5 3748973.8   454.0      4.00      3.95
1.86     YES
 L0002137         0   0.76500E-04  477605.4 3748968.8   454.0      4.00      3.95
1.86     YES
 L0002138         0   0.76500E-04  477611.1 3748963.0   454.0      4.00      3.95
1.86     YES
 L0002139         0   0.76500E-04  477613.4 3748954.9   454.0      4.00      3.95
1.86     YES
 L0002140         0   0.76500E-04  477615.7 3748946.7   454.0      4.00      3.95
1.86     YES
 L0002141         0   0.76500E-04  477618.0 3748938.5   454.0      4.00      3.95
1.86     YES
 L0002142         0   0.76500E-04  477620.0 3748930.2   454.0      4.00      3.95
1.86     YES
 L0002143         0   0.76500E-04  477621.7 3748921.9   454.0      4.00      3.95
1.86     YES
 L0002144         0   0.76500E-04  477623.4 3748913.6   454.0      4.00      3.95
1.86     YES
 L0002145         0   0.76500E-04  477625.1 3748905.3   454.0      4.00      3.95
1.86     YES
 L0002146         0   0.76500E-04  477626.2 3748896.9   454.0      4.00      3.95
1.86     YES
 L0002147         0   0.76500E-04  477626.4 3748888.4   454.0      4.00      3.95
1.86     YES
 L0002148         0   0.76500E-04  477626.5 3748879.9   454.0      4.00      3.95
1.86     YES
 L0002149         0   0.76500E-04  477626.6 3748871.4   454.0      4.00      3.95
1.86     YES
 L0002150         0   0.76500E-04  477626.7 3748862.9   454.0      4.00      3.95
1.86     YES
 L0002151         0   0.76500E-04  477626.8 3748854.4   454.0      4.00      3.95
1.86     YES
 L0002152         0   0.76500E-04  477626.9 3748845.9   454.0      4.00      3.95
1.86     YES
 L0002153         0   0.76500E-04  477627.0 3748837.4   454.0      4.00      3.95
1.86     YES
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                           AERMOD LSTs Operational Output
 L0002154         0   0.76500E-04  477627.1 3748828.9   454.0     4.00     3.95
1.86     YES
 L0002155         0   0.76500E-04  477627.2 3748820.4   454.0     4.00     3.95
1.86     YES
 L0002156         0   0.76500E-04  477627.3 3748811.9   454.0     4.00     3.95
1.86     YES
 L0002157         0   0.76500E-04  477627.5 3748803.4   454.0     4.00     3.95
1.86     YES
 L0002158         0   0.76500E-04  477627.0 3748795.5   454.0     4.00     3.95
1.86     YES
 L0002159         0   0.76500E-04  477618.5 3748795.7   454.0     4.00     3.95
1.86     YES
 L0002160         0   0.76500E-04  477610.0 3748795.9   454.0     4.00     3.95
1.86     YES
 L0002161         0   0.76500E-04  477601.5 3748796.2   454.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0002162         0   0.76500E-04  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES
 L0002163         0   0.76500E-04  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES
 L0002164         0   0.76500E-04  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES
 L0002165         0   0.76500E-04  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES
 L0002166         0   0.76500E-04  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES
 L0002167         0   0.76500E-04  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES
```

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 L0002168         0   0.76500E-04  477542.0 3748797.8    454.0     4.00     3.95
1.86     YES
 L0002169         0   0.76500E-04  477533.5 3748798.0    454.0     4.00     3.95
1.86     YES
 L0002170         0   0.76500E-04  477525.0 3748798.2    454.0     4.00     3.95
1.86     YES
 L0002171         0   0.76500E-04  477516.5 3748798.5    454.0     4.00     3.95
1.86     YES
 L0002172         0   0.76500E-04  477508.0 3748798.7    454.0     4.00     3.95
1.86     YES
 L0002173         0   0.76500E-04  477499.5 3748798.9    454.0     4.00     3.95
1.86     YES
 L0002174         0   0.76500E-04  477491.0 3748799.2    454.0     4.00     3.95
1.86     YES
 L0002175         0   0.21611E-03  477922.3 3748920.1    453.0     0.00     3.95
1.40     YES
 L0002176         0   0.21611E-03  477921.9 3748928.6    453.0     0.00     3.95
1.40     YES
 L0002177         0   0.21611E-03  477921.5 3748937.1    453.0     0.00     3.95
1.40     YES
 L0002178         0   0.21611E-03  477921.1 3748945.6    453.0     0.00     3.95
1.40     YES
 L0002179         0   0.21611E-03  477920.7 3748954.1    453.0     0.00     3.95
1.40     YES
 L0002180         0   0.21611E-03  477927.7 3748955.6    453.0     0.00     3.95
1.40     YES
 L0002181         0   0.21611E-03  477936.2 3748955.6    453.0     0.00     3.95
1.40     YES
 L0002182         0   0.21611E-03  477944.7 3748955.7    453.0     0.00     3.95
1.40     YES
 L0002183         0   0.21611E-03  477953.2 3748955.7    453.0     0.00     3.95
1.40     YES
 L0002184         0   0.21611E-03  477961.7 3748955.8    453.0     0.00     3.95
1.40     YES
 L0002185         0   0.21611E-03  477970.2 3748955.8    453.0     0.00     3.95
1.40     YES
 L0002186         0   0.21611E-03  477978.7 3748955.9    453.0     0.00     3.95
1.40     YES
 L0002187         0   0.21611E-03  477987.2 3748955.9    453.0     0.00     3.95
1.40     YES
 L0002188         0   0.21611E-03  477995.7 3748956.0    453.0     0.00     3.95
1.40     YES
 L0002189         0   0.21611E-03  478004.2 3748956.1    453.0     0.00     3.95
1.40     YES
 L0002190         0   0.21611E-03  478012.7 3748956.1    453.0     0.00     3.95
1.40     YES
 L0002191         0   0.21611E-03  478021.2 3748956.2    453.0     0.00     3.95
1.40     YES
```

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 L0002192        0   0.21611E-03  478029.7 3748956.2   453.0     0.00     3.95
1.40     YES
 L0002193        0   0.21611E-03  478038.2 3748956.3   453.0     0.00     3.95
1.40     YES
 L0002194        0   0.21611E-03  478046.7 3748956.3   453.0     0.00     3.95
1.40     YES
 L0002195        0   0.21611E-03  478055.2 3748956.4   453.0     0.00     3.95
1.40     YES
 L0002196        0   0.21611E-03  478063.7 3748956.4   453.0     0.00     3.95
1.40     YES
 L0002197        0   0.21611E-03  478072.2 3748956.5   453.0     0.00     3.95
1.40     YES
 L0002198        0   0.21611E-03  478080.7 3748956.5   453.0     0.00     3.95
1.40     YES
 L0002199        0   0.21611E-03  478089.2 3748956.6   453.0     0.00     3.95
1.40     YES
 L0002200        0   0.21611E-03  478097.7 3748956.6   453.0     0.00     3.95
1.40     YES
 L0002201        0   0.21611E-03  478106.2 3748956.7   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0002202        0   0.21611E-03  478114.7 3748956.7   453.0     0.00     3.95
1.40     YES
 L0002203        0   0.21611E-03  478123.2 3748956.8   453.0     0.00     3.95
1.40     YES
 L0002204        0   0.21611E-03  478131.7 3748956.8   453.0     0.00     3.95
1.40     YES
 L0002205        0   0.21611E-03  478140.2 3748956.9   453.0     0.00     3.95
1.40     YES
```

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                              AERMOD LSTs Operational Output
  L0002206         0   0.21611E-03  478148.7 3748956.9    453.0     0.00     3.95
1.40     YES
  L0002207         0   0.21611E-03  478157.2 3748957.0    453.0     0.00     3.95
1.40     YES
  L0002208         0   0.21611E-03  478165.7 3748957.0    453.0     0.00     3.95
1.40     YES
  L0002209         0   0.21611E-03  478174.2 3748957.1    453.0     0.00     3.95
1.40     YES
  L0002210         0   0.21611E-03  478182.7 3748957.1    453.0     0.00     3.95
1.40     YES
  L0002211         0   0.21611E-03  478191.2 3748957.2    453.0     0.00     3.95
1.40     YES
  L0002212         0   0.21611E-03  478199.7 3748957.2    453.0     0.00     3.95
1.40     YES
  L0002213         0   0.21611E-03  478208.2 3748957.3    453.0     0.00     3.95
1.40     YES
  L0002214         0   0.21611E-03  478216.7 3748957.3    453.0     0.00     3.95
1.40     YES
  L0002215         0   0.21611E-03  478225.0 3748957.2    453.0     0.00     3.95
1.40     YES
  L0002216         0   0.21611E-03  478225.0 3748948.7    453.0     0.00     3.95
1.40     YES
  L0002217         0   0.21611E-03  478225.0 3748940.2    453.0     0.00     3.95
1.40     YES
  L0002218         0   0.21611E-03  478225.0 3748931.7    453.0     0.00     3.95
1.40     YES
  L0002219         0   0.21611E-03  478225.0 3748923.2    453.0     0.00     3.95
1.40     YES
  L0002220         0   0.81667E-04  477922.3 3748920.1    453.0     0.00     3.95
1.40     YES
  L0002221         0   0.81667E-04  477921.9 3748928.6    453.0     0.00     3.95
1.40     YES
  L0002222         0   0.81667E-04  477921.5 3748937.1    453.0     0.00     3.95
1.40     YES
  L0002223         0   0.81667E-04  477921.1 3748945.6    453.0     0.00     3.95
1.40     YES
  L0002224         0   0.81667E-04  477920.7 3748954.1    453.0     0.00     3.95
1.40     YES
  L0002225         0   0.81667E-04  477927.7 3748955.6    453.0     0.00     3.95
1.40     YES
  L0002226         0   0.81667E-04  477936.2 3748955.6    453.0     0.00     3.95
1.40     YES
  L0002227         0   0.81667E-04  477944.7 3748955.7    453.0     0.00     3.95
1.40     YES
  L0002228         0   0.81667E-04  477953.2 3748955.7    453.0     0.00     3.95
1.40     YES
  L0002229         0   0.81667E-04  477961.7 3748955.8    453.0     0.00     3.95
1.40     YES
```

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                           AERMOD LSTs Operational Output
 L0002230         0   0.81667E-04  477970.2 3748955.8   453.0     0.00     3.95
1.40     YES
 L0002231         0   0.81667E-04  477978.7 3748955.9   453.0     0.00     3.95
1.40     YES
 L0002232         0   0.81667E-04  477987.2 3748955.9   453.0     0.00     3.95
1.40     YES
 L0002233         0   0.81667E-04  477995.7 3748956.0   453.0     0.00     3.95
1.40     YES
 L0002234         0   0.81667E-04  478004.2 3748956.1   453.0     0.00     3.95
1.40     YES
 L0002235         0   0.81667E-04  478012.7 3748956.1   453.0     0.00     3.95
1.40     YES
 L0002236         0   0.81667E-04  478021.2 3748956.2   453.0     0.00     3.95
1.40     YES
 L0002237         0   0.81667E-04  478029.7 3748956.2   453.0     0.00     3.95
1.40     YES
 L0002238         0   0.81667E-04  478038.2 3748956.3   453.0     0.00     3.95
1.40     YES
 L0002239         0   0.81667E-04  478046.7 3748956.3   453.0     0.00     3.95
1.40     YES
 L0002240         0   0.81667E-04  478055.2 3748956.4   453.0     0.00     3.95
1.40     YES
 L0002241         0   0.81667E-04  478063.7 3748956.4   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)           BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002242         0   0.81667E-04  478072.2 3748956.5   453.0     0.00     3.95
1.40     YES
 L0002243         0   0.81667E-04  478080.7 3748956.5   453.0     0.00     3.95
1.40     YES
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0002244        0   0.81667E-04  478089.2 3748956.6   453.0     0.00     3.95
1.40     YES
 L0002245        0   0.81667E-04  478097.7 3748956.6   453.0     0.00     3.95
1.40     YES
 L0002246        0   0.81667E-04  478106.2 3748956.7   453.0     0.00     3.95
1.40     YES
 L0002247        0   0.81667E-04  478114.7 3748956.7   453.0     0.00     3.95
1.40     YES
 L0002248        0   0.81667E-04  478123.2 3748956.8   453.0     0.00     3.95
1.40     YES
 L0002249        0   0.81667E-04  478131.7 3748956.8   453.0     0.00     3.95
1.40     YES
 L0002250        0   0.81667E-04  478140.2 3748956.9   453.0     0.00     3.95
1.40     YES
 L0002251        0   0.81667E-04  478148.7 3748956.9   453.0     0.00     3.95
1.40     YES
 L0002252        0   0.81667E-04  478157.2 3748957.0   453.0     0.00     3.95
1.40     YES
 L0002253        0   0.81667E-04  478165.7 3748957.0   453.0     0.00     3.95
1.40     YES
 L0002254        0   0.81667E-04  478174.2 3748957.1   453.0     0.00     3.95
1.40     YES
 L0002255        0   0.81667E-04  478182.7 3748957.1   453.0     0.00     3.95
1.40     YES
 L0002256        0   0.81667E-04  478191.2 3748957.2   453.0     0.00     3.95
1.40     YES
 L0002257        0   0.81667E-04  478199.7 3748957.2   453.0     0.00     3.95
1.40     YES
 L0002258        0   0.81667E-04  478208.2 3748957.3   453.0     0.00     3.95
1.40     YES
 L0002259        0   0.81667E-04  478216.7 3748957.3   453.0     0.00     3.95
1.40     YES
 L0002260        0   0.81667E-04  478225.0 3748957.2   453.0     0.00     3.95
1.40     YES
 L0002261        0   0.81667E-04  478225.0 3748948.7   453.0     0.00     3.95
1.40     YES
 L0002262        0   0.81667E-04  478225.0 3748940.2   453.0     0.00     3.95
1.40     YES
 L0002263        0   0.81667E-04  478225.0 3748931.7   453.0     0.00     3.95
1.40     YES
 L0002264        0   0.81667E-04  478225.0 3748923.2   453.0     0.00     3.95
1.40     YES
 L0002265        0   0.60781E-03  478177.4 3748323.4   450.0     0.00     3.95
1.40     YES
 L0002266        0   0.60781E-03  478185.9 3748323.1   450.0     0.00     3.95
1.40     YES
 L0002267        0   0.60781E-03  478194.4 3748322.8   450.0     0.00     3.95
1.40     YES
```

```
                           AERMOD LSTs Operational Output
 L0002268         0   0.60781E-03  478202.9 3748322.5   450.0     0.00     3.95
1.40     YES
 L0002269         0   0.60781E-03  478211.4 3748322.2   450.0     0.00     3.95
1.40     YES
 L0002270         0   0.60781E-03  478219.9 3748321.9   450.0     0.00     3.95
1.40     YES
 L0002271         0   0.60781E-03  478228.4 3748321.6   450.0     0.00     3.95
1.40     YES
 L0002272         0   0.60781E-03  478236.6 3748321.6   450.0     0.00     3.95
1.40     YES
 L0002273         0   0.60781E-03  478236.2 3748330.0   451.0     0.00     3.95
1.40     YES
 L0002274         0   0.60781E-03  478235.7 3748338.5   451.0     0.00     3.95
1.40     YES
 L0002275         0   0.60781E-03  478235.3 3748347.0   451.0     0.00     3.95
1.40     YES
 L0002276         0   0.60781E-03  478234.8 3748355.5   451.0     0.00     3.95
1.40     YES
 L0002277         0   0.60781E-03  478234.4 3748364.0   451.0     0.00     3.95
1.40     YES
 L0002278         0   0.60781E-03  478233.9 3748372.5   451.0     0.00     3.95
1.40     YES
 L0002279         0   0.60781E-03  478233.5 3748381.0   451.0     0.00     3.95
1.40     YES
 L0002280         0   0.60781E-03  478233.0 3748389.5   451.0     0.00     3.95
1.40     YES
 L0002281         0   0.83938E-04  478177.4 3748323.4   450.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                    *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                           AERMOD LSTs Operational Output
 L0002282         0   0.83938E-04  478185.9 3748323.1   450.0     0.00      3.95
1.40     YES
 L0002283         0   0.83938E-04  478194.4 3748322.8   450.0     0.00      3.95
1.40     YES
 L0002284         0   0.83938E-04  478202.9 3748322.5   450.0     0.00      3.95
1.40     YES
 L0002285         0   0.83938E-04  478211.4 3748322.2   450.0     0.00      3.95
1.40     YES
 L0002286         0   0.83938E-04  478219.9 3748321.9   450.0     0.00      3.95
1.40     YES
 L0002287         0   0.83938E-04  478228.4 3748321.6   450.0     0.00      3.95
1.40     YES
 L0002288         0   0.83938E-04  478236.6 3748321.6   450.0     0.00      3.95
1.40     YES
 L0002289         0   0.83938E-04  478236.2 3748330.0   451.0     0.00      3.95
1.40     YES
 L0002290         0   0.83938E-04  478235.7 3748338.5   451.0     0.00      3.95
1.40     YES
 L0002291         0   0.83938E-04  478235.3 3748347.0   451.0     0.00      3.95
1.40     YES
 L0002292         0   0.83938E-04  478234.8 3748355.5   451.0     0.00      3.95
1.40     YES
 L0002293         0   0.83938E-04  478234.4 3748364.0   451.0     0.00      3.95
1.40     YES
 L0002294         0   0.83938E-04  478233.9 3748372.5   451.0     0.00      3.95
1.40     YES
 L0002295         0   0.83938E-04  478233.5 3748381.0   451.0     0.00      3.95
1.40     YES
 L0002296         0   0.83938E-04  478233.0 3748389.5   451.0     0.00      3.95
1.40     YES
 L0001660         0   0.29942E-03  477744.0 3748980.7   454.0     0.00      3.95
1.40     YES
 L0001661         0   0.29942E-03  477752.5 3748980.8   454.0     0.00      3.95
1.40     YES
 L0001662         0   0.29942E-03  477761.0 3748980.8   454.0     0.00      3.95
1.40     YES
 L0001663         0   0.29942E-03  477769.5 3748980.9   454.0     0.00      3.95
1.40     YES
 L0001664         0   0.29942E-03  477777.9 3748981.0   454.0     0.00      3.95
1.40     YES
 L0001665         0   0.29942E-03  477786.4 3748981.0   454.0     0.00      3.95
1.40     YES
 L0001666         0   0.29942E-03  477794.9 3748981.1   454.0     0.00      3.95
1.40     YES
 L0001667         0   0.29942E-03  477803.4 3748981.2   454.0     0.00      3.95
1.40     YES
 L0001668         0   0.29942E-03  477811.9 3748981.3   454.0     0.00      3.95
1.40     YES
```

```
                           AERMOD LSTs Operational Output
 L0001669         0   0.29942E-03  477820.4 3748981.3   454.0     0.00     3.95
1.40     YES
 L0001670         0   0.29942E-03  477828.9 3748981.4   453.9     0.00     3.95
1.40     YES
 L0001671         0   0.29942E-03  477837.4 3748981.5   453.7     0.00     3.95
1.40     YES
 L0001672         0   0.29942E-03  477845.9 3748981.6   453.6     0.00     3.95
1.40     YES
 L0001673         0   0.29942E-03  477854.0 3748981.2   453.5     0.00     3.95
1.40     YES
 L0001674         0   0.29942E-03  477854.0 3748972.7   453.2     0.00     3.95
1.40     YES
 L0001675         0   0.29942E-03  477853.9 3748964.2   453.0     0.00     3.95
1.40     YES
 L0001676         0   0.29942E-03  477853.8 3748955.7   453.0     0.00     3.95
1.40     YES
 L0001677         0   0.29942E-03  477853.7 3748947.2   453.0     0.00     3.95
1.40     YES
 L0001678         0   0.29942E-03  477853.6 3748938.7   453.0     0.00     3.95
1.40     YES
 L0001679         0   0.29942E-03  477853.5 3748930.2   453.0     0.00     3.95
1.40     YES
 L0001680         0   0.29942E-03  477853.4 3748921.7   453.0     0.00     3.95
1.40     YES
 L0001681         0   0.29942E-03  477853.4 3748913.2   453.0     0.00     3.95
1.40     YES
 L0001682         0   0.29942E-03  477853.3 3748904.7   453.0     0.00     3.95
1.40     YES
 L0001683         0   0.29942E-03  477853.2 3748896.2   453.0     0.00     3.95
1.40     YES
 L0001684         0   0.29942E-03  477853.1 3748887.7   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                             AERMOD LSTs Operational Output
(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001685         0   0.29942E-03  477853.0 3748879.2    453.0      0.00      3.95
1.40     YES
 L0001686         0   0.29942E-03  477852.9 3748870.7    453.0      0.00      3.95
1.40     YES
 L0001687         0   0.29942E-03  477852.8 3748862.2    453.0      0.00      3.95
1.40     YES
 L0001688         0   0.29942E-03  477852.8 3748853.7    453.0      0.00      3.95
1.40     YES
 L0001689         0   0.29942E-03  477852.7 3748845.2    453.0      0.00      3.95
1.40     YES
 L0001690         0   0.29942E-03  477852.6 3748836.7    453.0      0.00      3.95
1.40     YES
 L0001691         0   0.77581E-04  477744.0 3748980.7    454.0      0.00      3.95
1.40     YES
 L0001692         0   0.77581E-04  477752.5 3748980.8    454.0      0.00      3.95
1.40     YES
 L0001693         0   0.77581E-04  477761.0 3748980.8    454.0      0.00      3.95
1.40     YES
 L0001694         0   0.77581E-04  477769.5 3748980.9    454.0      0.00      3.95
1.40     YES
 L0001695         0   0.77581E-04  477777.9 3748981.0    454.0      0.00      3.95
1.40     YES
 L0001696         0   0.77581E-04  477786.4 3748981.0    454.0      0.00      3.95
1.40     YES
 L0001697         0   0.77581E-04  477794.9 3748981.1    454.0      0.00      3.95
1.40     YES
 L0001698         0   0.77581E-04  477803.4 3748981.2    454.0      0.00      3.95
1.40     YES
 L0001699         0   0.77581E-04  477811.9 3748981.3    454.0      0.00      3.95
1.40     YES
 L0001700         0   0.77581E-04  477820.4 3748981.3    454.0      0.00      3.95
1.40     YES
 L0001701         0   0.77581E-04  477828.9 3748981.4    453.9      0.00      3.95
1.40     YES
 L0001702         0   0.77581E-04  477837.4 3748981.5    453.7      0.00      3.95
1.40     YES
 L0001703         0   0.77581E-04  477845.9 3748981.6    453.6      0.00      3.95
1.40     YES
 L0001704         0   0.77581E-04  477854.0 3748981.2    453.5      0.00      3.95
1.40     YES
 L0001705         0   0.77581E-04  477854.0 3748972.7    453.2      0.00      3.95
1.40     YES
 L0001706         0   0.77581E-04  477853.9 3748964.2    453.0      0.00      3.95
1.40     YES
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 L0001707        0   0.77581E-04  477853.8 3748955.7   453.0     0.00     3.95
1.40     YES
 L0001708        0   0.77581E-04  477853.7 3748947.2   453.0     0.00     3.95
1.40     YES
 L0001709        0   0.77581E-04  477853.6 3748938.7   453.0     0.00     3.95
1.40     YES
 L0001710        0   0.77581E-04  477853.5 3748930.2   453.0     0.00     3.95
1.40     YES
 L0001711        0   0.77581E-04  477853.4 3748921.7   453.0     0.00     3.95
1.40     YES
 L0001712        0   0.77581E-04  477853.4 3748913.2   453.0     0.00     3.95
1.40     YES
 L0001713        0   0.77581E-04  477853.3 3748904.7   453.0     0.00     3.95
1.40     YES
 L0001714        0   0.77581E-04  477853.2 3748896.2   453.0     0.00     3.95
1.40     YES
 L0001715        0   0.77581E-04  477853.1 3748887.7   453.0     0.00     3.95
1.40     YES
 L0001716        0   0.77581E-04  477853.0 3748879.2   453.0     0.00     3.95
1.40     YES
 L0001717        0   0.77581E-04  477852.9 3748870.7   453.0     0.00     3.95
1.40     YES
 L0001718        0   0.77581E-04  477852.8 3748862.2   453.0     0.00     3.95
1.40     YES
 L0001719        0   0.77581E-04  477852.8 3748853.7   453.0     0.00     3.95
1.40     YES
 L0001720        0   0.77581E-04  477852.7 3748845.2   453.0     0.00     3.95
1.40     YES
 L0001721        0   0.77581E-04  477852.6 3748836.7   453.0     0.00     3.95
1.40     YES
 L0001722        0   0.92163E-03  477934.4 3748197.8   450.0     0.00     3.95
1.40     YES
 L0001723        0   0.92163E-03  477942.9 3748197.7   450.0     0.00     3.95
1.40     YES
 L0001724        0   0.92163E-03  477951.4 3748197.6   450.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                           AERMOD LSTs Operational Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0001725        0   0.92163E-03  477959.9 3748197.6   450.0     0.00     3.95
1.40     YES
 L0001726        0   0.92163E-03  477968.4 3748197.5   450.0     0.00     3.95
1.40     YES
 L0001727        0   0.92163E-03  477976.9 3748197.4   450.0     0.00     3.95
1.40     YES
 L0001728        0   0.92163E-03  477985.4 3748197.4   450.0     0.00     3.95
1.40     YES
 L0001729        0   0.92163E-03  477993.9 3748197.3   450.0     0.00     3.95
1.40     YES
 L0002297        0   0.58913E-04  477934.4 3748197.8   450.0     0.00     3.95
1.40     YES
 L0002298        0   0.58913E-04  477942.9 3748197.7   450.0     0.00     3.95
1.40     YES
 L0002299        0   0.58913E-04  477951.4 3748197.6   450.0     0.00     3.95
1.40     YES
 L0002300        0   0.58913E-04  477959.9 3748197.6   450.0     0.00     3.95
1.40     YES
 L0002301        0   0.58913E-04  477968.4 3748197.5   450.0     0.00     3.95
1.40     YES
 L0002302        0   0.58913E-04  477976.9 3748197.4   450.0     0.00     3.95
1.40     YES
 L0002303        0   0.58913E-04  477985.4 3748197.4   450.0     0.00     3.95
1.40     YES
 L0002304        0   0.58913E-04  477993.9 3748197.3   450.0     0.00     3.95
1.40     YES
 L0001738        0   0.10475E-02  477499.5 3748976.4   454.2     0.00     3.95
1.40     YES
 L0001739        0   0.10475E-02  477508.0 3748976.2   454.1     0.00     3.95
1.40     YES
 L0001740        0   0.10475E-02  477516.4 3748976.0   454.0     0.00     3.95
1.40     YES
 L0001741        0   0.10475E-02  477524.9 3748975.8   454.0     0.00     3.95
1.40     YES
 L0001742        0   0.10475E-02  477533.4 3748975.6   454.0     0.00     3.95
1.40     YES
 L0001743        0   0.10475E-02  477541.9 3748975.4   454.0     0.00     3.95
1.40     YES
 L0001744        0   0.10475E-02  477550.4 3748975.2   454.0     0.00     3.95
1.40     YES
```

AERMOD LSTs Operational Output

```
 L0001745         0   0.10475E-02  477558.9 3748975.0    454.0     0.00     3.95
1.40     YES
 L0001746         0   0.10475E-02  477567.4 3748974.8    454.0     0.00     3.95
1.40     YES
 L0001747         0   0.10475E-02  477575.9 3748974.6    454.0     0.00     3.95
1.40     YES
 L0001748         0   0.10475E-02  477584.4 3748974.4    454.0     0.00     3.95
1.40     YES
 L0001749         0   0.10475E-02  477592.9 3748974.2    454.0     0.00     3.95
1.40     YES
 L0002305         0   0.11050E-03  477499.5 3748976.4    454.2     0.00     3.95
1.40     YES
 L0002306         0   0.11050E-03  477508.0 3748976.2    454.1     0.00     3.95
1.40     YES
 L0002307         0   0.11050E-03  477516.4 3748976.0    454.0     0.00     3.95
1.40     YES
 L0002308         0   0.11050E-03  477524.9 3748975.8    454.0     0.00     3.95
1.40     YES
 L0002309         0   0.11050E-03  477533.4 3748975.6    454.0     0.00     3.95
1.40     YES
 L0002310         0   0.11050E-03  477541.9 3748975.4    454.0     0.00     3.95
1.40     YES
 L0002311         0   0.11050E-03  477550.4 3748975.2    454.0     0.00     3.95
1.40     YES
 L0002312         0   0.11050E-03  477558.9 3748975.0    454.0     0.00     3.95
1.40     YES
 L0002313         0   0.11050E-03  477567.4 3748974.8    454.0     0.00     3.95
1.40     YES
 L0002314         0   0.11050E-03  477575.9 3748974.6    454.0     0.00     3.95
1.40     YES
 L0002315         0   0.11050E-03  477584.4 3748974.4    454.0     0.00     3.95
1.40     YES
 L0002316         0   0.11050E-03  477592.9 3748974.2    454.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** AREA SOURCE DATA ***


               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS       X         Y      ELEV.    HEIGHT  OF AREA
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                           AERMOD LSTs Operational Output
OF AREA   OF AREA     SZ     SOURCE   SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.23237E-06  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES
 AREA2            0   0.24601E-06  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES
 AREA3            0   0.86212E-06  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES
 AREA4            0   0.27038E-06  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES
 AREA5            0   0.56524E-06  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES
 AREA6            0   0.25324E-06  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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  ALL        L0001762    , L0001763    , L0001764    , L0001765    , L0001766    ,
L0001767    , L0001768    , L0001769    ,

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L0001791    , L0001792    , L0001793    ,

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AERMOD LSTs Operational Output

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L0001919    , L0001920    , L0001921    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
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                                 AERMOD LSTs Operational Output
                              ***          12:26:14

                                           PAGE  21
  **MODELOPTs:    RegDFAULT CONC       ELEV       FLGPOL     URBAN


                                                     *** SOURCE IDs DEFINING SOURCE GROUPS
 ***

  SRCGROUP ID                                                 SOURCE IDs
  -----------                                                 ----------


              L0001922     , L0001923     , L0001924     , L0001925     , L0001926     ,
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L0002079     , L0002080     , L0002081     ,
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                                ***        12:26:14

                                           PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                   *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                 SOURCE IDs
 -----------                                                 ----------


                 L0002082     , L0002083     , L0002084     , L0002085     , L0002086     ,
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L0002095     , L0002096     , L0002097     ,

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L0002103     , L0002104     , L0002105     ,
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AERMOD LSTs Operational Output

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                AREA4        , AREA5        , AREA6        , STCK1        , STCK2        ,
STCK3        , STCK4        , STCK5        ,

                STCK6        , STCK7        , STCK8        , STCK9        , STCK10       ,
STCK11       , STCK12       , STCK13       ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:26:14

                                   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                    SOURCE IDs
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             L0002223     , L0002224     , L0002225     , L0002226     , L0002227     ,
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L0001743    , L0001744    , L0001745    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                  ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
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             L0001746    , L0001747    , L0001748    , L0001749    , L0002305    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***       12:26:14

                                    PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


              2100516.   L0001762    , L0001763    , L0001764    , L0001765    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0001922    , L0001923    , L0001924    , L0001925    , L0001926    ,
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L0002079     , L0002080     , L0002081     ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                    SOURCE IDs
  --------    ---------                                    ----------


             L0002082     , L0002083     , L0002084     , L0002085     , L0002086     ,
L0002087     , L0002088     , L0002089     ,

             L0002090     , L0002091     , L0002092     , L0002093     , L0002094     ,
L0002095     , L0002096     , L0002097     ,

             L0002098     , L0002099     , L0002100     , L0002101     , L0002102     ,
L0002103     , L0002104     , L0002105     ,

             L0002106     , L0002107     , L0002108     , L0002109     , L0002110     ,
L0002111     , L0002112     , L0002113     ,

             L0002114     , L0002115     , L0002116     , L0002117     , L0002118     ,
L0002119     , L0002120     , L0002121     ,

             L0002122     , L0002123     , L0002124     , L0002125     , L0002126     ,
L0002127     , L0002128     , L0002129     ,

             L0002130     , L0002131     , L0002132     , L0002133     , L0002134     ,
L0002135     , L0002136     , L0002137     ,

             L0002138     , L0002139     , L0002140     , L0002141     , L0002142     ,
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
L0002143    , L0002144    , L0002145    ,

             L0002146    , L0002147    , L0002148    , L0002149    , L0002150    ,
L0002151    , L0002152    , L0002153    ,

             L0002154    , L0002155    , L0002156    , L0002157    , L0002158    ,
L0002159    , L0002160    , L0002161    ,

             L0002162    , L0002163    , L0002164    , L0002165    , L0002166    ,
L0002167    , L0002168    , L0002169    ,

             L0002170    , L0002171    , L0002172    , L0002173    , L0002174    ,
AREA1       , AREA2       , AREA3       ,

             AREA4       , AREA5       , AREA6       , STCK1       , STCK2       ,
STCK3       , STCK4       , STCK5       ,

             STCK6       , STCK7       , STCK8       , STCK9       , STCK10      ,
STCK11      , STCK12      , STCK13      ,

             L0002175    , L0002176    , L0002177    , L0002178    , L0002179    ,
L0002180    , L0002181    , L0002182    ,

             L0002183    , L0002184    , L0002185    , L0002186    , L0002187    ,
L0002188    , L0002189    , L0002190    ,

             L0002191    , L0002192    , L0002193    , L0002194    , L0002195    ,
L0002196    , L0002197    , L0002198    ,

             L0002199    , L0002200    , L0002201    , L0002202    , L0002203    ,
L0002204    , L0002205    , L0002206    ,

             L0002207    , L0002208    , L0002209    , L0002210    , L0002211    ,
L0002212    , L0002213    , L0002214    ,

             L0002215    , L0002216    , L0002217    , L0002218    , L0002219    ,
L0002220    , L0002221    , L0002222    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***
```

```
                                 AERMOD LSTs Operational Output

   URBAN ID    URBAN POP                                            SOURCE IDs
   --------    ---------                                            ----------


               L0002223     , L0002224     , L0002225     , L0002226     , L0002227     ,
 L0002228     , L0002229     , L0002230     ,

               L0002231     , L0002232     , L0002233     , L0002234     , L0002235     ,
 L0002236     , L0002237     , L0002238     ,

               L0002239     , L0002240     , L0002241     , L0002242     , L0002243     ,
 L0002244     , L0002245     , L0002246     ,

               L0002247     , L0002248     , L0002249     , L0002250     , L0002251     ,
 L0002252     , L0002253     , L0002254     ,

               L0002255     , L0002256     , L0002257     , L0002258     , L0002259     ,
 L0002260     , L0002261     , L0002262     ,

               L0002263     , L0002264     , L0002265     , L0002266     , L0002267     ,
 L0002268     , L0002269     , L0002270     ,

               L0002271     , L0002272     , L0002273     , L0002274     , L0002275     ,
 L0002276     , L0002277     , L0002278     ,

               L0002279     , L0002280     , L0002281     , L0002282     , L0002283     ,
 L0002284     , L0002285     , L0002286     ,

               L0002287     , L0002288     , L0002289     , L0002290     , L0002291     ,
 L0002292     , L0002293     , L0002294     ,

               L0002295     , L0002296     , L0001660     , L0001661     , L0001662     ,
 L0001663     , L0001664     , L0001665     ,

               L0001666     , L0001667     , L0001668     , L0001669     , L0001670     ,
 L0001671     , L0001672     , L0001673     ,

               L0001674     , L0001675     , L0001676     , L0001677     , L0001678     ,
 L0001679     , L0001680     , L0001681     ,

               L0001682     , L0001683     , L0001684     , L0001685     , L0001686     ,
 L0001687     , L0001688     , L0001689     ,

               L0001690     , L0001691     , L0001692     , L0001693     , L0001694     ,
 L0001695     , L0001696     , L0001697     ,

               L0001698     , L0001699     , L0001700     , L0001701     , L0001702     ,
```

```
L0001703    , L0001704    , L0001705    ,

             L0001706    , L0001707    , L0001708    , L0001709    , L0001710    ,
L0001711    , L0001712    , L0001713    ,

             L0001714    , L0001715    , L0001716    , L0001717    , L0001718    ,
L0001719    , L0001720    , L0001721    ,

             L0001722    , L0001723    , L0001724    , L0001725    , L0001726    ,
L0001727    , L0001728    , L0001729    ,

             L0002297    , L0002298    , L0002299    , L0002300    , L0002301    ,
L0002302    , L0002303    , L0002304    ,

             L0001738    , L0001739    , L0001740    , L0001741    , L0001742    ,
L0001743    , L0001744    , L0001745    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:26:14

                                    PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0001746    , L0001747    , L0001748    , L0001749    , L0002305    ,
L0002306    , L0002307    , L0002308    ,

             L0002309    , L0002310    , L0002311    , L0002312    , L0002313    ,
L0002314    , L0002315    , L0002316    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:26:14

                                    PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)
```

```
     ( 477994.2, 3749818.5,     458.0,     458.0,       2.0);         ( 478348.6,
3749820.7,     458.3,     458.3,       2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,       2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,       2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,       2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,       2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,       2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,       2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                          AERMOD LSTs Operational Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                  ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                 Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
```

```
                           AERMOD LSTs Operational Output
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        12:26:14

                                     PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     L0001762    , L0001763
```

```
                              AERMOD LSTs Operational Output
 , L0001764     , L0001765     , L0001766     ,
                  L0001767     , L0001768     , L0001769     , L0001770     , L0001771
 , L0001772     , L0001773     , L0001774     ,
                  L0001775     , L0001776     , L0001777     , L0001778     , L0001779
 , L0001780     , L0001781     , L0001782     ,
                  L0001783     , L0001784     , L0001785     , L0001786     , L0001787
 , L0001788     , L0001789     ,  . . .       ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF CO       IN PPM
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.00327  (09100219)                 478348.59
 3749820.73        0.00323  (10080804)
        478323.98   3749446.94        0.00401  (09051904)                 478321.90
 3749107.70        0.00540  (08101020)
        478311.50   3748947.34        0.00849  (11123020)                 478314.46
 3748704.06        0.00900  (07083001)
        478309.66   3748401.33        0.01258  (10102722)                 478302.71
 3748248.43        0.01101  (07081220)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                     ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       12:26:14

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                              *** THE   1ST HIGHEST  8-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0001762     , L0001763
 , L0001764     , L0001765     , L0001766     ,
                  L0001767     , L0001768     , L0001769     , L0001770     , L0001771
 , L0001772     , L0001773     , L0001774     ,
                  L0001775     , L0001776     , L0001777     , L0001778     , L0001779
 , L0001780     , L0001781     , L0001782     ,
                  L0001783     , L0001784     , L0001785     , L0001786     , L0001787
 , L0001788     , L0001789     ,  . . .       ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
```

```
                                   AERMOD LSTs Operational Output
                                                 ** CONC OF CO       IN PPM
                     **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)               X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.00207  (09040308)                 478348.59
 3749820.73        0.00216  (07120724)
        478323.98   3749446.94        0.00271  (07120724)                 478321.90
 3749107.70        0.00364  (07120724)
        478311.50   3748947.34        0.00559  (08121824)                 478314.46
 3748704.06        0.00709  (07102724)
        478309.66   3748401.33        0.00880  (07012108)                 478302.71
 3748248.43        0.00735  (09012424)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:26:14

                                   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                             ** CONC OF CO       IN PPM
                **

                                                              DATE
                                                  NETWORK
GROUP ID                                  AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.01258  ON 10102722: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                    AERMOD LSTs Operational Output
                                 ***        12:26:14

                                            PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                        *** THE SUMMARY OF HIGHEST  8-HR
RESULTS ***


                                             ** CONC OF CO       IN PPM
                ** 

                                                               DATE
                                                  NETWORK
GROUP ID                             AVERAGE CONC     (YYMMDDHH)            RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - 

ALL      HIGH   1ST HIGH VALUE IS       0.00880  ON 07012108: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\CO\CO.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                                 ***        12:26:14

                                            PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD LSTs Operational Output

```
    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***



    ********   WARNING MESSAGES   ********
 ME W531    1777       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/3/2015
** File: C:\Lakes\AERMOD View\MVL\OperationalLSTs\NOx\NOx.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\OperationalLSTs\NOx\NOx.isc
   MODELOPT CONC OLM
   AVERTIME 1
   URBANOPT 2100516
   POLLUTID NO2 H1H
   FLAGPOLE 2.00
   RUNORNOT RUN
** NO2 Conversion Options
   NO2STACK 0.100
   NO2EQUIL 0.900
** Hourly Ozone Data File: C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\..\..\PERI_Ozone\O3PERI2007-11.prn.txt
   OZONEFIL ..\..\PERI_Ozone\O3PERI2007-11.prn.txt PPB
   ERRORFIL NOx.err
CO FINISHED
**
```

```
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.02789
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0001125     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0001126     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0001127     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0001128     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0001129     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0001130     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0001131     VOLUME   478217.023 3748596.254 452.00
   LOCATION L0001132     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0001133     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0001134     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0001135     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0001136     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0001137     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0001138     VOLUME   478217.984 3748806.252 452.66
   LOCATION L0001139     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0001140     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0001141     VOLUME   478218.396 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0238
```

```
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.00, 4.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0001142     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0001143     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0001144     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0001145     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0001146     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0001147     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0001148     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0001149     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0001150     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0001151     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0001152     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0001153     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0001154     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0001155     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.01254
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.03, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001156     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0001157     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0001158     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0001159     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0001160     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0001161     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0001162     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0001163     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
```

AERMOD LSTs Operational Output

```
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.009939
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 451.00, 4.00, 3.95
** 477936.827, 3748338.755, 450.99, 4.00, 3.95
** 477944.157, 3748337.839, 450.98, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.00, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001164     VOLUME   477900.151 3748339.028 451.00
   LOCATION L0001165     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0001166     VOLUME   477917.150 3748338.902 451.00
   LOCATION L0001167     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0001168     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0001169     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0001170     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0001171     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0001172     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0001173     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0001174     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0001175     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0001176     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0001177     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0001178     VOLUME   477977.265 3748271.460 450.00
   LOCATION L0001179     VOLUME   477978.288 3748263.022 450.00
   LOCATION L0001180     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0001181     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0001182     VOLUME   477978.207 3748237.527 450.00
   LOCATION L0001183     VOLUME   477978.153 3748229.027 450.00
   LOCATION L0001184     VOLUME   477978.100 3748220.527 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.017
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
```

```
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0001185     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0001186     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0001187     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0001188     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0001189     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0001190     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0001191     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0001192     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0001193     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0001194     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0001195     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0001196     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0001197     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0001198     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0001199     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.007676
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 450.99, 0.00, 13.95
** 478166.972, 3748332.512, 450.89, 0.00, 13.95
** ------------------------------------------------------------------
   LOCATION L0001200     VOLUME   478043.005 3748335.195 451.00
   LOCATION L0001201     VOLUME   478072.998 3748334.546 451.00
   LOCATION L0001202     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0001203     VOLUME   478132.984 3748333.248 451.00
   LOCATION L0001204     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.135
** Vertical Dimension = 4.00
** SZINIT = 1.86
```

```
                         AERMOD LSTs Operational Output
** Nodes = 10
** 477952.409, 3748975.666, 453.00, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 453.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 450.99, 4.00, 3.95
** 478215.801, 3748338.412, 450.97, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 453.00, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0001205     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0001206     VOLUME   477952.164 3748962.918 453.00
   LOCATION L0001207     VOLUME   477952.001 3748954.420 453.00
   LOCATION L0001208     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0001209     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0001210     VOLUME   477948.989 3748929.132 453.00
   LOCATION L0001211     VOLUME   477948.245 3748920.681 453.00
   LOCATION L0001212     VOLUME   477948.087 3748912.183 453.00
   LOCATION L0001213     VOLUME   477947.928 3748903.684 453.00
   LOCATION L0001214     VOLUME   477947.769 3748895.186 453.00
   LOCATION L0001215     VOLUME   477947.610 3748886.687 453.00
   LOCATION L0001216     VOLUME   477947.452 3748878.189 453.00
   LOCATION L0001217     VOLUME   477947.294 3748869.690 453.00
   LOCATION L0001218     VOLUME   477947.226 3748861.191 453.00
   LOCATION L0001219     VOLUME   477947.157 3748852.691 453.00
   LOCATION L0001220     VOLUME   477947.089 3748844.191 453.00
   LOCATION L0001221     VOLUME   477947.021 3748835.691 453.00
   LOCATION L0001222     VOLUME   477946.952 3748827.192 453.00
   LOCATION L0001223     VOLUME   477946.884 3748818.692 453.00
   LOCATION L0001224     VOLUME   477946.816 3748810.192 453.00
   LOCATION L0001225     VOLUME   477946.747 3748801.692 453.00
   LOCATION L0001226     VOLUME   477946.679 3748793.193 453.00
   LOCATION L0001227     VOLUME   477946.610 3748784.693 453.00
   LOCATION L0001228     VOLUME   477946.542 3748776.193 453.00
   LOCATION L0001229     VOLUME   477946.474 3748767.694 453.00
   LOCATION L0001230     VOLUME   477946.405 3748759.194 453.00
   LOCATION L0001231     VOLUME   477946.337 3748750.694 453.00
   LOCATION L0001232     VOLUME   477946.269 3748742.194 453.00
   LOCATION L0001233     VOLUME   477946.200 3748733.695 453.00
   LOCATION L0001234     VOLUME   477946.132 3748725.195 453.00
   LOCATION L0001235     VOLUME   477946.063 3748716.695 453.00
   LOCATION L0001236     VOLUME   477945.995 3748708.195 453.00
   LOCATION L0001237     VOLUME   477945.927 3748699.696 453.00
   LOCATION L0001238     VOLUME   477945.858 3748691.196 452.82
   LOCATION L0001239     VOLUME   477945.790 3748682.696 452.54
   LOCATION L0001240     VOLUME   477945.722 3748674.197 452.25
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LOCATION L0001241      VOLUME   477945.653 3748665.697 452.00
LOCATION L0001242      VOLUME   477945.585 3748657.197 452.00
LOCATION L0001243      VOLUME   477945.517 3748648.697 452.00
LOCATION L0001244      VOLUME   477945.448 3748640.198 452.00
LOCATION L0001245      VOLUME   477945.380 3748631.698 452.00
LOCATION L0001246      VOLUME   477945.311 3748623.198 452.00
LOCATION L0001247      VOLUME   477945.243 3748614.699 452.00
LOCATION L0001248      VOLUME   477945.175 3748606.199 452.00
LOCATION L0001249      VOLUME   477945.106 3748597.699 452.00
LOCATION L0001250      VOLUME   477945.038 3748589.199 452.00
LOCATION L0001251      VOLUME   477944.970 3748580.700 452.00
LOCATION L0001252      VOLUME   477944.901 3748572.200 452.00
LOCATION L0001253      VOLUME   477944.833 3748563.700 452.00
LOCATION L0001254      VOLUME   477944.764 3748555.200 452.00
LOCATION L0001255      VOLUME   477944.696 3748546.701 452.00
LOCATION L0001256      VOLUME   477944.628 3748538.201 452.00
LOCATION L0001257      VOLUME   477944.559 3748529.701 452.00
LOCATION L0001258      VOLUME   477944.491 3748521.202 452.00
LOCATION L0001259      VOLUME   477944.423 3748512.702 451.87
LOCATION L0001260      VOLUME   477944.354 3748504.202 451.59
LOCATION L0001261      VOLUME   477944.286 3748495.702 451.30
LOCATION L0001262      VOLUME   477944.728 3748487.329 451.03
LOCATION L0001263      VOLUME   477948.744 3748479.837 451.00
LOCATION L0001264      VOLUME   477952.760 3748472.346 451.00
LOCATION L0001265      VOLUME   477956.776 3748464.855 451.00
LOCATION L0001266      VOLUME   477960.792 3748457.363 451.00
LOCATION L0001267      VOLUME   477964.809 3748449.872 451.00
LOCATION L0001268      VOLUME   477968.825 3748442.381 451.00
LOCATION L0001269      VOLUME   477972.841 3748434.889 451.00
LOCATION L0001270      VOLUME   477976.857 3748427.398 451.00
LOCATION L0001271      VOLUME   477980.874 3748419.907 451.00
LOCATION L0001272      VOLUME   477984.890 3748412.415 451.00
LOCATION L0001273      VOLUME   477988.906 3748404.924 451.00
LOCATION L0001274      VOLUME   477992.922 3748397.433 451.00
LOCATION L0001275      VOLUME   477996.939 3748389.941 451.00
LOCATION L0001276      VOLUME   478000.955 3748382.450 451.00
LOCATION L0001277      VOLUME   478004.971 3748374.959 451.00
LOCATION L0001278      VOLUME   478008.987 3748367.468 451.00
LOCATION L0001279      VOLUME   478013.004 3748359.976 451.00
LOCATION L0001280      VOLUME   478017.122 3748352.545 451.00
LOCATION L0001281      VOLUME   478021.740 3748345.409 451.00
LOCATION L0001282      VOLUME   478026.357 3748338.273 451.00
LOCATION L0001283      VOLUME   478033.820 3748336.434 451.00
LOCATION L0001284      VOLUME   478042.319 3748336.526 451.00
LOCATION L0001285      VOLUME   478050.819 3748336.619 451.00
LOCATION L0001286      VOLUME   478059.318 3748336.711 451.00
LOCATION L0001287      VOLUME   478067.818 3748336.803 451.00
LOCATION L0001288      VOLUME   478076.317 3748336.896 451.00
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LOCATION L0001289     VOLUME   478084.817 3748336.988 451.00
LOCATION L0001290     VOLUME   478093.316 3748337.080 451.00
LOCATION L0001291     VOLUME   478101.816 3748337.173 451.00
LOCATION L0001292     VOLUME   478110.315 3748337.265 451.00
LOCATION L0001293     VOLUME   478118.815 3748337.358 451.00
LOCATION L0001294     VOLUME   478127.314 3748337.450 451.00
LOCATION L0001295     VOLUME   478135.814 3748337.542 451.00
LOCATION L0001296     VOLUME   478144.313 3748337.635 451.00
LOCATION L0001297     VOLUME   478152.813 3748337.727 451.00
LOCATION L0001298     VOLUME   478161.312 3748337.820 451.00
LOCATION L0001299     VOLUME   478169.812 3748337.912 451.00
LOCATION L0001300     VOLUME   478178.311 3748338.004 451.00
LOCATION L0001301     VOLUME   478186.811 3748338.097 451.00
LOCATION L0001302     VOLUME   478195.310 3748338.189 451.00
LOCATION L0001303     VOLUME   478203.810 3748338.282 451.00
LOCATION L0001304     VOLUME   478212.309 3748338.374 451.00
LOCATION L0001305     VOLUME   478215.837 3748343.420 451.00
LOCATION L0001306     VOLUME   478215.897 3748351.920 451.00
LOCATION L0001307     VOLUME   478215.958 3748360.419 451.00
LOCATION L0001308     VOLUME   478216.018 3748368.919 451.00
LOCATION L0001309     VOLUME   478216.079 3748377.419 451.00
LOCATION L0001310     VOLUME   478216.139 3748385.919 451.00
LOCATION L0001311     VOLUME   478216.200 3748394.419 451.00
LOCATION L0001312     VOLUME   478216.260 3748402.918 451.00
LOCATION L0001313     VOLUME   478216.321 3748411.418 451.00
LOCATION L0001314     VOLUME   478216.381 3748419.918 451.00
LOCATION L0001315     VOLUME   478216.442 3748428.418 451.00
LOCATION L0001316     VOLUME   478216.502 3748436.918 451.00
LOCATION L0001317     VOLUME   478216.563 3748445.417 451.00
LOCATION L0001318     VOLUME   478216.623 3748453.917 451.00
LOCATION L0001319     VOLUME   478216.683 3748462.417 451.04
LOCATION L0001320     VOLUME   478216.744 3748470.917 451.11
LOCATION L0001321     VOLUME   478216.804 3748479.416 451.18
LOCATION L0001322     VOLUME   478216.865 3748487.916 451.27
LOCATION L0001323     VOLUME   478216.925 3748496.416 451.49
LOCATION L0001324     VOLUME   478216.986 3748504.916 451.70
LOCATION L0001325     VOLUME   478217.046 3748513.416 451.92
LOCATION L0001326     VOLUME   478217.107 3748521.915 452.00
LOCATION L0001327     VOLUME   478217.167 3748530.415 452.00
LOCATION L0001328     VOLUME   478217.228 3748538.915 452.00
LOCATION L0001329     VOLUME   478217.288 3748547.415 452.00
LOCATION L0001330     VOLUME   478217.349 3748555.915 452.00
LOCATION L0001331     VOLUME   478217.409 3748564.414 452.00
LOCATION L0001332     VOLUME   478217.470 3748572.914 452.00
LOCATION L0001333     VOLUME   478217.530 3748581.414 452.00
LOCATION L0001334     VOLUME   478217.591 3748589.914 452.00
LOCATION L0001335     VOLUME   478217.651 3748598.413 452.00
LOCATION L0001336     VOLUME   478217.712 3748606.913 452.00
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   LOCATION L0001337     VOLUME   478217.772 3748615.413 452.00
   LOCATION L0001338     VOLUME   478217.833 3748623.913 452.00
   LOCATION L0001339     VOLUME   478217.893 3748632.413 452.00
   LOCATION L0001340     VOLUME   478217.954 3748640.912 452.00
   LOCATION L0001341     VOLUME   478218.014 3748649.412 452.00
   LOCATION L0001342     VOLUME   478218.075 3748657.912 452.00
   LOCATION L0001343     VOLUME   478218.135 3748666.412 452.00
   LOCATION L0001344     VOLUME   478218.196 3748674.912 452.00
   LOCATION L0001345     VOLUME   478218.256 3748683.411 452.00
   LOCATION L0001346     VOLUME   478218.317 3748691.911 452.00
   LOCATION L0001347     VOLUME   478218.377 3748700.411 452.00
   LOCATION L0001348     VOLUME   478218.438 3748708.911 452.00
   LOCATION L0001349     VOLUME   478218.498 3748717.410 452.00
   LOCATION L0001350     VOLUME   478218.559 3748725.910 452.00
   LOCATION L0001351     VOLUME   478218.619 3748734.410 452.00
   LOCATION L0001352     VOLUME   478218.680 3748742.910 452.00
   LOCATION L0001353     VOLUME   478218.740 3748751.410 452.00
   LOCATION L0001354     VOLUME   478218.801 3748759.909 452.00
   LOCATION L0001355     VOLUME   478218.861 3748768.409 452.00
   LOCATION L0001356     VOLUME   478218.922 3748776.909 452.00
   LOCATION L0001357     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0001358     VOLUME   478219.043 3748793.908 452.25
   LOCATION L0001359     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0001360     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0001361     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0001362     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0001363     VOLUME   478219.345 3748836.407 453.00
   LOCATION L0001364     VOLUME   478219.405 3748844.907 453.00
   LOCATION L0001365     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0001366     VOLUME   478219.526 3748861.907 453.00
   LOCATION L0001367     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0001368     VOLUME   478219.647 3748878.906 453.00
   LOCATION L0001369     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0001370     VOLUME   478219.768 3748895.906 453.00
   LOCATION L0001371     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0001372     VOLUME   478219.889 3748912.905 453.00
   LOCATION L0001373     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0001374     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0001375     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0001376     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0001377     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0001378     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0001379     VOLUME   478202.675 3748969.843 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
```

AERMOD LSTs Operational Output

```
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.009694
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.09, 4.00, 3.95
** 477742.747, 3748979.421, 454.00, 4.00, 3.95
** 477742.213, 3748884.901, 453.70, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.00, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0001380     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0001381     VOLUME   477852.822 3748843.717 453.00
   LOCATION L0001382     VOLUME   477852.867 3748852.217 453.00
   LOCATION L0001383     VOLUME   477852.913 3748860.717 453.00
   LOCATION L0001384     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0001385     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0001386     VOLUME   477853.051 3748886.216 453.00
   LOCATION L0001387     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0001388     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0001389     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0001390     VOLUME   477853.234 3748920.216 453.00
   LOCATION L0001391     VOLUME   477853.279 3748928.716 453.00
   LOCATION L0001392     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0001393     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0001394     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0001395     VOLUME   477853.463 3748962.715 453.00
   LOCATION L0001396     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0001397     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0001398     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0001399     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0001400     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0001401     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0001402     VOLUME   477811.027 3748979.586 454.00
   LOCATION L0001403     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0001404     VOLUME   477794.027 3748979.545 454.00
   LOCATION L0001405     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0001406     VOLUME   477777.027 3748979.504 454.00
   LOCATION L0001407     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0001408     VOLUME   477760.027 3748979.463 454.00
   LOCATION L0001409     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0001410     VOLUME   477743.027 3748979.422 454.00
```

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   LOCATION L0001411     VOLUME   477742.701 3748971.202 454.00
   LOCATION L0001412     VOLUME   477742.653 3748962.702 454.00
   LOCATION L0001413     VOLUME   477742.605 3748954.202 454.00
   LOCATION L0001414     VOLUME   477742.557 3748945.702 454.00
   LOCATION L0001415     VOLUME   477742.508 3748937.202 454.00
   LOCATION L0001416     VOLUME   477742.460 3748928.702 453.89
   LOCATION L0001417     VOLUME   477742.412 3748920.202 453.77
   LOCATION L0001418     VOLUME   477742.364 3748911.703 453.65
   LOCATION L0001419     VOLUME   477742.316 3748903.203 453.58
   LOCATION L0001420     VOLUME   477742.268 3748894.703 453.58
   LOCATION L0001421     VOLUME   477742.220 3748886.203 453.59
   LOCATION L0001422     VOLUME   477744.174 3748877.975 453.52
   LOCATION L0001423     VOLUME   477746.490 3748869.797 453.57
   LOCATION L0001424     VOLUME   477748.805 3748861.618 453.68
   LOCATION L0001425     VOLUME   477751.121 3748853.440 453.84
   LOCATION L0001426     VOLUME   477753.436 3748845.261 453.96
   LOCATION L0001427     VOLUME   477757.468 3748838.153 453.72
   LOCATION L0001428     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0001429     VOLUME   477770.126 3748826.806 453.22
   LOCATION L0001430     VOLUME   477778.582 3748826.536 453.12
   LOCATION L0001431     VOLUME   477787.080 3748826.374 453.03
   LOCATION L0001432     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0001433     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0001434     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0001435     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0001436     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0001437     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0001438     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.006342
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 450.85, 4.00, 3.95
** 477886.421, 3748337.112, 451.00, 4.00, 3.95
** 477917.002, 3748339.979, 451.00, 4.00, 3.95
** 477941.530, 3748338.068, 451.00, 4.00, 3.95
** 477951.087, 3748325.007, 450.71, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
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** 477978.164, 3748219.567, 450.00, 4.00, 3.95
** 477993.877, 3748210.463, 450.00, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001439     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0001440     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0001441     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0001442     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0001443     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0001444     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0001445     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0001446     VOLUME   477885.558 3748263.233 450.92
   LOCATION L0001447     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0001448     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0001449     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0001450     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0001451     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0001452     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0001453     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0001454     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0001455     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0001456     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0001457     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0001458     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0001459     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0001460     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0001461     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0001462     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0001463     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0001464     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0001465     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0001466     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0001467     VOLUME   477968.225 3748296.672 450.00
   LOCATION L0001468     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0001469     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0001470     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0001471     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0001472     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0001473     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0001474     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0001475     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0001476     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0001477     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0001478     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0001479     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0001480     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0001481     VOLUME   477986.139 3748197.465 450.00
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0001482     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0001483     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0001484     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0001485     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0001486     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0001487     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.01105
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 454.06, 4.00, 3.95
** 477598.310, 3748973.915, 454.00, 4.00, 3.95
** 477610.497, 3748965.249, 454.00, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 454.00, 4.00, 3.95
** 477487.823, 3748799.247, 454.00, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001488     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0001489     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0001490     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0001491     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0001492     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0001493     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0001494     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0001495     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0001496     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0001497     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0001498     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0001499     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0001500     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0001501     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0001502     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0001503     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0001504     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0001505     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0001506     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0001507     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0001508     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0001509     VOLUME   477626.243 3748896.866 454.00
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   LOCATION L0001510     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0001511     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0001512     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0001513     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0001514     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0001515     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0001516     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0001517     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0001518     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0001519     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0001520     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0001521     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0001522     VOLUME   477618.478 3748795.702 454.00
   LOCATION L0001523     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0001524     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0001525     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0001526     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0001527     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0001528     VOLUME   477567.497 3748797.085 454.00
   LOCATION L0001529     VOLUME   477559.000 3748797.316 454.00
   LOCATION L0001530     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0001531     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0001532     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0001533     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0001534     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0001535     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0001536     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0001537     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
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                           AERMOD LSTs Operational Output
** DESCRSRC Building 1
   LOCATION STCK5         POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6         POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7         POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8         POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9         POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10        POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11        POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12        POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13        POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC PC On-Site Idling North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0007939
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001762      VOLUME   477922.279 3748920.131 453.00
   LOCATION L0001763      VOLUME   477921.884 3748928.621 453.00
   LOCATION L0001764      VOLUME   477921.489 3748937.112 453.00
   LOCATION L0001765      VOLUME   477921.095 3748945.603 453.00
   LOCATION L0001766      VOLUME   477920.700 3748954.094 453.00
   LOCATION L0001767      VOLUME   477927.678 3748955.589 453.00
   LOCATION L0001768      VOLUME   477936.177 3748955.641 453.00
   LOCATION L0001769      VOLUME   477944.677 3748955.692 453.00
   LOCATION L0001770      VOLUME   477953.177 3748955.744 453.00
   LOCATION L0001771      VOLUME   477961.677 3748955.795 453.00
   LOCATION L0001772      VOLUME   477970.177 3748955.847 453.00
   LOCATION L0001773      VOLUME   477978.677 3748955.898 453.00
   LOCATION L0001774      VOLUME   477987.177 3748955.950 453.00
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   LOCATION L0001775     VOLUME   477995.676 3748956.001 453.00
   LOCATION L0001776     VOLUME   478004.176 3748956.053 453.00
   LOCATION L0001777     VOLUME   478012.676 3748956.104 453.00
   LOCATION L0001778     VOLUME   478021.176 3748956.156 453.00
   LOCATION L0001779     VOLUME   478029.676 3748956.208 453.00
   LOCATION L0001780     VOLUME   478038.176 3748956.259 453.00
   LOCATION L0001781     VOLUME   478046.675 3748956.311 453.00
   LOCATION L0001782     VOLUME   478055.175 3748956.362 453.00
   LOCATION L0001783     VOLUME   478063.675 3748956.414 453.00
   LOCATION L0001784     VOLUME   478072.175 3748956.465 453.00
   LOCATION L0001785     VOLUME   478080.675 3748956.517 453.00
   LOCATION L0001786     VOLUME   478089.175 3748956.568 453.00
   LOCATION L0001787     VOLUME   478097.675 3748956.620 453.00
   LOCATION L0001788     VOLUME   478106.174 3748956.671 453.00
   LOCATION L0001789     VOLUME   478114.674 3748956.723 453.00
   LOCATION L0001790     VOLUME   478123.174 3748956.774 453.00
   LOCATION L0001791     VOLUME   478131.674 3748956.826 453.00
   LOCATION L0001792     VOLUME   478140.174 3748956.877 453.00
   LOCATION L0001793     VOLUME   478148.674 3748956.929 453.00
   LOCATION L0001794     VOLUME   478157.173 3748956.980 453.00
   LOCATION L0001795     VOLUME   478165.673 3748957.032 453.00
   LOCATION L0001796     VOLUME   478174.173 3748957.083 453.00
   LOCATION L0001797     VOLUME   478182.673 3748957.135 453.00
   LOCATION L0001798     VOLUME   478191.173 3748957.186 453.00
   LOCATION L0001799     VOLUME   478199.673 3748957.238 453.00
   LOCATION L0001800     VOLUME   478208.172 3748957.289 453.00
   LOCATION L0001801     VOLUME   478216.672 3748957.341 453.00
   LOCATION L0001802     VOLUME   478225.010 3748957.229 453.00
   LOCATION L0001803     VOLUME   478225.010 3748948.729 453.00
   LOCATION L0001804     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0001805     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0001806     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE11
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE16
** DESCRSRC PC On-Site Travel North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0003
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
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** ----------------------------------------------------------------------
   LOCATION L0001852     VOLUME   477922.279 3748920.131 453.00
   LOCATION L0001853     VOLUME   477921.884 3748928.621 453.00
   LOCATION L0001854     VOLUME   477921.489 3748937.112 453.00
   LOCATION L0001855     VOLUME   477921.095 3748945.603 453.00
   LOCATION L0001856     VOLUME   477920.700 3748954.094 453.00
   LOCATION L0001857     VOLUME   477927.678 3748955.589 453.00
   LOCATION L0001858     VOLUME   477936.177 3748955.641 453.00
   LOCATION L0001859     VOLUME   477944.677 3748955.692 453.00
   LOCATION L0001860     VOLUME   477953.177 3748955.744 453.00
   LOCATION L0001861     VOLUME   477961.677 3748955.795 453.00
   LOCATION L0001862     VOLUME   477970.177 3748955.847 453.00
   LOCATION L0001863     VOLUME   477978.677 3748955.898 453.00
   LOCATION L0001864     VOLUME   477987.177 3748955.950 453.00
   LOCATION L0001865     VOLUME   477995.676 3748956.001 453.00
   LOCATION L0001866     VOLUME   478004.176 3748956.053 453.00
   LOCATION L0001867     VOLUME   478012.676 3748956.104 453.00
   LOCATION L0001868     VOLUME   478021.176 3748956.156 453.00
   LOCATION L0001869     VOLUME   478029.676 3748956.208 453.00
   LOCATION L0001870     VOLUME   478038.176 3748956.259 453.00
   LOCATION L0001871     VOLUME   478046.675 3748956.311 453.00
   LOCATION L0001872     VOLUME   478055.175 3748956.362 453.00
   LOCATION L0001873     VOLUME   478063.675 3748956.414 453.00
   LOCATION L0001874     VOLUME   478072.175 3748956.465 453.00
   LOCATION L0001875     VOLUME   478080.675 3748956.517 453.00
   LOCATION L0001876     VOLUME   478089.175 3748956.568 453.00
   LOCATION L0001877     VOLUME   478097.675 3748956.620 453.00
   LOCATION L0001878     VOLUME   478106.174 3748956.671 453.00
   LOCATION L0001879     VOLUME   478114.674 3748956.723 453.00
   LOCATION L0001880     VOLUME   478123.174 3748956.774 453.00
   LOCATION L0001881     VOLUME   478131.674 3748956.826 453.00
   LOCATION L0001882     VOLUME   478140.174 3748956.877 453.00
   LOCATION L0001883     VOLUME   478148.674 3748956.929 453.00
   LOCATION L0001884     VOLUME   478157.173 3748956.980 453.00
   LOCATION L0001885     VOLUME   478165.673 3748957.032 453.00
   LOCATION L0001886     VOLUME   478174.173 3748957.083 453.00
   LOCATION L0001887     VOLUME   478182.673 3748957.135 453.00
   LOCATION L0001888     VOLUME   478191.173 3748957.186 453.00
   LOCATION L0001889     VOLUME   478199.673 3748957.238 453.00
   LOCATION L0001890     VOLUME   478208.172 3748957.289 453.00
   LOCATION L0001891     VOLUME   478216.672 3748957.341 453.00
   LOCATION L0001892     VOLUME   478225.010 3748957.229 453.00
   LOCATION L0001893     VOLUME   478225.010 3748948.729 453.00
   LOCATION L0001894     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0001895     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0001896     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE16
** ----------------------------------------------------------------------
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                              AERMOD LSTs Operational Output
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC PC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0007939
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001628     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0001629     VOLUME   478185.936 3748323.096 450.00
   LOCATION L0001630     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0001631     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0001632     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0001633     VOLUME   478219.914 3748321.882 450.00
   LOCATION L0001634     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0001635     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0001636     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0001637     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0001638     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0001639     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0001640     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0001641     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0001642     VOLUME   478233.496 3748380.968 451.00
   LOCATION L0001643     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE12
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE17
** DESCRSRC PC On-Site Travel South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001096
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001897     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0001898     VOLUME   478185.936 3748323.096 450.00
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   LOCATION L0001899     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0001900     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0001901     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0001902     VOLUME   478219.914 3748321.882 450.00
   LOCATION L0001903     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0001904     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0001905     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0001906     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0001907     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0001908     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0001909     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0001910     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0001911     VOLUME   478233.496 3748380.968 451.00
   LOCATION L0001912     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE17
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC PC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0007577
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001913     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0001914     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0001915     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0001916     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0001917     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0001918     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0001919     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0001920     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0001921     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0001922     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0001923     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0001924     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0001925     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0001926     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0001927     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0001928     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0001929     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0001930     VOLUME   477853.699 3748947.227 453.00
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   LOCATION L0001931     VOLUME   477853.614 3748938.727 453.00
   LOCATION L0001932     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0001933     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0001934     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0001935     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0001936     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0001937     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0001938     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0001939     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0001940     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0001941     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0001942     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0001943     VOLUME   477852.587 3748836.732 453.00
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE18
** DESCRSRC PC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001963
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001944     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0001945     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0001946     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0001947     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0001948     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0001949     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0001950     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0001951     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0001952     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0001953     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0001954     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0001955     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0001956     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0001957     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0001958     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0001959     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0001960     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0001961     VOLUME   477853.699 3748947.227 453.00
   LOCATION L0001962     VOLUME   477853.614 3748938.727 453.00
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   LOCATION L0001963     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0001964     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0001965     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0001966     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0001967     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0001968     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0001969     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0001970     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0001971     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0001972     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0001973     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0001974     VOLUME   477852.587 3748836.732 453.00
** End of LINE VOLUME Source ID = SLINE18
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC PC On-Site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0006019
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001975     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0001976     VOLUME   477942.912 3748197.691 450.00
   LOCATION L0001977     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0001978     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0001979     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0001980     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0001981     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0001982     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE14
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE19
** DESCRSRC PC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003848
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
```

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** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001730     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0001731     VOLUME   477942.912 3748197.691 450.00
   LOCATION L0001732     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0001733     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0001734     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0001735     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0001736     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0001737     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE19
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC PC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.01257
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001738     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0001739     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0001740     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0001741     VOLUME   477524.946 3748975.832 454.00
   LOCATION L0001742     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0001743     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0001744     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0001745     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0001746     VOLUME   477567.434 3748974.837 454.00
   LOCATION L0001747     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0001748     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0001749     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE15
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE20
** DESCRSRC PC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001083
** Vertical Dimension = 3.00
** SZINIT = 1.40
```

AERMOD LSTs Operational Output

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** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** -------------------------------------------------------------------
   LOCATION L0001750     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0001751     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0001752     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0001753     VOLUME   477524.946 3748975.832 454.00
   LOCATION L0001754     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0001755     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0001756     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0001757     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0001758     VOLUME   477567.434 3748974.837 454.00
   LOCATION L0001759     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0001760     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0001761     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE20
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001125     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001126     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001127     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001128     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001129     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001130     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001131     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001132     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001133     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001134     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001135     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001136     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001137     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001138     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001139     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001140     0.0016405882      4.00     13.95      1.86
   SRCPARAM L0001141     0.0016405882      4.00     13.95      1.86
** -------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0001142        0.0017      4.00     13.95      1.86
   SRCPARAM L0001143        0.0017      4.00     13.95      1.86
   SRCPARAM L0001144        0.0017      4.00     13.95      1.86
   SRCPARAM L0001145        0.0017      4.00     13.95      1.86
   SRCPARAM L0001146        0.0017      4.00     13.95      1.86
   SRCPARAM L0001147        0.0017      4.00     13.95      1.86
   SRCPARAM L0001148        0.0017      4.00     13.95      1.86
   SRCPARAM L0001149        0.0017      4.00     13.95      1.86
   SRCPARAM L0001150        0.0017      4.00     13.95      1.86
   SRCPARAM L0001151        0.0017      4.00     13.95      1.86
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   SRCPARAM L0001152        0.0017      4.00     13.95      1.86
   SRCPARAM L0001153        0.0017      4.00     13.95      1.86
   SRCPARAM L0001154        0.0017      4.00     13.95      1.86
   SRCPARAM L0001155        0.0017      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0001156     0.0015675      4.00      3.95      1.86
   SRCPARAM L0001157     0.0015675      4.00      3.95      1.86
   SRCPARAM L0001158     0.0015675      4.00      3.95      1.86
   SRCPARAM L0001159     0.0015675      4.00      3.95      1.86
   SRCPARAM L0001160     0.0015675      4.00      3.95      1.86
   SRCPARAM L0001161     0.0015675      4.00      3.95      1.86
   SRCPARAM L0001162     0.0015675      4.00      3.95      1.86
   SRCPARAM L0001163     0.0015675      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0001164     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001165     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001166     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001167     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001168     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001169     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001170     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001171     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001172     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001173     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001174     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001175     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001176     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001177     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001178     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001179     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001180     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001181     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001182     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001183     0.0004732857      4.00      3.95      1.86
   SRCPARAM L0001184     0.0004732857      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0001185     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001186     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001187     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001188     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001189     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001190     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001191     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001192     0.0011333333      0.00      3.95      1.86
   SRCPARAM L0001193     0.0011333333      0.00      3.95      1.86
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                          AERMOD LSTs Operational Output
   SRCPARAM L0001194     0.0011333333      0.00       3.95       1.86
   SRCPARAM L0001195     0.0011333333      0.00       3.95       1.86
   SRCPARAM L0001196     0.0011333333      0.00       3.95       1.86
   SRCPARAM L0001197     0.0011333333      0.00       3.95       1.86
   SRCPARAM L0001198     0.0011333333      0.00       3.95       1.86
   SRCPARAM L0001199     0.0011333333      0.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001200     0.0015352      0.00      13.95      1.86
   SRCPARAM L0001201     0.0015352      0.00      13.95      1.86
   SRCPARAM L0001202     0.0015352      0.00      13.95      1.86
   SRCPARAM L0001203     0.0015352      0.00      13.95      1.86
   SRCPARAM L0001204     0.0015352      0.00      13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0001205     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001206     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001207     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001208     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001209     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001210     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001211     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001212     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001213     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001214     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001215     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001216     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001217     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001218     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001219     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001220     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001221     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001222     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001223     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001224     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001225     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001226     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001227     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001228     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001229     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001230     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001231     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001232     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001233     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001234     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001235     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001236     0.0007714286      4.00       3.95       1.86
   SRCPARAM L0001237     0.0007714286      4.00       3.95       1.86
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                     AERMOD LSTs Operational Output
SRCPARAM L0001238      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001239      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001240      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001241      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001242      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001243      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001244      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001245      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001246      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001247      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001248      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001249      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001250      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001251      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001252      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001253      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001254      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001255      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001256      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001257      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001258      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001259      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001260      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001261      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001262      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001263      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001264      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001265      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001266      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001267      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001268      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001269      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001270      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001271      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001272      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001273      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001274      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001275      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001276      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001277      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001278      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001279      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001280      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001281      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001282      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001283      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001284      0.0007714286      4.00      3.95      1.86
SRCPARAM L0001285      0.0007714286      4.00      3.95      1.86
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                          AERMOD LSTs Operational Output
SRCPARAM L0001286      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001287      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001288      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001289      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001290      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001291      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001292      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001293      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001294      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001295      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001296      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001297      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001298      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001299      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001300      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001301      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001302      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001303      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001304      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001305      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001306      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001307      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001308      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001309      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001310      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001311      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001312      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001313      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001314      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001315      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001316      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001317      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001318      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001319      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001320      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001321      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001322      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001323      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001324      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001325      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001326      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001327      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001328      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001329      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001330      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001331      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001332      0.0007714286       4.00       3.95       1.86
SRCPARAM L0001333      0.0007714286       4.00       3.95       1.86
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   SRCPARAM L0001334     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001335     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001336     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001337     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001338     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001339     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001340     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001341     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001342     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001343     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001344     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001345     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001346     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001347     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001348     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001349     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001350     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001351     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001352     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001353     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001354     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001355     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001356     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001357     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001358     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001359     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001360     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001361     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001362     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001363     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001364     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001365     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001366     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001367     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001368     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001369     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001370     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001371     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001372     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001373     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001374     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001375     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001376     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001377     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001378     0.0007714286       4.00       3.95       1.86
   SRCPARAM L0001379     0.0007714286       4.00       3.95       1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
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SRCPARAM L0001380      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001381      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001382      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001383      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001384      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001385      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001386      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001387      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001388      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001389      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001390      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001391      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001392      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001393      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001394      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001395      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001396      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001397      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001398      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001399      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001400      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001401      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001402      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001403      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001404      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001405      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001406      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001407      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001408      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001409      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001410      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001411      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001412      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001413      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001414      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001415      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001416      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001417      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001418      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001419      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001420      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001421      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001422      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001423      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001424      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001425      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001426      0.0001643051       4.00       3.95       1.86
SRCPARAM L0001427      0.0001643051       4.00       3.95       1.86
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   SRCPARAM L0001428     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001429     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001430     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001431     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001432     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001433     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001434     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001435     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001436     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001437     0.0001643051      4.00      3.95      1.86
   SRCPARAM L0001438     0.0001643051      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0001439     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001440     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001441     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001442     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001443     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001444     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001445     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001446     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001447     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001448     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001449     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001450     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001451     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001452     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001453     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001454     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001455     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001456     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001457     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001458     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001459     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001460     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001461     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001462     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001463     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001464     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001465     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001466     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001467     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001468     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001469     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001470     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001471     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001472     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001473     0.0001294286      4.00      3.95      1.86
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   SRCPARAM L0001474     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001475     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001476     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001477     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001478     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001479     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001480     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001481     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001482     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001483     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001484     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001485     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001486     0.0001294286      4.00      3.95      1.86
   SRCPARAM L0001487     0.0001294286      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0001488      0.000221      4.00      3.95      1.86
   SRCPARAM L0001489      0.000221      4.00      3.95      1.86
   SRCPARAM L0001490      0.000221      4.00      3.95      1.86
   SRCPARAM L0001491      0.000221      4.00      3.95      1.86
   SRCPARAM L0001492      0.000221      4.00      3.95      1.86
   SRCPARAM L0001493      0.000221      4.00      3.95      1.86
   SRCPARAM L0001494      0.000221      4.00      3.95      1.86
   SRCPARAM L0001495      0.000221      4.00      3.95      1.86
   SRCPARAM L0001496      0.000221      4.00      3.95      1.86
   SRCPARAM L0001497      0.000221      4.00      3.95      1.86
   SRCPARAM L0001498      0.000221      4.00      3.95      1.86
   SRCPARAM L0001499      0.000221      4.00      3.95      1.86
   SRCPARAM L0001500      0.000221      4.00      3.95      1.86
   SRCPARAM L0001501      0.000221      4.00      3.95      1.86
   SRCPARAM L0001502      0.000221      4.00      3.95      1.86
   SRCPARAM L0001503      0.000221      4.00      3.95      1.86
   SRCPARAM L0001504      0.000221      4.00      3.95      1.86
   SRCPARAM L0001505      0.000221      4.00      3.95      1.86
   SRCPARAM L0001506      0.000221      4.00      3.95      1.86
   SRCPARAM L0001507      0.000221      4.00      3.95      1.86
   SRCPARAM L0001508      0.000221      4.00      3.95      1.86
   SRCPARAM L0001509      0.000221      4.00      3.95      1.86
   SRCPARAM L0001510      0.000221      4.00      3.95      1.86
   SRCPARAM L0001511      0.000221      4.00      3.95      1.86
   SRCPARAM L0001512      0.000221      4.00      3.95      1.86
   SRCPARAM L0001513      0.000221      4.00      3.95      1.86
   SRCPARAM L0001514      0.000221      4.00      3.95      1.86
   SRCPARAM L0001515      0.000221      4.00      3.95      1.86
   SRCPARAM L0001516      0.000221      4.00      3.95      1.86
   SRCPARAM L0001517      0.000221      4.00      3.95      1.86
   SRCPARAM L0001518      0.000221      4.00      3.95      1.86
   SRCPARAM L0001519      0.000221      4.00      3.95      1.86
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   SRCPARAM L0001520      0.000221      4.00      3.95      1.86
   SRCPARAM L0001521      0.000221      4.00      3.95      1.86
   SRCPARAM L0001522      0.000221      4.00      3.95      1.86
   SRCPARAM L0001523      0.000221      4.00      3.95      1.86
   SRCPARAM L0001524      0.000221      4.00      3.95      1.86
   SRCPARAM L0001525      0.000221      4.00      3.95      1.86
   SRCPARAM L0001526      0.000221      4.00      3.95      1.86
   SRCPARAM L0001527      0.000221      4.00      3.95      1.86
   SRCPARAM L0001528      0.000221      4.00      3.95      1.86
   SRCPARAM L0001529      0.000221      4.00      3.95      1.86
   SRCPARAM L0001530      0.000221      4.00      3.95      1.86
   SRCPARAM L0001531      0.000221      4.00      3.95      1.86
   SRCPARAM L0001532      0.000221      4.00      3.95      1.86
   SRCPARAM L0001533      0.000221      4.00      3.95      1.86
   SRCPARAM L0001534      0.000221      4.00      3.95      1.86
   SRCPARAM L0001535      0.000221      4.00      3.95      1.86
   SRCPARAM L0001536      0.000221      4.00      3.95      1.86
   SRCPARAM L0001537      0.000221      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        7.2063E-07     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        7.6292E-07     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        2.6736E-06     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        8.3817E-07     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        1.7523E-06     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        7.8505E-07     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       0.000642706     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.001359712     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.001077368     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.00184267     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0001762     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001763     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001764     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001765     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001766     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001767     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001768     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001769     0.0000176422      0.00      3.95      1.40
   SRCPARAM L0001770     0.0000176422      0.00      3.95      1.40
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   SRCPARAM L0001771     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001772     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001773     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001774     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001775     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001776     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001777     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001778     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001779     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001780     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001781     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001782     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001783     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001784     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001785     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001786     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001787     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001788     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001789     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001790     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001791     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001792     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001793     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001794     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001795     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001796     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001797     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001798     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001799     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001800     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001801     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001802     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001803     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001804     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001805     0.0000176422      0.00       3.95       1.40
   SRCPARAM L0001806     0.0000176422      0.00       3.95       1.40
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE16
   SRCPARAM L0001852     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001853     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001854     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001855     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001856     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001857     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001858     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001859     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001860     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001861     0.000006667      0.00       3.95       1.40
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                        AERMOD LSTs Operational Output
   SRCPARAM L0001862     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001863     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001864     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001865     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001866     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001867     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001868     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001869     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001870     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001871     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001872     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001873     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001874     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001875     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001876     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001877     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001878     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001879     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001880     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001881     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001882     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001883     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001884     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001885     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001886     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001887     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001888     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001889     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001890     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001891     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001892     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001893     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001894     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001895     0.000006667      0.00       3.95       1.40
   SRCPARAM L0001896     0.000006667      0.00       3.95       1.40
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0001628     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001629     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001630     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001631     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001632     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001633     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001634     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001635     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001636     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001637     0.0000496188      0.00       3.95       1.40
   SRCPARAM L0001638     0.0000496188      0.00       3.95       1.40
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   SRCPARAM L0001639     0.0000496188      0.00       3.95      1.40
   SRCPARAM L0001640     0.0000496188      0.00       3.95      1.40
   SRCPARAM L0001641     0.0000496188      0.00       3.95      1.40
   SRCPARAM L0001642     0.0000496188      0.00       3.95      1.40
   SRCPARAM L0001643     0.0000496188      0.00       3.95      1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE17
   SRCPARAM L0001897     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001898     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001899     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001900     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001901     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001902     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001903     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001904     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001905     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001906     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001907     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001908     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001909     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001910     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001911     0.00000685      0.00       3.95      1.40
   SRCPARAM L0001912     0.00000685      0.00       3.95      1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0001913     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001914     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001915     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001916     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001917     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001918     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001919     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001920     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001921     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001922     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001923     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001924     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001925     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001926     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001927     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001928     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001929     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001930     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001931     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001932     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001933     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001934     0.0000244419      0.00       3.95      1.40
   SRCPARAM L0001935     0.0000244419      0.00       3.95      1.40
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   SRCPARAM L0001936     0.0000244419      0.00       3.95       1.40
   SRCPARAM L0001937     0.0000244419      0.00       3.95       1.40
   SRCPARAM L0001938     0.0000244419      0.00       3.95       1.40
   SRCPARAM L0001939     0.0000244419      0.00       3.95       1.40
   SRCPARAM L0001940     0.0000244419      0.00       3.95       1.40
   SRCPARAM L0001941     0.0000244419      0.00       3.95       1.40
   SRCPARAM L0001942     0.0000244419      0.00       3.95       1.40
   SRCPARAM L0001943     0.0000244419      0.00       3.95       1.40
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE18
   SRCPARAM L0001944     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001945     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001946     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001947     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001948     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001949     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001950     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001951     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001952     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001953     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001954     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001955     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001956     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001957     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001958     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001959     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001960     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001961     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001962     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001963     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001964     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001965     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001966     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001967     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001968     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001969     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001970     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001971     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001972     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001973     0.000006332      0.00       3.95       1.40
   SRCPARAM L0001974     0.000006332      0.00       3.95       1.40
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0001975     0.0000752375      0.00       3.95       1.40
   SRCPARAM L0001976     0.0000752375      0.00       3.95       1.40
   SRCPARAM L0001977     0.0000752375      0.00       3.95       1.40
   SRCPARAM L0001978     0.0000752375      0.00       3.95       1.40
   SRCPARAM L0001979     0.0000752375      0.00       3.95       1.40
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AERMOD LSTs Operational Output

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   SRCPARAM L0001980     0.0000752375      0.00      3.95      1.40
   SRCPARAM L0001981     0.0000752375      0.00      3.95      1.40
   SRCPARAM L0001982     0.0000752375      0.00      3.95      1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE19
   SRCPARAM L0001730     0.00000481      0.00      3.95      1.40
   SRCPARAM L0001731     0.00000481      0.00      3.95      1.40
   SRCPARAM L0001732     0.00000481      0.00      3.95      1.40
   SRCPARAM L0001733     0.00000481      0.00      3.95      1.40
   SRCPARAM L0001734     0.00000481      0.00      3.95      1.40
   SRCPARAM L0001735     0.00000481      0.00      3.95      1.40
   SRCPARAM L0001736     0.00000481      0.00      3.95      1.40
   SRCPARAM L0001737     0.00000481      0.00      3.95      1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0001738     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001739     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001740     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001741     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001742     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001743     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001744     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001745     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001746     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001747     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001748     0.0010475      0.00      3.95      1.40
   SRCPARAM L0001749     0.0010475      0.00      3.95      1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE20
   SRCPARAM L0001750     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001751     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001752     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001753     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001754     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001755     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001756     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001757     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001758     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001759     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001760     0.000009025      0.00      3.95      1.40
   SRCPARAM L0001761     0.000009025      0.00      3.95      1.40
** ---------------------------------------------------------------------
   URBANSRC ALL
   CONCUNIT 531.5 GRAMS/SEC PPM
** OLM Source Groups for Combined Plumes
   OLMGROUP ALL
   SRCGROUP ALL
SO FINISHED
```

```
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED NOx.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST NOX.AD\01H1GALL.PLT 31
   SUMMFILE NOx.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            3 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
```

```
                          AERMOD LSTs Operational Output
               ***   NONE   ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled
   NO2 H1H
 CO W271      32       COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3

 ME W531    1784       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE   1
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   656 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Ozone Limiting Method (OLM) Used for NO2 Conversion
            with an Equilibrium NO2/NOx Ratio of  0.900 and
```

```
                          AERMOD LSTs Operational Output
            with   1 OLMGROUP(s)
         7. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  NO2

 **NOTE: Special processing requirements applicable for the 1-hour NO2 NAAQS have
been disabled!!!
         User has specified H1H on the POLLUTID keyword.
         High ranked 1-hour values are NOT averaged across the number of years
modeled, and
         complete years of data are NOT required.

 **Model Calculates  1 Short Term Average(s) of:   1-HR

 **This Run Includes:    656 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    637 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **This Run Includes OZONE    Values for a Single Sector
              HOURLY OZONE    Values are Available

 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
```

```
                              AERMOD LSTs Operational Output
                                                                b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                             ;
Emission Rate Unit Factor =    531.50
                  Output Units   = PPM

 **Approximate Storage Requirements of Model =      3.9 MB of RAM.

 **Detailed Error/Message File:   NOx.err

 **File for Summary of Results:   NOx.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE   2
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                      *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART. (USER UNITS)     X        Y       ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                      VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1            0   0.64271E-03  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK2            0   0.64271E-03  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK3            0   0.64271E-03  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK4            0   0.64271E-03  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK5            0   0.64271E-03  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK6            0   0.64271E-03  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK7            0   0.64271E-03  477962.8 3748581.4   452.0     3.96   501.00
```

```
49.98     0.04    NO       YES   NO
 STCK8            0   0.64271E-03  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK9            0   0.64271E-03  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK10           0   0.64271E-03  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK11           0   0.13597E-02  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK12           0   0.10774E-02  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK13           0   0.18427E-02  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO       YES   NO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                        ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        12:37:14

                                   PAGE   3
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN



                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0001125         0   0.16406E-02  478216.2 3748416.3   451.0     4.00    13.95
1.86      YES
 L0001126         0   0.16406E-02  478216.3 3748446.3   451.0     4.00    13.95
1.86      YES
 L0001127         0   0.16406E-02  478216.5 3748476.3   451.2     4.00    13.95
1.86      YES
 L0001128         0   0.16406E-02  478216.6 3748506.3   451.7     4.00    13.95
1.86      YES
 L0001129         0   0.16406E-02  478216.7 3748536.3   452.0     4.00    13.95
1.86      YES
 L0001130         0   0.16406E-02  478216.9 3748566.3   452.0     4.00    13.95
1.86      YES
 L0001131         0   0.16406E-02  478217.0 3748596.3   452.0     4.00    13.95
1.86      YES
 L0001132         0   0.16406E-02  478217.2 3748626.3   452.0     4.00    13.95
```

```
1.86      YES
 L0001133          0   0.16406E-02  478217.3 3748656.3   452.0      4.00     13.95
1.86      YES
 L0001134          0   0.16406E-02  478217.4 3748686.3   452.0      4.00     13.95
1.86      YES
 L0001135          0   0.16406E-02  478217.6 3748716.3   452.0      4.00     13.95
1.86      YES
 L0001136          0   0.16406E-02  478217.7 3748746.3   452.0      4.00     13.95
1.86      YES
 L0001137          0   0.16406E-02  478217.8 3748776.3   452.0      4.00     13.95
1.86      YES
 L0001138          0   0.16406E-02  478218.0 3748806.3   452.7      4.00     13.95
1.86      YES
 L0001139          0   0.16406E-02  478218.1 3748836.3   453.0      4.00     13.95
1.86      YES
 L0001140          0   0.16406E-02  478218.3 3748866.3   453.0      4.00     13.95
1.86      YES
 L0001141          0   0.16406E-02  478218.4 3748896.3   453.0      4.00     13.95
1.86      YES
 L0001142          0   0.17000E-02  477943.9 3748501.1   451.5      4.00     13.95
1.86      YES
 L0001143          0   0.17000E-02  477944.1 3748531.1   452.0      4.00     13.95
1.86      YES
 L0001144          0   0.17000E-02  477944.4 3748561.1   452.0      4.00     13.95
1.86      YES
 L0001145          0   0.17000E-02  477944.7 3748591.1   452.0      4.00     13.95
1.86      YES
 L0001146          0   0.17000E-02  477944.9 3748621.1   452.0      4.00     13.95
1.86      YES
 L0001147          0   0.17000E-02  477945.2 3748651.1   452.0      4.00     13.95
1.86      YES
 L0001148          0   0.17000E-02  477945.4 3748681.1   452.5      4.00     13.95
1.86      YES
 L0001149          0   0.17000E-02  477945.7 3748711.1   453.0      4.00     13.95
1.86      YES
 L0001150          0   0.17000E-02  477945.9 3748741.1   453.0      4.00     13.95
1.86      YES
 L0001151          0   0.17000E-02  477946.2 3748771.1   453.0      4.00     13.95
1.86      YES
 L0001152          0   0.17000E-02  477946.5 3748801.1   453.0      4.00     13.95
1.86      YES
 L0001153          0   0.17000E-02  477946.7 3748831.1   453.0      4.00     13.95
1.86      YES
 L0001154          0   0.17000E-02  477947.0 3748861.1   453.0      4.00     13.95
1.86      YES
 L0001155          0   0.17000E-02  477947.2 3748891.1   453.0      4.00     13.95
1.86      YES
 L0001156          0   0.15675E-02  477756.7 3748938.5   454.0      4.00      3.95
```

```
1.86     YES
 L0001157         0   0.15675E-02  477756.7 3748930.0    453.8      4.00      3.95
1.86     YES
 L0001158         0   0.15675E-02  477756.7 3748921.5    453.6      4.00      3.95
1.86     YES
 L0001159         0   0.15675E-02  477756.7 3748913.0    453.3      4.00      3.95
1.86     YES
 L0001160         0   0.15675E-02  477756.7 3748904.5    453.1      4.00      3.95
1.86     YES
 L0001161         0   0.15675E-02  477756.7 3748896.0    453.1      4.00      3.95
1.86     YES
 L0001162         0   0.15675E-02  477756.7 3748887.5    453.1      4.00      3.95
1.86     YES
 L0001163         0   0.15675E-02  477756.7 3748879.0    453.1      4.00      3.95
1.86     YES
 L0001164         0   0.47329E-03  477900.2 3748339.0    451.0      4.00      3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        12:37:14

                                   PAGE   4
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0001165         0   0.47329E-03  477908.7 3748339.0    451.0      4.00      3.95
1.86     YES
 L0001166         0   0.47329E-03  477917.1 3748338.9    451.0      4.00      3.95
1.86     YES
 L0001167         0   0.47329E-03  477925.6 3748338.8    451.0      4.00      3.95
1.86     YES
 L0001168         0   0.47329E-03  477934.1 3748338.8    451.0      4.00      3.95
1.86     YES
 L0001169         0   0.47329E-03  477942.6 3748338.0    451.0      4.00      3.95
1.86     YES
 L0001170         0   0.47329E-03  477947.6 3748331.8    451.0      4.00      3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0001171         0   0.47329E-03  477951.8 3748324.5    451.0      4.00      3.95
1.86      YES
 L0001172         0   0.47329E-03  477956.1 3748317.1    450.0      4.00      3.95
1.86      YES
 L0001173         0   0.47329E-03  477960.3 3748309.7    450.0      4.00      3.95
1.86      YES
 L0001174         0   0.47329E-03  477964.6 3748302.3    450.0      4.00      3.95
1.86      YES
 L0001175         0   0.47329E-03  477968.8 3748295.0    450.0      4.00      3.95
1.86      YES
 L0001176         0   0.47329E-03  477973.0 3748287.6    450.0      4.00      3.95
1.86      YES
 L0001177         0   0.47329E-03  477976.2 3748279.9    450.0      4.00      3.95
1.86      YES
 L0001178         0   0.47329E-03  477977.3 3748271.5    450.0      4.00      3.95
1.86      YES
 L0001179         0   0.47329E-03  477978.3 3748263.0    450.0      4.00      3.95
1.86      YES
 L0001180         0   0.47329E-03  477978.3 3748254.5    450.0      4.00      3.95
1.86      YES
 L0001181         0   0.47329E-03  477978.3 3748246.0    450.0      4.00      3.95
1.86      YES
 L0001182         0   0.47329E-03  477978.2 3748237.5    450.0      4.00      3.95
1.86      YES
 L0001183         0   0.47329E-03  477978.2 3748229.0    450.0      4.00      3.95
1.86      YES
 L0001184         0   0.47329E-03  477978.1 3748220.5    450.0      4.00      3.95
1.86      YES
 L0001185         0   0.11333E-02  477608.7 3748929.3    454.0      0.00      3.95
1.86      YES
 L0001186         0   0.11333E-02  477608.7 3748920.8    454.0      0.00      3.95
1.86      YES
 L0001187         0   0.11333E-02  477608.7 3748912.3    454.0      0.00      3.95
1.86      YES
 L0001188         0   0.11333E-02  477608.7 3748903.8    454.0      0.00      3.95
1.86      YES
 L0001189         0   0.11333E-02  477608.7 3748895.3    454.0      0.00      3.95
1.86      YES
 L0001190         0   0.11333E-02  477608.7 3748886.8    454.0      0.00      3.95
1.86      YES
 L0001191         0   0.11333E-02  477608.7 3748878.3    454.0      0.00      3.95
1.86      YES
 L0001192         0   0.11333E-02  477608.7 3748869.8    454.0      0.00      3.95
1.86      YES
 L0001193         0   0.11333E-02  477608.7 3748861.3    454.0      0.00      3.95
1.86      YES
 L0001194         0   0.11333E-02  477608.7 3748852.8    454.0      0.00      3.95
```

```
1.86     YES
 L0001195         0   0.11333E-02  477608.7 3748844.3   454.0     0.00     3.95
1.86     YES
 L0001196         0   0.11333E-02  477608.7 3748835.8   454.0     0.00     3.95
1.86     YES
 L0001197         0   0.11333E-02  477608.7 3748827.3   454.0     0.00     3.95
1.86     YES
 L0001198         0   0.11333E-02  477608.7 3748818.8   454.0     0.00     3.95
1.86     YES
 L0001199         0   0.11333E-02  477608.7 3748810.3   454.0     0.00     3.95
1.86     YES
 L0001200         0   0.15352E-02  478043.0 3748335.2   451.0     0.00    13.95
1.86     YES
 L0001201         0   0.15352E-02  478073.0 3748334.5   451.0     0.00    13.95
1.86     YES
 L0001202         0   0.15352E-02  478103.0 3748333.9   451.0     0.00    13.95
1.86     YES
 L0001203         0   0.15352E-02  478133.0 3748333.2   451.0     0.00    13.95
1.86     YES
 L0001204         0   0.15352E-02  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

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 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                    *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0001205         0   0.77143E-03  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES
 L0001206         0   0.77143E-03  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES
 L0001207         0   0.77143E-03  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES
 L0001208         0   0.77143E-03  477951.4 3748946.0   453.0     4.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
  L0001209         0   0.77143E-03  477950.2 3748937.5    453.0      4.00      3.95
1.86      YES
  L0001210         0   0.77143E-03  477949.0 3748929.1    453.0      4.00      3.95
1.86      YES
  L0001211         0   0.77143E-03  477948.2 3748920.7    453.0      4.00      3.95
1.86      YES
  L0001212         0   0.77143E-03  477948.1 3748912.2    453.0      4.00      3.95
1.86      YES
  L0001213         0   0.77143E-03  477947.9 3748903.7    453.0      4.00      3.95
1.86      YES
  L0001214         0   0.77143E-03  477947.8 3748895.2    453.0      4.00      3.95
1.86      YES
  L0001215         0   0.77143E-03  477947.6 3748886.7    453.0      4.00      3.95
1.86      YES
  L0001216         0   0.77143E-03  477947.5 3748878.2    453.0      4.00      3.95
1.86      YES
  L0001217         0   0.77143E-03  477947.3 3748869.7    453.0      4.00      3.95
1.86      YES
  L0001218         0   0.77143E-03  477947.2 3748861.2    453.0      4.00      3.95
1.86      YES
  L0001219         0   0.77143E-03  477947.2 3748852.7    453.0      4.00      3.95
1.86      YES
  L0001220         0   0.77143E-03  477947.1 3748844.2    453.0      4.00      3.95
1.86      YES
  L0001221         0   0.77143E-03  477947.0 3748835.7    453.0      4.00      3.95
1.86      YES
  L0001222         0   0.77143E-03  477947.0 3748827.2    453.0      4.00      3.95
1.86      YES
  L0001223         0   0.77143E-03  477946.9 3748818.7    453.0      4.00      3.95
1.86      YES
  L0001224         0   0.77143E-03  477946.8 3748810.2    453.0      4.00      3.95
1.86      YES
  L0001225         0   0.77143E-03  477946.7 3748801.7    453.0      4.00      3.95
1.86      YES
  L0001226         0   0.77143E-03  477946.7 3748793.2    453.0      4.00      3.95
1.86      YES
  L0001227         0   0.77143E-03  477946.6 3748784.7    453.0      4.00      3.95
1.86      YES
  L0001228         0   0.77143E-03  477946.5 3748776.2    453.0      4.00      3.95
1.86      YES
  L0001229         0   0.77143E-03  477946.5 3748767.7    453.0      4.00      3.95
1.86      YES
  L0001230         0   0.77143E-03  477946.4 3748759.2    453.0      4.00      3.95
1.86      YES
  L0001231         0   0.77143E-03  477946.3 3748750.7    453.0      4.00      3.95
1.86      YES
  L0001232         0   0.77143E-03  477946.3 3748742.2    453.0      4.00      3.95
```

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1.86      YES
 L0001233         0   0.77143E-03  477946.2 3748733.7   453.0     4.00     3.95
1.86      YES
 L0001234         0   0.77143E-03  477946.1 3748725.2   453.0     4.00     3.95
1.86      YES
 L0001235         0   0.77143E-03  477946.1 3748716.7   453.0     4.00     3.95
1.86      YES
 L0001236         0   0.77143E-03  477946.0 3748708.2   453.0     4.00     3.95
1.86      YES
 L0001237         0   0.77143E-03  477945.9 3748699.7   453.0     4.00     3.95
1.86      YES
 L0001238         0   0.77143E-03  477945.9 3748691.2   452.8     4.00     3.95
1.86      YES
 L0001239         0   0.77143E-03  477945.8 3748682.7   452.5     4.00     3.95
1.86      YES
 L0001240         0   0.77143E-03  477945.7 3748674.2   452.2     4.00     3.95
1.86      YES
 L0001241         0   0.77143E-03  477945.7 3748665.7   452.0     4.00     3.95
1.86      YES
 L0001242         0   0.77143E-03  477945.6 3748657.2   452.0     4.00     3.95
1.86      YES
 L0001243         0   0.77143E-03  477945.5 3748648.7   452.0     4.00     3.95
1.86      YES
 L0001244         0   0.77143E-03  477945.4 3748640.2   452.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:37:14

                                   PAGE   6
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                    *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0001245         0   0.77143E-03  477945.4 3748631.7   452.0     4.00     3.95
1.86      YES
 L0001246         0   0.77143E-03  477945.3 3748623.2   452.0     4.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0001247          0   0.77143E-03  477945.2 3748614.7   452.0      4.00     3.95
1.86      YES
 L0001248          0   0.77143E-03  477945.2 3748606.2   452.0      4.00     3.95
1.86      YES
 L0001249          0   0.77143E-03  477945.1 3748597.7   452.0      4.00     3.95
1.86      YES
 L0001250          0   0.77143E-03  477945.0 3748589.2   452.0      4.00     3.95
1.86      YES
 L0001251          0   0.77143E-03  477945.0 3748580.7   452.0      4.00     3.95
1.86      YES
 L0001252          0   0.77143E-03  477944.9 3748572.2   452.0      4.00     3.95
1.86      YES
 L0001253          0   0.77143E-03  477944.8 3748563.7   452.0      4.00     3.95
1.86      YES
 L0001254          0   0.77143E-03  477944.8 3748555.2   452.0      4.00     3.95
1.86      YES
 L0001255          0   0.77143E-03  477944.7 3748546.7   452.0      4.00     3.95
1.86      YES
 L0001256          0   0.77143E-03  477944.6 3748538.2   452.0      4.00     3.95
1.86      YES
 L0001257          0   0.77143E-03  477944.6 3748529.7   452.0      4.00     3.95
1.86      YES
 L0001258          0   0.77143E-03  477944.5 3748521.2   452.0      4.00     3.95
1.86      YES
 L0001259          0   0.77143E-03  477944.4 3748512.7   451.9      4.00     3.95
1.86      YES
 L0001260          0   0.77143E-03  477944.4 3748504.2   451.6      4.00     3.95
1.86      YES
 L0001261          0   0.77143E-03  477944.3 3748495.7   451.3      4.00     3.95
1.86      YES
 L0001262          0   0.77143E-03  477944.7 3748487.3   451.0      4.00     3.95
1.86      YES
 L0001263          0   0.77143E-03  477948.7 3748479.8   451.0      4.00     3.95
1.86      YES
 L0001264          0   0.77143E-03  477952.8 3748472.3   451.0      4.00     3.95
1.86      YES
 L0001265          0   0.77143E-03  477956.8 3748464.9   451.0      4.00     3.95
1.86      YES
 L0001266          0   0.77143E-03  477960.8 3748457.4   451.0      4.00     3.95
1.86      YES
 L0001267          0   0.77143E-03  477964.8 3748449.9   451.0      4.00     3.95
1.86      YES
 L0001268          0   0.77143E-03  477968.8 3748442.4   451.0      4.00     3.95
1.86      YES
 L0001269          0   0.77143E-03  477972.8 3748434.9   451.0      4.00     3.95
1.86      YES
 L0001270          0   0.77143E-03  477976.9 3748427.4   451.0      4.00     3.95
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1.86      YES
 L0001271         0   0.77143E-03  477980.9 3748419.9    451.0      4.00      3.95
1.86      YES
 L0001272         0   0.77143E-03  477984.9 3748412.4    451.0      4.00      3.95
1.86      YES
 L0001273         0   0.77143E-03  477988.9 3748404.9    451.0      4.00      3.95
1.86      YES
 L0001274         0   0.77143E-03  477992.9 3748397.4    451.0      4.00      3.95
1.86      YES
 L0001275         0   0.77143E-03  477996.9 3748389.9    451.0      4.00      3.95
1.86      YES
 L0001276         0   0.77143E-03  478001.0 3748382.4    451.0      4.00      3.95
1.86      YES
 L0001277         0   0.77143E-03  478005.0 3748375.0    451.0      4.00      3.95
1.86      YES
 L0001278         0   0.77143E-03  478009.0 3748367.5    451.0      4.00      3.95
1.86      YES
 L0001279         0   0.77143E-03  478013.0 3748360.0    451.0      4.00      3.95
1.86      YES
 L0001280         0   0.77143E-03  478017.1 3748352.5    451.0      4.00      3.95
1.86      YES
 L0001281         0   0.77143E-03  478021.7 3748345.4    451.0      4.00      3.95
1.86      YES
 L0001282         0   0.77143E-03  478026.4 3748338.3    451.0      4.00      3.95
1.86      YES
 L0001283         0   0.77143E-03  478033.8 3748336.4    451.0      4.00      3.95
1.86      YES
 L0001284         0   0.77143E-03  478042.3 3748336.5    451.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        12:37:14

                                   PAGE   7
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001285         0   0.77143E-03  478050.8 3748336.6   451.0     4.00     3.95
1.86     YES
 L0001286         0   0.77143E-03  478059.3 3748336.7   451.0     4.00     3.95
1.86     YES
 L0001287         0   0.77143E-03  478067.8 3748336.8   451.0     4.00     3.95
1.86     YES
 L0001288         0   0.77143E-03  478076.3 3748336.9   451.0     4.00     3.95
1.86     YES
 L0001289         0   0.77143E-03  478084.8 3748337.0   451.0     4.00     3.95
1.86     YES
 L0001290         0   0.77143E-03  478093.3 3748337.1   451.0     4.00     3.95
1.86     YES
 L0001291         0   0.77143E-03  478101.8 3748337.2   451.0     4.00     3.95
1.86     YES
 L0001292         0   0.77143E-03  478110.3 3748337.3   451.0     4.00     3.95
1.86     YES
 L0001293         0   0.77143E-03  478118.8 3748337.4   451.0     4.00     3.95
1.86     YES
 L0001294         0   0.77143E-03  478127.3 3748337.4   451.0     4.00     3.95
1.86     YES
 L0001295         0   0.77143E-03  478135.8 3748337.5   451.0     4.00     3.95
1.86     YES
 L0001296         0   0.77143E-03  478144.3 3748337.6   451.0     4.00     3.95
1.86     YES
 L0001297         0   0.77143E-03  478152.8 3748337.7   451.0     4.00     3.95
1.86     YES
 L0001298         0   0.77143E-03  478161.3 3748337.8   451.0     4.00     3.95
1.86     YES
 L0001299         0   0.77143E-03  478169.8 3748337.9   451.0     4.00     3.95
1.86     YES
 L0001300         0   0.77143E-03  478178.3 3748338.0   451.0     4.00     3.95
1.86     YES
 L0001301         0   0.77143E-03  478186.8 3748338.1   451.0     4.00     3.95
1.86     YES
 L0001302         0   0.77143E-03  478195.3 3748338.2   451.0     4.00     3.95
1.86     YES
 L0001303         0   0.77143E-03  478203.8 3748338.3   451.0     4.00     3.95
1.86     YES
 L0001304         0   0.77143E-03  478212.3 3748338.4   451.0     4.00     3.95
1.86     YES
 L0001305         0   0.77143E-03  478215.8 3748343.4   451.0     4.00     3.95
1.86     YES
 L0001306         0   0.77143E-03  478215.9 3748351.9   451.0     4.00     3.95
1.86     YES
 L0001307         0   0.77143E-03  478216.0 3748360.4   451.0     4.00     3.95
1.86     YES
 L0001308         0   0.77143E-03  478216.0 3748368.9   451.0     4.00     3.95
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1.86     YES
 L0001309         0   0.77143E-03  478216.1 3748377.4   451.0     4.00     3.95
1.86     YES
 L0001310         0   0.77143E-03  478216.1 3748385.9   451.0     4.00     3.95
1.86     YES
 L0001311         0   0.77143E-03  478216.2 3748394.4   451.0     4.00     3.95
1.86     YES
 L0001312         0   0.77143E-03  478216.3 3748402.9   451.0     4.00     3.95
1.86     YES
 L0001313         0   0.77143E-03  478216.3 3748411.4   451.0     4.00     3.95
1.86     YES
 L0001314         0   0.77143E-03  478216.4 3748419.9   451.0     4.00     3.95
1.86     YES
 L0001315         0   0.77143E-03  478216.4 3748428.4   451.0     4.00     3.95
1.86     YES
 L0001316         0   0.77143E-03  478216.5 3748436.9   451.0     4.00     3.95
1.86     YES
 L0001317         0   0.77143E-03  478216.6 3748445.4   451.0     4.00     3.95
1.86     YES
 L0001318         0   0.77143E-03  478216.6 3748453.9   451.0     4.00     3.95
1.86     YES
 L0001319         0   0.77143E-03  478216.7 3748462.4   451.0     4.00     3.95
1.86     YES
 L0001320         0   0.77143E-03  478216.7 3748470.9   451.1     4.00     3.95
1.86     YES
 L0001321         0   0.77143E-03  478216.8 3748479.4   451.2     4.00     3.95
1.86     YES
 L0001322         0   0.77143E-03  478216.9 3748487.9   451.3     4.00     3.95
1.86     YES
 L0001323         0   0.77143E-03  478216.9 3748496.4   451.5     4.00     3.95
1.86     YES
 L0001324         0   0.77143E-03  478217.0 3748504.9   451.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***       12:37:14

                                   PAGE   8
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
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                             AERMOD LSTs Operational Output
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001325          0   0.77143E-03  478217.0 3748513.4   451.9     4.00     3.95
1.86     YES
 L0001326          0   0.77143E-03  478217.1 3748521.9   452.0     4.00     3.95
1.86     YES
 L0001327          0   0.77143E-03  478217.2 3748530.4   452.0     4.00     3.95
1.86     YES
 L0001328          0   0.77143E-03  478217.2 3748538.9   452.0     4.00     3.95
1.86     YES
 L0001329          0   0.77143E-03  478217.3 3748547.4   452.0     4.00     3.95
1.86     YES
 L0001330          0   0.77143E-03  478217.3 3748555.9   452.0     4.00     3.95
1.86     YES
 L0001331          0   0.77143E-03  478217.4 3748564.4   452.0     4.00     3.95
1.86     YES
 L0001332          0   0.77143E-03  478217.5 3748572.9   452.0     4.00     3.95
1.86     YES
 L0001333          0   0.77143E-03  478217.5 3748581.4   452.0     4.00     3.95
1.86     YES
 L0001334          0   0.77143E-03  478217.6 3748589.9   452.0     4.00     3.95
1.86     YES
 L0001335          0   0.77143E-03  478217.7 3748598.4   452.0     4.00     3.95
1.86     YES
 L0001336          0   0.77143E-03  478217.7 3748606.9   452.0     4.00     3.95
1.86     YES
 L0001337          0   0.77143E-03  478217.8 3748615.4   452.0     4.00     3.95
1.86     YES
 L0001338          0   0.77143E-03  478217.8 3748623.9   452.0     4.00     3.95
1.86     YES
 L0001339          0   0.77143E-03  478217.9 3748632.4   452.0     4.00     3.95
1.86     YES
 L0001340          0   0.77143E-03  478218.0 3748640.9   452.0     4.00     3.95
1.86     YES
 L0001341          0   0.77143E-03  478218.0 3748649.4   452.0     4.00     3.95
1.86     YES
 L0001342          0   0.77143E-03  478218.1 3748657.9   452.0     4.00     3.95
1.86     YES
 L0001343          0   0.77143E-03  478218.1 3748666.4   452.0     4.00     3.95
1.86     YES
 L0001344          0   0.77143E-03  478218.2 3748674.9   452.0     4.00     3.95
1.86     YES
 L0001345          0   0.77143E-03  478218.3 3748683.4   452.0     4.00     3.95
1.86     YES
 L0001346          0   0.77143E-03  478218.3 3748691.9   452.0     4.00     3.95
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1.86     YES
 L0001347         0   0.77143E-03  478218.4 3748700.4   452.0     4.00     3.95
1.86     YES
 L0001348         0   0.77143E-03  478218.4 3748708.9   452.0     4.00     3.95
1.86     YES
 L0001349         0   0.77143E-03  478218.5 3748717.4   452.0     4.00     3.95
1.86     YES
 L0001350         0   0.77143E-03  478218.6 3748725.9   452.0     4.00     3.95
1.86     YES
 L0001351         0   0.77143E-03  478218.6 3748734.4   452.0     4.00     3.95
1.86     YES
 L0001352         0   0.77143E-03  478218.7 3748742.9   452.0     4.00     3.95
1.86     YES
 L0001353         0   0.77143E-03  478218.7 3748751.4   452.0     4.00     3.95
1.86     YES
 L0001354         0   0.77143E-03  478218.8 3748759.9   452.0     4.00     3.95
1.86     YES
 L0001355         0   0.77143E-03  478218.9 3748768.4   452.0     4.00     3.95
1.86     YES
 L0001356         0   0.77143E-03  478218.9 3748776.9   452.0     4.00     3.95
1.86     YES
 L0001357         0   0.77143E-03  478219.0 3748785.4   452.0     4.00     3.95
1.86     YES
 L0001358         0   0.77143E-03  478219.0 3748793.9   452.2     4.00     3.95
1.86     YES
 L0001359         0   0.77143E-03  478219.1 3748802.4   452.5     4.00     3.95
1.86     YES
 L0001360         0   0.77143E-03  478219.2 3748810.9   452.8     4.00     3.95
1.86     YES
 L0001361         0   0.77143E-03  478219.2 3748819.4   453.0     4.00     3.95
1.86     YES
 L0001362         0   0.77143E-03  478219.3 3748827.9   453.0     4.00     3.95
1.86     YES
 L0001363         0   0.77143E-03  478219.3 3748836.4   453.0     4.00     3.95
1.86     YES
 L0001364         0   0.77143E-03  478219.4 3748844.9   453.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE   9
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                  *** VOLUME SOURCE DATA ***
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                           AERMOD LSTs Operational Output
               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001365         0   0.77143E-03  478219.5 3748853.4   453.0     4.00     3.95
1.86     YES
 L0001366         0   0.77143E-03  478219.5 3748861.9   453.0     4.00     3.95
1.86     YES
 L0001367         0   0.77143E-03  478219.6 3748870.4   453.0     4.00     3.95
1.86     YES
 L0001368         0   0.77143E-03  478219.6 3748878.9   453.0     4.00     3.95
1.86     YES
 L0001369         0   0.77143E-03  478219.7 3748887.4   453.0     4.00     3.95
1.86     YES
 L0001370         0   0.77143E-03  478219.8 3748895.9   453.0     4.00     3.95
1.86     YES
 L0001371         0   0.77143E-03  478219.8 3748904.4   453.0     4.00     3.95
1.86     YES
 L0001372         0   0.77143E-03  478219.9 3748912.9   453.0     4.00     3.95
1.86     YES
 L0001373         0   0.77143E-03  478217.5 3748921.1   453.0     4.00     3.95
1.86     YES
 L0001374         0   0.77143E-03  478215.0 3748929.2   453.0     4.00     3.95
1.86     YES
 L0001375         0   0.77143E-03  478212.6 3748937.3   453.0     4.00     3.95
1.86     YES
 L0001376         0   0.77143E-03  478210.1 3748945.4   453.0     4.00     3.95
1.86     YES
 L0001377         0   0.77143E-03  478207.6 3748953.6   453.0     4.00     3.95
1.86     YES
 L0001378         0   0.77143E-03  478205.1 3748961.7   453.0     4.00     3.95
1.86     YES
 L0001379         0   0.77143E-03  478202.7 3748969.8   453.0     4.00     3.95
1.86     YES
 L0001380         0   0.16431E-03  477852.8 3748835.2   453.0     4.00     3.95
1.86     YES
 L0001381         0   0.16431E-03  477852.8 3748843.7   453.0     4.00     3.95
1.86     YES
 L0001382         0   0.16431E-03  477852.9 3748852.2   453.0     4.00     3.95
1.86     YES
 L0001383         0   0.16431E-03  477852.9 3748860.7   453.0     4.00     3.95
1.86     YES
 L0001384         0   0.16431E-03  477853.0 3748869.2   453.0     4.00     3.95
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1.86      YES
 L0001385          0   0.16431E-03  477853.0 3748877.7    453.0      4.00      3.95
1.86      YES
 L0001386          0   0.16431E-03  477853.1 3748886.2    453.0      4.00      3.95
1.86      YES
 L0001387          0   0.16431E-03  477853.1 3748894.7    453.0      4.00      3.95
1.86      YES
 L0001388          0   0.16431E-03  477853.1 3748903.2    453.0      4.00      3.95
1.86      YES
 L0001389          0   0.16431E-03  477853.2 3748911.7    453.0      4.00      3.95
1.86      YES
 L0001390          0   0.16431E-03  477853.2 3748920.2    453.0      4.00      3.95
1.86      YES
 L0001391          0   0.16431E-03  477853.3 3748928.7    453.0      4.00      3.95
1.86      YES
 L0001392          0   0.16431E-03  477853.3 3748937.2    453.0      4.00      3.95
1.86      YES
 L0001393          0   0.16431E-03  477853.4 3748945.7    453.0      4.00      3.95
1.86      YES
 L0001394          0   0.16431E-03  477853.4 3748954.2    453.0      4.00      3.95
1.86      YES
 L0001395          0   0.16431E-03  477853.5 3748962.7    453.0      4.00      3.95
1.86      YES
 L0001396          0   0.16431E-03  477853.5 3748971.2    453.2      4.00      3.95
1.86      YES
 L0001397          0   0.16431E-03  477853.5 3748979.7    453.4      4.00      3.95
1.86      YES
 L0001398          0   0.16431E-03  477845.0 3748979.7    453.5      4.00      3.95
1.86      YES
 L0001399          0   0.16431E-03  477836.5 3748979.6    453.7      4.00      3.95
1.86      YES
 L0001400          0   0.16431E-03  477828.0 3748979.6    453.9      4.00      3.95
1.86      YES
 L0001401          0   0.16431E-03  477819.5 3748979.6    454.0      4.00      3.95
1.86      YES
 L0001402          0   0.16431E-03  477811.0 3748979.6    454.0      4.00      3.95
1.86      YES
 L0001403          0   0.16431E-03  477802.5 3748979.6    454.0      4.00      3.95
1.86      YES
 L0001404          0   0.16431E-03  477794.0 3748979.5    454.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  10
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN
```

```
                                   AERMOD LSTs Operational Output


                                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -


 L0001405         0   0.16431E-03  477785.5 3748979.5   454.0     4.00     3.95
1.86     YES
 L0001406         0   0.16431E-03  477777.0 3748979.5   454.0     4.00     3.95
1.86     YES
 L0001407         0   0.16431E-03  477768.5 3748979.5   454.0     4.00     3.95
1.86     YES
 L0001408         0   0.16431E-03  477760.0 3748979.5   454.0     4.00     3.95
1.86     YES
 L0001409         0   0.16431E-03  477751.5 3748979.4   454.0     4.00     3.95
1.86     YES
 L0001410         0   0.16431E-03  477743.0 3748979.4   454.0     4.00     3.95
1.86     YES
 L0001411         0   0.16431E-03  477742.7 3748971.2   454.0     4.00     3.95
1.86     YES
 L0001412         0   0.16431E-03  477742.7 3748962.7   454.0     4.00     3.95
1.86     YES
 L0001413         0   0.16431E-03  477742.6 3748954.2   454.0     4.00     3.95
1.86     YES
 L0001414         0   0.16431E-03  477742.6 3748945.7   454.0     4.00     3.95
1.86     YES
 L0001415         0   0.16431E-03  477742.5 3748937.2   454.0     4.00     3.95
1.86     YES
 L0001416         0   0.16431E-03  477742.5 3748928.7   453.9     4.00     3.95
1.86     YES
 L0001417         0   0.16431E-03  477742.4 3748920.2   453.8     4.00     3.95
1.86     YES
 L0001418         0   0.16431E-03  477742.4 3748911.7   453.7     4.00     3.95
1.86     YES
 L0001419         0   0.16431E-03  477742.3 3748903.2   453.6     4.00     3.95
1.86     YES
 L0001420         0   0.16431E-03  477742.3 3748894.7   453.6     4.00     3.95
1.86     YES
 L0001421         0   0.16431E-03  477742.2 3748886.2   453.6     4.00     3.95
1.86     YES
 L0001422         0   0.16431E-03  477744.2 3748878.0   453.5     4.00     3.95
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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1.86      YES
 L0001423         0   0.16431E-03  477746.5 3748869.8    453.6      4.00      3.95
1.86      YES
 L0001424         0   0.16431E-03  477748.8 3748861.6    453.7      4.00      3.95
1.86      YES
 L0001425         0   0.16431E-03  477751.1 3748853.4    453.8      4.00      3.95
1.86      YES
 L0001426         0   0.16431E-03  477753.4 3748845.3    454.0      4.00      3.95
1.86      YES
 L0001427         0   0.16431E-03  477757.5 3748838.2    453.7      4.00      3.95
1.86      YES
 L0001428         0   0.16431E-03  477763.8 3748832.5    453.5      4.00      3.95
1.86      YES
 L0001429         0   0.16431E-03  477770.1 3748826.8    453.2      4.00      3.95
1.86      YES
 L0001430         0   0.16431E-03  477778.6 3748826.5    453.1      4.00      3.95
1.86      YES
 L0001431         0   0.16431E-03  477787.1 3748826.4    453.0      4.00      3.95
1.86      YES
 L0001432         0   0.16431E-03  477795.6 3748826.2    453.0      4.00      3.95
1.86      YES
 L0001433         0   0.16431E-03  477804.1 3748826.1    453.0      4.00      3.95
1.86      YES
 L0001434         0   0.16431E-03  477812.6 3748826.1    453.0      4.00      3.95
1.86      YES
 L0001435         0   0.16431E-03  477821.1 3748826.0    453.0      4.00      3.95
1.86      YES
 L0001436         0   0.16431E-03  477829.6 3748826.0    453.0      4.00      3.95
1.86      YES
 L0001437         0   0.16431E-03  477838.1 3748825.9    453.0      4.00      3.95
1.86      YES
 L0001438         0   0.16431E-03  477846.6 3748825.8    453.0      4.00      3.95
1.86      YES
 L0001439         0   0.12943E-03  477886.6 3748203.7    450.0      4.00      3.95
1.86      YES
 L0001440         0   0.12943E-03  477886.4 3748212.2    450.0      4.00      3.95
1.86      YES
 L0001441         0   0.12943E-03  477886.3 3748220.7    450.1      4.00      3.95
1.86      YES
 L0001442         0   0.12943E-03  477886.1 3748229.2    450.3      4.00      3.95
1.86      YES
 L0001443         0   0.12943E-03  477885.9 3748237.7    450.6      4.00      3.95
1.86      YES
 L0001444         0   0.12943E-03  477885.7 3748246.2    450.8      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
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                                AERMOD LSTs Operational Output
                             ***         12:37:14

                                         PAGE  11
 **MODELOPTs:   NonDFAULT CONC       ELEV      FLGPOL    OLM       URBAN


                                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001445         0   0.12943E-03  477885.5 3748254.7   450.9     4.00     3.95
1.86     YES
 L0001446         0   0.12943E-03  477885.6 3748263.2   450.9     4.00     3.95
1.86     YES
 L0001447         0   0.12943E-03  477885.7 3748271.7   451.0     4.00     3.95
1.86     YES
 L0001448         0   0.12943E-03  477885.8 3748280.2   451.0     4.00     3.95
1.86     YES
 L0001449         0   0.12943E-03  477885.9 3748288.7   451.0     4.00     3.95
1.86     YES
 L0001450         0   0.12943E-03  477886.0 3748297.2   451.0     4.00     3.95
1.86     YES
 L0001451         0   0.12943E-03  477886.1 3748305.7   451.0     4.00     3.95
1.86     YES
 L0001452         0   0.12943E-03  477886.2 3748314.2   451.0     4.00     3.95
1.86     YES
 L0001453         0   0.12943E-03  477886.3 3748322.7   451.0     4.00     3.95
1.86     YES
 L0001454         0   0.12943E-03  477886.4 3748331.2   451.0     4.00     3.95
1.86     YES
 L0001455         0   0.12943E-03  477889.0 3748337.4   451.0     4.00     3.95
1.86     YES
 L0001456         0   0.12943E-03  477897.5 3748338.1   451.0     4.00     3.95
1.86     YES
 L0001457         0   0.12943E-03  477906.0 3748338.9   451.0     4.00     3.95
1.86     YES
 L0001458         0   0.12943E-03  477914.4 3748339.7   451.0     4.00     3.95
1.86     YES
 L0001459         0   0.12943E-03  477922.9 3748339.5   451.0     4.00     3.95
1.86     YES
 L0001460         0   0.12943E-03  477931.4 3748338.9   451.0     4.00     3.95
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1.86      YES
 L0001461          0   0.12943E-03  477939.8 3748338.2    451.0      4.00      3.95
1.86      YES
 L0001462          0   0.12943E-03  477945.5 3748332.6    451.0      4.00      3.95
1.86      YES
 L0001463          0   0.12943E-03  477950.6 3748325.7    451.0      4.00      3.95
1.86      YES
 L0001464          0   0.12943E-03  477955.0 3748318.5    450.0      4.00      3.95
1.86      YES
 L0001465          0   0.12943E-03  477959.4 3748311.2    450.0      4.00      3.95
1.86      YES
 L0001466          0   0.12943E-03  477963.8 3748303.9    450.0      4.00      3.95
1.86      YES
 L0001467          0   0.12943E-03  477968.2 3748296.7    450.0      4.00      3.95
1.86      YES
 L0001468          0   0.12943E-03  477972.6 3748289.4    450.0      4.00      3.95
1.86      YES
 L0001469          0   0.12943E-03  477975.8 3748281.7    450.0      4.00      3.95
1.86      YES
 L0001470          0   0.12943E-03  477977.7 3748273.4    450.0      4.00      3.95
1.86      YES
 L0001471          0   0.12943E-03  477979.6 3748265.1    450.0      4.00      3.95
1.86      YES
 L0001472          0   0.12943E-03  477981.3 3748256.8    450.0      4.00      3.95
1.86      YES
 L0001473          0   0.12943E-03  477980.6 3748248.3    450.0      4.00      3.95
1.86      YES
 L0001474          0   0.12943E-03  477979.9 3748239.8    450.0      4.00      3.95
1.86      YES
 L0001475          0   0.12943E-03  477979.2 3748231.4    450.0      4.00      3.95
1.86      YES
 L0001476          0   0.12943E-03  477978.4 3748222.9    450.0      4.00      3.95
1.86      YES
 L0001477          0   0.12943E-03  477982.6 3748217.0    450.0      4.00      3.95
1.86      YES
 L0001478          0   0.12943E-03  477990.0 3748212.7    450.0      4.00      3.95
1.86      YES
 L0001479          0   0.12943E-03  477994.0 3748206.5    450.0      4.00      3.95
1.86      YES
 L0001480          0   0.12943E-03  477994.1 3748198.0    450.0      4.00      3.95
1.86      YES
 L0001481          0   0.12943E-03  477986.1 3748197.5    450.0      4.00      3.95
1.86      YES
 L0001482          0   0.12943E-03  477977.6 3748197.5    450.0      4.00      3.95
1.86      YES
 L0001483          0   0.12943E-03  477969.1 3748197.5    450.0      4.00      3.95
1.86      YES
 L0001484          0   0.12943E-03  477960.6 3748197.5    450.0      4.00      3.95
```

AERMOD LSTs Operational Output

```
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                   ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         12:37:14

                                    PAGE  12
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001485        0   0.12943E-03  477952.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001486        0   0.12943E-03  477943.6 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001487        0   0.12943E-03  477935.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001488        0   0.22100E-03  477505.1 3748975.7   454.2     4.00     3.95
1.86     YES
 L0001489        0   0.22100E-03  477513.6 3748975.6   454.1     4.00     3.95
1.86     YES
 L0001490        0   0.22100E-03  477522.1 3748975.4   454.0     4.00     3.95
1.86     YES
 L0001491        0   0.22100E-03  477530.6 3748975.2   454.0     4.00     3.95
1.86     YES
 L0001492        0   0.22100E-03  477539.1 3748975.1   454.0     4.00     3.95
1.86     YES
 L0001493        0   0.22100E-03  477547.6 3748974.9   454.0     4.00     3.95
1.86     YES
 L0001494        0   0.22100E-03  477556.1 3748974.7   454.0     4.00     3.95
1.86     YES
 L0001495        0   0.22100E-03  477564.6 3748974.6   454.0     4.00     3.95
1.86     YES
 L0001496        0   0.22100E-03  477573.1 3748974.4   454.0     4.00     3.95
1.86     YES
 L0001497        0   0.22100E-03  477581.6 3748974.2   454.0     4.00     3.95
1.86     YES
 L0001498        0   0.22100E-03  477590.1 3748974.1   454.0     4.00     3.95
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1.86      YES
 L0001499         0   0.22100E-03  477598.5 3748973.8    454.0      4.00      3.95
1.86      YES
 L0001500         0   0.22100E-03  477605.4 3748968.8    454.0      4.00      3.95
1.86      YES
 L0001501         0   0.22100E-03  477611.1 3748963.0    454.0      4.00      3.95
1.86      YES
 L0001502         0   0.22100E-03  477613.4 3748954.9    454.0      4.00      3.95
1.86      YES
 L0001503         0   0.22100E-03  477615.7 3748946.7    454.0      4.00      3.95
1.86      YES
 L0001504         0   0.22100E-03  477618.0 3748938.5    454.0      4.00      3.95
1.86      YES
 L0001505         0   0.22100E-03  477620.0 3748930.2    454.0      4.00      3.95
1.86      YES
 L0001506         0   0.22100E-03  477621.7 3748921.9    454.0      4.00      3.95
1.86      YES
 L0001507         0   0.22100E-03  477623.4 3748913.6    454.0      4.00      3.95
1.86      YES
 L0001508         0   0.22100E-03  477625.1 3748905.3    454.0      4.00      3.95
1.86      YES
 L0001509         0   0.22100E-03  477626.2 3748896.9    454.0      4.00      3.95
1.86      YES
 L0001510         0   0.22100E-03  477626.4 3748888.4    454.0      4.00      3.95
1.86      YES
 L0001511         0   0.22100E-03  477626.5 3748879.9    454.0      4.00      3.95
1.86      YES
 L0001512         0   0.22100E-03  477626.6 3748871.4    454.0      4.00      3.95
1.86      YES
 L0001513         0   0.22100E-03  477626.7 3748862.9    454.0      4.00      3.95
1.86      YES
 L0001514         0   0.22100E-03  477626.8 3748854.4    454.0      4.00      3.95
1.86      YES
 L0001515         0   0.22100E-03  477626.9 3748845.9    454.0      4.00      3.95
1.86      YES
 L0001516         0   0.22100E-03  477627.0 3748837.4    454.0      4.00      3.95
1.86      YES
 L0001517         0   0.22100E-03  477627.1 3748828.9    454.0      4.00      3.95
1.86      YES
 L0001518         0   0.22100E-03  477627.2 3748820.4    454.0      4.00      3.95
1.86      YES
 L0001519         0   0.22100E-03  477627.3 3748811.9    454.0      4.00      3.95
1.86      YES
 L0001520         0   0.22100E-03  477627.5 3748803.4    454.0      4.00      3.95
1.86      YES
 L0001521         0   0.22100E-03  477627.0 3748795.5    454.0      4.00      3.95
1.86      YES
 L0001522         0   0.22100E-03  477618.5 3748795.7    454.0      4.00      3.95
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1.86      YES
 L0001523          0   0.22100E-03  477610.0 3748795.9    454.0      4.00      3.95
1.86      YES
 L0001524          0   0.22100E-03  477601.5 3748796.2    454.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                     ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  13
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001525          0   0.22100E-03  477593.0 3748796.4    454.0      4.00      3.95
1.86      YES
 L0001526          0   0.22100E-03  477584.5 3748796.6    454.0      4.00      3.95
1.86      YES
 L0001527          0   0.22100E-03  477576.0 3748796.9    454.0      4.00      3.95
1.86      YES
 L0001528          0   0.22100E-03  477567.5 3748797.1    454.0      4.00      3.95
1.86      YES
 L0001529          0   0.22100E-03  477559.0 3748797.3    454.0      4.00      3.95
1.86      YES
 L0001530          0   0.22100E-03  477550.5 3748797.5    454.0      4.00      3.95
1.86      YES
 L0001531          0   0.22100E-03  477542.0 3748797.8    454.0      4.00      3.95
1.86      YES
 L0001532          0   0.22100E-03  477533.5 3748798.0    454.0      4.00      3.95
1.86      YES
 L0001533          0   0.22100E-03  477525.0 3748798.2    454.0      4.00      3.95
1.86      YES
 L0001534          0   0.22100E-03  477516.5 3748798.5    454.0      4.00      3.95
1.86      YES
 L0001535          0   0.22100E-03  477508.0 3748798.7    454.0      4.00      3.95
1.86      YES
 L0001536          0   0.22100E-03  477499.5 3748798.9    454.0      4.00      3.95
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1.86      YES
 L0001537          0   0.22100E-03  477491.0 3748799.2    454.0      4.00      3.95
1.86      YES
 L0001762          0   0.17642E-04  477922.3 3748920.1    453.0      0.00      3.95
1.40      YES
 L0001763          0   0.17642E-04  477921.9 3748928.6    453.0      0.00      3.95
1.40      YES
 L0001764          0   0.17642E-04  477921.5 3748937.1    453.0      0.00      3.95
1.40      YES
 L0001765          0   0.17642E-04  477921.1 3748945.6    453.0      0.00      3.95
1.40      YES
 L0001766          0   0.17642E-04  477920.7 3748954.1    453.0      0.00      3.95
1.40      YES
 L0001767          0   0.17642E-04  477927.7 3748955.6    453.0      0.00      3.95
1.40      YES
 L0001768          0   0.17642E-04  477936.2 3748955.6    453.0      0.00      3.95
1.40      YES
 L0001769          0   0.17642E-04  477944.7 3748955.7    453.0      0.00      3.95
1.40      YES
 L0001770          0   0.17642E-04  477953.2 3748955.7    453.0      0.00      3.95
1.40      YES
 L0001771          0   0.17642E-04  477961.7 3748955.8    453.0      0.00      3.95
1.40      YES
 L0001772          0   0.17642E-04  477970.2 3748955.8    453.0      0.00      3.95
1.40      YES
 L0001773          0   0.17642E-04  477978.7 3748955.9    453.0      0.00      3.95
1.40      YES
 L0001774          0   0.17642E-04  477987.2 3748955.9    453.0      0.00      3.95
1.40      YES
 L0001775          0   0.17642E-04  477995.7 3748956.0    453.0      0.00      3.95
1.40      YES
 L0001776          0   0.17642E-04  478004.2 3748956.1    453.0      0.00      3.95
1.40      YES
 L0001777          0   0.17642E-04  478012.7 3748956.1    453.0      0.00      3.95
1.40      YES
 L0001778          0   0.17642E-04  478021.2 3748956.2    453.0      0.00      3.95
1.40      YES
 L0001779          0   0.17642E-04  478029.7 3748956.2    453.0      0.00      3.95
1.40      YES
 L0001780          0   0.17642E-04  478038.2 3748956.3    453.0      0.00      3.95
1.40      YES
 L0001781          0   0.17642E-04  478046.7 3748956.3    453.0      0.00      3.95
1.40      YES
 L0001782          0   0.17642E-04  478055.2 3748956.4    453.0      0.00      3.95
1.40      YES
 L0001783          0   0.17642E-04  478063.7 3748956.4    453.0      0.00      3.95
1.40      YES
 L0001784          0   0.17642E-04  478072.2 3748956.5    453.0      0.00      3.95
```

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1.40     YES
 L0001785         0   0.17642E-04  478080.7 3748956.5   453.0     0.00     3.95
1.40     YES
 L0001786         0   0.17642E-04  478089.2 3748956.6   453.0     0.00     3.95
1.40     YES
 L0001787         0   0.17642E-04  478097.7 3748956.6   453.0     0.00     3.95
1.40     YES
 L0001788         0   0.17642E-04  478106.2 3748956.7   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        12:37:14

                                   PAGE  14
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -


 L0001789         0   0.17642E-04  478114.7 3748956.7   453.0     0.00     3.95
1.40     YES
 L0001790         0   0.17642E-04  478123.2 3748956.8   453.0     0.00     3.95
1.40     YES
 L0001791         0   0.17642E-04  478131.7 3748956.8   453.0     0.00     3.95
1.40     YES
 L0001792         0   0.17642E-04  478140.2 3748956.9   453.0     0.00     3.95
1.40     YES
 L0001793         0   0.17642E-04  478148.7 3748956.9   453.0     0.00     3.95
1.40     YES
 L0001794         0   0.17642E-04  478157.2 3748957.0   453.0     0.00     3.95
1.40     YES
 L0001795         0   0.17642E-04  478165.7 3748957.0   453.0     0.00     3.95
1.40     YES
 L0001796         0   0.17642E-04  478174.2 3748957.1   453.0     0.00     3.95
1.40     YES
 L0001797         0   0.17642E-04  478182.7 3748957.1   453.0     0.00     3.95
1.40     YES
 L0001798         0   0.17642E-04  478191.2 3748957.2   453.0     0.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.40      YES
  L0001799          0   0.17642E-04  478199.7 3748957.2    453.0      0.00      3.95
1.40      YES
  L0001800          0   0.17642E-04  478208.2 3748957.3    453.0      0.00      3.95
1.40      YES
  L0001801          0   0.17642E-04  478216.7 3748957.3    453.0      0.00      3.95
1.40      YES
  L0001802          0   0.17642E-04  478225.0 3748957.2    453.0      0.00      3.95
1.40      YES
  L0001803          0   0.17642E-04  478225.0 3748948.7    453.0      0.00      3.95
1.40      YES
  L0001804          0   0.17642E-04  478225.0 3748940.2    453.0      0.00      3.95
1.40      YES
  L0001805          0   0.17642E-04  478225.0 3748931.7    453.0      0.00      3.95
1.40      YES
  L0001806          0   0.17642E-04  478225.0 3748923.2    453.0      0.00      3.95
1.40      YES
  L0001852          0   0.66670E-05  477922.3 3748920.1    453.0      0.00      3.95
1.40      YES
  L0001853          0   0.66670E-05  477921.9 3748928.6    453.0      0.00      3.95
1.40      YES
  L0001854          0   0.66670E-05  477921.5 3748937.1    453.0      0.00      3.95
1.40      YES
  L0001855          0   0.66670E-05  477921.1 3748945.6    453.0      0.00      3.95
1.40      YES
  L0001856          0   0.66670E-05  477920.7 3748954.1    453.0      0.00      3.95
1.40      YES
  L0001857          0   0.66670E-05  477927.7 3748955.6    453.0      0.00      3.95
1.40      YES
  L0001858          0   0.66670E-05  477936.2 3748955.6    453.0      0.00      3.95
1.40      YES
  L0001859          0   0.66670E-05  477944.7 3748955.7    453.0      0.00      3.95
1.40      YES
  L0001860          0   0.66670E-05  477953.2 3748955.7    453.0      0.00      3.95
1.40      YES
  L0001861          0   0.66670E-05  477961.7 3748955.8    453.0      0.00      3.95
1.40      YES
  L0001862          0   0.66670E-05  477970.2 3748955.8    453.0      0.00      3.95
1.40      YES
  L0001863          0   0.66670E-05  477978.7 3748955.9    453.0      0.00      3.95
1.40      YES
  L0001864          0   0.66670E-05  477987.2 3748955.9    453.0      0.00      3.95
1.40      YES
  L0001865          0   0.66670E-05  477995.7 3748956.0    453.0      0.00      3.95
1.40      YES
  L0001866          0   0.66670E-05  478004.2 3748956.1    453.0      0.00      3.95
1.40      YES
  L0001867          0   0.66670E-05  478012.7 3748956.1    453.0      0.00      3.95
```

```
1.40     YES
 L0001868         0   0.66670E-05  478021.2 3748956.2   453.0     0.00     3.95
1.40     YES
 L0001869         0   0.66670E-05  478029.7 3748956.2   453.0     0.00     3.95
1.40     YES
 L0001870         0   0.66670E-05  478038.2 3748956.3   453.0     0.00     3.95
1.40     YES
 L0001871         0   0.66670E-05  478046.7 3748956.3   453.0     0.00     3.95
1.40     YES
 L0001872         0   0.66670E-05  478055.2 3748956.4   453.0     0.00     3.95
1.40     YES
 L0001873         0   0.66670E-05  478063.7 3748956.4   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  15
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0001874         0   0.66670E-05  478072.2 3748956.5   453.0     0.00     3.95
1.40     YES
 L0001875         0   0.66670E-05  478080.7 3748956.5   453.0     0.00     3.95
1.40     YES
 L0001876         0   0.66670E-05  478089.2 3748956.6   453.0     0.00     3.95
1.40     YES
 L0001877         0   0.66670E-05  478097.7 3748956.6   453.0     0.00     3.95
1.40     YES
 L0001878         0   0.66670E-05  478106.2 3748956.7   453.0     0.00     3.95
1.40     YES
 L0001879         0   0.66670E-05  478114.7 3748956.7   453.0     0.00     3.95
1.40     YES
 L0001880         0   0.66670E-05  478123.2 3748956.8   453.0     0.00     3.95
1.40     YES
 L0001881         0   0.66670E-05  478131.7 3748956.8   453.0     0.00     3.95
```

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1.40      YES
 L0001882          0   0.66670E-05  478140.2 3748956.9   453.0      0.00      3.95
1.40      YES
 L0001883          0   0.66670E-05  478148.7 3748956.9   453.0      0.00      3.95
1.40      YES
 L0001884          0   0.66670E-05  478157.2 3748957.0   453.0      0.00      3.95
1.40      YES
 L0001885          0   0.66670E-05  478165.7 3748957.0   453.0      0.00      3.95
1.40      YES
 L0001886          0   0.66670E-05  478174.2 3748957.1   453.0      0.00      3.95
1.40      YES
 L0001887          0   0.66670E-05  478182.7 3748957.1   453.0      0.00      3.95
1.40      YES
 L0001888          0   0.66670E-05  478191.2 3748957.2   453.0      0.00      3.95
1.40      YES
 L0001889          0   0.66670E-05  478199.7 3748957.2   453.0      0.00      3.95
1.40      YES
 L0001890          0   0.66670E-05  478208.2 3748957.3   453.0      0.00      3.95
1.40      YES
 L0001891          0   0.66670E-05  478216.7 3748957.3   453.0      0.00      3.95
1.40      YES
 L0001892          0   0.66670E-05  478225.0 3748957.2   453.0      0.00      3.95
1.40      YES
 L0001893          0   0.66670E-05  478225.0 3748948.7   453.0      0.00      3.95
1.40      YES
 L0001894          0   0.66670E-05  478225.0 3748940.2   453.0      0.00      3.95
1.40      YES
 L0001895          0   0.66670E-05  478225.0 3748931.7   453.0      0.00      3.95
1.40      YES
 L0001896          0   0.66670E-05  478225.0 3748923.2   453.0      0.00      3.95
1.40      YES
 L0001628          0   0.49619E-04  478177.4 3748323.4   450.0      0.00      3.95
1.40      YES
 L0001629          0   0.49619E-04  478185.9 3748323.1   450.0      0.00      3.95
1.40      YES
 L0001630          0   0.49619E-04  478194.4 3748322.8   450.0      0.00      3.95
1.40      YES
 L0001631          0   0.49619E-04  478202.9 3748322.5   450.0      0.00      3.95
1.40      YES
 L0001632          0   0.49619E-04  478211.4 3748322.2   450.0      0.00      3.95
1.40      YES
 L0001633          0   0.49619E-04  478219.9 3748321.9   450.0      0.00      3.95
1.40      YES
 L0001634          0   0.49619E-04  478228.4 3748321.6   450.0      0.00      3.95
1.40      YES
 L0001635          0   0.49619E-04  478236.6 3748321.6   450.0      0.00      3.95
1.40      YES
 L0001636          0   0.49619E-04  478236.2 3748330.0   451.0      0.00      3.95
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1.40     YES
 L0001637         0   0.49619E-04  478235.7 3748338.5   451.0     0.00     3.95
1.40     YES
 L0001638         0   0.49619E-04  478235.3 3748347.0   451.0     0.00     3.95
1.40     YES
 L0001639         0   0.49619E-04  478234.8 3748355.5   451.0     0.00     3.95
1.40     YES
 L0001640         0   0.49619E-04  478234.4 3748364.0   451.0     0.00     3.95
1.40     YES
 L0001641         0   0.49619E-04  478233.9 3748372.5   451.0     0.00     3.95
1.40     YES
 L0001642         0   0.49619E-04  478233.5 3748381.0   451.0     0.00     3.95
1.40     YES
 L0001643         0   0.49619E-04  478233.0 3748389.5   451.0     0.00     3.95
1.40     YES
 L0001897         0   0.68500E-05  478177.4 3748323.4   450.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  16
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001898         0   0.68500E-05  478185.9 3748323.1   450.0     0.00     3.95
1.40     YES
 L0001899         0   0.68500E-05  478194.4 3748322.8   450.0     0.00     3.95
1.40     YES
 L0001900         0   0.68500E-05  478202.9 3748322.5   450.0     0.00     3.95
1.40     YES
 L0001901         0   0.68500E-05  478211.4 3748322.2   450.0     0.00     3.95
1.40     YES
 L0001902         0   0.68500E-05  478219.9 3748321.9   450.0     0.00     3.95
1.40     YES
 L0001903         0   0.68500E-05  478228.4 3748321.6   450.0     0.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.40      YES
 L0001904          0   0.68500E-05  478236.6 3748321.6    450.0      0.00      3.95
1.40      YES
 L0001905          0   0.68500E-05  478236.2 3748330.0    451.0      0.00      3.95
1.40      YES
 L0001906          0   0.68500E-05  478235.7 3748338.5    451.0      0.00      3.95
1.40      YES
 L0001907          0   0.68500E-05  478235.3 3748347.0    451.0      0.00      3.95
1.40      YES
 L0001908          0   0.68500E-05  478234.8 3748355.5    451.0      0.00      3.95
1.40      YES
 L0001909          0   0.68500E-05  478234.4 3748364.0    451.0      0.00      3.95
1.40      YES
 L0001910          0   0.68500E-05  478233.9 3748372.5    451.0      0.00      3.95
1.40      YES
 L0001911          0   0.68500E-05  478233.5 3748381.0    451.0      0.00      3.95
1.40      YES
 L0001912          0   0.68500E-05  478233.0 3748389.5    451.0      0.00      3.95
1.40      YES
 L0001913          0   0.24442E-04  477744.0 3748980.7    454.0      0.00      3.95
1.40      YES
 L0001914          0   0.24442E-04  477752.5 3748980.8    454.0      0.00      3.95
1.40      YES
 L0001915          0   0.24442E-04  477761.0 3748980.8    454.0      0.00      3.95
1.40      YES
 L0001916          0   0.24442E-04  477769.5 3748980.9    454.0      0.00      3.95
1.40      YES
 L0001917          0   0.24442E-04  477777.9 3748981.0    454.0      0.00      3.95
1.40      YES
 L0001918          0   0.24442E-04  477786.4 3748981.0    454.0      0.00      3.95
1.40      YES
 L0001919          0   0.24442E-04  477794.9 3748981.1    454.0      0.00      3.95
1.40      YES
 L0001920          0   0.24442E-04  477803.4 3748981.2    454.0      0.00      3.95
1.40      YES
 L0001921          0   0.24442E-04  477811.9 3748981.3    454.0      0.00      3.95
1.40      YES
 L0001922          0   0.24442E-04  477820.4 3748981.3    454.0      0.00      3.95
1.40      YES
 L0001923          0   0.24442E-04  477828.9 3748981.4    453.9      0.00      3.95
1.40      YES
 L0001924          0   0.24442E-04  477837.4 3748981.5    453.7      0.00      3.95
1.40      YES
 L0001925          0   0.24442E-04  477845.9 3748981.6    453.6      0.00      3.95
1.40      YES
 L0001926          0   0.24442E-04  477854.0 3748981.2    453.5      0.00      3.95
1.40      YES
 L0001927          0   0.24442E-04  477854.0 3748972.7    453.2      0.00      3.95
```

```
1.40     YES
 L0001928         0   0.24442E-04  477853.9 3748964.2   453.0     0.00     3.95
1.40     YES
 L0001929         0   0.24442E-04  477853.8 3748955.7   453.0     0.00     3.95
1.40     YES
 L0001930         0   0.24442E-04  477853.7 3748947.2   453.0     0.00     3.95
1.40     YES
 L0001931         0   0.24442E-04  477853.6 3748938.7   453.0     0.00     3.95
1.40     YES
 L0001932         0   0.24442E-04  477853.5 3748930.2   453.0     0.00     3.95
1.40     YES
 L0001933         0   0.24442E-04  477853.4 3748921.7   453.0     0.00     3.95
1.40     YES
 L0001934         0   0.24442E-04  477853.4 3748913.2   453.0     0.00     3.95
1.40     YES
 L0001935         0   0.24442E-04  477853.3 3748904.7   453.0     0.00     3.95
1.40     YES
 L0001936         0   0.24442E-04  477853.2 3748896.2   453.0     0.00     3.95
1.40     YES
 L0001937         0   0.24442E-04  477853.1 3748887.7   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  17
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                    *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - 

 L0001938         0   0.24442E-04  477853.0 3748879.2   453.0     0.00     3.95
1.40     YES
 L0001939         0   0.24442E-04  477852.9 3748870.7   453.0     0.00     3.95
1.40     YES
 L0001940         0   0.24442E-04  477852.8 3748862.2   453.0     0.00     3.95
1.40     YES
 L0001941         0   0.24442E-04  477852.8 3748853.7   453.0     0.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.40      YES
 L0001942          0   0.24442E-04  477852.7 3748845.2    453.0      0.00      3.95
1.40      YES
 L0001943          0   0.24442E-04  477852.6 3748836.7    453.0      0.00      3.95
1.40      YES
 L0001944          0   0.63320E-05  477744.0 3748980.7    454.0      0.00      3.95
1.40      YES
 L0001945          0   0.63320E-05  477752.5 3748980.8    454.0      0.00      3.95
1.40      YES
 L0001946          0   0.63320E-05  477761.0 3748980.8    454.0      0.00      3.95
1.40      YES
 L0001947          0   0.63320E-05  477769.5 3748980.9    454.0      0.00      3.95
1.40      YES
 L0001948          0   0.63320E-05  477777.9 3748981.0    454.0      0.00      3.95
1.40      YES
 L0001949          0   0.63320E-05  477786.4 3748981.0    454.0      0.00      3.95
1.40      YES
 L0001950          0   0.63320E-05  477794.9 3748981.1    454.0      0.00      3.95
1.40      YES
 L0001951          0   0.63320E-05  477803.4 3748981.2    454.0      0.00      3.95
1.40      YES
 L0001952          0   0.63320E-05  477811.9 3748981.3    454.0      0.00      3.95
1.40      YES
 L0001953          0   0.63320E-05  477820.4 3748981.3    454.0      0.00      3.95
1.40      YES
 L0001954          0   0.63320E-05  477828.9 3748981.4    453.9      0.00      3.95
1.40      YES
 L0001955          0   0.63320E-05  477837.4 3748981.5    453.7      0.00      3.95
1.40      YES
 L0001956          0   0.63320E-05  477845.9 3748981.6    453.6      0.00      3.95
1.40      YES
 L0001957          0   0.63320E-05  477854.0 3748981.2    453.5      0.00      3.95
1.40      YES
 L0001958          0   0.63320E-05  477854.0 3748972.7    453.2      0.00      3.95
1.40      YES
 L0001959          0   0.63320E-05  477853.9 3748964.2    453.0      0.00      3.95
1.40      YES
 L0001960          0   0.63320E-05  477853.8 3748955.7    453.0      0.00      3.95
1.40      YES
 L0001961          0   0.63320E-05  477853.7 3748947.2    453.0      0.00      3.95
1.40      YES
 L0001962          0   0.63320E-05  477853.6 3748938.7    453.0      0.00      3.95
1.40      YES
 L0001963          0   0.63320E-05  477853.5 3748930.2    453.0      0.00      3.95
1.40      YES
 L0001964          0   0.63320E-05  477853.4 3748921.7    453.0      0.00      3.95
1.40      YES
 L0001965          0   0.63320E-05  477853.4 3748913.2    453.0      0.00      3.95
```

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1.40      YES
 L0001966         0   0.63320E-05  477853.3 3748904.7   453.0     0.00     3.95
1.40      YES
 L0001967         0   0.63320E-05  477853.2 3748896.2   453.0     0.00     3.95
1.40      YES
 L0001968         0   0.63320E-05  477853.1 3748887.7   453.0     0.00     3.95
1.40      YES
 L0001969         0   0.63320E-05  477853.0 3748879.2   453.0     0.00     3.95
1.40      YES
 L0001970         0   0.63320E-05  477852.9 3748870.7   453.0     0.00     3.95
1.40      YES
 L0001971         0   0.63320E-05  477852.8 3748862.2   453.0     0.00     3.95
1.40      YES
 L0001972         0   0.63320E-05  477852.8 3748853.7   453.0     0.00     3.95
1.40      YES
 L0001973         0   0.63320E-05  477852.7 3748845.2   453.0     0.00     3.95
1.40      YES
 L0001974         0   0.63320E-05  477852.6 3748836.7   453.0     0.00     3.95
1.40      YES
 L0001975         0   0.75238E-04  477934.4 3748197.8   450.0     0.00     3.95
1.40      YES
 L0001976         0   0.75238E-04  477942.9 3748197.7   450.0     0.00     3.95
1.40      YES
 L0001977         0   0.75238E-04  477951.4 3748197.6   450.0     0.00     3.95
1.40      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

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 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS)     X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0001978         0   0.75238E-04  477959.9 3748197.6   450.0     0.00     3.95
1.40      YES
 L0001979         0   0.75238E-04  477968.4 3748197.5   450.0     0.00     3.95
```

```
1.40     YES
 L0001980          0   0.75238E-04  477976.9 3748197.4    450.0      0.00      3.95
1.40     YES
 L0001981          0   0.75238E-04  477985.4 3748197.4    450.0      0.00      3.95
1.40     YES
 L0001982          0   0.75238E-04  477993.9 3748197.3    450.0      0.00      3.95
1.40     YES
 L0001730          0   0.48100E-05  477934.4 3748197.8    450.0      0.00      3.95
1.40     YES
 L0001731          0   0.48100E-05  477942.9 3748197.7    450.0      0.00      3.95
1.40     YES
 L0001732          0   0.48100E-05  477951.4 3748197.6    450.0      0.00      3.95
1.40     YES
 L0001733          0   0.48100E-05  477959.9 3748197.6    450.0      0.00      3.95
1.40     YES
 L0001734          0   0.48100E-05  477968.4 3748197.5    450.0      0.00      3.95
1.40     YES
 L0001735          0   0.48100E-05  477976.9 3748197.4    450.0      0.00      3.95
1.40     YES
 L0001736          0   0.48100E-05  477985.4 3748197.4    450.0      0.00      3.95
1.40     YES
 L0001737          0   0.48100E-05  477993.9 3748197.3    450.0      0.00      3.95
1.40     YES
 L0001738          0   0.10475E-02  477499.5 3748976.4    454.2      0.00      3.95
1.40     YES
 L0001739          0   0.10475E-02  477508.0 3748976.2    454.1      0.00      3.95
1.40     YES
 L0001740          0   0.10475E-02  477516.4 3748976.0    454.0      0.00      3.95
1.40     YES
 L0001741          0   0.10475E-02  477524.9 3748975.8    454.0      0.00      3.95
1.40     YES
 L0001742          0   0.10475E-02  477533.4 3748975.6    454.0      0.00      3.95
1.40     YES
 L0001743          0   0.10475E-02  477541.9 3748975.4    454.0      0.00      3.95
1.40     YES
 L0001744          0   0.10475E-02  477550.4 3748975.2    454.0      0.00      3.95
1.40     YES
 L0001745          0   0.10475E-02  477558.9 3748975.0    454.0      0.00      3.95
1.40     YES
 L0001746          0   0.10475E-02  477567.4 3748974.8    454.0      0.00      3.95
1.40     YES
 L0001747          0   0.10475E-02  477575.9 3748974.6    454.0      0.00      3.95
1.40     YES
 L0001748          0   0.10475E-02  477584.4 3748974.4    454.0      0.00      3.95
1.40     YES
 L0001749          0   0.10475E-02  477592.9 3748974.2    454.0      0.00      3.95
1.40     YES
 L0001750          0   0.90250E-05  477499.5 3748976.4    454.2      0.00      3.95
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1.40      YES
 L0001751         0   0.90250E-05  477508.0 3748976.2   454.1     0.00     3.95
1.40      YES
 L0001752         0   0.90250E-05  477516.4 3748976.0   454.0     0.00     3.95
1.40      YES
 L0001753         0   0.90250E-05  477524.9 3748975.8   454.0     0.00     3.95
1.40      YES
 L0001754         0   0.90250E-05  477533.4 3748975.6   454.0     0.00     3.95
1.40      YES
 L0001755         0   0.90250E-05  477541.9 3748975.4   454.0     0.00     3.95
1.40      YES
 L0001756         0   0.90250E-05  477550.4 3748975.2   454.0     0.00     3.95
1.40      YES
 L0001757         0   0.90250E-05  477558.9 3748975.0   454.0     0.00     3.95
1.40      YES
 L0001758         0   0.90250E-05  477567.4 3748974.8   454.0     0.00     3.95
1.40      YES
 L0001759         0   0.90250E-05  477575.9 3748974.6   454.0     0.00     3.95
1.40      YES
 L0001760         0   0.90250E-05  477584.4 3748974.4   454.0     0.00     3.95
1.40      YES
 L0001761         0   0.90250E-05  477592.9 3748974.2   454.0     0.00     3.95
1.40      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

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 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (USER UNITS       X        Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.72063E-06  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES
 AREA2            0   0.76292E-06  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES
 AREA3            0   0.26736E-05  478027.4 3748303.6   450.0     5.00    143.40
```

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 60.16      0.00     0.00     YES
 AREA4            0   0.83817E-06  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES
 AREA5            0   0.17523E-05  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES
 AREA6            0   0.78505E-06  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  20
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                     SOURCE IDs
 -----------                                                     ----------


  ALL        L0001125    , L0001126    , L0001127    , L0001128    , L0001129    ,
L0001130    , L0001131    , L0001132    ,

             L0001133    , L0001134    , L0001135    , L0001136    , L0001137    ,
L0001138    , L0001139    , L0001140    ,

             L0001141    , L0001142    , L0001143    , L0001144    , L0001145    ,
L0001146    , L0001147    , L0001148    ,

             L0001149    , L0001150    , L0001151    , L0001152    , L0001153    ,
L0001154    , L0001155    , L0001156    ,

             L0001157    , L0001158    , L0001159    , L0001160    , L0001161    ,
L0001162    , L0001163    , L0001164    ,

             L0001165    , L0001166    , L0001167    , L0001168    , L0001169    ,
L0001170    , L0001171    , L0001172    ,

             L0001173    , L0001174    , L0001175    , L0001176    , L0001177    ,
L0001178    , L0001179    , L0001180    ,

             L0001181    , L0001182    , L0001183    , L0001184    , L0001185    ,
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             L0001189    , L0001190    , L0001191    , L0001192    , L0001193    ,
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L0001194     , L0001195     , L0001196     ,

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L0001202     , L0001203     , L0001204     ,

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             L0001261     , L0001262     , L0001263     , L0001264     , L0001265     ,
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L0001274     , L0001275     , L0001276     ,

             L0001277     , L0001278     , L0001279     , L0001280     , L0001281     ,
L0001282     , L0001283     , L0001284     ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:37:14

                                    PAGE  21
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
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AERMOD LSTs Operational Output

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             L0001285    , L0001286    , L0001287    , L0001288    , L0001289    ,
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L0001298    , L0001299    , L0001300    ,

             L0001301    , L0001302    , L0001303    , L0001304    , L0001305    ,
L0001306    , L0001307    , L0001308    ,

             L0001309    , L0001310    , L0001311    , L0001312    , L0001313    ,
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             L0001333    , L0001334    , L0001335    , L0001336    , L0001337    ,
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             L0001389    , L0001390    , L0001391    , L0001392    , L0001393    ,
L0001394    , L0001395    , L0001396    ,

             L0001397    , L0001398    , L0001399    , L0001400    , L0001401    ,
L0001402    , L0001403    , L0001404    ,

             L0001405    , L0001406    , L0001407    , L0001408    , L0001409    ,
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                           AERMOD LSTs Operational Output
L0001410    , L0001411    , L0001412    ,

             L0001413    , L0001414    , L0001415    , L0001416    , L0001417    ,
L0001418    , L0001419    , L0001420    ,

             L0001421    , L0001422    , L0001423    , L0001424    , L0001425    ,
L0001426    , L0001427    , L0001428    ,

             L0001429    , L0001430    , L0001431    , L0001432    , L0001433    ,
L0001434    , L0001435    , L0001436    ,

             L0001437    , L0001438    , L0001439    , L0001440    , L0001441    ,
L0001442    , L0001443    , L0001444    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  22
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


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L0001450    , L0001451    , L0001452    ,

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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                           AERMOD LSTs Operational Output
L0001498    , L0001499    , L0001500    ,

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             AREA4       , AREA5       , AREA6       , STCK1       , STCK2       ,
STCK3       , STCK4       , STCK5       ,

             STCK6       , STCK7       , STCK8       , STCK9       , STCK10      ,
STCK11      , STCK12      , STCK13      ,

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             L0001770    , L0001771    , L0001772    , L0001773    , L0001774    ,
L0001775    , L0001776    , L0001777    ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  23
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN
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                                 AERMOD LSTs Operational Output

                                                  *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                         SOURCE IDs
 -----------                                                         ----------


             L0001855     , L0001856     , L0001857     , L0001858     , L0001859     ,
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             L0001887     , L0001888     , L0001889     , L0001890     , L0001891     ,
L0001892     , L0001893     , L0001894     ,

             L0001895     , L0001896     , L0001628     , L0001629     , L0001630     ,
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L0001924     , L0001925     , L0001926     ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:37:14

                                    PAGE  24
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                    *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:37:14

                                    PAGE  25
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN
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                              AERMOD LSTs Operational Output
                                          *** SOURCE IDs DEFINING OLM SOURCE GROUPS
***
                                          ***       FOR COMBINING PLUMES
***

 OLMGROUP ID                                              SOURCE IDs
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              L0001141    , L0001142    , L0001143    , L0001144    , L0001145    ,
L0001146    , L0001147    , L0001148    ,

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L0001154    , L0001155    , L0001156    ,

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L0001162    , L0001163    , L0001164    ,

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L0001178    , L0001179    , L0001180    ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  26
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                         *** SOURCE IDs DEFINING OLM SOURCE GROUPS
***
                                         ***        FOR COMBINING PLUMES
***

 OLMGROUP ID                                               SOURCE IDs
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                           AERMOD LSTs Operational Output
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View\MVL\OperationalLSTs\NOx\NOx.isc                          ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***         12:37:14

                                   PAGE  27
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                         *** SOURCE IDs DEFINING OLM SOURCE GROUPS
***
                                         ***       FOR COMBINING PLUMES
***

 OLMGROUP ID                                                SOURCE IDs
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             AREA4       , AREA5       , AREA6       , STCK1       , STCK2       ,
STCK3       , STCK4       , STCK5       ,

             STCK6       , STCK7       , STCK8       , STCK9       , STCK10      ,
STCK11      , STCK12      , STCK13      ,

             L0001762    , L0001763    , L0001764    , L0001765    , L0001766    ,
L0001767    , L0001768    , L0001769    ,

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L0001775    , L0001776    , L0001777    ,

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L0001791    , L0001792    , L0001793    ,

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L0001799    , L0001800    , L0001801    ,

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L0001852    , L0001853    , L0001854    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  28
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                         *** SOURCE IDs DEFINING OLM SOURCE GROUPS
***
                                         ***       FOR COMBINING PLUMES
***

 OLMGROUP ID                                               SOURCE IDs
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AERMOD LSTs Operational Output

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L0001884     , L0001885     , L0001886     ,

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L0001892     , L0001893     , L0001894     ,

             L0001895     , L0001896     , L0001628     , L0001629     , L0001630     ,
L0001631     , L0001632     , L0001633     ,

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L0001639     , L0001640     , L0001641     ,

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View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        12:37:14

                                     PAGE  29
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                          *** SOURCE IDs DEFINING OLM SOURCE GROUPS
***
                                          ***       FOR COMBINING PLUMES
***

 OLMGROUP ID                                                 SOURCE IDs
 -----------                                                 ----------


             L0001746    , L0001747    , L0001748    , L0001749    , L0001750    ,
L0001751    , L0001752    , L0001753    ,

             L0001754    , L0001755    , L0001756    , L0001757    , L0001758    ,
L0001759    , L0001760    , L0001761    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        12:37:14

                                     PAGE  30
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                      SOURCE IDs
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AERMOD LSTs Operational Output

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L0001282    , L0001283    , L0001284    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:37:14

                                    PAGE  31
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                  SOURCE IDs
  --------    ---------                                  ----------


             L0001285    , L0001286    , L0001287    , L0001288    , L0001289    ,
L0001290    , L0001291    , L0001292    ,

             L0001293    , L0001294    , L0001295    , L0001296    , L0001297    ,
L0001298    , L0001299    , L0001300    ,

             L0001301    , L0001302    , L0001303    , L0001304    , L0001305    ,
L0001306    , L0001307    , L0001308    ,

             L0001309    , L0001310    , L0001311    , L0001312    , L0001313    ,
L0001314    , L0001315    , L0001316    ,

             L0001317    , L0001318    , L0001319    , L0001320    , L0001321    ,
L0001322    , L0001323    , L0001324    ,

             L0001325    , L0001326    , L0001327    , L0001328    , L0001329    ,
L0001330    , L0001331    , L0001332    ,
```

AERMOD LSTs Operational Output

```
              L0001333    , L0001334    , L0001335    , L0001336    , L0001337    ,
L0001338    , L0001339    , L0001340    ,

              L0001341    , L0001342    , L0001343    , L0001344    , L0001345    ,
L0001346    , L0001347    , L0001348    ,

              L0001349    , L0001350    , L0001351    , L0001352    , L0001353    ,
L0001354    , L0001355    , L0001356    ,

              L0001357    , L0001358    , L0001359    , L0001360    , L0001361    ,
L0001362    , L0001363    , L0001364    ,

              L0001365    , L0001366    , L0001367    , L0001368    , L0001369    ,
L0001370    , L0001371    , L0001372    ,

              L0001373    , L0001374    , L0001375    , L0001376    , L0001377    ,
L0001378    , L0001379    , L0001380    ,

              L0001381    , L0001382    , L0001383    , L0001384    , L0001385    ,
L0001386    , L0001387    , L0001388    ,

              L0001389    , L0001390    , L0001391    , L0001392    , L0001393    ,
L0001394    , L0001395    , L0001396    ,

              L0001397    , L0001398    , L0001399    , L0001400    , L0001401    ,
L0001402    , L0001403    , L0001404    ,

              L0001405    , L0001406    , L0001407    , L0001408    , L0001409    ,
L0001410    , L0001411    , L0001412    ,

              L0001413    , L0001414    , L0001415    , L0001416    , L0001417    ,
L0001418    , L0001419    , L0001420    ,

              L0001421    , L0001422    , L0001423    , L0001424    , L0001425    ,
L0001426    , L0001427    , L0001428    ,

              L0001429    , L0001430    , L0001431    , L0001432    , L0001433    ,
L0001434    , L0001435    , L0001436    ,

              L0001437    , L0001438    , L0001439    , L0001440    , L0001441    ,
L0001442    , L0001443    , L0001444    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:37:14

                                    PAGE  32
```

```
                                   AERMOD LSTs Operational Output
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                         SOURCE IDs
  --------   ---------                                         ----------


             L0001445    , L0001446    , L0001447    , L0001448    , L0001449    ,
L0001450    , L0001451    , L0001452    ,

             L0001453    , L0001454    , L0001455    , L0001456    , L0001457    ,
L0001458    , L0001459    , L0001460    ,

             L0001461    , L0001462    , L0001463    , L0001464    , L0001465    ,
L0001466    , L0001467    , L0001468    ,

             L0001469    , L0001470    , L0001471    , L0001472    , L0001473    ,
L0001474    , L0001475    , L0001476    ,

             L0001477    , L0001478    , L0001479    , L0001480    , L0001481    ,
L0001482    , L0001483    , L0001484    ,

             L0001485    , L0001486    , L0001487    , L0001488    , L0001489    ,
L0001490    , L0001491    , L0001492    ,

             L0001493    , L0001494    , L0001495    , L0001496    , L0001497    ,
L0001498    , L0001499    , L0001500    ,

             L0001501    , L0001502    , L0001503    , L0001504    , L0001505    ,
L0001506    , L0001507    , L0001508    ,

             L0001509    , L0001510    , L0001511    , L0001512    , L0001513    ,
L0001514    , L0001515    , L0001516    ,

             L0001517    , L0001518    , L0001519    , L0001520    , L0001521    ,
L0001522    , L0001523    , L0001524    ,

             L0001525    , L0001526    , L0001527    , L0001528    , L0001529    ,
L0001530    , L0001531    , L0001532    ,

             L0001533    , L0001534    , L0001535    , L0001536    , L0001537    ,
AREA1       , AREA2       , AREA3       ,

             AREA4       , AREA5       , AREA6       , STCK1       , STCK2       ,
STCK3       , STCK4       , STCK5       ,
```

AERMOD LSTs Operational Output

```
             STCK6       , STCK7       , STCK8       , STCK9       , STCK10      ,
STCK11      , STCK12      , STCK13      ,

             L0001762    , L0001763    , L0001764    , L0001765    , L0001766    ,
L0001767    , L0001768    , L0001769    ,

             L0001770    , L0001771    , L0001772    , L0001773    , L0001774    ,
L0001775    , L0001776    , L0001777    ,

             L0001778    , L0001779    , L0001780    , L0001781    , L0001782    ,
L0001783    , L0001784    , L0001785    ,

             L0001786    , L0001787    , L0001788    , L0001789    , L0001790    ,
L0001791    , L0001792    , L0001793    ,

             L0001794    , L0001795    , L0001796    , L0001797    , L0001798    ,
L0001799    , L0001800    , L0001801    ,

             L0001802    , L0001803    , L0001804    , L0001805    , L0001806    ,
L0001852    , L0001853    , L0001854    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  33
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                        SOURCE IDs
  --------   ---------                                        ----------


             L0001855    , L0001856    , L0001857    , L0001858    , L0001859    ,
L0001860    , L0001861    , L0001862    ,

             L0001863    , L0001864    , L0001865    , L0001866    , L0001867    ,
L0001868    , L0001869    , L0001870    ,

             L0001871    , L0001872    , L0001873    , L0001874    , L0001875    ,
L0001876    , L0001877    , L0001878    ,

             L0001879    , L0001880    , L0001881    , L0001882    , L0001883    ,
L0001884    , L0001885    , L0001886    ,
```

AERMOD LSTs Operational Output

```
              L0001887     , L0001888     , L0001889     , L0001890     , L0001891     ,
L0001892     , L0001893     , L0001894     ,

              L0001895     , L0001896     , L0001628     , L0001629     , L0001630     ,
L0001631     , L0001632     , L0001633     ,

              L0001634     , L0001635     , L0001636     , L0001637     , L0001638     ,
L0001639     , L0001640     , L0001641     ,

              L0001642     , L0001643     , L0001897     , L0001898     , L0001899     ,
L0001900     , L0001901     , L0001902     ,

              L0001903     , L0001904     , L0001905     , L0001906     , L0001907     ,
L0001908     , L0001909     , L0001910     ,

              L0001911     , L0001912     , L0001913     , L0001914     , L0001915     ,
L0001916     , L0001917     , L0001918     ,

              L0001919     , L0001920     , L0001921     , L0001922     , L0001923     ,
L0001924     , L0001925     , L0001926     ,

              L0001927     , L0001928     , L0001929     , L0001930     , L0001931     ,
L0001932     , L0001933     , L0001934     ,

              L0001935     , L0001936     , L0001937     , L0001938     , L0001939     ,
L0001940     , L0001941     , L0001942     ,

              L0001943     , L0001944     , L0001945     , L0001946     , L0001947     ,
L0001948     , L0001949     , L0001950     ,

              L0001951     , L0001952     , L0001953     , L0001954     , L0001955     ,
L0001956     , L0001957     , L0001958     ,

              L0001959     , L0001960     , L0001961     , L0001962     , L0001963     ,
L0001964     , L0001965     , L0001966     ,

              L0001967     , L0001968     , L0001969     , L0001970     , L0001971     ,
L0001972     , L0001973     , L0001974     ,

              L0001975     , L0001976     , L0001977     , L0001978     , L0001979     ,
L0001980     , L0001981     , L0001982     ,

              L0001730     , L0001731     , L0001732     , L0001733     , L0001734     ,
L0001735     , L0001736     , L0001737     ,

              L0001738     , L0001739     , L0001740     , L0001741     , L0001742     ,
L0001743     , L0001744     , L0001745     ,
```

```
                           AERMOD LSTs Operational Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                     ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  34
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------



             L0001746    , L0001747    , L0001748    , L0001749    , L0001750    ,
L0001751    , L0001752    , L0001753    ,

             L0001754    , L0001755    , L0001756    , L0001757    , L0001758    ,
L0001759    , L0001760    , L0001761    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                     ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  35
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                       *** IN-STACK NO2 RATIOS FOR OLM/PVMRM
OPTIONS ***


 SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO
 SOURCE_ID    NO2_RATIO

 L0001125       0.100        L0001126       0.100        L0001127       0.100
 L0001128       0.100
 L0001129       0.100        L0001130       0.100        L0001131       0.100
 L0001132       0.100
 L0001133       0.100        L0001134       0.100        L0001135       0.100
 L0001136       0.100
 L0001137       0.100        L0001138       0.100        L0001139       0.100
 L0001140       0.100
 L0001141       0.100        L0001142       0.100        L0001143       0.100
 L0001144       0.100
 L0001145       0.100        L0001146       0.100        L0001147       0.100
```

```
L0001148         0.100
L0001149         0.100         L0001150         0.100         L0001151         0.100
L0001152         0.100
L0001153         0.100         L0001154         0.100         L0001155         0.100
L0001156         0.100
L0001157         0.100         L0001158         0.100         L0001159         0.100
L0001160         0.100
L0001161         0.100         L0001162         0.100         L0001163         0.100
L0001164         0.100
L0001165         0.100         L0001166         0.100         L0001167         0.100
L0001168         0.100
L0001169         0.100         L0001170         0.100         L0001171         0.100
L0001172         0.100
L0001173         0.100         L0001174         0.100         L0001175         0.100
L0001176         0.100
L0001177         0.100         L0001178         0.100         L0001179         0.100
L0001180         0.100
L0001181         0.100         L0001182         0.100         L0001183         0.100
L0001184         0.100
L0001185         0.100         L0001186         0.100         L0001187         0.100
L0001188         0.100
L0001189         0.100         L0001190         0.100         L0001191         0.100
L0001192         0.100
L0001193         0.100         L0001194         0.100         L0001195         0.100
L0001196         0.100
L0001197         0.100         L0001198         0.100         L0001199         0.100
L0001200         0.100
L0001201         0.100         L0001202         0.100         L0001203         0.100
L0001204         0.100
L0001205         0.100         L0001206         0.100         L0001207         0.100
L0001208         0.100
L0001209         0.100         L0001210         0.100         L0001211         0.100
L0001212         0.100
L0001213         0.100         L0001214         0.100         L0001215         0.100
L0001216         0.100
L0001217         0.100         L0001218         0.100         L0001219         0.100
L0001220         0.100
L0001221         0.100         L0001222         0.100         L0001223         0.100
L0001224         0.100
L0001225         0.100         L0001226         0.100         L0001227         0.100
L0001228         0.100
L0001229         0.100         L0001230         0.100         L0001231         0.100
L0001232         0.100
L0001233         0.100         L0001234         0.100         L0001235         0.100
L0001236         0.100
L0001237         0.100         L0001238         0.100         L0001239         0.100
L0001240         0.100
L0001241         0.100         L0001242         0.100         L0001243         0.100
```

```
 L0001244        0.100
 L0001245        0.100        L0001246        0.100        L0001247        0.100
 L0001248        0.100
 L0001249        0.100        L0001250        0.100        L0001251        0.100
 L0001252        0.100
 L0001253        0.100        L0001254        0.100        L0001255        0.100
 L0001256        0.100
 L0001257        0.100        L0001258        0.100        L0001259        0.100
 L0001260        0.100
 L0001261        0.100        L0001262        0.100        L0001263        0.100
 L0001264        0.100
 L0001265        0.100        L0001266        0.100        L0001267        0.100
 L0001268        0.100
 L0001269        0.100        L0001270        0.100        L0001271        0.100
 L0001272        0.100
 L0001273        0.100        L0001274        0.100        L0001275        0.100
 L0001276        0.100
 L0001277        0.100        L0001278        0.100        L0001279        0.100
 L0001280        0.100
 L0001281        0.100        L0001282        0.100        L0001283        0.100
 L0001284        0.100
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  36
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN


                                       *** IN-STACK NO2 RATIOS FOR OLM/PVMRM
OPTIONS ***


 SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO
 SOURCE_ID    NO2_RATIO

 L0001285        0.100        L0001286        0.100        L0001287        0.100
 L0001288        0.100
 L0001289        0.100        L0001290        0.100        L0001291        0.100
 L0001292        0.100
 L0001293        0.100        L0001294        0.100        L0001295        0.100
 L0001296        0.100
 L0001297        0.100        L0001298        0.100        L0001299        0.100
 L0001300        0.100
 L0001301        0.100        L0001302        0.100        L0001303        0.100
 L0001304        0.100
 L0001305        0.100        L0001306        0.100        L0001307        0.100
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
L0001308          0.100
L0001309          0.100          L0001310          0.100          L0001311          0.100
L0001312          0.100
L0001313          0.100          L0001314          0.100          L0001315          0.100
L0001316          0.100
L0001317          0.100          L0001318          0.100          L0001319          0.100
L0001320          0.100
L0001321          0.100          L0001322          0.100          L0001323          0.100
L0001324          0.100
L0001325          0.100          L0001326          0.100          L0001327          0.100
L0001328          0.100
L0001329          0.100          L0001330          0.100          L0001331          0.100
L0001332          0.100
L0001333          0.100          L0001334          0.100          L0001335          0.100
L0001336          0.100
L0001337          0.100          L0001338          0.100          L0001339          0.100
L0001340          0.100
L0001341          0.100          L0001342          0.100          L0001343          0.100
L0001344          0.100
L0001345          0.100          L0001346          0.100          L0001347          0.100
L0001348          0.100
L0001349          0.100          L0001350          0.100          L0001351          0.100
L0001352          0.100
L0001353          0.100          L0001354          0.100          L0001355          0.100
L0001356          0.100
L0001357          0.100          L0001358          0.100          L0001359          0.100
L0001360          0.100
L0001361          0.100          L0001362          0.100          L0001363          0.100
L0001364          0.100
L0001365          0.100          L0001366          0.100          L0001367          0.100
L0001368          0.100
L0001369          0.100          L0001370          0.100          L0001371          0.100
L0001372          0.100
L0001373          0.100          L0001374          0.100          L0001375          0.100
L0001376          0.100
L0001377          0.100          L0001378          0.100          L0001379          0.100
L0001380          0.100
L0001381          0.100          L0001382          0.100          L0001383          0.100
L0001384          0.100
L0001385          0.100          L0001386          0.100          L0001387          0.100
L0001388          0.100
L0001389          0.100          L0001390          0.100          L0001391          0.100
L0001392          0.100
L0001393          0.100          L0001394          0.100          L0001395          0.100
L0001396          0.100
L0001397          0.100          L0001398          0.100          L0001399          0.100
L0001400          0.100
L0001401          0.100          L0001402          0.100          L0001403          0.100
```

```
                           AERMOD LSTs Operational Output
 L0001404        0.100
 L0001405        0.100       L0001406        0.100       L0001407        0.100
 L0001408        0.100
 L0001409        0.100       L0001410        0.100       L0001411        0.100
 L0001412        0.100
 L0001413        0.100       L0001414        0.100       L0001415        0.100
 L0001416        0.100
 L0001417        0.100       L0001418        0.100       L0001419        0.100
 L0001420        0.100
 L0001421        0.100       L0001422        0.100       L0001423        0.100
 L0001424        0.100
 L0001425        0.100       L0001426        0.100       L0001427        0.100
 L0001428        0.100
 L0001429        0.100       L0001430        0.100       L0001431        0.100
 L0001432        0.100
 L0001433        0.100       L0001434        0.100       L0001435        0.100
 L0001436        0.100
 L0001437        0.100       L0001438        0.100       L0001439        0.100
 L0001440        0.100
 L0001441        0.100       L0001442        0.100       L0001443        0.100
 L0001444        0.100
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                *** 	11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  37
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN



                                       *** IN-STACK NO2 RATIOS FOR OLM/PVMRM
OPTIONS ***


 SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO
 SOURCE_ID    NO2_RATIO

 L0001445        0.100       L0001446        0.100       L0001447        0.100
 L0001448        0.100
 L0001449        0.100       L0001450        0.100       L0001451        0.100
 L0001452        0.100
 L0001453        0.100       L0001454        0.100       L0001455        0.100
 L0001456        0.100
 L0001457        0.100       L0001458        0.100       L0001459        0.100
 L0001460        0.100
 L0001461        0.100       L0001462        0.100       L0001463        0.100
 L0001464        0.100
 L0001465        0.100       L0001466        0.100       L0001467        0.100
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                AERMOD LSTs Operational Output
L0001468        0.100
L0001469        0.100       L0001470        0.100       L0001471        0.100
L0001472        0.100
L0001473        0.100       L0001474        0.100       L0001475        0.100
L0001476        0.100
L0001477        0.100       L0001478        0.100       L0001479        0.100
L0001480        0.100
L0001481        0.100       L0001482        0.100       L0001483        0.100
L0001484        0.100
L0001485        0.100       L0001486        0.100       L0001487        0.100
L0001488        0.100
L0001489        0.100       L0001490        0.100       L0001491        0.100
L0001492        0.100
L0001493        0.100       L0001494        0.100       L0001495        0.100
L0001496        0.100
L0001497        0.100       L0001498        0.100       L0001499        0.100
L0001500        0.100
L0001501        0.100       L0001502        0.100       L0001503        0.100
L0001504        0.100
L0001505        0.100       L0001506        0.100       L0001507        0.100
L0001508        0.100
L0001509        0.100       L0001510        0.100       L0001511        0.100
L0001512        0.100
L0001513        0.100       L0001514        0.100       L0001515        0.100
L0001516        0.100
L0001517        0.100       L0001518        0.100       L0001519        0.100
L0001520        0.100
L0001521        0.100       L0001522        0.100       L0001523        0.100
L0001524        0.100
L0001525        0.100       L0001526        0.100       L0001527        0.100
L0001528        0.100
L0001529        0.100       L0001530        0.100       L0001531        0.100
L0001532        0.100
L0001533        0.100       L0001534        0.100       L0001535        0.100
L0001536        0.100
L0001537        0.100       AREA1           0.100       AREA2           0.100
AREA3           0.100
AREA4           0.100       AREA5           0.100       AREA6           0.100
STCK1           0.100
STCK2           0.100       STCK3           0.100       STCK4           0.100
STCK5           0.100
STCK6           0.100       STCK7           0.100       STCK8           0.100
STCK9           0.100
STCK10          0.100       STCK11          0.100       STCK12          0.100
STCK13          0.100
L0001762        0.100       L0001763        0.100       L0001764        0.100
L0001765        0.100
L0001766        0.100       L0001767        0.100       L0001768        0.100
```

```
 L0001769        0.100
 L0001770        0.100        L0001771        0.100       L0001772        0.100
 L0001773        0.100
 L0001774        0.100        L0001775        0.100       L0001776        0.100
 L0001777        0.100
 L0001778        0.100        L0001779        0.100       L0001780        0.100
 L0001781        0.100
 L0001782        0.100        L0001783        0.100       L0001784        0.100
 L0001785        0.100
 L0001786        0.100        L0001787        0.100       L0001788        0.100
 L0001789        0.100
 L0001790        0.100        L0001791        0.100       L0001792        0.100
 L0001793        0.100
 L0001794        0.100        L0001795        0.100       L0001796        0.100
 L0001797        0.100
 L0001798        0.100        L0001799        0.100       L0001800        0.100
 L0001801        0.100
 L0001802        0.100        L0001803        0.100       L0001804        0.100
 L0001805        0.100
 L0001806        0.100        L0001852        0.100       L0001853        0.100
 L0001854        0.100
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  38
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN



                                       *** IN-STACK NO2 RATIOS FOR OLM/PVMRM
OPTIONS ***



 SOURCE_ID    NO2_RATIO       SOURCE_ID    NO2_RATIO       SOURCE_ID    NO2_RATIO
 SOURCE_ID    NO2_RATIO

 L0001855        0.100        L0001856        0.100       L0001857        0.100
 L0001858        0.100
 L0001859        0.100        L0001860        0.100       L0001861        0.100
 L0001862        0.100
 L0001863        0.100        L0001864        0.100       L0001865        0.100
 L0001866        0.100
 L0001867        0.100        L0001868        0.100       L0001869        0.100
 L0001870        0.100
 L0001871        0.100        L0001872        0.100       L0001873        0.100
 L0001874        0.100
 L0001875        0.100        L0001876        0.100       L0001877        0.100
```

```
L0001878        0.100
L0001879        0.100       L0001880        0.100       L0001881        0.100
L0001882        0.100
L0001883        0.100       L0001884        0.100       L0001885        0.100
L0001886        0.100
L0001887        0.100       L0001888        0.100       L0001889        0.100
L0001890        0.100
L0001891        0.100       L0001892        0.100       L0001893        0.100
L0001894        0.100
L0001895        0.100       L0001896        0.100       L0001628        0.100
L0001629        0.100
L0001630        0.100       L0001631        0.100       L0001632        0.100
L0001633        0.100
L0001634        0.100       L0001635        0.100       L0001636        0.100
L0001637        0.100
L0001638        0.100       L0001639        0.100       L0001640        0.100
L0001641        0.100
L0001642        0.100       L0001643        0.100       L0001897        0.100
L0001898        0.100
L0001899        0.100       L0001900        0.100       L0001901        0.100
L0001902        0.100
L0001903        0.100       L0001904        0.100       L0001905        0.100
L0001906        0.100
L0001907        0.100       L0001908        0.100       L0001909        0.100
L0001910        0.100
L0001911        0.100       L0001912        0.100       L0001913        0.100
L0001914        0.100
L0001915        0.100       L0001916        0.100       L0001917        0.100
L0001918        0.100
L0001919        0.100       L0001920        0.100       L0001921        0.100
L0001922        0.100
L0001923        0.100       L0001924        0.100       L0001925        0.100
L0001926        0.100
L0001927        0.100       L0001928        0.100       L0001929        0.100
L0001930        0.100
L0001931        0.100       L0001932        0.100       L0001933        0.100
L0001934        0.100
L0001935        0.100       L0001936        0.100       L0001937        0.100
L0001938        0.100
L0001939        0.100       L0001940        0.100       L0001941        0.100
L0001942        0.100
L0001943        0.100       L0001944        0.100       L0001945        0.100
L0001946        0.100
L0001947        0.100       L0001948        0.100       L0001949        0.100
L0001950        0.100
L0001951        0.100       L0001952        0.100       L0001953        0.100
L0001954        0.100
L0001955        0.100       L0001956        0.100       L0001957        0.100
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0001958        0.100
 L0001959        0.100       L0001960        0.100       L0001961        0.100
 L0001962        0.100
 L0001963        0.100       L0001964        0.100       L0001965        0.100
 L0001966        0.100
 L0001967        0.100       L0001968        0.100       L0001969        0.100
 L0001970        0.100
 L0001971        0.100       L0001972        0.100       L0001973        0.100
 L0001974        0.100
 L0001975        0.100       L0001976        0.100       L0001977        0.100
 L0001978        0.100
 L0001979        0.100       L0001980        0.100       L0001981        0.100
 L0001982        0.100
 L0001730        0.100       L0001731        0.100       L0001732        0.100
 L0001733        0.100
 L0001734        0.100       L0001735        0.100       L0001736        0.100
 L0001737        0.100
 L0001738        0.100       L0001739        0.100       L0001740        0.100
 L0001741        0.100
 L0001742        0.100       L0001743        0.100       L0001744        0.100
 L0001745        0.100
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  39
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN



                                       *** IN-STACK NO2 RATIOS FOR OLM/PVMRM
OPTIONS ***


 SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO      SOURCE_ID    NO2_RATIO
 SOURCE_ID    NO2_RATIO

 L0001746        0.100       L0001747        0.100       L0001748        0.100
 L0001749        0.100
 L0001750        0.100       L0001751        0.100       L0001752        0.100
 L0001753        0.100
 L0001754        0.100       L0001755        0.100       L0001756        0.100
 L0001757        0.100
 L0001758        0.100       L0001759        0.100       L0001760        0.100
 L0001761        0.100
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                    AERMOD LSTs Operational Output
                                 ***         12:37:14

                                            PAGE  40
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN

                                                      *** DISCRETE CARTESIAN RECEPTORS ***
                                                    (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                     (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,       2.0);         ( 478348.6,
3749820.7,     458.3,     458.3,       2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,       2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,       2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,       2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,       2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,       2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,       2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                                 ***         12:37:14

                                            PAGE  41
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN

                                                     *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                       (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.
```

```
                                       *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                        (METERS/SEC)

                                                   1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  42
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                  Upper air station no.:     3190
                  Name: UNKNOWN                                     Name: UNKNOWN

                  Year:   2007                                      Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
```

```
                           AERMOD LSTs Operational Output
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5



 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9    99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0    99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                AERMOD LSTs Operational Output
                             ***         12:37:14

                                         PAGE  43
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN

                                  *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL       ***
                                 INCLUDING SOURCE(S):     L0001125    , L0001126
 , L0001127    , L0001128    , L0001129    ,
               L0001130    , L0001131    , L0001132    , L0001133    , L0001134
 , L0001135    , L0001136    , L0001137    ,
               L0001138    , L0001139    , L0001140    , L0001141    , L0001142
 , L0001143    , L0001144    , L0001145    ,
               L0001146    , L0001147    , L0001148    , L0001149    , L0001150
 , L0001151    , L0001152    ,  . . .      ,

                                               *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF NO2      IN PPM
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.00372  (10093020)               478348.59
 3749820.73        0.00377  (11063006)
        478323.98   3749446.94        0.00462  (11111118)               478321.90
 3749107.70        0.00639  (11042420)
        478311.50   3748947.34        0.00940  (07090220)               478314.46
 3748704.06        0.01213  (07083001)
        478309.66   3748401.33        0.01368  (10082624)               478302.71
 3748248.43        0.01009  (07072322)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                             ***         12:37:14

                                         PAGE  44
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN

                                                  *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                      ** CONC OF NO2      IN PPM
                **
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                         AERMOD LSTs Operational Output

                                                         DATE
                                             NETWORK
GROUP ID                          AVERAGE CONC      (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


ALL      HIGH   1ST HIGH VALUE IS       0.01368  ON 10082624: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\NOx\NOx.isc                 ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:37:14

                                   PAGE  45
 **MODELOPTs:   NonDFAULT CONC      ELEV      FLGPOL    OLM       URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           3 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 CO W276      23       POLLID: Special proc for 1h-NO2/SO2 24hPM25 NAAQS disabled
   NO2 H1H
 CO W271      32       COCARD: O3FILE w/o O3VALs; full conv for hrs with miss O3
```

```
 ME W531    1784       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/3/2015
** File: C:\Lakes\AERMOD View\MVL\OperationalLSTs\PM10\PM10.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\OperationalLSTs\PM10\PM10.isc
   MODELOPT DFAULT CONC
   AVERTIME 24 ANNUAL
   URBANOPT 2100516
   POLLUTID PM_10
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL PM10.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
```

```
                        AERMOD LSTs Operational Output
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.000132
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0002317     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0002318     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0002319     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0002320     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0002321     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0002322     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0002323     VOLUME   478217.023 3748596.254 452.00
   LOCATION L0002324     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0002325     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0002326     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0002327     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0002328     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0002329     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0002330     VOLUME   478217.984 3748806.252 452.66
   LOCATION L0002331     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0002332     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0002333     VOLUME   478218.396 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001127
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.00, 4.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0002334     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0002335     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0002336     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0002337     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0002338     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0002339     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0002340     VOLUME   477945.430 3748681.118 452.49
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   LOCATION L0002341     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0002342     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0002343     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0002344     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0002345     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0002346     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0002347     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005939
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.03, 4.00, 3.95
** ----------------------------------------------------------------
   LOCATION L0002348     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0002349     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0002350     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0002351     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0002352     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0002353     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0002354     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0002355     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004706
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 451.00, 4.00, 3.95
** 477936.827, 3748338.755, 450.99, 4.00, 3.95
** 477944.157, 3748337.839, 450.98, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.00, 4.00, 3.95
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                            AERMOD LSTs Operational Output
** --------------------------------------------------------------------
   LOCATION L0002356     VOLUME   477900.151 3748339.028 451.00
   LOCATION L0002357     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0002358     VOLUME   477917.150 3748338.902 451.00
   LOCATION L0002359     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0002360     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0002361     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0002362     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0002363     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0002364     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0002365     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0002366     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0002367     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0002368     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0002369     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0002370     VOLUME   477977.265 3748271.460 450.00
   LOCATION L0002371     VOLUME   477978.288 3748263.022 450.00
   LOCATION L0002372     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0002373     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0002374     VOLUME   477978.207 3748237.527 450.00
   LOCATION L0002375     VOLUME   477978.153 3748229.027 450.00
   LOCATION L0002376     VOLUME   477978.100 3748220.527 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008049
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002377     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0002378     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0002379     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0002380     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0002381     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0002382     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0002383     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0002384     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0002385     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0002386     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0002387     VOLUME   477608.667 3748844.289 454.00
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   LOCATION L0002388     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0002389     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0002390     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0002391     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00003634
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 450.99, 0.00, 13.95
** 478166.972, 3748332.512, 450.89, 0.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0002392     VOLUME   478043.005 3748335.195 451.00
   LOCATION L0002393     VOLUME   478072.998 3748334.546 451.00
   LOCATION L0002394     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0002395     VOLUME   478132.984 3748333.248 451.00
   LOCATION L0002396     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.001614
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 453.00, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 453.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 450.99, 4.00, 3.95
** 478215.801, 3748338.412, 450.97, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 453.00, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002397     VOLUME   477952.327 3748971.417 453.00
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LOCATION L0002398     VOLUME   477952.164 3748962.918 453.00
LOCATION L0002399     VOLUME   477952.001 3748954.420 453.00
LOCATION L0002400     VOLUME   477951.443 3748945.954 453.00
LOCATION L0002401     VOLUME   477950.216 3748937.543 453.00
LOCATION L0002402     VOLUME   477948.989 3748929.132 453.00
LOCATION L0002403     VOLUME   477948.245 3748920.681 453.00
LOCATION L0002404     VOLUME   477948.087 3748912.183 453.00
LOCATION L0002405     VOLUME   477947.928 3748903.684 453.00
LOCATION L0002406     VOLUME   477947.769 3748895.186 453.00
LOCATION L0002407     VOLUME   477947.610 3748886.687 453.00
LOCATION L0002408     VOLUME   477947.452 3748878.189 453.00
LOCATION L0002409     VOLUME   477947.294 3748869.690 453.00
LOCATION L0002410     VOLUME   477947.226 3748861.191 453.00
LOCATION L0002411     VOLUME   477947.157 3748852.691 453.00
LOCATION L0002412     VOLUME   477947.089 3748844.191 453.00
LOCATION L0002413     VOLUME   477947.021 3748835.691 453.00
LOCATION L0002414     VOLUME   477946.952 3748827.192 453.00
LOCATION L0002415     VOLUME   477946.884 3748818.692 453.00
LOCATION L0002416     VOLUME   477946.816 3748810.192 453.00
LOCATION L0002417     VOLUME   477946.747 3748801.692 453.00
LOCATION L0002418     VOLUME   477946.679 3748793.193 453.00
LOCATION L0002419     VOLUME   477946.610 3748784.693 453.00
LOCATION L0002420     VOLUME   477946.542 3748776.193 453.00
LOCATION L0002421     VOLUME   477946.474 3748767.694 453.00
LOCATION L0002422     VOLUME   477946.405 3748759.194 453.00
LOCATION L0002423     VOLUME   477946.337 3748750.694 453.00
LOCATION L0002424     VOLUME   477946.269 3748742.194 453.00
LOCATION L0002425     VOLUME   477946.200 3748733.695 453.00
LOCATION L0002426     VOLUME   477946.132 3748725.195 453.00
LOCATION L0002427     VOLUME   477946.063 3748716.695 453.00
LOCATION L0002428     VOLUME   477945.995 3748708.195 453.00
LOCATION L0002429     VOLUME   477945.927 3748699.696 453.00
LOCATION L0002430     VOLUME   477945.858 3748691.196 452.82
LOCATION L0002431     VOLUME   477945.790 3748682.696 452.54
LOCATION L0002432     VOLUME   477945.722 3748674.197 452.25
LOCATION L0002433     VOLUME   477945.653 3748665.697 452.00
LOCATION L0002434     VOLUME   477945.585 3748657.197 452.00
LOCATION L0002435     VOLUME   477945.517 3748648.697 452.00
LOCATION L0002436     VOLUME   477945.448 3748640.198 452.00
LOCATION L0002437     VOLUME   477945.380 3748631.698 452.00
LOCATION L0002438     VOLUME   477945.311 3748623.198 452.00
LOCATION L0002439     VOLUME   477945.243 3748614.699 452.00
LOCATION L0002440     VOLUME   477945.175 3748606.199 452.00
LOCATION L0002441     VOLUME   477945.106 3748597.699 452.00
LOCATION L0002442     VOLUME   477945.038 3748589.199 452.00
LOCATION L0002443     VOLUME   477944.970 3748580.700 452.00
LOCATION L0002444     VOLUME   477944.901 3748572.200 452.00
LOCATION L0002445     VOLUME   477944.833 3748563.700 452.00
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LOCATION L0002446     VOLUME   477944.764 3748555.200 452.00
LOCATION L0002447     VOLUME   477944.696 3748546.701 452.00
LOCATION L0002448     VOLUME   477944.628 3748538.201 452.00
LOCATION L0002449     VOLUME   477944.559 3748529.701 452.00
LOCATION L0002450     VOLUME   477944.491 3748521.202 452.00
LOCATION L0002451     VOLUME   477944.423 3748512.702 451.87
LOCATION L0002452     VOLUME   477944.354 3748504.202 451.59
LOCATION L0002453     VOLUME   477944.286 3748495.702 451.30
LOCATION L0002454     VOLUME   477944.728 3748487.329 451.03
LOCATION L0002455     VOLUME   477948.744 3748479.837 451.00
LOCATION L0002456     VOLUME   477952.760 3748472.346 451.00
LOCATION L0002457     VOLUME   477956.776 3748464.855 451.00
LOCATION L0002458     VOLUME   477960.792 3748457.363 451.00
LOCATION L0002459     VOLUME   477964.809 3748449.872 451.00
LOCATION L0002460     VOLUME   477968.825 3748442.381 451.00
LOCATION L0002461     VOLUME   477972.841 3748434.889 451.00
LOCATION L0002462     VOLUME   477976.857 3748427.398 451.00
LOCATION L0002463     VOLUME   477980.874 3748419.907 451.00
LOCATION L0002464     VOLUME   477984.890 3748412.415 451.00
LOCATION L0002465     VOLUME   477988.906 3748404.924 451.00
LOCATION L0002466     VOLUME   477992.922 3748397.433 451.00
LOCATION L0002467     VOLUME   477996.939 3748389.941 451.00
LOCATION L0002468     VOLUME   478000.955 3748382.450 451.00
LOCATION L0002469     VOLUME   478004.971 3748374.959 451.00
LOCATION L0002470     VOLUME   478008.987 3748367.468 451.00
LOCATION L0002471     VOLUME   478013.004 3748359.976 451.00
LOCATION L0002472     VOLUME   478017.122 3748352.545 451.00
LOCATION L0002473     VOLUME   478021.740 3748345.409 451.00
LOCATION L0002474     VOLUME   478026.357 3748338.273 451.00
LOCATION L0002475     VOLUME   478033.820 3748336.434 451.00
LOCATION L0002476     VOLUME   478042.319 3748336.526 451.00
LOCATION L0002477     VOLUME   478050.819 3748336.619 451.00
LOCATION L0002478     VOLUME   478059.318 3748336.711 451.00
LOCATION L0002479     VOLUME   478067.818 3748336.803 451.00
LOCATION L0002480     VOLUME   478076.317 3748336.896 451.00
LOCATION L0002481     VOLUME   478084.817 3748336.988 451.00
LOCATION L0002482     VOLUME   478093.316 3748337.080 451.00
LOCATION L0002483     VOLUME   478101.816 3748337.173 451.00
LOCATION L0002484     VOLUME   478110.315 3748337.265 451.00
LOCATION L0002485     VOLUME   478118.815 3748337.358 451.00
LOCATION L0002486     VOLUME   478127.314 3748337.450 451.00
LOCATION L0002487     VOLUME   478135.814 3748337.542 451.00
LOCATION L0002488     VOLUME   478144.313 3748337.635 451.00
LOCATION L0002489     VOLUME   478152.813 3748337.727 451.00
LOCATION L0002490     VOLUME   478161.312 3748337.820 451.00
LOCATION L0002491     VOLUME   478169.812 3748337.912 451.00
LOCATION L0002492     VOLUME   478178.311 3748338.004 451.00
LOCATION L0002493     VOLUME   478186.811 3748338.097 451.00
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LOCATION L0002494     VOLUME   478195.310 3748338.189 451.00
LOCATION L0002495     VOLUME   478203.810 3748338.282 451.00
LOCATION L0002496     VOLUME   478212.309 3748338.374 451.00
LOCATION L0002497     VOLUME   478215.837 3748343.420 451.00
LOCATION L0002498     VOLUME   478215.897 3748351.920 451.00
LOCATION L0002499     VOLUME   478215.958 3748360.419 451.00
LOCATION L0002500     VOLUME   478216.018 3748368.919 451.00
LOCATION L0002501     VOLUME   478216.079 3748377.419 451.00
LOCATION L0002502     VOLUME   478216.139 3748385.919 451.00
LOCATION L0002503     VOLUME   478216.200 3748394.419 451.00
LOCATION L0002504     VOLUME   478216.260 3748402.918 451.00
LOCATION L0002505     VOLUME   478216.321 3748411.418 451.00
LOCATION L0002506     VOLUME   478216.381 3748419.918 451.00
LOCATION L0002507     VOLUME   478216.442 3748428.418 451.00
LOCATION L0002508     VOLUME   478216.502 3748436.918 451.00
LOCATION L0002509     VOLUME   478216.563 3748445.417 451.00
LOCATION L0002510     VOLUME   478216.623 3748453.917 451.00
LOCATION L0002511     VOLUME   478216.683 3748462.417 451.04
LOCATION L0002512     VOLUME   478216.744 3748470.917 451.11
LOCATION L0002513     VOLUME   478216.804 3748479.416 451.18
LOCATION L0002514     VOLUME   478216.865 3748487.916 451.27
LOCATION L0002515     VOLUME   478216.925 3748496.416 451.49
LOCATION L0002516     VOLUME   478216.986 3748504.916 451.70
LOCATION L0002517     VOLUME   478217.046 3748513.416 451.92
LOCATION L0002518     VOLUME   478217.107 3748521.915 452.00
LOCATION L0002519     VOLUME   478217.167 3748530.415 452.00
LOCATION L0002520     VOLUME   478217.228 3748538.915 452.00
LOCATION L0002521     VOLUME   478217.288 3748547.415 452.00
LOCATION L0002522     VOLUME   478217.349 3748555.915 452.00
LOCATION L0002523     VOLUME   478217.409 3748564.414 452.00
LOCATION L0002524     VOLUME   478217.470 3748572.914 452.00
LOCATION L0002525     VOLUME   478217.530 3748581.414 452.00
LOCATION L0002526     VOLUME   478217.591 3748589.914 452.00
LOCATION L0002527     VOLUME   478217.651 3748598.413 452.00
LOCATION L0002528     VOLUME   478217.712 3748606.913 452.00
LOCATION L0002529     VOLUME   478217.772 3748615.413 452.00
LOCATION L0002530     VOLUME   478217.833 3748623.913 452.00
LOCATION L0002531     VOLUME   478217.893 3748632.413 452.00
LOCATION L0002532     VOLUME   478217.954 3748640.912 452.00
LOCATION L0002533     VOLUME   478218.014 3748649.412 452.00
LOCATION L0002534     VOLUME   478218.075 3748657.912 452.00
LOCATION L0002535     VOLUME   478218.135 3748666.412 452.00
LOCATION L0002536     VOLUME   478218.196 3748674.912 452.00
LOCATION L0002537     VOLUME   478218.256 3748683.411 452.00
LOCATION L0002538     VOLUME   478218.317 3748691.911 452.00
LOCATION L0002539     VOLUME   478218.377 3748700.411 452.00
LOCATION L0002540     VOLUME   478218.438 3748708.911 452.00
LOCATION L0002541     VOLUME   478218.498 3748717.410 452.00
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                       AERMOD LSTs Operational Output
   LOCATION L0002542     VOLUME   478218.559 3748725.910 452.00
   LOCATION L0002543     VOLUME   478218.619 3748734.410 452.00
   LOCATION L0002544     VOLUME   478218.680 3748742.910 452.00
   LOCATION L0002545     VOLUME   478218.740 3748751.410 452.00
   LOCATION L0002546     VOLUME   478218.801 3748759.909 452.00
   LOCATION L0002547     VOLUME   478218.861 3748768.409 452.00
   LOCATION L0002548     VOLUME   478218.922 3748776.909 452.00
   LOCATION L0002549     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0002550     VOLUME   478219.043 3748793.908 452.25
   LOCATION L0002551     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0002552     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0002553     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0002554     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0002555     VOLUME   478219.345 3748836.407 453.00
   LOCATION L0002556     VOLUME   478219.405 3748844.907 453.00
   LOCATION L0002557     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0002558     VOLUME   478219.526 3748861.907 453.00
   LOCATION L0002559     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0002560     VOLUME   478219.647 3748878.906 453.00
   LOCATION L0002561     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0002562     VOLUME   478219.768 3748895.906 453.00
   LOCATION L0002563     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0002564     VOLUME   478219.889 3748912.905 453.00
   LOCATION L0002565     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0002566     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0002567     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0002568     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0002569     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0002570     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0002571     VOLUME   478202.675 3748969.843 453.00
** End of LINE VOLUME Source ID = SLINE7
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001159
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.09, 4.00, 3.95
** 477742.747, 3748979.421, 454.00, 4.00, 3.95
** 477742.213, 3748884.901, 453.70, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
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** 477798.284, 3748826.161, 453.00, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0002572     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0002573     VOLUME   477852.822 3748843.717 453.00
   LOCATION L0002574     VOLUME   477852.867 3748852.217 453.00
   LOCATION L0002575     VOLUME   477852.913 3748860.717 453.00
   LOCATION L0002576     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0002577     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0002578     VOLUME   477853.051 3748886.216 453.00
   LOCATION L0002579     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0002580     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0002581     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0002582     VOLUME   477853.234 3748920.216 453.00
   LOCATION L0002583     VOLUME   477853.279 3748928.716 453.00
   LOCATION L0002584     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0002585     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0002586     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0002587     VOLUME   477853.463 3748962.715 453.00
   LOCATION L0002588     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0002589     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0002590     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0002591     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0002592     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0002593     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0002594     VOLUME   477811.027 3748979.586 454.00
   LOCATION L0002595     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0002596     VOLUME   477794.027 3748979.545 454.00
   LOCATION L0002597     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0002598     VOLUME   477777.027 3748979.504 454.00
   LOCATION L0002599     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0002600     VOLUME   477760.027 3748979.463 454.00
   LOCATION L0002601     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0002602     VOLUME   477743.027 3748979.422 454.00
   LOCATION L0002603     VOLUME   477742.701 3748971.202 454.00
   LOCATION L0002604     VOLUME   477742.653 3748962.702 454.00
   LOCATION L0002605     VOLUME   477742.605 3748954.202 454.00
   LOCATION L0002606     VOLUME   477742.557 3748945.702 454.00
   LOCATION L0002607     VOLUME   477742.508 3748937.202 454.00
   LOCATION L0002608     VOLUME   477742.460 3748928.702 453.89
   LOCATION L0002609     VOLUME   477742.412 3748920.202 453.77
   LOCATION L0002610     VOLUME   477742.364 3748911.703 453.65
   LOCATION L0002611     VOLUME   477742.316 3748903.203 453.58
   LOCATION L0002612     VOLUME   477742.268 3748894.703 453.58
   LOCATION L0002613     VOLUME   477742.220 3748886.203 453.59
   LOCATION L0002614     VOLUME   477744.174 3748877.975 453.52
   LOCATION L0002615     VOLUME   477746.490 3748869.797 453.57
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   LOCATION L0002616     VOLUME   477748.805 3748861.618 453.68
   LOCATION L0002617     VOLUME   477751.121 3748853.440 453.84
   LOCATION L0002618     VOLUME   477753.436 3748845.261 453.96
   LOCATION L0002619     VOLUME   477757.468 3748838.153 453.72
   LOCATION L0002620     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0002621     VOLUME   477770.126 3748826.806 453.22
   LOCATION L0002622     VOLUME   477778.582 3748826.536 453.12
   LOCATION L0002623     VOLUME   477787.080 3748826.374 453.03
   LOCATION L0002624     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0002625     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0002626     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0002627     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0002628     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0002629     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0002630     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000758
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 450.85, 4.00, 3.95
** 477886.421, 3748337.112, 451.00, 4.00, 3.95
** 477917.002, 3748339.979, 451.00, 4.00, 3.95
** 477941.530, 3748338.068, 451.00, 4.00, 3.95
** 477951.087, 3748325.007, 450.71, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.00, 4.00, 3.95
** 477993.877, 3748210.463, 450.00, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0002631     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0002632     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0002633     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0002634     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0002635     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0002636     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0002637     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0002638     VOLUME   477885.558 3748263.233 450.92
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   LOCATION L0002639     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0002640     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0002641     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0002642     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0002643     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0002644     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0002645     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0002646     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0002647     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0002648     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0002649     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0002650     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0002651     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0002652     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0002653     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0002654     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0002655     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0002656     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0002657     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0002658     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0002659     VOLUME   477968.225 3748296.672 450.00
   LOCATION L0002660     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0002661     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0002662     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0002663     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0002664     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0002665     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0002666     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0002667     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0002668     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0002669     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0002670     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0002671     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0002672     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0002673     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0002674     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0002675     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0002676     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0002677     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0002678     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0002679     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                     AERMOD LSTs Operational Output
** Configuration = Adjacent
** Emission Rate = 0.000132
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 454.06, 4.00, 3.95
** 477598.310, 3748973.915, 454.00, 4.00, 3.95
** 477610.497, 3748965.249, 454.00, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 454.00, 4.00, 3.95
** 477487.823, 3748799.247, 454.00, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002680     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0002681     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0002682     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0002683     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0002684     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0002685     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0002686     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0002687     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0002688     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0002689     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0002690     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0002691     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0002692     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0002693     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0002694     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0002695     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0002696     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0002697     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0002698     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0002699     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0002700     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0002701     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0002702     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0002703     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0002704     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0002705     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0002706     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0002707     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0002708     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0002709     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0002710     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0002711     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0002712     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0002713     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0002714     VOLUME   477618.478 3748795.702 454.00
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AERMOD LSTs Operational Output

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   LOCATION L0002715     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0002716     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0002717     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0002718     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0002719     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0002720     VOLUME   477567.497 3748797.085 454.00
   LOCATION L0002721     VOLUME   477559.000 3748797.316 454.00
   LOCATION L0002722     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0002723     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0002724     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0002725     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0002726     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0002727     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0002728     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0002729     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
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   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC PC On-Site Idling North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005774
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002730     VOLUME   477922.279 3748920.131 453.00
   LOCATION L0002731     VOLUME   477921.884 3748928.621 453.00
   LOCATION L0002732     VOLUME   477921.489 3748937.112 453.00
   LOCATION L0002733     VOLUME   477921.095 3748945.603 453.00
   LOCATION L0002734     VOLUME   477920.700 3748954.094 453.00
   LOCATION L0002735     VOLUME   477927.678 3748955.589 453.00
   LOCATION L0002736     VOLUME   477936.177 3748955.641 453.00
   LOCATION L0002737     VOLUME   477944.677 3748955.692 453.00
   LOCATION L0002738     VOLUME   477953.177 3748955.744 453.00
   LOCATION L0002739     VOLUME   477961.677 3748955.795 453.00
   LOCATION L0002740     VOLUME   477970.177 3748955.847 453.00
   LOCATION L0002741     VOLUME   477978.677 3748955.898 453.00
   LOCATION L0002742     VOLUME   477987.177 3748955.950 453.00
   LOCATION L0002743     VOLUME   477995.676 3748956.001 453.00
   LOCATION L0002744     VOLUME   478004.176 3748956.053 453.00
   LOCATION L0002745     VOLUME   478012.676 3748956.104 453.00
   LOCATION L0002746     VOLUME   478021.176 3748956.156 453.00
   LOCATION L0002747     VOLUME   478029.676 3748956.208 453.00
   LOCATION L0002748     VOLUME   478038.176 3748956.259 453.00
   LOCATION L0002749     VOLUME   478046.675 3748956.311 453.00
   LOCATION L0002750     VOLUME   478055.175 3748956.362 453.00
   LOCATION L0002751     VOLUME   478063.675 3748956.414 453.00
   LOCATION L0002752     VOLUME   478072.175 3748956.465 453.00
   LOCATION L0002753     VOLUME   478080.675 3748956.517 453.00
   LOCATION L0002754     VOLUME   478089.175 3748956.568 453.00
   LOCATION L0002755     VOLUME   478097.675 3748956.620 453.00
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   LOCATION L0002756     VOLUME   478106.174 3748956.671 453.00
   LOCATION L0002757     VOLUME   478114.674 3748956.723 453.00
   LOCATION L0002758     VOLUME   478123.174 3748956.774 453.00
   LOCATION L0002759     VOLUME   478131.674 3748956.826 453.00
   LOCATION L0002760     VOLUME   478140.174 3748956.877 453.00
   LOCATION L0002761     VOLUME   478148.674 3748956.929 453.00
   LOCATION L0002762     VOLUME   478157.173 3748956.980 453.00
   LOCATION L0002763     VOLUME   478165.673 3748957.032 453.00
   LOCATION L0002764     VOLUME   478174.173 3748957.083 453.00
   LOCATION L0002765     VOLUME   478182.673 3748957.135 453.00
   LOCATION L0002766     VOLUME   478191.173 3748957.186 453.00
   LOCATION L0002767     VOLUME   478199.673 3748957.238 453.00
   LOCATION L0002768     VOLUME   478208.172 3748957.289 453.00
   LOCATION L0002769     VOLUME   478216.672 3748957.341 453.00
   LOCATION L0002770     VOLUME   478225.010 3748957.229 453.00
   LOCATION L0002771     VOLUME   478225.010 3748948.729 453.00
   LOCATION L0002772     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0002773     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0002774     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE11
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE16
** DESCRSRC PC On-Site Travel North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002182
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002775     VOLUME   477922.279 3748920.131 453.00
   LOCATION L0002776     VOLUME   477921.884 3748928.621 453.00
   LOCATION L0002777     VOLUME   477921.489 3748937.112 453.00
   LOCATION L0002778     VOLUME   477921.095 3748945.603 453.00
   LOCATION L0002779     VOLUME   477920.700 3748954.094 453.00
   LOCATION L0002780     VOLUME   477927.678 3748955.589 453.00
   LOCATION L0002781     VOLUME   477936.177 3748955.641 453.00
   LOCATION L0002782     VOLUME   477944.677 3748955.692 453.00
   LOCATION L0002783     VOLUME   477953.177 3748955.744 453.00
   LOCATION L0002784     VOLUME   477961.677 3748955.795 453.00
   LOCATION L0002785     VOLUME   477970.177 3748955.847 453.00
   LOCATION L0002786     VOLUME   477978.677 3748955.898 453.00
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   LOCATION L0002787     VOLUME   477987.177 3748955.950 453.00
   LOCATION L0002788     VOLUME   477995.676 3748956.001 453.00
   LOCATION L0002789     VOLUME   478004.176 3748956.053 453.00
   LOCATION L0002790     VOLUME   478012.676 3748956.104 453.00
   LOCATION L0002791     VOLUME   478021.176 3748956.156 453.00
   LOCATION L0002792     VOLUME   478029.676 3748956.208 453.00
   LOCATION L0002793     VOLUME   478038.176 3748956.259 453.00
   LOCATION L0002794     VOLUME   478046.675 3748956.311 453.00
   LOCATION L0002795     VOLUME   478055.175 3748956.362 453.00
   LOCATION L0002796     VOLUME   478063.675 3748956.414 453.00
   LOCATION L0002797     VOLUME   478072.175 3748956.465 453.00
   LOCATION L0002798     VOLUME   478080.675 3748956.517 453.00
   LOCATION L0002799     VOLUME   478089.175 3748956.568 453.00
   LOCATION L0002800     VOLUME   478097.675 3748956.620 453.00
   LOCATION L0002801     VOLUME   478106.174 3748956.671 453.00
   LOCATION L0002802     VOLUME   478114.674 3748956.723 453.00
   LOCATION L0002803     VOLUME   478123.174 3748956.774 453.00
   LOCATION L0002804     VOLUME   478131.674 3748956.826 453.00
   LOCATION L0002805     VOLUME   478140.174 3748956.877 453.00
   LOCATION L0002806     VOLUME   478148.674 3748956.929 453.00
   LOCATION L0002807     VOLUME   478157.173 3748956.980 453.00
   LOCATION L0002808     VOLUME   478165.673 3748957.032 453.00
   LOCATION L0002809     VOLUME   478174.173 3748957.083 453.00
   LOCATION L0002810     VOLUME   478182.673 3748957.135 453.00
   LOCATION L0002811     VOLUME   478191.173 3748957.186 453.00
   LOCATION L0002812     VOLUME   478199.673 3748957.238 453.00
   LOCATION L0002813     VOLUME   478208.172 3748957.289 453.00
   LOCATION L0002814     VOLUME   478216.672 3748957.341 453.00
   LOCATION L0002815     VOLUME   478225.010 3748957.229 453.00
   LOCATION L0002816     VOLUME   478225.010 3748948.729 453.00
   LOCATION L0002817     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0002818     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0002819     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE16
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC PC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005774
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
```

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** ------------------------------------------------------------------
   LOCATION L0002820     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0002821     VOLUME   478185.936 3748323.096 450.00
   LOCATION L0002822     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0002823     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0002824     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0002825     VOLUME   478219.914 3748321.882 450.00
   LOCATION L0002826     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0002827     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0002828     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0002829     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0002830     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0002831     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0002832     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0002833     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0002834     VOLUME   478233.496 3748380.968 451.00
   LOCATION L0002835     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE12
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE17
** DESCRSRC PC On-Site Travel South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 7.973E-06
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0002836     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0002837     VOLUME   478185.936 3748323.096 450.00
   LOCATION L0002838     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0002839     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0002840     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0002841     VOLUME   478219.914 3748321.882 450.00
   LOCATION L0002842     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0002843     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0002844     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0002845     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0002846     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0002847     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0002848     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0002849     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0002850     VOLUME   478233.496 3748380.968 451.00
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   LOCATION L0002851     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE17
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC PC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005511
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002852     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0002853     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0002854     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0002855     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0002856     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0002857     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0002858     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0002859     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0002860     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0002861     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0002862     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0002863     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0002864     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0002865     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0002866     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0002867     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0002868     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0002869     VOLUME   477853.699 3748947.227 453.00
   LOCATION L0002870     VOLUME   477853.614 3748938.727 453.00
   LOCATION L0002871     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0002872     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0002873     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0002874     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0002875     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0002876     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0002877     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0002878     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0002879     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0002880     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0002881     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0002882     VOLUME   477852.587 3748836.732 453.00
```

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** End of LINE VOLUME Source ID = SLINE13
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE18
** DESCRSRC PC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001428
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0002883     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0002884     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0002885     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0002886     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0002887     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0002888     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0002889     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0002890     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0002891     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0002892     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0002893     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0002894     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0002895     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0002896     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0002897     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0002898     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0002899     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0002900     VOLUME   477853.699 3748947.227 453.00
   LOCATION L0002901     VOLUME   477853.614 3748938.727 453.00
   LOCATION L0002902     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0002903     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0002904     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0002905     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0002906     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0002907     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0002908     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0002909     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0002910     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0002911     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0002912     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0002913     VOLUME   477852.587 3748836.732 453.00
** End of LINE VOLUME Source ID = SLINE18
```

AERMOD LSTs Operational Output

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** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC PC On-Site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004378
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0002914     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0002915     VOLUME   477942.912 3748197.691 450.00
   LOCATION L0002916     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0002917     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0002918     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0002919     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0002920     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0002921     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE14
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE19
** DESCRSRC PC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 2.798E-06
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0002922     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0002923     VOLUME   477942.912 3748197.691 450.00
   LOCATION L0002924     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0002925     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0002926     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0002927     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0002928     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0002929     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE19
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
```

AERMOD LSTs Operational Output

```
** LINE VOLUME Source ID = SLINE15
** DESCRSRC PC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007466
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002930     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0002931     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0002932     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0002933     VOLUME   477524.946 3748975.832 454.00
   LOCATION L0002934     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0002935     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0002936     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0002937     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0002938     VOLUME   477567.434 3748974.837 454.00
   LOCATION L0002939     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0002940     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0002941     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE15
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE20
** DESCRSRC PC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 7.875E-06
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002942     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0002943     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0002944     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0002945     VOLUME   477524.946 3748975.832 454.00
   LOCATION L0002946     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0002947     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0002948     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0002949     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0002950     VOLUME   477567.434 3748974.837 454.00
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   LOCATION L0002951     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0002952     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0002953     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE20
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0002317     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002318     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002319     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002320     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002321     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002322     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002323     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002324     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002325     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002326     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002327     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002328     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002329     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002330     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002331     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002332     0.000007765      4.00     13.95      1.86
   SRCPARAM L0002333     0.000007765      4.00     13.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0002334     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002335     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002336     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002337     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002338     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002339     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002340     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002341     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002342     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002343     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002344     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002345     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002346     0.00000805      4.00     13.95      1.86
   SRCPARAM L0002347     0.00000805      4.00     13.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0002348     0.000007424      4.00      3.95      1.86
   SRCPARAM L0002349     0.000007424      4.00      3.95      1.86
   SRCPARAM L0002350     0.000007424      4.00      3.95      1.86
   SRCPARAM L0002351     0.000007424      4.00      3.95      1.86
   SRCPARAM L0002352     0.000007424      4.00      3.95      1.86
   SRCPARAM L0002353     0.000007424      4.00      3.95      1.86
   SRCPARAM L0002354     0.000007424      4.00      3.95      1.86
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   SRCPARAM L0002355     0.000007424      4.00       3.95       1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0002356     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002357     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002358     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002359     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002360     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002361     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002362     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002363     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002364     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002365     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002366     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002367     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002368     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002369     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002370     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002371     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002372     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002373     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002374     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002375     0.000002241      4.00       3.95       1.86
   SRCPARAM L0002376     0.000002241      4.00       3.95       1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0002377     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002378     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002379     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002380     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002381     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002382     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002383     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002384     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002385     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002386     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002387     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002388     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002389     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002390     0.000005366      0.00       3.95       1.86
   SRCPARAM L0002391     0.000005366      0.00       3.95       1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0002392     0.000007268      0.00      13.95       1.86
   SRCPARAM L0002393     0.000007268      0.00      13.95       1.86
   SRCPARAM L0002394     0.000007268      0.00      13.95       1.86
   SRCPARAM L0002395     0.000007268      0.00      13.95       1.86
   SRCPARAM L0002396     0.000007268      0.00      13.95       1.86
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** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0002397     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002398     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002399     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002400     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002401     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002402     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002403     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002404     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002405     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002406     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002407     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002408     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002409     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002410     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002411     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002412     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002413     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002414     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002415     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002416     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002417     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002418     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002419     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002420     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002421     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002422     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002423     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002424     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002425     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002426     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002427     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002428     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002429     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002430     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002431     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002432     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002433     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002434     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002435     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002436     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002437     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002438     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002439     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002440     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002441     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002442     0.000009223      4.00      3.95      1.86
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SRCPARAM L0002443     0.000009223      4.00      3.95      1.86
SRCPARAM L0002444     0.000009223      4.00      3.95      1.86
SRCPARAM L0002445     0.000009223      4.00      3.95      1.86
SRCPARAM L0002446     0.000009223      4.00      3.95      1.86
SRCPARAM L0002447     0.000009223      4.00      3.95      1.86
SRCPARAM L0002448     0.000009223      4.00      3.95      1.86
SRCPARAM L0002449     0.000009223      4.00      3.95      1.86
SRCPARAM L0002450     0.000009223      4.00      3.95      1.86
SRCPARAM L0002451     0.000009223      4.00      3.95      1.86
SRCPARAM L0002452     0.000009223      4.00      3.95      1.86
SRCPARAM L0002453     0.000009223      4.00      3.95      1.86
SRCPARAM L0002454     0.000009223      4.00      3.95      1.86
SRCPARAM L0002455     0.000009223      4.00      3.95      1.86
SRCPARAM L0002456     0.000009223      4.00      3.95      1.86
SRCPARAM L0002457     0.000009223      4.00      3.95      1.86
SRCPARAM L0002458     0.000009223      4.00      3.95      1.86
SRCPARAM L0002459     0.000009223      4.00      3.95      1.86
SRCPARAM L0002460     0.000009223      4.00      3.95      1.86
SRCPARAM L0002461     0.000009223      4.00      3.95      1.86
SRCPARAM L0002462     0.000009223      4.00      3.95      1.86
SRCPARAM L0002463     0.000009223      4.00      3.95      1.86
SRCPARAM L0002464     0.000009223      4.00      3.95      1.86
SRCPARAM L0002465     0.000009223      4.00      3.95      1.86
SRCPARAM L0002466     0.000009223      4.00      3.95      1.86
SRCPARAM L0002467     0.000009223      4.00      3.95      1.86
SRCPARAM L0002468     0.000009223      4.00      3.95      1.86
SRCPARAM L0002469     0.000009223      4.00      3.95      1.86
SRCPARAM L0002470     0.000009223      4.00      3.95      1.86
SRCPARAM L0002471     0.000009223      4.00      3.95      1.86
SRCPARAM L0002472     0.000009223      4.00      3.95      1.86
SRCPARAM L0002473     0.000009223      4.00      3.95      1.86
SRCPARAM L0002474     0.000009223      4.00      3.95      1.86
SRCPARAM L0002475     0.000009223      4.00      3.95      1.86
SRCPARAM L0002476     0.000009223      4.00      3.95      1.86
SRCPARAM L0002477     0.000009223      4.00      3.95      1.86
SRCPARAM L0002478     0.000009223      4.00      3.95      1.86
SRCPARAM L0002479     0.000009223      4.00      3.95      1.86
SRCPARAM L0002480     0.000009223      4.00      3.95      1.86
SRCPARAM L0002481     0.000009223      4.00      3.95      1.86
SRCPARAM L0002482     0.000009223      4.00      3.95      1.86
SRCPARAM L0002483     0.000009223      4.00      3.95      1.86
SRCPARAM L0002484     0.000009223      4.00      3.95      1.86
SRCPARAM L0002485     0.000009223      4.00      3.95      1.86
SRCPARAM L0002486     0.000009223      4.00      3.95      1.86
SRCPARAM L0002487     0.000009223      4.00      3.95      1.86
SRCPARAM L0002488     0.000009223      4.00      3.95      1.86
SRCPARAM L0002489     0.000009223      4.00      3.95      1.86
SRCPARAM L0002490     0.000009223      4.00      3.95      1.86
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                        AERMOD LSTs Operational Output
SRCPARAM L0002491      0.000009223       4.00       3.95       1.86
SRCPARAM L0002492      0.000009223       4.00       3.95       1.86
SRCPARAM L0002493      0.000009223       4.00       3.95       1.86
SRCPARAM L0002494      0.000009223       4.00       3.95       1.86
SRCPARAM L0002495      0.000009223       4.00       3.95       1.86
SRCPARAM L0002496      0.000009223       4.00       3.95       1.86
SRCPARAM L0002497      0.000009223       4.00       3.95       1.86
SRCPARAM L0002498      0.000009223       4.00       3.95       1.86
SRCPARAM L0002499      0.000009223       4.00       3.95       1.86
SRCPARAM L0002500      0.000009223       4.00       3.95       1.86
SRCPARAM L0002501      0.000009223       4.00       3.95       1.86
SRCPARAM L0002502      0.000009223       4.00       3.95       1.86
SRCPARAM L0002503      0.000009223       4.00       3.95       1.86
SRCPARAM L0002504      0.000009223       4.00       3.95       1.86
SRCPARAM L0002505      0.000009223       4.00       3.95       1.86
SRCPARAM L0002506      0.000009223       4.00       3.95       1.86
SRCPARAM L0002507      0.000009223       4.00       3.95       1.86
SRCPARAM L0002508      0.000009223       4.00       3.95       1.86
SRCPARAM L0002509      0.000009223       4.00       3.95       1.86
SRCPARAM L0002510      0.000009223       4.00       3.95       1.86
SRCPARAM L0002511      0.000009223       4.00       3.95       1.86
SRCPARAM L0002512      0.000009223       4.00       3.95       1.86
SRCPARAM L0002513      0.000009223       4.00       3.95       1.86
SRCPARAM L0002514      0.000009223       4.00       3.95       1.86
SRCPARAM L0002515      0.000009223       4.00       3.95       1.86
SRCPARAM L0002516      0.000009223       4.00       3.95       1.86
SRCPARAM L0002517      0.000009223       4.00       3.95       1.86
SRCPARAM L0002518      0.000009223       4.00       3.95       1.86
SRCPARAM L0002519      0.000009223       4.00       3.95       1.86
SRCPARAM L0002520      0.000009223       4.00       3.95       1.86
SRCPARAM L0002521      0.000009223       4.00       3.95       1.86
SRCPARAM L0002522      0.000009223       4.00       3.95       1.86
SRCPARAM L0002523      0.000009223       4.00       3.95       1.86
SRCPARAM L0002524      0.000009223       4.00       3.95       1.86
SRCPARAM L0002525      0.000009223       4.00       3.95       1.86
SRCPARAM L0002526      0.000009223       4.00       3.95       1.86
SRCPARAM L0002527      0.000009223       4.00       3.95       1.86
SRCPARAM L0002528      0.000009223       4.00       3.95       1.86
SRCPARAM L0002529      0.000009223       4.00       3.95       1.86
SRCPARAM L0002530      0.000009223       4.00       3.95       1.86
SRCPARAM L0002531      0.000009223       4.00       3.95       1.86
SRCPARAM L0002532      0.000009223       4.00       3.95       1.86
SRCPARAM L0002533      0.000009223       4.00       3.95       1.86
SRCPARAM L0002534      0.000009223       4.00       3.95       1.86
SRCPARAM L0002535      0.000009223       4.00       3.95       1.86
SRCPARAM L0002536      0.000009223       4.00       3.95       1.86
SRCPARAM L0002537      0.000009223       4.00       3.95       1.86
SRCPARAM L0002538      0.000009223       4.00       3.95       1.86
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   SRCPARAM L0002539     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002540     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002541     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002542     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002543     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002544     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002545     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002546     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002547     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002548     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002549     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002550     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002551     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002552     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002553     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002554     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002555     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002556     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002557     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002558     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002559     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002560     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002561     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002562     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002563     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002564     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002565     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002566     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002567     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002568     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002569     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002570     0.000009223      4.00      3.95      1.86
   SRCPARAM L0002571     0.000009223      4.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0002572     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002573     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002574     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002575     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002576     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002577     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002578     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002579     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002580     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002581     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002582     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002583     0.000001964      4.00      3.95      1.86
   SRCPARAM L0002584     0.000001964      4.00      3.95      1.86
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   SRCPARAM L0002585     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002586     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002587     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002588     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002589     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002590     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002591     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002592     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002593     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002594     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002595     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002596     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002597     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002598     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002599     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002600     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002601     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002602     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002603     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002604     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002605     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002606     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002607     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002608     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002609     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002610     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002611     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002612     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002613     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002614     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002615     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002616     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002617     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002618     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002619     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002620     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002621     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002622     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002623     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002624     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002625     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002626     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002627     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002628     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002629     0.000001964      4.00       3.95       1.86
   SRCPARAM L0002630     0.000001964      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
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AERMOD LSTs Operational Output

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SRCPARAM L0002631     0.000001547      4.00       3.95       1.86
SRCPARAM L0002632     0.000001547      4.00       3.95       1.86
SRCPARAM L0002633     0.000001547      4.00       3.95       1.86
SRCPARAM L0002634     0.000001547      4.00       3.95       1.86
SRCPARAM L0002635     0.000001547      4.00       3.95       1.86
SRCPARAM L0002636     0.000001547      4.00       3.95       1.86
SRCPARAM L0002637     0.000001547      4.00       3.95       1.86
SRCPARAM L0002638     0.000001547      4.00       3.95       1.86
SRCPARAM L0002639     0.000001547      4.00       3.95       1.86
SRCPARAM L0002640     0.000001547      4.00       3.95       1.86
SRCPARAM L0002641     0.000001547      4.00       3.95       1.86
SRCPARAM L0002642     0.000001547      4.00       3.95       1.86
SRCPARAM L0002643     0.000001547      4.00       3.95       1.86
SRCPARAM L0002644     0.000001547      4.00       3.95       1.86
SRCPARAM L0002645     0.000001547      4.00       3.95       1.86
SRCPARAM L0002646     0.000001547      4.00       3.95       1.86
SRCPARAM L0002647     0.000001547      4.00       3.95       1.86
SRCPARAM L0002648     0.000001547      4.00       3.95       1.86
SRCPARAM L0002649     0.000001547      4.00       3.95       1.86
SRCPARAM L0002650     0.000001547      4.00       3.95       1.86
SRCPARAM L0002651     0.000001547      4.00       3.95       1.86
SRCPARAM L0002652     0.000001547      4.00       3.95       1.86
SRCPARAM L0002653     0.000001547      4.00       3.95       1.86
SRCPARAM L0002654     0.000001547      4.00       3.95       1.86
SRCPARAM L0002655     0.000001547      4.00       3.95       1.86
SRCPARAM L0002656     0.000001547      4.00       3.95       1.86
SRCPARAM L0002657     0.000001547      4.00       3.95       1.86
SRCPARAM L0002658     0.000001547      4.00       3.95       1.86
SRCPARAM L0002659     0.000001547      4.00       3.95       1.86
SRCPARAM L0002660     0.000001547      4.00       3.95       1.86
SRCPARAM L0002661     0.000001547      4.00       3.95       1.86
SRCPARAM L0002662     0.000001547      4.00       3.95       1.86
SRCPARAM L0002663     0.000001547      4.00       3.95       1.86
SRCPARAM L0002664     0.000001547      4.00       3.95       1.86
SRCPARAM L0002665     0.000001547      4.00       3.95       1.86
SRCPARAM L0002666     0.000001547      4.00       3.95       1.86
SRCPARAM L0002667     0.000001547      4.00       3.95       1.86
SRCPARAM L0002668     0.000001547      4.00       3.95       1.86
SRCPARAM L0002669     0.000001547      4.00       3.95       1.86
SRCPARAM L0002670     0.000001547      4.00       3.95       1.86
SRCPARAM L0002671     0.000001547      4.00       3.95       1.86
SRCPARAM L0002672     0.000001547      4.00       3.95       1.86
SRCPARAM L0002673     0.000001547      4.00       3.95       1.86
SRCPARAM L0002674     0.000001547      4.00       3.95       1.86
SRCPARAM L0002675     0.000001547      4.00       3.95       1.86
SRCPARAM L0002676     0.000001547      4.00       3.95       1.86
SRCPARAM L0002677     0.000001547      4.00       3.95       1.86
SRCPARAM L0002678     0.000001547      4.00       3.95       1.86
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   SRCPARAM L0002679     0.000001547      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0002680     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002681     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002682     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002683     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002684     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002685     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002686     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002687     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002688     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002689     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002690     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002691     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002692     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002693     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002694     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002695     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002696     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002697     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002698     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002699     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002700     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002701     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002702     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002703     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002704     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002705     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002706     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002707     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002708     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002709     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002710     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002711     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002712     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002713     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002714     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002715     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002716     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002717     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002718     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002719     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002720     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002721     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002722     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002723     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002724     0.00000264      4.00      3.95      1.86
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                          AERMOD LSTs Operational Output
   SRCPARAM L0002725     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002726     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002727     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002728     0.00000264      4.00      3.95      1.86
   SRCPARAM L0002729     0.00000264      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.351E-08     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.00010496     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000083165     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000142241     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0002730     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002731     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002732     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002733     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002734     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002735     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002736     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002737     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002738     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002739     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002740     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002741     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002742     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002743     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002744     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002745     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002746     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002747     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002748     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002749     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002750     0.000001283      0.00      3.95      1.40
   SRCPARAM L0002751     0.000001283      0.00      3.95      1.40
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                         AERMOD LSTs Operational Output
   SRCPARAM L0002752     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002753     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002754     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002755     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002756     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002757     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002758     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002759     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002760     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002761     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002762     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002763     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002764     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002765     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002766     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002767     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002768     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002769     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002770     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002771     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002772     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002773     0.000001283      0.00       3.95       1.40
   SRCPARAM L0002774     0.000001283      0.00       3.95       1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE16
   SRCPARAM L0002775     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002776     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002777     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002778     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002779     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002780     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002781     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002782     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002783     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002784     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002785     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002786     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002787     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002788     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002789     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002790     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002791     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002792     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002793     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002794     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002795     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002796     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002797     0.0000004849      0.00       3.95       1.40
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   SRCPARAM L0002798     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002799     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002800     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002801     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002802     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002803     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002804     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002805     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002806     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002807     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002808     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002809     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002810     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002811     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002812     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002813     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002814     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002815     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002816     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002817     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002818     0.0000004849      0.00       3.95       1.40
   SRCPARAM L0002819     0.0000004849      0.00       3.95       1.40
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0002820     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002821     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002822     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002823     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002824     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002825     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002826     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002827     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002828     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002829     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002830     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002831     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002832     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002833     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002834     0.000003609      0.00       3.95       1.40
   SRCPARAM L0002835     0.000003609      0.00       3.95       1.40
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE17
   SRCPARAM L0002836     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002837     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002838     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002839     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002840     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002841     0.0000004983      0.00       3.95       1.40
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   SRCPARAM L0002842     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002843     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002844     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002845     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002846     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002847     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002848     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002849     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002850     0.0000004983      0.00       3.95       1.40
   SRCPARAM L0002851     0.0000004983      0.00       3.95       1.40
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0002852     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002853     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002854     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002855     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002856     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002857     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002858     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002859     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002860     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002861     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002862     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002863     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002864     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002865     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002866     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002867     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002868     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002869     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002870     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002871     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002872     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002873     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002874     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002875     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002876     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002877     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002878     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002879     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002880     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002881     0.000001778      0.00       3.95       1.40
   SRCPARAM L0002882     0.000001778      0.00       3.95       1.40
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE18
   SRCPARAM L0002883     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002884     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002885     0.0000004606      0.00       3.95       1.40
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   SRCPARAM L0002886     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002887     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002888     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002889     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002890     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002891     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002892     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002893     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002894     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002895     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002896     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002897     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002898     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002899     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002900     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002901     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002902     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002903     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002904     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002905     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002906     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002907     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002908     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002909     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002910     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002911     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002912     0.0000004606      0.00       3.95       1.40
   SRCPARAM L0002913     0.0000004606      0.00       3.95       1.40
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0002914     0.000005472      0.00       3.95       1.40
   SRCPARAM L0002915     0.000005472      0.00       3.95       1.40
   SRCPARAM L0002916     0.000005472      0.00       3.95       1.40
   SRCPARAM L0002917     0.000005472      0.00       3.95       1.40
   SRCPARAM L0002918     0.000005472      0.00       3.95       1.40
   SRCPARAM L0002919     0.000005472      0.00       3.95       1.40
   SRCPARAM L0002920     0.000005472      0.00       3.95       1.40
   SRCPARAM L0002921     0.000005472      0.00       3.95       1.40
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE19
   SRCPARAM L0002922     0.0000003498      0.00       3.95       1.40
   SRCPARAM L0002923     0.0000003498      0.00       3.95       1.40
   SRCPARAM L0002924     0.0000003498      0.00       3.95       1.40
   SRCPARAM L0002925     0.0000003498      0.00       3.95       1.40
   SRCPARAM L0002926     0.0000003498      0.00       3.95       1.40
   SRCPARAM L0002927     0.0000003498      0.00       3.95       1.40
   SRCPARAM L0002928     0.0000003498      0.00       3.95       1.40
   SRCPARAM L0002929     0.0000003498      0.00       3.95       1.40
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** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0002930     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002931     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002932     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002933     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002934     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002935     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002936     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002937     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002938     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002939     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002940     0.000006222      0.00      3.95      1.40
   SRCPARAM L0002941     0.000006222      0.00      3.95      1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE20
   SRCPARAM L0002942     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002943     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002944     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002945     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002946     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002947     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002948     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002949     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002950     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002951     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002952     0.0000006562      0.00      3.95      1.40
   SRCPARAM L0002953     0.0000006562      0.00      3.95      1.40
** ----------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED PM10.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
```

```
                            AERMOD LSTs Operational Output
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM10.AD\24H1GALL.PLT 31
   PLOTFILE ANNUAL ALL PM10.AD\AN00GALL.PLT 32
   SUMMFILE PM10.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    1776       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc                ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46
```

```
                                   AERMOD LSTs Operational Output

                                           PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                     ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   656 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  1 Short Term Average(s) of:  24-HR
     and Calculates ANNUAL Averages

 **This Run Includes:    656 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    637 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)
```

```
 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                               ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.9 MB of RAM.

 **Detailed Error/Message File:   PM10.err

 **File for Summary of Results:   PM10.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc                ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                           *** POINT SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
```

```
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1            0   0.49612E-04  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK2            0   0.49612E-04  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK3            0   0.49612E-04  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK4            0   0.49612E-04  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK5            0   0.49612E-04  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK6            0   0.49612E-04  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK7            0   0.49612E-04  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK8            0   0.49612E-04  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK9            0   0.49612E-04  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK10           0   0.49612E-04  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK11           0   0.10496E-03  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK12           0   0.83165E-04  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK13           0   0.14224E-03  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO       YES   NO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN



                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                  BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
```

```
                                    AERMOD LSTs Operational Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - 

 L0002317        0   0.77650E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES
 L0002318        0   0.77650E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES
 L0002319        0   0.77650E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES
 L0002320        0   0.77650E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES
 L0002321        0   0.77650E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES
 L0002322        0   0.77650E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES
 L0002323        0   0.77650E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES
 L0002324        0   0.77650E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES
 L0002325        0   0.77650E-05  478217.3 3748656.3   452.0     4.00    13.95
1.86     YES
 L0002326        0   0.77650E-05  478217.4 3748686.3   452.0     4.00    13.95
1.86     YES
 L0002327        0   0.77650E-05  478217.6 3748716.3   452.0     4.00    13.95
1.86     YES
 L0002328        0   0.77650E-05  478217.7 3748746.3   452.0     4.00    13.95
1.86     YES
 L0002329        0   0.77650E-05  478217.8 3748776.3   452.0     4.00    13.95
1.86     YES
 L0002330        0   0.77650E-05  478218.0 3748806.3   452.7     4.00    13.95
1.86     YES
 L0002331        0   0.77650E-05  478218.1 3748836.3   453.0     4.00    13.95
1.86     YES
 L0002332        0   0.77650E-05  478218.3 3748866.3   453.0     4.00    13.95
1.86     YES
 L0002333        0   0.77650E-05  478218.4 3748896.3   453.0     4.00    13.95
1.86     YES
 L0002334        0   0.80500E-05  477943.9 3748501.1   451.5     4.00    13.95
1.86     YES
 L0002335        0   0.80500E-05  477944.1 3748531.1   452.0     4.00    13.95
1.86     YES
 L0002336        0   0.80500E-05  477944.4 3748561.1   452.0     4.00    13.95
1.86     YES
 L0002337        0   0.80500E-05  477944.7 3748591.1   452.0     4.00    13.95
1.86     YES
 L0002338        0   0.80500E-05  477944.9 3748621.1   452.0     4.00    13.95
1.86     YES
 L0002339        0   0.80500E-05  477945.2 3748651.1   452.0     4.00    13.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0002340         0   0.80500E-05  477945.4 3748681.1    452.5      4.00    13.95
1.86      YES
 L0002341         0   0.80500E-05  477945.7 3748711.1    453.0      4.00    13.95
1.86      YES
 L0002342         0   0.80500E-05  477945.9 3748741.1    453.0      4.00    13.95
1.86      YES
 L0002343         0   0.80500E-05  477946.2 3748771.1    453.0      4.00    13.95
1.86      YES
 L0002344         0   0.80500E-05  477946.5 3748801.1    453.0      4.00    13.95
1.86      YES
 L0002345         0   0.80500E-05  477946.7 3748831.1    453.0      4.00    13.95
1.86      YES
 L0002346         0   0.80500E-05  477947.0 3748861.1    453.0      4.00    13.95
1.86      YES
 L0002347         0   0.80500E-05  477947.2 3748891.1    453.0      4.00    13.95
1.86      YES
 L0002348         0   0.74240E-05  477756.7 3748938.5    454.0      4.00     3.95
1.86      YES
 L0002349         0   0.74240E-05  477756.7 3748930.0    453.8      4.00     3.95
1.86      YES
 L0002350         0   0.74240E-05  477756.7 3748921.5    453.6      4.00     3.95
1.86      YES
 L0002351         0   0.74240E-05  477756.7 3748913.0    453.3      4.00     3.95
1.86      YES
 L0002352         0   0.74240E-05  477756.7 3748904.5    453.1      4.00     3.95
1.86      YES
 L0002353         0   0.74240E-05  477756.7 3748896.0    453.1      4.00     3.95
1.86      YES
 L0002354         0   0.74240E-05  477756.7 3748887.5    453.1      4.00     3.95
1.86      YES
 L0002355         0   0.74240E-05  477756.7 3748879.0    453.1      4.00     3.95
1.86      YES
 L0002356         0   0.22410E-05  477900.2 3748339.0    451.0      4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
```

```
                           AERMOD LSTs Operational Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0002357         0   0.22410E-05  477908.7 3748339.0   451.0     4.00      3.95
1.86     YES
 L0002358         0   0.22410E-05  477917.1 3748338.9   451.0     4.00      3.95
1.86     YES
 L0002359         0   0.22410E-05  477925.6 3748338.8   451.0     4.00      3.95
1.86     YES
 L0002360         0   0.22410E-05  477934.1 3748338.8   451.0     4.00      3.95
1.86     YES
 L0002361         0   0.22410E-05  477942.6 3748338.0   451.0     4.00      3.95
1.86     YES
 L0002362         0   0.22410E-05  477947.6 3748331.8   451.0     4.00      3.95
1.86     YES
 L0002363         0   0.22410E-05  477951.8 3748324.5   451.0     4.00      3.95
1.86     YES
 L0002364         0   0.22410E-05  477956.1 3748317.1   450.0     4.00      3.95
1.86     YES
 L0002365         0   0.22410E-05  477960.3 3748309.7   450.0     4.00      3.95
1.86     YES
 L0002366         0   0.22410E-05  477964.6 3748302.3   450.0     4.00      3.95
1.86     YES
 L0002367         0   0.22410E-05  477968.8 3748295.0   450.0     4.00      3.95
1.86     YES
 L0002368         0   0.22410E-05  477973.0 3748287.6   450.0     4.00      3.95
1.86     YES
 L0002369         0   0.22410E-05  477976.2 3748279.9   450.0     4.00      3.95
1.86     YES
 L0002370         0   0.22410E-05  477977.3 3748271.5   450.0     4.00      3.95
1.86     YES
 L0002371         0   0.22410E-05  477978.3 3748263.0   450.0     4.00      3.95
1.86     YES
 L0002372         0   0.22410E-05  477978.3 3748254.5   450.0     4.00      3.95
1.86     YES
 L0002373         0   0.22410E-05  477978.3 3748246.0   450.0     4.00      3.95
1.86     YES
 L0002374         0   0.22410E-05  477978.2 3748237.5   450.0     4.00      3.95
1.86     YES
 L0002375         0   0.22410E-05  477978.2 3748229.0   450.0     4.00      3.95
1.86     YES
 L0002376         0   0.22410E-05  477978.1 3748220.5   450.0     4.00      3.95
1.86     YES
 L0002377         0   0.53660E-05  477608.7 3748929.3   454.0     0.00      3.95
```

```
1.86      YES
 L0002378         0   0.53660E-05  477608.7 3748920.8   454.0     0.00     3.95
1.86      YES
 L0002379         0   0.53660E-05  477608.7 3748912.3   454.0     0.00     3.95
1.86      YES
 L0002380         0   0.53660E-05  477608.7 3748903.8   454.0     0.00     3.95
1.86      YES
 L0002381         0   0.53660E-05  477608.7 3748895.3   454.0     0.00     3.95
1.86      YES
 L0002382         0   0.53660E-05  477608.7 3748886.8   454.0     0.00     3.95
1.86      YES
 L0002383         0   0.53660E-05  477608.7 3748878.3   454.0     0.00     3.95
1.86      YES
 L0002384         0   0.53660E-05  477608.7 3748869.8   454.0     0.00     3.95
1.86      YES
 L0002385         0   0.53660E-05  477608.7 3748861.3   454.0     0.00     3.95
1.86      YES
 L0002386         0   0.53660E-05  477608.7 3748852.8   454.0     0.00     3.95
1.86      YES
 L0002387         0   0.53660E-05  477608.7 3748844.3   454.0     0.00     3.95
1.86      YES
 L0002388         0   0.53660E-05  477608.7 3748835.8   454.0     0.00     3.95
1.86      YES
 L0002389         0   0.53660E-05  477608.7 3748827.3   454.0     0.00     3.95
1.86      YES
 L0002390         0   0.53660E-05  477608.7 3748818.8   454.0     0.00     3.95
1.86      YES
 L0002391         0   0.53660E-05  477608.7 3748810.3   454.0     0.00     3.95
1.86      YES
 L0002392         0   0.72680E-05  478043.0 3748335.2   451.0     0.00    13.95
1.86      YES
 L0002393         0   0.72680E-05  478073.0 3748334.5   451.0     0.00    13.95
1.86      YES
 L0002394         0   0.72680E-05  478103.0 3748333.9   451.0     0.00    13.95
1.86      YES
 L0002395         0   0.72680E-05  478133.0 3748333.2   451.0     0.00    13.95
1.86      YES
 L0002396         0   0.72680E-05  478163.0 3748332.6   451.0     0.00    13.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:22:46

                                    PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

```
                                AERMOD LSTs Operational Output
                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0002397         0   0.92230E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES
 L0002398         0   0.92230E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES
 L0002399         0   0.92230E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES
 L0002400         0   0.92230E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86     YES
 L0002401         0   0.92230E-05  477950.2 3748937.5   453.0     4.00     3.95
1.86     YES
 L0002402         0   0.92230E-05  477949.0 3748929.1   453.0     4.00     3.95
1.86     YES
 L0002403         0   0.92230E-05  477948.2 3748920.7   453.0     4.00     3.95
1.86     YES
 L0002404         0   0.92230E-05  477948.1 3748912.2   453.0     4.00     3.95
1.86     YES
 L0002405         0   0.92230E-05  477947.9 3748903.7   453.0     4.00     3.95
1.86     YES
 L0002406         0   0.92230E-05  477947.8 3748895.2   453.0     4.00     3.95
1.86     YES
 L0002407         0   0.92230E-05  477947.6 3748886.7   453.0     4.00     3.95
1.86     YES
 L0002408         0   0.92230E-05  477947.5 3748878.2   453.0     4.00     3.95
1.86     YES
 L0002409         0   0.92230E-05  477947.3 3748869.7   453.0     4.00     3.95
1.86     YES
 L0002410         0   0.92230E-05  477947.2 3748861.2   453.0     4.00     3.95
1.86     YES
 L0002411         0   0.92230E-05  477947.2 3748852.7   453.0     4.00     3.95
1.86     YES
 L0002412         0   0.92230E-05  477947.1 3748844.2   453.0     4.00     3.95
1.86     YES
 L0002413         0   0.92230E-05  477947.0 3748835.7   453.0     4.00     3.95
1.86     YES
 L0002414         0   0.92230E-05  477947.0 3748827.2   453.0     4.00     3.95
1.86     YES
 L0002415         0   0.92230E-05  477946.9 3748818.7   453.0     4.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0002416         0   0.92230E-05  477946.8 3748810.2   453.0     4.00     3.95
1.86      YES
 L0002417         0   0.92230E-05  477946.7 3748801.7   453.0     4.00     3.95
1.86      YES
 L0002418         0   0.92230E-05  477946.7 3748793.2   453.0     4.00     3.95
1.86      YES
 L0002419         0   0.92230E-05  477946.6 3748784.7   453.0     4.00     3.95
1.86      YES
 L0002420         0   0.92230E-05  477946.5 3748776.2   453.0     4.00     3.95
1.86      YES
 L0002421         0   0.92230E-05  477946.5 3748767.7   453.0     4.00     3.95
1.86      YES
 L0002422         0   0.92230E-05  477946.4 3748759.2   453.0     4.00     3.95
1.86      YES
 L0002423         0   0.92230E-05  477946.3 3748750.7   453.0     4.00     3.95
1.86      YES
 L0002424         0   0.92230E-05  477946.3 3748742.2   453.0     4.00     3.95
1.86      YES
 L0002425         0   0.92230E-05  477946.2 3748733.7   453.0     4.00     3.95
1.86      YES
 L0002426         0   0.92230E-05  477946.1 3748725.2   453.0     4.00     3.95
1.86      YES
 L0002427         0   0.92230E-05  477946.1 3748716.7   453.0     4.00     3.95
1.86      YES
 L0002428         0   0.92230E-05  477946.0 3748708.2   453.0     4.00     3.95
1.86      YES
 L0002429         0   0.92230E-05  477945.9 3748699.7   453.0     4.00     3.95
1.86      YES
 L0002430         0   0.92230E-05  477945.9 3748691.2   452.8     4.00     3.95
1.86      YES
 L0002431         0   0.92230E-05  477945.8 3748682.7   452.5     4.00     3.95
1.86      YES
 L0002432         0   0.92230E-05  477945.7 3748674.2   452.2     4.00     3.95
1.86      YES
 L0002433         0   0.92230E-05  477945.7 3748665.7   452.0     4.00     3.95
1.86      YES
 L0002434         0   0.92230E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86      YES
 L0002435         0   0.92230E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86      YES
 L0002436         0   0.92230E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46
```

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                                AERMOD LSTs Operational Output
                                           PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0002437         0   0.92230E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86     YES
 L0002438         0   0.92230E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86     YES
 L0002439         0   0.92230E-05  477945.2 3748614.7   452.0     4.00     3.95
1.86     YES
 L0002440         0   0.92230E-05  477945.2 3748606.2   452.0     4.00     3.95
1.86     YES
 L0002441         0   0.92230E-05  477945.1 3748597.7   452.0     4.00     3.95
1.86     YES
 L0002442         0   0.92230E-05  477945.0 3748589.2   452.0     4.00     3.95
1.86     YES
 L0002443         0   0.92230E-05  477945.0 3748580.7   452.0     4.00     3.95
1.86     YES
 L0002444         0   0.92230E-05  477944.9 3748572.2   452.0     4.00     3.95
1.86     YES
 L0002445         0   0.92230E-05  477944.8 3748563.7   452.0     4.00     3.95
1.86     YES
 L0002446         0   0.92230E-05  477944.8 3748555.2   452.0     4.00     3.95
1.86     YES
 L0002447         0   0.92230E-05  477944.7 3748546.7   452.0     4.00     3.95
1.86     YES
 L0002448         0   0.92230E-05  477944.6 3748538.2   452.0     4.00     3.95
1.86     YES
 L0002449         0   0.92230E-05  477944.6 3748529.7   452.0     4.00     3.95
1.86     YES
 L0002450         0   0.92230E-05  477944.5 3748521.2   452.0     4.00     3.95
1.86     YES
 L0002451         0   0.92230E-05  477944.4 3748512.7   451.9     4.00     3.95
1.86     YES
 L0002452         0   0.92230E-05  477944.4 3748504.2   451.6     4.00     3.95
1.86     YES
 L0002453         0   0.92230E-05  477944.3 3748495.7   451.3     4.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
  L0002454         0   0.92230E-05   477944.7 3748487.3    451.0      4.00      3.95
1.86      YES
  L0002455         0   0.92230E-05   477948.7 3748479.8    451.0      4.00      3.95
1.86      YES
  L0002456         0   0.92230E-05   477952.8 3748472.3    451.0      4.00      3.95
1.86      YES
  L0002457         0   0.92230E-05   477956.8 3748464.9    451.0      4.00      3.95
1.86      YES
  L0002458         0   0.92230E-05   477960.8 3748457.4    451.0      4.00      3.95
1.86      YES
  L0002459         0   0.92230E-05   477964.8 3748449.9    451.0      4.00      3.95
1.86      YES
  L0002460         0   0.92230E-05   477968.8 3748442.4    451.0      4.00      3.95
1.86      YES
  L0002461         0   0.92230E-05   477972.8 3748434.9    451.0      4.00      3.95
1.86      YES
  L0002462         0   0.92230E-05   477976.9 3748427.4    451.0      4.00      3.95
1.86      YES
  L0002463         0   0.92230E-05   477980.9 3748419.9    451.0      4.00      3.95
1.86      YES
  L0002464         0   0.92230E-05   477984.9 3748412.4    451.0      4.00      3.95
1.86      YES
  L0002465         0   0.92230E-05   477988.9 3748404.9    451.0      4.00      3.95
1.86      YES
  L0002466         0   0.92230E-05   477992.9 3748397.4    451.0      4.00      3.95
1.86      YES
  L0002467         0   0.92230E-05   477996.9 3748389.9    451.0      4.00      3.95
1.86      YES
  L0002468         0   0.92230E-05   478001.0 3748382.4    451.0      4.00      3.95
1.86      YES
  L0002469         0   0.92230E-05   478005.0 3748375.0    451.0      4.00      3.95
1.86      YES
  L0002470         0   0.92230E-05   478009.0 3748367.5    451.0      4.00      3.95
1.86      YES
  L0002471         0   0.92230E-05   478013.0 3748360.0    451.0      4.00      3.95
1.86      YES
  L0002472         0   0.92230E-05   478017.1 3748352.5    451.0      4.00      3.95
1.86      YES
  L0002473         0   0.92230E-05   478021.7 3748345.4    451.0      4.00      3.95
1.86      YES
  L0002474         0   0.92230E-05   478026.4 3748338.3    451.0      4.00      3.95
1.86      YES
  L0002475         0   0.92230E-05   478033.8 3748336.4    451.0      4.00      3.95
1.86      YES
  L0002476         0   0.92230E-05   478042.3 3748336.5    451.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
```

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                           AERMOD LSTs Operational Output
View\MVL\OperationalLSTs\PM10\PM10.isc              ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        14:22:46

                                     PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0002477        0   0.92230E-05  478050.8 3748336.6   451.0     4.00     3.95
1.86     YES
 L0002478        0   0.92230E-05  478059.3 3748336.7   451.0     4.00     3.95
1.86     YES
 L0002479        0   0.92230E-05  478067.8 3748336.8   451.0     4.00     3.95
1.86     YES
 L0002480        0   0.92230E-05  478076.3 3748336.9   451.0     4.00     3.95
1.86     YES
 L0002481        0   0.92230E-05  478084.8 3748337.0   451.0     4.00     3.95
1.86     YES
 L0002482        0   0.92230E-05  478093.3 3748337.1   451.0     4.00     3.95
1.86     YES
 L0002483        0   0.92230E-05  478101.8 3748337.2   451.0     4.00     3.95
1.86     YES
 L0002484        0   0.92230E-05  478110.3 3748337.3   451.0     4.00     3.95
1.86     YES
 L0002485        0   0.92230E-05  478118.8 3748337.4   451.0     4.00     3.95
1.86     YES
 L0002486        0   0.92230E-05  478127.3 3748337.4   451.0     4.00     3.95
1.86     YES
 L0002487        0   0.92230E-05  478135.8 3748337.5   451.0     4.00     3.95
1.86     YES
 L0002488        0   0.92230E-05  478144.3 3748337.6   451.0     4.00     3.95
1.86     YES
 L0002489        0   0.92230E-05  478152.8 3748337.7   451.0     4.00     3.95
1.86     YES
 L0002490        0   0.92230E-05  478161.3 3748337.8   451.0     4.00     3.95
1.86     YES
 L0002491        0   0.92230E-05  478169.8 3748337.9   451.0     4.00     3.95
```

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1.86      YES
 L0002492          0   0.92230E-05  478178.3 3748338.0    451.0      4.00      3.95
1.86      YES
 L0002493          0   0.92230E-05  478186.8 3748338.1    451.0      4.00      3.95
1.86      YES
 L0002494          0   0.92230E-05  478195.3 3748338.2    451.0      4.00      3.95
1.86      YES
 L0002495          0   0.92230E-05  478203.8 3748338.3    451.0      4.00      3.95
1.86      YES
 L0002496          0   0.92230E-05  478212.3 3748338.4    451.0      4.00      3.95
1.86      YES
 L0002497          0   0.92230E-05  478215.8 3748343.4    451.0      4.00      3.95
1.86      YES
 L0002498          0   0.92230E-05  478215.9 3748351.9    451.0      4.00      3.95
1.86      YES
 L0002499          0   0.92230E-05  478216.0 3748360.4    451.0      4.00      3.95
1.86      YES
 L0002500          0   0.92230E-05  478216.0 3748368.9    451.0      4.00      3.95
1.86      YES
 L0002501          0   0.92230E-05  478216.1 3748377.4    451.0      4.00      3.95
1.86      YES
 L0002502          0   0.92230E-05  478216.1 3748385.9    451.0      4.00      3.95
1.86      YES
 L0002503          0   0.92230E-05  478216.2 3748394.4    451.0      4.00      3.95
1.86      YES
 L0002504          0   0.92230E-05  478216.3 3748402.9    451.0      4.00      3.95
1.86      YES
 L0002505          0   0.92230E-05  478216.3 3748411.4    451.0      4.00      3.95
1.86      YES
 L0002506          0   0.92230E-05  478216.4 3748419.9    451.0      4.00      3.95
1.86      YES
 L0002507          0   0.92230E-05  478216.4 3748428.4    451.0      4.00      3.95
1.86      YES
 L0002508          0   0.92230E-05  478216.5 3748436.9    451.0      4.00      3.95
1.86      YES
 L0002509          0   0.92230E-05  478216.6 3748445.4    451.0      4.00      3.95
1.86      YES
 L0002510          0   0.92230E-05  478216.6 3748453.9    451.0      4.00      3.95
1.86      YES
 L0002511          0   0.92230E-05  478216.7 3748462.4    451.0      4.00      3.95
1.86      YES
 L0002512          0   0.92230E-05  478216.7 3748470.9    451.1      4.00      3.95
1.86      YES
 L0002513          0   0.92230E-05  478216.8 3748479.4    451.2      4.00      3.95
1.86      YES
 L0002514          0   0.92230E-05  478216.9 3748487.9    451.3      4.00      3.95
1.86      YES
 L0002515          0   0.92230E-05  478216.9 3748496.4    451.5      4.00      3.95
```

```
1.86      YES
 L0002516         0   0.92230E-05  478217.0 3748504.9   451.7      4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        14:22:46

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC       ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0002517         0   0.92230E-05  478217.0 3748513.4   451.9      4.00     3.95
1.86      YES
 L0002518         0   0.92230E-05  478217.1 3748521.9   452.0      4.00     3.95
1.86      YES
 L0002519         0   0.92230E-05  478217.2 3748530.4   452.0      4.00     3.95
1.86      YES
 L0002520         0   0.92230E-05  478217.2 3748538.9   452.0      4.00     3.95
1.86      YES
 L0002521         0   0.92230E-05  478217.3 3748547.4   452.0      4.00     3.95
1.86      YES
 L0002522         0   0.92230E-05  478217.3 3748555.9   452.0      4.00     3.95
1.86      YES
 L0002523         0   0.92230E-05  478217.4 3748564.4   452.0      4.00     3.95
1.86      YES
 L0002524         0   0.92230E-05  478217.5 3748572.9   452.0      4.00     3.95
1.86      YES
 L0002525         0   0.92230E-05  478217.5 3748581.4   452.0      4.00     3.95
1.86      YES
 L0002526         0   0.92230E-05  478217.6 3748589.9   452.0      4.00     3.95
1.86      YES
 L0002527         0   0.92230E-05  478217.7 3748598.4   452.0      4.00     3.95
1.86      YES
 L0002528         0   0.92230E-05  478217.7 3748606.9   452.0      4.00     3.95
1.86      YES
 L0002529         0   0.92230E-05  478217.8 3748615.4   452.0      4.00     3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0002530          0   0.92230E-05  478217.8 3748623.9    452.0      4.00      3.95
1.86      YES
 L0002531          0   0.92230E-05  478217.9 3748632.4    452.0      4.00      3.95
1.86      YES
 L0002532          0   0.92230E-05  478218.0 3748640.9    452.0      4.00      3.95
1.86      YES
 L0002533          0   0.92230E-05  478218.0 3748649.4    452.0      4.00      3.95
1.86      YES
 L0002534          0   0.92230E-05  478218.1 3748657.9    452.0      4.00      3.95
1.86      YES
 L0002535          0   0.92230E-05  478218.1 3748666.4    452.0      4.00      3.95
1.86      YES
 L0002536          0   0.92230E-05  478218.2 3748674.9    452.0      4.00      3.95
1.86      YES
 L0002537          0   0.92230E-05  478218.3 3748683.4    452.0      4.00      3.95
1.86      YES
 L0002538          0   0.92230E-05  478218.3 3748691.9    452.0      4.00      3.95
1.86      YES
 L0002539          0   0.92230E-05  478218.4 3748700.4    452.0      4.00      3.95
1.86      YES
 L0002540          0   0.92230E-05  478218.4 3748708.9    452.0      4.00      3.95
1.86      YES
 L0002541          0   0.92230E-05  478218.5 3748717.4    452.0      4.00      3.95
1.86      YES
 L0002542          0   0.92230E-05  478218.6 3748725.9    452.0      4.00      3.95
1.86      YES
 L0002543          0   0.92230E-05  478218.6 3748734.4    452.0      4.00      3.95
1.86      YES
 L0002544          0   0.92230E-05  478218.7 3748742.9    452.0      4.00      3.95
1.86      YES
 L0002545          0   0.92230E-05  478218.7 3748751.4    452.0      4.00      3.95
1.86      YES
 L0002546          0   0.92230E-05  478218.8 3748759.9    452.0      4.00      3.95
1.86      YES
 L0002547          0   0.92230E-05  478218.9 3748768.4    452.0      4.00      3.95
1.86      YES
 L0002548          0   0.92230E-05  478218.9 3748776.9    452.0      4.00      3.95
1.86      YES
 L0002549          0   0.92230E-05  478219.0 3748785.4    452.0      4.00      3.95
1.86      YES
 L0002550          0   0.92230E-05  478219.0 3748793.9    452.2      4.00      3.95
1.86      YES
 L0002551          0   0.92230E-05  478219.1 3748802.4    452.5      4.00      3.95
1.86      YES
 L0002552          0   0.92230E-05  478219.2 3748810.9    452.8      4.00      3.95
1.86      YES
 L0002553          0   0.92230E-05  478219.2 3748819.4    453.0      4.00      3.95
```

```
1.86     YES
 L0002554         0   0.92230E-05  478219.3 3748827.9   453.0     4.00     3.95
1.86     YES
 L0002555         0   0.92230E-05  478219.3 3748836.4   453.0     4.00     3.95
1.86     YES
 L0002556         0   0.92230E-05  478219.4 3748844.9   453.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                          *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -


 L0002557         0   0.92230E-05  478219.5 3748853.4   453.0     4.00     3.95
1.86     YES
 L0002558         0   0.92230E-05  478219.5 3748861.9   453.0     4.00     3.95
1.86     YES
 L0002559         0   0.92230E-05  478219.6 3748870.4   453.0     4.00     3.95
1.86     YES
 L0002560         0   0.92230E-05  478219.6 3748878.9   453.0     4.00     3.95
1.86     YES
 L0002561         0   0.92230E-05  478219.7 3748887.4   453.0     4.00     3.95
1.86     YES
 L0002562         0   0.92230E-05  478219.8 3748895.9   453.0     4.00     3.95
1.86     YES
 L0002563         0   0.92230E-05  478219.8 3748904.4   453.0     4.00     3.95
1.86     YES
 L0002564         0   0.92230E-05  478219.9 3748912.9   453.0     4.00     3.95
1.86     YES
 L0002565         0   0.92230E-05  478217.5 3748921.1   453.0     4.00     3.95
1.86     YES
 L0002566         0   0.92230E-05  478215.0 3748929.2   453.0     4.00     3.95
1.86     YES
 L0002567         0   0.92230E-05  478212.6 3748937.3   453.0     4.00     3.95
```

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1.86      YES
 L0002568          0   0.92230E-05  478210.1 3748945.4    453.0      4.00      3.95
1.86      YES
 L0002569          0   0.92230E-05  478207.6 3748953.6    453.0      4.00      3.95
1.86      YES
 L0002570          0   0.92230E-05  478205.1 3748961.7    453.0      4.00      3.95
1.86      YES
 L0002571          0   0.92230E-05  478202.7 3748969.8    453.0      4.00      3.95
1.86      YES
 L0002572          0   0.19640E-05  477852.8 3748835.2    453.0      4.00      3.95
1.86      YES
 L0002573          0   0.19640E-05  477852.8 3748843.7    453.0      4.00      3.95
1.86      YES
 L0002574          0   0.19640E-05  477852.9 3748852.2    453.0      4.00      3.95
1.86      YES
 L0002575          0   0.19640E-05  477852.9 3748860.7    453.0      4.00      3.95
1.86      YES
 L0002576          0   0.19640E-05  477853.0 3748869.2    453.0      4.00      3.95
1.86      YES
 L0002577          0   0.19640E-05  477853.0 3748877.7    453.0      4.00      3.95
1.86      YES
 L0002578          0   0.19640E-05  477853.1 3748886.2    453.0      4.00      3.95
1.86      YES
 L0002579          0   0.19640E-05  477853.1 3748894.7    453.0      4.00      3.95
1.86      YES
 L0002580          0   0.19640E-05  477853.1 3748903.2    453.0      4.00      3.95
1.86      YES
 L0002581          0   0.19640E-05  477853.2 3748911.7    453.0      4.00      3.95
1.86      YES
 L0002582          0   0.19640E-05  477853.2 3748920.2    453.0      4.00      3.95
1.86      YES
 L0002583          0   0.19640E-05  477853.3 3748928.7    453.0      4.00      3.95
1.86      YES
 L0002584          0   0.19640E-05  477853.3 3748937.2    453.0      4.00      3.95
1.86      YES
 L0002585          0   0.19640E-05  477853.4 3748945.7    453.0      4.00      3.95
1.86      YES
 L0002586          0   0.19640E-05  477853.4 3748954.2    453.0      4.00      3.95
1.86      YES
 L0002587          0   0.19640E-05  477853.5 3748962.7    453.0      4.00      3.95
1.86      YES
 L0002588          0   0.19640E-05  477853.5 3748971.2    453.2      4.00      3.95
1.86      YES
 L0002589          0   0.19640E-05  477853.5 3748979.7    453.4      4.00      3.95
1.86      YES
 L0002590          0   0.19640E-05  477845.0 3748979.7    453.5      4.00      3.95
1.86      YES
 L0002591          0   0.19640E-05  477836.5 3748979.6    453.7      4.00      3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0002592         0   0.19640E-05  477828.0 3748979.6    453.9      4.00      3.95
1.86      YES
 L0002593         0   0.19640E-05  477819.5 3748979.6    454.0      4.00      3.95
1.86      YES
 L0002594         0   0.19640E-05  477811.0 3748979.6    454.0      4.00      3.95
1.86      YES
 L0002595         0   0.19640E-05  477802.5 3748979.6    454.0      4.00      3.95
1.86      YES
 L0002596         0   0.19640E-05  477794.0 3748979.5    454.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        14:22:46

                                    PAGE  10
 **MODELOPTs:   RegDFAULT CONC       ELEV      FLGPOL    URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0002597         0   0.19640E-05  477785.5 3748979.5    454.0      4.00      3.95
1.86      YES
 L0002598         0   0.19640E-05  477777.0 3748979.5    454.0      4.00      3.95
1.86      YES
 L0002599         0   0.19640E-05  477768.5 3748979.5    454.0      4.00      3.95
1.86      YES
 L0002600         0   0.19640E-05  477760.0 3748979.5    454.0      4.00      3.95
1.86      YES
 L0002601         0   0.19640E-05  477751.5 3748979.4    454.0      4.00      3.95
1.86      YES
 L0002602         0   0.19640E-05  477743.0 3748979.4    454.0      4.00      3.95
1.86      YES
 L0002603         0   0.19640E-05  477742.7 3748971.2    454.0      4.00      3.95
1.86      YES
 L0002604         0   0.19640E-05  477742.7 3748962.7    454.0      4.00      3.95
1.86      YES
 L0002605         0   0.19640E-05  477742.6 3748954.2    454.0      4.00      3.95
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1.86      YES
 L0002606         0   0.19640E-05  477742.6 3748945.7    454.0      4.00      3.95
1.86      YES
 L0002607         0   0.19640E-05  477742.5 3748937.2    454.0      4.00      3.95
1.86      YES
 L0002608         0   0.19640E-05  477742.5 3748928.7    453.9      4.00      3.95
1.86      YES
 L0002609         0   0.19640E-05  477742.4 3748920.2    453.8      4.00      3.95
1.86      YES
 L0002610         0   0.19640E-05  477742.4 3748911.7    453.7      4.00      3.95
1.86      YES
 L0002611         0   0.19640E-05  477742.3 3748903.2    453.6      4.00      3.95
1.86      YES
 L0002612         0   0.19640E-05  477742.3 3748894.7    453.6      4.00      3.95
1.86      YES
 L0002613         0   0.19640E-05  477742.2 3748886.2    453.6      4.00      3.95
1.86      YES
 L0002614         0   0.19640E-05  477744.2 3748878.0    453.5      4.00      3.95
1.86      YES
 L0002615         0   0.19640E-05  477746.5 3748869.8    453.6      4.00      3.95
1.86      YES
 L0002616         0   0.19640E-05  477748.8 3748861.6    453.7      4.00      3.95
1.86      YES
 L0002617         0   0.19640E-05  477751.1 3748853.4    453.8      4.00      3.95
1.86      YES
 L0002618         0   0.19640E-05  477753.4 3748845.3    454.0      4.00      3.95
1.86      YES
 L0002619         0   0.19640E-05  477757.5 3748838.2    453.7      4.00      3.95
1.86      YES
 L0002620         0   0.19640E-05  477763.8 3748832.5    453.5      4.00      3.95
1.86      YES
 L0002621         0   0.19640E-05  477770.1 3748826.8    453.2      4.00      3.95
1.86      YES
 L0002622         0   0.19640E-05  477778.6 3748826.5    453.1      4.00      3.95
1.86      YES
 L0002623         0   0.19640E-05  477787.1 3748826.4    453.0      4.00      3.95
1.86      YES
 L0002624         0   0.19640E-05  477795.6 3748826.2    453.0      4.00      3.95
1.86      YES
 L0002625         0   0.19640E-05  477804.1 3748826.1    453.0      4.00      3.95
1.86      YES
 L0002626         0   0.19640E-05  477812.6 3748826.1    453.0      4.00      3.95
1.86      YES
 L0002627         0   0.19640E-05  477821.1 3748826.0    453.0      4.00      3.95
1.86      YES
 L0002628         0   0.19640E-05  477829.6 3748826.0    453.0      4.00      3.95
1.86      YES
 L0002629         0   0.19640E-05  477838.1 3748825.9    453.0      4.00      3.95
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1.86      YES
 L0002630         0   0.19640E-05  477846.6 3748825.8   453.0      4.00      3.95
1.86      YES
 L0002631         0   0.15470E-05  477886.6 3748203.7   450.0      4.00      3.95
1.86      YES
 L0002632         0   0.15470E-05  477886.4 3748212.2   450.0      4.00      3.95
1.86      YES
 L0002633         0   0.15470E-05  477886.3 3748220.7   450.1      4.00      3.95
1.86      YES
 L0002634         0   0.15470E-05  477886.1 3748229.2   450.3      4.00      3.95
1.86      YES
 L0002635         0   0.15470E-05  477885.9 3748237.7   450.6      4.00      3.95
1.86      YES
 L0002636         0   0.15470E-05  477885.7 3748246.2   450.8      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        14:22:46

                                    PAGE  11
 **MODELOPTs:   RegDFAULT CONC       ELEV      FLGPOL     URBAN


                                                    *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                      BASE     RELEASE     INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT       SY
SZ      SOURCE  SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0002637         0   0.15470E-05  477885.5 3748254.7   450.9      4.00      3.95
1.86      YES
 L0002638         0   0.15470E-05  477885.6 3748263.2   450.9      4.00      3.95
1.86      YES
 L0002639         0   0.15470E-05  477885.7 3748271.7   451.0      4.00      3.95
1.86      YES
 L0002640         0   0.15470E-05  477885.8 3748280.2   451.0      4.00      3.95
1.86      YES
 L0002641         0   0.15470E-05  477885.9 3748288.7   451.0      4.00      3.95
1.86      YES
 L0002642         0   0.15470E-05  477886.0 3748297.2   451.0      4.00      3.95
1.86      YES
 L0002643         0   0.15470E-05  477886.1 3748305.7   451.0      4.00      3.95
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1.86      YES
 L0002644         0   0.15470E-05   477886.2 3748314.2    451.0      4.00      3.95
1.86      YES
 L0002645         0   0.15470E-05   477886.3 3748322.7    451.0      4.00      3.95
1.86      YES
 L0002646         0   0.15470E-05   477886.4 3748331.2    451.0      4.00      3.95
1.86      YES
 L0002647         0   0.15470E-05   477889.0 3748337.4    451.0      4.00      3.95
1.86      YES
 L0002648         0   0.15470E-05   477897.5 3748338.1    451.0      4.00      3.95
1.86      YES
 L0002649         0   0.15470E-05   477906.0 3748338.9    451.0      4.00      3.95
1.86      YES
 L0002650         0   0.15470E-05   477914.4 3748339.7    451.0      4.00      3.95
1.86      YES
 L0002651         0   0.15470E-05   477922.9 3748339.5    451.0      4.00      3.95
1.86      YES
 L0002652         0   0.15470E-05   477931.4 3748338.9    451.0      4.00      3.95
1.86      YES
 L0002653         0   0.15470E-05   477939.8 3748338.2    451.0      4.00      3.95
1.86      YES
 L0002654         0   0.15470E-05   477945.5 3748332.6    451.0      4.00      3.95
1.86      YES
 L0002655         0   0.15470E-05   477950.6 3748325.7    451.0      4.00      3.95
1.86      YES
 L0002656         0   0.15470E-05   477955.0 3748318.5    450.0      4.00      3.95
1.86      YES
 L0002657         0   0.15470E-05   477959.4 3748311.2    450.0      4.00      3.95
1.86      YES
 L0002658         0   0.15470E-05   477963.8 3748303.9    450.0      4.00      3.95
1.86      YES
 L0002659         0   0.15470E-05   477968.2 3748296.7    450.0      4.00      3.95
1.86      YES
 L0002660         0   0.15470E-05   477972.6 3748289.4    450.0      4.00      3.95
1.86      YES
 L0002661         0   0.15470E-05   477975.8 3748281.7    450.0      4.00      3.95
1.86      YES
 L0002662         0   0.15470E-05   477977.7 3748273.4    450.0      4.00      3.95
1.86      YES
 L0002663         0   0.15470E-05   477979.6 3748265.1    450.0      4.00      3.95
1.86      YES
 L0002664         0   0.15470E-05   477981.3 3748256.8    450.0      4.00      3.95
1.86      YES
 L0002665         0   0.15470E-05   477980.6 3748248.3    450.0      4.00      3.95
1.86      YES
 L0002666         0   0.15470E-05   477979.9 3748239.8    450.0      4.00      3.95
1.86      YES
 L0002667         0   0.15470E-05   477979.2 3748231.4    450.0      4.00      3.95
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1.86      YES
 L0002668         0   0.15470E-05  477978.4 3748222.9   450.0      4.00      3.95
1.86      YES
 L0002669         0   0.15470E-05  477982.6 3748217.0   450.0      4.00      3.95
1.86      YES
 L0002670         0   0.15470E-05  477990.0 3748212.7   450.0      4.00      3.95
1.86      YES
 L0002671         0   0.15470E-05  477994.0 3748206.5   450.0      4.00      3.95
1.86      YES
 L0002672         0   0.15470E-05  477994.1 3748198.0   450.0      4.00      3.95
1.86      YES
 L0002673         0   0.15470E-05  477986.1 3748197.5   450.0      4.00      3.95
1.86      YES
 L0002674         0   0.15470E-05  477977.6 3748197.5   450.0      4.00      3.95
1.86      YES
 L0002675         0   0.15470E-05  477969.1 3748197.5   450.0      4.00      3.95
1.86      YES
 L0002676         0   0.15470E-05  477960.6 3748197.5   450.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:22:46

                                    PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                   *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT       SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0002677         0   0.15470E-05  477952.1 3748197.5   450.0      4.00      3.95
1.86      YES
 L0002678         0   0.15470E-05  477943.6 3748197.5   450.0      4.00      3.95
1.86      YES
 L0002679         0   0.15470E-05  477935.1 3748197.5   450.0      4.00      3.95
1.86      YES
 L0002680         0   0.26400E-05  477505.1 3748975.7   454.2      4.00      3.95
1.86      YES
 L0002681         0   0.26400E-05  477513.6 3748975.6   454.1      4.00      3.95
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1.86      YES
 L0002682          0   0.26400E-05  477522.1 3748975.4    454.0      4.00      3.95
1.86      YES
 L0002683          0   0.26400E-05  477530.6 3748975.2    454.0      4.00      3.95
1.86      YES
 L0002684          0   0.26400E-05  477539.1 3748975.1    454.0      4.00      3.95
1.86      YES
 L0002685          0   0.26400E-05  477547.6 3748974.9    454.0      4.00      3.95
1.86      YES
 L0002686          0   0.26400E-05  477556.1 3748974.7    454.0      4.00      3.95
1.86      YES
 L0002687          0   0.26400E-05  477564.6 3748974.6    454.0      4.00      3.95
1.86      YES
 L0002688          0   0.26400E-05  477573.1 3748974.4    454.0      4.00      3.95
1.86      YES
 L0002689          0   0.26400E-05  477581.6 3748974.2    454.0      4.00      3.95
1.86      YES
 L0002690          0   0.26400E-05  477590.1 3748974.1    454.0      4.00      3.95
1.86      YES
 L0002691          0   0.26400E-05  477598.5 3748973.8    454.0      4.00      3.95
1.86      YES
 L0002692          0   0.26400E-05  477605.4 3748968.8    454.0      4.00      3.95
1.86      YES
 L0002693          0   0.26400E-05  477611.1 3748963.0    454.0      4.00      3.95
1.86      YES
 L0002694          0   0.26400E-05  477613.4 3748954.9    454.0      4.00      3.95
1.86      YES
 L0002695          0   0.26400E-05  477615.7 3748946.7    454.0      4.00      3.95
1.86      YES
 L0002696          0   0.26400E-05  477618.0 3748938.5    454.0      4.00      3.95
1.86      YES
 L0002697          0   0.26400E-05  477620.0 3748930.2    454.0      4.00      3.95
1.86      YES
 L0002698          0   0.26400E-05  477621.7 3748921.9    454.0      4.00      3.95
1.86      YES
 L0002699          0   0.26400E-05  477623.4 3748913.6    454.0      4.00      3.95
1.86      YES
 L0002700          0   0.26400E-05  477625.1 3748905.3    454.0      4.00      3.95
1.86      YES
 L0002701          0   0.26400E-05  477626.2 3748896.9    454.0      4.00      3.95
1.86      YES
 L0002702          0   0.26400E-05  477626.4 3748888.4    454.0      4.00      3.95
1.86      YES
 L0002703          0   0.26400E-05  477626.5 3748879.9    454.0      4.00      3.95
1.86      YES
 L0002704          0   0.26400E-05  477626.6 3748871.4    454.0      4.00      3.95
1.86      YES
 L0002705          0   0.26400E-05  477626.7 3748862.9    454.0      4.00      3.95
```

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1.86      YES
 L0002706         0   0.26400E-05  477626.8 3748854.4   454.0     4.00     3.95
1.86      YES
 L0002707         0   0.26400E-05  477626.9 3748845.9   454.0     4.00     3.95
1.86      YES
 L0002708         0   0.26400E-05  477627.0 3748837.4   454.0     4.00     3.95
1.86      YES
 L0002709         0   0.26400E-05  477627.1 3748828.9   454.0     4.00     3.95
1.86      YES
 L0002710         0   0.26400E-05  477627.2 3748820.4   454.0     4.00     3.95
1.86      YES
 L0002711         0   0.26400E-05  477627.3 3748811.9   454.0     4.00     3.95
1.86      YES
 L0002712         0   0.26400E-05  477627.5 3748803.4   454.0     4.00     3.95
1.86      YES
 L0002713         0   0.26400E-05  477627.0 3748795.5   454.0     4.00     3.95
1.86      YES
 L0002714         0   0.26400E-05  477618.5 3748795.7   454.0     4.00     3.95
1.86      YES
 L0002715         0   0.26400E-05  477610.0 3748795.9   454.0     4.00     3.95
1.86      YES
 L0002716         0   0.26400E-05  477601.5 3748796.2   454.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        14:22:46

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                 *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002717         0   0.26400E-05  477593.0 3748796.4   454.0     4.00     3.95
1.86      YES
 L0002718         0   0.26400E-05  477584.5 3748796.6   454.0     4.00     3.95
1.86      YES
 L0002719         0   0.26400E-05  477576.0 3748796.9   454.0     4.00     3.95
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1.86      YES
 L0002720          0   0.26400E-05  477567.5 3748797.1    454.0      4.00      3.95
1.86      YES
 L0002721          0   0.26400E-05  477559.0 3748797.3    454.0      4.00      3.95
1.86      YES
 L0002722          0   0.26400E-05  477550.5 3748797.5    454.0      4.00      3.95
1.86      YES
 L0002723          0   0.26400E-05  477542.0 3748797.8    454.0      4.00      3.95
1.86      YES
 L0002724          0   0.26400E-05  477533.5 3748798.0    454.0      4.00      3.95
1.86      YES
 L0002725          0   0.26400E-05  477525.0 3748798.2    454.0      4.00      3.95
1.86      YES
 L0002726          0   0.26400E-05  477516.5 3748798.5    454.0      4.00      3.95
1.86      YES
 L0002727          0   0.26400E-05  477508.0 3748798.7    454.0      4.00      3.95
1.86      YES
 L0002728          0   0.26400E-05  477499.5 3748798.9    454.0      4.00      3.95
1.86      YES
 L0002729          0   0.26400E-05  477491.0 3748799.2    454.0      4.00      3.95
1.86      YES
 L0002730          0   0.12830E-05  477922.3 3748920.1    453.0      0.00      3.95
1.40      YES
 L0002731          0   0.12830E-05  477921.9 3748928.6    453.0      0.00      3.95
1.40      YES
 L0002732          0   0.12830E-05  477921.5 3748937.1    453.0      0.00      3.95
1.40      YES
 L0002733          0   0.12830E-05  477921.1 3748945.6    453.0      0.00      3.95
1.40      YES
 L0002734          0   0.12830E-05  477920.7 3748954.1    453.0      0.00      3.95
1.40      YES
 L0002735          0   0.12830E-05  477927.7 3748955.6    453.0      0.00      3.95
1.40      YES
 L0002736          0   0.12830E-05  477936.2 3748955.6    453.0      0.00      3.95
1.40      YES
 L0002737          0   0.12830E-05  477944.7 3748955.7    453.0      0.00      3.95
1.40      YES
 L0002738          0   0.12830E-05  477953.2 3748955.7    453.0      0.00      3.95
1.40      YES
 L0002739          0   0.12830E-05  477961.7 3748955.8    453.0      0.00      3.95
1.40      YES
 L0002740          0   0.12830E-05  477970.2 3748955.8    453.0      0.00      3.95
1.40      YES
 L0002741          0   0.12830E-05  477978.7 3748955.9    453.0      0.00      3.95
1.40      YES
 L0002742          0   0.12830E-05  477987.2 3748955.9    453.0      0.00      3.95
1.40      YES
 L0002743          0   0.12830E-05  477995.7 3748956.0    453.0      0.00      3.95
```

```
1.40     YES
 L0002744        0   0.12830E-05  478004.2 3748956.1    453.0     0.00     3.95
1.40     YES
 L0002745        0   0.12830E-05  478012.7 3748956.1    453.0     0.00     3.95
1.40     YES
 L0002746        0   0.12830E-05  478021.2 3748956.2    453.0     0.00     3.95
1.40     YES
 L0002747        0   0.12830E-05  478029.7 3748956.2    453.0     0.00     3.95
1.40     YES
 L0002748        0   0.12830E-05  478038.2 3748956.3    453.0     0.00     3.95
1.40     YES
 L0002749        0   0.12830E-05  478046.7 3748956.3    453.0     0.00     3.95
1.40     YES
 L0002750        0   0.12830E-05  478055.2 3748956.4    453.0     0.00     3.95
1.40     YES
 L0002751        0   0.12830E-05  478063.7 3748956.4    453.0     0.00     3.95
1.40     YES
 L0002752        0   0.12830E-05  478072.2 3748956.5    453.0     0.00     3.95
1.40     YES
 L0002753        0   0.12830E-05  478080.7 3748956.5    453.0     0.00     3.95
1.40     YES
 L0002754        0   0.12830E-05  478089.2 3748956.6    453.0     0.00     3.95
1.40     YES
 L0002755        0   0.12830E-05  478097.7 3748956.6    453.0     0.00     3.95
1.40     YES
 L0002756        0   0.12830E-05  478106.2 3748956.7    453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 L0002757        0   0.12830E-05  478114.7 3748956.7    453.0     0.00     3.95
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1.40     YES
 L0002758         0   0.12830E-05  478123.2 3748956.8   453.0     0.00      3.95
1.40     YES
 L0002759         0   0.12830E-05  478131.7 3748956.8   453.0     0.00      3.95
1.40     YES
 L0002760         0   0.12830E-05  478140.2 3748956.9   453.0     0.00      3.95
1.40     YES
 L0002761         0   0.12830E-05  478148.7 3748956.9   453.0     0.00      3.95
1.40     YES
 L0002762         0   0.12830E-05  478157.2 3748957.0   453.0     0.00      3.95
1.40     YES
 L0002763         0   0.12830E-05  478165.7 3748957.0   453.0     0.00      3.95
1.40     YES
 L0002764         0   0.12830E-05  478174.2 3748957.1   453.0     0.00      3.95
1.40     YES
 L0002765         0   0.12830E-05  478182.7 3748957.1   453.0     0.00      3.95
1.40     YES
 L0002766         0   0.12830E-05  478191.2 3748957.2   453.0     0.00      3.95
1.40     YES
 L0002767         0   0.12830E-05  478199.7 3748957.2   453.0     0.00      3.95
1.40     YES
 L0002768         0   0.12830E-05  478208.2 3748957.3   453.0     0.00      3.95
1.40     YES
 L0002769         0   0.12830E-05  478216.7 3748957.3   453.0     0.00      3.95
1.40     YES
 L0002770         0   0.12830E-05  478225.0 3748957.2   453.0     0.00      3.95
1.40     YES
 L0002771         0   0.12830E-05  478225.0 3748948.7   453.0     0.00      3.95
1.40     YES
 L0002772         0   0.12830E-05  478225.0 3748940.2   453.0     0.00      3.95
1.40     YES
 L0002773         0   0.12830E-05  478225.0 3748931.7   453.0     0.00      3.95
1.40     YES
 L0002774         0   0.12830E-05  478225.0 3748923.2   453.0     0.00      3.95
1.40     YES
 L0002775         0   0.48490E-06  477922.3 3748920.1   453.0     0.00      3.95
1.40     YES
 L0002776         0   0.48490E-06  477921.9 3748928.6   453.0     0.00      3.95
1.40     YES
 L0002777         0   0.48490E-06  477921.5 3748937.1   453.0     0.00      3.95
1.40     YES
 L0002778         0   0.48490E-06  477921.1 3748945.6   453.0     0.00      3.95
1.40     YES
 L0002779         0   0.48490E-06  477920.7 3748954.1   453.0     0.00      3.95
1.40     YES
 L0002780         0   0.48490E-06  477927.7 3748955.6   453.0     0.00      3.95
1.40     YES
 L0002781         0   0.48490E-06  477936.2 3748955.6   453.0     0.00      3.95
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1.40     YES
 L0002782         0   0.48490E-06  477944.7 3748955.7   453.0     0.00     3.95
1.40     YES
 L0002783         0   0.48490E-06  477953.2 3748955.7   453.0     0.00     3.95
1.40     YES
 L0002784         0   0.48490E-06  477961.7 3748955.8   453.0     0.00     3.95
1.40     YES
 L0002785         0   0.48490E-06  477970.2 3748955.8   453.0     0.00     3.95
1.40     YES
 L0002786         0   0.48490E-06  477978.7 3748955.9   453.0     0.00     3.95
1.40     YES
 L0002787         0   0.48490E-06  477987.2 3748955.9   453.0     0.00     3.95
1.40     YES
 L0002788         0   0.48490E-06  477995.7 3748956.0   453.0     0.00     3.95
1.40     YES
 L0002789         0   0.48490E-06  478004.2 3748956.1   453.0     0.00     3.95
1.40     YES
 L0002790         0   0.48490E-06  478012.7 3748956.1   453.0     0.00     3.95
1.40     YES
 L0002791         0   0.48490E-06  478021.2 3748956.2   453.0     0.00     3.95
1.40     YES
 L0002792         0   0.48490E-06  478029.7 3748956.2   453.0     0.00     3.95
1.40     YES
 L0002793         0   0.48490E-06  478038.2 3748956.3   453.0     0.00     3.95
1.40     YES
 L0002794         0   0.48490E-06  478046.7 3748956.3   453.0     0.00     3.95
1.40     YES
 L0002795         0   0.48490E-06  478055.2 3748956.4   453.0     0.00     3.95
1.40     YES
 L0002796         0   0.48490E-06  478063.7 3748956.4   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:22:46

                                    PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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                              AERMOD LSTs Operational Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - 

 L0002797         0   0.48490E-06  478072.2 3748956.5    453.0      0.00      3.95
1.40     YES
 L0002798         0   0.48490E-06  478080.7 3748956.5    453.0      0.00      3.95
1.40     YES
 L0002799         0   0.48490E-06  478089.2 3748956.6    453.0      0.00      3.95
1.40     YES
 L0002800         0   0.48490E-06  478097.7 3748956.6    453.0      0.00      3.95
1.40     YES
 L0002801         0   0.48490E-06  478106.2 3748956.7    453.0      0.00      3.95
1.40     YES
 L0002802         0   0.48490E-06  478114.7 3748956.7    453.0      0.00      3.95
1.40     YES
 L0002803         0   0.48490E-06  478123.2 3748956.8    453.0      0.00      3.95
1.40     YES
 L0002804         0   0.48490E-06  478131.7 3748956.8    453.0      0.00      3.95
1.40     YES
 L0002805         0   0.48490E-06  478140.2 3748956.9    453.0      0.00      3.95
1.40     YES
 L0002806         0   0.48490E-06  478148.7 3748956.9    453.0      0.00      3.95
1.40     YES
 L0002807         0   0.48490E-06  478157.2 3748957.0    453.0      0.00      3.95
1.40     YES
 L0002808         0   0.48490E-06  478165.7 3748957.0    453.0      0.00      3.95
1.40     YES
 L0002809         0   0.48490E-06  478174.2 3748957.1    453.0      0.00      3.95
1.40     YES
 L0002810         0   0.48490E-06  478182.7 3748957.1    453.0      0.00      3.95
1.40     YES
 L0002811         0   0.48490E-06  478191.2 3748957.2    453.0      0.00      3.95
1.40     YES
 L0002812         0   0.48490E-06  478199.7 3748957.2    453.0      0.00      3.95
1.40     YES
 L0002813         0   0.48490E-06  478208.2 3748957.3    453.0      0.00      3.95
1.40     YES
 L0002814         0   0.48490E-06  478216.7 3748957.3    453.0      0.00      3.95
1.40     YES
 L0002815         0   0.48490E-06  478225.0 3748957.2    453.0      0.00      3.95
1.40     YES
 L0002816         0   0.48490E-06  478225.0 3748948.7    453.0      0.00      3.95
1.40     YES
 L0002817         0   0.48490E-06  478225.0 3748940.2    453.0      0.00      3.95
1.40     YES
 L0002818         0   0.48490E-06  478225.0 3748931.7    453.0      0.00      3.95
1.40     YES
 L0002819         0   0.48490E-06  478225.0 3748923.2    453.0      0.00      3.95
```

```
1.40      YES
 L0002820         0   0.36090E-05  478177.4 3748323.4   450.0     0.00     3.95
1.40      YES
 L0002821         0   0.36090E-05  478185.9 3748323.1   450.0     0.00     3.95
1.40      YES
 L0002822         0   0.36090E-05  478194.4 3748322.8   450.0     0.00     3.95
1.40      YES
 L0002823         0   0.36090E-05  478202.9 3748322.5   450.0     0.00     3.95
1.40      YES
 L0002824         0   0.36090E-05  478211.4 3748322.2   450.0     0.00     3.95
1.40      YES
 L0002825         0   0.36090E-05  478219.9 3748321.9   450.0     0.00     3.95
1.40      YES
 L0002826         0   0.36090E-05  478228.4 3748321.6   450.0     0.00     3.95
1.40      YES
 L0002827         0   0.36090E-05  478236.6 3748321.6   450.0     0.00     3.95
1.40      YES
 L0002828         0   0.36090E-05  478236.2 3748330.0   451.0     0.00     3.95
1.40      YES
 L0002829         0   0.36090E-05  478235.7 3748338.5   451.0     0.00     3.95
1.40      YES
 L0002830         0   0.36090E-05  478235.3 3748347.0   451.0     0.00     3.95
1.40      YES
 L0002831         0   0.36090E-05  478234.8 3748355.5   451.0     0.00     3.95
1.40      YES
 L0002832         0   0.36090E-05  478234.4 3748364.0   451.0     0.00     3.95
1.40      YES
 L0002833         0   0.36090E-05  478233.9 3748372.5   451.0     0.00     3.95
1.40      YES
 L0002834         0   0.36090E-05  478233.5 3748381.0   451.0     0.00     3.95
1.40      YES
 L0002835         0   0.36090E-05  478233.0 3748389.5   451.0     0.00     3.95
1.40      YES
 L0002836         0   0.49830E-06  478177.4 3748323.4   450.0     0.00     3.95
1.40      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc              ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                           AERMOD LSTs Operational Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0002837         0   0.49830E-06  478185.9 3748323.1   450.0     0.00      3.95
1.40     YES
 L0002838         0   0.49830E-06  478194.4 3748322.8   450.0     0.00      3.95
1.40     YES
 L0002839         0   0.49830E-06  478202.9 3748322.5   450.0     0.00      3.95
1.40     YES
 L0002840         0   0.49830E-06  478211.4 3748322.2   450.0     0.00      3.95
1.40     YES
 L0002841         0   0.49830E-06  478219.9 3748321.9   450.0     0.00      3.95
1.40     YES
 L0002842         0   0.49830E-06  478228.4 3748321.6   450.0     0.00      3.95
1.40     YES
 L0002843         0   0.49830E-06  478236.6 3748321.6   450.0     0.00      3.95
1.40     YES
 L0002844         0   0.49830E-06  478236.2 3748330.0   451.0     0.00      3.95
1.40     YES
 L0002845         0   0.49830E-06  478235.7 3748338.5   451.0     0.00      3.95
1.40     YES
 L0002846         0   0.49830E-06  478235.3 3748347.0   451.0     0.00      3.95
1.40     YES
 L0002847         0   0.49830E-06  478234.8 3748355.5   451.0     0.00      3.95
1.40     YES
 L0002848         0   0.49830E-06  478234.4 3748364.0   451.0     0.00      3.95
1.40     YES
 L0002849         0   0.49830E-06  478233.9 3748372.5   451.0     0.00      3.95
1.40     YES
 L0002850         0   0.49830E-06  478233.5 3748381.0   451.0     0.00      3.95
1.40     YES
 L0002851         0   0.49830E-06  478233.0 3748389.5   451.0     0.00      3.95
1.40     YES
 L0002852         0   0.17780E-05  477744.0 3748980.7   454.0     0.00      3.95
1.40     YES
 L0002853         0   0.17780E-05  477752.5 3748980.8   454.0     0.00      3.95
1.40     YES
 L0002854         0   0.17780E-05  477761.0 3748980.8   454.0     0.00      3.95
1.40     YES
 L0002855         0   0.17780E-05  477769.5 3748980.9   454.0     0.00      3.95
1.40     YES
 L0002856         0   0.17780E-05  477777.9 3748981.0   454.0     0.00      3.95
1.40     YES
 L0002857         0   0.17780E-05  477786.4 3748981.0   454.0     0.00      3.95
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.40      YES
 L0002858         0   0.17780E-05   477794.9 3748981.1    454.0      0.00      3.95
1.40      YES
 L0002859         0   0.17780E-05   477803.4 3748981.2    454.0      0.00      3.95
1.40      YES
 L0002860         0   0.17780E-05   477811.9 3748981.3    454.0      0.00      3.95
1.40      YES
 L0002861         0   0.17780E-05   477820.4 3748981.3    454.0      0.00      3.95
1.40      YES
 L0002862         0   0.17780E-05   477828.9 3748981.4    453.9      0.00      3.95
1.40      YES
 L0002863         0   0.17780E-05   477837.4 3748981.5    453.7      0.00      3.95
1.40      YES
 L0002864         0   0.17780E-05   477845.9 3748981.6    453.6      0.00      3.95
1.40      YES
 L0002865         0   0.17780E-05   477854.0 3748981.2    453.5      0.00      3.95
1.40      YES
 L0002866         0   0.17780E-05   477854.0 3748972.7    453.2      0.00      3.95
1.40      YES
 L0002867         0   0.17780E-05   477853.9 3748964.2    453.0      0.00      3.95
1.40      YES
 L0002868         0   0.17780E-05   477853.8 3748955.7    453.0      0.00      3.95
1.40      YES
 L0002869         0   0.17780E-05   477853.7 3748947.2    453.0      0.00      3.95
1.40      YES
 L0002870         0   0.17780E-05   477853.6 3748938.7    453.0      0.00      3.95
1.40      YES
 L0002871         0   0.17780E-05   477853.5 3748930.2    453.0      0.00      3.95
1.40      YES
 L0002872         0   0.17780E-05   477853.4 3748921.7    453.0      0.00      3.95
1.40      YES
 L0002873         0   0.17780E-05   477853.4 3748913.2    453.0      0.00      3.95
1.40      YES
 L0002874         0   0.17780E-05   477853.3 3748904.7    453.0      0.00      3.95
1.40      YES
 L0002875         0   0.17780E-05   477853.2 3748896.2    453.0      0.00      3.95
1.40      YES
 L0002876         0   0.17780E-05   477853.1 3748887.7    453.0      0.00      3.95
1.40      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:22:46

                                    PAGE  17
 **MODELOPTs:   RegDFAULT CONC       ELEV      FLGPOL    URBAN
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                                   AERMOD LSTs Operational Output
                                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0002877         0   0.17780E-05  477853.0 3748879.2   453.0     0.00      3.95
1.40     YES
 L0002878         0   0.17780E-05  477852.9 3748870.7   453.0     0.00      3.95
1.40     YES
 L0002879         0   0.17780E-05  477852.8 3748862.2   453.0     0.00      3.95
1.40     YES
 L0002880         0   0.17780E-05  477852.8 3748853.7   453.0     0.00      3.95
1.40     YES
 L0002881         0   0.17780E-05  477852.7 3748845.2   453.0     0.00      3.95
1.40     YES
 L0002882         0   0.17780E-05  477852.6 3748836.7   453.0     0.00      3.95
1.40     YES
 L0002883         0   0.46060E-06  477744.0 3748980.7   454.0     0.00      3.95
1.40     YES
 L0002884         0   0.46060E-06  477752.5 3748980.8   454.0     0.00      3.95
1.40     YES
 L0002885         0   0.46060E-06  477761.0 3748980.8   454.0     0.00      3.95
1.40     YES
 L0002886         0   0.46060E-06  477769.5 3748980.9   454.0     0.00      3.95
1.40     YES
 L0002887         0   0.46060E-06  477777.9 3748981.0   454.0     0.00      3.95
1.40     YES
 L0002888         0   0.46060E-06  477786.4 3748981.0   454.0     0.00      3.95
1.40     YES
 L0002889         0   0.46060E-06  477794.9 3748981.1   454.0     0.00      3.95
1.40     YES
 L0002890         0   0.46060E-06  477803.4 3748981.2   454.0     0.00      3.95
1.40     YES
 L0002891         0   0.46060E-06  477811.9 3748981.3   454.0     0.00      3.95
1.40     YES
 L0002892         0   0.46060E-06  477820.4 3748981.3   454.0     0.00      3.95
1.40     YES
 L0002893         0   0.46060E-06  477828.9 3748981.4   453.9     0.00      3.95
1.40     YES
 L0002894         0   0.46060E-06  477837.4 3748981.5   453.7     0.00      3.95
1.40     YES
 L0002895         0   0.46060E-06  477845.9 3748981.6   453.6     0.00      3.95
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                           AERMOD LSTs Operational Output
1.40     YES
 L0002896         0   0.46060E-06  477854.0 3748981.2   453.5     0.00     3.95
1.40     YES
 L0002897         0   0.46060E-06  477854.0 3748972.7   453.2     0.00     3.95
1.40     YES
 L0002898         0   0.46060E-06  477853.9 3748964.2   453.0     0.00     3.95
1.40     YES
 L0002899         0   0.46060E-06  477853.8 3748955.7   453.0     0.00     3.95
1.40     YES
 L0002900         0   0.46060E-06  477853.7 3748947.2   453.0     0.00     3.95
1.40     YES
 L0002901         0   0.46060E-06  477853.6 3748938.7   453.0     0.00     3.95
1.40     YES
 L0002902         0   0.46060E-06  477853.5 3748930.2   453.0     0.00     3.95
1.40     YES
 L0002903         0   0.46060E-06  477853.4 3748921.7   453.0     0.00     3.95
1.40     YES
 L0002904         0   0.46060E-06  477853.4 3748913.2   453.0     0.00     3.95
1.40     YES
 L0002905         0   0.46060E-06  477853.3 3748904.7   453.0     0.00     3.95
1.40     YES
 L0002906         0   0.46060E-06  477853.2 3748896.2   453.0     0.00     3.95
1.40     YES
 L0002907         0   0.46060E-06  477853.1 3748887.7   453.0     0.00     3.95
1.40     YES
 L0002908         0   0.46060E-06  477853.0 3748879.2   453.0     0.00     3.95
1.40     YES
 L0002909         0   0.46060E-06  477852.9 3748870.7   453.0     0.00     3.95
1.40     YES
 L0002910         0   0.46060E-06  477852.8 3748862.2   453.0     0.00     3.95
1.40     YES
 L0002911         0   0.46060E-06  477852.8 3748853.7   453.0     0.00     3.95
1.40     YES
 L0002912         0   0.46060E-06  477852.7 3748845.2   453.0     0.00     3.95
1.40     YES
 L0002913         0   0.46060E-06  477852.6 3748836.7   453.0     0.00     3.95
1.40     YES
 L0002914         0   0.54720E-05  477934.4 3748197.8   450.0     0.00     3.95
1.40     YES
 L0002915         0   0.54720E-05  477942.9 3748197.7   450.0     0.00     3.95
1.40     YES
 L0002916         0   0.54720E-05  477951.4 3748197.6   450.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46
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                                   AERMOD LSTs Operational Output
                                            PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                          *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0002917         0   0.54720E-05  477959.9 3748197.6   450.0     0.00     3.95
1.40     YES
 L0002918         0   0.54720E-05  477968.4 3748197.5   450.0     0.00     3.95
1.40     YES
 L0002919         0   0.54720E-05  477976.9 3748197.4   450.0     0.00     3.95
1.40     YES
 L0002920         0   0.54720E-05  477985.4 3748197.4   450.0     0.00     3.95
1.40     YES
 L0002921         0   0.54720E-05  477993.9 3748197.3   450.0     0.00     3.95
1.40     YES
 L0002922         0   0.34980E-06  477934.4 3748197.8   450.0     0.00     3.95
1.40     YES
 L0002923         0   0.34980E-06  477942.9 3748197.7   450.0     0.00     3.95
1.40     YES
 L0002924         0   0.34980E-06  477951.4 3748197.6   450.0     0.00     3.95
1.40     YES
 L0002925         0   0.34980E-06  477959.9 3748197.6   450.0     0.00     3.95
1.40     YES
 L0002926         0   0.34980E-06  477968.4 3748197.5   450.0     0.00     3.95
1.40     YES
 L0002927         0   0.34980E-06  477976.9 3748197.4   450.0     0.00     3.95
1.40     YES
 L0002928         0   0.34980E-06  477985.4 3748197.4   450.0     0.00     3.95
1.40     YES
 L0002929         0   0.34980E-06  477993.9 3748197.3   450.0     0.00     3.95
1.40     YES
 L0002930         0   0.62220E-05  477499.5 3748976.4   454.2     0.00     3.95
1.40     YES
 L0002931         0   0.62220E-05  477508.0 3748976.2   454.1     0.00     3.95
1.40     YES
 L0002932         0   0.62220E-05  477516.4 3748976.0   454.0     0.00     3.95
1.40     YES
 L0002933         0   0.62220E-05  477524.9 3748975.8   454.0     0.00     3.95
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1.40      YES
 L0002934         0   0.62220E-05  477533.4 3748975.6   454.0     0.00     3.95
1.40      YES
 L0002935         0   0.62220E-05  477541.9 3748975.4   454.0     0.00     3.95
1.40      YES
 L0002936         0   0.62220E-05  477550.4 3748975.2   454.0     0.00     3.95
1.40      YES
 L0002937         0   0.62220E-05  477558.9 3748975.0   454.0     0.00     3.95
1.40      YES
 L0002938         0   0.62220E-05  477567.4 3748974.8   454.0     0.00     3.95
1.40      YES
 L0002939         0   0.62220E-05  477575.9 3748974.6   454.0     0.00     3.95
1.40      YES
 L0002940         0   0.62220E-05  477584.4 3748974.4   454.0     0.00     3.95
1.40      YES
 L0002941         0   0.62220E-05  477592.9 3748974.2   454.0     0.00     3.95
1.40      YES
 L0002942         0   0.65620E-06  477499.5 3748976.4   454.2     0.00     3.95
1.40      YES
 L0002943         0   0.65620E-06  477508.0 3748976.2   454.1     0.00     3.95
1.40      YES
 L0002944         0   0.65620E-06  477516.4 3748976.0   454.0     0.00     3.95
1.40      YES
 L0002945         0   0.65620E-06  477524.9 3748975.8   454.0     0.00     3.95
1.40      YES
 L0002946         0   0.65620E-06  477533.4 3748975.6   454.0     0.00     3.95
1.40      YES
 L0002947         0   0.65620E-06  477541.9 3748975.4   454.0     0.00     3.95
1.40      YES
 L0002948         0   0.65620E-06  477550.4 3748975.2   454.0     0.00     3.95
1.40      YES
 L0002949         0   0.65620E-06  477558.9 3748975.0   454.0     0.00     3.95
1.40      YES
 L0002950         0   0.65620E-06  477567.4 3748974.8   454.0     0.00     3.95
1.40      YES
 L0002951         0   0.65620E-06  477575.9 3748974.6   454.0     0.00     3.95
1.40      YES
 L0002952         0   0.65620E-06  477584.4 3748974.4   454.0     0.00     3.95
1.40      YES
 L0002953         0   0.65620E-06  477592.9 3748974.2   454.0     0.00     3.95
1.40      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:22:46

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
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                                                *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1           0   0.23510E-07  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES
 AREA2           0   0.24890E-07  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES
 AREA3           0   0.87222E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES
 AREA4           0   0.27037E-07  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES
 AREA5           0   0.56522E-07  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES
 AREA6           0   0.25323E-07  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:22:46

                                   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


  ALL       L0002317    , L0002318    , L0002319    , L0002320    , L0002321    ,
L0002322    , L0002323    , L0002324    ,

            L0002325    , L0002326    , L0002327    , L0002328    , L0002329    ,
L0002330    , L0002331    , L0002332    ,

            L0002333    , L0002334    , L0002335    , L0002336    , L0002337    ,
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L0002338     , L0002339     , L0002340     ,

             L0002341     , L0002342     , L0002343     , L0002344     , L0002345     ,
L0002346     , L0002347     , L0002348     ,

             L0002349     , L0002350     , L0002351     , L0002352     , L0002353     ,
L0002354     , L0002355     , L0002356     ,

             L0002357     , L0002358     , L0002359     , L0002360     , L0002361     ,
L0002362     , L0002363     , L0002364     ,

             L0002365     , L0002366     , L0002367     , L0002368     , L0002369     ,
L0002370     , L0002371     , L0002372     ,

             L0002373     , L0002374     , L0002375     , L0002376     , L0002377     ,
L0002378     , L0002379     , L0002380     ,

             L0002381     , L0002382     , L0002383     , L0002384     , L0002385     ,
L0002386     , L0002387     , L0002388     ,

             L0002389     , L0002390     , L0002391     , L0002392     , L0002393     ,
L0002394     , L0002395     , L0002396     ,

             L0002397     , L0002398     , L0002399     , L0002400     , L0002401     ,
L0002402     , L0002403     , L0002404     ,

             L0002405     , L0002406     , L0002407     , L0002408     , L0002409     ,
L0002410     , L0002411     , L0002412     ,

             L0002413     , L0002414     , L0002415     , L0002416     , L0002417     ,
L0002418     , L0002419     , L0002420     ,

             L0002421     , L0002422     , L0002423     , L0002424     , L0002425     ,
L0002426     , L0002427     , L0002428     ,

             L0002429     , L0002430     , L0002431     , L0002432     , L0002433     ,
L0002434     , L0002435     , L0002436     ,

             L0002437     , L0002438     , L0002439     , L0002440     , L0002441     ,
L0002442     , L0002443     , L0002444     ,

             L0002445     , L0002446     , L0002447     , L0002448     , L0002449     ,
L0002450     , L0002451     , L0002452     ,

             L0002453     , L0002454     , L0002455     , L0002456     , L0002457     ,
L0002458     , L0002459     , L0002460     ,

             L0002461     , L0002462     , L0002463     , L0002464     , L0002465     ,
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                                AERMOD LSTs Operational Output
L0002466    , L0002467    , L0002468    ,

             L0002469    , L0002470    , L0002471    , L0002472    , L0002473    ,
L0002474    , L0002475    , L0002476    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc                ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        14:22:46

                                     PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                             *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


             L0002477    , L0002478    , L0002479    , L0002480    , L0002481    ,
L0002482    , L0002483    , L0002484    ,

             L0002485    , L0002486    , L0002487    , L0002488    , L0002489    ,
L0002490    , L0002491    , L0002492    ,

             L0002493    , L0002494    , L0002495    , L0002496    , L0002497    ,
L0002498    , L0002499    , L0002500    ,

             L0002501    , L0002502    , L0002503    , L0002504    , L0002505    ,
L0002506    , L0002507    , L0002508    ,

             L0002509    , L0002510    , L0002511    , L0002512    , L0002513    ,
L0002514    , L0002515    , L0002516    ,

             L0002517    , L0002518    , L0002519    , L0002520    , L0002521    ,
L0002522    , L0002523    , L0002524    ,

             L0002525    , L0002526    , L0002527    , L0002528    , L0002529    ,
L0002530    , L0002531    , L0002532    ,

             L0002533    , L0002534    , L0002535    , L0002536    , L0002537    ,
L0002538    , L0002539    , L0002540    ,

             L0002541    , L0002542    , L0002543    , L0002544    , L0002545    ,
L0002546    , L0002547    , L0002548    ,

             L0002549    , L0002550    , L0002551    , L0002552    , L0002553    ,
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                           AERMOD LSTs Operational Output
L0002554    , L0002555    , L0002556    ,

             L0002557    , L0002558    , L0002559    , L0002560    , L0002561    ,
L0002562    , L0002563    , L0002564    ,

             L0002565    , L0002566    , L0002567    , L0002568    , L0002569    ,
L0002570    , L0002571    , L0002572    ,

             L0002573    , L0002574    , L0002575    , L0002576    , L0002577    ,
L0002578    , L0002579    , L0002580    ,

             L0002581    , L0002582    , L0002583    , L0002584    , L0002585    ,
L0002586    , L0002587    , L0002588    ,

             L0002589    , L0002590    , L0002591    , L0002592    , L0002593    ,
L0002594    , L0002595    , L0002596    ,

             L0002597    , L0002598    , L0002599    , L0002600    , L0002601    ,
L0002602    , L0002603    , L0002604    ,

             L0002605    , L0002606    , L0002607    , L0002608    , L0002609    ,
L0002610    , L0002611    , L0002612    ,

             L0002613    , L0002614    , L0002615    , L0002616    , L0002617    ,
L0002618    , L0002619    , L0002620    ,

             L0002621    , L0002622    , L0002623    , L0002624    , L0002625    ,
L0002626    , L0002627    , L0002628    ,

             L0002629    , L0002630    , L0002631    , L0002632    , L0002633    ,
L0002634    , L0002635    , L0002636    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:22:46

                                    PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                    *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                    SOURCE IDs
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             L0002637    , L0002638    , L0002639    , L0002640    , L0002641    ,
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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L0002642    , L0002643    , L0002644    ,

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             L0002669    , L0002670    , L0002671    , L0002672    , L0002673    ,
L0002674    , L0002675    , L0002676    ,

             L0002677    , L0002678    , L0002679    , L0002680    , L0002681    ,
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STCK3       , STCK4       , STCK5       ,

             STCK6       , STCK7       , STCK8       , STCK9       , STCK10      ,
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             L0002770    , L0002771    , L0002772    , L0002773    , L0002774    ,
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View\MVL\OperationalLSTs\PM10\PM10.isc                ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:22:46

                                    PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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L0002799    , L0002800    , L0002801    ,

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AERMOD LSTs Operational Output

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View\MVL\OperationalLSTs\PM10\PM10.isc               ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:22:46

                                    PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***
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                                  AERMOD LSTs Operational Output

 SRCGROUP ID                                                         SOURCE IDs
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 *** AERMET - VERSION  14134 ***    ***
                        ***        14:22:46

                                   PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                               SOURCE IDs
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View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***       14:22:46

                                   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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                                 AERMOD LSTs Operational Output
***

  URBAN ID   URBAN POP                                                 SOURCE IDs
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             L0002533     , L0002534     , L0002535     , L0002536     , L0002537     ,
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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             L0002589    , L0002590    , L0002591    , L0002592    , L0002593    ,
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L0002618    , L0002619    , L0002620    ,

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 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                        SOURCE IDs
  --------   ---------                                        ----------


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L0002674    , L0002675    , L0002676    ,
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                          AERMOD LSTs Operational Output
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             AREA4        , AREA5        , AREA6        , STCK1        , STCK2        ,
STCK3        , STCK4        , STCK5        ,

             STCK6        , STCK7        , STCK8        , STCK9        , STCK10       ,
STCK11       , STCK12       , STCK13       ,

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 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46
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                                    AERMOD LSTs Operational Output

                                            PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                   *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
  --------   ---------                                ----------


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             L0002882    , L0002883    , L0002884    , L0002885    , L0002886    ,
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             L0002890    , L0002891    , L0002892    , L0002893    , L0002894    ,
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L0002903    , L0002904    , L0002905    ,

             L0002906    , L0002907    , L0002908    , L0002909    , L0002910    ,
L0002911    , L0002912    , L0002913    ,

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L0002919    , L0002920    , L0002921    ,

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View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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L0002943    , L0002944    , L0002945    ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46
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AERMOD LSTs Operational Output

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                                    PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

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                                                                    (METERS)

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     ( 478324.0, 3749446.9,     456.0,     456.0,      2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,      2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,      2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,      2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,      2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,      2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:22:46

                                    PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                     *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                 (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.
```

```
                                 AERMOD LSTs Operational Output

                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                          (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                 Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
```

```
                          AERMOD LSTs Operational Output
 07 01 01    1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01    1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01    1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01    1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01    1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01    1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01    1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01    1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01    1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01    1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01    1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01    1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01    1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01    1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01    1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01    1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01    1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01    1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc                     ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46
```

```
                                            PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                         *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                          INCLUDING SOURCE(S):     L0002317    , L0002318
 , L0002319    , L0002320    , L0002321    ,
                 L0002322    , L0002323    , L0002324    , L0002325    , L0002326
 , L0002327    , L0002328    , L0002329    ,
                 L0002330    , L0002331    , L0002332    , L0002333    , L0002334
 , L0002335    , L0002336    , L0002337    ,
                 L0002338    , L0002339    , L0002340    , L0002341    , L0002342
 , L0002343    , L0002344    ,  . . .      ,

                                                     *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                                ** CONC OF PM_10    IN MICROGRAMS/M**3
                           **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.01573                       478348.59
3749820.73        0.01194
         478323.98    3749446.94        0.02006                       478321.90
3749107.70        0.04091
         478311.50    3748947.34        0.07521                       478314.46
3748704.06        0.12039
         478309.66    3748401.33        0.12263                       478302.71
3748248.43        0.09195
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc                ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                                ***        14:22:46

                                            PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                      *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                          INCLUDING SOURCE(S):     L0002317    , L0002318
 , L0002319    , L0002320    , L0002321    ,
                 L0002322    , L0002323    , L0002324    , L0002325    , L0002326
 , L0002327    , L0002328    , L0002329    ,
                 L0002330    , L0002331    , L0002332    , L0002333    , L0002334
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                              AERMOD LSTs Operational Output
 , L0002335    , L0002336    , L0002337    ,
               L0002338    , L0002339    , L0002340    , L0002341    , L0002342
 , L0002343    , L0002344    ,  . . .      ,

                                                     *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                                ** CONC OF PM_10    IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.05662  (09020624)               478348.59
 3749820.73        0.05405m (10021924)
        478323.98   3749446.94        0.07577m (10021924)               478321.90
 3749107.70        0.12412m (10021924)
        478311.50   3748947.34        0.18468m (10021924)               478314.46
 3748704.06        0.23686  (08011124)
        478309.66   3748401.33        0.25517  (07110824)               478302.71
 3748248.43        0.19816  (07110824)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                          ***       14:22:46

                                   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                **


                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.12263 AT (   478309.66,   3748401.33,
451.00,   451.00,    2.00)  DC
          2ND HIGHEST VALUE IS       0.12039 AT (   478314.46,   3748704.06,
452.00,   452.00,    2.00)  DC
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
         3RD HIGHEST VALUE IS       0.09195 AT (  478302.71,  3748248.43,
450.00,   450.00,    2.00)  DC
         4TH HIGHEST VALUE IS       0.07521 AT (  478311.50,  3748947.34,
453.00,   453.00,    2.00)  DC
         5TH HIGHEST VALUE IS       0.04091 AT (  478321.90,  3749107.70,
454.00,   454.00,    2.00)  DC
         6TH HIGHEST VALUE IS       0.02006 AT (  478323.98,  3749446.94,
456.00,   456.00,    2.00)  DC
         7TH HIGHEST VALUE IS       0.01573 AT (  477994.17,  3749818.50,
458.00,   458.00,    2.00)  DC
         8TH HIGHEST VALUE IS       0.01194 AT (  478348.59,  3749820.73,
458.30,   458.30,    2.00)  DC
         9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
        10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:22:46

                                   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                ***	THE SUMMARY OF HIGHEST 24-HR
RESULTS ***


                                    ** CONC OF PM_10    IN MICROGRAMS/M**3
                **

                                                      DATE
                                          NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.25517  ON 07110824: AT (  478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC
```

```
                           AERMOD LSTs Operational Output
 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM10\PM10.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:22:46

                                   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    1776       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/3/2015
** File: C:\Lakes\AERMOD View\MVL\OperationalLSTs\PM25\PM25.ADI
**
```

AERMOD LSTs Operational Output

```
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\OperationalLSTs\PM25\PM25.isc
   MODELOPT DFAULT CONC
   AVERTIME 24
   URBANOPT 2100516
   POLLUTID PM_2.5
   FLAGPOLE 2.00
   RUNORNOT RUN
   ERRORFIL PM25.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001263
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0002954     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0002955     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0002956     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0002957     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0002958     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0002959     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0002960     VOLUME   478217.023 3748596.254 452.00
```

```
   LOCATION L0002961     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0002962     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0002963     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0002964     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0002965     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0002966     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0002967     VOLUME   478217.984 3748806.252 452.66
   LOCATION L0002968     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0002969     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0002970     VOLUME   478218.396 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001078
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.00, 4.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0002971     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0002972     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0002973     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0002974     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0002975     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0002976     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0002977     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0002978     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0002979     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0002980     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0002981     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0002982     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0002983     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0002984     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005682
```

```
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.03, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0002985     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0002986     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0002987     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0002988     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0002989     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0002990     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0002991     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0002992     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004502
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 451.00, 4.00, 3.95
** 477936.827, 3748338.755, 450.99, 4.00, 3.95
** 477944.157, 3748337.839, 450.98, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.00, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0002993     VOLUME   477900.151 3748339.028 451.00
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   LOCATION L0002996     VOLUME   477925.650 3748338.838 451.00
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   LOCATION L0003000     VOLUME   477951.847 3748324.455 451.00
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   LOCATION L0003002     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0003003     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0003004     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0003005     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0003006     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0003007     VOLUME   477977.265 3748271.460 450.00
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   LOCATION L0003009     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0003010     VOLUME   477978.260 3748246.026 450.00
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   LOCATION L0003013     VOLUME   477978.100 3748220.527 450.00
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.000077
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 477608.667, 3748808.378, 454.00, 0.00, 3.95
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   LOCATION L0003019     VOLUME   477608.667 3748886.789 454.00
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   LOCATION L0003022     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0003023     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0003024     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0003025     VOLUME   477608.667 3748835.789 454.00
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** End of LINE VOLUME Source ID = SLINE6
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00003477
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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   LOCATION L0003031     VOLUME   478102.991 3748333.897 451.00
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** End of LINE VOLUME Source ID = SLINE2
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.001543
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
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** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
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** 478016.339, 3748353.755, 451.00, 4.00, 3.95
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   LOCATION L0003040     VOLUME   477948.245 3748920.681 453.00
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   LOCATION L0003050     VOLUME   477947.021 3748835.691 453.00
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LOCATION L0003057     VOLUME   477946.542 3748776.193 453.00
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LOCATION L0003062     VOLUME   477946.200 3748733.695 453.00
LOCATION L0003063     VOLUME   477946.132 3748725.195 453.00
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LOCATION L0003069     VOLUME   477945.722 3748674.197 452.25
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LOCATION L0003071     VOLUME   477945.585 3748657.197 452.00
LOCATION L0003072     VOLUME   477945.517 3748648.697 452.00
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LOCATION L0003079     VOLUME   477945.038 3748589.199 452.00
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LOCATION L0003091     VOLUME   477944.728 3748487.329 451.03
LOCATION L0003092     VOLUME   477948.744 3748479.837 451.00
LOCATION L0003093     VOLUME   477952.760 3748472.346 451.00
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LOCATION L0003095     VOLUME   477960.792 3748457.363 451.00
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LOCATION L0003097     VOLUME   477968.825 3748442.381 451.00
LOCATION L0003098     VOLUME   477972.841 3748434.889 451.00
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0003104      VOLUME   477996.939 3748389.941 451.00
LOCATION L0003105      VOLUME   478000.955 3748382.450 451.00
LOCATION L0003106      VOLUME   478004.971 3748374.959 451.00
LOCATION L0003107      VOLUME   478008.987 3748367.468 451.00
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LOCATION L0003188     VOLUME   478219.103 3748802.408 452.53
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   LOCATION L0003261     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0003262     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0003263     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0003264     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0003265     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0003266     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0003267     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
```

AERMOD LSTs Operational Output

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** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000725
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 450.85, 4.00, 3.95
** 477886.421, 3748337.112, 451.00, 4.00, 3.95
** 477917.002, 3748339.979, 451.00, 4.00, 3.95
** 477941.530, 3748338.068, 451.00, 4.00, 3.95
** 477951.087, 3748325.007, 450.71, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.00, 4.00, 3.95
** 477993.877, 3748210.463, 450.00, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0003268     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0003269     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0003270     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0003271     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0003272     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0003273     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0003274     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0003275     VOLUME   477885.558 3748263.233 450.92
   LOCATION L0003276     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0003277     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0003278     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0003279     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0003280     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0003281     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0003282     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0003283     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0003284     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0003285     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0003286     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0003287     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0003288     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0003289     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0003290     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0003291     VOLUME   477945.545 3748332.582 451.00
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   LOCATION L0003292     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0003293     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0003294     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0003295     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0003296     VOLUME   477968.225 3748296.672 450.00
   LOCATION L0003297     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0003298     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0003299     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0003300     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0003301     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0003302     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0003303     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0003304     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0003305     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0003306     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0003307     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0003308     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0003309     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0003310     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0003311     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0003312     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0003313     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0003314     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0003315     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0003316     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001263
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 454.06, 4.00, 3.95
** 477598.310, 3748973.915, 454.00, 4.00, 3.95
** 477610.497, 3748965.249, 454.00, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 454.00, 4.00, 3.95
** 477487.823, 3748799.247, 454.00, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003317     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0003318     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0003319     VOLUME   477522.068 3748975.397 454.00
```

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   LOCATION L0003320     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0003321     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0003322     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0003323     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0003324     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0003325     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0003326     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0003327     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0003328     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0003329     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0003330     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0003331     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0003332     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0003333     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0003334     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0003335     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0003336     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0003337     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0003338     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0003339     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0003340     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0003341     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0003342     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0003343     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0003344     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0003345     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0003346     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0003347     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0003348     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0003349     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0003350     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0003351     VOLUME   477618.478 3748795.702 454.00
   LOCATION L0003352     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0003353     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0003354     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0003355     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0003356     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0003357     VOLUME   477567.497 3748797.085 454.00
   LOCATION L0003358     VOLUME   477559.000 3748797.316 454.00
   LOCATION L0003359     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0003360     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0003361     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0003362     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0003363     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0003364     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0003365     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0003366     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
```

```
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC PC On-Site Idling North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005323
** Vertical Dimension = 3.00
** SZINIT = 1.40
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AERMOD LSTs Operational Output

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** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0003367      VOLUME   477922.279 3748920.131 453.00
   LOCATION L0003368      VOLUME   477921.884 3748928.621 453.00
   LOCATION L0003369      VOLUME   477921.489 3748937.112 453.00
   LOCATION L0003370      VOLUME   477921.095 3748945.603 453.00
   LOCATION L0003371      VOLUME   477920.700 3748954.094 453.00
   LOCATION L0003372      VOLUME   477927.678 3748955.589 453.00
   LOCATION L0003373      VOLUME   477936.177 3748955.641 453.00
   LOCATION L0003374      VOLUME   477944.677 3748955.692 453.00
   LOCATION L0003375      VOLUME   477953.177 3748955.744 453.00
   LOCATION L0003376      VOLUME   477961.677 3748955.795 453.00
   LOCATION L0003377      VOLUME   477970.177 3748955.847 453.00
   LOCATION L0003378      VOLUME   477978.677 3748955.898 453.00
   LOCATION L0003379      VOLUME   477987.177 3748955.950 453.00
   LOCATION L0003380      VOLUME   477995.676 3748956.001 453.00
   LOCATION L0003381      VOLUME   478004.176 3748956.053 453.00
   LOCATION L0003382      VOLUME   478012.676 3748956.104 453.00
   LOCATION L0003383      VOLUME   478021.176 3748956.156 453.00
   LOCATION L0003384      VOLUME   478029.676 3748956.208 453.00
   LOCATION L0003385      VOLUME   478038.176 3748956.259 453.00
   LOCATION L0003386      VOLUME   478046.675 3748956.311 453.00
   LOCATION L0003387      VOLUME   478055.175 3748956.362 453.00
   LOCATION L0003388      VOLUME   478063.675 3748956.414 453.00
   LOCATION L0003389      VOLUME   478072.175 3748956.465 453.00
   LOCATION L0003390      VOLUME   478080.675 3748956.517 453.00
   LOCATION L0003391      VOLUME   478089.175 3748956.568 453.00
   LOCATION L0003392      VOLUME   478097.675 3748956.620 453.00
   LOCATION L0003393      VOLUME   478106.174 3748956.671 453.00
   LOCATION L0003394      VOLUME   478114.674 3748956.723 453.00
   LOCATION L0003395      VOLUME   478123.174 3748956.774 453.00
   LOCATION L0003396      VOLUME   478131.674 3748956.826 453.00
   LOCATION L0003397      VOLUME   478140.174 3748956.877 453.00
   LOCATION L0003398      VOLUME   478148.674 3748956.929 453.00
   LOCATION L0003399      VOLUME   478157.173 3748956.980 453.00
   LOCATION L0003400      VOLUME   478165.673 3748957.032 453.00
   LOCATION L0003401      VOLUME   478174.173 3748957.083 453.00
   LOCATION L0003402      VOLUME   478182.673 3748957.135 453.00
   LOCATION L0003403      VOLUME   478191.173 3748957.186 453.00
   LOCATION L0003404      VOLUME   478199.673 3748957.238 453.00
   LOCATION L0003405      VOLUME   478208.172 3748957.289 453.00
   LOCATION L0003406      VOLUME   478216.672 3748957.341 453.00
   LOCATION L0003407      VOLUME   478225.010 3748957.229 453.00
   LOCATION L0003408      VOLUME   478225.010 3748948.729 453.00
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   LOCATION L0003409     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0003410     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0003411     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE11
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE16
** DESCRSRC PC On-Site Travel North of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002012
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 4
** 477922.477, 3748915.885, 453.00, 0.00, 3.95
** 477920.632, 3748955.547, 453.00, 0.00, 3.95
** 478225.010, 3748957.391, 453.00, 0.00, 3.95
** 478225.010, 3748921.419, 453.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003412     VOLUME   477922.279 3748920.131 453.00
   LOCATION L0003413     VOLUME   477921.884 3748928.621 453.00
   LOCATION L0003414     VOLUME   477921.489 3748937.112 453.00
   LOCATION L0003415     VOLUME   477921.095 3748945.603 453.00
   LOCATION L0003416     VOLUME   477920.700 3748954.094 453.00
   LOCATION L0003417     VOLUME   477927.678 3748955.589 453.00
   LOCATION L0003418     VOLUME   477936.177 3748955.641 453.00
   LOCATION L0003419     VOLUME   477944.677 3748955.692 453.00
   LOCATION L0003420     VOLUME   477953.177 3748955.744 453.00
   LOCATION L0003421     VOLUME   477961.677 3748955.795 453.00
   LOCATION L0003422     VOLUME   477970.177 3748955.847 453.00
   LOCATION L0003423     VOLUME   477978.677 3748955.898 453.00
   LOCATION L0003424     VOLUME   477987.177 3748955.950 453.00
   LOCATION L0003425     VOLUME   477995.676 3748956.001 453.00
   LOCATION L0003426     VOLUME   478004.176 3748956.053 453.00
   LOCATION L0003427     VOLUME   478012.676 3748956.104 453.00
   LOCATION L0003428     VOLUME   478021.176 3748956.156 453.00
   LOCATION L0003429     VOLUME   478029.676 3748956.208 453.00
   LOCATION L0003430     VOLUME   478038.176 3748956.259 453.00
   LOCATION L0003431     VOLUME   478046.675 3748956.311 453.00
   LOCATION L0003432     VOLUME   478055.175 3748956.362 453.00
   LOCATION L0003433     VOLUME   478063.675 3748956.414 453.00
   LOCATION L0003434     VOLUME   478072.175 3748956.465 453.00
   LOCATION L0003435     VOLUME   478080.675 3748956.517 453.00
   LOCATION L0003436     VOLUME   478089.175 3748956.568 453.00
   LOCATION L0003437     VOLUME   478097.675 3748956.620 453.00
   LOCATION L0003438     VOLUME   478106.174 3748956.671 453.00
   LOCATION L0003439     VOLUME   478114.674 3748956.723 453.00
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                              AERMOD LSTs Operational Output
   LOCATION L0003440     VOLUME   478123.174 3748956.774 453.00
   LOCATION L0003441     VOLUME   478131.674 3748956.826 453.00
   LOCATION L0003442     VOLUME   478140.174 3748956.877 453.00
   LOCATION L0003443     VOLUME   478148.674 3748956.929 453.00
   LOCATION L0003444     VOLUME   478157.173 3748956.980 453.00
   LOCATION L0003445     VOLUME   478165.673 3748957.032 453.00
   LOCATION L0003446     VOLUME   478174.173 3748957.083 453.00
   LOCATION L0003447     VOLUME   478182.673 3748957.135 453.00
   LOCATION L0003448     VOLUME   478191.173 3748957.186 453.00
   LOCATION L0003449     VOLUME   478199.673 3748957.238 453.00
   LOCATION L0003450     VOLUME   478208.172 3748957.289 453.00
   LOCATION L0003451     VOLUME   478216.672 3748957.341 453.00
   LOCATION L0003452     VOLUME   478225.010 3748957.229 453.00
   LOCATION L0003453     VOLUME   478225.010 3748948.729 453.00
   LOCATION L0003454     VOLUME   478225.010 3748940.229 453.00
   LOCATION L0003455     VOLUME   478225.010 3748931.729 453.00
   LOCATION L0003456     VOLUME   478225.010 3748923.229 453.00
** End of LINE VOLUME Source ID = SLINE16
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC PC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005323
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003457     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0003458     VOLUME   478185.936 3748323.096 450.00
   LOCATION L0003459     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0003460     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0003461     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0003462     VOLUME   478219.914 3748321.882 450.00
   LOCATION L0003463     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0003464     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0003465     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0003466     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0003467     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0003468     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0003469     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0003470     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0003471     VOLUME   478233.496 3748380.968 451.00
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   LOCATION L0003472     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE12
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE17
** DESCRSRC PC On-Site Travel South of Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 7.351E-06
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 478173.194, 3748323.551, 450.64, 0.00, 3.95
** 478236.637, 3748321.285, 450.51, 0.00, 3.95
** 478232.672, 3748396.624, 451.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003473     VOLUME   478177.441 3748323.399 450.00
   LOCATION L0003474     VOLUME   478185.936 3748323.096 450.00
   LOCATION L0003475     VOLUME   478194.430 3748322.792 450.00
   LOCATION L0003476     VOLUME   478202.925 3748322.489 450.00
   LOCATION L0003477     VOLUME   478211.420 3748322.186 450.00
   LOCATION L0003478     VOLUME   478219.914 3748321.882 450.00
   LOCATION L0003479     VOLUME   478228.409 3748321.579 450.00
   LOCATION L0003480     VOLUME   478236.623 3748321.551 450.00
   LOCATION L0003481     VOLUME   478236.177 3748330.039 451.00
   LOCATION L0003482     VOLUME   478235.730 3748338.527 451.00
   LOCATION L0003483     VOLUME   478235.283 3748347.015 451.00
   LOCATION L0003484     VOLUME   478234.836 3748355.504 451.00
   LOCATION L0003485     VOLUME   478234.390 3748363.992 451.00
   LOCATION L0003486     VOLUME   478233.943 3748372.480 451.00
   LOCATION L0003487     VOLUME   478233.496 3748380.968 451.00
   LOCATION L0003488     VOLUME   478233.049 3748389.457 451.00
** End of LINE VOLUME Source ID = SLINE17
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC PC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005081
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
```

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** ----------------------------------------------------------------------
   LOCATION L0003489     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0003490     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0003491     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0003492     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0003493     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0003494     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0003495     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0003496     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0003497     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0003498     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0003499     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0003500     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0003501     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0003502     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0003503     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0003504     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0003505     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0003506     VOLUME   477853.699 3748947.227 453.00
   LOCATION L0003507     VOLUME   477853.614 3748938.727 453.00
   LOCATION L0003508     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0003509     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0003510     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0003511     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0003512     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0003513     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0003514     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0003515     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0003516     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0003517     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0003518     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0003519     VOLUME   477852.587 3748836.732 453.00
** End of LINE VOLUME Source ID = SLINE13
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE18
** DESCRSRC PC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001316
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 3
** 477739.701, 3748980.644, 454.00, 0.00, 3.95
** 477854.046, 3748981.626, 453.54, 0.00, 3.95
** 477852.573, 3748835.382, 453.00, 0.00, 3.95
** ----------------------------------------------------------------------
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                            AERMOD LSTs Operational Output
   LOCATION L0003520     VOLUME   477743.951 3748980.681 454.00
   LOCATION L0003521     VOLUME   477752.450 3748980.754 454.00
   LOCATION L0003522     VOLUME   477760.950 3748980.827 454.00
   LOCATION L0003523     VOLUME   477769.450 3748980.900 454.00
   LOCATION L0003524     VOLUME   477777.949 3748980.973 454.00
   LOCATION L0003525     VOLUME   477786.449 3748981.046 454.00
   LOCATION L0003526     VOLUME   477794.949 3748981.119 454.00
   LOCATION L0003527     VOLUME   477803.448 3748981.192 454.00
   LOCATION L0003528     VOLUME   477811.948 3748981.264 454.00
   LOCATION L0003529     VOLUME   477820.448 3748981.337 453.99
   LOCATION L0003530     VOLUME   477828.947 3748981.410 453.85
   LOCATION L0003531     VOLUME   477837.447 3748981.483 453.70
   LOCATION L0003532     VOLUME   477845.947 3748981.556 453.56
   LOCATION L0003533     VOLUME   477854.042 3748981.225 453.49
   LOCATION L0003534     VOLUME   477853.956 3748972.725 453.21
   LOCATION L0003535     VOLUME   477853.871 3748964.226 453.00
   LOCATION L0003536     VOLUME   477853.785 3748955.726 453.00
   LOCATION L0003537     VOLUME   477853.699 3748947.227 453.00
   LOCATION L0003538     VOLUME   477853.614 3748938.727 453.00
   LOCATION L0003539     VOLUME   477853.528 3748930.228 453.00
   LOCATION L0003540     VOLUME   477853.443 3748921.728 453.00
   LOCATION L0003541     VOLUME   477853.357 3748913.228 453.00
   LOCATION L0003542     VOLUME   477853.272 3748904.729 453.00
   LOCATION L0003543     VOLUME   477853.186 3748896.229 453.00
   LOCATION L0003544     VOLUME   477853.100 3748887.730 453.00
   LOCATION L0003545     VOLUME   477853.015 3748879.230 453.00
   LOCATION L0003546     VOLUME   477852.929 3748870.731 453.00
   LOCATION L0003547     VOLUME   477852.844 3748862.231 453.00
   LOCATION L0003548     VOLUME   477852.758 3748853.732 453.00
   LOCATION L0003549     VOLUME   477852.673 3748845.232 453.00
   LOCATION L0003550     VOLUME   477852.587 3748836.732 453.00
** End of LINE VOLUME Source ID = SLINE18
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC PC On-Site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004036
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003551     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0003552     VOLUME   477942.912 3748197.691 450.00
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0003553     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0003554     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0003555     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0003556     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0003557     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0003558     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE14
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE19
** DESCRSRC PC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 2.58E-06
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477930.162, 3748197.793, 450.00, 0.00, 3.95
** 477994.466, 3748197.281, 450.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003559     VOLUME   477934.412 3748197.759 450.00
   LOCATION L0003560     VOLUME   477942.912 3748197.691 450.00
   LOCATION L0003561     VOLUME   477951.412 3748197.624 450.00
   LOCATION L0003562     VOLUME   477959.911 3748197.556 450.00
   LOCATION L0003563     VOLUME   477968.411 3748197.488 450.00
   LOCATION L0003564     VOLUME   477976.911 3748197.420 450.00
   LOCATION L0003565     VOLUME   477985.410 3748197.353 450.00
   LOCATION L0003566     VOLUME   477993.910 3748197.285 450.00
** End of LINE VOLUME Source ID = SLINE19
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC PC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006883
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003567     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0003568     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0003569     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0003570     VOLUME   477524.946 3748975.832 454.00
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   LOCATION L0003571     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0003572     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0003573     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0003574     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0003575     VOLUME   477567.434 3748974.837 454.00
   LOCATION L0003576     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0003577     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0003578     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE15
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE20
** DESCRSRC PC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 7.26E-06
** Vertical Dimension = 3.00
** SZINIT = 1.40
** Nodes = 2
** 477495.204, 3748976.528, 454.06, 0.00, 3.95
** 477601.235, 3748974.046, 454.00, 0.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0003579     VOLUME   477499.453 3748976.429 454.22
   LOCATION L0003580     VOLUME   477507.950 3748976.230 454.13
   LOCATION L0003581     VOLUME   477516.448 3748976.031 454.04
   LOCATION L0003582     VOLUME   477524.946 3748975.832 454.00
   LOCATION L0003583     VOLUME   477533.443 3748975.633 454.00
   LOCATION L0003584     VOLUME   477541.941 3748975.434 454.00
   LOCATION L0003585     VOLUME   477550.439 3748975.235 454.00
   LOCATION L0003586     VOLUME   477558.936 3748975.036 454.00
   LOCATION L0003587     VOLUME   477567.434 3748974.837 454.00
   LOCATION L0003588     VOLUME   477575.932 3748974.638 454.00
   LOCATION L0003589     VOLUME   477584.429 3748974.439 454.00
   LOCATION L0003590     VOLUME   477592.927 3748974.241 454.00
** End of LINE VOLUME Source ID = SLINE20
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0002954     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002955     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002956     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002957     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002958     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002959     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002960     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002961     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002962     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002963     0.000007429      4.00     13.95      1.86
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   SRCPARAM L0002964     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002965     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002966     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002967     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002968     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002969     0.000007429      4.00     13.95      1.86
   SRCPARAM L0002970     0.000007429      4.00     13.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0002971     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002972     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002973     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002974     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002975     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002976     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002977     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002978     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002979     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002980     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002981     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002982     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002983     0.0000077      4.00     13.95      1.86
   SRCPARAM L0002984     0.0000077      4.00     13.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0002985     0.000007102      4.00      3.95      1.86
   SRCPARAM L0002986     0.000007102      4.00      3.95      1.86
   SRCPARAM L0002987     0.000007102      4.00      3.95      1.86
   SRCPARAM L0002988     0.000007102      4.00      3.95      1.86
   SRCPARAM L0002989     0.000007102      4.00      3.95      1.86
   SRCPARAM L0002990     0.000007102      4.00      3.95      1.86
   SRCPARAM L0002991     0.000007102      4.00      3.95      1.86
   SRCPARAM L0002992     0.000007102      4.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0002993     0.000002144      4.00      3.95      1.86
   SRCPARAM L0002994     0.000002144      4.00      3.95      1.86
   SRCPARAM L0002995     0.000002144      4.00      3.95      1.86
   SRCPARAM L0002996     0.000002144      4.00      3.95      1.86
   SRCPARAM L0002997     0.000002144      4.00      3.95      1.86
   SRCPARAM L0002998     0.000002144      4.00      3.95      1.86
   SRCPARAM L0002999     0.000002144      4.00      3.95      1.86
   SRCPARAM L0003000     0.000002144      4.00      3.95      1.86
   SRCPARAM L0003001     0.000002144      4.00      3.95      1.86
   SRCPARAM L0003002     0.000002144      4.00      3.95      1.86
   SRCPARAM L0003003     0.000002144      4.00      3.95      1.86
   SRCPARAM L0003004     0.000002144      4.00      3.95      1.86
   SRCPARAM L0003005     0.000002144      4.00      3.95      1.86
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                         AERMOD LSTs Operational Output
   SRCPARAM L0003006     0.000002144      4.00       3.95       1.86
   SRCPARAM L0003007     0.000002144      4.00       3.95       1.86
   SRCPARAM L0003008     0.000002144      4.00       3.95       1.86
   SRCPARAM L0003009     0.000002144      4.00       3.95       1.86
   SRCPARAM L0003010     0.000002144      4.00       3.95       1.86
   SRCPARAM L0003011     0.000002144      4.00       3.95       1.86
   SRCPARAM L0003012     0.000002144      4.00       3.95       1.86
   SRCPARAM L0003013     0.000002144      4.00       3.95       1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0003014     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003015     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003016     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003017     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003018     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003019     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003020     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003021     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003022     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003023     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003024     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003025     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003026     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003027     0.000005133      0.00       3.95       1.86
   SRCPARAM L0003028     0.000005133      0.00       3.95       1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0003029     0.000006954      0.00      13.95       1.86
   SRCPARAM L0003030     0.000006954      0.00      13.95       1.86
   SRCPARAM L0003031     0.000006954      0.00      13.95       1.86
   SRCPARAM L0003032     0.000006954      0.00      13.95       1.86
   SRCPARAM L0003033     0.000006954      0.00      13.95       1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0003034     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003035     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003036     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003037     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003038     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003039     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003040     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003041     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003042     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003043     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003044     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003045     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003046     0.000008817      4.00       3.95       1.86
   SRCPARAM L0003047     0.000008817      4.00       3.95       1.86
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SRCPARAM L0003048     0.000008817      4.00      3.95      1.86
SRCPARAM L0003049     0.000008817      4.00      3.95      1.86
SRCPARAM L0003050     0.000008817      4.00      3.95      1.86
SRCPARAM L0003051     0.000008817      4.00      3.95      1.86
SRCPARAM L0003052     0.000008817      4.00      3.95      1.86
SRCPARAM L0003053     0.000008817      4.00      3.95      1.86
SRCPARAM L0003054     0.000008817      4.00      3.95      1.86
SRCPARAM L0003055     0.000008817      4.00      3.95      1.86
SRCPARAM L0003056     0.000008817      4.00      3.95      1.86
SRCPARAM L0003057     0.000008817      4.00      3.95      1.86
SRCPARAM L0003058     0.000008817      4.00      3.95      1.86
SRCPARAM L0003059     0.000008817      4.00      3.95      1.86
SRCPARAM L0003060     0.000008817      4.00      3.95      1.86
SRCPARAM L0003061     0.000008817      4.00      3.95      1.86
SRCPARAM L0003062     0.000008817      4.00      3.95      1.86
SRCPARAM L0003063     0.000008817      4.00      3.95      1.86
SRCPARAM L0003064     0.000008817      4.00      3.95      1.86
SRCPARAM L0003065     0.000008817      4.00      3.95      1.86
SRCPARAM L0003066     0.000008817      4.00      3.95      1.86
SRCPARAM L0003067     0.000008817      4.00      3.95      1.86
SRCPARAM L0003068     0.000008817      4.00      3.95      1.86
SRCPARAM L0003069     0.000008817      4.00      3.95      1.86
SRCPARAM L0003070     0.000008817      4.00      3.95      1.86
SRCPARAM L0003071     0.000008817      4.00      3.95      1.86
SRCPARAM L0003072     0.000008817      4.00      3.95      1.86
SRCPARAM L0003073     0.000008817      4.00      3.95      1.86
SRCPARAM L0003074     0.000008817      4.00      3.95      1.86
SRCPARAM L0003075     0.000008817      4.00      3.95      1.86
SRCPARAM L0003076     0.000008817      4.00      3.95      1.86
SRCPARAM L0003077     0.000008817      4.00      3.95      1.86
SRCPARAM L0003078     0.000008817      4.00      3.95      1.86
SRCPARAM L0003079     0.000008817      4.00      3.95      1.86
SRCPARAM L0003080     0.000008817      4.00      3.95      1.86
SRCPARAM L0003081     0.000008817      4.00      3.95      1.86
SRCPARAM L0003082     0.000008817      4.00      3.95      1.86
SRCPARAM L0003083     0.000008817      4.00      3.95      1.86
SRCPARAM L0003084     0.000008817      4.00      3.95      1.86
SRCPARAM L0003085     0.000008817      4.00      3.95      1.86
SRCPARAM L0003086     0.000008817      4.00      3.95      1.86
SRCPARAM L0003087     0.000008817      4.00      3.95      1.86
SRCPARAM L0003088     0.000008817      4.00      3.95      1.86
SRCPARAM L0003089     0.000008817      4.00      3.95      1.86
SRCPARAM L0003090     0.000008817      4.00      3.95      1.86
SRCPARAM L0003091     0.000008817      4.00      3.95      1.86
SRCPARAM L0003092     0.000008817      4.00      3.95      1.86
SRCPARAM L0003093     0.000008817      4.00      3.95      1.86
SRCPARAM L0003094     0.000008817      4.00      3.95      1.86
SRCPARAM L0003095     0.000008817      4.00      3.95      1.86
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                      AERMOD LSTs Operational Output
SRCPARAM L0003096     0.000008817      4.00      3.95      1.86
SRCPARAM L0003097     0.000008817      4.00      3.95      1.86
SRCPARAM L0003098     0.000008817      4.00      3.95      1.86
SRCPARAM L0003099     0.000008817      4.00      3.95      1.86
SRCPARAM L0003100     0.000008817      4.00      3.95      1.86
SRCPARAM L0003101     0.000008817      4.00      3.95      1.86
SRCPARAM L0003102     0.000008817      4.00      3.95      1.86
SRCPARAM L0003103     0.000008817      4.00      3.95      1.86
SRCPARAM L0003104     0.000008817      4.00      3.95      1.86
SRCPARAM L0003105     0.000008817      4.00      3.95      1.86
SRCPARAM L0003106     0.000008817      4.00      3.95      1.86
SRCPARAM L0003107     0.000008817      4.00      3.95      1.86
SRCPARAM L0003108     0.000008817      4.00      3.95      1.86
SRCPARAM L0003109     0.000008817      4.00      3.95      1.86
SRCPARAM L0003110     0.000008817      4.00      3.95      1.86
SRCPARAM L0003111     0.000008817      4.00      3.95      1.86
SRCPARAM L0003112     0.000008817      4.00      3.95      1.86
SRCPARAM L0003113     0.000008817      4.00      3.95      1.86
SRCPARAM L0003114     0.000008817      4.00      3.95      1.86
SRCPARAM L0003115     0.000008817      4.00      3.95      1.86
SRCPARAM L0003116     0.000008817      4.00      3.95      1.86
SRCPARAM L0003117     0.000008817      4.00      3.95      1.86
SRCPARAM L0003118     0.000008817      4.00      3.95      1.86
SRCPARAM L0003119     0.000008817      4.00      3.95      1.86
SRCPARAM L0003120     0.000008817      4.00      3.95      1.86
SRCPARAM L0003121     0.000008817      4.00      3.95      1.86
SRCPARAM L0003122     0.000008817      4.00      3.95      1.86
SRCPARAM L0003123     0.000008817      4.00      3.95      1.86
SRCPARAM L0003124     0.000008817      4.00      3.95      1.86
SRCPARAM L0003125     0.000008817      4.00      3.95      1.86
SRCPARAM L0003126     0.000008817      4.00      3.95      1.86
SRCPARAM L0003127     0.000008817      4.00      3.95      1.86
SRCPARAM L0003128     0.000008817      4.00      3.95      1.86
SRCPARAM L0003129     0.000008817      4.00      3.95      1.86
SRCPARAM L0003130     0.000008817      4.00      3.95      1.86
SRCPARAM L0003131     0.000008817      4.00      3.95      1.86
SRCPARAM L0003132     0.000008817      4.00      3.95      1.86
SRCPARAM L0003133     0.000008817      4.00      3.95      1.86
SRCPARAM L0003134     0.000008817      4.00      3.95      1.86
SRCPARAM L0003135     0.000008817      4.00      3.95      1.86
SRCPARAM L0003136     0.000008817      4.00      3.95      1.86
SRCPARAM L0003137     0.000008817      4.00      3.95      1.86
SRCPARAM L0003138     0.000008817      4.00      3.95      1.86
SRCPARAM L0003139     0.000008817      4.00      3.95      1.86
SRCPARAM L0003140     0.000008817      4.00      3.95      1.86
SRCPARAM L0003141     0.000008817      4.00      3.95      1.86
SRCPARAM L0003142     0.000008817      4.00      3.95      1.86
SRCPARAM L0003143     0.000008817      4.00      3.95      1.86
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AERMOD LSTs Operational Output

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SRCPARAM L0003144      0.000008817       4.00       3.95       1.86
SRCPARAM L0003145      0.000008817       4.00       3.95       1.86
SRCPARAM L0003146      0.000008817       4.00       3.95       1.86
SRCPARAM L0003147      0.000008817       4.00       3.95       1.86
SRCPARAM L0003148      0.000008817       4.00       3.95       1.86
SRCPARAM L0003149      0.000008817       4.00       3.95       1.86
SRCPARAM L0003150      0.000008817       4.00       3.95       1.86
SRCPARAM L0003151      0.000008817       4.00       3.95       1.86
SRCPARAM L0003152      0.000008817       4.00       3.95       1.86
SRCPARAM L0003153      0.000008817       4.00       3.95       1.86
SRCPARAM L0003154      0.000008817       4.00       3.95       1.86
SRCPARAM L0003155      0.000008817       4.00       3.95       1.86
SRCPARAM L0003156      0.000008817       4.00       3.95       1.86
SRCPARAM L0003157      0.000008817       4.00       3.95       1.86
SRCPARAM L0003158      0.000008817       4.00       3.95       1.86
SRCPARAM L0003159      0.000008817       4.00       3.95       1.86
SRCPARAM L0003160      0.000008817       4.00       3.95       1.86
SRCPARAM L0003161      0.000008817       4.00       3.95       1.86
SRCPARAM L0003162      0.000008817       4.00       3.95       1.86
SRCPARAM L0003163      0.000008817       4.00       3.95       1.86
SRCPARAM L0003164      0.000008817       4.00       3.95       1.86
SRCPARAM L0003165      0.000008817       4.00       3.95       1.86
SRCPARAM L0003166      0.000008817       4.00       3.95       1.86
SRCPARAM L0003167      0.000008817       4.00       3.95       1.86
SRCPARAM L0003168      0.000008817       4.00       3.95       1.86
SRCPARAM L0003169      0.000008817       4.00       3.95       1.86
SRCPARAM L0003170      0.000008817       4.00       3.95       1.86
SRCPARAM L0003171      0.000008817       4.00       3.95       1.86
SRCPARAM L0003172      0.000008817       4.00       3.95       1.86
SRCPARAM L0003173      0.000008817       4.00       3.95       1.86
SRCPARAM L0003174      0.000008817       4.00       3.95       1.86
SRCPARAM L0003175      0.000008817       4.00       3.95       1.86
SRCPARAM L0003176      0.000008817       4.00       3.95       1.86
SRCPARAM L0003177      0.000008817       4.00       3.95       1.86
SRCPARAM L0003178      0.000008817       4.00       3.95       1.86
SRCPARAM L0003179      0.000008817       4.00       3.95       1.86
SRCPARAM L0003180      0.000008817       4.00       3.95       1.86
SRCPARAM L0003181      0.000008817       4.00       3.95       1.86
SRCPARAM L0003182      0.000008817       4.00       3.95       1.86
SRCPARAM L0003183      0.000008817       4.00       3.95       1.86
SRCPARAM L0003184      0.000008817       4.00       3.95       1.86
SRCPARAM L0003185      0.000008817       4.00       3.95       1.86
SRCPARAM L0003186      0.000008817       4.00       3.95       1.86
SRCPARAM L0003187      0.000008817       4.00       3.95       1.86
SRCPARAM L0003188      0.000008817       4.00       3.95       1.86
SRCPARAM L0003189      0.000008817       4.00       3.95       1.86
SRCPARAM L0003190      0.000008817       4.00       3.95       1.86
SRCPARAM L0003191      0.000008817       4.00       3.95       1.86
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                                  AERMOD LSTs Operational Output
   SRCPARAM L0003192     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003193     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003194     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003195     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003196     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003197     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003198     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003199     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003200     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003201     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003202     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003203     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003204     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003205     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003206     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003207     0.000008817      4.00      3.95      1.86
   SRCPARAM L0003208     0.000008817      4.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0003209     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003210     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003211     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003212     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003213     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003214     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003215     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003216     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003217     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003218     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003219     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003220     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003221     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003222     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003223     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003224     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003225     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003226     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003227     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003228     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003229     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003230     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003231     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003232     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003233     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003234     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003235     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003236     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003237     0.000001878      4.00      3.95      1.86
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   SRCPARAM L0003238     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003239     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003240     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003241     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003242     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003243     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003244     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003245     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003246     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003247     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003248     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003249     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003250     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003251     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003252     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003253     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003254     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003255     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003256     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003257     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003258     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003259     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003260     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003261     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003262     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003263     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003264     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003265     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003266     0.000001878      4.00      3.95      1.86
   SRCPARAM L0003267     0.000001878      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0003268     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003269     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003270     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003271     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003272     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003273     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003274     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003275     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003276     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003277     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003278     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003279     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003280     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003281     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003282     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003283     0.00000148      4.00      3.95      1.86
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   SRCPARAM L0003284     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003285     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003286     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003287     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003288     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003289     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003290     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003291     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003292     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003293     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003294     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003295     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003296     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003297     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003298     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003299     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003300     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003301     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003302     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003303     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003304     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003305     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003306     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003307     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003308     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003309     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003310     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003311     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003312     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003313     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003314     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003315     0.00000148      4.00      3.95      1.86
   SRCPARAM L0003316     0.00000148      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0003317     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003318     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003319     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003320     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003321     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003322     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003323     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003324     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003325     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003326     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003327     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003328     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003329     0.000002526      4.00      3.95      1.86
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   SRCPARAM L0003330     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003331     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003332     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003333     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003334     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003335     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003336     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003337     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003338     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003339     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003340     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003341     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003342     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003343     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003344     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003345     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003346     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003347     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003348     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003349     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003350     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003351     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003352     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003353     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003354     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003355     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003356     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003357     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003358     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003359     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003360     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003361     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003362     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003363     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003364     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003365     0.000002526      4.00      3.95      1.86
   SRCPARAM L0003366     0.000002526      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.351E-08     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000049612     3.960   501.000  49.98254     0.044
```

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   SRCPARAM STCK5       0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6       0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7       0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8       0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9       0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10      0.000049612     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11      0.00010496     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12      0.000083165     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13      0.000142241     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0003367    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003368    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003369    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003370    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003371    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003372    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003373    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003374    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003375    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003376    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003377    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003378    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003379    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003380    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003381    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003382    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003383    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003384    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003385    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003386    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003387    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003388    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003389    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003390    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003391    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003392    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003393    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003394    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003395    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003396    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003397    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003398    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003399    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003400    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003401    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003402    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003403    0.000001183      0.00       3.95       1.40
   SRCPARAM L0003404    0.000001183      0.00       3.95       1.40
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   SRCPARAM L0003405     0.000001183      0.00       3.95       1.40
   SRCPARAM L0003406     0.000001183      0.00       3.95       1.40
   SRCPARAM L0003407     0.000001183      0.00       3.95       1.40
   SRCPARAM L0003408     0.000001183      0.00       3.95       1.40
   SRCPARAM L0003409     0.000001183      0.00       3.95       1.40
   SRCPARAM L0003410     0.000001183      0.00       3.95       1.40
   SRCPARAM L0003411     0.000001183      0.00       3.95       1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE16
   SRCPARAM L0003412     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003413     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003414     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003415     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003416     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003417     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003418     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003419     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003420     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003421     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003422     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003423     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003424     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003425     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003426     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003427     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003428     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003429     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003430     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003431     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003432     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003433     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003434     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003435     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003436     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003437     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003438     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003439     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003440     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003441     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003442     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003443     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003444     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003445     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003446     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003447     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003448     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003449     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003450     0.0000004471      0.00       3.95       1.40
```

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                              AERMOD LSTs Operational Output
   SRCPARAM L0003451     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003452     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003453     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003454     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003455     0.0000004471      0.00       3.95       1.40
   SRCPARAM L0003456     0.0000004471      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0003457     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003458     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003459     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003460     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003461     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003462     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003463     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003464     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003465     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003466     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003467     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003468     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003469     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003470     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003471     0.000003327      0.00       3.95       1.40
   SRCPARAM L0003472     0.000003327      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE17
   SRCPARAM L0003473     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003474     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003475     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003476     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003477     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003478     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003479     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003480     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003481     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003482     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003483     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003484     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003485     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003486     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003487     0.0000004594      0.00       3.95       1.40
   SRCPARAM L0003488     0.0000004594      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0003489     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003490     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003491     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003492     0.000001639      0.00       3.95       1.40
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   SRCPARAM L0003493     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003494     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003495     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003496     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003497     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003498     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003499     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003500     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003501     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003502     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003503     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003504     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003505     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003506     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003507     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003508     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003509     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003510     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003511     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003512     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003513     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003514     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003515     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003516     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003517     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003518     0.000001639      0.00       3.95       1.40
   SRCPARAM L0003519     0.000001639      0.00       3.95       1.40
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE18
   SRCPARAM L0003520     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003521     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003522     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003523     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003524     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003525     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003526     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003527     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003528     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003529     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003530     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003531     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003532     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003533     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003534     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003535     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003536     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003537     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003538     0.0000004245      0.00       3.95       1.40
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   SRCPARAM L0003539     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003540     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003541     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003542     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003543     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003544     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003545     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003546     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003547     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003548     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003549     0.0000004245      0.00       3.95       1.40
   SRCPARAM L0003550     0.0000004245      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0003551     0.000005045      0.00       3.95       1.40
   SRCPARAM L0003552     0.000005045      0.00       3.95       1.40
   SRCPARAM L0003553     0.000005045      0.00       3.95       1.40
   SRCPARAM L0003554     0.000005045      0.00       3.95       1.40
   SRCPARAM L0003555     0.000005045      0.00       3.95       1.40
   SRCPARAM L0003556     0.000005045      0.00       3.95       1.40
   SRCPARAM L0003557     0.000005045      0.00       3.95       1.40
   SRCPARAM L0003558     0.000005045      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE19
   SRCPARAM L0003559     0.0000003225      0.00       3.95       1.40
   SRCPARAM L0003560     0.0000003225      0.00       3.95       1.40
   SRCPARAM L0003561     0.0000003225      0.00       3.95       1.40
   SRCPARAM L0003562     0.0000003225      0.00       3.95       1.40
   SRCPARAM L0003563     0.0000003225      0.00       3.95       1.40
   SRCPARAM L0003564     0.0000003225      0.00       3.95       1.40
   SRCPARAM L0003565     0.0000003225      0.00       3.95       1.40
   SRCPARAM L0003566     0.0000003225      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0003567     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003568     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003569     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003570     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003571     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003572     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003573     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003574     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003575     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003576     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003577     0.000005736      0.00       3.95       1.40
   SRCPARAM L0003578     0.000005736      0.00       3.95       1.40
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE20
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   SRCPARAM L0003579     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003580     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003581     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003582     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003583     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003584     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003585     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003586     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003587     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003588     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003589     0.000000605      0.00       3.95       1.40
   SRCPARAM L0003590     0.000000605      0.00       3.95       1.40
** --------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED PM25.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 24 1ST
```

```
                           AERMOD LSTs Operational Output
** Auto-Generated Plotfiles
   PLOTFILE 24 ALL 1ST PM25.AD\24H1GALL.PLT 31
   SUMMFILE PM25.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    1776       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F
```

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                           AERMOD LSTs Operational Output
 **Model Uses URBAN Dispersion Algorithm for the SBL for   656 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:  24-HR

 **This Run Includes:    656 Source(s);       1 Source Group(s); and       8
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    637 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
```

```
                           AERMOD LSTs Operational Output
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                 ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.9 MB of RAM.

 **Detailed Error/Message File:   PM25.err

 **File for Summary of Results:   PM25.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                      VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1           0   0.49612E-04  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK2           0   0.49612E-04  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK3           0   0.49612E-04  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK4           0   0.49612E-04  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK5           0   0.49612E-04  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK6           0   0.49612E-04  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK7           0   0.49612E-04  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
```

```
                           AERMOD LSTs Operational Output
 STCK8            0   0.49612E-04  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK9            0   0.49612E-04  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK10           0   0.49612E-04  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK11           0   0.10496E-03  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK12           0   0.83165E-04  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK13           0   0.14224E-03  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO      YES   NO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002954         0   0.74290E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES
 L0002955         0   0.74290E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES
 L0002956         0   0.74290E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES
 L0002957         0   0.74290E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES
 L0002958         0   0.74290E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES
 L0002959         0   0.74290E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES
 L0002960         0   0.74290E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES
 L0002961         0   0.74290E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES
```

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                              AERMOD LSTs Operational Output
  L0002962         0   0.74290E-05  478217.3 3748656.3   452.0     4.00    13.95
 1.86     YES
  L0002963         0   0.74290E-05  478217.4 3748686.3   452.0     4.00    13.95
 1.86     YES
  L0002964         0   0.74290E-05  478217.6 3748716.3   452.0     4.00    13.95
 1.86     YES
  L0002965         0   0.74290E-05  478217.7 3748746.3   452.0     4.00    13.95
 1.86     YES
  L0002966         0   0.74290E-05  478217.8 3748776.3   452.0     4.00    13.95
 1.86     YES
  L0002967         0   0.74290E-05  478218.0 3748806.3   452.7     4.00    13.95
 1.86     YES
  L0002968         0   0.74290E-05  478218.1 3748836.3   453.0     4.00    13.95
 1.86     YES
  L0002969         0   0.74290E-05  478218.3 3748866.3   453.0     4.00    13.95
 1.86     YES
  L0002970         0   0.74290E-05  478218.4 3748896.3   453.0     4.00    13.95
 1.86     YES
  L0002971         0   0.77000E-05  477943.9 3748501.1   451.5     4.00    13.95
 1.86     YES
  L0002972         0   0.77000E-05  477944.1 3748531.1   452.0     4.00    13.95
 1.86     YES
  L0002973         0   0.77000E-05  477944.4 3748561.1   452.0     4.00    13.95
 1.86     YES
  L0002974         0   0.77000E-05  477944.7 3748591.1   452.0     4.00    13.95
 1.86     YES
  L0002975         0   0.77000E-05  477944.9 3748621.1   452.0     4.00    13.95
 1.86     YES
  L0002976         0   0.77000E-05  477945.2 3748651.1   452.0     4.00    13.95
 1.86     YES
  L0002977         0   0.77000E-05  477945.4 3748681.1   452.5     4.00    13.95
 1.86     YES
  L0002978         0   0.77000E-05  477945.7 3748711.1   453.0     4.00    13.95
 1.86     YES
  L0002979         0   0.77000E-05  477945.9 3748741.1   453.0     4.00    13.95
 1.86     YES
  L0002980         0   0.77000E-05  477946.2 3748771.1   453.0     4.00    13.95
 1.86     YES
  L0002981         0   0.77000E-05  477946.5 3748801.1   453.0     4.00    13.95
 1.86     YES
  L0002982         0   0.77000E-05  477946.7 3748831.1   453.0     4.00    13.95
 1.86     YES
  L0002983         0   0.77000E-05  477947.0 3748861.1   453.0     4.00    13.95
 1.86     YES
  L0002984         0   0.77000E-05  477947.2 3748891.1   453.0     4.00    13.95
 1.86     YES
  L0002985         0   0.71020E-05  477756.7 3748938.5   454.0     4.00     3.95
 1.86     YES
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 L0002986        0   0.71020E-05  477756.7 3748930.0   453.8     4.00     3.95
1.86     YES
 L0002987        0   0.71020E-05  477756.7 3748921.5   453.6     4.00     3.95
1.86     YES
 L0002988        0   0.71020E-05  477756.7 3748913.0   453.3     4.00     3.95
1.86     YES
 L0002989        0   0.71020E-05  477756.7 3748904.5   453.1     4.00     3.95
1.86     YES
 L0002990        0   0.71020E-05  477756.7 3748896.0   453.1     4.00     3.95
1.86     YES
 L0002991        0   0.71020E-05  477756.7 3748887.5   453.1     4.00     3.95
1.86     YES
 L0002992        0   0.71020E-05  477756.7 3748879.0   453.1     4.00     3.95
1.86     YES
 L0002993        0   0.21440E-05  477900.2 3748339.0   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:38:23

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002994        0   0.21440E-05  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES
 L0002995        0   0.21440E-05  477917.1 3748338.9   451.0     4.00     3.95
1.86     YES
 L0002996        0   0.21440E-05  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES
 L0002997        0   0.21440E-05  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES
 L0002998        0   0.21440E-05  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES
 L0002999        0   0.21440E-05  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES
```

```
                         AERMOD LSTs Operational Output
 L0003000         0   0.21440E-05  477951.8 3748324.5    451.0      4.00      3.95
1.86     YES
 L0003001         0   0.21440E-05  477956.1 3748317.1    450.0      4.00      3.95
1.86     YES
 L0003002         0   0.21440E-05  477960.3 3748309.7    450.0      4.00      3.95
1.86     YES
 L0003003         0   0.21440E-05  477964.6 3748302.3    450.0      4.00      3.95
1.86     YES
 L0003004         0   0.21440E-05  477968.8 3748295.0    450.0      4.00      3.95
1.86     YES
 L0003005         0   0.21440E-05  477973.0 3748287.6    450.0      4.00      3.95
1.86     YES
 L0003006         0   0.21440E-05  477976.2 3748279.9    450.0      4.00      3.95
1.86     YES
 L0003007         0   0.21440E-05  477977.3 3748271.5    450.0      4.00      3.95
1.86     YES
 L0003008         0   0.21440E-05  477978.3 3748263.0    450.0      4.00      3.95
1.86     YES
 L0003009         0   0.21440E-05  477978.3 3748254.5    450.0      4.00      3.95
1.86     YES
 L0003010         0   0.21440E-05  477978.3 3748246.0    450.0      4.00      3.95
1.86     YES
 L0003011         0   0.21440E-05  477978.2 3748237.5    450.0      4.00      3.95
1.86     YES
 L0003012         0   0.21440E-05  477978.2 3748229.0    450.0      4.00      3.95
1.86     YES
 L0003013         0   0.21440E-05  477978.1 3748220.5    450.0      4.00      3.95
1.86     YES
 L0003014         0   0.51330E-05  477608.7 3748929.3    454.0      0.00      3.95
1.86     YES
 L0003015         0   0.51330E-05  477608.7 3748920.8    454.0      0.00      3.95
1.86     YES
 L0003016         0   0.51330E-05  477608.7 3748912.3    454.0      0.00      3.95
1.86     YES
 L0003017         0   0.51330E-05  477608.7 3748903.8    454.0      0.00      3.95
1.86     YES
 L0003018         0   0.51330E-05  477608.7 3748895.3    454.0      0.00      3.95
1.86     YES
 L0003019         0   0.51330E-05  477608.7 3748886.8    454.0      0.00      3.95
1.86     YES
 L0003020         0   0.51330E-05  477608.7 3748878.3    454.0      0.00      3.95
1.86     YES
 L0003021         0   0.51330E-05  477608.7 3748869.8    454.0      0.00      3.95
1.86     YES
 L0003022         0   0.51330E-05  477608.7 3748861.3    454.0      0.00      3.95
1.86     YES
 L0003023         0   0.51330E-05  477608.7 3748852.8    454.0      0.00      3.95
1.86     YES
```

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 L0003024        0   0.51330E-05  477608.7 3748844.3   454.0     0.00     3.95
1.86     YES
 L0003025        0   0.51330E-05  477608.7 3748835.8   454.0     0.00     3.95
1.86     YES
 L0003026        0   0.51330E-05  477608.7 3748827.3   454.0     0.00     3.95
1.86     YES
 L0003027        0   0.51330E-05  477608.7 3748818.8   454.0     0.00     3.95
1.86     YES
 L0003028        0   0.51330E-05  477608.7 3748810.3   454.0     0.00     3.95
1.86     YES
 L0003029        0   0.69540E-05  478043.0 3748335.2   451.0     0.00    13.95
1.86     YES
 L0003030        0   0.69540E-05  478073.0 3748334.5   451.0     0.00    13.95
1.86     YES
 L0003031        0   0.69540E-05  478103.0 3748333.9   451.0     0.00    13.95
1.86     YES
 L0003032        0   0.69540E-05  478133.0 3748333.2   451.0     0.00    13.95
1.86     YES
 L0003033        0   0.69540E-05  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL     URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0003034        0   0.88170E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES
 L0003035        0   0.88170E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES
 L0003036        0   0.88170E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES
 L0003037        0   0.88170E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86     YES
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 L0003038        0   0.88170E-05  477950.2 3748937.5    453.0      4.00      3.95
1.86     YES
 L0003039        0   0.88170E-05  477949.0 3748929.1    453.0      4.00      3.95
1.86     YES
 L0003040        0   0.88170E-05  477948.2 3748920.7    453.0      4.00      3.95
1.86     YES
 L0003041        0   0.88170E-05  477948.1 3748912.2    453.0      4.00      3.95
1.86     YES
 L0003042        0   0.88170E-05  477947.9 3748903.7    453.0      4.00      3.95
1.86     YES
 L0003043        0   0.88170E-05  477947.8 3748895.2    453.0      4.00      3.95
1.86     YES
 L0003044        0   0.88170E-05  477947.6 3748886.7    453.0      4.00      3.95
1.86     YES
 L0003045        0   0.88170E-05  477947.5 3748878.2    453.0      4.00      3.95
1.86     YES
 L0003046        0   0.88170E-05  477947.3 3748869.7    453.0      4.00      3.95
1.86     YES
 L0003047        0   0.88170E-05  477947.2 3748861.2    453.0      4.00      3.95
1.86     YES
 L0003048        0   0.88170E-05  477947.2 3748852.7    453.0      4.00      3.95
1.86     YES
 L0003049        0   0.88170E-05  477947.1 3748844.2    453.0      4.00      3.95
1.86     YES
 L0003050        0   0.88170E-05  477947.0 3748835.7    453.0      4.00      3.95
1.86     YES
 L0003051        0   0.88170E-05  477947.0 3748827.2    453.0      4.00      3.95
1.86     YES
 L0003052        0   0.88170E-05  477946.9 3748818.7    453.0      4.00      3.95
1.86     YES
 L0003053        0   0.88170E-05  477946.8 3748810.2    453.0      4.00      3.95
1.86     YES
 L0003054        0   0.88170E-05  477946.7 3748801.7    453.0      4.00      3.95
1.86     YES
 L0003055        0   0.88170E-05  477946.7 3748793.2    453.0      4.00      3.95
1.86     YES
 L0003056        0   0.88170E-05  477946.6 3748784.7    453.0      4.00      3.95
1.86     YES
 L0003057        0   0.88170E-05  477946.5 3748776.2    453.0      4.00      3.95
1.86     YES
 L0003058        0   0.88170E-05  477946.5 3748767.7    453.0      4.00      3.95
1.86     YES
 L0003059        0   0.88170E-05  477946.4 3748759.2    453.0      4.00      3.95
1.86     YES
 L0003060        0   0.88170E-05  477946.3 3748750.7    453.0      4.00      3.95
1.86     YES
 L0003061        0   0.88170E-05  477946.3 3748742.2    453.0      4.00      3.95
1.86     YES
```

```
 L0003062         0   0.88170E-05  477946.2 3748733.7   453.0     4.00     3.95
1.86     YES
 L0003063         0   0.88170E-05  477946.1 3748725.2   453.0     4.00     3.95
1.86     YES
 L0003064         0   0.88170E-05  477946.1 3748716.7   453.0     4.00     3.95
1.86     YES
 L0003065         0   0.88170E-05  477946.0 3748708.2   453.0     4.00     3.95
1.86     YES
 L0003066         0   0.88170E-05  477945.9 3748699.7   453.0     4.00     3.95
1.86     YES
 L0003067         0   0.88170E-05  477945.9 3748691.2   452.8     4.00     3.95
1.86     YES
 L0003068         0   0.88170E-05  477945.8 3748682.7   452.5     4.00     3.95
1.86     YES
 L0003069         0   0.88170E-05  477945.7 3748674.2   452.2     4.00     3.95
1.86     YES
 L0003070         0   0.88170E-05  477945.7 3748665.7   452.0     4.00     3.95
1.86     YES
 L0003071         0   0.88170E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86     YES
 L0003072         0   0.88170E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86     YES
 L0003073         0   0.88170E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc              ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

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 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003074         0   0.88170E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86     YES
 L0003075         0   0.88170E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86     YES
```

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 L0003076         0   0.88170E-05  477945.2 3748614.7   452.0      4.00      3.95
1.86     YES
 L0003077         0   0.88170E-05  477945.2 3748606.2   452.0      4.00      3.95
1.86     YES
 L0003078         0   0.88170E-05  477945.1 3748597.7   452.0      4.00      3.95
1.86     YES
 L0003079         0   0.88170E-05  477945.0 3748589.2   452.0      4.00      3.95
1.86     YES
 L0003080         0   0.88170E-05  477945.0 3748580.7   452.0      4.00      3.95
1.86     YES
 L0003081         0   0.88170E-05  477944.9 3748572.2   452.0      4.00      3.95
1.86     YES
 L0003082         0   0.88170E-05  477944.8 3748563.7   452.0      4.00      3.95
1.86     YES
 L0003083         0   0.88170E-05  477944.8 3748555.2   452.0      4.00      3.95
1.86     YES
 L0003084         0   0.88170E-05  477944.7 3748546.7   452.0      4.00      3.95
1.86     YES
 L0003085         0   0.88170E-05  477944.6 3748538.2   452.0      4.00      3.95
1.86     YES
 L0003086         0   0.88170E-05  477944.6 3748529.7   452.0      4.00      3.95
1.86     YES
 L0003087         0   0.88170E-05  477944.5 3748521.2   452.0      4.00      3.95
1.86     YES
 L0003088         0   0.88170E-05  477944.4 3748512.7   451.9      4.00      3.95
1.86     YES
 L0003089         0   0.88170E-05  477944.4 3748504.2   451.6      4.00      3.95
1.86     YES
 L0003090         0   0.88170E-05  477944.3 3748495.7   451.3      4.00      3.95
1.86     YES
 L0003091         0   0.88170E-05  477944.7 3748487.3   451.0      4.00      3.95
1.86     YES
 L0003092         0   0.88170E-05  477948.7 3748479.8   451.0      4.00      3.95
1.86     YES
 L0003093         0   0.88170E-05  477952.8 3748472.3   451.0      4.00      3.95
1.86     YES
 L0003094         0   0.88170E-05  477956.8 3748464.9   451.0      4.00      3.95
1.86     YES
 L0003095         0   0.88170E-05  477960.8 3748457.4   451.0      4.00      3.95
1.86     YES
 L0003096         0   0.88170E-05  477964.8 3748449.9   451.0      4.00      3.95
1.86     YES
 L0003097         0   0.88170E-05  477968.8 3748442.4   451.0      4.00      3.95
1.86     YES
 L0003098         0   0.88170E-05  477972.8 3748434.9   451.0      4.00      3.95
1.86     YES
 L0003099         0   0.88170E-05  477976.9 3748427.4   451.0      4.00      3.95
1.86     YES
```

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 L0003100         0   0.88170E-05  477980.9 3748419.9   451.0     4.00     3.95
1.86     YES
 L0003101         0   0.88170E-05  477984.9 3748412.4   451.0     4.00     3.95
1.86     YES
 L0003102         0   0.88170E-05  477988.9 3748404.9   451.0     4.00     3.95
1.86     YES
 L0003103         0   0.88170E-05  477992.9 3748397.4   451.0     4.00     3.95
1.86     YES
 L0003104         0   0.88170E-05  477996.9 3748389.9   451.0     4.00     3.95
1.86     YES
 L0003105         0   0.88170E-05  478001.0 3748382.4   451.0     4.00     3.95
1.86     YES
 L0003106         0   0.88170E-05  478005.0 3748375.0   451.0     4.00     3.95
1.86     YES
 L0003107         0   0.88170E-05  478009.0 3748367.5   451.0     4.00     3.95
1.86     YES
 L0003108         0   0.88170E-05  478013.0 3748360.0   451.0     4.00     3.95
1.86     YES
 L0003109         0   0.88170E-05  478017.1 3748352.5   451.0     4.00     3.95
1.86     YES
 L0003110         0   0.88170E-05  478021.7 3748345.4   451.0     4.00     3.95
1.86     YES
 L0003111         0   0.88170E-05  478026.4 3748338.3   451.0     4.00     3.95
1.86     YES
 L0003112         0   0.88170E-05  478033.8 3748336.4   451.0     4.00     3.95
1.86     YES
 L0003113         0   0.88170E-05  478042.3 3748336.5   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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AERMOD LSTs Operational Output

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 L0003114         0   0.88170E-05  478050.8 3748336.6   451.0     4.00     3.95
1.86     YES
 L0003115         0   0.88170E-05  478059.3 3748336.7   451.0     4.00     3.95
1.86     YES
 L0003116         0   0.88170E-05  478067.8 3748336.8   451.0     4.00     3.95
1.86     YES
 L0003117         0   0.88170E-05  478076.3 3748336.9   451.0     4.00     3.95
1.86     YES
 L0003118         0   0.88170E-05  478084.8 3748337.0   451.0     4.00     3.95
1.86     YES
 L0003119         0   0.88170E-05  478093.3 3748337.1   451.0     4.00     3.95
1.86     YES
 L0003120         0   0.88170E-05  478101.8 3748337.2   451.0     4.00     3.95
1.86     YES
 L0003121         0   0.88170E-05  478110.3 3748337.3   451.0     4.00     3.95
1.86     YES
 L0003122         0   0.88170E-05  478118.8 3748337.4   451.0     4.00     3.95
1.86     YES
 L0003123         0   0.88170E-05  478127.3 3748337.4   451.0     4.00     3.95
1.86     YES
 L0003124         0   0.88170E-05  478135.8 3748337.5   451.0     4.00     3.95
1.86     YES
 L0003125         0   0.88170E-05  478144.3 3748337.6   451.0     4.00     3.95
1.86     YES
 L0003126         0   0.88170E-05  478152.8 3748337.7   451.0     4.00     3.95
1.86     YES
 L0003127         0   0.88170E-05  478161.3 3748337.8   451.0     4.00     3.95
1.86     YES
 L0003128         0   0.88170E-05  478169.8 3748337.9   451.0     4.00     3.95
1.86     YES
 L0003129         0   0.88170E-05  478178.3 3748338.0   451.0     4.00     3.95
1.86     YES
 L0003130         0   0.88170E-05  478186.8 3748338.1   451.0     4.00     3.95
1.86     YES
 L0003131         0   0.88170E-05  478195.3 3748338.2   451.0     4.00     3.95
1.86     YES
 L0003132         0   0.88170E-05  478203.8 3748338.3   451.0     4.00     3.95
1.86     YES
 L0003133         0   0.88170E-05  478212.3 3748338.4   451.0     4.00     3.95
1.86     YES
 L0003134         0   0.88170E-05  478215.8 3748343.4   451.0     4.00     3.95
1.86     YES
 L0003135         0   0.88170E-05  478215.9 3748351.9   451.0     4.00     3.95
1.86     YES
 L0003136         0   0.88170E-05  478216.0 3748360.4   451.0     4.00     3.95
1.86     YES
 L0003137         0   0.88170E-05  478216.0 3748368.9   451.0     4.00     3.95
1.86     YES
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 L0003138         0   0.88170E-05  478216.1 3748377.4   451.0     4.00     3.95
1.86     YES
 L0003139         0   0.88170E-05  478216.1 3748385.9   451.0     4.00     3.95
1.86     YES
 L0003140         0   0.88170E-05  478216.2 3748394.4   451.0     4.00     3.95
1.86     YES
 L0003141         0   0.88170E-05  478216.3 3748402.9   451.0     4.00     3.95
1.86     YES
 L0003142         0   0.88170E-05  478216.3 3748411.4   451.0     4.00     3.95
1.86     YES
 L0003143         0   0.88170E-05  478216.4 3748419.9   451.0     4.00     3.95
1.86     YES
 L0003144         0   0.88170E-05  478216.4 3748428.4   451.0     4.00     3.95
1.86     YES
 L0003145         0   0.88170E-05  478216.5 3748436.9   451.0     4.00     3.95
1.86     YES
 L0003146         0   0.88170E-05  478216.6 3748445.4   451.0     4.00     3.95
1.86     YES
 L0003147         0   0.88170E-05  478216.6 3748453.9   451.0     4.00     3.95
1.86     YES
 L0003148         0   0.88170E-05  478216.7 3748462.4   451.0     4.00     3.95
1.86     YES
 L0003149         0   0.88170E-05  478216.7 3748470.9   451.1     4.00     3.95
1.86     YES
 L0003150         0   0.88170E-05  478216.8 3748479.4   451.2     4.00     3.95
1.86     YES
 L0003151         0   0.88170E-05  478216.9 3748487.9   451.3     4.00     3.95
1.86     YES
 L0003152         0   0.88170E-05  478216.9 3748496.4   451.5     4.00     3.95
1.86     YES
 L0003153         0   0.88170E-05  478217.0 3748504.9   451.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        14:38:23

                                    PAGE   8
 **MODELOPTs:   RegDFAULT CONC       ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
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                          AERMOD LSTs Operational Output
(METERS)                 BY
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- - - - - - - - - - - - - - - - - - - -


 L0003154        0   0.88170E-05  478217.0 3748513.4    451.9     4.00     3.95
1.86     YES
 L0003155        0   0.88170E-05  478217.1 3748521.9    452.0     4.00     3.95
1.86     YES
 L0003156        0   0.88170E-05  478217.2 3748530.4    452.0     4.00     3.95
1.86     YES
 L0003157        0   0.88170E-05  478217.2 3748538.9    452.0     4.00     3.95
1.86     YES
 L0003158        0   0.88170E-05  478217.3 3748547.4    452.0     4.00     3.95
1.86     YES
 L0003159        0   0.88170E-05  478217.3 3748555.9    452.0     4.00     3.95
1.86     YES
 L0003160        0   0.88170E-05  478217.4 3748564.4    452.0     4.00     3.95
1.86     YES
 L0003161        0   0.88170E-05  478217.5 3748572.9    452.0     4.00     3.95
1.86     YES
 L0003162        0   0.88170E-05  478217.5 3748581.4    452.0     4.00     3.95
1.86     YES
 L0003163        0   0.88170E-05  478217.6 3748589.9    452.0     4.00     3.95
1.86     YES
 L0003164        0   0.88170E-05  478217.7 3748598.4    452.0     4.00     3.95
1.86     YES
 L0003165        0   0.88170E-05  478217.7 3748606.9    452.0     4.00     3.95
1.86     YES
 L0003166        0   0.88170E-05  478217.8 3748615.4    452.0     4.00     3.95
1.86     YES
 L0003167        0   0.88170E-05  478217.8 3748623.9    452.0     4.00     3.95
1.86     YES
 L0003168        0   0.88170E-05  478217.9 3748632.4    452.0     4.00     3.95
1.86     YES
 L0003169        0   0.88170E-05  478218.0 3748640.9    452.0     4.00     3.95
1.86     YES
 L0003170        0   0.88170E-05  478218.0 3748649.4    452.0     4.00     3.95
1.86     YES
 L0003171        0   0.88170E-05  478218.1 3748657.9    452.0     4.00     3.95
1.86     YES
 L0003172        0   0.88170E-05  478218.1 3748666.4    452.0     4.00     3.95
1.86     YES
 L0003173        0   0.88170E-05  478218.2 3748674.9    452.0     4.00     3.95
1.86     YES
 L0003174        0   0.88170E-05  478218.3 3748683.4    452.0     4.00     3.95
1.86     YES
 L0003175        0   0.88170E-05  478218.3 3748691.9    452.0     4.00     3.95
1.86     YES
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                           AERMOD LSTs Operational Output
 L0003176         0   0.88170E-05  478218.4 3748700.4    452.0      4.00      3.95
1.86     YES
 L0003177         0   0.88170E-05  478218.4 3748708.9    452.0      4.00      3.95
1.86     YES
 L0003178         0   0.88170E-05  478218.5 3748717.4    452.0      4.00      3.95
1.86     YES
 L0003179         0   0.88170E-05  478218.6 3748725.9    452.0      4.00      3.95
1.86     YES
 L0003180         0   0.88170E-05  478218.6 3748734.4    452.0      4.00      3.95
1.86     YES
 L0003181         0   0.88170E-05  478218.7 3748742.9    452.0      4.00      3.95
1.86     YES
 L0003182         0   0.88170E-05  478218.7 3748751.4    452.0      4.00      3.95
1.86     YES
 L0003183         0   0.88170E-05  478218.8 3748759.9    452.0      4.00      3.95
1.86     YES
 L0003184         0   0.88170E-05  478218.9 3748768.4    452.0      4.00      3.95
1.86     YES
 L0003185         0   0.88170E-05  478218.9 3748776.9    452.0      4.00      3.95
1.86     YES
 L0003186         0   0.88170E-05  478219.0 3748785.4    452.0      4.00      3.95
1.86     YES
 L0003187         0   0.88170E-05  478219.0 3748793.9    452.2      4.00      3.95
1.86     YES
 L0003188         0   0.88170E-05  478219.1 3748802.4    452.5      4.00      3.95
1.86     YES
 L0003189         0   0.88170E-05  478219.2 3748810.9    452.8      4.00      3.95
1.86     YES
 L0003190         0   0.88170E-05  478219.2 3748819.4    453.0      4.00      3.95
1.86     YES
 L0003191         0   0.88170E-05  478219.3 3748827.9    453.0      4.00      3.95
1.86     YES
 L0003192         0   0.88170E-05  478219.3 3748836.4    453.0      4.00      3.95
1.86     YES
 L0003193         0   0.88170E-05  478219.4 3748844.9    453.0      4.00      3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:38:23

                                   PAGE   9
 **MODELOPTs:    RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
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```
                           AERMOD LSTs Operational Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003194         0   0.88170E-05  478219.5 3748853.4   453.0     4.00     3.95
1.86     YES
 L0003195         0   0.88170E-05  478219.5 3748861.9   453.0     4.00     3.95
1.86     YES
 L0003196         0   0.88170E-05  478219.6 3748870.4   453.0     4.00     3.95
1.86     YES
 L0003197         0   0.88170E-05  478219.6 3748878.9   453.0     4.00     3.95
1.86     YES
 L0003198         0   0.88170E-05  478219.7 3748887.4   453.0     4.00     3.95
1.86     YES
 L0003199         0   0.88170E-05  478219.8 3748895.9   453.0     4.00     3.95
1.86     YES
 L0003200         0   0.88170E-05  478219.8 3748904.4   453.0     4.00     3.95
1.86     YES
 L0003201         0   0.88170E-05  478219.9 3748912.9   453.0     4.00     3.95
1.86     YES
 L0003202         0   0.88170E-05  478217.5 3748921.1   453.0     4.00     3.95
1.86     YES
 L0003203         0   0.88170E-05  478215.0 3748929.2   453.0     4.00     3.95
1.86     YES
 L0003204         0   0.88170E-05  478212.6 3748937.3   453.0     4.00     3.95
1.86     YES
 L0003205         0   0.88170E-05  478210.1 3748945.4   453.0     4.00     3.95
1.86     YES
 L0003206         0   0.88170E-05  478207.6 3748953.6   453.0     4.00     3.95
1.86     YES
 L0003207         0   0.88170E-05  478205.1 3748961.7   453.0     4.00     3.95
1.86     YES
 L0003208         0   0.88170E-05  478202.7 3748969.8   453.0     4.00     3.95
1.86     YES
 L0003209         0   0.18780E-05  477852.8 3748835.2   453.0     4.00     3.95
1.86     YES
 L0003210         0   0.18780E-05  477852.8 3748843.7   453.0     4.00     3.95
1.86     YES
 L0003211         0   0.18780E-05  477852.9 3748852.2   453.0     4.00     3.95
1.86     YES
 L0003212         0   0.18780E-05  477852.9 3748860.7   453.0     4.00     3.95
1.86     YES
 L0003213         0   0.18780E-05  477853.0 3748869.2   453.0     4.00     3.95
1.86     YES
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                                AERMOD LSTs Operational Output
 L0003214         0   0.18780E-05  477853.0 3748877.7   453.0     4.00     3.95
1.86     YES
 L0003215         0   0.18780E-05  477853.1 3748886.2   453.0     4.00     3.95
1.86     YES
 L0003216         0   0.18780E-05  477853.1 3748894.7   453.0     4.00     3.95
1.86     YES
 L0003217         0   0.18780E-05  477853.1 3748903.2   453.0     4.00     3.95
1.86     YES
 L0003218         0   0.18780E-05  477853.2 3748911.7   453.0     4.00     3.95
1.86     YES
 L0003219         0   0.18780E-05  477853.2 3748920.2   453.0     4.00     3.95
1.86     YES
 L0003220         0   0.18780E-05  477853.3 3748928.7   453.0     4.00     3.95
1.86     YES
 L0003221         0   0.18780E-05  477853.3 3748937.2   453.0     4.00     3.95
1.86     YES
 L0003222         0   0.18780E-05  477853.4 3748945.7   453.0     4.00     3.95
1.86     YES
 L0003223         0   0.18780E-05  477853.4 3748954.2   453.0     4.00     3.95
1.86     YES
 L0003224         0   0.18780E-05  477853.5 3748962.7   453.0     4.00     3.95
1.86     YES
 L0003225         0   0.18780E-05  477853.5 3748971.2   453.2     4.00     3.95
1.86     YES
 L0003226         0   0.18780E-05  477853.5 3748979.7   453.4     4.00     3.95
1.86     YES
 L0003227         0   0.18780E-05  477845.0 3748979.7   453.5     4.00     3.95
1.86     YES
 L0003228         0   0.18780E-05  477836.5 3748979.6   453.7     4.00     3.95
1.86     YES
 L0003229         0   0.18780E-05  477828.0 3748979.6   453.9     4.00     3.95
1.86     YES
 L0003230         0   0.18780E-05  477819.5 3748979.6   454.0     4.00     3.95
1.86     YES
 L0003231         0   0.18780E-05  477811.0 3748979.6   454.0     4.00     3.95
1.86     YES
 L0003232         0   0.18780E-05  477802.5 3748979.6   454.0     4.00     3.95
1.86     YES
 L0003233         0   0.18780E-05  477794.0 3748979.5   454.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:38:23

                                    PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

```
                          AERMOD LSTs Operational Output

                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - 

 L0003234        0   0.18780E-05  477785.5 3748979.5    454.0     4.00     3.95
1.86     YES
 L0003235        0   0.18780E-05  477777.0 3748979.5    454.0     4.00     3.95
1.86     YES
 L0003236        0   0.18780E-05  477768.5 3748979.5    454.0     4.00     3.95
1.86     YES
 L0003237        0   0.18780E-05  477760.0 3748979.5    454.0     4.00     3.95
1.86     YES
 L0003238        0   0.18780E-05  477751.5 3748979.4    454.0     4.00     3.95
1.86     YES
 L0003239        0   0.18780E-05  477743.0 3748979.4    454.0     4.00     3.95
1.86     YES
 L0003240        0   0.18780E-05  477742.7 3748971.2    454.0     4.00     3.95
1.86     YES
 L0003241        0   0.18780E-05  477742.7 3748962.7    454.0     4.00     3.95
1.86     YES
 L0003242        0   0.18780E-05  477742.6 3748954.2    454.0     4.00     3.95
1.86     YES
 L0003243        0   0.18780E-05  477742.6 3748945.7    454.0     4.00     3.95
1.86     YES
 L0003244        0   0.18780E-05  477742.5 3748937.2    454.0     4.00     3.95
1.86     YES
 L0003245        0   0.18780E-05  477742.5 3748928.7    453.9     4.00     3.95
1.86     YES
 L0003246        0   0.18780E-05  477742.4 3748920.2    453.8     4.00     3.95
1.86     YES
 L0003247        0   0.18780E-05  477742.4 3748911.7    453.7     4.00     3.95
1.86     YES
 L0003248        0   0.18780E-05  477742.3 3748903.2    453.6     4.00     3.95
1.86     YES
 L0003249        0   0.18780E-05  477742.3 3748894.7    453.6     4.00     3.95
1.86     YES
 L0003250        0   0.18780E-05  477742.2 3748886.2    453.6     4.00     3.95
1.86     YES
 L0003251        0   0.18780E-05  477744.2 3748878.0    453.5     4.00     3.95
1.86     YES
```

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                          AERMOD LSTs Operational Output
 L0003252         0   0.18780E-05  477746.5 3748869.8    453.6      4.00      3.95
1.86     YES
 L0003253         0   0.18780E-05  477748.8 3748861.6    453.7      4.00      3.95
1.86     YES
 L0003254         0   0.18780E-05  477751.1 3748853.4    453.8      4.00      3.95
1.86     YES
 L0003255         0   0.18780E-05  477753.4 3748845.3    454.0      4.00      3.95
1.86     YES
 L0003256         0   0.18780E-05  477757.5 3748838.2    453.7      4.00      3.95
1.86     YES
 L0003257         0   0.18780E-05  477763.8 3748832.5    453.5      4.00      3.95
1.86     YES
 L0003258         0   0.18780E-05  477770.1 3748826.8    453.2      4.00      3.95
1.86     YES
 L0003259         0   0.18780E-05  477778.6 3748826.5    453.1      4.00      3.95
1.86     YES
 L0003260         0   0.18780E-05  477787.1 3748826.4    453.0      4.00      3.95
1.86     YES
 L0003261         0   0.18780E-05  477795.6 3748826.2    453.0      4.00      3.95
1.86     YES
 L0003262         0   0.18780E-05  477804.1 3748826.1    453.0      4.00      3.95
1.86     YES
 L0003263         0   0.18780E-05  477812.6 3748826.1    453.0      4.00      3.95
1.86     YES
 L0003264         0   0.18780E-05  477821.1 3748826.0    453.0      4.00      3.95
1.86     YES
 L0003265         0   0.18780E-05  477829.6 3748826.0    453.0      4.00      3.95
1.86     YES
 L0003266         0   0.18780E-05  477838.1 3748825.9    453.0      4.00      3.95
1.86     YES
 L0003267         0   0.18780E-05  477846.6 3748825.8    453.0      4.00      3.95
1.86     YES
 L0003268         0   0.14800E-05  477886.6 3748203.7    450.0      4.00      3.95
1.86     YES
 L0003269         0   0.14800E-05  477886.4 3748212.2    450.0      4.00      3.95
1.86     YES
 L0003270         0   0.14800E-05  477886.3 3748220.7    450.1      4.00      3.95
1.86     YES
 L0003271         0   0.14800E-05  477886.1 3748229.2    450.3      4.00      3.95
1.86     YES
 L0003272         0   0.14800E-05  477885.9 3748237.7    450.6      4.00      3.95
1.86     YES
 L0003273         0   0.14800E-05  477885.7 3748246.2    450.8      4.00      3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc                ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23
```

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                                           PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                            *** VOLUME SOURCE DATA ***

                 NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0003274         0   0.14800E-05  477885.5 3748254.7   450.9     4.00     3.95
1.86     YES
 L0003275         0   0.14800E-05  477885.6 3748263.2   450.9     4.00     3.95
1.86     YES
 L0003276         0   0.14800E-05  477885.7 3748271.7   451.0     4.00     3.95
1.86     YES
 L0003277         0   0.14800E-05  477885.8 3748280.2   451.0     4.00     3.95
1.86     YES
 L0003278         0   0.14800E-05  477885.9 3748288.7   451.0     4.00     3.95
1.86     YES
 L0003279         0   0.14800E-05  477886.0 3748297.2   451.0     4.00     3.95
1.86     YES
 L0003280         0   0.14800E-05  477886.1 3748305.7   451.0     4.00     3.95
1.86     YES
 L0003281         0   0.14800E-05  477886.2 3748314.2   451.0     4.00     3.95
1.86     YES
 L0003282         0   0.14800E-05  477886.3 3748322.7   451.0     4.00     3.95
1.86     YES
 L0003283         0   0.14800E-05  477886.4 3748331.2   451.0     4.00     3.95
1.86     YES
 L0003284         0   0.14800E-05  477889.0 3748337.4   451.0     4.00     3.95
1.86     YES
 L0003285         0   0.14800E-05  477897.5 3748338.1   451.0     4.00     3.95
1.86     YES
 L0003286         0   0.14800E-05  477906.0 3748338.9   451.0     4.00     3.95
1.86     YES
 L0003287         0   0.14800E-05  477914.4 3748339.7   451.0     4.00     3.95
1.86     YES
 L0003288         0   0.14800E-05  477922.9 3748339.5   451.0     4.00     3.95
1.86     YES
 L0003289         0   0.14800E-05  477931.4 3748338.9   451.0     4.00     3.95
1.86     YES
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 L0003290         0   0.14800E-05  477939.8 3748338.2   451.0      4.00      3.95
1.86     YES
 L0003291         0   0.14800E-05  477945.5 3748332.6   451.0      4.00      3.95
1.86     YES
 L0003292         0   0.14800E-05  477950.6 3748325.7   451.0      4.00      3.95
1.86     YES
 L0003293         0   0.14800E-05  477955.0 3748318.5   450.0      4.00      3.95
1.86     YES
 L0003294         0   0.14800E-05  477959.4 3748311.2   450.0      4.00      3.95
1.86     YES
 L0003295         0   0.14800E-05  477963.8 3748303.9   450.0      4.00      3.95
1.86     YES
 L0003296         0   0.14800E-05  477968.2 3748296.7   450.0      4.00      3.95
1.86     YES
 L0003297         0   0.14800E-05  477972.6 3748289.4   450.0      4.00      3.95
1.86     YES
 L0003298         0   0.14800E-05  477975.8 3748281.7   450.0      4.00      3.95
1.86     YES
 L0003299         0   0.14800E-05  477977.7 3748273.4   450.0      4.00      3.95
1.86     YES
 L0003300         0   0.14800E-05  477979.6 3748265.1   450.0      4.00      3.95
1.86     YES
 L0003301         0   0.14800E-05  477981.3 3748256.8   450.0      4.00      3.95
1.86     YES
 L0003302         0   0.14800E-05  477980.6 3748248.3   450.0      4.00      3.95
1.86     YES
 L0003303         0   0.14800E-05  477979.9 3748239.8   450.0      4.00      3.95
1.86     YES
 L0003304         0   0.14800E-05  477979.2 3748231.4   450.0      4.00      3.95
1.86     YES
 L0003305         0   0.14800E-05  477978.4 3748222.9   450.0      4.00      3.95
1.86     YES
 L0003306         0   0.14800E-05  477982.6 3748217.0   450.0      4.00      3.95
1.86     YES
 L0003307         0   0.14800E-05  477990.0 3748212.7   450.0      4.00      3.95
1.86     YES
 L0003308         0   0.14800E-05  477994.0 3748206.5   450.0      4.00      3.95
1.86     YES
 L0003309         0   0.14800E-05  477994.1 3748198.0   450.0      4.00      3.95
1.86     YES
 L0003310         0   0.14800E-05  477986.1 3748197.5   450.0      4.00      3.95
1.86     YES
 L0003311         0   0.14800E-05  477977.6 3748197.5   450.0      4.00      3.95
1.86     YES
 L0003312         0   0.14800E-05  477969.1 3748197.5   450.0      4.00      3.95
1.86     YES
 L0003313         0   0.14800E-05  477960.6 3748197.5   450.0      4.00      3.95
1.86     YES
```

```
                         AERMOD LSTs Operational Output
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:38:23

                                    PAGE  12
 **MODELOPTs:    RegDFAULT CONC       ELEV      FLGPOL    URBAN


                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003314         0   0.14800E-05  477952.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0003315         0   0.14800E-05  477943.6 3748197.5   450.0     4.00     3.95
1.86     YES
 L0003316         0   0.14800E-05  477935.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0003317         0   0.25260E-05  477505.1 3748975.7   454.2     4.00     3.95
1.86     YES
 L0003318         0   0.25260E-05  477513.6 3748975.6   454.1     4.00     3.95
1.86     YES
 L0003319         0   0.25260E-05  477522.1 3748975.4   454.0     4.00     3.95
1.86     YES
 L0003320         0   0.25260E-05  477530.6 3748975.2   454.0     4.00     3.95
1.86     YES
 L0003321         0   0.25260E-05  477539.1 3748975.1   454.0     4.00     3.95
1.86     YES
 L0003322         0   0.25260E-05  477547.6 3748974.9   454.0     4.00     3.95
1.86     YES
 L0003323         0   0.25260E-05  477556.1 3748974.7   454.0     4.00     3.95
1.86     YES
 L0003324         0   0.25260E-05  477564.6 3748974.6   454.0     4.00     3.95
1.86     YES
 L0003325         0   0.25260E-05  477573.1 3748974.4   454.0     4.00     3.95
1.86     YES
 L0003326         0   0.25260E-05  477581.6 3748974.2   454.0     4.00     3.95
1.86     YES
 L0003327         0   0.25260E-05  477590.1 3748974.1   454.0     4.00     3.95
1.86     YES
```

AERMOD LSTs Operational Output

```
 L0003328         0   0.25260E-05  477598.5 3748973.8    454.0      4.00      3.95
1.86     YES
 L0003329         0   0.25260E-05  477605.4 3748968.8    454.0      4.00      3.95
1.86     YES
 L0003330         0   0.25260E-05  477611.1 3748963.0    454.0      4.00      3.95
1.86     YES
 L0003331         0   0.25260E-05  477613.4 3748954.9    454.0      4.00      3.95
1.86     YES
 L0003332         0   0.25260E-05  477615.7 3748946.7    454.0      4.00      3.95
1.86     YES
 L0003333         0   0.25260E-05  477618.0 3748938.5    454.0      4.00      3.95
1.86     YES
 L0003334         0   0.25260E-05  477620.0 3748930.2    454.0      4.00      3.95
1.86     YES
 L0003335         0   0.25260E-05  477621.7 3748921.9    454.0      4.00      3.95
1.86     YES
 L0003336         0   0.25260E-05  477623.4 3748913.6    454.0      4.00      3.95
1.86     YES
 L0003337         0   0.25260E-05  477625.1 3748905.3    454.0      4.00      3.95
1.86     YES
 L0003338         0   0.25260E-05  477626.2 3748896.9    454.0      4.00      3.95
1.86     YES
 L0003339         0   0.25260E-05  477626.4 3748888.4    454.0      4.00      3.95
1.86     YES
 L0003340         0   0.25260E-05  477626.5 3748879.9    454.0      4.00      3.95
1.86     YES
 L0003341         0   0.25260E-05  477626.6 3748871.4    454.0      4.00      3.95
1.86     YES
 L0003342         0   0.25260E-05  477626.7 3748862.9    454.0      4.00      3.95
1.86     YES
 L0003343         0   0.25260E-05  477626.8 3748854.4    454.0      4.00      3.95
1.86     YES
 L0003344         0   0.25260E-05  477626.9 3748845.9    454.0      4.00      3.95
1.86     YES
 L0003345         0   0.25260E-05  477627.0 3748837.4    454.0      4.00      3.95
1.86     YES
 L0003346         0   0.25260E-05  477627.1 3748828.9    454.0      4.00      3.95
1.86     YES
 L0003347         0   0.25260E-05  477627.2 3748820.4    454.0      4.00      3.95
1.86     YES
 L0003348         0   0.25260E-05  477627.3 3748811.9    454.0      4.00      3.95
1.86     YES
 L0003349         0   0.25260E-05  477627.5 3748803.4    454.0      4.00      3.95
1.86     YES
 L0003350         0   0.25260E-05  477627.0 3748795.5    454.0      4.00      3.95
1.86     YES
 L0003351         0   0.25260E-05  477618.5 3748795.7    454.0      4.00      3.95
1.86     YES
```

```
                          AERMOD LSTs Operational Output
 L0003352         0   0.25260E-05  477610.0 3748795.9   454.0     4.00     3.95
1.86     YES
 L0003353         0   0.25260E-05  477601.5 3748796.2   454.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                          ***         14:38:23

                                      PAGE  13
 **MODELOPTs:    RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0003354         0   0.25260E-05  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES
 L0003355         0   0.25260E-05  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES
 L0003356         0   0.25260E-05  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES
 L0003357         0   0.25260E-05  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES
 L0003358         0   0.25260E-05  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES
 L0003359         0   0.25260E-05  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES
 L0003360         0   0.25260E-05  477542.0 3748797.8   454.0     4.00     3.95
1.86     YES
 L0003361         0   0.25260E-05  477533.5 3748798.0   454.0     4.00     3.95
1.86     YES
 L0003362         0   0.25260E-05  477525.0 3748798.2   454.0     4.00     3.95
1.86     YES
 L0003363         0   0.25260E-05  477516.5 3748798.5   454.0     4.00     3.95
1.86     YES
 L0003364         0   0.25260E-05  477508.0 3748798.7   454.0     4.00     3.95
1.86     YES
 L0003365         0   0.25260E-05  477499.5 3748798.9   454.0     4.00     3.95
1.86     YES
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0003366         0   0.25260E-05  477491.0 3748799.2   454.0     4.00     3.95
1.86     YES
 L0003367         0   0.11830E-05  477922.3 3748920.1   453.0     0.00     3.95
1.40     YES
 L0003368         0   0.11830E-05  477921.9 3748928.6   453.0     0.00     3.95
1.40     YES
 L0003369         0   0.11830E-05  477921.5 3748937.1   453.0     0.00     3.95
1.40     YES
 L0003370         0   0.11830E-05  477921.1 3748945.6   453.0     0.00     3.95
1.40     YES
 L0003371         0   0.11830E-05  477920.7 3748954.1   453.0     0.00     3.95
1.40     YES
 L0003372         0   0.11830E-05  477927.7 3748955.6   453.0     0.00     3.95
1.40     YES
 L0003373         0   0.11830E-05  477936.2 3748955.6   453.0     0.00     3.95
1.40     YES
 L0003374         0   0.11830E-05  477944.7 3748955.7   453.0     0.00     3.95
1.40     YES
 L0003375         0   0.11830E-05  477953.2 3748955.7   453.0     0.00     3.95
1.40     YES
 L0003376         0   0.11830E-05  477961.7 3748955.8   453.0     0.00     3.95
1.40     YES
 L0003377         0   0.11830E-05  477970.2 3748955.8   453.0     0.00     3.95
1.40     YES
 L0003378         0   0.11830E-05  477978.7 3748955.9   453.0     0.00     3.95
1.40     YES
 L0003379         0   0.11830E-05  477987.2 3748955.9   453.0     0.00     3.95
1.40     YES
 L0003380         0   0.11830E-05  477995.7 3748956.0   453.0     0.00     3.95
1.40     YES
 L0003381         0   0.11830E-05  478004.2 3748956.1   453.0     0.00     3.95
1.40     YES
 L0003382         0   0.11830E-05  478012.7 3748956.1   453.0     0.00     3.95
1.40     YES
 L0003383         0   0.11830E-05  478021.2 3748956.2   453.0     0.00     3.95
1.40     YES
 L0003384         0   0.11830E-05  478029.7 3748956.2   453.0     0.00     3.95
1.40     YES
 L0003385         0   0.11830E-05  478038.2 3748956.3   453.0     0.00     3.95
1.40     YES
 L0003386         0   0.11830E-05  478046.7 3748956.3   453.0     0.00     3.95
1.40     YES
 L0003387         0   0.11830E-05  478055.2 3748956.4   453.0     0.00     3.95
1.40     YES
 L0003388         0   0.11830E-05  478063.7 3748956.4   453.0     0.00     3.95
1.40     YES
 L0003389         0   0.11830E-05  478072.2 3748956.5   453.0     0.00     3.95
1.40     YES
```

```
                           AERMOD LSTs Operational Output
 L0003390         0   0.11830E-05  478080.7 3748956.5   453.0     0.00     3.95
1.40     YES
 L0003391         0   0.11830E-05  478089.2 3748956.6   453.0     0.00     3.95
1.40     YES
 L0003392         0   0.11830E-05  478097.7 3748956.6   453.0     0.00     3.95
1.40     YES
 L0003393         0   0.11830E-05  478106.2 3748956.7   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc              ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:38:23

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - 


 L0003394         0   0.11830E-05  478114.7 3748956.7   453.0     0.00     3.95
1.40     YES
 L0003395         0   0.11830E-05  478123.2 3748956.8   453.0     0.00     3.95
1.40     YES
 L0003396         0   0.11830E-05  478131.7 3748956.8   453.0     0.00     3.95
1.40     YES
 L0003397         0   0.11830E-05  478140.2 3748956.9   453.0     0.00     3.95
1.40     YES
 L0003398         0   0.11830E-05  478148.7 3748956.9   453.0     0.00     3.95
1.40     YES
 L0003399         0   0.11830E-05  478157.2 3748957.0   453.0     0.00     3.95
1.40     YES
 L0003400         0   0.11830E-05  478165.7 3748957.0   453.0     0.00     3.95
1.40     YES
 L0003401         0   0.11830E-05  478174.2 3748957.1   453.0     0.00     3.95
1.40     YES
 L0003402         0   0.11830E-05  478182.7 3748957.1   453.0     0.00     3.95
1.40     YES
 L0003403         0   0.11830E-05  478191.2 3748957.2   453.0     0.00     3.95
1.40     YES
```

```
                        AERMOD LSTs Operational Output
 L0003404         0   0.11830E-05  478199.7 3748957.2   453.0     0.00     3.95
1.40     YES
 L0003405         0   0.11830E-05  478208.2 3748957.3   453.0     0.00     3.95
1.40     YES
 L0003406         0   0.11830E-05  478216.7 3748957.3   453.0     0.00     3.95
1.40     YES
 L0003407         0   0.11830E-05  478225.0 3748957.2   453.0     0.00     3.95
1.40     YES
 L0003408         0   0.11830E-05  478225.0 3748948.7   453.0     0.00     3.95
1.40     YES
 L0003409         0   0.11830E-05  478225.0 3748940.2   453.0     0.00     3.95
1.40     YES
 L0003410         0   0.11830E-05  478225.0 3748931.7   453.0     0.00     3.95
1.40     YES
 L0003411         0   0.11830E-05  478225.0 3748923.2   453.0     0.00     3.95
1.40     YES
 L0003412         0   0.44710E-06  477922.3 3748920.1   453.0     0.00     3.95
1.40     YES
 L0003413         0   0.44710E-06  477921.9 3748928.6   453.0     0.00     3.95
1.40     YES
 L0003414         0   0.44710E-06  477921.5 3748937.1   453.0     0.00     3.95
1.40     YES
 L0003415         0   0.44710E-06  477921.1 3748945.6   453.0     0.00     3.95
1.40     YES
 L0003416         0   0.44710E-06  477920.7 3748954.1   453.0     0.00     3.95
1.40     YES
 L0003417         0   0.44710E-06  477927.7 3748955.6   453.0     0.00     3.95
1.40     YES
 L0003418         0   0.44710E-06  477936.2 3748955.6   453.0     0.00     3.95
1.40     YES
 L0003419         0   0.44710E-06  477944.7 3748955.7   453.0     0.00     3.95
1.40     YES
 L0003420         0   0.44710E-06  477953.2 3748955.7   453.0     0.00     3.95
1.40     YES
 L0003421         0   0.44710E-06  477961.7 3748955.8   453.0     0.00     3.95
1.40     YES
 L0003422         0   0.44710E-06  477970.2 3748955.8   453.0     0.00     3.95
1.40     YES
 L0003423         0   0.44710E-06  477978.7 3748955.9   453.0     0.00     3.95
1.40     YES
 L0003424         0   0.44710E-06  477987.2 3748955.9   453.0     0.00     3.95
1.40     YES
 L0003425         0   0.44710E-06  477995.7 3748956.0   453.0     0.00     3.95
1.40     YES
 L0003426         0   0.44710E-06  478004.2 3748956.1   453.0     0.00     3.95
1.40     YES
 L0003427         0   0.44710E-06  478012.7 3748956.1   453.0     0.00     3.95
1.40     YES
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 L0003428        0   0.44710E-06  478021.2 3748956.2   453.0     0.00     3.95
1.40     YES
 L0003429        0   0.44710E-06  478029.7 3748956.2   453.0     0.00     3.95
1.40     YES
 L0003430        0   0.44710E-06  478038.2 3748956.3   453.0     0.00     3.95
1.40     YES
 L0003431        0   0.44710E-06  478046.7 3748956.3   453.0     0.00     3.95
1.40     YES
 L0003432        0   0.44710E-06  478055.2 3748956.4   453.0     0.00     3.95
1.40     YES
 L0003433        0   0.44710E-06  478063.7 3748956.4   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0003434        0   0.44710E-06  478072.2 3748956.5   453.0     0.00     3.95
1.40     YES
 L0003435        0   0.44710E-06  478080.7 3748956.5   453.0     0.00     3.95
1.40     YES
 L0003436        0   0.44710E-06  478089.2 3748956.6   453.0     0.00     3.95
1.40     YES
 L0003437        0   0.44710E-06  478097.7 3748956.6   453.0     0.00     3.95
1.40     YES
 L0003438        0   0.44710E-06  478106.2 3748956.7   453.0     0.00     3.95
1.40     YES
 L0003439        0   0.44710E-06  478114.7 3748956.7   453.0     0.00     3.95
1.40     YES
 L0003440        0   0.44710E-06  478123.2 3748956.8   453.0     0.00     3.95
1.40     YES
 L0003441        0   0.44710E-06  478131.7 3748956.8   453.0     0.00     3.95
1.40     YES
```

```
 L0003442          0   0.44710E-06  478140.2 3748956.9   453.0     0.00     3.95
1.40     YES
 L0003443          0   0.44710E-06  478148.7 3748956.9   453.0     0.00     3.95
1.40     YES
 L0003444          0   0.44710E-06  478157.2 3748957.0   453.0     0.00     3.95
1.40     YES
 L0003445          0   0.44710E-06  478165.7 3748957.0   453.0     0.00     3.95
1.40     YES
 L0003446          0   0.44710E-06  478174.2 3748957.1   453.0     0.00     3.95
1.40     YES
 L0003447          0   0.44710E-06  478182.7 3748957.1   453.0     0.00     3.95
1.40     YES
 L0003448          0   0.44710E-06  478191.2 3748957.2   453.0     0.00     3.95
1.40     YES
 L0003449          0   0.44710E-06  478199.7 3748957.2   453.0     0.00     3.95
1.40     YES
 L0003450          0   0.44710E-06  478208.2 3748957.3   453.0     0.00     3.95
1.40     YES
 L0003451          0   0.44710E-06  478216.7 3748957.3   453.0     0.00     3.95
1.40     YES
 L0003452          0   0.44710E-06  478225.0 3748957.2   453.0     0.00     3.95
1.40     YES
 L0003453          0   0.44710E-06  478225.0 3748948.7   453.0     0.00     3.95
1.40     YES
 L0003454          0   0.44710E-06  478225.0 3748940.2   453.0     0.00     3.95
1.40     YES
 L0003455          0   0.44710E-06  478225.0 3748931.7   453.0     0.00     3.95
1.40     YES
 L0003456          0   0.44710E-06  478225.0 3748923.2   453.0     0.00     3.95
1.40     YES
 L0003457          0   0.33270E-05  478177.4 3748323.4   450.0     0.00     3.95
1.40     YES
 L0003458          0   0.33270E-05  478185.9 3748323.1   450.0     0.00     3.95
1.40     YES
 L0003459          0   0.33270E-05  478194.4 3748322.8   450.0     0.00     3.95
1.40     YES
 L0003460          0   0.33270E-05  478202.9 3748322.5   450.0     0.00     3.95
1.40     YES
 L0003461          0   0.33270E-05  478211.4 3748322.2   450.0     0.00     3.95
1.40     YES
 L0003462          0   0.33270E-05  478219.9 3748321.9   450.0     0.00     3.95
1.40     YES
 L0003463          0   0.33270E-05  478228.4 3748321.6   450.0     0.00     3.95
1.40     YES
 L0003464          0   0.33270E-05  478236.6 3748321.6   450.0     0.00     3.95
1.40     YES
 L0003465          0   0.33270E-05  478236.2 3748330.0   451.0     0.00     3.95
1.40     YES
```

```
 L0003466         0   0.33270E-05  478235.7 3748338.5   451.0     0.00     3.95
1.40     YES
 L0003467         0   0.33270E-05  478235.3 3748347.0   451.0     0.00     3.95
1.40     YES
 L0003468         0   0.33270E-05  478234.8 3748355.5   451.0     0.00     3.95
1.40     YES
 L0003469         0   0.33270E-05  478234.4 3748364.0   451.0     0.00     3.95
1.40     YES
 L0003470         0   0.33270E-05  478233.9 3748372.5   451.0     0.00     3.95
1.40     YES
 L0003471         0   0.33270E-05  478233.5 3748381.0   451.0     0.00     3.95
1.40     YES
 L0003472         0   0.33270E-05  478233.0 3748389.5   451.0     0.00     3.95
1.40     YES
 L0003473         0   0.45940E-06  478177.4 3748323.4   450.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:38:23

                                    PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003474         0   0.45940E-06  478185.9 3748323.1   450.0     0.00     3.95
1.40     YES
 L0003475         0   0.45940E-06  478194.4 3748322.8   450.0     0.00     3.95
1.40     YES
 L0003476         0   0.45940E-06  478202.9 3748322.5   450.0     0.00     3.95
1.40     YES
 L0003477         0   0.45940E-06  478211.4 3748322.2   450.0     0.00     3.95
1.40     YES
 L0003478         0   0.45940E-06  478219.9 3748321.9   450.0     0.00     3.95
1.40     YES
 L0003479         0   0.45940E-06  478228.4 3748321.6   450.0     0.00     3.95
1.40     YES
```

AERMOD LSTs Operational Output

```
 L0003480        0   0.45940E-06  478236.6 3748321.6   450.0     0.00     3.95
1.40     YES
 L0003481        0   0.45940E-06  478236.2 3748330.0   451.0     0.00     3.95
1.40     YES
 L0003482        0   0.45940E-06  478235.7 3748338.5   451.0     0.00     3.95
1.40     YES
 L0003483        0   0.45940E-06  478235.3 3748347.0   451.0     0.00     3.95
1.40     YES
 L0003484        0   0.45940E-06  478234.8 3748355.5   451.0     0.00     3.95
1.40     YES
 L0003485        0   0.45940E-06  478234.4 3748364.0   451.0     0.00     3.95
1.40     YES
 L0003486        0   0.45940E-06  478233.9 3748372.5   451.0     0.00     3.95
1.40     YES
 L0003487        0   0.45940E-06  478233.5 3748381.0   451.0     0.00     3.95
1.40     YES
 L0003488        0   0.45940E-06  478233.0 3748389.5   451.0     0.00     3.95
1.40     YES
 L0003489        0   0.16390E-05  477744.0 3748980.7   454.0     0.00     3.95
1.40     YES
 L0003490        0   0.16390E-05  477752.5 3748980.8   454.0     0.00     3.95
1.40     YES
 L0003491        0   0.16390E-05  477761.0 3748980.8   454.0     0.00     3.95
1.40     YES
 L0003492        0   0.16390E-05  477769.5 3748980.9   454.0     0.00     3.95
1.40     YES
 L0003493        0   0.16390E-05  477777.9 3748981.0   454.0     0.00     3.95
1.40     YES
 L0003494        0   0.16390E-05  477786.4 3748981.0   454.0     0.00     3.95
1.40     YES
 L0003495        0   0.16390E-05  477794.9 3748981.1   454.0     0.00     3.95
1.40     YES
 L0003496        0   0.16390E-05  477803.4 3748981.2   454.0     0.00     3.95
1.40     YES
 L0003497        0   0.16390E-05  477811.9 3748981.3   454.0     0.00     3.95
1.40     YES
 L0003498        0   0.16390E-05  477820.4 3748981.3   454.0     0.00     3.95
1.40     YES
 L0003499        0   0.16390E-05  477828.9 3748981.4   453.9     0.00     3.95
1.40     YES
 L0003500        0   0.16390E-05  477837.4 3748981.5   453.7     0.00     3.95
1.40     YES
 L0003501        0   0.16390E-05  477845.9 3748981.6   453.6     0.00     3.95
1.40     YES
 L0003502        0   0.16390E-05  477854.0 3748981.2   453.5     0.00     3.95
1.40     YES
 L0003503        0   0.16390E-05  477854.0 3748972.7   453.2     0.00     3.95
1.40     YES
```

```
 L0003504        0   0.16390E-05  477853.9 3748964.2   453.0     0.00     3.95
1.40     YES
 L0003505        0   0.16390E-05  477853.8 3748955.7   453.0     0.00     3.95
1.40     YES
 L0003506        0   0.16390E-05  477853.7 3748947.2   453.0     0.00     3.95
1.40     YES
 L0003507        0   0.16390E-05  477853.6 3748938.7   453.0     0.00     3.95
1.40     YES
 L0003508        0   0.16390E-05  477853.5 3748930.2   453.0     0.00     3.95
1.40     YES
 L0003509        0   0.16390E-05  477853.4 3748921.7   453.0     0.00     3.95
1.40     YES
 L0003510        0   0.16390E-05  477853.4 3748913.2   453.0     0.00     3.95
1.40     YES
 L0003511        0   0.16390E-05  477853.3 3748904.7   453.0     0.00     3.95
1.40     YES
 L0003512        0   0.16390E-05  477853.2 3748896.2   453.0     0.00     3.95
1.40     YES
 L0003513        0   0.16390E-05  477853.1 3748887.7   453.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc              ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003514        0   0.16390E-05  477853.0 3748879.2   453.0     0.00     3.95
1.40     YES
 L0003515        0   0.16390E-05  477852.9 3748870.7   453.0     0.00     3.95
1.40     YES
 L0003516        0   0.16390E-05  477852.8 3748862.2   453.0     0.00     3.95
1.40     YES
 L0003517        0   0.16390E-05  477852.8 3748853.7   453.0     0.00     3.95
1.40     YES
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD LSTs Operational Output

```
 L0003518        0   0.16390E-05  477852.7 3748845.2    453.0     0.00     3.95
1.40     YES
 L0003519        0   0.16390E-05  477852.6 3748836.7    453.0     0.00     3.95
1.40     YES
 L0003520        0   0.42450E-06  477744.0 3748980.7    454.0     0.00     3.95
1.40     YES
 L0003521        0   0.42450E-06  477752.5 3748980.8    454.0     0.00     3.95
1.40     YES
 L0003522        0   0.42450E-06  477761.0 3748980.8    454.0     0.00     3.95
1.40     YES
 L0003523        0   0.42450E-06  477769.5 3748980.9    454.0     0.00     3.95
1.40     YES
 L0003524        0   0.42450E-06  477777.9 3748981.0    454.0     0.00     3.95
1.40     YES
 L0003525        0   0.42450E-06  477786.4 3748981.0    454.0     0.00     3.95
1.40     YES
 L0003526        0   0.42450E-06  477794.9 3748981.1    454.0     0.00     3.95
1.40     YES
 L0003527        0   0.42450E-06  477803.4 3748981.2    454.0     0.00     3.95
1.40     YES
 L0003528        0   0.42450E-06  477811.9 3748981.3    454.0     0.00     3.95
1.40     YES
 L0003529        0   0.42450E-06  477820.4 3748981.3    454.0     0.00     3.95
1.40     YES
 L0003530        0   0.42450E-06  477828.9 3748981.4    453.9     0.00     3.95
1.40     YES
 L0003531        0   0.42450E-06  477837.4 3748981.5    453.7     0.00     3.95
1.40     YES
 L0003532        0   0.42450E-06  477845.9 3748981.6    453.6     0.00     3.95
1.40     YES
 L0003533        0   0.42450E-06  477854.0 3748981.2    453.5     0.00     3.95
1.40     YES
 L0003534        0   0.42450E-06  477854.0 3748972.7    453.2     0.00     3.95
1.40     YES
 L0003535        0   0.42450E-06  477853.9 3748964.2    453.0     0.00     3.95
1.40     YES
 L0003536        0   0.42450E-06  477853.8 3748955.7    453.0     0.00     3.95
1.40     YES
 L0003537        0   0.42450E-06  477853.7 3748947.2    453.0     0.00     3.95
1.40     YES
 L0003538        0   0.42450E-06  477853.6 3748938.7    453.0     0.00     3.95
1.40     YES
 L0003539        0   0.42450E-06  477853.5 3748930.2    453.0     0.00     3.95
1.40     YES
 L0003540        0   0.42450E-06  477853.4 3748921.7    453.0     0.00     3.95
1.40     YES
 L0003541        0   0.42450E-06  477853.4 3748913.2    453.0     0.00     3.95
1.40     YES
```

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 L0003542        0   0.42450E-06  477853.3 3748904.7   453.0     0.00     3.95
1.40     YES
 L0003543        0   0.42450E-06  477853.2 3748896.2   453.0     0.00     3.95
1.40     YES
 L0003544        0   0.42450E-06  477853.1 3748887.7   453.0     0.00     3.95
1.40     YES
 L0003545        0   0.42450E-06  477853.0 3748879.2   453.0     0.00     3.95
1.40     YES
 L0003546        0   0.42450E-06  477852.9 3748870.7   453.0     0.00     3.95
1.40     YES
 L0003547        0   0.42450E-06  477852.8 3748862.2   453.0     0.00     3.95
1.40     YES
 L0003548        0   0.42450E-06  477852.8 3748853.7   453.0     0.00     3.95
1.40     YES
 L0003549        0   0.42450E-06  477852.7 3748845.2   453.0     0.00     3.95
1.40     YES
 L0003550        0   0.42450E-06  477852.6 3748836.7   453.0     0.00     3.95
1.40     YES
 L0003551        0   0.50450E-05  477934.4 3748197.8   450.0     0.00     3.95
1.40     YES
 L0003552        0   0.50450E-05  477942.9 3748197.7   450.0     0.00     3.95
1.40     YES
 L0003553        0   0.50450E-05  477951.4 3748197.6   450.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc              ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - 

 L0003554        0   0.50450E-05  477959.9 3748197.6   450.0     0.00     3.95
1.40     YES
 L0003555        0   0.50450E-05  477968.4 3748197.5   450.0     0.00     3.95
1.40     YES
```

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                         AERMOD LSTs Operational Output
 L0003556         0   0.50450E-05  477976.9 3748197.4   450.0     0.00      3.95
1.40     YES
 L0003557         0   0.50450E-05  477985.4 3748197.4   450.0     0.00      3.95
1.40     YES
 L0003558         0   0.50450E-05  477993.9 3748197.3   450.0     0.00      3.95
1.40     YES
 L0003559         0   0.32250E-06  477934.4 3748197.8   450.0     0.00      3.95
1.40     YES
 L0003560         0   0.32250E-06  477942.9 3748197.7   450.0     0.00      3.95
1.40     YES
 L0003561         0   0.32250E-06  477951.4 3748197.6   450.0     0.00      3.95
1.40     YES
 L0003562         0   0.32250E-06  477959.9 3748197.6   450.0     0.00      3.95
1.40     YES
 L0003563         0   0.32250E-06  477968.4 3748197.5   450.0     0.00      3.95
1.40     YES
 L0003564         0   0.32250E-06  477976.9 3748197.4   450.0     0.00      3.95
1.40     YES
 L0003565         0   0.32250E-06  477985.4 3748197.4   450.0     0.00      3.95
1.40     YES
 L0003566         0   0.32250E-06  477993.9 3748197.3   450.0     0.00      3.95
1.40     YES
 L0003567         0   0.57360E-05  477499.5 3748976.4   454.2     0.00      3.95
1.40     YES
 L0003568         0   0.57360E-05  477508.0 3748976.2   454.1     0.00      3.95
1.40     YES
 L0003569         0   0.57360E-05  477516.4 3748976.0   454.0     0.00      3.95
1.40     YES
 L0003570         0   0.57360E-05  477524.9 3748975.8   454.0     0.00      3.95
1.40     YES
 L0003571         0   0.57360E-05  477533.4 3748975.6   454.0     0.00      3.95
1.40     YES
 L0003572         0   0.57360E-05  477541.9 3748975.4   454.0     0.00      3.95
1.40     YES
 L0003573         0   0.57360E-05  477550.4 3748975.2   454.0     0.00      3.95
1.40     YES
 L0003574         0   0.57360E-05  477558.9 3748975.0   454.0     0.00      3.95
1.40     YES
 L0003575         0   0.57360E-05  477567.4 3748974.8   454.0     0.00      3.95
1.40     YES
 L0003576         0   0.57360E-05  477575.9 3748974.6   454.0     0.00      3.95
1.40     YES
 L0003577         0   0.57360E-05  477584.4 3748974.4   454.0     0.00      3.95
1.40     YES
 L0003578         0   0.57360E-05  477592.9 3748974.2   454.0     0.00      3.95
1.40     YES
 L0003579         0   0.60500E-06  477499.5 3748976.4   454.2     0.00      3.95
1.40     YES
```

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                           AERMOD LSTs Operational Output
 L0003580         0   0.60500E-06  477508.0 3748976.2   454.1     0.00     3.95
1.40     YES
 L0003581         0   0.60500E-06  477516.4 3748976.0   454.0     0.00     3.95
1.40     YES
 L0003582         0   0.60500E-06  477524.9 3748975.8   454.0     0.00     3.95
1.40     YES
 L0003583         0   0.60500E-06  477533.4 3748975.6   454.0     0.00     3.95
1.40     YES
 L0003584         0   0.60500E-06  477541.9 3748975.4   454.0     0.00     3.95
1.40     YES
 L0003585         0   0.60500E-06  477550.4 3748975.2   454.0     0.00     3.95
1.40     YES
 L0003586         0   0.60500E-06  477558.9 3748975.0   454.0     0.00     3.95
1.40     YES
 L0003587         0   0.60500E-06  477567.4 3748974.8   454.0     0.00     3.95
1.40     YES
 L0003588         0   0.60500E-06  477575.9 3748974.6   454.0     0.00     3.95
1.40     YES
 L0003589         0   0.60500E-06  477584.4 3748974.4   454.0     0.00     3.95
1.40     YES
 L0003590         0   0.60500E-06  477592.9 3748974.2   454.0     0.00     3.95
1.40     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 AREA1            0   0.23510E-07  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00      YES
 AREA2            0   0.24890E-07  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00      YES
 AREA3            0   0.87222E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00      YES
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                AERMOD LSTs Operational Output
 AREA4            0   0.27037E-07  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES
 AREA5            0   0.56522E-07  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES
 AREA6            0   0.25323E-07  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc                ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
 -----------                                                  ----------


  ALL        L0002954    , L0002955    , L0002956    , L0002957    , L0002958    ,
L0002959    , L0002960    , L0002961    ,

             L0002962    , L0002963    , L0002964    , L0002965    , L0002966    ,
L0002967    , L0002968    , L0002969    ,

             L0002970    , L0002971    , L0002972    , L0002973    , L0002974    ,
L0002975    , L0002976    , L0002977    ,

             L0002978    , L0002979    , L0002980    , L0002981    , L0002982    ,
L0002983    , L0002984    , L0002985    ,

             L0002986    , L0002987    , L0002988    , L0002989    , L0002990    ,
L0002991    , L0002992    , L0002993    ,

             L0002994    , L0002995    , L0002996    , L0002997    , L0002998    ,
L0002999    , L0003000    , L0003001    ,

             L0003002    , L0003003    , L0003004    , L0003005    , L0003006    ,
L0003007    , L0003008    , L0003009    ,

             L0003010    , L0003011    , L0003012    , L0003013    , L0003014    ,
L0003015    , L0003016    , L0003017    ,

             L0003018    , L0003019    , L0003020    , L0003021    , L0003022    ,
L0003023    , L0003024    , L0003025    ,
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             L0003026    , L0003027    , L0003028    , L0003029    , L0003030    ,
L0003031    , L0003032    , L0003033    ,

             L0003034    , L0003035    , L0003036    , L0003037    , L0003038    ,
L0003039    , L0003040    , L0003041    ,

             L0003042    , L0003043    , L0003044    , L0003045    , L0003046    ,
L0003047    , L0003048    , L0003049    ,

             L0003050    , L0003051    , L0003052    , L0003053    , L0003054    ,
L0003055    , L0003056    , L0003057    ,

             L0003058    , L0003059    , L0003060    , L0003061    , L0003062    ,
L0003063    , L0003064    , L0003065    ,

             L0003066    , L0003067    , L0003068    , L0003069    , L0003070    ,
L0003071    , L0003072    , L0003073    ,

             L0003074    , L0003075    , L0003076    , L0003077    , L0003078    ,
L0003079    , L0003080    , L0003081    ,

             L0003082    , L0003083    , L0003084    , L0003085    , L0003086    ,
L0003087    , L0003088    , L0003089    ,

             L0003090    , L0003091    , L0003092    , L0003093    , L0003094    ,
L0003095    , L0003096    , L0003097    ,

             L0003098    , L0003099    , L0003100    , L0003101    , L0003102    ,
L0003103    , L0003104    , L0003105    ,

             L0003106    , L0003107    , L0003108    , L0003109    , L0003110    ,
L0003111    , L0003112    , L0003113    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc                  ***       11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:38:23

                                   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD LSTs Operational Output

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             L0003114    , L0003115    , L0003116    , L0003117    , L0003118    ,
L0003119    , L0003120    , L0003121    ,

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L0003127    , L0003128    , L0003129    ,

             L0003130    , L0003131    , L0003132    , L0003133    , L0003134    ,
L0003135    , L0003136    , L0003137    ,

             L0003138    , L0003139    , L0003140    , L0003141    , L0003142    ,
L0003143    , L0003144    , L0003145    ,

             L0003146    , L0003147    , L0003148    , L0003149    , L0003150    ,
L0003151    , L0003152    , L0003153    ,

             L0003154    , L0003155    , L0003156    , L0003157    , L0003158    ,
L0003159    , L0003160    , L0003161    ,

             L0003162    , L0003163    , L0003164    , L0003165    , L0003166    ,
L0003167    , L0003168    , L0003169    ,

             L0003170    , L0003171    , L0003172    , L0003173    , L0003174    ,
L0003175    , L0003176    , L0003177    ,

             L0003178    , L0003179    , L0003180    , L0003181    , L0003182    ,
L0003183    , L0003184    , L0003185    ,

             L0003186    , L0003187    , L0003188    , L0003189    , L0003190    ,
L0003191    , L0003192    , L0003193    ,

             L0003194    , L0003195    , L0003196    , L0003197    , L0003198    ,
L0003199    , L0003200    , L0003201    ,

             L0003202    , L0003203    , L0003204    , L0003205    , L0003206    ,
L0003207    , L0003208    , L0003209    ,

             L0003210    , L0003211    , L0003212    , L0003213    , L0003214    ,
L0003215    , L0003216    , L0003217    ,

             L0003218    , L0003219    , L0003220    , L0003221    , L0003222    ,
L0003223    , L0003224    , L0003225    ,

             L0003226    , L0003227    , L0003228    , L0003229    , L0003230    ,
L0003231    , L0003232    , L0003233    ,

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L0003239    , L0003240    , L0003241    ,
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             L0003242    , L0003243    , L0003244    , L0003245    , L0003246    ,
L0003247    , L0003248    , L0003249    ,

             L0003250    , L0003251    , L0003252    , L0003253    , L0003254    ,
L0003255    , L0003256    , L0003257    ,

             L0003258    , L0003259    , L0003260    , L0003261    , L0003262    ,
L0003263    , L0003264    , L0003265    ,

             L0003266    , L0003267    , L0003268    , L0003269    , L0003270    ,
L0003271    , L0003272    , L0003273    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:38:23

                                    PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN



                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


             L0003274    , L0003275    , L0003276    , L0003277    , L0003278    ,
L0003279    , L0003280    , L0003281    ,

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L0003287    , L0003288    , L0003289    ,

             L0003290    , L0003291    , L0003292    , L0003293    , L0003294    ,
L0003295    , L0003296    , L0003297    ,

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L0003303    , L0003304    , L0003305    ,

             L0003306    , L0003307    , L0003308    , L0003309    , L0003310    ,
L0003311    , L0003312    , L0003313    ,

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L0003319    , L0003320    , L0003321    ,

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L0003327    , L0003328    , L0003329    ,
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Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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             L0003330    , L0003331    , L0003332    , L0003333    , L0003334    ,
L0003335    , L0003336    , L0003337    ,

             L0003338    , L0003339    , L0003340    , L0003341    , L0003342    ,
L0003343    , L0003344    , L0003345    ,

             L0003346    , L0003347    , L0003348    , L0003349    , L0003350    ,
L0003351    , L0003352    , L0003353    ,

             L0003354    , L0003355    , L0003356    , L0003357    , L0003358    ,
L0003359    , L0003360    , L0003361    ,

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AREA1       , AREA2       , AREA3       ,

             AREA4       , AREA5       , AREA6       , STCK1       , STCK2       ,
STCK3       , STCK4       , STCK5       ,

             STCK6       , STCK7       , STCK8       , STCK9       , STCK10      ,
STCK11      , STCK12      , STCK13      ,

             L0003367    , L0003368    , L0003369    , L0003370    , L0003371    ,
L0003372    , L0003373    , L0003374    ,

             L0003375    , L0003376    , L0003377    , L0003378    , L0003379    ,
L0003380    , L0003381    , L0003382    ,

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L0003388    , L0003389    , L0003390    ,

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L0003396    , L0003397    , L0003398    ,

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L0003412    , L0003413    , L0003414    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

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                                AERMOD LSTs Operational Output
                                               *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                    SOURCE IDs
 -----------                                                    ----------


            L0003415    , L0003416    , L0003417    , L0003418    , L0003419    ,
L0003420    , L0003421    , L0003422    ,

            L0003423    , L0003424    , L0003425    , L0003426    , L0003427    ,
L0003428    , L0003429    , L0003430    ,

            L0003431    , L0003432    , L0003433    , L0003434    , L0003435    ,
L0003436    , L0003437    , L0003438    ,

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L0003444    , L0003445    , L0003446    ,

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            L0003487    , L0003488    , L0003489    , L0003490    , L0003491    ,
L0003492    , L0003493    , L0003494    ,

            L0003495    , L0003496    , L0003497    , L0003498    , L0003499    ,
L0003500    , L0003501    , L0003502    ,

            L0003503    , L0003504    , L0003505    , L0003506    , L0003507    ,
L0003508    , L0003509    , L0003510    ,

            L0003511    , L0003512    , L0003513    , L0003514    , L0003515    ,
L0003516    , L0003517    , L0003518    ,

            L0003519    , L0003520    , L0003521    , L0003522    , L0003523    ,
L0003524    , L0003525    , L0003526    ,
```

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               L0003527    , L0003528    , L0003529    , L0003530    , L0003531    ,
L0003532    , L0003533    , L0003534    ,

               L0003535    , L0003536    , L0003537    , L0003538    , L0003539    ,
L0003540    , L0003541    , L0003542    ,

               L0003543    , L0003544    , L0003545    , L0003546    , L0003547    ,
L0003548    , L0003549    , L0003550    ,

               L0003551    , L0003552    , L0003553    , L0003554    , L0003555    ,
L0003556    , L0003557    , L0003558    ,

               L0003559    , L0003560    , L0003561    , L0003562    , L0003563    ,
L0003564    , L0003565    , L0003566    ,

               L0003567    , L0003568    , L0003569    , L0003570    , L0003571    ,
L0003572    , L0003573    , L0003574    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:38:23

                                    PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
 -----------                                                      ----------


               L0003575    , L0003576    , L0003577    , L0003578    , L0003579    ,
L0003580    , L0003581    , L0003582    ,

               L0003583    , L0003584    , L0003585    , L0003586    , L0003587    ,
L0003588    , L0003589    , L0003590    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:38:23

                                    PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN
```

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                              AERMOD LSTs Operational Output
                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

   URBAN ID    URBAN POP                                            SOURCE IDs
   --------    ---------                                            ----------


              2100516.    L0002954     , L0002955     , L0002956     , L0002957     ,
L0002958     , L0002959     , L0002960     ,
 L0002961     ,

             L0002962     , L0002963     , L0002964     , L0002965     , L0002966     ,
L0002967     , L0002968     , L0002969     ,

             L0002970     , L0002971     , L0002972     , L0002973     , L0002974     ,
L0002975     , L0002976     , L0002977     ,

             L0002978     , L0002979     , L0002980     , L0002981     , L0002982     ,
L0002983     , L0002984     , L0002985     ,

             L0002986     , L0002987     , L0002988     , L0002989     , L0002990     ,
L0002991     , L0002992     , L0002993     ,

             L0002994     , L0002995     , L0002996     , L0002997     , L0002998     ,
L0002999     , L0003000     , L0003001     ,

             L0003002     , L0003003     , L0003004     , L0003005     , L0003006     ,
L0003007     , L0003008     , L0003009     ,

             L0003010     , L0003011     , L0003012     , L0003013     , L0003014     ,
L0003015     , L0003016     , L0003017     ,

             L0003018     , L0003019     , L0003020     , L0003021     , L0003022     ,
L0003023     , L0003024     , L0003025     ,

             L0003026     , L0003027     , L0003028     , L0003029     , L0003030     ,
L0003031     , L0003032     , L0003033     ,

             L0003034     , L0003035     , L0003036     , L0003037     , L0003038     ,
L0003039     , L0003040     , L0003041     ,

             L0003042     , L0003043     , L0003044     , L0003045     , L0003046     ,
L0003047     , L0003048     , L0003049     ,

             L0003050     , L0003051     , L0003052     , L0003053     , L0003054     ,
L0003055     , L0003056     , L0003057     ,

             L0003058     , L0003059     , L0003060     , L0003061     , L0003062     ,
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                            AERMOD LSTs Operational Output
L0003063    , L0003064    , L0003065    ,

             L0003066    , L0003067    , L0003068    , L0003069    , L0003070    ,
L0003071    , L0003072    , L0003073    ,

             L0003074    , L0003075    , L0003076    , L0003077    , L0003078    ,
L0003079    , L0003080    , L0003081    ,

             L0003082    , L0003083    , L0003084    , L0003085    , L0003086    ,
L0003087    , L0003088    , L0003089    ,

             L0003090    , L0003091    , L0003092    , L0003093    , L0003094    ,
L0003095    , L0003096    , L0003097    ,

             L0003098    , L0003099    , L0003100    , L0003101    , L0003102    ,
L0003103    , L0003104    , L0003105    ,

             L0003106    , L0003107    , L0003108    , L0003109    , L0003110    ,
L0003111    , L0003112    , L0003113    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:38:23

                                    PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                    SOURCE IDs
  --------    ---------                                    ----------


             L0003114    , L0003115    , L0003116    , L0003117    , L0003118    ,
L0003119    , L0003120    , L0003121    ,

             L0003122    , L0003123    , L0003124    , L0003125    , L0003126    ,
L0003127    , L0003128    , L0003129    ,

             L0003130    , L0003131    , L0003132    , L0003133    , L0003134    ,
L0003135    , L0003136    , L0003137    ,

             L0003138    , L0003139    , L0003140    , L0003141    , L0003142    ,
L0003143    , L0003144    , L0003145    ,

             L0003146    , L0003147    , L0003148    , L0003149    , L0003150    ,
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L0003151    , L0003152    , L0003153    ,

             L0003154    , L0003155    , L0003156    , L0003157    , L0003158    ,
L0003159    , L0003160    , L0003161    ,

             L0003162    , L0003163    , L0003164    , L0003165    , L0003166    ,
L0003167    , L0003168    , L0003169    ,

             L0003170    , L0003171    , L0003172    , L0003173    , L0003174    ,
L0003175    , L0003176    , L0003177    ,

             L0003178    , L0003179    , L0003180    , L0003181    , L0003182    ,
L0003183    , L0003184    , L0003185    ,

             L0003186    , L0003187    , L0003188    , L0003189    , L0003190    ,
L0003191    , L0003192    , L0003193    ,

             L0003194    , L0003195    , L0003196    , L0003197    , L0003198    ,
L0003199    , L0003200    , L0003201    ,

             L0003202    , L0003203    , L0003204    , L0003205    , L0003206    ,
L0003207    , L0003208    , L0003209    ,

             L0003210    , L0003211    , L0003212    , L0003213    , L0003214    ,
L0003215    , L0003216    , L0003217    ,

             L0003218    , L0003219    , L0003220    , L0003221    , L0003222    ,
L0003223    , L0003224    , L0003225    ,

             L0003226    , L0003227    , L0003228    , L0003229    , L0003230    ,
L0003231    , L0003232    , L0003233    ,

             L0003234    , L0003235    , L0003236    , L0003237    , L0003238    ,
L0003239    , L0003240    , L0003241    ,

             L0003242    , L0003243    , L0003244    , L0003245    , L0003246    ,
L0003247    , L0003248    , L0003249    ,

             L0003250    , L0003251    , L0003252    , L0003253    , L0003254    ,
L0003255    , L0003256    , L0003257    ,

             L0003258    , L0003259    , L0003260    , L0003261    , L0003262    ,
L0003263    , L0003264    , L0003265    ,

             L0003266    , L0003267    , L0003268    , L0003269    , L0003270    ,
L0003271    , L0003272    , L0003273    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
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                            AERMOD LSTs Operational Output
 *** AERMET - VERSION  14134 ***    ***
                          ***        14:38:23

                                     PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
  --------   ---------                                   ----------


             L0003274    , L0003275    , L0003276    , L0003277    , L0003278    ,
L0003279    , L0003280    , L0003281    ,

             L0003282    , L0003283    , L0003284    , L0003285    , L0003286    ,
L0003287    , L0003288    , L0003289    ,

             L0003290    , L0003291    , L0003292    , L0003293    , L0003294    ,
L0003295    , L0003296    , L0003297    ,

             L0003298    , L0003299    , L0003300    , L0003301    , L0003302    ,
L0003303    , L0003304    , L0003305    ,

             L0003306    , L0003307    , L0003308    , L0003309    , L0003310    ,
L0003311    , L0003312    , L0003313    ,

             L0003314    , L0003315    , L0003316    , L0003317    , L0003318    ,
L0003319    , L0003320    , L0003321    ,

             L0003322    , L0003323    , L0003324    , L0003325    , L0003326    ,
L0003327    , L0003328    , L0003329    ,

             L0003330    , L0003331    , L0003332    , L0003333    , L0003334    ,
L0003335    , L0003336    , L0003337    ,

             L0003338    , L0003339    , L0003340    , L0003341    , L0003342    ,
L0003343    , L0003344    , L0003345    ,

             L0003346    , L0003347    , L0003348    , L0003349    , L0003350    ,
L0003351    , L0003352    , L0003353    ,

             L0003354    , L0003355    , L0003356    , L0003357    , L0003358    ,
L0003359    , L0003360    , L0003361    ,

             L0003362    , L0003363    , L0003364    , L0003365    , L0003366    ,
```

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                           AERMOD LSTs Operational Output
AREA1       , AREA2       , AREA3       ,

             AREA4       , AREA5       , AREA6       , STCK1       , STCK2       ,
STCK3       , STCK4       , STCK5       ,

             STCK6       , STCK7       , STCK8       , STCK9       , STCK10      ,
STCK11      , STCK12      , STCK13      ,

             L0003367    , L0003368    , L0003369    , L0003370    , L0003371    ,
L0003372    , L0003373    , L0003374    ,

             L0003375    , L0003376    , L0003377    , L0003378    , L0003379    ,
L0003380    , L0003381    , L0003382    ,

             L0003383    , L0003384    , L0003385    , L0003386    , L0003387    ,
L0003388    , L0003389    , L0003390    ,

             L0003391    , L0003392    , L0003393    , L0003394    , L0003395    ,
L0003396    , L0003397    , L0003398    ,

             L0003399    , L0003400    , L0003401    , L0003402    , L0003403    ,
L0003404    , L0003405    , L0003406    ,

             L0003407    , L0003408    , L0003409    , L0003410    , L0003411    ,
L0003412    , L0003413    , L0003414    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc                *** 	     11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:38:23

                                   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0003415    , L0003416    , L0003417    , L0003418    , L0003419    ,
L0003420    , L0003421    , L0003422    ,

             L0003423    , L0003424    , L0003425    , L0003426    , L0003427    ,
L0003428    , L0003429    , L0003430    ,

             L0003431    , L0003432    , L0003433    , L0003434    , L0003435    ,
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L0003436    , L0003437    , L0003438    ,

             L0003439    , L0003440    , L0003441    , L0003442    , L0003443    ,
L0003444    , L0003445    , L0003446    ,

             L0003447    , L0003448    , L0003449    , L0003450    , L0003451    ,
L0003452    , L0003453    , L0003454    ,

             L0003455    , L0003456    , L0003457    , L0003458    , L0003459    ,
L0003460    , L0003461    , L0003462    ,

             L0003463    , L0003464    , L0003465    , L0003466    , L0003467    ,
L0003468    , L0003469    , L0003470    ,

             L0003471    , L0003472    , L0003473    , L0003474    , L0003475    ,
L0003476    , L0003477    , L0003478    ,

             L0003479    , L0003480    , L0003481    , L0003482    , L0003483    ,
L0003484    , L0003485    , L0003486    ,

             L0003487    , L0003488    , L0003489    , L0003490    , L0003491    ,
L0003492    , L0003493    , L0003494    ,

             L0003495    , L0003496    , L0003497    , L0003498    , L0003499    ,
L0003500    , L0003501    , L0003502    ,

             L0003503    , L0003504    , L0003505    , L0003506    , L0003507    ,
L0003508    , L0003509    , L0003510    ,

             L0003511    , L0003512    , L0003513    , L0003514    , L0003515    ,
L0003516    , L0003517    , L0003518    ,

             L0003519    , L0003520    , L0003521    , L0003522    , L0003523    ,
L0003524    , L0003525    , L0003526    ,

             L0003527    , L0003528    , L0003529    , L0003530    , L0003531    ,
L0003532    , L0003533    , L0003534    ,

             L0003535    , L0003536    , L0003537    , L0003538    , L0003539    ,
L0003540    , L0003541    , L0003542    ,

             L0003543    , L0003544    , L0003545    , L0003546    , L0003547    ,
L0003548    , L0003549    , L0003550    ,

             L0003551    , L0003552    , L0003553    , L0003554    , L0003555    ,
L0003556    , L0003557    , L0003558    ,

             L0003559    , L0003560    , L0003561    , L0003562    , L0003563    ,
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
L0003564    , L0003565    , L0003566    ,

             L0003567    , L0003568    , L0003569    , L0003570    , L0003571    ,
L0003572    , L0003573    , L0003574    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------


             L0003575    , L0003576    , L0003577    , L0003578    , L0003579    ,
L0003580    , L0003581    , L0003582    ,

             L0003583    , L0003584    , L0003585    , L0003586    , L0003587    ,
L0003588    , L0003589    , L0003590    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 477994.2, 3749818.5,     458.0,     458.0,      2.0);         ( 478348.6,
3749820.7,     458.3,     458.3,      2.0);
     ( 478324.0, 3749446.9,     456.0,     456.0,      2.0);         ( 478321.9,
3749107.7,     454.0,     454.0,      2.0);
     ( 478311.5, 3748947.3,     453.0,     453.0,      2.0);         ( 478314.5,
3748704.1,     452.0,     452.0,      2.0);
     ( 478309.7, 3748401.3,     451.0,     451.0,      2.0);         ( 478302.7,
3748248.4,     450.0,     450.0,      2.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                AERMOD LSTs Operational Output
                             ***          14:38:23

                                          PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                     *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                      (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                          *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                           (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                             ***          14:38:23

                                          PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                            *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
```

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                          AERMOD LSTs Operational Output
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                   Upper air station no.:     3190
                  Name: UNKNOWN                                    Name: UNKNOWN

                  Year:   2007                                     Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
```

```
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                             *** THE   1ST HIGHEST 24-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0002954    , L0002955
 , L0002956    , L0002957    , L0002958    ,
               L0002959    , L0002960    , L0002961    , L0002962    , L0002963
 , L0002964    , L0002965    , L0002966    ,
               L0002967    , L0002968    , L0002969    , L0002970    , L0002971
 , L0002972    , L0002973    , L0002974    ,
               L0002975    , L0002976    , L0002977    , L0002978    , L0002979
 , L0002980    , L0002981    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
```

```
                         AERMOD LSTs Operational Output
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)            X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        477994.17   3749818.50        0.05562  (09020624)              478348.59
 3749820.73        0.05329m (10021924)
        478323.98   3749446.94        0.07486m (10021924)              478321.90
 3749107.70        0.12277m (10021924)
        478311.50   3748947.34        0.18240m (10021924)              478314.46
 3748704.06        0.23336  (08011124)
        478309.66   3748401.33        0.25189  (07110824)              478302.71
 3748248.43        0.19588  (07110824)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

                                                *** THE SUMMARY OF HIGHEST 24-HR
RESULTS ***


                                    ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                **

                                                              DATE
                                            NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.25189  ON 07110824: AT (   478309.66,
3748401.33,   451.00,   451.00,    2.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD
View\MVL\OperationalLSTs\PM25\PM25.isc               ***        11/03/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:38:23
```

```
                           AERMOD LSTs Operational Output

                                  PAGE  35
**MODELOPTs:   RegDFAULT CONC      ELEV      FLGPOL    URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of           0 Fatal Error Message(s)
A Total of           1 Warning Message(s)
A Total of        1895 Informational Message(s)

A Total of       43824 Hours Were Processed

A Total of          90 Calm Hours Identified

A Total of        1805 Missing Hours Identified (  4.12 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W531    1776       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
 SURFDATA

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
```

APPENDIX 3.4

CONSTRUCTION EQUIPMENT MITIGATION

TABLE A: CONSTUCTION EQUIPMENT ENGINE TIER MITIGATION (1 OF 2)

Phase Name	Vehicle Type	Number	CalEEMod Name	Tier
Building 1				
Grading	657 Scraper	8	Scraper	4
	Cat D9L	1	Crawler Tractor	3
	934 Dozer/Compactor	1	Rubber Tired Dozer	0
	631 Water Pull	2	Off-Highway Tractors	1
	4000 gal Water Truck	2	Other Construction Equip.	4
	Cat 14 Blade	1	Grader	4
	210 Skip Loader	1	Rubber Tired Loader	3
	623 Elevating Scraper	3	Other General Industrial Equipment	3
Trenching	Skip Loader	2	Rubber Tired Loader	3
	Cat 460 Backhoe	2	Tractors/Loaders/Backhoes	3
	966 Front End	2	Other Material Handling Equipment	4
	330 Excavator	2	Excavator	3
	Water Truck	2	Other Construction Equip.	4
Concrete Shell	Backhoe	4	Tractors/Loaders/Backhoes	3
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section		
	Lazerscreed	1	Other Construction Equip.	4
	Finishing Machine	1	Other Construction Equip.	4
	Boom Pump	1	Other Construction Equip.	4
	Gradall	2	Other Construction Equip.	4
Steel & Roof	30 Ton Crane	2	Crane	0
	Weld Machine	2	Other Construction Equip.	4
	Gradall	1	Other Construction Equip.	4
Roofing & Overhead Work	Gradall	1	Other Construction Equip.	4
	Forklift	2	Forklifts	2
	Tanker (Tar)	2	Other Construction Equip.	4
	Scissor Lift	3	Aerial Lifts	0
Architectural Coating	Boom Lift	4	Other Construction Equip.	4
Misc. Finishes	Scissor Lift	2	Aerial Lifts	0
	Boom Lift	2	Other Construction Equip.	4
Paving	Lazerscreed	1	Other Construction Equip.	4
	Skip Loader	2	Rubber Tired Loader	3
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section		
	Trenching Machine	1	Trencher	3

Attachment: B1 - Air Quality Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE A: CONSTUCTION EQUIPMENT ENGINE TIER MITIGATION (2 OF 2)

Phase Name	Vehicle Type	Number	CalEEMod Name	Tier
Buildings 2,3,4 (each)				
Grading	657 Scraper	3	Scraper	4
	Cat D9L	1	Crawler Tractor	3
	934 Dozer/Compactor	0	Rubber Tired Dozer	0
	631 Water Pull	0	Off-Highway Tractors	1
	4000 gal Water Truck	1	Other Construction Equip.	4
	Cat 14 Blade	1	Grader	4
	210 Skip Loader	1	Rubber Tired Loader	3
	623 Elevating Scraper	1	Other General Industrial Equipment	3
Trenching	Skip Loader	1	Rubber Tired Loader	3
	Cat 460 Backhoe	1	Tractors/Loaders/Backhoes	3
	966 Front End	1	Other Material Handling Equipment	4
	330 Excavator	1	Excavator	3
	Water Truck	1	Other Construction Equip.	4
Concrete Shell	Backhoe	2	Tractors/Loaders/Backhoes	3
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section		
	Lazerscreed	1	Other Construction Equip.	4
	Finishing Machine	1	Other Construction Equip.	4
	Boom Pump	1	Other Construction Equip.	4
	Gradall	1	Other Construction Equip.	4
Steel & Roof	30 Ton Crane	1	Crane	0
	Weld Machine	1	Other Construction Equip.	4
	Gradall	1	Other Construction Equip.	4
Roofing & Overhead Work	Gradall	1	Other Construction Equip.	4
	Forklift	1	Forklifts	2
	Tanker (Tar)	1	Other Construction Equip.	4
	Scissor Lift	1	Aerial Lifts	0
Architectural Coating	Boom Lift	1	Other Construction Equip.	4
Misc. Finishes	Scissor Lift	1	Aerial Lifts	0
	Boom Lift	1	Other Construction Equip.	4
Paving	Lazerscreed	1	Other Construction Equip.	4
	Skip Loader	1	Rubber Tired Loader	3
	Readymix Truck	Accounted for in CalEEMod Inputs-Trips and VMTs section		
	Trenching Machine	1	Trencher	3

Moreno Valley Logistics Center

MOBILE SOURCE DIESEL HEALTH RISK ASSESSMENT

CITY OF MORENO VALLEY

PREPARED BY:

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JUNE 3, 2016

09302-08 HRA Report

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LIST OF ABBREVIATED TERMS

(1)	Reference
µg	Microgram
AERMOD	Atmospheric Dispersion Modeling System
APS	Auxiliary Power System
AQMD	Air Quality Management District
ARB	Air Resources Board
CEQA	California Environmental Quality Act
CPF	Cancer Potency Factor
DPM	Diesel Particulate Matter
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
HHD	Heavy Heavy-Duty
HI	Hazard Index
HRA	Health Risk Assessment
LHD	Light Heavy-Duty
MATES	Multiple Air Toxics Exposure Study
MEIR	Maximally Exposed Individual Receptor
MEISC	Maximally Exposed Individual School Child
MEIW	Maximally Exposed Individual Worker
MHD	Medium Heavy-Duty
NAD	North American Datum
OEHHA	Office of Environmental Health Hazard
PCE	Passenger Car Equivalent
PM10	Particulate Matter 10 microns in diameter or less
Project	Moreno Valley Logistics
REL	Reference Exposure Level
RM	Recommended Measures
SCAQMD	South Coast Air Quality Management District
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
URF	Unit Risk Factor
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

EXECUTIVE SUMMARY

This report evaluated the potential mobile source health risk impacts to sensitive receptors (residents and schools) and adjacent workers associated with the development of the proposed Project, more specifically, health risk impacts as a result of exposure to diesel particulate matter (DPM) as a result of heavy-duty diesel trucks accessing the site. This section summarizes the findings of this report.

SUMMARY OF CANCER RISK BASED ON 2003 OEHHA GUIDELINES

The results of the health risk assessment of lifetime cancer risk from Project-generated DPM emissions are provided in Table ES-1 and Table ES-2 below for the Project for the "Without and With Indian Street Bridge" scenarios based on the 2003 OEHHA Guidelines.

WITHOUT INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 6.06 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0004, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent residences.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the north of Building 2. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.24 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0008, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1-mile north of the Project site at24100 Delphinium Avenue in Moreno Valley. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.26 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project's primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children.

Cumulative Exposure:

The results of the analysis also indicate that the project will not result in a cumulatively considerable impact. Section 2.7 contains a detailed cumulative analysis for the Project.

WITH INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 5.97 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0004, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent residences.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located south of the Project site at the O-Reilly Auto Parts Warehouse located at 24520 San Michele Road in Moreno Valley. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.26 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0007, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1 mile north of the Project site at24100 Delphinium Avenue in Moreno Valley. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.19 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project's primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children.

Cumulative Exposure:

The results of the analysis also indicate that the project will not result in a significant cumulative health risk. Section 2.7 contains a detailed cumulative analysis for the Project.

TABLE ES-1: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT – WITHOUT INDIAN STREET BRIDGE (2003 OEHHA GUIDELINES)

Time Period	**Location**	**Maximum Lifetime Cancer Risk (Risk per Million)**	**Significance Threshold (Risk per Million)**	**Exceeds Significance Threshold**
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	6.06	10	NO
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.24	10	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.26	10	NO
Time Period	Location	Maximum Hazard Index	Significance Threshold	Exceeds Significance Threshold
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	0.004	1.0	NO
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.0008	1.0	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.001	1.0	NO

TABLE ES-2: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT – WITH INDIAN STREET BRIDGE (2003 OEHHA GUIDELINES)

Time Period	**Location**	**Maximum Lifetime Cancer Risk (Risk per Million)**	**Significance Threshold (Risk per Million)**	**Exceeds Significance Threshold**
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	6.05	10	NO
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.26	10	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.19	10	NO
Time Period	Location	Maximum Hazard Index	Significance Threshold	Exceeds Significance Threshold
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	0.004	1.0	NO
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.0008	1.0	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.001	1.0	NO

SUMMARY OF CANCER RISK BASED ON 2015 OEHHA GUIDELINES

The results of the health risk assessment of lifetime cancer risk from Project-generated DPM emissions are provided in Table ES-3 and Table ES-4 below for the Project for the "Without and With Indian Street Bridge" scenarios based on the 2015 OEHHA Guidelines.

WITHOUT INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the MEIR, the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 9.50 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.005, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent school children.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the north of Building 2. At the MEIW, the maximum incremental cancer risk impact at this location is 0.31 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0009 which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1-mile north of the Project site at 24100 Delphinium Avenue in Moreno Valley. At the MEISC, the maximum incremental cancer risk impact at this location is 0.60 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project's primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children.

Cumulative Exposure:

The results of the analysis also indicate that the project will not result in a cumulatively considerable impact. Section 2.9 contains a detailed cumulative analysis for the Project.

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

WITH INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the MEIR, the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 9.45 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.005, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent school children.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located south of the Project site at the O-Reilly Auto Parts Warehouse located at 24520 San Michele Road in Moreno Valley. At the MEIW, the maximum incremental cancer risk impact at this location is 0.35 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0009, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1-mile north of the Project site at24100 Delphinium Avenue in Moreno Valley. At the MEISC, the maximum incremental cancer risk impact at this location is 0.43 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project’s primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children.

Cumulative Exposure:

The results of the analysis also indicate that the project will not result in a significant cumulative health risk. Section 2.7 contains a detailed cumulative analysis for the Project.

TABLE ES-3: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT – WITHOUT INDIAN STREET BRIDGE (2015 OEHHA GUIDELINES)

Time Period	**Location**	**Maximum Lifetime Cancer Risk (Risk per Million)**	**Significance Threshold (Risk per Million)**	**Exceeds Significance Threshold**
30 Year Exposure (2017 to 2046)	Maximum Exposed Sensitive Receptor	9.5	10	NO
25 Year Exposure (2017 to 2041)	Maximum Exposed Worker Receptor	0.31	10	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.60	10	NO
Time Period	Location	Maximum Hazard Index	Significance Threshold	Exceeds Significance Threshold
30 Year Exposure (2017 to 2046)	Maximum Exposed Sensitive Receptor	0.005	1.0	NO
25 Year Exposure (2017 to 2041)	Maximum Exposed Worker Receptor	0.0009	1.0	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.001	1.0	NO

TABLE ES-4: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT – WITH INDIAN STREET BRIDGE (2015 OEHHA GUIDELINES)

Time Period	**Location**	**Maximum Lifetime Cancer Risk (Risk per Million)**	**Significance Threshold (Risk per Million)**	**Exceeds Significance Threshold**
30 Year Exposure (2017 to 2046)	Maximum Exposed Sensitive Receptor	9.45	10	NO
25 Year Exposure (2017 to 2041)	Maximum Exposed Worker Receptor	0.35	10	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.43	10	NO
Time Period	Location	Maximum Hazard Index	Significance Threshold	Exceeds Significance Threshold
30 Year Exposure (2017 to 2046)	Maximum Exposed Sensitive Receptor	0.005	1.0	NO
25 Year Exposure (2017 to 2041)	Maximum Exposed Worker Receptor	0.0009	1.0	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.001	1.0	NO

1 INTRODUCTION

The purpose of this Health Risk Assessment (HRA) is to evaluate Project-related impacts to sensitive receptors (residential, schools) and adjacent workers as a result of heavy-duty diesel trucks accessing the site.

The South Coast Air Quality Management District (SCAQMD) typically issues a comment letter on the Notice of Preparation of a CEQA Document. Per the SCAQMD's typical comment letter, if a proposed Project is expected to generate/attract diesel trucks, which emit diesel particulate matter (DPM), preparation of a HRA is necessary. This document serves to meet the SCAQMD's request for preparation of an HRA. The mobile source HRA has been prepared in accordance with the document Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (1). Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact. The 10 in one million standard is a very health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics. To put this risk in perspective, sample causes of death in the United States as well as the estimated risk of developing cancer from the Project or in the South Coast Air Basin are shown on Table 1-1. As an example, the risk of dying from accidental drowning is 1,000 in a million which is 100 times more than the SCAQMD's threshold of 10 in one million, the nearest comparison to 10 in one million is the 7 in one million lifetime chance that an individual would be struck by lightning.

The AQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (2). In this report the AQMD clearly states (Page D-3):

"...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance

TABLE 1-1: LIFETIME RISK COMPARISON

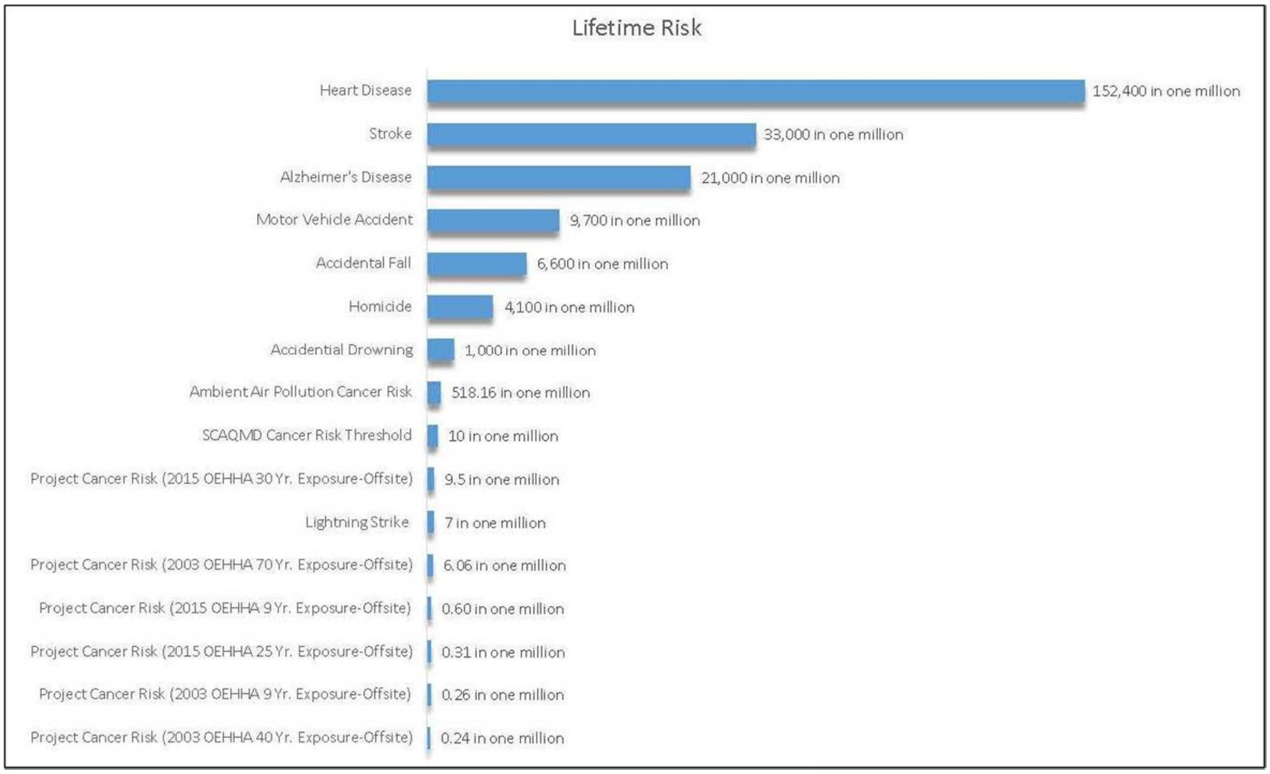

thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively *significant."*

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less of than one (1.0) means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less-than-significant.

1.1 SITE LOCATION

The proposed Moreno Valley Logistics site is located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. The Project site is currently vacant. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are designated by the Moreno Valley Industrial Area Plan (MVIAP) for future industrial development; to the west by March Air Reserve Base, and to the east by a single-family residential neighborhood. The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the

Project site are located east of the Perris Valley Storm Drain Channel. (3) The Interstate 215 (I-215) Freeway is located approximately 1.3 miles west of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1). Building 2, located on the southwest corner of Cosmos Street and Krameria Avenue, is proposed to consist of 122,516 sf of general light industrial use; Building 3, located at the eastern terminus of Cardinal Avenue, is proposed to consist of 97,222 sf of general light industrial use; and Building 4, located on the east of Heacock Street and south of Krameria Avenue (North), is proposed to consist of 166,010 sf of general light industrial use, as shown on Exhibit 1-B[1]. For analytical purposes, a maximum of 10% cold storage is proposed by the applicant and therefore that amount of cold storage is analyzed. A condition of approval limiting the Project to 10% may be imposed to enforce this limitation. The Project is anticipated to be constructed and occupied by Year 2017.

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event the alternate site plan is implemented, the truck trailer parking lot will be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4. The HRA herein evaluates the worst-case scenario and assumes that Building 2 would be built and would generate truck traffic. If the Project were to proceed with the alternative site plan, DPM emissions and consequently health risk impacts would be reduced accordingly.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

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[1] This report analyzes a slightly higher general light industrial square footage (385,748 square feet compared to 384,417 square feet) than what was analyzed in the EIR. As such, the report represents a more conservative estimate of emissions.

EXHIBIT 1-A: LOCATION MAP

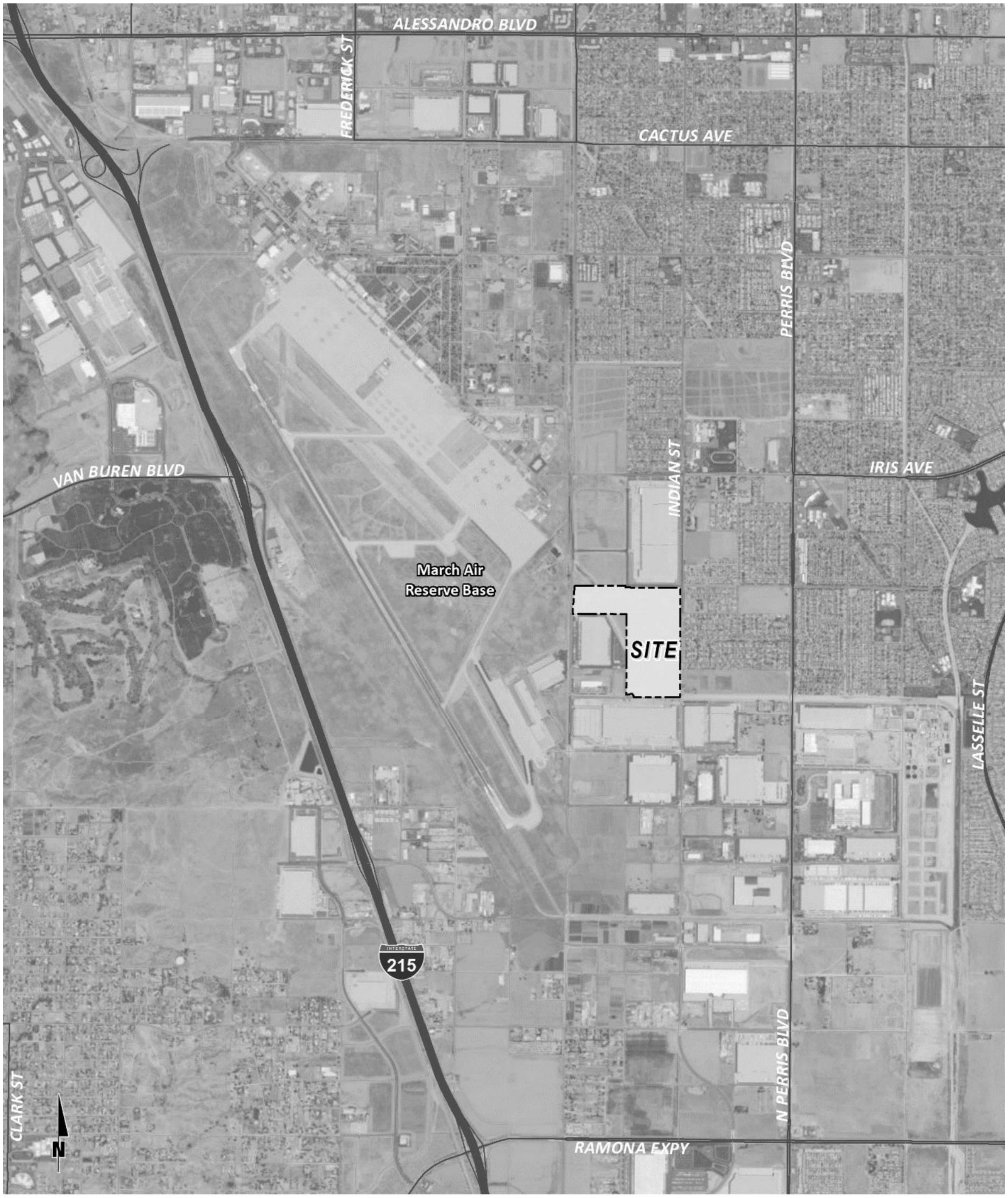

EXHIBIT 1-B: SITE PLAN

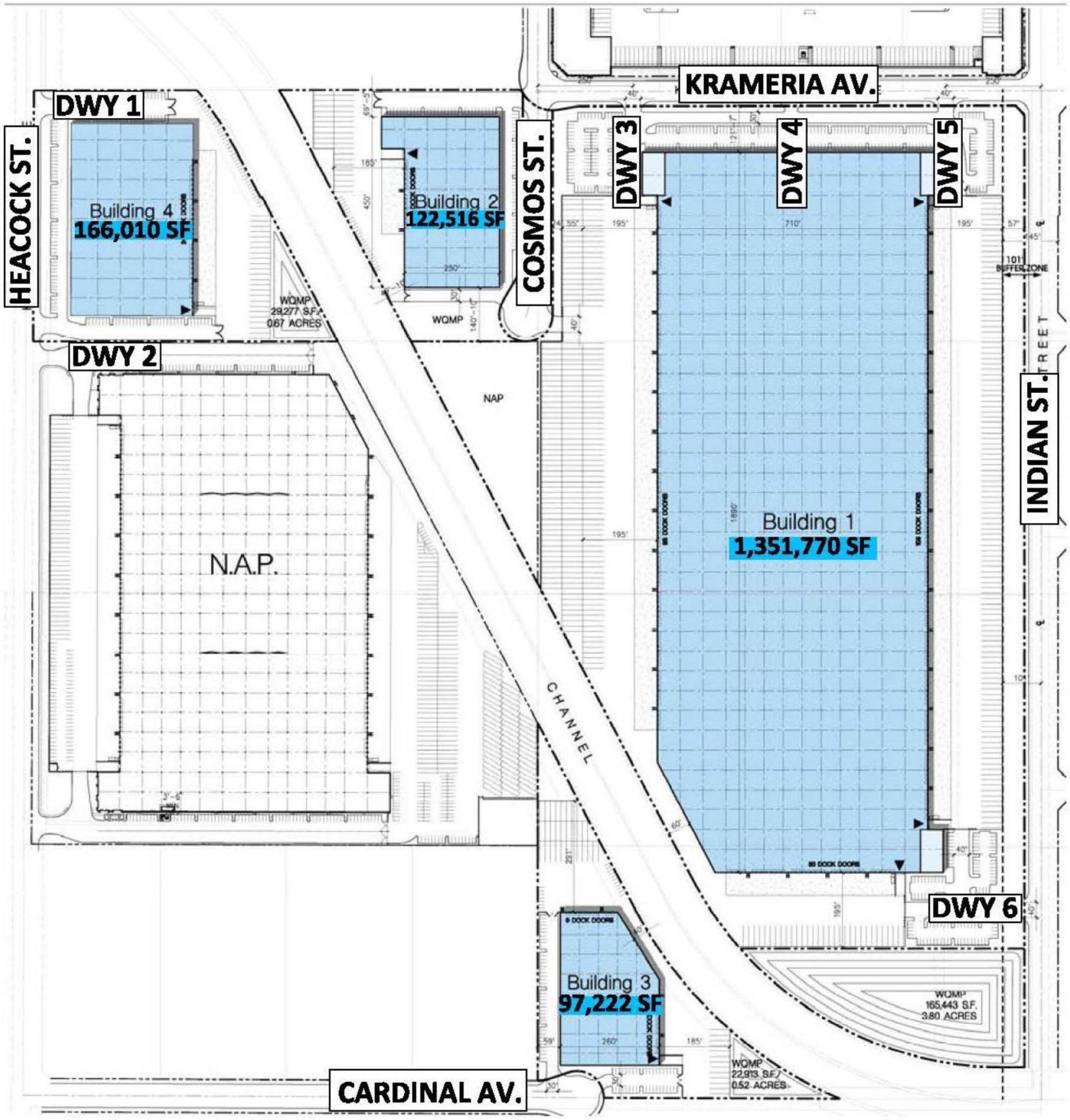

2 BACKGROUND

2.1 EXISTING CONDITIONS TOXIC AIR CONTAMINANTS

TOXIC AIR CONTAMINANTS (TACS) TRENDS

In 1984, as a result of public concern for exposure to airborne carcinogens, the CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products.

According to the Ambient and Emission Trends of Toxic Air Contaminants in California journal article which was prepared for CARB, results show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for most of the known cancer risk associated with airborne exposure in California have declined significantly (4). The seven TACs studied shown below include those that are derived from mobile sources: diesel particulate matter (DPM), benzene, and 1,3-butadiene; those that are derived from stationary sources: perchloroethylene and hexavalent chromium; and those derived from photochemical reactions of emitted VOCs: formaldehyde and acetaldehyde[2]. TACs data was gathered at monitoring sites from both the Bay Area and South Coast Air Basins, as shown on Exhibit 2-A; Several of the sites in the SCAB include Reseda, Compton, Rubidoux, Burbank, and Fontana. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risk.

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[2] It should be noted that ambient DPM concentrations are not measured directly. Rather, a surrogate method using the coefficient of haze (COH) and elemental carbon (EC) is used to estimate DPM concentrations.

EXHIBIT 2-A: CALIFORNIA TOXIC AIR CONTAMINANT SITES

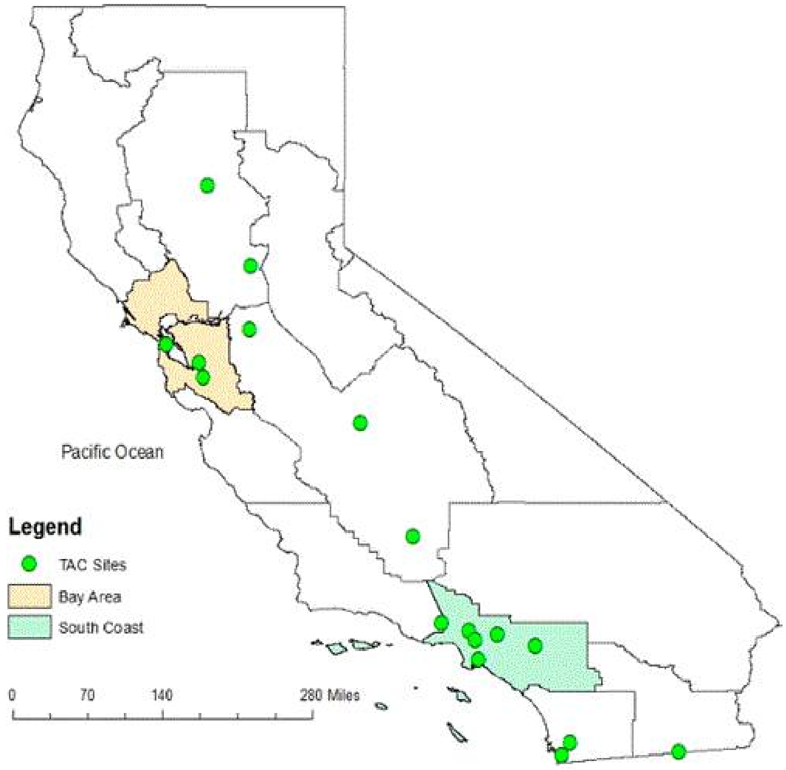

Source: California Air Resources Board

Mobile Source TACs

The CARB introduced two programs that aimed at reducing mobile emissions for light and medium duty vehicles through vehicle emissions controls and cleaner fuel. Since 1996, light-duty vehicles sold in California are equipped with California's second-generation On-Board Diagnostic (OBD-II) system as a result of about half of total car emissions stemming from emissions control device malfunctions. CARB's phase II Reformulated Gasoline (RFG-2) regulation, adopted in 1996, also led to a reduction of mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012. 1,3-Butadiene concentrations also declined 85% from 1990-2012 as a result of the motor vehicle regulations (4).

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68%, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on Exhibit 2-B. With the implementation of these diesel-related control regulations, ARB expects a DPM decline of 71% for 2000-2020.

EXHIBIT 2-B: DIESEL PARTICULATE MATTER AND DIESEL VEHICLE MILES TREND

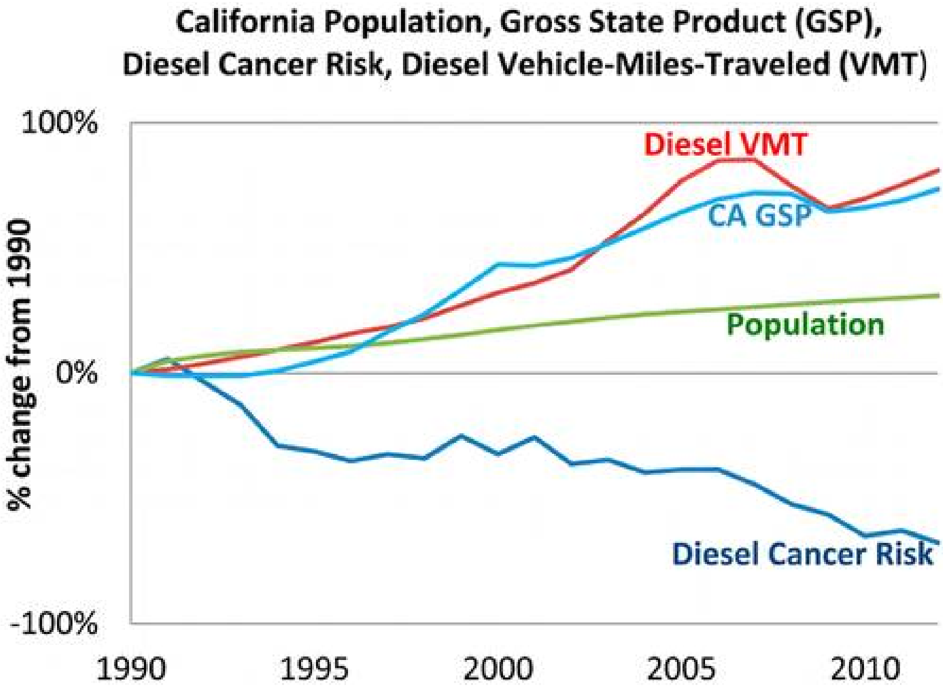

Source: California Air Resources Board

Stationary Source TACs

Various regulations led to a decrease in perchloroethylene and hexavalent chromium, with a 92% and 86% decline, respectively. By 1993, several local air districts required dry cleaning businesses to use a carbon absorber and refrigerated condenser, as well as, dry-to-dry machines and closed-looped machines instead of vented transfer machines. Starting in 2003, California provided financial incentives for dry cleaners to use other solvents and soon after, the CARB banned the use of perchloroethylene in automotive products, aerosol coatings, and most consumer products. In 2007, CARB's dry cleaning regulation was amended to require phase-out of perchloroethylene machines by 2023, which would further reduce emissions to minimal levels (4).

Hexavalent chromium emissions began to decline in 1988 with the ARB-regulated regulations contributing to more than 97% emission reduction within four years. The various regulations include prohibiting the use of hexavalent chromium in cooling towers (1989), in motor vehicle and mobile equipment coatings (2001), and in thermal spraying operations (2005). By 2005, hexavalent chromium emissions were 99.97% less than in 1987, far exceeding expectations. In 2006, hexavalent chromium emissions were further reduced with the 2006 ARB regulation requiring add-on air pollution control devices and chemical fume suppressants.

Secondary TACs

Between 1996-2012, ambient concentrations of formaldehyde and acetaldehyde declined 22% and 21%, respectively. The decline in these TACs are attributed from increasingly stringent motor vehicle exhaust emission standards, vehicle fleet turnover, fuel reformulation, and the switch from MTBE (formaldehyde precursor) to ethanol in gasoline (4).

As previously discussed, ambient and emissions levels of TACs have reduced significantly from 1990-2012. The overall declining trend in TACs is expected to continue in California from implementation of toxic air controls.

DIESEL REGULATIONS

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). More specifically, the CARB Drayage Truck Regulation (5), the CARB statewide On-road Truck and Bus Regulation (6), and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP) require accelerated implementation of "clean trucks" into the statewide truck fleet (7). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements.

Moreover, the average statewide DPM emissions for Heavy Duty Trucks (HHDT), in terms of grams of DPM generated per mile traveled, will dramatically be reduced due to the aforementioned regulatory requirements.

Diesel emissions identified in this analysis would therefore overstate future DPM emissions since not all the regulatory requirements are reflected in the modeling.

CANCER RISK TRENDS

Based on information available from CARB, overall cancer risk throughout the basin has had a declining trend since 1990. In 1998, following an exhaustive 10-year scientific assessment process, the State of California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines as a toxic air contaminant. The SCAQMD initiated a comprehensive urban toxic air pollution study, called MATES-II (for Multiple Air Toxics Exposure Study). MATES-II showed that average cancer risk in the SCAB ranges from 1,100 in a million to 1,750 in a million, with an average regional risk of about 1,400 in a million. Moreover, diesel particulate matter (DPM) accounts for more than 70 percent of the cancer risk.

In 2008 the SCAQMD prepared an update to the MATES-II study, referred to as MATES-III. MATES-III estimates the average excess cancer risk level from exposure to TACs is approximately 1,200 in one million basin-wide (a decrease in a regional risk by 200 in a million in comparison to the MATES-II study).

Nonetheless, the SCAQMD's most recent in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California was from the Multiple Air Toxics

Exposure Study in the South Coast *Air Basin, MATES IV,"* which shows that cancer risk has decreased more than 50% between MATES III (2005) and MATES IV (2012) (8).

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV estimates the average excess cancer risk level from exposure to TACs is less than 400 in one million basin-wide. These model estimates were based on monitoring data collected at ten fixed sites within the South Coast Air Basin. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 518.16 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. Cumulative Project generated TACs are limited to DPM.

2.2 EMISSIONS ESTIMATION

2.2.1 ON-SITE AND OFF-SITE TRUCK ACTIVITY

Vehicle DPM emissions were estimated using emission factors for particulate matter less than 10µm in diameter (PM_{10}) generated with the 2014 version of the Emission FACtor model (EMFAC) developed by the ARB. EMFAC 2014 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (9). The most recent version of this model, EMFAC 2014, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Further, the EMFAC 2014 user's guide states: "EMFAC2014 is the latest emissions inventory model that calculates emissions inventories for motor vehicles operating on roads in California. EMFAC2014 represents the next step forward in the ongoing improvement process for EMFAC, and reflects the ARB's current understanding of how vehicles travel and how much they pollute. The EMFAC2014 model is needed to support the Air Resources Board's regulatory and air quality planning efforts and to meet the Federal Highway Administration's transportation planning requirements."

Several distinct emission processes are included in EMFAC 2014. Emission factors calculated using EMFAC 2014 are expressed in units of grams per vehicle miles traveled (g/VMT) or grams per idle-hour (g/idle-hr), depending on the emission process. The emission processes and corresponding emission factor units associated with diesel particulate exhaust for this Project are presented in the proceeding discussion below.

As previously discussed, the alternate site plan omits Building 2 with the addition of truck trailer parking in its place, thus decreasing total building area and operational capacity. Should the alternate site plan be implemented, vehicle DPM emissions would not exceed the level of DPM emissions analyzed within the current Project scenario. As such, the current Project represents a "worst-case" analysis scenario. For this Project, annual average PM_{10} emission factors were generated by running EMFAC 2014 in EMFAC Mode for vehicles within the City of Moreno

Valley. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below. These are average speeds and represent conservative assumptions because lower speeds result in higher emission rates.

- Idling – on-site loading/unloading and truck gate
- 5 miles per hour – on-site vehicle movement including driving and maneuvering
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

The average PM10 emission factors for each type of vehicle were calculated based on the annual average emission factors from different model years for various exposure periods associated with assumptions for evaluating exposure to different receptor populations (e.g., sensitive, offsite worker and resident, respectively):

Exposure parameters based on 2003 OEHHA Guidelines

1) 70-year exposure: 2017 through 2086 (Residential Exposure Scenario)
2) 40-year exposure: 2017 through 2056 (Worker Exposure Scenario)
3) 9-yr exposure: 2017 through 2025 (School Child Exposure Scenario)

Exposure parameters based on 2015 OEHHA Guidelines

1) 30-year exposure: 2017 through 2046 (Residential Exposure Scenario)
2) 25-year exposure: 2017 through 2041 (Worker Exposure Scenario)
3) 9-yr exposure: 2017 through 2025 (School Child Exposure Scenario)

Calculated emission factors for each of these scenarios are shown in Tables 2-1 and 2-2. The emission factors for model years beyond 2050 were assumed to be the same as emission factors in 2050 due to the fact that EMFAC 2014 only contains emission factors for the model year from 2000 through 2050. This is a highly conservative assumption as it assumes no fleet turnover or cleaner technology with lower emissions could be incorporated after 2050.

The vehicle DPM exhaust emissions were calculated for running exhaust emissions. The running exhaust emissions were calculated by applying the running exhaust PM10 emission factor (g/VMT) from EMFAC over the total distance traveled. The following equation was used to estimate off-site emissions for each of the different vehicle classes comprising the mobile sources (9):

$\text{Emissions}_{\text{speedA}}$ (g/s) = $\text{EF}_{\text{RunExhaust}}$ (g/VMT) * Distance (VMT/trip) * Number of Trips (trips/day) / seconds per day

Where:

$\text{Emissions}_{\text{speedA}}$ (g/s): Vehicle emissions at a given speed A;

TABLE 2-1: WEIGHTED AVERAGE DPM EMISSIONS FACTORS (2003 OEHHA GUIDELINES)

2017-2086 – 70 Year Residential Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.12960 (g/idle-hr)
5	0.01903 (g/s)
25	0.00966 (g/s)
2017-2056 – 40 Year Worker Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.15335 (g/idle-hr)
5	0.02546 (g/s)
25	0.01210 (g/s)
2017-2025 – 9 Year School Child Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.24709 (g/idle-hr)
5	0.06349 (g/s)
25	0.02715 (g/s)

TABLE 2-2: WEIGHTED AVERAGE DPM EMISSIONS FACTORS (2015 OEHHA GUIDELINES)

2017-2046 – 30 Year Residential Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.17152 (g/idle-hr)
5	0.03043 (g/s)
25	0.01399 (g/s)
2017-2041 – 25 Year Worker Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.18416 (g/idle-hr)
5	0.03419 (g/s)
25	0.01543 (g/s)
2017-2025 – 9 Year School Child Exposure Scenario	
Speed	Weighted Average
0 (idling)	0.24709 (g/idle-hr)
5	0.06349 (g/s)
25	0.02715 (g/s)

$EF_{RunExhaust}$ (g/VMT): EMFAC running exhaust PM_{10} emission factor at speed A;

Distance (VMT/trip): Total distance traveled per trip.

Similar to off-site traffic, on-site vehicle running emissions were calculated by applying the running exhaust PM_{10} emission factor (g/VMT) from EMFAC and the total vehicle trip number over the length of the driving path using the same formula presented above for on-site emissions. In addition, on-site vehicle idling exhaust emissions were calculated by applying the idle exhaust PM_{10} emission factor (g/idle-hr) from EMFAC and the total truck trip over the total idle time (15 minutes). The following equation was used to estimate the on-site vehicle idling emissions for each of the different vehicle classes (9):

$Emissions_{idle}$ (g/s) = EF_{idle} (g/hr) * Number of Trips (trips/day) * Idling Time (min/trip) *

60 minutes per hour / seconds per day

Where:

$Emissions_{idle}$ (g/s): Vehicle emissions during idling;

EF_{idle} (g/s): EMFAC idle exhaust PM_{10} emission factor.

Each roadway was modeled as a line source (made up of multiple adjacent volume sources). Due to the large number of volume sources modeled for this analysis, the corresponding coordinates of each volume source have not been included in this report, but are included in Appendix 5.1. The DPM emission rate for each volume source was calculated by multiplying the emission factor (based on the average travel speed along the roadway) by the number of trips and the distance traveled along each roadway segment and dividing the result by the number of volume sources along that roadway, as illustrated in Appendix 5.3. The modeled emission sources are illustrated on Exhibit 2-C and 2-D. The modeled truck travel routes included in the HRA are based on the truck trip distributions (inbound and outbound) available from the Project's Traffic Impact Analysis (TIA) (10).

EXHIBIT 2-C: MODELED EMISSION SOURCES – WITHOUT INDIAN STREET BRIDGE

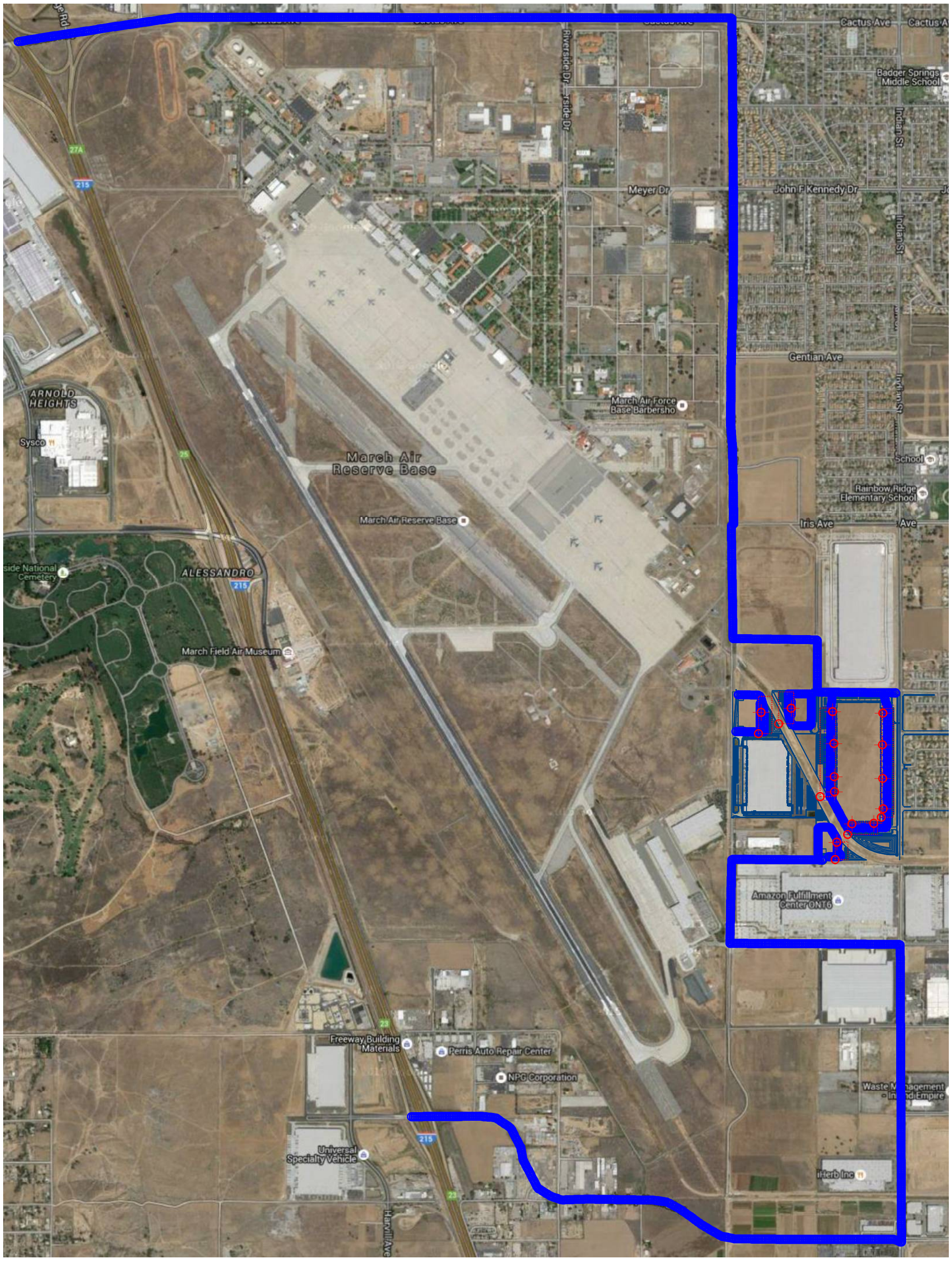

EXHIBIT 2-D: MODELED EMISSION SOURCES – WITH INDIAN STREET BRIDGE

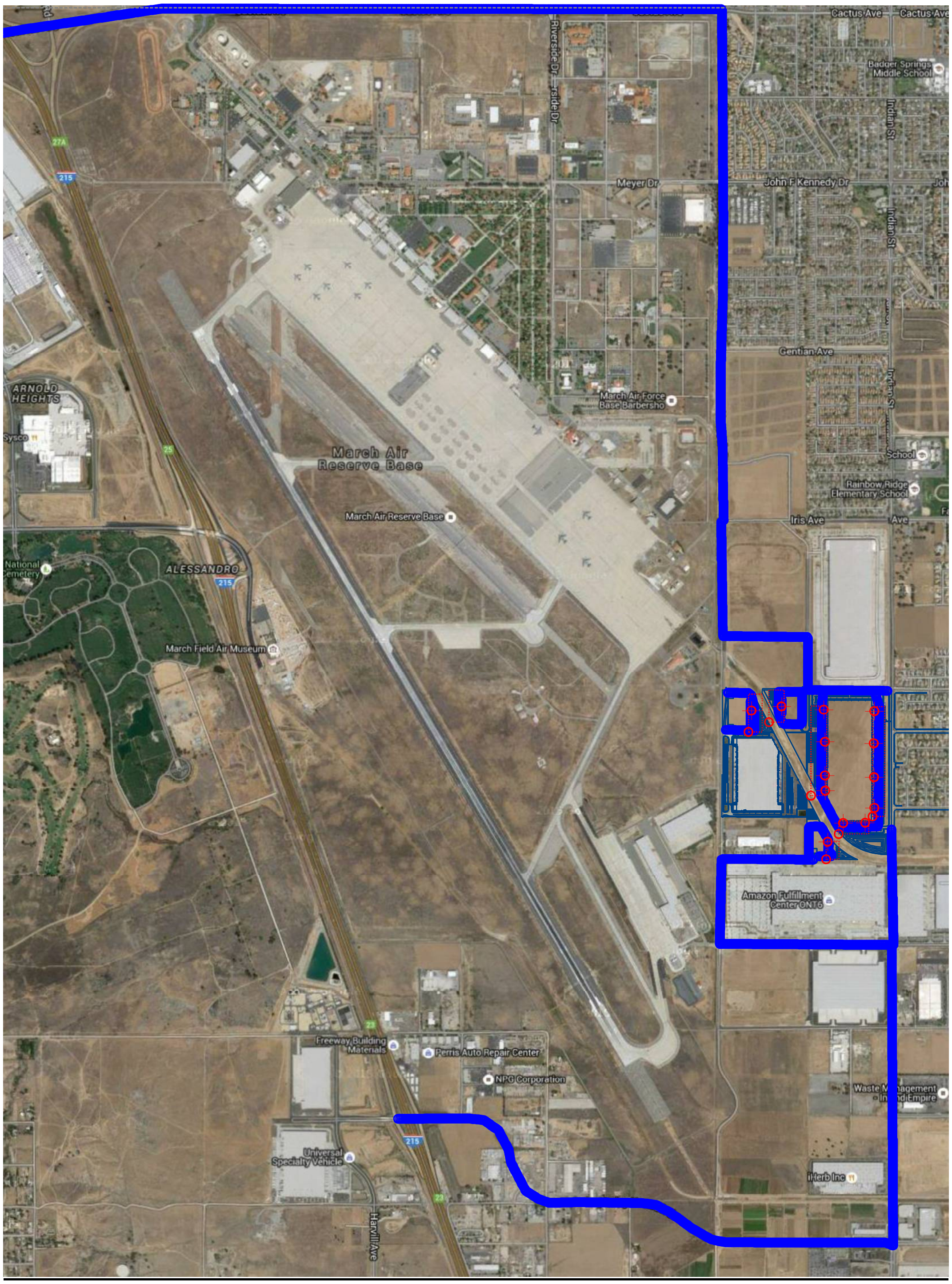

On-site truck idling was estimated to occur as trucks enter and travel through the facility. Although the Project is required to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (11), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc. As such, this analysis estimated truck idling at 15 minutes, consistent with SCAQMD's recommendation.

Trip characteristics available from the report, Moreno Valley Logistics Center Traffic Impact Analysis (Urban Crossroads) 2015 were utilized in this analysis (12). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study intersections. Notwithstanding, for purposes of this air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- Because of the anticipated and planned uses of the project site, ITE land use code 110 (General Light Industrial) has been used to derive site specific trip generation estimates for Buildings 2 through 4. The ITE Trip Generation manual includes very limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix has been obtained from a separate report; the City of Fontana Truck Trip Generation Study (August 2003) for the general light industrial uses proposed as part of the Project. Buildings 2 through 4 have been identified as light industrial. The "Light Industrial" vehicle mix data has been utilized for all 3 buildings. As identified in the Project's TIA, 78.6% of the fleet mix consists of passenger cars and 21.4% of the fleet mix consists of trucks. The following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the light industrial land uses: 37.40% of the total trucks as 2-axle trucks, 18.23% of the total trucks as 3-axle trucks, and 44.37% of the total trucks as 4+-axle trucks.
- Because of the anticipated and planned uses of the project site, ITE land use code 152 (High-Cube Warehousing) has been used to derive site specific trip generation estimates for Building 1. Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type (13). The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies being prepared for the Project and to comply with SCAQMD guidance and directives. The percentage of trucks has been determined from the table shown on page 267 of the ITE Trip Generation manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. As identified in the Project's TIA, 61.9% of the fleet mix consists of passenger cars and 31.8% of the fleet mix consists of trucks. Trip generation for

heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, was obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the high-cube warehouse land uses: 22.0% of the total trucks as 2-axle trucks, 17.7% of the total trucks as 3-axle trucks, and 60.3% of the total trucks as 4+-axle trucks.

The model offers additional flexibility by allowing the user to assign an initial release height and vertical dispersion parameters for mobile sources representative of a roadway. For this HRA, the roadways were modeled as adjacent volume sources. According to the AERMOD user's guide, the initial horizontal standard deviation (σy) of individual volume sources should be estimated as the distance between adjacent volume sources divided by 2.15. In a similar manner, the AERMOD user guide specifies that the source initial vertical standard deviation (σz) for a surface-based source should be estimated as the height of the source divided by a factor of 2.15 (14). The release height of 4 meters was assumed for the diesel trucks, consistent with the methodology used in the Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach prepared by CARB in April 2006, and the vertical (sigma z) dispersion parameter of 1.86 meters was utilized in the AERMOD model (15).

2.2.2 TRANSPORT REFRIGERATION UNITS (TRUS)

Based on the Project's self-imposed design feature allowing a maximum of 10% cold storage use, it has been assumed that 10% of all trucks accessing the Project will also have transport refrigeration units (TRUs). Therefore, for modeling purposes 72 of the 721 total one-way daily truck trips associated with the Project are assumed to be trucks with TRUs. In addition to on-site truck idling, the analysis assumes that each TRU accessing the site will also idle for 15 minutes, even though TRUs would be required to plug in at loading docks. This means that idling emissions have been greatly overstated in this analysis. Based on CARBs Staff Report: Initial Statement of Reasons for Proposed Rulemaking 2011 Amendments for TRUs (August 2011), an average TRU with 34 horsepower and 0.53 load factor was utilized[3].

TRU emission rates were calculated based on the CARB Off-Road Airborne Toxic Control Measure rule compliance schedule requirements as set forth in Section 2477 Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and Facilities where TRUs Operate[4]. Pursuant to the rule, all TRU engines ≥ 25 horsepower currently in operation are required to meet a minimum standard of 0.22 g/bhp-hr for PM and by 2020, all in-use TRU engines are required to meet a minimum standard of 0.02 g/bhp-hr. For analytical purposes, TRU emission rates were weighted based on:

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[3] http://www.arb.ca.gov/regact/2011/tru2011/truisor.pdf

[4] http://www.arb.ca.gov/diesel/tru/documents/fro_10-16-12.pdf

Exposure parameters based on 2003 OEHHA Guidelines

1) 70-year exposure: 2017 through 2086 (Residential Exposure Scenario)
2) 40-year exposure: 2017 through 2056 (Worker Exposure Scenario)
3) 9-yr exposure: 2017 through 2025 (School Child Exposure Scenario)

Exposure parameters based on 2015 OEHHA Guidelines

1) 30-year exposure: 2017 through 2046 (Residential Exposure Scenario)
2) 25-year exposure: 2017 through 2041 (Worker Exposure Scenario)
3) 9-yr exposure: 2016 through 2024 (School Child Exposure Scenario)

TRUs were modeled in AERMOD as point sources adjacent to loading dock areas consistent with methodology provided by the San Joaquin Valley Air Pollution Control District (SJVAPCD) (16). Use of SJVAPCD guidance for specific TRU modeling is appropriate since SCAQMD does not provide such guidance and since SJVAPCD is also an expert air quality agency, like SCAQMD. As such, point sources were modeled with a release height of 3.96 meters, a gas exit temperature of 501 K, stack inside diameter of 0.044, and a gas exit velocity of 49.983 m/s.

2.2.3 ON-SITE EQUIPMENT EMISSIONS

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp (17). Based on the latest available information from SCAQMD (18); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. For this particular Project, on-site modeled operational equipment includes seven 200 hp yard tractors operating at 4 hours a day (19) for 365 days of the year[5]. In addition to the use of yard trucks operating at the Project site, forklifts are a common piece of equipment used in warehouse operations. The Project includes seven 89 hp yard forklifts operating at 4 hours a day for 365 days of the year interior to the building. Because of self-imposed design features and industry standards that require electric-natural gas, or propane indoor forklifts, no diesel exhaust has been evaluated to such indoor uses.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, outside forklifts, and other on-site equipment) will be powered by diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or

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[5] 4 hour daily on-site operation of the yard trucks is based data available from the Port of Los Angeles as part of their Activity Data for Existing Business CHE – 2010 Baseline indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forklifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pieces of equipment equals 52. As such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to 4 hours for analytical purposes.

equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

On-site CHE was modeled in AERMOD utilizing area source configurations representing loading dock areas adjacent to the building.

2.3 EXPOSURE QUANTIFICATION

CARB estimates that the average Californian is exposed to 1.2-1.8 μg/m^3 of DPM annually, this exposure results in an average cancer risk of 360-540 in one million for the average Californian exposed to DPM (20).

As noted above, this HRA is based on SCAQMD guidelines to produce conservative estimates of risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

The CARB-adopted diesel exhaust Unit Risk Factor (URF) of 300 in one million per μg/m3 is based upon the upper 95 percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Using the 95 percentile URF represents a very conservative risk posed by DPM.

The risk estimates assume sensitive receptors will be subject to DPM for 24 hours a day, 350 days a year. As a conservative measure, the SCAQMD does not recognize indoor adjustments for residents; in other words, SCAQMD assumes that residents spend 100% of their time at home outdoors and the SCAQMD does not factor in physical barriers (i.e., walls and housing structures) that may prevent the infiltration of DPM into the home. Further, based on empirical data it is clear that the typical person spends the majority of their time indoors versus remaining outdoors for 24 hours a day, 350 days a year.[6]

The emissions derived assume that every truck accessing the project site will idle for 15 minutes under the unmitigated scenario, this is an overestimation of actual idling times and thus conservative.[7] It should be noted that CARB's anti-idling requirements impose a 5 minute maximum idling time and therefore this analysis overestimates DPM emissions from idling by a factor of 3.

The analysis herein has been conducted in accordance with the guidelines in the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (1). SCAQMD recommends using the Environmental Protection

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[6] In May, 1991 the California Air Resources Board (CARB) Research Division in association with the University of California, Berkeley published research findings entitled: Activity Patterns of California Residents. The findings of that study indicate that on average, adults and adolescents in California spent almost 15 hours per day inside their homes, and six hours in other indoor locations, for a total of 21 hours (87% of the day). About 2 hours per day were spent in transit, and just over 1 hour per day was spent in outdoor locations.

[7] Although the Project is required to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (personal communication, phone call, with James Koizumi, May 6, 2009), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

Agency's (U.S. EPA's) AERMOD model. For purposes of this analysis, the model was used to calculate annual average particulate concentrations associated with site operations.

SCAQMD required model parameters are presented in Table 2-3 (14). The model requires additional input parameters including emission data and local meteorology. Meteorological data from the SCAQMD's Perris monitoring station (SRA 24) located approximately 5 miles southeast of the Project site was used to represent local weather conditions and prevailing winds (21).

TABLE 2-3: AERMOD MODEL PARAMETERS

Dispersion Coefficient (Urban/Rural)	Urban
Terrain (Flat/Elevated)	Elevated (Regulatory Default)
Averaging Time	1 year (5-year Meteorological Data Set)
Receptor Height	0 meters (Regulatory Default)

Universal Transverse Mercator (UTM) coordinates for North American Datum (NAD) 27 were used to locate the project boundaries, each volume source location, and receptor locations in the project vicinity. The AERMOD dispersion model summary output files for the proposed facility are presented in Appendix 5.1.

Modeled sensitive receptors were placed at discrete residential and non-residential locations for the applicable residential and non-residential scenarios. Additionally, based on recommendations from SCAQMD staff, a receptor grid with 100 meter spacing was placed at residential, worker, and school locations in order to ensure that the maximum impacts are properly analyzed.

Receptors were placed at applicable structure locations for residential, worker, and school property and not the necessarily the boundaries of these uses. It should be noted that the primary purpose of receptor placement is focused on long-term exposure. For example, the HRA evaluates the potential health risks to residential, worker, and school children over a period of 70, 40, and 9 years of exposure respectively. As such, even though it is unlikely to occur in practical terms (because of the amount of time spend indoors), this study assumes that a resident, worker, or school child would be exposed over a long-period of time for 12 or 24-hours per day at the structure they reside, work, or attend school in.

Furthermore, worker receptors immediately adjacent to the Project site have been evaluated in the HRA. Any impacts to workers located at schools and other worker locations located further away from the Project site and the modeled worker receptors would be less than what has already been disclosed in the HRA.

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the OEHHA guidance document entitled Air Toxic Hot Spots Program Risk Assessment Guidelines, Part IV: Technical Support Document for Exposure Assessment and Stochastic Analysis (22) and guidance from SCAQMD.

Table 2-4 summarizes the Exposure Parameters for Residents, Offsite Worker, and School Children. Appendix "5.2" includes the detailed emissions and risk calculation outputs. (23)

When sources are located near or on buildings or structures, the dispersion of the plume can be influenced. The wake produced on the lee side of the structure can cause the plume to be pulled toward the ground near the structure resulting in higher concentrations. This is called building downwash. Stack heights that minimize downwash effects are designated good engineering practice (GEP) stack heights. The effects of building downwash have been examined in this modeling analysis. AERMOD uses the EPA-approved Building Profile Input Program with Plume Rise Model Enhancements (BPIP-PRIME) to provide input for the downwash analysis. This program calculates the GEP formula stack heights and direction-specific building dimensions for input to the dispersion calculations. BPIP-PRIME requires the input of building coordinates and heights, and stack coordinates. For analytical purposes the HRA considered the effects of building downwash in AERMOD.

TABLE 2-4: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (2003 OEHHA GUIDELINES)

Exposure Parameter	Units	Residential	Worker	School Child [a]
Exposure Frequency	days/year	350	245	180
Exposure Duration	years	70	40	9
Inhalation Rate [b]	L/kg-day	302	149	581
Exposure Duration	Years	70	40	9
Exposure Time	hours/day	24	12	10

[a] To represent the unique characteristics of the school-based population, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). RME's are defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. As a result, lifetime risk values for the student population were adjusted to account for an exposure duration of 180 days per year for nine (9) years. The 9 year exposure duration is also consistent with OEHHA Recommendations and consistent with the exposure duration utilized in school-based risk assessments for various schools within the Los Angeles County Unified School District (LAUSD) that have been accepted by the SCAQMD.

[b] The residential breathing rate of 302 L/kg-day represents the 80th percentile breathing rate per ARB and consistent with SCAQMD Risk Assessment Procedures for Rules 1401 and 212, the worker breathing rate of 149 L/kg-day is also consistent with SCAQMD Risk Assessment Procedures for Rules 1401 and 212, the school child breathing rate of 581 L/kg-day represents the high end 95th percentile breathing rate.

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the 2015 OEHHA Guidelines. Table 2-5 summarizes the Exposure Parameters for Residents, Offsite Worker, and School Children scenarios based on 2015 OEHHA Guidelines. Appendix 2.2 includes the detailed risk calculation and Appendix 2.3 includes the emissions outputs based on the 2015 OEHHA Guidelines. (23)

TABLE 2-5: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (2015 OEHHA GUIDELINES)

Exposure Parameter	Units	Residential	Worker	School Child [a]
Exposure Frequency	days/year	350	240	180
Exposure Duration	years	30	25	9
Inhalation Rate	L/kg-day	352	271	452
Exposure Time	hours/day	24	12	10
Age Sensitivity Factor (ASF)		2.6	1	3

[a] To represent the unique characteristics of the school-based population, the assessment employed the U.S. Environmental Protection Agency's guidance to develop viable dose estimates based on reasonable maximum exposures (RME). RME's are defined as the "highest exposure that is reasonably expected to occur" for a given receptor population. As a result, lifetime risk values for the student population were adjusted to account for an exposure duration of 180 days per year for nine (9) years. The 9 year exposure duration is also consistent with OEHHA Recommendations and consistent with the exposure duration utilized in school-based risk assessments for various schools within the Los Angeles County Unified School District (LAUSD) that have been accepted by the SCAQMD.

2.4 CARCINOGENIC CHEMICAL RISK

The SCAQMD CEQA Air Quality Handbook (1993) states that emissions of toxic air contaminants (TACs) are considered significant if a HRA shows an increased risk of greater than 10 in one million. Based on guidance from the SCAQMD in the document Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis ((1), for purposes of this analysis, 10 in one million is used as the cancer risk threshold for the proposed Project.

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 10 in one million implies a likelihood that up to 10 persons, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. To put this risk in perspective, sample causes of death in the United States as well as the estimated risk of developing cancer from the Project or in the South Coast Air Basin (as previously shown) on Exhibit 1-A. As an example, the risk of dying from accidental drowning is 1,000 in a million which is 100 times more than the SCAQMD's threshold of 10 in one million, the nearest comparison to 10 in one million is the 7 in one million lifetime chance that an individual would be struck by lightning.

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Guidance from CARB and the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) recommends a refinement to the standard point estimate approach when alternate human body weights and breathing rates are utilized to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day)-1 to derive the cancer risk estimate. Therefore, to assess exposures, the following dose algorithm was utilized.

DOSEair = (Cair × [BR/BW] × A × EF) x (1 x 10 -6)

Where:

DOSEair = chronic daily intake (mg/kg/day)

Cair = concentration of contaminant in air (ug/m3)

[BR/BW] = daily breathing rate normalized to body weight (L/kg BW-day)

A = inhalation absorption factor

EF = exposure frequency (days/365 days)

BW = body weight (kg)

1 x 10 -6 = conversion factors (ug to mg, L to m3)

RISKair = DOSEair x CPF x ED/AT

Where:

DOSEair = chronic daily intake (mg/kg/day)

CPF = cancer potency factor

ED = number of years within particular age group

AT = averaging time

2.5 NON-CARCINOGENIC EXPOSURES

An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis. The chronic reference exposure level (REL) for DPM was established by OEHHA as 5 $\mu g/m^3$ (OEHHA Toxicity Criteria Database, http://www.oehha.org/risk/chemicaldb/index.asp).

The non-cancer hazard index was calculated (consistent with SCAQMD methodology) as follows:

The relationship for the non-cancer health effects of DPM is given by the following equation:

$$HI_{DPM} = C_{DPM}/REL_{DPM}$$

Where:

HI_{DPM} = Hazard Index; an expression of the potential for non-cancer health effects.

C_{DPM} = Annual average DPM concentration ($\mu g/m^3$).

REL_{DPM} = Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.

2.6 POTENTIAL PROJECT-RELATED DPM SOURCE CANCER AND NON-CANCER RISKS[8] (2003 OEHHA GUIDELINES)

Project-related DPM-source cancer and non-cancer risks for residential, worker, and school child exposure scenarios for the Project are considered herein and are summarized as follows.

2.6.1 WITHOUT INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 6.06 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0004, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent residences. Exhibit 2-E illustrates the nearest modeled residential receptors and the MEIR.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the north of Building 2. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.24 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0008, which would not exceed the applicable threshold of 1.0. As

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[8] SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

such, the Project will not cause a significant human health or cancer risk to adjacent workers. Exhibit 2-F illustrates the nearest modeled worker receptors and the MEIW.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1 mile north of the Project site at24100 Delphinium Avenue in Moreno Valley. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.26 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project's primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children. Exhibit 2-G illustrates the nearest modeled worker receptors and the MEIW.

2.6.1 WITH INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 5.97 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0004, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent residences. Exhibit 2-E illustrates the nearest modeled residential receptors and the MEIR.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located south of the Project site at the O-Reilly Auto Parts Warehouse located at 24520 San Michele Road in Moreno Valley. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.26 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0007, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. Exhibit 2-F illustrates the nearest modeled worker receptors and the MEIW.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1 mile north of the Project site at 24100 Delphinium Avenue in Moreno Valley. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.19 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project's primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children. Exhibit 2-G illustrates the nearest modeled worker receptors and the MEIW.

EXHIBIT 2-E: NEAREST MODELED RESIDENTIAL RECEPTORS

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND:

⊕ Residential Receptor

⊕ Maximally Exposed Individual Receptor (With and Without Indian Street Bridge)

EXHIBIT 2-F: NEAREST MODELED WORKER RECEPTORS

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

EXHIBIT 2-G: NEAREST MODELED SCHOOL CHILD RECEPTORS

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND:

- ◐ School Receptor
- ◐ Maximally Exposed Individual School Child (With and Without Indian Street Bridge)

2.7 2015 OEHHA GUIDELINES

It should be noted that there has been a wide variety of debate on how the 2015 OEHHA Guidelines will be applied to CEQA projects. The OEHHA guidelines are geared toward addressing AB 2588 air toxic hotspot requirements, specifically (explained in further detail below). Notwithstanding that, the U.S. EPA has said that the age sensitivity factors (ASFs), should only be applied to pollutants that elicit a primary mutagenic mode of action. None of the Project's pollutants elicit a primary mutagenic mode of action (explained in further detail below).

A review of relevant guidance was conducted to determine applicability of the use of early life exposure adjustments to identified carcinogens. For risk assessments conducted under the auspices of The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB2588), OEHHA applies specific adjustment factors to all carcinogens regardless of purported mechanism of action. However, the study relied upon U.S. EPA guidance relating to the use of early life exposure adjustment factors (Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens, EPA/630/R-003F) whereby adjustment factors are only considered when carcinogens act "through the mutagenic mode of action." A mutagen is a physical or chemical agent that changes genetic material, such as DNA, increasing the frequency of mutations to produce carcinogenic effects. The use of adjustment factors is recommended to account for the susceptibility of producing adverse health effects during early life stages from exposure to these mutagenic compounds. None of the carcinogens considered in the study for this Project elicit a mutagenic mode of action and, therefore, the use of age specific adjustment factors is not warranted. The study correctly used a lifetime exposure adjustment factor of 1.0.

By way of background, the Air Toxics "Hot Spots" Information and Assessment Act requires stationary sources (facilities) to report the type and quantity of substances they routinely release into the air. The regulation requires that toxic air emissions from facilities be quantified and compiled into an inventory according to criteria and guidelines developed by CARB, that each facility be prioritized to determine whether a risk assessment is conducted, that risk assessments be conducted according to methods developed by OEHHA and that the public be notified of significant risks. Please note that OEHHA clarifies its risk assessment's applicability by stating that "roadways are not part of the Hot Spots program because the program only addresses stationary sources."

It should be noted that neither the South Coast Air Quality Management District (SCAQMD) nor any other air agency in the Southern California region has adopted guidance on the applicability/use of ASFs under CEQA.

At the June 5, 2015 SCAQMD Board Meeting, the SCAQMD adopted the 2015 OEHHA guidelines for use in their permitting process. Notwithstanding, the SCAQMD acknowledged in their response to comments received on the revised permitting rules[9] that:

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[9] See Response to Comment #13, Page A-7 and A-8 of the June 5, 2015 board meeting Agenda No. 28. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-jun1-028

> "The Proposed Amended Rules are separate from the CEQA significance thresholds. The SCAQMD staff is currently evaluating how to implement the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will evaluate a variety of options on how to evaluate health risks under the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will conduct public workshops to gather input before bringing recommendations to the Governing Board. In the interim, staff will continue to use the previous guidelines for CEQA determinations."

Further at a June 18, 2015 Association of Environmental Professionals Meeting, the SCAQMD staff (Ms. Jillian Wong, Ph.D.) stated that any new guidance regarding ASFs under CEQA for projects where SCAQMD is not the lead agency, will not be adopted until there is completion of a public process. At this time, no such process has commenced and no formal guidance has been adopted.

Lastly, as previously noted the SCAQMD is in the process of evaluating how the Revised OEHHA Guidelines will be applied to CEQA projects under their jurisdiction and currently recommends continued use of previous guidelines for CEQA determinations. In the rulemaking activity for the 2015 OEHHA guidelines as they apply to permitting projects, the SCAQMD also recommends use of the previous version of the OEHHA guidelines for spray booths and retail gasoline stations[10].

Similarly, the SJVAPCD has actually adopted a new significance threshold in conjunction with the 2015 OEHHA guidelines[11]. More specifically, in recognition of the impact that the 2015 OEHHA guidelines would have on CEQA, SJVAPCD has actually adopted a new maximally exposed individual risk numeric significance threshold of 20 in one million which is two times the prior SJVAPCD threshold of 10 in one million[12]. It should be noted that the SJVAPCD's adoption of the 2015 OEHHA guidelines for CEQA was part of a public process.

Notwithstanding, although not required by CEQA, the Project's potential health risks have been evaluated under the 2015 OEHHA Guidelines to determine if any additional impacts would occur. Consistent with the 2015 OEHHA Guidelines, the exposure duration was revised from 70 years to 30 years for the residential scenario and 40 years to 25 years for the worker scenario. Additionally, applicable ASFs and breathing rates consistent with 2015 OEHHA Guidelines were applied. Results of the HRA if the 2015 OEHHA Guidelines were utilized are presented in Section 2.8 of this report.

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[10] See Page 3 of the June 5, 2015 board meeting Agenda No. 28. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-jun1-028

[11] http://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf

[12] http://www.valleyair.org/transportation/0714-GAMAQI-TACs-Thresholds-of-Significance.pdf

2.8 POTENTIAL PROJECT-RELATED DPM SOURCE CANCER AND NON-CANCER RISKS[13] (2015 OEHHA GUIDELINES)

2.8.1 WITHOUT INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 9.50 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.005, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent school children. Exhibit 2-E illustrates the nearest modeled residential receptors and the MEIR.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the north of Building 2. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.31 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0009, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. Exhibit 2-F illustrates the nearest modeled worker receptors and the MEIW.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1 mile north of the Project site at24100 Delphinium Avenue in Moreno Valley. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.60 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project's primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children. Exhibit 2-G illustrates the nearest modeled worker receptors and the MEIW.

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[13] SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

2.8.2 WITH INDIAN STREET BRIDGE

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project DPM source emissions is an existing residential home situated east of the Project site at a distance of approximately 161 feet across Indian Street. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 9.45 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.005, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent school children. Exhibit 2-E illustrates the nearest modeled residential receptors and the MEIR.

Worker Exposure Scenario:

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located south of the Project site at the O-Reilly Auto Parts Warehouse located at 24520 San Michele Road in Moreno Valley. At the maximally exposed worker (MEIW), the maximum incremental cancer risk impact at this location is 0.35 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0009, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. Exhibit 2-F illustrates the nearest modeled worker receptors and the MEIW.

School Child Exposure Scenario:

The school site land use with the greatest potential exposure to Project DPM source emissions is located at the Serrano Elementary school located more than 1 mile north of the Project site at24100 Delphinium Avenue in Moreno Valley. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact at this location is 0.43 in one million which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.001, which would not exceed the applicable threshold of 1.0. It should be noted that there are other school locations that are located closer to the Project site that were also included in the assessment, however the Serrano Elementary school represents the school site with the maximum potential risk due primarily to the fact that it is within close proximity to the Project's primary truck route adjacent to Heacock Street. As such, the Project will not cause a significant human health or cancer risk to adjacent school children. Exhibit 2-G illustrates the nearest modeled worker receptors and the MEIW.

2.9 CUMULATIVE TOXIC AIR CONTAMINANTS (TAC) EMISSIONS IMPACTS

2.9.1 EXISTING CONDITIONS FOR TOXIC EMISSIONS

There are no state or federal ambient air quality standards applicable to TAC emissions. Preparing a cumulative assessment for TACs is complicated by the fact that site-specific impacts can be far different from average impacts over a larger geographic area. Impacts from TAC emissions are highest closest to sources of TACs, but the sources are often spread over a large

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area. For example, emissions from diesel engines, the largest source of risk from TACs, are operated on roads, businesses, and construction sites throughout the air basin. Locations where large numbers of TAC sources are concentrated such as freeways, rail yards, and ports may pose a higher level of risk to sensitive receptors near these facilities. Examination of the risk from TACs at national, state, regional, and local levels is useful for providing context, but site-specific evaluation is ultimately necessary to determine existing conditions for development projects.

2.9.2 AMBIENT TAC IMPACTS PRESUMED CUMULATIVELY SIGNIFICANT

The SCAQMD has conducted an in-depth analysis of the toxic air contaminants and their resulting health risks for all of Southern California. This study, the Multiple Air Toxics Exposure Study in the South Coast Air Basin, *MATES IV,"* shows that cancer risk has decreased more than 50% between MATES III (2005) and MATES IV (2012). This is a result of uniform CEQA review, low-sulfur diesel fuel regulations, new fleets coming on line, and the imposition of clean truck access rules at the Ports of Long Beach and Los Angeles.

MATES-IV is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with the South Coast Air Basin emissions. Therefore, MATES-IV study represents the baseline health risk for a cumulative analysis. MATES-IV estimates the average excess cancer risk level from exposure to TACs is approximately 400 in one million basin-wide. These model estimates were based on monitoring data collected at 10 fixed sites within the South Coast Air Basin. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling the specific grids. MATES-IV modeling predicted an excess cancer risk of 518.16 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV.

The SCAQMD has established a significance threshold for incremental project-level TAC impacts. Specifically, if a given project would generate TACs resulting in or causing an increase in cancer risks of 10 or more incidents per million population, that project's incremental cancer risk would be considered significant. This same significance threshold (10 in one million) is applied by SCAQMD in determining whether a given project's incremental contribution to ambient TAC-source cancer risks is cumulatively considerable. The SCAQMD has not however established a significance threshold for ambient cumulative TAC impacts affecting the Basin. Likewise, the City of Moreno Valley (the Lead Agency) has no adopted cumulative TAC impacts significance threshold.

Absent an established threshold for cumulative TAC impacts, the following discussion assesses whether, in the light of other available existing information, the ambient cumulative TAC-source impacts affecting the Basin and the area encompassing the Project site could be characterized as significant.

As noted previously, MATES-IV estimates the average ambient cumulative TAC-source cancer risk for the Basin at 400 incidents per million population; in the localized area encompassing the Project site, the risk is estimated at 518.16 incidents per million population. Either of these existing cumulative TAC-source cancer risk levels (400 per million, or 518.16 per million) far exceeds the 10 in one million cancer risk at which project-level TAC-source cancer risks would be determined significant as measured against the SCAQMD thresholds. As noted previously, data from the SCAQMD shows that cancer risk has decreased more than 50% between MATES III (2005) and MATES IV (2012).

Comparing the ambient cumulative TAC-source cancer risk (518.16 per million locally, or 400 per million Basin-wide) to the SCAQMD's established threshold for project-level TAC-source cancer risks (10 in one million), the ambient cumulative TAC-source cancer risk is approximately 21 to 40 times greater than the incremental risk at which project-level TAC-source cancer risks would be considered significant.

Although there is not yet an established significance threshold for ambient cumulative TAC impacts, given the magnitude by which the ambient cumulative condition exceeds SCAQMD's established project-level significance threshold (ambient cumulative TAC conditions are 21 to 40 times greater than the project-level threshold), the ambient cumulative condition would likely exceed whatever significance threshold may be established for cumulative impacts affecting the Basin. On this basis, and absent a prevailing threshold adopted by the Lead or Responsible Agency, ambient cumulative TAC impacts are presumed to be significant.

2.9.3 JUSTIFICATION OF THE GEOGRAPHIC SCOPE OF THE ANALYSIS

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on ARB and South Coast District emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center (24).

The 1,000-foot evaluation distance is supported by research-based findings concerning TAC emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

For assessing the cumulative impacts of a new source of TAC emissions associated with a project in combination with existing sources and probable future sources, a project radius is necessary. Assessment of impacts from existing sources within 1,000 feet of the new source in combination with risks and hazards from the new source is recommended. Then, once the location of the maximally impacted receptor is identified for the project, cumulative impacts from other sources within the radius of the project (i.e., not the receptor) are assessed at that location. Assessments should sum individual hazards or risks to find the cumulative impact at the location of the maximally impacted receptor from the new source.

Lastly, the Waters Bill (AB 3205) (H&SC Section, 42301.6 through 42301.9) (25) addresses sources of hazardous air pollutants near schools and although not directly applicable to this project, further evidences the propriety of considering hazardous emissions sources within a defined 1,000-foot radius. That is, pursuant to the Waters Bill, prior to approving an application for a permit to construct or modify a source which emits hazardous air emissions, which source is located within 1,000 feet from the outer boundary of a school site, the air pollution control officer shall prepare a public notice in which the proposed project or modification for which the application for a permit is made is fully described.

For purposes of this assessment, a one-quarter mile radius or 1,320 feet geographic scope is utilized for determining potential cumulative impacts. This radius is more robust than, and provides a more health protective scenario for evaluation than the 1,000 foot impact radius identified above.

2.9.4 RELATED PROJECTS CONTRIBUTION TO CUMULATIVE TAC IMPACTS

In addition to the MATES-IV cumulative TAC-source cancer risk noted above, other new or proposed potential TAC-generating projects (related projects) in the Study Area could contribute to cumulative TAC impacts. These related projects, due to their recent and/or tentative nature, may not be reflected in the cumulative TAC impacts identified in the MATES-IV study.

In consultation with the Lead Agency, related TAC-generating projects located within a one-quarter mile radius of the Project were identified and are reflected in this cumulative TAC analysis. The related projects listed below were selected based on their propensity to generate TACs that would contribute to, or interact with, TACs generated by the Project. Exhibits 2-H and 2-I illustrates cumulative projects in the study area and a quarter-mile buffer

Of the cumulative projects identified in the Project's traffic study, the following cumulative projects have the potential to emit TACs and are located within the quarter-mile buffer:

- MV-1: PA 06-0152 & PA 06-0153 (First Park Nandina I & II) (483,767 square feet high-cube warehouse) [14]
- MV-3: PA 04-0063 (Centerpointe Buildings 8 and 9) (361,384 square feet general light industrial)[15]
- MV-4: PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park) (204,657 square feet general light industrial & 409,920 square feet high-cube warehouse) [16]
- MV-7: PA 08-0093 (Centerpointe Business Park II) (99,988 square feet general light industrial) [17]

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[14] There is no readily available information for the First Park Nandina I & II project, however given the size of the Project risks can be estimated to be approximately 3.6 in one million.

[15] The Health Risk Assessment for Centerpointe, dated August 27, 2012 identifies a maximum risk to be 8.48 in one million.

[16] There is no readily available information for the Moreno Valley Industrial Park project, however given the size of the Project risks can be estimated to be approximately 4.6 in one million.

[17] There is no readily available information for the Centerpointe II project, however given the size of the Project risks can be estimated to be approximately 0.75 in one million.

EXHIBIT 2-H: CUMULATIVE DEVELOPMENT WITHIN 1/4 MILE OF THE PROJECT AND PRIMARY TRUCK ROUTE (WITHOUT INDIAN STREET BRIDGE)

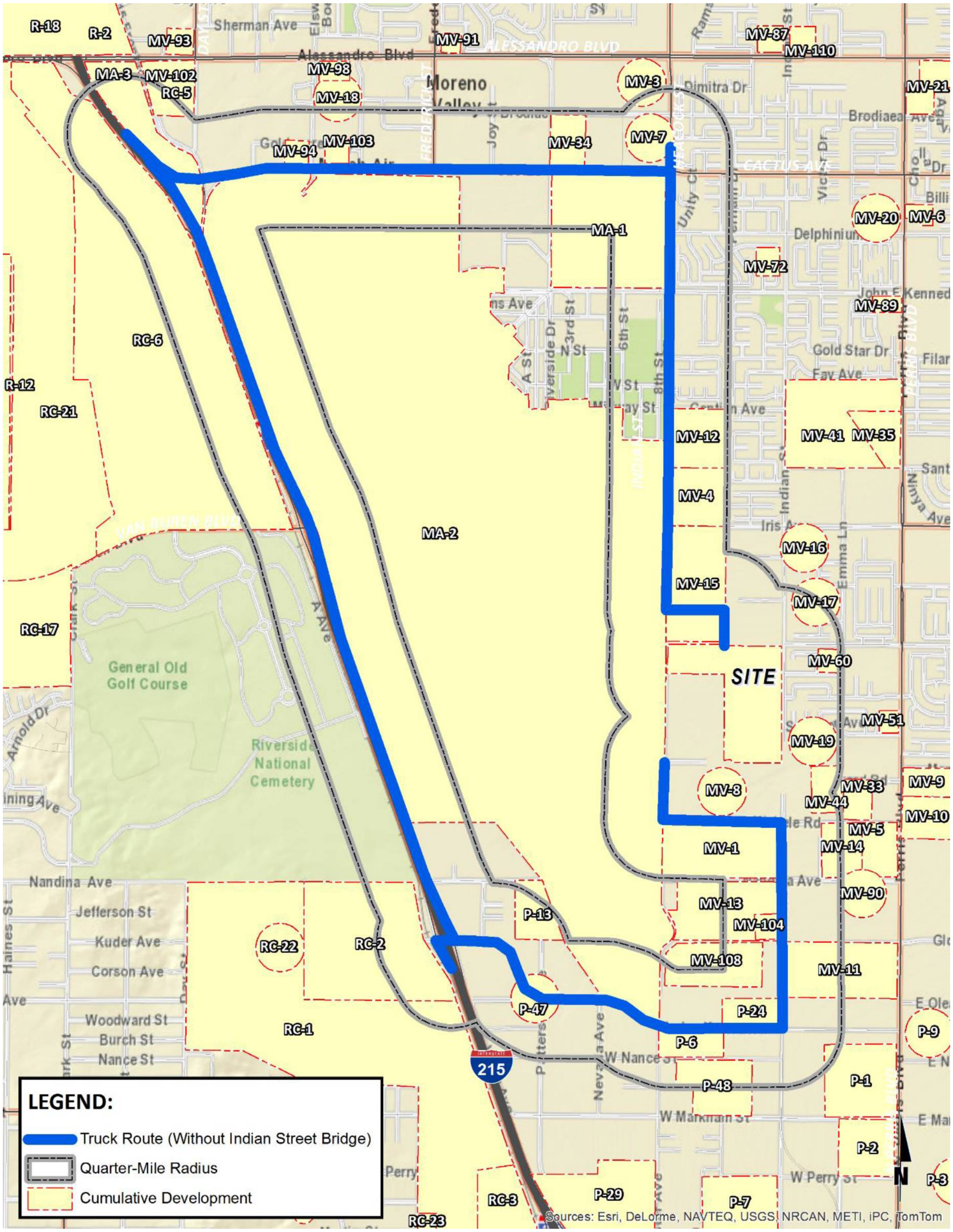

EXHIBIT 2-I: CUMULATIVE DEVELOPMENT WITHIN 1/4 MILE OF THE PROJECT AND PRIMARY TRUCK ROUTE (WITH INDIAN STREET BRIDGE)

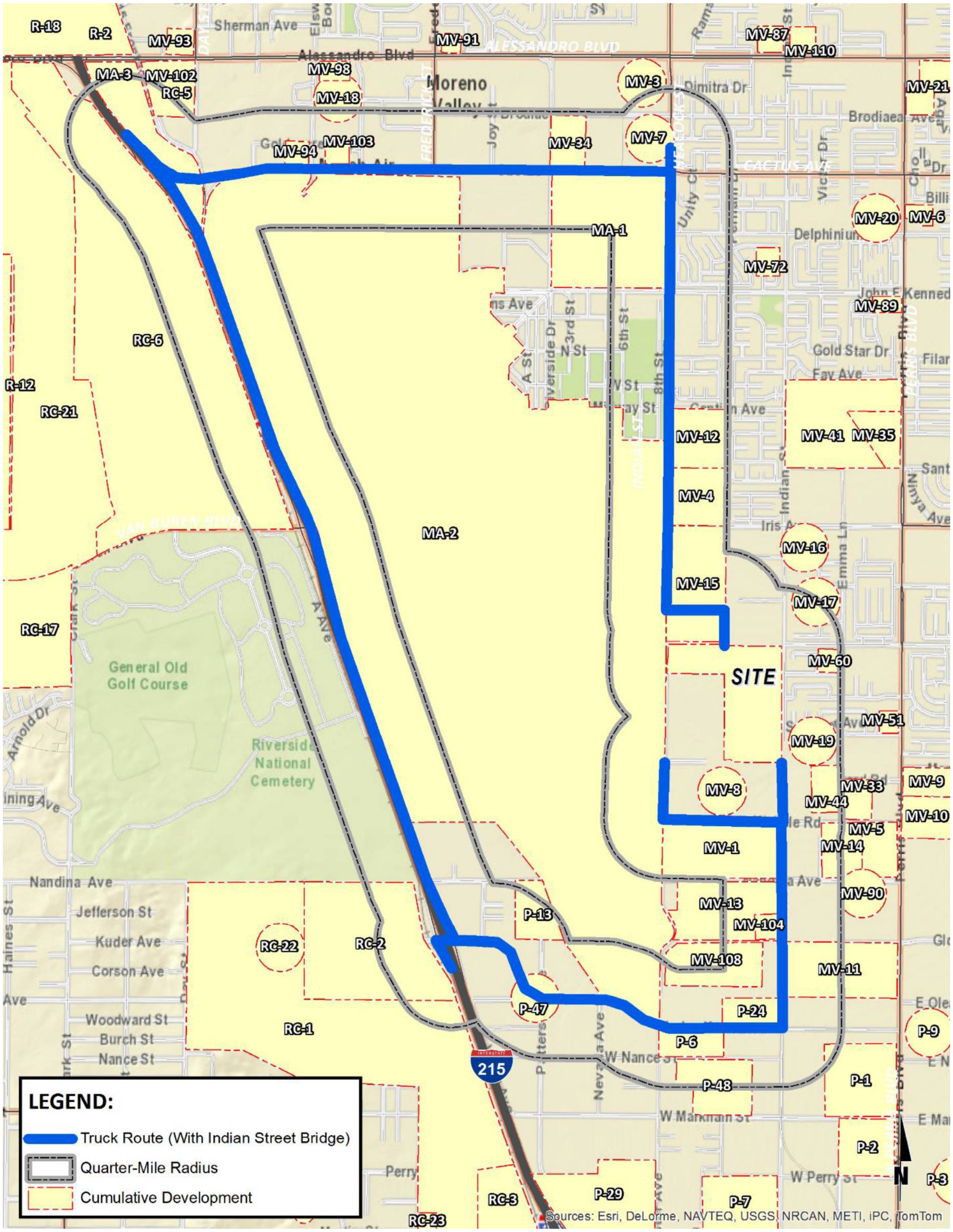

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- MV-8: PA 06-0021; PA 06-0022; PA-06-0048; PA 06-0049 (Komar Investment) (287,100 square feet warehousing) [18]
- MV-11: PA 09-0004 (Vogel) & Sares Regis (800,000 square feet high cube warehouse and 1,600,000 square feet high-cube warehouse) [19]
- MV-13: First Nandina Logistics Center (1,450,000 square feet high-cube warehouse) [20]
- MV-14: First Park Nandina III and Moreno Valley Commerce Park (691,960 square feet high-cube warehouse and 354,321 square feet high-cube warehouse) [21]
- MV-15: March Business Center (16,732 square feet general light industrial, 87,429 square feet warehousing, and 1,380,246 square feet high-cube warehouse) [22]
- MV-18: 373k Industrial Facility (373,030 square feet high-cube warehouse) [23]
- MV-33: Moreno Valley Industrial Center (Industrial Area SP) (354,810 square feet general light industrial) [24]
- MV-34: Centerpointe Business Park (356,000 square feet general light industrial) [25]
- MV-44: San Michele Industrial Center (Industrial Area SP) (865,960 square feet general light industrial) [26]
- MV-90: Moval Assemblage (456,337 square feet high-cube warehouse) [27]
- MV-103: Shaw Development (367,000 square feet high cube warehouse) [28]
- MV-104: IDS/Real Estate Group-Nandina Distribution Center (697,000 square feet high-cube warehouse) [29]
- MV-108: PA 06-0014 (Pierce Hardy Limited Partnership) (67,000 square feet lumberyard)
- MA-2: Airport Master Plan (559,000 square feet airport use)
- MA-3: Freeway Business Center (March JPA) (710,083 square feet high-cube warehouse) [30]

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[18] There is no readily available information for the Komar project, however given the size of the Project risks can be estimated to be approximately 2.14 in one million.

[19] There is no readily available information for the Vogel/Sares Regus project, however given the size of the Project risks can be estimated to be approximately 27.83 in one million.

[20] The Health Risk Assessment for First Nandina Logistics Center, dated April 21, 2014 identifies a maximum risk to be 6.12 in one million.

[21] There is no readily available information for the First Nandina III project, however given the size of the Project risks can be estimated to be approximately 16.81 in one million.

[22] The Health Risk Assessment for March Business Center, dated August 9, 2012 identifies a maximum risk to be 3.7 in one million.

[23] The Health Risk Assessment for 373K, dated September 13, 2013 identifies a maximum risk to be 0.28 in one million.

[24] There is no readily available information for the Moreno Valley Industrial Center project, however given the size of the Project risks can be estimated to be approximately 2.6 in one million.

[25] There is no readily available information for the Centerpointe Business Park project, however given the size of the Project risks can be estimated to be approximately 2.6 in one million.

[26] There is no readily available information for the San Michelle project, however given the size of the Project risks can be estimated to be approximately 16.81 in one million.

[27] There is no readily available information for the Moval Assemblage project, however given the size of the Project risks can be estimated to be approximately 3.6 in one million.

[28] There is no readily available information for the Shaw Development project, however given the size of the Project risks can be estimated to be approximately 2.6 in one million.

[29] There is no readily available information for the IDS project, however given the size of the Project risks can be estimated to be approximately 8.08 in one million.

[30] There is no readily available information for the Freeway Business Center project, however given the size of the Project risks can be estimated to be approximately 7.2 in one million.

- RC-1: SP 341; PP 21552 (Majestic Freeway Business Center) 6,100,715 square feet high-cube warehouse) [31]
- RC-2: PP 20699 (Oleander Business Park) (1,206,710 square feet warehousing) [32]
- RC-5: Alessandro Metrolink Station (200 spaces)
- RC-6: Meridian Business Park North (5,985,000 square feet industrial park) [33]
- P-1: P 05-0113 (IDI) (1,750,000 square feet high-cube warehouse) [34]
- P-6: P 07-09-0018 (170,000 square feet warehousing) [35]
- P-13: P 06-0411 (Concrete Batch Plant) (2,000 square feet manufacturing) [36]
- P-24: P 04-0343 (41,650 square feet warehousing) [37]
- P-47: PM 34199, DPR 05-0387, DPR 05-0452, TPM 34697, DPR 06-0396 (46,500 square feet general light industrial, 9,854 square feet general light industrial, 31,200 square feet warehousing, 47,400 square feet general light industrial, and 159,823 square feet warehousing) [38]
- P-48: Integra Pacific Industrial Facility (880,000 square feet high-cube warehouse) [39]

The primary TAC-source emission associated with the cumulative projects would be DPM associated with any truck trips accessing the cumulative projects and traveling on roadways in the study area. As such, the estimated health risks from these cumulative projects has been totaled. The total maximum estimated cancer risk associated with the cumulative projects identified above is estimated to be 397.5 in one million. This estimate is based on the proposed square footage of all industrial-related land uses and Urban Crossroads' professional expertise in the preparation of health risk assessments. It is important to note that the risk value of 397.5 from related projects is likely a very conservative overstatement of the actual risk that is likely to occur at any given location. As a conservative measure to overstate rather than understate the potential risk impacts this analysis assumes that the maximum impact from each related project overlaps and would occur at the same location in the Project vicinity.

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[31] There is no readily available information for the Majestic Freeway Business Center project, however given the size of the Project risks can be estimated to be approximately 30 in one million.

[32] The Draft Environmental Impact Report for the PP 20699 (Oleander Business Park), dated December 26, 2007 (SCH 2005091095) identifies a maximum risk to be 180 in one million.

33 There is no readily available information for the Meridian project, however given the size of the Project risks can be estimated to be approximately 40.83 in one million.

34 There is no readily available information for the IDI project, however given the size of the Project risks can be estimated to be approximately 13.02 in one million.

35 There is no readily available information for the project, however given the size of the Project risks can be estimated to be approximately 2.14 in one million.

[36] There is no readily available information for the concrete batch plant, however given the size of the Project risks can be estimated to be approximately 5.0 in one million.

[37] There is no readily available information for the 41,650 sf Warehouse, however given the size of the Project risks can be estimated to be approximately 0.50 in one million.

[38] There is no readily available information for the 191,023 sf of Industrial, however given the size of the Project risks can be estimated to be approximately 2.21 in one million.

[39] The Final Environmental Impact Report for the Integra Perris project, dated December 2014 (SCH No. 2014051065) identifies a maximum risk to be 6.0 in one million.

2.9.5 PROJECT MAXIMUM CONTRIBUTION TO CUMULATIVE TAC IMPACTS

Project-source TACs would incrementally increase the background cancer risk by a maximum of 9.50 incidents per million population under all the scenarios considered in this analysis. The applicable SCAQMD significance threshold for Project-level TAC-source cancer risk impacts is 10 incidents per million population. Similarly, SCAQMD significance thresholds state that Project contributions to cumulative TAC-source cancer risks would be cumulatively considerable if greater than 10 incidents per million population would occur. The 9.50 incidents per million population increment resulting from the Project is therefore not significant, nor cumulatively considerable.

2.9.6 CUMULATIVE IMPACTS (2003 OEHHA GUIDELINES)

The cumulative health risk is significant because the existing conditions plus cumulative projects would generate greater than a 10 in one million cancer risk. Notwithstanding, the Project's contribution is less than cumulatively considerable because it is less than the 10 in one million incremental cancer risk threshold established by the SCAQMD. Lastly, it should be noted that although there will be ambient growth in the Project vicinity, any increase in emissions and consequently cancer risk from ambient growth would be offset by the expected decrease in future risk estimates due to the natural turnover of older fleets and equipment being replaced by more efficient, less polluting engines and regulatory actions being phased in.

As noted above at Section 2.9.5, the Project's maximum contribution to cumulative TAC Impacts would not be cumulatively considerable. For informational and disclosure purposes, cumulative TAC impacts are further defined for each potential exposure scenario (residential, worker and school child) for both the Without and With Indian Street Bridge scenarios, and are summarized below and on Tables 2-6 and 2-7. As previously noted that the risk value of 397.5 from related projects is likely a very conservative overstatement of the actual risk that is likely to occur at any given location. As an extremely conservative measure to overstate rather than understate the potential risk impacts this analysis assumes that the maximum impact from each related project overlaps and would occur at the same location in the Project vicinity for the receptor, worker, and school child exposure scenarios.

WITHOUT INDIAN STREET BRIDGE

Residential Exposure Scenario:

The greatest cumulative with Project cancer risk is 921.72 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 6.06 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Residential Exposure impacts would not be cumulatively considerable.

Worker Exposure Scenario:

The greatest cumulative with Project cancer risk is 915.90 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.24 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Worker Exposure impacts would not be cumulatively considerable.

School Child Exposure Scenario:

The greatest cumulative with Project cancer risk is 915.92 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.26 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore less than cumulatively considerable. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's School Child Exposure impacts would not be cumulatively considerable.

WITH INDIAN STREET BRIDGE

Residential Exposure Scenario:

The greatest cumulative with Project cancer risk is 921.71 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 6.05 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Residential Exposure impacts would not be cumulatively considerable.

Worker Exposure Scenario:

The greatest cumulative with Project cancer risk is 915.92 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.26 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Worker Exposure impacts would not be cumulatively considerable.

School Child Exposure Scenario:

The greatest cumulative with Project cancer risk is 915.85 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.19 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore less than cumulatively considerable. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's School Child Exposure impacts would not be cumulatively considerable.

TABLE 2-6: STUDY AREA CUMULATIVE CANCER RISK – WITHOUT INDIAN STREET BRIDGE (2003 OEHHA GUIDELINES)[40]

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	6.06	921.72
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.24	915.90
Maximum Impact to Nearest School With Project	518.16	397.5	0.26	915.92
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

TABLE 2-7: STUDY AREA CUMULATIVE CANCER RISK – WITH INDIAN STREET BRIDGE (2003 OEHHA GUIDELINES)

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	6.05	921.71
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.26	915.92
Maximum Impact to Nearest School With Project	518.16	397.5	0.19	915.85
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

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[40] Although cumulative impacts typically represent a General Plan Buildout Scenario, there is no such data available for what General Plan Buildout DPM emissions impacts would be. The background risk, however, would likely overstate, rather than understate future DPM impacts and is assumed to be inclusive of future growth. It should be noted that due to improved DPM emissions control technologies and increasingly stringent DPM emissions regulations, the cancer risk incidence in the seven (7) years between the Mates III and Mates IV studies declined by approximately 50% even as population and business growth occurred throughout the region. Similar future declines in area-wide DPM source emissions are anticipated pursuant to enactment of further emissions regulations, including but not limited to anticipated greenhouse gas (GHG) reduction and control measures to be implemented by the state (see also: emissions regulatory measures discussed within the air quality and greenhouse gas analysis.

2.9.7 CUMULATIVE IMPACTS (2015 OEHHA GUIDELINES)

The cumulative health risk is significant because the existing conditions plus cumulative projects would generate greater than a 10 in one million cancer risk. Notwithstanding, the Project's contribution is less than cumulatively considerable because it is less than the 10 in one million incremental cancer risk threshold established by the SCAQMD. Lastly, it should be noted that although there will be ambient growth in the Project vicinity, any increase in emissions and consequently cancer risk from ambient growth would be offset by the expected decrease in future risk estimates due to the natural turnover of older fleets and equipment being replaced by more efficient, less polluting engines and regulatory actions being phased in.

As noted above at Section 2.9.5, the Project's maximum contribution to cumulative TAC Impacts would not be cumulatively considerable. For informational and disclosure purposes, cumulative TAC impacts are further defined for each potential exposure scenario (residential, worker and school child) for both the Without and With Indian Street Bridge scenarios, and are summarized below and on Tables 2-8 and 2-9. As an extremely conservative measure to overstate rather than understate the potential risk impacts this analysis assumes that the maximum impact from each related project overlaps and would occur at the same location in the Project vicinity for the receptor, worker, and school child exposure scenarios.

WITHOUT INDIAN STREET BRIDGE

Residential Exposure Scenario:

The greatest cumulative with Project cancer risk is 925.16 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 9.50 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Residential Exposure impacts would not be cumulatively considerable.

Worker Exposure Scenario:

The greatest cumulative with Project cancer risk is 915.97 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.31 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Worker Exposure impacts would not be cumulatively considerable.

School Child Exposure Scenario:

The greatest cumulative with Project cancer risk is 916.26 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.60 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore less than cumulatively considerable. Accordingly, pursuant to SCAQMD cumulative

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impact criteria, the Project's School Child Exposure impacts would not be cumulatively considerable.

WITH INDIAN STREET BRIDGE

Residential Exposure Scenario:

The greatest cumulative with Project cancer risk is 925.11 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 9.45 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Residential Exposure impacts would not be cumulatively considerable.

Worker Exposure Scenario:

The greatest cumulative with Project cancer risk is 916.01 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.35 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore considered to have a less than cumulatively considerable impact. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's Worker Exposure impacts would not be cumulatively considerable.

School Child Exposure Scenario:

The greatest cumulative with Project cancer risk is 916.09 in one million. The Project's maximum incremental contribution to the cumulative health risk in the Project area is 0.43 in one million which is less than the 10 in one million incremental threshold set by SCAQMD, and is therefore less than cumulatively considerable. Accordingly, pursuant to SCAQMD cumulative impact criteria, the Project's School Child Exposure impacts would not be cumulatively considerable.

2.9.8 SUMMARY AND CONCLUSIONS

To provide context for, and quantify cumulative TAC effects within the Study Area, the Project TAC-source cancer risk, and the TAC-source cancer risks from the related projects identified herein, were added to the total background risk derived by the MATES IV study, yielding a maximum potential cumulative TAC-source risk affecting the Study Area. As indicated at Tables 2-6 through 2-9, the maximum potential cumulative cancer risk within the Study Area is estimated at 925.16 in one million.

The MATES-IV ambient background plus related cumulative project TAC impact represents approximately 99 percent of the total cumulative impact identified at Tables 2-4 through 2-8; and due to its magnitude when compared to project-level TAC impact significance thresholds, is presumed to be cumulatively significant. The Project would incrementally contribute to this presumably significant cumulative impact. However the Project's maximum incremental contribution of 9.50 incidents per million population does not exceed the established SCAQMD

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threshold (10 incidents per million population) at which project-level TAC contributions would be determined cumulatively considerable. On this basis, the Project TAC emissions impacts are not considered cumulatively considerable.

TABLE 2-8: STUDY AREA CUMULATIVE CANCER RISK – WITHOUT INDIAN STREET BRIDGE (2015 OEHHA GUIDELINES)[41]

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	9.50	925.16
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.31	915.97
Maximum Impact to Nearest School With Project	518.16	397.5	0.60	916.26
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

TABLE 2-9: STUDY AREA CUMULATIVE CANCER RISK – WITH INDIAN STREET BRIDGE (2015 OEHHA GUIDELINES)

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Background*	Related Projects TACs	Project TACs	Maximum Cumulative Risk
Maximum Impact to All Receptors Without Project	518.16	397.5		915.66
Maximum Impact to Nearest Residential With Project	518.16	397.5	9.45	925.11
Maximum Impact to Nearest Worker With Project	518.16	397.5	0.35	916.01
Maximum Impact to Nearest School With Project	518.16	397.5	0.43	916.09
	*Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

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[41] Although cumulative impacts typically represent a General Plan Buildout Scenario, there is no such data available for what General Plan Buildout DPM emissions impacts would be. The background risk, however, would likely overstate, rather than understate future DPM impacts and is assumed to be inclusive of future growth. It should be noted that due to improved DPM emissions control technologies and increasingly stringent DPM emissions regulations, the cancer risk incidence in the seven (7) years between the Mates III and Mates IV studies declined by approximately 50% even as population and business growth occurred throughout the region. Similar future declines in area-wide DPM source emissions are anticipated pursuant to enactment of further emissions regulations, including but not limited to anticipated greenhouse gas (GHG) reduction and control measures to be implemented by the state (see also: emissions regulatory measures discussed within the air quality and greenhouse gas analysis.

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4 CERTIFICATION

The contents of this health risk assessment represent an accurate depiction of the impacts to sensitive receptors associated with the proposed Moreno Valley Logistics Project. The information contained in this health risk assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 5.1:

AERMOD MODEL INPUT/OUTPUT

AERMOD HRA Output

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/18/2015
** File: C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residential.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Residential.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007629
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
```

```
                          AERMOD HRA Output
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   LOCATION L0001039     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0001040     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0001041     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0001042     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0001043     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0001044     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0001045     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0001046     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0001047     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0001048     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0001049     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0001050     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0001051     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0001052     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0001053     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0001054     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0001055     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00006509
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0001056     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0001057     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0001058     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0001059     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0001060     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0001061     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0001062     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0001063     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0001064     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0001065     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0001066     VOLUME   477946.460 3748801.113 453.00
   LOCATION L0001067     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0001068     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0001069     VOLUME   477947.233 3748891.110 453.00
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```
** End of LINE VOLUME Source ID = SLINE3
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idlng Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003431
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
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   LOCATION L0001070     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0001071     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0001072     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0001073     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0001074     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0001075     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0001076     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0001077     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
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** Line Source Represented by Adjacent Volume Sources
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** DESCRSRC On-site Idling Building 3
** PREFIX
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** Configuration = Adjacent
** Emission Rate = 3.993E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
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** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001078     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0001079     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0001080     VOLUME   477917.151 3748338.902 451.00
   LOCATION L0001081     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0001082     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0001083     VOLUME   477942.605 3748338.033 451.00
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   LOCATION L0001084     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0001085     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0001086     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0001087     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0001088     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0001089     VOLUME   477968.786 3748294.974 450.00
   LOCATION L0001090     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0001091     VOLUME   477976.242 3748279.898 450.00
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   LOCATION L0001094     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0001095     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0001096     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0001097     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0001098     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000465
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
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   LOCATION L0001100     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0001101     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0001102     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0001103     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0001104     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0001105     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0001106     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0001107     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0001108     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0001109     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0001110     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0001111     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0001112     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0001113     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
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** Line Source Represented by Adjacent Volume Sources
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** LINE VOLUME Source ID = SLINE2
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** PREFIX
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** Configuration = Adjacent
** Emission Rate = 3.084E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 478166.972, 3748332.512, 453.31, 0.00, 13.95
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   LOCATION L0001115     VOLUME   478072.999 3748334.546 451.00
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   LOCATION L0001118     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001759
** Vertical Dimension = 4.00
** SZINIT = 1.86
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** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 454.22, 4.00, 3.95
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   LOCATION L0001126     VOLUME   477948.087 3748912.183 453.00
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LOCATION L0001141     VOLUME   477946.610 3748784.693 453.00
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LOCATION L0001172     VOLUME   477944.491 3748521.202 452.00
LOCATION L0001173     VOLUME   477944.422 3748512.702 451.87
LOCATION L0001174     VOLUME   477944.354 3748504.202 451.59
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LOCATION L0001176     VOLUME   477944.727 3748487.329 451.03
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LOCATION L0001195     VOLUME   478021.739 3748345.409 451.00
LOCATION L0001196     VOLUME   478026.357 3748338.273 451.00
LOCATION L0001197     VOLUME   478033.820 3748336.434 451.00
LOCATION L0001198     VOLUME   478042.319 3748336.526 451.00
LOCATION L0001199     VOLUME   478050.819 3748336.619 451.00
LOCATION L0001200     VOLUME   478059.318 3748336.711 451.00
LOCATION L0001201     VOLUME   478067.818 3748336.803 451.00
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LOCATION L0001203     VOLUME   478084.817 3748336.988 451.00
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LOCATION L0001205     VOLUME   478101.816 3748337.173 451.00
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LOCATION L0001207     VOLUME   478118.815 3748337.358 451.00
LOCATION L0001208     VOLUME   478127.314 3748337.450 451.00
LOCATION L0001209     VOLUME   478135.814 3748337.543 451.00
LOCATION L0001210     VOLUME   478144.313 3748337.635 451.00
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LOCATION L0001214     VOLUME   478178.311 3748338.005 451.00
LOCATION L0001215     VOLUME   478186.811 3748338.097 451.00
LOCATION L0001216     VOLUME   478195.310 3748338.189 451.00
LOCATION L0001217     VOLUME   478203.810 3748338.282 451.00
LOCATION L0001218     VOLUME   478212.309 3748338.374 451.00
LOCATION L0001219     VOLUME   478215.836 3748343.420 451.00
LOCATION L0001220     VOLUME   478215.897 3748351.920 451.00
LOCATION L0001221     VOLUME   478215.957 3748360.420 451.00
LOCATION L0001222     VOLUME   478216.018 3748368.919 451.00
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LOCATION L0001223     VOLUME   478216.078 3748377.419 451.00
LOCATION L0001224     VOLUME   478216.139 3748385.919 451.00
LOCATION L0001225     VOLUME   478216.199 3748394.419 451.00
LOCATION L0001226     VOLUME   478216.260 3748402.919 451.00
LOCATION L0001227     VOLUME   478216.320 3748411.418 451.00
LOCATION L0001228     VOLUME   478216.381 3748419.918 451.00
LOCATION L0001229     VOLUME   478216.441 3748428.418 451.00
LOCATION L0001230     VOLUME   478216.502 3748436.918 451.00
LOCATION L0001231     VOLUME   478216.562 3748445.417 451.00
LOCATION L0001232     VOLUME   478216.623 3748453.917 451.00
LOCATION L0001233     VOLUME   478216.683 3748462.417 451.04
LOCATION L0001234     VOLUME   478216.744 3748470.917 451.11
LOCATION L0001235     VOLUME   478216.804 3748479.417 451.18
LOCATION L0001236     VOLUME   478216.865 3748487.916 451.27
LOCATION L0001237     VOLUME   478216.925 3748496.416 451.49
LOCATION L0001238     VOLUME   478216.986 3748504.916 451.70
LOCATION L0001239     VOLUME   478217.046 3748513.416 451.92
LOCATION L0001240     VOLUME   478217.107 3748521.916 452.00
LOCATION L0001241     VOLUME   478217.167 3748530.415 452.00
LOCATION L0001242     VOLUME   478217.228 3748538.915 452.00
LOCATION L0001243     VOLUME   478217.288 3748547.415 452.00
LOCATION L0001244     VOLUME   478217.349 3748555.915 452.00
LOCATION L0001245     VOLUME   478217.409 3748564.414 452.00
LOCATION L0001246     VOLUME   478217.470 3748572.914 452.00
LOCATION L0001247     VOLUME   478217.530 3748581.414 452.00
LOCATION L0001248     VOLUME   478217.591 3748589.914 452.00
LOCATION L0001249     VOLUME   478217.651 3748598.414 452.00
LOCATION L0001250     VOLUME   478217.712 3748606.913 452.00
LOCATION L0001251     VOLUME   478217.772 3748615.413 452.00
LOCATION L0001252     VOLUME   478217.833 3748623.913 452.00
LOCATION L0001253     VOLUME   478217.893 3748632.413 452.00
LOCATION L0001254     VOLUME   478217.954 3748640.913 452.00
LOCATION L0001255     VOLUME   478218.014 3748649.412 452.00
LOCATION L0001256     VOLUME   478218.075 3748657.912 452.00
LOCATION L0001257     VOLUME   478218.135 3748666.412 452.00
LOCATION L0001258     VOLUME   478218.196 3748674.912 452.00
LOCATION L0001259     VOLUME   478218.256 3748683.411 452.00
LOCATION L0001260     VOLUME   478218.317 3748691.911 452.00
LOCATION L0001261     VOLUME   478218.377 3748700.411 452.00
LOCATION L0001262     VOLUME   478218.438 3748708.911 452.00
LOCATION L0001263     VOLUME   478218.498 3748717.411 452.00
LOCATION L0001264     VOLUME   478218.559 3748725.910 452.00
LOCATION L0001265     VOLUME   478218.619 3748734.410 452.00
LOCATION L0001266     VOLUME   478218.680 3748742.910 452.00
LOCATION L0001267     VOLUME   478218.740 3748751.410 452.00
LOCATION L0001268     VOLUME   478218.801 3748759.910 452.00
LOCATION L0001269     VOLUME   478218.861 3748768.409 452.00
LOCATION L0001270     VOLUME   478218.922 3748776.909 452.00
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   LOCATION L0001271     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0001272     VOLUME   478219.043 3748793.909 452.25
   LOCATION L0001273     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0001274     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0001275     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0001276     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0001277     VOLUME   478219.345 3748836.408 453.00
   LOCATION L0001278     VOLUME   478219.406 3748844.907 453.00
   LOCATION L0001279     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0001280     VOLUME   478219.527 3748861.907 453.00
   LOCATION L0001281     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0001282     VOLUME   478219.648 3748878.907 453.00
   LOCATION L0001283     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0001284     VOLUME   478219.769 3748895.906 453.00
   LOCATION L0001285     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0001286     VOLUME   478219.890 3748912.906 453.00
   LOCATION L0001287     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0001288     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0001289     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0001290     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0001291     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0001292     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0001293     VOLUME   478202.674 3748969.844 453.00
** End of LINE VOLUME Source ID = SLINE7
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001263
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0001294     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0001295     VOLUME   477852.821 3748843.717 453.00
   LOCATION L0001296     VOLUME   477852.867 3748852.216 453.00
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LOCATION L0001297     VOLUME   477852.913 3748860.716 453.00
LOCATION L0001298     VOLUME   477852.959 3748869.216 453.00
LOCATION L0001299     VOLUME   477853.005 3748877.716 453.00
LOCATION L0001300     VOLUME   477853.050 3748886.216 453.00
LOCATION L0001301     VOLUME   477853.096 3748894.716 453.00
LOCATION L0001302     VOLUME   477853.142 3748903.216 453.00
LOCATION L0001303     VOLUME   477853.188 3748911.716 453.00
LOCATION L0001304     VOLUME   477853.233 3748920.215 453.00
LOCATION L0001305     VOLUME   477853.279 3748928.715 453.00
LOCATION L0001306     VOLUME   477853.325 3748937.215 453.00
LOCATION L0001307     VOLUME   477853.371 3748945.715 453.00
LOCATION L0001308     VOLUME   477853.417 3748954.215 453.00
LOCATION L0001309     VOLUME   477853.462 3748962.715 453.00
LOCATION L0001310     VOLUME   477853.508 3748971.215 453.16
LOCATION L0001311     VOLUME   477853.527 3748979.688 453.44
LOCATION L0001312     VOLUME   477845.027 3748979.667 453.53
LOCATION L0001313     VOLUME   477836.527 3748979.647 453.69
LOCATION L0001314     VOLUME   477828.027 3748979.626 453.85
LOCATION L0001315     VOLUME   477819.527 3748979.606 454.00
LOCATION L0001316     VOLUME   477811.027 3748979.585 454.00
LOCATION L0001317     VOLUME   477802.527 3748979.565 454.00
LOCATION L0001318     VOLUME   477794.027 3748979.544 454.00
LOCATION L0001319     VOLUME   477785.527 3748979.524 454.00
LOCATION L0001320     VOLUME   477777.027 3748979.503 454.00
LOCATION L0001321     VOLUME   477768.527 3748979.483 454.00
LOCATION L0001322     VOLUME   477760.027 3748979.462 454.00
LOCATION L0001323     VOLUME   477751.527 3748979.442 454.00
LOCATION L0001324     VOLUME   477743.027 3748979.421 454.00
LOCATION L0001325     VOLUME   477742.701 3748971.201 454.00
LOCATION L0001326     VOLUME   477742.653 3748962.701 454.00
LOCATION L0001327     VOLUME   477742.605 3748954.201 454.00
LOCATION L0001328     VOLUME   477742.557 3748945.701 454.00
LOCATION L0001329     VOLUME   477742.509 3748937.201 454.00
LOCATION L0001330     VOLUME   477742.461 3748928.701 453.89
LOCATION L0001331     VOLUME   477742.413 3748920.202 453.77
LOCATION L0001332     VOLUME   477742.365 3748911.702 453.65
LOCATION L0001333     VOLUME   477742.317 3748903.202 453.58
LOCATION L0001334     VOLUME   477742.269 3748894.702 453.58
LOCATION L0001335     VOLUME   477742.221 3748886.202 453.59
LOCATION L0001336     VOLUME   477744.175 3748877.974 453.52
LOCATION L0001337     VOLUME   477746.490 3748869.796 453.57
LOCATION L0001338     VOLUME   477748.806 3748861.617 453.68
LOCATION L0001339     VOLUME   477751.121 3748853.439 453.84
LOCATION L0001340     VOLUME   477753.437 3748845.260 453.96
LOCATION L0001341     VOLUME   477757.469 3748838.153 453.72
LOCATION L0001342     VOLUME   477763.797 3748832.479 453.46
LOCATION L0001343     VOLUME   477770.126 3748826.804 453.22
LOCATION L0001344     VOLUME   477778.583 3748826.536 453.12
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   LOCATION L0001345     VOLUME   477787.081 3748826.374 453.03
   LOCATION L0001346     VOLUME   477795.580 3748826.212 453.00
   LOCATION L0001347     VOLUME   477804.079 3748826.127 453.00
   LOCATION L0001348     VOLUME   477812.579 3748826.077 453.00
   LOCATION L0001349     VOLUME   477821.079 3748826.027 453.00
   LOCATION L0001350     VOLUME   477829.579 3748825.977 453.00
   LOCATION L0001351     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0001352     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 8.263E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0001353     VOLUME   477886.642 3748203.747 450.00
   LOCATION L0001354     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0001355     VOLUME   477886.254 3748220.743 450.12
   LOCATION L0001356     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0001357     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0001358     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0001359     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0001360     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0001361     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0001362     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0001363     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0001364     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0001365     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0001366     VOLUME   477886.154 3748314.230 451.00
   LOCATION L0001367     VOLUME   477886.253 3748322.729 451.00
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                                AERMOD HRA Output
   LOCATION L0001368     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0001369     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0001370     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0001371     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0001372     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0001373     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0001374     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0001375     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0001376     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0001377     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0001378     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0001379     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0001380     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0001381     VOLUME   477968.225 3748296.673 450.00
   LOCATION L0001382     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0001383     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0001384     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0001385     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0001386     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0001387     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0001388     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0001389     VOLUME   477979.163 3748231.356 450.00
   LOCATION L0001390     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0001391     VOLUME   477982.636 3748216.976 450.00
   LOCATION L0001392     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0001393     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0001394     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0001395     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0001396     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0001397     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0001398     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0001399     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0001400     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0001401     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001439
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
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** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
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   LOCATION L0001402     VOLUME   477505.071 3748975.728 454.15
   LOCATION L0001403     VOLUME   477513.569 3748975.562 454.06
   LOCATION L0001404     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0001405     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0001406     VOLUME   477539.064 3748975.067 454.00
   LOCATION L0001407     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0001408     VOLUME   477556.061 3748974.736 454.00
   LOCATION L0001409     VOLUME   477564.559 3748974.571 454.00
   LOCATION L0001410     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0001411     VOLUME   477581.556 3748974.240 454.00
   LOCATION L0001412     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0001413     VOLUME   477598.508 3748973.774 454.00
   LOCATION L0001414     VOLUME   477605.435 3748968.848 454.00
   LOCATION L0001415     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0001416     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0001417     VOLUME   477615.729 3748946.683 454.00
   LOCATION L0001418     VOLUME   477618.035 3748938.501 454.00
   LOCATION L0001419     VOLUME   477619.970 3748930.230 454.00
   LOCATION L0001420     VOLUME   477621.685 3748921.905 454.00
   LOCATION L0001421     VOLUME   477623.401 3748913.580 454.00
   LOCATION L0001422     VOLUME   477625.117 3748905.255 454.00
   LOCATION L0001423     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0001424     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0001425     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0001426     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0001427     VOLUME   477626.684 3748862.869 454.00
   LOCATION L0001428     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0001429     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0001430     VOLUME   477627.014 3748837.371 454.00
   LOCATION L0001431     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0001432     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0001433     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0001434     VOLUME   477627.455 3748803.374 454.00
   LOCATION L0001435     VOLUME   477626.976 3748795.472 454.00
   LOCATION L0001436     VOLUME   477618.479 3748795.702 454.00
   LOCATION L0001437     VOLUME   477609.982 3748795.933 454.00
   LOCATION L0001438     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0001439     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0001440     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0001441     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0001442     VOLUME   477567.498 3748797.085 454.00
   LOCATION L0001443     VOLUME   477559.001 3748797.316 454.00
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   LOCATION L0001444     VOLUME   477550.504 3748797.546 454.00
   LOCATION L0001445     VOLUME   477542.007 3748797.777 454.00
   LOCATION L0001446     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0001447     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0001448     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0001449     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0001450     VOLUME   477499.523 3748798.930 454.00
   LOCATION L0001451     VOLUME   477491.026 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 70% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001108
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0001452     VOLUME   478255.534 3748984.574 453.00
   LOCATION L0001453     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0001454     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0001455     VOLUME   478230.035 3748984.818 453.00
   LOCATION L0001456     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0001457     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0001458     VOLUME   478204.537 3748985.062 453.00
   LOCATION L0001459     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0001460     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0001461     VOLUME   478179.038 3748985.306 453.00
   LOCATION L0001462     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0001463     VOLUME   478162.039 3748985.469 453.00
   LOCATION L0001464     VOLUME   478153.539 3748985.550 453.00
   LOCATION L0001465     VOLUME   478145.039 3748985.632 453.00
   LOCATION L0001466     VOLUME   478136.540 3748985.713 453.00
   LOCATION L0001467     VOLUME   478128.040 3748985.794 453.00
   LOCATION L0001468     VOLUME   478119.540 3748985.876 453.00
   LOCATION L0001469     VOLUME   478111.041 3748985.957 453.00
   LOCATION L0001470     VOLUME   478102.541 3748986.038 453.00
   LOCATION L0001471     VOLUME   478094.042 3748986.120 453.00
   LOCATION L0001472     VOLUME   478085.542 3748986.201 453.00
   LOCATION L0001473     VOLUME   478077.042 3748986.282 453.00
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LOCATION L0001474     VOLUME   478068.543 3748986.364 453.00
LOCATION L0001475     VOLUME   478060.043 3748986.445 453.00
LOCATION L0001476     VOLUME   478051.544 3748986.526 453.00
LOCATION L0001477     VOLUME   478043.044 3748986.608 453.00
LOCATION L0001478     VOLUME   478034.544 3748986.689 453.00
LOCATION L0001479     VOLUME   478026.045 3748986.770 453.00
LOCATION L0001480     VOLUME   478017.545 3748986.852 453.00
LOCATION L0001481     VOLUME   478009.046 3748986.933 453.00
LOCATION L0001482     VOLUME   478000.546 3748987.014 453.00
LOCATION L0001483     VOLUME   477992.046 3748987.096 453.00
LOCATION L0001484     VOLUME   477983.547 3748987.177 453.00
LOCATION L0001485     VOLUME   477975.047 3748987.258 453.00
LOCATION L0001486     VOLUME   477966.547 3748987.340 453.00
LOCATION L0001487     VOLUME   477958.048 3748987.421 453.00
LOCATION L0001488     VOLUME   477949.548 3748987.502 453.00
LOCATION L0001489     VOLUME   477941.049 3748987.584 453.00
LOCATION L0001490     VOLUME   477932.549 3748987.665 453.17
LOCATION L0001491     VOLUME   477924.049 3748987.746 453.37
LOCATION L0001492     VOLUME   477915.550 3748987.828 453.57
LOCATION L0001493     VOLUME   477907.050 3748987.909 453.71
LOCATION L0001494     VOLUME   477898.551 3748987.990 453.71
LOCATION L0001495     VOLUME   477890.051 3748988.072 453.72
LOCATION L0001496     VOLUME   477881.917 3748988.515 453.73
LOCATION L0001497     VOLUME   477881.917 3748997.015 454.00
LOCATION L0001498     VOLUME   477881.917 3749005.515 454.00
LOCATION L0001499     VOLUME   477881.917 3749014.015 454.00
LOCATION L0001500     VOLUME   477881.917 3749022.515 454.00
LOCATION L0001501     VOLUME   477881.917 3749031.015 454.00
LOCATION L0001502     VOLUME   477881.917 3749039.515 454.00
LOCATION L0001503     VOLUME   477881.917 3749048.015 454.00
LOCATION L0001504     VOLUME   477881.917 3749056.515 454.00
LOCATION L0001505     VOLUME   477881.917 3749065.015 454.00
LOCATION L0001506     VOLUME   477881.917 3749073.515 454.00
LOCATION L0001507     VOLUME   477881.917 3749082.015 454.00
LOCATION L0001508     VOLUME   477881.917 3749090.515 454.00
LOCATION L0001509     VOLUME   477881.917 3749099.015 454.00
LOCATION L0001510     VOLUME   477881.917 3749107.515 454.00
LOCATION L0001511     VOLUME   477881.917 3749116.015 454.00
LOCATION L0001512     VOLUME   477881.917 3749124.515 454.00
LOCATION L0001513     VOLUME   477881.917 3749133.015 454.00
LOCATION L0001514     VOLUME   477881.917 3749141.515 454.00
LOCATION L0001515     VOLUME   477881.917 3749150.015 454.00
LOCATION L0001516     VOLUME   477881.917 3749158.515 454.00
LOCATION L0001517     VOLUME   477881.917 3749167.015 454.00
LOCATION L0001518     VOLUME   477881.917 3749175.515 454.00
LOCATION L0001519     VOLUME   477881.917 3749184.015 454.00
LOCATION L0001520     VOLUME   477881.917 3749192.515 454.00
LOCATION L0001521     VOLUME   477881.917 3749201.015 454.00
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LOCATION L0001524      VOLUME   477881.917 3749226.515 454.67
LOCATION L0001525      VOLUME   477881.917 3749235.015 454.95
LOCATION L0001526      VOLUME   477877.860 3749239.512 455.00
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LOCATION L0001529      VOLUME   477852.363 3749239.854 455.00
LOCATION L0001530      VOLUME   477843.863 3749239.968 455.00
LOCATION L0001531      VOLUME   477835.364 3749240.082 455.00
LOCATION L0001532      VOLUME   477826.865 3749240.195 455.00
LOCATION L0001533      VOLUME   477818.366 3749240.309 455.00
LOCATION L0001534      VOLUME   477809.866 3749240.423 455.00
LOCATION L0001535      VOLUME   477801.367 3749240.537 455.00
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LOCATION L0001542      VOLUME   477741.873 3749241.334 455.00
LOCATION L0001543      VOLUME   477733.373 3749241.448 455.00
LOCATION L0001544      VOLUME   477724.874 3749241.561 455.00
LOCATION L0001545      VOLUME   477716.375 3749241.675 455.00
LOCATION L0001546      VOLUME   477707.876 3749241.789 455.00
LOCATION L0001547      VOLUME   477699.376 3749241.903 455.00
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LOCATION L0001549      VOLUME   477682.378 3749242.131 455.00
LOCATION L0001550      VOLUME   477673.879 3749242.244 455.00
LOCATION L0001551      VOLUME   477665.379 3749242.358 455.00
LOCATION L0001552      VOLUME   477656.880 3749242.472 455.00
LOCATION L0001553      VOLUME   477648.381 3749242.586 455.00
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LOCATION L0001555      VOLUME   477631.382 3749242.813 455.00
LOCATION L0001556      VOLUME   477622.883 3749242.927 455.00
LOCATION L0001557      VOLUME   477614.384 3749243.041 455.00
LOCATION L0001558      VOLUME   477605.885 3749243.155 455.00
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LOCATION L0001560      VOLUME   477588.886 3749243.383 455.00
LOCATION L0001561      VOLUME   477580.387 3749243.496 455.00
LOCATION L0001562      VOLUME   477571.888 3749243.610 455.00
LOCATION L0001563      VOLUME   477563.389 3749243.724 455.00
LOCATION L0001564      VOLUME   477554.889 3749243.838 455.00
LOCATION L0001565      VOLUME   477546.390 3749243.952 455.00
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LOCATION L0001567      VOLUME   477529.392 3749244.179 455.00
LOCATION L0001568      VOLUME   477520.892 3749244.293 455.00
LOCATION L0001569      VOLUME   477512.393 3749244.407 455.00
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LOCATION L0001570     VOLUME   477503.894 3749244.521 455.00
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LOCATION L0001573     VOLUME   477478.396 3749244.862 455.00
LOCATION L0001574     VOLUME   477476.837 3749251.916 455.00
LOCATION L0001575     VOLUME   477476.725 3749260.415 455.00
LOCATION L0001576     VOLUME   477476.612 3749268.914 455.00
LOCATION L0001577     VOLUME   477476.500 3749277.414 455.00
LOCATION L0001578     VOLUME   477476.387 3749285.913 455.00
LOCATION L0001579     VOLUME   477476.275 3749294.412 455.00
LOCATION L0001580     VOLUME   477476.162 3749302.911 455.10
LOCATION L0001581     VOLUME   477476.049 3749311.411 455.23
LOCATION L0001582     VOLUME   477475.937 3749319.910 455.36
LOCATION L0001583     VOLUME   477475.824 3749328.409 455.50
LOCATION L0001584     VOLUME   477475.712 3749336.908 455.65
LOCATION L0001585     VOLUME   477475.599 3749345.408 455.80
LOCATION L0001586     VOLUME   477475.487 3749353.907 455.95
LOCATION L0001587     VOLUME   477475.374 3749362.406 456.00
LOCATION L0001588     VOLUME   477475.261 3749370.905 456.00
LOCATION L0001589     VOLUME   477475.149 3749379.405 456.00
LOCATION L0001590     VOLUME   477475.036 3749387.904 456.00
LOCATION L0001591     VOLUME   477474.924 3749396.403 456.00
LOCATION L0001592     VOLUME   477474.811 3749404.902 456.00
LOCATION L0001593     VOLUME   477474.699 3749413.402 456.00
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LOCATION L0001595     VOLUME   477474.473 3749430.400 456.00
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LOCATION L0001598     VOLUME   477474.136 3749455.898 456.00
LOCATION L0001599     VOLUME   477474.023 3749464.397 456.00
LOCATION L0001600     VOLUME   477473.911 3749472.896 456.00
LOCATION L0001601     VOLUME   477473.798 3749481.396 456.16
LOCATION L0001602     VOLUME   477473.685 3749489.895 456.44
LOCATION L0001603     VOLUME   477473.573 3749498.394 456.73
LOCATION L0001604     VOLUME   477473.460 3749506.893 457.00
LOCATION L0001605     VOLUME   477473.348 3749515.393 457.00
LOCATION L0001606     VOLUME   477473.235 3749523.892 457.00
LOCATION L0001607     VOLUME   477473.123 3749532.391 457.00
LOCATION L0001608     VOLUME   477473.010 3749540.890 457.00
LOCATION L0001609     VOLUME   477472.897 3749549.390 457.00
LOCATION L0001610     VOLUME   477472.785 3749557.889 457.00
LOCATION L0001611     VOLUME   477472.672 3749566.388 457.00
LOCATION L0001612     VOLUME   477472.560 3749574.887 457.00
LOCATION L0001613     VOLUME   477472.447 3749583.387 457.00
LOCATION L0001614     VOLUME   477472.335 3749591.886 457.00
LOCATION L0001615     VOLUME   477472.222 3749600.385 457.00
LOCATION L0001616     VOLUME   477472.109 3749608.884 457.00
LOCATION L0001617     VOLUME   477471.997 3749617.384 457.00
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   LOCATION L0001618     VOLUME   477471.884 3749625.883 457.00
   LOCATION L0001619     VOLUME   477471.772 3749634.382 457.00
   LOCATION L0001620     VOLUME   477471.659 3749642.881 457.00
   LOCATION L0001621     VOLUME   477471.547 3749651.381 457.00
   LOCATION L0001622     VOLUME   477471.434 3749659.880 457.00
   LOCATION L0001623     VOLUME   477471.321 3749668.379 457.00
   LOCATION L0001624     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0001625     VOLUME   477471.096 3749685.378 457.00
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   LOCATION L0001627     VOLUME   477470.871 3749702.376 457.00
   LOCATION L0001628     VOLUME   477470.759 3749710.876 457.00
   LOCATION L0001629     VOLUME   477470.646 3749719.375 457.00
   LOCATION L0001630     VOLUME   477470.533 3749727.874 457.00
   LOCATION L0001631     VOLUME   477470.421 3749736.373 457.00
   LOCATION L0001632     VOLUME   477470.308 3749744.873 457.00
   LOCATION L0001633     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0001634     VOLUME   477470.083 3749761.871 457.51
   LOCATION L0001635     VOLUME   477469.971 3749770.370 457.79
   LOCATION L0001636     VOLUME   477469.858 3749778.870 458.00
   LOCATION L0001637     VOLUME   477469.745 3749787.369 458.00
** End of LINE VOLUME Source ID = SLINE11
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002524
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0001638     VOLUME   477901.854 3748181.536 450.00
   LOCATION L0001639     VOLUME   477893.354 3748181.604 450.00
   LOCATION L0001640     VOLUME   477884.855 3748181.671 450.00
   LOCATION L0001641     VOLUME   477876.355 3748181.739 450.00
   LOCATION L0001642     VOLUME   477867.855 3748181.806 450.00
   LOCATION L0001643     VOLUME   477859.355 3748181.874 450.00
   LOCATION L0001644     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0001645     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0001646     VOLUME   477833.856 3748182.077 450.46
   LOCATION L0001647     VOLUME   477825.356 3748182.144 450.71
   LOCATION L0001648     VOLUME   477816.857 3748182.212 450.88
   LOCATION L0001649     VOLUME   477808.357 3748182.279 450.92
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AERMOD HRA Output

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LOCATION L0001650     VOLUME   477799.857 3748182.347 450.96
LOCATION L0001651     VOLUME   477791.358 3748182.414 450.99
LOCATION L0001652     VOLUME   477782.858 3748182.482 451.00
LOCATION L0001653     VOLUME   477774.358 3748182.550 451.00
LOCATION L0001654     VOLUME   477765.858 3748182.617 451.00
LOCATION L0001655     VOLUME   477757.359 3748182.685 451.00
LOCATION L0001656     VOLUME   477748.859 3748182.752 451.00
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LOCATION L0001658     VOLUME   477731.859 3748182.887 451.00
LOCATION L0001659     VOLUME   477723.360 3748182.955 451.00
LOCATION L0001660     VOLUME   477714.860 3748183.023 451.00
LOCATION L0001661     VOLUME   477706.360 3748183.090 451.00
LOCATION L0001662     VOLUME   477697.860 3748183.158 451.00
LOCATION L0001663     VOLUME   477689.361 3748183.225 451.00
LOCATION L0001664     VOLUME   477680.861 3748183.293 451.00
LOCATION L0001665     VOLUME   477672.361 3748183.360 451.00
LOCATION L0001666     VOLUME   477663.862 3748183.428 451.00
LOCATION L0001667     VOLUME   477655.362 3748183.495 451.00
LOCATION L0001668     VOLUME   477646.862 3748183.563 451.00
LOCATION L0001669     VOLUME   477638.362 3748183.631 451.00
LOCATION L0001670     VOLUME   477629.863 3748183.698 451.00
LOCATION L0001671     VOLUME   477621.363 3748183.766 451.00
LOCATION L0001672     VOLUME   477612.863 3748183.833 451.00
LOCATION L0001673     VOLUME   477604.363 3748183.901 451.00
LOCATION L0001674     VOLUME   477595.864 3748183.968 451.00
LOCATION L0001675     VOLUME   477587.364 3748184.036 451.00
LOCATION L0001676     VOLUME   477578.864 3748184.104 451.00
LOCATION L0001677     VOLUME   477570.364 3748184.171 451.00
LOCATION L0001678     VOLUME   477561.865 3748184.239 451.00
LOCATION L0001679     VOLUME   477553.365 3748184.306 451.00
LOCATION L0001680     VOLUME   477544.865 3748184.374 451.00
LOCATION L0001681     VOLUME   477536.366 3748184.441 451.00
LOCATION L0001682     VOLUME   477527.866 3748184.509 451.00
LOCATION L0001683     VOLUME   477519.366 3748184.577 451.00
LOCATION L0001684     VOLUME   477510.866 3748184.644 451.00
LOCATION L0001685     VOLUME   477502.367 3748184.712 451.00
LOCATION L0001686     VOLUME   477493.867 3748184.779 451.00
LOCATION L0001687     VOLUME   477485.367 3748184.847 451.00
LOCATION L0001688     VOLUME   477476.867 3748184.914 451.00
LOCATION L0001689     VOLUME   477471.122 3748182.143 451.00
LOCATION L0001690     VOLUME   477470.934 3748173.645 451.00
LOCATION L0001691     VOLUME   477470.745 3748165.147 451.00
LOCATION L0001692     VOLUME   477470.557 3748156.649 451.00
LOCATION L0001693     VOLUME   477470.368 3748148.151 451.00
LOCATION L0001694     VOLUME   477470.180 3748139.653 451.00
LOCATION L0001695     VOLUME   477469.991 3748131.156 451.00
LOCATION L0001696     VOLUME   477469.803 3748122.658 451.00
LOCATION L0001697     VOLUME   477469.614 3748114.160 451.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0001698     VOLUME   477469.426 3748105.662 451.00
   LOCATION L0001699     VOLUME   477469.237 3748097.164 451.00
   LOCATION L0001700     VOLUME   477469.049 3748088.666 451.00
   LOCATION L0001701     VOLUME   477468.860 3748080.168 451.00
   LOCATION L0001702     VOLUME   477468.672 3748071.670 451.00
   LOCATION L0001703     VOLUME   477468.483 3748063.172 451.00
   LOCATION L0001704     VOLUME   477468.295 3748054.674 451.00
   LOCATION L0001705     VOLUME   477468.106 3748046.176 451.00
   LOCATION L0001706     VOLUME   477467.917 3748037.679 451.00
   LOCATION L0001707     VOLUME   477467.729 3748029.181 451.00
   LOCATION L0001708     VOLUME   477467.540 3748020.683 451.00
   LOCATION L0001709     VOLUME   477467.352 3748012.185 451.00
   LOCATION L0001710     VOLUME   477467.163 3748003.687 451.00
   LOCATION L0001711     VOLUME   477466.975 3747995.189 451.00
   LOCATION L0001712     VOLUME   477466.786 3747986.691 451.00
   LOCATION L0001713     VOLUME   477466.598 3747978.193 451.00
   LOCATION L0001714     VOLUME   477466.409 3747969.695 451.00
   LOCATION L0001715     VOLUME   477466.221 3747961.197 451.00
   LOCATION L0001716     VOLUME   477466.032 3747952.699 451.00
   LOCATION L0001717     VOLUME   477465.844 3747944.202 451.00
   LOCATION L0001718     VOLUME   477465.655 3747935.704 451.00
   LOCATION L0001719     VOLUME   477465.467 3747927.206 451.00
   LOCATION L0001720     VOLUME   477465.278 3747918.708 451.00
   LOCATION L0001721     VOLUME   477465.090 3747910.210 451.00
   LOCATION L0001722     VOLUME   477464.901 3747901.712 451.00
   LOCATION L0001723     VOLUME   477464.713 3747893.214 451.00
   LOCATION L0001724     VOLUME   477464.524 3747884.716 451.00
   LOCATION L0001725     VOLUME   477464.336 3747876.218 451.00
   LOCATION L0001726     VOLUME   477464.147 3747867.720 451.00
   LOCATION L0001727     VOLUME   477463.959 3747859.222 451.00
   LOCATION L0001728     VOLUME   477463.770 3747850.725 451.00
   LOCATION L0001729     VOLUME   477463.582 3747842.227 451.00
   LOCATION L0001730     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0001731     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0001732     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0001733     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0001734     VOLUME   477462.639 3747799.737 451.00
   LOCATION L0001735     VOLUME   477462.450 3747791.239 451.00
   LOCATION L0001736     VOLUME   477462.262 3747782.741 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
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   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 30% on San Michele to Indian to Fwy
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001465
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
** 477462.276, 3747781.275, 451.00, 4.00, 3.95
** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
** 477725.693, 3746359.638, 448.00, 4.00, 3.95
** 477485.022, 3746362.119, 449.09, 4.00, 3.95
** 477420.512, 3746374.524, 451.63, 4.00, 3.95
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** 477323.747, 3746431.591, 450.00, 4.00, 3.95
** 477274.124, 3746468.808, 450.86, 4.00, 3.95
** 477224.501, 3746503.544, 450.08, 4.00, 3.95
** 477159.991, 3746538.280, 451.00, 4.00, 3.95
** 477093.000, 3746548.205, 451.00, 4.00, 3.95
** 476780.928, 3746552.268, 455.52, 4.00, 3.95
** 476653.222, 3746548.965, 463.87, 4.00, 3.95
** 476603.680, 3746565.479, 464.00, 4.00, 3.95
** 476539.827, 3746605.112, 464.36, 4.00, 3.95
** 476468.267, 3746741.626, 465.24, 4.00, 3.95
** 476458.359, 3746801.076, 465.86, 4.00, 3.95
** 476408.818, 3746894.654, 466.61, 4.00, 3.95
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** 476260.194, 3746950.801, 469.00, 4.00, 3.95
** 475929.918, 3746948.599, 472.48, 4.00, 3.95
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   LOCATION L0006661     VOLUME   477670.521 3747779.900 450.45
   LOCATION L0006662     VOLUME   477679.021 3747779.843 450.32
   LOCATION L0006663     VOLUME   477687.521 3747779.787 450.19
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   LOCATION L0006668     VOLUME   477730.020 3747779.507 450.00
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LOCATION L0006705     VOLUME   478044.513 3747777.429 449.19
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LOCATION L0006707     VOLUME   478061.513 3747777.317 449.00
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AERMOD HRA Output

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LOCATION L0006956     VOLUME   477823.601 3746359.638 448.00
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LOCATION L0006957     VOLUME   477815.101 3746359.638 448.00
LOCATION L0006958     VOLUME   477806.601 3746359.638 448.00
LOCATION L0006959     VOLUME   477798.101 3746359.638 448.00
LOCATION L0006960     VOLUME   477789.601 3746359.638 448.00
LOCATION L0006961     VOLUME   477781.101 3746359.638 448.00
LOCATION L0006962     VOLUME   477772.601 3746359.638 448.00
LOCATION L0006963     VOLUME   477764.101 3746359.638 448.00
LOCATION L0006964     VOLUME   477755.601 3746359.638 448.00
LOCATION L0006965     VOLUME   477747.101 3746359.638 448.00
LOCATION L0006966     VOLUME   477738.601 3746359.638 448.00
LOCATION L0006967     VOLUME   477730.101 3746359.638 448.00
LOCATION L0006968     VOLUME   477721.601 3746359.680 448.00
LOCATION L0006969     VOLUME   477713.102 3746359.767 448.00
LOCATION L0006970     VOLUME   477704.602 3746359.855 448.00
LOCATION L0006971     VOLUME   477696.103 3746359.943 448.00
LOCATION L0006972     VOLUME   477687.603 3746360.030 448.00
LOCATION L0006973     VOLUME   477679.104 3746360.118 448.00
LOCATION L0006974     VOLUME   477670.604 3746360.205 448.00
LOCATION L0006975     VOLUME   477662.104 3746360.293 448.00
LOCATION L0006976     VOLUME   477653.605 3746360.381 448.00
LOCATION L0006977     VOLUME   477645.105 3746360.468 448.00
LOCATION L0006978     VOLUME   477636.606 3746360.556 448.11
LOCATION L0006979     VOLUME   477628.106 3746360.644 448.39
LOCATION L0006980     VOLUME   477619.607 3746360.731 448.68
LOCATION L0006981     VOLUME   477611.107 3746360.819 448.96
LOCATION L0006982     VOLUME   477602.608 3746360.906 449.00
LOCATION L0006983     VOLUME   477594.108 3746360.994 449.00
LOCATION L0006984     VOLUME   477585.609 3746361.082 449.00
LOCATION L0006985     VOLUME   477577.109 3746361.169 449.00
LOCATION L0006986     VOLUME   477568.609 3746361.257 449.00
LOCATION L0006987     VOLUME   477560.110 3746361.345 449.00
LOCATION L0006988     VOLUME   477551.610 3746361.432 449.00
LOCATION L0006989     VOLUME   477543.111 3746361.520 449.00
LOCATION L0006990     VOLUME   477534.611 3746361.607 449.00
LOCATION L0006991     VOLUME   477526.112 3746361.695 449.00
LOCATION L0006992     VOLUME   477517.612 3746361.783 449.00
LOCATION L0006993     VOLUME   477509.113 3746361.870 449.00
LOCATION L0006994     VOLUME   477500.613 3746361.958 449.00
LOCATION L0006995     VOLUME   477492.113 3746362.046 449.00
LOCATION L0006996     VOLUME   477483.639 3746362.385 449.21
LOCATION L0006997     VOLUME   477475.292 3746363.990 449.49
LOCATION L0006998     VOLUME   477466.945 3746365.595 449.76
LOCATION L0006999     VOLUME   477458.598 3746367.200 450.00
LOCATION L0007000     VOLUME   477450.251 3746368.805 450.00
LOCATION L0007001     VOLUME   477441.904 3746370.411 450.00
LOCATION L0007002     VOLUME   477433.557 3746372.016 450.00
LOCATION L0007003     VOLUME   477425.210 3746373.621 450.00
LOCATION L0007004     VOLUME   477417.311 3746376.412 450.00
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                         AERMOD HRA Output
LOCATION L0007005      VOLUME   477409.989 3746380.730 450.00
LOCATION L0007006      VOLUME   477402.668 3746385.048 450.00
LOCATION L0007007      VOLUME   477395.346 3746389.366 450.00
LOCATION L0007008      VOLUME   477388.025 3746393.684 450.00
LOCATION L0007009      VOLUME   477380.703 3746398.001 450.00
LOCATION L0007010      VOLUME   477373.381 3746402.319 450.00
LOCATION L0007011      VOLUME   477366.060 3746406.637 450.00
LOCATION L0007012      VOLUME   477358.738 3746410.955 450.00
LOCATION L0007013      VOLUME   477351.417 3746415.273 450.00
LOCATION L0007014      VOLUME   477344.095 3746419.591 450.00
LOCATION L0007015      VOLUME   477336.773 3746423.909 450.00
LOCATION L0007016      VOLUME   477329.452 3746428.226 450.00
LOCATION L0007017      VOLUME   477322.245 3746432.717 450.00
LOCATION L0007018      VOLUME   477315.445 3746437.817 450.00
LOCATION L0007019      VOLUME   477308.645 3746442.917 450.00
LOCATION L0007020      VOLUME   477301.845 3746448.017 450.00
LOCATION L0007021      VOLUME   477295.045 3746453.117 450.00
LOCATION L0007022      VOLUME   477288.245 3746458.217 450.00
LOCATION L0007023      VOLUME   477281.445 3746463.317 450.00
LOCATION L0007024      VOLUME   477274.645 3746468.417 450.00
LOCATION L0007025      VOLUME   477267.694 3746473.309 450.00
LOCATION L0007026      VOLUME   477260.731 3746478.183 450.00
LOCATION L0007027      VOLUME   477253.767 3746483.058 450.00
LOCATION L0007028      VOLUME   477246.804 3746487.932 450.06
LOCATION L0007029      VOLUME   477239.840 3746492.807 450.15
LOCATION L0007030      VOLUME   477232.877 3746497.681 450.16
LOCATION L0007031      VOLUME   477225.914 3746502.555 450.10
LOCATION L0007032      VOLUME   477218.535 3746506.757 450.04
LOCATION L0007033      VOLUME   477211.051 3746510.786 450.29
LOCATION L0007034      VOLUME   477203.567 3746514.816 450.54
LOCATION L0007035      VOLUME   477196.083 3746518.846 450.79
LOCATION L0007036      VOLUME   477188.599 3746522.876 451.00
LOCATION L0007037      VOLUME   477181.115 3746526.906 451.00
LOCATION L0007038      VOLUME   477173.631 3746530.936 451.00
LOCATION L0007039      VOLUME   477166.147 3746534.965 451.00
LOCATION L0007040      VOLUME   477158.499 3746538.501 451.00
LOCATION L0007041      VOLUME   477150.091 3746539.747 451.00
LOCATION L0007042      VOLUME   477141.683 3746540.993 451.00
LOCATION L0007043      VOLUME   477133.274 3746542.238 451.00
LOCATION L0007044      VOLUME   477124.866 3746543.484 451.00
LOCATION L0007045      VOLUME   477116.458 3746544.730 451.00
LOCATION L0007046      VOLUME   477108.050 3746545.975 451.00
LOCATION L0007047      VOLUME   477099.641 3746547.221 451.00
LOCATION L0007048      VOLUME   477091.214 3746548.228 451.00
LOCATION L0007049      VOLUME   477082.715 3746548.339 451.00
LOCATION L0007050      VOLUME   477074.216 3746548.449 451.00
LOCATION L0007051      VOLUME   477065.716 3746548.560 451.08
LOCATION L0007052      VOLUME   477057.217 3746548.671 451.25
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LOCATION L0007053     VOLUME   477048.718 3746548.781 451.41
LOCATION L0007054     VOLUME   477040.218 3746548.892 451.57
LOCATION L0007055     VOLUME   477031.719 3746549.003 451.69
LOCATION L0007056     VOLUME   477023.220 3746549.113 451.81
LOCATION L0007057     VOLUME   477014.721 3746549.224 451.93
LOCATION L0007058     VOLUME   477006.221 3746549.335 452.00
LOCATION L0007059     VOLUME   476997.722 3746549.445 452.00
LOCATION L0007060     VOLUME   476989.223 3746549.556 452.00
LOCATION L0007061     VOLUME   476980.723 3746549.667 452.00
LOCATION L0007062     VOLUME   476972.224 3746549.777 452.00
LOCATION L0007063     VOLUME   476963.725 3746549.888 452.00
LOCATION L0007064     VOLUME   476955.226 3746549.999 452.00
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LOCATION L0007066     VOLUME   476938.227 3746550.220 452.00
LOCATION L0007067     VOLUME   476929.728 3746550.331 452.00
LOCATION L0007068     VOLUME   476921.228 3746550.441 452.00
LOCATION L0007069     VOLUME   476912.729 3746550.552 452.12
LOCATION L0007070     VOLUME   476904.230 3746550.663 452.27
LOCATION L0007071     VOLUME   476895.731 3746550.773 452.41
LOCATION L0007072     VOLUME   476887.231 3746550.884 452.55
LOCATION L0007073     VOLUME   476878.732 3746550.995 452.69
LOCATION L0007074     VOLUME   476870.233 3746551.105 452.83
LOCATION L0007075     VOLUME   476861.734 3746551.216 452.97
LOCATION L0007076     VOLUME   476853.234 3746551.327 453.00
LOCATION L0007077     VOLUME   476844.735 3746551.437 453.00
LOCATION L0007078     VOLUME   476836.236 3746551.548 453.00
LOCATION L0007079     VOLUME   476827.736 3746551.659 453.00
LOCATION L0007080     VOLUME   476819.237 3746551.769 453.00
LOCATION L0007081     VOLUME   476810.738 3746551.880 453.00
LOCATION L0007082     VOLUME   476802.239 3746551.991 453.00
LOCATION L0007083     VOLUME   476793.739 3746552.101 462.05
LOCATION L0007084     VOLUME   476785.240 3746552.212 462.16
LOCATION L0007085     VOLUME   476776.742 3746552.160 462.27
LOCATION L0007086     VOLUME   476768.245 3746551.940 462.38
LOCATION L0007087     VOLUME   476759.747 3746551.720 462.49
LOCATION L0007088     VOLUME   476751.250 3746551.501 462.60
LOCATION L0007089     VOLUME   476742.753 3746551.281 462.71
LOCATION L0007090     VOLUME   476734.256 3746551.061 462.83
LOCATION L0007091     VOLUME   476725.759 3746550.841 462.94
LOCATION L0007092     VOLUME   476717.262 3746550.622 463.05
LOCATION L0007093     VOLUME   476708.765 3746550.402 463.16
LOCATION L0007094     VOLUME   476700.267 3746550.182 463.27
LOCATION L0007095     VOLUME   476691.770 3746549.962 463.38
LOCATION L0007096     VOLUME   476683.273 3746549.743 463.49
LOCATION L0007097     VOLUME   476674.776 3746549.523 463.60
LOCATION L0007098     VOLUME   476666.279 3746549.303 463.71
LOCATION L0007099     VOLUME   476657.782 3746549.083 463.82
LOCATION L0007100     VOLUME   476649.485 3746550.211 463.92
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LOCATION L0007102     VOLUME   476633.358 3746555.587 464.00
LOCATION L0007103     VOLUME   476625.294 3746558.275 464.00
LOCATION L0007104     VOLUME   476617.230 3746560.963 464.00
LOCATION L0007105     VOLUME   476609.166 3746563.651 464.00
LOCATION L0007106     VOLUME   476601.371 3746566.912 464.00
LOCATION L0007107     VOLUME   476594.150 3746571.395 464.00
LOCATION L0007108     VOLUME   476586.928 3746575.878 464.00
LOCATION L0007109     VOLUME   476579.706 3746580.360 464.00
LOCATION L0007110     VOLUME   476572.484 3746584.843 464.00
LOCATION L0007111     VOLUME   476565.262 3746589.325 464.02
LOCATION L0007112     VOLUME   476558.040 3746593.808 464.11
LOCATION L0007113     VOLUME   476550.818 3746598.290 464.21
LOCATION L0007114     VOLUME   476543.596 3746602.773 464.30
LOCATION L0007115     VOLUME   476537.940 3746608.712 464.37
LOCATION L0007116     VOLUME   476533.994 3746616.240 464.43
LOCATION L0007117     VOLUME   476530.048 3746623.769 464.48
LOCATION L0007118     VOLUME   476526.101 3746631.297 464.53
LOCATION L0007119     VOLUME   476522.155 3746638.825 464.58
LOCATION L0007120     VOLUME   476518.209 3746646.354 464.63
LOCATION L0007121     VOLUME   476514.262 3746653.882 464.68
LOCATION L0007122     VOLUME   476510.316 3746661.411 464.73
LOCATION L0007123     VOLUME   476506.370 3746668.939 464.79
LOCATION L0007124     VOLUME   476502.423 3746676.467 464.84
LOCATION L0007125     VOLUME   476498.477 3746683.996 464.89
LOCATION L0007126     VOLUME   476494.531 3746691.524 464.94
LOCATION L0007127     VOLUME   476490.584 3746699.052 464.99
LOCATION L0007128     VOLUME   476486.638 3746706.581 465.08
LOCATION L0007129     VOLUME   476482.692 3746714.109 465.19
LOCATION L0007130     VOLUME   476478.745 3746721.638 465.29
LOCATION L0007131     VOLUME   476474.799 3746729.166 465.39
LOCATION L0007132     VOLUME   476470.853 3746736.694 465.50
LOCATION L0007133     VOLUME   476467.785 3746744.518 465.58
LOCATION L0007134     VOLUME   476466.388 3746752.902 465.61
LOCATION L0007135     VOLUME   476464.991 3746761.287 465.65
LOCATION L0007136     VOLUME   476463.593 3746769.671 465.69
LOCATION L0007137     VOLUME   476462.196 3746778.055 465.72
LOCATION L0007138     VOLUME   476460.798 3746786.440 465.76
LOCATION L0007139     VOLUME   476459.401 3746794.824 465.80
LOCATION L0007140     VOLUME   476457.348 3746802.987 465.85
LOCATION L0007141     VOLUME   476453.370 3746810.499 465.95
LOCATION L0007142     VOLUME   476449.393 3746818.011 466.06
LOCATION L0007143     VOLUME   476445.416 3746825.523 466.16
LOCATION L0007144     VOLUME   476441.439 3746833.035 466.27
LOCATION L0007145     VOLUME   476437.462 3746840.548 466.37
LOCATION L0007146     VOLUME   476433.485 3746848.060 466.47
LOCATION L0007147     VOLUME   476429.508 3746855.572 466.58
LOCATION L0007148     VOLUME   476425.531 3746863.084 466.68
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LOCATION L0007149     VOLUME   476421.554 3746870.596 466.78
LOCATION L0007150     VOLUME   476417.577 3746878.109 466.89
LOCATION L0007151     VOLUME   476413.600 3746885.621 466.99
LOCATION L0007152     VOLUME   476409.623 3746893.133 467.05
LOCATION L0007153     VOLUME   476403.232 3746898.494 467.13
LOCATION L0007154     VOLUME   476396.227 3746903.310 467.22
LOCATION L0007155     VOLUME   476389.223 3746908.125 467.31
LOCATION L0007156     VOLUME   476382.219 3746912.941 467.40
LOCATION L0007157     VOLUME   476375.214 3746917.756 467.49
LOCATION L0007158     VOLUME   476368.210 3746922.572 467.59
LOCATION L0007159     VOLUME   476361.205 3746927.387 467.68
LOCATION L0007160     VOLUME   476354.201 3746932.203 467.77
LOCATION L0007161     VOLUME   476347.197 3746937.018 467.86
LOCATION L0007162     VOLUME   476340.192 3746941.834 467.95
LOCATION L0007163     VOLUME   476332.114 3746943.710 468.05
LOCATION L0007164     VOLUME   476323.655 3746944.544 468.16
LOCATION L0007165     VOLUME   476315.196 3746945.378 468.27
LOCATION L0007166     VOLUME   476306.737 3746946.212 468.38
LOCATION L0007167     VOLUME   476298.278 3746947.046 468.49
LOCATION L0007168     VOLUME   476289.819 3746947.880 468.60
LOCATION L0007169     VOLUME   476281.360 3746948.714 468.71
LOCATION L0007170     VOLUME   476272.901 3746949.548 468.82
LOCATION L0007171     VOLUME   476264.442 3746950.382 468.93
LOCATION L0007172     VOLUME   476255.963 3746950.773 469.04
LOCATION L0007173     VOLUME   476247.463 3746950.716 469.15
LOCATION L0007174     VOLUME   476238.963 3746950.659 469.26
LOCATION L0007175     VOLUME   476230.464 3746950.603 469.37
LOCATION L0007176     VOLUME   476221.964 3746950.546 469.48
LOCATION L0007177     VOLUME   476213.464 3746950.489 469.59
LOCATION L0007178     VOLUME   476204.964 3746950.433 469.70
LOCATION L0007179     VOLUME   476196.464 3746950.376 469.81
LOCATION L0007180     VOLUME   476187.964 3746950.319 469.92
LOCATION L0007181     VOLUME   476179.465 3746950.263 470.04
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LOCATION L0007183     VOLUME   476162.465 3746950.149 470.26
LOCATION L0007184     VOLUME   476153.965 3746950.093 470.37
LOCATION L0007185     VOLUME   476145.465 3746950.036 470.48
LOCATION L0007186     VOLUME   476136.966 3746949.979 470.59
LOCATION L0007187     VOLUME   476128.466 3746949.923 470.70
LOCATION L0007188     VOLUME   476119.966 3746949.866 470.81
LOCATION L0007189     VOLUME   476111.466 3746949.809 470.92
LOCATION L0007190     VOLUME   476102.966 3746949.753 471.03
LOCATION L0007191     VOLUME   476094.467 3746949.696 471.14
LOCATION L0007192     VOLUME   476085.967 3746949.639 471.25
LOCATION L0007193     VOLUME   476077.467 3746949.583 471.36
LOCATION L0007194     VOLUME   476068.967 3746949.526 471.47
LOCATION L0007195     VOLUME   476060.467 3746949.469 471.58
LOCATION L0007196     VOLUME   476051.967 3746949.413 471.69
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   LOCATION L0007197     VOLUME   476043.468 3746949.356 471.80
   LOCATION L0007198     VOLUME   476034.968 3746949.299 471.91
   LOCATION L0007199     VOLUME   476026.468 3746949.243 472.02
   LOCATION L0007200     VOLUME   476017.968 3746949.186 472.13
   LOCATION L0007201     VOLUME   476009.468 3746949.129 472.24
   LOCATION L0007202     VOLUME   476000.969 3746949.073 472.35
   LOCATION L0007203     VOLUME   475992.469 3746949.016 472.46
   LOCATION L0007204     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0007205     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0007206     VOLUME   475966.969 3746948.846 472.79
   LOCATION L0007207     VOLUME   475958.470 3746948.789 472.90
   LOCATION L0007208     VOLUME   475949.970 3746948.733 472.96
   LOCATION L0007209     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0007210     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SLINE13
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 60% to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.000353
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477480.626, 3749795.973, 459.75, 4.00, 3.95
** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0007212     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0007213     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0007214     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0007215     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0007216     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0007217     VOLUME   477479.743 3749851.216 458.00
   LOCATION L0007218     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0007219     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0007220     VOLUME   477479.335 3749876.712 458.00
   LOCATION L0007221     VOLUME   477479.199 3749885.211 458.00
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                              AERMOD HRA Output
LOCATION L0007222      VOLUME   477479.063 3749893.710 458.00
LOCATION L0007223      VOLUME   477478.927 3749902.209 458.00
LOCATION L0007224      VOLUME   477478.791 3749910.708 458.00
LOCATION L0007225      VOLUME   477478.655 3749919.207 458.00
LOCATION L0007226      VOLUME   477478.519 3749927.706 458.00
LOCATION L0007227      VOLUME   477478.383 3749936.205 458.00
LOCATION L0007228      VOLUME   477478.247 3749944.704 458.00
LOCATION L0007229      VOLUME   477478.111 3749953.203 458.00
LOCATION L0007230      VOLUME   477477.975 3749961.702 458.17
LOCATION L0007231      VOLUME   477477.839 3749970.200 458.45
LOCATION L0007232      VOLUME   477477.703 3749978.699 458.74
LOCATION L0007233      VOLUME   477477.567 3749987.198 459.00
LOCATION L0007234      VOLUME   477477.432 3749995.697 459.00
LOCATION L0007235      VOLUME   477477.296 3750004.196 459.00
LOCATION L0007236      VOLUME   477477.160 3750012.695 459.00
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LOCATION L0007239      VOLUME   477476.752 3750038.192 459.00
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LOCATION L0007241      VOLUME   477476.480 3750055.190 459.00
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LOCATION L0007243      VOLUME   477476.208 3750072.187 459.00
LOCATION L0007244      VOLUME   477476.072 3750080.686 459.00
LOCATION L0007245      VOLUME   477475.936 3750089.185 459.00
LOCATION L0007246      VOLUME   477475.800 3750097.684 459.00
LOCATION L0007247      VOLUME   477475.664 3750106.183 459.00
LOCATION L0007248      VOLUME   477475.528 3750114.682 459.00
LOCATION L0007249      VOLUME   477475.392 3750123.181 459.00
LOCATION L0007250      VOLUME   477475.257 3750131.680 459.00
LOCATION L0007251      VOLUME   477475.121 3750140.179 459.00
LOCATION L0007252      VOLUME   477474.985 3750148.678 459.00
LOCATION L0007253      VOLUME   477474.849 3750157.177 459.00
LOCATION L0007254      VOLUME   477474.713 3750165.675 459.00
LOCATION L0007255      VOLUME   477474.171 3750174.155 459.00
LOCATION L0007256      VOLUME   477473.481 3750182.627 459.00
LOCATION L0007257      VOLUME   477472.792 3750191.099 459.00
LOCATION L0007258      VOLUME   477472.102 3750199.571 459.04
LOCATION L0007259      VOLUME   477471.412 3750208.043 459.15
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LOCATION L0007269      VOLUME   477466.528 3750292.840 460.00
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AERMOD HRA Output

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LOCATION L0007605     VOLUME   476550.049 3752227.213 478.00
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** End of LINE VOLUME Source ID = SLINE14
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002434
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477480.626, 3749795.973, 459.75, 0.00, 3.95
** 477474.677, 3750167.941, 460.51, 0.00, 3.95
** 477466.428, 3750269.283, 460.78, 0.00, 3.95
** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
** 477472.585, 3752226.131, 471.76, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0007902     VOLUME   477480.558 3749800.222 458.00
   LOCATION L0007903     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0007904     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0007905     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0007906     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0007907     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0007908     VOLUME   477479.743 3749851.216 458.00
   LOCATION L0007909     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0007910     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0007911     VOLUME   477479.335 3749876.712 458.00
   LOCATION L0007912     VOLUME   477479.199 3749885.211 458.00
   LOCATION L0007913     VOLUME   477479.063 3749893.710 458.00
   LOCATION L0007914     VOLUME   477478.927 3749902.209 458.00
   LOCATION L0007915     VOLUME   477478.791 3749910.708 458.00
   LOCATION L0007916     VOLUME   477478.655 3749919.207 458.00
   LOCATION L0007917     VOLUME   477478.519 3749927.706 458.00
   LOCATION L0007918     VOLUME   477478.383 3749936.205 458.00
   LOCATION L0007919     VOLUME   477478.247 3749944.704 458.00
   LOCATION L0007920     VOLUME   477478.111 3749953.203 458.00
   LOCATION L0007921     VOLUME   477477.975 3749961.702 458.17
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                              AERMOD HRA Output
LOCATION L0007922      VOLUME   477477.839 3749970.200 458.45
LOCATION L0007923      VOLUME   477477.703 3749978.699 458.74
LOCATION L0007924      VOLUME   477477.567 3749987.198 459.00
LOCATION L0007925      VOLUME   477477.432 3749995.697 459.00
LOCATION L0007926      VOLUME   477477.296 3750004.196 459.00
LOCATION L0007927      VOLUME   477477.160 3750012.695 459.00
LOCATION L0007928      VOLUME   477477.024 3750021.194 459.00
LOCATION L0007929      VOLUME   477476.888 3750029.693 459.00
LOCATION L0007930      VOLUME   477476.752 3750038.192 459.00
LOCATION L0007931      VOLUME   477476.616 3750046.691 459.00
LOCATION L0007932      VOLUME   477476.480 3750055.190 459.00
LOCATION L0007933      VOLUME   477476.344 3750063.689 459.00
LOCATION L0007934      VOLUME   477476.208 3750072.187 459.00
LOCATION L0007935      VOLUME   477476.072 3750080.686 459.00
LOCATION L0007936      VOLUME   477475.936 3750089.185 459.00
LOCATION L0007937      VOLUME   477475.800 3750097.684 459.00
LOCATION L0007938      VOLUME   477475.664 3750106.183 459.00
LOCATION L0007939      VOLUME   477475.528 3750114.682 459.00
LOCATION L0007940      VOLUME   477475.392 3750123.181 459.00
LOCATION L0007941      VOLUME   477475.257 3750131.680 459.00
LOCATION L0007942      VOLUME   477475.121 3750140.179 459.00
LOCATION L0007943      VOLUME   477474.985 3750148.678 459.00
LOCATION L0007944      VOLUME   477474.849 3750157.177 459.00
LOCATION L0007945      VOLUME   477474.713 3750165.675 459.00
LOCATION L0007946      VOLUME   477474.171 3750174.155 459.00
LOCATION L0007947      VOLUME   477473.481 3750182.627 459.00
LOCATION L0007948      VOLUME   477472.792 3750191.099 459.00
LOCATION L0007949      VOLUME   477472.102 3750199.571 459.04
LOCATION L0007950      VOLUME   477471.412 3750208.043 459.15
LOCATION L0007951      VOLUME   477470.723 3750216.515 459.24
LOCATION L0007952      VOLUME   477470.033 3750224.987 459.32
LOCATION L0007953      VOLUME   477469.344 3750233.458 459.48
LOCATION L0007954      VOLUME   477468.654 3750241.930 459.66
LOCATION L0007955      VOLUME   477467.965 3750250.402 459.85
LOCATION L0007956      VOLUME   477467.275 3750258.874 460.00
LOCATION L0007957      VOLUME   477466.585 3750267.346 460.00
LOCATION L0007958      VOLUME   477466.456 3750275.840 460.00
LOCATION L0007959      VOLUME   477466.492 3750284.340 460.00
LOCATION L0007960      VOLUME   477466.528 3750292.840 460.00
LOCATION L0007961      VOLUME   477466.565 3750301.340 460.00
LOCATION L0007962      VOLUME   477466.601 3750309.840 460.00
LOCATION L0007963      VOLUME   477466.637 3750318.340 460.00
LOCATION L0007964      VOLUME   477466.674 3750326.839 460.00
LOCATION L0007965      VOLUME   477466.710 3750335.339 460.00
LOCATION L0007966      VOLUME   477466.746 3750343.839 460.00
LOCATION L0007967      VOLUME   477466.783 3750352.339 460.00
LOCATION L0007968      VOLUME   477466.819 3750360.839 460.00
LOCATION L0007969      VOLUME   477466.855 3750369.339 460.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0007970     VOLUME   477466.892 3750377.839 460.00
LOCATION L0007971     VOLUME   477466.928 3750386.339 460.00
LOCATION L0007972     VOLUME   477466.964 3750394.839 460.00
LOCATION L0007973     VOLUME   477467.001 3750403.339 460.00
LOCATION L0007974     VOLUME   477467.037 3750411.839 460.00
LOCATION L0007975     VOLUME   477467.073 3750420.339 460.00
LOCATION L0007976     VOLUME   477467.110 3750428.839 460.00
LOCATION L0007977     VOLUME   477467.146 3750437.338 460.00
LOCATION L0007978     VOLUME   477467.182 3750445.838 460.00
LOCATION L0007979     VOLUME   477467.219 3750454.338 460.00
LOCATION L0007980     VOLUME   477467.255 3750462.838 460.00
LOCATION L0007981     VOLUME   477467.291 3750471.338 460.16
LOCATION L0007982     VOLUME   477467.328 3750479.838 460.44
LOCATION L0007983     VOLUME   477467.364 3750488.338 460.73
LOCATION L0007984     VOLUME   477467.400 3750496.838 461.00
LOCATION L0007985     VOLUME   477467.437 3750505.338 461.00
LOCATION L0007986     VOLUME   477467.473 3750513.838 461.00
LOCATION L0007987     VOLUME   477467.509 3750522.338 461.00
LOCATION L0007988     VOLUME   477467.546 3750530.838 461.00
LOCATION L0007989     VOLUME   477467.582 3750539.338 461.00
LOCATION L0007990     VOLUME   477467.689 3750547.836 461.00
LOCATION L0007991     VOLUME   477467.939 3750556.333 461.00
LOCATION L0007992     VOLUME   477468.189 3750564.829 461.00
LOCATION L0007993     VOLUME   477468.438 3750573.325 461.00
LOCATION L0007994     VOLUME   477468.688 3750581.822 461.00
LOCATION L0007995     VOLUME   477468.938 3750590.318 461.00
LOCATION L0007996     VOLUME   477469.188 3750598.814 461.00
LOCATION L0007997     VOLUME   477469.438 3750607.311 461.00
LOCATION L0007998     VOLUME   477469.688 3750615.807 461.00
LOCATION L0007999     VOLUME   477469.938 3750624.303 461.00
LOCATION L0008000     VOLUME   477470.188 3750632.800 461.00
LOCATION L0008001     VOLUME   477470.438 3750641.296 461.00
LOCATION L0008002     VOLUME   477470.687 3750649.792 461.04
LOCATION L0008003     VOLUME   477470.937 3750658.289 461.15
LOCATION L0008004     VOLUME   477471.187 3750666.785 461.26
LOCATION L0008005     VOLUME   477471.437 3750675.281 461.37
LOCATION L0008006     VOLUME   477471.687 3750683.778 461.54
LOCATION L0008007     VOLUME   477471.937 3750692.274 461.72
LOCATION L0008008     VOLUME   477472.187 3750700.770 461.89
LOCATION L0008009     VOLUME   477472.437 3750709.266 462.00
LOCATION L0008010     VOLUME   477472.687 3750717.763 462.00
LOCATION L0008011     VOLUME   477472.937 3750726.259 462.00
LOCATION L0008012     VOLUME   477473.186 3750734.755 462.00
LOCATION L0008013     VOLUME   477473.436 3750743.252 462.00
LOCATION L0008014     VOLUME   477473.686 3750751.748 462.00
LOCATION L0008015     VOLUME   477473.936 3750760.244 462.00
LOCATION L0008016     VOLUME   477474.186 3750768.741 462.00
LOCATION L0008017     VOLUME   477474.436 3750777.237 462.00
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LOCATION L0008018     VOLUME   477474.686 3750785.733 462.00
LOCATION L0008019     VOLUME   477474.936 3750794.230 462.00
LOCATION L0008020     VOLUME   477475.186 3750802.726 462.00
LOCATION L0008021     VOLUME   477475.435 3750811.222 462.00
LOCATION L0008022     VOLUME   477475.685 3750819.719 462.00
LOCATION L0008023     VOLUME   477475.935 3750828.215 462.00
LOCATION L0008024     VOLUME   477476.185 3750836.711 462.00
LOCATION L0008025     VOLUME   477476.435 3750845.208 462.00
LOCATION L0008026     VOLUME   477476.685 3750853.704 462.00
LOCATION L0008027     VOLUME   477476.935 3750862.200 462.11
LOCATION L0008028     VOLUME   477477.066 3750870.699 462.27
LOCATION L0008029     VOLUME   477477.120 3750879.199 462.44
LOCATION L0008030     VOLUME   477477.174 3750887.698 462.60
LOCATION L0008031     VOLUME   477477.229 3750896.198 462.72
LOCATION L0008032     VOLUME   477477.283 3750904.698 462.84
LOCATION L0008033     VOLUME   477477.337 3750913.198 462.95
LOCATION L0008034     VOLUME   477477.391 3750921.698 463.00
LOCATION L0008035     VOLUME   477477.445 3750930.198 463.00
LOCATION L0008036     VOLUME   477477.499 3750938.697 463.00
LOCATION L0008037     VOLUME   477477.553 3750947.197 463.00
LOCATION L0008038     VOLUME   477477.607 3750955.697 463.00
LOCATION L0008039     VOLUME   477477.662 3750964.197 463.00
LOCATION L0008040     VOLUME   477477.716 3750972.697 463.00
LOCATION L0008041     VOLUME   477477.770 3750981.197 463.00
LOCATION L0008042     VOLUME   477477.824 3750989.696 463.00
LOCATION L0008043     VOLUME   477477.878 3750998.196 463.00
LOCATION L0008044     VOLUME   477477.932 3751006.696 463.00
LOCATION L0008045     VOLUME   477477.986 3751015.196 463.00
LOCATION L0008046     VOLUME   477478.041 3751023.696 463.00
LOCATION L0008047     VOLUME   477478.095 3751032.196 463.00
LOCATION L0008048     VOLUME   477478.149 3751040.695 463.00
LOCATION L0008049     VOLUME   477478.203 3751049.195 463.00
LOCATION L0008050     VOLUME   477478.257 3751057.695 463.00
LOCATION L0008051     VOLUME   477478.311 3751066.195 463.00
LOCATION L0008052     VOLUME   477478.365 3751074.695 463.17
LOCATION L0008053     VOLUME   477478.420 3751083.194 463.34
LOCATION L0008054     VOLUME   477478.474 3751091.694 463.52
LOCATION L0008055     VOLUME   477478.528 3751100.194 463.67
LOCATION L0008056     VOLUME   477478.582 3751108.694 463.78
LOCATION L0008057     VOLUME   477478.636 3751117.194 463.88
LOCATION L0008058     VOLUME   477478.690 3751125.694 463.99
LOCATION L0008059     VOLUME   477478.744 3751134.193 464.00
LOCATION L0008060     VOLUME   477478.799 3751142.693 464.00
LOCATION L0008061     VOLUME   477478.853 3751151.193 464.00
LOCATION L0008062     VOLUME   477478.907 3751159.693 464.00
LOCATION L0008063     VOLUME   477478.961 3751168.193 464.00
LOCATION L0008064     VOLUME   477479.015 3751176.693 464.00
LOCATION L0008065     VOLUME   477479.069 3751185.192 464.00
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                              AERMOD HRA Output
LOCATION L0008066      VOLUME   477479.123 3751193.692 464.00
LOCATION L0008067      VOLUME   477479.178 3751202.192 464.00
LOCATION L0008068      VOLUME   477479.232 3751210.692 464.00
LOCATION L0008069      VOLUME   477479.286 3751219.192 464.00
LOCATION L0008070      VOLUME   477479.340 3751227.692 464.00
LOCATION L0008071      VOLUME   477479.386 3751236.191 464.00
LOCATION L0008072      VOLUME   477479.327 3751244.691 464.00
LOCATION L0008073      VOLUME   477479.269 3751253.191 464.22
LOCATION L0008074      VOLUME   477479.211 3751261.691 464.50
LOCATION L0008075      VOLUME   477479.152 3751270.191 464.79
LOCATION L0008076      VOLUME   477479.094 3751278.690 465.00
LOCATION L0008077      VOLUME   477479.035 3751287.190 465.00
LOCATION L0008078      VOLUME   477478.977 3751295.690 465.00
LOCATION L0008079      VOLUME   477478.919 3751304.190 465.00
LOCATION L0008080      VOLUME   477478.860 3751312.690 465.00
LOCATION L0008081      VOLUME   477478.802 3751321.189 465.00
LOCATION L0008082      VOLUME   477478.743 3751329.689 465.00
LOCATION L0008083      VOLUME   477478.685 3751338.189 465.00
LOCATION L0008084      VOLUME   477478.627 3751346.689 465.00
LOCATION L0008085      VOLUME   477478.568 3751355.189 465.00
LOCATION L0008086      VOLUME   477478.510 3751363.688 465.00
LOCATION L0008087      VOLUME   477478.451 3751372.188 465.00
LOCATION L0008088      VOLUME   477478.393 3751380.688 465.00
LOCATION L0008089      VOLUME   477478.335 3751389.188 465.00
LOCATION L0008090      VOLUME   477478.276 3751397.688 465.00
LOCATION L0008091      VOLUME   477478.218 3751406.187 465.00
LOCATION L0008092      VOLUME   477478.160 3751414.687 465.00
LOCATION L0008093      VOLUME   477478.101 3751423.187 465.00
LOCATION L0008094      VOLUME   477478.043 3751431.687 465.17
LOCATION L0008095      VOLUME   477477.984 3751440.187 465.45
LOCATION L0008096      VOLUME   477477.926 3751448.686 465.74
LOCATION L0008097      VOLUME   477477.868 3751457.186 466.00
LOCATION L0008098      VOLUME   477477.809 3751465.686 466.00
LOCATION L0008099      VOLUME   477477.751 3751474.186 466.00
LOCATION L0008100      VOLUME   477477.692 3751482.686 466.00
LOCATION L0008101      VOLUME   477477.634 3751491.185 466.00
LOCATION L0008102      VOLUME   477477.576 3751499.685 466.00
LOCATION L0008103      VOLUME   477477.517 3751508.185 466.00
LOCATION L0008104      VOLUME   477477.459 3751516.685 466.00
LOCATION L0008105      VOLUME   477477.400 3751525.185 466.00
LOCATION L0008106      VOLUME   477477.342 3751533.684 466.00
LOCATION L0008107      VOLUME   477477.284 3751542.184 466.00
LOCATION L0008108      VOLUME   477477.225 3751550.684 466.00
LOCATION L0008109      VOLUME   477477.167 3751559.184 466.00
LOCATION L0008110      VOLUME   477477.108 3751567.684 466.00
LOCATION L0008111      VOLUME   477477.050 3751576.183 466.00
LOCATION L0008112      VOLUME   477476.992 3751584.683 466.00
LOCATION L0008113      VOLUME   477476.933 3751593.183 466.00
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LOCATION L0008114      VOLUME   477476.875 3751601.683 466.00
LOCATION L0008115      VOLUME   477476.817 3751610.183 466.07
LOCATION L0008116      VOLUME   477476.758 3751618.682 466.23
LOCATION L0008117      VOLUME   477476.700 3751627.182 466.39
LOCATION L0008118      VOLUME   477476.641 3751635.682 466.55
LOCATION L0008119      VOLUME   477476.583 3751644.182 466.67
LOCATION L0008120      VOLUME   477476.525 3751652.682 466.80
LOCATION L0008121      VOLUME   477476.466 3751661.181 466.92
LOCATION L0008122      VOLUME   477476.408 3751669.681 467.00
LOCATION L0008123      VOLUME   477476.349 3751678.181 467.00
LOCATION L0008124      VOLUME   477476.291 3751686.681 467.00
LOCATION L0008125      VOLUME   477476.233 3751695.181 467.00
LOCATION L0008126      VOLUME   477476.174 3751703.680 467.00
LOCATION L0008127      VOLUME   477476.116 3751712.180 467.00
LOCATION L0008128      VOLUME   477476.057 3751720.680 467.00
LOCATION L0008129      VOLUME   477475.999 3751729.180 467.05
LOCATION L0008130      VOLUME   477475.941 3751737.680 467.20
LOCATION L0008131      VOLUME   477475.882 3751746.179 467.35
LOCATION L0008132      VOLUME   477475.824 3751754.679 467.50
LOCATION L0008133      VOLUME   477475.765 3751763.179 467.64
LOCATION L0008134      VOLUME   477475.707 3751771.679 467.77
LOCATION L0008135      VOLUME   477475.649 3751780.179 467.90
LOCATION L0008136      VOLUME   477475.590 3751788.678 468.00
LOCATION L0008137      VOLUME   477475.532 3751797.178 468.00
LOCATION L0008138      VOLUME   477475.474 3751805.678 468.00
LOCATION L0008139      VOLUME   477475.415 3751814.178 468.00
LOCATION L0008140      VOLUME   477475.357 3751822.678 468.00
LOCATION L0008141      VOLUME   477475.298 3751831.177 468.00
LOCATION L0008142      VOLUME   477475.240 3751839.677 468.00
LOCATION L0008143      VOLUME   477475.182 3751848.177 468.00
LOCATION L0008144      VOLUME   477475.123 3751856.677 468.00
LOCATION L0008145      VOLUME   477475.065 3751865.177 468.00
LOCATION L0008146      VOLUME   477475.006 3751873.676 468.00
LOCATION L0008147      VOLUME   477474.948 3751882.176 468.19
LOCATION L0008148      VOLUME   477474.890 3751890.676 468.47
LOCATION L0008149      VOLUME   477474.831 3751899.176 468.75
LOCATION L0008150      VOLUME   477474.773 3751907.676 469.00
LOCATION L0008151      VOLUME   477474.714 3751916.175 469.00
LOCATION L0008152      VOLUME   477474.656 3751924.675 469.00
LOCATION L0008153      VOLUME   477474.598 3751933.175 469.00
LOCATION L0008154      VOLUME   477474.539 3751941.675 469.00
LOCATION L0008155      VOLUME   477474.481 3751950.175 469.00
LOCATION L0008156      VOLUME   477474.422 3751958.674 469.00
LOCATION L0008157      VOLUME   477474.364 3751967.174 469.00
LOCATION L0008158      VOLUME   477474.306 3751975.674 469.00
LOCATION L0008159      VOLUME   477474.247 3751984.174 469.00
LOCATION L0008160      VOLUME   477474.189 3751992.674 469.00
LOCATION L0008161      VOLUME   477474.131 3752001.173 469.00
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                              AERMOD HRA Output
   LOCATION L0008162     VOLUME   477474.072 3752009.673 469.00
   LOCATION L0008163     VOLUME   477474.014 3752018.173 469.00
   LOCATION L0008164     VOLUME   477473.955 3752026.673 469.00
   LOCATION L0008165     VOLUME   477473.897 3752035.173 469.14
   LOCATION L0008166     VOLUME   477473.839 3752043.672 469.27
   LOCATION L0008167     VOLUME   477473.780 3752052.172 469.40
   LOCATION L0008168     VOLUME   477473.722 3752060.672 469.46
   LOCATION L0008169     VOLUME   477473.663 3752069.172 469.46
   LOCATION L0008170     VOLUME   477473.605 3752077.672 469.46
   LOCATION L0008171     VOLUME   477473.547 3752086.171 469.46
   LOCATION L0008172     VOLUME   477473.488 3752094.671 469.60
   LOCATION L0008173     VOLUME   477473.430 3752103.171 469.76
   LOCATION L0008174     VOLUME   477473.371 3752111.671 469.91
   LOCATION L0008175     VOLUME   477473.313 3752120.171 470.05
   LOCATION L0008176     VOLUME   477473.255 3752128.670 470.18
   LOCATION L0008177     VOLUME   477473.196 3752137.170 470.31
   LOCATION L0008178     VOLUME   477473.138 3752145.670 470.43
   LOCATION L0008179     VOLUME   477473.079 3752154.170 470.58
   LOCATION L0008180     VOLUME   477473.021 3752162.670 470.74
   LOCATION L0008181     VOLUME   477472.963 3752171.169 470.90
   LOCATION L0008182     VOLUME   477472.904 3752179.669 471.00
   LOCATION L0008183     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0008184     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0008185     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0008186     VOLUME   477472.671 3752213.668 471.24
   LOCATION L0008187     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001039     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001040     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001041     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001042     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001043     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001044     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001045     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001046     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001047     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001048     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001049     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001050     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001051     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001052     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001053     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001054     0.000004488      4.00     13.95      1.86
   SRCPARAM L0001055     0.000004488      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
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```
   SRCPARAM L0001056     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001057     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001058     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001059     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001060     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001061     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001062     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001063     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001064     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001065     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001066     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001067     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001068     0.000004649      4.00     13.95      1.86
   SRCPARAM L0001069     0.000004649      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0001070     0.000004289      4.00      3.95      1.86
   SRCPARAM L0001071     0.000004289      4.00      3.95      1.86
   SRCPARAM L0001072     0.000004289      4.00      3.95      1.86
   SRCPARAM L0001073     0.000004289      4.00      3.95      1.86
   SRCPARAM L0001074     0.000004289      4.00      3.95      1.86
   SRCPARAM L0001075     0.000004289      4.00      3.95      1.86
   SRCPARAM L0001076     0.000004289      4.00      3.95      1.86
   SRCPARAM L0001077     0.000004289      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0001078     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001079     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001080     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001081     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001082     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001083     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001084     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001085     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001086     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001087     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001088     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001089     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001090     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001091     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001092     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001093     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001094     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001095     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001096     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001097     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0001098     0.0000001901      4.00      3.95      1.86
** ---------------------------------------------------------------------
```

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                         AERMOD HRA Output
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0001099     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001100     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001101     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001102     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001103     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001104     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001105     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001106     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001107     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001108     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001109     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001110     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001111     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001112     0.0000031      0.00      3.95      1.86
   SRCPARAM L0001113     0.0000031      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001114     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0001115     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0001116     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0001117     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0001118     0.0000006168      0.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0001119     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001120     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001121     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001122     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001123     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001124     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001125     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001126     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001127     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001128     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001129     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001130     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001131     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001132     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001133     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001134     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001135     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001136     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001137     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001138     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001139     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001140     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001141     0.000001005      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0001142     0.000001005      4.00       3.95       1.86
SRCPARAM L0001143     0.000001005      4.00       3.95       1.86
SRCPARAM L0001144     0.000001005      4.00       3.95       1.86
SRCPARAM L0001145     0.000001005      4.00       3.95       1.86
SRCPARAM L0001146     0.000001005      4.00       3.95       1.86
SRCPARAM L0001147     0.000001005      4.00       3.95       1.86
SRCPARAM L0001148     0.000001005      4.00       3.95       1.86
SRCPARAM L0001149     0.000001005      4.00       3.95       1.86
SRCPARAM L0001150     0.000001005      4.00       3.95       1.86
SRCPARAM L0001151     0.000001005      4.00       3.95       1.86
SRCPARAM L0001152     0.000001005      4.00       3.95       1.86
SRCPARAM L0001153     0.000001005      4.00       3.95       1.86
SRCPARAM L0001154     0.000001005      4.00       3.95       1.86
SRCPARAM L0001155     0.000001005      4.00       3.95       1.86
SRCPARAM L0001156     0.000001005      4.00       3.95       1.86
SRCPARAM L0001157     0.000001005      4.00       3.95       1.86
SRCPARAM L0001158     0.000001005      4.00       3.95       1.86
SRCPARAM L0001159     0.000001005      4.00       3.95       1.86
SRCPARAM L0001160     0.000001005      4.00       3.95       1.86
SRCPARAM L0001161     0.000001005      4.00       3.95       1.86
SRCPARAM L0001162     0.000001005      4.00       3.95       1.86
SRCPARAM L0001163     0.000001005      4.00       3.95       1.86
SRCPARAM L0001164     0.000001005      4.00       3.95       1.86
SRCPARAM L0001165     0.000001005      4.00       3.95       1.86
SRCPARAM L0001166     0.000001005      4.00       3.95       1.86
SRCPARAM L0001167     0.000001005      4.00       3.95       1.86
SRCPARAM L0001168     0.000001005      4.00       3.95       1.86
SRCPARAM L0001169     0.000001005      4.00       3.95       1.86
SRCPARAM L0001170     0.000001005      4.00       3.95       1.86
SRCPARAM L0001171     0.000001005      4.00       3.95       1.86
SRCPARAM L0001172     0.000001005      4.00       3.95       1.86
SRCPARAM L0001173     0.000001005      4.00       3.95       1.86
SRCPARAM L0001174     0.000001005      4.00       3.95       1.86
SRCPARAM L0001175     0.000001005      4.00       3.95       1.86
SRCPARAM L0001176     0.000001005      4.00       3.95       1.86
SRCPARAM L0001177     0.000001005      4.00       3.95       1.86
SRCPARAM L0001178     0.000001005      4.00       3.95       1.86
SRCPARAM L0001179     0.000001005      4.00       3.95       1.86
SRCPARAM L0001180     0.000001005      4.00       3.95       1.86
SRCPARAM L0001181     0.000001005      4.00       3.95       1.86
SRCPARAM L0001182     0.000001005      4.00       3.95       1.86
SRCPARAM L0001183     0.000001005      4.00       3.95       1.86
SRCPARAM L0001184     0.000001005      4.00       3.95       1.86
SRCPARAM L0001185     0.000001005      4.00       3.95       1.86
SRCPARAM L0001186     0.000001005      4.00       3.95       1.86
SRCPARAM L0001187     0.000001005      4.00       3.95       1.86
SRCPARAM L0001188     0.000001005      4.00       3.95       1.86
SRCPARAM L0001189     0.000001005      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0001190      0.000001005       4.00       3.95       1.86
SRCPARAM L0001191      0.000001005       4.00       3.95       1.86
SRCPARAM L0001192      0.000001005       4.00       3.95       1.86
SRCPARAM L0001193      0.000001005       4.00       3.95       1.86
SRCPARAM L0001194      0.000001005       4.00       3.95       1.86
SRCPARAM L0001195      0.000001005       4.00       3.95       1.86
SRCPARAM L0001196      0.000001005       4.00       3.95       1.86
SRCPARAM L0001197      0.000001005       4.00       3.95       1.86
SRCPARAM L0001198      0.000001005       4.00       3.95       1.86
SRCPARAM L0001199      0.000001005       4.00       3.95       1.86
SRCPARAM L0001200      0.000001005       4.00       3.95       1.86
SRCPARAM L0001201      0.000001005       4.00       3.95       1.86
SRCPARAM L0001202      0.000001005       4.00       3.95       1.86
SRCPARAM L0001203      0.000001005       4.00       3.95       1.86
SRCPARAM L0001204      0.000001005       4.00       3.95       1.86
SRCPARAM L0001205      0.000001005       4.00       3.95       1.86
SRCPARAM L0001206      0.000001005       4.00       3.95       1.86
SRCPARAM L0001207      0.000001005       4.00       3.95       1.86
SRCPARAM L0001208      0.000001005       4.00       3.95       1.86
SRCPARAM L0001209      0.000001005       4.00       3.95       1.86
SRCPARAM L0001210      0.000001005       4.00       3.95       1.86
SRCPARAM L0001211      0.000001005       4.00       3.95       1.86
SRCPARAM L0001212      0.000001005       4.00       3.95       1.86
SRCPARAM L0001213      0.000001005       4.00       3.95       1.86
SRCPARAM L0001214      0.000001005       4.00       3.95       1.86
SRCPARAM L0001215      0.000001005       4.00       3.95       1.86
SRCPARAM L0001216      0.000001005       4.00       3.95       1.86
SRCPARAM L0001217      0.000001005       4.00       3.95       1.86
SRCPARAM L0001218      0.000001005       4.00       3.95       1.86
SRCPARAM L0001219      0.000001005       4.00       3.95       1.86
SRCPARAM L0001220      0.000001005       4.00       3.95       1.86
SRCPARAM L0001221      0.000001005       4.00       3.95       1.86
SRCPARAM L0001222      0.000001005       4.00       3.95       1.86
SRCPARAM L0001223      0.000001005       4.00       3.95       1.86
SRCPARAM L0001224      0.000001005       4.00       3.95       1.86
SRCPARAM L0001225      0.000001005       4.00       3.95       1.86
SRCPARAM L0001226      0.000001005       4.00       3.95       1.86
SRCPARAM L0001227      0.000001005       4.00       3.95       1.86
SRCPARAM L0001228      0.000001005       4.00       3.95       1.86
SRCPARAM L0001229      0.000001005       4.00       3.95       1.86
SRCPARAM L0001230      0.000001005       4.00       3.95       1.86
SRCPARAM L0001231      0.000001005       4.00       3.95       1.86
SRCPARAM L0001232      0.000001005       4.00       3.95       1.86
SRCPARAM L0001233      0.000001005       4.00       3.95       1.86
SRCPARAM L0001234      0.000001005       4.00       3.95       1.86
SRCPARAM L0001235      0.000001005       4.00       3.95       1.86
SRCPARAM L0001236      0.000001005       4.00       3.95       1.86
SRCPARAM L0001237      0.000001005       4.00       3.95       1.86
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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SRCPARAM L0001238      0.000001005       4.00       3.95       1.86
SRCPARAM L0001239      0.000001005       4.00       3.95       1.86
SRCPARAM L0001240      0.000001005       4.00       3.95       1.86
SRCPARAM L0001241      0.000001005       4.00       3.95       1.86
SRCPARAM L0001242      0.000001005       4.00       3.95       1.86
SRCPARAM L0001243      0.000001005       4.00       3.95       1.86
SRCPARAM L0001244      0.000001005       4.00       3.95       1.86
SRCPARAM L0001245      0.000001005       4.00       3.95       1.86
SRCPARAM L0001246      0.000001005       4.00       3.95       1.86
SRCPARAM L0001247      0.000001005       4.00       3.95       1.86
SRCPARAM L0001248      0.000001005       4.00       3.95       1.86
SRCPARAM L0001249      0.000001005       4.00       3.95       1.86
SRCPARAM L0001250      0.000001005       4.00       3.95       1.86
SRCPARAM L0001251      0.000001005       4.00       3.95       1.86
SRCPARAM L0001252      0.000001005       4.00       3.95       1.86
SRCPARAM L0001253      0.000001005       4.00       3.95       1.86
SRCPARAM L0001254      0.000001005       4.00       3.95       1.86
SRCPARAM L0001255      0.000001005       4.00       3.95       1.86
SRCPARAM L0001256      0.000001005       4.00       3.95       1.86
SRCPARAM L0001257      0.000001005       4.00       3.95       1.86
SRCPARAM L0001258      0.000001005       4.00       3.95       1.86
SRCPARAM L0001259      0.000001005       4.00       3.95       1.86
SRCPARAM L0001260      0.000001005       4.00       3.95       1.86
SRCPARAM L0001261      0.000001005       4.00       3.95       1.86
SRCPARAM L0001262      0.000001005       4.00       3.95       1.86
SRCPARAM L0001263      0.000001005       4.00       3.95       1.86
SRCPARAM L0001264      0.000001005       4.00       3.95       1.86
SRCPARAM L0001265      0.000001005       4.00       3.95       1.86
SRCPARAM L0001266      0.000001005       4.00       3.95       1.86
SRCPARAM L0001267      0.000001005       4.00       3.95       1.86
SRCPARAM L0001268      0.000001005       4.00       3.95       1.86
SRCPARAM L0001269      0.000001005       4.00       3.95       1.86
SRCPARAM L0001270      0.000001005       4.00       3.95       1.86
SRCPARAM L0001271      0.000001005       4.00       3.95       1.86
SRCPARAM L0001272      0.000001005       4.00       3.95       1.86
SRCPARAM L0001273      0.000001005       4.00       3.95       1.86
SRCPARAM L0001274      0.000001005       4.00       3.95       1.86
SRCPARAM L0001275      0.000001005       4.00       3.95       1.86
SRCPARAM L0001276      0.000001005       4.00       3.95       1.86
SRCPARAM L0001277      0.000001005       4.00       3.95       1.86
SRCPARAM L0001278      0.000001005       4.00       3.95       1.86
SRCPARAM L0001279      0.000001005       4.00       3.95       1.86
SRCPARAM L0001280      0.000001005       4.00       3.95       1.86
SRCPARAM L0001281      0.000001005       4.00       3.95       1.86
SRCPARAM L0001282      0.000001005       4.00       3.95       1.86
SRCPARAM L0001283      0.000001005       4.00       3.95       1.86
SRCPARAM L0001284      0.000001005       4.00       3.95       1.86
SRCPARAM L0001285      0.000001005       4.00       3.95       1.86
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                              AERMOD HRA Output
   SRCPARAM L0001286     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001287     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001288     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001289     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001290     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001291     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001292     0.000001005      4.00      3.95      1.86
   SRCPARAM L0001293     0.000001005      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0001294     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001295     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001296     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001297     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001298     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001299     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001300     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001301     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001302     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001303     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001304     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001305     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001306     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001307     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001308     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001309     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001310     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001311     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001312     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001313     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001314     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001315     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001316     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001317     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001318     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001319     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001320     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001321     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001322     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001323     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001324     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001325     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001326     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001327     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001328     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001329     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001330     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0001331     0.0000002141      4.00      3.95      1.86
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   SRCPARAM L0001332     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001333     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001334     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001335     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001336     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001337     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001338     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001339     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001340     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001341     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001342     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001343     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001344     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001345     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001346     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001347     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001348     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001349     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001350     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001351     0.0000002141      4.00       3.95       1.86
   SRCPARAM L0001352     0.0000002141      4.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0001353     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001354     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001355     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001356     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001357     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001358     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001359     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001360     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001361     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001362     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001363     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001364     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001365     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001366     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001367     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001368     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001369     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001370     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001371     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001372     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001373     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001374     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001375     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001376     0.0000001686      4.00       3.95       1.86
   SRCPARAM L0001377     0.0000001686      4.00       3.95       1.86
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   SRCPARAM L0001378     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001379     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001380     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001381     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001382     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001383     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001384     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001385     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001386     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001387     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001388     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001389     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001390     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001391     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001392     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001393     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001394     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001395     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001396     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001397     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001398     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001399     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001400     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0001401     0.0000001686      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0001402     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001403     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001404     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001405     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001406     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001407     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001408     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001409     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001410     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001411     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001412     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001413     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001414     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001415     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001416     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001417     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001418     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001419     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001420     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001421     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001422     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0001423     0.0000002878      4.00      3.95      1.86
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   SRCPARAM L0001424     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001425     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001426     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001427     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001428     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001429     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001430     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001431     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001432     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001433     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001434     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001435     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001436     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001437     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001438     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001439     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001440     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001441     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001442     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001443     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001444     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001445     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001446     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001447     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001448     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001449     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001450     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0001451     0.0000002878      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0001452     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001453     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001454     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001455     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001456     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001457     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001458     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001459     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001460     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001461     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001462     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001463     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001464     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001465     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001466     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001467     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001468     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001469     0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001470      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001471      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001472      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001473      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001474      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001475      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001476      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001477      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001478      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001479      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001480      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001481      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001482      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001483      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001484      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001485      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001486      0.0000005957       4.00        3.95        1.86
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SRCPARAM L0001488      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001489      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001490      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001491      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001492      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001493      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001494      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001495      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001496      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001497      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001498      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001499      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001500      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001501      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001502      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001503      0.0000005957       4.00        3.95        1.86
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SRCPARAM L0001507      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001508      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001509      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001510      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001511      0.0000005957       4.00        3.95        1.86
SRCPARAM L0001512      0.0000005957       4.00        3.95        1.86
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SRCPARAM L0001517      0.0000005957       4.00        3.95        1.86
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SRCPARAM L0001518     0.0000005957     4.00      3.95      1.86
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SRCPARAM L0001531     0.0000005957     4.00      3.95      1.86
SRCPARAM L0001532     0.0000005957     4.00      3.95      1.86
SRCPARAM L0001533     0.0000005957     4.00      3.95      1.86
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SRCPARAM L0001541     0.0000005957     4.00      3.95      1.86
SRCPARAM L0001542     0.0000005957     4.00      3.95      1.86
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SRCPARAM L0001547     0.0000005957     4.00      3.95      1.86
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SRCPARAM L0001564     0.0000005957     4.00      3.95      1.86
SRCPARAM L0001565     0.0000005957     4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0001566      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001567      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001568      0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001570      0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001572      0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001580      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001581      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001582      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001583      0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001585      0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001601      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001602      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001603      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001604      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001605      0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001607      0.0000005957      4.00       3.95       1.86
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SRCPARAM L0001612      0.0000005957      4.00       3.95       1.86
SRCPARAM L0001613      0.0000005957      4.00       3.95       1.86
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   SRCPARAM L0001614     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001615     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001616     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001617     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001618     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001619     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001620     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001621     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001622     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001623     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001624     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001625     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001626     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001627     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001628     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001629     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001630     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001631     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001632     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001633     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001634     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001635     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001636     0.0000005957      4.00       3.95       1.86
   SRCPARAM L0001637     0.0000005957      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0001638     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001639     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001640     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001641     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001642     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001643     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001644     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001645     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001646     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001647     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001648     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001649     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001650     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001651     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001652     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001653     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001654     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001655     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001656     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001657     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001658     0.0000002549      4.00       3.95       1.86
   SRCPARAM L0001659     0.0000002549      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0001660     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001661     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001662     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001663     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001664     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001665     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001666     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001667     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001668     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001669     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001670     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001671     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001672     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001673     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001674     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001675     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001676     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001677     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001678     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001679     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001680     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001681     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001682     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001683     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001684     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001685     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001686     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001687     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001688     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001689     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001690     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001691     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001692     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001693     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001694     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001695     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001696     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001697     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001698     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001699     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001700     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001701     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001702     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001703     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001704     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001705     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001706     0.0000002549      4.00      3.95      1.86
SRCPARAM L0001707     0.0000002549      4.00      3.95      1.86
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                                 AERMOD HRA Output
   SRCPARAM L0001708     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001709     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001710     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001711     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001712     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001713     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001714     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001715     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001716     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001717     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001718     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001719     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001720     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001721     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001722     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001723     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001724     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001725     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001726     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001727     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001728     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001729     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001730     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001731     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001732     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001733     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001734     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001735     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0001736     0.0000002549      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.8207E-09     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.9862E-09     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        1.0465E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        3.282E-09     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        6.8612E-09     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        3.074E-09     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000014994     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000011881     3.960   501.000  49.98254     0.044
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                                AERMOD HRA Output
   SRCPARAM STCK13       0.00002032     3.960   501.000   49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0006637     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006638     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006639     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006640     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006641     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006642     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006643     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006644     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006645     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006646     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006647     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006648     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006649     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006650     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006651     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006652     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006653     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006654     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006655     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006656     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006657     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006658     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006659     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006660     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006661     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006662     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006663     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006664     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006665     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006666     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006667     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006668     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006669     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006670     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006671     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006672     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006673     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006674     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006675     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006676     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006677     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006678     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006679     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006680     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006681     0.0000002552      4.00       3.95       1.86
   SRCPARAM L0006682     0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006683      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006684      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006685      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006686      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006687      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006688      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006689      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006690      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006691      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006692      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006693      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006694      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006695      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006696      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006697      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006698      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006699      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006700      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006701      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006702      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006703      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006704      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006705      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006706      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006707      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006708      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006709      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006710      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006711      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006712      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006713      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006714      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006715      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006716      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006717      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006718      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006719      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006720      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006721      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006722      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006723      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006724      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006725      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006726      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006727      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006728      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006729      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006730      0.0000002552      4.00      3.95      1.86
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SRCPARAM L0006731      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006732      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006733      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006734      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006735      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006736      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006737      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006738      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006739      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006740      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006741      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006742      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006743      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006744      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006745      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006746      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006747      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006748      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006749      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006750      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006751      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006752      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006753      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006754      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006755      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006756      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006757      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006758      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006759      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006760      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006761      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006762      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006763      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006764      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006765      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006766      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006767      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006768      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006769      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006770      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006771      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006772      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006773      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006774      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006775      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006776      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006777      0.0000002552       4.00        3.95        1.86
SRCPARAM L0006778      0.0000002552       4.00        3.95        1.86
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AERMOD HRA Output

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SRCPARAM L0006779      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006780      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006781      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006782      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006783      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006784      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006785      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006786      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006787      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006788      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006789      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006790      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006791      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006792      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006793      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006794      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006795      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006796      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006797      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006798      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006799      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006800      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006801      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006802      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006803      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006804      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006805      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006806      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006807      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006808      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006809      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006810      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006811      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006812      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006813      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006814      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006815      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006816      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006817      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006818      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006819      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006820      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006821      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006822      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006823      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006824      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006825      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006826      0.0000002552       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006829      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006830      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006831      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006832      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006833      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006834      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006835      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006836      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006837      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006838      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006839      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006840      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006841      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006842      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006843      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006844      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006845      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006846      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006847      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006848      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006849      0.0000002552      4.00      3.95      1.86
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SRCPARAM L0006851      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006852      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006853      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006854      0.0000002552      4.00      3.95      1.86
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SRCPARAM L0006862      0.0000002552      4.00      3.95      1.86
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SRCPARAM L0006865      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006866      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006867      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006868      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006869      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006870      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006871      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006872      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006873      0.0000002552      4.00      3.95      1.86
SRCPARAM L0006874      0.0000002552      4.00      3.95      1.86
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SRCPARAM L0006877      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006878      0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006880      0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006883      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006884      0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006889      0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006891      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006892      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006893      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006894      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006895      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006896      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006897      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006898      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006899      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006900      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006901      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006902      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006903      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006904      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006905      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006906      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006907      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006908      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006909      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006910      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006911      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006912      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006913      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006914      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006915      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006916      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006917      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006918      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006919      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006920      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006921      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006922      0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006923      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006924      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006925      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006926      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006927      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006928      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006929      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006930      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006931      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006932      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006933      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006934      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006935      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006936      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006937      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006938      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006939      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006940      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006941      0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006946      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006947      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006948      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006949      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006950      0.0000002552      4.00       3.95       1.86
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SRCPARAM L0006952      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006953      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006954      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006955      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006956      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006957      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006958      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006959      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006960      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006961      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006962      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006963      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006964      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006965      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006966      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006967      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006968      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006969      0.0000002552      4.00       3.95       1.86
SRCPARAM L0006970      0.0000002552      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006973      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006974      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006975      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006976      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006977      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006978      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006979      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006980      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006981      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006982      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006983      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006984      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006985      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006986      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006987      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006988      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006989      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006990      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006991      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006992      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006993      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006994      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006995      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006996      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006997      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006998      0.0000002552       4.00       3.95       1.86
SRCPARAM L0006999      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007000      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007001      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007002      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007003      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007004      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007005      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007006      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007007      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007008      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007009      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007010      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007011      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007012      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007013      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007014      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007015      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007016      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007017      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007018      0.0000002552       4.00       3.95       1.86
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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SRCPARAM L0007019      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007020      0.0000002552       4.00        3.95        1.86
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SRCPARAM L0007022      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007023      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007024      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007025      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007026      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007027      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007028      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007029      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007030      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007031      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007032      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007033      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007034      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007035      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007036      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007037      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007038      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007039      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007040      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007041      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007042      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007043      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007044      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007045      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007046      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007047      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007048      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007049      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007050      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007051      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007052      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007053      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007054      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007055      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007056      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007057      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007058      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007059      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007060      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007061      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007062      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007063      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007064      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007065      0.0000002552       4.00        3.95        1.86
SRCPARAM L0007066      0.0000002552       4.00        3.95        1.86
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AERMOD HRA Output

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SRCPARAM L0007069      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007070      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007071      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007072      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007073      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007074      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007075      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007076      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007077      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007078      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007079      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007080      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007081      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007082      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007083      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007084      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007085      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007086      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007087      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007088      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007089      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007090      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007091      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007092      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007093      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007094      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007095      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007096      0.0000002552       4.00       3.95       1.86
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SRCPARAM L0007098      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007099      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007100      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007101      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007102      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007103      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007104      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007105      0.0000002552       4.00       3.95       1.86
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SRCPARAM L0007110      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007111      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007112      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007113      0.0000002552       4.00       3.95       1.86
SRCPARAM L0007114      0.0000002552       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0007210      0.0000002552      4.00       3.95       1.86
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   SRCPARAM L0007215     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007216     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007217     0.0000005109      4.00      3.95      1.86
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   SRCPARAM L0007219     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007220     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007221     0.0000005109      4.00      3.95      1.86
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   SRCPARAM L0007224     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007225     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007226     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007227     0.0000005109      4.00      3.95      1.86
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   SRCPARAM L0007230     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007231     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007232     0.0000005109      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0007684      0.0000005109       4.00       3.95       1.86
SRCPARAM L0007685      0.0000005109       4.00       3.95       1.86
SRCPARAM L0007686      0.0000005109       4.00       3.95       1.86
SRCPARAM L0007687      0.0000005109       4.00       3.95       1.86
SRCPARAM L0007688      0.0000005109       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0007689      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007690      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007691      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007692      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007693      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007694      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007695      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007696      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007697      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007698      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007699      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007700      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007701      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007702      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007703      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007704      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007705      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007706      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007707      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007708      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007709      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007710      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007711      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007712      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007713      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007714      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007715      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007716      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007717      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007718      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007719      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007720      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007721      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007722      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007723      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007724      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007725      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007726      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007727      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007728      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007729      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007730      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007731      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007732      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007733      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007734      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007735      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007736      0.0000005109      4.00      3.95      1.86
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SRCPARAM L0007737      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007738      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007739      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007740      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007741      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007742      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007743      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007744      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007745      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007746      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007747      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007748      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007749      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007750      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007751      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007752      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007753      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007754      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007755      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007756      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007757      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007758      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007759      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007760      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007761      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007762      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007763      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007764      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007765      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007766      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007767      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007768      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007769      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007770      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007771      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007772      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007773      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007774      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007775      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007776      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007777      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007778      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007779      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007780      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007781      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007782      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007783      0.0000005109      4.00      3.95      1.86
SRCPARAM L0007784      0.0000005109      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0007785      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007786      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007787      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007788      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007789      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007790      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007791      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007792      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007793      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007794      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007795      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007796      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007797      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007798      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007799      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007800      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007801      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007802      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007803      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007804      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007805      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007806      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007807      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007808      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007809      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007810      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007811      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007812      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007813      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007814      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007815      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007816      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007817      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007818      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007819      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007820      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007821      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007822      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007823      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007824      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007825      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007826      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007827      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007828      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007829      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007830      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007831      0.0000005109       4.00        3.95        1.86
SRCPARAM L0007832      0.0000005109       4.00        3.95        1.86
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                              AERMOD HRA Output
SRCPARAM L0007833      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007834      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007835      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007836      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007837      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007838      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007839      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007840      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007841      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007842      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007843      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007844      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007845      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007846      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007847      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007848      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007849      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007850      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007851      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007852      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007853      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007854      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007855      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007856      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007857      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007858      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007859      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007860      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007861      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007862      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007863      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007864      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007865      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007866      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007867      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007868      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007869      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007870      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007871      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007872      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007873      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007874      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007875      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007876      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007877      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007878      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007879      0.0000005109      4.00       3.95       1.86
SRCPARAM L0007880      0.0000005109      4.00       3.95       1.86
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   SRCPARAM L0007881     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007882     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007883     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007884     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007885     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007886     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007887     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007888     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007889     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007890     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007891     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007892     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007893     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007894     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007895     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007896     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007897     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007898     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007899     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007900     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0007901     0.0000005109      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0007902     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007903     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007904     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007905     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007906     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007907     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007908     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007909     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007910     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007911     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007912     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007913     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007914     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007915     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007916     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007917     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007918     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007919     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007920     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007921     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007922     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007923     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007924     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007925     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0007926     0.0000000851      0.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0007927     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007928     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007929     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007930     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007931     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007932     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007933     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007934     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007935     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007936     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007937     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007938     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007939     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007940     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007941     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007942     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007943     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007944     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007945     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007946     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007947     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007948     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007949     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007950     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007951     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007952     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007953     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007954     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007955     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007956     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007957     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007958     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007959     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007960     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007961     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007962     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007963     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007964     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007965     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007966     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007967     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007968     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007969     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007970     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007971     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007972     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007973     0.0000000851     0.00      3.95      1.86
SRCPARAM L0007974     0.0000000851     0.00      3.95      1.86
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                           AERMOD HRA Output
SRCPARAM L0007975     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007976     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007977     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007978     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007979     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007980     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007981     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007982     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007983     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007984     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007985     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007986     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007987     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007988     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007989     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007990     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007991     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007992     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007993     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007994     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007995     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007996     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007997     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007998     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007999     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008000     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008001     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008002     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008003     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008004     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008005     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008006     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008007     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008008     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008009     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008010     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008011     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008012     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008013     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008014     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008015     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008016     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008017     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008018     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008019     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008020     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008021     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008022     0.0000000851      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0008023      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008024      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008025      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008026      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008027      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008028      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008029      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008030      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008031      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008032      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008033      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008034      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008035      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008036      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008037      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008038      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008039      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008040      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008041      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008042      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008043      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008044      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008045      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008046      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008047      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008048      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008049      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008050      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008051      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008052      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008053      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008054      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008055      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008056      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008057      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008058      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008059      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008060      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008061      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008062      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008063      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008064      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008065      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008066      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008067      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008068      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008069      0.0000000851      0.00       3.95       1.86
SRCPARAM L0008070      0.0000000851      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0008071     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008072     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008073     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008074     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008075     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008076     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008077     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008078     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008079     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008080     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008081     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008082     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008083     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008084     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008085     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008086     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008087     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008088     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008089     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008090     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008091     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008092     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008093     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008094     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008095     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008096     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008097     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008098     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008099     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008100     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008101     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008102     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008103     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008104     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008105     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008106     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008107     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008108     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008109     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008110     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008111     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008112     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008113     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008114     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008115     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008116     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008117     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008118     0.0000000851      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0008123     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008124     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008125     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008126     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008127     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008128     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008129     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008130     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008131     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008132     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008133     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008134     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008135     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008136     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008137     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008138     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008139     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008140     0.0000000851      0.00       3.95       1.86
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SRCPARAM L0008143     0.0000000851      0.00       3.95       1.86
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SRCPARAM L0008145     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008146     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008147     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008148     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008149     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008150     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008151     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008152     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008153     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008154     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008155     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008156     0.0000000851      0.00       3.95       1.86
SRCPARAM L0008157     0.0000000851      0.00       3.95       1.86
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   SRCPARAM L0008179     0.0000000851      0.00       3.95       1.86
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   SRCPARAM L0008181     0.0000000851      0.00       3.95       1.86
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   SRCPARAM L0008187     0.0000000851      0.00       3.95       1.86
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   SRCGROUP Other    L0001045 L0001046 L0001047 L0001048 L0001049 L0001050
   SRCGROUP Other    L0001051 L0001052 L0001053 L0001054 L0001055 L0001056
   SRCGROUP Other    L0001057 L0001058 L0001059 L0001060 L0001061 L0001062
   SRCGROUP Other    L0001063 L0001064 L0001065 L0001066 L0001067 L0001068
   SRCGROUP Other    L0001069 L0001070 L0001071 L0001072 L0001073 L0001074
   SRCGROUP Other    L0001075 L0001076 L0001077 L0001078 L0001079 L0001080
   SRCGROUP Other    L0001081 L0001082 L0001083 L0001084 L0001085 L0001086
   SRCGROUP Other    L0001087 L0001088 L0001089 L0001090 L0001091 L0001092
   SRCGROUP Other    L0001093 L0001094 L0001095 L0001096 L0001097 L0001098
   SRCGROUP Other    L0001099 L0001100 L0001101 L0001102 L0001103 L0001104
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   SRCGROUP Other    L0001111 L0001112 L0001113 L0001114 L0001115 L0001116
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   SRCGROUP Other    L0001123 L0001124 L0001125 L0001126 L0001127 L0001128
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   SRCGROUP Other    L0001165 L0001166 L0001167 L0001168 L0001169 L0001170
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SRCGROUP Other    L0001189 L0001190 L0001191 L0001192 L0001193 L0001194
SRCGROUP Other    L0001195 L0001196 L0001197 L0001198 L0001199 L0001200
SRCGROUP Other    L0001201 L0001202 L0001203 L0001204 L0001205 L0001206
SRCGROUP Other    L0001207 L0001208 L0001209 L0001210 L0001211 L0001212
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SRCGROUP Other    L0001219 L0001220 L0001221 L0001222 L0001223 L0001224
SRCGROUP Other    L0001225 L0001226 L0001227 L0001228 L0001229 L0001230
SRCGROUP Other    L0001231 L0001232 L0001233 L0001234 L0001235 L0001236
SRCGROUP Other    L0001237 L0001238 L0001239 L0001240 L0001241 L0001242
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SRCGROUP Other    L0001321 L0001322 L0001323 L0001324 L0001325 L0001326
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SRCGROUP Other    L0001357 L0001358 L0001359 L0001360 L0001361 L0001362
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SRCGROUP Other    L0001369 L0001370 L0001371 L0001372 L0001373 L0001374
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SRCGROUP Other    L0001381 L0001382 L0001383 L0001384 L0001385 L0001386
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SRCGROUP Other    L0001393 L0001394 L0001395 L0001396 L0001397 L0001398
SRCGROUP Other    L0001399 L0001400 L0001401 L0001402 L0001403 L0001404
SRCGROUP Other    L0001405 L0001406 L0001407 L0001408 L0001409 L0001410
SRCGROUP Other    L0001411 L0001412 L0001413 L0001414 L0001415 L0001416
SRCGROUP Other    L0001417 L0001418 L0001419 L0001420 L0001421 L0001422
SRCGROUP Other    L0001423 L0001424 L0001425 L0001426 L0001427 L0001428
SRCGROUP Other    L0001429 L0001430 L0001431 L0001432 L0001433 L0001434
SRCGROUP Other    L0001435 L0001436 L0001437 L0001438 L0001439 L0001440
SRCGROUP Other    L0001441 L0001442 L0001443 L0001444 L0001445 L0001446
SRCGROUP Other    L0001447 L0001448 L0001449 L0001450 L0001451 L0001452
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SRCGROUP Other    L0001465 L0001466 L0001467 L0001468 L0001469 L0001470
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   SRCGROUP Other    L0001477 L0001478 L0001479 L0001480 L0001481 L0001482
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   SRCGROUP Other    L0001501 L0001502 L0001503 L0001504 L0001505 L0001506
   SRCGROUP Other    L0001507 L0001508 L0001509 L0001510 L0001511 L0001512
   SRCGROUP Other    L0001513 L0001514 L0001515 L0001516 L0001517 L0001518
   SRCGROUP Other    L0001519 L0001520 L0001521 L0001522 L0001523 L0001524
   SRCGROUP Other    L0001525 L0001526 L0001527 L0001528 L0001529 L0001530
   SRCGROUP Other    L0001531 L0001532 L0001533 L0001534 L0001535 L0001536
   SRCGROUP Other    L0001537 L0001538 L0001539 L0001540 L0001541 L0001542
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   SRCGROUP Other    L0001555 L0001556 L0001557 L0001558 L0001559 L0001560
   SRCGROUP Other    L0001561 L0001562 L0001563 L0001564 L0001565 L0001566
   SRCGROUP Other    L0001567 L0001568 L0001569 L0001570 L0001571 L0001572
   SRCGROUP Other    L0001573 L0001574 L0001575 L0001576 L0001577 L0001578
   SRCGROUP Other    L0001579 L0001580 L0001581 L0001582 L0001583 L0001584
   SRCGROUP Other    L0001585 L0001586 L0001587 L0001588 L0001589 L0001590
   SRCGROUP Other    L0001591 L0001592 L0001593 L0001594 L0001595 L0001596
   SRCGROUP Other    L0001597 L0001598 L0001599 L0001600 L0001601 L0001602
   SRCGROUP Other    L0001603 L0001604 L0001605 L0001606 L0001607 L0001608
   SRCGROUP Other    L0001609 L0001610 L0001611 L0001612 L0001613 L0001614
   SRCGROUP Other    L0001615 L0001616 L0001617 L0001618 L0001619 L0001620
   SRCGROUP Other    L0001621 L0001622 L0001623 L0001624 L0001625 L0001626
   SRCGROUP Other    L0001627 L0001628 L0001629 L0001630 L0001631 L0001632
   SRCGROUP Other    L0001633 L0001634 L0001635 L0001636 L0001637 L0001638
   SRCGROUP Other    L0001639 L0001640 L0001641 L0001642 L0001643 L0001644
   SRCGROUP Other    L0001645 L0001646 L0001647 L0001648 L0001649 L0001650
   SRCGROUP Other    L0001651 L0001652 L0001653 L0001654 L0001655 L0001656
   SRCGROUP Other    L0001657 L0001658 L0001659 L0001660 L0001661 L0001662
   SRCGROUP Other    L0001663 L0001664 L0001665 L0001666 L0001667 L0001668
   SRCGROUP Other    L0001669 L0001670 L0001671 L0001672 L0001673 L0001674
   SRCGROUP Other    L0001675 L0001676 L0001677 L0001678 L0001679 L0001680
   SRCGROUP Other    L0001681 L0001682 L0001683 L0001684 L0001685 L0001686
   SRCGROUP Other    L0001687 L0001688 L0001689 L0001690 L0001691 L0001692
   SRCGROUP Other    L0001693 L0001694 L0001695 L0001696 L0001697 L0001698
   SRCGROUP Other    L0001699 L0001700 L0001701 L0001702 L0001703 L0001704
   SRCGROUP Other    L0001705 L0001706 L0001707 L0001708 L0001709 L0001710
   SRCGROUP Other    L0001711 L0001712 L0001713 L0001714 L0001715 L0001716
   SRCGROUP Other    L0001717 L0001718 L0001719 L0001720 L0001721 L0001722
   SRCGROUP Other    L0001723 L0001724 L0001725 L0001726 L0001727 L0001728
   SRCGROUP Other    L0001729 L0001730 L0001731 L0001732 L0001733 L0001734
   SRCGROUP Other    L0001735 L0001736 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
```

```
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Residential.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL RESIDENTIAL.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac RESIDENTIAL.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other RESIDENTIAL.AD\AN00G002.PLT 33
   SUMMFILE Residential.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of           0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
```

```
                              AERMOD HRA Output
                  ***  NONE  ***


         ********   WARNING MESSAGES   ********
 ME W531    5062       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2268 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.
```

```
                              AERMOD HRA Output

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2268 Source(s);       3 Source Group(s); and       8
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2249 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      4.8 MB of RAM.

 **Detailed Error/Message File:   Residential.err

 **File for Summary of Results:   Residential.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                 AERMOD HRA Output
                        ***        14:59:56

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                      VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1            0   0.70870E-05  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK2            0   0.70870E-05  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK3            0   0.70870E-05  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK4            0   0.70870E-05  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK5            0   0.70870E-05  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK6            0   0.70870E-05  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK7            0   0.70870E-05  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK8            0   0.70870E-05  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK9            0   0.70870E-05  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK10           0   0.70870E-05  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK11           0   0.14994E-04  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK12           0   0.11881E-04  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO       YES   NO
 STCK13           0   0.20320E-04  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO       YES   NO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56
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                                 AERMOD HRA Output
                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001039         0   0.44880E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES
 L0001040         0   0.44880E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES
 L0001041         0   0.44880E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES
 L0001042         0   0.44880E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES
 L0001043         0   0.44880E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES
 L0001044         0   0.44880E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES
 L0001045         0   0.44880E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES
 L0001046         0   0.44880E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES
 L0001047         0   0.44880E-05  478217.3 3748656.3   452.0     4.00    13.95
1.86     YES
 L0001048         0   0.44880E-05  478217.4 3748686.3   452.0     4.00    13.95
1.86     YES
 L0001049         0   0.44880E-05  478217.6 3748716.3   452.0     4.00    13.95
1.86     YES
 L0001050         0   0.44880E-05  478217.7 3748746.3   452.0     4.00    13.95
1.86     YES
 L0001051         0   0.44880E-05  478217.8 3748776.3   452.0     4.00    13.95
1.86     YES
 L0001052         0   0.44880E-05  478218.0 3748806.3   452.7     4.00    13.95
1.86     YES
 L0001053         0   0.44880E-05  478218.1 3748836.3   453.0     4.00    13.95
1.86     YES
 L0001054         0   0.44880E-05  478218.3 3748866.3   453.0     4.00    13.95
1.86     YES
 L0001055         0   0.44880E-05  478218.4 3748896.3   453.0     4.00    13.95
```

```
1.86      YES
 L0001056          0   0.46490E-05  477943.9 3748501.1   451.5     4.00    13.95
1.86      YES
 L0001057          0   0.46490E-05  477944.1 3748531.1   452.0     4.00    13.95
1.86      YES
 L0001058          0   0.46490E-05  477944.4 3748561.1   452.0     4.00    13.95
1.86      YES
 L0001059          0   0.46490E-05  477944.7 3748591.1   452.0     4.00    13.95
1.86      YES
 L0001060          0   0.46490E-05  477944.9 3748621.1   452.0     4.00    13.95
1.86      YES
 L0001061          0   0.46490E-05  477945.2 3748651.1   452.0     4.00    13.95
1.86      YES
 L0001062          0   0.46490E-05  477945.4 3748681.1   452.5     4.00    13.95
1.86      YES
 L0001063          0   0.46490E-05  477945.7 3748711.1   453.0     4.00    13.95
1.86      YES
 L0001064          0   0.46490E-05  477945.9 3748741.1   453.0     4.00    13.95
1.86      YES
 L0001065          0   0.46490E-05  477946.2 3748771.1   453.0     4.00    13.95
1.86      YES
 L0001066          0   0.46490E-05  477946.5 3748801.1   453.0     4.00    13.95
1.86      YES
 L0001067          0   0.46490E-05  477946.7 3748831.1   453.0     4.00    13.95
1.86      YES
 L0001068          0   0.46490E-05  477947.0 3748861.1   453.0     4.00    13.95
1.86      YES
 L0001069          0   0.46490E-05  477947.2 3748891.1   453.0     4.00    13.95
1.86      YES
 L0001070          0   0.42890E-05  477756.7 3748938.5   454.0     4.00     3.95
1.86      YES
 L0001071          0   0.42890E-05  477756.7 3748930.0   453.8     4.00     3.95
1.86      YES
 L0001072          0   0.42890E-05  477756.7 3748921.5   453.6     4.00     3.95
1.86      YES
 L0001073          0   0.42890E-05  477756.7 3748913.0   453.3     4.00     3.95
1.86      YES
 L0001074          0   0.42890E-05  477756.7 3748904.5   453.1     4.00     3.95
1.86      YES
 L0001075          0   0.42890E-05  477756.7 3748896.0   453.1     4.00     3.95
1.86      YES
 L0001076          0   0.42890E-05  477756.7 3748887.5   453.1     4.00     3.95
1.86      YES
 L0001077          0   0.42890E-05  477756.7 3748879.0   453.1     4.00     3.95
1.86      YES
 L0001078          0   0.19010E-06  477900.2 3748339.0   451.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                 AERMOD HRA Output
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:59:56

                                  PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001079         0   0.19010E-06  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES
 L0001080         0   0.19010E-06  477917.2 3748338.9   451.0     4.00     3.95
1.86     YES
 L0001081         0   0.19010E-06  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES
 L0001082         0   0.19010E-06  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES
 L0001083         0   0.19010E-06  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES
 L0001084         0   0.19010E-06  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES
 L0001085         0   0.19010E-06  477951.8 3748324.5   451.0     4.00     3.95
1.86     YES
 L0001086         0   0.19010E-06  477956.1 3748317.1   450.0     4.00     3.95
1.86     YES
 L0001087         0   0.19010E-06  477960.3 3748309.7   450.0     4.00     3.95
1.86     YES
 L0001088         0   0.19010E-06  477964.6 3748302.3   450.0     4.00     3.95
1.86     YES
 L0001089         0   0.19010E-06  477968.8 3748295.0   450.0     4.00     3.95
1.86     YES
 L0001090         0   0.19010E-06  477973.0 3748287.6   450.0     4.00     3.95
1.86     YES
 L0001091         0   0.19010E-06  477976.2 3748279.9   450.0     4.00     3.95
1.86     YES
 L0001092         0   0.19010E-06  477977.3 3748271.5   450.0     4.00     3.95
1.86     YES
 L0001093         0   0.19010E-06  477978.3 3748263.0   450.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0001094          0   0.19010E-06   477978.3 3748254.5    450.0      4.00      3.95
1.86      YES
 L0001095          0   0.19010E-06   477978.3 3748246.0    450.0      4.00      3.95
1.86      YES
 L0001096          0   0.19010E-06   477978.2 3748237.5    450.0      4.00      3.95
1.86      YES
 L0001097          0   0.19010E-06   477978.2 3748229.0    450.0      4.00      3.95
1.86      YES
 L0001098          0   0.19010E-06   477978.1 3748220.5    450.0      4.00      3.95
1.86      YES
 L0001099          0   0.31000E-05   477608.7 3748929.3    454.0      0.00      3.95
1.86      YES
 L0001100          0   0.31000E-05   477608.7 3748920.8    454.0      0.00      3.95
1.86      YES
 L0001101          0   0.31000E-05   477608.7 3748912.3    454.0      0.00      3.95
1.86      YES
 L0001102          0   0.31000E-05   477608.7 3748903.8    454.0      0.00      3.95
1.86      YES
 L0001103          0   0.31000E-05   477608.7 3748895.3    454.0      0.00      3.95
1.86      YES
 L0001104          0   0.31000E-05   477608.7 3748886.8    454.0      0.00      3.95
1.86      YES
 L0001105          0   0.31000E-05   477608.7 3748878.3    454.0      0.00      3.95
1.86      YES
 L0001106          0   0.31000E-05   477608.7 3748869.8    454.0      0.00      3.95
1.86      YES
 L0001107          0   0.31000E-05   477608.7 3748861.3    454.0      0.00      3.95
1.86      YES
 L0001108          0   0.31000E-05   477608.7 3748852.8    454.0      0.00      3.95
1.86      YES
 L0001109          0   0.31000E-05   477608.7 3748844.3    454.0      0.00      3.95
1.86      YES
 L0001110          0   0.31000E-05   477608.7 3748835.8    454.0      0.00      3.95
1.86      YES
 L0001111          0   0.31000E-05   477608.7 3748827.3    454.0      0.00      3.95
1.86      YES
 L0001112          0   0.31000E-05   477608.7 3748818.8    454.0      0.00      3.95
1.86      YES
 L0001113          0   0.31000E-05   477608.7 3748810.3    454.0      0.00      3.95
1.86      YES
 L0001114          0   0.61680E-06   478043.0 3748335.2    451.0      0.00     13.95
1.86      YES
 L0001115          0   0.61680E-06   478073.0 3748334.5    451.0      0.00     13.95
1.86      YES
 L0001116          0   0.61680E-06   478103.0 3748333.9    451.0      0.00     13.95
1.86      YES
 L0001117          0   0.61680E-06   478133.0 3748333.2    451.0      0.00     13.95
```

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1.86      YES
 L0001118         0   0.61680E-06  478163.0 3748332.6   451.0     0.00    13.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001119         0   0.10050E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86      YES
 L0001120         0   0.10050E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86      YES
 L0001121         0   0.10050E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86      YES
 L0001122         0   0.10050E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86      YES
 L0001123         0   0.10050E-05  477950.2 3748937.5   453.0     4.00     3.95
1.86      YES
 L0001124         0   0.10050E-05  477949.0 3748929.1   453.0     4.00     3.95
1.86      YES
 L0001125         0   0.10050E-05  477948.2 3748920.7   453.0     4.00     3.95
1.86      YES
 L0001126         0   0.10050E-05  477948.1 3748912.2   453.0     4.00     3.95
1.86      YES
 L0001127         0   0.10050E-05  477947.9 3748903.7   453.0     4.00     3.95
1.86      YES
 L0001128         0   0.10050E-05  477947.8 3748895.2   453.0     4.00     3.95
1.86      YES
 L0001129         0   0.10050E-05  477947.6 3748886.7   453.0     4.00     3.95
1.86      YES
 L0001130         0   0.10050E-05  477947.5 3748878.2   453.0     4.00     3.95
1.86      YES
 L0001131         0   0.10050E-05  477947.3 3748869.7   453.0     4.00     3.95
```

```
1.86      YES
 L0001132         0   0.10050E-05  477947.2 3748861.2   453.0     4.00     3.95
1.86      YES
 L0001133         0   0.10050E-05  477947.2 3748852.7   453.0     4.00     3.95
1.86      YES
 L0001134         0   0.10050E-05  477947.1 3748844.2   453.0     4.00     3.95
1.86      YES
 L0001135         0   0.10050E-05  477947.0 3748835.7   453.0     4.00     3.95
1.86      YES
 L0001136         0   0.10050E-05  477947.0 3748827.2   453.0     4.00     3.95
1.86      YES
 L0001137         0   0.10050E-05  477946.9 3748818.7   453.0     4.00     3.95
1.86      YES
 L0001138         0   0.10050E-05  477946.8 3748810.2   453.0     4.00     3.95
1.86      YES
 L0001139         0   0.10050E-05  477946.7 3748801.7   453.0     4.00     3.95
1.86      YES
 L0001140         0   0.10050E-05  477946.7 3748793.2   453.0     4.00     3.95
1.86      YES
 L0001141         0   0.10050E-05  477946.6 3748784.7   453.0     4.00     3.95
1.86      YES
 L0001142         0   0.10050E-05  477946.5 3748776.2   453.0     4.00     3.95
1.86      YES
 L0001143         0   0.10050E-05  477946.5 3748767.7   453.0     4.00     3.95
1.86      YES
 L0001144         0   0.10050E-05  477946.4 3748759.2   453.0     4.00     3.95
1.86      YES
 L0001145         0   0.10050E-05  477946.3 3748750.7   453.0     4.00     3.95
1.86      YES
 L0001146         0   0.10050E-05  477946.3 3748742.2   453.0     4.00     3.95
1.86      YES
 L0001147         0   0.10050E-05  477946.2 3748733.7   453.0     4.00     3.95
1.86      YES
 L0001148         0   0.10050E-05  477946.1 3748725.2   453.0     4.00     3.95
1.86      YES
 L0001149         0   0.10050E-05  477946.1 3748716.7   453.0     4.00     3.95
1.86      YES
 L0001150         0   0.10050E-05  477946.0 3748708.2   453.0     4.00     3.95
1.86      YES
 L0001151         0   0.10050E-05  477945.9 3748699.7   453.0     4.00     3.95
1.86      YES
 L0001152         0   0.10050E-05  477945.9 3748691.2   452.8     4.00     3.95
1.86      YES
 L0001153         0   0.10050E-05  477945.8 3748682.7   452.5     4.00     3.95
1.86      YES
 L0001154         0   0.10050E-05  477945.7 3748674.2   452.2     4.00     3.95
1.86      YES
 L0001155         0   0.10050E-05  477945.7 3748665.7   452.0     4.00     3.95
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1.86      YES
 L0001156          0   0.10050E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86      YES
 L0001157          0   0.10050E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86      YES
 L0001158          0   0.10050E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001159          0   0.10050E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86      YES
 L0001160          0   0.10050E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86      YES
 L0001161          0   0.10050E-05  477945.2 3748614.7   452.0     4.00     3.95
1.86      YES
 L0001162          0   0.10050E-05  477945.2 3748606.2   452.0     4.00     3.95
1.86      YES
 L0001163          0   0.10050E-05  477945.1 3748597.7   452.0     4.00     3.95
1.86      YES
 L0001164          0   0.10050E-05  477945.0 3748589.2   452.0     4.00     3.95
1.86      YES
 L0001165          0   0.10050E-05  477945.0 3748580.7   452.0     4.00     3.95
1.86      YES
 L0001166          0   0.10050E-05  477944.9 3748572.2   452.0     4.00     3.95
1.86      YES
 L0001167          0   0.10050E-05  477944.8 3748563.7   452.0     4.00     3.95
1.86      YES
 L0001168          0   0.10050E-05  477944.8 3748555.2   452.0     4.00     3.95
1.86      YES
 L0001169          0   0.10050E-05  477944.7 3748546.7   452.0     4.00     3.95
```

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                                  AERMOD HRA Output
1.86      YES
 L0001170         0   0.10050E-05   477944.6 3748538.2    452.0      4.00      3.95
1.86      YES
 L0001171         0   0.10050E-05   477944.6 3748529.7    452.0      4.00      3.95
1.86      YES
 L0001172         0   0.10050E-05   477944.5 3748521.2    452.0      4.00      3.95
1.86      YES
 L0001173         0   0.10050E-05   477944.4 3748512.7    451.9      4.00      3.95
1.86      YES
 L0001174         0   0.10050E-05   477944.4 3748504.2    451.6      4.00      3.95
1.86      YES
 L0001175         0   0.10050E-05   477944.3 3748495.7    451.3      4.00      3.95
1.86      YES
 L0001176         0   0.10050E-05   477944.7 3748487.3    451.0      4.00      3.95
1.86      YES
 L0001177         0   0.10050E-05   477948.7 3748479.8    451.0      4.00      3.95
1.86      YES
 L0001178         0   0.10050E-05   477952.8 3748472.3    451.0      4.00      3.95
1.86      YES
 L0001179         0   0.10050E-05   477956.8 3748464.9    451.0      4.00      3.95
1.86      YES
 L0001180         0   0.10050E-05   477960.8 3748457.4    451.0      4.00      3.95
1.86      YES
 L0001181         0   0.10050E-05   477964.8 3748449.9    451.0      4.00      3.95
1.86      YES
 L0001182         0   0.10050E-05   477968.8 3748442.4    451.0      4.00      3.95
1.86      YES
 L0001183         0   0.10050E-05   477972.8 3748434.9    451.0      4.00      3.95
1.86      YES
 L0001184         0   0.10050E-05   477976.9 3748427.4    451.0      4.00      3.95
1.86      YES
 L0001185         0   0.10050E-05   477980.9 3748419.9    451.0      4.00      3.95
1.86      YES
 L0001186         0   0.10050E-05   477984.9 3748412.4    451.0      4.00      3.95
1.86      YES
 L0001187         0   0.10050E-05   477988.9 3748404.9    451.0      4.00      3.95
1.86      YES
 L0001188         0   0.10050E-05   477992.9 3748397.4    451.0      4.00      3.95
1.86      YES
 L0001189         0   0.10050E-05   477996.9 3748389.9    451.0      4.00      3.95
1.86      YES
 L0001190         0   0.10050E-05   478001.0 3748382.4    451.0      4.00      3.95
1.86      YES
 L0001191         0   0.10050E-05   478005.0 3748375.0    451.0      4.00      3.95
1.86      YES
 L0001192         0   0.10050E-05   478009.0 3748367.5    451.0      4.00      3.95
1.86      YES
 L0001193         0   0.10050E-05   478013.0 3748360.0    451.0      4.00      3.95
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1.86      YES
 L0001194         0   0.10050E-05  478017.1 3748352.5   451.0     4.00     3.95
1.86      YES
 L0001195         0   0.10050E-05  478021.7 3748345.4   451.0     4.00     3.95
1.86      YES
 L0001196         0   0.10050E-05  478026.4 3748338.3   451.0     4.00     3.95
1.86      YES
 L0001197         0   0.10050E-05  478033.8 3748336.4   451.0     4.00     3.95
1.86      YES
 L0001198         0   0.10050E-05  478042.3 3748336.5   451.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0001199         0   0.10050E-05  478050.8 3748336.6   451.0     4.00     3.95
1.86      YES
 L0001200         0   0.10050E-05  478059.3 3748336.7   451.0     4.00     3.95
1.86      YES
 L0001201         0   0.10050E-05  478067.8 3748336.8   451.0     4.00     3.95
1.86      YES
 L0001202         0   0.10050E-05  478076.3 3748336.9   451.0     4.00     3.95
1.86      YES
 L0001203         0   0.10050E-05  478084.8 3748337.0   451.0     4.00     3.95
1.86      YES
 L0001204         0   0.10050E-05  478093.3 3748337.1   451.0     4.00     3.95
1.86      YES
 L0001205         0   0.10050E-05  478101.8 3748337.2   451.0     4.00     3.95
1.86      YES
 L0001206         0   0.10050E-05  478110.3 3748337.3   451.0     4.00     3.95
1.86      YES
 L0001207         0   0.10050E-05  478118.8 3748337.4   451.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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1.86      YES
 L0001208           0   0.10050E-05   478127.3 3748337.4    451.0      4.00      3.95
1.86      YES
 L0001209           0   0.10050E-05   478135.8 3748337.5    451.0      4.00      3.95
1.86      YES
 L0001210           0   0.10050E-05   478144.3 3748337.6    451.0      4.00      3.95
1.86      YES
 L0001211           0   0.10050E-05   478152.8 3748337.7    451.0      4.00      3.95
1.86      YES
 L0001212           0   0.10050E-05   478161.3 3748337.8    451.0      4.00      3.95
1.86      YES
 L0001213           0   0.10050E-05   478169.8 3748337.9    451.0      4.00      3.95
1.86      YES
 L0001214           0   0.10050E-05   478178.3 3748338.0    451.0      4.00      3.95
1.86      YES
 L0001215           0   0.10050E-05   478186.8 3748338.1    451.0      4.00      3.95
1.86      YES
 L0001216           0   0.10050E-05   478195.3 3748338.2    451.0      4.00      3.95
1.86      YES
 L0001217           0   0.10050E-05   478203.8 3748338.3    451.0      4.00      3.95
1.86      YES
 L0001218           0   0.10050E-05   478212.3 3748338.4    451.0      4.00      3.95
1.86      YES
 L0001219           0   0.10050E-05   478215.8 3748343.4    451.0      4.00      3.95
1.86      YES
 L0001220           0   0.10050E-05   478215.9 3748351.9    451.0      4.00      3.95
1.86      YES
 L0001221           0   0.10050E-05   478216.0 3748360.4    451.0      4.00      3.95
1.86      YES
 L0001222           0   0.10050E-05   478216.0 3748368.9    451.0      4.00      3.95
1.86      YES
 L0001223           0   0.10050E-05   478216.1 3748377.4    451.0      4.00      3.95
1.86      YES
 L0001224           0   0.10050E-05   478216.1 3748385.9    451.0      4.00      3.95
1.86      YES
 L0001225           0   0.10050E-05   478216.2 3748394.4    451.0      4.00      3.95
1.86      YES
 L0001226           0   0.10050E-05   478216.3 3748402.9    451.0      4.00      3.95
1.86      YES
 L0001227           0   0.10050E-05   478216.3 3748411.4    451.0      4.00      3.95
1.86      YES
 L0001228           0   0.10050E-05   478216.4 3748419.9    451.0      4.00      3.95
1.86      YES
 L0001229           0   0.10050E-05   478216.4 3748428.4    451.0      4.00      3.95
1.86      YES
 L0001230           0   0.10050E-05   478216.5 3748436.9    451.0      4.00      3.95
1.86      YES
 L0001231           0   0.10050E-05   478216.6 3748445.4    451.0      4.00      3.95
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1.86      YES
 L0001232         0   0.10050E-05  478216.6 3748453.9   451.0     4.00     3.95
1.86      YES
 L0001233         0   0.10050E-05  478216.7 3748462.4   451.0     4.00     3.95
1.86      YES
 L0001234         0   0.10050E-05  478216.7 3748470.9   451.1     4.00     3.95
1.86      YES
 L0001235         0   0.10050E-05  478216.8 3748479.4   451.2     4.00     3.95
1.86      YES
 L0001236         0   0.10050E-05  478216.9 3748487.9   451.3     4.00     3.95
1.86      YES
 L0001237         0   0.10050E-05  478216.9 3748496.4   451.5     4.00     3.95
1.86      YES
 L0001238         0   0.10050E-05  478217.0 3748504.9   451.7     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001239         0   0.10050E-05  478217.0 3748513.4   451.9     4.00     3.95
1.86      YES
 L0001240         0   0.10050E-05  478217.1 3748521.9   452.0     4.00     3.95
1.86      YES
 L0001241         0   0.10050E-05  478217.2 3748530.4   452.0     4.00     3.95
1.86      YES
 L0001242         0   0.10050E-05  478217.2 3748538.9   452.0     4.00     3.95
1.86      YES
 L0001243         0   0.10050E-05  478217.3 3748547.4   452.0     4.00     3.95
1.86      YES
 L0001244         0   0.10050E-05  478217.3 3748555.9   452.0     4.00     3.95
1.86      YES
 L0001245         0   0.10050E-05  478217.4 3748564.4   452.0     4.00     3.95
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1.86     YES
 L0001246         0   0.10050E-05  478217.5 3748572.9   452.0     4.00      3.95
1.86     YES
 L0001247         0   0.10050E-05  478217.5 3748581.4   452.0     4.00      3.95
1.86     YES
 L0001248         0   0.10050E-05  478217.6 3748589.9   452.0     4.00      3.95
1.86     YES
 L0001249         0   0.10050E-05  478217.7 3748598.4   452.0     4.00      3.95
1.86     YES
 L0001250         0   0.10050E-05  478217.7 3748606.9   452.0     4.00      3.95
1.86     YES
 L0001251         0   0.10050E-05  478217.8 3748615.4   452.0     4.00      3.95
1.86     YES
 L0001252         0   0.10050E-05  478217.8 3748623.9   452.0     4.00      3.95
1.86     YES
 L0001253         0   0.10050E-05  478217.9 3748632.4   452.0     4.00      3.95
1.86     YES
 L0001254         0   0.10050E-05  478218.0 3748640.9   452.0     4.00      3.95
1.86     YES
 L0001255         0   0.10050E-05  478218.0 3748649.4   452.0     4.00      3.95
1.86     YES
 L0001256         0   0.10050E-05  478218.1 3748657.9   452.0     4.00      3.95
1.86     YES
 L0001257         0   0.10050E-05  478218.1 3748666.4   452.0     4.00      3.95
1.86     YES
 L0001258         0   0.10050E-05  478218.2 3748674.9   452.0     4.00      3.95
1.86     YES
 L0001259         0   0.10050E-05  478218.3 3748683.4   452.0     4.00      3.95
1.86     YES
 L0001260         0   0.10050E-05  478218.3 3748691.9   452.0     4.00      3.95
1.86     YES
 L0001261         0   0.10050E-05  478218.4 3748700.4   452.0     4.00      3.95
1.86     YES
 L0001262         0   0.10050E-05  478218.4 3748708.9   452.0     4.00      3.95
1.86     YES
 L0001263         0   0.10050E-05  478218.5 3748717.4   452.0     4.00      3.95
1.86     YES
 L0001264         0   0.10050E-05  478218.6 3748725.9   452.0     4.00      3.95
1.86     YES
 L0001265         0   0.10050E-05  478218.6 3748734.4   452.0     4.00      3.95
1.86     YES
 L0001266         0   0.10050E-05  478218.7 3748742.9   452.0     4.00      3.95
1.86     YES
 L0001267         0   0.10050E-05  478218.7 3748751.4   452.0     4.00      3.95
1.86     YES
 L0001268         0   0.10050E-05  478218.8 3748759.9   452.0     4.00      3.95
1.86     YES
 L0001269         0   0.10050E-05  478218.9 3748768.4   452.0     4.00      3.95
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1.86     YES
 L0001270         0   0.10050E-05  478218.9 3748776.9   452.0     4.00     3.95
1.86     YES
 L0001271         0   0.10050E-05  478219.0 3748785.4   452.0     4.00     3.95
1.86     YES
 L0001272         0   0.10050E-05  478219.0 3748793.9   452.2     4.00     3.95
1.86     YES
 L0001273         0   0.10050E-05  478219.1 3748802.4   452.5     4.00     3.95
1.86     YES
 L0001274         0   0.10050E-05  478219.2 3748810.9   452.8     4.00     3.95
1.86     YES
 L0001275         0   0.10050E-05  478219.2 3748819.4   453.0     4.00     3.95
1.86     YES
 L0001276         0   0.10050E-05  478219.3 3748827.9   453.0     4.00     3.95
1.86     YES
 L0001277         0   0.10050E-05  478219.3 3748836.4   453.0     4.00     3.95
1.86     YES
 L0001278         0   0.10050E-05  478219.4 3748844.9   453.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001279         0   0.10050E-05  478219.5 3748853.4   453.0     4.00     3.95
1.86     YES
 L0001280         0   0.10050E-05  478219.5 3748861.9   453.0     4.00     3.95
1.86     YES
 L0001281         0   0.10050E-05  478219.6 3748870.4   453.0     4.00     3.95
1.86     YES
 L0001282         0   0.10050E-05  478219.6 3748878.9   453.0     4.00     3.95
1.86     YES
 L0001283         0   0.10050E-05  478219.7 3748887.4   453.0     4.00     3.95
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1.86      YES
 L0001284          0   0.10050E-05  478219.8 3748895.9   453.0     4.00      3.95
1.86      YES
 L0001285          0   0.10050E-05  478219.8 3748904.4   453.0     4.00      3.95
1.86      YES
 L0001286          0   0.10050E-05  478219.9 3748912.9   453.0     4.00      3.95
1.86      YES
 L0001287          0   0.10050E-05  478217.5 3748921.1   453.0     4.00      3.95
1.86      YES
 L0001288          0   0.10050E-05  478215.0 3748929.2   453.0     4.00      3.95
1.86      YES
 L0001289          0   0.10050E-05  478212.6 3748937.3   453.0     4.00      3.95
1.86      YES
 L0001290          0   0.10050E-05  478210.1 3748945.4   453.0     4.00      3.95
1.86      YES
 L0001291          0   0.10050E-05  478207.6 3748953.6   453.0     4.00      3.95
1.86      YES
 L0001292          0   0.10050E-05  478205.1 3748961.7   453.0     4.00      3.95
1.86      YES
 L0001293          0   0.10050E-05  478202.7 3748969.8   453.0     4.00      3.95
1.86      YES
 L0001294          0   0.21410E-06  477852.8 3748835.2   453.0     4.00      3.95
1.86      YES
 L0001295          0   0.21410E-06  477852.8 3748843.7   453.0     4.00      3.95
1.86      YES
 L0001296          0   0.21410E-06  477852.9 3748852.2   453.0     4.00      3.95
1.86      YES
 L0001297          0   0.21410E-06  477852.9 3748860.7   453.0     4.00      3.95
1.86      YES
 L0001298          0   0.21410E-06  477853.0 3748869.2   453.0     4.00      3.95
1.86      YES
 L0001299          0   0.21410E-06  477853.0 3748877.7   453.0     4.00      3.95
1.86      YES
 L0001300          0   0.21410E-06  477853.0 3748886.2   453.0     4.00      3.95
1.86      YES
 L0001301          0   0.21410E-06  477853.1 3748894.7   453.0     4.00      3.95
1.86      YES
 L0001302          0   0.21410E-06  477853.1 3748903.2   453.0     4.00      3.95
1.86      YES
 L0001303          0   0.21410E-06  477853.2 3748911.7   453.0     4.00      3.95
1.86      YES
 L0001304          0   0.21410E-06  477853.2 3748920.2   453.0     4.00      3.95
1.86      YES
 L0001305          0   0.21410E-06  477853.3 3748928.7   453.0     4.00      3.95
1.86      YES
 L0001306          0   0.21410E-06  477853.3 3748937.2   453.0     4.00      3.95
1.86      YES
 L0001307          0   0.21410E-06  477853.4 3748945.7   453.0     4.00      3.95
```

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1.86     YES
 L0001308         0   0.21410E-06  477853.4 3748954.2   453.0     4.00     3.95
1.86     YES
 L0001309         0   0.21410E-06  477853.5 3748962.7   453.0     4.00     3.95
1.86     YES
 L0001310         0   0.21410E-06  477853.5 3748971.2   453.2     4.00     3.95
1.86     YES
 L0001311         0   0.21410E-06  477853.5 3748979.7   453.4     4.00     3.95
1.86     YES
 L0001312         0   0.21410E-06  477845.0 3748979.7   453.5     4.00     3.95
1.86     YES
 L0001313         0   0.21410E-06  477836.5 3748979.6   453.7     4.00     3.95
1.86     YES
 L0001314         0   0.21410E-06  477828.0 3748979.6   453.9     4.00     3.95
1.86     YES
 L0001315         0   0.21410E-06  477819.5 3748979.6   454.0     4.00     3.95
1.86     YES
 L0001316         0   0.21410E-06  477811.0 3748979.6   454.0     4.00     3.95
1.86     YES
 L0001317         0   0.21410E-06  477802.5 3748979.6   454.0     4.00     3.95
1.86     YES
 L0001318         0   0.21410E-06  477794.0 3748979.5   454.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001319         0   0.21410E-06  477785.5 3748979.5   454.0     4.00     3.95
1.86     YES
 L0001320         0   0.21410E-06  477777.0 3748979.5   454.0     4.00     3.95
1.86     YES
 L0001321         0   0.21410E-06  477768.5 3748979.5   454.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86     YES
 L0001322          0   0.21410E-06  477760.0 3748979.5   454.0      4.00      3.95
1.86     YES
 L0001323          0   0.21410E-06  477751.5 3748979.4   454.0      4.00      3.95
1.86     YES
 L0001324          0   0.21410E-06  477743.0 3748979.4   454.0      4.00      3.95
1.86     YES
 L0001325          0   0.21410E-06  477742.7 3748971.2   454.0      4.00      3.95
1.86     YES
 L0001326          0   0.21410E-06  477742.7 3748962.7   454.0      4.00      3.95
1.86     YES
 L0001327          0   0.21410E-06  477742.6 3748954.2   454.0      4.00      3.95
1.86     YES
 L0001328          0   0.21410E-06  477742.6 3748945.7   454.0      4.00      3.95
1.86     YES
 L0001329          0   0.21410E-06  477742.5 3748937.2   454.0      4.00      3.95
1.86     YES
 L0001330          0   0.21410E-06  477742.5 3748928.7   453.9      4.00      3.95
1.86     YES
 L0001331          0   0.21410E-06  477742.4 3748920.2   453.8      4.00      3.95
1.86     YES
 L0001332          0   0.21410E-06  477742.4 3748911.7   453.7      4.00      3.95
1.86     YES
 L0001333          0   0.21410E-06  477742.3 3748903.2   453.6      4.00      3.95
1.86     YES
 L0001334          0   0.21410E-06  477742.3 3748894.7   453.6      4.00      3.95
1.86     YES
 L0001335          0   0.21410E-06  477742.2 3748886.2   453.6      4.00      3.95
1.86     YES
 L0001336          0   0.21410E-06  477744.2 3748878.0   453.5      4.00      3.95
1.86     YES
 L0001337          0   0.21410E-06  477746.5 3748869.8   453.6      4.00      3.95
1.86     YES
 L0001338          0   0.21410E-06  477748.8 3748861.6   453.7      4.00      3.95
1.86     YES
 L0001339          0   0.21410E-06  477751.1 3748853.4   453.8      4.00      3.95
1.86     YES
 L0001340          0   0.21410E-06  477753.4 3748845.3   454.0      4.00      3.95
1.86     YES
 L0001341          0   0.21410E-06  477757.5 3748838.2   453.7      4.00      3.95
1.86     YES
 L0001342          0   0.21410E-06  477763.8 3748832.5   453.5      4.00      3.95
1.86     YES
 L0001343          0   0.21410E-06  477770.1 3748826.8   453.2      4.00      3.95
1.86     YES
 L0001344          0   0.21410E-06  477778.6 3748826.5   453.1      4.00      3.95
1.86     YES
 L0001345          0   0.21410E-06  477787.1 3748826.4   453.0      4.00      3.95
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1.86     YES
 L0001346        0   0.21410E-06  477795.6 3748826.2   453.0     4.00     3.95
1.86     YES
 L0001347        0   0.21410E-06  477804.1 3748826.1   453.0     4.00     3.95
1.86     YES
 L0001348        0   0.21410E-06  477812.6 3748826.1   453.0     4.00     3.95
1.86     YES
 L0001349        0   0.21410E-06  477821.1 3748826.0   453.0     4.00     3.95
1.86     YES
 L0001350        0   0.21410E-06  477829.6 3748826.0   453.0     4.00     3.95
1.86     YES
 L0001351        0   0.21410E-06  477838.1 3748825.9   453.0     4.00     3.95
1.86     YES
 L0001352        0   0.21410E-06  477846.6 3748825.8   453.0     4.00     3.95
1.86     YES
 L0001353        0   0.16860E-06  477886.6 3748203.7   450.0     4.00     3.95
1.86     YES
 L0001354        0   0.16860E-06  477886.4 3748212.2   450.0     4.00     3.95
1.86     YES
 L0001355        0   0.16860E-06  477886.3 3748220.7   450.1     4.00     3.95
1.86     YES
 L0001356        0   0.16860E-06  477886.1 3748229.2   450.3     4.00     3.95
1.86     YES
 L0001357        0   0.16860E-06  477885.9 3748237.7   450.6     4.00     3.95
1.86     YES
 L0001358        0   0.16860E-06  477885.7 3748246.2   450.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001359        0   0.16860E-06  477885.5 3748254.7   450.9     4.00     3.95
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                    AERMOD HRA Output
1.86      YES
 L0001360           0   0.16860E-06   477885.6 3748263.2    450.9      4.00      3.95
1.86      YES
 L0001361           0   0.16860E-06   477885.7 3748271.7    451.0      4.00      3.95
1.86      YES
 L0001362           0   0.16860E-06   477885.8 3748280.2    451.0      4.00      3.95
1.86      YES
 L0001363           0   0.16860E-06   477885.9 3748288.7    451.0      4.00      3.95
1.86      YES
 L0001364           0   0.16860E-06   477886.0 3748297.2    451.0      4.00      3.95
1.86      YES
 L0001365           0   0.16860E-06   477886.1 3748305.7    451.0      4.00      3.95
1.86      YES
 L0001366           0   0.16860E-06   477886.2 3748314.2    451.0      4.00      3.95
1.86      YES
 L0001367           0   0.16860E-06   477886.3 3748322.7    451.0      4.00      3.95
1.86      YES
 L0001368           0   0.16860E-06   477886.4 3748331.2    451.0      4.00      3.95
1.86      YES
 L0001369           0   0.16860E-06   477889.0 3748337.4    451.0      4.00      3.95
1.86      YES
 L0001370           0   0.16860E-06   477897.5 3748338.1    451.0      4.00      3.95
1.86      YES
 L0001371           0   0.16860E-06   477906.0 3748338.9    451.0      4.00      3.95
1.86      YES
 L0001372           0   0.16860E-06   477914.4 3748339.7    451.0      4.00      3.95
1.86      YES
 L0001373           0   0.16860E-06   477922.9 3748339.5    451.0      4.00      3.95
1.86      YES
 L0001374           0   0.16860E-06   477931.4 3748338.9    451.0      4.00      3.95
1.86      YES
 L0001375           0   0.16860E-06   477939.8 3748338.2    451.0      4.00      3.95
1.86      YES
 L0001376           0   0.16860E-06   477945.5 3748332.6    451.0      4.00      3.95
1.86      YES
 L0001377           0   0.16860E-06   477950.6 3748325.7    451.0      4.00      3.95
1.86      YES
 L0001378           0   0.16860E-06   477955.0 3748318.5    450.0      4.00      3.95
1.86      YES
 L0001379           0   0.16860E-06   477959.4 3748311.2    450.0      4.00      3.95
1.86      YES
 L0001380           0   0.16860E-06   477963.8 3748303.9    450.0      4.00      3.95
1.86      YES
 L0001381           0   0.16860E-06   477968.2 3748296.7    450.0      4.00      3.95
1.86      YES
 L0001382           0   0.16860E-06   477972.6 3748289.4    450.0      4.00      3.95
1.86      YES
 L0001383           0   0.16860E-06   477975.8 3748281.7    450.0      4.00      3.95
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1.86     YES
 L0001384        0   0.16860E-06  477977.7 3748273.4   450.0     4.00     3.95
1.86     YES
 L0001385        0   0.16860E-06  477979.6 3748265.1   450.0     4.00     3.95
1.86     YES
 L0001386        0   0.16860E-06  477981.3 3748256.8   450.0     4.00     3.95
1.86     YES
 L0001387        0   0.16860E-06  477980.6 3748248.3   450.0     4.00     3.95
1.86     YES
 L0001388        0   0.16860E-06  477979.9 3748239.8   450.0     4.00     3.95
1.86     YES
 L0001389        0   0.16860E-06  477979.2 3748231.4   450.0     4.00     3.95
1.86     YES
 L0001390        0   0.16860E-06  477978.4 3748222.9   450.0     4.00     3.95
1.86     YES
 L0001391        0   0.16860E-06  477982.6 3748217.0   450.0     4.00     3.95
1.86     YES
 L0001392        0   0.16860E-06  477990.0 3748212.7   450.0     4.00     3.95
1.86     YES
 L0001393        0   0.16860E-06  477994.0 3748206.5   450.0     4.00     3.95
1.86     YES
 L0001394        0   0.16860E-06  477994.1 3748198.0   450.0     4.00     3.95
1.86     YES
 L0001395        0   0.16860E-06  477986.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001396        0   0.16860E-06  477977.6 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001397        0   0.16860E-06  477969.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001398        0   0.16860E-06  477960.6 3748197.5   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0001399          0   0.16860E-06  477952.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001400          0   0.16860E-06  477943.6 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001401          0   0.16860E-06  477935.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0001402          0   0.28780E-06  477505.1 3748975.7   454.2     4.00     3.95
1.86     YES
 L0001403          0   0.28780E-06  477513.6 3748975.6   454.1     4.00     3.95
1.86     YES
 L0001404          0   0.28780E-06  477522.1 3748975.4   454.0     4.00     3.95
1.86     YES
 L0001405          0   0.28780E-06  477530.6 3748975.2   454.0     4.00     3.95
1.86     YES
 L0001406          0   0.28780E-06  477539.1 3748975.1   454.0     4.00     3.95
1.86     YES
 L0001407          0   0.28780E-06  477547.6 3748974.9   454.0     4.00     3.95
1.86     YES
 L0001408          0   0.28780E-06  477556.1 3748974.7   454.0     4.00     3.95
1.86     YES
 L0001409          0   0.28780E-06  477564.6 3748974.6   454.0     4.00     3.95
1.86     YES
 L0001410          0   0.28780E-06  477573.1 3748974.4   454.0     4.00     3.95
1.86     YES
 L0001411          0   0.28780E-06  477581.6 3748974.2   454.0     4.00     3.95
1.86     YES
 L0001412          0   0.28780E-06  477590.1 3748974.1   454.0     4.00     3.95
1.86     YES
 L0001413          0   0.28780E-06  477598.5 3748973.8   454.0     4.00     3.95
1.86     YES
 L0001414          0   0.28780E-06  477605.4 3748968.8   454.0     4.00     3.95
1.86     YES
 L0001415          0   0.28780E-06  477611.1 3748963.0   454.0     4.00     3.95
1.86     YES
 L0001416          0   0.28780E-06  477613.4 3748954.9   454.0     4.00     3.95
1.86     YES
 L0001417          0   0.28780E-06  477615.7 3748946.7   454.0     4.00     3.95
1.86     YES
 L0001418          0   0.28780E-06  477618.0 3748938.5   454.0     4.00     3.95
1.86     YES
 L0001419          0   0.28780E-06  477620.0 3748930.2   454.0     4.00     3.95
1.86     YES
 L0001420          0   0.28780E-06  477621.7 3748921.9   454.0     4.00     3.95
1.86     YES
 L0001421          0   0.28780E-06  477623.4 3748913.6   454.0     4.00     3.95
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1.86      YES
 L0001422          0   0.28780E-06   477625.1 3748905.3   454.0     4.00     3.95
1.86      YES
 L0001423          0   0.28780E-06   477626.2 3748896.9   454.0     4.00     3.95
1.86      YES
 L0001424          0   0.28780E-06   477626.4 3748888.4   454.0     4.00     3.95
1.86      YES
 L0001425          0   0.28780E-06   477626.5 3748879.9   454.0     4.00     3.95
1.86      YES
 L0001426          0   0.28780E-06   477626.6 3748871.4   454.0     4.00     3.95
1.86      YES
 L0001427          0   0.28780E-06   477626.7 3748862.9   454.0     4.00     3.95
1.86      YES
 L0001428          0   0.28780E-06   477626.8 3748854.4   454.0     4.00     3.95
1.86      YES
 L0001429          0   0.28780E-06   477626.9 3748845.9   454.0     4.00     3.95
1.86      YES
 L0001430          0   0.28780E-06   477627.0 3748837.4   454.0     4.00     3.95
1.86      YES
 L0001431          0   0.28780E-06   477627.1 3748828.9   454.0     4.00     3.95
1.86      YES
 L0001432          0   0.28780E-06   477627.2 3748820.4   454.0     4.00     3.95
1.86      YES
 L0001433          0   0.28780E-06   477627.3 3748811.9   454.0     4.00     3.95
1.86      YES
 L0001434          0   0.28780E-06   477627.5 3748803.4   454.0     4.00     3.95
1.86      YES
 L0001435          0   0.28780E-06   477627.0 3748795.5   454.0     4.00     3.95
1.86      YES
 L0001436          0   0.28780E-06   477618.5 3748795.7   454.0     4.00     3.95
1.86      YES
 L0001437          0   0.28780E-06   477610.0 3748795.9   454.0     4.00     3.95
1.86      YES
 L0001438          0   0.28780E-06   477601.5 3748796.2   454.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                          BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001439          0   0.28780E-06  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES
 L0001440          0   0.28780E-06  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES
 L0001441          0   0.28780E-06  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES
 L0001442          0   0.28780E-06  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES
 L0001443          0   0.28780E-06  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES
 L0001444          0   0.28780E-06  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES
 L0001445          0   0.28780E-06  477542.0 3748797.8   454.0     4.00     3.95
1.86     YES
 L0001446          0   0.28780E-06  477533.5 3748798.0   454.0     4.00     3.95
1.86     YES
 L0001447          0   0.28780E-06  477525.0 3748798.2   454.0     4.00     3.95
1.86     YES
 L0001448          0   0.28780E-06  477516.5 3748798.5   454.0     4.00     3.95
1.86     YES
 L0001449          0   0.28780E-06  477508.0 3748798.7   454.0     4.00     3.95
1.86     YES
 L0001450          0   0.28780E-06  477499.5 3748798.9   454.0     4.00     3.95
1.86     YES
 L0001451          0   0.28780E-06  477491.0 3748799.2   454.0     4.00     3.95
1.86     YES
 L0001452          0   0.59570E-06  478255.5 3748984.6   453.0     4.00     3.95
1.86     YES
 L0001453          0   0.59570E-06  478247.0 3748984.7   453.0     4.00     3.95
1.86     YES
 L0001454          0   0.59570E-06  478238.5 3748984.7   453.0     4.00     3.95
1.86     YES
 L0001455          0   0.59570E-06  478230.0 3748984.8   453.0     4.00     3.95
1.86     YES
 L0001456          0   0.59570E-06  478221.5 3748984.9   453.0     4.00     3.95
1.86     YES
 L0001457          0   0.59570E-06  478213.0 3748985.0   453.0     4.00     3.95
1.86     YES
 L0001458          0   0.59570E-06  478204.5 3748985.1   453.0     4.00     3.95
1.86     YES
 L0001459          0   0.59570E-06  478196.0 3748985.1   453.0     4.00     3.95
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1.86      YES
 L0001460         0   0.59570E-06   478187.5 3748985.2   453.0     4.00     3.95
1.86      YES
 L0001461         0   0.59570E-06   478179.0 3748985.3   453.0     4.00     3.95
1.86      YES
 L0001462         0   0.59570E-06   478170.5 3748985.4   453.0     4.00     3.95
1.86      YES
 L0001463         0   0.59570E-06   478162.0 3748985.5   453.0     4.00     3.95
1.86      YES
 L0001464         0   0.59570E-06   478153.5 3748985.5   453.0     4.00     3.95
1.86      YES
 L0001465         0   0.59570E-06   478145.0 3748985.6   453.0     4.00     3.95
1.86      YES
 L0001466         0   0.59570E-06   478136.5 3748985.7   453.0     4.00     3.95
1.86      YES
 L0001467         0   0.59570E-06   478128.0 3748985.8   453.0     4.00     3.95
1.86      YES
 L0001468         0   0.59570E-06   478119.5 3748985.9   453.0     4.00     3.95
1.86      YES
 L0001469         0   0.59570E-06   478111.0 3748986.0   453.0     4.00     3.95
1.86      YES
 L0001470         0   0.59570E-06   478102.5 3748986.0   453.0     4.00     3.95
1.86      YES
 L0001471         0   0.59570E-06   478094.0 3748986.1   453.0     4.00     3.95
1.86      YES
 L0001472         0   0.59570E-06   478085.5 3748986.2   453.0     4.00     3.95
1.86      YES
 L0001473         0   0.59570E-06   478077.0 3748986.3   453.0     4.00     3.95
1.86      YES
 L0001474         0   0.59570E-06   478068.5 3748986.4   453.0     4.00     3.95
1.86      YES
 L0001475         0   0.59570E-06   478060.0 3748986.4   453.0     4.00     3.95
1.86      YES
 L0001476         0   0.59570E-06   478051.5 3748986.5   453.0     4.00     3.95
1.86      YES
 L0001477         0   0.59570E-06   478043.0 3748986.6   453.0     4.00     3.95
1.86      YES
 L0001478         0   0.59570E-06   478034.5 3748986.7   453.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                   AERMOD HRA Output
                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY      
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)  
(METERS)              BY
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 L0001479         0   0.59570E-06   478026.0 3748986.8   453.0     4.00     3.95    
1.86     YES
 L0001480         0   0.59570E-06   478017.5 3748986.9   453.0     4.00     3.95    
1.86     YES
 L0001481         0   0.59570E-06   478009.0 3748986.9   453.0     4.00     3.95    
1.86     YES
 L0001482         0   0.59570E-06   478000.5 3748987.0   453.0     4.00     3.95    
1.86     YES
 L0001483         0   0.59570E-06   477992.0 3748987.1   453.0     4.00     3.95    
1.86     YES
 L0001484         0   0.59570E-06   477983.5 3748987.2   453.0     4.00     3.95    
1.86     YES
 L0001485         0   0.59570E-06   477975.0 3748987.3   453.0     4.00     3.95    
1.86     YES
 L0001486         0   0.59570E-06   477966.5 3748987.3   453.0     4.00     3.95    
1.86     YES
 L0001487         0   0.59570E-06   477958.0 3748987.4   453.0     4.00     3.95    
1.86     YES
 L0001488         0   0.59570E-06   477949.5 3748987.5   453.0     4.00     3.95    
1.86     YES
 L0001489         0   0.59570E-06   477941.0 3748987.6   453.0     4.00     3.95    
1.86     YES
 L0001490         0   0.59570E-06   477932.5 3748987.7   453.2     4.00     3.95    
1.86     YES
 L0001491         0   0.59570E-06   477924.0 3748987.7   453.4     4.00     3.95    
1.86     YES
 L0001492         0   0.59570E-06   477915.5 3748987.8   453.6     4.00     3.95    
1.86     YES
 L0001493         0   0.59570E-06   477907.0 3748987.9   453.7     4.00     3.95    
1.86     YES
 L0001494         0   0.59570E-06   477898.6 3748988.0   453.7     4.00     3.95    
1.86     YES
 L0001495         0   0.59570E-06   477890.1 3748988.1   453.7     4.00     3.95    
1.86     YES
 L0001496         0   0.59570E-06   477881.9 3748988.5   453.7     4.00     3.95    
1.86     YES
 L0001497         0   0.59570E-06   477881.9 3748997.0   454.0     4.00     3.95    
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1.86      YES
 L0001498          0   0.59570E-06  477881.9 3749005.5   454.0     4.00     3.95
1.86      YES
 L0001499          0   0.59570E-06  477881.9 3749014.0   454.0     4.00     3.95
1.86      YES
 L0001500          0   0.59570E-06  477881.9 3749022.5   454.0     4.00     3.95
1.86      YES
 L0001501          0   0.59570E-06  477881.9 3749031.0   454.0     4.00     3.95
1.86      YES
 L0001502          0   0.59570E-06  477881.9 3749039.5   454.0     4.00     3.95
1.86      YES
 L0001503          0   0.59570E-06  477881.9 3749048.0   454.0     4.00     3.95
1.86      YES
 L0001504          0   0.59570E-06  477881.9 3749056.5   454.0     4.00     3.95
1.86      YES
 L0001505          0   0.59570E-06  477881.9 3749065.0   454.0     4.00     3.95
1.86      YES
 L0001506          0   0.59570E-06  477881.9 3749073.5   454.0     4.00     3.95
1.86      YES
 L0001507          0   0.59570E-06  477881.9 3749082.0   454.0     4.00     3.95
1.86      YES
 L0001508          0   0.59570E-06  477881.9 3749090.5   454.0     4.00     3.95
1.86      YES
 L0001509          0   0.59570E-06  477881.9 3749099.0   454.0     4.00     3.95
1.86      YES
 L0001510          0   0.59570E-06  477881.9 3749107.5   454.0     4.00     3.95
1.86      YES
 L0001511          0   0.59570E-06  477881.9 3749116.0   454.0     4.00     3.95
1.86      YES
 L0001512          0   0.59570E-06  477881.9 3749124.5   454.0     4.00     3.95
1.86      YES
 L0001513          0   0.59570E-06  477881.9 3749133.0   454.0     4.00     3.95
1.86      YES
 L0001514          0   0.59570E-06  477881.9 3749141.5   454.0     4.00     3.95
1.86      YES
 L0001515          0   0.59570E-06  477881.9 3749150.0   454.0     4.00     3.95
1.86      YES
 L0001516          0   0.59570E-06  477881.9 3749158.5   454.0     4.00     3.95
1.86      YES
 L0001517          0   0.59570E-06  477881.9 3749167.0   454.0     4.00     3.95
1.86      YES
 L0001518          0   0.59570E-06  477881.9 3749175.5   454.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56
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                             AERMOD HRA Output
                               PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001519         0   0.59570E-06  477881.9 3749184.0   454.0     4.00     3.95
1.86     YES
 L0001520         0   0.59570E-06  477881.9 3749192.5   454.0     4.00     3.95
1.86     YES
 L0001521         0   0.59570E-06  477881.9 3749201.0   454.0     4.00     3.95
1.86     YES
 L0001522         0   0.59570E-06  477881.9 3749209.5   454.1     4.00     3.95
1.86     YES
 L0001523         0   0.59570E-06  477881.9 3749218.0   454.4     4.00     3.95
1.86     YES
 L0001524         0   0.59570E-06  477881.9 3749226.5   454.7     4.00     3.95
1.86     YES
 L0001525         0   0.59570E-06  477881.9 3749235.0   454.9     4.00     3.95
1.86     YES
 L0001526         0   0.59570E-06  477877.9 3749239.5   455.0     4.00     3.95
1.86     YES
 L0001527         0   0.59570E-06  477869.4 3749239.6   455.0     4.00     3.95
1.86     YES
 L0001528         0   0.59570E-06  477860.9 3749239.7   455.0     4.00     3.95
1.86     YES
 L0001529         0   0.59570E-06  477852.4 3749239.9   455.0     4.00     3.95
1.86     YES
 L0001530         0   0.59570E-06  477843.9 3749240.0   455.0     4.00     3.95
1.86     YES
 L0001531         0   0.59570E-06  477835.4 3749240.1   455.0     4.00     3.95
1.86     YES
 L0001532         0   0.59570E-06  477826.9 3749240.2   455.0     4.00     3.95
1.86     YES
 L0001533         0   0.59570E-06  477818.4 3749240.3   455.0     4.00     3.95
1.86     YES
 L0001534         0   0.59570E-06  477809.9 3749240.4   455.0     4.00     3.95
1.86     YES
 L0001535         0   0.59570E-06  477801.4 3749240.5   455.0     4.00     3.95
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1.86      YES
 L0001536          0   0.59570E-06  477792.9 3749240.7   455.0     4.00     3.95
1.86      YES
 L0001537          0   0.59570E-06  477784.4 3749240.8   455.0     4.00     3.95
1.86      YES
 L0001538          0   0.59570E-06  477775.9 3749240.9   455.0     4.00     3.95
1.86      YES
 L0001539          0   0.59570E-06  477767.4 3749241.0   455.0     4.00     3.95
1.86      YES
 L0001540          0   0.59570E-06  477758.9 3749241.1   455.0     4.00     3.95
1.86      YES
 L0001541          0   0.59570E-06  477750.4 3749241.2   455.0     4.00     3.95
1.86      YES
 L0001542          0   0.59570E-06  477741.9 3749241.3   455.0     4.00     3.95
1.86      YES
 L0001543          0   0.59570E-06  477733.4 3749241.4   455.0     4.00     3.95
1.86      YES
 L0001544          0   0.59570E-06  477724.9 3749241.6   455.0     4.00     3.95
1.86      YES
 L0001545          0   0.59570E-06  477716.4 3749241.7   455.0     4.00     3.95
1.86      YES
 L0001546          0   0.59570E-06  477707.9 3749241.8   455.0     4.00     3.95
1.86      YES
 L0001547          0   0.59570E-06  477699.4 3749241.9   455.0     4.00     3.95
1.86      YES
 L0001548          0   0.59570E-06  477690.9 3749242.0   455.0     4.00     3.95
1.86      YES
 L0001549          0   0.59570E-06  477682.4 3749242.1   455.0     4.00     3.95
1.86      YES
 L0001550          0   0.59570E-06  477673.9 3749242.2   455.0     4.00     3.95
1.86      YES
 L0001551          0   0.59570E-06  477665.4 3749242.4   455.0     4.00     3.95
1.86      YES
 L0001552          0   0.59570E-06  477656.9 3749242.5   455.0     4.00     3.95
1.86      YES
 L0001553          0   0.59570E-06  477648.4 3749242.6   455.0     4.00     3.95
1.86      YES
 L0001554          0   0.59570E-06  477639.9 3749242.7   455.0     4.00     3.95
1.86      YES
 L0001555          0   0.59570E-06  477631.4 3749242.8   455.0     4.00     3.95
1.86      YES
 L0001556          0   0.59570E-06  477622.9 3749242.9   455.0     4.00     3.95
1.86      YES
 L0001557          0   0.59570E-06  477614.4 3749243.0   455.0     4.00     3.95
1.86      YES
 L0001558          0   0.59570E-06  477605.9 3749243.2   455.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                 AERMOD HRA Output
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                       ***         14:59:56

                                   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001559        0   0.59570E-06  477597.4 3749243.3   455.0     4.00     3.95
1.86     YES
 L0001560        0   0.59570E-06  477588.9 3749243.4   455.0     4.00     3.95
1.86     YES
 L0001561        0   0.59570E-06  477580.4 3749243.5   455.0     4.00     3.95
1.86     YES
 L0001562        0   0.59570E-06  477571.9 3749243.6   455.0     4.00     3.95
1.86     YES
 L0001563        0   0.59570E-06  477563.4 3749243.7   455.0     4.00     3.95
1.86     YES
 L0001564        0   0.59570E-06  477554.9 3749243.8   455.0     4.00     3.95
1.86     YES
 L0001565        0   0.59570E-06  477546.4 3749244.0   455.0     4.00     3.95
1.86     YES
 L0001566        0   0.59570E-06  477537.9 3749244.1   455.0     4.00     3.95
1.86     YES
 L0001567        0   0.59570E-06  477529.4 3749244.2   455.0     4.00     3.95
1.86     YES
 L0001568        0   0.59570E-06  477520.9 3749244.3   455.0     4.00     3.95
1.86     YES
 L0001569        0   0.59570E-06  477512.4 3749244.4   455.0     4.00     3.95
1.86     YES
 L0001570        0   0.59570E-06  477503.9 3749244.5   455.0     4.00     3.95
1.86     YES
 L0001571        0   0.59570E-06  477495.4 3749244.6   455.0     4.00     3.95
1.86     YES
 L0001572        0   0.59570E-06  477486.9 3749244.7   455.0     4.00     3.95
1.86     YES
 L0001573        0   0.59570E-06  477478.4 3749244.9   455.0     4.00     3.95
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1.86      YES
 L0001574          0   0.59570E-06  477476.8 3749251.9   455.0     4.00     3.95
1.86      YES
 L0001575          0   0.59570E-06  477476.7 3749260.4   455.0     4.00     3.95
1.86      YES
 L0001576          0   0.59570E-06  477476.6 3749268.9   455.0     4.00     3.95
1.86      YES
 L0001577          0   0.59570E-06  477476.5 3749277.4   455.0     4.00     3.95
1.86      YES
 L0001578          0   0.59570E-06  477476.4 3749285.9   455.0     4.00     3.95
1.86      YES
 L0001579          0   0.59570E-06  477476.3 3749294.4   455.0     4.00     3.95
1.86      YES
 L0001580          0   0.59570E-06  477476.2 3749302.9   455.1     4.00     3.95
1.86      YES
 L0001581          0   0.59570E-06  477476.0 3749311.4   455.2     4.00     3.95
1.86      YES
 L0001582          0   0.59570E-06  477475.9 3749319.9   455.4     4.00     3.95
1.86      YES
 L0001583          0   0.59570E-06  477475.8 3749328.4   455.5     4.00     3.95
1.86      YES
 L0001584          0   0.59570E-06  477475.7 3749336.9   455.7     4.00     3.95
1.86      YES
 L0001585          0   0.59570E-06  477475.6 3749345.4   455.8     4.00     3.95
1.86      YES
 L0001586          0   0.59570E-06  477475.5 3749353.9   455.9     4.00     3.95
1.86      YES
 L0001587          0   0.59570E-06  477475.4 3749362.4   456.0     4.00     3.95
1.86      YES
 L0001588          0   0.59570E-06  477475.3 3749370.9   456.0     4.00     3.95
1.86      YES
 L0001589          0   0.59570E-06  477475.1 3749379.4   456.0     4.00     3.95
1.86      YES
 L0001590          0   0.59570E-06  477475.0 3749387.9   456.0     4.00     3.95
1.86      YES
 L0001591          0   0.59570E-06  477474.9 3749396.4   456.0     4.00     3.95
1.86      YES
 L0001592          0   0.59570E-06  477474.8 3749404.9   456.0     4.00     3.95
1.86      YES
 L0001593          0   0.59570E-06  477474.7 3749413.4   456.0     4.00     3.95
1.86      YES
 L0001594          0   0.59570E-06  477474.6 3749421.9   456.0     4.00     3.95
1.86      YES
 L0001595          0   0.59570E-06  477474.5 3749430.4   456.0     4.00     3.95
1.86      YES
 L0001596          0   0.59570E-06  477474.4 3749438.9   456.0     4.00     3.95
1.86      YES
 L0001597          0   0.59570E-06  477474.2 3749447.4   456.0     4.00     3.95
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1.86     YES
 L0001598         0   0.59570E-06  477474.1 3749455.9   456.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001599         0   0.59570E-06  477474.0 3749464.4   456.0     4.00     3.95
1.86     YES
 L0001600         0   0.59570E-06  477473.9 3749472.9   456.0     4.00     3.95
1.86     YES
 L0001601         0   0.59570E-06  477473.8 3749481.4   456.2     4.00     3.95
1.86     YES
 L0001602         0   0.59570E-06  477473.7 3749489.9   456.4     4.00     3.95
1.86     YES
 L0001603         0   0.59570E-06  477473.6 3749498.4   456.7     4.00     3.95
1.86     YES
 L0001604         0   0.59570E-06  477473.5 3749506.9   457.0     4.00     3.95
1.86     YES
 L0001605         0   0.59570E-06  477473.3 3749515.4   457.0     4.00     3.95
1.86     YES
 L0001606         0   0.59570E-06  477473.2 3749523.9   457.0     4.00     3.95
1.86     YES
 L0001607         0   0.59570E-06  477473.1 3749532.4   457.0     4.00     3.95
1.86     YES
 L0001608         0   0.59570E-06  477473.0 3749540.9   457.0     4.00     3.95
1.86     YES
 L0001609         0   0.59570E-06  477472.9 3749549.4   457.0     4.00     3.95
1.86     YES
 L0001610         0   0.59570E-06  477472.8 3749557.9   457.0     4.00     3.95
1.86     YES
 L0001611         0   0.59570E-06  477472.7 3749566.4   457.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0001612          0   0.59570E-06  477472.6 3749574.9   457.0     4.00     3.95
1.86      YES
 L0001613          0   0.59570E-06  477472.4 3749583.4   457.0     4.00     3.95
1.86      YES
 L0001614          0   0.59570E-06  477472.3 3749591.9   457.0     4.00     3.95
1.86      YES
 L0001615          0   0.59570E-06  477472.2 3749600.4   457.0     4.00     3.95
1.86      YES
 L0001616          0   0.59570E-06  477472.1 3749608.9   457.0     4.00     3.95
1.86      YES
 L0001617          0   0.59570E-06  477472.0 3749617.4   457.0     4.00     3.95
1.86      YES
 L0001618          0   0.59570E-06  477471.9 3749625.9   457.0     4.00     3.95
1.86      YES
 L0001619          0   0.59570E-06  477471.8 3749634.4   457.0     4.00     3.95
1.86      YES
 L0001620          0   0.59570E-06  477471.7 3749642.9   457.0     4.00     3.95
1.86      YES
 L0001621          0   0.59570E-06  477471.5 3749651.4   457.0     4.00     3.95
1.86      YES
 L0001622          0   0.59570E-06  477471.4 3749659.9   457.0     4.00     3.95
1.86      YES
 L0001623          0   0.59570E-06  477471.3 3749668.4   457.0     4.00     3.95
1.86      YES
 L0001624          0   0.59570E-06  477471.2 3749676.9   457.0     4.00     3.95
1.86      YES
 L0001625          0   0.59570E-06  477471.1 3749685.4   457.0     4.00     3.95
1.86      YES
 L0001626          0   0.59570E-06  477471.0 3749693.9   457.0     4.00     3.95
1.86      YES
 L0001627          0   0.59570E-06  477470.9 3749702.4   457.0     4.00     3.95
1.86      YES
 L0001628          0   0.59570E-06  477470.8 3749710.9   457.0     4.00     3.95
1.86      YES
 L0001629          0   0.59570E-06  477470.6 3749719.4   457.0     4.00     3.95
1.86      YES
 L0001630          0   0.59570E-06  477470.5 3749727.9   457.0     4.00     3.95
1.86      YES
 L0001631          0   0.59570E-06  477470.4 3749736.4   457.0     4.00     3.95
1.86      YES
 L0001632          0   0.59570E-06  477470.3 3749744.9   457.0     4.00     3.95
1.86      YES
 L0001633          0   0.59570E-06  477470.2 3749753.4   457.2     4.00     3.95
1.86      YES
 L0001634          0   0.59570E-06  477470.1 3749761.9   457.5     4.00     3.95
1.86      YES
 L0001635          0   0.59570E-06  477470.0 3749770.4   457.8     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0001636         0   0.59570E-06   477469.9 3749778.9   458.0     4.00     3.95
1.86      YES
 L0001637         0   0.59570E-06   477469.7 3749787.4   458.0     4.00     3.95
1.86      YES
 L0001638         0   0.25490E-06   477901.9 3748181.5   450.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:59:56

                                   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0001639         0   0.25490E-06   477893.4 3748181.6   450.0     4.00     3.95
1.86      YES
 L0001640         0   0.25490E-06   477884.9 3748181.7   450.0     4.00     3.95
1.86      YES
 L0001641         0   0.25490E-06   477876.4 3748181.7   450.0     4.00     3.95
1.86      YES
 L0001642         0   0.25490E-06   477867.9 3748181.8   450.0     4.00     3.95
1.86      YES
 L0001643         0   0.25490E-06   477859.4 3748181.9   450.0     4.00     3.95
1.86      YES
 L0001644         0   0.25490E-06   477850.9 3748181.9   450.0     4.00     3.95
1.86      YES
 L0001645         0   0.25490E-06   477842.4 3748182.0   450.2     4.00     3.95
1.86      YES
 L0001646         0   0.25490E-06   477833.9 3748182.1   450.5     4.00     3.95
1.86      YES
 L0001647         0   0.25490E-06   477825.4 3748182.1   450.7     4.00     3.95
1.86      YES
 L0001648         0   0.25490E-06   477816.9 3748182.2   450.9     4.00     3.95
1.86      YES
 L0001649         0   0.25490E-06   477808.4 3748182.3   450.9     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0001650          0   0.25490E-06  477799.9 3748182.3   451.0     4.00      3.95
1.86      YES
 L0001651          0   0.25490E-06  477791.4 3748182.4   451.0     4.00      3.95
1.86      YES
 L0001652          0   0.25490E-06  477782.9 3748182.5   451.0     4.00      3.95
1.86      YES
 L0001653          0   0.25490E-06  477774.4 3748182.5   451.0     4.00      3.95
1.86      YES
 L0001654          0   0.25490E-06  477765.9 3748182.6   451.0     4.00      3.95
1.86      YES
 L0001655          0   0.25490E-06  477757.4 3748182.7   451.0     4.00      3.95
1.86      YES
 L0001656          0   0.25490E-06  477748.9 3748182.8   451.0     4.00      3.95
1.86      YES
 L0001657          0   0.25490E-06  477740.4 3748182.8   451.0     4.00      3.95
1.86      YES
 L0001658          0   0.25490E-06  477731.9 3748182.9   451.0     4.00      3.95
1.86      YES
 L0001659          0   0.25490E-06  477723.4 3748183.0   451.0     4.00      3.95
1.86      YES
 L0001660          0   0.25490E-06  477714.9 3748183.0   451.0     4.00      3.95
1.86      YES
 L0001661          0   0.25490E-06  477706.4 3748183.1   451.0     4.00      3.95
1.86      YES
 L0001662          0   0.25490E-06  477697.9 3748183.2   451.0     4.00      3.95
1.86      YES
 L0001663          0   0.25490E-06  477689.4 3748183.2   451.0     4.00      3.95
1.86      YES
 L0001664          0   0.25490E-06  477680.9 3748183.3   451.0     4.00      3.95
1.86      YES
 L0001665          0   0.25490E-06  477672.4 3748183.4   451.0     4.00      3.95
1.86      YES
 L0001666          0   0.25490E-06  477663.9 3748183.4   451.0     4.00      3.95
1.86      YES
 L0001667          0   0.25490E-06  477655.4 3748183.5   451.0     4.00      3.95
1.86      YES
 L0001668          0   0.25490E-06  477646.9 3748183.6   451.0     4.00      3.95
1.86      YES
 L0001669          0   0.25490E-06  477638.4 3748183.6   451.0     4.00      3.95
1.86      YES
 L0001670          0   0.25490E-06  477629.9 3748183.7   451.0     4.00      3.95
1.86      YES
 L0001671          0   0.25490E-06  477621.4 3748183.8   451.0     4.00      3.95
1.86      YES
 L0001672          0   0.25490E-06  477612.9 3748183.8   451.0     4.00      3.95
1.86      YES
 L0001673          0   0.25490E-06  477604.4 3748183.9   451.0     4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0001674         0   0.25490E-06  477595.9 3748184.0   451.0     4.00     3.95
1.86      YES
 L0001675         0   0.25490E-06  477587.4 3748184.0   451.0     4.00     3.95
1.86      YES
 L0001676         0   0.25490E-06  477578.9 3748184.1   451.0     4.00     3.95
1.86      YES
 L0001677         0   0.25490E-06  477570.4 3748184.2   451.0     4.00     3.95
1.86      YES
 L0001678         0   0.25490E-06  477561.9 3748184.2   451.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0001679         0   0.25490E-06  477553.4 3748184.3   451.0     4.00     3.95
1.86      YES
 L0001680         0   0.25490E-06  477544.9 3748184.4   451.0     4.00     3.95
1.86      YES
 L0001681         0   0.25490E-06  477536.4 3748184.4   451.0     4.00     3.95
1.86      YES
 L0001682         0   0.25490E-06  477527.9 3748184.5   451.0     4.00     3.95
1.86      YES
 L0001683         0   0.25490E-06  477519.4 3748184.6   451.0     4.00     3.95
1.86      YES
 L0001684         0   0.25490E-06  477510.9 3748184.6   451.0     4.00     3.95
1.86      YES
 L0001685         0   0.25490E-06  477502.4 3748184.7   451.0     4.00     3.95
1.86      YES
 L0001686         0   0.25490E-06  477493.9 3748184.8   451.0     4.00     3.95
1.86      YES
 L0001687         0   0.25490E-06  477485.4 3748184.8   451.0     4.00     3.95
```

```
1.86      YES
 L0001688         0   0.25490E-06  477476.9 3748184.9   451.0      4.00      3.95
1.86      YES
 L0001689         0   0.25490E-06  477471.1 3748182.1   451.0      4.00      3.95
1.86      YES
 L0001690         0   0.25490E-06  477470.9 3748173.6   451.0      4.00      3.95
1.86      YES
 L0001691         0   0.25490E-06  477470.7 3748165.1   451.0      4.00      3.95
1.86      YES
 L0001692         0   0.25490E-06  477470.6 3748156.6   451.0      4.00      3.95
1.86      YES
 L0001693         0   0.25490E-06  477470.4 3748148.2   451.0      4.00      3.95
1.86      YES
 L0001694         0   0.25490E-06  477470.2 3748139.7   451.0      4.00      3.95
1.86      YES
 L0001695         0   0.25490E-06  477470.0 3748131.2   451.0      4.00      3.95
1.86      YES
 L0001696         0   0.25490E-06  477469.8 3748122.7   451.0      4.00      3.95
1.86      YES
 L0001697         0   0.25490E-06  477469.6 3748114.2   451.0      4.00      3.95
1.86      YES
 L0001698         0   0.25490E-06  477469.4 3748105.7   451.0      4.00      3.95
1.86      YES
 L0001699         0   0.25490E-06  477469.2 3748097.2   451.0      4.00      3.95
1.86      YES
 L0001700         0   0.25490E-06  477469.0 3748088.7   451.0      4.00      3.95
1.86      YES
 L0001701         0   0.25490E-06  477468.9 3748080.2   451.0      4.00      3.95
1.86      YES
 L0001702         0   0.25490E-06  477468.7 3748071.7   451.0      4.00      3.95
1.86      YES
 L0001703         0   0.25490E-06  477468.5 3748063.2   451.0      4.00      3.95
1.86      YES
 L0001704         0   0.25490E-06  477468.3 3748054.7   451.0      4.00      3.95
1.86      YES
 L0001705         0   0.25490E-06  477468.1 3748046.2   451.0      4.00      3.95
1.86      YES
 L0001706         0   0.25490E-06  477467.9 3748037.7   451.0      4.00      3.95
1.86      YES
 L0001707         0   0.25490E-06  477467.7 3748029.2   451.0      4.00      3.95
1.86      YES
 L0001708         0   0.25490E-06  477467.5 3748020.7   451.0      4.00      3.95
1.86      YES
 L0001709         0   0.25490E-06  477467.4 3748012.2   451.0      4.00      3.95
1.86      YES
 L0001710         0   0.25490E-06  477467.2 3748003.7   451.0      4.00      3.95
1.86      YES
 L0001711         0   0.25490E-06  477467.0 3747995.2   451.0      4.00      3.95
```

```
1.86      YES
 L0001712         0   0.25490E-06  477466.8 3747986.7   451.0     4.00     3.95
1.86      YES
 L0001713         0   0.25490E-06  477466.6 3747978.2   451.0     4.00     3.95
1.86      YES
 L0001714         0   0.25490E-06  477466.4 3747969.7   451.0     4.00     3.95
1.86      YES
 L0001715         0   0.25490E-06  477466.2 3747961.2   451.0     4.00     3.95
1.86      YES
 L0001716         0   0.25490E-06  477466.0 3747952.7   451.0     4.00     3.95
1.86      YES
 L0001717         0   0.25490E-06  477465.8 3747944.2   451.0     4.00     3.95
1.86      YES
 L0001718         0   0.25490E-06  477465.7 3747935.7   451.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001719         0   0.25490E-06  477465.5 3747927.2   451.0     4.00     3.95
1.86      YES
 L0001720         0   0.25490E-06  477465.3 3747918.7   451.0     4.00     3.95
1.86      YES
 L0001721         0   0.25490E-06  477465.1 3747910.2   451.0     4.00     3.95
1.86      YES
 L0001722         0   0.25490E-06  477464.9 3747901.7   451.0     4.00     3.95
1.86      YES
 L0001723         0   0.25490E-06  477464.7 3747893.2   451.0     4.00     3.95
1.86      YES
 L0001724         0   0.25490E-06  477464.5 3747884.7   451.0     4.00     3.95
1.86      YES
 L0001725         0   0.25490E-06  477464.3 3747876.2   451.0     4.00     3.95
```

AERMOD HRA Output

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1.86      YES
 L0001726           0   0.25490E-06   477464.1 3747867.7    451.0      4.00      3.95
1.86      YES
 L0001727           0   0.25490E-06   477464.0 3747859.2    451.0      4.00      3.95
1.86      YES
 L0001728           0   0.25490E-06   477463.8 3747850.7    451.0      4.00      3.95
1.86      YES
 L0001729           0   0.25490E-06   477463.6 3747842.2    451.0      4.00      3.95
1.86      YES
 L0001730           0   0.25490E-06   477463.4 3747833.7    451.0      4.00      3.95
1.86      YES
 L0001731           0   0.25490E-06   477463.2 3747825.2    451.0      4.00      3.95
1.86      YES
 L0001732           0   0.25490E-06   477463.0 3747816.7    451.0      4.00      3.95
1.86      YES
 L0001733           0   0.25490E-06   477462.8 3747808.2    451.0      4.00      3.95
1.86      YES
 L0001734           0   0.25490E-06   477462.6 3747799.7    451.0      4.00      3.95
1.86      YES
 L0001735           0   0.25490E-06   477462.5 3747791.2    451.0      4.00      3.95
1.86      YES
 L0001736           0   0.25490E-06   477462.3 3747782.7    451.0      4.00      3.95
1.86      YES
 L0006637           0   0.25520E-06   477466.5 3747781.2    451.0      4.00      3.95
1.86      YES
 L0006638           0   0.25520E-06   477475.0 3747781.2    451.0      4.00      3.95
1.86      YES
 L0006639           0   0.25520E-06   477483.5 3747781.1    451.0      4.00      3.95
1.86      YES
 L0006640           0   0.25520E-06   477492.0 3747781.1    451.0      4.00      3.95
1.86      YES
 L0006641           0   0.25520E-06   477500.5 3747781.0    451.0      4.00      3.95
1.86      YES
 L0006642           0   0.25520E-06   477509.0 3747781.0    451.0      4.00      3.95
1.86      YES
 L0006643           0   0.25520E-06   477517.5 3747780.9    451.0      4.00      3.95
1.86      YES
 L0006644           0   0.25520E-06   477526.0 3747780.9    451.0      4.00      3.95
1.86      YES
 L0006645           0   0.25520E-06   477534.5 3747780.8    451.0      4.00      3.95
1.86      YES
 L0006646           0   0.25520E-06   477543.0 3747780.7    451.0      4.00      3.95
1.86      YES
 L0006647           0   0.25520E-06   477551.5 3747780.7    451.0      4.00      3.95
1.86      YES
 L0006648           0   0.25520E-06   477560.0 3747780.6    451.0      4.00      3.95
1.86      YES
 L0006649           0   0.25520E-06   477568.5 3747780.6    451.0      4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86     YES
 L0006650         0   0.25520E-06  477577.0 3747780.5   451.0     4.00     3.95
1.86     YES
 L0006651         0   0.25520E-06  477585.5 3747780.5   451.0     4.00     3.95
1.86     YES
 L0006652         0   0.25520E-06  477594.0 3747780.4   451.0     4.00     3.95
1.86     YES
 L0006653         0   0.25520E-06  477602.5 3747780.3   451.0     4.00     3.95
1.86     YES
 L0006654         0   0.25520E-06  477611.0 3747780.3   451.0     4.00     3.95
1.86     YES
 L0006655         0   0.25520E-06  477619.5 3747780.2   451.0     4.00     3.95
1.86     YES
 L0006656         0   0.25520E-06  477628.0 3747780.2   451.0     4.00     3.95
1.86     YES
 L0006657         0   0.25520E-06  477636.5 3747780.1   451.0     4.00     3.95
1.86     YES
 L0006658         0   0.25520E-06  477645.0 3747780.1   450.9     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0006659         0   0.25520E-06  477653.5 3747780.0   450.8     4.00     3.95
1.86     YES
 L0006660         0   0.25520E-06  477662.0 3747780.0   450.6     4.00     3.95
1.86     YES
 L0006661         0   0.25520E-06  477670.5 3747779.9   450.4     4.00     3.95
1.86     YES
 L0006662         0   0.25520E-06  477679.0 3747779.8   450.3     4.00     3.95
1.86     YES
 L0006663         0   0.25520E-06  477687.5 3747779.8   450.2     4.00     3.95
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1.86      YES
 L0006664          0   0.25520E-06  477696.0 3747779.7   450.1      4.00      3.95
1.86      YES
 L0006665          0   0.25520E-06  477704.5 3747779.7   450.0      4.00      3.95
1.86      YES
 L0006666          0   0.25520E-06  477713.0 3747779.6   450.0      4.00      3.95
1.86      YES
 L0006667          0   0.25520E-06  477721.5 3747779.6   450.0      4.00      3.95
1.86      YES
 L0006668          0   0.25520E-06  477730.0 3747779.5   450.0      4.00      3.95
1.86      YES
 L0006669          0   0.25520E-06  477738.5 3747779.4   450.0      4.00      3.95
1.86      YES
 L0006670          0   0.25520E-06  477747.0 3747779.4   450.0      4.00      3.95
1.86      YES
 L0006671          0   0.25520E-06  477755.5 3747779.3   450.0      4.00      3.95
1.86      YES
 L0006672          0   0.25520E-06  477764.0 3747779.3   450.0      4.00      3.95
1.86      YES
 L0006673          0   0.25520E-06  477772.5 3747779.2   450.0      4.00      3.95
1.86      YES
 L0006674          0   0.25520E-06  477781.0 3747779.2   450.0      4.00      3.95
1.86      YES
 L0006675          0   0.25520E-06  477789.5 3747779.1   450.0      4.00      3.95
1.86      YES
 L0006676          0   0.25520E-06  477798.0 3747779.1   450.0      4.00      3.95
1.86      YES
 L0006677          0   0.25520E-06  477806.5 3747779.0   450.0      4.00      3.95
1.86      YES
 L0006678          0   0.25520E-06  477815.0 3747778.9   450.0      4.00      3.95
1.86      YES
 L0006679          0   0.25520E-06  477823.5 3747778.9   450.0      4.00      3.95
1.86      YES
 L0006680          0   0.25520E-06  477832.0 3747778.8   450.0      4.00      3.95
1.86      YES
 L0006681          0   0.25520E-06  477840.5 3747778.8   450.0      4.00      3.95
1.86      YES
 L0006682          0   0.25520E-06  477849.0 3747778.7   450.0      4.00      3.95
1.86      YES
 L0006683          0   0.25520E-06  477857.5 3747778.7   450.0      4.00      3.95
1.86      YES
 L0006684          0   0.25520E-06  477866.0 3747778.6   450.0      4.00      3.95
1.86      YES
 L0006685          0   0.25520E-06  477874.5 3747778.6   450.0      4.00      3.95
1.86      YES
 L0006686          0   0.25520E-06  477883.0 3747778.5   450.0      4.00      3.95
1.86      YES
 L0006687          0   0.25520E-06  477891.5 3747778.4   450.0      4.00      3.95
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1.86      YES
 L0006688         0   0.25520E-06  477900.0 3747778.4   450.0     4.00     3.95
1.86      YES
 L0006689         0   0.25520E-06  477908.5 3747778.3   450.0     4.00     3.95
1.86      YES
 L0006690         0   0.25520E-06  477917.0 3747778.3   450.0     4.00     3.95
1.86      YES
 L0006691         0   0.25520E-06  477925.5 3747778.2   450.0     4.00     3.95
1.86      YES
 L0006692         0   0.25520E-06  477934.0 3747778.2   450.0     4.00     3.95
1.86      YES
 L0006693         0   0.25520E-06  477942.5 3747778.1   450.0     4.00     3.95
1.86      YES
 L0006694         0   0.25520E-06  477951.0 3747778.0   450.0     4.00     3.95
1.86      YES
 L0006695         0   0.25520E-06  477959.5 3747778.0   450.0     4.00     3.95
1.86      YES
 L0006696         0   0.25520E-06  477968.0 3747777.9   450.0     4.00     3.95
1.86      YES
 L0006697         0   0.25520E-06  477976.5 3747777.9   450.0     4.00     3.95
1.86      YES
 L0006698         0   0.25520E-06  477985.0 3747777.8   450.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006699         0   0.25520E-06  477993.5 3747777.8   450.0     4.00     3.95
1.86      YES
 L0006700         0   0.25520E-06  478002.0 3747777.7   450.0     4.00     3.95
1.86      YES
 L0006701         0   0.25520E-06  478010.5 3747777.7   449.8     4.00     3.95
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1.86      YES
 L0006702          0   0.25520E-06  478019.0 3747777.6   449.6      4.00      3.95
1.86      YES
 L0006703          0   0.25520E-06  478027.5 3747777.5   449.4      4.00      3.95
1.86      YES
 L0006704          0   0.25520E-06  478036.0 3747777.5   449.3      4.00      3.95
1.86      YES
 L0006705          0   0.25520E-06  478044.5 3747777.4   449.2      4.00      3.95
1.86      YES
 L0006706          0   0.25520E-06  478053.0 3747777.4   449.1      4.00      3.95
1.86      YES
 L0006707          0   0.25520E-06  478061.5 3747777.3   449.0      4.00      3.95
1.86      YES
 L0006708          0   0.25520E-06  478070.0 3747777.3   449.0      4.00      3.95
1.86      YES
 L0006709          0   0.25520E-06  478078.5 3747777.2   449.0      4.00      3.95
1.86      YES
 L0006710          0   0.25520E-06  478087.0 3747777.1   449.0      4.00      3.95
1.86      YES
 L0006711          0   0.25520E-06  478095.5 3747777.1   449.0      4.00      3.95
1.86      YES
 L0006712          0   0.25520E-06  478104.0 3747777.0   449.0      4.00      3.95
1.86      YES
 L0006713          0   0.25520E-06  478112.5 3747777.0   449.0      4.00      3.95
1.86      YES
 L0006714          0   0.25520E-06  478121.0 3747776.9   449.0      4.00      3.95
1.86      YES
 L0006715          0   0.25520E-06  478129.5 3747776.9   449.0      4.00      3.95
1.86      YES
 L0006716          0   0.25520E-06  478138.0 3747776.8   449.0      4.00      3.95
1.86      YES
 L0006717          0   0.25520E-06  478146.5 3747776.8   449.0      4.00      3.95
1.86      YES
 L0006718          0   0.25520E-06  478155.0 3747776.7   449.0      4.00      3.95
1.86      YES
 L0006719          0   0.25520E-06  478163.5 3747776.6   449.0      4.00      3.95
1.86      YES
 L0006720          0   0.25520E-06  478172.0 3747776.6   449.0      4.00      3.95
1.86      YES
 L0006721          0   0.25520E-06  478180.5 3747776.5   449.0      4.00      3.95
1.86      YES
 L0006722          0   0.25520E-06  478189.0 3747776.5   449.0      4.00      3.95
1.86      YES
 L0006723          0   0.25520E-06  478197.5 3747776.4   449.0      4.00      3.95
1.86      YES
 L0006724          0   0.25520E-06  478206.0 3747776.4   449.0      4.00      3.95
1.86      YES
 L0006725          0   0.25520E-06  478214.5 3747776.3   449.0      4.00      3.95
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1.86     YES
 L0006726         0   0.25520E-06  478223.0 3747776.2   449.0     4.00     3.95
1.86     YES
 L0006727         0   0.25520E-06  478231.5 3747776.2   449.0     4.00     3.95
1.86     YES
 L0006728         0   0.25520E-06  478240.0 3747776.1   449.0     4.00     3.95
1.86     YES
 L0006729         0   0.25520E-06  478248.5 3747776.1   449.0     4.00     3.95
1.86     YES
 L0006730         0   0.25520E-06  478257.0 3747776.0   449.0     4.00     3.95
1.86     YES
 L0006731         0   0.25520E-06  478265.5 3747776.0   449.0     4.00     3.95
1.86     YES
 L0006732         0   0.25520E-06  478274.0 3747775.9   449.0     4.00     3.95
1.86     YES
 L0006733         0   0.25520E-06  478281.0 3747774.4   449.0     4.00     3.95
1.86     YES
 L0006734         0   0.25520E-06  478281.0 3747765.9   449.0     4.00     3.95
1.86     YES
 L0006735         0   0.25520E-06  478281.1 3747757.4   449.0     4.00     3.95
1.86     YES
 L0006736         0   0.25520E-06  478281.1 3747748.9   449.0     4.00     3.95
1.86     YES
 L0006737         0   0.25520E-06  478281.1 3747740.4   449.0     4.00     3.95
1.86     YES
 L0006738         0   0.25520E-06  478281.2 3747731.9   449.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006739         0   0.25520E-06  478281.2 3747723.4   449.0     4.00     3.95
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1.86     YES
 L0006740          0   0.25520E-06  478281.2 3747714.9   449.0      4.00      3.95
1.86     YES
 L0006741          0   0.25520E-06  478281.3 3747706.4   449.0      4.00      3.95
1.86     YES
 L0006742          0   0.25520E-06  478281.3 3747697.9   449.0      4.00      3.95
1.86     YES
 L0006743          0   0.25520E-06  478281.3 3747689.4   449.0      4.00      3.95
1.86     YES
 L0006744          0   0.25520E-06  478281.4 3747680.9   449.0      4.00      3.95
1.86     YES
 L0006745          0   0.25520E-06  478281.4 3747672.4   448.9      4.00      3.95
1.86     YES
 L0006746          0   0.25520E-06  478281.4 3747663.9   448.6      4.00      3.95
1.86     YES
 L0006747          0   0.25520E-06  478281.5 3747655.4   448.3      4.00      3.95
1.86     YES
 L0006748          0   0.25520E-06  478281.5 3747646.9   448.0      4.00      3.95
1.86     YES
 L0006749          0   0.25520E-06  478281.5 3747638.4   448.0      4.00      3.95
1.86     YES
 L0006750          0   0.25520E-06  478281.5 3747629.9   448.0      4.00      3.95
1.86     YES
 L0006751          0   0.25520E-06  478281.6 3747621.4   448.0      4.00      3.95
1.86     YES
 L0006752          0   0.25520E-06  478281.6 3747612.9   448.0      4.00      3.95
1.86     YES
 L0006753          0   0.25520E-06  478281.6 3747604.4   448.0      4.00      3.95
1.86     YES
 L0006754          0   0.25520E-06  478281.7 3747595.9   448.0      4.00      3.95
1.86     YES
 L0006755          0   0.25520E-06  478281.7 3747587.4   448.0      4.00      3.95
1.86     YES
 L0006756          0   0.25520E-06  478281.7 3747578.9   448.0      4.00      3.95
1.86     YES
 L0006757          0   0.25520E-06  478281.8 3747570.4   448.0      4.00      3.95
1.86     YES
 L0006758          0   0.25520E-06  478281.8 3747561.9   448.0      4.00      3.95
1.86     YES
 L0006759          0   0.25520E-06  478281.8 3747553.4   448.0      4.00      3.95
1.86     YES
 L0006760          0   0.25520E-06  478281.9 3747544.9   448.0      4.00      3.95
1.86     YES
 L0006761          0   0.25520E-06  478281.9 3747536.4   448.0      4.00      3.95
1.86     YES
 L0006762          0   0.25520E-06  478281.9 3747527.9   448.0      4.00      3.95
1.86     YES
 L0006763          0   0.25520E-06  478282.0 3747519.4   448.0      4.00      3.95
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1.86     YES
 L0006764         0   0.25520E-06  478282.0 3747510.9   448.0     4.00     3.95
1.86     YES
 L0006765         0   0.25520E-06  478282.0 3747502.4   448.0     4.00     3.95
1.86     YES
 L0006766         0   0.25520E-06  478282.1 3747493.9   448.0     4.00     3.95
1.86     YES
 L0006767         0   0.25520E-06  478282.1 3747485.4   448.0     4.00     3.95
1.86     YES
 L0006768         0   0.25520E-06  478282.1 3747476.9   448.0     4.00     3.95
1.86     YES
 L0006769         0   0.25520E-06  478282.2 3747468.4   448.0     4.00     3.95
1.86     YES
 L0006770         0   0.25520E-06  478282.2 3747459.9   448.0     4.00     3.95
1.86     YES
 L0006771         0   0.25520E-06  478282.2 3747451.4   448.0     4.00     3.95
1.86     YES
 L0006772         0   0.25520E-06  478282.3 3747442.9   448.0     4.00     3.95
1.86     YES
 L0006773         0   0.25520E-06  478282.3 3747434.4   448.0     4.00     3.95
1.86     YES
 L0006774         0   0.25520E-06  478282.3 3747425.9   448.0     4.00     3.95
1.86     YES
 L0006775         0   0.25520E-06  478282.4 3747417.4   448.0     4.00     3.95
1.86     YES
 L0006776         0   0.25520E-06  478282.4 3747408.9   448.0     4.00     3.95
1.86     YES
 L0006777         0   0.25520E-06  478282.4 3747400.4   448.0     4.00     3.95
1.86     YES
 L0006778         0   0.25520E-06  478282.5 3747391.9   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006779          0   0.25520E-06  478282.5 3747383.4   448.0     4.00     3.95
1.86     YES
 L0006780          0   0.25520E-06  478282.5 3747374.9   448.0     4.00     3.95
1.86     YES
 L0006781          0   0.25520E-06  478282.6 3747366.4   448.0     4.00     3.95
1.86     YES
 L0006782          0   0.25520E-06  478282.6 3747357.9   448.0     4.00     3.95
1.86     YES
 L0006783          0   0.25520E-06  478282.6 3747349.4   448.0     4.00     3.95
1.86     YES
 L0006784          0   0.25520E-06  478282.6 3747340.9   448.0     4.00     3.95
1.86     YES
 L0006785          0   0.25520E-06  478282.7 3747332.4   448.0     4.00     3.95
1.86     YES
 L0006786          0   0.25520E-06  478282.7 3747323.9   448.0     4.00     3.95
1.86     YES
 L0006787          0   0.25520E-06  478282.7 3747315.4   448.0     4.00     3.95
1.86     YES
 L0006788          0   0.25520E-06  478282.8 3747306.9   448.0     4.00     3.95
1.86     YES
 L0006789          0   0.25520E-06  478282.8 3747298.4   448.0     4.00     3.95
1.86     YES
 L0006790          0   0.25520E-06  478282.8 3747289.9   448.0     4.00     3.95
1.86     YES
 L0006791          0   0.25520E-06  478282.9 3747281.4   448.0     4.00     3.95
1.86     YES
 L0006792          0   0.25520E-06  478282.9 3747272.9   448.0     4.00     3.95
1.86     YES
 L0006793          0   0.25520E-06  478282.9 3747264.4   448.0     4.00     3.95
1.86     YES
 L0006794          0   0.25520E-06  478283.0 3747255.9   448.0     4.00     3.95
1.86     YES
 L0006795          0   0.25520E-06  478283.0 3747247.4   448.0     4.00     3.95
1.86     YES
 L0006796          0   0.25520E-06  478283.0 3747238.9   448.0     4.00     3.95
1.86     YES
 L0006797          0   0.25520E-06  478283.1 3747230.4   448.0     4.00     3.95
1.86     YES
 L0006798          0   0.25520E-06  478283.1 3747221.9   448.0     4.00     3.95
1.86     YES
 L0006799          0   0.25520E-06  478283.1 3747213.4   448.0     4.00     3.95
1.86     YES
 L0006800          0   0.25520E-06  478283.2 3747204.9   448.0     4.00     3.95
1.86     YES
 L0006801          0   0.25520E-06  478283.2 3747196.4   448.0     4.00     3.95
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1.86      YES
 L0006802         0   0.25520E-06   478283.2 3747187.9   448.0     4.00     3.95
1.86      YES
 L0006803         0   0.25520E-06   478283.3 3747179.4   448.0     4.00     3.95
1.86      YES
 L0006804         0   0.25520E-06   478283.3 3747170.9   448.0     4.00     3.95
1.86      YES
 L0006805         0   0.25520E-06   478283.3 3747162.4   448.0     4.00     3.95
1.86      YES
 L0006806         0   0.25520E-06   478283.4 3747153.9   448.0     4.00     3.95
1.86      YES
 L0006807         0   0.25520E-06   478283.4 3747145.4   448.0     4.00     3.95
1.86      YES
 L0006808         0   0.25520E-06   478283.4 3747136.9   448.0     4.00     3.95
1.86      YES
 L0006809         0   0.25520E-06   478283.5 3747128.4   448.0     4.00     3.95
1.86      YES
 L0006810         0   0.25520E-06   478283.5 3747119.9   448.0     4.00     3.95
1.86      YES
 L0006811         0   0.25520E-06   478283.5 3747111.4   448.0     4.00     3.95
1.86      YES
 L0006812         0   0.25520E-06   478283.6 3747102.9   448.0     4.00     3.95
1.86      YES
 L0006813         0   0.25520E-06   478283.6 3747094.4   448.0     4.00     3.95
1.86      YES
 L0006814         0   0.25520E-06   478283.6 3747085.9   448.0     4.00     3.95
1.86      YES
 L0006815         0   0.25520E-06   478283.6 3747077.4   448.0     4.00     3.95
1.86      YES
 L0006816         0   0.25520E-06   478283.7 3747068.9   448.0     4.00     3.95
1.86      YES
 L0006817         0   0.25520E-06   478283.7 3747060.4   448.0     4.00     3.95
1.86      YES
 L0006818         0   0.25520E-06   478283.7 3747051.9   448.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0006819         0   0.25520E-06  478283.8 3747043.4   448.0     4.00     3.95
1.86     YES
 L0006820         0   0.25520E-06  478283.8 3747034.9   448.0     4.00     3.95
1.86     YES
 L0006821         0   0.25520E-06  478283.8 3747026.4   448.0     4.00     3.95
1.86     YES
 L0006822         0   0.25520E-06  478283.9 3747017.9   448.0     4.00     3.95
1.86     YES
 L0006823         0   0.25520E-06  478283.9 3747009.4   448.0     4.00     3.95
1.86     YES
 L0006824         0   0.25520E-06  478283.9 3747000.9   448.0     4.00     3.95
1.86     YES
 L0006825         0   0.25520E-06  478284.0 3746992.4   448.0     4.00     3.95
1.86     YES
 L0006826         0   0.25520E-06  478284.0 3746983.9   448.0     4.00     3.95
1.86     YES
 L0006827         0   0.25520E-06  478284.0 3746975.4   448.0     4.00     3.95
1.86     YES
 L0006828         0   0.25520E-06  478284.1 3746966.9   448.0     4.00     3.95
1.86     YES
 L0006829         0   0.25520E-06  478284.1 3746958.4   448.0     4.00     3.95
1.86     YES
 L0006830         0   0.25520E-06  478284.1 3746949.9   448.0     4.00     3.95
1.86     YES
 L0006831         0   0.25520E-06  478284.2 3746941.4   448.0     4.00     3.95
1.86     YES
 L0006832         0   0.25520E-06  478284.2 3746932.9   448.0     4.00     3.95
1.86     YES
 L0006833         0   0.25520E-06  478284.2 3746924.4   448.0     4.00     3.95
1.86     YES
 L0006834         0   0.25520E-06  478284.3 3746915.9   448.0     4.00     3.95
1.86     YES
 L0006835         0   0.25520E-06  478284.3 3746907.4   448.0     4.00     3.95
1.86     YES
 L0006836         0   0.25520E-06  478284.3 3746898.9   448.0     4.00     3.95
1.86     YES
 L0006837         0   0.25520E-06  478284.4 3746890.4   448.0     4.00     3.95
1.86     YES
 L0006838         0   0.25520E-06  478284.4 3746881.9   448.0     4.00     3.95
1.86     YES
 L0006839         0   0.25520E-06  478284.4 3746873.4   448.0     4.00     3.95
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1.86      YES
 L0006840         0   0.25520E-06  478284.5 3746864.9   448.0     4.00     3.95
1.86      YES
 L0006841         0   0.25520E-06  478284.5 3746856.4   447.8     4.00     3.95
1.86      YES
 L0006842         0   0.25520E-06  478284.5 3746847.9   447.7     4.00     3.95
1.86      YES
 L0006843         0   0.25520E-06  478284.6 3746839.4   447.6     4.00     3.95
1.86      YES
 L0006844         0   0.25520E-06  478284.6 3746830.9   447.4     4.00     3.95
1.86      YES
 L0006845         0   0.25520E-06  478284.6 3746822.4   447.3     4.00     3.95
1.86      YES
 L0006846         0   0.25520E-06  478284.6 3746813.9   447.1     4.00     3.95
1.86      YES
 L0006847         0   0.25520E-06  478284.7 3746805.4   447.0     4.00     3.95
1.86      YES
 L0006848         0   0.25520E-06  478284.7 3746796.9   447.0     4.00     3.95
1.86      YES
 L0006849         0   0.25520E-06  478284.7 3746788.4   447.0     4.00     3.95
1.86      YES
 L0006850         0   0.25520E-06  478284.8 3746779.9   447.0     4.00     3.95
1.86      YES
 L0006851         0   0.25520E-06  478284.8 3746771.4   447.0     4.00     3.95
1.86      YES
 L0006852         0   0.25520E-06  478284.8 3746762.9   447.0     4.00     3.95
1.86      YES
 L0006853         0   0.25520E-06  478284.9 3746754.4   447.0     4.00     3.95
1.86      YES
 L0006854         0   0.25520E-06  478284.9 3746745.9   447.0     4.00     3.95
1.86      YES
 L0006855         0   0.25520E-06  478284.9 3746737.4   447.0     4.00     3.95
1.86      YES
 L0006856         0   0.25520E-06  478285.0 3746728.9   447.0     4.00     3.95
1.86      YES
 L0006857         0   0.25520E-06  478285.0 3746720.4   447.0     4.00     3.95
1.86      YES
 L0006858         0   0.25520E-06  478285.0 3746711.9   447.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                              AERMOD HRA Output
                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.             (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0006859         0   0.25520E-06  478285.1 3746703.4   447.0     4.00      3.95
1.86     YES
 L0006860         0   0.25520E-06  478285.1 3746694.9   447.0     4.00      3.95
1.86     YES
 L0006861         0   0.25520E-06  478285.1 3746686.4   447.0     4.00      3.95
1.86     YES
 L0006862         0   0.25520E-06  478285.2 3746677.9   447.0     4.00      3.95
1.86     YES
 L0006863         0   0.25520E-06  478285.2 3746669.4   447.0     4.00      3.95
1.86     YES
 L0006864         0   0.25520E-06  478285.2 3746660.9   447.0     4.00      3.95
1.86     YES
 L0006865         0   0.25520E-06  478285.3 3746652.4   447.0     4.00      3.95
1.86     YES
 L0006866         0   0.25520E-06  478285.3 3746643.9   447.0     4.00      3.95
1.86     YES
 L0006867         0   0.25520E-06  478285.3 3746635.4   447.0     4.00      3.95
1.86     YES
 L0006868         0   0.25520E-06  478285.4 3746626.9   447.0     4.00      3.95
1.86     YES
 L0006869         0   0.25520E-06  478285.4 3746618.4   447.0     4.00      3.95
1.86     YES
 L0006870         0   0.25520E-06  478285.4 3746609.9   447.0     4.00      3.95
1.86     YES
 L0006871         0   0.25520E-06  478285.5 3746601.4   447.0     4.00      3.95
1.86     YES
 L0006872         0   0.25520E-06  478285.5 3746592.9   447.0     4.00      3.95
1.86     YES
 L0006873         0   0.25520E-06  478285.5 3746584.4   447.0     4.00      3.95
1.86     YES
 L0006874         0   0.25520E-06  478285.6 3746575.9   447.0     4.00      3.95
1.86     YES
 L0006875         0   0.25520E-06  478285.6 3746567.4   447.0     4.00      3.95
1.86     YES
 L0006876         0   0.25520E-06  478285.6 3746558.9   447.0     4.00      3.95
1.86     YES
 L0006877         0   0.25520E-06  478285.7 3746550.4   447.0     4.00      3.95
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1.86      YES
 L0006878         0   0.25520E-06   478285.7 3746541.9   447.0     4.00     3.95
1.86      YES
 L0006879         0   0.25520E-06   478285.7 3746533.4   447.0     4.00     3.95
1.86      YES
 L0006880         0   0.25520E-06   478285.7 3746524.9   447.0     4.00     3.95
1.86      YES
 L0006881         0   0.25520E-06   478285.8 3746516.4   447.0     4.00     3.95
1.86      YES
 L0006882         0   0.25520E-06   478285.8 3746507.9   447.0     4.00     3.95
1.86      YES
 L0006883         0   0.25520E-06   478285.8 3746499.4   447.0     4.00     3.95
1.86      YES
 L0006884         0   0.25520E-06   478285.9 3746490.9   447.0     4.00     3.95
1.86      YES
 L0006885         0   0.25520E-06   478285.9 3746482.4   447.0     4.00     3.95
1.86      YES
 L0006886         0   0.25520E-06   478285.9 3746473.9   447.0     4.00     3.95
1.86      YES
 L0006887         0   0.25520E-06   478286.0 3746465.4   447.0     4.00     3.95
1.86      YES
 L0006888         0   0.25520E-06   478286.0 3746456.9   447.0     4.00     3.95
1.86      YES
 L0006889         0   0.25520E-06   478286.0 3746448.4   447.0     4.00     3.95
1.86      YES
 L0006890         0   0.25520E-06   478286.1 3746439.9   446.9     4.00     3.95
1.86      YES
 L0006891         0   0.25520E-06   478286.1 3746431.4   446.7     4.00     3.95
1.86      YES
 L0006892         0   0.25520E-06   478286.1 3746422.9   446.6     4.00     3.95
1.86      YES
 L0006893         0   0.25520E-06   478286.2 3746414.4   446.5     4.00     3.95
1.86      YES
 L0006894         0   0.25520E-06   478286.2 3746405.9   446.5     4.00     3.95
1.86      YES
 L0006895         0   0.25520E-06   478286.2 3746397.4   446.5     4.00     3.95
1.86      YES
 L0006896         0   0.25520E-06   478286.3 3746388.9   446.4     4.00     3.95
1.86      YES
 L0006897         0   0.25520E-06   478286.3 3746380.4   446.4     4.00     3.95
1.86      YES
 L0006898         0   0.25520E-06   478286.3 3746371.9   446.4     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56
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                               AERMOD HRA Output
                                 PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006899         0   0.25520E-06   478286.4 3746363.4   446.4     4.00     3.95
1.86     YES
 L0006900         0   0.25520E-06   478286.4 3746354.9   446.4     4.00     3.95
1.86     YES
 L0006901         0   0.25520E-06   478286.4 3746346.4   446.4     4.00     3.95
1.86     YES
 L0006902         0   0.25520E-06   478280.1 3746347.5   446.7     4.00     3.95
1.86     YES
 L0006903         0   0.25520E-06   478272.3 3746350.8   446.9     4.00     3.95
1.86     YES
 L0006904         0   0.25520E-06   478264.5 3746354.2   447.0     4.00     3.95
1.86     YES
 L0006905         0   0.25520E-06   478256.7 3746357.5   447.0     4.00     3.95
1.86     YES
 L0006906         0   0.25520E-06   478248.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006907         0   0.25520E-06   478240.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006908         0   0.25520E-06   478231.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006909         0   0.25520E-06   478223.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006910         0   0.25520E-06   478214.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006911         0   0.25520E-06   478206.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006912         0   0.25520E-06   478197.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006913         0   0.25520E-06   478189.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006914         0   0.25520E-06   478180.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006915         0   0.25520E-06   478172.1 3746359.6   447.0     4.00     3.95
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1.86      YES
 L0006916          0   0.25520E-06  478163.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006917          0   0.25520E-06  478155.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006918          0   0.25520E-06  478146.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006919          0   0.25520E-06  478138.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006920          0   0.25520E-06  478129.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006921          0   0.25520E-06  478121.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006922          0   0.25520E-06  478112.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006923          0   0.25520E-06  478104.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006924          0   0.25520E-06  478095.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006925          0   0.25520E-06  478087.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006926          0   0.25520E-06  478078.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006927          0   0.25520E-06  478070.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006928          0   0.25520E-06  478061.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006929          0   0.25520E-06  478053.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006930          0   0.25520E-06  478044.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006931          0   0.25520E-06  478036.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006932          0   0.25520E-06  478027.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006933          0   0.25520E-06  478019.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006934          0   0.25520E-06  478010.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006935          0   0.25520E-06  478002.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006936          0   0.25520E-06  477993.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006937          0   0.25520E-06  477985.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006938          0   0.25520E-06  477976.6 3746359.6   447.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                 AERMOD HRA Output
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        14:59:56

                                    PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0006939         0   0.25520E-06  477968.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006940         0   0.25520E-06  477959.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006941         0   0.25520E-06  477951.1 3746359.6   447.1     4.00     3.95
1.86     YES
 L0006942         0   0.25520E-06  477942.6 3746359.6   447.1     4.00     3.95
1.86     YES
 L0006943         0   0.25520E-06  477934.1 3746359.6   447.3     4.00     3.95
1.86     YES
 L0006944         0   0.25520E-06  477925.6 3746359.6   447.5     4.00     3.95
1.86     YES
 L0006945         0   0.25520E-06  477917.1 3746359.6   447.8     4.00     3.95
1.86     YES
 L0006946         0   0.25520E-06  477908.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006947         0   0.25520E-06  477900.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006948         0   0.25520E-06  477891.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006949         0   0.25520E-06  477883.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006950         0   0.25520E-06  477874.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006951         0   0.25520E-06  477866.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006952         0   0.25520E-06  477857.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006953         0   0.25520E-06  477849.1 3746359.6   448.0     4.00     3.95
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1.86      YES
 L0006954          0   0.25520E-06   477840.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006955          0   0.25520E-06   477832.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006956          0   0.25520E-06   477823.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006957          0   0.25520E-06   477815.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006958          0   0.25520E-06   477806.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006959          0   0.25520E-06   477798.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006960          0   0.25520E-06   477789.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006961          0   0.25520E-06   477781.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006962          0   0.25520E-06   477772.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006963          0   0.25520E-06   477764.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006964          0   0.25520E-06   477755.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006965          0   0.25520E-06   477747.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006966          0   0.25520E-06   477738.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006967          0   0.25520E-06   477730.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006968          0   0.25520E-06   477721.6 3746359.7    448.0      4.00      3.95
1.86      YES
 L0006969          0   0.25520E-06   477713.1 3746359.8    448.0      4.00      3.95
1.86      YES
 L0006970          0   0.25520E-06   477704.6 3746359.9    448.0      4.00      3.95
1.86      YES
 L0006971          0   0.25520E-06   477696.1 3746359.9    448.0      4.00      3.95
1.86      YES
 L0006972          0   0.25520E-06   477687.6 3746360.0    448.0      4.00      3.95
1.86      YES
 L0006973          0   0.25520E-06   477679.1 3746360.1    448.0      4.00      3.95
1.86      YES
 L0006974          0   0.25520E-06   477670.6 3746360.2    448.0      4.00      3.95
1.86      YES
 L0006975          0   0.25520E-06   477662.1 3746360.3    448.0      4.00      3.95
1.86      YES
 L0006976          0   0.25520E-06   477653.6 3746360.4    448.0      4.00      3.95
1.86      YES
 L0006977          0   0.25520E-06   477645.1 3746360.5    448.0      4.00      3.95
```

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1.86      YES
 L0006978         0   0.25520E-06  477636.6 3746360.6   448.1     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006979         0   0.25520E-06  477628.1 3746360.6   448.4     4.00     3.95
1.86      YES
 L0006980         0   0.25520E-06  477619.6 3746360.7   448.7     4.00     3.95
1.86      YES
 L0006981         0   0.25520E-06  477611.1 3746360.8   449.0     4.00     3.95
1.86      YES
 L0006982         0   0.25520E-06  477602.6 3746360.9   449.0     4.00     3.95
1.86      YES
 L0006983         0   0.25520E-06  477594.1 3746361.0   449.0     4.00     3.95
1.86      YES
 L0006984         0   0.25520E-06  477585.6 3746361.1   449.0     4.00     3.95
1.86      YES
 L0006985         0   0.25520E-06  477577.1 3746361.2   449.0     4.00     3.95
1.86      YES
 L0006986         0   0.25520E-06  477568.6 3746361.3   449.0     4.00     3.95
1.86      YES
 L0006987         0   0.25520E-06  477560.1 3746361.3   449.0     4.00     3.95
1.86      YES
 L0006988         0   0.25520E-06  477551.6 3746361.4   449.0     4.00     3.95
1.86      YES
 L0006989         0   0.25520E-06  477543.1 3746361.5   449.0     4.00     3.95
1.86      YES
 L0006990         0   0.25520E-06  477534.6 3746361.6   449.0     4.00     3.95
1.86      YES
 L0006991         0   0.25520E-06  477526.1 3746361.7   449.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0006992          0   0.25520E-06  477517.6 3746361.8   449.0      4.00      3.95
1.86      YES
 L0006993          0   0.25520E-06  477509.1 3746361.9   449.0      4.00      3.95
1.86      YES
 L0006994          0   0.25520E-06  477500.6 3746362.0   449.0      4.00      3.95
1.86      YES
 L0006995          0   0.25520E-06  477492.1 3746362.0   449.0      4.00      3.95
1.86      YES
 L0006996          0   0.25520E-06  477483.6 3746362.4   449.2      4.00      3.95
1.86      YES
 L0006997          0   0.25520E-06  477475.3 3746364.0   449.5      4.00      3.95
1.86      YES
 L0006998          0   0.25520E-06  477466.9 3746365.6   449.8      4.00      3.95
1.86      YES
 L0006999          0   0.25520E-06  477458.6 3746367.2   450.0      4.00      3.95
1.86      YES
 L0007000          0   0.25520E-06  477450.3 3746368.8   450.0      4.00      3.95
1.86      YES
 L0007001          0   0.25520E-06  477441.9 3746370.4   450.0      4.00      3.95
1.86      YES
 L0007002          0   0.25520E-06  477433.6 3746372.0   450.0      4.00      3.95
1.86      YES
 L0007003          0   0.25520E-06  477425.2 3746373.6   450.0      4.00      3.95
1.86      YES
 L0007004          0   0.25520E-06  477417.3 3746376.4   450.0      4.00      3.95
1.86      YES
 L0007005          0   0.25520E-06  477410.0 3746380.7   450.0      4.00      3.95
1.86      YES
 L0007006          0   0.25520E-06  477402.7 3746385.0   450.0      4.00      3.95
1.86      YES
 L0007007          0   0.25520E-06  477395.3 3746389.4   450.0      4.00      3.95
1.86      YES
 L0007008          0   0.25520E-06  477388.0 3746393.7   450.0      4.00      3.95
1.86      YES
 L0007009          0   0.25520E-06  477380.7 3746398.0   450.0      4.00      3.95
1.86      YES
 L0007010          0   0.25520E-06  477373.4 3746402.3   450.0      4.00      3.95
1.86      YES
 L0007011          0   0.25520E-06  477366.1 3746406.6   450.0      4.00      3.95
1.86      YES
 L0007012          0   0.25520E-06  477358.7 3746411.0   450.0      4.00      3.95
1.86      YES
 L0007013          0   0.25520E-06  477351.4 3746415.3   450.0      4.00      3.95
1.86      YES
 L0007014          0   0.25520E-06  477344.1 3746419.6   450.0      4.00      3.95
1.86      YES
 L0007015          0   0.25520E-06  477336.8 3746423.9   450.0      4.00      3.95
```

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1.86     YES
 L0007016         0   0.25520E-06  477329.5 3746428.2   450.0     4.00     3.95
1.86     YES
 L0007017         0   0.25520E-06  477322.2 3746432.7   450.0     4.00     3.95
1.86     YES
 L0007018         0   0.25520E-06  477315.4 3746437.8   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007019         0   0.25520E-06  477308.6 3746442.9   450.0     4.00     3.95
1.86     YES
 L0007020         0   0.25520E-06  477301.8 3746448.0   450.0     4.00     3.95
1.86     YES
 L0007021         0   0.25520E-06  477295.0 3746453.1   450.0     4.00     3.95
1.86     YES
 L0007022         0   0.25520E-06  477288.2 3746458.2   450.0     4.00     3.95
1.86     YES
 L0007023         0   0.25520E-06  477281.4 3746463.3   450.0     4.00     3.95
1.86     YES
 L0007024         0   0.25520E-06  477274.6 3746468.4   450.0     4.00     3.95
1.86     YES
 L0007025         0   0.25520E-06  477267.7 3746473.3   450.0     4.00     3.95
1.86     YES
 L0007026         0   0.25520E-06  477260.7 3746478.2   450.0     4.00     3.95
1.86     YES
 L0007027         0   0.25520E-06  477253.8 3746483.1   450.0     4.00     3.95
1.86     YES
 L0007028         0   0.25520E-06  477246.8 3746487.9   450.1     4.00     3.95
1.86     YES
 L0007029         0   0.25520E-06  477239.8 3746492.8   450.2     4.00     3.95
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1.86      YES
 L0007030          0   0.25520E-06  477232.9 3746497.7   450.2      4.00      3.95
1.86      YES
 L0007031          0   0.25520E-06  477225.9 3746502.6   450.1      4.00      3.95
1.86      YES
 L0007032          0   0.25520E-06  477218.5 3746506.8   450.0      4.00      3.95
1.86      YES
 L0007033          0   0.25520E-06  477211.1 3746510.8   450.3      4.00      3.95
1.86      YES
 L0007034          0   0.25520E-06  477203.6 3746514.8   450.5      4.00      3.95
1.86      YES
 L0007035          0   0.25520E-06  477196.1 3746518.8   450.8      4.00      3.95
1.86      YES
 L0007036          0   0.25520E-06  477188.6 3746522.9   451.0      4.00      3.95
1.86      YES
 L0007037          0   0.25520E-06  477181.1 3746526.9   451.0      4.00      3.95
1.86      YES
 L0007038          0   0.25520E-06  477173.6 3746530.9   451.0      4.00      3.95
1.86      YES
 L0007039          0   0.25520E-06  477166.1 3746535.0   451.0      4.00      3.95
1.86      YES
 L0007040          0   0.25520E-06  477158.5 3746538.5   451.0      4.00      3.95
1.86      YES
 L0007041          0   0.25520E-06  477150.1 3746539.7   451.0      4.00      3.95
1.86      YES
 L0007042          0   0.25520E-06  477141.7 3746541.0   451.0      4.00      3.95
1.86      YES
 L0007043          0   0.25520E-06  477133.3 3746542.2   451.0      4.00      3.95
1.86      YES
 L0007044          0   0.25520E-06  477124.9 3746543.5   451.0      4.00      3.95
1.86      YES
 L0007045          0   0.25520E-06  477116.5 3746544.7   451.0      4.00      3.95
1.86      YES
 L0007046          0   0.25520E-06  477108.0 3746546.0   451.0      4.00      3.95
1.86      YES
 L0007047          0   0.25520E-06  477099.6 3746547.2   451.0      4.00      3.95
1.86      YES
 L0007048          0   0.25520E-06  477091.2 3746548.2   451.0      4.00      3.95
1.86      YES
 L0007049          0   0.25520E-06  477082.7 3746548.3   451.0      4.00      3.95
1.86      YES
 L0007050          0   0.25520E-06  477074.2 3746548.4   451.0      4.00      3.95
1.86      YES
 L0007051          0   0.25520E-06  477065.7 3746548.6   451.1      4.00      3.95
1.86      YES
 L0007052          0   0.25520E-06  477057.2 3746548.7   451.2      4.00      3.95
1.86      YES
 L0007053          0   0.25520E-06  477048.7 3746548.8   451.4      4.00      3.95
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1.86      YES
 L0007054          0   0.25520E-06  477040.2 3746548.9   451.6     4.00     3.95
1.86      YES
 L0007055          0   0.25520E-06  477031.7 3746549.0   451.7     4.00     3.95
1.86      YES
 L0007056          0   0.25520E-06  477023.2 3746549.1   451.8     4.00     3.95
1.86      YES
 L0007057          0   0.25520E-06  477014.7 3746549.2   451.9     4.00     3.95
1.86      YES
 L0007058          0   0.25520E-06  477006.2 3746549.3   452.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007059          0   0.25520E-06  476997.7 3746549.4   452.0     4.00     3.95
1.86      YES
 L0007060          0   0.25520E-06  476989.2 3746549.6   452.0     4.00     3.95
1.86      YES
 L0007061          0   0.25520E-06  476980.7 3746549.7   452.0     4.00     3.95
1.86      YES
 L0007062          0   0.25520E-06  476972.2 3746549.8   452.0     4.00     3.95
1.86      YES
 L0007063          0   0.25520E-06  476963.7 3746549.9   452.0     4.00     3.95
1.86      YES
 L0007064          0   0.25520E-06  476955.2 3746550.0   452.0     4.00     3.95
1.86      YES
 L0007065          0   0.25520E-06  476946.7 3746550.1   452.0     4.00     3.95
1.86      YES
 L0007066          0   0.25520E-06  476938.2 3746550.2   452.0     4.00     3.95
1.86      YES
 L0007067          0   0.25520E-06  476929.7 3746550.3   452.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
  L0007068          0   0.25520E-06   476921.2 3746550.4    452.0      4.00      3.95
1.86      YES
  L0007069          0   0.25520E-06   476912.7 3746550.6    452.1      4.00      3.95
1.86      YES
  L0007070          0   0.25520E-06   476904.2 3746550.7    452.3      4.00      3.95
1.86      YES
  L0007071          0   0.25520E-06   476895.7 3746550.8    452.4      4.00      3.95
1.86      YES
  L0007072          0   0.25520E-06   476887.2 3746550.9    452.6      4.00      3.95
1.86      YES
  L0007073          0   0.25520E-06   476878.7 3746551.0    452.7      4.00      3.95
1.86      YES
  L0007074          0   0.25520E-06   476870.2 3746551.1    452.8      4.00      3.95
1.86      YES
  L0007075          0   0.25520E-06   476861.7 3746551.2    453.0      4.00      3.95
1.86      YES
  L0007076          0   0.25520E-06   476853.2 3746551.3    453.0      4.00      3.95
1.86      YES
  L0007077          0   0.25520E-06   476844.7 3746551.4    453.0      4.00      3.95
1.86      YES
  L0007078          0   0.25520E-06   476836.2 3746551.5    453.0      4.00      3.95
1.86      YES
  L0007079          0   0.25520E-06   476827.7 3746551.7    453.0      4.00      3.95
1.86      YES
  L0007080          0   0.25520E-06   476819.2 3746551.8    453.0      4.00      3.95
1.86      YES
  L0007081          0   0.25520E-06   476810.7 3746551.9    453.0      4.00      3.95
1.86      YES
  L0007082          0   0.25520E-06   476802.2 3746552.0    453.0      4.00      3.95
1.86      YES
  L0007083          0   0.25520E-06   476793.7 3746552.1    462.1      4.00      3.95
1.86      YES
  L0007084          0   0.25520E-06   476785.2 3746552.2    462.2      4.00      3.95
1.86      YES
  L0007085          0   0.25520E-06   476776.7 3746552.2    462.3      4.00      3.95
1.86      YES
  L0007086          0   0.25520E-06   476768.2 3746551.9    462.4      4.00      3.95
1.86      YES
  L0007087          0   0.25520E-06   476759.7 3746551.7    462.5      4.00      3.95
1.86      YES
  L0007088          0   0.25520E-06   476751.2 3746551.5    462.6      4.00      3.95
1.86      YES
  L0007089          0   0.25520E-06   476742.8 3746551.3    462.7      4.00      3.95
1.86      YES
  L0007090          0   0.25520E-06   476734.3 3746551.1    462.8      4.00      3.95
1.86      YES
  L0007091          0   0.25520E-06   476725.8 3746550.8    462.9      4.00      3.95
```

```
1.86      YES
 L0007092          0    0.25520E-06  476717.3 3746550.6   463.1      4.00      3.95
1.86      YES
 L0007093          0    0.25520E-06  476708.8 3746550.4   463.2      4.00      3.95
1.86      YES
 L0007094          0    0.25520E-06  476700.3 3746550.2   463.3      4.00      3.95
1.86      YES
 L0007095          0    0.25520E-06  476691.8 3746550.0   463.4      4.00      3.95
1.86      YES
 L0007096          0    0.25520E-06  476683.3 3746549.7   463.5      4.00      3.95
1.86      YES
 L0007097          0    0.25520E-06  476674.8 3746549.5   463.6      4.00      3.95
1.86      YES
 L0007098          0    0.25520E-06  476666.3 3746549.3   463.7      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0007099          0    0.25520E-06  476657.8 3746549.1   463.8      4.00      3.95
1.86      YES
 L0007100          0    0.25520E-06  476649.5 3746550.2   463.9      4.00      3.95
1.86      YES
 L0007101          0    0.25520E-06  476641.4 3746552.9   464.0      4.00      3.95
1.86      YES
 L0007102          0    0.25520E-06  476633.4 3746555.6   464.0      4.00      3.95
1.86      YES
 L0007103          0    0.25520E-06  476625.3 3746558.3   464.0      4.00      3.95
1.86      YES
 L0007104          0    0.25520E-06  476617.2 3746561.0   464.0      4.00      3.95
1.86      YES
 L0007105          0    0.25520E-06  476609.2 3746563.7   464.0      4.00      3.95
```

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1.86      YES
  L0007106           0   0.25520E-06   476601.4 3746566.9    464.0      4.00      3.95
1.86      YES
  L0007107           0   0.25520E-06   476594.1 3746571.4    464.0      4.00      3.95
1.86      YES
  L0007108           0   0.25520E-06   476586.9 3746575.9    464.0      4.00      3.95
1.86      YES
  L0007109           0   0.25520E-06   476579.7 3746580.4    464.0      4.00      3.95
1.86      YES
  L0007110           0   0.25520E-06   476572.5 3746584.8    464.0      4.00      3.95
1.86      YES
  L0007111           0   0.25520E-06   476565.3 3746589.3    464.0      4.00      3.95
1.86      YES
  L0007112           0   0.25520E-06   476558.0 3746593.8    464.1      4.00      3.95
1.86      YES
  L0007113           0   0.25520E-06   476550.8 3746598.3    464.2      4.00      3.95
1.86      YES
  L0007114           0   0.25520E-06   476543.6 3746602.8    464.3      4.00      3.95
1.86      YES
  L0007115           0   0.25520E-06   476537.9 3746608.7    464.4      4.00      3.95
1.86      YES
  L0007116           0   0.25520E-06   476534.0 3746616.2    464.4      4.00      3.95
1.86      YES
  L0007117           0   0.25520E-06   476530.0 3746623.8    464.5      4.00      3.95
1.86      YES
  L0007118           0   0.25520E-06   476526.1 3746631.3    464.5      4.00      3.95
1.86      YES
  L0007119           0   0.25520E-06   476522.2 3746638.8    464.6      4.00      3.95
1.86      YES
  L0007120           0   0.25520E-06   476518.2 3746646.4    464.6      4.00      3.95
1.86      YES
  L0007121           0   0.25520E-06   476514.3 3746653.9    464.7      4.00      3.95
1.86      YES
  L0007122           0   0.25520E-06   476510.3 3746661.4    464.7      4.00      3.95
1.86      YES
  L0007123           0   0.25520E-06   476506.4 3746668.9    464.8      4.00      3.95
1.86      YES
  L0007124           0   0.25520E-06   476502.4 3746676.5    464.8      4.00      3.95
1.86      YES
  L0007125           0   0.25520E-06   476498.5 3746684.0    464.9      4.00      3.95
1.86      YES
  L0007126           0   0.25520E-06   476494.5 3746691.5    464.9      4.00      3.95
1.86      YES
  L0007127           0   0.25520E-06   476490.6 3746699.1    465.0      4.00      3.95
1.86      YES
  L0007128           0   0.25520E-06   476486.6 3746706.6    465.1      4.00      3.95
1.86      YES
  L0007129           0   0.25520E-06   476482.7 3746714.1    465.2      4.00      3.95
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1.86     YES
 L0007130         0   0.25520E-06  476478.7 3746721.6   465.3     4.00     3.95
1.86     YES
 L0007131         0   0.25520E-06  476474.8 3746729.2   465.4     4.00     3.95
1.86     YES
 L0007132         0   0.25520E-06  476470.9 3746736.7   465.5     4.00     3.95
1.86     YES
 L0007133         0   0.25520E-06  476467.8 3746744.5   465.6     4.00     3.95
1.86     YES
 L0007134         0   0.25520E-06  476466.4 3746752.9   465.6     4.00     3.95
1.86     YES
 L0007135         0   0.25520E-06  476465.0 3746761.3   465.7     4.00     3.95
1.86     YES
 L0007136         0   0.25520E-06  476463.6 3746769.7   465.7     4.00     3.95
1.86     YES
 L0007137         0   0.25520E-06  476462.2 3746778.1   465.7     4.00     3.95
1.86     YES
 L0007138         0   0.25520E-06  476460.8 3746786.4   465.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007139         0   0.25520E-06  476459.4 3746794.8   465.8     4.00     3.95
1.86     YES
 L0007140         0   0.25520E-06  476457.3 3746803.0   465.9     4.00     3.95
1.86     YES
 L0007141         0   0.25520E-06  476453.4 3746810.5   465.9     4.00     3.95
1.86     YES
 L0007142         0   0.25520E-06  476449.4 3746818.0   466.1     4.00     3.95
1.86     YES
 L0007143         0   0.25520E-06  476445.4 3746825.5   466.2     4.00     3.95
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1.86      YES
 L0007144          0   0.25520E-06   476441.4 3746833.0   466.3      4.00      3.95
1.86      YES
 L0007145          0   0.25520E-06   476437.5 3746840.5   466.4      4.00      3.95
1.86      YES
 L0007146          0   0.25520E-06   476433.5 3746848.1   466.5      4.00      3.95
1.86      YES
 L0007147          0   0.25520E-06   476429.5 3746855.6   466.6      4.00      3.95
1.86      YES
 L0007148          0   0.25520E-06   476425.5 3746863.1   466.7      4.00      3.95
1.86      YES
 L0007149          0   0.25520E-06   476421.6 3746870.6   466.8      4.00      3.95
1.86      YES
 L0007150          0   0.25520E-06   476417.6 3746878.1   466.9      4.00      3.95
1.86      YES
 L0007151          0   0.25520E-06   476413.6 3746885.6   467.0      4.00      3.95
1.86      YES
 L0007152          0   0.25520E-06   476409.6 3746893.1   467.1      4.00      3.95
1.86      YES
 L0007153          0   0.25520E-06   476403.2 3746898.5   467.1      4.00      3.95
1.86      YES
 L0007154          0   0.25520E-06   476396.2 3746903.3   467.2      4.00      3.95
1.86      YES
 L0007155          0   0.25520E-06   476389.2 3746908.1   467.3      4.00      3.95
1.86      YES
 L0007156          0   0.25520E-06   476382.2 3746912.9   467.4      4.00      3.95
1.86      YES
 L0007157          0   0.25520E-06   476375.2 3746917.8   467.5      4.00      3.95
1.86      YES
 L0007158          0   0.25520E-06   476368.2 3746922.6   467.6      4.00      3.95
1.86      YES
 L0007159          0   0.25520E-06   476361.2 3746927.4   467.7      4.00      3.95
1.86      YES
 L0007160          0   0.25520E-06   476354.2 3746932.2   467.8      4.00      3.95
1.86      YES
 L0007161          0   0.25520E-06   476347.2 3746937.0   467.9      4.00      3.95
1.86      YES
 L0007162          0   0.25520E-06   476340.2 3746941.8   467.9      4.00      3.95
1.86      YES
 L0007163          0   0.25520E-06   476332.1 3746943.7   468.1      4.00      3.95
1.86      YES
 L0007164          0   0.25520E-06   476323.7 3746944.5   468.2      4.00      3.95
1.86      YES
 L0007165          0   0.25520E-06   476315.2 3746945.4   468.3      4.00      3.95
1.86      YES
 L0007166          0   0.25520E-06   476306.7 3746946.2   468.4      4.00      3.95
1.86      YES
 L0007167          0   0.25520E-06   476298.3 3746947.0   468.5      4.00      3.95
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1.86     YES
 L0007168         0   0.25520E-06  476289.8 3746947.9   468.6     4.00     3.95
1.86     YES
 L0007169         0   0.25520E-06  476281.4 3746948.7   468.7     4.00     3.95
1.86     YES
 L0007170         0   0.25520E-06  476272.9 3746949.5   468.8     4.00     3.95
1.86     YES
 L0007171         0   0.25520E-06  476264.4 3746950.4   468.9     4.00     3.95
1.86     YES
 L0007172         0   0.25520E-06  476256.0 3746950.8   469.0     4.00     3.95
1.86     YES
 L0007173         0   0.25520E-06  476247.5 3746950.7   469.2     4.00     3.95
1.86     YES
 L0007174         0   0.25520E-06  476239.0 3746950.7   469.3     4.00     3.95
1.86     YES
 L0007175         0   0.25520E-06  476230.5 3746950.6   469.4     4.00     3.95
1.86     YES
 L0007176         0   0.25520E-06  476222.0 3746950.5   469.5     4.00     3.95
1.86     YES
 L0007177         0   0.25520E-06  476213.5 3746950.5   469.6     4.00     3.95
1.86     YES
 L0007178         0   0.25520E-06  476205.0 3746950.4   469.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007179         0   0.25520E-06  476196.5 3746950.4   469.8     4.00     3.95
1.86     YES
 L0007180         0   0.25520E-06  476188.0 3746950.3   469.9     4.00     3.95
1.86     YES
 L0007181         0   0.25520E-06  476179.5 3746950.3   470.0     4.00     3.95
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1.86      YES
 L0007182          0   0.25520E-06  476171.0 3746950.2   470.2     4.00      3.95
1.86      YES
 L0007183          0   0.25520E-06  476162.5 3746950.1   470.3     4.00      3.95
1.86      YES
 L0007184          0   0.25520E-06  476154.0 3746950.1   470.4     4.00      3.95
1.86      YES
 L0007185          0   0.25520E-06  476145.5 3746950.0   470.5     4.00      3.95
1.86      YES
 L0007186          0   0.25520E-06  476137.0 3746950.0   470.6     4.00      3.95
1.86      YES
 L0007187          0   0.25520E-06  476128.5 3746949.9   470.7     4.00      3.95
1.86      YES
 L0007188          0   0.25520E-06  476120.0 3746949.9   470.8     4.00      3.95
1.86      YES
 L0007189          0   0.25520E-06  476111.5 3746949.8   470.9     4.00      3.95
1.86      YES
 L0007190          0   0.25520E-06  476103.0 3746949.8   471.0     4.00      3.95
1.86      YES
 L0007191          0   0.25520E-06  476094.5 3746949.7   471.1     4.00      3.95
1.86      YES
 L0007192          0   0.25520E-06  476086.0 3746949.6   471.2     4.00      3.95
1.86      YES
 L0007193          0   0.25520E-06  476077.5 3746949.6   471.4     4.00      3.95
1.86      YES
 L0007194          0   0.25520E-06  476069.0 3746949.5   471.5     4.00      3.95
1.86      YES
 L0007195          0   0.25520E-06  476060.5 3746949.5   471.6     4.00      3.95
1.86      YES
 L0007196          0   0.25520E-06  476052.0 3746949.4   471.7     4.00      3.95
1.86      YES
 L0007197          0   0.25520E-06  476043.5 3746949.4   471.8     4.00      3.95
1.86      YES
 L0007198          0   0.25520E-06  476035.0 3746949.3   471.9     4.00      3.95
1.86      YES
 L0007199          0   0.25520E-06  476026.5 3746949.2   472.0     4.00      3.95
1.86      YES
 L0007200          0   0.25520E-06  476018.0 3746949.2   472.1     4.00      3.95
1.86      YES
 L0007201          0   0.25520E-06  476009.5 3746949.1   472.2     4.00      3.95
1.86      YES
 L0007202          0   0.25520E-06  476001.0 3746949.1   472.4     4.00      3.95
1.86      YES
 L0007203          0   0.25520E-06  475992.5 3746949.0   472.5     4.00      3.95
1.86      YES
 L0007204          0   0.25520E-06  475984.0 3746949.0   472.6     4.00      3.95
1.86      YES
 L0007205          0   0.25520E-06  475975.5 3746948.9   472.7     4.00      3.95
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1.86      YES
 L0007206          0   0.25520E-06  475967.0 3746948.8   472.8     4.00     3.95
1.86      YES
 L0007207          0   0.25520E-06  475958.5 3746948.8   472.9     4.00     3.95
1.86      YES
 L0007208          0   0.25520E-06  475950.0 3746948.7   473.0     4.00     3.95
1.86      YES
 L0007209          0   0.25520E-06  475941.5 3746948.7   472.6     4.00     3.95
1.86      YES
 L0007210          0   0.25520E-06  475933.0 3746948.6   472.3     4.00     3.95
1.86      YES
 L0007211          0   0.51090E-06  477480.6 3749800.2   458.0     4.00     3.95
1.86      YES
 L0007212          0   0.51090E-06  477480.4 3749808.7   458.0     4.00     3.95
1.86      YES
 L0007213          0   0.51090E-06  477480.3 3749817.2   458.0     4.00     3.95
1.86      YES
 L0007214          0   0.51090E-06  477480.1 3749825.7   458.0     4.00     3.95
1.86      YES
 L0007215          0   0.51090E-06  477480.0 3749834.2   458.0     4.00     3.95
1.86      YES
 L0007216          0   0.51090E-06  477479.9 3749842.7   458.0     4.00     3.95
1.86      YES
 L0007217          0   0.51090E-06  477479.7 3749851.2   458.0     4.00     3.95
1.86      YES
 L0007218          0   0.51090E-06  477479.6 3749859.7   458.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
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 L0007219          0   0.51090E-06  477479.5 3749868.2   458.0     4.00     3.95
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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1.86      YES
 L0007220         0   0.51090E-06   477479.3 3749876.7    458.0      4.00      3.95
1.86      YES
 L0007221         0   0.51090E-06   477479.2 3749885.2    458.0      4.00      3.95
1.86      YES
 L0007222         0   0.51090E-06   477479.1 3749893.7    458.0      4.00      3.95
1.86      YES
 L0007223         0   0.51090E-06   477478.9 3749902.2    458.0      4.00      3.95
1.86      YES
 L0007224         0   0.51090E-06   477478.8 3749910.7    458.0      4.00      3.95
1.86      YES
 L0007225         0   0.51090E-06   477478.7 3749919.2    458.0      4.00      3.95
1.86      YES
 L0007226         0   0.51090E-06   477478.5 3749927.7    458.0      4.00      3.95
1.86      YES
 L0007227         0   0.51090E-06   477478.4 3749936.2    458.0      4.00      3.95
1.86      YES
 L0007228         0   0.51090E-06   477478.2 3749944.7    458.0      4.00      3.95
1.86      YES
 L0007229         0   0.51090E-06   477478.1 3749953.2    458.0      4.00      3.95
1.86      YES
 L0007230         0   0.51090E-06   477478.0 3749961.7    458.2      4.00      3.95
1.86      YES
 L0007231         0   0.51090E-06   477477.8 3749970.2    458.4      4.00      3.95
1.86      YES
 L0007232         0   0.51090E-06   477477.7 3749978.7    458.7      4.00      3.95
1.86      YES
 L0007233         0   0.51090E-06   477477.6 3749987.2    459.0      4.00      3.95
1.86      YES
 L0007234         0   0.51090E-06   477477.4 3749995.7    459.0      4.00      3.95
1.86      YES
 L0007235         0   0.51090E-06   477477.3 3750004.2    459.0      4.00      3.95
1.86      YES
 L0007236         0   0.51090E-06   477477.2 3750012.7    459.0      4.00      3.95
1.86      YES
 L0007237         0   0.51090E-06   477477.0 3750021.2    459.0      4.00      3.95
1.86      YES
 L0007238         0   0.51090E-06   477476.9 3750029.7    459.0      4.00      3.95
1.86      YES
 L0007239         0   0.51090E-06   477476.8 3750038.2    459.0      4.00      3.95
1.86      YES
 L0007240         0   0.51090E-06   477476.6 3750046.7    459.0      4.00      3.95
1.86      YES
 L0007241         0   0.51090E-06   477476.5 3750055.2    459.0      4.00      3.95
1.86      YES
 L0007242         0   0.51090E-06   477476.3 3750063.7    459.0      4.00      3.95
1.86      YES
 L0007243         0   0.51090E-06   477476.2 3750072.2    459.0      4.00      3.95
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1.86      YES
 L0007244         0   0.51090E-06  477476.1 3750080.7   459.0     4.00     3.95
1.86      YES
 L0007245         0   0.51090E-06  477475.9 3750089.2   459.0     4.00     3.95
1.86      YES
 L0007246         0   0.51090E-06  477475.8 3750097.7   459.0     4.00     3.95
1.86      YES
 L0007247         0   0.51090E-06  477475.7 3750106.2   459.0     4.00     3.95
1.86      YES
 L0007248         0   0.51090E-06  477475.5 3750114.7   459.0     4.00     3.95
1.86      YES
 L0007249         0   0.51090E-06  477475.4 3750123.2   459.0     4.00     3.95
1.86      YES
 L0007250         0   0.51090E-06  477475.3 3750131.7   459.0     4.00     3.95
1.86      YES
 L0007251         0   0.51090E-06  477475.1 3750140.2   459.0     4.00     3.95
1.86      YES
 L0007252         0   0.51090E-06  477475.0 3750148.7   459.0     4.00     3.95
1.86      YES
 L0007253         0   0.51090E-06  477474.8 3750157.2   459.0     4.00     3.95
1.86      YES
 L0007254         0   0.51090E-06  477474.7 3750165.7   459.0     4.00     3.95
1.86      YES
 L0007255         0   0.51090E-06  477474.2 3750174.2   459.0     4.00     3.95
1.86      YES
 L0007256         0   0.51090E-06  477473.5 3750182.6   459.0     4.00     3.95
1.86      YES
 L0007257         0   0.51090E-06  477472.8 3750191.1   459.0     4.00     3.95
1.86      YES
 L0007258         0   0.51090E-06  477472.1 3750199.6   459.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007259         0   0.51090E-06  477471.4 3750208.0   459.2     4.00     3.95
1.86     YES
 L0007260         0   0.51090E-06  477470.7 3750216.5   459.2     4.00     3.95
1.86     YES
 L0007261         0   0.51090E-06  477470.0 3750225.0   459.3     4.00     3.95
1.86     YES
 L0007262         0   0.51090E-06  477469.3 3750233.5   459.5     4.00     3.95
1.86     YES
 L0007263         0   0.51090E-06  477468.7 3750241.9   459.7     4.00     3.95
1.86     YES
 L0007264         0   0.51090E-06  477468.0 3750250.4   459.9     4.00     3.95
1.86     YES
 L0007265         0   0.51090E-06  477467.3 3750258.9   460.0     4.00     3.95
1.86     YES
 L0007266         0   0.51090E-06  477466.6 3750267.3   460.0     4.00     3.95
1.86     YES
 L0007267         0   0.51090E-06  477466.5 3750275.8   460.0     4.00     3.95
1.86     YES
 L0007268         0   0.51090E-06  477466.5 3750284.3   460.0     4.00     3.95
1.86     YES
 L0007269         0   0.51090E-06  477466.5 3750292.8   460.0     4.00     3.95
1.86     YES
 L0007270         0   0.51090E-06  477466.6 3750301.3   460.0     4.00     3.95
1.86     YES
 L0007271         0   0.51090E-06  477466.6 3750309.8   460.0     4.00     3.95
1.86     YES
 L0007272         0   0.51090E-06  477466.6 3750318.3   460.0     4.00     3.95
1.86     YES
 L0007273         0   0.51090E-06  477466.7 3750326.8   460.0     4.00     3.95
1.86     YES
 L0007274         0   0.51090E-06  477466.7 3750335.3   460.0     4.00     3.95
1.86     YES
 L0007275         0   0.51090E-06  477466.7 3750343.8   460.0     4.00     3.95
1.86     YES
 L0007276         0   0.51090E-06  477466.8 3750352.3   460.0     4.00     3.95
1.86     YES
 L0007277         0   0.51090E-06  477466.8 3750360.8   460.0     4.00     3.95
1.86     YES
 L0007278         0   0.51090E-06  477466.9 3750369.3   460.0     4.00     3.95
1.86     YES
 L0007279         0   0.51090E-06  477466.9 3750377.8   460.0     4.00     3.95
1.86     YES
 L0007280         0   0.51090E-06  477466.9 3750386.3   460.0     4.00     3.95
1.86     YES
 L0007281         0   0.51090E-06  477467.0 3750394.8   460.0     4.00     3.95
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1.86      YES
 L0007282          0   0.51090E-06  477467.0 3750403.3   460.0     4.00     3.95
1.86      YES
 L0007283          0   0.51090E-06  477467.0 3750411.8   460.0     4.00     3.95
1.86      YES
 L0007284          0   0.51090E-06  477467.1 3750420.3   460.0     4.00     3.95
1.86      YES
 L0007285          0   0.51090E-06  477467.1 3750428.8   460.0     4.00     3.95
1.86      YES
 L0007286          0   0.51090E-06  477467.1 3750437.3   460.0     4.00     3.95
1.86      YES
 L0007287          0   0.51090E-06  477467.2 3750445.8   460.0     4.00     3.95
1.86      YES
 L0007288          0   0.51090E-06  477467.2 3750454.3   460.0     4.00     3.95
1.86      YES
 L0007289          0   0.51090E-06  477467.3 3750462.8   460.0     4.00     3.95
1.86      YES
 L0007290          0   0.51090E-06  477467.3 3750471.3   460.2     4.00     3.95
1.86      YES
 L0007291          0   0.51090E-06  477467.3 3750479.8   460.4     4.00     3.95
1.86      YES
 L0007292          0   0.51090E-06  477467.4 3750488.3   460.7     4.00     3.95
1.86      YES
 L0007293          0   0.51090E-06  477467.4 3750496.8   461.0     4.00     3.95
1.86      YES
 L0007294          0   0.51090E-06  477467.4 3750505.3   461.0     4.00     3.95
1.86      YES
 L0007295          0   0.51090E-06  477467.5 3750513.8   461.0     4.00     3.95
1.86      YES
 L0007296          0   0.51090E-06  477467.5 3750522.3   461.0     4.00     3.95
1.86      YES
 L0007297          0   0.51090E-06  477467.5 3750530.8   461.0     4.00     3.95
1.86      YES
 L0007298          0   0.51090E-06  477467.6 3750539.3   461.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                       BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                  AERMOD HRA Output
   SOURCE        PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE   SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0007299         0   0.51090E-06  477467.7 3750547.8   461.0     4.00     3.95
1.86      YES
 L0007300         0   0.51090E-06  477467.9 3750556.3   461.0     4.00     3.95
1.86      YES
 L0007301         0   0.51090E-06  477468.2 3750564.8   461.0     4.00     3.95
1.86      YES
 L0007302         0   0.51090E-06  477468.4 3750573.3   461.0     4.00     3.95
1.86      YES
 L0007303         0   0.51090E-06  477468.7 3750581.8   461.0     4.00     3.95
1.86      YES
 L0007304         0   0.51090E-06  477468.9 3750590.3   461.0     4.00     3.95
1.86      YES
 L0007305         0   0.51090E-06  477469.2 3750598.8   461.0     4.00     3.95
1.86      YES
 L0007306         0   0.51090E-06  477469.4 3750607.3   461.0     4.00     3.95
1.86      YES
 L0007307         0   0.51090E-06  477469.7 3750615.8   461.0     4.00     3.95
1.86      YES
 L0007308         0   0.51090E-06  477469.9 3750624.3   461.0     4.00     3.95
1.86      YES
 L0007309         0   0.51090E-06  477470.2 3750632.8   461.0     4.00     3.95
1.86      YES
 L0007310         0   0.51090E-06  477470.4 3750641.3   461.0     4.00     3.95
1.86      YES
 L0007311         0   0.51090E-06  477470.7 3750649.8   461.0     4.00     3.95
1.86      YES
 L0007312         0   0.51090E-06  477470.9 3750658.3   461.2     4.00     3.95
1.86      YES
 L0007313         0   0.51090E-06  477471.2 3750666.8   461.3     4.00     3.95
1.86      YES
 L0007314         0   0.51090E-06  477471.4 3750675.3   461.4     4.00     3.95
1.86      YES
 L0007315         0   0.51090E-06  477471.7 3750683.8   461.5     4.00     3.95
1.86      YES
 L0007316         0   0.51090E-06  477471.9 3750692.3   461.7     4.00     3.95
1.86      YES
 L0007317         0   0.51090E-06  477472.2 3750700.8   461.9     4.00     3.95
1.86      YES
 L0007318         0   0.51090E-06  477472.4 3750709.3   462.0     4.00     3.95
1.86      YES
 L0007319         0   0.51090E-06  477472.7 3750717.8   462.0     4.00     3.95
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1.86      YES
 L0007320         0   0.51090E-06  477472.9 3750726.3   462.0     4.00     3.95
1.86      YES
 L0007321         0   0.51090E-06  477473.2 3750734.8   462.0     4.00     3.95
1.86      YES
 L0007322         0   0.51090E-06  477473.4 3750743.3   462.0     4.00     3.95
1.86      YES
 L0007323         0   0.51090E-06  477473.7 3750751.7   462.0     4.00     3.95
1.86      YES
 L0007324         0   0.51090E-06  477473.9 3750760.2   462.0     4.00     3.95
1.86      YES
 L0007325         0   0.51090E-06  477474.2 3750768.7   462.0     4.00     3.95
1.86      YES
 L0007326         0   0.51090E-06  477474.4 3750777.2   462.0     4.00     3.95
1.86      YES
 L0007327         0   0.51090E-06  477474.7 3750785.7   462.0     4.00     3.95
1.86      YES
 L0007328         0   0.51090E-06  477474.9 3750794.2   462.0     4.00     3.95
1.86      YES
 L0007329         0   0.51090E-06  477475.2 3750802.7   462.0     4.00     3.95
1.86      YES
 L0007330         0   0.51090E-06  477475.4 3750811.2   462.0     4.00     3.95
1.86      YES
 L0007331         0   0.51090E-06  477475.7 3750819.7   462.0     4.00     3.95
1.86      YES
 L0007332         0   0.51090E-06  477475.9 3750828.2   462.0     4.00     3.95
1.86      YES
 L0007333         0   0.51090E-06  477476.2 3750836.7   462.0     4.00     3.95
1.86      YES
 L0007334         0   0.51090E-06  477476.4 3750845.2   462.0     4.00     3.95
1.86      YES
 L0007335         0   0.51090E-06  477476.7 3750853.7   462.0     4.00     3.95
1.86      YES
 L0007336         0   0.51090E-06  477476.9 3750862.2   462.1     4.00     3.95
1.86      YES
 L0007337         0   0.51090E-06  477477.1 3750870.7   462.3     4.00     3.95
1.86      YES
 L0007338         0   0.51090E-06  477477.1 3750879.2   462.4     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                           AERMOD HRA Output
                                                            *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007339         0    0.51090E-06   477477.2 3750887.7   462.6     4.00     3.95
1.86     YES
 L0007340         0    0.51090E-06   477477.2 3750896.2   462.7     4.00     3.95
1.86     YES
 L0007341         0    0.51090E-06   477477.3 3750904.7   462.8     4.00     3.95
1.86     YES
 L0007342         0    0.51090E-06   477477.3 3750913.2   462.9     4.00     3.95
1.86     YES
 L0007343         0    0.51090E-06   477477.4 3750921.7   463.0     4.00     3.95
1.86     YES
 L0007344         0    0.51090E-06   477477.4 3750930.2   463.0     4.00     3.95
1.86     YES
 L0007345         0    0.51090E-06   477477.5 3750938.7   463.0     4.00     3.95
1.86     YES
 L0007346         0    0.51090E-06   477477.6 3750947.2   463.0     4.00     3.95
1.86     YES
 L0007347         0    0.51090E-06   477477.6 3750955.7   463.0     4.00     3.95
1.86     YES
 L0007348         0    0.51090E-06   477477.7 3750964.2   463.0     4.00     3.95
1.86     YES
 L0007349         0    0.51090E-06   477477.7 3750972.7   463.0     4.00     3.95
1.86     YES
 L0007350         0    0.51090E-06   477477.8 3750981.2   463.0     4.00     3.95
1.86     YES
 L0007351         0    0.51090E-06   477477.8 3750989.7   463.0     4.00     3.95
1.86     YES
 L0007352         0    0.51090E-06   477477.9 3750998.2   463.0     4.00     3.95
1.86     YES
 L0007353         0    0.51090E-06   477477.9 3751006.7   463.0     4.00     3.95
1.86     YES
 L0007354         0    0.51090E-06   477478.0 3751015.2   463.0     4.00     3.95
1.86     YES
 L0007355         0    0.51090E-06   477478.0 3751023.7   463.0     4.00     3.95
1.86     YES
 L0007356         0    0.51090E-06   477478.1 3751032.2   463.0     4.00     3.95
1.86     YES
 L0007357         0    0.51090E-06   477478.1 3751040.7   463.0     4.00     3.95
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1.86      YES
 L0007358         0   0.51090E-06  477478.2 3751049.2   463.0     4.00     3.95
1.86      YES
 L0007359         0   0.51090E-06  477478.3 3751057.7   463.0     4.00     3.95
1.86      YES
 L0007360         0   0.51090E-06  477478.3 3751066.2   463.0     4.00     3.95
1.86      YES
 L0007361         0   0.51090E-06  477478.4 3751074.7   463.2     4.00     3.95
1.86      YES
 L0007362         0   0.51090E-06  477478.4 3751083.2   463.3     4.00     3.95
1.86      YES
 L0007363         0   0.51090E-06  477478.5 3751091.7   463.5     4.00     3.95
1.86      YES
 L0007364         0   0.51090E-06  477478.5 3751100.2   463.7     4.00     3.95
1.86      YES
 L0007365         0   0.51090E-06  477478.6 3751108.7   463.8     4.00     3.95
1.86      YES
 L0007366         0   0.51090E-06  477478.6 3751117.2   463.9     4.00     3.95
1.86      YES
 L0007367         0   0.51090E-06  477478.7 3751125.7   464.0     4.00     3.95
1.86      YES
 L0007368         0   0.51090E-06  477478.7 3751134.2   464.0     4.00     3.95
1.86      YES
 L0007369         0   0.51090E-06  477478.8 3751142.7   464.0     4.00     3.95
1.86      YES
 L0007370         0   0.51090E-06  477478.9 3751151.2   464.0     4.00     3.95
1.86      YES
 L0007371         0   0.51090E-06  477478.9 3751159.7   464.0     4.00     3.95
1.86      YES
 L0007372         0   0.51090E-06  477479.0 3751168.2   464.0     4.00     3.95
1.86      YES
 L0007373         0   0.51090E-06  477479.0 3751176.7   464.0     4.00     3.95
1.86      YES
 L0007374         0   0.51090E-06  477479.1 3751185.2   464.0     4.00     3.95
1.86      YES
 L0007375         0   0.51090E-06  477479.1 3751193.7   464.0     4.00     3.95
1.86      YES
 L0007376         0   0.51090E-06  477479.2 3751202.2   464.0     4.00     3.95
1.86      YES
 L0007377         0   0.51090E-06  477479.2 3751210.7   464.0     4.00     3.95
1.86      YES
 L0007378         0   0.51090E-06  477479.3 3751219.2   464.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56
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                              AERMOD HRA Output
                                PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0007379         0   0.51090E-06  477479.3 3751227.7   464.0     4.00     3.95
1.86     YES
 L0007380         0   0.51090E-06  477479.4 3751236.2   464.0     4.00     3.95
1.86     YES
 L0007381         0   0.51090E-06  477479.3 3751244.7   464.0     4.00     3.95
1.86     YES
 L0007382         0   0.51090E-06  477479.3 3751253.2   464.2     4.00     3.95
1.86     YES
 L0007383         0   0.51090E-06  477479.2 3751261.7   464.5     4.00     3.95
1.86     YES
 L0007384         0   0.51090E-06  477479.2 3751270.2   464.8     4.00     3.95
1.86     YES
 L0007385         0   0.51090E-06  477479.1 3751278.7   465.0     4.00     3.95
1.86     YES
 L0007386         0   0.51090E-06  477479.0 3751287.2   465.0     4.00     3.95
1.86     YES
 L0007387         0   0.51090E-06  477479.0 3751295.7   465.0     4.00     3.95
1.86     YES
 L0007388         0   0.51090E-06  477478.9 3751304.2   465.0     4.00     3.95
1.86     YES
 L0007389         0   0.51090E-06  477478.9 3751312.7   465.0     4.00     3.95
1.86     YES
 L0007390         0   0.51090E-06  477478.8 3751321.2   465.0     4.00     3.95
1.86     YES
 L0007391         0   0.51090E-06  477478.7 3751329.7   465.0     4.00     3.95
1.86     YES
 L0007392         0   0.51090E-06  477478.7 3751338.2   465.0     4.00     3.95
1.86     YES
 L0007393         0   0.51090E-06  477478.6 3751346.7   465.0     4.00     3.95
1.86     YES
 L0007394         0   0.51090E-06  477478.6 3751355.2   465.0     4.00     3.95
1.86     YES
 L0007395         0   0.51090E-06  477478.5 3751363.7   465.0     4.00     3.95
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1.86      YES
 L0007396          0   0.51090E-06  477478.5 3751372.2   465.0     4.00     3.95
1.86      YES
 L0007397          0   0.51090E-06  477478.4 3751380.7   465.0     4.00     3.95
1.86      YES
 L0007398          0   0.51090E-06  477478.3 3751389.2   465.0     4.00     3.95
1.86      YES
 L0007399          0   0.51090E-06  477478.3 3751397.7   465.0     4.00     3.95
1.86      YES
 L0007400          0   0.51090E-06  477478.2 3751406.2   465.0     4.00     3.95
1.86      YES
 L0007401          0   0.51090E-06  477478.2 3751414.7   465.0     4.00     3.95
1.86      YES
 L0007402          0   0.51090E-06  477478.1 3751423.2   465.0     4.00     3.95
1.86      YES
 L0007403          0   0.51090E-06  477478.0 3751431.7   465.2     4.00     3.95
1.86      YES
 L0007404          0   0.51090E-06  477478.0 3751440.2   465.4     4.00     3.95
1.86      YES
 L0007405          0   0.51090E-06  477477.9 3751448.7   465.7     4.00     3.95
1.86      YES
 L0007406          0   0.51090E-06  477477.9 3751457.2   466.0     4.00     3.95
1.86      YES
 L0007407          0   0.51090E-06  477477.8 3751465.7   466.0     4.00     3.95
1.86      YES
 L0007408          0   0.51090E-06  477477.8 3751474.2   466.0     4.00     3.95
1.86      YES
 L0007409          0   0.51090E-06  477477.7 3751482.7   466.0     4.00     3.95
1.86      YES
 L0007410          0   0.51090E-06  477477.6 3751491.2   466.0     4.00     3.95
1.86      YES
 L0007411          0   0.51090E-06  477477.6 3751499.7   466.0     4.00     3.95
1.86      YES
 L0007412          0   0.51090E-06  477477.5 3751508.2   466.0     4.00     3.95
1.86      YES
 L0007413          0   0.51090E-06  477477.5 3751516.7   466.0     4.00     3.95
1.86      YES
 L0007414          0   0.51090E-06  477477.4 3751525.2   466.0     4.00     3.95
1.86      YES
 L0007415          0   0.51090E-06  477477.3 3751533.7   466.0     4.00     3.95
1.86      YES
 L0007416          0   0.51090E-06  477477.3 3751542.2   466.0     4.00     3.95
1.86      YES
 L0007417          0   0.51090E-06  477477.2 3751550.7   466.0     4.00     3.95
1.86      YES
 L0007418          0   0.51090E-06  477477.2 3751559.2   466.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                 AERMOD HRA Output
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0007419         0   0.51090E-06  477477.1 3751567.7   466.0     4.00     3.95
1.86     YES
 L0007420         0   0.51090E-06  477477.0 3751576.2   466.0     4.00     3.95
1.86     YES
 L0007421         0   0.51090E-06  477477.0 3751584.7   466.0     4.00     3.95
1.86     YES
 L0007422         0   0.51090E-06  477476.9 3751593.2   466.0     4.00     3.95
1.86     YES
 L0007423         0   0.51090E-06  477476.9 3751601.7   466.0     4.00     3.95
1.86     YES
 L0007424         0   0.51090E-06  477476.8 3751610.2   466.1     4.00     3.95
1.86     YES
 L0007425         0   0.51090E-06  477476.8 3751618.7   466.2     4.00     3.95
1.86     YES
 L0007426         0   0.51090E-06  477476.7 3751627.2   466.4     4.00     3.95
1.86     YES
 L0007427         0   0.51090E-06  477476.6 3751635.7   466.6     4.00     3.95
1.86     YES
 L0007428         0   0.51090E-06  477476.6 3751644.2   466.7     4.00     3.95
1.86     YES
 L0007429         0   0.51090E-06  477476.5 3751652.7   466.8     4.00     3.95
1.86     YES
 L0007430         0   0.51090E-06  477476.5 3751661.2   466.9     4.00     3.95
1.86     YES
 L0007431         0   0.51090E-06  477476.4 3751669.7   467.0     4.00     3.95
1.86     YES
 L0007432         0   0.51090E-06  477476.3 3751678.2   467.0     4.00     3.95
1.86     YES
 L0007433         0   0.51090E-06  477476.3 3751686.7   467.0     4.00     3.95
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1.86      YES
 L0007434         0   0.51090E-06  477476.2 3751695.2   467.0     4.00     3.95
1.86      YES
 L0007435         0   0.51090E-06  477476.2 3751703.7   467.0     4.00     3.95
1.86      YES
 L0007436         0   0.51090E-06  477476.1 3751712.2   467.0     4.00     3.95
1.86      YES
 L0007437         0   0.51090E-06  477476.1 3751720.7   467.0     4.00     3.95
1.86      YES
 L0007438         0   0.51090E-06  477476.0 3751729.2   467.1     4.00     3.95
1.86      YES
 L0007439         0   0.51090E-06  477475.9 3751737.7   467.2     4.00     3.95
1.86      YES
 L0007440         0   0.51090E-06  477475.9 3751746.2   467.4     4.00     3.95
1.86      YES
 L0007441         0   0.51090E-06  477475.8 3751754.7   467.5     4.00     3.95
1.86      YES
 L0007442         0   0.51090E-06  477475.8 3751763.2   467.6     4.00     3.95
1.86      YES
 L0007443         0   0.51090E-06  477475.7 3751771.7   467.8     4.00     3.95
1.86      YES
 L0007444         0   0.51090E-06  477475.6 3751780.2   467.9     4.00     3.95
1.86      YES
 L0007445         0   0.51090E-06  477475.6 3751788.7   468.0     4.00     3.95
1.86      YES
 L0007446         0   0.51090E-06  477475.5 3751797.2   468.0     4.00     3.95
1.86      YES
 L0007447         0   0.51090E-06  477475.5 3751805.7   468.0     4.00     3.95
1.86      YES
 L0007448         0   0.51090E-06  477475.4 3751814.2   468.0     4.00     3.95
1.86      YES
 L0007449         0   0.51090E-06  477475.4 3751822.7   468.0     4.00     3.95
1.86      YES
 L0007450         0   0.51090E-06  477475.3 3751831.2   468.0     4.00     3.95
1.86      YES
 L0007451         0   0.51090E-06  477475.2 3751839.7   468.0     4.00     3.95
1.86      YES
 L0007452         0   0.51090E-06  477475.2 3751848.2   468.0     4.00     3.95
1.86      YES
 L0007453         0   0.51090E-06  477475.1 3751856.7   468.0     4.00     3.95
1.86      YES
 L0007454         0   0.51090E-06  477475.1 3751865.2   468.0     4.00     3.95
1.86      YES
 L0007455         0   0.51090E-06  477475.0 3751873.7   468.0     4.00     3.95
1.86      YES
 L0007456         0   0.51090E-06  477474.9 3751882.2   468.2     4.00     3.95
1.86      YES
 L0007457         0   0.51090E-06  477474.9 3751890.7   468.5     4.00     3.95
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1.86     YES
 L0007458         0   0.51090E-06  477474.8 3751899.2   468.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0007459         0   0.51090E-06  477474.8 3751907.7   469.0     4.00     3.95
1.86     YES
 L0007460         0   0.51090E-06  477474.7 3751916.2   469.0     4.00     3.95
1.86     YES
 L0007461         0   0.51090E-06  477474.7 3751924.7   469.0     4.00     3.95
1.86     YES
 L0007462         0   0.51090E-06  477474.6 3751933.2   469.0     4.00     3.95
1.86     YES
 L0007463         0   0.51090E-06  477474.5 3751941.7   469.0     4.00     3.95
1.86     YES
 L0007464         0   0.51090E-06  477474.5 3751950.2   469.0     4.00     3.95
1.86     YES
 L0007465         0   0.51090E-06  477474.4 3751958.7   469.0     4.00     3.95
1.86     YES
 L0007466         0   0.51090E-06  477474.4 3751967.2   469.0     4.00     3.95
1.86     YES
 L0007467         0   0.51090E-06  477474.3 3751975.7   469.0     4.00     3.95
1.86     YES
 L0007468         0   0.51090E-06  477474.2 3751984.2   469.0     4.00     3.95
1.86     YES
 L0007469         0   0.51090E-06  477474.2 3751992.7   469.0     4.00     3.95
1.86     YES
 L0007470         0   0.51090E-06  477474.1 3752001.2   469.0     4.00     3.95
1.86     YES
 L0007471         0   0.51090E-06  477474.1 3752009.7   469.0     4.00     3.95
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1.86      YES
 L0007472          0   0.51090E-06  477474.0 3752018.2   469.0      4.00      3.95
1.86      YES
 L0007473          0   0.51090E-06  477474.0 3752026.7   469.0      4.00      3.95
1.86      YES
 L0007474          0   0.51090E-06  477473.9 3752035.2   469.1      4.00      3.95
1.86      YES
 L0007475          0   0.51090E-06  477473.8 3752043.7   469.3      4.00      3.95
1.86      YES
 L0007476          0   0.51090E-06  477473.8 3752052.2   469.4      4.00      3.95
1.86      YES
 L0007477          0   0.51090E-06  477473.7 3752060.7   469.5      4.00      3.95
1.86      YES
 L0007478          0   0.51090E-06  477473.7 3752069.2   469.5      4.00      3.95
1.86      YES
 L0007479          0   0.51090E-06  477473.6 3752077.7   469.5      4.00      3.95
1.86      YES
 L0007480          0   0.51090E-06  477473.5 3752086.2   469.5      4.00      3.95
1.86      YES
 L0007481          0   0.51090E-06  477473.5 3752094.7   469.6      4.00      3.95
1.86      YES
 L0007482          0   0.51090E-06  477473.4 3752103.2   469.8      4.00      3.95
1.86      YES
 L0007483          0   0.51090E-06  477473.4 3752111.7   469.9      4.00      3.95
1.86      YES
 L0007484          0   0.51090E-06  477473.3 3752120.2   470.1      4.00      3.95
1.86      YES
 L0007485          0   0.51090E-06  477473.3 3752128.7   470.2      4.00      3.95
1.86      YES
 L0007486          0   0.51090E-06  477473.2 3752137.2   470.3      4.00      3.95
1.86      YES
 L0007487          0   0.51090E-06  477473.1 3752145.7   470.4      4.00      3.95
1.86      YES
 L0007488          0   0.51090E-06  477473.1 3752154.2   470.6      4.00      3.95
1.86      YES
 L0007489          0   0.51090E-06  477473.0 3752162.7   470.7      4.00      3.95
1.86      YES
 L0007490          0   0.51090E-06  477473.0 3752171.2   470.9      4.00      3.95
1.86      YES
 L0007491          0   0.51090E-06  477472.9 3752179.7   471.0      4.00      3.95
1.86      YES
 L0007492          0   0.51090E-06  477472.8 3752188.2   471.0      4.00      3.95
1.86      YES
 L0007493          0   0.51090E-06  477472.8 3752196.7   471.0      4.00      3.95
1.86      YES
 L0007494          0   0.51090E-06  477472.7 3752205.2   471.0      4.00      3.95
1.86      YES
 L0007495          0   0.51090E-06  477472.7 3752213.7   471.2      4.00      3.95
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1.86      YES
 L0007496         0   0.51090E-06  477472.6 3752222.2   471.5     4.00     3.95
1.86      YES
 L0007497         0   0.51090E-06  477468.0 3752226.1   471.7     4.00     3.95
1.86      YES
 L0007498         0   0.51090E-06  477459.5 3752226.1   471.7     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0007499         0   0.51090E-06  477451.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0007500         0   0.51090E-06  477442.5 3752226.2   471.7     4.00     3.95
1.86      YES
 L0007501         0   0.51090E-06  477434.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0007502         0   0.51090E-06  477425.5 3752226.2   471.7     4.00     3.95
1.86      YES
 L0007503         0   0.51090E-06  477417.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0007504         0   0.51090E-06  477408.5 3752226.2   471.7     4.00     3.95
1.86      YES
 L0007505         0   0.51090E-06  477400.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0007506         0   0.51090E-06  477391.5 3752226.2   471.5     4.00     3.95
1.86      YES
 L0007507         0   0.51090E-06  477383.0 3752226.2   471.3     4.00     3.95
1.86      YES
 L0007508         0   0.51090E-06  477374.5 3752226.2   471.1     4.00     3.95
1.86      YES
 L0007509         0   0.51090E-06  477366.0 3752226.3   471.0     4.00     3.95
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1.86      YES
 L0007510          0   0.51090E-06  477357.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007511          0   0.51090E-06  477349.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007512          0   0.51090E-06  477340.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007513          0   0.51090E-06  477332.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007514          0   0.51090E-06  477323.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007515          0   0.51090E-06  477315.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007516          0   0.51090E-06  477306.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007517          0   0.51090E-06  477298.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007518          0   0.51090E-06  477289.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0007519          0   0.51090E-06  477281.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007520          0   0.51090E-06  477272.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007521          0   0.51090E-06  477264.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007522          0   0.51090E-06  477255.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007523          0   0.51090E-06  477247.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007524          0   0.51090E-06  477238.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007525          0   0.51090E-06  477230.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007526          0   0.51090E-06  477221.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007527          0   0.51090E-06  477213.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007528          0   0.51090E-06  477204.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0007529          0   0.51090E-06  477196.0 3752226.5   471.0     4.00      3.95
1.86      YES
 L0007530          0   0.51090E-06  477187.5 3752226.5   471.0     4.00      3.95
1.86      YES
 L0007531          0   0.51090E-06  477179.0 3752226.5   471.0     4.00      3.95
1.86      YES
 L0007532          0   0.51090E-06  477170.5 3752226.5   471.0     4.00      3.95
1.86      YES
 L0007533          0   0.51090E-06  477162.0 3752226.5   471.0     4.00      3.95
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1.86      YES
 L0007534         0   0.51090E-06  477153.5 3752226.5   471.0     4.00     3.95
1.86      YES
 L0007535         0   0.51090E-06  477145.0 3752226.5   471.0     4.00     3.95
1.86      YES
 L0007536         0   0.51090E-06  477136.5 3752226.5   471.0     4.00     3.95
1.86      YES
 L0007537         0   0.51090E-06  477128.0 3752226.5   471.0     4.00     3.95
1.86      YES
 L0007538         0   0.51090E-06  477119.5 3752226.5   471.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007539         0   0.51090E-06  477111.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007540         0   0.51090E-06  477102.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007541         0   0.51090E-06  477094.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007542         0   0.51090E-06  477085.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007543         0   0.51090E-06  477077.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007544         0   0.51090E-06  477068.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007545         0   0.51090E-06  477060.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007546         0   0.51090E-06  477051.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0007547         0   0.51090E-06  477043.0 3752226.6   471.0     4.00     3.95
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1.86      YES
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1.86      YES
 L0007549          0   0.51090E-06  477026.0 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007550          0   0.51090E-06  477017.5 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007551          0   0.51090E-06  477009.0 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007552          0   0.51090E-06  477000.5 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007553          0   0.51090E-06  476992.0 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007554          0   0.51090E-06  476983.5 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007555          0   0.51090E-06  476975.0 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007556          0   0.51090E-06  476966.5 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007557          0   0.51090E-06  476958.0 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007558          0   0.51090E-06  476949.5 3752226.7   471.0     4.00     3.95
1.86      YES
 L0007559          0   0.51090E-06  476941.0 3752226.8   471.2     4.00     3.95
1.86      YES
 L0007560          0   0.51090E-06  476932.5 3752226.8   471.4     4.00     3.95
1.86      YES
 L0007561          0   0.51090E-06  476924.0 3752226.8   471.6     4.00     3.95
1.86      YES
 L0007562          0   0.51090E-06  476915.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0007563          0   0.51090E-06  476907.0 3752226.8   471.7     4.00     3.95
1.86      YES
 L0007564          0   0.51090E-06  476898.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0007565          0   0.51090E-06  476890.0 3752226.8   471.7     4.00     3.95
1.86      YES
 L0007566          0   0.51090E-06  476881.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0007567          0   0.51090E-06  476873.0 3752226.8   471.7     4.00     3.95
1.86      YES
 L0007568          0   0.51090E-06  476864.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0007569          0   0.51090E-06  476856.0 3752226.9   471.7     4.00     3.95
1.86      YES
 L0007570          0   0.51090E-06  476847.5 3752226.9   471.7     4.00     3.95
1.86      YES
 L0007571          0   0.51090E-06  476839.0 3752226.9   471.7     4.00     3.95
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1.86      YES
 L0007572         0   0.51090E-06  476830.5 3752226.9   471.7     4.00     3.95
1.86      YES
 L0007573         0   0.51090E-06  476822.0 3752226.9   471.7     4.00     3.95
1.86      YES
 L0007574         0   0.51090E-06  476813.5 3752226.9   471.7     4.00     3.95
1.86      YES
 L0007575         0   0.51090E-06  476805.0 3752226.9   477.2     4.00     3.95
1.86      YES
 L0007576         0   0.51090E-06  476796.5 3752226.9   477.2     4.00     3.95
1.86      YES
 L0007577         0   0.51090E-06  476788.0 3752226.9   477.2     4.00     3.95
1.86      YES
 L0007578         0   0.51090E-06  476779.5 3752226.9   477.2     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007579         0   0.51090E-06  476771.0 3752227.0   477.2     4.00     3.95
1.86      YES
 L0007580         0   0.51090E-06  476762.5 3752227.0   477.2     4.00     3.95
1.86      YES
 L0007581         0   0.51090E-06  476754.0 3752227.0   477.2     4.00     3.95
1.86      YES
 L0007582         0   0.51090E-06  476745.5 3752227.0   477.2     4.00     3.95
1.86      YES
 L0007583         0   0.51090E-06  476737.0 3752227.0   477.2     4.00     3.95
1.86      YES
 L0007584         0   0.51090E-06  476728.5 3752227.0   477.3     4.00     3.95
1.86      YES
 L0007585         0   0.51090E-06  476720.0 3752227.0   477.4     4.00     3.95
```

AERMOD HRA Output

```
1.86     YES
 L0007586          0   0.51090E-06   476711.5 3752227.0   477.5      4.00      3.95
1.86     YES
 L0007587          0   0.51090E-06   476703.0 3752227.0   477.6      4.00      3.95
1.86     YES
 L0007588          0   0.51090E-06   476694.5 3752227.0   477.6      4.00      3.95
1.86     YES
 L0007589          0   0.51090E-06   476686.0 3752227.1   477.7      4.00      3.95
1.86     YES
 L0007590          0   0.51090E-06   476677.5 3752227.1   477.8      4.00      3.95
1.86     YES
 L0007591          0   0.51090E-06   476669.0 3752227.1   477.9      4.00      3.95
1.86     YES
 L0007592          0   0.51090E-06   476660.5 3752227.1   478.0      4.00      3.95
1.86     YES
 L0007593          0   0.51090E-06   476652.0 3752227.1   478.0      4.00      3.95
1.86     YES
 L0007594          0   0.51090E-06   476643.5 3752227.1   478.0      4.00      3.95
1.86     YES
 L0007595          0   0.51090E-06   476635.0 3752227.1   478.0      4.00      3.95
1.86     YES
 L0007596          0   0.51090E-06   476626.5 3752227.1   478.0      4.00      3.95
1.86     YES
 L0007597          0   0.51090E-06   476618.0 3752227.1   478.0      4.00      3.95
1.86     YES
 L0007598          0   0.51090E-06   476609.5 3752227.1   478.0      4.00      3.95
1.86     YES
 L0007599          0   0.51090E-06   476601.0 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007600          0   0.51090E-06   476592.5 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007601          0   0.51090E-06   476584.0 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007602          0   0.51090E-06   476575.5 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007603          0   0.51090E-06   476567.0 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007604          0   0.51090E-06   476558.5 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007605          0   0.51090E-06   476550.0 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007606          0   0.51090E-06   476541.5 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007607          0   0.51090E-06   476533.0 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007608          0   0.51090E-06   476524.5 3752227.2   478.0      4.00      3.95
1.86     YES
 L0007609          0   0.51090E-06   476516.0 3752227.3   478.0      4.00      3.95
```

```
1.86     YES
 L0007610         0   0.51090E-06  476507.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007611         0   0.51090E-06  476499.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007612         0   0.51090E-06  476490.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007613         0   0.51090E-06  476482.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007614         0   0.51090E-06  476473.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007615         0   0.51090E-06  476465.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007616         0   0.51090E-06  476456.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007617         0   0.51090E-06  476448.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0007618         0   0.51090E-06  476439.5 3752227.3   478.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - - -

 L0007619         0   0.51090E-06  476431.0 3752227.4   478.0     4.00     3.95
1.86     YES
 L0007620         0   0.51090E-06  476422.5 3752227.4   478.0     4.00     3.95
1.86     YES
 L0007621         0   0.51090E-06  476414.0 3752227.4   478.0     4.00     3.95
1.86     YES
 L0007622         0   0.51090E-06  476405.5 3752227.4   478.0     4.00     3.95
1.86     YES
 L0007623         0   0.51090E-06  476397.0 3752227.4   478.0     4.00     3.95
```

AERMOD HRA Output

```
1.86      YES
 L0007624          0   0.51090E-06   476388.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0007625          0   0.51090E-06   476380.0 3752227.4    478.0      4.00      3.95
1.86      YES
 L0007626          0   0.51090E-06   476371.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0007627          0   0.51090E-06   476363.0 3752227.4    478.0      4.00      3.95
1.86      YES
 L0007628          0   0.51090E-06   476354.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0007629          0   0.51090E-06   476346.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007630          0   0.51090E-06   476337.5 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007631          0   0.51090E-06   476329.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007632          0   0.51090E-06   476320.5 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007633          0   0.51090E-06   476312.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007634          0   0.51090E-06   476303.5 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007635          0   0.51090E-06   476295.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007636          0   0.51090E-06   476286.5 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007637          0   0.51090E-06   476278.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007638          0   0.51090E-06   476269.5 3752227.5    478.0      4.00      3.95
1.86      YES
 L0007639          0   0.51090E-06   476261.0 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007640          0   0.51090E-06   476252.5 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007641          0   0.51090E-06   476244.0 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007642          0   0.51090E-06   476235.5 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007643          0   0.51090E-06   476227.0 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007644          0   0.51090E-06   476218.5 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007645          0   0.51090E-06   476210.0 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007646          0   0.51090E-06   476201.5 3752227.6    478.0      4.00      3.95
1.86      YES
 L0007647          0   0.51090E-06   476193.0 3752227.6    478.0      4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86     YES
 L0007648         0   0.51090E-06  476184.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0007649         0   0.51090E-06  476176.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007650         0   0.51090E-06  476167.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007651         0   0.51090E-06  476159.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007652         0   0.51090E-06  476150.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007653         0   0.51090E-06  476142.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007654         0   0.51090E-06  476133.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007655         0   0.51090E-06  476125.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007656         0   0.51090E-06  476116.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0007657         0   0.51090E-06  476108.0 3752227.7   477.9     4.00     3.95
1.86     YES
 L0007658         0   0.51090E-06  476099.5 3752227.7   477.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007659         0   0.51090E-06  476091.0 3752227.8   477.7     4.00     3.95
1.86     YES
 L0007660         0   0.51090E-06  476082.5 3752227.8   477.6     4.00     3.95
1.86     YES
 L0007661         0   0.51090E-06  476074.0 3752227.8   477.6     4.00     3.95
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```
1.86      YES
  L0007662          0    0.51090E-06   476065.5 3752227.8    477.5      4.00      3.95
1.86      YES
  L0007663          0    0.51090E-06   476057.0 3752227.8    477.4      4.00      3.95
1.86      YES
  L0007664          0    0.51090E-06   476048.5 3752227.8    477.3      4.00      3.95
1.86      YES
  L0007665          0    0.51090E-06   476040.0 3752227.8    477.2      4.00      3.95
1.86      YES
  L0007666          0    0.51090E-06   476031.5 3752227.8    477.2      4.00      3.95
1.86      YES
  L0007667          0    0.51090E-06   476023.0 3752227.8    477.2      4.00      3.95
1.86      YES
  L0007668          0    0.51090E-06   476014.5 3752227.8    477.1      4.00      3.95
1.86      YES
  L0007669          0    0.51090E-06   476006.0 3752227.9    477.1      4.00      3.95
1.86      YES
  L0007670          0    0.51090E-06   475997.5 3752227.9    477.1      4.00      3.95
1.86      YES
  L0007671          0    0.51090E-06   475989.0 3752227.9    477.1      4.00      3.95
1.86      YES
  L0007672          0    0.51090E-06   475980.5 3752227.9    477.1      4.00      3.95
1.86      YES
  L0007673          0    0.51090E-06   475972.0 3752227.9    477.0      4.00      3.95
1.86      YES
  L0007674          0    0.51090E-06   475963.5 3752227.9    477.0      4.00      3.95
1.86      YES
  L0007675          0    0.51090E-06   475955.0 3752227.9    477.0      4.00      3.95
1.86      YES
  L0007676          0    0.51090E-06   475946.5 3752227.9    477.0      4.00      3.95
1.86      YES
  L0007677          0    0.51090E-06   475938.0 3752227.9    477.0      4.00      3.95
1.86      YES
  L0007678          0    0.51090E-06   475929.5 3752227.9    477.0      4.00      3.95
1.86      YES
  L0007679          0    0.51090E-06   475921.0 3752227.9    477.0      4.00      3.95
1.86      YES
  L0007680          0    0.51090E-06   475912.5 3752228.0    477.0      4.00      3.95
1.86      YES
  L0007681          0    0.51090E-06   475904.0 3752228.0    477.0      4.00      3.95
1.86      YES
  L0007682          0    0.51090E-06   475895.5 3752228.0    477.0      4.00      3.95
1.86      YES
  L0007683          0    0.51090E-06   475887.0 3752228.0    477.0      4.00      3.95
1.86      YES
  L0007684          0    0.51090E-06   475878.5 3752228.0    477.0      4.00      3.95
1.86      YES
  L0007685          0    0.51090E-06   475870.0 3752228.0    477.0      4.00      3.95
```

```
1.86      YES
 L0007686         0   0.51090E-06  475861.5 3752228.0   477.0     4.00     3.95
1.86      YES
 L0007687         0   0.51090E-06  475853.0 3752228.0   477.0     4.00     3.95
1.86      YES
 L0007688         0   0.51090E-06  475844.5 3752228.0   477.0     4.00     3.95
1.86      YES
 L0007689         0   0.51090E-06  475836.0 3752228.0   477.0     4.00     3.95
1.86      YES
 L0007690         0   0.51090E-06  475827.5 3752228.1   477.0     4.00     3.95
1.86      YES
 L0007691         0   0.51090E-06  475819.0 3752228.1   477.0     4.00     3.95
1.86      YES
 L0007692         0   0.51090E-06  475810.5 3752228.1   477.0     4.00     3.95
1.86      YES
 L0007693         0   0.51090E-06  475802.0 3752228.1   477.0     4.00     3.95
1.86      YES
 L0007694         0   0.51090E-06  475793.5 3752228.1   477.1     4.00     3.95
1.86      YES
 L0007695         0   0.51090E-06  475785.0 3752228.1   477.1     4.00     3.95
1.86      YES
 L0007696         0   0.51090E-06  475776.5 3752228.1   477.1     4.00     3.95
1.86      YES
 L0007697         0   0.51090E-06  475768.0 3752228.1   477.1     4.00     3.95
1.86      YES
 L0007698         0   0.51090E-06  475759.5 3752228.1   477.1     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007699         0   0.51090E-06  475751.0 3752228.1   477.2     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
  L0007700         0   0.51090E-06   475742.5 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007701         0   0.51090E-06   475734.0 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007702         0   0.51090E-06   475725.5 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007703         0   0.51090E-06   475717.0 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007704         0   0.51090E-06   475708.5 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007705         0   0.51090E-06   475700.0 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007706         0   0.51090E-06   475691.5 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007707         0   0.51090E-06   475683.0 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007708         0   0.51090E-06   475674.5 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007709         0   0.51090E-06   475666.0 3752228.2    477.2      4.00      3.95
1.86      YES
  L0007710         0   0.51090E-06   475657.5 3752228.3    477.2      4.00      3.95
1.86      YES
  L0007711         0   0.51090E-06   475649.0 3752228.3    477.2      4.00      3.95
1.86      YES
  L0007712         0   0.51090E-06   475640.5 3752228.3    477.2      4.00      3.95
1.86      YES
  L0007713         0   0.51090E-06   475632.0 3752228.3    477.2      4.00      3.95
1.86      YES
  L0007714         0   0.51090E-06   475623.5 3752228.3    477.1      4.00      3.95
1.86      YES
  L0007715         0   0.51090E-06   475615.0 3752228.3    477.1      4.00      3.95
1.86      YES
  L0007716         0   0.51090E-06   475606.5 3752228.3    477.1      4.00      3.95
1.86      YES
  L0007717         0   0.51090E-06   475598.0 3752228.3    477.1      4.00      3.95
1.86      YES
  L0007718         0   0.51090E-06   475589.5 3752228.3    477.0      4.00      3.95
1.86      YES
  L0007719         0   0.51090E-06   475581.0 3752228.3    477.0      4.00      3.95
1.86      YES
  L0007720         0   0.51090E-06   475572.5 3752228.4    477.0      4.00      3.95
1.86      YES
  L0007721         0   0.51090E-06   475564.0 3752228.4    477.0      4.00      3.95
1.86      YES
  L0007722         0   0.51090E-06   475555.5 3752228.4    477.0      4.00      3.95
1.86      YES
  L0007723         0   0.51090E-06   475547.0 3752228.4    477.0      4.00      3.95
```

```
1.86      YES
 L0007724          0   0.51090E-06  475538.5 3752228.4   477.0     4.00     3.95
1.86      YES
 L0007725          0   0.51090E-06  475530.0 3752228.4   477.0     4.00     3.95
1.86      YES
 L0007726          0   0.51090E-06  475521.5 3752228.4   477.0     4.00     3.95
1.86      YES
 L0007727          0   0.51090E-06  475513.0 3752228.4   477.0     4.00     3.95
1.86      YES
 L0007728          0   0.51090E-06  475504.5 3752228.4   477.0     4.00     3.95
1.86      YES
 L0007729          0   0.51090E-06  475496.0 3752228.4   477.0     4.00     3.95
1.86      YES
 L0007730          0   0.51090E-06  475487.5 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007731          0   0.51090E-06  475479.0 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007732          0   0.51090E-06  475470.5 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007733          0   0.51090E-06  475462.0 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007734          0   0.51090E-06  475453.5 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007735          0   0.51090E-06  475445.0 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007736          0   0.51090E-06  475436.5 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007737          0   0.51090E-06  475428.0 3752228.5   477.0     4.00     3.95
1.86      YES
 L0007738          0   0.51090E-06  475419.5 3752228.5   476.9     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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AERMOD HRA Output

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 L0007739         0   0.51090E-06  475411.0 3752228.5   476.9     4.00     3.95
1.86     YES
 L0007740         0   0.51090E-06  475402.5 3752228.6   476.8     4.00     3.95
1.86     YES
 L0007741         0   0.51090E-06  475394.0 3752228.6   476.7     4.00     3.95
1.86     YES
 L0007742         0   0.51090E-06  475385.5 3752228.6   476.6     4.00     3.95
1.86     YES
 L0007743         0   0.51090E-06  475377.0 3752228.6   476.5     4.00     3.95
1.86     YES
 L0007744         0   0.51090E-06  475368.5 3752228.6   476.4     4.00     3.95
1.86     YES
 L0007745         0   0.51090E-06  475360.0 3752228.6   476.3     4.00     3.95
1.86     YES
 L0007746         0   0.51090E-06  475351.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0007747         0   0.51090E-06  475343.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0007748         0   0.51090E-06  475334.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0007749         0   0.51090E-06  475326.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0007750         0   0.51090E-06  475317.5 3752228.7   476.1     4.00     3.95
1.86     YES
 L0007751         0   0.51090E-06  475309.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0007752         0   0.51090E-06  475300.5 3752228.7   476.1     4.00     3.95
1.86     YES
 L0007753         0   0.51090E-06  475292.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0007754         0   0.51090E-06  475283.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0007755         0   0.51090E-06  475275.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0007756         0   0.51090E-06  475266.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0007757         0   0.51090E-06  475258.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0007758         0   0.51090E-06  475249.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0007759         0   0.51090E-06  475241.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0007760         0   0.51090E-06  475232.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0007761         0   0.51090E-06  475224.0 3752228.8   476.0     4.00     3.95
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1.86      YES
 L0007762         0   0.51090E-06  475215.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007763         0   0.51090E-06  475207.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007764         0   0.51090E-06  475198.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007765         0   0.51090E-06  475190.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007766         0   0.51090E-06  475181.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007767         0   0.51090E-06  475173.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007768         0   0.51090E-06  475164.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007769         0   0.51090E-06  475156.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0007770         0   0.51090E-06  475147.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007771         0   0.51090E-06  475139.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007772         0   0.51090E-06  475130.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007773         0   0.51090E-06  475122.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007774         0   0.51090E-06  475113.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007775         0   0.51090E-06  475105.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007776         0   0.51090E-06  475096.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007777         0   0.51090E-06  475088.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0007778         0   0.51090E-06  475079.5 3752228.9   476.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0007779         0   0.51090E-06  475071.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0007780         0   0.51090E-06  475062.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0007781         0   0.51090E-06  475054.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0007782         0   0.51090E-06  475045.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0007783         0   0.51090E-06  475037.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0007784         0   0.51090E-06  475028.5 3752229.0   475.9     4.00     3.95
1.86     YES
 L0007785         0   0.51090E-06  475020.0 3752229.0   475.7     4.00     3.95
1.86     YES
 L0007786         0   0.51090E-06  475011.5 3752229.0   475.6     4.00     3.95
1.86     YES
 L0007787         0   0.51090E-06  475003.0 3752229.0   475.5     4.00     3.95
1.86     YES
 L0007788         0   0.51090E-06  474994.5 3752229.0   475.4     4.00     3.95
1.86     YES
 L0007789         0   0.51090E-06  474986.0 3752229.0   475.3     4.00     3.95
1.86     YES
 L0007790         0   0.51090E-06  474977.5 3752229.1   475.2     4.00     3.95
1.86     YES
 L0007791         0   0.51090E-06  474969.0 3752229.1   475.1     4.00     3.95
1.86     YES
 L0007792         0   0.51090E-06  474960.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0007793         0   0.51090E-06  474952.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0007794         0   0.51090E-06  474943.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0007795         0   0.51090E-06  474935.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0007796         0   0.51090E-06  474926.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0007797         0   0.51090E-06  474918.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0007798         0   0.51090E-06  474909.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0007799         0   0.51090E-06  474901.0 3752229.1   475.0     4.00     3.95
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1.86      YES
 L0007800          0   0.51090E-06  474892.5 3752229.2   475.0      4.00     3.95
1.86      YES
 L0007801          0   0.51090E-06  474884.0 3752229.2   475.0      4.00     3.95
1.86      YES
 L0007802          0   0.51090E-06  474875.5 3752229.2   474.9      4.00     3.95
1.86      YES
 L0007803          0   0.51090E-06  474867.0 3752229.2   474.8      4.00     3.95
1.86      YES
 L0007804          0   0.51090E-06  474858.5 3752229.2   474.7      4.00     3.95
1.86      YES
 L0007805          0   0.51090E-06  474850.0 3752229.2   474.5      4.00     3.95
1.86      YES
 L0007806          0   0.51090E-06  474841.5 3752229.2   474.4      4.00     3.95
1.86      YES
 L0007807          0   0.51090E-06  474833.0 3752229.2   474.3      4.00     3.95
1.86      YES
 L0007808          0   0.51090E-06  474824.5 3752229.2   474.2      4.00     3.95
1.86      YES
 L0007809          0   0.51090E-06  474816.0 3752229.2   474.1      4.00     3.95
1.86      YES
 L0007810          0   0.51090E-06  474807.5 3752229.3   474.0      4.00     3.95
1.86      YES
 L0007811          0   0.51090E-06  474799.1 3752228.0   474.1      4.00     3.95
1.86      YES
 L0007812          0   0.51090E-06  474790.7 3752226.7   474.2      4.00     3.95
1.86      YES
 L0007813          0   0.51090E-06  474782.3 3752225.5   474.3      4.00     3.95
1.86      YES
 L0007814          0   0.51090E-06  474773.9 3752224.2   474.4      4.00     3.95
1.86      YES
 L0007815          0   0.51090E-06  474765.5 3752222.9   474.6      4.00     3.95
1.86      YES
 L0007816          0   0.51090E-06  474757.1 3752221.7   474.7      4.00     3.95
1.86      YES
 L0007817          0   0.51090E-06  474748.7 3752220.4   474.8      4.00     3.95
1.86      YES
 L0007818          0   0.51090E-06  474740.3 3752219.1   474.9      4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                              AERMOD HRA Output
                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007819         0   0.51090E-06  474731.9 3752217.8   475.0     4.00     3.95
1.86      YES
 L0007820         0   0.51090E-06  474723.5 3752216.6   475.0     4.00     3.95
1.86      YES
 L0007821         0   0.51090E-06  474715.1 3752215.3   475.0     4.00     3.95
1.86      YES
 L0007822         0   0.51090E-06  474706.7 3752214.0   475.0     4.00     3.95
1.86      YES
 L0007823         0   0.51090E-06  474698.3 3752212.8   475.0     4.00     3.95
1.86      YES
 L0007824         0   0.51090E-06  474689.9 3752211.5   475.0     4.00     3.95
1.86      YES
 L0007825         0   0.51090E-06  474681.5 3752210.2   475.0     4.00     3.95
1.86      YES
 L0007826         0   0.51090E-06  474673.1 3752209.0   475.0     4.00     3.95
1.86      YES
 L0007827         0   0.51090E-06  474664.7 3752207.7   475.0     4.00     3.95
1.86      YES
 L0007828         0   0.51090E-06  474656.3 3752206.4   475.0     4.00     3.95
1.86      YES
 L0007829         0   0.51090E-06  474647.9 3752205.1   475.0     4.00     3.95
1.86      YES
 L0007830         0   0.51090E-06  474639.5 3752203.9   475.0     4.00     3.95
1.86      YES
 L0007831         0   0.51090E-06  474631.1 3752202.6   475.0     4.00     3.95
1.86      YES
 L0007832         0   0.51090E-06  474622.6 3752201.3   475.0     4.00     3.95
1.86      YES
 L0007833         0   0.51090E-06  474614.2 3752200.1   475.0     4.00     3.95
1.86      YES
 L0007834         0   0.51090E-06  474605.8 3752198.8   475.0     4.00     3.95
1.86      YES
 L0007835         0   0.51090E-06  474597.4 3752197.5   475.0     4.00     3.95
1.86      YES
 L0007836         0   0.51090E-06  474589.0 3752196.2   475.0     4.00     3.95
1.86      YES
 L0007837         0   0.51090E-06  474580.6 3752195.0   475.0     4.00     3.95
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1.86      YES
 L0007838          0   0.51090E-06   474572.2 3752193.7    475.1      4.00      3.95
1.86      YES
 L0007839          0   0.51090E-06   474563.8 3752192.4    475.2      4.00      3.95
1.86      YES
 L0007840          0   0.51090E-06   474555.4 3752191.2    475.3      4.00      3.95
1.86      YES
 L0007841          0   0.51090E-06   474547.0 3752189.9    475.4      4.00      3.95
1.86      YES
 L0007842          0   0.51090E-06   474538.6 3752188.6    475.5      4.00      3.95
1.86      YES
 L0007843          0   0.51090E-06   474530.2 3752187.3    475.6      4.00      3.95
1.86      YES
 L0007844          0   0.51090E-06   474521.8 3752186.1    475.7      4.00      3.95
1.86      YES
 L0007845          0   0.51090E-06   474513.4 3752184.8    475.8      4.00      3.95
1.86      YES
 L0007846          0   0.51090E-06   474505.0 3752183.5    475.9      4.00      3.95
1.86      YES
 L0007847          0   0.51090E-06   474496.6 3752182.3    476.0      4.00      3.95
1.86      YES
 L0007848          0   0.51090E-06   474488.2 3752181.0    476.0      4.00      3.95
1.86      YES
 L0007849          0   0.51090E-06   474479.8 3752179.7    476.0      4.00      3.95
1.86      YES
 L0007850          0   0.51090E-06   474471.4 3752178.4    476.0      4.00      3.95
1.86      YES
 L0007851          0   0.51090E-06   474463.0 3752177.2    476.0      4.00      3.95
1.86      YES
 L0007852          0   0.51090E-06   474454.6 3752175.9    476.0      4.00      3.95
1.86      YES
 L0007853          0   0.51090E-06   474446.2 3752174.6    476.0      4.00      3.95
1.86      YES
 L0007854          0   0.51090E-06   474437.8 3752173.4    476.0      4.00      3.95
1.86      YES
 L0007855          0   0.51090E-06   474429.3 3752172.1    476.0      4.00      3.95
1.86      YES
 L0007856          0   0.51090E-06   474420.9 3752170.8    476.0      4.00      3.95
1.86      YES
 L0007857          0   0.51090E-06   474412.5 3752169.6    476.1      4.00      3.95
1.86      YES
 L0007858          0   0.51090E-06   474404.1 3752168.3    476.2      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56
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                             AERMOD HRA Output
                               PAGE  51
 **MODELOPTs:    RegDFAULT CONC       ELEV       URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0007859          0   0.51090E-06  474395.7 3752167.0   476.4     4.00     3.95
1.86     YES
 L0007860          0   0.51090E-06  474387.3 3752165.7   476.5     4.00     3.95
1.86     YES
 L0007861          0   0.51090E-06  474378.9 3752164.5   476.6     4.00     3.95
1.86     YES
 L0007862          0   0.51090E-06  474370.5 3752163.2   476.7     4.00     3.95
1.86     YES
 L0007863          0   0.51090E-06  474362.1 3752161.9   476.8     4.00     3.95
1.86     YES
 L0007864          0   0.51090E-06  474353.7 3752160.7   476.9     4.00     3.95
1.86     YES
 L0007865          0   0.51090E-06  474345.3 3752159.4   477.0     4.00     3.95
1.86     YES
 L0007866          0   0.51090E-06  474336.9 3752158.1   477.0     4.00     3.95
1.86     YES
 L0007867          0   0.51090E-06  474328.5 3752156.8   477.0     4.00     3.95
1.86     YES
 L0007868          0   0.51090E-06  474320.1 3752155.6   477.0     4.00     3.95
1.86     YES
 L0007869          0   0.51090E-06  474311.7 3752154.3   477.0     4.00     3.95
1.86     YES
 L0007870          0   0.51090E-06  474303.3 3752153.0   477.0     4.00     3.95
1.86     YES
 L0007871          0   0.51090E-06  474294.9 3752151.8   477.0     4.00     3.95
1.86     YES
 L0007872          0   0.51090E-06  474286.5 3752150.5   477.0     4.00     3.95
1.86     YES
 L0007873          0   0.51090E-06  474278.1 3752149.2   477.0     4.00     3.95
1.86     YES
 L0007874          0   0.51090E-06  474269.7 3752147.9   477.0     4.00     3.95
1.86     YES
 L0007875          0   0.51090E-06  474261.3 3752146.7   477.0     4.00     3.95
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1.86      YES
 L0007876          0   0.51090E-06   474252.9 3752145.4   477.0     4.00     3.95
1.86      YES
 L0007877          0   0.51090E-06   474244.5 3752144.1   477.0     4.00     3.95
1.86      YES
 L0007878          0   0.51090E-06   474236.0 3752142.9   477.0     4.00     3.95
1.86      YES
 L0007879          0   0.51090E-06   474227.6 3752141.6   477.0     4.00     3.95
1.86      YES
 L0007880          0   0.51090E-06   474219.2 3752140.3   477.0     4.00     3.95
1.86      YES
 L0007881          0   0.51090E-06   474210.8 3752139.0   477.0     4.00     3.95
1.86      YES
 L0007882          0   0.51090E-06   474202.4 3752137.8   477.0     4.00     3.95
1.86      YES
 L0007883          0   0.51090E-06   474194.0 3752136.5   477.0     4.00     3.95
1.86      YES
 L0007884          0   0.51090E-06   474185.6 3752135.2   477.1     4.00     3.95
1.86      YES
 L0007885          0   0.51090E-06   474177.2 3752134.0   477.2     4.00     3.95
1.86      YES
 L0007886          0   0.51090E-06   474168.8 3752132.7   477.3     4.00     3.95
1.86      YES
 L0007887          0   0.51090E-06   474160.4 3752131.3   477.4     4.00     3.95
1.86      YES
 L0007888          0   0.51090E-06   474152.0 3752129.9   477.5     4.00     3.95
1.86      YES
 L0007889          0   0.51090E-06   474143.7 3752128.5   477.6     4.00     3.95
1.86      YES
 L0007890          0   0.51090E-06   474135.3 3752127.1   477.7     4.00     3.95
1.86      YES
 L0007891          0   0.51090E-06   474126.9 3752125.7   477.9     4.00     3.95
1.86      YES
 L0007892          0   0.51090E-06   474118.5 3752124.3   478.0     4.00     3.95
1.86      YES
 L0007893          0   0.51090E-06   474110.1 3752122.9   478.0     4.00     3.95
1.86      YES
 L0007894          0   0.51090E-06   474101.7 3752121.5   478.0     4.00     3.95
1.86      YES
 L0007895          0   0.51090E-06   474093.3 3752120.1   478.0     4.00     3.95
1.86      YES
 L0007896          0   0.51090E-06   474085.0 3752118.8   478.0     4.00     3.95
1.86      YES
 L0007897          0   0.51090E-06   474076.6 3752117.4   478.0     4.00     3.95
1.86      YES
 L0007898          0   0.51090E-06   474068.2 3752116.0   478.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                  AERMOD HRA Output
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                       ***         14:59:56

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007899         0   0.51090E-06  474059.8 3752114.6   478.0     4.00     3.95
1.86     YES
 L0007900         0   0.51090E-06  474051.4 3752113.2   478.0     4.00     3.95
1.86     YES
 L0007901         0   0.51090E-06  474043.0 3752111.8   478.0     4.00     3.95
1.86     YES
 L0007902         0   0.85100E-07  477480.6 3749800.2   458.0     0.00     3.95
1.86     YES
 L0007903         0   0.85100E-07  477480.4 3749808.7   458.0     0.00     3.95
1.86     YES
 L0007904         0   0.85100E-07  477480.3 3749817.2   458.0     0.00     3.95
1.86     YES
 L0007905         0   0.85100E-07  477480.1 3749825.7   458.0     0.00     3.95
1.86     YES
 L0007906         0   0.85100E-07  477480.0 3749834.2   458.0     0.00     3.95
1.86     YES
 L0007907         0   0.85100E-07  477479.9 3749842.7   458.0     0.00     3.95
1.86     YES
 L0007908         0   0.85100E-07  477479.7 3749851.2   458.0     0.00     3.95
1.86     YES
 L0007909         0   0.85100E-07  477479.6 3749859.7   458.0     0.00     3.95
1.86     YES
 L0007910         0   0.85100E-07  477479.5 3749868.2   458.0     0.00     3.95
1.86     YES
 L0007911         0   0.85100E-07  477479.3 3749876.7   458.0     0.00     3.95
1.86     YES
 L0007912         0   0.85100E-07  477479.2 3749885.2   458.0     0.00     3.95
1.86     YES
 L0007913         0   0.85100E-07  477479.1 3749893.7   458.0     0.00     3.95
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1.86      YES
 L0007914            0   0.85100E-07  477478.9 3749902.2    458.0      0.00      3.95
1.86      YES
 L0007915            0   0.85100E-07  477478.8 3749910.7    458.0      0.00      3.95
1.86      YES
 L0007916            0   0.85100E-07  477478.7 3749919.2    458.0      0.00      3.95
1.86      YES
 L0007917            0   0.85100E-07  477478.5 3749927.7    458.0      0.00      3.95
1.86      YES
 L0007918            0   0.85100E-07  477478.4 3749936.2    458.0      0.00      3.95
1.86      YES
 L0007919            0   0.85100E-07  477478.2 3749944.7    458.0      0.00      3.95
1.86      YES
 L0007920            0   0.85100E-07  477478.1 3749953.2    458.0      0.00      3.95
1.86      YES
 L0007921            0   0.85100E-07  477478.0 3749961.7    458.2      0.00      3.95
1.86      YES
 L0007922            0   0.85100E-07  477477.8 3749970.2    458.4      0.00      3.95
1.86      YES
 L0007923            0   0.85100E-07  477477.7 3749978.7    458.7      0.00      3.95
1.86      YES
 L0007924            0   0.85100E-07  477477.6 3749987.2    459.0      0.00      3.95
1.86      YES
 L0007925            0   0.85100E-07  477477.4 3749995.7    459.0      0.00      3.95
1.86      YES
 L0007926            0   0.85100E-07  477477.3 3750004.2    459.0      0.00      3.95
1.86      YES
 L0007927            0   0.85100E-07  477477.2 3750012.7    459.0      0.00      3.95
1.86      YES
 L0007928            0   0.85100E-07  477477.0 3750021.2    459.0      0.00      3.95
1.86      YES
 L0007929            0   0.85100E-07  477476.9 3750029.7    459.0      0.00      3.95
1.86      YES
 L0007930            0   0.85100E-07  477476.8 3750038.2    459.0      0.00      3.95
1.86      YES
 L0007931            0   0.85100E-07  477476.6 3750046.7    459.0      0.00      3.95
1.86      YES
 L0007932            0   0.85100E-07  477476.5 3750055.2    459.0      0.00      3.95
1.86      YES
 L0007933            0   0.85100E-07  477476.3 3750063.7    459.0      0.00      3.95
1.86      YES
 L0007934            0   0.85100E-07  477476.2 3750072.2    459.0      0.00      3.95
1.86      YES
 L0007935            0   0.85100E-07  477476.1 3750080.7    459.0      0.00      3.95
1.86      YES
 L0007936            0   0.85100E-07  477475.9 3750089.2    459.0      0.00      3.95
1.86      YES
 L0007937            0   0.85100E-07  477475.8 3750097.7    459.0      0.00      3.95
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1.86     YES
 L0007938         0   0.85100E-07  477475.7 3750106.2   459.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -


 L0007939         0   0.85100E-07  477475.5 3750114.7   459.0     0.00     3.95
1.86     YES
 L0007940         0   0.85100E-07  477475.4 3750123.2   459.0     0.00     3.95
1.86     YES
 L0007941         0   0.85100E-07  477475.3 3750131.7   459.0     0.00     3.95
1.86     YES
 L0007942         0   0.85100E-07  477475.1 3750140.2   459.0     0.00     3.95
1.86     YES
 L0007943         0   0.85100E-07  477475.0 3750148.7   459.0     0.00     3.95
1.86     YES
 L0007944         0   0.85100E-07  477474.8 3750157.2   459.0     0.00     3.95
1.86     YES
 L0007945         0   0.85100E-07  477474.7 3750165.7   459.0     0.00     3.95
1.86     YES
 L0007946         0   0.85100E-07  477474.2 3750174.2   459.0     0.00     3.95
1.86     YES
 L0007947         0   0.85100E-07  477473.5 3750182.6   459.0     0.00     3.95
1.86     YES
 L0007948         0   0.85100E-07  477472.8 3750191.1   459.0     0.00     3.95
1.86     YES
 L0007949         0   0.85100E-07  477472.1 3750199.6   459.0     0.00     3.95
1.86     YES
 L0007950         0   0.85100E-07  477471.4 3750208.0   459.2     0.00     3.95
1.86     YES
 L0007951         0   0.85100E-07  477470.7 3750216.5   459.2     0.00     3.95
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1.86      YES
  L0007952          0   0.85100E-07  477470.0 3750225.0   459.3      0.00      3.95
1.86      YES
  L0007953          0   0.85100E-07  477469.3 3750233.5   459.5      0.00      3.95
1.86      YES
  L0007954          0   0.85100E-07  477468.7 3750241.9   459.7      0.00      3.95
1.86      YES
  L0007955          0   0.85100E-07  477468.0 3750250.4   459.9      0.00      3.95
1.86      YES
  L0007956          0   0.85100E-07  477467.3 3750258.9   460.0      0.00      3.95
1.86      YES
  L0007957          0   0.85100E-07  477466.6 3750267.3   460.0      0.00      3.95
1.86      YES
  L0007958          0   0.85100E-07  477466.5 3750275.8   460.0      0.00      3.95
1.86      YES
  L0007959          0   0.85100E-07  477466.5 3750284.3   460.0      0.00      3.95
1.86      YES
  L0007960          0   0.85100E-07  477466.5 3750292.8   460.0      0.00      3.95
1.86      YES
  L0007961          0   0.85100E-07  477466.6 3750301.3   460.0      0.00      3.95
1.86      YES
  L0007962          0   0.85100E-07  477466.6 3750309.8   460.0      0.00      3.95
1.86      YES
  L0007963          0   0.85100E-07  477466.6 3750318.3   460.0      0.00      3.95
1.86      YES
  L0007964          0   0.85100E-07  477466.7 3750326.8   460.0      0.00      3.95
1.86      YES
  L0007965          0   0.85100E-07  477466.7 3750335.3   460.0      0.00      3.95
1.86      YES
  L0007966          0   0.85100E-07  477466.7 3750343.8   460.0      0.00      3.95
1.86      YES
  L0007967          0   0.85100E-07  477466.8 3750352.3   460.0      0.00      3.95
1.86      YES
  L0007968          0   0.85100E-07  477466.8 3750360.8   460.0      0.00      3.95
1.86      YES
  L0007969          0   0.85100E-07  477466.9 3750369.3   460.0      0.00      3.95
1.86      YES
  L0007970          0   0.85100E-07  477466.9 3750377.8   460.0      0.00      3.95
1.86      YES
  L0007971          0   0.85100E-07  477466.9 3750386.3   460.0      0.00      3.95
1.86      YES
  L0007972          0   0.85100E-07  477467.0 3750394.8   460.0      0.00      3.95
1.86      YES
  L0007973          0   0.85100E-07  477467.0 3750403.3   460.0      0.00      3.95
1.86      YES
  L0007974          0   0.85100E-07  477467.0 3750411.8   460.0      0.00      3.95
1.86      YES
  L0007975          0   0.85100E-07  477467.1 3750420.3   460.0      0.00      3.95
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1.86      YES
 L0007976         0   0.85100E-07  477467.1 3750428.8   460.0     0.00     3.95
1.86      YES
 L0007977         0   0.85100E-07  477467.1 3750437.3   460.0     0.00     3.95
1.86      YES
 L0007978         0   0.85100E-07  477467.2 3750445.8   460.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007979         0   0.85100E-07  477467.2 3750454.3   460.0     0.00     3.95
1.86      YES
 L0007980         0   0.85100E-07  477467.3 3750462.8   460.0     0.00     3.95
1.86      YES
 L0007981         0   0.85100E-07  477467.3 3750471.3   460.2     0.00     3.95
1.86      YES
 L0007982         0   0.85100E-07  477467.3 3750479.8   460.4     0.00     3.95
1.86      YES
 L0007983         0   0.85100E-07  477467.4 3750488.3   460.7     0.00     3.95
1.86      YES
 L0007984         0   0.85100E-07  477467.4 3750496.8   461.0     0.00     3.95
1.86      YES
 L0007985         0   0.85100E-07  477467.4 3750505.3   461.0     0.00     3.95
1.86      YES
 L0007986         0   0.85100E-07  477467.5 3750513.8   461.0     0.00     3.95
1.86      YES
 L0007987         0   0.85100E-07  477467.5 3750522.3   461.0     0.00     3.95
1.86      YES
 L0007988         0   0.85100E-07  477467.5 3750530.8   461.0     0.00     3.95
1.86      YES
 L0007989         0   0.85100E-07  477467.6 3750539.3   461.0     0.00     3.95
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AERMOD HRA Output

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1.86      YES
 L0007990           0   0.85100E-07   477467.7 3750547.8    461.0      0.00      3.95
1.86      YES
 L0007991           0   0.85100E-07   477467.9 3750556.3    461.0      0.00      3.95
1.86      YES
 L0007992           0   0.85100E-07   477468.2 3750564.8    461.0      0.00      3.95
1.86      YES
 L0007993           0   0.85100E-07   477468.4 3750573.3    461.0      0.00      3.95
1.86      YES
 L0007994           0   0.85100E-07   477468.7 3750581.8    461.0      0.00      3.95
1.86      YES
 L0007995           0   0.85100E-07   477468.9 3750590.3    461.0      0.00      3.95
1.86      YES
 L0007996           0   0.85100E-07   477469.2 3750598.8    461.0      0.00      3.95
1.86      YES
 L0007997           0   0.85100E-07   477469.4 3750607.3    461.0      0.00      3.95
1.86      YES
 L0007998           0   0.85100E-07   477469.7 3750615.8    461.0      0.00      3.95
1.86      YES
 L0007999           0   0.85100E-07   477469.9 3750624.3    461.0      0.00      3.95
1.86      YES
 L0008000           0   0.85100E-07   477470.2 3750632.8    461.0      0.00      3.95
1.86      YES
 L0008001           0   0.85100E-07   477470.4 3750641.3    461.0      0.00      3.95
1.86      YES
 L0008002           0   0.85100E-07   477470.7 3750649.8    461.0      0.00      3.95
1.86      YES
 L0008003           0   0.85100E-07   477470.9 3750658.3    461.2      0.00      3.95
1.86      YES
 L0008004           0   0.85100E-07   477471.2 3750666.8    461.3      0.00      3.95
1.86      YES
 L0008005           0   0.85100E-07   477471.4 3750675.3    461.4      0.00      3.95
1.86      YES
 L0008006           0   0.85100E-07   477471.7 3750683.8    461.5      0.00      3.95
1.86      YES
 L0008007           0   0.85100E-07   477471.9 3750692.3    461.7      0.00      3.95
1.86      YES
 L0008008           0   0.85100E-07   477472.2 3750700.8    461.9      0.00      3.95
1.86      YES
 L0008009           0   0.85100E-07   477472.4 3750709.3    462.0      0.00      3.95
1.86      YES
 L0008010           0   0.85100E-07   477472.7 3750717.8    462.0      0.00      3.95
1.86      YES
 L0008011           0   0.85100E-07   477472.9 3750726.3    462.0      0.00      3.95
1.86      YES
 L0008012           0   0.85100E-07   477473.2 3750734.8    462.0      0.00      3.95
1.86      YES
 L0008013           0   0.85100E-07   477473.4 3750743.3    462.0      0.00      3.95
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1.86      YES
 L0008014         0   0.85100E-07  477473.7 3750751.7   462.0     0.00     3.95
1.86      YES
 L0008015         0   0.85100E-07  477473.9 3750760.2   462.0     0.00     3.95
1.86      YES
 L0008016         0   0.85100E-07  477474.2 3750768.7   462.0     0.00     3.95
1.86      YES
 L0008017         0   0.85100E-07  477474.4 3750777.2   462.0     0.00     3.95
1.86      YES
 L0008018         0   0.85100E-07  477474.7 3750785.7   462.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0008019         0   0.85100E-07  477474.9 3750794.2   462.0     0.00     3.95
1.86      YES
 L0008020         0   0.85100E-07  477475.2 3750802.7   462.0     0.00     3.95
1.86      YES
 L0008021         0   0.85100E-07  477475.4 3750811.2   462.0     0.00     3.95
1.86      YES
 L0008022         0   0.85100E-07  477475.7 3750819.7   462.0     0.00     3.95
1.86      YES
 L0008023         0   0.85100E-07  477475.9 3750828.2   462.0     0.00     3.95
1.86      YES
 L0008024         0   0.85100E-07  477476.2 3750836.7   462.0     0.00     3.95
1.86      YES
 L0008025         0   0.85100E-07  477476.4 3750845.2   462.0     0.00     3.95
1.86      YES
 L0008026         0   0.85100E-07  477476.7 3750853.7   462.0     0.00     3.95
1.86      YES
 L0008027         0   0.85100E-07  477476.9 3750862.2   462.1     0.00     3.95
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1.86      YES
 L0008028           0   0.85100E-07  477477.1 3750870.7    462.3      0.00      3.95
1.86      YES
 L0008029           0   0.85100E-07  477477.1 3750879.2    462.4      0.00      3.95
1.86      YES
 L0008030           0   0.85100E-07  477477.2 3750887.7    462.6      0.00      3.95
1.86      YES
 L0008031           0   0.85100E-07  477477.2 3750896.2    462.7      0.00      3.95
1.86      YES
 L0008032           0   0.85100E-07  477477.3 3750904.7    462.8      0.00      3.95
1.86      YES
 L0008033           0   0.85100E-07  477477.3 3750913.2    462.9      0.00      3.95
1.86      YES
 L0008034           0   0.85100E-07  477477.4 3750921.7    463.0      0.00      3.95
1.86      YES
 L0008035           0   0.85100E-07  477477.4 3750930.2    463.0      0.00      3.95
1.86      YES
 L0008036           0   0.85100E-07  477477.5 3750938.7    463.0      0.00      3.95
1.86      YES
 L0008037           0   0.85100E-07  477477.6 3750947.2    463.0      0.00      3.95
1.86      YES
 L0008038           0   0.85100E-07  477477.6 3750955.7    463.0      0.00      3.95
1.86      YES
 L0008039           0   0.85100E-07  477477.7 3750964.2    463.0      0.00      3.95
1.86      YES
 L0008040           0   0.85100E-07  477477.7 3750972.7    463.0      0.00      3.95
1.86      YES
 L0008041           0   0.85100E-07  477477.8 3750981.2    463.0      0.00      3.95
1.86      YES
 L0008042           0   0.85100E-07  477477.8 3750989.7    463.0      0.00      3.95
1.86      YES
 L0008043           0   0.85100E-07  477477.9 3750998.2    463.0      0.00      3.95
1.86      YES
 L0008044           0   0.85100E-07  477477.9 3751006.7    463.0      0.00      3.95
1.86      YES
 L0008045           0   0.85100E-07  477478.0 3751015.2    463.0      0.00      3.95
1.86      YES
 L0008046           0   0.85100E-07  477478.0 3751023.7    463.0      0.00      3.95
1.86      YES
 L0008047           0   0.85100E-07  477478.1 3751032.2    463.0      0.00      3.95
1.86      YES
 L0008048           0   0.85100E-07  477478.1 3751040.7    463.0      0.00      3.95
1.86      YES
 L0008049           0   0.85100E-07  477478.2 3751049.2    463.0      0.00      3.95
1.86      YES
 L0008050           0   0.85100E-07  477478.3 3751057.7    463.0      0.00      3.95
1.86      YES
 L0008051           0   0.85100E-07  477478.3 3751066.2    463.0      0.00      3.95
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1.86      YES
 L0008052         0   0.85100E-07  477478.4 3751074.7   463.2     0.00     3.95
1.86      YES
 L0008053         0   0.85100E-07  477478.4 3751083.2   463.3     0.00     3.95
1.86      YES
 L0008054         0   0.85100E-07  477478.5 3751091.7   463.5     0.00     3.95
1.86      YES
 L0008055         0   0.85100E-07  477478.5 3751100.2   463.7     0.00     3.95
1.86      YES
 L0008056         0   0.85100E-07  477478.6 3751108.7   463.8     0.00     3.95
1.86      YES
 L0008057         0   0.85100E-07  477478.6 3751117.2   463.9     0.00     3.95
1.86      YES
 L0008058         0   0.85100E-07  477478.7 3751125.7   464.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0008059         0   0.85100E-07  477478.7 3751134.2   464.0     0.00     3.95
1.86      YES
 L0008060         0   0.85100E-07  477478.8 3751142.7   464.0     0.00     3.95
1.86      YES
 L0008061         0   0.85100E-07  477478.9 3751151.2   464.0     0.00     3.95
1.86      YES
 L0008062         0   0.85100E-07  477478.9 3751159.7   464.0     0.00     3.95
1.86      YES
 L0008063         0   0.85100E-07  477479.0 3751168.2   464.0     0.00     3.95
1.86      YES
 L0008064         0   0.85100E-07  477479.0 3751176.7   464.0     0.00     3.95
1.86      YES
 L0008065         0   0.85100E-07  477479.1 3751185.2   464.0     0.00     3.95
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1.86      YES
 L0008066          0   0.85100E-07  477479.1 3751193.7   464.0      0.00      3.95
1.86      YES
 L0008067          0   0.85100E-07  477479.2 3751202.2   464.0      0.00      3.95
1.86      YES
 L0008068          0   0.85100E-07  477479.2 3751210.7   464.0      0.00      3.95
1.86      YES
 L0008069          0   0.85100E-07  477479.3 3751219.2   464.0      0.00      3.95
1.86      YES
 L0008070          0   0.85100E-07  477479.3 3751227.7   464.0      0.00      3.95
1.86      YES
 L0008071          0   0.85100E-07  477479.4 3751236.2   464.0      0.00      3.95
1.86      YES
 L0008072          0   0.85100E-07  477479.3 3751244.7   464.0      0.00      3.95
1.86      YES
 L0008073          0   0.85100E-07  477479.3 3751253.2   464.2      0.00      3.95
1.86      YES
 L0008074          0   0.85100E-07  477479.2 3751261.7   464.5      0.00      3.95
1.86      YES
 L0008075          0   0.85100E-07  477479.2 3751270.2   464.8      0.00      3.95
1.86      YES
 L0008076          0   0.85100E-07  477479.1 3751278.7   465.0      0.00      3.95
1.86      YES
 L0008077          0   0.85100E-07  477479.0 3751287.2   465.0      0.00      3.95
1.86      YES
 L0008078          0   0.85100E-07  477479.0 3751295.7   465.0      0.00      3.95
1.86      YES
 L0008079          0   0.85100E-07  477478.9 3751304.2   465.0      0.00      3.95
1.86      YES
 L0008080          0   0.85100E-07  477478.9 3751312.7   465.0      0.00      3.95
1.86      YES
 L0008081          0   0.85100E-07  477478.8 3751321.2   465.0      0.00      3.95
1.86      YES
 L0008082          0   0.85100E-07  477478.7 3751329.7   465.0      0.00      3.95
1.86      YES
 L0008083          0   0.85100E-07  477478.7 3751338.2   465.0      0.00      3.95
1.86      YES
 L0008084          0   0.85100E-07  477478.6 3751346.7   465.0      0.00      3.95
1.86      YES
 L0008085          0   0.85100E-07  477478.6 3751355.2   465.0      0.00      3.95
1.86      YES
 L0008086          0   0.85100E-07  477478.5 3751363.7   465.0      0.00      3.95
1.86      YES
 L0008087          0   0.85100E-07  477478.5 3751372.2   465.0      0.00      3.95
1.86      YES
 L0008088          0   0.85100E-07  477478.4 3751380.7   465.0      0.00      3.95
1.86      YES
 L0008089          0   0.85100E-07  477478.3 3751389.2   465.0      0.00      3.95
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1.86      YES
 L0008090         0   0.85100E-07  477478.3 3751397.7   465.0     0.00     3.95
1.86      YES
 L0008091         0   0.85100E-07  477478.2 3751406.2   465.0     0.00     3.95
1.86      YES
 L0008092         0   0.85100E-07  477478.2 3751414.7   465.0     0.00     3.95
1.86      YES
 L0008093         0   0.85100E-07  477478.1 3751423.2   465.0     0.00     3.95
1.86      YES
 L0008094         0   0.85100E-07  477478.0 3751431.7   465.2     0.00     3.95
1.86      YES
 L0008095         0   0.85100E-07  477478.0 3751440.2   465.4     0.00     3.95
1.86      YES
 L0008096         0   0.85100E-07  477477.9 3751448.7   465.7     0.00     3.95
1.86      YES
 L0008097         0   0.85100E-07  477477.9 3751457.2   466.0     0.00     3.95
1.86      YES
 L0008098         0   0.85100E-07  477477.8 3751465.7   466.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0008099         0   0.85100E-07  477477.8 3751474.2   466.0     0.00     3.95
1.86      YES
 L0008100         0   0.85100E-07  477477.7 3751482.7   466.0     0.00     3.95
1.86      YES
 L0008101         0   0.85100E-07  477477.6 3751491.2   466.0     0.00     3.95
1.86      YES
 L0008102         0   0.85100E-07  477477.6 3751499.7   466.0     0.00     3.95
1.86      YES
 L0008103         0   0.85100E-07  477477.5 3751508.2   466.0     0.00     3.95
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1.86      YES
 L0008104          0   0.85100E-07  477477.5 3751516.7   466.0     0.00      3.95
1.86      YES
 L0008105          0   0.85100E-07  477477.4 3751525.2   466.0     0.00      3.95
1.86      YES
 L0008106          0   0.85100E-07  477477.3 3751533.7   466.0     0.00      3.95
1.86      YES
 L0008107          0   0.85100E-07  477477.3 3751542.2   466.0     0.00      3.95
1.86      YES
 L0008108          0   0.85100E-07  477477.2 3751550.7   466.0     0.00      3.95
1.86      YES
 L0008109          0   0.85100E-07  477477.2 3751559.2   466.0     0.00      3.95
1.86      YES
 L0008110          0   0.85100E-07  477477.1 3751567.7   466.0     0.00      3.95
1.86      YES
 L0008111          0   0.85100E-07  477477.0 3751576.2   466.0     0.00      3.95
1.86      YES
 L0008112          0   0.85100E-07  477477.0 3751584.7   466.0     0.00      3.95
1.86      YES
 L0008113          0   0.85100E-07  477476.9 3751593.2   466.0     0.00      3.95
1.86      YES
 L0008114          0   0.85100E-07  477476.9 3751601.7   466.0     0.00      3.95
1.86      YES
 L0008115          0   0.85100E-07  477476.8 3751610.2   466.1     0.00      3.95
1.86      YES
 L0008116          0   0.85100E-07  477476.8 3751618.7   466.2     0.00      3.95
1.86      YES
 L0008117          0   0.85100E-07  477476.7 3751627.2   466.4     0.00      3.95
1.86      YES
 L0008118          0   0.85100E-07  477476.6 3751635.7   466.6     0.00      3.95
1.86      YES
 L0008119          0   0.85100E-07  477476.6 3751644.2   466.7     0.00      3.95
1.86      YES
 L0008120          0   0.85100E-07  477476.5 3751652.7   466.8     0.00      3.95
1.86      YES
 L0008121          0   0.85100E-07  477476.5 3751661.2   466.9     0.00      3.95
1.86      YES
 L0008122          0   0.85100E-07  477476.4 3751669.7   467.0     0.00      3.95
1.86      YES
 L0008123          0   0.85100E-07  477476.3 3751678.2   467.0     0.00      3.95
1.86      YES
 L0008124          0   0.85100E-07  477476.3 3751686.7   467.0     0.00      3.95
1.86      YES
 L0008125          0   0.85100E-07  477476.2 3751695.2   467.0     0.00      3.95
1.86      YES
 L0008126          0   0.85100E-07  477476.2 3751703.7   467.0     0.00      3.95
1.86      YES
 L0008127          0   0.85100E-07  477476.1 3751712.2   467.0     0.00      3.95
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1.86     YES
 L0008128         0   0.85100E-07  477476.1 3751720.7   467.0     0.00     3.95
1.86     YES
 L0008129         0   0.85100E-07  477476.0 3751729.2   467.1     0.00     3.95
1.86     YES
 L0008130         0   0.85100E-07  477475.9 3751737.7   467.2     0.00     3.95
1.86     YES
 L0008131         0   0.85100E-07  477475.9 3751746.2   467.4     0.00     3.95
1.86     YES
 L0008132         0   0.85100E-07  477475.8 3751754.7   467.5     0.00     3.95
1.86     YES
 L0008133         0   0.85100E-07  477475.8 3751763.2   467.6     0.00     3.95
1.86     YES
 L0008134         0   0.85100E-07  477475.7 3751771.7   467.8     0.00     3.95
1.86     YES
 L0008135         0   0.85100E-07  477475.6 3751780.2   467.9     0.00     3.95
1.86     YES
 L0008136         0   0.85100E-07  477475.6 3751788.7   468.0     0.00     3.95
1.86     YES
 L0008137         0   0.85100E-07  477475.5 3751797.2   468.0     0.00     3.95
1.86     YES
 L0008138         0   0.85100E-07  477475.5 3751805.7   468.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0008139         0   0.85100E-07  477475.4 3751814.2   468.0     0.00     3.95
1.86     YES
 L0008140         0   0.85100E-07  477475.4 3751822.7   468.0     0.00     3.95
1.86     YES
 L0008141         0   0.85100E-07  477475.3 3751831.2   468.0     0.00     3.95
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1.86      YES
 L0008142          0   0.85100E-07  477475.2 3751839.7   468.0     0.00      3.95
1.86      YES
 L0008143          0   0.85100E-07  477475.2 3751848.2   468.0     0.00      3.95
1.86      YES
 L0008144          0   0.85100E-07  477475.1 3751856.7   468.0     0.00      3.95
1.86      YES
 L0008145          0   0.85100E-07  477475.1 3751865.2   468.0     0.00      3.95
1.86      YES
 L0008146          0   0.85100E-07  477475.0 3751873.7   468.0     0.00      3.95
1.86      YES
 L0008147          0   0.85100E-07  477474.9 3751882.2   468.2     0.00      3.95
1.86      YES
 L0008148          0   0.85100E-07  477474.9 3751890.7   468.5     0.00      3.95
1.86      YES
 L0008149          0   0.85100E-07  477474.8 3751899.2   468.8     0.00      3.95
1.86      YES
 L0008150          0   0.85100E-07  477474.8 3751907.7   469.0     0.00      3.95
1.86      YES
 L0008151          0   0.85100E-07  477474.7 3751916.2   469.0     0.00      3.95
1.86      YES
 L0008152          0   0.85100E-07  477474.7 3751924.7   469.0     0.00      3.95
1.86      YES
 L0008153          0   0.85100E-07  477474.6 3751933.2   469.0     0.00      3.95
1.86      YES
 L0008154          0   0.85100E-07  477474.5 3751941.7   469.0     0.00      3.95
1.86      YES
 L0008155          0   0.85100E-07  477474.5 3751950.2   469.0     0.00      3.95
1.86      YES
 L0008156          0   0.85100E-07  477474.4 3751958.7   469.0     0.00      3.95
1.86      YES
 L0008157          0   0.85100E-07  477474.4 3751967.2   469.0     0.00      3.95
1.86      YES
 L0008158          0   0.85100E-07  477474.3 3751975.7   469.0     0.00      3.95
1.86      YES
 L0008159          0   0.85100E-07  477474.2 3751984.2   469.0     0.00      3.95
1.86      YES
 L0008160          0   0.85100E-07  477474.2 3751992.7   469.0     0.00      3.95
1.86      YES
 L0008161          0   0.85100E-07  477474.1 3752001.2   469.0     0.00      3.95
1.86      YES
 L0008162          0   0.85100E-07  477474.1 3752009.7   469.0     0.00      3.95
1.86      YES
 L0008163          0   0.85100E-07  477474.0 3752018.2   469.0     0.00      3.95
1.86      YES
 L0008164          0   0.85100E-07  477474.0 3752026.7   469.0     0.00      3.95
1.86      YES
 L0008165          0   0.85100E-07  477473.9 3752035.2   469.1     0.00      3.95
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1.86     YES
 L0008166         0   0.85100E-07  477473.8 3752043.7   469.3     0.00     3.95
1.86     YES
 L0008167         0   0.85100E-07  477473.8 3752052.2   469.4     0.00     3.95
1.86     YES
 L0008168         0   0.85100E-07  477473.7 3752060.7   469.5     0.00     3.95
1.86     YES
 L0008169         0   0.85100E-07  477473.7 3752069.2   469.5     0.00     3.95
1.86     YES
 L0008170         0   0.85100E-07  477473.6 3752077.7   469.5     0.00     3.95
1.86     YES
 L0008171         0   0.85100E-07  477473.5 3752086.2   469.5     0.00     3.95
1.86     YES
 L0008172         0   0.85100E-07  477473.5 3752094.7   469.6     0.00     3.95
1.86     YES
 L0008173         0   0.85100E-07  477473.4 3752103.2   469.8     0.00     3.95
1.86     YES
 L0008174         0   0.85100E-07  477473.4 3752111.7   469.9     0.00     3.95
1.86     YES
 L0008175         0   0.85100E-07  477473.3 3752120.2   470.1     0.00     3.95
1.86     YES
 L0008176         0   0.85100E-07  477473.3 3752128.7   470.2     0.00     3.95
1.86     YES
 L0008177         0   0.85100E-07  477473.2 3752137.2   470.3     0.00     3.95
1.86     YES
 L0008178         0   0.85100E-07  477473.1 3752145.7   470.4     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0008179         0   0.85100E-07  477473.1 3752154.2   470.6     0.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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1.86      YES
 L0008180          0   0.85100E-07  477473.0 3752162.7   470.7     0.00     3.95
1.86      YES
 L0008181          0   0.85100E-07  477473.0 3752171.2   470.9     0.00     3.95
1.86      YES
 L0008182          0   0.85100E-07  477472.9 3752179.7   471.0     0.00     3.95
1.86      YES
 L0008183          0   0.85100E-07  477472.8 3752188.2   471.0     0.00     3.95
1.86      YES
 L0008184          0   0.85100E-07  477472.8 3752196.7   471.0     0.00     3.95
1.86      YES
 L0008185          0   0.85100E-07  477472.7 3752205.2   471.0     0.00     3.95
1.86      YES
 L0008186          0   0.85100E-07  477472.7 3752213.7   471.2     0.00     3.95
1.86      YES
 L0008187          0   0.85100E-07  477472.6 3752222.2   471.5     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 AREA1             0   0.28207E-08  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES
 AREA2             0   0.29862E-08  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES
 AREA3             0   0.10465E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES
 AREA4             0   0.32820E-08  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES
 AREA5             0   0.68612E-08  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES
 AREA6             0   0.30740E-08  477599.3 3748788.1   454.0     5.00     65.18
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180.23      0.00     0.00     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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  YARDTRAC   AREA1        , AREA2        , AREA3        , AREA4        , AREA5        ,
AREA6        ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                 AERMOD HRA Output
                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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Bridge\Residential\Residen ***        11/18/15
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  69
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
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 SRCGROUP ID                                              SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  71
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                        SOURCE IDs
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Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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                                 AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  74
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                              AERMOD HRA Output
                                PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS
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 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  79
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                   SOURCE IDs
  --------    ---------                                   ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56
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                                 AERMOD HRA Output
                                   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                            SOURCE IDs
  --------   ---------                                            ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
  --------   ---------                                ----------


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L0001412     , L0001413     , L0001414     ,

             L0001415     , L0001416     , L0001417     , L0001418     , L0001419     ,
L0001420     , L0001421     , L0001422     ,

             L0001423     , L0001424     , L0001425     , L0001426     , L0001427     ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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L0001724    , L0001725    , L0001726    ,

             L0001727    , L0001728    , L0001729    , L0001730    , L0001731    ,
L0001732    , L0001733    , L0001734    ,

             L0001735    , L0001736    , AREA1       , AREA2       , AREA3       ,
AREA4       , AREA5       , AREA6       ,

             STCK1       , STCK2       , STCK3       , STCK4       , STCK5       ,
STCK6       , STCK7       , STCK8       ,

             STCK9       , STCK10      , STCK11      , STCK12      , STCK13      ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                        SOURCE IDs
  --------   ---------                                        ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                  SOURCE IDs
  --------    ---------                                  ----------
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                            SOURCE IDs
  --------   ---------                                            ----------


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             L0007496    , L0007497    , L0007498    , L0007499    , L0007500    ,
L0007501    , L0007502    , L0007503    ,

             L0007504    , L0007505    , L0007506    , L0007507    , L0007508    ,
L0007509    , L0007510    , L0007511    ,

             L0007512    , L0007513    , L0007514    , L0007515    , L0007516    ,
L0007517    , L0007518    , L0007519    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
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                                    AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         14:59:56

                                   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0007520    , L0007521    , L0007522    , L0007523    , L0007524    ,
L0007525    , L0007526    , L0007527    ,

             L0007528    , L0007529    , L0007530    , L0007531    , L0007532    ,
L0007533    , L0007534    , L0007535    ,

             L0007536    , L0007537    , L0007538    , L0007539    , L0007540    ,
L0007541    , L0007542    , L0007543    ,

             L0007544    , L0007545    , L0007546    , L0007547    , L0007548    ,
L0007549    , L0007550    , L0007551    ,

             L0007552    , L0007553    , L0007554    , L0007555    , L0007556    ,
L0007557    , L0007558    , L0007559    ,

             L0007560    , L0007561    , L0007562    , L0007563    , L0007564    ,
L0007565    , L0007566    , L0007567    ,

             L0007568    , L0007569    , L0007570    , L0007571    , L0007572    ,
L0007573    , L0007574    , L0007575    ,

             L0007576    , L0007577    , L0007578    , L0007579    , L0007580    ,
L0007581    , L0007582    , L0007583    ,

             L0007584    , L0007585    , L0007586    , L0007587    , L0007588    ,
L0007589    , L0007590    , L0007591    ,

             L0007592    , L0007593    , L0007594    , L0007595    , L0007596    ,
L0007597    , L0007598    , L0007599    ,

             L0007600    , L0007601    , L0007602    , L0007603    , L0007604    ,
L0007605    , L0007606    , L0007607    ,

             L0007608    , L0007609    , L0007610    , L0007611    , L0007612    ,
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L0007613    , L0007614    , L0007615    ,

             L0007616    , L0007617    , L0007618    , L0007619    , L0007620    ,
L0007621    , L0007622    , L0007623    ,

             L0007624    , L0007625    , L0007626    , L0007627    , L0007628    ,
L0007629    , L0007630    , L0007631    ,

             L0007632    , L0007633    , L0007634    , L0007635    , L0007636    ,
L0007637    , L0007638    , L0007639    ,

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L0007661    , L0007662    , L0007663    ,

             L0007664    , L0007665    , L0007666    , L0007667    , L0007668    ,
L0007669    , L0007670    , L0007671    ,

             L0007672    , L0007673    , L0007674    , L0007675    , L0007676    ,
L0007677    , L0007678    , L0007679    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  91
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0007680    , L0007681    , L0007682    , L0007683    , L0007684    ,
L0007685    , L0007686    , L0007687    ,

             L0007688    , L0007689    , L0007690    , L0007691    , L0007692    ,
L0007693    , L0007694    , L0007695    ,

             L0007696    , L0007697    , L0007698    , L0007699    , L0007700    ,
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L0007717     , L0007718     , L0007719     ,

             L0007720     , L0007721     , L0007722     , L0007723     , L0007724     ,
L0007725     , L0007726     , L0007727     ,

             L0007728     , L0007729     , L0007730     , L0007731     , L0007732     ,
L0007733     , L0007734     , L0007735     ,

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L0007741     , L0007742     , L0007743     ,

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L0007749     , L0007750     , L0007751     ,

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L0007765     , L0007766     , L0007767     ,

             L0007768     , L0007769     , L0007770     , L0007771     , L0007772     ,
L0007773     , L0007774     , L0007775     ,

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L0007797     , L0007798     , L0007799     ,

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L0007805     , L0007806     , L0007807     ,

             L0007808     , L0007809     , L0007810     , L0007811     , L0007812     ,
L0007813     , L0007814     , L0007815     ,

             L0007816     , L0007817     , L0007818     , L0007819     , L0007820     ,
L0007821     , L0007822     , L0007823     ,

             L0007824     , L0007825     , L0007826     , L0007827     , L0007828     ,
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L0007829    , L0007830    , L0007831    ,

             L0007832    , L0007833    , L0007834    , L0007835    , L0007836    ,
L0007837    , L0007838    , L0007839    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0007840    , L0007841    , L0007842    , L0007843    , L0007844    ,
L0007845    , L0007846    , L0007847    ,

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L0007853    , L0007854    , L0007855    ,

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             L0007864    , L0007865    , L0007866    , L0007867    , L0007868    ,
L0007869    , L0007870    , L0007871    ,

             L0007872    , L0007873    , L0007874    , L0007875    , L0007876    ,
L0007877    , L0007878    , L0007879    ,

             L0007880    , L0007881    , L0007882    , L0007883    , L0007884    ,
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             L0007888    , L0007889    , L0007890    , L0007891    , L0007892    ,
L0007893    , L0007894    , L0007895    ,

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L0007901    , L0007902    , L0007903    ,

             L0007904    , L0007905    , L0007906    , L0007907    , L0007908    ,
L0007909    , L0007910    , L0007911    ,

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             L0007920    , L0007921    , L0007922    , L0007923    , L0007924    ,
L0007925    , L0007926    , L0007927    ,

             L0007928    , L0007929    , L0007930    , L0007931    , L0007932    ,
L0007933    , L0007934    , L0007935    ,

             L0007936    , L0007937    , L0007938    , L0007939    , L0007940    ,
L0007941    , L0007942    , L0007943    ,

             L0007944    , L0007945    , L0007946    , L0007947    , L0007948    ,
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L0007973    , L0007974    , L0007975    ,

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L0007981    , L0007982    , L0007983    ,

             L0007984    , L0007985    , L0007986    , L0007987    , L0007988    ,
L0007989    , L0007990    , L0007991    ,

             L0007992    , L0007993    , L0007994    , L0007995    , L0007996    ,
L0007997    , L0007998    , L0007999    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:59:56

                                  PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                        SOURCE IDs
  --------    ---------                                        ----------


             L0008000    , L0008001    , L0008002    , L0008003    , L0008004    ,
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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L0008005    , L0008006    , L0008007    ,

             L0008008    , L0008009    , L0008010    , L0008011    , L0008012    ,
L0008013    , L0008014    , L0008015    ,

             L0008016    , L0008017    , L0008018    , L0008019    , L0008020    ,
L0008021    , L0008022    , L0008023    ,

             L0008024    , L0008025    , L0008026    , L0008027    , L0008028    ,
L0008029    , L0008030    , L0008031    ,

             L0008032    , L0008033    , L0008034    , L0008035    , L0008036    ,
L0008037    , L0008038    , L0008039    ,

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L0008045    , L0008046    , L0008047    ,

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L0008109    , L0008110    , L0008111    ,

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             L0008120    , L0008121    , L0008122    , L0008123    , L0008124    ,
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             L0008128    , L0008129    , L0008130    , L0008131    , L0008132    ,
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L0008133    , L0008134    , L0008135    ,

             L0008136    , L0008137    , L0008138    , L0008139    , L0008140    ,
L0008141    , L0008142    , L0008143    ,

             L0008144    , L0008145    , L0008146    , L0008147    , L0008148    ,
L0008149    , L0008150    , L0008151    ,

             L0008152    , L0008153    , L0008154    , L0008155    , L0008156    ,
L0008157    , L0008158    , L0008159    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                   SOURCE IDs
  --------    ---------                                   ----------


             L0008160    , L0008161    , L0008162    , L0008163    , L0008164    ,
L0008165    , L0008166    , L0008167    ,

             L0008168    , L0008169    , L0008170    , L0008171    , L0008172    ,
L0008173    , L0008174    , L0008175    ,

             L0008176    , L0008177    , L0008178    , L0008179    , L0008180    ,
L0008181    , L0008182    , L0008183    ,

             L0008184    , L0008185    , L0008186    , L0008187    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)
```

```
     ( 477994.2, 3749818.5,     458.0,     467.0,       0.0);         ( 478348.6,
3749820.7,     458.3,     467.0,       0.0);
     ( 478324.0, 3749446.9,     456.0,     467.0,       0.0);         ( 478321.9,
3749107.7,     454.0,     467.0,       0.0);
     ( 478311.5, 3748947.3,     453.0,     466.0,       0.0);         ( 478314.5,
3748704.1,     452.0,     465.0,       0.0);
     ( 478309.7, 3748401.3,     451.0,     464.0,       0.0);         ( 478302.7,
3748248.4,     450.0,     463.0,       0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,    3.09,    5.14,    8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
```

```
                                 AERMOD HRA Output
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                 Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:59:56

                                   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: YARDTRAC ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2
 , AREA3       , AREA4       , AREA5       ,
```

```
                              AERMOD HRA Output
                 AREA6       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00104                     478348.59
3749820.73        0.00076
         478323.98    3749446.94        0.00123                     478321.90
3749107.70        0.00227
         478311.50    3748947.34        0.00374                     478314.46
3748704.06        0.00670
         478309.66    3748401.33        0.00647                     478302.71
3748248.43        0.00531
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: OTHER    ***
                                    INCLUDING SOURCE(S):     L0001039    , L0001040
 , L0001041    , L0001042    , L0001043    ,
                 L0001044    , L0001045    , L0001046    , L0001047    , L0001048
 , L0001049    , L0001050    , L0001051    ,
                 L0001052    , L0001053    , L0001054    , L0001055    , L0001056
 , L0001057    , L0001058    , L0001059    ,
                 L0001060    , L0001061    , L0001062    , L0001063    , L0001064
 , L0001065    , L0001066    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00152                      478348.59
3749820.73        0.00117
         478323.98    3749446.94        0.00201                      478321.90
3749107.70        0.00436
         478311.50    3748947.34        0.00839                      478314.46
3748704.06        0.01207
         478309.66    3748401.33        0.01049                      478302.71
3748248.43        0.00644
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0001039    , L0001040
 , L0001041    , L0001042    , L0001043    ,
                 L0001044    , L0001045    , L0001046    , L0001047    , L0001048
 , L0001049    , L0001050    , L0001051    ,
                 L0001052    , L0001053    , L0001054    , L0001055    , L0001056
 , L0001057    , L0001058    , L0001059    ,
                 L0001060    , L0001061    , L0001062    , L0001063    , L0001064
 , L0001065    , L0001066    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00308                      478348.59
3749820.73        0.00228
         478323.98    3749446.94        0.00356                      478321.90
3749107.70        0.00692
         478311.50    3748947.34        0.01241                      478314.46
3748704.06        0.01905
         478309.66    3748401.33        0.01728                      478302.71
3748248.43        0.01211
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
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                                 AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         14:59:56

                                   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3
                **



                         NETWORK
GROUP ID                        AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

YARDTRAC  1ST HIGHEST VALUE IS       0.00670 AT (  478314.46,  3748704.06,
452.00,   465.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00647 AT (  478309.66,  3748401.33,
451.00,   464.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00531 AT (  478302.71,  3748248.43,
450.00,   463.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00374 AT (  478311.50,  3748947.34,
453.00,   466.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00227 AT (  478321.90,  3749107.70,
454.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00123 AT (  478323.98,  3749446.94,
456.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00104 AT (  477994.17,  3749818.50,
458.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00076 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)

OTHER     1ST HIGHEST VALUE IS       0.01207 AT (  478314.46,  3748704.06,
452.00,   465.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.01049 AT (  478309.66,  3748401.33,
451.00,   464.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00839 AT (  478311.50,  3748947.34,
453.00,   466.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00644 AT (  478302.71,  3748248.43,
```

```
450.00,   463.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00436 AT (  478321.90,  3749107.70,
454.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00201 AT (  478323.98,  3749446.94,
456.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00152 AT (  477994.17,  3749818.50,
458.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00117 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)

ALL       1ST HIGHEST VALUE IS       0.01905 AT (  478314.46,  3748704.06,
452.00,   465.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.01728 AT (  478309.66,  3748401.33,
451.00,   464.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.01241 AT (  478311.50,  3748947.34,
453.00,   466.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.01211 AT (  478302.71,  3748248.43,
450.00,   463.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00692 AT (  478321.90,  3749107.70,
454.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00356 AT (  478323.98,  3749446.94,
456.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00308 AT (  477994.17,  3749818.50,
458.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00228 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:59:56

                                   PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                              AERMOD HRA Output
 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    5062       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/19/2015
** File: C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School\School.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
```

```
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL School.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001454
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ------------------------------------------------------------------
   LOCATION L0002435     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0002436     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0002437     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0002438     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0002439     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0002440     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0002441     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0002442     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0002443     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0002444     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0002445     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0002446     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0002447     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0002448     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0002449     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0002450     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0002451     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
```

```
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001241
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0002452     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0002453     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0002454     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0002455     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0002456     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0002457     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0002458     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0002459     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0002460     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0002461     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0002462     VOLUME   477946.460 3748801.113 453.00
   LOCATION L0002463     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0002464     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0002465     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006542
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0002466     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0002467     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0002468     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0002469     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0002470     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0002471     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0002472     VOLUME   477756.670 3748887.467 453.10
```

```
   LOCATION L0002473     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001332
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0002474     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0002475     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0002476     VOLUME   477917.151 3748338.902 451.00
   LOCATION L0002477     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0002478     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0002479     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0002480     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0002481     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0002482     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0002483     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0002484     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0002485     VOLUME   477968.786 3748294.974 450.00
   LOCATION L0002486     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0002487     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0002488     VOLUME   477977.265 3748271.459 450.00
   LOCATION L0002489     VOLUME   477978.288 3748263.021 450.00
   LOCATION L0002490     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0002491     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0002492     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0002493     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0002494     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
```

```
** Configuration = Adjacent
** Emission Rate = 0.00008866
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0002495     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0002496     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0002497     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0002498     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0002499     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0002500     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0002501     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0002502     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0002503     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0002504     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0002505     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0002506     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0002507     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0002508     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0002509     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00001029
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0002510     VOLUME   478043.006 3748335.195 451.00
   LOCATION L0002511     VOLUME   478072.999 3748334.546 451.00
   LOCATION L0002512     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0002513     VOLUME   478132.984 3748333.247 451.00
   LOCATION L0002514     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
```

AERMOD HRA Output

```
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0005868
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 457.44, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
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   LOCATION L0002517     VOLUME   477952.000 3748954.420 453.00
   LOCATION L0002518     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0002519     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0002520     VOLUME   477948.990 3748929.132 453.00
   LOCATION L0002521     VOLUME   477948.246 3748920.682 453.00
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   LOCATION L0002524     VOLUME   477947.769 3748895.186 453.00
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   LOCATION L0002535     VOLUME   477946.747 3748801.693 453.00
   LOCATION L0002536     VOLUME   477946.678 3748793.193 453.00
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   LOCATION L0002538     VOLUME   477946.542 3748776.194 453.00
   LOCATION L0002539     VOLUME   477946.473 3748767.694 453.00
   LOCATION L0002540     VOLUME   477946.405 3748759.194 453.00
   LOCATION L0002541     VOLUME   477946.337 3748750.694 453.00
   LOCATION L0002542     VOLUME   477946.268 3748742.195 453.00
   LOCATION L0002543     VOLUME   477946.200 3748733.695 453.00
   LOCATION L0002544     VOLUME   477946.132 3748725.195 453.00
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LOCATION L0002553     VOLUME   477945.516 3748648.698 452.00
LOCATION L0002554     VOLUME   477945.448 3748640.198 452.00
LOCATION L0002555     VOLUME   477945.380 3748631.698 452.00
LOCATION L0002556     VOLUME   477945.311 3748623.198 452.00
LOCATION L0002557     VOLUME   477945.243 3748614.699 452.00
LOCATION L0002558     VOLUME   477945.174 3748606.199 452.00
LOCATION L0002559     VOLUME   477945.106 3748597.699 452.00
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LOCATION L0002562     VOLUME   477944.901 3748572.200 452.00
LOCATION L0002563     VOLUME   477944.833 3748563.700 452.00
LOCATION L0002564     VOLUME   477944.764 3748555.201 452.00
LOCATION L0002565     VOLUME   477944.696 3748546.701 452.00
LOCATION L0002566     VOLUME   477944.628 3748538.201 452.00
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LOCATION L0002569     VOLUME   477944.422 3748512.702 451.87
LOCATION L0002570     VOLUME   477944.354 3748504.202 451.59
LOCATION L0002571     VOLUME   477944.286 3748495.703 451.30
LOCATION L0002572     VOLUME   477944.727 3748487.329 451.03
LOCATION L0002573     VOLUME   477948.744 3748479.837 451.00
LOCATION L0002574     VOLUME   477952.760 3748472.346 451.00
LOCATION L0002575     VOLUME   477956.776 3748464.855 451.00
LOCATION L0002576     VOLUME   477960.792 3748457.364 451.00
LOCATION L0002577     VOLUME   477964.809 3748449.872 451.00
LOCATION L0002578     VOLUME   477968.825 3748442.381 451.00
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LOCATION L0002582     VOLUME   477984.890 3748412.416 451.00
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LOCATION L0002584     VOLUME   477992.922 3748397.433 451.00
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LOCATION L0002587     VOLUME   478004.971 3748374.959 451.00
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LOCATION L0002592     VOLUME   478026.357 3748338.273 451.00
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LOCATION L0002595     VOLUME   478050.819 3748336.619 451.00
LOCATION L0002596     VOLUME   478059.318 3748336.711 451.00
LOCATION L0002597     VOLUME   478067.818 3748336.803 451.00
LOCATION L0002598     VOLUME   478076.317 3748336.896 451.00
LOCATION L0002599     VOLUME   478084.817 3748336.988 451.00
LOCATION L0002600     VOLUME   478093.316 3748337.081 451.00
LOCATION L0002601     VOLUME   478101.816 3748337.173 451.00
LOCATION L0002602     VOLUME   478110.315 3748337.265 451.00
LOCATION L0002603     VOLUME   478118.815 3748337.358 451.00
LOCATION L0002604     VOLUME   478127.314 3748337.450 451.00
LOCATION L0002605     VOLUME   478135.814 3748337.543 451.00
LOCATION L0002606     VOLUME   478144.313 3748337.635 451.00
LOCATION L0002607     VOLUME   478152.813 3748337.727 451.00
LOCATION L0002608     VOLUME   478161.312 3748337.820 451.00
LOCATION L0002609     VOLUME   478169.812 3748337.912 451.00
LOCATION L0002610     VOLUME   478178.311 3748338.005 451.00
LOCATION L0002611     VOLUME   478186.811 3748338.097 451.00
LOCATION L0002612     VOLUME   478195.310 3748338.189 451.00
LOCATION L0002613     VOLUME   478203.810 3748338.282 451.00
LOCATION L0002614     VOLUME   478212.309 3748338.374 451.00
LOCATION L0002615     VOLUME   478215.836 3748343.420 451.00
LOCATION L0002616     VOLUME   478215.897 3748351.920 451.00
LOCATION L0002617     VOLUME   478215.957 3748360.420 451.00
LOCATION L0002618     VOLUME   478216.018 3748368.919 451.00
LOCATION L0002619     VOLUME   478216.078 3748377.419 451.00
LOCATION L0002620     VOLUME   478216.139 3748385.919 451.00
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LOCATION L0002622     VOLUME   478216.260 3748402.919 451.00
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LOCATION L0002624     VOLUME   478216.381 3748419.918 451.00
LOCATION L0002625     VOLUME   478216.441 3748428.418 451.00
LOCATION L0002626     VOLUME   478216.502 3748436.918 451.00
LOCATION L0002627     VOLUME   478216.562 3748445.417 451.00
LOCATION L0002628     VOLUME   478216.623 3748453.917 451.00
LOCATION L0002629     VOLUME   478216.683 3748462.417 451.04
LOCATION L0002630     VOLUME   478216.744 3748470.917 451.11
LOCATION L0002631     VOLUME   478216.804 3748479.417 451.18
LOCATION L0002632     VOLUME   478216.865 3748487.916 451.27
LOCATION L0002633     VOLUME   478216.925 3748496.416 451.49
LOCATION L0002634     VOLUME   478216.986 3748504.916 451.70
LOCATION L0002635     VOLUME   478217.046 3748513.416 451.92
LOCATION L0002636     VOLUME   478217.107 3748521.916 452.00
LOCATION L0002637     VOLUME   478217.167 3748530.415 452.00
LOCATION L0002638     VOLUME   478217.228 3748538.915 452.00
LOCATION L0002639     VOLUME   478217.288 3748547.415 452.00
LOCATION L0002640     VOLUME   478217.349 3748555.915 452.00
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LOCATION L0002641     VOLUME   478217.409 3748564.414 452.00
LOCATION L0002642     VOLUME   478217.470 3748572.914 452.00
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LOCATION L0002644     VOLUME   478217.591 3748589.914 452.00
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LOCATION L0002647     VOLUME   478217.772 3748615.413 452.00
LOCATION L0002648     VOLUME   478217.833 3748623.913 452.00
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LOCATION L0002650     VOLUME   478217.954 3748640.913 452.00
LOCATION L0002651     VOLUME   478218.014 3748649.412 452.00
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LOCATION L0002656     VOLUME   478218.317 3748691.911 452.00
LOCATION L0002657     VOLUME   478218.377 3748700.411 452.00
LOCATION L0002658     VOLUME   478218.438 3748708.911 452.00
LOCATION L0002659     VOLUME   478218.498 3748717.411 452.00
LOCATION L0002660     VOLUME   478218.559 3748725.910 452.00
LOCATION L0002661     VOLUME   478218.619 3748734.410 452.00
LOCATION L0002662     VOLUME   478218.680 3748742.910 452.00
LOCATION L0002663     VOLUME   478218.740 3748751.410 452.00
LOCATION L0002664     VOLUME   478218.801 3748759.910 452.00
LOCATION L0002665     VOLUME   478218.861 3748768.409 452.00
LOCATION L0002666     VOLUME   478218.922 3748776.909 452.00
LOCATION L0002667     VOLUME   478218.982 3748785.409 452.00
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LOCATION L0002669     VOLUME   478219.103 3748802.408 452.53
LOCATION L0002670     VOLUME   478219.164 3748810.908 452.81
LOCATION L0002671     VOLUME   478219.224 3748819.408 453.00
LOCATION L0002672     VOLUME   478219.285 3748827.908 453.00
LOCATION L0002673     VOLUME   478219.345 3748836.408 453.00
LOCATION L0002674     VOLUME   478219.406 3748844.907 453.00
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LOCATION L0002676     VOLUME   478219.527 3748861.907 453.00
LOCATION L0002677     VOLUME   478219.587 3748870.407 453.00
LOCATION L0002678     VOLUME   478219.648 3748878.907 453.00
LOCATION L0002679     VOLUME   478219.708 3748887.406 453.00
LOCATION L0002680     VOLUME   478219.769 3748895.906 453.00
LOCATION L0002681     VOLUME   478219.829 3748904.406 453.00
LOCATION L0002682     VOLUME   478219.890 3748912.906 453.00
LOCATION L0002683     VOLUME   478217.524 3748921.053 453.00
LOCATION L0002684     VOLUME   478215.049 3748929.185 453.00
LOCATION L0002685     VOLUME   478212.574 3748937.317 453.00
LOCATION L0002686     VOLUME   478210.099 3748945.448 453.00
LOCATION L0002687     VOLUME   478207.624 3748953.580 453.00
LOCATION L0002688     VOLUME   478205.149 3748961.712 453.00
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   LOCATION L0002689     VOLUME   478202.674 3748969.844 453.00
** End of LINE VOLUME Source ID = SLINE7
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004213
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
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** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0002692     VOLUME   477852.867 3748852.216 453.00
   LOCATION L0002693     VOLUME   477852.913 3748860.716 453.00
   LOCATION L0002694     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0002695     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0002696     VOLUME   477853.050 3748886.216 453.00
   LOCATION L0002697     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0002698     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0002699     VOLUME   477853.188 3748911.716 453.00
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   LOCATION L0002701     VOLUME   477853.279 3748928.715 453.00
   LOCATION L0002702     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0002703     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0002704     VOLUME   477853.417 3748954.215 453.00
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   LOCATION L0002706     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0002707     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0002708     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0002709     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0002710     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0002711     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0002712     VOLUME   477811.027 3748979.585 454.00
   LOCATION L0002713     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0002714     VOLUME   477794.027 3748979.544 454.00
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   LOCATION L0002715     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0002716     VOLUME   477777.027 3748979.503 454.00
   LOCATION L0002717     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0002718     VOLUME   477760.027 3748979.462 454.00
   LOCATION L0002719     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0002720     VOLUME   477743.027 3748979.421 454.00
   LOCATION L0002721     VOLUME   477742.701 3748971.201 454.00
   LOCATION L0002722     VOLUME   477742.653 3748962.701 454.00
   LOCATION L0002723     VOLUME   477742.605 3748954.201 454.00
   LOCATION L0002724     VOLUME   477742.557 3748945.701 454.00
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   LOCATION L0002726     VOLUME   477742.461 3748928.701 453.89
   LOCATION L0002727     VOLUME   477742.413 3748920.202 453.77
   LOCATION L0002728     VOLUME   477742.365 3748911.702 453.65
   LOCATION L0002729     VOLUME   477742.317 3748903.202 453.58
   LOCATION L0002730     VOLUME   477742.269 3748894.702 453.58
   LOCATION L0002731     VOLUME   477742.221 3748886.202 453.59
   LOCATION L0002732     VOLUME   477744.175 3748877.974 453.52
   LOCATION L0002733     VOLUME   477746.490 3748869.796 453.57
   LOCATION L0002734     VOLUME   477748.806 3748861.617 453.68
   LOCATION L0002735     VOLUME   477751.121 3748853.439 453.84
   LOCATION L0002736     VOLUME   477753.437 3748845.260 453.96
   LOCATION L0002737     VOLUME   477757.469 3748838.153 453.72
   LOCATION L0002738     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0002739     VOLUME   477770.126 3748826.804 453.22
   LOCATION L0002740     VOLUME   477778.583 3748826.536 453.12
   LOCATION L0002741     VOLUME   477787.081 3748826.374 453.03
   LOCATION L0002742     VOLUME   477795.580 3748826.212 453.00
   LOCATION L0002743     VOLUME   477804.079 3748826.127 453.00
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   LOCATION L0002745     VOLUME   477821.079 3748826.027 453.00
   LOCATION L0002746     VOLUME   477829.579 3748825.977 453.00
   LOCATION L0002747     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0002748     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002756
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
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** 477885.465, 3748255.245, 453.31, 4.00, 3.95
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** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
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   LOCATION L0002750     VOLUME   477886.448 3748212.245 450.00
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   LOCATION L0002752     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0002753     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0002754     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0002755     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0002756     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0002757     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0002758     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0002759     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0002760     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0002761     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0002762     VOLUME   477886.154 3748314.230 451.00
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   LOCATION L0002764     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0002765     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0002766     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0002767     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0002768     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0002769     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0002770     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0002771     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0002772     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0002773     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0002774     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0002775     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0002776     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0002777     VOLUME   477968.225 3748296.673 450.00
   LOCATION L0002778     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0002779     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0002780     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0002781     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0002782     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0002783     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0002784     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0002785     VOLUME   477979.163 3748231.356 450.00
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   LOCATION L0002788     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0002789     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0002790     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0002791     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0002792     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0002793     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0002794     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0002795     VOLUME   477952.139 3748197.465 450.00
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   LOCATION L0002797     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004801
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
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   LOCATION L0002799     VOLUME   477513.569 3748975.562 454.06
   LOCATION L0002800     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0002801     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0002802     VOLUME   477539.064 3748975.067 454.00
   LOCATION L0002803     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0002804     VOLUME   477556.061 3748974.736 454.00
   LOCATION L0002805     VOLUME   477564.559 3748974.571 454.00
   LOCATION L0002806     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0002807     VOLUME   477581.556 3748974.240 454.00
   LOCATION L0002808     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0002809     VOLUME   477598.508 3748973.774 454.00
   LOCATION L0002810     VOLUME   477605.435 3748968.848 454.00
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   LOCATION L0002812     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0002813     VOLUME   477615.729 3748946.683 454.00
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   LOCATION L0002814     VOLUME   477618.035 3748938.501 454.00
   LOCATION L0002815     VOLUME   477619.970 3748930.230 454.00
   LOCATION L0002816     VOLUME   477621.685 3748921.905 454.00
   LOCATION L0002817     VOLUME   477623.401 3748913.580 454.00
   LOCATION L0002818     VOLUME   477625.117 3748905.255 454.00
   LOCATION L0002819     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0002820     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0002821     VOLUME   477626.464 3748879.867 454.00
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   LOCATION L0002827     VOLUME   477627.124 3748828.871 454.00
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   LOCATION L0002832     VOLUME   477618.479 3748795.702 454.00
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   LOCATION L0002834     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0002835     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0002836     VOLUME   477584.491 3748796.624 454.00
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   LOCATION L0002840     VOLUME   477550.504 3748797.546 454.00
   LOCATION L0002841     VOLUME   477542.007 3748797.777 454.00
   LOCATION L0002842     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0002843     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0002844     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0002845     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0002846     VOLUME   477499.523 3748798.930 454.00
   LOCATION L0002847     VOLUME   477491.026 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 70% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0003112
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
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** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0002850     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0002851     VOLUME   478230.035 3748984.818 453.00
   LOCATION L0002852     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0002853     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0002854     VOLUME   478204.537 3748985.062 453.00
   LOCATION L0002855     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0002856     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0002857     VOLUME   478179.038 3748985.306 453.00
   LOCATION L0002858     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0002859     VOLUME   478162.039 3748985.469 453.00
   LOCATION L0002860     VOLUME   478153.539 3748985.550 453.00
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   LOCATION L0002868     VOLUME   478085.542 3748986.201 453.00
   LOCATION L0002869     VOLUME   478077.042 3748986.282 453.00
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   LOCATION L0002872     VOLUME   478051.544 3748986.526 453.00
   LOCATION L0002873     VOLUME   478043.044 3748986.608 453.00
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   LOCATION L0002877     VOLUME   478009.046 3748986.933 453.00
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   LOCATION L0002879     VOLUME   477992.046 3748987.096 453.00
   LOCATION L0002880     VOLUME   477983.547 3748987.177 453.00
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   LOCATION L0002884     VOLUME   477949.548 3748987.502 453.00
   LOCATION L0002885     VOLUME   477941.049 3748987.584 453.00
   LOCATION L0002886     VOLUME   477932.549 3748987.665 453.17
   LOCATION L0002887     VOLUME   477924.049 3748987.746 453.37
   LOCATION L0002888     VOLUME   477915.550 3748987.828 453.57
   LOCATION L0002889     VOLUME   477907.050 3748987.909 453.71
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   LOCATION L0002891     VOLUME   477890.051 3748988.072 453.72
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AERMOD HRA Output

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LOCATION L0002892     VOLUME   477881.917 3748988.515 453.73
LOCATION L0002893     VOLUME   477881.917 3748997.015 454.00
LOCATION L0002894     VOLUME   477881.917 3749005.515 454.00
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LOCATION L0002905     VOLUME   477881.917 3749099.015 454.00
LOCATION L0002906     VOLUME   477881.917 3749107.515 454.00
LOCATION L0002907     VOLUME   477881.917 3749116.015 454.00
LOCATION L0002908     VOLUME   477881.917 3749124.515 454.00
LOCATION L0002909     VOLUME   477881.917 3749133.015 454.00
LOCATION L0002910     VOLUME   477881.917 3749141.515 454.00
LOCATION L0002911     VOLUME   477881.917 3749150.015 454.00
LOCATION L0002912     VOLUME   477881.917 3749158.515 454.00
LOCATION L0002913     VOLUME   477881.917 3749167.015 454.00
LOCATION L0002914     VOLUME   477881.917 3749175.515 454.00
LOCATION L0002915     VOLUME   477881.917 3749184.015 454.00
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LOCATION L0002925     VOLUME   477852.363 3749239.854 455.00
LOCATION L0002926     VOLUME   477843.863 3749239.968 455.00
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LOCATION L0002928     VOLUME   477826.865 3749240.195 455.00
LOCATION L0002929     VOLUME   477818.366 3749240.309 455.00
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LOCATION L0002931     VOLUME   477801.367 3749240.537 455.00
LOCATION L0002932     VOLUME   477792.868 3749240.651 455.00
LOCATION L0002933     VOLUME   477784.369 3749240.765 455.00
LOCATION L0002934     VOLUME   477775.869 3749240.878 455.00
LOCATION L0002935     VOLUME   477767.370 3749240.992 455.00
LOCATION L0002936     VOLUME   477758.871 3749241.106 455.00
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LOCATION L0002939     VOLUME   477733.373 3749241.448 455.00
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LOCATION L0002940     VOLUME   477724.874 3749241.561 455.00
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LOCATION L0002942     VOLUME   477707.876 3749241.789 455.00
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LOCATION L0002945     VOLUME   477682.378 3749242.131 455.00
LOCATION L0002946     VOLUME   477673.879 3749242.244 455.00
LOCATION L0002947     VOLUME   477665.379 3749242.358 455.00
LOCATION L0002948     VOLUME   477656.880 3749242.472 455.00
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LOCATION L0002950     VOLUME   477639.882 3749242.700 455.00
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LOCATION L0002953     VOLUME   477614.384 3749243.041 455.00
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LOCATION L0002961     VOLUME   477546.390 3749243.952 455.00
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LOCATION L0002963     VOLUME   477529.392 3749244.179 455.00
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LOCATION L0002967     VOLUME   477495.395 3749244.635 455.00
LOCATION L0002968     VOLUME   477486.895 3749244.749 455.00
LOCATION L0002969     VOLUME   477478.396 3749244.862 455.00
LOCATION L0002970     VOLUME   477476.837 3749251.916 455.00
LOCATION L0002971     VOLUME   477476.725 3749260.415 455.00
LOCATION L0002972     VOLUME   477476.612 3749268.914 455.00
LOCATION L0002973     VOLUME   477476.500 3749277.414 455.00
LOCATION L0002974     VOLUME   477476.387 3749285.913 455.00
LOCATION L0002975     VOLUME   477476.275 3749294.412 455.00
LOCATION L0002976     VOLUME   477476.162 3749302.911 455.10
LOCATION L0002977     VOLUME   477476.049 3749311.411 455.23
LOCATION L0002978     VOLUME   477475.937 3749319.910 455.36
LOCATION L0002979     VOLUME   477475.824 3749328.409 455.50
LOCATION L0002980     VOLUME   477475.712 3749336.908 455.65
LOCATION L0002981     VOLUME   477475.599 3749345.408 455.80
LOCATION L0002982     VOLUME   477475.487 3749353.907 455.95
LOCATION L0002983     VOLUME   477475.374 3749362.406 456.00
LOCATION L0002984     VOLUME   477475.261 3749370.905 456.00
LOCATION L0002985     VOLUME   477475.149 3749379.405 456.00
LOCATION L0002986     VOLUME   477475.036 3749387.904 456.00
LOCATION L0002987     VOLUME   477474.924 3749396.403 456.00
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   LOCATION L0002990     VOLUME   477474.586 3749421.901 456.00
   LOCATION L0002991     VOLUME   477474.473 3749430.400 456.00
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   LOCATION L0002998     VOLUME   477473.685 3749489.895 456.44
   LOCATION L0002999     VOLUME   477473.573 3749498.394 456.73
   LOCATION L0003000     VOLUME   477473.460 3749506.893 457.00
   LOCATION L0003001     VOLUME   477473.348 3749515.393 457.00
   LOCATION L0003002     VOLUME   477473.235 3749523.892 457.00
   LOCATION L0003003     VOLUME   477473.123 3749532.391 457.00
   LOCATION L0003004     VOLUME   477473.010 3749540.890 457.00
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   LOCATION L0003007     VOLUME   477472.672 3749566.388 457.00
   LOCATION L0003008     VOLUME   477472.560 3749574.887 457.00
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   LOCATION L0003011     VOLUME   477472.222 3749600.385 457.00
   LOCATION L0003012     VOLUME   477472.109 3749608.884 457.00
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   LOCATION L0003014     VOLUME   477471.884 3749625.883 457.00
   LOCATION L0003015     VOLUME   477471.772 3749634.382 457.00
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   LOCATION L0003018     VOLUME   477471.434 3749659.880 457.00
   LOCATION L0003019     VOLUME   477471.321 3749668.379 457.00
   LOCATION L0003020     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0003021     VOLUME   477471.096 3749685.378 457.00
   LOCATION L0003022     VOLUME   477470.984 3749693.877 457.00
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   LOCATION L0003024     VOLUME   477470.759 3749710.876 457.00
   LOCATION L0003025     VOLUME   477470.646 3749719.375 457.00
   LOCATION L0003026     VOLUME   477470.533 3749727.874 457.00
   LOCATION L0003027     VOLUME   477470.421 3749736.373 457.00
   LOCATION L0003028     VOLUME   477470.308 3749744.873 457.00
   LOCATION L0003029     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0003030     VOLUME   477470.083 3749761.871 457.51
   LOCATION L0003031     VOLUME   477469.971 3749770.370 457.79
   LOCATION L0003032     VOLUME   477469.858 3749778.870 458.00
   LOCATION L0003033     VOLUME   477469.745 3749787.369 458.00
** End of LINE VOLUME Source ID = SLINE11
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007092
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0003039     VOLUME   477859.355 3748181.874 450.00
   LOCATION L0003040     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0003041     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0003042     VOLUME   477833.856 3748182.077 450.46
   LOCATION L0003043     VOLUME   477825.356 3748182.144 450.71
   LOCATION L0003044     VOLUME   477816.857 3748182.212 450.88
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   LOCATION L0003062     VOLUME   477663.862 3748183.428 451.00
   LOCATION L0003063     VOLUME   477655.362 3748183.495 451.00
   LOCATION L0003064     VOLUME   477646.862 3748183.563 451.00
   LOCATION L0003065     VOLUME   477638.362 3748183.631 451.00
   LOCATION L0003066     VOLUME   477629.863 3748183.698 451.00
   LOCATION L0003067     VOLUME   477621.363 3748183.766 451.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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LOCATION L0003068     VOLUME   477612.863 3748183.833 451.00
LOCATION L0003069     VOLUME   477604.363 3748183.901 451.00
LOCATION L0003070     VOLUME   477595.864 3748183.968 451.00
LOCATION L0003071     VOLUME   477587.364 3748184.036 451.00
LOCATION L0003072     VOLUME   477578.864 3748184.104 451.00
LOCATION L0003073     VOLUME   477570.364 3748184.171 451.00
LOCATION L0003074     VOLUME   477561.865 3748184.239 451.00
LOCATION L0003075     VOLUME   477553.365 3748184.306 451.00
LOCATION L0003076     VOLUME   477544.865 3748184.374 451.00
LOCATION L0003077     VOLUME   477536.366 3748184.441 451.00
LOCATION L0003078     VOLUME   477527.866 3748184.509 451.00
LOCATION L0003079     VOLUME   477519.366 3748184.577 451.00
LOCATION L0003080     VOLUME   477510.866 3748184.644 451.00
LOCATION L0003081     VOLUME   477502.367 3748184.712 451.00
LOCATION L0003082     VOLUME   477493.867 3748184.779 451.00
LOCATION L0003083     VOLUME   477485.367 3748184.847 451.00
LOCATION L0003084     VOLUME   477476.867 3748184.914 451.00
LOCATION L0003085     VOLUME   477471.122 3748182.143 451.00
LOCATION L0003086     VOLUME   477470.934 3748173.645 451.00
LOCATION L0003087     VOLUME   477470.745 3748165.147 451.00
LOCATION L0003088     VOLUME   477470.557 3748156.649 451.00
LOCATION L0003089     VOLUME   477470.368 3748148.151 451.00
LOCATION L0003090     VOLUME   477470.180 3748139.653 451.00
LOCATION L0003091     VOLUME   477469.991 3748131.156 451.00
LOCATION L0003092     VOLUME   477469.803 3748122.658 451.00
LOCATION L0003093     VOLUME   477469.614 3748114.160 451.00
LOCATION L0003094     VOLUME   477469.426 3748105.662 451.00
LOCATION L0003095     VOLUME   477469.237 3748097.164 451.00
LOCATION L0003096     VOLUME   477469.049 3748088.666 451.00
LOCATION L0003097     VOLUME   477468.860 3748080.168 451.00
LOCATION L0003098     VOLUME   477468.672 3748071.670 451.00
LOCATION L0003099     VOLUME   477468.483 3748063.172 451.00
LOCATION L0003100     VOLUME   477468.295 3748054.674 451.00
LOCATION L0003101     VOLUME   477468.106 3748046.176 451.00
LOCATION L0003102     VOLUME   477467.917 3748037.679 451.00
LOCATION L0003103     VOLUME   477467.729 3748029.181 451.00
LOCATION L0003104     VOLUME   477467.540 3748020.683 451.00
LOCATION L0003105     VOLUME   477467.352 3748012.185 451.00
LOCATION L0003106     VOLUME   477467.163 3748003.687 451.00
LOCATION L0003107     VOLUME   477466.975 3747995.189 451.00
LOCATION L0003108     VOLUME   477466.786 3747986.691 451.00
LOCATION L0003109     VOLUME   477466.598 3747978.193 451.00
LOCATION L0003110     VOLUME   477466.409 3747969.695 451.00
LOCATION L0003111     VOLUME   477466.221 3747961.197 451.00
LOCATION L0003112     VOLUME   477466.032 3747952.699 451.00
LOCATION L0003113     VOLUME   477465.844 3747944.202 451.00
LOCATION L0003114     VOLUME   477465.655 3747935.704 451.00
LOCATION L0003115     VOLUME   477465.467 3747927.206 451.00
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   LOCATION L0003116     VOLUME   477465.278 3747918.708 451.00
   LOCATION L0003117     VOLUME   477465.090 3747910.210 451.00
   LOCATION L0003118     VOLUME   477464.901 3747901.712 451.00
   LOCATION L0003119     VOLUME   477464.713 3747893.214 451.00
   LOCATION L0003120     VOLUME   477464.524 3747884.716 451.00
   LOCATION L0003121     VOLUME   477464.336 3747876.218 451.00
   LOCATION L0003122     VOLUME   477464.147 3747867.720 451.00
   LOCATION L0003123     VOLUME   477463.959 3747859.222 451.00
   LOCATION L0003124     VOLUME   477463.770 3747850.725 451.00
   LOCATION L0003125     VOLUME   477463.582 3747842.227 451.00
   LOCATION L0003126     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0003127     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0003128     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0003129     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0003130     VOLUME   477462.639 3747799.737 451.00
   LOCATION L0003131     VOLUME   477462.450 3747791.239 451.00
   LOCATION L0003132     VOLUME   477462.262 3747782.741 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
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   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 30% on San Michele to Indian to Fwy
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0004117
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
** 477462.276, 3747781.275, 451.00, 4.00, 3.95
** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
** 477725.693, 3746359.638, 448.00, 4.00, 3.95
** 477485.022, 3746362.119, 449.09, 4.00, 3.95
** 477420.512, 3746374.524, 451.63, 4.00, 3.95
** 477323.747, 3746431.591, 450.00, 4.00, 3.95
** 477274.124, 3746468.808, 450.86, 4.00, 3.95
** 477224.501, 3746503.544, 450.08, 4.00, 3.95
** 477159.991, 3746538.280, 451.00, 4.00, 3.95
** 477093.000, 3746548.205, 451.00, 4.00, 3.95
** 476780.928, 3746552.268, 455.52, 4.00, 3.95
** 476653.222, 3746548.965, 463.87, 4.00, 3.95
** 476603.680, 3746565.479, 464.00, 4.00, 3.95
** 476539.827, 3746605.112, 464.36, 4.00, 3.95
** 476468.267, 3746741.626, 465.24, 4.00, 3.95
** 476458.359, 3746801.076, 465.86, 4.00, 3.95
** 476408.818, 3746894.654, 466.61, 4.00, 3.95
** 476338.359, 3746943.094, 468.00, 4.00, 3.95
** 476260.194, 3746950.801, 469.00, 4.00, 3.95
** 475929.918, 3746948.599, 472.48, 4.00, 3.95
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   LOCATION L0004685     VOLUME   477475.026 3747781.191 451.00
   LOCATION L0004686     VOLUME   477483.526 3747781.135 451.00
   LOCATION L0004687     VOLUME   477492.025 3747781.078 451.00
   LOCATION L0004688     VOLUME   477500.525 3747781.022 451.00
   LOCATION L0004689     VOLUME   477509.025 3747780.966 451.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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LOCATION L0004690     VOLUME   477517.525 3747780.910 451.00
LOCATION L0004691     VOLUME   477526.025 3747780.854 451.00
LOCATION L0004692     VOLUME   477534.524 3747780.798 451.00
LOCATION L0004693     VOLUME   477543.024 3747780.742 451.00
LOCATION L0004694     VOLUME   477551.524 3747780.685 451.00
LOCATION L0004695     VOLUME   477560.024 3747780.629 451.00
LOCATION L0004696     VOLUME   477568.524 3747780.573 451.00
LOCATION L0004697     VOLUME   477577.023 3747780.517 451.00
LOCATION L0004698     VOLUME   477585.523 3747780.461 451.00
LOCATION L0004699     VOLUME   477594.023 3747780.405 451.00
LOCATION L0004700     VOLUME   477602.523 3747780.349 451.00
LOCATION L0004701     VOLUME   477611.023 3747780.292 451.00
LOCATION L0004702     VOLUME   477619.523 3747780.236 451.00
LOCATION L0004703     VOLUME   477628.022 3747780.180 451.00
LOCATION L0004704     VOLUME   477636.522 3747780.124 451.00
LOCATION L0004705     VOLUME   477645.022 3747780.068 450.91
LOCATION L0004706     VOLUME   477653.522 3747780.012 450.75
LOCATION L0004707     VOLUME   477662.022 3747779.956 450.60
LOCATION L0004708     VOLUME   477670.521 3747779.899 450.45
LOCATION L0004709     VOLUME   477679.021 3747779.843 450.32
LOCATION L0004710     VOLUME   477687.521 3747779.787 450.19
LOCATION L0004711     VOLUME   477696.021 3747779.731 450.06
LOCATION L0004712     VOLUME   477704.521 3747779.675 450.00
LOCATION L0004713     VOLUME   477713.021 3747779.619 450.00
LOCATION L0004714     VOLUME   477721.520 3747779.563 450.00
LOCATION L0004715     VOLUME   477730.020 3747779.506 450.00
LOCATION L0004716     VOLUME   477738.520 3747779.450 450.00
LOCATION L0004717     VOLUME   477747.020 3747779.394 450.00
LOCATION L0004718     VOLUME   477755.520 3747779.338 450.00
LOCATION L0004719     VOLUME   477764.019 3747779.282 450.00
LOCATION L0004720     VOLUME   477772.519 3747779.226 450.00
LOCATION L0004721     VOLUME   477781.019 3747779.170 450.00
LOCATION L0004722     VOLUME   477789.519 3747779.113 450.00
LOCATION L0004723     VOLUME   477798.019 3747779.057 450.00
LOCATION L0004724     VOLUME   477806.518 3747779.001 450.00
LOCATION L0004725     VOLUME   477815.018 3747778.945 450.00
LOCATION L0004726     VOLUME   477823.518 3747778.889 450.00
LOCATION L0004727     VOLUME   477832.018 3747778.833 450.00
LOCATION L0004728     VOLUME   477840.518 3747778.777 450.00
LOCATION L0004729     VOLUME   477849.018 3747778.720 450.00
LOCATION L0004730     VOLUME   477857.517 3747778.664 450.00
LOCATION L0004731     VOLUME   477866.017 3747778.608 450.00
LOCATION L0004732     VOLUME   477874.517 3747778.552 450.00
LOCATION L0004733     VOLUME   477883.017 3747778.496 450.00
LOCATION L0004734     VOLUME   477891.517 3747778.440 450.00
LOCATION L0004735     VOLUME   477900.016 3747778.384 450.00
LOCATION L0004736     VOLUME   477908.516 3747778.327 450.00
LOCATION L0004737     VOLUME   477917.016 3747778.271 450.00
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AERMOD HRA Output

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LOCATION L0004738      VOLUME   477925.516 3747778.215 450.00
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LOCATION L0004740      VOLUME   477942.516 3747778.103 450.00
LOCATION L0004741      VOLUME   477951.015 3747778.047 450.00
LOCATION L0004742      VOLUME   477959.515 3747777.991 450.00
LOCATION L0004743      VOLUME   477968.015 3747777.934 450.00
LOCATION L0004744      VOLUME   477976.515 3747777.878 450.00
LOCATION L0004745      VOLUME   477985.015 3747777.822 450.00
LOCATION L0004746      VOLUME   477993.514 3747777.766 450.00
LOCATION L0004747      VOLUME   478002.014 3747777.710 449.96
LOCATION L0004748      VOLUME   478010.514 3747777.654 449.78
LOCATION L0004749      VOLUME   478019.014 3747777.598 449.60
LOCATION L0004750      VOLUME   478027.514 3747777.541 449.43
LOCATION L0004751      VOLUME   478036.013 3747777.485 449.30
LOCATION L0004752      VOLUME   478044.513 3747777.429 449.19
LOCATION L0004753      VOLUME   478053.013 3747777.373 449.09
LOCATION L0004754      VOLUME   478061.513 3747777.317 449.00
LOCATION L0004755      VOLUME   478070.013 3747777.261 449.00
LOCATION L0004756      VOLUME   478078.513 3747777.204 449.00
LOCATION L0004757      VOLUME   478087.012 3747777.148 449.00
LOCATION L0004758      VOLUME   478095.512 3747777.092 449.00
LOCATION L0004759      VOLUME   478104.012 3747777.036 449.00
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LOCATION L0004767      VOLUME   478172.011 3747776.587 449.00
LOCATION L0004768      VOLUME   478180.510 3747776.531 449.00
LOCATION L0004769      VOLUME   478189.010 3747776.475 449.00
LOCATION L0004770      VOLUME   478197.510 3747776.418 449.00
LOCATION L0004771      VOLUME   478206.010 3747776.362 449.00
LOCATION L0004772      VOLUME   478214.510 3747776.306 449.00
LOCATION L0004773      VOLUME   478223.009 3747776.250 449.00
LOCATION L0004774      VOLUME   478231.509 3747776.194 449.00
LOCATION L0004775      VOLUME   478240.009 3747776.138 449.00
LOCATION L0004776      VOLUME   478248.509 3747776.082 449.00
LOCATION L0004777      VOLUME   478257.009 3747776.025 449.00
LOCATION L0004778      VOLUME   478265.508 3747775.969 449.00
LOCATION L0004779      VOLUME   478274.008 3747775.913 449.00
LOCATION L0004780      VOLUME   478281.001 3747774.354 449.00
LOCATION L0004781      VOLUME   478281.033 3747765.854 449.00
LOCATION L0004782      VOLUME   478281.065 3747757.354 449.00
LOCATION L0004783      VOLUME   478281.098 3747748.854 449.00
LOCATION L0004784      VOLUME   478281.130 3747740.354 449.00
LOCATION L0004785      VOLUME   478281.162 3747731.854 449.00
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                              AERMOD HRA Output
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LOCATION L0004787     VOLUME   478281.227 3747714.854 449.00
LOCATION L0004788     VOLUME   478281.259 3747706.354 449.00
LOCATION L0004789     VOLUME   478281.291 3747697.854 449.00
LOCATION L0004790     VOLUME   478281.324 3747689.354 449.00
LOCATION L0004791     VOLUME   478281.356 3747680.855 449.00
LOCATION L0004792     VOLUME   478281.388 3747672.355 448.87
LOCATION L0004793     VOLUME   478281.421 3747663.855 448.59
LOCATION L0004794     VOLUME   478281.453 3747655.355 448.30
LOCATION L0004795     VOLUME   478281.485 3747646.855 448.02
LOCATION L0004796     VOLUME   478281.517 3747638.355 448.00
LOCATION L0004797     VOLUME   478281.550 3747629.855 448.00
LOCATION L0004798     VOLUME   478281.582 3747621.355 448.00
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LOCATION L0004803     VOLUME   478281.743 3747578.855 448.00
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LOCATION L0004833     VOLUME   478282.712 3747323.857 448.00
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LOCATION L0004854      VOLUME   478283.390 3747145.358 448.00
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LOCATION L0004856      VOLUME   478283.455 3747128.359 448.00
LOCATION L0004857      VOLUME   478283.487 3747119.859 448.00
LOCATION L0004858      VOLUME   478283.520 3747111.359 448.00
LOCATION L0004859      VOLUME   478283.552 3747102.859 448.00
LOCATION L0004860      VOLUME   478283.584 3747094.359 448.00
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LOCATION L0004864      VOLUME   478283.713 3747060.359 448.00
LOCATION L0004865      VOLUME   478283.746 3747051.859 448.00
LOCATION L0004866      VOLUME   478283.778 3747043.359 448.00
LOCATION L0004867      VOLUME   478283.810 3747034.859 448.00
LOCATION L0004868      VOLUME   478283.842 3747026.359 448.00
LOCATION L0004869      VOLUME   478283.875 3747017.859 448.00
LOCATION L0004870      VOLUME   478283.907 3747009.359 448.00
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LOCATION L0004872      VOLUME   478283.972 3746992.360 448.00
LOCATION L0004873      VOLUME   478284.004 3746983.860 448.00
LOCATION L0004874      VOLUME   478284.036 3746975.360 448.00
LOCATION L0004875      VOLUME   478284.069 3746966.860 448.00
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LOCATION L0004877      VOLUME   478284.133 3746949.860 448.00
LOCATION L0004878      VOLUME   478284.165 3746941.360 448.00
LOCATION L0004879      VOLUME   478284.198 3746932.860 448.00
LOCATION L0004880      VOLUME   478284.230 3746924.360 448.00
LOCATION L0004881      VOLUME   478284.262 3746915.860 448.00
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LOCATION L0004887      VOLUME   478284.456 3746864.860 447.98
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LOCATION L0004904      VOLUME   478285.005 3746720.361 447.00
LOCATION L0004905      VOLUME   478285.037 3746711.862 447.00
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LOCATION L0004976     VOLUME   478053.101 3746359.638 447.00
LOCATION L0004977     VOLUME   478044.601 3746359.638 447.00
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LOCATION L0004981     VOLUME   478010.601 3746359.638 447.00
LOCATION L0004982     VOLUME   478002.101 3746359.638 447.00
LOCATION L0004983     VOLUME   477993.601 3746359.638 447.00
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LOCATION L0004989     VOLUME   477942.601 3746359.638 447.10
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LOCATION L0005025     VOLUME   477636.606 3746360.556 448.11
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LOCATION L0005161     VOLUME   476543.596 3746602.773 464.30
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LOCATION L0005163     VOLUME   476533.994 3746616.240 464.43
LOCATION L0005164     VOLUME   476530.047 3746623.768 464.48
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LOCATION L0005166     VOLUME   476522.155 3746638.825 464.58
LOCATION L0005167     VOLUME   476518.208 3746646.354 464.63
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LOCATION L0005175      VOLUME   476486.638 3746706.581 465.08
LOCATION L0005176      VOLUME   476482.691 3746714.109 465.19
LOCATION L0005177      VOLUME   476478.745 3746721.637 465.29
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LOCATION L0005180      VOLUME   476467.785 3746744.518 465.58
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LOCATION L0005199      VOLUME   476409.623 3746893.133 467.05
LOCATION L0005200      VOLUME   476403.232 3746898.494 467.13
LOCATION L0005201      VOLUME   476396.228 3746903.310 467.22
LOCATION L0005202      VOLUME   476389.223 3746908.125 467.31
LOCATION L0005203      VOLUME   476382.219 3746912.941 467.40
LOCATION L0005204      VOLUME   476375.214 3746917.756 467.49
LOCATION L0005205      VOLUME   476368.210 3746922.572 467.59
LOCATION L0005206      VOLUME   476361.206 3746927.387 467.68
LOCATION L0005207      VOLUME   476354.201 3746932.203 467.77
LOCATION L0005208      VOLUME   476347.197 3746937.018 467.86
LOCATION L0005209      VOLUME   476340.193 3746941.833 467.95
LOCATION L0005210      VOLUME   476332.114 3746943.710 468.05
LOCATION L0005211      VOLUME   476323.655 3746944.544 468.16
LOCATION L0005212      VOLUME   476315.196 3746945.378 468.27
LOCATION L0005213      VOLUME   476306.737 3746946.212 468.38
LOCATION L0005214      VOLUME   476298.278 3746947.046 468.49
LOCATION L0005215      VOLUME   476289.819 3746947.880 468.60
LOCATION L0005216      VOLUME   476281.360 3746948.714 468.71
LOCATION L0005217      VOLUME   476272.901 3746949.548 468.82
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   LOCATION L0005220     VOLUME   476247.463 3746950.716 469.15
   LOCATION L0005221     VOLUME   476238.964 3746950.659 469.26
   LOCATION L0005222     VOLUME   476230.464 3746950.603 469.37
   LOCATION L0005223     VOLUME   476221.964 3746950.546 469.48
   LOCATION L0005224     VOLUME   476213.464 3746950.489 469.59
   LOCATION L0005225     VOLUME   476204.964 3746950.433 469.70
   LOCATION L0005226     VOLUME   476196.464 3746950.376 469.81
   LOCATION L0005227     VOLUME   476187.965 3746950.319 469.92
   LOCATION L0005228     VOLUME   476179.465 3746950.263 470.04
   LOCATION L0005229     VOLUME   476170.965 3746950.206 470.15
   LOCATION L0005230     VOLUME   476162.465 3746950.149 470.26
   LOCATION L0005231     VOLUME   476153.965 3746950.093 470.37
   LOCATION L0005232     VOLUME   476145.466 3746950.036 470.48
   LOCATION L0005233     VOLUME   476136.966 3746949.979 470.59
   LOCATION L0005234     VOLUME   476128.466 3746949.923 470.70
   LOCATION L0005235     VOLUME   476119.966 3746949.866 470.81
   LOCATION L0005236     VOLUME   476111.466 3746949.809 470.92
   LOCATION L0005237     VOLUME   476102.967 3746949.753 471.03
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   LOCATION L0005240     VOLUME   476077.467 3746949.583 471.36
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   LOCATION L0005243     VOLUME   476051.968 3746949.413 471.69
   LOCATION L0005244     VOLUME   476043.468 3746949.356 471.80
   LOCATION L0005245     VOLUME   476034.968 3746949.299 471.91
   LOCATION L0005246     VOLUME   476026.468 3746949.243 472.02
   LOCATION L0005247     VOLUME   476017.968 3746949.186 472.13
   LOCATION L0005248     VOLUME   476009.469 3746949.129 472.24
   LOCATION L0005249     VOLUME   476000.969 3746949.073 472.35
   LOCATION L0005250     VOLUME   475992.469 3746949.016 472.46
   LOCATION L0005251     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0005252     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0005253     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0005254     VOLUME   475958.470 3746948.789 472.90
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   LOCATION L0005256     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0005257     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 60% to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
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AERMOD HRA Output

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** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
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** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
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   LOCATION L0005278     VOLUME   477477.840 3749970.201 458.45
   LOCATION L0005279     VOLUME   477477.704 3749978.700 458.74
   LOCATION L0005280     VOLUME   477477.568 3749987.199 459.00
   LOCATION L0005281     VOLUME   477477.432 3749995.697 459.00
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   LOCATION L0005290     VOLUME   477476.208 3750072.188 459.00
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LOCATION L0005295     VOLUME   477475.529 3750114.682 459.00
LOCATION L0005296     VOLUME   477475.393 3750123.181 459.00
LOCATION L0005297     VOLUME   477475.257 3750131.680 459.00
LOCATION L0005298     VOLUME   477475.121 3750140.179 459.00
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LOCATION L0005301     VOLUME   477474.713 3750165.676 459.00
LOCATION L0005302     VOLUME   477474.171 3750174.155 459.00
LOCATION L0005303     VOLUME   477473.482 3750182.627 459.00
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LOCATION L0005309     VOLUME   477469.344 3750233.459 459.48
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LOCATION L0005338     VOLUME   477467.328 3750479.838 460.44
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AERMOD HRA Output

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LOCATION L0005385     VOLUME   477477.120 3750879.199 462.44
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LOCATION L0005434     VOLUME   477478.977 3751295.690 465.00
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LOCATION L0005481      VOLUME   477476.233 3751695.181 467.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0005824      VOLUME   475088.049 3752228.927 476.00
LOCATION L0005825      VOLUME   475079.549 3752228.937 476.00
LOCATION L0005826      VOLUME   475071.049 3752228.947 476.00
LOCATION L0005827      VOLUME   475062.549 3752228.957 476.00
LOCATION L0005828      VOLUME   475054.049 3752228.967 476.00
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LOCATION L0005831      VOLUME   475028.549 3752228.997 475.85
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LOCATION L0005833      VOLUME   475011.549 3752229.017 475.63
LOCATION L0005834      VOLUME   475003.049 3752229.027 475.52
LOCATION L0005835      VOLUME   474994.549 3752229.037 475.41
LOCATION L0005836      VOLUME   474986.049 3752229.046 475.30
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LOCATION L0005838      VOLUME   474969.049 3752229.066 475.08
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LOCATION L0005845      VOLUME   474909.549 3752229.136 475.00
LOCATION L0005846      VOLUME   474901.050 3752229.146 475.00
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LOCATION L0005849      VOLUME   474875.550 3752229.176 474.87
LOCATION L0005850      VOLUME   474867.050 3752229.186 474.76
LOCATION L0005851      VOLUME   474858.550 3752229.196 474.65
LOCATION L0005852      VOLUME   474850.050 3752229.206 474.54
LOCATION L0005853      VOLUME   474841.550 3752229.216 474.43
LOCATION L0005854      VOLUME   474833.050 3752229.226 474.32
LOCATION L0005855      VOLUME   474824.550 3752229.236 474.21
LOCATION L0005856      VOLUME   474816.050 3752229.246 474.10
LOCATION L0005857      VOLUME   474807.550 3752229.256 474.02
LOCATION L0005858      VOLUME   474799.143 3752228.014 474.12
LOCATION L0005859      VOLUME   474790.738 3752226.744 474.23
LOCATION L0005860      VOLUME   474782.334 3752225.473 474.34
LOCATION L0005861      VOLUME   474773.930 3752224.202 474.45
LOCATION L0005862      VOLUME   474765.525 3752222.931 474.56
LOCATION L0005863      VOLUME   474757.121 3752221.660 474.67
LOCATION L0005864      VOLUME   474748.716 3752220.389 474.78
LOCATION L0005865      VOLUME   474740.312 3752219.118 474.89
LOCATION L0005866      VOLUME   474731.907 3752217.847 475.00
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LOCATION L0005870     VOLUME   474698.290 3752212.763 475.00
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LOCATION L0005876     VOLUME   474647.863 3752205.138 475.00
LOCATION L0005877     VOLUME   474639.458 3752203.867 475.00
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LOCATION L0005879     VOLUME   474622.649 3752201.325 475.00
LOCATION L0005880     VOLUME   474614.245 3752200.054 475.00
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LOCATION L0005883     VOLUME   474589.032 3752196.241 475.00
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LOCATION L0005885     VOLUME   474572.223 3752193.700 475.07
LOCATION L0005886     VOLUME   474563.818 3752192.429 475.18
LOCATION L0005887     VOLUME   474555.414 3752191.158 475.29
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LOCATION L0005889     VOLUME   474538.605 3752188.616 475.50
LOCATION L0005890     VOLUME   474530.201 3752187.345 475.61
LOCATION L0005891     VOLUME   474521.796 3752186.074 475.72
LOCATION L0005892     VOLUME   474513.392 3752184.803 475.83
LOCATION L0005893     VOLUME   474504.987 3752183.532 475.94
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LOCATION L0005896     VOLUME   474479.774 3752179.720 476.00
LOCATION L0005897     VOLUME   474471.369 3752178.449 476.00
LOCATION L0005898     VOLUME   474462.965 3752177.178 476.00
LOCATION L0005899     VOLUME   474454.561 3752175.907 476.00
LOCATION L0005900     VOLUME   474446.156 3752174.636 476.00
LOCATION L0005901     VOLUME   474437.752 3752173.365 476.00
LOCATION L0005902     VOLUME   474429.347 3752172.094 476.00
LOCATION L0005903     VOLUME   474420.943 3752170.823 476.03
LOCATION L0005904     VOLUME   474412.538 3752169.552 476.14
LOCATION L0005905     VOLUME   474404.134 3752168.281 476.25
LOCATION L0005906     VOLUME   474395.729 3752167.010 476.36
LOCATION L0005907     VOLUME   474387.325 3752165.739 476.47
LOCATION L0005908     VOLUME   474378.920 3752164.468 476.58
LOCATION L0005909     VOLUME   474370.516 3752163.198 476.69
LOCATION L0005910     VOLUME   474362.112 3752161.927 476.79
LOCATION L0005911     VOLUME   474353.707 3752160.656 476.90
LOCATION L0005912     VOLUME   474345.303 3752159.385 477.00
LOCATION L0005913     VOLUME   474336.898 3752158.114 477.00
LOCATION L0005914     VOLUME   474328.494 3752156.843 477.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                  AERMOD HRA Output
   LOCATION L0005915     VOLUME   474320.089 3752155.572 477.00
   LOCATION L0005916     VOLUME   474311.685 3752154.301 477.00
   LOCATION L0005917     VOLUME   474303.280 3752153.030 477.00
   LOCATION L0005918     VOLUME   474294.876 3752151.759 477.00
   LOCATION L0005919     VOLUME   474286.472 3752150.488 477.00
   LOCATION L0005920     VOLUME   474278.067 3752149.217 477.00
   LOCATION L0005921     VOLUME   474269.663 3752147.947 477.00
   LOCATION L0005922     VOLUME   474261.258 3752146.676 477.00
   LOCATION L0005923     VOLUME   474252.854 3752145.405 477.00
   LOCATION L0005924     VOLUME   474244.449 3752144.134 477.00
   LOCATION L0005925     VOLUME   474236.045 3752142.863 477.00
   LOCATION L0005926     VOLUME   474227.640 3752141.592 477.00
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   LOCATION L0005928     VOLUME   474210.831 3752139.050 477.00
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   LOCATION L0005930     VOLUME   474194.023 3752136.508 477.00
   LOCATION L0005931     VOLUME   474185.618 3752135.237 477.08
   LOCATION L0005932     VOLUME   474177.214 3752133.966 477.19
   LOCATION L0005933     VOLUME   474168.809 3752132.696 477.30
   LOCATION L0005934     VOLUME   474160.420 3752131.328 477.41
   LOCATION L0005935     VOLUME   474152.036 3752129.931 477.52
   LOCATION L0005936     VOLUME   474143.651 3752128.533 477.63
   LOCATION L0005937     VOLUME   474135.267 3752127.136 477.74
   LOCATION L0005938     VOLUME   474126.883 3752125.738 477.85
   LOCATION L0005939     VOLUME   474118.498 3752124.341 477.96
   LOCATION L0005940     VOLUME   474110.114 3752122.944 478.00
   LOCATION L0005941     VOLUME   474101.730 3752121.546 478.00
   LOCATION L0005942     VOLUME   474093.345 3752120.149 478.00
   LOCATION L0005943     VOLUME   474084.961 3752118.751 478.00
   LOCATION L0005944     VOLUME   474076.577 3752117.354 478.00
   LOCATION L0005945     VOLUME   474068.192 3752115.956 478.00
   LOCATION L0005946     VOLUME   474059.808 3752114.559 478.00
   LOCATION L0005947     VOLUME   474051.424 3752113.162 478.00
   LOCATION L0005948     VOLUME   474043.039 3752111.764 478.00
** End of LINE VOLUME Source ID = SLINE14
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006839
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477480.626, 3749795.973, 459.75, 0.00, 3.95
** 477474.677, 3750167.941, 460.51, 0.00, 3.95
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** 477466.428, 3750269.283, 460.78, 0.00, 3.95
** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
** 477472.585, 3752226.131, 471.76, 0.00, 3.95
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   LOCATION L0005952     VOLUME   477480.150 3749825.719 458.00
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   LOCATION L0005955     VOLUME   477479.742 3749851.216 458.00
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   LOCATION L0005959     VOLUME   477479.199 3749885.212 458.00
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   LOCATION L0005968     VOLUME   477477.975 3749961.702 458.17
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   LOCATION L0005971     VOLUME   477477.568 3749987.199 459.00
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   LOCATION L0005975     VOLUME   477477.024 3750021.194 459.00
   LOCATION L0005976     VOLUME   477476.888 3750029.693 459.00
   LOCATION L0005977     VOLUME   477476.752 3750038.192 459.00
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   LOCATION L0005982     VOLUME   477476.072 3750080.687 459.00
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   LOCATION L0005984     VOLUME   477475.801 3750097.684 459.00
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   LOCATION L0005987     VOLUME   477475.393 3750123.181 459.00
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   LOCATION L0005989     VOLUME   477475.121 3750140.179 459.00
   LOCATION L0005990     VOLUME   477474.985 3750148.678 459.00
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LOCATION L0005996      VOLUME   477472.102 3750199.571 459.04
LOCATION L0005997      VOLUME   477471.413 3750208.043 459.15
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LOCATION L0006026      VOLUME   477467.219 3750454.339 460.00
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LOCATION L0006032      VOLUME   477467.436 3750505.338 461.00
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LOCATION L0006035      VOLUME   477467.545 3750530.838 461.00
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LOCATION L0006037      VOLUME   477467.689 3750547.837 461.00
LOCATION L0006038      VOLUME   477467.939 3750556.333 461.00
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LOCATION L0006045      VOLUME   477469.688 3750615.807 461.00
LOCATION L0006046      VOLUME   477469.938 3750624.303 461.00
LOCATION L0006047      VOLUME   477470.188 3750632.800 461.00
LOCATION L0006048      VOLUME   477470.437 3750641.296 461.00
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LOCATION L0006075      VOLUME   477477.066 3750870.699 462.27
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LOCATION L0006078      VOLUME   477477.228 3750896.199 462.72
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LOCATION L0006083      VOLUME   477477.499 3750938.698 463.00
LOCATION L0006084      VOLUME   477477.553 3750947.197 463.00
LOCATION L0006085      VOLUME   477477.607 3750955.697 463.00
LOCATION L0006086      VOLUME   477477.661 3750964.197 463.00
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LOCATION L0006094     VOLUME   477478.095 3751032.196 463.00
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LOCATION L0006097     VOLUME   477478.257 3751057.695 463.00
LOCATION L0006098     VOLUME   477478.311 3751066.195 463.00
LOCATION L0006099     VOLUME   477478.365 3751074.695 463.17
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LOCATION L0006113     VOLUME   477479.123 3751193.692 464.00
LOCATION L0006114     VOLUME   477479.177 3751202.192 464.00
LOCATION L0006115     VOLUME   477479.232 3751210.692 464.00
LOCATION L0006116     VOLUME   477479.286 3751219.192 464.00
LOCATION L0006117     VOLUME   477479.340 3751227.692 464.00
LOCATION L0006118     VOLUME   477479.386 3751236.192 464.00
LOCATION L0006119     VOLUME   477479.327 3751244.691 464.00
LOCATION L0006120     VOLUME   477479.269 3751253.191 464.22
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LOCATION L0006123     VOLUME   477479.094 3751278.691 465.00
LOCATION L0006124     VOLUME   477479.035 3751287.190 465.00
LOCATION L0006125     VOLUME   477478.977 3751295.690 465.00
LOCATION L0006126     VOLUME   477478.919 3751304.190 465.00
LOCATION L0006127     VOLUME   477478.860 3751312.690 465.00
LOCATION L0006128     VOLUME   477478.802 3751321.190 465.00
LOCATION L0006129     VOLUME   477478.743 3751329.689 465.00
LOCATION L0006130     VOLUME   477478.685 3751338.189 465.00
LOCATION L0006131     VOLUME   477478.627 3751346.689 465.00
LOCATION L0006132     VOLUME   477478.568 3751355.189 465.00
LOCATION L0006133     VOLUME   477478.510 3751363.689 465.00
LOCATION L0006134     VOLUME   477478.451 3751372.188 465.00
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LOCATION L0006135     VOLUME   477478.393 3751380.688 465.00
LOCATION L0006136     VOLUME   477478.335 3751389.188 465.00
LOCATION L0006137     VOLUME   477478.276 3751397.688 465.00
LOCATION L0006138     VOLUME   477478.218 3751406.188 465.00
LOCATION L0006139     VOLUME   477478.159 3751414.687 465.00
LOCATION L0006140     VOLUME   477478.101 3751423.187 465.00
LOCATION L0006141     VOLUME   477478.043 3751431.687 465.17
LOCATION L0006142     VOLUME   477477.984 3751440.187 465.45
LOCATION L0006143     VOLUME   477477.926 3751448.687 465.74
LOCATION L0006144     VOLUME   477477.867 3751457.186 466.00
LOCATION L0006145     VOLUME   477477.809 3751465.686 466.00
LOCATION L0006146     VOLUME   477477.751 3751474.186 466.00
LOCATION L0006147     VOLUME   477477.692 3751482.686 466.00
LOCATION L0006148     VOLUME   477477.634 3751491.186 466.00
LOCATION L0006149     VOLUME   477477.576 3751499.685 466.00
LOCATION L0006150     VOLUME   477477.517 3751508.185 466.00
LOCATION L0006151     VOLUME   477477.459 3751516.685 466.00
LOCATION L0006152     VOLUME   477477.400 3751525.185 466.00
LOCATION L0006153     VOLUME   477477.342 3751533.685 466.00
LOCATION L0006154     VOLUME   477477.284 3751542.184 466.00
LOCATION L0006155     VOLUME   477477.225 3751550.684 466.00
LOCATION L0006156     VOLUME   477477.167 3751559.184 466.00
LOCATION L0006157     VOLUME   477477.108 3751567.684 466.00
LOCATION L0006158     VOLUME   477477.050 3751576.184 466.00
LOCATION L0006159     VOLUME   477476.992 3751584.683 466.00
LOCATION L0006160     VOLUME   477476.933 3751593.183 466.00
LOCATION L0006161     VOLUME   477476.875 3751601.683 466.00
LOCATION L0006162     VOLUME   477476.816 3751610.183 466.07
LOCATION L0006163     VOLUME   477476.758 3751618.683 466.23
LOCATION L0006164     VOLUME   477476.700 3751627.182 466.39
LOCATION L0006165     VOLUME   477476.641 3751635.682 466.55
LOCATION L0006166     VOLUME   477476.583 3751644.182 466.67
LOCATION L0006167     VOLUME   477476.524 3751652.682 466.80
LOCATION L0006168     VOLUME   477476.466 3751661.182 466.92
LOCATION L0006169     VOLUME   477476.408 3751669.681 467.00
LOCATION L0006170     VOLUME   477476.349 3751678.181 467.00
LOCATION L0006171     VOLUME   477476.291 3751686.681 467.00
LOCATION L0006172     VOLUME   477476.233 3751695.181 467.00
LOCATION L0006173     VOLUME   477476.174 3751703.681 467.00
LOCATION L0006174     VOLUME   477476.116 3751712.180 467.00
LOCATION L0006175     VOLUME   477476.057 3751720.680 467.00
LOCATION L0006176     VOLUME   477475.999 3751729.180 467.05
LOCATION L0006177     VOLUME   477475.941 3751737.680 467.20
LOCATION L0006178     VOLUME   477475.882 3751746.180 467.35
LOCATION L0006179     VOLUME   477475.824 3751754.679 467.50
LOCATION L0006180     VOLUME   477475.765 3751763.179 467.64
LOCATION L0006181     VOLUME   477475.707 3751771.679 467.77
LOCATION L0006182     VOLUME   477475.649 3751780.179 467.90
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                              AERMOD HRA Output
LOCATION L0006183      VOLUME   477475.590 3751788.679 468.00
LOCATION L0006184      VOLUME   477475.532 3751797.178 468.00
LOCATION L0006185      VOLUME   477475.473 3751805.678 468.00
LOCATION L0006186      VOLUME   477475.415 3751814.178 468.00
LOCATION L0006187      VOLUME   477475.357 3751822.678 468.00
LOCATION L0006188      VOLUME   477475.298 3751831.178 468.00
LOCATION L0006189      VOLUME   477475.240 3751839.677 468.00
LOCATION L0006190      VOLUME   477475.181 3751848.177 468.00
LOCATION L0006191      VOLUME   477475.123 3751856.677 468.00
LOCATION L0006192      VOLUME   477475.065 3751865.177 468.00
LOCATION L0006193      VOLUME   477475.006 3751873.677 468.00
LOCATION L0006194      VOLUME   477474.948 3751882.176 468.19
LOCATION L0006195      VOLUME   477474.890 3751890.676 468.47
LOCATION L0006196      VOLUME   477474.831 3751899.176 468.75
LOCATION L0006197      VOLUME   477474.773 3751907.676 469.00
LOCATION L0006198      VOLUME   477474.714 3751916.176 469.00
LOCATION L0006199      VOLUME   477474.656 3751924.675 469.00
LOCATION L0006200      VOLUME   477474.598 3751933.175 469.00
LOCATION L0006201      VOLUME   477474.539 3751941.675 469.00
LOCATION L0006202      VOLUME   477474.481 3751950.175 469.00
LOCATION L0006203      VOLUME   477474.422 3751958.675 469.00
LOCATION L0006204      VOLUME   477474.364 3751967.174 469.00
LOCATION L0006205      VOLUME   477474.306 3751975.674 469.00
LOCATION L0006206      VOLUME   477474.247 3751984.174 469.00
LOCATION L0006207      VOLUME   477474.189 3751992.674 469.00
LOCATION L0006208      VOLUME   477474.130 3752001.174 469.00
LOCATION L0006209      VOLUME   477474.072 3752009.673 469.00
LOCATION L0006210      VOLUME   477474.014 3752018.173 469.00
LOCATION L0006211      VOLUME   477473.955 3752026.673 469.00
LOCATION L0006212      VOLUME   477473.897 3752035.173 469.14
LOCATION L0006213      VOLUME   477473.838 3752043.673 469.27
LOCATION L0006214      VOLUME   477473.780 3752052.172 469.40
LOCATION L0006215      VOLUME   477473.722 3752060.672 469.46
LOCATION L0006216      VOLUME   477473.663 3752069.172 469.46
LOCATION L0006217      VOLUME   477473.605 3752077.672 469.46
LOCATION L0006218      VOLUME   477473.546 3752086.172 469.46
LOCATION L0006219      VOLUME   477473.488 3752094.671 469.60
LOCATION L0006220      VOLUME   477473.430 3752103.171 469.76
LOCATION L0006221      VOLUME   477473.371 3752111.671 469.91
LOCATION L0006222      VOLUME   477473.313 3752120.171 470.05
LOCATION L0006223      VOLUME   477473.255 3752128.671 470.18
LOCATION L0006224      VOLUME   477473.196 3752137.170 470.31
LOCATION L0006225      VOLUME   477473.138 3752145.670 470.43
LOCATION L0006226      VOLUME   477473.079 3752154.170 470.58
LOCATION L0006227      VOLUME   477473.021 3752162.670 470.74
LOCATION L0006228      VOLUME   477472.963 3752171.170 470.90
LOCATION L0006229      VOLUME   477472.904 3752179.669 471.00
LOCATION L0006230      VOLUME   477472.846 3752188.169 471.00
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   LOCATION L0006231     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0006232     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0006233     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0006234     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0002435     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002436     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002437     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002438     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002439     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002440     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002441     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002442     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002443     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002444     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002445     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002446     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002447     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002448     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002449     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002450     0.000008553      4.00     13.95      1.86
   SRCPARAM L0002451     0.000008553      4.00     13.95      1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0002452     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002453     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002454     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002455     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002456     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002457     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002458     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002459     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002460     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002461     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002462     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002463     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002464     0.000008864      4.00     13.95      1.86
   SRCPARAM L0002465     0.000008864      4.00     13.95      1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0002466     0.000008177      4.00      3.95      1.86
   SRCPARAM L0002467     0.000008177      4.00      3.95      1.86
   SRCPARAM L0002468     0.000008177      4.00      3.95      1.86
   SRCPARAM L0002469     0.000008177      4.00      3.95      1.86
   SRCPARAM L0002470     0.000008177      4.00      3.95      1.86
   SRCPARAM L0002471     0.000008177      4.00      3.95      1.86
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                           AERMOD HRA Output
   SRCPARAM L0002472     0.000008177      4.00       3.95       1.86
   SRCPARAM L0002473     0.000008177      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0002474     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002475     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002476     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002477     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002478     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002479     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002480     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002481     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002482     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002483     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002484     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002485     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002486     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002487     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002488     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002489     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002490     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002491     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002492     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002493     0.0000006343      4.00       3.95       1.86
   SRCPARAM L0002494     0.0000006343      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0002495     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002496     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002497     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002498     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002499     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002500     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002501     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002502     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002503     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002504     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002505     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002506     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002507     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002508     0.000005911      0.00       3.95       1.86
   SRCPARAM L0002509     0.000005911      0.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0002510     0.000002058      0.00      13.95       1.86
   SRCPARAM L0002511     0.000002058      0.00      13.95       1.86
   SRCPARAM L0002512     0.000002058      0.00      13.95       1.86
   SRCPARAM L0002513     0.000002058      0.00      13.95       1.86
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   SRCPARAM L0002514     0.000002058      0.00     13.95      1.86
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0002515     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002516     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002517     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002518     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002519     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002520     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002521     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002522     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002523     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002524     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002525     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002526     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002527     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002528     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002529     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002530     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002531     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002532     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002533     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002534     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002535     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002536     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002537     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002538     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002539     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002540     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002541     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002542     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002543     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002544     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002545     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002546     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002547     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002548     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002549     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002550     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002551     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002552     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002553     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002554     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002555     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002556     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002557     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002558     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002559     0.000003353      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0002560      0.000003353        4.00        3.95        1.86
SRCPARAM L0002561      0.000003353        4.00        3.95        1.86
SRCPARAM L0002562      0.000003353        4.00        3.95        1.86
SRCPARAM L0002563      0.000003353        4.00        3.95        1.86
SRCPARAM L0002564      0.000003353        4.00        3.95        1.86
SRCPARAM L0002565      0.000003353        4.00        3.95        1.86
SRCPARAM L0002566      0.000003353        4.00        3.95        1.86
SRCPARAM L0002567      0.000003353        4.00        3.95        1.86
SRCPARAM L0002568      0.000003353        4.00        3.95        1.86
SRCPARAM L0002569      0.000003353        4.00        3.95        1.86
SRCPARAM L0002570      0.000003353        4.00        3.95        1.86
SRCPARAM L0002571      0.000003353        4.00        3.95        1.86
SRCPARAM L0002572      0.000003353        4.00        3.95        1.86
SRCPARAM L0002573      0.000003353        4.00        3.95        1.86
SRCPARAM L0002574      0.000003353        4.00        3.95        1.86
SRCPARAM L0002575      0.000003353        4.00        3.95        1.86
SRCPARAM L0002576      0.000003353        4.00        3.95        1.86
SRCPARAM L0002577      0.000003353        4.00        3.95        1.86
SRCPARAM L0002578      0.000003353        4.00        3.95        1.86
SRCPARAM L0002579      0.000003353        4.00        3.95        1.86
SRCPARAM L0002580      0.000003353        4.00        3.95        1.86
SRCPARAM L0002581      0.000003353        4.00        3.95        1.86
SRCPARAM L0002582      0.000003353        4.00        3.95        1.86
SRCPARAM L0002583      0.000003353        4.00        3.95        1.86
SRCPARAM L0002584      0.000003353        4.00        3.95        1.86
SRCPARAM L0002585      0.000003353        4.00        3.95        1.86
SRCPARAM L0002586      0.000003353        4.00        3.95        1.86
SRCPARAM L0002587      0.000003353        4.00        3.95        1.86
SRCPARAM L0002588      0.000003353        4.00        3.95        1.86
SRCPARAM L0002589      0.000003353        4.00        3.95        1.86
SRCPARAM L0002590      0.000003353        4.00        3.95        1.86
SRCPARAM L0002591      0.000003353        4.00        3.95        1.86
SRCPARAM L0002592      0.000003353        4.00        3.95        1.86
SRCPARAM L0002593      0.000003353        4.00        3.95        1.86
SRCPARAM L0002594      0.000003353        4.00        3.95        1.86
SRCPARAM L0002595      0.000003353        4.00        3.95        1.86
SRCPARAM L0002596      0.000003353        4.00        3.95        1.86
SRCPARAM L0002597      0.000003353        4.00        3.95        1.86
SRCPARAM L0002598      0.000003353        4.00        3.95        1.86
SRCPARAM L0002599      0.000003353        4.00        3.95        1.86
SRCPARAM L0002600      0.000003353        4.00        3.95        1.86
SRCPARAM L0002601      0.000003353        4.00        3.95        1.86
SRCPARAM L0002602      0.000003353        4.00        3.95        1.86
SRCPARAM L0002603      0.000003353        4.00        3.95        1.86
SRCPARAM L0002604      0.000003353        4.00        3.95        1.86
SRCPARAM L0002605      0.000003353        4.00        3.95        1.86
SRCPARAM L0002606      0.000003353        4.00        3.95        1.86
SRCPARAM L0002607      0.000003353        4.00        3.95        1.86
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                              AERMOD HRA Output
SRCPARAM L0002608      0.000003353      4.00       3.95       1.86
SRCPARAM L0002609      0.000003353      4.00       3.95       1.86
SRCPARAM L0002610      0.000003353      4.00       3.95       1.86
SRCPARAM L0002611      0.000003353      4.00       3.95       1.86
SRCPARAM L0002612      0.000003353      4.00       3.95       1.86
SRCPARAM L0002613      0.000003353      4.00       3.95       1.86
SRCPARAM L0002614      0.000003353      4.00       3.95       1.86
SRCPARAM L0002615      0.000003353      4.00       3.95       1.86
SRCPARAM L0002616      0.000003353      4.00       3.95       1.86
SRCPARAM L0002617      0.000003353      4.00       3.95       1.86
SRCPARAM L0002618      0.000003353      4.00       3.95       1.86
SRCPARAM L0002619      0.000003353      4.00       3.95       1.86
SRCPARAM L0002620      0.000003353      4.00       3.95       1.86
SRCPARAM L0002621      0.000003353      4.00       3.95       1.86
SRCPARAM L0002622      0.000003353      4.00       3.95       1.86
SRCPARAM L0002623      0.000003353      4.00       3.95       1.86
SRCPARAM L0002624      0.000003353      4.00       3.95       1.86
SRCPARAM L0002625      0.000003353      4.00       3.95       1.86
SRCPARAM L0002626      0.000003353      4.00       3.95       1.86
SRCPARAM L0002627      0.000003353      4.00       3.95       1.86
SRCPARAM L0002628      0.000003353      4.00       3.95       1.86
SRCPARAM L0002629      0.000003353      4.00       3.95       1.86
SRCPARAM L0002630      0.000003353      4.00       3.95       1.86
SRCPARAM L0002631      0.000003353      4.00       3.95       1.86
SRCPARAM L0002632      0.000003353      4.00       3.95       1.86
SRCPARAM L0002633      0.000003353      4.00       3.95       1.86
SRCPARAM L0002634      0.000003353      4.00       3.95       1.86
SRCPARAM L0002635      0.000003353      4.00       3.95       1.86
SRCPARAM L0002636      0.000003353      4.00       3.95       1.86
SRCPARAM L0002637      0.000003353      4.00       3.95       1.86
SRCPARAM L0002638      0.000003353      4.00       3.95       1.86
SRCPARAM L0002639      0.000003353      4.00       3.95       1.86
SRCPARAM L0002640      0.000003353      4.00       3.95       1.86
SRCPARAM L0002641      0.000003353      4.00       3.95       1.86
SRCPARAM L0002642      0.000003353      4.00       3.95       1.86
SRCPARAM L0002643      0.000003353      4.00       3.95       1.86
SRCPARAM L0002644      0.000003353      4.00       3.95       1.86
SRCPARAM L0002645      0.000003353      4.00       3.95       1.86
SRCPARAM L0002646      0.000003353      4.00       3.95       1.86
SRCPARAM L0002647      0.000003353      4.00       3.95       1.86
SRCPARAM L0002648      0.000003353      4.00       3.95       1.86
SRCPARAM L0002649      0.000003353      4.00       3.95       1.86
SRCPARAM L0002650      0.000003353      4.00       3.95       1.86
SRCPARAM L0002651      0.000003353      4.00       3.95       1.86
SRCPARAM L0002652      0.000003353      4.00       3.95       1.86
SRCPARAM L0002653      0.000003353      4.00       3.95       1.86
SRCPARAM L0002654      0.000003353      4.00       3.95       1.86
SRCPARAM L0002655      0.000003353      4.00       3.95       1.86
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   SRCPARAM L0002656     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002657     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002658     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002659     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002660     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002661     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002662     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002663     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002664     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002665     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002666     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002667     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002668     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002669     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002670     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002671     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002672     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002673     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002674     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002675     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002676     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002677     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002678     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002679     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002680     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002681     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002682     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002683     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002684     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002685     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002686     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002687     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002688     0.000003353      4.00      3.95      1.86
   SRCPARAM L0002689     0.000003353      4.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0002690     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002691     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002692     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002693     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002694     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002695     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002696     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002697     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002698     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002699     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002700     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0002701     0.0000007141      4.00      3.95      1.86
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   SRCPARAM L0002702     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002703     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002704     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002705     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002706     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002707     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002708     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002709     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002710     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002711     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002712     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002713     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002714     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002715     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002716     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002717     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002718     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002719     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002720     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002721     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002722     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002723     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002724     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002725     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002726     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002727     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002728     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002729     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002730     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002731     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002732     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002733     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002734     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002735     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002736     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002737     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002738     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002739     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002740     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002741     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002742     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002743     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002744     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002745     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002746     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002747     0.0000007141       4.00       3.95       1.86
   SRCPARAM L0002748     0.0000007141       4.00       3.95       1.86
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                              AERMOD HRA Output
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0002749     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002750     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002751     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002752     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002753     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002754     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002755     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002756     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002757     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002758     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002759     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002760     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002761     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002762     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002763     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002764     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002765     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002766     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002767     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002768     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002769     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002770     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002771     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002772     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002773     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002774     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002775     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002776     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002777     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002778     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002779     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002780     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002781     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002782     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002783     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002784     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002785     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002786     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002787     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002788     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002789     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002790     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002791     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002792     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002793     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002794     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002795     0.0000005624      4.00       3.95       1.86
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   SRCPARAM L0002796     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0002797     0.0000005624      4.00       3.95       1.86
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** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0002798     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002799     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002800     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002801     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002802     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002803     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002804     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002805     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002806     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002807     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002808     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002809     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002810     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002811     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002812     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002813     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002814     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002815     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002816     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002817     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002818     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002819     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002820     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002821     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002822     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002823     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002824     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002825     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002826     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002827     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002828     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002829     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002830     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002831     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002832     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002833     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002834     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002835     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002836     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002837     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002838     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002839     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002840     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0002841     0.0000009602      4.00       3.95       1.86
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   SRCPARAM L0002842     0.0000009602      4.00       3.95      1.86
   SRCPARAM L0002843     0.0000009602      4.00       3.95      1.86
   SRCPARAM L0002844     0.0000009602      4.00       3.95      1.86
   SRCPARAM L0002845     0.0000009602      4.00       3.95      1.86
   SRCPARAM L0002846     0.0000009602      4.00       3.95      1.86
   SRCPARAM L0002847     0.0000009602      4.00       3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0002848     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002849     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002850     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002851     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002852     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002853     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002854     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002855     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002856     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002857     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002858     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002859     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002860     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002861     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002862     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002863     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002864     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002865     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002866     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002867     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002868     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002869     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002870     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002871     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002872     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002873     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002874     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002875     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002876     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002877     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002878     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002879     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002880     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002881     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002882     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002883     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002884     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002885     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002886     0.000001673      4.00       3.95      1.86
   SRCPARAM L0002887     0.000001673      4.00       3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0002888      0.000001673       4.00       3.95       1.86
SRCPARAM L0002889      0.000001673       4.00       3.95       1.86
SRCPARAM L0002890      0.000001673       4.00       3.95       1.86
SRCPARAM L0002891      0.000001673       4.00       3.95       1.86
SRCPARAM L0002892      0.000001673       4.00       3.95       1.86
SRCPARAM L0002893      0.000001673       4.00       3.95       1.86
SRCPARAM L0002894      0.000001673       4.00       3.95       1.86
SRCPARAM L0002895      0.000001673       4.00       3.95       1.86
SRCPARAM L0002896      0.000001673       4.00       3.95       1.86
SRCPARAM L0002897      0.000001673       4.00       3.95       1.86
SRCPARAM L0002898      0.000001673       4.00       3.95       1.86
SRCPARAM L0002899      0.000001673       4.00       3.95       1.86
SRCPARAM L0002900      0.000001673       4.00       3.95       1.86
SRCPARAM L0002901      0.000001673       4.00       3.95       1.86
SRCPARAM L0002902      0.000001673       4.00       3.95       1.86
SRCPARAM L0002903      0.000001673       4.00       3.95       1.86
SRCPARAM L0002904      0.000001673       4.00       3.95       1.86
SRCPARAM L0002905      0.000001673       4.00       3.95       1.86
SRCPARAM L0002906      0.000001673       4.00       3.95       1.86
SRCPARAM L0002907      0.000001673       4.00       3.95       1.86
SRCPARAM L0002908      0.000001673       4.00       3.95       1.86
SRCPARAM L0002909      0.000001673       4.00       3.95       1.86
SRCPARAM L0002910      0.000001673       4.00       3.95       1.86
SRCPARAM L0002911      0.000001673       4.00       3.95       1.86
SRCPARAM L0002912      0.000001673       4.00       3.95       1.86
SRCPARAM L0002913      0.000001673       4.00       3.95       1.86
SRCPARAM L0002914      0.000001673       4.00       3.95       1.86
SRCPARAM L0002915      0.000001673       4.00       3.95       1.86
SRCPARAM L0002916      0.000001673       4.00       3.95       1.86
SRCPARAM L0002917      0.000001673       4.00       3.95       1.86
SRCPARAM L0002918      0.000001673       4.00       3.95       1.86
SRCPARAM L0002919      0.000001673       4.00       3.95       1.86
SRCPARAM L0002920      0.000001673       4.00       3.95       1.86
SRCPARAM L0002921      0.000001673       4.00       3.95       1.86
SRCPARAM L0002922      0.000001673       4.00       3.95       1.86
SRCPARAM L0002923      0.000001673       4.00       3.95       1.86
SRCPARAM L0002924      0.000001673       4.00       3.95       1.86
SRCPARAM L0002925      0.000001673       4.00       3.95       1.86
SRCPARAM L0002926      0.000001673       4.00       3.95       1.86
SRCPARAM L0002927      0.000001673       4.00       3.95       1.86
SRCPARAM L0002928      0.000001673       4.00       3.95       1.86
SRCPARAM L0002929      0.000001673       4.00       3.95       1.86
SRCPARAM L0002930      0.000001673       4.00       3.95       1.86
SRCPARAM L0002931      0.000001673       4.00       3.95       1.86
SRCPARAM L0002932      0.000001673       4.00       3.95       1.86
SRCPARAM L0002933      0.000001673       4.00       3.95       1.86
SRCPARAM L0002934      0.000001673       4.00       3.95       1.86
SRCPARAM L0002935      0.000001673       4.00       3.95       1.86
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                              AERMOD HRA Output
SRCPARAM L0002936     0.000001673      4.00       3.95       1.86
SRCPARAM L0002937     0.000001673      4.00       3.95       1.86
SRCPARAM L0002938     0.000001673      4.00       3.95       1.86
SRCPARAM L0002939     0.000001673      4.00       3.95       1.86
SRCPARAM L0002940     0.000001673      4.00       3.95       1.86
SRCPARAM L0002941     0.000001673      4.00       3.95       1.86
SRCPARAM L0002942     0.000001673      4.00       3.95       1.86
SRCPARAM L0002943     0.000001673      4.00       3.95       1.86
SRCPARAM L0002944     0.000001673      4.00       3.95       1.86
SRCPARAM L0002945     0.000001673      4.00       3.95       1.86
SRCPARAM L0002946     0.000001673      4.00       3.95       1.86
SRCPARAM L0002947     0.000001673      4.00       3.95       1.86
SRCPARAM L0002948     0.000001673      4.00       3.95       1.86
SRCPARAM L0002949     0.000001673      4.00       3.95       1.86
SRCPARAM L0002950     0.000001673      4.00       3.95       1.86
SRCPARAM L0002951     0.000001673      4.00       3.95       1.86
SRCPARAM L0002952     0.000001673      4.00       3.95       1.86
SRCPARAM L0002953     0.000001673      4.00       3.95       1.86
SRCPARAM L0002954     0.000001673      4.00       3.95       1.86
SRCPARAM L0002955     0.000001673      4.00       3.95       1.86
SRCPARAM L0002956     0.000001673      4.00       3.95       1.86
SRCPARAM L0002957     0.000001673      4.00       3.95       1.86
SRCPARAM L0002958     0.000001673      4.00       3.95       1.86
SRCPARAM L0002959     0.000001673      4.00       3.95       1.86
SRCPARAM L0002960     0.000001673      4.00       3.95       1.86
SRCPARAM L0002961     0.000001673      4.00       3.95       1.86
SRCPARAM L0002962     0.000001673      4.00       3.95       1.86
SRCPARAM L0002963     0.000001673      4.00       3.95       1.86
SRCPARAM L0002964     0.000001673      4.00       3.95       1.86
SRCPARAM L0002965     0.000001673      4.00       3.95       1.86
SRCPARAM L0002966     0.000001673      4.00       3.95       1.86
SRCPARAM L0002967     0.000001673      4.00       3.95       1.86
SRCPARAM L0002968     0.000001673      4.00       3.95       1.86
SRCPARAM L0002969     0.000001673      4.00       3.95       1.86
SRCPARAM L0002970     0.000001673      4.00       3.95       1.86
SRCPARAM L0002971     0.000001673      4.00       3.95       1.86
SRCPARAM L0002972     0.000001673      4.00       3.95       1.86
SRCPARAM L0002973     0.000001673      4.00       3.95       1.86
SRCPARAM L0002974     0.000001673      4.00       3.95       1.86
SRCPARAM L0002975     0.000001673      4.00       3.95       1.86
SRCPARAM L0002976     0.000001673      4.00       3.95       1.86
SRCPARAM L0002977     0.000001673      4.00       3.95       1.86
SRCPARAM L0002978     0.000001673      4.00       3.95       1.86
SRCPARAM L0002979     0.000001673      4.00       3.95       1.86
SRCPARAM L0002980     0.000001673      4.00       3.95       1.86
SRCPARAM L0002981     0.000001673      4.00       3.95       1.86
SRCPARAM L0002982     0.000001673      4.00       3.95       1.86
SRCPARAM L0002983     0.000001673      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0002984      0.000001673      4.00       3.95       1.86
SRCPARAM L0002985      0.000001673      4.00       3.95       1.86
SRCPARAM L0002986      0.000001673      4.00       3.95       1.86
SRCPARAM L0002987      0.000001673      4.00       3.95       1.86
SRCPARAM L0002988      0.000001673      4.00       3.95       1.86
SRCPARAM L0002989      0.000001673      4.00       3.95       1.86
SRCPARAM L0002990      0.000001673      4.00       3.95       1.86
SRCPARAM L0002991      0.000001673      4.00       3.95       1.86
SRCPARAM L0002992      0.000001673      4.00       3.95       1.86
SRCPARAM L0002993      0.000001673      4.00       3.95       1.86
SRCPARAM L0002994      0.000001673      4.00       3.95       1.86
SRCPARAM L0002995      0.000001673      4.00       3.95       1.86
SRCPARAM L0002996      0.000001673      4.00       3.95       1.86
SRCPARAM L0002997      0.000001673      4.00       3.95       1.86
SRCPARAM L0002998      0.000001673      4.00       3.95       1.86
SRCPARAM L0002999      0.000001673      4.00       3.95       1.86
SRCPARAM L0003000      0.000001673      4.00       3.95       1.86
SRCPARAM L0003001      0.000001673      4.00       3.95       1.86
SRCPARAM L0003002      0.000001673      4.00       3.95       1.86
SRCPARAM L0003003      0.000001673      4.00       3.95       1.86
SRCPARAM L0003004      0.000001673      4.00       3.95       1.86
SRCPARAM L0003005      0.000001673      4.00       3.95       1.86
SRCPARAM L0003006      0.000001673      4.00       3.95       1.86
SRCPARAM L0003007      0.000001673      4.00       3.95       1.86
SRCPARAM L0003008      0.000001673      4.00       3.95       1.86
SRCPARAM L0003009      0.000001673      4.00       3.95       1.86
SRCPARAM L0003010      0.000001673      4.00       3.95       1.86
SRCPARAM L0003011      0.000001673      4.00       3.95       1.86
SRCPARAM L0003012      0.000001673      4.00       3.95       1.86
SRCPARAM L0003013      0.000001673      4.00       3.95       1.86
SRCPARAM L0003014      0.000001673      4.00       3.95       1.86
SRCPARAM L0003015      0.000001673      4.00       3.95       1.86
SRCPARAM L0003016      0.000001673      4.00       3.95       1.86
SRCPARAM L0003017      0.000001673      4.00       3.95       1.86
SRCPARAM L0003018      0.000001673      4.00       3.95       1.86
SRCPARAM L0003019      0.000001673      4.00       3.95       1.86
SRCPARAM L0003020      0.000001673      4.00       3.95       1.86
SRCPARAM L0003021      0.000001673      4.00       3.95       1.86
SRCPARAM L0003022      0.000001673      4.00       3.95       1.86
SRCPARAM L0003023      0.000001673      4.00       3.95       1.86
SRCPARAM L0003024      0.000001673      4.00       3.95       1.86
SRCPARAM L0003025      0.000001673      4.00       3.95       1.86
SRCPARAM L0003026      0.000001673      4.00       3.95       1.86
SRCPARAM L0003027      0.000001673      4.00       3.95       1.86
SRCPARAM L0003028      0.000001673      4.00       3.95       1.86
SRCPARAM L0003029      0.000001673      4.00       3.95       1.86
SRCPARAM L0003030      0.000001673      4.00       3.95       1.86
SRCPARAM L0003031      0.000001673      4.00       3.95       1.86
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   SRCPARAM L0003032     0.000001673      4.00      3.95      1.86
   SRCPARAM L0003033     0.000001673      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0003034     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003035     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003036     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003037     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003038     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003039     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003040     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003041     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003042     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003043     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003044     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003045     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003046     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003047     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003048     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003049     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003050     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003051     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003052     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003053     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003054     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003055     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003056     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003057     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003058     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003059     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003060     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003061     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003062     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003063     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003064     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003065     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003066     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003067     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003068     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003069     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003070     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003071     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003072     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003073     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003074     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003075     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003076     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003077     0.0000007164      4.00      3.95      1.86
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SRCPARAM L0003078      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003079      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003080      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003081      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003082      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003083      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003084      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003085      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003086      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003087      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003088      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003089      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003090      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003091      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003092      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003093      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003094      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003095      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003096      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003097      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003098      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003099      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003100      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003101      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003102      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003103      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003104      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003105      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003106      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003107      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003108      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003109      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003110      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003111      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003112      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003113      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003114      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003115      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003116      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003117      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003118      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003119      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003120      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003121      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003122      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003123      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003124      0.0000007164      4.00      3.95      1.86
SRCPARAM L0003125      0.0000007164      4.00      3.95      1.86
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   SRCPARAM L0003126     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003127     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003128     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003129     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003130     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003131     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0003132     0.0000007164      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.8207E-09     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.9862E-09     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        1.0465E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        3.282E-09     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        6.8612E-09     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        3.074E-09     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.00005195     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000041163     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000070402     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0004684     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004685     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004686     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004687     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004688     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004689     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004690     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004691     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004692     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004693     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004694     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004695     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004696     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004697     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004698     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004699     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004700     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004701     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004702     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0004703     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0004704      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004705      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004706      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004707      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004708      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004709      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004710      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004711      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004712      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004713      0.0000007172      4.00       3.95       1.86
SRCPARAM L0004714      0.0000007172      4.00       3.95       1.86
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SRCPARAM L0005006      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005007      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005008      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005009      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005010      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005011      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005012      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005013      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005014      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005015      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005016      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005017      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005018      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005019      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005020      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005021      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005022      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005023      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005024      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005025      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005026      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005027      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005028      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005029      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005030      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005031      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005032      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005033      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005034      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005035      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005036      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005037      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005038      0.0000007172      4.00       3.95       1.86
SRCPARAM L0005039      0.0000007172      4.00       3.95       1.86
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SRCPARAM L0005040      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005041      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005042      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005043      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005044      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005045      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005046      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005047      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005048      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005049      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005050      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005051      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005052      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005053      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005054      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005055      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005056      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005057      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005058      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005059      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005060      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005061      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005062      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005063      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005064      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005065      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005066      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005067      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005068      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005069      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005070      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005071      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005072      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005073      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005074      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005075      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005076      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005077      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005078      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005079      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005080      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005081      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005082      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005083      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005084      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005085      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005086      0.0000007172       4.00        3.95        1.86
SRCPARAM L0005087      0.0000007172       4.00        3.95        1.86
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SRCPARAM L0005088      0.0000007172       4.00       3.95       1.86
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SRCPARAM L0005090      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005091      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005092      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005093      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005094      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005095      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005096      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005097      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005098      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005099      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005100      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005101      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005102      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005103      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005104      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005105      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005106      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005107      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005108      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005109      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005110      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005111      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005112      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005113      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005114      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005115      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005116      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005117      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005118      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005119      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005120      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005121      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005122      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005123      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005124      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005125      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005126      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005127      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005128      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005129      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005130      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005131      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005132      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005133      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005134      0.0000007172       4.00       3.95       1.86
SRCPARAM L0005135      0.0000007172       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005136     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0005138     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005139     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005140     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005141     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005142     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005143     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005144     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005145     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005146     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005147     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005148     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005149     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005150     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005151     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005152     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005153     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005154     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005155     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005156     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005157     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005158     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005159     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005160     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005161     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005162     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005163     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005164     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005165     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005166     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005167     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005168     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005169     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005170     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005171     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005172     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005173     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005174     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005175     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005176     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005177     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005178     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005179     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005180     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005181     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005182     0.0000007172      4.00      3.95      1.86
SRCPARAM L0005183     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0005184      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005185      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005186      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005187      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005188      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005189      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005190      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005191      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005192      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005193      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005194      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005195      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005196      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005197      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005198      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005199      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005200      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005201      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005202      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005203      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005204      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005205      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005206      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005207      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005208      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005209      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005210      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005211      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005212      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005213      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005214      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005215      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005216      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005217      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005218      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005219      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005220      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005221      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005222      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005223      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005224      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005225      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005226      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005227      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005228      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005229      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005230      0.0000007172      4.00        3.95        1.86
SRCPARAM L0005231      0.0000007172      4.00        3.95        1.86
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   SRCPARAM L0005232      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005233      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005234      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005235      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005236      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005237      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005238      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005239      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005240      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005241      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005242      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005243      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005244      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005245      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005246      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005247      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005248      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005249      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005250      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005251      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005252      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005253      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005254      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005255      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005256      0.0000007172      4.00       3.95       1.86
   SRCPARAM L0005257      0.0000007172      4.00       3.95       1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0005258      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005259      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005260      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005261      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005262      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005263      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005264      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005265      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005266      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005267      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005268      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005269      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005270      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005271      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005272      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005273      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005274      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005275      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005276      0.000001436      4.00       3.95       1.86
   SRCPARAM L0005277      0.000001436      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005278     0.000001436     4.00      3.95      1.86
SRCPARAM L0005279     0.000001436     4.00      3.95      1.86
SRCPARAM L0005280     0.000001436     4.00      3.95      1.86
SRCPARAM L0005281     0.000001436     4.00      3.95      1.86
SRCPARAM L0005282     0.000001436     4.00      3.95      1.86
SRCPARAM L0005283     0.000001436     4.00      3.95      1.86
SRCPARAM L0005284     0.000001436     4.00      3.95      1.86
SRCPARAM L0005285     0.000001436     4.00      3.95      1.86
SRCPARAM L0005286     0.000001436     4.00      3.95      1.86
SRCPARAM L0005287     0.000001436     4.00      3.95      1.86
SRCPARAM L0005288     0.000001436     4.00      3.95      1.86
SRCPARAM L0005289     0.000001436     4.00      3.95      1.86
SRCPARAM L0005290     0.000001436     4.00      3.95      1.86
SRCPARAM L0005291     0.000001436     4.00      3.95      1.86
SRCPARAM L0005292     0.000001436     4.00      3.95      1.86
SRCPARAM L0005293     0.000001436     4.00      3.95      1.86
SRCPARAM L0005294     0.000001436     4.00      3.95      1.86
SRCPARAM L0005295     0.000001436     4.00      3.95      1.86
SRCPARAM L0005296     0.000001436     4.00      3.95      1.86
SRCPARAM L0005297     0.000001436     4.00      3.95      1.86
SRCPARAM L0005298     0.000001436     4.00      3.95      1.86
SRCPARAM L0005299     0.000001436     4.00      3.95      1.86
SRCPARAM L0005300     0.000001436     4.00      3.95      1.86
SRCPARAM L0005301     0.000001436     4.00      3.95      1.86
SRCPARAM L0005302     0.000001436     4.00      3.95      1.86
SRCPARAM L0005303     0.000001436     4.00      3.95      1.86
SRCPARAM L0005304     0.000001436     4.00      3.95      1.86
SRCPARAM L0005305     0.000001436     4.00      3.95      1.86
SRCPARAM L0005306     0.000001436     4.00      3.95      1.86
SRCPARAM L0005307     0.000001436     4.00      3.95      1.86
SRCPARAM L0005308     0.000001436     4.00      3.95      1.86
SRCPARAM L0005309     0.000001436     4.00      3.95      1.86
SRCPARAM L0005310     0.000001436     4.00      3.95      1.86
SRCPARAM L0005311     0.000001436     4.00      3.95      1.86
SRCPARAM L0005312     0.000001436     4.00      3.95      1.86
SRCPARAM L0005313     0.000001436     4.00      3.95      1.86
SRCPARAM L0005314     0.000001436     4.00      3.95      1.86
SRCPARAM L0005315     0.000001436     4.00      3.95      1.86
SRCPARAM L0005316     0.000001436     4.00      3.95      1.86
SRCPARAM L0005317     0.000001436     4.00      3.95      1.86
SRCPARAM L0005318     0.000001436     4.00      3.95      1.86
SRCPARAM L0005319     0.000001436     4.00      3.95      1.86
SRCPARAM L0005320     0.000001436     4.00      3.95      1.86
SRCPARAM L0005321     0.000001436     4.00      3.95      1.86
SRCPARAM L0005322     0.000001436     4.00      3.95      1.86
SRCPARAM L0005323     0.000001436     4.00      3.95      1.86
SRCPARAM L0005324     0.000001436     4.00      3.95      1.86
SRCPARAM L0005325     0.000001436     4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0005326      0.000001436      4.00       3.95       1.86
SRCPARAM L0005327      0.000001436      4.00       3.95       1.86
SRCPARAM L0005328      0.000001436      4.00       3.95       1.86
SRCPARAM L0005329      0.000001436      4.00       3.95       1.86
SRCPARAM L0005330      0.000001436      4.00       3.95       1.86
SRCPARAM L0005331      0.000001436      4.00       3.95       1.86
SRCPARAM L0005332      0.000001436      4.00       3.95       1.86
SRCPARAM L0005333      0.000001436      4.00       3.95       1.86
SRCPARAM L0005334      0.000001436      4.00       3.95       1.86
SRCPARAM L0005335      0.000001436      4.00       3.95       1.86
SRCPARAM L0005336      0.000001436      4.00       3.95       1.86
SRCPARAM L0005337      0.000001436      4.00       3.95       1.86
SRCPARAM L0005338      0.000001436      4.00       3.95       1.86
SRCPARAM L0005339      0.000001436      4.00       3.95       1.86
SRCPARAM L0005340      0.000001436      4.00       3.95       1.86
SRCPARAM L0005341      0.000001436      4.00       3.95       1.86
SRCPARAM L0005342      0.000001436      4.00       3.95       1.86
SRCPARAM L0005343      0.000001436      4.00       3.95       1.86
SRCPARAM L0005344      0.000001436      4.00       3.95       1.86
SRCPARAM L0005345      0.000001436      4.00       3.95       1.86
SRCPARAM L0005346      0.000001436      4.00       3.95       1.86
SRCPARAM L0005347      0.000001436      4.00       3.95       1.86
SRCPARAM L0005348      0.000001436      4.00       3.95       1.86
SRCPARAM L0005349      0.000001436      4.00       3.95       1.86
SRCPARAM L0005350      0.000001436      4.00       3.95       1.86
SRCPARAM L0005351      0.000001436      4.00       3.95       1.86
SRCPARAM L0005352      0.000001436      4.00       3.95       1.86
SRCPARAM L0005353      0.000001436      4.00       3.95       1.86
SRCPARAM L0005354      0.000001436      4.00       3.95       1.86
SRCPARAM L0005355      0.000001436      4.00       3.95       1.86
SRCPARAM L0005356      0.000001436      4.00       3.95       1.86
SRCPARAM L0005357      0.000001436      4.00       3.95       1.86
SRCPARAM L0005358      0.000001436      4.00       3.95       1.86
SRCPARAM L0005359      0.000001436      4.00       3.95       1.86
SRCPARAM L0005360      0.000001436      4.00       3.95       1.86
SRCPARAM L0005361      0.000001436      4.00       3.95       1.86
SRCPARAM L0005362      0.000001436      4.00       3.95       1.86
SRCPARAM L0005363      0.000001436      4.00       3.95       1.86
SRCPARAM L0005364      0.000001436      4.00       3.95       1.86
SRCPARAM L0005365      0.000001436      4.00       3.95       1.86
SRCPARAM L0005366      0.000001436      4.00       3.95       1.86
SRCPARAM L0005367      0.000001436      4.00       3.95       1.86
SRCPARAM L0005368      0.000001436      4.00       3.95       1.86
SRCPARAM L0005369      0.000001436      4.00       3.95       1.86
SRCPARAM L0005370      0.000001436      4.00       3.95       1.86
SRCPARAM L0005371      0.000001436      4.00       3.95       1.86
SRCPARAM L0005372      0.000001436      4.00       3.95       1.86
SRCPARAM L0005373      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005374      0.000001436      4.00      3.95      1.86
SRCPARAM L0005375      0.000001436      4.00      3.95      1.86
SRCPARAM L0005376      0.000001436      4.00      3.95      1.86
SRCPARAM L0005377      0.000001436      4.00      3.95      1.86
SRCPARAM L0005378      0.000001436      4.00      3.95      1.86
SRCPARAM L0005379      0.000001436      4.00      3.95      1.86
SRCPARAM L0005380      0.000001436      4.00      3.95      1.86
SRCPARAM L0005381      0.000001436      4.00      3.95      1.86
SRCPARAM L0005382      0.000001436      4.00      3.95      1.86
SRCPARAM L0005383      0.000001436      4.00      3.95      1.86
SRCPARAM L0005384      0.000001436      4.00      3.95      1.86
SRCPARAM L0005385      0.000001436      4.00      3.95      1.86
SRCPARAM L0005386      0.000001436      4.00      3.95      1.86
SRCPARAM L0005387      0.000001436      4.00      3.95      1.86
SRCPARAM L0005388      0.000001436      4.00      3.95      1.86
SRCPARAM L0005389      0.000001436      4.00      3.95      1.86
SRCPARAM L0005390      0.000001436      4.00      3.95      1.86
SRCPARAM L0005391      0.000001436      4.00      3.95      1.86
SRCPARAM L0005392      0.000001436      4.00      3.95      1.86
SRCPARAM L0005393      0.000001436      4.00      3.95      1.86
SRCPARAM L0005394      0.000001436      4.00      3.95      1.86
SRCPARAM L0005395      0.000001436      4.00      3.95      1.86
SRCPARAM L0005396      0.000001436      4.00      3.95      1.86
SRCPARAM L0005397      0.000001436      4.00      3.95      1.86
SRCPARAM L0005398      0.000001436      4.00      3.95      1.86
SRCPARAM L0005399      0.000001436      4.00      3.95      1.86
SRCPARAM L0005400      0.000001436      4.00      3.95      1.86
SRCPARAM L0005401      0.000001436      4.00      3.95      1.86
SRCPARAM L0005402      0.000001436      4.00      3.95      1.86
SRCPARAM L0005403      0.000001436      4.00      3.95      1.86
SRCPARAM L0005404      0.000001436      4.00      3.95      1.86
SRCPARAM L0005405      0.000001436      4.00      3.95      1.86
SRCPARAM L0005406      0.000001436      4.00      3.95      1.86
SRCPARAM L0005407      0.000001436      4.00      3.95      1.86
SRCPARAM L0005408      0.000001436      4.00      3.95      1.86
SRCPARAM L0005409      0.000001436      4.00      3.95      1.86
SRCPARAM L0005410      0.000001436      4.00      3.95      1.86
SRCPARAM L0005411      0.000001436      4.00      3.95      1.86
SRCPARAM L0005412      0.000001436      4.00      3.95      1.86
SRCPARAM L0005413      0.000001436      4.00      3.95      1.86
SRCPARAM L0005414      0.000001436      4.00      3.95      1.86
SRCPARAM L0005415      0.000001436      4.00      3.95      1.86
SRCPARAM L0005416      0.000001436      4.00      3.95      1.86
SRCPARAM L0005417      0.000001436      4.00      3.95      1.86
SRCPARAM L0005418      0.000001436      4.00      3.95      1.86
SRCPARAM L0005419      0.000001436      4.00      3.95      1.86
SRCPARAM L0005420      0.000001436      4.00      3.95      1.86
SRCPARAM L0005421      0.000001436      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0005422      0.000001436       4.00       3.95       1.86
SRCPARAM L0005423      0.000001436       4.00       3.95       1.86
SRCPARAM L0005424      0.000001436       4.00       3.95       1.86
SRCPARAM L0005425      0.000001436       4.00       3.95       1.86
SRCPARAM L0005426      0.000001436       4.00       3.95       1.86
SRCPARAM L0005427      0.000001436       4.00       3.95       1.86
SRCPARAM L0005428      0.000001436       4.00       3.95       1.86
SRCPARAM L0005429      0.000001436       4.00       3.95       1.86
SRCPARAM L0005430      0.000001436       4.00       3.95       1.86
SRCPARAM L0005431      0.000001436       4.00       3.95       1.86
SRCPARAM L0005432      0.000001436       4.00       3.95       1.86
SRCPARAM L0005433      0.000001436       4.00       3.95       1.86
SRCPARAM L0005434      0.000001436       4.00       3.95       1.86
SRCPARAM L0005435      0.000001436       4.00       3.95       1.86
SRCPARAM L0005436      0.000001436       4.00       3.95       1.86
SRCPARAM L0005437      0.000001436       4.00       3.95       1.86
SRCPARAM L0005438      0.000001436       4.00       3.95       1.86
SRCPARAM L0005439      0.000001436       4.00       3.95       1.86
SRCPARAM L0005440      0.000001436       4.00       3.95       1.86
SRCPARAM L0005441      0.000001436       4.00       3.95       1.86
SRCPARAM L0005442      0.000001436       4.00       3.95       1.86
SRCPARAM L0005443      0.000001436       4.00       3.95       1.86
SRCPARAM L0005444      0.000001436       4.00       3.95       1.86
SRCPARAM L0005445      0.000001436       4.00       3.95       1.86
SRCPARAM L0005446      0.000001436       4.00       3.95       1.86
SRCPARAM L0005447      0.000001436       4.00       3.95       1.86
SRCPARAM L0005448      0.000001436       4.00       3.95       1.86
SRCPARAM L0005449      0.000001436       4.00       3.95       1.86
SRCPARAM L0005450      0.000001436       4.00       3.95       1.86
SRCPARAM L0005451      0.000001436       4.00       3.95       1.86
SRCPARAM L0005452      0.000001436       4.00       3.95       1.86
SRCPARAM L0005453      0.000001436       4.00       3.95       1.86
SRCPARAM L0005454      0.000001436       4.00       3.95       1.86
SRCPARAM L0005455      0.000001436       4.00       3.95       1.86
SRCPARAM L0005456      0.000001436       4.00       3.95       1.86
SRCPARAM L0005457      0.000001436       4.00       3.95       1.86
SRCPARAM L0005458      0.000001436       4.00       3.95       1.86
SRCPARAM L0005459      0.000001436       4.00       3.95       1.86
SRCPARAM L0005460      0.000001436       4.00       3.95       1.86
SRCPARAM L0005461      0.000001436       4.00       3.95       1.86
SRCPARAM L0005462      0.000001436       4.00       3.95       1.86
SRCPARAM L0005463      0.000001436       4.00       3.95       1.86
SRCPARAM L0005464      0.000001436       4.00       3.95       1.86
SRCPARAM L0005465      0.000001436       4.00       3.95       1.86
SRCPARAM L0005466      0.000001436       4.00       3.95       1.86
SRCPARAM L0005467      0.000001436       4.00       3.95       1.86
SRCPARAM L0005468      0.000001436       4.00       3.95       1.86
SRCPARAM L0005469      0.000001436       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005470      0.000001436       4.00       3.95       1.86
SRCPARAM L0005471      0.000001436       4.00       3.95       1.86
SRCPARAM L0005472      0.000001436       4.00       3.95       1.86
SRCPARAM L0005473      0.000001436       4.00       3.95       1.86
SRCPARAM L0005474      0.000001436       4.00       3.95       1.86
SRCPARAM L0005475      0.000001436       4.00       3.95       1.86
SRCPARAM L0005476      0.000001436       4.00       3.95       1.86
SRCPARAM L0005477      0.000001436       4.00       3.95       1.86
SRCPARAM L0005478      0.000001436       4.00       3.95       1.86
SRCPARAM L0005479      0.000001436       4.00       3.95       1.86
SRCPARAM L0005480      0.000001436       4.00       3.95       1.86
SRCPARAM L0005481      0.000001436       4.00       3.95       1.86
SRCPARAM L0005482      0.000001436       4.00       3.95       1.86
SRCPARAM L0005483      0.000001436       4.00       3.95       1.86
SRCPARAM L0005484      0.000001436       4.00       3.95       1.86
SRCPARAM L0005485      0.000001436       4.00       3.95       1.86
SRCPARAM L0005486      0.000001436       4.00       3.95       1.86
SRCPARAM L0005487      0.000001436       4.00       3.95       1.86
SRCPARAM L0005488      0.000001436       4.00       3.95       1.86
SRCPARAM L0005489      0.000001436       4.00       3.95       1.86
SRCPARAM L0005490      0.000001436       4.00       3.95       1.86
SRCPARAM L0005491      0.000001436       4.00       3.95       1.86
SRCPARAM L0005492      0.000001436       4.00       3.95       1.86
SRCPARAM L0005493      0.000001436       4.00       3.95       1.86
SRCPARAM L0005494      0.000001436       4.00       3.95       1.86
SRCPARAM L0005495      0.000001436       4.00       3.95       1.86
SRCPARAM L0005496      0.000001436       4.00       3.95       1.86
SRCPARAM L0005497      0.000001436       4.00       3.95       1.86
SRCPARAM L0005498      0.000001436       4.00       3.95       1.86
SRCPARAM L0005499      0.000001436       4.00       3.95       1.86
SRCPARAM L0005500      0.000001436       4.00       3.95       1.86
SRCPARAM L0005501      0.000001436       4.00       3.95       1.86
SRCPARAM L0005502      0.000001436       4.00       3.95       1.86
SRCPARAM L0005503      0.000001436       4.00       3.95       1.86
SRCPARAM L0005504      0.000001436       4.00       3.95       1.86
SRCPARAM L0005505      0.000001436       4.00       3.95       1.86
SRCPARAM L0005506      0.000001436       4.00       3.95       1.86
SRCPARAM L0005507      0.000001436       4.00       3.95       1.86
SRCPARAM L0005508      0.000001436       4.00       3.95       1.86
SRCPARAM L0005509      0.000001436       4.00       3.95       1.86
SRCPARAM L0005510      0.000001436       4.00       3.95       1.86
SRCPARAM L0005511      0.000001436       4.00       3.95       1.86
SRCPARAM L0005512      0.000001436       4.00       3.95       1.86
SRCPARAM L0005513      0.000001436       4.00       3.95       1.86
SRCPARAM L0005514      0.000001436       4.00       3.95       1.86
SRCPARAM L0005515      0.000001436       4.00       3.95       1.86
SRCPARAM L0005516      0.000001436       4.00       3.95       1.86
SRCPARAM L0005517      0.000001436       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005518      0.000001436       4.00       3.95       1.86
SRCPARAM L0005519      0.000001436       4.00       3.95       1.86
SRCPARAM L0005520      0.000001436       4.00       3.95       1.86
SRCPARAM L0005521      0.000001436       4.00       3.95       1.86
SRCPARAM L0005522      0.000001436       4.00       3.95       1.86
SRCPARAM L0005523      0.000001436       4.00       3.95       1.86
SRCPARAM L0005524      0.000001436       4.00       3.95       1.86
SRCPARAM L0005525      0.000001436       4.00       3.95       1.86
SRCPARAM L0005526      0.000001436       4.00       3.95       1.86
SRCPARAM L0005527      0.000001436       4.00       3.95       1.86
SRCPARAM L0005528      0.000001436       4.00       3.95       1.86
SRCPARAM L0005529      0.000001436       4.00       3.95       1.86
SRCPARAM L0005530      0.000001436       4.00       3.95       1.86
SRCPARAM L0005531      0.000001436       4.00       3.95       1.86
SRCPARAM L0005532      0.000001436       4.00       3.95       1.86
SRCPARAM L0005533      0.000001436       4.00       3.95       1.86
SRCPARAM L0005534      0.000001436       4.00       3.95       1.86
SRCPARAM L0005535      0.000001436       4.00       3.95       1.86
SRCPARAM L0005536      0.000001436       4.00       3.95       1.86
SRCPARAM L0005537      0.000001436       4.00       3.95       1.86
SRCPARAM L0005538      0.000001436       4.00       3.95       1.86
SRCPARAM L0005539      0.000001436       4.00       3.95       1.86
SRCPARAM L0005540      0.000001436       4.00       3.95       1.86
SRCPARAM L0005541      0.000001436       4.00       3.95       1.86
SRCPARAM L0005542      0.000001436       4.00       3.95       1.86
SRCPARAM L0005543      0.000001436       4.00       3.95       1.86
SRCPARAM L0005544      0.000001436       4.00       3.95       1.86
SRCPARAM L0005545      0.000001436       4.00       3.95       1.86
SRCPARAM L0005546      0.000001436       4.00       3.95       1.86
SRCPARAM L0005547      0.000001436       4.00       3.95       1.86
SRCPARAM L0005548      0.000001436       4.00       3.95       1.86
SRCPARAM L0005549      0.000001436       4.00       3.95       1.86
SRCPARAM L0005550      0.000001436       4.00       3.95       1.86
SRCPARAM L0005551      0.000001436       4.00       3.95       1.86
SRCPARAM L0005552      0.000001436       4.00       3.95       1.86
SRCPARAM L0005553      0.000001436       4.00       3.95       1.86
SRCPARAM L0005554      0.000001436       4.00       3.95       1.86
SRCPARAM L0005555      0.000001436       4.00       3.95       1.86
SRCPARAM L0005556      0.000001436       4.00       3.95       1.86
SRCPARAM L0005557      0.000001436       4.00       3.95       1.86
SRCPARAM L0005558      0.000001436       4.00       3.95       1.86
SRCPARAM L0005559      0.000001436       4.00       3.95       1.86
SRCPARAM L0005560      0.000001436       4.00       3.95       1.86
SRCPARAM L0005561      0.000001436       4.00       3.95       1.86
SRCPARAM L0005562      0.000001436       4.00       3.95       1.86
SRCPARAM L0005563      0.000001436       4.00       3.95       1.86
SRCPARAM L0005564      0.000001436       4.00       3.95       1.86
SRCPARAM L0005565      0.000001436       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005566     0.000001436      4.00       3.95       1.86
SRCPARAM L0005567     0.000001436      4.00       3.95       1.86
SRCPARAM L0005568     0.000001436      4.00       3.95       1.86
SRCPARAM L0005569     0.000001436      4.00       3.95       1.86
SRCPARAM L0005570     0.000001436      4.00       3.95       1.86
SRCPARAM L0005571     0.000001436      4.00       3.95       1.86
SRCPARAM L0005572     0.000001436      4.00       3.95       1.86
SRCPARAM L0005573     0.000001436      4.00       3.95       1.86
SRCPARAM L0005574     0.000001436      4.00       3.95       1.86
SRCPARAM L0005575     0.000001436      4.00       3.95       1.86
SRCPARAM L0005576     0.000001436      4.00       3.95       1.86
SRCPARAM L0005577     0.000001436      4.00       3.95       1.86
SRCPARAM L0005578     0.000001436      4.00       3.95       1.86
SRCPARAM L0005579     0.000001436      4.00       3.95       1.86
SRCPARAM L0005580     0.000001436      4.00       3.95       1.86
SRCPARAM L0005581     0.000001436      4.00       3.95       1.86
SRCPARAM L0005582     0.000001436      4.00       3.95       1.86
SRCPARAM L0005583     0.000001436      4.00       3.95       1.86
SRCPARAM L0005584     0.000001436      4.00       3.95       1.86
SRCPARAM L0005585     0.000001436      4.00       3.95       1.86
SRCPARAM L0005586     0.000001436      4.00       3.95       1.86
SRCPARAM L0005587     0.000001436      4.00       3.95       1.86
SRCPARAM L0005588     0.000001436      4.00       3.95       1.86
SRCPARAM L0005589     0.000001436      4.00       3.95       1.86
SRCPARAM L0005590     0.000001436      4.00       3.95       1.86
SRCPARAM L0005591     0.000001436      4.00       3.95       1.86
SRCPARAM L0005592     0.000001436      4.00       3.95       1.86
SRCPARAM L0005593     0.000001436      4.00       3.95       1.86
SRCPARAM L0005594     0.000001436      4.00       3.95       1.86
SRCPARAM L0005595     0.000001436      4.00       3.95       1.86
SRCPARAM L0005596     0.000001436      4.00       3.95       1.86
SRCPARAM L0005597     0.000001436      4.00       3.95       1.86
SRCPARAM L0005598     0.000001436      4.00       3.95       1.86
SRCPARAM L0005599     0.000001436      4.00       3.95       1.86
SRCPARAM L0005600     0.000001436      4.00       3.95       1.86
SRCPARAM L0005601     0.000001436      4.00       3.95       1.86
SRCPARAM L0005602     0.000001436      4.00       3.95       1.86
SRCPARAM L0005603     0.000001436      4.00       3.95       1.86
SRCPARAM L0005604     0.000001436      4.00       3.95       1.86
SRCPARAM L0005605     0.000001436      4.00       3.95       1.86
SRCPARAM L0005606     0.000001436      4.00       3.95       1.86
SRCPARAM L0005607     0.000001436      4.00       3.95       1.86
SRCPARAM L0005608     0.000001436      4.00       3.95       1.86
SRCPARAM L0005609     0.000001436      4.00       3.95       1.86
SRCPARAM L0005610     0.000001436      4.00       3.95       1.86
SRCPARAM L0005611     0.000001436      4.00       3.95       1.86
SRCPARAM L0005612     0.000001436      4.00       3.95       1.86
SRCPARAM L0005613     0.000001436      4.00       3.95       1.86
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SRCPARAM L0005616      0.000001436       4.00       3.95       1.86
SRCPARAM L0005617      0.000001436       4.00       3.95       1.86
SRCPARAM L0005618      0.000001436       4.00       3.95       1.86
SRCPARAM L0005619      0.000001436       4.00       3.95       1.86
SRCPARAM L0005620      0.000001436       4.00       3.95       1.86
SRCPARAM L0005621      0.000001436       4.00       3.95       1.86
SRCPARAM L0005622      0.000001436       4.00       3.95       1.86
SRCPARAM L0005623      0.000001436       4.00       3.95       1.86
SRCPARAM L0005624      0.000001436       4.00       3.95       1.86
SRCPARAM L0005625      0.000001436       4.00       3.95       1.86
SRCPARAM L0005626      0.000001436       4.00       3.95       1.86
SRCPARAM L0005627      0.000001436       4.00       3.95       1.86
SRCPARAM L0005628      0.000001436       4.00       3.95       1.86
SRCPARAM L0005629      0.000001436       4.00       3.95       1.86
SRCPARAM L0005630      0.000001436       4.00       3.95       1.86
SRCPARAM L0005631      0.000001436       4.00       3.95       1.86
SRCPARAM L0005632      0.000001436       4.00       3.95       1.86
SRCPARAM L0005633      0.000001436       4.00       3.95       1.86
SRCPARAM L0005634      0.000001436       4.00       3.95       1.86
SRCPARAM L0005635      0.000001436       4.00       3.95       1.86
SRCPARAM L0005636      0.000001436       4.00       3.95       1.86
SRCPARAM L0005637      0.000001436       4.00       3.95       1.86
SRCPARAM L0005638      0.000001436       4.00       3.95       1.86
SRCPARAM L0005639      0.000001436       4.00       3.95       1.86
SRCPARAM L0005640      0.000001436       4.00       3.95       1.86
SRCPARAM L0005641      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005650      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005659      0.000001436       4.00       3.95       1.86
SRCPARAM L0005660      0.000001436       4.00       3.95       1.86
SRCPARAM L0005661      0.000001436       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005666      0.000001436       4.00       3.95       1.86
SRCPARAM L0005667      0.000001436       4.00       3.95       1.86
SRCPARAM L0005668      0.000001436       4.00       3.95       1.86
SRCPARAM L0005669      0.000001436       4.00       3.95       1.86
SRCPARAM L0005670      0.000001436       4.00       3.95       1.86
SRCPARAM L0005671      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005674      0.000001436       4.00       3.95       1.86
SRCPARAM L0005675      0.000001436       4.00       3.95       1.86
SRCPARAM L0005676      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005679      0.000001436       4.00       3.95       1.86
SRCPARAM L0005680      0.000001436       4.00       3.95       1.86
SRCPARAM L0005681      0.000001436       4.00       3.95       1.86
SRCPARAM L0005682      0.000001436       4.00       3.95       1.86
SRCPARAM L0005683      0.000001436       4.00       3.95       1.86
SRCPARAM L0005684      0.000001436       4.00       3.95       1.86
SRCPARAM L0005685      0.000001436       4.00       3.95       1.86
SRCPARAM L0005686      0.000001436       4.00       3.95       1.86
SRCPARAM L0005687      0.000001436       4.00       3.95       1.86
SRCPARAM L0005688      0.000001436       4.00       3.95       1.86
SRCPARAM L0005689      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005693      0.000001436       4.00       3.95       1.86
SRCPARAM L0005694      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005696      0.000001436       4.00       3.95       1.86
SRCPARAM L0005697      0.000001436       4.00       3.95       1.86
SRCPARAM L0005698      0.000001436       4.00       3.95       1.86
SRCPARAM L0005699      0.000001436       4.00       3.95       1.86
SRCPARAM L0005700      0.000001436       4.00       3.95       1.86
SRCPARAM L0005701      0.000001436       4.00       3.95       1.86
SRCPARAM L0005702      0.000001436       4.00       3.95       1.86
SRCPARAM L0005703      0.000001436       4.00       3.95       1.86
SRCPARAM L0005704      0.000001436       4.00       3.95       1.86
SRCPARAM L0005705      0.000001436       4.00       3.95       1.86
SRCPARAM L0005706      0.000001436       4.00       3.95       1.86
SRCPARAM L0005707      0.000001436       4.00       3.95       1.86
SRCPARAM L0005708      0.000001436       4.00       3.95       1.86
SRCPARAM L0005709      0.000001436       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005712      0.000001436       4.00       3.95       1.86
SRCPARAM L0005713      0.000001436       4.00       3.95       1.86
SRCPARAM L0005714      0.000001436       4.00       3.95       1.86
SRCPARAM L0005715      0.000001436       4.00       3.95       1.86
SRCPARAM L0005716      0.000001436       4.00       3.95       1.86
SRCPARAM L0005717      0.000001436       4.00       3.95       1.86
SRCPARAM L0005718      0.000001436       4.00       3.95       1.86
SRCPARAM L0005719      0.000001436       4.00       3.95       1.86
SRCPARAM L0005720      0.000001436       4.00       3.95       1.86
SRCPARAM L0005721      0.000001436       4.00       3.95       1.86
SRCPARAM L0005722      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005724      0.000001436       4.00       3.95       1.86
SRCPARAM L0005725      0.000001436       4.00       3.95       1.86
SRCPARAM L0005726      0.000001436       4.00       3.95       1.86
SRCPARAM L0005727      0.000001436       4.00       3.95       1.86
SRCPARAM L0005728      0.000001436       4.00       3.95       1.86
SRCPARAM L0005729      0.000001436       4.00       3.95       1.86
SRCPARAM L0005730      0.000001436       4.00       3.95       1.86
SRCPARAM L0005731      0.000001436       4.00       3.95       1.86
SRCPARAM L0005732      0.000001436       4.00       3.95       1.86
SRCPARAM L0005733      0.000001436       4.00       3.95       1.86
SRCPARAM L0005734      0.000001436       4.00       3.95       1.86
SRCPARAM L0005735      0.000001436       4.00       3.95       1.86
SRCPARAM L0005736      0.000001436       4.00       3.95       1.86
SRCPARAM L0005737      0.000001436       4.00       3.95       1.86
SRCPARAM L0005738      0.000001436       4.00       3.95       1.86
SRCPARAM L0005739      0.000001436       4.00       3.95       1.86
SRCPARAM L0005740      0.000001436       4.00       3.95       1.86
SRCPARAM L0005741      0.000001436       4.00       3.95       1.86
SRCPARAM L0005742      0.000001436       4.00       3.95       1.86
SRCPARAM L0005743      0.000001436       4.00       3.95       1.86
SRCPARAM L0005744      0.000001436       4.00       3.95       1.86
SRCPARAM L0005745      0.000001436       4.00       3.95       1.86
SRCPARAM L0005746      0.000001436       4.00       3.95       1.86
SRCPARAM L0005747      0.000001436       4.00       3.95       1.86
SRCPARAM L0005748      0.000001436       4.00       3.95       1.86
SRCPARAM L0005749      0.000001436       4.00       3.95       1.86
SRCPARAM L0005750      0.000001436       4.00       3.95       1.86
SRCPARAM L0005751      0.000001436       4.00       3.95       1.86
SRCPARAM L0005752      0.000001436       4.00       3.95       1.86
SRCPARAM L0005753      0.000001436       4.00       3.95       1.86
SRCPARAM L0005754      0.000001436       4.00       3.95       1.86
SRCPARAM L0005755      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005757      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005762      0.000001436      4.00       3.95       1.86
SRCPARAM L0005763      0.000001436      4.00       3.95       1.86
SRCPARAM L0005764      0.000001436      4.00       3.95       1.86
SRCPARAM L0005765      0.000001436      4.00       3.95       1.86
SRCPARAM L0005766      0.000001436      4.00       3.95       1.86
SRCPARAM L0005767      0.000001436      4.00       3.95       1.86
SRCPARAM L0005768      0.000001436      4.00       3.95       1.86
SRCPARAM L0005769      0.000001436      4.00       3.95       1.86
SRCPARAM L0005770      0.000001436      4.00       3.95       1.86
SRCPARAM L0005771      0.000001436      4.00       3.95       1.86
SRCPARAM L0005772      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005774      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005781      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005783      0.000001436      4.00       3.95       1.86
SRCPARAM L0005784      0.000001436      4.00       3.95       1.86
SRCPARAM L0005785      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005787      0.000001436      4.00       3.95       1.86
SRCPARAM L0005788      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005792      0.000001436      4.00       3.95       1.86
SRCPARAM L0005793      0.000001436      4.00       3.95       1.86
SRCPARAM L0005794      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005796      0.000001436      4.00       3.95       1.86
SRCPARAM L0005797      0.000001436      4.00       3.95       1.86
SRCPARAM L0005798      0.000001436      4.00       3.95       1.86
SRCPARAM L0005799      0.000001436      4.00       3.95       1.86
SRCPARAM L0005800      0.000001436      4.00       3.95       1.86
SRCPARAM L0005801      0.000001436      4.00       3.95       1.86
SRCPARAM L0005802      0.000001436      4.00       3.95       1.86
SRCPARAM L0005803      0.000001436      4.00       3.95       1.86
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SRCPARAM L0005805      0.000001436      4.00       3.95       1.86
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                         AERMOD HRA Output
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SRCPARAM L0005811     0.000001436     4.00      3.95      1.86
SRCPARAM L0005812     0.000001436     4.00      3.95      1.86
SRCPARAM L0005813     0.000001436     4.00      3.95      1.86
SRCPARAM L0005814     0.000001436     4.00      3.95      1.86
SRCPARAM L0005815     0.000001436     4.00      3.95      1.86
SRCPARAM L0005816     0.000001436     4.00      3.95      1.86
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SRCPARAM L0005818     0.000001436     4.00      3.95      1.86
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SRCPARAM L0005820     0.000001436     4.00      3.95      1.86
SRCPARAM L0005821     0.000001436     4.00      3.95      1.86
SRCPARAM L0005822     0.000001436     4.00      3.95      1.86
SRCPARAM L0005823     0.000001436     4.00      3.95      1.86
SRCPARAM L0005824     0.000001436     4.00      3.95      1.86
SRCPARAM L0005825     0.000001436     4.00      3.95      1.86
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SRCPARAM L0005833     0.000001436     4.00      3.95      1.86
SRCPARAM L0005834     0.000001436     4.00      3.95      1.86
SRCPARAM L0005835     0.000001436     4.00      3.95      1.86
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SRCPARAM L0005837     0.000001436     4.00      3.95      1.86
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SRCPARAM L0005849     0.000001436     4.00      3.95      1.86
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SRCPARAM L0005852     0.000001436     4.00      3.95      1.86
SRCPARAM L0005853     0.000001436     4.00      3.95      1.86
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SRCPARAM L0005857      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005859      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005875      0.000001436       4.00       3.95       1.86
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SRCPARAM L0005879      0.000001436       4.00       3.95       1.86
SRCPARAM L0005880      0.000001436       4.00       3.95       1.86
SRCPARAM L0005881      0.000001436       4.00       3.95       1.86
SRCPARAM L0005882      0.000001436       4.00       3.95       1.86
SRCPARAM L0005883      0.000001436       4.00       3.95       1.86
SRCPARAM L0005884      0.000001436       4.00       3.95       1.86
SRCPARAM L0005885      0.000001436       4.00       3.95       1.86
SRCPARAM L0005886      0.000001436       4.00       3.95       1.86
SRCPARAM L0005887      0.000001436       4.00       3.95       1.86
SRCPARAM L0005888      0.000001436       4.00       3.95       1.86
SRCPARAM L0005889      0.000001436       4.00       3.95       1.86
SRCPARAM L0005890      0.000001436       4.00       3.95       1.86
SRCPARAM L0005891      0.000001436       4.00       3.95       1.86
SRCPARAM L0005892      0.000001436       4.00       3.95       1.86
SRCPARAM L0005893      0.000001436       4.00       3.95       1.86
SRCPARAM L0005894      0.000001436       4.00       3.95       1.86
SRCPARAM L0005895      0.000001436       4.00       3.95       1.86
SRCPARAM L0005896      0.000001436       4.00       3.95       1.86
SRCPARAM L0005897      0.000001436       4.00       3.95       1.86
SRCPARAM L0005898      0.000001436       4.00       3.95       1.86
SRCPARAM L0005899      0.000001436       4.00       3.95       1.86
SRCPARAM L0005900      0.000001436       4.00       3.95       1.86
SRCPARAM L0005901      0.000001436       4.00       3.95       1.86
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AERMOD HRA Output

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     SRCPARAM L0005902     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005903     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005904     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005905     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005906     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005907     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005908     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005909     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005910     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005911     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005912     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005913     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005914     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005915     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005916     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005917     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005918     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005919     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005920     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005921     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005922     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005923     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005924     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005925     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005926     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005927     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005928     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005929     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005930     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005931     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005932     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005933     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005934     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005935     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005936     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005937     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005938     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005939     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005940     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005941     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005942     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005943     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005944     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005945     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005946     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005947     0.000001436      4.00      3.95      1.86
     SRCPARAM L0005948     0.000001436      4.00      3.95      1.86
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                              AERMOD HRA Output
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0005949     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005950     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005951     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005952     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005953     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005954     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005955     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005956     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005957     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005958     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005959     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005960     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005961     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005962     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005963     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005964     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005965     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005966     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005967     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005968     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005969     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005970     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005971     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005972     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005973     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005974     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005975     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005976     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005977     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005978     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005979     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005980     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005981     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005982     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005983     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005984     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005985     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005986     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005987     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005988     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005989     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005990     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005991     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005992     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005993     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005994     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0005995     0.0000002391      0.00       3.95       1.86
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SRCPARAM L0005996      0.0000002391      0.00       3.95       1.86
SRCPARAM L0005997      0.0000002391      0.00       3.95       1.86
SRCPARAM L0005998      0.0000002391      0.00       3.95       1.86
SRCPARAM L0005999      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006000      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006001      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006002      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006003      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006004      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006005      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006006      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006007      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006008      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006009      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006010      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006011      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006012      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006013      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006014      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006015      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006016      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006017      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006018      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006019      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006020      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006021      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006022      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006023      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006024      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006025      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006026      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006027      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006028      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006029      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006030      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006031      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006032      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006033      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006034      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006035      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006036      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006037      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006038      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006039      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006040      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006041      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006042      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006043      0.0000002391      0.00       3.95       1.86
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SRCPARAM L0006044      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006045      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006046      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006047      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006048      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006049      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006050      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006051      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006052      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006053      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006054      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006055      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006056      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006057      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006058      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006059      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006060      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006061      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006062      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006063      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006064      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006065      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006066      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006067      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006068      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006069      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006070      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006071      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006072      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006073      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006074      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006075      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006076      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006077      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006078      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006079      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006080      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006081      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006082      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006083      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006084      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006085      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006086      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006087      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006088      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006089      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006090      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006091      0.0000002391      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006092     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006093     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006094     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006095     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006096     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006097     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006098     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006099     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006100     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006101     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006102     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006103     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006104     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006105     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006106     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006107     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006108     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006109     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006110     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006111     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006112     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006113     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006114     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006115     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006116     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006117     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006118     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006119     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006120     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006121     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006122     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006123     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006124     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006125     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006126     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006127     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006128     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006129     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006130     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006131     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006132     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006133     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006134     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006135     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006136     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006137     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006138     0.0000002391     0.00       3.95       1.86
SRCPARAM L0006139     0.0000002391     0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006140     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006141     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006142     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006143     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006144     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006145     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006146     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006147     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006148     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006149     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006150     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006151     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006152     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006153     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006154     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006155     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006156     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006157     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006158     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006159     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006160     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006161     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006162     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006163     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006164     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006165     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006166     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006167     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006168     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006169     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006170     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006171     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006172     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006173     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006174     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006175     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006176     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006177     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006178     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006179     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006180     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006181     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006182     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006183     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006184     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006185     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006186     0.0000002391     0.00      3.95      1.86
SRCPARAM L0006187     0.0000002391     0.00      3.95      1.86
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   SRCPARAM L0006188      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006189      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006190      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006191      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006192      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006193      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006194      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006195      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006196      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006197      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006198      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006199      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006200      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006201      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006202      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006203      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006204      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006205      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006206      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006207      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006208      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006209      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006210      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006211      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006212      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006213      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006214      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006215      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006216      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006217      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006218      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006219      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006220      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006221      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006222      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006223      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006224      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006225      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006226      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006227      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006228      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006229      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006230      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006231      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006232      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006233      0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006234      0.0000002391      0.00      3.95      1.86
** ----------------------------------------------------------------------
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   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Worker Exposure 12hrs"
   EMISFACT L0002435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002435     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002435     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0002445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0002445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                               AERMOD HRA Output
EMISFACT L0002446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002456     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002456     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002457     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002457     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002458     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002458     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002459     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002459     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002460     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002460     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002461     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002461     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002462     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002462     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002463     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002463     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002464     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002464     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002464     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002464     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002465     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002465     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002465     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002465     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002466     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002466     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002466     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002466     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002467     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002467     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002467     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002467     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002468     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002468     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002468     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002468     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002469     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002469     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002469     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002469     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                               AERMOD HRA Output
EMISFACT L0002470     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002470     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002470     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002470     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002471     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002471     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002471     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002471     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002472     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002472     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002472     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002472     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002473     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002473     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002473     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002473     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002474     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002474     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002474     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002474     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002475     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002475     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002475     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002475     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002476     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002476     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002476     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002476     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002477     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002477     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002477     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002477     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002478     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002478     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002478     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002478     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002479     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002479     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002479     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002479     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002480     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002480     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002480     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002480     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002481     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002481     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002481     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002481     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0002482      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002482      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002482      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002482      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002483      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002483      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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AERMOD HRA Output

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EMISFACT L0002545     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002546     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002546     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002546     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002546     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002547     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002547     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002547     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002547     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002548     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002548     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002548     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002548     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002549     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002549     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002549     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002549     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002550     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002550     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002550     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002550     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002551     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002551     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002551     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002551     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002552     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002552     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002552     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002552     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002553     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002553     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002553     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002553     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

AERMOD HRA Output

```
EMISFACT L0002554     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002554     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002554     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002554     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002555     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002555     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002555     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002555     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002556     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002556     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002556     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002556     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002557     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002557     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002557     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002557     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002558     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002558     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002558     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002558     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002559     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002559     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002559     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002559     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002560     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002560     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002560     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002560     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002561     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002561     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002561     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002561     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002562     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002562     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002562     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002562     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002563     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002563     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002563     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002563     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002564     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002564     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002564     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002564     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002565     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002565     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002565     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002565     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002566     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002566     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002566     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002566     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002567     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002567     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002567     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002567     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002568     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002568     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002568     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002568     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002569     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002569     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002569     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002569     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002570     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002570     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002570     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002570     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002571     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002571     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002571     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002571     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002572     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002572     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002572     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002572     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002573     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002573     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002573     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002573     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002574     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002574     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002574     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002574     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002575     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002575     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002575     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002575     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002576     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002576     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002576     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002576     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002577     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002577     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002577     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002577     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                          AERMOD HRA Output
EMISFACT L0002578     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002578     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002578     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002578     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002579     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002579     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002579     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002579     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002580     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002580     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002580     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002580     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002581     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002581     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002581     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002581     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002582     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002582     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002582     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002582     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002583     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002583     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002583     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002583     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002584     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002584     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002584     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002584     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002585     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002585     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002585     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002585     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002586     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002586     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002586     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002586     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002587     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002587     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002587     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002587     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002588     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002588     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002588     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002588     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002589     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002589     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002589     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002589     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002590     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002590     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002590     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002590     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002591     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002591     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002591     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002591     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002592     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002592     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002592     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002592     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002593     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002593     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002593     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002593     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002594     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002594     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002594     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002594     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002595     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002595     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002595     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002595     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002596     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002596     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002596     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002596     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002597     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002597     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002597     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002597     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002598     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002598     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002598     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002598     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002599     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002599     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002599     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002599     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002600     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002600     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002600     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002600     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002601     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002601     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002601     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002601     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                          AERMOD HRA Output
EMISFACT L0002602     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002602     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002602     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002602     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002603     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002603     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002603     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002603     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002604     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002604     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002604     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002604     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002605     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002605     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002605     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002605     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002606     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002606     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002606     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002606     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002607     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002607     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002607     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002607     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002608     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002608     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002608     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002609     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002610     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002610     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002611     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002611     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002611     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002612     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002612     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002613     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002613     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002613     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002613     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002614     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002624     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002625     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002649     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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                              AERMOD HRA Output
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EMISFACT L0002671      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002672      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002672      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002672      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002672      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002673      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002673      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002673      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002673      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002674     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002674     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002674     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002674     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002675     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002675     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002675     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002675     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002676     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002676     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002676     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002676     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002677     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002677     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002677     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002677     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002678     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002678     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002678     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002678     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002679     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002679     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002679     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002679     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002680     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002680     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002680     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002680     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002681     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002681     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002681     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002681     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002682     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002682     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002682     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002682     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002683     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002683     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002683     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002683     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002684     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002684     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002684     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002684     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002685     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002685     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002685     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002685     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002686     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002686     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002686     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002686     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002687     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002687     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002687     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002687     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002688     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002688     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002688     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002688     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002689     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002689     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002689     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002689     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002690     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002690     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002690     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002690     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002691     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002691     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002691     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002691     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002692     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002692     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002692     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002692     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002693     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002693     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002693     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002693     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002694     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002694     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002694     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002694     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002695     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002695     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002695     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002695     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002696     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002696     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002696     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002696     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002697     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002697     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002697     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002697     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002698      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002698      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002698      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002698      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002699      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002699      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002699      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002699      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002700      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002700      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002700      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002700      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002701      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002701      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002701      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002701      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002702      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002702      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002702      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002702      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002703      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002703      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002703      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002703      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002704      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002704      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002704      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002704      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002705      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002705      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002705      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002705      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002706      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002706      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002706      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002706      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002707      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002707      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002707      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002707      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002708      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002708      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002708      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002708      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002709      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002709      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002709      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002709      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002710     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002710     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002710     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002710     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002711     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002711     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002711     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002711     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002712     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002712     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002712     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002712     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002713     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002713     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002713     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002713     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002714     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002714     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002714     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002714     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002715     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002715     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002715     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002715     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002716     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002716     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002716     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002716     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002717     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002717     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002717     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002717     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002718     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002718     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002718     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002718     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002719     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002719     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002719     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002719     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002720     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002720     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002720     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002720     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002721     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002721     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002721     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002721     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002722      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002722      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002722      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002722      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002723      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002723      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002723      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002723      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002724      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002724      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002724      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002724      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002725      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002725      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002725      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002725      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002726      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002726      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002726      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002726      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002727      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002727      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002727      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002727      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002728      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002728      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002728      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002728      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002729      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002729      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002729      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002729      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002730      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002730      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002730      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002730      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002731      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002731      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002731      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002731      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002732      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002732      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002732      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002732      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002733      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002733      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002733      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002733      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002734     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002734     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002734     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002734     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002735     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002735     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002735     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002735     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002736     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002736     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002736     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002736     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002737     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002737     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002737     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002737     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002738     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002738     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002738     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002738     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002739     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002739     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002739     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002739     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002740     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002740     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002740     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002740     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002741     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002741     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002741     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002741     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002742     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002742     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002742     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002742     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002743     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002743     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002743     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002743     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002744     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002744     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002744     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002744     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002745     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002745     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002745     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002745     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0002746     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002746     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002746     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002746     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002747     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002747     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002747     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002747     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002748     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002748     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002748     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002748     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002749     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002749     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002750     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002750     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002750     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002750     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002751     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002751     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002751     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002751     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002752     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002752     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002752     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002752     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002753     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002753     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002753     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002753     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002754     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002754     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002754     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002754     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002755     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002755     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002755     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002755     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002756     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002756     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002756     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002756     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002757     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002757     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002757     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002757     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                        AERMOD HRA Output
EMISFACT L0002758     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002758     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002758     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002758     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002759     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002759     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002759     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002759     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002760     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002760     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002760     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002760     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002761     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002761     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002761     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002761     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002762     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002762     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002762     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002762     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002763     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002763     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002763     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002763     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002764     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002764     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002764     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002764     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002765     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002765     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002765     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002765     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002766     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002766     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002766     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002766     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002767     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002767     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002767     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002767     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002768     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002768     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002768     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002768     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002769     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002769     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002769     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002769     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0002770      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002770      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002770      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002770      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002771      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002771      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002771      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002771      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002772      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002772      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002772      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002772      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002773      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002773      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002773      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002773      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002774      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002774      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002774      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002774      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002775      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002775      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002775      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002775      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002776      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002776      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002776      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002776      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002777      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002777      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002777      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002777      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002778      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002778      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002778      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002778      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002779      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002779      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002779      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002779      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002780      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002780      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002780      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002780      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002781      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002781      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002781      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002781      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002782     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002782     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002783     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002783     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002783     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002783     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002784     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002784     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002784     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002784     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002785     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002785     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002785     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002785     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002786     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002786     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002786     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002786     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002787     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002787     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002787     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002787     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002788     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002788     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002788     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002788     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002789     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002789     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002789     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002789     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002790     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002790     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002790     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002790     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002791     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002791     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002791     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002791     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002792     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002792     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002792     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002792     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002793     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002793     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002793     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002793     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                AERMOD HRA Output
EMISFACT L0002794      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002794      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002794      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002794      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002795      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002795      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002795      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002795      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002796      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002796      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002796      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002796      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002797      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002797      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002797      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002797      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002805      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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AERMOD HRA Output

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EMISFACT L0002863      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002863      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002864      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002864      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002865      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002865      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002865      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002865      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
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EMISFACT L0002923     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002924     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002924     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002924     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002924     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002925     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002925     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002925     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002925     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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                    AERMOD HRA Output
EMISFACT L0002926     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002926     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002926     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002926     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002927     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002927     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002927     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002927     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002928     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002928     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002928     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002928     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002929     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002929     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002929     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002929     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002930     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002930     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002930     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002930     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002931     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002931     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002931     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002931     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002932     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002932     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002932     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002932     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002933     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002933     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002933     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002933     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002934     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002934     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002934     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002934     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002935     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002935     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002935     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002935     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002936     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002936     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002936     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002936     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002937     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002937     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002937     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002937     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002938     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002938     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002938     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002938     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002939     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002939     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002939     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002939     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002940     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002940     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002940     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002940     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002941     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002941     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002941     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002941     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002942     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002942     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002942     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002942     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002943     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002943     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002943     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002943     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002944     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002944     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002944     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002944     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002945     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002945     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002945     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002945     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002946     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002946     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002946     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002946     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002947     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002947     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002947     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002947     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002948     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002948     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002948     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002948     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002949     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002949     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002949     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002949     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002950     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002950     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002950     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002950     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002951     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002951     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002951     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002951     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002952     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002952     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002952     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002952     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002953     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002953     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002953     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002953     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002954     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002954     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002954     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002954     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002955     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002955     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002955     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002955     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002956     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002956     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002956     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002956     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002957     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002957     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002957     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002957     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002958     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002958     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002958     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002958     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002959     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002959     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002959     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002959     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002960     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002960     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002960     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002960     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002961     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002961     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002961     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002961     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002962     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002962     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002962     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002962     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002963     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002963     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002963     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002963     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002964     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002964     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002964     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002964     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002965     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002965     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002965     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002965     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002966     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002966     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002966     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002966     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002967     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002967     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002967     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002967     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002968     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002968     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002968     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002968     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002969     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002969     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002969     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002969     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002970     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002970     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002970     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002970     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002971     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002971     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002971     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002971     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002972     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002972     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002972     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002972     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002973     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002973     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002973     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002973     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0002974     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002974     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002974     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002974     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002975     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002975     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002975     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002975     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002976     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002976     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002976     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002976     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002977     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002977     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002977     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002977     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002978     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002978     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002978     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002978     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002979     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002979     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002979     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002979     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002980     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002980     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002980     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002980     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002981     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002981     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002981     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002981     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002982     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002982     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002982     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002982     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002983     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002983     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002983     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002983     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002984     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002984     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002984     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002984     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002985     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002985     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002985     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002985     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002986     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002986     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002986     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002986     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002987     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002987     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002987     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002987     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002988     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002988     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002988     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002988     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002989     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002989     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002989     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002989     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002990     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002990     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002990     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002991     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002993     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002993     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002993     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002993     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002994     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002994     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002995     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002995     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002996     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002996     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002996     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002996     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002997     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002997     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002997     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002997     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0002998      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002998      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002998      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002998      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002999      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002999      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002999      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002999      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003000      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003000      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003000      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003001      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003001      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003001      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003005      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003005      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003005      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003005      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003006      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003006      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003006      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003007      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003008      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003009      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003009      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003009      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
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EMISFACT L0003011     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003011     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003012     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003012     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003012     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003013     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003013     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003014     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003014     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003014     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003015     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003015     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003015     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003015     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003016     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003016     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003018     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003019     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003019     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003020     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003021     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003021     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003021     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003021     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                  AERMOD HRA Output
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EMISFACT L0003022     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003022     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003023     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003023     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003023     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003023     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003024     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003024     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003024     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003024     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003025     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003025     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003025     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003025     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003026     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003026     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003026     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003026     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003027     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003027     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003027     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003027     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003028     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003030     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003030     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003030     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003030     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003031     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003031     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003031     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003031     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003032     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003032     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003032     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003032     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003033     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003033     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003033     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003033     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                    AERMOD HRA Output
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EMISFACT L0003034     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003034     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003035     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003035     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003035     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003035     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003036     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003036     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003036     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003036     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003037     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003037     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003037     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003037     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003039     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003039     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003040     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003040     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003040     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003040     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003041     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003041     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003041     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003041     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003042     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003042     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003042     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003043     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003043     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003043     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003044     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003044     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003045     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003045     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
                        Page 440
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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EMISFACT L0003046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                     AERMOD HRA Output
EMISFACT L0003058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003063     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003063     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003063     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003063     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003064     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003064     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003064     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003064     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003065     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003065     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003065     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003065     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003066     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003066     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003067     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003067     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003067     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003067     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003068     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003068     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003068     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003068     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003069     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003069     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003069     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003069     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0003070     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003070     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003070     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003070     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003071     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003071     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003071     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003071     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003072     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003072     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003072     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003072     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003073     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003073     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003073     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003073     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003074     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003074     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003074     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003074     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003075     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003075     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003075     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003075     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003076     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003076     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003076     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003076     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003077     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003077     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003077     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003077     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003078     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003078     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003078     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003078     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003079     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003079     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003079     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003079     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003080     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003080     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003080     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003080     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003081     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003081     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003081     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003081     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003082     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003082     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003083     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003083     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003083     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003083     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003084     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003084     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003084     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003084     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003085     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003085     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003085     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003085     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003086     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003086     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003086     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003086     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003088     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003088     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003088     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003088     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003089     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003089     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003089     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003089     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003090     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003090     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003090     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003090     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003091     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003091     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003091     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003091     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003092     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003092     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003092     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003092     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003093     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003093     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003093     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003093     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT L0003094     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003094     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003094     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003094     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003095     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003095     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003095     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003095     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003096     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003096     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003096     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003096     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003097     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003097     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003097     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003097     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003098     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003098     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003098     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003098     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003099     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003099     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003100     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003100     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003100     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003100     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003101     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003101     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003101     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003101     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003102     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003102     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003102     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003102     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003103     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003103     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003103     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003103     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003104     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003104     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003104     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003104     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003105     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003105     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003105     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003105     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003106     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003106     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003106     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003106     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003107     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003107     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003107     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003107     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003108     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003108     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003108     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003108     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003109     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003109     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003109     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003109     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003110     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003110     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003110     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003110     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003111     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003111     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003111     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003111     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003112     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003112     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003112     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003112     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003113     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003113     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003113     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003113     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003114     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003114     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003114     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003114     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003115     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003115     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003115     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003115     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003116     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003116     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003116     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003116     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003117     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003117     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003117     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003117     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003118     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003118     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003118     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003118     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003119     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003119     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003119     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003119     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003120     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003120     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003120     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003120     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003121     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003121     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003121     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003121     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003122     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003122     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003122     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003122     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003123     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003123     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003123     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003123     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003124     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003124     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003125     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003125     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003125     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003125     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003126     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003126     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003126     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003126     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003127     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003127     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003127     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003127     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003128     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003128     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003128     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003128     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003129     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003129     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003129     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003129     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                    AERMOD HRA Output
EMISFACT L0003130      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003130      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003130      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003130      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003131      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003131      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003131      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003131      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003132      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003132      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003132      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003132      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA2         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA2         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA3         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA3         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA5         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA5         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3         HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3         HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                           AERMOD HRA Output
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK8        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK8        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK9        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK9        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK11       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK11       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
SRCGROUP YardTrac AREA1 AREA2 AREA3 AREA4 AREA5 AREA6
SRCGROUP Other    L0002435 L0002436 L0002437 L0002438 L0002439 L0002440
SRCGROUP Other    L0002441 L0002442 L0002443 L0002444 L0002445 L0002446
SRCGROUP Other    L0002447 L0002448 L0002449 L0002450 L0002451 L0002452
SRCGROUP Other    L0002453 L0002454 L0002455 L0002456 L0002457 L0002458
SRCGROUP Other    L0002459 L0002460 L0002461 L0002462 L0002463 L0002464
SRCGROUP Other    L0002465 L0002466 L0002467 L0002468 L0002469 L0002470
SRCGROUP Other    L0002471 L0002472 L0002473 L0002474 L0002475 L0002476
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                              AERMOD HRA Output
SRCGROUP Other    L0002477 L0002478 L0002479 L0002480 L0002481 L0002482
SRCGROUP Other    L0002483 L0002484 L0002485 L0002486 L0002487 L0002488
SRCGROUP Other    L0002489 L0002490 L0002491 L0002492 L0002493 L0002494
SRCGROUP Other    L0002495 L0002496 L0002497 L0002498 L0002499 L0002500
SRCGROUP Other    L0002501 L0002502 L0002503 L0002504 L0002505 L0002506
SRCGROUP Other    L0002507 L0002508 L0002509 L0002510 L0002511 L0002512
SRCGROUP Other    L0002513 L0002514 L0002515 L0002516 L0002517 L0002518
SRCGROUP Other    L0002519 L0002520 L0002521 L0002522 L0002523 L0002524
SRCGROUP Other    L0002525 L0002526 L0002527 L0002528 L0002529 L0002530
SRCGROUP Other    L0002531 L0002532 L0002533 L0002534 L0002535 L0002536
SRCGROUP Other    L0002537 L0002538 L0002539 L0002540 L0002541 L0002542
SRCGROUP Other    L0002543 L0002544 L0002545 L0002546 L0002547 L0002548
SRCGROUP Other    L0002549 L0002550 L0002551 L0002552 L0002553 L0002554
SRCGROUP Other    L0002555 L0002556 L0002557 L0002558 L0002559 L0002560
SRCGROUP Other    L0002561 L0002562 L0002563 L0002564 L0002565 L0002566
SRCGROUP Other    L0002567 L0002568 L0002569 L0002570 L0002571 L0002572
SRCGROUP Other    L0002573 L0002574 L0002575 L0002576 L0002577 L0002578
SRCGROUP Other    L0002579 L0002580 L0002581 L0002582 L0002583 L0002584
SRCGROUP Other    L0002585 L0002586 L0002587 L0002588 L0002589 L0002590
SRCGROUP Other    L0002591 L0002592 L0002593 L0002594 L0002595 L0002596
SRCGROUP Other    L0002597 L0002598 L0002599 L0002600 L0002601 L0002602
SRCGROUP Other    L0002603 L0002604 L0002605 L0002606 L0002607 L0002608
SRCGROUP Other    L0002609 L0002610 L0002611 L0002612 L0002613 L0002614
SRCGROUP Other    L0002615 L0002616 L0002617 L0002618 L0002619 L0002620
SRCGROUP Other    L0002621 L0002622 L0002623 L0002624 L0002625 L0002626
SRCGROUP Other    L0002627 L0002628 L0002629 L0002630 L0002631 L0002632
SRCGROUP Other    L0002633 L0002634 L0002635 L0002636 L0002637 L0002638
SRCGROUP Other    L0002639 L0002640 L0002641 L0002642 L0002643 L0002644
SRCGROUP Other    L0002645 L0002646 L0002647 L0002648 L0002649 L0002650
SRCGROUP Other    L0002651 L0002652 L0002653 L0002654 L0002655 L0002656
SRCGROUP Other    L0002657 L0002658 L0002659 L0002660 L0002661 L0002662
SRCGROUP Other    L0002663 L0002664 L0002665 L0002666 L0002667 L0002668
SRCGROUP Other    L0002669 L0002670 L0002671 L0002672 L0002673 L0002674
SRCGROUP Other    L0002675 L0002676 L0002677 L0002678 L0002679 L0002680
SRCGROUP Other    L0002681 L0002682 L0002683 L0002684 L0002685 L0002686
SRCGROUP Other    L0002687 L0002688 L0002689 L0002690 L0002691 L0002692
SRCGROUP Other    L0002693 L0002694 L0002695 L0002696 L0002697 L0002698
SRCGROUP Other    L0002699 L0002700 L0002701 L0002702 L0002703 L0002704
SRCGROUP Other    L0002705 L0002706 L0002707 L0002708 L0002709 L0002710
SRCGROUP Other    L0002711 L0002712 L0002713 L0002714 L0002715 L0002716
SRCGROUP Other    L0002717 L0002718 L0002719 L0002720 L0002721 L0002722
SRCGROUP Other    L0002723 L0002724 L0002725 L0002726 L0002727 L0002728
SRCGROUP Other    L0002729 L0002730 L0002731 L0002732 L0002733 L0002734
SRCGROUP Other    L0002735 L0002736 L0002737 L0002738 L0002739 L0002740
SRCGROUP Other    L0002741 L0002742 L0002743 L0002744 L0002745 L0002746
SRCGROUP Other    L0002747 L0002748 L0002749 L0002750 L0002751 L0002752
SRCGROUP Other    L0002753 L0002754 L0002755 L0002756 L0002757 L0002758
SRCGROUP Other    L0002759 L0002760 L0002761 L0002762 L0002763 L0002764
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                              AERMOD HRA Output
SRCGROUP Other    L0002765 L0002766 L0002767 L0002768 L0002769 L0002770
SRCGROUP Other    L0002771 L0002772 L0002773 L0002774 L0002775 L0002776
SRCGROUP Other    L0002777 L0002778 L0002779 L0002780 L0002781 L0002782
SRCGROUP Other    L0002783 L0002784 L0002785 L0002786 L0002787 L0002788
SRCGROUP Other    L0002789 L0002790 L0002791 L0002792 L0002793 L0002794
SRCGROUP Other    L0002795 L0002796 L0002797 L0002798 L0002799 L0002800
SRCGROUP Other    L0002801 L0002802 L0002803 L0002804 L0002805 L0002806
SRCGROUP Other    L0002807 L0002808 L0002809 L0002810 L0002811 L0002812
SRCGROUP Other    L0002813 L0002814 L0002815 L0002816 L0002817 L0002818
SRCGROUP Other    L0002819 L0002820 L0002821 L0002822 L0002823 L0002824
SRCGROUP Other    L0002825 L0002826 L0002827 L0002828 L0002829 L0002830
SRCGROUP Other    L0002831 L0002832 L0002833 L0002834 L0002835 L0002836
SRCGROUP Other    L0002837 L0002838 L0002839 L0002840 L0002841 L0002842
SRCGROUP Other    L0002843 L0002844 L0002845 L0002846 L0002847 L0002848
SRCGROUP Other    L0002849 L0002850 L0002851 L0002852 L0002853 L0002854
SRCGROUP Other    L0002855 L0002856 L0002857 L0002858 L0002859 L0002860
SRCGROUP Other    L0002861 L0002862 L0002863 L0002864 L0002865 L0002866
SRCGROUP Other    L0002867 L0002868 L0002869 L0002870 L0002871 L0002872
SRCGROUP Other    L0002873 L0002874 L0002875 L0002876 L0002877 L0002878
SRCGROUP Other    L0002879 L0002880 L0002881 L0002882 L0002883 L0002884
SRCGROUP Other    L0002885 L0002886 L0002887 L0002888 L0002889 L0002890
SRCGROUP Other    L0002891 L0002892 L0002893 L0002894 L0002895 L0002896
SRCGROUP Other    L0002897 L0002898 L0002899 L0002900 L0002901 L0002902
SRCGROUP Other    L0002903 L0002904 L0002905 L0002906 L0002907 L0002908
SRCGROUP Other    L0002909 L0002910 L0002911 L0002912 L0002913 L0002914
SRCGROUP Other    L0002915 L0002916 L0002917 L0002918 L0002919 L0002920
SRCGROUP Other    L0002921 L0002922 L0002923 L0002924 L0002925 L0002926
SRCGROUP Other    L0002927 L0002928 L0002929 L0002930 L0002931 L0002932
SRCGROUP Other    L0002933 L0002934 L0002935 L0002936 L0002937 L0002938
SRCGROUP Other    L0002939 L0002940 L0002941 L0002942 L0002943 L0002944
SRCGROUP Other    L0002945 L0002946 L0002947 L0002948 L0002949 L0002950
SRCGROUP Other    L0002951 L0002952 L0002953 L0002954 L0002955 L0002956
SRCGROUP Other    L0002957 L0002958 L0002959 L0002960 L0002961 L0002962
SRCGROUP Other    L0002963 L0002964 L0002965 L0002966 L0002967 L0002968
SRCGROUP Other    L0002969 L0002970 L0002971 L0002972 L0002973 L0002974
SRCGROUP Other    L0002975 L0002976 L0002977 L0002978 L0002979 L0002980
SRCGROUP Other    L0002981 L0002982 L0002983 L0002984 L0002985 L0002986
SRCGROUP Other    L0002987 L0002988 L0002989 L0002990 L0002991 L0002992
SRCGROUP Other    L0002993 L0002994 L0002995 L0002996 L0002997 L0002998
SRCGROUP Other    L0002999 L0003000 L0003001 L0003002 L0003003 L0003004
SRCGROUP Other    L0003005 L0003006 L0003007 L0003008 L0003009 L0003010
SRCGROUP Other    L0003011 L0003012 L0003013 L0003014 L0003015 L0003016
SRCGROUP Other    L0003017 L0003018 L0003019 L0003020 L0003021 L0003022
SRCGROUP Other    L0003023 L0003024 L0003025 L0003026 L0003027 L0003028
SRCGROUP Other    L0003029 L0003030 L0003031 L0003032 L0003033 L0003034
SRCGROUP Other    L0003035 L0003036 L0003037 L0003038 L0003039 L0003040
SRCGROUP Other    L0003041 L0003042 L0003043 L0003044 L0003045 L0003046
SRCGROUP Other    L0003047 L0003048 L0003049 L0003050 L0003051 L0003052
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   SRCGROUP Other    L0003053 L0003054 L0003055 L0003056 L0003057 L0003058
   SRCGROUP Other    L0003059 L0003060 L0003061 L0003062 L0003063 L0003064
   SRCGROUP Other    L0003065 L0003066 L0003067 L0003068 L0003069 L0003070
   SRCGROUP Other    L0003071 L0003072 L0003073 L0003074 L0003075 L0003076
   SRCGROUP Other    L0003077 L0003078 L0003079 L0003080 L0003081 L0003082
   SRCGROUP Other    L0003083 L0003084 L0003085 L0003086 L0003087 L0003088
   SRCGROUP Other    L0003089 L0003090 L0003091 L0003092 L0003093 L0003094
   SRCGROUP Other    L0003095 L0003096 L0003097 L0003098 L0003099 L0003100
   SRCGROUP Other    L0003101 L0003102 L0003103 L0003104 L0003105 L0003106
   SRCGROUP Other    L0003107 L0003108 L0003109 L0003110 L0003111 L0003112
   SRCGROUP Other    L0003113 L0003114 L0003115 L0003116 L0003117 L0003118
   SRCGROUP Other    L0003119 L0003120 L0003121 L0003122 L0003123 L0003124
   SRCGROUP Other    L0003125 L0003126 L0003127 L0003128 L0003129 L0003130
   SRCGROUP Other    L0003131 L0003132 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED School.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
```

```
                                 AERMOD HRA Output
   PLOTFILE ANNUAL ALL SCHOOL.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac SCHOOL.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other SCHOOL.AD\AN00G002.PLT 33
   SUMMFILE School.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of           0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    7933       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F
```

```
 **Model Uses URBAN Dispersion Algorithm for the SBL for  2268 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2268 Source(s);       3 Source Group(s); and      20
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2249 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
```

```
                                   AERMOD HRA Output
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      5.2 MB of RAM.

 **Detailed Error/Message File:   School.err

 **File for Summary of Results:   School.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                     VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1           0   0.24556E-04  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK2           0   0.24556E-04  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK3           0   0.24556E-04  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK4           0   0.24556E-04  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK5           0   0.24556E-04  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK6           0   0.24556E-04  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK7           0   0.24556E-04  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
```

```
 STCK8            0   0.24556E-04  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK9            0   0.24556E-04  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK10           0   0.24556E-04  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK11           0   0.51950E-04  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK12           0   0.41163E-04  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK13           0   0.70402E-04  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002435         0   0.85530E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0002436         0   0.85530E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0002437         0   0.85530E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES   HROFDY
 L0002438         0   0.85530E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES   HROFDY
 L0002439         0   0.85530E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0002440         0   0.85530E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0002441         0   0.85530E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0002442         0   0.85530E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES   HROFDY
```

```
 L0002443         0   0.85530E-05  478217.3 3748656.3   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002444         0   0.85530E-05  478217.4 3748686.3   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002445         0   0.85530E-05  478217.6 3748716.3   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002446         0   0.85530E-05  478217.7 3748746.3   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002447         0   0.85530E-05  478217.8 3748776.3   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002448         0   0.85530E-05  478218.0 3748806.3   452.7      4.00     13.95
1.86     YES    HROFDY
 L0002449         0   0.85530E-05  478218.1 3748836.3   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002450         0   0.85530E-05  478218.3 3748866.3   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002451         0   0.85530E-05  478218.4 3748896.3   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002452         0   0.88640E-05  477943.9 3748501.1   451.5      4.00     13.95
1.86     YES    HROFDY
 L0002453         0   0.88640E-05  477944.1 3748531.1   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002454         0   0.88640E-05  477944.4 3748561.1   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002455         0   0.88640E-05  477944.7 3748591.1   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002456         0   0.88640E-05  477944.9 3748621.1   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002457         0   0.88640E-05  477945.2 3748651.1   452.0      4.00     13.95
1.86     YES    HROFDY
 L0002458         0   0.88640E-05  477945.4 3748681.1   452.5      4.00     13.95
1.86     YES    HROFDY
 L0002459         0   0.88640E-05  477945.7 3748711.1   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002460         0   0.88640E-05  477945.9 3748741.1   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002461         0   0.88640E-05  477946.2 3748771.1   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002462         0   0.88640E-05  477946.5 3748801.1   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002463         0   0.88640E-05  477946.7 3748831.1   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002464         0   0.88640E-05  477947.0 3748861.1   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002465         0   0.88640E-05  477947.2 3748891.1   453.0      4.00     13.95
1.86     YES    HROFDY
 L0002466         0   0.81770E-05  477756.7 3748938.5   454.0      4.00      3.95
1.86     YES    HROFDY
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0002467         0   0.81770E-05  477756.7 3748930.0   453.8     4.00     3.95
1.86     YES   HROFDY
 L0002468         0   0.81770E-05  477756.7 3748921.5   453.6     4.00     3.95
1.86     YES   HROFDY
 L0002469         0   0.81770E-05  477756.7 3748913.0   453.3     4.00     3.95
1.86     YES   HROFDY
 L0002470         0   0.81770E-05  477756.7 3748904.5   453.1     4.00     3.95
1.86     YES   HROFDY
 L0002471         0   0.81770E-05  477756.7 3748896.0   453.1     4.00     3.95
1.86     YES   HROFDY
 L0002472         0   0.81770E-05  477756.7 3748887.5   453.1     4.00     3.95
1.86     YES   HROFDY
 L0002473         0   0.81770E-05  477756.7 3748879.0   453.1     4.00     3.95
1.86     YES   HROFDY
 L0002474         0   0.63430E-06  477900.2 3748339.0   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:32:41

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0002475         0   0.63430E-06  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002476         0   0.63430E-06  477917.2 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002477         0   0.63430E-06  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002478         0   0.63430E-06  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002479         0   0.63430E-06  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002480         0   0.63430E-06  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES   HROFDY
```

AERMOD HRA Output

```
 L0002481         0   0.63430E-06  477951.8 3748324.5   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002482         0   0.63430E-06  477956.1 3748317.1   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002483         0   0.63430E-06  477960.3 3748309.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002484         0   0.63430E-06  477964.6 3748302.3   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002485         0   0.63430E-06  477968.8 3748295.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002486         0   0.63430E-06  477973.0 3748287.6   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002487         0   0.63430E-06  477976.2 3748279.9   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002488         0   0.63430E-06  477977.3 3748271.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002489         0   0.63430E-06  477978.3 3748263.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002490         0   0.63430E-06  477978.3 3748254.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002491         0   0.63430E-06  477978.3 3748246.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002492         0   0.63430E-06  477978.2 3748237.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002493         0   0.63430E-06  477978.2 3748229.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002494         0   0.63430E-06  477978.1 3748220.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002495         0   0.59110E-05  477608.7 3748929.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002496         0   0.59110E-05  477608.7 3748920.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002497         0   0.59110E-05  477608.7 3748912.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002498         0   0.59110E-05  477608.7 3748903.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002499         0   0.59110E-05  477608.7 3748895.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002500         0   0.59110E-05  477608.7 3748886.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002501         0   0.59110E-05  477608.7 3748878.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002502         0   0.59110E-05  477608.7 3748869.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002503         0   0.59110E-05  477608.7 3748861.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0002504         0   0.59110E-05  477608.7 3748852.8   454.0      0.00      3.95
1.86      YES    HROFDY
```

```
                                 AERMOD HRA Output
 L0002505         0   0.59110E-05  477608.7 3748844.3   454.0     0.00     3.95
1.86     YES   HROFDY
 L0002506         0   0.59110E-05  477608.7 3748835.8   454.0     0.00     3.95
1.86     YES   HROFDY
 L0002507         0   0.59110E-05  477608.7 3748827.3   454.0     0.00     3.95
1.86     YES   HROFDY
 L0002508         0   0.59110E-05  477608.7 3748818.8   454.0     0.00     3.95
1.86     YES   HROFDY
 L0002509         0   0.59110E-05  477608.7 3748810.3   454.0     0.00     3.95
1.86     YES   HROFDY
 L0002510         0   0.20580E-05  478043.0 3748335.2   451.0     0.00    13.95
1.86     YES   HROFDY
 L0002511         0   0.20580E-05  478073.0 3748334.5   451.0     0.00    13.95
1.86     YES   HROFDY
 L0002512         0   0.20580E-05  478103.0 3748333.9   451.0     0.00    13.95
1.86     YES   HROFDY
 L0002513         0   0.20580E-05  478133.0 3748333.2   451.0     0.00    13.95
1.86     YES   HROFDY
 L0002514         0   0.20580E-05  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0002515         0   0.33530E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002516         0   0.33530E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002517         0   0.33530E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002518         0   0.33530E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86     YES   HROFDY
```

```
                              AERMOD HRA Output
 L0002519         0   0.33530E-05  477950.2 3748937.5   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002520         0   0.33530E-05  477949.0 3748929.1   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002521         0   0.33530E-05  477948.2 3748920.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002522         0   0.33530E-05  477948.1 3748912.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002523         0   0.33530E-05  477947.9 3748903.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002524         0   0.33530E-05  477947.8 3748895.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002525         0   0.33530E-05  477947.6 3748886.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002526         0   0.33530E-05  477947.5 3748878.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002527         0   0.33530E-05  477947.3 3748869.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002528         0   0.33530E-05  477947.2 3748861.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002529         0   0.33530E-05  477947.2 3748852.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002530         0   0.33530E-05  477947.1 3748844.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002531         0   0.33530E-05  477947.0 3748835.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002532         0   0.33530E-05  477947.0 3748827.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002533         0   0.33530E-05  477946.9 3748818.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002534         0   0.33530E-05  477946.8 3748810.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002535         0   0.33530E-05  477946.7 3748801.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002536         0   0.33530E-05  477946.7 3748793.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002537         0   0.33530E-05  477946.6 3748784.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002538         0   0.33530E-05  477946.5 3748776.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002539         0   0.33530E-05  477946.5 3748767.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002540         0   0.33530E-05  477946.4 3748759.2   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002541         0   0.33530E-05  477946.3 3748750.7   453.0     4.00      3.95
1.86     YES   HROFDY
 L0002542         0   0.33530E-05  477946.3 3748742.2   453.0     4.00      3.95
1.86     YES   HROFDY
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                           AERMOD HRA Output
 L0002543         0   0.33530E-05  477946.2 3748733.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002544         0   0.33530E-05  477946.1 3748725.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002545         0   0.33530E-05  477946.1 3748716.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002546         0   0.33530E-05  477946.0 3748708.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002547         0   0.33530E-05  477945.9 3748699.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002548         0   0.33530E-05  477945.9 3748691.2   452.8     4.00     3.95
1.86     YES   HROFDY
 L0002549         0   0.33530E-05  477945.8 3748682.7   452.5     4.00     3.95
1.86     YES   HROFDY
 L0002550         0   0.33530E-05  477945.7 3748674.2   452.2     4.00     3.95
1.86     YES   HROFDY
 L0002551         0   0.33530E-05  477945.7 3748665.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002552         0   0.33530E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002553         0   0.33530E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002554         0   0.33530E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -

 L0002555         0   0.33530E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002556         0   0.33530E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86     YES   HROFDY
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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 L0002557         0   0.33530E-05  477945.2 3748614.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002558         0   0.33530E-05  477945.2 3748606.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002559         0   0.33530E-05  477945.1 3748597.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002560         0   0.33530E-05  477945.0 3748589.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002561         0   0.33530E-05  477945.0 3748580.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002562         0   0.33530E-05  477944.9 3748572.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002563         0   0.33530E-05  477944.8 3748563.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002564         0   0.33530E-05  477944.8 3748555.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002565         0   0.33530E-05  477944.7 3748546.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002566         0   0.33530E-05  477944.6 3748538.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002567         0   0.33530E-05  477944.6 3748529.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002568         0   0.33530E-05  477944.5 3748521.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0002569         0   0.33530E-05  477944.4 3748512.7    451.9      4.00      3.95
1.86      YES    HROFDY
 L0002570         0   0.33530E-05  477944.4 3748504.2    451.6      4.00      3.95
1.86      YES    HROFDY
 L0002571         0   0.33530E-05  477944.3 3748495.7    451.3      4.00      3.95
1.86      YES    HROFDY
 L0002572         0   0.33530E-05  477944.7 3748487.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002573         0   0.33530E-05  477948.7 3748479.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002574         0   0.33530E-05  477952.8 3748472.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002575         0   0.33530E-05  477956.8 3748464.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002576         0   0.33530E-05  477960.8 3748457.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002577         0   0.33530E-05  477964.8 3748449.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002578         0   0.33530E-05  477968.8 3748442.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002579         0   0.33530E-05  477972.8 3748434.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002580         0   0.33530E-05  477976.9 3748427.4    451.0      4.00      3.95
1.86      YES    HROFDY
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                                  AERMOD HRA Output
 L0002581         0   0.33530E-05  477980.9 3748419.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002582         0   0.33530E-05  477984.9 3748412.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002583         0   0.33530E-05  477988.9 3748404.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002584         0   0.33530E-05  477992.9 3748397.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002585         0   0.33530E-05  477996.9 3748389.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002586         0   0.33530E-05  478001.0 3748382.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002587         0   0.33530E-05  478005.0 3748375.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002588         0   0.33530E-05  478009.0 3748367.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002589         0   0.33530E-05  478013.0 3748360.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002590         0   0.33530E-05  478017.1 3748352.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002591         0   0.33530E-05  478021.7 3748345.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002592         0   0.33530E-05  478026.4 3748338.3   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002593         0   0.33530E-05  478033.8 3748336.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002594         0   0.33530E-05  478042.3 3748336.5   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                 BY
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- - - - - - - - - - - - - - - - - - - -
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 L0002595         0   0.33530E-05  478050.8 3748336.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002596         0   0.33530E-05  478059.3 3748336.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002597         0   0.33530E-05  478067.8 3748336.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002598         0   0.33530E-05  478076.3 3748336.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002599         0   0.33530E-05  478084.8 3748337.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002600         0   0.33530E-05  478093.3 3748337.1   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002601         0   0.33530E-05  478101.8 3748337.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002602         0   0.33530E-05  478110.3 3748337.3   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002603         0   0.33530E-05  478118.8 3748337.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002604         0   0.33530E-05  478127.3 3748337.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002605         0   0.33530E-05  478135.8 3748337.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002606         0   0.33530E-05  478144.3 3748337.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002607         0   0.33530E-05  478152.8 3748337.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002608         0   0.33530E-05  478161.3 3748337.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002609         0   0.33530E-05  478169.8 3748337.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002610         0   0.33530E-05  478178.3 3748338.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002611         0   0.33530E-05  478186.8 3748338.1   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002612         0   0.33530E-05  478195.3 3748338.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002613         0   0.33530E-05  478203.8 3748338.3   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002614         0   0.33530E-05  478212.3 3748338.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002615         0   0.33530E-05  478215.8 3748343.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002616         0   0.33530E-05  478215.9 3748351.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002617         0   0.33530E-05  478216.0 3748360.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002618         0   0.33530E-05  478216.0 3748368.9   451.0     4.00     3.95
1.86     YES   HROFDY
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 L0002619         0   0.33530E-05  478216.1 3748377.4   451.0     4.00     3.95
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 L0002620         0   0.33530E-05  478216.1 3748385.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002621         0   0.33530E-05  478216.2 3748394.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002622         0   0.33530E-05  478216.3 3748402.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002623         0   0.33530E-05  478216.3 3748411.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002624         0   0.33530E-05  478216.4 3748419.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002625         0   0.33530E-05  478216.4 3748428.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002626         0   0.33530E-05  478216.5 3748436.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002627         0   0.33530E-05  478216.6 3748445.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002628         0   0.33530E-05  478216.6 3748453.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002629         0   0.33530E-05  478216.7 3748462.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002630         0   0.33530E-05  478216.7 3748470.9   451.1     4.00     3.95
1.86     YES   HROFDY
 L0002631         0   0.33530E-05  478216.8 3748479.4   451.2     4.00     3.95
1.86     YES   HROFDY
 L0002632         0   0.33530E-05  478216.9 3748487.9   451.3     4.00     3.95
1.86     YES   HROFDY
 L0002633         0   0.33530E-05  478216.9 3748496.4   451.5     4.00     3.95
1.86     YES   HROFDY
 L0002634         0   0.33530E-05  478217.0 3748504.9   451.7     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                 BY
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- - - - - - - - - - - - - - - - - - - -

 L0002635         0   0.33530E-05   478217.0 3748513.4   451.9      4.00      3.95
1.86     YES   HROFDY
 L0002636         0   0.33530E-05   478217.1 3748521.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002637         0   0.33530E-05   478217.2 3748530.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002638         0   0.33530E-05   478217.2 3748538.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002639         0   0.33530E-05   478217.3 3748547.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002640         0   0.33530E-05   478217.3 3748555.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002641         0   0.33530E-05   478217.4 3748564.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002642         0   0.33530E-05   478217.5 3748572.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002643         0   0.33530E-05   478217.5 3748581.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002644         0   0.33530E-05   478217.6 3748589.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002645         0   0.33530E-05   478217.7 3748598.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002646         0   0.33530E-05   478217.7 3748606.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002647         0   0.33530E-05   478217.8 3748615.4   452.0      4.00      3.95
1.86     YES   HROFDY
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1.86     YES   HROFDY
 L0002649         0   0.33530E-05   478217.9 3748632.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002650         0   0.33530E-05   478218.0 3748640.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002651         0   0.33530E-05   478218.0 3748649.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002652         0   0.33530E-05   478218.1 3748657.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002653         0   0.33530E-05   478218.1 3748666.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002654         0   0.33530E-05   478218.2 3748674.9   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002655         0   0.33530E-05   478218.3 3748683.4   452.0      4.00      3.95
1.86     YES   HROFDY
 L0002656         0   0.33530E-05   478218.3 3748691.9   452.0      4.00      3.95
1.86     YES   HROFDY
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 L0002657         0   0.33530E-05  478218.4 3748700.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002658         0   0.33530E-05  478218.4 3748708.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002659         0   0.33530E-05  478218.5 3748717.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002660         0   0.33530E-05  478218.6 3748725.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002661         0   0.33530E-05  478218.6 3748734.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002662         0   0.33530E-05  478218.7 3748742.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002663         0   0.33530E-05  478218.7 3748751.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002664         0   0.33530E-05  478218.8 3748759.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002665         0   0.33530E-05  478218.9 3748768.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002666         0   0.33530E-05  478218.9 3748776.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002667         0   0.33530E-05  478219.0 3748785.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0002668         0   0.33530E-05  478219.0 3748793.9   452.2     4.00     3.95
1.86     YES   HROFDY
 L0002669         0   0.33530E-05  478219.1 3748802.4   452.5     4.00     3.95
1.86     YES   HROFDY
 L0002670         0   0.33530E-05  478219.2 3748810.9   452.8     4.00     3.95
1.86     YES   HROFDY
 L0002671         0   0.33530E-05  478219.2 3748819.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002672         0   0.33530E-05  478219.3 3748827.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002673         0   0.33530E-05  478219.3 3748836.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002674         0   0.33530E-05  478219.4 3748844.9   453.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                                   AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -


 L0002675         0   0.33530E-05  478219.5 3748853.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002676         0   0.33530E-05  478219.5 3748861.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002677         0   0.33530E-05  478219.6 3748870.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002678         0   0.33530E-05  478219.6 3748878.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002679         0   0.33530E-05  478219.7 3748887.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002680         0   0.33530E-05  478219.8 3748895.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002681         0   0.33530E-05  478219.8 3748904.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002682         0   0.33530E-05  478219.9 3748912.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002683         0   0.33530E-05  478217.5 3748921.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002684         0   0.33530E-05  478215.0 3748929.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002685         0   0.33530E-05  478212.6 3748937.3   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002686         0   0.33530E-05  478210.1 3748945.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002687         0   0.33530E-05  478207.6 3748953.6   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002688         0   0.33530E-05  478205.1 3748961.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002689         0   0.33530E-05  478202.7 3748969.8   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002690         0   0.71410E-06  477852.8 3748835.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002691         0   0.71410E-06  477852.8 3748843.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002692         0   0.71410E-06  477852.9 3748852.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002693         0   0.71410E-06  477852.9 3748860.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002694         0   0.71410E-06  477853.0 3748869.2   453.0     4.00     3.95
1.86     YES   HROFDY
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                                  AERMOD HRA Output
 L0002695         0   0.71410E-06  477853.0 3748877.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002696         0   0.71410E-06  477853.0 3748886.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002697         0   0.71410E-06  477853.1 3748894.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002698         0   0.71410E-06  477853.1 3748903.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002699         0   0.71410E-06  477853.2 3748911.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002700         0   0.71410E-06  477853.2 3748920.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002701         0   0.71410E-06  477853.3 3748928.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002702         0   0.71410E-06  477853.3 3748937.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002703         0   0.71410E-06  477853.4 3748945.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002704         0   0.71410E-06  477853.4 3748954.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002705         0   0.71410E-06  477853.5 3748962.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002706         0   0.71410E-06  477853.5 3748971.2   453.2     4.00     3.95
1.86     YES   HROFDY
 L0002707         0   0.71410E-06  477853.5 3748979.7   453.4     4.00     3.95
1.86     YES   HROFDY
 L0002708         0   0.71410E-06  477845.0 3748979.7   453.5     4.00     3.95
1.86     YES   HROFDY
 L0002709         0   0.71410E-06  477836.5 3748979.6   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002710         0   0.71410E-06  477828.0 3748979.6   453.9     4.00     3.95
1.86     YES   HROFDY
 L0002711         0   0.71410E-06  477819.5 3748979.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002712         0   0.71410E-06  477811.0 3748979.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002713         0   0.71410E-06  477802.5 3748979.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002714         0   0.71410E-06  477794.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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AERMOD HRA Output

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                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002715         0   0.71410E-06  477785.5 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002716         0   0.71410E-06  477777.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002717         0   0.71410E-06  477768.5 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002718         0   0.71410E-06  477760.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002719         0   0.71410E-06  477751.5 3748979.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002720         0   0.71410E-06  477743.0 3748979.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002721         0   0.71410E-06  477742.7 3748971.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002722         0   0.71410E-06  477742.7 3748962.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002723         0   0.71410E-06  477742.6 3748954.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002724         0   0.71410E-06  477742.6 3748945.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002725         0   0.71410E-06  477742.5 3748937.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002726         0   0.71410E-06  477742.5 3748928.7   453.9     4.00     3.95
1.86     YES   HROFDY
 L0002727         0   0.71410E-06  477742.4 3748920.2   453.8     4.00     3.95
1.86     YES   HROFDY
 L0002728         0   0.71410E-06  477742.4 3748911.7   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002729         0   0.71410E-06  477742.3 3748903.2   453.6     4.00     3.95
1.86     YES   HROFDY
 L0002730         0   0.71410E-06  477742.3 3748894.7   453.6     4.00     3.95
1.86     YES   HROFDY
 L0002731         0   0.71410E-06  477742.2 3748886.2   453.6     4.00     3.95
1.86     YES   HROFDY
 L0002732         0   0.71410E-06  477744.2 3748878.0   453.5     4.00     3.95
1.86     YES   HROFDY
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                                  AERMOD HRA Output
 L0002733         0   0.71410E-06  477746.5 3748869.8   453.6     4.00     3.95
1.86     YES   HROFDY
 L0002734         0   0.71410E-06  477748.8 3748861.6   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002735         0   0.71410E-06  477751.1 3748853.4   453.8     4.00     3.95
1.86     YES   HROFDY
 L0002736         0   0.71410E-06  477753.4 3748845.3   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002737         0   0.71410E-06  477757.5 3748838.2   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002738         0   0.71410E-06  477763.8 3748832.5   453.5     4.00     3.95
1.86     YES   HROFDY
 L0002739         0   0.71410E-06  477770.1 3748826.8   453.2     4.00     3.95
1.86     YES   HROFDY
 L0002740         0   0.71410E-06  477778.6 3748826.5   453.1     4.00     3.95
1.86     YES   HROFDY
 L0002741         0   0.71410E-06  477787.1 3748826.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002742         0   0.71410E-06  477795.6 3748826.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002743         0   0.71410E-06  477804.1 3748826.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002744         0   0.71410E-06  477812.6 3748826.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002745         0   0.71410E-06  477821.1 3748826.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002746         0   0.71410E-06  477829.6 3748826.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002747         0   0.71410E-06  477838.1 3748825.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002748         0   0.71410E-06  477846.6 3748825.8   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002749         0   0.56240E-06  477886.6 3748203.7   450.0     4.00     3.95
1.86     YES   HROFDY
 L0002750         0   0.56240E-06  477886.4 3748212.2   450.0     4.00     3.95
1.86     YES   HROFDY
 L0002751         0   0.56240E-06  477886.3 3748220.7   450.1     4.00     3.95
1.86     YES   HROFDY
 L0002752         0   0.56240E-06  477886.1 3748229.2   450.3     4.00     3.95
1.86     YES   HROFDY
 L0002753         0   0.56240E-06  477885.9 3748237.7   450.6     4.00     3.95
1.86     YES   HROFDY
 L0002754         0   0.56240E-06  477885.7 3748246.2   450.8     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
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                              AERMOD HRA Output

                                PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0002755         0   0.56240E-06  477885.5 3748254.7   450.9     4.00     3.95
1.86     YES   HROFDY
 L0002756         0   0.56240E-06  477885.6 3748263.2   450.9     4.00     3.95
1.86     YES   HROFDY
 L0002757         0   0.56240E-06  477885.7 3748271.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002758         0   0.56240E-06  477885.8 3748280.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002759         0   0.56240E-06  477885.9 3748288.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002760         0   0.56240E-06  477886.0 3748297.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002761         0   0.56240E-06  477886.1 3748305.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002762         0   0.56240E-06  477886.2 3748314.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002763         0   0.56240E-06  477886.3 3748322.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002764         0   0.56240E-06  477886.4 3748331.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002765         0   0.56240E-06  477889.0 3748337.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002766         0   0.56240E-06  477897.5 3748338.1   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002767         0   0.56240E-06  477906.0 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002768         0   0.56240E-06  477914.4 3748339.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002769         0   0.56240E-06  477922.9 3748339.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002770         0   0.56240E-06  477931.4 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
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 L0002771         0   0.56240E-06   477939.8 3748338.2   451.0      4.00      3.95
1.86     YES    HROFDY
 L0002772         0   0.56240E-06   477945.5 3748332.6   451.0      4.00      3.95
1.86     YES    HROFDY
 L0002773         0   0.56240E-06   477950.6 3748325.7   451.0      4.00      3.95
1.86     YES    HROFDY
 L0002774         0   0.56240E-06   477955.0 3748318.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002775         0   0.56240E-06   477959.4 3748311.2   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002776         0   0.56240E-06   477963.8 3748303.9   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002777         0   0.56240E-06   477968.2 3748296.7   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002778         0   0.56240E-06   477972.6 3748289.4   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002779         0   0.56240E-06   477975.8 3748281.7   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002780         0   0.56240E-06   477977.7 3748273.4   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002781         0   0.56240E-06   477979.6 3748265.1   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002782         0   0.56240E-06   477981.3 3748256.8   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002783         0   0.56240E-06   477980.6 3748248.3   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002784         0   0.56240E-06   477979.9 3748239.8   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002785         0   0.56240E-06   477979.2 3748231.4   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002786         0   0.56240E-06   477978.4 3748222.9   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002787         0   0.56240E-06   477982.6 3748217.0   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002788         0   0.56240E-06   477990.0 3748212.7   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002789         0   0.56240E-06   477994.0 3748206.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002790         0   0.56240E-06   477994.1 3748198.0   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002791         0   0.56240E-06   477986.1 3748197.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002792         0   0.56240E-06   477977.6 3748197.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002793         0   0.56240E-06   477969.1 3748197.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002794         0   0.56240E-06   477960.6 3748197.5   450.0      4.00      3.95
1.86     YES    HROFDY
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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0002795         0   0.56240E-06  477952.1 3748197.5   450.0     4.00     3.95
1.86     YES   HROFDY
 L0002796         0   0.56240E-06  477943.6 3748197.5   450.0     4.00     3.95
1.86     YES   HROFDY
 L0002797         0   0.56240E-06  477935.1 3748197.5   450.0     4.00     3.95
1.86     YES   HROFDY
 L0002798         0   0.96020E-06  477505.1 3748975.7   454.2     4.00     3.95
1.86     YES   HROFDY
 L0002799         0   0.96020E-06  477513.6 3748975.6   454.1     4.00     3.95
1.86     YES   HROFDY
 L0002800         0   0.96020E-06  477522.1 3748975.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002801         0   0.96020E-06  477530.6 3748975.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002802         0   0.96020E-06  477539.1 3748975.1   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002803         0   0.96020E-06  477547.6 3748974.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002804         0   0.96020E-06  477556.1 3748974.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002805         0   0.96020E-06  477564.6 3748974.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002806         0   0.96020E-06  477573.1 3748974.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002807         0   0.96020E-06  477581.6 3748974.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002808         0   0.96020E-06  477590.1 3748974.1   454.0     4.00     3.95
1.86     YES   HROFDY
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0002809         0   0.96020E-06   477598.5 3748973.8    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002810         0   0.96020E-06   477605.4 3748968.8    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002811         0   0.96020E-06   477611.1 3748963.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002812         0   0.96020E-06   477613.4 3748954.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002813         0   0.96020E-06   477615.7 3748946.7    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002814         0   0.96020E-06   477618.0 3748938.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002815         0   0.96020E-06   477620.0 3748930.2    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002816         0   0.96020E-06   477621.7 3748921.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002817         0   0.96020E-06   477623.4 3748913.6    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002818         0   0.96020E-06   477625.1 3748905.3    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002819         0   0.96020E-06   477626.2 3748896.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002820         0   0.96020E-06   477626.4 3748888.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002821         0   0.96020E-06   477626.5 3748879.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002822         0   0.96020E-06   477626.6 3748871.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002823         0   0.96020E-06   477626.7 3748862.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002824         0   0.96020E-06   477626.8 3748854.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002825         0   0.96020E-06   477626.9 3748845.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002826         0   0.96020E-06   477627.0 3748837.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002827         0   0.96020E-06   477627.1 3748828.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002828         0   0.96020E-06   477627.2 3748820.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002829         0   0.96020E-06   477627.3 3748811.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002830         0   0.96020E-06   477627.5 3748803.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002831         0   0.96020E-06   477627.0 3748795.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002832         0   0.96020E-06   477618.5 3748795.7    454.0      4.00      3.95
1.86      YES    HROFDY
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 L0002833         0   0.96020E-06  477610.0 3748795.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002834         0   0.96020E-06  477601.5 3748796.2   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0002835         0   0.96020E-06  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002836         0   0.96020E-06  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002837         0   0.96020E-06  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002838         0   0.96020E-06  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002839         0   0.96020E-06  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002840         0   0.96020E-06  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002841         0   0.96020E-06  477542.0 3748797.8   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002842         0   0.96020E-06  477533.5 3748798.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002843         0   0.96020E-06  477525.0 3748798.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002844         0   0.96020E-06  477516.5 3748798.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002845         0   0.96020E-06  477508.0 3748798.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002846         0   0.96020E-06  477499.5 3748798.9   454.0     4.00     3.95
1.86     YES   HROFDY
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                              AERMOD HRA Output
  L0002847         0   0.96020E-06  477491.0 3748799.2   454.0      4.00      3.95
 1.86      YES    HROFDY
  L0002848         0   0.16730E-05  478255.5 3748984.6   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002849         0   0.16730E-05  478247.0 3748984.7   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002850         0   0.16730E-05  478238.5 3748984.7   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002851         0   0.16730E-05  478230.0 3748984.8   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002852         0   0.16730E-05  478221.5 3748984.9   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002853         0   0.16730E-05  478213.0 3748985.0   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002854         0   0.16730E-05  478204.5 3748985.1   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002855         0   0.16730E-05  478196.0 3748985.1   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002856         0   0.16730E-05  478187.5 3748985.2   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002857         0   0.16730E-05  478179.0 3748985.3   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002858         0   0.16730E-05  478170.5 3748985.4   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002859         0   0.16730E-05  478162.0 3748985.5   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002860         0   0.16730E-05  478153.5 3748985.5   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002861         0   0.16730E-05  478145.0 3748985.6   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002862         0   0.16730E-05  478136.5 3748985.7   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002863         0   0.16730E-05  478128.0 3748985.8   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002864         0   0.16730E-05  478119.5 3748985.9   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002865         0   0.16730E-05  478111.0 3748986.0   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002866         0   0.16730E-05  478102.5 3748986.0   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002867         0   0.16730E-05  478094.0 3748986.1   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002868         0   0.16730E-05  478085.5 3748986.2   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002869         0   0.16730E-05  478077.0 3748986.3   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0002870         0   0.16730E-05  478068.5 3748986.4   453.0      4.00      3.95
 1.86      YES    HROFDY
```

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 L0002871         0   0.16730E-05  478060.0 3748986.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002872         0   0.16730E-05  478051.5 3748986.5   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002873         0   0.16730E-05  478043.0 3748986.6   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002874         0   0.16730E-05  478034.5 3748986.7   453.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002875         0   0.16730E-05  478026.0 3748986.8   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002876         0   0.16730E-05  478017.5 3748986.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002877         0   0.16730E-05  478009.0 3748986.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002878         0   0.16730E-05  478000.5 3748987.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002879         0   0.16730E-05  477992.0 3748987.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002880         0   0.16730E-05  477983.5 3748987.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002881         0   0.16730E-05  477975.0 3748987.3   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002882         0   0.16730E-05  477966.5 3748987.3   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002883         0   0.16730E-05  477958.0 3748987.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002884         0   0.16730E-05  477949.5 3748987.5   453.0     4.00     3.95
1.86     YES   HROFDY
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                           AERMOD HRA Output
 L0002885          0   0.16730E-05  477941.0 3748987.6   453.0     4.00     3.95
1.86     YES   HROFDY
 L0002886          0   0.16730E-05  477932.5 3748987.7   453.2     4.00     3.95
1.86     YES   HROFDY
 L0002887          0   0.16730E-05  477924.0 3748987.7   453.4     4.00     3.95
1.86     YES   HROFDY
 L0002888          0   0.16730E-05  477915.5 3748987.8   453.6     4.00     3.95
1.86     YES   HROFDY
 L0002889          0   0.16730E-05  477907.0 3748987.9   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002890          0   0.16730E-05  477898.6 3748988.0   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002891          0   0.16730E-05  477890.1 3748988.1   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002892          0   0.16730E-05  477881.9 3748988.5   453.7     4.00     3.95
1.86     YES   HROFDY
 L0002893          0   0.16730E-05  477881.9 3748997.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002894          0   0.16730E-05  477881.9 3749005.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002895          0   0.16730E-05  477881.9 3749014.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002896          0   0.16730E-05  477881.9 3749022.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002897          0   0.16730E-05  477881.9 3749031.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002898          0   0.16730E-05  477881.9 3749039.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002899          0   0.16730E-05  477881.9 3749048.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002900          0   0.16730E-05  477881.9 3749056.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002901          0   0.16730E-05  477881.9 3749065.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002902          0   0.16730E-05  477881.9 3749073.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002903          0   0.16730E-05  477881.9 3749082.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002904          0   0.16730E-05  477881.9 3749090.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002905          0   0.16730E-05  477881.9 3749099.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002906          0   0.16730E-05  477881.9 3749107.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002907          0   0.16730E-05  477881.9 3749116.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002908          0   0.16730E-05  477881.9 3749124.5   454.0     4.00     3.95
1.86     YES   HROFDY
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 L0002909         0   0.16730E-05  477881.9 3749133.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002910         0   0.16730E-05  477881.9 3749141.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002911         0   0.16730E-05  477881.9 3749150.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002912         0   0.16730E-05  477881.9 3749158.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002913         0   0.16730E-05  477881.9 3749167.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002914         0   0.16730E-05  477881.9 3749175.5   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0002915         0   0.16730E-05  477881.9 3749184.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002916         0   0.16730E-05  477881.9 3749192.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002917         0   0.16730E-05  477881.9 3749201.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002918         0   0.16730E-05  477881.9 3749209.5   454.1     4.00     3.95
1.86     YES   HROFDY
 L0002919         0   0.16730E-05  477881.9 3749218.0   454.4     4.00     3.95
1.86     YES   HROFDY
 L0002920         0   0.16730E-05  477881.9 3749226.5   454.7     4.00     3.95
1.86     YES   HROFDY
 L0002921         0   0.16730E-05  477881.9 3749235.0   454.9     4.00     3.95
1.86     YES   HROFDY
 L0002922         0   0.16730E-05  477877.9 3749239.5   455.0     4.00     3.95
1.86     YES   HROFDY
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 L0002923         0   0.16730E-05  477869.4 3749239.6   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002924         0   0.16730E-05  477860.9 3749239.7   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002925         0   0.16730E-05  477852.4 3749239.9   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002926         0   0.16730E-05  477843.9 3749240.0   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002927         0   0.16730E-05  477835.4 3749240.1   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002928         0   0.16730E-05  477826.9 3749240.2   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002929         0   0.16730E-05  477818.4 3749240.3   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002930         0   0.16730E-05  477809.9 3749240.4   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002931         0   0.16730E-05  477801.4 3749240.5   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002932         0   0.16730E-05  477792.9 3749240.7   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002933         0   0.16730E-05  477784.4 3749240.8   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002934         0   0.16730E-05  477775.9 3749240.9   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002935         0   0.16730E-05  477767.4 3749241.0   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002936         0   0.16730E-05  477758.9 3749241.1   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002937         0   0.16730E-05  477750.4 3749241.2   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002938         0   0.16730E-05  477741.9 3749241.3   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002939         0   0.16730E-05  477733.4 3749241.4   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002940         0   0.16730E-05  477724.9 3749241.6   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002941         0   0.16730E-05  477716.4 3749241.7   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002942         0   0.16730E-05  477707.9 3749241.8   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002943         0   0.16730E-05  477699.4 3749241.9   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002944         0   0.16730E-05  477690.9 3749242.0   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002945         0   0.16730E-05  477682.4 3749242.1   455.0     4.00      3.95
1.86      YES    HROFDY
 L0002946         0   0.16730E-05  477673.9 3749242.2   455.0     4.00      3.95
1.86      YES    HROFDY
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 L0002947         0   0.16730E-05  477665.4 3749242.4   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002948         0   0.16730E-05  477656.9 3749242.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002949         0   0.16730E-05  477648.4 3749242.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002950         0   0.16730E-05  477639.9 3749242.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002951         0   0.16730E-05  477631.4 3749242.8   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002952         0   0.16730E-05  477622.9 3749242.9   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002953         0   0.16730E-05  477614.4 3749243.0   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002954         0   0.16730E-05  477605.9 3749243.2   455.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002955         0   0.16730E-05  477597.4 3749243.3   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002956         0   0.16730E-05  477588.9 3749243.4   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002957         0   0.16730E-05  477580.4 3749243.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002958         0   0.16730E-05  477571.9 3749243.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002959         0   0.16730E-05  477563.4 3749243.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002960         0   0.16730E-05  477554.9 3749243.8   455.0     4.00     3.95
1.86     YES   HROFDY
```

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                                    AERMOD HRA Output
  L0002961          0   0.16730E-05  477546.4 3749244.0   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002962          0   0.16730E-05  477537.9 3749244.1   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002963          0   0.16730E-05  477529.4 3749244.2   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002964          0   0.16730E-05  477520.9 3749244.3   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002965          0   0.16730E-05  477512.4 3749244.4   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002966          0   0.16730E-05  477503.9 3749244.5   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002967          0   0.16730E-05  477495.4 3749244.6   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002968          0   0.16730E-05  477486.9 3749244.7   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002969          0   0.16730E-05  477478.4 3749244.9   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002970          0   0.16730E-05  477476.8 3749251.9   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002971          0   0.16730E-05  477476.7 3749260.4   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002972          0   0.16730E-05  477476.6 3749268.9   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002973          0   0.16730E-05  477476.5 3749277.4   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002974          0   0.16730E-05  477476.4 3749285.9   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002975          0   0.16730E-05  477476.3 3749294.4   455.0      4.00      3.95
1.86      YES    HROFDY
  L0002976          0   0.16730E-05  477476.2 3749302.9   455.1      4.00      3.95
1.86      YES    HROFDY
  L0002977          0   0.16730E-05  477476.0 3749311.4   455.2      4.00      3.95
1.86      YES    HROFDY
  L0002978          0   0.16730E-05  477475.9 3749319.9   455.4      4.00      3.95
1.86      YES    HROFDY
  L0002979          0   0.16730E-05  477475.8 3749328.4   455.5      4.00      3.95
1.86      YES    HROFDY
  L0002980          0   0.16730E-05  477475.7 3749336.9   455.7      4.00      3.95
1.86      YES    HROFDY
  L0002981          0   0.16730E-05  477475.6 3749345.4   455.8      4.00      3.95
1.86      YES    HROFDY
  L0002982          0   0.16730E-05  477475.5 3749353.9   455.9      4.00      3.95
1.86      YES    HROFDY
  L0002983          0   0.16730E-05  477475.4 3749362.4   456.0      4.00      3.95
1.86      YES    HROFDY
  L0002984          0   0.16730E-05  477475.3 3749370.9   456.0      4.00      3.95
1.86      YES    HROFDY
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 L0002985         0   0.16730E-05  477475.1 3749379.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002986         0   0.16730E-05  477475.0 3749387.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002987         0   0.16730E-05  477474.9 3749396.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002988         0   0.16730E-05  477474.8 3749404.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002989         0   0.16730E-05  477474.7 3749413.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002990         0   0.16730E-05  477474.6 3749421.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002991         0   0.16730E-05  477474.5 3749430.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002992         0   0.16730E-05  477474.4 3749438.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002993         0   0.16730E-05  477474.2 3749447.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002994         0   0.16730E-05  477474.1 3749455.9   456.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002995         0   0.16730E-05  477474.0 3749464.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002996         0   0.16730E-05  477473.9 3749472.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002997         0   0.16730E-05  477473.8 3749481.4   456.2     4.00     3.95
1.86     YES   HROFDY
 L0002998         0   0.16730E-05  477473.7 3749489.9   456.4     4.00     3.95
1.86     YES   HROFDY
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 L0002999         0   0.16730E-05  477473.6 3749498.4   456.7      4.00      3.95
1.86     YES    HROFDY
 L0003000         0   0.16730E-05  477473.5 3749506.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003001         0   0.16730E-05  477473.3 3749515.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003002         0   0.16730E-05  477473.2 3749523.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003003         0   0.16730E-05  477473.1 3749532.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003004         0   0.16730E-05  477473.0 3749540.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003005         0   0.16730E-05  477472.9 3749549.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003006         0   0.16730E-05  477472.8 3749557.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003007         0   0.16730E-05  477472.7 3749566.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003008         0   0.16730E-05  477472.6 3749574.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003009         0   0.16730E-05  477472.4 3749583.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003010         0   0.16730E-05  477472.3 3749591.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003011         0   0.16730E-05  477472.2 3749600.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003012         0   0.16730E-05  477472.1 3749608.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003013         0   0.16730E-05  477472.0 3749617.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003014         0   0.16730E-05  477471.9 3749625.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003015         0   0.16730E-05  477471.8 3749634.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003016         0   0.16730E-05  477471.7 3749642.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003017         0   0.16730E-05  477471.5 3749651.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003018         0   0.16730E-05  477471.4 3749659.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003019         0   0.16730E-05  477471.3 3749668.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003020         0   0.16730E-05  477471.2 3749676.9   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003021         0   0.16730E-05  477471.1 3749685.4   457.0      4.00      3.95
1.86     YES    HROFDY
 L0003022         0   0.16730E-05  477471.0 3749693.9   457.0      4.00      3.95
1.86     YES    HROFDY
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                              AERMOD HRA Output
 L0003023         0   0.16730E-05  477470.9 3749702.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003024         0   0.16730E-05  477470.8 3749710.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003025         0   0.16730E-05  477470.6 3749719.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003026         0   0.16730E-05  477470.5 3749727.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003027         0   0.16730E-05  477470.4 3749736.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003028         0   0.16730E-05  477470.3 3749744.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003029         0   0.16730E-05  477470.2 3749753.4   457.2     4.00     3.95
1.86     YES   HROFDY
 L0003030         0   0.16730E-05  477470.1 3749761.9   457.5     4.00     3.95
1.86     YES   HROFDY
 L0003031         0   0.16730E-05  477470.0 3749770.4   457.8     4.00     3.95
1.86     YES   HROFDY
 L0003032         0   0.16730E-05  477469.9 3749778.9   458.0     4.00     3.95
1.86     YES   HROFDY
 L0003033         0   0.16730E-05  477469.7 3749787.4   458.0     4.00     3.95
1.86     YES   HROFDY
 L0003034         0   0.71640E-06  477901.9 3748181.5   450.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003035         0   0.71640E-06  477893.4 3748181.6   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003036         0   0.71640E-06  477884.9 3748181.7   450.0     4.00     3.95
1.86     YES   HROFDY
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 L0003037         0   0.71640E-06  477876.4 3748181.7   450.0      4.00      3.95
1.86     YES   HROFDY
 L0003038         0   0.71640E-06  477867.9 3748181.8   450.0      4.00      3.95
1.86     YES   HROFDY
 L0003039         0   0.71640E-06  477859.4 3748181.9   450.0      4.00      3.95
1.86     YES   HROFDY
 L0003040         0   0.71640E-06  477850.9 3748181.9   450.0      4.00      3.95
1.86     YES   HROFDY
 L0003041         0   0.71640E-06  477842.4 3748182.0   450.2      4.00      3.95
1.86     YES   HROFDY
 L0003042         0   0.71640E-06  477833.9 3748182.1   450.5      4.00      3.95
1.86     YES   HROFDY
 L0003043         0   0.71640E-06  477825.4 3748182.1   450.7      4.00      3.95
1.86     YES   HROFDY
 L0003044         0   0.71640E-06  477816.9 3748182.2   450.9      4.00      3.95
1.86     YES   HROFDY
 L0003045         0   0.71640E-06  477808.4 3748182.3   450.9      4.00      3.95
1.86     YES   HROFDY
 L0003046         0   0.71640E-06  477799.9 3748182.3   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003047         0   0.71640E-06  477791.4 3748182.4   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003048         0   0.71640E-06  477782.9 3748182.5   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003049         0   0.71640E-06  477774.4 3748182.5   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003050         0   0.71640E-06  477765.9 3748182.6   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003051         0   0.71640E-06  477757.4 3748182.7   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003052         0   0.71640E-06  477748.9 3748182.8   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003053         0   0.71640E-06  477740.4 3748182.8   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003054         0   0.71640E-06  477731.9 3748182.9   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003055         0   0.71640E-06  477723.4 3748183.0   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003056         0   0.71640E-06  477714.9 3748183.0   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003057         0   0.71640E-06  477706.4 3748183.1   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003058         0   0.71640E-06  477697.9 3748183.2   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003059         0   0.71640E-06  477689.4 3748183.2   451.0      4.00      3.95
1.86     YES   HROFDY
 L0003060         0   0.71640E-06  477680.9 3748183.3   451.0      4.00      3.95
1.86     YES   HROFDY
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 L0003061         0   0.71640E-06  477672.4 3748183.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003062         0   0.71640E-06  477663.9 3748183.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003063         0   0.71640E-06  477655.4 3748183.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003064         0   0.71640E-06  477646.9 3748183.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003065         0   0.71640E-06  477638.4 3748183.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003066         0   0.71640E-06  477629.9 3748183.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003067         0   0.71640E-06  477621.4 3748183.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003068         0   0.71640E-06  477612.9 3748183.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003069         0   0.71640E-06  477604.4 3748183.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003070         0   0.71640E-06  477595.9 3748184.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003071         0   0.71640E-06  477587.4 3748184.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003072         0   0.71640E-06  477578.9 3748184.1   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003073         0   0.71640E-06  477570.4 3748184.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003074         0   0.71640E-06  477561.9 3748184.2   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003075         0   0.71640E-06   477553.4 3748184.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003076         0   0.71640E-06   477544.9 3748184.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003077         0   0.71640E-06   477536.4 3748184.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003078         0   0.71640E-06   477527.9 3748184.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003079         0   0.71640E-06   477519.4 3748184.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003080         0   0.71640E-06   477510.9 3748184.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003081         0   0.71640E-06   477502.4 3748184.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003082         0   0.71640E-06   477493.9 3748184.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003083         0   0.71640E-06   477485.4 3748184.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003084         0   0.71640E-06   477476.9 3748184.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003085         0   0.71640E-06   477471.1 3748182.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003086         0   0.71640E-06   477470.9 3748173.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003087         0   0.71640E-06   477470.7 3748165.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003088         0   0.71640E-06   477470.6 3748156.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003089         0   0.71640E-06   477470.4 3748148.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003090         0   0.71640E-06   477470.2 3748139.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003091         0   0.71640E-06   477470.0 3748131.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003092         0   0.71640E-06   477469.8 3748122.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003093         0   0.71640E-06   477469.6 3748114.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003094         0   0.71640E-06   477469.4 3748105.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003095         0   0.71640E-06   477469.2 3748097.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003096         0   0.71640E-06   477469.0 3748088.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003097         0   0.71640E-06   477468.9 3748080.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003098         0   0.71640E-06   477468.7 3748071.7    451.0      4.00      3.95
1.86      YES    HROFDY
```

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                                  AERMOD HRA Output
 L0003099         0   0.71640E-06  477468.5 3748063.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003100         0   0.71640E-06  477468.3 3748054.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003101         0   0.71640E-06  477468.1 3748046.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003102         0   0.71640E-06  477467.9 3748037.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003103         0   0.71640E-06  477467.7 3748029.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003104         0   0.71640E-06  477467.5 3748020.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003105         0   0.71640E-06  477467.4 3748012.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003106         0   0.71640E-06  477467.2 3748003.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003107         0   0.71640E-06  477467.0 3747995.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003108         0   0.71640E-06  477466.8 3747986.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003109         0   0.71640E-06  477466.6 3747978.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003110         0   0.71640E-06  477466.4 3747969.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003111         0   0.71640E-06  477466.2 3747961.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003112         0   0.71640E-06  477466.0 3747952.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003113         0   0.71640E-06  477465.8 3747944.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003114         0   0.71640E-06  477465.7 3747935.7   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                BY
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 L0003115         0   0.71640E-06   477465.5 3747927.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003116         0   0.71640E-06   477465.3 3747918.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003117         0   0.71640E-06   477465.1 3747910.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003118         0   0.71640E-06   477464.9 3747901.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003119         0   0.71640E-06   477464.7 3747893.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003120         0   0.71640E-06   477464.5 3747884.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003121         0   0.71640E-06   477464.3 3747876.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003122         0   0.71640E-06   477464.1 3747867.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003123         0   0.71640E-06   477464.0 3747859.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003124         0   0.71640E-06   477463.8 3747850.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003125         0   0.71640E-06   477463.6 3747842.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003126         0   0.71640E-06   477463.4 3747833.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003127         0   0.71640E-06   477463.2 3747825.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003128         0   0.71640E-06   477463.0 3747816.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003129         0   0.71640E-06   477462.8 3747808.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003130         0   0.71640E-06   477462.6 3747799.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003131         0   0.71640E-06   477462.5 3747791.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003132         0   0.71640E-06   477462.3 3747782.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0004684         0   0.71720E-06   477466.5 3747781.2    451.0      4.00      3.95
1.86      YES
 L0004685         0   0.71720E-06   477475.0 3747781.2    451.0      4.00      3.95
1.86      YES
 L0004686         0   0.71720E-06   477483.5 3747781.1    451.0      4.00      3.95
1.86      YES
 L0004687         0   0.71720E-06   477492.0 3747781.1    451.0      4.00      3.95
1.86      YES
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                                   AERMOD HRA Output
 L0004688         0   0.71720E-06  477500.5 3747781.0   451.0     4.00     3.95
1.86     YES
 L0004689         0   0.71720E-06  477509.0 3747781.0   451.0     4.00     3.95
1.86     YES
 L0004690         0   0.71720E-06  477517.5 3747780.9   451.0     4.00     3.95
1.86     YES
 L0004691         0   0.71720E-06  477526.0 3747780.9   451.0     4.00     3.95
1.86     YES
 L0004692         0   0.71720E-06  477534.5 3747780.8   451.0     4.00     3.95
1.86     YES
 L0004693         0   0.71720E-06  477543.0 3747780.7   451.0     4.00     3.95
1.86     YES
 L0004694         0   0.71720E-06  477551.5 3747780.7   451.0     4.00     3.95
1.86     YES
 L0004695         0   0.71720E-06  477560.0 3747780.6   451.0     4.00     3.95
1.86     YES
 L0004696         0   0.71720E-06  477568.5 3747780.6   451.0     4.00     3.95
1.86     YES
 L0004697         0   0.71720E-06  477577.0 3747780.5   451.0     4.00     3.95
1.86     YES
 L0004698         0   0.71720E-06  477585.5 3747780.5   451.0     4.00     3.95
1.86     YES
 L0004699         0   0.71720E-06  477594.0 3747780.4   451.0     4.00     3.95
1.86     YES
 L0004700         0   0.71720E-06  477602.5 3747780.3   451.0     4.00     3.95
1.86     YES
 L0004701         0   0.71720E-06  477611.0 3747780.3   451.0     4.00     3.95
1.86     YES
 L0004702         0   0.71720E-06  477619.5 3747780.2   451.0     4.00     3.95
1.86     YES
 L0004703         0   0.71720E-06  477628.0 3747780.2   451.0     4.00     3.95
1.86     YES
 L0004704         0   0.71720E-06  477636.5 3747780.1   451.0     4.00     3.95
1.86     YES
 L0004705         0   0.71720E-06  477645.0 3747780.1   450.9     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.
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                                AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -

 L0004706         0   0.71720E-06  477653.5 3747780.0   450.8     4.00     3.95
1.86     YES
 L0004707         0   0.71720E-06  477662.0 3747780.0   450.6     4.00     3.95
1.86     YES
 L0004708         0   0.71720E-06  477670.5 3747779.9   450.4     4.00     3.95
1.86     YES
 L0004709         0   0.71720E-06  477679.0 3747779.8   450.3     4.00     3.95
1.86     YES
 L0004710         0   0.71720E-06  477687.5 3747779.8   450.2     4.00     3.95
1.86     YES
 L0004711         0   0.71720E-06  477696.0 3747779.7   450.1     4.00     3.95
1.86     YES
 L0004712         0   0.71720E-06  477704.5 3747779.7   450.0     4.00     3.95
1.86     YES
 L0004713         0   0.71720E-06  477713.0 3747779.6   450.0     4.00     3.95
1.86     YES
 L0004714         0   0.71720E-06  477721.5 3747779.6   450.0     4.00     3.95
1.86     YES
 L0004715         0   0.71720E-06  477730.0 3747779.5   450.0     4.00     3.95
1.86     YES
 L0004716         0   0.71720E-06  477738.5 3747779.4   450.0     4.00     3.95
1.86     YES
 L0004717         0   0.71720E-06  477747.0 3747779.4   450.0     4.00     3.95
1.86     YES
 L0004718         0   0.71720E-06  477755.5 3747779.3   450.0     4.00     3.95
1.86     YES
 L0004719         0   0.71720E-06  477764.0 3747779.3   450.0     4.00     3.95
1.86     YES
 L0004720         0   0.71720E-06  477772.5 3747779.2   450.0     4.00     3.95
1.86     YES
 L0004721         0   0.71720E-06  477781.0 3747779.2   450.0     4.00     3.95
1.86     YES
 L0004722         0   0.71720E-06  477789.5 3747779.1   450.0     4.00     3.95
1.86     YES
 L0004723         0   0.71720E-06  477798.0 3747779.1   450.0     4.00     3.95
1.86     YES
 L0004724         0   0.71720E-06  477806.5 3747779.0   450.0     4.00     3.95
1.86     YES
 L0004725         0   0.71720E-06  477815.0 3747778.9   450.0     4.00     3.95
1.86     YES
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                                 AERMOD HRA Output
 L0004726         0   0.71720E-06  477823.5 3747778.9   450.0     4.00     3.95
1.86     YES
 L0004727         0   0.71720E-06  477832.0 3747778.8   450.0     4.00     3.95
1.86     YES
 L0004728         0   0.71720E-06  477840.5 3747778.8   450.0     4.00     3.95
1.86     YES
 L0004729         0   0.71720E-06  477849.0 3747778.7   450.0     4.00     3.95
1.86     YES
 L0004730         0   0.71720E-06  477857.5 3747778.7   450.0     4.00     3.95
1.86     YES
 L0004731         0   0.71720E-06  477866.0 3747778.6   450.0     4.00     3.95
1.86     YES
 L0004732         0   0.71720E-06  477874.5 3747778.6   450.0     4.00     3.95
1.86     YES
 L0004733         0   0.71720E-06  477883.0 3747778.5   450.0     4.00     3.95
1.86     YES
 L0004734         0   0.71720E-06  477891.5 3747778.4   450.0     4.00     3.95
1.86     YES
 L0004735         0   0.71720E-06  477900.0 3747778.4   450.0     4.00     3.95
1.86     YES
 L0004736         0   0.71720E-06  477908.5 3747778.3   450.0     4.00     3.95
1.86     YES
 L0004737         0   0.71720E-06  477917.0 3747778.3   450.0     4.00     3.95
1.86     YES
 L0004738         0   0.71720E-06  477925.5 3747778.2   450.0     4.00     3.95
1.86     YES
 L0004739         0   0.71720E-06  477934.0 3747778.2   450.0     4.00     3.95
1.86     YES
 L0004740         0   0.71720E-06  477942.5 3747778.1   450.0     4.00     3.95
1.86     YES
 L0004741         0   0.71720E-06  477951.0 3747778.0   450.0     4.00     3.95
1.86     YES
 L0004742         0   0.71720E-06  477959.5 3747778.0   450.0     4.00     3.95
1.86     YES
 L0004743         0   0.71720E-06  477968.0 3747777.9   450.0     4.00     3.95
1.86     YES
 L0004744         0   0.71720E-06  477976.5 3747777.9   450.0     4.00     3.95
1.86     YES
 L0004745         0   0.71720E-06  477985.0 3747777.8   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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AERMOD HRA Output

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                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004746         0   0.71720E-06  477993.5 3747777.8   450.0     4.00     3.95
1.86     YES
 L0004747         0   0.71720E-06  478002.0 3747777.7   450.0     4.00     3.95
1.86     YES
 L0004748         0   0.71720E-06  478010.5 3747777.7   449.8     4.00     3.95
1.86     YES
 L0004749         0   0.71720E-06  478019.0 3747777.6   449.6     4.00     3.95
1.86     YES
 L0004750         0   0.71720E-06  478027.5 3747777.5   449.4     4.00     3.95
1.86     YES
 L0004751         0   0.71720E-06  478036.0 3747777.5   449.3     4.00     3.95
1.86     YES
 L0004752         0   0.71720E-06  478044.5 3747777.4   449.2     4.00     3.95
1.86     YES
 L0004753         0   0.71720E-06  478053.0 3747777.4   449.1     4.00     3.95
1.86     YES
 L0004754         0   0.71720E-06  478061.5 3747777.3   449.0     4.00     3.95
1.86     YES
 L0004755         0   0.71720E-06  478070.0 3747777.3   449.0     4.00     3.95
1.86     YES
 L0004756         0   0.71720E-06  478078.5 3747777.2   449.0     4.00     3.95
1.86     YES
 L0004757         0   0.71720E-06  478087.0 3747777.1   449.0     4.00     3.95
1.86     YES
 L0004758         0   0.71720E-06  478095.5 3747777.1   449.0     4.00     3.95
1.86     YES
 L0004759         0   0.71720E-06  478104.0 3747777.0   449.0     4.00     3.95
1.86     YES
 L0004760         0   0.71720E-06  478112.5 3747777.0   449.0     4.00     3.95
1.86     YES
 L0004761         0   0.71720E-06  478121.0 3747776.9   449.0     4.00     3.95
1.86     YES
 L0004762         0   0.71720E-06  478129.5 3747776.9   449.0     4.00     3.95
1.86     YES
 L0004763         0   0.71720E-06  478138.0 3747776.8   449.0     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0004764         0   0.71720E-06  478146.5 3747776.8   449.0     4.00     3.95
1.86     YES
 L0004765         0   0.71720E-06  478155.0 3747776.7   449.0     4.00     3.95
1.86     YES
 L0004766         0   0.71720E-06  478163.5 3747776.6   449.0     4.00     3.95
1.86     YES
 L0004767         0   0.71720E-06  478172.0 3747776.6   449.0     4.00     3.95
1.86     YES
 L0004768         0   0.71720E-06  478180.5 3747776.5   449.0     4.00     3.95
1.86     YES
 L0004769         0   0.71720E-06  478189.0 3747776.5   449.0     4.00     3.95
1.86     YES
 L0004770         0   0.71720E-06  478197.5 3747776.4   449.0     4.00     3.95
1.86     YES
 L0004771         0   0.71720E-06  478206.0 3747776.4   449.0     4.00     3.95
1.86     YES
 L0004772         0   0.71720E-06  478214.5 3747776.3   449.0     4.00     3.95
1.86     YES
 L0004773         0   0.71720E-06  478223.0 3747776.2   449.0     4.00     3.95
1.86     YES
 L0004774         0   0.71720E-06  478231.5 3747776.2   449.0     4.00     3.95
1.86     YES
 L0004775         0   0.71720E-06  478240.0 3747776.1   449.0     4.00     3.95
1.86     YES
 L0004776         0   0.71720E-06  478248.5 3747776.1   449.0     4.00     3.95
1.86     YES
 L0004777         0   0.71720E-06  478257.0 3747776.0   449.0     4.00     3.95
1.86     YES
 L0004778         0   0.71720E-06  478265.5 3747776.0   449.0     4.00     3.95
1.86     YES
 L0004779         0   0.71720E-06  478274.0 3747775.9   449.0     4.00     3.95
1.86     YES
 L0004780         0   0.71720E-06  478281.0 3747774.4   449.0     4.00     3.95
1.86     YES
 L0004781         0   0.71720E-06  478281.0 3747765.9   449.0     4.00     3.95
1.86     YES
 L0004782         0   0.71720E-06  478281.1 3747757.4   449.0     4.00     3.95
1.86     YES
 L0004783         0   0.71720E-06  478281.1 3747748.9   449.0     4.00     3.95
1.86     YES
 L0004784         0   0.71720E-06  478281.1 3747740.4   449.0     4.00     3.95
1.86     YES
 L0004785         0   0.71720E-06  478281.2 3747731.9   449.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
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                              AERMOD HRA Output

                                PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0004786         0   0.71720E-06  478281.2 3747723.4   449.0     4.00     3.95
1.86     YES
 L0004787         0   0.71720E-06  478281.2 3747714.9   449.0     4.00     3.95
1.86     YES
 L0004788         0   0.71720E-06  478281.3 3747706.4   449.0     4.00     3.95
1.86     YES
 L0004789         0   0.71720E-06  478281.3 3747697.9   449.0     4.00     3.95
1.86     YES
 L0004790         0   0.71720E-06  478281.3 3747689.4   449.0     4.00     3.95
1.86     YES
 L0004791         0   0.71720E-06  478281.4 3747680.9   449.0     4.00     3.95
1.86     YES
 L0004792         0   0.71720E-06  478281.4 3747672.4   448.9     4.00     3.95
1.86     YES
 L0004793         0   0.71720E-06  478281.4 3747663.9   448.6     4.00     3.95
1.86     YES
 L0004794         0   0.71720E-06  478281.5 3747655.4   448.3     4.00     3.95
1.86     YES
 L0004795         0   0.71720E-06  478281.5 3747646.9   448.0     4.00     3.95
1.86     YES
 L0004796         0   0.71720E-06  478281.5 3747638.4   448.0     4.00     3.95
1.86     YES
 L0004797         0   0.71720E-06  478281.5 3747629.9   448.0     4.00     3.95
1.86     YES
 L0004798         0   0.71720E-06  478281.6 3747621.4   448.0     4.00     3.95
1.86     YES
 L0004799         0   0.71720E-06  478281.6 3747612.9   448.0     4.00     3.95
1.86     YES
 L0004800         0   0.71720E-06  478281.6 3747604.4   448.0     4.00     3.95
1.86     YES
 L0004801         0   0.71720E-06  478281.7 3747595.9   448.0     4.00     3.95
1.86     YES
```

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                                  AERMOD HRA Output
  L0004802         0   0.71720E-06  478281.7 3747587.4   448.0     4.00     3.95
 1.86     YES
  L0004803         0   0.71720E-06  478281.7 3747578.9   448.0     4.00     3.95
 1.86     YES
  L0004804         0   0.71720E-06  478281.8 3747570.4   448.0     4.00     3.95
 1.86     YES
  L0004805         0   0.71720E-06  478281.8 3747561.9   448.0     4.00     3.95
 1.86     YES
  L0004806         0   0.71720E-06  478281.8 3747553.4   448.0     4.00     3.95
 1.86     YES
  L0004807         0   0.71720E-06  478281.9 3747544.9   448.0     4.00     3.95
 1.86     YES
  L0004808         0   0.71720E-06  478281.9 3747536.4   448.0     4.00     3.95
 1.86     YES
  L0004809         0   0.71720E-06  478281.9 3747527.9   448.0     4.00     3.95
 1.86     YES
  L0004810         0   0.71720E-06  478282.0 3747519.4   448.0     4.00     3.95
 1.86     YES
  L0004811         0   0.71720E-06  478282.0 3747510.9   448.0     4.00     3.95
 1.86     YES
  L0004812         0   0.71720E-06  478282.0 3747502.4   448.0     4.00     3.95
 1.86     YES
  L0004813         0   0.71720E-06  478282.1 3747493.9   448.0     4.00     3.95
 1.86     YES
  L0004814         0   0.71720E-06  478282.1 3747485.4   448.0     4.00     3.95
 1.86     YES
  L0004815         0   0.71720E-06  478282.1 3747476.9   448.0     4.00     3.95
 1.86     YES
  L0004816         0   0.71720E-06  478282.2 3747468.4   448.0     4.00     3.95
 1.86     YES
  L0004817         0   0.71720E-06  478282.2 3747459.9   448.0     4.00     3.95
 1.86     YES
  L0004818         0   0.71720E-06  478282.2 3747451.4   448.0     4.00     3.95
 1.86     YES
  L0004819         0   0.71720E-06  478282.3 3747442.9   448.0     4.00     3.95
 1.86     YES
  L0004820         0   0.71720E-06  478282.3 3747434.4   448.0     4.00     3.95
 1.86     YES
  L0004821         0   0.71720E-06  478282.3 3747425.9   448.0     4.00     3.95
 1.86     YES
  L0004822         0   0.71720E-06  478282.4 3747417.4   448.0     4.00     3.95
 1.86     YES
  L0004823         0   0.71720E-06  478282.4 3747408.9   448.0     4.00     3.95
 1.86     YES
  L0004824         0   0.71720E-06  478282.4 3747400.4   448.0     4.00     3.95
 1.86     YES
  L0004825         0   0.71720E-06  478282.5 3747391.9   448.0     4.00     3.95
 1.86     YES
```

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0004826        0   0.71720E-06  478282.5 3747383.4   448.0     4.00     3.95
1.86     YES
 L0004827        0   0.71720E-06  478282.5 3747374.9   448.0     4.00     3.95
1.86     YES
 L0004828        0   0.71720E-06  478282.6 3747366.4   448.0     4.00     3.95
1.86     YES
 L0004829        0   0.71720E-06  478282.6 3747357.9   448.0     4.00     3.95
1.86     YES
 L0004830        0   0.71720E-06  478282.6 3747349.4   448.0     4.00     3.95
1.86     YES
 L0004831        0   0.71720E-06  478282.6 3747340.9   448.0     4.00     3.95
1.86     YES
 L0004832        0   0.71720E-06  478282.7 3747332.4   448.0     4.00     3.95
1.86     YES
 L0004833        0   0.71720E-06  478282.7 3747323.9   448.0     4.00     3.95
1.86     YES
 L0004834        0   0.71720E-06  478282.7 3747315.4   448.0     4.00     3.95
1.86     YES
 L0004835        0   0.71720E-06  478282.8 3747306.9   448.0     4.00     3.95
1.86     YES
 L0004836        0   0.71720E-06  478282.8 3747298.4   448.0     4.00     3.95
1.86     YES
 L0004837        0   0.71720E-06  478282.8 3747289.9   448.0     4.00     3.95
1.86     YES
 L0004838        0   0.71720E-06  478282.9 3747281.4   448.0     4.00     3.95
1.86     YES
 L0004839        0   0.71720E-06  478282.9 3747272.9   448.0     4.00     3.95
1.86     YES
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                                   AERMOD HRA Output
  L0004840         0   0.71720E-06  478282.9 3747264.4   448.0     4.00     3.95
 1.86     YES
  L0004841         0   0.71720E-06  478283.0 3747255.9   448.0     4.00     3.95
 1.86     YES
  L0004842         0   0.71720E-06  478283.0 3747247.4   448.0     4.00     3.95
 1.86     YES
  L0004843         0   0.71720E-06  478283.0 3747238.9   448.0     4.00     3.95
 1.86     YES
  L0004844         0   0.71720E-06  478283.1 3747230.4   448.0     4.00     3.95
 1.86     YES
  L0004845         0   0.71720E-06  478283.1 3747221.9   448.0     4.00     3.95
 1.86     YES
  L0004846         0   0.71720E-06  478283.1 3747213.4   448.0     4.00     3.95
 1.86     YES
  L0004847         0   0.71720E-06  478283.2 3747204.9   448.0     4.00     3.95
 1.86     YES
  L0004848         0   0.71720E-06  478283.2 3747196.4   448.0     4.00     3.95
 1.86     YES
  L0004849         0   0.71720E-06  478283.2 3747187.9   448.0     4.00     3.95
 1.86     YES
  L0004850         0   0.71720E-06  478283.3 3747179.4   448.0     4.00     3.95
 1.86     YES
  L0004851         0   0.71720E-06  478283.3 3747170.9   448.0     4.00     3.95
 1.86     YES
  L0004852         0   0.71720E-06  478283.3 3747162.4   448.0     4.00     3.95
 1.86     YES
  L0004853         0   0.71720E-06  478283.4 3747153.9   448.0     4.00     3.95
 1.86     YES
  L0004854         0   0.71720E-06  478283.4 3747145.4   448.0     4.00     3.95
 1.86     YES
  L0004855         0   0.71720E-06  478283.4 3747136.9   448.0     4.00     3.95
 1.86     YES
  L0004856         0   0.71720E-06  478283.5 3747128.4   448.0     4.00     3.95
 1.86     YES
  L0004857         0   0.71720E-06  478283.5 3747119.9   448.0     4.00     3.95
 1.86     YES
  L0004858         0   0.71720E-06  478283.5 3747111.4   448.0     4.00     3.95
 1.86     YES
  L0004859         0   0.71720E-06  478283.6 3747102.9   448.0     4.00     3.95
 1.86     YES
  L0004860         0   0.71720E-06  478283.6 3747094.4   448.0     4.00     3.95
 1.86     YES
  L0004861         0   0.71720E-06  478283.6 3747085.9   448.0     4.00     3.95
 1.86     YES
  L0004862         0   0.71720E-06  478283.6 3747077.4   448.0     4.00     3.95
 1.86     YES
  L0004863         0   0.71720E-06  478283.7 3747068.9   448.0     4.00     3.95
 1.86     YES
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 L0004864         0   0.71720E-06  478283.7 3747060.4   448.0     4.00     3.95
1.86     YES
 L0004865         0   0.71720E-06  478283.7 3747051.9   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - 

 L0004866         0   0.71720E-06  478283.8 3747043.4   448.0     4.00     3.95
1.86     YES
 L0004867         0   0.71720E-06  478283.8 3747034.9   448.0     4.00     3.95
1.86     YES
 L0004868         0   0.71720E-06  478283.8 3747026.4   448.0     4.00     3.95
1.86     YES
 L0004869         0   0.71720E-06  478283.9 3747017.9   448.0     4.00     3.95
1.86     YES
 L0004870         0   0.71720E-06  478283.9 3747009.4   448.0     4.00     3.95
1.86     YES
 L0004871         0   0.71720E-06  478283.9 3747000.9   448.0     4.00     3.95
1.86     YES
 L0004872         0   0.71720E-06  478284.0 3746992.4   448.0     4.00     3.95
1.86     YES
 L0004873         0   0.71720E-06  478284.0 3746983.9   448.0     4.00     3.95
1.86     YES
 L0004874         0   0.71720E-06  478284.0 3746975.4   448.0     4.00     3.95
1.86     YES
 L0004875         0   0.71720E-06  478284.1 3746966.9   448.0     4.00     3.95
1.86     YES
 L0004876         0   0.71720E-06  478284.1 3746958.4   448.0     4.00     3.95
1.86     YES
 L0004877         0   0.71720E-06  478284.1 3746949.9   448.0     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
  L0004878          0   0.71720E-06  478284.2 3746941.4   448.0     4.00     3.95
 1.86     YES
  L0004879          0   0.71720E-06  478284.2 3746932.9   448.0     4.00     3.95
 1.86     YES
  L0004880          0   0.71720E-06  478284.2 3746924.4   448.0     4.00     3.95
 1.86     YES
  L0004881          0   0.71720E-06  478284.3 3746915.9   448.0     4.00     3.95
 1.86     YES
  L0004882          0   0.71720E-06  478284.3 3746907.4   448.0     4.00     3.95
 1.86     YES
  L0004883          0   0.71720E-06  478284.3 3746898.9   448.0     4.00     3.95
 1.86     YES
  L0004884          0   0.71720E-06  478284.4 3746890.4   448.0     4.00     3.95
 1.86     YES
  L0004885          0   0.71720E-06  478284.4 3746881.9   448.0     4.00     3.95
 1.86     YES
  L0004886          0   0.71720E-06  478284.4 3746873.4   448.0     4.00     3.95
 1.86     YES
  L0004887          0   0.71720E-06  478284.5 3746864.9   448.0     4.00     3.95
 1.86     YES
  L0004888          0   0.71720E-06  478284.5 3746856.4   447.8     4.00     3.95
 1.86     YES
  L0004889          0   0.71720E-06  478284.5 3746847.9   447.7     4.00     3.95
 1.86     YES
  L0004890          0   0.71720E-06  478284.6 3746839.4   447.6     4.00     3.95
 1.86     YES
  L0004891          0   0.71720E-06  478284.6 3746830.9   447.4     4.00     3.95
 1.86     YES
  L0004892          0   0.71720E-06  478284.6 3746822.4   447.3     4.00     3.95
 1.86     YES
  L0004893          0   0.71720E-06  478284.6 3746813.9   447.1     4.00     3.95
 1.86     YES
  L0004894          0   0.71720E-06  478284.7 3746805.4   447.0     4.00     3.95
 1.86     YES
  L0004895          0   0.71720E-06  478284.7 3746796.9   447.0     4.00     3.95
 1.86     YES
  L0004896          0   0.71720E-06  478284.7 3746788.4   447.0     4.00     3.95
 1.86     YES
  L0004897          0   0.71720E-06  478284.8 3746779.9   447.0     4.00     3.95
 1.86     YES
  L0004898          0   0.71720E-06  478284.8 3746771.4   447.0     4.00     3.95
 1.86     YES
  L0004899          0   0.71720E-06  478284.8 3746762.9   447.0     4.00     3.95
 1.86     YES
  L0004900          0   0.71720E-06  478284.9 3746754.4   447.0     4.00     3.95
 1.86     YES
  L0004901          0   0.71720E-06  478284.9 3746745.9   447.0     4.00     3.95
 1.86     YES
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 L0004902         0   0.71720E-06  478284.9 3746737.4   447.0     4.00     3.95
1.86     YES
 L0004903         0   0.71720E-06  478285.0 3746728.9   447.0     4.00     3.95
1.86     YES
 L0004904         0   0.71720E-06  478285.0 3746720.4   447.0     4.00     3.95
1.86     YES
 L0004905         0   0.71720E-06  478285.0 3746711.9   447.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004906         0   0.71720E-06  478285.1 3746703.4   447.0     4.00     3.95
1.86     YES
 L0004907         0   0.71720E-06  478285.1 3746694.9   447.0     4.00     3.95
1.86     YES
 L0004908         0   0.71720E-06  478285.1 3746686.4   447.0     4.00     3.95
1.86     YES
 L0004909         0   0.71720E-06  478285.2 3746677.9   447.0     4.00     3.95
1.86     YES
 L0004910         0   0.71720E-06  478285.2 3746669.4   447.0     4.00     3.95
1.86     YES
 L0004911         0   0.71720E-06  478285.2 3746660.9   447.0     4.00     3.95
1.86     YES
 L0004912         0   0.71720E-06  478285.3 3746652.4   447.0     4.00     3.95
1.86     YES
 L0004913         0   0.71720E-06  478285.3 3746643.9   447.0     4.00     3.95
1.86     YES
 L0004914         0   0.71720E-06  478285.3 3746635.4   447.0     4.00     3.95
1.86     YES
 L0004915         0   0.71720E-06  478285.4 3746626.9   447.0     4.00     3.95
1.86     YES
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 L0004916         0   0.71720E-06  478285.4 3746618.4   447.0     4.00      3.95
1.86     YES
 L0004917         0   0.71720E-06  478285.4 3746609.9   447.0     4.00      3.95
1.86     YES
 L0004918         0   0.71720E-06  478285.5 3746601.4   447.0     4.00      3.95
1.86     YES
 L0004919         0   0.71720E-06  478285.5 3746592.9   447.0     4.00      3.95
1.86     YES
 L0004920         0   0.71720E-06  478285.5 3746584.4   447.0     4.00      3.95
1.86     YES
 L0004921         0   0.71720E-06  478285.6 3746575.9   447.0     4.00      3.95
1.86     YES
 L0004922         0   0.71720E-06  478285.6 3746567.4   447.0     4.00      3.95
1.86     YES
 L0004923         0   0.71720E-06  478285.6 3746558.9   447.0     4.00      3.95
1.86     YES
 L0004924         0   0.71720E-06  478285.7 3746550.4   447.0     4.00      3.95
1.86     YES
 L0004925         0   0.71720E-06  478285.7 3746541.9   447.0     4.00      3.95
1.86     YES
 L0004926         0   0.71720E-06  478285.7 3746533.4   447.0     4.00      3.95
1.86     YES
 L0004927         0   0.71720E-06  478285.7 3746524.9   447.0     4.00      3.95
1.86     YES
 L0004928         0   0.71720E-06  478285.8 3746516.4   447.0     4.00      3.95
1.86     YES
 L0004929         0   0.71720E-06  478285.8 3746507.9   447.0     4.00      3.95
1.86     YES
 L0004930         0   0.71720E-06  478285.8 3746499.4   447.0     4.00      3.95
1.86     YES
 L0004931         0   0.71720E-06  478285.9 3746490.9   447.0     4.00      3.95
1.86     YES
 L0004932         0   0.71720E-06  478285.9 3746482.4   447.0     4.00      3.95
1.86     YES
 L0004933         0   0.71720E-06  478285.9 3746473.9   447.0     4.00      3.95
1.86     YES
 L0004934         0   0.71720E-06  478286.0 3746465.4   447.0     4.00      3.95
1.86     YES
 L0004935         0   0.71720E-06  478286.0 3746456.9   447.0     4.00      3.95
1.86     YES
 L0004936         0   0.71720E-06  478286.0 3746448.4   447.0     4.00      3.95
1.86     YES
 L0004937         0   0.71720E-06  478286.1 3746439.9   446.9     4.00      3.95
1.86     YES
 L0004938         0   0.71720E-06  478286.1 3746431.4   446.7     4.00      3.95
1.86     YES
 L0004939         0   0.71720E-06  478286.1 3746422.9   446.6     4.00      3.95
1.86     YES
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 L0004940         0   0.71720E-06  478286.2 3746414.4   446.5     4.00     3.95
1.86     YES
 L0004941         0   0.71720E-06  478286.2 3746405.9   446.5     4.00     3.95
1.86     YES
 L0004942         0   0.71720E-06  478286.2 3746397.4   446.5     4.00     3.95
1.86     YES
 L0004943         0   0.71720E-06  478286.3 3746388.9   446.4     4.00     3.95
1.86     YES
 L0004944         0   0.71720E-06  478286.3 3746380.4   446.4     4.00     3.95
1.86     YES
 L0004945         0   0.71720E-06  478286.3 3746371.9   446.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0004946         0   0.71720E-06  478286.4 3746363.4   446.4     4.00     3.95
1.86     YES
 L0004947         0   0.71720E-06  478286.4 3746354.9   446.4     4.00     3.95
1.86     YES
 L0004948         0   0.71720E-06  478286.4 3746346.4   446.4     4.00     3.95
1.86     YES
 L0004949         0   0.71720E-06  478280.1 3746347.5   446.7     4.00     3.95
1.86     YES
 L0004950         0   0.71720E-06  478272.3 3746350.8   446.9     4.00     3.95
1.86     YES
 L0004951         0   0.71720E-06  478264.5 3746354.2   447.0     4.00     3.95
1.86     YES
 L0004952         0   0.71720E-06  478256.7 3746357.5   447.0     4.00     3.95
1.86     YES
 L0004953         0   0.71720E-06  478248.6 3746359.6   447.0     4.00     3.95
1.86     YES
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 L0004954          0   0.71720E-06  478240.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004955          0   0.71720E-06  478231.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004956          0   0.71720E-06  478223.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004957          0   0.71720E-06  478214.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004958          0   0.71720E-06  478206.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004959          0   0.71720E-06  478197.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004960          0   0.71720E-06  478189.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004961          0   0.71720E-06  478180.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004962          0   0.71720E-06  478172.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004963          0   0.71720E-06  478163.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004964          0   0.71720E-06  478155.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004965          0   0.71720E-06  478146.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004966          0   0.71720E-06  478138.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004967          0   0.71720E-06  478129.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004968          0   0.71720E-06  478121.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004969          0   0.71720E-06  478112.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004970          0   0.71720E-06  478104.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004971          0   0.71720E-06  478095.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004972          0   0.71720E-06  478087.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004973          0   0.71720E-06  478078.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004974          0   0.71720E-06  478070.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004975          0   0.71720E-06  478061.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004976          0   0.71720E-06  478053.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0004977          0   0.71720E-06  478044.6 3746359.6   447.0      4.00      3.95
1.86     YES
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 L0004978         0   0.71720E-06  478036.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004979         0   0.71720E-06  478027.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004980         0   0.71720E-06  478019.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004981         0   0.71720E-06  478010.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004982         0   0.71720E-06  478002.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004983         0   0.71720E-06  477993.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004984         0   0.71720E-06  477985.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004985         0   0.71720E-06  477976.6 3746359.6   447.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:32:41

                                    PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0004986         0   0.71720E-06  477968.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004987         0   0.71720E-06  477959.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004988         0   0.71720E-06  477951.1 3746359.6   447.1     4.00     3.95
1.86     YES
 L0004989         0   0.71720E-06  477942.6 3746359.6   447.1     4.00     3.95
1.86     YES
 L0004990         0   0.71720E-06  477934.1 3746359.6   447.3     4.00     3.95
1.86     YES
 L0004991         0   0.71720E-06  477925.6 3746359.6   447.5     4.00     3.95
1.86     YES
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 L0004992          0   0.71720E-06  477917.1 3746359.6   447.8      4.00      3.95
1.86     YES
 L0004993          0   0.71720E-06  477908.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0004994          0   0.71720E-06  477900.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0004995          0   0.71720E-06  477891.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0004996          0   0.71720E-06  477883.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0004997          0   0.71720E-06  477874.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0004998          0   0.71720E-06  477866.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0004999          0   0.71720E-06  477857.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005000          0   0.71720E-06  477849.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005001          0   0.71720E-06  477840.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005002          0   0.71720E-06  477832.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005003          0   0.71720E-06  477823.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005004          0   0.71720E-06  477815.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005005          0   0.71720E-06  477806.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005006          0   0.71720E-06  477798.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005007          0   0.71720E-06  477789.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005008          0   0.71720E-06  477781.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005009          0   0.71720E-06  477772.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005010          0   0.71720E-06  477764.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005011          0   0.71720E-06  477755.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005012          0   0.71720E-06  477747.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005013          0   0.71720E-06  477738.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005014          0   0.71720E-06  477730.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0005015          0   0.71720E-06  477721.6 3746359.7   448.0      4.00      3.95
1.86     YES
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 L0005016         0   0.71720E-06  477713.1 3746359.8   448.0     4.00     3.95
1.86     YES
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1.86     YES
 L0005018         0   0.71720E-06  477696.1 3746359.9   448.0     4.00     3.95
1.86     YES
 L0005019         0   0.71720E-06  477687.6 3746360.0   448.0     4.00     3.95
1.86     YES
 L0005020         0   0.71720E-06  477679.1 3746360.1   448.0     4.00     3.95
1.86     YES
 L0005021         0   0.71720E-06  477670.6 3746360.2   448.0     4.00     3.95
1.86     YES
 L0005022         0   0.71720E-06  477662.1 3746360.3   448.0     4.00     3.95
1.86     YES
 L0005023         0   0.71720E-06  477653.6 3746360.4   448.0     4.00     3.95
1.86     YES
 L0005024         0   0.71720E-06  477645.1 3746360.5   448.0     4.00     3.95
1.86     YES
 L0005025         0   0.71720E-06  477636.6 3746360.6   448.1     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005026         0   0.71720E-06  477628.1 3746360.6   448.4     4.00     3.95
1.86     YES
 L0005027         0   0.71720E-06  477619.6 3746360.7   448.7     4.00     3.95
1.86     YES
 L0005028         0   0.71720E-06  477611.1 3746360.8   449.0     4.00     3.95
1.86     YES
 L0005029         0   0.71720E-06  477602.6 3746360.9   449.0     4.00     3.95
1.86     YES
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1.86     YES
 L0005031         0   0.71720E-06  477585.6 3746361.1   449.0     4.00      3.95
1.86     YES
 L0005032         0   0.71720E-06  477577.1 3746361.2   449.0     4.00      3.95
1.86     YES
 L0005033         0   0.71720E-06  477568.6 3746361.3   449.0     4.00      3.95
1.86     YES
 L0005034         0   0.71720E-06  477560.1 3746361.3   449.0     4.00      3.95
1.86     YES
 L0005035         0   0.71720E-06  477551.6 3746361.4   449.0     4.00      3.95
1.86     YES
 L0005036         0   0.71720E-06  477543.1 3746361.5   449.0     4.00      3.95
1.86     YES
 L0005037         0   0.71720E-06  477534.6 3746361.6   449.0     4.00      3.95
1.86     YES
 L0005038         0   0.71720E-06  477526.1 3746361.7   449.0     4.00      3.95
1.86     YES
 L0005039         0   0.71720E-06  477517.6 3746361.8   449.0     4.00      3.95
1.86     YES
 L0005040         0   0.71720E-06  477509.1 3746361.9   449.0     4.00      3.95
1.86     YES
 L0005041         0   0.71720E-06  477500.6 3746362.0   449.0     4.00      3.95
1.86     YES
 L0005042         0   0.71720E-06  477492.1 3746362.0   449.0     4.00      3.95
1.86     YES
 L0005043         0   0.71720E-06  477483.6 3746362.4   449.2     4.00      3.95
1.86     YES
 L0005044         0   0.71720E-06  477475.3 3746364.0   449.5     4.00      3.95
1.86     YES
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1.86     YES
 L0005046         0   0.71720E-06  477458.6 3746367.2   450.0     4.00      3.95
1.86     YES
 L0005047         0   0.71720E-06  477450.3 3746368.8   450.0     4.00      3.95
1.86     YES
 L0005048         0   0.71720E-06  477441.9 3746370.4   450.0     4.00      3.95
1.86     YES
 L0005049         0   0.71720E-06  477433.6 3746372.0   450.0     4.00      3.95
1.86     YES
 L0005050         0   0.71720E-06  477425.2 3746373.6   450.0     4.00      3.95
1.86     YES
 L0005051         0   0.71720E-06  477417.3 3746376.4   450.0     4.00      3.95
1.86     YES
 L0005052         0   0.71720E-06  477410.0 3746380.7   450.0     4.00      3.95
1.86     YES
 L0005053         0   0.71720E-06  477402.7 3746385.0   450.0     4.00      3.95
1.86     YES
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 L0005054         0   0.71720E-06  477395.3 3746389.4   450.0     4.00     3.95
1.86     YES
 L0005055         0   0.71720E-06  477388.0 3746393.7   450.0     4.00     3.95
1.86     YES
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1.86     YES
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1.86     YES
 L0005058         0   0.71720E-06  477366.1 3746406.6   450.0     4.00     3.95
1.86     YES
 L0005059         0   0.71720E-06  477358.7 3746411.0   450.0     4.00     3.95
1.86     YES
 L0005060         0   0.71720E-06  477351.4 3746415.3   450.0     4.00     3.95
1.86     YES
 L0005061         0   0.71720E-06  477344.1 3746419.6   450.0     4.00     3.95
1.86     YES
 L0005062         0   0.71720E-06  477336.8 3746423.9   450.0     4.00     3.95
1.86     YES
 L0005063         0   0.71720E-06  477329.5 3746428.2   450.0     4.00     3.95
1.86     YES
 L0005064         0   0.71720E-06  477322.2 3746432.7   450.0     4.00     3.95
1.86     YES
 L0005065         0   0.71720E-06  477315.4 3746437.8   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005066         0   0.71720E-06  477308.6 3746442.9   450.0     4.00     3.95
1.86     YES
 L0005067         0   0.71720E-06  477301.8 3746448.0   450.0     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
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1.86     YES
 L0005069          0   0.71720E-06  477288.2 3746458.2   450.0      4.00      3.95
1.86     YES
 L0005070          0   0.71720E-06  477281.4 3746463.3   450.0      4.00      3.95
1.86     YES
 L0005071          0   0.71720E-06  477274.6 3746468.4   450.0      4.00      3.95
1.86     YES
 L0005072          0   0.71720E-06  477267.7 3746473.3   450.0      4.00      3.95
1.86     YES
 L0005073          0   0.71720E-06  477260.7 3746478.2   450.0      4.00      3.95
1.86     YES
 L0005074          0   0.71720E-06  477253.8 3746483.1   450.0      4.00      3.95
1.86     YES
 L0005075          0   0.71720E-06  477246.8 3746487.9   450.1      4.00      3.95
1.86     YES
 L0005076          0   0.71720E-06  477239.8 3746492.8   450.2      4.00      3.95
1.86     YES
 L0005077          0   0.71720E-06  477232.9 3746497.7   450.2      4.00      3.95
1.86     YES
 L0005078          0   0.71720E-06  477225.9 3746502.6   450.1      4.00      3.95
1.86     YES
 L0005079          0   0.71720E-06  477218.5 3746506.8   450.0      4.00      3.95
1.86     YES
 L0005080          0   0.71720E-06  477211.1 3746510.8   450.3      4.00      3.95
1.86     YES
 L0005081          0   0.71720E-06  477203.6 3746514.8   450.5      4.00      3.95
1.86     YES
 L0005082          0   0.71720E-06  477196.1 3746518.8   450.8      4.00      3.95
1.86     YES
 L0005083          0   0.71720E-06  477188.6 3746522.9   451.0      4.00      3.95
1.86     YES
 L0005084          0   0.71720E-06  477181.1 3746526.9   451.0      4.00      3.95
1.86     YES
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1.86     YES
 L0005086          0   0.71720E-06  477166.1 3746535.0   451.0      4.00      3.95
1.86     YES
 L0005087          0   0.71720E-06  477158.5 3746538.5   451.0      4.00      3.95
1.86     YES
 L0005088          0   0.71720E-06  477150.1 3746539.7   451.0      4.00      3.95
1.86     YES
 L0005089          0   0.71720E-06  477141.7 3746541.0   451.0      4.00      3.95
1.86     YES
 L0005090          0   0.71720E-06  477133.3 3746542.2   451.0      4.00      3.95
1.86     YES
 L0005091          0   0.71720E-06  477124.9 3746543.5   451.0      4.00      3.95
1.86     YES
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1.86     YES
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1.86     YES
 L0005094        0   0.71720E-06  477099.6 3746547.2   451.0     4.00     3.95
1.86     YES
 L0005095        0   0.71720E-06  477091.2 3746548.2   451.0     4.00     3.95
1.86     YES
 L0005096        0   0.71720E-06  477082.7 3746548.3   451.0     4.00     3.95
1.86     YES
 L0005097        0   0.71720E-06  477074.2 3746548.4   451.0     4.00     3.95
1.86     YES
 L0005098        0   0.71720E-06  477065.7 3746548.6   451.1     4.00     3.95
1.86     YES
 L0005099        0   0.71720E-06  477057.2 3746548.7   451.2     4.00     3.95
1.86     YES
 L0005100        0   0.71720E-06  477048.7 3746548.8   451.4     4.00     3.95
1.86     YES
 L0005101        0   0.71720E-06  477040.2 3746548.9   451.6     4.00     3.95
1.86     YES
 L0005102        0   0.71720E-06  477031.7 3746549.0   451.7     4.00     3.95
1.86     YES
 L0005103        0   0.71720E-06  477023.2 3746549.1   451.8     4.00     3.95
1.86     YES
 L0005104        0   0.71720E-06  477014.7 3746549.2   451.9     4.00     3.95
1.86     YES
 L0005105        0   0.71720E-06  477006.2 3746549.3   452.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005106         0   0.71720E-06  476997.7 3746549.4    452.0      4.00      3.95
1.86     YES
 L0005107         0   0.71720E-06  476989.2 3746549.6    452.0      4.00      3.95
1.86     YES
 L0005108         0   0.71720E-06  476980.7 3746549.7    452.0      4.00      3.95
1.86     YES
 L0005109         0   0.71720E-06  476972.2 3746549.8    452.0      4.00      3.95
1.86     YES
 L0005110         0   0.71720E-06  476963.7 3746549.9    452.0      4.00      3.95
1.86     YES
 L0005111         0   0.71720E-06  476955.2 3746550.0    452.0      4.00      3.95
1.86     YES
 L0005112         0   0.71720E-06  476946.7 3746550.1    452.0      4.00      3.95
1.86     YES
 L0005113         0   0.71720E-06  476938.2 3746550.2    452.0      4.00      3.95
1.86     YES
 L0005114         0   0.71720E-06  476929.7 3746550.3    452.0      4.00      3.95
1.86     YES
 L0005115         0   0.71720E-06  476921.2 3746550.4    452.0      4.00      3.95
1.86     YES
 L0005116         0   0.71720E-06  476912.7 3746550.6    452.1      4.00      3.95
1.86     YES
 L0005117         0   0.71720E-06  476904.2 3746550.7    452.3      4.00      3.95
1.86     YES
 L0005118         0   0.71720E-06  476895.7 3746550.8    452.4      4.00      3.95
1.86     YES
 L0005119         0   0.71720E-06  476887.2 3746550.9    452.6      4.00      3.95
1.86     YES
 L0005120         0   0.71720E-06  476878.7 3746551.0    452.7      4.00      3.95
1.86     YES
 L0005121         0   0.71720E-06  476870.2 3746551.1    452.8      4.00      3.95
1.86     YES
 L0005122         0   0.71720E-06  476861.7 3746551.2    453.0      4.00      3.95
1.86     YES
 L0005123         0   0.71720E-06  476853.2 3746551.3    453.0      4.00      3.95
1.86     YES
 L0005124         0   0.71720E-06  476844.7 3746551.4    453.0      4.00      3.95
1.86     YES
 L0005125         0   0.71720E-06  476836.2 3746551.5    453.0      4.00      3.95
1.86     YES
 L0005126         0   0.71720E-06  476827.7 3746551.7    453.0      4.00      3.95
1.86     YES
 L0005127         0   0.71720E-06  476819.2 3746551.8    453.0      4.00      3.95
1.86     YES
 L0005128         0   0.71720E-06  476810.7 3746551.9    453.0      4.00      3.95
1.86     YES
 L0005129         0   0.71720E-06  476802.2 3746552.0    453.0      4.00      3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0005130         0   0.71720E-06  476793.7 3746552.1   462.1     4.00     3.95
1.86     YES
 L0005131         0   0.71720E-06  476785.2 3746552.2   462.2     4.00     3.95
1.86     YES
 L0005132         0   0.71720E-06  476776.7 3746552.2   462.3     4.00     3.95
1.86     YES
 L0005133         0   0.71720E-06  476768.2 3746551.9   462.4     4.00     3.95
1.86     YES
 L0005134         0   0.71720E-06  476759.7 3746551.7   462.5     4.00     3.95
1.86     YES
 L0005135         0   0.71720E-06  476751.2 3746551.5   462.6     4.00     3.95
1.86     YES
 L0005136         0   0.71720E-06  476742.8 3746551.3   462.7     4.00     3.95
1.86     YES
 L0005137         0   0.71720E-06  476734.3 3746551.1   462.8     4.00     3.95
1.86     YES
 L0005138         0   0.71720E-06  476725.8 3746550.8   462.9     4.00     3.95
1.86     YES
 L0005139         0   0.71720E-06  476717.3 3746550.6   463.1     4.00     3.95
1.86     YES
 L0005140         0   0.71720E-06  476708.8 3746550.4   463.2     4.00     3.95
1.86     YES
 L0005141         0   0.71720E-06  476700.3 3746550.2   463.3     4.00     3.95
1.86     YES
 L0005142         0   0.71720E-06  476691.8 3746550.0   463.4     4.00     3.95
1.86     YES
 L0005143         0   0.71720E-06  476683.3 3746549.7   463.5     4.00     3.95
1.86     YES
 L0005144         0   0.71720E-06  476674.8 3746549.5   463.6     4.00     3.95
1.86     YES
 L0005145         0   0.71720E-06  476666.3 3746549.3   463.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                BY
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 L0005146         0    0.71720E-06   476657.8 3746549.1    463.8      4.00      3.95
1.86     YES
 L0005147         0    0.71720E-06   476649.5 3746550.2    463.9      4.00      3.95
1.86     YES
 L0005148         0    0.71720E-06   476641.4 3746552.9    464.0      4.00      3.95
1.86     YES
 L0005149         0    0.71720E-06   476633.4 3746555.6    464.0      4.00      3.95
1.86     YES
 L0005150         0    0.71720E-06   476625.3 3746558.3    464.0      4.00      3.95
1.86     YES
 L0005151         0    0.71720E-06   476617.2 3746561.0    464.0      4.00      3.95
1.86     YES
 L0005152         0    0.71720E-06   476609.2 3746563.6    464.0      4.00      3.95
1.86     YES
 L0005153         0    0.71720E-06   476601.4 3746566.9    464.0      4.00      3.95
1.86     YES
 L0005154         0    0.71720E-06   476594.1 3746571.4    464.0      4.00      3.95
1.86     YES
 L0005155         0    0.71720E-06   476586.9 3746575.9    464.0      4.00      3.95
1.86     YES
 L0005156         0    0.71720E-06   476579.7 3746580.4    464.0      4.00      3.95
1.86     YES
 L0005157         0    0.71720E-06   476572.5 3746584.8    464.0      4.00      3.95
1.86     YES
 L0005158         0    0.71720E-06   476565.3 3746589.3    464.0      4.00      3.95
1.86     YES
 L0005159         0    0.71720E-06   476558.0 3746593.8    464.1      4.00      3.95
1.86     YES
 L0005160         0    0.71720E-06   476550.8 3746598.3    464.2      4.00      3.95
1.86     YES
 L0005161         0    0.71720E-06   476543.6 3746602.8    464.3      4.00      3.95
1.86     YES
 L0005162         0    0.71720E-06   476537.9 3746608.7    464.4      4.00      3.95
1.86     YES
 L0005163         0    0.71720E-06   476534.0 3746616.2    464.4      4.00      3.95
1.86     YES
 L0005164         0    0.71720E-06   476530.0 3746623.8    464.5      4.00      3.95
1.86     YES
 L0005165         0    0.71720E-06   476526.1 3746631.3    464.5      4.00      3.95
1.86     YES
 L0005166         0    0.71720E-06   476522.2 3746638.8    464.6      4.00      3.95
1.86     YES
 L0005167         0    0.71720E-06   476518.2 3746646.4    464.6      4.00      3.95
1.86     YES
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 L0005168         0   0.71720E-06  476514.3 3746653.9   464.7     4.00     3.95
1.86     YES
 L0005169         0   0.71720E-06  476510.3 3746661.4   464.7     4.00     3.95
1.86     YES
 L0005170         0   0.71720E-06  476506.4 3746668.9   464.8     4.00     3.95
1.86     YES
 L0005171         0   0.71720E-06  476502.4 3746676.5   464.8     4.00     3.95
1.86     YES
 L0005172         0   0.71720E-06  476498.5 3746684.0   464.9     4.00     3.95
1.86     YES
 L0005173         0   0.71720E-06  476494.5 3746691.5   464.9     4.00     3.95
1.86     YES
 L0005174         0   0.71720E-06  476490.6 3746699.1   465.0     4.00     3.95
1.86     YES
 L0005175         0   0.71720E-06  476486.6 3746706.6   465.1     4.00     3.95
1.86     YES
 L0005176         0   0.71720E-06  476482.7 3746714.1   465.2     4.00     3.95
1.86     YES
 L0005177         0   0.71720E-06  476478.7 3746721.6   465.3     4.00     3.95
1.86     YES
 L0005178         0   0.71720E-06  476474.8 3746729.2   465.4     4.00     3.95
1.86     YES
 L0005179         0   0.71720E-06  476470.9 3746736.7   465.5     4.00     3.95
1.86     YES
 L0005180         0   0.71720E-06  476467.8 3746744.5   465.6     4.00     3.95
1.86     YES
 L0005181         0   0.71720E-06  476466.4 3746752.9   465.6     4.00     3.95
1.86     YES
 L0005182         0   0.71720E-06  476465.0 3746761.3   465.7     4.00     3.95
1.86     YES
 L0005183         0   0.71720E-06  476463.6 3746769.7   465.7     4.00     3.95
1.86     YES
 L0005184         0   0.71720E-06  476462.2 3746778.1   465.7     4.00     3.95
1.86     YES
 L0005185         0   0.71720E-06  476460.8 3746786.4   465.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                                  AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005186         0   0.71720E-06  476459.4 3746794.8   465.8      4.00     3.95
1.86     YES
 L0005187         0   0.71720E-06  476457.3 3746803.0   465.9      4.00     3.95
1.86     YES
 L0005188         0   0.71720E-06  476453.4 3746810.5   465.9      4.00     3.95
1.86     YES
 L0005189         0   0.71720E-06  476449.4 3746818.0   466.1      4.00     3.95
1.86     YES
 L0005190         0   0.71720E-06  476445.4 3746825.5   466.2      4.00     3.95
1.86     YES
 L0005191         0   0.71720E-06  476441.4 3746833.0   466.3      4.00     3.95
1.86     YES
 L0005192         0   0.71720E-06  476437.5 3746840.5   466.4      4.00     3.95
1.86     YES
 L0005193         0   0.71720E-06  476433.5 3746848.1   466.5      4.00     3.95
1.86     YES
 L0005194         0   0.71720E-06  476429.5 3746855.6   466.6      4.00     3.95
1.86     YES
 L0005195         0   0.71720E-06  476425.5 3746863.1   466.7      4.00     3.95
1.86     YES
 L0005196         0   0.71720E-06  476421.6 3746870.6   466.8      4.00     3.95
1.86     YES
 L0005197         0   0.71720E-06  476417.6 3746878.1   466.9      4.00     3.95
1.86     YES
 L0005198         0   0.71720E-06  476413.6 3746885.6   467.0      4.00     3.95
1.86     YES
 L0005199         0   0.71720E-06  476409.6 3746893.1   467.1      4.00     3.95
1.86     YES
 L0005200         0   0.71720E-06  476403.2 3746898.5   467.1      4.00     3.95
1.86     YES
 L0005201         0   0.71720E-06  476396.2 3746903.3   467.2      4.00     3.95
1.86     YES
 L0005202         0   0.71720E-06  476389.2 3746908.1   467.3      4.00     3.95
1.86     YES
 L0005203         0   0.71720E-06  476382.2 3746912.9   467.4      4.00     3.95
1.86     YES
 L0005204         0   0.71720E-06  476375.2 3746917.8   467.5      4.00     3.95
1.86     YES
 L0005205         0   0.71720E-06  476368.2 3746922.6   467.6      4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0005206          0   0.71720E-06  476361.2 3746927.4   467.7     4.00     3.95
1.86     YES
 L0005207          0   0.71720E-06  476354.2 3746932.2   467.8     4.00     3.95
1.86     YES
 L0005208          0   0.71720E-06  476347.2 3746937.0   467.9     4.00     3.95
1.86     YES
 L0005209          0   0.71720E-06  476340.2 3746941.8   467.9     4.00     3.95
1.86     YES
 L0005210          0   0.71720E-06  476332.1 3746943.7   468.1     4.00     3.95
1.86     YES
 L0005211          0   0.71720E-06  476323.7 3746944.5   468.2     4.00     3.95
1.86     YES
 L0005212          0   0.71720E-06  476315.2 3746945.4   468.3     4.00     3.95
1.86     YES
 L0005213          0   0.71720E-06  476306.7 3746946.2   468.4     4.00     3.95
1.86     YES
 L0005214          0   0.71720E-06  476298.3 3746947.0   468.5     4.00     3.95
1.86     YES
 L0005215          0   0.71720E-06  476289.8 3746947.9   468.6     4.00     3.95
1.86     YES
 L0005216          0   0.71720E-06  476281.4 3746948.7   468.7     4.00     3.95
1.86     YES
 L0005217          0   0.71720E-06  476272.9 3746949.5   468.8     4.00     3.95
1.86     YES
 L0005218          0   0.71720E-06  476264.4 3746950.4   468.9     4.00     3.95
1.86     YES
 L0005219          0   0.71720E-06  476256.0 3746950.8   469.0     4.00     3.95
1.86     YES
 L0005220          0   0.71720E-06  476247.5 3746950.7   469.2     4.00     3.95
1.86     YES
 L0005221          0   0.71720E-06  476239.0 3746950.7   469.3     4.00     3.95
1.86     YES
 L0005222          0   0.71720E-06  476230.5 3746950.6   469.4     4.00     3.95
1.86     YES
 L0005223          0   0.71720E-06  476222.0 3746950.5   469.5     4.00     3.95
1.86     YES
 L0005224          0   0.71720E-06  476213.5 3746950.5   469.6     4.00     3.95
1.86     YES
 L0005225          0   0.71720E-06  476205.0 3746950.4   469.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                       *** VOLUME SOURCE DATA ***

                  NUMBER EMISSION RATE                      BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0005226         0   0.71720E-06  476196.5 3746950.4   469.8     4.00     3.95
1.86     YES
 L0005227         0   0.71720E-06  476188.0 3746950.3   469.9     4.00     3.95
1.86     YES
 L0005228         0   0.71720E-06  476179.5 3746950.3   470.0     4.00     3.95
1.86     YES
 L0005229         0   0.71720E-06  476171.0 3746950.2   470.2     4.00     3.95
1.86     YES
 L0005230         0   0.71720E-06  476162.5 3746950.1   470.3     4.00     3.95
1.86     YES
 L0005231         0   0.71720E-06  476154.0 3746950.1   470.4     4.00     3.95
1.86     YES
 L0005232         0   0.71720E-06  476145.5 3746950.0   470.5     4.00     3.95
1.86     YES
 L0005233         0   0.71720E-06  476137.0 3746950.0   470.6     4.00     3.95
1.86     YES
 L0005234         0   0.71720E-06  476128.5 3746949.9   470.7     4.00     3.95
1.86     YES
 L0005235         0   0.71720E-06  476120.0 3746949.9   470.8     4.00     3.95
1.86     YES
 L0005236         0   0.71720E-06  476111.5 3746949.8   470.9     4.00     3.95
1.86     YES
 L0005237         0   0.71720E-06  476103.0 3746949.8   471.0     4.00     3.95
1.86     YES
 L0005238         0   0.71720E-06  476094.5 3746949.7   471.1     4.00     3.95
1.86     YES
 L0005239         0   0.71720E-06  476086.0 3746949.6   471.2     4.00     3.95
1.86     YES
 L0005240         0   0.71720E-06  476077.5 3746949.6   471.4     4.00     3.95
1.86     YES
 L0005241         0   0.71720E-06  476069.0 3746949.5   471.5     4.00     3.95
1.86     YES
 L0005242         0   0.71720E-06  476060.5 3746949.5   471.6     4.00     3.95
1.86     YES
 L0005243         0   0.71720E-06  476052.0 3746949.4   471.7     4.00     3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0005244         0   0.71720E-06  476043.5 3746949.4   471.8     4.00     3.95
1.86     YES
 L0005245         0   0.71720E-06  476035.0 3746949.3   471.9     4.00     3.95
1.86     YES
 L0005246         0   0.71720E-06  476026.5 3746949.2   472.0     4.00     3.95
1.86     YES
 L0005247         0   0.71720E-06  476018.0 3746949.2   472.1     4.00     3.95
1.86     YES
 L0005248         0   0.71720E-06  476009.5 3746949.1   472.2     4.00     3.95
1.86     YES
 L0005249         0   0.71720E-06  476001.0 3746949.1   472.4     4.00     3.95
1.86     YES
 L0005250         0   0.71720E-06  475992.5 3746949.0   472.5     4.00     3.95
1.86     YES
 L0005251         0   0.71720E-06  475984.0 3746949.0   472.6     4.00     3.95
1.86     YES
 L0005252         0   0.71720E-06  475975.5 3746948.9   472.7     4.00     3.95
1.86     YES
 L0005253         0   0.71720E-06  475967.0 3746948.8   472.8     4.00     3.95
1.86     YES
 L0005254         0   0.71720E-06  475958.5 3746948.8   472.9     4.00     3.95
1.86     YES
 L0005255         0   0.71720E-06  475950.0 3746948.7   473.0     4.00     3.95
1.86     YES
 L0005256         0   0.71720E-06  475941.5 3746948.7   472.6     4.00     3.95
1.86     YES
 L0005257         0   0.71720E-06  475933.0 3746948.6   472.3     4.00     3.95
1.86     YES
 L0005258         0   0.14360E-05  477480.6 3749800.2   458.0     4.00     3.95
1.86     YES
 L0005259         0   0.14360E-05  477480.4 3749808.7   458.0     4.00     3.95
1.86     YES
 L0005260         0   0.14360E-05  477480.3 3749817.2   458.0     4.00     3.95
1.86     YES
 L0005261         0   0.14360E-05  477480.1 3749825.7   458.0     4.00     3.95
1.86     YES
 L0005262         0   0.14360E-05  477480.0 3749834.2   458.0     4.00     3.95
1.86     YES
 L0005263         0   0.14360E-05  477479.9 3749842.7   458.0     4.00     3.95
1.86     YES
 L0005264         0   0.14360E-05  477479.7 3749851.2   458.0     4.00     3.95
1.86     YES
 L0005265         0   0.14360E-05  477479.6 3749859.7   458.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
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                                   AERMOD HRA Output

                                     PAGE  35
 **MODELOPTs:    RegDFAULT CONC       ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -


 L0005266         0   0.14360E-05  477479.5 3749868.2   458.0     4.00     3.95
1.86     YES
 L0005267         0   0.14360E-05  477479.3 3749876.7   458.0     4.00     3.95
1.86     YES
 L0005268         0   0.14360E-05  477479.2 3749885.2   458.0     4.00     3.95
1.86     YES
 L0005269         0   0.14360E-05  477479.1 3749893.7   458.0     4.00     3.95
1.86     YES
 L0005270         0   0.14360E-05  477478.9 3749902.2   458.0     4.00     3.95
1.86     YES
 L0005271         0   0.14360E-05  477478.8 3749910.7   458.0     4.00     3.95
1.86     YES
 L0005272         0   0.14360E-05  477478.7 3749919.2   458.0     4.00     3.95
1.86     YES
 L0005273         0   0.14360E-05  477478.5 3749927.7   458.0     4.00     3.95
1.86     YES
 L0005274         0   0.14360E-05  477478.4 3749936.2   458.0     4.00     3.95
1.86     YES
 L0005275         0   0.14360E-05  477478.2 3749944.7   458.0     4.00     3.95
1.86     YES
 L0005276         0   0.14360E-05  477478.1 3749953.2   458.0     4.00     3.95
1.86     YES
 L0005277         0   0.14360E-05  477478.0 3749961.7   458.2     4.00     3.95
1.86     YES
 L0005278         0   0.14360E-05  477477.8 3749970.2   458.4     4.00     3.95
1.86     YES
 L0005279         0   0.14360E-05  477477.7 3749978.7   458.7     4.00     3.95
1.86     YES
 L0005280         0   0.14360E-05  477477.6 3749987.2   459.0     4.00     3.95
1.86     YES
 L0005281         0   0.14360E-05  477477.4 3749995.7   459.0     4.00     3.95
1.86     YES
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 L0005282        0   0.14360E-05  477477.3 3750004.2   459.0     4.00     3.95
1.86     YES
 L0005283        0   0.14360E-05  477477.2 3750012.7   459.0     4.00     3.95
1.86     YES
 L0005284        0   0.14360E-05  477477.0 3750021.2   459.0     4.00     3.95
1.86     YES
 L0005285        0   0.14360E-05  477476.9 3750029.7   459.0     4.00     3.95
1.86     YES
 L0005286        0   0.14360E-05  477476.8 3750038.2   459.0     4.00     3.95
1.86     YES
 L0005287        0   0.14360E-05  477476.6 3750046.7   459.0     4.00     3.95
1.86     YES
 L0005288        0   0.14360E-05  477476.5 3750055.2   459.0     4.00     3.95
1.86     YES
 L0005289        0   0.14360E-05  477476.3 3750063.7   459.0     4.00     3.95
1.86     YES
 L0005290        0   0.14360E-05  477476.2 3750072.2   459.0     4.00     3.95
1.86     YES
 L0005291        0   0.14360E-05  477476.1 3750080.7   459.0     4.00     3.95
1.86     YES
 L0005292        0   0.14360E-05  477475.9 3750089.2   459.0     4.00     3.95
1.86     YES
 L0005293        0   0.14360E-05  477475.8 3750097.7   459.0     4.00     3.95
1.86     YES
 L0005294        0   0.14360E-05  477475.7 3750106.2   459.0     4.00     3.95
1.86     YES
 L0005295        0   0.14360E-05  477475.5 3750114.7   459.0     4.00     3.95
1.86     YES
 L0005296        0   0.14360E-05  477475.4 3750123.2   459.0     4.00     3.95
1.86     YES
 L0005297        0   0.14360E-05  477475.3 3750131.7   459.0     4.00     3.95
1.86     YES
 L0005298        0   0.14360E-05  477475.1 3750140.2   459.0     4.00     3.95
1.86     YES
 L0005299        0   0.14360E-05  477475.0 3750148.7   459.0     4.00     3.95
1.86     YES
 L0005300        0   0.14360E-05  477474.8 3750157.2   459.0     4.00     3.95
1.86     YES
 L0005301        0   0.14360E-05  477474.7 3750165.7   459.0     4.00     3.95
1.86     YES
 L0005302        0   0.14360E-05  477474.2 3750174.2   459.0     4.00     3.95
1.86     YES
 L0005303        0   0.14360E-05  477473.5 3750182.6   459.0     4.00     3.95
1.86     YES
 L0005304        0   0.14360E-05  477472.8 3750191.1   459.0     4.00     3.95
1.86     YES
 L0005305        0   0.14360E-05  477472.1 3750199.6   459.0     4.00     3.95
1.86     YES
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                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -


 L0005306         0   0.14360E-05  477471.4 3750208.0   459.2     4.00     3.95
1.86     YES
 L0005307         0   0.14360E-05  477470.7 3750216.5   459.2     4.00     3.95
1.86     YES
 L0005308         0   0.14360E-05  477470.0 3750225.0   459.3     4.00     3.95
1.86     YES
 L0005309         0   0.14360E-05  477469.3 3750233.5   459.5     4.00     3.95
1.86     YES
 L0005310         0   0.14360E-05  477468.7 3750241.9   459.7     4.00     3.95
1.86     YES
 L0005311         0   0.14360E-05  477468.0 3750250.4   459.9     4.00     3.95
1.86     YES
 L0005312         0   0.14360E-05  477467.3 3750258.9   460.0     4.00     3.95
1.86     YES
 L0005313         0   0.14360E-05  477466.6 3750267.3   460.0     4.00     3.95
1.86     YES
 L0005314         0   0.14360E-05  477466.5 3750275.8   460.0     4.00     3.95
1.86     YES
 L0005315         0   0.14360E-05  477466.5 3750284.3   460.0     4.00     3.95
1.86     YES
 L0005316         0   0.14360E-05  477466.5 3750292.8   460.0     4.00     3.95
1.86     YES
 L0005317         0   0.14360E-05  477466.6 3750301.3   460.0     4.00     3.95
1.86     YES
 L0005318         0   0.14360E-05  477466.6 3750309.8   460.0     4.00     3.95
1.86     YES
 L0005319         0   0.14360E-05  477466.6 3750318.3   460.0     4.00     3.95
1.86     YES
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 L0005320        0   0.14360E-05  477466.7 3750326.8   460.0     4.00      3.95
1.86     YES
 L0005321        0   0.14360E-05  477466.7 3750335.3   460.0     4.00      3.95
1.86     YES
 L0005322        0   0.14360E-05  477466.7 3750343.8   460.0     4.00      3.95
1.86     YES
 L0005323        0   0.14360E-05  477466.8 3750352.3   460.0     4.00      3.95
1.86     YES
 L0005324        0   0.14360E-05  477466.8 3750360.8   460.0     4.00      3.95
1.86     YES
 L0005325        0   0.14360E-05  477466.9 3750369.3   460.0     4.00      3.95
1.86     YES
 L0005326        0   0.14360E-05  477466.9 3750377.8   460.0     4.00      3.95
1.86     YES
 L0005327        0   0.14360E-05  477466.9 3750386.3   460.0     4.00      3.95
1.86     YES
 L0005328        0   0.14360E-05  477467.0 3750394.8   460.0     4.00      3.95
1.86     YES
 L0005329        0   0.14360E-05  477467.0 3750403.3   460.0     4.00      3.95
1.86     YES
 L0005330        0   0.14360E-05  477467.0 3750411.8   460.0     4.00      3.95
1.86     YES
 L0005331        0   0.14360E-05  477467.1 3750420.3   460.0     4.00      3.95
1.86     YES
 L0005332        0   0.14360E-05  477467.1 3750428.8   460.0     4.00      3.95
1.86     YES
 L0005333        0   0.14360E-05  477467.1 3750437.3   460.0     4.00      3.95
1.86     YES
 L0005334        0   0.14360E-05  477467.2 3750445.8   460.0     4.00      3.95
1.86     YES
 L0005335        0   0.14360E-05  477467.2 3750454.3   460.0     4.00      3.95
1.86     YES
 L0005336        0   0.14360E-05  477467.3 3750462.8   460.0     4.00      3.95
1.86     YES
 L0005337        0   0.14360E-05  477467.3 3750471.3   460.2     4.00      3.95
1.86     YES
 L0005338        0   0.14360E-05  477467.3 3750479.8   460.4     4.00      3.95
1.86     YES
 L0005339        0   0.14360E-05  477467.4 3750488.3   460.7     4.00      3.95
1.86     YES
 L0005340        0   0.14360E-05  477467.4 3750496.8   461.0     4.00      3.95
1.86     YES
 L0005341        0   0.14360E-05  477467.4 3750505.3   461.0     4.00      3.95
1.86     YES
 L0005342        0   0.14360E-05  477467.5 3750513.8   461.0     4.00      3.95
1.86     YES
 L0005343        0   0.14360E-05  477467.5 3750522.3   461.0     4.00      3.95
1.86     YES
```

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                                AERMOD HRA Output
 L0005344         0   0.14360E-05  477467.5 3750530.8   461.0     4.00     3.95
1.86     YES
 L0005345         0   0.14360E-05  477467.6 3750539.3   461.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005346         0   0.14360E-05  477467.7 3750547.8   461.0     4.00     3.95
1.86     YES
 L0005347         0   0.14360E-05  477467.9 3750556.3   461.0     4.00     3.95
1.86     YES
 L0005348         0   0.14360E-05  477468.2 3750564.8   461.0     4.00     3.95
1.86     YES
 L0005349         0   0.14360E-05  477468.4 3750573.3   461.0     4.00     3.95
1.86     YES
 L0005350         0   0.14360E-05  477468.7 3750581.8   461.0     4.00     3.95
1.86     YES
 L0005351         0   0.14360E-05  477468.9 3750590.3   461.0     4.00     3.95
1.86     YES
 L0005352         0   0.14360E-05  477469.2 3750598.8   461.0     4.00     3.95
1.86     YES
 L0005353         0   0.14360E-05  477469.4 3750607.3   461.0     4.00     3.95
1.86     YES
 L0005354         0   0.14360E-05  477469.7 3750615.8   461.0     4.00     3.95
1.86     YES
 L0005355         0   0.14360E-05  477469.9 3750624.3   461.0     4.00     3.95
1.86     YES
 L0005356         0   0.14360E-05  477470.2 3750632.8   461.0     4.00     3.95
1.86     YES
 L0005357         0   0.14360E-05  477470.4 3750641.3   461.0     4.00     3.95
1.86     YES
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 L0005358         0   0.14360E-05  477470.7 3750649.8   461.0      4.00      3.95
1.86     YES
 L0005359         0   0.14360E-05  477470.9 3750658.3   461.2      4.00      3.95
1.86     YES
 L0005360         0   0.14360E-05  477471.2 3750666.8   461.3      4.00      3.95
1.86     YES
 L0005361         0   0.14360E-05  477471.4 3750675.3   461.4      4.00      3.95
1.86     YES
 L0005362         0   0.14360E-05  477471.7 3750683.8   461.5      4.00      3.95
1.86     YES
 L0005363         0   0.14360E-05  477471.9 3750692.3   461.7      4.00      3.95
1.86     YES
 L0005364         0   0.14360E-05  477472.2 3750700.8   461.9      4.00      3.95
1.86     YES
 L0005365         0   0.14360E-05  477472.4 3750709.3   462.0      4.00      3.95
1.86     YES
 L0005366         0   0.14360E-05  477472.7 3750717.8   462.0      4.00      3.95
1.86     YES
 L0005367         0   0.14360E-05  477472.9 3750726.3   462.0      4.00      3.95
1.86     YES
 L0005368         0   0.14360E-05  477473.2 3750734.8   462.0      4.00      3.95
1.86     YES
 L0005369         0   0.14360E-05  477473.4 3750743.3   462.0      4.00      3.95
1.86     YES
 L0005370         0   0.14360E-05  477473.7 3750751.7   462.0      4.00      3.95
1.86     YES
 L0005371         0   0.14360E-05  477473.9 3750760.2   462.0      4.00      3.95
1.86     YES
 L0005372         0   0.14360E-05  477474.2 3750768.7   462.0      4.00      3.95
1.86     YES
 L0005373         0   0.14360E-05  477474.4 3750777.2   462.0      4.00      3.95
1.86     YES
 L0005374         0   0.14360E-05  477474.7 3750785.7   462.0      4.00      3.95
1.86     YES
 L0005375         0   0.14360E-05  477474.9 3750794.2   462.0      4.00      3.95
1.86     YES
 L0005376         0   0.14360E-05  477475.2 3750802.7   462.0      4.00      3.95
1.86     YES
 L0005377         0   0.14360E-05  477475.4 3750811.2   462.0      4.00      3.95
1.86     YES
 L0005378         0   0.14360E-05  477475.7 3750819.7   462.0      4.00      3.95
1.86     YES
 L0005379         0   0.14360E-05  477475.9 3750828.2   462.0      4.00      3.95
1.86     YES
 L0005380         0   0.14360E-05  477476.2 3750836.7   462.0      4.00      3.95
1.86     YES
 L0005381         0   0.14360E-05  477476.4 3750845.2   462.0      4.00      3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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 L0005382         0   0.14360E-05  477476.7 3750853.7   462.0     4.00     3.95
1.86     YES
 L0005383         0   0.14360E-05  477476.9 3750862.2   462.1     4.00     3.95
1.86     YES
 L0005384         0   0.14360E-05  477477.1 3750870.7   462.3     4.00     3.95
1.86     YES
 L0005385         0   0.14360E-05  477477.1 3750879.2   462.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005386         0   0.14360E-05  477477.2 3750887.7   462.6     4.00     3.95
1.86     YES
 L0005387         0   0.14360E-05  477477.2 3750896.2   462.7     4.00     3.95
1.86     YES
 L0005388         0   0.14360E-05  477477.3 3750904.7   462.8     4.00     3.95
1.86     YES
 L0005389         0   0.14360E-05  477477.3 3750913.2   462.9     4.00     3.95
1.86     YES
 L0005390         0   0.14360E-05  477477.4 3750921.7   463.0     4.00     3.95
1.86     YES
 L0005391         0   0.14360E-05  477477.4 3750930.2   463.0     4.00     3.95
1.86     YES
 L0005392         0   0.14360E-05  477477.5 3750938.7   463.0     4.00     3.95
1.86     YES
 L0005393         0   0.14360E-05  477477.6 3750947.2   463.0     4.00     3.95
1.86     YES
 L0005394         0   0.14360E-05  477477.6 3750955.7   463.0     4.00     3.95
1.86     YES
 L0005395         0   0.14360E-05  477477.7 3750964.2   463.0     4.00     3.95
1.86     YES
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 L0005396         0   0.14360E-05  477477.7 3750972.7   463.0     4.00      3.95
1.86     YES
 L0005397         0   0.14360E-05  477477.8 3750981.2   463.0     4.00      3.95
1.86     YES
 L0005398         0   0.14360E-05  477477.8 3750989.7   463.0     4.00      3.95
1.86     YES
 L0005399         0   0.14360E-05  477477.9 3750998.2   463.0     4.00      3.95
1.86     YES
 L0005400         0   0.14360E-05  477477.9 3751006.7   463.0     4.00      3.95
1.86     YES
 L0005401         0   0.14360E-05  477478.0 3751015.2   463.0     4.00      3.95
1.86     YES
 L0005402         0   0.14360E-05  477478.0 3751023.7   463.0     4.00      3.95
1.86     YES
 L0005403         0   0.14360E-05  477478.1 3751032.2   463.0     4.00      3.95
1.86     YES
 L0005404         0   0.14360E-05  477478.1 3751040.7   463.0     4.00      3.95
1.86     YES
 L0005405         0   0.14360E-05  477478.2 3751049.2   463.0     4.00      3.95
1.86     YES
 L0005406         0   0.14360E-05  477478.3 3751057.7   463.0     4.00      3.95
1.86     YES
 L0005407         0   0.14360E-05  477478.3 3751066.2   463.0     4.00      3.95
1.86     YES
 L0005408         0   0.14360E-05  477478.4 3751074.7   463.2     4.00      3.95
1.86     YES
 L0005409         0   0.14360E-05  477478.4 3751083.2   463.3     4.00      3.95
1.86     YES
 L0005410         0   0.14360E-05  477478.5 3751091.7   463.5     4.00      3.95
1.86     YES
 L0005411         0   0.14360E-05  477478.5 3751100.2   463.7     4.00      3.95
1.86     YES
 L0005412         0   0.14360E-05  477478.6 3751108.7   463.8     4.00      3.95
1.86     YES
 L0005413         0   0.14360E-05  477478.6 3751117.2   463.9     4.00      3.95
1.86     YES
 L0005414         0   0.14360E-05  477478.7 3751125.7   464.0     4.00      3.95
1.86     YES
 L0005415         0   0.14360E-05  477478.7 3751134.2   464.0     4.00      3.95
1.86     YES
 L0005416         0   0.14360E-05  477478.8 3751142.7   464.0     4.00      3.95
1.86     YES
 L0005417         0   0.14360E-05  477478.9 3751151.2   464.0     4.00      3.95
1.86     YES
 L0005418         0   0.14360E-05  477478.9 3751159.7   464.0     4.00      3.95
1.86     YES
 L0005419         0   0.14360E-05  477479.0 3751168.2   464.0     4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0005420         0   0.14360E-05  477479.0 3751176.7   464.0     4.00     3.95
1.86     YES
 L0005421         0   0.14360E-05  477479.1 3751185.2   464.0     4.00     3.95
1.86     YES
 L0005422         0   0.14360E-05  477479.1 3751193.7   464.0     4.00     3.95
1.86     YES
 L0005423         0   0.14360E-05  477479.2 3751202.2   464.0     4.00     3.95
1.86     YES
 L0005424         0   0.14360E-05  477479.2 3751210.7   464.0     4.00     3.95
1.86     YES
 L0005425         0   0.14360E-05  477479.3 3751219.2   464.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:32:41

                                   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005426         0   0.14360E-05  477479.3 3751227.7   464.0     4.00     3.95
1.86     YES
 L0005427         0   0.14360E-05  477479.4 3751236.2   464.0     4.00     3.95
1.86     YES
 L0005428         0   0.14360E-05  477479.3 3751244.7   464.0     4.00     3.95
1.86     YES
 L0005429         0   0.14360E-05  477479.3 3751253.2   464.2     4.00     3.95
1.86     YES
 L0005430         0   0.14360E-05  477479.2 3751261.7   464.5     4.00     3.95
1.86     YES
 L0005431         0   0.14360E-05  477479.2 3751270.2   464.8     4.00     3.95
1.86     YES
 L0005432         0   0.14360E-05  477479.1 3751278.7   465.0     4.00     3.95
1.86     YES
 L0005433         0   0.14360E-05  477479.0 3751287.2   465.0     4.00     3.95
1.86     YES
```

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                                      AERMOD HRA Output
  L0005434         0   0.14360E-05  477479.0 3751295.7   465.0     4.00      3.95
 1.86     YES
  L0005435         0   0.14360E-05  477478.9 3751304.2   465.0     4.00      3.95
 1.86     YES
  L0005436         0   0.14360E-05  477478.9 3751312.7   465.0     4.00      3.95
 1.86     YES
  L0005437         0   0.14360E-05  477478.8 3751321.2   465.0     4.00      3.95
 1.86     YES
  L0005438         0   0.14360E-05  477478.7 3751329.7   465.0     4.00      3.95
 1.86     YES
  L0005439         0   0.14360E-05  477478.7 3751338.2   465.0     4.00      3.95
 1.86     YES
  L0005440         0   0.14360E-05  477478.6 3751346.7   465.0     4.00      3.95
 1.86     YES
  L0005441         0   0.14360E-05  477478.6 3751355.2   465.0     4.00      3.95
 1.86     YES
  L0005442         0   0.14360E-05  477478.5 3751363.7   465.0     4.00      3.95
 1.86     YES
  L0005443         0   0.14360E-05  477478.5 3751372.2   465.0     4.00      3.95
 1.86     YES
  L0005444         0   0.14360E-05  477478.4 3751380.7   465.0     4.00      3.95
 1.86     YES
  L0005445         0   0.14360E-05  477478.3 3751389.2   465.0     4.00      3.95
 1.86     YES
  L0005446         0   0.14360E-05  477478.3 3751397.7   465.0     4.00      3.95
 1.86     YES
  L0005447         0   0.14360E-05  477478.2 3751406.2   465.0     4.00      3.95
 1.86     YES
  L0005448         0   0.14360E-05  477478.2 3751414.7   465.0     4.00      3.95
 1.86     YES
  L0005449         0   0.14360E-05  477478.1 3751423.2   465.0     4.00      3.95
 1.86     YES
  L0005450         0   0.14360E-05  477478.0 3751431.7   465.2     4.00      3.95
 1.86     YES
  L0005451         0   0.14360E-05  477478.0 3751440.2   465.4     4.00      3.95
 1.86     YES
  L0005452         0   0.14360E-05  477477.9 3751448.7   465.7     4.00      3.95
 1.86     YES
  L0005453         0   0.14360E-05  477477.9 3751457.2   466.0     4.00      3.95
 1.86     YES
  L0005454         0   0.14360E-05  477477.8 3751465.7   466.0     4.00      3.95
 1.86     YES
  L0005455         0   0.14360E-05  477477.8 3751474.2   466.0     4.00      3.95
 1.86     YES
  L0005456         0   0.14360E-05  477477.7 3751482.7   466.0     4.00      3.95
 1.86     YES
  L0005457         0   0.14360E-05  477477.6 3751491.2   466.0     4.00      3.95
 1.86     YES
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                                  AERMOD HRA Output
 L0005458         0   0.14360E-05  477477.6 3751499.7   466.0     4.00     3.95
1.86     YES
 L0005459         0   0.14360E-05  477477.5 3751508.2   466.0     4.00     3.95
1.86     YES
 L0005460         0   0.14360E-05  477477.5 3751516.7   466.0     4.00     3.95
1.86     YES
 L0005461         0   0.14360E-05  477477.4 3751525.2   466.0     4.00     3.95
1.86     YES
 L0005462         0   0.14360E-05  477477.3 3751533.7   466.0     4.00     3.95
1.86     YES
 L0005463         0   0.14360E-05  477477.3 3751542.2   466.0     4.00     3.95
1.86     YES
 L0005464         0   0.14360E-05  477477.2 3751550.7   466.0     4.00     3.95
1.86     YES
 L0005465         0   0.14360E-05  477477.2 3751559.2   466.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005466         0   0.14360E-05  477477.1 3751567.7   466.0     4.00     3.95
1.86     YES
 L0005467         0   0.14360E-05  477477.0 3751576.2   466.0     4.00     3.95
1.86     YES
 L0005468         0   0.14360E-05  477477.0 3751584.7   466.0     4.00     3.95
1.86     YES
 L0005469         0   0.14360E-05  477476.9 3751593.2   466.0     4.00     3.95
1.86     YES
 L0005470         0   0.14360E-05  477476.9 3751601.7   466.0     4.00     3.95
1.86     YES
 L0005471         0   0.14360E-05  477476.8 3751610.2   466.1     4.00     3.95
1.86     YES
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 L0005472         0   0.14360E-05  477476.8 3751618.7   466.2     4.00      3.95
1.86     YES
 L0005473         0   0.14360E-05  477476.7 3751627.2   466.4     4.00      3.95
1.86     YES
 L0005474         0   0.14360E-05  477476.6 3751635.7   466.6     4.00      3.95
1.86     YES
 L0005475         0   0.14360E-05  477476.6 3751644.2   466.7     4.00      3.95
1.86     YES
 L0005476         0   0.14360E-05  477476.5 3751652.7   466.8     4.00      3.95
1.86     YES
 L0005477         0   0.14360E-05  477476.5 3751661.2   466.9     4.00      3.95
1.86     YES
 L0005478         0   0.14360E-05  477476.4 3751669.7   467.0     4.00      3.95
1.86     YES
 L0005479         0   0.14360E-05  477476.3 3751678.2   467.0     4.00      3.95
1.86     YES
 L0005480         0   0.14360E-05  477476.3 3751686.7   467.0     4.00      3.95
1.86     YES
 L0005481         0   0.14360E-05  477476.2 3751695.2   467.0     4.00      3.95
1.86     YES
 L0005482         0   0.14360E-05  477476.2 3751703.7   467.0     4.00      3.95
1.86     YES
 L0005483         0   0.14360E-05  477476.1 3751712.2   467.0     4.00      3.95
1.86     YES
 L0005484         0   0.14360E-05  477476.1 3751720.7   467.0     4.00      3.95
1.86     YES
 L0005485         0   0.14360E-05  477476.0 3751729.2   467.1     4.00      3.95
1.86     YES
 L0005486         0   0.14360E-05  477475.9 3751737.7   467.2     4.00      3.95
1.86     YES
 L0005487         0   0.14360E-05  477475.9 3751746.2   467.4     4.00      3.95
1.86     YES
 L0005488         0   0.14360E-05  477475.8 3751754.7   467.5     4.00      3.95
1.86     YES
 L0005489         0   0.14360E-05  477475.8 3751763.2   467.6     4.00      3.95
1.86     YES
 L0005490         0   0.14360E-05  477475.7 3751771.7   467.8     4.00      3.95
1.86     YES
 L0005491         0   0.14360E-05  477475.6 3751780.2   467.9     4.00      3.95
1.86     YES
 L0005492         0   0.14360E-05  477475.6 3751788.7   468.0     4.00      3.95
1.86     YES
 L0005493         0   0.14360E-05  477475.5 3751797.2   468.0     4.00      3.95
1.86     YES
 L0005494         0   0.14360E-05  477475.5 3751805.7   468.0     4.00      3.95
1.86     YES
 L0005495         0   0.14360E-05  477475.4 3751814.2   468.0     4.00      3.95
1.86     YES
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                                 AERMOD HRA Output
 L0005496         0   0.14360E-05  477475.4 3751822.7   468.0     4.00     3.95
1.86     YES
 L0005497         0   0.14360E-05  477475.3 3751831.2   468.0     4.00     3.95
1.86     YES
 L0005498         0   0.14360E-05  477475.2 3751839.7   468.0     4.00     3.95
1.86     YES
 L0005499         0   0.14360E-05  477475.2 3751848.2   468.0     4.00     3.95
1.86     YES
 L0005500         0   0.14360E-05  477475.1 3751856.7   468.0     4.00     3.95
1.86     YES
 L0005501         0   0.14360E-05  477475.1 3751865.2   468.0     4.00     3.95
1.86     YES
 L0005502         0   0.14360E-05  477475.0 3751873.7   468.0     4.00     3.95
1.86     YES
 L0005503         0   0.14360E-05  477474.9 3751882.2   468.2     4.00     3.95
1.86     YES
 L0005504         0   0.14360E-05  477474.9 3751890.7   468.5     4.00     3.95
1.86     YES
 L0005505         0   0.14360E-05  477474.8 3751899.2   468.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005506         0   0.14360E-05  477474.8 3751907.7   469.0     4.00     3.95
1.86     YES
 L0005507         0   0.14360E-05  477474.7 3751916.2   469.0     4.00     3.95
1.86     YES
 L0005508         0   0.14360E-05  477474.7 3751924.7   469.0     4.00     3.95
1.86     YES
 L0005509         0   0.14360E-05  477474.6 3751933.2   469.0     4.00     3.95
1.86     YES
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 L0005510        0   0.14360E-05  477474.5 3751941.7   469.0     4.00      3.95
1.86     YES
 L0005511        0   0.14360E-05  477474.5 3751950.2   469.0     4.00      3.95
1.86     YES
 L0005512        0   0.14360E-05  477474.4 3751958.7   469.0     4.00      3.95
1.86     YES
 L0005513        0   0.14360E-05  477474.4 3751967.2   469.0     4.00      3.95
1.86     YES
 L0005514        0   0.14360E-05  477474.3 3751975.7   469.0     4.00      3.95
1.86     YES
 L0005515        0   0.14360E-05  477474.2 3751984.2   469.0     4.00      3.95
1.86     YES
 L0005516        0   0.14360E-05  477474.2 3751992.7   469.0     4.00      3.95
1.86     YES
 L0005517        0   0.14360E-05  477474.1 3752001.2   469.0     4.00      3.95
1.86     YES
 L0005518        0   0.14360E-05  477474.1 3752009.7   469.0     4.00      3.95
1.86     YES
 L0005519        0   0.14360E-05  477474.0 3752018.2   469.0     4.00      3.95
1.86     YES
 L0005520        0   0.14360E-05  477474.0 3752026.7   469.0     4.00      3.95
1.86     YES
 L0005521        0   0.14360E-05  477473.9 3752035.2   469.1     4.00      3.95
1.86     YES
 L0005522        0   0.14360E-05  477473.8 3752043.7   469.3     4.00      3.95
1.86     YES
 L0005523        0   0.14360E-05  477473.8 3752052.2   469.4     4.00      3.95
1.86     YES
 L0005524        0   0.14360E-05  477473.7 3752060.7   469.5     4.00      3.95
1.86     YES
 L0005525        0   0.14360E-05  477473.7 3752069.2   469.5     4.00      3.95
1.86     YES
 L0005526        0   0.14360E-05  477473.6 3752077.7   469.5     4.00      3.95
1.86     YES
 L0005527        0   0.14360E-05  477473.5 3752086.2   469.5     4.00      3.95
1.86     YES
 L0005528        0   0.14360E-05  477473.5 3752094.7   469.6     4.00      3.95
1.86     YES
 L0005529        0   0.14360E-05  477473.4 3752103.2   469.8     4.00      3.95
1.86     YES
 L0005530        0   0.14360E-05  477473.4 3752111.7   469.9     4.00      3.95
1.86     YES
 L0005531        0   0.14360E-05  477473.3 3752120.2   470.1     4.00      3.95
1.86     YES
 L0005532        0   0.14360E-05  477473.3 3752128.7   470.2     4.00      3.95
1.86     YES
 L0005533        0   0.14360E-05  477473.2 3752137.2   470.3     4.00      3.95
1.86     YES
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 L0005534         0   0.14360E-05  477473.1 3752145.7   470.4     4.00     3.95
1.86     YES
 L0005535         0   0.14360E-05  477473.1 3752154.2   470.6     4.00     3.95
1.86     YES
 L0005536         0   0.14360E-05  477473.0 3752162.7   470.7     4.00     3.95
1.86     YES
 L0005537         0   0.14360E-05  477473.0 3752171.2   470.9     4.00     3.95
1.86     YES
 L0005538         0   0.14360E-05  477472.9 3752179.7   471.0     4.00     3.95
1.86     YES
 L0005539         0   0.14360E-05  477472.8 3752188.2   471.0     4.00     3.95
1.86     YES
 L0005540         0   0.14360E-05  477472.8 3752196.7   471.0     4.00     3.95
1.86     YES
 L0005541         0   0.14360E-05  477472.7 3752205.2   471.0     4.00     3.95
1.86     YES
 L0005542         0   0.14360E-05  477472.7 3752213.7   471.2     4.00     3.95
1.86     YES
 L0005543         0   0.14360E-05  477472.6 3752222.2   471.5     4.00     3.95
1.86     YES
 L0005544         0   0.14360E-05  477468.0 3752226.1   471.7     4.00     3.95
1.86     YES
 L0005545         0   0.14360E-05  477459.5 3752226.1   471.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0005546         0   0.14360E-05  477451.0 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005547         0   0.14360E-05  477442.5 3752226.2   471.7     4.00     3.95
1.86     YES
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 L0005548         0   0.14360E-05  477434.0 3752226.2   471.7     4.00      3.95
1.86     YES
 L0005549         0   0.14360E-05  477425.5 3752226.2   471.7     4.00      3.95
1.86     YES
 L0005550         0   0.14360E-05  477417.0 3752226.2   471.7     4.00      3.95
1.86     YES
 L0005551         0   0.14360E-05  477408.5 3752226.2   471.7     4.00      3.95
1.86     YES
 L0005552         0   0.14360E-05  477400.0 3752226.2   471.7     4.00      3.95
1.86     YES
 L0005553         0   0.14360E-05  477391.5 3752226.2   471.5     4.00      3.95
1.86     YES
 L0005554         0   0.14360E-05  477383.0 3752226.2   471.3     4.00      3.95
1.86     YES
 L0005555         0   0.14360E-05  477374.5 3752226.2   471.1     4.00      3.95
1.86     YES
 L0005556         0   0.14360E-05  477366.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005557         0   0.14360E-05  477357.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005558         0   0.14360E-05  477349.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005559         0   0.14360E-05  477340.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005560         0   0.14360E-05  477332.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005561         0   0.14360E-05  477323.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005562         0   0.14360E-05  477315.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005563         0   0.14360E-05  477306.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005564         0   0.14360E-05  477298.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005565         0   0.14360E-05  477289.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0005566         0   0.14360E-05  477281.0 3752226.4   471.0     4.00      3.95
1.86     YES
 L0005567         0   0.14360E-05  477272.5 3752226.4   471.0     4.00      3.95
1.86     YES
 L0005568         0   0.14360E-05  477264.0 3752226.4   471.0     4.00      3.95
1.86     YES
 L0005569         0   0.14360E-05  477255.5 3752226.4   471.0     4.00      3.95
1.86     YES
 L0005570         0   0.14360E-05  477247.0 3752226.4   471.0     4.00      3.95
1.86     YES
 L0005571         0   0.14360E-05  477238.5 3752226.4   471.0     4.00      3.95
1.86     YES
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 L0005572         0   0.14360E-05  477230.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005573         0   0.14360E-05  477221.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005574         0   0.14360E-05  477213.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005575         0   0.14360E-05  477204.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005576         0   0.14360E-05  477196.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005577         0   0.14360E-05  477187.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005578         0   0.14360E-05  477179.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005579         0   0.14360E-05  477170.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005580         0   0.14360E-05  477162.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005581         0   0.14360E-05  477153.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005582         0   0.14360E-05  477145.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005583         0   0.14360E-05  477136.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005584         0   0.14360E-05  477128.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0005585         0   0.14360E-05  477119.5 3752226.5   471.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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                                 AERMOD HRA Output
 L0005586         0   0.14360E-05  477111.0 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005587         0   0.14360E-05  477102.5 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005588         0   0.14360E-05  477094.0 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005589         0   0.14360E-05  477085.5 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005590         0   0.14360E-05  477077.0 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005591         0   0.14360E-05  477068.5 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005592         0   0.14360E-05  477060.0 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005593         0   0.14360E-05  477051.5 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005594         0   0.14360E-05  477043.0 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005595         0   0.14360E-05  477034.5 3752226.6   471.0      4.00      3.95
1.86     YES
 L0005596         0   0.14360E-05  477026.0 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005597         0   0.14360E-05  477017.5 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005598         0   0.14360E-05  477009.0 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005599         0   0.14360E-05  477000.5 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005600         0   0.14360E-05  476992.0 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005601         0   0.14360E-05  476983.5 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005602         0   0.14360E-05  476975.0 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005603         0   0.14360E-05  476966.5 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005604         0   0.14360E-05  476958.0 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005605         0   0.14360E-05  476949.5 3752226.7   471.0      4.00      3.95
1.86     YES
 L0005606         0   0.14360E-05  476941.0 3752226.8   471.2      4.00      3.95
1.86     YES
 L0005607         0   0.14360E-05  476932.5 3752226.8   471.4      4.00      3.95
1.86     YES
 L0005608         0   0.14360E-05  476924.0 3752226.8   471.6      4.00      3.95
1.86     YES
 L0005609         0   0.14360E-05  476915.5 3752226.8   471.7      4.00      3.95
1.86     YES
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 L0005610         0   0.14360E-05  476907.0 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005611         0   0.14360E-05  476898.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005612         0   0.14360E-05  476890.0 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005613         0   0.14360E-05  476881.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005614         0   0.14360E-05  476873.0 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005615         0   0.14360E-05  476864.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005616         0   0.14360E-05  476856.0 3752226.9   471.7     4.00     3.95
1.86     YES
 L0005617         0   0.14360E-05  476847.5 3752226.9   471.7     4.00     3.95
1.86     YES
 L0005618         0   0.14360E-05  476839.0 3752226.9   471.7     4.00     3.95
1.86     YES
 L0005619         0   0.14360E-05  476830.5 3752226.9   471.7     4.00     3.95
1.86     YES
 L0005620         0   0.14360E-05  476822.0 3752226.9   471.7     4.00     3.95
1.86     YES
 L0005621         0   0.14360E-05  476813.5 3752226.9   471.7     4.00     3.95
1.86     YES
 L0005622         0   0.14360E-05  476805.0 3752226.9   477.2     4.00     3.95
1.86     YES
 L0005623         0   0.14360E-05  476796.5 3752226.9   477.2     4.00     3.95
1.86     YES
 L0005624         0   0.14360E-05  476788.0 3752226.9   477.2     4.00     3.95
1.86     YES
 L0005625         0   0.14360E-05  476779.5 3752226.9   477.2     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                BY
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- - - - - - - - - - - - - - - - - - - -

 L0005626          0   0.14360E-05  476771.0 3752227.0    477.2      4.00      3.95
1.86     YES
 L0005627          0   0.14360E-05  476762.5 3752227.0    477.2      4.00      3.95
1.86     YES
 L0005628          0   0.14360E-05  476754.0 3752227.0    477.2      4.00      3.95
1.86     YES
 L0005629          0   0.14360E-05  476745.5 3752227.0    477.2      4.00      3.95
1.86     YES
 L0005630          0   0.14360E-05  476737.0 3752227.0    477.2      4.00      3.95
1.86     YES
 L0005631          0   0.14360E-05  476728.5 3752227.0    477.3      4.00      3.95
1.86     YES
 L0005632          0   0.14360E-05  476720.0 3752227.0    477.4      4.00      3.95
1.86     YES
 L0005633          0   0.14360E-05  476711.5 3752227.0    477.5      4.00      3.95
1.86     YES
 L0005634          0   0.14360E-05  476703.0 3752227.0    477.6      4.00      3.95
1.86     YES
 L0005635          0   0.14360E-05  476694.5 3752227.0    477.6      4.00      3.95
1.86     YES
 L0005636          0   0.14360E-05  476686.0 3752227.1    477.7      4.00      3.95
1.86     YES
 L0005637          0   0.14360E-05  476677.5 3752227.1    477.8      4.00      3.95
1.86     YES
 L0005638          0   0.14360E-05  476669.0 3752227.1    477.9      4.00      3.95
1.86     YES
 L0005639          0   0.14360E-05  476660.5 3752227.1    478.0      4.00      3.95
1.86     YES
 L0005640          0   0.14360E-05  476652.0 3752227.1    478.0      4.00      3.95
1.86     YES
 L0005641          0   0.14360E-05  476643.5 3752227.1    478.0      4.00      3.95
1.86     YES
 L0005642          0   0.14360E-05  476635.0 3752227.1    478.0      4.00      3.95
1.86     YES
 L0005643          0   0.14360E-05  476626.5 3752227.1    478.0      4.00      3.95
1.86     YES
 L0005644          0   0.14360E-05  476618.0 3752227.1    478.0      4.00      3.95
1.86     YES
 L0005645          0   0.14360E-05  476609.5 3752227.1    478.0      4.00      3.95
1.86     YES
 L0005646          0   0.14360E-05  476601.0 3752227.2    478.0      4.00      3.95
1.86     YES
 L0005647          0   0.14360E-05  476592.5 3752227.2    478.0      4.00      3.95
1.86     YES
```

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                              AERMOD HRA Output
 L0005648         0   0.14360E-05  476584.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005649         0   0.14360E-05  476575.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005650         0   0.14360E-05  476567.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005651         0   0.14360E-05  476558.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005652         0   0.14360E-05  476550.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005653         0   0.14360E-05  476541.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005654         0   0.14360E-05  476533.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005655         0   0.14360E-05  476524.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005656         0   0.14360E-05  476516.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005657         0   0.14360E-05  476507.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005658         0   0.14360E-05  476499.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005659         0   0.14360E-05  476490.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005660         0   0.14360E-05  476482.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005661         0   0.14360E-05  476473.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005662         0   0.14360E-05  476465.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005663         0   0.14360E-05  476456.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005664         0   0.14360E-05  476448.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005665         0   0.14360E-05  476439.5 3752227.3   478.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                                 AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005666         0   0.14360E-05  476431.0 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005667         0   0.14360E-05  476422.5 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005668         0   0.14360E-05  476414.0 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005669         0   0.14360E-05  476405.5 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005670         0   0.14360E-05  476397.0 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005671         0   0.14360E-05  476388.5 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005672         0   0.14360E-05  476380.0 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005673         0   0.14360E-05  476371.5 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005674         0   0.14360E-05  476363.0 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005675         0   0.14360E-05  476354.5 3752227.4   478.0      4.00      3.95
1.86     YES
 L0005676         0   0.14360E-05  476346.0 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005677         0   0.14360E-05  476337.5 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005678         0   0.14360E-05  476329.0 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005679         0   0.14360E-05  476320.5 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005680         0   0.14360E-05  476312.0 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005681         0   0.14360E-05  476303.5 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005682         0   0.14360E-05  476295.0 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005683         0   0.14360E-05  476286.5 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005684         0   0.14360E-05  476278.0 3752227.5   478.0      4.00      3.95
1.86     YES
 L0005685         0   0.14360E-05  476269.5 3752227.5   478.0      4.00      3.95
1.86     YES
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                                  AERMOD HRA Output
 L0005686         0   0.14360E-05  476261.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005687         0   0.14360E-05  476252.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005688         0   0.14360E-05  476244.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005689         0   0.14360E-05  476235.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005690         0   0.14360E-05  476227.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005691         0   0.14360E-05  476218.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005692         0   0.14360E-05  476210.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005693         0   0.14360E-05  476201.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005694         0   0.14360E-05  476193.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005695         0   0.14360E-05  476184.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005696         0   0.14360E-05  476176.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005697         0   0.14360E-05  476167.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005698         0   0.14360E-05  476159.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005699         0   0.14360E-05  476150.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005700         0   0.14360E-05  476142.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005701         0   0.14360E-05  476133.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005702         0   0.14360E-05  476125.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005703         0   0.14360E-05  476116.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005704         0   0.14360E-05  476108.0 3752227.7   477.9     4.00     3.95
1.86     YES
 L0005705         0   0.14360E-05  476099.5 3752227.7   477.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0005706         0   0.14360E-05  476091.0 3752227.8   477.7     4.00     3.95
1.86     YES
 L0005707         0   0.14360E-05  476082.5 3752227.8   477.6     4.00     3.95
1.86     YES
 L0005708         0   0.14360E-05  476074.0 3752227.8   477.6     4.00     3.95
1.86     YES
 L0005709         0   0.14360E-05  476065.5 3752227.8   477.5     4.00     3.95
1.86     YES
 L0005710         0   0.14360E-05  476057.0 3752227.8   477.4     4.00     3.95
1.86     YES
 L0005711         0   0.14360E-05  476048.5 3752227.8   477.3     4.00     3.95
1.86     YES
 L0005712         0   0.14360E-05  476040.0 3752227.8   477.2     4.00     3.95
1.86     YES
 L0005713         0   0.14360E-05  476031.5 3752227.8   477.2     4.00     3.95
1.86     YES
 L0005714         0   0.14360E-05  476023.0 3752227.8   477.2     4.00     3.95
1.86     YES
 L0005715         0   0.14360E-05  476014.5 3752227.8   477.1     4.00     3.95
1.86     YES
 L0005716         0   0.14360E-05  476006.0 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005717         0   0.14360E-05  475997.5 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005718         0   0.14360E-05  475989.0 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005719         0   0.14360E-05  475980.5 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005720         0   0.14360E-05  475972.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005721         0   0.14360E-05  475963.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005722         0   0.14360E-05  475955.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005723         0   0.14360E-05  475946.5 3752227.9   477.0     4.00     3.95
1.86     YES
```

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                                     AERMOD HRA Output
 L0005724         0   0.14360E-05  475938.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005725         0   0.14360E-05  475929.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005726         0   0.14360E-05  475921.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005727         0   0.14360E-05  475912.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005728         0   0.14360E-05  475904.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005729         0   0.14360E-05  475895.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005730         0   0.14360E-05  475887.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005731         0   0.14360E-05  475878.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005732         0   0.14360E-05  475870.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005733         0   0.14360E-05  475861.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005734         0   0.14360E-05  475853.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005735         0   0.14360E-05  475844.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005736         0   0.14360E-05  475836.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005737         0   0.14360E-05  475827.5 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005738         0   0.14360E-05  475819.0 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005739         0   0.14360E-05  475810.5 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005740         0   0.14360E-05  475802.0 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005741         0   0.14360E-05  475793.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005742         0   0.14360E-05  475785.0 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005743         0   0.14360E-05  475776.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005744         0   0.14360E-05  475768.0 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005745         0   0.14360E-05  475759.5 3752228.1   477.1     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
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                                PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005746         0   0.14360E-05  475751.0 3752228.1   477.2     4.00     3.95
1.86     YES
 L0005747         0   0.14360E-05  475742.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005748         0   0.14360E-05  475734.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005749         0   0.14360E-05  475725.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005750         0   0.14360E-05  475717.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005751         0   0.14360E-05  475708.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005752         0   0.14360E-05  475700.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005753         0   0.14360E-05  475691.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005754         0   0.14360E-05  475683.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005755         0   0.14360E-05  475674.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005756         0   0.14360E-05  475666.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005757         0   0.14360E-05  475657.5 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005758         0   0.14360E-05  475649.0 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005759         0   0.14360E-05  475640.5 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005760         0   0.14360E-05  475632.0 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005761         0   0.14360E-05  475623.5 3752228.3   477.1     4.00     3.95
1.86     YES
```

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 L0005762         0   0.14360E-05  475615.0 3752228.3   477.1     4.00      3.95
1.86     YES
 L0005763         0   0.14360E-05  475606.5 3752228.3   477.1     4.00      3.95
1.86     YES
 L0005764         0   0.14360E-05  475598.0 3752228.3   477.1     4.00      3.95
1.86     YES
 L0005765         0   0.14360E-05  475589.5 3752228.3   477.0     4.00      3.95
1.86     YES
 L0005766         0   0.14360E-05  475581.0 3752228.3   477.0     4.00      3.95
1.86     YES
 L0005767         0   0.14360E-05  475572.5 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005768         0   0.14360E-05  475564.0 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005769         0   0.14360E-05  475555.5 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005770         0   0.14360E-05  475547.0 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005771         0   0.14360E-05  475538.5 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005772         0   0.14360E-05  475530.0 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005773         0   0.14360E-05  475521.5 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005774         0   0.14360E-05  475513.0 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005775         0   0.14360E-05  475504.5 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005776         0   0.14360E-05  475496.0 3752228.4   477.0     4.00      3.95
1.86     YES
 L0005777         0   0.14360E-05  475487.5 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005778         0   0.14360E-05  475479.0 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005779         0   0.14360E-05  475470.5 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005780         0   0.14360E-05  475462.0 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005781         0   0.14360E-05  475453.5 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005782         0   0.14360E-05  475445.0 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005783         0   0.14360E-05  475436.5 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005784         0   0.14360E-05  475428.0 3752228.5   477.0     4.00      3.95
1.86     YES
 L0005785         0   0.14360E-05  475419.5 3752228.5   476.9     4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***         14:32:41

                                   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0005786         0   0.14360E-05  475411.0 3752228.5   476.9     4.00     3.95
1.86     YES
 L0005787         0   0.14360E-05  475402.5 3752228.6   476.8     4.00     3.95
1.86     YES
 L0005788         0   0.14360E-05  475394.0 3752228.6   476.7     4.00     3.95
1.86     YES
 L0005789         0   0.14360E-05  475385.5 3752228.6   476.6     4.00     3.95
1.86     YES
 L0005790         0   0.14360E-05  475377.0 3752228.6   476.5     4.00     3.95
1.86     YES
 L0005791         0   0.14360E-05  475368.5 3752228.6   476.4     4.00     3.95
1.86     YES
 L0005792         0   0.14360E-05  475360.0 3752228.6   476.3     4.00     3.95
1.86     YES
 L0005793         0   0.14360E-05  475351.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005794         0   0.14360E-05  475343.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005795         0   0.14360E-05  475334.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005796         0   0.14360E-05  475326.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005797         0   0.14360E-05  475317.5 3752228.7   476.1     4.00     3.95
1.86     YES
 L0005798         0   0.14360E-05  475309.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0005799         0   0.14360E-05  475300.5 3752228.7   476.1     4.00     3.95
1.86     YES
```

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 L0005800         0   0.14360E-05  475292.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0005801         0   0.14360E-05  475283.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005802         0   0.14360E-05  475275.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005803         0   0.14360E-05  475266.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005804         0   0.14360E-05  475258.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005805         0   0.14360E-05  475249.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005806         0   0.14360E-05  475241.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005807         0   0.14360E-05  475232.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005808         0   0.14360E-05  475224.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005809         0   0.14360E-05  475215.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005810         0   0.14360E-05  475207.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005811         0   0.14360E-05  475198.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005812         0   0.14360E-05  475190.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005813         0   0.14360E-05  475181.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005814         0   0.14360E-05  475173.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005815         0   0.14360E-05  475164.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005816         0   0.14360E-05  475156.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005817         0   0.14360E-05  475147.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005818         0   0.14360E-05  475139.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005819         0   0.14360E-05  475130.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005820         0   0.14360E-05  475122.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005821         0   0.14360E-05  475113.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005822         0   0.14360E-05  475105.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005823         0   0.14360E-05  475096.5 3752228.9   476.0     4.00     3.95
1.86     YES
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                                AERMOD HRA Output
 L0005824         0   0.14360E-05  475088.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005825         0   0.14360E-05  475079.5 3752228.9   476.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005826         0   0.14360E-05  475071.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005827         0   0.14360E-05  475062.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005828         0   0.14360E-05  475054.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005829         0   0.14360E-05  475045.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005830         0   0.14360E-05  475037.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005831         0   0.14360E-05  475028.5 3752229.0   475.9     4.00     3.95
1.86     YES
 L0005832         0   0.14360E-05  475020.0 3752229.0   475.7     4.00     3.95
1.86     YES
 L0005833         0   0.14360E-05  475011.5 3752229.0   475.6     4.00     3.95
1.86     YES
 L0005834         0   0.14360E-05  475003.0 3752229.0   475.5     4.00     3.95
1.86     YES
 L0005835         0   0.14360E-05  474994.5 3752229.0   475.4     4.00     3.95
1.86     YES
 L0005836         0   0.14360E-05  474986.0 3752229.0   475.3     4.00     3.95
1.86     YES
 L0005837         0   0.14360E-05  474977.5 3752229.1   475.2     4.00     3.95
1.86     YES
```

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                                     AERMOD HRA Output
  L0005838          0   0.14360E-05  474969.0 3752229.1   475.1      4.00      3.95
 1.86     YES
  L0005839          0   0.14360E-05  474960.5 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005840          0   0.14360E-05  474952.0 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005841          0   0.14360E-05  474943.5 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005842          0   0.14360E-05  474935.0 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005843          0   0.14360E-05  474926.5 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005844          0   0.14360E-05  474918.0 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005845          0   0.14360E-05  474909.5 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005846          0   0.14360E-05  474901.0 3752229.1   475.0      4.00      3.95
 1.86     YES
  L0005847          0   0.14360E-05  474892.5 3752229.2   475.0      4.00      3.95
 1.86     YES
  L0005848          0   0.14360E-05  474884.0 3752229.2   475.0      4.00      3.95
 1.86     YES
  L0005849          0   0.14360E-05  474875.5 3752229.2   474.9      4.00      3.95
 1.86     YES
  L0005850          0   0.14360E-05  474867.0 3752229.2   474.8      4.00      3.95
 1.86     YES
  L0005851          0   0.14360E-05  474858.5 3752229.2   474.7      4.00      3.95
 1.86     YES
  L0005852          0   0.14360E-05  474850.0 3752229.2   474.5      4.00      3.95
 1.86     YES
  L0005853          0   0.14360E-05  474841.5 3752229.2   474.4      4.00      3.95
 1.86     YES
  L0005854          0   0.14360E-05  474833.0 3752229.2   474.3      4.00      3.95
 1.86     YES
  L0005855          0   0.14360E-05  474824.5 3752229.2   474.2      4.00      3.95
 1.86     YES
  L0005856          0   0.14360E-05  474816.0 3752229.2   474.1      4.00      3.95
 1.86     YES
  L0005857          0   0.14360E-05  474807.5 3752229.3   474.0      4.00      3.95
 1.86     YES
  L0005858          0   0.14360E-05  474799.1 3752228.0   474.1      4.00      3.95
 1.86     YES
  L0005859          0   0.14360E-05  474790.7 3752226.7   474.2      4.00      3.95
 1.86     YES
  L0005860          0   0.14360E-05  474782.3 3752225.5   474.3      4.00      3.95
 1.86     YES
  L0005861          0   0.14360E-05  474773.9 3752224.2   474.4      4.00      3.95
 1.86     YES
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 L0005862         0   0.14360E-05  474765.5 3752222.9   474.6     4.00     3.95
1.86     YES
 L0005863         0   0.14360E-05  474757.1 3752221.7   474.7     4.00     3.95
1.86     YES
 L0005864         0   0.14360E-05  474748.7 3752220.4   474.8     4.00     3.95
1.86     YES
 L0005865         0   0.14360E-05  474740.3 3752219.1   474.9     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005866         0   0.14360E-05  474731.9 3752217.8   475.0     4.00     3.95
1.86     YES
 L0005867         0   0.14360E-05  474723.5 3752216.6   475.0     4.00     3.95
1.86     YES
 L0005868         0   0.14360E-05  474715.1 3752215.3   475.0     4.00     3.95
1.86     YES
 L0005869         0   0.14360E-05  474706.7 3752214.0   475.0     4.00     3.95
1.86     YES
 L0005870         0   0.14360E-05  474698.3 3752212.8   475.0     4.00     3.95
1.86     YES
 L0005871         0   0.14360E-05  474689.9 3752211.5   475.0     4.00     3.95
1.86     YES
 L0005872         0   0.14360E-05  474681.5 3752210.2   475.0     4.00     3.95
1.86     YES
 L0005873         0   0.14360E-05  474673.1 3752209.0   475.0     4.00     3.95
1.86     YES
 L0005874         0   0.14360E-05  474664.7 3752207.7   475.0     4.00     3.95
1.86     YES
 L0005875         0   0.14360E-05  474656.3 3752206.4   475.0     4.00     3.95
1.86     YES
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 L0005876         0   0.14360E-05  474647.9 3752205.1   475.0     4.00      3.95
1.86     YES
 L0005877         0   0.14360E-05  474639.5 3752203.9   475.0     4.00      3.95
1.86     YES
 L0005878         0   0.14360E-05  474631.1 3752202.6   475.0     4.00      3.95
1.86     YES
 L0005879         0   0.14360E-05  474622.6 3752201.3   475.0     4.00      3.95
1.86     YES
 L0005880         0   0.14360E-05  474614.2 3752200.1   475.0     4.00      3.95
1.86     YES
 L0005881         0   0.14360E-05  474605.8 3752198.8   475.0     4.00      3.95
1.86     YES
 L0005882         0   0.14360E-05  474597.4 3752197.5   475.0     4.00      3.95
1.86     YES
 L0005883         0   0.14360E-05  474589.0 3752196.2   475.0     4.00      3.95
1.86     YES
 L0005884         0   0.14360E-05  474580.6 3752195.0   475.0     4.00      3.95
1.86     YES
 L0005885         0   0.14360E-05  474572.2 3752193.7   475.1     4.00      3.95
1.86     YES
 L0005886         0   0.14360E-05  474563.8 3752192.4   475.2     4.00      3.95
1.86     YES
 L0005887         0   0.14360E-05  474555.4 3752191.2   475.3     4.00      3.95
1.86     YES
 L0005888         0   0.14360E-05  474547.0 3752189.9   475.4     4.00      3.95
1.86     YES
 L0005889         0   0.14360E-05  474538.6 3752188.6   475.5     4.00      3.95
1.86     YES
 L0005890         0   0.14360E-05  474530.2 3752187.3   475.6     4.00      3.95
1.86     YES
 L0005891         0   0.14360E-05  474521.8 3752186.1   475.7     4.00      3.95
1.86     YES
 L0005892         0   0.14360E-05  474513.4 3752184.8   475.8     4.00      3.95
1.86     YES
 L0005893         0   0.14360E-05  474505.0 3752183.5   475.9     4.00      3.95
1.86     YES
 L0005894         0   0.14360E-05  474496.6 3752182.3   476.0     4.00      3.95
1.86     YES
 L0005895         0   0.14360E-05  474488.2 3752181.0   476.0     4.00      3.95
1.86     YES
 L0005896         0   0.14360E-05  474479.8 3752179.7   476.0     4.00      3.95
1.86     YES
 L0005897         0   0.14360E-05  474471.4 3752178.4   476.0     4.00      3.95
1.86     YES
 L0005898         0   0.14360E-05  474463.0 3752177.2   476.0     4.00      3.95
1.86     YES
 L0005899         0   0.14360E-05  474454.6 3752175.9   476.0     4.00      3.95
1.86     YES
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                                  AERMOD HRA Output
 L0005900         0   0.14360E-05  474446.2 3752174.6   476.0     4.00     3.95
1.86     YES
 L0005901         0   0.14360E-05  474437.8 3752173.4   476.0     4.00     3.95
1.86     YES
 L0005902         0   0.14360E-05  474429.3 3752172.1   476.0     4.00     3.95
1.86     YES
 L0005903         0   0.14360E-05  474420.9 3752170.8   476.0     4.00     3.95
1.86     YES
 L0005904         0   0.14360E-05  474412.5 3752169.6   476.1     4.00     3.95
1.86     YES
 L0005905         0   0.14360E-05  474404.1 3752168.3   476.2     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41

                                   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005906         0   0.14360E-05  474395.7 3752167.0   476.4     4.00     3.95
1.86     YES
 L0005907         0   0.14360E-05  474387.3 3752165.7   476.5     4.00     3.95
1.86     YES
 L0005908         0   0.14360E-05  474378.9 3752164.5   476.6     4.00     3.95
1.86     YES
 L0005909         0   0.14360E-05  474370.5 3752163.2   476.7     4.00     3.95
1.86     YES
 L0005910         0   0.14360E-05  474362.1 3752161.9   476.8     4.00     3.95
1.86     YES
 L0005911         0   0.14360E-05  474353.7 3752160.7   476.9     4.00     3.95
1.86     YES
 L0005912         0   0.14360E-05  474345.3 3752159.4   477.0     4.00     3.95
1.86     YES
 L0005913         0   0.14360E-05  474336.9 3752158.1   477.0     4.00     3.95
1.86     YES
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 L0005914         0   0.14360E-05  474328.5 3752156.8   477.0      4.00      3.95
1.86     YES
 L0005915         0   0.14360E-05  474320.1 3752155.6   477.0      4.00      3.95
1.86     YES
 L0005916         0   0.14360E-05  474311.7 3752154.3   477.0      4.00      3.95
1.86     YES
 L0005917         0   0.14360E-05  474303.3 3752153.0   477.0      4.00      3.95
1.86     YES
 L0005918         0   0.14360E-05  474294.9 3752151.8   477.0      4.00      3.95
1.86     YES
 L0005919         0   0.14360E-05  474286.5 3752150.5   477.0      4.00      3.95
1.86     YES
 L0005920         0   0.14360E-05  474278.1 3752149.2   477.0      4.00      3.95
1.86     YES
 L0005921         0   0.14360E-05  474269.7 3752147.9   477.0      4.00      3.95
1.86     YES
 L0005922         0   0.14360E-05  474261.3 3752146.7   477.0      4.00      3.95
1.86     YES
 L0005923         0   0.14360E-05  474252.9 3752145.4   477.0      4.00      3.95
1.86     YES
 L0005924         0   0.14360E-05  474244.4 3752144.1   477.0      4.00      3.95
1.86     YES
 L0005925         0   0.14360E-05  474236.0 3752142.9   477.0      4.00      3.95
1.86     YES
 L0005926         0   0.14360E-05  474227.6 3752141.6   477.0      4.00      3.95
1.86     YES
 L0005927         0   0.14360E-05  474219.2 3752140.3   477.0      4.00      3.95
1.86     YES
 L0005928         0   0.14360E-05  474210.8 3752139.0   477.0      4.00      3.95
1.86     YES
 L0005929         0   0.14360E-05  474202.4 3752137.8   477.0      4.00      3.95
1.86     YES
 L0005930         0   0.14360E-05  474194.0 3752136.5   477.0      4.00      3.95
1.86     YES
 L0005931         0   0.14360E-05  474185.6 3752135.2   477.1      4.00      3.95
1.86     YES
 L0005932         0   0.14360E-05  474177.2 3752134.0   477.2      4.00      3.95
1.86     YES
 L0005933         0   0.14360E-05  474168.8 3752132.7   477.3      4.00      3.95
1.86     YES
 L0005934         0   0.14360E-05  474160.4 3752131.3   477.4      4.00      3.95
1.86     YES
 L0005935         0   0.14360E-05  474152.0 3752129.9   477.5      4.00      3.95
1.86     YES
 L0005936         0   0.14360E-05  474143.7 3752128.5   477.6      4.00      3.95
1.86     YES
 L0005937         0   0.14360E-05  474135.3 3752127.1   477.7      4.00      3.95
1.86     YES
```

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 L0005938         0   0.14360E-05  474126.9 3752125.7   477.9     4.00     3.95
1.86     YES
 L0005939         0   0.14360E-05  474118.5 3752124.3   478.0     4.00     3.95
1.86     YES
 L0005940         0   0.14360E-05  474110.1 3752122.9   478.0     4.00     3.95
1.86     YES
 L0005941         0   0.14360E-05  474101.7 3752121.5   478.0     4.00     3.95
1.86     YES
 L0005942         0   0.14360E-05  474093.3 3752120.1   478.0     4.00     3.95
1.86     YES
 L0005943         0   0.14360E-05  474085.0 3752118.8   478.0     4.00     3.95
1.86     YES
 L0005944         0   0.14360E-05  474076.6 3752117.4   478.0     4.00     3.95
1.86     YES
 L0005945         0   0.14360E-05  474068.2 3752116.0   478.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005946         0   0.14360E-05  474059.8 3752114.6   478.0     4.00     3.95
1.86     YES
 L0005947         0   0.14360E-05  474051.4 3752113.2   478.0     4.00     3.95
1.86     YES
 L0005948         0   0.14360E-05  474043.0 3752111.8   478.0     4.00     3.95
1.86     YES
 L0005949         0   0.23910E-06  477480.6 3749800.2   458.0     0.00     3.95
1.86     YES
 L0005950         0   0.23910E-06  477480.4 3749808.7   458.0     0.00     3.95
1.86     YES
 L0005951         0   0.23910E-06  477480.3 3749817.2   458.0     0.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                 AERMOD HRA Output
  L0005952         0   0.23910E-06  477480.1 3749825.7   458.0     0.00      3.95
 1.86     YES
  L0005953         0   0.23910E-06  477480.0 3749834.2   458.0     0.00      3.95
 1.86     YES
  L0005954         0   0.23910E-06  477479.9 3749842.7   458.0     0.00      3.95
 1.86     YES
  L0005955         0   0.23910E-06  477479.7 3749851.2   458.0     0.00      3.95
 1.86     YES
  L0005956         0   0.23910E-06  477479.6 3749859.7   458.0     0.00      3.95
 1.86     YES
  L0005957         0   0.23910E-06  477479.5 3749868.2   458.0     0.00      3.95
 1.86     YES
  L0005958         0   0.23910E-06  477479.3 3749876.7   458.0     0.00      3.95
 1.86     YES
  L0005959         0   0.23910E-06  477479.2 3749885.2   458.0     0.00      3.95
 1.86     YES
  L0005960         0   0.23910E-06  477479.1 3749893.7   458.0     0.00      3.95
 1.86     YES
  L0005961         0   0.23910E-06  477478.9 3749902.2   458.0     0.00      3.95
 1.86     YES
  L0005962         0   0.23910E-06  477478.8 3749910.7   458.0     0.00      3.95
 1.86     YES
  L0005963         0   0.23910E-06  477478.7 3749919.2   458.0     0.00      3.95
 1.86     YES
  L0005964         0   0.23910E-06  477478.5 3749927.7   458.0     0.00      3.95
 1.86     YES
  L0005965         0   0.23910E-06  477478.4 3749936.2   458.0     0.00      3.95
 1.86     YES
  L0005966         0   0.23910E-06  477478.2 3749944.7   458.0     0.00      3.95
 1.86     YES
  L0005967         0   0.23910E-06  477478.1 3749953.2   458.0     0.00      3.95
 1.86     YES
  L0005968         0   0.23910E-06  477478.0 3749961.7   458.2     0.00      3.95
 1.86     YES
  L0005969         0   0.23910E-06  477477.8 3749970.2   458.4     0.00      3.95
 1.86     YES
  L0005970         0   0.23910E-06  477477.7 3749978.7   458.7     0.00      3.95
 1.86     YES
  L0005971         0   0.23910E-06  477477.6 3749987.2   459.0     0.00      3.95
 1.86     YES
  L0005972         0   0.23910E-06  477477.4 3749995.7   459.0     0.00      3.95
 1.86     YES
  L0005973         0   0.23910E-06  477477.3 3750004.2   459.0     0.00      3.95
 1.86     YES
  L0005974         0   0.23910E-06  477477.2 3750012.7   459.0     0.00      3.95
 1.86     YES
  L0005975         0   0.23910E-06  477477.0 3750021.2   459.0     0.00      3.95
 1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0005976         0   0.23910E-06  477476.9 3750029.7   459.0     0.00     3.95
1.86     YES
 L0005977         0   0.23910E-06  477476.8 3750038.2   459.0     0.00     3.95
1.86     YES
 L0005978         0   0.23910E-06  477476.6 3750046.7   459.0     0.00     3.95
1.86     YES
 L0005979         0   0.23910E-06  477476.5 3750055.2   459.0     0.00     3.95
1.86     YES
 L0005980         0   0.23910E-06  477476.3 3750063.7   459.0     0.00     3.95
1.86     YES
 L0005981         0   0.23910E-06  477476.2 3750072.2   459.0     0.00     3.95
1.86     YES
 L0005982         0   0.23910E-06  477476.1 3750080.7   459.0     0.00     3.95
1.86     YES
 L0005983         0   0.23910E-06  477475.9 3750089.2   459.0     0.00     3.95
1.86     YES
 L0005984         0   0.23910E-06  477475.8 3750097.7   459.0     0.00     3.95
1.86     YES
 L0005985         0   0.23910E-06  477475.7 3750106.2   459.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005986         0   0.23910E-06  477475.5 3750114.7   459.0     0.00     3.95
1.86     YES
 L0005987         0   0.23910E-06  477475.4 3750123.2   459.0     0.00     3.95
1.86     YES
 L0005988         0   0.23910E-06  477475.3 3750131.7   459.0     0.00     3.95
1.86     YES
 L0005989         0   0.23910E-06  477475.1 3750140.2   459.0     0.00     3.95
1.86     YES
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 L0005990         0   0.23910E-06  477475.0 3750148.7   459.0     0.00      3.95
1.86     YES
 L0005991         0   0.23910E-06  477474.8 3750157.2   459.0     0.00      3.95
1.86     YES
 L0005992         0   0.23910E-06  477474.7 3750165.7   459.0     0.00      3.95
1.86     YES
 L0005993         0   0.23910E-06  477474.2 3750174.2   459.0     0.00      3.95
1.86     YES
 L0005994         0   0.23910E-06  477473.5 3750182.6   459.0     0.00      3.95
1.86     YES
 L0005995         0   0.23910E-06  477472.8 3750191.1   459.0     0.00      3.95
1.86     YES
 L0005996         0   0.23910E-06  477472.1 3750199.6   459.0     0.00      3.95
1.86     YES
 L0005997         0   0.23910E-06  477471.4 3750208.0   459.2     0.00      3.95
1.86     YES
 L0005998         0   0.23910E-06  477470.7 3750216.5   459.2     0.00      3.95
1.86     YES
 L0005999         0   0.23910E-06  477470.0 3750225.0   459.3     0.00      3.95
1.86     YES
 L0006000         0   0.23910E-06  477469.3 3750233.5   459.5     0.00      3.95
1.86     YES
 L0006001         0   0.23910E-06  477468.7 3750241.9   459.7     0.00      3.95
1.86     YES
 L0006002         0   0.23910E-06  477468.0 3750250.4   459.9     0.00      3.95
1.86     YES
 L0006003         0   0.23910E-06  477467.3 3750258.9   460.0     0.00      3.95
1.86     YES
 L0006004         0   0.23910E-06  477466.6 3750267.3   460.0     0.00      3.95
1.86     YES
 L0006005         0   0.23910E-06  477466.5 3750275.8   460.0     0.00      3.95
1.86     YES
 L0006006         0   0.23910E-06  477466.5 3750284.3   460.0     0.00      3.95
1.86     YES
 L0006007         0   0.23910E-06  477466.5 3750292.8   460.0     0.00      3.95
1.86     YES
 L0006008         0   0.23910E-06  477466.6 3750301.3   460.0     0.00      3.95
1.86     YES
 L0006009         0   0.23910E-06  477466.6 3750309.8   460.0     0.00      3.95
1.86     YES
 L0006010         0   0.23910E-06  477466.6 3750318.3   460.0     0.00      3.95
1.86     YES
 L0006011         0   0.23910E-06  477466.7 3750326.8   460.0     0.00      3.95
1.86     YES
 L0006012         0   0.23910E-06  477466.7 3750335.3   460.0     0.00      3.95
1.86     YES
 L0006013         0   0.23910E-06  477466.7 3750343.8   460.0     0.00      3.95
1.86     YES
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                                 AERMOD HRA Output
 L0006014         0   0.23910E-06  477466.8 3750352.3   460.0     0.00     3.95
1.86     YES
 L0006015         0   0.23910E-06  477466.8 3750360.8   460.0     0.00     3.95
1.86     YES
 L0006016         0   0.23910E-06  477466.9 3750369.3   460.0     0.00     3.95
1.86     YES
 L0006017         0   0.23910E-06  477466.9 3750377.8   460.0     0.00     3.95
1.86     YES
 L0006018         0   0.23910E-06  477466.9 3750386.3   460.0     0.00     3.95
1.86     YES
 L0006019         0   0.23910E-06  477467.0 3750394.8   460.0     0.00     3.95
1.86     YES
 L0006020         0   0.23910E-06  477467.0 3750403.3   460.0     0.00     3.95
1.86     YES
 L0006021         0   0.23910E-06  477467.0 3750411.8   460.0     0.00     3.95
1.86     YES
 L0006022         0   0.23910E-06  477467.1 3750420.3   460.0     0.00     3.95
1.86     YES
 L0006023         0   0.23910E-06  477467.1 3750428.8   460.0     0.00     3.95
1.86     YES
 L0006024         0   0.23910E-06  477467.1 3750437.3   460.0     0.00     3.95
1.86     YES
 L0006025         0   0.23910E-06  477467.2 3750445.8   460.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006026         0   0.23910E-06  477467.2 3750454.3   460.0     0.00     3.95
1.86     YES
 L0006027         0   0.23910E-06  477467.3 3750462.8   460.0     0.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                   AERMOD HRA Output
  L0006028         0   0.23910E-06  477467.3 3750471.3   460.2     0.00      3.95
 1.86     YES
  L0006029         0   0.23910E-06  477467.3 3750479.8   460.4     0.00      3.95
 1.86     YES
  L0006030         0   0.23910E-06  477467.4 3750488.3   460.7     0.00      3.95
 1.86     YES
  L0006031         0   0.23910E-06  477467.4 3750496.8   461.0     0.00      3.95
 1.86     YES
  L0006032         0   0.23910E-06  477467.4 3750505.3   461.0     0.00      3.95
 1.86     YES
  L0006033         0   0.23910E-06  477467.5 3750513.8   461.0     0.00      3.95
 1.86     YES
  L0006034         0   0.23910E-06  477467.5 3750522.3   461.0     0.00      3.95
 1.86     YES
  L0006035         0   0.23910E-06  477467.5 3750530.8   461.0     0.00      3.95
 1.86     YES
  L0006036         0   0.23910E-06  477467.6 3750539.3   461.0     0.00      3.95
 1.86     YES
  L0006037         0   0.23910E-06  477467.7 3750547.8   461.0     0.00      3.95
 1.86     YES
  L0006038         0   0.23910E-06  477467.9 3750556.3   461.0     0.00      3.95
 1.86     YES
  L0006039         0   0.23910E-06  477468.2 3750564.8   461.0     0.00      3.95
 1.86     YES
  L0006040         0   0.23910E-06  477468.4 3750573.3   461.0     0.00      3.95
 1.86     YES
  L0006041         0   0.23910E-06  477468.7 3750581.8   461.0     0.00      3.95
 1.86     YES
  L0006042         0   0.23910E-06  477468.9 3750590.3   461.0     0.00      3.95
 1.86     YES
  L0006043         0   0.23910E-06  477469.2 3750598.8   461.0     0.00      3.95
 1.86     YES
  L0006044         0   0.23910E-06  477469.4 3750607.3   461.0     0.00      3.95
 1.86     YES
  L0006045         0   0.23910E-06  477469.7 3750615.8   461.0     0.00      3.95
 1.86     YES
  L0006046         0   0.23910E-06  477469.9 3750624.3   461.0     0.00      3.95
 1.86     YES
  L0006047         0   0.23910E-06  477470.2 3750632.8   461.0     0.00      3.95
 1.86     YES
  L0006048         0   0.23910E-06  477470.4 3750641.3   461.0     0.00      3.95
 1.86     YES
  L0006049         0   0.23910E-06  477470.7 3750649.8   461.0     0.00      3.95
 1.86     YES
  L0006050         0   0.23910E-06  477470.9 3750658.3   461.2     0.00      3.95
 1.86     YES
  L0006051         0   0.23910E-06  477471.2 3750666.8   461.3     0.00      3.95
 1.86     YES
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 L0006052         0   0.23910E-06  477471.4 3750675.3   461.4     0.00     3.95
1.86     YES
 L0006053         0   0.23910E-06  477471.7 3750683.8   461.5     0.00     3.95
1.86     YES
 L0006054         0   0.23910E-06  477471.9 3750692.3   461.7     0.00     3.95
1.86     YES
 L0006055         0   0.23910E-06  477472.2 3750700.8   461.9     0.00     3.95
1.86     YES
 L0006056         0   0.23910E-06  477472.4 3750709.3   462.0     0.00     3.95
1.86     YES
 L0006057         0   0.23910E-06  477472.7 3750717.8   462.0     0.00     3.95
1.86     YES
 L0006058         0   0.23910E-06  477472.9 3750726.3   462.0     0.00     3.95
1.86     YES
 L0006059         0   0.23910E-06  477473.2 3750734.8   462.0     0.00     3.95
1.86     YES
 L0006060         0   0.23910E-06  477473.4 3750743.3   462.0     0.00     3.95
1.86     YES
 L0006061         0   0.23910E-06  477473.7 3750751.7   462.0     0.00     3.95
1.86     YES
 L0006062         0   0.23910E-06  477473.9 3750760.2   462.0     0.00     3.95
1.86     YES
 L0006063         0   0.23910E-06  477474.2 3750768.7   462.0     0.00     3.95
1.86     YES
 L0006064         0   0.23910E-06  477474.4 3750777.2   462.0     0.00     3.95
1.86     YES
 L0006065         0   0.23910E-06  477474.7 3750785.7   462.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:32:41

                                    PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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                                AERMOD HRA Output
 L0006066         0   0.23910E-06  477474.9 3750794.2    462.0      0.00      3.95
1.86     YES
 L0006067         0   0.23910E-06  477475.2 3750802.7    462.0      0.00      3.95
1.86     YES
 L0006068         0   0.23910E-06  477475.4 3750811.2    462.0      0.00      3.95
1.86     YES
 L0006069         0   0.23910E-06  477475.7 3750819.7    462.0      0.00      3.95
1.86     YES
 L0006070         0   0.23910E-06  477475.9 3750828.2    462.0      0.00      3.95
1.86     YES
 L0006071         0   0.23910E-06  477476.2 3750836.7    462.0      0.00      3.95
1.86     YES
 L0006072         0   0.23910E-06  477476.4 3750845.2    462.0      0.00      3.95
1.86     YES
 L0006073         0   0.23910E-06  477476.7 3750853.7    462.0      0.00      3.95
1.86     YES
 L0006074         0   0.23910E-06  477476.9 3750862.2    462.1      0.00      3.95
1.86     YES
 L0006075         0   0.23910E-06  477477.1 3750870.7    462.3      0.00      3.95
1.86     YES
 L0006076         0   0.23910E-06  477477.1 3750879.2    462.4      0.00      3.95
1.86     YES
 L0006077         0   0.23910E-06  477477.2 3750887.7    462.6      0.00      3.95
1.86     YES
 L0006078         0   0.23910E-06  477477.2 3750896.2    462.7      0.00      3.95
1.86     YES
 L0006079         0   0.23910E-06  477477.3 3750904.7    462.8      0.00      3.95
1.86     YES
 L0006080         0   0.23910E-06  477477.3 3750913.2    462.9      0.00      3.95
1.86     YES
 L0006081         0   0.23910E-06  477477.4 3750921.7    463.0      0.00      3.95
1.86     YES
 L0006082         0   0.23910E-06  477477.4 3750930.2    463.0      0.00      3.95
1.86     YES
 L0006083         0   0.23910E-06  477477.5 3750938.7    463.0      0.00      3.95
1.86     YES
 L0006084         0   0.23910E-06  477477.6 3750947.2    463.0      0.00      3.95
1.86     YES
 L0006085         0   0.23910E-06  477477.6 3750955.7    463.0      0.00      3.95
1.86     YES
 L0006086         0   0.23910E-06  477477.7 3750964.2    463.0      0.00      3.95
1.86     YES
 L0006087         0   0.23910E-06  477477.7 3750972.7    463.0      0.00      3.95
1.86     YES
 L0006088         0   0.23910E-06  477477.8 3750981.2    463.0      0.00      3.95
1.86     YES
 L0006089         0   0.23910E-06  477477.8 3750989.7    463.0      0.00      3.95
1.86     YES
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 L0006090         0   0.23910E-06  477477.9 3750998.2   463.0     0.00     3.95
1.86     YES
 L0006091         0   0.23910E-06  477477.9 3751006.7   463.0     0.00     3.95
1.86     YES
 L0006092         0   0.23910E-06  477478.0 3751015.2   463.0     0.00     3.95
1.86     YES
 L0006093         0   0.23910E-06  477478.0 3751023.7   463.0     0.00     3.95
1.86     YES
 L0006094         0   0.23910E-06  477478.1 3751032.2   463.0     0.00     3.95
1.86     YES
 L0006095         0   0.23910E-06  477478.1 3751040.7   463.0     0.00     3.95
1.86     YES
 L0006096         0   0.23910E-06  477478.2 3751049.2   463.0     0.00     3.95
1.86     YES
 L0006097         0   0.23910E-06  477478.3 3751057.7   463.0     0.00     3.95
1.86     YES
 L0006098         0   0.23910E-06  477478.3 3751066.2   463.0     0.00     3.95
1.86     YES
 L0006099         0   0.23910E-06  477478.4 3751074.7   463.2     0.00     3.95
1.86     YES
 L0006100         0   0.23910E-06  477478.4 3751083.2   463.3     0.00     3.95
1.86     YES
 L0006101         0   0.23910E-06  477478.5 3751091.7   463.5     0.00     3.95
1.86     YES
 L0006102         0   0.23910E-06  477478.5 3751100.2   463.7     0.00     3.95
1.86     YES
 L0006103         0   0.23910E-06  477478.6 3751108.7   463.8     0.00     3.95
1.86     YES
 L0006104         0   0.23910E-06  477478.6 3751117.2   463.9     0.00     3.95
1.86     YES
 L0006105         0   0.23910E-06  477478.7 3751125.7   464.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                 BY
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 L0006106         0   0.23910E-06  477478.7 3751134.2   464.0     0.00     3.95
1.86     YES
 L0006107         0   0.23910E-06  477478.8 3751142.7   464.0     0.00     3.95
1.86     YES
 L0006108         0   0.23910E-06  477478.9 3751151.2   464.0     0.00     3.95
1.86     YES
 L0006109         0   0.23910E-06  477478.9 3751159.7   464.0     0.00     3.95
1.86     YES
 L0006110         0   0.23910E-06  477479.0 3751168.2   464.0     0.00     3.95
1.86     YES
 L0006111         0   0.23910E-06  477479.0 3751176.7   464.0     0.00     3.95
1.86     YES
 L0006112         0   0.23910E-06  477479.1 3751185.2   464.0     0.00     3.95
1.86     YES
 L0006113         0   0.23910E-06  477479.1 3751193.7   464.0     0.00     3.95
1.86     YES
 L0006114         0   0.23910E-06  477479.2 3751202.2   464.0     0.00     3.95
1.86     YES
 L0006115         0   0.23910E-06  477479.2 3751210.7   464.0     0.00     3.95
1.86     YES
 L0006116         0   0.23910E-06  477479.3 3751219.2   464.0     0.00     3.95
1.86     YES
 L0006117         0   0.23910E-06  477479.3 3751227.7   464.0     0.00     3.95
1.86     YES
 L0006118         0   0.23910E-06  477479.4 3751236.2   464.0     0.00     3.95
1.86     YES
 L0006119         0   0.23910E-06  477479.3 3751244.7   464.0     0.00     3.95
1.86     YES
 L0006120         0   0.23910E-06  477479.3 3751253.2   464.2     0.00     3.95
1.86     YES
 L0006121         0   0.23910E-06  477479.2 3751261.7   464.5     0.00     3.95
1.86     YES
 L0006122         0   0.23910E-06  477479.2 3751270.2   464.8     0.00     3.95
1.86     YES
 L0006123         0   0.23910E-06  477479.1 3751278.7   465.0     0.00     3.95
1.86     YES
 L0006124         0   0.23910E-06  477479.0 3751287.2   465.0     0.00     3.95
1.86     YES
 L0006125         0   0.23910E-06  477479.0 3751295.7   465.0     0.00     3.95
1.86     YES
 L0006126         0   0.23910E-06  477478.9 3751304.2   465.0     0.00     3.95
1.86     YES
 L0006127         0   0.23910E-06  477478.9 3751312.7   465.0     0.00     3.95
1.86     YES
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 L0006128         0   0.23910E-06  477478.8 3751321.2   465.0     0.00     3.95
1.86     YES
 L0006129         0   0.23910E-06  477478.7 3751329.7   465.0     0.00     3.95
1.86     YES
 L0006130         0   0.23910E-06  477478.7 3751338.2   465.0     0.00     3.95
1.86     YES
 L0006131         0   0.23910E-06  477478.6 3751346.7   465.0     0.00     3.95
1.86     YES
 L0006132         0   0.23910E-06  477478.6 3751355.2   465.0     0.00     3.95
1.86     YES
 L0006133         0   0.23910E-06  477478.5 3751363.7   465.0     0.00     3.95
1.86     YES
 L0006134         0   0.23910E-06  477478.5 3751372.2   465.0     0.00     3.95
1.86     YES
 L0006135         0   0.23910E-06  477478.4 3751380.7   465.0     0.00     3.95
1.86     YES
 L0006136         0   0.23910E-06  477478.3 3751389.2   465.0     0.00     3.95
1.86     YES
 L0006137         0   0.23910E-06  477478.3 3751397.7   465.0     0.00     3.95
1.86     YES
 L0006138         0   0.23910E-06  477478.2 3751406.2   465.0     0.00     3.95
1.86     YES
 L0006139         0   0.23910E-06  477478.2 3751414.7   465.0     0.00     3.95
1.86     YES
 L0006140         0   0.23910E-06  477478.1 3751423.2   465.0     0.00     3.95
1.86     YES
 L0006141         0   0.23910E-06  477478.0 3751431.7   465.2     0.00     3.95
1.86     YES
 L0006142         0   0.23910E-06  477478.0 3751440.2   465.4     0.00     3.95
1.86     YES
 L0006143         0   0.23910E-06  477477.9 3751448.7   465.7     0.00     3.95
1.86     YES
 L0006144         0   0.23910E-06  477477.9 3751457.2   466.0     0.00     3.95
1.86     YES
 L0006145         0   0.23910E-06  477477.8 3751465.7   466.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School               ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                                  AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT       SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006146         0   0.23910E-06  477477.8 3751474.2   466.0     0.00     3.95
1.86     YES
 L0006147         0   0.23910E-06  477477.7 3751482.7   466.0     0.00     3.95
1.86     YES
 L0006148         0   0.23910E-06  477477.6 3751491.2   466.0     0.00     3.95
1.86     YES
 L0006149         0   0.23910E-06  477477.6 3751499.7   466.0     0.00     3.95
1.86     YES
 L0006150         0   0.23910E-06  477477.5 3751508.2   466.0     0.00     3.95
1.86     YES
 L0006151         0   0.23910E-06  477477.5 3751516.7   466.0     0.00     3.95
1.86     YES
 L0006152         0   0.23910E-06  477477.4 3751525.2   466.0     0.00     3.95
1.86     YES
 L0006153         0   0.23910E-06  477477.3 3751533.7   466.0     0.00     3.95
1.86     YES
 L0006154         0   0.23910E-06  477477.3 3751542.2   466.0     0.00     3.95
1.86     YES
 L0006155         0   0.23910E-06  477477.2 3751550.7   466.0     0.00     3.95
1.86     YES
 L0006156         0   0.23910E-06  477477.2 3751559.2   466.0     0.00     3.95
1.86     YES
 L0006157         0   0.23910E-06  477477.1 3751567.7   466.0     0.00     3.95
1.86     YES
 L0006158         0   0.23910E-06  477477.0 3751576.2   466.0     0.00     3.95
1.86     YES
 L0006159         0   0.23910E-06  477477.0 3751584.7   466.0     0.00     3.95
1.86     YES
 L0006160         0   0.23910E-06  477476.9 3751593.2   466.0     0.00     3.95
1.86     YES
 L0006161         0   0.23910E-06  477476.9 3751601.7   466.0     0.00     3.95
1.86     YES
 L0006162         0   0.23910E-06  477476.8 3751610.2   466.1     0.00     3.95
1.86     YES
 L0006163         0   0.23910E-06  477476.8 3751618.7   466.2     0.00     3.95
1.86     YES
 L0006164         0   0.23910E-06  477476.7 3751627.2   466.4     0.00     3.95
1.86     YES
 L0006165         0   0.23910E-06  477476.6 3751635.7   466.6     0.00     3.95
1.86     YES
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 L0006166         0   0.23910E-06  477476.6 3751644.2   466.7     0.00     3.95
1.86     YES
 L0006167         0   0.23910E-06  477476.5 3751652.7   466.8     0.00     3.95
1.86     YES
 L0006168         0   0.23910E-06  477476.5 3751661.2   466.9     0.00     3.95
1.86     YES
 L0006169         0   0.23910E-06  477476.4 3751669.7   467.0     0.00     3.95
1.86     YES
 L0006170         0   0.23910E-06  477476.3 3751678.2   467.0     0.00     3.95
1.86     YES
 L0006171         0   0.23910E-06  477476.3 3751686.7   467.0     0.00     3.95
1.86     YES
 L0006172         0   0.23910E-06  477476.2 3751695.2   467.0     0.00     3.95
1.86     YES
 L0006173         0   0.23910E-06  477476.2 3751703.7   467.0     0.00     3.95
1.86     YES
 L0006174         0   0.23910E-06  477476.1 3751712.2   467.0     0.00     3.95
1.86     YES
 L0006175         0   0.23910E-06  477476.1 3751720.7   467.0     0.00     3.95
1.86     YES
 L0006176         0   0.23910E-06  477476.0 3751729.2   467.1     0.00     3.95
1.86     YES
 L0006177         0   0.23910E-06  477475.9 3751737.7   467.2     0.00     3.95
1.86     YES
 L0006178         0   0.23910E-06  477475.9 3751746.2   467.4     0.00     3.95
1.86     YES
 L0006179         0   0.23910E-06  477475.8 3751754.7   467.5     0.00     3.95
1.86     YES
 L0006180         0   0.23910E-06  477475.8 3751763.2   467.6     0.00     3.95
1.86     YES
 L0006181         0   0.23910E-06  477475.7 3751771.7   467.8     0.00     3.95
1.86     YES
 L0006182         0   0.23910E-06  477475.6 3751780.2   467.9     0.00     3.95
1.86     YES
 L0006183         0   0.23910E-06  477475.6 3751788.7   468.0     0.00     3.95
1.86     YES
 L0006184         0   0.23910E-06  477475.5 3751797.2   468.0     0.00     3.95
1.86     YES
 L0006185         0   0.23910E-06  477475.5 3751805.7   468.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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AERMOD HRA Output

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                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006186        0   0.23910E-06  477475.4 3751814.2   468.0     0.00     3.95
1.86     YES
 L0006187        0   0.23910E-06  477475.4 3751822.7   468.0     0.00     3.95
1.86     YES
 L0006188        0   0.23910E-06  477475.3 3751831.2   468.0     0.00     3.95
1.86     YES
 L0006189        0   0.23910E-06  477475.2 3751839.7   468.0     0.00     3.95
1.86     YES
 L0006190        0   0.23910E-06  477475.2 3751848.2   468.0     0.00     3.95
1.86     YES
 L0006191        0   0.23910E-06  477475.1 3751856.7   468.0     0.00     3.95
1.86     YES
 L0006192        0   0.23910E-06  477475.1 3751865.2   468.0     0.00     3.95
1.86     YES
 L0006193        0   0.23910E-06  477475.0 3751873.7   468.0     0.00     3.95
1.86     YES
 L0006194        0   0.23910E-06  477474.9 3751882.2   468.2     0.00     3.95
1.86     YES
 L0006195        0   0.23910E-06  477474.9 3751890.7   468.5     0.00     3.95
1.86     YES
 L0006196        0   0.23910E-06  477474.8 3751899.2   468.8     0.00     3.95
1.86     YES
 L0006197        0   0.23910E-06  477474.8 3751907.7   469.0     0.00     3.95
1.86     YES
 L0006198        0   0.23910E-06  477474.7 3751916.2   469.0     0.00     3.95
1.86     YES
 L0006199        0   0.23910E-06  477474.7 3751924.7   469.0     0.00     3.95
1.86     YES
 L0006200        0   0.23910E-06  477474.6 3751933.2   469.0     0.00     3.95
1.86     YES
 L0006201        0   0.23910E-06  477474.5 3751941.7   469.0     0.00     3.95
1.86     YES
 L0006202        0   0.23910E-06  477474.5 3751950.2   469.0     0.00     3.95
1.86     YES
 L0006203        0   0.23910E-06  477474.4 3751958.7   469.0     0.00     3.95
1.86     YES
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                                 AERMOD HRA Output
 L0006204         0   0.23910E-06  477474.4 3751967.2   469.0     0.00     3.95
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 L0006205         0   0.23910E-06  477474.3 3751975.7   469.0     0.00     3.95
1.86     YES
 L0006206         0   0.23910E-06  477474.2 3751984.2   469.0     0.00     3.95
1.86     YES
 L0006207         0   0.23910E-06  477474.2 3751992.7   469.0     0.00     3.95
1.86     YES
 L0006208         0   0.23910E-06  477474.1 3752001.2   469.0     0.00     3.95
1.86     YES
 L0006209         0   0.23910E-06  477474.1 3752009.7   469.0     0.00     3.95
1.86     YES
 L0006210         0   0.23910E-06  477474.0 3752018.2   469.0     0.00     3.95
1.86     YES
 L0006211         0   0.23910E-06  477474.0 3752026.7   469.0     0.00     3.95
1.86     YES
 L0006212         0   0.23910E-06  477473.9 3752035.2   469.1     0.00     3.95
1.86     YES
 L0006213         0   0.23910E-06  477473.8 3752043.7   469.3     0.00     3.95
1.86     YES
 L0006214         0   0.23910E-06  477473.8 3752052.2   469.4     0.00     3.95
1.86     YES
 L0006215         0   0.23910E-06  477473.7 3752060.7   469.5     0.00     3.95
1.86     YES
 L0006216         0   0.23910E-06  477473.7 3752069.2   469.5     0.00     3.95
1.86     YES
 L0006217         0   0.23910E-06  477473.6 3752077.7   469.5     0.00     3.95
1.86     YES
 L0006218         0   0.23910E-06  477473.5 3752086.2   469.5     0.00     3.95
1.86     YES
 L0006219         0   0.23910E-06  477473.5 3752094.7   469.6     0.00     3.95
1.86     YES
 L0006220         0   0.23910E-06  477473.4 3752103.2   469.8     0.00     3.95
1.86     YES
 L0006221         0   0.23910E-06  477473.4 3752111.7   469.9     0.00     3.95
1.86     YES
 L0006222         0   0.23910E-06  477473.3 3752120.2   470.1     0.00     3.95
1.86     YES
 L0006223         0   0.23910E-06  477473.3 3752128.7   470.2     0.00     3.95
1.86     YES
 L0006224         0   0.23910E-06  477473.2 3752137.2   470.3     0.00     3.95
1.86     YES
 L0006225         0   0.23910E-06  477473.1 3752145.7   470.4     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
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                                              PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0006226         0   0.23910E-06  477473.1 3752154.2   470.6     0.00     3.95
1.86     YES
 L0006227         0   0.23910E-06  477473.0 3752162.7   470.7     0.00     3.95
1.86     YES
 L0006228         0   0.23910E-06  477473.0 3752171.2   470.9     0.00     3.95
1.86     YES
 L0006229         0   0.23910E-06  477472.9 3752179.7   471.0     0.00     3.95
1.86     YES
 L0006230         0   0.23910E-06  477472.8 3752188.2   471.0     0.00     3.95
1.86     YES
 L0006231         0   0.23910E-06  477472.8 3752196.7   471.0     0.00     3.95
1.86     YES
 L0006232         0   0.23910E-06  477472.7 3752205.2   471.0     0.00     3.95
1.86     YES
 L0006233         0   0.23910E-06  477472.7 3752213.7   471.2     0.00     3.95
1.86     YES
 L0006234         0   0.23910E-06  477472.6 3752222.2   471.5     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                              PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                           *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT   OF AREA
```

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                                  AERMOD HRA Output
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1           0   0.28207E-08  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES   HROFDY
 AREA2           0   0.29862E-08  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES   HROFDY
 AREA3           0   0.10465E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES   HROFDY
 AREA4           0   0.32820E-08  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES   HROFDY
 AREA5           0   0.68612E-08  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES   HROFDY
 AREA6           0   0.30740E-08  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN



                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
 -----------                                                ----------


  YARDTRAC   AREA1       , AREA2       , AREA3       , AREA4       , AREA5       ,
AREA6       ,

  OTHER      L0002435    , L0002436    , L0002437    , L0002438    , L0002439    ,
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L0002448    , L0002449    , L0002450    ,

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L0002464    , L0002465    , L0002466    ,
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                       AERMOD HRA Output
                              ***        14:32:41

                                         PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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             L0002587    , L0002588    , L0002589    , L0002590    , L0002591    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***
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                              AERMOD HRA Output
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41

                                   PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  69
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                                    AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  71
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  74
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                              AERMOD HRA Output
                                                        *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                 AERMOD HRA Output
                        ***        14:32:41

                                   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  79
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
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 SRCGROUP ID                                               SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School                 ***         11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         14:32:41

                                    PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                        SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                        SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                            AERMOD HRA Output
                                                     *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                   AERMOD HRA Output
                        ***          14:32:41

                                     PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  86
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
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L0005404    , L0005405    , L0005406    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***
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                            AERMOD HRA Output
  URBAN ID    URBAN POP                                    SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41

                                   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                    SOURCE IDs
  --------    ---------                                    ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

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                                       AERMOD HRA Output
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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AERMOD HRA Output

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L0005996     , L0005997     , L0005998     ,

                  L0005999     , L0006000     , L0006001     , L0006002     , L0006003     ,
L0006004     , L0006005     , L0006006     ,

                  L0006007     , L0006008     , L0006009     , L0006010     , L0006011     ,
L0006012     , L0006013     , L0006014     ,

                  L0006015     , L0006016     , L0006017     , L0006018     , L0006019     ,
L0006020     , L0006021     , L0006022     ,

                  L0006023     , L0006024     , L0006025     , L0006026     , L0006027     ,
L0006028     , L0006029     , L0006030     ,

                  L0006031     , L0006032     , L0006033     , L0006034     , L0006035     ,
L0006036     , L0006037     , L0006038     ,

                  L0006039     , L0006040     , L0006041     , L0006042     , L0006043     ,
L0006044     , L0006045     , L0006046     ,
```

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0006047    , L0006048    , L0006049    , L0006050    , L0006051    ,
L0006052    , L0006053    , L0006054    ,

             L0006055    , L0006056    , L0006057    , L0006058    , L0006059    ,
L0006060    , L0006061    , L0006062    ,

             L0006063    , L0006064    , L0006065    , L0006066    , L0006067    ,
L0006068    , L0006069    , L0006070    ,

             L0006071    , L0006072    , L0006073    , L0006074    , L0006075    ,
L0006076    , L0006077    , L0006078    ,

             L0006079    , L0006080    , L0006081    , L0006082    , L0006083    ,
L0006084    , L0006085    , L0006086    ,

             L0006087    , L0006088    , L0006089    , L0006090    , L0006091    ,
L0006092    , L0006093    , L0006094    ,

             L0006095    , L0006096    , L0006097    , L0006098    , L0006099    ,
L0006100    , L0006101    , L0006102    ,

             L0006103    , L0006104    , L0006105    , L0006106    , L0006107    ,
L0006108    , L0006109    , L0006110    ,

             L0006111    , L0006112    , L0006113    , L0006114    , L0006115    ,
L0006116    , L0006117    , L0006118    ,

             L0006119    , L0006120    , L0006121    , L0006122    , L0006123    ,
L0006124    , L0006125    , L0006126    ,

             L0006127    , L0006128    , L0006129    , L0006130    , L0006131    ,
L0006132    , L0006133    , L0006134    ,
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             L0006135    , L0006136    , L0006137    , L0006138    , L0006139    ,
L0006140    , L0006141    , L0006142    ,

             L0006143    , L0006144    , L0006145    , L0006146    , L0006147    ,
L0006148    , L0006149    , L0006150    ,

             L0006151    , L0006152    , L0006153    , L0006154    , L0006155    ,
L0006156    , L0006157    , L0006158    ,

             L0006159    , L0006160    , L0006161    , L0006162    , L0006163    ,
L0006164    , L0006165    , L0006166    ,

             L0006167    , L0006168    , L0006169    , L0006170    , L0006171    ,
L0006172    , L0006173    , L0006174    ,

             L0006175    , L0006176    , L0006177    , L0006178    , L0006179    ,
L0006180    , L0006181    , L0006182    ,

             L0006183    , L0006184    , L0006185    , L0006186    , L0006187    ,
L0006188    , L0006189    , L0006190    ,

             L0006191    , L0006192    , L0006193    , L0006194    , L0006195    ,
L0006196    , L0006197    , L0006198    ,

             L0006199    , L0006200    , L0006201    , L0006202    , L0006203    ,
L0006204    , L0006205    , L0006206    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                     SOURCE IDs
  --------   ---------                                     ----------


             L0006207    , L0006208    , L0006209    , L0006210    , L0006211    ,
L0006212    , L0006213    , L0006214    ,

             L0006215    , L0006216    , L0006217    , L0006218    , L0006219    ,
L0006220    , L0006221    , L0006222    ,
```

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                                  AERMOD HRA Output

             L0006223    , L0006224    , L0006225    , L0006226    , L0006227    ,
L0006228    , L0006229    , L0006230    ,

             L0006231    , L0006232    , L0006233    , L0006234    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002435     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002436     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002437     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002438     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002439     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002440     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002441     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002442     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002443     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002444     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002445     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002446     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002447     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002448     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002449     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002450     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002451     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002452     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002453     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002454     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00
```

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                                AERMOD HRA Output

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002455     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002456     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002457     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002458     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002459     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002460     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002461     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002462     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002463     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002464     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
```

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                                  AERMOD HRA Output
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002465     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002466     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002467     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

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                              AERMOD HRA Output

 SOURCE ID = L0002468     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002469     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002470     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0002471     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002472     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002473     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002474     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                              AERMOD HRA Output
                        ***       14:32:41

                                  PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002475     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002476     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002477     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002478     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002479     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0002481     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002482     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002483     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002484     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
```

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                                AERMOD HRA Output
                                  PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002485     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002486     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002487     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002488     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002489     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002490     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002491     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002492     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002493     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002494     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 107
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR
 HOUR     SCALAR        HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002495     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002496     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002497     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002498     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002499     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002500     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002501     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002502     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002503     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002504     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
                                 AERMOD HRA Output
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002505     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002506     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002507     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002508     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002509     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002510     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002511     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002512     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002513     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002514     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       14:32:41

                                   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                 AERMOD HRA Output
    HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR
HOUR     SCALAR         HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002515     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002516     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002517     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002518     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002519     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002520     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002521     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002522     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002523     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002524     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 113
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
                              AERMOD HRA Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002525     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002526     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002527     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002528     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0002529     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002531     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                           AERMOD HRA Output

 SOURCE ID = L0002532     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002533     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002534     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
SOURCE ID = L0002535      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002536      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002537      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002538      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002539      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002540     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002541     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002542     ; SOURCE TYPE = VOLUME   :
```

```
                                  AERMOD HRA Output
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002543     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002544     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                 AERMOD HRA Output
SOURCE ID = L0002545     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002546     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002547     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002548     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002549     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
                                  AERMOD HRA Output
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002550     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002551     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002552     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 119
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002555     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002556     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002557     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002558     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002559     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002560     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002561     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002562     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002563     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002564     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002565     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002566     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002567     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002568     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002569     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 122
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002570     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002571     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002572     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002573     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002574     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002575     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002576     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002577     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002578     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002579     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                   AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002580     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002581     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002582     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0002583     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002584     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002585     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002586     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002587     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002588     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002589     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
```

```
                                AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         14:32:41

                                   PAGE 126
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002590     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002591     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002592     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0002593     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002594     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002595     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0002596     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002597     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002598     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002599     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***         11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41
```

```
                                          AERMOD HRA Output

                                            PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002600     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002601     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002602     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002603     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002604     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 129
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002605     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002606     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002608     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002609     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 130
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                 AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002610     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002611     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002612     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002613     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002614     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002615     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002616     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002617     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002618     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002619     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                    AERMOD HRA Output
                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002620     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002621     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002622     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002623     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002624     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002625     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002626     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0002627     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0002628     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0002629     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 134
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                AERMOD HRA Output

    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002630     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002631     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002632     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002633     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
                                AERMOD HRA Output
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002634     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 135
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002635     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002636     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002637     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002638     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002639     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        14:32:41

                                   PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                  AERMOD HRA Output
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002640     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002641     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002642     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002643     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002644     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 137
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002645     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002646     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0002647     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002648     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002649     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 SOURCE ID = L0002650     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002651     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002652     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002653     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002654     ; SOURCE TYPE = VOLUME    :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002655     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002656     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0002657     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002658     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002659     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                              AERMOD HRA Output

SOURCE ID = L0002660     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002661     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002662     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002663     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002664     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002665     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002666     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002667     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002668     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002669     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002670     ; SOURCE TYPE = VOLUME   :
```

```
                                 AERMOD HRA Output
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002671     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002672     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002673     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002674     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002675     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002676     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002677     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11    .10000E+01      12    .10000E+01
     13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
     19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0002678      ; SOURCE TYPE = VOLUME    :
      1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
      7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
     13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
     19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0002679      ; SOURCE TYPE = VOLUME    :
      1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
      7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
     13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
     19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41

                                   PAGE 144
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002680      ; SOURCE TYPE = VOLUME    :
      1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002681     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002682     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002683     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002684     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 145
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002685     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002686     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002687     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002688     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002689     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 146
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002690     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002691      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002692      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002693      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002694      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

AERMOD HRA Output

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002695     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002696     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002697     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002698     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002699     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 148
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002700     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0002701     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0002702     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0002703     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0002704     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00

 ♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
```

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                                  AERMOD HRA Output
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 149
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002705     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002706     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002707     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002708     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002709     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002710     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002711     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002712     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002713     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002714     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                  AERMOD HRA Output
                        ***         14:32:41

                                    PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002715     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002716     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002717     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002718     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002719     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41

                                   PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002720     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                   AERMOD HRA Output
  SOURCE ID = L0002721      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0002722      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0002723      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0002724      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
```

```
                                        AERMOD HRA Output
                                          PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002725     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002726     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002727     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002728     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002729     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002730     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002731     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002732     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002733     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002734     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                 AERMOD HRA Output

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002735    ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002736    ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002737    ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002738    ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002739     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 156
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002740     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002741     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002742     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002743     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002744     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002745     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002746     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002747     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002748     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002749     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002750     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002751     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002752     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002753     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002754     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 159
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                    AERMOD HRA Output
    HOUR     SCALAR              HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR
HOUR     SCALAR         HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002755     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002756     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002757     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002758     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002759     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002760     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002761     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002762     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002763     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
                                        AERMOD HRA Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002765     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002766     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002767     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002768     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0002769     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41

                                   PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002770     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002771     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0002772     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002773     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002774     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0002775      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002776      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002777      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002778      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002779      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
                                   AERMOD HRA Output
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002780     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002782     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002783     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 165
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                    AERMOD HRA Output
SOURCE ID = L0002785     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002786     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002787     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002788     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002789     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
                                  AERMOD HRA Output
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002790     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002791     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002792     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002793     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002794     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 167
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002795     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002796     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002797     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002798     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002799     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002800     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002801     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002802     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002803     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002804     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 169
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002805     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002806     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002807     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002808     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002809     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 170
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002810     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002811     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002812     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002813     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002814     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002815     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002816     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002817     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002818     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002819     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 172
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002820     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002821     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002822     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002823     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002824     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002825     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002826     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002827     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002828     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002829     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
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                                AERMOD HRA Output
 *** AERMET - VERSION  14134 ***    ***
                       ***         14:32:41

                                   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002830     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002831     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002832     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0002833     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002834     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002835     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                          AERMOD HRA Output

 SOURCE ID = L0002836     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002837     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002838     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002839     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41
```

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                                   AERMOD HRA Output

                                     PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002840     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002841     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002842     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002843     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002844     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 177
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002845     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002846     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002847     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002848     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002849     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 178
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                               AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002850     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002851     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002852     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002853     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002854     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002855     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002856     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002857      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002858      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002859      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 180
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                 AERMOD HRA Output
                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002860     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002861     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002862     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002863     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002864     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 181
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002865     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002866     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002867     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002868     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002869     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                 AERMOD HRA Output

    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -



SOURCE ID = L0002870     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002871     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002872     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002873     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002874     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002875     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002876     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
                                             AERMOD HRA Output
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0002877     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0002878     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0002879     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
```

```
                                AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002880     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002881     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002882     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002883     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002884     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 185
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002885     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002886     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0002887     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002888     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002889     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 186
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002890     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002891     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002892     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002893     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002894     ; SOURCE TYPE = VOLUME   :
```

```
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002895     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002896     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0002897     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002898     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002899     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0002900     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002901     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002902     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002903     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002904     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 189
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002905     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002906     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002907     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
                                 AERMOD HRA Output
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002908     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002909     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 190
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002910     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002911     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002912     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002913     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002914     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
                                 AERMOD HRA Output
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002915     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002916     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002917     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002918     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002919     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 192
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002920     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002921     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002922     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002923     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002924     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002925     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002926     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002927     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002928     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002929     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 194
 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002930     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002931     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002932     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002933     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002934     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 195
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002935     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002936     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002937     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002938     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002939     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         14:32:41

                                    PAGE 196
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002940     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002941     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002942     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002943     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002944     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                  AERMOD HRA Output
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002945     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002946     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002947     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002948     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002949     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002950     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002951     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002952     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002953     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002954     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                AERMOD HRA Output
                       ***        14:32:41

                                  PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002955     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002956     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002957     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002958     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002959     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002960     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                    AERMOD HRA Output
 SOURCE ID = L0002961     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002962     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002963     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002964     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
```

```
                                  AERMOD HRA Output
                                    PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002965     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002966     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002967     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002968     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002969     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002970     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002971     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002972     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002973     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002974     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 203
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                   AERMOD HRA Output

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002975      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002976      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002977      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002978      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002979     ; SOURCE TYPE = VOLUME    :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002980     ; SOURCE TYPE = VOLUME    :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002981     ; SOURCE TYPE = VOLUME    :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
                                           AERMOD HRA Output
   11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
   17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
   23    .00000E+00      24    .00000E+00


  SOURCE ID = L0002982      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
    5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
   11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
   17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
   23    .00000E+00      24    .00000E+00


  SOURCE ID = L0002983      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
    5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
   11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
   17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
   23    .00000E+00      24    .00000E+00


  SOURCE ID = L0002984      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
    5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
   11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
   17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
   23    .00000E+00      24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
  *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 205
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002985     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002986     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002987     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002988     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002989     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002990     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002991     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002992     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002993     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002994     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                   AERMOD HRA Output
    HOUR     SCALAR           HOUR     SCALAR           HOUR     SCALAR           HOUR     SCALAR
HOUR     SCALAR           HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002995     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002996     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002997     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002998     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002999     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003000     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003001     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003002     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003003     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003004     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
                                      AERMOD HRA Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003005     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003006     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003007     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003008     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003009     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                    PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003010     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003011     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003012     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003013     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003014     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0003015     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003016     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003017     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003018     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003019     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
                                  AERMOD HRA Output
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:32:41

                                   PAGE 212
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003020     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003021     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003022     ; SOURCE TYPE = VOLUME   :
```

```
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003023     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003024     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 213
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                    AERMOD HRA Output
SOURCE ID = L0003025     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003026     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003027     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003028     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003029     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003030     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003031     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003032     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003033     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003034     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 215
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003035     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003036     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003037     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003038     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003039     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003040     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003041     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003042     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003043     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003044     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003045     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003046     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003047     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003048     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003049     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003050     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003051     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003053     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003054     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
  *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 219
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
  HOUR    SCALAR      HOUR    SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


  SOURCE ID = L0003055     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003056     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003057     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003058     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003059     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        14:32:41

                                    PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003060     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003061     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003062     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003063     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003065     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003066     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003067     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003068     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003069     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
```

```
                                AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                     ***        14:32:41

                                PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003070     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003071     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003072     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 223
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003076     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003077     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003078     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003079     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        14:32:41
```

```
                                   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003080     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003081     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003082     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003083     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003084     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 225
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003085     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003086     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003087     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003088     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003089     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 226
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                                  AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003090     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003091     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003092     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003093     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11    .10000E+01     12    .10000E+01
        13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
        19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0003094     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
        13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
        19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003095     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
        13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
        19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0003096     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003097     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003098     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003099     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                              AERMOD HRA Output
                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003100     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003101     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003102     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003103     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003104     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003105     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003106     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003107     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003108     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003109     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
  *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 230
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                              AERMOD HRA Output

    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003110     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003111     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003112     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003113     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003114     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003115     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003116     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


       SOURCE ID = L0003117     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


       SOURCE ID = L0003118     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


       SOURCE ID = L0003119     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        14:32:41

                                   PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                   AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003120     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003121     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003122     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003123     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0003124     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 233
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003125     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003126     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003127     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003128     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003129     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 SOURCE ID = L0003130     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003131     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003132     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA      :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA      :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = AREA5        ; SOURCE TYPE = AREA      :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA6        ; SOURCE TYPE = AREA      :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK1        ; SOURCE TYPE = POINT     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 236
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                              AERMOD HRA Output

SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK4        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK5        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK6        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = STCK7        ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = STCK8        ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = STCK9        ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK10       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK11       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK13       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                  (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478329.6,
3749871.1,     459.0,     467.0,       0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);         ( 478344.6,
3749914.1,     459.0,     467.0,       0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);         ( 479198.5,
3749445.6,     455.0,     468.0,       0.0);
     ( 479276.2, 3749431.1,     455.0,     780.0,       0.0);         ( 479238.2,
3749507.6,     456.0,     469.0,       0.0);
     ( 479392.7, 3749458.5,     454.7,     780.0,       0.0);         ( 479266.8,
3749584.9,     456.0,     469.0,       0.0);
     ( 479216.5, 3749531.8,     456.0,     468.0,       0.0);         ( 479216.5,
3749499.9,     456.0,     468.0,       0.0);
     ( 478420.7, 3750106.6,     460.0,     467.0,       0.0);         ( 478374.5,
3750050.1,     460.0,     467.0,       0.0);
     ( 479735.8, 3748832.3,     450.0,     780.0,       0.0);         ( 479739.1,
3748875.1,     450.9,     780.0,       0.0);
```

```
                                 AERMOD HRA Output
     ( 477612.1, 3751848.4,     468.0,     476.0,       0.0);         ( 478306.5,
3751863.5,     471.0,     471.0,       0.0);
     ( 478687.4, 3751837.0,     471.0,     475.0,       0.0);         ( 477090.2,
3750813.4,     462.0,     471.0,       0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 240
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)


                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41
```

```
                              PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                  Upper air station no.:     3190
                  Name: UNKNOWN                                    Name: UNKNOWN

                  Year:   2007                                     Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
```

```
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: YARDTRAC ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2
 , AREA3       , AREA4       , AREA5       ,
                 AREA6       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***
```

```
                                       ** CONC OF DPM      IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00011                        478329.61
3749871.11        0.00010
         478312.39    3749891.05        0.00010                        478344.56
3749914.15        0.00010
         478380.35    3749931.82        0.00009                        479198.50
3749445.63        0.00004
         479276.24    3749431.09        0.00004                        479238.25
3749507.60        0.00004
         479392.66    3749458.49        0.00003                        479266.82
3749584.89        0.00004
         479216.49    3749531.76        0.00004                        479216.49
3749499.88        0.00004
         478420.74    3750106.65        0.00008                        478374.50
3750050.13        0.00009
         479735.76    3748832.26        0.00002                        479739.12
3748875.07        0.00002
         477612.13    3751848.38        0.00003                        478306.45
3751863.55        0.00003
         478687.39    3751836.97        0.00003                        477090.18
3750813.40        0.00005
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: OTHER    ***
                                  INCLUDING SOURCE(S):     L0002435    , L0002436
 , L0002437    , L0002438    , L0002439    ,
                 L0002440    , L0002441    , L0002442    , L0002443    , L0002444
 , L0002445    , L0002446    , L0002447    ,
                 L0002448    , L0002449    , L0002450    , L0002451    , L0002452
 , L0002453    , L0002454    , L0002455    ,
                 L0002456    , L0002457    , L0002458    , L0002459    , L0002460
 , L0002461    , L0002462    ,  . . .      ,

                                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
```

```
                                   AERMOD HRA Output
***

                                              ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00047                       478329.61
3749871.11        0.00045
         478312.39    3749891.05        0.00044                       478344.56
3749914.15        0.00042
         478380.35    3749931.82        0.00040                       479198.50
3749445.63        0.00028
         479276.24    3749431.09        0.00026                       479238.25
3749507.60        0.00026
         479392.66    3749458.49        0.00023                       479266.82
3749584.89        0.00024
         479216.49    3749531.76        0.00026                       479216.49
3749499.88        0.00026
         478420.74    3750106.65        0.00033                       478374.50
3750050.13        0.00036
         479735.76    3748832.26        0.00019                       479739.12
3748875.07        0.00019
         477612.13    3751848.38        0.00012                       478306.45
3751863.55        0.00011
         478687.39    3751836.97        0.00011                       477090.18
3750813.40        0.00019
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0002435    , L0002436
 , L0002437    , L0002438    , L0002439    ,
                 L0002440    , L0002441    , L0002442    , L0002443    , L0002444
 , L0002445    , L0002446    , L0002447    ,
                 L0002448    , L0002449    , L0002450    , L0002451    , L0002452
 , L0002453    , L0002454    , L0002455    ,
                 L0002456    , L0002457    , L0002458    , L0002459    , L0002460
 , L0002461    , L0002462    ,  . . .      ,
```

```
                                AERMOD HRA Output
                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00157                     478329.61
3749871.11        0.00159
         478312.39    3749891.05        0.00161                     478344.56
3749914.15        0.00156
         478380.35    3749931.82        0.00150                     479198.50
3749445.63        0.00085
         479276.24    3749431.09        0.00081                     479238.25
3749507.60        0.00082
         479392.66    3749458.49        0.00074                     479266.82
3749584.89        0.00080
         479216.49    3749531.76        0.00083                     479216.49
3749499.88        0.00083
         478420.74    3750106.65        0.00143                     478374.50
3750050.13        0.00149
         479735.76    3748832.26        0.00062                     479739.12
3748875.07        0.00062
         477612.13    3751848.38        0.00651                     478306.45
3751863.55        0.00131
         478687.39    3751836.97        0.00091                     477090.18
3750813.40        0.00291
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3
                **



                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

YARDTRAC  1ST HIGHEST VALUE IS       0.00011 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00010 AT (  478329.61,  3749871.11,
459.00,   467.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00010 AT (  478312.39,  3749891.05,
459.00,   467.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00010 AT (  478344.56,  3749914.15,
459.00,   467.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00009 AT (  478380.35,  3749931.82,
459.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00009 AT (  478374.50,  3750050.13,
460.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00008 AT (  478420.74,  3750106.65,
460.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00005 AT (  477090.18,  3750813.40,
462.00,   471.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00004 AT (  479198.50,  3749445.63,
455.04,   468.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00004 AT (  479216.49,  3749499.88,
456.00,   468.00,    0.00)  DC

OTHER     1ST HIGHEST VALUE IS       0.00047 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00045 AT (  478329.61,  3749871.11,
459.00,   467.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00044 AT (  478312.39,  3749891.05,
459.00,   467.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00042 AT (  478344.56,  3749914.15,
459.00,   467.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00040 AT (  478380.35,  3749931.82,
459.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00036 AT (  478374.50,  3750050.13,
460.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00033 AT (  478420.74,  3750106.65,
460.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00028 AT (  479198.50,  3749445.63,
455.04,   468.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00026 AT (  479216.49,  3749499.88,
456.00,   468.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00026 AT (  479216.49,  3749531.76,
456.00,   468.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       0.00651 AT (  477612.13,  3751848.38,
468.00,   476.00,    0.00)  DC
```

```
                                 AERMOD HRA Output
          2ND HIGHEST VALUE IS       0.00291 AT (  477090.18,  3750813.40,
462.00,   471.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00161 AT (  478312.39,  3749891.05,
459.00,   467.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00159 AT (  478329.61,  3749871.11,
459.00,   467.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00157 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00156 AT (  478344.56,  3749914.15,
459.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00150 AT (  478380.35,  3749931.82,
459.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00149 AT (  478374.50,  3750050.13,
460.00,   467.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00143 AT (  478420.74,  3750106.65,
460.00,   467.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00131 AT (  478306.45,  3751863.55,
471.00,   471.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\School              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        14:32:41

                                   PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
```

```
                                AERMOD HRA Output
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    7933       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/18/2015
** File: C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker\Worker.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Worker.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
```

```
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00009027
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0001737     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0001738     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0001739     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0001740     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0001741     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0001742     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0001743     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0001744     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0001745     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0001746     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0001747     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0001748     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0001749     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0001750     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0001751     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0001752     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0001753     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007702
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0001754     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0001755     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0001756     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0001757     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0001758     VOLUME   477944.915 3748621.120 452.00
```

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                                AERMOD HRA Output
   LOCATION L0001759     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0001760     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0001761     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0001762     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0001763     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0001764     VOLUME   477946.460 3748801.113 453.00
   LOCATION L0001765     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0001766     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0001767     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000406
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0001768     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0001769     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0001770     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0001771     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0001772     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0001773     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0001774     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0001775     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 5.341E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
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** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001776     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0001777     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0001778     VOLUME   477917.151 3748338.902 451.00
   LOCATION L0001779     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0001780     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0001781     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0001782     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0001783     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0001784     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0001785     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0001786     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0001787     VOLUME   477968.786 3748294.974 450.00
   LOCATION L0001788     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0001789     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0001790     VOLUME   477977.265 3748271.459 450.00
   LOCATION L0001791     VOLUME   477978.288 3748263.021 450.00
   LOCATION L0001792     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0001793     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0001794     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0001795     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0001796     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005502
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0001797     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0001798     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0001799     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0001800     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0001801     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0001802     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0001803     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0001804     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0001805     VOLUME   477608.667 3748861.289 454.00
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   LOCATION L0001806     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0001807     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0001808     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0001809     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0001810     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0001811     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 4.125E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0001812     VOLUME   478043.006 3748335.195 451.00
   LOCATION L0001813     VOLUME   478072.999 3748334.546 451.00
   LOCATION L0001814     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0001815     VOLUME   478132.984 3748333.247 451.00
   LOCATION L0001816     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002353
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 457.44, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 454.22, 4.00, 3.95
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** ---------------------------------------------------------------------
   LOCATION L0001817     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0001818     VOLUME   477952.164 3748962.919 453.00
   LOCATION L0001819     VOLUME   477952.000 3748954.420 453.00
   LOCATION L0001820     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0001821     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0001822     VOLUME   477948.990 3748929.132 453.00
   LOCATION L0001823     VOLUME   477948.246 3748920.682 453.00
   LOCATION L0001824     VOLUME   477948.087 3748912.183 453.00
   LOCATION L0001825     VOLUME   477947.928 3748903.685 453.00
   LOCATION L0001826     VOLUME   477947.769 3748895.186 453.00
   LOCATION L0001827     VOLUME   477947.610 3748886.688 453.00
   LOCATION L0001828     VOLUME   477947.451 3748878.189 453.00
   LOCATION L0001829     VOLUME   477947.294 3748869.691 453.00
   LOCATION L0001830     VOLUME   477947.225 3748861.191 453.00
   LOCATION L0001831     VOLUME   477947.157 3748852.691 453.00
   LOCATION L0001832     VOLUME   477947.089 3748844.191 453.00
   LOCATION L0001833     VOLUME   477947.020 3748835.692 453.00
   LOCATION L0001834     VOLUME   477946.952 3748827.192 453.00
   LOCATION L0001835     VOLUME   477946.884 3748818.692 453.00
   LOCATION L0001836     VOLUME   477946.815 3748810.192 453.00
   LOCATION L0001837     VOLUME   477946.747 3748801.693 453.00
   LOCATION L0001838     VOLUME   477946.678 3748793.193 453.00
   LOCATION L0001839     VOLUME   477946.610 3748784.693 453.00
   LOCATION L0001840     VOLUME   477946.542 3748776.194 453.00
   LOCATION L0001841     VOLUME   477946.473 3748767.694 453.00
   LOCATION L0001842     VOLUME   477946.405 3748759.194 453.00
   LOCATION L0001843     VOLUME   477946.337 3748750.694 453.00
   LOCATION L0001844     VOLUME   477946.268 3748742.195 453.00
   LOCATION L0001845     VOLUME   477946.200 3748733.695 453.00
   LOCATION L0001846     VOLUME   477946.132 3748725.195 453.00
   LOCATION L0001847     VOLUME   477946.063 3748716.695 453.00
   LOCATION L0001848     VOLUME   477945.995 3748708.196 453.00
   LOCATION L0001849     VOLUME   477945.926 3748699.696 453.00
   LOCATION L0001850     VOLUME   477945.858 3748691.196 452.82
   LOCATION L0001851     VOLUME   477945.790 3748682.697 452.54
   LOCATION L0001852     VOLUME   477945.721 3748674.197 452.25
   LOCATION L0001853     VOLUME   477945.653 3748665.697 452.00
   LOCATION L0001854     VOLUME   477945.585 3748657.197 452.00
   LOCATION L0001855     VOLUME   477945.516 3748648.698 452.00
   LOCATION L0001856     VOLUME   477945.448 3748640.198 452.00
   LOCATION L0001857     VOLUME   477945.380 3748631.698 452.00
   LOCATION L0001858     VOLUME   477945.311 3748623.198 452.00
   LOCATION L0001859     VOLUME   477945.243 3748614.699 452.00
   LOCATION L0001860     VOLUME   477945.174 3748606.199 452.00
   LOCATION L0001861     VOLUME   477945.106 3748597.699 452.00
   LOCATION L0001862     VOLUME   477945.038 3748589.200 452.00
   LOCATION L0001863     VOLUME   477944.969 3748580.700 452.00
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LOCATION L0001864     VOLUME   477944.901 3748572.200 452.00
LOCATION L0001865     VOLUME   477944.833 3748563.700 452.00
LOCATION L0001866     VOLUME   477944.764 3748555.201 452.00
LOCATION L0001867     VOLUME   477944.696 3748546.701 452.00
LOCATION L0001868     VOLUME   477944.628 3748538.201 452.00
LOCATION L0001869     VOLUME   477944.559 3748529.702 452.00
LOCATION L0001870     VOLUME   477944.491 3748521.202 452.00
LOCATION L0001871     VOLUME   477944.422 3748512.702 451.87
LOCATION L0001872     VOLUME   477944.354 3748504.202 451.59
LOCATION L0001873     VOLUME   477944.286 3748495.703 451.30
LOCATION L0001874     VOLUME   477944.727 3748487.329 451.03
LOCATION L0001875     VOLUME   477948.744 3748479.837 451.00
LOCATION L0001876     VOLUME   477952.760 3748472.346 451.00
LOCATION L0001877     VOLUME   477956.776 3748464.855 451.00
LOCATION L0001878     VOLUME   477960.792 3748457.364 451.00
LOCATION L0001879     VOLUME   477964.809 3748449.872 451.00
LOCATION L0001880     VOLUME   477968.825 3748442.381 451.00
LOCATION L0001881     VOLUME   477972.841 3748434.890 451.00
LOCATION L0001882     VOLUME   477976.857 3748427.398 451.00
LOCATION L0001883     VOLUME   477980.874 3748419.907 451.00
LOCATION L0001884     VOLUME   477984.890 3748412.416 451.00
LOCATION L0001885     VOLUME   477988.906 3748404.924 451.00
LOCATION L0001886     VOLUME   477992.922 3748397.433 451.00
LOCATION L0001887     VOLUME   477996.939 3748389.942 451.00
LOCATION L0001888     VOLUME   478000.955 3748382.450 451.00
LOCATION L0001889     VOLUME   478004.971 3748374.959 451.00
LOCATION L0001890     VOLUME   478008.987 3748367.468 451.00
LOCATION L0001891     VOLUME   478013.004 3748359.977 451.00
LOCATION L0001892     VOLUME   478017.122 3748352.545 451.00
LOCATION L0001893     VOLUME   478021.739 3748345.409 451.00
LOCATION L0001894     VOLUME   478026.357 3748338.273 451.00
LOCATION L0001895     VOLUME   478033.820 3748336.434 451.00
LOCATION L0001896     VOLUME   478042.319 3748336.526 451.00
LOCATION L0001897     VOLUME   478050.819 3748336.619 451.00
LOCATION L0001898     VOLUME   478059.318 3748336.711 451.00
LOCATION L0001899     VOLUME   478067.818 3748336.803 451.00
LOCATION L0001900     VOLUME   478076.317 3748336.896 451.00
LOCATION L0001901     VOLUME   478084.817 3748336.988 451.00
LOCATION L0001902     VOLUME   478093.316 3748337.081 451.00
LOCATION L0001903     VOLUME   478101.816 3748337.173 451.00
LOCATION L0001904     VOLUME   478110.315 3748337.265 451.00
LOCATION L0001905     VOLUME   478118.815 3748337.358 451.00
LOCATION L0001906     VOLUME   478127.314 3748337.450 451.00
LOCATION L0001907     VOLUME   478135.814 3748337.543 451.00
LOCATION L0001908     VOLUME   478144.313 3748337.635 451.00
LOCATION L0001909     VOLUME   478152.813 3748337.727 451.00
LOCATION L0001910     VOLUME   478161.312 3748337.820 451.00
LOCATION L0001911     VOLUME   478169.812 3748337.912 451.00
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LOCATION L0001912     VOLUME   478178.311 3748338.005 451.00
LOCATION L0001913     VOLUME   478186.811 3748338.097 451.00
LOCATION L0001914     VOLUME   478195.310 3748338.189 451.00
LOCATION L0001915     VOLUME   478203.810 3748338.282 451.00
LOCATION L0001916     VOLUME   478212.309 3748338.374 451.00
LOCATION L0001917     VOLUME   478215.836 3748343.420 451.00
LOCATION L0001918     VOLUME   478215.897 3748351.920 451.00
LOCATION L0001919     VOLUME   478215.957 3748360.420 451.00
LOCATION L0001920     VOLUME   478216.018 3748368.919 451.00
LOCATION L0001921     VOLUME   478216.078 3748377.419 451.00
LOCATION L0001922     VOLUME   478216.139 3748385.919 451.00
LOCATION L0001923     VOLUME   478216.199 3748394.419 451.00
LOCATION L0001924     VOLUME   478216.260 3748402.919 451.00
LOCATION L0001925     VOLUME   478216.320 3748411.418 451.00
LOCATION L0001926     VOLUME   478216.381 3748419.918 451.00
LOCATION L0001927     VOLUME   478216.441 3748428.418 451.00
LOCATION L0001928     VOLUME   478216.502 3748436.918 451.00
LOCATION L0001929     VOLUME   478216.562 3748445.417 451.00
LOCATION L0001930     VOLUME   478216.623 3748453.917 451.00
LOCATION L0001931     VOLUME   478216.683 3748462.417 451.04
LOCATION L0001932     VOLUME   478216.744 3748470.917 451.11
LOCATION L0001933     VOLUME   478216.804 3748479.417 451.18
LOCATION L0001934     VOLUME   478216.865 3748487.916 451.27
LOCATION L0001935     VOLUME   478216.925 3748496.416 451.49
LOCATION L0001936     VOLUME   478216.986 3748504.916 451.70
LOCATION L0001937     VOLUME   478217.046 3748513.416 451.92
LOCATION L0001938     VOLUME   478217.107 3748521.916 452.00
LOCATION L0001939     VOLUME   478217.167 3748530.415 452.00
LOCATION L0001940     VOLUME   478217.228 3748538.915 452.00
LOCATION L0001941     VOLUME   478217.288 3748547.415 452.00
LOCATION L0001942     VOLUME   478217.349 3748555.915 452.00
LOCATION L0001943     VOLUME   478217.409 3748564.414 452.00
LOCATION L0001944     VOLUME   478217.470 3748572.914 452.00
LOCATION L0001945     VOLUME   478217.530 3748581.414 452.00
LOCATION L0001946     VOLUME   478217.591 3748589.914 452.00
LOCATION L0001947     VOLUME   478217.651 3748598.414 452.00
LOCATION L0001948     VOLUME   478217.712 3748606.913 452.00
LOCATION L0001949     VOLUME   478217.772 3748615.413 452.00
LOCATION L0001950     VOLUME   478217.833 3748623.913 452.00
LOCATION L0001951     VOLUME   478217.893 3748632.413 452.00
LOCATION L0001952     VOLUME   478217.954 3748640.913 452.00
LOCATION L0001953     VOLUME   478218.014 3748649.412 452.00
LOCATION L0001954     VOLUME   478218.075 3748657.912 452.00
LOCATION L0001955     VOLUME   478218.135 3748666.412 452.00
LOCATION L0001956     VOLUME   478218.196 3748674.912 452.00
LOCATION L0001957     VOLUME   478218.256 3748683.411 452.00
LOCATION L0001958     VOLUME   478218.317 3748691.911 452.00
LOCATION L0001959     VOLUME   478218.377 3748700.411 452.00
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   LOCATION L0001960     VOLUME   478218.438 3748708.911 452.00
   LOCATION L0001961     VOLUME   478218.498 3748717.411 452.00
   LOCATION L0001962     VOLUME   478218.559 3748725.910 452.00
   LOCATION L0001963     VOLUME   478218.619 3748734.410 452.00
   LOCATION L0001964     VOLUME   478218.680 3748742.910 452.00
   LOCATION L0001965     VOLUME   478218.740 3748751.410 452.00
   LOCATION L0001966     VOLUME   478218.801 3748759.910 452.00
   LOCATION L0001967     VOLUME   478218.861 3748768.409 452.00
   LOCATION L0001968     VOLUME   478218.922 3748776.909 452.00
   LOCATION L0001969     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0001970     VOLUME   478219.043 3748793.909 452.25
   LOCATION L0001971     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0001972     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0001973     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0001974     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0001975     VOLUME   478219.345 3748836.408 453.00
   LOCATION L0001976     VOLUME   478219.406 3748844.907 453.00
   LOCATION L0001977     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0001978     VOLUME   478219.527 3748861.907 453.00
   LOCATION L0001979     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0001980     VOLUME   478219.648 3748878.907 453.00
   LOCATION L0001981     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0001982     VOLUME   478219.769 3748895.906 453.00
   LOCATION L0001983     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0001984     VOLUME   478219.890 3748912.906 453.00
   LOCATION L0001985     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0001986     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0001987     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0001988     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0001989     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0001990     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0001991     VOLUME   478202.674 3748969.844 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001689
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
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** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0001992     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0001993     VOLUME   477852.821 3748843.717 453.00
   LOCATION L0001994     VOLUME   477852.867 3748852.216 453.00
   LOCATION L0001995     VOLUME   477852.913 3748860.716 453.00
   LOCATION L0001996     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0001997     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0001998     VOLUME   477853.050 3748886.216 453.00
   LOCATION L0001999     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0002000     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0002001     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0002002     VOLUME   477853.233 3748920.215 453.00
   LOCATION L0002003     VOLUME   477853.279 3748928.715 453.00
   LOCATION L0002004     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0002005     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0002006     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0002007     VOLUME   477853.462 3748962.715 453.00
   LOCATION L0002008     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0002009     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0002010     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0002011     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0002012     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0002013     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0002014     VOLUME   477811.027 3748979.585 454.00
   LOCATION L0002015     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0002016     VOLUME   477794.027 3748979.544 454.00
   LOCATION L0002017     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0002018     VOLUME   477777.027 3748979.503 454.00
   LOCATION L0002019     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0002020     VOLUME   477760.027 3748979.462 454.00
   LOCATION L0002021     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0002022     VOLUME   477743.027 3748979.421 454.00
   LOCATION L0002023     VOLUME   477742.701 3748971.201 454.00
   LOCATION L0002024     VOLUME   477742.653 3748962.701 454.00
   LOCATION L0002025     VOLUME   477742.605 3748954.201 454.00
   LOCATION L0002026     VOLUME   477742.557 3748945.701 454.00
   LOCATION L0002027     VOLUME   477742.509 3748937.201 454.00
   LOCATION L0002028     VOLUME   477742.461 3748928.701 453.89
   LOCATION L0002029     VOLUME   477742.413 3748920.202 453.77
   LOCATION L0002030     VOLUME   477742.365 3748911.702 453.65
   LOCATION L0002031     VOLUME   477742.317 3748903.202 453.58
   LOCATION L0002032     VOLUME   477742.269 3748894.702 453.58
   LOCATION L0002033     VOLUME   477742.221 3748886.202 453.59
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   LOCATION L0002034     VOLUME   477744.175 3748877.974 453.52
   LOCATION L0002035     VOLUME   477746.490 3748869.796 453.57
   LOCATION L0002036     VOLUME   477748.806 3748861.617 453.68
   LOCATION L0002037     VOLUME   477751.121 3748853.439 453.84
   LOCATION L0002038     VOLUME   477753.437 3748845.260 453.96
   LOCATION L0002039     VOLUME   477757.469 3748838.153 453.72
   LOCATION L0002040     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0002041     VOLUME   477770.126 3748826.804 453.22
   LOCATION L0002042     VOLUME   477778.583 3748826.536 453.12
   LOCATION L0002043     VOLUME   477787.081 3748826.374 453.03
   LOCATION L0002044     VOLUME   477795.580 3748826.212 453.00
   LOCATION L0002045     VOLUME   477804.079 3748826.127 453.00
   LOCATION L0002046     VOLUME   477812.579 3748826.077 453.00
   LOCATION L0002047     VOLUME   477821.079 3748826.027 453.00
   LOCATION L0002048     VOLUME   477829.579 3748825.977 453.00
   LOCATION L0002049     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0002050     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001105
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0002051     VOLUME   477886.642 3748203.747 450.00
   LOCATION L0002052     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0002053     VOLUME   477886.254 3748220.743 450.12
   LOCATION L0002054     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0002055     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0002056     VOLUME   477885.671 3748246.236 450.81
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   LOCATION L0002057     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0002058     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0002059     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0002060     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0002061     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0002062     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0002063     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0002064     VOLUME   477886.154 3748314.230 451.00
   LOCATION L0002065     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0002066     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0002067     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0002068     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0002069     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0002070     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0002071     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0002072     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0002073     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0002074     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0002075     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0002076     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0002077     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0002078     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0002079     VOLUME   477968.225 3748296.673 450.00
   LOCATION L0002080     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0002081     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0002082     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0002083     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0002084     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0002085     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0002086     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0002087     VOLUME   477979.163 3748231.356 450.00
   LOCATION L0002088     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0002089     VOLUME   477982.636 3748216.976 450.00
   LOCATION L0002090     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0002091     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0002092     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0002093     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0002094     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0002095     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0002096     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0002097     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0002098     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0002099     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
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** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001925
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0002100     VOLUME   477505.071 3748975.728 454.15
   LOCATION L0002101     VOLUME   477513.569 3748975.562 454.06
   LOCATION L0002102     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0002103     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0002104     VOLUME   477539.064 3748975.067 454.00
   LOCATION L0002105     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0002106     VOLUME   477556.061 3748974.736 454.00
   LOCATION L0002107     VOLUME   477564.559 3748974.571 454.00
   LOCATION L0002108     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0002109     VOLUME   477581.556 3748974.240 454.00
   LOCATION L0002110     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0002111     VOLUME   477598.508 3748973.774 454.00
   LOCATION L0002112     VOLUME   477605.435 3748968.848 454.00
   LOCATION L0002113     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0002114     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0002115     VOLUME   477615.729 3748946.683 454.00
   LOCATION L0002116     VOLUME   477618.035 3748938.501 454.00
   LOCATION L0002117     VOLUME   477619.970 3748930.230 454.00
   LOCATION L0002118     VOLUME   477621.685 3748921.905 454.00
   LOCATION L0002119     VOLUME   477623.401 3748913.580 454.00
   LOCATION L0002120     VOLUME   477625.117 3748905.255 454.00
   LOCATION L0002121     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0002122     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0002123     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0002124     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0002125     VOLUME   477626.684 3748862.869 454.00
   LOCATION L0002126     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0002127     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0002128     VOLUME   477627.014 3748837.371 454.00
   LOCATION L0002129     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0002130     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0002131     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0002132     VOLUME   477627.455 3748803.374 454.00
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   LOCATION L0002133     VOLUME   477626.976 3748795.472 454.00
   LOCATION L0002134     VOLUME   477618.479 3748795.702 454.00
   LOCATION L0002135     VOLUME   477609.982 3748795.933 454.00
   LOCATION L0002136     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0002137     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0002138     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0002139     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0002140     VOLUME   477567.498 3748797.085 454.00
   LOCATION L0002141     VOLUME   477559.001 3748797.316 454.00
   LOCATION L0002142     VOLUME   477550.504 3748797.546 454.00
   LOCATION L0002143     VOLUME   477542.007 3748797.777 454.00
   LOCATION L0002144     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0002145     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0002146     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0002147     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0002148     VOLUME   477499.523 3748798.930 454.00
   LOCATION L0002149     VOLUME   477491.026 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 70% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001387
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0002150     VOLUME   478255.534 3748984.574 453.00
   LOCATION L0002151     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0002152     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0002153     VOLUME   478230.035 3748984.818 453.00
   LOCATION L0002154     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0002155     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0002156     VOLUME   478204.537 3748985.062 453.00
   LOCATION L0002157     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0002158     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0002159     VOLUME   478179.038 3748985.306 453.00
   LOCATION L0002160     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0002161     VOLUME   478162.039 3748985.469 453.00
   LOCATION L0002162     VOLUME   478153.539 3748985.550 453.00
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LOCATION L0002163     VOLUME   478145.039 3748985.632 453.00
LOCATION L0002164     VOLUME   478136.540 3748985.713 453.00
LOCATION L0002165     VOLUME   478128.040 3748985.794 453.00
LOCATION L0002166     VOLUME   478119.540 3748985.876 453.00
LOCATION L0002167     VOLUME   478111.041 3748985.957 453.00
LOCATION L0002168     VOLUME   478102.541 3748986.038 453.00
LOCATION L0002169     VOLUME   478094.042 3748986.120 453.00
LOCATION L0002170     VOLUME   478085.542 3748986.201 453.00
LOCATION L0002171     VOLUME   478077.042 3748986.282 453.00
LOCATION L0002172     VOLUME   478068.543 3748986.364 453.00
LOCATION L0002173     VOLUME   478060.043 3748986.445 453.00
LOCATION L0002174     VOLUME   478051.544 3748986.526 453.00
LOCATION L0002175     VOLUME   478043.044 3748986.608 453.00
LOCATION L0002176     VOLUME   478034.544 3748986.689 453.00
LOCATION L0002177     VOLUME   478026.045 3748986.770 453.00
LOCATION L0002178     VOLUME   478017.545 3748986.852 453.00
LOCATION L0002179     VOLUME   478009.046 3748986.933 453.00
LOCATION L0002180     VOLUME   478000.546 3748987.014 453.00
LOCATION L0002181     VOLUME   477992.046 3748987.096 453.00
LOCATION L0002182     VOLUME   477983.547 3748987.177 453.00
LOCATION L0002183     VOLUME   477975.047 3748987.258 453.00
LOCATION L0002184     VOLUME   477966.547 3748987.340 453.00
LOCATION L0002185     VOLUME   477958.048 3748987.421 453.00
LOCATION L0002186     VOLUME   477949.548 3748987.502 453.00
LOCATION L0002187     VOLUME   477941.049 3748987.584 453.00
LOCATION L0002188     VOLUME   477932.549 3748987.665 453.17
LOCATION L0002189     VOLUME   477924.049 3748987.746 453.37
LOCATION L0002190     VOLUME   477915.550 3748987.828 453.57
LOCATION L0002191     VOLUME   477907.050 3748987.909 453.71
LOCATION L0002192     VOLUME   477898.551 3748987.990 453.71
LOCATION L0002193     VOLUME   477890.051 3748988.072 453.72
LOCATION L0002194     VOLUME   477881.917 3748988.515 453.73
LOCATION L0002195     VOLUME   477881.917 3748997.015 454.00
LOCATION L0002196     VOLUME   477881.917 3749005.515 454.00
LOCATION L0002197     VOLUME   477881.917 3749014.015 454.00
LOCATION L0002198     VOLUME   477881.917 3749022.515 454.00
LOCATION L0002199     VOLUME   477881.917 3749031.015 454.00
LOCATION L0002200     VOLUME   477881.917 3749039.515 454.00
LOCATION L0002201     VOLUME   477881.917 3749048.015 454.00
LOCATION L0002202     VOLUME   477881.917 3749056.515 454.00
LOCATION L0002203     VOLUME   477881.917 3749065.015 454.00
LOCATION L0002204     VOLUME   477881.917 3749073.515 454.00
LOCATION L0002205     VOLUME   477881.917 3749082.015 454.00
LOCATION L0002206     VOLUME   477881.917 3749090.515 454.00
LOCATION L0002207     VOLUME   477881.917 3749099.015 454.00
LOCATION L0002208     VOLUME   477881.917 3749107.515 454.00
LOCATION L0002209     VOLUME   477881.917 3749116.015 454.00
LOCATION L0002210     VOLUME   477881.917 3749124.515 454.00
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                              AERMOD HRA Output
LOCATION L0002211      VOLUME   477881.917 3749133.015 454.00
LOCATION L0002212      VOLUME   477881.917 3749141.515 454.00
LOCATION L0002213      VOLUME   477881.917 3749150.015 454.00
LOCATION L0002214      VOLUME   477881.917 3749158.515 454.00
LOCATION L0002215      VOLUME   477881.917 3749167.015 454.00
LOCATION L0002216      VOLUME   477881.917 3749175.515 454.00
LOCATION L0002217      VOLUME   477881.917 3749184.015 454.00
LOCATION L0002218      VOLUME   477881.917 3749192.515 454.00
LOCATION L0002219      VOLUME   477881.917 3749201.015 454.00
LOCATION L0002220      VOLUME   477881.917 3749209.515 454.10
LOCATION L0002221      VOLUME   477881.917 3749218.015 454.38
LOCATION L0002222      VOLUME   477881.917 3749226.515 454.67
LOCATION L0002223      VOLUME   477881.917 3749235.015 454.95
LOCATION L0002224      VOLUME   477877.860 3749239.512 455.00
LOCATION L0002225      VOLUME   477869.361 3749239.626 455.00
LOCATION L0002226      VOLUME   477860.862 3749239.740 455.00
LOCATION L0002227      VOLUME   477852.363 3749239.854 455.00
LOCATION L0002228      VOLUME   477843.863 3749239.968 455.00
LOCATION L0002229      VOLUME   477835.364 3749240.082 455.00
LOCATION L0002230      VOLUME   477826.865 3749240.195 455.00
LOCATION L0002231      VOLUME   477818.366 3749240.309 455.00
LOCATION L0002232      VOLUME   477809.866 3749240.423 455.00
LOCATION L0002233      VOLUME   477801.367 3749240.537 455.00
LOCATION L0002234      VOLUME   477792.868 3749240.651 455.00
LOCATION L0002235      VOLUME   477784.369 3749240.765 455.00
LOCATION L0002236      VOLUME   477775.869 3749240.878 455.00
LOCATION L0002237      VOLUME   477767.370 3749240.992 455.00
LOCATION L0002238      VOLUME   477758.871 3749241.106 455.00
LOCATION L0002239      VOLUME   477750.372 3749241.220 455.00
LOCATION L0002240      VOLUME   477741.873 3749241.334 455.00
LOCATION L0002241      VOLUME   477733.373 3749241.448 455.00
LOCATION L0002242      VOLUME   477724.874 3749241.561 455.00
LOCATION L0002243      VOLUME   477716.375 3749241.675 455.00
LOCATION L0002244      VOLUME   477707.876 3749241.789 455.00
LOCATION L0002245      VOLUME   477699.376 3749241.903 455.00
LOCATION L0002246      VOLUME   477690.877 3749242.017 455.00
LOCATION L0002247      VOLUME   477682.378 3749242.131 455.00
LOCATION L0002248      VOLUME   477673.879 3749242.244 455.00
LOCATION L0002249      VOLUME   477665.379 3749242.358 455.00
LOCATION L0002250      VOLUME   477656.880 3749242.472 455.00
LOCATION L0002251      VOLUME   477648.381 3749242.586 455.00
LOCATION L0002252      VOLUME   477639.882 3749242.700 455.00
LOCATION L0002253      VOLUME   477631.382 3749242.813 455.00
LOCATION L0002254      VOLUME   477622.883 3749242.927 455.00
LOCATION L0002255      VOLUME   477614.384 3749243.041 455.00
LOCATION L0002256      VOLUME   477605.885 3749243.155 455.00
LOCATION L0002257      VOLUME   477597.385 3749243.269 455.00
LOCATION L0002258      VOLUME   477588.886 3749243.383 455.00
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LOCATION L0002259     VOLUME   477580.387 3749243.496 455.00
LOCATION L0002260     VOLUME   477571.888 3749243.610 455.00
LOCATION L0002261     VOLUME   477563.389 3749243.724 455.00
LOCATION L0002262     VOLUME   477554.889 3749243.838 455.00
LOCATION L0002263     VOLUME   477546.390 3749243.952 455.00
LOCATION L0002264     VOLUME   477537.891 3749244.066 455.00
LOCATION L0002265     VOLUME   477529.392 3749244.179 455.00
LOCATION L0002266     VOLUME   477520.892 3749244.293 455.00
LOCATION L0002267     VOLUME   477512.393 3749244.407 455.00
LOCATION L0002268     VOLUME   477503.894 3749244.521 455.00
LOCATION L0002269     VOLUME   477495.395 3749244.635 455.00
LOCATION L0002270     VOLUME   477486.895 3749244.749 455.00
LOCATION L0002271     VOLUME   477478.396 3749244.862 455.00
LOCATION L0002272     VOLUME   477476.837 3749251.916 455.00
LOCATION L0002273     VOLUME   477476.725 3749260.415 455.00
LOCATION L0002274     VOLUME   477476.612 3749268.914 455.00
LOCATION L0002275     VOLUME   477476.500 3749277.414 455.00
LOCATION L0002276     VOLUME   477476.387 3749285.913 455.00
LOCATION L0002277     VOLUME   477476.275 3749294.412 455.00
LOCATION L0002278     VOLUME   477476.162 3749302.911 455.10
LOCATION L0002279     VOLUME   477476.049 3749311.411 455.23
LOCATION L0002280     VOLUME   477475.937 3749319.910 455.36
LOCATION L0002281     VOLUME   477475.824 3749328.409 455.50
LOCATION L0002282     VOLUME   477475.712 3749336.908 455.65
LOCATION L0002283     VOLUME   477475.599 3749345.408 455.80
LOCATION L0002284     VOLUME   477475.487 3749353.907 455.95
LOCATION L0002285     VOLUME   477475.374 3749362.406 456.00
LOCATION L0002286     VOLUME   477475.261 3749370.905 456.00
LOCATION L0002287     VOLUME   477475.149 3749379.405 456.00
LOCATION L0002288     VOLUME   477475.036 3749387.904 456.00
LOCATION L0002289     VOLUME   477474.924 3749396.403 456.00
LOCATION L0002290     VOLUME   477474.811 3749404.902 456.00
LOCATION L0002291     VOLUME   477474.699 3749413.402 456.00
LOCATION L0002292     VOLUME   477474.586 3749421.901 456.00
LOCATION L0002293     VOLUME   477474.473 3749430.400 456.00
LOCATION L0002294     VOLUME   477474.361 3749438.899 456.00
LOCATION L0002295     VOLUME   477474.248 3749447.399 456.00
LOCATION L0002296     VOLUME   477474.136 3749455.898 456.00
LOCATION L0002297     VOLUME   477474.023 3749464.397 456.00
LOCATION L0002298     VOLUME   477473.911 3749472.896 456.00
LOCATION L0002299     VOLUME   477473.798 3749481.396 456.16
LOCATION L0002300     VOLUME   477473.685 3749489.895 456.44
LOCATION L0002301     VOLUME   477473.573 3749498.394 456.73
LOCATION L0002302     VOLUME   477473.460 3749506.893 457.00
LOCATION L0002303     VOLUME   477473.348 3749515.393 457.00
LOCATION L0002304     VOLUME   477473.235 3749523.892 457.00
LOCATION L0002305     VOLUME   477473.123 3749532.391 457.00
LOCATION L0002306     VOLUME   477473.010 3749540.890 457.00
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   LOCATION L0002307     VOLUME   477472.897 3749549.390 457.00
   LOCATION L0002308     VOLUME   477472.785 3749557.889 457.00
   LOCATION L0002309     VOLUME   477472.672 3749566.388 457.00
   LOCATION L0002310     VOLUME   477472.560 3749574.887 457.00
   LOCATION L0002311     VOLUME   477472.447 3749583.387 457.00
   LOCATION L0002312     VOLUME   477472.335 3749591.886 457.00
   LOCATION L0002313     VOLUME   477472.222 3749600.385 457.00
   LOCATION L0002314     VOLUME   477472.109 3749608.884 457.00
   LOCATION L0002315     VOLUME   477471.997 3749617.384 457.00
   LOCATION L0002316     VOLUME   477471.884 3749625.883 457.00
   LOCATION L0002317     VOLUME   477471.772 3749634.382 457.00
   LOCATION L0002318     VOLUME   477471.659 3749642.881 457.00
   LOCATION L0002319     VOLUME   477471.547 3749651.381 457.00
   LOCATION L0002320     VOLUME   477471.434 3749659.880 457.00
   LOCATION L0002321     VOLUME   477471.321 3749668.379 457.00
   LOCATION L0002322     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0002323     VOLUME   477471.096 3749685.378 457.00
   LOCATION L0002324     VOLUME   477470.984 3749693.877 457.00
   LOCATION L0002325     VOLUME   477470.871 3749702.376 457.00
   LOCATION L0002326     VOLUME   477470.759 3749710.876 457.00
   LOCATION L0002327     VOLUME   477470.646 3749719.375 457.00
   LOCATION L0002328     VOLUME   477470.533 3749727.874 457.00
   LOCATION L0002329     VOLUME   477470.421 3749736.373 457.00
   LOCATION L0002330     VOLUME   477470.308 3749744.873 457.00
   LOCATION L0002331     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0002332     VOLUME   477470.083 3749761.871 457.51
   LOCATION L0002333     VOLUME   477469.971 3749770.370 457.79
   LOCATION L0002334     VOLUME   477469.858 3749778.870 458.00
   LOCATION L0002335     VOLUME   477469.745 3749787.369 458.00
** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003161
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0002336     VOLUME   477901.854 3748181.536 450.00
   LOCATION L0002337     VOLUME   477893.354 3748181.604 450.00
   LOCATION L0002338     VOLUME   477884.855 3748181.671 450.00
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LOCATION L0002339     VOLUME   477876.355 3748181.739 450.00
LOCATION L0002340     VOLUME   477867.855 3748181.806 450.00
LOCATION L0002341     VOLUME   477859.355 3748181.874 450.00
LOCATION L0002342     VOLUME   477850.856 3748181.941 450.00
LOCATION L0002343     VOLUME   477842.356 3748182.009 450.22
LOCATION L0002344     VOLUME   477833.856 3748182.077 450.46
LOCATION L0002345     VOLUME   477825.356 3748182.144 450.71
LOCATION L0002346     VOLUME   477816.857 3748182.212 450.88
LOCATION L0002347     VOLUME   477808.357 3748182.279 450.92
LOCATION L0002348     VOLUME   477799.857 3748182.347 450.96
LOCATION L0002349     VOLUME   477791.358 3748182.414 450.99
LOCATION L0002350     VOLUME   477782.858 3748182.482 451.00
LOCATION L0002351     VOLUME   477774.358 3748182.550 451.00
LOCATION L0002352     VOLUME   477765.858 3748182.617 451.00
LOCATION L0002353     VOLUME   477757.359 3748182.685 451.00
LOCATION L0002354     VOLUME   477748.859 3748182.752 451.00
LOCATION L0002355     VOLUME   477740.359 3748182.820 451.00
LOCATION L0002356     VOLUME   477731.859 3748182.887 451.00
LOCATION L0002357     VOLUME   477723.360 3748182.955 451.00
LOCATION L0002358     VOLUME   477714.860 3748183.023 451.00
LOCATION L0002359     VOLUME   477706.360 3748183.090 451.00
LOCATION L0002360     VOLUME   477697.860 3748183.158 451.00
LOCATION L0002361     VOLUME   477689.361 3748183.225 451.00
LOCATION L0002362     VOLUME   477680.861 3748183.293 451.00
LOCATION L0002363     VOLUME   477672.361 3748183.360 451.00
LOCATION L0002364     VOLUME   477663.862 3748183.428 451.00
LOCATION L0002365     VOLUME   477655.362 3748183.495 451.00
LOCATION L0002366     VOLUME   477646.862 3748183.563 451.00
LOCATION L0002367     VOLUME   477638.362 3748183.631 451.00
LOCATION L0002368     VOLUME   477629.863 3748183.698 451.00
LOCATION L0002369     VOLUME   477621.363 3748183.766 451.00
LOCATION L0002370     VOLUME   477612.863 3748183.833 451.00
LOCATION L0002371     VOLUME   477604.363 3748183.901 451.00
LOCATION L0002372     VOLUME   477595.864 3748183.968 451.00
LOCATION L0002373     VOLUME   477587.364 3748184.036 451.00
LOCATION L0002374     VOLUME   477578.864 3748184.104 451.00
LOCATION L0002375     VOLUME   477570.364 3748184.171 451.00
LOCATION L0002376     VOLUME   477561.865 3748184.239 451.00
LOCATION L0002377     VOLUME   477553.365 3748184.306 451.00
LOCATION L0002378     VOLUME   477544.865 3748184.374 451.00
LOCATION L0002379     VOLUME   477536.366 3748184.441 451.00
LOCATION L0002380     VOLUME   477527.866 3748184.509 451.00
LOCATION L0002381     VOLUME   477519.366 3748184.577 451.00
LOCATION L0002382     VOLUME   477510.866 3748184.644 451.00
LOCATION L0002383     VOLUME   477502.367 3748184.712 451.00
LOCATION L0002384     VOLUME   477493.867 3748184.779 451.00
LOCATION L0002385     VOLUME   477485.367 3748184.847 451.00
LOCATION L0002386     VOLUME   477476.867 3748184.914 451.00
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LOCATION L0002387     VOLUME   477471.122 3748182.143 451.00
LOCATION L0002388     VOLUME   477470.934 3748173.645 451.00
LOCATION L0002389     VOLUME   477470.745 3748165.147 451.00
LOCATION L0002390     VOLUME   477470.557 3748156.649 451.00
LOCATION L0002391     VOLUME   477470.368 3748148.151 451.00
LOCATION L0002392     VOLUME   477470.180 3748139.653 451.00
LOCATION L0002393     VOLUME   477469.991 3748131.156 451.00
LOCATION L0002394     VOLUME   477469.803 3748122.658 451.00
LOCATION L0002395     VOLUME   477469.614 3748114.160 451.00
LOCATION L0002396     VOLUME   477469.426 3748105.662 451.00
LOCATION L0002397     VOLUME   477469.237 3748097.164 451.00
LOCATION L0002398     VOLUME   477469.049 3748088.666 451.00
LOCATION L0002399     VOLUME   477468.860 3748080.168 451.00
LOCATION L0002400     VOLUME   477468.672 3748071.670 451.00
LOCATION L0002401     VOLUME   477468.483 3748063.172 451.00
LOCATION L0002402     VOLUME   477468.295 3748054.674 451.00
LOCATION L0002403     VOLUME   477468.106 3748046.176 451.00
LOCATION L0002404     VOLUME   477467.917 3748037.679 451.00
LOCATION L0002405     VOLUME   477467.729 3748029.181 451.00
LOCATION L0002406     VOLUME   477467.540 3748020.683 451.00
LOCATION L0002407     VOLUME   477467.352 3748012.185 451.00
LOCATION L0002408     VOLUME   477467.163 3748003.687 451.00
LOCATION L0002409     VOLUME   477466.975 3747995.189 451.00
LOCATION L0002410     VOLUME   477466.786 3747986.691 451.00
LOCATION L0002411     VOLUME   477466.598 3747978.193 451.00
LOCATION L0002412     VOLUME   477466.409 3747969.695 451.00
LOCATION L0002413     VOLUME   477466.221 3747961.197 451.00
LOCATION L0002414     VOLUME   477466.032 3747952.699 451.00
LOCATION L0002415     VOLUME   477465.844 3747944.202 451.00
LOCATION L0002416     VOLUME   477465.655 3747935.704 451.00
LOCATION L0002417     VOLUME   477465.467 3747927.206 451.00
LOCATION L0002418     VOLUME   477465.278 3747918.708 451.00
LOCATION L0002419     VOLUME   477465.090 3747910.210 451.00
LOCATION L0002420     VOLUME   477464.901 3747901.712 451.00
LOCATION L0002421     VOLUME   477464.713 3747893.214 451.00
LOCATION L0002422     VOLUME   477464.524 3747884.716 451.00
LOCATION L0002423     VOLUME   477464.336 3747876.218 451.00
LOCATION L0002424     VOLUME   477464.147 3747867.720 451.00
LOCATION L0002425     VOLUME   477463.959 3747859.222 451.00
LOCATION L0002426     VOLUME   477463.770 3747850.725 451.00
LOCATION L0002427     VOLUME   477463.582 3747842.227 451.00
LOCATION L0002428     VOLUME   477463.393 3747833.729 451.00
LOCATION L0002429     VOLUME   477463.204 3747825.231 451.00
LOCATION L0002430     VOLUME   477463.016 3747816.733 451.00
LOCATION L0002431     VOLUME   477462.827 3747808.235 451.00
LOCATION L0002432     VOLUME   477462.639 3747799.737 451.00
LOCATION L0002433     VOLUME   477462.450 3747791.239 451.00
LOCATION L0002434     VOLUME   477462.262 3747782.741 451.00
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** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 30% on San Michele to Indian to Fwy
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001835
** Vertical Dimension = 4.00
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** SZINIT = 1.86
** Nodes = 22
** 477462.276, 3747781.275, 451.00, 4.00, 3.95
** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
** 477725.693, 3746359.638, 448.00, 4.00, 3.95
** 477485.022, 3746362.119, 449.09, 4.00, 3.95
** 477420.512, 3746374.524, 451.63, 4.00, 3.95
** 477323.747, 3746431.591, 450.00, 4.00, 3.95
** 477274.124, 3746468.808, 450.86, 4.00, 3.95
** 477224.501, 3746503.544, 450.08, 4.00, 3.95
** 477159.991, 3746538.280, 451.00, 4.00, 3.95
** 477093.000, 3746548.205, 451.00, 4.00, 3.95
** 476780.928, 3746552.268, 455.52, 4.00, 3.95
** 476653.222, 3746548.965, 463.87, 4.00, 3.95
** 476603.680, 3746565.479, 464.00, 4.00, 3.95
** 476539.827, 3746605.112, 464.36, 4.00, 3.95
** 476468.267, 3746741.626, 465.24, 4.00, 3.95
** 476458.359, 3746801.076, 465.86, 4.00, 3.95
** 476408.818, 3746894.654, 466.61, 4.00, 3.95
** 476338.359, 3746943.094, 468.00, 4.00, 3.95
** 476260.194, 3746950.801, 469.00, 4.00, 3.95
** 475929.918, 3746948.599, 472.48, 4.00, 3.95
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   LOCATION L0003986     VOLUME   477466.526 3747781.247 451.00
   LOCATION L0003987     VOLUME   477475.026 3747781.191 451.00
   LOCATION L0003988     VOLUME   477483.526 3747781.135 451.00
   LOCATION L0003989     VOLUME   477492.025 3747781.078 451.00
   LOCATION L0003990     VOLUME   477500.525 3747781.022 451.00
   LOCATION L0003991     VOLUME   477509.025 3747780.966 451.00
   LOCATION L0003992     VOLUME   477517.525 3747780.910 451.00
   LOCATION L0003993     VOLUME   477526.025 3747780.854 451.00
   LOCATION L0003994     VOLUME   477534.524 3747780.798 451.00
   LOCATION L0003995     VOLUME   477543.024 3747780.742 451.00
   LOCATION L0003996     VOLUME   477551.524 3747780.685 451.00
   LOCATION L0003997     VOLUME   477560.024 3747780.629 451.00
   LOCATION L0003998     VOLUME   477568.524 3747780.573 451.00
   LOCATION L0003999     VOLUME   477577.023 3747780.517 451.00
   LOCATION L0004000     VOLUME   477585.523 3747780.461 451.00
   LOCATION L0004001     VOLUME   477594.023 3747780.405 451.00
   LOCATION L0004002     VOLUME   477602.523 3747780.349 451.00
   LOCATION L0004003     VOLUME   477611.023 3747780.292 451.00
   LOCATION L0004004     VOLUME   477619.523 3747780.236 451.00
   LOCATION L0004005     VOLUME   477628.022 3747780.180 451.00
   LOCATION L0004006     VOLUME   477636.522 3747780.124 451.00
   LOCATION L0004007     VOLUME   477645.022 3747780.068 450.91
   LOCATION L0004008     VOLUME   477653.522 3747780.012 450.75
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LOCATION L0004009     VOLUME   477662.022 3747779.956 450.60
LOCATION L0004010     VOLUME   477670.521 3747779.899 450.45
LOCATION L0004011     VOLUME   477679.021 3747779.843 450.32
LOCATION L0004012     VOLUME   477687.521 3747779.787 450.19
LOCATION L0004013     VOLUME   477696.021 3747779.731 450.06
LOCATION L0004014     VOLUME   477704.521 3747779.675 450.00
LOCATION L0004015     VOLUME   477713.021 3747779.619 450.00
LOCATION L0004016     VOLUME   477721.520 3747779.563 450.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0004347      VOLUME   477466.945 3746365.595 449.76
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LOCATION L0004350      VOLUME   477441.904 3746370.410 450.00
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LOCATION L0004352      VOLUME   477425.209 3746373.621 450.00
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LOCATION L0004381      VOLUME   477218.535 3746506.757 450.04
LOCATION L0004382      VOLUME   477211.051 3746510.786 450.29
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LOCATION L0004384      VOLUME   477196.083 3746518.846 450.79
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LOCATION L0004392      VOLUME   477133.274 3746542.238 451.00
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LOCATION L0004433     VOLUME   476785.240 3746552.212 462.16
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LOCATION L0004440     VOLUME   476725.759 3746550.841 462.94
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AERMOD HRA Output

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LOCATION L0004472     VOLUME   476506.369 3746668.939 464.79
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LOCATION L0004474     VOLUME   476498.477 3746683.995 464.89
LOCATION L0004475     VOLUME   476494.530 3746691.524 464.94
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LOCATION L0004480     VOLUME   476474.799 3746729.166 465.39
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LOCATION L0004512     VOLUME   476332.114 3746943.710 468.05
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LOCATION L0004514     VOLUME   476315.196 3746945.378 468.27
LOCATION L0004515     VOLUME   476306.737 3746946.212 468.38
LOCATION L0004516     VOLUME   476298.278 3746947.046 468.49
LOCATION L0004517     VOLUME   476289.819 3746947.880 468.60
LOCATION L0004518     VOLUME   476281.360 3746948.714 468.71
LOCATION L0004519     VOLUME   476272.901 3746949.548 468.82
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LOCATION L0004525     VOLUME   476221.964 3746950.546 469.48
LOCATION L0004526     VOLUME   476213.464 3746950.489 469.59
LOCATION L0004527     VOLUME   476204.964 3746950.433 469.70
LOCATION L0004528     VOLUME   476196.464 3746950.376 469.81
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LOCATION L0004533     VOLUME   476153.965 3746950.093 470.37
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LOCATION L0004535     VOLUME   476136.966 3746949.979 470.59
LOCATION L0004536     VOLUME   476128.466 3746949.923 470.70
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0004540     VOLUME   476094.467 3746949.696 471.14
   LOCATION L0004541     VOLUME   476085.967 3746949.639 471.25
   LOCATION L0004542     VOLUME   476077.467 3746949.583 471.36
   LOCATION L0004543     VOLUME   476068.967 3746949.526 471.47
   LOCATION L0004544     VOLUME   476060.468 3746949.469 471.58
   LOCATION L0004545     VOLUME   476051.968 3746949.413 471.69
   LOCATION L0004546     VOLUME   476043.468 3746949.356 471.80
   LOCATION L0004547     VOLUME   476034.968 3746949.299 471.91
   LOCATION L0004548     VOLUME   476026.468 3746949.243 472.02
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   LOCATION L0004551     VOLUME   476000.969 3746949.073 472.35
   LOCATION L0004552     VOLUME   475992.469 3746949.016 472.46
   LOCATION L0004553     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0004554     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0004555     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0004556     VOLUME   475958.470 3746948.789 472.90
   LOCATION L0004557     VOLUME   475949.970 3746948.733 472.96
   LOCATION L0004558     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0004559     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SLINE13
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 60% to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0004422
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
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** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0004561     VOLUME   477480.422 3749808.721 458.00
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LOCATION L0004602     VOLUME   477474.849 3750157.177 459.00
LOCATION L0004603     VOLUME   477474.713 3750165.676 459.00
LOCATION L0004604     VOLUME   477474.171 3750174.155 459.00
LOCATION L0004605     VOLUME   477473.482 3750182.627 459.00
LOCATION L0004606     VOLUME   477472.792 3750191.099 459.00
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LOCATION L0004616     VOLUME   477466.456 3750275.840 460.00
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LOCATION L0004637     VOLUME   477467.219 3750454.339 460.00
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LOCATION L0004645     VOLUME   477467.509 3750522.338 461.00
LOCATION L0004646     VOLUME   477467.545 3750530.838 461.00
LOCATION L0004647     VOLUME   477467.582 3750539.338 461.00
LOCATION L0004648     VOLUME   477467.689 3750547.837 461.00
LOCATION L0004649     VOLUME   477467.939 3750556.333 461.00
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LOCATION L0004651     VOLUME   477468.438 3750573.326 461.00
LOCATION L0004652     VOLUME   477468.688 3750581.822 461.00
LOCATION L0004653     VOLUME   477468.938 3750590.318 461.00
LOCATION L0004654     VOLUME   477469.188 3750598.814 461.00
LOCATION L0004655     VOLUME   477469.438 3750607.311 461.00
LOCATION L0004656     VOLUME   477469.688 3750615.807 461.00
LOCATION L0004657     VOLUME   477469.938 3750624.303 461.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                              AERMOD HRA Output
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LOCATION L0004679      VOLUME   477475.435 3750811.223 462.00
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LOCATION L0004682      VOLUME   477476.185 3750836.712 462.00
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AERMOD HRA Output

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LOCATION L0004963     VOLUME   476473.548 3752227.302 478.00
LOCATION L0004964     VOLUME   476465.048 3752227.312 478.00
LOCATION L0004965     VOLUME   476456.548 3752227.322 478.00
LOCATION L0004966     VOLUME   476448.048 3752227.332 478.00
LOCATION L0004967     VOLUME   476439.548 3752227.342 478.00
LOCATION L0004968     VOLUME   476431.048 3752227.352 478.00
LOCATION L0004969     VOLUME   476422.548 3752227.362 478.00
LOCATION L0004970     VOLUME   476414.048 3752227.372 478.00
LOCATION L0004971     VOLUME   476405.548 3752227.382 478.00
LOCATION L0004972     VOLUME   476397.048 3752227.392 478.00
LOCATION L0004973     VOLUME   476388.548 3752227.402 478.00
LOCATION L0004974     VOLUME   476380.048 3752227.412 478.00
LOCATION L0004975     VOLUME   476371.548 3752227.422 478.00
LOCATION L0004976     VOLUME   476363.049 3752227.432 478.00
LOCATION L0004977     VOLUME   476354.549 3752227.442 478.00
LOCATION L0004978     VOLUME   476346.049 3752227.452 478.00
LOCATION L0004979     VOLUME   476337.549 3752227.462 478.00
LOCATION L0004980     VOLUME   476329.049 3752227.472 478.00
LOCATION L0004981     VOLUME   476320.549 3752227.482 478.00
LOCATION L0004982     VOLUME   476312.049 3752227.492 478.00
LOCATION L0004983     VOLUME   476303.549 3752227.502 478.00
LOCATION L0004984     VOLUME   476295.049 3752227.512 478.00
LOCATION L0004985     VOLUME   476286.549 3752227.522 478.00
LOCATION L0004986     VOLUME   476278.049 3752227.532 478.00
LOCATION L0004987     VOLUME   476269.549 3752227.542 478.00
LOCATION L0004988     VOLUME   476261.049 3752227.552 478.00
LOCATION L0004989     VOLUME   476252.549 3752227.561 478.00
LOCATION L0004990     VOLUME   476244.049 3752227.571 478.00
LOCATION L0004991     VOLUME   476235.549 3752227.581 478.00
LOCATION L0004992     VOLUME   476227.049 3752227.591 478.00
LOCATION L0004993     VOLUME   476218.549 3752227.601 478.00
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LOCATION L0004994      VOLUME   476210.049 3752227.611 478.00
LOCATION L0004995      VOLUME   476201.549 3752227.621 478.00
LOCATION L0004996      VOLUME   476193.049 3752227.631 478.00
LOCATION L0004997      VOLUME   476184.549 3752227.641 478.00
LOCATION L0004998      VOLUME   476176.049 3752227.651 478.00
LOCATION L0004999      VOLUME   476167.549 3752227.661 478.00
LOCATION L0005000      VOLUME   476159.049 3752227.671 478.00
LOCATION L0005001      VOLUME   476150.549 3752227.681 478.00
LOCATION L0005002      VOLUME   476142.049 3752227.691 478.00
LOCATION L0005003      VOLUME   476133.549 3752227.701 478.00
LOCATION L0005004      VOLUME   476125.049 3752227.711 478.00
LOCATION L0005005      VOLUME   476116.549 3752227.721 477.98
LOCATION L0005006      VOLUME   476108.049 3752227.731 477.90
LOCATION L0005007      VOLUME   476099.549 3752227.741 477.81
LOCATION L0005008      VOLUME   476091.049 3752227.751 477.72
LOCATION L0005009      VOLUME   476082.549 3752227.761 477.64
LOCATION L0005010      VOLUME   476074.049 3752227.771 477.55
LOCATION L0005011      VOLUME   476065.549 3752227.781 477.47
LOCATION L0005012      VOLUME   476057.049 3752227.791 477.38
LOCATION L0005013      VOLUME   476048.549 3752227.801 477.30
LOCATION L0005014      VOLUME   476040.049 3752227.811 477.22
LOCATION L0005015      VOLUME   476031.549 3752227.821 477.19
LOCATION L0005016      VOLUME   476023.049 3752227.831 477.17
LOCATION L0005017      VOLUME   476014.549 3752227.841 477.14
LOCATION L0005018      VOLUME   476006.049 3752227.851 477.12
LOCATION L0005019      VOLUME   475997.549 3752227.860 477.10
LOCATION L0005020      VOLUME   475989.049 3752227.870 477.07
LOCATION L0005021      VOLUME   475980.549 3752227.880 477.05
LOCATION L0005022      VOLUME   475972.049 3752227.890 477.02
LOCATION L0005023      VOLUME   475963.549 3752227.900 477.00
LOCATION L0005024      VOLUME   475955.049 3752227.910 477.00
LOCATION L0005025      VOLUME   475946.549 3752227.920 477.00
LOCATION L0005026      VOLUME   475938.049 3752227.930 477.00
LOCATION L0005027      VOLUME   475929.549 3752227.940 477.00
LOCATION L0005028      VOLUME   475921.049 3752227.950 477.00
LOCATION L0005029      VOLUME   475912.549 3752227.960 477.00
LOCATION L0005030      VOLUME   475904.049 3752227.970 477.00
LOCATION L0005031      VOLUME   475895.549 3752227.980 477.00
LOCATION L0005032      VOLUME   475887.049 3752227.990 477.00
LOCATION L0005033      VOLUME   475878.549 3752228.000 477.00
LOCATION L0005034      VOLUME   475870.049 3752228.010 477.00
LOCATION L0005035      VOLUME   475861.549 3752228.020 477.00
LOCATION L0005036      VOLUME   475853.049 3752228.030 477.00
LOCATION L0005037      VOLUME   475844.549 3752228.040 477.00
LOCATION L0005038      VOLUME   475836.049 3752228.050 477.00
LOCATION L0005039      VOLUME   475827.549 3752228.060 477.00
LOCATION L0005040      VOLUME   475819.049 3752228.070 477.00
LOCATION L0005041      VOLUME   475810.549 3752228.080 477.00
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                              AERMOD HRA Output
LOCATION L0005042     VOLUME   475802.049 3752228.090 477.02
LOCATION L0005043     VOLUME   475793.549 3752228.100 477.05
LOCATION L0005044     VOLUME   475785.049 3752228.110 477.07
LOCATION L0005045     VOLUME   475776.549 3752228.120 477.10
LOCATION L0005046     VOLUME   475768.049 3752228.130 477.12
LOCATION L0005047     VOLUME   475759.549 3752228.140 477.14
LOCATION L0005048     VOLUME   475751.049 3752228.150 477.17
LOCATION L0005049     VOLUME   475742.549 3752228.159 477.19
LOCATION L0005050     VOLUME   475734.049 3752228.169 477.22
LOCATION L0005051     VOLUME   475725.549 3752228.179 477.22
LOCATION L0005052     VOLUME   475717.049 3752228.189 477.22
LOCATION L0005053     VOLUME   475708.549 3752228.199 477.22
LOCATION L0005054     VOLUME   475700.049 3752228.209 477.22
LOCATION L0005055     VOLUME   475691.549 3752228.219 477.22
LOCATION L0005056     VOLUME   475683.049 3752228.229 477.22
LOCATION L0005057     VOLUME   475674.549 3752228.239 477.22
LOCATION L0005058     VOLUME   475666.049 3752228.249 477.22
LOCATION L0005059     VOLUME   475657.549 3752228.259 477.22
LOCATION L0005060     VOLUME   475649.049 3752228.269 477.20
LOCATION L0005061     VOLUME   475640.549 3752228.279 477.17
LOCATION L0005062     VOLUME   475632.049 3752228.289 477.15
LOCATION L0005063     VOLUME   475623.549 3752228.299 477.12
LOCATION L0005064     VOLUME   475615.049 3752228.309 477.10
LOCATION L0005065     VOLUME   475606.549 3752228.319 477.08
LOCATION L0005066     VOLUME   475598.049 3752228.329 477.05
LOCATION L0005067     VOLUME   475589.549 3752228.339 477.03
LOCATION L0005068     VOLUME   475581.049 3752228.349 477.01
LOCATION L0005069     VOLUME   475572.549 3752228.359 477.00
LOCATION L0005070     VOLUME   475564.049 3752228.369 477.00
LOCATION L0005071     VOLUME   475555.549 3752228.379 477.00
LOCATION L0005072     VOLUME   475547.049 3752228.389 477.00
LOCATION L0005073     VOLUME   475538.549 3752228.399 477.00
LOCATION L0005074     VOLUME   475530.049 3752228.409 477.00
LOCATION L0005075     VOLUME   475521.549 3752228.419 477.00
LOCATION L0005076     VOLUME   475513.049 3752228.429 477.00
LOCATION L0005077     VOLUME   475504.549 3752228.439 477.00
LOCATION L0005078     VOLUME   475496.049 3752228.448 477.00
LOCATION L0005079     VOLUME   475487.549 3752228.458 477.00
LOCATION L0005080     VOLUME   475479.049 3752228.468 477.00
LOCATION L0005081     VOLUME   475470.549 3752228.478 477.00
LOCATION L0005082     VOLUME   475462.049 3752228.488 477.00
LOCATION L0005083     VOLUME   475453.549 3752228.498 477.00
LOCATION L0005084     VOLUME   475445.049 3752228.508 477.00
LOCATION L0005085     VOLUME   475436.549 3752228.518 477.00
LOCATION L0005086     VOLUME   475428.049 3752228.528 477.00
LOCATION L0005087     VOLUME   475419.549 3752228.538 476.94
LOCATION L0005088     VOLUME   475411.049 3752228.548 476.86
LOCATION L0005089     VOLUME   475402.549 3752228.558 476.77
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AERMOD HRA Output

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LOCATION L0005090     VOLUME   475394.049 3752228.568 476.68
LOCATION L0005091     VOLUME   475385.549 3752228.578 476.60
LOCATION L0005092     VOLUME   475377.049 3752228.588 476.51
LOCATION L0005093     VOLUME   475368.549 3752228.598 476.42
LOCATION L0005094     VOLUME   475360.049 3752228.608 476.34
LOCATION L0005095     VOLUME   475351.549 3752228.618 476.25
LOCATION L0005096     VOLUME   475343.049 3752228.628 476.20
LOCATION L0005097     VOLUME   475334.549 3752228.638 476.17
LOCATION L0005098     VOLUME   475326.049 3752228.648 476.15
LOCATION L0005099     VOLUME   475317.549 3752228.658 476.13
LOCATION L0005100     VOLUME   475309.049 3752228.668 476.10
LOCATION L0005101     VOLUME   475300.549 3752228.678 476.08
LOCATION L0005102     VOLUME   475292.049 3752228.688 476.06
LOCATION L0005103     VOLUME   475283.549 3752228.698 476.03
LOCATION L0005104     VOLUME   475275.049 3752228.708 476.01
LOCATION L0005105     VOLUME   475266.549 3752228.718 476.00
LOCATION L0005106     VOLUME   475258.049 3752228.728 476.00
LOCATION L0005107     VOLUME   475249.549 3752228.738 476.00
LOCATION L0005108     VOLUME   475241.049 3752228.747 476.00
LOCATION L0005109     VOLUME   475232.549 3752228.757 476.00
LOCATION L0005110     VOLUME   475224.049 3752228.767 476.00
LOCATION L0005111     VOLUME   475215.549 3752228.777 476.00
LOCATION L0005112     VOLUME   475207.049 3752228.787 476.00
LOCATION L0005113     VOLUME   475198.549 3752228.797 476.00
LOCATION L0005114     VOLUME   475190.049 3752228.807 476.00
LOCATION L0005115     VOLUME   475181.549 3752228.817 476.00
LOCATION L0005116     VOLUME   475173.049 3752228.827 476.00
LOCATION L0005117     VOLUME   475164.549 3752228.837 476.00
LOCATION L0005118     VOLUME   475156.049 3752228.847 476.00
LOCATION L0005119     VOLUME   475147.549 3752228.857 476.00
LOCATION L0005120     VOLUME   475139.049 3752228.867 476.00
LOCATION L0005121     VOLUME   475130.549 3752228.877 476.00
LOCATION L0005122     VOLUME   475122.049 3752228.887 476.00
LOCATION L0005123     VOLUME   475113.549 3752228.897 476.00
LOCATION L0005124     VOLUME   475105.049 3752228.907 476.00
LOCATION L0005125     VOLUME   475096.549 3752228.917 476.00
LOCATION L0005126     VOLUME   475088.049 3752228.927 476.00
LOCATION L0005127     VOLUME   475079.549 3752228.937 476.00
LOCATION L0005128     VOLUME   475071.049 3752228.947 476.00
LOCATION L0005129     VOLUME   475062.549 3752228.957 476.00
LOCATION L0005130     VOLUME   475054.049 3752228.967 476.00
LOCATION L0005131     VOLUME   475045.549 3752228.977 476.00
LOCATION L0005132     VOLUME   475037.049 3752228.987 475.96
LOCATION L0005133     VOLUME   475028.549 3752228.997 475.85
LOCATION L0005134     VOLUME   475020.049 3752229.007 475.74
LOCATION L0005135     VOLUME   475011.549 3752229.017 475.63
LOCATION L0005136     VOLUME   475003.049 3752229.027 475.52
LOCATION L0005137     VOLUME   474994.549 3752229.037 475.41
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LOCATION L0005138      VOLUME   474986.049 3752229.046 475.30
LOCATION L0005139      VOLUME   474977.549 3752229.056 475.19
LOCATION L0005140      VOLUME   474969.049 3752229.066 475.08
LOCATION L0005141      VOLUME   474960.549 3752229.076 475.00
LOCATION L0005142      VOLUME   474952.049 3752229.086 475.00
LOCATION L0005143      VOLUME   474943.549 3752229.096 475.00
LOCATION L0005144      VOLUME   474935.049 3752229.106 475.00
LOCATION L0005145      VOLUME   474926.549 3752229.116 475.00
LOCATION L0005146      VOLUME   474918.049 3752229.126 475.00
LOCATION L0005147      VOLUME   474909.549 3752229.136 475.00
LOCATION L0005148      VOLUME   474901.050 3752229.146 475.00
LOCATION L0005149      VOLUME   474892.550 3752229.156 475.00
LOCATION L0005150      VOLUME   474884.050 3752229.166 474.98
LOCATION L0005151      VOLUME   474875.550 3752229.176 474.87
LOCATION L0005152      VOLUME   474867.050 3752229.186 474.76
LOCATION L0005153      VOLUME   474858.550 3752229.196 474.65
LOCATION L0005154      VOLUME   474850.050 3752229.206 474.54
LOCATION L0005155      VOLUME   474841.550 3752229.216 474.43
LOCATION L0005156      VOLUME   474833.050 3752229.226 474.32
LOCATION L0005157      VOLUME   474824.550 3752229.236 474.21
LOCATION L0005158      VOLUME   474816.050 3752229.246 474.10
LOCATION L0005159      VOLUME   474807.550 3752229.256 474.02
LOCATION L0005160      VOLUME   474799.143 3752228.014 474.12
LOCATION L0005161      VOLUME   474790.738 3752226.744 474.23
LOCATION L0005162      VOLUME   474782.334 3752225.473 474.34
LOCATION L0005163      VOLUME   474773.930 3752224.202 474.45
LOCATION L0005164      VOLUME   474765.525 3752222.931 474.56
LOCATION L0005165      VOLUME   474757.121 3752221.660 474.67
LOCATION L0005166      VOLUME   474748.716 3752220.389 474.78
LOCATION L0005167      VOLUME   474740.312 3752219.118 474.89
LOCATION L0005168      VOLUME   474731.907 3752217.847 475.00
LOCATION L0005169      VOLUME   474723.503 3752216.576 475.00
LOCATION L0005170      VOLUME   474715.098 3752215.305 475.00
LOCATION L0005171      VOLUME   474706.694 3752214.034 475.00
LOCATION L0005172      VOLUME   474698.290 3752212.763 475.00
LOCATION L0005173      VOLUME   474689.885 3752211.493 475.00
LOCATION L0005174      VOLUME   474681.481 3752210.222 475.00
LOCATION L0005175      VOLUME   474673.076 3752208.951 475.00
LOCATION L0005176      VOLUME   474664.672 3752207.680 475.00
LOCATION L0005177      VOLUME   474656.267 3752206.409 475.00
LOCATION L0005178      VOLUME   474647.863 3752205.138 475.00
LOCATION L0005179      VOLUME   474639.458 3752203.867 475.00
LOCATION L0005180      VOLUME   474631.054 3752202.596 475.00
LOCATION L0005181      VOLUME   474622.649 3752201.325 475.00
LOCATION L0005182      VOLUME   474614.245 3752200.054 475.00
LOCATION L0005183      VOLUME   474605.841 3752198.783 475.00
LOCATION L0005184      VOLUME   474597.436 3752197.512 475.00
LOCATION L0005185      VOLUME   474589.032 3752196.241 475.00
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                              AERMOD HRA Output
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LOCATION L0005187     VOLUME   474572.223 3752193.700 475.07
LOCATION L0005188     VOLUME   474563.818 3752192.429 475.18
LOCATION L0005189     VOLUME   474555.414 3752191.158 475.29
LOCATION L0005190     VOLUME   474547.009 3752189.887 475.40
LOCATION L0005191     VOLUME   474538.605 3752188.616 475.50
LOCATION L0005192     VOLUME   474530.201 3752187.345 475.61
LOCATION L0005193     VOLUME   474521.796 3752186.074 475.72
LOCATION L0005194     VOLUME   474513.392 3752184.803 475.83
LOCATION L0005195     VOLUME   474504.987 3752183.532 475.94
LOCATION L0005196     VOLUME   474496.583 3752182.261 476.00
LOCATION L0005197     VOLUME   474488.178 3752180.990 476.00
LOCATION L0005198     VOLUME   474479.774 3752179.720 476.00
LOCATION L0005199     VOLUME   474471.369 3752178.449 476.00
LOCATION L0005200     VOLUME   474462.965 3752177.178 476.00
LOCATION L0005201     VOLUME   474454.561 3752175.907 476.00
LOCATION L0005202     VOLUME   474446.156 3752174.636 476.00
LOCATION L0005203     VOLUME   474437.752 3752173.365 476.00
LOCATION L0005204     VOLUME   474429.347 3752172.094 476.00
LOCATION L0005205     VOLUME   474420.943 3752170.823 476.03
LOCATION L0005206     VOLUME   474412.538 3752169.552 476.14
LOCATION L0005207     VOLUME   474404.134 3752168.281 476.25
LOCATION L0005208     VOLUME   474395.729 3752167.010 476.36
LOCATION L0005209     VOLUME   474387.325 3752165.739 476.47
LOCATION L0005210     VOLUME   474378.920 3752164.468 476.58
LOCATION L0005211     VOLUME   474370.516 3752163.198 476.69
LOCATION L0005212     VOLUME   474362.112 3752161.927 476.79
LOCATION L0005213     VOLUME   474353.707 3752160.656 476.90
LOCATION L0005214     VOLUME   474345.303 3752159.385 477.00
LOCATION L0005215     VOLUME   474336.898 3752158.114 477.00
LOCATION L0005216     VOLUME   474328.494 3752156.843 477.00
LOCATION L0005217     VOLUME   474320.089 3752155.572 477.00
LOCATION L0005218     VOLUME   474311.685 3752154.301 477.00
LOCATION L0005219     VOLUME   474303.280 3752153.030 477.00
LOCATION L0005220     VOLUME   474294.876 3752151.759 477.00
LOCATION L0005221     VOLUME   474286.472 3752150.488 477.00
LOCATION L0005222     VOLUME   474278.067 3752149.217 477.00
LOCATION L0005223     VOLUME   474269.663 3752147.947 477.00
LOCATION L0005224     VOLUME   474261.258 3752146.676 477.00
LOCATION L0005225     VOLUME   474252.854 3752145.405 477.00
LOCATION L0005226     VOLUME   474244.449 3752144.134 477.00
LOCATION L0005227     VOLUME   474236.045 3752142.863 477.00
LOCATION L0005228     VOLUME   474227.640 3752141.592 477.00
LOCATION L0005229     VOLUME   474219.236 3752140.321 477.00
LOCATION L0005230     VOLUME   474210.831 3752139.050 477.00
LOCATION L0005231     VOLUME   474202.427 3752137.779 477.00
LOCATION L0005232     VOLUME   474194.023 3752136.508 477.00
LOCATION L0005233     VOLUME   474185.618 3752135.237 477.08
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   LOCATION L0005235     VOLUME   474168.809 3752132.696 477.30
   LOCATION L0005236     VOLUME   474160.420 3752131.328 477.41
   LOCATION L0005237     VOLUME   474152.036 3752129.931 477.52
   LOCATION L0005238     VOLUME   474143.651 3752128.533 477.63
   LOCATION L0005239     VOLUME   474135.267 3752127.136 477.74
   LOCATION L0005240     VOLUME   474126.883 3752125.738 477.85
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   LOCATION L0005242     VOLUME   474110.114 3752122.944 478.00
   LOCATION L0005243     VOLUME   474101.730 3752121.546 478.00
   LOCATION L0005244     VOLUME   474093.345 3752120.149 478.00
   LOCATION L0005245     VOLUME   474084.961 3752118.751 478.00
   LOCATION L0005246     VOLUME   474076.577 3752117.354 478.00
   LOCATION L0005247     VOLUME   474068.192 3752115.956 478.00
   LOCATION L0005248     VOLUME   474059.808 3752114.559 478.00
   LOCATION L0005249     VOLUME   474051.424 3752113.162 478.00
   LOCATION L0005250     VOLUME   474043.039 3752111.764 478.00
** End of LINE VOLUME Source ID = SLINE14
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003048
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477480.626, 3749795.973, 459.75, 0.00, 3.95
** 477474.677, 3750167.941, 460.51, 0.00, 3.95
** 477466.428, 3750269.283, 460.78, 0.00, 3.95
** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
** 477472.585, 3752226.131, 471.76, 0.00, 3.95
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   LOCATION L0005252     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0005253     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0005254     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0005255     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0005256     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0005257     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0005258     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0005259     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0005260     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0005261     VOLUME   477479.199 3749885.212 458.00
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LOCATION L0005262     VOLUME   477479.063 3749893.711 458.00
LOCATION L0005263     VOLUME   477478.927 3749902.209 458.00
LOCATION L0005264     VOLUME   477478.791 3749910.708 458.00
LOCATION L0005265     VOLUME   477478.655 3749919.207 458.00
LOCATION L0005266     VOLUME   477478.519 3749927.706 458.00
LOCATION L0005267     VOLUME   477478.383 3749936.205 458.00
LOCATION L0005268     VOLUME   477478.247 3749944.704 458.00
LOCATION L0005269     VOLUME   477478.111 3749953.203 458.00
LOCATION L0005270     VOLUME   477477.975 3749961.702 458.17
LOCATION L0005271     VOLUME   477477.840 3749970.201 458.45
LOCATION L0005272     VOLUME   477477.704 3749978.700 458.74
LOCATION L0005273     VOLUME   477477.568 3749987.199 459.00
LOCATION L0005274     VOLUME   477477.432 3749995.697 459.00
LOCATION L0005275     VOLUME   477477.296 3750004.196 459.00
LOCATION L0005276     VOLUME   477477.160 3750012.695 459.00
LOCATION L0005277     VOLUME   477477.024 3750021.194 459.00
LOCATION L0005278     VOLUME   477476.888 3750029.693 459.00
LOCATION L0005279     VOLUME   477476.752 3750038.192 459.00
LOCATION L0005280     VOLUME   477476.616 3750046.691 459.00
LOCATION L0005281     VOLUME   477476.480 3750055.190 459.00
LOCATION L0005282     VOLUME   477476.344 3750063.689 459.00
LOCATION L0005283     VOLUME   477476.208 3750072.188 459.00
LOCATION L0005284     VOLUME   477476.072 3750080.687 459.00
LOCATION L0005285     VOLUME   477475.937 3750089.186 459.00
LOCATION L0005286     VOLUME   477475.801 3750097.684 459.00
LOCATION L0005287     VOLUME   477475.665 3750106.183 459.00
LOCATION L0005288     VOLUME   477475.529 3750114.682 459.00
LOCATION L0005289     VOLUME   477475.393 3750123.181 459.00
LOCATION L0005290     VOLUME   477475.257 3750131.680 459.00
LOCATION L0005291     VOLUME   477475.121 3750140.179 459.00
LOCATION L0005292     VOLUME   477474.985 3750148.678 459.00
LOCATION L0005293     VOLUME   477474.849 3750157.177 459.00
LOCATION L0005294     VOLUME   477474.713 3750165.676 459.00
LOCATION L0005295     VOLUME   477474.171 3750174.155 459.00
LOCATION L0005296     VOLUME   477473.482 3750182.627 459.00
LOCATION L0005297     VOLUME   477472.792 3750191.099 459.00
LOCATION L0005298     VOLUME   477472.102 3750199.571 459.04
LOCATION L0005299     VOLUME   477471.413 3750208.043 459.15
LOCATION L0005300     VOLUME   477470.723 3750216.515 459.24
LOCATION L0005301     VOLUME   477470.034 3750224.987 459.32
LOCATION L0005302     VOLUME   477469.344 3750233.459 459.48
LOCATION L0005303     VOLUME   477468.654 3750241.931 459.66
LOCATION L0005304     VOLUME   477467.965 3750250.403 459.85
LOCATION L0005305     VOLUME   477467.275 3750258.875 460.00
LOCATION L0005306     VOLUME   477466.586 3750267.347 460.00
LOCATION L0005307     VOLUME   477466.456 3750275.840 460.00
LOCATION L0005308     VOLUME   477466.492 3750284.340 460.00
LOCATION L0005309     VOLUME   477466.529 3750292.840 460.00
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LOCATION L0005310     VOLUME   477466.565 3750301.340 460.00
LOCATION L0005311     VOLUME   477466.601 3750309.840 460.00
LOCATION L0005312     VOLUME   477466.638 3750318.340 460.00
LOCATION L0005313     VOLUME   477466.674 3750326.840 460.00
LOCATION L0005314     VOLUME   477466.710 3750335.340 460.00
LOCATION L0005315     VOLUME   477466.747 3750343.840 460.00
LOCATION L0005316     VOLUME   477466.783 3750352.340 460.00
LOCATION L0005317     VOLUME   477466.819 3750360.839 460.00
LOCATION L0005318     VOLUME   477466.855 3750369.339 460.00
LOCATION L0005319     VOLUME   477466.892 3750377.839 460.00
LOCATION L0005320     VOLUME   477466.928 3750386.339 460.00
LOCATION L0005321     VOLUME   477466.964 3750394.839 460.00
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LOCATION L0005323     VOLUME   477467.037 3750411.839 460.00
LOCATION L0005324     VOLUME   477467.073 3750420.339 460.00
LOCATION L0005325     VOLUME   477467.110 3750428.839 460.00
LOCATION L0005326     VOLUME   477467.146 3750437.339 460.00
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LOCATION L0005328     VOLUME   477467.219 3750454.339 460.00
LOCATION L0005329     VOLUME   477467.255 3750462.838 460.00
LOCATION L0005330     VOLUME   477467.291 3750471.338 460.16
LOCATION L0005331     VOLUME   477467.328 3750479.838 460.44
LOCATION L0005332     VOLUME   477467.364 3750488.338 460.73
LOCATION L0005333     VOLUME   477467.400 3750496.838 461.00
LOCATION L0005334     VOLUME   477467.436 3750505.338 461.00
LOCATION L0005335     VOLUME   477467.473 3750513.838 461.00
LOCATION L0005336     VOLUME   477467.509 3750522.338 461.00
LOCATION L0005337     VOLUME   477467.545 3750530.838 461.00
LOCATION L0005338     VOLUME   477467.582 3750539.338 461.00
LOCATION L0005339     VOLUME   477467.689 3750547.837 461.00
LOCATION L0005340     VOLUME   477467.939 3750556.333 461.00
LOCATION L0005341     VOLUME   477468.188 3750564.829 461.00
LOCATION L0005342     VOLUME   477468.438 3750573.326 461.00
LOCATION L0005343     VOLUME   477468.688 3750581.822 461.00
LOCATION L0005344     VOLUME   477468.938 3750590.318 461.00
LOCATION L0005345     VOLUME   477469.188 3750598.814 461.00
LOCATION L0005346     VOLUME   477469.438 3750607.311 461.00
LOCATION L0005347     VOLUME   477469.688 3750615.807 461.00
LOCATION L0005348     VOLUME   477469.938 3750624.303 461.00
LOCATION L0005349     VOLUME   477470.188 3750632.800 461.00
LOCATION L0005350     VOLUME   477470.437 3750641.296 461.00
LOCATION L0005351     VOLUME   477470.687 3750649.792 461.04
LOCATION L0005352     VOLUME   477470.937 3750658.289 461.15
LOCATION L0005353     VOLUME   477471.187 3750666.785 461.26
LOCATION L0005354     VOLUME   477471.437 3750675.281 461.37
LOCATION L0005355     VOLUME   477471.687 3750683.778 461.54
LOCATION L0005356     VOLUME   477471.937 3750692.274 461.72
LOCATION L0005357     VOLUME   477472.187 3750700.770 461.89
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                              AERMOD HRA Output
LOCATION L0005358      VOLUME   477472.437 3750709.267 462.00
LOCATION L0005359      VOLUME   477472.686 3750717.763 462.00
LOCATION L0005360      VOLUME   477472.936 3750726.259 462.00
LOCATION L0005361      VOLUME   477473.186 3750734.756 462.00
LOCATION L0005362      VOLUME   477473.436 3750743.252 462.00
LOCATION L0005363      VOLUME   477473.686 3750751.748 462.00
LOCATION L0005364      VOLUME   477473.936 3750760.245 462.00
LOCATION L0005365      VOLUME   477474.186 3750768.741 462.00
LOCATION L0005366      VOLUME   477474.436 3750777.237 462.00
LOCATION L0005367      VOLUME   477474.686 3750785.734 462.00
LOCATION L0005368      VOLUME   477474.935 3750794.230 462.00
LOCATION L0005369      VOLUME   477475.185 3750802.726 462.00
LOCATION L0005370      VOLUME   477475.435 3750811.223 462.00
LOCATION L0005371      VOLUME   477475.685 3750819.719 462.00
LOCATION L0005372      VOLUME   477475.935 3750828.215 462.00
LOCATION L0005373      VOLUME   477476.185 3750836.712 462.00
LOCATION L0005374      VOLUME   477476.435 3750845.208 462.00
LOCATION L0005375      VOLUME   477476.685 3750853.704 462.00
LOCATION L0005376      VOLUME   477476.935 3750862.201 462.11
LOCATION L0005377      VOLUME   477477.066 3750870.699 462.27
LOCATION L0005378      VOLUME   477477.120 3750879.199 462.44
LOCATION L0005379      VOLUME   477477.174 3750887.699 462.60
LOCATION L0005380      VOLUME   477477.228 3750896.199 462.72
LOCATION L0005381      VOLUME   477477.282 3750904.698 462.84
LOCATION L0005382      VOLUME   477477.337 3750913.198 462.95
LOCATION L0005383      VOLUME   477477.391 3750921.698 463.00
LOCATION L0005384      VOLUME   477477.445 3750930.198 463.00
LOCATION L0005385      VOLUME   477477.499 3750938.698 463.00
LOCATION L0005386      VOLUME   477477.553 3750947.197 463.00
LOCATION L0005387      VOLUME   477477.607 3750955.697 463.00
LOCATION L0005388      VOLUME   477477.661 3750964.197 463.00
LOCATION L0005389      VOLUME   477477.716 3750972.697 463.00
LOCATION L0005390      VOLUME   477477.770 3750981.197 463.00
LOCATION L0005391      VOLUME   477477.824 3750989.697 463.00
LOCATION L0005392      VOLUME   477477.878 3750998.196 463.00
LOCATION L0005393      VOLUME   477477.932 3751006.696 463.00
LOCATION L0005394      VOLUME   477477.986 3751015.196 463.00
LOCATION L0005395      VOLUME   477478.040 3751023.696 463.00
LOCATION L0005396      VOLUME   477478.095 3751032.196 463.00
LOCATION L0005397      VOLUME   477478.149 3751040.696 463.00
LOCATION L0005398      VOLUME   477478.203 3751049.195 463.00
LOCATION L0005399      VOLUME   477478.257 3751057.695 463.00
LOCATION L0005400      VOLUME   477478.311 3751066.195 463.00
LOCATION L0005401      VOLUME   477478.365 3751074.695 463.17
LOCATION L0005402      VOLUME   477478.419 3751083.195 463.34
LOCATION L0005403      VOLUME   477478.474 3751091.695 463.52
LOCATION L0005404      VOLUME   477478.528 3751100.194 463.67
LOCATION L0005405      VOLUME   477478.582 3751108.694 463.78
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LOCATION L0005406     VOLUME   477478.636 3751117.194 463.88
LOCATION L0005407     VOLUME   477478.690 3751125.694 463.99
LOCATION L0005408     VOLUME   477478.744 3751134.194 464.00
LOCATION L0005409     VOLUME   477478.798 3751142.694 464.00
LOCATION L0005410     VOLUME   477478.853 3751151.193 464.00
LOCATION L0005411     VOLUME   477478.907 3751159.693 464.00
LOCATION L0005412     VOLUME   477478.961 3751168.193 464.00
LOCATION L0005413     VOLUME   477479.015 3751176.693 464.00
LOCATION L0005414     VOLUME   477479.069 3751185.193 464.00
LOCATION L0005415     VOLUME   477479.123 3751193.692 464.00
LOCATION L0005416     VOLUME   477479.177 3751202.192 464.00
LOCATION L0005417     VOLUME   477479.232 3751210.692 464.00
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LOCATION L0005419     VOLUME   477479.340 3751227.692 464.00
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LOCATION L0005421     VOLUME   477479.327 3751244.691 464.00
LOCATION L0005422     VOLUME   477479.269 3751253.191 464.22
LOCATION L0005423     VOLUME   477479.211 3751261.691 464.50
LOCATION L0005424     VOLUME   477479.152 3751270.191 464.79
LOCATION L0005425     VOLUME   477479.094 3751278.691 465.00
LOCATION L0005426     VOLUME   477479.035 3751287.190 465.00
LOCATION L0005427     VOLUME   477478.977 3751295.690 465.00
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LOCATION L0005432     VOLUME   477478.685 3751338.189 465.00
LOCATION L0005433     VOLUME   477478.627 3751346.689 465.00
LOCATION L0005434     VOLUME   477478.568 3751355.189 465.00
LOCATION L0005435     VOLUME   477478.510 3751363.689 465.00
LOCATION L0005436     VOLUME   477478.451 3751372.188 465.00
LOCATION L0005437     VOLUME   477478.393 3751380.688 465.00
LOCATION L0005438     VOLUME   477478.335 3751389.188 465.00
LOCATION L0005439     VOLUME   477478.276 3751397.688 465.00
LOCATION L0005440     VOLUME   477478.218 3751406.188 465.00
LOCATION L0005441     VOLUME   477478.159 3751414.687 465.00
LOCATION L0005442     VOLUME   477478.101 3751423.187 465.00
LOCATION L0005443     VOLUME   477478.043 3751431.687 465.17
LOCATION L0005444     VOLUME   477477.984 3751440.187 465.45
LOCATION L0005445     VOLUME   477477.926 3751448.687 465.74
LOCATION L0005446     VOLUME   477477.867 3751457.186 466.00
LOCATION L0005447     VOLUME   477477.809 3751465.686 466.00
LOCATION L0005448     VOLUME   477477.751 3751474.186 466.00
LOCATION L0005449     VOLUME   477477.692 3751482.686 466.00
LOCATION L0005450     VOLUME   477477.634 3751491.186 466.00
LOCATION L0005451     VOLUME   477477.576 3751499.685 466.00
LOCATION L0005452     VOLUME   477477.517 3751508.185 466.00
LOCATION L0005453     VOLUME   477477.459 3751516.685 466.00
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LOCATION L0005454     VOLUME   477477.400 3751525.185 466.00
LOCATION L0005455     VOLUME   477477.342 3751533.685 466.00
LOCATION L0005456     VOLUME   477477.284 3751542.184 466.00
LOCATION L0005457     VOLUME   477477.225 3751550.684 466.00
LOCATION L0005458     VOLUME   477477.167 3751559.184 466.00
LOCATION L0005459     VOLUME   477477.108 3751567.684 466.00
LOCATION L0005460     VOLUME   477477.050 3751576.184 466.00
LOCATION L0005461     VOLUME   477476.992 3751584.683 466.00
LOCATION L0005462     VOLUME   477476.933 3751593.183 466.00
LOCATION L0005463     VOLUME   477476.875 3751601.683 466.00
LOCATION L0005464     VOLUME   477476.816 3751610.183 466.07
LOCATION L0005465     VOLUME   477476.758 3751618.683 466.23
LOCATION L0005466     VOLUME   477476.700 3751627.182 466.39
LOCATION L0005467     VOLUME   477476.641 3751635.682 466.55
LOCATION L0005468     VOLUME   477476.583 3751644.182 466.67
LOCATION L0005469     VOLUME   477476.524 3751652.682 466.80
LOCATION L0005470     VOLUME   477476.466 3751661.182 466.92
LOCATION L0005471     VOLUME   477476.408 3751669.681 467.00
LOCATION L0005472     VOLUME   477476.349 3751678.181 467.00
LOCATION L0005473     VOLUME   477476.291 3751686.681 467.00
LOCATION L0005474     VOLUME   477476.233 3751695.181 467.00
LOCATION L0005475     VOLUME   477476.174 3751703.681 467.00
LOCATION L0005476     VOLUME   477476.116 3751712.180 467.00
LOCATION L0005477     VOLUME   477476.057 3751720.680 467.00
LOCATION L0005478     VOLUME   477475.999 3751729.180 467.05
LOCATION L0005479     VOLUME   477475.941 3751737.680 467.20
LOCATION L0005480     VOLUME   477475.882 3751746.180 467.35
LOCATION L0005481     VOLUME   477475.824 3751754.679 467.50
LOCATION L0005482     VOLUME   477475.765 3751763.179 467.64
LOCATION L0005483     VOLUME   477475.707 3751771.679 467.77
LOCATION L0005484     VOLUME   477475.649 3751780.179 467.90
LOCATION L0005485     VOLUME   477475.590 3751788.679 468.00
LOCATION L0005486     VOLUME   477475.532 3751797.178 468.00
LOCATION L0005487     VOLUME   477475.473 3751805.678 468.00
LOCATION L0005488     VOLUME   477475.415 3751814.178 468.00
LOCATION L0005489     VOLUME   477475.357 3751822.678 468.00
LOCATION L0005490     VOLUME   477475.298 3751831.178 468.00
LOCATION L0005491     VOLUME   477475.240 3751839.677 468.00
LOCATION L0005492     VOLUME   477475.181 3751848.177 468.00
LOCATION L0005493     VOLUME   477475.123 3751856.677 468.00
LOCATION L0005494     VOLUME   477475.065 3751865.177 468.00
LOCATION L0005495     VOLUME   477475.006 3751873.677 468.00
LOCATION L0005496     VOLUME   477474.948 3751882.176 468.19
LOCATION L0005497     VOLUME   477474.890 3751890.676 468.47
LOCATION L0005498     VOLUME   477474.831 3751899.176 468.75
LOCATION L0005499     VOLUME   477474.773 3751907.676 469.00
LOCATION L0005500     VOLUME   477474.714 3751916.176 469.00
LOCATION L0005501     VOLUME   477474.656 3751924.675 469.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0005502     VOLUME   477474.598 3751933.175 469.00
   LOCATION L0005503     VOLUME   477474.539 3751941.675 469.00
   LOCATION L0005504     VOLUME   477474.481 3751950.175 469.00
   LOCATION L0005505     VOLUME   477474.422 3751958.675 469.00
   LOCATION L0005506     VOLUME   477474.364 3751967.174 469.00
   LOCATION L0005507     VOLUME   477474.306 3751975.674 469.00
   LOCATION L0005508     VOLUME   477474.247 3751984.174 469.00
   LOCATION L0005509     VOLUME   477474.189 3751992.674 469.00
   LOCATION L0005510     VOLUME   477474.130 3752001.174 469.00
   LOCATION L0005511     VOLUME   477474.072 3752009.673 469.00
   LOCATION L0005512     VOLUME   477474.014 3752018.173 469.00
   LOCATION L0005513     VOLUME   477473.955 3752026.673 469.00
   LOCATION L0005514     VOLUME   477473.897 3752035.173 469.14
   LOCATION L0005515     VOLUME   477473.838 3752043.673 469.27
   LOCATION L0005516     VOLUME   477473.780 3752052.172 469.40
   LOCATION L0005517     VOLUME   477473.722 3752060.672 469.46
   LOCATION L0005518     VOLUME   477473.663 3752069.172 469.46
   LOCATION L0005519     VOLUME   477473.605 3752077.672 469.46
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   LOCATION L0005522     VOLUME   477473.430 3752103.171 469.76
   LOCATION L0005523     VOLUME   477473.371 3752111.671 469.91
   LOCATION L0005524     VOLUME   477473.313 3752120.171 470.05
   LOCATION L0005525     VOLUME   477473.255 3752128.671 470.18
   LOCATION L0005526     VOLUME   477473.196 3752137.170 470.31
   LOCATION L0005527     VOLUME   477473.138 3752145.670 470.43
   LOCATION L0005528     VOLUME   477473.079 3752154.170 470.58
   LOCATION L0005529     VOLUME   477473.021 3752162.670 470.74
   LOCATION L0005530     VOLUME   477472.963 3752171.170 470.90
   LOCATION L0005531     VOLUME   477472.904 3752179.669 471.00
   LOCATION L0005532     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0005533     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0005534     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0005535     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0005536     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0001737     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001738     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001739     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001740     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001741     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001742     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001743     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001744     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001745     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001746     0.00000531      4.00     13.95      1.86
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                              AERMOD HRA Output
   SRCPARAM L0001747     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001748     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001749     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001750     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001751     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001752     0.00000531      4.00     13.95      1.86
   SRCPARAM L0001753     0.00000531      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0001754     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001755     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001756     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001757     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001758     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001759     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001760     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001761     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001762     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001763     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001764     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001765     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001766     0.000005501      4.00     13.95      1.86
   SRCPARAM L0001767     0.000005501      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0001768     0.000005075      4.00      3.95      1.86
   SRCPARAM L0001769     0.000005075      4.00      3.95      1.86
   SRCPARAM L0001770     0.000005075      4.00      3.95      1.86
   SRCPARAM L0001771     0.000005075      4.00      3.95      1.86
   SRCPARAM L0001772     0.000005075      4.00      3.95      1.86
   SRCPARAM L0001773     0.000005075      4.00      3.95      1.86
   SRCPARAM L0001774     0.000005075      4.00      3.95      1.86
   SRCPARAM L0001775     0.000005075      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0001776     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001777     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001778     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001779     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001780     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001781     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001782     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001783     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001784     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001785     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001786     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001787     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0001788     0.0000002543      4.00      3.95      1.86
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   SRCPARAM L0001789     0.0000002543      4.00       3.95       1.86
   SRCPARAM L0001790     0.0000002543      4.00       3.95       1.86
   SRCPARAM L0001791     0.0000002543      4.00       3.95       1.86
   SRCPARAM L0001792     0.0000002543      4.00       3.95       1.86
   SRCPARAM L0001793     0.0000002543      4.00       3.95       1.86
   SRCPARAM L0001794     0.0000002543      4.00       3.95       1.86
   SRCPARAM L0001795     0.0000002543      4.00       3.95       1.86
   SRCPARAM L0001796     0.0000002543      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0001797     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001798     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001799     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001800     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001801     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001802     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001803     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001804     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001805     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001806     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001807     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001808     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001809     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001810     0.000003668      0.00       3.95       1.86
   SRCPARAM L0001811     0.000003668      0.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0001812     0.000000825      0.00      13.95       1.86
   SRCPARAM L0001813     0.000000825      0.00      13.95       1.86
   SRCPARAM L0001814     0.000000825      0.00      13.95       1.86
   SRCPARAM L0001815     0.000000825      0.00      13.95       1.86
   SRCPARAM L0001816     0.000000825      0.00      13.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0001817     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001818     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001819     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001820     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001821     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001822     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001823     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001824     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001825     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001826     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001827     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001828     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001829     0.000001345      4.00       3.95       1.86
   SRCPARAM L0001830     0.000001345      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0001831      0.000001345      4.00      3.95      1.86
SRCPARAM L0001832      0.000001345      4.00      3.95      1.86
SRCPARAM L0001833      0.000001345      4.00      3.95      1.86
SRCPARAM L0001834      0.000001345      4.00      3.95      1.86
SRCPARAM L0001835      0.000001345      4.00      3.95      1.86
SRCPARAM L0001836      0.000001345      4.00      3.95      1.86
SRCPARAM L0001837      0.000001345      4.00      3.95      1.86
SRCPARAM L0001838      0.000001345      4.00      3.95      1.86
SRCPARAM L0001839      0.000001345      4.00      3.95      1.86
SRCPARAM L0001840      0.000001345      4.00      3.95      1.86
SRCPARAM L0001841      0.000001345      4.00      3.95      1.86
SRCPARAM L0001842      0.000001345      4.00      3.95      1.86
SRCPARAM L0001843      0.000001345      4.00      3.95      1.86
SRCPARAM L0001844      0.000001345      4.00      3.95      1.86
SRCPARAM L0001845      0.000001345      4.00      3.95      1.86
SRCPARAM L0001846      0.000001345      4.00      3.95      1.86
SRCPARAM L0001847      0.000001345      4.00      3.95      1.86
SRCPARAM L0001848      0.000001345      4.00      3.95      1.86
SRCPARAM L0001849      0.000001345      4.00      3.95      1.86
SRCPARAM L0001850      0.000001345      4.00      3.95      1.86
SRCPARAM L0001851      0.000001345      4.00      3.95      1.86
SRCPARAM L0001852      0.000001345      4.00      3.95      1.86
SRCPARAM L0001853      0.000001345      4.00      3.95      1.86
SRCPARAM L0001854      0.000001345      4.00      3.95      1.86
SRCPARAM L0001855      0.000001345      4.00      3.95      1.86
SRCPARAM L0001856      0.000001345      4.00      3.95      1.86
SRCPARAM L0001857      0.000001345      4.00      3.95      1.86
SRCPARAM L0001858      0.000001345      4.00      3.95      1.86
SRCPARAM L0001859      0.000001345      4.00      3.95      1.86
SRCPARAM L0001860      0.000001345      4.00      3.95      1.86
SRCPARAM L0001861      0.000001345      4.00      3.95      1.86
SRCPARAM L0001862      0.000001345      4.00      3.95      1.86
SRCPARAM L0001863      0.000001345      4.00      3.95      1.86
SRCPARAM L0001864      0.000001345      4.00      3.95      1.86
SRCPARAM L0001865      0.000001345      4.00      3.95      1.86
SRCPARAM L0001866      0.000001345      4.00      3.95      1.86
SRCPARAM L0001867      0.000001345      4.00      3.95      1.86
SRCPARAM L0001868      0.000001345      4.00      3.95      1.86
SRCPARAM L0001869      0.000001345      4.00      3.95      1.86
SRCPARAM L0001870      0.000001345      4.00      3.95      1.86
SRCPARAM L0001871      0.000001345      4.00      3.95      1.86
SRCPARAM L0001872      0.000001345      4.00      3.95      1.86
SRCPARAM L0001873      0.000001345      4.00      3.95      1.86
SRCPARAM L0001874      0.000001345      4.00      3.95      1.86
SRCPARAM L0001875      0.000001345      4.00      3.95      1.86
SRCPARAM L0001876      0.000001345      4.00      3.95      1.86
SRCPARAM L0001877      0.000001345      4.00      3.95      1.86
SRCPARAM L0001878      0.000001345      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0001879      0.000001345       4.00       3.95       1.86
SRCPARAM L0001880      0.000001345       4.00       3.95       1.86
SRCPARAM L0001881      0.000001345       4.00       3.95       1.86
SRCPARAM L0001882      0.000001345       4.00       3.95       1.86
SRCPARAM L0001883      0.000001345       4.00       3.95       1.86
SRCPARAM L0001884      0.000001345       4.00       3.95       1.86
SRCPARAM L0001885      0.000001345       4.00       3.95       1.86
SRCPARAM L0001886      0.000001345       4.00       3.95       1.86
SRCPARAM L0001887      0.000001345       4.00       3.95       1.86
SRCPARAM L0001888      0.000001345       4.00       3.95       1.86
SRCPARAM L0001889      0.000001345       4.00       3.95       1.86
SRCPARAM L0001890      0.000001345       4.00       3.95       1.86
SRCPARAM L0001891      0.000001345       4.00       3.95       1.86
SRCPARAM L0001892      0.000001345       4.00       3.95       1.86
SRCPARAM L0001893      0.000001345       4.00       3.95       1.86
SRCPARAM L0001894      0.000001345       4.00       3.95       1.86
SRCPARAM L0001895      0.000001345       4.00       3.95       1.86
SRCPARAM L0001896      0.000001345       4.00       3.95       1.86
SRCPARAM L0001897      0.000001345       4.00       3.95       1.86
SRCPARAM L0001898      0.000001345       4.00       3.95       1.86
SRCPARAM L0001899      0.000001345       4.00       3.95       1.86
SRCPARAM L0001900      0.000001345       4.00       3.95       1.86
SRCPARAM L0001901      0.000001345       4.00       3.95       1.86
SRCPARAM L0001902      0.000001345       4.00       3.95       1.86
SRCPARAM L0001903      0.000001345       4.00       3.95       1.86
SRCPARAM L0001904      0.000001345       4.00       3.95       1.86
SRCPARAM L0001905      0.000001345       4.00       3.95       1.86
SRCPARAM L0001906      0.000001345       4.00       3.95       1.86
SRCPARAM L0001907      0.000001345       4.00       3.95       1.86
SRCPARAM L0001908      0.000001345       4.00       3.95       1.86
SRCPARAM L0001909      0.000001345       4.00       3.95       1.86
SRCPARAM L0001910      0.000001345       4.00       3.95       1.86
SRCPARAM L0001911      0.000001345       4.00       3.95       1.86
SRCPARAM L0001912      0.000001345       4.00       3.95       1.86
SRCPARAM L0001913      0.000001345       4.00       3.95       1.86
SRCPARAM L0001914      0.000001345       4.00       3.95       1.86
SRCPARAM L0001915      0.000001345       4.00       3.95       1.86
SRCPARAM L0001916      0.000001345       4.00       3.95       1.86
SRCPARAM L0001917      0.000001345       4.00       3.95       1.86
SRCPARAM L0001918      0.000001345       4.00       3.95       1.86
SRCPARAM L0001919      0.000001345       4.00       3.95       1.86
SRCPARAM L0001920      0.000001345       4.00       3.95       1.86
SRCPARAM L0001921      0.000001345       4.00       3.95       1.86
SRCPARAM L0001922      0.000001345       4.00       3.95       1.86
SRCPARAM L0001923      0.000001345       4.00       3.95       1.86
SRCPARAM L0001924      0.000001345       4.00       3.95       1.86
SRCPARAM L0001925      0.000001345       4.00       3.95       1.86
SRCPARAM L0001926      0.000001345       4.00       3.95       1.86
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SRCPARAM L0001927      0.000001345      4.00       3.95       1.86
SRCPARAM L0001928      0.000001345      4.00       3.95       1.86
SRCPARAM L0001929      0.000001345      4.00       3.95       1.86
SRCPARAM L0001930      0.000001345      4.00       3.95       1.86
SRCPARAM L0001931      0.000001345      4.00       3.95       1.86
SRCPARAM L0001932      0.000001345      4.00       3.95       1.86
SRCPARAM L0001933      0.000001345      4.00       3.95       1.86
SRCPARAM L0001934      0.000001345      4.00       3.95       1.86
SRCPARAM L0001935      0.000001345      4.00       3.95       1.86
SRCPARAM L0001936      0.000001345      4.00       3.95       1.86
SRCPARAM L0001937      0.000001345      4.00       3.95       1.86
SRCPARAM L0001938      0.000001345      4.00       3.95       1.86
SRCPARAM L0001939      0.000001345      4.00       3.95       1.86
SRCPARAM L0001940      0.000001345      4.00       3.95       1.86
SRCPARAM L0001941      0.000001345      4.00       3.95       1.86
SRCPARAM L0001942      0.000001345      4.00       3.95       1.86
SRCPARAM L0001943      0.000001345      4.00       3.95       1.86
SRCPARAM L0001944      0.000001345      4.00       3.95       1.86
SRCPARAM L0001945      0.000001345      4.00       3.95       1.86
SRCPARAM L0001946      0.000001345      4.00       3.95       1.86
SRCPARAM L0001947      0.000001345      4.00       3.95       1.86
SRCPARAM L0001948      0.000001345      4.00       3.95       1.86
SRCPARAM L0001949      0.000001345      4.00       3.95       1.86
SRCPARAM L0001950      0.000001345      4.00       3.95       1.86
SRCPARAM L0001951      0.000001345      4.00       3.95       1.86
SRCPARAM L0001952      0.000001345      4.00       3.95       1.86
SRCPARAM L0001953      0.000001345      4.00       3.95       1.86
SRCPARAM L0001954      0.000001345      4.00       3.95       1.86
SRCPARAM L0001955      0.000001345      4.00       3.95       1.86
SRCPARAM L0001956      0.000001345      4.00       3.95       1.86
SRCPARAM L0001957      0.000001345      4.00       3.95       1.86
SRCPARAM L0001958      0.000001345      4.00       3.95       1.86
SRCPARAM L0001959      0.000001345      4.00       3.95       1.86
SRCPARAM L0001960      0.000001345      4.00       3.95       1.86
SRCPARAM L0001961      0.000001345      4.00       3.95       1.86
SRCPARAM L0001962      0.000001345      4.00       3.95       1.86
SRCPARAM L0001963      0.000001345      4.00       3.95       1.86
SRCPARAM L0001964      0.000001345      4.00       3.95       1.86
SRCPARAM L0001965      0.000001345      4.00       3.95       1.86
SRCPARAM L0001966      0.000001345      4.00       3.95       1.86
SRCPARAM L0001967      0.000001345      4.00       3.95       1.86
SRCPARAM L0001968      0.000001345      4.00       3.95       1.86
SRCPARAM L0001969      0.000001345      4.00       3.95       1.86
SRCPARAM L0001970      0.000001345      4.00       3.95       1.86
SRCPARAM L0001971      0.000001345      4.00       3.95       1.86
SRCPARAM L0001972      0.000001345      4.00       3.95       1.86
SRCPARAM L0001973      0.000001345      4.00       3.95       1.86
SRCPARAM L0001974      0.000001345      4.00       3.95       1.86
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   SRCPARAM L0001975     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001976     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001977     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001978     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001979     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001980     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001981     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001982     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001983     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001984     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001985     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001986     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001987     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001988     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001989     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001990     0.000001345      4.00      3.95      1.86
   SRCPARAM L0001991     0.000001345      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0001992     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0001993     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0001994     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0001995     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0001996     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0001997     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0001998     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0001999     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002000     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002001     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002002     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002003     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002004     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002005     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002006     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002007     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002008     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002009     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002010     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002011     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002012     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002013     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002014     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002015     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002016     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002017     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002018     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002019     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0002020     0.0000002863      4.00      3.95      1.86
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   SRCPARAM L0002021     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002022     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002023     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002024     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002025     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002026     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002027     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002028     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002029     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002030     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002031     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002032     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002033     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002034     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002035     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002036     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002037     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002038     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002039     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002040     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002041     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002042     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002043     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002044     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002045     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002046     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002047     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002048     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002049     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0002050     0.0000002863      4.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0002051     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002052     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002053     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002054     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002055     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002056     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002057     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002058     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002059     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002060     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002061     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002062     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002063     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002064     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002065     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002066     0.0000002255      4.00       3.95       1.86
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   SRCPARAM L0002067     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002068     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002069     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002070     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002071     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002072     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002073     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002074     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002075     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002076     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002077     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002078     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002079     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002080     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002081     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002082     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002083     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002084     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002085     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002086     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002087     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002088     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002089     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002090     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002091     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002092     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002093     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002094     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002095     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002096     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002097     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002098     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0002099     0.0000002255      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0002100     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002101     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002102     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002103     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002104     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002105     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002106     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002107     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002108     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002109     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002110     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002111     0.000000385      4.00       3.95       1.86
   SRCPARAM L0002112     0.000000385      4.00       3.95       1.86
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   SRCPARAM L0002113     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002114     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002115     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002116     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002117     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002118     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002119     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002120     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002121     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002122     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002123     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002124     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002125     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002126     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002127     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002128     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002129     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002130     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002131     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002132     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002133     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002134     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002135     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002136     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002137     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002138     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002139     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002140     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002141     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002142     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002143     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002144     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002145     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002146     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002147     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002148     0.000000385      4.00      3.95      1.86
   SRCPARAM L0002149     0.000000385      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0002150     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002151     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002152     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002153     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002154     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002155     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002156     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002157     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0002158     0.0000007457      4.00      3.95      1.86
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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SRCPARAM L0002159      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002160      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002161      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002162      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002163      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002164      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002165      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002166      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002167      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002168      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002169      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002170      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002171      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002172      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002173      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002174      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002175      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002176      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002177      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002178      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002179      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002180      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002181      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002182      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002183      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002184      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002185      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002186      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002187      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002188      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002189      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002190      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002191      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002192      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002193      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002194      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002195      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002196      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002197      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002198      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002199      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002200      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002201      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002202      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002203      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002204      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002205      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002206      0.0000007457      4.00      3.95      1.86
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SRCPARAM L0002207      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002208      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002209      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002210      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002211      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002212      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002213      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002214      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002215      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002216      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002217      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002218      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002219      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002220      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002221      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002222      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002223      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002224      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002225      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002226      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002227      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002228      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002229      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002230      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002231      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002232      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002233      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002234      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002235      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002236      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002237      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002238      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002239      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002240      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002241      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002242      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002243      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002244      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002245      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002246      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002247      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002248      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002249      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002250      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002251      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002252      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002253      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002254      0.0000007457      4.00      3.95      1.86
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                         AERMOD HRA Output
SRCPARAM L0002255      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002256      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002257      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002258      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002259      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002260      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002261      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002262      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002263      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002264      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002265      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002266      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002267      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002268      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002269      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002270      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002271      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002272      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002273      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002274      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002275      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002276      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002277      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002278      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002279      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002280      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002281      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002282      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002283      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002284      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002285      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002286      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002287      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002288      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002289      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002290      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002291      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002292      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002293      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002294      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002295      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002296      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002297      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002298      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002299      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002300      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002301      0.0000007457      4.00      3.95      1.86
SRCPARAM L0002302      0.0000007457      4.00      3.95      1.86
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   SRCPARAM L0002303     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002304     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002305     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002306     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002307     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002308     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002309     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002310     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002311     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002312     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002313     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002314     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002315     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002316     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002317     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002318     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002319     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002320     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002321     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002322     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002323     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002324     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002325     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002326     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002327     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002328     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002329     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002330     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002331     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002332     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002333     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002334     0.0000007457      4.00       3.95       1.86
   SRCPARAM L0002335     0.0000007457      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0002336     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002337     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002338     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002339     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002340     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002341     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002342     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002343     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002344     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002345     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002346     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002347     0.0000003193      4.00       3.95       1.86
   SRCPARAM L0002348     0.0000003193      4.00       3.95       1.86
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SRCPARAM L0002349      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002350      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002351      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002352      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002353      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002354      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002355      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002356      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002357      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002358      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002359      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002360      0.0000003193       4.00       3.95       1.86
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SRCPARAM L0002362      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002363      0.0000003193       4.00       3.95       1.86
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SRCPARAM L0002365      0.0000003193       4.00       3.95       1.86
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SRCPARAM L0002367      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002368      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002369      0.0000003193       4.00       3.95       1.86
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SRCPARAM L0002371      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002372      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002373      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002374      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002375      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002376      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002377      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002378      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002379      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002380      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002381      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002382      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002383      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002384      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002385      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002386      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002387      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002388      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002389      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002390      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002391      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002392      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002393      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002394      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002395      0.0000003193       4.00       3.95       1.86
SRCPARAM L0002396      0.0000003193       4.00       3.95       1.86
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   SRCPARAM L0002401     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002406     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002409     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002414     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0002415     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0002416     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002418     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002420     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002422     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002426     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002432     0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0002434     0.0000003193      4.00      3.95      1.86
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   SRCPARAM AREA1        2.8207E-09     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.9862E-09     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        1.0465E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        3.282E-09     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        6.8612E-09     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        3.074E-09     5.000    65.180   180.230     0.000
   SRCPARAM STCK1         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3         9.02E-06     3.960   501.000  49.98254     0.044
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   SRCPARAM STCK4         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10        9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000019084     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000015121     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000025862     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0003986     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003987     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003988     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003989     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003990     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003991     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003992     0.0000003197      4.00       3.95       1.86
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   SRCPARAM L0003994     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003995     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003996     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003997     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003998     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0003999     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004000     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004001     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004002     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004003     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004004     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004005     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004006     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004007     0.0000003197      4.00       3.95       1.86
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   SRCPARAM L0004010     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004011     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004012     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004013     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004014     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004015     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004016     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004017     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004018     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004019     0.0000003197      4.00       3.95       1.86
   SRCPARAM L0004020     0.0000003197      4.00       3.95       1.86
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   SRCPARAM L0004022     0.0000003197      4.00       3.95       1.86
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SRCPARAM L0004025     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004026     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004027     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004031     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004032     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004033     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004034     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004058     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004059     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004061     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004062     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004063     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004064     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004065     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004070     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004071      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004072      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004076      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004077      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004078      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004080      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004089      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004090      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004117      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004118      0.0000003197       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0004176      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004177      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004178      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004179      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004180      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004181      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004182      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004183      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004184      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004185      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004186      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004187      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004188      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004189      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004190      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004191      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004192      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004193      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004194      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004195      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004196      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004197      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004198      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004199      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004200      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004201      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004202      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004203      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004204      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004205      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004206      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004207      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004208      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004209      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004210      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004211      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004212      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004213      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004214      0.0000003197      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0004217      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004218      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004219      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004220      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004221      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004222      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004223      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004224      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004225      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004226      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004227      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004228      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004229      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004230      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004231      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004232      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004233      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004234      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004238      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004239      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004240      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004241      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004242      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004245      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004246      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004247      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004248      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004249      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004250      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004251      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004252      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004258      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004259      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004260      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004261      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004262      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004263     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004264     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004265     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004268     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004270     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004271     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004272     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004273     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004274     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004278     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004279     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004280     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004281     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004282     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004287     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004288     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004289     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004290     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004291     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004292     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004293     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004294     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004295     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004296     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004297     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004298     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004299     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004300     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004301     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004302     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004303     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004304     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004305     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004306     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004307     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004308     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004309     0.0000003197      4.00      3.95      1.86
SRCPARAM L0004310     0.0000003197      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0004311      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004313      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004314      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004315      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004316      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004317      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004318      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004319      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004320      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004321      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004322      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004323      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004324      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004325      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004326      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004327      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004328      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004329      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004330      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004331      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004332      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004333      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004334      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004335      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004336      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004337      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004338      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004339      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004340      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004341      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004342      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004343      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004344      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004345      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004346      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004347      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004348      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004349      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004350      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004351      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004352      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004353      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004354      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004355      0.0000003197       4.00       3.95       1.86
SRCPARAM L0004356      0.0000003197       4.00       3.95       1.86
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SRCPARAM L0004358      0.0000003197       4.00       3.95       1.86
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                        AERMOD HRA Output
SRCPARAM L0004359     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004360     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004361     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004362     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004363     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004364     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004365     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004366     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004367     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004368     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004369     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004370     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004371     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004372     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004373     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004374     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004375     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004376     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004377     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004378     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004379     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004380     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004381     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004382     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004383     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004384     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004385     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004386     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004387     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004388     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004389     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004390     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004391     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004392     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004393     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004394     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004395     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004396     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004397     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004398     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004399     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004400     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004401     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004402     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004403     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004404     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004405     0.0000003197      4.00       3.95       1.86
SRCPARAM L0004406     0.0000003197      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0004407      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004408      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004409      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004410      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004411      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004412      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004413      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004414      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004415      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004416      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004417      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004418      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004419      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004420      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004421      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004422      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004423      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004424      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004425      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004426      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004427      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004428      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004429      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004430      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004431      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004432      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004433      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004434      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004435      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004436      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004437      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004438      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004439      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004440      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004441      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004442      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004443      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004444      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004445      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004446      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004447      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004448      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004449      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004450      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004451      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004452      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004453      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004454      0.0000003197      4.00       3.95       1.86
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SRCPARAM L0004455      0.0000003197      4.00       3.95       1.86
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SRCPARAM L0004459      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004460      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004461      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004462      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004463      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004464      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004465      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004466      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004467      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004468      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004469      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004470      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004471      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004472      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004473      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004474      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004475      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004476      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004477      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004478      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004479      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004480      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004481      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004482      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004483      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004484      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004485      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004486      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004487      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004488      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004489      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004490      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004491      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004492      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004493      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004494      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004495      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004496      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004497      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004498      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004499      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004500      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004501      0.0000003197      4.00       3.95       1.86
SRCPARAM L0004502      0.0000003197      4.00       3.95       1.86
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SRCPARAM L0004513      0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004516      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004517      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004518      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004519      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004520      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004521      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004522      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004523      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004524      0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004527      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004528      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004529      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004530      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004531      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004532      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004533      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004534      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004535      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004536      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004537      0.0000003197      4.00      3.95      1.86
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SRCPARAM L0004539      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004540      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004541      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004542      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004543      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004544      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004545      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004546      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004547      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004548      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004549      0.0000003197      4.00      3.95      1.86
SRCPARAM L0004550      0.0000003197      4.00      3.95      1.86
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   SRCPARAM L0004556     0.0000003197      4.00        3.95       1.86
   SRCPARAM L0004557     0.0000003197      4.00        3.95       1.86
   SRCPARAM L0004558     0.0000003197      4.00        3.95       1.86
   SRCPARAM L0004559     0.0000003197      4.00        3.95       1.86
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   SRCPARAM L0004561     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004562     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004563     0.0000006399      4.00        3.95       1.86
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   SRCPARAM L0004565     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004566     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004567     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004568     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004569     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004570     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004571     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004572     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004573     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004574     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004575     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004576     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004577     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004578     0.0000006399      4.00        3.95       1.86
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   SRCPARAM L0004580     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004581     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004582     0.0000006399      4.00        3.95       1.86
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   SRCPARAM L0004584     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004585     0.0000006399      4.00        3.95       1.86
   SRCPARAM L0004586     0.0000006399      4.00        3.95       1.86
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SRCPARAM L0004612      0.0000006399      4.00      3.95      1.86
SRCPARAM L0004613      0.0000006399      4.00      3.95      1.86
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SRCPARAM L0004768      0.0000006399      4.00       3.95       1.86
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SRCPARAM L0004785      0.0000006399      4.00       3.95       1.86
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SRCPARAM L0004792      0.0000006399      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0004932      0.0000006399      4.00      3.95      1.86
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SRCPARAM L0004975      0.0000006399      4.00       3.95       1.86
SRCPARAM L0004976      0.0000006399      4.00       3.95       1.86
SRCPARAM L0004977      0.0000006399      4.00       3.95       1.86
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SRCPARAM L0004980      0.0000006399      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005035     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005036     0.0000006399     4.00     3.95     1.86
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SRCPARAM L0005051     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005052     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005053     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005054     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005055     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005056     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005057     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005058     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005059     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005060     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005061     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005062     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005063     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005064     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005065     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005066     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005067     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005068     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005069     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005070     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005071     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005072     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005073     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005074     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005075     0.0000006399     4.00     3.95     1.86
SRCPARAM L0005076     0.0000006399     4.00     3.95     1.86
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                            AERMOD HRA Output
SRCPARAM L0005077      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005078      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005079      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005080      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005081      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005082      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005083      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005084      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005085      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005086      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005087      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005088      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005089      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005090      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005091      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005092      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005093      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005094      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005095      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005096      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005097      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005098      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005099      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005100      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005101      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005102      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005103      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005104      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005105      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005106      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005107      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005108      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005109      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005110      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005111      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005112      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005113      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005114      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005115      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005116      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005117      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005118      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005119      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005120      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005121      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005122      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005123      0.0000006399      4.00       3.95       1.86
SRCPARAM L0005124      0.0000006399      4.00       3.95       1.86
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SRCPARAM L0005128      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005129      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005130      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005131      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005132      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005133      0.0000006399      4.00      3.95      1.86
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SRCPARAM L0005135      0.0000006399      4.00      3.95      1.86
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SRCPARAM L0005137      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005138      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005139      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005140      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005141      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005142      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005143      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005144      0.0000006399      4.00      3.95      1.86
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SRCPARAM L0005148      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005149      0.0000006399      4.00      3.95      1.86
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SRCPARAM L0005152      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005153      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005154      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005155      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005156      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005157      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005158      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005159      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005160      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005161      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005162      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005163      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005164      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005165      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005166      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005167      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005168      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005169      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005170      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005171      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005172      0.0000006399      4.00      3.95      1.86
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SRCPARAM L0005173      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005174      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005175      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005176      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005177      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005178      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005179      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005180      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005181      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005182      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005183      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005184      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005185      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005186      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005187      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005188      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005189      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005190      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005191      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005192      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005193      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005194      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005195      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005196      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005197      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005198      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005199      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005200      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005201      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005202      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005203      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005204      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005205      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005206      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005207      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005208      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005209      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005210      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005211      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005212      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005213      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005214      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005215      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005216      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005217      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005218      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005219      0.0000006399      4.00      3.95      1.86
SRCPARAM L0005220      0.0000006399      4.00      3.95      1.86
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   SRCPARAM L0005221     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005222     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005223     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005224     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005225     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005226     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005227     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005228     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005229     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005230     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005231     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005232     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005233     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005234     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005235     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005236     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005237     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005238     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005239     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005240     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005241     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005242     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005243     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005244     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005245     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005246     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005247     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005248     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005249     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0005250     0.0000006399      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0005251     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005252     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005253     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005254     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005255     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005256     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005257     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005258     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005259     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005260     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005261     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005262     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005263     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005264     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005265     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005266     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0005267      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005268      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005269      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005270      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005271      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005272      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005273      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005274      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005275      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005276      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005277      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005278      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005279      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005280      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005281      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005282      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005283      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005284      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005285      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005286      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005287      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005288      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005289      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005290      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005291      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005292      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005293      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005294      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005295      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005296      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005297      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005298      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005299      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005300      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005301      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005302      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005303      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005304      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005305      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005306      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005307      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005308      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005309      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005310      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005311      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005312      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005313      0.0000001066      0.00      3.95      1.86
SRCPARAM L0005314      0.0000001066      0.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0005315     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005316     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005317     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005318     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005319     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005320     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005321     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005322     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005323     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005324     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005325     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005326     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005327     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005328     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005329     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005330     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005331     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005332     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005333     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005334     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005335     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005336     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005337     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005338     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005339     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005340     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005341     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005342     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005343     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005344     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005345     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005346     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005347     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005348     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005349     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005350     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005351     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005352     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005353     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005354     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005355     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005356     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005357     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005358     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005359     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005360     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005361     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005362     0.0000001066      0.00       3.95       1.86
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                          AERMOD HRA Output
SRCPARAM L0005363     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005364     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005365     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005366     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005367     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005368     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005369     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005370     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005371     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005372     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005373     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005374     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005375     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005376     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005377     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005378     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005379     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005380     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005381     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005382     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005383     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005384     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005385     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005386     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005387     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005388     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005389     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005390     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005391     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005392     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005393     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005394     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005395     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005396     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005397     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005398     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005399     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005400     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005401     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005402     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005403     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005404     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005405     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005406     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005407     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005408     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005409     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005410     0.0000001066      0.00       3.95       1.86
```

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SRCPARAM L0005411     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005412     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005413     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005414     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005415     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005416     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005417     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005418     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005419     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005420     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005421     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005422     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005423     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005424     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005425     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005426     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005427     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005428     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005429     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005430     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005431     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005432     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005433     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005434     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005435     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005436     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005437     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005438     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005439     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005440     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005441     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005442     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005443     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005444     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005445     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005446     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005447     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005448     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005449     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005450     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005451     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005452     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005453     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005454     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005455     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005456     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005457     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005458     0.0000001066      0.00       3.95       1.86
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                          AERMOD HRA Output
SRCPARAM L0005459     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005460     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005461     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005462     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005463     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005464     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005465     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005466     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005467     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005468     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005469     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005470     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005471     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005472     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005473     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005474     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005475     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005476     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005477     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005478     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005479     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005480     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005481     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005482     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005483     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005484     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005485     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005486     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005487     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005488     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005489     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005490     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005491     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005492     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005493     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005494     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005495     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005496     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005497     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005498     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005499     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005500     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005501     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005502     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005503     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005504     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005505     0.0000001066      0.00       3.95       1.86
SRCPARAM L0005506     0.0000001066      0.00       3.95       1.86
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   SRCPARAM L0005507     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005508     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005509     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005510     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005511     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005512     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005513     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005514     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005515     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005516     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005517     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005518     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005519     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005520     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005521     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005522     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005523     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005524     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005525     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005526     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005527     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005528     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005529     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005530     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005531     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005532     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005533     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005534     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005535     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0005536     0.0000001066      0.00      3.95      1.86
** ---------------------------------------------------------------------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Worker Exposure 12hrs"
   EMISFACT L0001737     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001737     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001737     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001737     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001738     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001738     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001738     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001738     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001739     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001739     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001739     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0001739     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001740     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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EMISFACT L0001740     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001740     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001740     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001741     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001741     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001741     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001741     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001742     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001742     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001742     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001742     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001743     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001743     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001743     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001743     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001744     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001744     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001744     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001744     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001745     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001745     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001745     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001745     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001746     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001746     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001746     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001746     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001747     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001747     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001747     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001747     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001748     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001748     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001748     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001748     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001749     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001749     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001750     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001750     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001750     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001750     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001751     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001751     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001751     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001751     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001752     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001752     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001752     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001752     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001753     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001753     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001753     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001753     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001754     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001754     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001754     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001754     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001755     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001755     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001755     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001755     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001756     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001756     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001756     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001756     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001757     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001757     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001757     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001757     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001758     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001758     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001758     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001758     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001759     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001759     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001759     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001759     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001760     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001760     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001760     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001760     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001761     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001761     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001761     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001761     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001762     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001762     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001762     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001762     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001763     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001763     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001763     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001763     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001764     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001764     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001764     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001764     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001765     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001765     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001765     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001765     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001766     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001766     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001766     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001766     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001767     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001767     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001767     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001767     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001768     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001768     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001768     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001768     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001769     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001769     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001769     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001769     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001770     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001770     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001770     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001771     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001771     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001771     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001771     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001772     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001772     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001772     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001773     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001773     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001773     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001774     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001774     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001774     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001774     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001775     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001775     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001775     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001776     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001776     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001776     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001777     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001777     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001777     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001778     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001778     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001778     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001778     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001779     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001779     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001779     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001780     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001780     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001780     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001781     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001781     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001782     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001782     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001783     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001783     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001784     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001784     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001785     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001786     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001787     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001787     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001787     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001787     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001788     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                    AERMOD HRA Output
EMISFACT L0001788      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001788      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001789      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001789      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001789      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001790      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001790      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001790      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001790      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001791      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001791      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001791      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001791      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001792      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001792      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001792      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001793      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001793      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001794      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001794      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001794      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001795      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001795      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001796      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001796      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001797      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001797      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001798      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001798      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001798      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001799      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001799      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001799      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001799      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001800      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001800     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001800     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001801     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001802     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001803     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001804     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001804     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001805     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001805     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001806     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001807     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001807     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001808     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001810     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001810     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001811     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001811     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001812     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001812      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001813      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001813      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001814      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001814      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001816      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001817      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001818      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001820      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001821      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001822      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001822      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001822      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001823      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001823      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001824      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001824      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001825      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001825      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001826      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001826      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001826      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001826      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001827      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001827      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001827      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001828      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001829      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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AERMOD HRA Output

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EMISFACT L0001951     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001951     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001952     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001952     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001952     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001952     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001953     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001953     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001953     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001953     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001954     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001954     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001954     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001954     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001955     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001955     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001955     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001955     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001956     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0001956     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001956     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001956     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001957     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001957     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001957     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001957     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001958     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001958     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001958     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001958     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001959     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001959     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001959     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001959     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001960     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001960     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001960     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001960     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001961     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001961     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001961     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001961     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001962     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001962     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001962     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001962     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001963     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001963     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001963     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001963     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001964     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001964     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001964     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001964     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001965     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001965     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001965     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001965     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001966     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001966     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001966     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001966     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001967     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001967     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001967     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001967     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001968     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                   AERMOD HRA Output
EMISFACT L0001968     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001968     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001968     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001969     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001969     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001969     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001969     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001970     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001970     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001970     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001970     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001971     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001971     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001971     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001971     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001972     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001972     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001973     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001973     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001973     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001973     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001974     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001974     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001974     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001975     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001975     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001976     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001976     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001977     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001978     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001978     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001978     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001979     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001979     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001979     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001979     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001980     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001980     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001980     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001981     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001981     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001981     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001982     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001982     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001983     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001984     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001985     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001985     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001986     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001986     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001987     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001987     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001987     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001988     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001988     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001988     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001989     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001990     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001990     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001990     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001990     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001991     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001991     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001991     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001991     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001992     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001992     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001992     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001993     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001993     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001993     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001994     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001994     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001995     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001995     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0001996     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001996     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001996     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001996     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001997     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001997     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001997     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001997     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001998     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001998     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001998     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001998     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001999     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001999     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001999     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001999     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002000     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002000     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002000     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002000     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002001     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002001     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002002     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002003     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002003     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002003     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002004     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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EMISFACT L0002004     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002004     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002005     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002006     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002006     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002009     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002010     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002011     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002011     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002013     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002015     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002015     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002015     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002015     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002016     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002016      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002016      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002016      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002017      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002017      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002017      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002017      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002018      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002018      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002018      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002018      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002019      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002019      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002019      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002019      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002020      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002020      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002020      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002020      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002021      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002021      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002021      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002021      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002022      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002022      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002022      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002022      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002023      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002023      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002023      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002023      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002024      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002024      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002024      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002024      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002025      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002025      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002025      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002025      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002026      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002026      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002026      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002026      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002027      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002027      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002027      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002027      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002028      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002028     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002028     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002028     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002029     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002029     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002029     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002029     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002030     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002030     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002030     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002030     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002031     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002031     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002031     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002031     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002032     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002032     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002032     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002032     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002033     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002033     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002033     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002033     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002034     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002034     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002034     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002034     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002035     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002035     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002035     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002036     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002036     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002036     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002037     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002037     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002037     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002038     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002038     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002038     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002039     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002039     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002039     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002039     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002040     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002040     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002040     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002040     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002041     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002041     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002042     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002042     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002042     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002042     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002043     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002043     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002046     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002046     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002047     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002047     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002048     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002063     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002063     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002063     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002064     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002064      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002064      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002065      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002065      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002065      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002065      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002066      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002066      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002066      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002066      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002067      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002067      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002067      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002067      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002068      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002068      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002068      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002068      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002069      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002069      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002069      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002069      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002070      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002070      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002070      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002070      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002071      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002071      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002071      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002071      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002072      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002072      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002072      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002072      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002073      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002073      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002073      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002073      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002074      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002074      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002074      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002074      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002075      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002075      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002075      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002075      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002076      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002076     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002076     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002076     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002077     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002077     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002077     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002077     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002078     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002078     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002078     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002078     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002079     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002079     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002079     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002079     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002080     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002080     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002080     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002080     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002081     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002081     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002081     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002081     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002082     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002082     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002083     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002083     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002083     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002083     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002084     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002084     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002085     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002085     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002085     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002086     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002086     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002086     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002086     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002088     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002088     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002089     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002089     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002090     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002091     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002091     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002092     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002092     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002093     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002093     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002094     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002094     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002095     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002095     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002096     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002096     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002097     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002098     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002098     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002099     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002100     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002101     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002101     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002102     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002103     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002103     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002104     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002104     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002106     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002106     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002107     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002109     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002109     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002110     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002112     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002113      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002114      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002116      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002116      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002118      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002119      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002119      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002121      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002121      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002122      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002122      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002123      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002123      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002123      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002123      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002124      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0002124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002125     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002126     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002126     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002127     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002127     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002128     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002130     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002131     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002131     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002132     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002132     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002133     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002133     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002134     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002134     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002135     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002135     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002135     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002136     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002136     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002136     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002137     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002138     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002139     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002139     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002141     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002142     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002143     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002143     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002143     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002143     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002144     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002144     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002144     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002144     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002145     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002145     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002145     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002145     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002146     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002146     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002146     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002146     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002147     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002147     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002147     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002147     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002148     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002148     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002148     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002148     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002149     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002149     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002150     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002150     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002151     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002151     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002152     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002152     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002153     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002153     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002154     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002154     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002155     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002155     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002155     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002155     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002156     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002156     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002156     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002156     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002157     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002157     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002157     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002157     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002158     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002158     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002158     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002158     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002159     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002159     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002159     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002159     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002160     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002160     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002160     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002160     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002161     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002161     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002161     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002161     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002162     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002162     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002162     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002162     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002163     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002163     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002163     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002163     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002164     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002164     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002164     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002164     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002165     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002165     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002166     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002166     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002167     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002167     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002168     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002168     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002169     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002169     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002170     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002170     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002171     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002171     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002172     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002172     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002173     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002173     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002174     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002174     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002175     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002175     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002176     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002176     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002176     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002176     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002177     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002177     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002178     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002178     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002179     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002179     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002180     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002180     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002181     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002181     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002181     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002181     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002182     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002182     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002182     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002182     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002183     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002183     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002183     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002183     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002184     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002184     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002184     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002184     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002185     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002185     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002185     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002185     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002186     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002186     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002186     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002186     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002187     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002187     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002187     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002187     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002188     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002188     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002188     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002188     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002189     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002189     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002189     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002189     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002190     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002190     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002190     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002190     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002191     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002191     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002191     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002191     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002192     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002192     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002192     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002192     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002193     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002193     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002193     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002193     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002194     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002194     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002194     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002194     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002195     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002195     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002195     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002195     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002196     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                AERMOD HRA Output
EMISFACT L0002196      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002196      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002196      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002197      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002197      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002197      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002197      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002198      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002198      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002198      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002198      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002199      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002199      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002199      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002199      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002200      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002200      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002200      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002200      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002201      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002201      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002201      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002201      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002202      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002202      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002202      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002202      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002203      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002203      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002203      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002203      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002204      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002204      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002204      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002204      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002205      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002205      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002205      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002205      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002206      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002206      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002206      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002206      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002207      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002207      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002207      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002207      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002208      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002208     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002208     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002208     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002209     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002209     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002209     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002209     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002210     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002210     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002210     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002210     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002211     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002211     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002211     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002211     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002212     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002212     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002212     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002212     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002213     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002213     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002213     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002213     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002214     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002214     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002214     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002214     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002215     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002215     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002215     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002215     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002216     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002216     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002216     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002216     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002217     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002217     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002217     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002217     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002218     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002218     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002218     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002218     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002219     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002219     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002219     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002219     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002220     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                             AERMOD HRA Output
EMISFACT L0002220     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002220     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002220     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002221     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002221     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002221     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002221     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002222     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002222     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002222     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002222     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002223     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002223     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002223     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002223     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002224     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002224     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002224     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002224     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002225     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002225     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002225     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002225     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002226     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002226     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002226     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002226     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002227     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002227     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002227     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002227     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002228     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002228     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002228     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002228     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002229     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002229     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002229     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002229     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002230     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002230     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002230     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002230     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002231     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002231     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002231     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002231     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002232     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0002232     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002232     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002232     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002233     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002233     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002233     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002233     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002234     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002234     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002234     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002234     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002235     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002235     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002235     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002235     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002236     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002236     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002236     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002236     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002237     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002237     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002237     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002237     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002238     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002238     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002238     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002238     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002239     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002239     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002239     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002239     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002240     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002240     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002240     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002241     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002241     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002241     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002241     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002242     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002242     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002242     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002242     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002243     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002243     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002243     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002243     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002244     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002244     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002244     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002244     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002245     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002245     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002245     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002245     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002246     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002246     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002246     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002246     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002247     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002247     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002247     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002247     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002248     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002248     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002248     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002248     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002249     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002249     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002249     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002249     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002250     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002250     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002250     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002250     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002251     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002251     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002251     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002251     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002252     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002252     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002252     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002252     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002253     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002253     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002253     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002253     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002254     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002254     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002254     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002254     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002255     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002255     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002255     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002255     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002256     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0002256     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002256     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002256     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002257     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002257     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002257     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002258     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002258     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002258     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002258     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002259     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002259     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002259     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002262     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002263     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002263     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002263     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002264     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002264     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002265     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002265     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002265     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002265     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002266     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002266     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002266     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002267     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002267     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002267     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002267     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002268     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002268     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002268     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002269     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002269     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002269     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002270     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002270     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002270     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002270     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002271     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002271     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002271     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002271     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002272     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002272     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002272     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002272     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002273     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002273     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002273     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002273     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002274     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002274     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002274     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002274     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002275     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002275     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002275     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002275     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002276     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002276     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002276     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002276     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002277     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002277     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002277     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002277     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002278     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002278     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002278     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002278     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002279     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002279     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002279     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002279     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002280     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                AERMOD HRA Output
EMISFACT L0002280      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002280      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002280      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002281      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002281      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002281      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002281      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002282      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002282      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002282      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002282      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002283      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002283      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002283      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002283      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002284      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002284      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002284      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002284      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002285      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002285      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002285      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002285      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002286      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002286      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002286      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002286      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002287      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002287      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002287      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002287      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002288      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002288      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002288      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002288      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002289      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002289      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002289      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002289      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002290      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002290      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002290      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002290      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002291      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002291      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002291      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002291      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002292      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002292     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002292     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002292     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002293     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002293     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002293     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002293     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002294     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002294     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002294     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002294     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002295     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002295     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002295     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002295     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002296     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002296     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002296     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002296     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002297     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002297     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002297     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002297     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002298     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002298     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002298     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002298     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002299     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002299     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002299     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002299     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002300     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002300     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002300     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002300     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002301     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002301     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002301     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002301     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002302     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002302     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002302     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002302     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002303     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002303     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002303     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002303     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002304     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0002304     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002304     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002304     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002305     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002305     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002305     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002305     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002306     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002306     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002306     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002306     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002307     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002307     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002307     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002307     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002308     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002308     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002308     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002308     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002309     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002309     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002309     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002309     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002310     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002310     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002310     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002310     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002311     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002311     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002311     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002311     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002312     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002312     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002312     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002312     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002313     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002313     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002313     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002313     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002314     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002314     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002314     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002314     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002315     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002315     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002315     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002315     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002316     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002316     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002316     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002317     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002317     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002318     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002318     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002319     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002320     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002321     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002321     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002321     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002322     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002324     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002325     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002327     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002327     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002327     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002327     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002328     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002328     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002328     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002329     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002330     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002331     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002331     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002332     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002332     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002333     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002333     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002333     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002334     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002334     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002335     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002335     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002335     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002335     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002336     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002336     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002336     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002336     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002337     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002337     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002337     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002337     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002338     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002338     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002338     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002338     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002339     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002339     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002339     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002339     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002340     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

AERMOD HRA Output

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EMISFACT L0002340     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002340     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002340     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002341     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002341     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002341     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002341     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002342     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002342     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002342     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002342     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002343     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002343     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002343     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002343     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002344     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002344     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002344     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002344     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002345     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002345     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002345     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002345     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002346     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002346     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002346     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002346     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002347     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002347     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002347     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002348     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002349     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002349     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002349     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002350     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002350     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002351     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002351     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002351     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002351     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002352     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002352     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002353     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002353     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002353     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002354     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002355     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002355     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002355     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002355     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002356     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002356     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002357     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002357     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002357     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002358     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002359     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002359     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002360     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002361     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002361     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002362     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002362     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002362     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002362     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002363     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002363     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002363     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002363     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002364     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0002364     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002364     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002364     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002365     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002365     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002365     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002365     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002366     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002366     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002366     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002366     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002367     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002368     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002369     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002371     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002371     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002376     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002377     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002377     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002378     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002378     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002379     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002379     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002379     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002380     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0002380     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002381     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002382     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002383     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002383     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002383     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0002384     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002384     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002384     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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                    AERMOD HRA Output
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EMISFACT L0002397     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002397     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002397     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002397     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002398     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002398     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002399     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002399     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0002400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002402     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002402     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002403     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002403     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002403     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002403     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002404     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002404     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002404     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002404     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002405     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002405     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002405     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002405     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002406     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002406     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002409     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002409     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002409     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002409     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002410     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002410     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002410     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002410     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002411     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002411     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002411     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002411     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002412     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0002412     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002412     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002412     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002413     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002413     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002413     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002413     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002414     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002414     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002414     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002414     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002415     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002415     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002415     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002415     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002416     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002416     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002416     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002416     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002417     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002417     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002417     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002417     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002418     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002418     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002418     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002418     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002419     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002419     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002419     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002419     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002420     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002420     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002420     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002420     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002421     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002421     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002421     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002421     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002422     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002422     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002422     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002422     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002423     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002423     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002423     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002423     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                        AERMOD HRA Output
EMISFACT L0002424     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002424     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002425     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002425     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002425     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002425     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002426     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002426     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002426     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002426     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002427     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002427     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002427     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002427     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002428     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002428     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002428     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002428     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002429     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002429     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002429     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002429     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002430     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002430     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002430     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002430     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002431     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002431     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002432     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002432     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002432     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002432     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002433     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002433     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0002434     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002434     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0002434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT AREA2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK8        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT STCK8       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK9       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK9       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK11      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK11      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
SRCGROUP YardTrac AREA1 AREA2 AREA3 AREA4 AREA5 AREA6
SRCGROUP Other    L0001737 L0001738 L0001739 L0001740 L0001741 L0001742
SRCGROUP Other    L0001743 L0001744 L0001745 L0001746 L0001747 L0001748
SRCGROUP Other    L0001749 L0001750 L0001751 L0001752 L0001753 L0001754
SRCGROUP Other    L0001755 L0001756 L0001757 L0001758 L0001759 L0001760
SRCGROUP Other    L0001761 L0001762 L0001763 L0001764 L0001765 L0001766
SRCGROUP Other    L0001767 L0001768 L0001769 L0001770 L0001771 L0001772
SRCGROUP Other    L0001773 L0001774 L0001775 L0001776 L0001777 L0001778
SRCGROUP Other    L0001779 L0001780 L0001781 L0001782 L0001783 L0001784
SRCGROUP Other    L0001785 L0001786 L0001787 L0001788 L0001789 L0001790
SRCGROUP Other    L0001791 L0001792 L0001793 L0001794 L0001795 L0001796
SRCGROUP Other    L0001797 L0001798 L0001799 L0001800 L0001801 L0001802
SRCGROUP Other    L0001803 L0001804 L0001805 L0001806 L0001807 L0001808
SRCGROUP Other    L0001809 L0001810 L0001811 L0001812 L0001813 L0001814
SRCGROUP Other    L0001815 L0001816 L0001817 L0001818 L0001819 L0001820
SRCGROUP Other    L0001821 L0001822 L0001823 L0001824 L0001825 L0001826
SRCGROUP Other    L0001827 L0001828 L0001829 L0001830 L0001831 L0001832
SRCGROUP Other    L0001833 L0001834 L0001835 L0001836 L0001837 L0001838
SRCGROUP Other    L0001839 L0001840 L0001841 L0001842 L0001843 L0001844
SRCGROUP Other    L0001845 L0001846 L0001847 L0001848 L0001849 L0001850
SRCGROUP Other    L0001851 L0001852 L0001853 L0001854 L0001855 L0001856
SRCGROUP Other    L0001857 L0001858 L0001859 L0001860 L0001861 L0001862
SRCGROUP Other    L0001863 L0001864 L0001865 L0001866 L0001867 L0001868
SRCGROUP Other    L0001869 L0001870 L0001871 L0001872 L0001873 L0001874
SRCGROUP Other    L0001875 L0001876 L0001877 L0001878 L0001879 L0001880
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SRCGROUP Other    L0001881 L0001882 L0001883 L0001884 L0001885 L0001886
SRCGROUP Other    L0001887 L0001888 L0001889 L0001890 L0001891 L0001892
SRCGROUP Other    L0001893 L0001894 L0001895 L0001896 L0001897 L0001898
SRCGROUP Other    L0001899 L0001900 L0001901 L0001902 L0001903 L0001904
SRCGROUP Other    L0001905 L0001906 L0001907 L0001908 L0001909 L0001910
SRCGROUP Other    L0001911 L0001912 L0001913 L0001914 L0001915 L0001916
SRCGROUP Other    L0001917 L0001918 L0001919 L0001920 L0001921 L0001922
SRCGROUP Other    L0001923 L0001924 L0001925 L0001926 L0001927 L0001928
SRCGROUP Other    L0001929 L0001930 L0001931 L0001932 L0001933 L0001934
SRCGROUP Other    L0001935 L0001936 L0001937 L0001938 L0001939 L0001940
SRCGROUP Other    L0001941 L0001942 L0001943 L0001944 L0001945 L0001946
SRCGROUP Other    L0001947 L0001948 L0001949 L0001950 L0001951 L0001952
SRCGROUP Other    L0001953 L0001954 L0001955 L0001956 L0001957 L0001958
SRCGROUP Other    L0001959 L0001960 L0001961 L0001962 L0001963 L0001964
SRCGROUP Other    L0001965 L0001966 L0001967 L0001968 L0001969 L0001970
SRCGROUP Other    L0001971 L0001972 L0001973 L0001974 L0001975 L0001976
SRCGROUP Other    L0001977 L0001978 L0001979 L0001980 L0001981 L0001982
SRCGROUP Other    L0001983 L0001984 L0001985 L0001986 L0001987 L0001988
SRCGROUP Other    L0001989 L0001990 L0001991 L0001992 L0001993 L0001994
SRCGROUP Other    L0001995 L0001996 L0001997 L0001998 L0001999 L0002000
SRCGROUP Other    L0002001 L0002002 L0002003 L0002004 L0002005 L0002006
SRCGROUP Other    L0002007 L0002008 L0002009 L0002010 L0002011 L0002012
SRCGROUP Other    L0002013 L0002014 L0002015 L0002016 L0002017 L0002018
SRCGROUP Other    L0002019 L0002020 L0002021 L0002022 L0002023 L0002024
SRCGROUP Other    L0002025 L0002026 L0002027 L0002028 L0002029 L0002030
SRCGROUP Other    L0002031 L0002032 L0002033 L0002034 L0002035 L0002036
SRCGROUP Other    L0002037 L0002038 L0002039 L0002040 L0002041 L0002042
SRCGROUP Other    L0002043 L0002044 L0002045 L0002046 L0002047 L0002048
SRCGROUP Other    L0002049 L0002050 L0002051 L0002052 L0002053 L0002054
SRCGROUP Other    L0002055 L0002056 L0002057 L0002058 L0002059 L0002060
SRCGROUP Other    L0002061 L0002062 L0002063 L0002064 L0002065 L0002066
SRCGROUP Other    L0002067 L0002068 L0002069 L0002070 L0002071 L0002072
SRCGROUP Other    L0002073 L0002074 L0002075 L0002076 L0002077 L0002078
SRCGROUP Other    L0002079 L0002080 L0002081 L0002082 L0002083 L0002084
SRCGROUP Other    L0002085 L0002086 L0002087 L0002088 L0002089 L0002090
SRCGROUP Other    L0002091 L0002092 L0002093 L0002094 L0002095 L0002096
SRCGROUP Other    L0002097 L0002098 L0002099 L0002100 L0002101 L0002102
SRCGROUP Other    L0002103 L0002104 L0002105 L0002106 L0002107 L0002108
SRCGROUP Other    L0002109 L0002110 L0002111 L0002112 L0002113 L0002114
SRCGROUP Other    L0002115 L0002116 L0002117 L0002118 L0002119 L0002120
SRCGROUP Other    L0002121 L0002122 L0002123 L0002124 L0002125 L0002126
SRCGROUP Other    L0002127 L0002128 L0002129 L0002130 L0002131 L0002132
SRCGROUP Other    L0002133 L0002134 L0002135 L0002136 L0002137 L0002138
SRCGROUP Other    L0002139 L0002140 L0002141 L0002142 L0002143 L0002144
SRCGROUP Other    L0002145 L0002146 L0002147 L0002148 L0002149 L0002150
SRCGROUP Other    L0002151 L0002152 L0002153 L0002154 L0002155 L0002156
SRCGROUP Other    L0002157 L0002158 L0002159 L0002160 L0002161 L0002162
SRCGROUP Other    L0002163 L0002164 L0002165 L0002166 L0002167 L0002168
```

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   SRCGROUP Other    L0002169 L0002170 L0002171 L0002172 L0002173 L0002174
   SRCGROUP Other    L0002175 L0002176 L0002177 L0002178 L0002179 L0002180
   SRCGROUP Other    L0002181 L0002182 L0002183 L0002184 L0002185 L0002186
   SRCGROUP Other    L0002187 L0002188 L0002189 L0002190 L0002191 L0002192
   SRCGROUP Other    L0002193 L0002194 L0002195 L0002196 L0002197 L0002198
   SRCGROUP Other    L0002199 L0002200 L0002201 L0002202 L0002203 L0002204
   SRCGROUP Other    L0002205 L0002206 L0002207 L0002208 L0002209 L0002210
   SRCGROUP Other    L0002211 L0002212 L0002213 L0002214 L0002215 L0002216
   SRCGROUP Other    L0002217 L0002218 L0002219 L0002220 L0002221 L0002222
   SRCGROUP Other    L0002223 L0002224 L0002225 L0002226 L0002227 L0002228
   SRCGROUP Other    L0002229 L0002230 L0002231 L0002232 L0002233 L0002234
   SRCGROUP Other    L0002235 L0002236 L0002237 L0002238 L0002239 L0002240
   SRCGROUP Other    L0002241 L0002242 L0002243 L0002244 L0002245 L0002246
   SRCGROUP Other    L0002247 L0002248 L0002249 L0002250 L0002251 L0002252
   SRCGROUP Other    L0002253 L0002254 L0002255 L0002256 L0002257 L0002258
   SRCGROUP Other    L0002259 L0002260 L0002261 L0002262 L0002263 L0002264
   SRCGROUP Other    L0002265 L0002266 L0002267 L0002268 L0002269 L0002270
   SRCGROUP Other    L0002271 L0002272 L0002273 L0002274 L0002275 L0002276
   SRCGROUP Other    L0002277 L0002278 L0002279 L0002280 L0002281 L0002282
   SRCGROUP Other    L0002283 L0002284 L0002285 L0002286 L0002287 L0002288
   SRCGROUP Other    L0002289 L0002290 L0002291 L0002292 L0002293 L0002294
   SRCGROUP Other    L0002295 L0002296 L0002297 L0002298 L0002299 L0002300
   SRCGROUP Other    L0002301 L0002302 L0002303 L0002304 L0002305 L0002306
   SRCGROUP Other    L0002307 L0002308 L0002309 L0002310 L0002311 L0002312
   SRCGROUP Other    L0002313 L0002314 L0002315 L0002316 L0002317 L0002318
   SRCGROUP Other    L0002319 L0002320 L0002321 L0002322 L0002323 L0002324
   SRCGROUP Other    L0002325 L0002326 L0002327 L0002328 L0002329 L0002330
   SRCGROUP Other    L0002331 L0002332 L0002333 L0002334 L0002335 L0002336
   SRCGROUP Other    L0002337 L0002338 L0002339 L0002340 L0002341 L0002342
   SRCGROUP Other    L0002343 L0002344 L0002345 L0002346 L0002347 L0002348
   SRCGROUP Other    L0002349 L0002350 L0002351 L0002352 L0002353 L0002354
   SRCGROUP Other    L0002355 L0002356 L0002357 L0002358 L0002359 L0002360
   SRCGROUP Other    L0002361 L0002362 L0002363 L0002364 L0002365 L0002366
   SRCGROUP Other    L0002367 L0002368 L0002369 L0002370 L0002371 L0002372
   SRCGROUP Other    L0002373 L0002374 L0002375 L0002376 L0002377 L0002378
   SRCGROUP Other    L0002379 L0002380 L0002381 L0002382 L0002383 L0002384
   SRCGROUP Other    L0002385 L0002386 L0002387 L0002388 L0002389 L0002390
   SRCGROUP Other    L0002391 L0002392 L0002393 L0002394 L0002395 L0002396
   SRCGROUP Other    L0002397 L0002398 L0002399 L0002400 L0002401 L0002402
   SRCGROUP Other    L0002403 L0002404 L0002405 L0002406 L0002407 L0002408
   SRCGROUP Other    L0002409 L0002410 L0002411 L0002412 L0002413 L0002414
   SRCGROUP Other    L0002415 L0002416 L0002417 L0002418 L0002419 L0002420
   SRCGROUP Other    L0002421 L0002422 L0002423 L0002424 L0002425 L0002426
   SRCGROUP Other    L0002427 L0002428 L0002429 L0002430 L0002431 L0002432
   SRCGROUP Other    L0002433 L0002434 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
```

```
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Worker.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL WORKER.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac WORKER.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other WORKER.AD\AN00G002.PLT 33
   SUMMFILE Worker.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of           0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
```

```
                              AERMOD HRA Output
              ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    7933       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2268 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.
```

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                                  AERMOD HRA Output

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2268 Source(s);       3 Source Group(s); and      22
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2249 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours

                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                               ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      5.2 MB of RAM.

 **Detailed Error/Message File:   Worker.err

 **File for Summary of Results:   Worker.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
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                              AERMOD HRA Output
                         ***        16:28:37

                                    PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** POINT SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                      VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1           0   0.90200E-05  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK2           0   0.90200E-05  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK3           0   0.90200E-05  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK4           0   0.90200E-05  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK5           0   0.90200E-05  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK6           0   0.90200E-05  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK7           0   0.90200E-05  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK8           0   0.90200E-05  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK9           0   0.90200E-05  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK10          0   0.90200E-05  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK11          0   0.19084E-04  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK12          0   0.15121E-04  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK13          0   0.25862E-04  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        16:28:37
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                              AERMOD HRA Output
                                PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0001737         0   0.53100E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0001738         0   0.53100E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0001739         0   0.53100E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES   HROFDY
 L0001740         0   0.53100E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES   HROFDY
 L0001741         0   0.53100E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001742         0   0.53100E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001743         0   0.53100E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001744         0   0.53100E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001745         0   0.53100E-05  478217.3 3748656.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001746         0   0.53100E-05  478217.4 3748686.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001747         0   0.53100E-05  478217.6 3748716.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001748         0   0.53100E-05  478217.7 3748746.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001749         0   0.53100E-05  478217.8 3748776.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0001750         0   0.53100E-05  478218.0 3748806.3   452.7     4.00    13.95
1.86     YES   HROFDY
 L0001751         0   0.53100E-05  478218.1 3748836.3   453.0     4.00    13.95
1.86     YES   HROFDY
 L0001752         0   0.53100E-05  478218.3 3748866.3   453.0     4.00    13.95
1.86     YES   HROFDY
 L0001753         0   0.53100E-05  478218.4 3748896.3   453.0     4.00    13.95
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                                   AERMOD HRA Output
1.86      YES    HROFDY
 L0001754         0   0.55010E-05  477943.9 3748501.1   451.5     4.00    13.95
1.86      YES    HROFDY
 L0001755         0   0.55010E-05  477944.1 3748531.1   452.0     4.00    13.95
1.86      YES    HROFDY
 L0001756         0   0.55010E-05  477944.4 3748561.1   452.0     4.00    13.95
1.86      YES    HROFDY
 L0001757         0   0.55010E-05  477944.7 3748591.1   452.0     4.00    13.95
1.86      YES    HROFDY
 L0001758         0   0.55010E-05  477944.9 3748621.1   452.0     4.00    13.95
1.86      YES    HROFDY
 L0001759         0   0.55010E-05  477945.2 3748651.1   452.0     4.00    13.95
1.86      YES    HROFDY
 L0001760         0   0.55010E-05  477945.4 3748681.1   452.5     4.00    13.95
1.86      YES    HROFDY
 L0001761         0   0.55010E-05  477945.7 3748711.1   453.0     4.00    13.95
1.86      YES    HROFDY
 L0001762         0   0.55010E-05  477945.9 3748741.1   453.0     4.00    13.95
1.86      YES    HROFDY
 L0001763         0   0.55010E-05  477946.2 3748771.1   453.0     4.00    13.95
1.86      YES    HROFDY
 L0001764         0   0.55010E-05  477946.5 3748801.1   453.0     4.00    13.95
1.86      YES    HROFDY
 L0001765         0   0.55010E-05  477946.7 3748831.1   453.0     4.00    13.95
1.86      YES    HROFDY
 L0001766         0   0.55010E-05  477947.0 3748861.1   453.0     4.00    13.95
1.86      YES    HROFDY
 L0001767         0   0.55010E-05  477947.2 3748891.1   453.0     4.00    13.95
1.86      YES    HROFDY
 L0001768         0   0.50750E-05  477756.7 3748938.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0001769         0   0.50750E-05  477756.7 3748930.0   453.8     4.00     3.95
1.86      YES    HROFDY
 L0001770         0   0.50750E-05  477756.7 3748921.5   453.6     4.00     3.95
1.86      YES    HROFDY
 L0001771         0   0.50750E-05  477756.7 3748913.0   453.3     4.00     3.95
1.86      YES    HROFDY
 L0001772         0   0.50750E-05  477756.7 3748904.5   453.1     4.00     3.95
1.86      YES    HROFDY
 L0001773         0   0.50750E-05  477756.7 3748896.0   453.1     4.00     3.95
1.86      YES    HROFDY
 L0001774         0   0.50750E-05  477756.7 3748887.5   453.1     4.00     3.95
1.86      YES    HROFDY
 L0001775         0   0.50750E-05  477756.7 3748879.0   453.1     4.00     3.95
1.86      YES    HROFDY
 L0001776         0   0.25430E-06  477900.2 3748339.0   451.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                 AERMOD HRA Output
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001777         0   0.25430E-06  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0001778         0   0.25430E-06  477917.2 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0001779         0   0.25430E-06  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0001780         0   0.25430E-06  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0001781         0   0.25430E-06  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0001782         0   0.25430E-06  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0001783         0   0.25430E-06  477951.8 3748324.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0001784         0   0.25430E-06  477956.1 3748317.1   450.0     4.00     3.95
1.86     YES   HROFDY
 L0001785         0   0.25430E-06  477960.3 3748309.7   450.0     4.00     3.95
1.86     YES   HROFDY
 L0001786         0   0.25430E-06  477964.6 3748302.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0001787         0   0.25430E-06  477968.8 3748295.0   450.0     4.00     3.95
1.86     YES   HROFDY
 L0001788         0   0.25430E-06  477973.0 3748287.6   450.0     4.00     3.95
1.86     YES   HROFDY
 L0001789         0   0.25430E-06  477976.2 3748279.9   450.0     4.00     3.95
1.86     YES   HROFDY
 L0001790         0   0.25430E-06  477977.3 3748271.5   450.0     4.00     3.95
1.86     YES   HROFDY
 L0001791         0   0.25430E-06  477978.3 3748263.0   450.0     4.00     3.95
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1.86      YES    HROFDY
 L0001792         0   0.25430E-06  477978.3 3748254.5   450.0     4.00      3.95
1.86      YES    HROFDY
 L0001793         0   0.25430E-06  477978.3 3748246.0   450.0     4.00      3.95
1.86      YES    HROFDY
 L0001794         0   0.25430E-06  477978.2 3748237.5   450.0     4.00      3.95
1.86      YES    HROFDY
 L0001795         0   0.25430E-06  477978.2 3748229.0   450.0     4.00      3.95
1.86      YES    HROFDY
 L0001796         0   0.25430E-06  477978.1 3748220.5   450.0     4.00      3.95
1.86      YES    HROFDY
 L0001797         0   0.36680E-05  477608.7 3748929.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001798         0   0.36680E-05  477608.7 3748920.8   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001799         0   0.36680E-05  477608.7 3748912.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001800         0   0.36680E-05  477608.7 3748903.8   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001801         0   0.36680E-05  477608.7 3748895.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001802         0   0.36680E-05  477608.7 3748886.8   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001803         0   0.36680E-05  477608.7 3748878.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001804         0   0.36680E-05  477608.7 3748869.8   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001805         0   0.36680E-05  477608.7 3748861.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001806         0   0.36680E-05  477608.7 3748852.8   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001807         0   0.36680E-05  477608.7 3748844.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001808         0   0.36680E-05  477608.7 3748835.8   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001809         0   0.36680E-05  477608.7 3748827.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001810         0   0.36680E-05  477608.7 3748818.8   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001811         0   0.36680E-05  477608.7 3748810.3   454.0     0.00      3.95
1.86      YES    HROFDY
 L0001812         0   0.82500E-06  478043.0 3748335.2   451.0     0.00     13.95
1.86      YES    HROFDY
 L0001813         0   0.82500E-06  478073.0 3748334.5   451.0     0.00     13.95
1.86      YES    HROFDY
 L0001814         0   0.82500E-06  478103.0 3748333.9   451.0     0.00     13.95
1.86      YES    HROFDY
 L0001815         0   0.82500E-06  478133.0 3748333.2   451.0     0.00     13.95
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1.86     YES   HROFDY
 L0001816         0   0.82500E-06  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001817         0   0.13450E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001818         0   0.13450E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001819         0   0.13450E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001820         0   0.13450E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001821         0   0.13450E-05  477950.2 3748937.5   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001822         0   0.13450E-05  477949.0 3748929.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001823         0   0.13450E-05  477948.2 3748920.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001824         0   0.13450E-05  477948.1 3748912.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001825         0   0.13450E-05  477947.9 3748903.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001826         0   0.13450E-05  477947.8 3748895.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001827         0   0.13450E-05  477947.6 3748886.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001828         0   0.13450E-05  477947.5 3748878.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0001829         0   0.13450E-05  477947.3 3748869.7   453.0     4.00     3.95
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1.86      YES    HROFDY
 L0001830          0   0.13450E-05   477947.2 3748861.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001831          0   0.13450E-05   477947.2 3748852.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001832          0   0.13450E-05   477947.1 3748844.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001833          0   0.13450E-05   477947.0 3748835.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001834          0   0.13450E-05   477947.0 3748827.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001835          0   0.13450E-05   477946.9 3748818.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001836          0   0.13450E-05   477946.8 3748810.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001837          0   0.13450E-05   477946.7 3748801.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001838          0   0.13450E-05   477946.7 3748793.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001839          0   0.13450E-05   477946.6 3748784.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001840          0   0.13450E-05   477946.5 3748776.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001841          0   0.13450E-05   477946.5 3748767.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001842          0   0.13450E-05   477946.4 3748759.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001843          0   0.13450E-05   477946.3 3748750.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001844          0   0.13450E-05   477946.3 3748742.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001845          0   0.13450E-05   477946.2 3748733.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001846          0   0.13450E-05   477946.1 3748725.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001847          0   0.13450E-05   477946.1 3748716.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001848          0   0.13450E-05   477946.0 3748708.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001849          0   0.13450E-05   477945.9 3748699.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001850          0   0.13450E-05   477945.9 3748691.2    452.8      4.00      3.95
1.86      YES    HROFDY
 L0001851          0   0.13450E-05   477945.8 3748682.7    452.5      4.00      3.95
1.86      YES    HROFDY
 L0001852          0   0.13450E-05   477945.7 3748674.2    452.2      4.00      3.95
1.86      YES    HROFDY
 L0001853          0   0.13450E-05   477945.7 3748665.7    452.0      4.00      3.95
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1.86     YES   HROFDY
 L0001854         0   0.13450E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001855         0   0.13450E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001856         0   0.13450E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker             ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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- - - - - - - - - - - - - - - - - - - -

 L0001857         0   0.13450E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001858         0   0.13450E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001859         0   0.13450E-05  477945.2 3748614.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001860         0   0.13450E-05  477945.2 3748606.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001861         0   0.13450E-05  477945.1 3748597.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001862         0   0.13450E-05  477945.0 3748589.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001863         0   0.13450E-05  477945.0 3748580.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001864         0   0.13450E-05  477944.9 3748572.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001865         0   0.13450E-05  477944.8 3748563.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001866         0   0.13450E-05  477944.8 3748555.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0001867         0   0.13450E-05  477944.7 3748546.7   452.0     4.00     3.95
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1.86      YES    HROFDY
 L0001868         0   0.13450E-05   477944.6 3748538.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001869         0   0.13450E-05   477944.6 3748529.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001870         0   0.13450E-05   477944.5 3748521.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001871         0   0.13450E-05   477944.4 3748512.7    451.9      4.00      3.95
1.86      YES    HROFDY
 L0001872         0   0.13450E-05   477944.4 3748504.2    451.6      4.00      3.95
1.86      YES    HROFDY
 L0001873         0   0.13450E-05   477944.3 3748495.7    451.3      4.00      3.95
1.86      YES    HROFDY
 L0001874         0   0.13450E-05   477944.7 3748487.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001875         0   0.13450E-05   477948.7 3748479.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001876         0   0.13450E-05   477952.8 3748472.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001877         0   0.13450E-05   477956.8 3748464.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001878         0   0.13450E-05   477960.8 3748457.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001879         0   0.13450E-05   477964.8 3748449.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001880         0   0.13450E-05   477968.8 3748442.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001881         0   0.13450E-05   477972.8 3748434.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001882         0   0.13450E-05   477976.9 3748427.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001883         0   0.13450E-05   477980.9 3748419.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001884         0   0.13450E-05   477984.9 3748412.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001885         0   0.13450E-05   477988.9 3748404.9    451.0      4.00      3.95
1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0001887         0   0.13450E-05   477996.9 3748389.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001888         0   0.13450E-05   478001.0 3748382.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001889         0   0.13450E-05   478005.0 3748375.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001890         0   0.13450E-05   478009.0 3748367.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001891         0   0.13450E-05   478013.0 3748360.0    451.0      4.00      3.95
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1.86      YES    HROFDY
 L0001892         0   0.13450E-05  478017.1 3748352.5   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001893         0   0.13450E-05  478021.7 3748345.4   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001894         0   0.13450E-05  478026.4 3748338.3   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001895         0   0.13450E-05  478033.8 3748336.4   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001896         0   0.13450E-05  478042.3 3748336.5   451.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001897         0   0.13450E-05  478050.8 3748336.6   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001898         0   0.13450E-05  478059.3 3748336.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001899         0   0.13450E-05  478067.8 3748336.8   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001900         0   0.13450E-05  478076.3 3748336.9   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001901         0   0.13450E-05  478084.8 3748337.0   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001902         0   0.13450E-05  478093.3 3748337.1   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001903         0   0.13450E-05  478101.8 3748337.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001904         0   0.13450E-05  478110.3 3748337.3   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001905         0   0.13450E-05  478118.8 3748337.4   451.0     4.00     3.95
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1.86      YES    HROFDY
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1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0001908         0   0.13450E-05  478144.3 3748337.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001909         0   0.13450E-05  478152.8 3748337.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001910         0   0.13450E-05  478161.3 3748337.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001911         0   0.13450E-05  478169.8 3748337.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001912         0   0.13450E-05  478178.3 3748338.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001913         0   0.13450E-05  478186.8 3748338.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001914         0   0.13450E-05  478195.3 3748338.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001915         0   0.13450E-05  478203.8 3748338.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001916         0   0.13450E-05  478212.3 3748338.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001917         0   0.13450E-05  478215.8 3748343.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001918         0   0.13450E-05  478215.9 3748351.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001919         0   0.13450E-05  478216.0 3748360.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001920         0   0.13450E-05  478216.0 3748368.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001921         0   0.13450E-05  478216.1 3748377.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001922         0   0.13450E-05  478216.1 3748385.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001923         0   0.13450E-05  478216.2 3748394.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001924         0   0.13450E-05  478216.3 3748402.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001925         0   0.13450E-05  478216.3 3748411.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001926         0   0.13450E-05  478216.4 3748419.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001927         0   0.13450E-05  478216.4 3748428.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001928         0   0.13450E-05  478216.5 3748436.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0001929         0   0.13450E-05  478216.6 3748445.4    451.0      4.00      3.95
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1.86      YES    HROFDY
 L0001930         0   0.13450E-05  478216.6 3748453.9   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001931         0   0.13450E-05  478216.7 3748462.4   451.0     4.00     3.95
1.86      YES    HROFDY
 L0001932         0   0.13450E-05  478216.7 3748470.9   451.1     4.00     3.95
1.86      YES    HROFDY
 L0001933         0   0.13450E-05  478216.8 3748479.4   451.2     4.00     3.95
1.86      YES    HROFDY
 L0001934         0   0.13450E-05  478216.9 3748487.9   451.3     4.00     3.95
1.86      YES    HROFDY
 L0001935         0   0.13450E-05  478216.9 3748496.4   451.5     4.00     3.95
1.86      YES    HROFDY
 L0001936         0   0.13450E-05  478217.0 3748504.9   451.7     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                            *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0001937         0   0.13450E-05  478217.0 3748513.4   451.9     4.00     3.95
1.86      YES    HROFDY
 L0001938         0   0.13450E-05  478217.1 3748521.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0001939         0   0.13450E-05  478217.2 3748530.4   452.0     4.00     3.95
1.86      YES    HROFDY
 L0001940         0   0.13450E-05  478217.2 3748538.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0001941         0   0.13450E-05  478217.3 3748547.4   452.0     4.00     3.95
1.86      YES    HROFDY
 L0001942         0   0.13450E-05  478217.3 3748555.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0001943         0   0.13450E-05  478217.4 3748564.4   452.0     4.00     3.95
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1.86      YES    HROFDY
 L0001944          0   0.13450E-05   478217.5 3748572.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001945          0   0.13450E-05   478217.5 3748581.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001946          0   0.13450E-05   478217.6 3748589.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001947          0   0.13450E-05   478217.7 3748598.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001948          0   0.13450E-05   478217.7 3748606.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001949          0   0.13450E-05   478217.8 3748615.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001950          0   0.13450E-05   478217.8 3748623.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001951          0   0.13450E-05   478217.9 3748632.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001952          0   0.13450E-05   478218.0 3748640.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001953          0   0.13450E-05   478218.0 3748649.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001954          0   0.13450E-05   478218.1 3748657.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001955          0   0.13450E-05   478218.1 3748666.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001956          0   0.13450E-05   478218.2 3748674.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001957          0   0.13450E-05   478218.3 3748683.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001958          0   0.13450E-05   478218.3 3748691.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001959          0   0.13450E-05   478218.4 3748700.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001960          0   0.13450E-05   478218.4 3748708.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001961          0   0.13450E-05   478218.5 3748717.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001962          0   0.13450E-05   478218.6 3748725.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001963          0   0.13450E-05   478218.6 3748734.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001964          0   0.13450E-05   478218.7 3748742.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001965          0   0.13450E-05   478218.7 3748751.4    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001966          0   0.13450E-05   478218.8 3748759.9    452.0      4.00      3.95
1.86      YES    HROFDY
 L0001967          0   0.13450E-05   478218.9 3748768.4    452.0      4.00      3.95
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1.86      YES    HROFDY
 L0001968         0   0.13450E-05  478218.9 3748776.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0001969         0   0.13450E-05  478219.0 3748785.4   452.0     4.00     3.95
1.86      YES    HROFDY
 L0001970         0   0.13450E-05  478219.0 3748793.9   452.2     4.00     3.95
1.86      YES    HROFDY
 L0001971         0   0.13450E-05  478219.1 3748802.4   452.5     4.00     3.95
1.86      YES    HROFDY
 L0001972         0   0.13450E-05  478219.2 3748810.9   452.8     4.00     3.95
1.86      YES    HROFDY
 L0001973         0   0.13450E-05  478219.2 3748819.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0001974         0   0.13450E-05  478219.3 3748827.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0001975         0   0.13450E-05  478219.3 3748836.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0001976         0   0.13450E-05  478219.4 3748844.9   453.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0001977         0   0.13450E-05  478219.5 3748853.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0001978         0   0.13450E-05  478219.5 3748861.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0001979         0   0.13450E-05  478219.6 3748870.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0001980         0   0.13450E-05  478219.6 3748878.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0001981         0   0.13450E-05  478219.7 3748887.4   453.0     4.00     3.95
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1.86      YES    HROFDY
 L0001982         0   0.13450E-05   478219.8 3748895.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001983         0   0.13450E-05   478219.8 3748904.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001984         0   0.13450E-05   478219.9 3748912.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001985         0   0.13450E-05   478217.5 3748921.1    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001986         0   0.13450E-05   478215.0 3748929.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001987         0   0.13450E-05   478212.6 3748937.3    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001988         0   0.13450E-05   478210.1 3748945.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001989         0   0.13450E-05   478207.6 3748953.6    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001990         0   0.13450E-05   478205.1 3748961.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001991         0   0.13450E-05   478202.7 3748969.8    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001992         0   0.28630E-06   477852.8 3748835.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001993         0   0.28630E-06   477852.8 3748843.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001994         0   0.28630E-06   477852.9 3748852.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001995         0   0.28630E-06   477852.9 3748860.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001996         0   0.28630E-06   477853.0 3748869.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001997         0   0.28630E-06   477853.0 3748877.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001998         0   0.28630E-06   477853.0 3748886.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0001999         0   0.28630E-06   477853.1 3748894.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0002000         0   0.28630E-06   477853.1 3748903.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0002001         0   0.28630E-06   477853.2 3748911.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0002002         0   0.28630E-06   477853.2 3748920.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0002003         0   0.28630E-06   477853.3 3748928.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0002004         0   0.28630E-06   477853.3 3748937.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0002005         0   0.28630E-06   477853.4 3748945.7    453.0      4.00      3.95
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AERMOD HRA Output

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1.86      YES    HROFDY
 L0002006          0   0.28630E-06   477853.4 3748954.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002007          0   0.28630E-06   477853.5 3748962.7   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002008          0   0.28630E-06   477853.5 3748971.2   453.2     4.00     3.95
1.86      YES    HROFDY
 L0002009          0   0.28630E-06   477853.5 3748979.7   453.4     4.00     3.95
1.86      YES    HROFDY
 L0002010          0   0.28630E-06   477845.0 3748979.7   453.5     4.00     3.95
1.86      YES    HROFDY
 L0002011          0   0.28630E-06   477836.5 3748979.6   453.7     4.00     3.95
1.86      YES    HROFDY
 L0002012          0   0.28630E-06   477828.0 3748979.6   453.9     4.00     3.95
1.86      YES    HROFDY
 L0002013          0   0.28630E-06   477819.5 3748979.6   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002014          0   0.28630E-06   477811.0 3748979.6   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002015          0   0.28630E-06   477802.5 3748979.6   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002016          0   0.28630E-06   477794.0 3748979.5   454.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
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 L0002017          0   0.28630E-06   477785.5 3748979.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002018          0   0.28630E-06   477777.0 3748979.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002019          0   0.28630E-06   477768.5 3748979.5   454.0     4.00     3.95
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1.86      YES    HROFDY
 L0002020         0   0.28630E-06   477760.0 3748979.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002021         0   0.28630E-06   477751.5 3748979.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002022         0   0.28630E-06   477743.0 3748979.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002023         0   0.28630E-06   477742.7 3748971.2    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002024         0   0.28630E-06   477742.7 3748962.7    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002025         0   0.28630E-06   477742.6 3748954.2    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002026         0   0.28630E-06   477742.6 3748945.7    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002027         0   0.28630E-06   477742.5 3748937.2    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002028         0   0.28630E-06   477742.5 3748928.7    453.9      4.00      3.95
1.86      YES    HROFDY
 L0002029         0   0.28630E-06   477742.4 3748920.2    453.8      4.00      3.95
1.86      YES    HROFDY
 L0002030         0   0.28630E-06   477742.4 3748911.7    453.7      4.00      3.95
1.86      YES    HROFDY
 L0002031         0   0.28630E-06   477742.3 3748903.2    453.6      4.00      3.95
1.86      YES    HROFDY
 L0002032         0   0.28630E-06   477742.3 3748894.7    453.6      4.00      3.95
1.86      YES    HROFDY
 L0002033         0   0.28630E-06   477742.2 3748886.2    453.6      4.00      3.95
1.86      YES    HROFDY
 L0002034         0   0.28630E-06   477744.2 3748878.0    453.5      4.00      3.95
1.86      YES    HROFDY
 L0002035         0   0.28630E-06   477746.5 3748869.8    453.6      4.00      3.95
1.86      YES    HROFDY
 L0002036         0   0.28630E-06   477748.8 3748861.6    453.7      4.00      3.95
1.86      YES    HROFDY
 L0002037         0   0.28630E-06   477751.1 3748853.4    453.8      4.00      3.95
1.86      YES    HROFDY
 L0002038         0   0.28630E-06   477753.4 3748845.3    454.0      4.00      3.95
1.86      YES    HROFDY
 L0002039         0   0.28630E-06   477757.5 3748838.2    453.7      4.00      3.95
1.86      YES    HROFDY
 L0002040         0   0.28630E-06   477763.8 3748832.5    453.5      4.00      3.95
1.86      YES    HROFDY
 L0002041         0   0.28630E-06   477770.1 3748826.8    453.2      4.00      3.95
1.86      YES    HROFDY
 L0002042         0   0.28630E-06   477778.6 3748826.5    453.1      4.00      3.95
1.86      YES    HROFDY
 L0002043         0   0.28630E-06   477787.1 3748826.4    453.0      4.00      3.95
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1.86      YES    HROFDY
 L0002044         0   0.28630E-06  477795.6 3748826.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002045         0   0.28630E-06  477804.1 3748826.1   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002046         0   0.28630E-06  477812.6 3748826.1   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002047         0   0.28630E-06  477821.1 3748826.0   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002048         0   0.28630E-06  477829.6 3748826.0   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002049         0   0.28630E-06  477838.1 3748825.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002050         0   0.28630E-06  477846.6 3748825.8   453.0     4.00     3.95
1.86      YES    HROFDY
 L0002051         0   0.22550E-06  477886.6 3748203.7   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002052         0   0.22550E-06  477886.4 3748212.2   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002053         0   0.22550E-06  477886.3 3748220.7   450.1     4.00     3.95
1.86      YES    HROFDY
 L0002054         0   0.22550E-06  477886.1 3748229.2   450.3     4.00     3.95
1.86      YES    HROFDY
 L0002055         0   0.22550E-06  477885.9 3748237.7   450.6     4.00     3.95
1.86      YES    HROFDY
 L0002056         0   0.22550E-06  477885.7 3748246.2   450.8     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0002057         0   0.22550E-06  477885.5 3748254.7   450.9     4.00     3.95
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1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0002059         0   0.22550E-06   477885.7 3748271.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002060         0   0.22550E-06   477885.8 3748280.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002061         0   0.22550E-06   477885.9 3748288.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002062         0   0.22550E-06   477886.0 3748297.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002063         0   0.22550E-06   477886.1 3748305.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002064         0   0.22550E-06   477886.2 3748314.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002065         0   0.22550E-06   477886.3 3748322.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002066         0   0.22550E-06   477886.4 3748331.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002067         0   0.22550E-06   477889.0 3748337.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002068         0   0.22550E-06   477897.5 3748338.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002069         0   0.22550E-06   477906.0 3748338.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002070         0   0.22550E-06   477914.4 3748339.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002071         0   0.22550E-06   477922.9 3748339.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002072         0   0.22550E-06   477931.4 3748338.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002073         0   0.22550E-06   477939.8 3748338.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002074         0   0.22550E-06   477945.5 3748332.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002075         0   0.22550E-06   477950.6 3748325.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002076         0   0.22550E-06   477955.0 3748318.5    450.0      4.00      3.95
1.86      YES    HROFDY
 L0002077         0   0.22550E-06   477959.4 3748311.2    450.0      4.00      3.95
1.86      YES    HROFDY
 L0002078         0   0.22550E-06   477963.8 3748303.9    450.0      4.00      3.95
1.86      YES    HROFDY
 L0002079         0   0.22550E-06   477968.2 3748296.7    450.0      4.00      3.95
1.86      YES    HROFDY
 L0002080         0   0.22550E-06   477972.6 3748289.4    450.0      4.00      3.95
1.86      YES    HROFDY
 L0002081         0   0.22550E-06   477975.8 3748281.7    450.0      4.00      3.95
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1.86      YES    HROFDY
 L0002082         0   0.22550E-06   477977.7 3748273.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002083         0   0.22550E-06   477979.6 3748265.1   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002084         0   0.22550E-06   477981.3 3748256.8   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002085         0   0.22550E-06   477980.6 3748248.3   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002086         0   0.22550E-06   477979.9 3748239.8   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002087         0   0.22550E-06   477979.2 3748231.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002088         0   0.22550E-06   477978.4 3748222.9   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002089         0   0.22550E-06   477982.6 3748217.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002090         0   0.22550E-06   477990.0 3748212.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002091         0   0.22550E-06   477994.0 3748206.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002092         0   0.22550E-06   477994.1 3748198.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002093         0   0.22550E-06   477986.1 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002094         0   0.22550E-06   477977.6 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002095         0   0.22550E-06   477969.1 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0002096         0   0.22550E-06   477960.6 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                 ***       11/18/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        16:28:37

                                    PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002097         0   0.22550E-06   477952.1 3748197.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002098         0   0.22550E-06   477943.6 3748197.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002099         0   0.22550E-06   477935.1 3748197.5   450.0      4.00      3.95
1.86     YES    HROFDY
 L0002100         0   0.38500E-06   477505.1 3748975.7   454.2      4.00      3.95
1.86     YES    HROFDY
 L0002101         0   0.38500E-06   477513.6 3748975.6   454.1      4.00      3.95
1.86     YES    HROFDY
 L0002102         0   0.38500E-06   477522.1 3748975.4   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002103         0   0.38500E-06   477530.6 3748975.2   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002104         0   0.38500E-06   477539.1 3748975.1   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002105         0   0.38500E-06   477547.6 3748974.9   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002106         0   0.38500E-06   477556.1 3748974.7   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002107         0   0.38500E-06   477564.6 3748974.6   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002108         0   0.38500E-06   477573.1 3748974.4   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002109         0   0.38500E-06   477581.6 3748974.2   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002110         0   0.38500E-06   477590.1 3748974.1   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002111         0   0.38500E-06   477598.5 3748973.8   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002112         0   0.38500E-06   477605.4 3748968.8   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002113         0   0.38500E-06   477611.1 3748963.0   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002114         0   0.38500E-06   477613.4 3748954.9   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002115         0   0.38500E-06   477615.7 3748946.7   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002116         0   0.38500E-06   477618.0 3748938.5   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002117         0   0.38500E-06   477620.0 3748930.2   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002118         0   0.38500E-06   477621.7 3748921.9   454.0      4.00      3.95
1.86     YES    HROFDY
 L0002119         0   0.38500E-06   477623.4 3748913.6   454.0      4.00      3.95
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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1.86     YES   HROFDY
 L0002120         0   0.38500E-06   477625.1 3748905.3   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002121         0   0.38500E-06   477626.2 3748896.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002122         0   0.38500E-06   477626.4 3748888.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002123         0   0.38500E-06   477626.5 3748879.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002124         0   0.38500E-06   477626.6 3748871.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002125         0   0.38500E-06   477626.7 3748862.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002126         0   0.38500E-06   477626.8 3748854.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002127         0   0.38500E-06   477626.9 3748845.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002128         0   0.38500E-06   477627.0 3748837.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002129         0   0.38500E-06   477627.1 3748828.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002130         0   0.38500E-06   477627.2 3748820.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002131         0   0.38500E-06   477627.3 3748811.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002132         0   0.38500E-06   477627.5 3748803.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002133         0   0.38500E-06   477627.0 3748795.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002134         0   0.38500E-06   477618.5 3748795.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002135         0   0.38500E-06   477610.0 3748795.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002136         0   0.38500E-06   477601.5 3748796.2   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         16:28:37

                                    PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002137         0   0.38500E-06  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002138         0   0.38500E-06  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002139         0   0.38500E-06  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002140         0   0.38500E-06  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002141         0   0.38500E-06  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002142         0   0.38500E-06  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002143         0   0.38500E-06  477542.0 3748797.8   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002144         0   0.38500E-06  477533.5 3748798.0   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002145         0   0.38500E-06  477525.0 3748798.2   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002146         0   0.38500E-06  477516.5 3748798.5   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002147         0   0.38500E-06  477508.0 3748798.7   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002148         0   0.38500E-06  477499.5 3748798.9   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002149         0   0.38500E-06  477491.0 3748799.2   454.0     4.00     3.95
1.86     YES    HROFDY
 L0002150         0   0.74570E-06  478255.5 3748984.6   453.0     4.00     3.95
1.86     YES    HROFDY
 L0002151         0   0.74570E-06  478247.0 3748984.7   453.0     4.00     3.95
1.86     YES    HROFDY
 L0002152         0   0.74570E-06  478238.5 3748984.7   453.0     4.00     3.95
1.86     YES    HROFDY
 L0002153         0   0.74570E-06  478230.0 3748984.8   453.0     4.00     3.95
1.86     YES    HROFDY
 L0002154         0   0.74570E-06  478221.5 3748984.9   453.0     4.00     3.95
1.86     YES    HROFDY
 L0002155         0   0.74570E-06  478213.0 3748985.0   453.0     4.00     3.95
1.86     YES    HROFDY
 L0002156         0   0.74570E-06  478204.5 3748985.1   453.0     4.00     3.95
1.86     YES    HROFDY
 L0002157         0   0.74570E-06  478196.0 3748985.1   453.0     4.00     3.95
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1.86       YES    HROFDY
 L0002158          0    0.74570E-06   478187.5 3748985.2    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002159          0    0.74570E-06   478179.0 3748985.3    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002160          0    0.74570E-06   478170.5 3748985.4    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002161          0    0.74570E-06   478162.0 3748985.5    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002162          0    0.74570E-06   478153.5 3748985.5    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002163          0    0.74570E-06   478145.0 3748985.6    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002164          0    0.74570E-06   478136.5 3748985.7    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002165          0    0.74570E-06   478128.0 3748985.8    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002166          0    0.74570E-06   478119.5 3748985.9    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002167          0    0.74570E-06   478111.0 3748986.0    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002168          0    0.74570E-06   478102.5 3748986.0    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002169          0    0.74570E-06   478094.0 3748986.1    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002170          0    0.74570E-06   478085.5 3748986.2    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002171          0    0.74570E-06   478077.0 3748986.3    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002172          0    0.74570E-06   478068.5 3748986.4    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002173          0    0.74570E-06   478060.0 3748986.4    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002174          0    0.74570E-06   478051.5 3748986.5    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002175          0    0.74570E-06   478043.0 3748986.6    453.0      4.00      3.95
1.86       YES    HROFDY
 L0002176          0    0.74570E-06   478034.5 3748986.7    453.0      4.00      3.95
1.86       YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                  ***       11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                AERMOD HRA Output
                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.             (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002177         0   0.74570E-06  478026.0 3748986.8   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002178         0   0.74570E-06  478017.5 3748986.9   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002179         0   0.74570E-06  478009.0 3748986.9   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002180         0   0.74570E-06  478000.5 3748987.0   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002181         0   0.74570E-06  477992.0 3748987.1   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002182         0   0.74570E-06  477983.5 3748987.2   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002183         0   0.74570E-06  477975.0 3748987.3   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002184         0   0.74570E-06  477966.5 3748987.3   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002185         0   0.74570E-06  477958.0 3748987.4   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002186         0   0.74570E-06  477949.5 3748987.5   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002187         0   0.74570E-06  477941.0 3748987.6   453.0     4.00     3.95
1.86      YES   HROFDY
 L0002188         0   0.74570E-06  477932.5 3748987.7   453.2     4.00     3.95
1.86      YES   HROFDY
 L0002189         0   0.74570E-06  477924.0 3748987.7   453.4     4.00     3.95
1.86      YES   HROFDY
 L0002190         0   0.74570E-06  477915.5 3748987.8   453.6     4.00     3.95
1.86      YES   HROFDY
 L0002191         0   0.74570E-06  477907.0 3748987.9   453.7     4.00     3.95
1.86      YES   HROFDY
 L0002192         0   0.74570E-06  477898.6 3748988.0   453.7     4.00     3.95
1.86      YES   HROFDY
 L0002193         0   0.74570E-06  477890.1 3748988.1   453.7     4.00     3.95
1.86      YES   HROFDY
 L0002194         0   0.74570E-06  477881.9 3748988.5   453.7     4.00     3.95
1.86      YES   HROFDY
 L0002195         0   0.74570E-06  477881.9 3748997.0   454.0     4.00     3.95
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1.86      YES    HROFDY
 L0002196          0   0.74570E-06   477881.9 3749005.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002197          0   0.74570E-06   477881.9 3749014.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002198          0   0.74570E-06   477881.9 3749022.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002199          0   0.74570E-06   477881.9 3749031.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002200          0   0.74570E-06   477881.9 3749039.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002201          0   0.74570E-06   477881.9 3749048.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002202          0   0.74570E-06   477881.9 3749056.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002203          0   0.74570E-06   477881.9 3749065.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002204          0   0.74570E-06   477881.9 3749073.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002205          0   0.74570E-06   477881.9 3749082.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002206          0   0.74570E-06   477881.9 3749090.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002207          0   0.74570E-06   477881.9 3749099.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002208          0   0.74570E-06   477881.9 3749107.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002209          0   0.74570E-06   477881.9 3749116.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002210          0   0.74570E-06   477881.9 3749124.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002211          0   0.74570E-06   477881.9 3749133.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002212          0   0.74570E-06   477881.9 3749141.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002213          0   0.74570E-06   477881.9 3749150.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002214          0   0.74570E-06   477881.9 3749158.5   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002215          0   0.74570E-06   477881.9 3749167.0   454.0     4.00     3.95
1.86      YES    HROFDY
 L0002216          0   0.74570E-06   477881.9 3749175.5   454.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
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                             AERMOD HRA Output
                               PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002217         0   0.74570E-06  477881.9 3749184.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002218         0   0.74570E-06  477881.9 3749192.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002219         0   0.74570E-06  477881.9 3749201.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0002220         0   0.74570E-06  477881.9 3749209.5   454.1     4.00     3.95
1.86     YES   HROFDY
 L0002221         0   0.74570E-06  477881.9 3749218.0   454.4     4.00     3.95
1.86     YES   HROFDY
 L0002222         0   0.74570E-06  477881.9 3749226.5   454.7     4.00     3.95
1.86     YES   HROFDY
 L0002223         0   0.74570E-06  477881.9 3749235.0   454.9     4.00     3.95
1.86     YES   HROFDY
 L0002224         0   0.74570E-06  477877.9 3749239.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002225         0   0.74570E-06  477869.4 3749239.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002226         0   0.74570E-06  477860.9 3749239.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002227         0   0.74570E-06  477852.4 3749239.9   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002228         0   0.74570E-06  477843.9 3749240.0   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002229         0   0.74570E-06  477835.4 3749240.1   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002230         0   0.74570E-06  477826.9 3749240.2   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002231         0   0.74570E-06  477818.4 3749240.3   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002232         0   0.74570E-06  477809.9 3749240.4   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002233         0   0.74570E-06  477801.4 3749240.5   455.0     4.00     3.95
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1.86      YES    HROFDY
 L0002234          0   0.74570E-06   477792.9 3749240.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002235          0   0.74570E-06   477784.4 3749240.8    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002236          0   0.74570E-06   477775.9 3749240.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002237          0   0.74570E-06   477767.4 3749241.0    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002238          0   0.74570E-06   477758.9 3749241.1    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002239          0   0.74570E-06   477750.4 3749241.2    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002240          0   0.74570E-06   477741.9 3749241.3    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002241          0   0.74570E-06   477733.4 3749241.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002242          0   0.74570E-06   477724.9 3749241.6    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002243          0   0.74570E-06   477716.4 3749241.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002244          0   0.74570E-06   477707.9 3749241.8    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002245          0   0.74570E-06   477699.4 3749241.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002246          0   0.74570E-06   477690.9 3749242.0    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002247          0   0.74570E-06   477682.4 3749242.1    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002248          0   0.74570E-06   477673.9 3749242.2    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002249          0   0.74570E-06   477665.4 3749242.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002250          0   0.74570E-06   477656.9 3749242.5    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002251          0   0.74570E-06   477648.4 3749242.6    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002252          0   0.74570E-06   477639.9 3749242.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002253          0   0.74570E-06   477631.4 3749242.8    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002254          0   0.74570E-06   477622.9 3749242.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002255          0   0.74570E-06   477614.4 3749243.0    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002256          0   0.74570E-06   477605.9 3749243.2    455.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                 AERMOD HRA Output
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0002257         0   0.74570E-06  477597.4 3749243.3   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002258         0   0.74570E-06  477588.9 3749243.4   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002259         0   0.74570E-06  477580.4 3749243.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002260         0   0.74570E-06  477571.9 3749243.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002261         0   0.74570E-06  477563.4 3749243.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002262         0   0.74570E-06  477554.9 3749243.8   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002263         0   0.74570E-06  477546.4 3749244.0   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002264         0   0.74570E-06  477537.9 3749244.1   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002265         0   0.74570E-06  477529.4 3749244.2   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002266         0   0.74570E-06  477520.9 3749244.3   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002267         0   0.74570E-06  477512.4 3749244.4   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002268         0   0.74570E-06  477503.9 3749244.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002269         0   0.74570E-06  477495.4 3749244.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002270         0   0.74570E-06  477486.9 3749244.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0002271         0   0.74570E-06  477478.4 3749244.9   455.0     4.00     3.95
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1.86      YES    HROFDY
 L0002272         0   0.74570E-06   477476.8 3749251.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002273         0   0.74570E-06   477476.7 3749260.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002274         0   0.74570E-06   477476.6 3749268.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002275         0   0.74570E-06   477476.5 3749277.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002276         0   0.74570E-06   477476.4 3749285.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002277         0   0.74570E-06   477476.3 3749294.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0002278         0   0.74570E-06   477476.2 3749302.9    455.1      4.00      3.95
1.86      YES    HROFDY
 L0002279         0   0.74570E-06   477476.0 3749311.4    455.2      4.00      3.95
1.86      YES    HROFDY
 L0002280         0   0.74570E-06   477475.9 3749319.9    455.4      4.00      3.95
1.86      YES    HROFDY
 L0002281         0   0.74570E-06   477475.8 3749328.4    455.5      4.00      3.95
1.86      YES    HROFDY
 L0002282         0   0.74570E-06   477475.7 3749336.9    455.7      4.00      3.95
1.86      YES    HROFDY
 L0002283         0   0.74570E-06   477475.6 3749345.4    455.8      4.00      3.95
1.86      YES    HROFDY
 L0002284         0   0.74570E-06   477475.5 3749353.9    455.9      4.00      3.95
1.86      YES    HROFDY
 L0002285         0   0.74570E-06   477475.4 3749362.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002286         0   0.74570E-06   477475.3 3749370.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002287         0   0.74570E-06   477475.1 3749379.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002288         0   0.74570E-06   477475.0 3749387.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002289         0   0.74570E-06   477474.9 3749396.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002290         0   0.74570E-06   477474.8 3749404.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002291         0   0.74570E-06   477474.7 3749413.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002292         0   0.74570E-06   477474.6 3749421.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002293         0   0.74570E-06   477474.5 3749430.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002294         0   0.74570E-06   477474.4 3749438.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0002295         0   0.74570E-06   477474.2 3749447.4    456.0      4.00      3.95
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1.86     YES   HROFDY
 L0002296         0   0.74570E-06  477474.1 3749455.9   456.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0002297         0   0.74570E-06  477474.0 3749464.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002298         0   0.74570E-06  477473.9 3749472.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0002299         0   0.74570E-06  477473.8 3749481.4   456.2     4.00     3.95
1.86     YES   HROFDY
 L0002300         0   0.74570E-06  477473.7 3749489.9   456.4     4.00     3.95
1.86     YES   HROFDY
 L0002301         0   0.74570E-06  477473.6 3749498.4   456.7     4.00     3.95
1.86     YES   HROFDY
 L0002302         0   0.74570E-06  477473.5 3749506.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0002303         0   0.74570E-06  477473.3 3749515.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0002304         0   0.74570E-06  477473.2 3749523.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0002305         0   0.74570E-06  477473.1 3749532.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0002306         0   0.74570E-06  477473.0 3749540.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0002307         0   0.74570E-06  477472.9 3749549.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0002308         0   0.74570E-06  477472.8 3749557.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0002309         0   0.74570E-06  477472.7 3749566.4   457.0     4.00     3.95
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1.86      YES    HROFDY
 L0002310          0   0.74570E-06   477472.6 3749574.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002311          0   0.74570E-06   477472.4 3749583.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002312          0   0.74570E-06   477472.3 3749591.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002313          0   0.74570E-06   477472.2 3749600.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002314          0   0.74570E-06   477472.1 3749608.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002315          0   0.74570E-06   477472.0 3749617.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002316          0   0.74570E-06   477471.9 3749625.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002317          0   0.74570E-06   477471.8 3749634.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002318          0   0.74570E-06   477471.7 3749642.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002319          0   0.74570E-06   477471.5 3749651.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002320          0   0.74570E-06   477471.4 3749659.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002321          0   0.74570E-06   477471.3 3749668.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002322          0   0.74570E-06   477471.2 3749676.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002323          0   0.74570E-06   477471.1 3749685.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002324          0   0.74570E-06   477471.0 3749693.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002325          0   0.74570E-06   477470.9 3749702.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002326          0   0.74570E-06   477470.8 3749710.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002327          0   0.74570E-06   477470.6 3749719.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002328          0   0.74570E-06   477470.5 3749727.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002329          0   0.74570E-06   477470.4 3749736.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002330          0   0.74570E-06   477470.3 3749744.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0002331          0   0.74570E-06   477470.2 3749753.4    457.2      4.00      3.95
1.86      YES    HROFDY
 L0002332          0   0.74570E-06   477470.1 3749761.9    457.5      4.00      3.95
1.86      YES    HROFDY
 L0002333          0   0.74570E-06   477470.0 3749770.4    457.8      4.00      3.95
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1.86      YES    HROFDY
 L0002334         0   0.74570E-06   477469.9 3749778.9   458.0     4.00     3.95
1.86      YES    HROFDY
 L0002335         0   0.74570E-06   477469.7 3749787.4   458.0     4.00     3.95
1.86      YES    HROFDY
 L0002336         0   0.31930E-06   477901.9 3748181.5   450.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***          11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         16:28:37

                                    PAGE  18
 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN


                                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0002337         0   0.31930E-06   477893.4 3748181.6   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002338         0   0.31930E-06   477884.9 3748181.7   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002339         0   0.31930E-06   477876.4 3748181.7   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002340         0   0.31930E-06   477867.9 3748181.8   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002341         0   0.31930E-06   477859.4 3748181.9   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002342         0   0.31930E-06   477850.9 3748181.9   450.0     4.00     3.95
1.86      YES    HROFDY
 L0002343         0   0.31930E-06   477842.4 3748182.0   450.2     4.00     3.95
1.86      YES    HROFDY
 L0002344         0   0.31930E-06   477833.9 3748182.1   450.5     4.00     3.95
1.86      YES    HROFDY
 L0002345         0   0.31930E-06   477825.4 3748182.1   450.7     4.00     3.95
1.86      YES    HROFDY
 L0002346         0   0.31930E-06   477816.9 3748182.2   450.9     4.00     3.95
1.86      YES    HROFDY
 L0002347         0   0.31930E-06   477808.4 3748182.3   450.9     4.00     3.95
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1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0002349          0   0.31930E-06   477791.4 3748182.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002350          0   0.31930E-06   477782.9 3748182.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002351          0   0.31930E-06   477774.4 3748182.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002352          0   0.31930E-06   477765.9 3748182.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002353          0   0.31930E-06   477757.4 3748182.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002354          0   0.31930E-06   477748.9 3748182.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002355          0   0.31930E-06   477740.4 3748182.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002356          0   0.31930E-06   477731.9 3748182.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002357          0   0.31930E-06   477723.4 3748183.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002358          0   0.31930E-06   477714.9 3748183.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002359          0   0.31930E-06   477706.4 3748183.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002360          0   0.31930E-06   477697.9 3748183.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002361          0   0.31930E-06   477689.4 3748183.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002362          0   0.31930E-06   477680.9 3748183.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002363          0   0.31930E-06   477672.4 3748183.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002364          0   0.31930E-06   477663.9 3748183.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002365          0   0.31930E-06   477655.4 3748183.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002366          0   0.31930E-06   477646.9 3748183.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002367          0   0.31930E-06   477638.4 3748183.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002368          0   0.31930E-06   477629.9 3748183.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002369          0   0.31930E-06   477621.4 3748183.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002370          0   0.31930E-06   477612.9 3748183.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002371          0   0.31930E-06   477604.4 3748183.9    451.0      4.00      3.95
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1.86     YES   HROFDY
 L0002372         0   0.31930E-06  477595.9 3748184.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002373         0   0.31930E-06  477587.4 3748184.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002374         0   0.31930E-06  477578.9 3748184.1   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002375         0   0.31930E-06  477570.4 3748184.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002376         0   0.31930E-06  477561.9 3748184.2   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                 BY
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- - - - - - - - - - - - - - - - - - - -

 L0002377         0   0.31930E-06  477553.4 3748184.3   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002378         0   0.31930E-06  477544.9 3748184.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002379         0   0.31930E-06  477536.4 3748184.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002380         0   0.31930E-06  477527.9 3748184.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002381         0   0.31930E-06  477519.4 3748184.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002382         0   0.31930E-06  477510.9 3748184.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002383         0   0.31930E-06  477502.4 3748184.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002384         0   0.31930E-06  477493.9 3748184.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0002385         0   0.31930E-06  477485.4 3748184.8   451.0     4.00     3.95
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1.86      YES    HROFDY
 L0002386         0   0.31930E-06   477476.9 3748184.9   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002387         0   0.31930E-06   477471.1 3748182.1   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002388         0   0.31930E-06   477470.9 3748173.6   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002389         0   0.31930E-06   477470.7 3748165.1   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002390         0   0.31930E-06   477470.6 3748156.6   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002391         0   0.31930E-06   477470.4 3748148.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002392         0   0.31930E-06   477470.2 3748139.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002393         0   0.31930E-06   477470.0 3748131.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002394         0   0.31930E-06   477469.8 3748122.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002395         0   0.31930E-06   477469.6 3748114.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002396         0   0.31930E-06   477469.4 3748105.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002397         0   0.31930E-06   477469.2 3748097.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002398         0   0.31930E-06   477469.0 3748088.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002399         0   0.31930E-06   477468.9 3748080.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002400         0   0.31930E-06   477468.7 3748071.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002401         0   0.31930E-06   477468.5 3748063.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002402         0   0.31930E-06   477468.3 3748054.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002403         0   0.31930E-06   477468.1 3748046.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002404         0   0.31930E-06   477467.9 3748037.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002405         0   0.31930E-06   477467.7 3748029.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002406         0   0.31930E-06   477467.5 3748020.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002407         0   0.31930E-06   477467.4 3748012.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002408         0   0.31930E-06   477467.2 3748003.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0002409         0   0.31930E-06   477467.0 3747995.2   451.0      4.00      3.95
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1.86      YES    HROFDY
 L0002410         0   0.31930E-06  477466.8 3747986.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002411         0   0.31930E-06  477466.6 3747978.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002412         0   0.31930E-06  477466.4 3747969.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002413         0   0.31930E-06  477466.2 3747961.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002414         0   0.31930E-06  477466.0 3747952.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002415         0   0.31930E-06  477465.8 3747944.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002416         0   0.31930E-06  477465.7 3747935.7   451.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0002417         0   0.31930E-06  477465.5 3747927.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002418         0   0.31930E-06  477465.3 3747918.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002419         0   0.31930E-06  477465.1 3747910.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002420         0   0.31930E-06  477464.9 3747901.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002421         0   0.31930E-06  477464.7 3747893.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002422         0   0.31930E-06  477464.5 3747884.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0002423         0   0.31930E-06  477464.3 3747876.2   451.0     4.00     3.95
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1.86      YES    HROFDY
 L0002424        0   0.31930E-06   477464.1 3747867.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002425        0   0.31930E-06   477464.0 3747859.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002426        0   0.31930E-06   477463.8 3747850.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002427        0   0.31930E-06   477463.6 3747842.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002428        0   0.31930E-06   477463.4 3747833.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002429        0   0.31930E-06   477463.2 3747825.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002430        0   0.31930E-06   477463.0 3747816.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002431        0   0.31930E-06   477462.8 3747808.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002432        0   0.31930E-06   477462.6 3747799.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002433        0   0.31930E-06   477462.5 3747791.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0002434        0   0.31930E-06   477462.3 3747782.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003986        0   0.31970E-06   477466.5 3747781.2    451.0      4.00      3.95
1.86      YES
 L0003987        0   0.31970E-06   477475.0 3747781.2    451.0      4.00      3.95
1.86      YES
 L0003988        0   0.31970E-06   477483.5 3747781.1    451.0      4.00      3.95
1.86      YES
 L0003989        0   0.31970E-06   477492.0 3747781.1    451.0      4.00      3.95
1.86      YES
 L0003990        0   0.31970E-06   477500.5 3747781.0    451.0      4.00      3.95
1.86      YES
 L0003991        0   0.31970E-06   477509.0 3747781.0    451.0      4.00      3.95
1.86      YES
 L0003992        0   0.31970E-06   477517.5 3747780.9    451.0      4.00      3.95
1.86      YES
 L0003993        0   0.31970E-06   477526.0 3747780.9    451.0      4.00      3.95
1.86      YES
 L0003994        0   0.31970E-06   477534.5 3747780.8    451.0      4.00      3.95
1.86      YES
 L0003995        0   0.31970E-06   477543.0 3747780.7    451.0      4.00      3.95
1.86      YES
 L0003996        0   0.31970E-06   477551.5 3747780.7    451.0      4.00      3.95
1.86      YES
 L0003997        0   0.31970E-06   477560.0 3747780.6    451.0      4.00      3.95
1.86      YES
 L0003998        0   0.31970E-06   477568.5 3747780.6    451.0      4.00      3.95
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1.86     YES
 L0003999         0   0.31970E-06  477577.0 3747780.5   451.0     4.00     3.95
1.86     YES
 L0004000         0   0.31970E-06  477585.5 3747780.5   451.0     4.00     3.95
1.86     YES
 L0004001         0   0.31970E-06  477594.0 3747780.4   451.0     4.00     3.95
1.86     YES
 L0004002         0   0.31970E-06  477602.5 3747780.3   451.0     4.00     3.95
1.86     YES
 L0004003         0   0.31970E-06  477611.0 3747780.3   451.0     4.00     3.95
1.86     YES
 L0004004         0   0.31970E-06  477619.5 3747780.2   451.0     4.00     3.95
1.86     YES
 L0004005         0   0.31970E-06  477628.0 3747780.2   451.0     4.00     3.95
1.86     YES
 L0004006         0   0.31970E-06  477636.5 3747780.1   451.0     4.00     3.95
1.86     YES
 L0004007         0   0.31970E-06  477645.0 3747780.1   450.9     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0004008         0   0.31970E-06  477653.5 3747780.0   450.8     4.00     3.95
1.86     YES
 L0004009         0   0.31970E-06  477662.0 3747780.0   450.6     4.00     3.95
1.86     YES
 L0004010         0   0.31970E-06  477670.5 3747779.9   450.4     4.00     3.95
1.86     YES
 L0004011         0   0.31970E-06  477679.0 3747779.8   450.3     4.00     3.95
1.86     YES
 L0004012         0   0.31970E-06  477687.5 3747779.8   450.2     4.00     3.95
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1.86      YES
 L0004013          0   0.31970E-06   477696.0 3747779.7    450.1      4.00      3.95
1.86      YES
 L0004014          0   0.31970E-06   477704.5 3747779.7    450.0      4.00      3.95
1.86      YES
 L0004015          0   0.31970E-06   477713.0 3747779.6    450.0      4.00      3.95
1.86      YES
 L0004016          0   0.31970E-06   477721.5 3747779.6    450.0      4.00      3.95
1.86      YES
 L0004017          0   0.31970E-06   477730.0 3747779.5    450.0      4.00      3.95
1.86      YES
 L0004018          0   0.31970E-06   477738.5 3747779.4    450.0      4.00      3.95
1.86      YES
 L0004019          0   0.31970E-06   477747.0 3747779.4    450.0      4.00      3.95
1.86      YES
 L0004020          0   0.31970E-06   477755.5 3747779.3    450.0      4.00      3.95
1.86      YES
 L0004021          0   0.31970E-06   477764.0 3747779.3    450.0      4.00      3.95
1.86      YES
 L0004022          0   0.31970E-06   477772.5 3747779.2    450.0      4.00      3.95
1.86      YES
 L0004023          0   0.31970E-06   477781.0 3747779.2    450.0      4.00      3.95
1.86      YES
 L0004024          0   0.31970E-06   477789.5 3747779.1    450.0      4.00      3.95
1.86      YES
 L0004025          0   0.31970E-06   477798.0 3747779.1    450.0      4.00      3.95
1.86      YES
 L0004026          0   0.31970E-06   477806.5 3747779.0    450.0      4.00      3.95
1.86      YES
 L0004027          0   0.31970E-06   477815.0 3747778.9    450.0      4.00      3.95
1.86      YES
 L0004028          0   0.31970E-06   477823.5 3747778.9    450.0      4.00      3.95
1.86      YES
 L0004029          0   0.31970E-06   477832.0 3747778.8    450.0      4.00      3.95
1.86      YES
 L0004030          0   0.31970E-06   477840.5 3747778.8    450.0      4.00      3.95
1.86      YES
 L0004031          0   0.31970E-06   477849.0 3747778.7    450.0      4.00      3.95
1.86      YES
 L0004032          0   0.31970E-06   477857.5 3747778.7    450.0      4.00      3.95
1.86      YES
 L0004033          0   0.31970E-06   477866.0 3747778.6    450.0      4.00      3.95
1.86      YES
 L0004034          0   0.31970E-06   477874.5 3747778.6    450.0      4.00      3.95
1.86      YES
 L0004035          0   0.31970E-06   477883.0 3747778.5    450.0      4.00      3.95
1.86      YES
 L0004036          0   0.31970E-06   477891.5 3747778.4    450.0      4.00      3.95
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1.86      YES
 L0004037         0   0.31970E-06  477900.0 3747778.4   450.0     4.00     3.95
1.86      YES
 L0004038         0   0.31970E-06  477908.5 3747778.3   450.0     4.00     3.95
1.86      YES
 L0004039         0   0.31970E-06  477917.0 3747778.3   450.0     4.00     3.95
1.86      YES
 L0004040         0   0.31970E-06  477925.5 3747778.2   450.0     4.00     3.95
1.86      YES
 L0004041         0   0.31970E-06  477934.0 3747778.2   450.0     4.00     3.95
1.86      YES
 L0004042         0   0.31970E-06  477942.5 3747778.1   450.0     4.00     3.95
1.86      YES
 L0004043         0   0.31970E-06  477951.0 3747778.0   450.0     4.00     3.95
1.86      YES
 L0004044         0   0.31970E-06  477959.5 3747778.0   450.0     4.00     3.95
1.86      YES
 L0004045         0   0.31970E-06  477968.0 3747777.9   450.0     4.00     3.95
1.86      YES
 L0004046         0   0.31970E-06  477976.5 3747777.9   450.0     4.00     3.95
1.86      YES
 L0004047         0   0.31970E-06  477985.0 3747777.8   450.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0004048         0   0.31970E-06  477993.5 3747777.8   450.0     4.00     3.95
1.86      YES
 L0004049         0   0.31970E-06  478002.0 3747777.7   450.0     4.00     3.95
1.86      YES
 L0004050         0   0.31970E-06  478010.5 3747777.7   449.8     4.00     3.95
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1.86      YES
 L0004051         0   0.31970E-06   478019.0 3747777.6    449.6      4.00      3.95
1.86      YES
 L0004052         0   0.31970E-06   478027.5 3747777.5    449.4      4.00      3.95
1.86      YES
 L0004053         0   0.31970E-06   478036.0 3747777.5    449.3      4.00      3.95
1.86      YES
 L0004054         0   0.31970E-06   478044.5 3747777.4    449.2      4.00      3.95
1.86      YES
 L0004055         0   0.31970E-06   478053.0 3747777.4    449.1      4.00      3.95
1.86      YES
 L0004056         0   0.31970E-06   478061.5 3747777.3    449.0      4.00      3.95
1.86      YES
 L0004057         0   0.31970E-06   478070.0 3747777.3    449.0      4.00      3.95
1.86      YES
 L0004058         0   0.31970E-06   478078.5 3747777.2    449.0      4.00      3.95
1.86      YES
 L0004059         0   0.31970E-06   478087.0 3747777.1    449.0      4.00      3.95
1.86      YES
 L0004060         0   0.31970E-06   478095.5 3747777.1    449.0      4.00      3.95
1.86      YES
 L0004061         0   0.31970E-06   478104.0 3747777.0    449.0      4.00      3.95
1.86      YES
 L0004062         0   0.31970E-06   478112.5 3747777.0    449.0      4.00      3.95
1.86      YES
 L0004063         0   0.31970E-06   478121.0 3747776.9    449.0      4.00      3.95
1.86      YES
 L0004064         0   0.31970E-06   478129.5 3747776.9    449.0      4.00      3.95
1.86      YES
 L0004065         0   0.31970E-06   478138.0 3747776.8    449.0      4.00      3.95
1.86      YES
 L0004066         0   0.31970E-06   478146.5 3747776.8    449.0      4.00      3.95
1.86      YES
 L0004067         0   0.31970E-06   478155.0 3747776.7    449.0      4.00      3.95
1.86      YES
 L0004068         0   0.31970E-06   478163.5 3747776.6    449.0      4.00      3.95
1.86      YES
 L0004069         0   0.31970E-06   478172.0 3747776.6    449.0      4.00      3.95
1.86      YES
 L0004070         0   0.31970E-06   478180.5 3747776.5    449.0      4.00      3.95
1.86      YES
 L0004071         0   0.31970E-06   478189.0 3747776.5    449.0      4.00      3.95
1.86      YES
 L0004072         0   0.31970E-06   478197.5 3747776.4    449.0      4.00      3.95
1.86      YES
 L0004073         0   0.31970E-06   478206.0 3747776.4    449.0      4.00      3.95
1.86      YES
 L0004074         0   0.31970E-06   478214.5 3747776.3    449.0      4.00      3.95
```

```
1.86     YES
 L0004075         0   0.31970E-06  478223.0 3747776.2   449.0     4.00     3.95
1.86     YES
 L0004076         0   0.31970E-06  478231.5 3747776.2   449.0     4.00     3.95
1.86     YES
 L0004077         0   0.31970E-06  478240.0 3747776.1   449.0     4.00     3.95
1.86     YES
 L0004078         0   0.31970E-06  478248.5 3747776.1   449.0     4.00     3.95
1.86     YES
 L0004079         0   0.31970E-06  478257.0 3747776.0   449.0     4.00     3.95
1.86     YES
 L0004080         0   0.31970E-06  478265.5 3747776.0   449.0     4.00     3.95
1.86     YES
 L0004081         0   0.31970E-06  478274.0 3747775.9   449.0     4.00     3.95
1.86     YES
 L0004082         0   0.31970E-06  478281.0 3747774.4   449.0     4.00     3.95
1.86     YES
 L0004083         0   0.31970E-06  478281.0 3747765.9   449.0     4.00     3.95
1.86     YES
 L0004084         0   0.31970E-06  478281.1 3747757.4   449.0     4.00     3.95
1.86     YES
 L0004085         0   0.31970E-06  478281.1 3747748.9   449.0     4.00     3.95
1.86     YES
 L0004086         0   0.31970E-06  478281.1 3747740.4   449.0     4.00     3.95
1.86     YES
 L0004087         0   0.31970E-06  478281.2 3747731.9   449.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0004088         0   0.31970E-06  478281.2 3747723.4   449.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0004089          0   0.31970E-06   478281.2 3747714.9    449.0      4.00      3.95
1.86      YES
 L0004090          0   0.31970E-06   478281.3 3747706.4    449.0      4.00      3.95
1.86      YES
 L0004091          0   0.31970E-06   478281.3 3747697.9    449.0      4.00      3.95
1.86      YES
 L0004092          0   0.31970E-06   478281.3 3747689.4    449.0      4.00      3.95
1.86      YES
 L0004093          0   0.31970E-06   478281.4 3747680.9    449.0      4.00      3.95
1.86      YES
 L0004094          0   0.31970E-06   478281.4 3747672.4    448.9      4.00      3.95
1.86      YES
 L0004095          0   0.31970E-06   478281.4 3747663.9    448.6      4.00      3.95
1.86      YES
 L0004096          0   0.31970E-06   478281.5 3747655.4    448.3      4.00      3.95
1.86      YES
 L0004097          0   0.31970E-06   478281.5 3747646.9    448.0      4.00      3.95
1.86      YES
 L0004098          0   0.31970E-06   478281.5 3747638.4    448.0      4.00      3.95
1.86      YES
 L0004099          0   0.31970E-06   478281.5 3747629.9    448.0      4.00      3.95
1.86      YES
 L0004100          0   0.31970E-06   478281.6 3747621.4    448.0      4.00      3.95
1.86      YES
 L0004101          0   0.31970E-06   478281.6 3747612.9    448.0      4.00      3.95
1.86      YES
 L0004102          0   0.31970E-06   478281.6 3747604.4    448.0      4.00      3.95
1.86      YES
 L0004103          0   0.31970E-06   478281.7 3747595.9    448.0      4.00      3.95
1.86      YES
 L0004104          0   0.31970E-06   478281.7 3747587.4    448.0      4.00      3.95
1.86      YES
 L0004105          0   0.31970E-06   478281.7 3747578.9    448.0      4.00      3.95
1.86      YES
 L0004106          0   0.31970E-06   478281.8 3747570.4    448.0      4.00      3.95
1.86      YES
 L0004107          0   0.31970E-06   478281.8 3747561.9    448.0      4.00      3.95
1.86      YES
 L0004108          0   0.31970E-06   478281.8 3747553.4    448.0      4.00      3.95
1.86      YES
 L0004109          0   0.31970E-06   478281.9 3747544.9    448.0      4.00      3.95
1.86      YES
 L0004110          0   0.31970E-06   478281.9 3747536.4    448.0      4.00      3.95
1.86      YES
 L0004111          0   0.31970E-06   478281.9 3747527.9    448.0      4.00      3.95
1.86      YES
 L0004112          0   0.31970E-06   478282.0 3747519.4    448.0      4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86     YES
 L0004113         0   0.31970E-06  478282.0 3747510.9   448.0     4.00     3.95
1.86     YES
 L0004114         0   0.31970E-06  478282.0 3747502.4   448.0     4.00     3.95
1.86     YES
 L0004115         0   0.31970E-06  478282.1 3747493.9   448.0     4.00     3.95
1.86     YES
 L0004116         0   0.31970E-06  478282.1 3747485.4   448.0     4.00     3.95
1.86     YES
 L0004117         0   0.31970E-06  478282.1 3747476.9   448.0     4.00     3.95
1.86     YES
 L0004118         0   0.31970E-06  478282.2 3747468.4   448.0     4.00     3.95
1.86     YES
 L0004119         0   0.31970E-06  478282.2 3747459.9   448.0     4.00     3.95
1.86     YES
 L0004120         0   0.31970E-06  478282.2 3747451.4   448.0     4.00     3.95
1.86     YES
 L0004121         0   0.31970E-06  478282.3 3747442.9   448.0     4.00     3.95
1.86     YES
 L0004122         0   0.31970E-06  478282.3 3747434.4   448.0     4.00     3.95
1.86     YES
 L0004123         0   0.31970E-06  478282.3 3747425.9   448.0     4.00     3.95
1.86     YES
 L0004124         0   0.31970E-06  478282.4 3747417.4   448.0     4.00     3.95
1.86     YES
 L0004125         0   0.31970E-06  478282.4 3747408.9   448.0     4.00     3.95
1.86     YES
 L0004126         0   0.31970E-06  478282.4 3747400.4   448.0     4.00     3.95
1.86     YES
 L0004127         0   0.31970E-06  478282.5 3747391.9   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0004128         0   0.31970E-06  478282.5 3747383.4   448.0     4.00     3.95
1.86     YES
 L0004129         0   0.31970E-06  478282.5 3747374.9   448.0     4.00     3.95
1.86     YES
 L0004130         0   0.31970E-06  478282.6 3747366.4   448.0     4.00     3.95
1.86     YES
 L0004131         0   0.31970E-06  478282.6 3747357.9   448.0     4.00     3.95
1.86     YES
 L0004132         0   0.31970E-06  478282.6 3747349.4   448.0     4.00     3.95
1.86     YES
 L0004133         0   0.31970E-06  478282.6 3747340.9   448.0     4.00     3.95
1.86     YES
 L0004134         0   0.31970E-06  478282.7 3747332.4   448.0     4.00     3.95
1.86     YES
 L0004135         0   0.31970E-06  478282.7 3747323.9   448.0     4.00     3.95
1.86     YES
 L0004136         0   0.31970E-06  478282.7 3747315.4   448.0     4.00     3.95
1.86     YES
 L0004137         0   0.31970E-06  478282.8 3747306.9   448.0     4.00     3.95
1.86     YES
 L0004138         0   0.31970E-06  478282.8 3747298.4   448.0     4.00     3.95
1.86     YES
 L0004139         0   0.31970E-06  478282.8 3747289.9   448.0     4.00     3.95
1.86     YES
 L0004140         0   0.31970E-06  478282.9 3747281.4   448.0     4.00     3.95
1.86     YES
 L0004141         0   0.31970E-06  478282.9 3747272.9   448.0     4.00     3.95
1.86     YES
 L0004142         0   0.31970E-06  478282.9 3747264.4   448.0     4.00     3.95
1.86     YES
 L0004143         0   0.31970E-06  478283.0 3747255.9   448.0     4.00     3.95
1.86     YES
 L0004144         0   0.31970E-06  478283.0 3747247.4   448.0     4.00     3.95
1.86     YES
 L0004145         0   0.31970E-06  478283.0 3747238.9   448.0     4.00     3.95
1.86     YES
 L0004146         0   0.31970E-06  478283.1 3747230.4   448.0     4.00     3.95
1.86     YES
 L0004147         0   0.31970E-06  478283.1 3747221.9   448.0     4.00     3.95
1.86     YES
 L0004148         0   0.31970E-06  478283.1 3747213.4   448.0     4.00     3.95
1.86     YES
 L0004149         0   0.31970E-06  478283.2 3747204.9   448.0     4.00     3.95
1.86     YES
 L0004150         0   0.31970E-06  478283.2 3747196.4   448.0     4.00     3.95
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1.86      YES
 L0004151          0   0.31970E-06  478283.2 3747187.9   448.0     4.00     3.95
1.86      YES
 L0004152          0   0.31970E-06  478283.3 3747179.4   448.0     4.00     3.95
1.86      YES
 L0004153          0   0.31970E-06  478283.3 3747170.9   448.0     4.00     3.95
1.86      YES
 L0004154          0   0.31970E-06  478283.3 3747162.4   448.0     4.00     3.95
1.86      YES
 L0004155          0   0.31970E-06  478283.4 3747153.9   448.0     4.00     3.95
1.86      YES
 L0004156          0   0.31970E-06  478283.4 3747145.4   448.0     4.00     3.95
1.86      YES
 L0004157          0   0.31970E-06  478283.4 3747136.9   448.0     4.00     3.95
1.86      YES
 L0004158          0   0.31970E-06  478283.5 3747128.4   448.0     4.00     3.95
1.86      YES
 L0004159          0   0.31970E-06  478283.5 3747119.9   448.0     4.00     3.95
1.86      YES
 L0004160          0   0.31970E-06  478283.5 3747111.4   448.0     4.00     3.95
1.86      YES
 L0004161          0   0.31970E-06  478283.6 3747102.9   448.0     4.00     3.95
1.86      YES
 L0004162          0   0.31970E-06  478283.6 3747094.4   448.0     4.00     3.95
1.86      YES
 L0004163          0   0.31970E-06  478283.6 3747085.9   448.0     4.00     3.95
1.86      YES
 L0004164          0   0.31970E-06  478283.6 3747077.4   448.0     4.00     3.95
1.86      YES
 L0004165          0   0.31970E-06  478283.7 3747068.9   448.0     4.00     3.95
1.86      YES
 L0004166          0   0.31970E-06  478283.7 3747060.4   448.0     4.00     3.95
1.86      YES
 L0004167          0   0.31970E-06  478283.7 3747051.9   448.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         16:28:37

                                    PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
```

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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0004168        0   0.31970E-06  478283.8 3747043.4   448.0     4.00     3.95
1.86     YES
 L0004169        0   0.31970E-06  478283.8 3747034.9   448.0     4.00     3.95
1.86     YES
 L0004170        0   0.31970E-06  478283.8 3747026.4   448.0     4.00     3.95
1.86     YES
 L0004171        0   0.31970E-06  478283.9 3747017.9   448.0     4.00     3.95
1.86     YES
 L0004172        0   0.31970E-06  478283.9 3747009.4   448.0     4.00     3.95
1.86     YES
 L0004173        0   0.31970E-06  478283.9 3747000.9   448.0     4.00     3.95
1.86     YES
 L0004174        0   0.31970E-06  478284.0 3746992.4   448.0     4.00     3.95
1.86     YES
 L0004175        0   0.31970E-06  478284.0 3746983.9   448.0     4.00     3.95
1.86     YES
 L0004176        0   0.31970E-06  478284.0 3746975.4   448.0     4.00     3.95
1.86     YES
 L0004177        0   0.31970E-06  478284.1 3746966.9   448.0     4.00     3.95
1.86     YES
 L0004178        0   0.31970E-06  478284.1 3746958.4   448.0     4.00     3.95
1.86     YES
 L0004179        0   0.31970E-06  478284.1 3746949.9   448.0     4.00     3.95
1.86     YES
 L0004180        0   0.31970E-06  478284.2 3746941.4   448.0     4.00     3.95
1.86     YES
 L0004181        0   0.31970E-06  478284.2 3746932.9   448.0     4.00     3.95
1.86     YES
 L0004182        0   0.31970E-06  478284.2 3746924.4   448.0     4.00     3.95
1.86     YES
 L0004183        0   0.31970E-06  478284.3 3746915.9   448.0     4.00     3.95
1.86     YES
 L0004184        0   0.31970E-06  478284.3 3746907.4   448.0     4.00     3.95
1.86     YES
 L0004185        0   0.31970E-06  478284.3 3746898.9   448.0     4.00     3.95
1.86     YES
 L0004186        0   0.31970E-06  478284.4 3746890.4   448.0     4.00     3.95
1.86     YES
 L0004187        0   0.31970E-06  478284.4 3746881.9   448.0     4.00     3.95
1.86     YES
 L0004188        0   0.31970E-06  478284.4 3746873.4   448.0     4.00     3.95
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1.86      YES
 L0004189          0   0.31970E-06   478284.5 3746864.9   448.0      4.00      3.95
1.86      YES
 L0004190          0   0.31970E-06   478284.5 3746856.4   447.8      4.00      3.95
1.86      YES
 L0004191          0   0.31970E-06   478284.5 3746847.9   447.7      4.00      3.95
1.86      YES
 L0004192          0   0.31970E-06   478284.6 3746839.4   447.6      4.00      3.95
1.86      YES
 L0004193          0   0.31970E-06   478284.6 3746830.9   447.4      4.00      3.95
1.86      YES
 L0004194          0   0.31970E-06   478284.6 3746822.4   447.3      4.00      3.95
1.86      YES
 L0004195          0   0.31970E-06   478284.6 3746813.9   447.1      4.00      3.95
1.86      YES
 L0004196          0   0.31970E-06   478284.7 3746805.4   447.0      4.00      3.95
1.86      YES
 L0004197          0   0.31970E-06   478284.7 3746796.9   447.0      4.00      3.95
1.86      YES
 L0004198          0   0.31970E-06   478284.7 3746788.4   447.0      4.00      3.95
1.86      YES
 L0004199          0   0.31970E-06   478284.8 3746779.9   447.0      4.00      3.95
1.86      YES
 L0004200          0   0.31970E-06   478284.8 3746771.4   447.0      4.00      3.95
1.86      YES
 L0004201          0   0.31970E-06   478284.8 3746762.9   447.0      4.00      3.95
1.86      YES
 L0004202          0   0.31970E-06   478284.9 3746754.4   447.0      4.00      3.95
1.86      YES
 L0004203          0   0.31970E-06   478284.9 3746745.9   447.0      4.00      3.95
1.86      YES
 L0004204          0   0.31970E-06   478284.9 3746737.4   447.0      4.00      3.95
1.86      YES
 L0004205          0   0.31970E-06   478285.0 3746728.9   447.0      4.00      3.95
1.86      YES
 L0004206          0   0.31970E-06   478285.0 3746720.4   447.0      4.00      3.95
1.86      YES
 L0004207          0   0.31970E-06   478285.0 3746711.9   447.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                             AERMOD HRA Output
                                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.             (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004208         0   0.31970E-06  478285.1 3746703.4   447.0     4.00      3.95
1.86     YES
 L0004209         0   0.31970E-06  478285.1 3746694.9   447.0     4.00      3.95
1.86     YES
 L0004210         0   0.31970E-06  478285.1 3746686.4   447.0     4.00      3.95
1.86     YES
 L0004211         0   0.31970E-06  478285.2 3746677.9   447.0     4.00      3.95
1.86     YES
 L0004212         0   0.31970E-06  478285.2 3746669.4   447.0     4.00      3.95
1.86     YES
 L0004213         0   0.31970E-06  478285.2 3746660.9   447.0     4.00      3.95
1.86     YES
 L0004214         0   0.31970E-06  478285.3 3746652.4   447.0     4.00      3.95
1.86     YES
 L0004215         0   0.31970E-06  478285.3 3746643.9   447.0     4.00      3.95
1.86     YES
 L0004216         0   0.31970E-06  478285.3 3746635.4   447.0     4.00      3.95
1.86     YES
 L0004217         0   0.31970E-06  478285.4 3746626.9   447.0     4.00      3.95
1.86     YES
 L0004218         0   0.31970E-06  478285.4 3746618.4   447.0     4.00      3.95
1.86     YES
 L0004219         0   0.31970E-06  478285.4 3746609.9   447.0     4.00      3.95
1.86     YES
 L0004220         0   0.31970E-06  478285.5 3746601.4   447.0     4.00      3.95
1.86     YES
 L0004221         0   0.31970E-06  478285.5 3746592.9   447.0     4.00      3.95
1.86     YES
 L0004222         0   0.31970E-06  478285.5 3746584.4   447.0     4.00      3.95
1.86     YES
 L0004223         0   0.31970E-06  478285.6 3746575.9   447.0     4.00      3.95
1.86     YES
 L0004224         0   0.31970E-06  478285.6 3746567.4   447.0     4.00      3.95
1.86     YES
 L0004225         0   0.31970E-06  478285.6 3746558.9   447.0     4.00      3.95
1.86     YES
 L0004226         0   0.31970E-06  478285.7 3746550.4   447.0     4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0004227         0   0.31970E-06   478285.7 3746541.9   447.0      4.00      3.95
1.86      YES
 L0004228         0   0.31970E-06   478285.7 3746533.4   447.0      4.00      3.95
1.86      YES
 L0004229         0   0.31970E-06   478285.7 3746524.9   447.0      4.00      3.95
1.86      YES
 L0004230         0   0.31970E-06   478285.8 3746516.4   447.0      4.00      3.95
1.86      YES
 L0004231         0   0.31970E-06   478285.8 3746507.9   447.0      4.00      3.95
1.86      YES
 L0004232         0   0.31970E-06   478285.8 3746499.4   447.0      4.00      3.95
1.86      YES
 L0004233         0   0.31970E-06   478285.9 3746490.9   447.0      4.00      3.95
1.86      YES
 L0004234         0   0.31970E-06   478285.9 3746482.4   447.0      4.00      3.95
1.86      YES
 L0004235         0   0.31970E-06   478285.9 3746473.9   447.0      4.00      3.95
1.86      YES
 L0004236         0   0.31970E-06   478286.0 3746465.4   447.0      4.00      3.95
1.86      YES
 L0004237         0   0.31970E-06   478286.0 3746456.9   447.0      4.00      3.95
1.86      YES
 L0004238         0   0.31970E-06   478286.0 3746448.4   447.0      4.00      3.95
1.86      YES
 L0004239         0   0.31970E-06   478286.1 3746439.9   446.9      4.00      3.95
1.86      YES
 L0004240         0   0.31970E-06   478286.1 3746431.4   446.7      4.00      3.95
1.86      YES
 L0004241         0   0.31970E-06   478286.1 3746422.9   446.6      4.00      3.95
1.86      YES
 L0004242         0   0.31970E-06   478286.2 3746414.4   446.5      4.00      3.95
1.86      YES
 L0004243         0   0.31970E-06   478286.2 3746405.9   446.5      4.00      3.95
1.86      YES
 L0004244         0   0.31970E-06   478286.2 3746397.4   446.5      4.00      3.95
1.86      YES
 L0004245         0   0.31970E-06   478286.3 3746388.9   446.4      4.00      3.95
1.86      YES
 L0004246         0   0.31970E-06   478286.3 3746380.4   446.4      4.00      3.95
1.86      YES
 L0004247         0   0.31970E-06   478286.3 3746371.9   446.4      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
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                              AERMOD HRA Output
                                PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0004248         0   0.31970E-06  478286.4 3746363.4   446.4     4.00     3.95
1.86     YES
 L0004249         0   0.31970E-06  478286.4 3746354.9   446.4     4.00     3.95
1.86     YES
 L0004250         0   0.31970E-06  478286.4 3746346.4   446.4     4.00     3.95
1.86     YES
 L0004251         0   0.31970E-06  478280.1 3746347.5   446.7     4.00     3.95
1.86     YES
 L0004252         0   0.31970E-06  478272.3 3746350.8   446.9     4.00     3.95
1.86     YES
 L0004253         0   0.31970E-06  478264.5 3746354.2   447.0     4.00     3.95
1.86     YES
 L0004254         0   0.31970E-06  478256.7 3746357.5   447.0     4.00     3.95
1.86     YES
 L0004255         0   0.31970E-06  478248.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004256         0   0.31970E-06  478240.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004257         0   0.31970E-06  478231.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004258         0   0.31970E-06  478223.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004259         0   0.31970E-06  478214.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004260         0   0.31970E-06  478206.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004261         0   0.31970E-06  478197.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004262         0   0.31970E-06  478189.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004263         0   0.31970E-06  478180.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004264         0   0.31970E-06  478172.1 3746359.6   447.0     4.00     3.95
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1.86      YES
 L0004265          0   0.31970E-06   478163.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004266          0   0.31970E-06   478155.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004267          0   0.31970E-06   478146.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004268          0   0.31970E-06   478138.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004269          0   0.31970E-06   478129.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004270          0   0.31970E-06   478121.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004271          0   0.31970E-06   478112.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004272          0   0.31970E-06   478104.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004273          0   0.31970E-06   478095.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004274          0   0.31970E-06   478087.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004275          0   0.31970E-06   478078.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004276          0   0.31970E-06   478070.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004277          0   0.31970E-06   478061.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004278          0   0.31970E-06   478053.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004279          0   0.31970E-06   478044.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004280          0   0.31970E-06   478036.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004281          0   0.31970E-06   478027.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004282          0   0.31970E-06   478019.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004283          0   0.31970E-06   478010.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004284          0   0.31970E-06   478002.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004285          0   0.31970E-06   477993.6 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004286          0   0.31970E-06   477985.1 3746359.6    447.0      4.00      3.95
1.86      YES
 L0004287          0   0.31970E-06   477976.6 3746359.6    447.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                 AERMOD HRA Output
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -


 L0004288         0   0.31970E-06  477968.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004289         0   0.31970E-06  477959.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0004290         0   0.31970E-06  477951.1 3746359.6   447.1     4.00     3.95
1.86     YES
 L0004291         0   0.31970E-06  477942.6 3746359.6   447.1     4.00     3.95
1.86     YES
 L0004292         0   0.31970E-06  477934.1 3746359.6   447.3     4.00     3.95
1.86     YES
 L0004293         0   0.31970E-06  477925.6 3746359.6   447.5     4.00     3.95
1.86     YES
 L0004294         0   0.31970E-06  477917.1 3746359.6   447.8     4.00     3.95
1.86     YES
 L0004295         0   0.31970E-06  477908.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0004296         0   0.31970E-06  477900.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0004297         0   0.31970E-06  477891.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0004298         0   0.31970E-06  477883.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0004299         0   0.31970E-06  477874.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0004300         0   0.31970E-06  477866.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0004301         0   0.31970E-06  477857.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0004302         0   0.31970E-06  477849.1 3746359.6   448.0     4.00     3.95
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AERMOD HRA Output

```
1.86      YES
 L0004303          0   0.31970E-06   477840.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004304          0   0.31970E-06   477832.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004305          0   0.31970E-06   477823.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004306          0   0.31970E-06   477815.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004307          0   0.31970E-06   477806.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004308          0   0.31970E-06   477798.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004309          0   0.31970E-06   477789.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004310          0   0.31970E-06   477781.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004311          0   0.31970E-06   477772.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004312          0   0.31970E-06   477764.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004313          0   0.31970E-06   477755.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004314          0   0.31970E-06   477747.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004315          0   0.31970E-06   477738.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004316          0   0.31970E-06   477730.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0004317          0   0.31970E-06   477721.6 3746359.7    448.0      4.00      3.95
1.86      YES
 L0004318          0   0.31970E-06   477713.1 3746359.8    448.0      4.00      3.95
1.86      YES
 L0004319          0   0.31970E-06   477704.6 3746359.9    448.0      4.00      3.95
1.86      YES
 L0004320          0   0.31970E-06   477696.1 3746359.9    448.0      4.00      3.95
1.86      YES
 L0004321          0   0.31970E-06   477687.6 3746360.0    448.0      4.00      3.95
1.86      YES
 L0004322          0   0.31970E-06   477679.1 3746360.1    448.0      4.00      3.95
1.86      YES
 L0004323          0   0.31970E-06   477670.6 3746360.2    448.0      4.00      3.95
1.86      YES
 L0004324          0   0.31970E-06   477662.1 3746360.3    448.0      4.00      3.95
1.86      YES
 L0004325          0   0.31970E-06   477653.6 3746360.4    448.0      4.00      3.95
1.86      YES
 L0004326          0   0.31970E-06   477645.1 3746360.5    448.0      4.00      3.95
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1.86     YES
 L0004327         0   0.31970E-06  477636.6 3746360.6   448.1     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0004328         0   0.31970E-06  477628.1 3746360.6   448.4     4.00     3.95
1.86     YES
 L0004329         0   0.31970E-06  477619.6 3746360.7   448.7     4.00     3.95
1.86     YES
 L0004330         0   0.31970E-06  477611.1 3746360.8   449.0     4.00     3.95
1.86     YES
 L0004331         0   0.31970E-06  477602.6 3746360.9   449.0     4.00     3.95
1.86     YES
 L0004332         0   0.31970E-06  477594.1 3746361.0   449.0     4.00     3.95
1.86     YES
 L0004333         0   0.31970E-06  477585.6 3746361.1   449.0     4.00     3.95
1.86     YES
 L0004334         0   0.31970E-06  477577.1 3746361.2   449.0     4.00     3.95
1.86     YES
 L0004335         0   0.31970E-06  477568.6 3746361.3   449.0     4.00     3.95
1.86     YES
 L0004336         0   0.31970E-06  477560.1 3746361.3   449.0     4.00     3.95
1.86     YES
 L0004337         0   0.31970E-06  477551.6 3746361.4   449.0     4.00     3.95
1.86     YES
 L0004338         0   0.31970E-06  477543.1 3746361.5   449.0     4.00     3.95
1.86     YES
 L0004339         0   0.31970E-06  477534.6 3746361.6   449.0     4.00     3.95
1.86     YES
 L0004340         0   0.31970E-06  477526.1 3746361.7   449.0     4.00     3.95
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1.86      YES
 L0004341         0   0.31970E-06  477517.6 3746361.8   449.0     4.00     3.95
1.86      YES
 L0004342         0   0.31970E-06  477509.1 3746361.9   449.0     4.00     3.95
1.86      YES
 L0004343         0   0.31970E-06  477500.6 3746362.0   449.0     4.00     3.95
1.86      YES
 L0004344         0   0.31970E-06  477492.1 3746362.0   449.0     4.00     3.95
1.86      YES
 L0004345         0   0.31970E-06  477483.6 3746362.4   449.2     4.00     3.95
1.86      YES
 L0004346         0   0.31970E-06  477475.3 3746364.0   449.5     4.00     3.95
1.86      YES
 L0004347         0   0.31970E-06  477466.9 3746365.6   449.8     4.00     3.95
1.86      YES
 L0004348         0   0.31970E-06  477458.6 3746367.2   450.0     4.00     3.95
1.86      YES
 L0004349         0   0.31970E-06  477450.3 3746368.8   450.0     4.00     3.95
1.86      YES
 L0004350         0   0.31970E-06  477441.9 3746370.4   450.0     4.00     3.95
1.86      YES
 L0004351         0   0.31970E-06  477433.6 3746372.0   450.0     4.00     3.95
1.86      YES
 L0004352         0   0.31970E-06  477425.2 3746373.6   450.0     4.00     3.95
1.86      YES
 L0004353         0   0.31970E-06  477417.3 3746376.4   450.0     4.00     3.95
1.86      YES
 L0004354         0   0.31970E-06  477410.0 3746380.7   450.0     4.00     3.95
1.86      YES
 L0004355         0   0.31970E-06  477402.7 3746385.0   450.0     4.00     3.95
1.86      YES
 L0004356         0   0.31970E-06  477395.3 3746389.4   450.0     4.00     3.95
1.86      YES
 L0004357         0   0.31970E-06  477388.0 3746393.7   450.0     4.00     3.95
1.86      YES
 L0004358         0   0.31970E-06  477380.7 3746398.0   450.0     4.00     3.95
1.86      YES
 L0004359         0   0.31970E-06  477373.4 3746402.3   450.0     4.00     3.95
1.86      YES
 L0004360         0   0.31970E-06  477366.1 3746406.6   450.0     4.00     3.95
1.86      YES
 L0004361         0   0.31970E-06  477358.7 3746411.0   450.0     4.00     3.95
1.86      YES
 L0004362         0   0.31970E-06  477351.4 3746415.3   450.0     4.00     3.95
1.86      YES
 L0004363         0   0.31970E-06  477344.1 3746419.6   450.0     4.00     3.95
1.86      YES
 L0004364         0   0.31970E-06  477336.8 3746423.9   450.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                AERMOD HRA Output
1.86      YES
 L0004365          0   0.31970E-06   477329.5 3746428.2   450.0     4.00     3.95
1.86      YES
 L0004366          0   0.31970E-06   477322.2 3746432.7   450.0     4.00     3.95
1.86      YES
 L0004367          0   0.31970E-06   477315.4 3746437.8   450.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0004368          0   0.31970E-06   477308.6 3746442.9   450.0     4.00     3.95
1.86      YES
 L0004369          0   0.31970E-06   477301.8 3746448.0   450.0     4.00     3.95
1.86      YES
 L0004370          0   0.31970E-06   477295.0 3746453.1   450.0     4.00     3.95
1.86      YES
 L0004371          0   0.31970E-06   477288.2 3746458.2   450.0     4.00     3.95
1.86      YES
 L0004372          0   0.31970E-06   477281.4 3746463.3   450.0     4.00     3.95
1.86      YES
 L0004373          0   0.31970E-06   477274.6 3746468.4   450.0     4.00     3.95
1.86      YES
 L0004374          0   0.31970E-06   477267.7 3746473.3   450.0     4.00     3.95
1.86      YES
 L0004375          0   0.31970E-06   477260.7 3746478.2   450.0     4.00     3.95
1.86      YES
 L0004376          0   0.31970E-06   477253.8 3746483.1   450.0     4.00     3.95
1.86      YES
 L0004377          0   0.31970E-06   477246.8 3746487.9   450.1     4.00     3.95
1.86      YES
 L0004378          0   0.31970E-06   477239.8 3746492.8   450.2     4.00     3.95
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1.86      YES
 L0004379          0   0.31970E-06  477232.9 3746497.7   450.2      4.00      3.95
1.86      YES
 L0004380          0   0.31970E-06  477225.9 3746502.6   450.1      4.00      3.95
1.86      YES
 L0004381          0   0.31970E-06  477218.5 3746506.8   450.0      4.00      3.95
1.86      YES
 L0004382          0   0.31970E-06  477211.1 3746510.8   450.3      4.00      3.95
1.86      YES
 L0004383          0   0.31970E-06  477203.6 3746514.8   450.5      4.00      3.95
1.86      YES
 L0004384          0   0.31970E-06  477196.1 3746518.8   450.8      4.00      3.95
1.86      YES
 L0004385          0   0.31970E-06  477188.6 3746522.9   451.0      4.00      3.95
1.86      YES
 L0004386          0   0.31970E-06  477181.1 3746526.9   451.0      4.00      3.95
1.86      YES
 L0004387          0   0.31970E-06  477173.6 3746530.9   451.0      4.00      3.95
1.86      YES
 L0004388          0   0.31970E-06  477166.1 3746535.0   451.0      4.00      3.95
1.86      YES
 L0004389          0   0.31970E-06  477158.5 3746538.5   451.0      4.00      3.95
1.86      YES
 L0004390          0   0.31970E-06  477150.1 3746539.7   451.0      4.00      3.95
1.86      YES
 L0004391          0   0.31970E-06  477141.7 3746541.0   451.0      4.00      3.95
1.86      YES
 L0004392          0   0.31970E-06  477133.3 3746542.2   451.0      4.00      3.95
1.86      YES
 L0004393          0   0.31970E-06  477124.9 3746543.5   451.0      4.00      3.95
1.86      YES
 L0004394          0   0.31970E-06  477116.5 3746544.7   451.0      4.00      3.95
1.86      YES
 L0004395          0   0.31970E-06  477108.0 3746546.0   451.0      4.00      3.95
1.86      YES
 L0004396          0   0.31970E-06  477099.6 3746547.2   451.0      4.00      3.95
1.86      YES
 L0004397          0   0.31970E-06  477091.2 3746548.2   451.0      4.00      3.95
1.86      YES
 L0004398          0   0.31970E-06  477082.7 3746548.3   451.0      4.00      3.95
1.86      YES
 L0004399          0   0.31970E-06  477074.2 3746548.4   451.0      4.00      3.95
1.86      YES
 L0004400          0   0.31970E-06  477065.7 3746548.6   451.1      4.00      3.95
1.86      YES
 L0004401          0   0.31970E-06  477057.2 3746548.7   451.2      4.00      3.95
1.86      YES
 L0004402          0   0.31970E-06  477048.7 3746548.8   451.4      4.00      3.95
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1.86     YES
 L0004403         0   0.31970E-06  477040.2 3746548.9   451.6     4.00     3.95
1.86     YES
 L0004404         0   0.31970E-06  477031.7 3746549.0   451.7     4.00     3.95
1.86     YES
 L0004405         0   0.31970E-06  477023.2 3746549.1   451.8     4.00     3.95
1.86     YES
 L0004406         0   0.31970E-06  477014.7 3746549.2   451.9     4.00     3.95
1.86     YES
 L0004407         0   0.31970E-06  477006.2 3746549.3   452.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0004408         0   0.31970E-06  476997.7 3746549.4   452.0     4.00     3.95
1.86     YES
 L0004409         0   0.31970E-06  476989.2 3746549.6   452.0     4.00     3.95
1.86     YES
 L0004410         0   0.31970E-06  476980.7 3746549.7   452.0     4.00     3.95
1.86     YES
 L0004411         0   0.31970E-06  476972.2 3746549.8   452.0     4.00     3.95
1.86     YES
 L0004412         0   0.31970E-06  476963.7 3746549.9   452.0     4.00     3.95
1.86     YES
 L0004413         0   0.31970E-06  476955.2 3746550.0   452.0     4.00     3.95
1.86     YES
 L0004414         0   0.31970E-06  476946.7 3746550.1   452.0     4.00     3.95
1.86     YES
 L0004415         0   0.31970E-06  476938.2 3746550.2   452.0     4.00     3.95
1.86     YES
 L0004416         0   0.31970E-06  476929.7 3746550.3   452.0     4.00     3.95
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1.86      YES
 L0004417          0   0.31970E-06  476921.2 3746550.4   452.0      4.00      3.95
1.86      YES
 L0004418          0   0.31970E-06  476912.7 3746550.6   452.1      4.00      3.95
1.86      YES
 L0004419          0   0.31970E-06  476904.2 3746550.7   452.3      4.00      3.95
1.86      YES
 L0004420          0   0.31970E-06  476895.7 3746550.8   452.4      4.00      3.95
1.86      YES
 L0004421          0   0.31970E-06  476887.2 3746550.9   452.6      4.00      3.95
1.86      YES
 L0004422          0   0.31970E-06  476878.7 3746551.0   452.7      4.00      3.95
1.86      YES
 L0004423          0   0.31970E-06  476870.2 3746551.1   452.8      4.00      3.95
1.86      YES
 L0004424          0   0.31970E-06  476861.7 3746551.2   453.0      4.00      3.95
1.86      YES
 L0004425          0   0.31970E-06  476853.2 3746551.3   453.0      4.00      3.95
1.86      YES
 L0004426          0   0.31970E-06  476844.7 3746551.4   453.0      4.00      3.95
1.86      YES
 L0004427          0   0.31970E-06  476836.2 3746551.5   453.0      4.00      3.95
1.86      YES
 L0004428          0   0.31970E-06  476827.7 3746551.7   453.0      4.00      3.95
1.86      YES
 L0004429          0   0.31970E-06  476819.2 3746551.8   453.0      4.00      3.95
1.86      YES
 L0004430          0   0.31970E-06  476810.7 3746551.9   453.0      4.00      3.95
1.86      YES
 L0004431          0   0.31970E-06  476802.2 3746552.0   453.0      4.00      3.95
1.86      YES
 L0004432          0   0.31970E-06  476793.7 3746552.1   462.1      4.00      3.95
1.86      YES
 L0004433          0   0.31970E-06  476785.2 3746552.2   462.2      4.00      3.95
1.86      YES
 L0004434          0   0.31970E-06  476776.7 3746552.2   462.3      4.00      3.95
1.86      YES
 L0004435          0   0.31970E-06  476768.2 3746551.9   462.4      4.00      3.95
1.86      YES
 L0004436          0   0.31970E-06  476759.7 3746551.7   462.5      4.00      3.95
1.86      YES
 L0004437          0   0.31970E-06  476751.2 3746551.5   462.6      4.00      3.95
1.86      YES
 L0004438          0   0.31970E-06  476742.8 3746551.3   462.7      4.00      3.95
1.86      YES
 L0004439          0   0.31970E-06  476734.3 3746551.1   462.8      4.00      3.95
1.86      YES
 L0004440          0   0.31970E-06  476725.8 3746550.8   462.9      4.00      3.95
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1.86      YES
 L0004441         0   0.31970E-06  476717.3 3746550.6   463.1     4.00     3.95
1.86      YES
 L0004442         0   0.31970E-06  476708.8 3746550.4   463.2     4.00     3.95
1.86      YES
 L0004443         0   0.31970E-06  476700.3 3746550.2   463.3     4.00     3.95
1.86      YES
 L0004444         0   0.31970E-06  476691.8 3746550.0   463.4     4.00     3.95
1.86      YES
 L0004445         0   0.31970E-06  476683.3 3746549.7   463.5     4.00     3.95
1.86      YES
 L0004446         0   0.31970E-06  476674.8 3746549.5   463.6     4.00     3.95
1.86      YES
 L0004447         0   0.31970E-06  476666.3 3746549.3   463.7     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0004448         0   0.31970E-06  476657.8 3746549.1   463.8     4.00     3.95
1.86      YES
 L0004449         0   0.31970E-06  476649.5 3746550.2   463.9     4.00     3.95
1.86      YES
 L0004450         0   0.31970E-06  476641.4 3746552.9   464.0     4.00     3.95
1.86      YES
 L0004451         0   0.31970E-06  476633.4 3746555.6   464.0     4.00     3.95
1.86      YES
 L0004452         0   0.31970E-06  476625.3 3746558.3   464.0     4.00     3.95
1.86      YES
 L0004453         0   0.31970E-06  476617.2 3746561.0   464.0     4.00     3.95
1.86      YES
 L0004454         0   0.31970E-06  476609.2 3746563.6   464.0     4.00     3.95
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1.86      YES
 L0004455          0   0.31970E-06  476601.4 3746566.9   464.0      4.00      3.95
1.86      YES
 L0004456          0   0.31970E-06  476594.1 3746571.4   464.0      4.00      3.95
1.86      YES
 L0004457          0   0.31970E-06  476586.9 3746575.9   464.0      4.00      3.95
1.86      YES
 L0004458          0   0.31970E-06  476579.7 3746580.4   464.0      4.00      3.95
1.86      YES
 L0004459          0   0.31970E-06  476572.5 3746584.8   464.0      4.00      3.95
1.86      YES
 L0004460          0   0.31970E-06  476565.3 3746589.3   464.0      4.00      3.95
1.86      YES
 L0004461          0   0.31970E-06  476558.0 3746593.8   464.1      4.00      3.95
1.86      YES
 L0004462          0   0.31970E-06  476550.8 3746598.3   464.2      4.00      3.95
1.86      YES
 L0004463          0   0.31970E-06  476543.6 3746602.8   464.3      4.00      3.95
1.86      YES
 L0004464          0   0.31970E-06  476537.9 3746608.7   464.4      4.00      3.95
1.86      YES
 L0004465          0   0.31970E-06  476534.0 3746616.2   464.4      4.00      3.95
1.86      YES
 L0004466          0   0.31970E-06  476530.0 3746623.8   464.5      4.00      3.95
1.86      YES
 L0004467          0   0.31970E-06  476526.1 3746631.3   464.5      4.00      3.95
1.86      YES
 L0004468          0   0.31970E-06  476522.2 3746638.8   464.6      4.00      3.95
1.86      YES
 L0004469          0   0.31970E-06  476518.2 3746646.4   464.6      4.00      3.95
1.86      YES
 L0004470          0   0.31970E-06  476514.3 3746653.9   464.7      4.00      3.95
1.86      YES
 L0004471          0   0.31970E-06  476510.3 3746661.4   464.7      4.00      3.95
1.86      YES
 L0004472          0   0.31970E-06  476506.4 3746668.9   464.8      4.00      3.95
1.86      YES
 L0004473          0   0.31970E-06  476502.4 3746676.5   464.8      4.00      3.95
1.86      YES
 L0004474          0   0.31970E-06  476498.5 3746684.0   464.9      4.00      3.95
1.86      YES
 L0004475          0   0.31970E-06  476494.5 3746691.5   464.9      4.00      3.95
1.86      YES
 L0004476          0   0.31970E-06  476490.6 3746699.1   465.0      4.00      3.95
1.86      YES
 L0004477          0   0.31970E-06  476486.6 3746706.6   465.1      4.00      3.95
1.86      YES
 L0004478          0   0.31970E-06  476482.7 3746714.1   465.2      4.00      3.95
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1.86      YES
 L0004479          0   0.31970E-06  476478.7 3746721.6   465.3     4.00     3.95
1.86      YES
 L0004480          0   0.31970E-06  476474.8 3746729.2   465.4     4.00     3.95
1.86      YES
 L0004481          0   0.31970E-06  476470.9 3746736.7   465.5     4.00     3.95
1.86      YES
 L0004482          0   0.31970E-06  476467.8 3746744.5   465.6     4.00     3.95
1.86      YES
 L0004483          0   0.31970E-06  476466.4 3746752.9   465.6     4.00     3.95
1.86      YES
 L0004484          0   0.31970E-06  476465.0 3746761.3   465.7     4.00     3.95
1.86      YES
 L0004485          0   0.31970E-06  476463.6 3746769.7   465.7     4.00     3.95
1.86      YES
 L0004486          0   0.31970E-06  476462.2 3746778.1   465.7     4.00     3.95
1.86      YES
 L0004487          0   0.31970E-06  476460.8 3746786.4   465.8     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004488          0   0.31970E-06  476459.4 3746794.8   465.8     4.00     3.95
1.86      YES
 L0004489          0   0.31970E-06  476457.3 3746803.0   465.9     4.00     3.95
1.86      YES
 L0004490          0   0.31970E-06  476453.4 3746810.5   465.9     4.00     3.95
1.86      YES
 L0004491          0   0.31970E-06  476449.4 3746818.0   466.1     4.00     3.95
1.86      YES
 L0004492          0   0.31970E-06  476445.4 3746825.5   466.2     4.00     3.95
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1.86      YES
 L0004493          0   0.31970E-06   476441.4 3746833.0    466.3      4.00      3.95
1.86      YES
 L0004494          0   0.31970E-06   476437.5 3746840.5    466.4      4.00      3.95
1.86      YES
 L0004495          0   0.31970E-06   476433.5 3746848.1    466.5      4.00      3.95
1.86      YES
 L0004496          0   0.31970E-06   476429.5 3746855.6    466.6      4.00      3.95
1.86      YES
 L0004497          0   0.31970E-06   476425.5 3746863.1    466.7      4.00      3.95
1.86      YES
 L0004498          0   0.31970E-06   476421.6 3746870.6    466.8      4.00      3.95
1.86      YES
 L0004499          0   0.31970E-06   476417.6 3746878.1    466.9      4.00      3.95
1.86      YES
 L0004500          0   0.31970E-06   476413.6 3746885.6    467.0      4.00      3.95
1.86      YES
 L0004501          0   0.31970E-06   476409.6 3746893.1    467.1      4.00      3.95
1.86      YES
 L0004502          0   0.31970E-06   476403.2 3746898.5    467.1      4.00      3.95
1.86      YES
 L0004503          0   0.31970E-06   476396.2 3746903.3    467.2      4.00      3.95
1.86      YES
 L0004504          0   0.31970E-06   476389.2 3746908.1    467.3      4.00      3.95
1.86      YES
 L0004505          0   0.31970E-06   476382.2 3746912.9    467.4      4.00      3.95
1.86      YES
 L0004506          0   0.31970E-06   476375.2 3746917.8    467.5      4.00      3.95
1.86      YES
 L0004507          0   0.31970E-06   476368.2 3746922.6    467.6      4.00      3.95
1.86      YES
 L0004508          0   0.31970E-06   476361.2 3746927.4    467.7      4.00      3.95
1.86      YES
 L0004509          0   0.31970E-06   476354.2 3746932.2    467.8      4.00      3.95
1.86      YES
 L0004510          0   0.31970E-06   476347.2 3746937.0    467.9      4.00      3.95
1.86      YES
 L0004511          0   0.31970E-06   476340.2 3746941.8    467.9      4.00      3.95
1.86      YES
 L0004512          0   0.31970E-06   476332.1 3746943.7    468.1      4.00      3.95
1.86      YES
 L0004513          0   0.31970E-06   476323.7 3746944.5    468.2      4.00      3.95
1.86      YES
 L0004514          0   0.31970E-06   476315.2 3746945.4    468.3      4.00      3.95
1.86      YES
 L0004515          0   0.31970E-06   476306.7 3746946.2    468.4      4.00      3.95
1.86      YES
 L0004516          0   0.31970E-06   476298.3 3746947.0    468.5      4.00      3.95
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1.86      YES
 L0004517          0   0.31970E-06  476289.8 3746947.9   468.6     4.00     3.95
1.86      YES
 L0004518          0   0.31970E-06  476281.4 3746948.7   468.7     4.00     3.95
1.86      YES
 L0004519          0   0.31970E-06  476272.9 3746949.5   468.8     4.00     3.95
1.86      YES
 L0004520          0   0.31970E-06  476264.4 3746950.4   468.9     4.00     3.95
1.86      YES
 L0004521          0   0.31970E-06  476256.0 3746950.8   469.0     4.00     3.95
1.86      YES
 L0004522          0   0.31970E-06  476247.5 3746950.7   469.2     4.00     3.95
1.86      YES
 L0004523          0   0.31970E-06  476239.0 3746950.7   469.3     4.00     3.95
1.86      YES
 L0004524          0   0.31970E-06  476230.5 3746950.6   469.4     4.00     3.95
1.86      YES
 L0004525          0   0.31970E-06  476222.0 3746950.5   469.5     4.00     3.95
1.86      YES
 L0004526          0   0.31970E-06  476213.5 3746950.5   469.6     4.00     3.95
1.86      YES
 L0004527          0   0.31970E-06  476205.0 3746950.4   469.7     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0004528          0   0.31970E-06  476196.5 3746950.4   469.8     4.00     3.95
1.86      YES
 L0004529          0   0.31970E-06  476188.0 3746950.3   469.9     4.00     3.95
1.86      YES
 L0004530          0   0.31970E-06  476179.5 3746950.3   470.0     4.00     3.95
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1.86      YES
 L0004531         0   0.31970E-06  476171.0 3746950.2   470.2     4.00     3.95
1.86      YES
 L0004532         0   0.31970E-06  476162.5 3746950.1   470.3     4.00     3.95
1.86      YES
 L0004533         0   0.31970E-06  476154.0 3746950.1   470.4     4.00     3.95
1.86      YES
 L0004534         0   0.31970E-06  476145.5 3746950.0   470.5     4.00     3.95
1.86      YES
 L0004535         0   0.31970E-06  476137.0 3746950.0   470.6     4.00     3.95
1.86      YES
 L0004536         0   0.31970E-06  476128.5 3746949.9   470.7     4.00     3.95
1.86      YES
 L0004537         0   0.31970E-06  476120.0 3746949.9   470.8     4.00     3.95
1.86      YES
 L0004538         0   0.31970E-06  476111.5 3746949.8   470.9     4.00     3.95
1.86      YES
 L0004539         0   0.31970E-06  476103.0 3746949.8   471.0     4.00     3.95
1.86      YES
 L0004540         0   0.31970E-06  476094.5 3746949.7   471.1     4.00     3.95
1.86      YES
 L0004541         0   0.31970E-06  476086.0 3746949.6   471.2     4.00     3.95
1.86      YES
 L0004542         0   0.31970E-06  476077.5 3746949.6   471.4     4.00     3.95
1.86      YES
 L0004543         0   0.31970E-06  476069.0 3746949.5   471.5     4.00     3.95
1.86      YES
 L0004544         0   0.31970E-06  476060.5 3746949.5   471.6     4.00     3.95
1.86      YES
 L0004545         0   0.31970E-06  476052.0 3746949.4   471.7     4.00     3.95
1.86      YES
 L0004546         0   0.31970E-06  476043.5 3746949.4   471.8     4.00     3.95
1.86      YES
 L0004547         0   0.31970E-06  476035.0 3746949.3   471.9     4.00     3.95
1.86      YES
 L0004548         0   0.31970E-06  476026.5 3746949.2   472.0     4.00     3.95
1.86      YES
 L0004549         0   0.31970E-06  476018.0 3746949.2   472.1     4.00     3.95
1.86      YES
 L0004550         0   0.31970E-06  476009.5 3746949.1   472.2     4.00     3.95
1.86      YES
 L0004551         0   0.31970E-06  476001.0 3746949.1   472.4     4.00     3.95
1.86      YES
 L0004552         0   0.31970E-06  475992.5 3746949.0   472.5     4.00     3.95
1.86      YES
 L0004553         0   0.31970E-06  475984.0 3746949.0   472.6     4.00     3.95
1.86      YES
 L0004554         0   0.31970E-06  475975.5 3746948.9   472.7     4.00     3.95
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1.86      YES
 L0004555          0   0.31970E-06  475967.0 3746948.8   472.8     4.00     3.95
1.86      YES
 L0004556          0   0.31970E-06  475958.5 3746948.8   472.9     4.00     3.95
1.86      YES
 L0004557          0   0.31970E-06  475950.0 3746948.7   473.0     4.00     3.95
1.86      YES
 L0004558          0   0.31970E-06  475941.5 3746948.7   472.6     4.00     3.95
1.86      YES
 L0004559          0   0.31970E-06  475933.0 3746948.6   472.3     4.00     3.95
1.86      YES
 L0004560          0   0.63990E-06  477480.6 3749800.2   458.0     4.00     3.95
1.86      YES
 L0004561          0   0.63990E-06  477480.4 3749808.7   458.0     4.00     3.95
1.86      YES
 L0004562          0   0.63990E-06  477480.3 3749817.2   458.0     4.00     3.95
1.86      YES
 L0004563          0   0.63990E-06  477480.1 3749825.7   458.0     4.00     3.95
1.86      YES
 L0004564          0   0.63990E-06  477480.0 3749834.2   458.0     4.00     3.95
1.86      YES
 L0004565          0   0.63990E-06  477479.9 3749842.7   458.0     4.00     3.95
1.86      YES
 L0004566          0   0.63990E-06  477479.7 3749851.2   458.0     4.00     3.95
1.86      YES
 L0004567          0   0.63990E-06  477479.6 3749859.7   458.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0004568          0   0.63990E-06  477479.5 3749868.2   458.0     4.00     3.95
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1.86     YES
 L0004569          0   0.63990E-06   477479.3 3749876.7    458.0      4.00      3.95
1.86     YES
 L0004570          0   0.63990E-06   477479.2 3749885.2    458.0      4.00      3.95
1.86     YES
 L0004571          0   0.63990E-06   477479.1 3749893.7    458.0      4.00      3.95
1.86     YES
 L0004572          0   0.63990E-06   477478.9 3749902.2    458.0      4.00      3.95
1.86     YES
 L0004573          0   0.63990E-06   477478.8 3749910.7    458.0      4.00      3.95
1.86     YES
 L0004574          0   0.63990E-06   477478.7 3749919.2    458.0      4.00      3.95
1.86     YES
 L0004575          0   0.63990E-06   477478.5 3749927.7    458.0      4.00      3.95
1.86     YES
 L0004576          0   0.63990E-06   477478.4 3749936.2    458.0      4.00      3.95
1.86     YES
 L0004577          0   0.63990E-06   477478.2 3749944.7    458.0      4.00      3.95
1.86     YES
 L0004578          0   0.63990E-06   477478.1 3749953.2    458.0      4.00      3.95
1.86     YES
 L0004579          0   0.63990E-06   477478.0 3749961.7    458.2      4.00      3.95
1.86     YES
 L0004580          0   0.63990E-06   477477.8 3749970.2    458.4      4.00      3.95
1.86     YES
 L0004581          0   0.63990E-06   477477.7 3749978.7    458.7      4.00      3.95
1.86     YES
 L0004582          0   0.63990E-06   477477.6 3749987.2    459.0      4.00      3.95
1.86     YES
 L0004583          0   0.63990E-06   477477.4 3749995.7    459.0      4.00      3.95
1.86     YES
 L0004584          0   0.63990E-06   477477.3 3750004.2    459.0      4.00      3.95
1.86     YES
 L0004585          0   0.63990E-06   477477.2 3750012.7    459.0      4.00      3.95
1.86     YES
 L0004586          0   0.63990E-06   477477.0 3750021.2    459.0      4.00      3.95
1.86     YES
 L0004587          0   0.63990E-06   477476.9 3750029.7    459.0      4.00      3.95
1.86     YES
 L0004588          0   0.63990E-06   477476.8 3750038.2    459.0      4.00      3.95
1.86     YES
 L0004589          0   0.63990E-06   477476.6 3750046.7    459.0      4.00      3.95
1.86     YES
 L0004590          0   0.63990E-06   477476.5 3750055.2    459.0      4.00      3.95
1.86     YES
 L0004591          0   0.63990E-06   477476.3 3750063.7    459.0      4.00      3.95
1.86     YES
 L0004592          0   0.63990E-06   477476.2 3750072.2    459.0      4.00      3.95
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1.86      YES
 L0004593         0   0.63990E-06  477476.1 3750080.7   459.0     4.00     3.95
1.86      YES
 L0004594         0   0.63990E-06  477475.9 3750089.2   459.0     4.00     3.95
1.86      YES
 L0004595         0   0.63990E-06  477475.8 3750097.7   459.0     4.00     3.95
1.86      YES
 L0004596         0   0.63990E-06  477475.7 3750106.2   459.0     4.00     3.95
1.86      YES
 L0004597         0   0.63990E-06  477475.5 3750114.7   459.0     4.00     3.95
1.86      YES
 L0004598         0   0.63990E-06  477475.4 3750123.2   459.0     4.00     3.95
1.86      YES
 L0004599         0   0.63990E-06  477475.3 3750131.7   459.0     4.00     3.95
1.86      YES
 L0004600         0   0.63990E-06  477475.1 3750140.2   459.0     4.00     3.95
1.86      YES
 L0004601         0   0.63990E-06  477475.0 3750148.7   459.0     4.00     3.95
1.86      YES
 L0004602         0   0.63990E-06  477474.8 3750157.2   459.0     4.00     3.95
1.86      YES
 L0004603         0   0.63990E-06  477474.7 3750165.7   459.0     4.00     3.95
1.86      YES
 L0004604         0   0.63990E-06  477474.2 3750174.2   459.0     4.00     3.95
1.86      YES
 L0004605         0   0.63990E-06  477473.5 3750182.6   459.0     4.00     3.95
1.86      YES
 L0004606         0   0.63990E-06  477472.8 3750191.1   459.0     4.00     3.95
1.86      YES
 L0004607         0   0.63990E-06  477472.1 3750199.6   459.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                       ***         16:28:37

                                   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0004608         0   0.63990E-06  477471.4 3750208.0   459.2     4.00     3.95
1.86     YES
 L0004609         0   0.63990E-06  477470.7 3750216.5   459.2     4.00     3.95
1.86     YES
 L0004610         0   0.63990E-06  477470.0 3750225.0   459.3     4.00     3.95
1.86     YES
 L0004611         0   0.63990E-06  477469.3 3750233.5   459.5     4.00     3.95
1.86     YES
 L0004612         0   0.63990E-06  477468.7 3750241.9   459.7     4.00     3.95
1.86     YES
 L0004613         0   0.63990E-06  477468.0 3750250.4   459.9     4.00     3.95
1.86     YES
 L0004614         0   0.63990E-06  477467.3 3750258.9   460.0     4.00     3.95
1.86     YES
 L0004615         0   0.63990E-06  477466.6 3750267.3   460.0     4.00     3.95
1.86     YES
 L0004616         0   0.63990E-06  477466.5 3750275.8   460.0     4.00     3.95
1.86     YES
 L0004617         0   0.63990E-06  477466.5 3750284.3   460.0     4.00     3.95
1.86     YES
 L0004618         0   0.63990E-06  477466.5 3750292.8   460.0     4.00     3.95
1.86     YES
 L0004619         0   0.63990E-06  477466.6 3750301.3   460.0     4.00     3.95
1.86     YES
 L0004620         0   0.63990E-06  477466.6 3750309.8   460.0     4.00     3.95
1.86     YES
 L0004621         0   0.63990E-06  477466.6 3750318.3   460.0     4.00     3.95
1.86     YES
 L0004622         0   0.63990E-06  477466.7 3750326.8   460.0     4.00     3.95
1.86     YES
 L0004623         0   0.63990E-06  477466.7 3750335.3   460.0     4.00     3.95
1.86     YES
 L0004624         0   0.63990E-06  477466.7 3750343.8   460.0     4.00     3.95
1.86     YES
 L0004625         0   0.63990E-06  477466.8 3750352.3   460.0     4.00     3.95
1.86     YES
 L0004626         0   0.63990E-06  477466.8 3750360.8   460.0     4.00     3.95
1.86     YES
 L0004627         0   0.63990E-06  477466.9 3750369.3   460.0     4.00     3.95
1.86     YES
 L0004628         0   0.63990E-06  477466.9 3750377.8   460.0     4.00     3.95
1.86     YES
 L0004629         0   0.63990E-06  477466.9 3750386.3   460.0     4.00     3.95
1.86     YES
 L0004630         0   0.63990E-06  477467.0 3750394.8   460.0     4.00     3.95
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1.86      YES
 L0004631         0   0.63990E-06   477467.0 3750403.3   460.0     4.00     3.95
1.86      YES
 L0004632         0   0.63990E-06   477467.0 3750411.8   460.0     4.00     3.95
1.86      YES
 L0004633         0   0.63990E-06   477467.1 3750420.3   460.0     4.00     3.95
1.86      YES
 L0004634         0   0.63990E-06   477467.1 3750428.8   460.0     4.00     3.95
1.86      YES
 L0004635         0   0.63990E-06   477467.1 3750437.3   460.0     4.00     3.95
1.86      YES
 L0004636         0   0.63990E-06   477467.2 3750445.8   460.0     4.00     3.95
1.86      YES
 L0004637         0   0.63990E-06   477467.2 3750454.3   460.0     4.00     3.95
1.86      YES
 L0004638         0   0.63990E-06   477467.3 3750462.8   460.0     4.00     3.95
1.86      YES
 L0004639         0   0.63990E-06   477467.3 3750471.3   460.2     4.00     3.95
1.86      YES
 L0004640         0   0.63990E-06   477467.3 3750479.8   460.4     4.00     3.95
1.86      YES
 L0004641         0   0.63990E-06   477467.4 3750488.3   460.7     4.00     3.95
1.86      YES
 L0004642         0   0.63990E-06   477467.4 3750496.8   461.0     4.00     3.95
1.86      YES
 L0004643         0   0.63990E-06   477467.4 3750505.3   461.0     4.00     3.95
1.86      YES
 L0004644         0   0.63990E-06   477467.5 3750513.8   461.0     4.00     3.95
1.86      YES
 L0004645         0   0.63990E-06   477467.5 3750522.3   461.0     4.00     3.95
1.86      YES
 L0004646         0   0.63990E-06   477467.5 3750530.8   461.0     4.00     3.95
1.86      YES
 L0004647         0   0.63990E-06   477467.6 3750539.3   461.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                          *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE        PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
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 L0004648         0   0.63990E-06  477467.7 3750547.8   461.0     4.00     3.95
1.86      YES
 L0004649         0   0.63990E-06  477467.9 3750556.3   461.0     4.00     3.95
1.86      YES
 L0004650         0   0.63990E-06  477468.2 3750564.8   461.0     4.00     3.95
1.86      YES
 L0004651         0   0.63990E-06  477468.4 3750573.3   461.0     4.00     3.95
1.86      YES
 L0004652         0   0.63990E-06  477468.7 3750581.8   461.0     4.00     3.95
1.86      YES
 L0004653         0   0.63990E-06  477468.9 3750590.3   461.0     4.00     3.95
1.86      YES
 L0004654         0   0.63990E-06  477469.2 3750598.8   461.0     4.00     3.95
1.86      YES
 L0004655         0   0.63990E-06  477469.4 3750607.3   461.0     4.00     3.95
1.86      YES
 L0004656         0   0.63990E-06  477469.7 3750615.8   461.0     4.00     3.95
1.86      YES
 L0004657         0   0.63990E-06  477469.9 3750624.3   461.0     4.00     3.95
1.86      YES
 L0004658         0   0.63990E-06  477470.2 3750632.8   461.0     4.00     3.95
1.86      YES
 L0004659         0   0.63990E-06  477470.4 3750641.3   461.0     4.00     3.95
1.86      YES
 L0004660         0   0.63990E-06  477470.7 3750649.8   461.0     4.00     3.95
1.86      YES
 L0004661         0   0.63990E-06  477470.9 3750658.3   461.2     4.00     3.95
1.86      YES
 L0004662         0   0.63990E-06  477471.2 3750666.8   461.3     4.00     3.95
1.86      YES
 L0004663         0   0.63990E-06  477471.4 3750675.3   461.4     4.00     3.95
1.86      YES
 L0004664         0   0.63990E-06  477471.7 3750683.8   461.5     4.00     3.95
1.86      YES
 L0004665         0   0.63990E-06  477471.9 3750692.3   461.7     4.00     3.95
1.86      YES
 L0004666         0   0.63990E-06  477472.2 3750700.8   461.9     4.00     3.95
1.86      YES
 L0004667         0   0.63990E-06  477472.4 3750709.3   462.0     4.00     3.95
1.86      YES
 L0004668         0   0.63990E-06  477472.7 3750717.8   462.0     4.00     3.95
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1.86      YES
 L0004669          0   0.63990E-06  477472.9 3750726.3   462.0     4.00     3.95
1.86      YES
 L0004670          0   0.63990E-06  477473.2 3750734.8   462.0     4.00     3.95
1.86      YES
 L0004671          0   0.63990E-06  477473.4 3750743.3   462.0     4.00     3.95
1.86      YES
 L0004672          0   0.63990E-06  477473.7 3750751.7   462.0     4.00     3.95
1.86      YES
 L0004673          0   0.63990E-06  477473.9 3750760.2   462.0     4.00     3.95
1.86      YES
 L0004674          0   0.63990E-06  477474.2 3750768.7   462.0     4.00     3.95
1.86      YES
 L0004675          0   0.63990E-06  477474.4 3750777.2   462.0     4.00     3.95
1.86      YES
 L0004676          0   0.63990E-06  477474.7 3750785.7   462.0     4.00     3.95
1.86      YES
 L0004677          0   0.63990E-06  477474.9 3750794.2   462.0     4.00     3.95
1.86      YES
 L0004678          0   0.63990E-06  477475.2 3750802.7   462.0     4.00     3.95
1.86      YES
 L0004679          0   0.63990E-06  477475.4 3750811.2   462.0     4.00     3.95
1.86      YES
 L0004680          0   0.63990E-06  477475.7 3750819.7   462.0     4.00     3.95
1.86      YES
 L0004681          0   0.63990E-06  477475.9 3750828.2   462.0     4.00     3.95
1.86      YES
 L0004682          0   0.63990E-06  477476.2 3750836.7   462.0     4.00     3.95
1.86      YES
 L0004683          0   0.63990E-06  477476.4 3750845.2   462.0     4.00     3.95
1.86      YES
 L0004684          0   0.63990E-06  477476.7 3750853.7   462.0     4.00     3.95
1.86      YES
 L0004685          0   0.63990E-06  477476.9 3750862.2   462.1     4.00     3.95
1.86      YES
 L0004686          0   0.63990E-06  477477.1 3750870.7   462.3     4.00     3.95
1.86      YES
 L0004687          0   0.63990E-06  477477.1 3750879.2   462.4     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV     URBAN
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                                          AERMOD HRA Output
                                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004688        0   0.63990E-06  477477.2 3750887.7   462.6     4.00      3.95
1.86      YES
 L0004689        0   0.63990E-06  477477.2 3750896.2   462.7     4.00      3.95
1.86      YES
 L0004690        0   0.63990E-06  477477.3 3750904.7   462.8     4.00      3.95
1.86      YES
 L0004691        0   0.63990E-06  477477.3 3750913.2   462.9     4.00      3.95
1.86      YES
 L0004692        0   0.63990E-06  477477.4 3750921.7   463.0     4.00      3.95
1.86      YES
 L0004693        0   0.63990E-06  477477.4 3750930.2   463.0     4.00      3.95
1.86      YES
 L0004694        0   0.63990E-06  477477.5 3750938.7   463.0     4.00      3.95
1.86      YES
 L0004695        0   0.63990E-06  477477.6 3750947.2   463.0     4.00      3.95
1.86      YES
 L0004696        0   0.63990E-06  477477.6 3750955.7   463.0     4.00      3.95
1.86      YES
 L0004697        0   0.63990E-06  477477.7 3750964.2   463.0     4.00      3.95
1.86      YES
 L0004698        0   0.63990E-06  477477.7 3750972.7   463.0     4.00      3.95
1.86      YES
 L0004699        0   0.63990E-06  477477.8 3750981.2   463.0     4.00      3.95
1.86      YES
 L0004700        0   0.63990E-06  477477.8 3750989.7   463.0     4.00      3.95
1.86      YES
 L0004701        0   0.63990E-06  477477.9 3750998.2   463.0     4.00      3.95
1.86      YES
 L0004702        0   0.63990E-06  477477.9 3751006.7   463.0     4.00      3.95
1.86      YES
 L0004703        0   0.63990E-06  477478.0 3751015.2   463.0     4.00      3.95
1.86      YES
 L0004704        0   0.63990E-06  477478.0 3751023.7   463.0     4.00      3.95
1.86      YES
 L0004705        0   0.63990E-06  477478.1 3751032.2   463.0     4.00      3.95
1.86      YES
 L0004706        0   0.63990E-06  477478.1 3751040.7   463.0     4.00      3.95
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1.86      YES
 L0004707         0   0.63990E-06  477478.2 3751049.2   463.0     4.00     3.95
1.86      YES
 L0004708         0   0.63990E-06  477478.3 3751057.7   463.0     4.00     3.95
1.86      YES
 L0004709         0   0.63990E-06  477478.3 3751066.2   463.0     4.00     3.95
1.86      YES
 L0004710         0   0.63990E-06  477478.4 3751074.7   463.2     4.00     3.95
1.86      YES
 L0004711         0   0.63990E-06  477478.4 3751083.2   463.3     4.00     3.95
1.86      YES
 L0004712         0   0.63990E-06  477478.5 3751091.7   463.5     4.00     3.95
1.86      YES
 L0004713         0   0.63990E-06  477478.5 3751100.2   463.7     4.00     3.95
1.86      YES
 L0004714         0   0.63990E-06  477478.6 3751108.7   463.8     4.00     3.95
1.86      YES
 L0004715         0   0.63990E-06  477478.6 3751117.2   463.9     4.00     3.95
1.86      YES
 L0004716         0   0.63990E-06  477478.7 3751125.7   464.0     4.00     3.95
1.86      YES
 L0004717         0   0.63990E-06  477478.7 3751134.2   464.0     4.00     3.95
1.86      YES
 L0004718         0   0.63990E-06  477478.8 3751142.7   464.0     4.00     3.95
1.86      YES
 L0004719         0   0.63990E-06  477478.9 3751151.2   464.0     4.00     3.95
1.86      YES
 L0004720         0   0.63990E-06  477478.9 3751159.7   464.0     4.00     3.95
1.86      YES
 L0004721         0   0.63990E-06  477479.0 3751168.2   464.0     4.00     3.95
1.86      YES
 L0004722         0   0.63990E-06  477479.0 3751176.7   464.0     4.00     3.95
1.86      YES
 L0004723         0   0.63990E-06  477479.1 3751185.2   464.0     4.00     3.95
1.86      YES
 L0004724         0   0.63990E-06  477479.1 3751193.7   464.0     4.00     3.95
1.86      YES
 L0004725         0   0.63990E-06  477479.2 3751202.2   464.0     4.00     3.95
1.86      YES
 L0004726         0   0.63990E-06  477479.2 3751210.7   464.0     4.00     3.95
1.86      YES
 L0004727         0   0.63990E-06  477479.3 3751219.2   464.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
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                              AERMOD HRA Output
                                PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -


 L0004728         0   0.63990E-06  477479.3 3751227.7   464.0     4.00     3.95
1.86     YES
 L0004729         0   0.63990E-06  477479.4 3751236.2   464.0     4.00     3.95
1.86     YES
 L0004730         0   0.63990E-06  477479.3 3751244.7   464.0     4.00     3.95
1.86     YES
 L0004731         0   0.63990E-06  477479.3 3751253.2   464.2     4.00     3.95
1.86     YES
 L0004732         0   0.63990E-06  477479.2 3751261.7   464.5     4.00     3.95
1.86     YES
 L0004733         0   0.63990E-06  477479.2 3751270.2   464.8     4.00     3.95
1.86     YES
 L0004734         0   0.63990E-06  477479.1 3751278.7   465.0     4.00     3.95
1.86     YES
 L0004735         0   0.63990E-06  477479.0 3751287.2   465.0     4.00     3.95
1.86     YES
 L0004736         0   0.63990E-06  477479.0 3751295.7   465.0     4.00     3.95
1.86     YES
 L0004737         0   0.63990E-06  477478.9 3751304.2   465.0     4.00     3.95
1.86     YES
 L0004738         0   0.63990E-06  477478.9 3751312.7   465.0     4.00     3.95
1.86     YES
 L0004739         0   0.63990E-06  477478.8 3751321.2   465.0     4.00     3.95
1.86     YES
 L0004740         0   0.63990E-06  477478.7 3751329.7   465.0     4.00     3.95
1.86     YES
 L0004741         0   0.63990E-06  477478.7 3751338.2   465.0     4.00     3.95
1.86     YES
 L0004742         0   0.63990E-06  477478.6 3751346.7   465.0     4.00     3.95
1.86     YES
 L0004743         0   0.63990E-06  477478.6 3751355.2   465.0     4.00     3.95
1.86     YES
 L0004744         0   0.63990E-06  477478.5 3751363.7   465.0     4.00     3.95
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1.86      YES
 L0004745         0   0.63990E-06  477478.5 3751372.2   465.0     4.00     3.95
1.86      YES
 L0004746         0   0.63990E-06  477478.4 3751380.7   465.0     4.00     3.95
1.86      YES
 L0004747         0   0.63990E-06  477478.3 3751389.2   465.0     4.00     3.95
1.86      YES
 L0004748         0   0.63990E-06  477478.3 3751397.7   465.0     4.00     3.95
1.86      YES
 L0004749         0   0.63990E-06  477478.2 3751406.2   465.0     4.00     3.95
1.86      YES
 L0004750         0   0.63990E-06  477478.2 3751414.7   465.0     4.00     3.95
1.86      YES
 L0004751         0   0.63990E-06  477478.1 3751423.2   465.0     4.00     3.95
1.86      YES
 L0004752         0   0.63990E-06  477478.0 3751431.7   465.2     4.00     3.95
1.86      YES
 L0004753         0   0.63990E-06  477478.0 3751440.2   465.4     4.00     3.95
1.86      YES
 L0004754         0   0.63990E-06  477477.9 3751448.7   465.7     4.00     3.95
1.86      YES
 L0004755         0   0.63990E-06  477477.9 3751457.2   466.0     4.00     3.95
1.86      YES
 L0004756         0   0.63990E-06  477477.8 3751465.7   466.0     4.00     3.95
1.86      YES
 L0004757         0   0.63990E-06  477477.8 3751474.2   466.0     4.00     3.95
1.86      YES
 L0004758         0   0.63990E-06  477477.7 3751482.7   466.0     4.00     3.95
1.86      YES
 L0004759         0   0.63990E-06  477477.6 3751491.2   466.0     4.00     3.95
1.86      YES
 L0004760         0   0.63990E-06  477477.6 3751499.7   466.0     4.00     3.95
1.86      YES
 L0004761         0   0.63990E-06  477477.5 3751508.2   466.0     4.00     3.95
1.86      YES
 L0004762         0   0.63990E-06  477477.5 3751516.7   466.0     4.00     3.95
1.86      YES
 L0004763         0   0.63990E-06  477477.4 3751525.2   466.0     4.00     3.95
1.86      YES
 L0004764         0   0.63990E-06  477477.3 3751533.7   466.0     4.00     3.95
1.86      YES
 L0004765         0   0.63990E-06  477477.3 3751542.2   466.0     4.00     3.95
1.86      YES
 L0004766         0   0.63990E-06  477477.2 3751550.7   466.0     4.00     3.95
1.86      YES
 L0004767         0   0.63990E-06  477477.2 3751559.2   466.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                AERMOD HRA Output
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                          ***        16:28:37

                                     PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004768         0   0.63990E-06  477477.1 3751567.7   466.0     4.00     3.95
1.86     YES
 L0004769         0   0.63990E-06  477477.0 3751576.2   466.0     4.00     3.95
1.86     YES
 L0004770         0   0.63990E-06  477477.0 3751584.7   466.0     4.00     3.95
1.86     YES
 L0004771         0   0.63990E-06  477476.9 3751593.2   466.0     4.00     3.95
1.86     YES
 L0004772         0   0.63990E-06  477476.9 3751601.7   466.0     4.00     3.95
1.86     YES
 L0004773         0   0.63990E-06  477476.8 3751610.2   466.1     4.00     3.95
1.86     YES
 L0004774         0   0.63990E-06  477476.8 3751618.7   466.2     4.00     3.95
1.86     YES
 L0004775         0   0.63990E-06  477476.7 3751627.2   466.4     4.00     3.95
1.86     YES
 L0004776         0   0.63990E-06  477476.6 3751635.7   466.6     4.00     3.95
1.86     YES
 L0004777         0   0.63990E-06  477476.6 3751644.2   466.7     4.00     3.95
1.86     YES
 L0004778         0   0.63990E-06  477476.5 3751652.7   466.8     4.00     3.95
1.86     YES
 L0004779         0   0.63990E-06  477476.5 3751661.2   466.9     4.00     3.95
1.86     YES
 L0004780         0   0.63990E-06  477476.4 3751669.7   467.0     4.00     3.95
1.86     YES
 L0004781         0   0.63990E-06  477476.3 3751678.2   467.0     4.00     3.95
1.86     YES
 L0004782         0   0.63990E-06  477476.3 3751686.7   467.0     4.00     3.95
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1.86      YES
 L0004783          0   0.63990E-06   477476.2 3751695.2    467.0      4.00      3.95
1.86      YES
 L0004784          0   0.63990E-06   477476.2 3751703.7    467.0      4.00      3.95
1.86      YES
 L0004785          0   0.63990E-06   477476.1 3751712.2    467.0      4.00      3.95
1.86      YES
 L0004786          0   0.63990E-06   477476.1 3751720.7    467.0      4.00      3.95
1.86      YES
 L0004787          0   0.63990E-06   477476.0 3751729.2    467.1      4.00      3.95
1.86      YES
 L0004788          0   0.63990E-06   477475.9 3751737.7    467.2      4.00      3.95
1.86      YES
 L0004789          0   0.63990E-06   477475.9 3751746.2    467.4      4.00      3.95
1.86      YES
 L0004790          0   0.63990E-06   477475.8 3751754.7    467.5      4.00      3.95
1.86      YES
 L0004791          0   0.63990E-06   477475.8 3751763.2    467.6      4.00      3.95
1.86      YES
 L0004792          0   0.63990E-06   477475.7 3751771.7    467.8      4.00      3.95
1.86      YES
 L0004793          0   0.63990E-06   477475.6 3751780.2    467.9      4.00      3.95
1.86      YES
 L0004794          0   0.63990E-06   477475.6 3751788.7    468.0      4.00      3.95
1.86      YES
 L0004795          0   0.63990E-06   477475.5 3751797.2    468.0      4.00      3.95
1.86      YES
 L0004796          0   0.63990E-06   477475.5 3751805.7    468.0      4.00      3.95
1.86      YES
 L0004797          0   0.63990E-06   477475.4 3751814.2    468.0      4.00      3.95
1.86      YES
 L0004798          0   0.63990E-06   477475.4 3751822.7    468.0      4.00      3.95
1.86      YES
 L0004799          0   0.63990E-06   477475.3 3751831.2    468.0      4.00      3.95
1.86      YES
 L0004800          0   0.63990E-06   477475.2 3751839.7    468.0      4.00      3.95
1.86      YES
 L0004801          0   0.63990E-06   477475.2 3751848.2    468.0      4.00      3.95
1.86      YES
 L0004802          0   0.63990E-06   477475.1 3751856.7    468.0      4.00      3.95
1.86      YES
 L0004803          0   0.63990E-06   477475.1 3751865.2    468.0      4.00      3.95
1.86      YES
 L0004804          0   0.63990E-06   477475.0 3751873.7    468.0      4.00      3.95
1.86      YES
 L0004805          0   0.63990E-06   477474.9 3751882.2    468.2      4.00      3.95
1.86      YES
 L0004806          0   0.63990E-06   477474.9 3751890.7    468.5      4.00      3.95
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1.86     YES
 L0004807         0   0.63990E-06  477474.8 3751899.2   468.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004808         0   0.63990E-06  477474.8 3751907.7   469.0     4.00     3.95
1.86     YES
 L0004809         0   0.63990E-06  477474.7 3751916.2   469.0     4.00     3.95
1.86     YES
 L0004810         0   0.63990E-06  477474.7 3751924.7   469.0     4.00     3.95
1.86     YES
 L0004811         0   0.63990E-06  477474.6 3751933.2   469.0     4.00     3.95
1.86     YES
 L0004812         0   0.63990E-06  477474.5 3751941.7   469.0     4.00     3.95
1.86     YES
 L0004813         0   0.63990E-06  477474.5 3751950.2   469.0     4.00     3.95
1.86     YES
 L0004814         0   0.63990E-06  477474.4 3751958.7   469.0     4.00     3.95
1.86     YES
 L0004815         0   0.63990E-06  477474.4 3751967.2   469.0     4.00     3.95
1.86     YES
 L0004816         0   0.63990E-06  477474.3 3751975.7   469.0     4.00     3.95
1.86     YES
 L0004817         0   0.63990E-06  477474.2 3751984.2   469.0     4.00     3.95
1.86     YES
 L0004818         0   0.63990E-06  477474.2 3751992.7   469.0     4.00     3.95
1.86     YES
 L0004819         0   0.63990E-06  477474.1 3752001.2   469.0     4.00     3.95
1.86     YES
 L0004820         0   0.63990E-06  477474.1 3752009.7   469.0     4.00     3.95
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1.86      YES
 L0004821         0   0.63990E-06   477474.0 3752018.2   469.0     4.00     3.95
1.86      YES
 L0004822         0   0.63990E-06   477474.0 3752026.7   469.0     4.00     3.95
1.86      YES
 L0004823         0   0.63990E-06   477473.9 3752035.2   469.1     4.00     3.95
1.86      YES
 L0004824         0   0.63990E-06   477473.8 3752043.7   469.3     4.00     3.95
1.86      YES
 L0004825         0   0.63990E-06   477473.8 3752052.2   469.4     4.00     3.95
1.86      YES
 L0004826         0   0.63990E-06   477473.7 3752060.7   469.5     4.00     3.95
1.86      YES
 L0004827         0   0.63990E-06   477473.7 3752069.2   469.5     4.00     3.95
1.86      YES
 L0004828         0   0.63990E-06   477473.6 3752077.7   469.5     4.00     3.95
1.86      YES
 L0004829         0   0.63990E-06   477473.5 3752086.2   469.5     4.00     3.95
1.86      YES
 L0004830         0   0.63990E-06   477473.5 3752094.7   469.6     4.00     3.95
1.86      YES
 L0004831         0   0.63990E-06   477473.4 3752103.2   469.8     4.00     3.95
1.86      YES
 L0004832         0   0.63990E-06   477473.4 3752111.7   469.9     4.00     3.95
1.86      YES
 L0004833         0   0.63990E-06   477473.3 3752120.2   470.1     4.00     3.95
1.86      YES
 L0004834         0   0.63990E-06   477473.3 3752128.7   470.2     4.00     3.95
1.86      YES
 L0004835         0   0.63990E-06   477473.2 3752137.2   470.3     4.00     3.95
1.86      YES
 L0004836         0   0.63990E-06   477473.1 3752145.7   470.4     4.00     3.95
1.86      YES
 L0004837         0   0.63990E-06   477473.1 3752154.2   470.6     4.00     3.95
1.86      YES
 L0004838         0   0.63990E-06   477473.0 3752162.7   470.7     4.00     3.95
1.86      YES
 L0004839         0   0.63990E-06   477473.0 3752171.2   470.9     4.00     3.95
1.86      YES
 L0004840         0   0.63990E-06   477472.9 3752179.7   471.0     4.00     3.95
1.86      YES
 L0004841         0   0.63990E-06   477472.8 3752188.2   471.0     4.00     3.95
1.86      YES
 L0004842         0   0.63990E-06   477472.8 3752196.7   471.0     4.00     3.95
1.86      YES
 L0004843         0   0.63990E-06   477472.7 3752205.2   471.0     4.00     3.95
1.86      YES
 L0004844         0   0.63990E-06   477472.7 3752213.7   471.2     4.00     3.95
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1.86      YES
 L0004845         0   0.63990E-06  477472.6 3752222.2   471.5     4.00     3.95
1.86      YES
 L0004846         0   0.63990E-06  477468.0 3752226.1   471.7     4.00     3.95
1.86      YES
 L0004847         0   0.63990E-06  477459.5 3752226.1   471.7     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       16:28:37

                                   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0004848         0   0.63990E-06  477451.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0004849         0   0.63990E-06  477442.5 3752226.2   471.7     4.00     3.95
1.86      YES
 L0004850         0   0.63990E-06  477434.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0004851         0   0.63990E-06  477425.5 3752226.2   471.7     4.00     3.95
1.86      YES
 L0004852         0   0.63990E-06  477417.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0004853         0   0.63990E-06  477408.5 3752226.2   471.7     4.00     3.95
1.86      YES
 L0004854         0   0.63990E-06  477400.0 3752226.2   471.7     4.00     3.95
1.86      YES
 L0004855         0   0.63990E-06  477391.5 3752226.2   471.5     4.00     3.95
1.86      YES
 L0004856         0   0.63990E-06  477383.0 3752226.2   471.3     4.00     3.95
1.86      YES
 L0004857         0   0.63990E-06  477374.5 3752226.2   471.1     4.00     3.95
1.86      YES
 L0004858         0   0.63990E-06  477366.0 3752226.3   471.0     4.00     3.95
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1.86      YES
 L0004859          0   0.63990E-06  477357.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004860          0   0.63990E-06  477349.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004861          0   0.63990E-06  477340.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004862          0   0.63990E-06  477332.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004863          0   0.63990E-06  477323.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004864          0   0.63990E-06  477315.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004865          0   0.63990E-06  477306.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004866          0   0.63990E-06  477298.0 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004867          0   0.63990E-06  477289.5 3752226.3   471.0     4.00      3.95
1.86      YES
 L0004868          0   0.63990E-06  477281.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004869          0   0.63990E-06  477272.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004870          0   0.63990E-06  477264.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004871          0   0.63990E-06  477255.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004872          0   0.63990E-06  477247.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004873          0   0.63990E-06  477238.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004874          0   0.63990E-06  477230.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004875          0   0.63990E-06  477221.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004876          0   0.63990E-06  477213.0 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004877          0   0.63990E-06  477204.5 3752226.4   471.0     4.00      3.95
1.86      YES
 L0004878          0   0.63990E-06  477196.0 3752226.5   471.0     4.00      3.95
1.86      YES
 L0004879          0   0.63990E-06  477187.5 3752226.5   471.0     4.00      3.95
1.86      YES
 L0004880          0   0.63990E-06  477179.0 3752226.5   471.0     4.00      3.95
1.86      YES
 L0004881          0   0.63990E-06  477170.5 3752226.5   471.0     4.00      3.95
1.86      YES
 L0004882          0   0.63990E-06  477162.0 3752226.5   471.0     4.00      3.95
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1.86      YES
 L0004883         0   0.63990E-06  477153.5 3752226.5   471.0     4.00     3.95
1.86      YES
 L0004884         0   0.63990E-06  477145.0 3752226.5   471.0     4.00     3.95
1.86      YES
 L0004885         0   0.63990E-06  477136.5 3752226.5   471.0     4.00     3.95
1.86      YES
 L0004886         0   0.63990E-06  477128.0 3752226.5   471.0     4.00     3.95
1.86      YES
 L0004887         0   0.63990E-06  477119.5 3752226.5   471.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0004888         0   0.63990E-06  477111.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004889         0   0.63990E-06  477102.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004890         0   0.63990E-06  477094.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004891         0   0.63990E-06  477085.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004892         0   0.63990E-06  477077.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004893         0   0.63990E-06  477068.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004894         0   0.63990E-06  477060.0 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004895         0   0.63990E-06  477051.5 3752226.6   471.0     4.00     3.95
1.86      YES
 L0004896         0   0.63990E-06  477043.0 3752226.6   471.0     4.00     3.95
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1.86      YES
  L0004897          0    0.63990E-06   477034.5 3752226.6    471.0      4.00      3.95
1.86      YES
  L0004898          0    0.63990E-06   477026.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004899          0    0.63990E-06   477017.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004900          0    0.63990E-06   477009.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004901          0    0.63990E-06   477000.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004902          0    0.63990E-06   476992.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004903          0    0.63990E-06   476983.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004904          0    0.63990E-06   476975.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004905          0    0.63990E-06   476966.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004906          0    0.63990E-06   476958.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004907          0    0.63990E-06   476949.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0004908          0    0.63990E-06   476941.0 3752226.8    471.2      4.00      3.95
1.86      YES
  L0004909          0    0.63990E-06   476932.5 3752226.8    471.4      4.00      3.95
1.86      YES
  L0004910          0    0.63990E-06   476924.0 3752226.8    471.6      4.00      3.95
1.86      YES
  L0004911          0    0.63990E-06   476915.5 3752226.8    471.7      4.00      3.95
1.86      YES
  L0004912          0    0.63990E-06   476907.0 3752226.8    471.7      4.00      3.95
1.86      YES
  L0004913          0    0.63990E-06   476898.5 3752226.8    471.7      4.00      3.95
1.86      YES
  L0004914          0    0.63990E-06   476890.0 3752226.8    471.7      4.00      3.95
1.86      YES
  L0004915          0    0.63990E-06   476881.5 3752226.8    471.7      4.00      3.95
1.86      YES
  L0004916          0    0.63990E-06   476873.0 3752226.8    471.7      4.00      3.95
1.86      YES
  L0004917          0    0.63990E-06   476864.5 3752226.8    471.7      4.00      3.95
1.86      YES
  L0004918          0    0.63990E-06   476856.0 3752226.9    471.7      4.00      3.95
1.86      YES
  L0004919          0    0.63990E-06   476847.5 3752226.9    471.7      4.00      3.95
1.86      YES
  L0004920          0    0.63990E-06   476839.0 3752226.9    471.7      4.00      3.95
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1.86      YES
 L0004921         0   0.63990E-06  476830.5 3752226.9   471.7     4.00     3.95
1.86      YES
 L0004922         0   0.63990E-06  476822.0 3752226.9   471.7     4.00     3.95
1.86      YES
 L0004923         0   0.63990E-06  476813.5 3752226.9   471.7     4.00     3.95
1.86      YES
 L0004924         0   0.63990E-06  476805.0 3752226.9   477.2     4.00     3.95
1.86      YES
 L0004925         0   0.63990E-06  476796.5 3752226.9   477.2     4.00     3.95
1.86      YES
 L0004926         0   0.63990E-06  476788.0 3752226.9   477.2     4.00     3.95
1.86      YES
 L0004927         0   0.63990E-06  476779.5 3752226.9   477.2     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0004928         0   0.63990E-06  476771.0 3752227.0   477.2     4.00     3.95
1.86      YES
 L0004929         0   0.63990E-06  476762.5 3752227.0   477.2     4.00     3.95
1.86      YES
 L0004930         0   0.63990E-06  476754.0 3752227.0   477.2     4.00     3.95
1.86      YES
 L0004931         0   0.63990E-06  476745.5 3752227.0   477.2     4.00     3.95
1.86      YES
 L0004932         0   0.63990E-06  476737.0 3752227.0   477.2     4.00     3.95
1.86      YES
 L0004933         0   0.63990E-06  476728.5 3752227.0   477.3     4.00     3.95
1.86      YES
 L0004934         0   0.63990E-06  476720.0 3752227.0   477.4     4.00     3.95
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1.86      YES
 L0004935         0   0.63990E-06  476711.5 3752227.0   477.5      4.00      3.95
1.86      YES
 L0004936         0   0.63990E-06  476703.0 3752227.0   477.6      4.00      3.95
1.86      YES
 L0004937         0   0.63990E-06  476694.5 3752227.0   477.6      4.00      3.95
1.86      YES
 L0004938         0   0.63990E-06  476686.0 3752227.1   477.7      4.00      3.95
1.86      YES
 L0004939         0   0.63990E-06  476677.5 3752227.1   477.8      4.00      3.95
1.86      YES
 L0004940         0   0.63990E-06  476669.0 3752227.1   477.9      4.00      3.95
1.86      YES
 L0004941         0   0.63990E-06  476660.5 3752227.1   478.0      4.00      3.95
1.86      YES
 L0004942         0   0.63990E-06  476652.0 3752227.1   478.0      4.00      3.95
1.86      YES
 L0004943         0   0.63990E-06  476643.5 3752227.1   478.0      4.00      3.95
1.86      YES
 L0004944         0   0.63990E-06  476635.0 3752227.1   478.0      4.00      3.95
1.86      YES
 L0004945         0   0.63990E-06  476626.5 3752227.1   478.0      4.00      3.95
1.86      YES
 L0004946         0   0.63990E-06  476618.0 3752227.1   478.0      4.00      3.95
1.86      YES
 L0004947         0   0.63990E-06  476609.5 3752227.1   478.0      4.00      3.95
1.86      YES
 L0004948         0   0.63990E-06  476601.0 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004949         0   0.63990E-06  476592.5 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004950         0   0.63990E-06  476584.0 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004951         0   0.63990E-06  476575.5 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004952         0   0.63990E-06  476567.0 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004953         0   0.63990E-06  476558.5 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004954         0   0.63990E-06  476550.0 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004955         0   0.63990E-06  476541.5 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004956         0   0.63990E-06  476533.0 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004957         0   0.63990E-06  476524.5 3752227.2   478.0      4.00      3.95
1.86      YES
 L0004958         0   0.63990E-06  476516.0 3752227.3   478.0      4.00      3.95
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1.86      YES
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1.86      YES
 L0004960         0   0.63990E-06  476499.0 3752227.3   478.0     4.00     3.95
1.86      YES
 L0004961         0   0.63990E-06  476490.5 3752227.3   478.0     4.00     3.95
1.86      YES
 L0004962         0   0.63990E-06  476482.0 3752227.3   478.0     4.00     3.95
1.86      YES
 L0004963         0   0.63990E-06  476473.5 3752227.3   478.0     4.00     3.95
1.86      YES
 L0004964         0   0.63990E-06  476465.0 3752227.3   478.0     4.00     3.95
1.86      YES
 L0004965         0   0.63990E-06  476456.5 3752227.3   478.0     4.00     3.95
1.86      YES
 L0004966         0   0.63990E-06  476448.0 3752227.3   478.0     4.00     3.95
1.86      YES
 L0004967         0   0.63990E-06  476439.5 3752227.3   478.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***          16:28:37

                                   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004968         0   0.63990E-06  476431.0 3752227.4   478.0     4.00     3.95
1.86      YES
 L0004969         0   0.63990E-06  476422.5 3752227.4   478.0     4.00     3.95
1.86      YES
 L0004970         0   0.63990E-06  476414.0 3752227.4   478.0     4.00     3.95
1.86      YES
 L0004971         0   0.63990E-06  476405.5 3752227.4   478.0     4.00     3.95
1.86      YES
 L0004972         0   0.63990E-06  476397.0 3752227.4   478.0     4.00     3.95
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1.86      YES
  L0004973           0    0.63990E-06   476388.5 3752227.4    478.0      4.00      3.95
1.86      YES
  L0004974           0    0.63990E-06   476380.0 3752227.4    478.0      4.00      3.95
1.86      YES
  L0004975           0    0.63990E-06   476371.5 3752227.4    478.0      4.00      3.95
1.86      YES
  L0004976           0    0.63990E-06   476363.0 3752227.4    478.0      4.00      3.95
1.86      YES
  L0004977           0    0.63990E-06   476354.5 3752227.4    478.0      4.00      3.95
1.86      YES
  L0004978           0    0.63990E-06   476346.0 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004979           0    0.63990E-06   476337.5 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004980           0    0.63990E-06   476329.0 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004981           0    0.63990E-06   476320.5 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004982           0    0.63990E-06   476312.0 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004983           0    0.63990E-06   476303.5 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004984           0    0.63990E-06   476295.0 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004985           0    0.63990E-06   476286.5 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004986           0    0.63990E-06   476278.0 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004987           0    0.63990E-06   476269.5 3752227.5    478.0      4.00      3.95
1.86      YES
  L0004988           0    0.63990E-06   476261.0 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004989           0    0.63990E-06   476252.5 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004990           0    0.63990E-06   476244.0 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004991           0    0.63990E-06   476235.5 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004992           0    0.63990E-06   476227.0 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004993           0    0.63990E-06   476218.5 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004994           0    0.63990E-06   476210.0 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004995           0    0.63990E-06   476201.5 3752227.6    478.0      4.00      3.95
1.86      YES
  L0004996           0    0.63990E-06   476193.0 3752227.6    478.0      4.00      3.95
```

```
1.86       YES
 L0004997          0   0.63990E-06  476184.5 3752227.6   478.0      4.00      3.95
1.86       YES
 L0004998          0   0.63990E-06  476176.0 3752227.7   478.0      4.00      3.95
1.86       YES
 L0004999          0   0.63990E-06  476167.5 3752227.7   478.0      4.00      3.95
1.86       YES
 L0005000          0   0.63990E-06  476159.0 3752227.7   478.0      4.00      3.95
1.86       YES
 L0005001          0   0.63990E-06  476150.5 3752227.7   478.0      4.00      3.95
1.86       YES
 L0005002          0   0.63990E-06  476142.0 3752227.7   478.0      4.00      3.95
1.86       YES
 L0005003          0   0.63990E-06  476133.5 3752227.7   478.0      4.00      3.95
1.86       YES
 L0005004          0   0.63990E-06  476125.0 3752227.7   478.0      4.00      3.95
1.86       YES
 L0005005          0   0.63990E-06  476116.5 3752227.7   478.0      4.00      3.95
1.86       YES
 L0005006          0   0.63990E-06  476108.0 3752227.7   477.9      4.00      3.95
1.86       YES
 L0005007          0   0.63990E-06  476099.5 3752227.7   477.8      4.00      3.95
1.86       YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         16:28:37

                                    PAGE  46
 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005008          0   0.63990E-06  476091.0 3752227.8   477.7      4.00      3.95
1.86       YES
 L0005009          0   0.63990E-06  476082.5 3752227.8   477.6      4.00      3.95
1.86       YES
 L0005010          0   0.63990E-06  476074.0 3752227.8   477.6      4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0005011          0   0.63990E-06   476065.5 3752227.8    477.5      4.00      3.95
1.86      YES
 L0005012          0   0.63990E-06   476057.0 3752227.8    477.4      4.00      3.95
1.86      YES
 L0005013          0   0.63990E-06   476048.5 3752227.8    477.3      4.00      3.95
1.86      YES
 L0005014          0   0.63990E-06   476040.0 3752227.8    477.2      4.00      3.95
1.86      YES
 L0005015          0   0.63990E-06   476031.5 3752227.8    477.2      4.00      3.95
1.86      YES
 L0005016          0   0.63990E-06   476023.0 3752227.8    477.2      4.00      3.95
1.86      YES
 L0005017          0   0.63990E-06   476014.5 3752227.8    477.1      4.00      3.95
1.86      YES
 L0005018          0   0.63990E-06   476006.0 3752227.9    477.1      4.00      3.95
1.86      YES
 L0005019          0   0.63990E-06   475997.5 3752227.9    477.1      4.00      3.95
1.86      YES
 L0005020          0   0.63990E-06   475989.0 3752227.9    477.1      4.00      3.95
1.86      YES
 L0005021          0   0.63990E-06   475980.5 3752227.9    477.1      4.00      3.95
1.86      YES
 L0005022          0   0.63990E-06   475972.0 3752227.9    477.0      4.00      3.95
1.86      YES
 L0005023          0   0.63990E-06   475963.5 3752227.9    477.0      4.00      3.95
1.86      YES
 L0005024          0   0.63990E-06   475955.0 3752227.9    477.0      4.00      3.95
1.86      YES
 L0005025          0   0.63990E-06   475946.5 3752227.9    477.0      4.00      3.95
1.86      YES
 L0005026          0   0.63990E-06   475938.0 3752227.9    477.0      4.00      3.95
1.86      YES
 L0005027          0   0.63990E-06   475929.5 3752227.9    477.0      4.00      3.95
1.86      YES
 L0005028          0   0.63990E-06   475921.0 3752227.9    477.0      4.00      3.95
1.86      YES
 L0005029          0   0.63990E-06   475912.5 3752228.0    477.0      4.00      3.95
1.86      YES
 L0005030          0   0.63990E-06   475904.0 3752228.0    477.0      4.00      3.95
1.86      YES
 L0005031          0   0.63990E-06   475895.5 3752228.0    477.0      4.00      3.95
1.86      YES
 L0005032          0   0.63990E-06   475887.0 3752228.0    477.0      4.00      3.95
1.86      YES
 L0005033          0   0.63990E-06   475878.5 3752228.0    477.0      4.00      3.95
1.86      YES
 L0005034          0   0.63990E-06   475870.0 3752228.0    477.0      4.00      3.95
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1.86      YES
 L0005035         0   0.63990E-06  475861.5 3752228.0   477.0     4.00     3.95
1.86      YES
 L0005036         0   0.63990E-06  475853.0 3752228.0   477.0     4.00     3.95
1.86      YES
 L0005037         0   0.63990E-06  475844.5 3752228.0   477.0     4.00     3.95
1.86      YES
 L0005038         0   0.63990E-06  475836.0 3752228.0   477.0     4.00     3.95
1.86      YES
 L0005039         0   0.63990E-06  475827.5 3752228.1   477.0     4.00     3.95
1.86      YES
 L0005040         0   0.63990E-06  475819.0 3752228.1   477.0     4.00     3.95
1.86      YES
 L0005041         0   0.63990E-06  475810.5 3752228.1   477.0     4.00     3.95
1.86      YES
 L0005042         0   0.63990E-06  475802.0 3752228.1   477.0     4.00     3.95
1.86      YES
 L0005043         0   0.63990E-06  475793.5 3752228.1   477.1     4.00     3.95
1.86      YES
 L0005044         0   0.63990E-06  475785.0 3752228.1   477.1     4.00     3.95
1.86      YES
 L0005045         0   0.63990E-06  475776.5 3752228.1   477.1     4.00     3.95
1.86      YES
 L0005046         0   0.63990E-06  475768.0 3752228.1   477.1     4.00     3.95
1.86      YES
 L0005047         0   0.63990E-06  475759.5 3752228.1   477.1     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005048         0   0.63990E-06  475751.0 3752228.1   477.2     4.00     3.95
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1.86      YES
 L0005049         0   0.63990E-06  475742.5 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005050         0   0.63990E-06  475734.0 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005051         0   0.63990E-06  475725.5 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005052         0   0.63990E-06  475717.0 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005053         0   0.63990E-06  475708.5 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005054         0   0.63990E-06  475700.0 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005055         0   0.63990E-06  475691.5 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005056         0   0.63990E-06  475683.0 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005057         0   0.63990E-06  475674.5 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005058         0   0.63990E-06  475666.0 3752228.2    477.2      4.00      3.95
1.86      YES
 L0005059         0   0.63990E-06  475657.5 3752228.3    477.2      4.00      3.95
1.86      YES
 L0005060         0   0.63990E-06  475649.0 3752228.3    477.2      4.00      3.95
1.86      YES
 L0005061         0   0.63990E-06  475640.5 3752228.3    477.2      4.00      3.95
1.86      YES
 L0005062         0   0.63990E-06  475632.0 3752228.3    477.2      4.00      3.95
1.86      YES
 L0005063         0   0.63990E-06  475623.5 3752228.3    477.1      4.00      3.95
1.86      YES
 L0005064         0   0.63990E-06  475615.0 3752228.3    477.1      4.00      3.95
1.86      YES
 L0005065         0   0.63990E-06  475606.5 3752228.3    477.1      4.00      3.95
1.86      YES
 L0005066         0   0.63990E-06  475598.0 3752228.3    477.1      4.00      3.95
1.86      YES
 L0005067         0   0.63990E-06  475589.5 3752228.3    477.0      4.00      3.95
1.86      YES
 L0005068         0   0.63990E-06  475581.0 3752228.3    477.0      4.00      3.95
1.86      YES
 L0005069         0   0.63990E-06  475572.5 3752228.4    477.0      4.00      3.95
1.86      YES
 L0005070         0   0.63990E-06  475564.0 3752228.4    477.0      4.00      3.95
1.86      YES
 L0005071         0   0.63990E-06  475555.5 3752228.4    477.0      4.00      3.95
1.86      YES
 L0005072         0   0.63990E-06  475547.0 3752228.4    477.0      4.00      3.95
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1.86     YES
 L0005073         0   0.63990E-06  475538.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005074         0   0.63990E-06  475530.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005075         0   0.63990E-06  475521.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005076         0   0.63990E-06  475513.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005077         0   0.63990E-06  475504.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005078         0   0.63990E-06  475496.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005079         0   0.63990E-06  475487.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005080         0   0.63990E-06  475479.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005081         0   0.63990E-06  475470.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005082         0   0.63990E-06  475462.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005083         0   0.63990E-06  475453.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005084         0   0.63990E-06  475445.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005085         0   0.63990E-06  475436.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005086         0   0.63990E-06  475428.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005087         0   0.63990E-06  475419.5 3752228.5   476.9     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005088        0   0.63990E-06  475411.0 3752228.5   476.9     4.00     3.95
1.86     YES
 L0005089        0   0.63990E-06  475402.5 3752228.6   476.8     4.00     3.95
1.86     YES
 L0005090        0   0.63990E-06  475394.0 3752228.6   476.7     4.00     3.95
1.86     YES
 L0005091        0   0.63990E-06  475385.5 3752228.6   476.6     4.00     3.95
1.86     YES
 L0005092        0   0.63990E-06  475377.0 3752228.6   476.5     4.00     3.95
1.86     YES
 L0005093        0   0.63990E-06  475368.5 3752228.6   476.4     4.00     3.95
1.86     YES
 L0005094        0   0.63990E-06  475360.0 3752228.6   476.3     4.00     3.95
1.86     YES
 L0005095        0   0.63990E-06  475351.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005096        0   0.63990E-06  475343.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005097        0   0.63990E-06  475334.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005098        0   0.63990E-06  475326.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005099        0   0.63990E-06  475317.5 3752228.7   476.1     4.00     3.95
1.86     YES
 L0005100        0   0.63990E-06  475309.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0005101        0   0.63990E-06  475300.5 3752228.7   476.1     4.00     3.95
1.86     YES
 L0005102        0   0.63990E-06  475292.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0005103        0   0.63990E-06  475283.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005104        0   0.63990E-06  475275.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005105        0   0.63990E-06  475266.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005106        0   0.63990E-06  475258.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005107        0   0.63990E-06  475249.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005108        0   0.63990E-06  475241.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0005109        0   0.63990E-06  475232.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0005110        0   0.63990E-06  475224.0 3752228.8   476.0     4.00     3.95
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1.86      YES
 L0005111         0   0.63990E-06  475215.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005112         0   0.63990E-06  475207.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005113         0   0.63990E-06  475198.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005114         0   0.63990E-06  475190.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005115         0   0.63990E-06  475181.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005116         0   0.63990E-06  475173.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005117         0   0.63990E-06  475164.5 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005118         0   0.63990E-06  475156.0 3752228.8   476.0     4.00     3.95
1.86      YES
 L0005119         0   0.63990E-06  475147.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005120         0   0.63990E-06  475139.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005121         0   0.63990E-06  475130.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005122         0   0.63990E-06  475122.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005123         0   0.63990E-06  475113.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005124         0   0.63990E-06  475105.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005125         0   0.63990E-06  475096.5 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005126         0   0.63990E-06  475088.0 3752228.9   476.0     4.00     3.95
1.86      YES
 L0005127         0   0.63990E-06  475079.5 3752228.9   476.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005128         0   0.63990E-06  475071.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0005129         0   0.63990E-06  475062.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005130         0   0.63990E-06  475054.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005131         0   0.63990E-06  475045.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005132         0   0.63990E-06  475037.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0005133         0   0.63990E-06  475028.5 3752229.0   475.9     4.00     3.95
1.86     YES
 L0005134         0   0.63990E-06  475020.0 3752229.0   475.7     4.00     3.95
1.86     YES
 L0005135         0   0.63990E-06  475011.5 3752229.0   475.6     4.00     3.95
1.86     YES
 L0005136         0   0.63990E-06  475003.0 3752229.0   475.5     4.00     3.95
1.86     YES
 L0005137         0   0.63990E-06  474994.5 3752229.0   475.4     4.00     3.95
1.86     YES
 L0005138         0   0.63990E-06  474986.0 3752229.0   475.3     4.00     3.95
1.86     YES
 L0005139         0   0.63990E-06  474977.5 3752229.1   475.2     4.00     3.95
1.86     YES
 L0005140         0   0.63990E-06  474969.0 3752229.1   475.1     4.00     3.95
1.86     YES
 L0005141         0   0.63990E-06  474960.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0005142         0   0.63990E-06  474952.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0005143         0   0.63990E-06  474943.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0005144         0   0.63990E-06  474935.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0005145         0   0.63990E-06  474926.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0005146         0   0.63990E-06  474918.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0005147         0   0.63990E-06  474909.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0005148         0   0.63990E-06  474901.0 3752229.1   475.0     4.00     3.95
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1.86      YES
 L0005149          0   0.63990E-06  474892.5 3752229.2   475.0      4.00      3.95
1.86      YES
 L0005150          0   0.63990E-06  474884.0 3752229.2   475.0      4.00      3.95
1.86      YES
 L0005151          0   0.63990E-06  474875.5 3752229.2   474.9      4.00      3.95
1.86      YES
 L0005152          0   0.63990E-06  474867.0 3752229.2   474.8      4.00      3.95
1.86      YES
 L0005153          0   0.63990E-06  474858.5 3752229.2   474.7      4.00      3.95
1.86      YES
 L0005154          0   0.63990E-06  474850.0 3752229.2   474.5      4.00      3.95
1.86      YES
 L0005155          0   0.63990E-06  474841.5 3752229.2   474.4      4.00      3.95
1.86      YES
 L0005156          0   0.63990E-06  474833.0 3752229.2   474.3      4.00      3.95
1.86      YES
 L0005157          0   0.63990E-06  474824.5 3752229.2   474.2      4.00      3.95
1.86      YES
 L0005158          0   0.63990E-06  474816.0 3752229.2   474.1      4.00      3.95
1.86      YES
 L0005159          0   0.63990E-06  474807.5 3752229.3   474.0      4.00      3.95
1.86      YES
 L0005160          0   0.63990E-06  474799.1 3752228.0   474.1      4.00      3.95
1.86      YES
 L0005161          0   0.63990E-06  474790.7 3752226.7   474.2      4.00      3.95
1.86      YES
 L0005162          0   0.63990E-06  474782.3 3752225.5   474.3      4.00      3.95
1.86      YES
 L0005163          0   0.63990E-06  474773.9 3752224.2   474.4      4.00      3.95
1.86      YES
 L0005164          0   0.63990E-06  474765.5 3752222.9   474.6      4.00      3.95
1.86      YES
 L0005165          0   0.63990E-06  474757.1 3752221.7   474.7      4.00      3.95
1.86      YES
 L0005166          0   0.63990E-06  474748.7 3752220.4   474.8      4.00      3.95
1.86      YES
 L0005167          0   0.63990E-06  474740.3 3752219.1   474.9      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                AERMOD HRA Output
                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005168         0   0.63990E-06   474731.9 3752217.8   475.0     4.00     3.95
1.86     YES
 L0005169         0   0.63990E-06   474723.5 3752216.6   475.0     4.00     3.95
1.86     YES
 L0005170         0   0.63990E-06   474715.1 3752215.3   475.0     4.00     3.95
1.86     YES
 L0005171         0   0.63990E-06   474706.7 3752214.0   475.0     4.00     3.95
1.86     YES
 L0005172         0   0.63990E-06   474698.3 3752212.8   475.0     4.00     3.95
1.86     YES
 L0005173         0   0.63990E-06   474689.9 3752211.5   475.0     4.00     3.95
1.86     YES
 L0005174         0   0.63990E-06   474681.5 3752210.2   475.0     4.00     3.95
1.86     YES
 L0005175         0   0.63990E-06   474673.1 3752209.0   475.0     4.00     3.95
1.86     YES
 L0005176         0   0.63990E-06   474664.7 3752207.7   475.0     4.00     3.95
1.86     YES
 L0005177         0   0.63990E-06   474656.3 3752206.4   475.0     4.00     3.95
1.86     YES
 L0005178         0   0.63990E-06   474647.9 3752205.1   475.0     4.00     3.95
1.86     YES
 L0005179         0   0.63990E-06   474639.5 3752203.9   475.0     4.00     3.95
1.86     YES
 L0005180         0   0.63990E-06   474631.1 3752202.6   475.0     4.00     3.95
1.86     YES
 L0005181         0   0.63990E-06   474622.6 3752201.3   475.0     4.00     3.95
1.86     YES
 L0005182         0   0.63990E-06   474614.2 3752200.1   475.0     4.00     3.95
1.86     YES
 L0005183         0   0.63990E-06   474605.8 3752198.8   475.0     4.00     3.95
1.86     YES
 L0005184         0   0.63990E-06   474597.4 3752197.5   475.0     4.00     3.95
1.86     YES
 L0005185         0   0.63990E-06   474589.0 3752196.2   475.0     4.00     3.95
1.86     YES
 L0005186         0   0.63990E-06   474580.6 3752195.0   475.0     4.00     3.95
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1.86      YES
 L0005187         0   0.63990E-06  474572.2 3752193.7   475.1     4.00     3.95
1.86      YES
 L0005188         0   0.63990E-06  474563.8 3752192.4   475.2     4.00     3.95
1.86      YES
 L0005189         0   0.63990E-06  474555.4 3752191.2   475.3     4.00     3.95
1.86      YES
 L0005190         0   0.63990E-06  474547.0 3752189.9   475.4     4.00     3.95
1.86      YES
 L0005191         0   0.63990E-06  474538.6 3752188.6   475.5     4.00     3.95
1.86      YES
 L0005192         0   0.63990E-06  474530.2 3752187.3   475.6     4.00     3.95
1.86      YES
 L0005193         0   0.63990E-06  474521.8 3752186.1   475.7     4.00     3.95
1.86      YES
 L0005194         0   0.63990E-06  474513.4 3752184.8   475.8     4.00     3.95
1.86      YES
 L0005195         0   0.63990E-06  474505.0 3752183.5   475.9     4.00     3.95
1.86      YES
 L0005196         0   0.63990E-06  474496.6 3752182.3   476.0     4.00     3.95
1.86      YES
 L0005197         0   0.63990E-06  474488.2 3752181.0   476.0     4.00     3.95
1.86      YES
 L0005198         0   0.63990E-06  474479.8 3752179.7   476.0     4.00     3.95
1.86      YES
 L0005199         0   0.63990E-06  474471.4 3752178.4   476.0     4.00     3.95
1.86      YES
 L0005200         0   0.63990E-06  474463.0 3752177.2   476.0     4.00     3.95
1.86      YES
 L0005201         0   0.63990E-06  474454.6 3752175.9   476.0     4.00     3.95
1.86      YES
 L0005202         0   0.63990E-06  474446.2 3752174.6   476.0     4.00     3.95
1.86      YES
 L0005203         0   0.63990E-06  474437.8 3752173.4   476.0     4.00     3.95
1.86      YES
 L0005204         0   0.63990E-06  474429.3 3752172.1   476.0     4.00     3.95
1.86      YES
 L0005205         0   0.63990E-06  474420.9 3752170.8   476.0     4.00     3.95
1.86      YES
 L0005206         0   0.63990E-06  474412.5 3752169.6   476.1     4.00     3.95
1.86      YES
 L0005207         0   0.63990E-06  474404.1 3752168.3   476.2     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
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                                AERMOD HRA Output
                                  PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0005208         0   0.63990E-06  474395.7 3752167.0   476.4     4.00     3.95
1.86     YES
 L0005209         0   0.63990E-06  474387.3 3752165.7   476.5     4.00     3.95
1.86     YES
 L0005210         0   0.63990E-06  474378.9 3752164.5   476.6     4.00     3.95
1.86     YES
 L0005211         0   0.63990E-06  474370.5 3752163.2   476.7     4.00     3.95
1.86     YES
 L0005212         0   0.63990E-06  474362.1 3752161.9   476.8     4.00     3.95
1.86     YES
 L0005213         0   0.63990E-06  474353.7 3752160.7   476.9     4.00     3.95
1.86     YES
 L0005214         0   0.63990E-06  474345.3 3752159.4   477.0     4.00     3.95
1.86     YES
 L0005215         0   0.63990E-06  474336.9 3752158.1   477.0     4.00     3.95
1.86     YES
 L0005216         0   0.63990E-06  474328.5 3752156.8   477.0     4.00     3.95
1.86     YES
 L0005217         0   0.63990E-06  474320.1 3752155.6   477.0     4.00     3.95
1.86     YES
 L0005218         0   0.63990E-06  474311.7 3752154.3   477.0     4.00     3.95
1.86     YES
 L0005219         0   0.63990E-06  474303.3 3752153.0   477.0     4.00     3.95
1.86     YES
 L0005220         0   0.63990E-06  474294.9 3752151.8   477.0     4.00     3.95
1.86     YES
 L0005221         0   0.63990E-06  474286.5 3752150.5   477.0     4.00     3.95
1.86     YES
 L0005222         0   0.63990E-06  474278.1 3752149.2   477.0     4.00     3.95
1.86     YES
 L0005223         0   0.63990E-06  474269.7 3752147.9   477.0     4.00     3.95
1.86     YES
 L0005224         0   0.63990E-06  474261.3 3752146.7   477.0     4.00     3.95
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1.86      YES
 L0005225          0   0.63990E-06   474252.9 3752145.4    477.0      4.00      3.95
1.86      YES
 L0005226          0   0.63990E-06   474244.4 3752144.1    477.0      4.00      3.95
1.86      YES
 L0005227          0   0.63990E-06   474236.0 3752142.9    477.0      4.00      3.95
1.86      YES
 L0005228          0   0.63990E-06   474227.6 3752141.6    477.0      4.00      3.95
1.86      YES
 L0005229          0   0.63990E-06   474219.2 3752140.3    477.0      4.00      3.95
1.86      YES
 L0005230          0   0.63990E-06   474210.8 3752139.0    477.0      4.00      3.95
1.86      YES
 L0005231          0   0.63990E-06   474202.4 3752137.8    477.0      4.00      3.95
1.86      YES
 L0005232          0   0.63990E-06   474194.0 3752136.5    477.0      4.00      3.95
1.86      YES
 L0005233          0   0.63990E-06   474185.6 3752135.2    477.1      4.00      3.95
1.86      YES
 L0005234          0   0.63990E-06   474177.2 3752134.0    477.2      4.00      3.95
1.86      YES
 L0005235          0   0.63990E-06   474168.8 3752132.7    477.3      4.00      3.95
1.86      YES
 L0005236          0   0.63990E-06   474160.4 3752131.3    477.4      4.00      3.95
1.86      YES
 L0005237          0   0.63990E-06   474152.0 3752129.9    477.5      4.00      3.95
1.86      YES
 L0005238          0   0.63990E-06   474143.7 3752128.5    477.6      4.00      3.95
1.86      YES
 L0005239          0   0.63990E-06   474135.3 3752127.1    477.7      4.00      3.95
1.86      YES
 L0005240          0   0.63990E-06   474126.9 3752125.7    477.9      4.00      3.95
1.86      YES
 L0005241          0   0.63990E-06   474118.5 3752124.3    478.0      4.00      3.95
1.86      YES
 L0005242          0   0.63990E-06   474110.1 3752122.9    478.0      4.00      3.95
1.86      YES
 L0005243          0   0.63990E-06   474101.7 3752121.5    478.0      4.00      3.95
1.86      YES
 L0005244          0   0.63990E-06   474093.3 3752120.1    478.0      4.00      3.95
1.86      YES
 L0005245          0   0.63990E-06   474085.0 3752118.8    478.0      4.00      3.95
1.86      YES
 L0005246          0   0.63990E-06   474076.6 3752117.4    478.0      4.00      3.95
1.86      YES
 L0005247          0   0.63990E-06   474068.2 3752116.0    478.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                  AERMOD HRA Output
Bridge\Worker                 ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                           ***        16:28:37

                                      PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005248         0   0.63990E-06  474059.8 3752114.6   478.0     4.00     3.95
1.86     YES
 L0005249         0   0.63990E-06  474051.4 3752113.2   478.0     4.00     3.95
1.86     YES
 L0005250         0   0.63990E-06  474043.0 3752111.8   478.0     4.00     3.95
1.86     YES
 L0005251         0   0.10660E-06  477480.6 3749800.2   458.0     0.00     3.95
1.86     YES
 L0005252         0   0.10660E-06  477480.4 3749808.7   458.0     0.00     3.95
1.86     YES
 L0005253         0   0.10660E-06  477480.3 3749817.2   458.0     0.00     3.95
1.86     YES
 L0005254         0   0.10660E-06  477480.1 3749825.7   458.0     0.00     3.95
1.86     YES
 L0005255         0   0.10660E-06  477480.0 3749834.2   458.0     0.00     3.95
1.86     YES
 L0005256         0   0.10660E-06  477479.9 3749842.7   458.0     0.00     3.95
1.86     YES
 L0005257         0   0.10660E-06  477479.7 3749851.2   458.0     0.00     3.95
1.86     YES
 L0005258         0   0.10660E-06  477479.6 3749859.7   458.0     0.00     3.95
1.86     YES
 L0005259         0   0.10660E-06  477479.5 3749868.2   458.0     0.00     3.95
1.86     YES
 L0005260         0   0.10660E-06  477479.3 3749876.7   458.0     0.00     3.95
1.86     YES
 L0005261         0   0.10660E-06  477479.2 3749885.2   458.0     0.00     3.95
1.86     YES
 L0005262         0   0.10660E-06  477479.1 3749893.7   458.0     0.00     3.95
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1.86      YES
 L0005263          0   0.10660E-06   477478.9 3749902.2    458.0      0.00       3.95
1.86      YES
 L0005264          0   0.10660E-06   477478.8 3749910.7    458.0      0.00       3.95
1.86      YES
 L0005265          0   0.10660E-06   477478.7 3749919.2    458.0      0.00       3.95
1.86      YES
 L0005266          0   0.10660E-06   477478.5 3749927.7    458.0      0.00       3.95
1.86      YES
 L0005267          0   0.10660E-06   477478.4 3749936.2    458.0      0.00       3.95
1.86      YES
 L0005268          0   0.10660E-06   477478.2 3749944.7    458.0      0.00       3.95
1.86      YES
 L0005269          0   0.10660E-06   477478.1 3749953.2    458.0      0.00       3.95
1.86      YES
 L0005270          0   0.10660E-06   477478.0 3749961.7    458.2      0.00       3.95
1.86      YES
 L0005271          0   0.10660E-06   477477.8 3749970.2    458.4      0.00       3.95
1.86      YES
 L0005272          0   0.10660E-06   477477.7 3749978.7    458.7      0.00       3.95
1.86      YES
 L0005273          0   0.10660E-06   477477.6 3749987.2    459.0      0.00       3.95
1.86      YES
 L0005274          0   0.10660E-06   477477.4 3749995.7    459.0      0.00       3.95
1.86      YES
 L0005275          0   0.10660E-06   477477.3 3750004.2    459.0      0.00       3.95
1.86      YES
 L0005276          0   0.10660E-06   477477.2 3750012.7    459.0      0.00       3.95
1.86      YES
 L0005277          0   0.10660E-06   477477.0 3750021.2    459.0      0.00       3.95
1.86      YES
 L0005278          0   0.10660E-06   477476.9 3750029.7    459.0      0.00       3.95
1.86      YES
 L0005279          0   0.10660E-06   477476.8 3750038.2    459.0      0.00       3.95
1.86      YES
 L0005280          0   0.10660E-06   477476.6 3750046.7    459.0      0.00       3.95
1.86      YES
 L0005281          0   0.10660E-06   477476.5 3750055.2    459.0      0.00       3.95
1.86      YES
 L0005282          0   0.10660E-06   477476.3 3750063.7    459.0      0.00       3.95
1.86      YES
 L0005283          0   0.10660E-06   477476.2 3750072.2    459.0      0.00       3.95
1.86      YES
 L0005284          0   0.10660E-06   477476.1 3750080.7    459.0      0.00       3.95
1.86      YES
 L0005285          0   0.10660E-06   477475.9 3750089.2    459.0      0.00       3.95
1.86      YES
 L0005286          0   0.10660E-06   477475.8 3750097.7    459.0      0.00       3.95
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1.86      YES
 L0005287         0   0.10660E-06  477475.7 3750106.2   459.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         16:28:37

                                    PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005288         0   0.10660E-06  477475.5 3750114.7   459.0     0.00     3.95
1.86      YES
 L0005289         0   0.10660E-06  477475.4 3750123.2   459.0     0.00     3.95
1.86      YES
 L0005290         0   0.10660E-06  477475.3 3750131.7   459.0     0.00     3.95
1.86      YES
 L0005291         0   0.10660E-06  477475.1 3750140.2   459.0     0.00     3.95
1.86      YES
 L0005292         0   0.10660E-06  477475.0 3750148.7   459.0     0.00     3.95
1.86      YES
 L0005293         0   0.10660E-06  477474.8 3750157.2   459.0     0.00     3.95
1.86      YES
 L0005294         0   0.10660E-06  477474.7 3750165.7   459.0     0.00     3.95
1.86      YES
 L0005295         0   0.10660E-06  477474.2 3750174.2   459.0     0.00     3.95
1.86      YES
 L0005296         0   0.10660E-06  477473.5 3750182.6   459.0     0.00     3.95
1.86      YES
 L0005297         0   0.10660E-06  477472.8 3750191.1   459.0     0.00     3.95
1.86      YES
 L0005298         0   0.10660E-06  477472.1 3750199.6   459.0     0.00     3.95
1.86      YES
 L0005299         0   0.10660E-06  477471.4 3750208.0   459.2     0.00     3.95
1.86      YES
 L0005300         0   0.10660E-06  477470.7 3750216.5   459.2     0.00     3.95
```

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1.86      YES
 L0005301         0   0.10660E-06   477470.0 3750225.0    459.3      0.00      3.95
1.86      YES
 L0005302         0   0.10660E-06   477469.3 3750233.5    459.5      0.00      3.95
1.86      YES
 L0005303         0   0.10660E-06   477468.7 3750241.9    459.7      0.00      3.95
1.86      YES
 L0005304         0   0.10660E-06   477468.0 3750250.4    459.9      0.00      3.95
1.86      YES
 L0005305         0   0.10660E-06   477467.3 3750258.9    460.0      0.00      3.95
1.86      YES
 L0005306         0   0.10660E-06   477466.6 3750267.3    460.0      0.00      3.95
1.86      YES
 L0005307         0   0.10660E-06   477466.5 3750275.8    460.0      0.00      3.95
1.86      YES
 L0005308         0   0.10660E-06   477466.5 3750284.3    460.0      0.00      3.95
1.86      YES
 L0005309         0   0.10660E-06   477466.5 3750292.8    460.0      0.00      3.95
1.86      YES
 L0005310         0   0.10660E-06   477466.6 3750301.3    460.0      0.00      3.95
1.86      YES
 L0005311         0   0.10660E-06   477466.6 3750309.8    460.0      0.00      3.95
1.86      YES
 L0005312         0   0.10660E-06   477466.6 3750318.3    460.0      0.00      3.95
1.86      YES
 L0005313         0   0.10660E-06   477466.7 3750326.8    460.0      0.00      3.95
1.86      YES
 L0005314         0   0.10660E-06   477466.7 3750335.3    460.0      0.00      3.95
1.86      YES
 L0005315         0   0.10660E-06   477466.7 3750343.8    460.0      0.00      3.95
1.86      YES
 L0005316         0   0.10660E-06   477466.8 3750352.3    460.0      0.00      3.95
1.86      YES
 L0005317         0   0.10660E-06   477466.8 3750360.8    460.0      0.00      3.95
1.86      YES
 L0005318         0   0.10660E-06   477466.9 3750369.3    460.0      0.00      3.95
1.86      YES
 L0005319         0   0.10660E-06   477466.9 3750377.8    460.0      0.00      3.95
1.86      YES
 L0005320         0   0.10660E-06   477466.9 3750386.3    460.0      0.00      3.95
1.86      YES
 L0005321         0   0.10660E-06   477467.0 3750394.8    460.0      0.00      3.95
1.86      YES
 L0005322         0   0.10660E-06   477467.0 3750403.3    460.0      0.00      3.95
1.86      YES
 L0005323         0   0.10660E-06   477467.0 3750411.8    460.0      0.00      3.95
1.86      YES
 L0005324         0   0.10660E-06   477467.1 3750420.3    460.0      0.00      3.95
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1.86      YES
 L0005325         0   0.10660E-06   477467.1 3750428.8   460.0     0.00     3.95
1.86      YES
 L0005326         0   0.10660E-06   477467.1 3750437.3   460.0     0.00     3.95
1.86      YES
 L0005327         0   0.10660E-06   477467.2 3750445.8   460.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005328         0   0.10660E-06   477467.2 3750454.3   460.0     0.00     3.95
1.86      YES
 L0005329         0   0.10660E-06   477467.3 3750462.8   460.0     0.00     3.95
1.86      YES
 L0005330         0   0.10660E-06   477467.3 3750471.3   460.2     0.00     3.95
1.86      YES
 L0005331         0   0.10660E-06   477467.3 3750479.8   460.4     0.00     3.95
1.86      YES
 L0005332         0   0.10660E-06   477467.4 3750488.3   460.7     0.00     3.95
1.86      YES
 L0005333         0   0.10660E-06   477467.4 3750496.8   461.0     0.00     3.95
1.86      YES
 L0005334         0   0.10660E-06   477467.4 3750505.3   461.0     0.00     3.95
1.86      YES
 L0005335         0   0.10660E-06   477467.5 3750513.8   461.0     0.00     3.95
1.86      YES
 L0005336         0   0.10660E-06   477467.5 3750522.3   461.0     0.00     3.95
1.86      YES
 L0005337         0   0.10660E-06   477467.5 3750530.8   461.0     0.00     3.95
1.86      YES
 L0005338         0   0.10660E-06   477467.6 3750539.3   461.0     0.00     3.95
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1.86      YES
 L0005339          0   0.10660E-06   477467.7 3750547.8    461.0      0.00      3.95
1.86      YES
 L0005340          0   0.10660E-06   477467.9 3750556.3    461.0      0.00      3.95
1.86      YES
 L0005341          0   0.10660E-06   477468.2 3750564.8    461.0      0.00      3.95
1.86      YES
 L0005342          0   0.10660E-06   477468.4 3750573.3    461.0      0.00      3.95
1.86      YES
 L0005343          0   0.10660E-06   477468.7 3750581.8    461.0      0.00      3.95
1.86      YES
 L0005344          0   0.10660E-06   477468.9 3750590.3    461.0      0.00      3.95
1.86      YES
 L0005345          0   0.10660E-06   477469.2 3750598.8    461.0      0.00      3.95
1.86      YES
 L0005346          0   0.10660E-06   477469.4 3750607.3    461.0      0.00      3.95
1.86      YES
 L0005347          0   0.10660E-06   477469.7 3750615.8    461.0      0.00      3.95
1.86      YES
 L0005348          0   0.10660E-06   477469.9 3750624.3    461.0      0.00      3.95
1.86      YES
 L0005349          0   0.10660E-06   477470.2 3750632.8    461.0      0.00      3.95
1.86      YES
 L0005350          0   0.10660E-06   477470.4 3750641.3    461.0      0.00      3.95
1.86      YES
 L0005351          0   0.10660E-06   477470.7 3750649.8    461.0      0.00      3.95
1.86      YES
 L0005352          0   0.10660E-06   477470.9 3750658.3    461.2      0.00      3.95
1.86      YES
 L0005353          0   0.10660E-06   477471.2 3750666.8    461.3      0.00      3.95
1.86      YES
 L0005354          0   0.10660E-06   477471.4 3750675.3    461.4      0.00      3.95
1.86      YES
 L0005355          0   0.10660E-06   477471.7 3750683.8    461.5      0.00      3.95
1.86      YES
 L0005356          0   0.10660E-06   477471.9 3750692.3    461.7      0.00      3.95
1.86      YES
 L0005357          0   0.10660E-06   477472.2 3750700.8    461.9      0.00      3.95
1.86      YES
 L0005358          0   0.10660E-06   477472.4 3750709.3    462.0      0.00      3.95
1.86      YES
 L0005359          0   0.10660E-06   477472.7 3750717.8    462.0      0.00      3.95
1.86      YES
 L0005360          0   0.10660E-06   477472.9 3750726.3    462.0      0.00      3.95
1.86      YES
 L0005361          0   0.10660E-06   477473.2 3750734.8    462.0      0.00      3.95
1.86      YES
 L0005362          0   0.10660E-06   477473.4 3750743.3    462.0      0.00      3.95
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1.86      YES
 L0005363         0   0.10660E-06  477473.7 3750751.7   462.0     0.00     3.95
1.86      YES
 L0005364         0   0.10660E-06  477473.9 3750760.2   462.0     0.00     3.95
1.86      YES
 L0005365         0   0.10660E-06  477474.2 3750768.7   462.0     0.00     3.95
1.86      YES
 L0005366         0   0.10660E-06  477474.4 3750777.2   462.0     0.00     3.95
1.86      YES
 L0005367         0   0.10660E-06  477474.7 3750785.7   462.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -

 L0005368         0   0.10660E-06  477474.9 3750794.2   462.0     0.00     3.95
1.86      YES
 L0005369         0   0.10660E-06  477475.2 3750802.7   462.0     0.00     3.95
1.86      YES
 L0005370         0   0.10660E-06  477475.4 3750811.2   462.0     0.00     3.95
1.86      YES
 L0005371         0   0.10660E-06  477475.7 3750819.7   462.0     0.00     3.95
1.86      YES
 L0005372         0   0.10660E-06  477475.9 3750828.2   462.0     0.00     3.95
1.86      YES
 L0005373         0   0.10660E-06  477476.2 3750836.7   462.0     0.00     3.95
1.86      YES
 L0005374         0   0.10660E-06  477476.4 3750845.2   462.0     0.00     3.95
1.86      YES
 L0005375         0   0.10660E-06  477476.7 3750853.7   462.0     0.00     3.95
1.86      YES
 L0005376         0   0.10660E-06  477476.9 3750862.2   462.1     0.00     3.95
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1.86      YES
 L0005377          0   0.10660E-06  477477.1 3750870.7   462.3      0.00      3.95
1.86      YES
 L0005378          0   0.10660E-06  477477.1 3750879.2   462.4      0.00      3.95
1.86      YES
 L0005379          0   0.10660E-06  477477.2 3750887.7   462.6      0.00      3.95
1.86      YES
 L0005380          0   0.10660E-06  477477.2 3750896.2   462.7      0.00      3.95
1.86      YES
 L0005381          0   0.10660E-06  477477.3 3750904.7   462.8      0.00      3.95
1.86      YES
 L0005382          0   0.10660E-06  477477.3 3750913.2   462.9      0.00      3.95
1.86      YES
 L0005383          0   0.10660E-06  477477.4 3750921.7   463.0      0.00      3.95
1.86      YES
 L0005384          0   0.10660E-06  477477.4 3750930.2   463.0      0.00      3.95
1.86      YES
 L0005385          0   0.10660E-06  477477.5 3750938.7   463.0      0.00      3.95
1.86      YES
 L0005386          0   0.10660E-06  477477.6 3750947.2   463.0      0.00      3.95
1.86      YES
 L0005387          0   0.10660E-06  477477.6 3750955.7   463.0      0.00      3.95
1.86      YES
 L0005388          0   0.10660E-06  477477.7 3750964.2   463.0      0.00      3.95
1.86      YES
 L0005389          0   0.10660E-06  477477.7 3750972.7   463.0      0.00      3.95
1.86      YES
 L0005390          0   0.10660E-06  477477.8 3750981.2   463.0      0.00      3.95
1.86      YES
 L0005391          0   0.10660E-06  477477.8 3750989.7   463.0      0.00      3.95
1.86      YES
 L0005392          0   0.10660E-06  477477.9 3750998.2   463.0      0.00      3.95
1.86      YES
 L0005393          0   0.10660E-06  477477.9 3751006.7   463.0      0.00      3.95
1.86      YES
 L0005394          0   0.10660E-06  477478.0 3751015.2   463.0      0.00      3.95
1.86      YES
 L0005395          0   0.10660E-06  477478.0 3751023.7   463.0      0.00      3.95
1.86      YES
 L0005396          0   0.10660E-06  477478.1 3751032.2   463.0      0.00      3.95
1.86      YES
 L0005397          0   0.10660E-06  477478.1 3751040.7   463.0      0.00      3.95
1.86      YES
 L0005398          0   0.10660E-06  477478.2 3751049.2   463.0      0.00      3.95
1.86      YES
 L0005399          0   0.10660E-06  477478.3 3751057.7   463.0      0.00      3.95
1.86      YES
 L0005400          0   0.10660E-06  477478.3 3751066.2   463.0      0.00      3.95
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1.86      YES
 L0005401          0   0.10660E-06  477478.4 3751074.7   463.2     0.00     3.95
1.86      YES
 L0005402          0   0.10660E-06  477478.4 3751083.2   463.3     0.00     3.95
1.86      YES
 L0005403          0   0.10660E-06  477478.5 3751091.7   463.5     0.00     3.95
1.86      YES
 L0005404          0   0.10660E-06  477478.5 3751100.2   463.7     0.00     3.95
1.86      YES
 L0005405          0   0.10660E-06  477478.6 3751108.7   463.8     0.00     3.95
1.86      YES
 L0005406          0   0.10660E-06  477478.6 3751117.2   463.9     0.00     3.95
1.86      YES
 L0005407          0   0.10660E-06  477478.7 3751125.7   464.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       16:28:37

                                   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005408          0   0.10660E-06  477478.7 3751134.2   464.0     0.00     3.95
1.86      YES
 L0005409          0   0.10660E-06  477478.8 3751142.7   464.0     0.00     3.95
1.86      YES
 L0005410          0   0.10660E-06  477478.9 3751151.2   464.0     0.00     3.95
1.86      YES
 L0005411          0   0.10660E-06  477478.9 3751159.7   464.0     0.00     3.95
1.86      YES
 L0005412          0   0.10660E-06  477479.0 3751168.2   464.0     0.00     3.95
1.86      YES
 L0005413          0   0.10660E-06  477479.0 3751176.7   464.0     0.00     3.95
1.86      YES
 L0005414          0   0.10660E-06  477479.1 3751185.2   464.0     0.00     3.95
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1.86      YES
 L0005415          0   0.10660E-06  477479.1 3751193.7   464.0      0.00      3.95
1.86      YES
 L0005416          0   0.10660E-06  477479.2 3751202.2   464.0      0.00      3.95
1.86      YES
 L0005417          0   0.10660E-06  477479.2 3751210.7   464.0      0.00      3.95
1.86      YES
 L0005418          0   0.10660E-06  477479.3 3751219.2   464.0      0.00      3.95
1.86      YES
 L0005419          0   0.10660E-06  477479.3 3751227.7   464.0      0.00      3.95
1.86      YES
 L0005420          0   0.10660E-06  477479.4 3751236.2   464.0      0.00      3.95
1.86      YES
 L0005421          0   0.10660E-06  477479.3 3751244.7   464.0      0.00      3.95
1.86      YES
 L0005422          0   0.10660E-06  477479.3 3751253.2   464.2      0.00      3.95
1.86      YES
 L0005423          0   0.10660E-06  477479.2 3751261.7   464.5      0.00      3.95
1.86      YES
 L0005424          0   0.10660E-06  477479.2 3751270.2   464.8      0.00      3.95
1.86      YES
 L0005425          0   0.10660E-06  477479.1 3751278.7   465.0      0.00      3.95
1.86      YES
 L0005426          0   0.10660E-06  477479.0 3751287.2   465.0      0.00      3.95
1.86      YES
 L0005427          0   0.10660E-06  477479.0 3751295.7   465.0      0.00      3.95
1.86      YES
 L0005428          0   0.10660E-06  477478.9 3751304.2   465.0      0.00      3.95
1.86      YES
 L0005429          0   0.10660E-06  477478.9 3751312.7   465.0      0.00      3.95
1.86      YES
 L0005430          0   0.10660E-06  477478.8 3751321.2   465.0      0.00      3.95
1.86      YES
 L0005431          0   0.10660E-06  477478.7 3751329.7   465.0      0.00      3.95
1.86      YES
 L0005432          0   0.10660E-06  477478.7 3751338.2   465.0      0.00      3.95
1.86      YES
 L0005433          0   0.10660E-06  477478.6 3751346.7   465.0      0.00      3.95
1.86      YES
 L0005434          0   0.10660E-06  477478.6 3751355.2   465.0      0.00      3.95
1.86      YES
 L0005435          0   0.10660E-06  477478.5 3751363.7   465.0      0.00      3.95
1.86      YES
 L0005436          0   0.10660E-06  477478.5 3751372.2   465.0      0.00      3.95
1.86      YES
 L0005437          0   0.10660E-06  477478.4 3751380.7   465.0      0.00      3.95
1.86      YES
 L0005438          0   0.10660E-06  477478.3 3751389.2   465.0      0.00      3.95
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                              AERMOD HRA Output
1.86      YES
 L0005439         0   0.10660E-06  477478.3 3751397.7   465.0     0.00     3.95
1.86      YES
 L0005440         0   0.10660E-06  477478.2 3751406.2   465.0     0.00     3.95
1.86      YES
 L0005441         0   0.10660E-06  477478.2 3751414.7   465.0     0.00     3.95
1.86      YES
 L0005442         0   0.10660E-06  477478.1 3751423.2   465.0     0.00     3.95
1.86      YES
 L0005443         0   0.10660E-06  477478.0 3751431.7   465.2     0.00     3.95
1.86      YES
 L0005444         0   0.10660E-06  477478.0 3751440.2   465.4     0.00     3.95
1.86      YES
 L0005445         0   0.10660E-06  477477.9 3751448.7   465.7     0.00     3.95
1.86      YES
 L0005446         0   0.10660E-06  477477.9 3751457.2   466.0     0.00     3.95
1.86      YES
 L0005447         0   0.10660E-06  477477.8 3751465.7   466.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker             ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005448         0   0.10660E-06  477477.8 3751474.2   466.0     0.00     3.95
1.86      YES
 L0005449         0   0.10660E-06  477477.7 3751482.7   466.0     0.00     3.95
1.86      YES
 L0005450         0   0.10660E-06  477477.6 3751491.2   466.0     0.00     3.95
1.86      YES
 L0005451         0   0.10660E-06  477477.6 3751499.7   466.0     0.00     3.95
1.86      YES
 L0005452         0   0.10660E-06  477477.5 3751508.2   466.0     0.00     3.95
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1.86      YES
 L0005453          0   0.10660E-06  477477.5 3751516.7   466.0     0.00      3.95
1.86      YES
 L0005454          0   0.10660E-06  477477.4 3751525.2   466.0     0.00      3.95
1.86      YES
 L0005455          0   0.10660E-06  477477.3 3751533.7   466.0     0.00      3.95
1.86      YES
 L0005456          0   0.10660E-06  477477.3 3751542.2   466.0     0.00      3.95
1.86      YES
 L0005457          0   0.10660E-06  477477.2 3751550.7   466.0     0.00      3.95
1.86      YES
 L0005458          0   0.10660E-06  477477.2 3751559.2   466.0     0.00      3.95
1.86      YES
 L0005459          0   0.10660E-06  477477.1 3751567.7   466.0     0.00      3.95
1.86      YES
 L0005460          0   0.10660E-06  477477.0 3751576.2   466.0     0.00      3.95
1.86      YES
 L0005461          0   0.10660E-06  477477.0 3751584.7   466.0     0.00      3.95
1.86      YES
 L0005462          0   0.10660E-06  477476.9 3751593.2   466.0     0.00      3.95
1.86      YES
 L0005463          0   0.10660E-06  477476.9 3751601.7   466.0     0.00      3.95
1.86      YES
 L0005464          0   0.10660E-06  477476.8 3751610.2   466.1     0.00      3.95
1.86      YES
 L0005465          0   0.10660E-06  477476.8 3751618.7   466.2     0.00      3.95
1.86      YES
 L0005466          0   0.10660E-06  477476.7 3751627.2   466.4     0.00      3.95
1.86      YES
 L0005467          0   0.10660E-06  477476.6 3751635.7   466.6     0.00      3.95
1.86      YES
 L0005468          0   0.10660E-06  477476.6 3751644.2   466.7     0.00      3.95
1.86      YES
 L0005469          0   0.10660E-06  477476.5 3751652.7   466.8     0.00      3.95
1.86      YES
 L0005470          0   0.10660E-06  477476.5 3751661.2   466.9     0.00      3.95
1.86      YES
 L0005471          0   0.10660E-06  477476.4 3751669.7   467.0     0.00      3.95
1.86      YES
 L0005472          0   0.10660E-06  477476.3 3751678.2   467.0     0.00      3.95
1.86      YES
 L0005473          0   0.10660E-06  477476.3 3751686.7   467.0     0.00      3.95
1.86      YES
 L0005474          0   0.10660E-06  477476.2 3751695.2   467.0     0.00      3.95
1.86      YES
 L0005475          0   0.10660E-06  477476.2 3751703.7   467.0     0.00      3.95
1.86      YES
 L0005476          0   0.10660E-06  477476.1 3751712.2   467.0     0.00      3.95
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1.86      YES
 L0005477         0   0.10660E-06  477476.1 3751720.7   467.0     0.00     3.95
1.86      YES
 L0005478         0   0.10660E-06  477476.0 3751729.2   467.1     0.00     3.95
1.86      YES
 L0005479         0   0.10660E-06  477475.9 3751737.7   467.2     0.00     3.95
1.86      YES
 L0005480         0   0.10660E-06  477475.9 3751746.2   467.4     0.00     3.95
1.86      YES
 L0005481         0   0.10660E-06  477475.8 3751754.7   467.5     0.00     3.95
1.86      YES
 L0005482         0   0.10660E-06  477475.8 3751763.2   467.6     0.00     3.95
1.86      YES
 L0005483         0   0.10660E-06  477475.7 3751771.7   467.8     0.00     3.95
1.86      YES
 L0005484         0   0.10660E-06  477475.6 3751780.2   467.9     0.00     3.95
1.86      YES
 L0005485         0   0.10660E-06  477475.6 3751788.7   468.0     0.00     3.95
1.86      YES
 L0005486         0   0.10660E-06  477475.5 3751797.2   468.0     0.00     3.95
1.86      YES
 L0005487         0   0.10660E-06  477475.5 3751805.7   468.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         16:28:37

                                    PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005488         0   0.10660E-06  477475.4 3751814.2   468.0     0.00     3.95
1.86      YES
 L0005489         0   0.10660E-06  477475.4 3751822.7   468.0     0.00     3.95
1.86      YES
 L0005490         0   0.10660E-06  477475.3 3751831.2   468.0     0.00     3.95
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1.86      YES
 L0005491          0   0.10660E-06   477475.2 3751839.7    468.0      0.00      3.95
1.86      YES
 L0005492          0   0.10660E-06   477475.2 3751848.2    468.0      0.00      3.95
1.86      YES
 L0005493          0   0.10660E-06   477475.1 3751856.7    468.0      0.00      3.95
1.86      YES
 L0005494          0   0.10660E-06   477475.1 3751865.2    468.0      0.00      3.95
1.86      YES
 L0005495          0   0.10660E-06   477475.0 3751873.7    468.0      0.00      3.95
1.86      YES
 L0005496          0   0.10660E-06   477474.9 3751882.2    468.2      0.00      3.95
1.86      YES
 L0005497          0   0.10660E-06   477474.9 3751890.7    468.5      0.00      3.95
1.86      YES
 L0005498          0   0.10660E-06   477474.8 3751899.2    468.8      0.00      3.95
1.86      YES
 L0005499          0   0.10660E-06   477474.8 3751907.7    469.0      0.00      3.95
1.86      YES
 L0005500          0   0.10660E-06   477474.7 3751916.2    469.0      0.00      3.95
1.86      YES
 L0005501          0   0.10660E-06   477474.7 3751924.7    469.0      0.00      3.95
1.86      YES
 L0005502          0   0.10660E-06   477474.6 3751933.2    469.0      0.00      3.95
1.86      YES
 L0005503          0   0.10660E-06   477474.5 3751941.7    469.0      0.00      3.95
1.86      YES
 L0005504          0   0.10660E-06   477474.5 3751950.2    469.0      0.00      3.95
1.86      YES
 L0005505          0   0.10660E-06   477474.4 3751958.7    469.0      0.00      3.95
1.86      YES
 L0005506          0   0.10660E-06   477474.4 3751967.2    469.0      0.00      3.95
1.86      YES
 L0005507          0   0.10660E-06   477474.3 3751975.7    469.0      0.00      3.95
1.86      YES
 L0005508          0   0.10660E-06   477474.2 3751984.2    469.0      0.00      3.95
1.86      YES
 L0005509          0   0.10660E-06   477474.2 3751992.7    469.0      0.00      3.95
1.86      YES
 L0005510          0   0.10660E-06   477474.1 3752001.2    469.0      0.00      3.95
1.86      YES
 L0005511          0   0.10660E-06   477474.1 3752009.7    469.0      0.00      3.95
1.86      YES
 L0005512          0   0.10660E-06   477474.0 3752018.2    469.0      0.00      3.95
1.86      YES
 L0005513          0   0.10660E-06   477474.0 3752026.7    469.0      0.00      3.95
1.86      YES
 L0005514          0   0.10660E-06   477473.9 3752035.2    469.1      0.00      3.95
```

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1.86     YES
 L0005515         0   0.10660E-06  477473.8 3752043.7   469.3     0.00     3.95
1.86     YES
 L0005516         0   0.10660E-06  477473.8 3752052.2   469.4     0.00     3.95
1.86     YES
 L0005517         0   0.10660E-06  477473.7 3752060.7   469.5     0.00     3.95
1.86     YES
 L0005518         0   0.10660E-06  477473.7 3752069.2   469.5     0.00     3.95
1.86     YES
 L0005519         0   0.10660E-06  477473.6 3752077.7   469.5     0.00     3.95
1.86     YES
 L0005520         0   0.10660E-06  477473.5 3752086.2   469.5     0.00     3.95
1.86     YES
 L0005521         0   0.10660E-06  477473.5 3752094.7   469.6     0.00     3.95
1.86     YES
 L0005522         0   0.10660E-06  477473.4 3752103.2   469.8     0.00     3.95
1.86     YES
 L0005523         0   0.10660E-06  477473.4 3752111.7   469.9     0.00     3.95
1.86     YES
 L0005524         0   0.10660E-06  477473.3 3752120.2   470.1     0.00     3.95
1.86     YES
 L0005525         0   0.10660E-06  477473.3 3752128.7   470.2     0.00     3.95
1.86     YES
 L0005526         0   0.10660E-06  477473.2 3752137.2   470.3     0.00     3.95
1.86     YES
 L0005527         0   0.10660E-06  477473.1 3752145.7   470.4     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005528         0   0.10660E-06  477473.1 3752154.2   470.6     0.00     3.95
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1.86     YES
 L0005529         0   0.10660E-06  477473.0 3752162.7   470.7     0.00     3.95
1.86     YES
 L0005530         0   0.10660E-06  477473.0 3752171.2   470.9     0.00     3.95
1.86     YES
 L0005531         0   0.10660E-06  477472.9 3752179.7   471.0     0.00     3.95
1.86     YES
 L0005532         0   0.10660E-06  477472.8 3752188.2   471.0     0.00     3.95
1.86     YES
 L0005533         0   0.10660E-06  477472.8 3752196.7   471.0     0.00     3.95
1.86     YES
 L0005534         0   0.10660E-06  477472.7 3752205.2   471.0     0.00     3.95
1.86     YES
 L0005535         0   0.10660E-06  477472.7 3752213.7   471.2     0.00     3.95
1.86     YES
 L0005536         0   0.10660E-06  477472.6 3752222.2   471.5     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       16:28:37

                                   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA  OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.28207E-08  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES   HROFDY
 AREA2            0   0.29862E-08  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES   HROFDY
 AREA3            0   0.10465E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES   HROFDY
 AREA4            0   0.32820E-08  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES   HROFDY
 AREA5            0   0.68612E-08  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES   HROFDY
 AREA6            0   0.30740E-08  477599.3 3748788.1   454.0     5.00     65.18
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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180.23      0.00     0.00     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


  YARDTRAC   AREA1       , AREA2       , AREA3       , AREA4       , AREA5       ,
AREA6       ,

  OTHER      L0001737    , L0001738    , L0001739    , L0001740    , L0001741    ,
L0001742    , L0001743    , L0001744    ,

             L0001745    , L0001746    , L0001747    , L0001748    , L0001749    ,
L0001750    , L0001751    , L0001752    ,

             L0001753    , L0001754    , L0001755    , L0001756    , L0001757    ,
L0001758    , L0001759    , L0001760    ,

             L0001761    , L0001762    , L0001763    , L0001764    , L0001765    ,
L0001766    , L0001767    , L0001768    ,

             L0001769    , L0001770    , L0001771    , L0001772    , L0001773    ,
L0001774    , L0001775    , L0001776    ,

             L0001777    , L0001778    , L0001779    , L0001780    , L0001781    ,
L0001782    , L0001783    , L0001784    ,

             L0001785    , L0001786    , L0001787    , L0001788    , L0001789    ,
L0001790    , L0001791    , L0001792    ,

             L0001793    , L0001794    , L0001795    , L0001796    , L0001797    ,
L0001798    , L0001799    , L0001800    ,

             L0001801    , L0001802    , L0001803    , L0001804    , L0001805    ,
L0001806    , L0001807    , L0001808    ,

             L0001809    , L0001810    , L0001811    , L0001812    , L0001813    ,
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L0001814    , L0001815    , L0001816    ,

             L0001817    , L0001818    , L0001819    , L0001820    , L0001821    ,
L0001822    , L0001823    , L0001824    ,

             L0001825    , L0001826    , L0001827    , L0001828    , L0001829    ,
L0001830    , L0001831    , L0001832    ,

             L0001833    , L0001834    , L0001835    , L0001836    , L0001837    ,
L0001838    , L0001839    , L0001840    ,

             L0001841    , L0001842    , L0001843    , L0001844    , L0001845    ,
L0001846    , L0001847    , L0001848    ,

             L0001849    , L0001850    , L0001851    , L0001852    , L0001853    ,
L0001854    , L0001855    , L0001856    ,

             L0001857    , L0001858    , L0001859    , L0001860    , L0001861    ,
L0001862    , L0001863    , L0001864    ,

             L0001865    , L0001866    , L0001867    , L0001868    , L0001869    ,
L0001870    , L0001871    , L0001872    ,

             L0001873    , L0001874    , L0001875    , L0001876    , L0001877    ,
L0001878    , L0001879    , L0001880    ,

             L0001881    , L0001882    , L0001883    , L0001884    , L0001885    ,
L0001886    , L0001887    , L0001888    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV     URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


             L0001889    , L0001890    , L0001891    , L0001892    , L0001893    ,
L0001894    , L0001895    , L0001896    ,

             L0001897    , L0001898    , L0001899    , L0001900    , L0001901    ,
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L0001902     , L0001903     , L0001904     ,

             L0001905     , L0001906     , L0001907     , L0001908     , L0001909     ,
L0001910     , L0001911     , L0001912     ,

             L0001913     , L0001914     , L0001915     , L0001916     , L0001917     ,
L0001918     , L0001919     , L0001920     ,

             L0001921     , L0001922     , L0001923     , L0001924     , L0001925     ,
L0001926     , L0001927     , L0001928     ,

             L0001929     , L0001930     , L0001931     , L0001932     , L0001933     ,
L0001934     , L0001935     , L0001936     ,

             L0001937     , L0001938     , L0001939     , L0001940     , L0001941     ,
L0001942     , L0001943     , L0001944     ,

             L0001945     , L0001946     , L0001947     , L0001948     , L0001949     ,
L0001950     , L0001951     , L0001952     ,

             L0001953     , L0001954     , L0001955     , L0001956     , L0001957     ,
L0001958     , L0001959     , L0001960     ,

             L0001961     , L0001962     , L0001963     , L0001964     , L0001965     ,
L0001966     , L0001967     , L0001968     ,

             L0001969     , L0001970     , L0001971     , L0001972     , L0001973     ,
L0001974     , L0001975     , L0001976     ,

             L0001977     , L0001978     , L0001979     , L0001980     , L0001981     ,
L0001982     , L0001983     , L0001984     ,

             L0001985     , L0001986     , L0001987     , L0001988     , L0001989     ,
L0001990     , L0001991     , L0001992     ,

             L0001993     , L0001994     , L0001995     , L0001996     , L0001997     ,
L0001998     , L0001999     , L0002000     ,

             L0002001     , L0002002     , L0002003     , L0002004     , L0002005     ,
L0002006     , L0002007     , L0002008     ,

             L0002009     , L0002010     , L0002011     , L0002012     , L0002013     ,
L0002014     , L0002015     , L0002016     ,

             L0002017     , L0002018     , L0002019     , L0002020     , L0002021     ,
L0002022     , L0002023     , L0002024     ,

             L0002025     , L0002026     , L0002027     , L0002028     , L0002029     ,
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                                  AERMOD HRA Output
L0002030    , L0002031    , L0002032    ,

             L0002033    , L0002034    , L0002035    , L0002036    , L0002037    ,
L0002038    , L0002039    , L0002040    ,

             L0002041    , L0002042    , L0002043    , L0002044    , L0002045    ,
L0002046    , L0002047    , L0002048    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker             ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


             L0002049    , L0002050    , L0002051    , L0002052    , L0002053    ,
L0002054    , L0002055    , L0002056    ,

             L0002057    , L0002058    , L0002059    , L0002060    , L0002061    ,
L0002062    , L0002063    , L0002064    ,

             L0002065    , L0002066    , L0002067    , L0002068    , L0002069    ,
L0002070    , L0002071    , L0002072    ,

             L0002073    , L0002074    , L0002075    , L0002076    , L0002077    ,
L0002078    , L0002079    , L0002080    ,

             L0002081    , L0002082    , L0002083    , L0002084    , L0002085    ,
L0002086    , L0002087    , L0002088    ,

             L0002089    , L0002090    , L0002091    , L0002092    , L0002093    ,
L0002094    , L0002095    , L0002096    ,

             L0002097    , L0002098    , L0002099    , L0002100    , L0002101    ,
L0002102    , L0002103    , L0002104    ,

             L0002105    , L0002106    , L0002107    , L0002108    , L0002109    ,
L0002110    , L0002111    , L0002112    ,

             L0002113    , L0002114    , L0002115    , L0002116    , L0002117    ,
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L0002118    , L0002119    , L0002120    ,

             L0002121    , L0002122    , L0002123    , L0002124    , L0002125    ,
L0002126    , L0002127    , L0002128    ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                  *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        16:28:37

                                    PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
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                                 AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         16:28:37

                                   PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  69
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  71
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  74
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
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                              AERMOD HRA Output
                                PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


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Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Bridge\Worker             ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  79
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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             L0005429    , L0005430    , L0005431    , L0005432    , L0005433    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
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                                 AERMOD HRA Output
                                   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                           SOURCE IDs
  --------   ---------                                           ----------


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L0001918     , L0001919     , L0001920     ,

             L0001921     , L0001922     , L0001923     , L0001924     , L0001925     ,
L0001926     , L0001927     , L0001928     ,

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L0001934     , L0001935     , L0001936     ,

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L0001942     , L0001943     , L0001944     ,

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L0001974     , L0001975     , L0001976     ,

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L0001982     , L0001983     , L0001984     ,

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L0002054    , L0002055    , L0002056    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
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L0002070    , L0002071    , L0002072    ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker             ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                 SOURCE IDs
  --------    ---------                                 ----------


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L0002406    , L0002407    , L0002408    ,

             L0002409    , L0002410    , L0002411    , L0002412    , L0002413     ,
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AREA4       , AREA5       , AREA6       ,

             STCK1       , STCK2       , STCK3       , STCK4       , STCK5        ,
STCK6       , STCK7       , STCK8       ,

             STCK9       , STCK10      , STCK11      , STCK12      , STCK13       ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                    SOURCE IDs
  --------    ---------                                    ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  86
 **MODELOPTs:   RegDFAULT CONC     ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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  URBAN ID   URBAN POP                                   SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
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                                            AERMOD HRA Output
 *** AERMET - VERSION  14134 ***    ***
                           ***       16:28:37

                                     PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE  91
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker               ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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L0005210    , L0005211    , L0005212    ,

             L0005213    , L0005214    , L0005215    , L0005216    , L0005217    ,
L0005218    , L0005219    , L0005220    ,

             L0005221    , L0005222    , L0005223    , L0005224    , L0005225    ,
L0005226    , L0005227    , L0005228    ,

             L0005229    , L0005230    , L0005231    , L0005232    , L0005233    ,
L0005234    , L0005235    , L0005236    ,

             L0005237    , L0005238    , L0005239    , L0005240    , L0005241    ,
L0005242    , L0005243    , L0005244    ,

             L0005245    , L0005246    , L0005247    , L0005248    , L0005249    ,
L0005250    , L0005251    , L0005252    ,

             L0005253    , L0005254    , L0005255    , L0005256    , L0005257    ,
L0005258    , L0005259    , L0005260    ,

             L0005261    , L0005262    , L0005263    , L0005264    , L0005265    ,
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L0005266    , L0005267    , L0005268    ,

             L0005269    , L0005270    , L0005271    , L0005272    , L0005273    ,
L0005274    , L0005275    , L0005276    ,

             L0005277    , L0005278    , L0005279    , L0005280    , L0005281    ,
L0005282    , L0005283    , L0005284    ,

             L0005285    , L0005286    , L0005287    , L0005288    , L0005289    ,
L0005290    , L0005291    , L0005292    ,

             L0005293    , L0005294    , L0005295    , L0005296    , L0005297    ,
L0005298    , L0005299    , L0005300    ,

             L0005301    , L0005302    , L0005303    , L0005304    , L0005305    ,
L0005306    , L0005307    , L0005308    ,

             L0005309    , L0005310    , L0005311    , L0005312    , L0005313    ,
L0005314    , L0005315    , L0005316    ,

             L0005317    , L0005318    , L0005319    , L0005320    , L0005321    ,
L0005322    , L0005323    , L0005324    ,

             L0005325    , L0005326    , L0005327    , L0005328    , L0005329    ,
L0005330    , L0005331    , L0005332    ,

             L0005333    , L0005334    , L0005335    , L0005336    , L0005337    ,
L0005338    , L0005339    , L0005340    ,

             L0005341    , L0005342    , L0005343    , L0005344    , L0005345    ,
L0005346    , L0005347    , L0005348    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0005349    , L0005350    , L0005351    , L0005352    , L0005353    ,
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L0005354     , L0005355     , L0005356     ,

             L0005357     , L0005358     , L0005359     , L0005360     , L0005361     ,
L0005362     , L0005363     , L0005364     ,

             L0005365     , L0005366     , L0005367     , L0005368     , L0005369     ,
L0005370     , L0005371     , L0005372     ,

             L0005373     , L0005374     , L0005375     , L0005376     , L0005377     ,
L0005378     , L0005379     , L0005380     ,

             L0005381     , L0005382     , L0005383     , L0005384     , L0005385     ,
L0005386     , L0005387     , L0005388     ,

             L0005389     , L0005390     , L0005391     , L0005392     , L0005393     ,
L0005394     , L0005395     , L0005396     ,

             L0005397     , L0005398     , L0005399     , L0005400     , L0005401     ,
L0005402     , L0005403     , L0005404     ,

             L0005405     , L0005406     , L0005407     , L0005408     , L0005409     ,
L0005410     , L0005411     , L0005412     ,

             L0005413     , L0005414     , L0005415     , L0005416     , L0005417     ,
L0005418     , L0005419     , L0005420     ,

             L0005421     , L0005422     , L0005423     , L0005424     , L0005425     ,
L0005426     , L0005427     , L0005428     ,

             L0005429     , L0005430     , L0005431     , L0005432     , L0005433     ,
L0005434     , L0005435     , L0005436     ,

             L0005437     , L0005438     , L0005439     , L0005440     , L0005441     ,
L0005442     , L0005443     , L0005444     ,

             L0005445     , L0005446     , L0005447     , L0005448     , L0005449     ,
L0005450     , L0005451     , L0005452     ,

             L0005453     , L0005454     , L0005455     , L0005456     , L0005457     ,
L0005458     , L0005459     , L0005460     ,

             L0005461     , L0005462     , L0005463     , L0005464     , L0005465     ,
L0005466     , L0005467     , L0005468     ,

             L0005469     , L0005470     , L0005471     , L0005472     , L0005473     ,
L0005474     , L0005475     , L0005476     ,

             L0005477     , L0005478     , L0005479     , L0005480     , L0005481     ,
```

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L0005482    , L0005483    , L0005484    ,

             L0005485    , L0005486    , L0005487    , L0005488    , L0005489    ,
L0005490    , L0005491    , L0005492    ,

             L0005493    , L0005494    , L0005495    , L0005496    , L0005497    ,
L0005498    , L0005499    , L0005500    ,

             L0005501    , L0005502    , L0005503    , L0005504    , L0005505    ,
L0005506    , L0005507    , L0005508    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0005509    , L0005510    , L0005511    , L0005512    , L0005513    ,
L0005514    , L0005515    , L0005516    ,

             L0005517    , L0005518    , L0005519    , L0005520    , L0005521    ,
L0005522    , L0005523    , L0005524    ,

             L0005525    , L0005526    , L0005527    , L0005528    , L0005529    ,
L0005530    , L0005531    , L0005532    ,

             L0005533    , L0005534    , L0005535    , L0005536    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
```

```
                                AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001737     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001738     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001739     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001740     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0001741     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001742     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001743     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0001744     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001745     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001746     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 SOURCE ID = L0001747     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001748     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001750     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001751     ; SOURCE TYPE = VOLUME    :
```

```
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001752     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001753     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00
```

```
                                AERMOD HRA Output
 SOURCE ID = L0001754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                AERMOD HRA Output

SOURCE ID = L0001757     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0001758     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0001759     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0001760     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0001761     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001762     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001763     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001764     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001765     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001766     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001767     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001768     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001769     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001770     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001771     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001772     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001774     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
                                 AERMOD HRA Output
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001775     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001776     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001777     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001778     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001779     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001780     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001781     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001783     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  17    .10000E+01      18    .10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00


 SOURCE ID = L0001785      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00       6    .00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01      12    .10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01      18    .10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00


 SOURCE ID = L0001786      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00       6    .00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01      12    .10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01      18    .10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         16:28:37

                                   PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001787      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00       6    .00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01      12    .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001788     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001789     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001790     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001791     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001792     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001793     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001794     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001795     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001796     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 107
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001797     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001799     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001800     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001801     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
```

```
                                 AERMOD HRA Output
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001802     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001803     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001804     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0001805     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001806     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001807     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0001808      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001809      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001810      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001811      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                              AERMOD HRA Output
                        ***        16:28:37

                                   PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001812     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001813     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001814     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001815     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001816     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001817     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0001818     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001819     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001820     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001821     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
```

```
                                PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001822     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001823     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001824     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001825     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001826     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 113
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001827     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001828     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001829     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001830     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001831     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                             AERMOD HRA Output

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001832     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001833     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001834     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001835     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001836     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR
 HOUR     SCALAR      HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001837     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001838     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001839     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001840     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001841     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001842     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001843     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001844     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001845     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001846     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0001847     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001848     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001849     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001850     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001851     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       16:28:37

                                   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                 AERMOD HRA Output
    HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR
HOUR     SCALAR        HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0001852     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0001853     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0001854     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0001855     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0001856     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 119
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001857     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001858     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001859     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001860     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001861     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
                                AERMOD HRA Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001862     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001863     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001864     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001865     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                AERMOD HRA Output
 SOURCE ID = L0001866     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001867     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001868     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0001869     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001870     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001871     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 122
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = L0001872     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001873     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001874     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001875     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001876     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001877     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001878     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001879     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001880     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001881     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                  ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                             AERMOD HRA Output
SOURCE ID = L0001882     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001883     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001884     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001885     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001886     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001887     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001888     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001889     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001890     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001891     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         16:28:37

                                    PAGE 126
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001892     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001893     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001894     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001895     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001896     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001897     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001898     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001899     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001900     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001901     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0001902     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0001903      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0001904      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0001905      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0001906      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 129
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001907     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001908     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001909     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001910     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001911     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 130
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001912     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001913     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001914     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001915     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001916     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001917     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001918     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001919     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0001920     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001921     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001922     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001923     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001924     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001925     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001926     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
```

```
                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001927     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001928     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001929     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                 AERMOD HRA Output
 SOURCE ID = L0001930     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001931     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 134
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001932     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0001933     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001934     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001935     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001936     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37
```

```
                                             PAGE 135
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001937     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001938     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001939     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001940     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001941     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        16:28:37

                                  PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001942     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001943     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001944     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001945     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001946     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 137
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                                  AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001947     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001948     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001949     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001950     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001951     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001952     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001953     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001954     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001955     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001956     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                 AERMOD HRA Output
                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001957     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001958     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001959     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001960     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001961     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001962     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001963     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001964     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001965     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001966     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0001967     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001968     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001969     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001970     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001971     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001972     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001973     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001974     ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001975     ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001976     ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                AERMOD HRA Output
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001977     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001978     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001979     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001980     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0001981     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 144
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001982     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001983     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0001984     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001985     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001986     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 145
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                              AERMOD HRA Output
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0001987     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001988     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001989     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001990     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001991     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         16:28:37

                                    PAGE 146
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0001992     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0001993     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                               AERMOD HRA Output
 SOURCE ID = L0001994     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001995     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0001996     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0001997     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001998     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0001999     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002000     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002001     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
                                   AERMOD HRA Output
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 148
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002002     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002003     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002004     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
                                  AERMOD HRA Output
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002005     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002006     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 149
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002007     ; SOURCE TYPE = VOLUME   :
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002008     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002009     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002010     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002011     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002012     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002013     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002014     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002015     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002016     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002017     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002018     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002019     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002020     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0002021     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002022     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002023     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002024     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002025     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002026     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002027     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002028     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002029     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002030     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002031     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002032     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002033     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002034     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002035     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002036     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002037     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
                                        AERMOD HRA Output
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0002038     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0002039     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0002040     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0002041     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00

 ♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
```

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                                  AERMOD HRA Output
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                    PAGE 156
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002042     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002043     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002044     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002045     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002046     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002047     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002048     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002049     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002050     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002051     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                AERMOD HRA Output
                       ***        16:28:37

                                  PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002053     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002054     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002055     ; SOURCE TYPE = VOLUME   :
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002056     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 159
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002057     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0002058     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002059     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002060     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002061     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                 AERMOD HRA Output
                                   PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002062     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002063     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002065     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002066     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002067     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002070     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002071     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                        AERMOD HRA Output

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002072      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002073      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002074      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002075      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
   17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
   23    .00000E+00      24    .00000E+00


  SOURCE ID = L0002076      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
    5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
   11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
   17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
   23    .00000E+00      24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


  SOURCE ID = L0002077      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
    5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
   11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
   17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
   23    .00000E+00      24    .00000E+00


  SOURCE ID = L0002078      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
    5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002079     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002080     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002081     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002082     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002083     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002084     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002085     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002086     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 165
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002087     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002088     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002089     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002090     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002091     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                AERMOD HRA Output
    HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR
HOUR     SCALAR         HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002092     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002093     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002094     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002095     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0002096     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 167
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002097     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002098     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0002099     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0002100     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0002101     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
                              AERMOD HRA Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002102     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002103     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002104     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002105     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0002106     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE 169
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002107     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002108     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0002109     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002110     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002111     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 170
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = L0002112     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002113     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002114     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002115     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002116     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
                              AERMOD HRA Output
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002117     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002118     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002119     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002120     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002121     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 172
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                              AERMOD HRA Output
SOURCE ID = L0002122     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002123     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002124     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002125     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002126     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002127     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002128     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002129     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002130     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002131     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002132     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002133     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002134     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002135     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002136     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002137     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002138     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002139     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002140     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002141     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002142     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002144     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002145     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002146     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 177
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002147     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002148     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002149     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002150     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002151     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 178
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002152     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002153     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002154     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002155     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002156     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002157     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002158     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002159     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0002160     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002161     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 180
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002162     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002163     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002164     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002165     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002166     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
```

```
                                 AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         16:28:37

                                   PAGE 181
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002167     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002168     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002169     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                   AERMOD HRA Output
 SOURCE ID = L0002170     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002171     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002172     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0002173     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002174     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002175     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002176     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
```

```
                                   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002177     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002178     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002179     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002180     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002181     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002182     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002183     ; SOURCE TYPE = VOLUME   :
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002184     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002185     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002186     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 185
```

```
                                  AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002187     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002188     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002189     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002190     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002191     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 186
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002192     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002193     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
                                   AERMOD HRA Output
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002194     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002195     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002196     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                   AERMOD HRA Output
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002197     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002198     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002199     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002200     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002201     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker             ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002202     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002203     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002204     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002205     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002206     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 189
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                              AERMOD HRA Output

    HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR
HOUR     SCALAR        HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002207     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002208     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002209     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002210     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002211     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE 190
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002212     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002213     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


  SOURCE ID = L0002214     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


  SOURCE ID = L0002215     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


  SOURCE ID = L0002216     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002217      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002218      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002219      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002220      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0002221     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 192
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002222     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002223     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0002224     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002225     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002226     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002227      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002228      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002229      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002230      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002231      ; SOURCE TYPE = VOLUME    :
```

```
                                 AERMOD HRA Output
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 194
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002232     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002233     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0002234     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002235     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002236     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE 195
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = L0002237     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002238     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002239     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002240     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002241     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       16:28:37

                                            PAGE 196
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002242     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002243     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002244     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0002245     ; SOURCE TYPE = VOLUME   :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0002246     ; SOURCE TYPE = VOLUME   :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002247     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002248     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002249     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002250     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002251     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002252     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002253     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002254     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002255     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002256     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002257     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002258     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002259     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002260     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002261     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002262     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002263     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002264     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002265     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002266     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002267     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
         13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
     17    .10000E+01      18    .10000E+01
         19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
     23    .00000E+00      24    .00000E+00


 SOURCE ID = L0002268      ; SOURCE TYPE = VOLUME    :
          1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
      5    .00000E+00       6    .00000E+00
          7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
     11    .10000E+01      12    .10000E+01
         13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
     17    .10000E+01      18    .10000E+01
         19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
     23    .00000E+00      24    .00000E+00


 SOURCE ID = L0002269      ; SOURCE TYPE = VOLUME    :
          1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
      5    .00000E+00       6    .00000E+00
          7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
     11    .10000E+01      12    .10000E+01
         13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
     17    .10000E+01      18    .10000E+01
         19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
     23    .00000E+00      24    .00000E+00


 SOURCE ID = L0002270      ; SOURCE TYPE = VOLUME    :
          1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
      5    .00000E+00       6    .00000E+00
          7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
     11    .10000E+01      12    .10000E+01
         13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
     17    .10000E+01      18    .10000E+01
         19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
     23    .00000E+00      24    .00000E+00


 SOURCE ID = L0002271      ; SOURCE TYPE = VOLUME    :
          1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
      5    .00000E+00       6    .00000E+00
          7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
     11    .10000E+01      12    .10000E+01
         13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
     17    .10000E+01      18    .10000E+01
         19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
     23    .00000E+00      24    .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002272     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002273     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002274     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002275     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002276     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37

                                   PAGE 203
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002277     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0002278     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0002279     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0002280     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0002281     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                  AERMOD HRA Output
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0002282     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002283     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002284     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0002285     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002286     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 205
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002287     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0002288     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002289     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002290     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002291     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                              AERMOD HRA Output
                    ***         16:28:37

                                PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002292     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002293     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002294     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002295     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002296     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***       16:28:37

                                   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002297     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                   AERMOD HRA Output
 SOURCE ID = L0002298     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002299     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002300     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002301     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                 AERMOD HRA Output
                                   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002302     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002303     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002304     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002305     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002306     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002307     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002308     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
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```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002309     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002310     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002311     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002312     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002313     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002314     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002315     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002316     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002317     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002318     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002319     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002320     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002321     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker               ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 212
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002322     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002323     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002324     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002325     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002326     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 213
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002327     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002328     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002329     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002330     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002331     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                AERMOD HRA Output
    HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR
HOUR     SCALAR        HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0002332     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002333     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002334     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002335     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00
```

```
                              AERMOD HRA Output


 SOURCE ID = L0002336     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 215
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002337     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002338     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002339     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002340     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002341     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        16:28:37

                                    PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

AERMOD HRA Output

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002342     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002343     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002344     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002345     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0002346     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002347     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002348     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0002349     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002350     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002351     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       16:28:37

                                   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0002352     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002353     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002354     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002355     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002356     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 219
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002357     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002358     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002359     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002360     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002361     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                AERMOD HRA Output
SOURCE ID = L0002362     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002363     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002364     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002365     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002366     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker             ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002367     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002368     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002369     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002370     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002371     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002372     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002373     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002374     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002375     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0002376     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 223
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002377     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002378     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002379     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002380     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002381     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                 ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002382     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002383     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002384     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002385     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


SOURCE ID = L0002386     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 225
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - 


 SOURCE ID = L0002387     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002388     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002389     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002390     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002391     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 226
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002392     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002393     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002394     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002395     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0002396     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002397     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002398     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002399     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0002400     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002401     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002402     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002403     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002404     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002405     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002406     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
```

```
                                AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002407     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002408     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002409     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0002410     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002411     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker                ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 230
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002412     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0002413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***         11/18/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        16:28:37
```

```
                                   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002417     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002418     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002419     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002420     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002421     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002423     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002424     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002425     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002426     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 233
```

```
                                AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002427     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002428     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002429     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0002430     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0002432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002433     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0002434     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA      :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA      :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                 AERMOD HRA Output
                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA5        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA6        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK1        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 236
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
    17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
    23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK4        ; SOURCE TYPE = POINT    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
     5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
    11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
    17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
    23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK5        ; SOURCE TYPE = POINT    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
     5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
    11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
    17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
    23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK6        ; SOURCE TYPE = POINT    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
     5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
    11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
    17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
    23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -



SOURCE ID = STCK7         ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK8         ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK9         ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK10        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK11       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK13       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478075.4,
3749064.8,     454.0,     465.0,       0.0);
     ( 478011.5, 3748100.2,     450.0,     461.0,       0.0);         ( 478309.5,
3748103.0,     449.0,     463.0,       0.0);
     ( 477805.2, 3748100.2,     450.0,     461.0,       0.0);         ( 478140.0,
3748101.6,     450.0,     462.0,       0.0);
     ( 478312.7, 3747836.8,     449.0,     462.0,       0.0);         ( 478309.1,
3747964.1,     449.0,     462.0,       0.0);
     ( 477725.8, 3748664.0,     453.0,     462.0,       0.0);         ( 477725.8,
3748462.0,     452.0,     462.0,       0.0);
     ( 477547.8, 3748675.3,     454.0,     462.0,       0.0);         ( 477552.1,
3748483.2,     453.0,     461.0,       0.0);
     ( 477617.0, 3748271.3,     451.0,     461.0,       0.0);         ( 477685.0,
3749052.3,     454.0,     463.0,       0.0);
     ( 477532.1, 3749288.3,     455.0,     464.0,       0.0);         ( 478329.6,
3749871.1,     459.0,     467.0,       0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);         ( 478344.6,
3749914.1,     459.0,     467.0,       0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);         ( 478352.3,
3749701.1,     457.5,     467.0,       0.0);
     ( 478061.0, 3749681.7,     457.0,     467.0,       0.0);         ( 477822.7,
3748296.8,     451.0,     461.0,       0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 240
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                (1=YES; 0=NO)
```

```
                                AERMOD HRA Output

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,    3.09,    5.14,    8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***       11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       16:28:37

                                  PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                  Upper air station no.:     3190
```

```
                                 AERMOD HRA Output
                  Name: UNKNOWN                                    Name: UNKNOWN

                  Year:   2007                                     Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
```

```
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: YARDTRAC ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2
 , AREA3       , AREA4       , AREA5       ,
                 AREA6       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00011                        478075.38
3749064.82        0.00056
         478011.47    3748100.18        0.00122                        478309.53
3748103.00        0.00078
         477805.23    3748100.18        0.00040                        478140.02
3748101.59        0.00115
         478312.73    3747836.85        0.00035                        478309.13
```

```
3747964.13        0.00051
         477725.83    3748664.02        0.00093                      477725.83
3748462.01        0.00053
         477547.83    3748675.32        0.00044                      477552.06
3748483.20        0.00027
         477617.05    3748271.29        0.00025                      477684.97
3749052.32        0.00124
         477532.06    3749288.33        0.00026                      478329.61
3749871.11        0.00010
         478312.39    3749891.05        0.00010                      478344.56
3749914.15        0.00010
         478380.35    3749931.82        0.00009                      478352.31
3749701.09        0.00012
         478060.98    3749681.73        0.00016                      477822.73
3748296.77        0.00063
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: OTHER    ***
                                  INCLUDING SOURCE(S):     L0001737    , L0001738
 , L0001739    , L0001740    , L0001741    ,
                 L0001742    , L0001743    , L0001744    , L0001745    , L0001746
 , L0001747    , L0001748    , L0001749    ,
                 L0001750    , L0001751    , L0001752    , L0001753    , L0001754
 , L0001755    , L0001756    , L0001757    ,
                 L0001758    , L0001759    , L0001760    , L0001761    , L0001762
 , L0001763    , L0001764    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00021                      478075.38
3749064.82        0.00186
         478011.47    3748100.18        0.00119                      478309.53
3748103.00        0.00096
```

```
         477805.23    3748100.18        0.00098                      478140.02
3748101.59        0.00115
         478312.73    3747836.85        0.00047                      478309.13
3747964.13        0.00064
         477725.83    3748664.02        0.00201                      477725.83
3748462.01        0.00124
         477547.83    3748675.32        0.00129                      477552.06
3748483.20        0.00077
         477617.05    3748271.29        0.00084                      477684.97
3749052.32        0.00210
         477532.06    3749288.33        0.00222                      478329.61
3749871.11        0.00020
         478312.39    3749891.05        0.00020                      478344.56
3749914.15        0.00019
         478380.35    3749931.82        0.00018                      478352.31
3749701.09        0.00024
         478060.98    3749681.73        0.00031                      477822.73
3748296.77        0.00152
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0001737    , L0001738
 , L0001739    , L0001740    , L0001741    ,
                 L0001742    , L0001743    , L0001744    , L0001745    , L0001746
 , L0001747    , L0001748    , L0001749    ,
                 L0001750    , L0001751    , L0001752    , L0001753    , L0001754
 , L0001755    , L0001756    , L0001757    ,
                 L0001758    , L0001759    , L0001760    , L0001761    , L0001762
 , L0001763    , L0001764    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00076                      478075.38
```

```
3749064.82        0.00281
         478011.47    3748100.18        0.00307                      478309.53
3748103.00        0.00231
         477805.23    3748100.18        0.00202                      478140.02
3748101.59        0.00294
         478312.73    3747836.85        0.00236                      478309.13
3747964.13        0.00196
         477725.83    3748664.02        0.00333                      477725.83
3748462.01        0.00218
         477547.83    3748675.32        0.00212                      477552.06
3748483.20        0.00144
         477617.05    3748271.29        0.00155                      477684.97
3749052.32        0.00376
         477532.06    3749288.33        0.00299                      478329.61
3749871.11        0.00077
         478312.39    3749891.05        0.00078                      478344.56
3749914.15        0.00075
         478380.35    3749931.82        0.00073                      478352.31
3749701.09        0.00079
         478060.98    3749681.73        0.00103                      477822.73
3748296.77        0.00262
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3
                **


                         NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

YARDTRAC  1ST HIGHEST VALUE IS       0.00124 AT (  477684.97,  3749052.32,
454.00,   463.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00122 AT (  478011.47,  3748100.18,
450.00,   461.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00115 AT (  478140.02,  3748101.59,
```

```
  450.00,   462.00,    0.00)  DC
            4TH HIGHEST VALUE IS       0.00093 AT (  477725.83,  3748664.02,
  453.00,   462.00,    0.00)  DC
            5TH HIGHEST VALUE IS       0.00078 AT (  478309.53,  3748103.00,
  449.00,   463.00,    0.00)  DC
            6TH HIGHEST VALUE IS       0.00063 AT (  477822.73,  3748296.77,
  451.00,   461.00,    0.00)  DC
            7TH HIGHEST VALUE IS       0.00056 AT (  478075.38,  3749064.82,
  454.00,   465.00,    0.00)  DC
            8TH HIGHEST VALUE IS       0.00053 AT (  477725.83,  3748462.01,
  452.00,   462.00,    0.00)  DC
            9TH HIGHEST VALUE IS       0.00051 AT (  478309.13,  3747964.13,
  449.00,   462.00,    0.00)  DC
           10TH HIGHEST VALUE IS       0.00044 AT (  477547.83,  3748675.32,
  454.00,   462.00,    0.00)  DC

  OTHER     1ST HIGHEST VALUE IS       0.00222 AT (  477532.06,  3749288.33,
  455.00,   464.00,    0.00)  DC
            2ND HIGHEST VALUE IS       0.00210 AT (  477684.97,  3749052.32,
  454.00,   463.00,    0.00)  DC
            3RD HIGHEST VALUE IS       0.00201 AT (  477725.83,  3748664.02,
  453.00,   462.00,    0.00)  DC
            4TH HIGHEST VALUE IS       0.00186 AT (  478075.38,  3749064.82,
  454.00,   465.00,    0.00)  DC
            5TH HIGHEST VALUE IS       0.00152 AT (  477822.73,  3748296.77,
  451.00,   461.00,    0.00)  DC
            6TH HIGHEST VALUE IS       0.00129 AT (  477547.83,  3748675.32,
  454.00,   462.00,    0.00)  DC
            7TH HIGHEST VALUE IS       0.00124 AT (  477725.83,  3748462.01,
  452.00,   462.00,    0.00)  DC
            8TH HIGHEST VALUE IS       0.00119 AT (  478011.47,  3748100.18,
  450.00,   461.00,    0.00)  DC
            9TH HIGHEST VALUE IS       0.00115 AT (  478140.02,  3748101.59,
  450.00,   462.00,    0.00)  DC
           10TH HIGHEST VALUE IS       0.00098 AT (  477805.23,  3748100.18,
  450.00,   461.00,    0.00)  DC

  ALL       1ST HIGHEST VALUE IS       0.00376 AT (  477684.97,  3749052.32,
  454.00,   463.00,    0.00)  DC
            2ND HIGHEST VALUE IS       0.00333 AT (  477725.83,  3748664.02,
  453.00,   462.00,    0.00)  DC
            3RD HIGHEST VALUE IS       0.00307 AT (  478011.47,  3748100.18,
  450.00,   461.00,    0.00)  DC
            4TH HIGHEST VALUE IS       0.00299 AT (  477532.06,  3749288.33,
  455.00,   464.00,    0.00)  DC
            5TH HIGHEST VALUE IS       0.00294 AT (  478140.02,  3748101.59,
  450.00,   462.00,    0.00)  DC
            6TH HIGHEST VALUE IS       0.00281 AT (  478075.38,  3749064.82,
```

```
454.00,   465.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00262 AT (  477822.73,  3748296.77,
451.00,   461.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00236 AT (  478312.73,  3747836.85,
449.00,   462.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00231 AT (  478309.53,  3748103.00,
449.00,   463.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00218 AT (  477725.83,  3748462.01,
452.00,   462.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Worker              ***        11/18/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        16:28:37

                                   PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of         1895 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           90 Calm Hours Identified

 A Total of         1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    7933       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                 AERMOD HRA Output
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/19/2015
** File: C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Residential\Residential.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Residential.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007629
** Vertical Dimension = 4.00
** SZINIT = 1.86
```

```
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ------------------------------------------------------------------
   LOCATION L0002531     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0002532     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0002533     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0002534     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0002535     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0002536     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0002537     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0002538     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0002539     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0002540     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0002541     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0002542     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0002543     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0002544     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0002545     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0002546     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0002547     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00006509
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ------------------------------------------------------------------
   LOCATION L0002548     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0002549     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0002550     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0002551     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0002552     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0002553     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0002554     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0002555     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0002556     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0002557     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0002558     VOLUME   477946.460 3748801.113 453.00
   LOCATION L0002559     VOLUME   477946.718 3748831.112 453.00
```

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   LOCATION L0002560     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0002561     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003431
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002562     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0002563     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0002564     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0002565     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0002566     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0002567     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0002568     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0002569     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.993E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002570     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0002571     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0002572     VOLUME   477917.151 3748338.902 451.00
   LOCATION L0002573     VOLUME   477925.650 3748338.838 451.00
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   LOCATION L0002574     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0002575     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0002576     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0002577     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0002578     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0002579     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0002580     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0002581     VOLUME   477968.786 3748294.974 450.00
   LOCATION L0002582     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0002583     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0002584     VOLUME   477977.265 3748271.459 450.00
   LOCATION L0002585     VOLUME   477978.288 3748263.021 450.00
   LOCATION L0002586     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0002587     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0002588     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0002589     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0002590     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000465
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0002591     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0002592     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0002593     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0002594     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0002595     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0002596     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0002597     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0002598     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0002599     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0002600     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0002601     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0002602     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0002603     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0002604     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0002605     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
```

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** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 3.084E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** ------------------------------------------------------------------
   LOCATION L0002606     VOLUME   478043.006 3748335.195 451.00
   LOCATION L0002607     VOLUME   478072.999 3748334.546 451.00
   LOCATION L0002608     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0002609     VOLUME   478132.984 3748333.247 451.00
   LOCATION L0002610     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001759
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 457.44, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 454.22, 4.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0002611     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0002612     VOLUME   477952.164 3748962.919 453.00
   LOCATION L0002613     VOLUME   477952.000 3748954.420 453.00
   LOCATION L0002614     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0002615     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0002616     VOLUME   477948.990 3748929.132 453.00
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LOCATION L0002617      VOLUME   477948.246 3748920.682 453.00
LOCATION L0002618      VOLUME   477948.087 3748912.183 453.00
LOCATION L0002619      VOLUME   477947.928 3748903.685 453.00
LOCATION L0002620      VOLUME   477947.769 3748895.186 453.00
LOCATION L0002621      VOLUME   477947.610 3748886.688 453.00
LOCATION L0002622      VOLUME   477947.451 3748878.189 453.00
LOCATION L0002623      VOLUME   477947.294 3748869.691 453.00
LOCATION L0002624      VOLUME   477947.225 3748861.191 453.00
LOCATION L0002625      VOLUME   477947.157 3748852.691 453.00
LOCATION L0002626      VOLUME   477947.089 3748844.191 453.00
LOCATION L0002627      VOLUME   477947.020 3748835.692 453.00
LOCATION L0002628      VOLUME   477946.952 3748827.192 453.00
LOCATION L0002629      VOLUME   477946.884 3748818.692 453.00
LOCATION L0002630      VOLUME   477946.815 3748810.192 453.00
LOCATION L0002631      VOLUME   477946.747 3748801.693 453.00
LOCATION L0002632      VOLUME   477946.678 3748793.193 453.00
LOCATION L0002633      VOLUME   477946.610 3748784.693 453.00
LOCATION L0002634      VOLUME   477946.542 3748776.194 453.00
LOCATION L0002635      VOLUME   477946.473 3748767.694 453.00
LOCATION L0002636      VOLUME   477946.405 3748759.194 453.00
LOCATION L0002637      VOLUME   477946.337 3748750.694 453.00
LOCATION L0002638      VOLUME   477946.268 3748742.195 453.00
LOCATION L0002639      VOLUME   477946.200 3748733.695 453.00
LOCATION L0002640      VOLUME   477946.132 3748725.195 453.00
LOCATION L0002641      VOLUME   477946.063 3748716.695 453.00
LOCATION L0002642      VOLUME   477945.995 3748708.196 453.00
LOCATION L0002643      VOLUME   477945.926 3748699.696 453.00
LOCATION L0002644      VOLUME   477945.858 3748691.196 452.82
LOCATION L0002645      VOLUME   477945.790 3748682.697 452.54
LOCATION L0002646      VOLUME   477945.721 3748674.197 452.25
LOCATION L0002647      VOLUME   477945.653 3748665.697 452.00
LOCATION L0002648      VOLUME   477945.585 3748657.197 452.00
LOCATION L0002649      VOLUME   477945.516 3748648.698 452.00
LOCATION L0002650      VOLUME   477945.448 3748640.198 452.00
LOCATION L0002651      VOLUME   477945.380 3748631.698 452.00
LOCATION L0002652      VOLUME   477945.311 3748623.198 452.00
LOCATION L0002653      VOLUME   477945.243 3748614.699 452.00
LOCATION L0002654      VOLUME   477945.174 3748606.199 452.00
LOCATION L0002655      VOLUME   477945.106 3748597.699 452.00
LOCATION L0002656      VOLUME   477945.038 3748589.200 452.00
LOCATION L0002657      VOLUME   477944.969 3748580.700 452.00
LOCATION L0002658      VOLUME   477944.901 3748572.200 452.00
LOCATION L0002659      VOLUME   477944.833 3748563.700 452.00
LOCATION L0002660      VOLUME   477944.764 3748555.201 452.00
LOCATION L0002661      VOLUME   477944.696 3748546.701 452.00
LOCATION L0002662      VOLUME   477944.628 3748538.201 452.00
LOCATION L0002663      VOLUME   477944.559 3748529.702 452.00
LOCATION L0002664      VOLUME   477944.491 3748521.202 452.00
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AERMOD HRA Output

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LOCATION L0002665     VOLUME   477944.422 3748512.702 451.87
LOCATION L0002666     VOLUME   477944.354 3748504.202 451.59
LOCATION L0002667     VOLUME   477944.286 3748495.703 451.30
LOCATION L0002668     VOLUME   477944.727 3748487.329 451.03
LOCATION L0002669     VOLUME   477948.744 3748479.837 451.00
LOCATION L0002670     VOLUME   477952.760 3748472.346 451.00
LOCATION L0002671     VOLUME   477956.776 3748464.855 451.00
LOCATION L0002672     VOLUME   477960.792 3748457.364 451.00
LOCATION L0002673     VOLUME   477964.809 3748449.872 451.00
LOCATION L0002674     VOLUME   477968.825 3748442.381 451.00
LOCATION L0002675     VOLUME   477972.841 3748434.890 451.00
LOCATION L0002676     VOLUME   477976.857 3748427.398 451.00
LOCATION L0002677     VOLUME   477980.874 3748419.907 451.00
LOCATION L0002678     VOLUME   477984.890 3748412.416 451.00
LOCATION L0002679     VOLUME   477988.906 3748404.924 451.00
LOCATION L0002680     VOLUME   477992.922 3748397.433 451.00
LOCATION L0002681     VOLUME   477996.939 3748389.942 451.00
LOCATION L0002682     VOLUME   478000.955 3748382.450 451.00
LOCATION L0002683     VOLUME   478004.971 3748374.959 451.00
LOCATION L0002684     VOLUME   478008.987 3748367.468 451.00
LOCATION L0002685     VOLUME   478013.004 3748359.977 451.00
LOCATION L0002686     VOLUME   478017.122 3748352.545 451.00
LOCATION L0002687     VOLUME   478021.739 3748345.409 451.00
LOCATION L0002688     VOLUME   478026.357 3748338.273 451.00
LOCATION L0002689     VOLUME   478033.820 3748336.434 451.00
LOCATION L0002690     VOLUME   478042.319 3748336.526 451.00
LOCATION L0002691     VOLUME   478050.819 3748336.619 451.00
LOCATION L0002692     VOLUME   478059.318 3748336.711 451.00
LOCATION L0002693     VOLUME   478067.818 3748336.803 451.00
LOCATION L0002694     VOLUME   478076.317 3748336.896 451.00
LOCATION L0002695     VOLUME   478084.817 3748336.988 451.00
LOCATION L0002696     VOLUME   478093.316 3748337.081 451.00
LOCATION L0002697     VOLUME   478101.816 3748337.173 451.00
LOCATION L0002698     VOLUME   478110.315 3748337.265 451.00
LOCATION L0002699     VOLUME   478118.815 3748337.358 451.00
LOCATION L0002700     VOLUME   478127.314 3748337.450 451.00
LOCATION L0002701     VOLUME   478135.814 3748337.543 451.00
LOCATION L0002702     VOLUME   478144.313 3748337.635 451.00
LOCATION L0002703     VOLUME   478152.813 3748337.727 451.00
LOCATION L0002704     VOLUME   478161.312 3748337.820 451.00
LOCATION L0002705     VOLUME   478169.812 3748337.912 451.00
LOCATION L0002706     VOLUME   478178.311 3748338.005 451.00
LOCATION L0002707     VOLUME   478186.811 3748338.097 451.00
LOCATION L0002708     VOLUME   478195.310 3748338.189 451.00
LOCATION L0002709     VOLUME   478203.810 3748338.282 451.00
LOCATION L0002710     VOLUME   478212.309 3748338.374 451.00
LOCATION L0002711     VOLUME   478215.836 3748343.420 451.00
LOCATION L0002712     VOLUME   478215.897 3748351.920 451.00
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LOCATION L0002713     VOLUME   478215.957 3748360.420 451.00
LOCATION L0002714     VOLUME   478216.018 3748368.919 451.00
LOCATION L0002715     VOLUME   478216.078 3748377.419 451.00
LOCATION L0002716     VOLUME   478216.139 3748385.919 451.00
LOCATION L0002717     VOLUME   478216.199 3748394.419 451.00
LOCATION L0002718     VOLUME   478216.260 3748402.919 451.00
LOCATION L0002719     VOLUME   478216.320 3748411.418 451.00
LOCATION L0002720     VOLUME   478216.381 3748419.918 451.00
LOCATION L0002721     VOLUME   478216.441 3748428.418 451.00
LOCATION L0002722     VOLUME   478216.502 3748436.918 451.00
LOCATION L0002723     VOLUME   478216.562 3748445.417 451.00
LOCATION L0002724     VOLUME   478216.623 3748453.917 451.00
LOCATION L0002725     VOLUME   478216.683 3748462.417 451.04
LOCATION L0002726     VOLUME   478216.744 3748470.917 451.11
LOCATION L0002727     VOLUME   478216.804 3748479.417 451.18
LOCATION L0002728     VOLUME   478216.865 3748487.916 451.27
LOCATION L0002729     VOLUME   478216.925 3748496.416 451.49
LOCATION L0002730     VOLUME   478216.986 3748504.916 451.70
LOCATION L0002731     VOLUME   478217.046 3748513.416 451.92
LOCATION L0002732     VOLUME   478217.107 3748521.916 452.00
LOCATION L0002733     VOLUME   478217.167 3748530.415 452.00
LOCATION L0002734     VOLUME   478217.228 3748538.915 452.00
LOCATION L0002735     VOLUME   478217.288 3748547.415 452.00
LOCATION L0002736     VOLUME   478217.349 3748555.915 452.00
LOCATION L0002737     VOLUME   478217.409 3748564.414 452.00
LOCATION L0002738     VOLUME   478217.470 3748572.914 452.00
LOCATION L0002739     VOLUME   478217.530 3748581.414 452.00
LOCATION L0002740     VOLUME   478217.591 3748589.914 452.00
LOCATION L0002741     VOLUME   478217.651 3748598.414 452.00
LOCATION L0002742     VOLUME   478217.712 3748606.913 452.00
LOCATION L0002743     VOLUME   478217.772 3748615.413 452.00
LOCATION L0002744     VOLUME   478217.833 3748623.913 452.00
LOCATION L0002745     VOLUME   478217.893 3748632.413 452.00
LOCATION L0002746     VOLUME   478217.954 3748640.913 452.00
LOCATION L0002747     VOLUME   478218.014 3748649.412 452.00
LOCATION L0002748     VOLUME   478218.075 3748657.912 452.00
LOCATION L0002749     VOLUME   478218.135 3748666.412 452.00
LOCATION L0002750     VOLUME   478218.196 3748674.912 452.00
LOCATION L0002751     VOLUME   478218.256 3748683.411 452.00
LOCATION L0002752     VOLUME   478218.317 3748691.911 452.00
LOCATION L0002753     VOLUME   478218.377 3748700.411 452.00
LOCATION L0002754     VOLUME   478218.438 3748708.911 452.00
LOCATION L0002755     VOLUME   478218.498 3748717.411 452.00
LOCATION L0002756     VOLUME   478218.559 3748725.910 452.00
LOCATION L0002757     VOLUME   478218.619 3748734.410 452.00
LOCATION L0002758     VOLUME   478218.680 3748742.910 452.00
LOCATION L0002759     VOLUME   478218.740 3748751.410 452.00
LOCATION L0002760     VOLUME   478218.801 3748759.910 452.00
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   LOCATION L0002761     VOLUME   478218.861 3748768.409 452.00
   LOCATION L0002762     VOLUME   478218.922 3748776.909 452.00
   LOCATION L0002763     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0002764     VOLUME   478219.043 3748793.909 452.25
   LOCATION L0002765     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0002766     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0002767     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0002768     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0002769     VOLUME   478219.345 3748836.408 453.00
   LOCATION L0002770     VOLUME   478219.406 3748844.907 453.00
   LOCATION L0002771     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0002772     VOLUME   478219.527 3748861.907 453.00
   LOCATION L0002773     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0002774     VOLUME   478219.648 3748878.907 453.00
   LOCATION L0002775     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0002776     VOLUME   478219.769 3748895.906 453.00
   LOCATION L0002777     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0002778     VOLUME   478219.890 3748912.906 453.00
   LOCATION L0002779     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0002780     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0002781     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0002782     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0002783     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0002784     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0002785     VOLUME   478202.674 3748969.844 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001263
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0002786     VOLUME   477852.776 3748835.217 453.00
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LOCATION L0002787     VOLUME   477852.821 3748843.717 453.00
LOCATION L0002788     VOLUME   477852.867 3748852.216 453.00
LOCATION L0002789     VOLUME   477852.913 3748860.716 453.00
LOCATION L0002790     VOLUME   477852.959 3748869.216 453.00
LOCATION L0002791     VOLUME   477853.005 3748877.716 453.00
LOCATION L0002792     VOLUME   477853.050 3748886.216 453.00
LOCATION L0002793     VOLUME   477853.096 3748894.716 453.00
LOCATION L0002794     VOLUME   477853.142 3748903.216 453.00
LOCATION L0002795     VOLUME   477853.188 3748911.716 453.00
LOCATION L0002796     VOLUME   477853.233 3748920.215 453.00
LOCATION L0002797     VOLUME   477853.279 3748928.715 453.00
LOCATION L0002798     VOLUME   477853.325 3748937.215 453.00
LOCATION L0002799     VOLUME   477853.371 3748945.715 453.00
LOCATION L0002800     VOLUME   477853.417 3748954.215 453.00
LOCATION L0002801     VOLUME   477853.462 3748962.715 453.00
LOCATION L0002802     VOLUME   477853.508 3748971.215 453.16
LOCATION L0002803     VOLUME   477853.527 3748979.688 453.44
LOCATION L0002804     VOLUME   477845.027 3748979.667 453.53
LOCATION L0002805     VOLUME   477836.527 3748979.647 453.69
LOCATION L0002806     VOLUME   477828.027 3748979.626 453.85
LOCATION L0002807     VOLUME   477819.527 3748979.606 454.00
LOCATION L0002808     VOLUME   477811.027 3748979.585 454.00
LOCATION L0002809     VOLUME   477802.527 3748979.565 454.00
LOCATION L0002810     VOLUME   477794.027 3748979.544 454.00
LOCATION L0002811     VOLUME   477785.527 3748979.524 454.00
LOCATION L0002812     VOLUME   477777.027 3748979.503 454.00
LOCATION L0002813     VOLUME   477768.527 3748979.483 454.00
LOCATION L0002814     VOLUME   477760.027 3748979.462 454.00
LOCATION L0002815     VOLUME   477751.527 3748979.442 454.00
LOCATION L0002816     VOLUME   477743.027 3748979.421 454.00
LOCATION L0002817     VOLUME   477742.701 3748971.201 454.00
LOCATION L0002818     VOLUME   477742.653 3748962.701 454.00
LOCATION L0002819     VOLUME   477742.605 3748954.201 454.00
LOCATION L0002820     VOLUME   477742.557 3748945.701 454.00
LOCATION L0002821     VOLUME   477742.509 3748937.201 454.00
LOCATION L0002822     VOLUME   477742.461 3748928.701 453.89
LOCATION L0002823     VOLUME   477742.413 3748920.202 453.77
LOCATION L0002824     VOLUME   477742.365 3748911.702 453.65
LOCATION L0002825     VOLUME   477742.317 3748903.202 453.58
LOCATION L0002826     VOLUME   477742.269 3748894.702 453.58
LOCATION L0002827     VOLUME   477742.221 3748886.202 453.59
LOCATION L0002828     VOLUME   477744.175 3748877.974 453.52
LOCATION L0002829     VOLUME   477746.490 3748869.796 453.57
LOCATION L0002830     VOLUME   477748.806 3748861.617 453.68
LOCATION L0002831     VOLUME   477751.121 3748853.439 453.84
LOCATION L0002832     VOLUME   477753.437 3748845.260 453.96
LOCATION L0002833     VOLUME   477757.469 3748838.153 453.72
LOCATION L0002834     VOLUME   477763.797 3748832.479 453.46
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   LOCATION L0002835     VOLUME   477770.126 3748826.804 453.22
   LOCATION L0002836     VOLUME   477778.583 3748826.536 453.12
   LOCATION L0002837     VOLUME   477787.081 3748826.374 453.03
   LOCATION L0002838     VOLUME   477795.580 3748826.212 453.00
   LOCATION L0002839     VOLUME   477804.079 3748826.127 453.00
   LOCATION L0002840     VOLUME   477812.579 3748826.077 453.00
   LOCATION L0002841     VOLUME   477821.079 3748826.027 453.00
   LOCATION L0002842     VOLUME   477829.579 3748825.977 453.00
   LOCATION L0002843     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0002844     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 8.263E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0002845     VOLUME   477886.642 3748203.747 450.00
   LOCATION L0002846     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0002847     VOLUME   477886.254 3748220.743 450.12
   LOCATION L0002848     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0002849     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0002850     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0002851     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0002852     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0002853     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0002854     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0002855     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0002856     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0002857     VOLUME   477886.055 3748305.730 451.00
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   LOCATION L0002858     VOLUME   477886.154 3748314.230 451.00
   LOCATION L0002859     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0002860     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0002861     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0002862     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0002863     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0002864     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0002865     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0002866     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0002867     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0002868     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0002869     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0002870     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0002871     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0002872     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0002873     VOLUME   477968.225 3748296.673 450.00
   LOCATION L0002874     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0002875     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0002876     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0002877     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0002878     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0002879     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0002880     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0002881     VOLUME   477979.163 3748231.356 450.00
   LOCATION L0002882     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0002883     VOLUME   477982.636 3748216.976 450.00
   LOCATION L0002884     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0002885     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0002886     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0002887     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0002888     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0002889     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0002890     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0002891     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0002892     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0002893     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001439
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
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   LOCATION L0002894     VOLUME   477505.071 3748975.728 454.15
   LOCATION L0002895     VOLUME   477513.569 3748975.562 454.06
   LOCATION L0002896     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0002897     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0002898     VOLUME   477539.064 3748975.067 454.00
   LOCATION L0002899     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0002900     VOLUME   477556.061 3748974.736 454.00
   LOCATION L0002901     VOLUME   477564.559 3748974.571 454.00
   LOCATION L0002902     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0002903     VOLUME   477581.556 3748974.240 454.00
   LOCATION L0002904     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0002905     VOLUME   477598.508 3748973.774 454.00
   LOCATION L0002906     VOLUME   477605.435 3748968.848 454.00
   LOCATION L0002907     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0002908     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0002909     VOLUME   477615.729 3748946.683 454.00
   LOCATION L0002910     VOLUME   477618.035 3748938.501 454.00
   LOCATION L0002911     VOLUME   477619.970 3748930.230 454.00
   LOCATION L0002912     VOLUME   477621.685 3748921.905 454.00
   LOCATION L0002913     VOLUME   477623.401 3748913.580 454.00
   LOCATION L0002914     VOLUME   477625.117 3748905.255 454.00
   LOCATION L0002915     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0002916     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0002917     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0002918     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0002919     VOLUME   477626.684 3748862.869 454.00
   LOCATION L0002920     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0002921     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0002922     VOLUME   477627.014 3748837.371 454.00
   LOCATION L0002923     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0002924     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0002925     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0002926     VOLUME   477627.455 3748803.374 454.00
   LOCATION L0002927     VOLUME   477626.976 3748795.472 454.00
   LOCATION L0002928     VOLUME   477618.479 3748795.702 454.00
   LOCATION L0002929     VOLUME   477609.982 3748795.933 454.00
   LOCATION L0002930     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0002931     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0002932     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0002933     VOLUME   477575.994 3748796.855 454.00
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   LOCATION L0002934     VOLUME   477567.498 3748797.085 454.00
   LOCATION L0002935     VOLUME   477559.001 3748797.316 454.00
   LOCATION L0002936     VOLUME   477550.504 3748797.546 454.00
   LOCATION L0002937     VOLUME   477542.007 3748797.777 454.00
   LOCATION L0002938     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0002939     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0002940     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0002941     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0002942     VOLUME   477499.523 3748798.930 454.00
   LOCATION L0002943     VOLUME   477491.026 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 50% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007911
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0001867     VOLUME   478255.534 3748984.574 453.00
   LOCATION L0001868     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0001869     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0001870     VOLUME   478230.035 3748984.818 453.00
   LOCATION L0001871     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0001872     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0001873     VOLUME   478204.537 3748985.062 453.00
   LOCATION L0001874     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0001875     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0001876     VOLUME   478179.038 3748985.306 453.00
   LOCATION L0001877     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0001878     VOLUME   478162.039 3748985.469 453.00
   LOCATION L0001879     VOLUME   478153.539 3748985.550 453.00
   LOCATION L0001880     VOLUME   478145.039 3748985.632 453.00
   LOCATION L0001881     VOLUME   478136.540 3748985.713 453.00
   LOCATION L0001882     VOLUME   478128.040 3748985.794 453.00
   LOCATION L0001883     VOLUME   478119.540 3748985.876 453.00
   LOCATION L0001884     VOLUME   478111.041 3748985.957 453.00
   LOCATION L0001885     VOLUME   478102.541 3748986.038 453.00
   LOCATION L0001886     VOLUME   478094.042 3748986.120 453.00
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LOCATION L0001887     VOLUME   478085.542 3748986.201 453.00
LOCATION L0001888     VOLUME   478077.042 3748986.282 453.00
LOCATION L0001889     VOLUME   478068.543 3748986.364 453.00
LOCATION L0001890     VOLUME   478060.043 3748986.445 453.00
LOCATION L0001891     VOLUME   478051.544 3748986.526 453.00
LOCATION L0001892     VOLUME   478043.044 3748986.608 453.00
LOCATION L0001893     VOLUME   478034.544 3748986.689 453.00
LOCATION L0001894     VOLUME   478026.045 3748986.770 453.00
LOCATION L0001895     VOLUME   478017.545 3748986.852 453.00
LOCATION L0001896     VOLUME   478009.046 3748986.933 453.00
LOCATION L0001897     VOLUME   478000.546 3748987.014 453.00
LOCATION L0001898     VOLUME   477992.046 3748987.096 453.00
LOCATION L0001899     VOLUME   477983.547 3748987.177 453.00
LOCATION L0001900     VOLUME   477975.047 3748987.258 453.00
LOCATION L0001901     VOLUME   477966.547 3748987.340 453.00
LOCATION L0001902     VOLUME   477958.048 3748987.421 453.00
LOCATION L0001903     VOLUME   477949.548 3748987.502 453.00
LOCATION L0001904     VOLUME   477941.049 3748987.584 453.00
LOCATION L0001905     VOLUME   477932.549 3748987.665 453.17
LOCATION L0001906     VOLUME   477924.049 3748987.746 453.37
LOCATION L0001907     VOLUME   477915.550 3748987.828 453.57
LOCATION L0001908     VOLUME   477907.050 3748987.909 453.71
LOCATION L0001909     VOLUME   477898.551 3748987.990 453.71
LOCATION L0001910     VOLUME   477890.051 3748988.072 453.72
LOCATION L0001911     VOLUME   477881.917 3748988.515 453.73
LOCATION L0001912     VOLUME   477881.917 3748997.015 454.00
LOCATION L0001913     VOLUME   477881.917 3749005.515 454.00
LOCATION L0001914     VOLUME   477881.917 3749014.015 454.00
LOCATION L0001915     VOLUME   477881.917 3749022.515 454.00
LOCATION L0001916     VOLUME   477881.917 3749031.015 454.00
LOCATION L0001917     VOLUME   477881.917 3749039.515 454.00
LOCATION L0001918     VOLUME   477881.917 3749048.015 454.00
LOCATION L0001919     VOLUME   477881.917 3749056.515 454.00
LOCATION L0001920     VOLUME   477881.917 3749065.015 454.00
LOCATION L0001921     VOLUME   477881.917 3749073.515 454.00
LOCATION L0001922     VOLUME   477881.917 3749082.015 454.00
LOCATION L0001923     VOLUME   477881.917 3749090.515 454.00
LOCATION L0001924     VOLUME   477881.917 3749099.015 454.00
LOCATION L0001925     VOLUME   477881.917 3749107.515 454.00
LOCATION L0001926     VOLUME   477881.917 3749116.015 454.00
LOCATION L0001927     VOLUME   477881.917 3749124.515 454.00
LOCATION L0001928     VOLUME   477881.917 3749133.015 454.00
LOCATION L0001929     VOLUME   477881.917 3749141.515 454.00
LOCATION L0001930     VOLUME   477881.917 3749150.015 454.00
LOCATION L0001931     VOLUME   477881.917 3749158.515 454.00
LOCATION L0001932     VOLUME   477881.917 3749167.015 454.00
LOCATION L0001933     VOLUME   477881.917 3749175.515 454.00
LOCATION L0001934     VOLUME   477881.917 3749184.015 454.00
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LOCATION L0001935     VOLUME   477881.917 3749192.515 454.00
LOCATION L0001936     VOLUME   477881.917 3749201.015 454.00
LOCATION L0001937     VOLUME   477881.917 3749209.515 454.10
LOCATION L0001938     VOLUME   477881.917 3749218.015 454.38
LOCATION L0001939     VOLUME   477881.917 3749226.515 454.67
LOCATION L0001940     VOLUME   477881.917 3749235.015 454.95
LOCATION L0001941     VOLUME   477877.860 3749239.512 455.00
LOCATION L0001942     VOLUME   477869.361 3749239.626 455.00
LOCATION L0001943     VOLUME   477860.862 3749239.740 455.00
LOCATION L0001944     VOLUME   477852.363 3749239.854 455.00
LOCATION L0001945     VOLUME   477843.863 3749239.968 455.00
LOCATION L0001946     VOLUME   477835.364 3749240.082 455.00
LOCATION L0001947     VOLUME   477826.865 3749240.195 455.00
LOCATION L0001948     VOLUME   477818.366 3749240.309 455.00
LOCATION L0001949     VOLUME   477809.866 3749240.423 455.00
LOCATION L0001950     VOLUME   477801.367 3749240.537 455.00
LOCATION L0001951     VOLUME   477792.868 3749240.651 455.00
LOCATION L0001952     VOLUME   477784.369 3749240.765 455.00
LOCATION L0001953     VOLUME   477775.869 3749240.878 455.00
LOCATION L0001954     VOLUME   477767.370 3749240.992 455.00
LOCATION L0001955     VOLUME   477758.871 3749241.106 455.00
LOCATION L0001956     VOLUME   477750.372 3749241.220 455.00
LOCATION L0001957     VOLUME   477741.873 3749241.334 455.00
LOCATION L0001958     VOLUME   477733.373 3749241.448 455.00
LOCATION L0001959     VOLUME   477724.874 3749241.561 455.00
LOCATION L0001960     VOLUME   477716.375 3749241.675 455.00
LOCATION L0001961     VOLUME   477707.876 3749241.789 455.00
LOCATION L0001962     VOLUME   477699.376 3749241.903 455.00
LOCATION L0001963     VOLUME   477690.877 3749242.017 455.00
LOCATION L0001964     VOLUME   477682.378 3749242.131 455.00
LOCATION L0001965     VOLUME   477673.879 3749242.244 455.00
LOCATION L0001966     VOLUME   477665.379 3749242.358 455.00
LOCATION L0001967     VOLUME   477656.880 3749242.472 455.00
LOCATION L0001968     VOLUME   477648.381 3749242.586 455.00
LOCATION L0001969     VOLUME   477639.882 3749242.700 455.00
LOCATION L0001970     VOLUME   477631.382 3749242.813 455.00
LOCATION L0001971     VOLUME   477622.883 3749242.927 455.00
LOCATION L0001972     VOLUME   477614.384 3749243.041 455.00
LOCATION L0001973     VOLUME   477605.885 3749243.155 455.00
LOCATION L0001974     VOLUME   477597.385 3749243.269 455.00
LOCATION L0001975     VOLUME   477588.886 3749243.383 455.00
LOCATION L0001976     VOLUME   477580.387 3749243.496 455.00
LOCATION L0001977     VOLUME   477571.888 3749243.610 455.00
LOCATION L0001978     VOLUME   477563.389 3749243.724 455.00
LOCATION L0001979     VOLUME   477554.889 3749243.838 455.00
LOCATION L0001980     VOLUME   477546.390 3749243.952 455.00
LOCATION L0001981     VOLUME   477537.891 3749244.066 455.00
LOCATION L0001982     VOLUME   477529.392 3749244.179 455.00
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AERMOD HRA Output

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LOCATION L0001983     VOLUME   477520.892 3749244.293 455.00
LOCATION L0001984     VOLUME   477512.393 3749244.407 455.00
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LOCATION L0001986     VOLUME   477495.395 3749244.635 455.00
LOCATION L0001987     VOLUME   477486.895 3749244.749 455.00
LOCATION L0001988     VOLUME   477478.396 3749244.862 455.00
LOCATION L0001989     VOLUME   477476.837 3749251.916 455.00
LOCATION L0001990     VOLUME   477476.725 3749260.415 455.00
LOCATION L0001991     VOLUME   477476.612 3749268.914 455.00
LOCATION L0001992     VOLUME   477476.500 3749277.414 455.00
LOCATION L0001993     VOLUME   477476.387 3749285.913 455.00
LOCATION L0001994     VOLUME   477476.275 3749294.412 455.00
LOCATION L0001995     VOLUME   477476.162 3749302.911 455.10
LOCATION L0001996     VOLUME   477476.049 3749311.411 455.23
LOCATION L0001997     VOLUME   477475.937 3749319.910 455.36
LOCATION L0001998     VOLUME   477475.824 3749328.409 455.50
LOCATION L0001999     VOLUME   477475.712 3749336.908 455.65
LOCATION L0002000     VOLUME   477475.599 3749345.408 455.80
LOCATION L0002001     VOLUME   477475.487 3749353.907 455.95
LOCATION L0002002     VOLUME   477475.374 3749362.406 456.00
LOCATION L0002003     VOLUME   477475.261 3749370.905 456.00
LOCATION L0002004     VOLUME   477475.149 3749379.405 456.00
LOCATION L0002005     VOLUME   477475.036 3749387.904 456.00
LOCATION L0002006     VOLUME   477474.924 3749396.403 456.00
LOCATION L0002007     VOLUME   477474.811 3749404.902 456.00
LOCATION L0002008     VOLUME   477474.699 3749413.402 456.00
LOCATION L0002009     VOLUME   477474.586 3749421.901 456.00
LOCATION L0002010     VOLUME   477474.473 3749430.400 456.00
LOCATION L0002011     VOLUME   477474.361 3749438.899 456.00
LOCATION L0002012     VOLUME   477474.248 3749447.399 456.00
LOCATION L0002013     VOLUME   477474.136 3749455.898 456.00
LOCATION L0002014     VOLUME   477474.023 3749464.397 456.00
LOCATION L0002015     VOLUME   477473.911 3749472.896 456.00
LOCATION L0002016     VOLUME   477473.798 3749481.396 456.16
LOCATION L0002017     VOLUME   477473.685 3749489.895 456.44
LOCATION L0002018     VOLUME   477473.573 3749498.394 456.73
LOCATION L0002019     VOLUME   477473.460 3749506.893 457.00
LOCATION L0002020     VOLUME   477473.348 3749515.393 457.00
LOCATION L0002021     VOLUME   477473.235 3749523.892 457.00
LOCATION L0002022     VOLUME   477473.123 3749532.391 457.00
LOCATION L0002023     VOLUME   477473.010 3749540.890 457.00
LOCATION L0002024     VOLUME   477472.897 3749549.390 457.00
LOCATION L0002025     VOLUME   477472.785 3749557.889 457.00
LOCATION L0002026     VOLUME   477472.672 3749566.388 457.00
LOCATION L0002027     VOLUME   477472.560 3749574.887 457.00
LOCATION L0002028     VOLUME   477472.447 3749583.387 457.00
LOCATION L0002029     VOLUME   477472.335 3749591.886 457.00
LOCATION L0002030     VOLUME   477472.222 3749600.385 457.00
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   LOCATION L0002031     VOLUME   477472.109 3749608.884 457.00
   LOCATION L0002032     VOLUME   477471.997 3749617.384 457.00
   LOCATION L0002033     VOLUME   477471.884 3749625.883 457.00
   LOCATION L0002034     VOLUME   477471.772 3749634.382 457.00
   LOCATION L0002035     VOLUME   477471.659 3749642.881 457.00
   LOCATION L0002036     VOLUME   477471.547 3749651.381 457.00
   LOCATION L0002037     VOLUME   477471.434 3749659.880 457.00
   LOCATION L0002038     VOLUME   477471.321 3749668.379 457.00
   LOCATION L0002039     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0002040     VOLUME   477471.096 3749685.378 457.00
   LOCATION L0002041     VOLUME   477470.984 3749693.877 457.00
   LOCATION L0002042     VOLUME   477470.871 3749702.376 457.00
   LOCATION L0002043     VOLUME   477470.759 3749710.876 457.00
   LOCATION L0002044     VOLUME   477470.646 3749719.375 457.00
   LOCATION L0002045     VOLUME   477470.533 3749727.874 457.00
   LOCATION L0002046     VOLUME   477470.421 3749736.373 457.00
   LOCATION L0002047     VOLUME   477470.308 3749744.873 457.00
   LOCATION L0002048     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0002049     VOLUME   477470.083 3749761.871 457.51
   LOCATION L0002050     VOLUME   477469.971 3749770.370 457.79
   LOCATION L0002051     VOLUME   477469.858 3749778.870 458.00
   LOCATION L0002052     VOLUME   477469.745 3749787.369 458.00
** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002524
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0004595     VOLUME   477893.354 3748181.604 450.00
   LOCATION L0004596     VOLUME   477884.855 3748181.671 450.00
   LOCATION L0004597     VOLUME   477876.355 3748181.739 450.00
   LOCATION L0004598     VOLUME   477867.855 3748181.806 450.00
   LOCATION L0004599     VOLUME   477859.355 3748181.874 450.00
   LOCATION L0004600     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0004601     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0004602     VOLUME   477833.856 3748182.077 450.46
   LOCATION L0004603     VOLUME   477825.356 3748182.144 450.71
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LOCATION L0004604     VOLUME   477816.857 3748182.212 450.88
LOCATION L0004605     VOLUME   477808.357 3748182.279 450.92
LOCATION L0004606     VOLUME   477799.857 3748182.347 450.96
LOCATION L0004607     VOLUME   477791.358 3748182.414 450.99
LOCATION L0004608     VOLUME   477782.858 3748182.482 451.00
LOCATION L0004609     VOLUME   477774.358 3748182.550 451.00
LOCATION L0004610     VOLUME   477765.858 3748182.617 451.00
LOCATION L0004611     VOLUME   477757.359 3748182.685 451.00
LOCATION L0004612     VOLUME   477748.859 3748182.752 451.00
LOCATION L0004613     VOLUME   477740.359 3748182.820 451.00
LOCATION L0004614     VOLUME   477731.859 3748182.887 451.00
LOCATION L0004615     VOLUME   477723.360 3748182.955 451.00
LOCATION L0004616     VOLUME   477714.860 3748183.023 451.00
LOCATION L0004617     VOLUME   477706.360 3748183.090 451.00
LOCATION L0004618     VOLUME   477697.860 3748183.158 451.00
LOCATION L0004619     VOLUME   477689.361 3748183.225 451.00
LOCATION L0004620     VOLUME   477680.861 3748183.293 451.00
LOCATION L0004621     VOLUME   477672.361 3748183.360 451.00
LOCATION L0004622     VOLUME   477663.862 3748183.428 451.00
LOCATION L0004623     VOLUME   477655.362 3748183.495 451.00
LOCATION L0004624     VOLUME   477646.862 3748183.563 451.00
LOCATION L0004625     VOLUME   477638.362 3748183.631 451.00
LOCATION L0004626     VOLUME   477629.863 3748183.698 451.00
LOCATION L0004627     VOLUME   477621.363 3748183.766 451.00
LOCATION L0004628     VOLUME   477612.863 3748183.833 451.00
LOCATION L0004629     VOLUME   477604.363 3748183.901 451.00
LOCATION L0004630     VOLUME   477595.864 3748183.968 451.00
LOCATION L0004631     VOLUME   477587.364 3748184.036 451.00
LOCATION L0004632     VOLUME   477578.864 3748184.104 451.00
LOCATION L0004633     VOLUME   477570.364 3748184.171 451.00
LOCATION L0004634     VOLUME   477561.865 3748184.239 451.00
LOCATION L0004635     VOLUME   477553.365 3748184.306 451.00
LOCATION L0004636     VOLUME   477544.865 3748184.374 451.00
LOCATION L0004637     VOLUME   477536.366 3748184.441 451.00
LOCATION L0004638     VOLUME   477527.866 3748184.509 451.00
LOCATION L0004639     VOLUME   477519.366 3748184.577 451.00
LOCATION L0004640     VOLUME   477510.866 3748184.644 451.00
LOCATION L0004641     VOLUME   477502.367 3748184.712 451.00
LOCATION L0004642     VOLUME   477493.867 3748184.779 451.00
LOCATION L0004643     VOLUME   477485.367 3748184.847 451.00
LOCATION L0004644     VOLUME   477476.867 3748184.914 451.00
LOCATION L0004645     VOLUME   477471.122 3748182.143 451.00
LOCATION L0004646     VOLUME   477470.934 3748173.645 451.00
LOCATION L0004647     VOLUME   477470.745 3748165.147 451.00
LOCATION L0004648     VOLUME   477470.557 3748156.649 451.00
LOCATION L0004649     VOLUME   477470.368 3748148.151 451.00
LOCATION L0004650     VOLUME   477470.180 3748139.653 451.00
LOCATION L0004651     VOLUME   477469.991 3748131.156 451.00
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   LOCATION L0004652     VOLUME   477469.803 3748122.658 451.00
   LOCATION L0004653     VOLUME   477469.614 3748114.160 451.00
   LOCATION L0004654     VOLUME   477469.426 3748105.662 451.00
   LOCATION L0004655     VOLUME   477469.237 3748097.164 451.00
   LOCATION L0004656     VOLUME   477469.049 3748088.666 451.00
   LOCATION L0004657     VOLUME   477468.860 3748080.168 451.00
   LOCATION L0004658     VOLUME   477468.672 3748071.670 451.00
   LOCATION L0004659     VOLUME   477468.483 3748063.172 451.00
   LOCATION L0004660     VOLUME   477468.295 3748054.674 451.00
   LOCATION L0004661     VOLUME   477468.106 3748046.176 451.00
   LOCATION L0004662     VOLUME   477467.917 3748037.679 451.00
   LOCATION L0004663     VOLUME   477467.729 3748029.181 451.00
   LOCATION L0004664     VOLUME   477467.540 3748020.683 451.00
   LOCATION L0004665     VOLUME   477467.352 3748012.185 451.00
   LOCATION L0004666     VOLUME   477467.163 3748003.687 451.00
   LOCATION L0004667     VOLUME   477466.975 3747995.189 451.00
   LOCATION L0004668     VOLUME   477466.786 3747986.691 451.00
   LOCATION L0004669     VOLUME   477466.598 3747978.193 451.00
   LOCATION L0004670     VOLUME   477466.409 3747969.695 451.00
   LOCATION L0004671     VOLUME   477466.221 3747961.197 451.00
   LOCATION L0004672     VOLUME   477466.032 3747952.699 451.00
   LOCATION L0004673     VOLUME   477465.844 3747944.202 451.00
   LOCATION L0004674     VOLUME   477465.655 3747935.704 451.00
   LOCATION L0004675     VOLUME   477465.467 3747927.206 451.00
   LOCATION L0004676     VOLUME   477465.278 3747918.708 451.00
   LOCATION L0004677     VOLUME   477465.090 3747910.210 451.00
   LOCATION L0004678     VOLUME   477464.901 3747901.712 451.00
   LOCATION L0004679     VOLUME   477464.713 3747893.214 451.00
   LOCATION L0004680     VOLUME   477464.524 3747884.716 451.00
   LOCATION L0004681     VOLUME   477464.336 3747876.218 451.00
   LOCATION L0004682     VOLUME   477464.147 3747867.720 451.00
   LOCATION L0004683     VOLUME   477463.959 3747859.222 451.00
   LOCATION L0004684     VOLUME   477463.770 3747850.725 451.00
   LOCATION L0004685     VOLUME   477463.582 3747842.227 451.00
   LOCATION L0004686     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0004687     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0004688     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0004689     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0004690     VOLUME   477462.639 3747799.737 451.00
   LOCATION L0004691     VOLUME   477462.450 3747791.239 451.00
   LOCATION L0004692     VOLUME   477462.262 3747782.741 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
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   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 20% South on Indian
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001682
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478279.139, 3748325.068, 454.06, 4.00, 3.95
** 478288.327, 3747768.514, 450.42, 4.00, 3.95
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   LOCATION L0002054     VOLUME   478279.349 3748312.319 450.00
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                               AERMOD HRA Output
LOCATION L0002055     VOLUME   478279.490 3748303.820 450.00
LOCATION L0002056     VOLUME   478279.630 3748295.322 450.00
LOCATION L0002057     VOLUME   478279.770 3748286.823 450.00
LOCATION L0002058     VOLUME   478279.911 3748278.324 450.00
LOCATION L0002059     VOLUME   478280.051 3748269.825 450.00
LOCATION L0002060     VOLUME   478280.191 3748261.326 450.00
LOCATION L0002061     VOLUME   478280.332 3748252.827 450.00
LOCATION L0002062     VOLUME   478280.472 3748244.329 450.00
LOCATION L0002063     VOLUME   478280.612 3748235.830 450.00
LOCATION L0002064     VOLUME   478280.752 3748227.331 450.00
LOCATION L0002065     VOLUME   478280.893 3748218.832 450.00
LOCATION L0002066     VOLUME   478281.033 3748210.333 450.00
LOCATION L0002067     VOLUME   478281.173 3748201.834 450.00
LOCATION L0002068     VOLUME   478281.314 3748193.335 450.00
LOCATION L0002069     VOLUME   478281.454 3748184.837 450.00
LOCATION L0002070     VOLUME   478281.594 3748176.338 450.00
LOCATION L0002071     VOLUME   478281.735 3748167.839 450.00
LOCATION L0002072     VOLUME   478281.875 3748159.340 450.00
LOCATION L0002073     VOLUME   478282.015 3748150.841 449.82
LOCATION L0002074     VOLUME   478282.155 3748142.342 449.54
LOCATION L0002075     VOLUME   478282.296 3748133.844 449.25
LOCATION L0002076     VOLUME   478282.436 3748125.345 449.00
LOCATION L0002077     VOLUME   478282.576 3748116.846 449.00
LOCATION L0002078     VOLUME   478282.717 3748108.347 449.00
LOCATION L0002079     VOLUME   478282.857 3748099.848 449.00
LOCATION L0002080     VOLUME   478282.997 3748091.349 449.00
LOCATION L0002081     VOLUME   478283.138 3748082.851 449.00
LOCATION L0002082     VOLUME   478283.278 3748074.352 449.00
LOCATION L0002083     VOLUME   478283.418 3748065.853 449.00
LOCATION L0002084     VOLUME   478283.558 3748057.354 449.00
LOCATION L0002085     VOLUME   478283.699 3748048.855 449.00
LOCATION L0002086     VOLUME   478283.839 3748040.356 449.00
LOCATION L0002087     VOLUME   478283.979 3748031.857 449.00
LOCATION L0002088     VOLUME   478284.120 3748023.359 449.00
LOCATION L0002089     VOLUME   478284.260 3748014.860 449.00
LOCATION L0002090     VOLUME   478284.400 3748006.361 449.00
LOCATION L0002091     VOLUME   478284.541 3747997.862 449.00
LOCATION L0002092     VOLUME   478284.681 3747989.363 449.00
LOCATION L0002093     VOLUME   478284.821 3747980.864 449.00
LOCATION L0002094     VOLUME   478284.962 3747972.366 449.00
LOCATION L0002095     VOLUME   478285.102 3747963.867 449.00
LOCATION L0002096     VOLUME   478285.242 3747955.368 449.00
LOCATION L0002097     VOLUME   478285.382 3747946.869 449.00
LOCATION L0002098     VOLUME   478285.523 3747938.370 449.00
LOCATION L0002099     VOLUME   478285.663 3747929.871 449.00
LOCATION L0002100     VOLUME   478285.803 3747921.373 449.00
LOCATION L0002101     VOLUME   478285.944 3747912.874 449.00
LOCATION L0002102     VOLUME   478286.084 3747904.375 449.00
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   LOCATION L0002103     VOLUME   478286.224 3747895.876 449.00
   LOCATION L0002104     VOLUME   478286.365 3747887.377 449.00
   LOCATION L0002105     VOLUME   478286.505 3747878.878 449.00
   LOCATION L0002106     VOLUME   478286.645 3747870.379 449.00
   LOCATION L0002107     VOLUME   478286.785 3747861.881 449.00
   LOCATION L0002108     VOLUME   478286.926 3747853.382 449.00
   LOCATION L0002109     VOLUME   478287.066 3747844.883 449.00
   LOCATION L0002110     VOLUME   478287.206 3747836.384 449.00
   LOCATION L0002111     VOLUME   478287.347 3747827.885 449.00
   LOCATION L0002112     VOLUME   478287.487 3747819.386 449.00
   LOCATION L0002113     VOLUME   478287.627 3747810.888 449.00
   LOCATION L0002114     VOLUME   478287.768 3747802.389 449.00
   LOCATION L0002115     VOLUME   478287.908 3747793.890 449.00
   LOCATION L0002116     VOLUME   478288.048 3747785.391 449.00
   LOCATION L0002117     VOLUME   478288.188 3747776.892 449.00
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 40% North on Heacock to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002354
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477480.626, 3749795.973, 459.75, 4.00, 3.95
** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0006244     VOLUME   477480.558 3749800.222 458.00
   LOCATION L0006245     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0006246     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0006247     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0006248     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0006249     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0006250     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0006251     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0006252     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0006253     VOLUME   477479.335 3749876.713 458.00
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                                AERMOD HRA Output
LOCATION L0006254      VOLUME   477479.199 3749885.212 458.00
LOCATION L0006255      VOLUME   477479.063 3749893.711 458.00
LOCATION L0006256      VOLUME   477478.927 3749902.209 458.00
LOCATION L0006257      VOLUME   477478.791 3749910.708 458.00
LOCATION L0006258      VOLUME   477478.655 3749919.207 458.00
LOCATION L0006259      VOLUME   477478.519 3749927.706 458.00
LOCATION L0006260      VOLUME   477478.383 3749936.205 458.00
LOCATION L0006261      VOLUME   477478.247 3749944.704 458.00
LOCATION L0006262      VOLUME   477478.111 3749953.203 458.00
LOCATION L0006263      VOLUME   477477.975 3749961.702 458.17
LOCATION L0006264      VOLUME   477477.840 3749970.201 458.45
LOCATION L0006265      VOLUME   477477.704 3749978.700 458.74
LOCATION L0006266      VOLUME   477477.568 3749987.199 459.00
LOCATION L0006267      VOLUME   477477.432 3749995.697 459.00
LOCATION L0006268      VOLUME   477477.296 3750004.196 459.00
LOCATION L0006269      VOLUME   477477.160 3750012.695 459.00
LOCATION L0006270      VOLUME   477477.024 3750021.194 459.00
LOCATION L0006271      VOLUME   477476.888 3750029.693 459.00
LOCATION L0006272      VOLUME   477476.752 3750038.192 459.00
LOCATION L0006273      VOLUME   477476.616 3750046.691 459.00
LOCATION L0006274      VOLUME   477476.480 3750055.190 459.00
LOCATION L0006275      VOLUME   477476.344 3750063.689 459.00
LOCATION L0006276      VOLUME   477476.208 3750072.188 459.00
LOCATION L0006277      VOLUME   477476.072 3750080.687 459.00
LOCATION L0006278      VOLUME   477475.937 3750089.186 459.00
LOCATION L0006279      VOLUME   477475.801 3750097.684 459.00
LOCATION L0006280      VOLUME   477475.665 3750106.183 459.00
LOCATION L0006281      VOLUME   477475.529 3750114.682 459.00
LOCATION L0006282      VOLUME   477475.393 3750123.181 459.00
LOCATION L0006283      VOLUME   477475.257 3750131.680 459.00
LOCATION L0006284      VOLUME   477475.121 3750140.179 459.00
LOCATION L0006285      VOLUME   477474.985 3750148.678 459.00
LOCATION L0006286      VOLUME   477474.849 3750157.177 459.00
LOCATION L0006287      VOLUME   477474.713 3750165.676 459.00
LOCATION L0006288      VOLUME   477474.171 3750174.155 459.00
LOCATION L0006289      VOLUME   477473.482 3750182.627 459.00
LOCATION L0006290      VOLUME   477472.792 3750191.099 459.00
LOCATION L0006291      VOLUME   477472.102 3750199.571 459.04
LOCATION L0006292      VOLUME   477471.413 3750208.043 459.15
LOCATION L0006293      VOLUME   477470.723 3750216.515 459.24
LOCATION L0006294      VOLUME   477470.034 3750224.987 459.32
LOCATION L0006295      VOLUME   477469.344 3750233.459 459.48
LOCATION L0006296      VOLUME   477468.654 3750241.931 459.66
LOCATION L0006297      VOLUME   477467.965 3750250.403 459.85
LOCATION L0006298      VOLUME   477467.275 3750258.875 460.00
LOCATION L0006299      VOLUME   477466.586 3750267.347 460.00
LOCATION L0006300      VOLUME   477466.456 3750275.840 460.00
LOCATION L0006301      VOLUME   477466.492 3750284.340 460.00
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AERMOD HRA Output

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LOCATION L0006302     VOLUME   477466.529 3750292.840 460.00
LOCATION L0006303     VOLUME   477466.565 3750301.340 460.00
LOCATION L0006304     VOLUME   477466.601 3750309.840 460.00
LOCATION L0006305     VOLUME   477466.638 3750318.340 460.00
LOCATION L0006306     VOLUME   477466.674 3750326.840 460.00
LOCATION L0006307     VOLUME   477466.710 3750335.340 460.00
LOCATION L0006308     VOLUME   477466.747 3750343.840 460.00
LOCATION L0006309     VOLUME   477466.783 3750352.340 460.00
LOCATION L0006310     VOLUME   477466.819 3750360.839 460.00
LOCATION L0006311     VOLUME   477466.855 3750369.339 460.00
LOCATION L0006312     VOLUME   477466.892 3750377.839 460.00
LOCATION L0006313     VOLUME   477466.928 3750386.339 460.00
LOCATION L0006314     VOLUME   477466.964 3750394.839 460.00
LOCATION L0006315     VOLUME   477467.001 3750403.339 460.00
LOCATION L0006316     VOLUME   477467.037 3750411.839 460.00
LOCATION L0006317     VOLUME   477467.073 3750420.339 460.00
LOCATION L0006318     VOLUME   477467.110 3750428.839 460.00
LOCATION L0006319     VOLUME   477467.146 3750437.339 460.00
LOCATION L0006320     VOLUME   477467.182 3750445.839 460.00
LOCATION L0006321     VOLUME   477467.219 3750454.339 460.00
LOCATION L0006322     VOLUME   477467.255 3750462.838 460.00
LOCATION L0006323     VOLUME   477467.291 3750471.338 460.16
LOCATION L0006324     VOLUME   477467.328 3750479.838 460.44
LOCATION L0006325     VOLUME   477467.364 3750488.338 460.73
LOCATION L0006326     VOLUME   477467.400 3750496.838 461.00
LOCATION L0006327     VOLUME   477467.436 3750505.338 461.00
LOCATION L0006328     VOLUME   477467.473 3750513.838 461.00
LOCATION L0006329     VOLUME   477467.509 3750522.338 461.00
LOCATION L0006330     VOLUME   477467.545 3750530.838 461.00
LOCATION L0006331     VOLUME   477467.582 3750539.338 461.00
LOCATION L0006332     VOLUME   477467.689 3750547.837 461.00
LOCATION L0006333     VOLUME   477467.939 3750556.333 461.00
LOCATION L0006334     VOLUME   477468.188 3750564.829 461.00
LOCATION L0006335     VOLUME   477468.438 3750573.326 461.00
LOCATION L0006336     VOLUME   477468.688 3750581.822 461.00
LOCATION L0006337     VOLUME   477468.938 3750590.318 461.00
LOCATION L0006338     VOLUME   477469.188 3750598.814 461.00
LOCATION L0006339     VOLUME   477469.438 3750607.311 461.00
LOCATION L0006340     VOLUME   477469.688 3750615.807 461.00
LOCATION L0006341     VOLUME   477469.938 3750624.303 461.00
LOCATION L0006342     VOLUME   477470.188 3750632.800 461.00
LOCATION L0006343     VOLUME   477470.437 3750641.296 461.00
LOCATION L0006344     VOLUME   477470.687 3750649.792 461.04
LOCATION L0006345     VOLUME   477470.937 3750658.289 461.15
LOCATION L0006346     VOLUME   477471.187 3750666.785 461.26
LOCATION L0006347     VOLUME   477471.437 3750675.281 461.37
LOCATION L0006348     VOLUME   477471.687 3750683.778 461.54
LOCATION L0006349     VOLUME   477471.937 3750692.274 461.72
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                          AERMOD HRA Output
LOCATION L0006350      VOLUME   477472.187 3750700.770 461.89
LOCATION L0006351      VOLUME   477472.437 3750709.267 462.00
LOCATION L0006352      VOLUME   477472.686 3750717.763 462.00
LOCATION L0006353      VOLUME   477472.936 3750726.259 462.00
LOCATION L0006354      VOLUME   477473.186 3750734.756 462.00
LOCATION L0006355      VOLUME   477473.436 3750743.252 462.00
LOCATION L0006356      VOLUME   477473.686 3750751.748 462.00
LOCATION L0006357      VOLUME   477473.936 3750760.245 462.00
LOCATION L0006358      VOLUME   477474.186 3750768.741 462.00
LOCATION L0006359      VOLUME   477474.436 3750777.237 462.00
LOCATION L0006360      VOLUME   477474.686 3750785.734 462.00
LOCATION L0006361      VOLUME   477474.935 3750794.230 462.00
LOCATION L0006362      VOLUME   477475.185 3750802.726 462.00
LOCATION L0006363      VOLUME   477475.435 3750811.223 462.00
LOCATION L0006364      VOLUME   477475.685 3750819.719 462.00
LOCATION L0006365      VOLUME   477475.935 3750828.215 462.00
LOCATION L0006366      VOLUME   477476.185 3750836.712 462.00
LOCATION L0006367      VOLUME   477476.435 3750845.208 462.00
LOCATION L0006368      VOLUME   477476.685 3750853.704 462.00
LOCATION L0006369      VOLUME   477476.935 3750862.201 462.11
LOCATION L0006370      VOLUME   477477.066 3750870.699 462.27
LOCATION L0006371      VOLUME   477477.120 3750879.199 462.44
LOCATION L0006372      VOLUME   477477.174 3750887.699 462.60
LOCATION L0006373      VOLUME   477477.228 3750896.199 462.72
LOCATION L0006374      VOLUME   477477.282 3750904.698 462.84
LOCATION L0006375      VOLUME   477477.337 3750913.198 462.95
LOCATION L0006376      VOLUME   477477.391 3750921.698 463.00
LOCATION L0006377      VOLUME   477477.445 3750930.198 463.00
LOCATION L0006378      VOLUME   477477.499 3750938.698 463.00
LOCATION L0006379      VOLUME   477477.553 3750947.197 463.00
LOCATION L0006380      VOLUME   477477.607 3750955.697 463.00
LOCATION L0006381      VOLUME   477477.661 3750964.197 463.00
LOCATION L0006382      VOLUME   477477.716 3750972.697 463.00
LOCATION L0006383      VOLUME   477477.770 3750981.197 463.00
LOCATION L0006384      VOLUME   477477.824 3750989.697 463.00
LOCATION L0006385      VOLUME   477477.878 3750998.196 463.00
LOCATION L0006386      VOLUME   477477.932 3751006.696 463.00
LOCATION L0006387      VOLUME   477477.986 3751015.196 463.00
LOCATION L0006388      VOLUME   477478.040 3751023.696 463.00
LOCATION L0006389      VOLUME   477478.095 3751032.196 463.00
LOCATION L0006390      VOLUME   477478.149 3751040.696 463.00
LOCATION L0006391      VOLUME   477478.203 3751049.195 463.00
LOCATION L0006392      VOLUME   477478.257 3751057.695 463.00
LOCATION L0006393      VOLUME   477478.311 3751066.195 463.00
LOCATION L0006394      VOLUME   477478.365 3751074.695 463.17
LOCATION L0006395      VOLUME   477478.419 3751083.195 463.34
LOCATION L0006396      VOLUME   477478.474 3751091.695 463.52
LOCATION L0006397      VOLUME   477478.528 3751100.194 463.67
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                              AERMOD HRA Output
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LOCATION L0006400     VOLUME   477478.690 3751125.694 463.99
LOCATION L0006401     VOLUME   477478.744 3751134.194 464.00
LOCATION L0006402     VOLUME   477478.798 3751142.694 464.00
LOCATION L0006403     VOLUME   477478.853 3751151.193 464.00
LOCATION L0006404     VOLUME   477478.907 3751159.693 464.00
LOCATION L0006405     VOLUME   477478.961 3751168.193 464.00
LOCATION L0006406     VOLUME   477479.015 3751176.693 464.00
LOCATION L0006407     VOLUME   477479.069 3751185.193 464.00
LOCATION L0006408     VOLUME   477479.123 3751193.692 464.00
LOCATION L0006409     VOLUME   477479.177 3751202.192 464.00
LOCATION L0006410     VOLUME   477479.232 3751210.692 464.00
LOCATION L0006411     VOLUME   477479.286 3751219.192 464.00
LOCATION L0006412     VOLUME   477479.340 3751227.692 464.00
LOCATION L0006413     VOLUME   477479.386 3751236.192 464.00
LOCATION L0006414     VOLUME   477479.327 3751244.691 464.00
LOCATION L0006415     VOLUME   477479.269 3751253.191 464.22
LOCATION L0006416     VOLUME   477479.211 3751261.691 464.50
LOCATION L0006417     VOLUME   477479.152 3751270.191 464.79
LOCATION L0006418     VOLUME   477479.094 3751278.691 465.00
LOCATION L0006419     VOLUME   477479.035 3751287.190 465.00
LOCATION L0006420     VOLUME   477478.977 3751295.690 465.00
LOCATION L0006421     VOLUME   477478.919 3751304.190 465.00
LOCATION L0006422     VOLUME   477478.860 3751312.690 465.00
LOCATION L0006423     VOLUME   477478.802 3751321.190 465.00
LOCATION L0006424     VOLUME   477478.743 3751329.689 465.00
LOCATION L0006425     VOLUME   477478.685 3751338.189 465.00
LOCATION L0006426     VOLUME   477478.627 3751346.689 465.00
LOCATION L0006427     VOLUME   477478.568 3751355.189 465.00
LOCATION L0006428     VOLUME   477478.510 3751363.689 465.00
LOCATION L0006429     VOLUME   477478.451 3751372.188 465.00
LOCATION L0006430     VOLUME   477478.393 3751380.688 465.00
LOCATION L0006431     VOLUME   477478.335 3751389.188 465.00
LOCATION L0006432     VOLUME   477478.276 3751397.688 465.00
LOCATION L0006433     VOLUME   477478.218 3751406.188 465.00
LOCATION L0006434     VOLUME   477478.159 3751414.687 465.00
LOCATION L0006435     VOLUME   477478.101 3751423.187 465.00
LOCATION L0006436     VOLUME   477478.043 3751431.687 465.17
LOCATION L0006437     VOLUME   477477.984 3751440.187 465.45
LOCATION L0006438     VOLUME   477477.926 3751448.687 465.74
LOCATION L0006439     VOLUME   477477.867 3751457.186 466.00
LOCATION L0006440     VOLUME   477477.809 3751465.686 466.00
LOCATION L0006441     VOLUME   477477.751 3751474.186 466.00
LOCATION L0006442     VOLUME   477477.692 3751482.686 466.00
LOCATION L0006443     VOLUME   477477.634 3751491.186 466.00
LOCATION L0006444     VOLUME   477477.576 3751499.685 466.00
LOCATION L0006445     VOLUME   477477.517 3751508.185 466.00
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LOCATION L0006446     VOLUME   477477.459 3751516.685 466.00
LOCATION L0006447     VOLUME   477477.400 3751525.185 466.00
LOCATION L0006448     VOLUME   477477.342 3751533.685 466.00
LOCATION L0006449     VOLUME   477477.284 3751542.184 466.00
LOCATION L0006450     VOLUME   477477.225 3751550.684 466.00
LOCATION L0006451     VOLUME   477477.167 3751559.184 466.00
LOCATION L0006452     VOLUME   477477.108 3751567.684 466.00
LOCATION L0006453     VOLUME   477477.050 3751576.184 466.00
LOCATION L0006454     VOLUME   477476.992 3751584.683 466.00
LOCATION L0006455     VOLUME   477476.933 3751593.183 466.00
LOCATION L0006456     VOLUME   477476.875 3751601.683 466.00
LOCATION L0006457     VOLUME   477476.816 3751610.183 466.07
LOCATION L0006458     VOLUME   477476.758 3751618.683 466.23
LOCATION L0006459     VOLUME   477476.700 3751627.182 466.39
LOCATION L0006460     VOLUME   477476.641 3751635.682 466.55
LOCATION L0006461     VOLUME   477476.583 3751644.182 466.67
LOCATION L0006462     VOLUME   477476.524 3751652.682 466.80
LOCATION L0006463     VOLUME   477476.466 3751661.182 466.92
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LOCATION L0006466     VOLUME   477476.291 3751686.681 467.00
LOCATION L0006467     VOLUME   477476.233 3751695.181 467.00
LOCATION L0006468     VOLUME   477476.174 3751703.681 467.00
LOCATION L0006469     VOLUME   477476.116 3751712.180 467.00
LOCATION L0006470     VOLUME   477476.057 3751720.680 467.00
LOCATION L0006471     VOLUME   477475.999 3751729.180 467.05
LOCATION L0006472     VOLUME   477475.941 3751737.680 467.20
LOCATION L0006473     VOLUME   477475.882 3751746.180 467.35
LOCATION L0006474     VOLUME   477475.824 3751754.679 467.50
LOCATION L0006475     VOLUME   477475.765 3751763.179 467.64
LOCATION L0006476     VOLUME   477475.707 3751771.679 467.77
LOCATION L0006477     VOLUME   477475.649 3751780.179 467.90
LOCATION L0006478     VOLUME   477475.590 3751788.679 468.00
LOCATION L0006479     VOLUME   477475.532 3751797.178 468.00
LOCATION L0006480     VOLUME   477475.473 3751805.678 468.00
LOCATION L0006481     VOLUME   477475.415 3751814.178 468.00
LOCATION L0006482     VOLUME   477475.357 3751822.678 468.00
LOCATION L0006483     VOLUME   477475.298 3751831.178 468.00
LOCATION L0006484     VOLUME   477475.240 3751839.677 468.00
LOCATION L0006485     VOLUME   477475.181 3751848.177 468.00
LOCATION L0006486     VOLUME   477475.123 3751856.677 468.00
LOCATION L0006487     VOLUME   477475.065 3751865.177 468.00
LOCATION L0006488     VOLUME   477475.006 3751873.677 468.00
LOCATION L0006489     VOLUME   477474.948 3751882.176 468.19
LOCATION L0006490     VOLUME   477474.890 3751890.676 468.47
LOCATION L0006491     VOLUME   477474.831 3751899.176 468.75
LOCATION L0006492     VOLUME   477474.773 3751907.676 469.00
LOCATION L0006493     VOLUME   477474.714 3751916.176 469.00
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                         AERMOD HRA Output
LOCATION L0006494      VOLUME   477474.656 3751924.675 469.00
LOCATION L0006495      VOLUME   477474.598 3751933.175 469.00
LOCATION L0006496      VOLUME   477474.539 3751941.675 469.00
LOCATION L0006497      VOLUME   477474.481 3751950.175 469.00
LOCATION L0006498      VOLUME   477474.422 3751958.675 469.00
LOCATION L0006499      VOLUME   477474.364 3751967.174 469.00
LOCATION L0006500      VOLUME   477474.306 3751975.674 469.00
LOCATION L0006501      VOLUME   477474.247 3751984.174 469.00
LOCATION L0006502      VOLUME   477474.189 3751992.674 469.00
LOCATION L0006503      VOLUME   477474.130 3752001.174 469.00
LOCATION L0006504      VOLUME   477474.072 3752009.673 469.00
LOCATION L0006505      VOLUME   477474.014 3752018.173 469.00
LOCATION L0006506      VOLUME   477473.955 3752026.673 469.00
LOCATION L0006507      VOLUME   477473.897 3752035.173 469.14
LOCATION L0006508      VOLUME   477473.838 3752043.673 469.27
LOCATION L0006509      VOLUME   477473.780 3752052.172 469.40
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LOCATION L0006511      VOLUME   477473.663 3752069.172 469.46
LOCATION L0006512      VOLUME   477473.605 3752077.672 469.46
LOCATION L0006513      VOLUME   477473.546 3752086.172 469.46
LOCATION L0006514      VOLUME   477473.488 3752094.671 469.60
LOCATION L0006515      VOLUME   477473.430 3752103.171 469.76
LOCATION L0006516      VOLUME   477473.371 3752111.671 469.91
LOCATION L0006517      VOLUME   477473.313 3752120.171 470.05
LOCATION L0006518      VOLUME   477473.255 3752128.671 470.18
LOCATION L0006519      VOLUME   477473.196 3752137.170 470.31
LOCATION L0006520      VOLUME   477473.138 3752145.670 470.43
LOCATION L0006521      VOLUME   477473.079 3752154.170 470.58
LOCATION L0006522      VOLUME   477473.021 3752162.670 470.74
LOCATION L0006523      VOLUME   477472.963 3752171.170 470.90
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0006923     VOLUME   474135.267 3752127.136 477.74
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LOCATION L0006925     VOLUME   474118.498 3752124.341 477.96
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0006931     VOLUME   474068.192 3752115.956 478.00
   LOCATION L0006932     VOLUME   474059.808 3752114.559 478.00
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** End of LINE VOLUME Source ID = SLINE14
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002434
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477466.428, 3750269.283, 460.78, 0.00, 3.95
** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
** 477472.585, 3752226.131, 471.76, 0.00, 3.95
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   LOCATION L0006953     VOLUME   477478.111 3749953.203 458.00
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LOCATION L0007168      VOLUME   477475.649 3751780.179 467.90
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LOCATION L0007182      VOLUME   477474.831 3751899.176 468.75
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   LOCATION L0007208     VOLUME   477473.313 3752120.171 470.05
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   LOCATION L0007212     VOLUME   477473.079 3752154.170 470.58
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   LOCATION L0007214     VOLUME   477472.963 3752171.170 470.90
   LOCATION L0007215     VOLUME   477472.904 3752179.669 471.00
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   LOCATION L0007217     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0007218     VOLUME   477472.729 3752205.169 471.00
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   LOCATION L0007220     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SRC00001
** DESCRSRC Off-Site Travel 50% on Indian to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002442
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
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** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
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** 477323.747, 3746431.591, 450.00, 4.00, 3.95
** 477274.124, 3746468.808, 450.86, 4.00, 3.95
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0007761     VOLUME   476213.464 3746950.489 469.59
LOCATION L0007762     VOLUME   476204.964 3746950.433 469.70
LOCATION L0007763     VOLUME   476196.464 3746950.376 469.81
LOCATION L0007764     VOLUME   476187.965 3746950.319 469.92
LOCATION L0007765     VOLUME   476179.465 3746950.263 470.04
LOCATION L0007766     VOLUME   476170.965 3746950.206 470.15
LOCATION L0007767     VOLUME   476162.465 3746950.149 470.26
LOCATION L0007768     VOLUME   476153.965 3746950.093 470.37
LOCATION L0007769     VOLUME   476145.466 3746950.036 470.48
LOCATION L0007770     VOLUME   476136.966 3746949.979 470.59
LOCATION L0007771     VOLUME   476128.466 3746949.923 470.70
LOCATION L0007772     VOLUME   476119.966 3746949.866 470.81
LOCATION L0007773     VOLUME   476111.466 3746949.809 470.92
LOCATION L0007774     VOLUME   476102.967 3746949.753 471.03
LOCATION L0007775     VOLUME   476094.467 3746949.696 471.14
LOCATION L0007776     VOLUME   476085.967 3746949.639 471.25
LOCATION L0007777     VOLUME   476077.467 3746949.583 471.36
LOCATION L0007778     VOLUME   476068.967 3746949.526 471.47
LOCATION L0007779     VOLUME   476060.468 3746949.469 471.58
LOCATION L0007780     VOLUME   476051.968 3746949.413 471.69
LOCATION L0007781     VOLUME   476043.468 3746949.356 471.80
LOCATION L0007782     VOLUME   476034.968 3746949.299 471.91
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   LOCATION L0007783     VOLUME   476026.468 3746949.243 472.02
   LOCATION L0007784     VOLUME   476017.968 3746949.186 472.13
   LOCATION L0007785     VOLUME   476009.469 3746949.129 472.24
   LOCATION L0007786     VOLUME   476000.969 3746949.073 472.35
   LOCATION L0007787     VOLUME   475992.469 3746949.016 472.46
   LOCATION L0007788     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0007789     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0007790     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0007791     VOLUME   475958.470 3746948.789 472.90
   LOCATION L0007792     VOLUME   475949.970 3746948.733 472.96
   LOCATION L0007793     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0007794     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SRC00001
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0002531     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002532     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002533     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002534     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002535     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002536     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002537     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002538     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002539     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002540     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002541     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002542     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002543     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002544     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002545     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002546     0.000004488      4.00     13.95      1.86
   SRCPARAM L0002547     0.000004488      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0002548     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002549     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002550     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002551     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002552     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002553     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002554     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002555     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002556     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002557     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002558     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002559     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002560     0.000004649      4.00     13.95      1.86
   SRCPARAM L0002561     0.000004649      4.00     13.95      1.86
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AERMOD HRA Output

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** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0002562     0.000004289      4.00      3.95      1.86
   SRCPARAM L0002563     0.000004289      4.00      3.95      1.86
   SRCPARAM L0002564     0.000004289      4.00      3.95      1.86
   SRCPARAM L0002565     0.000004289      4.00      3.95      1.86
   SRCPARAM L0002566     0.000004289      4.00      3.95      1.86
   SRCPARAM L0002567     0.000004289      4.00      3.95      1.86
   SRCPARAM L0002568     0.000004289      4.00      3.95      1.86
   SRCPARAM L0002569     0.000004289      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0002570     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002571     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002572     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002573     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002574     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002575     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002576     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002577     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002578     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002579     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002580     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002581     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002582     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002583     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002584     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002585     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002586     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002587     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002588     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002589     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0002590     0.0000001901      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0002591     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002592     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002593     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002594     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002595     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002596     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002597     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002598     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002599     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002600     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002601     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002602     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002603     0.0000031      0.00      3.95      1.86
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   SRCPARAM L0002604     0.0000031      0.00      3.95      1.86
   SRCPARAM L0002605     0.0000031      0.00      3.95      1.86
** -------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0002606     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0002607     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0002608     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0002609     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0002610     0.0000006168      0.00     13.95      1.86
** -------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0002611     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002612     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002613     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002614     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002615     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002616     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002617     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002618     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002619     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002620     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002621     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002622     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002623     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002624     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002625     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002626     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002627     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002628     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002629     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002630     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002631     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002632     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002633     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002634     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002635     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002636     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002637     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002638     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002639     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002640     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002641     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002642     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002643     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002644     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002645     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002646     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002647     0.000001005      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0002648     0.000001005      4.00       3.95       1.86
SRCPARAM L0002649     0.000001005      4.00       3.95       1.86
SRCPARAM L0002650     0.000001005      4.00       3.95       1.86
SRCPARAM L0002651     0.000001005      4.00       3.95       1.86
SRCPARAM L0002652     0.000001005      4.00       3.95       1.86
SRCPARAM L0002653     0.000001005      4.00       3.95       1.86
SRCPARAM L0002654     0.000001005      4.00       3.95       1.86
SRCPARAM L0002655     0.000001005      4.00       3.95       1.86
SRCPARAM L0002656     0.000001005      4.00       3.95       1.86
SRCPARAM L0002657     0.000001005      4.00       3.95       1.86
SRCPARAM L0002658     0.000001005      4.00       3.95       1.86
SRCPARAM L0002659     0.000001005      4.00       3.95       1.86
SRCPARAM L0002660     0.000001005      4.00       3.95       1.86
SRCPARAM L0002661     0.000001005      4.00       3.95       1.86
SRCPARAM L0002662     0.000001005      4.00       3.95       1.86
SRCPARAM L0002663     0.000001005      4.00       3.95       1.86
SRCPARAM L0002664     0.000001005      4.00       3.95       1.86
SRCPARAM L0002665     0.000001005      4.00       3.95       1.86
SRCPARAM L0002666     0.000001005      4.00       3.95       1.86
SRCPARAM L0002667     0.000001005      4.00       3.95       1.86
SRCPARAM L0002668     0.000001005      4.00       3.95       1.86
SRCPARAM L0002669     0.000001005      4.00       3.95       1.86
SRCPARAM L0002670     0.000001005      4.00       3.95       1.86
SRCPARAM L0002671     0.000001005      4.00       3.95       1.86
SRCPARAM L0002672     0.000001005      4.00       3.95       1.86
SRCPARAM L0002673     0.000001005      4.00       3.95       1.86
SRCPARAM L0002674     0.000001005      4.00       3.95       1.86
SRCPARAM L0002675     0.000001005      4.00       3.95       1.86
SRCPARAM L0002676     0.000001005      4.00       3.95       1.86
SRCPARAM L0002677     0.000001005      4.00       3.95       1.86
SRCPARAM L0002678     0.000001005      4.00       3.95       1.86
SRCPARAM L0002679     0.000001005      4.00       3.95       1.86
SRCPARAM L0002680     0.000001005      4.00       3.95       1.86
SRCPARAM L0002681     0.000001005      4.00       3.95       1.86
SRCPARAM L0002682     0.000001005      4.00       3.95       1.86
SRCPARAM L0002683     0.000001005      4.00       3.95       1.86
SRCPARAM L0002684     0.000001005      4.00       3.95       1.86
SRCPARAM L0002685     0.000001005      4.00       3.95       1.86
SRCPARAM L0002686     0.000001005      4.00       3.95       1.86
SRCPARAM L0002687     0.000001005      4.00       3.95       1.86
SRCPARAM L0002688     0.000001005      4.00       3.95       1.86
SRCPARAM L0002689     0.000001005      4.00       3.95       1.86
SRCPARAM L0002690     0.000001005      4.00       3.95       1.86
SRCPARAM L0002691     0.000001005      4.00       3.95       1.86
SRCPARAM L0002692     0.000001005      4.00       3.95       1.86
SRCPARAM L0002693     0.000001005      4.00       3.95       1.86
SRCPARAM L0002694     0.000001005      4.00       3.95       1.86
SRCPARAM L0002695     0.000001005      4.00       3.95       1.86
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                              AERMOD HRA Output
SRCPARAM L0002696     0.000001005      4.00       3.95       1.86
SRCPARAM L0002697     0.000001005      4.00       3.95       1.86
SRCPARAM L0002698     0.000001005      4.00       3.95       1.86
SRCPARAM L0002699     0.000001005      4.00       3.95       1.86
SRCPARAM L0002700     0.000001005      4.00       3.95       1.86
SRCPARAM L0002701     0.000001005      4.00       3.95       1.86
SRCPARAM L0002702     0.000001005      4.00       3.95       1.86
SRCPARAM L0002703     0.000001005      4.00       3.95       1.86
SRCPARAM L0002704     0.000001005      4.00       3.95       1.86
SRCPARAM L0002705     0.000001005      4.00       3.95       1.86
SRCPARAM L0002706     0.000001005      4.00       3.95       1.86
SRCPARAM L0002707     0.000001005      4.00       3.95       1.86
SRCPARAM L0002708     0.000001005      4.00       3.95       1.86
SRCPARAM L0002709     0.000001005      4.00       3.95       1.86
SRCPARAM L0002710     0.000001005      4.00       3.95       1.86
SRCPARAM L0002711     0.000001005      4.00       3.95       1.86
SRCPARAM L0002712     0.000001005      4.00       3.95       1.86
SRCPARAM L0002713     0.000001005      4.00       3.95       1.86
SRCPARAM L0002714     0.000001005      4.00       3.95       1.86
SRCPARAM L0002715     0.000001005      4.00       3.95       1.86
SRCPARAM L0002716     0.000001005      4.00       3.95       1.86
SRCPARAM L0002717     0.000001005      4.00       3.95       1.86
SRCPARAM L0002718     0.000001005      4.00       3.95       1.86
SRCPARAM L0002719     0.000001005      4.00       3.95       1.86
SRCPARAM L0002720     0.000001005      4.00       3.95       1.86
SRCPARAM L0002721     0.000001005      4.00       3.95       1.86
SRCPARAM L0002722     0.000001005      4.00       3.95       1.86
SRCPARAM L0002723     0.000001005      4.00       3.95       1.86
SRCPARAM L0002724     0.000001005      4.00       3.95       1.86
SRCPARAM L0002725     0.000001005      4.00       3.95       1.86
SRCPARAM L0002726     0.000001005      4.00       3.95       1.86
SRCPARAM L0002727     0.000001005      4.00       3.95       1.86
SRCPARAM L0002728     0.000001005      4.00       3.95       1.86
SRCPARAM L0002729     0.000001005      4.00       3.95       1.86
SRCPARAM L0002730     0.000001005      4.00       3.95       1.86
SRCPARAM L0002731     0.000001005      4.00       3.95       1.86
SRCPARAM L0002732     0.000001005      4.00       3.95       1.86
SRCPARAM L0002733     0.000001005      4.00       3.95       1.86
SRCPARAM L0002734     0.000001005      4.00       3.95       1.86
SRCPARAM L0002735     0.000001005      4.00       3.95       1.86
SRCPARAM L0002736     0.000001005      4.00       3.95       1.86
SRCPARAM L0002737     0.000001005      4.00       3.95       1.86
SRCPARAM L0002738     0.000001005      4.00       3.95       1.86
SRCPARAM L0002739     0.000001005      4.00       3.95       1.86
SRCPARAM L0002740     0.000001005      4.00       3.95       1.86
SRCPARAM L0002741     0.000001005      4.00       3.95       1.86
SRCPARAM L0002742     0.000001005      4.00       3.95       1.86
SRCPARAM L0002743     0.000001005      4.00       3.95       1.86
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   SRCPARAM L0002744     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002745     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002746     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002747     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002748     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002749     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002750     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002751     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002752     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002753     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002754     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002755     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002756     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002757     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002758     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002759     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002760     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002761     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002762     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002763     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002764     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002765     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002766     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002767     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002768     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002769     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002770     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002771     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002772     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002773     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002774     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002775     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002776     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002777     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002778     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002779     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002780     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002781     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002782     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002783     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002784     0.000001005      4.00      3.95      1.86
   SRCPARAM L0002785     0.000001005      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0002786     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002787     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002788     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002789     0.0000002141      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0002790      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002791      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002792      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002793      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002794      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002795      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002796      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002797      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002798      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002799      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002800      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002801      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002802      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002803      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002804      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002805      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002806      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002807      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002808      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002809      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002810      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002811      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002812      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002813      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002814      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002815      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002816      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002817      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002818      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002819      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002820      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002821      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002822      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002823      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002824      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002825      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002826      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002827      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002828      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002829      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002830      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002831      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002832      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002833      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002834      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002835      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002836      0.0000002141       4.00       3.95       1.86
SRCPARAM L0002837      0.0000002141       4.00       3.95       1.86
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                         AERMOD HRA Output
   SRCPARAM L0002838     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002839     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002840     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002841     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002842     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002843     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0002844     0.0000002141      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0002845     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002846     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002847     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002848     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002849     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002850     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002851     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002852     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002853     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002854     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002855     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002856     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002857     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002858     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002859     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002860     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002861     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002862     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002863     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002864     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002865     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002866     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002867     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002868     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002869     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002870     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002871     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002872     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002873     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002874     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002875     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002876     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002877     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002878     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002879     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002880     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002881     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002882     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0002883     0.0000001686      4.00      3.95      1.86
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   SRCPARAM L0002884     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002885     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002886     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002887     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002888     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002889     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002890     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002891     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002892     0.0000001686     4.00      3.95      1.86
   SRCPARAM L0002893     0.0000001686     4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0002894     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002895     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002896     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002897     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002898     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002899     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002900     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002901     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002902     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002903     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002904     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002905     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002906     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002907     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002908     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002909     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002910     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002911     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002912     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002913     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002914     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002915     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002916     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002917     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002918     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002919     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002920     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002921     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002922     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002923     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002924     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002925     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002926     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002927     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002928     0.0000002878     4.00      3.95      1.86
   SRCPARAM L0002929     0.0000002878     4.00      3.95      1.86
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                          AERMOD HRA Output
   SRCPARAM L0002930     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002931     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002932     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002933     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002934     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002935     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002936     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002937     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002938     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002939     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002940     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002941     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002942     0.0000002878      4.00       3.95       1.86
   SRCPARAM L0002943     0.0000002878      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0001867     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001868     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001869     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001870     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001871     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001872     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001873     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001874     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001875     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001876     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001877     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001878     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001879     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001880     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001881     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001882     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001883     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001884     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001885     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001886     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001887     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001888     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001889     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001890     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001891     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001892     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001893     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001894     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001895     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001896     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001897     0.0000004253      4.00       3.95       1.86
   SRCPARAM L0001898     0.0000004253      4.00       3.95       1.86
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SRCPARAM L0001899      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001900      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001901      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001902      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001903      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001904      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001905      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001906      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001907      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001908      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001909      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001910      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001911      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001912      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001913      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001914      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001915      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001916      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001917      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001918      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001919      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001920      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001921      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001922      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001923      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001924      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001925      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001926      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001927      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001928      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001929      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001930      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001931      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001932      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001933      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001934      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001935      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001936      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001937      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001938      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001939      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001940      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001941      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001942      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001943      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001944      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001945      0.0000004253      4.00       3.95       1.86
SRCPARAM L0001946      0.0000004253      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0001947     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001948     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001949     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001950     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001951     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001952     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001953     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001954     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001955     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001956     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001957     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001958     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001959     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001960     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001961     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001962     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001963     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001964     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001965     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001966     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001967     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001968     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001969     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001970     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001971     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001972     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001973     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001974     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001975     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001976     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001977     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001978     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001979     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001980     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001981     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001982     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001983     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001984     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001985     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001986     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001987     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001988     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001989     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001990     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001991     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001992     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001993     0.0000004253     4.00      3.95      1.86
SRCPARAM L0001994     0.0000004253     4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0001995     0.0000004253      4.00       3.95       1.86
SRCPARAM L0001996     0.0000004253      4.00       3.95       1.86
SRCPARAM L0001997     0.0000004253      4.00       3.95       1.86
SRCPARAM L0001998     0.0000004253      4.00       3.95       1.86
SRCPARAM L0001999     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002000     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002001     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002002     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002003     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002004     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002005     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002006     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002007     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002008     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002009     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002010     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002011     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002012     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002013     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002014     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002015     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002016     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002017     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002018     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002019     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002020     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002021     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002022     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002023     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002024     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002025     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002026     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002027     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002028     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002029     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002030     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002031     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002032     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002033     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002034     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002035     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002036     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002037     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002038     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002039     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002040     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002041     0.0000004253      4.00       3.95       1.86
SRCPARAM L0002042     0.0000004253      4.00       3.95       1.86
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   SRCPARAM L0002043     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002044     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002045     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002046     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002047     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002048     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002049     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002050     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002051     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0002052     0.0000004253      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0004594     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004595     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004596     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004597     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004598     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004599     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004600     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004601     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004602     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004603     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004604     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004605     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004606     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004607     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004608     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004609     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004610     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004611     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004612     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004613     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004614     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004615     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004616     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004617     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004618     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004619     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004620     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004621     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004622     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004623     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004624     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004625     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004626     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004627     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004628     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004629     0.0000002549      4.00      3.95      1.86
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SRCPARAM L0004630      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004631      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004632      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004633      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004634      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004635      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004636      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004637      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004638      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004639      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004640      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004641      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004642      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004643      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004644      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004645      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004646      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004647      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004648      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004649      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004650      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004651      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004652      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004653      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004654      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004655      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004656      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004657      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004658      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004659      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004660      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004661      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004662      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004663      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004664      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004665      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004666      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004667      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004668      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004669      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004670      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004671      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004672      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004673      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004674      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004675      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004676      0.0000002549      4.00       3.95       1.86
SRCPARAM L0004677      0.0000002549      4.00       3.95       1.86
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   SRCPARAM L0004678     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004679     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004680     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004681     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004682     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004683     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004684     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004685     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004686     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004687     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004688     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004689     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004690     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004691     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0004692     0.0000002549      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.8207E-09     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.9862E-09     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        1.0465E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        3.282E-09     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        6.8612E-09     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        3.074E-09     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000014994     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000011881     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.00002032     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0002053     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002054     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002055     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002056     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002057     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002058     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002059     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002060     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002061     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002062     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002063     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002064     0.0000002588      4.00      3.95      1.86
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                                AERMOD HRA Output
SRCPARAM L0002065     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002066     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002067     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002068     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002069     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002070     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002071     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002072     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002073     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002074     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002075     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002076     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002077     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002078     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002079     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002080     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002081     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002082     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002083     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002084     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002085     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002086     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002087     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002088     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002089     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002090     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002091     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002092     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002093     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002094     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002095     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002096     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002097     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002098     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002099     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002100     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002101     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002102     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002103     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002104     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002105     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002106     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002107     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002108     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002109     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002110     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002111     0.0000002588      4.00       3.95       1.86
SRCPARAM L0002112     0.0000002588      4.00       3.95       1.86
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   SRCPARAM L0002113     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002114     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002115     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002116     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0002117     0.0000002588      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0006244     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006245     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006246     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006247     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006248     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006249     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006250     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006251     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006252     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006253     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006254     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006255     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006256     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006257     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006258     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006259     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006260     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006261     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006262     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006263     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006264     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006265     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006266     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006267     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006268     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006269     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006270     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006271     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006272     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006273     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006274     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006275     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006276     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006277     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006278     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006279     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006280     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006281     0.0000003407      4.00      3.95      1.86
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   SRCPARAM L0006283     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0006284     0.0000003407      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0006417      0.0000003407       4.00        3.95        1.86
SRCPARAM L0006418      0.0000003407       4.00        3.95        1.86
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SRCPARAM L0006425      0.0000003407       4.00        3.95        1.86
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SRCPARAM L0006433      0.0000003407       4.00       3.95       1.86
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SRCPARAM L0006438      0.0000003407       4.00       3.95       1.86
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SRCPARAM L0006440      0.0000003407       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006513      0.0000003407      4.00       3.95       1.86
SRCPARAM L0006514      0.0000003407      4.00       3.95       1.86
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SRCPARAM L0006523      0.0000003407      4.00       3.95       1.86
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SRCPARAM L0006560      0.0000003407       4.00       3.95       1.86
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SRCPARAM L0006569      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006570      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006571      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006572      0.0000003407       4.00       3.95       1.86
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SRCPARAM L0006575     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006576     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006577     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006578     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006579     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006580     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006581     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006582     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006584     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006612     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006613     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006617     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006618     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006620     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006625      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006626      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006627      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006628      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006629      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006630      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006631      0.0000003407       4.00       3.95       1.86
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SRCPARAM L0006635      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006636      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006637      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006638      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006639      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006640      0.0000003407       4.00       3.95       1.86
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SRCPARAM L0006666      0.0000003407       4.00       3.95       1.86
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SRCPARAM L0006712     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006713     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006723     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006724     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006726     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006727     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006728     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006733     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006734     0.0000003407      4.00      3.95      1.86
SRCPARAM L0006735     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006762     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006777     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0006812     0.0000003407      4.00      3.95      1.86
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                              AERMOD HRA Output
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SRCPARAM L0006819      0.0000003407      4.00       3.95       1.86
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SRCPARAM L0006823      0.0000003407      4.00       3.95       1.86
SRCPARAM L0006824      0.0000003407      4.00       3.95       1.86
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SRCPARAM L0006827      0.0000003407      4.00       3.95       1.86
SRCPARAM L0006828      0.0000003407      4.00       3.95       1.86
SRCPARAM L0006829      0.0000003407      4.00       3.95       1.86
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SRCPARAM L0006832      0.0000003407      4.00       3.95       1.86
SRCPARAM L0006833      0.0000003407      4.00       3.95       1.86
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SRCPARAM L0006857      0.0000003407      4.00       3.95       1.86
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SRCPARAM L0006861      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006862      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006863      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006864      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006865      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006866      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006867      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006868      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006869      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006870      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006871      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006872      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006873      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006874      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006875      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006876      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006877      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006878      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006879      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006880      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006881      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006882      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006883      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006884      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006885      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006886      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006887      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006888      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006889      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006890      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006891      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006892      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006893      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006894      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006895      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006896      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006897      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006898      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006899      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006900      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006901      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006902      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006903      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006904      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006905      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006906      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006907      0.0000003407       4.00       3.95       1.86
SRCPARAM L0006908      0.0000003407       4.00       3.95       1.86
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AERMOD HRA Output

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   SRCPARAM L0006909     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006910     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006911     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006912     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006913     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006914     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006915     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006916     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006917     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006918     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006919     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006920     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006921     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006922     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006923     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006924     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006925     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006926     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006927     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006928     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006929     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006930     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006931     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006932     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006933     0.0000003407      4.00       3.95       1.86
   SRCPARAM L0006934     0.0000003407      4.00       3.95       1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0006935     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006936     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006937     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006938     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006939     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006940     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006941     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006942     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006943     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006944     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006945     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006946     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006947     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006948     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006949     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006950     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006951     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006952     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006953     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0006954     0.0000000851      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006955      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006956      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006957      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006958      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006959      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006960      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006961      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006962      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006963      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006964      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006965      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006966      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006967      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006968      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006969      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006970      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006971      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006972      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006973      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006974      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006975      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006976      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006977      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006978      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006979      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006980      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006981      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006982      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006983      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006984      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006985      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006986      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006987      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006988      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006989      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006990      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006991      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006992      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006993      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006994      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006995      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006996      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006997      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006998      0.0000000851      0.00      3.95      1.86
SRCPARAM L0006999      0.0000000851      0.00      3.95      1.86
SRCPARAM L0007000      0.0000000851      0.00      3.95      1.86
SRCPARAM L0007001      0.0000000851      0.00      3.95      1.86
SRCPARAM L0007002      0.0000000851      0.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0007003     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007004     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007005     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007006     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007007     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007008     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007009     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007010     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007011     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007012     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007013     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007014     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007015     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007016     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007017     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007018     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007019     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007020     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007021     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007022     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007023     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007024     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007025     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007026     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007027     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007028     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007029     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007030     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007031     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007032     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007033     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007034     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007035     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007036     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007037     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007038     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007039     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007040     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007041     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007042     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007043     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007044     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007045     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007046     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007047     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007048     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007049     0.0000000851      0.00       3.95       1.86
SRCPARAM L0007050     0.0000000851      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0007051      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007052      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007053      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007054      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007055      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007056      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007057      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007058      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007059      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007060      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007061      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007062      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007063      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007064      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007065      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007066      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007067      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007068      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007069      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007070      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007071      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007072      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007073      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007074      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007075      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007076      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007077      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007078      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007079      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007080      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007081      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007082      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007083      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007084      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007085      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007086      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007087      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007088      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007089      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007090      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007091      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007092      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007093      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007094      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007095      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007096      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007097      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007098      0.0000000851      0.00       3.95       1.86
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SRCPARAM L0007099     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007100     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007101     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007102     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007103     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007104     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007105     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007106     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007107     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007108     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007109     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007110     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007111     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007112     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007113     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007114     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007115     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007116     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007117     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007118     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007119     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007120     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007121     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007122     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007123     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007124     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007125     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007126     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007127     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007128     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007129     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007130     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007131     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007132     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007133     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007134     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007135     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007136     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007137     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007138     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007139     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007140     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007141     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007142     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007143     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007144     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007145     0.0000000851     0.00     3.95     1.86
SRCPARAM L0007146     0.0000000851     0.00     3.95     1.86
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AERMOD HRA Output

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SRCPARAM L0007147      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007148      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007149      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007150      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007151      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007152      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007153      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007154      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007155      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007156      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007157      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007158      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007159      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007160      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007161      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007162      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007163      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007164      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007165      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007166      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007167      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007168      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007169      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007170      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007171      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007172      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007173      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007174      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007175      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007176      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007177      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007178      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007179      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007180      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007181      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007182      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007183      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007184      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007185      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007186      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007187      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007188      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007189      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007190      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007191      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007192      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007193      0.0000000851      0.00       3.95       1.86
SRCPARAM L0007194      0.0000000851      0.00       3.95       1.86
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                              AERMOD HRA Output
   SRCPARAM L0007195     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007196     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007197     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007198     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007199     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007200     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007201     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007202     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007203     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007204     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007205     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007206     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007207     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007208     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007209     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007210     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007211     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007212     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007213     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007214     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007215     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007216     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007217     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007218     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007219     0.0000000851      0.00       3.95       1.86
   SRCPARAM L0007220     0.0000000851      0.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SRC00001
   SRCPARAM L0007221     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007222     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007223     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007224     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007225     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007226     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007227     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007228     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007229     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007230     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007231     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007232     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007233     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007234     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007235     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007236     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007237     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007238     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007239     0.0000004254      4.00       3.95       1.86
   SRCPARAM L0007240     0.0000004254      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0007241      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007242      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007243      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007244      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007245      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007246      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007247      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007248      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007249      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007250      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007251      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007252      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007253      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007254      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007255      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007256      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007257      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007258      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007259      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007260      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007261      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007262      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007263      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007264      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007265      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007266      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007267      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007268      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007269      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007270      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007271      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007272      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007273      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007274      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007275      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007276      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007277      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007278      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007279      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007280      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007281      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007282      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007283      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007284      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007285      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007286      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007287      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007288      0.0000004254       4.00       3.95       1.86
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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SRCPARAM L0007289      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007290      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007291      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007292      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007293      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007294      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007295      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007296      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007297      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007298      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007299      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007300      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007301      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007302      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007303      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007304      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007305      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007306      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007307      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007308      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007309      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007310      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007311      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007312      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007313      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007314      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007315      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007316      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007317      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007318      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007319      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007320      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007321      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007322      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007323      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007324      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007325      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007326      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007327      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007328      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007329      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007330      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007331      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007332      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007333      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007334      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007335      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007336      0.0000004254      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0007337     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007338     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007339     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007340     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007341     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007342     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007343     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007344     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007345     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007346     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007347     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007348     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007349     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007350     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007351     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007352     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007353     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007354     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007355     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007356     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007357     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007358     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007359     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007360     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007361     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007362     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007363     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007364     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007365     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007366     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007367     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007368     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007369     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007370     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007371     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007372     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007373     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007374     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007375     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007376     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007377     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007378     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007379     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007380     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007381     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007382     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007383     0.0000004254     4.00      3.95      1.86
SRCPARAM L0007384     0.0000004254     4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0007385      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007386      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007387      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007388      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007389      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007390      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007391      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007392      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007393      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007394      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007395      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007396      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007397      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007398      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007399      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007400      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007401      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007402      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007403      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007404      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007405      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007406      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007407      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007408      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007409      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007410      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007411      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007412      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007413      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007414      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007415      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007416      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007417      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007418      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007419      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007420      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007421      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007422      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007423      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007424      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007425      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007426      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007427      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007428      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007429      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007430      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007431      0.0000004254      4.00      3.95      1.86
SRCPARAM L0007432      0.0000004254      4.00      3.95      1.86
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SRCPARAM L0007433     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007434     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007435     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007436     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007437     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007438     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007439     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007440     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007441     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007442     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007443     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007444     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007445     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007446     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007447     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007448     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007449     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007450     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007451     0.0000004254      4.00      3.95      1.86
SRCPARAM L0007452     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0007476     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0007719      0.0000004254       4.00       3.95       1.86
SRCPARAM L0007720      0.0000004254       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0007744      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007745      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007746      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007747      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007748      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007749      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007750      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007751      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007752      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007753      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007754      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007755      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007756      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007757      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007758      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007759      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007760      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007761      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007762      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007763      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007764      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007765      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007766      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007767      0.0000004254      4.00       3.95       1.86
SRCPARAM L0007768      0.0000004254      4.00       3.95       1.86
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   SRCPARAM L0007769     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007770     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007771     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007772     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007773     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007774     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007775     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007776     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007777     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007778     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007779     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007780     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007781     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007782     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007783     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007784     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007785     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007786     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007787     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007788     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007789     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007790     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007791     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007792     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007793     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0007794     0.0000004254      4.00      3.95      1.86
** ---------------------------------------------------------------------
   URBANSRC ALL
   SRCGROUP YardTrac AREA1 AREA2 AREA3 AREA4 AREA5 AREA6
   SRCGROUP Other    L0002531 L0002532 L0002533 L0002534 L0002535 L0002536
   SRCGROUP Other    L0002537 L0002538 L0002539 L0002540 L0002541 L0002542
   SRCGROUP Other    L0002543 L0002544 L0002545 L0002546 L0002547 L0002548
   SRCGROUP Other    L0002549 L0002550 L0002551 L0002552 L0002553 L0002554
   SRCGROUP Other    L0002555 L0002556 L0002557 L0002558 L0002559 L0002560
   SRCGROUP Other    L0002561 L0002562 L0002563 L0002564 L0002565 L0002566
   SRCGROUP Other    L0002567 L0002568 L0002569 L0002570 L0002571 L0002572
   SRCGROUP Other    L0002573 L0002574 L0002575 L0002576 L0002577 L0002578
   SRCGROUP Other    L0002579 L0002580 L0002581 L0002582 L0002583 L0002584
   SRCGROUP Other    L0002585 L0002586 L0002587 L0002588 L0002589 L0002590
   SRCGROUP Other    L0002591 L0002592 L0002593 L0002594 L0002595 L0002596
   SRCGROUP Other    L0002597 L0002598 L0002599 L0002600 L0002601 L0002602
   SRCGROUP Other    L0002603 L0002604 L0002605 L0002606 L0002607 L0002608
   SRCGROUP Other    L0002609 L0002610 L0002611 L0002612 L0002613 L0002614
   SRCGROUP Other    L0002615 L0002616 L0002617 L0002618 L0002619 L0002620
   SRCGROUP Other    L0002621 L0002622 L0002623 L0002624 L0002625 L0002626
   SRCGROUP Other    L0002627 L0002628 L0002629 L0002630 L0002631 L0002632
   SRCGROUP Other    L0002633 L0002634 L0002635 L0002636 L0002637 L0002638
   SRCGROUP Other    L0002639 L0002640 L0002641 L0002642 L0002643 L0002644
```

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                          AERMOD HRA Output
SRCGROUP Other    L0002645 L0002646 L0002647 L0002648 L0002649 L0002650
SRCGROUP Other    L0002651 L0002652 L0002653 L0002654 L0002655 L0002656
SRCGROUP Other    L0002657 L0002658 L0002659 L0002660 L0002661 L0002662
SRCGROUP Other    L0002663 L0002664 L0002665 L0002666 L0002667 L0002668
SRCGROUP Other    L0002669 L0002670 L0002671 L0002672 L0002673 L0002674
SRCGROUP Other    L0002675 L0002676 L0002677 L0002678 L0002679 L0002680
SRCGROUP Other    L0002681 L0002682 L0002683 L0002684 L0002685 L0002686
SRCGROUP Other    L0002687 L0002688 L0002689 L0002690 L0002691 L0002692
SRCGROUP Other    L0002693 L0002694 L0002695 L0002696 L0002697 L0002698
SRCGROUP Other    L0002699 L0002700 L0002701 L0002702 L0002703 L0002704
SRCGROUP Other    L0002705 L0002706 L0002707 L0002708 L0002709 L0002710
SRCGROUP Other    L0002711 L0002712 L0002713 L0002714 L0002715 L0002716
SRCGROUP Other    L0002717 L0002718 L0002719 L0002720 L0002721 L0002722
SRCGROUP Other    L0002723 L0002724 L0002725 L0002726 L0002727 L0002728
SRCGROUP Other    L0002729 L0002730 L0002731 L0002732 L0002733 L0002734
SRCGROUP Other    L0002735 L0002736 L0002737 L0002738 L0002739 L0002740
SRCGROUP Other    L0002741 L0002742 L0002743 L0002744 L0002745 L0002746
SRCGROUP Other    L0002747 L0002748 L0002749 L0002750 L0002751 L0002752
SRCGROUP Other    L0002753 L0002754 L0002755 L0002756 L0002757 L0002758
SRCGROUP Other    L0002759 L0002760 L0002761 L0002762 L0002763 L0002764
SRCGROUP Other    L0002765 L0002766 L0002767 L0002768 L0002769 L0002770
SRCGROUP Other    L0002771 L0002772 L0002773 L0002774 L0002775 L0002776
SRCGROUP Other    L0002777 L0002778 L0002779 L0002780 L0002781 L0002782
SRCGROUP Other    L0002783 L0002784 L0002785 L0002786 L0002787 L0002788
SRCGROUP Other    L0002789 L0002790 L0002791 L0002792 L0002793 L0002794
SRCGROUP Other    L0002795 L0002796 L0002797 L0002798 L0002799 L0002800
SRCGROUP Other    L0002801 L0002802 L0002803 L0002804 L0002805 L0002806
SRCGROUP Other    L0002807 L0002808 L0002809 L0002810 L0002811 L0002812
SRCGROUP Other    L0002813 L0002814 L0002815 L0002816 L0002817 L0002818
SRCGROUP Other    L0002819 L0002820 L0002821 L0002822 L0002823 L0002824
SRCGROUP Other    L0002825 L0002826 L0002827 L0002828 L0002829 L0002830
SRCGROUP Other    L0002831 L0002832 L0002833 L0002834 L0002835 L0002836
SRCGROUP Other    L0002837 L0002838 L0002839 L0002840 L0002841 L0002842
SRCGROUP Other    L0002843 L0002844 L0002845 L0002846 L0002847 L0002848
SRCGROUP Other    L0002849 L0002850 L0002851 L0002852 L0002853 L0002854
SRCGROUP Other    L0002855 L0002856 L0002857 L0002858 L0002859 L0002860
SRCGROUP Other    L0002861 L0002862 L0002863 L0002864 L0002865 L0002866
SRCGROUP Other    L0002867 L0002868 L0002869 L0002870 L0002871 L0002872
SRCGROUP Other    L0002873 L0002874 L0002875 L0002876 L0002877 L0002878
SRCGROUP Other    L0002879 L0002880 L0002881 L0002882 L0002883 L0002884
SRCGROUP Other    L0002885 L0002886 L0002887 L0002888 L0002889 L0002890
SRCGROUP Other    L0002891 L0002892 L0002893 L0002894 L0002895 L0002896
SRCGROUP Other    L0002897 L0002898 L0002899 L0002900 L0002901 L0002902
SRCGROUP Other    L0002903 L0002904 L0002905 L0002906 L0002907 L0002908
SRCGROUP Other    L0002909 L0002910 L0002911 L0002912 L0002913 L0002914
SRCGROUP Other    L0002915 L0002916 L0002917 L0002918 L0002919 L0002920
SRCGROUP Other    L0002921 L0002922 L0002923 L0002924 L0002925 L0002926
SRCGROUP Other    L0002927 L0002928 L0002929 L0002930 L0002931 L0002932
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SRCGROUP Other    L0002933 L0002934 L0002935 L0002936 L0002937 L0002938
SRCGROUP Other    L0002939 L0002940 L0002941 L0002942 L0002943 L0001867
SRCGROUP Other    L0001868 L0001869 L0001870 L0001871 L0001872 L0001873
SRCGROUP Other    L0001874 L0001875 L0001876 L0001877 L0001878 L0001879
SRCGROUP Other    L0001880 L0001881 L0001882 L0001883 L0001884 L0001885
SRCGROUP Other    L0001886 L0001887 L0001888 L0001889 L0001890 L0001891
SRCGROUP Other    L0001892 L0001893 L0001894 L0001895 L0001896 L0001897
SRCGROUP Other    L0001898 L0001899 L0001900 L0001901 L0001902 L0001903
SRCGROUP Other    L0001904 L0001905 L0001906 L0001907 L0001908 L0001909
SRCGROUP Other    L0001910 L0001911 L0001912 L0001913 L0001914 L0001915
SRCGROUP Other    L0001916 L0001917 L0001918 L0001919 L0001920 L0001921
SRCGROUP Other    L0001922 L0001923 L0001924 L0001925 L0001926 L0001927
SRCGROUP Other    L0001928 L0001929 L0001930 L0001931 L0001932 L0001933
SRCGROUP Other    L0001934 L0001935 L0001936 L0001937 L0001938 L0001939
SRCGROUP Other    L0001940 L0001941 L0001942 L0001943 L0001944 L0001945
SRCGROUP Other    L0001946 L0001947 L0001948 L0001949 L0001950 L0001951
SRCGROUP Other    L0001952 L0001953 L0001954 L0001955 L0001956 L0001957
SRCGROUP Other    L0001958 L0001959 L0001960 L0001961 L0001962 L0001963
SRCGROUP Other    L0001964 L0001965 L0001966 L0001967 L0001968 L0001969
SRCGROUP Other    L0001970 L0001971 L0001972 L0001973 L0001974 L0001975
SRCGROUP Other    L0001976 L0001977 L0001978 L0001979 L0001980 L0001981
SRCGROUP Other    L0001982 L0001983 L0001984 L0001985 L0001986 L0001987
SRCGROUP Other    L0001988 L0001989 L0001990 L0001991 L0001992 L0001993
SRCGROUP Other    L0001994 L0001995 L0001996 L0001997 L0001998 L0001999
SRCGROUP Other    L0002000 L0002001 L0002002 L0002003 L0002004 L0002005
SRCGROUP Other    L0002006 L0002007 L0002008 L0002009 L0002010 L0002011
SRCGROUP Other    L0002012 L0002013 L0002014 L0002015 L0002016 L0002017
SRCGROUP Other    L0002018 L0002019 L0002020 L0002021 L0002022 L0002023
SRCGROUP Other    L0002024 L0002025 L0002026 L0002027 L0002028 L0002029
SRCGROUP Other    L0002030 L0002031 L0002032 L0002033 L0002034 L0002035
SRCGROUP Other    L0002036 L0002037 L0002038 L0002039 L0002040 L0002041
SRCGROUP Other    L0002042 L0002043 L0002044 L0002045 L0002046 L0002047
SRCGROUP Other    L0002048 L0002049 L0002050 L0002051 L0002052 L0004594
SRCGROUP Other    L0004595 L0004596 L0004597 L0004598 L0004599 L0004600
SRCGROUP Other    L0004601 L0004602 L0004603 L0004604 L0004605 L0004606
SRCGROUP Other    L0004607 L0004608 L0004609 L0004610 L0004611 L0004612
SRCGROUP Other    L0004613 L0004614 L0004615 L0004616 L0004617 L0004618
SRCGROUP Other    L0004619 L0004620 L0004621 L0004622 L0004623 L0004624
SRCGROUP Other    L0004625 L0004626 L0004627 L0004628 L0004629 L0004630
SRCGROUP Other    L0004631 L0004632 L0004633 L0004634 L0004635 L0004636
SRCGROUP Other    L0004637 L0004638 L0004639 L0004640 L0004641 L0004642
SRCGROUP Other    L0004643 L0004644 L0004645 L0004646 L0004647 L0004648
SRCGROUP Other    L0004649 L0004650 L0004651 L0004652 L0004653 L0004654
SRCGROUP Other    L0004655 L0004656 L0004657 L0004658 L0004659 L0004660
SRCGROUP Other    L0004661 L0004662 L0004663 L0004664 L0004665 L0004666
SRCGROUP Other    L0004667 L0004668 L0004669 L0004670 L0004671 L0004672
SRCGROUP Other    L0004673 L0004674 L0004675 L0004676 L0004677 L0004678
SRCGROUP Other    L0004679 L0004680 L0004681 L0004682 L0004683 L0004684
```

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                                 AERMOD HRA Output
   SRCGROUP Other    L0004685 L0004686 L0004687 L0004688 L0004689 L0004690
   SRCGROUP Other    L0004691 L0004692 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Residential.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL RESIDENTIAL.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac RESIDENTIAL.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other RESIDENTIAL.AD\AN00G002.PLT 33
   SUMMFILE Residential.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
```

```
                                AERMOD HRA Output
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***



    ********   WARNING MESSAGES   ********
 ME W531    5209       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2333 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.
```

```
                                 AERMOD HRA Output

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2333 Source(s);       3 Source Group(s); and       8
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2314 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      4.8 MB of RAM.

 **Detailed Error/Message File:   Residential.err
```

```
                                 AERMOD HRA Output
 **File for Summary of Results:   Residential.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                      VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

 STCK1            0   0.70870E-05  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK2            0   0.70870E-05  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK3            0   0.70870E-05  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK4            0   0.70870E-05  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK5            0   0.70870E-05  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK6            0   0.70870E-05  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK7            0   0.70870E-05  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK8            0   0.70870E-05  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK9            0   0.70870E-05  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK10           0   0.70870E-05  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK11           0   0.14994E-04  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK12           0   0.11881E-04  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO      YES   NO
 STCK13           0   0.20320E-04  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO      YES   NO
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0002531         0   0.44880E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES
 L0002532         0   0.44880E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES
 L0002533         0   0.44880E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES
 L0002534         0   0.44880E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES
 L0002535         0   0.44880E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES
 L0002536         0   0.44880E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES
 L0002537         0   0.44880E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES
 L0002538         0   0.44880E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES
 L0002539         0   0.44880E-05  478217.3 3748656.3   452.0     4.00    13.95
1.86     YES
 L0002540         0   0.44880E-05  478217.4 3748686.3   452.0     4.00    13.95
1.86     YES
 L0002541         0   0.44880E-05  478217.6 3748716.3   452.0     4.00    13.95
1.86     YES
 L0002542         0   0.44880E-05  478217.7 3748746.3   452.0     4.00    13.95
1.86     YES
 L0002543         0   0.44880E-05  478217.8 3748776.3   452.0     4.00    13.95
1.86     YES
 L0002544         0   0.44880E-05  478218.0 3748806.3   452.7     4.00    13.95
1.86     YES
```

```
 L0002545         0   0.44880E-05  478218.1 3748836.3   453.0     4.00    13.95
1.86     YES
 L0002546         0   0.44880E-05  478218.3 3748866.3   453.0     4.00    13.95
1.86     YES
 L0002547         0   0.44880E-05  478218.4 3748896.3   453.0     4.00    13.95
1.86     YES
 L0002548         0   0.46490E-05  477943.9 3748501.1   451.5     4.00    13.95
1.86     YES
 L0002549         0   0.46490E-05  477944.1 3748531.1   452.0     4.00    13.95
1.86     YES
 L0002550         0   0.46490E-05  477944.4 3748561.1   452.0     4.00    13.95
1.86     YES
 L0002551         0   0.46490E-05  477944.7 3748591.1   452.0     4.00    13.95
1.86     YES
 L0002552         0   0.46490E-05  477944.9 3748621.1   452.0     4.00    13.95
1.86     YES
 L0002553         0   0.46490E-05  477945.2 3748651.1   452.0     4.00    13.95
1.86     YES
 L0002554         0   0.46490E-05  477945.4 3748681.1   452.5     4.00    13.95
1.86     YES
 L0002555         0   0.46490E-05  477945.7 3748711.1   453.0     4.00    13.95
1.86     YES
 L0002556         0   0.46490E-05  477945.9 3748741.1   453.0     4.00    13.95
1.86     YES
 L0002557         0   0.46490E-05  477946.2 3748771.1   453.0     4.00    13.95
1.86     YES
 L0002558         0   0.46490E-05  477946.5 3748801.1   453.0     4.00    13.95
1.86     YES
 L0002559         0   0.46490E-05  477946.7 3748831.1   453.0     4.00    13.95
1.86     YES
 L0002560         0   0.46490E-05  477947.0 3748861.1   453.0     4.00    13.95
1.86     YES
 L0002561         0   0.46490E-05  477947.2 3748891.1   453.0     4.00    13.95
1.86     YES
 L0002562         0   0.42890E-05  477756.7 3748938.5   454.0     4.00     3.95
1.86     YES
 L0002563         0   0.42890E-05  477756.7 3748930.0   453.8     4.00     3.95
1.86     YES
 L0002564         0   0.42890E-05  477756.7 3748921.5   453.6     4.00     3.95
1.86     YES
 L0002565         0   0.42890E-05  477756.7 3748913.0   453.3     4.00     3.95
1.86     YES
 L0002566         0   0.42890E-05  477756.7 3748904.5   453.1     4.00     3.95
1.86     YES
 L0002567         0   0.42890E-05  477756.7 3748896.0   453.1     4.00     3.95
1.86     YES
 L0002568         0   0.42890E-05  477756.7 3748887.5   453.1     4.00     3.95
1.86     YES
```

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                              AERMOD HRA Output
 L0002569          0   0.42890E-05  477756.7 3748879.0   453.1     4.00     3.95
1.86     YES
 L0002570          0   0.19010E-06  477900.2 3748339.0   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002571          0   0.19010E-06  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES
 L0002572          0   0.19010E-06  477917.2 3748338.9   451.0     4.00     3.95
1.86     YES
 L0002573          0   0.19010E-06  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES
 L0002574          0   0.19010E-06  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES
 L0002575          0   0.19010E-06  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES
 L0002576          0   0.19010E-06  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES
 L0002577          0   0.19010E-06  477951.8 3748324.5   451.0     4.00     3.95
1.86     YES
 L0002578          0   0.19010E-06  477956.1 3748317.1   450.0     4.00     3.95
1.86     YES
 L0002579          0   0.19010E-06  477960.3 3748309.7   450.0     4.00     3.95
1.86     YES
 L0002580          0   0.19010E-06  477964.6 3748302.3   450.0     4.00     3.95
1.86     YES
 L0002581          0   0.19010E-06  477968.8 3748295.0   450.0     4.00     3.95
1.86     YES
 L0002582          0   0.19010E-06  477973.0 3748287.6   450.0     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0002583         0   0.19010E-06  477976.2 3748279.9   450.0     4.00      3.95
1.86     YES
 L0002584         0   0.19010E-06  477977.3 3748271.5   450.0     4.00      3.95
1.86     YES
 L0002585         0   0.19010E-06  477978.3 3748263.0   450.0     4.00      3.95
1.86     YES
 L0002586         0   0.19010E-06  477978.3 3748254.5   450.0     4.00      3.95
1.86     YES
 L0002587         0   0.19010E-06  477978.3 3748246.0   450.0     4.00      3.95
1.86     YES
 L0002588         0   0.19010E-06  477978.2 3748237.5   450.0     4.00      3.95
1.86     YES
 L0002589         0   0.19010E-06  477978.2 3748229.0   450.0     4.00      3.95
1.86     YES
 L0002590         0   0.19010E-06  477978.1 3748220.5   450.0     4.00      3.95
1.86     YES
 L0002591         0   0.31000E-05  477608.7 3748929.3   454.0     0.00      3.95
1.86     YES
 L0002592         0   0.31000E-05  477608.7 3748920.8   454.0     0.00      3.95
1.86     YES
 L0002593         0   0.31000E-05  477608.7 3748912.3   454.0     0.00      3.95
1.86     YES
 L0002594         0   0.31000E-05  477608.7 3748903.8   454.0     0.00      3.95
1.86     YES
 L0002595         0   0.31000E-05  477608.7 3748895.3   454.0     0.00      3.95
1.86     YES
 L0002596         0   0.31000E-05  477608.7 3748886.8   454.0     0.00      3.95
1.86     YES
 L0002597         0   0.31000E-05  477608.7 3748878.3   454.0     0.00      3.95
1.86     YES
 L0002598         0   0.31000E-05  477608.7 3748869.8   454.0     0.00      3.95
1.86     YES
 L0002599         0   0.31000E-05  477608.7 3748861.3   454.0     0.00      3.95
1.86     YES
 L0002600         0   0.31000E-05  477608.7 3748852.8   454.0     0.00      3.95
1.86     YES
 L0002601         0   0.31000E-05  477608.7 3748844.3   454.0     0.00      3.95
1.86     YES
 L0002602         0   0.31000E-05  477608.7 3748835.8   454.0     0.00      3.95
1.86     YES
 L0002603         0   0.31000E-05  477608.7 3748827.3   454.0     0.00      3.95
1.86     YES
 L0002604         0   0.31000E-05  477608.7 3748818.8   454.0     0.00      3.95
1.86     YES
 L0002605         0   0.31000E-05  477608.7 3748810.3   454.0     0.00      3.95
1.86     YES
 L0002606         0   0.61680E-06  478043.0 3748335.2   451.0     0.00     13.95
1.86     YES
```

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 L0002607         0   0.61680E-06  478073.0 3748334.5   451.0     0.00    13.95
1.86     YES
 L0002608         0   0.61680E-06  478103.0 3748333.9   451.0     0.00    13.95
1.86     YES
 L0002609         0   0.61680E-06  478133.0 3748333.2   451.0     0.00    13.95
1.86     YES
 L0002610         0   0.61680E-06  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002611         0   0.10050E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES
 L0002612         0   0.10050E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES
 L0002613         0   0.10050E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES
 L0002614         0   0.10050E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86     YES
 L0002615         0   0.10050E-05  477950.2 3748937.5   453.0     4.00     3.95
1.86     YES
 L0002616         0   0.10050E-05  477949.0 3748929.1   453.0     4.00     3.95
1.86     YES
 L0002617         0   0.10050E-05  477948.2 3748920.7   453.0     4.00     3.95
1.86     YES
 L0002618         0   0.10050E-05  477948.1 3748912.2   453.0     4.00     3.95
1.86     YES
 L0002619         0   0.10050E-05  477947.9 3748903.7   453.0     4.00     3.95
1.86     YES
 L0002620         0   0.10050E-05  477947.8 3748895.2   453.0     4.00     3.95
1.86     YES
```

AERMOD HRA Output

```
 L0002621        0   0.10050E-05  477947.6 3748886.7    453.0      4.00      3.95
1.86      YES
 L0002622        0   0.10050E-05  477947.5 3748878.2    453.0      4.00      3.95
1.86      YES
 L0002623        0   0.10050E-05  477947.3 3748869.7    453.0      4.00      3.95
1.86      YES
 L0002624        0   0.10050E-05  477947.2 3748861.2    453.0      4.00      3.95
1.86      YES
 L0002625        0   0.10050E-05  477947.2 3748852.7    453.0      4.00      3.95
1.86      YES
 L0002626        0   0.10050E-05  477947.1 3748844.2    453.0      4.00      3.95
1.86      YES
 L0002627        0   0.10050E-05  477947.0 3748835.7    453.0      4.00      3.95
1.86      YES
 L0002628        0   0.10050E-05  477947.0 3748827.2    453.0      4.00      3.95
1.86      YES
 L0002629        0   0.10050E-05  477946.9 3748818.7    453.0      4.00      3.95
1.86      YES
 L0002630        0   0.10050E-05  477946.8 3748810.2    453.0      4.00      3.95
1.86      YES
 L0002631        0   0.10050E-05  477946.7 3748801.7    453.0      4.00      3.95
1.86      YES
 L0002632        0   0.10050E-05  477946.7 3748793.2    453.0      4.00      3.95
1.86      YES
 L0002633        0   0.10050E-05  477946.6 3748784.7    453.0      4.00      3.95
1.86      YES
 L0002634        0   0.10050E-05  477946.5 3748776.2    453.0      4.00      3.95
1.86      YES
 L0002635        0   0.10050E-05  477946.5 3748767.7    453.0      4.00      3.95
1.86      YES
 L0002636        0   0.10050E-05  477946.4 3748759.2    453.0      4.00      3.95
1.86      YES
 L0002637        0   0.10050E-05  477946.3 3748750.7    453.0      4.00      3.95
1.86      YES
 L0002638        0   0.10050E-05  477946.3 3748742.2    453.0      4.00      3.95
1.86      YES
 L0002639        0   0.10050E-05  477946.2 3748733.7    453.0      4.00      3.95
1.86      YES
 L0002640        0   0.10050E-05  477946.1 3748725.2    453.0      4.00      3.95
1.86      YES
 L0002641        0   0.10050E-05  477946.1 3748716.7    453.0      4.00      3.95
1.86      YES
 L0002642        0   0.10050E-05  477946.0 3748708.2    453.0      4.00      3.95
1.86      YES
 L0002643        0   0.10050E-05  477945.9 3748699.7    453.0      4.00      3.95
1.86      YES
 L0002644        0   0.10050E-05  477945.9 3748691.2    452.8      4.00      3.95
1.86      YES
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 L0002645         0   0.10050E-05  477945.8 3748682.7   452.5     4.00     3.95
1.86     YES
 L0002646         0   0.10050E-05  477945.7 3748674.2   452.2     4.00     3.95
1.86     YES
 L0002647         0   0.10050E-05  477945.7 3748665.7   452.0     4.00     3.95
1.86     YES
 L0002648         0   0.10050E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86     YES
 L0002649         0   0.10050E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86     YES
 L0002650         0   0.10050E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0002651         0   0.10050E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86     YES
 L0002652         0   0.10050E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86     YES
 L0002653         0   0.10050E-05  477945.2 3748614.7   452.0     4.00     3.95
1.86     YES
 L0002654         0   0.10050E-05  477945.2 3748606.2   452.0     4.00     3.95
1.86     YES
 L0002655         0   0.10050E-05  477945.1 3748597.7   452.0     4.00     3.95
1.86     YES
 L0002656         0   0.10050E-05  477945.0 3748589.2   452.0     4.00     3.95
1.86     YES
 L0002657         0   0.10050E-05  477945.0 3748580.7   452.0     4.00     3.95
1.86     YES
 L0002658         0   0.10050E-05  477944.9 3748572.2   452.0     4.00     3.95
1.86     YES
```

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                                AERMOD HRA Output
 L0002659         0   0.10050E-05  477944.8 3748563.7   452.0     4.00      3.95
1.86     YES
 L0002660         0   0.10050E-05  477944.8 3748555.2   452.0     4.00      3.95
1.86     YES
 L0002661         0   0.10050E-05  477944.7 3748546.7   452.0     4.00      3.95
1.86     YES
 L0002662         0   0.10050E-05  477944.6 3748538.2   452.0     4.00      3.95
1.86     YES
 L0002663         0   0.10050E-05  477944.6 3748529.7   452.0     4.00      3.95
1.86     YES
 L0002664         0   0.10050E-05  477944.5 3748521.2   452.0     4.00      3.95
1.86     YES
 L0002665         0   0.10050E-05  477944.4 3748512.7   451.9     4.00      3.95
1.86     YES
 L0002666         0   0.10050E-05  477944.4 3748504.2   451.6     4.00      3.95
1.86     YES
 L0002667         0   0.10050E-05  477944.3 3748495.7   451.3     4.00      3.95
1.86     YES
 L0002668         0   0.10050E-05  477944.7 3748487.3   451.0     4.00      3.95
1.86     YES
 L0002669         0   0.10050E-05  477948.7 3748479.8   451.0     4.00      3.95
1.86     YES
 L0002670         0   0.10050E-05  477952.8 3748472.3   451.0     4.00      3.95
1.86     YES
 L0002671         0   0.10050E-05  477956.8 3748464.9   451.0     4.00      3.95
1.86     YES
 L0002672         0   0.10050E-05  477960.8 3748457.4   451.0     4.00      3.95
1.86     YES
 L0002673         0   0.10050E-05  477964.8 3748449.9   451.0     4.00      3.95
1.86     YES
 L0002674         0   0.10050E-05  477968.8 3748442.4   451.0     4.00      3.95
1.86     YES
 L0002675         0   0.10050E-05  477972.8 3748434.9   451.0     4.00      3.95
1.86     YES
 L0002676         0   0.10050E-05  477976.9 3748427.4   451.0     4.00      3.95
1.86     YES
 L0002677         0   0.10050E-05  477980.9 3748419.9   451.0     4.00      3.95
1.86     YES
 L0002678         0   0.10050E-05  477984.9 3748412.4   451.0     4.00      3.95
1.86     YES
 L0002679         0   0.10050E-05  477988.9 3748404.9   451.0     4.00      3.95
1.86     YES
 L0002680         0   0.10050E-05  477992.9 3748397.4   451.0     4.00      3.95
1.86     YES
 L0002681         0   0.10050E-05  477996.9 3748389.9   451.0     4.00      3.95
1.86     YES
 L0002682         0   0.10050E-05  478001.0 3748382.4   451.0     4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0002683         0   0.10050E-05  478005.0 3748375.0   451.0     4.00     3.95
1.86     YES
 L0002684         0   0.10050E-05  478009.0 3748367.5   451.0     4.00     3.95
1.86     YES
 L0002685         0   0.10050E-05  478013.0 3748360.0   451.0     4.00     3.95
1.86     YES
 L0002686         0   0.10050E-05  478017.1 3748352.5   451.0     4.00     3.95
1.86     YES
 L0002687         0   0.10050E-05  478021.7 3748345.4   451.0     4.00     3.95
1.86     YES
 L0002688         0   0.10050E-05  478026.4 3748338.3   451.0     4.00     3.95
1.86     YES
 L0002689         0   0.10050E-05  478033.8 3748336.4   451.0     4.00     3.95
1.86     YES
 L0002690         0   0.10050E-05  478042.3 3748336.5   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002691         0   0.10050E-05  478050.8 3748336.6   451.0     4.00     3.95
1.86     YES
 L0002692         0   0.10050E-05  478059.3 3748336.7   451.0     4.00     3.95
1.86     YES
 L0002693         0   0.10050E-05  478067.8 3748336.8   451.0     4.00     3.95
1.86     YES
 L0002694         0   0.10050E-05  478076.3 3748336.9   451.0     4.00     3.95
1.86     YES
 L0002695         0   0.10050E-05  478084.8 3748337.0   451.0     4.00     3.95
1.86     YES
 L0002696         0   0.10050E-05  478093.3 3748337.1   451.0     4.00     3.95
1.86     YES
```

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 L0002697         0   0.10050E-05  478101.8 3748337.2   451.0      4.00      3.95
1.86     YES
 L0002698         0   0.10050E-05  478110.3 3748337.3   451.0      4.00      3.95
1.86     YES
 L0002699         0   0.10050E-05  478118.8 3748337.4   451.0      4.00      3.95
1.86     YES
 L0002700         0   0.10050E-05  478127.3 3748337.4   451.0      4.00      3.95
1.86     YES
 L0002701         0   0.10050E-05  478135.8 3748337.5   451.0      4.00      3.95
1.86     YES
 L0002702         0   0.10050E-05  478144.3 3748337.6   451.0      4.00      3.95
1.86     YES
 L0002703         0   0.10050E-05  478152.8 3748337.7   451.0      4.00      3.95
1.86     YES
 L0002704         0   0.10050E-05  478161.3 3748337.8   451.0      4.00      3.95
1.86     YES
 L0002705         0   0.10050E-05  478169.8 3748337.9   451.0      4.00      3.95
1.86     YES
 L0002706         0   0.10050E-05  478178.3 3748338.0   451.0      4.00      3.95
1.86     YES
 L0002707         0   0.10050E-05  478186.8 3748338.1   451.0      4.00      3.95
1.86     YES
 L0002708         0   0.10050E-05  478195.3 3748338.2   451.0      4.00      3.95
1.86     YES
 L0002709         0   0.10050E-05  478203.8 3748338.3   451.0      4.00      3.95
1.86     YES
 L0002710         0   0.10050E-05  478212.3 3748338.4   451.0      4.00      3.95
1.86     YES
 L0002711         0   0.10050E-05  478215.8 3748343.4   451.0      4.00      3.95
1.86     YES
 L0002712         0   0.10050E-05  478215.9 3748351.9   451.0      4.00      3.95
1.86     YES
 L0002713         0   0.10050E-05  478216.0 3748360.4   451.0      4.00      3.95
1.86     YES
 L0002714         0   0.10050E-05  478216.0 3748368.9   451.0      4.00      3.95
1.86     YES
 L0002715         0   0.10050E-05  478216.1 3748377.4   451.0      4.00      3.95
1.86     YES
 L0002716         0   0.10050E-05  478216.1 3748385.9   451.0      4.00      3.95
1.86     YES
 L0002717         0   0.10050E-05  478216.2 3748394.4   451.0      4.00      3.95
1.86     YES
 L0002718         0   0.10050E-05  478216.3 3748402.9   451.0      4.00      3.95
1.86     YES
 L0002719         0   0.10050E-05  478216.3 3748411.4   451.0      4.00      3.95
1.86     YES
 L0002720         0   0.10050E-05  478216.4 3748419.9   451.0      4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0002721         0   0.10050E-05  478216.4 3748428.4   451.0     4.00     3.95
1.86     YES
 L0002722         0   0.10050E-05  478216.5 3748436.9   451.0     4.00     3.95
1.86     YES
 L0002723         0   0.10050E-05  478216.6 3748445.4   451.0     4.00     3.95
1.86     YES
 L0002724         0   0.10050E-05  478216.6 3748453.9   451.0     4.00     3.95
1.86     YES
 L0002725         0   0.10050E-05  478216.7 3748462.4   451.0     4.00     3.95
1.86     YES
 L0002726         0   0.10050E-05  478216.7 3748470.9   451.1     4.00     3.95
1.86     YES
 L0002727         0   0.10050E-05  478216.8 3748479.4   451.2     4.00     3.95
1.86     YES
 L0002728         0   0.10050E-05  478216.9 3748487.9   451.3     4.00     3.95
1.86     YES
 L0002729         0   0.10050E-05  478216.9 3748496.4   451.5     4.00     3.95
1.86     YES
 L0002730         0   0.10050E-05  478217.0 3748504.9   451.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002731         0   0.10050E-05  478217.0 3748513.4   451.9     4.00     3.95
1.86     YES
 L0002732         0   0.10050E-05  478217.1 3748521.9   452.0     4.00     3.95
1.86     YES
 L0002733         0   0.10050E-05  478217.2 3748530.4   452.0     4.00     3.95
1.86     YES
 L0002734         0   0.10050E-05  478217.2 3748538.9   452.0     4.00     3.95
1.86     YES
```

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                                   AERMOD HRA Output
  L0002735          0   0.10050E-05  478217.3 3748547.4   452.0     4.00     3.95
 1.86     YES
  L0002736          0   0.10050E-05  478217.3 3748555.9   452.0     4.00     3.95
 1.86     YES
  L0002737          0   0.10050E-05  478217.4 3748564.4   452.0     4.00     3.95
 1.86     YES
  L0002738          0   0.10050E-05  478217.5 3748572.9   452.0     4.00     3.95
 1.86     YES
  L0002739          0   0.10050E-05  478217.5 3748581.4   452.0     4.00     3.95
 1.86     YES
  L0002740          0   0.10050E-05  478217.6 3748589.9   452.0     4.00     3.95
 1.86     YES
  L0002741          0   0.10050E-05  478217.7 3748598.4   452.0     4.00     3.95
 1.86     YES
  L0002742          0   0.10050E-05  478217.7 3748606.9   452.0     4.00     3.95
 1.86     YES
  L0002743          0   0.10050E-05  478217.8 3748615.4   452.0     4.00     3.95
 1.86     YES
  L0002744          0   0.10050E-05  478217.8 3748623.9   452.0     4.00     3.95
 1.86     YES
  L0002745          0   0.10050E-05  478217.9 3748632.4   452.0     4.00     3.95
 1.86     YES
  L0002746          0   0.10050E-05  478218.0 3748640.9   452.0     4.00     3.95
 1.86     YES
  L0002747          0   0.10050E-05  478218.0 3748649.4   452.0     4.00     3.95
 1.86     YES
  L0002748          0   0.10050E-05  478218.1 3748657.9   452.0     4.00     3.95
 1.86     YES
  L0002749          0   0.10050E-05  478218.1 3748666.4   452.0     4.00     3.95
 1.86     YES
  L0002750          0   0.10050E-05  478218.2 3748674.9   452.0     4.00     3.95
 1.86     YES
  L0002751          0   0.10050E-05  478218.3 3748683.4   452.0     4.00     3.95
 1.86     YES
  L0002752          0   0.10050E-05  478218.3 3748691.9   452.0     4.00     3.95
 1.86     YES
  L0002753          0   0.10050E-05  478218.4 3748700.4   452.0     4.00     3.95
 1.86     YES
  L0002754          0   0.10050E-05  478218.4 3748708.9   452.0     4.00     3.95
 1.86     YES
  L0002755          0   0.10050E-05  478218.5 3748717.4   452.0     4.00     3.95
 1.86     YES
  L0002756          0   0.10050E-05  478218.6 3748725.9   452.0     4.00     3.95
 1.86     YES
  L0002757          0   0.10050E-05  478218.6 3748734.4   452.0     4.00     3.95
 1.86     YES
  L0002758          0   0.10050E-05  478218.7 3748742.9   452.0     4.00     3.95
 1.86     YES
```

```
                                  AERMOD HRA Output
 L0002759         0   0.10050E-05  478218.7 3748751.4   452.0     4.00     3.95
1.86     YES
 L0002760         0   0.10050E-05  478218.8 3748759.9   452.0     4.00     3.95
1.86     YES
 L0002761         0   0.10050E-05  478218.9 3748768.4   452.0     4.00     3.95
1.86     YES
 L0002762         0   0.10050E-05  478218.9 3748776.9   452.0     4.00     3.95
1.86     YES
 L0002763         0   0.10050E-05  478219.0 3748785.4   452.0     4.00     3.95
1.86     YES
 L0002764         0   0.10050E-05  478219.0 3748793.9   452.2     4.00     3.95
1.86     YES
 L0002765         0   0.10050E-05  478219.1 3748802.4   452.5     4.00     3.95
1.86     YES
 L0002766         0   0.10050E-05  478219.2 3748810.9   452.8     4.00     3.95
1.86     YES
 L0002767         0   0.10050E-05  478219.2 3748819.4   453.0     4.00     3.95
1.86     YES
 L0002768         0   0.10050E-05  478219.3 3748827.9   453.0     4.00     3.95
1.86     YES
 L0002769         0   0.10050E-05  478219.3 3748836.4   453.0     4.00     3.95
1.86     YES
 L0002770         0   0.10050E-05  478219.4 3748844.9   453.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0002771         0   0.10050E-05  478219.5 3748853.4   453.0     4.00     3.95
1.86     YES
 L0002772         0   0.10050E-05  478219.5 3748861.9   453.0     4.00     3.95
1.86     YES
```

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                                   AERMOD HRA Output
  L0002773         0   0.10050E-05  478219.6 3748870.4   453.0     4.00      3.95
 1.86     YES
  L0002774         0   0.10050E-05  478219.6 3748878.9   453.0     4.00      3.95
 1.86     YES
  L0002775         0   0.10050E-05  478219.7 3748887.4   453.0     4.00      3.95
 1.86     YES
  L0002776         0   0.10050E-05  478219.8 3748895.9   453.0     4.00      3.95
 1.86     YES
  L0002777         0   0.10050E-05  478219.8 3748904.4   453.0     4.00      3.95
 1.86     YES
  L0002778         0   0.10050E-05  478219.9 3748912.9   453.0     4.00      3.95
 1.86     YES
  L0002779         0   0.10050E-05  478217.5 3748921.1   453.0     4.00      3.95
 1.86     YES
  L0002780         0   0.10050E-05  478215.0 3748929.2   453.0     4.00      3.95
 1.86     YES
  L0002781         0   0.10050E-05  478212.6 3748937.3   453.0     4.00      3.95
 1.86     YES
  L0002782         0   0.10050E-05  478210.1 3748945.4   453.0     4.00      3.95
 1.86     YES
  L0002783         0   0.10050E-05  478207.6 3748953.6   453.0     4.00      3.95
 1.86     YES
  L0002784         0   0.10050E-05  478205.1 3748961.7   453.0     4.00      3.95
 1.86     YES
  L0002785         0   0.10050E-05  478202.7 3748969.8   453.0     4.00      3.95
 1.86     YES
  L0002786         0   0.21410E-06  477852.8 3748835.2   453.0     4.00      3.95
 1.86     YES
  L0002787         0   0.21410E-06  477852.8 3748843.7   453.0     4.00      3.95
 1.86     YES
  L0002788         0   0.21410E-06  477852.9 3748852.2   453.0     4.00      3.95
 1.86     YES
  L0002789         0   0.21410E-06  477852.9 3748860.7   453.0     4.00      3.95
 1.86     YES
  L0002790         0   0.21410E-06  477853.0 3748869.2   453.0     4.00      3.95
 1.86     YES
  L0002791         0   0.21410E-06  477853.0 3748877.7   453.0     4.00      3.95
 1.86     YES
  L0002792         0   0.21410E-06  477853.0 3748886.2   453.0     4.00      3.95
 1.86     YES
  L0002793         0   0.21410E-06  477853.1 3748894.7   453.0     4.00      3.95
 1.86     YES
  L0002794         0   0.21410E-06  477853.1 3748903.2   453.0     4.00      3.95
 1.86     YES
  L0002795         0   0.21410E-06  477853.2 3748911.7   453.0     4.00      3.95
 1.86     YES
  L0002796         0   0.21410E-06  477853.2 3748920.2   453.0     4.00      3.95
 1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                  AERMOD HRA Output
 L0002797         0   0.21410E-06  477853.3 3748928.7   453.0     4.00     3.95
1.86     YES
 L0002798         0   0.21410E-06  477853.3 3748937.2   453.0     4.00     3.95
1.86     YES
 L0002799         0   0.21410E-06  477853.4 3748945.7   453.0     4.00     3.95
1.86     YES
 L0002800         0   0.21410E-06  477853.4 3748954.2   453.0     4.00     3.95
1.86     YES
 L0002801         0   0.21410E-06  477853.5 3748962.7   453.0     4.00     3.95
1.86     YES
 L0002802         0   0.21410E-06  477853.5 3748971.2   453.2     4.00     3.95
1.86     YES
 L0002803         0   0.21410E-06  477853.5 3748979.7   453.4     4.00     3.95
1.86     YES
 L0002804         0   0.21410E-06  477845.0 3748979.7   453.5     4.00     3.95
1.86     YES
 L0002805         0   0.21410E-06  477836.5 3748979.6   453.7     4.00     3.95
1.86     YES
 L0002806         0   0.21410E-06  477828.0 3748979.6   453.9     4.00     3.95
1.86     YES
 L0002807         0   0.21410E-06  477819.5 3748979.6   454.0     4.00     3.95
1.86     YES
 L0002808         0   0.21410E-06  477811.0 3748979.6   454.0     4.00     3.95
1.86     YES
 L0002809         0   0.21410E-06  477802.5 3748979.6   454.0     4.00     3.95
1.86     YES
 L0002810         0   0.21410E-06  477794.0 3748979.5   454.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0002811         0   0.21410E-06  477785.5 3748979.5   454.0     4.00      3.95
1.86     YES
 L0002812         0   0.21410E-06  477777.0 3748979.5   454.0     4.00      3.95
1.86     YES
 L0002813         0   0.21410E-06  477768.5 3748979.5   454.0     4.00      3.95
1.86     YES
 L0002814         0   0.21410E-06  477760.0 3748979.5   454.0     4.00      3.95
1.86     YES
 L0002815         0   0.21410E-06  477751.5 3748979.4   454.0     4.00      3.95
1.86     YES
 L0002816         0   0.21410E-06  477743.0 3748979.4   454.0     4.00      3.95
1.86     YES
 L0002817         0   0.21410E-06  477742.7 3748971.2   454.0     4.00      3.95
1.86     YES
 L0002818         0   0.21410E-06  477742.7 3748962.7   454.0     4.00      3.95
1.86     YES
 L0002819         0   0.21410E-06  477742.6 3748954.2   454.0     4.00      3.95
1.86     YES
 L0002820         0   0.21410E-06  477742.6 3748945.7   454.0     4.00      3.95
1.86     YES
 L0002821         0   0.21410E-06  477742.5 3748937.2   454.0     4.00      3.95
1.86     YES
 L0002822         0   0.21410E-06  477742.5 3748928.7   453.9     4.00      3.95
1.86     YES
 L0002823         0   0.21410E-06  477742.4 3748920.2   453.8     4.00      3.95
1.86     YES
 L0002824         0   0.21410E-06  477742.4 3748911.7   453.7     4.00      3.95
1.86     YES
 L0002825         0   0.21410E-06  477742.3 3748903.2   453.6     4.00      3.95
1.86     YES
 L0002826         0   0.21410E-06  477742.3 3748894.7   453.6     4.00      3.95
1.86     YES
 L0002827         0   0.21410E-06  477742.2 3748886.2   453.6     4.00      3.95
1.86     YES
 L0002828         0   0.21410E-06  477744.2 3748878.0   453.5     4.00      3.95
1.86     YES
 L0002829         0   0.21410E-06  477746.5 3748869.8   453.6     4.00      3.95
1.86     YES
 L0002830         0   0.21410E-06  477748.8 3748861.6   453.7     4.00      3.95
1.86     YES
 L0002831         0   0.21410E-06  477751.1 3748853.4   453.8     4.00      3.95
1.86     YES
 L0002832         0   0.21410E-06  477753.4 3748845.3   454.0     4.00      3.95
1.86     YES
 L0002833         0   0.21410E-06  477757.5 3748838.2   453.7     4.00      3.95
1.86     YES
 L0002834         0   0.21410E-06  477763.8 3748832.5   453.5     4.00      3.95
1.86     YES
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 L0002835         0   0.21410E-06  477770.1 3748826.8   453.2     4.00     3.95
1.86     YES
 L0002836         0   0.21410E-06  477778.6 3748826.5   453.1     4.00     3.95
1.86     YES
 L0002837         0   0.21410E-06  477787.1 3748826.4   453.0     4.00     3.95
1.86     YES
 L0002838         0   0.21410E-06  477795.6 3748826.2   453.0     4.00     3.95
1.86     YES
 L0002839         0   0.21410E-06  477804.1 3748826.1   453.0     4.00     3.95
1.86     YES
 L0002840         0   0.21410E-06  477812.6 3748826.1   453.0     4.00     3.95
1.86     YES
 L0002841         0   0.21410E-06  477821.1 3748826.0   453.0     4.00     3.95
1.86     YES
 L0002842         0   0.21410E-06  477829.6 3748826.0   453.0     4.00     3.95
1.86     YES
 L0002843         0   0.21410E-06  477838.1 3748825.9   453.0     4.00     3.95
1.86     YES
 L0002844         0   0.21410E-06  477846.6 3748825.8   453.0     4.00     3.95
1.86     YES
 L0002845         0   0.16860E-06  477886.6 3748203.7   450.0     4.00     3.95
1.86     YES
 L0002846         0   0.16860E-06  477886.4 3748212.2   450.0     4.00     3.95
1.86     YES
 L0002847         0   0.16860E-06  477886.3 3748220.7   450.1     4.00     3.95
1.86     YES
 L0002848         0   0.16860E-06  477886.1 3748229.2   450.3     4.00     3.95
1.86     YES
 L0002849         0   0.16860E-06  477885.9 3748237.7   450.6     4.00     3.95
1.86     YES
 L0002850         0   0.16860E-06  477885.7 3748246.2   450.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                BY
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 L0002851         0   0.16860E-06  477885.5 3748254.7   450.9     4.00     3.95
1.86     YES
 L0002852         0   0.16860E-06  477885.6 3748263.2   450.9     4.00     3.95
1.86     YES
 L0002853         0   0.16860E-06  477885.7 3748271.7   451.0     4.00     3.95
1.86     YES
 L0002854         0   0.16860E-06  477885.8 3748280.2   451.0     4.00     3.95
1.86     YES
 L0002855         0   0.16860E-06  477885.9 3748288.7   451.0     4.00     3.95
1.86     YES
 L0002856         0   0.16860E-06  477886.0 3748297.2   451.0     4.00     3.95
1.86     YES
 L0002857         0   0.16860E-06  477886.1 3748305.7   451.0     4.00     3.95
1.86     YES
 L0002858         0   0.16860E-06  477886.2 3748314.2   451.0     4.00     3.95
1.86     YES
 L0002859         0   0.16860E-06  477886.3 3748322.7   451.0     4.00     3.95
1.86     YES
 L0002860         0   0.16860E-06  477886.4 3748331.2   451.0     4.00     3.95
1.86     YES
 L0002861         0   0.16860E-06  477889.0 3748337.4   451.0     4.00     3.95
1.86     YES
 L0002862         0   0.16860E-06  477897.5 3748338.1   451.0     4.00     3.95
1.86     YES
 L0002863         0   0.16860E-06  477906.0 3748338.9   451.0     4.00     3.95
1.86     YES
 L0002864         0   0.16860E-06  477914.4 3748339.7   451.0     4.00     3.95
1.86     YES
 L0002865         0   0.16860E-06  477922.9 3748339.5   451.0     4.00     3.95
1.86     YES
 L0002866         0   0.16860E-06  477931.4 3748338.9   451.0     4.00     3.95
1.86     YES
 L0002867         0   0.16860E-06  477939.8 3748338.2   451.0     4.00     3.95
1.86     YES
 L0002868         0   0.16860E-06  477945.5 3748332.6   451.0     4.00     3.95
1.86     YES
 L0002869         0   0.16860E-06  477950.6 3748325.7   451.0     4.00     3.95
1.86     YES
 L0002870         0   0.16860E-06  477955.0 3748318.5   450.0     4.00     3.95
1.86     YES
 L0002871         0   0.16860E-06  477959.4 3748311.2   450.0     4.00     3.95
1.86     YES
 L0002872         0   0.16860E-06  477963.8 3748303.9   450.0     4.00     3.95
1.86     YES
```

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                                AERMOD HRA Output
 L0002873         0   0.16860E-06  477968.2 3748296.7   450.0     4.00     3.95
1.86     YES
 L0002874         0   0.16860E-06  477972.6 3748289.4   450.0     4.00     3.95
1.86     YES
 L0002875         0   0.16860E-06  477975.8 3748281.7   450.0     4.00     3.95
1.86     YES
 L0002876         0   0.16860E-06  477977.7 3748273.4   450.0     4.00     3.95
1.86     YES
 L0002877         0   0.16860E-06  477979.6 3748265.1   450.0     4.00     3.95
1.86     YES
 L0002878         0   0.16860E-06  477981.3 3748256.8   450.0     4.00     3.95
1.86     YES
 L0002879         0   0.16860E-06  477980.6 3748248.3   450.0     4.00     3.95
1.86     YES
 L0002880         0   0.16860E-06  477979.9 3748239.8   450.0     4.00     3.95
1.86     YES
 L0002881         0   0.16860E-06  477979.2 3748231.4   450.0     4.00     3.95
1.86     YES
 L0002882         0   0.16860E-06  477978.4 3748222.9   450.0     4.00     3.95
1.86     YES
 L0002883         0   0.16860E-06  477982.6 3748217.0   450.0     4.00     3.95
1.86     YES
 L0002884         0   0.16860E-06  477990.0 3748212.7   450.0     4.00     3.95
1.86     YES
 L0002885         0   0.16860E-06  477994.0 3748206.5   450.0     4.00     3.95
1.86     YES
 L0002886         0   0.16860E-06  477994.1 3748198.0   450.0     4.00     3.95
1.86     YES
 L0002887         0   0.16860E-06  477986.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0002888         0   0.16860E-06  477977.6 3748197.5   450.0     4.00     3.95
1.86     YES
 L0002889         0   0.16860E-06  477969.1 3748197.5   450.0     4.00     3.95
1.86     YES
 L0002890         0   0.16860E-06  477960.6 3748197.5   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
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                                 AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                 (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0002891         0   0.16860E-06  477952.1 3748197.5   450.0      4.00     3.95
1.86     YES
 L0002892         0   0.16860E-06  477943.6 3748197.5   450.0      4.00     3.95
1.86     YES
 L0002893         0   0.16860E-06  477935.1 3748197.5   450.0      4.00     3.95
1.86     YES
 L0002894         0   0.28780E-06  477505.1 3748975.7   454.2      4.00     3.95
1.86     YES
 L0002895         0   0.28780E-06  477513.6 3748975.6   454.1      4.00     3.95
1.86     YES
 L0002896         0   0.28780E-06  477522.1 3748975.4   454.0      4.00     3.95
1.86     YES
 L0002897         0   0.28780E-06  477530.6 3748975.2   454.0      4.00     3.95
1.86     YES
 L0002898         0   0.28780E-06  477539.1 3748975.1   454.0      4.00     3.95
1.86     YES
 L0002899         0   0.28780E-06  477547.6 3748974.9   454.0      4.00     3.95
1.86     YES
 L0002900         0   0.28780E-06  477556.1 3748974.7   454.0      4.00     3.95
1.86     YES
 L0002901         0   0.28780E-06  477564.6 3748974.6   454.0      4.00     3.95
1.86     YES
 L0002902         0   0.28780E-06  477573.1 3748974.4   454.0      4.00     3.95
1.86     YES
 L0002903         0   0.28780E-06  477581.6 3748974.2   454.0      4.00     3.95
1.86     YES
 L0002904         0   0.28780E-06  477590.1 3748974.1   454.0      4.00     3.95
1.86     YES
 L0002905         0   0.28780E-06  477598.5 3748973.8   454.0      4.00     3.95
1.86     YES
 L0002906         0   0.28780E-06  477605.4 3748968.8   454.0      4.00     3.95
1.86     YES
 L0002907         0   0.28780E-06  477611.1 3748963.0   454.0      4.00     3.95
1.86     YES
 L0002908         0   0.28780E-06  477613.4 3748954.9   454.0      4.00     3.95
1.86     YES
 L0002909         0   0.28780E-06  477615.7 3748946.7   454.0      4.00     3.95
1.86     YES
 L0002910         0   0.28780E-06  477618.0 3748938.5   454.0      4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0002911         0   0.28780E-06  477620.0 3748930.2   454.0     4.00     3.95
1.86     YES
 L0002912         0   0.28780E-06  477621.7 3748921.9   454.0     4.00     3.95
1.86     YES
 L0002913         0   0.28780E-06  477623.4 3748913.6   454.0     4.00     3.95
1.86     YES
 L0002914         0   0.28780E-06  477625.1 3748905.3   454.0     4.00     3.95
1.86     YES
 L0002915         0   0.28780E-06  477626.2 3748896.9   454.0     4.00     3.95
1.86     YES
 L0002916         0   0.28780E-06  477626.4 3748888.4   454.0     4.00     3.95
1.86     YES
 L0002917         0   0.28780E-06  477626.5 3748879.9   454.0     4.00     3.95
1.86     YES
 L0002918         0   0.28780E-06  477626.6 3748871.4   454.0     4.00     3.95
1.86     YES
 L0002919         0   0.28780E-06  477626.7 3748862.9   454.0     4.00     3.95
1.86     YES
 L0002920         0   0.28780E-06  477626.8 3748854.4   454.0     4.00     3.95
1.86     YES
 L0002921         0   0.28780E-06  477626.9 3748845.9   454.0     4.00     3.95
1.86     YES
 L0002922         0   0.28780E-06  477627.0 3748837.4   454.0     4.00     3.95
1.86     YES
 L0002923         0   0.28780E-06  477627.1 3748828.9   454.0     4.00     3.95
1.86     YES
 L0002924         0   0.28780E-06  477627.2 3748820.4   454.0     4.00     3.95
1.86     YES
 L0002925         0   0.28780E-06  477627.3 3748811.9   454.0     4.00     3.95
1.86     YES
 L0002926         0   0.28780E-06  477627.5 3748803.4   454.0     4.00     3.95
1.86     YES
 L0002927         0   0.28780E-06  477627.0 3748795.5   454.0     4.00     3.95
1.86     YES
 L0002928         0   0.28780E-06  477618.5 3748795.7   454.0     4.00     3.95
1.86     YES
 L0002929         0   0.28780E-06  477610.0 3748795.9   454.0     4.00     3.95
1.86     YES
 L0002930         0   0.28780E-06  477601.5 3748796.2   454.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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```
                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0002931        0   0.28780E-06  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES
 L0002932        0   0.28780E-06  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES
 L0002933        0   0.28780E-06  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES
 L0002934        0   0.28780E-06  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES
 L0002935        0   0.28780E-06  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES
 L0002936        0   0.28780E-06  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES
 L0002937        0   0.28780E-06  477542.0 3748797.8   454.0     4.00     3.95
1.86     YES
 L0002938        0   0.28780E-06  477533.5 3748798.0   454.0     4.00     3.95
1.86     YES
 L0002939        0   0.28780E-06  477525.0 3748798.2   454.0     4.00     3.95
1.86     YES
 L0002940        0   0.28780E-06  477516.5 3748798.5   454.0     4.00     3.95
1.86     YES
 L0002941        0   0.28780E-06  477508.0 3748798.7   454.0     4.00     3.95
1.86     YES
 L0002942        0   0.28780E-06  477499.5 3748798.9   454.0     4.00     3.95
1.86     YES
 L0002943        0   0.28780E-06  477491.0 3748799.2   454.0     4.00     3.95
1.86     YES
 L0001867        0   0.42530E-06  478255.5 3748984.6   453.0     4.00     3.95
1.86     YES
 L0001868        0   0.42530E-06  478247.0 3748984.7   453.0     4.00     3.95
1.86     YES
 L0001869        0   0.42530E-06  478238.5 3748984.7   453.0     4.00     3.95
1.86     YES
 L0001870        0   0.42530E-06  478230.0 3748984.8   453.0     4.00     3.95
1.86     YES
 L0001871        0   0.42530E-06  478221.5 3748984.9   453.0     4.00     3.95
1.86     YES
```

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                                   AERMOD HRA Output
 L0001872         0   0.42530E-06  478213.0 3748985.0   453.0     4.00     3.95
1.86     YES
 L0001873         0   0.42530E-06  478204.5 3748985.1   453.0     4.00     3.95
1.86     YES
 L0001874         0   0.42530E-06  478196.0 3748985.1   453.0     4.00     3.95
1.86     YES
 L0001875         0   0.42530E-06  478187.5 3748985.2   453.0     4.00     3.95
1.86     YES
 L0001876         0   0.42530E-06  478179.0 3748985.3   453.0     4.00     3.95
1.86     YES
 L0001877         0   0.42530E-06  478170.5 3748985.4   453.0     4.00     3.95
1.86     YES
 L0001878         0   0.42530E-06  478162.0 3748985.5   453.0     4.00     3.95
1.86     YES
 L0001879         0   0.42530E-06  478153.5 3748985.5   453.0     4.00     3.95
1.86     YES
 L0001880         0   0.42530E-06  478145.0 3748985.6   453.0     4.00     3.95
1.86     YES
 L0001881         0   0.42530E-06  478136.5 3748985.7   453.0     4.00     3.95
1.86     YES
 L0001882         0   0.42530E-06  478128.0 3748985.8   453.0     4.00     3.95
1.86     YES
 L0001883         0   0.42530E-06  478119.5 3748985.9   453.0     4.00     3.95
1.86     YES
 L0001884         0   0.42530E-06  478111.0 3748986.0   453.0     4.00     3.95
1.86     YES
 L0001885         0   0.42530E-06  478102.5 3748986.0   453.0     4.00     3.95
1.86     YES
 L0001886         0   0.42530E-06  478094.0 3748986.1   453.0     4.00     3.95
1.86     YES
 L0001887         0   0.42530E-06  478085.5 3748986.2   453.0     4.00     3.95
1.86     YES
 L0001888         0   0.42530E-06  478077.0 3748986.3   453.0     4.00     3.95
1.86     YES
 L0001889         0   0.42530E-06  478068.5 3748986.4   453.0     4.00     3.95
1.86     YES
 L0001890         0   0.42530E-06  478060.0 3748986.4   453.0     4.00     3.95
1.86     YES
 L0001891         0   0.42530E-06  478051.5 3748986.5   453.0     4.00     3.95
1.86     YES
 L0001892         0   0.42530E-06  478043.0 3748986.6   453.0     4.00     3.95
1.86     YES
 L0001893         0   0.42530E-06  478034.5 3748986.7   453.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21
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                                   AERMOD HRA Output

                                     PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                           *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0001894        0   0.42530E-06  478026.0 3748986.8   453.0     4.00     3.95
1.86     YES
 L0001895        0   0.42530E-06  478017.5 3748986.9   453.0     4.00     3.95
1.86     YES
 L0001896        0   0.42530E-06  478009.0 3748986.9   453.0     4.00     3.95
1.86     YES
 L0001897        0   0.42530E-06  478000.5 3748987.0   453.0     4.00     3.95
1.86     YES
 L0001898        0   0.42530E-06  477992.0 3748987.1   453.0     4.00     3.95
1.86     YES
 L0001899        0   0.42530E-06  477983.5 3748987.2   453.0     4.00     3.95
1.86     YES
 L0001900        0   0.42530E-06  477975.0 3748987.3   453.0     4.00     3.95
1.86     YES
 L0001901        0   0.42530E-06  477966.5 3748987.3   453.0     4.00     3.95
1.86     YES
 L0001902        0   0.42530E-06  477958.0 3748987.4   453.0     4.00     3.95
1.86     YES
 L0001903        0   0.42530E-06  477949.5 3748987.5   453.0     4.00     3.95
1.86     YES
 L0001904        0   0.42530E-06  477941.0 3748987.6   453.0     4.00     3.95
1.86     YES
 L0001905        0   0.42530E-06  477932.5 3748987.7   453.2     4.00     3.95
1.86     YES
 L0001906        0   0.42530E-06  477924.0 3748987.7   453.4     4.00     3.95
1.86     YES
 L0001907        0   0.42530E-06  477915.5 3748987.8   453.6     4.00     3.95
1.86     YES
 L0001908        0   0.42530E-06  477907.0 3748987.9   453.7     4.00     3.95
1.86     YES
 L0001909        0   0.42530E-06  477898.6 3748988.0   453.7     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0001910         0   0.42530E-06  477890.1 3748988.1   453.7     4.00      3.95
1.86     YES
 L0001911         0   0.42530E-06  477881.9 3748988.5   453.7     4.00      3.95
1.86     YES
 L0001912         0   0.42530E-06  477881.9 3748997.0   454.0     4.00      3.95
1.86     YES
 L0001913         0   0.42530E-06  477881.9 3749005.5   454.0     4.00      3.95
1.86     YES
 L0001914         0   0.42530E-06  477881.9 3749014.0   454.0     4.00      3.95
1.86     YES
 L0001915         0   0.42530E-06  477881.9 3749022.5   454.0     4.00      3.95
1.86     YES
 L0001916         0   0.42530E-06  477881.9 3749031.0   454.0     4.00      3.95
1.86     YES
 L0001917         0   0.42530E-06  477881.9 3749039.5   454.0     4.00      3.95
1.86     YES
 L0001918         0   0.42530E-06  477881.9 3749048.0   454.0     4.00      3.95
1.86     YES
 L0001919         0   0.42530E-06  477881.9 3749056.5   454.0     4.00      3.95
1.86     YES
 L0001920         0   0.42530E-06  477881.9 3749065.0   454.0     4.00      3.95
1.86     YES
 L0001921         0   0.42530E-06  477881.9 3749073.5   454.0     4.00      3.95
1.86     YES
 L0001922         0   0.42530E-06  477881.9 3749082.0   454.0     4.00      3.95
1.86     YES
 L0001923         0   0.42530E-06  477881.9 3749090.5   454.0     4.00      3.95
1.86     YES
 L0001924         0   0.42530E-06  477881.9 3749099.0   454.0     4.00      3.95
1.86     YES
 L0001925         0   0.42530E-06  477881.9 3749107.5   454.0     4.00      3.95
1.86     YES
 L0001926         0   0.42530E-06  477881.9 3749116.0   454.0     4.00      3.95
1.86     YES
 L0001927         0   0.42530E-06  477881.9 3749124.5   454.0     4.00      3.95
1.86     YES
 L0001928         0   0.42530E-06  477881.9 3749133.0   454.0     4.00      3.95
1.86     YES
 L0001929         0   0.42530E-06  477881.9 3749141.5   454.0     4.00      3.95
1.86     YES
 L0001930         0   0.42530E-06  477881.9 3749150.0   454.0     4.00      3.95
1.86     YES
 L0001931         0   0.42530E-06  477881.9 3749158.5   454.0     4.00      3.95
1.86     YES
 L0001932         0   0.42530E-06  477881.9 3749167.0   454.0     4.00      3.95
1.86     YES
 L0001933         0   0.42530E-06  477881.9 3749175.5   454.0     4.00      3.95
1.86     YES
```

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                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0001934         0   0.42530E-06  477881.9 3749184.0   454.0     4.00     3.95
1.86     YES
 L0001935         0   0.42530E-06  477881.9 3749192.5   454.0     4.00     3.95
1.86     YES
 L0001936         0   0.42530E-06  477881.9 3749201.0   454.0     4.00     3.95
1.86     YES
 L0001937         0   0.42530E-06  477881.9 3749209.5   454.1     4.00     3.95
1.86     YES
 L0001938         0   0.42530E-06  477881.9 3749218.0   454.4     4.00     3.95
1.86     YES
 L0001939         0   0.42530E-06  477881.9 3749226.5   454.7     4.00     3.95
1.86     YES
 L0001940         0   0.42530E-06  477881.9 3749235.0   454.9     4.00     3.95
1.86     YES
 L0001941         0   0.42530E-06  477877.9 3749239.5   455.0     4.00     3.95
1.86     YES
 L0001942         0   0.42530E-06  477869.4 3749239.6   455.0     4.00     3.95
1.86     YES
 L0001943         0   0.42530E-06  477860.9 3749239.7   455.0     4.00     3.95
1.86     YES
 L0001944         0   0.42530E-06  477852.4 3749239.9   455.0     4.00     3.95
1.86     YES
 L0001945         0   0.42530E-06  477843.9 3749240.0   455.0     4.00     3.95
1.86     YES
 L0001946         0   0.42530E-06  477835.4 3749240.1   455.0     4.00     3.95
1.86     YES
 L0001947         0   0.42530E-06  477826.9 3749240.2   455.0     4.00     3.95
1.86     YES
```

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 L0001948         0   0.42530E-06  477818.4 3749240.3   455.0     4.00      3.95
1.86     YES
 L0001949         0   0.42530E-06  477809.9 3749240.4   455.0     4.00      3.95
1.86     YES
 L0001950         0   0.42530E-06  477801.4 3749240.5   455.0     4.00      3.95
1.86     YES
 L0001951         0   0.42530E-06  477792.9 3749240.7   455.0     4.00      3.95
1.86     YES
 L0001952         0   0.42530E-06  477784.4 3749240.8   455.0     4.00      3.95
1.86     YES
 L0001953         0   0.42530E-06  477775.9 3749240.9   455.0     4.00      3.95
1.86     YES
 L0001954         0   0.42530E-06  477767.4 3749241.0   455.0     4.00      3.95
1.86     YES
 L0001955         0   0.42530E-06  477758.9 3749241.1   455.0     4.00      3.95
1.86     YES
 L0001956         0   0.42530E-06  477750.4 3749241.2   455.0     4.00      3.95
1.86     YES
 L0001957         0   0.42530E-06  477741.9 3749241.3   455.0     4.00      3.95
1.86     YES
 L0001958         0   0.42530E-06  477733.4 3749241.4   455.0     4.00      3.95
1.86     YES
 L0001959         0   0.42530E-06  477724.9 3749241.6   455.0     4.00      3.95
1.86     YES
 L0001960         0   0.42530E-06  477716.4 3749241.7   455.0     4.00      3.95
1.86     YES
 L0001961         0   0.42530E-06  477707.9 3749241.8   455.0     4.00      3.95
1.86     YES
 L0001962         0   0.42530E-06  477699.4 3749241.9   455.0     4.00      3.95
1.86     YES
 L0001963         0   0.42530E-06  477690.9 3749242.0   455.0     4.00      3.95
1.86     YES
 L0001964         0   0.42530E-06  477682.4 3749242.1   455.0     4.00      3.95
1.86     YES
 L0001965         0   0.42530E-06  477673.9 3749242.2   455.0     4.00      3.95
1.86     YES
 L0001966         0   0.42530E-06  477665.4 3749242.4   455.0     4.00      3.95
1.86     YES
 L0001967         0   0.42530E-06  477656.9 3749242.5   455.0     4.00      3.95
1.86     YES
 L0001968         0   0.42530E-06  477648.4 3749242.6   455.0     4.00      3.95
1.86     YES
 L0001969         0   0.42530E-06  477639.9 3749242.7   455.0     4.00      3.95
1.86     YES
 L0001970         0   0.42530E-06  477631.4 3749242.8   455.0     4.00      3.95
1.86     YES
 L0001971         0   0.42530E-06  477622.9 3749242.9   455.0     4.00      3.95
1.86     YES
```

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                                 AERMOD HRA Output
 L0001972         0   0.42530E-06  477614.4 3749243.0   455.0     4.00     3.95
1.86     YES
 L0001973         0   0.42530E-06  477605.9 3749243.2   455.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0001974         0   0.42530E-06  477597.4 3749243.3   455.0     4.00     3.95
1.86     YES
 L0001975         0   0.42530E-06  477588.9 3749243.4   455.0     4.00     3.95
1.86     YES
 L0001976         0   0.42530E-06  477580.4 3749243.5   455.0     4.00     3.95
1.86     YES
 L0001977         0   0.42530E-06  477571.9 3749243.6   455.0     4.00     3.95
1.86     YES
 L0001978         0   0.42530E-06  477563.4 3749243.7   455.0     4.00     3.95
1.86     YES
 L0001979         0   0.42530E-06  477554.9 3749243.8   455.0     4.00     3.95
1.86     YES
 L0001980         0   0.42530E-06  477546.4 3749244.0   455.0     4.00     3.95
1.86     YES
 L0001981         0   0.42530E-06  477537.9 3749244.1   455.0     4.00     3.95
1.86     YES
 L0001982         0   0.42530E-06  477529.4 3749244.2   455.0     4.00     3.95
1.86     YES
 L0001983         0   0.42530E-06  477520.9 3749244.3   455.0     4.00     3.95
1.86     YES
 L0001984         0   0.42530E-06  477512.4 3749244.4   455.0     4.00     3.95
1.86     YES
 L0001985         0   0.42530E-06  477503.9 3749244.5   455.0     4.00     3.95
1.86     YES
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                                      AERMOD HRA Output
  L0001986          0   0.42530E-06  477495.4 3749244.6   455.0     4.00      3.95
 1.86     YES
  L0001987          0   0.42530E-06  477486.9 3749244.7   455.0     4.00      3.95
 1.86     YES
  L0001988          0   0.42530E-06  477478.4 3749244.9   455.0     4.00      3.95
 1.86     YES
  L0001989          0   0.42530E-06  477476.8 3749251.9   455.0     4.00      3.95
 1.86     YES
  L0001990          0   0.42530E-06  477476.7 3749260.4   455.0     4.00      3.95
 1.86     YES
  L0001991          0   0.42530E-06  477476.6 3749268.9   455.0     4.00      3.95
 1.86     YES
  L0001992          0   0.42530E-06  477476.5 3749277.4   455.0     4.00      3.95
 1.86     YES
  L0001993          0   0.42530E-06  477476.4 3749285.9   455.0     4.00      3.95
 1.86     YES
  L0001994          0   0.42530E-06  477476.3 3749294.4   455.0     4.00      3.95
 1.86     YES
  L0001995          0   0.42530E-06  477476.2 3749302.9   455.1     4.00      3.95
 1.86     YES
  L0001996          0   0.42530E-06  477476.0 3749311.4   455.2     4.00      3.95
 1.86     YES
  L0001997          0   0.42530E-06  477475.9 3749319.9   455.4     4.00      3.95
 1.86     YES
  L0001998          0   0.42530E-06  477475.8 3749328.4   455.5     4.00      3.95
 1.86     YES
  L0001999          0   0.42530E-06  477475.7 3749336.9   455.7     4.00      3.95
 1.86     YES
  L0002000          0   0.42530E-06  477475.6 3749345.4   455.8     4.00      3.95
 1.86     YES
  L0002001          0   0.42530E-06  477475.5 3749353.9   455.9     4.00      3.95
 1.86     YES
  L0002002          0   0.42530E-06  477475.4 3749362.4   456.0     4.00      3.95
 1.86     YES
  L0002003          0   0.42530E-06  477475.3 3749370.9   456.0     4.00      3.95
 1.86     YES
  L0002004          0   0.42530E-06  477475.1 3749379.4   456.0     4.00      3.95
 1.86     YES
  L0002005          0   0.42530E-06  477475.0 3749387.9   456.0     4.00      3.95
 1.86     YES
  L0002006          0   0.42530E-06  477474.9 3749396.4   456.0     4.00      3.95
 1.86     YES
  L0002007          0   0.42530E-06  477474.8 3749404.9   456.0     4.00      3.95
 1.86     YES
  L0002008          0   0.42530E-06  477474.7 3749413.4   456.0     4.00      3.95
 1.86     YES
  L0002009          0   0.42530E-06  477474.6 3749421.9   456.0     4.00      3.95
 1.86     YES
```

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                                 AERMOD HRA Output
 L0002010         0   0.42530E-06  477474.5 3749430.4   456.0     4.00     3.95
1.86     YES
 L0002011         0   0.42530E-06  477474.4 3749438.9   456.0     4.00     3.95
1.86     YES
 L0002012         0   0.42530E-06  477474.2 3749447.4   456.0     4.00     3.95
1.86     YES
 L0002013         0   0.42530E-06  477474.1 3749455.9   456.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0002014         0   0.42530E-06  477474.0 3749464.4   456.0     4.00     3.95
1.86     YES
 L0002015         0   0.42530E-06  477473.9 3749472.9   456.0     4.00     3.95
1.86     YES
 L0002016         0   0.42530E-06  477473.8 3749481.4   456.2     4.00     3.95
1.86     YES
 L0002017         0   0.42530E-06  477473.7 3749489.9   456.4     4.00     3.95
1.86     YES
 L0002018         0   0.42530E-06  477473.6 3749498.4   456.7     4.00     3.95
1.86     YES
 L0002019         0   0.42530E-06  477473.5 3749506.9   457.0     4.00     3.95
1.86     YES
 L0002020         0   0.42530E-06  477473.3 3749515.4   457.0     4.00     3.95
1.86     YES
 L0002021         0   0.42530E-06  477473.2 3749523.9   457.0     4.00     3.95
1.86     YES
 L0002022         0   0.42530E-06  477473.1 3749532.4   457.0     4.00     3.95
1.86     YES
 L0002023         0   0.42530E-06  477473.0 3749540.9   457.0     4.00     3.95
1.86     YES
```

AERMOD HRA Output

```
 L0002024         0   0.42530E-06  477472.9 3749549.4   457.0     4.00     3.95
1.86     YES
 L0002025         0   0.42530E-06  477472.8 3749557.9   457.0     4.00     3.95
1.86     YES
 L0002026         0   0.42530E-06  477472.7 3749566.4   457.0     4.00     3.95
1.86     YES
 L0002027         0   0.42530E-06  477472.6 3749574.9   457.0     4.00     3.95
1.86     YES
 L0002028         0   0.42530E-06  477472.4 3749583.4   457.0     4.00     3.95
1.86     YES
 L0002029         0   0.42530E-06  477472.3 3749591.9   457.0     4.00     3.95
1.86     YES
 L0002030         0   0.42530E-06  477472.2 3749600.4   457.0     4.00     3.95
1.86     YES
 L0002031         0   0.42530E-06  477472.1 3749608.9   457.0     4.00     3.95
1.86     YES
 L0002032         0   0.42530E-06  477472.0 3749617.4   457.0     4.00     3.95
1.86     YES
 L0002033         0   0.42530E-06  477471.9 3749625.9   457.0     4.00     3.95
1.86     YES
 L0002034         0   0.42530E-06  477471.8 3749634.4   457.0     4.00     3.95
1.86     YES
 L0002035         0   0.42530E-06  477471.7 3749642.9   457.0     4.00     3.95
1.86     YES
 L0002036         0   0.42530E-06  477471.5 3749651.4   457.0     4.00     3.95
1.86     YES
 L0002037         0   0.42530E-06  477471.4 3749659.9   457.0     4.00     3.95
1.86     YES
 L0002038         0   0.42530E-06  477471.3 3749668.4   457.0     4.00     3.95
1.86     YES
 L0002039         0   0.42530E-06  477471.2 3749676.9   457.0     4.00     3.95
1.86     YES
 L0002040         0   0.42530E-06  477471.1 3749685.4   457.0     4.00     3.95
1.86     YES
 L0002041         0   0.42530E-06  477471.0 3749693.9   457.0     4.00     3.95
1.86     YES
 L0002042         0   0.42530E-06  477470.9 3749702.4   457.0     4.00     3.95
1.86     YES
 L0002043         0   0.42530E-06  477470.8 3749710.9   457.0     4.00     3.95
1.86     YES
 L0002044         0   0.42530E-06  477470.6 3749719.4   457.0     4.00     3.95
1.86     YES
 L0002045         0   0.42530E-06  477470.5 3749727.9   457.0     4.00     3.95
1.86     YES
 L0002046         0   0.42530E-06  477470.4 3749736.4   457.0     4.00     3.95
1.86     YES
 L0002047         0   0.42530E-06  477470.3 3749744.9   457.0     4.00     3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0002048        0   0.42530E-06  477470.2 3749753.4   457.2     4.00     3.95
1.86     YES
 L0002049        0   0.42530E-06  477470.1 3749761.9   457.5     4.00     3.95
1.86     YES
 L0002050        0   0.42530E-06  477470.0 3749770.4   457.8     4.00     3.95
1.86     YES
 L0002051        0   0.42530E-06  477469.9 3749778.9   458.0     4.00     3.95
1.86     YES
 L0002052        0   0.42530E-06  477469.7 3749787.4   458.0     4.00     3.95
1.86     YES
 L0004594        0   0.25490E-06  477901.9 3748181.5   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0004595        0   0.25490E-06  477893.4 3748181.6   450.0     4.00     3.95
1.86     YES
 L0004596        0   0.25490E-06  477884.9 3748181.7   450.0     4.00     3.95
1.86     YES
 L0004597        0   0.25490E-06  477876.4 3748181.7   450.0     4.00     3.95
1.86     YES
 L0004598        0   0.25490E-06  477867.9 3748181.8   450.0     4.00     3.95
1.86     YES
 L0004599        0   0.25490E-06  477859.4 3748181.9   450.0     4.00     3.95
1.86     YES
 L0004600        0   0.25490E-06  477850.9 3748181.9   450.0     4.00     3.95
1.86     YES
 L0004601        0   0.25490E-06  477842.4 3748182.0   450.2     4.00     3.95
1.86     YES
 L0004602        0   0.25490E-06  477833.9 3748182.1   450.5     4.00     3.95
1.86     YES
```

AERMOD HRA Output

```
 L0004603         0   0.25490E-06  477825.4 3748182.1   450.7     4.00     3.95
1.86     YES
 L0004604         0   0.25490E-06  477816.9 3748182.2   450.9     4.00     3.95
1.86     YES
 L0004605         0   0.25490E-06  477808.4 3748182.3   450.9     4.00     3.95
1.86     YES
 L0004606         0   0.25490E-06  477799.9 3748182.3   451.0     4.00     3.95
1.86     YES
 L0004607         0   0.25490E-06  477791.4 3748182.4   451.0     4.00     3.95
1.86     YES
 L0004608         0   0.25490E-06  477782.9 3748182.5   451.0     4.00     3.95
1.86     YES
 L0004609         0   0.25490E-06  477774.4 3748182.5   451.0     4.00     3.95
1.86     YES
 L0004610         0   0.25490E-06  477765.9 3748182.6   451.0     4.00     3.95
1.86     YES
 L0004611         0   0.25490E-06  477757.4 3748182.7   451.0     4.00     3.95
1.86     YES
 L0004612         0   0.25490E-06  477748.9 3748182.8   451.0     4.00     3.95
1.86     YES
 L0004613         0   0.25490E-06  477740.4 3748182.8   451.0     4.00     3.95
1.86     YES
 L0004614         0   0.25490E-06  477731.9 3748182.9   451.0     4.00     3.95
1.86     YES
 L0004615         0   0.25490E-06  477723.4 3748183.0   451.0     4.00     3.95
1.86     YES
 L0004616         0   0.25490E-06  477714.9 3748183.0   451.0     4.00     3.95
1.86     YES
 L0004617         0   0.25490E-06  477706.4 3748183.1   451.0     4.00     3.95
1.86     YES
 L0004618         0   0.25490E-06  477697.9 3748183.2   451.0     4.00     3.95
1.86     YES
 L0004619         0   0.25490E-06  477689.4 3748183.2   451.0     4.00     3.95
1.86     YES
 L0004620         0   0.25490E-06  477680.9 3748183.3   451.0     4.00     3.95
1.86     YES
 L0004621         0   0.25490E-06  477672.4 3748183.4   451.0     4.00     3.95
1.86     YES
 L0004622         0   0.25490E-06  477663.9 3748183.4   451.0     4.00     3.95
1.86     YES
 L0004623         0   0.25490E-06  477655.4 3748183.5   451.0     4.00     3.95
1.86     YES
 L0004624         0   0.25490E-06  477646.9 3748183.6   451.0     4.00     3.95
1.86     YES
 L0004625         0   0.25490E-06  477638.4 3748183.6   451.0     4.00     3.95
1.86     YES
 L0004626         0   0.25490E-06  477629.9 3748183.7   451.0     4.00     3.95
1.86     YES
```

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 L0004627         0   0.25490E-06  477621.4 3748183.8   451.0     4.00     3.95
1.86     YES
 L0004628         0   0.25490E-06  477612.9 3748183.8   451.0     4.00     3.95
1.86     YES
 L0004629         0   0.25490E-06  477604.4 3748183.9   451.0     4.00     3.95
1.86     YES
 L0004630         0   0.25490E-06  477595.9 3748184.0   451.0     4.00     3.95
1.86     YES
 L0004631         0   0.25490E-06  477587.4 3748184.0   451.0     4.00     3.95
1.86     YES
 L0004632         0   0.25490E-06  477578.9 3748184.1   451.0     4.00     3.95
1.86     YES
 L0004633         0   0.25490E-06  477570.4 3748184.2   451.0     4.00     3.95
1.86     YES
 L0004634         0   0.25490E-06  477561.9 3748184.2   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0004635         0   0.25490E-06  477553.4 3748184.3   451.0     4.00     3.95
1.86     YES
 L0004636         0   0.25490E-06  477544.9 3748184.4   451.0     4.00     3.95
1.86     YES
 L0004637         0   0.25490E-06  477536.4 3748184.4   451.0     4.00     3.95
1.86     YES
 L0004638         0   0.25490E-06  477527.9 3748184.5   451.0     4.00     3.95
1.86     YES
 L0004639         0   0.25490E-06  477519.4 3748184.6   451.0     4.00     3.95
1.86     YES
 L0004640         0   0.25490E-06  477510.9 3748184.6   451.0     4.00     3.95
1.86     YES
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 L0004641         0   0.25490E-06  477502.4 3748184.7   451.0     4.00      3.95
1.86     YES
 L0004642         0   0.25490E-06  477493.9 3748184.8   451.0     4.00      3.95
1.86     YES
 L0004643         0   0.25490E-06  477485.4 3748184.8   451.0     4.00      3.95
1.86     YES
 L0004644         0   0.25490E-06  477476.9 3748184.9   451.0     4.00      3.95
1.86     YES
 L0004645         0   0.25490E-06  477471.1 3748182.1   451.0     4.00      3.95
1.86     YES
 L0004646         0   0.25490E-06  477470.9 3748173.6   451.0     4.00      3.95
1.86     YES
 L0004647         0   0.25490E-06  477470.7 3748165.1   451.0     4.00      3.95
1.86     YES
 L0004648         0   0.25490E-06  477470.6 3748156.6   451.0     4.00      3.95
1.86     YES
 L0004649         0   0.25490E-06  477470.4 3748148.2   451.0     4.00      3.95
1.86     YES
 L0004650         0   0.25490E-06  477470.2 3748139.7   451.0     4.00      3.95
1.86     YES
 L0004651         0   0.25490E-06  477470.0 3748131.2   451.0     4.00      3.95
1.86     YES
 L0004652         0   0.25490E-06  477469.8 3748122.7   451.0     4.00      3.95
1.86     YES
 L0004653         0   0.25490E-06  477469.6 3748114.2   451.0     4.00      3.95
1.86     YES
 L0004654         0   0.25490E-06  477469.4 3748105.7   451.0     4.00      3.95
1.86     YES
 L0004655         0   0.25490E-06  477469.2 3748097.2   451.0     4.00      3.95
1.86     YES
 L0004656         0   0.25490E-06  477469.0 3748088.7   451.0     4.00      3.95
1.86     YES
 L0004657         0   0.25490E-06  477468.9 3748080.2   451.0     4.00      3.95
1.86     YES
 L0004658         0   0.25490E-06  477468.7 3748071.7   451.0     4.00      3.95
1.86     YES
 L0004659         0   0.25490E-06  477468.5 3748063.2   451.0     4.00      3.95
1.86     YES
 L0004660         0   0.25490E-06  477468.3 3748054.7   451.0     4.00      3.95
1.86     YES
 L0004661         0   0.25490E-06  477468.1 3748046.2   451.0     4.00      3.95
1.86     YES
 L0004662         0   0.25490E-06  477467.9 3748037.7   451.0     4.00      3.95
1.86     YES
 L0004663         0   0.25490E-06  477467.7 3748029.2   451.0     4.00      3.95
1.86     YES
 L0004664         0   0.25490E-06  477467.5 3748020.7   451.0     4.00      3.95
1.86     YES
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 L0004665         0   0.25490E-06  477467.4 3748012.2   451.0     4.00     3.95
1.86     YES
 L0004666         0   0.25490E-06  477467.2 3748003.7   451.0     4.00     3.95
1.86     YES
 L0004667         0   0.25490E-06  477467.0 3747995.2   451.0     4.00     3.95
1.86     YES
 L0004668         0   0.25490E-06  477466.8 3747986.7   451.0     4.00     3.95
1.86     YES
 L0004669         0   0.25490E-06  477466.6 3747978.2   451.0     4.00     3.95
1.86     YES
 L0004670         0   0.25490E-06  477466.4 3747969.7   451.0     4.00     3.95
1.86     YES
 L0004671         0   0.25490E-06  477466.2 3747961.2   451.0     4.00     3.95
1.86     YES
 L0004672         0   0.25490E-06  477466.0 3747952.7   451.0     4.00     3.95
1.86     YES
 L0004673         0   0.25490E-06  477465.8 3747944.2   451.0     4.00     3.95
1.86     YES
 L0004674         0   0.25490E-06  477465.7 3747935.7   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0004675         0   0.25490E-06  477465.5 3747927.2   451.0     4.00     3.95
1.86     YES
 L0004676         0   0.25490E-06  477465.3 3747918.7   451.0     4.00     3.95
1.86     YES
 L0004677         0   0.25490E-06  477465.1 3747910.2   451.0     4.00     3.95
1.86     YES
 L0004678         0   0.25490E-06  477464.9 3747901.7   451.0     4.00     3.95
1.86     YES
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 L0004679         0   0.25490E-06  477464.7 3747893.2   451.0     4.00      3.95
1.86     YES
 L0004680         0   0.25490E-06  477464.5 3747884.7   451.0     4.00      3.95
1.86     YES
 L0004681         0   0.25490E-06  477464.3 3747876.2   451.0     4.00      3.95
1.86     YES
 L0004682         0   0.25490E-06  477464.1 3747867.7   451.0     4.00      3.95
1.86     YES
 L0004683         0   0.25490E-06  477464.0 3747859.2   451.0     4.00      3.95
1.86     YES
 L0004684         0   0.25490E-06  477463.8 3747850.7   451.0     4.00      3.95
1.86     YES
 L0004685         0   0.25490E-06  477463.6 3747842.2   451.0     4.00      3.95
1.86     YES
 L0004686         0   0.25490E-06  477463.4 3747833.7   451.0     4.00      3.95
1.86     YES
 L0004687         0   0.25490E-06  477463.2 3747825.2   451.0     4.00      3.95
1.86     YES
 L0004688         0   0.25490E-06  477463.0 3747816.7   451.0     4.00      3.95
1.86     YES
 L0004689         0   0.25490E-06  477462.8 3747808.2   451.0     4.00      3.95
1.86     YES
 L0004690         0   0.25490E-06  477462.6 3747799.7   451.0     4.00      3.95
1.86     YES
 L0004691         0   0.25490E-06  477462.5 3747791.2   451.0     4.00      3.95
1.86     YES
 L0004692         0   0.25490E-06  477462.3 3747782.7   451.0     4.00      3.95
1.86     YES
 L0002053         0   0.25880E-06  478279.2 3748320.8   450.0     4.00      3.95
1.86     YES
 L0002054         0   0.25880E-06  478279.3 3748312.3   450.0     4.00      3.95
1.86     YES
 L0002055         0   0.25880E-06  478279.5 3748303.8   450.0     4.00      3.95
1.86     YES
 L0002056         0   0.25880E-06  478279.6 3748295.3   450.0     4.00      3.95
1.86     YES
 L0002057         0   0.25880E-06  478279.8 3748286.8   450.0     4.00      3.95
1.86     YES
 L0002058         0   0.25880E-06  478279.9 3748278.3   450.0     4.00      3.95
1.86     YES
 L0002059         0   0.25880E-06  478280.1 3748269.8   450.0     4.00      3.95
1.86     YES
 L0002060         0   0.25880E-06  478280.2 3748261.3   450.0     4.00      3.95
1.86     YES
 L0002061         0   0.25880E-06  478280.3 3748252.8   450.0     4.00      3.95
1.86     YES
 L0002062         0   0.25880E-06  478280.5 3748244.3   450.0     4.00      3.95
1.86     YES
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 L0002063         0   0.25880E-06  478280.6 3748235.8   450.0     4.00     3.95
1.86     YES
 L0002064         0   0.25880E-06  478280.8 3748227.3   450.0     4.00     3.95
1.86     YES
 L0002065         0   0.25880E-06  478280.9 3748218.8   450.0     4.00     3.95
1.86     YES
 L0002066         0   0.25880E-06  478281.0 3748210.3   450.0     4.00     3.95
1.86     YES
 L0002067         0   0.25880E-06  478281.2 3748201.8   450.0     4.00     3.95
1.86     YES
 L0002068         0   0.25880E-06  478281.3 3748193.3   450.0     4.00     3.95
1.86     YES
 L0002069         0   0.25880E-06  478281.5 3748184.8   450.0     4.00     3.95
1.86     YES
 L0002070         0   0.25880E-06  478281.6 3748176.3   450.0     4.00     3.95
1.86     YES
 L0002071         0   0.25880E-06  478281.7 3748167.8   450.0     4.00     3.95
1.86     YES
 L0002072         0   0.25880E-06  478281.9 3748159.3   450.0     4.00     3.95
1.86     YES
 L0002073         0   0.25880E-06  478282.0 3748150.8   449.8     4.00     3.95
1.86     YES
 L0002074         0   0.25880E-06  478282.2 3748142.3   449.5     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0002075         0   0.25880E-06  478282.3 3748133.8   449.2     4.00     3.95
1.86     YES
 L0002076         0   0.25880E-06  478282.4 3748125.3   449.0     4.00     3.95
1.86     YES
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                                        AERMOD HRA Output
  L0002077          0   0.25880E-06   478282.6 3748116.8    449.0      4.00      3.95
1.86     YES
  L0002078          0   0.25880E-06   478282.7 3748108.3    449.0      4.00      3.95
1.86     YES
  L0002079          0   0.25880E-06   478282.9 3748099.8    449.0      4.00      3.95
1.86     YES
  L0002080          0   0.25880E-06   478283.0 3748091.3    449.0      4.00      3.95
1.86     YES
  L0002081          0   0.25880E-06   478283.1 3748082.9    449.0      4.00      3.95
1.86     YES
  L0002082          0   0.25880E-06   478283.3 3748074.4    449.0      4.00      3.95
1.86     YES
  L0002083          0   0.25880E-06   478283.4 3748065.9    449.0      4.00      3.95
1.86     YES
  L0002084          0   0.25880E-06   478283.6 3748057.4    449.0      4.00      3.95
1.86     YES
  L0002085          0   0.25880E-06   478283.7 3748048.9    449.0      4.00      3.95
1.86     YES
  L0002086          0   0.25880E-06   478283.8 3748040.4    449.0      4.00      3.95
1.86     YES
  L0002087          0   0.25880E-06   478284.0 3748031.9    449.0      4.00      3.95
1.86     YES
  L0002088          0   0.25880E-06   478284.1 3748023.4    449.0      4.00      3.95
1.86     YES
  L0002089          0   0.25880E-06   478284.3 3748014.9    449.0      4.00      3.95
1.86     YES
  L0002090          0   0.25880E-06   478284.4 3748006.4    449.0      4.00      3.95
1.86     YES
  L0002091          0   0.25880E-06   478284.5 3747997.9    449.0      4.00      3.95
1.86     YES
  L0002092          0   0.25880E-06   478284.7 3747989.4    449.0      4.00      3.95
1.86     YES
  L0002093          0   0.25880E-06   478284.8 3747980.9    449.0      4.00      3.95
1.86     YES
  L0002094          0   0.25880E-06   478285.0 3747972.4    449.0      4.00      3.95
1.86     YES
  L0002095          0   0.25880E-06   478285.1 3747963.9    449.0      4.00      3.95
1.86     YES
  L0002096          0   0.25880E-06   478285.2 3747955.4    449.0      4.00      3.95
1.86     YES
  L0002097          0   0.25880E-06   478285.4 3747946.9    449.0      4.00      3.95
1.86     YES
  L0002098          0   0.25880E-06   478285.5 3747938.4    449.0      4.00      3.95
1.86     YES
  L0002099          0   0.25880E-06   478285.7 3747929.9    449.0      4.00      3.95
1.86     YES
  L0002100          0   0.25880E-06   478285.8 3747921.4    449.0      4.00      3.95
1.86     YES
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 L0002101         0   0.25880E-06  478285.9 3747912.9   449.0     4.00     3.95
1.86     YES
 L0002102         0   0.25880E-06  478286.1 3747904.4   449.0     4.00     3.95
1.86     YES
 L0002103         0   0.25880E-06  478286.2 3747895.9   449.0     4.00     3.95
1.86     YES
 L0002104         0   0.25880E-06  478286.4 3747887.4   449.0     4.00     3.95
1.86     YES
 L0002105         0   0.25880E-06  478286.5 3747878.9   449.0     4.00     3.95
1.86     YES
 L0002106         0   0.25880E-06  478286.6 3747870.4   449.0     4.00     3.95
1.86     YES
 L0002107         0   0.25880E-06  478286.8 3747861.9   449.0     4.00     3.95
1.86     YES
 L0002108         0   0.25880E-06  478286.9 3747853.4   449.0     4.00     3.95
1.86     YES
 L0002109         0   0.25880E-06  478287.1 3747844.9   449.0     4.00     3.95
1.86     YES
 L0002110         0   0.25880E-06  478287.2 3747836.4   449.0     4.00     3.95
1.86     YES
 L0002111         0   0.25880E-06  478287.3 3747827.9   449.0     4.00     3.95
1.86     YES
 L0002112         0   0.25880E-06  478287.5 3747819.4   449.0     4.00     3.95
1.86     YES
 L0002113         0   0.25880E-06  478287.6 3747810.9   449.0     4.00     3.95
1.86     YES
 L0002114         0   0.25880E-06  478287.8 3747802.4   449.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0002115        0   0.25880E-06  478287.9 3747793.9   449.0     4.00     3.95
1.86     YES
 L0002116        0   0.25880E-06  478288.0 3747785.4   449.0     4.00     3.95
1.86     YES
 L0002117        0   0.25880E-06  478288.2 3747776.9   449.0     4.00     3.95
1.86     YES
 L0006244        0   0.34070E-06  477480.6 3749800.2   458.0     4.00     3.95
1.86     YES
 L0006245        0   0.34070E-06  477480.4 3749808.7   458.0     4.00     3.95
1.86     YES
 L0006246        0   0.34070E-06  477480.3 3749817.2   458.0     4.00     3.95
1.86     YES
 L0006247        0   0.34070E-06  477480.1 3749825.7   458.0     4.00     3.95
1.86     YES
 L0006248        0   0.34070E-06  477480.0 3749834.2   458.0     4.00     3.95
1.86     YES
 L0006249        0   0.34070E-06  477479.9 3749842.7   458.0     4.00     3.95
1.86     YES
 L0006250        0   0.34070E-06  477479.7 3749851.2   458.0     4.00     3.95
1.86     YES
 L0006251        0   0.34070E-06  477479.6 3749859.7   458.0     4.00     3.95
1.86     YES
 L0006252        0   0.34070E-06  477479.5 3749868.2   458.0     4.00     3.95
1.86     YES
 L0006253        0   0.34070E-06  477479.3 3749876.7   458.0     4.00     3.95
1.86     YES
 L0006254        0   0.34070E-06  477479.2 3749885.2   458.0     4.00     3.95
1.86     YES
 L0006255        0   0.34070E-06  477479.1 3749893.7   458.0     4.00     3.95
1.86     YES
 L0006256        0   0.34070E-06  477478.9 3749902.2   458.0     4.00     3.95
1.86     YES
 L0006257        0   0.34070E-06  477478.8 3749910.7   458.0     4.00     3.95
1.86     YES
 L0006258        0   0.34070E-06  477478.7 3749919.2   458.0     4.00     3.95
1.86     YES
 L0006259        0   0.34070E-06  477478.5 3749927.7   458.0     4.00     3.95
1.86     YES
 L0006260        0   0.34070E-06  477478.4 3749936.2   458.0     4.00     3.95
1.86     YES
 L0006261        0   0.34070E-06  477478.2 3749944.7   458.0     4.00     3.95
1.86     YES
 L0006262        0   0.34070E-06  477478.1 3749953.2   458.0     4.00     3.95
1.86     YES
 L0006263        0   0.34070E-06  477478.0 3749961.7   458.2     4.00     3.95
1.86     YES
 L0006264        0   0.34070E-06  477477.8 3749970.2   458.4     4.00     3.95
1.86     YES
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 L0006265         0   0.34070E-06  477477.7 3749978.7   458.7     4.00     3.95
1.86     YES
 L0006266         0   0.34070E-06  477477.6 3749987.2   459.0     4.00     3.95
1.86     YES
 L0006267         0   0.34070E-06  477477.4 3749995.7   459.0     4.00     3.95
1.86     YES
 L0006268         0   0.34070E-06  477477.3 3750004.2   459.0     4.00     3.95
1.86     YES
 L0006269         0   0.34070E-06  477477.2 3750012.7   459.0     4.00     3.95
1.86     YES
 L0006270         0   0.34070E-06  477477.0 3750021.2   459.0     4.00     3.95
1.86     YES
 L0006271         0   0.34070E-06  477476.9 3750029.7   459.0     4.00     3.95
1.86     YES
 L0006272         0   0.34070E-06  477476.8 3750038.2   459.0     4.00     3.95
1.86     YES
 L0006273         0   0.34070E-06  477476.6 3750046.7   459.0     4.00     3.95
1.86     YES
 L0006274         0   0.34070E-06  477476.5 3750055.2   459.0     4.00     3.95
1.86     YES
 L0006275         0   0.34070E-06  477476.3 3750063.7   459.0     4.00     3.95
1.86     YES
 L0006276         0   0.34070E-06  477476.2 3750072.2   459.0     4.00     3.95
1.86     YES
 L0006277         0   0.34070E-06  477476.1 3750080.7   459.0     4.00     3.95
1.86     YES
 L0006278         0   0.34070E-06  477475.9 3750089.2   459.0     4.00     3.95
1.86     YES
 L0006279         0   0.34070E-06  477475.8 3750097.7   459.0     4.00     3.95
1.86     YES
 L0006280         0   0.34070E-06  477475.7 3750106.2   459.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                 BY
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 L0006281         0   0.34070E-06  477475.5 3750114.7   459.0     4.00     3.95
1.86     YES
 L0006282         0   0.34070E-06  477475.4 3750123.2   459.0     4.00     3.95
1.86     YES
 L0006283         0   0.34070E-06  477475.3 3750131.7   459.0     4.00     3.95
1.86     YES
 L0006284         0   0.34070E-06  477475.1 3750140.2   459.0     4.00     3.95
1.86     YES
 L0006285         0   0.34070E-06  477475.0 3750148.7   459.0     4.00     3.95
1.86     YES
 L0006286         0   0.34070E-06  477474.8 3750157.2   459.0     4.00     3.95
1.86     YES
 L0006287         0   0.34070E-06  477474.7 3750165.7   459.0     4.00     3.95
1.86     YES
 L0006288         0   0.34070E-06  477474.2 3750174.2   459.0     4.00     3.95
1.86     YES
 L0006289         0   0.34070E-06  477473.5 3750182.6   459.0     4.00     3.95
1.86     YES
 L0006290         0   0.34070E-06  477472.8 3750191.1   459.0     4.00     3.95
1.86     YES
 L0006291         0   0.34070E-06  477472.1 3750199.6   459.0     4.00     3.95
1.86     YES
 L0006292         0   0.34070E-06  477471.4 3750208.0   459.2     4.00     3.95
1.86     YES
 L0006293         0   0.34070E-06  477470.7 3750216.5   459.2     4.00     3.95
1.86     YES
 L0006294         0   0.34070E-06  477470.0 3750225.0   459.3     4.00     3.95
1.86     YES
 L0006295         0   0.34070E-06  477469.3 3750233.5   459.5     4.00     3.95
1.86     YES
 L0006296         0   0.34070E-06  477468.7 3750241.9   459.7     4.00     3.95
1.86     YES
 L0006297         0   0.34070E-06  477468.0 3750250.4   459.9     4.00     3.95
1.86     YES
 L0006298         0   0.34070E-06  477467.3 3750258.9   460.0     4.00     3.95
1.86     YES
 L0006299         0   0.34070E-06  477466.6 3750267.3   460.0     4.00     3.95
1.86     YES
 L0006300         0   0.34070E-06  477466.5 3750275.8   460.0     4.00     3.95
1.86     YES
 L0006301         0   0.34070E-06  477466.5 3750284.3   460.0     4.00     3.95
1.86     YES
 L0006302         0   0.34070E-06  477466.5 3750292.8   460.0     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0006303         0   0.34070E-06  477466.6 3750301.3   460.0     4.00     3.95
1.86     YES
 L0006304         0   0.34070E-06  477466.6 3750309.8   460.0     4.00     3.95
1.86     YES
 L0006305         0   0.34070E-06  477466.6 3750318.3   460.0     4.00     3.95
1.86     YES
 L0006306         0   0.34070E-06  477466.7 3750326.8   460.0     4.00     3.95
1.86     YES
 L0006307         0   0.34070E-06  477466.7 3750335.3   460.0     4.00     3.95
1.86     YES
 L0006308         0   0.34070E-06  477466.7 3750343.8   460.0     4.00     3.95
1.86     YES
 L0006309         0   0.34070E-06  477466.8 3750352.3   460.0     4.00     3.95
1.86     YES
 L0006310         0   0.34070E-06  477466.8 3750360.8   460.0     4.00     3.95
1.86     YES
 L0006311         0   0.34070E-06  477466.9 3750369.3   460.0     4.00     3.95
1.86     YES
 L0006312         0   0.34070E-06  477466.9 3750377.8   460.0     4.00     3.95
1.86     YES
 L0006313         0   0.34070E-06  477466.9 3750386.3   460.0     4.00     3.95
1.86     YES
 L0006314         0   0.34070E-06  477467.0 3750394.8   460.0     4.00     3.95
1.86     YES
 L0006315         0   0.34070E-06  477467.0 3750403.3   460.0     4.00     3.95
1.86     YES
 L0006316         0   0.34070E-06  477467.0 3750411.8   460.0     4.00     3.95
1.86     YES
 L0006317         0   0.34070E-06  477467.1 3750420.3   460.0     4.00     3.95
1.86     YES
 L0006318         0   0.34070E-06  477467.1 3750428.8   460.0     4.00     3.95
1.86     YES
 L0006319         0   0.34070E-06  477467.1 3750437.3   460.0     4.00     3.95
1.86     YES
 L0006320         0   0.34070E-06  477467.2 3750445.8   460.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                             AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006321         0   0.34070E-06  477467.2 3750454.3   460.0     4.00     3.95
1.86     YES
 L0006322         0   0.34070E-06  477467.3 3750462.8   460.0     4.00     3.95
1.86     YES
 L0006323         0   0.34070E-06  477467.3 3750471.3   460.2     4.00     3.95
1.86     YES
 L0006324         0   0.34070E-06  477467.3 3750479.8   460.4     4.00     3.95
1.86     YES
 L0006325         0   0.34070E-06  477467.4 3750488.3   460.7     4.00     3.95
1.86     YES
 L0006326         0   0.34070E-06  477467.4 3750496.8   461.0     4.00     3.95
1.86     YES
 L0006327         0   0.34070E-06  477467.4 3750505.3   461.0     4.00     3.95
1.86     YES
 L0006328         0   0.34070E-06  477467.5 3750513.8   461.0     4.00     3.95
1.86     YES
 L0006329         0   0.34070E-06  477467.5 3750522.3   461.0     4.00     3.95
1.86     YES
 L0006330         0   0.34070E-06  477467.5 3750530.8   461.0     4.00     3.95
1.86     YES
 L0006331         0   0.34070E-06  477467.6 3750539.3   461.0     4.00     3.95
1.86     YES
 L0006332         0   0.34070E-06  477467.7 3750547.8   461.0     4.00     3.95
1.86     YES
 L0006333         0   0.34070E-06  477467.9 3750556.3   461.0     4.00     3.95
1.86     YES
 L0006334         0   0.34070E-06  477468.2 3750564.8   461.0     4.00     3.95
1.86     YES
 L0006335         0   0.34070E-06  477468.4 3750573.3   461.0     4.00     3.95
1.86     YES
 L0006336         0   0.34070E-06  477468.7 3750581.8   461.0     4.00     3.95
1.86     YES
 L0006337         0   0.34070E-06  477468.9 3750590.3   461.0     4.00     3.95
1.86     YES
 L0006338         0   0.34070E-06  477469.2 3750598.8   461.0     4.00     3.95
1.86     YES
 L0006339         0   0.34070E-06  477469.4 3750607.3   461.0     4.00     3.95
1.86     YES
 L0006340         0   0.34070E-06  477469.7 3750615.8   461.0     4.00     3.95
1.86     YES
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 L0006341         0   0.34070E-06  477469.9 3750624.3   461.0     4.00     3.95
1.86     YES
 L0006342         0   0.34070E-06  477470.2 3750632.8   461.0     4.00     3.95
1.86     YES
 L0006343         0   0.34070E-06  477470.4 3750641.3   461.0     4.00     3.95
1.86     YES
 L0006344         0   0.34070E-06  477470.7 3750649.8   461.0     4.00     3.95
1.86     YES
 L0006345         0   0.34070E-06  477470.9 3750658.3   461.2     4.00     3.95
1.86     YES
 L0006346         0   0.34070E-06  477471.2 3750666.8   461.3     4.00     3.95
1.86     YES
 L0006347         0   0.34070E-06  477471.4 3750675.3   461.4     4.00     3.95
1.86     YES
 L0006348         0   0.34070E-06  477471.7 3750683.8   461.5     4.00     3.95
1.86     YES
 L0006349         0   0.34070E-06  477471.9 3750692.3   461.7     4.00     3.95
1.86     YES
 L0006350         0   0.34070E-06  477472.2 3750700.8   461.9     4.00     3.95
1.86     YES
 L0006351         0   0.34070E-06  477472.4 3750709.3   462.0     4.00     3.95
1.86     YES
 L0006352         0   0.34070E-06  477472.7 3750717.8   462.0     4.00     3.95
1.86     YES
 L0006353         0   0.34070E-06  477472.9 3750726.3   462.0     4.00     3.95
1.86     YES
 L0006354         0   0.34070E-06  477473.2 3750734.8   462.0     4.00     3.95
1.86     YES
 L0006355         0   0.34070E-06  477473.4 3750743.3   462.0     4.00     3.95
1.86     YES
 L0006356         0   0.34070E-06  477473.7 3750751.7   462.0     4.00     3.95
1.86     YES
 L0006357         0   0.34070E-06  477473.9 3750760.2   462.0     4.00     3.95
1.86     YES
 L0006358         0   0.34070E-06  477474.2 3750768.7   462.0     4.00     3.95
1.86     YES
 L0006359         0   0.34070E-06  477474.4 3750777.2   462.0     4.00     3.95
1.86     YES
 L0006360         0   0.34070E-06  477474.7 3750785.7   462.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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AERMOD HRA Output

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                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006361         0   0.34070E-06  477474.9 3750794.2   462.0     4.00     3.95
1.86     YES
 L0006362         0   0.34070E-06  477475.2 3750802.7   462.0     4.00     3.95
1.86     YES
 L0006363         0   0.34070E-06  477475.4 3750811.2   462.0     4.00     3.95
1.86     YES
 L0006364         0   0.34070E-06  477475.7 3750819.7   462.0     4.00     3.95
1.86     YES
 L0006365         0   0.34070E-06  477475.9 3750828.2   462.0     4.00     3.95
1.86     YES
 L0006366         0   0.34070E-06  477476.2 3750836.7   462.0     4.00     3.95
1.86     YES
 L0006367         0   0.34070E-06  477476.4 3750845.2   462.0     4.00     3.95
1.86     YES
 L0006368         0   0.34070E-06  477476.7 3750853.7   462.0     4.00     3.95
1.86     YES
 L0006369         0   0.34070E-06  477476.9 3750862.2   462.1     4.00     3.95
1.86     YES
 L0006370         0   0.34070E-06  477477.1 3750870.7   462.3     4.00     3.95
1.86     YES
 L0006371         0   0.34070E-06  477477.1 3750879.2   462.4     4.00     3.95
1.86     YES
 L0006372         0   0.34070E-06  477477.2 3750887.7   462.6     4.00     3.95
1.86     YES
 L0006373         0   0.34070E-06  477477.2 3750896.2   462.7     4.00     3.95
1.86     YES
 L0006374         0   0.34070E-06  477477.3 3750904.7   462.8     4.00     3.95
1.86     YES
 L0006375         0   0.34070E-06  477477.3 3750913.2   462.9     4.00     3.95
1.86     YES
 L0006376         0   0.34070E-06  477477.4 3750921.7   463.0     4.00     3.95
1.86     YES
 L0006377         0   0.34070E-06  477477.4 3750930.2   463.0     4.00     3.95
1.86     YES
 L0006378         0   0.34070E-06  477477.5 3750938.7   463.0     4.00     3.95
1.86     YES
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 L0006379         0   0.34070E-06  477477.6 3750947.2   463.0     4.00     3.95
1.86     YES
 L0006380         0   0.34070E-06  477477.6 3750955.7   463.0     4.00     3.95
1.86     YES
 L0006381         0   0.34070E-06  477477.7 3750964.2   463.0     4.00     3.95
1.86     YES
 L0006382         0   0.34070E-06  477477.7 3750972.7   463.0     4.00     3.95
1.86     YES
 L0006383         0   0.34070E-06  477477.8 3750981.2   463.0     4.00     3.95
1.86     YES
 L0006384         0   0.34070E-06  477477.8 3750989.7   463.0     4.00     3.95
1.86     YES
 L0006385         0   0.34070E-06  477477.9 3750998.2   463.0     4.00     3.95
1.86     YES
 L0006386         0   0.34070E-06  477477.9 3751006.7   463.0     4.00     3.95
1.86     YES
 L0006387         0   0.34070E-06  477478.0 3751015.2   463.0     4.00     3.95
1.86     YES
 L0006388         0   0.34070E-06  477478.0 3751023.7   463.0     4.00     3.95
1.86     YES
 L0006389         0   0.34070E-06  477478.1 3751032.2   463.0     4.00     3.95
1.86     YES
 L0006390         0   0.34070E-06  477478.1 3751040.7   463.0     4.00     3.95
1.86     YES
 L0006391         0   0.34070E-06  477478.2 3751049.2   463.0     4.00     3.95
1.86     YES
 L0006392         0   0.34070E-06  477478.3 3751057.7   463.0     4.00     3.95
1.86     YES
 L0006393         0   0.34070E-06  477478.3 3751066.2   463.0     4.00     3.95
1.86     YES
 L0006394         0   0.34070E-06  477478.4 3751074.7   463.2     4.00     3.95
1.86     YES
 L0006395         0   0.34070E-06  477478.4 3751083.2   463.3     4.00     3.95
1.86     YES
 L0006396         0   0.34070E-06  477478.5 3751091.7   463.5     4.00     3.95
1.86     YES
 L0006397         0   0.34070E-06  477478.5 3751100.2   463.7     4.00     3.95
1.86     YES
 L0006398         0   0.34070E-06  477478.6 3751108.7   463.8     4.00     3.95
1.86     YES
 L0006399         0   0.34070E-06  477478.6 3751117.2   463.9     4.00     3.95
1.86     YES
 L0006400         0   0.34070E-06  477478.7 3751125.7   464.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        08:23:21
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                                    AERMOD HRA Output

                                      PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006401         0   0.34070E-06  477478.7 3751134.2   464.0     4.00     3.95
1.86     YES
 L0006402         0   0.34070E-06  477478.8 3751142.7   464.0     4.00     3.95
1.86     YES
 L0006403         0   0.34070E-06  477478.9 3751151.2   464.0     4.00     3.95
1.86     YES
 L0006404         0   0.34070E-06  477478.9 3751159.7   464.0     4.00     3.95
1.86     YES
 L0006405         0   0.34070E-06  477479.0 3751168.2   464.0     4.00     3.95
1.86     YES
 L0006406         0   0.34070E-06  477479.0 3751176.7   464.0     4.00     3.95
1.86     YES
 L0006407         0   0.34070E-06  477479.1 3751185.2   464.0     4.00     3.95
1.86     YES
 L0006408         0   0.34070E-06  477479.1 3751193.7   464.0     4.00     3.95
1.86     YES
 L0006409         0   0.34070E-06  477479.2 3751202.2   464.0     4.00     3.95
1.86     YES
 L0006410         0   0.34070E-06  477479.2 3751210.7   464.0     4.00     3.95
1.86     YES
 L0006411         0   0.34070E-06  477479.3 3751219.2   464.0     4.00     3.95
1.86     YES
 L0006412         0   0.34070E-06  477479.3 3751227.7   464.0     4.00     3.95
1.86     YES
 L0006413         0   0.34070E-06  477479.4 3751236.2   464.0     4.00     3.95
1.86     YES
 L0006414         0   0.34070E-06  477479.3 3751244.7   464.0     4.00     3.95
1.86     YES
 L0006415         0   0.34070E-06  477479.3 3751253.2   464.2     4.00     3.95
1.86     YES
 L0006416         0   0.34070E-06  477479.2 3751261.7   464.5     4.00     3.95
1.86     YES
```

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 L0006417         0   0.34070E-06  477479.2 3751270.2   464.8     4.00      3.95
1.86     YES
 L0006418         0   0.34070E-06  477479.1 3751278.7   465.0     4.00      3.95
1.86     YES
 L0006419         0   0.34070E-06  477479.0 3751287.2   465.0     4.00      3.95
1.86     YES
 L0006420         0   0.34070E-06  477479.0 3751295.7   465.0     4.00      3.95
1.86     YES
 L0006421         0   0.34070E-06  477478.9 3751304.2   465.0     4.00      3.95
1.86     YES
 L0006422         0   0.34070E-06  477478.9 3751312.7   465.0     4.00      3.95
1.86     YES
 L0006423         0   0.34070E-06  477478.8 3751321.2   465.0     4.00      3.95
1.86     YES
 L0006424         0   0.34070E-06  477478.7 3751329.7   465.0     4.00      3.95
1.86     YES
 L0006425         0   0.34070E-06  477478.7 3751338.2   465.0     4.00      3.95
1.86     YES
 L0006426         0   0.34070E-06  477478.6 3751346.7   465.0     4.00      3.95
1.86     YES
 L0006427         0   0.34070E-06  477478.6 3751355.2   465.0     4.00      3.95
1.86     YES
 L0006428         0   0.34070E-06  477478.5 3751363.7   465.0     4.00      3.95
1.86     YES
 L0006429         0   0.34070E-06  477478.5 3751372.2   465.0     4.00      3.95
1.86     YES
 L0006430         0   0.34070E-06  477478.4 3751380.7   465.0     4.00      3.95
1.86     YES
 L0006431         0   0.34070E-06  477478.3 3751389.2   465.0     4.00      3.95
1.86     YES
 L0006432         0   0.34070E-06  477478.3 3751397.7   465.0     4.00      3.95
1.86     YES
 L0006433         0   0.34070E-06  477478.2 3751406.2   465.0     4.00      3.95
1.86     YES
 L0006434         0   0.34070E-06  477478.2 3751414.7   465.0     4.00      3.95
1.86     YES
 L0006435         0   0.34070E-06  477478.1 3751423.2   465.0     4.00      3.95
1.86     YES
 L0006436         0   0.34070E-06  477478.0 3751431.7   465.2     4.00      3.95
1.86     YES
 L0006437         0   0.34070E-06  477478.0 3751440.2   465.4     4.00      3.95
1.86     YES
 L0006438         0   0.34070E-06  477477.9 3751448.7   465.7     4.00      3.95
1.86     YES
 L0006439         0   0.34070E-06  477477.9 3751457.2   466.0     4.00      3.95
1.86     YES
 L0006440         0   0.34070E-06  477477.8 3751465.7   466.0     4.00      3.95
1.86     YES
```

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                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        08:23:21

                                  PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006441         0   0.34070E-06  477477.8 3751474.2   466.0     4.00     3.95
1.86     YES
 L0006442         0   0.34070E-06  477477.7 3751482.7   466.0     4.00     3.95
1.86     YES
 L0006443         0   0.34070E-06  477477.6 3751491.2   466.0     4.00     3.95
1.86     YES
 L0006444         0   0.34070E-06  477477.6 3751499.7   466.0     4.00     3.95
1.86     YES
 L0006445         0   0.34070E-06  477477.5 3751508.2   466.0     4.00     3.95
1.86     YES
 L0006446         0   0.34070E-06  477477.5 3751516.7   466.0     4.00     3.95
1.86     YES
 L0006447         0   0.34070E-06  477477.4 3751525.2   466.0     4.00     3.95
1.86     YES
 L0006448         0   0.34070E-06  477477.3 3751533.7   466.0     4.00     3.95
1.86     YES
 L0006449         0   0.34070E-06  477477.3 3751542.2   466.0     4.00     3.95
1.86     YES
 L0006450         0   0.34070E-06  477477.2 3751550.7   466.0     4.00     3.95
1.86     YES
 L0006451         0   0.34070E-06  477477.2 3751559.2   466.0     4.00     3.95
1.86     YES
 L0006452         0   0.34070E-06  477477.1 3751567.7   466.0     4.00     3.95
1.86     YES
 L0006453         0   0.34070E-06  477477.0 3751576.2   466.0     4.00     3.95
1.86     YES
 L0006454         0   0.34070E-06  477477.0 3751584.7   466.0     4.00     3.95
1.86     YES
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                                   AERMOD HRA Output
  L0006455         0   0.34070E-06  477476.9 3751593.2   466.0     4.00      3.95
1.86     YES
  L0006456         0   0.34070E-06  477476.9 3751601.7   466.0     4.00      3.95
1.86     YES
  L0006457         0   0.34070E-06  477476.8 3751610.2   466.1     4.00      3.95
1.86     YES
  L0006458         0   0.34070E-06  477476.8 3751618.7   466.2     4.00      3.95
1.86     YES
  L0006459         0   0.34070E-06  477476.7 3751627.2   466.4     4.00      3.95
1.86     YES
  L0006460         0   0.34070E-06  477476.6 3751635.7   466.6     4.00      3.95
1.86     YES
  L0006461         0   0.34070E-06  477476.6 3751644.2   466.7     4.00      3.95
1.86     YES
  L0006462         0   0.34070E-06  477476.5 3751652.7   466.8     4.00      3.95
1.86     YES
  L0006463         0   0.34070E-06  477476.5 3751661.2   466.9     4.00      3.95
1.86     YES
  L0006464         0   0.34070E-06  477476.4 3751669.7   467.0     4.00      3.95
1.86     YES
  L0006465         0   0.34070E-06  477476.3 3751678.2   467.0     4.00      3.95
1.86     YES
  L0006466         0   0.34070E-06  477476.3 3751686.7   467.0     4.00      3.95
1.86     YES
  L0006467         0   0.34070E-06  477476.2 3751695.2   467.0     4.00      3.95
1.86     YES
  L0006468         0   0.34070E-06  477476.2 3751703.7   467.0     4.00      3.95
1.86     YES
  L0006469         0   0.34070E-06  477476.1 3751712.2   467.0     4.00      3.95
1.86     YES
  L0006470         0   0.34070E-06  477476.1 3751720.7   467.0     4.00      3.95
1.86     YES
  L0006471         0   0.34070E-06  477476.0 3751729.2   467.1     4.00      3.95
1.86     YES
  L0006472         0   0.34070E-06  477475.9 3751737.7   467.2     4.00      3.95
1.86     YES
  L0006473         0   0.34070E-06  477475.9 3751746.2   467.4     4.00      3.95
1.86     YES
  L0006474         0   0.34070E-06  477475.8 3751754.7   467.5     4.00      3.95
1.86     YES
  L0006475         0   0.34070E-06  477475.8 3751763.2   467.6     4.00      3.95
1.86     YES
  L0006476         0   0.34070E-06  477475.7 3751771.7   467.8     4.00      3.95
1.86     YES
  L0006477         0   0.34070E-06  477475.6 3751780.2   467.9     4.00      3.95
1.86     YES
  L0006478         0   0.34070E-06  477475.6 3751788.7   468.0     4.00      3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                   AERMOD HRA Output
 L0006479         0   0.34070E-06  477475.5 3751797.2   468.0     4.00     3.95
1.86     YES
 L0006480         0   0.34070E-06  477475.5 3751805.7   468.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0006481         0   0.34070E-06  477475.4 3751814.2   468.0     4.00     3.95
1.86     YES
 L0006482         0   0.34070E-06  477475.4 3751822.7   468.0     4.00     3.95
1.86     YES
 L0006483         0   0.34070E-06  477475.3 3751831.2   468.0     4.00     3.95
1.86     YES
 L0006484         0   0.34070E-06  477475.2 3751839.7   468.0     4.00     3.95
1.86     YES
 L0006485         0   0.34070E-06  477475.2 3751848.2   468.0     4.00     3.95
1.86     YES
 L0006486         0   0.34070E-06  477475.1 3751856.7   468.0     4.00     3.95
1.86     YES
 L0006487         0   0.34070E-06  477475.1 3751865.2   468.0     4.00     3.95
1.86     YES
 L0006488         0   0.34070E-06  477475.0 3751873.7   468.0     4.00     3.95
1.86     YES
 L0006489         0   0.34070E-06  477474.9 3751882.2   468.2     4.00     3.95
1.86     YES
 L0006490         0   0.34070E-06  477474.9 3751890.7   468.5     4.00     3.95
1.86     YES
 L0006491         0   0.34070E-06  477474.8 3751899.2   468.8     4.00     3.95
1.86     YES
 L0006492         0   0.34070E-06  477474.8 3751907.7   469.0     4.00     3.95
1.86     YES
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 L0006493        0   0.34070E-06  477474.7 3751916.2   469.0     4.00      3.95
1.86     YES
 L0006494        0   0.34070E-06  477474.7 3751924.7   469.0     4.00      3.95
1.86     YES
 L0006495        0   0.34070E-06  477474.6 3751933.2   469.0     4.00      3.95
1.86     YES
 L0006496        0   0.34070E-06  477474.5 3751941.7   469.0     4.00      3.95
1.86     YES
 L0006497        0   0.34070E-06  477474.5 3751950.2   469.0     4.00      3.95
1.86     YES
 L0006498        0   0.34070E-06  477474.4 3751958.7   469.0     4.00      3.95
1.86     YES
 L0006499        0   0.34070E-06  477474.4 3751967.2   469.0     4.00      3.95
1.86     YES
 L0006500        0   0.34070E-06  477474.3 3751975.7   469.0     4.00      3.95
1.86     YES
 L0006501        0   0.34070E-06  477474.2 3751984.2   469.0     4.00      3.95
1.86     YES
 L0006502        0   0.34070E-06  477474.2 3751992.7   469.0     4.00      3.95
1.86     YES
 L0006503        0   0.34070E-06  477474.1 3752001.2   469.0     4.00      3.95
1.86     YES
 L0006504        0   0.34070E-06  477474.1 3752009.7   469.0     4.00      3.95
1.86     YES
 L0006505        0   0.34070E-06  477474.0 3752018.2   469.0     4.00      3.95
1.86     YES
 L0006506        0   0.34070E-06  477474.0 3752026.7   469.0     4.00      3.95
1.86     YES
 L0006507        0   0.34070E-06  477473.9 3752035.2   469.1     4.00      3.95
1.86     YES
 L0006508        0   0.34070E-06  477473.8 3752043.7   469.3     4.00      3.95
1.86     YES
 L0006509        0   0.34070E-06  477473.8 3752052.2   469.4     4.00      3.95
1.86     YES
 L0006510        0   0.34070E-06  477473.7 3752060.7   469.5     4.00      3.95
1.86     YES
 L0006511        0   0.34070E-06  477473.7 3752069.2   469.5     4.00      3.95
1.86     YES
 L0006512        0   0.34070E-06  477473.6 3752077.7   469.5     4.00      3.95
1.86     YES
 L0006513        0   0.34070E-06  477473.5 3752086.2   469.5     4.00      3.95
1.86     YES
 L0006514        0   0.34070E-06  477473.5 3752094.7   469.6     4.00      3.95
1.86     YES
 L0006515        0   0.34070E-06  477473.4 3752103.2   469.8     4.00      3.95
1.86     YES
 L0006516        0   0.34070E-06  477473.4 3752111.7   469.9     4.00      3.95
1.86     YES
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                                  AERMOD HRA Output
 L0006517         0   0.34070E-06  477473.3 3752120.2   470.1     4.00     3.95
1.86     YES
 L0006518         0   0.34070E-06  477473.3 3752128.7   470.2     4.00     3.95
1.86     YES
 L0006519         0   0.34070E-06  477473.2 3752137.2   470.3     4.00     3.95
1.86     YES
 L0006520         0   0.34070E-06  477473.1 3752145.7   470.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006521         0   0.34070E-06  477473.1 3752154.2   470.6     4.00     3.95
1.86     YES
 L0006522         0   0.34070E-06  477473.0 3752162.7   470.7     4.00     3.95
1.86     YES
 L0006523         0   0.34070E-06  477473.0 3752171.2   470.9     4.00     3.95
1.86     YES
 L0006524         0   0.34070E-06  477472.9 3752179.7   471.0     4.00     3.95
1.86     YES
 L0006525         0   0.34070E-06  477472.8 3752188.2   471.0     4.00     3.95
1.86     YES
 L0006526         0   0.34070E-06  477472.8 3752196.7   471.0     4.00     3.95
1.86     YES
 L0006527         0   0.34070E-06  477472.7 3752205.2   471.0     4.00     3.95
1.86     YES
 L0006528         0   0.34070E-06  477472.7 3752213.7   471.2     4.00     3.95
1.86     YES
 L0006529         0   0.34070E-06  477472.6 3752222.2   471.5     4.00     3.95
1.86     YES
 L0006530         0   0.34070E-06  477468.0 3752226.1   471.7     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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 L0006531         0   0.34070E-06  477459.5 3752226.1   471.7     4.00      3.95
1.86     YES
 L0006532         0   0.34070E-06  477451.0 3752226.2   471.7     4.00      3.95
1.86     YES
 L0006533         0   0.34070E-06  477442.5 3752226.2   471.7     4.00      3.95
1.86     YES
 L0006534         0   0.34070E-06  477434.0 3752226.2   471.7     4.00      3.95
1.86     YES
 L0006535         0   0.34070E-06  477425.5 3752226.2   471.7     4.00      3.95
1.86     YES
 L0006536         0   0.34070E-06  477417.0 3752226.2   471.7     4.00      3.95
1.86     YES
 L0006537         0   0.34070E-06  477408.5 3752226.2   471.7     4.00      3.95
1.86     YES
 L0006538         0   0.34070E-06  477400.0 3752226.2   471.7     4.00      3.95
1.86     YES
 L0006539         0   0.34070E-06  477391.5 3752226.2   471.5     4.00      3.95
1.86     YES
 L0006540         0   0.34070E-06  477383.0 3752226.2   471.3     4.00      3.95
1.86     YES
 L0006541         0   0.34070E-06  477374.5 3752226.2   471.1     4.00      3.95
1.86     YES
 L0006542         0   0.34070E-06  477366.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006543         0   0.34070E-06  477357.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006544         0   0.34070E-06  477349.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006545         0   0.34070E-06  477340.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006546         0   0.34070E-06  477332.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006547         0   0.34070E-06  477323.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006548         0   0.34070E-06  477315.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006549         0   0.34070E-06  477306.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006550         0   0.34070E-06  477298.0 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006551         0   0.34070E-06  477289.5 3752226.3   471.0     4.00      3.95
1.86     YES
 L0006552         0   0.34070E-06  477281.0 3752226.4   471.0     4.00      3.95
1.86     YES
 L0006553         0   0.34070E-06  477272.5 3752226.4   471.0     4.00      3.95
1.86     YES
 L0006554         0   0.34070E-06  477264.0 3752226.4   471.0     4.00      3.95
1.86     YES
```

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                                 AERMOD HRA Output
 L0006555          0   0.34070E-06  477255.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0006556          0   0.34070E-06  477247.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0006557          0   0.34070E-06  477238.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0006558          0   0.34070E-06  477230.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0006559          0   0.34070E-06  477221.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0006560          0   0.34070E-06  477213.0 3752226.4   471.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006561          0   0.34070E-06  477204.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0006562          0   0.34070E-06  477196.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006563          0   0.34070E-06  477187.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006564          0   0.34070E-06  477179.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006565          0   0.34070E-06  477170.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006566          0   0.34070E-06  477162.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006567          0   0.34070E-06  477153.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006568          0   0.34070E-06  477145.0 3752226.5   471.0     4.00     3.95
1.86     YES
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                                        AERMOD HRA Output
 L0006569        0   0.34070E-06  477136.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006570        0   0.34070E-06  477128.0 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006571        0   0.34070E-06  477119.5 3752226.5   471.0     4.00     3.95
1.86     YES
 L0006572        0   0.34070E-06  477111.0 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006573        0   0.34070E-06  477102.5 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006574        0   0.34070E-06  477094.0 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006575        0   0.34070E-06  477085.5 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006576        0   0.34070E-06  477077.0 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006577        0   0.34070E-06  477068.5 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006578        0   0.34070E-06  477060.0 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006579        0   0.34070E-06  477051.5 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006580        0   0.34070E-06  477043.0 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006581        0   0.34070E-06  477034.5 3752226.6   471.0     4.00     3.95
1.86     YES
 L0006582        0   0.34070E-06  477026.0 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006583        0   0.34070E-06  477017.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006584        0   0.34070E-06  477009.0 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006585        0   0.34070E-06  477000.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006586        0   0.34070E-06  476992.0 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006587        0   0.34070E-06  476983.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006588        0   0.34070E-06  476975.0 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006589        0   0.34070E-06  476966.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006590        0   0.34070E-06  476958.0 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006591        0   0.34070E-06  476949.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0006592        0   0.34070E-06  476941.0 3752226.8   471.2     4.00     3.95
1.86     YES
```

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 L0006593         0   0.34070E-06  476932.5 3752226.8   471.4     4.00     3.95
1.86     YES
 L0006594         0   0.34070E-06  476924.0 3752226.8   471.6     4.00     3.95
1.86     YES
 L0006595         0   0.34070E-06  476915.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0006596         0   0.34070E-06  476907.0 3752226.8   471.7     4.00     3.95
1.86     YES
 L0006597         0   0.34070E-06  476898.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0006598         0   0.34070E-06  476890.0 3752226.8   471.7     4.00     3.95
1.86     YES
 L0006599         0   0.34070E-06  476881.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0006600         0   0.34070E-06  476873.0 3752226.8   471.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        08:23:21

                                   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006601         0   0.34070E-06  476864.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0006602         0   0.34070E-06  476856.0 3752226.9   471.7     4.00     3.95
1.86     YES
 L0006603         0   0.34070E-06  476847.5 3752226.9   471.7     4.00     3.95
1.86     YES
 L0006604         0   0.34070E-06  476839.0 3752226.9   471.7     4.00     3.95
1.86     YES
 L0006605         0   0.34070E-06  476830.5 3752226.9   471.7     4.00     3.95
1.86     YES
 L0006606         0   0.34070E-06  476822.0 3752226.9   471.7     4.00     3.95
1.86     YES
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 L0006607          0   0.34070E-06  476813.5 3752226.9   471.7      4.00      3.95
1.86     YES
 L0006608          0   0.34070E-06  476805.0 3752226.9   477.2      4.00      3.95
1.86     YES
 L0006609          0   0.34070E-06  476796.5 3752226.9   477.2      4.00      3.95
1.86     YES
 L0006610          0   0.34070E-06  476788.0 3752226.9   477.2      4.00      3.95
1.86     YES
 L0006611          0   0.34070E-06  476779.5 3752226.9   477.2      4.00      3.95
1.86     YES
 L0006612          0   0.34070E-06  476771.0 3752227.0   477.2      4.00      3.95
1.86     YES
 L0006613          0   0.34070E-06  476762.5 3752227.0   477.2      4.00      3.95
1.86     YES
 L0006614          0   0.34070E-06  476754.0 3752227.0   477.2      4.00      3.95
1.86     YES
 L0006615          0   0.34070E-06  476745.5 3752227.0   477.2      4.00      3.95
1.86     YES
 L0006616          0   0.34070E-06  476737.0 3752227.0   477.2      4.00      3.95
1.86     YES
 L0006617          0   0.34070E-06  476728.5 3752227.0   477.3      4.00      3.95
1.86     YES
 L0006618          0   0.34070E-06  476720.0 3752227.0   477.4      4.00      3.95
1.86     YES
 L0006619          0   0.34070E-06  476711.5 3752227.0   477.5      4.00      3.95
1.86     YES
 L0006620          0   0.34070E-06  476703.0 3752227.0   477.6      4.00      3.95
1.86     YES
 L0006621          0   0.34070E-06  476694.5 3752227.0   477.6      4.00      3.95
1.86     YES
 L0006622          0   0.34070E-06  476686.0 3752227.1   477.7      4.00      3.95
1.86     YES
 L0006623          0   0.34070E-06  476677.5 3752227.1   477.8      4.00      3.95
1.86     YES
 L0006624          0   0.34070E-06  476669.0 3752227.1   477.9      4.00      3.95
1.86     YES
 L0006625          0   0.34070E-06  476660.5 3752227.1   478.0      4.00      3.95
1.86     YES
 L0006626          0   0.34070E-06  476652.0 3752227.1   478.0      4.00      3.95
1.86     YES
 L0006627          0   0.34070E-06  476643.5 3752227.1   478.0      4.00      3.95
1.86     YES
 L0006628          0   0.34070E-06  476635.0 3752227.1   478.0      4.00      3.95
1.86     YES
 L0006629          0   0.34070E-06  476626.5 3752227.1   478.0      4.00      3.95
1.86     YES
 L0006630          0   0.34070E-06  476618.0 3752227.1   478.0      4.00      3.95
1.86     YES
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 L0006631         0   0.34070E-06  476609.5 3752227.1   478.0     4.00     3.95
1.86     YES
 L0006632         0   0.34070E-06  476601.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006633         0   0.34070E-06  476592.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006634         0   0.34070E-06  476584.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006635         0   0.34070E-06  476575.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006636         0   0.34070E-06  476567.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006637         0   0.34070E-06  476558.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006638         0   0.34070E-06  476550.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006639         0   0.34070E-06  476541.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006640         0   0.34070E-06  476533.0 3752227.2   478.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006641         0   0.34070E-06  476524.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0006642         0   0.34070E-06  476516.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0006643         0   0.34070E-06  476507.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0006644         0   0.34070E-06  476499.0 3752227.3   478.0     4.00     3.95
1.86     YES
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 L0006645          0   0.34070E-06  476490.5 3752227.3   478.0     4.00      3.95
1.86     YES
 L0006646          0   0.34070E-06  476482.0 3752227.3   478.0     4.00      3.95
1.86     YES
 L0006647          0   0.34070E-06  476473.5 3752227.3   478.0     4.00      3.95
1.86     YES
 L0006648          0   0.34070E-06  476465.0 3752227.3   478.0     4.00      3.95
1.86     YES
 L0006649          0   0.34070E-06  476456.5 3752227.3   478.0     4.00      3.95
1.86     YES
 L0006650          0   0.34070E-06  476448.0 3752227.3   478.0     4.00      3.95
1.86     YES
 L0006651          0   0.34070E-06  476439.5 3752227.3   478.0     4.00      3.95
1.86     YES
 L0006652          0   0.34070E-06  476431.0 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006653          0   0.34070E-06  476422.5 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006654          0   0.34070E-06  476414.0 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006655          0   0.34070E-06  476405.5 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006656          0   0.34070E-06  476397.0 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006657          0   0.34070E-06  476388.5 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006658          0   0.34070E-06  476380.0 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006659          0   0.34070E-06  476371.5 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006660          0   0.34070E-06  476363.0 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006661          0   0.34070E-06  476354.5 3752227.4   478.0     4.00      3.95
1.86     YES
 L0006662          0   0.34070E-06  476346.0 3752227.5   478.0     4.00      3.95
1.86     YES
 L0006663          0   0.34070E-06  476337.5 3752227.5   478.0     4.00      3.95
1.86     YES
 L0006664          0   0.34070E-06  476329.0 3752227.5   478.0     4.00      3.95
1.86     YES
 L0006665          0   0.34070E-06  476320.5 3752227.5   478.0     4.00      3.95
1.86     YES
 L0006666          0   0.34070E-06  476312.0 3752227.5   478.0     4.00      3.95
1.86     YES
 L0006667          0   0.34070E-06  476303.5 3752227.5   478.0     4.00      3.95
1.86     YES
 L0006668          0   0.34070E-06  476295.0 3752227.5   478.0     4.00      3.95
1.86     YES
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 L0006669         0   0.34070E-06  476286.5 3752227.5   478.0     4.00     3.95
1.86     YES
 L0006670         0   0.34070E-06  476278.0 3752227.5   478.0     4.00     3.95
1.86     YES
 L0006671         0   0.34070E-06  476269.5 3752227.5   478.0     4.00     3.95
1.86     YES
 L0006672         0   0.34070E-06  476261.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006673         0   0.34070E-06  476252.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006674         0   0.34070E-06  476244.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006675         0   0.34070E-06  476235.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006676         0   0.34070E-06  476227.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006677         0   0.34070E-06  476218.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006678         0   0.34070E-06  476210.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006679         0   0.34070E-06  476201.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0006680         0   0.34070E-06  476193.0 3752227.6   478.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006681         0   0.34070E-06  476184.5 3752227.6   478.0     4.00     3.95
1.86     YES
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1.86     YES
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1.86      YES
 L0006684         0   0.34070E-06   476159.0 3752227.7    478.0      4.00      3.95
1.86      YES
 L0006685         0   0.34070E-06   476150.5 3752227.7    478.0      4.00      3.95
1.86      YES
 L0006686         0   0.34070E-06   476142.0 3752227.7    478.0      4.00      3.95
1.86      YES
 L0006687         0   0.34070E-06   476133.5 3752227.7    478.0      4.00      3.95
1.86      YES
 L0006688         0   0.34070E-06   476125.0 3752227.7    478.0      4.00      3.95
1.86      YES
 L0006689         0   0.34070E-06   476116.5 3752227.7    478.0      4.00      3.95
1.86      YES
 L0006690         0   0.34070E-06   476108.0 3752227.7    477.9      4.00      3.95
1.86      YES
 L0006691         0   0.34070E-06   476099.5 3752227.7    477.8      4.00      3.95
1.86      YES
 L0006692         0   0.34070E-06   476091.0 3752227.8    477.7      4.00      3.95
1.86      YES
 L0006693         0   0.34070E-06   476082.5 3752227.8    477.6      4.00      3.95
1.86      YES
 L0006694         0   0.34070E-06   476074.0 3752227.8    477.6      4.00      3.95
1.86      YES
 L0006695         0   0.34070E-06   476065.5 3752227.8    477.5      4.00      3.95
1.86      YES
 L0006696         0   0.34070E-06   476057.0 3752227.8    477.4      4.00      3.95
1.86      YES
 L0006697         0   0.34070E-06   476048.5 3752227.8    477.3      4.00      3.95
1.86      YES
 L0006698         0   0.34070E-06   476040.0 3752227.8    477.2      4.00      3.95
1.86      YES
 L0006699         0   0.34070E-06   476031.5 3752227.8    477.2      4.00      3.95
1.86      YES
 L0006700         0   0.34070E-06   476023.0 3752227.8    477.2      4.00      3.95
1.86      YES
 L0006701         0   0.34070E-06   476014.5 3752227.8    477.1      4.00      3.95
1.86      YES
 L0006702         0   0.34070E-06   476006.0 3752227.9    477.1      4.00      3.95
1.86      YES
 L0006703         0   0.34070E-06   475997.5 3752227.9    477.1      4.00      3.95
1.86      YES
 L0006704         0   0.34070E-06   475989.0 3752227.9    477.1      4.00      3.95
1.86      YES
 L0006705         0   0.34070E-06   475980.5 3752227.9    477.1      4.00      3.95
1.86      YES
 L0006706         0   0.34070E-06   475972.0 3752227.9    477.0      4.00      3.95
1.86      YES
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 L0006707         0   0.34070E-06  475963.5 3752227.9   477.0     4.00     3.95
1.86     YES
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1.86     YES
 L0006709         0   0.34070E-06  475946.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0006710         0   0.34070E-06  475938.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0006711         0   0.34070E-06  475929.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0006712         0   0.34070E-06  475921.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0006713         0   0.34070E-06  475912.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0006714         0   0.34070E-06  475904.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0006715         0   0.34070E-06  475895.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0006716         0   0.34070E-06  475887.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0006717         0   0.34070E-06  475878.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0006718         0   0.34070E-06  475870.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0006719         0   0.34070E-06  475861.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0006720         0   0.34070E-06  475853.0 3752228.0   477.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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                                        AERMOD HRA Output
  L0006721          0   0.34070E-06  475844.5 3752228.0   477.0     4.00     3.95
 1.86     YES
  L0006722          0   0.34070E-06  475836.0 3752228.0   477.0     4.00     3.95
 1.86     YES
  L0006723          0   0.34070E-06  475827.5 3752228.1   477.0     4.00     3.95
 1.86     YES
  L0006724          0   0.34070E-06  475819.0 3752228.1   477.0     4.00     3.95
 1.86     YES
  L0006725          0   0.34070E-06  475810.5 3752228.1   477.0     4.00     3.95
 1.86     YES
  L0006726          0   0.34070E-06  475802.0 3752228.1   477.0     4.00     3.95
 1.86     YES
  L0006727          0   0.34070E-06  475793.5 3752228.1   477.1     4.00     3.95
 1.86     YES
  L0006728          0   0.34070E-06  475785.0 3752228.1   477.1     4.00     3.95
 1.86     YES
  L0006729          0   0.34070E-06  475776.5 3752228.1   477.1     4.00     3.95
 1.86     YES
  L0006730          0   0.34070E-06  475768.0 3752228.1   477.1     4.00     3.95
 1.86     YES
  L0006731          0   0.34070E-06  475759.5 3752228.1   477.1     4.00     3.95
 1.86     YES
  L0006732          0   0.34070E-06  475751.0 3752228.1   477.2     4.00     3.95
 1.86     YES
  L0006733          0   0.34070E-06  475742.5 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006734          0   0.34070E-06  475734.0 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006735          0   0.34070E-06  475725.5 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006736          0   0.34070E-06  475717.0 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006737          0   0.34070E-06  475708.5 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006738          0   0.34070E-06  475700.0 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006739          0   0.34070E-06  475691.5 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006740          0   0.34070E-06  475683.0 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006741          0   0.34070E-06  475674.5 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006742          0   0.34070E-06  475666.0 3752228.2   477.2     4.00     3.95
 1.86     YES
  L0006743          0   0.34070E-06  475657.5 3752228.3   477.2     4.00     3.95
 1.86     YES
  L0006744          0   0.34070E-06  475649.0 3752228.3   477.2     4.00     3.95
 1.86     YES
```

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                                  AERMOD HRA Output
 L0006745         0   0.34070E-06  475640.5 3752228.3   477.2     4.00     3.95
1.86     YES
 L0006746         0   0.34070E-06  475632.0 3752228.3   477.2     4.00     3.95
1.86     YES
 L0006747         0   0.34070E-06  475623.5 3752228.3   477.1     4.00     3.95
1.86     YES
 L0006748         0   0.34070E-06  475615.0 3752228.3   477.1     4.00     3.95
1.86     YES
 L0006749         0   0.34070E-06  475606.5 3752228.3   477.1     4.00     3.95
1.86     YES
 L0006750         0   0.34070E-06  475598.0 3752228.3   477.1     4.00     3.95
1.86     YES
 L0006751         0   0.34070E-06  475589.5 3752228.3   477.0     4.00     3.95
1.86     YES
 L0006752         0   0.34070E-06  475581.0 3752228.3   477.0     4.00     3.95
1.86     YES
 L0006753         0   0.34070E-06  475572.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006754         0   0.34070E-06  475564.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006755         0   0.34070E-06  475555.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006756         0   0.34070E-06  475547.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006757         0   0.34070E-06  475538.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006758         0   0.34070E-06  475530.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006759         0   0.34070E-06  475521.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006760         0   0.34070E-06  475513.0 3752228.4   477.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0006761         0   0.34070E-06   475504.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006762         0   0.34070E-06   475496.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0006763         0   0.34070E-06   475487.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006764         0   0.34070E-06   475479.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006765         0   0.34070E-06   475470.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006766         0   0.34070E-06   475462.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006767         0   0.34070E-06   475453.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006768         0   0.34070E-06   475445.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006769         0   0.34070E-06   475436.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006770         0   0.34070E-06   475428.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0006771         0   0.34070E-06   475419.5 3752228.5   476.9     4.00     3.95
1.86     YES
 L0006772         0   0.34070E-06   475411.0 3752228.5   476.9     4.00     3.95
1.86     YES
 L0006773         0   0.34070E-06   475402.5 3752228.6   476.8     4.00     3.95
1.86     YES
 L0006774         0   0.34070E-06   475394.0 3752228.6   476.7     4.00     3.95
1.86     YES
 L0006775         0   0.34070E-06   475385.5 3752228.6   476.6     4.00     3.95
1.86     YES
 L0006776         0   0.34070E-06   475377.0 3752228.6   476.5     4.00     3.95
1.86     YES
 L0006777         0   0.34070E-06   475368.5 3752228.6   476.4     4.00     3.95
1.86     YES
 L0006778         0   0.34070E-06   475360.0 3752228.6   476.3     4.00     3.95
1.86     YES
 L0006779         0   0.34070E-06   475351.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0006780         0   0.34070E-06   475343.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0006781         0   0.34070E-06   475334.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0006782         0   0.34070E-06   475326.0 3752228.6   476.2     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0006783         0   0.34070E-06  475317.5 3752228.7   476.1     4.00     3.95
1.86     YES
 L0006784         0   0.34070E-06  475309.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0006785         0   0.34070E-06  475300.5 3752228.7   476.1     4.00     3.95
1.86     YES
 L0006786         0   0.34070E-06  475292.0 3752228.7   476.1     4.00     3.95
1.86     YES
 L0006787         0   0.34070E-06  475283.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0006788         0   0.34070E-06  475275.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0006789         0   0.34070E-06  475266.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0006790         0   0.34070E-06  475258.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0006791         0   0.34070E-06  475249.5 3752228.7   476.0     4.00     3.95
1.86     YES
 L0006792         0   0.34070E-06  475241.0 3752228.7   476.0     4.00     3.95
1.86     YES
 L0006793         0   0.34070E-06  475232.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006794         0   0.34070E-06  475224.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006795         0   0.34070E-06  475215.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006796         0   0.34070E-06  475207.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006797         0   0.34070E-06  475198.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006798         0   0.34070E-06  475190.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006799         0   0.34070E-06  475181.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006800         0   0.34070E-06  475173.0 3752228.8   476.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                              AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006801         0   0.34070E-06  475164.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006802         0   0.34070E-06  475156.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006803         0   0.34070E-06  475147.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006804         0   0.34070E-06  475139.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006805         0   0.34070E-06  475130.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006806         0   0.34070E-06  475122.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006807         0   0.34070E-06  475113.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006808         0   0.34070E-06  475105.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006809         0   0.34070E-06  475096.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006810         0   0.34070E-06  475088.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006811         0   0.34070E-06  475079.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006812         0   0.34070E-06  475071.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006813         0   0.34070E-06  475062.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0006814         0   0.34070E-06  475054.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0006815         0   0.34070E-06  475045.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0006816         0   0.34070E-06  475037.0 3752229.0   476.0     4.00     3.95
1.86     YES
 L0006817         0   0.34070E-06  475028.5 3752229.0   475.9     4.00     3.95
1.86     YES
 L0006818         0   0.34070E-06  475020.0 3752229.0   475.7     4.00     3.95
1.86     YES
 L0006819         0   0.34070E-06  475011.5 3752229.0   475.6     4.00     3.95
1.86     YES
 L0006820         0   0.34070E-06  475003.0 3752229.0   475.5     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0006821         0   0.34070E-06  474994.5 3752229.0   475.4     4.00     3.95
1.86     YES
 L0006822         0   0.34070E-06  474986.0 3752229.0   475.3     4.00     3.95
1.86     YES
 L0006823         0   0.34070E-06  474977.5 3752229.1   475.2     4.00     3.95
1.86     YES
 L0006824         0   0.34070E-06  474969.0 3752229.1   475.1     4.00     3.95
1.86     YES
 L0006825         0   0.34070E-06  474960.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006826         0   0.34070E-06  474952.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006827         0   0.34070E-06  474943.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006828         0   0.34070E-06  474935.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006829         0   0.34070E-06  474926.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006830         0   0.34070E-06  474918.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006831         0   0.34070E-06  474909.5 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006832         0   0.34070E-06  474901.0 3752229.1   475.0     4.00     3.95
1.86     YES
 L0006833         0   0.34070E-06  474892.5 3752229.2   475.0     4.00     3.95
1.86     YES
 L0006834         0   0.34070E-06  474884.0 3752229.2   475.0     4.00     3.95
1.86     YES
 L0006835         0   0.34070E-06  474875.5 3752229.2   474.9     4.00     3.95
1.86     YES
 L0006836         0   0.34070E-06  474867.0 3752229.2   474.8     4.00     3.95
1.86     YES
 L0006837         0   0.34070E-06  474858.5 3752229.2   474.7     4.00     3.95
1.86     YES
 L0006838         0   0.34070E-06  474850.0 3752229.2   474.5     4.00     3.95
1.86     YES
 L0006839         0   0.34070E-06  474841.5 3752229.2   474.4     4.00     3.95
1.86     YES
 L0006840         0   0.34070E-06  474833.0 3752229.2   474.3     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006841         0   0.34070E-06  474824.5 3752229.2   474.2     4.00     3.95
1.86     YES
 L0006842         0   0.34070E-06  474816.0 3752229.2   474.1     4.00     3.95
1.86     YES
 L0006843         0   0.34070E-06  474807.5 3752229.3   474.0     4.00     3.95
1.86     YES
 L0006844         0   0.34070E-06  474799.1 3752228.0   474.1     4.00     3.95
1.86     YES
 L0006845         0   0.34070E-06  474790.7 3752226.7   474.2     4.00     3.95
1.86     YES
 L0006846         0   0.34070E-06  474782.3 3752225.5   474.3     4.00     3.95
1.86     YES
 L0006847         0   0.34070E-06  474773.9 3752224.2   474.4     4.00     3.95
1.86     YES
 L0006848         0   0.34070E-06  474765.5 3752222.9   474.6     4.00     3.95
1.86     YES
 L0006849         0   0.34070E-06  474757.1 3752221.7   474.7     4.00     3.95
1.86     YES
 L0006850         0   0.34070E-06  474748.7 3752220.4   474.8     4.00     3.95
1.86     YES
 L0006851         0   0.34070E-06  474740.3 3752219.1   474.9     4.00     3.95
1.86     YES
 L0006852         0   0.34070E-06  474731.9 3752217.8   475.0     4.00     3.95
1.86     YES
 L0006853         0   0.34070E-06  474723.5 3752216.6   475.0     4.00     3.95
1.86     YES
 L0006854         0   0.34070E-06  474715.1 3752215.3   475.0     4.00     3.95
1.86     YES
 L0006855         0   0.34070E-06  474706.7 3752214.0   475.0     4.00     3.95
1.86     YES
 L0006856         0   0.34070E-06  474698.3 3752212.8   475.0     4.00     3.95
1.86     YES
 L0006857         0   0.34070E-06  474689.9 3752211.5   475.0     4.00     3.95
1.86     YES
 L0006858         0   0.34070E-06  474681.5 3752210.2   475.0     4.00     3.95
1.86     YES
```

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                                      AERMOD HRA Output
 L0006859          0   0.34070E-06  474673.1 3752209.0   475.0     4.00     3.95
1.86     YES
 L0006860          0   0.34070E-06  474664.7 3752207.7   475.0     4.00     3.95
1.86     YES
 L0006861          0   0.34070E-06  474656.3 3752206.4   475.0     4.00     3.95
1.86     YES
 L0006862          0   0.34070E-06  474647.9 3752205.1   475.0     4.00     3.95
1.86     YES
 L0006863          0   0.34070E-06  474639.5 3752203.9   475.0     4.00     3.95
1.86     YES
 L0006864          0   0.34070E-06  474631.1 3752202.6   475.0     4.00     3.95
1.86     YES
 L0006865          0   0.34070E-06  474622.6 3752201.3   475.0     4.00     3.95
1.86     YES
 L0006866          0   0.34070E-06  474614.2 3752200.1   475.0     4.00     3.95
1.86     YES
 L0006867          0   0.34070E-06  474605.8 3752198.8   475.0     4.00     3.95
1.86     YES
 L0006868          0   0.34070E-06  474597.4 3752197.5   475.0     4.00     3.95
1.86     YES
 L0006869          0   0.34070E-06  474589.0 3752196.2   475.0     4.00     3.95
1.86     YES
 L0006870          0   0.34070E-06  474580.6 3752195.0   475.0     4.00     3.95
1.86     YES
 L0006871          0   0.34070E-06  474572.2 3752193.7   475.1     4.00     3.95
1.86     YES
 L0006872          0   0.34070E-06  474563.8 3752192.4   475.2     4.00     3.95
1.86     YES
 L0006873          0   0.34070E-06  474555.4 3752191.2   475.3     4.00     3.95
1.86     YES
 L0006874          0   0.34070E-06  474547.0 3752189.9   475.4     4.00     3.95
1.86     YES
 L0006875          0   0.34070E-06  474538.6 3752188.6   475.5     4.00     3.95
1.86     YES
 L0006876          0   0.34070E-06  474530.2 3752187.3   475.6     4.00     3.95
1.86     YES
 L0006877          0   0.34070E-06  474521.8 3752186.1   475.7     4.00     3.95
1.86     YES
 L0006878          0   0.34070E-06  474513.4 3752184.8   475.8     4.00     3.95
1.86     YES
 L0006879          0   0.34070E-06  474505.0 3752183.5   475.9     4.00     3.95
1.86     YES
 L0006880          0   0.34070E-06  474496.6 3752182.3   476.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21
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                                              PAGE  38
 **MODELOPTs:   RegDFAULT CONC       ELEV       URBAN


                                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006881          0   0.34070E-06  474488.2 3752181.0   476.0     4.00     3.95
1.86     YES
 L0006882          0   0.34070E-06  474479.8 3752179.7   476.0     4.00     3.95
1.86     YES
 L0006883          0   0.34070E-06  474471.4 3752178.4   476.0     4.00     3.95
1.86     YES
 L0006884          0   0.34070E-06  474463.0 3752177.2   476.0     4.00     3.95
1.86     YES
 L0006885          0   0.34070E-06  474454.6 3752175.9   476.0     4.00     3.95
1.86     YES
 L0006886          0   0.34070E-06  474446.2 3752174.6   476.0     4.00     3.95
1.86     YES
 L0006887          0   0.34070E-06  474437.8 3752173.4   476.0     4.00     3.95
1.86     YES
 L0006888          0   0.34070E-06  474429.3 3752172.1   476.0     4.00     3.95
1.86     YES
 L0006889          0   0.34070E-06  474420.9 3752170.8   476.0     4.00     3.95
1.86     YES
 L0006890          0   0.34070E-06  474412.5 3752169.6   476.1     4.00     3.95
1.86     YES
 L0006891          0   0.34070E-06  474404.1 3752168.3   476.2     4.00     3.95
1.86     YES
 L0006892          0   0.34070E-06  474395.7 3752167.0   476.4     4.00     3.95
1.86     YES
 L0006893          0   0.34070E-06  474387.3 3752165.7   476.5     4.00     3.95
1.86     YES
 L0006894          0   0.34070E-06  474378.9 3752164.5   476.6     4.00     3.95
1.86     YES
 L0006895          0   0.34070E-06  474370.5 3752163.2   476.7     4.00     3.95
1.86     YES
 L0006896          0   0.34070E-06  474362.1 3752161.9   476.8     4.00     3.95
1.86     YES
```

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                                   AERMOD HRA Output
  L0006897          0   0.34070E-06  474353.7 3752160.7    476.9      4.00      3.95
 1.86     YES
  L0006898          0   0.34070E-06  474345.3 3752159.4    477.0      4.00      3.95
 1.86     YES
  L0006899          0   0.34070E-06  474336.9 3752158.1    477.0      4.00      3.95
 1.86     YES
  L0006900          0   0.34070E-06  474328.5 3752156.8    477.0      4.00      3.95
 1.86     YES
  L0006901          0   0.34070E-06  474320.1 3752155.6    477.0      4.00      3.95
 1.86     YES
  L0006902          0   0.34070E-06  474311.7 3752154.3    477.0      4.00      3.95
 1.86     YES
  L0006903          0   0.34070E-06  474303.3 3752153.0    477.0      4.00      3.95
 1.86     YES
  L0006904          0   0.34070E-06  474294.9 3752151.8    477.0      4.00      3.95
 1.86     YES
  L0006905          0   0.34070E-06  474286.5 3752150.5    477.0      4.00      3.95
 1.86     YES
  L0006906          0   0.34070E-06  474278.1 3752149.2    477.0      4.00      3.95
 1.86     YES
  L0006907          0   0.34070E-06  474269.7 3752147.9    477.0      4.00      3.95
 1.86     YES
  L0006908          0   0.34070E-06  474261.3 3752146.7    477.0      4.00      3.95
 1.86     YES
  L0006909          0   0.34070E-06  474252.9 3752145.4    477.0      4.00      3.95
 1.86     YES
  L0006910          0   0.34070E-06  474244.4 3752144.1    477.0      4.00      3.95
 1.86     YES
  L0006911          0   0.34070E-06  474236.0 3752142.9    477.0      4.00      3.95
 1.86     YES
  L0006912          0   0.34070E-06  474227.6 3752141.6    477.0      4.00      3.95
 1.86     YES
  L0006913          0   0.34070E-06  474219.2 3752140.3    477.0      4.00      3.95
 1.86     YES
  L0006914          0   0.34070E-06  474210.8 3752139.0    477.0      4.00      3.95
 1.86     YES
  L0006915          0   0.34070E-06  474202.4 3752137.8    477.0      4.00      3.95
 1.86     YES
  L0006916          0   0.34070E-06  474194.0 3752136.5    477.0      4.00      3.95
 1.86     YES
  L0006917          0   0.34070E-06  474185.6 3752135.2    477.1      4.00      3.95
 1.86     YES
  L0006918          0   0.34070E-06  474177.2 3752134.0    477.2      4.00      3.95
 1.86     YES
  L0006919          0   0.34070E-06  474168.8 3752132.7    477.3      4.00      3.95
 1.86     YES
  L0006920          0   0.34070E-06  474160.4 3752131.3    477.4      4.00      3.95
 1.86     YES
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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006921         0   0.34070E-06  474152.0 3752129.9   477.5     4.00     3.95
1.86     YES
 L0006922         0   0.34070E-06  474143.7 3752128.5   477.6     4.00     3.95
1.86     YES
 L0006923         0   0.34070E-06  474135.3 3752127.1   477.7     4.00     3.95
1.86     YES
 L0006924         0   0.34070E-06  474126.9 3752125.7   477.9     4.00     3.95
1.86     YES
 L0006925         0   0.34070E-06  474118.5 3752124.3   478.0     4.00     3.95
1.86     YES
 L0006926         0   0.34070E-06  474110.1 3752122.9   478.0     4.00     3.95
1.86     YES
 L0006927         0   0.34070E-06  474101.7 3752121.5   478.0     4.00     3.95
1.86     YES
 L0006928         0   0.34070E-06  474093.3 3752120.1   478.0     4.00     3.95
1.86     YES
 L0006929         0   0.34070E-06  474085.0 3752118.8   478.0     4.00     3.95
1.86     YES
 L0006930         0   0.34070E-06  474076.6 3752117.4   478.0     4.00     3.95
1.86     YES
 L0006931         0   0.34070E-06  474068.2 3752116.0   478.0     4.00     3.95
1.86     YES
 L0006932         0   0.34070E-06  474059.8 3752114.6   478.0     4.00     3.95
1.86     YES
 L0006933         0   0.34070E-06  474051.4 3752113.2   478.0     4.00     3.95
1.86     YES
 L0006934         0   0.34070E-06  474043.0 3752111.8   478.0     4.00     3.95
1.86     YES
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                                          AERMOD HRA Output
  L0006935         0   0.85100E-07  477480.6 3749800.2   458.0     0.00      3.95
 1.86     YES
  L0006936         0   0.85100E-07  477480.4 3749808.7   458.0     0.00      3.95
 1.86     YES
  L0006937         0   0.85100E-07  477480.3 3749817.2   458.0     0.00      3.95
 1.86     YES
  L0006938         0   0.85100E-07  477480.1 3749825.7   458.0     0.00      3.95
 1.86     YES
  L0006939         0   0.85100E-07  477480.0 3749834.2   458.0     0.00      3.95
 1.86     YES
  L0006940         0   0.85100E-07  477479.9 3749842.7   458.0     0.00      3.95
 1.86     YES
  L0006941         0   0.85100E-07  477479.7 3749851.2   458.0     0.00      3.95
 1.86     YES
  L0006942         0   0.85100E-07  477479.6 3749859.7   458.0     0.00      3.95
 1.86     YES
  L0006943         0   0.85100E-07  477479.5 3749868.2   458.0     0.00      3.95
 1.86     YES
  L0006944         0   0.85100E-07  477479.3 3749876.7   458.0     0.00      3.95
 1.86     YES
  L0006945         0   0.85100E-07  477479.2 3749885.2   458.0     0.00      3.95
 1.86     YES
  L0006946         0   0.85100E-07  477479.1 3749893.7   458.0     0.00      3.95
 1.86     YES
  L0006947         0   0.85100E-07  477478.9 3749902.2   458.0     0.00      3.95
 1.86     YES
  L0006948         0   0.85100E-07  477478.8 3749910.7   458.0     0.00      3.95
 1.86     YES
  L0006949         0   0.85100E-07  477478.7 3749919.2   458.0     0.00      3.95
 1.86     YES
  L0006950         0   0.85100E-07  477478.5 3749927.7   458.0     0.00      3.95
 1.86     YES
  L0006951         0   0.85100E-07  477478.4 3749936.2   458.0     0.00      3.95
 1.86     YES
  L0006952         0   0.85100E-07  477478.2 3749944.7   458.0     0.00      3.95
 1.86     YES
  L0006953         0   0.85100E-07  477478.1 3749953.2   458.0     0.00      3.95
 1.86     YES
  L0006954         0   0.85100E-07  477478.0 3749961.7   458.2     0.00      3.95
 1.86     YES
  L0006955         0   0.85100E-07  477477.8 3749970.2   458.4     0.00      3.95
 1.86     YES
  L0006956         0   0.85100E-07  477477.7 3749978.7   458.7     0.00      3.95
 1.86     YES
  L0006957         0   0.85100E-07  477477.6 3749987.2   459.0     0.00      3.95
 1.86     YES
  L0006958         0   0.85100E-07  477477.4 3749995.7   459.0     0.00      3.95
 1.86     YES
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                              AERMOD HRA Output
 L0006959         0   0.85100E-07  477477.3 3750004.2   459.0     0.00     3.95
1.86     YES
 L0006960         0   0.85100E-07  477477.2 3750012.7   459.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006961         0   0.85100E-07  477477.0 3750021.2   459.0     0.00     3.95
1.86     YES
 L0006962         0   0.85100E-07  477476.9 3750029.7   459.0     0.00     3.95
1.86     YES
 L0006963         0   0.85100E-07  477476.8 3750038.2   459.0     0.00     3.95
1.86     YES
 L0006964         0   0.85100E-07  477476.6 3750046.7   459.0     0.00     3.95
1.86     YES
 L0006965         0   0.85100E-07  477476.5 3750055.2   459.0     0.00     3.95
1.86     YES
 L0006966         0   0.85100E-07  477476.3 3750063.7   459.0     0.00     3.95
1.86     YES
 L0006967         0   0.85100E-07  477476.2 3750072.2   459.0     0.00     3.95
1.86     YES
 L0006968         0   0.85100E-07  477476.1 3750080.7   459.0     0.00     3.95
1.86     YES
 L0006969         0   0.85100E-07  477475.9 3750089.2   459.0     0.00     3.95
1.86     YES
 L0006970         0   0.85100E-07  477475.8 3750097.7   459.0     0.00     3.95
1.86     YES
 L0006971         0   0.85100E-07  477475.7 3750106.2   459.0     0.00     3.95
1.86     YES
 L0006972         0   0.85100E-07  477475.5 3750114.7   459.0     0.00     3.95
1.86     YES
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                              AERMOD HRA Output
  L0006973         0   0.85100E-07  477475.4 3750123.2   459.0     0.00     3.95
 1.86     YES
  L0006974         0   0.85100E-07  477475.3 3750131.7   459.0     0.00     3.95
 1.86     YES
  L0006975         0   0.85100E-07  477475.1 3750140.2   459.0     0.00     3.95
 1.86     YES
  L0006976         0   0.85100E-07  477475.0 3750148.7   459.0     0.00     3.95
 1.86     YES
  L0006977         0   0.85100E-07  477474.8 3750157.2   459.0     0.00     3.95
 1.86     YES
  L0006978         0   0.85100E-07  477474.7 3750165.7   459.0     0.00     3.95
 1.86     YES
  L0006979         0   0.85100E-07  477474.2 3750174.2   459.0     0.00     3.95
 1.86     YES
  L0006980         0   0.85100E-07  477473.5 3750182.6   459.0     0.00     3.95
 1.86     YES
  L0006981         0   0.85100E-07  477472.8 3750191.1   459.0     0.00     3.95
 1.86     YES
  L0006982         0   0.85100E-07  477472.1 3750199.6   459.0     0.00     3.95
 1.86     YES
  L0006983         0   0.85100E-07  477471.4 3750208.0   459.2     0.00     3.95
 1.86     YES
  L0006984         0   0.85100E-07  477470.7 3750216.5   459.2     0.00     3.95
 1.86     YES
  L0006985         0   0.85100E-07  477470.0 3750225.0   459.3     0.00     3.95
 1.86     YES
  L0006986         0   0.85100E-07  477469.3 3750233.5   459.5     0.00     3.95
 1.86     YES
  L0006987         0   0.85100E-07  477468.7 3750241.9   459.7     0.00     3.95
 1.86     YES
  L0006988         0   0.85100E-07  477468.0 3750250.4   459.9     0.00     3.95
 1.86     YES
  L0006989         0   0.85100E-07  477467.3 3750258.9   460.0     0.00     3.95
 1.86     YES
  L0006990         0   0.85100E-07  477466.6 3750267.3   460.0     0.00     3.95
 1.86     YES
  L0006991         0   0.85100E-07  477466.5 3750275.8   460.0     0.00     3.95
 1.86     YES
  L0006992         0   0.85100E-07  477466.5 3750284.3   460.0     0.00     3.95
 1.86     YES
  L0006993         0   0.85100E-07  477466.5 3750292.8   460.0     0.00     3.95
 1.86     YES
  L0006994         0   0.85100E-07  477466.6 3750301.3   460.0     0.00     3.95
 1.86     YES
  L0006995         0   0.85100E-07  477466.6 3750309.8   460.0     0.00     3.95
 1.86     YES
  L0006996         0   0.85100E-07  477466.6 3750318.3   460.0     0.00     3.95
 1.86     YES
```

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                                 AERMOD HRA Output
 L0006997          0   0.85100E-07  477466.7 3750326.8   460.0     0.00     3.95
1.86     YES
 L0006998          0   0.85100E-07  477466.7 3750335.3   460.0     0.00     3.95
1.86     YES
 L0006999          0   0.85100E-07  477466.7 3750343.8   460.0     0.00     3.95
1.86     YES
 L0007000          0   0.85100E-07  477466.8 3750352.3   460.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007001          0   0.85100E-07  477466.8 3750360.8   460.0     0.00     3.95
1.86     YES
 L0007002          0   0.85100E-07  477466.9 3750369.3   460.0     0.00     3.95
1.86     YES
 L0007003          0   0.85100E-07  477466.9 3750377.8   460.0     0.00     3.95
1.86     YES
 L0007004          0   0.85100E-07  477466.9 3750386.3   460.0     0.00     3.95
1.86     YES
 L0007005          0   0.85100E-07  477467.0 3750394.8   460.0     0.00     3.95
1.86     YES
 L0007006          0   0.85100E-07  477467.0 3750403.3   460.0     0.00     3.95
1.86     YES
 L0007007          0   0.85100E-07  477467.0 3750411.8   460.0     0.00     3.95
1.86     YES
 L0007008          0   0.85100E-07  477467.1 3750420.3   460.0     0.00     3.95
1.86     YES
 L0007009          0   0.85100E-07  477467.1 3750428.8   460.0     0.00     3.95
1.86     YES
 L0007010          0   0.85100E-07  477467.1 3750437.3   460.0     0.00     3.95
1.86     YES
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 L0007011         0   0.85100E-07  477467.2 3750445.8   460.0     0.00      3.95
1.86     YES
 L0007012         0   0.85100E-07  477467.2 3750454.3   460.0     0.00      3.95
1.86     YES
 L0007013         0   0.85100E-07  477467.3 3750462.8   460.0     0.00      3.95
1.86     YES
 L0007014         0   0.85100E-07  477467.3 3750471.3   460.2     0.00      3.95
1.86     YES
 L0007015         0   0.85100E-07  477467.3 3750479.8   460.4     0.00      3.95
1.86     YES
 L0007016         0   0.85100E-07  477467.4 3750488.3   460.7     0.00      3.95
1.86     YES
 L0007017         0   0.85100E-07  477467.4 3750496.8   461.0     0.00      3.95
1.86     YES
 L0007018         0   0.85100E-07  477467.4 3750505.3   461.0     0.00      3.95
1.86     YES
 L0007019         0   0.85100E-07  477467.5 3750513.8   461.0     0.00      3.95
1.86     YES
 L0007020         0   0.85100E-07  477467.5 3750522.3   461.0     0.00      3.95
1.86     YES
 L0007021         0   0.85100E-07  477467.5 3750530.8   461.0     0.00      3.95
1.86     YES
 L0007022         0   0.85100E-07  477467.6 3750539.3   461.0     0.00      3.95
1.86     YES
 L0007023         0   0.85100E-07  477467.7 3750547.8   461.0     0.00      3.95
1.86     YES
 L0007024         0   0.85100E-07  477467.9 3750556.3   461.0     0.00      3.95
1.86     YES
 L0007025         0   0.85100E-07  477468.2 3750564.8   461.0     0.00      3.95
1.86     YES
 L0007026         0   0.85100E-07  477468.4 3750573.3   461.0     0.00      3.95
1.86     YES
 L0007027         0   0.85100E-07  477468.7 3750581.8   461.0     0.00      3.95
1.86     YES
 L0007028         0   0.85100E-07  477468.9 3750590.3   461.0     0.00      3.95
1.86     YES
 L0007029         0   0.85100E-07  477469.2 3750598.8   461.0     0.00      3.95
1.86     YES
 L0007030         0   0.85100E-07  477469.4 3750607.3   461.0     0.00      3.95
1.86     YES
 L0007031         0   0.85100E-07  477469.7 3750615.8   461.0     0.00      3.95
1.86     YES
 L0007032         0   0.85100E-07  477469.9 3750624.3   461.0     0.00      3.95
1.86     YES
 L0007033         0   0.85100E-07  477470.2 3750632.8   461.0     0.00      3.95
1.86     YES
 L0007034         0   0.85100E-07  477470.4 3750641.3   461.0     0.00      3.95
1.86     YES
```

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                                 AERMOD HRA Output
 L0007035         0   0.85100E-07  477470.7 3750649.8   461.0     0.00     3.95
1.86     YES
 L0007036         0   0.85100E-07  477470.9 3750658.3   461.2     0.00     3.95
1.86     YES
 L0007037         0   0.85100E-07  477471.2 3750666.8   461.3     0.00     3.95
1.86     YES
 L0007038         0   0.85100E-07  477471.4 3750675.3   461.4     0.00     3.95
1.86     YES
 L0007039         0   0.85100E-07  477471.7 3750683.8   461.5     0.00     3.95
1.86     YES
 L0007040         0   0.85100E-07  477471.9 3750692.3   461.7     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0007041         0   0.85100E-07  477472.2 3750700.8   461.9     0.00     3.95
1.86     YES
 L0007042         0   0.85100E-07  477472.4 3750709.3   462.0     0.00     3.95
1.86     YES
 L0007043         0   0.85100E-07  477472.7 3750717.8   462.0     0.00     3.95
1.86     YES
 L0007044         0   0.85100E-07  477472.9 3750726.3   462.0     0.00     3.95
1.86     YES
 L0007045         0   0.85100E-07  477473.2 3750734.8   462.0     0.00     3.95
1.86     YES
 L0007046         0   0.85100E-07  477473.4 3750743.3   462.0     0.00     3.95
1.86     YES
 L0007047         0   0.85100E-07  477473.7 3750751.7   462.0     0.00     3.95
1.86     YES
 L0007048         0   0.85100E-07  477473.9 3750760.2   462.0     0.00     3.95
1.86     YES
```

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 L0007049         0   0.85100E-07  477474.2 3750768.7    462.0      0.00      3.95
1.86     YES
 L0007050         0   0.85100E-07  477474.4 3750777.2    462.0      0.00      3.95
1.86     YES
 L0007051         0   0.85100E-07  477474.7 3750785.7    462.0      0.00      3.95
1.86     YES
 L0007052         0   0.85100E-07  477474.9 3750794.2    462.0      0.00      3.95
1.86     YES
 L0007053         0   0.85100E-07  477475.2 3750802.7    462.0      0.00      3.95
1.86     YES
 L0007054         0   0.85100E-07  477475.4 3750811.2    462.0      0.00      3.95
1.86     YES
 L0007055         0   0.85100E-07  477475.7 3750819.7    462.0      0.00      3.95
1.86     YES
 L0007056         0   0.85100E-07  477475.9 3750828.2    462.0      0.00      3.95
1.86     YES
 L0007057         0   0.85100E-07  477476.2 3750836.7    462.0      0.00      3.95
1.86     YES
 L0007058         0   0.85100E-07  477476.4 3750845.2    462.0      0.00      3.95
1.86     YES
 L0007059         0   0.85100E-07  477476.7 3750853.7    462.0      0.00      3.95
1.86     YES
 L0007060         0   0.85100E-07  477476.9 3750862.2    462.1      0.00      3.95
1.86     YES
 L0007061         0   0.85100E-07  477477.1 3750870.7    462.3      0.00      3.95
1.86     YES
 L0007062         0   0.85100E-07  477477.1 3750879.2    462.4      0.00      3.95
1.86     YES
 L0007063         0   0.85100E-07  477477.2 3750887.7    462.6      0.00      3.95
1.86     YES
 L0007064         0   0.85100E-07  477477.2 3750896.2    462.7      0.00      3.95
1.86     YES
 L0007065         0   0.85100E-07  477477.3 3750904.7    462.8      0.00      3.95
1.86     YES
 L0007066         0   0.85100E-07  477477.3 3750913.2    462.9      0.00      3.95
1.86     YES
 L0007067         0   0.85100E-07  477477.4 3750921.7    463.0      0.00      3.95
1.86     YES
 L0007068         0   0.85100E-07  477477.4 3750930.2    463.0      0.00      3.95
1.86     YES
 L0007069         0   0.85100E-07  477477.5 3750938.7    463.0      0.00      3.95
1.86     YES
 L0007070         0   0.85100E-07  477477.6 3750947.2    463.0      0.00      3.95
1.86     YES
 L0007071         0   0.85100E-07  477477.6 3750955.7    463.0      0.00      3.95
1.86     YES
 L0007072         0   0.85100E-07  477477.7 3750964.2    463.0      0.00      3.95
1.86     YES
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 L0007073         0   0.85100E-07  477477.7 3750972.7   463.0     0.00     3.95
1.86     YES
 L0007074         0   0.85100E-07  477477.8 3750981.2   463.0     0.00     3.95
1.86     YES
 L0007075         0   0.85100E-07  477477.8 3750989.7   463.0     0.00     3.95
1.86     YES
 L0007076         0   0.85100E-07  477477.9 3750998.2   463.0     0.00     3.95
1.86     YES
 L0007077         0   0.85100E-07  477477.9 3751006.7   463.0     0.00     3.95
1.86     YES
 L0007078         0   0.85100E-07  477478.0 3751015.2   463.0     0.00     3.95
1.86     YES
 L0007079         0   0.85100E-07  477478.0 3751023.7   463.0     0.00     3.95
1.86     YES
 L0007080         0   0.85100E-07  477478.1 3751032.2   463.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007081         0   0.85100E-07  477478.1 3751040.7   463.0     0.00     3.95
1.86     YES
 L0007082         0   0.85100E-07  477478.2 3751049.2   463.0     0.00     3.95
1.86     YES
 L0007083         0   0.85100E-07  477478.3 3751057.7   463.0     0.00     3.95
1.86     YES
 L0007084         0   0.85100E-07  477478.3 3751066.2   463.0     0.00     3.95
1.86     YES
 L0007085         0   0.85100E-07  477478.4 3751074.7   463.2     0.00     3.95
1.86     YES
 L0007086         0   0.85100E-07  477478.4 3751083.2   463.3     0.00     3.95
1.86     YES
```

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 L0007087         0   0.85100E-07  477478.5 3751091.7   463.5     0.00      3.95
1.86     YES
 L0007088         0   0.85100E-07  477478.5 3751100.2   463.7     0.00      3.95
1.86     YES
 L0007089         0   0.85100E-07  477478.6 3751108.7   463.8     0.00      3.95
1.86     YES
 L0007090         0   0.85100E-07  477478.6 3751117.2   463.9     0.00      3.95
1.86     YES
 L0007091         0   0.85100E-07  477478.7 3751125.7   464.0     0.00      3.95
1.86     YES
 L0007092         0   0.85100E-07  477478.7 3751134.2   464.0     0.00      3.95
1.86     YES
 L0007093         0   0.85100E-07  477478.8 3751142.7   464.0     0.00      3.95
1.86     YES
 L0007094         0   0.85100E-07  477478.9 3751151.2   464.0     0.00      3.95
1.86     YES
 L0007095         0   0.85100E-07  477478.9 3751159.7   464.0     0.00      3.95
1.86     YES
 L0007096         0   0.85100E-07  477479.0 3751168.2   464.0     0.00      3.95
1.86     YES
 L0007097         0   0.85100E-07  477479.0 3751176.7   464.0     0.00      3.95
1.86     YES
 L0007098         0   0.85100E-07  477479.1 3751185.2   464.0     0.00      3.95
1.86     YES
 L0007099         0   0.85100E-07  477479.1 3751193.7   464.0     0.00      3.95
1.86     YES
 L0007100         0   0.85100E-07  477479.2 3751202.2   464.0     0.00      3.95
1.86     YES
 L0007101         0   0.85100E-07  477479.2 3751210.7   464.0     0.00      3.95
1.86     YES
 L0007102         0   0.85100E-07  477479.3 3751219.2   464.0     0.00      3.95
1.86     YES
 L0007103         0   0.85100E-07  477479.3 3751227.7   464.0     0.00      3.95
1.86     YES
 L0007104         0   0.85100E-07  477479.4 3751236.2   464.0     0.00      3.95
1.86     YES
 L0007105         0   0.85100E-07  477479.3 3751244.7   464.0     0.00      3.95
1.86     YES
 L0007106         0   0.85100E-07  477479.3 3751253.2   464.2     0.00      3.95
1.86     YES
 L0007107         0   0.85100E-07  477479.2 3751261.7   464.5     0.00      3.95
1.86     YES
 L0007108         0   0.85100E-07  477479.2 3751270.2   464.8     0.00      3.95
1.86     YES
 L0007109         0   0.85100E-07  477479.1 3751278.7   465.0     0.00      3.95
1.86     YES
 L0007110         0   0.85100E-07  477479.0 3751287.2   465.0     0.00      3.95
1.86     YES
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 L0007111         0   0.85100E-07  477479.0 3751295.7   465.0     0.00     3.95
1.86     YES
 L0007112         0   0.85100E-07  477478.9 3751304.2   465.0     0.00     3.95
1.86     YES
 L0007113         0   0.85100E-07  477478.9 3751312.7   465.0     0.00     3.95
1.86     YES
 L0007114         0   0.85100E-07  477478.8 3751321.2   465.0     0.00     3.95
1.86     YES
 L0007115         0   0.85100E-07  477478.7 3751329.7   465.0     0.00     3.95
1.86     YES
 L0007116         0   0.85100E-07  477478.7 3751338.2   465.0     0.00     3.95
1.86     YES
 L0007117         0   0.85100E-07  477478.6 3751346.7   465.0     0.00     3.95
1.86     YES
 L0007118         0   0.85100E-07  477478.6 3751355.2   465.0     0.00     3.95
1.86     YES
 L0007119         0   0.85100E-07  477478.5 3751363.7   465.0     0.00     3.95
1.86     YES
 L0007120         0   0.85100E-07  477478.5 3751372.2   465.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0007121         0   0.85100E-07  477478.4 3751380.7   465.0     0.00     3.95
1.86     YES
 L0007122         0   0.85100E-07  477478.3 3751389.2   465.0     0.00     3.95
1.86     YES
 L0007123         0   0.85100E-07  477478.3 3751397.7   465.0     0.00     3.95
1.86     YES
 L0007124         0   0.85100E-07  477478.2 3751406.2   465.0     0.00     3.95
1.86     YES
```

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                                  AERMOD HRA Output
  L0007125         0   0.85100E-07  477478.2 3751414.7   465.0      0.00      3.95
 1.86     YES
  L0007126         0   0.85100E-07  477478.1 3751423.2   465.0      0.00      3.95
 1.86     YES
  L0007127         0   0.85100E-07  477478.0 3751431.7   465.2      0.00      3.95
 1.86     YES
  L0007128         0   0.85100E-07  477478.0 3751440.2   465.4      0.00      3.95
 1.86     YES
  L0007129         0   0.85100E-07  477477.9 3751448.7   465.7      0.00      3.95
 1.86     YES
  L0007130         0   0.85100E-07  477477.9 3751457.2   466.0      0.00      3.95
 1.86     YES
  L0007131         0   0.85100E-07  477477.8 3751465.7   466.0      0.00      3.95
 1.86     YES
  L0007132         0   0.85100E-07  477477.8 3751474.2   466.0      0.00      3.95
 1.86     YES
  L0007133         0   0.85100E-07  477477.7 3751482.7   466.0      0.00      3.95
 1.86     YES
  L0007134         0   0.85100E-07  477477.6 3751491.2   466.0      0.00      3.95
 1.86     YES
  L0007135         0   0.85100E-07  477477.6 3751499.7   466.0      0.00      3.95
 1.86     YES
  L0007136         0   0.85100E-07  477477.5 3751508.2   466.0      0.00      3.95
 1.86     YES
  L0007137         0   0.85100E-07  477477.5 3751516.7   466.0      0.00      3.95
 1.86     YES
  L0007138         0   0.85100E-07  477477.4 3751525.2   466.0      0.00      3.95
 1.86     YES
  L0007139         0   0.85100E-07  477477.3 3751533.7   466.0      0.00      3.95
 1.86     YES
  L0007140         0   0.85100E-07  477477.3 3751542.2   466.0      0.00      3.95
 1.86     YES
  L0007141         0   0.85100E-07  477477.2 3751550.7   466.0      0.00      3.95
 1.86     YES
  L0007142         0   0.85100E-07  477477.2 3751559.2   466.0      0.00      3.95
 1.86     YES
  L0007143         0   0.85100E-07  477477.1 3751567.7   466.0      0.00      3.95
 1.86     YES
  L0007144         0   0.85100E-07  477477.0 3751576.2   466.0      0.00      3.95
 1.86     YES
  L0007145         0   0.85100E-07  477477.0 3751584.7   466.0      0.00      3.95
 1.86     YES
  L0007146         0   0.85100E-07  477476.9 3751593.2   466.0      0.00      3.95
 1.86     YES
  L0007147         0   0.85100E-07  477476.9 3751601.7   466.0      0.00      3.95
 1.86     YES
  L0007148         0   0.85100E-07  477476.8 3751610.2   466.1      0.00      3.95
 1.86     YES
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 L0007149         0   0.85100E-07  477476.8 3751618.7   466.2     0.00     3.95
1.86     YES
 L0007150         0   0.85100E-07  477476.7 3751627.2   466.4     0.00     3.95
1.86     YES
 L0007151         0   0.85100E-07  477476.6 3751635.7   466.6     0.00     3.95
1.86     YES
 L0007152         0   0.85100E-07  477476.6 3751644.2   466.7     0.00     3.95
1.86     YES
 L0007153         0   0.85100E-07  477476.5 3751652.7   466.8     0.00     3.95
1.86     YES
 L0007154         0   0.85100E-07  477476.5 3751661.2   466.9     0.00     3.95
1.86     YES
 L0007155         0   0.85100E-07  477476.4 3751669.7   467.0     0.00     3.95
1.86     YES
 L0007156         0   0.85100E-07  477476.3 3751678.2   467.0     0.00     3.95
1.86     YES
 L0007157         0   0.85100E-07  477476.3 3751686.7   467.0     0.00     3.95
1.86     YES
 L0007158         0   0.85100E-07  477476.2 3751695.2   467.0     0.00     3.95
1.86     YES
 L0007159         0   0.85100E-07  477476.2 3751703.7   467.0     0.00     3.95
1.86     YES
 L0007160         0   0.85100E-07  477476.1 3751712.2   467.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007161         0   0.85100E-07  477476.1 3751720.7   467.0     0.00     3.95
1.86     YES
 L0007162         0   0.85100E-07  477476.0 3751729.2   467.1     0.00     3.95
1.86     YES
```

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 L0007163         0   0.85100E-07  477475.9 3751737.7    467.2      0.00      3.95
1.86     YES
 L0007164         0   0.85100E-07  477475.9 3751746.2    467.4      0.00      3.95
1.86     YES
 L0007165         0   0.85100E-07  477475.8 3751754.7    467.5      0.00      3.95
1.86     YES
 L0007166         0   0.85100E-07  477475.8 3751763.2    467.6      0.00      3.95
1.86     YES
 L0007167         0   0.85100E-07  477475.7 3751771.7    467.8      0.00      3.95
1.86     YES
 L0007168         0   0.85100E-07  477475.6 3751780.2    467.9      0.00      3.95
1.86     YES
 L0007169         0   0.85100E-07  477475.6 3751788.7    468.0      0.00      3.95
1.86     YES
 L0007170         0   0.85100E-07  477475.5 3751797.2    468.0      0.00      3.95
1.86     YES
 L0007171         0   0.85100E-07  477475.5 3751805.7    468.0      0.00      3.95
1.86     YES
 L0007172         0   0.85100E-07  477475.4 3751814.2    468.0      0.00      3.95
1.86     YES
 L0007173         0   0.85100E-07  477475.4 3751822.7    468.0      0.00      3.95
1.86     YES
 L0007174         0   0.85100E-07  477475.3 3751831.2    468.0      0.00      3.95
1.86     YES
 L0007175         0   0.85100E-07  477475.2 3751839.7    468.0      0.00      3.95
1.86     YES
 L0007176         0   0.85100E-07  477475.2 3751848.2    468.0      0.00      3.95
1.86     YES
 L0007177         0   0.85100E-07  477475.1 3751856.7    468.0      0.00      3.95
1.86     YES
 L0007178         0   0.85100E-07  477475.1 3751865.2    468.0      0.00      3.95
1.86     YES
 L0007179         0   0.85100E-07  477475.0 3751873.7    468.0      0.00      3.95
1.86     YES
 L0007180         0   0.85100E-07  477474.9 3751882.2    468.2      0.00      3.95
1.86     YES
 L0007181         0   0.85100E-07  477474.9 3751890.7    468.5      0.00      3.95
1.86     YES
 L0007182         0   0.85100E-07  477474.8 3751899.2    468.8      0.00      3.95
1.86     YES
 L0007183         0   0.85100E-07  477474.8 3751907.7    469.0      0.00      3.95
1.86     YES
 L0007184         0   0.85100E-07  477474.7 3751916.2    469.0      0.00      3.95
1.86     YES
 L0007185         0   0.85100E-07  477474.7 3751924.7    469.0      0.00      3.95
1.86     YES
 L0007186         0   0.85100E-07  477474.6 3751933.2    469.0      0.00      3.95
1.86     YES
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 L0007187        0   0.85100E-07  477474.5 3751941.7   469.0     0.00     3.95
1.86     YES
 L0007188        0   0.85100E-07  477474.5 3751950.2   469.0     0.00     3.95
1.86     YES
 L0007189        0   0.85100E-07  477474.4 3751958.7   469.0     0.00     3.95
1.86     YES
 L0007190        0   0.85100E-07  477474.4 3751967.2   469.0     0.00     3.95
1.86     YES
 L0007191        0   0.85100E-07  477474.3 3751975.7   469.0     0.00     3.95
1.86     YES
 L0007192        0   0.85100E-07  477474.2 3751984.2   469.0     0.00     3.95
1.86     YES
 L0007193        0   0.85100E-07  477474.2 3751992.7   469.0     0.00     3.95
1.86     YES
 L0007194        0   0.85100E-07  477474.1 3752001.2   469.0     0.00     3.95
1.86     YES
 L0007195        0   0.85100E-07  477474.1 3752009.7   469.0     0.00     3.95
1.86     YES
 L0007196        0   0.85100E-07  477474.0 3752018.2   469.0     0.00     3.95
1.86     YES
 L0007197        0   0.85100E-07  477474.0 3752026.7   469.0     0.00     3.95
1.86     YES
 L0007198        0   0.85100E-07  477473.9 3752035.2   469.1     0.00     3.95
1.86     YES
 L0007199        0   0.85100E-07  477473.8 3752043.7   469.3     0.00     3.95
1.86     YES
 L0007200        0   0.85100E-07  477473.8 3752052.2   469.4     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0007201         0   0.85100E-07  477473.7 3752060.7    469.5      0.00      3.95
1.86     YES
 L0007202         0   0.85100E-07  477473.7 3752069.2    469.5      0.00      3.95
1.86     YES
 L0007203         0   0.85100E-07  477473.6 3752077.7    469.5      0.00      3.95
1.86     YES
 L0007204         0   0.85100E-07  477473.5 3752086.2    469.5      0.00      3.95
1.86     YES
 L0007205         0   0.85100E-07  477473.5 3752094.7    469.6      0.00      3.95
1.86     YES
 L0007206         0   0.85100E-07  477473.4 3752103.2    469.8      0.00      3.95
1.86     YES
 L0007207         0   0.85100E-07  477473.4 3752111.7    469.9      0.00      3.95
1.86     YES
 L0007208         0   0.85100E-07  477473.3 3752120.2    470.1      0.00      3.95
1.86     YES
 L0007209         0   0.85100E-07  477473.3 3752128.7    470.2      0.00      3.95
1.86     YES
 L0007210         0   0.85100E-07  477473.2 3752137.2    470.3      0.00      3.95
1.86     YES
 L0007211         0   0.85100E-07  477473.1 3752145.7    470.4      0.00      3.95
1.86     YES
 L0007212         0   0.85100E-07  477473.1 3752154.2    470.6      0.00      3.95
1.86     YES
 L0007213         0   0.85100E-07  477473.0 3752162.7    470.7      0.00      3.95
1.86     YES
 L0007214         0   0.85100E-07  477473.0 3752171.2    470.9      0.00      3.95
1.86     YES
 L0007215         0   0.85100E-07  477472.9 3752179.7    471.0      0.00      3.95
1.86     YES
 L0007216         0   0.85100E-07  477472.8 3752188.2    471.0      0.00      3.95
1.86     YES
 L0007217         0   0.85100E-07  477472.8 3752196.7    471.0      0.00      3.95
1.86     YES
 L0007218         0   0.85100E-07  477472.7 3752205.2    471.0      0.00      3.95
1.86     YES
 L0007219         0   0.85100E-07  477472.7 3752213.7    471.2      0.00      3.95
1.86     YES
 L0007220         0   0.85100E-07  477472.6 3752222.2    471.5      0.00      3.95
1.86     YES
 L0007221         0   0.42540E-06  477466.5 3747781.2    451.0      4.00      3.95
1.86     YES
 L0007222         0   0.42540E-06  477475.0 3747781.2    451.0      4.00      3.95
1.86     YES
 L0007223         0   0.42540E-06  477483.5 3747781.1    451.0      4.00      3.95
1.86     YES
 L0007224         0   0.42540E-06  477492.0 3747781.1    451.0      4.00      3.95
1.86     YES
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                                  AERMOD HRA Output
 L0007225         0   0.42540E-06  477500.5 3747781.0   451.0     4.00     3.95
1.86     YES
 L0007226         0   0.42540E-06  477509.0 3747781.0   451.0     4.00     3.95
1.86     YES
 L0007227         0   0.42540E-06  477517.5 3747780.9   451.0     4.00     3.95
1.86     YES
 L0007228         0   0.42540E-06  477526.0 3747780.9   451.0     4.00     3.95
1.86     YES
 L0007229         0   0.42540E-06  477534.5 3747780.8   451.0     4.00     3.95
1.86     YES
 L0007230         0   0.42540E-06  477543.0 3747780.7   451.0     4.00     3.95
1.86     YES
 L0007231         0   0.42540E-06  477551.5 3747780.7   451.0     4.00     3.95
1.86     YES
 L0007232         0   0.42540E-06  477560.0 3747780.6   451.0     4.00     3.95
1.86     YES
 L0007233         0   0.42540E-06  477568.5 3747780.6   451.0     4.00     3.95
1.86     YES
 L0007234         0   0.42540E-06  477577.0 3747780.5   451.0     4.00     3.95
1.86     YES
 L0007235         0   0.42540E-06  477585.5 3747780.5   451.0     4.00     3.95
1.86     YES
 L0007236         0   0.42540E-06  477594.0 3747780.4   451.0     4.00     3.95
1.86     YES
 L0007237         0   0.42540E-06  477602.5 3747780.3   451.0     4.00     3.95
1.86     YES
 L0007238         0   0.42540E-06  477611.0 3747780.3   451.0     4.00     3.95
1.86     YES
 L0007239         0   0.42540E-06  477619.5 3747780.2   451.0     4.00     3.95
1.86     YES
 L0007240         0   0.42540E-06  477628.0 3747780.2   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                  BY
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 L0007241          0   0.42540E-06   477636.5 3747780.1   451.0     4.00     3.95
1.86     YES
 L0007242          0   0.42540E-06   477645.0 3747780.1   450.9     4.00     3.95
1.86     YES
 L0007243          0   0.42540E-06   477653.5 3747780.0   450.8     4.00     3.95
1.86     YES
 L0007244          0   0.42540E-06   477662.0 3747780.0   450.6     4.00     3.95
1.86     YES
 L0007245          0   0.42540E-06   477670.5 3747779.9   450.4     4.00     3.95
1.86     YES
 L0007246          0   0.42540E-06   477679.0 3747779.8   450.3     4.00     3.95
1.86     YES
 L0007247          0   0.42540E-06   477687.5 3747779.8   450.2     4.00     3.95
1.86     YES
 L0007248          0   0.42540E-06   477696.0 3747779.7   450.1     4.00     3.95
1.86     YES
 L0007249          0   0.42540E-06   477704.5 3747779.7   450.0     4.00     3.95
1.86     YES
 L0007250          0   0.42540E-06   477713.0 3747779.6   450.0     4.00     3.95
1.86     YES
 L0007251          0   0.42540E-06   477721.5 3747779.6   450.0     4.00     3.95
1.86     YES
 L0007252          0   0.42540E-06   477730.0 3747779.5   450.0     4.00     3.95
1.86     YES
 L0007253          0   0.42540E-06   477738.5 3747779.4   450.0     4.00     3.95
1.86     YES
 L0007254          0   0.42540E-06   477747.0 3747779.4   450.0     4.00     3.95
1.86     YES
 L0007255          0   0.42540E-06   477755.5 3747779.3   450.0     4.00     3.95
1.86     YES
 L0007256          0   0.42540E-06   477764.0 3747779.3   450.0     4.00     3.95
1.86     YES
 L0007257          0   0.42540E-06   477772.5 3747779.2   450.0     4.00     3.95
1.86     YES
 L0007258          0   0.42540E-06   477781.0 3747779.2   450.0     4.00     3.95
1.86     YES
 L0007259          0   0.42540E-06   477789.5 3747779.1   450.0     4.00     3.95
1.86     YES
 L0007260          0   0.42540E-06   477798.0 3747779.1   450.0     4.00     3.95
1.86     YES
 L0007261          0   0.42540E-06   477806.5 3747779.0   450.0     4.00     3.95
1.86     YES
 L0007262          0   0.42540E-06   477815.0 3747778.9   450.0     4.00     3.95
1.86     YES
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 L0007263          0   0.42540E-06  477823.5 3747778.9   450.0     4.00     3.95
1.86     YES
 L0007264          0   0.42540E-06  477832.0 3747778.8   450.0     4.00     3.95
1.86     YES
 L0007265          0   0.42540E-06  477840.5 3747778.8   450.0     4.00     3.95
1.86     YES
 L0007266          0   0.42540E-06  477849.0 3747778.7   450.0     4.00     3.95
1.86     YES
 L0007267          0   0.42540E-06  477857.5 3747778.7   450.0     4.00     3.95
1.86     YES
 L0007268          0   0.42540E-06  477866.0 3747778.6   450.0     4.00     3.95
1.86     YES
 L0007269          0   0.42540E-06  477874.5 3747778.6   450.0     4.00     3.95
1.86     YES
 L0007270          0   0.42540E-06  477883.0 3747778.5   450.0     4.00     3.95
1.86     YES
 L0007271          0   0.42540E-06  477891.5 3747778.4   450.0     4.00     3.95
1.86     YES
 L0007272          0   0.42540E-06  477900.0 3747778.4   450.0     4.00     3.95
1.86     YES
 L0007273          0   0.42540E-06  477908.5 3747778.3   450.0     4.00     3.95
1.86     YES
 L0007274          0   0.42540E-06  477917.0 3747778.3   450.0     4.00     3.95
1.86     YES
 L0007275          0   0.42540E-06  477925.5 3747778.2   450.0     4.00     3.95
1.86     YES
 L0007276          0   0.42540E-06  477934.0 3747778.2   450.0     4.00     3.95
1.86     YES
 L0007277          0   0.42540E-06  477942.5 3747778.1   450.0     4.00     3.95
1.86     YES
 L0007278          0   0.42540E-06  477951.0 3747778.0   450.0     4.00     3.95
1.86     YES
 L0007279          0   0.42540E-06  477959.5 3747778.0   450.0     4.00     3.95
1.86     YES
 L0007280          0   0.42540E-06  477968.0 3747777.9   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                               AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0007281         0   0.42540E-06  477976.5 3747777.9   450.0     4.00     3.95
1.86     YES
 L0007282         0   0.42540E-06  477985.0 3747777.8   450.0     4.00     3.95
1.86     YES
 L0007283         0   0.42540E-06  477993.5 3747777.8   450.0     4.00     3.95
1.86     YES
 L0007284         0   0.42540E-06  478002.0 3747777.7   450.0     4.00     3.95
1.86     YES
 L0007285         0   0.42540E-06  478010.5 3747777.7   449.8     4.00     3.95
1.86     YES
 L0007286         0   0.42540E-06  478019.0 3747777.6   449.6     4.00     3.95
1.86     YES
 L0007287         0   0.42540E-06  478027.5 3747777.5   449.4     4.00     3.95
1.86     YES
 L0007288         0   0.42540E-06  478036.0 3747777.5   449.3     4.00     3.95
1.86     YES
 L0007289         0   0.42540E-06  478044.5 3747777.4   449.2     4.00     3.95
1.86     YES
 L0007290         0   0.42540E-06  478053.0 3747777.4   449.1     4.00     3.95
1.86     YES
 L0007291         0   0.42540E-06  478061.5 3747777.3   449.0     4.00     3.95
1.86     YES
 L0007292         0   0.42540E-06  478070.0 3747777.3   449.0     4.00     3.95
1.86     YES
 L0007293         0   0.42540E-06  478078.5 3747777.2   449.0     4.00     3.95
1.86     YES
 L0007294         0   0.42540E-06  478087.0 3747777.1   449.0     4.00     3.95
1.86     YES
 L0007295         0   0.42540E-06  478095.5 3747777.1   449.0     4.00     3.95
1.86     YES
 L0007296         0   0.42540E-06  478104.0 3747777.0   449.0     4.00     3.95
1.86     YES
 L0007297         0   0.42540E-06  478112.5 3747777.0   449.0     4.00     3.95
1.86     YES
 L0007298         0   0.42540E-06  478121.0 3747776.9   449.0     4.00     3.95
1.86     YES
 L0007299         0   0.42540E-06  478129.5 3747776.9   449.0     4.00     3.95
1.86     YES
 L0007300         0   0.42540E-06  478138.0 3747776.8   449.0     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0007301         0   0.42540E-06  478146.5 3747776.8   449.0     4.00     3.95
1.86     YES
 L0007302         0   0.42540E-06  478155.0 3747776.7   449.0     4.00     3.95
1.86     YES
 L0007303         0   0.42540E-06  478163.5 3747776.6   449.0     4.00     3.95
1.86     YES
 L0007304         0   0.42540E-06  478172.0 3747776.6   449.0     4.00     3.95
1.86     YES
 L0007305         0   0.42540E-06  478180.5 3747776.5   449.0     4.00     3.95
1.86     YES
 L0007306         0   0.42540E-06  478189.0 3747776.5   449.0     4.00     3.95
1.86     YES
 L0007307         0   0.42540E-06  478197.5 3747776.4   449.0     4.00     3.95
1.86     YES
 L0007308         0   0.42540E-06  478206.0 3747776.4   449.0     4.00     3.95
1.86     YES
 L0007309         0   0.42540E-06  478214.5 3747776.3   449.0     4.00     3.95
1.86     YES
 L0007310         0   0.42540E-06  478223.0 3747776.2   449.0     4.00     3.95
1.86     YES
 L0007311         0   0.42540E-06  478231.5 3747776.2   449.0     4.00     3.95
1.86     YES
 L0007312         0   0.42540E-06  478240.0 3747776.1   449.0     4.00     3.95
1.86     YES
 L0007313         0   0.42540E-06  478248.5 3747776.1   449.0     4.00     3.95
1.86     YES
 L0007314         0   0.42540E-06  478257.0 3747776.0   449.0     4.00     3.95
1.86     YES
 L0007315         0   0.42540E-06  478265.5 3747776.0   449.0     4.00     3.95
1.86     YES
 L0007316         0   0.42540E-06  478274.0 3747775.9   449.0     4.00     3.95
1.86     YES
 L0007317         0   0.42540E-06  478281.0 3747774.4   449.0     4.00     3.95
1.86     YES
 L0007318         0   0.42540E-06  478281.0 3747765.9   449.0     4.00     3.95
1.86     YES
 L0007319         0   0.42540E-06  478281.1 3747757.4   449.0     4.00     3.95
1.86     YES
 L0007320         0   0.42540E-06  478281.1 3747748.9   449.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                              AERMOD HRA Output
                                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0007321         0    0.42540E-06  478281.1 3747740.4   449.0     4.00     3.95
1.86     YES
 L0007322         0    0.42540E-06  478281.2 3747731.9   449.0     4.00     3.95
1.86     YES
 L0007323         0    0.42540E-06  478281.2 3747723.4   449.0     4.00     3.95
1.86     YES
 L0007324         0    0.42540E-06  478281.2 3747714.9   449.0     4.00     3.95
1.86     YES
 L0007325         0    0.42540E-06  478281.3 3747706.4   449.0     4.00     3.95
1.86     YES
 L0007326         0    0.42540E-06  478281.3 3747697.9   449.0     4.00     3.95
1.86     YES
 L0007327         0    0.42540E-06  478281.3 3747689.4   449.0     4.00     3.95
1.86     YES
 L0007328         0    0.42540E-06  478281.4 3747680.9   449.0     4.00     3.95
1.86     YES
 L0007329         0    0.42540E-06  478281.4 3747672.4   448.9     4.00     3.95
1.86     YES
 L0007330         0    0.42540E-06  478281.4 3747663.9   448.6     4.00     3.95
1.86     YES
 L0007331         0    0.42540E-06  478281.5 3747655.4   448.3     4.00     3.95
1.86     YES
 L0007332         0    0.42540E-06  478281.5 3747646.9   448.0     4.00     3.95
1.86     YES
 L0007333         0    0.42540E-06  478281.5 3747638.4   448.0     4.00     3.95
1.86     YES
 L0007334         0    0.42540E-06  478281.5 3747629.9   448.0     4.00     3.95
1.86     YES
 L0007335         0    0.42540E-06  478281.6 3747621.4   448.0     4.00     3.95
1.86     YES
 L0007336         0    0.42540E-06  478281.6 3747612.9   448.0     4.00     3.95
1.86     YES
 L0007337         0    0.42540E-06  478281.6 3747604.4   448.0     4.00     3.95
1.86     YES
 L0007338         0    0.42540E-06  478281.7 3747595.9   448.0     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                   AERMOD HRA Output
 L0007339         0   0.42540E-06  478281.7 3747587.4   448.0     4.00     3.95
1.86     YES
 L0007340         0   0.42540E-06  478281.7 3747578.9   448.0     4.00     3.95
1.86     YES
 L0007341         0   0.42540E-06  478281.8 3747570.4   448.0     4.00     3.95
1.86     YES
 L0007342         0   0.42540E-06  478281.8 3747561.9   448.0     4.00     3.95
1.86     YES
 L0007343         0   0.42540E-06  478281.8 3747553.4   448.0     4.00     3.95
1.86     YES
 L0007344         0   0.42540E-06  478281.9 3747544.9   448.0     4.00     3.95
1.86     YES
 L0007345         0   0.42540E-06  478281.9 3747536.4   448.0     4.00     3.95
1.86     YES
 L0007346         0   0.42540E-06  478281.9 3747527.9   448.0     4.00     3.95
1.86     YES
 L0007347         0   0.42540E-06  478282.0 3747519.4   448.0     4.00     3.95
1.86     YES
 L0007348         0   0.42540E-06  478282.0 3747510.9   448.0     4.00     3.95
1.86     YES
 L0007349         0   0.42540E-06  478282.0 3747502.4   448.0     4.00     3.95
1.86     YES
 L0007350         0   0.42540E-06  478282.1 3747493.9   448.0     4.00     3.95
1.86     YES
 L0007351         0   0.42540E-06  478282.1 3747485.4   448.0     4.00     3.95
1.86     YES
 L0007352         0   0.42540E-06  478282.1 3747476.9   448.0     4.00     3.95
1.86     YES
 L0007353         0   0.42540E-06  478282.2 3747468.4   448.0     4.00     3.95
1.86     YES
 L0007354         0   0.42540E-06  478282.2 3747459.9   448.0     4.00     3.95
1.86     YES
 L0007355         0   0.42540E-06  478282.2 3747451.4   448.0     4.00     3.95
1.86     YES
 L0007356         0   0.42540E-06  478282.3 3747442.9   448.0     4.00     3.95
1.86     YES
 L0007357         0   0.42540E-06  478282.3 3747434.4   448.0     4.00     3.95
1.86     YES
 L0007358         0   0.42540E-06  478282.3 3747425.9   448.0     4.00     3.95
1.86     YES
 L0007359         0   0.42540E-06  478282.4 3747417.4   448.0     4.00     3.95
1.86     YES
 L0007360         0   0.42540E-06  478282.4 3747408.9   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21
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                                 AERMOD HRA Output

                                   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0007361         0   0.42540E-06  478282.4 3747400.4   448.0     4.00     3.95
1.86     YES
 L0007362         0   0.42540E-06  478282.5 3747391.9   448.0     4.00     3.95
1.86     YES
 L0007363         0   0.42540E-06  478282.5 3747383.4   448.0     4.00     3.95
1.86     YES
 L0007364         0   0.42540E-06  478282.5 3747374.9   448.0     4.00     3.95
1.86     YES
 L0007365         0   0.42540E-06  478282.6 3747366.4   448.0     4.00     3.95
1.86     YES
 L0007366         0   0.42540E-06  478282.6 3747357.9   448.0     4.00     3.95
1.86     YES
 L0007367         0   0.42540E-06  478282.6 3747349.4   448.0     4.00     3.95
1.86     YES
 L0007368         0   0.42540E-06  478282.6 3747340.9   448.0     4.00     3.95
1.86     YES
 L0007369         0   0.42540E-06  478282.7 3747332.4   448.0     4.00     3.95
1.86     YES
 L0007370         0   0.42540E-06  478282.7 3747323.9   448.0     4.00     3.95
1.86     YES
 L0007371         0   0.42540E-06  478282.7 3747315.4   448.0     4.00     3.95
1.86     YES
 L0007372         0   0.42540E-06  478282.8 3747306.9   448.0     4.00     3.95
1.86     YES
 L0007373         0   0.42540E-06  478282.8 3747298.4   448.0     4.00     3.95
1.86     YES
 L0007374         0   0.42540E-06  478282.8 3747289.9   448.0     4.00     3.95
1.86     YES
 L0007375         0   0.42540E-06  478282.9 3747281.4   448.0     4.00     3.95
1.86     YES
 L0007376         0   0.42540E-06  478282.9 3747272.9   448.0     4.00     3.95
1.86     YES
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 L0007377         0   0.42540E-06  478282.9 3747264.4   448.0     4.00      3.95
1.86     YES
 L0007378         0   0.42540E-06  478283.0 3747255.9   448.0     4.00      3.95
1.86     YES
 L0007379         0   0.42540E-06  478283.0 3747247.4   448.0     4.00      3.95
1.86     YES
 L0007380         0   0.42540E-06  478283.0 3747238.9   448.0     4.00      3.95
1.86     YES
 L0007381         0   0.42540E-06  478283.1 3747230.4   448.0     4.00      3.95
1.86     YES
 L0007382         0   0.42540E-06  478283.1 3747221.9   448.0     4.00      3.95
1.86     YES
 L0007383         0   0.42540E-06  478283.1 3747213.4   448.0     4.00      3.95
1.86     YES
 L0007384         0   0.42540E-06  478283.2 3747204.9   448.0     4.00      3.95
1.86     YES
 L0007385         0   0.42540E-06  478283.2 3747196.4   448.0     4.00      3.95
1.86     YES
 L0007386         0   0.42540E-06  478283.2 3747187.9   448.0     4.00      3.95
1.86     YES
 L0007387         0   0.42540E-06  478283.3 3747179.4   448.0     4.00      3.95
1.86     YES
 L0007388         0   0.42540E-06  478283.3 3747170.9   448.0     4.00      3.95
1.86     YES
 L0007389         0   0.42540E-06  478283.3 3747162.4   448.0     4.00      3.95
1.86     YES
 L0007390         0   0.42540E-06  478283.4 3747153.9   448.0     4.00      3.95
1.86     YES
 L0007391         0   0.42540E-06  478283.4 3747145.4   448.0     4.00      3.95
1.86     YES
 L0007392         0   0.42540E-06  478283.4 3747136.9   448.0     4.00      3.95
1.86     YES
 L0007393         0   0.42540E-06  478283.5 3747128.4   448.0     4.00      3.95
1.86     YES
 L0007394         0   0.42540E-06  478283.5 3747119.9   448.0     4.00      3.95
1.86     YES
 L0007395         0   0.42540E-06  478283.5 3747111.4   448.0     4.00      3.95
1.86     YES
 L0007396         0   0.42540E-06  478283.6 3747102.9   448.0     4.00      3.95
1.86     YES
 L0007397         0   0.42540E-06  478283.6 3747094.4   448.0     4.00      3.95
1.86     YES
 L0007398         0   0.42540E-06  478283.6 3747085.9   448.0     4.00      3.95
1.86     YES
 L0007399         0   0.42540E-06  478283.6 3747077.4   448.0     4.00      3.95
1.86     YES
 L0007400         0   0.42540E-06  478283.7 3747068.9   448.0     4.00      3.95
1.86     YES
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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0007401         0   0.42540E-06  478283.7 3747060.4   448.0     4.00     3.95
1.86     YES
 L0007402         0   0.42540E-06  478283.7 3747051.9   448.0     4.00     3.95
1.86     YES
 L0007403         0   0.42540E-06  478283.8 3747043.4   448.0     4.00     3.95
1.86     YES
 L0007404         0   0.42540E-06  478283.8 3747034.9   448.0     4.00     3.95
1.86     YES
 L0007405         0   0.42540E-06  478283.8 3747026.4   448.0     4.00     3.95
1.86     YES
 L0007406         0   0.42540E-06  478283.9 3747017.9   448.0     4.00     3.95
1.86     YES
 L0007407         0   0.42540E-06  478283.9 3747009.4   448.0     4.00     3.95
1.86     YES
 L0007408         0   0.42540E-06  478283.9 3747000.9   448.0     4.00     3.95
1.86     YES
 L0007409         0   0.42540E-06  478284.0 3746992.4   448.0     4.00     3.95
1.86     YES
 L0007410         0   0.42540E-06  478284.0 3746983.9   448.0     4.00     3.95
1.86     YES
 L0007411         0   0.42540E-06  478284.0 3746975.4   448.0     4.00     3.95
1.86     YES
 L0007412         0   0.42540E-06  478284.1 3746966.9   448.0     4.00     3.95
1.86     YES
 L0007413         0   0.42540E-06  478284.1 3746958.4   448.0     4.00     3.95
1.86     YES
 L0007414         0   0.42540E-06  478284.1 3746949.9   448.0     4.00     3.95
1.86     YES
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 L0007415         0   0.42540E-06  478284.2 3746941.4   448.0      4.00      3.95
1.86     YES
 L0007416         0   0.42540E-06  478284.2 3746932.9   448.0      4.00      3.95
1.86     YES
 L0007417         0   0.42540E-06  478284.2 3746924.4   448.0      4.00      3.95
1.86     YES
 L0007418         0   0.42540E-06  478284.3 3746915.9   448.0      4.00      3.95
1.86     YES
 L0007419         0   0.42540E-06  478284.3 3746907.4   448.0      4.00      3.95
1.86     YES
 L0007420         0   0.42540E-06  478284.3 3746898.9   448.0      4.00      3.95
1.86     YES
 L0007421         0   0.42540E-06  478284.4 3746890.4   448.0      4.00      3.95
1.86     YES
 L0007422         0   0.42540E-06  478284.4 3746881.9   448.0      4.00      3.95
1.86     YES
 L0007423         0   0.42540E-06  478284.4 3746873.4   448.0      4.00      3.95
1.86     YES
 L0007424         0   0.42540E-06  478284.5 3746864.9   448.0      4.00      3.95
1.86     YES
 L0007425         0   0.42540E-06  478284.5 3746856.4   447.8      4.00      3.95
1.86     YES
 L0007426         0   0.42540E-06  478284.5 3746847.9   447.7      4.00      3.95
1.86     YES
 L0007427         0   0.42540E-06  478284.6 3746839.4   447.6      4.00      3.95
1.86     YES
 L0007428         0   0.42540E-06  478284.6 3746830.9   447.4      4.00      3.95
1.86     YES
 L0007429         0   0.42540E-06  478284.6 3746822.4   447.3      4.00      3.95
1.86     YES
 L0007430         0   0.42540E-06  478284.6 3746813.9   447.1      4.00      3.95
1.86     YES
 L0007431         0   0.42540E-06  478284.7 3746805.4   447.0      4.00      3.95
1.86     YES
 L0007432         0   0.42540E-06  478284.7 3746796.9   447.0      4.00      3.95
1.86     YES
 L0007433         0   0.42540E-06  478284.7 3746788.4   447.0      4.00      3.95
1.86     YES
 L0007434         0   0.42540E-06  478284.8 3746779.9   447.0      4.00      3.95
1.86     YES
 L0007435         0   0.42540E-06  478284.8 3746771.4   447.0      4.00      3.95
1.86     YES
 L0007436         0   0.42540E-06  478284.8 3746762.9   447.0      4.00      3.95
1.86     YES
 L0007437         0   0.42540E-06  478284.9 3746754.4   447.0      4.00      3.95
1.86     YES
 L0007438         0   0.42540E-06  478284.9 3746745.9   447.0      4.00      3.95
1.86     YES
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                                AERMOD HRA Output
 L0007439         0   0.42540E-06  478284.9 3746737.4   447.0     4.00     3.95
1.86     YES
 L0007440         0   0.42540E-06  478285.0 3746728.9   447.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0007441         0   0.42540E-06  478285.0 3746720.4   447.0     4.00     3.95
1.86     YES
 L0007442         0   0.42540E-06  478285.0 3746711.9   447.0     4.00     3.95
1.86     YES
 L0007443         0   0.42540E-06  478285.1 3746703.4   447.0     4.00     3.95
1.86     YES
 L0007444         0   0.42540E-06  478285.1 3746694.9   447.0     4.00     3.95
1.86     YES
 L0007445         0   0.42540E-06  478285.1 3746686.4   447.0     4.00     3.95
1.86     YES
 L0007446         0   0.42540E-06  478285.2 3746677.9   447.0     4.00     3.95
1.86     YES
 L0007447         0   0.42540E-06  478285.2 3746669.4   447.0     4.00     3.95
1.86     YES
 L0007448         0   0.42540E-06  478285.2 3746660.9   447.0     4.00     3.95
1.86     YES
 L0007449         0   0.42540E-06  478285.3 3746652.4   447.0     4.00     3.95
1.86     YES
 L0007450         0   0.42540E-06  478285.3 3746643.9   447.0     4.00     3.95
1.86     YES
 L0007451         0   0.42540E-06  478285.3 3746635.4   447.0     4.00     3.95
1.86     YES
 L0007452         0   0.42540E-06  478285.4 3746626.9   447.0     4.00     3.95
1.86     YES
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 L0007453          0   0.42540E-06  478285.4 3746618.4   447.0     4.00      3.95
1.86     YES
 L0007454          0   0.42540E-06  478285.4 3746609.9   447.0     4.00      3.95
1.86     YES
 L0007455          0   0.42540E-06  478285.5 3746601.4   447.0     4.00      3.95
1.86     YES
 L0007456          0   0.42540E-06  478285.5 3746592.9   447.0     4.00      3.95
1.86     YES
 L0007457          0   0.42540E-06  478285.5 3746584.4   447.0     4.00      3.95
1.86     YES
 L0007458          0   0.42540E-06  478285.6 3746575.9   447.0     4.00      3.95
1.86     YES
 L0007459          0   0.42540E-06  478285.6 3746567.4   447.0     4.00      3.95
1.86     YES
 L0007460          0   0.42540E-06  478285.6 3746558.9   447.0     4.00      3.95
1.86     YES
 L0007461          0   0.42540E-06  478285.7 3746550.4   447.0     4.00      3.95
1.86     YES
 L0007462          0   0.42540E-06  478285.7 3746541.9   447.0     4.00      3.95
1.86     YES
 L0007463          0   0.42540E-06  478285.7 3746533.4   447.0     4.00      3.95
1.86     YES
 L0007464          0   0.42540E-06  478285.7 3746524.9   447.0     4.00      3.95
1.86     YES
 L0007465          0   0.42540E-06  478285.8 3746516.4   447.0     4.00      3.95
1.86     YES
 L0007466          0   0.42540E-06  478285.8 3746507.9   447.0     4.00      3.95
1.86     YES
 L0007467          0   0.42540E-06  478285.8 3746499.4   447.0     4.00      3.95
1.86     YES
 L0007468          0   0.42540E-06  478285.9 3746490.9   447.0     4.00      3.95
1.86     YES
 L0007469          0   0.42540E-06  478285.9 3746482.4   447.0     4.00      3.95
1.86     YES
 L0007470          0   0.42540E-06  478285.9 3746473.9   447.0     4.00      3.95
1.86     YES
 L0007471          0   0.42540E-06  478286.0 3746465.4   447.0     4.00      3.95
1.86     YES
 L0007472          0   0.42540E-06  478286.0 3746456.9   447.0     4.00      3.95
1.86     YES
 L0007473          0   0.42540E-06  478286.0 3746448.4   447.0     4.00      3.95
1.86     YES
 L0007474          0   0.42540E-06  478286.1 3746439.9   446.9     4.00      3.95
1.86     YES
 L0007475          0   0.42540E-06  478286.1 3746431.4   446.7     4.00      3.95
1.86     YES
 L0007476          0   0.42540E-06  478286.1 3746422.9   446.6     4.00      3.95
1.86     YES
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                                 AERMOD HRA Output
 L0007477         0   0.42540E-06  478286.2 3746414.4   446.5     4.00     3.95
1.86     YES
 L0007478         0   0.42540E-06  478286.2 3746405.9   446.5     4.00     3.95
1.86     YES
 L0007479         0   0.42540E-06  478286.2 3746397.4   446.5     4.00     3.95
1.86     YES
 L0007480         0   0.42540E-06  478286.3 3746388.9   446.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0007481         0   0.42540E-06  478286.3 3746380.4   446.4     4.00     3.95
1.86     YES
 L0007482         0   0.42540E-06  478286.3 3746371.9   446.4     4.00     3.95
1.86     YES
 L0007483         0   0.42540E-06  478286.4 3746363.4   446.4     4.00     3.95
1.86     YES
 L0007484         0   0.42540E-06  478286.4 3746354.9   446.4     4.00     3.95
1.86     YES
 L0007485         0   0.42540E-06  478286.4 3746346.4   446.4     4.00     3.95
1.86     YES
 L0007486         0   0.42540E-06  478280.1 3746347.5   446.7     4.00     3.95
1.86     YES
 L0007487         0   0.42540E-06  478272.3 3746350.8   446.9     4.00     3.95
1.86     YES
 L0007488         0   0.42540E-06  478264.5 3746354.2   447.0     4.00     3.95
1.86     YES
 L0007489         0   0.42540E-06  478256.7 3746357.5   447.0     4.00     3.95
1.86     YES
 L0007490         0   0.42540E-06  478248.6 3746359.6   447.0     4.00     3.95
1.86     YES
```

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 L0007491         0   0.42540E-06  478240.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007492         0   0.42540E-06  478231.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007493         0   0.42540E-06  478223.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007494         0   0.42540E-06  478214.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007495         0   0.42540E-06  478206.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007496         0   0.42540E-06  478197.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007497         0   0.42540E-06  478189.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007498         0   0.42540E-06  478180.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007499         0   0.42540E-06  478172.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007500         0   0.42540E-06  478163.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007501         0   0.42540E-06  478155.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007502         0   0.42540E-06  478146.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007503         0   0.42540E-06  478138.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007504         0   0.42540E-06  478129.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007505         0   0.42540E-06  478121.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007506         0   0.42540E-06  478112.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007507         0   0.42540E-06  478104.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007508         0   0.42540E-06  478095.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007509         0   0.42540E-06  478087.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007510         0   0.42540E-06  478078.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007511         0   0.42540E-06  478070.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007512         0   0.42540E-06  478061.6 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007513         0   0.42540E-06  478053.1 3746359.6   447.0     4.00      3.95
1.86     YES
 L0007514         0   0.42540E-06  478044.6 3746359.6   447.0     4.00      3.95
1.86     YES
```

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 L0007515        0   0.42540E-06  478036.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007516        0   0.42540E-06  478027.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007517        0   0.42540E-06  478019.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007518        0   0.42540E-06  478010.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007519        0   0.42540E-06  478002.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007520        0   0.42540E-06  477993.6 3746359.6   447.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         08:23:21

                                   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0007521        0   0.42540E-06  477985.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007522        0   0.42540E-06  477976.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007523        0   0.42540E-06  477968.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007524        0   0.42540E-06  477959.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0007525        0   0.42540E-06  477951.1 3746359.6   447.1     4.00     3.95
1.86     YES
 L0007526        0   0.42540E-06  477942.6 3746359.6   447.1     4.00     3.95
1.86     YES
 L0007527        0   0.42540E-06  477934.1 3746359.6   447.3     4.00     3.95
1.86     YES
 L0007528        0   0.42540E-06  477925.6 3746359.6   447.5     4.00     3.95
1.86     YES
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 L0007529         0   0.42540E-06  477917.1 3746359.6   447.8      4.00      3.95
1.86      YES
 L0007530         0   0.42540E-06  477908.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007531         0   0.42540E-06  477900.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007532         0   0.42540E-06  477891.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007533         0   0.42540E-06  477883.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007534         0   0.42540E-06  477874.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007535         0   0.42540E-06  477866.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007536         0   0.42540E-06  477857.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007537         0   0.42540E-06  477849.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007538         0   0.42540E-06  477840.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007539         0   0.42540E-06  477832.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007540         0   0.42540E-06  477823.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007541         0   0.42540E-06  477815.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007542         0   0.42540E-06  477806.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007543         0   0.42540E-06  477798.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007544         0   0.42540E-06  477789.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007545         0   0.42540E-06  477781.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007546         0   0.42540E-06  477772.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007547         0   0.42540E-06  477764.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007548         0   0.42540E-06  477755.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007549         0   0.42540E-06  477747.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007550         0   0.42540E-06  477738.6 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007551         0   0.42540E-06  477730.1 3746359.6   448.0      4.00      3.95
1.86      YES
 L0007552         0   0.42540E-06  477721.6 3746359.7   448.0      4.00      3.95
1.86      YES
```

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 L0007553         0   0.42540E-06  477713.1 3746359.8   448.0     4.00     3.95
1.86     YES
 L0007554         0   0.42540E-06  477704.6 3746359.9   448.0     4.00     3.95
1.86     YES
 L0007555         0   0.42540E-06  477696.1 3746359.9   448.0     4.00     3.95
1.86     YES
 L0007556         0   0.42540E-06  477687.6 3746360.0   448.0     4.00     3.95
1.86     YES
 L0007557         0   0.42540E-06  477679.1 3746360.1   448.0     4.00     3.95
1.86     YES
 L0007558         0   0.42540E-06  477670.6 3746360.2   448.0     4.00     3.95
1.86     YES
 L0007559         0   0.42540E-06  477662.1 3746360.3   448.0     4.00     3.95
1.86     YES
 L0007560         0   0.42540E-06  477653.6 3746360.4   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007561         0   0.42540E-06  477645.1 3746360.5   448.0     4.00     3.95
1.86     YES
 L0007562         0   0.42540E-06  477636.6 3746360.6   448.1     4.00     3.95
1.86     YES
 L0007563         0   0.42540E-06  477628.1 3746360.6   448.4     4.00     3.95
1.86     YES
 L0007564         0   0.42540E-06  477619.6 3746360.7   448.7     4.00     3.95
1.86     YES
 L0007565         0   0.42540E-06  477611.1 3746360.8   449.0     4.00     3.95
1.86     YES
 L0007566         0   0.42540E-06  477602.6 3746360.9   449.0     4.00     3.95
1.86     YES
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 L0007567         0   0.42540E-06  477594.1 3746361.0   449.0      4.00      3.95
1.86     YES
 L0007568         0   0.42540E-06  477585.6 3746361.1   449.0      4.00      3.95
1.86     YES
 L0007569         0   0.42540E-06  477577.1 3746361.2   449.0      4.00      3.95
1.86     YES
 L0007570         0   0.42540E-06  477568.6 3746361.3   449.0      4.00      3.95
1.86     YES
 L0007571         0   0.42540E-06  477560.1 3746361.3   449.0      4.00      3.95
1.86     YES
 L0007572         0   0.42540E-06  477551.6 3746361.4   449.0      4.00      3.95
1.86     YES
 L0007573         0   0.42540E-06  477543.1 3746361.5   449.0      4.00      3.95
1.86     YES
 L0007574         0   0.42540E-06  477534.6 3746361.6   449.0      4.00      3.95
1.86     YES
 L0007575         0   0.42540E-06  477526.1 3746361.7   449.0      4.00      3.95
1.86     YES
 L0007576         0   0.42540E-06  477517.6 3746361.8   449.0      4.00      3.95
1.86     YES
 L0007577         0   0.42540E-06  477509.1 3746361.9   449.0      4.00      3.95
1.86     YES
 L0007578         0   0.42540E-06  477500.6 3746362.0   449.0      4.00      3.95
1.86     YES
 L0007579         0   0.42540E-06  477492.1 3746362.0   449.0      4.00      3.95
1.86     YES
 L0007580         0   0.42540E-06  477483.6 3746362.4   449.2      4.00      3.95
1.86     YES
 L0007581         0   0.42540E-06  477475.3 3746364.0   449.5      4.00      3.95
1.86     YES
 L0007582         0   0.42540E-06  477466.9 3746365.6   449.8      4.00      3.95
1.86     YES
 L0007583         0   0.42540E-06  477458.6 3746367.2   450.0      4.00      3.95
1.86     YES
 L0007584         0   0.42540E-06  477450.3 3746368.8   450.0      4.00      3.95
1.86     YES
 L0007585         0   0.42540E-06  477441.9 3746370.4   450.0      4.00      3.95
1.86     YES
 L0007586         0   0.42540E-06  477433.6 3746372.0   450.0      4.00      3.95
1.86     YES
 L0007587         0   0.42540E-06  477425.2 3746373.6   450.0      4.00      3.95
1.86     YES
 L0007588         0   0.42540E-06  477417.3 3746376.4   450.0      4.00      3.95
1.86     YES
 L0007589         0   0.42540E-06  477410.0 3746380.7   450.0      4.00      3.95
1.86     YES
 L0007590         0   0.42540E-06  477402.7 3746385.0   450.0      4.00      3.95
1.86     YES
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 L0007591         0   0.42540E-06  477395.3 3746389.4   450.0     4.00     3.95
1.86     YES
 L0007592         0   0.42540E-06  477388.0 3746393.7   450.0     4.00     3.95
1.86     YES
 L0007593         0   0.42540E-06  477380.7 3746398.0   450.0     4.00     3.95
1.86     YES
 L0007594         0   0.42540E-06  477373.4 3746402.3   450.0     4.00     3.95
1.86     YES
 L0007595         0   0.42540E-06  477366.1 3746406.6   450.0     4.00     3.95
1.86     YES
 L0007596         0   0.42540E-06  477358.7 3746411.0   450.0     4.00     3.95
1.86     YES
 L0007597         0   0.42540E-06  477351.4 3746415.3   450.0     4.00     3.95
1.86     YES
 L0007598         0   0.42540E-06  477344.1 3746419.6   450.0     4.00     3.95
1.86     YES
 L0007599         0   0.42540E-06  477336.8 3746423.9   450.0     4.00     3.95
1.86     YES
 L0007600         0   0.42540E-06  477329.5 3746428.2   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007601         0   0.42540E-06  477322.2 3746432.7   450.0     4.00     3.95
1.86     YES
 L0007602         0   0.42540E-06  477315.4 3746437.8   450.0     4.00     3.95
1.86     YES
 L0007603         0   0.42540E-06  477308.6 3746442.9   450.0     4.00     3.95
1.86     YES
 L0007604         0   0.42540E-06  477301.8 3746448.0   450.0     4.00     3.95
1.86     YES
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1.86     YES
 L0007606        0   0.42540E-06  477288.2 3746458.2   450.0     4.00      3.95
1.86     YES
 L0007607        0   0.42540E-06  477281.4 3746463.3   450.0     4.00      3.95
1.86     YES
 L0007608        0   0.42540E-06  477274.6 3746468.4   450.0     4.00      3.95
1.86     YES
 L0007609        0   0.42540E-06  477267.7 3746473.3   450.0     4.00      3.95
1.86     YES
 L0007610        0   0.42540E-06  477260.7 3746478.2   450.0     4.00      3.95
1.86     YES
 L0007611        0   0.42540E-06  477253.8 3746483.1   450.0     4.00      3.95
1.86     YES
 L0007612        0   0.42540E-06  477246.8 3746487.9   450.1     4.00      3.95
1.86     YES
 L0007613        0   0.42540E-06  477239.8 3746492.8   450.2     4.00      3.95
1.86     YES
 L0007614        0   0.42540E-06  477232.9 3746497.7   450.2     4.00      3.95
1.86     YES
 L0007615        0   0.42540E-06  477225.9 3746502.6   450.1     4.00      3.95
1.86     YES
 L0007616        0   0.42540E-06  477218.5 3746506.8   450.0     4.00      3.95
1.86     YES
 L0007617        0   0.42540E-06  477211.1 3746510.8   450.3     4.00      3.95
1.86     YES
 L0007618        0   0.42540E-06  477203.6 3746514.8   450.5     4.00      3.95
1.86     YES
 L0007619        0   0.42540E-06  477196.1 3746518.8   450.8     4.00      3.95
1.86     YES
 L0007620        0   0.42540E-06  477188.6 3746522.9   451.0     4.00      3.95
1.86     YES
 L0007621        0   0.42540E-06  477181.1 3746526.9   451.0     4.00      3.95
1.86     YES
 L0007622        0   0.42540E-06  477173.6 3746530.9   451.0     4.00      3.95
1.86     YES
 L0007623        0   0.42540E-06  477166.1 3746535.0   451.0     4.00      3.95
1.86     YES
 L0007624        0   0.42540E-06  477158.5 3746538.5   451.0     4.00      3.95
1.86     YES
 L0007625        0   0.42540E-06  477150.1 3746539.7   451.0     4.00      3.95
1.86     YES
 L0007626        0   0.42540E-06  477141.7 3746541.0   451.0     4.00      3.95
1.86     YES
 L0007627        0   0.42540E-06  477133.3 3746542.2   451.0     4.00      3.95
1.86     YES
 L0007628        0   0.42540E-06  477124.9 3746543.5   451.0     4.00      3.95
1.86     YES
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 L0007629         0   0.42540E-06  477116.5 3746544.7   451.0     4.00     3.95
1.86     YES
 L0007630         0   0.42540E-06  477108.0 3746546.0   451.0     4.00     3.95
1.86     YES
 L0007631         0   0.42540E-06  477099.6 3746547.2   451.0     4.00     3.95
1.86     YES
 L0007632         0   0.42540E-06  477091.2 3746548.2   451.0     4.00     3.95
1.86     YES
 L0007633         0   0.42540E-06  477082.7 3746548.3   451.0     4.00     3.95
1.86     YES
 L0007634         0   0.42540E-06  477074.2 3746548.4   451.0     4.00     3.95
1.86     YES
 L0007635         0   0.42540E-06  477065.7 3746548.6   451.1     4.00     3.95
1.86     YES
 L0007636         0   0.42540E-06  477057.2 3746548.7   451.2     4.00     3.95
1.86     YES
 L0007637         0   0.42540E-06  477048.7 3746548.8   451.4     4.00     3.95
1.86     YES
 L0007638         0   0.42540E-06  477040.2 3746548.9   451.6     4.00     3.95
1.86     YES
 L0007639         0   0.42540E-06  477031.7 3746549.0   451.7     4.00     3.95
1.86     YES
 L0007640         0   0.42540E-06  477023.2 3746549.1   451.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007641         0   0.42540E-06  477014.7 3746549.2   451.9     4.00     3.95
1.86     YES
 L0007642         0   0.42540E-06  477006.2 3746549.3   452.0     4.00     3.95
1.86     YES
```

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 L0007643        0   0.42540E-06  476997.7 3746549.4   452.0      4.00      3.95
1.86     YES
 L0007644        0   0.42540E-06  476989.2 3746549.6   452.0      4.00      3.95
1.86     YES
 L0007645        0   0.42540E-06  476980.7 3746549.7   452.0      4.00      3.95
1.86     YES
 L0007646        0   0.42540E-06  476972.2 3746549.8   452.0      4.00      3.95
1.86     YES
 L0007647        0   0.42540E-06  476963.7 3746549.9   452.0      4.00      3.95
1.86     YES
 L0007648        0   0.42540E-06  476955.2 3746550.0   452.0      4.00      3.95
1.86     YES
 L0007649        0   0.42540E-06  476946.7 3746550.1   452.0      4.00      3.95
1.86     YES
 L0007650        0   0.42540E-06  476938.2 3746550.2   452.0      4.00      3.95
1.86     YES
 L0007651        0   0.42540E-06  476929.7 3746550.3   452.0      4.00      3.95
1.86     YES
 L0007652        0   0.42540E-06  476921.2 3746550.4   452.0      4.00      3.95
1.86     YES
 L0007653        0   0.42540E-06  476912.7 3746550.6   452.1      4.00      3.95
1.86     YES
 L0007654        0   0.42540E-06  476904.2 3746550.7   452.3      4.00      3.95
1.86     YES
 L0007655        0   0.42540E-06  476895.7 3746550.8   452.4      4.00      3.95
1.86     YES
 L0007656        0   0.42540E-06  476887.2 3746550.9   452.6      4.00      3.95
1.86     YES
 L0007657        0   0.42540E-06  476878.7 3746551.0   452.7      4.00      3.95
1.86     YES
 L0007658        0   0.42540E-06  476870.2 3746551.1   452.8      4.00      3.95
1.86     YES
 L0007659        0   0.42540E-06  476861.7 3746551.2   453.0      4.00      3.95
1.86     YES
 L0007660        0   0.42540E-06  476853.2 3746551.3   453.0      4.00      3.95
1.86     YES
 L0007661        0   0.42540E-06  476844.7 3746551.4   453.0      4.00      3.95
1.86     YES
 L0007662        0   0.42540E-06  476836.2 3746551.5   453.0      4.00      3.95
1.86     YES
 L0007663        0   0.42540E-06  476827.7 3746551.7   453.0      4.00      3.95
1.86     YES
 L0007664        0   0.42540E-06  476819.2 3746551.8   453.0      4.00      3.95
1.86     YES
 L0007665        0   0.42540E-06  476810.7 3746551.9   453.0      4.00      3.95
1.86     YES
 L0007666        0   0.42540E-06  476802.2 3746552.0   453.0      4.00      3.95
1.86     YES
```

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 L0007667         0   0.42540E-06  476793.7 3746552.1   462.1     4.00     3.95
1.86     YES
 L0007668         0   0.42540E-06  476785.2 3746552.2   462.2     4.00     3.95
1.86     YES
 L0007669         0   0.42540E-06  476776.7 3746552.2   462.3     4.00     3.95
1.86     YES
 L0007670         0   0.42540E-06  476768.2 3746551.9   462.4     4.00     3.95
1.86     YES
 L0007671         0   0.42540E-06  476759.7 3746551.7   462.5     4.00     3.95
1.86     YES
 L0007672         0   0.42540E-06  476751.2 3746551.5   462.6     4.00     3.95
1.86     YES
 L0007673         0   0.42540E-06  476742.8 3746551.3   462.7     4.00     3.95
1.86     YES
 L0007674         0   0.42540E-06  476734.3 3746551.1   462.8     4.00     3.95
1.86     YES
 L0007675         0   0.42540E-06  476725.8 3746550.8   462.9     4.00     3.95
1.86     YES
 L0007676         0   0.42540E-06  476717.3 3746550.6   463.1     4.00     3.95
1.86     YES
 L0007677         0   0.42540E-06  476708.8 3746550.4   463.2     4.00     3.95
1.86     YES
 L0007678         0   0.42540E-06  476700.3 3746550.2   463.3     4.00     3.95
1.86     YES
 L0007679         0   0.42540E-06  476691.8 3746550.0   463.4     4.00     3.95
1.86     YES
 L0007680         0   0.42540E-06  476683.3 3746549.7   463.5     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                             AERMOD HRA Output
  L0007681          0   0.42540E-06  476674.8 3746549.5   463.6     4.00      3.95
 1.86     YES
  L0007682          0   0.42540E-06  476666.3 3746549.3   463.7     4.00      3.95
 1.86     YES
  L0007683          0   0.42540E-06  476657.8 3746549.1   463.8     4.00      3.95
 1.86     YES
  L0007684          0   0.42540E-06  476649.5 3746550.2   463.9     4.00      3.95
 1.86     YES
  L0007685          0   0.42540E-06  476641.4 3746552.9   464.0     4.00      3.95
 1.86     YES
  L0007686          0   0.42540E-06  476633.4 3746555.6   464.0     4.00      3.95
 1.86     YES
  L0007687          0   0.42540E-06  476625.3 3746558.3   464.0     4.00      3.95
 1.86     YES
  L0007688          0   0.42540E-06  476617.2 3746561.0   464.0     4.00      3.95
 1.86     YES
  L0007689          0   0.42540E-06  476609.2 3746563.6   464.0     4.00      3.95
 1.86     YES
  L0007690          0   0.42540E-06  476601.4 3746566.9   464.0     4.00      3.95
 1.86     YES
  L0007691          0   0.42540E-06  476594.1 3746571.4   464.0     4.00      3.95
 1.86     YES
  L0007692          0   0.42540E-06  476586.9 3746575.9   464.0     4.00      3.95
 1.86     YES
  L0007693          0   0.42540E-06  476579.7 3746580.4   464.0     4.00      3.95
 1.86     YES
  L0007694          0   0.42540E-06  476572.5 3746584.8   464.0     4.00      3.95
 1.86     YES
  L0007695          0   0.42540E-06  476565.3 3746589.3   464.0     4.00      3.95
 1.86     YES
  L0007696          0   0.42540E-06  476558.0 3746593.8   464.1     4.00      3.95
 1.86     YES
  L0007697          0   0.42540E-06  476550.8 3746598.3   464.2     4.00      3.95
 1.86     YES
  L0007698          0   0.42540E-06  476543.6 3746602.8   464.3     4.00      3.95
 1.86     YES
  L0007699          0   0.42540E-06  476537.9 3746608.7   464.4     4.00      3.95
 1.86     YES
  L0007700          0   0.42540E-06  476534.0 3746616.2   464.4     4.00      3.95
 1.86     YES
  L0007701          0   0.42540E-06  476530.0 3746623.8   464.5     4.00      3.95
 1.86     YES
  L0007702          0   0.42540E-06  476526.1 3746631.3   464.5     4.00      3.95
 1.86     YES
  L0007703          0   0.42540E-06  476522.2 3746638.8   464.6     4.00      3.95
 1.86     YES
  L0007704          0   0.42540E-06  476518.2 3746646.4   464.6     4.00      3.95
 1.86     YES
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0007705         0   0.42540E-06  476514.3 3746653.9   464.7     4.00     3.95
1.86     YES
 L0007706         0   0.42540E-06  476510.3 3746661.4   464.7     4.00     3.95
1.86     YES
 L0007707         0   0.42540E-06  476506.4 3746668.9   464.8     4.00     3.95
1.86     YES
 L0007708         0   0.42540E-06  476502.4 3746676.5   464.8     4.00     3.95
1.86     YES
 L0007709         0   0.42540E-06  476498.5 3746684.0   464.9     4.00     3.95
1.86     YES
 L0007710         0   0.42540E-06  476494.5 3746691.5   464.9     4.00     3.95
1.86     YES
 L0007711         0   0.42540E-06  476490.6 3746699.1   465.0     4.00     3.95
1.86     YES
 L0007712         0   0.42540E-06  476486.6 3746706.6   465.1     4.00     3.95
1.86     YES
 L0007713         0   0.42540E-06  476482.7 3746714.1   465.2     4.00     3.95
1.86     YES
 L0007714         0   0.42540E-06  476478.7 3746721.6   465.3     4.00     3.95
1.86     YES
 L0007715         0   0.42540E-06  476474.8 3746729.2   465.4     4.00     3.95
1.86     YES
 L0007716         0   0.42540E-06  476470.9 3746736.7   465.5     4.00     3.95
1.86     YES
 L0007717         0   0.42540E-06  476467.8 3746744.5   465.6     4.00     3.95
1.86     YES
 L0007718         0   0.42540E-06  476466.4 3746752.9   465.6     4.00     3.95
1.86     YES
 L0007719         0   0.42540E-06  476465.0 3746761.3   465.7     4.00     3.95
1.86     YES
 L0007720         0   0.42540E-06  476463.6 3746769.7   465.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                     BY
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 L0007721          0    0.42540E-06   476462.2 3746778.1    465.7      4.00      3.95
1.86      YES
 L0007722          0    0.42540E-06   476460.8 3746786.4    465.8      4.00      3.95
1.86      YES
 L0007723          0    0.42540E-06   476459.4 3746794.8    465.8      4.00      3.95
1.86      YES
 L0007724          0    0.42540E-06   476457.3 3746803.0    465.9      4.00      3.95
1.86      YES
 L0007725          0    0.42540E-06   476453.4 3746810.5    465.9      4.00      3.95
1.86      YES
 L0007726          0    0.42540E-06   476449.4 3746818.0    466.1      4.00      3.95
1.86      YES
 L0007727          0    0.42540E-06   476445.4 3746825.5    466.2      4.00      3.95
1.86      YES
 L0007728          0    0.42540E-06   476441.4 3746833.0    466.3      4.00      3.95
1.86      YES
 L0007729          0    0.42540E-06   476437.5 3746840.5    466.4      4.00      3.95
1.86      YES
 L0007730          0    0.42540E-06   476433.5 3746848.1    466.5      4.00      3.95
1.86      YES
 L0007731          0    0.42540E-06   476429.5 3746855.6    466.6      4.00      3.95
1.86      YES
 L0007732          0    0.42540E-06   476425.5 3746863.1    466.7      4.00      3.95
1.86      YES
 L0007733          0    0.42540E-06   476421.6 3746870.6    466.8      4.00      3.95
1.86      YES
 L0007734          0    0.42540E-06   476417.6 3746878.1    466.9      4.00      3.95
1.86      YES
 L0007735          0    0.42540E-06   476413.6 3746885.6    467.0      4.00      3.95
1.86      YES
 L0007736          0    0.42540E-06   476409.6 3746893.1    467.1      4.00      3.95
1.86      YES
 L0007737          0    0.42540E-06   476403.2 3746898.5    467.1      4.00      3.95
1.86      YES
 L0007738          0    0.42540E-06   476396.2 3746903.3    467.2      4.00      3.95
1.86      YES
 L0007739          0    0.42540E-06   476389.2 3746908.1    467.3      4.00      3.95
1.86      YES
 L0007740          0    0.42540E-06   476382.2 3746912.9    467.4      4.00      3.95
1.86      YES
 L0007741          0    0.42540E-06   476375.2 3746917.8    467.5      4.00      3.95
1.86      YES
 L0007742          0    0.42540E-06   476368.2 3746922.6    467.6      4.00      3.95
1.86      YES
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 L0007743         0   0.42540E-06  476361.2 3746927.4   467.7     4.00     3.95
1.86     YES
 L0007744         0   0.42540E-06  476354.2 3746932.2   467.8     4.00     3.95
1.86     YES
 L0007745         0   0.42540E-06  476347.2 3746937.0   467.9     4.00     3.95
1.86     YES
 L0007746         0   0.42540E-06  476340.2 3746941.8   467.9     4.00     3.95
1.86     YES
 L0007747         0   0.42540E-06  476332.1 3746943.7   468.1     4.00     3.95
1.86     YES
 L0007748         0   0.42540E-06  476323.7 3746944.5   468.2     4.00     3.95
1.86     YES
 L0007749         0   0.42540E-06  476315.2 3746945.4   468.3     4.00     3.95
1.86     YES
 L0007750         0   0.42540E-06  476306.7 3746946.2   468.4     4.00     3.95
1.86     YES
 L0007751         0   0.42540E-06  476298.3 3746947.0   468.5     4.00     3.95
1.86     YES
 L0007752         0   0.42540E-06  476289.8 3746947.9   468.6     4.00     3.95
1.86     YES
 L0007753         0   0.42540E-06  476281.4 3746948.7   468.7     4.00     3.95
1.86     YES
 L0007754         0   0.42540E-06  476272.9 3746949.5   468.8     4.00     3.95
1.86     YES
 L0007755         0   0.42540E-06  476264.4 3746950.4   468.9     4.00     3.95
1.86     YES
 L0007756         0   0.42540E-06  476256.0 3746950.8   469.0     4.00     3.95
1.86     YES
 L0007757         0   0.42540E-06  476247.5 3746950.7   469.2     4.00     3.95
1.86     YES
 L0007758         0   0.42540E-06  476239.0 3746950.7   469.3     4.00     3.95
1.86     YES
 L0007759         0   0.42540E-06  476230.5 3746950.6   469.4     4.00     3.95
1.86     YES
 L0007760         0   0.42540E-06  476222.0 3746950.5   469.5     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                              AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0007761         0   0.42540E-06  476213.5 3746950.5   469.6     4.00     3.95
1.86     YES
 L0007762         0   0.42540E-06  476205.0 3746950.4   469.7     4.00     3.95
1.86     YES
 L0007763         0   0.42540E-06  476196.5 3746950.4   469.8     4.00     3.95
1.86     YES
 L0007764         0   0.42540E-06  476188.0 3746950.3   469.9     4.00     3.95
1.86     YES
 L0007765         0   0.42540E-06  476179.5 3746950.3   470.0     4.00     3.95
1.86     YES
 L0007766         0   0.42540E-06  476171.0 3746950.2   470.2     4.00     3.95
1.86     YES
 L0007767         0   0.42540E-06  476162.5 3746950.1   470.3     4.00     3.95
1.86     YES
 L0007768         0   0.42540E-06  476154.0 3746950.1   470.4     4.00     3.95
1.86     YES
 L0007769         0   0.42540E-06  476145.5 3746950.0   470.5     4.00     3.95
1.86     YES
 L0007770         0   0.42540E-06  476137.0 3746950.0   470.6     4.00     3.95
1.86     YES
 L0007771         0   0.42540E-06  476128.5 3746949.9   470.7     4.00     3.95
1.86     YES
 L0007772         0   0.42540E-06  476120.0 3746949.9   470.8     4.00     3.95
1.86     YES
 L0007773         0   0.42540E-06  476111.5 3746949.8   470.9     4.00     3.95
1.86     YES
 L0007774         0   0.42540E-06  476103.0 3746949.8   471.0     4.00     3.95
1.86     YES
 L0007775         0   0.42540E-06  476094.5 3746949.7   471.1     4.00     3.95
1.86     YES
 L0007776         0   0.42540E-06  476086.0 3746949.6   471.2     4.00     3.95
1.86     YES
 L0007777         0   0.42540E-06  476077.5 3746949.6   471.4     4.00     3.95
1.86     YES
 L0007778         0   0.42540E-06  476069.0 3746949.5   471.5     4.00     3.95
1.86     YES
 L0007779         0   0.42540E-06  476060.5 3746949.5   471.6     4.00     3.95
1.86     YES
 L0007780         0   0.42540E-06  476052.0 3746949.4   471.7     4.00     3.95
1.86     YES
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1.86     YES
 L0007782         0   0.42540E-06  476035.0 3746949.3   471.9     4.00     3.95
1.86     YES
 L0007783         0   0.42540E-06  476026.5 3746949.2   472.0     4.00     3.95
1.86     YES
 L0007784         0   0.42540E-06  476018.0 3746949.2   472.1     4.00     3.95
1.86     YES
 L0007785         0   0.42540E-06  476009.5 3746949.1   472.2     4.00     3.95
1.86     YES
 L0007786         0   0.42540E-06  476001.0 3746949.1   472.4     4.00     3.95
1.86     YES
 L0007787         0   0.42540E-06  475992.5 3746949.0   472.5     4.00     3.95
1.86     YES
 L0007788         0   0.42540E-06  475984.0 3746949.0   472.6     4.00     3.95
1.86     YES
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1.86     YES
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1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** AREA SOURCE DATA ***


               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT   OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID          CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
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 AREA1            0   0.28207E-08  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES
 AREA2            0   0.29862E-08  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES
 AREA3            0   0.10465E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES
 AREA4            0   0.32820E-08  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES
 AREA5            0   0.68612E-08  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES
 AREA6            0   0.30740E-08  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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AREA6        ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                     *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                              AERMOD HRA Output
                   ***         08:23:21

                               PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
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                                   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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                                          AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                        SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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AERMOD HRA Output

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Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  74
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
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                        ***        08:23:21

                                   PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  79
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                      AERMOD HRA Output
                                              *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St 
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                 AERMOD HRA Output
                        ***        08:23:21

                                   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                   AERMOD HRA Output
                         ***          08:23:21

                                      PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***       08:23:21

                                   PAGE  86
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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                                    AERMOD HRA Output
  URBAN ID    URBAN POP                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  90
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                                   AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  91
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                      SOURCE IDs
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AERMOD HRA Output

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                      SOURCE IDs
  --------   ---------                                      ----------


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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
  --------   ---------                                   ----------
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 477994.2, 3749818.5,     458.0,     467.0,       0.0);         ( 478348.6,
3749820.7,     458.3,     467.0,       0.0);
     ( 478324.0, 3749446.9,     456.0,     467.0,       0.0);         ( 478321.9,
3749107.7,     454.0,     467.0,       0.0);
     ( 478311.5, 3748947.3,     453.0,     466.0,       0.0);         ( 478314.5,
3748704.1,     452.0,     465.0,       0.0);
     ( 478309.7, 3748401.3,     451.0,     464.0,       0.0);         ( 478302.7,
3748248.4,     450.0,     463.0,       0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                                (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
```

```
                                 AERMOD HRA Output
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                 Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                Upper air station no.:     3190
                 Name: UNKNOWN                                 Name: UNKNOWN

                 Year:   2007                                  Year:   2007
```

```
 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 07 01 01    1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01    1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01    1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01    1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01    1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01    1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01    1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01    1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01    1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01    1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01    1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01    1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01    1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01    1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01    1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01    1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01    1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01    1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01    1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01    1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01    1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
```

```
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: YARDTRAC ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2
 , AREA3       , AREA4       , AREA5       ,
                 AREA6       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00104                         478348.59
3749820.73        0.00076
         478323.98    3749446.94        0.00123                         478321.90
3749107.70        0.00227
         478311.50    3748947.34        0.00374                         478314.46
3748704.06        0.00670
         478309.66    3748401.33        0.00647                         478302.71
3748248.43        0.00531
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                  AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***        08:23:21

                                  PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: OTHER    ***
                                 INCLUDING SOURCE(S):     L0002531    , L0002532
 , L0002533    , L0002534    , L0002535    ,
                 L0002536    , L0002537    , L0002538    , L0002539    , L0002540
 , L0002541    , L0002542    , L0002543    ,
                 L0002544    , L0002545    , L0002546    , L0002547    , L0002548
 , L0002549    , L0002550    , L0002551    ,
                 L0002552    , L0002553    , L0002554    , L0002555    , L0002556
 , L0002557    , L0002558    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00140                      478348.59
3749820.73        0.00109
         478323.98    3749446.94        0.00188                      478321.90
3749107.70        0.00410
         478311.50    3748947.34        0.00797                      478314.46
3748704.06        0.01190
         478309.66    3748401.33        0.01040                      478302.71
3748248.43        0.00637
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        08:23:21

                                  PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                 INCLUDING SOURCE(S):     L0002531    , L0002532
 , L0002533    , L0002534    , L0002535    ,
                 L0002536    , L0002537    , L0002538    , L0002539    , L0002540
```

```
 , L0002541    , L0002542    , L0002543    ,
                 L0002544    , L0002545    , L0002546    , L0002547    , L0002548
 , L0002549    , L0002550    , L0002551    ,
                 L0002552    , L0002553    , L0002554    , L0002555    , L0002556
 , L0002557    , L0002558    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         477994.17    3749818.50        0.00289                         478348.59
3749820.73        0.00217
         478323.98    3749446.94        0.00343                         478321.90
3749107.70        0.00670
         478311.50    3748947.34        0.01205                         478314.46
3748704.06        0.01900
         478309.66    3748401.33        0.01768                         478302.71
3748248.43        0.01517
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3
                **


                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

YARDTRAC  1ST HIGHEST VALUE IS       0.00670 AT (  478314.46,  3748704.06,
452.00,   465.00,    0.00)  DC
```

```
           2ND HIGHEST VALUE IS       0.00647 AT (  478309.66,  3748401.33,
451.00,   464.00,    0.00)  DC
           3RD HIGHEST VALUE IS       0.00531 AT (  478302.71,  3748248.43,
450.00,   463.00,    0.00)  DC
           4TH HIGHEST VALUE IS       0.00374 AT (  478311.50,  3748947.34,
453.00,   466.00,    0.00)  DC
           5TH HIGHEST VALUE IS       0.00227 AT (  478321.90,  3749107.70,
454.00,   467.00,    0.00)  DC
           6TH HIGHEST VALUE IS       0.00123 AT (  478323.98,  3749446.94,
456.00,   467.00,    0.00)  DC
           7TH HIGHEST VALUE IS       0.00104 AT (  477994.17,  3749818.50,
458.00,   467.00,    0.00)  DC
           8TH HIGHEST VALUE IS       0.00076 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
           9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
          10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)

OTHER      1ST HIGHEST VALUE IS       0.01190 AT (  478314.46,  3748704.06,
452.00,   465.00,    0.00)  DC
           2ND HIGHEST VALUE IS       0.01040 AT (  478309.66,  3748401.33,
451.00,   464.00,    0.00)  DC
           3RD HIGHEST VALUE IS       0.00797 AT (  478311.50,  3748947.34,
453.00,   466.00,    0.00)  DC
           4TH HIGHEST VALUE IS       0.00637 AT (  478302.71,  3748248.43,
450.00,   463.00,    0.00)  DC
           5TH HIGHEST VALUE IS       0.00410 AT (  478321.90,  3749107.70,
454.00,   467.00,    0.00)  DC
           6TH HIGHEST VALUE IS       0.00188 AT (  478323.98,  3749446.94,
456.00,   467.00,    0.00)  DC
           7TH HIGHEST VALUE IS       0.00140 AT (  477994.17,  3749818.50,
458.00,   467.00,    0.00)  DC
           8TH HIGHEST VALUE IS       0.00109 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
           9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
          10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)

ALL        1ST HIGHEST VALUE IS       0.01900 AT (  478314.46,  3748704.06,
452.00,   465.00,    0.00)  DC
           2ND HIGHEST VALUE IS       0.01768 AT (  478309.66,  3748401.33,
451.00,   464.00,    0.00)  DC
           3RD HIGHEST VALUE IS       0.01517 AT (  478302.71,  3748248.43,
450.00,   463.00,    0.00)  DC
           4TH HIGHEST VALUE IS       0.01205 AT (  478311.50,  3748947.34,
453.00,   466.00,    0.00)  DC
```

```
          5TH HIGHEST VALUE IS       0.00670 AT (  478321.90,  3749107.70,
454.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00343 AT (  478323.98,  3749446.94,
456.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00289 AT (  477994.17,  3749818.50,
458.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00217 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,
0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St
Bridge\Residential\Residen ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        08:23:21

                                   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    5209       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA
```

```
    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 11/19/2015
** File: C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\School\School.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL School.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001454
** Vertical Dimension = 4.00
```

```
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0003043     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0003044     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0003045     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0003046     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0003047     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0003048     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0003049     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0003050     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0003051     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0003052     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0003053     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0003054     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0003055     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0003056     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0003057     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0003058     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0003059     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001241
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0003060     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0003061     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0003062     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0003063     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0003064     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0003065     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0003066     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0003067     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0003068     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0003069     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0003070     VOLUME   477946.460 3748801.113 453.00
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   LOCATION L0003071     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0003072     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0003073     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006542
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003074     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0003075     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0003076     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0003077     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0003078     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0003079     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0003080     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0003081     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001332
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003082     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0003083     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0003084     VOLUME   477917.151 3748338.902 451.00
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   LOCATION L0003085     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0003086     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0003087     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0003088     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0003089     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0003090     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0003091     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0003092     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0003093     VOLUME   477968.786 3748294.974 450.00
   LOCATION L0003094     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0003095     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0003096     VOLUME   477977.265 3748271.459 450.00
   LOCATION L0003097     VOLUME   477978.288 3748263.021 450.00
   LOCATION L0003098     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0003099     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0003100     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0003101     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0003102     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008866
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003103     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0003104     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0003105     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0003106     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0003107     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0003108     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0003109     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0003110     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0003111     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0003112     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0003113     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0003114     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0003115     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0003116     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0003117     VOLUME   477608.667 3748810.289 454.00
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** End of LINE VOLUME Source ID = SLINE6
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00001029
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0003118     VOLUME   478043.006 3748335.195 451.00
   LOCATION L0003119     VOLUME   478072.999 3748334.546 451.00
   LOCATION L0003120     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0003121     VOLUME   478132.984 3748333.247 451.00
   LOCATION L0003122     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0005868
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 457.44, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 454.22, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0003123     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0003124     VOLUME   477952.164 3748962.919 453.00
   LOCATION L0003125     VOLUME   477952.000 3748954.420 453.00
   LOCATION L0003126     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0003127     VOLUME   477950.216 3748937.543 453.00
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                              AERMOD HRA Output
LOCATION L0003128      VOLUME   477948.990 3748929.132 453.00
LOCATION L0003129      VOLUME   477948.246 3748920.682 453.00
LOCATION L0003130      VOLUME   477948.087 3748912.183 453.00
LOCATION L0003131      VOLUME   477947.928 3748903.685 453.00
LOCATION L0003132      VOLUME   477947.769 3748895.186 453.00
LOCATION L0003133      VOLUME   477947.610 3748886.688 453.00
LOCATION L0003134      VOLUME   477947.451 3748878.189 453.00
LOCATION L0003135      VOLUME   477947.294 3748869.691 453.00
LOCATION L0003136      VOLUME   477947.225 3748861.191 453.00
LOCATION L0003137      VOLUME   477947.157 3748852.691 453.00
LOCATION L0003138      VOLUME   477947.089 3748844.191 453.00
LOCATION L0003139      VOLUME   477947.020 3748835.692 453.00
LOCATION L0003140      VOLUME   477946.952 3748827.192 453.00
LOCATION L0003141      VOLUME   477946.884 3748818.692 453.00
LOCATION L0003142      VOLUME   477946.815 3748810.192 453.00
LOCATION L0003143      VOLUME   477946.747 3748801.693 453.00
LOCATION L0003144      VOLUME   477946.678 3748793.193 453.00
LOCATION L0003145      VOLUME   477946.610 3748784.693 453.00
LOCATION L0003146      VOLUME   477946.542 3748776.194 453.00
LOCATION L0003147      VOLUME   477946.473 3748767.694 453.00
LOCATION L0003148      VOLUME   477946.405 3748759.194 453.00
LOCATION L0003149      VOLUME   477946.337 3748750.694 453.00
LOCATION L0003150      VOLUME   477946.268 3748742.195 453.00
LOCATION L0003151      VOLUME   477946.200 3748733.695 453.00
LOCATION L0003152      VOLUME   477946.132 3748725.195 453.00
LOCATION L0003153      VOLUME   477946.063 3748716.695 453.00
LOCATION L0003154      VOLUME   477945.995 3748708.196 453.00
LOCATION L0003155      VOLUME   477945.926 3748699.696 453.00
LOCATION L0003156      VOLUME   477945.858 3748691.196 452.82
LOCATION L0003157      VOLUME   477945.790 3748682.697 452.54
LOCATION L0003158      VOLUME   477945.721 3748674.197 452.25
LOCATION L0003159      VOLUME   477945.653 3748665.697 452.00
LOCATION L0003160      VOLUME   477945.585 3748657.197 452.00
LOCATION L0003161      VOLUME   477945.516 3748648.698 452.00
LOCATION L0003162      VOLUME   477945.448 3748640.198 452.00
LOCATION L0003163      VOLUME   477945.380 3748631.698 452.00
LOCATION L0003164      VOLUME   477945.311 3748623.198 452.00
LOCATION L0003165      VOLUME   477945.243 3748614.699 452.00
LOCATION L0003166      VOLUME   477945.174 3748606.199 452.00
LOCATION L0003167      VOLUME   477945.106 3748597.699 452.00
LOCATION L0003168      VOLUME   477945.038 3748589.200 452.00
LOCATION L0003169      VOLUME   477944.969 3748580.700 452.00
LOCATION L0003170      VOLUME   477944.901 3748572.200 452.00
LOCATION L0003171      VOLUME   477944.833 3748563.700 452.00
LOCATION L0003172      VOLUME   477944.764 3748555.201 452.00
LOCATION L0003173      VOLUME   477944.696 3748546.701 452.00
LOCATION L0003174      VOLUME   477944.628 3748538.201 452.00
LOCATION L0003175      VOLUME   477944.559 3748529.702 452.00
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LOCATION L0003176     VOLUME   477944.491 3748521.202 452.00
LOCATION L0003177     VOLUME   477944.422 3748512.702 451.87
LOCATION L0003178     VOLUME   477944.354 3748504.202 451.59
LOCATION L0003179     VOLUME   477944.286 3748495.703 451.30
LOCATION L0003180     VOLUME   477944.727 3748487.329 451.03
LOCATION L0003181     VOLUME   477948.744 3748479.837 451.00
LOCATION L0003182     VOLUME   477952.760 3748472.346 451.00
LOCATION L0003183     VOLUME   477956.776 3748464.855 451.00
LOCATION L0003184     VOLUME   477960.792 3748457.364 451.00
LOCATION L0003185     VOLUME   477964.809 3748449.872 451.00
LOCATION L0003186     VOLUME   477968.825 3748442.381 451.00
LOCATION L0003187     VOLUME   477972.841 3748434.890 451.00
LOCATION L0003188     VOLUME   477976.857 3748427.398 451.00
LOCATION L0003189     VOLUME   477980.874 3748419.907 451.00
LOCATION L0003190     VOLUME   477984.890 3748412.416 451.00
LOCATION L0003191     VOLUME   477988.906 3748404.924 451.00
LOCATION L0003192     VOLUME   477992.922 3748397.433 451.00
LOCATION L0003193     VOLUME   477996.939 3748389.942 451.00
LOCATION L0003194     VOLUME   478000.955 3748382.450 451.00
LOCATION L0003195     VOLUME   478004.971 3748374.959 451.00
LOCATION L0003196     VOLUME   478008.987 3748367.468 451.00
LOCATION L0003197     VOLUME   478013.004 3748359.977 451.00
LOCATION L0003198     VOLUME   478017.122 3748352.545 451.00
LOCATION L0003199     VOLUME   478021.739 3748345.409 451.00
LOCATION L0003200     VOLUME   478026.357 3748338.273 451.00
LOCATION L0003201     VOLUME   478033.820 3748336.434 451.00
LOCATION L0003202     VOLUME   478042.319 3748336.526 451.00
LOCATION L0003203     VOLUME   478050.819 3748336.619 451.00
LOCATION L0003204     VOLUME   478059.318 3748336.711 451.00
LOCATION L0003205     VOLUME   478067.818 3748336.803 451.00
LOCATION L0003206     VOLUME   478076.317 3748336.896 451.00
LOCATION L0003207     VOLUME   478084.817 3748336.988 451.00
LOCATION L0003208     VOLUME   478093.316 3748337.081 451.00
LOCATION L0003209     VOLUME   478101.816 3748337.173 451.00
LOCATION L0003210     VOLUME   478110.315 3748337.265 451.00
LOCATION L0003211     VOLUME   478118.815 3748337.358 451.00
LOCATION L0003212     VOLUME   478127.314 3748337.450 451.00
LOCATION L0003213     VOLUME   478135.814 3748337.543 451.00
LOCATION L0003214     VOLUME   478144.313 3748337.635 451.00
LOCATION L0003215     VOLUME   478152.813 3748337.727 451.00
LOCATION L0003216     VOLUME   478161.312 3748337.820 451.00
LOCATION L0003217     VOLUME   478169.812 3748337.912 451.00
LOCATION L0003218     VOLUME   478178.311 3748338.005 451.00
LOCATION L0003219     VOLUME   478186.811 3748338.097 451.00
LOCATION L0003220     VOLUME   478195.310 3748338.189 451.00
LOCATION L0003221     VOLUME   478203.810 3748338.282 451.00
LOCATION L0003222     VOLUME   478212.309 3748338.374 451.00
LOCATION L0003223     VOLUME   478215.836 3748343.420 451.00
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LOCATION L0003224      VOLUME   478215.897 3748351.920 451.00
LOCATION L0003225      VOLUME   478215.957 3748360.420 451.00
LOCATION L0003226      VOLUME   478216.018 3748368.919 451.00
LOCATION L0003227      VOLUME   478216.078 3748377.419 451.00
LOCATION L0003228      VOLUME   478216.139 3748385.919 451.00
LOCATION L0003229      VOLUME   478216.199 3748394.419 451.00
LOCATION L0003230      VOLUME   478216.260 3748402.919 451.00
LOCATION L0003231      VOLUME   478216.320 3748411.418 451.00
LOCATION L0003232      VOLUME   478216.381 3748419.918 451.00
LOCATION L0003233      VOLUME   478216.441 3748428.418 451.00
LOCATION L0003234      VOLUME   478216.502 3748436.918 451.00
LOCATION L0003235      VOLUME   478216.562 3748445.417 451.00
LOCATION L0003236      VOLUME   478216.623 3748453.917 451.00
LOCATION L0003237      VOLUME   478216.683 3748462.417 451.04
LOCATION L0003238      VOLUME   478216.744 3748470.917 451.11
LOCATION L0003239      VOLUME   478216.804 3748479.417 451.18
LOCATION L0003240      VOLUME   478216.865 3748487.916 451.27
LOCATION L0003241      VOLUME   478216.925 3748496.416 451.49
LOCATION L0003242      VOLUME   478216.986 3748504.916 451.70
LOCATION L0003243      VOLUME   478217.046 3748513.416 451.92
LOCATION L0003244      VOLUME   478217.107 3748521.916 452.00
LOCATION L0003245      VOLUME   478217.167 3748530.415 452.00
LOCATION L0003246      VOLUME   478217.228 3748538.915 452.00
LOCATION L0003247      VOLUME   478217.288 3748547.415 452.00
LOCATION L0003248      VOLUME   478217.349 3748555.915 452.00
LOCATION L0003249      VOLUME   478217.409 3748564.414 452.00
LOCATION L0003250      VOLUME   478217.470 3748572.914 452.00
LOCATION L0003251      VOLUME   478217.530 3748581.414 452.00
LOCATION L0003252      VOLUME   478217.591 3748589.914 452.00
LOCATION L0003253      VOLUME   478217.651 3748598.414 452.00
LOCATION L0003254      VOLUME   478217.712 3748606.913 452.00
LOCATION L0003255      VOLUME   478217.772 3748615.413 452.00
LOCATION L0003256      VOLUME   478217.833 3748623.913 452.00
LOCATION L0003257      VOLUME   478217.893 3748632.413 452.00
LOCATION L0003258      VOLUME   478217.954 3748640.913 452.00
LOCATION L0003259      VOLUME   478218.014 3748649.412 452.00
LOCATION L0003260      VOLUME   478218.075 3748657.912 452.00
LOCATION L0003261      VOLUME   478218.135 3748666.412 452.00
LOCATION L0003262      VOLUME   478218.196 3748674.912 452.00
LOCATION L0003263      VOLUME   478218.256 3748683.411 452.00
LOCATION L0003264      VOLUME   478218.317 3748691.911 452.00
LOCATION L0003265      VOLUME   478218.377 3748700.411 452.00
LOCATION L0003266      VOLUME   478218.438 3748708.911 452.00
LOCATION L0003267      VOLUME   478218.498 3748717.411 452.00
LOCATION L0003268      VOLUME   478218.559 3748725.910 452.00
LOCATION L0003269      VOLUME   478218.619 3748734.410 452.00
LOCATION L0003270      VOLUME   478218.680 3748742.910 452.00
LOCATION L0003271      VOLUME   478218.740 3748751.410 452.00
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   LOCATION L0003272     VOLUME   478218.801 3748759.910 452.00
   LOCATION L0003273     VOLUME   478218.861 3748768.409 452.00
   LOCATION L0003274     VOLUME   478218.922 3748776.909 452.00
   LOCATION L0003275     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0003276     VOLUME   478219.043 3748793.909 452.25
   LOCATION L0003277     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0003278     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0003279     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0003280     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0003281     VOLUME   478219.345 3748836.408 453.00
   LOCATION L0003282     VOLUME   478219.406 3748844.907 453.00
   LOCATION L0003283     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0003284     VOLUME   478219.527 3748861.907 453.00
   LOCATION L0003285     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0003286     VOLUME   478219.648 3748878.907 453.00
   LOCATION L0003287     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0003288     VOLUME   478219.769 3748895.906 453.00
   LOCATION L0003289     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0003290     VOLUME   478219.890 3748912.906 453.00
   LOCATION L0003291     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0003292     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0003293     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0003294     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0003295     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0003296     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0003297     VOLUME   478202.674 3748969.844 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004213
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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                                 AERMOD HRA Output
LOCATION L0003298      VOLUME   477852.776 3748835.217 453.00
LOCATION L0003299      VOLUME   477852.821 3748843.717 453.00
LOCATION L0003300      VOLUME   477852.867 3748852.216 453.00
LOCATION L0003301      VOLUME   477852.913 3748860.716 453.00
LOCATION L0003302      VOLUME   477852.959 3748869.216 453.00
LOCATION L0003303      VOLUME   477853.005 3748877.716 453.00
LOCATION L0003304      VOLUME   477853.050 3748886.216 453.00
LOCATION L0003305      VOLUME   477853.096 3748894.716 453.00
LOCATION L0003306      VOLUME   477853.142 3748903.216 453.00
LOCATION L0003307      VOLUME   477853.188 3748911.716 453.00
LOCATION L0003308      VOLUME   477853.233 3748920.215 453.00
LOCATION L0003309      VOLUME   477853.279 3748928.715 453.00
LOCATION L0003310      VOLUME   477853.325 3748937.215 453.00
LOCATION L0003311      VOLUME   477853.371 3748945.715 453.00
LOCATION L0003312      VOLUME   477853.417 3748954.215 453.00
LOCATION L0003313      VOLUME   477853.462 3748962.715 453.00
LOCATION L0003314      VOLUME   477853.508 3748971.215 453.16
LOCATION L0003315      VOLUME   477853.527 3748979.688 453.44
LOCATION L0003316      VOLUME   477845.027 3748979.667 453.53
LOCATION L0003317      VOLUME   477836.527 3748979.647 453.69
LOCATION L0003318      VOLUME   477828.027 3748979.626 453.85
LOCATION L0003319      VOLUME   477819.527 3748979.606 454.00
LOCATION L0003320      VOLUME   477811.027 3748979.585 454.00
LOCATION L0003321      VOLUME   477802.527 3748979.565 454.00
LOCATION L0003322      VOLUME   477794.027 3748979.544 454.00
LOCATION L0003323      VOLUME   477785.527 3748979.524 454.00
LOCATION L0003324      VOLUME   477777.027 3748979.503 454.00
LOCATION L0003325      VOLUME   477768.527 3748979.483 454.00
LOCATION L0003326      VOLUME   477760.027 3748979.462 454.00
LOCATION L0003327      VOLUME   477751.527 3748979.442 454.00
LOCATION L0003328      VOLUME   477743.027 3748979.421 454.00
LOCATION L0003329      VOLUME   477742.701 3748971.201 454.00
LOCATION L0003330      VOLUME   477742.653 3748962.701 454.00
LOCATION L0003331      VOLUME   477742.605 3748954.201 454.00
LOCATION L0003332      VOLUME   477742.557 3748945.701 454.00
LOCATION L0003333      VOLUME   477742.509 3748937.201 454.00
LOCATION L0003334      VOLUME   477742.461 3748928.701 453.89
LOCATION L0003335      VOLUME   477742.413 3748920.202 453.77
LOCATION L0003336      VOLUME   477742.365 3748911.702 453.65
LOCATION L0003337      VOLUME   477742.317 3748903.202 453.58
LOCATION L0003338      VOLUME   477742.269 3748894.702 453.58
LOCATION L0003339      VOLUME   477742.221 3748886.202 453.59
LOCATION L0003340      VOLUME   477744.175 3748877.974 453.52
LOCATION L0003341      VOLUME   477746.490 3748869.796 453.57
LOCATION L0003342      VOLUME   477748.806 3748861.617 453.68
LOCATION L0003343      VOLUME   477751.121 3748853.439 453.84
LOCATION L0003344      VOLUME   477753.437 3748845.260 453.96
LOCATION L0003345      VOLUME   477757.469 3748838.153 453.72
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   LOCATION L0003346     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0003347     VOLUME   477770.126 3748826.804 453.22
   LOCATION L0003348     VOLUME   477778.583 3748826.536 453.12
   LOCATION L0003349     VOLUME   477787.081 3748826.374 453.03
   LOCATION L0003350     VOLUME   477795.580 3748826.212 453.00
   LOCATION L0003351     VOLUME   477804.079 3748826.127 453.00
   LOCATION L0003352     VOLUME   477812.579 3748826.077 453.00
   LOCATION L0003353     VOLUME   477821.079 3748826.027 453.00
   LOCATION L0003354     VOLUME   477829.579 3748825.977 453.00
   LOCATION L0003355     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0003356     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002756
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0003357     VOLUME   477886.642 3748203.747 450.00
   LOCATION L0003358     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0003359     VOLUME   477886.254 3748220.743 450.12
   LOCATION L0003360     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0003361     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0003362     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0003363     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0003364     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0003365     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0003366     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0003367     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0003368     VOLUME   477885.955 3748297.231 451.00
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   LOCATION L0003369     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0003370     VOLUME   477886.154 3748314.230 451.00
   LOCATION L0003371     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0003372     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0003373     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0003374     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0003375     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0003376     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0003377     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0003378     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0003379     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0003380     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0003381     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0003382     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0003383     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0003384     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0003385     VOLUME   477968.225 3748296.673 450.00
   LOCATION L0003386     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0003387     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0003388     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0003389     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0003390     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0003391     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0003392     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0003393     VOLUME   477979.163 3748231.356 450.00
   LOCATION L0003394     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0003395     VOLUME   477982.636 3748216.976 450.00
   LOCATION L0003396     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0003397     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0003398     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0003399     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0003400     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0003401     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0003402     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0003403     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0003404     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0003405     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004801
** Vertical Dimension = 4.00
** SZINIT = 1.86
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** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
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   LOCATION L0003406     VOLUME   477505.071 3748975.728 454.15
   LOCATION L0003407     VOLUME   477513.569 3748975.562 454.06
   LOCATION L0003408     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0003409     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0003410     VOLUME   477539.064 3748975.067 454.00
   LOCATION L0003411     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0003412     VOLUME   477556.061 3748974.736 454.00
   LOCATION L0003413     VOLUME   477564.559 3748974.571 454.00
   LOCATION L0003414     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0003415     VOLUME   477581.556 3748974.240 454.00
   LOCATION L0003416     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0003417     VOLUME   477598.508 3748973.774 454.00
   LOCATION L0003418     VOLUME   477605.435 3748968.848 454.00
   LOCATION L0003419     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0003420     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0003421     VOLUME   477615.729 3748946.683 454.00
   LOCATION L0003422     VOLUME   477618.035 3748938.501 454.00
   LOCATION L0003423     VOLUME   477619.970 3748930.230 454.00
   LOCATION L0003424     VOLUME   477621.685 3748921.905 454.00
   LOCATION L0003425     VOLUME   477623.401 3748913.580 454.00
   LOCATION L0003426     VOLUME   477625.117 3748905.255 454.00
   LOCATION L0003427     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0003428     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0003429     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0003430     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0003431     VOLUME   477626.684 3748862.869 454.00
   LOCATION L0003432     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0003433     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0003434     VOLUME   477627.014 3748837.371 454.00
   LOCATION L0003435     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0003436     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0003437     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0003438     VOLUME   477627.455 3748803.374 454.00
   LOCATION L0003439     VOLUME   477626.976 3748795.472 454.00
   LOCATION L0003440     VOLUME   477618.479 3748795.702 454.00
   LOCATION L0003441     VOLUME   477609.982 3748795.933 454.00
   LOCATION L0003442     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0003443     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0003444     VOLUME   477584.491 3748796.624 454.00
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   LOCATION L0003445     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0003446     VOLUME   477567.498 3748797.085 454.00
   LOCATION L0003447     VOLUME   477559.001 3748797.316 454.00
   LOCATION L0003448     VOLUME   477550.504 3748797.546 454.00
   LOCATION L0003449     VOLUME   477542.007 3748797.777 454.00
   LOCATION L0003450     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0003451     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0003452     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0003453     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0003454     VOLUME   477499.523 3748798.930 454.00
   LOCATION L0003455     VOLUME   477491.026 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 50% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002223
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0003456     VOLUME   478255.534 3748984.574 453.00
   LOCATION L0003457     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0003458     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0003459     VOLUME   478230.035 3748984.818 453.00
   LOCATION L0003460     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0003461     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0003462     VOLUME   478204.537 3748985.062 453.00
   LOCATION L0003463     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0003464     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0003465     VOLUME   478179.038 3748985.306 453.00
   LOCATION L0003466     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0003467     VOLUME   478162.039 3748985.469 453.00
   LOCATION L0003468     VOLUME   478153.539 3748985.550 453.00
   LOCATION L0003469     VOLUME   478145.039 3748985.632 453.00
   LOCATION L0003470     VOLUME   478136.540 3748985.713 453.00
   LOCATION L0003471     VOLUME   478128.040 3748985.794 453.00
   LOCATION L0003472     VOLUME   478119.540 3748985.876 453.00
   LOCATION L0003473     VOLUME   478111.041 3748985.957 453.00
   LOCATION L0003474     VOLUME   478102.541 3748986.038 453.00
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LOCATION L0003475     VOLUME   478094.042 3748986.120 453.00
LOCATION L0003476     VOLUME   478085.542 3748986.201 453.00
LOCATION L0003477     VOLUME   478077.042 3748986.282 453.00
LOCATION L0003478     VOLUME   478068.543 3748986.364 453.00
LOCATION L0003479     VOLUME   478060.043 3748986.445 453.00
LOCATION L0003480     VOLUME   478051.544 3748986.526 453.00
LOCATION L0003481     VOLUME   478043.044 3748986.608 453.00
LOCATION L0003482     VOLUME   478034.544 3748986.689 453.00
LOCATION L0003483     VOLUME   478026.045 3748986.770 453.00
LOCATION L0003484     VOLUME   478017.545 3748986.852 453.00
LOCATION L0003485     VOLUME   478009.046 3748986.933 453.00
LOCATION L0003486     VOLUME   478000.546 3748987.014 453.00
LOCATION L0003487     VOLUME   477992.046 3748987.096 453.00
LOCATION L0003488     VOLUME   477983.547 3748987.177 453.00
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LOCATION L0003490     VOLUME   477966.547 3748987.340 453.00
LOCATION L0003491     VOLUME   477958.048 3748987.421 453.00
LOCATION L0003492     VOLUME   477949.548 3748987.502 453.00
LOCATION L0003493     VOLUME   477941.049 3748987.584 453.00
LOCATION L0003494     VOLUME   477932.549 3748987.665 453.17
LOCATION L0003495     VOLUME   477924.049 3748987.746 453.37
LOCATION L0003496     VOLUME   477915.550 3748987.828 453.57
LOCATION L0003497     VOLUME   477907.050 3748987.909 453.71
LOCATION L0003498     VOLUME   477898.551 3748987.990 453.71
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LOCATION L0003500     VOLUME   477881.917 3748988.515 453.73
LOCATION L0003501     VOLUME   477881.917 3748997.015 454.00
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LOCATION L0003503     VOLUME   477881.917 3749014.015 454.00
LOCATION L0003504     VOLUME   477881.917 3749022.515 454.00
LOCATION L0003505     VOLUME   477881.917 3749031.015 454.00
LOCATION L0003506     VOLUME   477881.917 3749039.515 454.00
LOCATION L0003507     VOLUME   477881.917 3749048.015 454.00
LOCATION L0003508     VOLUME   477881.917 3749056.515 454.00
LOCATION L0003509     VOLUME   477881.917 3749065.015 454.00
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LOCATION L0003514     VOLUME   477881.917 3749107.515 454.00
LOCATION L0003515     VOLUME   477881.917 3749116.015 454.00
LOCATION L0003516     VOLUME   477881.917 3749124.515 454.00
LOCATION L0003517     VOLUME   477881.917 3749133.015 454.00
LOCATION L0003518     VOLUME   477881.917 3749141.515 454.00
LOCATION L0003519     VOLUME   477881.917 3749150.015 454.00
LOCATION L0003520     VOLUME   477881.917 3749158.515 454.00
LOCATION L0003521     VOLUME   477881.917 3749167.015 454.00
LOCATION L0003522     VOLUME   477881.917 3749175.515 454.00
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LOCATION L0003523     VOLUME   477881.917 3749184.015 454.00
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LOCATION L0003525     VOLUME   477881.917 3749201.015 454.00
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LOCATION L0003527     VOLUME   477881.917 3749218.015 454.38
LOCATION L0003528     VOLUME   477881.917 3749226.515 454.67
LOCATION L0003529     VOLUME   477881.917 3749235.015 454.95
LOCATION L0003530     VOLUME   477877.860 3749239.512 455.00
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LOCATION L0003532     VOLUME   477860.862 3749239.740 455.00
LOCATION L0003533     VOLUME   477852.363 3749239.854 455.00
LOCATION L0003534     VOLUME   477843.863 3749239.968 455.00
LOCATION L0003535     VOLUME   477835.364 3749240.082 455.00
LOCATION L0003536     VOLUME   477826.865 3749240.195 455.00
LOCATION L0003537     VOLUME   477818.366 3749240.309 455.00
LOCATION L0003538     VOLUME   477809.866 3749240.423 455.00
LOCATION L0003539     VOLUME   477801.367 3749240.537 455.00
LOCATION L0003540     VOLUME   477792.868 3749240.651 455.00
LOCATION L0003541     VOLUME   477784.369 3749240.765 455.00
LOCATION L0003542     VOLUME   477775.869 3749240.878 455.00
LOCATION L0003543     VOLUME   477767.370 3749240.992 455.00
LOCATION L0003544     VOLUME   477758.871 3749241.106 455.00
LOCATION L0003545     VOLUME   477750.372 3749241.220 455.00
LOCATION L0003546     VOLUME   477741.873 3749241.334 455.00
LOCATION L0003547     VOLUME   477733.373 3749241.448 455.00
LOCATION L0003548     VOLUME   477724.874 3749241.561 455.00
LOCATION L0003549     VOLUME   477716.375 3749241.675 455.00
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LOCATION L0003551     VOLUME   477699.376 3749241.903 455.00
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LOCATION L0003554     VOLUME   477673.879 3749242.244 455.00
LOCATION L0003555     VOLUME   477665.379 3749242.358 455.00
LOCATION L0003556     VOLUME   477656.880 3749242.472 455.00
LOCATION L0003557     VOLUME   477648.381 3749242.586 455.00
LOCATION L0003558     VOLUME   477639.882 3749242.700 455.00
LOCATION L0003559     VOLUME   477631.382 3749242.813 455.00
LOCATION L0003560     VOLUME   477622.883 3749242.927 455.00
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LOCATION L0003562     VOLUME   477605.885 3749243.155 455.00
LOCATION L0003563     VOLUME   477597.385 3749243.269 455.00
LOCATION L0003564     VOLUME   477588.886 3749243.383 455.00
LOCATION L0003565     VOLUME   477580.387 3749243.496 455.00
LOCATION L0003566     VOLUME   477571.888 3749243.610 455.00
LOCATION L0003567     VOLUME   477563.389 3749243.724 455.00
LOCATION L0003568     VOLUME   477554.889 3749243.838 455.00
LOCATION L0003569     VOLUME   477546.390 3749243.952 455.00
LOCATION L0003570     VOLUME   477537.891 3749244.066 455.00
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LOCATION L0003571     VOLUME   477529.392 3749244.179 455.00
LOCATION L0003572     VOLUME   477520.892 3749244.293 455.00
LOCATION L0003573     VOLUME   477512.393 3749244.407 455.00
LOCATION L0003574     VOLUME   477503.894 3749244.521 455.00
LOCATION L0003575     VOLUME   477495.395 3749244.635 455.00
LOCATION L0003576     VOLUME   477486.895 3749244.749 455.00
LOCATION L0003577     VOLUME   477478.396 3749244.862 455.00
LOCATION L0003578     VOLUME   477476.837 3749251.916 455.00
LOCATION L0003579     VOLUME   477476.725 3749260.415 455.00
LOCATION L0003580     VOLUME   477476.612 3749268.914 455.00
LOCATION L0003581     VOLUME   477476.500 3749277.414 455.00
LOCATION L0003582     VOLUME   477476.387 3749285.913 455.00
LOCATION L0003583     VOLUME   477476.275 3749294.412 455.00
LOCATION L0003584     VOLUME   477476.162 3749302.911 455.10
LOCATION L0003585     VOLUME   477476.049 3749311.411 455.23
LOCATION L0003586     VOLUME   477475.937 3749319.910 455.36
LOCATION L0003587     VOLUME   477475.824 3749328.409 455.50
LOCATION L0003588     VOLUME   477475.712 3749336.908 455.65
LOCATION L0003589     VOLUME   477475.599 3749345.408 455.80
LOCATION L0003590     VOLUME   477475.487 3749353.907 455.95
LOCATION L0003591     VOLUME   477475.374 3749362.406 456.00
LOCATION L0003592     VOLUME   477475.261 3749370.905 456.00
LOCATION L0003593     VOLUME   477475.149 3749379.405 456.00
LOCATION L0003594     VOLUME   477475.036 3749387.904 456.00
LOCATION L0003595     VOLUME   477474.924 3749396.403 456.00
LOCATION L0003596     VOLUME   477474.811 3749404.902 456.00
LOCATION L0003597     VOLUME   477474.699 3749413.402 456.00
LOCATION L0003598     VOLUME   477474.586 3749421.901 456.00
LOCATION L0003599     VOLUME   477474.473 3749430.400 456.00
LOCATION L0003600     VOLUME   477474.361 3749438.899 456.00
LOCATION L0003601     VOLUME   477474.248 3749447.399 456.00
LOCATION L0003602     VOLUME   477474.136 3749455.898 456.00
LOCATION L0003603     VOLUME   477474.023 3749464.397 456.00
LOCATION L0003604     VOLUME   477473.911 3749472.896 456.00
LOCATION L0003605     VOLUME   477473.798 3749481.396 456.16
LOCATION L0003606     VOLUME   477473.685 3749489.895 456.44
LOCATION L0003607     VOLUME   477473.573 3749498.394 456.73
LOCATION L0003608     VOLUME   477473.460 3749506.893 457.00
LOCATION L0003609     VOLUME   477473.348 3749515.393 457.00
LOCATION L0003610     VOLUME   477473.235 3749523.892 457.00
LOCATION L0003611     VOLUME   477473.123 3749532.391 457.00
LOCATION L0003612     VOLUME   477473.010 3749540.890 457.00
LOCATION L0003613     VOLUME   477472.897 3749549.390 457.00
LOCATION L0003614     VOLUME   477472.785 3749557.889 457.00
LOCATION L0003615     VOLUME   477472.672 3749566.388 457.00
LOCATION L0003616     VOLUME   477472.560 3749574.887 457.00
LOCATION L0003617     VOLUME   477472.447 3749583.387 457.00
LOCATION L0003618     VOLUME   477472.335 3749591.886 457.00
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   LOCATION L0003619     VOLUME   477472.222 3749600.385 457.00
   LOCATION L0003620     VOLUME   477472.109 3749608.884 457.00
   LOCATION L0003621     VOLUME   477471.997 3749617.384 457.00
   LOCATION L0003622     VOLUME   477471.884 3749625.883 457.00
   LOCATION L0003623     VOLUME   477471.772 3749634.382 457.00
   LOCATION L0003624     VOLUME   477471.659 3749642.881 457.00
   LOCATION L0003625     VOLUME   477471.547 3749651.381 457.00
   LOCATION L0003626     VOLUME   477471.434 3749659.880 457.00
   LOCATION L0003627     VOLUME   477471.321 3749668.379 457.00
   LOCATION L0003628     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0003629     VOLUME   477471.096 3749685.378 457.00
   LOCATION L0003630     VOLUME   477470.984 3749693.877 457.00
   LOCATION L0003631     VOLUME   477470.871 3749702.376 457.00
   LOCATION L0003632     VOLUME   477470.759 3749710.876 457.00
   LOCATION L0003633     VOLUME   477470.646 3749719.375 457.00
   LOCATION L0003634     VOLUME   477470.533 3749727.874 457.00
   LOCATION L0003635     VOLUME   477470.421 3749736.373 457.00
   LOCATION L0003636     VOLUME   477470.308 3749744.873 457.00
   LOCATION L0003637     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0003638     VOLUME   477470.083 3749761.871 457.51
   LOCATION L0003639     VOLUME   477469.971 3749770.370 457.79
   LOCATION L0003640     VOLUME   477469.858 3749778.870 458.00
   LOCATION L0003641     VOLUME   477469.745 3749787.369 458.00
** End of LINE VOLUME Source ID = SLINE11
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007092
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0005357     VOLUME   477901.854 3748181.536 450.00
   LOCATION L0005358     VOLUME   477893.354 3748181.604 450.00
   LOCATION L0005359     VOLUME   477884.855 3748181.671 450.00
   LOCATION L0005360     VOLUME   477876.355 3748181.739 450.00
   LOCATION L0005361     VOLUME   477867.855 3748181.806 450.00
   LOCATION L0005362     VOLUME   477859.355 3748181.874 450.00
   LOCATION L0005363     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0005364     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0005365     VOLUME   477833.856 3748182.077 450.46
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LOCATION L0005366     VOLUME   477825.356 3748182.144 450.71
LOCATION L0005367     VOLUME   477816.857 3748182.212 450.88
LOCATION L0005368     VOLUME   477808.357 3748182.279 450.92
LOCATION L0005369     VOLUME   477799.857 3748182.347 450.96
LOCATION L0005370     VOLUME   477791.358 3748182.414 450.99
LOCATION L0005371     VOLUME   477782.858 3748182.482 451.00
LOCATION L0005372     VOLUME   477774.358 3748182.550 451.00
LOCATION L0005373     VOLUME   477765.858 3748182.617 451.00
LOCATION L0005374     VOLUME   477757.359 3748182.685 451.00
LOCATION L0005375     VOLUME   477748.859 3748182.752 451.00
LOCATION L0005376     VOLUME   477740.359 3748182.820 451.00
LOCATION L0005377     VOLUME   477731.859 3748182.887 451.00
LOCATION L0005378     VOLUME   477723.360 3748182.955 451.00
LOCATION L0005379     VOLUME   477714.860 3748183.023 451.00
LOCATION L0005380     VOLUME   477706.360 3748183.090 451.00
LOCATION L0005381     VOLUME   477697.860 3748183.158 451.00
LOCATION L0005382     VOLUME   477689.361 3748183.225 451.00
LOCATION L0005383     VOLUME   477680.861 3748183.293 451.00
LOCATION L0005384     VOLUME   477672.361 3748183.360 451.00
LOCATION L0005385     VOLUME   477663.862 3748183.428 451.00
LOCATION L0005386     VOLUME   477655.362 3748183.495 451.00
LOCATION L0005387     VOLUME   477646.862 3748183.563 451.00
LOCATION L0005388     VOLUME   477638.362 3748183.631 451.00
LOCATION L0005389     VOLUME   477629.863 3748183.698 451.00
LOCATION L0005390     VOLUME   477621.363 3748183.766 451.00
LOCATION L0005391     VOLUME   477612.863 3748183.833 451.00
LOCATION L0005392     VOLUME   477604.363 3748183.901 451.00
LOCATION L0005393     VOLUME   477595.864 3748183.968 451.00
LOCATION L0005394     VOLUME   477587.364 3748184.036 451.00
LOCATION L0005395     VOLUME   477578.864 3748184.104 451.00
LOCATION L0005396     VOLUME   477570.364 3748184.171 451.00
LOCATION L0005397     VOLUME   477561.865 3748184.239 451.00
LOCATION L0005398     VOLUME   477553.365 3748184.306 451.00
LOCATION L0005399     VOLUME   477544.865 3748184.374 451.00
LOCATION L0005400     VOLUME   477536.366 3748184.441 451.00
LOCATION L0005401     VOLUME   477527.866 3748184.509 451.00
LOCATION L0005402     VOLUME   477519.366 3748184.577 451.00
LOCATION L0005403     VOLUME   477510.866 3748184.644 451.00
LOCATION L0005404     VOLUME   477502.367 3748184.712 451.00
LOCATION L0005405     VOLUME   477493.867 3748184.779 451.00
LOCATION L0005406     VOLUME   477485.367 3748184.847 451.00
LOCATION L0005407     VOLUME   477476.867 3748184.914 451.00
LOCATION L0005408     VOLUME   477471.122 3748182.143 451.00
LOCATION L0005409     VOLUME   477470.934 3748173.645 451.00
LOCATION L0005410     VOLUME   477470.745 3748165.147 451.00
LOCATION L0005411     VOLUME   477470.557 3748156.649 451.00
LOCATION L0005412     VOLUME   477470.368 3748148.151 451.00
LOCATION L0005413     VOLUME   477470.180 3748139.653 451.00
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   LOCATION L0005414     VOLUME   477469.991 3748131.156 451.00
   LOCATION L0005415     VOLUME   477469.803 3748122.658 451.00
   LOCATION L0005416     VOLUME   477469.614 3748114.160 451.00
   LOCATION L0005417     VOLUME   477469.426 3748105.662 451.00
   LOCATION L0005418     VOLUME   477469.237 3748097.164 451.00
   LOCATION L0005419     VOLUME   477469.049 3748088.666 451.00
   LOCATION L0005420     VOLUME   477468.860 3748080.168 451.00
   LOCATION L0005421     VOLUME   477468.672 3748071.670 451.00
   LOCATION L0005422     VOLUME   477468.483 3748063.172 451.00
   LOCATION L0005423     VOLUME   477468.295 3748054.674 451.00
   LOCATION L0005424     VOLUME   477468.106 3748046.176 451.00
   LOCATION L0005425     VOLUME   477467.917 3748037.679 451.00
   LOCATION L0005426     VOLUME   477467.729 3748029.181 451.00
   LOCATION L0005427     VOLUME   477467.540 3748020.683 451.00
   LOCATION L0005428     VOLUME   477467.352 3748012.185 451.00
   LOCATION L0005429     VOLUME   477467.163 3748003.687 451.00
   LOCATION L0005430     VOLUME   477466.975 3747995.189 451.00
   LOCATION L0005431     VOLUME   477466.786 3747986.691 451.00
   LOCATION L0005432     VOLUME   477466.598 3747978.193 451.00
   LOCATION L0005433     VOLUME   477466.409 3747969.695 451.00
   LOCATION L0005434     VOLUME   477466.221 3747961.197 451.00
   LOCATION L0005435     VOLUME   477466.032 3747952.699 451.00
   LOCATION L0005436     VOLUME   477465.844 3747944.202 451.00
   LOCATION L0005437     VOLUME   477465.655 3747935.704 451.00
   LOCATION L0005438     VOLUME   477465.467 3747927.206 451.00
   LOCATION L0005439     VOLUME   477465.278 3747918.708 451.00
   LOCATION L0005440     VOLUME   477465.090 3747910.210 451.00
   LOCATION L0005441     VOLUME   477464.901 3747901.712 451.00
   LOCATION L0005442     VOLUME   477464.713 3747893.214 451.00
   LOCATION L0005443     VOLUME   477464.524 3747884.716 451.00
   LOCATION L0005444     VOLUME   477464.336 3747876.218 451.00
   LOCATION L0005445     VOLUME   477464.147 3747867.720 451.00
   LOCATION L0005446     VOLUME   477463.959 3747859.222 451.00
   LOCATION L0005447     VOLUME   477463.770 3747850.725 451.00
   LOCATION L0005448     VOLUME   477463.582 3747842.227 451.00
   LOCATION L0005449     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0005450     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0005451     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0005452     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0005453     VOLUME   477462.639 3747799.737 451.00
   LOCATION L0005454     VOLUME   477462.450 3747791.239 451.00
   LOCATION L0005455     VOLUME   477462.262 3747782.741 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
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** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 20% South on Indian
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004728
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478279.139, 3748325.068, 454.06, 4.00, 3.95
** 478288.327, 3747768.514, 450.42, 4.00, 3.95
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   LOCATION L0003741     VOLUME   478279.209 3748320.818 450.00
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LOCATION L0003742      VOLUME   478279.349 3748312.319 450.00
LOCATION L0003743      VOLUME   478279.490 3748303.820 450.00
LOCATION L0003744      VOLUME   478279.630 3748295.322 450.00
LOCATION L0003745      VOLUME   478279.770 3748286.823 450.00
LOCATION L0003746      VOLUME   478279.911 3748278.324 450.00
LOCATION L0003747      VOLUME   478280.051 3748269.825 450.00
LOCATION L0003748      VOLUME   478280.191 3748261.326 450.00
LOCATION L0003749      VOLUME   478280.332 3748252.827 450.00
LOCATION L0003750      VOLUME   478280.472 3748244.329 450.00
LOCATION L0003751      VOLUME   478280.612 3748235.830 450.00
LOCATION L0003752      VOLUME   478280.752 3748227.331 450.00
LOCATION L0003753      VOLUME   478280.893 3748218.832 450.00
LOCATION L0003754      VOLUME   478281.033 3748210.333 450.00
LOCATION L0003755      VOLUME   478281.173 3748201.834 450.00
LOCATION L0003756      VOLUME   478281.314 3748193.335 450.00
LOCATION L0003757      VOLUME   478281.454 3748184.837 450.00
LOCATION L0003758      VOLUME   478281.594 3748176.338 450.00
LOCATION L0003759      VOLUME   478281.735 3748167.839 450.00
LOCATION L0003760      VOLUME   478281.875 3748159.340 450.00
LOCATION L0003761      VOLUME   478282.015 3748150.841 449.82
LOCATION L0003762      VOLUME   478282.155 3748142.342 449.54
LOCATION L0003763      VOLUME   478282.296 3748133.844 449.25
LOCATION L0003764      VOLUME   478282.436 3748125.345 449.00
LOCATION L0003765      VOLUME   478282.576 3748116.846 449.00
LOCATION L0003766      VOLUME   478282.717 3748108.347 449.00
LOCATION L0003767      VOLUME   478282.857 3748099.848 449.00
LOCATION L0003768      VOLUME   478282.997 3748091.349 449.00
LOCATION L0003769      VOLUME   478283.138 3748082.851 449.00
LOCATION L0003770      VOLUME   478283.278 3748074.352 449.00
LOCATION L0003771      VOLUME   478283.418 3748065.853 449.00
LOCATION L0003772      VOLUME   478283.558 3748057.354 449.00
LOCATION L0003773      VOLUME   478283.699 3748048.855 449.00
LOCATION L0003774      VOLUME   478283.839 3748040.356 449.00
LOCATION L0003775      VOLUME   478283.979 3748031.857 449.00
LOCATION L0003776      VOLUME   478284.120 3748023.359 449.00
LOCATION L0003777      VOLUME   478284.260 3748014.860 449.00
LOCATION L0003778      VOLUME   478284.400 3748006.361 449.00
LOCATION L0003779      VOLUME   478284.541 3747997.862 449.00
LOCATION L0003780      VOLUME   478284.681 3747989.363 449.00
LOCATION L0003781      VOLUME   478284.821 3747980.864 449.00
LOCATION L0003782      VOLUME   478284.962 3747972.366 449.00
LOCATION L0003783      VOLUME   478285.102 3747963.867 449.00
LOCATION L0003784      VOLUME   478285.242 3747955.368 449.00
LOCATION L0003785      VOLUME   478285.382 3747946.869 449.00
LOCATION L0003786      VOLUME   478285.523 3747938.370 449.00
LOCATION L0003787      VOLUME   478285.663 3747929.871 449.00
LOCATION L0003788      VOLUME   478285.803 3747921.373 449.00
LOCATION L0003789      VOLUME   478285.944 3747912.874 449.00
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   LOCATION L0003790     VOLUME   478286.084 3747904.375 449.00
   LOCATION L0003791     VOLUME   478286.224 3747895.876 449.00
   LOCATION L0003792     VOLUME   478286.365 3747887.377 449.00
   LOCATION L0003793     VOLUME   478286.505 3747878.878 449.00
   LOCATION L0003794     VOLUME   478286.645 3747870.379 449.00
   LOCATION L0003795     VOLUME   478286.785 3747861.881 449.00
   LOCATION L0003796     VOLUME   478286.926 3747853.382 449.00
   LOCATION L0003797     VOLUME   478287.066 3747844.883 449.00
   LOCATION L0003798     VOLUME   478287.206 3747836.384 449.00
   LOCATION L0003799     VOLUME   478287.347 3747827.885 449.00
   LOCATION L0003800     VOLUME   478287.487 3747819.386 449.00
   LOCATION L0003801     VOLUME   478287.627 3747810.888 449.00
   LOCATION L0003802     VOLUME   478287.768 3747802.389 449.00
   LOCATION L0003803     VOLUME   478287.908 3747793.890 449.00
   LOCATION L0003804     VOLUME   478288.048 3747785.391 449.00
   LOCATION L0003805     VOLUME   478288.188 3747776.892 449.00
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 40% North on Heacock to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0006614
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477480.626, 3749795.973, 459.75, 4.00, 3.95
** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0005456     VOLUME   477480.558 3749800.222 458.00
   LOCATION L0005457     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0005458     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0005459     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0005460     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0005461     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0005462     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0005463     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0005464     VOLUME   477479.471 3749868.214 458.00
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AERMOD HRA Output

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LOCATION L0005465     VOLUME   477479.335 3749876.713 458.00
LOCATION L0005466     VOLUME   477479.199 3749885.212 458.00
LOCATION L0005467     VOLUME   477479.063 3749893.711 458.00
LOCATION L0005468     VOLUME   477478.927 3749902.209 458.00
LOCATION L0005469     VOLUME   477478.791 3749910.708 458.00
LOCATION L0005470     VOLUME   477478.655 3749919.207 458.00
LOCATION L0005471     VOLUME   477478.519 3749927.706 458.00
LOCATION L0005472     VOLUME   477478.383 3749936.205 458.00
LOCATION L0005473     VOLUME   477478.247 3749944.704 458.00
LOCATION L0005474     VOLUME   477478.111 3749953.203 458.00
LOCATION L0005475     VOLUME   477477.975 3749961.702 458.17
LOCATION L0005476     VOLUME   477477.840 3749970.201 458.45
LOCATION L0005477     VOLUME   477477.704 3749978.700 458.74
LOCATION L0005478     VOLUME   477477.568 3749987.199 459.00
LOCATION L0005479     VOLUME   477477.432 3749995.697 459.00
LOCATION L0005480     VOLUME   477477.296 3750004.196 459.00
LOCATION L0005481     VOLUME   477477.160 3750012.695 459.00
LOCATION L0005482     VOLUME   477477.024 3750021.194 459.00
LOCATION L0005483     VOLUME   477476.888 3750029.693 459.00
LOCATION L0005484     VOLUME   477476.752 3750038.192 459.00
LOCATION L0005485     VOLUME   477476.616 3750046.691 459.00
LOCATION L0005486     VOLUME   477476.480 3750055.190 459.00
LOCATION L0005487     VOLUME   477476.344 3750063.689 459.00
LOCATION L0005488     VOLUME   477476.208 3750072.188 459.00
LOCATION L0005489     VOLUME   477476.072 3750080.687 459.00
LOCATION L0005490     VOLUME   477475.937 3750089.186 459.00
LOCATION L0005491     VOLUME   477475.801 3750097.684 459.00
LOCATION L0005492     VOLUME   477475.665 3750106.183 459.00
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AERMOD HRA Output

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LOCATION L0005816     VOLUME   476839.048 3752226.874 471.68
LOCATION L0005817     VOLUME   476830.548 3752226.884 471.68
LOCATION L0005818     VOLUME   476822.048 3752226.894 471.68
LOCATION L0005819     VOLUME   476813.548 3752226.904 471.68
LOCATION L0005820     VOLUME   476805.048 3752226.914 477.23
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LOCATION L0005822     VOLUME   476788.048 3752226.934 477.23
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LOCATION L0005831     VOLUME   476711.548 3752227.023 477.46
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LOCATION L0005833     VOLUME   476694.548 3752227.043 477.63
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LOCATION L0005836     VOLUME   476669.048 3752227.073 477.89
LOCATION L0005837     VOLUME   476660.548 3752227.083 477.97
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LOCATION L0005847     VOLUME   476575.548 3752227.183 478.00
LOCATION L0005848     VOLUME   476567.048 3752227.193 478.00
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LOCATION L0005880     VOLUME   476295.049 3752227.512 478.00
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LOCATION L0005883     VOLUME   476269.549 3752227.542 478.00
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LOCATION L0005885     VOLUME   476252.549 3752227.561 478.00
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LOCATION L0005887     VOLUME   476235.549 3752227.581 478.00
LOCATION L0005888     VOLUME   476227.049 3752227.591 478.00
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LOCATION L0005890     VOLUME   476210.049 3752227.611 478.00
LOCATION L0005891     VOLUME   476201.549 3752227.621 478.00
LOCATION L0005892     VOLUME   476193.049 3752227.631 478.00
LOCATION L0005893     VOLUME   476184.549 3752227.641 478.00
LOCATION L0005894     VOLUME   476176.049 3752227.651 478.00
LOCATION L0005895     VOLUME   476167.549 3752227.661 478.00
LOCATION L0005896     VOLUME   476159.049 3752227.671 478.00
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LOCATION L0005900     VOLUME   476125.049 3752227.711 478.00
LOCATION L0005901     VOLUME   476116.549 3752227.721 477.98
LOCATION L0005902     VOLUME   476108.049 3752227.731 477.90
LOCATION L0005903     VOLUME   476099.549 3752227.741 477.81
LOCATION L0005904     VOLUME   476091.049 3752227.751 477.72
LOCATION L0005905     VOLUME   476082.549 3752227.761 477.64
LOCATION L0005906     VOLUME   476074.049 3752227.771 477.55
LOCATION L0005907     VOLUME   476065.549 3752227.781 477.47
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LOCATION L0005909     VOLUME   476048.549 3752227.801 477.30
LOCATION L0005910     VOLUME   476040.049 3752227.811 477.22
LOCATION L0005911     VOLUME   476031.549 3752227.821 477.19
LOCATION L0005912     VOLUME   476023.049 3752227.831 477.17
LOCATION L0005913     VOLUME   476014.549 3752227.841 477.14
LOCATION L0005914     VOLUME   476006.049 3752227.851 477.12
LOCATION L0005915     VOLUME   475997.549 3752227.860 477.10
LOCATION L0005916     VOLUME   475989.049 3752227.870 477.07
LOCATION L0005917     VOLUME   475980.549 3752227.880 477.05
LOCATION L0005918     VOLUME   475972.049 3752227.890 477.02
LOCATION L0005919     VOLUME   475963.549 3752227.900 477.00
LOCATION L0005920     VOLUME   475955.049 3752227.910 477.00
LOCATION L0005921     VOLUME   475946.549 3752227.920 477.00
LOCATION L0005922     VOLUME   475938.049 3752227.930 477.00
LOCATION L0005923     VOLUME   475929.549 3752227.940 477.00
LOCATION L0005924     VOLUME   475921.049 3752227.950 477.00
LOCATION L0005925     VOLUME   475912.549 3752227.960 477.00
LOCATION L0005926     VOLUME   475904.049 3752227.970 477.00
LOCATION L0005927     VOLUME   475895.549 3752227.980 477.00
LOCATION L0005928     VOLUME   475887.049 3752227.990 477.00
LOCATION L0005929     VOLUME   475878.549 3752228.000 477.00
LOCATION L0005930     VOLUME   475870.049 3752228.010 477.00
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LOCATION L0005932     VOLUME   475853.049 3752228.030 477.00
LOCATION L0005933     VOLUME   475844.549 3752228.040 477.00
LOCATION L0005934     VOLUME   475836.049 3752228.050 477.00
LOCATION L0005935     VOLUME   475827.549 3752228.060 477.00
LOCATION L0005936     VOLUME   475819.049 3752228.070 477.00
LOCATION L0005937     VOLUME   475810.549 3752228.080 477.00
LOCATION L0005938     VOLUME   475802.049 3752228.090 477.02
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LOCATION L0005940     VOLUME   475785.049 3752228.110 477.07
LOCATION L0005941     VOLUME   475776.549 3752228.120 477.10
LOCATION L0005942     VOLUME   475768.049 3752228.130 477.12
LOCATION L0005943     VOLUME   475759.549 3752228.140 477.14
LOCATION L0005944     VOLUME   475751.049 3752228.150 477.17
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AERMOD HRA Output

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LOCATION L0005949      VOLUME   475708.549 3752228.199 477.22
LOCATION L0005950      VOLUME   475700.049 3752228.209 477.22
LOCATION L0005951      VOLUME   475691.549 3752228.219 477.22
LOCATION L0005952      VOLUME   475683.049 3752228.229 477.22
LOCATION L0005953      VOLUME   475674.549 3752228.239 477.22
LOCATION L0005954      VOLUME   475666.049 3752228.249 477.22
LOCATION L0005955      VOLUME   475657.549 3752228.259 477.22
LOCATION L0005956      VOLUME   475649.049 3752228.269 477.20
LOCATION L0005957      VOLUME   475640.549 3752228.279 477.17
LOCATION L0005958      VOLUME   475632.049 3752228.289 477.15
LOCATION L0005959      VOLUME   475623.549 3752228.299 477.12
LOCATION L0005960      VOLUME   475615.049 3752228.309 477.10
LOCATION L0005961      VOLUME   475606.549 3752228.319 477.08
LOCATION L0005962      VOLUME   475598.049 3752228.329 477.05
LOCATION L0005963      VOLUME   475589.549 3752228.339 477.03
LOCATION L0005964      VOLUME   475581.049 3752228.349 477.01
LOCATION L0005965      VOLUME   475572.549 3752228.359 477.00
LOCATION L0005966      VOLUME   475564.049 3752228.369 477.00
LOCATION L0005967      VOLUME   475555.549 3752228.379 477.00
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LOCATION L0005970      VOLUME   475530.049 3752228.409 477.00
LOCATION L0005971      VOLUME   475521.549 3752228.419 477.00
LOCATION L0005972      VOLUME   475513.049 3752228.429 477.00
LOCATION L0005973      VOLUME   475504.549 3752228.439 477.00
LOCATION L0005974      VOLUME   475496.049 3752228.448 477.00
LOCATION L0005975      VOLUME   475487.549 3752228.458 477.00
LOCATION L0005976      VOLUME   475479.049 3752228.468 477.00
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LOCATION L0005978      VOLUME   475462.049 3752228.488 477.00
LOCATION L0005979      VOLUME   475453.549 3752228.498 477.00
LOCATION L0005980      VOLUME   475445.049 3752228.508 477.00
LOCATION L0005981      VOLUME   475436.549 3752228.518 477.00
LOCATION L0005982      VOLUME   475428.049 3752228.528 477.00
LOCATION L0005983      VOLUME   475419.549 3752228.538 476.94
LOCATION L0005984      VOLUME   475411.049 3752228.548 476.86
LOCATION L0005985      VOLUME   475402.549 3752228.558 476.77
LOCATION L0005986      VOLUME   475394.049 3752228.568 476.68
LOCATION L0005987      VOLUME   475385.549 3752228.578 476.60
LOCATION L0005988      VOLUME   475377.049 3752228.588 476.51
LOCATION L0005989      VOLUME   475368.549 3752228.598 476.42
LOCATION L0005990      VOLUME   475360.049 3752228.608 476.34
LOCATION L0005991      VOLUME   475351.549 3752228.618 476.25
LOCATION L0005992      VOLUME   475343.049 3752228.628 476.20
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AERMOD HRA Output

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LOCATION L0006003     VOLUME   475249.549 3752228.738 476.00
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LOCATION L0006011     VOLUME   475181.549 3752228.817 476.00
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LOCATION L0006040     VOLUME   474935.049 3752229.106 475.00
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LOCATION L0006054     VOLUME   474816.050 3752229.246 474.10
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LOCATION L0006083     VOLUME   474572.223 3752193.700 475.07
LOCATION L0006084     VOLUME   474563.818 3752192.429 475.18
LOCATION L0006085     VOLUME   474555.414 3752191.158 475.29
LOCATION L0006086     VOLUME   474547.009 3752189.887 475.40
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LOCATION L0006088     VOLUME   474530.201 3752187.345 475.61
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LOCATION L0006093      VOLUME   474488.178 3752180.990 476.00
LOCATION L0006094      VOLUME   474479.774 3752179.720 476.00
LOCATION L0006095      VOLUME   474471.369 3752178.449 476.00
LOCATION L0006096      VOLUME   474462.965 3752177.178 476.00
LOCATION L0006097      VOLUME   474454.561 3752175.907 476.00
LOCATION L0006098      VOLUME   474446.156 3752174.636 476.00
LOCATION L0006099      VOLUME   474437.752 3752173.365 476.00
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LOCATION L0006102      VOLUME   474412.538 3752169.552 476.14
LOCATION L0006103      VOLUME   474404.134 3752168.281 476.25
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LOCATION L0006124      VOLUME   474227.640 3752141.592 477.00
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LOCATION L0006126      VOLUME   474210.831 3752139.050 477.00
LOCATION L0006127      VOLUME   474202.427 3752137.779 477.00
LOCATION L0006128      VOLUME   474194.023 3752136.508 477.00
LOCATION L0006129      VOLUME   474185.618 3752135.237 477.08
LOCATION L0006130      VOLUME   474177.214 3752133.966 477.19
LOCATION L0006131      VOLUME   474168.809 3752132.696 477.30
LOCATION L0006132      VOLUME   474160.420 3752131.328 477.41
LOCATION L0006133      VOLUME   474152.036 3752129.931 477.52
LOCATION L0006134      VOLUME   474143.651 3752128.533 477.63
LOCATION L0006135      VOLUME   474135.267 3752127.136 477.74
LOCATION L0006136      VOLUME   474126.883 3752125.738 477.85
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                                AERMOD HRA Output
   LOCATION L0006137     VOLUME   474118.498 3752124.341 477.96
   LOCATION L0006138     VOLUME   474110.114 3752122.944 478.00
   LOCATION L0006139     VOLUME   474101.730 3752121.546 478.00
   LOCATION L0006140     VOLUME   474093.345 3752120.149 478.00
   LOCATION L0006141     VOLUME   474084.961 3752118.751 478.00
   LOCATION L0006142     VOLUME   474076.577 3752117.354 478.00
   LOCATION L0006143     VOLUME   474068.192 3752115.956 478.00
   LOCATION L0006144     VOLUME   474059.808 3752114.559 478.00
   LOCATION L0006145     VOLUME   474051.424 3752113.162 478.00
   LOCATION L0006146     VOLUME   474043.039 3752111.764 478.00
** End of LINE VOLUME Source ID = SLINE14
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006839
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477480.626, 3749795.973, 459.75, 0.00, 3.95
** 477474.677, 3750167.941, 460.51, 0.00, 3.95
** 477466.428, 3750269.283, 460.78, 0.00, 3.95
** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
** 477472.585, 3752226.131, 471.76, 0.00, 3.95
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   LOCATION L0006147     VOLUME   477480.558 3749800.222 458.00
   LOCATION L0006148     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0006149     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0006150     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0006151     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0006152     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0006153     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0006154     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0006155     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0006156     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0006157     VOLUME   477479.199 3749885.212 458.00
   LOCATION L0006158     VOLUME   477479.063 3749893.711 458.00
   LOCATION L0006159     VOLUME   477478.927 3749902.209 458.00
   LOCATION L0006160     VOLUME   477478.791 3749910.708 458.00
   LOCATION L0006161     VOLUME   477478.655 3749919.207 458.00
   LOCATION L0006162     VOLUME   477478.519 3749927.706 458.00
   LOCATION L0006163     VOLUME   477478.383 3749936.205 458.00
   LOCATION L0006164     VOLUME   477478.247 3749944.704 458.00
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                              AERMOD HRA Output
LOCATION L0006165     VOLUME   477478.111 3749953.203 458.00
LOCATION L0006166     VOLUME   477477.975 3749961.702 458.17
LOCATION L0006167     VOLUME   477477.840 3749970.201 458.45
LOCATION L0006168     VOLUME   477477.704 3749978.700 458.74
LOCATION L0006169     VOLUME   477477.568 3749987.199 459.00
LOCATION L0006170     VOLUME   477477.432 3749995.697 459.00
LOCATION L0006171     VOLUME   477477.296 3750004.196 459.00
LOCATION L0006172     VOLUME   477477.160 3750012.695 459.00
LOCATION L0006173     VOLUME   477477.024 3750021.194 459.00
LOCATION L0006174     VOLUME   477476.888 3750029.693 459.00
LOCATION L0006175     VOLUME   477476.752 3750038.192 459.00
LOCATION L0006176     VOLUME   477476.616 3750046.691 459.00
LOCATION L0006177     VOLUME   477476.480 3750055.190 459.00
LOCATION L0006178     VOLUME   477476.344 3750063.689 459.00
LOCATION L0006179     VOLUME   477476.208 3750072.188 459.00
LOCATION L0006180     VOLUME   477476.072 3750080.687 459.00
LOCATION L0006181     VOLUME   477475.937 3750089.186 459.00
LOCATION L0006182     VOLUME   477475.801 3750097.684 459.00
LOCATION L0006183     VOLUME   477475.665 3750106.183 459.00
LOCATION L0006184     VOLUME   477475.529 3750114.682 459.00
LOCATION L0006185     VOLUME   477475.393 3750123.181 459.00
LOCATION L0006186     VOLUME   477475.257 3750131.680 459.00
LOCATION L0006187     VOLUME   477475.121 3750140.179 459.00
LOCATION L0006188     VOLUME   477474.985 3750148.678 459.00
LOCATION L0006189     VOLUME   477474.849 3750157.177 459.00
LOCATION L0006190     VOLUME   477474.713 3750165.676 459.00
LOCATION L0006191     VOLUME   477474.171 3750174.155 459.00
LOCATION L0006192     VOLUME   477473.482 3750182.627 459.00
LOCATION L0006193     VOLUME   477472.792 3750191.099 459.00
LOCATION L0006194     VOLUME   477472.102 3750199.571 459.04
LOCATION L0006195     VOLUME   477471.413 3750208.043 459.15
LOCATION L0006196     VOLUME   477470.723 3750216.515 459.24
LOCATION L0006197     VOLUME   477470.034 3750224.987 459.32
LOCATION L0006198     VOLUME   477469.344 3750233.459 459.48
LOCATION L0006199     VOLUME   477468.654 3750241.931 459.66
LOCATION L0006200     VOLUME   477467.965 3750250.403 459.85
LOCATION L0006201     VOLUME   477467.275 3750258.875 460.00
LOCATION L0006202     VOLUME   477466.586 3750267.347 460.00
LOCATION L0006203     VOLUME   477466.456 3750275.840 460.00
LOCATION L0006204     VOLUME   477466.492 3750284.340 460.00
LOCATION L0006205     VOLUME   477466.529 3750292.840 460.00
LOCATION L0006206     VOLUME   477466.565 3750301.340 460.00
LOCATION L0006207     VOLUME   477466.601 3750309.840 460.00
LOCATION L0006208     VOLUME   477466.638 3750318.340 460.00
LOCATION L0006209     VOLUME   477466.674 3750326.840 460.00
LOCATION L0006210     VOLUME   477466.710 3750335.340 460.00
LOCATION L0006211     VOLUME   477466.747 3750343.840 460.00
LOCATION L0006212     VOLUME   477466.783 3750352.340 460.00
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LOCATION L0006213     VOLUME   477466.819 3750360.839 460.00
LOCATION L0006214     VOLUME   477466.855 3750369.339 460.00
LOCATION L0006215     VOLUME   477466.892 3750377.839 460.00
LOCATION L0006216     VOLUME   477466.928 3750386.339 460.00
LOCATION L0006217     VOLUME   477466.964 3750394.839 460.00
LOCATION L0006218     VOLUME   477467.001 3750403.339 460.00
LOCATION L0006219     VOLUME   477467.037 3750411.839 460.00
LOCATION L0006220     VOLUME   477467.073 3750420.339 460.00
LOCATION L0006221     VOLUME   477467.110 3750428.839 460.00
LOCATION L0006222     VOLUME   477467.146 3750437.339 460.00
LOCATION L0006223     VOLUME   477467.182 3750445.839 460.00
LOCATION L0006224     VOLUME   477467.219 3750454.339 460.00
LOCATION L0006225     VOLUME   477467.255 3750462.838 460.00
LOCATION L0006226     VOLUME   477467.291 3750471.338 460.16
LOCATION L0006227     VOLUME   477467.328 3750479.838 460.44
LOCATION L0006228     VOLUME   477467.364 3750488.338 460.73
LOCATION L0006229     VOLUME   477467.400 3750496.838 461.00
LOCATION L0006230     VOLUME   477467.436 3750505.338 461.00
LOCATION L0006231     VOLUME   477467.473 3750513.838 461.00
LOCATION L0006232     VOLUME   477467.509 3750522.338 461.00
LOCATION L0006233     VOLUME   477467.545 3750530.838 461.00
LOCATION L0006234     VOLUME   477467.582 3750539.338 461.00
LOCATION L0006235     VOLUME   477467.689 3750547.837 461.00
LOCATION L0006236     VOLUME   477467.939 3750556.333 461.00
LOCATION L0006237     VOLUME   477468.188 3750564.829 461.00
LOCATION L0006238     VOLUME   477468.438 3750573.326 461.00
LOCATION L0006239     VOLUME   477468.688 3750581.822 461.00
LOCATION L0006240     VOLUME   477468.938 3750590.318 461.00
LOCATION L0006241     VOLUME   477469.188 3750598.814 461.00
LOCATION L0006242     VOLUME   477469.438 3750607.311 461.00
LOCATION L0006243     VOLUME   477469.688 3750615.807 461.00
LOCATION L0006244     VOLUME   477469.938 3750624.303 461.00
LOCATION L0006245     VOLUME   477470.188 3750632.800 461.00
LOCATION L0006246     VOLUME   477470.437 3750641.296 461.00
LOCATION L0006247     VOLUME   477470.687 3750649.792 461.04
LOCATION L0006248     VOLUME   477470.937 3750658.289 461.15
LOCATION L0006249     VOLUME   477471.187 3750666.785 461.26
LOCATION L0006250     VOLUME   477471.437 3750675.281 461.37
LOCATION L0006251     VOLUME   477471.687 3750683.778 461.54
LOCATION L0006252     VOLUME   477471.937 3750692.274 461.72
LOCATION L0006253     VOLUME   477472.187 3750700.770 461.89
LOCATION L0006254     VOLUME   477472.437 3750709.267 462.00
LOCATION L0006255     VOLUME   477472.686 3750717.763 462.00
LOCATION L0006256     VOLUME   477472.936 3750726.259 462.00
LOCATION L0006257     VOLUME   477473.186 3750734.756 462.00
LOCATION L0006258     VOLUME   477473.436 3750743.252 462.00
LOCATION L0006259     VOLUME   477473.686 3750751.748 462.00
LOCATION L0006260     VOLUME   477473.936 3750760.245 462.00
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LOCATION L0006262     VOLUME   477474.436 3750777.237 462.00
LOCATION L0006263     VOLUME   477474.686 3750785.734 462.00
LOCATION L0006264     VOLUME   477474.935 3750794.230 462.00
LOCATION L0006265     VOLUME   477475.185 3750802.726 462.00
LOCATION L0006266     VOLUME   477475.435 3750811.223 462.00
LOCATION L0006267     VOLUME   477475.685 3750819.719 462.00
LOCATION L0006268     VOLUME   477475.935 3750828.215 462.00
LOCATION L0006269     VOLUME   477476.185 3750836.712 462.00
LOCATION L0006270     VOLUME   477476.435 3750845.208 462.00
LOCATION L0006271     VOLUME   477476.685 3750853.704 462.00
LOCATION L0006272     VOLUME   477476.935 3750862.201 462.11
LOCATION L0006273     VOLUME   477477.066 3750870.699 462.27
LOCATION L0006274     VOLUME   477477.120 3750879.199 462.44
LOCATION L0006275     VOLUME   477477.174 3750887.699 462.60
LOCATION L0006276     VOLUME   477477.228 3750896.199 462.72
LOCATION L0006277     VOLUME   477477.282 3750904.698 462.84
LOCATION L0006278     VOLUME   477477.337 3750913.198 462.95
LOCATION L0006279     VOLUME   477477.391 3750921.698 463.00
LOCATION L0006280     VOLUME   477477.445 3750930.198 463.00
LOCATION L0006281     VOLUME   477477.499 3750938.698 463.00
LOCATION L0006282     VOLUME   477477.553 3750947.197 463.00
LOCATION L0006283     VOLUME   477477.607 3750955.697 463.00
LOCATION L0006284     VOLUME   477477.661 3750964.197 463.00
LOCATION L0006285     VOLUME   477477.716 3750972.697 463.00
LOCATION L0006286     VOLUME   477477.770 3750981.197 463.00
LOCATION L0006287     VOLUME   477477.824 3750989.697 463.00
LOCATION L0006288     VOLUME   477477.878 3750998.196 463.00
LOCATION L0006289     VOLUME   477477.932 3751006.696 463.00
LOCATION L0006290     VOLUME   477477.986 3751015.196 463.00
LOCATION L0006291     VOLUME   477478.040 3751023.696 463.00
LOCATION L0006292     VOLUME   477478.095 3751032.196 463.00
LOCATION L0006293     VOLUME   477478.149 3751040.696 463.00
LOCATION L0006294     VOLUME   477478.203 3751049.195 463.00
LOCATION L0006295     VOLUME   477478.257 3751057.695 463.00
LOCATION L0006296     VOLUME   477478.311 3751066.195 463.00
LOCATION L0006297     VOLUME   477478.365 3751074.695 463.17
LOCATION L0006298     VOLUME   477478.419 3751083.195 463.34
LOCATION L0006299     VOLUME   477478.474 3751091.695 463.52
LOCATION L0006300     VOLUME   477478.528 3751100.194 463.67
LOCATION L0006301     VOLUME   477478.582 3751108.694 463.78
LOCATION L0006302     VOLUME   477478.636 3751117.194 463.88
LOCATION L0006303     VOLUME   477478.690 3751125.694 463.99
LOCATION L0006304     VOLUME   477478.744 3751134.194 464.00
LOCATION L0006305     VOLUME   477478.798 3751142.694 464.00
LOCATION L0006306     VOLUME   477478.853 3751151.193 464.00
LOCATION L0006307     VOLUME   477478.907 3751159.693 464.00
LOCATION L0006308     VOLUME   477478.961 3751168.193 464.00
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                              AERMOD HRA Output
LOCATION L0006309     VOLUME   477479.015 3751176.693 464.00
LOCATION L0006310     VOLUME   477479.069 3751185.193 464.00
LOCATION L0006311     VOLUME   477479.123 3751193.692 464.00
LOCATION L0006312     VOLUME   477479.177 3751202.192 464.00
LOCATION L0006313     VOLUME   477479.232 3751210.692 464.00
LOCATION L0006314     VOLUME   477479.286 3751219.192 464.00
LOCATION L0006315     VOLUME   477479.340 3751227.692 464.00
LOCATION L0006316     VOLUME   477479.386 3751236.192 464.00
LOCATION L0006317     VOLUME   477479.327 3751244.691 464.00
LOCATION L0006318     VOLUME   477479.269 3751253.191 464.22
LOCATION L0006319     VOLUME   477479.211 3751261.691 464.50
LOCATION L0006320     VOLUME   477479.152 3751270.191 464.79
LOCATION L0006321     VOLUME   477479.094 3751278.691 465.00
LOCATION L0006322     VOLUME   477479.035 3751287.190 465.00
LOCATION L0006323     VOLUME   477478.977 3751295.690 465.00
LOCATION L0006324     VOLUME   477478.919 3751304.190 465.00
LOCATION L0006325     VOLUME   477478.860 3751312.690 465.00
LOCATION L0006326     VOLUME   477478.802 3751321.190 465.00
LOCATION L0006327     VOLUME   477478.743 3751329.689 465.00
LOCATION L0006328     VOLUME   477478.685 3751338.189 465.00
LOCATION L0006329     VOLUME   477478.627 3751346.689 465.00
LOCATION L0006330     VOLUME   477478.568 3751355.189 465.00
LOCATION L0006331     VOLUME   477478.510 3751363.689 465.00
LOCATION L0006332     VOLUME   477478.451 3751372.188 465.00
LOCATION L0006333     VOLUME   477478.393 3751380.688 465.00
LOCATION L0006334     VOLUME   477478.335 3751389.188 465.00
LOCATION L0006335     VOLUME   477478.276 3751397.688 465.00
LOCATION L0006336     VOLUME   477478.218 3751406.188 465.00
LOCATION L0006337     VOLUME   477478.159 3751414.687 465.00
LOCATION L0006338     VOLUME   477478.101 3751423.187 465.00
LOCATION L0006339     VOLUME   477478.043 3751431.687 465.17
LOCATION L0006340     VOLUME   477477.984 3751440.187 465.45
LOCATION L0006341     VOLUME   477477.926 3751448.687 465.74
LOCATION L0006342     VOLUME   477477.867 3751457.186 466.00
LOCATION L0006343     VOLUME   477477.809 3751465.686 466.00
LOCATION L0006344     VOLUME   477477.751 3751474.186 466.00
LOCATION L0006345     VOLUME   477477.692 3751482.686 466.00
LOCATION L0006346     VOLUME   477477.634 3751491.186 466.00
LOCATION L0006347     VOLUME   477477.576 3751499.685 466.00
LOCATION L0006348     VOLUME   477477.517 3751508.185 466.00
LOCATION L0006349     VOLUME   477477.459 3751516.685 466.00
LOCATION L0006350     VOLUME   477477.400 3751525.185 466.00
LOCATION L0006351     VOLUME   477477.342 3751533.685 466.00
LOCATION L0006352     VOLUME   477477.284 3751542.184 466.00
LOCATION L0006353     VOLUME   477477.225 3751550.684 466.00
LOCATION L0006354     VOLUME   477477.167 3751559.184 466.00
LOCATION L0006355     VOLUME   477477.108 3751567.684 466.00
LOCATION L0006356     VOLUME   477477.050 3751576.184 466.00
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LOCATION L0006357      VOLUME   477476.992 3751584.683 466.00
LOCATION L0006358      VOLUME   477476.933 3751593.183 466.00
LOCATION L0006359      VOLUME   477476.875 3751601.683 466.00
LOCATION L0006360      VOLUME   477476.816 3751610.183 466.07
LOCATION L0006361      VOLUME   477476.758 3751618.683 466.23
LOCATION L0006362      VOLUME   477476.700 3751627.182 466.39
LOCATION L0006363      VOLUME   477476.641 3751635.682 466.55
LOCATION L0006364      VOLUME   477476.583 3751644.182 466.67
LOCATION L0006365      VOLUME   477476.524 3751652.682 466.80
LOCATION L0006366      VOLUME   477476.466 3751661.182 466.92
LOCATION L0006367      VOLUME   477476.408 3751669.681 467.00
LOCATION L0006368      VOLUME   477476.349 3751678.181 467.00
LOCATION L0006369      VOLUME   477476.291 3751686.681 467.00
LOCATION L0006370      VOLUME   477476.233 3751695.181 467.00
LOCATION L0006371      VOLUME   477476.174 3751703.681 467.00
LOCATION L0006372      VOLUME   477476.116 3751712.180 467.00
LOCATION L0006373      VOLUME   477476.057 3751720.680 467.00
LOCATION L0006374      VOLUME   477475.999 3751729.180 467.05
LOCATION L0006375      VOLUME   477475.941 3751737.680 467.20
LOCATION L0006376      VOLUME   477475.882 3751746.180 467.35
LOCATION L0006377      VOLUME   477475.824 3751754.679 467.50
LOCATION L0006378      VOLUME   477475.765 3751763.179 467.64
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LOCATION L0006380      VOLUME   477475.649 3751780.179 467.90
LOCATION L0006381      VOLUME   477475.590 3751788.679 468.00
LOCATION L0006382      VOLUME   477475.532 3751797.178 468.00
LOCATION L0006383      VOLUME   477475.473 3751805.678 468.00
LOCATION L0006384      VOLUME   477475.415 3751814.178 468.00
LOCATION L0006385      VOLUME   477475.357 3751822.678 468.00
LOCATION L0006386      VOLUME   477475.298 3751831.178 468.00
LOCATION L0006387      VOLUME   477475.240 3751839.677 468.00
LOCATION L0006388      VOLUME   477475.181 3751848.177 468.00
LOCATION L0006389      VOLUME   477475.123 3751856.677 468.00
LOCATION L0006390      VOLUME   477475.065 3751865.177 468.00
LOCATION L0006391      VOLUME   477475.006 3751873.677 468.00
LOCATION L0006392      VOLUME   477474.948 3751882.176 468.19
LOCATION L0006393      VOLUME   477474.890 3751890.676 468.47
LOCATION L0006394      VOLUME   477474.831 3751899.176 468.75
LOCATION L0006395      VOLUME   477474.773 3751907.676 469.00
LOCATION L0006396      VOLUME   477474.714 3751916.176 469.00
LOCATION L0006397      VOLUME   477474.656 3751924.675 469.00
LOCATION L0006398      VOLUME   477474.598 3751933.175 469.00
LOCATION L0006399      VOLUME   477474.539 3751941.675 469.00
LOCATION L0006400      VOLUME   477474.481 3751950.175 469.00
LOCATION L0006401      VOLUME   477474.422 3751958.675 469.00
LOCATION L0006402      VOLUME   477474.364 3751967.174 469.00
LOCATION L0006403      VOLUME   477474.306 3751975.674 469.00
LOCATION L0006404      VOLUME   477474.247 3751984.174 469.00
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   LOCATION L0006405     VOLUME   477474.189 3751992.674 469.00
   LOCATION L0006406     VOLUME   477474.130 3752001.174 469.00
   LOCATION L0006407     VOLUME   477474.072 3752009.673 469.00
   LOCATION L0006408     VOLUME   477474.014 3752018.173 469.00
   LOCATION L0006409     VOLUME   477473.955 3752026.673 469.00
   LOCATION L0006410     VOLUME   477473.897 3752035.173 469.14
   LOCATION L0006411     VOLUME   477473.838 3752043.673 469.27
   LOCATION L0006412     VOLUME   477473.780 3752052.172 469.40
   LOCATION L0006413     VOLUME   477473.722 3752060.672 469.46
   LOCATION L0006414     VOLUME   477473.663 3752069.172 469.46
   LOCATION L0006415     VOLUME   477473.605 3752077.672 469.46
   LOCATION L0006416     VOLUME   477473.546 3752086.172 469.46
   LOCATION L0006417     VOLUME   477473.488 3752094.671 469.60
   LOCATION L0006418     VOLUME   477473.430 3752103.171 469.76
   LOCATION L0006419     VOLUME   477473.371 3752111.671 469.91
   LOCATION L0006420     VOLUME   477473.313 3752120.171 470.05
   LOCATION L0006421     VOLUME   477473.255 3752128.671 470.18
   LOCATION L0006422     VOLUME   477473.196 3752137.170 470.31
   LOCATION L0006423     VOLUME   477473.138 3752145.670 470.43
   LOCATION L0006424     VOLUME   477473.079 3752154.170 470.58
   LOCATION L0006425     VOLUME   477473.021 3752162.670 470.74
   LOCATION L0006426     VOLUME   477472.963 3752171.170 470.90
   LOCATION L0006427     VOLUME   477472.904 3752179.669 471.00
   LOCATION L0006428     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0006429     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0006430     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0006431     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0006432     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SRC00001
** DESCRSRC Off-Site Travel 50% on Indian to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0006862
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
** 477462.276, 3747781.275, 451.00, 4.00, 3.95
** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
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** 477485.022, 3746362.119, 449.09, 4.00, 3.95
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AERMOD HRA Output

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AERMOD HRA Output

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LOCATION L0006752     VOLUME   477823.601 3746359.638 448.00
LOCATION L0006753     VOLUME   477815.101 3746359.638 448.00
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LOCATION L0006765     VOLUME   477713.102 3746359.768 448.00
LOCATION L0006766     VOLUME   477704.602 3746359.855 448.00
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LOCATION L0006792     VOLUME   477483.639 3746362.385 449.21
LOCATION L0006793     VOLUME   477475.292 3746363.990 449.49
LOCATION L0006794     VOLUME   477466.945 3746365.595 449.76
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LOCATION L0006796     VOLUME   477450.251 3746368.805 450.00
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LOCATION L0006799     VOLUME   477425.209 3746373.621 450.00
LOCATION L0006800     VOLUME   477417.311 3746376.412 450.00
LOCATION L0006801     VOLUME   477409.989 3746380.730 450.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0006806      VOLUME   477373.381 3746402.319 450.00
LOCATION L0006807      VOLUME   477366.060 3746406.637 450.00
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LOCATION L0006849      VOLUME   477048.717 3746548.782 451.41
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LOCATION L0006869     VOLUME   476878.732 3746550.995 452.69
LOCATION L0006870     VOLUME   476870.233 3746551.105 452.83
LOCATION L0006871     VOLUME   476861.733 3746551.216 452.97
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LOCATION L0006891     VOLUME   476691.770 3746549.962 463.38
LOCATION L0006892     VOLUME   476683.273 3746549.742 463.49
LOCATION L0006893     VOLUME   476674.776 3746549.522 463.60
LOCATION L0006894     VOLUME   476666.278 3746549.303 463.71
LOCATION L0006895     VOLUME   476657.781 3746549.083 463.82
LOCATION L0006896     VOLUME   476649.485 3746550.211 463.92
LOCATION L0006897     VOLUME   476641.421 3746552.899 464.00
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LOCATION L0006905      VOLUME   476579.705 3746580.360 464.00
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LOCATION L0006913      VOLUME   476530.047 3746623.768 464.48
LOCATION L0006914      VOLUME   476526.101 3746631.297 464.53
LOCATION L0006915      VOLUME   476522.155 3746638.825 464.58
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LOCATION L0006927      VOLUME   476474.799 3746729.166 465.39
LOCATION L0006928      VOLUME   476470.852 3746736.694 465.50
LOCATION L0006929      VOLUME   476467.785 3746744.518 465.58
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LOCATION L0006932      VOLUME   476463.593 3746769.671 465.69
LOCATION L0006933      VOLUME   476462.196 3746778.055 465.72
LOCATION L0006934      VOLUME   476460.798 3746786.439 465.76
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LOCATION L0006937      VOLUME   476453.371 3746810.499 465.95
LOCATION L0006938      VOLUME   476449.394 3746818.011 466.06
LOCATION L0006939      VOLUME   476445.417 3746825.523 466.16
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LOCATION L0006941      VOLUME   476437.463 3746840.547 466.37
LOCATION L0006942      VOLUME   476433.485 3746848.060 466.47
LOCATION L0006943      VOLUME   476429.508 3746855.572 466.58
LOCATION L0006944      VOLUME   476425.531 3746863.084 466.68
LOCATION L0006945      VOLUME   476421.554 3746870.596 466.78
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0006952     VOLUME   476382.219 3746912.941 467.40
LOCATION L0006953     VOLUME   476375.214 3746917.756 467.49
LOCATION L0006954     VOLUME   476368.210 3746922.572 467.59
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LOCATION L0006956     VOLUME   476354.201 3746932.203 467.77
LOCATION L0006957     VOLUME   476347.197 3746937.018 467.86
LOCATION L0006958     VOLUME   476340.193 3746941.833 467.95
LOCATION L0006959     VOLUME   476332.114 3746943.710 468.05
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LOCATION L0006961     VOLUME   476315.196 3746945.378 468.27
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LOCATION L0006970     VOLUME   476238.964 3746950.659 469.26
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LOCATION L0006972     VOLUME   476221.964 3746950.546 469.48
LOCATION L0006973     VOLUME   476213.464 3746950.489 469.59
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LOCATION L0006975     VOLUME   476196.464 3746950.376 469.81
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LOCATION L0006981     VOLUME   476145.466 3746950.036 470.48
LOCATION L0006982     VOLUME   476136.966 3746949.979 470.59
LOCATION L0006983     VOLUME   476128.466 3746949.923 470.70
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LOCATION L0006985     VOLUME   476111.466 3746949.809 470.92
LOCATION L0006986     VOLUME   476102.967 3746949.753 471.03
LOCATION L0006987     VOLUME   476094.467 3746949.696 471.14
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LOCATION L0006989     VOLUME   476077.467 3746949.583 471.36
LOCATION L0006990     VOLUME   476068.967 3746949.526 471.47
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** Source Parameters **
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   SRCPARAM L0003044     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003045     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003046     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003047     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003048     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003049     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003050     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003051     0.000008553      4.00     13.95      1.86
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   SRCPARAM L0003059     0.000008553      4.00     13.95      1.86
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   SRCPARAM L0003061     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003062     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003063     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003064     0.000008864      4.00     13.95      1.86
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   SRCPARAM L0003067     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003068     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003069     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003070     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003071     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003072     0.000008864      4.00     13.95      1.86
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   SRCPARAM L0003073     0.000008864      4.00     13.95      1.86
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   SRCPARAM L0003075     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003076     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003077     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003078     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003079     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003080     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003081     0.000008177      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0003082     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003083     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003084     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003085     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003086     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003087     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003088     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003089     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003090     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003091     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003092     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003093     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003094     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003095     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003096     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003097     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003098     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003099     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003100     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003101     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003102     0.0000006343      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0003103     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003104     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003105     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003106     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003107     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003108     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003109     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003110     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003111     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003112     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003113     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003114     0.000005911      0.00      3.95      1.86
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   SRCPARAM L0003115     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003116     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003117     0.000005911      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0003118     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003119     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003120     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003121     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003122     0.000002058      0.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0003123     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003124     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003125     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003126     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003127     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003128     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003129     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003130     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003131     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003132     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003133     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003134     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003135     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003136     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003137     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003138     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003139     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003140     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003141     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003142     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003143     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003144     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003145     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003146     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003147     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003148     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003149     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003150     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003151     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003152     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003153     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003154     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003155     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003156     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003157     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003158     0.000003353      4.00      3.95      1.86
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SRCPARAM L0003159      0.000003353      4.00       3.95       1.86
SRCPARAM L0003160      0.000003353      4.00       3.95       1.86
SRCPARAM L0003161      0.000003353      4.00       3.95       1.86
SRCPARAM L0003162      0.000003353      4.00       3.95       1.86
SRCPARAM L0003163      0.000003353      4.00       3.95       1.86
SRCPARAM L0003164      0.000003353      4.00       3.95       1.86
SRCPARAM L0003165      0.000003353      4.00       3.95       1.86
SRCPARAM L0003166      0.000003353      4.00       3.95       1.86
SRCPARAM L0003167      0.000003353      4.00       3.95       1.86
SRCPARAM L0003168      0.000003353      4.00       3.95       1.86
SRCPARAM L0003169      0.000003353      4.00       3.95       1.86
SRCPARAM L0003170      0.000003353      4.00       3.95       1.86
SRCPARAM L0003171      0.000003353      4.00       3.95       1.86
SRCPARAM L0003172      0.000003353      4.00       3.95       1.86
SRCPARAM L0003173      0.000003353      4.00       3.95       1.86
SRCPARAM L0003174      0.000003353      4.00       3.95       1.86
SRCPARAM L0003175      0.000003353      4.00       3.95       1.86
SRCPARAM L0003176      0.000003353      4.00       3.95       1.86
SRCPARAM L0003177      0.000003353      4.00       3.95       1.86
SRCPARAM L0003178      0.000003353      4.00       3.95       1.86
SRCPARAM L0003179      0.000003353      4.00       3.95       1.86
SRCPARAM L0003180      0.000003353      4.00       3.95       1.86
SRCPARAM L0003181      0.000003353      4.00       3.95       1.86
SRCPARAM L0003182      0.000003353      4.00       3.95       1.86
SRCPARAM L0003183      0.000003353      4.00       3.95       1.86
SRCPARAM L0003184      0.000003353      4.00       3.95       1.86
SRCPARAM L0003185      0.000003353      4.00       3.95       1.86
SRCPARAM L0003186      0.000003353      4.00       3.95       1.86
SRCPARAM L0003187      0.000003353      4.00       3.95       1.86
SRCPARAM L0003188      0.000003353      4.00       3.95       1.86
SRCPARAM L0003189      0.000003353      4.00       3.95       1.86
SRCPARAM L0003190      0.000003353      4.00       3.95       1.86
SRCPARAM L0003191      0.000003353      4.00       3.95       1.86
SRCPARAM L0003192      0.000003353      4.00       3.95       1.86
SRCPARAM L0003193      0.000003353      4.00       3.95       1.86
SRCPARAM L0003194      0.000003353      4.00       3.95       1.86
SRCPARAM L0003195      0.000003353      4.00       3.95       1.86
SRCPARAM L0003196      0.000003353      4.00       3.95       1.86
SRCPARAM L0003197      0.000003353      4.00       3.95       1.86
SRCPARAM L0003198      0.000003353      4.00       3.95       1.86
SRCPARAM L0003199      0.000003353      4.00       3.95       1.86
SRCPARAM L0003200      0.000003353      4.00       3.95       1.86
SRCPARAM L0003201      0.000003353      4.00       3.95       1.86
SRCPARAM L0003202      0.000003353      4.00       3.95       1.86
SRCPARAM L0003203      0.000003353      4.00       3.95       1.86
SRCPARAM L0003204      0.000003353      4.00       3.95       1.86
SRCPARAM L0003205      0.000003353      4.00       3.95       1.86
SRCPARAM L0003206      0.000003353      4.00       3.95       1.86
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                              AERMOD HRA Output
SRCPARAM L0003207      0.000003353      4.00      3.95      1.86
SRCPARAM L0003208      0.000003353      4.00      3.95      1.86
SRCPARAM L0003209      0.000003353      4.00      3.95      1.86
SRCPARAM L0003210      0.000003353      4.00      3.95      1.86
SRCPARAM L0003211      0.000003353      4.00      3.95      1.86
SRCPARAM L0003212      0.000003353      4.00      3.95      1.86
SRCPARAM L0003213      0.000003353      4.00      3.95      1.86
SRCPARAM L0003214      0.000003353      4.00      3.95      1.86
SRCPARAM L0003215      0.000003353      4.00      3.95      1.86
SRCPARAM L0003216      0.000003353      4.00      3.95      1.86
SRCPARAM L0003217      0.000003353      4.00      3.95      1.86
SRCPARAM L0003218      0.000003353      4.00      3.95      1.86
SRCPARAM L0003219      0.000003353      4.00      3.95      1.86
SRCPARAM L0003220      0.000003353      4.00      3.95      1.86
SRCPARAM L0003221      0.000003353      4.00      3.95      1.86
SRCPARAM L0003222      0.000003353      4.00      3.95      1.86
SRCPARAM L0003223      0.000003353      4.00      3.95      1.86
SRCPARAM L0003224      0.000003353      4.00      3.95      1.86
SRCPARAM L0003225      0.000003353      4.00      3.95      1.86
SRCPARAM L0003226      0.000003353      4.00      3.95      1.86
SRCPARAM L0003227      0.000003353      4.00      3.95      1.86
SRCPARAM L0003228      0.000003353      4.00      3.95      1.86
SRCPARAM L0003229      0.000003353      4.00      3.95      1.86
SRCPARAM L0003230      0.000003353      4.00      3.95      1.86
SRCPARAM L0003231      0.000003353      4.00      3.95      1.86
SRCPARAM L0003232      0.000003353      4.00      3.95      1.86
SRCPARAM L0003233      0.000003353      4.00      3.95      1.86
SRCPARAM L0003234      0.000003353      4.00      3.95      1.86
SRCPARAM L0003235      0.000003353      4.00      3.95      1.86
SRCPARAM L0003236      0.000003353      4.00      3.95      1.86
SRCPARAM L0003237      0.000003353      4.00      3.95      1.86
SRCPARAM L0003238      0.000003353      4.00      3.95      1.86
SRCPARAM L0003239      0.000003353      4.00      3.95      1.86
SRCPARAM L0003240      0.000003353      4.00      3.95      1.86
SRCPARAM L0003241      0.000003353      4.00      3.95      1.86
SRCPARAM L0003242      0.000003353      4.00      3.95      1.86
SRCPARAM L0003243      0.000003353      4.00      3.95      1.86
SRCPARAM L0003244      0.000003353      4.00      3.95      1.86
SRCPARAM L0003245      0.000003353      4.00      3.95      1.86
SRCPARAM L0003246      0.000003353      4.00      3.95      1.86
SRCPARAM L0003247      0.000003353      4.00      3.95      1.86
SRCPARAM L0003248      0.000003353      4.00      3.95      1.86
SRCPARAM L0003249      0.000003353      4.00      3.95      1.86
SRCPARAM L0003250      0.000003353      4.00      3.95      1.86
SRCPARAM L0003251      0.000003353      4.00      3.95      1.86
SRCPARAM L0003252      0.000003353      4.00      3.95      1.86
SRCPARAM L0003253      0.000003353      4.00      3.95      1.86
SRCPARAM L0003254      0.000003353      4.00      3.95      1.86
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                              AERMOD HRA Output
   SRCPARAM L0003255     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003256     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003257     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003258     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003259     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003260     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003261     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003262     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003263     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003264     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003265     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003266     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003267     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003268     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003269     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003270     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003271     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003272     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003273     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003274     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003275     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003276     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003277     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003278     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003279     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003280     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003281     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003282     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003283     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003284     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003285     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003286     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003287     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003288     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003289     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003290     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003291     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003292     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003293     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003294     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003295     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003296     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003297     0.000003353      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0003298     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003299     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003300     0.0000007141      4.00      3.95      1.86
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SRCPARAM L0003301     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003302     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003303     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003304     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003305     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003306     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003307     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003308     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003309     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003310     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003311     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003312     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003313     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003314     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003315     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003316     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003317     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003318     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003319     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003320     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003321     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003322     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003323     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003324     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003325     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003326     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003327     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003328     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003329     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003330     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003331     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003332     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003333     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003334     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003335     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003336     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003337     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003338     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003339     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003340     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003341     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003342     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003343     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003344     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003345     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003346     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003347     0.0000007141      4.00      3.95      1.86
SRCPARAM L0003348     0.0000007141      4.00      3.95      1.86
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   SRCPARAM L0003349     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003350     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003351     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003352     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003353     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003354     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003355     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003356     0.0000007141      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0003357     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003358     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003359     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003360     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003361     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003362     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003363     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003364     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003365     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003366     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003367     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003368     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003369     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003370     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003371     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003372     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003373     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003374     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003375     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003376     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003377     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003378     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003379     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003380     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003381     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003382     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003383     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003384     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003385     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003386     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003387     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003388     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003389     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003390     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003391     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003392     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003393     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003394     0.0000005624      4.00      3.95      1.86
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   SRCPARAM L0003395     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003396     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003397     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003398     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003399     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003400     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003401     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003402     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003403     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003404     0.0000005624      4.00       3.95       1.86
   SRCPARAM L0003405     0.0000005624      4.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0003406     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003407     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003408     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003409     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003410     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003411     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003412     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003413     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003414     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003415     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003416     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003417     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003418     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003419     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003420     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003421     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003422     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003423     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003424     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003425     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003426     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003427     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003428     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003429     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003430     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003431     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003432     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003433     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003434     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003435     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003436     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003437     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003438     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003439     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003440     0.0000009602      4.00       3.95       1.86
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   SRCPARAM L0003441     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003442     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003443     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003444     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003445     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003446     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003447     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003448     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003449     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003450     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003451     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003452     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003453     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003454     0.0000009602      4.00       3.95       1.86
   SRCPARAM L0003455     0.0000009602      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0003456     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003457     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003458     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003459     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003460     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003461     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003462     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003463     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003464     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003465     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003466     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003467     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003468     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003469     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003470     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003471     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003472     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003473     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003474     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003475     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003476     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003477     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003478     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003479     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003480     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003481     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003482     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003483     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003484     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003485     0.000001195      4.00       3.95       1.86
   SRCPARAM L0003486     0.000001195      4.00       3.95       1.86
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SRCPARAM L0003487      0.000001195      4.00      3.95      1.86
SRCPARAM L0003488      0.000001195      4.00      3.95      1.86
SRCPARAM L0003489      0.000001195      4.00      3.95      1.86
SRCPARAM L0003490      0.000001195      4.00      3.95      1.86
SRCPARAM L0003491      0.000001195      4.00      3.95      1.86
SRCPARAM L0003492      0.000001195      4.00      3.95      1.86
SRCPARAM L0003493      0.000001195      4.00      3.95      1.86
SRCPARAM L0003494      0.000001195      4.00      3.95      1.86
SRCPARAM L0003495      0.000001195      4.00      3.95      1.86
SRCPARAM L0003496      0.000001195      4.00      3.95      1.86
SRCPARAM L0003497      0.000001195      4.00      3.95      1.86
SRCPARAM L0003498      0.000001195      4.00      3.95      1.86
SRCPARAM L0003499      0.000001195      4.00      3.95      1.86
SRCPARAM L0003500      0.000001195      4.00      3.95      1.86
SRCPARAM L0003501      0.000001195      4.00      3.95      1.86
SRCPARAM L0003502      0.000001195      4.00      3.95      1.86
SRCPARAM L0003503      0.000001195      4.00      3.95      1.86
SRCPARAM L0003504      0.000001195      4.00      3.95      1.86
SRCPARAM L0003505      0.000001195      4.00      3.95      1.86
SRCPARAM L0003506      0.000001195      4.00      3.95      1.86
SRCPARAM L0003507      0.000001195      4.00      3.95      1.86
SRCPARAM L0003508      0.000001195      4.00      3.95      1.86
SRCPARAM L0003509      0.000001195      4.00      3.95      1.86
SRCPARAM L0003510      0.000001195      4.00      3.95      1.86
SRCPARAM L0003511      0.000001195      4.00      3.95      1.86
SRCPARAM L0003512      0.000001195      4.00      3.95      1.86
SRCPARAM L0003513      0.000001195      4.00      3.95      1.86
SRCPARAM L0003514      0.000001195      4.00      3.95      1.86
SRCPARAM L0003515      0.000001195      4.00      3.95      1.86
SRCPARAM L0003516      0.000001195      4.00      3.95      1.86
SRCPARAM L0003517      0.000001195      4.00      3.95      1.86
SRCPARAM L0003518      0.000001195      4.00      3.95      1.86
SRCPARAM L0003519      0.000001195      4.00      3.95      1.86
SRCPARAM L0003520      0.000001195      4.00      3.95      1.86
SRCPARAM L0003521      0.000001195      4.00      3.95      1.86
SRCPARAM L0003522      0.000001195      4.00      3.95      1.86
SRCPARAM L0003523      0.000001195      4.00      3.95      1.86
SRCPARAM L0003524      0.000001195      4.00      3.95      1.86
SRCPARAM L0003525      0.000001195      4.00      3.95      1.86
SRCPARAM L0003526      0.000001195      4.00      3.95      1.86
SRCPARAM L0003527      0.000001195      4.00      3.95      1.86
SRCPARAM L0003528      0.000001195      4.00      3.95      1.86
SRCPARAM L0003529      0.000001195      4.00      3.95      1.86
SRCPARAM L0003530      0.000001195      4.00      3.95      1.86
SRCPARAM L0003531      0.000001195      4.00      3.95      1.86
SRCPARAM L0003532      0.000001195      4.00      3.95      1.86
SRCPARAM L0003533      0.000001195      4.00      3.95      1.86
SRCPARAM L0003534      0.000001195      4.00      3.95      1.86
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SRCPARAM L0003535     0.000001195      4.00       3.95       1.86
SRCPARAM L0003536     0.000001195      4.00       3.95       1.86
SRCPARAM L0003537     0.000001195      4.00       3.95       1.86
SRCPARAM L0003538     0.000001195      4.00       3.95       1.86
SRCPARAM L0003539     0.000001195      4.00       3.95       1.86
SRCPARAM L0003540     0.000001195      4.00       3.95       1.86
SRCPARAM L0003541     0.000001195      4.00       3.95       1.86
SRCPARAM L0003542     0.000001195      4.00       3.95       1.86
SRCPARAM L0003543     0.000001195      4.00       3.95       1.86
SRCPARAM L0003544     0.000001195      4.00       3.95       1.86
SRCPARAM L0003545     0.000001195      4.00       3.95       1.86
SRCPARAM L0003546     0.000001195      4.00       3.95       1.86
SRCPARAM L0003547     0.000001195      4.00       3.95       1.86
SRCPARAM L0003548     0.000001195      4.00       3.95       1.86
SRCPARAM L0003549     0.000001195      4.00       3.95       1.86
SRCPARAM L0003550     0.000001195      4.00       3.95       1.86
SRCPARAM L0003551     0.000001195      4.00       3.95       1.86
SRCPARAM L0003552     0.000001195      4.00       3.95       1.86
SRCPARAM L0003553     0.000001195      4.00       3.95       1.86
SRCPARAM L0003554     0.000001195      4.00       3.95       1.86
SRCPARAM L0003555     0.000001195      4.00       3.95       1.86
SRCPARAM L0003556     0.000001195      4.00       3.95       1.86
SRCPARAM L0003557     0.000001195      4.00       3.95       1.86
SRCPARAM L0003558     0.000001195      4.00       3.95       1.86
SRCPARAM L0003559     0.000001195      4.00       3.95       1.86
SRCPARAM L0003560     0.000001195      4.00       3.95       1.86
SRCPARAM L0003561     0.000001195      4.00       3.95       1.86
SRCPARAM L0003562     0.000001195      4.00       3.95       1.86
SRCPARAM L0003563     0.000001195      4.00       3.95       1.86
SRCPARAM L0003564     0.000001195      4.00       3.95       1.86
SRCPARAM L0003565     0.000001195      4.00       3.95       1.86
SRCPARAM L0003566     0.000001195      4.00       3.95       1.86
SRCPARAM L0003567     0.000001195      4.00       3.95       1.86
SRCPARAM L0003568     0.000001195      4.00       3.95       1.86
SRCPARAM L0003569     0.000001195      4.00       3.95       1.86
SRCPARAM L0003570     0.000001195      4.00       3.95       1.86
SRCPARAM L0003571     0.000001195      4.00       3.95       1.86
SRCPARAM L0003572     0.000001195      4.00       3.95       1.86
SRCPARAM L0003573     0.000001195      4.00       3.95       1.86
SRCPARAM L0003574     0.000001195      4.00       3.95       1.86
SRCPARAM L0003575     0.000001195      4.00       3.95       1.86
SRCPARAM L0003576     0.000001195      4.00       3.95       1.86
SRCPARAM L0003577     0.000001195      4.00       3.95       1.86
SRCPARAM L0003578     0.000001195      4.00       3.95       1.86
SRCPARAM L0003579     0.000001195      4.00       3.95       1.86
SRCPARAM L0003580     0.000001195      4.00       3.95       1.86
SRCPARAM L0003581     0.000001195      4.00       3.95       1.86
SRCPARAM L0003582     0.000001195      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0003583      0.000001195      4.00      3.95      1.86
SRCPARAM L0003584      0.000001195      4.00      3.95      1.86
SRCPARAM L0003585      0.000001195      4.00      3.95      1.86
SRCPARAM L0003586      0.000001195      4.00      3.95      1.86
SRCPARAM L0003587      0.000001195      4.00      3.95      1.86
SRCPARAM L0003588      0.000001195      4.00      3.95      1.86
SRCPARAM L0003589      0.000001195      4.00      3.95      1.86
SRCPARAM L0003590      0.000001195      4.00      3.95      1.86
SRCPARAM L0003591      0.000001195      4.00      3.95      1.86
SRCPARAM L0003592      0.000001195      4.00      3.95      1.86
SRCPARAM L0003593      0.000001195      4.00      3.95      1.86
SRCPARAM L0003594      0.000001195      4.00      3.95      1.86
SRCPARAM L0003595      0.000001195      4.00      3.95      1.86
SRCPARAM L0003596      0.000001195      4.00      3.95      1.86
SRCPARAM L0003597      0.000001195      4.00      3.95      1.86
SRCPARAM L0003598      0.000001195      4.00      3.95      1.86
SRCPARAM L0003599      0.000001195      4.00      3.95      1.86
SRCPARAM L0003600      0.000001195      4.00      3.95      1.86
SRCPARAM L0003601      0.000001195      4.00      3.95      1.86
SRCPARAM L0003602      0.000001195      4.00      3.95      1.86
SRCPARAM L0003603      0.000001195      4.00      3.95      1.86
SRCPARAM L0003604      0.000001195      4.00      3.95      1.86
SRCPARAM L0003605      0.000001195      4.00      3.95      1.86
SRCPARAM L0003606      0.000001195      4.00      3.95      1.86
SRCPARAM L0003607      0.000001195      4.00      3.95      1.86
SRCPARAM L0003608      0.000001195      4.00      3.95      1.86
SRCPARAM L0003609      0.000001195      4.00      3.95      1.86
SRCPARAM L0003610      0.000001195      4.00      3.95      1.86
SRCPARAM L0003611      0.000001195      4.00      3.95      1.86
SRCPARAM L0003612      0.000001195      4.00      3.95      1.86
SRCPARAM L0003613      0.000001195      4.00      3.95      1.86
SRCPARAM L0003614      0.000001195      4.00      3.95      1.86
SRCPARAM L0003615      0.000001195      4.00      3.95      1.86
SRCPARAM L0003616      0.000001195      4.00      3.95      1.86
SRCPARAM L0003617      0.000001195      4.00      3.95      1.86
SRCPARAM L0003618      0.000001195      4.00      3.95      1.86
SRCPARAM L0003619      0.000001195      4.00      3.95      1.86
SRCPARAM L0003620      0.000001195      4.00      3.95      1.86
SRCPARAM L0003621      0.000001195      4.00      3.95      1.86
SRCPARAM L0003622      0.000001195      4.00      3.95      1.86
SRCPARAM L0003623      0.000001195      4.00      3.95      1.86
SRCPARAM L0003624      0.000001195      4.00      3.95      1.86
SRCPARAM L0003625      0.000001195      4.00      3.95      1.86
SRCPARAM L0003626      0.000001195      4.00      3.95      1.86
SRCPARAM L0003627      0.000001195      4.00      3.95      1.86
SRCPARAM L0003628      0.000001195      4.00      3.95      1.86
SRCPARAM L0003629      0.000001195      4.00      3.95      1.86
SRCPARAM L0003630      0.000001195      4.00      3.95      1.86
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   SRCPARAM L0003631     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003632     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003633     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003634     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003635     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003636     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003637     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003638     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003639     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003640     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003641     0.000001195      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0005357     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005358     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005359     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005360     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005361     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005362     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005363     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005364     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005365     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005366     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005367     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005368     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005369     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005370     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005371     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005372     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005373     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005374     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005375     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005376     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005377     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005378     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005379     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005380     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005381     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005382     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005383     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005384     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005385     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005386     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005387     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005388     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005389     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005390     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005391     0.0000007164      4.00      3.95      1.86
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SRCPARAM L0005392      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005393      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005394      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005395      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005396      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005397      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005398      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005399      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005400      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005401      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005402      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005403      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005404      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005405      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005406      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005407      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005408      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005409      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005410      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005411      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005412      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005413      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005414      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005415      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005416      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005417      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005418      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005419      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005420      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005421      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005422      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005423      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005424      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005425      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005426      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005427      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005428      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005429      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005430      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005431      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005432      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005433      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005434      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005435      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005436      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005437      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005438      0.0000007164       4.00       3.95       1.86
SRCPARAM L0005439      0.0000007164       4.00       3.95       1.86
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   SRCPARAM L0005440     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005441     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005442     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005443     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005444     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005445     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005446     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005447     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005448     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005449     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005450     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005451     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005452     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005453     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005454     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005455     0.0000007164      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.8207E-09     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.9862E-09     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        1.0465E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        3.282E-09     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        6.8612E-09     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        3.074E-09     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.00005195     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000041163     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000070402     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0003741     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003742     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003743     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003744     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003745     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003746     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003747     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003748     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003749     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003750     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003751     0.0000007274      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0003752      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003753      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003754      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003755      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003756      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003757      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003758      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003759      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003760      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003761      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003762      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003763      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003764      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003765      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003766      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003767      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003768      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003769      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003770      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003771      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003772      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003773      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003774      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003775      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003776      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003777      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003778      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003779      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003780      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003781      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003782      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003783      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003784      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003785      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003786      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003787      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003788      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003789      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003790      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003791      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003792      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003793      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003794      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003795      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003796      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003797      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003798      0.0000007274      4.00      3.95      1.86
SRCPARAM L0003799      0.0000007274      4.00      3.95      1.86
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   SRCPARAM L0003800     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003801     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003802     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003803     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003804     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003805     0.0000007274      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0005456     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005457     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005458     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005459     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005460     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005461     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005462     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005463     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005464     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005465     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005466     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005467     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005468     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005469     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005470     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005471     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005472     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005473     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005474     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005475     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005476     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005477     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005478     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005479     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005480     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005481     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005482     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005483     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005484     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005485     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005486     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005487     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005488     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005489     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005490     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005491     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005492     0.0000009572      4.00      3.95      1.86
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   SRCPARAM L0005495     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005496     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005497     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005498     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005499     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005500     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005501     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005502     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005503     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005506     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005507     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005508     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005509     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005510     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005511     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005512     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005513     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005514     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005515     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005516     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005517     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005518     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005519     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005520     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005521     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005522     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005523     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005524     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005525     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005526     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005527     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005528     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005529     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005530     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005531     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005532     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005533     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005534     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005535     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005536     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005537     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005538     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005539     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005540     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005541     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005542     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005543     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005544      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005545      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005546      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005547      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005548      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005549      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005550      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005551      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005552      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005553      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005554      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005555      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005556      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005557      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005558      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005559      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005560      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005561      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005562      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005563      0.0000009572       4.00        3.95        1.86
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SRCPARAM L0005582      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005583      0.0000009572       4.00        3.95        1.86
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SRCPARAM L0005589      0.0000009572       4.00        3.95        1.86
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SRCPARAM L0005634      0.0000009572       4.00        3.95        1.86
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SRCPARAM L0005636      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005637      0.0000009572       4.00        3.95        1.86
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SRCPARAM L0005684      0.0000009572      4.00       3.95       1.86
SRCPARAM L0005685      0.0000009572      4.00       3.95       1.86
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SRCPARAM L0005687      0.0000009572      4.00       3.95       1.86
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SRCPARAM L0005705      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005712      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005713      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005714      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005715      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005722      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005723      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005724      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005725      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005726      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005727      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005728      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005731      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005732      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005733      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005735      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005740     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005741     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005759     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005760     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005761     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005763     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005819      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005826      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005827      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005830      0.0000009572       4.00       3.95       1.86
SRCPARAM L0005831      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0005837      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005838      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005839      0.0000009572       4.00        3.95        1.86
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SRCPARAM L0005856      0.0000009572       4.00        3.95        1.86
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SRCPARAM L0005859      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005860      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005861      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005862      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005863      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005864      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005865      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005866      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005867      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005868      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005869      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005870      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005871      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005872      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005873      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005874      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005875      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005876      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005877      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005878      0.0000009572       4.00        3.95        1.86
SRCPARAM L0005879      0.0000009572       4.00        3.95        1.86
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AERMOD HRA Output

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SRCPARAM L0005882      0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005884      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005885      0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005913      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005914      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005915      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005916      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005917      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005918      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005919      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005920      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005921      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005922      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005923      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005924      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005925      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005926      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005927      0.0000009572      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0005931      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005932      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005933      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005934      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005935      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005936      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005937      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005938      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005939      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005940      0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005943      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005944      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005945      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005946      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005947      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005948      0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005963      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005964      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005965      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005966      0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005969      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005970      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005971      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005972      0.0000009572      4.00      3.95      1.86
SRCPARAM L0005973      0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005975      0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005982     0.0000009572     4.00      3.95      1.86
SRCPARAM L0005983     0.0000009572     4.00      3.95      1.86
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SRCPARAM L0006022     0.0000009572     4.00      3.95      1.86
SRCPARAM L0006023     0.0000009572     4.00      3.95      1.86
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SRCPARAM L0006065      0.0000009572       4.00       3.95       1.86
SRCPARAM L0006066      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0006068      0.0000009572       4.00       3.95       1.86
SRCPARAM L0006069      0.0000009572       4.00       3.95       1.86
SRCPARAM L0006070      0.0000009572       4.00       3.95       1.86
SRCPARAM L0006071      0.0000009572       4.00       3.95       1.86
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SRCPARAM L0006086      0.0000009572      4.00       3.95       1.86
SRCPARAM L0006087      0.0000009572      4.00       3.95       1.86
SRCPARAM L0006088      0.0000009572      4.00       3.95       1.86
SRCPARAM L0006089      0.0000009572      4.00       3.95       1.86
SRCPARAM L0006090      0.0000009572      4.00       3.95       1.86
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SRCPARAM L0006109      0.0000009572      4.00       3.95       1.86
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SRCPARAM L0006116      0.0000009572      4.00       3.95       1.86
SRCPARAM L0006117      0.0000009572      4.00       3.95       1.86
SRCPARAM L0006118      0.0000009572      4.00       3.95       1.86
SRCPARAM L0006119      0.0000009572      4.00       3.95       1.86
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** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0006147     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006148     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006149     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006150     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006151     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006152     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006153     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006154     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006155     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006156     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006157     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006158     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006159     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006160     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006161     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006162     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006163     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006164     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006165     0.0000002391      0.00      3.95      1.86
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                        AERMOD HRA Output
SRCPARAM L0006166     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006167     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006168     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006169     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006170     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006171     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006172     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006173     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006174     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006175     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006176     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006177     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006178     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006179     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006180     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006181     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006182     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006183     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006184     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006185     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006186     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006187     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006188     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006189     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006190     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006191     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006192     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006193     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006194     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006195     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006196     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006197     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006198     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006199     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006200     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006201     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006202     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006203     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006204     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006205     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006206     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006207     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006208     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006209     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006210     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006211     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006212     0.0000002391      0.00       3.95       1.86
SRCPARAM L0006213     0.0000002391      0.00       3.95       1.86
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SRCPARAM L0006214      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006215      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006216      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006217      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006218      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006219      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006220      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006221      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006222      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006223      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006224      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006225      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006226      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006227      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006228      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006229      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006230      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006231      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006232      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006233      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006234      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006235      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006236      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006237      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006238      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006239      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006240      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006241      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006242      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006243      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006244      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006245      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006246      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006247      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006248      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006249      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006250      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006251      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006252      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006253      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006254      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006255      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006256      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006257      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006258      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006259      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006260      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006261      0.0000002391       0.00       3.95       1.86
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SRCPARAM L0006262      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006263      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006264      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006265      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006266      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006267      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006268      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006269      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006270      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006271      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006272      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006273      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006274      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006275      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006276      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006277      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006278      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006279      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006280      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006281      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006282      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006283      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006284      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006285      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006286      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006287      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006288      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006289      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006290      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006291      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006292      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006293      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006294      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006295      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006296      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006297      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006298      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006299      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006300      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006301      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006302      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006303      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006304      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006305      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006306      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006307      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006308      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006309      0.0000002391      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006310      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006311      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006312      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006313      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006314      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006315      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006316      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006317      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006318      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006319      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006320      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006321      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006322      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006323      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006324      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006325      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006326      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006327      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006328      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006329      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006330      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006331      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006332      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006333      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006334      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006335      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006336      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006337      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006338      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006339      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006340      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006341      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006342      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006343      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006344      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006345      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006346      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006347      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006348      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006349      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006350      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006351      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006352      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006353      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006354      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006355      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006356      0.0000002391      0.00       3.95       1.86
SRCPARAM L0006357      0.0000002391      0.00       3.95       1.86
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SRCPARAM L0006358      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006359      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006360      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006361      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006362      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006363      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006364      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006365      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006366      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006367      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006368      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006369      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006370      0.0000002391       0.00       3.95       1.86
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SRCPARAM L0006373      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006374      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006375      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006376      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006377      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006378      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006379      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006380      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006381      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006382      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006383      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006384      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006385      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006386      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006387      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006388      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006389      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006390      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006391      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006392      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006393      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006394      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006395      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006396      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006397      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006398      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006399      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006400      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006401      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006402      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006403      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006404      0.0000002391       0.00       3.95       1.86
SRCPARAM L0006405      0.0000002391       0.00       3.95       1.86
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   SRCPARAM L0006406     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006407     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006408     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006409     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006410     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006411     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006412     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006413     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006414     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006415     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006416     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006417     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006418     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006419     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006420     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006421     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006422     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006423     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006424     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006425     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006426     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006427     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006428     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006429     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006430     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006431     0.0000002391      0.00       3.95       1.86
   SRCPARAM L0006432     0.0000002391      0.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SRC00001
   SRCPARAM L0006433     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006434     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006435     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006436     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006437     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006438     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006439     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006440     0.000001195      4.00       3.95       1.86
   SRCPARAM L0006441     0.000001195      4.00       3.95       1.86
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   SRCPARAM L0006451     0.000001195      4.00       3.95       1.86
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SRCPARAM L0006533     0.000001195      4.00       3.95       1.86
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SRCPARAM L0006546     0.000001195      4.00       3.95       1.86
SRCPARAM L0006547     0.000001195      4.00       3.95       1.86
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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SRCPARAM L0006548      0.000001195      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006741     0.000001195      4.00      3.95      1.86
SRCPARAM L0006742     0.000001195      4.00      3.95      1.86
SRCPARAM L0006743     0.000001195      4.00      3.95      1.86
SRCPARAM L0006744     0.000001195      4.00      3.95      1.86
SRCPARAM L0006745     0.000001195      4.00      3.95      1.86
SRCPARAM L0006746     0.000001195      4.00      3.95      1.86
SRCPARAM L0006747     0.000001195      4.00      3.95      1.86
SRCPARAM L0006748     0.000001195      4.00      3.95      1.86
SRCPARAM L0006749     0.000001195      4.00      3.95      1.86
SRCPARAM L0006750     0.000001195      4.00      3.95      1.86
SRCPARAM L0006751     0.000001195      4.00      3.95      1.86
SRCPARAM L0006752     0.000001195      4.00      3.95      1.86
SRCPARAM L0006753     0.000001195      4.00      3.95      1.86
SRCPARAM L0006754     0.000001195      4.00      3.95      1.86
SRCPARAM L0006755     0.000001195      4.00      3.95      1.86
SRCPARAM L0006756     0.000001195      4.00      3.95      1.86
SRCPARAM L0006757     0.000001195      4.00      3.95      1.86
SRCPARAM L0006758     0.000001195      4.00      3.95      1.86
SRCPARAM L0006759     0.000001195      4.00      3.95      1.86
SRCPARAM L0006760     0.000001195      4.00      3.95      1.86
SRCPARAM L0006761     0.000001195      4.00      3.95      1.86
SRCPARAM L0006762     0.000001195      4.00      3.95      1.86
SRCPARAM L0006763     0.000001195      4.00      3.95      1.86
SRCPARAM L0006764     0.000001195      4.00      3.95      1.86
SRCPARAM L0006765     0.000001195      4.00      3.95      1.86
SRCPARAM L0006766     0.000001195      4.00      3.95      1.86
SRCPARAM L0006767     0.000001195      4.00      3.95      1.86
SRCPARAM L0006768     0.000001195      4.00      3.95      1.86
SRCPARAM L0006769     0.000001195      4.00      3.95      1.86
SRCPARAM L0006770     0.000001195      4.00      3.95      1.86
SRCPARAM L0006771     0.000001195      4.00      3.95      1.86
SRCPARAM L0006772     0.000001195      4.00      3.95      1.86
SRCPARAM L0006773     0.000001195      4.00      3.95      1.86
SRCPARAM L0006774     0.000001195      4.00      3.95      1.86
SRCPARAM L0006775     0.000001195      4.00      3.95      1.86
SRCPARAM L0006776     0.000001195      4.00      3.95      1.86
SRCPARAM L0006777     0.000001195      4.00      3.95      1.86
SRCPARAM L0006778     0.000001195      4.00      3.95      1.86
SRCPARAM L0006779     0.000001195      4.00      3.95      1.86
SRCPARAM L0006780     0.000001195      4.00      3.95      1.86
SRCPARAM L0006781     0.000001195      4.00      3.95      1.86
SRCPARAM L0006782     0.000001195      4.00      3.95      1.86
SRCPARAM L0006783     0.000001195      4.00      3.95      1.86
SRCPARAM L0006784     0.000001195      4.00      3.95      1.86
SRCPARAM L0006785     0.000001195      4.00      3.95      1.86
SRCPARAM L0006786     0.000001195      4.00      3.95      1.86
SRCPARAM L0006787     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006788     0.000001195     4.00      3.95      1.86
SRCPARAM L0006789     0.000001195     4.00      3.95      1.86
SRCPARAM L0006790     0.000001195     4.00      3.95      1.86
SRCPARAM L0006791     0.000001195     4.00      3.95      1.86
SRCPARAM L0006792     0.000001195     4.00      3.95      1.86
SRCPARAM L0006793     0.000001195     4.00      3.95      1.86
SRCPARAM L0006794     0.000001195     4.00      3.95      1.86
SRCPARAM L0006795     0.000001195     4.00      3.95      1.86
SRCPARAM L0006796     0.000001195     4.00      3.95      1.86
SRCPARAM L0006797     0.000001195     4.00      3.95      1.86
SRCPARAM L0006798     0.000001195     4.00      3.95      1.86
SRCPARAM L0006799     0.000001195     4.00      3.95      1.86
SRCPARAM L0006800     0.000001195     4.00      3.95      1.86
SRCPARAM L0006801     0.000001195     4.00      3.95      1.86
SRCPARAM L0006802     0.000001195     4.00      3.95      1.86
SRCPARAM L0006803     0.000001195     4.00      3.95      1.86
SRCPARAM L0006804     0.000001195     4.00      3.95      1.86
SRCPARAM L0006805     0.000001195     4.00      3.95      1.86
SRCPARAM L0006806     0.000001195     4.00      3.95      1.86
SRCPARAM L0006807     0.000001195     4.00      3.95      1.86
SRCPARAM L0006808     0.000001195     4.00      3.95      1.86
SRCPARAM L0006809     0.000001195     4.00      3.95      1.86
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SRCPARAM L0006811     0.000001195     4.00      3.95      1.86
SRCPARAM L0006812     0.000001195     4.00      3.95      1.86
SRCPARAM L0006813     0.000001195     4.00      3.95      1.86
SRCPARAM L0006814     0.000001195     4.00      3.95      1.86
SRCPARAM L0006815     0.000001195     4.00      3.95      1.86
SRCPARAM L0006816     0.000001195     4.00      3.95      1.86
SRCPARAM L0006817     0.000001195     4.00      3.95      1.86
SRCPARAM L0006818     0.000001195     4.00      3.95      1.86
SRCPARAM L0006819     0.000001195     4.00      3.95      1.86
SRCPARAM L0006820     0.000001195     4.00      3.95      1.86
SRCPARAM L0006821     0.000001195     4.00      3.95      1.86
SRCPARAM L0006822     0.000001195     4.00      3.95      1.86
SRCPARAM L0006823     0.000001195     4.00      3.95      1.86
SRCPARAM L0006824     0.000001195     4.00      3.95      1.86
SRCPARAM L0006825     0.000001195     4.00      3.95      1.86
SRCPARAM L0006826     0.000001195     4.00      3.95      1.86
SRCPARAM L0006827     0.000001195     4.00      3.95      1.86
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SRCPARAM L0006829     0.000001195     4.00      3.95      1.86
SRCPARAM L0006830     0.000001195     4.00      3.95      1.86
SRCPARAM L0006831     0.000001195     4.00      3.95      1.86
SRCPARAM L0006832     0.000001195     4.00      3.95      1.86
SRCPARAM L0006833     0.000001195     4.00      3.95      1.86
SRCPARAM L0006834     0.000001195     4.00      3.95      1.86
SRCPARAM L0006835     0.000001195     4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0006838      0.000001195       4.00       3.95       1.86
SRCPARAM L0006839      0.000001195       4.00       3.95       1.86
SRCPARAM L0006840      0.000001195       4.00       3.95       1.86
SRCPARAM L0006841      0.000001195       4.00       3.95       1.86
SRCPARAM L0006842      0.000001195       4.00       3.95       1.86
SRCPARAM L0006843      0.000001195       4.00       3.95       1.86
SRCPARAM L0006844      0.000001195       4.00       3.95       1.86
SRCPARAM L0006845      0.000001195       4.00       3.95       1.86
SRCPARAM L0006846      0.000001195       4.00       3.95       1.86
SRCPARAM L0006847      0.000001195       4.00       3.95       1.86
SRCPARAM L0006848      0.000001195       4.00       3.95       1.86
SRCPARAM L0006849      0.000001195       4.00       3.95       1.86
SRCPARAM L0006850      0.000001195       4.00       3.95       1.86
SRCPARAM L0006851      0.000001195       4.00       3.95       1.86
SRCPARAM L0006852      0.000001195       4.00       3.95       1.86
SRCPARAM L0006853      0.000001195       4.00       3.95       1.86
SRCPARAM L0006854      0.000001195       4.00       3.95       1.86
SRCPARAM L0006855      0.000001195       4.00       3.95       1.86
SRCPARAM L0006856      0.000001195       4.00       3.95       1.86
SRCPARAM L0006857      0.000001195       4.00       3.95       1.86
SRCPARAM L0006858      0.000001195       4.00       3.95       1.86
SRCPARAM L0006859      0.000001195       4.00       3.95       1.86
SRCPARAM L0006860      0.000001195       4.00       3.95       1.86
SRCPARAM L0006861      0.000001195       4.00       3.95       1.86
SRCPARAM L0006862      0.000001195       4.00       3.95       1.86
SRCPARAM L0006863      0.000001195       4.00       3.95       1.86
SRCPARAM L0006864      0.000001195       4.00       3.95       1.86
SRCPARAM L0006865      0.000001195       4.00       3.95       1.86
SRCPARAM L0006866      0.000001195       4.00       3.95       1.86
SRCPARAM L0006867      0.000001195       4.00       3.95       1.86
SRCPARAM L0006868      0.000001195       4.00       3.95       1.86
SRCPARAM L0006869      0.000001195       4.00       3.95       1.86
SRCPARAM L0006870      0.000001195       4.00       3.95       1.86
SRCPARAM L0006871      0.000001195       4.00       3.95       1.86
SRCPARAM L0006872      0.000001195       4.00       3.95       1.86
SRCPARAM L0006873      0.000001195       4.00       3.95       1.86
SRCPARAM L0006874      0.000001195       4.00       3.95       1.86
SRCPARAM L0006875      0.000001195       4.00       3.95       1.86
SRCPARAM L0006876      0.000001195       4.00       3.95       1.86
SRCPARAM L0006877      0.000001195       4.00       3.95       1.86
SRCPARAM L0006878      0.000001195       4.00       3.95       1.86
SRCPARAM L0006879      0.000001195       4.00       3.95       1.86
SRCPARAM L0006880      0.000001195       4.00       3.95       1.86
SRCPARAM L0006881      0.000001195       4.00       3.95       1.86
SRCPARAM L0006882      0.000001195       4.00       3.95       1.86
SRCPARAM L0006883      0.000001195       4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006885      0.000001195       4.00       3.95       1.86
SRCPARAM L0006886      0.000001195       4.00       3.95       1.86
SRCPARAM L0006887      0.000001195       4.00       3.95       1.86
SRCPARAM L0006888      0.000001195       4.00       3.95       1.86
SRCPARAM L0006889      0.000001195       4.00       3.95       1.86
SRCPARAM L0006890      0.000001195       4.00       3.95       1.86
SRCPARAM L0006891      0.000001195       4.00       3.95       1.86
SRCPARAM L0006892      0.000001195       4.00       3.95       1.86
SRCPARAM L0006893      0.000001195       4.00       3.95       1.86
SRCPARAM L0006894      0.000001195       4.00       3.95       1.86
SRCPARAM L0006895      0.000001195       4.00       3.95       1.86
SRCPARAM L0006896      0.000001195       4.00       3.95       1.86
SRCPARAM L0006897      0.000001195       4.00       3.95       1.86
SRCPARAM L0006898      0.000001195       4.00       3.95       1.86
SRCPARAM L0006899      0.000001195       4.00       3.95       1.86
SRCPARAM L0006900      0.000001195       4.00       3.95       1.86
SRCPARAM L0006901      0.000001195       4.00       3.95       1.86
SRCPARAM L0006902      0.000001195       4.00       3.95       1.86
SRCPARAM L0006903      0.000001195       4.00       3.95       1.86
SRCPARAM L0006904      0.000001195       4.00       3.95       1.86
SRCPARAM L0006905      0.000001195       4.00       3.95       1.86
SRCPARAM L0006906      0.000001195       4.00       3.95       1.86
SRCPARAM L0006907      0.000001195       4.00       3.95       1.86
SRCPARAM L0006908      0.000001195       4.00       3.95       1.86
SRCPARAM L0006909      0.000001195       4.00       3.95       1.86
SRCPARAM L0006910      0.000001195       4.00       3.95       1.86
SRCPARAM L0006911      0.000001195       4.00       3.95       1.86
SRCPARAM L0006912      0.000001195       4.00       3.95       1.86
SRCPARAM L0006913      0.000001195       4.00       3.95       1.86
SRCPARAM L0006914      0.000001195       4.00       3.95       1.86
SRCPARAM L0006915      0.000001195       4.00       3.95       1.86
SRCPARAM L0006916      0.000001195       4.00       3.95       1.86
SRCPARAM L0006917      0.000001195       4.00       3.95       1.86
SRCPARAM L0006918      0.000001195       4.00       3.95       1.86
SRCPARAM L0006919      0.000001195       4.00       3.95       1.86
SRCPARAM L0006920      0.000001195       4.00       3.95       1.86
SRCPARAM L0006921      0.000001195       4.00       3.95       1.86
SRCPARAM L0006922      0.000001195       4.00       3.95       1.86
SRCPARAM L0006923      0.000001195       4.00       3.95       1.86
SRCPARAM L0006924      0.000001195       4.00       3.95       1.86
SRCPARAM L0006925      0.000001195       4.00       3.95       1.86
SRCPARAM L0006926      0.000001195       4.00       3.95       1.86
SRCPARAM L0006927      0.000001195       4.00       3.95       1.86
SRCPARAM L0006928      0.000001195       4.00       3.95       1.86
SRCPARAM L0006929      0.000001195       4.00       3.95       1.86
SRCPARAM L0006930      0.000001195       4.00       3.95       1.86
SRCPARAM L0006931      0.000001195       4.00       3.95       1.86
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SRCPARAM L0006932     0.000001195      4.00       3.95       1.86
SRCPARAM L0006933     0.000001195      4.00       3.95       1.86
SRCPARAM L0006934     0.000001195      4.00       3.95       1.86
SRCPARAM L0006935     0.000001195      4.00       3.95       1.86
SRCPARAM L0006936     0.000001195      4.00       3.95       1.86
SRCPARAM L0006937     0.000001195      4.00       3.95       1.86
SRCPARAM L0006938     0.000001195      4.00       3.95       1.86
SRCPARAM L0006939     0.000001195      4.00       3.95       1.86
SRCPARAM L0006940     0.000001195      4.00       3.95       1.86
SRCPARAM L0006941     0.000001195      4.00       3.95       1.86
SRCPARAM L0006942     0.000001195      4.00       3.95       1.86
SRCPARAM L0006943     0.000001195      4.00       3.95       1.86
SRCPARAM L0006944     0.000001195      4.00       3.95       1.86
SRCPARAM L0006945     0.000001195      4.00       3.95       1.86
SRCPARAM L0006946     0.000001195      4.00       3.95       1.86
SRCPARAM L0006947     0.000001195      4.00       3.95       1.86
SRCPARAM L0006948     0.000001195      4.00       3.95       1.86
SRCPARAM L0006949     0.000001195      4.00       3.95       1.86
SRCPARAM L0006950     0.000001195      4.00       3.95       1.86
SRCPARAM L0006951     0.000001195      4.00       3.95       1.86
SRCPARAM L0006952     0.000001195      4.00       3.95       1.86
SRCPARAM L0006953     0.000001195      4.00       3.95       1.86
SRCPARAM L0006954     0.000001195      4.00       3.95       1.86
SRCPARAM L0006955     0.000001195      4.00       3.95       1.86
SRCPARAM L0006956     0.000001195      4.00       3.95       1.86
SRCPARAM L0006957     0.000001195      4.00       3.95       1.86
SRCPARAM L0006958     0.000001195      4.00       3.95       1.86
SRCPARAM L0006959     0.000001195      4.00       3.95       1.86
SRCPARAM L0006960     0.000001195      4.00       3.95       1.86
SRCPARAM L0006961     0.000001195      4.00       3.95       1.86
SRCPARAM L0006962     0.000001195      4.00       3.95       1.86
SRCPARAM L0006963     0.000001195      4.00       3.95       1.86
SRCPARAM L0006964     0.000001195      4.00       3.95       1.86
SRCPARAM L0006965     0.000001195      4.00       3.95       1.86
SRCPARAM L0006966     0.000001195      4.00       3.95       1.86
SRCPARAM L0006967     0.000001195      4.00       3.95       1.86
SRCPARAM L0006968     0.000001195      4.00       3.95       1.86
SRCPARAM L0006969     0.000001195      4.00       3.95       1.86
SRCPARAM L0006970     0.000001195      4.00       3.95       1.86
SRCPARAM L0006971     0.000001195      4.00       3.95       1.86
SRCPARAM L0006972     0.000001195      4.00       3.95       1.86
SRCPARAM L0006973     0.000001195      4.00       3.95       1.86
SRCPARAM L0006974     0.000001195      4.00       3.95       1.86
SRCPARAM L0006975     0.000001195      4.00       3.95       1.86
SRCPARAM L0006976     0.000001195      4.00       3.95       1.86
SRCPARAM L0006977     0.000001195      4.00       3.95       1.86
SRCPARAM L0006978     0.000001195      4.00       3.95       1.86
SRCPARAM L0006979     0.000001195      4.00       3.95       1.86
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   SRCPARAM L0006980     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006981     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006982     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006984     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006985     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006986     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006987     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006988     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006989     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006990     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006993     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006999     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0007001     0.000001195      4.00      3.95      1.86
   SRCPARAM L0007002     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0007005     0.000001195      4.00      3.95      1.86
   SRCPARAM L0007006     0.000001195      4.00      3.95      1.86
** ---------------------------------------------------------------------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "School Exposure"
   EMISFACT L0003043     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0003043     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003043     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003044     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003044     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003045     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003045     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003046     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003046     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003047     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003047     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003048     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003048     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                        AERMOD HRA Output
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EMISFACT L0003059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003063     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003063     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003063     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003064     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003064     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003064     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003065     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003065     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003065     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003066     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003066     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003067     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003067     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003067     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003068     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003068     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003068     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003068     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003069     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003069     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003069     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003069     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003070     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003070     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003070     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003071     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003072     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003073     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003073     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003074     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003074     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003075     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003075     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003075     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003076     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003076     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003077     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003078     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003079     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003080     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003081     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003082     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003084     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003085     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003085     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003086     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003088     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003088     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003088     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003089     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003089     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003091     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003091     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003092     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003092     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003093     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003093     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003093     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003093     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003094     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003094     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003094     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003094     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                        AERMOD HRA Output
EMISFACT L0003095     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003095     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003095     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003096     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003096     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003096     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003096     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003097     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003097     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003097     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003097     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003098     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003098     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003099     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003099     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003100     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003100     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003100     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003100     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003101     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003101     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003101     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003101     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003102     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003102     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003102     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003103     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003103     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003103     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003104     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003104     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003104     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003104     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003105     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003105     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003105     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003105     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003106     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003106     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003106     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003106     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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EMISFACT L0003107     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003107     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003107     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003108     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003108     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003109     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003109     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003109     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003110     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003110     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003110     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003110     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003111     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003111     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003111     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003112     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003112     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003112     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003112     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003113     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003113     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003113     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003113     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003114     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003114     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003114     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003114     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003115     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003115     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003115     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003115     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003116     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003116     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003116     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003116     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003117     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003117     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003117     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003117     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003118     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003118     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003118     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003118     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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                         AERMOD HRA Output
EMISFACT L0003119     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003119     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003119     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003119     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003120     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003120     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003120     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003120     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003121     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003121     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003121     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003121     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003122     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003122     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003122     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003122     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003123     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003123     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003123     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003123     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003124     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003124     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003125     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003125     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003125     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003125     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003126     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003126     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003126     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003126     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003127     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003127     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003127     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003127     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003128     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003128     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003128     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003128     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003129     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003129     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003129     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003129     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003130     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003130     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003130     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003130     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                            AERMOD HRA Output
EMISFACT L0003131      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003131      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003131      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003131      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003132      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003132      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003132      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003132      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003133      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003133      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003133      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003133      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003134      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003134      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003134      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003134      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003135      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003135      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003135      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003135      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003136      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003136      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003136      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003136      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003137      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003137      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003137      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003137      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003138      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003138      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003138      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003138      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003139      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003139      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003139      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003139      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003140      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003140      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003140      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003140      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003141      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003141      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003141      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003141      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003142      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003142      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003142      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003142      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003143     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003143     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003143     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003143     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003144     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003144     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003144     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003144     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003145     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003145     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003145     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003145     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003146     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003146     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003146     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003146     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003147     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003147     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003147     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003147     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003148     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003148     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003148     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003148     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003149     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003149     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003150     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003150     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003151     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003151     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003152     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003152     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003153     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003153     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003154     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003154     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003155     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003155     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003155     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003155     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003156     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003156     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003156     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003156     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003157     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003157     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003157     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003157     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003158     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003158     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003158     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003158     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003159     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003159     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003159     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003159     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003160     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003160     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003160     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003160     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003161     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003161     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003161     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003161     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003162     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003162     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003162     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003162     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003163     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003163     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003163     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003163     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003164     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003164     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003164     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003164     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003165     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003165     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003166     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003166     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003167     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003167     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003168     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003168     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003169     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003169     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003170     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003170     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003171     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003171     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003172     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003172     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003173     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003173     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003174     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003174     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003175     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003175     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003176     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003176     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003176     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003176     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003177     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003177     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003178     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003178     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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EMISFACT L0003179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003179     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003179     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003180     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003180     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003181     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003181     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003181     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003181     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003182     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003182     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003182     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003182     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003183     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003183     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003183     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003183     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003184     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003184     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003184     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003184     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003185     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003185     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003185     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003185     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003186     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003186     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003186     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003186     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003187     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003187     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003187     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003187     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003188     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003188     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003188     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003188     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003189     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003189     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003189     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003189     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003190     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003190     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003190     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003190     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

AERMOD HRA Output

```
EMISFACT L0003191     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003191     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003191     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003191     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003192     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003192     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003192     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003192     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003193     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003193     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003193     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003193     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003194     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003194     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003194     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003194     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003195     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003195     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003195     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003195     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003196     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003196     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003196     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003196     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003197     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003197     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003197     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003197     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003198     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003198     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003198     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003198     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003199     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003199     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003199     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003199     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003200     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003200     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003200     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003200     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003201     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003201     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003201     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003201     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003202     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003202     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003202     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003202     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                 AERMOD HRA Output
EMISFACT L0003203     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003203     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003203     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003203     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003204     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003204     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003204     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003204     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003205     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003205     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003205     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003205     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003206     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003206     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003206     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003206     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003207     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003207     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003207     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003207     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003208     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003208     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003208     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003208     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003209     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003209     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003209     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003209     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003210     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003210     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003210     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003210     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003211     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003211     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003211     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003211     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003212     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003212     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003212     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003212     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003213     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003213     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003213     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003213     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003214     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003214     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003214     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003214     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003215     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003215     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003215     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003215     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003216     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003216     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003216     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003216     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003217     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003217     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003217     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003217     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003218     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003218     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003218     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003218     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003219     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003219     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003219     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003219     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003220     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003220     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003220     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003220     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003221     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003221     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003221     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003221     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003222     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003222     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003222     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003222     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003223     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003223     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003223     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003223     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003224     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003224     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003224     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003224     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003225     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003225     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003225     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003225     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003226     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003226     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003226     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003226     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003227     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003227     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003227     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003227     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003228     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003228     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003228     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003228     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003229     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003229     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003229     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003229     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003230     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003230     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003230     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003230     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003231     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003231     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003231     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003231     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003232     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003232     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003232     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003232     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003233     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003233     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003233     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003233     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003234     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003234     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003234     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003234     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003235     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003235     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003235     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003235     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003236     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003236     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003236     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003236     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003237     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003237     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003237     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003237     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003238     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003238     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003238     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003238     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT L0003239     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003239     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003239     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003239     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003240     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003240     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003240     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003240     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003241     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003241     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003241     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003241     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003242     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003242     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003242     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003242     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003243     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003243     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003243     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003243     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003244     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003244     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003244     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003244     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003245     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003245     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003245     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003245     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003246     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003246     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003246     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003246     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003247     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003247     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003247     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003247     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003248     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003248     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003248     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003248     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003249     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003249     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003249     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003249     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003250     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003250     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003250     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003250     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                      AERMOD HRA Output
EMISFACT L0003251     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003251     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003251     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003251     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003252     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003252     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003252     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003252     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003253     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003253     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003253     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003253     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003254     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003254     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003254     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003254     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003255     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003255     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003255     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003255     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003256     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003256     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003256     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003256     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003257     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003257     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003257     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003257     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003258     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003258     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003258     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003258     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003259     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003259     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003259     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003259     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003260     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003260     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003260     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003260     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003261     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003261     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003261     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003261     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003262     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003262     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003262     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003262     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0003263     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003263     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003263     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003263     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003264     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003264     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003264     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003264     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003265     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003265     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003265     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003265     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003266     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003266     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003266     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003266     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003267     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003267     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003267     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003267     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003268     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003268     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003268     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003268     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003269     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003269     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003269     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003269     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003270     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003270     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003270     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003270     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003271     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003271     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003271     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003271     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003272     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003272     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003272     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003272     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003273     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003273     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003273     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003273     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003274     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003274     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003274     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003274     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003275     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003275     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003275     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003275     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003276     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003276     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003276     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003276     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003277     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003277     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003277     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003277     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003278     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003278     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003278     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003278     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003279     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003279     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003279     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003279     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003280     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003280     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003280     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003280     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003281     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003281     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003281     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003281     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003282     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003282     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003282     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003282     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003283     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003283     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003283     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003283     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003284     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003284     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003284     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003284     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003285     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003285     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003285     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003285     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003286     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003286     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003286     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003286     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0003287     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003287     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003287     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003287     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003288     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003288     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003288     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003288     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003289     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003289     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003289     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003289     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003290     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003290     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003290     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003290     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003291     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003291     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003291     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003291     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003292     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003292     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003292     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003292     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003293     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003293     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003293     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003293     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003294     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003294     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003294     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003294     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003295     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003295     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003295     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003295     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003296     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003296     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003296     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003296     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003297     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003297     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003297     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003297     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003298     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003298     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003298     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003298     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003299     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003299     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003299     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003299     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003300     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003300     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003300     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003300     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003301     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003301     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003301     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003301     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003302     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003302     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003302     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003302     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003303     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003303     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003303     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003303     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003304     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003304     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003304     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003304     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003305     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003305     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003305     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003305     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003306     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003307     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003307     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003308     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003308     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003308     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003309     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003309     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003309     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003309     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003310     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003310     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003310     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003310     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003311      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003311      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003312      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003312      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003313      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003313      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003313      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003313      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003314      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003315      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003316      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003316      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003318      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003318      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003319      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003319      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003320      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003320      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003320      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003320      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003321      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003321      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003321      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003321      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003322      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003322      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003322      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003322      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0003323     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003324     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003324     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003324     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003325     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003325     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003325     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003325     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003326     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003326     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003326     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003327     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003328     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003328     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003328     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003329     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003329     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003330     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003330     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003331     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003332     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                            AERMOD HRA Output
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EMISFACT L0003367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003367     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003368     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003368     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003369     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003369     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003371     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003376     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003377     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003377     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003377     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003378     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003378     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003378     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003378     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003379     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003379     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003380     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003380     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003380     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003380     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003381     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003381     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003382     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003382     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003383     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003388     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003393     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003394     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003394     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003394     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003406      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003406      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003409     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003421     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003422     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003430     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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AERMOD HRA Output

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EMISFACT L0003431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003431     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003431     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003432     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003432     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003432     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003432     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003433     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003433     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003434     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003434     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003435     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003435     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0003455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003456     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003456     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003457     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003457     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003458     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003458     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003459     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003459     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003460     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003460     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003461     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003461     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003462     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003462     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003463     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003463     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003464     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003464     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003464     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003464     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003465     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003465     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003465     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003465     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003466     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003466     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003466     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003466     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0003467     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003467     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003467     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003467     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003468     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003468     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003468     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003468     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003469     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003469     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003469     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003469     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003470     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003470     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003470     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003470     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003471     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003471     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003471     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003471     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003472     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003472     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003472     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003472     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003473     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003473     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003473     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003473     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003474     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003474     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003474     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003474     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003475     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003475     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003475     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003475     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003476     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003476     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003476     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003476     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003477     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003477     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003477     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003477     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003478     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003478     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003478     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003478     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                    AERMOD HRA Output
EMISFACT L0003479     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003479     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003479     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003479     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003480     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003480     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003480     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003480     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003481     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003481     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003481     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003481     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003482     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003482     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003482     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003482     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003483     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003483     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003483     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003483     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003484     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003484     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003484     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003484     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003485     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003485     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003485     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003485     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003486     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003486     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003486     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003486     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003487     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003487     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003487     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003487     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003488     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003488     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003488     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003488     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003489     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003489     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003489     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003489     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003490     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003490     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003490     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003490     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                AERMOD HRA Output
EMISFACT L0003491     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003491     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003491     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003491     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003492     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003492     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003492     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003492     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003493     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003493     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003493     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003493     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003494     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003494     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003494     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003494     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003495     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003495     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003495     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003495     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003496     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003496     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003496     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003496     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003497     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003497     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003497     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003497     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003498     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003498     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003498     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003498     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003499     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003499     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003499     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003499     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003500     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003500     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003500     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003500     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003501     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003501     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003501     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003501     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003502     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003502     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003502     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003502     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                    AERMOD HRA Output
EMISFACT L0003503     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003503     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003503     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003503     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003504     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003504     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003504     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003504     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003505     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003505     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003505     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003505     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003506     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003506     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003506     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003506     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003507     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003507     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003507     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003507     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003508     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003508     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003508     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003508     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003509     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003509     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003509     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003509     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003510     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003510     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003510     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003510     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003511     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003511     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003511     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003512     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003512     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003512     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003512     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003513     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003513     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003513     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003513     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003514     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003514     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003514     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003514     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003515     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003515     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003515     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003516     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003516     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003516     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003516     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003517     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003517     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003518     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003518     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003520     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003520     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003520     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003521     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003521     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003522     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003522     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003523     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003524     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003525     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003526     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003526     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003527     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003527     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003528     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003529     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003529     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003530     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003531     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003531     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003532     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003532     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003533     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003533     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003535     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003540      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003540      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003541      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003542      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003550      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003552      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003553      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003554      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003556      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003556      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003557      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003557      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003557      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003557      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003558      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003558      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003558      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003558      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003559      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003559      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003559      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003559      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003560      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003560      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003560      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003560      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003561      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003561      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003561      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003561      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003562      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003562      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003562      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003562      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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                              AERMOD HRA Output
EMISFACT L0003563     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003563     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003563     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003563     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003564     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003564     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003564     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003564     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003565     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003565     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003565     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003565     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003566     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003566     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003566     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003566     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003567     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003567     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003567     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003567     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003568     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003568     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003568     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003568     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003569     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003569     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003569     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003569     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003570     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003570     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003570     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003570     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003571     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003571     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003571     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003571     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003572     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003572     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003572     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003572     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003573     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003573     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003573     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003573     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003574     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003574     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003574     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003574     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003575     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003575     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003575     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003575     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003576     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003576     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003576     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003576     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003577     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003577     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003577     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003577     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003578     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003578     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003578     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003578     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003579     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003579     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003579     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003579     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003580     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003580     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003580     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003580     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003581     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003581     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003581     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003581     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003582     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003582     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003582     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003582     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003583     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003583     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003583     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003583     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003584     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003584     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003584     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003584     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003585     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003585     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003585     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003585     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003586     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003586     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003586     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003586     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT L0003587     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003587     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003587     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003587     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003588     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003588     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003588     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003588     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003589     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003589     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003589     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003589     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003590     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003590     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003590     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003590     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003591     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003591     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003591     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003591     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003592     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003592     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003592     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003592     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003593     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003593     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003593     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003593     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003594     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003594     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003594     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003594     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003595     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003595     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003595     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003595     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003596     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003596     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003596     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003596     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003597     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003597     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003597     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003597     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003598     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003598     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003598     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003598     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003599     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003599     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003599     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003600     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003600     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003600     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003600     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003601     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003601     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003601     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003601     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003602     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003602     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003602     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003603     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003603     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003604     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003604     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003604     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003604     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003605     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003605     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003605     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003605     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003606     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003606     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003606     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003606     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003607     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003607     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003607     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003607     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003608     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003608     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003608     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003608     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003609     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003609     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003609     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003609     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003610     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003610     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003610     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003610     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003611     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003611     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003611     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003611     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003612     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003612     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003612     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003612     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003613     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003613     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003613     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003613     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003614     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003614     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003614     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003614     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003615     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003615     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003615     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003615     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003616     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003616     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003616     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003616     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003617     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003617     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003617     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003617     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003618     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003618     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003618     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003618     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003619     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003619     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003619     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003619     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003620     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003620     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003620     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003620     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003621     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003621     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003621     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003621     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003622     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003622     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003622     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003622     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

```
EMISFACT L0003623     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003623     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003623     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003623     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003624     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003624     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003624     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003624     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003625     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003625     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003625     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003625     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003626     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003626     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003626     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003626     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003627     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003627     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003627     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003627     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003628     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003628     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003628     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003628     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003629     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003629     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003629     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003629     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003630     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003630     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003630     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003630     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003631     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003631     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003631     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003631     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003632     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003632     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003632     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003632     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003633     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003633     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003633     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003633     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003634     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003634     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003634     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003634     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0003635     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003635     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003635     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003635     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003636     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003636     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003636     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003636     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003637     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003637     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003637     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003637     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003638     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003638     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003638     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003638     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003639     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003639     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003639     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003639     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003640     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003640     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003640     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003640     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003641     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003641     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003641     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003641     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005357     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005357     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005357     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005357     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005358     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005358     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005358     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005358     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005359     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005359     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005359     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005359     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005360     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005360     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005360     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005360     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005361     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005361     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0005362      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005362      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005362      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005362      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005363      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005363      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005363      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005363      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005364      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005364      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005364      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005364      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005365      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005365      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005365      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005365      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005366      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005366      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005366      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005366      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005367      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005367      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005367      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005367      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005368      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005368      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005368      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005368      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005369      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005369      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005369      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005369      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005370      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005370      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005370      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005370      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005371      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005371      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005371      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005371      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005372      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005372      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005372      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005372      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005373      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005373      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005373      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005373      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0005374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005376     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005376     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005377     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005377     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005377     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005377     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005378     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005378     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005378     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005378     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005379     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005379     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005379     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005379     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005380     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005380     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005380     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005380     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005381     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005381     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005382     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005382     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005383     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005383     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005383     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005383     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005384     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005384     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005384     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005384     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005385     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005385     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005385     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005385     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0005386     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005386     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005386     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005386     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005387     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005387     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005387     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005387     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005388     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005388     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005388     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005388     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005389     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005389     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005389     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005389     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005390     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005390     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005390     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005390     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005391     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005391     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005391     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005391     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005392     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005392     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005392     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005392     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005393     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005393     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005393     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005393     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005394     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005394     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005394     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005394     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005395     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005395     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005395     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005395     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005396     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005396     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005396     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005396     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005397     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005397     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005397     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005397     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0005398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005398     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005398     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005399     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005399     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005402     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005402     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005403     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005403     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005403     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005403     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005404     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005404     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005404     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005404     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005405     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005405     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005405     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005405     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005406     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005406     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005409     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005409     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005409     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005409     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0005410     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005410     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005410     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005410     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005411     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005411     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005411     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005411     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005412     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005412     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005412     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005412     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005413     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005413     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005413     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005413     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005414     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005414     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005414     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005414     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005415     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005415     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005415     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005415     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005416     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005416     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005416     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005416     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005417     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005417     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005417     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005417     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005418     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005418     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005418     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005418     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005419     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005419     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005419     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005419     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005420     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005420     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005420     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005420     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005421     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005421     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005421     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005421     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                   AERMOD HRA Output
EMISFACT L0005422     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005422     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005422     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005422     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005423     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005423     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005423     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005423     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005424     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005424     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005425     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005425     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005425     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005425     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005426     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005426     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005426     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005426     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005427     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005427     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005427     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005427     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005428     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005428     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005428     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005428     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005429     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005429     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005429     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005429     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005430     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005430     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005430     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005430     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005431     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005431     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005431     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005432     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005432     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005432     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005432     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005433     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005433     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005433     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0005434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005434     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005434     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005435     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005435     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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EMISFACT L0005446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT AREA3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK8        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK8        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT STCK9       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK9       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK11      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK11      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003741    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003741    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003741    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003741    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003742    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003742    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003742    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003742    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003743    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003743    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003743    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003743    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003744    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003744    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003744    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003744    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003745    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003745    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003745    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003745    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003746    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003746    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003746    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003746    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003747    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003747    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003747    HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003747    HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                    AERMOD HRA Output
EMISFACT L0003748     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003748     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003748     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003748     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003749     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003749     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003750     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003750     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003750     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003750     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003751     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003751     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003751     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003751     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003752     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003752     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003752     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003752     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003753     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003753     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003753     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003753     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003754     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003754     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003754     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003754     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003755     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003755     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003755     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003755     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003756     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003756     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003756     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003756     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003757     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003757     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003757     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003757     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003758     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003758     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003758     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003758     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003759     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003759     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003759     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003759     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0003760     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003760     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003760     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003761     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003761     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003761     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003761     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003762     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003762     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003762     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003762     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003763     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003763     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003763     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003763     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003764     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003764     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003764     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003764     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003765     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003765     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003765     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003765     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003766     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003766     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003766     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003766     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003767     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003767     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003767     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003767     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003768     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003768     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003768     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003768     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003769     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003769     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003769     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003769     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003770     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003770     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003770     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003770     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003771     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003771     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003771     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003771     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003772     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003772     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003772     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003772     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003773     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003773     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003773     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003773     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003774     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003774     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003774     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003774     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003775     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003775     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003775     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003775     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003776     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003776     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003776     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003776     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003777     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003777     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003777     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003777     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003778     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003778     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003778     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003778     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003779     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003779     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003779     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003779     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003780     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003780     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003780     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003780     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003781     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003781     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003781     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003781     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003782     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003782     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003782     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003783     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003783     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003783     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003783     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0003784      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003784      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003784      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003784      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003785      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003785      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003785      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003785      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003786      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003786      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003786      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003786      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003787      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003787      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003787      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003787      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003788      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003788      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003788      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003788      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003789      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003789      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003789      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003789      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003790      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003790      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003790      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003790      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003791      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003791      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003791      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003791      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003792      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003792      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003792      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003792      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003793      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003793      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003793      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003793      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003794      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003794      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003794      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003794      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003795      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003795      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003795      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003795      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

```
                              AERMOD HRA Output
EMISFACT L0003796     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003796     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003796     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003796     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003797     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003797     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003797     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003797     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003798     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003798     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003798     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003798     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003799     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003799     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003799     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003799     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003800     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003800     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003800     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003800     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003801     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003801     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003801     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003801     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003802     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003802     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003802     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003802     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003803     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003803     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003803     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003803     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003804     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003804     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003804     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003804     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003805     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003805     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003805     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003805     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
SRCGROUP YardTrac AREA1 AREA2 AREA3 AREA4 AREA5 AREA6
SRCGROUP Other    L0003043 L0003044 L0003045 L0003046 L0003047 L0003048
SRCGROUP Other    L0003049 L0003050 L0003051 L0003052 L0003053 L0003054
SRCGROUP Other    L0003055 L0003056 L0003057 L0003058 L0003059 L0003060
SRCGROUP Other    L0003061 L0003062 L0003063 L0003064 L0003065 L0003066
SRCGROUP Other    L0003067 L0003068 L0003069 L0003070 L0003071 L0003072
SRCGROUP Other    L0003073 L0003074 L0003075 L0003076 L0003077 L0003078
SRCGROUP Other    L0003079 L0003080 L0003081 L0003082 L0003083 L0003084
```

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                                  AERMOD HRA Output
SRCGROUP Other    L0003085 L0003086 L0003087 L0003088 L0003089 L0003090
SRCGROUP Other    L0003091 L0003092 L0003093 L0003094 L0003095 L0003096
SRCGROUP Other    L0003097 L0003098 L0003099 L0003100 L0003101 L0003102
SRCGROUP Other    L0003103 L0003104 L0003105 L0003106 L0003107 L0003108
SRCGROUP Other    L0003109 L0003110 L0003111 L0003112 L0003113 L0003114
SRCGROUP Other    L0003115 L0003116 L0003117 L0003118 L0003119 L0003120
SRCGROUP Other    L0003121 L0003122 L0003123 L0003124 L0003125 L0003126
SRCGROUP Other    L0003127 L0003128 L0003129 L0003130 L0003131 L0003132
SRCGROUP Other    L0003133 L0003134 L0003135 L0003136 L0003137 L0003138
SRCGROUP Other    L0003139 L0003140 L0003141 L0003142 L0003143 L0003144
SRCGROUP Other    L0003145 L0003146 L0003147 L0003148 L0003149 L0003150
SRCGROUP Other    L0003151 L0003152 L0003153 L0003154 L0003155 L0003156
SRCGROUP Other    L0003157 L0003158 L0003159 L0003160 L0003161 L0003162
SRCGROUP Other    L0003163 L0003164 L0003165 L0003166 L0003167 L0003168
SRCGROUP Other    L0003169 L0003170 L0003171 L0003172 L0003173 L0003174
SRCGROUP Other    L0003175 L0003176 L0003177 L0003178 L0003179 L0003180
SRCGROUP Other    L0003181 L0003182 L0003183 L0003184 L0003185 L0003186
SRCGROUP Other    L0003187 L0003188 L0003189 L0003190 L0003191 L0003192
SRCGROUP Other    L0003193 L0003194 L0003195 L0003196 L0003197 L0003198
SRCGROUP Other    L0003199 L0003200 L0003201 L0003202 L0003203 L0003204
SRCGROUP Other    L0003205 L0003206 L0003207 L0003208 L0003209 L0003210
SRCGROUP Other    L0003211 L0003212 L0003213 L0003214 L0003215 L0003216
SRCGROUP Other    L0003217 L0003218 L0003219 L0003220 L0003221 L0003222
SRCGROUP Other    L0003223 L0003224 L0003225 L0003226 L0003227 L0003228
SRCGROUP Other    L0003229 L0003230 L0003231 L0003232 L0003233 L0003234
SRCGROUP Other    L0003235 L0003236 L0003237 L0003238 L0003239 L0003240
SRCGROUP Other    L0003241 L0003242 L0003243 L0003244 L0003245 L0003246
SRCGROUP Other    L0003247 L0003248 L0003249 L0003250 L0003251 L0003252
SRCGROUP Other    L0003253 L0003254 L0003255 L0003256 L0003257 L0003258
SRCGROUP Other    L0003259 L0003260 L0003261 L0003262 L0003263 L0003264
SRCGROUP Other    L0003265 L0003266 L0003267 L0003268 L0003269 L0003270
SRCGROUP Other    L0003271 L0003272 L0003273 L0003274 L0003275 L0003276
SRCGROUP Other    L0003277 L0003278 L0003279 L0003280 L0003281 L0003282
SRCGROUP Other    L0003283 L0003284 L0003285 L0003286 L0003287 L0003288
SRCGROUP Other    L0003289 L0003290 L0003291 L0003292 L0003293 L0003294
SRCGROUP Other    L0003295 L0003296 L0003297 L0003298 L0003299 L0003300
SRCGROUP Other    L0003301 L0003302 L0003303 L0003304 L0003305 L0003306
SRCGROUP Other    L0003307 L0003308 L0003309 L0003310 L0003311 L0003312
SRCGROUP Other    L0003313 L0003314 L0003315 L0003316 L0003317 L0003318
SRCGROUP Other    L0003319 L0003320 L0003321 L0003322 L0003323 L0003324
SRCGROUP Other    L0003325 L0003326 L0003327 L0003328 L0003329 L0003330
SRCGROUP Other    L0003331 L0003332 L0003333 L0003334 L0003335 L0003336
SRCGROUP Other    L0003337 L0003338 L0003339 L0003340 L0003341 L0003342
SRCGROUP Other    L0003343 L0003344 L0003345 L0003346 L0003347 L0003348
SRCGROUP Other    L0003349 L0003350 L0003351 L0003352 L0003353 L0003354
SRCGROUP Other    L0003355 L0003356 L0003357 L0003358 L0003359 L0003360
SRCGROUP Other    L0003361 L0003362 L0003363 L0003364 L0003365 L0003366
SRCGROUP Other    L0003367 L0003368 L0003369 L0003370 L0003371 L0003372
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
SRCGROUP Other    L0003373 L0003374 L0003375 L0003376 L0003377 L0003378
SRCGROUP Other    L0003379 L0003380 L0003381 L0003382 L0003383 L0003384
SRCGROUP Other    L0003385 L0003386 L0003387 L0003388 L0003389 L0003390
SRCGROUP Other    L0003391 L0003392 L0003393 L0003394 L0003395 L0003396
SRCGROUP Other    L0003397 L0003398 L0003399 L0003400 L0003401 L0003402
SRCGROUP Other    L0003403 L0003404 L0003405 L0003406 L0003407 L0003408
SRCGROUP Other    L0003409 L0003410 L0003411 L0003412 L0003413 L0003414
SRCGROUP Other    L0003415 L0003416 L0003417 L0003418 L0003419 L0003420
SRCGROUP Other    L0003421 L0003422 L0003423 L0003424 L0003425 L0003426
SRCGROUP Other    L0003427 L0003428 L0003429 L0003430 L0003431 L0003432
SRCGROUP Other    L0003433 L0003434 L0003435 L0003436 L0003437 L0003438
SRCGROUP Other    L0003439 L0003440 L0003441 L0003442 L0003443 L0003444
SRCGROUP Other    L0003445 L0003446 L0003447 L0003448 L0003449 L0003450
SRCGROUP Other    L0003451 L0003452 L0003453 L0003454 L0003455 L0003456
SRCGROUP Other    L0003457 L0003458 L0003459 L0003460 L0003461 L0003462
SRCGROUP Other    L0003463 L0003464 L0003465 L0003466 L0003467 L0003468
SRCGROUP Other    L0003469 L0003470 L0003471 L0003472 L0003473 L0003474
SRCGROUP Other    L0003475 L0003476 L0003477 L0003478 L0003479 L0003480
SRCGROUP Other    L0003481 L0003482 L0003483 L0003484 L0003485 L0003486
SRCGROUP Other    L0003487 L0003488 L0003489 L0003490 L0003491 L0003492
SRCGROUP Other    L0003493 L0003494 L0003495 L0003496 L0003497 L0003498
SRCGROUP Other    L0003499 L0003500 L0003501 L0003502 L0003503 L0003504
SRCGROUP Other    L0003505 L0003506 L0003507 L0003508 L0003509 L0003510
SRCGROUP Other    L0003511 L0003512 L0003513 L0003514 L0003515 L0003516
SRCGROUP Other    L0003517 L0003518 L0003519 L0003520 L0003521 L0003522
SRCGROUP Other    L0003523 L0003524 L0003525 L0003526 L0003527 L0003528
SRCGROUP Other    L0003529 L0003530 L0003531 L0003532 L0003533 L0003534
SRCGROUP Other    L0003535 L0003536 L0003537 L0003538 L0003539 L0003540
SRCGROUP Other    L0003541 L0003542 L0003543 L0003544 L0003545 L0003546
SRCGROUP Other    L0003547 L0003548 L0003549 L0003550 L0003551 L0003552
SRCGROUP Other    L0003553 L0003554 L0003555 L0003556 L0003557 L0003558
SRCGROUP Other    L0003559 L0003560 L0003561 L0003562 L0003563 L0003564
SRCGROUP Other    L0003565 L0003566 L0003567 L0003568 L0003569 L0003570
SRCGROUP Other    L0003571 L0003572 L0003573 L0003574 L0003575 L0003576
SRCGROUP Other    L0003577 L0003578 L0003579 L0003580 L0003581 L0003582
SRCGROUP Other    L0003583 L0003584 L0003585 L0003586 L0003587 L0003588
SRCGROUP Other    L0003589 L0003590 L0003591 L0003592 L0003593 L0003594
SRCGROUP Other    L0003595 L0003596 L0003597 L0003598 L0003599 L0003600
SRCGROUP Other    L0003601 L0003602 L0003603 L0003604 L0003605 L0003606
SRCGROUP Other    L0003607 L0003608 L0003609 L0003610 L0003611 L0003612
SRCGROUP Other    L0003613 L0003614 L0003615 L0003616 L0003617 L0003618
SRCGROUP Other    L0003619 L0003620 L0003621 L0003622 L0003623 L0003624
SRCGROUP Other    L0003625 L0003626 L0003627 L0003628 L0003629 L0003630
SRCGROUP Other    L0003631 L0003632 L0003633 L0003634 L0003635 L0003636
SRCGROUP Other    L0003637 L0003638 L0003639 L0003640 L0003641 L0005357
SRCGROUP Other    L0005358 L0005359 L0005360 L0005361 L0005362 L0005363
SRCGROUP Other    L0005364 L0005365 L0005366 L0005367 L0005368 L0005369
SRCGROUP Other    L0005370 L0005371 L0005372 L0005373 L0005374 L0005375
```

```
   SRCGROUP Other    L0005376 L0005377 L0005378 L0005379 L0005380 L0005381
   SRCGROUP Other    L0005382 L0005383 L0005384 L0005385 L0005386 L0005387
   SRCGROUP Other    L0005388 L0005389 L0005390 L0005391 L0005392 L0005393
   SRCGROUP Other    L0005394 L0005395 L0005396 L0005397 L0005398 L0005399
   SRCGROUP Other    L0005400 L0005401 L0005402 L0005403 L0005404 L0005405
   SRCGROUP Other    L0005406 L0005407 L0005408 L0005409 L0005410 L0005411
   SRCGROUP Other    L0005412 L0005413 L0005414 L0005415 L0005416 L0005417
   SRCGROUP Other    L0005418 L0005419 L0005420 L0005421 L0005422 L0005423
   SRCGROUP Other    L0005424 L0005425 L0005426 L0005427 L0005428 L0005429
   SRCGROUP Other    L0005430 L0005431 L0005432 L0005433 L0005434 L0005435
   SRCGROUP Other    L0005436 L0005437 L0005438 L0005439 L0005440 L0005441
   SRCGROUP Other    L0005442 L0005443 L0005444 L0005445 L0005446 L0005447
   SRCGROUP Other    L0005448 L0005449 L0005450 L0005451 L0005452 L0005453
   SRCGROUP Other    L0005454 L0005455 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED School.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
```

```
                                 AERMOD HRA Output
   PLOTFILE ANNUAL ALL SCHOOL.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac SCHOOL.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other SCHOOL.AD\AN00G002.PLT 33
   SUMMFILE School.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***   NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    8340       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F
```

```
                                 AERMOD HRA Output

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2333 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2333 Source(s);       3 Source Group(s); and      20
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2314 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
```

```
                                 AERMOD HRA Output
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                               ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      5.2 MB of RAM.

 **Detailed Error/Message File:   School.err

 **File for Summary of Results:   School.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                     VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1           0   0.24556E-04  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK2           0   0.24556E-04  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK3           0   0.24556E-04  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK4           0   0.24556E-04  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK5           0   0.24556E-04  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK6           0   0.24556E-04  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK7           0   0.24556E-04  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
```

```
                                 AERMOD HRA Output
 STCK8            0   0.24556E-04  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK9            0   0.24556E-04  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK10           0   0.24556E-04  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK11           0   0.51950E-04  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK12           0   0.41163E-04  477975.8 3748266.9   450.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK13           0   0.70402E-04  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN



                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0003043         0   0.85530E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0003044         0   0.85530E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0003045         0   0.85530E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES   HROFDY
 L0003046         0   0.85530E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES   HROFDY
 L0003047         0   0.85530E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003048         0   0.85530E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003049         0   0.85530E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003050         0   0.85530E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES   HROFDY
```

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                              AERMOD HRA Output
  L0003051         0   0.85530E-05  478217.3 3748656.3    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003052         0   0.85530E-05  478217.4 3748686.3    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003053         0   0.85530E-05  478217.6 3748716.3    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003054         0   0.85530E-05  478217.7 3748746.3    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003055         0   0.85530E-05  478217.8 3748776.3    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003056         0   0.85530E-05  478218.0 3748806.3    452.7      4.00     13.95
 1.86     YES    HROFDY
  L0003057         0   0.85530E-05  478218.1 3748836.3    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003058         0   0.85530E-05  478218.3 3748866.3    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003059         0   0.85530E-05  478218.4 3748896.3    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003060         0   0.88640E-05  477943.9 3748501.1    451.5      4.00     13.95
 1.86     YES    HROFDY
  L0003061         0   0.88640E-05  477944.1 3748531.1    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003062         0   0.88640E-05  477944.4 3748561.1    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003063         0   0.88640E-05  477944.7 3748591.1    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003064         0   0.88640E-05  477944.9 3748621.1    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003065         0   0.88640E-05  477945.2 3748651.1    452.0      4.00     13.95
 1.86     YES    HROFDY
  L0003066         0   0.88640E-05  477945.4 3748681.1    452.5      4.00     13.95
 1.86     YES    HROFDY
  L0003067         0   0.88640E-05  477945.7 3748711.1    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003068         0   0.88640E-05  477945.9 3748741.1    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003069         0   0.88640E-05  477946.2 3748771.1    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003070         0   0.88640E-05  477946.5 3748801.1    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003071         0   0.88640E-05  477946.7 3748831.1    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003072         0   0.88640E-05  477947.0 3748861.1    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003073         0   0.88640E-05  477947.2 3748891.1    453.0      4.00     13.95
 1.86     YES    HROFDY
  L0003074         0   0.81770E-05  477756.7 3748938.5    454.0      4.00      3.95
 1.86     YES    HROFDY
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 L0003075         0   0.81770E-05  477756.7 3748930.0   453.8     4.00     3.95
1.86     YES   HROFDY
 L0003076         0   0.81770E-05  477756.7 3748921.5   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003077         0   0.81770E-05  477756.7 3748913.0   453.3     4.00     3.95
1.86     YES   HROFDY
 L0003078         0   0.81770E-05  477756.7 3748904.5   453.1     4.00     3.95
1.86     YES   HROFDY
 L0003079         0   0.81770E-05  477756.7 3748896.0   453.1     4.00     3.95
1.86     YES   HROFDY
 L0003080         0   0.81770E-05  477756.7 3748887.5   453.1     4.00     3.95
1.86     YES   HROFDY
 L0003081         0   0.81770E-05  477756.7 3748879.0   453.1     4.00     3.95
1.86     YES   HROFDY
 L0003082         0   0.63430E-06  477900.2 3748339.0   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003083         0   0.63430E-06  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003084         0   0.63430E-06  477917.2 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003085         0   0.63430E-06  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003086         0   0.63430E-06  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003087         0   0.63430E-06  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003088         0   0.63430E-06  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES   HROFDY
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 L0003089         0   0.63430E-06   477951.8 3748324.5    451.0      4.00      3.95
1.86     YES    HROFDY
 L0003090         0   0.63430E-06   477956.1 3748317.1    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003091         0   0.63430E-06   477960.3 3748309.7    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003092         0   0.63430E-06   477964.6 3748302.3    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003093         0   0.63430E-06   477968.8 3748295.0    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003094         0   0.63430E-06   477973.0 3748287.6    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003095         0   0.63430E-06   477976.2 3748279.9    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003096         0   0.63430E-06   477977.3 3748271.5    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003097         0   0.63430E-06   477978.3 3748263.0    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003098         0   0.63430E-06   477978.3 3748254.5    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003099         0   0.63430E-06   477978.3 3748246.0    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003100         0   0.63430E-06   477978.2 3748237.5    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003101         0   0.63430E-06   477978.2 3748229.0    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003102         0   0.63430E-06   477978.1 3748220.5    450.0      4.00      3.95
1.86     YES    HROFDY
 L0003103         0   0.59110E-05   477608.7 3748929.3    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003104         0   0.59110E-05   477608.7 3748920.8    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003105         0   0.59110E-05   477608.7 3748912.3    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003106         0   0.59110E-05   477608.7 3748903.8    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003107         0   0.59110E-05   477608.7 3748895.3    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003108         0   0.59110E-05   477608.7 3748886.8    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003109         0   0.59110E-05   477608.7 3748878.3    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003110         0   0.59110E-05   477608.7 3748869.8    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003111         0   0.59110E-05   477608.7 3748861.3    454.0      0.00      3.95
1.86     YES    HROFDY
 L0003112         0   0.59110E-05   477608.7 3748852.8    454.0      0.00      3.95
1.86     YES    HROFDY
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 L0003113         0   0.59110E-05  477608.7 3748844.3   454.0     0.00     3.95
1.86     YES   HROFDY
 L0003114         0   0.59110E-05  477608.7 3748835.8   454.0     0.00     3.95
1.86     YES   HROFDY
 L0003115         0   0.59110E-05  477608.7 3748827.3   454.0     0.00     3.95
1.86     YES   HROFDY
 L0003116         0   0.59110E-05  477608.7 3748818.8   454.0     0.00     3.95
1.86     YES   HROFDY
 L0003117         0   0.59110E-05  477608.7 3748810.3   454.0     0.00     3.95
1.86     YES   HROFDY
 L0003118         0   0.20580E-05  478043.0 3748335.2   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003119         0   0.20580E-05  478073.0 3748334.5   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003120         0   0.20580E-05  478103.0 3748333.9   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003121         0   0.20580E-05  478133.0 3748333.2   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003122         0   0.20580E-05  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003123         0   0.33530E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003124         0   0.33530E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003125         0   0.33530E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003126         0   0.33530E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86     YES   HROFDY
```

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                                    AERMOD HRA Output
  L0003127         0   0.33530E-05   477950.2 3748937.5    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003128         0   0.33530E-05   477949.0 3748929.1    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003129         0   0.33530E-05   477948.2 3748920.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003130         0   0.33530E-05   477948.1 3748912.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003131         0   0.33530E-05   477947.9 3748903.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003132         0   0.33530E-05   477947.8 3748895.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003133         0   0.33530E-05   477947.6 3748886.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003134         0   0.33530E-05   477947.5 3748878.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003135         0   0.33530E-05   477947.3 3748869.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003136         0   0.33530E-05   477947.2 3748861.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003137         0   0.33530E-05   477947.2 3748852.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003138         0   0.33530E-05   477947.1 3748844.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003139         0   0.33530E-05   477947.0 3748835.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003140         0   0.33530E-05   477947.0 3748827.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003141         0   0.33530E-05   477946.9 3748818.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003142         0   0.33530E-05   477946.8 3748810.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003143         0   0.33530E-05   477946.7 3748801.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003144         0   0.33530E-05   477946.7 3748793.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003145         0   0.33530E-05   477946.6 3748784.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003146         0   0.33530E-05   477946.5 3748776.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003147         0   0.33530E-05   477946.5 3748767.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003148         0   0.33530E-05   477946.4 3748759.2    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003149         0   0.33530E-05   477946.3 3748750.7    453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003150         0   0.33530E-05   477946.3 3748742.2    453.0      4.00      3.95
 1.86      YES    HROFDY
```

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                              AERMOD HRA Output
 L0003151         0   0.33530E-05  477946.2 3748733.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003152         0   0.33530E-05  477946.1 3748725.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003153         0   0.33530E-05  477946.1 3748716.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003154         0   0.33530E-05  477946.0 3748708.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003155         0   0.33530E-05  477945.9 3748699.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003156         0   0.33530E-05  477945.9 3748691.2   452.8     4.00     3.95
1.86     YES   HROFDY
 L0003157         0   0.33530E-05  477945.8 3748682.7   452.5     4.00     3.95
1.86     YES   HROFDY
 L0003158         0   0.33530E-05  477945.7 3748674.2   452.2     4.00     3.95
1.86     YES   HROFDY
 L0003159         0   0.33530E-05  477945.7 3748665.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003160         0   0.33530E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003161         0   0.33530E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003162         0   0.33530E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003163         0   0.33530E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003164         0   0.33530E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86     YES   HROFDY
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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 L0003165         0   0.33530E-05   477945.2 3748614.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003166         0   0.33530E-05   477945.2 3748606.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003167         0   0.33530E-05   477945.1 3748597.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003168         0   0.33530E-05   477945.0 3748589.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003169         0   0.33530E-05   477945.0 3748580.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003170         0   0.33530E-05   477944.9 3748572.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003171         0   0.33530E-05   477944.8 3748563.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003172         0   0.33530E-05   477944.8 3748555.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003173         0   0.33530E-05   477944.7 3748546.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003174         0   0.33530E-05   477944.6 3748538.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003175         0   0.33530E-05   477944.6 3748529.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003176         0   0.33530E-05   477944.5 3748521.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003177         0   0.33530E-05   477944.4 3748512.7    451.9      4.00      3.95
1.86      YES    HROFDY
 L0003178         0   0.33530E-05   477944.4 3748504.2    451.6      4.00      3.95
1.86      YES    HROFDY
 L0003179         0   0.33530E-05   477944.3 3748495.7    451.3      4.00      3.95
1.86      YES    HROFDY
 L0003180         0   0.33530E-05   477944.7 3748487.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003181         0   0.33530E-05   477948.7 3748479.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003182         0   0.33530E-05   477952.8 3748472.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003183         0   0.33530E-05   477956.8 3748464.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003184         0   0.33530E-05   477960.8 3748457.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003185         0   0.33530E-05   477964.8 3748449.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003186         0   0.33530E-05   477968.8 3748442.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003187         0   0.33530E-05   477972.8 3748434.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003188         0   0.33530E-05   477976.9 3748427.4    451.0      4.00      3.95
1.86      YES    HROFDY
```

```
                                  AERMOD HRA Output
 L0003189         0   0.33530E-05  477980.9 3748419.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003190         0   0.33530E-05  477984.9 3748412.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003191         0   0.33530E-05  477988.9 3748404.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003192         0   0.33530E-05  477992.9 3748397.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003193         0   0.33530E-05  477996.9 3748389.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003194         0   0.33530E-05  478001.0 3748382.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003195         0   0.33530E-05  478005.0 3748375.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003196         0   0.33530E-05  478009.0 3748367.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003197         0   0.33530E-05  478013.0 3748360.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003198         0   0.33530E-05  478017.1 3748352.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003199         0   0.33530E-05  478021.7 3748345.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003200         0   0.33530E-05  478026.4 3748338.3   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003201         0   0.33530E-05  478033.8 3748336.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003202         0   0.33530E-05  478042.3 3748336.5   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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 L0003203         0   0.33530E-05   478050.8 3748336.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003204         0   0.33530E-05   478059.3 3748336.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003205         0   0.33530E-05   478067.8 3748336.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003206         0   0.33530E-05   478076.3 3748336.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003207         0   0.33530E-05   478084.8 3748337.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003208         0   0.33530E-05   478093.3 3748337.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003209         0   0.33530E-05   478101.8 3748337.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003210         0   0.33530E-05   478110.3 3748337.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003211         0   0.33530E-05   478118.8 3748337.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003212         0   0.33530E-05   478127.3 3748337.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003213         0   0.33530E-05   478135.8 3748337.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003214         0   0.33530E-05   478144.3 3748337.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003215         0   0.33530E-05   478152.8 3748337.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003216         0   0.33530E-05   478161.3 3748337.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003217         0   0.33530E-05   478169.8 3748337.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003218         0   0.33530E-05   478178.3 3748338.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003219         0   0.33530E-05   478186.8 3748338.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003220         0   0.33530E-05   478195.3 3748338.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003221         0   0.33530E-05   478203.8 3748338.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003222         0   0.33530E-05   478212.3 3748338.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003223         0   0.33530E-05   478215.8 3748343.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003224         0   0.33530E-05   478215.9 3748351.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003225         0   0.33530E-05   478216.0 3748360.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003226         0   0.33530E-05   478216.0 3748368.9    451.0      4.00      3.95
1.86      YES    HROFDY
```

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                                  AERMOD HRA Output
 L0003227         0   0.33530E-05  478216.1 3748377.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003228         0   0.33530E-05  478216.1 3748385.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003229         0   0.33530E-05  478216.2 3748394.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003230         0   0.33530E-05  478216.3 3748402.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003231         0   0.33530E-05  478216.3 3748411.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003232         0   0.33530E-05  478216.4 3748419.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003233         0   0.33530E-05  478216.4 3748428.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003234         0   0.33530E-05  478216.5 3748436.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003235         0   0.33530E-05  478216.6 3748445.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003236         0   0.33530E-05  478216.6 3748453.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003237         0   0.33530E-05  478216.7 3748462.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003238         0   0.33530E-05  478216.7 3748470.9   451.1     4.00     3.95
1.86     YES   HROFDY
 L0003239         0   0.33530E-05  478216.8 3748479.4   451.2     4.00     3.95
1.86     YES   HROFDY
 L0003240         0   0.33530E-05  478216.9 3748487.9   451.3     4.00     3.95
1.86     YES   HROFDY
 L0003241         0   0.33530E-05  478216.9 3748496.4   451.5     4.00     3.95
1.86     YES   HROFDY
 L0003242         0   0.33530E-05  478217.0 3748504.9   451.7     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                  BY
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- - - - - - - - - - - - - - - - - - - -

 L0003243         0   0.33530E-05   478217.0 3748513.4    451.9      4.00      3.95
1.86     YES    HROFDY
 L0003244         0   0.33530E-05   478217.1 3748521.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003245         0   0.33530E-05   478217.2 3748530.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003246         0   0.33530E-05   478217.2 3748538.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003247         0   0.33530E-05   478217.3 3748547.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003248         0   0.33530E-05   478217.3 3748555.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003249         0   0.33530E-05   478217.4 3748564.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003250         0   0.33530E-05   478217.5 3748572.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003251         0   0.33530E-05   478217.5 3748581.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003252         0   0.33530E-05   478217.6 3748589.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003253         0   0.33530E-05   478217.7 3748598.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003254         0   0.33530E-05   478217.7 3748606.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003255         0   0.33530E-05   478217.8 3748615.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003256         0   0.33530E-05   478217.8 3748623.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003257         0   0.33530E-05   478217.9 3748632.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003258         0   0.33530E-05   478218.0 3748640.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003259         0   0.33530E-05   478218.0 3748649.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003260         0   0.33530E-05   478218.1 3748657.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003261         0   0.33530E-05   478218.1 3748666.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003262         0   0.33530E-05   478218.2 3748674.9    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003263         0   0.33530E-05   478218.3 3748683.4    452.0      4.00      3.95
1.86     YES    HROFDY
 L0003264         0   0.33530E-05   478218.3 3748691.9    452.0      4.00      3.95
1.86     YES    HROFDY
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 L0003265         0   0.33530E-05  478218.4 3748700.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003266         0   0.33530E-05  478218.4 3748708.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003267         0   0.33530E-05  478218.5 3748717.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003268         0   0.33530E-05  478218.6 3748725.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003269         0   0.33530E-05  478218.6 3748734.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003270         0   0.33530E-05  478218.7 3748742.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003271         0   0.33530E-05  478218.7 3748751.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003272         0   0.33530E-05  478218.8 3748759.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003273         0   0.33530E-05  478218.9 3748768.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003274         0   0.33530E-05  478218.9 3748776.9   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003275         0   0.33530E-05  478219.0 3748785.4   452.0     4.00     3.95
1.86     YES   HROFDY
 L0003276         0   0.33530E-05  478219.0 3748793.9   452.2     4.00     3.95
1.86     YES   HROFDY
 L0003277         0   0.33530E-05  478219.1 3748802.4   452.5     4.00     3.95
1.86     YES   HROFDY
 L0003278         0   0.33530E-05  478219.2 3748810.9   452.8     4.00     3.95
1.86     YES   HROFDY
 L0003279         0   0.33530E-05  478219.2 3748819.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003280         0   0.33530E-05  478219.3 3748827.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003281         0   0.33530E-05  478219.3 3748836.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003282         0   0.33530E-05  478219.4 3748844.9   453.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                                   AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003283         0   0.33530E-05  478219.5 3748853.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003284         0   0.33530E-05  478219.5 3748861.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003285         0   0.33530E-05  478219.6 3748870.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003286         0   0.33530E-05  478219.6 3748878.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003287         0   0.33530E-05  478219.7 3748887.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003288         0   0.33530E-05  478219.8 3748895.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003289         0   0.33530E-05  478219.8 3748904.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003290         0   0.33530E-05  478219.9 3748912.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003291         0   0.33530E-05  478217.5 3748921.1   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003292         0   0.33530E-05  478215.0 3748929.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003293         0   0.33530E-05  478212.6 3748937.3   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003294         0   0.33530E-05  478210.1 3748945.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003295         0   0.33530E-05  478207.6 3748953.6   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003296         0   0.33530E-05  478205.1 3748961.7   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003297         0   0.33530E-05  478202.7 3748969.8   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003298         0   0.71410E-06  477852.8 3748835.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003299         0   0.71410E-06  477852.8 3748843.7   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003300         0   0.71410E-06  477852.9 3748852.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003301         0   0.71410E-06  477852.9 3748860.7   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003302         0   0.71410E-06  477853.0 3748869.2   453.0     4.00     3.95
1.86      YES    HROFDY
```

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                                  AERMOD HRA Output
 L0003303         0   0.71410E-06  477853.0 3748877.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003304         0   0.71410E-06  477853.0 3748886.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003305         0   0.71410E-06  477853.1 3748894.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003306         0   0.71410E-06  477853.1 3748903.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003307         0   0.71410E-06  477853.2 3748911.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003308         0   0.71410E-06  477853.2 3748920.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003309         0   0.71410E-06  477853.3 3748928.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003310         0   0.71410E-06  477853.3 3748937.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003311         0   0.71410E-06  477853.4 3748945.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003312         0   0.71410E-06  477853.4 3748954.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003313         0   0.71410E-06  477853.5 3748962.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003314         0   0.71410E-06  477853.5 3748971.2   453.2     4.00     3.95
1.86     YES   HROFDY
 L0003315         0   0.71410E-06  477853.5 3748979.7   453.4     4.00     3.95
1.86     YES   HROFDY
 L0003316         0   0.71410E-06  477845.0 3748979.7   453.5     4.00     3.95
1.86     YES   HROFDY
 L0003317         0   0.71410E-06  477836.5 3748979.6   453.7     4.00     3.95
1.86     YES   HROFDY
 L0003318         0   0.71410E-06  477828.0 3748979.6   453.9     4.00     3.95
1.86     YES   HROFDY
 L0003319         0   0.71410E-06  477819.5 3748979.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003320         0   0.71410E-06  477811.0 3748979.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003321         0   0.71410E-06  477802.5 3748979.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003322         0   0.71410E-06  477794.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003323         0   0.71410E-06  477785.5 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003324         0   0.71410E-06  477777.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003325         0   0.71410E-06  477768.5 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003326         0   0.71410E-06  477760.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003327         0   0.71410E-06  477751.5 3748979.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003328         0   0.71410E-06  477743.0 3748979.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003329         0   0.71410E-06  477742.7 3748971.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003330         0   0.71410E-06  477742.7 3748962.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003331         0   0.71410E-06  477742.6 3748954.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003332         0   0.71410E-06  477742.6 3748945.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003333         0   0.71410E-06  477742.5 3748937.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003334         0   0.71410E-06  477742.5 3748928.7   453.9     4.00     3.95
1.86     YES   HROFDY
 L0003335         0   0.71410E-06  477742.4 3748920.2   453.8     4.00     3.95
1.86     YES   HROFDY
 L0003336         0   0.71410E-06  477742.4 3748911.7   453.7     4.00     3.95
1.86     YES   HROFDY
 L0003337         0   0.71410E-06  477742.3 3748903.2   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003338         0   0.71410E-06  477742.3 3748894.7   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003339         0   0.71410E-06  477742.2 3748886.2   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003340         0   0.71410E-06  477744.2 3748878.0   453.5     4.00     3.95
1.86     YES   HROFDY
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                                 AERMOD HRA Output
 L0003341         0   0.71410E-06  477746.5 3748869.8   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003342         0   0.71410E-06  477748.8 3748861.6   453.7     4.00     3.95
1.86     YES   HROFDY
 L0003343         0   0.71410E-06  477751.1 3748853.4   453.8     4.00     3.95
1.86     YES   HROFDY
 L0003344         0   0.71410E-06  477753.4 3748845.3   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003345         0   0.71410E-06  477757.5 3748838.2   453.7     4.00     3.95
1.86     YES   HROFDY
 L0003346         0   0.71410E-06  477763.8 3748832.5   453.5     4.00     3.95
1.86     YES   HROFDY
 L0003347         0   0.71410E-06  477770.1 3748826.8   453.2     4.00     3.95
1.86     YES   HROFDY
 L0003348         0   0.71410E-06  477778.6 3748826.5   453.1     4.00     3.95
1.86     YES   HROFDY
 L0003349         0   0.71410E-06  477787.1 3748826.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003350         0   0.71410E-06  477795.6 3748826.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003351         0   0.71410E-06  477804.1 3748826.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003352         0   0.71410E-06  477812.6 3748826.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003353         0   0.71410E-06  477821.1 3748826.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003354         0   0.71410E-06  477829.6 3748826.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003355         0   0.71410E-06  477838.1 3748825.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003356         0   0.71410E-06  477846.6 3748825.8   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003357         0   0.56240E-06  477886.6 3748203.7   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003358         0   0.56240E-06  477886.4 3748212.2   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003359         0   0.56240E-06  477886.3 3748220.7   450.1     4.00     3.95
1.86     YES   HROFDY
 L0003360         0   0.56240E-06  477886.1 3748229.2   450.3     4.00     3.95
1.86     YES   HROFDY
 L0003361         0   0.56240E-06  477885.9 3748237.7   450.6     4.00     3.95
1.86     YES   HROFDY
 L0003362         0   0.56240E-06  477885.7 3748246.2   450.8     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
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                              AERMOD HRA Output

                                PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003363         0   0.56240E-06  477885.5 3748254.7   450.9     4.00     3.95
1.86     YES   HROFDY
 L0003364         0   0.56240E-06  477885.6 3748263.2   450.9     4.00     3.95
1.86     YES   HROFDY
 L0003365         0   0.56240E-06  477885.7 3748271.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003366         0   0.56240E-06  477885.8 3748280.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003367         0   0.56240E-06  477885.9 3748288.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003368         0   0.56240E-06  477886.0 3748297.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003369         0   0.56240E-06  477886.1 3748305.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003370         0   0.56240E-06  477886.2 3748314.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003371         0   0.56240E-06  477886.3 3748322.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003372         0   0.56240E-06  477886.4 3748331.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003373         0   0.56240E-06  477889.0 3748337.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003374         0   0.56240E-06  477897.5 3748338.1   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003375         0   0.56240E-06  477906.0 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003376         0   0.56240E-06  477914.4 3748339.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003377         0   0.56240E-06  477922.9 3748339.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003378         0   0.56240E-06  477931.4 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
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 L0003379         0   0.56240E-06   477939.8 3748338.2   451.0      4.00      3.95
1.86      YES    HROFDY
 L0003380         0   0.56240E-06   477945.5 3748332.6   451.0      4.00      3.95
1.86      YES    HROFDY
 L0003381         0   0.56240E-06   477950.6 3748325.7   451.0      4.00      3.95
1.86      YES    HROFDY
 L0003382         0   0.56240E-06   477955.0 3748318.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003383         0   0.56240E-06   477959.4 3748311.2   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003384         0   0.56240E-06   477963.8 3748303.9   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003385         0   0.56240E-06   477968.2 3748296.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003386         0   0.56240E-06   477972.6 3748289.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003387         0   0.56240E-06   477975.8 3748281.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003388         0   0.56240E-06   477977.7 3748273.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003389         0   0.56240E-06   477979.6 3748265.1   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003390         0   0.56240E-06   477981.3 3748256.8   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003391         0   0.56240E-06   477980.6 3748248.3   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003392         0   0.56240E-06   477979.9 3748239.8   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003393         0   0.56240E-06   477979.2 3748231.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003394         0   0.56240E-06   477978.4 3748222.9   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003395         0   0.56240E-06   477982.6 3748217.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003396         0   0.56240E-06   477990.0 3748212.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003397         0   0.56240E-06   477994.0 3748206.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003398         0   0.56240E-06   477994.1 3748198.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003399         0   0.56240E-06   477986.1 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003400         0   0.56240E-06   477977.6 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003401         0   0.56240E-06   477969.1 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003402         0   0.56240E-06   477960.6 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003403         0   0.56240E-06  477952.1 3748197.5   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003404         0   0.56240E-06  477943.6 3748197.5   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003405         0   0.56240E-06  477935.1 3748197.5   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003406         0   0.96020E-06  477505.1 3748975.7   454.2     4.00     3.95
1.86     YES   HROFDY
 L0003407         0   0.96020E-06  477513.6 3748975.6   454.1     4.00     3.95
1.86     YES   HROFDY
 L0003408         0   0.96020E-06  477522.1 3748975.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003409         0   0.96020E-06  477530.6 3748975.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003410         0   0.96020E-06  477539.1 3748975.1   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003411         0   0.96020E-06  477547.6 3748974.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003412         0   0.96020E-06  477556.1 3748974.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003413         0   0.96020E-06  477564.6 3748974.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003414         0   0.96020E-06  477573.1 3748974.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003415         0   0.96020E-06  477581.6 3748974.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003416         0   0.96020E-06  477590.1 3748974.1   454.0     4.00     3.95
1.86     YES   HROFDY
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 L0003417         0   0.96020E-06   477598.5 3748973.8    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003418         0   0.96020E-06   477605.4 3748968.8    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003419         0   0.96020E-06   477611.1 3748963.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003420         0   0.96020E-06   477613.4 3748954.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003421         0   0.96020E-06   477615.7 3748946.7    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003422         0   0.96020E-06   477618.0 3748938.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003423         0   0.96020E-06   477620.0 3748930.2    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003424         0   0.96020E-06   477621.7 3748921.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003425         0   0.96020E-06   477623.4 3748913.6    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003426         0   0.96020E-06   477625.1 3748905.3    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003427         0   0.96020E-06   477626.2 3748896.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003428         0   0.96020E-06   477626.4 3748888.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003429         0   0.96020E-06   477626.5 3748879.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003430         0   0.96020E-06   477626.6 3748871.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003431         0   0.96020E-06   477626.7 3748862.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003432         0   0.96020E-06   477626.8 3748854.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003433         0   0.96020E-06   477626.9 3748845.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003434         0   0.96020E-06   477627.0 3748837.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003435         0   0.96020E-06   477627.1 3748828.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003436         0   0.96020E-06   477627.2 3748820.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003437         0   0.96020E-06   477627.3 3748811.9    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003438         0   0.96020E-06   477627.5 3748803.4    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003439         0   0.96020E-06   477627.0 3748795.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003440         0   0.96020E-06   477618.5 3748795.7    454.0      4.00      3.95
1.86      YES    HROFDY
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 L0003441         0   0.96020E-06  477610.0 3748795.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003442         0   0.96020E-06  477601.5 3748796.2   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -


 L0003443         0   0.96020E-06  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003444         0   0.96020E-06  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003445         0   0.96020E-06  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003446         0   0.96020E-06  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003447         0   0.96020E-06  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003448         0   0.96020E-06  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003449         0   0.96020E-06  477542.0 3748797.8   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003450         0   0.96020E-06  477533.5 3748798.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003451         0   0.96020E-06  477525.0 3748798.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003452         0   0.96020E-06  477516.5 3748798.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003453         0   0.96020E-06  477508.0 3748798.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003454         0   0.96020E-06  477499.5 3748798.9   454.0     4.00     3.95
1.86     YES   HROFDY
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                                 AERMOD HRA Output
  L0003455         0   0.96020E-06  477491.0 3748799.2   454.0      4.00      3.95
 1.86      YES    HROFDY
  L0003456         0   0.11950E-05  478255.5 3748984.6   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003457         0   0.11950E-05  478247.0 3748984.7   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003458         0   0.11950E-05  478238.5 3748984.7   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003459         0   0.11950E-05  478230.0 3748984.8   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003460         0   0.11950E-05  478221.5 3748984.9   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003461         0   0.11950E-05  478213.0 3748985.0   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003462         0   0.11950E-05  478204.5 3748985.1   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003463         0   0.11950E-05  478196.0 3748985.1   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003464         0   0.11950E-05  478187.5 3748985.2   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003465         0   0.11950E-05  478179.0 3748985.3   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003466         0   0.11950E-05  478170.5 3748985.4   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003467         0   0.11950E-05  478162.0 3748985.5   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003468         0   0.11950E-05  478153.5 3748985.5   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003469         0   0.11950E-05  478145.0 3748985.6   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003470         0   0.11950E-05  478136.5 3748985.7   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003471         0   0.11950E-05  478128.0 3748985.8   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003472         0   0.11950E-05  478119.5 3748985.9   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003473         0   0.11950E-05  478111.0 3748986.0   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003474         0   0.11950E-05  478102.5 3748986.0   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003475         0   0.11950E-05  478094.0 3748986.1   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003476         0   0.11950E-05  478085.5 3748986.2   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003477         0   0.11950E-05  478077.0 3748986.3   453.0      4.00      3.95
 1.86      YES    HROFDY
  L0003478         0   0.11950E-05  478068.5 3748986.4   453.0      4.00      3.95
 1.86      YES    HROFDY
```

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 L0003479         0   0.11950E-05  478060.0 3748986.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003480         0   0.11950E-05  478051.5 3748986.5   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003481         0   0.11950E-05  478043.0 3748986.6   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003482         0   0.11950E-05  478034.5 3748986.7   453.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -


 L0003483         0   0.11950E-05  478026.0 3748986.8   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003484         0   0.11950E-05  478017.5 3748986.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003485         0   0.11950E-05  478009.0 3748986.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003486         0   0.11950E-05  478000.5 3748987.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003487         0   0.11950E-05  477992.0 3748987.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003488         0   0.11950E-05  477983.5 3748987.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003489         0   0.11950E-05  477975.0 3748987.3   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003490         0   0.11950E-05  477966.5 3748987.3   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003491         0   0.11950E-05  477958.0 3748987.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003492         0   0.11950E-05  477949.5 3748987.5   453.0     4.00     3.95
1.86     YES   HROFDY
```

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 L0003493         0   0.11950E-05  477941.0 3748987.6   453.0     4.00      3.95
1.86      YES    HROFDY
 L0003494         0   0.11950E-05  477932.5 3748987.7   453.2     4.00      3.95
1.86      YES    HROFDY
 L0003495         0   0.11950E-05  477924.0 3748987.7   453.4     4.00      3.95
1.86      YES    HROFDY
 L0003496         0   0.11950E-05  477915.5 3748987.8   453.6     4.00      3.95
1.86      YES    HROFDY
 L0003497         0   0.11950E-05  477907.0 3748987.9   453.7     4.00      3.95
1.86      YES    HROFDY
 L0003498         0   0.11950E-05  477898.6 3748988.0   453.7     4.00      3.95
1.86      YES    HROFDY
 L0003499         0   0.11950E-05  477890.1 3748988.1   453.7     4.00      3.95
1.86      YES    HROFDY
 L0003500         0   0.11950E-05  477881.9 3748988.5   453.7     4.00      3.95
1.86      YES    HROFDY
 L0003501         0   0.11950E-05  477881.9 3748997.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003502         0   0.11950E-05  477881.9 3749005.5   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003503         0   0.11950E-05  477881.9 3749014.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003504         0   0.11950E-05  477881.9 3749022.5   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003505         0   0.11950E-05  477881.9 3749031.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003506         0   0.11950E-05  477881.9 3749039.5   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003507         0   0.11950E-05  477881.9 3749048.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003508         0   0.11950E-05  477881.9 3749056.5   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003509         0   0.11950E-05  477881.9 3749065.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003510         0   0.11950E-05  477881.9 3749073.5   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003511         0   0.11950E-05  477881.9 3749082.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003512         0   0.11950E-05  477881.9 3749090.5   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003513         0   0.11950E-05  477881.9 3749099.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003514         0   0.11950E-05  477881.9 3749107.5   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003515         0   0.11950E-05  477881.9 3749116.0   454.0     4.00      3.95
1.86      YES    HROFDY
 L0003516         0   0.11950E-05  477881.9 3749124.5   454.0     4.00      3.95
1.86      YES    HROFDY
```

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                              AERMOD HRA Output
 L0003517         0   0.11950E-05  477881.9 3749133.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003518         0   0.11950E-05  477881.9 3749141.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003519         0   0.11950E-05  477881.9 3749150.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003520         0   0.11950E-05  477881.9 3749158.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003521         0   0.11950E-05  477881.9 3749167.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003522         0   0.11950E-05  477881.9 3749175.5   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0003523         0   0.11950E-05  477881.9 3749184.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003524         0   0.11950E-05  477881.9 3749192.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003525         0   0.11950E-05  477881.9 3749201.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003526         0   0.11950E-05  477881.9 3749209.5   454.1     4.00     3.95
1.86     YES   HROFDY
 L0003527         0   0.11950E-05  477881.9 3749218.0   454.4     4.00     3.95
1.86     YES   HROFDY
 L0003528         0   0.11950E-05  477881.9 3749226.5   454.7     4.00     3.95
1.86     YES   HROFDY
 L0003529         0   0.11950E-05  477881.9 3749235.0   454.9     4.00     3.95
1.86     YES   HROFDY
 L0003530         0   0.11950E-05  477877.9 3749239.5   455.0     4.00     3.95
1.86     YES   HROFDY
```

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                              AERMOD HRA Output
  L0003531         0   0.11950E-05  477869.4 3749239.6    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003532         0   0.11950E-05  477860.9 3749239.7    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003533         0   0.11950E-05  477852.4 3749239.9    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003534         0   0.11950E-05  477843.9 3749240.0    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003535         0   0.11950E-05  477835.4 3749240.1    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003536         0   0.11950E-05  477826.9 3749240.2    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003537         0   0.11950E-05  477818.4 3749240.3    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003538         0   0.11950E-05  477809.9 3749240.4    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003539         0   0.11950E-05  477801.4 3749240.5    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003540         0   0.11950E-05  477792.9 3749240.7    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003541         0   0.11950E-05  477784.4 3749240.8    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003542         0   0.11950E-05  477775.9 3749240.9    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003543         0   0.11950E-05  477767.4 3749241.0    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003544         0   0.11950E-05  477758.9 3749241.1    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003545         0   0.11950E-05  477750.4 3749241.2    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003546         0   0.11950E-05  477741.9 3749241.3    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003547         0   0.11950E-05  477733.4 3749241.4    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003548         0   0.11950E-05  477724.9 3749241.6    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003549         0   0.11950E-05  477716.4 3749241.7    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003550         0   0.11950E-05  477707.9 3749241.8    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003551         0   0.11950E-05  477699.4 3749241.9    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003552         0   0.11950E-05  477690.9 3749242.0    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003553         0   0.11950E-05  477682.4 3749242.1    455.0      4.00      3.95
 1.86     YES   HROFDY
  L0003554         0   0.11950E-05  477673.9 3749242.2    455.0      4.00      3.95
 1.86     YES   HROFDY
```

```
                                 AERMOD HRA Output
 L0003555        0   0.11950E-05  477665.4 3749242.4   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003556        0   0.11950E-05  477656.9 3749242.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003557        0   0.11950E-05  477648.4 3749242.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003558        0   0.11950E-05  477639.9 3749242.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003559        0   0.11950E-05  477631.4 3749242.8   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003560        0   0.11950E-05  477622.9 3749242.9   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003561        0   0.11950E-05  477614.4 3749243.0   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003562        0   0.11950E-05  477605.9 3749243.2   455.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                 BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0003563        0   0.11950E-05  477597.4 3749243.3   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003564        0   0.11950E-05  477588.9 3749243.4   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003565        0   0.11950E-05  477580.4 3749243.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003566        0   0.11950E-05  477571.9 3749243.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003567        0   0.11950E-05  477563.4 3749243.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003568        0   0.11950E-05  477554.9 3749243.8   455.0     4.00     3.95
1.86     YES   HROFDY
```

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 L0003569         0   0.11950E-05  477546.4 3749244.0   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003570         0   0.11950E-05  477537.9 3749244.1   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003571         0   0.11950E-05  477529.4 3749244.2   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003572         0   0.11950E-05  477520.9 3749244.3   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003573         0   0.11950E-05  477512.4 3749244.4   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003574         0   0.11950E-05  477503.9 3749244.5   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003575         0   0.11950E-05  477495.4 3749244.6   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003576         0   0.11950E-05  477486.9 3749244.7   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003577         0   0.11950E-05  477478.4 3749244.9   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003578         0   0.11950E-05  477476.8 3749251.9   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003579         0   0.11950E-05  477476.7 3749260.4   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003580         0   0.11950E-05  477476.6 3749268.9   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003581         0   0.11950E-05  477476.5 3749277.4   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003582         0   0.11950E-05  477476.4 3749285.9   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003583         0   0.11950E-05  477476.3 3749294.4   455.0      4.00      3.95
1.86     YES   HROFDY
 L0003584         0   0.11950E-05  477476.2 3749302.9   455.1      4.00      3.95
1.86     YES   HROFDY
 L0003585         0   0.11950E-05  477476.0 3749311.4   455.2      4.00      3.95
1.86     YES   HROFDY
 L0003586         0   0.11950E-05  477475.9 3749319.9   455.4      4.00      3.95
1.86     YES   HROFDY
 L0003587         0   0.11950E-05  477475.8 3749328.4   455.5      4.00      3.95
1.86     YES   HROFDY
 L0003588         0   0.11950E-05  477475.7 3749336.9   455.7      4.00      3.95
1.86     YES   HROFDY
 L0003589         0   0.11950E-05  477475.6 3749345.4   455.8      4.00      3.95
1.86     YES   HROFDY
 L0003590         0   0.11950E-05  477475.5 3749353.9   455.9      4.00      3.95
1.86     YES   HROFDY
 L0003591         0   0.11950E-05  477475.4 3749362.4   456.0      4.00      3.95
1.86     YES   HROFDY
 L0003592         0   0.11950E-05  477475.3 3749370.9   456.0      4.00      3.95
1.86     YES   HROFDY
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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 L0003593         0   0.11950E-05  477475.1 3749379.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003594         0   0.11950E-05  477475.0 3749387.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003595         0   0.11950E-05  477474.9 3749396.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003596         0   0.11950E-05  477474.8 3749404.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003597         0   0.11950E-05  477474.7 3749413.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003598         0   0.11950E-05  477474.6 3749421.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003599         0   0.11950E-05  477474.5 3749430.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003600         0   0.11950E-05  477474.4 3749438.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003601         0   0.11950E-05  477474.2 3749447.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003602         0   0.11950E-05  477474.1 3749455.9   456.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0003603         0   0.11950E-05  477474.0 3749464.4   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003604         0   0.11950E-05  477473.9 3749472.9   456.0     4.00     3.95
1.86     YES   HROFDY
 L0003605         0   0.11950E-05  477473.8 3749481.4   456.2     4.00     3.95
1.86     YES   HROFDY
 L0003606         0   0.11950E-05  477473.7 3749489.9   456.4     4.00     3.95
1.86     YES   HROFDY
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 L0003607         0   0.11950E-05  477473.6 3749498.4    456.7      4.00      3.95
1.86      YES    HROFDY
 L0003608         0   0.11950E-05  477473.5 3749506.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003609         0   0.11950E-05  477473.3 3749515.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003610         0   0.11950E-05  477473.2 3749523.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003611         0   0.11950E-05  477473.1 3749532.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003612         0   0.11950E-05  477473.0 3749540.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003613         0   0.11950E-05  477472.9 3749549.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003614         0   0.11950E-05  477472.8 3749557.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003615         0   0.11950E-05  477472.7 3749566.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003616         0   0.11950E-05  477472.6 3749574.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003617         0   0.11950E-05  477472.4 3749583.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003618         0   0.11950E-05  477472.3 3749591.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003619         0   0.11950E-05  477472.2 3749600.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003620         0   0.11950E-05  477472.1 3749608.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003621         0   0.11950E-05  477472.0 3749617.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003622         0   0.11950E-05  477471.9 3749625.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003623         0   0.11950E-05  477471.8 3749634.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003624         0   0.11950E-05  477471.7 3749642.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003625         0   0.11950E-05  477471.5 3749651.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003626         0   0.11950E-05  477471.4 3749659.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003627         0   0.11950E-05  477471.3 3749668.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003628         0   0.11950E-05  477471.2 3749676.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003629         0   0.11950E-05  477471.1 3749685.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003630         0   0.11950E-05  477471.0 3749693.9    457.0      4.00      3.95
1.86      YES    HROFDY
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 L0003631         0   0.11950E-05  477470.9 3749702.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003632         0   0.11950E-05  477470.8 3749710.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003633         0   0.11950E-05  477470.6 3749719.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003634         0   0.11950E-05  477470.5 3749727.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003635         0   0.11950E-05  477470.4 3749736.4   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003636         0   0.11950E-05  477470.3 3749744.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003637         0   0.11950E-05  477470.2 3749753.4   457.2     4.00     3.95
1.86     YES   HROFDY
 L0003638         0   0.11950E-05  477470.1 3749761.9   457.5     4.00     3.95
1.86     YES   HROFDY
 L0003639         0   0.11950E-05  477470.0 3749770.4   457.8     4.00     3.95
1.86     YES   HROFDY
 L0003640         0   0.11950E-05  477469.9 3749778.9   458.0     4.00     3.95
1.86     YES   HROFDY
 L0003641         0   0.11950E-05  477469.7 3749787.4   458.0     4.00     3.95
1.86     YES   HROFDY
 L0005357         0   0.71640E-06  477901.9 3748181.5   450.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005358         0   0.71640E-06  477893.4 3748181.6   450.0     4.00     3.95
1.86     YES   HROFDY
 L0005359         0   0.71640E-06  477884.9 3748181.7   450.0     4.00     3.95
1.86     YES   HROFDY
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 L0005360         0   0.71640E-06   477876.4 3748181.7    450.0      4.00      3.95
1.86     YES    HROFDY
 L0005361         0   0.71640E-06   477867.9 3748181.8    450.0      4.00      3.95
1.86     YES    HROFDY
 L0005362         0   0.71640E-06   477859.4 3748181.9    450.0      4.00      3.95
1.86     YES    HROFDY
 L0005363         0   0.71640E-06   477850.9 3748181.9    450.0      4.00      3.95
1.86     YES    HROFDY
 L0005364         0   0.71640E-06   477842.4 3748182.0    450.2      4.00      3.95
1.86     YES    HROFDY
 L0005365         0   0.71640E-06   477833.9 3748182.1    450.5      4.00      3.95
1.86     YES    HROFDY
 L0005366         0   0.71640E-06   477825.4 3748182.1    450.7      4.00      3.95
1.86     YES    HROFDY
 L0005367         0   0.71640E-06   477816.9 3748182.2    450.9      4.00      3.95
1.86     YES    HROFDY
 L0005368         0   0.71640E-06   477808.4 3748182.3    450.9      4.00      3.95
1.86     YES    HROFDY
 L0005369         0   0.71640E-06   477799.9 3748182.3    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005370         0   0.71640E-06   477791.4 3748182.4    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005371         0   0.71640E-06   477782.9 3748182.5    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005372         0   0.71640E-06   477774.4 3748182.5    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005373         0   0.71640E-06   477765.9 3748182.6    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005374         0   0.71640E-06   477757.4 3748182.7    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005375         0   0.71640E-06   477748.9 3748182.8    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005376         0   0.71640E-06   477740.4 3748182.8    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005377         0   0.71640E-06   477731.9 3748182.9    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005378         0   0.71640E-06   477723.4 3748183.0    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005379         0   0.71640E-06   477714.9 3748183.0    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005380         0   0.71640E-06   477706.4 3748183.1    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005381         0   0.71640E-06   477697.9 3748183.2    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005382         0   0.71640E-06   477689.4 3748183.2    451.0      4.00      3.95
1.86     YES    HROFDY
 L0005383         0   0.71640E-06   477680.9 3748183.3    451.0      4.00      3.95
1.86     YES    HROFDY
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                                  AERMOD HRA Output
 L0005384         0   0.71640E-06  477672.4 3748183.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005385         0   0.71640E-06  477663.9 3748183.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005386         0   0.71640E-06  477655.4 3748183.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005387         0   0.71640E-06  477646.9 3748183.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005388         0   0.71640E-06  477638.4 3748183.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005389         0   0.71640E-06  477629.9 3748183.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005390         0   0.71640E-06  477621.4 3748183.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005391         0   0.71640E-06  477612.9 3748183.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005392         0   0.71640E-06  477604.4 3748183.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005393         0   0.71640E-06  477595.9 3748184.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005394         0   0.71640E-06  477587.4 3748184.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005395         0   0.71640E-06  477578.9 3748184.1   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005396         0   0.71640E-06  477570.4 3748184.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005397         0   0.71640E-06  477561.9 3748184.2   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005398          0   0.71640E-06   477553.4 3748184.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005399          0   0.71640E-06   477544.9 3748184.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005400          0   0.71640E-06   477536.4 3748184.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005401          0   0.71640E-06   477527.9 3748184.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005402          0   0.71640E-06   477519.4 3748184.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005403          0   0.71640E-06   477510.9 3748184.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005404          0   0.71640E-06   477502.4 3748184.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005405          0   0.71640E-06   477493.9 3748184.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005406          0   0.71640E-06   477485.4 3748184.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005407          0   0.71640E-06   477476.9 3748184.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005408          0   0.71640E-06   477471.1 3748182.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005409          0   0.71640E-06   477470.9 3748173.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005410          0   0.71640E-06   477470.7 3748165.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005411          0   0.71640E-06   477470.6 3748156.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005412          0   0.71640E-06   477470.4 3748148.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005413          0   0.71640E-06   477470.2 3748139.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005414          0   0.71640E-06   477470.0 3748131.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005415          0   0.71640E-06   477469.8 3748122.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005416          0   0.71640E-06   477469.6 3748114.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005417          0   0.71640E-06   477469.4 3748105.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005418          0   0.71640E-06   477469.2 3748097.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005419          0   0.71640E-06   477469.0 3748088.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005420          0   0.71640E-06   477468.9 3748080.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005421          0   0.71640E-06   477468.7 3748071.7    451.0      4.00      3.95
1.86      YES    HROFDY
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 L0005422         0   0.71640E-06  477468.5 3748063.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005423         0   0.71640E-06  477468.3 3748054.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005424         0   0.71640E-06  477468.1 3748046.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005425         0   0.71640E-06  477467.9 3748037.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005426         0   0.71640E-06  477467.7 3748029.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005427         0   0.71640E-06  477467.5 3748020.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005428         0   0.71640E-06  477467.4 3748012.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005429         0   0.71640E-06  477467.2 3748003.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005430         0   0.71640E-06  477467.0 3747995.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005431         0   0.71640E-06  477466.8 3747986.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005432         0   0.71640E-06  477466.6 3747978.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005433         0   0.71640E-06  477466.4 3747969.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005434         0   0.71640E-06  477466.2 3747961.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005435         0   0.71640E-06  477466.0 3747952.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005436         0   0.71640E-06  477465.8 3747944.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005437         0   0.71640E-06  477465.7 3747935.7   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.             (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                 BY
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 L0005438         0   0.71640E-06  477465.5 3747927.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005439         0   0.71640E-06  477465.3 3747918.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005440         0   0.71640E-06  477465.1 3747910.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005441         0   0.71640E-06  477464.9 3747901.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005442         0   0.71640E-06  477464.7 3747893.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005443         0   0.71640E-06  477464.5 3747884.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005444         0   0.71640E-06  477464.3 3747876.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005445         0   0.71640E-06  477464.1 3747867.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005446         0   0.71640E-06  477464.0 3747859.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005447         0   0.71640E-06  477463.8 3747850.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005448         0   0.71640E-06  477463.6 3747842.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005449         0   0.71640E-06  477463.4 3747833.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005450         0   0.71640E-06  477463.2 3747825.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005451         0   0.71640E-06  477463.0 3747816.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005452         0   0.71640E-06  477462.8 3747808.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005453         0   0.71640E-06  477462.6 3747799.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005454         0   0.71640E-06  477462.5 3747791.2   451.0     4.00     3.95
1.86     YES   HROFDY
 L0005455         0   0.71640E-06  477462.3 3747782.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003741         0   0.72740E-06  478279.2 3748320.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003742         0   0.72740E-06  478279.3 3748312.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003743         0   0.72740E-06  478279.5 3748303.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003744         0   0.72740E-06  478279.6 3748295.3   450.0     4.00     3.95
1.86     YES   HROFDY
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 L0003745         0   0.72740E-06  478279.8 3748286.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003746         0   0.72740E-06  478279.9 3748278.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003747         0   0.72740E-06  478280.1 3748269.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003748         0   0.72740E-06  478280.2 3748261.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003749         0   0.72740E-06  478280.3 3748252.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003750         0   0.72740E-06  478280.5 3748244.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003751         0   0.72740E-06  478280.6 3748235.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003752         0   0.72740E-06  478280.8 3748227.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003753         0   0.72740E-06  478280.9 3748218.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003754         0   0.72740E-06  478281.0 3748210.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003755         0   0.72740E-06  478281.2 3748201.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003756         0   0.72740E-06  478281.3 3748193.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003757         0   0.72740E-06  478281.5 3748184.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003758         0   0.72740E-06  478281.6 3748176.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003759         0   0.72740E-06  478281.7 3748167.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003760         0   0.72740E-06  478281.9 3748159.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003761         0   0.72740E-06  478282.0 3748150.8   449.8     4.00     3.95
1.86     YES   HROFDY
 L0003762         0   0.72740E-06  478282.2 3748142.3   449.5     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                                   AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0003763         0   0.72740E-06  478282.3 3748133.8   449.2     4.00     3.95
1.86     YES    HROFDY
 L0003764         0   0.72740E-06  478282.4 3748125.3   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003765         0   0.72740E-06  478282.6 3748116.8   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003766         0   0.72740E-06  478282.7 3748108.3   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003767         0   0.72740E-06  478282.9 3748099.8   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003768         0   0.72740E-06  478283.0 3748091.3   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003769         0   0.72740E-06  478283.1 3748082.9   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003770         0   0.72740E-06  478283.3 3748074.4   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003771         0   0.72740E-06  478283.4 3748065.9   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003772         0   0.72740E-06  478283.6 3748057.4   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003773         0   0.72740E-06  478283.7 3748048.9   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003774         0   0.72740E-06  478283.8 3748040.4   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003775         0   0.72740E-06  478284.0 3748031.9   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003776         0   0.72740E-06  478284.1 3748023.4   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003777         0   0.72740E-06  478284.3 3748014.9   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003778         0   0.72740E-06  478284.4 3748006.4   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003779         0   0.72740E-06  478284.5 3747997.9   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003780         0   0.72740E-06  478284.7 3747989.4   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003781         0   0.72740E-06  478284.8 3747980.9   449.0     4.00     3.95
1.86     YES    HROFDY
 L0003782         0   0.72740E-06  478285.0 3747972.4   449.0     4.00     3.95
1.86     YES    HROFDY
```

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                                   AERMOD HRA Output
 L0003783         0   0.72740E-06  478285.1 3747963.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003784         0   0.72740E-06  478285.2 3747955.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003785         0   0.72740E-06  478285.4 3747946.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003786         0   0.72740E-06  478285.5 3747938.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003787         0   0.72740E-06  478285.7 3747929.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003788         0   0.72740E-06  478285.8 3747921.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003789         0   0.72740E-06  478285.9 3747912.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003790         0   0.72740E-06  478286.1 3747904.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003791         0   0.72740E-06  478286.2 3747895.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003792         0   0.72740E-06  478286.4 3747887.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003793         0   0.72740E-06  478286.5 3747878.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003794         0   0.72740E-06  478286.6 3747870.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003795         0   0.72740E-06  478286.8 3747861.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003796         0   0.72740E-06  478286.9 3747853.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003797         0   0.72740E-06  478287.1 3747844.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003798         0   0.72740E-06  478287.2 3747836.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003799         0   0.72740E-06  478287.3 3747827.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003800         0   0.72740E-06  478287.5 3747819.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003801         0   0.72740E-06  478287.6 3747810.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003802         0   0.72740E-06  478287.8 3747802.4   449.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	     11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0003803         0   0.72740E-06  478287.9 3747793.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003804         0   0.72740E-06  478288.0 3747785.4   449.0     4.00     3.95
1.86     YES   HROFDY
 L0003805         0   0.72740E-06  478288.2 3747776.9   449.0     4.00     3.95
1.86     YES   HROFDY
 L0005456         0   0.95720E-06  477480.6 3749800.2   458.0     4.00     3.95
1.86     YES
 L0005457         0   0.95720E-06  477480.4 3749808.7   458.0     4.00     3.95
1.86     YES
 L0005458         0   0.95720E-06  477480.3 3749817.2   458.0     4.00     3.95
1.86     YES
 L0005459         0   0.95720E-06  477480.1 3749825.7   458.0     4.00     3.95
1.86     YES
 L0005460         0   0.95720E-06  477480.0 3749834.2   458.0     4.00     3.95
1.86     YES
 L0005461         0   0.95720E-06  477479.9 3749842.7   458.0     4.00     3.95
1.86     YES
 L0005462         0   0.95720E-06  477479.7 3749851.2   458.0     4.00     3.95
1.86     YES
 L0005463         0   0.95720E-06  477479.6 3749859.7   458.0     4.00     3.95
1.86     YES
 L0005464         0   0.95720E-06  477479.5 3749868.2   458.0     4.00     3.95
1.86     YES
 L0005465         0   0.95720E-06  477479.3 3749876.7   458.0     4.00     3.95
1.86     YES
 L0005466         0   0.95720E-06  477479.2 3749885.2   458.0     4.00     3.95
1.86     YES
 L0005467         0   0.95720E-06  477479.1 3749893.7   458.0     4.00     3.95
1.86     YES
 L0005468         0   0.95720E-06  477478.9 3749902.2   458.0     4.00     3.95
1.86     YES
 L0005469         0   0.95720E-06  477478.8 3749910.7   458.0     4.00     3.95
1.86     YES
 L0005470         0   0.95720E-06  477478.7 3749919.2   458.0     4.00     3.95
1.86     YES
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                                    AERMOD HRA Output
 L0005471         0   0.95720E-06  477478.5 3749927.7   458.0     4.00     3.95
1.86     YES
 L0005472         0   0.95720E-06  477478.4 3749936.2   458.0     4.00     3.95
1.86     YES
 L0005473         0   0.95720E-06  477478.2 3749944.7   458.0     4.00     3.95
1.86     YES
 L0005474         0   0.95720E-06  477478.1 3749953.2   458.0     4.00     3.95
1.86     YES
 L0005475         0   0.95720E-06  477478.0 3749961.7   458.2     4.00     3.95
1.86     YES
 L0005476         0   0.95720E-06  477477.8 3749970.2   458.4     4.00     3.95
1.86     YES
 L0005477         0   0.95720E-06  477477.7 3749978.7   458.7     4.00     3.95
1.86     YES
 L0005478         0   0.95720E-06  477477.6 3749987.2   459.0     4.00     3.95
1.86     YES
 L0005479         0   0.95720E-06  477477.4 3749995.7   459.0     4.00     3.95
1.86     YES
 L0005480         0   0.95720E-06  477477.3 3750004.2   459.0     4.00     3.95
1.86     YES
 L0005481         0   0.95720E-06  477477.2 3750012.7   459.0     4.00     3.95
1.86     YES
 L0005482         0   0.95720E-06  477477.0 3750021.2   459.0     4.00     3.95
1.86     YES
 L0005483         0   0.95720E-06  477476.9 3750029.7   459.0     4.00     3.95
1.86     YES
 L0005484         0   0.95720E-06  477476.8 3750038.2   459.0     4.00     3.95
1.86     YES
 L0005485         0   0.95720E-06  477476.6 3750046.7   459.0     4.00     3.95
1.86     YES
 L0005486         0   0.95720E-06  477476.5 3750055.2   459.0     4.00     3.95
1.86     YES
 L0005487         0   0.95720E-06  477476.3 3750063.7   459.0     4.00     3.95
1.86     YES
 L0005488         0   0.95720E-06  477476.2 3750072.2   459.0     4.00     3.95
1.86     YES
 L0005489         0   0.95720E-06  477476.1 3750080.7   459.0     4.00     3.95
1.86     YES
 L0005490         0   0.95720E-06  477475.9 3750089.2   459.0     4.00     3.95
1.86     YES
 L0005491         0   0.95720E-06  477475.8 3750097.7   459.0     4.00     3.95
1.86     YES
 L0005492         0   0.95720E-06  477475.7 3750106.2   459.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
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                                              AERMOD HRA Output

                                                PAGE  23
 **MODELOPTs:    RegDFAULT CONC       ELEV       URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005493         0   0.95720E-06  477475.5 3750114.7   459.0     4.00     3.95
1.86     YES
 L0005494         0   0.95720E-06  477475.4 3750123.2   459.0     4.00     3.95
1.86     YES
 L0005495         0   0.95720E-06  477475.3 3750131.7   459.0     4.00     3.95
1.86     YES
 L0005496         0   0.95720E-06  477475.1 3750140.2   459.0     4.00     3.95
1.86     YES
 L0005497         0   0.95720E-06  477475.0 3750148.7   459.0     4.00     3.95
1.86     YES
 L0005498         0   0.95720E-06  477474.8 3750157.2   459.0     4.00     3.95
1.86     YES
 L0005499         0   0.95720E-06  477474.7 3750165.7   459.0     4.00     3.95
1.86     YES
 L0005500         0   0.95720E-06  477474.2 3750174.2   459.0     4.00     3.95
1.86     YES
 L0005501         0   0.95720E-06  477473.5 3750182.6   459.0     4.00     3.95
1.86     YES
 L0005502         0   0.95720E-06  477472.8 3750191.1   459.0     4.00     3.95
1.86     YES
 L0005503         0   0.95720E-06  477472.1 3750199.6   459.0     4.00     3.95
1.86     YES
 L0005504         0   0.95720E-06  477471.4 3750208.0   459.2     4.00     3.95
1.86     YES
 L0005505         0   0.95720E-06  477470.7 3750216.5   459.2     4.00     3.95
1.86     YES
 L0005506         0   0.95720E-06  477470.0 3750225.0   459.3     4.00     3.95
1.86     YES
 L0005507         0   0.95720E-06  477469.3 3750233.5   459.5     4.00     3.95
1.86     YES
 L0005508         0   0.95720E-06  477468.7 3750241.9   459.7     4.00     3.95
1.86     YES
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 L0005509         0   0.95720E-06  477468.0 3750250.4   459.9      4.00      3.95
1.86     YES
 L0005510         0   0.95720E-06  477467.3 3750258.9   460.0      4.00      3.95
1.86     YES
 L0005511         0   0.95720E-06  477466.6 3750267.3   460.0      4.00      3.95
1.86     YES
 L0005512         0   0.95720E-06  477466.5 3750275.8   460.0      4.00      3.95
1.86     YES
 L0005513         0   0.95720E-06  477466.5 3750284.3   460.0      4.00      3.95
1.86     YES
 L0005514         0   0.95720E-06  477466.5 3750292.8   460.0      4.00      3.95
1.86     YES
 L0005515         0   0.95720E-06  477466.6 3750301.3   460.0      4.00      3.95
1.86     YES
 L0005516         0   0.95720E-06  477466.6 3750309.8   460.0      4.00      3.95
1.86     YES
 L0005517         0   0.95720E-06  477466.6 3750318.3   460.0      4.00      3.95
1.86     YES
 L0005518         0   0.95720E-06  477466.7 3750326.8   460.0      4.00      3.95
1.86     YES
 L0005519         0   0.95720E-06  477466.7 3750335.3   460.0      4.00      3.95
1.86     YES
 L0005520         0   0.95720E-06  477466.7 3750343.8   460.0      4.00      3.95
1.86     YES
 L0005521         0   0.95720E-06  477466.8 3750352.3   460.0      4.00      3.95
1.86     YES
 L0005522         0   0.95720E-06  477466.8 3750360.8   460.0      4.00      3.95
1.86     YES
 L0005523         0   0.95720E-06  477466.9 3750369.3   460.0      4.00      3.95
1.86     YES
 L0005524         0   0.95720E-06  477466.9 3750377.8   460.0      4.00      3.95
1.86     YES
 L0005525         0   0.95720E-06  477466.9 3750386.3   460.0      4.00      3.95
1.86     YES
 L0005526         0   0.95720E-06  477467.0 3750394.8   460.0      4.00      3.95
1.86     YES
 L0005527         0   0.95720E-06  477467.0 3750403.3   460.0      4.00      3.95
1.86     YES
 L0005528         0   0.95720E-06  477467.0 3750411.8   460.0      4.00      3.95
1.86     YES
 L0005529         0   0.95720E-06  477467.1 3750420.3   460.0      4.00      3.95
1.86     YES
 L0005530         0   0.95720E-06  477467.1 3750428.8   460.0      4.00      3.95
1.86     YES
 L0005531         0   0.95720E-06  477467.1 3750437.3   460.0      4.00      3.95
1.86     YES
 L0005532         0   0.95720E-06  477467.2 3750445.8   460.0      4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                           ***        13:28:44

                                   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005533        0   0.95720E-06  477467.2 3750454.3   460.0     4.00     3.95
1.86     YES
 L0005534        0   0.95720E-06  477467.3 3750462.8   460.0     4.00     3.95
1.86     YES
 L0005535        0   0.95720E-06  477467.3 3750471.3   460.2     4.00     3.95
1.86     YES
 L0005536        0   0.95720E-06  477467.3 3750479.8   460.4     4.00     3.95
1.86     YES
 L0005537        0   0.95720E-06  477467.4 3750488.3   460.7     4.00     3.95
1.86     YES
 L0005538        0   0.95720E-06  477467.4 3750496.8   461.0     4.00     3.95
1.86     YES
 L0005539        0   0.95720E-06  477467.4 3750505.3   461.0     4.00     3.95
1.86     YES
 L0005540        0   0.95720E-06  477467.5 3750513.8   461.0     4.00     3.95
1.86     YES
 L0005541        0   0.95720E-06  477467.5 3750522.3   461.0     4.00     3.95
1.86     YES
 L0005542        0   0.95720E-06  477467.5 3750530.8   461.0     4.00     3.95
1.86     YES
 L0005543        0   0.95720E-06  477467.6 3750539.3   461.0     4.00     3.95
1.86     YES
 L0005544        0   0.95720E-06  477467.7 3750547.8   461.0     4.00     3.95
1.86     YES
 L0005545        0   0.95720E-06  477467.9 3750556.3   461.0     4.00     3.95
1.86     YES
 L0005546        0   0.95720E-06  477468.2 3750564.8   461.0     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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 L0005547         0   0.95720E-06  477468.4 3750573.3   461.0     4.00      3.95
1.86     YES
 L0005548         0   0.95720E-06  477468.7 3750581.8   461.0     4.00      3.95
1.86     YES
 L0005549         0   0.95720E-06  477468.9 3750590.3   461.0     4.00      3.95
1.86     YES
 L0005550         0   0.95720E-06  477469.2 3750598.8   461.0     4.00      3.95
1.86     YES
 L0005551         0   0.95720E-06  477469.4 3750607.3   461.0     4.00      3.95
1.86     YES
 L0005552         0   0.95720E-06  477469.7 3750615.8   461.0     4.00      3.95
1.86     YES
 L0005553         0   0.95720E-06  477469.9 3750624.3   461.0     4.00      3.95
1.86     YES
 L0005554         0   0.95720E-06  477470.2 3750632.8   461.0     4.00      3.95
1.86     YES
 L0005555         0   0.95720E-06  477470.4 3750641.3   461.0     4.00      3.95
1.86     YES
 L0005556         0   0.95720E-06  477470.7 3750649.8   461.0     4.00      3.95
1.86     YES
 L0005557         0   0.95720E-06  477470.9 3750658.3   461.2     4.00      3.95
1.86     YES
 L0005558         0   0.95720E-06  477471.2 3750666.8   461.3     4.00      3.95
1.86     YES
 L0005559         0   0.95720E-06  477471.4 3750675.3   461.4     4.00      3.95
1.86     YES
 L0005560         0   0.95720E-06  477471.7 3750683.8   461.5     4.00      3.95
1.86     YES
 L0005561         0   0.95720E-06  477471.9 3750692.3   461.7     4.00      3.95
1.86     YES
 L0005562         0   0.95720E-06  477472.2 3750700.8   461.9     4.00      3.95
1.86     YES
 L0005563         0   0.95720E-06  477472.4 3750709.3   462.0     4.00      3.95
1.86     YES
 L0005564         0   0.95720E-06  477472.7 3750717.8   462.0     4.00      3.95
1.86     YES
 L0005565         0   0.95720E-06  477472.9 3750726.3   462.0     4.00      3.95
1.86     YES
 L0005566         0   0.95720E-06  477473.2 3750734.8   462.0     4.00      3.95
1.86     YES
 L0005567         0   0.95720E-06  477473.4 3750743.3   462.0     4.00      3.95
1.86     YES
 L0005568         0   0.95720E-06  477473.7 3750751.7   462.0     4.00      3.95
1.86     YES
 L0005569         0   0.95720E-06  477473.9 3750760.2   462.0     4.00      3.95
1.86     YES
 L0005570         0   0.95720E-06  477474.2 3750768.7   462.0     4.00      3.95
1.86     YES
```

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                             AERMOD HRA Output
 L0005571         0   0.95720E-06  477474.4 3750777.2   462.0     4.00     3.95
1.86     YES
 L0005572         0   0.95720E-06  477474.7 3750785.7   462.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005573         0   0.95720E-06  477474.9 3750794.2   462.0     4.00     3.95
1.86     YES
 L0005574         0   0.95720E-06  477475.2 3750802.7   462.0     4.00     3.95
1.86     YES
 L0005575         0   0.95720E-06  477475.4 3750811.2   462.0     4.00     3.95
1.86     YES
 L0005576         0   0.95720E-06  477475.7 3750819.7   462.0     4.00     3.95
1.86     YES
 L0005577         0   0.95720E-06  477475.9 3750828.2   462.0     4.00     3.95
1.86     YES
 L0005578         0   0.95720E-06  477476.2 3750836.7   462.0     4.00     3.95
1.86     YES
 L0005579         0   0.95720E-06  477476.4 3750845.2   462.0     4.00     3.95
1.86     YES
 L0005580         0   0.95720E-06  477476.7 3750853.7   462.0     4.00     3.95
1.86     YES
 L0005581         0   0.95720E-06  477476.9 3750862.2   462.1     4.00     3.95
1.86     YES
 L0005582         0   0.95720E-06  477477.1 3750870.7   462.3     4.00     3.95
1.86     YES
 L0005583         0   0.95720E-06  477477.1 3750879.2   462.4     4.00     3.95
1.86     YES
 L0005584         0   0.95720E-06  477477.2 3750887.7   462.6     4.00     3.95
1.86     YES
```

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 L0005585        0   0.95720E-06  477477.2 3750896.2   462.7      4.00      3.95
1.86     YES
 L0005586        0   0.95720E-06  477477.3 3750904.7   462.8      4.00      3.95
1.86     YES
 L0005587        0   0.95720E-06  477477.3 3750913.2   462.9      4.00      3.95
1.86     YES
 L0005588        0   0.95720E-06  477477.4 3750921.7   463.0      4.00      3.95
1.86     YES
 L0005589        0   0.95720E-06  477477.4 3750930.2   463.0      4.00      3.95
1.86     YES
 L0005590        0   0.95720E-06  477477.5 3750938.7   463.0      4.00      3.95
1.86     YES
 L0005591        0   0.95720E-06  477477.6 3750947.2   463.0      4.00      3.95
1.86     YES
 L0005592        0   0.95720E-06  477477.6 3750955.7   463.0      4.00      3.95
1.86     YES
 L0005593        0   0.95720E-06  477477.7 3750964.2   463.0      4.00      3.95
1.86     YES
 L0005594        0   0.95720E-06  477477.7 3750972.7   463.0      4.00      3.95
1.86     YES
 L0005595        0   0.95720E-06  477477.8 3750981.2   463.0      4.00      3.95
1.86     YES
 L0005596        0   0.95720E-06  477477.8 3750989.7   463.0      4.00      3.95
1.86     YES
 L0005597        0   0.95720E-06  477477.9 3750998.2   463.0      4.00      3.95
1.86     YES
 L0005598        0   0.95720E-06  477477.9 3751006.7   463.0      4.00      3.95
1.86     YES
 L0005599        0   0.95720E-06  477478.0 3751015.2   463.0      4.00      3.95
1.86     YES
 L0005600        0   0.95720E-06  477478.0 3751023.7   463.0      4.00      3.95
1.86     YES
 L0005601        0   0.95720E-06  477478.1 3751032.2   463.0      4.00      3.95
1.86     YES
 L0005602        0   0.95720E-06  477478.1 3751040.7   463.0      4.00      3.95
1.86     YES
 L0005603        0   0.95720E-06  477478.2 3751049.2   463.0      4.00      3.95
1.86     YES
 L0005604        0   0.95720E-06  477478.3 3751057.7   463.0      4.00      3.95
1.86     YES
 L0005605        0   0.95720E-06  477478.3 3751066.2   463.0      4.00      3.95
1.86     YES
 L0005606        0   0.95720E-06  477478.4 3751074.7   463.2      4.00      3.95
1.86     YES
 L0005607        0   0.95720E-06  477478.4 3751083.2   463.3      4.00      3.95
1.86     YES
 L0005608        0   0.95720E-06  477478.5 3751091.7   463.5      4.00      3.95
1.86     YES
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 L0005609         0   0.95720E-06  477478.5 3751100.2   463.7     4.00     3.95
1.86     YES
 L0005610         0   0.95720E-06  477478.6 3751108.7   463.8     4.00     3.95
1.86     YES
 L0005611         0   0.95720E-06  477478.6 3751117.2   463.9     4.00     3.95
1.86     YES
 L0005612         0   0.95720E-06  477478.7 3751125.7   464.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0005613         0   0.95720E-06  477478.7 3751134.2   464.0     4.00     3.95
1.86     YES
 L0005614         0   0.95720E-06  477478.8 3751142.7   464.0     4.00     3.95
1.86     YES
 L0005615         0   0.95720E-06  477478.9 3751151.2   464.0     4.00     3.95
1.86     YES
 L0005616         0   0.95720E-06  477478.9 3751159.7   464.0     4.00     3.95
1.86     YES
 L0005617         0   0.95720E-06  477479.0 3751168.2   464.0     4.00     3.95
1.86     YES
 L0005618         0   0.95720E-06  477479.0 3751176.7   464.0     4.00     3.95
1.86     YES
 L0005619         0   0.95720E-06  477479.1 3751185.2   464.0     4.00     3.95
1.86     YES
 L0005620         0   0.95720E-06  477479.1 3751193.7   464.0     4.00     3.95
1.86     YES
 L0005621         0   0.95720E-06  477479.2 3751202.2   464.0     4.00     3.95
1.86     YES
 L0005622         0   0.95720E-06  477479.2 3751210.7   464.0     4.00     3.95
1.86     YES
```

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  L0005623         0   0.95720E-06  477479.3 3751219.2   464.0      4.00      3.95
 1.86     YES
  L0005624         0   0.95720E-06  477479.3 3751227.7   464.0      4.00      3.95
 1.86     YES
  L0005625         0   0.95720E-06  477479.4 3751236.2   464.0      4.00      3.95
 1.86     YES
  L0005626         0   0.95720E-06  477479.3 3751244.7   464.0      4.00      3.95
 1.86     YES
  L0005627         0   0.95720E-06  477479.3 3751253.2   464.2      4.00      3.95
 1.86     YES
  L0005628         0   0.95720E-06  477479.2 3751261.7   464.5      4.00      3.95
 1.86     YES
  L0005629         0   0.95720E-06  477479.2 3751270.2   464.8      4.00      3.95
 1.86     YES
  L0005630         0   0.95720E-06  477479.1 3751278.7   465.0      4.00      3.95
 1.86     YES
  L0005631         0   0.95720E-06  477479.0 3751287.2   465.0      4.00      3.95
 1.86     YES
  L0005632         0   0.95720E-06  477479.0 3751295.7   465.0      4.00      3.95
 1.86     YES
  L0005633         0   0.95720E-06  477478.9 3751304.2   465.0      4.00      3.95
 1.86     YES
  L0005634         0   0.95720E-06  477478.9 3751312.7   465.0      4.00      3.95
 1.86     YES
  L0005635         0   0.95720E-06  477478.8 3751321.2   465.0      4.00      3.95
 1.86     YES
  L0005636         0   0.95720E-06  477478.7 3751329.7   465.0      4.00      3.95
 1.86     YES
  L0005637         0   0.95720E-06  477478.7 3751338.2   465.0      4.00      3.95
 1.86     YES
  L0005638         0   0.95720E-06  477478.6 3751346.7   465.0      4.00      3.95
 1.86     YES
  L0005639         0   0.95720E-06  477478.6 3751355.2   465.0      4.00      3.95
 1.86     YES
  L0005640         0   0.95720E-06  477478.5 3751363.7   465.0      4.00      3.95
 1.86     YES
  L0005641         0   0.95720E-06  477478.5 3751372.2   465.0      4.00      3.95
 1.86     YES
  L0005642         0   0.95720E-06  477478.4 3751380.7   465.0      4.00      3.95
 1.86     YES
  L0005643         0   0.95720E-06  477478.3 3751389.2   465.0      4.00      3.95
 1.86     YES
  L0005644         0   0.95720E-06  477478.3 3751397.7   465.0      4.00      3.95
 1.86     YES
  L0005645         0   0.95720E-06  477478.2 3751406.2   465.0      4.00      3.95
 1.86     YES
  L0005646         0   0.95720E-06  477478.2 3751414.7   465.0      4.00      3.95
 1.86     YES
```

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                                  AERMOD HRA Output
 L0005647         0   0.95720E-06  477478.1 3751423.2   465.0     4.00     3.95
1.86     YES
 L0005648         0   0.95720E-06  477478.0 3751431.7   465.2     4.00     3.95
1.86     YES
 L0005649         0   0.95720E-06  477478.0 3751440.2   465.4     4.00     3.95
1.86     YES
 L0005650         0   0.95720E-06  477477.9 3751448.7   465.7     4.00     3.95
1.86     YES
 L0005651         0   0.95720E-06  477477.9 3751457.2   466.0     4.00     3.95
1.86     YES
 L0005652         0   0.95720E-06  477477.8 3751465.7   466.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005653         0   0.95720E-06  477477.8 3751474.2   466.0     4.00     3.95
1.86     YES
 L0005654         0   0.95720E-06  477477.7 3751482.7   466.0     4.00     3.95
1.86     YES
 L0005655         0   0.95720E-06  477477.6 3751491.2   466.0     4.00     3.95
1.86     YES
 L0005656         0   0.95720E-06  477477.6 3751499.7   466.0     4.00     3.95
1.86     YES
 L0005657         0   0.95720E-06  477477.5 3751508.2   466.0     4.00     3.95
1.86     YES
 L0005658         0   0.95720E-06  477477.5 3751516.7   466.0     4.00     3.95
1.86     YES
 L0005659         0   0.95720E-06  477477.4 3751525.2   466.0     4.00     3.95
1.86     YES
 L0005660         0   0.95720E-06  477477.3 3751533.7   466.0     4.00     3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0005661         0   0.95720E-06  477477.3 3751542.2   466.0     4.00      3.95
1.86     YES
 L0005662         0   0.95720E-06  477477.2 3751550.7   466.0     4.00      3.95
1.86     YES
 L0005663         0   0.95720E-06  477477.2 3751559.2   466.0     4.00      3.95
1.86     YES
 L0005664         0   0.95720E-06  477477.1 3751567.7   466.0     4.00      3.95
1.86     YES
 L0005665         0   0.95720E-06  477477.0 3751576.2   466.0     4.00      3.95
1.86     YES
 L0005666         0   0.95720E-06  477477.0 3751584.7   466.0     4.00      3.95
1.86     YES
 L0005667         0   0.95720E-06  477476.9 3751593.2   466.0     4.00      3.95
1.86     YES
 L0005668         0   0.95720E-06  477476.9 3751601.7   466.0     4.00      3.95
1.86     YES
 L0005669         0   0.95720E-06  477476.8 3751610.2   466.1     4.00      3.95
1.86     YES
 L0005670         0   0.95720E-06  477476.8 3751618.7   466.2     4.00      3.95
1.86     YES
 L0005671         0   0.95720E-06  477476.7 3751627.2   466.4     4.00      3.95
1.86     YES
 L0005672         0   0.95720E-06  477476.6 3751635.7   466.6     4.00      3.95
1.86     YES
 L0005673         0   0.95720E-06  477476.6 3751644.2   466.7     4.00      3.95
1.86     YES
 L0005674         0   0.95720E-06  477476.5 3751652.7   466.8     4.00      3.95
1.86     YES
 L0005675         0   0.95720E-06  477476.5 3751661.2   466.9     4.00      3.95
1.86     YES
 L0005676         0   0.95720E-06  477476.4 3751669.7   467.0     4.00      3.95
1.86     YES
 L0005677         0   0.95720E-06  477476.3 3751678.2   467.0     4.00      3.95
1.86     YES
 L0005678         0   0.95720E-06  477476.3 3751686.7   467.0     4.00      3.95
1.86     YES
 L0005679         0   0.95720E-06  477476.2 3751695.2   467.0     4.00      3.95
1.86     YES
 L0005680         0   0.95720E-06  477476.2 3751703.7   467.0     4.00      3.95
1.86     YES
 L0005681         0   0.95720E-06  477476.1 3751712.2   467.0     4.00      3.95
1.86     YES
 L0005682         0   0.95720E-06  477476.1 3751720.7   467.0     4.00      3.95
1.86     YES
 L0005683         0   0.95720E-06  477476.0 3751729.2   467.1     4.00      3.95
1.86     YES
 L0005684         0   0.95720E-06  477475.9 3751737.7   467.2     4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0005685         0   0.95720E-06  477475.9 3751746.2   467.4     4.00     3.95
1.86     YES
 L0005686         0   0.95720E-06  477475.8 3751754.7   467.5     4.00     3.95
1.86     YES
 L0005687         0   0.95720E-06  477475.8 3751763.2   467.6     4.00     3.95
1.86     YES
 L0005688         0   0.95720E-06  477475.7 3751771.7   467.8     4.00     3.95
1.86     YES
 L0005689         0   0.95720E-06  477475.6 3751780.2   467.9     4.00     3.95
1.86     YES
 L0005690         0   0.95720E-06  477475.6 3751788.7   468.0     4.00     3.95
1.86     YES
 L0005691         0   0.95720E-06  477475.5 3751797.2   468.0     4.00     3.95
1.86     YES
 L0005692         0   0.95720E-06  477475.5 3751805.7   468.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005693         0   0.95720E-06  477475.4 3751814.2   468.0     4.00     3.95
1.86     YES
 L0005694         0   0.95720E-06  477475.4 3751822.7   468.0     4.00     3.95
1.86     YES
 L0005695         0   0.95720E-06  477475.3 3751831.2   468.0     4.00     3.95
1.86     YES
 L0005696         0   0.95720E-06  477475.2 3751839.7   468.0     4.00     3.95
1.86     YES
 L0005697         0   0.95720E-06  477475.2 3751848.2   468.0     4.00     3.95
1.86     YES
 L0005698         0   0.95720E-06  477475.1 3751856.7   468.0     4.00     3.95
1.86     YES
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 L0005699         0   0.95720E-06  477475.1 3751865.2   468.0     4.00      3.95
1.86     YES
 L0005700         0   0.95720E-06  477475.0 3751873.7   468.0     4.00      3.95
1.86     YES
 L0005701         0   0.95720E-06  477474.9 3751882.2   468.2     4.00      3.95
1.86     YES
 L0005702         0   0.95720E-06  477474.9 3751890.7   468.5     4.00      3.95
1.86     YES
 L0005703         0   0.95720E-06  477474.8 3751899.2   468.8     4.00      3.95
1.86     YES
 L0005704         0   0.95720E-06  477474.8 3751907.7   469.0     4.00      3.95
1.86     YES
 L0005705         0   0.95720E-06  477474.7 3751916.2   469.0     4.00      3.95
1.86     YES
 L0005706         0   0.95720E-06  477474.7 3751924.7   469.0     4.00      3.95
1.86     YES
 L0005707         0   0.95720E-06  477474.6 3751933.2   469.0     4.00      3.95
1.86     YES
 L0005708         0   0.95720E-06  477474.5 3751941.7   469.0     4.00      3.95
1.86     YES
 L0005709         0   0.95720E-06  477474.5 3751950.2   469.0     4.00      3.95
1.86     YES
 L0005710         0   0.95720E-06  477474.4 3751958.7   469.0     4.00      3.95
1.86     YES
 L0005711         0   0.95720E-06  477474.4 3751967.2   469.0     4.00      3.95
1.86     YES
 L0005712         0   0.95720E-06  477474.3 3751975.7   469.0     4.00      3.95
1.86     YES
 L0005713         0   0.95720E-06  477474.2 3751984.2   469.0     4.00      3.95
1.86     YES
 L0005714         0   0.95720E-06  477474.2 3751992.7   469.0     4.00      3.95
1.86     YES
 L0005715         0   0.95720E-06  477474.1 3752001.2   469.0     4.00      3.95
1.86     YES
 L0005716         0   0.95720E-06  477474.1 3752009.7   469.0     4.00      3.95
1.86     YES
 L0005717         0   0.95720E-06  477474.0 3752018.2   469.0     4.00      3.95
1.86     YES
 L0005718         0   0.95720E-06  477474.0 3752026.7   469.0     4.00      3.95
1.86     YES
 L0005719         0   0.95720E-06  477473.9 3752035.2   469.1     4.00      3.95
1.86     YES
 L0005720         0   0.95720E-06  477473.8 3752043.7   469.3     4.00      3.95
1.86     YES
 L0005721         0   0.95720E-06  477473.8 3752052.2   469.4     4.00      3.95
1.86     YES
 L0005722         0   0.95720E-06  477473.7 3752060.7   469.5     4.00      3.95
1.86     YES
```

```
                                  AERMOD HRA Output
 L0005723         0   0.95720E-06  477473.7 3752069.2   469.5     4.00     3.95
1.86     YES
 L0005724         0   0.95720E-06  477473.6 3752077.7   469.5     4.00     3.95
1.86     YES
 L0005725         0   0.95720E-06  477473.5 3752086.2   469.5     4.00     3.95
1.86     YES
 L0005726         0   0.95720E-06  477473.5 3752094.7   469.6     4.00     3.95
1.86     YES
 L0005727         0   0.95720E-06  477473.4 3752103.2   469.8     4.00     3.95
1.86     YES
 L0005728         0   0.95720E-06  477473.4 3752111.7   469.9     4.00     3.95
1.86     YES
 L0005729         0   0.95720E-06  477473.3 3752120.2   470.1     4.00     3.95
1.86     YES
 L0005730         0   0.95720E-06  477473.3 3752128.7   470.2     4.00     3.95
1.86     YES
 L0005731         0   0.95720E-06  477473.2 3752137.2   470.3     4.00     3.95
1.86     YES
 L0005732         0   0.95720E-06  477473.1 3752145.7   470.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       13:28:44

                                  PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -

 L0005733         0   0.95720E-06  477473.1 3752154.2   470.6     4.00     3.95
1.86     YES
 L0005734         0   0.95720E-06  477473.0 3752162.7   470.7     4.00     3.95
1.86     YES
 L0005735         0   0.95720E-06  477473.0 3752171.2   470.9     4.00     3.95
1.86     YES
 L0005736         0   0.95720E-06  477472.9 3752179.7   471.0     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

```
 L0005737         0   0.95720E-06  477472.8 3752188.2   471.0     4.00     3.95
1.86     YES
 L0005738         0   0.95720E-06  477472.8 3752196.7   471.0     4.00     3.95
1.86     YES
 L0005739         0   0.95720E-06  477472.7 3752205.2   471.0     4.00     3.95
1.86     YES
 L0005740         0   0.95720E-06  477472.7 3752213.7   471.2     4.00     3.95
1.86     YES
 L0005741         0   0.95720E-06  477472.6 3752222.2   471.5     4.00     3.95
1.86     YES
 L0005742         0   0.95720E-06  477468.0 3752226.1   471.7     4.00     3.95
1.86     YES
 L0005743         0   0.95720E-06  477459.5 3752226.1   471.7     4.00     3.95
1.86     YES
 L0005744         0   0.95720E-06  477451.0 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005745         0   0.95720E-06  477442.5 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005746         0   0.95720E-06  477434.0 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005747         0   0.95720E-06  477425.5 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005748         0   0.95720E-06  477417.0 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005749         0   0.95720E-06  477408.5 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005750         0   0.95720E-06  477400.0 3752226.2   471.7     4.00     3.95
1.86     YES
 L0005751         0   0.95720E-06  477391.5 3752226.2   471.5     4.00     3.95
1.86     YES
 L0005752         0   0.95720E-06  477383.0 3752226.2   471.3     4.00     3.95
1.86     YES
 L0005753         0   0.95720E-06  477374.5 3752226.2   471.1     4.00     3.95
1.86     YES
 L0005754         0   0.95720E-06  477366.0 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005755         0   0.95720E-06  477357.5 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005756         0   0.95720E-06  477349.0 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005757         0   0.95720E-06  477340.5 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005758         0   0.95720E-06  477332.0 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005759         0   0.95720E-06  477323.5 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005760         0   0.95720E-06  477315.0 3752226.3   471.0     4.00     3.95
1.86     YES
```

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 L0005761         0   0.95720E-06  477306.5 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005762         0   0.95720E-06  477298.0 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005763         0   0.95720E-06  477289.5 3752226.3   471.0     4.00     3.95
1.86     YES
 L0005764         0   0.95720E-06  477281.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005765         0   0.95720E-06  477272.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005766         0   0.95720E-06  477264.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005767         0   0.95720E-06  477255.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005768         0   0.95720E-06  477247.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005769         0   0.95720E-06  477238.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005770         0   0.95720E-06  477230.0 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005771         0   0.95720E-06  477221.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005772         0   0.95720E-06  477213.0 3752226.4   471.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005773         0   0.95720E-06  477204.5 3752226.4   471.0     4.00     3.95
1.86     YES
 L0005774         0   0.95720E-06  477196.0 3752226.5   471.0     4.00     3.95
1.86     YES
```

```
 L0005775         0   0.95720E-06  477187.5 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005776         0   0.95720E-06  477179.0 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005777         0   0.95720E-06  477170.5 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005778         0   0.95720E-06  477162.0 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005779         0   0.95720E-06  477153.5 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005780         0   0.95720E-06  477145.0 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005781         0   0.95720E-06  477136.5 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005782         0   0.95720E-06  477128.0 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005783         0   0.95720E-06  477119.5 3752226.5   471.0     4.00      3.95
1.86     YES
 L0005784         0   0.95720E-06  477111.0 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005785         0   0.95720E-06  477102.5 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005786         0   0.95720E-06  477094.0 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005787         0   0.95720E-06  477085.5 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005788         0   0.95720E-06  477077.0 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005789         0   0.95720E-06  477068.5 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005790         0   0.95720E-06  477060.0 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005791         0   0.95720E-06  477051.5 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005792         0   0.95720E-06  477043.0 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005793         0   0.95720E-06  477034.5 3752226.6   471.0     4.00      3.95
1.86     YES
 L0005794         0   0.95720E-06  477026.0 3752226.7   471.0     4.00      3.95
1.86     YES
 L0005795         0   0.95720E-06  477017.5 3752226.7   471.0     4.00      3.95
1.86     YES
 L0005796         0   0.95720E-06  477009.0 3752226.7   471.0     4.00      3.95
1.86     YES
 L0005797         0   0.95720E-06  477000.5 3752226.7   471.0     4.00      3.95
1.86     YES
 L0005798         0   0.95720E-06  476992.0 3752226.7   471.0     4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0005799         0   0.95720E-06  476983.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0005800         0   0.95720E-06  476975.0 3752226.7   471.0     4.00     3.95
1.86     YES
 L0005801         0   0.95720E-06  476966.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0005802         0   0.95720E-06  476958.0 3752226.7   471.0     4.00     3.95
1.86     YES
 L0005803         0   0.95720E-06  476949.5 3752226.7   471.0     4.00     3.95
1.86     YES
 L0005804         0   0.95720E-06  476941.0 3752226.8   471.2     4.00     3.95
1.86     YES
 L0005805         0   0.95720E-06  476932.5 3752226.8   471.4     4.00     3.95
1.86     YES
 L0005806         0   0.95720E-06  476924.0 3752226.8   471.6     4.00     3.95
1.86     YES
 L0005807         0   0.95720E-06  476915.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005808         0   0.95720E-06  476907.0 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005809         0   0.95720E-06  476898.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005810         0   0.95720E-06  476890.0 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005811         0   0.95720E-06  476881.5 3752226.8   471.7     4.00     3.95
1.86     YES
 L0005812         0   0.95720E-06  476873.0 3752226.8   471.7     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                  AERMOD HRA Output
  L0005813          0   0.95720E-06  476864.5 3752226.8    471.7      4.00      3.95
1.86     YES
  L0005814          0   0.95720E-06  476856.0 3752226.9    471.7      4.00      3.95
1.86     YES
  L0005815          0   0.95720E-06  476847.5 3752226.9    471.7      4.00      3.95
1.86     YES
  L0005816          0   0.95720E-06  476839.0 3752226.9    471.7      4.00      3.95
1.86     YES
  L0005817          0   0.95720E-06  476830.5 3752226.9    471.7      4.00      3.95
1.86     YES
  L0005818          0   0.95720E-06  476822.0 3752226.9    471.7      4.00      3.95
1.86     YES
  L0005819          0   0.95720E-06  476813.5 3752226.9    471.7      4.00      3.95
1.86     YES
  L0005820          0   0.95720E-06  476805.0 3752226.9    477.2      4.00      3.95
1.86     YES
  L0005821          0   0.95720E-06  476796.5 3752226.9    477.2      4.00      3.95
1.86     YES
  L0005822          0   0.95720E-06  476788.0 3752226.9    477.2      4.00      3.95
1.86     YES
  L0005823          0   0.95720E-06  476779.5 3752226.9    477.2      4.00      3.95
1.86     YES
  L0005824          0   0.95720E-06  476771.0 3752227.0    477.2      4.00      3.95
1.86     YES
  L0005825          0   0.95720E-06  476762.5 3752227.0    477.2      4.00      3.95
1.86     YES
  L0005826          0   0.95720E-06  476754.0 3752227.0    477.2      4.00      3.95
1.86     YES
  L0005827          0   0.95720E-06  476745.5 3752227.0    477.2      4.00      3.95
1.86     YES
  L0005828          0   0.95720E-06  476737.0 3752227.0    477.2      4.00      3.95
1.86     YES
  L0005829          0   0.95720E-06  476728.5 3752227.0    477.3      4.00      3.95
1.86     YES
  L0005830          0   0.95720E-06  476720.0 3752227.0    477.4      4.00      3.95
1.86     YES
  L0005831          0   0.95720E-06  476711.5 3752227.0    477.5      4.00      3.95
1.86     YES
  L0005832          0   0.95720E-06  476703.0 3752227.0    477.6      4.00      3.95
1.86     YES
  L0005833          0   0.95720E-06  476694.5 3752227.0    477.6      4.00      3.95
1.86     YES
  L0005834          0   0.95720E-06  476686.0 3752227.1    477.7      4.00      3.95
1.86     YES
  L0005835          0   0.95720E-06  476677.5 3752227.1    477.8      4.00      3.95
1.86     YES
  L0005836          0   0.95720E-06  476669.0 3752227.1    477.9      4.00      3.95
1.86     YES
```

```
 L0005837         0   0.95720E-06  476660.5 3752227.1   478.0     4.00     3.95
1.86     YES
 L0005838         0   0.95720E-06  476652.0 3752227.1   478.0     4.00     3.95
1.86     YES
 L0005839         0   0.95720E-06  476643.5 3752227.1   478.0     4.00     3.95
1.86     YES
 L0005840         0   0.95720E-06  476635.0 3752227.1   478.0     4.00     3.95
1.86     YES
 L0005841         0   0.95720E-06  476626.5 3752227.1   478.0     4.00     3.95
1.86     YES
 L0005842         0   0.95720E-06  476618.0 3752227.1   478.0     4.00     3.95
1.86     YES
 L0005843         0   0.95720E-06  476609.5 3752227.1   478.0     4.00     3.95
1.86     YES
 L0005844         0   0.95720E-06  476601.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005845         0   0.95720E-06  476592.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005846         0   0.95720E-06  476584.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005847         0   0.95720E-06  476575.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005848         0   0.95720E-06  476567.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005849         0   0.95720E-06  476558.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005850         0   0.95720E-06  476550.0 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005851         0   0.95720E-06  476541.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005852         0   0.95720E-06  476533.0 3752227.2   478.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                 BY
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 L0005853         0   0.95720E-06  476524.5 3752227.2   478.0     4.00     3.95
1.86     YES
 L0005854         0   0.95720E-06  476516.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005855         0   0.95720E-06  476507.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005856         0   0.95720E-06  476499.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005857         0   0.95720E-06  476490.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005858         0   0.95720E-06  476482.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005859         0   0.95720E-06  476473.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005860         0   0.95720E-06  476465.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005861         0   0.95720E-06  476456.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005862         0   0.95720E-06  476448.0 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005863         0   0.95720E-06  476439.5 3752227.3   478.0     4.00     3.95
1.86     YES
 L0005864         0   0.95720E-06  476431.0 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005865         0   0.95720E-06  476422.5 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005866         0   0.95720E-06  476414.0 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005867         0   0.95720E-06  476405.5 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005868         0   0.95720E-06  476397.0 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005869         0   0.95720E-06  476388.5 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005870         0   0.95720E-06  476380.0 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005871         0   0.95720E-06  476371.5 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005872         0   0.95720E-06  476363.0 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005873         0   0.95720E-06  476354.5 3752227.4   478.0     4.00     3.95
1.86     YES
 L0005874         0   0.95720E-06  476346.0 3752227.5   478.0     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                  AERMOD HRA Output
 L0005875         0   0.95720E-06  476337.5 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005876         0   0.95720E-06  476329.0 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005877         0   0.95720E-06  476320.5 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005878         0   0.95720E-06  476312.0 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005879         0   0.95720E-06  476303.5 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005880         0   0.95720E-06  476295.0 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005881         0   0.95720E-06  476286.5 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005882         0   0.95720E-06  476278.0 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005883         0   0.95720E-06  476269.5 3752227.5   478.0     4.00     3.95
1.86     YES
 L0005884         0   0.95720E-06  476261.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005885         0   0.95720E-06  476252.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005886         0   0.95720E-06  476244.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005887         0   0.95720E-06  476235.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005888         0   0.95720E-06  476227.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005889         0   0.95720E-06  476218.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005890         0   0.95720E-06  476210.0 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005891         0   0.95720E-06  476201.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005892         0   0.95720E-06  476193.0 3752227.6   478.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                           ***        13:28:44

                                      PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                   AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - 


 L0005893         0   0.95720E-06  476184.5 3752227.6   478.0     4.00     3.95
1.86     YES
 L0005894         0   0.95720E-06  476176.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005895         0   0.95720E-06  476167.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005896         0   0.95720E-06  476159.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005897         0   0.95720E-06  476150.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005898         0   0.95720E-06  476142.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005899         0   0.95720E-06  476133.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005900         0   0.95720E-06  476125.0 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005901         0   0.95720E-06  476116.5 3752227.7   478.0     4.00     3.95
1.86     YES
 L0005902         0   0.95720E-06  476108.0 3752227.7   477.9     4.00     3.95
1.86     YES
 L0005903         0   0.95720E-06  476099.5 3752227.7   477.8     4.00     3.95
1.86     YES
 L0005904         0   0.95720E-06  476091.0 3752227.8   477.7     4.00     3.95
1.86     YES
 L0005905         0   0.95720E-06  476082.5 3752227.8   477.6     4.00     3.95
1.86     YES
 L0005906         0   0.95720E-06  476074.0 3752227.8   477.6     4.00     3.95
1.86     YES
 L0005907         0   0.95720E-06  476065.5 3752227.8   477.5     4.00     3.95
1.86     YES
 L0005908         0   0.95720E-06  476057.0 3752227.8   477.4     4.00     3.95
1.86     YES
 L0005909         0   0.95720E-06  476048.5 3752227.8   477.3     4.00     3.95
1.86     YES
 L0005910         0   0.95720E-06  476040.0 3752227.8   477.2     4.00     3.95
1.86     YES
 L0005911         0   0.95720E-06  476031.5 3752227.8   477.2     4.00     3.95
1.86     YES
 L0005912         0   0.95720E-06  476023.0 3752227.8   477.2     4.00     3.95
1.86     YES
```

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                                 AERMOD HRA Output
 L0005913         0   0.95720E-06  476014.5 3752227.8   477.1     4.00     3.95
1.86     YES
 L0005914         0   0.95720E-06  476006.0 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005915         0   0.95720E-06  475997.5 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005916         0   0.95720E-06  475989.0 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005917         0   0.95720E-06  475980.5 3752227.9   477.1     4.00     3.95
1.86     YES
 L0005918         0   0.95720E-06  475972.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005919         0   0.95720E-06  475963.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005920         0   0.95720E-06  475955.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005921         0   0.95720E-06  475946.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005922         0   0.95720E-06  475938.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005923         0   0.95720E-06  475929.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005924         0   0.95720E-06  475921.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005925         0   0.95720E-06  475912.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005926         0   0.95720E-06  475904.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005927         0   0.95720E-06  475895.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005928         0   0.95720E-06  475887.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005929         0   0.95720E-06  475878.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005930         0   0.95720E-06  475870.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005931         0   0.95720E-06  475861.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005932         0   0.95720E-06  475853.0 3752228.0   477.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	     11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

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                              AERMOD HRA Output

                                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                          BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005933         0   0.95720E-06  475844.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005934         0   0.95720E-06  475836.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005935         0   0.95720E-06  475827.5 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005936         0   0.95720E-06  475819.0 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005937         0   0.95720E-06  475810.5 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005938         0   0.95720E-06  475802.0 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005939         0   0.95720E-06  475793.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005940         0   0.95720E-06  475785.0 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005941         0   0.95720E-06  475776.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005942         0   0.95720E-06  475768.0 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005943         0   0.95720E-06  475759.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005944         0   0.95720E-06  475751.0 3752228.1   477.2     4.00     3.95
1.86     YES
 L0005945         0   0.95720E-06  475742.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005946         0   0.95720E-06  475734.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005947         0   0.95720E-06  475725.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005948         0   0.95720E-06  475717.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005949         0   0.95720E-06  475708.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005950         0   0.95720E-06  475700.0 3752228.2   477.2     4.00     3.95
1.86     YES
```

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                                 AERMOD HRA Output
 L0005951         0   0.95720E-06  475691.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005952         0   0.95720E-06  475683.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005953         0   0.95720E-06  475674.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005954         0   0.95720E-06  475666.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005955         0   0.95720E-06  475657.5 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005956         0   0.95720E-06  475649.0 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005957         0   0.95720E-06  475640.5 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005958         0   0.95720E-06  475632.0 3752228.3   477.2     4.00     3.95
1.86     YES
 L0005959         0   0.95720E-06  475623.5 3752228.3   477.1     4.00     3.95
1.86     YES
 L0005960         0   0.95720E-06  475615.0 3752228.3   477.1     4.00     3.95
1.86     YES
 L0005961         0   0.95720E-06  475606.5 3752228.3   477.1     4.00     3.95
1.86     YES
 L0005962         0   0.95720E-06  475598.0 3752228.3   477.1     4.00     3.95
1.86     YES
 L0005963         0   0.95720E-06  475589.5 3752228.3   477.0     4.00     3.95
1.86     YES
 L0005964         0   0.95720E-06  475581.0 3752228.3   477.0     4.00     3.95
1.86     YES
 L0005965         0   0.95720E-06  475572.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005966         0   0.95720E-06  475564.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005967         0   0.95720E-06  475555.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005968         0   0.95720E-06  475547.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005969         0   0.95720E-06  475538.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005970         0   0.95720E-06  475530.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005971         0   0.95720E-06  475521.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005972         0   0.95720E-06  475513.0 3752228.4   477.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
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                              AERMOD HRA Output

                                PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005973        0   0.95720E-06  475504.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005974        0   0.95720E-06  475496.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005975        0   0.95720E-06  475487.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005976        0   0.95720E-06  475479.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005977        0   0.95720E-06  475470.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005978        0   0.95720E-06  475462.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005979        0   0.95720E-06  475453.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005980        0   0.95720E-06  475445.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005981        0   0.95720E-06  475436.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005982        0   0.95720E-06  475428.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005983        0   0.95720E-06  475419.5 3752228.5   476.9     4.00     3.95
1.86     YES
 L0005984        0   0.95720E-06  475411.0 3752228.5   476.9     4.00     3.95
1.86     YES
 L0005985        0   0.95720E-06  475402.5 3752228.6   476.8     4.00     3.95
1.86     YES
 L0005986        0   0.95720E-06  475394.0 3752228.6   476.7     4.00     3.95
1.86     YES
 L0005987        0   0.95720E-06  475385.5 3752228.6   476.6     4.00     3.95
1.86     YES
 L0005988        0   0.95720E-06  475377.0 3752228.6   476.5     4.00     3.95
1.86     YES
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 L0005989         0   0.95720E-06  475368.5 3752228.6   476.4      4.00      3.95
1.86     YES
 L0005990         0   0.95720E-06  475360.0 3752228.6   476.3      4.00      3.95
1.86     YES
 L0005991         0   0.95720E-06  475351.5 3752228.6   476.2      4.00      3.95
1.86     YES
 L0005992         0   0.95720E-06  475343.0 3752228.6   476.2      4.00      3.95
1.86     YES
 L0005993         0   0.95720E-06  475334.5 3752228.6   476.2      4.00      3.95
1.86     YES
 L0005994         0   0.95720E-06  475326.0 3752228.6   476.2      4.00      3.95
1.86     YES
 L0005995         0   0.95720E-06  475317.5 3752228.7   476.1      4.00      3.95
1.86     YES
 L0005996         0   0.95720E-06  475309.0 3752228.7   476.1      4.00      3.95
1.86     YES
 L0005997         0   0.95720E-06  475300.5 3752228.7   476.1      4.00      3.95
1.86     YES
 L0005998         0   0.95720E-06  475292.0 3752228.7   476.1      4.00      3.95
1.86     YES
 L0005999         0   0.95720E-06  475283.5 3752228.7   476.0      4.00      3.95
1.86     YES
 L0006000         0   0.95720E-06  475275.0 3752228.7   476.0      4.00      3.95
1.86     YES
 L0006001         0   0.95720E-06  475266.5 3752228.7   476.0      4.00      3.95
1.86     YES
 L0006002         0   0.95720E-06  475258.0 3752228.7   476.0      4.00      3.95
1.86     YES
 L0006003         0   0.95720E-06  475249.5 3752228.7   476.0      4.00      3.95
1.86     YES
 L0006004         0   0.95720E-06  475241.0 3752228.7   476.0      4.00      3.95
1.86     YES
 L0006005         0   0.95720E-06  475232.5 3752228.8   476.0      4.00      3.95
1.86     YES
 L0006006         0   0.95720E-06  475224.0 3752228.8   476.0      4.00      3.95
1.86     YES
 L0006007         0   0.95720E-06  475215.5 3752228.8   476.0      4.00      3.95
1.86     YES
 L0006008         0   0.95720E-06  475207.0 3752228.8   476.0      4.00      3.95
1.86     YES
 L0006009         0   0.95720E-06  475198.5 3752228.8   476.0      4.00      3.95
1.86     YES
 L0006010         0   0.95720E-06  475190.0 3752228.8   476.0      4.00      3.95
1.86     YES
 L0006011         0   0.95720E-06  475181.5 3752228.8   476.0      4.00      3.95
1.86     YES
 L0006012         0   0.95720E-06  475173.0 3752228.8   476.0      4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0006013         0   0.95720E-06  475164.5 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006014         0   0.95720E-06  475156.0 3752228.8   476.0     4.00     3.95
1.86     YES
 L0006015         0   0.95720E-06  475147.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006016         0   0.95720E-06  475139.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006017         0   0.95720E-06  475130.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006018         0   0.95720E-06  475122.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006019         0   0.95720E-06  475113.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006020         0   0.95720E-06  475105.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006021         0   0.95720E-06  475096.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006022         0   0.95720E-06  475088.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006023         0   0.95720E-06  475079.5 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006024         0   0.95720E-06  475071.0 3752228.9   476.0     4.00     3.95
1.86     YES
 L0006025         0   0.95720E-06  475062.5 3752229.0   476.0     4.00     3.95
1.86     YES
 L0006026         0   0.95720E-06  475054.0 3752229.0   476.0     4.00     3.95
1.86     YES
```

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 L0006027         0   0.95720E-06  475045.5 3752229.0   476.0     4.00      3.95
1.86     YES
 L0006028         0   0.95720E-06  475037.0 3752229.0   476.0     4.00      3.95
1.86     YES
 L0006029         0   0.95720E-06  475028.5 3752229.0   475.9     4.00      3.95
1.86     YES
 L0006030         0   0.95720E-06  475020.0 3752229.0   475.7     4.00      3.95
1.86     YES
 L0006031         0   0.95720E-06  475011.5 3752229.0   475.6     4.00      3.95
1.86     YES
 L0006032         0   0.95720E-06  475003.0 3752229.0   475.5     4.00      3.95
1.86     YES
 L0006033         0   0.95720E-06  474994.5 3752229.0   475.4     4.00      3.95
1.86     YES
 L0006034         0   0.95720E-06  474986.0 3752229.0   475.3     4.00      3.95
1.86     YES
 L0006035         0   0.95720E-06  474977.5 3752229.1   475.2     4.00      3.95
1.86     YES
 L0006036         0   0.95720E-06  474969.0 3752229.1   475.1     4.00      3.95
1.86     YES
 L0006037         0   0.95720E-06  474960.5 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006038         0   0.95720E-06  474952.0 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006039         0   0.95720E-06  474943.5 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006040         0   0.95720E-06  474935.0 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006041         0   0.95720E-06  474926.5 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006042         0   0.95720E-06  474918.0 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006043         0   0.95720E-06  474909.5 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006044         0   0.95720E-06  474901.0 3752229.1   475.0     4.00      3.95
1.86     YES
 L0006045         0   0.95720E-06  474892.5 3752229.2   475.0     4.00      3.95
1.86     YES
 L0006046         0   0.95720E-06  474884.0 3752229.2   475.0     4.00      3.95
1.86     YES
 L0006047         0   0.95720E-06  474875.5 3752229.2   474.9     4.00      3.95
1.86     YES
 L0006048         0   0.95720E-06  474867.0 3752229.2   474.8     4.00      3.95
1.86     YES
 L0006049         0   0.95720E-06  474858.5 3752229.2   474.7     4.00      3.95
1.86     YES
 L0006050         0   0.95720E-06  474850.0 3752229.2   474.5     4.00      3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0006051         0   0.95720E-06  474841.5 3752229.2   474.4     4.00     3.95
1.86     YES
 L0006052         0   0.95720E-06  474833.0 3752229.2   474.3     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0006053         0   0.95720E-06  474824.5 3752229.2   474.2     4.00     3.95
1.86     YES
 L0006054         0   0.95720E-06  474816.0 3752229.2   474.1     4.00     3.95
1.86     YES
 L0006055         0   0.95720E-06  474807.5 3752229.3   474.0     4.00     3.95
1.86     YES
 L0006056         0   0.95720E-06  474799.1 3752228.0   474.1     4.00     3.95
1.86     YES
 L0006057         0   0.95720E-06  474790.7 3752226.7   474.2     4.00     3.95
1.86     YES
 L0006058         0   0.95720E-06  474782.3 3752225.5   474.3     4.00     3.95
1.86     YES
 L0006059         0   0.95720E-06  474773.9 3752224.2   474.4     4.00     3.95
1.86     YES
 L0006060         0   0.95720E-06  474765.5 3752222.9   474.6     4.00     3.95
1.86     YES
 L0006061         0   0.95720E-06  474757.1 3752221.7   474.7     4.00     3.95
1.86     YES
 L0006062         0   0.95720E-06  474748.7 3752220.4   474.8     4.00     3.95
1.86     YES
 L0006063         0   0.95720E-06  474740.3 3752219.1   474.9     4.00     3.95
1.86     YES
 L0006064         0   0.95720E-06  474731.9 3752217.8   475.0     4.00     3.95
1.86     YES
```

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 L0006065         0   0.95720E-06  474723.5 3752216.6   475.0     4.00     3.95
1.86      YES
 L0006066         0   0.95720E-06  474715.1 3752215.3   475.0     4.00     3.95
1.86      YES
 L0006067         0   0.95720E-06  474706.7 3752214.0   475.0     4.00     3.95
1.86      YES
 L0006068         0   0.95720E-06  474698.3 3752212.8   475.0     4.00     3.95
1.86      YES
 L0006069         0   0.95720E-06  474689.9 3752211.5   475.0     4.00     3.95
1.86      YES
 L0006070         0   0.95720E-06  474681.5 3752210.2   475.0     4.00     3.95
1.86      YES
 L0006071         0   0.95720E-06  474673.1 3752209.0   475.0     4.00     3.95
1.86      YES
 L0006072         0   0.95720E-06  474664.7 3752207.7   475.0     4.00     3.95
1.86      YES
 L0006073         0   0.95720E-06  474656.3 3752206.4   475.0     4.00     3.95
1.86      YES
 L0006074         0   0.95720E-06  474647.9 3752205.1   475.0     4.00     3.95
1.86      YES
 L0006075         0   0.95720E-06  474639.5 3752203.9   475.0     4.00     3.95
1.86      YES
 L0006076         0   0.95720E-06  474631.1 3752202.6   475.0     4.00     3.95
1.86      YES
 L0006077         0   0.95720E-06  474622.6 3752201.3   475.0     4.00     3.95
1.86      YES
 L0006078         0   0.95720E-06  474614.2 3752200.1   475.0     4.00     3.95
1.86      YES
 L0006079         0   0.95720E-06  474605.8 3752198.8   475.0     4.00     3.95
1.86      YES
 L0006080         0   0.95720E-06  474597.4 3752197.5   475.0     4.00     3.95
1.86      YES
 L0006081         0   0.95720E-06  474589.0 3752196.2   475.0     4.00     3.95
1.86      YES
 L0006082         0   0.95720E-06  474580.6 3752195.0   475.0     4.00     3.95
1.86      YES
 L0006083         0   0.95720E-06  474572.2 3752193.7   475.1     4.00     3.95
1.86      YES
 L0006084         0   0.95720E-06  474563.8 3752192.4   475.2     4.00     3.95
1.86      YES
 L0006085         0   0.95720E-06  474555.4 3752191.2   475.3     4.00     3.95
1.86      YES
 L0006086         0   0.95720E-06  474547.0 3752189.9   475.4     4.00     3.95
1.86      YES
 L0006087         0   0.95720E-06  474538.6 3752188.6   475.5     4.00     3.95
1.86      YES
 L0006088         0   0.95720E-06  474530.2 3752187.3   475.6     4.00     3.95
1.86      YES
```

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                                 AERMOD HRA Output
 L0006089         0   0.95720E-06  474521.8 3752186.1   475.7     4.00     3.95
1.86     YES
 L0006090         0   0.95720E-06  474513.4 3752184.8   475.8     4.00     3.95
1.86     YES
 L0006091         0   0.95720E-06  474505.0 3752183.5   475.9     4.00     3.95
1.86     YES
 L0006092         0   0.95720E-06  474496.6 3752182.3   476.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006093         0   0.95720E-06  474488.2 3752181.0   476.0     4.00     3.95
1.86     YES
 L0006094         0   0.95720E-06  474479.8 3752179.7   476.0     4.00     3.95
1.86     YES
 L0006095         0   0.95720E-06  474471.4 3752178.4   476.0     4.00     3.95
1.86     YES
 L0006096         0   0.95720E-06  474463.0 3752177.2   476.0     4.00     3.95
1.86     YES
 L0006097         0   0.95720E-06  474454.6 3752175.9   476.0     4.00     3.95
1.86     YES
 L0006098         0   0.95720E-06  474446.2 3752174.6   476.0     4.00     3.95
1.86     YES
 L0006099         0   0.95720E-06  474437.8 3752173.4   476.0     4.00     3.95
1.86     YES
 L0006100         0   0.95720E-06  474429.3 3752172.1   476.0     4.00     3.95
1.86     YES
 L0006101         0   0.95720E-06  474420.9 3752170.8   476.0     4.00     3.95
1.86     YES
 L0006102         0   0.95720E-06  474412.5 3752169.6   476.1     4.00     3.95
1.86     YES
```

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                                    AERMOD HRA Output
  L0006103         0   0.95720E-06  474404.1 3752168.3   476.2     4.00      3.95
1.86     YES
  L0006104         0   0.95720E-06  474395.7 3752167.0   476.4     4.00      3.95
1.86     YES
  L0006105         0   0.95720E-06  474387.3 3752165.7   476.5     4.00      3.95
1.86     YES
  L0006106         0   0.95720E-06  474378.9 3752164.5   476.6     4.00      3.95
1.86     YES
  L0006107         0   0.95720E-06  474370.5 3752163.2   476.7     4.00      3.95
1.86     YES
  L0006108         0   0.95720E-06  474362.1 3752161.9   476.8     4.00      3.95
1.86     YES
  L0006109         0   0.95720E-06  474353.7 3752160.7   476.9     4.00      3.95
1.86     YES
  L0006110         0   0.95720E-06  474345.3 3752159.4   477.0     4.00      3.95
1.86     YES
  L0006111         0   0.95720E-06  474336.9 3752158.1   477.0     4.00      3.95
1.86     YES
  L0006112         0   0.95720E-06  474328.5 3752156.8   477.0     4.00      3.95
1.86     YES
  L0006113         0   0.95720E-06  474320.1 3752155.6   477.0     4.00      3.95
1.86     YES
  L0006114         0   0.95720E-06  474311.7 3752154.3   477.0     4.00      3.95
1.86     YES
  L0006115         0   0.95720E-06  474303.3 3752153.0   477.0     4.00      3.95
1.86     YES
  L0006116         0   0.95720E-06  474294.9 3752151.8   477.0     4.00      3.95
1.86     YES
  L0006117         0   0.95720E-06  474286.5 3752150.5   477.0     4.00      3.95
1.86     YES
  L0006118         0   0.95720E-06  474278.1 3752149.2   477.0     4.00      3.95
1.86     YES
  L0006119         0   0.95720E-06  474269.7 3752147.9   477.0     4.00      3.95
1.86     YES
  L0006120         0   0.95720E-06  474261.3 3752146.7   477.0     4.00      3.95
1.86     YES
  L0006121         0   0.95720E-06  474252.9 3752145.4   477.0     4.00      3.95
1.86     YES
  L0006122         0   0.95720E-06  474244.4 3752144.1   477.0     4.00      3.95
1.86     YES
  L0006123         0   0.95720E-06  474236.0 3752142.9   477.0     4.00      3.95
1.86     YES
  L0006124         0   0.95720E-06  474227.6 3752141.6   477.0     4.00      3.95
1.86     YES
  L0006125         0   0.95720E-06  474219.2 3752140.3   477.0     4.00      3.95
1.86     YES
  L0006126         0   0.95720E-06  474210.8 3752139.0   477.0     4.00      3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0006127         0   0.95720E-06  474202.4 3752137.8   477.0     4.00     3.95
1.86     YES
 L0006128         0   0.95720E-06  474194.0 3752136.5   477.0     4.00     3.95
1.86     YES
 L0006129         0   0.95720E-06  474185.6 3752135.2   477.1     4.00     3.95
1.86     YES
 L0006130         0   0.95720E-06  474177.2 3752134.0   477.2     4.00     3.95
1.86     YES
 L0006131         0   0.95720E-06  474168.8 3752132.7   477.3     4.00     3.95
1.86     YES
 L0006132         0   0.95720E-06  474160.4 3752131.3   477.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006133         0   0.95720E-06  474152.0 3752129.9   477.5     4.00     3.95
1.86     YES
 L0006134         0   0.95720E-06  474143.7 3752128.5   477.6     4.00     3.95
1.86     YES
 L0006135         0   0.95720E-06  474135.3 3752127.1   477.7     4.00     3.95
1.86     YES
 L0006136         0   0.95720E-06  474126.9 3752125.7   477.9     4.00     3.95
1.86     YES
 L0006137         0   0.95720E-06  474118.5 3752124.3   478.0     4.00     3.95
1.86     YES
 L0006138         0   0.95720E-06  474110.1 3752122.9   478.0     4.00     3.95
1.86     YES
 L0006139         0   0.95720E-06  474101.7 3752121.5   478.0     4.00     3.95
1.86     YES
 L0006140         0   0.95720E-06  474093.3 3752120.1   478.0     4.00     3.95
1.86     YES
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 L0006141        0   0.95720E-06  474085.0 3752118.8   478.0     4.00      3.95
1.86     YES
 L0006142        0   0.95720E-06  474076.6 3752117.4   478.0     4.00      3.95
1.86     YES
 L0006143        0   0.95720E-06  474068.2 3752116.0   478.0     4.00      3.95
1.86     YES
 L0006144        0   0.95720E-06  474059.8 3752114.6   478.0     4.00      3.95
1.86     YES
 L0006145        0   0.95720E-06  474051.4 3752113.2   478.0     4.00      3.95
1.86     YES
 L0006146        0   0.95720E-06  474043.0 3752111.8   478.0     4.00      3.95
1.86     YES
 L0006147        0   0.23910E-06  477480.6 3749800.2   458.0     0.00      3.95
1.86     YES
 L0006148        0   0.23910E-06  477480.4 3749808.7   458.0     0.00      3.95
1.86     YES
 L0006149        0   0.23910E-06  477480.3 3749817.2   458.0     0.00      3.95
1.86     YES
 L0006150        0   0.23910E-06  477480.1 3749825.7   458.0     0.00      3.95
1.86     YES
 L0006151        0   0.23910E-06  477480.0 3749834.2   458.0     0.00      3.95
1.86     YES
 L0006152        0   0.23910E-06  477479.9 3749842.7   458.0     0.00      3.95
1.86     YES
 L0006153        0   0.23910E-06  477479.7 3749851.2   458.0     0.00      3.95
1.86     YES
 L0006154        0   0.23910E-06  477479.6 3749859.7   458.0     0.00      3.95
1.86     YES
 L0006155        0   0.23910E-06  477479.5 3749868.2   458.0     0.00      3.95
1.86     YES
 L0006156        0   0.23910E-06  477479.3 3749876.7   458.0     0.00      3.95
1.86     YES
 L0006157        0   0.23910E-06  477479.2 3749885.2   458.0     0.00      3.95
1.86     YES
 L0006158        0   0.23910E-06  477479.1 3749893.7   458.0     0.00      3.95
1.86     YES
 L0006159        0   0.23910E-06  477478.9 3749902.2   458.0     0.00      3.95
1.86     YES
 L0006160        0   0.23910E-06  477478.8 3749910.7   458.0     0.00      3.95
1.86     YES
 L0006161        0   0.23910E-06  477478.7 3749919.2   458.0     0.00      3.95
1.86     YES
 L0006162        0   0.23910E-06  477478.5 3749927.7   458.0     0.00      3.95
1.86     YES
 L0006163        0   0.23910E-06  477478.4 3749936.2   458.0     0.00      3.95
1.86     YES
 L0006164        0   0.23910E-06  477478.2 3749944.7   458.0     0.00      3.95
1.86     YES
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 L0006165         0   0.23910E-06  477478.1 3749953.2   458.0     0.00     3.95
1.86     YES
 L0006166         0   0.23910E-06  477478.0 3749961.7   458.2     0.00     3.95
1.86     YES
 L0006167         0   0.23910E-06  477477.8 3749970.2   458.4     0.00     3.95
1.86     YES
 L0006168         0   0.23910E-06  477477.7 3749978.7   458.7     0.00     3.95
1.86     YES
 L0006169         0   0.23910E-06  477477.6 3749987.2   459.0     0.00     3.95
1.86     YES
 L0006170         0   0.23910E-06  477477.4 3749995.7   459.0     0.00     3.95
1.86     YES
 L0006171         0   0.23910E-06  477477.3 3750004.2   459.0     0.00     3.95
1.86     YES
 L0006172         0   0.23910E-06  477477.2 3750012.7   459.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006173         0   0.23910E-06  477477.0 3750021.2   459.0     0.00     3.95
1.86     YES
 L0006174         0   0.23910E-06  477476.9 3750029.7   459.0     0.00     3.95
1.86     YES
 L0006175         0   0.23910E-06  477476.8 3750038.2   459.0     0.00     3.95
1.86     YES
 L0006176         0   0.23910E-06  477476.6 3750046.7   459.0     0.00     3.95
1.86     YES
 L0006177         0   0.23910E-06  477476.5 3750055.2   459.0     0.00     3.95
1.86     YES
 L0006178         0   0.23910E-06  477476.3 3750063.7   459.0     0.00     3.95
1.86     YES
```

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                                      AERMOD HRA Output
  L0006179          0   0.23910E-06  477476.2 3750072.2   459.0     0.00      3.95
 1.86     YES
  L0006180          0   0.23910E-06  477476.1 3750080.7   459.0     0.00      3.95
 1.86     YES
  L0006181          0   0.23910E-06  477475.9 3750089.2   459.0     0.00      3.95
 1.86     YES
  L0006182          0   0.23910E-06  477475.8 3750097.7   459.0     0.00      3.95
 1.86     YES
  L0006183          0   0.23910E-06  477475.7 3750106.2   459.0     0.00      3.95
 1.86     YES
  L0006184          0   0.23910E-06  477475.5 3750114.7   459.0     0.00      3.95
 1.86     YES
  L0006185          0   0.23910E-06  477475.4 3750123.2   459.0     0.00      3.95
 1.86     YES
  L0006186          0   0.23910E-06  477475.3 3750131.7   459.0     0.00      3.95
 1.86     YES
  L0006187          0   0.23910E-06  477475.1 3750140.2   459.0     0.00      3.95
 1.86     YES
  L0006188          0   0.23910E-06  477475.0 3750148.7   459.0     0.00      3.95
 1.86     YES
  L0006189          0   0.23910E-06  477474.8 3750157.2   459.0     0.00      3.95
 1.86     YES
  L0006190          0   0.23910E-06  477474.7 3750165.7   459.0     0.00      3.95
 1.86     YES
  L0006191          0   0.23910E-06  477474.2 3750174.2   459.0     0.00      3.95
 1.86     YES
  L0006192          0   0.23910E-06  477473.5 3750182.6   459.0     0.00      3.95
 1.86     YES
  L0006193          0   0.23910E-06  477472.8 3750191.1   459.0     0.00      3.95
 1.86     YES
  L0006194          0   0.23910E-06  477472.1 3750199.6   459.0     0.00      3.95
 1.86     YES
  L0006195          0   0.23910E-06  477471.4 3750208.0   459.2     0.00      3.95
 1.86     YES
  L0006196          0   0.23910E-06  477470.7 3750216.5   459.2     0.00      3.95
 1.86     YES
  L0006197          0   0.23910E-06  477470.0 3750225.0   459.3     0.00      3.95
 1.86     YES
  L0006198          0   0.23910E-06  477469.3 3750233.5   459.5     0.00      3.95
 1.86     YES
  L0006199          0   0.23910E-06  477468.7 3750241.9   459.7     0.00      3.95
 1.86     YES
  L0006200          0   0.23910E-06  477468.0 3750250.4   459.9     0.00      3.95
 1.86     YES
  L0006201          0   0.23910E-06  477467.3 3750258.9   460.0     0.00      3.95
 1.86     YES
  L0006202          0   0.23910E-06  477466.6 3750267.3   460.0     0.00      3.95
 1.86     YES
```

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 L0006203         0   0.23910E-06  477466.5 3750275.8   460.0     0.00     3.95
1.86     YES
 L0006204         0   0.23910E-06  477466.5 3750284.3   460.0     0.00     3.95
1.86     YES
 L0006205         0   0.23910E-06  477466.5 3750292.8   460.0     0.00     3.95
1.86     YES
 L0006206         0   0.23910E-06  477466.6 3750301.3   460.0     0.00     3.95
1.86     YES
 L0006207         0   0.23910E-06  477466.6 3750309.8   460.0     0.00     3.95
1.86     YES
 L0006208         0   0.23910E-06  477466.6 3750318.3   460.0     0.00     3.95
1.86     YES
 L0006209         0   0.23910E-06  477466.7 3750326.8   460.0     0.00     3.95
1.86     YES
 L0006210         0   0.23910E-06  477466.7 3750335.3   460.0     0.00     3.95
1.86     YES
 L0006211         0   0.23910E-06  477466.7 3750343.8   460.0     0.00     3.95
1.86     YES
 L0006212         0   0.23910E-06  477466.8 3750352.3   460.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006213         0   0.23910E-06  477466.8 3750360.8   460.0     0.00     3.95
1.86     YES
 L0006214         0   0.23910E-06  477466.9 3750369.3   460.0     0.00     3.95
1.86     YES
 L0006215         0   0.23910E-06  477466.9 3750377.8   460.0     0.00     3.95
1.86     YES
 L0006216         0   0.23910E-06  477466.9 3750386.3   460.0     0.00     3.95
1.86     YES
```

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                                            AERMOD HRA Output
  L0006217         0   0.23910E-06  477467.0 3750394.8   460.0     0.00      3.95
 1.86     YES
  L0006218         0   0.23910E-06  477467.0 3750403.3   460.0     0.00      3.95
 1.86     YES
  L0006219         0   0.23910E-06  477467.0 3750411.8   460.0     0.00      3.95
 1.86     YES
  L0006220         0   0.23910E-06  477467.1 3750420.3   460.0     0.00      3.95
 1.86     YES
  L0006221         0   0.23910E-06  477467.1 3750428.8   460.0     0.00      3.95
 1.86     YES
  L0006222         0   0.23910E-06  477467.1 3750437.3   460.0     0.00      3.95
 1.86     YES
  L0006223         0   0.23910E-06  477467.2 3750445.8   460.0     0.00      3.95
 1.86     YES
  L0006224         0   0.23910E-06  477467.2 3750454.3   460.0     0.00      3.95
 1.86     YES
  L0006225         0   0.23910E-06  477467.3 3750462.8   460.0     0.00      3.95
 1.86     YES
  L0006226         0   0.23910E-06  477467.3 3750471.3   460.2     0.00      3.95
 1.86     YES
  L0006227         0   0.23910E-06  477467.3 3750479.8   460.4     0.00      3.95
 1.86     YES
  L0006228         0   0.23910E-06  477467.4 3750488.3   460.7     0.00      3.95
 1.86     YES
  L0006229         0   0.23910E-06  477467.4 3750496.8   461.0     0.00      3.95
 1.86     YES
  L0006230         0   0.23910E-06  477467.4 3750505.3   461.0     0.00      3.95
 1.86     YES
  L0006231         0   0.23910E-06  477467.5 3750513.8   461.0     0.00      3.95
 1.86     YES
  L0006232         0   0.23910E-06  477467.5 3750522.3   461.0     0.00      3.95
 1.86     YES
  L0006233         0   0.23910E-06  477467.5 3750530.8   461.0     0.00      3.95
 1.86     YES
  L0006234         0   0.23910E-06  477467.6 3750539.3   461.0     0.00      3.95
 1.86     YES
  L0006235         0   0.23910E-06  477467.7 3750547.8   461.0     0.00      3.95
 1.86     YES
  L0006236         0   0.23910E-06  477467.9 3750556.3   461.0     0.00      3.95
 1.86     YES
  L0006237         0   0.23910E-06  477468.2 3750564.8   461.0     0.00      3.95
 1.86     YES
  L0006238         0   0.23910E-06  477468.4 3750573.3   461.0     0.00      3.95
 1.86     YES
  L0006239         0   0.23910E-06  477468.7 3750581.8   461.0     0.00      3.95
 1.86     YES
  L0006240         0   0.23910E-06  477468.9 3750590.3   461.0     0.00      3.95
 1.86     YES
```

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                                  AERMOD HRA Output
 L0006241         0   0.23910E-06  477469.2 3750598.8   461.0     0.00     3.95
1.86     YES
 L0006242         0   0.23910E-06  477469.4 3750607.3   461.0     0.00     3.95
1.86     YES
 L0006243         0   0.23910E-06  477469.7 3750615.8   461.0     0.00     3.95
1.86     YES
 L0006244         0   0.23910E-06  477469.9 3750624.3   461.0     0.00     3.95
1.86     YES
 L0006245         0   0.23910E-06  477470.2 3750632.8   461.0     0.00     3.95
1.86     YES
 L0006246         0   0.23910E-06  477470.4 3750641.3   461.0     0.00     3.95
1.86     YES
 L0006247         0   0.23910E-06  477470.7 3750649.8   461.0     0.00     3.95
1.86     YES
 L0006248         0   0.23910E-06  477470.9 3750658.3   461.2     0.00     3.95
1.86     YES
 L0006249         0   0.23910E-06  477471.2 3750666.8   461.3     0.00     3.95
1.86     YES
 L0006250         0   0.23910E-06  477471.4 3750675.3   461.4     0.00     3.95
1.86     YES
 L0006251         0   0.23910E-06  477471.7 3750683.8   461.5     0.00     3.95
1.86     YES
 L0006252         0   0.23910E-06  477471.9 3750692.3   461.7     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                            *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006253         0   0.23910E-06  477472.2 3750700.8   461.9     0.00     3.95
1.86     YES
 L0006254         0   0.23910E-06  477472.4 3750709.3   462.0     0.00     3.95
1.86     YES
```

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                                   AERMOD HRA Output
  L0006255         0   0.23910E-06  477472.7 3750717.8   462.0     0.00     3.95
 1.86     YES
  L0006256         0   0.23910E-06  477472.9 3750726.3   462.0     0.00     3.95
 1.86     YES
  L0006257         0   0.23910E-06  477473.2 3750734.8   462.0     0.00     3.95
 1.86     YES
  L0006258         0   0.23910E-06  477473.4 3750743.3   462.0     0.00     3.95
 1.86     YES
  L0006259         0   0.23910E-06  477473.7 3750751.7   462.0     0.00     3.95
 1.86     YES
  L0006260         0   0.23910E-06  477473.9 3750760.2   462.0     0.00     3.95
 1.86     YES
  L0006261         0   0.23910E-06  477474.2 3750768.7   462.0     0.00     3.95
 1.86     YES
  L0006262         0   0.23910E-06  477474.4 3750777.2   462.0     0.00     3.95
 1.86     YES
  L0006263         0   0.23910E-06  477474.7 3750785.7   462.0     0.00     3.95
 1.86     YES
  L0006264         0   0.23910E-06  477474.9 3750794.2   462.0     0.00     3.95
 1.86     YES
  L0006265         0   0.23910E-06  477475.2 3750802.7   462.0     0.00     3.95
 1.86     YES
  L0006266         0   0.23910E-06  477475.4 3750811.2   462.0     0.00     3.95
 1.86     YES
  L0006267         0   0.23910E-06  477475.7 3750819.7   462.0     0.00     3.95
 1.86     YES
  L0006268         0   0.23910E-06  477475.9 3750828.2   462.0     0.00     3.95
 1.86     YES
  L0006269         0   0.23910E-06  477476.2 3750836.7   462.0     0.00     3.95
 1.86     YES
  L0006270         0   0.23910E-06  477476.4 3750845.2   462.0     0.00     3.95
 1.86     YES
  L0006271         0   0.23910E-06  477476.7 3750853.7   462.0     0.00     3.95
 1.86     YES
  L0006272         0   0.23910E-06  477476.9 3750862.2   462.1     0.00     3.95
 1.86     YES
  L0006273         0   0.23910E-06  477477.1 3750870.7   462.3     0.00     3.95
 1.86     YES
  L0006274         0   0.23910E-06  477477.1 3750879.2   462.4     0.00     3.95
 1.86     YES
  L0006275         0   0.23910E-06  477477.2 3750887.7   462.6     0.00     3.95
 1.86     YES
  L0006276         0   0.23910E-06  477477.2 3750896.2   462.7     0.00     3.95
 1.86     YES
  L0006277         0   0.23910E-06  477477.3 3750904.7   462.8     0.00     3.95
 1.86     YES
  L0006278         0   0.23910E-06  477477.3 3750913.2   462.9     0.00     3.95
 1.86     YES
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 L0006279         0   0.23910E-06  477477.4 3750921.7   463.0     0.00     3.95
1.86     YES
 L0006280         0   0.23910E-06  477477.4 3750930.2   463.0     0.00     3.95
1.86     YES
 L0006281         0   0.23910E-06  477477.5 3750938.7   463.0     0.00     3.95
1.86     YES
 L0006282         0   0.23910E-06  477477.6 3750947.2   463.0     0.00     3.95
1.86     YES
 L0006283         0   0.23910E-06  477477.6 3750955.7   463.0     0.00     3.95
1.86     YES
 L0006284         0   0.23910E-06  477477.7 3750964.2   463.0     0.00     3.95
1.86     YES
 L0006285         0   0.23910E-06  477477.7 3750972.7   463.0     0.00     3.95
1.86     YES
 L0006286         0   0.23910E-06  477477.8 3750981.2   463.0     0.00     3.95
1.86     YES
 L0006287         0   0.23910E-06  477477.8 3750989.7   463.0     0.00     3.95
1.86     YES
 L0006288         0   0.23910E-06  477477.9 3750998.2   463.0     0.00     3.95
1.86     YES
 L0006289         0   0.23910E-06  477477.9 3751006.7   463.0     0.00     3.95
1.86     YES
 L0006290         0   0.23910E-06  477478.0 3751015.2   463.0     0.00     3.95
1.86     YES
 L0006291         0   0.23910E-06  477478.0 3751023.7   463.0     0.00     3.95
1.86     YES
 L0006292         0   0.23910E-06  477478.1 3751032.2   463.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44

                                   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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AERMOD HRA Output

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 L0006293         0   0.23910E-06  477478.1 3751040.7   463.0     0.00      3.95
1.86     YES
 L0006294         0   0.23910E-06  477478.2 3751049.2   463.0     0.00      3.95
1.86     YES
 L0006295         0   0.23910E-06  477478.3 3751057.7   463.0     0.00      3.95
1.86     YES
 L0006296         0   0.23910E-06  477478.3 3751066.2   463.0     0.00      3.95
1.86     YES
 L0006297         0   0.23910E-06  477478.4 3751074.7   463.2     0.00      3.95
1.86     YES
 L0006298         0   0.23910E-06  477478.4 3751083.2   463.3     0.00      3.95
1.86     YES
 L0006299         0   0.23910E-06  477478.5 3751091.7   463.5     0.00      3.95
1.86     YES
 L0006300         0   0.23910E-06  477478.5 3751100.2   463.7     0.00      3.95
1.86     YES
 L0006301         0   0.23910E-06  477478.6 3751108.7   463.8     0.00      3.95
1.86     YES
 L0006302         0   0.23910E-06  477478.6 3751117.2   463.9     0.00      3.95
1.86     YES
 L0006303         0   0.23910E-06  477478.7 3751125.7   464.0     0.00      3.95
1.86     YES
 L0006304         0   0.23910E-06  477478.7 3751134.2   464.0     0.00      3.95
1.86     YES
 L0006305         0   0.23910E-06  477478.8 3751142.7   464.0     0.00      3.95
1.86     YES
 L0006306         0   0.23910E-06  477478.9 3751151.2   464.0     0.00      3.95
1.86     YES
 L0006307         0   0.23910E-06  477478.9 3751159.7   464.0     0.00      3.95
1.86     YES
 L0006308         0   0.23910E-06  477479.0 3751168.2   464.0     0.00      3.95
1.86     YES
 L0006309         0   0.23910E-06  477479.0 3751176.7   464.0     0.00      3.95
1.86     YES
 L0006310         0   0.23910E-06  477479.1 3751185.2   464.0     0.00      3.95
1.86     YES
 L0006311         0   0.23910E-06  477479.1 3751193.7   464.0     0.00      3.95
1.86     YES
 L0006312         0   0.23910E-06  477479.2 3751202.2   464.0     0.00      3.95
1.86     YES
 L0006313         0   0.23910E-06  477479.2 3751210.7   464.0     0.00      3.95
1.86     YES
 L0006314         0   0.23910E-06  477479.3 3751219.2   464.0     0.00      3.95
1.86     YES
 L0006315         0   0.23910E-06  477479.3 3751227.7   464.0     0.00      3.95
1.86     YES
 L0006316         0   0.23910E-06  477479.4 3751236.2   464.0     0.00      3.95
1.86     YES
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 L0006317         0   0.23910E-06  477479.3 3751244.7   464.0     0.00     3.95
1.86     YES
 L0006318         0   0.23910E-06  477479.3 3751253.2   464.2     0.00     3.95
1.86     YES
 L0006319         0   0.23910E-06  477479.2 3751261.7   464.5     0.00     3.95
1.86     YES
 L0006320         0   0.23910E-06  477479.2 3751270.2   464.8     0.00     3.95
1.86     YES
 L0006321         0   0.23910E-06  477479.1 3751278.7   465.0     0.00     3.95
1.86     YES
 L0006322         0   0.23910E-06  477479.0 3751287.2   465.0     0.00     3.95
1.86     YES
 L0006323         0   0.23910E-06  477479.0 3751295.7   465.0     0.00     3.95
1.86     YES
 L0006324         0   0.23910E-06  477478.9 3751304.2   465.0     0.00     3.95
1.86     YES
 L0006325         0   0.23910E-06  477478.9 3751312.7   465.0     0.00     3.95
1.86     YES
 L0006326         0   0.23910E-06  477478.8 3751321.2   465.0     0.00     3.95
1.86     YES
 L0006327         0   0.23910E-06  477478.7 3751329.7   465.0     0.00     3.95
1.86     YES
 L0006328         0   0.23910E-06  477478.7 3751338.2   465.0     0.00     3.95
1.86     YES
 L0006329         0   0.23910E-06  477478.6 3751346.7   465.0     0.00     3.95
1.86     YES
 L0006330         0   0.23910E-06  477478.6 3751355.2   465.0     0.00     3.95
1.86     YES
 L0006331         0   0.23910E-06  477478.5 3751363.7   465.0     0.00     3.95
1.86     YES
 L0006332         0   0.23910E-06  477478.5 3751372.2   465.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006333          0   0.23910E-06  477478.4 3751380.7   465.0     0.00     3.95
1.86     YES
 L0006334          0   0.23910E-06  477478.3 3751389.2   465.0     0.00     3.95
1.86     YES
 L0006335          0   0.23910E-06  477478.3 3751397.7   465.0     0.00     3.95
1.86     YES
 L0006336          0   0.23910E-06  477478.2 3751406.2   465.0     0.00     3.95
1.86     YES
 L0006337          0   0.23910E-06  477478.2 3751414.7   465.0     0.00     3.95
1.86     YES
 L0006338          0   0.23910E-06  477478.1 3751423.2   465.0     0.00     3.95
1.86     YES
 L0006339          0   0.23910E-06  477478.0 3751431.7   465.2     0.00     3.95
1.86     YES
 L0006340          0   0.23910E-06  477478.0 3751440.2   465.4     0.00     3.95
1.86     YES
 L0006341          0   0.23910E-06  477477.9 3751448.7   465.7     0.00     3.95
1.86     YES
 L0006342          0   0.23910E-06  477477.9 3751457.2   466.0     0.00     3.95
1.86     YES
 L0006343          0   0.23910E-06  477477.8 3751465.7   466.0     0.00     3.95
1.86     YES
 L0006344          0   0.23910E-06  477477.8 3751474.2   466.0     0.00     3.95
1.86     YES
 L0006345          0   0.23910E-06  477477.7 3751482.7   466.0     0.00     3.95
1.86     YES
 L0006346          0   0.23910E-06  477477.6 3751491.2   466.0     0.00     3.95
1.86     YES
 L0006347          0   0.23910E-06  477477.6 3751499.7   466.0     0.00     3.95
1.86     YES
 L0006348          0   0.23910E-06  477477.5 3751508.2   466.0     0.00     3.95
1.86     YES
 L0006349          0   0.23910E-06  477477.5 3751516.7   466.0     0.00     3.95
1.86     YES
 L0006350          0   0.23910E-06  477477.4 3751525.2   466.0     0.00     3.95
1.86     YES
 L0006351          0   0.23910E-06  477477.3 3751533.7   466.0     0.00     3.95
1.86     YES
 L0006352          0   0.23910E-06  477477.3 3751542.2   466.0     0.00     3.95
1.86     YES
 L0006353          0   0.23910E-06  477477.2 3751550.7   466.0     0.00     3.95
1.86     YES
 L0006354          0   0.23910E-06  477477.2 3751559.2   466.0     0.00     3.95
1.86     YES
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 L0006355         0   0.23910E-06  477477.1 3751567.7   466.0     0.00     3.95
1.86     YES
 L0006356         0   0.23910E-06  477477.0 3751576.2   466.0     0.00     3.95
1.86     YES
 L0006357         0   0.23910E-06  477477.0 3751584.7   466.0     0.00     3.95
1.86     YES
 L0006358         0   0.23910E-06  477476.9 3751593.2   466.0     0.00     3.95
1.86     YES
 L0006359         0   0.23910E-06  477476.9 3751601.7   466.0     0.00     3.95
1.86     YES
 L0006360         0   0.23910E-06  477476.8 3751610.2   466.1     0.00     3.95
1.86     YES
 L0006361         0   0.23910E-06  477476.8 3751618.7   466.2     0.00     3.95
1.86     YES
 L0006362         0   0.23910E-06  477476.7 3751627.2   466.4     0.00     3.95
1.86     YES
 L0006363         0   0.23910E-06  477476.6 3751635.7   466.6     0.00     3.95
1.86     YES
 L0006364         0   0.23910E-06  477476.6 3751644.2   466.7     0.00     3.95
1.86     YES
 L0006365         0   0.23910E-06  477476.5 3751652.7   466.8     0.00     3.95
1.86     YES
 L0006366         0   0.23910E-06  477476.5 3751661.2   466.9     0.00     3.95
1.86     YES
 L0006367         0   0.23910E-06  477476.4 3751669.7   467.0     0.00     3.95
1.86     YES
 L0006368         0   0.23910E-06  477476.3 3751678.2   467.0     0.00     3.95
1.86     YES
 L0006369         0   0.23910E-06  477476.3 3751686.7   467.0     0.00     3.95
1.86     YES
 L0006370         0   0.23910E-06  477476.2 3751695.2   467.0     0.00     3.95
1.86     YES
 L0006371         0   0.23910E-06  477476.2 3751703.7   467.0     0.00     3.95
1.86     YES
 L0006372         0   0.23910E-06  477476.1 3751712.2   467.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
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                                AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006373         0   0.23910E-06  477476.1 3751720.7   467.0     0.00     3.95
1.86     YES
 L0006374         0   0.23910E-06  477476.0 3751729.2   467.1     0.00     3.95
1.86     YES
 L0006375         0   0.23910E-06  477475.9 3751737.7   467.2     0.00     3.95
1.86     YES
 L0006376         0   0.23910E-06  477475.9 3751746.2   467.4     0.00     3.95
1.86     YES
 L0006377         0   0.23910E-06  477475.8 3751754.7   467.5     0.00     3.95
1.86     YES
 L0006378         0   0.23910E-06  477475.8 3751763.2   467.6     0.00     3.95
1.86     YES
 L0006379         0   0.23910E-06  477475.7 3751771.7   467.8     0.00     3.95
1.86     YES
 L0006380         0   0.23910E-06  477475.6 3751780.2   467.9     0.00     3.95
1.86     YES
 L0006381         0   0.23910E-06  477475.6 3751788.7   468.0     0.00     3.95
1.86     YES
 L0006382         0   0.23910E-06  477475.5 3751797.2   468.0     0.00     3.95
1.86     YES
 L0006383         0   0.23910E-06  477475.5 3751805.7   468.0     0.00     3.95
1.86     YES
 L0006384         0   0.23910E-06  477475.4 3751814.2   468.0     0.00     3.95
1.86     YES
 L0006385         0   0.23910E-06  477475.4 3751822.7   468.0     0.00     3.95
1.86     YES
 L0006386         0   0.23910E-06  477475.3 3751831.2   468.0     0.00     3.95
1.86     YES
 L0006387         0   0.23910E-06  477475.2 3751839.7   468.0     0.00     3.95
1.86     YES
 L0006388         0   0.23910E-06  477475.2 3751848.2   468.0     0.00     3.95
1.86     YES
 L0006389         0   0.23910E-06  477475.1 3751856.7   468.0     0.00     3.95
1.86     YES
 L0006390         0   0.23910E-06  477475.1 3751865.2   468.0     0.00     3.95
1.86     YES
 L0006391         0   0.23910E-06  477475.0 3751873.7   468.0     0.00     3.95
1.86     YES
 L0006392         0   0.23910E-06  477474.9 3751882.2   468.2     0.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0006393         0   0.23910E-06  477474.9 3751890.7   468.5     0.00     3.95
1.86     YES
 L0006394         0   0.23910E-06  477474.8 3751899.2   468.8     0.00     3.95
1.86     YES
 L0006395         0   0.23910E-06  477474.8 3751907.7   469.0     0.00     3.95
1.86     YES
 L0006396         0   0.23910E-06  477474.7 3751916.2   469.0     0.00     3.95
1.86     YES
 L0006397         0   0.23910E-06  477474.7 3751924.7   469.0     0.00     3.95
1.86     YES
 L0006398         0   0.23910E-06  477474.6 3751933.2   469.0     0.00     3.95
1.86     YES
 L0006399         0   0.23910E-06  477474.5 3751941.7   469.0     0.00     3.95
1.86     YES
 L0006400         0   0.23910E-06  477474.5 3751950.2   469.0     0.00     3.95
1.86     YES
 L0006401         0   0.23910E-06  477474.4 3751958.7   469.0     0.00     3.95
1.86     YES
 L0006402         0   0.23910E-06  477474.4 3751967.2   469.0     0.00     3.95
1.86     YES
 L0006403         0   0.23910E-06  477474.3 3751975.7   469.0     0.00     3.95
1.86     YES
 L0006404         0   0.23910E-06  477474.2 3751984.2   469.0     0.00     3.95
1.86     YES
 L0006405         0   0.23910E-06  477474.2 3751992.7   469.0     0.00     3.95
1.86     YES
 L0006406         0   0.23910E-06  477474.1 3752001.2   469.0     0.00     3.95
1.86     YES
 L0006407         0   0.23910E-06  477474.1 3752009.7   469.0     0.00     3.95
1.86     YES
 L0006408         0   0.23910E-06  477474.0 3752018.2   469.0     0.00     3.95
1.86     YES
 L0006409         0   0.23910E-06  477474.0 3752026.7   469.0     0.00     3.95
1.86     YES
 L0006410         0   0.23910E-06  477473.9 3752035.2   469.1     0.00     3.95
1.86     YES
 L0006411         0   0.23910E-06  477473.8 3752043.7   469.3     0.00     3.95
1.86     YES
 L0006412         0   0.23910E-06  477473.8 3752052.2   469.4     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006413        0   0.23910E-06  477473.7 3752060.7   469.5     0.00     3.95
1.86     YES
 L0006414        0   0.23910E-06  477473.7 3752069.2   469.5     0.00     3.95
1.86     YES
 L0006415        0   0.23910E-06  477473.6 3752077.7   469.5     0.00     3.95
1.86     YES
 L0006416        0   0.23910E-06  477473.5 3752086.2   469.5     0.00     3.95
1.86     YES
 L0006417        0   0.23910E-06  477473.5 3752094.7   469.6     0.00     3.95
1.86     YES
 L0006418        0   0.23910E-06  477473.4 3752103.2   469.8     0.00     3.95
1.86     YES
 L0006419        0   0.23910E-06  477473.4 3752111.7   469.9     0.00     3.95
1.86     YES
 L0006420        0   0.23910E-06  477473.3 3752120.2   470.1     0.00     3.95
1.86     YES
 L0006421        0   0.23910E-06  477473.3 3752128.7   470.2     0.00     3.95
1.86     YES
 L0006422        0   0.23910E-06  477473.2 3752137.2   470.3     0.00     3.95
1.86     YES
 L0006423        0   0.23910E-06  477473.1 3752145.7   470.4     0.00     3.95
1.86     YES
 L0006424        0   0.23910E-06  477473.1 3752154.2   470.6     0.00     3.95
1.86     YES
 L0006425        0   0.23910E-06  477473.0 3752162.7   470.7     0.00     3.95
1.86     YES
 L0006426        0   0.23910E-06  477473.0 3752171.2   470.9     0.00     3.95
1.86     YES
 L0006427        0   0.23910E-06  477472.9 3752179.7   471.0     0.00     3.95
1.86     YES
 L0006428        0   0.23910E-06  477472.8 3752188.2   471.0     0.00     3.95
1.86     YES
 L0006429        0   0.23910E-06  477472.8 3752196.7   471.0     0.00     3.95
1.86     YES
 L0006430        0   0.23910E-06  477472.7 3752205.2   471.0     0.00     3.95
1.86     YES
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                                   AERMOD HRA Output
 L0006431         0   0.23910E-06  477472.7 3752213.7   471.2     0.00     3.95
1.86     YES
 L0006432         0   0.23910E-06  477472.6 3752222.2   471.5     0.00     3.95
1.86     YES
 L0006433         0   0.11950E-05  477466.5 3747781.2   451.0     4.00     3.95
1.86     YES
 L0006434         0   0.11950E-05  477475.0 3747781.2   451.0     4.00     3.95
1.86     YES
 L0006435         0   0.11950E-05  477483.5 3747781.1   451.0     4.00     3.95
1.86     YES
 L0006436         0   0.11950E-05  477492.0 3747781.1   451.0     4.00     3.95
1.86     YES
 L0006437         0   0.11950E-05  477500.5 3747781.0   451.0     4.00     3.95
1.86     YES
 L0006438         0   0.11950E-05  477509.0 3747781.0   451.0     4.00     3.95
1.86     YES
 L0006439         0   0.11950E-05  477517.5 3747780.9   451.0     4.00     3.95
1.86     YES
 L0006440         0   0.11950E-05  477526.0 3747780.9   451.0     4.00     3.95
1.86     YES
 L0006441         0   0.11950E-05  477534.5 3747780.8   451.0     4.00     3.95
1.86     YES
 L0006442         0   0.11950E-05  477543.0 3747780.7   451.0     4.00     3.95
1.86     YES
 L0006443         0   0.11950E-05  477551.5 3747780.7   451.0     4.00     3.95
1.86     YES
 L0006444         0   0.11950E-05  477560.0 3747780.6   451.0     4.00     3.95
1.86     YES
 L0006445         0   0.11950E-05  477568.5 3747780.6   451.0     4.00     3.95
1.86     YES
 L0006446         0   0.11950E-05  477577.0 3747780.5   451.0     4.00     3.95
1.86     YES
 L0006447         0   0.11950E-05  477585.5 3747780.5   451.0     4.00     3.95
1.86     YES
 L0006448         0   0.11950E-05  477594.0 3747780.4   451.0     4.00     3.95
1.86     YES
 L0006449         0   0.11950E-05  477602.5 3747780.3   451.0     4.00     3.95
1.86     YES
 L0006450         0   0.11950E-05  477611.0 3747780.3   451.0     4.00     3.95
1.86     YES
 L0006451         0   0.11950E-05  477619.5 3747780.2   451.0     4.00     3.95
1.86     YES
 L0006452         0   0.11950E-05  477628.0 3747780.2   451.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
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                                             AERMOD HRA Output

                                               PAGE  47
 **MODELOPTs:    RegDFAULT CONC       ELEV       URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006453         0   0.11950E-05  477636.5 3747780.1   451.0     4.00     3.95
1.86     YES
 L0006454         0   0.11950E-05  477645.0 3747780.1   450.9     4.00     3.95
1.86     YES
 L0006455         0   0.11950E-05  477653.5 3747780.0   450.8     4.00     3.95
1.86     YES
 L0006456         0   0.11950E-05  477662.0 3747780.0   450.6     4.00     3.95
1.86     YES
 L0006457         0   0.11950E-05  477670.5 3747779.9   450.4     4.00     3.95
1.86     YES
 L0006458         0   0.11950E-05  477679.0 3747779.8   450.3     4.00     3.95
1.86     YES
 L0006459         0   0.11950E-05  477687.5 3747779.8   450.2     4.00     3.95
1.86     YES
 L0006460         0   0.11950E-05  477696.0 3747779.7   450.1     4.00     3.95
1.86     YES
 L0006461         0   0.11950E-05  477704.5 3747779.7   450.0     4.00     3.95
1.86     YES
 L0006462         0   0.11950E-05  477713.0 3747779.6   450.0     4.00     3.95
1.86     YES
 L0006463         0   0.11950E-05  477721.5 3747779.6   450.0     4.00     3.95
1.86     YES
 L0006464         0   0.11950E-05  477730.0 3747779.5   450.0     4.00     3.95
1.86     YES
 L0006465         0   0.11950E-05  477738.5 3747779.4   450.0     4.00     3.95
1.86     YES
 L0006466         0   0.11950E-05  477747.0 3747779.4   450.0     4.00     3.95
1.86     YES
 L0006467         0   0.11950E-05  477755.5 3747779.3   450.0     4.00     3.95
1.86     YES
 L0006468         0   0.11950E-05  477764.0 3747779.3   450.0     4.00     3.95
1.86     YES
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 L0006469          0   0.11950E-05  477772.5 3747779.2   450.0     4.00     3.95
1.86     YES
 L0006470          0   0.11950E-05  477781.0 3747779.2   450.0     4.00     3.95
1.86     YES
 L0006471          0   0.11950E-05  477789.5 3747779.1   450.0     4.00     3.95
1.86     YES
 L0006472          0   0.11950E-05  477798.0 3747779.1   450.0     4.00     3.95
1.86     YES
 L0006473          0   0.11950E-05  477806.5 3747779.0   450.0     4.00     3.95
1.86     YES
 L0006474          0   0.11950E-05  477815.0 3747778.9   450.0     4.00     3.95
1.86     YES
 L0006475          0   0.11950E-05  477823.5 3747778.9   450.0     4.00     3.95
1.86     YES
 L0006476          0   0.11950E-05  477832.0 3747778.8   450.0     4.00     3.95
1.86     YES
 L0006477          0   0.11950E-05  477840.5 3747778.8   450.0     4.00     3.95
1.86     YES
 L0006478          0   0.11950E-05  477849.0 3747778.7   450.0     4.00     3.95
1.86     YES
 L0006479          0   0.11950E-05  477857.5 3747778.7   450.0     4.00     3.95
1.86     YES
 L0006480          0   0.11950E-05  477866.0 3747778.6   450.0     4.00     3.95
1.86     YES
 L0006481          0   0.11950E-05  477874.5 3747778.6   450.0     4.00     3.95
1.86     YES
 L0006482          0   0.11950E-05  477883.0 3747778.5   450.0     4.00     3.95
1.86     YES
 L0006483          0   0.11950E-05  477891.5 3747778.4   450.0     4.00     3.95
1.86     YES
 L0006484          0   0.11950E-05  477900.0 3747778.4   450.0     4.00     3.95
1.86     YES
 L0006485          0   0.11950E-05  477908.5 3747778.3   450.0     4.00     3.95
1.86     YES
 L0006486          0   0.11950E-05  477917.0 3747778.3   450.0     4.00     3.95
1.86     YES
 L0006487          0   0.11950E-05  477925.5 3747778.2   450.0     4.00     3.95
1.86     YES
 L0006488          0   0.11950E-05  477934.0 3747778.2   450.0     4.00     3.95
1.86     YES
 L0006489          0   0.11950E-05  477942.5 3747778.1   450.0     4.00     3.95
1.86     YES
 L0006490          0   0.11950E-05  477951.0 3747778.0   450.0     4.00     3.95
1.86     YES
 L0006491          0   0.11950E-05  477959.5 3747778.0   450.0     4.00     3.95
1.86     YES
 L0006492          0   0.11950E-05  477968.0 3747777.9   450.0     4.00     3.95
1.86     YES
```

```
                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -

 L0006493         0   0.11950E-05  477976.5 3747777.9   450.0     4.00     3.95
1.86     YES
 L0006494         0   0.11950E-05  477985.0 3747777.8   450.0     4.00     3.95
1.86     YES
 L0006495         0   0.11950E-05  477993.5 3747777.8   450.0     4.00     3.95
1.86     YES
 L0006496         0   0.11950E-05  478002.0 3747777.7   450.0     4.00     3.95
1.86     YES
 L0006497         0   0.11950E-05  478010.5 3747777.7   449.8     4.00     3.95
1.86     YES
 L0006498         0   0.11950E-05  478019.0 3747777.6   449.6     4.00     3.95
1.86     YES
 L0006499         0   0.11950E-05  478027.5 3747777.5   449.4     4.00     3.95
1.86     YES
 L0006500         0   0.11950E-05  478036.0 3747777.5   449.3     4.00     3.95
1.86     YES
 L0006501         0   0.11950E-05  478044.5 3747777.4   449.2     4.00     3.95
1.86     YES
 L0006502         0   0.11950E-05  478053.0 3747777.4   449.1     4.00     3.95
1.86     YES
 L0006503         0   0.11950E-05  478061.5 3747777.3   449.0     4.00     3.95
1.86     YES
 L0006504         0   0.11950E-05  478070.0 3747777.3   449.0     4.00     3.95
1.86     YES
 L0006505         0   0.11950E-05  478078.5 3747777.2   449.0     4.00     3.95
1.86     YES
 L0006506         0   0.11950E-05  478087.0 3747777.1   449.0     4.00     3.95
1.86     YES
```

```
 L0006507          0   0.11950E-05  478095.5 3747777.1   449.0     4.00      3.95
1.86      YES
 L0006508          0   0.11950E-05  478104.0 3747777.0   449.0     4.00      3.95
1.86      YES
 L0006509          0   0.11950E-05  478112.5 3747777.0   449.0     4.00      3.95
1.86      YES
 L0006510          0   0.11950E-05  478121.0 3747776.9   449.0     4.00      3.95
1.86      YES
 L0006511          0   0.11950E-05  478129.5 3747776.9   449.0     4.00      3.95
1.86      YES
 L0006512          0   0.11950E-05  478138.0 3747776.8   449.0     4.00      3.95
1.86      YES
 L0006513          0   0.11950E-05  478146.5 3747776.8   449.0     4.00      3.95
1.86      YES
 L0006514          0   0.11950E-05  478155.0 3747776.7   449.0     4.00      3.95
1.86      YES
 L0006515          0   0.11950E-05  478163.5 3747776.6   449.0     4.00      3.95
1.86      YES
 L0006516          0   0.11950E-05  478172.0 3747776.6   449.0     4.00      3.95
1.86      YES
 L0006517          0   0.11950E-05  478180.5 3747776.5   449.0     4.00      3.95
1.86      YES
 L0006518          0   0.11950E-05  478189.0 3747776.5   449.0     4.00      3.95
1.86      YES
 L0006519          0   0.11950E-05  478197.5 3747776.4   449.0     4.00      3.95
1.86      YES
 L0006520          0   0.11950E-05  478206.0 3747776.4   449.0     4.00      3.95
1.86      YES
 L0006521          0   0.11950E-05  478214.5 3747776.3   449.0     4.00      3.95
1.86      YES
 L0006522          0   0.11950E-05  478223.0 3747776.2   449.0     4.00      3.95
1.86      YES
 L0006523          0   0.11950E-05  478231.5 3747776.2   449.0     4.00      3.95
1.86      YES
 L0006524          0   0.11950E-05  478240.0 3747776.1   449.0     4.00      3.95
1.86      YES
 L0006525          0   0.11950E-05  478248.5 3747776.1   449.0     4.00      3.95
1.86      YES
 L0006526          0   0.11950E-05  478257.0 3747776.0   449.0     4.00      3.95
1.86      YES
 L0006527          0   0.11950E-05  478265.5 3747776.0   449.0     4.00      3.95
1.86      YES
 L0006528          0   0.11950E-05  478274.0 3747775.9   449.0     4.00      3.95
1.86      YES
 L0006529          0   0.11950E-05  478281.0 3747774.4   449.0     4.00      3.95
1.86      YES
 L0006530          0   0.11950E-05  478281.0 3747765.9   449.0     4.00      3.95
1.86      YES
```

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                                 AERMOD HRA Output
 L0006531         0   0.11950E-05  478281.1 3747757.4   449.0     4.00     3.95
1.86     YES
 L0006532         0   0.11950E-05  478281.1 3747748.9   449.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0006533         0   0.11950E-05  478281.1 3747740.4   449.0     4.00     3.95
1.86     YES
 L0006534         0   0.11950E-05  478281.2 3747731.9   449.0     4.00     3.95
1.86     YES
 L0006535         0   0.11950E-05  478281.2 3747723.4   449.0     4.00     3.95
1.86     YES
 L0006536         0   0.11950E-05  478281.2 3747714.9   449.0     4.00     3.95
1.86     YES
 L0006537         0   0.11950E-05  478281.3 3747706.4   449.0     4.00     3.95
1.86     YES
 L0006538         0   0.11950E-05  478281.3 3747697.9   449.0     4.00     3.95
1.86     YES
 L0006539         0   0.11950E-05  478281.3 3747689.4   449.0     4.00     3.95
1.86     YES
 L0006540         0   0.11950E-05  478281.4 3747680.9   449.0     4.00     3.95
1.86     YES
 L0006541         0   0.11950E-05  478281.4 3747672.4   448.9     4.00     3.95
1.86     YES
 L0006542         0   0.11950E-05  478281.4 3747663.9   448.6     4.00     3.95
1.86     YES
 L0006543         0   0.11950E-05  478281.5 3747655.4   448.3     4.00     3.95
1.86     YES
 L0006544         0   0.11950E-05  478281.5 3747646.9   448.0     4.00     3.95
1.86     YES
```

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                                          AERMOD HRA Output
 L0006545        0   0.11950E-05  478281.5 3747638.4   448.0     4.00     3.95
1.86     YES
 L0006546        0   0.11950E-05  478281.5 3747629.9   448.0     4.00     3.95
1.86     YES
 L0006547        0   0.11950E-05  478281.6 3747621.4   448.0     4.00     3.95
1.86     YES
 L0006548        0   0.11950E-05  478281.6 3747612.9   448.0     4.00     3.95
1.86     YES
 L0006549        0   0.11950E-05  478281.6 3747604.4   448.0     4.00     3.95
1.86     YES
 L0006550        0   0.11950E-05  478281.7 3747595.9   448.0     4.00     3.95
1.86     YES
 L0006551        0   0.11950E-05  478281.7 3747587.4   448.0     4.00     3.95
1.86     YES
 L0006552        0   0.11950E-05  478281.7 3747578.9   448.0     4.00     3.95
1.86     YES
 L0006553        0   0.11950E-05  478281.8 3747570.4   448.0     4.00     3.95
1.86     YES
 L0006554        0   0.11950E-05  478281.8 3747561.9   448.0     4.00     3.95
1.86     YES
 L0006555        0   0.11950E-05  478281.8 3747553.4   448.0     4.00     3.95
1.86     YES
 L0006556        0   0.11950E-05  478281.9 3747544.9   448.0     4.00     3.95
1.86     YES
 L0006557        0   0.11950E-05  478281.9 3747536.4   448.0     4.00     3.95
1.86     YES
 L0006558        0   0.11950E-05  478281.9 3747527.9   448.0     4.00     3.95
1.86     YES
 L0006559        0   0.11950E-05  478282.0 3747519.4   448.0     4.00     3.95
1.86     YES
 L0006560        0   0.11950E-05  478282.0 3747510.9   448.0     4.00     3.95
1.86     YES
 L0006561        0   0.11950E-05  478282.0 3747502.4   448.0     4.00     3.95
1.86     YES
 L0006562        0   0.11950E-05  478282.1 3747493.9   448.0     4.00     3.95
1.86     YES
 L0006563        0   0.11950E-05  478282.1 3747485.4   448.0     4.00     3.95
1.86     YES
 L0006564        0   0.11950E-05  478282.1 3747476.9   448.0     4.00     3.95
1.86     YES
 L0006565        0   0.11950E-05  478282.2 3747468.4   448.0     4.00     3.95
1.86     YES
 L0006566        0   0.11950E-05  478282.2 3747459.9   448.0     4.00     3.95
1.86     YES
 L0006567        0   0.11950E-05  478282.2 3747451.4   448.0     4.00     3.95
1.86     YES
 L0006568        0   0.11950E-05  478282.3 3747442.9   448.0     4.00     3.95
1.86     YES
```

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 L0006569         0   0.11950E-05  478282.3 3747434.4   448.0     4.00     3.95
1.86     YES
 L0006570         0   0.11950E-05  478282.3 3747425.9   448.0     4.00     3.95
1.86     YES
 L0006571         0   0.11950E-05  478282.4 3747417.4   448.0     4.00     3.95
1.86     YES
 L0006572         0   0.11950E-05  478282.4 3747408.9   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006573         0   0.11950E-05  478282.4 3747400.4   448.0     4.00     3.95
1.86     YES
 L0006574         0   0.11950E-05  478282.5 3747391.9   448.0     4.00     3.95
1.86     YES
 L0006575         0   0.11950E-05  478282.5 3747383.4   448.0     4.00     3.95
1.86     YES
 L0006576         0   0.11950E-05  478282.5 3747374.9   448.0     4.00     3.95
1.86     YES
 L0006577         0   0.11950E-05  478282.6 3747366.4   448.0     4.00     3.95
1.86     YES
 L0006578         0   0.11950E-05  478282.6 3747357.9   448.0     4.00     3.95
1.86     YES
 L0006579         0   0.11950E-05  478282.6 3747349.4   448.0     4.00     3.95
1.86     YES
 L0006580         0   0.11950E-05  478282.6 3747340.9   448.0     4.00     3.95
1.86     YES
 L0006581         0   0.11950E-05  478282.7 3747332.4   448.0     4.00     3.95
1.86     YES
 L0006582         0   0.11950E-05  478282.7 3747323.9   448.0     4.00     3.95
1.86     YES
```

AERMOD HRA Output

```
 L0006583         0   0.11950E-05  478282.7 3747315.4   448.0     4.00     3.95
1.86     YES
 L0006584         0   0.11950E-05  478282.8 3747306.9   448.0     4.00     3.95
1.86     YES
 L0006585         0   0.11950E-05  478282.8 3747298.4   448.0     4.00     3.95
1.86     YES
 L0006586         0   0.11950E-05  478282.8 3747289.9   448.0     4.00     3.95
1.86     YES
 L0006587         0   0.11950E-05  478282.9 3747281.4   448.0     4.00     3.95
1.86     YES
 L0006588         0   0.11950E-05  478282.9 3747272.9   448.0     4.00     3.95
1.86     YES
 L0006589         0   0.11950E-05  478282.9 3747264.4   448.0     4.00     3.95
1.86     YES
 L0006590         0   0.11950E-05  478283.0 3747255.9   448.0     4.00     3.95
1.86     YES
 L0006591         0   0.11950E-05  478283.0 3747247.4   448.0     4.00     3.95
1.86     YES
 L0006592         0   0.11950E-05  478283.0 3747238.9   448.0     4.00     3.95
1.86     YES
 L0006593         0   0.11950E-05  478283.1 3747230.4   448.0     4.00     3.95
1.86     YES
 L0006594         0   0.11950E-05  478283.1 3747221.9   448.0     4.00     3.95
1.86     YES
 L0006595         0   0.11950E-05  478283.1 3747213.4   448.0     4.00     3.95
1.86     YES
 L0006596         0   0.11950E-05  478283.2 3747204.9   448.0     4.00     3.95
1.86     YES
 L0006597         0   0.11950E-05  478283.2 3747196.4   448.0     4.00     3.95
1.86     YES
 L0006598         0   0.11950E-05  478283.2 3747187.9   448.0     4.00     3.95
1.86     YES
 L0006599         0   0.11950E-05  478283.3 3747179.4   448.0     4.00     3.95
1.86     YES
 L0006600         0   0.11950E-05  478283.3 3747170.9   448.0     4.00     3.95
1.86     YES
 L0006601         0   0.11950E-05  478283.3 3747162.4   448.0     4.00     3.95
1.86     YES
 L0006602         0   0.11950E-05  478283.4 3747153.9   448.0     4.00     3.95
1.86     YES
 L0006603         0   0.11950E-05  478283.4 3747145.4   448.0     4.00     3.95
1.86     YES
 L0006604         0   0.11950E-05  478283.4 3747136.9   448.0     4.00     3.95
1.86     YES
 L0006605         0   0.11950E-05  478283.5 3747128.4   448.0     4.00     3.95
1.86     YES
 L0006606         0   0.11950E-05  478283.5 3747119.9   448.0     4.00     3.95
1.86     YES
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 L0006607         0   0.11950E-05  478283.5 3747111.4   448.0     4.00     3.95
1.86     YES
 L0006608         0   0.11950E-05  478283.6 3747102.9   448.0     4.00     3.95
1.86     YES
 L0006609         0   0.11950E-05  478283.6 3747094.4   448.0     4.00     3.95
1.86     YES
 L0006610         0   0.11950E-05  478283.6 3747085.9   448.0     4.00     3.95
1.86     YES
 L0006611         0   0.11950E-05  478283.6 3747077.4   448.0     4.00     3.95
1.86     YES
 L0006612         0   0.11950E-05  478283.7 3747068.9   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       13:28:44

                                   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006613         0   0.11950E-05  478283.7 3747060.4   448.0     4.00     3.95
1.86     YES
 L0006614         0   0.11950E-05  478283.7 3747051.9   448.0     4.00     3.95
1.86     YES
 L0006615         0   0.11950E-05  478283.8 3747043.4   448.0     4.00     3.95
1.86     YES
 L0006616         0   0.11950E-05  478283.8 3747034.9   448.0     4.00     3.95
1.86     YES
 L0006617         0   0.11950E-05  478283.8 3747026.4   448.0     4.00     3.95
1.86     YES
 L0006618         0   0.11950E-05  478283.9 3747017.9   448.0     4.00     3.95
1.86     YES
 L0006619         0   0.11950E-05  478283.9 3747009.4   448.0     4.00     3.95
1.86     YES
 L0006620         0   0.11950E-05  478283.9 3747000.9   448.0     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                        AERMOD HRA Output
  L0006621          0   0.11950E-05  478284.0 3746992.4    448.0      4.00      3.95
 1.86      YES
  L0006622          0   0.11950E-05  478284.0 3746983.9    448.0      4.00      3.95
 1.86      YES
  L0006623          0   0.11950E-05  478284.0 3746975.4    448.0      4.00      3.95
 1.86      YES
  L0006624          0   0.11950E-05  478284.1 3746966.9    448.0      4.00      3.95
 1.86      YES
  L0006625          0   0.11950E-05  478284.1 3746958.4    448.0      4.00      3.95
 1.86      YES
  L0006626          0   0.11950E-05  478284.1 3746949.9    448.0      4.00      3.95
 1.86      YES
  L0006627          0   0.11950E-05  478284.2 3746941.4    448.0      4.00      3.95
 1.86      YES
  L0006628          0   0.11950E-05  478284.2 3746932.9    448.0      4.00      3.95
 1.86      YES
  L0006629          0   0.11950E-05  478284.2 3746924.4    448.0      4.00      3.95
 1.86      YES
  L0006630          0   0.11950E-05  478284.3 3746915.9    448.0      4.00      3.95
 1.86      YES
  L0006631          0   0.11950E-05  478284.3 3746907.4    448.0      4.00      3.95
 1.86      YES
  L0006632          0   0.11950E-05  478284.3 3746898.9    448.0      4.00      3.95
 1.86      YES
  L0006633          0   0.11950E-05  478284.4 3746890.4    448.0      4.00      3.95
 1.86      YES
  L0006634          0   0.11950E-05  478284.4 3746881.9    448.0      4.00      3.95
 1.86      YES
  L0006635          0   0.11950E-05  478284.4 3746873.4    448.0      4.00      3.95
 1.86      YES
  L0006636          0   0.11950E-05  478284.5 3746864.9    448.0      4.00      3.95
 1.86      YES
  L0006637          0   0.11950E-05  478284.5 3746856.4    447.8      4.00      3.95
 1.86      YES
  L0006638          0   0.11950E-05  478284.5 3746847.9    447.7      4.00      3.95
 1.86      YES
  L0006639          0   0.11950E-05  478284.6 3746839.4    447.6      4.00      3.95
 1.86      YES
  L0006640          0   0.11950E-05  478284.6 3746830.9    447.4      4.00      3.95
 1.86      YES
  L0006641          0   0.11950E-05  478284.6 3746822.4    447.3      4.00      3.95
 1.86      YES
  L0006642          0   0.11950E-05  478284.6 3746813.9    447.1      4.00      3.95
 1.86      YES
  L0006643          0   0.11950E-05  478284.7 3746805.4    447.0      4.00      3.95
 1.86      YES
  L0006644          0   0.11950E-05  478284.7 3746796.9    447.0      4.00      3.95
 1.86      YES
```

```
 L0006645         0   0.11950E-05  478284.7 3746788.4   447.0     4.00     3.95
1.86     YES
 L0006646         0   0.11950E-05  478284.8 3746779.9   447.0     4.00     3.95
1.86     YES
 L0006647         0   0.11950E-05  478284.8 3746771.4   447.0     4.00     3.95
1.86     YES
 L0006648         0   0.11950E-05  478284.8 3746762.9   447.0     4.00     3.95
1.86     YES
 L0006649         0   0.11950E-05  478284.9 3746754.4   447.0     4.00     3.95
1.86     YES
 L0006650         0   0.11950E-05  478284.9 3746745.9   447.0     4.00     3.95
1.86     YES
 L0006651         0   0.11950E-05  478284.9 3746737.4   447.0     4.00     3.95
1.86     YES
 L0006652         0   0.11950E-05  478285.0 3746728.9   447.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0006653         0   0.11950E-05  478285.0 3746720.4   447.0     4.00     3.95
1.86     YES
 L0006654         0   0.11950E-05  478285.0 3746711.9   447.0     4.00     3.95
1.86     YES
 L0006655         0   0.11950E-05  478285.1 3746703.4   447.0     4.00     3.95
1.86     YES
 L0006656         0   0.11950E-05  478285.1 3746694.9   447.0     4.00     3.95
1.86     YES
 L0006657         0   0.11950E-05  478285.1 3746686.4   447.0     4.00     3.95
1.86     YES
 L0006658         0   0.11950E-05  478285.2 3746677.9   447.0     4.00     3.95
1.86     YES
```

```
 L0006659         0   0.11950E-05  478285.2 3746669.4    447.0      4.00      3.95
1.86     YES
 L0006660         0   0.11950E-05  478285.2 3746660.9    447.0      4.00      3.95
1.86     YES
 L0006661         0   0.11950E-05  478285.3 3746652.4    447.0      4.00      3.95
1.86     YES
 L0006662         0   0.11950E-05  478285.3 3746643.9    447.0      4.00      3.95
1.86     YES
 L0006663         0   0.11950E-05  478285.3 3746635.4    447.0      4.00      3.95
1.86     YES
 L0006664         0   0.11950E-05  478285.4 3746626.9    447.0      4.00      3.95
1.86     YES
 L0006665         0   0.11950E-05  478285.4 3746618.4    447.0      4.00      3.95
1.86     YES
 L0006666         0   0.11950E-05  478285.4 3746609.9    447.0      4.00      3.95
1.86     YES
 L0006667         0   0.11950E-05  478285.5 3746601.4    447.0      4.00      3.95
1.86     YES
 L0006668         0   0.11950E-05  478285.5 3746592.9    447.0      4.00      3.95
1.86     YES
 L0006669         0   0.11950E-05  478285.5 3746584.4    447.0      4.00      3.95
1.86     YES
 L0006670         0   0.11950E-05  478285.6 3746575.9    447.0      4.00      3.95
1.86     YES
 L0006671         0   0.11950E-05  478285.6 3746567.4    447.0      4.00      3.95
1.86     YES
 L0006672         0   0.11950E-05  478285.6 3746558.9    447.0      4.00      3.95
1.86     YES
 L0006673         0   0.11950E-05  478285.7 3746550.4    447.0      4.00      3.95
1.86     YES
 L0006674         0   0.11950E-05  478285.7 3746541.9    447.0      4.00      3.95
1.86     YES
 L0006675         0   0.11950E-05  478285.7 3746533.4    447.0      4.00      3.95
1.86     YES
 L0006676         0   0.11950E-05  478285.7 3746524.9    447.0      4.00      3.95
1.86     YES
 L0006677         0   0.11950E-05  478285.8 3746516.4    447.0      4.00      3.95
1.86     YES
 L0006678         0   0.11950E-05  478285.8 3746507.9    447.0      4.00      3.95
1.86     YES
 L0006679         0   0.11950E-05  478285.8 3746499.4    447.0      4.00      3.95
1.86     YES
 L0006680         0   0.11950E-05  478285.9 3746490.9    447.0      4.00      3.95
1.86     YES
 L0006681         0   0.11950E-05  478285.9 3746482.4    447.0      4.00      3.95
1.86     YES
 L0006682         0   0.11950E-05  478285.9 3746473.9    447.0      4.00      3.95
1.86     YES
```

```
 L0006683         0   0.11950E-05  478286.0 3746465.4   447.0     4.00     3.95
1.86     YES
 L0006684         0   0.11950E-05  478286.0 3746456.9   447.0     4.00     3.95
1.86     YES
 L0006685         0   0.11950E-05  478286.0 3746448.4   447.0     4.00     3.95
1.86     YES
 L0006686         0   0.11950E-05  478286.1 3746439.9   446.9     4.00     3.95
1.86     YES
 L0006687         0   0.11950E-05  478286.1 3746431.4   446.7     4.00     3.95
1.86     YES
 L0006688         0   0.11950E-05  478286.1 3746422.9   446.6     4.00     3.95
1.86     YES
 L0006689         0   0.11950E-05  478286.2 3746414.4   446.5     4.00     3.95
1.86     YES
 L0006690         0   0.11950E-05  478286.2 3746405.9   446.5     4.00     3.95
1.86     YES
 L0006691         0   0.11950E-05  478286.2 3746397.4   446.5     4.00     3.95
1.86     YES
 L0006692         0   0.11950E-05  478286.3 3746388.9   446.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0006693         0   0.11950E-05  478286.3 3746380.4   446.4     4.00     3.95
1.86     YES
 L0006694         0   0.11950E-05  478286.3 3746371.9   446.4     4.00     3.95
1.86     YES
 L0006695         0   0.11950E-05  478286.4 3746363.4   446.4     4.00     3.95
1.86     YES
 L0006696         0   0.11950E-05  478286.4 3746354.9   446.4     4.00     3.95
1.86     YES
```

```
                                    AERMOD HRA Output
  L0006697         0   0.11950E-05  478286.4 3746346.4   446.4     4.00     3.95
 1.86     YES
  L0006698         0   0.11950E-05  478280.1 3746347.5   446.7     4.00     3.95
 1.86     YES
  L0006699         0   0.11950E-05  478272.3 3746350.8   446.9     4.00     3.95
 1.86     YES
  L0006700         0   0.11950E-05  478264.5 3746354.2   447.0     4.00     3.95
 1.86     YES
  L0006701         0   0.11950E-05  478256.7 3746357.5   447.0     4.00     3.95
 1.86     YES
  L0006702         0   0.11950E-05  478248.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006703         0   0.11950E-05  478240.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006704         0   0.11950E-05  478231.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006705         0   0.11950E-05  478223.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006706         0   0.11950E-05  478214.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006707         0   0.11950E-05  478206.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006708         0   0.11950E-05  478197.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006709         0   0.11950E-05  478189.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006710         0   0.11950E-05  478180.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006711         0   0.11950E-05  478172.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006712         0   0.11950E-05  478163.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006713         0   0.11950E-05  478155.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006714         0   0.11950E-05  478146.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006715         0   0.11950E-05  478138.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006716         0   0.11950E-05  478129.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006717         0   0.11950E-05  478121.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006718         0   0.11950E-05  478112.6 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006719         0   0.11950E-05  478104.1 3746359.6   447.0     4.00     3.95
 1.86     YES
  L0006720         0   0.11950E-05  478095.6 3746359.6   447.0     4.00     3.95
 1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                 AERMOD HRA Output
 L0006721         0   0.11950E-05  478087.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006722         0   0.11950E-05  478078.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006723         0   0.11950E-05  478070.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006724         0   0.11950E-05  478061.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006725         0   0.11950E-05  478053.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006726         0   0.11950E-05  478044.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006727         0   0.11950E-05  478036.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006728         0   0.11950E-05  478027.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006729         0   0.11950E-05  478019.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006730         0   0.11950E-05  478010.6 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006731         0   0.11950E-05  478002.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006732         0   0.11950E-05  477993.6 3746359.6   447.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006733         0   0.11950E-05  477985.1 3746359.6   447.0     4.00     3.95
1.86     YES
 L0006734         0   0.11950E-05  477976.6 3746359.6   447.0     4.00     3.95
1.86     YES
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 L0006735         0   0.11950E-05  477968.1 3746359.6   447.0      4.00      3.95
1.86     YES
 L0006736         0   0.11950E-05  477959.6 3746359.6   447.0      4.00      3.95
1.86     YES
 L0006737         0   0.11950E-05  477951.1 3746359.6   447.1      4.00      3.95
1.86     YES
 L0006738         0   0.11950E-05  477942.6 3746359.6   447.1      4.00      3.95
1.86     YES
 L0006739         0   0.11950E-05  477934.1 3746359.6   447.3      4.00      3.95
1.86     YES
 L0006740         0   0.11950E-05  477925.6 3746359.6   447.5      4.00      3.95
1.86     YES
 L0006741         0   0.11950E-05  477917.1 3746359.6   447.8      4.00      3.95
1.86     YES
 L0006742         0   0.11950E-05  477908.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006743         0   0.11950E-05  477900.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006744         0   0.11950E-05  477891.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006745         0   0.11950E-05  477883.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006746         0   0.11950E-05  477874.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006747         0   0.11950E-05  477866.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006748         0   0.11950E-05  477857.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006749         0   0.11950E-05  477849.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006750         0   0.11950E-05  477840.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006751         0   0.11950E-05  477832.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006752         0   0.11950E-05  477823.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006753         0   0.11950E-05  477815.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006754         0   0.11950E-05  477806.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006755         0   0.11950E-05  477798.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006756         0   0.11950E-05  477789.6 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006757         0   0.11950E-05  477781.1 3746359.6   448.0      4.00      3.95
1.86     YES
 L0006758         0   0.11950E-05  477772.6 3746359.6   448.0      4.00      3.95
1.86     YES
```

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 L0006759         0   0.11950E-05  477764.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006760         0   0.11950E-05  477755.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006761         0   0.11950E-05  477747.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006762         0   0.11950E-05  477738.6 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006763         0   0.11950E-05  477730.1 3746359.6   448.0     4.00     3.95
1.86     YES
 L0006764         0   0.11950E-05  477721.6 3746359.7   448.0     4.00     3.95
1.86     YES
 L0006765         0   0.11950E-05  477713.1 3746359.8   448.0     4.00     3.95
1.86     YES
 L0006766         0   0.11950E-05  477704.6 3746359.9   448.0     4.00     3.95
1.86     YES
 L0006767         0   0.11950E-05  477696.1 3746359.9   448.0     4.00     3.95
1.86     YES
 L0006768         0   0.11950E-05  477687.6 3746360.0   448.0     4.00     3.95
1.86     YES
 L0006769         0   0.11950E-05  477679.1 3746360.1   448.0     4.00     3.95
1.86     YES
 L0006770         0   0.11950E-05  477670.6 3746360.2   448.0     4.00     3.95
1.86     YES
 L0006771         0   0.11950E-05  477662.1 3746360.3   448.0     4.00     3.95
1.86     YES
 L0006772         0   0.11950E-05  477653.6 3746360.4   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         13:28:44

                                    PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
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                                            AERMOD HRA Output
  L0006773          0   0.11950E-05  477645.1 3746360.5   448.0      4.00      3.95
 1.86     YES
  L0006774          0   0.11950E-05  477636.6 3746360.6   448.1      4.00      3.95
 1.86     YES
  L0006775          0   0.11950E-05  477628.1 3746360.6   448.4      4.00      3.95
 1.86     YES
  L0006776          0   0.11950E-05  477619.6 3746360.7   448.7      4.00      3.95
 1.86     YES
  L0006777          0   0.11950E-05  477611.1 3746360.8   449.0      4.00      3.95
 1.86     YES
  L0006778          0   0.11950E-05  477602.6 3746360.9   449.0      4.00      3.95
 1.86     YES
  L0006779          0   0.11950E-05  477594.1 3746361.0   449.0      4.00      3.95
 1.86     YES
  L0006780          0   0.11950E-05  477585.6 3746361.1   449.0      4.00      3.95
 1.86     YES
  L0006781          0   0.11950E-05  477577.1 3746361.2   449.0      4.00      3.95
 1.86     YES
  L0006782          0   0.11950E-05  477568.6 3746361.3   449.0      4.00      3.95
 1.86     YES
  L0006783          0   0.11950E-05  477560.1 3746361.3   449.0      4.00      3.95
 1.86     YES
  L0006784          0   0.11950E-05  477551.6 3746361.4   449.0      4.00      3.95
 1.86     YES
  L0006785          0   0.11950E-05  477543.1 3746361.5   449.0      4.00      3.95
 1.86     YES
  L0006786          0   0.11950E-05  477534.6 3746361.6   449.0      4.00      3.95
 1.86     YES
  L0006787          0   0.11950E-05  477526.1 3746361.7   449.0      4.00      3.95
 1.86     YES
  L0006788          0   0.11950E-05  477517.6 3746361.8   449.0      4.00      3.95
 1.86     YES
  L0006789          0   0.11950E-05  477509.1 3746361.9   449.0      4.00      3.95
 1.86     YES
  L0006790          0   0.11950E-05  477500.6 3746362.0   449.0      4.00      3.95
 1.86     YES
  L0006791          0   0.11950E-05  477492.1 3746362.0   449.0      4.00      3.95
 1.86     YES
  L0006792          0   0.11950E-05  477483.6 3746362.4   449.2      4.00      3.95
 1.86     YES
  L0006793          0   0.11950E-05  477475.3 3746364.0   449.5      4.00      3.95
 1.86     YES
  L0006794          0   0.11950E-05  477466.9 3746365.6   449.8      4.00      3.95
 1.86     YES
  L0006795          0   0.11950E-05  477458.6 3746367.2   450.0      4.00      3.95
 1.86     YES
  L0006796          0   0.11950E-05  477450.3 3746368.8   450.0      4.00      3.95
 1.86     YES
```

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 L0006797         0   0.11950E-05  477441.9 3746370.4   450.0     4.00     3.95
1.86     YES
 L0006798         0   0.11950E-05  477433.6 3746372.0   450.0     4.00     3.95
1.86     YES
 L0006799         0   0.11950E-05  477425.2 3746373.6   450.0     4.00     3.95
1.86     YES
 L0006800         0   0.11950E-05  477417.3 3746376.4   450.0     4.00     3.95
1.86     YES
 L0006801         0   0.11950E-05  477410.0 3746380.7   450.0     4.00     3.95
1.86     YES
 L0006802         0   0.11950E-05  477402.7 3746385.0   450.0     4.00     3.95
1.86     YES
 L0006803         0   0.11950E-05  477395.3 3746389.4   450.0     4.00     3.95
1.86     YES
 L0006804         0   0.11950E-05  477388.0 3746393.7   450.0     4.00     3.95
1.86     YES
 L0006805         0   0.11950E-05  477380.7 3746398.0   450.0     4.00     3.95
1.86     YES
 L0006806         0   0.11950E-05  477373.4 3746402.3   450.0     4.00     3.95
1.86     YES
 L0006807         0   0.11950E-05  477366.1 3746406.6   450.0     4.00     3.95
1.86     YES
 L0006808         0   0.11950E-05  477358.7 3746411.0   450.0     4.00     3.95
1.86     YES
 L0006809         0   0.11950E-05  477351.4 3746415.3   450.0     4.00     3.95
1.86     YES
 L0006810         0   0.11950E-05  477344.1 3746419.6   450.0     4.00     3.95
1.86     YES
 L0006811         0   0.11950E-05  477336.8 3746423.9   450.0     4.00     3.95
1.86     YES
 L0006812         0   0.11950E-05  477329.5 3746428.2   450.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         13:28:44

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 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS)                  BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0006813         0   0.11950E-05  477322.2 3746432.7   450.0     4.00     3.95
1.86     YES
 L0006814         0   0.11950E-05  477315.4 3746437.8   450.0     4.00     3.95
1.86     YES
 L0006815         0   0.11950E-05  477308.6 3746442.9   450.0     4.00     3.95
1.86     YES
 L0006816         0   0.11950E-05  477301.8 3746448.0   450.0     4.00     3.95
1.86     YES
 L0006817         0   0.11950E-05  477295.0 3746453.1   450.0     4.00     3.95
1.86     YES
 L0006818         0   0.11950E-05  477288.2 3746458.2   450.0     4.00     3.95
1.86     YES
 L0006819         0   0.11950E-05  477281.4 3746463.3   450.0     4.00     3.95
1.86     YES
 L0006820         0   0.11950E-05  477274.6 3746468.4   450.0     4.00     3.95
1.86     YES
 L0006821         0   0.11950E-05  477267.7 3746473.3   450.0     4.00     3.95
1.86     YES
 L0006822         0   0.11950E-05  477260.7 3746478.2   450.0     4.00     3.95
1.86     YES
 L0006823         0   0.11950E-05  477253.8 3746483.1   450.0     4.00     3.95
1.86     YES
 L0006824         0   0.11950E-05  477246.8 3746487.9   450.1     4.00     3.95
1.86     YES
 L0006825         0   0.11950E-05  477239.8 3746492.8   450.2     4.00     3.95
1.86     YES
 L0006826         0   0.11950E-05  477232.9 3746497.7   450.2     4.00     3.95
1.86     YES
 L0006827         0   0.11950E-05  477225.9 3746502.6   450.1     4.00     3.95
1.86     YES
 L0006828         0   0.11950E-05  477218.5 3746506.8   450.0     4.00     3.95
1.86     YES
 L0006829         0   0.11950E-05  477211.1 3746510.8   450.3     4.00     3.95
1.86     YES
 L0006830         0   0.11950E-05  477203.6 3746514.8   450.5     4.00     3.95
1.86     YES
 L0006831         0   0.11950E-05  477196.1 3746518.8   450.8     4.00     3.95
1.86     YES
 L0006832         0   0.11950E-05  477188.6 3746522.9   451.0     4.00     3.95
1.86     YES
 L0006833         0   0.11950E-05  477181.1 3746526.9   451.0     4.00     3.95
1.86     YES
 L0006834         0   0.11950E-05  477173.6 3746530.9   451.0     4.00     3.95
1.86     YES
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 L0006835         0   0.11950E-05  477166.1 3746535.0   451.0     4.00     3.95
1.86     YES
 L0006836         0   0.11950E-05  477158.5 3746538.5   451.0     4.00     3.95
1.86     YES
 L0006837         0   0.11950E-05  477150.1 3746539.7   451.0     4.00     3.95
1.86     YES
 L0006838         0   0.11950E-05  477141.7 3746541.0   451.0     4.00     3.95
1.86     YES
 L0006839         0   0.11950E-05  477133.3 3746542.2   451.0     4.00     3.95
1.86     YES
 L0006840         0   0.11950E-05  477124.9 3746543.5   451.0     4.00     3.95
1.86     YES
 L0006841         0   0.11950E-05  477116.5 3746544.7   451.0     4.00     3.95
1.86     YES
 L0006842         0   0.11950E-05  477108.0 3746546.0   451.0     4.00     3.95
1.86     YES
 L0006843         0   0.11950E-05  477099.6 3746547.2   451.0     4.00     3.95
1.86     YES
 L0006844         0   0.11950E-05  477091.2 3746548.2   451.0     4.00     3.95
1.86     YES
 L0006845         0   0.11950E-05  477082.7 3746548.3   451.0     4.00     3.95
1.86     YES
 L0006846         0   0.11950E-05  477074.2 3746548.4   451.0     4.00     3.95
1.86     YES
 L0006847         0   0.11950E-05  477065.7 3746548.6   451.1     4.00     3.95
1.86     YES
 L0006848         0   0.11950E-05  477057.2 3746548.7   451.2     4.00     3.95
1.86     YES
 L0006849         0   0.11950E-05  477048.7 3746548.8   451.4     4.00     3.95
1.86     YES
 L0006850         0   0.11950E-05  477040.2 3746548.9   451.6     4.00     3.95
1.86     YES
 L0006851         0   0.11950E-05  477031.7 3746549.0   451.7     4.00     3.95
1.86     YES
 L0006852         0   0.11950E-05  477023.2 3746549.1   451.8     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
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                                AERMOD HRA Output
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -

 L0006853         0   0.11950E-05  477014.7 3746549.2   451.9     4.00     3.95
1.86     YES
 L0006854         0   0.11950E-05  477006.2 3746549.3   452.0     4.00     3.95
1.86     YES
 L0006855         0   0.11950E-05  476997.7 3746549.4   452.0     4.00     3.95
1.86     YES
 L0006856         0   0.11950E-05  476989.2 3746549.6   452.0     4.00     3.95
1.86     YES
 L0006857         0   0.11950E-05  476980.7 3746549.7   452.0     4.00     3.95
1.86     YES
 L0006858         0   0.11950E-05  476972.2 3746549.8   452.0     4.00     3.95
1.86     YES
 L0006859         0   0.11950E-05  476963.7 3746549.9   452.0     4.00     3.95
1.86     YES
 L0006860         0   0.11950E-05  476955.2 3746550.0   452.0     4.00     3.95
1.86     YES
 L0006861         0   0.11950E-05  476946.7 3746550.1   452.0     4.00     3.95
1.86     YES
 L0006862         0   0.11950E-05  476938.2 3746550.2   452.0     4.00     3.95
1.86     YES
 L0006863         0   0.11950E-05  476929.7 3746550.3   452.0     4.00     3.95
1.86     YES
 L0006864         0   0.11950E-05  476921.2 3746550.4   452.0     4.00     3.95
1.86     YES
 L0006865         0   0.11950E-05  476912.7 3746550.6   452.1     4.00     3.95
1.86     YES
 L0006866         0   0.11950E-05  476904.2 3746550.7   452.3     4.00     3.95
1.86     YES
 L0006867         0   0.11950E-05  476895.7 3746550.8   452.4     4.00     3.95
1.86     YES
 L0006868         0   0.11950E-05  476887.2 3746550.9   452.6     4.00     3.95
1.86     YES
 L0006869         0   0.11950E-05  476878.7 3746551.0   452.7     4.00     3.95
1.86     YES
 L0006870         0   0.11950E-05  476870.2 3746551.1   452.8     4.00     3.95
1.86     YES
 L0006871         0   0.11950E-05  476861.7 3746551.2   453.0     4.00     3.95
1.86     YES
 L0006872         0   0.11950E-05  476853.2 3746551.3   453.0     4.00     3.95
1.86     YES
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                                  AERMOD HRA Output
 L0006873         0   0.11950E-05  476844.7 3746551.4   453.0     4.00     3.95
1.86     YES
 L0006874         0   0.11950E-05  476836.2 3746551.5   453.0     4.00     3.95
1.86     YES
 L0006875         0   0.11950E-05  476827.7 3746551.7   453.0     4.00     3.95
1.86     YES
 L0006876         0   0.11950E-05  476819.2 3746551.8   453.0     4.00     3.95
1.86     YES
 L0006877         0   0.11950E-05  476810.7 3746551.9   453.0     4.00     3.95
1.86     YES
 L0006878         0   0.11950E-05  476802.2 3746552.0   453.0     4.00     3.95
1.86     YES
 L0006879         0   0.11950E-05  476793.7 3746552.1   462.1     4.00     3.95
1.86     YES
 L0006880         0   0.11950E-05  476785.2 3746552.2   462.2     4.00     3.95
1.86     YES
 L0006881         0   0.11950E-05  476776.7 3746552.2   462.3     4.00     3.95
1.86     YES
 L0006882         0   0.11950E-05  476768.2 3746551.9   462.4     4.00     3.95
1.86     YES
 L0006883         0   0.11950E-05  476759.7 3746551.7   462.5     4.00     3.95
1.86     YES
 L0006884         0   0.11950E-05  476751.2 3746551.5   462.6     4.00     3.95
1.86     YES
 L0006885         0   0.11950E-05  476742.8 3746551.3   462.7     4.00     3.95
1.86     YES
 L0006886         0   0.11950E-05  476734.3 3746551.1   462.8     4.00     3.95
1.86     YES
 L0006887         0   0.11950E-05  476725.8 3746550.8   462.9     4.00     3.95
1.86     YES
 L0006888         0   0.11950E-05  476717.3 3746550.6   463.1     4.00     3.95
1.86     YES
 L0006889         0   0.11950E-05  476708.8 3746550.4   463.2     4.00     3.95
1.86     YES
 L0006890         0   0.11950E-05  476700.3 3746550.2   463.3     4.00     3.95
1.86     YES
 L0006891         0   0.11950E-05  476691.8 3746550.0   463.4     4.00     3.95
1.86     YES
 L0006892         0   0.11950E-05  476683.3 3746549.7   463.5     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006893         0   0.11950E-05  476674.8 3746549.5   463.6     4.00     3.95
1.86     YES
 L0006894         0   0.11950E-05  476666.3 3746549.3   463.7     4.00     3.95
1.86     YES
 L0006895         0   0.11950E-05  476657.8 3746549.1   463.8     4.00     3.95
1.86     YES
 L0006896         0   0.11950E-05  476649.5 3746550.2   463.9     4.00     3.95
1.86     YES
 L0006897         0   0.11950E-05  476641.4 3746552.9   464.0     4.00     3.95
1.86     YES
 L0006898         0   0.11950E-05  476633.4 3746555.6   464.0     4.00     3.95
1.86     YES
 L0006899         0   0.11950E-05  476625.3 3746558.3   464.0     4.00     3.95
1.86     YES
 L0006900         0   0.11950E-05  476617.2 3746561.0   464.0     4.00     3.95
1.86     YES
 L0006901         0   0.11950E-05  476609.2 3746563.6   464.0     4.00     3.95
1.86     YES
 L0006902         0   0.11950E-05  476601.4 3746566.9   464.0     4.00     3.95
1.86     YES
 L0006903         0   0.11950E-05  476594.1 3746571.4   464.0     4.00     3.95
1.86     YES
 L0006904         0   0.11950E-05  476586.9 3746575.9   464.0     4.00     3.95
1.86     YES
 L0006905         0   0.11950E-05  476579.7 3746580.4   464.0     4.00     3.95
1.86     YES
 L0006906         0   0.11950E-05  476572.5 3746584.8   464.0     4.00     3.95
1.86     YES
 L0006907         0   0.11950E-05  476565.3 3746589.3   464.0     4.00     3.95
1.86     YES
 L0006908         0   0.11950E-05  476558.0 3746593.8   464.1     4.00     3.95
1.86     YES
 L0006909         0   0.11950E-05  476550.8 3746598.3   464.2     4.00     3.95
1.86     YES
 L0006910         0   0.11950E-05  476543.6 3746602.8   464.3     4.00     3.95
1.86     YES
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                                   AERMOD HRA Output
 L0006911          0   0.11950E-05  476537.9 3746608.7   464.4     4.00      3.95
1.86     YES
 L0006912          0   0.11950E-05  476534.0 3746616.2   464.4     4.00      3.95
1.86     YES
 L0006913          0   0.11950E-05  476530.0 3746623.8   464.5     4.00      3.95
1.86     YES
 L0006914          0   0.11950E-05  476526.1 3746631.3   464.5     4.00      3.95
1.86     YES
 L0006915          0   0.11950E-05  476522.2 3746638.8   464.6     4.00      3.95
1.86     YES
 L0006916          0   0.11950E-05  476518.2 3746646.4   464.6     4.00      3.95
1.86     YES
 L0006917          0   0.11950E-05  476514.3 3746653.9   464.7     4.00      3.95
1.86     YES
 L0006918          0   0.11950E-05  476510.3 3746661.4   464.7     4.00      3.95
1.86     YES
 L0006919          0   0.11950E-05  476506.4 3746668.9   464.8     4.00      3.95
1.86     YES
 L0006920          0   0.11950E-05  476502.4 3746676.5   464.8     4.00      3.95
1.86     YES
 L0006921          0   0.11950E-05  476498.5 3746684.0   464.9     4.00      3.95
1.86     YES
 L0006922          0   0.11950E-05  476494.5 3746691.5   464.9     4.00      3.95
1.86     YES
 L0006923          0   0.11950E-05  476490.6 3746699.1   465.0     4.00      3.95
1.86     YES
 L0006924          0   0.11950E-05  476486.6 3746706.6   465.1     4.00      3.95
1.86     YES
 L0006925          0   0.11950E-05  476482.7 3746714.1   465.2     4.00      3.95
1.86     YES
 L0006926          0   0.11950E-05  476478.7 3746721.6   465.3     4.00      3.95
1.86     YES
 L0006927          0   0.11950E-05  476474.8 3746729.2   465.4     4.00      3.95
1.86     YES
 L0006928          0   0.11950E-05  476470.9 3746736.7   465.5     4.00      3.95
1.86     YES
 L0006929          0   0.11950E-05  476467.8 3746744.5   465.6     4.00      3.95
1.86     YES
 L0006930          0   0.11950E-05  476466.4 3746752.9   465.6     4.00      3.95
1.86     YES
 L0006931          0   0.11950E-05  476465.0 3746761.3   465.7     4.00      3.95
1.86     YES
 L0006932          0   0.11950E-05  476463.6 3746769.7   465.7     4.00      3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                  PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0006933        0   0.11950E-05  476462.2 3746778.1   465.7     4.00     3.95
1.86     YES
 L0006934        0   0.11950E-05  476460.8 3746786.4   465.8     4.00     3.95
1.86     YES
 L0006935        0   0.11950E-05  476459.4 3746794.8   465.8     4.00     3.95
1.86     YES
 L0006936        0   0.11950E-05  476457.3 3746803.0   465.9     4.00     3.95
1.86     YES
 L0006937        0   0.11950E-05  476453.4 3746810.5   465.9     4.00     3.95
1.86     YES
 L0006938        0   0.11950E-05  476449.4 3746818.0   466.1     4.00     3.95
1.86     YES
 L0006939        0   0.11950E-05  476445.4 3746825.5   466.2     4.00     3.95
1.86     YES
 L0006940        0   0.11950E-05  476441.4 3746833.0   466.3     4.00     3.95
1.86     YES
 L0006941        0   0.11950E-05  476437.5 3746840.5   466.4     4.00     3.95
1.86     YES
 L0006942        0   0.11950E-05  476433.5 3746848.1   466.5     4.00     3.95
1.86     YES
 L0006943        0   0.11950E-05  476429.5 3746855.6   466.6     4.00     3.95
1.86     YES
 L0006944        0   0.11950E-05  476425.5 3746863.1   466.7     4.00     3.95
1.86     YES
 L0006945        0   0.11950E-05  476421.6 3746870.6   466.8     4.00     3.95
1.86     YES
 L0006946        0   0.11950E-05  476417.6 3746878.1   466.9     4.00     3.95
1.86     YES
 L0006947        0   0.11950E-05  476413.6 3746885.6   467.0     4.00     3.95
1.86     YES
 L0006948        0   0.11950E-05  476409.6 3746893.1   467.1     4.00     3.95
1.86     YES
```

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 L0006949         0   0.11950E-05  476403.2 3746898.5   467.1      4.00      3.95
1.86     YES
 L0006950         0   0.11950E-05  476396.2 3746903.3   467.2      4.00      3.95
1.86     YES
 L0006951         0   0.11950E-05  476389.2 3746908.1   467.3      4.00      3.95
1.86     YES
 L0006952         0   0.11950E-05  476382.2 3746912.9   467.4      4.00      3.95
1.86     YES
 L0006953         0   0.11950E-05  476375.2 3746917.8   467.5      4.00      3.95
1.86     YES
 L0006954         0   0.11950E-05  476368.2 3746922.6   467.6      4.00      3.95
1.86     YES
 L0006955         0   0.11950E-05  476361.2 3746927.4   467.7      4.00      3.95
1.86     YES
 L0006956         0   0.11950E-05  476354.2 3746932.2   467.8      4.00      3.95
1.86     YES
 L0006957         0   0.11950E-05  476347.2 3746937.0   467.9      4.00      3.95
1.86     YES
 L0006958         0   0.11950E-05  476340.2 3746941.8   467.9      4.00      3.95
1.86     YES
 L0006959         0   0.11950E-05  476332.1 3746943.7   468.1      4.00      3.95
1.86     YES
 L0006960         0   0.11950E-05  476323.7 3746944.5   468.2      4.00      3.95
1.86     YES
 L0006961         0   0.11950E-05  476315.2 3746945.4   468.3      4.00      3.95
1.86     YES
 L0006962         0   0.11950E-05  476306.7 3746946.2   468.4      4.00      3.95
1.86     YES
 L0006963         0   0.11950E-05  476298.3 3746947.0   468.5      4.00      3.95
1.86     YES
 L0006964         0   0.11950E-05  476289.8 3746947.9   468.6      4.00      3.95
1.86     YES
 L0006965         0   0.11950E-05  476281.4 3746948.7   468.7      4.00      3.95
1.86     YES
 L0006966         0   0.11950E-05  476272.9 3746949.5   468.8      4.00      3.95
1.86     YES
 L0006967         0   0.11950E-05  476264.4 3746950.4   468.9      4.00      3.95
1.86     YES
 L0006968         0   0.11950E-05  476256.0 3746950.8   469.0      4.00      3.95
1.86     YES
 L0006969         0   0.11950E-05  476247.5 3746950.7   469.2      4.00      3.95
1.86     YES
 L0006970         0   0.11950E-05  476239.0 3746950.7   469.3      4.00      3.95
1.86     YES
 L0006971         0   0.11950E-05  476230.5 3746950.6   469.4      4.00      3.95
1.86     YES
 L0006972         0   0.11950E-05  476222.0 3746950.5   469.5      4.00      3.95
1.86     YES
```

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                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        13:28:44

                                   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0006973         0   0.11950E-05  476213.5 3746950.5   469.6     4.00     3.95
1.86     YES
 L0006974         0   0.11950E-05  476205.0 3746950.4   469.7     4.00     3.95
1.86     YES
 L0006975         0   0.11950E-05  476196.5 3746950.4   469.8     4.00     3.95
1.86     YES
 L0006976         0   0.11950E-05  476188.0 3746950.3   469.9     4.00     3.95
1.86     YES
 L0006977         0   0.11950E-05  476179.5 3746950.3   470.0     4.00     3.95
1.86     YES
 L0006978         0   0.11950E-05  476171.0 3746950.2   470.2     4.00     3.95
1.86     YES
 L0006979         0   0.11950E-05  476162.5 3746950.1   470.3     4.00     3.95
1.86     YES
 L0006980         0   0.11950E-05  476154.0 3746950.1   470.4     4.00     3.95
1.86     YES
 L0006981         0   0.11950E-05  476145.5 3746950.0   470.5     4.00     3.95
1.86     YES
 L0006982         0   0.11950E-05  476137.0 3746950.0   470.6     4.00     3.95
1.86     YES
 L0006983         0   0.11950E-05  476128.5 3746949.9   470.7     4.00     3.95
1.86     YES
 L0006984         0   0.11950E-05  476120.0 3746949.9   470.8     4.00     3.95
1.86     YES
 L0006985         0   0.11950E-05  476111.5 3746949.8   470.9     4.00     3.95
1.86     YES
 L0006986         0   0.11950E-05  476103.0 3746949.8   471.0     4.00     3.95
1.86     YES
```

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                                  AERMOD HRA Output
 L0006987         0   0.11950E-05  476094.5 3746949.7   471.1     4.00     3.95
1.86     YES
 L0006988         0   0.11950E-05  476086.0 3746949.6   471.2     4.00     3.95
1.86     YES
 L0006989         0   0.11950E-05  476077.5 3746949.6   471.4     4.00     3.95
1.86     YES
 L0006990         0   0.11950E-05  476069.0 3746949.5   471.5     4.00     3.95
1.86     YES
 L0006991         0   0.11950E-05  476060.5 3746949.5   471.6     4.00     3.95
1.86     YES
 L0006992         0   0.11950E-05  476052.0 3746949.4   471.7     4.00     3.95
1.86     YES
 L0006993         0   0.11950E-05  476043.5 3746949.4   471.8     4.00     3.95
1.86     YES
 L0006994         0   0.11950E-05  476035.0 3746949.3   471.9     4.00     3.95
1.86     YES
 L0006995         0   0.11950E-05  476026.5 3746949.2   472.0     4.00     3.95
1.86     YES
 L0006996         0   0.11950E-05  476018.0 3746949.2   472.1     4.00     3.95
1.86     YES
 L0006997         0   0.11950E-05  476009.5 3746949.1   472.2     4.00     3.95
1.86     YES
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1.86     YES
 L0006999         0   0.11950E-05  475992.5 3746949.0   472.5     4.00     3.95
1.86     YES
 L0007000         0   0.11950E-05  475984.0 3746949.0   472.6     4.00     3.95
1.86     YES
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1.86     YES
 L0007002         0   0.11950E-05  475967.0 3746948.8   472.8     4.00     3.95
1.86     YES
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1.86     YES
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1.86     YES
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1.86     YES
 L0007006         0   0.11950E-05  475933.0 3746948.6   472.3     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                  *** AREA SOURCE DATA ***

              NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA     SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1            0   0.28207E-08  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES   HROFDY
 AREA2            0   0.29862E-08  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES   HROFDY
 AREA3            0   0.10465E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES   HROFDY
 AREA4            0   0.32820E-08  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES   HROFDY
 AREA5            0   0.68612E-08  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES   HROFDY
 AREA6            0   0.30740E-08  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


  YARDTRAC   AREA1       , AREA2       , AREA3       , AREA4       , AREA5       ,
AREA6       ,

  OTHER      L0003043    , L0003044    , L0003045    , L0003046    , L0003047    ,
L0003048    , L0003049    , L0003050    ,

             L0003051    , L0003052    , L0003053    , L0003054    , L0003055    ,
L0003056    , L0003057    , L0003058    ,
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AERMOD HRA Output

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L0003072    , L0003073    , L0003074    ,

                L0003075    , L0003076    , L0003077    , L0003078    , L0003079    ,
L0003080    , L0003081    , L0003082    ,

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L0003088    , L0003089    , L0003090    ,

                L0003091    , L0003092    , L0003093    , L0003094    , L0003095    ,
L0003096    , L0003097    , L0003098    ,

                L0003099    , L0003100    , L0003101    , L0003102    , L0003103    ,
L0003104    , L0003105    , L0003106    ,

                L0003107    , L0003108    , L0003109    , L0003110    , L0003111    ,
L0003112    , L0003113    , L0003114    ,

                L0003115    , L0003116    , L0003117    , L0003118    , L0003119    ,
L0003120    , L0003121    , L0003122    ,

                L0003123    , L0003124    , L0003125    , L0003126    , L0003127    ,
L0003128    , L0003129    , L0003130    ,

                L0003131    , L0003132    , L0003133    , L0003134    , L0003135    ,
L0003136    , L0003137    , L0003138    ,

                L0003139    , L0003140    , L0003141    , L0003142    , L0003143    ,
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L0003168    , L0003169    , L0003170    ,

                L0003171    , L0003172    , L0003173    , L0003174    , L0003175    ,
L0003176    , L0003177    , L0003178    ,

                L0003179    , L0003180    , L0003181    , L0003182    , L0003183    ,
L0003184    , L0003185    , L0003186    ,
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                                  AERMOD HRA Output

             L0003187    , L0003188    , L0003189    , L0003190    , L0003191    ,
L0003192    , L0003193    , L0003194    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
 -----------                                              ----------


             L0003195    , L0003196    , L0003197    , L0003198    , L0003199    ,
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L0003208    , L0003209    , L0003210    ,

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L0003216    , L0003217    , L0003218    ,

             L0003219    , L0003220    , L0003221    , L0003222    , L0003223    ,
L0003224    , L0003225    , L0003226    ,

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L0003232    , L0003233    , L0003234    ,

             L0003235    , L0003236    , L0003237    , L0003238    , L0003239    ,
L0003240    , L0003241    , L0003242    ,

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L0003304    , L0003305    , L0003306    ,

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L0003312    , L0003313    , L0003314    ,

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L0003320    , L0003321    , L0003322    ,

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L0003328    , L0003329    , L0003330    ,

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L0003336    , L0003337    , L0003338    ,

             L0003339    , L0003340    , L0003341    , L0003342    , L0003343    ,
L0003344    , L0003345    , L0003346    ,

             L0003347    , L0003348    , L0003349    , L0003350    , L0003351    ,
L0003352    , L0003353    , L0003354    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


             L0003355    , L0003356    , L0003357    , L0003358    , L0003359    ,
L0003360    , L0003361    , L0003362    ,
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L0003384    , L0003385    , L0003386    ,

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L0003416    , L0003417    , L0003418    ,

             L0003419    , L0003420    , L0003421    , L0003422    , L0003423    ,
L0003424    , L0003425    , L0003426    ,

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L0003488    , L0003489    , L0003490    ,
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                                 AERMOD HRA Output

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L0003504     , L0003505     , L0003506     ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                 SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***
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                                 AERMOD HRA Output
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STCK12      , STCK13      ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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             L0003275    , L0003276    , L0003277    , L0003278    , L0003279    ,
L0003280    , L0003281    , L0003282    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        13:28:44

                                    PAGE  68
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                                 AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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L0003424    , L0003425    , L0003426    ,

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L0003440    , L0003441    , L0003442    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  69
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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AERMOD HRA Output

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                 SOURCE IDs
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AREA4       , AREA5       , AREA6       ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  71
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
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Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                    *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                     AERMOD HRA Output
                            ***        13:28:44

                                       PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  79
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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             L0006994    , L0006995    , L0006996    , L0006997    , L0006998    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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                    L0003107     , L0003108     , L0003109     , L0003110     , L0003111     ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***
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                              AERMOD HRA Output
  URBAN ID    URBAN POP                                   SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                    SOURCE IDs
  --------    ---------                                    ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  86
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                                 AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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AREA4       , AREA5       , AREA6       ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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AERMOD HRA Output

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***       13:28:44

                                   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  91
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                          AERMOD HRA Output
                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES
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  URBAN ID    URBAN POP                                            SOURCE IDs
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             L0006562    , L0006563    , L0006564    , L0006565    , L0006566    ,
L0006567    , L0006568    , L0006569    ,

             L0006570    , L0006571    , L0006572    , L0006573    , L0006574    ,
L0006575    , L0006576    , L0006577    ,

             L0006578    , L0006579    , L0006580    , L0006581    , L0006582    ,
L0006583    , L0006584    , L0006585    ,

             L0006586    , L0006587    , L0006588    , L0006589    , L0006590    ,
L0006591    , L0006592    , L0006593    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
  --------   ---------                                ----------


             L0006594    , L0006595    , L0006596    , L0006597    , L0006598    ,
L0006599    , L0006600    , L0006601    ,

             L0006602    , L0006603    , L0006604    , L0006605    , L0006606    ,
L0006607    , L0006608    , L0006609    ,

             L0006610    , L0006611    , L0006612    , L0006613    , L0006614    ,
L0006615    , L0006616    , L0006617    ,

             L0006618    , L0006619    , L0006620    , L0006621    , L0006622    ,
L0006623    , L0006624    , L0006625    ,

             L0006626    , L0006627    , L0006628    , L0006629    , L0006630    ,
L0006631    , L0006632    , L0006633    ,
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                 L0006634    , L0006635    , L0006636    , L0006637    , L0006638    ,
L0006639    , L0006640    , L0006641    ,

                 L0006642    , L0006643    , L0006644    , L0006645    , L0006646    ,
L0006647    , L0006648    , L0006649    ,

                 L0006650    , L0006651    , L0006652    , L0006653    , L0006654    ,
L0006655    , L0006656    , L0006657    ,

                 L0006658    , L0006659    , L0006660    , L0006661    , L0006662    ,
L0006663    , L0006664    , L0006665    ,

                 L0006666    , L0006667    , L0006668    , L0006669    , L0006670    ,
L0006671    , L0006672    , L0006673    ,

                 L0006674    , L0006675    , L0006676    , L0006677    , L0006678    ,
L0006679    , L0006680    , L0006681    ,

                 L0006682    , L0006683    , L0006684    , L0006685    , L0006686    ,
L0006687    , L0006688    , L0006689    ,

                 L0006690    , L0006691    , L0006692    , L0006693    , L0006694    ,
L0006695    , L0006696    , L0006697    ,

                 L0006698    , L0006699    , L0006700    , L0006701    , L0006702    ,
L0006703    , L0006704    , L0006705    ,

                 L0006706    , L0006707    , L0006708    , L0006709    , L0006710    ,
L0006711    , L0006712    , L0006713    ,

                 L0006714    , L0006715    , L0006716    , L0006717    , L0006718    ,
L0006719    , L0006720    , L0006721    ,

                 L0006722    , L0006723    , L0006724    , L0006725    , L0006726    ,
L0006727    , L0006728    , L0006729    ,

                 L0006730    , L0006731    , L0006732    , L0006733    , L0006734    ,
L0006735    , L0006736    , L0006737    ,

                 L0006738    , L0006739    , L0006740    , L0006741    , L0006742    ,
L0006743    , L0006744    , L0006745    ,

                 L0006746    , L0006747    , L0006748    , L0006749    , L0006750    ,
L0006751    , L0006752    , L0006753    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                   AERMOD HRA Output
                         ***          13:28:44

                                      PAGE  95
 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN


                                                *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                            SOURCE IDs
  --------    ---------                                            ----------


             L0006754    , L0006755    , L0006756    , L0006757    , L0006758    ,
L0006759    , L0006760    , L0006761    ,

             L0006762    , L0006763    , L0006764    , L0006765    , L0006766    ,
L0006767    , L0006768    , L0006769    ,

             L0006770    , L0006771    , L0006772    , L0006773    , L0006774    ,
L0006775    , L0006776    , L0006777    ,

             L0006778    , L0006779    , L0006780    , L0006781    , L0006782    ,
L0006783    , L0006784    , L0006785    ,

             L0006786    , L0006787    , L0006788    , L0006789    , L0006790    ,
L0006791    , L0006792    , L0006793    ,

             L0006794    , L0006795    , L0006796    , L0006797    , L0006798    ,
L0006799    , L0006800    , L0006801    ,

             L0006802    , L0006803    , L0006804    , L0006805    , L0006806    ,
L0006807    , L0006808    , L0006809    ,

             L0006810    , L0006811    , L0006812    , L0006813    , L0006814    ,
L0006815    , L0006816    , L0006817    ,

             L0006818    , L0006819    , L0006820    , L0006821    , L0006822    ,
L0006823    , L0006824    , L0006825    ,

             L0006826    , L0006827    , L0006828    , L0006829    , L0006830    ,
L0006831    , L0006832    , L0006833    ,

             L0006834    , L0006835    , L0006836    , L0006837    , L0006838    ,
L0006839    , L0006840    , L0006841    ,

             L0006842    , L0006843    , L0006844    , L0006845    , L0006846    ,
L0006847    , L0006848    , L0006849    ,
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             L0006850    , L0006851    , L0006852    , L0006853    , L0006854    ,
L0006855    , L0006856    , L0006857    ,

             L0006858    , L0006859    , L0006860    , L0006861    , L0006862    ,
L0006863    , L0006864    , L0006865    ,

             L0006866    , L0006867    , L0006868    , L0006869    , L0006870    ,
L0006871    , L0006872    , L0006873    ,

             L0006874    , L0006875    , L0006876    , L0006877    , L0006878    ,
L0006879    , L0006880    , L0006881    ,

             L0006882    , L0006883    , L0006884    , L0006885    , L0006886    ,
L0006887    , L0006888    , L0006889    ,

             L0006890    , L0006891    , L0006892    , L0006893    , L0006894    ,
L0006895    , L0006896    , L0006897    ,

             L0006898    , L0006899    , L0006900    , L0006901    , L0006902    ,
L0006903    , L0006904    , L0006905    ,

             L0006906    , L0006907    , L0006908    , L0006909    , L0006910    ,
L0006911    , L0006912    , L0006913    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        13:28:44

                                   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0006914    , L0006915    , L0006916    , L0006917    , L0006918    ,
L0006919    , L0006920    , L0006921    ,

             L0006922    , L0006923    , L0006924    , L0006925    , L0006926    ,
L0006927    , L0006928    , L0006929    ,

             L0006930    , L0006931    , L0006932    , L0006933    , L0006934    ,
L0006935    , L0006936    , L0006937    ,
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             L0006938    , L0006939    , L0006940    , L0006941    , L0006942    ,
L0006943    , L0006944    , L0006945    ,

             L0006946    , L0006947    , L0006948    , L0006949    , L0006950    ,
L0006951    , L0006952    , L0006953    ,

             L0006954    , L0006955    , L0006956    , L0006957    , L0006958    ,
L0006959    , L0006960    , L0006961    ,

             L0006962    , L0006963    , L0006964    , L0006965    , L0006966    ,
L0006967    , L0006968    , L0006969    ,

             L0006970    , L0006971    , L0006972    , L0006973    , L0006974    ,
L0006975    , L0006976    , L0006977    ,

             L0006978    , L0006979    , L0006980    , L0006981    , L0006982    ,
L0006983    , L0006984    , L0006985    ,

             L0006986    , L0006987    , L0006988    , L0006989    , L0006990    ,
L0006991    , L0006992    , L0006993    ,

             L0006994    , L0006995    , L0006996    , L0006997    , L0006998    ,
L0006999    , L0007000    , L0007001    ,

             L0007002    , L0007003    , L0007004    , L0007005    , L0007006    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003043     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

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       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00


SOURCE ID = L0003044     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00


SOURCE ID = L0003045     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00


SOURCE ID = L0003046     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00


SOURCE ID = L0003047     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00       6    .00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01      12    .10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01      18    .10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00      24    .00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003048     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003049     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003050     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003051     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003053     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
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```
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003054     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003055     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003056     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003057     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
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                                  AERMOD HRA Output
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003058     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003059     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003060     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0003061     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003062     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003063     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003065     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003066     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003067     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                              AERMOD HRA Output
                     ***        13:28:44

                                PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003070     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003071     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003072     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003073     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                   AERMOD HRA Output
 SOURCE ID = L0003074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003078     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003079     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003080     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003081     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003082     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003083     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003084     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003085     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003086     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003087     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                 AERMOD HRA Output

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003088     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003089     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003090     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003091     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003092     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
  *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 107
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
  HOUR    SCALAR      HOUR    SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


  SOURCE ID = L0003093     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003094     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003095     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003096     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003097     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003098     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003099     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003100     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003101     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003102     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003103     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003104     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003105     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003106     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003107     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                AERMOD HRA Output
    HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR
HOUR     SCALAR      HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003108     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003109     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003110     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003111     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output


 SOURCE ID = L0003112     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003113     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003114     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003115     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003116     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003117     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003118     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003119     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003120     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003121     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003122     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 113
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003123     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003124     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0003125     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003126     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003127     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0003128     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003129     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003130     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003131     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003132     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003133     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003134     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003135     ; SOURCE TYPE = VOLUME   :
```

```
                                  AERMOD HRA Output
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003136     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003137     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                      ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        13:28:44

                                   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                            AERMOD HRA Output
SOURCE ID = L0003138     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003139     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003140     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003141     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003142     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003144     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003145     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003146     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003147     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***          13:28:44

                                   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003148     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003149     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003150     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003151     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003152     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 119
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003153     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003154     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003155     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
                                AERMOD HRA Output
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003156     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003157     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003158     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003159     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003160     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003161     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003162     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003163     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003164     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003165     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003166     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003167     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 122
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003168     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003169     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003170     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003171     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003172     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003173     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003174     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003175     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003176     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003177     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003178     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003179     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003180     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003181     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003182     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
```

```
                                 AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         13:28:44

                                   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003183     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003184     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003185     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003186     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003187     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 126
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003188     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0003189     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003190     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003191     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003192     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
```

```
                                   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003193     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003194     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003195     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003196     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003197     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003198     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003199     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003200     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003201     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003202     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 129
```

```
                                AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003203     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003204     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003205     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003206     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003207     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 130
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003208     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003209     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003210     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003211     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003212     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                          AERMOD HRA Output
                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003213     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003214     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003215     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003216     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003217     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003218     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003219     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003220     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003221     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003222     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                              AERMOD HRA Output

    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003223     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003224     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003225     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003226     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003227     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 134
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003228     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003229     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
                                  AERMOD HRA Output
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003230     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003231     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003232     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 135
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                  AERMOD HRA Output
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003233     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003234     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003235     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003236     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                   AERMOD HRA Output

 SOURCE ID = L0003237     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	   11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                     PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003238     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003239     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003240     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003241     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003242     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 137
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 - - - - - - - - - - - - - - - - - - - - - - - -


  SOURCE ID = L0003243     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003244     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003245     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003246     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003247     ; SOURCE TYPE = VOLUME    :
```

```
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003248     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003249     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                AERMOD HRA Output
 SOURCE ID = L0003250     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003251     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003252     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = L0003253     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003254     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003255     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003256     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003257     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003258     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003259     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003260     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003261     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003262     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       13:28:44

                                   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003263     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003264     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003265     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003266     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003267     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003268     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003269     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003270     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003271     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003272     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         13:28:44

                                    PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003273     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003274     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003275     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003276     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003277     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 144
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003278     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003279     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003280     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003281     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003282     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 145
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003283     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003284     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003285     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003286     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003287     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

AERMOD HRA Output

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 146
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003288     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003289     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003290     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003291     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003292     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003293     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

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                                   AERMOD HRA Output
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0003294      ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0003295      ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0003296      ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


     SOURCE ID = L0003297      ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
```

```
                                  AERMOD HRA Output
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        13:28:44

                                    PAGE 148
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003298     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003299     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003300     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003301     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003302     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44

                                   PAGE 149
 **MODELOPTs:   RegDFAULT CONC       ELEV       URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003303     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0003304     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003305     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003306     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003307     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

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                                  AERMOD HRA Output
                         ***        13:28:44

                                    PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003308     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003309     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003310     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003311     ; SOURCE TYPE = VOLUME    :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003312     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003313     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003314     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003315     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003316     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003317     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
```

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                              AERMOD HRA Output
                                PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003318     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003319     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003320     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003321     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
```

```
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003322     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003323     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003324     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003325     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003326     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003327     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003328     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003329     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003330     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003331     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003332     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003333     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003334     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003335     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003336     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003337     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 156
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003338     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003339     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003340     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003341     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003342     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003343     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003344     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003345     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003346     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003347     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                   AERMOD HRA Output
    HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR
HOUR     SCALAR         HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003348     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003349     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003350     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003351     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003352     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 159
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003353     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003354     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003355     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003356     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003357     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
                                  AERMOD HRA Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003358     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003360     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003361     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003362     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***          11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         13:28:44

                                   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003363     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003364     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                AERMOD HRA Output

 SOURCE ID = L0003365     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       13:28:44

                                  PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0003368      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003369      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003370      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003371      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003372      ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003373     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003374     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003375     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003376     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003377     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                    AERMOD HRA Output
SOURCE ID = L0003378     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003379     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003380     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003381     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003382     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 165
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003383     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003384     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003385     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003386     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003387     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003388     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003389     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003390     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003391     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003392     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 167
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003396     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003397     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003398     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003399     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003400     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003401     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003402     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 169
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003403     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003404     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003405     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003406     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003407     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 170
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


  SOURCE ID = L0003408     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003409     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003410     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003411     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003412     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St 
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***        
                        ***        13:28:44

                                   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR 
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00   
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01   
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01   
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00   
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00   
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01   
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01   
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00   
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00   
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01   
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01   
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00   
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003416     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003417     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 172
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003418     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003419     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003420     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003421     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
```

```
                                AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         13:28:44

                                   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003423     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003424     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003425     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003426     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003427     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003428     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0003429     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003430     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St 
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
```

```
                           AERMOD HRA Output

                                 PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003433     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003434     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003435     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003436     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003437     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003438     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003439     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003440     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003441     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003442     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                    ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 177
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```
                                 AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003443     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003444     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003445     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003446     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003447     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                               PAGE 178
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003448     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003449     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003450     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003451     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003452     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                      AERMOD HRA Output
                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003453     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003454     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003455     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003456     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003457     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 180
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003458     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003459     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003460     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003461     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003462     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 181
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                              AERMOD HRA Output

    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003463     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003464     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003465     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003466     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003467     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003468     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003469     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
         19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
     23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003470     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
     23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003471     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
     23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003472     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
     23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                 AERMOD HRA Output
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003473     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003474     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003475     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003476     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0003477     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003478     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003479     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003481     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003482     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 185
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 - - - - - - - - - - - - - - - - - - - - - - - - -


  SOURCE ID = L0003483      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003484      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003485      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003486      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003487      ; SOURCE TYPE = VOLUME    :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         13:28:44

                                   PAGE 186
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003488     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003489     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003490     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003491     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003492     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = L0003493     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003494     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003495     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003496     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003497     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
                                 AERMOD HRA Output
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003498     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003499     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003500     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003501     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003502     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 189
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003503     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003504     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003505     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003506     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003507     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 190
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003508     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003509     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003510     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003511     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003512     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003513     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003514      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003515      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003516      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003517      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 192
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003518     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003519     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003520     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003521     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003522     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003523     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003524     ; SOURCE TYPE = VOLUME    :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003525     ; SOURCE TYPE = VOLUME    :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003526     ; SOURCE TYPE = VOLUME    :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003527     ; SOURCE TYPE = VOLUME    :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00      6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01     12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01     18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 194
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003528     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003529     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003531     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003532     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 195
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003533     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
                                     AERMOD HRA Output
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0003534     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0003535     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0003536     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


   SOURCE ID = L0003537     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
```

```
                                 AERMOD HRA Output
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                            ***        13:28:44

                                   PAGE 196
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003538     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003539     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003540     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003541     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003542     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003543     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003544     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003545     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003546     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003547     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
```

```
                                   AERMOD HRA Output
                            ***      13:28:44

                                     PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003548     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003549     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003550     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003551     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003552     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003553     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003554     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003555     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003556     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003557     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44
```

```
                              AERMOD HRA Output
                                PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003558     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003559     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003560     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003561     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003562     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003563     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003564     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
                                   AERMOD HRA Output
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003565     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003566     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003567     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003568     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003569     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003570     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003571     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003572     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 203
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003573     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003574     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003575     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003576     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003577     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003578     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003579     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003580     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003581     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003582     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                           PAGE 205
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003583     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003584     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003585     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003586     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003587     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         13:28:44

                                   PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                 AERMOD HRA Output
     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003588     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003589     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003590     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003591     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003592     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003593     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003594     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003595     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003596     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003597     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
```

AERMOD HRA Output

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003598     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003599     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003600     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003601     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003602     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                    PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003603     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003604     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0003605     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003606     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***          11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0003608     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003609     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003610     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003611     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003612     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003613     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003614     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003615     ; SOURCE TYPE = VOLUME   :
```

```
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003616     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003617     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                    ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 212
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR
 HOUR     SCALAR      HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                AERMOD HRA Output
SOURCE ID = L0003618     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003619     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003620     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003621     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003622     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
                                  AERMOD HRA Output
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 213
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003623     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003624     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003625     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003626     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003627     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003628     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003629     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003630     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003631     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003632     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
                                  AERMOD HRA Output
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 215
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003633     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003634     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003635     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003636     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003637     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003638     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003639     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003640     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003641     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005357     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0005358     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005359     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005360     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005361     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005362     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***         11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44

                                   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005363     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005364     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005365     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005366     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005367     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 219
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005369     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005370     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0005371     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005372     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	     11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005373     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005374     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005375     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005376     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005377     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
```

```
                                AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         13:28:44

                                   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005378     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005379     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005380     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0005381     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005382     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005383     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                AERMOD HRA Output

 SOURCE ID = L0005384     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005385     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005386     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005387     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                    ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44
```

```
                                             AERMOD HRA Output

                                               PAGE 223
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005388     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005389     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005390     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005391     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005392     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005393     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005394     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005395     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005396     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005397     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	   11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 225
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                                  AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005398     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005399     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005400     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005401     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005402     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 226
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005403     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005404     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005405     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005406     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005407     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                    AERMOD HRA Output
                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005408     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005409     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005410     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005411     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005412     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005413     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005414     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005415     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005416     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005417     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

AERMOD HRA Output

```
    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0005418     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005419     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005420     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005421     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 230
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005423     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005424     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005425     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005426     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005427     ; SOURCE TYPE = VOLUME   :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005428     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005429     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005430     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0005432     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44

                                               PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005433     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005434     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0005435     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005436     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005437     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 233
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005438     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005439     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005440     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005441     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005442     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005443     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005444     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0005445     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005446     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005447     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0005448     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005449     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005450     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005451     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005452     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                           PAGE 236
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005453     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005454     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005455     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA      :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA      :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00
  23    .00000E+00     24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA      :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = AREA5        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = AREA6        ; SOURCE TYPE = AREA     :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK1        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK4        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK5        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK6        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK7        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK8         ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK9         ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK10        ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK11        ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 240
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK13       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003741     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003742     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003743     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***          11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003744     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01     18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003745     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00      6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01     12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01     18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003746     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00      6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01     12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01     18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003747     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00      6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01     12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01     18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003748     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00      6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01     12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01     18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00     24   .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003749     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003750     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003751     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St 
Bridge\Worker                *** 	      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR 
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR      
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003755     ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003756     ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003757     ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003758     ; SOURCE TYPE = VOLUME    :
           1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
       5   .00000E+00       6   .00000E+00
           7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
      11   .10000E+01      12   .10000E+01
          13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
      17   .10000E+01      18   .10000E+01
          19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
      23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***       13:28:44

                                   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003759     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003760     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003761     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003762     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003763     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003765     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003766     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003767     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003768     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                    AERMOD HRA Output
                           ***        13:28:44

                                      PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003769     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003772     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                       PAGE 247
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003774     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                AERMOD HRA Output
 SOURCE ID = L0003775     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003776     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003777     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003778     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44
```

```
                                 AERMOD HRA Output
                                   PAGE 248
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003779     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003780     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003783     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 249
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003784     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003785     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003786     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003787     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003788     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***          11/19/15
 *** AERMET - VERSION  14134 ***     ***
                        ***          13:28:44

                                   PAGE 250
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                    AERMOD HRA Output

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003789     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003790     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003791     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003792     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003793     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 251
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003794     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003795     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003796     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003797     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003798     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 252
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
                                   AERMOD HRA Output
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003799     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003800     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003801     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003802     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003803     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 253
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003804     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003805     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 254
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478329.6,
3749871.1,     459.0,     467.0,       0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);         ( 478344.6,
3749914.1,     459.0,     467.0,       0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);         ( 479198.5,
3749445.6,     455.0,     468.0,       0.0);
     ( 479276.2, 3749431.1,     455.0,     780.0,       0.0);         ( 479238.2,
3749507.6,     456.0,     469.0,       0.0);
     ( 479392.7, 3749458.5,     454.7,     780.0,       0.0);         ( 479266.8,
3749584.9,     456.0,     469.0,       0.0);
     ( 479216.5, 3749531.8,     456.0,     468.0,       0.0);         ( 479216.5,
3749499.9,     456.0,     468.0,       0.0);
     ( 478420.7, 3750106.6,     460.0,     467.0,       0.0);         ( 478374.5,
3750050.1,     460.0,     467.0,       0.0);
     ( 479735.8, 3748832.3,     450.0,     780.0,       0.0);         ( 479739.1,
3748875.1,     450.9,     780.0,       0.0);
     ( 477612.1, 3751848.4,     468.0,     476.0,       0.0);         ( 478306.5,
3751863.5,     471.0,     471.0,       0.0);
     ( 478687.4, 3751837.0,     471.0,     475.0,       0.0);         ( 477090.2,
3750813.4,     462.0,     471.0,       0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 255
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)
```

```
                                 AERMOD HRA Output
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        13:28:44

                                   PAGE 256
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                 Upper air station no.:     3190
                  Name: UNKNOWN                                  Name: UNKNOWN
```

```
                             AERMOD HRA Output

                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 07 01 01    1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01    1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01    1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01    1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01    1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01    1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01    1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01    1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01    1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01    1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01    1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01    1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01    1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01    1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01    1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01    1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01    1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01    1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01    1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01    1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
```

```
                                 AERMOD HRA Output
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 257
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: YARDTRAC ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2
 , AREA3       , AREA4       , AREA5       ,
                 AREA6       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00011                       478329.61
3749871.11        0.00010
         478312.39    3749891.05        0.00010                       478344.56
3749914.15        0.00010
         478380.35    3749931.82        0.00009                       479198.50
3749445.63        0.00004
         479276.24    3749431.09        0.00004                       479238.25
3749507.60        0.00004
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
         479392.66    3749458.49         0.00003                        479266.82
3749584.89        0.00004
         479216.49    3749531.76         0.00004                        479216.49
3749499.88        0.00004
         478420.74    3750106.65         0.00008                        478374.50
3750050.13        0.00009
         479735.76    3748832.26         0.00002                        479739.12
3748875.07        0.00002
         477612.13    3751848.38         0.00003                        478306.45
3751863.55        0.00003
         478687.39    3751836.97         0.00003                        477090.18
3750813.40        0.00005
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 258
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: OTHER    ***
                                  INCLUDING SOURCE(S):     L0003043    , L0003044
 , L0003045    , L0003046    , L0003047    ,
                L0003048    , L0003049    , L0003050    , L0003051    , L0003052
 , L0003053    , L0003054    , L0003055    ,
                L0003056    , L0003057    , L0003058    , L0003059    , L0003060
 , L0003061    , L0003062    , L0003063    ,
                L0003064    , L0003065    , L0003066    , L0003067    , L0003068
 , L0003069    , L0003070    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73         0.00044                        478329.61
3749871.11        0.00042
         478312.39    3749891.05         0.00041                        478344.56
3749914.15        0.00039
         478380.35    3749931.82         0.00038                        479198.50
3749445.63        0.00026
         479276.24    3749431.09         0.00025                        479238.25
```

```
3749507.60        0.00025
         479392.66    3749458.49        0.00022                     479266.82
3749584.89        0.00023
         479216.49    3749531.76        0.00025                     479216.49
3749499.88        0.00025
         478420.74    3750106.65        0.00031                     478374.50
3750050.13        0.00034
         479735.76    3748832.26        0.00019                     479739.12
3748875.07        0.00018
         477612.13    3751848.38        0.00012                     478306.45
3751863.55        0.00011
         478687.39    3751836.97        0.00010                     477090.18
3750813.40        0.00017
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 259
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0003043    , L0003044
 , L0003045    , L0003046    , L0003047    ,
                L0003048    , L0003049    , L0003050    , L0003051    , L0003052
 , L0003053    , L0003054    , L0003055    ,
                L0003056    , L0003057    , L0003058    , L0003059    , L0003060
 , L0003061    , L0003062    , L0003063    ,
                L0003064    , L0003065    , L0003066    , L0003067    , L0003068
 , L0003069    , L0003070    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00141                     478329.61
3749871.11        0.00141
         478312.39    3749891.05        0.00142                     478344.56
3749914.15        0.00138
         478380.35    3749931.82        0.00133                     479198.50
3749445.63        0.00082
```

```
         479276.24    3749431.09        0.00079                            479238.25
3749507.60        0.00079
         479392.66    3749458.49        0.00073                            479266.82
3749584.89        0.00077
         479216.49    3749531.76        0.00080                            479216.49
3749499.88        0.00081
         478420.74    3750106.65        0.00124                            478374.50
3750050.13        0.00130
         479735.76    3748832.26        0.00065                            479739.12
3748875.07        0.00064
         477612.13    3751848.38        0.00472                            478306.45
3751863.55        0.00103
         478687.39    3751836.97        0.00074                            477090.18
3750813.40        0.00223
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 260
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3
                **



                         NETWORK
GROUP ID                      AVERAGE CONC                 RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

YARDTRAC  1ST HIGHEST VALUE IS       0.00011 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00010 AT (  478329.61,  3749871.11,
459.00,   467.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00010 AT (  478312.39,  3749891.05,
459.00,   467.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00010 AT (  478344.56,  3749914.15,
459.00,   467.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00009 AT (  478380.35,  3749931.82,
459.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00009 AT (  478374.50,  3750050.13,
460.00,   467.00,    0.00)  DC
```

```
          7TH HIGHEST VALUE IS       0.00008 AT (  478420.74,  3750106.65,
460.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00005 AT (  477090.18,  3750813.40,
462.00,   471.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00004 AT (  479198.50,  3749445.63,
455.04,   468.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00004 AT (  479216.49,  3749499.88,
456.00,   468.00,    0.00)  DC

OTHER     1ST HIGHEST VALUE IS       0.00044 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00042 AT (  478329.61,  3749871.11,
459.00,   467.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00041 AT (  478312.39,  3749891.05,
459.00,   467.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00039 AT (  478344.56,  3749914.15,
459.00,   467.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00038 AT (  478380.35,  3749931.82,
459.00,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00034 AT (  478374.50,  3750050.13,
460.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00031 AT (  478420.74,  3750106.65,
460.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00026 AT (  479198.50,  3749445.63,
455.04,   468.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00025 AT (  479216.49,  3749499.88,
456.00,   468.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00025 AT (  479216.49,  3749531.76,
456.00,   468.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       0.00472 AT (  477612.13,  3751848.38,
468.00,   476.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00223 AT (  477090.18,  3750813.40,
462.00,   471.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00142 AT (  478312.39,  3749891.05,
459.00,   467.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00141 AT (  478329.61,  3749871.11,
459.00,   467.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00141 AT (  478348.59,  3749820.73,
458.30,   467.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00138 AT (  478344.56,  3749914.15,
459.00,   467.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00133 AT (  478380.35,  3749931.82,
459.00,   467.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00130 AT (  478374.50,  3750050.13,
460.00,   467.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00124 AT (  478420.74,  3750106.65,
460.00,   467.00,    0.00)  DC
```

```
                                 AERMOD HRA Output
         10TH HIGHEST VALUE IS       0.00103 AT (  478306.45,  3751863.55,
471.00,   471.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        13:28:44

                                   PAGE 261
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           1 Warning Message(s)
 A Total of        1895 Informational Message(s)

 A Total of       43824 Hours Were Processed

 A Total of          90 Calm Hours Identified

 A Total of        1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    8340       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
```

```
                                 AERMOD HRA Output
** Lakes Environmental Software Inc.
** Date: 11/19/2015
** File: C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker\Worker.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Worker.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00009027
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0003043     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0003044     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0003045     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0003046     VOLUME   478216.612 3748506.255 451.73
```

```
   LOCATION L0003047     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0003048     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0003049     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0003050     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0003051     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0003052     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0003053     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0003054     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0003055     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0003056     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0003057     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0003058     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0003059     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007702
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0003060     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0003061     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0003062     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0003063     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0003064     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0003065     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0003066     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0003067     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0003068     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0003069     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0003070     VOLUME   477946.460 3748801.113 453.00
   LOCATION L0003071     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0003072     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0003073     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
```

```
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000406
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0003074     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0003075     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0003076     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0003077     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0003078     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0003079     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0003080     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0003081     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 5.341E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0003082     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0003083     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0003084     VOLUME   477917.151 3748338.902 451.00
   LOCATION L0003085     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0003086     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0003087     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0003088     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0003089     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0003090     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0003091     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0003092     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0003093     VOLUME   477968.786 3748294.974 450.00
```

```
   LOCATION L0003094     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0003095     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0003096     VOLUME   477977.265 3748271.459 450.00
   LOCATION L0003097     VOLUME   477978.288 3748263.021 450.00
   LOCATION L0003098     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0003099     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0003100     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0003101     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0003102     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005502
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0003103     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0003104     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0003105     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0003106     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0003107     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0003108     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0003109     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0003110     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0003111     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0003112     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0003113     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0003114     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0003115     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0003116     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0003117     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 4.125E-06
```

```
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0003118     VOLUME   478043.006 3748335.195 451.00
   LOCATION L0003119     VOLUME   478072.999 3748334.546 451.00
   LOCATION L0003120     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0003121     VOLUME   478132.984 3748333.247 451.00
   LOCATION L0003122     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002353
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 457.44, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 454.22, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0003123     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0003124     VOLUME   477952.164 3748962.919 453.00
   LOCATION L0003125     VOLUME   477952.000 3748954.420 453.00
   LOCATION L0003126     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0003127     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0003128     VOLUME   477948.990 3748929.132 453.00
   LOCATION L0003129     VOLUME   477948.246 3748920.682 453.00
   LOCATION L0003130     VOLUME   477948.087 3748912.183 453.00
   LOCATION L0003131     VOLUME   477947.928 3748903.685 453.00
   LOCATION L0003132     VOLUME   477947.769 3748895.186 453.00
   LOCATION L0003133     VOLUME   477947.610 3748886.688 453.00
   LOCATION L0003134     VOLUME   477947.451 3748878.189 453.00
   LOCATION L0003135     VOLUME   477947.294 3748869.691 453.00
   LOCATION L0003136     VOLUME   477947.225 3748861.191 453.00
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AERMOD HRA Output

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LOCATION L0003137     VOLUME   477947.157 3748852.691 453.00
LOCATION L0003138     VOLUME   477947.089 3748844.191 453.00
LOCATION L0003139     VOLUME   477947.020 3748835.692 453.00
LOCATION L0003140     VOLUME   477946.952 3748827.192 453.00
LOCATION L0003141     VOLUME   477946.884 3748818.692 453.00
LOCATION L0003142     VOLUME   477946.815 3748810.192 453.00
LOCATION L0003143     VOLUME   477946.747 3748801.693 453.00
LOCATION L0003144     VOLUME   477946.678 3748793.193 453.00
LOCATION L0003145     VOLUME   477946.610 3748784.693 453.00
LOCATION L0003146     VOLUME   477946.542 3748776.194 453.00
LOCATION L0003147     VOLUME   477946.473 3748767.694 453.00
LOCATION L0003148     VOLUME   477946.405 3748759.194 453.00
LOCATION L0003149     VOLUME   477946.337 3748750.694 453.00
LOCATION L0003150     VOLUME   477946.268 3748742.195 453.00
LOCATION L0003151     VOLUME   477946.200 3748733.695 453.00
LOCATION L0003152     VOLUME   477946.132 3748725.195 453.00
LOCATION L0003153     VOLUME   477946.063 3748716.695 453.00
LOCATION L0003154     VOLUME   477945.995 3748708.196 453.00
LOCATION L0003155     VOLUME   477945.926 3748699.696 453.00
LOCATION L0003156     VOLUME   477945.858 3748691.196 452.82
LOCATION L0003157     VOLUME   477945.790 3748682.697 452.54
LOCATION L0003158     VOLUME   477945.721 3748674.197 452.25
LOCATION L0003159     VOLUME   477945.653 3748665.697 452.00
LOCATION L0003160     VOLUME   477945.585 3748657.197 452.00
LOCATION L0003161     VOLUME   477945.516 3748648.698 452.00
LOCATION L0003162     VOLUME   477945.448 3748640.198 452.00
LOCATION L0003163     VOLUME   477945.380 3748631.698 452.00
LOCATION L0003164     VOLUME   477945.311 3748623.198 452.00
LOCATION L0003165     VOLUME   477945.243 3748614.699 452.00
LOCATION L0003166     VOLUME   477945.174 3748606.199 452.00
LOCATION L0003167     VOLUME   477945.106 3748597.699 452.00
LOCATION L0003168     VOLUME   477945.038 3748589.200 452.00
LOCATION L0003169     VOLUME   477944.969 3748580.700 452.00
LOCATION L0003170     VOLUME   477944.901 3748572.200 452.00
LOCATION L0003171     VOLUME   477944.833 3748563.700 452.00
LOCATION L0003172     VOLUME   477944.764 3748555.201 452.00
LOCATION L0003173     VOLUME   477944.696 3748546.701 452.00
LOCATION L0003174     VOLUME   477944.628 3748538.201 452.00
LOCATION L0003175     VOLUME   477944.559 3748529.702 452.00
LOCATION L0003176     VOLUME   477944.491 3748521.202 452.00
LOCATION L0003177     VOLUME   477944.422 3748512.702 451.87
LOCATION L0003178     VOLUME   477944.354 3748504.202 451.59
LOCATION L0003179     VOLUME   477944.286 3748495.703 451.30
LOCATION L0003180     VOLUME   477944.727 3748487.329 451.03
LOCATION L0003181     VOLUME   477948.744 3748479.837 451.00
LOCATION L0003182     VOLUME   477952.760 3748472.346 451.00
LOCATION L0003183     VOLUME   477956.776 3748464.855 451.00
LOCATION L0003184     VOLUME   477960.792 3748457.364 451.00
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LOCATION L0003185     VOLUME   477964.809 3748449.872 451.00
LOCATION L0003186     VOLUME   477968.825 3748442.381 451.00
LOCATION L0003187     VOLUME   477972.841 3748434.890 451.00
LOCATION L0003188     VOLUME   477976.857 3748427.398 451.00
LOCATION L0003189     VOLUME   477980.874 3748419.907 451.00
LOCATION L0003190     VOLUME   477984.890 3748412.416 451.00
LOCATION L0003191     VOLUME   477988.906 3748404.924 451.00
LOCATION L0003192     VOLUME   477992.922 3748397.433 451.00
LOCATION L0003193     VOLUME   477996.939 3748389.942 451.00
LOCATION L0003194     VOLUME   478000.955 3748382.450 451.00
LOCATION L0003195     VOLUME   478004.971 3748374.959 451.00
LOCATION L0003196     VOLUME   478008.987 3748367.468 451.00
LOCATION L0003197     VOLUME   478013.004 3748359.977 451.00
LOCATION L0003198     VOLUME   478017.122 3748352.545 451.00
LOCATION L0003199     VOLUME   478021.739 3748345.409 451.00
LOCATION L0003200     VOLUME   478026.357 3748338.273 451.00
LOCATION L0003201     VOLUME   478033.820 3748336.434 451.00
LOCATION L0003202     VOLUME   478042.319 3748336.526 451.00
LOCATION L0003203     VOLUME   478050.819 3748336.619 451.00
LOCATION L0003204     VOLUME   478059.318 3748336.711 451.00
LOCATION L0003205     VOLUME   478067.818 3748336.803 451.00
LOCATION L0003206     VOLUME   478076.317 3748336.896 451.00
LOCATION L0003207     VOLUME   478084.817 3748336.988 451.00
LOCATION L0003208     VOLUME   478093.316 3748337.081 451.00
LOCATION L0003209     VOLUME   478101.816 3748337.173 451.00
LOCATION L0003210     VOLUME   478110.315 3748337.265 451.00
LOCATION L0003211     VOLUME   478118.815 3748337.358 451.00
LOCATION L0003212     VOLUME   478127.314 3748337.450 451.00
LOCATION L0003213     VOLUME   478135.814 3748337.543 451.00
LOCATION L0003214     VOLUME   478144.313 3748337.635 451.00
LOCATION L0003215     VOLUME   478152.813 3748337.727 451.00
LOCATION L0003216     VOLUME   478161.312 3748337.820 451.00
LOCATION L0003217     VOLUME   478169.812 3748337.912 451.00
LOCATION L0003218     VOLUME   478178.311 3748338.005 451.00
LOCATION L0003219     VOLUME   478186.811 3748338.097 451.00
LOCATION L0003220     VOLUME   478195.310 3748338.189 451.00
LOCATION L0003221     VOLUME   478203.810 3748338.282 451.00
LOCATION L0003222     VOLUME   478212.309 3748338.374 451.00
LOCATION L0003223     VOLUME   478215.836 3748343.420 451.00
LOCATION L0003224     VOLUME   478215.897 3748351.920 451.00
LOCATION L0003225     VOLUME   478215.957 3748360.420 451.00
LOCATION L0003226     VOLUME   478216.018 3748368.919 451.00
LOCATION L0003227     VOLUME   478216.078 3748377.419 451.00
LOCATION L0003228     VOLUME   478216.139 3748385.919 451.00
LOCATION L0003229     VOLUME   478216.199 3748394.419 451.00
LOCATION L0003230     VOLUME   478216.260 3748402.919 451.00
LOCATION L0003231     VOLUME   478216.320 3748411.418 451.00
LOCATION L0003232     VOLUME   478216.381 3748419.918 451.00
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LOCATION L0003233     VOLUME   478216.441 3748428.418 451.00
LOCATION L0003234     VOLUME   478216.502 3748436.918 451.00
LOCATION L0003235     VOLUME   478216.562 3748445.417 451.00
LOCATION L0003236     VOLUME   478216.623 3748453.917 451.00
LOCATION L0003237     VOLUME   478216.683 3748462.417 451.04
LOCATION L0003238     VOLUME   478216.744 3748470.917 451.11
LOCATION L0003239     VOLUME   478216.804 3748479.417 451.18
LOCATION L0003240     VOLUME   478216.865 3748487.916 451.27
LOCATION L0003241     VOLUME   478216.925 3748496.416 451.49
LOCATION L0003242     VOLUME   478216.986 3748504.916 451.70
LOCATION L0003243     VOLUME   478217.046 3748513.416 451.92
LOCATION L0003244     VOLUME   478217.107 3748521.916 452.00
LOCATION L0003245     VOLUME   478217.167 3748530.415 452.00
LOCATION L0003246     VOLUME   478217.228 3748538.915 452.00
LOCATION L0003247     VOLUME   478217.288 3748547.415 452.00
LOCATION L0003248     VOLUME   478217.349 3748555.915 452.00
LOCATION L0003249     VOLUME   478217.409 3748564.414 452.00
LOCATION L0003250     VOLUME   478217.470 3748572.914 452.00
LOCATION L0003251     VOLUME   478217.530 3748581.414 452.00
LOCATION L0003252     VOLUME   478217.591 3748589.914 452.00
LOCATION L0003253     VOLUME   478217.651 3748598.414 452.00
LOCATION L0003254     VOLUME   478217.712 3748606.913 452.00
LOCATION L0003255     VOLUME   478217.772 3748615.413 452.00
LOCATION L0003256     VOLUME   478217.833 3748623.913 452.00
LOCATION L0003257     VOLUME   478217.893 3748632.413 452.00
LOCATION L0003258     VOLUME   478217.954 3748640.913 452.00
LOCATION L0003259     VOLUME   478218.014 3748649.412 452.00
LOCATION L0003260     VOLUME   478218.075 3748657.912 452.00
LOCATION L0003261     VOLUME   478218.135 3748666.412 452.00
LOCATION L0003262     VOLUME   478218.196 3748674.912 452.00
LOCATION L0003263     VOLUME   478218.256 3748683.411 452.00
LOCATION L0003264     VOLUME   478218.317 3748691.911 452.00
LOCATION L0003265     VOLUME   478218.377 3748700.411 452.00
LOCATION L0003266     VOLUME   478218.438 3748708.911 452.00
LOCATION L0003267     VOLUME   478218.498 3748717.411 452.00
LOCATION L0003268     VOLUME   478218.559 3748725.910 452.00
LOCATION L0003269     VOLUME   478218.619 3748734.410 452.00
LOCATION L0003270     VOLUME   478218.680 3748742.910 452.00
LOCATION L0003271     VOLUME   478218.740 3748751.410 452.00
LOCATION L0003272     VOLUME   478218.801 3748759.910 452.00
LOCATION L0003273     VOLUME   478218.861 3748768.409 452.00
LOCATION L0003274     VOLUME   478218.922 3748776.909 452.00
LOCATION L0003275     VOLUME   478218.982 3748785.409 452.00
LOCATION L0003276     VOLUME   478219.043 3748793.909 452.25
LOCATION L0003277     VOLUME   478219.103 3748802.408 452.53
LOCATION L0003278     VOLUME   478219.164 3748810.908 452.81
LOCATION L0003279     VOLUME   478219.224 3748819.408 453.00
LOCATION L0003280     VOLUME   478219.285 3748827.908 453.00
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   LOCATION L0003281     VOLUME   478219.345 3748836.408 453.00
   LOCATION L0003282     VOLUME   478219.406 3748844.907 453.00
   LOCATION L0003283     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0003284     VOLUME   478219.527 3748861.907 453.00
   LOCATION L0003285     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0003286     VOLUME   478219.648 3748878.907 453.00
   LOCATION L0003287     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0003288     VOLUME   478219.769 3748895.906 453.00
   LOCATION L0003289     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0003290     VOLUME   478219.890 3748912.906 453.00
   LOCATION L0003291     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0003292     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0003293     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0003294     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0003295     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0003296     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0003297     VOLUME   478202.674 3748969.844 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001689
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0003298     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0003299     VOLUME   477852.821 3748843.717 453.00
   LOCATION L0003300     VOLUME   477852.867 3748852.216 453.00
   LOCATION L0003301     VOLUME   477852.913 3748860.716 453.00
   LOCATION L0003302     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0003303     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0003304     VOLUME   477853.050 3748886.216 453.00
   LOCATION L0003305     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0003306     VOLUME   477853.142 3748903.216 453.00
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LOCATION L0003307     VOLUME   477853.188 3748911.716 453.00
LOCATION L0003308     VOLUME   477853.233 3748920.215 453.00
LOCATION L0003309     VOLUME   477853.279 3748928.715 453.00
LOCATION L0003310     VOLUME   477853.325 3748937.215 453.00
LOCATION L0003311     VOLUME   477853.371 3748945.715 453.00
LOCATION L0003312     VOLUME   477853.417 3748954.215 453.00
LOCATION L0003313     VOLUME   477853.462 3748962.715 453.00
LOCATION L0003314     VOLUME   477853.508 3748971.215 453.16
LOCATION L0003315     VOLUME   477853.527 3748979.688 453.44
LOCATION L0003316     VOLUME   477845.027 3748979.667 453.53
LOCATION L0003317     VOLUME   477836.527 3748979.647 453.69
LOCATION L0003318     VOLUME   477828.027 3748979.626 453.85
LOCATION L0003319     VOLUME   477819.527 3748979.606 454.00
LOCATION L0003320     VOLUME   477811.027 3748979.585 454.00
LOCATION L0003321     VOLUME   477802.527 3748979.565 454.00
LOCATION L0003322     VOLUME   477794.027 3748979.544 454.00
LOCATION L0003323     VOLUME   477785.527 3748979.524 454.00
LOCATION L0003324     VOLUME   477777.027 3748979.503 454.00
LOCATION L0003325     VOLUME   477768.527 3748979.483 454.00
LOCATION L0003326     VOLUME   477760.027 3748979.462 454.00
LOCATION L0003327     VOLUME   477751.527 3748979.442 454.00
LOCATION L0003328     VOLUME   477743.027 3748979.421 454.00
LOCATION L0003329     VOLUME   477742.701 3748971.201 454.00
LOCATION L0003330     VOLUME   477742.653 3748962.701 454.00
LOCATION L0003331     VOLUME   477742.605 3748954.201 454.00
LOCATION L0003332     VOLUME   477742.557 3748945.701 454.00
LOCATION L0003333     VOLUME   477742.509 3748937.201 454.00
LOCATION L0003334     VOLUME   477742.461 3748928.701 453.89
LOCATION L0003335     VOLUME   477742.413 3748920.202 453.77
LOCATION L0003336     VOLUME   477742.365 3748911.702 453.65
LOCATION L0003337     VOLUME   477742.317 3748903.202 453.58
LOCATION L0003338     VOLUME   477742.269 3748894.702 453.58
LOCATION L0003339     VOLUME   477742.221 3748886.202 453.59
LOCATION L0003340     VOLUME   477744.175 3748877.974 453.52
LOCATION L0003341     VOLUME   477746.490 3748869.796 453.57
LOCATION L0003342     VOLUME   477748.806 3748861.617 453.68
LOCATION L0003343     VOLUME   477751.121 3748853.439 453.84
LOCATION L0003344     VOLUME   477753.437 3748845.260 453.96
LOCATION L0003345     VOLUME   477757.469 3748838.153 453.72
LOCATION L0003346     VOLUME   477763.797 3748832.479 453.46
LOCATION L0003347     VOLUME   477770.126 3748826.804 453.22
LOCATION L0003348     VOLUME   477778.583 3748826.536 453.12
LOCATION L0003349     VOLUME   477787.081 3748826.374 453.03
LOCATION L0003350     VOLUME   477795.580 3748826.212 453.00
LOCATION L0003351     VOLUME   477804.079 3748826.127 453.00
LOCATION L0003352     VOLUME   477812.579 3748826.077 453.00
LOCATION L0003353     VOLUME   477821.079 3748826.027 453.00
LOCATION L0003354     VOLUME   477829.579 3748825.977 453.00
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   LOCATION L0003355     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0003356     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001105
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0003358     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0003359     VOLUME   477886.254 3748220.743 450.12
   LOCATION L0003360     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0003361     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0003362     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0003363     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0003364     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0003365     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0003366     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0003367     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0003368     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0003369     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0003370     VOLUME   477886.154 3748314.230 451.00
   LOCATION L0003371     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0003372     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0003373     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0003374     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0003375     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0003376     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0003377     VOLUME   477922.885 3748339.521 451.00
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   LOCATION L0003378     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0003379     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0003380     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0003381     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0003382     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0003383     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0003384     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0003385     VOLUME   477968.225 3748296.673 450.00
   LOCATION L0003386     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0003387     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0003388     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0003389     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0003390     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0003391     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0003392     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0003393     VOLUME   477979.163 3748231.356 450.00
   LOCATION L0003394     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0003395     VOLUME   477982.636 3748216.976 450.00
   LOCATION L0003396     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0003397     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0003398     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0003399     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0003400     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0003401     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0003402     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0003403     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0003404     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0003405     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001925
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
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** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
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AERMOD HRA Output

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LOCATION L0003407      VOLUME   477513.569 3748975.562 454.06
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** PREFIX
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** Configuration = Adjacent
** Emission Rate = 0.00009909
** Vertical Dimension = 4.00
** SZINIT = 1.86
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AERMOD HRA Output

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LOCATION L0003618     VOLUME   477472.335 3749591.886 457.00
LOCATION L0003619     VOLUME   477472.222 3749600.385 457.00
LOCATION L0003620     VOLUME   477472.109 3749608.884 457.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0003637     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0003638     VOLUME   477470.083 3749761.871 457.51
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** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003161
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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   LOCATION L0005367     VOLUME   477816.857 3748182.212 450.88
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LOCATION L0005407     VOLUME   477476.867 3748184.914 451.00
LOCATION L0005408     VOLUME   477471.122 3748182.143 451.00
LOCATION L0005409     VOLUME   477470.934 3748173.645 451.00
LOCATION L0005410     VOLUME   477470.745 3748165.147 451.00
LOCATION L0005411     VOLUME   477470.557 3748156.649 451.00
LOCATION L0005412     VOLUME   477470.368 3748148.151 451.00
LOCATION L0005413     VOLUME   477470.180 3748139.653 451.00
LOCATION L0005414     VOLUME   477469.991 3748131.156 451.00
LOCATION L0005415     VOLUME   477469.803 3748122.658 451.00
LOCATION L0005416     VOLUME   477469.614 3748114.160 451.00
LOCATION L0005417     VOLUME   477469.426 3748105.662 451.00
LOCATION L0005418     VOLUME   477469.237 3748097.164 451.00
LOCATION L0005419     VOLUME   477469.049 3748088.666 451.00
LOCATION L0005420     VOLUME   477468.860 3748080.168 451.00
LOCATION L0005421     VOLUME   477468.672 3748071.670 451.00
LOCATION L0005422     VOLUME   477468.483 3748063.172 451.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   LOCATION L0005423     VOLUME   477468.295 3748054.674 451.00
   LOCATION L0005424     VOLUME   477468.106 3748046.176 451.00
   LOCATION L0005425     VOLUME   477467.917 3748037.679 451.00
   LOCATION L0005426     VOLUME   477467.729 3748029.181 451.00
   LOCATION L0005427     VOLUME   477467.540 3748020.683 451.00
   LOCATION L0005428     VOLUME   477467.352 3748012.185 451.00
   LOCATION L0005429     VOLUME   477467.163 3748003.687 451.00
   LOCATION L0005430     VOLUME   477466.975 3747995.189 451.00
   LOCATION L0005431     VOLUME   477466.786 3747986.691 451.00
   LOCATION L0005432     VOLUME   477466.598 3747978.193 451.00
   LOCATION L0005433     VOLUME   477466.409 3747969.695 451.00
   LOCATION L0005434     VOLUME   477466.221 3747961.197 451.00
   LOCATION L0005435     VOLUME   477466.032 3747952.699 451.00
   LOCATION L0005436     VOLUME   477465.844 3747944.202 451.00
   LOCATION L0005437     VOLUME   477465.655 3747935.704 451.00
   LOCATION L0005438     VOLUME   477465.467 3747927.206 451.00
   LOCATION L0005439     VOLUME   477465.278 3747918.708 451.00
   LOCATION L0005440     VOLUME   477465.090 3747910.210 451.00
   LOCATION L0005441     VOLUME   477464.901 3747901.712 451.00
   LOCATION L0005442     VOLUME   477464.713 3747893.214 451.00
   LOCATION L0005443     VOLUME   477464.524 3747884.716 451.00
   LOCATION L0005444     VOLUME   477464.336 3747876.218 451.00
   LOCATION L0005445     VOLUME   477464.147 3747867.720 451.00
   LOCATION L0005446     VOLUME   477463.959 3747859.222 451.00
   LOCATION L0005447     VOLUME   477463.770 3747850.725 451.00
   LOCATION L0005448     VOLUME   477463.582 3747842.227 451.00
   LOCATION L0005449     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0005450     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0005451     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0005452     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0005453     VOLUME   477462.639 3747799.737 451.00
   LOCATION L0005454     VOLUME   477462.450 3747791.239 451.00
   LOCATION L0005455     VOLUME   477462.262 3747782.741 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
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   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 20% South on Indian
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002107
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478279.139, 3748325.068, 454.06, 4.00, 3.95
** 478288.327, 3747768.514, 450.42, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003741     VOLUME   478279.209 3748320.818 450.00
   LOCATION L0003742     VOLUME   478279.349 3748312.319 450.00
   LOCATION L0003743     VOLUME   478279.490 3748303.820 450.00
   LOCATION L0003744     VOLUME   478279.630 3748295.322 450.00
   LOCATION L0003745     VOLUME   478279.770 3748286.823 450.00
   LOCATION L0003746     VOLUME   478279.911 3748278.324 450.00
   LOCATION L0003747     VOLUME   478280.051 3748269.825 450.00
   LOCATION L0003748     VOLUME   478280.191 3748261.326 450.00
   LOCATION L0003749     VOLUME   478280.332 3748252.827 450.00
   LOCATION L0003750     VOLUME   478280.472 3748244.329 450.00
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                              AERMOD HRA Output
LOCATION L0003751      VOLUME   478280.612 3748235.830 450.00
LOCATION L0003752      VOLUME   478280.752 3748227.331 450.00
LOCATION L0003753      VOLUME   478280.893 3748218.832 450.00
LOCATION L0003754      VOLUME   478281.033 3748210.333 450.00
LOCATION L0003755      VOLUME   478281.173 3748201.834 450.00
LOCATION L0003756      VOLUME   478281.314 3748193.335 450.00
LOCATION L0003757      VOLUME   478281.454 3748184.837 450.00
LOCATION L0003758      VOLUME   478281.594 3748176.338 450.00
LOCATION L0003759      VOLUME   478281.735 3748167.839 450.00
LOCATION L0003760      VOLUME   478281.875 3748159.340 450.00
LOCATION L0003761      VOLUME   478282.015 3748150.841 449.82
LOCATION L0003762      VOLUME   478282.155 3748142.342 449.54
LOCATION L0003763      VOLUME   478282.296 3748133.844 449.25
LOCATION L0003764      VOLUME   478282.436 3748125.345 449.00
LOCATION L0003765      VOLUME   478282.576 3748116.846 449.00
LOCATION L0003766      VOLUME   478282.717 3748108.347 449.00
LOCATION L0003767      VOLUME   478282.857 3748099.848 449.00
LOCATION L0003768      VOLUME   478282.997 3748091.349 449.00
LOCATION L0003769      VOLUME   478283.138 3748082.851 449.00
LOCATION L0003770      VOLUME   478283.278 3748074.352 449.00
LOCATION L0003771      VOLUME   478283.418 3748065.853 449.00
LOCATION L0003772      VOLUME   478283.558 3748057.354 449.00
LOCATION L0003773      VOLUME   478283.699 3748048.855 449.00
LOCATION L0003774      VOLUME   478283.839 3748040.356 449.00
LOCATION L0003775      VOLUME   478283.979 3748031.857 449.00
LOCATION L0003776      VOLUME   478284.120 3748023.359 449.00
LOCATION L0003777      VOLUME   478284.260 3748014.860 449.00
LOCATION L0003778      VOLUME   478284.400 3748006.361 449.00
LOCATION L0003779      VOLUME   478284.541 3747997.862 449.00
LOCATION L0003780      VOLUME   478284.681 3747989.363 449.00
LOCATION L0003781      VOLUME   478284.821 3747980.864 449.00
LOCATION L0003782      VOLUME   478284.962 3747972.366 449.00
LOCATION L0003783      VOLUME   478285.102 3747963.867 449.00
LOCATION L0003784      VOLUME   478285.242 3747955.368 449.00
LOCATION L0003785      VOLUME   478285.382 3747946.869 449.00
LOCATION L0003786      VOLUME   478285.523 3747938.370 449.00
LOCATION L0003787      VOLUME   478285.663 3747929.871 449.00
LOCATION L0003788      VOLUME   478285.803 3747921.373 449.00
LOCATION L0003789      VOLUME   478285.944 3747912.874 449.00
LOCATION L0003790      VOLUME   478286.084 3747904.375 449.00
LOCATION L0003791      VOLUME   478286.224 3747895.876 449.00
LOCATION L0003792      VOLUME   478286.365 3747887.377 449.00
LOCATION L0003793      VOLUME   478286.505 3747878.878 449.00
LOCATION L0003794      VOLUME   478286.645 3747870.379 449.00
LOCATION L0003795      VOLUME   478286.785 3747861.881 449.00
LOCATION L0003796      VOLUME   478286.926 3747853.382 449.00
LOCATION L0003797      VOLUME   478287.066 3747844.883 449.00
LOCATION L0003798      VOLUME   478287.206 3747836.384 449.00
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   LOCATION L0003799     VOLUME   478287.347 3747827.885 449.00
   LOCATION L0003800     VOLUME   478287.487 3747819.386 449.00
   LOCATION L0003801     VOLUME   478287.627 3747810.888 449.00
   LOCATION L0003802     VOLUME   478287.768 3747802.389 449.00
   LOCATION L0003803     VOLUME   478287.908 3747793.890 449.00
   LOCATION L0003804     VOLUME   478288.048 3747785.391 449.00
   LOCATION L0003805     VOLUME   478288.188 3747776.892 449.00
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 40% North on Heacock to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002948
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477480.626, 3749795.973, 459.75, 4.00, 3.95
** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0005456     VOLUME   477480.558 3749800.222 458.00
   LOCATION L0005457     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0005458     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0005459     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0005460     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0005461     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0005462     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0005463     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0005464     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0005465     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0005466     VOLUME   477479.199 3749885.212 458.00
   LOCATION L0005467     VOLUME   477479.063 3749893.711 458.00
   LOCATION L0005468     VOLUME   477478.927 3749902.209 458.00
   LOCATION L0005469     VOLUME   477478.791 3749910.708 458.00
   LOCATION L0005470     VOLUME   477478.655 3749919.207 458.00
   LOCATION L0005471     VOLUME   477478.519 3749927.706 458.00
   LOCATION L0005472     VOLUME   477478.383 3749936.205 458.00
   LOCATION L0005473     VOLUME   477478.247 3749944.704 458.00
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                              AERMOD HRA Output
LOCATION L0005474     VOLUME   477478.111 3749953.203 458.00
LOCATION L0005475     VOLUME   477477.975 3749961.702 458.17
LOCATION L0005476     VOLUME   477477.840 3749970.201 458.45
LOCATION L0005477     VOLUME   477477.704 3749978.700 458.74
LOCATION L0005478     VOLUME   477477.568 3749987.199 459.00
LOCATION L0005479     VOLUME   477477.432 3749995.697 459.00
LOCATION L0005480     VOLUME   477477.296 3750004.196 459.00
LOCATION L0005481     VOLUME   477477.160 3750012.695 459.00
LOCATION L0005482     VOLUME   477477.024 3750021.194 459.00
LOCATION L0005483     VOLUME   477476.888 3750029.693 459.00
LOCATION L0005484     VOLUME   477476.752 3750038.192 459.00
LOCATION L0005485     VOLUME   477476.616 3750046.691 459.00
LOCATION L0005486     VOLUME   477476.480 3750055.190 459.00
LOCATION L0005487     VOLUME   477476.344 3750063.689 459.00
LOCATION L0005488     VOLUME   477476.208 3750072.188 459.00
LOCATION L0005489     VOLUME   477476.072 3750080.687 459.00
LOCATION L0005490     VOLUME   477475.937 3750089.186 459.00
LOCATION L0005491     VOLUME   477475.801 3750097.684 459.00
LOCATION L0005492     VOLUME   477475.665 3750106.183 459.00
LOCATION L0005493     VOLUME   477475.529 3750114.682 459.00
LOCATION L0005494     VOLUME   477475.393 3750123.181 459.00
LOCATION L0005495     VOLUME   477475.257 3750131.680 459.00
LOCATION L0005496     VOLUME   477475.121 3750140.179 459.00
LOCATION L0005497     VOLUME   477474.985 3750148.678 459.00
LOCATION L0005498     VOLUME   477474.849 3750157.177 459.00
LOCATION L0005499     VOLUME   477474.713 3750165.676 459.00
LOCATION L0005500     VOLUME   477474.171 3750174.155 459.00
LOCATION L0005501     VOLUME   477473.482 3750182.627 459.00
LOCATION L0005502     VOLUME   477472.792 3750191.099 459.00
LOCATION L0005503     VOLUME   477472.102 3750199.571 459.04
LOCATION L0005504     VOLUME   477471.413 3750208.043 459.15
LOCATION L0005505     VOLUME   477470.723 3750216.515 459.24
LOCATION L0005506     VOLUME   477470.034 3750224.987 459.32
LOCATION L0005507     VOLUME   477469.344 3750233.459 459.48
LOCATION L0005508     VOLUME   477468.654 3750241.931 459.66
LOCATION L0005509     VOLUME   477467.965 3750250.403 459.85
LOCATION L0005510     VOLUME   477467.275 3750258.875 460.00
LOCATION L0005511     VOLUME   477466.586 3750267.347 460.00
LOCATION L0005512     VOLUME   477466.456 3750275.840 460.00
LOCATION L0005513     VOLUME   477466.492 3750284.340 460.00
LOCATION L0005514     VOLUME   477466.529 3750292.840 460.00
LOCATION L0005515     VOLUME   477466.565 3750301.340 460.00
LOCATION L0005516     VOLUME   477466.601 3750309.840 460.00
LOCATION L0005517     VOLUME   477466.638 3750318.340 460.00
LOCATION L0005518     VOLUME   477466.674 3750326.840 460.00
LOCATION L0005519     VOLUME   477466.710 3750335.340 460.00
LOCATION L0005520     VOLUME   477466.747 3750343.840 460.00
LOCATION L0005521     VOLUME   477466.783 3750352.340 460.00
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AERMOD HRA Output

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LOCATION L0005522      VOLUME   477466.819 3750360.839 460.00
LOCATION L0005523      VOLUME   477466.855 3750369.339 460.00
LOCATION L0005524      VOLUME   477466.892 3750377.839 460.00
LOCATION L0005525      VOLUME   477466.928 3750386.339 460.00
LOCATION L0005526      VOLUME   477466.964 3750394.839 460.00
LOCATION L0005527      VOLUME   477467.001 3750403.339 460.00
LOCATION L0005528      VOLUME   477467.037 3750411.839 460.00
LOCATION L0005529      VOLUME   477467.073 3750420.339 460.00
LOCATION L0005530      VOLUME   477467.110 3750428.839 460.00
LOCATION L0005531      VOLUME   477467.146 3750437.339 460.00
LOCATION L0005532      VOLUME   477467.182 3750445.839 460.00
LOCATION L0005533      VOLUME   477467.219 3750454.339 460.00
LOCATION L0005534      VOLUME   477467.255 3750462.838 460.00
LOCATION L0005535      VOLUME   477467.291 3750471.338 460.16
LOCATION L0005536      VOLUME   477467.328 3750479.838 460.44
LOCATION L0005537      VOLUME   477467.364 3750488.338 460.73
LOCATION L0005538      VOLUME   477467.400 3750496.838 461.00
LOCATION L0005539      VOLUME   477467.436 3750505.338 461.00
LOCATION L0005540      VOLUME   477467.473 3750513.838 461.00
LOCATION L0005541      VOLUME   477467.509 3750522.338 461.00
LOCATION L0005542      VOLUME   477467.545 3750530.838 461.00
LOCATION L0005543      VOLUME   477467.582 3750539.338 461.00
LOCATION L0005544      VOLUME   477467.689 3750547.837 461.00
LOCATION L0005545      VOLUME   477467.939 3750556.333 461.00
LOCATION L0005546      VOLUME   477468.188 3750564.829 461.00
LOCATION L0005547      VOLUME   477468.438 3750573.326 461.00
LOCATION L0005548      VOLUME   477468.688 3750581.822 461.00
LOCATION L0005549      VOLUME   477468.938 3750590.318 461.00
LOCATION L0005550      VOLUME   477469.188 3750598.814 461.00
LOCATION L0005551      VOLUME   477469.438 3750607.311 461.00
LOCATION L0005552      VOLUME   477469.688 3750615.807 461.00
LOCATION L0005553      VOLUME   477469.938 3750624.303 461.00
LOCATION L0005554      VOLUME   477470.188 3750632.800 461.00
LOCATION L0005555      VOLUME   477470.437 3750641.296 461.00
LOCATION L0005556      VOLUME   477470.687 3750649.792 461.04
LOCATION L0005557      VOLUME   477470.937 3750658.289 461.15
LOCATION L0005558      VOLUME   477471.187 3750666.785 461.26
LOCATION L0005559      VOLUME   477471.437 3750675.281 461.37
LOCATION L0005560      VOLUME   477471.687 3750683.778 461.54
LOCATION L0005561      VOLUME   477471.937 3750692.274 461.72
LOCATION L0005562      VOLUME   477472.187 3750700.770 461.89
LOCATION L0005563      VOLUME   477472.437 3750709.267 462.00
LOCATION L0005564      VOLUME   477472.686 3750717.763 462.00
LOCATION L0005565      VOLUME   477472.936 3750726.259 462.00
LOCATION L0005566      VOLUME   477473.186 3750734.756 462.00
LOCATION L0005567      VOLUME   477473.436 3750743.252 462.00
LOCATION L0005568      VOLUME   477473.686 3750751.748 462.00
LOCATION L0005569      VOLUME   477473.936 3750760.245 462.00
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                                AERMOD HRA Output
LOCATION L0005570     VOLUME   477474.186 3750768.741 462.00
LOCATION L0005571     VOLUME   477474.436 3750777.237 462.00
LOCATION L0005572     VOLUME   477474.686 3750785.734 462.00
LOCATION L0005573     VOLUME   477474.935 3750794.230 462.00
LOCATION L0005574     VOLUME   477475.185 3750802.726 462.00
LOCATION L0005575     VOLUME   477475.435 3750811.223 462.00
LOCATION L0005576     VOLUME   477475.685 3750819.719 462.00
LOCATION L0005577     VOLUME   477475.935 3750828.215 462.00
LOCATION L0005578     VOLUME   477476.185 3750836.712 462.00
LOCATION L0005579     VOLUME   477476.435 3750845.208 462.00
LOCATION L0005580     VOLUME   477476.685 3750853.704 462.00
LOCATION L0005581     VOLUME   477476.935 3750862.201 462.11
LOCATION L0005582     VOLUME   477477.066 3750870.699 462.27
LOCATION L0005583     VOLUME   477477.120 3750879.199 462.44
LOCATION L0005584     VOLUME   477477.174 3750887.699 462.60
LOCATION L0005585     VOLUME   477477.228 3750896.199 462.72
LOCATION L0005586     VOLUME   477477.282 3750904.698 462.84
LOCATION L0005587     VOLUME   477477.337 3750913.198 462.95
LOCATION L0005588     VOLUME   477477.391 3750921.698 463.00
LOCATION L0005589     VOLUME   477477.445 3750930.198 463.00
LOCATION L0005590     VOLUME   477477.499 3750938.698 463.00
LOCATION L0005591     VOLUME   477477.553 3750947.197 463.00
LOCATION L0005592     VOLUME   477477.607 3750955.697 463.00
LOCATION L0005593     VOLUME   477477.661 3750964.197 463.00
LOCATION L0005594     VOLUME   477477.716 3750972.697 463.00
LOCATION L0005595     VOLUME   477477.770 3750981.197 463.00
LOCATION L0005596     VOLUME   477477.824 3750989.697 463.00
LOCATION L0005597     VOLUME   477477.878 3750998.196 463.00
LOCATION L0005598     VOLUME   477477.932 3751006.696 463.00
LOCATION L0005599     VOLUME   477477.986 3751015.196 463.00
LOCATION L0005600     VOLUME   477478.040 3751023.696 463.00
LOCATION L0005601     VOLUME   477478.095 3751032.196 463.00
LOCATION L0005602     VOLUME   477478.149 3751040.696 463.00
LOCATION L0005603     VOLUME   477478.203 3751049.195 463.00
LOCATION L0005604     VOLUME   477478.257 3751057.695 463.00
LOCATION L0005605     VOLUME   477478.311 3751066.195 463.00
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0005933     VOLUME   475844.549 3752228.040 477.00
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LOCATION L0005935     VOLUME   475827.549 3752228.060 477.00
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LOCATION L0005942     VOLUME   475768.049 3752228.130 477.12
LOCATION L0005943     VOLUME   475759.549 3752228.140 477.14
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LOCATION L0005947     VOLUME   475725.549 3752228.179 477.22
LOCATION L0005948     VOLUME   475717.049 3752228.189 477.22
LOCATION L0005949     VOLUME   475708.549 3752228.199 477.22
LOCATION L0005950     VOLUME   475700.049 3752228.209 477.22
LOCATION L0005951     VOLUME   475691.549 3752228.219 477.22
LOCATION L0005952     VOLUME   475683.049 3752228.229 477.22
LOCATION L0005953     VOLUME   475674.549 3752228.239 477.22
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LOCATION L0005966      VOLUME   475564.049 3752228.369 477.00
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LOCATION L0005991      VOLUME   475351.549 3752228.618 476.25
LOCATION L0005992      VOLUME   475343.049 3752228.628 476.20
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LOCATION L0005994      VOLUME   475326.049 3752228.648 476.15
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LOCATION L0005996      VOLUME   475309.049 3752228.668 476.10
LOCATION L0005997      VOLUME   475300.549 3752228.678 476.08
LOCATION L0005998      VOLUME   475292.049 3752228.688 476.06
LOCATION L0005999      VOLUME   475283.549 3752228.698 476.03
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LOCATION L0006097     VOLUME   474454.561 3752175.907 476.00
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AERMOD HRA Output

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LOCATION L0006107     VOLUME   474370.516 3752163.198 476.69
LOCATION L0006108     VOLUME   474362.112 3752161.927 476.79
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LOCATION L0006127     VOLUME   474202.427 3752137.779 477.00
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LOCATION L0006129     VOLUME   474185.618 3752135.237 477.08
LOCATION L0006130     VOLUME   474177.214 3752133.966 477.19
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LOCATION L0006133     VOLUME   474152.036 3752129.931 477.52
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LOCATION L0006141     VOLUME   474084.961 3752118.751 478.00
LOCATION L0006142     VOLUME   474076.577 3752117.354 478.00
LOCATION L0006143     VOLUME   474068.192 3752115.956 478.00
LOCATION L0006144     VOLUME   474059.808 3752114.559 478.00
LOCATION L0006145     VOLUME   474051.424 3752113.162 478.00
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** End of LINE VOLUME Source ID = SLINE14
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003048
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477474.677, 3750167.941, 460.51, 0.00, 3.95
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** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
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   LOCATION L0006154     VOLUME   477479.607 3749859.715 458.00
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   LOCATION L0006162     VOLUME   477478.519 3749927.706 458.00
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   LOCATION L0006164     VOLUME   477478.247 3749944.704 458.00
   LOCATION L0006165     VOLUME   477478.111 3749953.203 458.00
   LOCATION L0006166     VOLUME   477477.975 3749961.702 458.17
   LOCATION L0006167     VOLUME   477477.840 3749970.201 458.45
   LOCATION L0006168     VOLUME   477477.704 3749978.700 458.74
   LOCATION L0006169     VOLUME   477477.568 3749987.199 459.00
   LOCATION L0006170     VOLUME   477477.432 3749995.697 459.00
   LOCATION L0006171     VOLUME   477477.296 3750004.196 459.00
   LOCATION L0006172     VOLUME   477477.160 3750012.695 459.00
   LOCATION L0006173     VOLUME   477477.024 3750021.194 459.00
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LOCATION L0006178     VOLUME   477476.344 3750063.689 459.00
LOCATION L0006179     VOLUME   477476.208 3750072.188 459.00
LOCATION L0006180     VOLUME   477476.072 3750080.687 459.00
LOCATION L0006181     VOLUME   477475.937 3750089.186 459.00
LOCATION L0006182     VOLUME   477475.801 3750097.684 459.00
LOCATION L0006183     VOLUME   477475.665 3750106.183 459.00
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LOCATION L0006216     VOLUME   477466.928 3750386.339 460.00
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LOCATION L0006221     VOLUME   477467.110 3750428.839 460.00
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LOCATION L0006235      VOLUME   477467.689 3750547.837 461.00
LOCATION L0006236      VOLUME   477467.939 3750556.333 461.00
LOCATION L0006237      VOLUME   477468.188 3750564.829 461.00
LOCATION L0006238      VOLUME   477468.438 3750573.326 461.00
LOCATION L0006239      VOLUME   477468.688 3750581.822 461.00
LOCATION L0006240      VOLUME   477468.938 3750590.318 461.00
LOCATION L0006241      VOLUME   477469.188 3750598.814 461.00
LOCATION L0006242      VOLUME   477469.438 3750607.311 461.00
LOCATION L0006243      VOLUME   477469.688 3750615.807 461.00
LOCATION L0006244      VOLUME   477469.938 3750624.303 461.00
LOCATION L0006245      VOLUME   477470.188 3750632.800 461.00
LOCATION L0006246      VOLUME   477470.437 3750641.296 461.00
LOCATION L0006247      VOLUME   477470.687 3750649.792 461.04
LOCATION L0006248      VOLUME   477470.937 3750658.289 461.15
LOCATION L0006249      VOLUME   477471.187 3750666.785 461.26
LOCATION L0006250      VOLUME   477471.437 3750675.281 461.37
LOCATION L0006251      VOLUME   477471.687 3750683.778 461.54
LOCATION L0006252      VOLUME   477471.937 3750692.274 461.72
LOCATION L0006253      VOLUME   477472.187 3750700.770 461.89
LOCATION L0006254      VOLUME   477472.437 3750709.267 462.00
LOCATION L0006255      VOLUME   477472.686 3750717.763 462.00
LOCATION L0006256      VOLUME   477472.936 3750726.259 462.00
LOCATION L0006257      VOLUME   477473.186 3750734.756 462.00
LOCATION L0006258      VOLUME   477473.436 3750743.252 462.00
LOCATION L0006259      VOLUME   477473.686 3750751.748 462.00
LOCATION L0006260      VOLUME   477473.936 3750760.245 462.00
LOCATION L0006261      VOLUME   477474.186 3750768.741 462.00
LOCATION L0006262      VOLUME   477474.436 3750777.237 462.00
LOCATION L0006263      VOLUME   477474.686 3750785.734 462.00
LOCATION L0006264      VOLUME   477474.935 3750794.230 462.00
LOCATION L0006265      VOLUME   477475.185 3750802.726 462.00
LOCATION L0006266      VOLUME   477475.435 3750811.223 462.00
LOCATION L0006267      VOLUME   477475.685 3750819.719 462.00
LOCATION L0006268      VOLUME   477475.935 3750828.215 462.00
LOCATION L0006269      VOLUME   477476.185 3750836.712 462.00
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                              AERMOD HRA Output
LOCATION L0006270     VOLUME   477476.435 3750845.208 462.00
LOCATION L0006271     VOLUME   477476.685 3750853.704 462.00
LOCATION L0006272     VOLUME   477476.935 3750862.201 462.11
LOCATION L0006273     VOLUME   477477.066 3750870.699 462.27
LOCATION L0006274     VOLUME   477477.120 3750879.199 462.44
LOCATION L0006275     VOLUME   477477.174 3750887.699 462.60
LOCATION L0006276     VOLUME   477477.228 3750896.199 462.72
LOCATION L0006277     VOLUME   477477.282 3750904.698 462.84
LOCATION L0006278     VOLUME   477477.337 3750913.198 462.95
LOCATION L0006279     VOLUME   477477.391 3750921.698 463.00
LOCATION L0006280     VOLUME   477477.445 3750930.198 463.00
LOCATION L0006281     VOLUME   477477.499 3750938.698 463.00
LOCATION L0006282     VOLUME   477477.553 3750947.197 463.00
LOCATION L0006283     VOLUME   477477.607 3750955.697 463.00
LOCATION L0006284     VOLUME   477477.661 3750964.197 463.00
LOCATION L0006285     VOLUME   477477.716 3750972.697 463.00
LOCATION L0006286     VOLUME   477477.770 3750981.197 463.00
LOCATION L0006287     VOLUME   477477.824 3750989.697 463.00
LOCATION L0006288     VOLUME   477477.878 3750998.196 463.00
LOCATION L0006289     VOLUME   477477.932 3751006.696 463.00
LOCATION L0006290     VOLUME   477477.986 3751015.196 463.00
LOCATION L0006291     VOLUME   477478.040 3751023.696 463.00
LOCATION L0006292     VOLUME   477478.095 3751032.196 463.00
LOCATION L0006293     VOLUME   477478.149 3751040.696 463.00
LOCATION L0006294     VOLUME   477478.203 3751049.195 463.00
LOCATION L0006295     VOLUME   477478.257 3751057.695 463.00
LOCATION L0006296     VOLUME   477478.311 3751066.195 463.00
LOCATION L0006297     VOLUME   477478.365 3751074.695 463.17
LOCATION L0006298     VOLUME   477478.419 3751083.195 463.34
LOCATION L0006299     VOLUME   477478.474 3751091.695 463.52
LOCATION L0006300     VOLUME   477478.528 3751100.194 463.67
LOCATION L0006301     VOLUME   477478.582 3751108.694 463.78
LOCATION L0006302     VOLUME   477478.636 3751117.194 463.88
LOCATION L0006303     VOLUME   477478.690 3751125.694 463.99
LOCATION L0006304     VOLUME   477478.744 3751134.194 464.00
LOCATION L0006305     VOLUME   477478.798 3751142.694 464.00
LOCATION L0006306     VOLUME   477478.853 3751151.193 464.00
LOCATION L0006307     VOLUME   477478.907 3751159.693 464.00
LOCATION L0006308     VOLUME   477478.961 3751168.193 464.00
LOCATION L0006309     VOLUME   477479.015 3751176.693 464.00
LOCATION L0006310     VOLUME   477479.069 3751185.193 464.00
LOCATION L0006311     VOLUME   477479.123 3751193.692 464.00
LOCATION L0006312     VOLUME   477479.177 3751202.192 464.00
LOCATION L0006313     VOLUME   477479.232 3751210.692 464.00
LOCATION L0006314     VOLUME   477479.286 3751219.192 464.00
LOCATION L0006315     VOLUME   477479.340 3751227.692 464.00
LOCATION L0006316     VOLUME   477479.386 3751236.192 464.00
LOCATION L0006317     VOLUME   477479.327 3751244.691 464.00
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                              AERMOD HRA Output
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LOCATION L0006319     VOLUME   477479.211 3751261.691 464.50
LOCATION L0006320     VOLUME   477479.152 3751270.191 464.79
LOCATION L0006321     VOLUME   477479.094 3751278.691 465.00
LOCATION L0006322     VOLUME   477479.035 3751287.190 465.00
LOCATION L0006323     VOLUME   477478.977 3751295.690 465.00
LOCATION L0006324     VOLUME   477478.919 3751304.190 465.00
LOCATION L0006325     VOLUME   477478.860 3751312.690 465.00
LOCATION L0006326     VOLUME   477478.802 3751321.190 465.00
LOCATION L0006327     VOLUME   477478.743 3751329.689 465.00
LOCATION L0006328     VOLUME   477478.685 3751338.189 465.00
LOCATION L0006329     VOLUME   477478.627 3751346.689 465.00
LOCATION L0006330     VOLUME   477478.568 3751355.189 465.00
LOCATION L0006331     VOLUME   477478.510 3751363.689 465.00
LOCATION L0006332     VOLUME   477478.451 3751372.188 465.00
LOCATION L0006333     VOLUME   477478.393 3751380.688 465.00
LOCATION L0006334     VOLUME   477478.335 3751389.188 465.00
LOCATION L0006335     VOLUME   477478.276 3751397.688 465.00
LOCATION L0006336     VOLUME   477478.218 3751406.188 465.00
LOCATION L0006337     VOLUME   477478.159 3751414.687 465.00
LOCATION L0006338     VOLUME   477478.101 3751423.187 465.00
LOCATION L0006339     VOLUME   477478.043 3751431.687 465.17
LOCATION L0006340     VOLUME   477477.984 3751440.187 465.45
LOCATION L0006341     VOLUME   477477.926 3751448.687 465.74
LOCATION L0006342     VOLUME   477477.867 3751457.186 466.00
LOCATION L0006343     VOLUME   477477.809 3751465.686 466.00
LOCATION L0006344     VOLUME   477477.751 3751474.186 466.00
LOCATION L0006345     VOLUME   477477.692 3751482.686 466.00
LOCATION L0006346     VOLUME   477477.634 3751491.186 466.00
LOCATION L0006347     VOLUME   477477.576 3751499.685 466.00
LOCATION L0006348     VOLUME   477477.517 3751508.185 466.00
LOCATION L0006349     VOLUME   477477.459 3751516.685 466.00
LOCATION L0006350     VOLUME   477477.400 3751525.185 466.00
LOCATION L0006351     VOLUME   477477.342 3751533.685 466.00
LOCATION L0006352     VOLUME   477477.284 3751542.184 466.00
LOCATION L0006353     VOLUME   477477.225 3751550.684 466.00
LOCATION L0006354     VOLUME   477477.167 3751559.184 466.00
LOCATION L0006355     VOLUME   477477.108 3751567.684 466.00
LOCATION L0006356     VOLUME   477477.050 3751576.184 466.00
LOCATION L0006357     VOLUME   477476.992 3751584.683 466.00
LOCATION L0006358     VOLUME   477476.933 3751593.183 466.00
LOCATION L0006359     VOLUME   477476.875 3751601.683 466.00
LOCATION L0006360     VOLUME   477476.816 3751610.183 466.07
LOCATION L0006361     VOLUME   477476.758 3751618.683 466.23
LOCATION L0006362     VOLUME   477476.700 3751627.182 466.39
LOCATION L0006363     VOLUME   477476.641 3751635.682 466.55
LOCATION L0006364     VOLUME   477476.583 3751644.182 466.67
LOCATION L0006365     VOLUME   477476.524 3751652.682 466.80
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LOCATION L0006366     VOLUME   477476.466 3751661.182 466.92
LOCATION L0006367     VOLUME   477476.408 3751669.681 467.00
LOCATION L0006368     VOLUME   477476.349 3751678.181 467.00
LOCATION L0006369     VOLUME   477476.291 3751686.681 467.00
LOCATION L0006370     VOLUME   477476.233 3751695.181 467.00
LOCATION L0006371     VOLUME   477476.174 3751703.681 467.00
LOCATION L0006372     VOLUME   477476.116 3751712.180 467.00
LOCATION L0006373     VOLUME   477476.057 3751720.680 467.00
LOCATION L0006374     VOLUME   477475.999 3751729.180 467.05
LOCATION L0006375     VOLUME   477475.941 3751737.680 467.20
LOCATION L0006376     VOLUME   477475.882 3751746.180 467.35
LOCATION L0006377     VOLUME   477475.824 3751754.679 467.50
LOCATION L0006378     VOLUME   477475.765 3751763.179 467.64
LOCATION L0006379     VOLUME   477475.707 3751771.679 467.77
LOCATION L0006380     VOLUME   477475.649 3751780.179 467.90
LOCATION L0006381     VOLUME   477475.590 3751788.679 468.00
LOCATION L0006382     VOLUME   477475.532 3751797.178 468.00
LOCATION L0006383     VOLUME   477475.473 3751805.678 468.00
LOCATION L0006384     VOLUME   477475.415 3751814.178 468.00
LOCATION L0006385     VOLUME   477475.357 3751822.678 468.00
LOCATION L0006386     VOLUME   477475.298 3751831.178 468.00
LOCATION L0006387     VOLUME   477475.240 3751839.677 468.00
LOCATION L0006388     VOLUME   477475.181 3751848.177 468.00
LOCATION L0006389     VOLUME   477475.123 3751856.677 468.00
LOCATION L0006390     VOLUME   477475.065 3751865.177 468.00
LOCATION L0006391     VOLUME   477475.006 3751873.677 468.00
LOCATION L0006392     VOLUME   477474.948 3751882.176 468.19
LOCATION L0006393     VOLUME   477474.890 3751890.676 468.47
LOCATION L0006394     VOLUME   477474.831 3751899.176 468.75
LOCATION L0006395     VOLUME   477474.773 3751907.676 469.00
LOCATION L0006396     VOLUME   477474.714 3751916.176 469.00
LOCATION L0006397     VOLUME   477474.656 3751924.675 469.00
LOCATION L0006398     VOLUME   477474.598 3751933.175 469.00
LOCATION L0006399     VOLUME   477474.539 3751941.675 469.00
LOCATION L0006400     VOLUME   477474.481 3751950.175 469.00
LOCATION L0006401     VOLUME   477474.422 3751958.675 469.00
LOCATION L0006402     VOLUME   477474.364 3751967.174 469.00
LOCATION L0006403     VOLUME   477474.306 3751975.674 469.00
LOCATION L0006404     VOLUME   477474.247 3751984.174 469.00
LOCATION L0006405     VOLUME   477474.189 3751992.674 469.00
LOCATION L0006406     VOLUME   477474.130 3752001.174 469.00
LOCATION L0006407     VOLUME   477474.072 3752009.673 469.00
LOCATION L0006408     VOLUME   477474.014 3752018.173 469.00
LOCATION L0006409     VOLUME   477473.955 3752026.673 469.00
LOCATION L0006410     VOLUME   477473.897 3752035.173 469.14
LOCATION L0006411     VOLUME   477473.838 3752043.673 469.27
LOCATION L0006412     VOLUME   477473.780 3752052.172 469.40
LOCATION L0006413     VOLUME   477473.722 3752060.672 469.46
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   LOCATION L0006414     VOLUME   477473.663 3752069.172 469.46
   LOCATION L0006415     VOLUME   477473.605 3752077.672 469.46
   LOCATION L0006416     VOLUME   477473.546 3752086.172 469.46
   LOCATION L0006417     VOLUME   477473.488 3752094.671 469.60
   LOCATION L0006418     VOLUME   477473.430 3752103.171 469.76
   LOCATION L0006419     VOLUME   477473.371 3752111.671 469.91
   LOCATION L0006420     VOLUME   477473.313 3752120.171 470.05
   LOCATION L0006421     VOLUME   477473.255 3752128.671 470.18
   LOCATION L0006422     VOLUME   477473.196 3752137.170 470.31
   LOCATION L0006423     VOLUME   477473.138 3752145.670 470.43
   LOCATION L0006424     VOLUME   477473.079 3752154.170 470.58
   LOCATION L0006425     VOLUME   477473.021 3752162.670 470.74
   LOCATION L0006426     VOLUME   477472.963 3752171.170 470.90
   LOCATION L0006427     VOLUME   477472.904 3752179.669 471.00
   LOCATION L0006428     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0006429     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0006430     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0006431     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0006432     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SRC00001
** DESCRSRC Off-Site Travel 50% on Indian to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0003058
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
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** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
** 477725.693, 3746359.638, 448.00, 4.00, 3.95
** 477485.022, 3746362.119, 449.09, 4.00, 3.95
** 477420.512, 3746374.524, 451.63, 4.00, 3.95
** 477323.747, 3746431.591, 450.00, 4.00, 3.95
** 477274.124, 3746468.808, 450.86, 4.00, 3.95
** 477224.501, 3746503.544, 450.08, 4.00, 3.95
** 477159.991, 3746538.280, 451.00, 4.00, 3.95
** 477093.000, 3746548.205, 451.00, 4.00, 3.95
** 476780.928, 3746552.268, 455.52, 4.00, 3.95
** 476653.222, 3746548.965, 463.87, 4.00, 3.95
** 476603.680, 3746565.479, 464.00, 4.00, 3.95
** 476539.827, 3746605.112, 464.36, 4.00, 3.95
** 476468.267, 3746741.626, 465.24, 4.00, 3.95
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** 476338.359, 3746943.094, 468.00, 4.00, 3.95
** 476260.194, 3746950.801, 469.00, 4.00, 3.95
** 475929.918, 3746948.599, 472.48, 4.00, 3.95
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   LOCATION L0006435     VOLUME   477483.526 3747781.135 451.00
   LOCATION L0006436     VOLUME   477492.025 3747781.078 451.00
   LOCATION L0006437     VOLUME   477500.525 3747781.022 451.00
   LOCATION L0006438     VOLUME   477509.025 3747780.966 451.00
   LOCATION L0006439     VOLUME   477517.525 3747780.910 451.00
   LOCATION L0006440     VOLUME   477526.025 3747780.854 451.00
   LOCATION L0006441     VOLUME   477534.524 3747780.798 451.00
   LOCATION L0006442     VOLUME   477543.024 3747780.742 451.00
   LOCATION L0006443     VOLUME   477551.524 3747780.685 451.00
   LOCATION L0006444     VOLUME   477560.024 3747780.629 451.00
   LOCATION L0006445     VOLUME   477568.524 3747780.573 451.00
   LOCATION L0006446     VOLUME   477577.023 3747780.517 451.00
   LOCATION L0006447     VOLUME   477585.523 3747780.461 451.00
   LOCATION L0006448     VOLUME   477594.023 3747780.405 451.00
   LOCATION L0006449     VOLUME   477602.523 3747780.349 451.00
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   LOCATION L0006451     VOLUME   477619.523 3747780.236 451.00
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   LOCATION L0006454     VOLUME   477645.022 3747780.068 450.91
   LOCATION L0006455     VOLUME   477653.522 3747780.012 450.75
   LOCATION L0006456     VOLUME   477662.022 3747779.956 450.60
   LOCATION L0006457     VOLUME   477670.521 3747779.899 450.45
   LOCATION L0006458     VOLUME   477679.021 3747779.843 450.32
   LOCATION L0006459     VOLUME   477687.521 3747779.787 450.19
   LOCATION L0006460     VOLUME   477696.021 3747779.731 450.06
   LOCATION L0006461     VOLUME   477704.521 3747779.675 450.00
   LOCATION L0006462     VOLUME   477713.021 3747779.619 450.00
   LOCATION L0006463     VOLUME   477721.520 3747779.563 450.00
   LOCATION L0006464     VOLUME   477730.020 3747779.506 450.00
   LOCATION L0006465     VOLUME   477738.520 3747779.450 450.00
   LOCATION L0006466     VOLUME   477747.020 3747779.394 450.00
   LOCATION L0006467     VOLUME   477755.520 3747779.338 450.00
   LOCATION L0006468     VOLUME   477764.019 3747779.282 450.00
   LOCATION L0006469     VOLUME   477772.519 3747779.226 450.00
   LOCATION L0006470     VOLUME   477781.019 3747779.170 450.00
   LOCATION L0006471     VOLUME   477789.519 3747779.113 450.00
   LOCATION L0006472     VOLUME   477798.019 3747779.057 450.00
   LOCATION L0006473     VOLUME   477806.518 3747779.001 450.00
   LOCATION L0006474     VOLUME   477815.018 3747778.945 450.00
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                              AERMOD HRA Output
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LOCATION L0006477     VOLUME   477840.518 3747778.777 450.00
LOCATION L0006478     VOLUME   477849.018 3747778.720 450.00
LOCATION L0006479     VOLUME   477857.517 3747778.664 450.00
LOCATION L0006480     VOLUME   477866.017 3747778.608 450.00
LOCATION L0006481     VOLUME   477874.517 3747778.552 450.00
LOCATION L0006482     VOLUME   477883.017 3747778.496 450.00
LOCATION L0006483     VOLUME   477891.517 3747778.440 450.00
LOCATION L0006484     VOLUME   477900.016 3747778.384 450.00
LOCATION L0006485     VOLUME   477908.516 3747778.327 450.00
LOCATION L0006486     VOLUME   477917.016 3747778.271 450.00
LOCATION L0006487     VOLUME   477925.516 3747778.215 450.00
LOCATION L0006488     VOLUME   477934.016 3747778.159 450.00
LOCATION L0006489     VOLUME   477942.516 3747778.103 450.00
LOCATION L0006490     VOLUME   477951.015 3747778.047 450.00
LOCATION L0006491     VOLUME   477959.515 3747777.991 450.00
LOCATION L0006492     VOLUME   477968.015 3747777.934 450.00
LOCATION L0006493     VOLUME   477976.515 3747777.878 450.00
LOCATION L0006494     VOLUME   477985.015 3747777.822 450.00
LOCATION L0006495     VOLUME   477993.514 3747777.766 450.00
LOCATION L0006496     VOLUME   478002.014 3747777.710 449.96
LOCATION L0006497     VOLUME   478010.514 3747777.654 449.78
LOCATION L0006498     VOLUME   478019.014 3747777.598 449.60
LOCATION L0006499     VOLUME   478027.514 3747777.541 449.43
LOCATION L0006500     VOLUME   478036.013 3747777.485 449.30
LOCATION L0006501     VOLUME   478044.513 3747777.429 449.19
LOCATION L0006502     VOLUME   478053.013 3747777.373 449.09
LOCATION L0006503     VOLUME   478061.513 3747777.317 449.00
LOCATION L0006504     VOLUME   478070.013 3747777.261 449.00
LOCATION L0006505     VOLUME   478078.513 3747777.204 449.00
LOCATION L0006506     VOLUME   478087.012 3747777.148 449.00
LOCATION L0006507     VOLUME   478095.512 3747777.092 449.00
LOCATION L0006508     VOLUME   478104.012 3747777.036 449.00
LOCATION L0006509     VOLUME   478112.512 3747776.980 449.00
LOCATION L0006510     VOLUME   478121.012 3747776.924 449.00
LOCATION L0006511     VOLUME   478129.511 3747776.868 449.00
LOCATION L0006512     VOLUME   478138.011 3747776.811 449.00
LOCATION L0006513     VOLUME   478146.511 3747776.755 449.00
LOCATION L0006514     VOLUME   478155.011 3747776.699 449.00
LOCATION L0006515     VOLUME   478163.511 3747776.643 449.00
LOCATION L0006516     VOLUME   478172.011 3747776.587 449.00
LOCATION L0006517     VOLUME   478180.510 3747776.531 449.00
LOCATION L0006518     VOLUME   478189.010 3747776.475 449.00
LOCATION L0006519     VOLUME   478197.510 3747776.418 449.00
LOCATION L0006520     VOLUME   478206.010 3747776.362 449.00
LOCATION L0006521     VOLUME   478214.510 3747776.306 449.00
LOCATION L0006522     VOLUME   478223.009 3747776.250 449.00
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LOCATION L0006523      VOLUME   478231.509 3747776.194 449.00
LOCATION L0006524      VOLUME   478240.009 3747776.138 449.00
LOCATION L0006525      VOLUME   478248.509 3747776.082 449.00
LOCATION L0006526      VOLUME   478257.009 3747776.025 449.00
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LOCATION L0006851     VOLUME   477031.719 3746549.003 451.69
LOCATION L0006852     VOLUME   477023.220 3746549.114 451.81
LOCATION L0006853     VOLUME   477014.720 3746549.224 451.93
LOCATION L0006854     VOLUME   477006.221 3746549.335 452.00
LOCATION L0006855     VOLUME   476997.722 3746549.445 452.00
LOCATION L0006856     VOLUME   476989.222 3746549.556 452.00
LOCATION L0006857     VOLUME   476980.723 3746549.667 452.00
LOCATION L0006858     VOLUME   476972.224 3746549.777 452.00
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LOCATION L0006859     VOLUME   476963.725 3746549.888 452.00
LOCATION L0006860     VOLUME   476955.225 3746549.999 452.00
LOCATION L0006861     VOLUME   476946.726 3746550.109 452.00
LOCATION L0006862     VOLUME   476938.227 3746550.220 452.00
LOCATION L0006863     VOLUME   476929.728 3746550.331 452.00
LOCATION L0006864     VOLUME   476921.228 3746550.441 452.00
LOCATION L0006865     VOLUME   476912.729 3746550.552 452.12
LOCATION L0006866     VOLUME   476904.230 3746550.663 452.27
LOCATION L0006867     VOLUME   476895.730 3746550.773 452.41
LOCATION L0006868     VOLUME   476887.231 3746550.884 452.55
LOCATION L0006869     VOLUME   476878.732 3746550.995 452.69
LOCATION L0006870     VOLUME   476870.233 3746551.105 452.83
LOCATION L0006871     VOLUME   476861.733 3746551.216 452.97
LOCATION L0006872     VOLUME   476853.234 3746551.327 453.00
LOCATION L0006873     VOLUME   476844.735 3746551.437 453.00
LOCATION L0006874     VOLUME   476836.235 3746551.548 453.00
LOCATION L0006875     VOLUME   476827.736 3746551.659 453.00
LOCATION L0006876     VOLUME   476819.237 3746551.769 453.00
LOCATION L0006877     VOLUME   476810.738 3746551.880 453.00
LOCATION L0006878     VOLUME   476802.238 3746551.991 453.00
LOCATION L0006879     VOLUME   476793.739 3746552.101 462.05
LOCATION L0006880     VOLUME   476785.240 3746552.212 462.16
LOCATION L0006881     VOLUME   476776.742 3746552.160 462.27
LOCATION L0006882     VOLUME   476768.244 3746551.940 462.38
LOCATION L0006883     VOLUME   476759.747 3746551.720 462.49
LOCATION L0006884     VOLUME   476751.250 3746551.500 462.60
LOCATION L0006885     VOLUME   476742.753 3746551.281 462.71
LOCATION L0006886     VOLUME   476734.256 3746551.061 462.83
LOCATION L0006887     VOLUME   476725.759 3746550.841 462.94
LOCATION L0006888     VOLUME   476717.261 3746550.621 463.05
LOCATION L0006889     VOLUME   476708.764 3746550.402 463.16
LOCATION L0006890     VOLUME   476700.267 3746550.182 463.27
LOCATION L0006891     VOLUME   476691.770 3746549.962 463.38
LOCATION L0006892     VOLUME   476683.273 3746549.742 463.49
LOCATION L0006893     VOLUME   476674.776 3746549.522 463.60
LOCATION L0006894     VOLUME   476666.278 3746549.303 463.71
LOCATION L0006895     VOLUME   476657.781 3746549.083 463.82
LOCATION L0006896     VOLUME   476649.485 3746550.211 463.92
LOCATION L0006897     VOLUME   476641.421 3746552.899 464.00
LOCATION L0006898     VOLUME   476633.357 3746555.587 464.00
LOCATION L0006899     VOLUME   476625.294 3746558.274 464.00
LOCATION L0006900     VOLUME   476617.230 3746560.962 464.00
LOCATION L0006901     VOLUME   476609.166 3746563.650 464.00
LOCATION L0006902     VOLUME   476601.371 3746566.912 464.00
LOCATION L0006903     VOLUME   476594.149 3746571.395 464.00
LOCATION L0006904     VOLUME   476586.927 3746575.877 464.00
LOCATION L0006905     VOLUME   476579.705 3746580.360 464.00
LOCATION L0006906     VOLUME   476572.484 3746584.842 464.00
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                              AERMOD HRA Output
LOCATION L0006907      VOLUME   476565.262 3746589.325 464.02
LOCATION L0006908      VOLUME   476558.040 3746593.808 464.11
LOCATION L0006909      VOLUME   476550.818 3746598.290 464.21
LOCATION L0006910      VOLUME   476543.596 3746602.773 464.30
LOCATION L0006911      VOLUME   476537.940 3746608.712 464.37
LOCATION L0006912      VOLUME   476533.994 3746616.240 464.43
LOCATION L0006913      VOLUME   476530.047 3746623.768 464.48
LOCATION L0006914      VOLUME   476526.101 3746631.297 464.53
LOCATION L0006915      VOLUME   476522.155 3746638.825 464.58
LOCATION L0006916      VOLUME   476518.208 3746646.354 464.63
LOCATION L0006917      VOLUME   476514.262 3746653.882 464.68
LOCATION L0006918      VOLUME   476510.316 3746661.410 464.73
LOCATION L0006919      VOLUME   476506.369 3746668.939 464.79
LOCATION L0006920      VOLUME   476502.423 3746676.467 464.84
LOCATION L0006921      VOLUME   476498.477 3746683.995 464.89
LOCATION L0006922      VOLUME   476494.530 3746691.524 464.94
LOCATION L0006923      VOLUME   476490.584 3746699.052 464.99
LOCATION L0006924      VOLUME   476486.638 3746706.581 465.08
LOCATION L0006925      VOLUME   476482.691 3746714.109 465.19
LOCATION L0006926      VOLUME   476478.745 3746721.637 465.29
LOCATION L0006927      VOLUME   476474.799 3746729.166 465.39
LOCATION L0006928      VOLUME   476470.852 3746736.694 465.50
LOCATION L0006929      VOLUME   476467.785 3746744.518 465.58
LOCATION L0006930      VOLUME   476466.388 3746752.902 465.61
LOCATION L0006931      VOLUME   476464.990 3746761.286 465.65
LOCATION L0006932      VOLUME   476463.593 3746769.671 465.69
LOCATION L0006933      VOLUME   476462.196 3746778.055 465.72
LOCATION L0006934      VOLUME   476460.798 3746786.439 465.76
LOCATION L0006935      VOLUME   476459.401 3746794.824 465.80
LOCATION L0006936      VOLUME   476457.348 3746802.986 465.85
LOCATION L0006937      VOLUME   476453.371 3746810.499 465.95
LOCATION L0006938      VOLUME   476449.394 3746818.011 466.06
LOCATION L0006939      VOLUME   476445.417 3746825.523 466.16
LOCATION L0006940      VOLUME   476441.440 3746833.035 466.27
LOCATION L0006941      VOLUME   476437.463 3746840.547 466.37
LOCATION L0006942      VOLUME   476433.485 3746848.060 466.47
LOCATION L0006943      VOLUME   476429.508 3746855.572 466.58
LOCATION L0006944      VOLUME   476425.531 3746863.084 466.68
LOCATION L0006945      VOLUME   476421.554 3746870.596 466.78
LOCATION L0006946      VOLUME   476417.577 3746878.108 466.89
LOCATION L0006947      VOLUME   476413.600 3746885.621 466.99
LOCATION L0006948      VOLUME   476409.623 3746893.133 467.05
LOCATION L0006949      VOLUME   476403.232 3746898.494 467.13
LOCATION L0006950      VOLUME   476396.228 3746903.310 467.22
LOCATION L0006951      VOLUME   476389.223 3746908.125 467.31
LOCATION L0006952      VOLUME   476382.219 3746912.941 467.40
LOCATION L0006953      VOLUME   476375.214 3746917.756 467.49
LOCATION L0006954      VOLUME   476368.210 3746922.572 467.59
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                         AERMOD HRA Output
LOCATION L0006955     VOLUME   476361.206 3746927.387 467.68
LOCATION L0006956     VOLUME   476354.201 3746932.203 467.77
LOCATION L0006957     VOLUME   476347.197 3746937.018 467.86
LOCATION L0006958     VOLUME   476340.193 3746941.833 467.95
LOCATION L0006959     VOLUME   476332.114 3746943.710 468.05
LOCATION L0006960     VOLUME   476323.655 3746944.544 468.16
LOCATION L0006961     VOLUME   476315.196 3746945.378 468.27
LOCATION L0006962     VOLUME   476306.737 3746946.212 468.38
LOCATION L0006963     VOLUME   476298.278 3746947.046 468.49
LOCATION L0006964     VOLUME   476289.819 3746947.880 468.60
LOCATION L0006965     VOLUME   476281.360 3746948.714 468.71
LOCATION L0006966     VOLUME   476272.901 3746949.548 468.82
LOCATION L0006967     VOLUME   476264.442 3746950.382 468.93
LOCATION L0006968     VOLUME   476255.963 3746950.773 469.04
LOCATION L0006969     VOLUME   476247.463 3746950.716 469.15
LOCATION L0006970     VOLUME   476238.964 3746950.659 469.26
LOCATION L0006971     VOLUME   476230.464 3746950.603 469.37
LOCATION L0006972     VOLUME   476221.964 3746950.546 469.48
LOCATION L0006973     VOLUME   476213.464 3746950.489 469.59
LOCATION L0006974     VOLUME   476204.964 3746950.433 469.70
LOCATION L0006975     VOLUME   476196.464 3746950.376 469.81
LOCATION L0006976     VOLUME   476187.965 3746950.319 469.92
LOCATION L0006977     VOLUME   476179.465 3746950.263 470.04
LOCATION L0006978     VOLUME   476170.965 3746950.206 470.15
LOCATION L0006979     VOLUME   476162.465 3746950.149 470.26
LOCATION L0006980     VOLUME   476153.965 3746950.093 470.37
LOCATION L0006981     VOLUME   476145.466 3746950.036 470.48
LOCATION L0006982     VOLUME   476136.966 3746949.979 470.59
LOCATION L0006983     VOLUME   476128.466 3746949.923 470.70
LOCATION L0006984     VOLUME   476119.966 3746949.866 470.81
LOCATION L0006985     VOLUME   476111.466 3746949.809 470.92
LOCATION L0006986     VOLUME   476102.967 3746949.753 471.03
LOCATION L0006987     VOLUME   476094.467 3746949.696 471.14
LOCATION L0006988     VOLUME   476085.967 3746949.639 471.25
LOCATION L0006989     VOLUME   476077.467 3746949.583 471.36
LOCATION L0006990     VOLUME   476068.967 3746949.526 471.47
LOCATION L0006991     VOLUME   476060.468 3746949.469 471.58
LOCATION L0006992     VOLUME   476051.968 3746949.413 471.69
LOCATION L0006993     VOLUME   476043.468 3746949.356 471.80
LOCATION L0006994     VOLUME   476034.968 3746949.299 471.91
LOCATION L0006995     VOLUME   476026.468 3746949.243 472.02
LOCATION L0006996     VOLUME   476017.968 3746949.186 472.13
LOCATION L0006997     VOLUME   476009.469 3746949.129 472.24
LOCATION L0006998     VOLUME   476000.969 3746949.073 472.35
LOCATION L0006999     VOLUME   475992.469 3746949.016 472.46
LOCATION L0007000     VOLUME   475983.969 3746948.959 472.57
LOCATION L0007001     VOLUME   475975.469 3746948.903 472.68
LOCATION L0007002     VOLUME   475966.970 3746948.846 472.79
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   LOCATION L0007003     VOLUME   475958.470 3746948.789 472.90
   LOCATION L0007004     VOLUME   475949.970 3746948.733 472.96
   LOCATION L0007005     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0007006     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SRC00001
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0003043     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003044     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003045     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003046     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003047     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003048     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003049     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003050     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003051     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003052     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003053     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003054     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003055     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003056     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003057     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003058     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003059     0.00000531      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0003060     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003061     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003062     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003063     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003064     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003065     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003066     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003067     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003068     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003069     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003070     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003071     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003072     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003073     0.000005501      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0003074     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003075     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003076     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003077     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003078     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003079     0.000005075      4.00      3.95      1.86
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   SRCPARAM L0003080     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003081     0.000005075      4.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0003082     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003083     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003084     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003085     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003086     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003087     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003088     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003089     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003090     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003091     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003092     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003093     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003094     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003095     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003096     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003097     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003098     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003099     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003100     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003101     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003102     0.0000002543      4.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0003103     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003104     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003105     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003106     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003107     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003108     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003109     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003110     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003111     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003112     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003113     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003114     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003115     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003116     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003117     0.000003668      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0003118     0.000000825      0.00     13.95      1.86
   SRCPARAM L0003119     0.000000825      0.00     13.95      1.86
   SRCPARAM L0003120     0.000000825      0.00     13.95      1.86
   SRCPARAM L0003121     0.000000825      0.00     13.95      1.86
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   SRCPARAM L0003122     0.000000825      0.00     13.95      1.86
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** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0003123     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003124     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003125     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003126     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003127     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003128     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003129     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003130     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003131     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003132     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003133     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003134     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003135     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003136     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003137     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003138     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003139     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003140     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003141     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003142     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003143     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003144     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003145     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003146     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003147     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003148     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003149     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003150     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003151     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003152     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003153     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003154     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003155     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003156     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003157     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003158     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003159     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003160     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003161     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003162     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003163     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003164     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003165     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003166     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003167     0.000001345      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0003168      0.000001345      4.00      3.95      1.86
SRCPARAM L0003169      0.000001345      4.00      3.95      1.86
SRCPARAM L0003170      0.000001345      4.00      3.95      1.86
SRCPARAM L0003171      0.000001345      4.00      3.95      1.86
SRCPARAM L0003172      0.000001345      4.00      3.95      1.86
SRCPARAM L0003173      0.000001345      4.00      3.95      1.86
SRCPARAM L0003174      0.000001345      4.00      3.95      1.86
SRCPARAM L0003175      0.000001345      4.00      3.95      1.86
SRCPARAM L0003176      0.000001345      4.00      3.95      1.86
SRCPARAM L0003177      0.000001345      4.00      3.95      1.86
SRCPARAM L0003178      0.000001345      4.00      3.95      1.86
SRCPARAM L0003179      0.000001345      4.00      3.95      1.86
SRCPARAM L0003180      0.000001345      4.00      3.95      1.86
SRCPARAM L0003181      0.000001345      4.00      3.95      1.86
SRCPARAM L0003182      0.000001345      4.00      3.95      1.86
SRCPARAM L0003183      0.000001345      4.00      3.95      1.86
SRCPARAM L0003184      0.000001345      4.00      3.95      1.86
SRCPARAM L0003185      0.000001345      4.00      3.95      1.86
SRCPARAM L0003186      0.000001345      4.00      3.95      1.86
SRCPARAM L0003187      0.000001345      4.00      3.95      1.86
SRCPARAM L0003188      0.000001345      4.00      3.95      1.86
SRCPARAM L0003189      0.000001345      4.00      3.95      1.86
SRCPARAM L0003190      0.000001345      4.00      3.95      1.86
SRCPARAM L0003191      0.000001345      4.00      3.95      1.86
SRCPARAM L0003192      0.000001345      4.00      3.95      1.86
SRCPARAM L0003193      0.000001345      4.00      3.95      1.86
SRCPARAM L0003194      0.000001345      4.00      3.95      1.86
SRCPARAM L0003195      0.000001345      4.00      3.95      1.86
SRCPARAM L0003196      0.000001345      4.00      3.95      1.86
SRCPARAM L0003197      0.000001345      4.00      3.95      1.86
SRCPARAM L0003198      0.000001345      4.00      3.95      1.86
SRCPARAM L0003199      0.000001345      4.00      3.95      1.86
SRCPARAM L0003200      0.000001345      4.00      3.95      1.86
SRCPARAM L0003201      0.000001345      4.00      3.95      1.86
SRCPARAM L0003202      0.000001345      4.00      3.95      1.86
SRCPARAM L0003203      0.000001345      4.00      3.95      1.86
SRCPARAM L0003204      0.000001345      4.00      3.95      1.86
SRCPARAM L0003205      0.000001345      4.00      3.95      1.86
SRCPARAM L0003206      0.000001345      4.00      3.95      1.86
SRCPARAM L0003207      0.000001345      4.00      3.95      1.86
SRCPARAM L0003208      0.000001345      4.00      3.95      1.86
SRCPARAM L0003209      0.000001345      4.00      3.95      1.86
SRCPARAM L0003210      0.000001345      4.00      3.95      1.86
SRCPARAM L0003211      0.000001345      4.00      3.95      1.86
SRCPARAM L0003212      0.000001345      4.00      3.95      1.86
SRCPARAM L0003213      0.000001345      4.00      3.95      1.86
SRCPARAM L0003214      0.000001345      4.00      3.95      1.86
SRCPARAM L0003215      0.000001345      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0003216      0.000001345      4.00      3.95      1.86
SRCPARAM L0003217      0.000001345      4.00      3.95      1.86
SRCPARAM L0003218      0.000001345      4.00      3.95      1.86
SRCPARAM L0003219      0.000001345      4.00      3.95      1.86
SRCPARAM L0003220      0.000001345      4.00      3.95      1.86
SRCPARAM L0003221      0.000001345      4.00      3.95      1.86
SRCPARAM L0003222      0.000001345      4.00      3.95      1.86
SRCPARAM L0003223      0.000001345      4.00      3.95      1.86
SRCPARAM L0003224      0.000001345      4.00      3.95      1.86
SRCPARAM L0003225      0.000001345      4.00      3.95      1.86
SRCPARAM L0003226      0.000001345      4.00      3.95      1.86
SRCPARAM L0003227      0.000001345      4.00      3.95      1.86
SRCPARAM L0003228      0.000001345      4.00      3.95      1.86
SRCPARAM L0003229      0.000001345      4.00      3.95      1.86
SRCPARAM L0003230      0.000001345      4.00      3.95      1.86
SRCPARAM L0003231      0.000001345      4.00      3.95      1.86
SRCPARAM L0003232      0.000001345      4.00      3.95      1.86
SRCPARAM L0003233      0.000001345      4.00      3.95      1.86
SRCPARAM L0003234      0.000001345      4.00      3.95      1.86
SRCPARAM L0003235      0.000001345      4.00      3.95      1.86
SRCPARAM L0003236      0.000001345      4.00      3.95      1.86
SRCPARAM L0003237      0.000001345      4.00      3.95      1.86
SRCPARAM L0003238      0.000001345      4.00      3.95      1.86
SRCPARAM L0003239      0.000001345      4.00      3.95      1.86
SRCPARAM L0003240      0.000001345      4.00      3.95      1.86
SRCPARAM L0003241      0.000001345      4.00      3.95      1.86
SRCPARAM L0003242      0.000001345      4.00      3.95      1.86
SRCPARAM L0003243      0.000001345      4.00      3.95      1.86
SRCPARAM L0003244      0.000001345      4.00      3.95      1.86
SRCPARAM L0003245      0.000001345      4.00      3.95      1.86
SRCPARAM L0003246      0.000001345      4.00      3.95      1.86
SRCPARAM L0003247      0.000001345      4.00      3.95      1.86
SRCPARAM L0003248      0.000001345      4.00      3.95      1.86
SRCPARAM L0003249      0.000001345      4.00      3.95      1.86
SRCPARAM L0003250      0.000001345      4.00      3.95      1.86
SRCPARAM L0003251      0.000001345      4.00      3.95      1.86
SRCPARAM L0003252      0.000001345      4.00      3.95      1.86
SRCPARAM L0003253      0.000001345      4.00      3.95      1.86
SRCPARAM L0003254      0.000001345      4.00      3.95      1.86
SRCPARAM L0003255      0.000001345      4.00      3.95      1.86
SRCPARAM L0003256      0.000001345      4.00      3.95      1.86
SRCPARAM L0003257      0.000001345      4.00      3.95      1.86
SRCPARAM L0003258      0.000001345      4.00      3.95      1.86
SRCPARAM L0003259      0.000001345      4.00      3.95      1.86
SRCPARAM L0003260      0.000001345      4.00      3.95      1.86
SRCPARAM L0003261      0.000001345      4.00      3.95      1.86
SRCPARAM L0003262      0.000001345      4.00      3.95      1.86
SRCPARAM L0003263      0.000001345      4.00      3.95      1.86
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   SRCPARAM L0003264     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003265     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003266     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003267     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003268     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003269     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003270     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003271     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003272     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003273     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003274     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003275     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003276     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003277     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003278     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003279     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003280     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003281     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003282     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003283     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003284     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003285     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003286     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003287     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003288     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003289     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003290     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003291     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003292     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003293     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003294     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003295     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003296     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003297     0.000001345      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0003298     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003299     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003300     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003301     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003302     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003303     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003304     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003305     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003306     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003307     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003308     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003309     0.0000002863      4.00      3.95      1.86
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                          AERMOD HRA Output
   SRCPARAM L0003310     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003311     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003312     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003313     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003314     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003315     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003316     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003317     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003318     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003319     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003320     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003321     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003322     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003323     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003324     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003325     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003326     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003327     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003328     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003329     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003330     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003331     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003332     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003333     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003334     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003335     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003336     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003337     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003338     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003339     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003340     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003341     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003342     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003343     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003344     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003345     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003346     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003347     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003348     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003349     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003350     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003351     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003352     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003353     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003354     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003355     0.0000002863      4.00       3.95       1.86
   SRCPARAM L0003356     0.0000002863      4.00       3.95       1.86
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                              AERMOD HRA Output
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0003357     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003358     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003359     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003360     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003361     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003362     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003363     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003364     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003365     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003366     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003367     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003368     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003369     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003370     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003371     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003372     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003373     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003374     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003375     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003376     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003377     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003378     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003379     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003380     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003381     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003382     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003383     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003384     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003385     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003386     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003387     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003388     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003389     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003390     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003391     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003392     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003393     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003394     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003395     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003396     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003397     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003398     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003399     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003400     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003401     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003402     0.0000002255      4.00       3.95       1.86
   SRCPARAM L0003403     0.0000002255      4.00       3.95       1.86
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   SRCPARAM L0003404     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003405     0.0000002255      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0003406     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003407     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003408     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003409     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003410     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003411     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003412     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003413     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003414     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003415     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003416     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003417     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003418     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003419     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003420     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003421     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003422     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003423     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003424     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003425     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003426     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003427     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003428     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003429     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003430     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003431     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003432     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003433     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003434     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003435     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003436     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003437     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003438     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003439     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003440     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003441     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003442     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003443     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003444     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003445     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003446     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003447     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003448     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003449     0.000000385      4.00      3.95      1.86
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   SRCPARAM L0003450     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003451     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003452     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003453     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003454     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003455     0.000000385      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0003456     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003457     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003458     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003459     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003460     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003461     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003462     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003463     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003464     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003465     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003466     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003467     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003468     0.0000005327      4.00      3.95      1.86
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   SRCPARAM L0003471     0.0000005327      4.00      3.95      1.86
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   SRCPARAM L0003474     0.0000005327      4.00      3.95      1.86
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   SRCPARAM L0003476     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003477     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003478     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003479     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003480     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003481     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003482     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003483     0.0000005327      4.00      3.95      1.86
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   SRCPARAM L0003486     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003487     0.0000005327      4.00      3.95      1.86
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   SRCPARAM L0003491     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003492     0.0000005327      4.00      3.95      1.86
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   SRCPARAM L0003495     0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003530      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003531      0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003533      0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003538      0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003540      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003541      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003542      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003543      0.0000005327      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0003589      0.0000005327       4.00       3.95       1.86
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SRCPARAM L0003591      0.0000005327       4.00       3.95       1.86
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SRCPARAM L0003619      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003620      0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003629      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003630      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003631      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003632      0.0000005327      4.00      3.95      1.86
SRCPARAM L0003633      0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003636      0.0000005327      4.00      3.95      1.86
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SRCPARAM L0005446      0.0000003193      4.00      3.95      1.86
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SRCPARAM L0005448      0.0000003193      4.00      3.95      1.86
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   SRCPARAM L0005455     0.0000003193      4.00      3.95      1.86
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   SRCPARAM AREA1        2.8207E-09     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.9862E-09     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        1.0465E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        3.282E-09     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        6.8612E-09     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        3.074E-09     5.000    65.180   180.230     0.000
   SRCPARAM STCK1         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10        9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000019084     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000015121     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000025862     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0003741     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003742     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003743     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003744     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003745     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003746     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003747     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003748     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003749     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003750     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003751     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003752     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003753     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003754     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003755     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003756     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003757     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003758     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003759     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003760     0.0000003242      4.00      3.95      1.86
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   SRCPARAM L0003761     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003762     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003763     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003764     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003765     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003766     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003767     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003768     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003769     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003770     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003771     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003772     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003773     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003774     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003775     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003776     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003777     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003778     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003779     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003780     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003781     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003782     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003783     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003784     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003785     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003786     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003787     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003788     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003789     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003790     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003791     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003792     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003793     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003794     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003795     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003796     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003797     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003798     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003799     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003800     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003801     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003802     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003803     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003804     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003805     0.0000003242      4.00       3.95       1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0005456     0.0000004266      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005457      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005458      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005459      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005460      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005461      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005462      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005463      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005464      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005465      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005466      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005467      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005468      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005469      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005470      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005471      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005472      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005473      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005474      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005475      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005476      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005477      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005478      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005479      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005480      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005481      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005482      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005483      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005484      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005485      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005486      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005487      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005488      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005489      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005490      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005491      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005492      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005493      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005494      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005495      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005496      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005497      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005498      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005499      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005500      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005501      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005502      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005503      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005504      0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005505      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005506      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005507      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005508      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005509      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005510      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005511      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005512      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005513      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005514      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005515      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005516      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005517      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005518      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005519      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005520      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005521      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005522      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005523      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005524      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005525      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005526      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005527      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005528      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005529      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005530      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005531      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005532      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005533      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005534      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005535      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005536      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005537      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005538      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005539      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005540      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005541      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005542      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005543      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005544      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005545      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005546      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005547      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005548      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005549      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005550      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005551      0.0000004266      4.00       3.95       1.86
SRCPARAM L0005552      0.0000004266      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005553     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005554     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005555     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005556     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005557     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005558     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005559     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005560     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005561     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005562     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005563     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005564     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005565     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005566     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005567     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005568     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005569     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005570     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005571     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005572     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005573     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005574     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005575     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005576     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005577     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005578     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005579     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005580     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005581     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005582     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005583     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005584     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005585     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005586     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005587     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005588     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005589     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005590     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005591     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005592     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005593     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005594     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005595     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005596     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005597     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005598     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005599     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005600     0.0000004266      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005601     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005602     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005603     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005604     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005605     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005606     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005607     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005608     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005609     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005610     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005611     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005612     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005613     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005614     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005615     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005616     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005617     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005618     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005619     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005620     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005621     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005622     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005623     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005624     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005625     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005626     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005627     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005628     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005629     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005630     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005631     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005632     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005633     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005634     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005635     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005636     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005637     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005638     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005639     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005640     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005641     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005642     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005643     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005644     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005645     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005646     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005647     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005648     0.0000004266      4.00      3.95      1.86
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                         AERMOD HRA Output
SRCPARAM L0005649     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005650     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005651     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005652     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005653     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005654     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005655     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005656     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005657     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005658     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005659     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005660     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005661     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005662     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005663     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005664     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005665     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005666     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005667     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005668     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005669     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005670     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005671     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005672     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005673     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005674     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005675     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005676     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005677     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005678     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005679     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005680     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005681     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005682     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005683     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005684     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005685     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005686     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005687     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005688     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005689     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005690     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005691     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005692     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005693     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005694     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005695     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005696     0.0000004266      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0005699      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005700      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005701      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005702      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005703      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005704      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005705      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005706      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005707      0.0000004266       4.00       3.95       1.86
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SRCPARAM L0005711      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005712      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005713      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005714      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005715      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005716      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005717      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005718      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005719      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005720      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005721      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005722      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005723      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005724      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005725      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005726      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005727      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005728      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005729      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005730      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005731      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005732      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005733      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005734      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005735      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005736      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005737      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005738      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005739      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005740      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005741      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005742      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005743      0.0000004266       4.00       3.95       1.86
SRCPARAM L0005744      0.0000004266       4.00       3.95       1.86
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SRCPARAM L0005745     0.0000004266      4.00       3.95       1.86
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SRCPARAM L0005747     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005748     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005749     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005750     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005751     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005752     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005753     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005754     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005755     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005756     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005757     0.0000004266      4.00       3.95       1.86
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SRCPARAM L0005759     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005760     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005761     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005762     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005763     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005764     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005765     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005766     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005767     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005768     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005769     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005770     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005771     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005772     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005773     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005774     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005775     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005776     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005777     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005778     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005779     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005780     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005781     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005782     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005783     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005784     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005785     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005786     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005787     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005788     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005789     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005790     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005791     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005792     0.0000004266      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005793     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005795     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005796     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005797     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005798     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005799     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005800     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005801     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005802     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005803     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005804     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005805     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005806     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005807     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005808     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005809     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005810     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005811     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005812     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005813     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005814     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005815     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005816     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005817     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005818     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005819     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005820     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005821     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005822     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005823     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005824     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005825     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005826     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005827     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005828     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005829     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005830     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005831     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005832     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005833     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005834     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005835     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005836     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005837     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005838     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005839     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005840     0.0000004266      4.00      3.95      1.86
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                              AERMOD HRA Output
SRCPARAM L0005841     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005842     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005843     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005844     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005845     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005846     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005847     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005848     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005849     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005850     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005851     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005852     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005853     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005854     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005855     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005856     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005857     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005858     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005859     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005860     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005861     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005862     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005863     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005864     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005865     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005866     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005867     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005868     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005869     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005870     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005871     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005872     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005873     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005874     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005875     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005876     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005877     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005878     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005879     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005880     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005881     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005882     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005883     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005884     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005885     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005886     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005887     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005888     0.0000004266      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0005889      0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005891      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005892      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005893      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005894      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005895      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005896      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005897      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005898      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005899      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005900      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005901      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005902      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005903      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005904      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005905      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005906      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005907      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005908      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005909      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005910      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005911      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005912      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005913      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005914      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005915      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005916      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005917      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005918      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005919      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005920      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005921      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005922      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005923      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005924      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005925      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005926      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005927      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005928      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005929      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005930      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005931      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005932      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005933      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005934      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005935      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005936      0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005937      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005938      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005939      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005940      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005941      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005942      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005943      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005944      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005945      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005946      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005947      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005948      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005949      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005950      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005951      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005952      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005953      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005954      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005955      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005956      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005957      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005958      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005959      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005960      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005961      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005962      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005963      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005964      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005965      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005966      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005967      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005968      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005969      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005970      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005971      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005972      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005973      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005974      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005975      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005976      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005977      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005978      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005979      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005980      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005981      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005982      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005983      0.0000004266      4.00      3.95      1.86
SRCPARAM L0005984      0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005985     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005986     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005987     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005988     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005989     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005990     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005991     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005992     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005993     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005994     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005995     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005996     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005997     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005998     0.0000004266      4.00       3.95       1.86
SRCPARAM L0005999     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006000     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006001     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006002     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006003     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006004     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006005     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006006     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006007     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006008     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006009     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006010     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006011     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006012     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006013     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006014     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006015     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006016     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006017     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006018     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006019     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006020     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006021     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006022     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006023     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006024     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006025     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006026     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006027     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006028     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006029     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006030     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006031     0.0000004266      4.00       3.95       1.86
SRCPARAM L0006032     0.0000004266      4.00       3.95       1.86
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                           AERMOD HRA Output
SRCPARAM L0006033      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006034      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006035      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006036      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006037      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006038      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006039      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006040      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006041      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006042      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006043      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006044      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006045      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006046      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006047      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006048      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006049      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006050      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006051      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006052      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006053      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006054      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006055      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006056      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006057      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006058      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006059      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006060      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006061      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006062      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006063      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006064      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006065      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006066      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006067      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006068      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006069      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006070      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006071      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006072      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006073      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006074      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006075      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006076      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006077      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006078      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006079      0.0000004266       4.00       3.95       1.86
SRCPARAM L0006080      0.0000004266       4.00       3.95       1.86
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SRCPARAM L0006081      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006082      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006083      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006084      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006085      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006086      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006087      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006088      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006089      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006090      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006091      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006092      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006093      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006094      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006095      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006096      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006097      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006098      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006099      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006100      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006101      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006102      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006103      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006104      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006105      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006106      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006107      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006108      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006109      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006110      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006111      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006112      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006113      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006114      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006115      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006116      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006117      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006118      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006119      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006120      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006121      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006122      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006123      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006124      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006125      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006126      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006127      0.0000004266      4.00      3.95      1.86
SRCPARAM L0006128      0.0000004266      4.00      3.95      1.86
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   SRCPARAM L0006129     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006130     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006131     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006132     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006133     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006134     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006135     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006136     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006137     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006138     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006139     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006140     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006141     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006142     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006143     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006144     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006145     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006146     0.0000004266      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0006147     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006148     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006149     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006150     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006151     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006152     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006153     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006154     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006155     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006156     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006157     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006158     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006159     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006160     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006161     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006162     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006163     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006164     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006165     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006166     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006167     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006168     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006169     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006170     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006171     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006172     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006173     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006174     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006175      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006176      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006177      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006178      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006179      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006180      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006181      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006182      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006183      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006184      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006185      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006186      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006187      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006188      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006189      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006190      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006191      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006192      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006193      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006194      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006195      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006196      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006197      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006198      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006199      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006200      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006201      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006202      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006203      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006204      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006205      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006206      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006207      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006208      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006209      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006210      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006211      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006212      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006213      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006214      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006215      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006216      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006217      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006218      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006219      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006220      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006221      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006222      0.0000001066      0.00       3.95       1.86
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                         AERMOD HRA Output
SRCPARAM L0006223     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006224     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006225     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006226     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006227     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006228     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006229     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006230     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006231     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006232     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006233     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006234     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006235     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006236     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006237     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006238     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006239     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006240     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006241     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006242     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006243     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006244     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006245     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006246     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006247     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006248     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006249     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006250     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006251     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006252     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006253     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006254     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006255     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006256     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006257     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006258     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006259     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006260     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006261     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006262     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006263     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006264     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006265     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006266     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006267     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006268     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006269     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006270     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006271      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006272      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006273      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006274      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006275      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006276      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006277      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006278      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006279      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006280      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006281      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006282      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006283      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006284      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006285      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006286      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006287      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006288      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006289      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006290      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006291      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006292      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006293      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006294      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006295      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006296      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006297      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006298      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006299      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006300      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006301      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006302      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006303      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006304      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006305      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006306      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006307      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006308      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006309      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006310      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006311      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006312      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006313      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006314      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006315      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006316      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006317      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006318      0.0000001066      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006319      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006320      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006321      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006322      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006323      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006324      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006325      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006326      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006327      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006328      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006329      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006330      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006331      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006332      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006333      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006334      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006335      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006336      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006337      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006338      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006339      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006340      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006341      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006342      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006343      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006344      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006345      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006346      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006347      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006348      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006349      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006350      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006351      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006352      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006353      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006354      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006355      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006356      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006357      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006358      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006359      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006360      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006361      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006362      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006363      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006364      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006365      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006366      0.0000001066      0.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006367      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006368      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006369      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006370      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006371      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006372      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006373      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006374      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006375      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006376      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006377      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006378      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006379      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006380      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006381      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006382      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006383      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006384      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006385      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006386      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006387      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006388      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006389      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006390      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006391      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006392      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006393      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006394      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006395      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006396      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006397      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006398      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006399      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006400      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006401      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006402      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006403      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006404      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006405      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006406      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006407      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006408      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006409      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006410      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006411      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006412      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006413      0.0000001066      0.00       3.95       1.86
SRCPARAM L0006414      0.0000001066      0.00       3.95       1.86
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   SRCPARAM L0006415     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006416     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006417     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006418     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006419     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006420     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006421     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006422     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006423     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006424     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006425     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006426     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006427     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006428     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006429     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006430     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006431     0.0000001066      0.00       3.95       1.86
   SRCPARAM L0006432     0.0000001066      0.00       3.95       1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SRC00001
   SRCPARAM L0006433     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006434     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006435     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006436     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006437     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006438     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006439     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006440     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006441     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006442     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006443     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006444     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006445     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006446     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006447     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006448     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006449     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006450     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006451     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006452     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006453     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006454     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006455     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006456     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006457     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006458     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006459     0.0000005328      4.00       3.95       1.86
   SRCPARAM L0006460     0.0000005328      4.00       3.95       1.86
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SRCPARAM L0006461      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006462      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006463      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006464      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006465      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006466      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006467      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006468      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006469      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006470      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006471      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006472      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006473      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006474      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006475      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006476      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006477      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006478      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006479      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006480      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006481      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006482      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006483      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006484      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006485      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006486      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006487      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006488      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006489      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006490      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006491      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006492      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006493      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006494      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006495      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006496      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006497      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006498      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006499      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006500      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006501      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006502      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006503      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006504      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006505      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006506      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006507      0.0000005328       4.00       3.95       1.86
SRCPARAM L0006508      0.0000005328       4.00       3.95       1.86
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                            AERMOD HRA Output
SRCPARAM L0006509      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006510      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006511      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006512      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006513      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006514      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006515      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006516      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006517      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006518      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006519      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006520      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006521      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006522      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006523      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006524      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006525      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006526      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006527      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006528      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006529      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006530      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006531      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006532      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006533      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006534      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006535      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006536      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006537      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006538      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006539      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006540      0.0000005328      4.00      3.95      1.86
SRCPARAM L0006541      0.0000005328      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0006833     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006835     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006836     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006837     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006838     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006839     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006840     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006841     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006842     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006843     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006844     0.0000005328      4.00      3.95      1.86
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AERMOD HRA Output

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SRCPARAM L0006845      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006846      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006847      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006848      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006849      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006850      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006851      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006852      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006853      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006854      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006855      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006856      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006857      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006858      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006859      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006860      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006861      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006862      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006863      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006864      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006865      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006866      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006867      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006868      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006869      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006870      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006871      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006872      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006873      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006874      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006875      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006876      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006877      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006878      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006879      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006880      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006881      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006882      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006883      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006884      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006885      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006886      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006887      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006888      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006889      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006890      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006891      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006892      0.0000005328      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006893      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006894      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006895      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006896      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006897      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006898      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006899      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006900      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006901      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006902      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006903      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006904      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006905      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006906      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006907      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006908      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006909      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006910      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006911      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006912      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006913      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006914      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006915      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006916      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006917      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006918      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006919      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006920      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006921      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006922      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006923      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006924      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006925      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006926      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006927      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006928      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006929      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006930      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006931      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006932      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006933      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006934      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006935      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006936      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006937      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006938      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006939      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006940      0.0000005328      4.00       3.95       1.86
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AERMOD HRA Output

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SRCPARAM L0006941      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006942      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006943      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006944      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006945      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006946      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006947      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006948      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006949      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006950      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006951      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006952      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006953      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006954      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006955      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006956      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006957      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006958      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006959      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006960      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006961      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006962      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006963      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006964      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006965      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006966      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006967      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006968      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006969      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006970      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006971      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006972      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006973      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006974      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006975      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006976      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006977      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006978      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006979      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006980      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006981      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006982      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006983      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006984      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006985      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006986      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006987      0.0000005328      4.00       3.95       1.86
SRCPARAM L0006988      0.0000005328      4.00       3.95       1.86
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   SRCPARAM L0006989     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006990     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006991     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006992     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006993     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006994     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006995     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006996     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006997     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006998     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006999     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007000     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007001     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007002     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007003     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007004     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007005     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007006     0.0000005328      4.00      3.95      1.86
** ------------------------------------------------------------------------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Worker"
   EMISFACT L0003043     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003043     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003043     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003043     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003044     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003044     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003044     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003045     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003045     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003046     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003046     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003047     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003047     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003048     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003048     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                    AERMOD HRA Output
EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003051     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003054     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003054     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003055     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003055     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003056     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003056     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003057     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003057     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003058     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003058     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003059     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003059     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003060     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003060     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0003061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003061     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003061     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003062     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003063     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003063     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003063     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003063     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003064     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003064     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003064     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003064     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003065     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003065     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003065     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003065     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003066     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003066     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003067     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003067     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003067     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003067     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003068     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003068     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003068     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003068     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003069     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003069     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003069     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003069     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003070     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003070     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003070     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003070     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003071     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003071     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003071     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003071     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003072     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003072     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003072     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003072     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003073     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                    AERMOD HRA Output
EMISFACT L0003073     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003073     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003073     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003074     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003074     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003074     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003074     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003075     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003075     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003075     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003075     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003076     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003076     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003076     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003076     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003077     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003077     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003077     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003077     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003078     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003078     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003078     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003078     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003079     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003079     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003079     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003079     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003080     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003080     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003080     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003080     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003081     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003081     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003081     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003081     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003082     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003082     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003082     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003083     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003083     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003083     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003083     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003084     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003084     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003084     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003084     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003085     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

```
EMISFACT L0003085     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003085     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003085     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003086     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003086     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003086     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003086     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003087     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003087     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003088     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003088     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003088     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003088     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003089     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003089     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003089     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003089     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003090     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003090     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003090     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003090     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003091     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003091     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003091     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003091     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003092     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003092     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003092     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003092     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003093     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003093     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003093     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003093     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003094     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003094     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003094     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003094     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003095     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003095     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003095     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003095     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003096     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003096     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003096     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003096     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003097     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT L0003097     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003097     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003097     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003098     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003098     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003098     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003098     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003099     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003099     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003099     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003100     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003100     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003100     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003100     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003101     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003101     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003101     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003101     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003102     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003102     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003102     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003102     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003103     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003103     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003103     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003103     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003104     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003104     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003104     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003104     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003105     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003105     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003105     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003105     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003106     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003106     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003106     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003106     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003107     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003107     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003107     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003107     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003108     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003108     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003108     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003108     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003109     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003109     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003109     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003109     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003110     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003110     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003110     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003110     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003111     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003111     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003111     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003111     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003112     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003112     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003112     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003112     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003113     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003113     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003113     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003113     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003114     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003114     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003114     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003114     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003115     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003115     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003115     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003115     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003116     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003116     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003116     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003116     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003117     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003117     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003117     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003117     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003118     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003118     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003118     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003118     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003119     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003119     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003119     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003119     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003120     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003120     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003120     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003120     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003121     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                     AERMOD HRA Output
EMISFACT L0003121     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003121     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003121     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003122     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003122     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003122     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003122     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003123     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003123     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003123     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003123     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003124     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003124     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003124     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003125     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003125     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003125     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003125     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003126     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003126     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003126     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003126     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003127     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003127     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003127     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003127     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003128     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003128     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003128     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003128     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003129     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003129     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003129     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003129     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003130     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003130     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003130     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003130     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003131     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003131     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003131     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003131     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003132     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003132     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003132     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003132     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003133     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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EMISFACT L0003133      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003133      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003133      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003134      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003134      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003134      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003134      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003135      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003135      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003135      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003135      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003136      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003136      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003136      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003136      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003137      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003137      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003137      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003137      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003138      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003138      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003138      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003138      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003139      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003139      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003139      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003139      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003140      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003140      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003140      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003140      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003141      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003141      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003141      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003141      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003142      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003142      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003142      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003142      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003143      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003143      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003143      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003143      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003144      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003144      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003144      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003144      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003145      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

```
EMISFACT L0003145     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003145     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003145     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003146     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003146     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003146     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003146     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003147     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003147     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003147     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003147     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003148     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003148     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003148     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003148     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003149     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003149     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003150     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003150     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003151     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003151     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003152     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003152     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003153     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003153     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003154     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003154     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003155     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003155     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003155     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003155     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003156     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003156     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003156     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003156     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003157     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003157     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003157     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003157     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003158     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003158     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003158     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003158     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003159     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003159     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003159     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003159     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003160     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003160     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003160     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003160     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003161     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003161     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003161     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003161     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003162     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003162     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003162     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003162     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003163     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003163     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003163     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003163     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003164     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003164     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003164     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003164     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003165     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003165     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003166     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003166     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003167     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003167     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003167     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003168     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003168     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003168     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003169     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003169     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003169     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003170     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003170     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003170     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003171     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003171     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003171     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003172     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003172     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003172     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003173     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003173     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003173     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003174     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003174     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003174     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003175     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003175     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003175     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003176     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003176     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003176     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003176     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003177     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003177     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003177     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003178     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003178     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003179     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003179     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003179     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003180     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003180     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003180     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003181     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003181     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003181     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003181     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003182     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003182     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003182     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003182     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003183     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003183     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003183     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003183     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003184     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003184     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003184     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003184     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003185     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003185     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003185     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003185     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003186     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003186     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003186     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003186     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003187     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003187     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003187     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003187     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003188     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003188     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003188     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003188     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003189     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003189     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003189     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003189     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003190     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003190     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003190     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003190     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003191     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003191     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003191     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003191     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003192     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003192     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003192     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003192     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003193     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                  AERMOD HRA Output
EMISFACT L0003193     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003193     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003193     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003194     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003194     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003194     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003194     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003195     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003195     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003195     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003195     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003196     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003196     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003196     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003196     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003197     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003197     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003197     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003197     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003198     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003198     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003198     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003198     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003199     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003199     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003199     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003199     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003200     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003200     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003200     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003200     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003201     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003201     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003201     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003201     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003202     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003202     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003202     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003202     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003203     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003203     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003203     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003203     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003204     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003204     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003204     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003204     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003205     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

AERMOD HRA Output

```
EMISFACT L0003205     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003205     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003205     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003206     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003206     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003206     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003206     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003207     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003207     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003207     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003207     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003208     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003208     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003208     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003208     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003209     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003209     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003209     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003209     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003210     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003210     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003210     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003210     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003211     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003211     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003211     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003211     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003212     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003212     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003212     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003212     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003213     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003213     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003213     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003213     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003214     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003214     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003214     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003214     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003215     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003215     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003215     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003215     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003216     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003216     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003216     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003216     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003217     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                           AERMOD HRA Output
EMISFACT L0003217     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003217     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003217     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003218     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003218     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003218     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003218     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003219     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003219     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003219     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003219     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003220     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003220     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003220     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003220     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003221     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003221     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003221     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003221     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003222     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003222     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003222     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003222     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003223     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003223     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003223     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003223     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003224     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003224     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003224     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003224     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003225     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003225     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003225     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003225     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003226     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003226     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003226     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003226     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003227     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003227     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003227     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003227     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003228     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003228     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003228     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003228     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003229     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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                    AERMOD HRA Output
EMISFACT L0003229     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003229     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003229     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003230     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003230     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003230     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003230     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003231     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003231     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003231     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003231     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003232     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003232     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003232     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003232     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003233     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003233     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003233     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003233     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003234     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003234     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003234     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003234     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003235     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003235     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003235     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003235     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003236     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003236     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003236     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003236     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003237     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003237     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003237     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003237     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003238     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003238     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003238     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003238     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003239     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003239     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003239     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003239     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003240     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003240     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003240     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003240     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003241     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003241     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003241     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003241     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003242     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003242     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003242     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003242     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003243     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003243     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003243     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003243     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003244     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003244     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003244     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003244     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003245     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003245     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003245     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003245     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003246     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003246     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003246     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003246     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003247     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003247     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003247     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003247     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003248     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003248     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003248     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003248     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003249     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003249     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003249     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003249     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003250     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003250     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003250     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003250     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003251     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003251     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003251     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003251     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003252     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003252     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003252     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003252     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003253     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003253     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003253     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003253     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003254     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003254     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003254     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003254     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003255     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003255     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003255     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003255     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003256     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003256     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003256     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003256     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003257     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003257     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003257     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003257     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003258     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003258     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003258     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003258     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003259     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003259     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003259     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003259     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003260     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003260     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003260     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003260     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003261     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003261     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003261     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003261     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003262     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003262     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003262     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003262     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003263     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003263     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003263     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003263     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003264     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003264     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003264     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003264     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003265     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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                              AERMOD HRA Output
EMISFACT L0003265     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003265     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003265     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003266     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003266     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003266     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003266     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003267     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003267     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003267     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003267     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003268     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003268     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003268     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003268     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003269     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003269     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003269     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003269     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003270     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003270     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003270     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003270     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003271     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003271     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003271     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003271     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003272     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003272     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003272     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003272     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003273     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003273     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003273     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003273     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003274     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003274     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003274     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003274     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003275     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003275     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003275     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003275     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003276     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003276     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003276     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003276     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003277     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003277     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003277     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003277     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003278     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003278     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003278     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003278     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003279     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003279     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003279     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003279     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003280     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003280     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003280     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003280     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003281     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003281     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003281     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003281     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003282     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003282     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003282     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003282     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003283     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003283     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003283     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003283     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003284     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003284     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003284     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003284     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003285     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003285     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003285     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003285     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003286     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003286     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003286     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003286     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003287     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003287     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003287     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003287     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003288     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003288     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003288     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003288     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003289     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                           AERMOD HRA Output
EMISFACT L0003289     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003289     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003289     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003290     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003290     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003290     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003290     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003291     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003291     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003291     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003291     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003292     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003292     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003292     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003292     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003293     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003293     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003293     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003293     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003294     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003294     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003294     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003294     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003295     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003295     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003295     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003295     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003296     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003296     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003296     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003296     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003297     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003297     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003297     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003298     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003298     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003299     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003299     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003300     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003300     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003300     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003300     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003301     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003301     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003301     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003302     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003302     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003303     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003303     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003304     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003304     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003305     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003305     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003306     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003306     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003306     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003307     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003307     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003308     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003308     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003308     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003309     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003309     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003310     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003310     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003312     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003312     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003312     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003313     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003313     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003313     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003313     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003314     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003314     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003314     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003315     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003315     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003319     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003320     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003320     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003320     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003320     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003321     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003321     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003321     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003321     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003322     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003322     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003322     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003322     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003323     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003323     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003323     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003323     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003324     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003324     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003324     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003324     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003325     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003325     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003325     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003325     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003326     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003326     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003326     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003326     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003327     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003327     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003327     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003327     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003328     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003328     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003328     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003328     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003329     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003329     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003329     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003329     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003330     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003330     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003330     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003330     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003331     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003331     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003331     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003331     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003332     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003332     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003332     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003332     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003333     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003333     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003333     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003333     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003334     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003334     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003334     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003334     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003335     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003335     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003335     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003335     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003336     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003336     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003336     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003336     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003337     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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EMISFACT L0003337     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003337     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003337     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003338     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003338     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003338     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003338     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003339     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003339     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003339     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003339     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003340     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003340     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003340     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003340     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003341     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003341     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003341     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003341     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003342     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003342     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003342     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003342     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003343     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003343     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003343     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003343     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003344     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003344     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003345     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003345     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003345     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003345     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003346     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003346     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003346     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003346     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003347     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003347     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003347     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003347     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003348     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003348     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003348     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003348     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003349     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

```
EMISFACT L0003349      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003349      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003350      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003350      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003350      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003350      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003351      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003351      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003351      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003351      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003352      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003352      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003352      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003352      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003353      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003353      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003353      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003353      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003354      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003354      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003354      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003354      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003355      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003355      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003355      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003355      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003356      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003356      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003356      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003357      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003357      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003357      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003357      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003358      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003358      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003358      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003358      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003359      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003359      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003359      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003359      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003360      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003360      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003360      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003360      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003361      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

```
EMISFACT L0003361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003361     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003362     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003362     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003362     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003362     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003363     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003363     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003363     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003363     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003364     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003364     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003364     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003364     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003365     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003365     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003365     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003365     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003366     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003366     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003366     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003366     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003367     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003367     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003368     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003368     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003369     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003369     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003371     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003371     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003376     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003376     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003376     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003377     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003377     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003377     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003377     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003378     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003378     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003378     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003378     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003379     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003379     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003379     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003379     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003380     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003380     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003380     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003380     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003381     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003381     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003381     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003382     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003382     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003382     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003383     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003383     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003383     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003383     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003384     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003384     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003384     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003384     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003385     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

```
EMISFACT L0003385     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003385     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003385     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003386     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003386     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003386     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003386     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003387     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003387     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003387     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003387     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003388     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003388     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003388     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003388     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003389     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003389     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003389     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003389     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003390     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003390     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003390     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003390     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003391     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003391     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003391     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003391     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003392     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003392     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003392     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003392     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003393     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003393     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003393     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003394     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003394     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003394     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003394     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003395     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003395     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003395     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003395     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003396     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003396     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003396     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003396     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003397     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
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EMISFACT L0003398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003398     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003398     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003398     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003399     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003399     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003399     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003402     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003403     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003403     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003404     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003405     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003405     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003406     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003409     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003409      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003409      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003410      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003410      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003410      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003410      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003411      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003411      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003411      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003411      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003412      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003412      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003413      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003413      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003413      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003413      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003414      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003414      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003414      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003415      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003415      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003415      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003416      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003416      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003416      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003416      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003417      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003417      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003417      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003418      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003418      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003418      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003418      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003419      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003419      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003419      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003420      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003420      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003420      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003420      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003421      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003421      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003422      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003422      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003422      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003422      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003423      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003423      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003423      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003423      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003424      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003424      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003426      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003426      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003426      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003426      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003427      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003427      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003427      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003427      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003428      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003428      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003428      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003428      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003429      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003429      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003429      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003430      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003430      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003430      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003430      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003431      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003431      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003432      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003432      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003432      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003432      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003433      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                        AERMOD HRA Output
EMISFACT L0003433     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003434     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003434     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003435     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003456     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003456     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003456     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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                              AERMOD HRA Output
EMISFACT L0003457     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003457     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003457     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003458     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003458     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003458     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003459     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003459     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003459     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003460     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003460     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003460     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003461     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003461     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003461     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003462     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003462     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003462     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003463     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003463     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003463     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003464     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003464     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003464     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003464     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003465     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003465     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003465     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003465     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003466     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003466     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003466     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003466     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003467     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003467     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003467     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003467     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003468     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003468     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003468     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003468     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003469     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003469     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003469     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003469     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003470     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003470     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003470     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003470     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003471     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003471     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003471     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003471     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003472     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003472     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003472     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003472     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003473     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003473     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003473     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003473     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003474     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003474     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003474     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003474     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003475     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003475     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003475     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003475     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003476     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003476     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003476     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003476     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003477     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003477     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003477     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003477     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003478     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003478     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003478     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003478     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003479     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003479     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003479     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003479     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003480     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003480     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003480     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003480     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003481     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                         AERMOD HRA Output
EMISFACT L0003481     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003481     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003481     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003482     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003482     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003482     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003482     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003483     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003483     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003483     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003483     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003484     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003484     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003484     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003484     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003485     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003485     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003485     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003485     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003486     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003486     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003486     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003486     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003487     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003487     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003487     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003487     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003488     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003488     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003488     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003488     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003489     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003489     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003489     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003489     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003490     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003490     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003490     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003490     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003491     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003491     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003491     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003491     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003492     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003492     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003492     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003492     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003493     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                     AERMOD HRA Output
EMISFACT L0003493     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003493     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003493     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003494     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003494     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003494     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003494     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003495     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003495     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003495     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003495     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003496     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003496     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003496     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003496     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003497     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003497     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003497     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003497     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003498     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003498     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003498     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003498     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003499     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003499     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003499     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003499     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003500     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003500     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003500     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003500     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003501     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003501     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003501     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003501     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003502     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003502     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003502     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003502     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003503     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003503     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003503     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003503     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003504     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003504     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003504     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003504     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003505     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003505     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003505     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003505     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003506     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003506     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003506     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003506     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003507     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003507     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003507     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003507     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003508     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003508     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003508     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003508     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003509     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003509     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003509     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003509     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003510     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003510     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003510     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003510     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003511     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003511     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003511     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003511     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003512     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003512     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003512     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003512     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003513     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003513     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003513     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003513     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003514     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003514     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003514     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003514     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003515     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003515     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003515     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003515     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003516     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003516     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003516     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003516     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003517     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT L0003517     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003517     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003517     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003518     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003518     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003518     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003518     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003519     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003519     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003519     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003519     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003520     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003520     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003520     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003520     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003521     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003521     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003521     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003521     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003522     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003522     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003522     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003522     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003523     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003523     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003523     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003523     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003524     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003524     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003524     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003524     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003525     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003525     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003525     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003525     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003526     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003526     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003526     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003526     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003527     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003527     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003527     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003527     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003528     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003528     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003528     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003528     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003529     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0003529     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003529     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003529     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003530     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003530     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003530     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003530     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003531     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003531     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003531     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003531     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003532     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003532     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003532     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003532     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003533     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003533     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003533     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003533     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003534     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003534     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003534     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003534     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003535     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003535     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003535     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003535     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003536     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003536     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003536     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003536     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003537     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003537     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003537     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003537     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003538     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003538     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003538     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003538     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003539     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003539     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003539     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003539     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003540     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003540     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003540     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003540     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003541     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003541     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003541     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003541     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003542     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003542     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003542     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003542     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003543     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003543     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003543     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003543     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003544     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003544     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003544     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003544     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003545     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003545     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003545     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003545     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003546     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003546     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003546     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003546     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003547     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003547     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003547     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003547     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003548     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003548     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003548     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003548     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003549     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003549     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003549     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003549     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003550     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003550     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003550     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003550     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003551     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003551     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003551     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003551     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003552     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003552     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003552     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003552     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003553     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                      AERMOD HRA Output
EMISFACT L0003553     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003553     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003553     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003554     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003554     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003554     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003554     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003555     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003555     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003555     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003555     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003556     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003556     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003556     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003556     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003557     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003557     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003557     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003557     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003558     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003558     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003558     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003558     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003559     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003559     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003559     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003559     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003560     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003560     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003560     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003560     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003561     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003561     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003561     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003561     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003562     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003562     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003562     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003562     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003563     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003563     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003563     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003563     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003564     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003564     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003564     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003564     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003565     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                           AERMOD HRA Output
EMISFACT L0003565     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003565     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003565     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003566     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003566     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003566     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003566     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003567     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003567     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003567     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003567     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003568     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003568     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003568     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003568     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003569     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003569     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003569     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003569     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003570     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003570     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003570     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003570     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003571     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003571     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003571     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003571     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003572     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003572     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003572     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003572     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003573     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003573     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003573     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003573     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003574     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003574     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003574     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003574     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003575     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003575     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003575     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003575     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003576     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003576     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003576     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003576     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003577     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003577     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003577     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003577     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003578     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003578     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003578     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003578     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003579     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003579     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003579     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003579     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003580     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003580     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003580     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003580     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003581     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003581     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003581     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003581     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003582     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003582     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003582     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003582     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003583     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003583     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003583     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003583     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003584     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003584     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003584     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003584     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003585     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003585     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003585     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003585     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003586     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003586     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003586     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003586     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003587     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003587     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003587     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003587     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003588     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003588     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003588     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003588     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003589     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003589     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003589     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003589     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003590     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003590     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003590     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003590     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003591     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003591     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003591     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003591     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003592     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003592     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003592     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003592     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003593     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003593     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003593     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003593     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003594     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003594     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003594     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003594     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003595     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003595     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003595     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003595     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003596     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003596     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003596     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003596     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003597     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003597     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003597     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003598     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003598     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003598     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003598     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003599     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003599     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003599     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003599     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003600     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003600     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003600     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003600     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003601     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT L0003601     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003601     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003601     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003602     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003602     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003603     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003603     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003603     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003604     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003604     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003604     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003604     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003605     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003605     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003605     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003605     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003606     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003606     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003606     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003606     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003607     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003607     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003607     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003607     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003608     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003608     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003608     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003608     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003609     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003609     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003609     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003609     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003610     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003610     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003610     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003610     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003611     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003611     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003611     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003611     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003612     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003612     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003612     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003612     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003613     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003613     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003613     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003613     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003614     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003614     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003614     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003614     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003615     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003615     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003615     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003615     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003616     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003616     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003616     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003616     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003617     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003617     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003617     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003617     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003618     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003618     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003618     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003618     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003619     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003619     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003619     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003619     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003620     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003620     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003620     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003620     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003621     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003621     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003621     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003621     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003622     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003622     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003622     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003622     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003623     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003623     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003623     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003623     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003624     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003624     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003624     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003624     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003625     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003625     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003625     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003625     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003626     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003626     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003626     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003626     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003627     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003627     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003627     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003628     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003628     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003628     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003629     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003629     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003629     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003630     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003630     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003630     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003630     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003631     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003631     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003631     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003631     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003632     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003632     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003632     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003632     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003633     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003633     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003633     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003633     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003634     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003634     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003634     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003634     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003635     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003635     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003635     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003635     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003636     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003636     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003636     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003636     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003637     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                AERMOD HRA Output
EMISFACT L0003637     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003637     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003637     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003638     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003638     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003638     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003638     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003639     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003639     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003639     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003639     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003640     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003640     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003640     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003640     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003641     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003641     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003641     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003641     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005357     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005357     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005357     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005357     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005358     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005358     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005358     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005358     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005359     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005359     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005359     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005359     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005360     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005360     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005360     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005360     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005361     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005361     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005362     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005362     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005362     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005362     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005363     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005363     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005363     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005363     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005364     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                              AERMOD HRA Output
EMISFACT L0005364     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005364     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005364     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005365     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005365     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005365     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005365     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005366     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005366     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005366     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005366     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005367     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005367     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005368     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005368     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005369     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005369     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005369     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005370     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005370     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005371     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005371     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005371     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005372     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005372     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005373     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005373     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005374     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005374     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005375     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005375     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005376     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT L0005376      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005376      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005376      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005377      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005377      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005377      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005377      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005378      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005378      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005378      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005378      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005379      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005379      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005379      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005379      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005380      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005380      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005380      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005380      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005381      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005381      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005381      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005381      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005382      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005382      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005382      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005382      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005383      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005383      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005383      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005383      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005384      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005384      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005384      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005384      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005385      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005385      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005385      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005385      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005386      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005386      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005386      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005386      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005387      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005387      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005387      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005387      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005388      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                                AERMOD HRA Output
EMISFACT L0005388      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005388      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005388      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005389      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005389      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005389      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005389      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005390      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005390      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005390      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005390      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005391      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005391      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005391      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005391      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005392      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005392      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005392      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005392      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005393      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005393      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005393      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005393      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005394      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005394      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005394      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005394      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005395      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005395      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005395      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005395      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005396      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005396      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005396      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005396      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005397      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005397      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005397      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005397      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005398      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005398      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005398      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005398      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005399      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005399      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005399      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005399      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005400      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                               AERMOD HRA Output
EMISFACT L0005400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005400     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005400     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005401     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005401     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005402     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005402     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005402     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005403     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005403     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005403     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005403     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005404     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005404     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005404     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005404     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005405     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005405     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005405     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005405     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005406     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005406     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005406     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005407     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005407     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005408     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005408     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005409     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005409     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005409     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005409     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005410     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005410     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005410     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005410     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005411     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005411     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005411     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005411     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005412     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0005412     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005412     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005412     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005413     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005413     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005413     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005413     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005414     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005414     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005414     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005414     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005415     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005415     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005415     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005415     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005416     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005416     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005416     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005416     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005417     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005417     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005417     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005417     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005418     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005418     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005418     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005418     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005419     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005419     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005419     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005419     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005420     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005420     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005420     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005420     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005421     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005421     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005421     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005421     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005422     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005422     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005422     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005422     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005423     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005423     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005423     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005423     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                    AERMOD HRA Output
EMISFACT L0005424      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005424      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005424      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005425      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005425      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005425      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005425      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005426      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005426      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005426      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005426      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005427      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005427      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005427      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005427      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005428      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005428      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005428      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005428      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005429      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005429      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005429      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005429      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005430      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005430      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005430      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005430      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005431      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005431      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005431      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005431      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005432      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005432      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005432      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005432      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005433      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005433      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005433      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005433      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005434      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005434      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005434      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005434      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005435      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005435      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005435      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005435      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005436      HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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                          AERMOD HRA Output
EMISFACT L0005436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005436     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005436     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005437     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005437     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005438     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005438     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005439     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005439     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005440     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005440     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005441     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005441     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005442     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005442     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005443     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005443     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005444     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005444     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005445     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005445     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005446     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005446     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0005447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005447     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005447     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0005448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005448     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005448     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005449     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005449     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005450     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005450     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005451     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005451     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005452     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005452     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005453     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005453     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005454     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005454     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0005455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005455     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0005455     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT AREA5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT AREA6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT AREA6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK1        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK2        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK3        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK4        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK5        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK6        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK7        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK8        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK8        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK8        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK9        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK9        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9        HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK9        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK10       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK10       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK11       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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AERMOD HRA Output

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EMISFACT STCK11       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK11       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK12       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK12       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT STCK13       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT STCK13       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003741     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003741     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003741     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003741     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003742     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003742     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003742     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003742     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003743     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003743     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003743     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003743     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003744     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003744     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003744     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003744     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003745     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003745     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003745     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003745     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003746     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003746     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003746     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003746     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003747     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003747     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003747     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003747     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003748     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003748     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003749     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003749     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003750     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

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EMISFACT L0003750     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003753     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                          AERMOD HRA Output
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SRCGROUP Other    L0003055 L0003056 L0003057 L0003058 L0003059 L0003060
SRCGROUP Other    L0003061 L0003062 L0003063 L0003064 L0003065 L0003066
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SRCGROUP Other    L0003073 L0003074 L0003075 L0003076 L0003077 L0003078
SRCGROUP Other    L0003079 L0003080 L0003081 L0003082 L0003083 L0003084
SRCGROUP Other    L0003085 L0003086 L0003087 L0003088 L0003089 L0003090
SRCGROUP Other    L0003091 L0003092 L0003093 L0003094 L0003095 L0003096
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SRCGROUP Other    L0003103 L0003104 L0003105 L0003106 L0003107 L0003108
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SRCGROUP Other    L0003115 L0003116 L0003117 L0003118 L0003119 L0003120
SRCGROUP Other    L0003121 L0003122 L0003123 L0003124 L0003125 L0003126
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SRCGROUP Other    L0003133 L0003134 L0003135 L0003136 L0003137 L0003138
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SRCGROUP Other    L0003145 L0003146 L0003147 L0003148 L0003149 L0003150
SRCGROUP Other    L0003151 L0003152 L0003153 L0003154 L0003155 L0003156
SRCGROUP Other    L0003157 L0003158 L0003159 L0003160 L0003161 L0003162
SRCGROUP Other    L0003163 L0003164 L0003165 L0003166 L0003167 L0003168
SRCGROUP Other    L0003169 L0003170 L0003171 L0003172 L0003173 L0003174
SRCGROUP Other    L0003175 L0003176 L0003177 L0003178 L0003179 L0003180
SRCGROUP Other    L0003181 L0003182 L0003183 L0003184 L0003185 L0003186
SRCGROUP Other    L0003187 L0003188 L0003189 L0003190 L0003191 L0003192
SRCGROUP Other    L0003193 L0003194 L0003195 L0003196 L0003197 L0003198
SRCGROUP Other    L0003199 L0003200 L0003201 L0003202 L0003203 L0003204
SRCGROUP Other    L0003205 L0003206 L0003207 L0003208 L0003209 L0003210
SRCGROUP Other    L0003211 L0003212 L0003213 L0003214 L0003215 L0003216
SRCGROUP Other    L0003217 L0003218 L0003219 L0003220 L0003221 L0003222
SRCGROUP Other    L0003223 L0003224 L0003225 L0003226 L0003227 L0003228
SRCGROUP Other    L0003229 L0003230 L0003231 L0003232 L0003233 L0003234
SRCGROUP Other    L0003235 L0003236 L0003237 L0003238 L0003239 L0003240
SRCGROUP Other    L0003241 L0003242 L0003243 L0003244 L0003245 L0003246
SRCGROUP Other    L0003247 L0003248 L0003249 L0003250 L0003251 L0003252
SRCGROUP Other    L0003253 L0003254 L0003255 L0003256 L0003257 L0003258
SRCGROUP Other    L0003259 L0003260 L0003261 L0003262 L0003263 L0003264
SRCGROUP Other    L0003265 L0003266 L0003267 L0003268 L0003269 L0003270
SRCGROUP Other    L0003271 L0003272 L0003273 L0003274 L0003275 L0003276
SRCGROUP Other    L0003277 L0003278 L0003279 L0003280 L0003281 L0003282
SRCGROUP Other    L0003283 L0003284 L0003285 L0003286 L0003287 L0003288
SRCGROUP Other    L0003289 L0003290 L0003291 L0003292 L0003293 L0003294
SRCGROUP Other    L0003295 L0003296 L0003297 L0003298 L0003299 L0003300
SRCGROUP Other    L0003301 L0003302 L0003303 L0003304 L0003305 L0003306
SRCGROUP Other    L0003307 L0003308 L0003309 L0003310 L0003311 L0003312
SRCGROUP Other    L0003313 L0003314 L0003315 L0003316 L0003317 L0003318
SRCGROUP Other    L0003319 L0003320 L0003321 L0003322 L0003323 L0003324
SRCGROUP Other    L0003325 L0003326 L0003327 L0003328 L0003329 L0003330
SRCGROUP Other    L0003331 L0003332 L0003333 L0003334 L0003335 L0003336
SRCGROUP Other    L0003337 L0003338 L0003339 L0003340 L0003341 L0003342
SRCGROUP Other    L0003343 L0003344 L0003345 L0003346 L0003347 L0003348
SRCGROUP Other    L0003349 L0003350 L0003351 L0003352 L0003353 L0003354
SRCGROUP Other    L0003355 L0003356 L0003357 L0003358 L0003359 L0003360
SRCGROUP Other    L0003361 L0003362 L0003363 L0003364 L0003365 L0003366
SRCGROUP Other    L0003367 L0003368 L0003369 L0003370 L0003371 L0003372
SRCGROUP Other    L0003373 L0003374 L0003375 L0003376 L0003377 L0003378
SRCGROUP Other    L0003379 L0003380 L0003381 L0003382 L0003383 L0003384
SRCGROUP Other    L0003385 L0003386 L0003387 L0003388 L0003389 L0003390
SRCGROUP Other    L0003391 L0003392 L0003393 L0003394 L0003395 L0003396
SRCGROUP Other    L0003397 L0003398 L0003399 L0003400 L0003401 L0003402
SRCGROUP Other    L0003403 L0003404 L0003405 L0003406 L0003407 L0003408
SRCGROUP Other    L0003409 L0003410 L0003411 L0003412 L0003413 L0003414
SRCGROUP Other    L0003415 L0003416 L0003417 L0003418 L0003419 L0003420
SRCGROUP Other    L0003421 L0003422 L0003423 L0003424 L0003425 L0003426
```

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                                      AERMOD HRA Output
SRCGROUP Other    L0003427 L0003428 L0003429 L0003430 L0003431 L0003432
SRCGROUP Other    L0003433 L0003434 L0003435 L0003436 L0003437 L0003438
SRCGROUP Other    L0003439 L0003440 L0003441 L0003442 L0003443 L0003444
SRCGROUP Other    L0003445 L0003446 L0003447 L0003448 L0003449 L0003450
SRCGROUP Other    L0003451 L0003452 L0003453 L0003454 L0003455 L0003456
SRCGROUP Other    L0003457 L0003458 L0003459 L0003460 L0003461 L0003462
SRCGROUP Other    L0003463 L0003464 L0003465 L0003466 L0003467 L0003468
SRCGROUP Other    L0003469 L0003470 L0003471 L0003472 L0003473 L0003474
SRCGROUP Other    L0003475 L0003476 L0003477 L0003478 L0003479 L0003480
SRCGROUP Other    L0003481 L0003482 L0003483 L0003484 L0003485 L0003486
SRCGROUP Other    L0003487 L0003488 L0003489 L0003490 L0003491 L0003492
SRCGROUP Other    L0003493 L0003494 L0003495 L0003496 L0003497 L0003498
SRCGROUP Other    L0003499 L0003500 L0003501 L0003502 L0003503 L0003504
SRCGROUP Other    L0003505 L0003506 L0003507 L0003508 L0003509 L0003510
SRCGROUP Other    L0003511 L0003512 L0003513 L0003514 L0003515 L0003516
SRCGROUP Other    L0003517 L0003518 L0003519 L0003520 L0003521 L0003522
SRCGROUP Other    L0003523 L0003524 L0003525 L0003526 L0003527 L0003528
SRCGROUP Other    L0003529 L0003530 L0003531 L0003532 L0003533 L0003534
SRCGROUP Other    L0003535 L0003536 L0003537 L0003538 L0003539 L0003540
SRCGROUP Other    L0003541 L0003542 L0003543 L0003544 L0003545 L0003546
SRCGROUP Other    L0003547 L0003548 L0003549 L0003550 L0003551 L0003552
SRCGROUP Other    L0003553 L0003554 L0003555 L0003556 L0003557 L0003558
SRCGROUP Other    L0003559 L0003560 L0003561 L0003562 L0003563 L0003564
SRCGROUP Other    L0003565 L0003566 L0003567 L0003568 L0003569 L0003570
SRCGROUP Other    L0003571 L0003572 L0003573 L0003574 L0003575 L0003576
SRCGROUP Other    L0003577 L0003578 L0003579 L0003580 L0003581 L0003582
SRCGROUP Other    L0003583 L0003584 L0003585 L0003586 L0003587 L0003588
SRCGROUP Other    L0003589 L0003590 L0003591 L0003592 L0003593 L0003594
SRCGROUP Other    L0003595 L0003596 L0003597 L0003598 L0003599 L0003600
SRCGROUP Other    L0003601 L0003602 L0003603 L0003604 L0003605 L0003606
SRCGROUP Other    L0003607 L0003608 L0003609 L0003610 L0003611 L0003612
SRCGROUP Other    L0003613 L0003614 L0003615 L0003616 L0003617 L0003618
SRCGROUP Other    L0003619 L0003620 L0003621 L0003622 L0003623 L0003624
SRCGROUP Other    L0003625 L0003626 L0003627 L0003628 L0003629 L0003630
SRCGROUP Other    L0003631 L0003632 L0003633 L0003634 L0003635 L0003636
SRCGROUP Other    L0003637 L0003638 L0003639 L0003640 L0003641 L0005357
SRCGROUP Other    L0005358 L0005359 L0005360 L0005361 L0005362 L0005363
SRCGROUP Other    L0005364 L0005365 L0005366 L0005367 L0005368 L0005369
SRCGROUP Other    L0005370 L0005371 L0005372 L0005373 L0005374 L0005375
SRCGROUP Other    L0005376 L0005377 L0005378 L0005379 L0005380 L0005381
SRCGROUP Other    L0005382 L0005383 L0005384 L0005385 L0005386 L0005387
SRCGROUP Other    L0005388 L0005389 L0005390 L0005391 L0005392 L0005393
SRCGROUP Other    L0005394 L0005395 L0005396 L0005397 L0005398 L0005399
SRCGROUP Other    L0005400 L0005401 L0005402 L0005403 L0005404 L0005405
SRCGROUP Other    L0005406 L0005407 L0005408 L0005409 L0005410 L0005411
SRCGROUP Other    L0005412 L0005413 L0005414 L0005415 L0005416 L0005417
SRCGROUP Other    L0005418 L0005419 L0005420 L0005421 L0005422 L0005423
SRCGROUP Other    L0005424 L0005425 L0005426 L0005427 L0005428 L0005429
```

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   SRCGROUP Other    L0005430 L0005431 L0005432 L0005433 L0005434 L0005435
   SRCGROUP Other    L0005436 L0005437 L0005438 L0005439 L0005440 L0005441
   SRCGROUP Other    L0005442 L0005443 L0005444 L0005445 L0005446 L0005447
   SRCGROUP Other    L0005448 L0005449 L0005450 L0005451 L0005452 L0005453
   SRCGROUP Other    L0005454 L0005455 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Worker.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\peri8.sfc
   PROFFILE ..\..\peri8.PFL
   SURFDATA 3190 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL WORKER.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac WORKER.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other WORKER.AD\AN00G002.PLT 33
   SUMMFILE Worker.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***
```

```
                                          AERMOD HRA Output
 --------- Summary of Total Messages --------

A Total of           0 Fatal Error Message(s)
A Total of           1 Warning Message(s)
A Total of           0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W531    8340       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
 SURFDATA

***********************************
*** SETUP Finishes Successfully ***
***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY
  ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2333 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
```

```
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2333 Source(s);       3 Source Group(s); and      22
Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2314 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing
Hours
                                                                 b for Both Calm
and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                               ;
Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      5.2 MB of RAM.
```

```
                                 AERMOD HRA Output

 **Detailed Error/Message File:   Worker.err

 **File for Summary of Results:   Worker.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK
STACK     STACK    BLDG   URBAN  CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.
EXIT VEL. DIAMETER  EXISTS SOURCE HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)
(M/SEC)  (METERS)                      VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 STCK1           0   0.90200E-05  478197.3 3748887.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK2           0   0.90200E-05  478195.1 3748735.6   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK3           0   0.90200E-05  478195.8 3748573.3   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK4           0   0.90200E-05  478198.1 3748428.1   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK5           0   0.90200E-05  477956.2 3748894.1   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK6           0   0.90200E-05  477962.1 3748741.5   453.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK7           0   0.90200E-05  477962.8 3748581.4   452.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK8           0   0.90200E-05  477964.3 3748509.9   451.8     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK9           0   0.90200E-05  478049.1 3748355.8   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK10          0   0.90200E-05  478153.1 3748357.3   451.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK11          0   0.19084E-04  477756.4 3748910.9   453.2     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
 STCK12          0   0.15121E-04  477975.8 3748266.9   450.0     3.96   501.00
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49.98     0.04    NO      YES   NO  HROFDY
 STCK13           0   0.25862E-04  477612.5 3748890.5   454.0     3.96   501.00
49.98     0.04    NO      YES   NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0003043         0   0.53100E-05  478216.2 3748416.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0003044         0   0.53100E-05  478216.3 3748446.3   451.0     4.00    13.95
1.86     YES   HROFDY
 L0003045         0   0.53100E-05  478216.5 3748476.3   451.2     4.00    13.95
1.86     YES   HROFDY
 L0003046         0   0.53100E-05  478216.6 3748506.3   451.7     4.00    13.95
1.86     YES   HROFDY
 L0003047         0   0.53100E-05  478216.7 3748536.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003048         0   0.53100E-05  478216.9 3748566.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003049         0   0.53100E-05  478217.0 3748596.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003050         0   0.53100E-05  478217.2 3748626.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003051         0   0.53100E-05  478217.3 3748656.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003052         0   0.53100E-05  478217.4 3748686.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003053         0   0.53100E-05  478217.6 3748716.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003054         0   0.53100E-05  478217.7 3748746.3   452.0     4.00    13.95
1.86     YES   HROFDY
 L0003055         0   0.53100E-05  478217.8 3748776.3   452.0     4.00    13.95
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1.86      YES    HROFDY
 L0003056          0   0.53100E-05   478218.0 3748806.3    452.7      4.00     13.95
1.86      YES    HROFDY
 L0003057          0   0.53100E-05   478218.1 3748836.3    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003058          0   0.53100E-05   478218.3 3748866.3    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003059          0   0.53100E-05   478218.4 3748896.3    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003060          0   0.55010E-05   477943.9 3748501.1    451.5      4.00     13.95
1.86      YES    HROFDY
 L0003061          0   0.55010E-05   477944.1 3748531.1    452.0      4.00     13.95
1.86      YES    HROFDY
 L0003062          0   0.55010E-05   477944.4 3748561.1    452.0      4.00     13.95
1.86      YES    HROFDY
 L0003063          0   0.55010E-05   477944.7 3748591.1    452.0      4.00     13.95
1.86      YES    HROFDY
 L0003064          0   0.55010E-05   477944.9 3748621.1    452.0      4.00     13.95
1.86      YES    HROFDY
 L0003065          0   0.55010E-05   477945.2 3748651.1    452.0      4.00     13.95
1.86      YES    HROFDY
 L0003066          0   0.55010E-05   477945.4 3748681.1    452.5      4.00     13.95
1.86      YES    HROFDY
 L0003067          0   0.55010E-05   477945.7 3748711.1    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003068          0   0.55010E-05   477945.9 3748741.1    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003069          0   0.55010E-05   477946.2 3748771.1    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003070          0   0.55010E-05   477946.5 3748801.1    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003071          0   0.55010E-05   477946.7 3748831.1    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003072          0   0.55010E-05   477947.0 3748861.1    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003073          0   0.55010E-05   477947.2 3748891.1    453.0      4.00     13.95
1.86      YES    HROFDY
 L0003074          0   0.50750E-05   477756.7 3748938.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003075          0   0.50750E-05   477756.7 3748930.0    453.8      4.00      3.95
1.86      YES    HROFDY
 L0003076          0   0.50750E-05   477756.7 3748921.5    453.6      4.00      3.95
1.86      YES    HROFDY
 L0003077          0   0.50750E-05   477756.7 3748913.0    453.3      4.00      3.95
1.86      YES    HROFDY
 L0003078          0   0.50750E-05   477756.7 3748904.5    453.1      4.00      3.95
1.86      YES    HROFDY
 L0003079          0   0.50750E-05   477756.7 3748896.0    453.1      4.00      3.95
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1.86     YES   HROFDY
 L0003080         0   0.50750E-05  477756.7 3748887.5   453.1     4.00     3.95
1.86     YES   HROFDY
 L0003081         0   0.50750E-05  477756.7 3748879.0   453.1     4.00     3.95
1.86     YES   HROFDY
 L0003082         0   0.25430E-06  477900.2 3748339.0   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0003083         0   0.25430E-06  477908.7 3748339.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003084         0   0.25430E-06  477917.2 3748338.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003085         0   0.25430E-06  477925.6 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003086         0   0.25430E-06  477934.1 3748338.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003087         0   0.25430E-06  477942.6 3748338.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003088         0   0.25430E-06  477947.6 3748331.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003089         0   0.25430E-06  477951.8 3748324.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003090         0   0.25430E-06  477956.1 3748317.1   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003091         0   0.25430E-06  477960.3 3748309.7   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003092         0   0.25430E-06  477964.6 3748302.3   450.0     4.00     3.95
1.86     YES   HROFDY
 L0003093         0   0.25430E-06  477968.8 3748295.0   450.0     4.00     3.95
```

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1.86      YES    HROFDY
 L0003094         0   0.25430E-06   477973.0 3748287.6   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003095         0   0.25430E-06   477976.2 3748279.9   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003096         0   0.25430E-06   477977.3 3748271.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003097         0   0.25430E-06   477978.3 3748263.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003098         0   0.25430E-06   477978.3 3748254.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003099         0   0.25430E-06   477978.3 3748246.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003100         0   0.25430E-06   477978.2 3748237.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003101         0   0.25430E-06   477978.2 3748229.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003102         0   0.25430E-06   477978.1 3748220.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003103         0   0.36680E-05   477608.7 3748929.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003104         0   0.36680E-05   477608.7 3748920.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003105         0   0.36680E-05   477608.7 3748912.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003106         0   0.36680E-05   477608.7 3748903.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003107         0   0.36680E-05   477608.7 3748895.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003108         0   0.36680E-05   477608.7 3748886.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003109         0   0.36680E-05   477608.7 3748878.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003110         0   0.36680E-05   477608.7 3748869.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003111         0   0.36680E-05   477608.7 3748861.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003112         0   0.36680E-05   477608.7 3748852.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003113         0   0.36680E-05   477608.7 3748844.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003114         0   0.36680E-05   477608.7 3748835.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003115         0   0.36680E-05   477608.7 3748827.3   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003116         0   0.36680E-05   477608.7 3748818.8   454.0      0.00      3.95
1.86      YES    HROFDY
 L0003117         0   0.36680E-05   477608.7 3748810.3   454.0      0.00      3.95
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                                 AERMOD HRA Output
1.86     YES   HROFDY
 L0003118         0   0.82500E-06  478043.0 3748335.2   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003119         0   0.82500E-06  478073.0 3748334.5   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003120         0   0.82500E-06  478103.0 3748333.9   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003121         0   0.82500E-06  478133.0 3748333.2   451.0     0.00    13.95
1.86     YES   HROFDY
 L0003122         0   0.82500E-06  478163.0 3748332.6   451.0     0.00    13.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
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 L0003123         0   0.13450E-05  477952.3 3748971.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003124         0   0.13450E-05  477952.2 3748962.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003125         0   0.13450E-05  477952.0 3748954.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003126         0   0.13450E-05  477951.4 3748946.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003127         0   0.13450E-05  477950.2 3748937.5   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003128         0   0.13450E-05  477949.0 3748929.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003129         0   0.13450E-05  477948.2 3748920.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003130         0   0.13450E-05  477948.1 3748912.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003131         0   0.13450E-05  477947.9 3748903.7   453.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES    HROFDY
 L0003132         0   0.13450E-05  477947.8 3748895.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003133         0   0.13450E-05  477947.6 3748886.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003134         0   0.13450E-05  477947.5 3748878.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003135         0   0.13450E-05  477947.3 3748869.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003136         0   0.13450E-05  477947.2 3748861.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003137         0   0.13450E-05  477947.2 3748852.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003138         0   0.13450E-05  477947.1 3748844.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003139         0   0.13450E-05  477947.0 3748835.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003140         0   0.13450E-05  477947.0 3748827.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003141         0   0.13450E-05  477946.9 3748818.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003142         0   0.13450E-05  477946.8 3748810.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003143         0   0.13450E-05  477946.7 3748801.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003144         0   0.13450E-05  477946.7 3748793.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003145         0   0.13450E-05  477946.6 3748784.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003146         0   0.13450E-05  477946.5 3748776.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003147         0   0.13450E-05  477946.5 3748767.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003148         0   0.13450E-05  477946.4 3748759.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003149         0   0.13450E-05  477946.3 3748750.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003150         0   0.13450E-05  477946.3 3748742.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003151         0   0.13450E-05  477946.2 3748733.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003152         0   0.13450E-05  477946.1 3748725.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003153         0   0.13450E-05  477946.1 3748716.7   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003154         0   0.13450E-05  477946.0 3748708.2   453.0      4.00      3.95
1.86      YES    HROFDY
 L0003155         0   0.13450E-05  477945.9 3748699.7   453.0      4.00      3.95
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1.86      YES    HROFDY
 L0003156         0   0.13450E-05  477945.9 3748691.2   452.8     4.00     3.95
1.86      YES    HROFDY
 L0003157         0   0.13450E-05  477945.8 3748682.7   452.5     4.00     3.95
1.86      YES    HROFDY
 L0003158         0   0.13450E-05  477945.7 3748674.2   452.2     4.00     3.95
1.86      YES    HROFDY
 L0003159         0   0.13450E-05  477945.7 3748665.7   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003160         0   0.13450E-05  477945.6 3748657.2   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003161         0   0.13450E-05  477945.5 3748648.7   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003162         0   0.13450E-05  477945.4 3748640.2   452.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0003163         0   0.13450E-05  477945.4 3748631.7   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003164         0   0.13450E-05  477945.3 3748623.2   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003165         0   0.13450E-05  477945.2 3748614.7   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003166         0   0.13450E-05  477945.2 3748606.2   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003167         0   0.13450E-05  477945.1 3748597.7   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003168         0   0.13450E-05  477945.0 3748589.2   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003169         0   0.13450E-05  477945.0 3748580.7   452.0     4.00     3.95
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1.86      YES    HROFDY
 L0003170          0   0.13450E-05   477944.9 3748572.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003171          0   0.13450E-05   477944.8 3748563.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003172          0   0.13450E-05   477944.8 3748555.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003173          0   0.13450E-05   477944.7 3748546.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003174          0   0.13450E-05   477944.6 3748538.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003175          0   0.13450E-05   477944.6 3748529.7    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003176          0   0.13450E-05   477944.5 3748521.2    452.0      4.00      3.95
1.86      YES    HROFDY
 L0003177          0   0.13450E-05   477944.4 3748512.7    451.9      4.00      3.95
1.86      YES    HROFDY
 L0003178          0   0.13450E-05   477944.4 3748504.2    451.6      4.00      3.95
1.86      YES    HROFDY
 L0003179          0   0.13450E-05   477944.3 3748495.7    451.3      4.00      3.95
1.86      YES    HROFDY
 L0003180          0   0.13450E-05   477944.7 3748487.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003181          0   0.13450E-05   477948.7 3748479.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003182          0   0.13450E-05   477952.8 3748472.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003183          0   0.13450E-05   477956.8 3748464.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003184          0   0.13450E-05   477960.8 3748457.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003185          0   0.13450E-05   477964.8 3748449.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003186          0   0.13450E-05   477968.8 3748442.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003187          0   0.13450E-05   477972.8 3748434.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003188          0   0.13450E-05   477976.9 3748427.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003189          0   0.13450E-05   477980.9 3748419.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003190          0   0.13450E-05   477984.9 3748412.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003191          0   0.13450E-05   477988.9 3748404.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003192          0   0.13450E-05   477992.9 3748397.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003193          0   0.13450E-05   477996.9 3748389.9    451.0      4.00      3.95
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1.86     YES   HROFDY
 L0003194         0   0.13450E-05  478001.0 3748382.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003195         0   0.13450E-05  478005.0 3748375.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003196         0   0.13450E-05  478009.0 3748367.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003197         0   0.13450E-05  478013.0 3748360.0   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003198         0   0.13450E-05  478017.1 3748352.5   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003199         0   0.13450E-05  478021.7 3748345.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003200         0   0.13450E-05  478026.4 3748338.3   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003201         0   0.13450E-05  478033.8 3748336.4   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003202         0   0.13450E-05  478042.3 3748336.5   451.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003203         0   0.13450E-05  478050.8 3748336.6   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003204         0   0.13450E-05  478059.3 3748336.7   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003205         0   0.13450E-05  478067.8 3748336.8   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003206         0   0.13450E-05  478076.3 3748336.9   451.0     4.00     3.95
1.86     YES   HROFDY
 L0003207         0   0.13450E-05  478084.8 3748337.0   451.0     4.00     3.95
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES    HROFDY
 L0003208         0   0.13450E-05   478093.3 3748337.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003209         0   0.13450E-05   478101.8 3748337.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003210         0   0.13450E-05   478110.3 3748337.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003211         0   0.13450E-05   478118.8 3748337.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003212         0   0.13450E-05   478127.3 3748337.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003213         0   0.13450E-05   478135.8 3748337.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003214         0   0.13450E-05   478144.3 3748337.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003215         0   0.13450E-05   478152.8 3748337.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003216         0   0.13450E-05   478161.3 3748337.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003217         0   0.13450E-05   478169.8 3748337.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003218         0   0.13450E-05   478178.3 3748338.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003219         0   0.13450E-05   478186.8 3748338.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003220         0   0.13450E-05   478195.3 3748338.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003221         0   0.13450E-05   478203.8 3748338.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003222         0   0.13450E-05   478212.3 3748338.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003223         0   0.13450E-05   478215.8 3748343.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003224         0   0.13450E-05   478215.9 3748351.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003225         0   0.13450E-05   478216.0 3748360.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003226         0   0.13450E-05   478216.0 3748368.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003227         0   0.13450E-05   478216.1 3748377.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003228         0   0.13450E-05   478216.1 3748385.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003229         0   0.13450E-05   478216.2 3748394.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003230         0   0.13450E-05   478216.3 3748402.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003231         0   0.13450E-05   478216.3 3748411.4    451.0      4.00      3.95
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1.86      YES    HROFDY
 L0003232         0   0.13450E-05  478216.4 3748419.9   451.0     4.00     3.95
1.86      YES    HROFDY
 L0003233         0   0.13450E-05  478216.4 3748428.4   451.0     4.00     3.95
1.86      YES    HROFDY
 L0003234         0   0.13450E-05  478216.5 3748436.9   451.0     4.00     3.95
1.86      YES    HROFDY
 L0003235         0   0.13450E-05  478216.6 3748445.4   451.0     4.00     3.95
1.86      YES    HROFDY
 L0003236         0   0.13450E-05  478216.6 3748453.9   451.0     4.00     3.95
1.86      YES    HROFDY
 L0003237         0   0.13450E-05  478216.7 3748462.4   451.0     4.00     3.95
1.86      YES    HROFDY
 L0003238         0   0.13450E-05  478216.7 3748470.9   451.1     4.00     3.95
1.86      YES    HROFDY
 L0003239         0   0.13450E-05  478216.8 3748479.4   451.2     4.00     3.95
1.86      YES    HROFDY
 L0003240         0   0.13450E-05  478216.9 3748487.9   451.3     4.00     3.95
1.86      YES    HROFDY
 L0003241         0   0.13450E-05  478216.9 3748496.4   451.5     4.00     3.95
1.86      YES    HROFDY
 L0003242         0   0.13450E-05  478217.0 3748504.9   451.7     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10

                                   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003243         0   0.13450E-05  478217.0 3748513.4   451.9     4.00     3.95
1.86      YES    HROFDY
 L0003244         0   0.13450E-05  478217.1 3748521.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003245         0   0.13450E-05  478217.2 3748530.4   452.0     4.00     3.95
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1.86      YES    HROFDY
 L0003246         0   0.13450E-05  478217.2 3748538.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003247         0   0.13450E-05  478217.3 3748547.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003248         0   0.13450E-05  478217.3 3748555.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003249         0   0.13450E-05  478217.4 3748564.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003250         0   0.13450E-05  478217.5 3748572.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003251         0   0.13450E-05  478217.5 3748581.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003252         0   0.13450E-05  478217.6 3748589.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003253         0   0.13450E-05  478217.7 3748598.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003254         0   0.13450E-05  478217.7 3748606.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003255         0   0.13450E-05  478217.8 3748615.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003256         0   0.13450E-05  478217.8 3748623.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003257         0   0.13450E-05  478217.9 3748632.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003258         0   0.13450E-05  478218.0 3748640.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003259         0   0.13450E-05  478218.0 3748649.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003260         0   0.13450E-05  478218.1 3748657.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003261         0   0.13450E-05  478218.1 3748666.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003262         0   0.13450E-05  478218.2 3748674.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003263         0   0.13450E-05  478218.3 3748683.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003264         0   0.13450E-05  478218.3 3748691.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003265         0   0.13450E-05  478218.4 3748700.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003266         0   0.13450E-05  478218.4 3748708.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003267         0   0.13450E-05  478218.5 3748717.4   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003268         0   0.13450E-05  478218.6 3748725.9   452.0      4.00      3.95
1.86      YES    HROFDY
 L0003269         0   0.13450E-05  478218.6 3748734.4   452.0      4.00      3.95
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1.86      YES    HROFDY
 L0003270          0   0.13450E-05  478218.7 3748742.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003271          0   0.13450E-05  478218.7 3748751.4   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003272          0   0.13450E-05  478218.8 3748759.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003273          0   0.13450E-05  478218.9 3748768.4   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003274          0   0.13450E-05  478218.9 3748776.9   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003275          0   0.13450E-05  478219.0 3748785.4   452.0     4.00     3.95
1.86      YES    HROFDY
 L0003276          0   0.13450E-05  478219.0 3748793.9   452.2     4.00     3.95
1.86      YES    HROFDY
 L0003277          0   0.13450E-05  478219.1 3748802.4   452.5     4.00     3.95
1.86      YES    HROFDY
 L0003278          0   0.13450E-05  478219.2 3748810.9   452.8     4.00     3.95
1.86      YES    HROFDY
 L0003279          0   0.13450E-05  478219.2 3748819.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003280          0   0.13450E-05  478219.3 3748827.9   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003281          0   0.13450E-05  478219.3 3748836.4   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003282          0   0.13450E-05  478219.4 3748844.9   453.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0003283          0   0.13450E-05  478219.5 3748853.4   453.0     4.00     3.95
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                                    AERMOD HRA Output
1.86      YES    HROFDY
 L0003284         0   0.13450E-05   478219.5 3748861.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003285         0   0.13450E-05   478219.6 3748870.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003286         0   0.13450E-05   478219.6 3748878.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003287         0   0.13450E-05   478219.7 3748887.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003288         0   0.13450E-05   478219.8 3748895.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003289         0   0.13450E-05   478219.8 3748904.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003290         0   0.13450E-05   478219.9 3748912.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003291         0   0.13450E-05   478217.5 3748921.1    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003292         0   0.13450E-05   478215.0 3748929.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003293         0   0.13450E-05   478212.6 3748937.3    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003294         0   0.13450E-05   478210.1 3748945.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003295         0   0.13450E-05   478207.6 3748953.6    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003296         0   0.13450E-05   478205.1 3748961.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003297         0   0.13450E-05   478202.7 3748969.8    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003298         0   0.28630E-06   477852.8 3748835.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003299         0   0.28630E-06   477852.8 3748843.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003300         0   0.28630E-06   477852.9 3748852.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003301         0   0.28630E-06   477852.9 3748860.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003302         0   0.28630E-06   477853.0 3748869.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003303         0   0.28630E-06   477853.0 3748877.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003304         0   0.28630E-06   477853.0 3748886.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003305         0   0.28630E-06   477853.1 3748894.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003306         0   0.28630E-06   477853.1 3748903.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003307         0   0.28630E-06   477853.2 3748911.7    453.0      4.00      3.95
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1.86      YES    HROFDY
 L0003308         0   0.28630E-06  477853.2 3748920.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003309         0   0.28630E-06  477853.3 3748928.7   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003310         0   0.28630E-06  477853.3 3748937.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003311         0   0.28630E-06  477853.4 3748945.7   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003312         0   0.28630E-06  477853.4 3748954.2   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003313         0   0.28630E-06  477853.5 3748962.7   453.0     4.00     3.95
1.86      YES    HROFDY
 L0003314         0   0.28630E-06  477853.5 3748971.2   453.2     4.00     3.95
1.86      YES    HROFDY
 L0003315         0   0.28630E-06  477853.5 3748979.7   453.4     4.00     3.95
1.86      YES    HROFDY
 L0003316         0   0.28630E-06  477845.0 3748979.7   453.5     4.00     3.95
1.86      YES    HROFDY
 L0003317         0   0.28630E-06  477836.5 3748979.6   453.7     4.00     3.95
1.86      YES    HROFDY
 L0003318         0   0.28630E-06  477828.0 3748979.6   453.9     4.00     3.95
1.86      YES    HROFDY
 L0003319         0   0.28630E-06  477819.5 3748979.6   454.0     4.00     3.95
1.86      YES    HROFDY
 L0003320         0   0.28630E-06  477811.0 3748979.6   454.0     4.00     3.95
1.86      YES    HROFDY
 L0003321         0   0.28630E-06  477802.5 3748979.6   454.0     4.00     3.95
1.86      YES    HROFDY
 L0003322         0   0.28630E-06  477794.0 3748979.5   454.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                           ***       10:14:10

                                     PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003323         0   0.28630E-06  477785.5 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003324         0   0.28630E-06  477777.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003325         0   0.28630E-06  477768.5 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003326         0   0.28630E-06  477760.0 3748979.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003327         0   0.28630E-06  477751.5 3748979.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003328         0   0.28630E-06  477743.0 3748979.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003329         0   0.28630E-06  477742.7 3748971.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003330         0   0.28630E-06  477742.7 3748962.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003331         0   0.28630E-06  477742.6 3748954.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003332         0   0.28630E-06  477742.6 3748945.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003333         0   0.28630E-06  477742.5 3748937.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003334         0   0.28630E-06  477742.5 3748928.7   453.9     4.00     3.95
1.86     YES   HROFDY
 L0003335         0   0.28630E-06  477742.4 3748920.2   453.8     4.00     3.95
1.86     YES   HROFDY
 L0003336         0   0.28630E-06  477742.4 3748911.7   453.7     4.00     3.95
1.86     YES   HROFDY
 L0003337         0   0.28630E-06  477742.3 3748903.2   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003338         0   0.28630E-06  477742.3 3748894.7   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003339         0   0.28630E-06  477742.2 3748886.2   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003340         0   0.28630E-06  477744.2 3748878.0   453.5     4.00     3.95
1.86     YES   HROFDY
 L0003341         0   0.28630E-06  477746.5 3748869.8   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003342         0   0.28630E-06  477748.8 3748861.6   453.7     4.00     3.95
1.86     YES   HROFDY
 L0003343         0   0.28630E-06  477751.1 3748853.4   453.8     4.00     3.95
1.86     YES   HROFDY
 L0003344         0   0.28630E-06  477753.4 3748845.3   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003345         0   0.28630E-06  477757.5 3748838.2   453.7     4.00     3.95
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1.86      YES    HROFDY
 L0003346         0   0.28630E-06   477763.8 3748832.5   453.5      4.00     3.95
1.86      YES    HROFDY
 L0003347         0   0.28630E-06   477770.1 3748826.8   453.2      4.00     3.95
1.86      YES    HROFDY
 L0003348         0   0.28630E-06   477778.6 3748826.5   453.1      4.00     3.95
1.86      YES    HROFDY
 L0003349         0   0.28630E-06   477787.1 3748826.4   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003350         0   0.28630E-06   477795.6 3748826.2   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003351         0   0.28630E-06   477804.1 3748826.1   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003352         0   0.28630E-06   477812.6 3748826.1   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003353         0   0.28630E-06   477821.1 3748826.0   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003354         0   0.28630E-06   477829.6 3748826.0   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003355         0   0.28630E-06   477838.1 3748825.9   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003356         0   0.28630E-06   477846.6 3748825.8   453.0      4.00     3.95
1.86      YES    HROFDY
 L0003357         0   0.22550E-06   477886.6 3748203.7   450.0      4.00     3.95
1.86      YES    HROFDY
 L0003358         0   0.22550E-06   477886.4 3748212.2   450.0      4.00     3.95
1.86      YES    HROFDY
 L0003359         0   0.22550E-06   477886.3 3748220.7   450.1      4.00     3.95
1.86      YES    HROFDY
 L0003360         0   0.22550E-06   477886.1 3748229.2   450.3      4.00     3.95
1.86      YES    HROFDY
 L0003361         0   0.22550E-06   477885.9 3748237.7   450.6      4.00     3.95
1.86      YES    HROFDY
 L0003362         0   0.22550E-06   477885.7 3748246.2   450.8      4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***         10:14:10

                                    PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                          BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                  AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE   SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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- - - - - - - - - - - - - - - - - - - - -

 L0003363        0   0.22550E-06  477885.5 3748254.7   450.9     4.00     3.95
1.86     YES    HROFDY
 L0003364        0   0.22550E-06  477885.6 3748263.2   450.9     4.00     3.95
1.86     YES    HROFDY
 L0003365        0   0.22550E-06  477885.7 3748271.7   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003366        0   0.22550E-06  477885.8 3748280.2   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003367        0   0.22550E-06  477885.9 3748288.7   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003368        0   0.22550E-06  477886.0 3748297.2   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003369        0   0.22550E-06  477886.1 3748305.7   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003370        0   0.22550E-06  477886.2 3748314.2   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003371        0   0.22550E-06  477886.3 3748322.7   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003372        0   0.22550E-06  477886.4 3748331.2   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003373        0   0.22550E-06  477889.0 3748337.4   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003374        0   0.22550E-06  477897.5 3748338.1   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003375        0   0.22550E-06  477906.0 3748338.9   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003376        0   0.22550E-06  477914.4 3748339.7   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003377        0   0.22550E-06  477922.9 3748339.5   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003378        0   0.22550E-06  477931.4 3748338.9   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003379        0   0.22550E-06  477939.8 3748338.2   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003380        0   0.22550E-06  477945.5 3748332.6   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003381        0   0.22550E-06  477950.6 3748325.7   451.0     4.00     3.95
1.86     YES    HROFDY
 L0003382        0   0.22550E-06  477955.0 3748318.5   450.0     4.00     3.95
1.86     YES    HROFDY
 L0003383        0   0.22550E-06  477959.4 3748311.2   450.0     4.00     3.95
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1.86      YES    HROFDY
 L0003384         0   0.22550E-06   477963.8 3748303.9   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003385         0   0.22550E-06   477968.2 3748296.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003386         0   0.22550E-06   477972.6 3748289.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003387         0   0.22550E-06   477975.8 3748281.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003388         0   0.22550E-06   477977.7 3748273.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003389         0   0.22550E-06   477979.6 3748265.1   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003390         0   0.22550E-06   477981.3 3748256.8   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003391         0   0.22550E-06   477980.6 3748248.3   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003392         0   0.22550E-06   477979.9 3748239.8   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003393         0   0.22550E-06   477979.2 3748231.4   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003394         0   0.22550E-06   477978.4 3748222.9   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003395         0   0.22550E-06   477982.6 3748217.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003396         0   0.22550E-06   477990.0 3748212.7   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003397         0   0.22550E-06   477994.0 3748206.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003398         0   0.22550E-06   477994.1 3748198.0   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003399         0   0.22550E-06   477986.1 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003400         0   0.22550E-06   477977.6 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003401         0   0.22550E-06   477969.1 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
 L0003402         0   0.22550E-06   477960.6 3748197.5   450.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                            AERMOD HRA Output
                                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                          BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT       SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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 L0003403         0   0.22550E-06   477952.1 3748197.5   450.0     4.00     3.95
1.86      YES   HROFDY
 L0003404         0   0.22550E-06   477943.6 3748197.5   450.0     4.00     3.95
1.86      YES   HROFDY
 L0003405         0   0.22550E-06   477935.1 3748197.5   450.0     4.00     3.95
1.86      YES   HROFDY
 L0003406         0   0.38500E-06   477505.1 3748975.7   454.2     4.00     3.95
1.86      YES   HROFDY
 L0003407         0   0.38500E-06   477513.6 3748975.6   454.1     4.00     3.95
1.86      YES   HROFDY
 L0003408         0   0.38500E-06   477522.1 3748975.4   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003409         0   0.38500E-06   477530.6 3748975.2   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003410         0   0.38500E-06   477539.1 3748975.1   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003411         0   0.38500E-06   477547.6 3748974.9   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003412         0   0.38500E-06   477556.1 3748974.7   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003413         0   0.38500E-06   477564.6 3748974.6   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003414         0   0.38500E-06   477573.1 3748974.4   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003415         0   0.38500E-06   477581.6 3748974.2   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003416         0   0.38500E-06   477590.1 3748974.1   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003417         0   0.38500E-06   477598.5 3748973.8   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003418         0   0.38500E-06   477605.4 3748968.8   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003419         0   0.38500E-06   477611.1 3748963.0   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003420         0   0.38500E-06   477613.4 3748954.9   454.0     4.00     3.95
1.86      YES   HROFDY
 L0003421         0   0.38500E-06   477615.7 3748946.7   454.0     4.00     3.95
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1.86      YES    HROFDY
 L0003422          0   0.38500E-06   477618.0 3748938.5   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003423          0   0.38500E-06   477620.0 3748930.2   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003424          0   0.38500E-06   477621.7 3748921.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003425          0   0.38500E-06   477623.4 3748913.6   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003426          0   0.38500E-06   477625.1 3748905.3   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003427          0   0.38500E-06   477626.2 3748896.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003428          0   0.38500E-06   477626.4 3748888.4   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003429          0   0.38500E-06   477626.5 3748879.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003430          0   0.38500E-06   477626.6 3748871.4   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003431          0   0.38500E-06   477626.7 3748862.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003432          0   0.38500E-06   477626.8 3748854.4   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003433          0   0.38500E-06   477626.9 3748845.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003434          0   0.38500E-06   477627.0 3748837.4   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003435          0   0.38500E-06   477627.1 3748828.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003436          0   0.38500E-06   477627.2 3748820.4   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003437          0   0.38500E-06   477627.3 3748811.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003438          0   0.38500E-06   477627.5 3748803.4   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003439          0   0.38500E-06   477627.0 3748795.5   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003440          0   0.38500E-06   477618.5 3748795.7   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003441          0   0.38500E-06   477610.0 3748795.9   454.0      4.00      3.95
1.86      YES    HROFDY
 L0003442          0   0.38500E-06   477601.5 3748796.2   454.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10
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                              AERMOD HRA Output
                                PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0003443         0   0.38500E-06  477593.0 3748796.4   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003444         0   0.38500E-06  477584.5 3748796.6   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003445         0   0.38500E-06  477576.0 3748796.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003446         0   0.38500E-06  477567.5 3748797.1   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003447         0   0.38500E-06  477559.0 3748797.3   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003448         0   0.38500E-06  477550.5 3748797.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003449         0   0.38500E-06  477542.0 3748797.8   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003450         0   0.38500E-06  477533.5 3748798.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003451         0   0.38500E-06  477525.0 3748798.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003452         0   0.38500E-06  477516.5 3748798.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003453         0   0.38500E-06  477508.0 3748798.7   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003454         0   0.38500E-06  477499.5 3748798.9   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003455         0   0.38500E-06  477491.0 3748799.2   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003456         0   0.53270E-06  478255.5 3748984.6   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003457         0   0.53270E-06  478247.0 3748984.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003458         0   0.53270E-06  478238.5 3748984.7   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003459         0   0.53270E-06  478230.0 3748984.8   453.0     4.00     3.95
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1.86      YES    HROFDY
 L0003460         0   0.53270E-06   478221.5 3748984.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003461         0   0.53270E-06   478213.0 3748985.0    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003462         0   0.53270E-06   478204.5 3748985.1    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003463         0   0.53270E-06   478196.0 3748985.1    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003464         0   0.53270E-06   478187.5 3748985.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003465         0   0.53270E-06   478179.0 3748985.3    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003466         0   0.53270E-06   478170.5 3748985.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003467         0   0.53270E-06   478162.0 3748985.5    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003468         0   0.53270E-06   478153.5 3748985.5    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003469         0   0.53270E-06   478145.0 3748985.6    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003470         0   0.53270E-06   478136.5 3748985.7    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003471         0   0.53270E-06   478128.0 3748985.8    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003472         0   0.53270E-06   478119.5 3748985.9    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003473         0   0.53270E-06   478111.0 3748986.0    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003474         0   0.53270E-06   478102.5 3748986.0    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003475         0   0.53270E-06   478094.0 3748986.1    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003476         0   0.53270E-06   478085.5 3748986.2    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003477         0   0.53270E-06   478077.0 3748986.3    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003478         0   0.53270E-06   478068.5 3748986.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003479         0   0.53270E-06   478060.0 3748986.4    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003480         0   0.53270E-06   478051.5 3748986.5    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003481         0   0.53270E-06   478043.0 3748986.6    453.0      4.00      3.95
1.86      YES    HROFDY
 L0003482         0   0.53270E-06   478034.5 3748986.7    453.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
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                                 AERMOD HRA Output
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0003483         0   0.53270E-06  478026.0 3748986.8   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003484         0   0.53270E-06  478017.5 3748986.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003485         0   0.53270E-06  478009.0 3748986.9   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003486         0   0.53270E-06  478000.5 3748987.0   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003487         0   0.53270E-06  477992.0 3748987.1   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003488         0   0.53270E-06  477983.5 3748987.2   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003489         0   0.53270E-06  477975.0 3748987.3   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003490         0   0.53270E-06  477966.5 3748987.3   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003491         0   0.53270E-06  477958.0 3748987.4   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003492         0   0.53270E-06  477949.5 3748987.5   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003493         0   0.53270E-06  477941.0 3748987.6   453.0     4.00     3.95
1.86     YES   HROFDY
 L0003494         0   0.53270E-06  477932.5 3748987.7   453.2     4.00     3.95
1.86     YES   HROFDY
 L0003495         0   0.53270E-06  477924.0 3748987.7   453.4     4.00     3.95
1.86     YES   HROFDY
 L0003496         0   0.53270E-06  477915.5 3748987.8   453.6     4.00     3.95
1.86     YES   HROFDY
 L0003497         0   0.53270E-06  477907.0 3748987.9   453.7     4.00     3.95
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1.86      YES    HROFDY
 L0003498         0   0.53270E-06   477898.6 3748988.0    453.7      4.00      3.95
1.86      YES    HROFDY
 L0003499         0   0.53270E-06   477890.1 3748988.1    453.7      4.00      3.95
1.86      YES    HROFDY
 L0003500         0   0.53270E-06   477881.9 3748988.5    453.7      4.00      3.95
1.86      YES    HROFDY
 L0003501         0   0.53270E-06   477881.9 3748997.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003502         0   0.53270E-06   477881.9 3749005.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003503         0   0.53270E-06   477881.9 3749014.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003504         0   0.53270E-06   477881.9 3749022.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003505         0   0.53270E-06   477881.9 3749031.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003506         0   0.53270E-06   477881.9 3749039.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003507         0   0.53270E-06   477881.9 3749048.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003508         0   0.53270E-06   477881.9 3749056.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003509         0   0.53270E-06   477881.9 3749065.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003510         0   0.53270E-06   477881.9 3749073.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003511         0   0.53270E-06   477881.9 3749082.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003512         0   0.53270E-06   477881.9 3749090.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003513         0   0.53270E-06   477881.9 3749099.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003514         0   0.53270E-06   477881.9 3749107.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003515         0   0.53270E-06   477881.9 3749116.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003516         0   0.53270E-06   477881.9 3749124.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003517         0   0.53270E-06   477881.9 3749133.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003518         0   0.53270E-06   477881.9 3749141.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003519         0   0.53270E-06   477881.9 3749150.0    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003520         0   0.53270E-06   477881.9 3749158.5    454.0      4.00      3.95
1.86      YES    HROFDY
 L0003521         0   0.53270E-06   477881.9 3749167.0    454.0      4.00      3.95
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1.86     YES   HROFDY
 L0003522        0   0.53270E-06   477881.9 3749175.5   454.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10

                                   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003523        0   0.53270E-06   477881.9 3749184.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003524        0   0.53270E-06   477881.9 3749192.5   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003525        0   0.53270E-06   477881.9 3749201.0   454.0     4.00     3.95
1.86     YES   HROFDY
 L0003526        0   0.53270E-06   477881.9 3749209.5   454.1     4.00     3.95
1.86     YES   HROFDY
 L0003527        0   0.53270E-06   477881.9 3749218.0   454.4     4.00     3.95
1.86     YES   HROFDY
 L0003528        0   0.53270E-06   477881.9 3749226.5   454.7     4.00     3.95
1.86     YES   HROFDY
 L0003529        0   0.53270E-06   477881.9 3749235.0   454.9     4.00     3.95
1.86     YES   HROFDY
 L0003530        0   0.53270E-06   477877.9 3749239.5   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003531        0   0.53270E-06   477869.4 3749239.6   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003532        0   0.53270E-06   477860.9 3749239.7   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003533        0   0.53270E-06   477852.4 3749239.9   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003534        0   0.53270E-06   477843.9 3749240.0   455.0     4.00     3.95
1.86     YES   HROFDY
 L0003535        0   0.53270E-06   477835.4 3749240.1   455.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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1.86      YES    HROFDY
 L0003536         0   0.53270E-06   477826.9 3749240.2    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003537         0   0.53270E-06   477818.4 3749240.3    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003538         0   0.53270E-06   477809.9 3749240.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003539         0   0.53270E-06   477801.4 3749240.5    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003540         0   0.53270E-06   477792.9 3749240.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003541         0   0.53270E-06   477784.4 3749240.8    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003542         0   0.53270E-06   477775.9 3749240.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003543         0   0.53270E-06   477767.4 3749241.0    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003544         0   0.53270E-06   477758.9 3749241.1    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003545         0   0.53270E-06   477750.4 3749241.2    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003546         0   0.53270E-06   477741.9 3749241.3    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003547         0   0.53270E-06   477733.4 3749241.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003548         0   0.53270E-06   477724.9 3749241.6    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003549         0   0.53270E-06   477716.4 3749241.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003550         0   0.53270E-06   477707.9 3749241.8    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003551         0   0.53270E-06   477699.4 3749241.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003552         0   0.53270E-06   477690.9 3749242.0    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003553         0   0.53270E-06   477682.4 3749242.1    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003554         0   0.53270E-06   477673.9 3749242.2    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003555         0   0.53270E-06   477665.4 3749242.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003556         0   0.53270E-06   477656.9 3749242.5    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003557         0   0.53270E-06   477648.4 3749242.6    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003558         0   0.53270E-06   477639.9 3749242.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003559         0   0.53270E-06   477631.4 3749242.8    455.0      4.00      3.95
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1.86      YES    HROFDY
 L0003560         0   0.53270E-06   477622.9 3749242.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003561         0   0.53270E-06   477614.4 3749243.0    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003562         0   0.53270E-06   477605.9 3749243.2    455.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10

                                   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)                BY
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 L0003563         0   0.53270E-06   477597.4 3749243.3    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003564         0   0.53270E-06   477588.9 3749243.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003565         0   0.53270E-06   477580.4 3749243.5    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003566         0   0.53270E-06   477571.9 3749243.6    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003567         0   0.53270E-06   477563.4 3749243.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003568         0   0.53270E-06   477554.9 3749243.8    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003569         0   0.53270E-06   477546.4 3749244.0    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003570         0   0.53270E-06   477537.9 3749244.1    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003571         0   0.53270E-06   477529.4 3749244.2    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003572         0   0.53270E-06   477520.9 3749244.3    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003573         0   0.53270E-06   477512.4 3749244.4    455.0      4.00      3.95
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1.86      YES    HROFDY
 L0003574         0   0.53270E-06   477503.9 3749244.5    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003575         0   0.53270E-06   477495.4 3749244.6    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003576         0   0.53270E-06   477486.9 3749244.7    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003577         0   0.53270E-06   477478.4 3749244.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003578         0   0.53270E-06   477476.8 3749251.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003579         0   0.53270E-06   477476.7 3749260.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003580         0   0.53270E-06   477476.6 3749268.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003581         0   0.53270E-06   477476.5 3749277.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003582         0   0.53270E-06   477476.4 3749285.9    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003583         0   0.53270E-06   477476.3 3749294.4    455.0      4.00      3.95
1.86      YES    HROFDY
 L0003584         0   0.53270E-06   477476.2 3749302.9    455.1      4.00      3.95
1.86      YES    HROFDY
 L0003585         0   0.53270E-06   477476.0 3749311.4    455.2      4.00      3.95
1.86      YES    HROFDY
 L0003586         0   0.53270E-06   477475.9 3749319.9    455.4      4.00      3.95
1.86      YES    HROFDY
 L0003587         0   0.53270E-06   477475.8 3749328.4    455.5      4.00      3.95
1.86      YES    HROFDY
 L0003588         0   0.53270E-06   477475.7 3749336.9    455.7      4.00      3.95
1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0003590         0   0.53270E-06   477475.5 3749353.9    455.9      4.00      3.95
1.86      YES    HROFDY
 L0003591         0   0.53270E-06   477475.4 3749362.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0003592         0   0.53270E-06   477475.3 3749370.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0003593         0   0.53270E-06   477475.1 3749379.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0003594         0   0.53270E-06   477475.0 3749387.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0003595         0   0.53270E-06   477474.9 3749396.4    456.0      4.00      3.95
1.86      YES    HROFDY
 L0003596         0   0.53270E-06   477474.8 3749404.9    456.0      4.00      3.95
1.86      YES    HROFDY
 L0003597         0   0.53270E-06   477474.7 3749413.4    456.0      4.00      3.95
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1.86      YES    HROFDY
 L0003598         0   0.53270E-06  477474.6 3749421.9   456.0     4.00     3.95
1.86      YES    HROFDY
 L0003599         0   0.53270E-06  477474.5 3749430.4   456.0     4.00     3.95
1.86      YES    HROFDY
 L0003600         0   0.53270E-06  477474.4 3749438.9   456.0     4.00     3.95
1.86      YES    HROFDY
 L0003601         0   0.53270E-06  477474.2 3749447.4   456.0     4.00     3.95
1.86      YES    HROFDY
 L0003602         0   0.53270E-06  477474.1 3749455.9   456.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - 

 L0003603         0   0.53270E-06  477474.0 3749464.4   456.0     4.00     3.95
1.86      YES    HROFDY
 L0003604         0   0.53270E-06  477473.9 3749472.9   456.0     4.00     3.95
1.86      YES    HROFDY
 L0003605         0   0.53270E-06  477473.8 3749481.4   456.2     4.00     3.95
1.86      YES    HROFDY
 L0003606         0   0.53270E-06  477473.7 3749489.9   456.4     4.00     3.95
1.86      YES    HROFDY
 L0003607         0   0.53270E-06  477473.6 3749498.4   456.7     4.00     3.95
1.86      YES    HROFDY
 L0003608         0   0.53270E-06  477473.5 3749506.9   457.0     4.00     3.95
1.86      YES    HROFDY
 L0003609         0   0.53270E-06  477473.3 3749515.4   457.0     4.00     3.95
1.86      YES    HROFDY
 L0003610         0   0.53270E-06  477473.2 3749523.9   457.0     4.00     3.95
1.86      YES    HROFDY
 L0003611         0   0.53270E-06  477473.1 3749532.4   457.0     4.00     3.95
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1.86      YES    HROFDY
 L0003612         0   0.53270E-06   477473.0 3749540.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003613         0   0.53270E-06   477472.9 3749549.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003614         0   0.53270E-06   477472.8 3749557.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003615         0   0.53270E-06   477472.7 3749566.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003616         0   0.53270E-06   477472.6 3749574.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003617         0   0.53270E-06   477472.4 3749583.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003618         0   0.53270E-06   477472.3 3749591.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003619         0   0.53270E-06   477472.2 3749600.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003620         0   0.53270E-06   477472.1 3749608.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003621         0   0.53270E-06   477472.0 3749617.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003622         0   0.53270E-06   477471.9 3749625.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003623         0   0.53270E-06   477471.8 3749634.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003624         0   0.53270E-06   477471.7 3749642.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003625         0   0.53270E-06   477471.5 3749651.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003626         0   0.53270E-06   477471.4 3749659.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003627         0   0.53270E-06   477471.3 3749668.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003628         0   0.53270E-06   477471.2 3749676.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003629         0   0.53270E-06   477471.1 3749685.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003630         0   0.53270E-06   477471.0 3749693.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003631         0   0.53270E-06   477470.9 3749702.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003632         0   0.53270E-06   477470.8 3749710.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003633         0   0.53270E-06   477470.6 3749719.4    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003634         0   0.53270E-06   477470.5 3749727.9    457.0      4.00      3.95
1.86      YES    HROFDY
 L0003635         0   0.53270E-06   477470.4 3749736.4    457.0      4.00      3.95
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1.86     YES   HROFDY
 L0003636         0   0.53270E-06  477470.3 3749744.9   457.0     4.00     3.95
1.86     YES   HROFDY
 L0003637         0   0.53270E-06  477470.2 3749753.4   457.2     4.00     3.95
1.86     YES   HROFDY
 L0003638         0   0.53270E-06  477470.1 3749761.9   457.5     4.00     3.95
1.86     YES   HROFDY
 L0003639         0   0.53270E-06  477470.0 3749770.4   457.8     4.00     3.95
1.86     YES   HROFDY
 L0003640         0   0.53270E-06  477469.9 3749778.9   458.0     4.00     3.95
1.86     YES   HROFDY
 L0003641         0   0.53270E-06  477469.7 3749787.4   458.0     4.00     3.95
1.86     YES   HROFDY
 L0005357         0   0.31930E-06  477901.9 3748181.5   450.0     4.00     3.95
1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005358         0   0.31930E-06  477893.4 3748181.6   450.0     4.00     3.95
1.86     YES   HROFDY
 L0005359         0   0.31930E-06  477884.9 3748181.7   450.0     4.00     3.95
1.86     YES   HROFDY
 L0005360         0   0.31930E-06  477876.4 3748181.7   450.0     4.00     3.95
1.86     YES   HROFDY
 L0005361         0   0.31930E-06  477867.9 3748181.8   450.0     4.00     3.95
1.86     YES   HROFDY
 L0005362         0   0.31930E-06  477859.4 3748181.9   450.0     4.00     3.95
1.86     YES   HROFDY
 L0005363         0   0.31930E-06  477850.9 3748181.9   450.0     4.00     3.95
1.86     YES   HROFDY
 L0005364         0   0.31930E-06  477842.4 3748182.0   450.2     4.00     3.95
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1.86      YES    HROFDY
 L0005365         0   0.31930E-06   477833.9 3748182.1    450.5      4.00      3.95
1.86      YES    HROFDY
 L0005366         0   0.31930E-06   477825.4 3748182.1    450.7      4.00      3.95
1.86      YES    HROFDY
 L0005367         0   0.31930E-06   477816.9 3748182.2    450.9      4.00      3.95
1.86      YES    HROFDY
 L0005368         0   0.31930E-06   477808.4 3748182.3    450.9      4.00      3.95
1.86      YES    HROFDY
 L0005369         0   0.31930E-06   477799.9 3748182.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005370         0   0.31930E-06   477791.4 3748182.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005371         0   0.31930E-06   477782.9 3748182.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005372         0   0.31930E-06   477774.4 3748182.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005373         0   0.31930E-06   477765.9 3748182.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005374         0   0.31930E-06   477757.4 3748182.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005375         0   0.31930E-06   477748.9 3748182.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005376         0   0.31930E-06   477740.4 3748182.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005377         0   0.31930E-06   477731.9 3748182.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005378         0   0.31930E-06   477723.4 3748183.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005379         0   0.31930E-06   477714.9 3748183.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005380         0   0.31930E-06   477706.4 3748183.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005381         0   0.31930E-06   477697.9 3748183.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005382         0   0.31930E-06   477689.4 3748183.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005383         0   0.31930E-06   477680.9 3748183.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005384         0   0.31930E-06   477672.4 3748183.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005385         0   0.31930E-06   477663.9 3748183.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005386         0   0.31930E-06   477655.4 3748183.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005387         0   0.31930E-06   477646.9 3748183.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005388         0   0.31930E-06   477638.4 3748183.6    451.0      4.00      3.95
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1.86      YES    HROFDY
 L0005389         0    0.31930E-06   477629.9 3748183.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005390         0    0.31930E-06   477621.4 3748183.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005391         0    0.31930E-06   477612.9 3748183.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005392         0    0.31930E-06   477604.4 3748183.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005393         0    0.31930E-06   477595.9 3748184.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005394         0    0.31930E-06   477587.4 3748184.0    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005395         0    0.31930E-06   477578.9 3748184.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005396         0    0.31930E-06   477570.4 3748184.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005397         0    0.31930E-06   477561.9 3748184.2    451.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005398         0    0.31930E-06   477553.4 3748184.3    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005399         0    0.31930E-06   477544.9 3748184.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005400         0    0.31930E-06   477536.4 3748184.4    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005401         0    0.31930E-06   477527.9 3748184.5    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005402         0    0.31930E-06   477519.4 3748184.6    451.0      4.00      3.95
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1.86      YES    HROFDY
 L0005403         0   0.31930E-06   477510.9 3748184.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005404         0   0.31930E-06   477502.4 3748184.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005405         0   0.31930E-06   477493.9 3748184.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005406         0   0.31930E-06   477485.4 3748184.8    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005407         0   0.31930E-06   477476.9 3748184.9    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005408         0   0.31930E-06   477471.1 3748182.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005409         0   0.31930E-06   477470.9 3748173.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005410         0   0.31930E-06   477470.7 3748165.1    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005411         0   0.31930E-06   477470.6 3748156.6    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005412         0   0.31930E-06   477470.4 3748148.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005413         0   0.31930E-06   477470.2 3748139.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005414         0   0.31930E-06   477470.0 3748131.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005415         0   0.31930E-06   477469.8 3748122.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005416         0   0.31930E-06   477469.6 3748114.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005417         0   0.31930E-06   477469.4 3748105.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005418         0   0.31930E-06   477469.2 3748097.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005419         0   0.31930E-06   477469.0 3748088.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005420         0   0.31930E-06   477468.9 3748080.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005421         0   0.31930E-06   477468.7 3748071.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005422         0   0.31930E-06   477468.5 3748063.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005423         0   0.31930E-06   477468.3 3748054.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005424         0   0.31930E-06   477468.1 3748046.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005425         0   0.31930E-06   477467.9 3748037.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005426         0   0.31930E-06   477467.7 3748029.2    451.0      4.00      3.95
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1.86      YES    HROFDY
 L0005427          0   0.31930E-06   477467.5 3748020.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005428          0   0.31930E-06   477467.4 3748012.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005429          0   0.31930E-06   477467.2 3748003.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005430          0   0.31930E-06   477467.0 3747995.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005431          0   0.31930E-06   477466.8 3747986.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005432          0   0.31930E-06   477466.6 3747978.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005433          0   0.31930E-06   477466.4 3747969.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005434          0   0.31930E-06   477466.2 3747961.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005435          0   0.31930E-06   477466.0 3747952.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005436          0   0.31930E-06   477465.8 3747944.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005437          0   0.31930E-06   477465.7 3747935.7   451.0     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005438          0   0.31930E-06   477465.5 3747927.2   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005439          0   0.31930E-06   477465.3 3747918.7   451.0     4.00     3.95
1.86      YES    HROFDY
 L0005440          0   0.31930E-06   477465.1 3747910.2   451.0     4.00     3.95
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1.86      YES    HROFDY
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1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0005443         0   0.31930E-06   477464.5 3747884.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005444         0   0.31930E-06   477464.3 3747876.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005445         0   0.31930E-06   477464.1 3747867.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005446         0   0.31930E-06   477464.0 3747859.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005447         0   0.31930E-06   477463.8 3747850.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005448         0   0.31930E-06   477463.6 3747842.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005449         0   0.31930E-06   477463.4 3747833.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005450         0   0.31930E-06   477463.2 3747825.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005451         0   0.31930E-06   477463.0 3747816.7    451.0      4.00      3.95
1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0005453         0   0.31930E-06   477462.6 3747799.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005454         0   0.31930E-06   477462.5 3747791.2    451.0      4.00      3.95
1.86      YES    HROFDY
 L0005455         0   0.31930E-06   477462.3 3747782.7    451.0      4.00      3.95
1.86      YES    HROFDY
 L0003741         0   0.32420E-06   478279.2 3748320.8    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003742         0   0.32420E-06   478279.3 3748312.3    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003743         0   0.32420E-06   478279.5 3748303.8    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003744         0   0.32420E-06   478279.6 3748295.3    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003745         0   0.32420E-06   478279.8 3748286.8    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003746         0   0.32420E-06   478279.9 3748278.3    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003747         0   0.32420E-06   478280.1 3748269.8    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003748         0   0.32420E-06   478280.2 3748261.3    450.0      4.00      3.95
1.86      YES    HROFDY
 L0003749         0   0.32420E-06   478280.3 3748252.8    450.0      4.00      3.95
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1.86      YES    HROFDY
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1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0003752         0   0.32420E-06  478280.8 3748227.3   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003753         0   0.32420E-06  478280.9 3748218.8   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003754         0   0.32420E-06  478281.0 3748210.3   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003755         0   0.32420E-06  478281.2 3748201.8   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003756         0   0.32420E-06  478281.3 3748193.3   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003757         0   0.32420E-06  478281.5 3748184.8   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003758         0   0.32420E-06  478281.6 3748176.3   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003759         0   0.32420E-06  478281.7 3748167.8   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003760         0   0.32420E-06  478281.9 3748159.3   450.0     4.00     3.95
1.86      YES    HROFDY
 L0003761         0   0.32420E-06  478282.0 3748150.8   449.8     4.00     3.95
1.86      YES    HROFDY
 L0003762         0   0.32420E-06  478282.2 3748142.3   449.5     4.00     3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0003763         0   0.32420E-06  478282.3 3748133.8   449.2     4.00     3.95
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1.86      YES    HROFDY
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1.86      YES    HROFDY
 L0003765         0   0.32420E-06   478282.6 3748116.8    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003766         0   0.32420E-06   478282.7 3748108.3    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003767         0   0.32420E-06   478282.9 3748099.8    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003768         0   0.32420E-06   478283.0 3748091.3    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003769         0   0.32420E-06   478283.1 3748082.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003770         0   0.32420E-06   478283.3 3748074.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003771         0   0.32420E-06   478283.4 3748065.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003772         0   0.32420E-06   478283.6 3748057.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003773         0   0.32420E-06   478283.7 3748048.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003774         0   0.32420E-06   478283.8 3748040.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003775         0   0.32420E-06   478284.0 3748031.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003776         0   0.32420E-06   478284.1 3748023.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003777         0   0.32420E-06   478284.3 3748014.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003778         0   0.32420E-06   478284.4 3748006.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003779         0   0.32420E-06   478284.5 3747997.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003780         0   0.32420E-06   478284.7 3747989.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003781         0   0.32420E-06   478284.8 3747980.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003782         0   0.32420E-06   478285.0 3747972.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003783         0   0.32420E-06   478285.1 3747963.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003784         0   0.32420E-06   478285.2 3747955.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003785         0   0.32420E-06   478285.4 3747946.9    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003786         0   0.32420E-06   478285.5 3747938.4    449.0      4.00      3.95
1.86      YES    HROFDY
 L0003787         0   0.32420E-06   478285.7 3747929.9    449.0      4.00      3.95
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1.86      YES    HROFDY
 L0003788         0    0.32420E-06   478285.8 3747921.4   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003789         0    0.32420E-06   478285.9 3747912.9   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003790         0    0.32420E-06   478286.1 3747904.4   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003791         0    0.32420E-06   478286.2 3747895.9   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003792         0    0.32420E-06   478286.4 3747887.4   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003793         0    0.32420E-06   478286.5 3747878.9   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003794         0    0.32420E-06   478286.6 3747870.4   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003795         0    0.32420E-06   478286.8 3747861.9   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003796         0    0.32420E-06   478286.9 3747853.4   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003797         0    0.32420E-06   478287.1 3747844.9   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003798         0    0.32420E-06   478287.2 3747836.4   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003799         0    0.32420E-06   478287.3 3747827.9   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003800         0    0.32420E-06   478287.5 3747819.4   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003801         0    0.32420E-06   478287.6 3747810.9   449.0      4.00      3.95
1.86      YES    HROFDY
 L0003802         0    0.32420E-06   478287.8 3747802.4   449.0      4.00      3.95
1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                           ***        10:14:10

                                      PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0003803         0   0.32420E-06   478287.9 3747793.9   449.0      4.00      3.95
1.86     YES   HROFDY
 L0003804         0   0.32420E-06   478288.0 3747785.4   449.0      4.00      3.95
1.86     YES   HROFDY
 L0003805         0   0.32420E-06   478288.2 3747776.9   449.0      4.00      3.95
1.86     YES   HROFDY
 L0005456         0   0.42660E-06   477480.6 3749800.2   458.0      4.00      3.95
1.86     YES
 L0005457         0   0.42660E-06   477480.4 3749808.7   458.0      4.00      3.95
1.86     YES
 L0005458         0   0.42660E-06   477480.3 3749817.2   458.0      4.00      3.95
1.86     YES
 L0005459         0   0.42660E-06   477480.1 3749825.7   458.0      4.00      3.95
1.86     YES
 L0005460         0   0.42660E-06   477480.0 3749834.2   458.0      4.00      3.95
1.86     YES
 L0005461         0   0.42660E-06   477479.9 3749842.7   458.0      4.00      3.95
1.86     YES
 L0005462         0   0.42660E-06   477479.7 3749851.2   458.0      4.00      3.95
1.86     YES
 L0005463         0   0.42660E-06   477479.6 3749859.7   458.0      4.00      3.95
1.86     YES
 L0005464         0   0.42660E-06   477479.5 3749868.2   458.0      4.00      3.95
1.86     YES
 L0005465         0   0.42660E-06   477479.3 3749876.7   458.0      4.00      3.95
1.86     YES
 L0005466         0   0.42660E-06   477479.2 3749885.2   458.0      4.00      3.95
1.86     YES
 L0005467         0   0.42660E-06   477479.1 3749893.7   458.0      4.00      3.95
1.86     YES
 L0005468         0   0.42660E-06   477478.9 3749902.2   458.0      4.00      3.95
1.86     YES
 L0005469         0   0.42660E-06   477478.8 3749910.7   458.0      4.00      3.95
1.86     YES
 L0005470         0   0.42660E-06   477478.7 3749919.2   458.0      4.00      3.95
1.86     YES
 L0005471         0   0.42660E-06   477478.5 3749927.7   458.0      4.00      3.95
1.86     YES
 L0005472         0   0.42660E-06   477478.4 3749936.2   458.0      4.00      3.95
1.86     YES
 L0005473         0   0.42660E-06   477478.2 3749944.7   458.0      4.00      3.95
1.86     YES
 L0005474         0   0.42660E-06   477478.1 3749953.2   458.0      4.00      3.95
1.86     YES
 L0005475         0   0.42660E-06   477478.0 3749961.7   458.2      4.00      3.95
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1.86      YES
 L0005476         0   0.42660E-06   477477.8 3749970.2   458.4      4.00     3.95
1.86      YES
 L0005477         0   0.42660E-06   477477.7 3749978.7   458.7      4.00     3.95
1.86      YES
 L0005478         0   0.42660E-06   477477.6 3749987.2   459.0      4.00     3.95
1.86      YES
 L0005479         0   0.42660E-06   477477.4 3749995.7   459.0      4.00     3.95
1.86      YES
 L0005480         0   0.42660E-06   477477.3 3750004.2   459.0      4.00     3.95
1.86      YES
 L0005481         0   0.42660E-06   477477.2 3750012.7   459.0      4.00     3.95
1.86      YES
 L0005482         0   0.42660E-06   477477.0 3750021.2   459.0      4.00     3.95
1.86      YES
 L0005483         0   0.42660E-06   477476.9 3750029.7   459.0      4.00     3.95
1.86      YES
 L0005484         0   0.42660E-06   477476.8 3750038.2   459.0      4.00     3.95
1.86      YES
 L0005485         0   0.42660E-06   477476.6 3750046.7   459.0      4.00     3.95
1.86      YES
 L0005486         0   0.42660E-06   477476.5 3750055.2   459.0      4.00     3.95
1.86      YES
 L0005487         0   0.42660E-06   477476.3 3750063.7   459.0      4.00     3.95
1.86      YES
 L0005488         0   0.42660E-06   477476.2 3750072.2   459.0      4.00     3.95
1.86      YES
 L0005489         0   0.42660E-06   477476.1 3750080.7   459.0      4.00     3.95
1.86      YES
 L0005490         0   0.42660E-06   477475.9 3750089.2   459.0      4.00     3.95
1.86      YES
 L0005491         0   0.42660E-06   477475.8 3750097.7   459.0      4.00     3.95
1.86      YES
 L0005492         0   0.42660E-06   477475.7 3750106.2   459.0      4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE         PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE   SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)               BY
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- - - - - - - - - - - - - - - - - - - -

 L0005493          0   0.42660E-06  477475.5 3750114.7   459.0     4.00     3.95
1.86     YES
 L0005494          0   0.42660E-06  477475.4 3750123.2   459.0     4.00     3.95
1.86     YES
 L0005495          0   0.42660E-06  477475.3 3750131.7   459.0     4.00     3.95
1.86     YES
 L0005496          0   0.42660E-06  477475.1 3750140.2   459.0     4.00     3.95
1.86     YES
 L0005497          0   0.42660E-06  477475.0 3750148.7   459.0     4.00     3.95
1.86     YES
 L0005498          0   0.42660E-06  477474.8 3750157.2   459.0     4.00     3.95
1.86     YES
 L0005499          0   0.42660E-06  477474.7 3750165.7   459.0     4.00     3.95
1.86     YES
 L0005500          0   0.42660E-06  477474.2 3750174.2   459.0     4.00     3.95
1.86     YES
 L0005501          0   0.42660E-06  477473.5 3750182.6   459.0     4.00     3.95
1.86     YES
 L0005502          0   0.42660E-06  477472.8 3750191.1   459.0     4.00     3.95
1.86     YES
 L0005503          0   0.42660E-06  477472.1 3750199.6   459.0     4.00     3.95
1.86     YES
 L0005504          0   0.42660E-06  477471.4 3750208.0   459.2     4.00     3.95
1.86     YES
 L0005505          0   0.42660E-06  477470.7 3750216.5   459.2     4.00     3.95
1.86     YES
 L0005506          0   0.42660E-06  477470.0 3750225.0   459.3     4.00     3.95
1.86     YES
 L0005507          0   0.42660E-06  477469.3 3750233.5   459.5     4.00     3.95
1.86     YES
 L0005508          0   0.42660E-06  477468.7 3750241.9   459.7     4.00     3.95
1.86     YES
 L0005509          0   0.42660E-06  477468.0 3750250.4   459.9     4.00     3.95
1.86     YES
 L0005510          0   0.42660E-06  477467.3 3750258.9   460.0     4.00     3.95
1.86     YES
 L0005511          0   0.42660E-06  477466.6 3750267.3   460.0     4.00     3.95
1.86     YES
 L0005512          0   0.42660E-06  477466.5 3750275.8   460.0     4.00     3.95
1.86     YES
 L0005513          0   0.42660E-06  477466.5 3750284.3   460.0     4.00     3.95
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1.86      YES
 L0005514         0   0.42660E-06   477466.5 3750292.8   460.0     4.00     3.95
1.86      YES
 L0005515         0   0.42660E-06   477466.6 3750301.3   460.0     4.00     3.95
1.86      YES
 L0005516         0   0.42660E-06   477466.6 3750309.8   460.0     4.00     3.95
1.86      YES
 L0005517         0   0.42660E-06   477466.6 3750318.3   460.0     4.00     3.95
1.86      YES
 L0005518         0   0.42660E-06   477466.7 3750326.8   460.0     4.00     3.95
1.86      YES
 L0005519         0   0.42660E-06   477466.7 3750335.3   460.0     4.00     3.95
1.86      YES
 L0005520         0   0.42660E-06   477466.7 3750343.8   460.0     4.00     3.95
1.86      YES
 L0005521         0   0.42660E-06   477466.8 3750352.3   460.0     4.00     3.95
1.86      YES
 L0005522         0   0.42660E-06   477466.8 3750360.8   460.0     4.00     3.95
1.86      YES
 L0005523         0   0.42660E-06   477466.9 3750369.3   460.0     4.00     3.95
1.86      YES
 L0005524         0   0.42660E-06   477466.9 3750377.8   460.0     4.00     3.95
1.86      YES
 L0005525         0   0.42660E-06   477466.9 3750386.3   460.0     4.00     3.95
1.86      YES
 L0005526         0   0.42660E-06   477467.0 3750394.8   460.0     4.00     3.95
1.86      YES
 L0005527         0   0.42660E-06   477467.0 3750403.3   460.0     4.00     3.95
1.86      YES
 L0005528         0   0.42660E-06   477467.0 3750411.8   460.0     4.00     3.95
1.86      YES
 L0005529         0   0.42660E-06   477467.1 3750420.3   460.0     4.00     3.95
1.86      YES
 L0005530         0   0.42660E-06   477467.1 3750428.8   460.0     4.00     3.95
1.86      YES
 L0005531         0   0.42660E-06   477467.1 3750437.3   460.0     4.00     3.95
1.86      YES
 L0005532         0   0.42660E-06   477467.2 3750445.8   460.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                    AERMOD HRA Output
                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                          BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ      SOURCE SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005533         0   0.42660E-06   477467.2 3750454.3   460.0      4.00      3.95
1.86      YES
 L0005534         0   0.42660E-06   477467.3 3750462.8   460.0      4.00      3.95
1.86      YES
 L0005535         0   0.42660E-06   477467.3 3750471.3   460.2      4.00      3.95
1.86      YES
 L0005536         0   0.42660E-06   477467.3 3750479.8   460.4      4.00      3.95
1.86      YES
 L0005537         0   0.42660E-06   477467.4 3750488.3   460.7      4.00      3.95
1.86      YES
 L0005538         0   0.42660E-06   477467.4 3750496.8   461.0      4.00      3.95
1.86      YES
 L0005539         0   0.42660E-06   477467.4 3750505.3   461.0      4.00      3.95
1.86      YES
 L0005540         0   0.42660E-06   477467.5 3750513.8   461.0      4.00      3.95
1.86      YES
 L0005541         0   0.42660E-06   477467.5 3750522.3   461.0      4.00      3.95
1.86      YES
 L0005542         0   0.42660E-06   477467.5 3750530.8   461.0      4.00      3.95
1.86      YES
 L0005543         0   0.42660E-06   477467.6 3750539.3   461.0      4.00      3.95
1.86      YES
 L0005544         0   0.42660E-06   477467.7 3750547.8   461.0      4.00      3.95
1.86      YES
 L0005545         0   0.42660E-06   477467.9 3750556.3   461.0      4.00      3.95
1.86      YES
 L0005546         0   0.42660E-06   477468.2 3750564.8   461.0      4.00      3.95
1.86      YES
 L0005547         0   0.42660E-06   477468.4 3750573.3   461.0      4.00      3.95
1.86      YES
 L0005548         0   0.42660E-06   477468.7 3750581.8   461.0      4.00      3.95
1.86      YES
 L0005549         0   0.42660E-06   477468.9 3750590.3   461.0      4.00      3.95
1.86      YES
 L0005550         0   0.42660E-06   477469.2 3750598.8   461.0      4.00      3.95
1.86      YES
 L0005551         0   0.42660E-06   477469.4 3750607.3   461.0      4.00      3.95
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1.86      YES
 L0005552          0   0.42660E-06   477469.7 3750615.8    461.0      4.00      3.95
1.86      YES
 L0005553          0   0.42660E-06   477469.9 3750624.3    461.0      4.00      3.95
1.86      YES
 L0005554          0   0.42660E-06   477470.2 3750632.8    461.0      4.00      3.95
1.86      YES
 L0005555          0   0.42660E-06   477470.4 3750641.3    461.0      4.00      3.95
1.86      YES
 L0005556          0   0.42660E-06   477470.7 3750649.8    461.0      4.00      3.95
1.86      YES
 L0005557          0   0.42660E-06   477470.9 3750658.3    461.2      4.00      3.95
1.86      YES
 L0005558          0   0.42660E-06   477471.2 3750666.8    461.3      4.00      3.95
1.86      YES
 L0005559          0   0.42660E-06   477471.4 3750675.3    461.4      4.00      3.95
1.86      YES
 L0005560          0   0.42660E-06   477471.7 3750683.8    461.5      4.00      3.95
1.86      YES
 L0005561          0   0.42660E-06   477471.9 3750692.3    461.7      4.00      3.95
1.86      YES
 L0005562          0   0.42660E-06   477472.2 3750700.8    461.9      4.00      3.95
1.86      YES
 L0005563          0   0.42660E-06   477472.4 3750709.3    462.0      4.00      3.95
1.86      YES
 L0005564          0   0.42660E-06   477472.7 3750717.8    462.0      4.00      3.95
1.86      YES
 L0005565          0   0.42660E-06   477472.9 3750726.3    462.0      4.00      3.95
1.86      YES
 L0005566          0   0.42660E-06   477473.2 3750734.8    462.0      4.00      3.95
1.86      YES
 L0005567          0   0.42660E-06   477473.4 3750743.3    462.0      4.00      3.95
1.86      YES
 L0005568          0   0.42660E-06   477473.7 3750751.7    462.0      4.00      3.95
1.86      YES
 L0005569          0   0.42660E-06   477473.9 3750760.2    462.0      4.00      3.95
1.86      YES
 L0005570          0   0.42660E-06   477474.2 3750768.7    462.0      4.00      3.95
1.86      YES
 L0005571          0   0.42660E-06   477474.4 3750777.2    462.0      4.00      3.95
1.86      YES
 L0005572          0   0.42660E-06   477474.7 3750785.7    462.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10
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                              AERMOD HRA Output
                                PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0005573         0   0.42660E-06   477474.9 3750794.2   462.0     4.00     3.95
1.86     YES
 L0005574         0   0.42660E-06   477475.2 3750802.7   462.0     4.00     3.95
1.86     YES
 L0005575         0   0.42660E-06   477475.4 3750811.2   462.0     4.00     3.95
1.86     YES
 L0005576         0   0.42660E-06   477475.7 3750819.7   462.0     4.00     3.95
1.86     YES
 L0005577         0   0.42660E-06   477475.9 3750828.2   462.0     4.00     3.95
1.86     YES
 L0005578         0   0.42660E-06   477476.2 3750836.7   462.0     4.00     3.95
1.86     YES
 L0005579         0   0.42660E-06   477476.4 3750845.2   462.0     4.00     3.95
1.86     YES
 L0005580         0   0.42660E-06   477476.7 3750853.7   462.0     4.00     3.95
1.86     YES
 L0005581         0   0.42660E-06   477476.9 3750862.2   462.1     4.00     3.95
1.86     YES
 L0005582         0   0.42660E-06   477477.1 3750870.7   462.3     4.00     3.95
1.86     YES
 L0005583         0   0.42660E-06   477477.1 3750879.2   462.4     4.00     3.95
1.86     YES
 L0005584         0   0.42660E-06   477477.2 3750887.7   462.6     4.00     3.95
1.86     YES
 L0005585         0   0.42660E-06   477477.2 3750896.2   462.7     4.00     3.95
1.86     YES
 L0005586         0   0.42660E-06   477477.3 3750904.7   462.8     4.00     3.95
1.86     YES
 L0005587         0   0.42660E-06   477477.3 3750913.2   462.9     4.00     3.95
1.86     YES
 L0005588         0   0.42660E-06   477477.4 3750921.7   463.0     4.00     3.95
1.86     YES
 L0005589         0   0.42660E-06   477477.4 3750930.2   463.0     4.00     3.95
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1.86      YES
  L0005590         0   0.42660E-06  477477.5 3750938.7   463.0     4.00     3.95
1.86      YES
  L0005591         0   0.42660E-06  477477.6 3750947.2   463.0     4.00     3.95
1.86      YES
  L0005592         0   0.42660E-06  477477.6 3750955.7   463.0     4.00     3.95
1.86      YES
  L0005593         0   0.42660E-06  477477.7 3750964.2   463.0     4.00     3.95
1.86      YES
  L0005594         0   0.42660E-06  477477.7 3750972.7   463.0     4.00     3.95
1.86      YES
  L0005595         0   0.42660E-06  477477.8 3750981.2   463.0     4.00     3.95
1.86      YES
  L0005596         0   0.42660E-06  477477.8 3750989.7   463.0     4.00     3.95
1.86      YES
  L0005597         0   0.42660E-06  477477.9 3750998.2   463.0     4.00     3.95
1.86      YES
  L0005598         0   0.42660E-06  477477.9 3751006.7   463.0     4.00     3.95
1.86      YES
  L0005599         0   0.42660E-06  477478.0 3751015.2   463.0     4.00     3.95
1.86      YES
  L0005600         0   0.42660E-06  477478.0 3751023.7   463.0     4.00     3.95
1.86      YES
  L0005601         0   0.42660E-06  477478.1 3751032.2   463.0     4.00     3.95
1.86      YES
  L0005602         0   0.42660E-06  477478.1 3751040.7   463.0     4.00     3.95
1.86      YES
  L0005603         0   0.42660E-06  477478.2 3751049.2   463.0     4.00     3.95
1.86      YES
  L0005604         0   0.42660E-06  477478.3 3751057.7   463.0     4.00     3.95
1.86      YES
  L0005605         0   0.42660E-06  477478.3 3751066.2   463.0     4.00     3.95
1.86      YES
  L0005606         0   0.42660E-06  477478.4 3751074.7   463.2     4.00     3.95
1.86      YES
  L0005607         0   0.42660E-06  477478.4 3751083.2   463.3     4.00     3.95
1.86      YES
  L0005608         0   0.42660E-06  477478.5 3751091.7   463.5     4.00     3.95
1.86      YES
  L0005609         0   0.42660E-06  477478.5 3751100.2   463.7     4.00     3.95
1.86      YES
  L0005610         0   0.42660E-06  477478.6 3751108.7   463.8     4.00     3.95
1.86      YES
  L0005611         0   0.42660E-06  477478.6 3751117.2   463.9     4.00     3.95
1.86      YES
  L0005612         0   0.42660E-06  477478.7 3751125.7   464.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
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                                 AERMOD HRA Output
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                           ***        10:14:10

                                      PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -


 L0005613        0   0.42660E-06  477478.7 3751134.2   464.0     4.00     3.95
1.86     YES
 L0005614        0   0.42660E-06  477478.8 3751142.7   464.0     4.00     3.95
1.86     YES
 L0005615        0   0.42660E-06  477478.9 3751151.2   464.0     4.00     3.95
1.86     YES
 L0005616        0   0.42660E-06  477478.9 3751159.7   464.0     4.00     3.95
1.86     YES
 L0005617        0   0.42660E-06  477479.0 3751168.2   464.0     4.00     3.95
1.86     YES
 L0005618        0   0.42660E-06  477479.0 3751176.7   464.0     4.00     3.95
1.86     YES
 L0005619        0   0.42660E-06  477479.1 3751185.2   464.0     4.00     3.95
1.86     YES
 L0005620        0   0.42660E-06  477479.1 3751193.7   464.0     4.00     3.95
1.86     YES
 L0005621        0   0.42660E-06  477479.2 3751202.2   464.0     4.00     3.95
1.86     YES
 L0005622        0   0.42660E-06  477479.2 3751210.7   464.0     4.00     3.95
1.86     YES
 L0005623        0   0.42660E-06  477479.3 3751219.2   464.0     4.00     3.95
1.86     YES
 L0005624        0   0.42660E-06  477479.3 3751227.7   464.0     4.00     3.95
1.86     YES
 L0005625        0   0.42660E-06  477479.4 3751236.2   464.0     4.00     3.95
1.86     YES
 L0005626        0   0.42660E-06  477479.3 3751244.7   464.0     4.00     3.95
1.86     YES
 L0005627        0   0.42660E-06  477479.3 3751253.2   464.2     4.00     3.95
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1.86      YES
  L0005628          0   0.42660E-06   477479.2 3751261.7    464.5      4.00      3.95
1.86      YES
  L0005629          0   0.42660E-06   477479.2 3751270.2    464.8      4.00      3.95
1.86      YES
  L0005630          0   0.42660E-06   477479.1 3751278.7    465.0      4.00      3.95
1.86      YES
  L0005631          0   0.42660E-06   477479.0 3751287.2    465.0      4.00      3.95
1.86      YES
  L0005632          0   0.42660E-06   477479.0 3751295.7    465.0      4.00      3.95
1.86      YES
  L0005633          0   0.42660E-06   477478.9 3751304.2    465.0      4.00      3.95
1.86      YES
  L0005634          0   0.42660E-06   477478.9 3751312.7    465.0      4.00      3.95
1.86      YES
  L0005635          0   0.42660E-06   477478.8 3751321.2    465.0      4.00      3.95
1.86      YES
  L0005636          0   0.42660E-06   477478.7 3751329.7    465.0      4.00      3.95
1.86      YES
  L0005637          0   0.42660E-06   477478.7 3751338.2    465.0      4.00      3.95
1.86      YES
  L0005638          0   0.42660E-06   477478.6 3751346.7    465.0      4.00      3.95
1.86      YES
  L0005639          0   0.42660E-06   477478.6 3751355.2    465.0      4.00      3.95
1.86      YES
  L0005640          0   0.42660E-06   477478.5 3751363.7    465.0      4.00      3.95
1.86      YES
  L0005641          0   0.42660E-06   477478.5 3751372.2    465.0      4.00      3.95
1.86      YES
  L0005642          0   0.42660E-06   477478.4 3751380.7    465.0      4.00      3.95
1.86      YES
  L0005643          0   0.42660E-06   477478.3 3751389.2    465.0      4.00      3.95
1.86      YES
  L0005644          0   0.42660E-06   477478.3 3751397.7    465.0      4.00      3.95
1.86      YES
  L0005645          0   0.42660E-06   477478.2 3751406.2    465.0      4.00      3.95
1.86      YES
  L0005646          0   0.42660E-06   477478.2 3751414.7    465.0      4.00      3.95
1.86      YES
  L0005647          0   0.42660E-06   477478.1 3751423.2    465.0      4.00      3.95
1.86      YES
  L0005648          0   0.42660E-06   477478.0 3751431.7    465.2      4.00      3.95
1.86      YES
  L0005649          0   0.42660E-06   477478.0 3751440.2    465.4      4.00      3.95
1.86      YES
  L0005650          0   0.42660E-06   477477.9 3751448.7    465.7      4.00      3.95
1.86      YES
  L0005651          0   0.42660E-06   477477.9 3751457.2    466.0      4.00      3.95
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1.86      YES
 L0005652         0   0.42660E-06   477477.8 3751465.7   466.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0005653         0   0.42660E-06   477477.8 3751474.2   466.0     4.00     3.95
1.86      YES
 L0005654         0   0.42660E-06   477477.7 3751482.7   466.0     4.00     3.95
1.86      YES
 L0005655         0   0.42660E-06   477477.6 3751491.2   466.0     4.00     3.95
1.86      YES
 L0005656         0   0.42660E-06   477477.6 3751499.7   466.0     4.00     3.95
1.86      YES
 L0005657         0   0.42660E-06   477477.5 3751508.2   466.0     4.00     3.95
1.86      YES
 L0005658         0   0.42660E-06   477477.5 3751516.7   466.0     4.00     3.95
1.86      YES
 L0005659         0   0.42660E-06   477477.4 3751525.2   466.0     4.00     3.95
1.86      YES
 L0005660         0   0.42660E-06   477477.3 3751533.7   466.0     4.00     3.95
1.86      YES
 L0005661         0   0.42660E-06   477477.3 3751542.2   466.0     4.00     3.95
1.86      YES
 L0005662         0   0.42660E-06   477477.2 3751550.7   466.0     4.00     3.95
1.86      YES
 L0005663         0   0.42660E-06   477477.2 3751559.2   466.0     4.00     3.95
1.86      YES
 L0005664         0   0.42660E-06   477477.1 3751567.7   466.0     4.00     3.95
1.86      YES
 L0005665         0   0.42660E-06   477477.0 3751576.2   466.0     4.00     3.95
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1.86      YES
 L0005666          0   0.42660E-06  477477.0 3751584.7   466.0      4.00      3.95
1.86      YES
 L0005667          0   0.42660E-06  477476.9 3751593.2   466.0      4.00      3.95
1.86      YES
 L0005668          0   0.42660E-06  477476.9 3751601.7   466.0      4.00      3.95
1.86      YES
 L0005669          0   0.42660E-06  477476.8 3751610.2   466.1      4.00      3.95
1.86      YES
 L0005670          0   0.42660E-06  477476.8 3751618.7   466.2      4.00      3.95
1.86      YES
 L0005671          0   0.42660E-06  477476.7 3751627.2   466.4      4.00      3.95
1.86      YES
 L0005672          0   0.42660E-06  477476.6 3751635.7   466.6      4.00      3.95
1.86      YES
 L0005673          0   0.42660E-06  477476.6 3751644.2   466.7      4.00      3.95
1.86      YES
 L0005674          0   0.42660E-06  477476.5 3751652.7   466.8      4.00      3.95
1.86      YES
 L0005675          0   0.42660E-06  477476.5 3751661.2   466.9      4.00      3.95
1.86      YES
 L0005676          0   0.42660E-06  477476.4 3751669.7   467.0      4.00      3.95
1.86      YES
 L0005677          0   0.42660E-06  477476.3 3751678.2   467.0      4.00      3.95
1.86      YES
 L0005678          0   0.42660E-06  477476.3 3751686.7   467.0      4.00      3.95
1.86      YES
 L0005679          0   0.42660E-06  477476.2 3751695.2   467.0      4.00      3.95
1.86      YES
 L0005680          0   0.42660E-06  477476.2 3751703.7   467.0      4.00      3.95
1.86      YES
 L0005681          0   0.42660E-06  477476.1 3751712.2   467.0      4.00      3.95
1.86      YES
 L0005682          0   0.42660E-06  477476.1 3751720.7   467.0      4.00      3.95
1.86      YES
 L0005683          0   0.42660E-06  477476.0 3751729.2   467.1      4.00      3.95
1.86      YES
 L0005684          0   0.42660E-06  477475.9 3751737.7   467.2      4.00      3.95
1.86      YES
 L0005685          0   0.42660E-06  477475.9 3751746.2   467.4      4.00      3.95
1.86      YES
 L0005686          0   0.42660E-06  477475.8 3751754.7   467.5      4.00      3.95
1.86      YES
 L0005687          0   0.42660E-06  477475.8 3751763.2   467.6      4.00      3.95
1.86      YES
 L0005688          0   0.42660E-06  477475.7 3751771.7   467.8      4.00      3.95
1.86      YES
 L0005689          0   0.42660E-06  477475.6 3751780.2   467.9      4.00      3.95
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1.86      YES
 L0005690         0   0.42660E-06   477475.6 3751788.7   468.0     4.00     3.95
1.86      YES
 L0005691         0   0.42660E-06   477475.5 3751797.2   468.0     4.00     3.95
1.86      YES
 L0005692         0   0.42660E-06   477475.5 3751805.7   468.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005693         0   0.42660E-06   477475.4 3751814.2   468.0     4.00     3.95
1.86      YES
 L0005694         0   0.42660E-06   477475.4 3751822.7   468.0     4.00     3.95
1.86      YES
 L0005695         0   0.42660E-06   477475.3 3751831.2   468.0     4.00     3.95
1.86      YES
 L0005696         0   0.42660E-06   477475.2 3751839.7   468.0     4.00     3.95
1.86      YES
 L0005697         0   0.42660E-06   477475.2 3751848.2   468.0     4.00     3.95
1.86      YES
 L0005698         0   0.42660E-06   477475.1 3751856.7   468.0     4.00     3.95
1.86      YES
 L0005699         0   0.42660E-06   477475.1 3751865.2   468.0     4.00     3.95
1.86      YES
 L0005700         0   0.42660E-06   477475.0 3751873.7   468.0     4.00     3.95
1.86      YES
 L0005701         0   0.42660E-06   477474.9 3751882.2   468.2     4.00     3.95
1.86      YES
 L0005702         0   0.42660E-06   477474.9 3751890.7   468.5     4.00     3.95
1.86      YES
 L0005703         0   0.42660E-06   477474.8 3751899.2   468.8     4.00     3.95
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1.86      YES
 L0005704          0   0.42660E-06   477474.8 3751907.7    469.0      4.00      3.95
1.86      YES
 L0005705          0   0.42660E-06   477474.7 3751916.2    469.0      4.00      3.95
1.86      YES
 L0005706          0   0.42660E-06   477474.7 3751924.7    469.0      4.00      3.95
1.86      YES
 L0005707          0   0.42660E-06   477474.6 3751933.2    469.0      4.00      3.95
1.86      YES
 L0005708          0   0.42660E-06   477474.5 3751941.7    469.0      4.00      3.95
1.86      YES
 L0005709          0   0.42660E-06   477474.5 3751950.2    469.0      4.00      3.95
1.86      YES
 L0005710          0   0.42660E-06   477474.4 3751958.7    469.0      4.00      3.95
1.86      YES
 L0005711          0   0.42660E-06   477474.4 3751967.2    469.0      4.00      3.95
1.86      YES
 L0005712          0   0.42660E-06   477474.3 3751975.7    469.0      4.00      3.95
1.86      YES
 L0005713          0   0.42660E-06   477474.2 3751984.2    469.0      4.00      3.95
1.86      YES
 L0005714          0   0.42660E-06   477474.2 3751992.7    469.0      4.00      3.95
1.86      YES
 L0005715          0   0.42660E-06   477474.1 3752001.2    469.0      4.00      3.95
1.86      YES
 L0005716          0   0.42660E-06   477474.1 3752009.7    469.0      4.00      3.95
1.86      YES
 L0005717          0   0.42660E-06   477474.0 3752018.2    469.0      4.00      3.95
1.86      YES
 L0005718          0   0.42660E-06   477474.0 3752026.7    469.0      4.00      3.95
1.86      YES
 L0005719          0   0.42660E-06   477473.9 3752035.2    469.1      4.00      3.95
1.86      YES
 L0005720          0   0.42660E-06   477473.8 3752043.7    469.3      4.00      3.95
1.86      YES
 L0005721          0   0.42660E-06   477473.8 3752052.2    469.4      4.00      3.95
1.86      YES
 L0005722          0   0.42660E-06   477473.7 3752060.7    469.5      4.00      3.95
1.86      YES
 L0005723          0   0.42660E-06   477473.7 3752069.2    469.5      4.00      3.95
1.86      YES
 L0005724          0   0.42660E-06   477473.6 3752077.7    469.5      4.00      3.95
1.86      YES
 L0005725          0   0.42660E-06   477473.5 3752086.2    469.5      4.00      3.95
1.86      YES
 L0005726          0   0.42660E-06   477473.5 3752094.7    469.6      4.00      3.95
1.86      YES
 L0005727          0   0.42660E-06   477473.4 3752103.2    469.8      4.00      3.95
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1.86     YES
 L0005728         0   0.42660E-06  477473.4 3752111.7   469.9     4.00     3.95
1.86     YES
 L0005729         0   0.42660E-06  477473.3 3752120.2   470.1     4.00     3.95
1.86     YES
 L0005730         0   0.42660E-06  477473.3 3752128.7   470.2     4.00     3.95
1.86     YES
 L0005731         0   0.42660E-06  477473.2 3752137.2   470.3     4.00     3.95
1.86     YES
 L0005732         0   0.42660E-06  477473.1 3752145.7   470.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005733         0   0.42660E-06  477473.1 3752154.2   470.6     4.00     3.95
1.86     YES
 L0005734         0   0.42660E-06  477473.0 3752162.7   470.7     4.00     3.95
1.86     YES
 L0005735         0   0.42660E-06  477473.0 3752171.2   470.9     4.00     3.95
1.86     YES
 L0005736         0   0.42660E-06  477472.9 3752179.7   471.0     4.00     3.95
1.86     YES
 L0005737         0   0.42660E-06  477472.8 3752188.2   471.0     4.00     3.95
1.86     YES
 L0005738         0   0.42660E-06  477472.8 3752196.7   471.0     4.00     3.95
1.86     YES
 L0005739         0   0.42660E-06  477472.7 3752205.2   471.0     4.00     3.95
1.86     YES
 L0005740         0   0.42660E-06  477472.7 3752213.7   471.2     4.00     3.95
1.86     YES
 L0005741         0   0.42660E-06  477472.6 3752222.2   471.5     4.00     3.95
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
  L0005742          0   0.42660E-06  477468.0 3752226.1   471.7     4.00      3.95
1.86      YES
  L0005743          0   0.42660E-06  477459.5 3752226.1   471.7     4.00      3.95
1.86      YES
  L0005744          0   0.42660E-06  477451.0 3752226.2   471.7     4.00      3.95
1.86      YES
  L0005745          0   0.42660E-06  477442.5 3752226.2   471.7     4.00      3.95
1.86      YES
  L0005746          0   0.42660E-06  477434.0 3752226.2   471.7     4.00      3.95
1.86      YES
  L0005747          0   0.42660E-06  477425.5 3752226.2   471.7     4.00      3.95
1.86      YES
  L0005748          0   0.42660E-06  477417.0 3752226.2   471.7     4.00      3.95
1.86      YES
  L0005749          0   0.42660E-06  477408.5 3752226.2   471.7     4.00      3.95
1.86      YES
  L0005750          0   0.42660E-06  477400.0 3752226.2   471.7     4.00      3.95
1.86      YES
  L0005751          0   0.42660E-06  477391.5 3752226.2   471.5     4.00      3.95
1.86      YES
  L0005752          0   0.42660E-06  477383.0 3752226.2   471.3     4.00      3.95
1.86      YES
  L0005753          0   0.42660E-06  477374.5 3752226.2   471.1     4.00      3.95
1.86      YES
  L0005754          0   0.42660E-06  477366.0 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005755          0   0.42660E-06  477357.5 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005756          0   0.42660E-06  477349.0 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005757          0   0.42660E-06  477340.5 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005758          0   0.42660E-06  477332.0 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005759          0   0.42660E-06  477323.5 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005760          0   0.42660E-06  477315.0 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005761          0   0.42660E-06  477306.5 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005762          0   0.42660E-06  477298.0 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005763          0   0.42660E-06  477289.5 3752226.3   471.0     4.00      3.95
1.86      YES
  L0005764          0   0.42660E-06  477281.0 3752226.4   471.0     4.00      3.95
1.86      YES
  L0005765          0   0.42660E-06  477272.5 3752226.4   471.0     4.00      3.95
```

```
1.86      YES
 L0005766         0   0.42660E-06  477264.0 3752226.4   471.0     4.00     3.95
1.86      YES
 L0005767         0   0.42660E-06  477255.5 3752226.4   471.0     4.00     3.95
1.86      YES
 L0005768         0   0.42660E-06  477247.0 3752226.4   471.0     4.00     3.95
1.86      YES
 L0005769         0   0.42660E-06  477238.5 3752226.4   471.0     4.00     3.95
1.86      YES
 L0005770         0   0.42660E-06  477230.0 3752226.4   471.0     4.00     3.95
1.86      YES
 L0005771         0   0.42660E-06  477221.5 3752226.4   471.0     4.00     3.95
1.86      YES
 L0005772         0   0.42660E-06  477213.0 3752226.4   471.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -

 L0005773         0   0.42660E-06  477204.5 3752226.4   471.0     4.00     3.95
1.86      YES
 L0005774         0   0.42660E-06  477196.0 3752226.5   471.0     4.00     3.95
1.86      YES
 L0005775         0   0.42660E-06  477187.5 3752226.5   471.0     4.00     3.95
1.86      YES
 L0005776         0   0.42660E-06  477179.0 3752226.5   471.0     4.00     3.95
1.86      YES
 L0005777         0   0.42660E-06  477170.5 3752226.5   471.0     4.00     3.95
1.86      YES
 L0005778         0   0.42660E-06  477162.0 3752226.5   471.0     4.00     3.95
1.86      YES
 L0005779         0   0.42660E-06  477153.5 3752226.5   471.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
  L0005780          0   0.42660E-06   477145.0 3752226.5    471.0      4.00      3.95
1.86      YES
  L0005781          0   0.42660E-06   477136.5 3752226.5    471.0      4.00      3.95
1.86      YES
  L0005782          0   0.42660E-06   477128.0 3752226.5    471.0      4.00      3.95
1.86      YES
  L0005783          0   0.42660E-06   477119.5 3752226.5    471.0      4.00      3.95
1.86      YES
  L0005784          0   0.42660E-06   477111.0 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005785          0   0.42660E-06   477102.5 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005786          0   0.42660E-06   477094.0 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005787          0   0.42660E-06   477085.5 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005788          0   0.42660E-06   477077.0 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005789          0   0.42660E-06   477068.5 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005790          0   0.42660E-06   477060.0 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005791          0   0.42660E-06   477051.5 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005792          0   0.42660E-06   477043.0 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005793          0   0.42660E-06   477034.5 3752226.6    471.0      4.00      3.95
1.86      YES
  L0005794          0   0.42660E-06   477026.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005795          0   0.42660E-06   477017.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005796          0   0.42660E-06   477009.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005797          0   0.42660E-06   477000.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005798          0   0.42660E-06   476992.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005799          0   0.42660E-06   476983.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005800          0   0.42660E-06   476975.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005801          0   0.42660E-06   476966.5 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005802          0   0.42660E-06   476958.0 3752226.7    471.0      4.00      3.95
1.86      YES
  L0005803          0   0.42660E-06   476949.5 3752226.7    471.0      4.00      3.95
```

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1.86      YES
 L0005804         0   0.42660E-06  476941.0 3752226.8   471.2     4.00     3.95
1.86      YES
 L0005805         0   0.42660E-06  476932.5 3752226.8   471.4     4.00     3.95
1.86      YES
 L0005806         0   0.42660E-06  476924.0 3752226.8   471.6     4.00     3.95
1.86      YES
 L0005807         0   0.42660E-06  476915.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0005808         0   0.42660E-06  476907.0 3752226.8   471.7     4.00     3.95
1.86      YES
 L0005809         0   0.42660E-06  476898.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0005810         0   0.42660E-06  476890.0 3752226.8   471.7     4.00     3.95
1.86      YES
 L0005811         0   0.42660E-06  476881.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0005812         0   0.42660E-06  476873.0 3752226.8   471.7     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005813         0   0.42660E-06  476864.5 3752226.8   471.7     4.00     3.95
1.86      YES
 L0005814         0   0.42660E-06  476856.0 3752226.9   471.7     4.00     3.95
1.86      YES
 L0005815         0   0.42660E-06  476847.5 3752226.9   471.7     4.00     3.95
1.86      YES
 L0005816         0   0.42660E-06  476839.0 3752226.9   471.7     4.00     3.95
1.86      YES
 L0005817         0   0.42660E-06  476830.5 3752226.9   471.7     4.00     3.95
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1.86      YES
 L0005818          0   0.42660E-06   476822.0 3752226.9    471.7      4.00      3.95
1.86      YES
 L0005819          0   0.42660E-06   476813.5 3752226.9    471.7      4.00      3.95
1.86      YES
 L0005820          0   0.42660E-06   476805.0 3752226.9    477.2      4.00      3.95
1.86      YES
 L0005821          0   0.42660E-06   476796.5 3752226.9    477.2      4.00      3.95
1.86      YES
 L0005822          0   0.42660E-06   476788.0 3752226.9    477.2      4.00      3.95
1.86      YES
 L0005823          0   0.42660E-06   476779.5 3752226.9    477.2      4.00      3.95
1.86      YES
 L0005824          0   0.42660E-06   476771.0 3752227.0    477.2      4.00      3.95
1.86      YES
 L0005825          0   0.42660E-06   476762.5 3752227.0    477.2      4.00      3.95
1.86      YES
 L0005826          0   0.42660E-06   476754.0 3752227.0    477.2      4.00      3.95
1.86      YES
 L0005827          0   0.42660E-06   476745.5 3752227.0    477.2      4.00      3.95
1.86      YES
 L0005828          0   0.42660E-06   476737.0 3752227.0    477.2      4.00      3.95
1.86      YES
 L0005829          0   0.42660E-06   476728.5 3752227.0    477.3      4.00      3.95
1.86      YES
 L0005830          0   0.42660E-06   476720.0 3752227.0    477.4      4.00      3.95
1.86      YES
 L0005831          0   0.42660E-06   476711.5 3752227.0    477.5      4.00      3.95
1.86      YES
 L0005832          0   0.42660E-06   476703.0 3752227.0    477.6      4.00      3.95
1.86      YES
 L0005833          0   0.42660E-06   476694.5 3752227.0    477.6      4.00      3.95
1.86      YES
 L0005834          0   0.42660E-06   476686.0 3752227.1    477.7      4.00      3.95
1.86      YES
 L0005835          0   0.42660E-06   476677.5 3752227.1    477.8      4.00      3.95
1.86      YES
 L0005836          0   0.42660E-06   476669.0 3752227.1    477.9      4.00      3.95
1.86      YES
 L0005837          0   0.42660E-06   476660.5 3752227.1    478.0      4.00      3.95
1.86      YES
 L0005838          0   0.42660E-06   476652.0 3752227.1    478.0      4.00      3.95
1.86      YES
 L0005839          0   0.42660E-06   476643.5 3752227.1    478.0      4.00      3.95
1.86      YES
 L0005840          0   0.42660E-06   476635.0 3752227.1    478.0      4.00      3.95
1.86      YES
 L0005841          0   0.42660E-06   476626.5 3752227.1    478.0      4.00      3.95
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1.86      YES
 L0005842         0   0.42660E-06  476618.0 3752227.1   478.0     4.00     3.95
1.86      YES
 L0005843         0   0.42660E-06  476609.5 3752227.1   478.0     4.00     3.95
1.86      YES
 L0005844         0   0.42660E-06  476601.0 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005845         0   0.42660E-06  476592.5 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005846         0   0.42660E-06  476584.0 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005847         0   0.42660E-06  476575.5 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005848         0   0.42660E-06  476567.0 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005849         0   0.42660E-06  476558.5 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005850         0   0.42660E-06  476550.0 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005851         0   0.42660E-06  476541.5 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005852         0   0.42660E-06  476533.0 3752227.2   478.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - -

 L0005853         0   0.42660E-06  476524.5 3752227.2   478.0     4.00     3.95
1.86      YES
 L0005854         0   0.42660E-06  476516.0 3752227.3   478.0     4.00     3.95
1.86      YES
 L0005855         0   0.42660E-06  476507.5 3752227.3   478.0     4.00     3.95
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1.86      YES
 L0005856           0   0.42660E-06   476499.0 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005857           0   0.42660E-06   476490.5 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005858           0   0.42660E-06   476482.0 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005859           0   0.42660E-06   476473.5 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005860           0   0.42660E-06   476465.0 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005861           0   0.42660E-06   476456.5 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005862           0   0.42660E-06   476448.0 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005863           0   0.42660E-06   476439.5 3752227.3    478.0      4.00      3.95
1.86      YES
 L0005864           0   0.42660E-06   476431.0 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005865           0   0.42660E-06   476422.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005866           0   0.42660E-06   476414.0 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005867           0   0.42660E-06   476405.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005868           0   0.42660E-06   476397.0 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005869           0   0.42660E-06   476388.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005870           0   0.42660E-06   476380.0 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005871           0   0.42660E-06   476371.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005872           0   0.42660E-06   476363.0 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005873           0   0.42660E-06   476354.5 3752227.4    478.0      4.00      3.95
1.86      YES
 L0005874           0   0.42660E-06   476346.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0005875           0   0.42660E-06   476337.5 3752227.5    478.0      4.00      3.95
1.86      YES
 L0005876           0   0.42660E-06   476329.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0005877           0   0.42660E-06   476320.5 3752227.5    478.0      4.00      3.95
1.86      YES
 L0005878           0   0.42660E-06   476312.0 3752227.5    478.0      4.00      3.95
1.86      YES
 L0005879           0   0.42660E-06   476303.5 3752227.5    478.0      4.00      3.95
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```
1.86      YES
 L0005880         0   0.42660E-06  476295.0 3752227.5   478.0     4.00     3.95
1.86      YES
 L0005881         0   0.42660E-06  476286.5 3752227.5   478.0     4.00     3.95
1.86      YES
 L0005882         0   0.42660E-06  476278.0 3752227.5   478.0     4.00     3.95
1.86      YES
 L0005883         0   0.42660E-06  476269.5 3752227.5   478.0     4.00     3.95
1.86      YES
 L0005884         0   0.42660E-06  476261.0 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005885         0   0.42660E-06  476252.5 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005886         0   0.42660E-06  476244.0 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005887         0   0.42660E-06  476235.5 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005888         0   0.42660E-06  476227.0 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005889         0   0.42660E-06  476218.5 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005890         0   0.42660E-06  476210.0 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005891         0   0.42660E-06  476201.5 3752227.6   478.0     4.00     3.95
1.86      YES
 L0005892         0   0.42660E-06  476193.0 3752227.6   478.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0005893         0   0.42660E-06  476184.5 3752227.6   478.0     4.00     3.95
```

```
1.86      YES
 L0005894          0   0.42660E-06  476176.0 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005895          0   0.42660E-06  476167.5 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005896          0   0.42660E-06  476159.0 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005897          0   0.42660E-06  476150.5 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005898          0   0.42660E-06  476142.0 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005899          0   0.42660E-06  476133.5 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005900          0   0.42660E-06  476125.0 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005901          0   0.42660E-06  476116.5 3752227.7    478.0      4.00      3.95
1.86      YES
 L0005902          0   0.42660E-06  476108.0 3752227.7    477.9      4.00      3.95
1.86      YES
 L0005903          0   0.42660E-06  476099.5 3752227.7    477.8      4.00      3.95
1.86      YES
 L0005904          0   0.42660E-06  476091.0 3752227.8    477.7      4.00      3.95
1.86      YES
 L0005905          0   0.42660E-06  476082.5 3752227.8    477.6      4.00      3.95
1.86      YES
 L0005906          0   0.42660E-06  476074.0 3752227.8    477.6      4.00      3.95
1.86      YES
 L0005907          0   0.42660E-06  476065.5 3752227.8    477.5      4.00      3.95
1.86      YES
 L0005908          0   0.42660E-06  476057.0 3752227.8    477.4      4.00      3.95
1.86      YES
 L0005909          0   0.42660E-06  476048.5 3752227.8    477.3      4.00      3.95
1.86      YES
 L0005910          0   0.42660E-06  476040.0 3752227.8    477.2      4.00      3.95
1.86      YES
 L0005911          0   0.42660E-06  476031.5 3752227.8    477.2      4.00      3.95
1.86      YES
 L0005912          0   0.42660E-06  476023.0 3752227.8    477.2      4.00      3.95
1.86      YES
 L0005913          0   0.42660E-06  476014.5 3752227.8    477.1      4.00      3.95
1.86      YES
 L0005914          0   0.42660E-06  476006.0 3752227.9    477.1      4.00      3.95
1.86      YES
 L0005915          0   0.42660E-06  475997.5 3752227.9    477.1      4.00      3.95
1.86      YES
 L0005916          0   0.42660E-06  475989.0 3752227.9    477.1      4.00      3.95
1.86      YES
 L0005917          0   0.42660E-06  475980.5 3752227.9    477.1      4.00      3.95
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1.86     YES
 L0005918         0   0.42660E-06  475972.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005919         0   0.42660E-06  475963.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005920         0   0.42660E-06  475955.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005921         0   0.42660E-06  475946.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005922         0   0.42660E-06  475938.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005923         0   0.42660E-06  475929.5 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005924         0   0.42660E-06  475921.0 3752227.9   477.0     4.00     3.95
1.86     YES
 L0005925         0   0.42660E-06  475912.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005926         0   0.42660E-06  475904.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005927         0   0.42660E-06  475895.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005928         0   0.42660E-06  475887.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005929         0   0.42660E-06  475878.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005930         0   0.42660E-06  475870.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005931         0   0.42660E-06  475861.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005932         0   0.42660E-06  475853.0 3752228.0   477.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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                                 AERMOD HRA Output
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0005933         0   0.42660E-06  475844.5 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005934         0   0.42660E-06  475836.0 3752228.0   477.0     4.00     3.95
1.86     YES
 L0005935         0   0.42660E-06  475827.5 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005936         0   0.42660E-06  475819.0 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005937         0   0.42660E-06  475810.5 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005938         0   0.42660E-06  475802.0 3752228.1   477.0     4.00     3.95
1.86     YES
 L0005939         0   0.42660E-06  475793.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005940         0   0.42660E-06  475785.0 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005941         0   0.42660E-06  475776.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005942         0   0.42660E-06  475768.0 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005943         0   0.42660E-06  475759.5 3752228.1   477.1     4.00     3.95
1.86     YES
 L0005944         0   0.42660E-06  475751.0 3752228.1   477.2     4.00     3.95
1.86     YES
 L0005945         0   0.42660E-06  475742.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005946         0   0.42660E-06  475734.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005947         0   0.42660E-06  475725.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005948         0   0.42660E-06  475717.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005949         0   0.42660E-06  475708.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005950         0   0.42660E-06  475700.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005951         0   0.42660E-06  475691.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005952         0   0.42660E-06  475683.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005953         0   0.42660E-06  475674.5 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005954         0   0.42660E-06  475666.0 3752228.2   477.2     4.00     3.95
1.86     YES
 L0005955         0   0.42660E-06  475657.5 3752228.3   477.2     4.00     3.95
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1.86      YES
 L0005956         0   0.42660E-06   475649.0 3752228.3   477.2     4.00     3.95
1.86      YES
 L0005957         0   0.42660E-06   475640.5 3752228.3   477.2     4.00     3.95
1.86      YES
 L0005958         0   0.42660E-06   475632.0 3752228.3   477.2     4.00     3.95
1.86      YES
 L0005959         0   0.42660E-06   475623.5 3752228.3   477.1     4.00     3.95
1.86      YES
 L0005960         0   0.42660E-06   475615.0 3752228.3   477.1     4.00     3.95
1.86      YES
 L0005961         0   0.42660E-06   475606.5 3752228.3   477.1     4.00     3.95
1.86      YES
 L0005962         0   0.42660E-06   475598.0 3752228.3   477.1     4.00     3.95
1.86      YES
 L0005963         0   0.42660E-06   475589.5 3752228.3   477.0     4.00     3.95
1.86      YES
 L0005964         0   0.42660E-06   475581.0 3752228.3   477.0     4.00     3.95
1.86      YES
 L0005965         0   0.42660E-06   475572.5 3752228.4   477.0     4.00     3.95
1.86      YES
 L0005966         0   0.42660E-06   475564.0 3752228.4   477.0     4.00     3.95
1.86      YES
 L0005967         0   0.42660E-06   475555.5 3752228.4   477.0     4.00     3.95
1.86      YES
 L0005968         0   0.42660E-06   475547.0 3752228.4   477.0     4.00     3.95
1.86      YES
 L0005969         0   0.42660E-06   475538.5 3752228.4   477.0     4.00     3.95
1.86      YES
 L0005970         0   0.42660E-06   475530.0 3752228.4   477.0     4.00     3.95
1.86      YES
 L0005971         0   0.42660E-06   475521.5 3752228.4   477.0     4.00     3.95
1.86      YES
 L0005972         0   0.42660E-06   475513.0 3752228.4   477.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE         PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE   SCALAR VARY
     ID         CATS.                 (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0005973          0   0.42660E-06  475504.5 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005974          0   0.42660E-06  475496.0 3752228.4   477.0     4.00     3.95
1.86     YES
 L0005975          0   0.42660E-06  475487.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005976          0   0.42660E-06  475479.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005977          0   0.42660E-06  475470.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005978          0   0.42660E-06  475462.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005979          0   0.42660E-06  475453.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005980          0   0.42660E-06  475445.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005981          0   0.42660E-06  475436.5 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005982          0   0.42660E-06  475428.0 3752228.5   477.0     4.00     3.95
1.86     YES
 L0005983          0   0.42660E-06  475419.5 3752228.5   476.9     4.00     3.95
1.86     YES
 L0005984          0   0.42660E-06  475411.0 3752228.5   476.9     4.00     3.95
1.86     YES
 L0005985          0   0.42660E-06  475402.5 3752228.6   476.8     4.00     3.95
1.86     YES
 L0005986          0   0.42660E-06  475394.0 3752228.6   476.7     4.00     3.95
1.86     YES
 L0005987          0   0.42660E-06  475385.5 3752228.6   476.6     4.00     3.95
1.86     YES
 L0005988          0   0.42660E-06  475377.0 3752228.6   476.5     4.00     3.95
1.86     YES
 L0005989          0   0.42660E-06  475368.5 3752228.6   476.4     4.00     3.95
1.86     YES
 L0005990          0   0.42660E-06  475360.0 3752228.6   476.3     4.00     3.95
1.86     YES
 L0005991          0   0.42660E-06  475351.5 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005992          0   0.42660E-06  475343.0 3752228.6   476.2     4.00     3.95
1.86     YES
 L0005993          0   0.42660E-06  475334.5 3752228.6   476.2     4.00     3.95
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1.86      YES
 L0005994          0   0.42660E-06   475326.0 3752228.6   476.2      4.00      3.95
1.86      YES
 L0005995          0   0.42660E-06   475317.5 3752228.7   476.1      4.00      3.95
1.86      YES
 L0005996          0   0.42660E-06   475309.0 3752228.7   476.1      4.00      3.95
1.86      YES
 L0005997          0   0.42660E-06   475300.5 3752228.7   476.1      4.00      3.95
1.86      YES
 L0005998          0   0.42660E-06   475292.0 3752228.7   476.1      4.00      3.95
1.86      YES
 L0005999          0   0.42660E-06   475283.5 3752228.7   476.0      4.00      3.95
1.86      YES
 L0006000          0   0.42660E-06   475275.0 3752228.7   476.0      4.00      3.95
1.86      YES
 L0006001          0   0.42660E-06   475266.5 3752228.7   476.0      4.00      3.95
1.86      YES
 L0006002          0   0.42660E-06   475258.0 3752228.7   476.0      4.00      3.95
1.86      YES
 L0006003          0   0.42660E-06   475249.5 3752228.7   476.0      4.00      3.95
1.86      YES
 L0006004          0   0.42660E-06   475241.0 3752228.7   476.0      4.00      3.95
1.86      YES
 L0006005          0   0.42660E-06   475232.5 3752228.8   476.0      4.00      3.95
1.86      YES
 L0006006          0   0.42660E-06   475224.0 3752228.8   476.0      4.00      3.95
1.86      YES
 L0006007          0   0.42660E-06   475215.5 3752228.8   476.0      4.00      3.95
1.86      YES
 L0006008          0   0.42660E-06   475207.0 3752228.8   476.0      4.00      3.95
1.86      YES
 L0006009          0   0.42660E-06   475198.5 3752228.8   476.0      4.00      3.95
1.86      YES
 L0006010          0   0.42660E-06   475190.0 3752228.8   476.0      4.00      3.95
1.86      YES
 L0006011          0   0.42660E-06   475181.5 3752228.8   476.0      4.00      3.95
1.86      YES
 L0006012          0   0.42660E-06   475173.0 3752228.8   476.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                  AERMOD HRA Output
                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006013         0   0.42660E-06   475164.5 3752228.8   476.0     4.00      3.95
1.86      YES
 L0006014         0   0.42660E-06   475156.0 3752228.8   476.0     4.00      3.95
1.86      YES
 L0006015         0   0.42660E-06   475147.5 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006016         0   0.42660E-06   475139.0 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006017         0   0.42660E-06   475130.5 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006018         0   0.42660E-06   475122.0 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006019         0   0.42660E-06   475113.5 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006020         0   0.42660E-06   475105.0 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006021         0   0.42660E-06   475096.5 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006022         0   0.42660E-06   475088.0 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006023         0   0.42660E-06   475079.5 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006024         0   0.42660E-06   475071.0 3752228.9   476.0     4.00      3.95
1.86      YES
 L0006025         0   0.42660E-06   475062.5 3752229.0   476.0     4.00      3.95
1.86      YES
 L0006026         0   0.42660E-06   475054.0 3752229.0   476.0     4.00      3.95
1.86      YES
 L0006027         0   0.42660E-06   475045.5 3752229.0   476.0     4.00      3.95
1.86      YES
 L0006028         0   0.42660E-06   475037.0 3752229.0   476.0     4.00      3.95
1.86      YES
 L0006029         0   0.42660E-06   475028.5 3752229.0   475.9     4.00      3.95
1.86      YES
 L0006030         0   0.42660E-06   475020.0 3752229.0   475.7     4.00      3.95
1.86      YES
 L0006031         0   0.42660E-06   475011.5 3752229.0   475.6     4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0006032         0   0.42660E-06   475003.0 3752229.0   475.5      4.00      3.95
1.86      YES
 L0006033         0   0.42660E-06   474994.5 3752229.0   475.4      4.00      3.95
1.86      YES
 L0006034         0   0.42660E-06   474986.0 3752229.0   475.3      4.00      3.95
1.86      YES
 L0006035         0   0.42660E-06   474977.5 3752229.1   475.2      4.00      3.95
1.86      YES
 L0006036         0   0.42660E-06   474969.0 3752229.1   475.1      4.00      3.95
1.86      YES
 L0006037         0   0.42660E-06   474960.5 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006038         0   0.42660E-06   474952.0 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006039         0   0.42660E-06   474943.5 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006040         0   0.42660E-06   474935.0 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006041         0   0.42660E-06   474926.5 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006042         0   0.42660E-06   474918.0 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006043         0   0.42660E-06   474909.5 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006044         0   0.42660E-06   474901.0 3752229.1   475.0      4.00      3.95
1.86      YES
 L0006045         0   0.42660E-06   474892.5 3752229.2   475.0      4.00      3.95
1.86      YES
 L0006046         0   0.42660E-06   474884.0 3752229.2   475.0      4.00      3.95
1.86      YES
 L0006047         0   0.42660E-06   474875.5 3752229.2   474.9      4.00      3.95
1.86      YES
 L0006048         0   0.42660E-06   474867.0 3752229.2   474.8      4.00      3.95
1.86      YES
 L0006049         0   0.42660E-06   474858.5 3752229.2   474.7      4.00      3.95
1.86      YES
 L0006050         0   0.42660E-06   474850.0 3752229.2   474.5      4.00      3.95
1.86      YES
 L0006051         0   0.42660E-06   474841.5 3752229.2   474.4      4.00      3.95
1.86      YES
 L0006052         0   0.42660E-06   474833.0 3752229.2   474.3      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10
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                                 AERMOD HRA Output
                                   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006053         0   0.42660E-06  474824.5 3752229.2   474.2     4.00     3.95
1.86     YES
 L0006054         0   0.42660E-06  474816.0 3752229.2   474.1     4.00     3.95
1.86     YES
 L0006055         0   0.42660E-06  474807.5 3752229.3   474.0     4.00     3.95
1.86     YES
 L0006056         0   0.42660E-06  474799.1 3752228.0   474.1     4.00     3.95
1.86     YES
 L0006057         0   0.42660E-06  474790.7 3752226.7   474.2     4.00     3.95
1.86     YES
 L0006058         0   0.42660E-06  474782.3 3752225.5   474.3     4.00     3.95
1.86     YES
 L0006059         0   0.42660E-06  474773.9 3752224.2   474.4     4.00     3.95
1.86     YES
 L0006060         0   0.42660E-06  474765.5 3752222.9   474.6     4.00     3.95
1.86     YES
 L0006061         0   0.42660E-06  474757.1 3752221.7   474.7     4.00     3.95
1.86     YES
 L0006062         0   0.42660E-06  474748.7 3752220.4   474.8     4.00     3.95
1.86     YES
 L0006063         0   0.42660E-06  474740.3 3752219.1   474.9     4.00     3.95
1.86     YES
 L0006064         0   0.42660E-06  474731.9 3752217.8   475.0     4.00     3.95
1.86     YES
 L0006065         0   0.42660E-06  474723.5 3752216.6   475.0     4.00     3.95
1.86     YES
 L0006066         0   0.42660E-06  474715.1 3752215.3   475.0     4.00     3.95
1.86     YES
 L0006067         0   0.42660E-06  474706.7 3752214.0   475.0     4.00     3.95
1.86     YES
 L0006068         0   0.42660E-06  474698.3 3752212.8   475.0     4.00     3.95
1.86     YES
 L0006069         0   0.42660E-06  474689.9 3752211.5   475.0     4.00     3.95
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1.86      YES
 L0006070          0   0.42660E-06   474681.5 3752210.2   475.0      4.00      3.95
1.86      YES
 L0006071          0   0.42660E-06   474673.1 3752209.0   475.0      4.00      3.95
1.86      YES
 L0006072          0   0.42660E-06   474664.7 3752207.7   475.0      4.00      3.95
1.86      YES
 L0006073          0   0.42660E-06   474656.3 3752206.4   475.0      4.00      3.95
1.86      YES
 L0006074          0   0.42660E-06   474647.9 3752205.1   475.0      4.00      3.95
1.86      YES
 L0006075          0   0.42660E-06   474639.5 3752203.9   475.0      4.00      3.95
1.86      YES
 L0006076          0   0.42660E-06   474631.1 3752202.6   475.0      4.00      3.95
1.86      YES
 L0006077          0   0.42660E-06   474622.6 3752201.3   475.0      4.00      3.95
1.86      YES
 L0006078          0   0.42660E-06   474614.2 3752200.1   475.0      4.00      3.95
1.86      YES
 L0006079          0   0.42660E-06   474605.8 3752198.8   475.0      4.00      3.95
1.86      YES
 L0006080          0   0.42660E-06   474597.4 3752197.5   475.0      4.00      3.95
1.86      YES
 L0006081          0   0.42660E-06   474589.0 3752196.2   475.0      4.00      3.95
1.86      YES
 L0006082          0   0.42660E-06   474580.6 3752195.0   475.0      4.00      3.95
1.86      YES
 L0006083          0   0.42660E-06   474572.2 3752193.7   475.1      4.00      3.95
1.86      YES
 L0006084          0   0.42660E-06   474563.8 3752192.4   475.2      4.00      3.95
1.86      YES
 L0006085          0   0.42660E-06   474555.4 3752191.2   475.3      4.00      3.95
1.86      YES
 L0006086          0   0.42660E-06   474547.0 3752189.9   475.4      4.00      3.95
1.86      YES
 L0006087          0   0.42660E-06   474538.6 3752188.6   475.5      4.00      3.95
1.86      YES
 L0006088          0   0.42660E-06   474530.2 3752187.3   475.6      4.00      3.95
1.86      YES
 L0006089          0   0.42660E-06   474521.8 3752186.1   475.7      4.00      3.95
1.86      YES
 L0006090          0   0.42660E-06   474513.4 3752184.8   475.8      4.00      3.95
1.86      YES
 L0006091          0   0.42660E-06   474505.0 3752183.5   475.9      4.00      3.95
1.86      YES
 L0006092          0   0.42660E-06   474496.6 3752182.3   476.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
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                                  AERMOD HRA Output
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                           ***       10:14:10

                                     PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0006093         0   0.42660E-06  474488.2 3752181.0   476.0     4.00     3.95
1.86     YES
 L0006094         0   0.42660E-06  474479.8 3752179.7   476.0     4.00     3.95
1.86     YES
 L0006095         0   0.42660E-06  474471.4 3752178.4   476.0     4.00     3.95
1.86     YES
 L0006096         0   0.42660E-06  474463.0 3752177.2   476.0     4.00     3.95
1.86     YES
 L0006097         0   0.42660E-06  474454.6 3752175.9   476.0     4.00     3.95
1.86     YES
 L0006098         0   0.42660E-06  474446.2 3752174.6   476.0     4.00     3.95
1.86     YES
 L0006099         0   0.42660E-06  474437.8 3752173.4   476.0     4.00     3.95
1.86     YES
 L0006100         0   0.42660E-06  474429.3 3752172.1   476.0     4.00     3.95
1.86     YES
 L0006101         0   0.42660E-06  474420.9 3752170.8   476.0     4.00     3.95
1.86     YES
 L0006102         0   0.42660E-06  474412.5 3752169.6   476.1     4.00     3.95
1.86     YES
 L0006103         0   0.42660E-06  474404.1 3752168.3   476.2     4.00     3.95
1.86     YES
 L0006104         0   0.42660E-06  474395.7 3752167.0   476.4     4.00     3.95
1.86     YES
 L0006105         0   0.42660E-06  474387.3 3752165.7   476.5     4.00     3.95
1.86     YES
 L0006106         0   0.42660E-06  474378.9 3752164.5   476.6     4.00     3.95
1.86     YES
 L0006107         0   0.42660E-06  474370.5 3752163.2   476.7     4.00     3.95
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1.86      YES
  L0006108          0   0.42660E-06   474362.1 3752161.9    476.8      4.00      3.95
1.86      YES
  L0006109          0   0.42660E-06   474353.7 3752160.7    476.9      4.00      3.95
1.86      YES
  L0006110          0   0.42660E-06   474345.3 3752159.4    477.0      4.00      3.95
1.86      YES
  L0006111          0   0.42660E-06   474336.9 3752158.1    477.0      4.00      3.95
1.86      YES
  L0006112          0   0.42660E-06   474328.5 3752156.8    477.0      4.00      3.95
1.86      YES
  L0006113          0   0.42660E-06   474320.1 3752155.6    477.0      4.00      3.95
1.86      YES
  L0006114          0   0.42660E-06   474311.7 3752154.3    477.0      4.00      3.95
1.86      YES
  L0006115          0   0.42660E-06   474303.3 3752153.0    477.0      4.00      3.95
1.86      YES
  L0006116          0   0.42660E-06   474294.9 3752151.8    477.0      4.00      3.95
1.86      YES
  L0006117          0   0.42660E-06   474286.5 3752150.5    477.0      4.00      3.95
1.86      YES
  L0006118          0   0.42660E-06   474278.1 3752149.2    477.0      4.00      3.95
1.86      YES
  L0006119          0   0.42660E-06   474269.7 3752147.9    477.0      4.00      3.95
1.86      YES
  L0006120          0   0.42660E-06   474261.3 3752146.7    477.0      4.00      3.95
1.86      YES
  L0006121          0   0.42660E-06   474252.9 3752145.4    477.0      4.00      3.95
1.86      YES
  L0006122          0   0.42660E-06   474244.4 3752144.1    477.0      4.00      3.95
1.86      YES
  L0006123          0   0.42660E-06   474236.0 3752142.9    477.0      4.00      3.95
1.86      YES
  L0006124          0   0.42660E-06   474227.6 3752141.6    477.0      4.00      3.95
1.86      YES
  L0006125          0   0.42660E-06   474219.2 3752140.3    477.0      4.00      3.95
1.86      YES
  L0006126          0   0.42660E-06   474210.8 3752139.0    477.0      4.00      3.95
1.86      YES
  L0006127          0   0.42660E-06   474202.4 3752137.8    477.0      4.00      3.95
1.86      YES
  L0006128          0   0.42660E-06   474194.0 3752136.5    477.0      4.00      3.95
1.86      YES
  L0006129          0   0.42660E-06   474185.6 3752135.2    477.1      4.00      3.95
1.86      YES
  L0006130          0   0.42660E-06   474177.2 3752134.0    477.2      4.00      3.95
1.86      YES
  L0006131          0   0.42660E-06   474168.8 3752132.7    477.3      4.00      3.95
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1.86     YES
 L0006132         0   0.42660E-06  474160.4 3752131.3   477.4     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006133         0   0.42660E-06  474152.0 3752129.9   477.5     4.00     3.95
1.86     YES
 L0006134         0   0.42660E-06  474143.7 3752128.5   477.6     4.00     3.95
1.86     YES
 L0006135         0   0.42660E-06  474135.3 3752127.1   477.7     4.00     3.95
1.86     YES
 L0006136         0   0.42660E-06  474126.9 3752125.7   477.9     4.00     3.95
1.86     YES
 L0006137         0   0.42660E-06  474118.5 3752124.3   478.0     4.00     3.95
1.86     YES
 L0006138         0   0.42660E-06  474110.1 3752122.9   478.0     4.00     3.95
1.86     YES
 L0006139         0   0.42660E-06  474101.7 3752121.5   478.0     4.00     3.95
1.86     YES
 L0006140         0   0.42660E-06  474093.3 3752120.1   478.0     4.00     3.95
1.86     YES
 L0006141         0   0.42660E-06  474085.0 3752118.8   478.0     4.00     3.95
1.86     YES
 L0006142         0   0.42660E-06  474076.6 3752117.4   478.0     4.00     3.95
1.86     YES
 L0006143         0   0.42660E-06  474068.2 3752116.0   478.0     4.00     3.95
1.86     YES
 L0006144         0   0.42660E-06  474059.8 3752114.6   478.0     4.00     3.95
1.86     YES
 L0006145         0   0.42660E-06  474051.4 3752113.2   478.0     4.00     3.95
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1.86      YES
 L0006146          0   0.42660E-06   474043.0 3752111.8    478.0      4.00      3.95
1.86      YES
 L0006147          0   0.10660E-06   477480.6 3749800.2    458.0      0.00      3.95
1.86      YES
 L0006148          0   0.10660E-06   477480.4 3749808.7    458.0      0.00      3.95
1.86      YES
 L0006149          0   0.10660E-06   477480.3 3749817.2    458.0      0.00      3.95
1.86      YES
 L0006150          0   0.10660E-06   477480.1 3749825.7    458.0      0.00      3.95
1.86      YES
 L0006151          0   0.10660E-06   477480.0 3749834.2    458.0      0.00      3.95
1.86      YES
 L0006152          0   0.10660E-06   477479.9 3749842.7    458.0      0.00      3.95
1.86      YES
 L0006153          0   0.10660E-06   477479.7 3749851.2    458.0      0.00      3.95
1.86      YES
 L0006154          0   0.10660E-06   477479.6 3749859.7    458.0      0.00      3.95
1.86      YES
 L0006155          0   0.10660E-06   477479.5 3749868.2    458.0      0.00      3.95
1.86      YES
 L0006156          0   0.10660E-06   477479.3 3749876.7    458.0      0.00      3.95
1.86      YES
 L0006157          0   0.10660E-06   477479.2 3749885.2    458.0      0.00      3.95
1.86      YES
 L0006158          0   0.10660E-06   477479.1 3749893.7    458.0      0.00      3.95
1.86      YES
 L0006159          0   0.10660E-06   477478.9 3749902.2    458.0      0.00      3.95
1.86      YES
 L0006160          0   0.10660E-06   477478.8 3749910.7    458.0      0.00      3.95
1.86      YES
 L0006161          0   0.10660E-06   477478.7 3749919.2    458.0      0.00      3.95
1.86      YES
 L0006162          0   0.10660E-06   477478.5 3749927.7    458.0      0.00      3.95
1.86      YES
 L0006163          0   0.10660E-06   477478.4 3749936.2    458.0      0.00      3.95
1.86      YES
 L0006164          0   0.10660E-06   477478.2 3749944.7    458.0      0.00      3.95
1.86      YES
 L0006165          0   0.10660E-06   477478.1 3749953.2    458.0      0.00      3.95
1.86      YES
 L0006166          0   0.10660E-06   477478.0 3749961.7    458.2      0.00      3.95
1.86      YES
 L0006167          0   0.10660E-06   477477.8 3749970.2    458.4      0.00      3.95
1.86      YES
 L0006168          0   0.10660E-06   477477.7 3749978.7    458.7      0.00      3.95
1.86      YES
 L0006169          0   0.10660E-06   477477.6 3749987.2    459.0      0.00      3.95
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1.86      YES
 L0006170         0   0.10660E-06   477477.4 3749995.7   459.0     0.00     3.95
1.86      YES
 L0006171         0   0.10660E-06   477477.3 3750004.2   459.0     0.00     3.95
1.86      YES
 L0006172         0   0.10660E-06   477477.2 3750012.7   459.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006173         0   0.10660E-06   477477.0 3750021.2   459.0     0.00     3.95
1.86      YES
 L0006174         0   0.10660E-06   477476.9 3750029.7   459.0     0.00     3.95
1.86      YES
 L0006175         0   0.10660E-06   477476.8 3750038.2   459.0     0.00     3.95
1.86      YES
 L0006176         0   0.10660E-06   477476.6 3750046.7   459.0     0.00     3.95
1.86      YES
 L0006177         0   0.10660E-06   477476.5 3750055.2   459.0     0.00     3.95
1.86      YES
 L0006178         0   0.10660E-06   477476.3 3750063.7   459.0     0.00     3.95
1.86      YES
 L0006179         0   0.10660E-06   477476.2 3750072.2   459.0     0.00     3.95
1.86      YES
 L0006180         0   0.10660E-06   477476.1 3750080.7   459.0     0.00     3.95
1.86      YES
 L0006181         0   0.10660E-06   477475.9 3750089.2   459.0     0.00     3.95
1.86      YES
 L0006182         0   0.10660E-06   477475.8 3750097.7   459.0     0.00     3.95
1.86      YES
 L0006183         0   0.10660E-06   477475.7 3750106.2   459.0     0.00     3.95
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1.86      YES
 L0006184          0   0.10660E-06   477475.5 3750114.7    459.0      0.00      3.95
1.86      YES
 L0006185          0   0.10660E-06   477475.4 3750123.2    459.0      0.00      3.95
1.86      YES
 L0006186          0   0.10660E-06   477475.3 3750131.7    459.0      0.00      3.95
1.86      YES
 L0006187          0   0.10660E-06   477475.1 3750140.2    459.0      0.00      3.95
1.86      YES
 L0006188          0   0.10660E-06   477475.0 3750148.7    459.0      0.00      3.95
1.86      YES
 L0006189          0   0.10660E-06   477474.8 3750157.2    459.0      0.00      3.95
1.86      YES
 L0006190          0   0.10660E-06   477474.7 3750165.7    459.0      0.00      3.95
1.86      YES
 L0006191          0   0.10660E-06   477474.2 3750174.2    459.0      0.00      3.95
1.86      YES
 L0006192          0   0.10660E-06   477473.5 3750182.6    459.0      0.00      3.95
1.86      YES
 L0006193          0   0.10660E-06   477472.8 3750191.1    459.0      0.00      3.95
1.86      YES
 L0006194          0   0.10660E-06   477472.1 3750199.6    459.0      0.00      3.95
1.86      YES
 L0006195          0   0.10660E-06   477471.4 3750208.0    459.2      0.00      3.95
1.86      YES
 L0006196          0   0.10660E-06   477470.7 3750216.5    459.2      0.00      3.95
1.86      YES
 L0006197          0   0.10660E-06   477470.0 3750225.0    459.3      0.00      3.95
1.86      YES
 L0006198          0   0.10660E-06   477469.3 3750233.5    459.5      0.00      3.95
1.86      YES
 L0006199          0   0.10660E-06   477468.7 3750241.9    459.7      0.00      3.95
1.86      YES
 L0006200          0   0.10660E-06   477468.0 3750250.4    459.9      0.00      3.95
1.86      YES
 L0006201          0   0.10660E-06   477467.3 3750258.9    460.0      0.00      3.95
1.86      YES
 L0006202          0   0.10660E-06   477466.6 3750267.3    460.0      0.00      3.95
1.86      YES
 L0006203          0   0.10660E-06   477466.5 3750275.8    460.0      0.00      3.95
1.86      YES
 L0006204          0   0.10660E-06   477466.5 3750284.3    460.0      0.00      3.95
1.86      YES
 L0006205          0   0.10660E-06   477466.5 3750292.8    460.0      0.00      3.95
1.86      YES
 L0006206          0   0.10660E-06   477466.6 3750301.3    460.0      0.00      3.95
1.86      YES
 L0006207          0   0.10660E-06   477466.6 3750309.8    460.0      0.00      3.95
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1.86      YES
 L0006208         0   0.10660E-06  477466.6 3750318.3   460.0     0.00     3.95
1.86      YES
 L0006209         0   0.10660E-06  477466.7 3750326.8   460.0     0.00     3.95
1.86      YES
 L0006210         0   0.10660E-06  477466.7 3750335.3   460.0     0.00     3.95
1.86      YES
 L0006211         0   0.10660E-06  477466.7 3750343.8   460.0     0.00     3.95
1.86      YES
 L0006212         0   0.10660E-06  477466.8 3750352.3   460.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006213         0   0.10660E-06  477466.8 3750360.8   460.0     0.00     3.95
1.86      YES
 L0006214         0   0.10660E-06  477466.9 3750369.3   460.0     0.00     3.95
1.86      YES
 L0006215         0   0.10660E-06  477466.9 3750377.8   460.0     0.00     3.95
1.86      YES
 L0006216         0   0.10660E-06  477466.9 3750386.3   460.0     0.00     3.95
1.86      YES
 L0006217         0   0.10660E-06  477467.0 3750394.8   460.0     0.00     3.95
1.86      YES
 L0006218         0   0.10660E-06  477467.0 3750403.3   460.0     0.00     3.95
1.86      YES
 L0006219         0   0.10660E-06  477467.0 3750411.8   460.0     0.00     3.95
1.86      YES
 L0006220         0   0.10660E-06  477467.1 3750420.3   460.0     0.00     3.95
1.86      YES
 L0006221         0   0.10660E-06  477467.1 3750428.8   460.0     0.00     3.95
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1.86      YES
 L0006222          0   0.10660E-06   477467.1 3750437.3    460.0      0.00      3.95
1.86      YES
 L0006223          0   0.10660E-06   477467.2 3750445.8    460.0      0.00      3.95
1.86      YES
 L0006224          0   0.10660E-06   477467.2 3750454.3    460.0      0.00      3.95
1.86      YES
 L0006225          0   0.10660E-06   477467.3 3750462.8    460.0      0.00      3.95
1.86      YES
 L0006226          0   0.10660E-06   477467.3 3750471.3    460.2      0.00      3.95
1.86      YES
 L0006227          0   0.10660E-06   477467.3 3750479.8    460.4      0.00      3.95
1.86      YES
 L0006228          0   0.10660E-06   477467.4 3750488.3    460.7      0.00      3.95
1.86      YES
 L0006229          0   0.10660E-06   477467.4 3750496.8    461.0      0.00      3.95
1.86      YES
 L0006230          0   0.10660E-06   477467.4 3750505.3    461.0      0.00      3.95
1.86      YES
 L0006231          0   0.10660E-06   477467.5 3750513.8    461.0      0.00      3.95
1.86      YES
 L0006232          0   0.10660E-06   477467.5 3750522.3    461.0      0.00      3.95
1.86      YES
 L0006233          0   0.10660E-06   477467.5 3750530.8    461.0      0.00      3.95
1.86      YES
 L0006234          0   0.10660E-06   477467.6 3750539.3    461.0      0.00      3.95
1.86      YES
 L0006235          0   0.10660E-06   477467.7 3750547.8    461.0      0.00      3.95
1.86      YES
 L0006236          0   0.10660E-06   477467.9 3750556.3    461.0      0.00      3.95
1.86      YES
 L0006237          0   0.10660E-06   477468.2 3750564.8    461.0      0.00      3.95
1.86      YES
 L0006238          0   0.10660E-06   477468.4 3750573.3    461.0      0.00      3.95
1.86      YES
 L0006239          0   0.10660E-06   477468.7 3750581.8    461.0      0.00      3.95
1.86      YES
 L0006240          0   0.10660E-06   477468.9 3750590.3    461.0      0.00      3.95
1.86      YES
 L0006241          0   0.10660E-06   477469.2 3750598.8    461.0      0.00      3.95
1.86      YES
 L0006242          0   0.10660E-06   477469.4 3750607.3    461.0      0.00      3.95
1.86      YES
 L0006243          0   0.10660E-06   477469.7 3750615.8    461.0      0.00      3.95
1.86      YES
 L0006244          0   0.10660E-06   477469.9 3750624.3    461.0      0.00      3.95
1.86      YES
 L0006245          0   0.10660E-06   477470.2 3750632.8    461.0      0.00      3.95
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1.86      YES
 L0006246          0   0.10660E-06  477470.4 3750641.3   461.0     0.00     3.95
1.86      YES
 L0006247          0   0.10660E-06  477470.7 3750649.8   461.0     0.00     3.95
1.86      YES
 L0006248          0   0.10660E-06  477470.9 3750658.3   461.2     0.00     3.95
1.86      YES
 L0006249          0   0.10660E-06  477471.2 3750666.8   461.3     0.00     3.95
1.86      YES
 L0006250          0   0.10660E-06  477471.4 3750675.3   461.4     0.00     3.95
1.86      YES
 L0006251          0   0.10660E-06  477471.7 3750683.8   461.5     0.00     3.95
1.86      YES
 L0006252          0   0.10660E-06  477471.9 3750692.3   461.7     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0006253          0   0.10660E-06  477472.2 3750700.8   461.9     0.00     3.95
1.86      YES
 L0006254          0   0.10660E-06  477472.4 3750709.3   462.0     0.00     3.95
1.86      YES
 L0006255          0   0.10660E-06  477472.7 3750717.8   462.0     0.00     3.95
1.86      YES
 L0006256          0   0.10660E-06  477472.9 3750726.3   462.0     0.00     3.95
1.86      YES
 L0006257          0   0.10660E-06  477473.2 3750734.8   462.0     0.00     3.95
1.86      YES
 L0006258          0   0.10660E-06  477473.4 3750743.3   462.0     0.00     3.95
1.86      YES
 L0006259          0   0.10660E-06  477473.7 3750751.7   462.0     0.00     3.95
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1.86      YES
 L0006260          0   0.10660E-06   477473.9 3750760.2    462.0      0.00      3.95
1.86      YES
 L0006261          0   0.10660E-06   477474.2 3750768.7    462.0      0.00      3.95
1.86      YES
 L0006262          0   0.10660E-06   477474.4 3750777.2    462.0      0.00      3.95
1.86      YES
 L0006263          0   0.10660E-06   477474.7 3750785.7    462.0      0.00      3.95
1.86      YES
 L0006264          0   0.10660E-06   477474.9 3750794.2    462.0      0.00      3.95
1.86      YES
 L0006265          0   0.10660E-06   477475.2 3750802.7    462.0      0.00      3.95
1.86      YES
 L0006266          0   0.10660E-06   477475.4 3750811.2    462.0      0.00      3.95
1.86      YES
 L0006267          0   0.10660E-06   477475.7 3750819.7    462.0      0.00      3.95
1.86      YES
 L0006268          0   0.10660E-06   477475.9 3750828.2    462.0      0.00      3.95
1.86      YES
 L0006269          0   0.10660E-06   477476.2 3750836.7    462.0      0.00      3.95
1.86      YES
 L0006270          0   0.10660E-06   477476.4 3750845.2    462.0      0.00      3.95
1.86      YES
 L0006271          0   0.10660E-06   477476.7 3750853.7    462.0      0.00      3.95
1.86      YES
 L0006272          0   0.10660E-06   477476.9 3750862.2    462.1      0.00      3.95
1.86      YES
 L0006273          0   0.10660E-06   477477.1 3750870.7    462.3      0.00      3.95
1.86      YES
 L0006274          0   0.10660E-06   477477.1 3750879.2    462.4      0.00      3.95
1.86      YES
 L0006275          0   0.10660E-06   477477.2 3750887.7    462.6      0.00      3.95
1.86      YES
 L0006276          0   0.10660E-06   477477.2 3750896.2    462.7      0.00      3.95
1.86      YES
 L0006277          0   0.10660E-06   477477.3 3750904.7    462.8      0.00      3.95
1.86      YES
 L0006278          0   0.10660E-06   477477.3 3750913.2    462.9      0.00      3.95
1.86      YES
 L0006279          0   0.10660E-06   477477.4 3750921.7    463.0      0.00      3.95
1.86      YES
 L0006280          0   0.10660E-06   477477.4 3750930.2    463.0      0.00      3.95
1.86      YES
 L0006281          0   0.10660E-06   477477.5 3750938.7    463.0      0.00      3.95
1.86      YES
 L0006282          0   0.10660E-06   477477.6 3750947.2    463.0      0.00      3.95
1.86      YES
 L0006283          0   0.10660E-06   477477.6 3750955.7    463.0      0.00      3.95
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1.86     YES
 L0006284        0   0.10660E-06  477477.7 3750964.2   463.0     0.00     3.95
1.86     YES
 L0006285        0   0.10660E-06  477477.7 3750972.7   463.0     0.00     3.95
1.86     YES
 L0006286        0   0.10660E-06  477477.8 3750981.2   463.0     0.00     3.95
1.86     YES
 L0006287        0   0.10660E-06  477477.8 3750989.7   463.0     0.00     3.95
1.86     YES
 L0006288        0   0.10660E-06  477477.9 3750998.2   463.0     0.00     3.95
1.86     YES
 L0006289        0   0.10660E-06  477477.9 3751006.7   463.0     0.00     3.95
1.86     YES
 L0006290        0   0.10660E-06  477478.0 3751015.2   463.0     0.00     3.95
1.86     YES
 L0006291        0   0.10660E-06  477478.0 3751023.7   463.0     0.00     3.95
1.86     YES
 L0006292        0   0.10660E-06  477478.1 3751032.2   463.0     0.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0006293        0   0.10660E-06  477478.1 3751040.7   463.0     0.00     3.95
1.86     YES
 L0006294        0   0.10660E-06  477478.2 3751049.2   463.0     0.00     3.95
1.86     YES
 L0006295        0   0.10660E-06  477478.3 3751057.7   463.0     0.00     3.95
1.86     YES
 L0006296        0   0.10660E-06  477478.3 3751066.2   463.0     0.00     3.95
1.86     YES
 L0006297        0   0.10660E-06  477478.4 3751074.7   463.2     0.00     3.95
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1.86      YES
 L0006298          0   0.10660E-06  477478.4 3751083.2   463.3      0.00      3.95
1.86      YES
 L0006299          0   0.10660E-06  477478.5 3751091.7   463.5      0.00      3.95
1.86      YES
 L0006300          0   0.10660E-06  477478.5 3751100.2   463.7      0.00      3.95
1.86      YES
 L0006301          0   0.10660E-06  477478.6 3751108.7   463.8      0.00      3.95
1.86      YES
 L0006302          0   0.10660E-06  477478.6 3751117.2   463.9      0.00      3.95
1.86      YES
 L0006303          0   0.10660E-06  477478.7 3751125.7   464.0      0.00      3.95
1.86      YES
 L0006304          0   0.10660E-06  477478.7 3751134.2   464.0      0.00      3.95
1.86      YES
 L0006305          0   0.10660E-06  477478.8 3751142.7   464.0      0.00      3.95
1.86      YES
 L0006306          0   0.10660E-06  477478.9 3751151.2   464.0      0.00      3.95
1.86      YES
 L0006307          0   0.10660E-06  477478.9 3751159.7   464.0      0.00      3.95
1.86      YES
 L0006308          0   0.10660E-06  477479.0 3751168.2   464.0      0.00      3.95
1.86      YES
 L0006309          0   0.10660E-06  477479.0 3751176.7   464.0      0.00      3.95
1.86      YES
 L0006310          0   0.10660E-06  477479.1 3751185.2   464.0      0.00      3.95
1.86      YES
 L0006311          0   0.10660E-06  477479.1 3751193.7   464.0      0.00      3.95
1.86      YES
 L0006312          0   0.10660E-06  477479.2 3751202.2   464.0      0.00      3.95
1.86      YES
 L0006313          0   0.10660E-06  477479.2 3751210.7   464.0      0.00      3.95
1.86      YES
 L0006314          0   0.10660E-06  477479.3 3751219.2   464.0      0.00      3.95
1.86      YES
 L0006315          0   0.10660E-06  477479.3 3751227.7   464.0      0.00      3.95
1.86      YES
 L0006316          0   0.10660E-06  477479.4 3751236.2   464.0      0.00      3.95
1.86      YES
 L0006317          0   0.10660E-06  477479.3 3751244.7   464.0      0.00      3.95
1.86      YES
 L0006318          0   0.10660E-06  477479.3 3751253.2   464.2      0.00      3.95
1.86      YES
 L0006319          0   0.10660E-06  477479.2 3751261.7   464.5      0.00      3.95
1.86      YES
 L0006320          0   0.10660E-06  477479.2 3751270.2   464.8      0.00      3.95
1.86      YES
 L0006321          0   0.10660E-06  477479.1 3751278.7   465.0      0.00      3.95
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1.86      YES
 L0006322         0   0.10660E-06   477479.0 3751287.2   465.0     0.00     3.95
1.86      YES
 L0006323         0   0.10660E-06   477479.0 3751295.7   465.0     0.00     3.95
1.86      YES
 L0006324         0   0.10660E-06   477478.9 3751304.2   465.0     0.00     3.95
1.86      YES
 L0006325         0   0.10660E-06   477478.9 3751312.7   465.0     0.00     3.95
1.86      YES
 L0006326         0   0.10660E-06   477478.8 3751321.2   465.0     0.00     3.95
1.86      YES
 L0006327         0   0.10660E-06   477478.7 3751329.7   465.0     0.00     3.95
1.86      YES
 L0006328         0   0.10660E-06   477478.7 3751338.2   465.0     0.00     3.95
1.86      YES
 L0006329         0   0.10660E-06   477478.6 3751346.7   465.0     0.00     3.95
1.86      YES
 L0006330         0   0.10660E-06   477478.6 3751355.2   465.0     0.00     3.95
1.86      YES
 L0006331         0   0.10660E-06   477478.5 3751363.7   465.0     0.00     3.95
1.86      YES
 L0006332         0   0.10660E-06   477478.5 3751372.2   465.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***          10:14:10

                                     PAGE  44
 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006333         0   0.10660E-06   477478.4 3751380.7   465.0     0.00     3.95
1.86      YES
 L0006334         0   0.10660E-06   477478.3 3751389.2   465.0     0.00     3.95
1.86      YES
 L0006335         0   0.10660E-06   477478.3 3751397.7   465.0     0.00     3.95
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1.86      YES
 L0006336          0   0.10660E-06   477478.2 3751406.2    465.0      0.00      3.95
1.86      YES
 L0006337          0   0.10660E-06   477478.2 3751414.7    465.0      0.00      3.95
1.86      YES
 L0006338          0   0.10660E-06   477478.1 3751423.2    465.0      0.00      3.95
1.86      YES
 L0006339          0   0.10660E-06   477478.0 3751431.7    465.2      0.00      3.95
1.86      YES
 L0006340          0   0.10660E-06   477478.0 3751440.2    465.4      0.00      3.95
1.86      YES
 L0006341          0   0.10660E-06   477477.9 3751448.7    465.7      0.00      3.95
1.86      YES
 L0006342          0   0.10660E-06   477477.9 3751457.2    466.0      0.00      3.95
1.86      YES
 L0006343          0   0.10660E-06   477477.8 3751465.7    466.0      0.00      3.95
1.86      YES
 L0006344          0   0.10660E-06   477477.8 3751474.2    466.0      0.00      3.95
1.86      YES
 L0006345          0   0.10660E-06   477477.7 3751482.7    466.0      0.00      3.95
1.86      YES
 L0006346          0   0.10660E-06   477477.6 3751491.2    466.0      0.00      3.95
1.86      YES
 L0006347          0   0.10660E-06   477477.6 3751499.7    466.0      0.00      3.95
1.86      YES
 L0006348          0   0.10660E-06   477477.5 3751508.2    466.0      0.00      3.95
1.86      YES
 L0006349          0   0.10660E-06   477477.5 3751516.7    466.0      0.00      3.95
1.86      YES
 L0006350          0   0.10660E-06   477477.4 3751525.2    466.0      0.00      3.95
1.86      YES
 L0006351          0   0.10660E-06   477477.3 3751533.7    466.0      0.00      3.95
1.86      YES
 L0006352          0   0.10660E-06   477477.3 3751542.2    466.0      0.00      3.95
1.86      YES
 L0006353          0   0.10660E-06   477477.2 3751550.7    466.0      0.00      3.95
1.86      YES
 L0006354          0   0.10660E-06   477477.2 3751559.2    466.0      0.00      3.95
1.86      YES
 L0006355          0   0.10660E-06   477477.1 3751567.7    466.0      0.00      3.95
1.86      YES
 L0006356          0   0.10660E-06   477477.0 3751576.2    466.0      0.00      3.95
1.86      YES
 L0006357          0   0.10660E-06   477477.0 3751584.7    466.0      0.00      3.95
1.86      YES
 L0006358          0   0.10660E-06   477476.9 3751593.2    466.0      0.00      3.95
1.86      YES
 L0006359          0   0.10660E-06   477476.9 3751601.7    466.0      0.00      3.95
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1.86      YES
 L0006360         0   0.10660E-06  477476.8 3751610.2   466.1     0.00     3.95
1.86      YES
 L0006361         0   0.10660E-06  477476.8 3751618.7   466.2     0.00     3.95
1.86      YES
 L0006362         0   0.10660E-06  477476.7 3751627.2   466.4     0.00     3.95
1.86      YES
 L0006363         0   0.10660E-06  477476.6 3751635.7   466.6     0.00     3.95
1.86      YES
 L0006364         0   0.10660E-06  477476.6 3751644.2   466.7     0.00     3.95
1.86      YES
 L0006365         0   0.10660E-06  477476.5 3751652.7   466.8     0.00     3.95
1.86      YES
 L0006366         0   0.10660E-06  477476.5 3751661.2   466.9     0.00     3.95
1.86      YES
 L0006367         0   0.10660E-06  477476.4 3751669.7   467.0     0.00     3.95
1.86      YES
 L0006368         0   0.10660E-06  477476.3 3751678.2   467.0     0.00     3.95
1.86      YES
 L0006369         0   0.10660E-06  477476.3 3751686.7   467.0     0.00     3.95
1.86      YES
 L0006370         0   0.10660E-06  477476.2 3751695.2   467.0     0.00     3.95
1.86      YES
 L0006371         0   0.10660E-06  477476.2 3751703.7   467.0     0.00     3.95
1.86      YES
 L0006372         0   0.10660E-06  477476.1 3751712.2   467.0     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006373         0   0.10660E-06  477476.1 3751720.7   467.0     0.00     3.95
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1.86      YES
 L0006374         0   0.10660E-06   477476.0 3751729.2    467.1      0.00      3.95
1.86      YES
 L0006375         0   0.10660E-06   477475.9 3751737.7    467.2      0.00      3.95
1.86      YES
 L0006376         0   0.10660E-06   477475.9 3751746.2    467.4      0.00      3.95
1.86      YES
 L0006377         0   0.10660E-06   477475.8 3751754.7    467.5      0.00      3.95
1.86      YES
 L0006378         0   0.10660E-06   477475.8 3751763.2    467.6      0.00      3.95
1.86      YES
 L0006379         0   0.10660E-06   477475.7 3751771.7    467.8      0.00      3.95
1.86      YES
 L0006380         0   0.10660E-06   477475.6 3751780.2    467.9      0.00      3.95
1.86      YES
 L0006381         0   0.10660E-06   477475.6 3751788.7    468.0      0.00      3.95
1.86      YES
 L0006382         0   0.10660E-06   477475.5 3751797.2    468.0      0.00      3.95
1.86      YES
 L0006383         0   0.10660E-06   477475.5 3751805.7    468.0      0.00      3.95
1.86      YES
 L0006384         0   0.10660E-06   477475.4 3751814.2    468.0      0.00      3.95
1.86      YES
 L0006385         0   0.10660E-06   477475.4 3751822.7    468.0      0.00      3.95
1.86      YES
 L0006386         0   0.10660E-06   477475.3 3751831.2    468.0      0.00      3.95
1.86      YES
 L0006387         0   0.10660E-06   477475.2 3751839.7    468.0      0.00      3.95
1.86      YES
 L0006388         0   0.10660E-06   477475.2 3751848.2    468.0      0.00      3.95
1.86      YES
 L0006389         0   0.10660E-06   477475.1 3751856.7    468.0      0.00      3.95
1.86      YES
 L0006390         0   0.10660E-06   477475.1 3751865.2    468.0      0.00      3.95
1.86      YES
 L0006391         0   0.10660E-06   477475.0 3751873.7    468.0      0.00      3.95
1.86      YES
 L0006392         0   0.10660E-06   477474.9 3751882.2    468.2      0.00      3.95
1.86      YES
 L0006393         0   0.10660E-06   477474.9 3751890.7    468.5      0.00      3.95
1.86      YES
 L0006394         0   0.10660E-06   477474.8 3751899.2    468.8      0.00      3.95
1.86      YES
 L0006395         0   0.10660E-06   477474.8 3751907.7    469.0      0.00      3.95
1.86      YES
 L0006396         0   0.10660E-06   477474.7 3751916.2    469.0      0.00      3.95
1.86      YES
 L0006397         0   0.10660E-06   477474.7 3751924.7    469.0      0.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0006398         0   0.10660E-06   477474.6 3751933.2   469.0     0.00     3.95
1.86      YES
 L0006399         0   0.10660E-06   477474.5 3751941.7   469.0     0.00     3.95
1.86      YES
 L0006400         0   0.10660E-06   477474.5 3751950.2   469.0     0.00     3.95
1.86      YES
 L0006401         0   0.10660E-06   477474.4 3751958.7   469.0     0.00     3.95
1.86      YES
 L0006402         0   0.10660E-06   477474.4 3751967.2   469.0     0.00     3.95
1.86      YES
 L0006403         0   0.10660E-06   477474.3 3751975.7   469.0     0.00     3.95
1.86      YES
 L0006404         0   0.10660E-06   477474.2 3751984.2   469.0     0.00     3.95
1.86      YES
 L0006405         0   0.10660E-06   477474.2 3751992.7   469.0     0.00     3.95
1.86      YES
 L0006406         0   0.10660E-06   477474.1 3752001.2   469.0     0.00     3.95
1.86      YES
 L0006407         0   0.10660E-06   477474.1 3752009.7   469.0     0.00     3.95
1.86      YES
 L0006408         0   0.10660E-06   477474.0 3752018.2   469.0     0.00     3.95
1.86      YES
 L0006409         0   0.10660E-06   477474.0 3752026.7   469.0     0.00     3.95
1.86      YES
 L0006410         0   0.10660E-06   477473.9 3752035.2   469.1     0.00     3.95
1.86      YES
 L0006411         0   0.10660E-06   477473.8 3752043.7   469.3     0.00     3.95
1.86      YES
 L0006412         0   0.10660E-06   477473.8 3752052.2   469.4     0.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                           ***        10:14:10

                                      PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                          *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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                                     AERMOD HRA Output
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 L0006413         0   0.10660E-06  477473.7 3752060.7   469.5     0.00     3.95
1.86     YES
 L0006414         0   0.10660E-06  477473.7 3752069.2   469.5     0.00     3.95
1.86     YES
 L0006415         0   0.10660E-06  477473.6 3752077.7   469.5     0.00     3.95
1.86     YES
 L0006416         0   0.10660E-06  477473.5 3752086.2   469.5     0.00     3.95
1.86     YES
 L0006417         0   0.10660E-06  477473.5 3752094.7   469.6     0.00     3.95
1.86     YES
 L0006418         0   0.10660E-06  477473.4 3752103.2   469.8     0.00     3.95
1.86     YES
 L0006419         0   0.10660E-06  477473.4 3752111.7   469.9     0.00     3.95
1.86     YES
 L0006420         0   0.10660E-06  477473.3 3752120.2   470.1     0.00     3.95
1.86     YES
 L0006421         0   0.10660E-06  477473.3 3752128.7   470.2     0.00     3.95
1.86     YES
 L0006422         0   0.10660E-06  477473.2 3752137.2   470.3     0.00     3.95
1.86     YES
 L0006423         0   0.10660E-06  477473.1 3752145.7   470.4     0.00     3.95
1.86     YES
 L0006424         0   0.10660E-06  477473.1 3752154.2   470.6     0.00     3.95
1.86     YES
 L0006425         0   0.10660E-06  477473.0 3752162.7   470.7     0.00     3.95
1.86     YES
 L0006426         0   0.10660E-06  477473.0 3752171.2   470.9     0.00     3.95
1.86     YES
 L0006427         0   0.10660E-06  477472.9 3752179.7   471.0     0.00     3.95
1.86     YES
 L0006428         0   0.10660E-06  477472.8 3752188.2   471.0     0.00     3.95
1.86     YES
 L0006429         0   0.10660E-06  477472.8 3752196.7   471.0     0.00     3.95
1.86     YES
 L0006430         0   0.10660E-06  477472.7 3752205.2   471.0     0.00     3.95
1.86     YES
 L0006431         0   0.10660E-06  477472.7 3752213.7   471.2     0.00     3.95
1.86     YES
 L0006432         0   0.10660E-06  477472.6 3752222.2   471.5     0.00     3.95
1.86     YES
 L0006433         0   0.53280E-06  477466.5 3747781.2   451.0     4.00     3.95
1.86     YES
 L0006434         0   0.53280E-06  477475.0 3747781.2   451.0     4.00     3.95
1.86     YES
 L0006435         0   0.53280E-06  477483.5 3747781.1   451.0     4.00     3.95
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1.86      YES
 L0006436         0   0.53280E-06  477492.0 3747781.1   451.0     4.00     3.95
1.86      YES
 L0006437         0   0.53280E-06  477500.5 3747781.0   451.0     4.00     3.95
1.86      YES
 L0006438         0   0.53280E-06  477509.0 3747781.0   451.0     4.00     3.95
1.86      YES
 L0006439         0   0.53280E-06  477517.5 3747780.9   451.0     4.00     3.95
1.86      YES
 L0006440         0   0.53280E-06  477526.0 3747780.9   451.0     4.00     3.95
1.86      YES
 L0006441         0   0.53280E-06  477534.5 3747780.8   451.0     4.00     3.95
1.86      YES
 L0006442         0   0.53280E-06  477543.0 3747780.7   451.0     4.00     3.95
1.86      YES
 L0006443         0   0.53280E-06  477551.5 3747780.7   451.0     4.00     3.95
1.86      YES
 L0006444         0   0.53280E-06  477560.0 3747780.6   451.0     4.00     3.95
1.86      YES
 L0006445         0   0.53280E-06  477568.5 3747780.6   451.0     4.00     3.95
1.86      YES
 L0006446         0   0.53280E-06  477577.0 3747780.5   451.0     4.00     3.95
1.86      YES
 L0006447         0   0.53280E-06  477585.5 3747780.5   451.0     4.00     3.95
1.86      YES
 L0006448         0   0.53280E-06  477594.0 3747780.4   451.0     4.00     3.95
1.86      YES
 L0006449         0   0.53280E-06  477602.5 3747780.3   451.0     4.00     3.95
1.86      YES
 L0006450         0   0.53280E-06  477611.0 3747780.3   451.0     4.00     3.95
1.86      YES
 L0006451         0   0.53280E-06  477619.5 3747780.2   451.0     4.00     3.95
1.86      YES
 L0006452         0   0.53280E-06  477628.0 3747780.2   451.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006453         0   0.53280E-06  477636.5 3747780.1   451.0     4.00     3.95
1.86     YES
 L0006454         0   0.53280E-06  477645.0 3747780.1   450.9     4.00     3.95
1.86     YES
 L0006455         0   0.53280E-06  477653.5 3747780.0   450.8     4.00     3.95
1.86     YES
 L0006456         0   0.53280E-06  477662.0 3747780.0   450.6     4.00     3.95
1.86     YES
 L0006457         0   0.53280E-06  477670.5 3747779.9   450.4     4.00     3.95
1.86     YES
 L0006458         0   0.53280E-06  477679.0 3747779.8   450.3     4.00     3.95
1.86     YES
 L0006459         0   0.53280E-06  477687.5 3747779.8   450.2     4.00     3.95
1.86     YES
 L0006460         0   0.53280E-06  477696.0 3747779.7   450.1     4.00     3.95
1.86     YES
 L0006461         0   0.53280E-06  477704.5 3747779.7   450.0     4.00     3.95
1.86     YES
 L0006462         0   0.53280E-06  477713.0 3747779.6   450.0     4.00     3.95
1.86     YES
 L0006463         0   0.53280E-06  477721.5 3747779.6   450.0     4.00     3.95
1.86     YES
 L0006464         0   0.53280E-06  477730.0 3747779.5   450.0     4.00     3.95
1.86     YES
 L0006465         0   0.53280E-06  477738.5 3747779.4   450.0     4.00     3.95
1.86     YES
 L0006466         0   0.53280E-06  477747.0 3747779.4   450.0     4.00     3.95
1.86     YES
 L0006467         0   0.53280E-06  477755.5 3747779.3   450.0     4.00     3.95
1.86     YES
 L0006468         0   0.53280E-06  477764.0 3747779.3   450.0     4.00     3.95
1.86     YES
 L0006469         0   0.53280E-06  477772.5 3747779.2   450.0     4.00     3.95
1.86     YES
 L0006470         0   0.53280E-06  477781.0 3747779.2   450.0     4.00     3.95
1.86     YES
 L0006471         0   0.53280E-06  477789.5 3747779.1   450.0     4.00     3.95
1.86     YES
 L0006472         0   0.53280E-06  477798.0 3747779.1   450.0     4.00     3.95
1.86     YES
 L0006473         0   0.53280E-06  477806.5 3747779.0   450.0     4.00     3.95
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1.86      YES
 L0006474          0   0.53280E-06   477815.0 3747778.9   450.0     4.00     3.95
1.86      YES
 L0006475          0   0.53280E-06   477823.5 3747778.9   450.0     4.00     3.95
1.86      YES
 L0006476          0   0.53280E-06   477832.0 3747778.8   450.0     4.00     3.95
1.86      YES
 L0006477          0   0.53280E-06   477840.5 3747778.8   450.0     4.00     3.95
1.86      YES
 L0006478          0   0.53280E-06   477849.0 3747778.7   450.0     4.00     3.95
1.86      YES
 L0006479          0   0.53280E-06   477857.5 3747778.7   450.0     4.00     3.95
1.86      YES
 L0006480          0   0.53280E-06   477866.0 3747778.6   450.0     4.00     3.95
1.86      YES
 L0006481          0   0.53280E-06   477874.5 3747778.6   450.0     4.00     3.95
1.86      YES
 L0006482          0   0.53280E-06   477883.0 3747778.5   450.0     4.00     3.95
1.86      YES
 L0006483          0   0.53280E-06   477891.5 3747778.4   450.0     4.00     3.95
1.86      YES
 L0006484          0   0.53280E-06   477900.0 3747778.4   450.0     4.00     3.95
1.86      YES
 L0006485          0   0.53280E-06   477908.5 3747778.3   450.0     4.00     3.95
1.86      YES
 L0006486          0   0.53280E-06   477917.0 3747778.3   450.0     4.00     3.95
1.86      YES
 L0006487          0   0.53280E-06   477925.5 3747778.2   450.0     4.00     3.95
1.86      YES
 L0006488          0   0.53280E-06   477934.0 3747778.2   450.0     4.00     3.95
1.86      YES
 L0006489          0   0.53280E-06   477942.5 3747778.1   450.0     4.00     3.95
1.86      YES
 L0006490          0   0.53280E-06   477951.0 3747778.0   450.0     4.00     3.95
1.86      YES
 L0006491          0   0.53280E-06   477959.5 3747778.0   450.0     4.00     3.95
1.86      YES
 L0006492          0   0.53280E-06   477968.0 3747777.9   450.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                   AERMOD HRA Output
                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006493         0   0.53280E-06   477976.5 3747777.9   450.0     4.00     3.95
1.86     YES
 L0006494         0   0.53280E-06   477985.0 3747777.8   450.0     4.00     3.95
1.86     YES
 L0006495         0   0.53280E-06   477993.5 3747777.8   450.0     4.00     3.95
1.86     YES
 L0006496         0   0.53280E-06   478002.0 3747777.7   450.0     4.00     3.95
1.86     YES
 L0006497         0   0.53280E-06   478010.5 3747777.7   449.8     4.00     3.95
1.86     YES
 L0006498         0   0.53280E-06   478019.0 3747777.6   449.6     4.00     3.95
1.86     YES
 L0006499         0   0.53280E-06   478027.5 3747777.5   449.4     4.00     3.95
1.86     YES
 L0006500         0   0.53280E-06   478036.0 3747777.5   449.3     4.00     3.95
1.86     YES
 L0006501         0   0.53280E-06   478044.5 3747777.4   449.2     4.00     3.95
1.86     YES
 L0006502         0   0.53280E-06   478053.0 3747777.4   449.1     4.00     3.95
1.86     YES
 L0006503         0   0.53280E-06   478061.5 3747777.3   449.0     4.00     3.95
1.86     YES
 L0006504         0   0.53280E-06   478070.0 3747777.3   449.0     4.00     3.95
1.86     YES
 L0006505         0   0.53280E-06   478078.5 3747777.2   449.0     4.00     3.95
1.86     YES
 L0006506         0   0.53280E-06   478087.0 3747777.1   449.0     4.00     3.95
1.86     YES
 L0006507         0   0.53280E-06   478095.5 3747777.1   449.0     4.00     3.95
1.86     YES
 L0006508         0   0.53280E-06   478104.0 3747777.0   449.0     4.00     3.95
1.86     YES
 L0006509         0   0.53280E-06   478112.5 3747777.0   449.0     4.00     3.95
1.86     YES
 L0006510         0   0.53280E-06   478121.0 3747776.9   449.0     4.00     3.95
1.86     YES
 L0006511         0   0.53280E-06   478129.5 3747776.9   449.0     4.00     3.95
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1.86      YES
 L0006512          0   0.53280E-06   478138.0 3747776.8    449.0      4.00      3.95
1.86      YES
 L0006513          0   0.53280E-06   478146.5 3747776.8    449.0      4.00      3.95
1.86      YES
 L0006514          0   0.53280E-06   478155.0 3747776.7    449.0      4.00      3.95
1.86      YES
 L0006515          0   0.53280E-06   478163.5 3747776.6    449.0      4.00      3.95
1.86      YES
 L0006516          0   0.53280E-06   478172.0 3747776.6    449.0      4.00      3.95
1.86      YES
 L0006517          0   0.53280E-06   478180.5 3747776.5    449.0      4.00      3.95
1.86      YES
 L0006518          0   0.53280E-06   478189.0 3747776.5    449.0      4.00      3.95
1.86      YES
 L0006519          0   0.53280E-06   478197.5 3747776.4    449.0      4.00      3.95
1.86      YES
 L0006520          0   0.53280E-06   478206.0 3747776.4    449.0      4.00      3.95
1.86      YES
 L0006521          0   0.53280E-06   478214.5 3747776.3    449.0      4.00      3.95
1.86      YES
 L0006522          0   0.53280E-06   478223.0 3747776.2    449.0      4.00      3.95
1.86      YES
 L0006523          0   0.53280E-06   478231.5 3747776.2    449.0      4.00      3.95
1.86      YES
 L0006524          0   0.53280E-06   478240.0 3747776.1    449.0      4.00      3.95
1.86      YES
 L0006525          0   0.53280E-06   478248.5 3747776.1    449.0      4.00      3.95
1.86      YES
 L0006526          0   0.53280E-06   478257.0 3747776.0    449.0      4.00      3.95
1.86      YES
 L0006527          0   0.53280E-06   478265.5 3747776.0    449.0      4.00      3.95
1.86      YES
 L0006528          0   0.53280E-06   478274.0 3747775.9    449.0      4.00      3.95
1.86      YES
 L0006529          0   0.53280E-06   478281.0 3747774.4    449.0      4.00      3.95
1.86      YES
 L0006530          0   0.53280E-06   478281.0 3747765.9    449.0      4.00      3.95
1.86      YES
 L0006531          0   0.53280E-06   478281.1 3747757.4    449.0      4.00      3.95
1.86      YES
 L0006532          0   0.53280E-06   478281.1 3747748.9    449.0      4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                    ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10
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                             AERMOD HRA Output
                               PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -


 L0006533         0   0.53280E-06  478281.1 3747740.4   449.0     4.00     3.95
1.86     YES
 L0006534         0   0.53280E-06  478281.2 3747731.9   449.0     4.00     3.95
1.86     YES
 L0006535         0   0.53280E-06  478281.2 3747723.4   449.0     4.00     3.95
1.86     YES
 L0006536         0   0.53280E-06  478281.2 3747714.9   449.0     4.00     3.95
1.86     YES
 L0006537         0   0.53280E-06  478281.3 3747706.4   449.0     4.00     3.95
1.86     YES
 L0006538         0   0.53280E-06  478281.3 3747697.9   449.0     4.00     3.95
1.86     YES
 L0006539         0   0.53280E-06  478281.3 3747689.4   449.0     4.00     3.95
1.86     YES
 L0006540         0   0.53280E-06  478281.4 3747680.9   449.0     4.00     3.95
1.86     YES
 L0006541         0   0.53280E-06  478281.4 3747672.4   448.9     4.00     3.95
1.86     YES
 L0006542         0   0.53280E-06  478281.4 3747663.9   448.6     4.00     3.95
1.86     YES
 L0006543         0   0.53280E-06  478281.5 3747655.4   448.3     4.00     3.95
1.86     YES
 L0006544         0   0.53280E-06  478281.5 3747646.9   448.0     4.00     3.95
1.86     YES
 L0006545         0   0.53280E-06  478281.5 3747638.4   448.0     4.00     3.95
1.86     YES
 L0006546         0   0.53280E-06  478281.5 3747629.9   448.0     4.00     3.95
1.86     YES
 L0006547         0   0.53280E-06  478281.6 3747621.4   448.0     4.00     3.95
1.86     YES
 L0006548         0   0.53280E-06  478281.6 3747612.9   448.0     4.00     3.95
1.86     YES
 L0006549         0   0.53280E-06  478281.6 3747604.4   448.0     4.00     3.95
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1.86      YES
 L0006550          0   0.53280E-06  478281.7 3747595.9   448.0     4.00      3.95
1.86      YES
 L0006551          0   0.53280E-06  478281.7 3747587.4   448.0     4.00      3.95
1.86      YES
 L0006552          0   0.53280E-06  478281.7 3747578.9   448.0     4.00      3.95
1.86      YES
 L0006553          0   0.53280E-06  478281.8 3747570.4   448.0     4.00      3.95
1.86      YES
 L0006554          0   0.53280E-06  478281.8 3747561.9   448.0     4.00      3.95
1.86      YES
 L0006555          0   0.53280E-06  478281.8 3747553.4   448.0     4.00      3.95
1.86      YES
 L0006556          0   0.53280E-06  478281.9 3747544.9   448.0     4.00      3.95
1.86      YES
 L0006557          0   0.53280E-06  478281.9 3747536.4   448.0     4.00      3.95
1.86      YES
 L0006558          0   0.53280E-06  478281.9 3747527.9   448.0     4.00      3.95
1.86      YES
 L0006559          0   0.53280E-06  478282.0 3747519.4   448.0     4.00      3.95
1.86      YES
 L0006560          0   0.53280E-06  478282.0 3747510.9   448.0     4.00      3.95
1.86      YES
 L0006561          0   0.53280E-06  478282.0 3747502.4   448.0     4.00      3.95
1.86      YES
 L0006562          0   0.53280E-06  478282.1 3747493.9   448.0     4.00      3.95
1.86      YES
 L0006563          0   0.53280E-06  478282.1 3747485.4   448.0     4.00      3.95
1.86      YES
 L0006564          0   0.53280E-06  478282.1 3747476.9   448.0     4.00      3.95
1.86      YES
 L0006565          0   0.53280E-06  478282.2 3747468.4   448.0     4.00      3.95
1.86      YES
 L0006566          0   0.53280E-06  478282.2 3747459.9   448.0     4.00      3.95
1.86      YES
 L0006567          0   0.53280E-06  478282.2 3747451.4   448.0     4.00      3.95
1.86      YES
 L0006568          0   0.53280E-06  478282.3 3747442.9   448.0     4.00      3.95
1.86      YES
 L0006569          0   0.53280E-06  478282.3 3747434.4   448.0     4.00      3.95
1.86      YES
 L0006570          0   0.53280E-06  478282.3 3747425.9   448.0     4.00      3.95
1.86      YES
 L0006571          0   0.53280E-06  478282.4 3747417.4   448.0     4.00      3.95
1.86      YES
 L0006572          0   0.53280E-06  478282.4 3747408.9   448.0     4.00      3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
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                                 AERMOD HRA Output
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                           ***        10:14:10

                                      PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - -


 L0006573         0   0.53280E-06  478282.4 3747400.4   448.0     4.00     3.95
1.86     YES
 L0006574         0   0.53280E-06  478282.5 3747391.9   448.0     4.00     3.95
1.86     YES
 L0006575         0   0.53280E-06  478282.5 3747383.4   448.0     4.00     3.95
1.86     YES
 L0006576         0   0.53280E-06  478282.5 3747374.9   448.0     4.00     3.95
1.86     YES
 L0006577         0   0.53280E-06  478282.6 3747366.4   448.0     4.00     3.95
1.86     YES
 L0006578         0   0.53280E-06  478282.6 3747357.9   448.0     4.00     3.95
1.86     YES
 L0006579         0   0.53280E-06  478282.6 3747349.4   448.0     4.00     3.95
1.86     YES
 L0006580         0   0.53280E-06  478282.6 3747340.9   448.0     4.00     3.95
1.86     YES
 L0006581         0   0.53280E-06  478282.7 3747332.4   448.0     4.00     3.95
1.86     YES
 L0006582         0   0.53280E-06  478282.7 3747323.9   448.0     4.00     3.95
1.86     YES
 L0006583         0   0.53280E-06  478282.7 3747315.4   448.0     4.00     3.95
1.86     YES
 L0006584         0   0.53280E-06  478282.8 3747306.9   448.0     4.00     3.95
1.86     YES
 L0006585         0   0.53280E-06  478282.8 3747298.4   448.0     4.00     3.95
1.86     YES
 L0006586         0   0.53280E-06  478282.8 3747289.9   448.0     4.00     3.95
1.86     YES
 L0006587         0   0.53280E-06  478282.9 3747281.4   448.0     4.00     3.95
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1.86      YES
 L0006588         0   0.53280E-06   478282.9 3747272.9    448.0      4.00      3.95
1.86      YES
 L0006589         0   0.53280E-06   478282.9 3747264.4    448.0      4.00      3.95
1.86      YES
 L0006590         0   0.53280E-06   478283.0 3747255.9    448.0      4.00      3.95
1.86      YES
 L0006591         0   0.53280E-06   478283.0 3747247.4    448.0      4.00      3.95
1.86      YES
 L0006592         0   0.53280E-06   478283.0 3747238.9    448.0      4.00      3.95
1.86      YES
 L0006593         0   0.53280E-06   478283.1 3747230.4    448.0      4.00      3.95
1.86      YES
 L0006594         0   0.53280E-06   478283.1 3747221.9    448.0      4.00      3.95
1.86      YES
 L0006595         0   0.53280E-06   478283.1 3747213.4    448.0      4.00      3.95
1.86      YES
 L0006596         0   0.53280E-06   478283.2 3747204.9    448.0      4.00      3.95
1.86      YES
 L0006597         0   0.53280E-06   478283.2 3747196.4    448.0      4.00      3.95
1.86      YES
 L0006598         0   0.53280E-06   478283.2 3747187.9    448.0      4.00      3.95
1.86      YES
 L0006599         0   0.53280E-06   478283.3 3747179.4    448.0      4.00      3.95
1.86      YES
 L0006600         0   0.53280E-06   478283.3 3747170.9    448.0      4.00      3.95
1.86      YES
 L0006601         0   0.53280E-06   478283.3 3747162.4    448.0      4.00      3.95
1.86      YES
 L0006602         0   0.53280E-06   478283.4 3747153.9    448.0      4.00      3.95
1.86      YES
 L0006603         0   0.53280E-06   478283.4 3747145.4    448.0      4.00      3.95
1.86      YES
 L0006604         0   0.53280E-06   478283.4 3747136.9    448.0      4.00      3.95
1.86      YES
 L0006605         0   0.53280E-06   478283.5 3747128.4    448.0      4.00      3.95
1.86      YES
 L0006606         0   0.53280E-06   478283.5 3747119.9    448.0      4.00      3.95
1.86      YES
 L0006607         0   0.53280E-06   478283.5 3747111.4    448.0      4.00      3.95
1.86      YES
 L0006608         0   0.53280E-06   478283.6 3747102.9    448.0      4.00      3.95
1.86      YES
 L0006609         0   0.53280E-06   478283.6 3747094.4    448.0      4.00      3.95
1.86      YES
 L0006610         0   0.53280E-06   478283.6 3747085.9    448.0      4.00      3.95
1.86      YES
 L0006611         0   0.53280E-06   478283.6 3747077.4    448.0      4.00      3.95
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1.86     YES
 L0006612         0   0.53280E-06  478283.7 3747068.9   448.0     4.00     3.95
1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006613         0   0.53280E-06  478283.7 3747060.4   448.0     4.00     3.95
1.86     YES
 L0006614         0   0.53280E-06  478283.7 3747051.9   448.0     4.00     3.95
1.86     YES
 L0006615         0   0.53280E-06  478283.8 3747043.4   448.0     4.00     3.95
1.86     YES
 L0006616         0   0.53280E-06  478283.8 3747034.9   448.0     4.00     3.95
1.86     YES
 L0006617         0   0.53280E-06  478283.8 3747026.4   448.0     4.00     3.95
1.86     YES
 L0006618         0   0.53280E-06  478283.9 3747017.9   448.0     4.00     3.95
1.86     YES
 L0006619         0   0.53280E-06  478283.9 3747009.4   448.0     4.00     3.95
1.86     YES
 L0006620         0   0.53280E-06  478283.9 3747000.9   448.0     4.00     3.95
1.86     YES
 L0006621         0   0.53280E-06  478284.0 3746992.4   448.0     4.00     3.95
1.86     YES
 L0006622         0   0.53280E-06  478284.0 3746983.9   448.0     4.00     3.95
1.86     YES
 L0006623         0   0.53280E-06  478284.0 3746975.4   448.0     4.00     3.95
1.86     YES
 L0006624         0   0.53280E-06  478284.1 3746966.9   448.0     4.00     3.95
1.86     YES
 L0006625         0   0.53280E-06  478284.1 3746958.4   448.0     4.00     3.95
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1.86      YES
  L0006626          0   0.53280E-06   478284.1 3746949.9    448.0      4.00      3.95
1.86      YES
  L0006627          0   0.53280E-06   478284.2 3746941.4    448.0      4.00      3.95
1.86      YES
  L0006628          0   0.53280E-06   478284.2 3746932.9    448.0      4.00      3.95
1.86      YES
  L0006629          0   0.53280E-06   478284.2 3746924.4    448.0      4.00      3.95
1.86      YES
  L0006630          0   0.53280E-06   478284.3 3746915.9    448.0      4.00      3.95
1.86      YES
  L0006631          0   0.53280E-06   478284.3 3746907.4    448.0      4.00      3.95
1.86      YES
  L0006632          0   0.53280E-06   478284.3 3746898.9    448.0      4.00      3.95
1.86      YES
  L0006633          0   0.53280E-06   478284.4 3746890.4    448.0      4.00      3.95
1.86      YES
  L0006634          0   0.53280E-06   478284.4 3746881.9    448.0      4.00      3.95
1.86      YES
  L0006635          0   0.53280E-06   478284.4 3746873.4    448.0      4.00      3.95
1.86      YES
  L0006636          0   0.53280E-06   478284.5 3746864.9    448.0      4.00      3.95
1.86      YES
  L0006637          0   0.53280E-06   478284.5 3746856.4    447.8      4.00      3.95
1.86      YES
  L0006638          0   0.53280E-06   478284.5 3746847.9    447.7      4.00      3.95
1.86      YES
  L0006639          0   0.53280E-06   478284.6 3746839.4    447.6      4.00      3.95
1.86      YES
  L0006640          0   0.53280E-06   478284.6 3746830.9    447.4      4.00      3.95
1.86      YES
  L0006641          0   0.53280E-06   478284.6 3746822.4    447.3      4.00      3.95
1.86      YES
  L0006642          0   0.53280E-06   478284.6 3746813.9    447.1      4.00      3.95
1.86      YES
  L0006643          0   0.53280E-06   478284.7 3746805.4    447.0      4.00      3.95
1.86      YES
  L0006644          0   0.53280E-06   478284.7 3746796.9    447.0      4.00      3.95
1.86      YES
  L0006645          0   0.53280E-06   478284.7 3746788.4    447.0      4.00      3.95
1.86      YES
  L0006646          0   0.53280E-06   478284.8 3746779.9    447.0      4.00      3.95
1.86      YES
  L0006647          0   0.53280E-06   478284.8 3746771.4    447.0      4.00      3.95
1.86      YES
  L0006648          0   0.53280E-06   478284.8 3746762.9    447.0      4.00      3.95
1.86      YES
  L0006649          0   0.53280E-06   478284.9 3746754.4    447.0      4.00      3.95
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1.86      YES
 L0006650         0   0.53280E-06   478284.9 3746745.9   447.0     4.00     3.95
1.86      YES
 L0006651         0   0.53280E-06   478284.9 3746737.4   447.0     4.00     3.95
1.86      YES
 L0006652         0   0.53280E-06   478285.0 3746728.9   447.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006653         0   0.53280E-06   478285.0 3746720.4   447.0     4.00     3.95
1.86      YES
 L0006654         0   0.53280E-06   478285.0 3746711.9   447.0     4.00     3.95
1.86      YES
 L0006655         0   0.53280E-06   478285.1 3746703.4   447.0     4.00     3.95
1.86      YES
 L0006656         0   0.53280E-06   478285.1 3746694.9   447.0     4.00     3.95
1.86      YES
 L0006657         0   0.53280E-06   478285.1 3746686.4   447.0     4.00     3.95
1.86      YES
 L0006658         0   0.53280E-06   478285.2 3746677.9   447.0     4.00     3.95
1.86      YES
 L0006659         0   0.53280E-06   478285.2 3746669.4   447.0     4.00     3.95
1.86      YES
 L0006660         0   0.53280E-06   478285.2 3746660.9   447.0     4.00     3.95
1.86      YES
 L0006661         0   0.53280E-06   478285.3 3746652.4   447.0     4.00     3.95
1.86      YES
 L0006662         0   0.53280E-06   478285.3 3746643.9   447.0     4.00     3.95
1.86      YES
 L0006663         0   0.53280E-06   478285.3 3746635.4   447.0     4.00     3.95
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1.86      YES
 L0006664          0   0.53280E-06  478285.4 3746626.9   447.0     4.00     3.95
1.86      YES
 L0006665          0   0.53280E-06  478285.4 3746618.4   447.0     4.00     3.95
1.86      YES
 L0006666          0   0.53280E-06  478285.4 3746609.9   447.0     4.00     3.95
1.86      YES
 L0006667          0   0.53280E-06  478285.5 3746601.4   447.0     4.00     3.95
1.86      YES
 L0006668          0   0.53280E-06  478285.5 3746592.9   447.0     4.00     3.95
1.86      YES
 L0006669          0   0.53280E-06  478285.5 3746584.4   447.0     4.00     3.95
1.86      YES
 L0006670          0   0.53280E-06  478285.6 3746575.9   447.0     4.00     3.95
1.86      YES
 L0006671          0   0.53280E-06  478285.6 3746567.4   447.0     4.00     3.95
1.86      YES
 L0006672          0   0.53280E-06  478285.6 3746558.9   447.0     4.00     3.95
1.86      YES
 L0006673          0   0.53280E-06  478285.7 3746550.4   447.0     4.00     3.95
1.86      YES
 L0006674          0   0.53280E-06  478285.7 3746541.9   447.0     4.00     3.95
1.86      YES
 L0006675          0   0.53280E-06  478285.7 3746533.4   447.0     4.00     3.95
1.86      YES
 L0006676          0   0.53280E-06  478285.7 3746524.9   447.0     4.00     3.95
1.86      YES
 L0006677          0   0.53280E-06  478285.8 3746516.4   447.0     4.00     3.95
1.86      YES
 L0006678          0   0.53280E-06  478285.8 3746507.9   447.0     4.00     3.95
1.86      YES
 L0006679          0   0.53280E-06  478285.8 3746499.4   447.0     4.00     3.95
1.86      YES
 L0006680          0   0.53280E-06  478285.9 3746490.9   447.0     4.00     3.95
1.86      YES
 L0006681          0   0.53280E-06  478285.9 3746482.4   447.0     4.00     3.95
1.86      YES
 L0006682          0   0.53280E-06  478285.9 3746473.9   447.0     4.00     3.95
1.86      YES
 L0006683          0   0.53280E-06  478286.0 3746465.4   447.0     4.00     3.95
1.86      YES
 L0006684          0   0.53280E-06  478286.0 3746456.9   447.0     4.00     3.95
1.86      YES
 L0006685          0   0.53280E-06  478286.0 3746448.4   447.0     4.00     3.95
1.86      YES
 L0006686          0   0.53280E-06  478286.1 3746439.9   446.9     4.00     3.95
1.86      YES
 L0006687          0   0.53280E-06  478286.1 3746431.4   446.7     4.00     3.95
```

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1.86      YES
 L0006688         0   0.53280E-06  478286.1 3746422.9   446.6     4.00     3.95
1.86      YES
 L0006689         0   0.53280E-06  478286.2 3746414.4   446.5     4.00     3.95
1.86      YES
 L0006690         0   0.53280E-06  478286.2 3746405.9   446.5     4.00     3.95
1.86      YES
 L0006691         0   0.53280E-06  478286.2 3746397.4   446.5     4.00     3.95
1.86      YES
 L0006692         0   0.53280E-06  478286.3 3746388.9   446.4     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -

 L0006693         0   0.53280E-06  478286.3 3746380.4   446.4     4.00     3.95
1.86      YES
 L0006694         0   0.53280E-06  478286.3 3746371.9   446.4     4.00     3.95
1.86      YES
 L0006695         0   0.53280E-06  478286.4 3746363.4   446.4     4.00     3.95
1.86      YES
 L0006696         0   0.53280E-06  478286.4 3746354.9   446.4     4.00     3.95
1.86      YES
 L0006697         0   0.53280E-06  478286.4 3746346.4   446.4     4.00     3.95
1.86      YES
 L0006698         0   0.53280E-06  478280.1 3746347.5   446.7     4.00     3.95
1.86      YES
 L0006699         0   0.53280E-06  478272.3 3746350.8   446.9     4.00     3.95
1.86      YES
 L0006700         0   0.53280E-06  478264.5 3746354.2   447.0     4.00     3.95
1.86      YES
 L0006701         0   0.53280E-06  478256.7 3746357.5   447.0     4.00     3.95
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1.86      YES
 L0006702          0   0.53280E-06  478248.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006703          0   0.53280E-06  478240.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006704          0   0.53280E-06  478231.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006705          0   0.53280E-06  478223.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006706          0   0.53280E-06  478214.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006707          0   0.53280E-06  478206.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006708          0   0.53280E-06  478197.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006709          0   0.53280E-06  478189.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006710          0   0.53280E-06  478180.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006711          0   0.53280E-06  478172.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006712          0   0.53280E-06  478163.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006713          0   0.53280E-06  478155.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006714          0   0.53280E-06  478146.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006715          0   0.53280E-06  478138.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006716          0   0.53280E-06  478129.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006717          0   0.53280E-06  478121.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006718          0   0.53280E-06  478112.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006719          0   0.53280E-06  478104.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006720          0   0.53280E-06  478095.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006721          0   0.53280E-06  478087.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006722          0   0.53280E-06  478078.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006723          0   0.53280E-06  478070.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006724          0   0.53280E-06  478061.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006725          0   0.53280E-06  478053.1 3746359.6   447.0     4.00     3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0006726         0   0.53280E-06  478044.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006727         0   0.53280E-06  478036.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006728         0   0.53280E-06  478027.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006729         0   0.53280E-06  478019.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006730         0   0.53280E-06  478010.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006731         0   0.53280E-06  478002.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006732         0   0.53280E-06  477993.6 3746359.6   447.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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- - - - - - - - - - - - - - - - - - - -

 L0006733         0   0.53280E-06  477985.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006734         0   0.53280E-06  477976.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006735         0   0.53280E-06  477968.1 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006736         0   0.53280E-06  477959.6 3746359.6   447.0     4.00     3.95
1.86      YES
 L0006737         0   0.53280E-06  477951.1 3746359.6   447.1     4.00     3.95
1.86      YES
 L0006738         0   0.53280E-06  477942.6 3746359.6   447.1     4.00     3.95
1.86      YES
 L0006739         0   0.53280E-06  477934.1 3746359.6   447.3     4.00     3.95
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1.86      YES
 L0006740          0   0.53280E-06   477925.6 3746359.6    447.5      4.00      3.95
1.86      YES
 L0006741          0   0.53280E-06   477917.1 3746359.6    447.8      4.00      3.95
1.86      YES
 L0006742          0   0.53280E-06   477908.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006743          0   0.53280E-06   477900.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006744          0   0.53280E-06   477891.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006745          0   0.53280E-06   477883.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006746          0   0.53280E-06   477874.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006747          0   0.53280E-06   477866.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006748          0   0.53280E-06   477857.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006749          0   0.53280E-06   477849.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006750          0   0.53280E-06   477840.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006751          0   0.53280E-06   477832.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006752          0   0.53280E-06   477823.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006753          0   0.53280E-06   477815.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006754          0   0.53280E-06   477806.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006755          0   0.53280E-06   477798.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006756          0   0.53280E-06   477789.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006757          0   0.53280E-06   477781.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006758          0   0.53280E-06   477772.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006759          0   0.53280E-06   477764.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006760          0   0.53280E-06   477755.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006761          0   0.53280E-06   477747.1 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006762          0   0.53280E-06   477738.6 3746359.6    448.0      4.00      3.95
1.86      YES
 L0006763          0   0.53280E-06   477730.1 3746359.6    448.0      4.00      3.95
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1.86      YES
 L0006764         0   0.53280E-06  477721.6 3746359.7   448.0     4.00     3.95
1.86      YES
 L0006765         0   0.53280E-06  477713.1 3746359.8   448.0     4.00     3.95
1.86      YES
 L0006766         0   0.53280E-06  477704.6 3746359.9   448.0     4.00     3.95
1.86      YES
 L0006767         0   0.53280E-06  477696.1 3746359.9   448.0     4.00     3.95
1.86      YES
 L0006768         0   0.53280E-06  477687.6 3746360.0   448.0     4.00     3.95
1.86      YES
 L0006769         0   0.53280E-06  477679.1 3746360.1   448.0     4.00     3.95
1.86      YES
 L0006770         0   0.53280E-06  477670.6 3746360.2   448.0     4.00     3.95
1.86      YES
 L0006771         0   0.53280E-06  477662.1 3746360.3   448.0     4.00     3.95
1.86      YES
 L0006772         0   0.53280E-06  477653.6 3746360.4   448.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006773         0   0.53280E-06  477645.1 3746360.5   448.0     4.00     3.95
1.86      YES
 L0006774         0   0.53280E-06  477636.6 3746360.6   448.1     4.00     3.95
1.86      YES
 L0006775         0   0.53280E-06  477628.1 3746360.6   448.4     4.00     3.95
1.86      YES
 L0006776         0   0.53280E-06  477619.6 3746360.7   448.7     4.00     3.95
1.86      YES
 L0006777         0   0.53280E-06  477611.1 3746360.8   449.0     4.00     3.95
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1.86      YES
 L0006778          0   0.53280E-06   477602.6 3746360.9   449.0      4.00      3.95
1.86      YES
 L0006779          0   0.53280E-06   477594.1 3746361.0   449.0      4.00      3.95
1.86      YES
 L0006780          0   0.53280E-06   477585.6 3746361.1   449.0      4.00      3.95
1.86      YES
 L0006781          0   0.53280E-06   477577.1 3746361.2   449.0      4.00      3.95
1.86      YES
 L0006782          0   0.53280E-06   477568.6 3746361.3   449.0      4.00      3.95
1.86      YES
 L0006783          0   0.53280E-06   477560.1 3746361.3   449.0      4.00      3.95
1.86      YES
 L0006784          0   0.53280E-06   477551.6 3746361.4   449.0      4.00      3.95
1.86      YES
 L0006785          0   0.53280E-06   477543.1 3746361.5   449.0      4.00      3.95
1.86      YES
 L0006786          0   0.53280E-06   477534.6 3746361.6   449.0      4.00      3.95
1.86      YES
 L0006787          0   0.53280E-06   477526.1 3746361.7   449.0      4.00      3.95
1.86      YES
 L0006788          0   0.53280E-06   477517.6 3746361.8   449.0      4.00      3.95
1.86      YES
 L0006789          0   0.53280E-06   477509.1 3746361.9   449.0      4.00      3.95
1.86      YES
 L0006790          0   0.53280E-06   477500.6 3746362.0   449.0      4.00      3.95
1.86      YES
 L0006791          0   0.53280E-06   477492.1 3746362.0   449.0      4.00      3.95
1.86      YES
 L0006792          0   0.53280E-06   477483.6 3746362.4   449.2      4.00      3.95
1.86      YES
 L0006793          0   0.53280E-06   477475.3 3746364.0   449.5      4.00      3.95
1.86      YES
 L0006794          0   0.53280E-06   477466.9 3746365.6   449.8      4.00      3.95
1.86      YES
 L0006795          0   0.53280E-06   477458.6 3746367.2   450.0      4.00      3.95
1.86      YES
 L0006796          0   0.53280E-06   477450.3 3746368.8   450.0      4.00      3.95
1.86      YES
 L0006797          0   0.53280E-06   477441.9 3746370.4   450.0      4.00      3.95
1.86      YES
 L0006798          0   0.53280E-06   477433.6 3746372.0   450.0      4.00      3.95
1.86      YES
 L0006799          0   0.53280E-06   477425.2 3746373.6   450.0      4.00      3.95
1.86      YES
 L0006800          0   0.53280E-06   477417.3 3746376.4   450.0      4.00      3.95
1.86      YES
 L0006801          0   0.53280E-06   477410.0 3746380.7   450.0      4.00      3.95
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1.86      YES
 L0006802         0   0.53280E-06  477402.7 3746385.0   450.0     4.00     3.95
1.86      YES
 L0006803         0   0.53280E-06  477395.3 3746389.4   450.0     4.00     3.95
1.86      YES
 L0006804         0   0.53280E-06  477388.0 3746393.7   450.0     4.00     3.95
1.86      YES
 L0006805         0   0.53280E-06  477380.7 3746398.0   450.0     4.00     3.95
1.86      YES
 L0006806         0   0.53280E-06  477373.4 3746402.3   450.0     4.00     3.95
1.86      YES
 L0006807         0   0.53280E-06  477366.1 3746406.6   450.0     4.00     3.95
1.86      YES
 L0006808         0   0.53280E-06  477358.7 3746411.0   450.0     4.00     3.95
1.86      YES
 L0006809         0   0.53280E-06  477351.4 3746415.3   450.0     4.00     3.95
1.86      YES
 L0006810         0   0.53280E-06  477344.1 3746419.6   450.0     4.00     3.95
1.86      YES
 L0006811         0   0.53280E-06  477336.8 3746423.9   450.0     4.00     3.95
1.86      YES
 L0006812         0   0.53280E-06  477329.5 3746428.2   450.0     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006813         0   0.53280E-06  477322.2 3746432.7   450.0     4.00     3.95
1.86      YES
 L0006814         0   0.53280E-06  477315.4 3746437.8   450.0     4.00     3.95
1.86      YES
 L0006815         0   0.53280E-06  477308.6 3746442.9   450.0     4.00     3.95
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1.86      YES
 L0006816          0   0.53280E-06  477301.8 3746448.0   450.0      4.00      3.95
1.86      YES
 L0006817          0   0.53280E-06  477295.0 3746453.1   450.0      4.00      3.95
1.86      YES
 L0006818          0   0.53280E-06  477288.2 3746458.2   450.0      4.00      3.95
1.86      YES
 L0006819          0   0.53280E-06  477281.4 3746463.3   450.0      4.00      3.95
1.86      YES
 L0006820          0   0.53280E-06  477274.6 3746468.4   450.0      4.00      3.95
1.86      YES
 L0006821          0   0.53280E-06  477267.7 3746473.3   450.0      4.00      3.95
1.86      YES
 L0006822          0   0.53280E-06  477260.7 3746478.2   450.0      4.00      3.95
1.86      YES
 L0006823          0   0.53280E-06  477253.8 3746483.1   450.0      4.00      3.95
1.86      YES
 L0006824          0   0.53280E-06  477246.8 3746487.9   450.1      4.00      3.95
1.86      YES
 L0006825          0   0.53280E-06  477239.8 3746492.8   450.2      4.00      3.95
1.86      YES
 L0006826          0   0.53280E-06  477232.9 3746497.7   450.2      4.00      3.95
1.86      YES
 L0006827          0   0.53280E-06  477225.9 3746502.6   450.1      4.00      3.95
1.86      YES
 L0006828          0   0.53280E-06  477218.5 3746506.8   450.0      4.00      3.95
1.86      YES
 L0006829          0   0.53280E-06  477211.1 3746510.8   450.3      4.00      3.95
1.86      YES
 L0006830          0   0.53280E-06  477203.6 3746514.8   450.5      4.00      3.95
1.86      YES
 L0006831          0   0.53280E-06  477196.1 3746518.8   450.8      4.00      3.95
1.86      YES
 L0006832          0   0.53280E-06  477188.6 3746522.9   451.0      4.00      3.95
1.86      YES
 L0006833          0   0.53280E-06  477181.1 3746526.9   451.0      4.00      3.95
1.86      YES
 L0006834          0   0.53280E-06  477173.6 3746530.9   451.0      4.00      3.95
1.86      YES
 L0006835          0   0.53280E-06  477166.1 3746535.0   451.0      4.00      3.95
1.86      YES
 L0006836          0   0.53280E-06  477158.5 3746538.5   451.0      4.00      3.95
1.86      YES
 L0006837          0   0.53280E-06  477150.1 3746539.7   451.0      4.00      3.95
1.86      YES
 L0006838          0   0.53280E-06  477141.7 3746541.0   451.0      4.00      3.95
1.86      YES
 L0006839          0   0.53280E-06  477133.3 3746542.2   451.0      4.00      3.95
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```
1.86      YES
 L0006840          0   0.53280E-06  477124.9 3746543.5   451.0     4.00     3.95
1.86      YES
 L0006841          0   0.53280E-06  477116.5 3746544.7   451.0     4.00     3.95
1.86      YES
 L0006842          0   0.53280E-06  477108.0 3746546.0   451.0     4.00     3.95
1.86      YES
 L0006843          0   0.53280E-06  477099.6 3746547.2   451.0     4.00     3.95
1.86      YES
 L0006844          0   0.53280E-06  477091.2 3746548.2   451.0     4.00     3.95
1.86      YES
 L0006845          0   0.53280E-06  477082.7 3746548.3   451.0     4.00     3.95
1.86      YES
 L0006846          0   0.53280E-06  477074.2 3746548.4   451.0     4.00     3.95
1.86      YES
 L0006847          0   0.53280E-06  477065.7 3746548.6   451.1     4.00     3.95
1.86      YES
 L0006848          0   0.53280E-06  477057.2 3746548.7   451.2     4.00     3.95
1.86      YES
 L0006849          0   0.53280E-06  477048.7 3746548.8   451.4     4.00     3.95
1.86      YES
 L0006850          0   0.53280E-06  477040.2 3746548.9   451.6     4.00     3.95
1.86      YES
 L0006851          0   0.53280E-06  477031.7 3746549.0   451.7     4.00     3.95
1.86      YES
 L0006852          0   0.53280E-06  477023.2 3746549.1   451.8     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
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 L0006853          0   0.53280E-06  477014.7 3746549.2   451.9     4.00     3.95
```

```
1.86      YES
 L0006854          0   0.53280E-06   477006.2 3746549.3   452.0      4.00      3.95
1.86      YES
 L0006855          0   0.53280E-06   476997.7 3746549.4   452.0      4.00      3.95
1.86      YES
 L0006856          0   0.53280E-06   476989.2 3746549.6   452.0      4.00      3.95
1.86      YES
 L0006857          0   0.53280E-06   476980.7 3746549.7   452.0      4.00      3.95
1.86      YES
 L0006858          0   0.53280E-06   476972.2 3746549.8   452.0      4.00      3.95
1.86      YES
 L0006859          0   0.53280E-06   476963.7 3746549.9   452.0      4.00      3.95
1.86      YES
 L0006860          0   0.53280E-06   476955.2 3746550.0   452.0      4.00      3.95
1.86      YES
 L0006861          0   0.53280E-06   476946.7 3746550.1   452.0      4.00      3.95
1.86      YES
 L0006862          0   0.53280E-06   476938.2 3746550.2   452.0      4.00      3.95
1.86      YES
 L0006863          0   0.53280E-06   476929.7 3746550.3   452.0      4.00      3.95
1.86      YES
 L0006864          0   0.53280E-06   476921.2 3746550.4   452.0      4.00      3.95
1.86      YES
 L0006865          0   0.53280E-06   476912.7 3746550.6   452.1      4.00      3.95
1.86      YES
 L0006866          0   0.53280E-06   476904.2 3746550.7   452.3      4.00      3.95
1.86      YES
 L0006867          0   0.53280E-06   476895.7 3746550.8   452.4      4.00      3.95
1.86      YES
 L0006868          0   0.53280E-06   476887.2 3746550.9   452.6      4.00      3.95
1.86      YES
 L0006869          0   0.53280E-06   476878.7 3746551.0   452.7      4.00      3.95
1.86      YES
 L0006870          0   0.53280E-06   476870.2 3746551.1   452.8      4.00      3.95
1.86      YES
 L0006871          0   0.53280E-06   476861.7 3746551.2   453.0      4.00      3.95
1.86      YES
 L0006872          0   0.53280E-06   476853.2 3746551.3   453.0      4.00      3.95
1.86      YES
 L0006873          0   0.53280E-06   476844.7 3746551.4   453.0      4.00      3.95
1.86      YES
 L0006874          0   0.53280E-06   476836.2 3746551.5   453.0      4.00      3.95
1.86      YES
 L0006875          0   0.53280E-06   476827.7 3746551.7   453.0      4.00      3.95
1.86      YES
 L0006876          0   0.53280E-06   476819.2 3746551.8   453.0      4.00      3.95
1.86      YES
 L0006877          0   0.53280E-06   476810.7 3746551.9   453.0      4.00      3.95
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
1.86      YES
 L0006878         0   0.53280E-06  476802.2 3746552.0   453.0     4.00     3.95
1.86      YES
 L0006879         0   0.53280E-06  476793.7 3746552.1   462.1     4.00     3.95
1.86      YES
 L0006880         0   0.53280E-06  476785.2 3746552.2   462.2     4.00     3.95
1.86      YES
 L0006881         0   0.53280E-06  476776.7 3746552.2   462.3     4.00     3.95
1.86      YES
 L0006882         0   0.53280E-06  476768.2 3746551.9   462.4     4.00     3.95
1.86      YES
 L0006883         0   0.53280E-06  476759.7 3746551.7   462.5     4.00     3.95
1.86      YES
 L0006884         0   0.53280E-06  476751.2 3746551.5   462.6     4.00     3.95
1.86      YES
 L0006885         0   0.53280E-06  476742.8 3746551.3   462.7     4.00     3.95
1.86      YES
 L0006886         0   0.53280E-06  476734.3 3746551.1   462.8     4.00     3.95
1.86      YES
 L0006887         0   0.53280E-06  476725.8 3746550.8   462.9     4.00     3.95
1.86      YES
 L0006888         0   0.53280E-06  476717.3 3746550.6   463.1     4.00     3.95
1.86      YES
 L0006889         0   0.53280E-06  476708.8 3746550.4   463.2     4.00     3.95
1.86      YES
 L0006890         0   0.53280E-06  476700.3 3746550.2   463.3     4.00     3.95
1.86      YES
 L0006891         0   0.53280E-06  476691.8 3746550.0   463.4     4.00     3.95
1.86      YES
 L0006892         0   0.53280E-06  476683.3 3746549.7   463.5     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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- - - - - - - - - - - - - - - - - - - - -

 L0006893         0   0.53280E-06  476674.8 3746549.5   463.6     4.00     3.95
1.86     YES
 L0006894         0   0.53280E-06  476666.3 3746549.3   463.7     4.00     3.95
1.86     YES
 L0006895         0   0.53280E-06  476657.8 3746549.1   463.8     4.00     3.95
1.86     YES
 L0006896         0   0.53280E-06  476649.5 3746550.2   463.9     4.00     3.95
1.86     YES
 L0006897         0   0.53280E-06  476641.4 3746552.9   464.0     4.00     3.95
1.86     YES
 L0006898         0   0.53280E-06  476633.4 3746555.6   464.0     4.00     3.95
1.86     YES
 L0006899         0   0.53280E-06  476625.3 3746558.3   464.0     4.00     3.95
1.86     YES
 L0006900         0   0.53280E-06  476617.2 3746561.0   464.0     4.00     3.95
1.86     YES
 L0006901         0   0.53280E-06  476609.2 3746563.6   464.0     4.00     3.95
1.86     YES
 L0006902         0   0.53280E-06  476601.4 3746566.9   464.0     4.00     3.95
1.86     YES
 L0006903         0   0.53280E-06  476594.1 3746571.4   464.0     4.00     3.95
1.86     YES
 L0006904         0   0.53280E-06  476586.9 3746575.9   464.0     4.00     3.95
1.86     YES
 L0006905         0   0.53280E-06  476579.7 3746580.4   464.0     4.00     3.95
1.86     YES
 L0006906         0   0.53280E-06  476572.5 3746584.8   464.0     4.00     3.95
1.86     YES
 L0006907         0   0.53280E-06  476565.3 3746589.3   464.0     4.00     3.95
1.86     YES
 L0006908         0   0.53280E-06  476558.0 3746593.8   464.1     4.00     3.95
1.86     YES
 L0006909         0   0.53280E-06  476550.8 3746598.3   464.2     4.00     3.95
1.86     YES
 L0006910         0   0.53280E-06  476543.6 3746602.8   464.3     4.00     3.95
1.86     YES
 L0006911         0   0.53280E-06  476537.9 3746608.7   464.4     4.00     3.95
1.86     YES
 L0006912         0   0.53280E-06  476534.0 3746616.2   464.4     4.00     3.95
1.86     YES
 L0006913         0   0.53280E-06  476530.0 3746623.8   464.5     4.00     3.95
1.86     YES
 L0006914         0   0.53280E-06  476526.1 3746631.3   464.5     4.00     3.95
1.86     YES
 L0006915         0   0.53280E-06  476522.2 3746638.8   464.6     4.00     3.95
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1.86      YES
 L0006916         0   0.53280E-06   476518.2 3746646.4   464.6      4.00     3.95
1.86      YES
 L0006917         0   0.53280E-06   476514.3 3746653.9   464.7      4.00     3.95
1.86      YES
 L0006918         0   0.53280E-06   476510.3 3746661.4   464.7      4.00     3.95
1.86      YES
 L0006919         0   0.53280E-06   476506.4 3746668.9   464.8      4.00     3.95
1.86      YES
 L0006920         0   0.53280E-06   476502.4 3746676.5   464.8      4.00     3.95
1.86      YES
 L0006921         0   0.53280E-06   476498.5 3746684.0   464.9      4.00     3.95
1.86      YES
 L0006922         0   0.53280E-06   476494.5 3746691.5   464.9      4.00     3.95
1.86      YES
 L0006923         0   0.53280E-06   476490.6 3746699.1   465.0      4.00     3.95
1.86      YES
 L0006924         0   0.53280E-06   476486.6 3746706.6   465.1      4.00     3.95
1.86      YES
 L0006925         0   0.53280E-06   476482.7 3746714.1   465.2      4.00     3.95
1.86      YES
 L0006926         0   0.53280E-06   476478.7 3746721.6   465.3      4.00     3.95
1.86      YES
 L0006927         0   0.53280E-06   476474.8 3746729.2   465.4      4.00     3.95
1.86      YES
 L0006928         0   0.53280E-06   476470.9 3746736.7   465.5      4.00     3.95
1.86      YES
 L0006929         0   0.53280E-06   476467.8 3746744.5   465.6      4.00     3.95
1.86      YES
 L0006930         0   0.53280E-06   476466.4 3746752.9   465.6      4.00     3.95
1.86      YES
 L0006931         0   0.53280E-06   476465.0 3746761.3   465.7      4.00     3.95
1.86      YES
 L0006932         0   0.53280E-06   476463.6 3746769.7   465.7      4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***


               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
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                                 AERMOD HRA Output
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY
SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
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 L0006933         0   0.53280E-06  476462.2 3746778.1   465.7     4.00     3.95
1.86     YES
 L0006934         0   0.53280E-06  476460.8 3746786.4   465.8     4.00     3.95
1.86     YES
 L0006935         0   0.53280E-06  476459.4 3746794.8   465.8     4.00     3.95
1.86     YES
 L0006936         0   0.53280E-06  476457.3 3746803.0   465.9     4.00     3.95
1.86     YES
 L0006937         0   0.53280E-06  476453.4 3746810.5   465.9     4.00     3.95
1.86     YES
 L0006938         0   0.53280E-06  476449.4 3746818.0   466.1     4.00     3.95
1.86     YES
 L0006939         0   0.53280E-06  476445.4 3746825.5   466.2     4.00     3.95
1.86     YES
 L0006940         0   0.53280E-06  476441.4 3746833.0   466.3     4.00     3.95
1.86     YES
 L0006941         0   0.53280E-06  476437.5 3746840.5   466.4     4.00     3.95
1.86     YES
 L0006942         0   0.53280E-06  476433.5 3746848.1   466.5     4.00     3.95
1.86     YES
 L0006943         0   0.53280E-06  476429.5 3746855.6   466.6     4.00     3.95
1.86     YES
 L0006944         0   0.53280E-06  476425.5 3746863.1   466.7     4.00     3.95
1.86     YES
 L0006945         0   0.53280E-06  476421.6 3746870.6   466.8     4.00     3.95
1.86     YES
 L0006946         0   0.53280E-06  476417.6 3746878.1   466.9     4.00     3.95
1.86     YES
 L0006947         0   0.53280E-06  476413.6 3746885.6   467.0     4.00     3.95
1.86     YES
 L0006948         0   0.53280E-06  476409.6 3746893.1   467.1     4.00     3.95
1.86     YES
 L0006949         0   0.53280E-06  476403.2 3746898.5   467.1     4.00     3.95
1.86     YES
 L0006950         0   0.53280E-06  476396.2 3746903.3   467.2     4.00     3.95
1.86     YES
 L0006951         0   0.53280E-06  476389.2 3746908.1   467.3     4.00     3.95
1.86     YES
 L0006952         0   0.53280E-06  476382.2 3746912.9   467.4     4.00     3.95
1.86     YES
 L0006953         0   0.53280E-06  476375.2 3746917.8   467.5     4.00     3.95
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                                  AERMOD HRA Output
1.86      YES
 L0006954          0   0.53280E-06  476368.2 3746922.6   467.6     4.00     3.95
1.86      YES
 L0006955          0   0.53280E-06  476361.2 3746927.4   467.7     4.00     3.95
1.86      YES
 L0006956          0   0.53280E-06  476354.2 3746932.2   467.8     4.00     3.95
1.86      YES
 L0006957          0   0.53280E-06  476347.2 3746937.0   467.9     4.00     3.95
1.86      YES
 L0006958          0   0.53280E-06  476340.2 3746941.8   467.9     4.00     3.95
1.86      YES
 L0006959          0   0.53280E-06  476332.1 3746943.7   468.1     4.00     3.95
1.86      YES
 L0006960          0   0.53280E-06  476323.7 3746944.5   468.2     4.00     3.95
1.86      YES
 L0006961          0   0.53280E-06  476315.2 3746945.4   468.3     4.00     3.95
1.86      YES
 L0006962          0   0.53280E-06  476306.7 3746946.2   468.4     4.00     3.95
1.86      YES
 L0006963          0   0.53280E-06  476298.3 3746947.0   468.5     4.00     3.95
1.86      YES
 L0006964          0   0.53280E-06  476289.8 3746947.9   468.6     4.00     3.95
1.86      YES
 L0006965          0   0.53280E-06  476281.4 3746948.7   468.7     4.00     3.95
1.86      YES
 L0006966          0   0.53280E-06  476272.9 3746949.5   468.8     4.00     3.95
1.86      YES
 L0006967          0   0.53280E-06  476264.4 3746950.4   468.9     4.00     3.95
1.86      YES
 L0006968          0   0.53280E-06  476256.0 3746950.8   469.0     4.00     3.95
1.86      YES
 L0006969          0   0.53280E-06  476247.5 3746950.7   469.2     4.00     3.95
1.86      YES
 L0006970          0   0.53280E-06  476239.0 3746950.7   469.3     4.00     3.95
1.86      YES
 L0006971          0   0.53280E-06  476230.5 3746950.6   469.4     4.00     3.95
1.86      YES
 L0006972          0   0.53280E-06  476222.0 3746950.5   469.5     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***      11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:14

                                   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                    AERMOD HRA Output
                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.
INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY
SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006973         0   0.53280E-06   476213.5 3746950.5   469.6     4.00      3.95
1.86      YES
 L0006974         0   0.53280E-06   476205.0 3746950.4   469.7     4.00      3.95
1.86      YES
 L0006975         0   0.53280E-06   476196.5 3746950.4   469.8     4.00      3.95
1.86      YES
 L0006976         0   0.53280E-06   476188.0 3746950.3   469.9     4.00      3.95
1.86      YES
 L0006977         0   0.53280E-06   476179.5 3746950.3   470.0     4.00      3.95
1.86      YES
 L0006978         0   0.53280E-06   476171.0 3746950.2   470.2     4.00      3.95
1.86      YES
 L0006979         0   0.53280E-06   476162.5 3746950.1   470.3     4.00      3.95
1.86      YES
 L0006980         0   0.53280E-06   476154.0 3746950.1   470.4     4.00      3.95
1.86      YES
 L0006981         0   0.53280E-06   476145.5 3746950.0   470.5     4.00      3.95
1.86      YES
 L0006982         0   0.53280E-06   476137.0 3746950.0   470.6     4.00      3.95
1.86      YES
 L0006983         0   0.53280E-06   476128.5 3746949.9   470.7     4.00      3.95
1.86      YES
 L0006984         0   0.53280E-06   476120.0 3746949.9   470.8     4.00      3.95
1.86      YES
 L0006985         0   0.53280E-06   476111.5 3746949.8   470.9     4.00      3.95
1.86      YES
 L0006986         0   0.53280E-06   476103.0 3746949.8   471.0     4.00      3.95
1.86      YES
 L0006987         0   0.53280E-06   476094.5 3746949.7   471.1     4.00      3.95
1.86      YES
 L0006988         0   0.53280E-06   476086.0 3746949.6   471.2     4.00      3.95
1.86      YES
 L0006989         0   0.53280E-06   476077.5 3746949.6   471.4     4.00      3.95
1.86      YES
 L0006990         0   0.53280E-06   476069.0 3746949.5   471.5     4.00      3.95
1.86      YES
 L0006991         0   0.53280E-06   476060.5 3746949.5   471.6     4.00      3.95
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1.86      YES
 L0006992         0   0.53280E-06  476052.0 3746949.4   471.7     4.00     3.95
1.86      YES
 L0006993         0   0.53280E-06  476043.5 3746949.4   471.8     4.00     3.95
1.86      YES
 L0006994         0   0.53280E-06  476035.0 3746949.3   471.9     4.00     3.95
1.86      YES
 L0006995         0   0.53280E-06  476026.5 3746949.2   472.0     4.00     3.95
1.86      YES
 L0006996         0   0.53280E-06  476018.0 3746949.2   472.1     4.00     3.95
1.86      YES
 L0006997         0   0.53280E-06  476009.5 3746949.1   472.2     4.00     3.95
1.86      YES
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 L0006999         0   0.53280E-06  475992.5 3746949.0   472.5     4.00     3.95
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 L0007000         0   0.53280E-06  475984.0 3746949.0   472.6     4.00     3.95
1.86      YES
 L0007001         0   0.53280E-06  475975.5 3746948.9   472.7     4.00     3.95
1.86      YES
 L0007002         0   0.53280E-06  475967.0 3746948.8   472.8     4.00     3.95
1.86      YES
 L0007003         0   0.53280E-06  475958.5 3746948.8   472.9     4.00     3.95
1.86      YES
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1.86      YES
 L0007005         0   0.53280E-06  475941.5 3746948.7   472.6     4.00     3.95
1.86      YES
 L0007006         0   0.53280E-06  475933.0 3746948.6   472.3     4.00     3.95
1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** AREA SOURCE DATA ***


               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM
Y-DIM    ORIENT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA
OF AREA   OF AREA      SZ      SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)
(METERS)   (DEG.)  (METERS)            BY
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -

 AREA1           0   0.28207E-08  477895.8 3748485.6   452.0     5.00     75.04
426.52      0.00     0.00     YES   HROFDY
 AREA2           0   0.29862E-08  478189.3 3748386.9   451.0     5.00     57.92
521.96      0.00     0.00     YES   HROFDY
 AREA3           0   0.10465E-07  478027.4 3748303.6   450.0     5.00    143.40
 60.16      0.00     0.00     YES   HROFDY
 AREA4           0   0.32820E-08  477696.2 3748836.0   454.0     5.00     72.15
152.50      0.00     0.00     YES   HROFDY
 AREA5           0   0.68612E-08  477967.7 3748183.6   450.0     5.00     61.27
 85.90      0.00     0.00     YES   HROFDY
 AREA6           0   0.30740E-08  477599.3 3748788.1   454.0     5.00     65.18
180.23      0.00     0.00     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                  SOURCE IDs
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  YARDTRAC   AREA1       , AREA2       , AREA3       , AREA4       , AREA5       ,
AREA6       ,

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L0003192    , L0003193    , L0003194    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

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                                    AERMOD HRA Output
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINING SOURCE GROUPS
***

  SRCGROUP ID                                               SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       10:14:14:10

                                  PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                SOURCE IDs
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AERMOD HRA Output

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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  69
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                          AERMOD HRA Output
                                                    *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  71
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                   ***          10:14:10

                                                PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  74
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        10:14:10

                                    PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       10:14:10

                                   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

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                                             AERMOD HRA Output
   **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS
  ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS
***

 SRCGROUP ID                                                      SOURCE IDs
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AERMOD HRA Output

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                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS
***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES
***

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                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                          SOURCE IDs
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AERMOD HRA Output

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L0003472     , L0003473     , L0003474     ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                      SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  86
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                SOURCE IDs
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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                         AERMOD HRA Output
                                                 *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                  SOURCE IDs
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Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                   SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
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                                 AERMOD HRA Output
                        ***        10:14:10

                                   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                         SOURCE IDs
  --------    ---------                                         ----------


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♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10

                                   PAGE  91
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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L0006191    , L0006192    , L0006193    ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
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L0006295    , L0006296    , L0006297    ,

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L0006303    , L0006304    , L0006305    ,

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L0006431    , L0006432    , L0006433    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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AERMOD HRA Output

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
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                              AERMOD HRA Output
  URBAN ID    URBAN POP                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID    URBAN POP                                   SOURCE IDs
  --------    ---------                                   ----------


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L0006967    , L0006968    , L0006969    ,

             L0006970    , L0006971    , L0006972    , L0006973    , L0006974    ,
L0006975    , L0006976    , L0006977    ,

             L0006978    , L0006979    , L0006980    , L0006981    , L0006982    ,
L0006983    , L0006984    , L0006985    ,

             L0006986    , L0006987    , L0006988    , L0006989    , L0006990    ,
L0006991    , L0006992    , L0006993    ,

             L0006994    , L0006995    , L0006996    , L0006997    , L0006998    ,
L0006999    , L0007000    , L0007001    ,

             L0007002    , L0007003    , L0007004    , L0007005    , L0007006    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003043     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003044     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003045     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003046     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003047     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***          11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        10:14:10

                                  PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003048     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003049     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003050     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003051     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003053     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003054     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003055     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003056     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003057     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003058     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003059     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003060     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003061     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003062     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003063     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


     SOURCE ID = L0003065     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


     SOURCE ID = L0003066     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


     SOURCE ID = L0003067     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	   11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
```

```
                                AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003068      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003069      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003070      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003071      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0003072     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10

                                               PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003075     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003076     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003077     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003078     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003079     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003080     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003081     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003082     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003083     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003084     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003085     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003086     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003087     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = L0003088     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003089     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003090     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003091     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003092     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 107
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003093     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003094     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003095     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003096     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003097     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003098     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003099     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003100     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003101     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003102     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
```

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003103     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003104     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003105     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003106     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003107     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:14:10

                                    PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003108     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003109     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003110     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003111     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003112     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003113     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003114     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003115     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17    .10000E+01     18    .10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0003116     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00     24    .00000E+00


 SOURCE ID = L0003117     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01     12    .10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
  17    .10000E+01     18    .10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
  23    .00000E+00     24    .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:14

                                   PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003118     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
   5    .00000E+00      6    .00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
  11    .10000E+01     12    .10000E+01
```

```
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003119     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003120     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003121     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003122     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
     5   .00000E+00       6   .00000E+00
         7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
    11   .10000E+01      12   .10000E+01
        13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
    17   .10000E+01      18   .10000E+01
        19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
    23   .00000E+00      24   .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 113
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003123     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003124     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003125     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003126     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003127     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003128     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003129     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003130     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003131     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003132     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
 ♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
```

```
                                 AERMOD HRA Output
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003133     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003134     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003135     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003136     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003137     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003138     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003139     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003140     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003141     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003142     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                              AERMOD HRA Output
                     ***        10:14:10

                                PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003144     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003145     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003146     ; SOURCE TYPE = VOLUME    :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003147     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003148     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003149     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003150     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003151     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003152     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003153     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003154     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003155     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003156     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003157     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003158     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003159     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003160     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003161     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003162     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                AERMOD HRA Output

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003163     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003164     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003165     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003166     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003167     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 122
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003168     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003169     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003170     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003171     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003172     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003173     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003174     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003175     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003176     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003177     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003178     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003179     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003180     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003181     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003182     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                    AERMOD HRA Output
    HOUR     SCALAR          HOUR     SCALAR          HOUR     SCALAR          HOUR     SCALAR
HOUR     SCALAR          HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003183     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003184     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003185     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003186     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003187     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 126
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003188     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003189     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003190     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003191     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003192     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

AERMOD HRA Output

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003193     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003194     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003195     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003196     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003197     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***          11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                    PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003198     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003199     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0003200     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003201     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003202     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 129
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

```
SOURCE ID = L0003203     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003204     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003205     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003206     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003207     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 130
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003208     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003209     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003210     ; SOURCE TYPE = VOLUME   :
```

```
                                 AERMOD HRA Output
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003211     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003212     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                  AERMOD HRA Output
SOURCE ID = L0003213      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003214      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003215      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003216      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003217      ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003218     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003219     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003220     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003221     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003222     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:14:10

                                    PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003223     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003224     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003225     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003226     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003227     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 134
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003228     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003229     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003230     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003231     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003232     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***          11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:14:10

                                   PAGE 135
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003233     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003234     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003235     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003236     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003237     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003238     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003239     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003240     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003241     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003242     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 137
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003243     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003244     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003245     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003246     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003247     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003248     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003249     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003250     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003251     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003252     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003253     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003254     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003255     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003256     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003257     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
```

```
                                 AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                       ***         10:14:10

                                   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003258     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003259     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003260     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003261     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003262     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003263     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003264      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003265      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003266      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003267      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10
```

```
                              AERMOD HRA Output

                                PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003268     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003269     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003270     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003271     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003272     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003273     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003274     ; SOURCE TYPE = VOLUME    :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003275     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003276     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003277     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 144
```

```
                                AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003278     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003279     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003280     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003281     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003282     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 145
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003283     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003284     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003285     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003286     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003287     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 146
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                              AERMOD HRA Output
                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003288     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003289     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003290     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003291     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003292     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003293     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003294     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003295     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003296     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003297     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 148
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



SOURCE ID = L0003298     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003299     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003300     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003301     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003302     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 149
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003303     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003304     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003305     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003306     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003307     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
```

```
                                    AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003308      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003309      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003310      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003311      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003312     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003313     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003314     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0003315     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003316     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003317     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003318     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003319     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003320     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003321     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003322     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:14:10

                                   PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003323     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003324     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003325     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003326     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003327     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0003328     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003329     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003330     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003331     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003332     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003333     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003334     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003335     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003336     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003337     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 156
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003338     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003339     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003340     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003341     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


SOURCE ID = L0003342     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003343     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003344     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003345     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003346     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003347     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003348     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003349     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003350     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003351     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003352     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
                                  AERMOD HRA Output
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 159
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003353     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003354     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003355     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003356     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003357     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***          11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:14:10

                                    PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003358     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003360     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003361     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003362     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003363     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003364     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003365     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St 
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR 
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR  
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


SOURCE ID = L0003369     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


SOURCE ID = L0003370     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


SOURCE ID = L0003371     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


SOURCE ID = L0003372     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
```

```
                              AERMOD HRA Output
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        10:14:10

                                    PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003373     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003374     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003375     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003376     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003377     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003378     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003379     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003380     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003381     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003382     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
```

```
                                     AERMOD HRA Output
                            ***        10:14:10

                                       PAGE 165
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003383     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003384     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003385     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003386     ; SOURCE TYPE = VOLUME    :
```

```
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
     5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
    11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
    17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
    23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003387     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
     5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
    11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
    17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
    23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003388     ; SOURCE TYPE = VOLUME   :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
     5   .00000E+00      6   .00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
    11   .10000E+01     12   .10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
    17   .10000E+01     18   .10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
    23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003389     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003390     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003391     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003392     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***         10:14:10
```

```
                                AERMOD HRA Output
                                  PAGE 167
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003396     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003397     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003398     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003399     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
                                        AERMOD HRA Output
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003400     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003401     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003402     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        10:14:10

                                  PAGE 169
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR
 HOUR     SCALAR        HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003403     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003404     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003405     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003406     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003407     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 170
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003408     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003409     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003410     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003411     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003412     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003417     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 172
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003418     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003419     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003420     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003421     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker             ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                AERMOD HRA Output
    HOUR     SCALAR          HOUR     SCALAR         HOUR     SCALAR         HOUR     SCALAR
HOUR     SCALAR         HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003423     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003424     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003425     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003426     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0003427     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003428     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003429     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003430     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003433     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003434     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003435     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003436     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = L0003437     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003438     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003439     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003440     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003441     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003442     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 177
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0003443     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003444     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003445     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003446     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003447     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 178
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003448     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003449     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003450     ; SOURCE TYPE = VOLUME   :
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                  AERMOD HRA Output
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003451     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003452     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                    ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                             AERMOD HRA Output
SOURCE ID = L0003453     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003454     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003455     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003456     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003457     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 180
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003458     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003459     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003460     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003461     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003462     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***          10:14:10

                                     PAGE 181
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR
 HOUR     SCALAR        HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003463     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003464     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003465     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003466     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003467     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003468     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003469     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003470     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003471     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003472     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003473     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003474     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003475     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003476     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003477     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003478     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003479     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003481     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003482     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 185
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003483     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003484     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003485     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003486     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003487     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 186
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003488     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003489     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003490     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0003491     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003492     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St 
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR 
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003493     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003494     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003495     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003496     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003497     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
```

```
                                AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003498     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003499     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003500     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003501     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003502     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 189
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003503     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003504     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003505     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003506     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003507     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                         ***        10:14:10
```

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                                   AERMOD HRA Output

                                     PAGE 190
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003508     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003509     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003510     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003511     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003512     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003513     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003514     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003515     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003516     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003517     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10
```

```
                                AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003518     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003519     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003520     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003521     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003522     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003523     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003524     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003525     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003526     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003527     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 194
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                 AERMOD HRA Output
                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003528     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003529     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003531     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003532     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 195
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003533     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003534     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003535     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003536     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00


  SOURCE ID = L0003537     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
    5   .00000E+00      6   .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
   11   .10000E+01     12   .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
   17   .10000E+01     18   .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
   23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St 
Bridge\Worker               ***        11/19/15
  *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                           PAGE 196
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR 
OF THE DAY *
```

```
                          AERMOD HRA Output

    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0003538     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003539     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003540     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003541     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003542     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003543     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003544     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


    SOURCE ID = L0003545     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


    SOURCE ID = L0003546     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00


    SOURCE ID = L0003547     ; SOURCE TYPE = VOLUME   :
          1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
      5   .00000E+00       6   .00000E+00
          7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
     11   .10000E+01      12   .10000E+01
         13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
     17   .10000E+01      18   .10000E+01
         19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
     23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	       11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                AERMOD HRA Output
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003548     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003549     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003550     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003551     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                              AERMOD HRA Output

 SOURCE ID = L0003552     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0003555     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003556     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003557     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 SOURCE ID = L0003558     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003559     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003560     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003561     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003562     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003563     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003564     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0003565     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003566     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003567     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0003568     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003569     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003570     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003571     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003572     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 203
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -



 SOURCE ID = L0003573     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003574     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003575     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003576     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003577     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003578     ; SOURCE TYPE = VOLUME   :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003579     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003580     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003581     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003582     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 205
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - 


 SOURCE ID = L0003583     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003584     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003585     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003586     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003587     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003588     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003589     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003590     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003591     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003592     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003593     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003594     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003595     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003596     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003597     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St 
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR 
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR 
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003598     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003599      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003600      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003601      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003602      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003603     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003604     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003605     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003606     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***          10:14:10

                                   PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003608     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003609     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003610     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003611     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003612     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
```

```
                                  AERMOD HRA Output
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
                           ***        10:14:10

                                      PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

      HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003613     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003614     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003615     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0003616     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003617     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 212
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003618     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0003619      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003620      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003621      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003622      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***    ***
```

```
                              AERMOD HRA Output
                    ***         10:14:10

                                PAGE 213
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003623     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003624     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003625     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003626     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003627     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003628     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                   AERMOD HRA Output
 SOURCE ID = L0003629     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003630     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003631     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003632     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***    ***
                        ***        10:14:10
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003633     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003634     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003635     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003636     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003637     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                *** 	  11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003638     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003639     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003640     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003641     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005357     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005358     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005360     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005361     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005362     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005363     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005364     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
                                  AERMOD HRA Output
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005365     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 219
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
```

```
                                 AERMOD HRA Output
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005368     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005369     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005370     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005371     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005372     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005373     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005374     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005375     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005376     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005377     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

```
                                AERMOD HRA Output
    HOUR     SCALAR           HOUR     SCALAR           HOUR     SCALAR           HOUR     SCALAR
HOUR     SCALAR           HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0005378      ; SOURCE TYPE = VOLUME    :
      1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
      7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
     13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
     19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0005379      ; SOURCE TYPE = VOLUME    :
      1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
      7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
     13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
     19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0005380      ; SOURCE TYPE = VOLUME    :
      1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
      7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
     13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
     19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00


SOURCE ID = L0005381      ; SOURCE TYPE = VOLUME    :
      1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00
  5    .00000E+00       6    .00000E+00
      7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01
 11    .10000E+01      12    .10000E+01
     13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01
 17    .10000E+01      18    .10000E+01
     19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00
 23    .00000E+00      24    .00000E+00
```

```
 SOURCE ID = L0005382     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005383     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005384     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005385     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005386     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005387     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                         ***        10:14:10

                                    PAGE 223
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
```

AERMOD HRA Output

```
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005388     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005389     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005390     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005391     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                 AERMOD HRA Output
 SOURCE ID = L0005392     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
 SOURCE ID = L0005395     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005396     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005397     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 225
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

AERMOD HRA Output

```
SOURCE ID = L0005398     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005399     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005400     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005401     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005402     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 226
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005403     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005404     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005405     ; SOURCE TYPE = VOLUME   :
```

```
                                 AERMOD HRA Output
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005406     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005407     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       10:14:10

                                   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR
 HOUR     SCALAR      HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

```
SOURCE ID = L0005408     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005409     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005410     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005411     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005412     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
```

```
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005417     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005418     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005419     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005420     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005421     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005422     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 230
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005423     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005424     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005425     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
                                AERMOD HRA Output
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005426     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005427     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:14

                                   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


SOURCE ID = L0005428     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005429     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005430     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005431     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005432     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005433     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005434     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0005435     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
```

```
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005436     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005437     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 233
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005438     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
```

```
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005439     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005440     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005441     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0005442     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00
```

```
                                 AERMOD HRA Output
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005443     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005444     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005445     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

AERMOD HRA Output

```
 SOURCE ID = L0005446     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005447     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005448     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005449     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005450     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005451     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005452     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
```

```
                                 AERMOD HRA Output
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 236
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0005453     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005454     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0005455     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                  AERMOD HRA Output
 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                 ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                              PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
                                        AERMOD HRA Output

 SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA5        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = AREA6        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK1        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***         11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10
```

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                              AERMOD HRA Output

                                PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK4        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK5        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK6        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK7        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = STCK8        ; SOURCE TYPE = POINT    :
```

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK9        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK10       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = STCK11       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                   ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 240
```

```
                              AERMOD HRA Output
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = STCK13       ; SOURCE TYPE = POINT    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003741     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003742     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
```

```
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003743     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003744     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003745     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
```

```
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003746     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003747     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003748     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                    AERMOD HRA Output
                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003750     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003751     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003752     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
```

```
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR
 HOUR    SCALAR       HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                             AERMOD HRA Output

    HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
HOUR     SCALAR       HOUR     SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - -



SOURCE ID = L0003759     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003760     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003761     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003762     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
```

```
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003763     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       10:14:10

                                  PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003765     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
```

```
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003766     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003767     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00


  SOURCE ID = L0003768     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
    5   .00000E+00       6   .00000E+00
        7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
   11   .10000E+01      12   .10000E+01
       13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
   17   .10000E+01      18   .10000E+01
       19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
   23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
```

```
                                 AERMOD HRA Output
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003769     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003772     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00
```

```
                                  AERMOD HRA Output

 SOURCE ID = L0003773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                             PAGE 247
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003774     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003775     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

```
 SOURCE ID = L0003776     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003777     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003778     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***       10:14:14

                                   PAGE 248
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
 SOURCE ID = L0003779     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003780     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003783     ; SOURCE TYPE = VOLUME   :
```

```
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 249
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003785     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                  AERMOD HRA Output
 SOURCE ID = L0003786     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003787     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003788     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                  ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 250
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AERMOD HRA Output

```
SOURCE ID = L0003789     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003790     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003791     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003792     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
      7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
 11   .10000E+01      12   .10000E+01
     13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
 17   .10000E+01      18   .10000E+01
     19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
 23   .00000E+00      24   .00000E+00


SOURCE ID = L0003793     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
  5   .00000E+00       6   .00000E+00
```

```
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 251
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003794     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003795     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
   5   .00000E+00      6   .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
  11   .10000E+01     12   .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
  17   .10000E+01     18   .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
  23   .00000E+00     24   .00000E+00


 SOURCE ID = L0003796     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
```

```
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003797     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003798     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 252
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR
 HOUR     SCALAR       HOUR     SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003799     ; SOURCE TYPE = VOLUME   :
```

Attachment: B2 - Mobile Source Health Risk Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003800     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003801     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003802     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01
 17   .10000E+01     18   .10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00
 23   .00000E+00     24   .00000E+00


SOURCE ID = L0003803     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00
  5   .00000E+00      6   .00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01
 11   .10000E+01     12   .10000E+01
```

```
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                    ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 253
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR
OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR
 HOUR    SCALAR      HOUR    SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -


 SOURCE ID = L0003804     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00


 SOURCE ID = L0003805     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00
   5   .00000E+00       6   .00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01
  11   .10000E+01      12   .10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01
  17   .10000E+01      18   .10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00
  23   .00000E+00      24   .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                    ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10
```

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                              AERMOD HRA Output
                                PAGE 254
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478075.4,
3749064.8,     454.0,     465.0,       0.0);
     ( 478011.5, 3748100.2,     450.0,     461.0,       0.0);         ( 478309.5,
3748103.0,     449.0,     463.0,       0.0);
     ( 477805.2, 3748100.2,     450.0,     461.0,       0.0);         ( 478140.0,
3748101.6,     450.0,     462.0,       0.0);
     ( 478312.7, 3747836.8,     449.0,     462.0,       0.0);         ( 478309.1,
3747964.1,     449.0,     462.0,       0.0);
     ( 477725.8, 3748664.0,     453.0,     462.0,       0.0);         ( 477725.8,
3748462.0,     452.0,     462.0,       0.0);
     ( 477547.8, 3748675.3,     454.0,     462.0,       0.0);         ( 477552.1,
3748483.2,     453.0,     461.0,       0.0);
     ( 477617.0, 3748271.3,     451.0,     461.0,       0.0);         ( 477685.0,
3749052.3,     454.0,     463.0,       0.0);
     ( 477532.1, 3749288.3,     455.0,     464.0,       0.0);         ( 478329.6,
3749871.1,     459.0,     467.0,       0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);         ( 478344.6,
3749914.1,     459.0,     467.0,       0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);         ( 478352.3,
3749701.1,     457.5,     467.0,       0.0);
     ( 478061.0, 3749681.7,     457.0,     467.0,       0.0);         ( 477822.7,
3748296.8,     451.0,     461.0,       0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                       ***        10:14:10

                                PAGE 255
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** METEOROLOGICAL DAYS SELECTED FOR
PROCESSING ***
                                                               (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
```

```
                                 AERMOD HRA Output
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1
1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON
WHAT IS INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED
CATEGORIES ***
                                                            (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,
10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 256
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL
DATA ***

   Surface file:   ..\..\peri8.sfc
                  Met Version:  14134
   Profile file:   ..\..\peri8.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:     3190                 Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN

                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN
ALBEDO  REF WS   WD     HT  REF TA     HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
- - - - - - - - - - - - - - - - - - - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  133.    9.1  279.9    5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  192.    9.1  279.2    5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  160.    9.1  277.5    5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50   75.    9.1  277.5    5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50  282.    9.1  278.8    5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00
1.00    0.50   96.    9.1  277.5    5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00
1.00    0.50  129.    9.1  278.1    5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00
0.54    0.50   99.    9.1  277.5    5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00
0.33    0.50  133.    9.1  278.1    5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00
0.26    0.50  174.    9.1  281.4    5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00
0.23    0.50   95.    9.1  284.9    5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00
0.22    1.30   94.    9.1  288.1    5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00
0.22    2.20   24.    9.1  291.4    5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00
0.23    3.60   13.    9.1  292.5    5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00
0.27    5.80  318.    9.1  292.0    5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00
0.36    5.80  329.    9.1  291.4    5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00
0.64    4.50  333.    9.1  289.9    5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00
1.00    3.60  305.    9.1  288.8    5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00
1.00    4.50  276.    9.1  287.5    5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00
1.00    3.60  323.    9.1  287.5    5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00
1.00    4.00  322.    9.1  288.1    5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00
1.00    4.50   30.    9.1  288.1    5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00
1.00    4.00  343.    9.1  287.0    5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00
```

```
                                  AERMOD HRA Output
1.00    1.80  155.    9.1  283.8    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:14

                                   PAGE 257
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: YARDTRAC ***
                                  INCLUDING SOURCE(S):     AREA1       , AREA2
 , AREA3       , AREA4       , AREA5       ,
                 AREA6       ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                     X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00011                    478075.38
3749064.82        0.00056
         478011.47    3748100.18        0.00122                    478309.53
3748103.00        0.00078
         477805.23    3748100.18        0.00040                    478140.02
3748101.59        0.00115
         478312.73    3747836.85        0.00035                    478309.13
3747964.13        0.00051
         477725.83    3748664.02        0.00093                    477725.83
3748462.01        0.00053
         477547.83    3748675.32        0.00044                    477552.06
3748483.20        0.00027
         477617.05    3748271.29        0.00025                    477684.97
3749052.32        0.00124
         477532.06    3749288.33        0.00026                    478329.61
```

```
3749871.11        0.00010
         478312.39    3749891.05        0.00010                      478344.56
3749914.15        0.00010
         478380.35    3749931.82        0.00009                      478352.31
3749701.09        0.00012
         478060.98    3749681.73        0.00016                      477822.73
3748296.77        0.00063
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker              ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                               PAGE 258
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: OTHER    ***
                                  INCLUDING SOURCE(S):     L0003043    , L0003044
 , L0003045    , L0003046    , L0003047    ,
                 L0003048    , L0003049    , L0003050    , L0003051    , L0003052
 , L0003053    , L0003054    , L0003055    ,
                 L0003056    , L0003057    , L0003058    , L0003059    , L0003060
 , L0003061    , L0003062    , L0003063    ,
                 L0003064    , L0003065    , L0003066    , L0003067    , L0003068
 , L0003069    , L0003070    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00020                      478075.38
3749064.82        0.00165
         478011.47    3748100.18        0.00118                      478309.53
3748103.00        0.00095
         477805.23    3748100.18        0.00097                      478140.02
3748101.59        0.00114
         478312.73    3747836.85        0.00046                      478309.13
3747964.13        0.00063
         477725.83    3748664.02        0.00198                      477725.83
3748462.01        0.00122
         477547.83    3748675.32        0.00127                      477552.06
3748483.20        0.00075
```

```
         477617.05    3748271.29        0.00083                            477684.97
3749052.32        0.00197
         477532.06    3749288.33        0.00171                            478329.61
3749871.11        0.00019
         478312.39    3749891.05        0.00019                            478344.56
3749914.15        0.00018
         478380.35    3749931.82        0.00017                            478352.31
3749701.09        0.00023
         478060.98    3749681.73        0.00029                            477822.73
3748296.77        0.00150
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker                ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 259
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0003043    , L0003044
 , L0003045    , L0003046    , L0003047    ,
                 L0003048    , L0003049    , L0003050    , L0003051    , L0003052
 , L0003053    , L0003054    , L0003055    ,
                 L0003056    , L0003057    , L0003058    , L0003059    , L0003060
 , L0003061    , L0003062    , L0003063    ,
                 L0003064    , L0003065    , L0003066    , L0003067    , L0003068
 , L0003069    , L0003070    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF DPM      IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - -
         478348.59    3749820.73        0.00069                            478075.38
3749064.82        0.00261
         478011.47    3748100.18        0.00341                            478309.53
3748103.00        0.00345
         477805.23    3748100.18        0.00231                            478140.02
3748101.59        0.00333
         478312.73    3747836.85        0.00414                            478309.13
3747964.13        0.00336
         477725.83    3748664.02        0.00336                            477725.83
```

```
3748462.01        0.00227
         477547.83    3748675.32        0.00215                      477552.06
3748483.20        0.00152
         477617.05    3748271.29        0.00170                      477684.97
3749052.32        0.00364
         477532.06    3749288.33        0.00244                      478329.61
3749871.11        0.00069
         478312.39    3749891.05        0.00069                      478344.56
3749914.15        0.00067
         478380.35    3749931.82        0.00065                      478352.31
3749701.09        0.00073
         478060.98    3749681.73        0.00092                      477822.73
3748296.77        0.00279
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 260
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3
                **


                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

YARDTRAC  1ST HIGHEST VALUE IS       0.00124 AT (  477684.97,  3749052.32,
454.00,   463.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00122 AT (  478011.47,  3748100.18,
450.00,   461.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00115 AT (  478140.02,  3748101.59,
450.00,   462.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00093 AT (  477725.83,  3748664.02,
453.00,   462.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00078 AT (  478309.53,  3748103.00,
449.00,   463.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00063 AT (  477822.73,  3748296.77,
451.00,   461.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00056 AT (  478075.38,  3749064.82,
```

```
454.00,   465.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00053 AT (  477725.83,  3748462.01,
452.00,   462.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00051 AT (  478309.13,  3747964.13,
449.00,   462.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00044 AT (  477547.83,  3748675.32,
454.00,   462.00,    0.00)  DC

OTHER     1ST HIGHEST VALUE IS       0.00198 AT (  477725.83,  3748664.02,
453.00,   462.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00197 AT (  477684.97,  3749052.32,
454.00,   463.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00171 AT (  477532.06,  3749288.33,
455.00,   464.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00165 AT (  478075.38,  3749064.82,
454.00,   465.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00150 AT (  477822.73,  3748296.77,
451.00,   461.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00127 AT (  477547.83,  3748675.32,
454.00,   462.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00122 AT (  477725.83,  3748462.01,
452.00,   462.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00118 AT (  478011.47,  3748100.18,
450.00,   461.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00114 AT (  478140.02,  3748101.59,
450.00,   462.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00097 AT (  477805.23,  3748100.18,
450.00,   461.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       0.00414 AT (  478312.73,  3747836.85,
449.00,   462.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.00364 AT (  477684.97,  3749052.32,
454.00,   463.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.00345 AT (  478309.53,  3748103.00,
449.00,   463.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.00341 AT (  478011.47,  3748100.18,
450.00,   461.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.00336 AT (  478309.13,  3747964.13,
449.00,   462.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.00336 AT (  477725.83,  3748664.02,
453.00,   462.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00333 AT (  478140.02,  3748101.59,
450.00,   462.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00279 AT (  477822.73,  3748296.77,
451.00,   461.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00261 AT (  478075.38,  3749064.82,
454.00,   465.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00244 AT (  477532.06,  3749288.33,
```

```
455.00,   464.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St
Bridge\Worker               ***        11/19/15
 *** AERMET - VERSION  14134 ***   ***
                        ***        10:14:10

                                   PAGE 261
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of         1895 Informational Message(s)

 A Total of        43824 Hours Were Processed

 A Total of           90 Calm Hours Identified

 A Total of         1805 Missing Hours Identified (  4.12 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W531    8340       MEOPEN: CAUTION! Met Station ID Missing from SURFFILE for
  SURFDATA

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

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APPENDIX 5.2:

RISK CALCULATIONS

Table A1
Quantification of Carcinogenic Risks
Residential Exposure Scenario - Without Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.01902
DBR (l/kg)	302
EF (350/365)	0.95890411
conv factor	0.000001
DOSEair =	5.50798E-06
CPF	1.1E+00
ED	70
AT	70
RISKair =	6.06E-06
RISK Per Million =	6.06

Quantification of Non Carcinogenic Risks
Residential Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.003804

Table A2
Quantification of Carcinogenic Risks
Worker Exposure Scenario - Without Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00376
DBR (l/kg)	149
EF (245/365)	0.671232877
conv factor	0.000001
DOSEair =	3.76052E-07
CPF	1.1E+00
ED	40
AT	70
RISKair =	2.36E-07
RISK Per Million =	0.24

Quantification of Non Carcinogenic Risks
Worker Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000752

Table A3
Quantification of Carcinogenic Risks
School Child Exposure Scenario - Without Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00651
DBR (l/kg)	581
EF (180/365)	0.493150685
conv factor	0.000001
DOSEair =	1.86525E-06
CPF	1.1E+00
ED	9
AT	70
RISKair =	2.64E-07
RISK Per Million =	0.264

Quantification of Non Carcinogenic Risks
School Child Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.001302

Table A1
Quantification of Carcinogenic Risks
Residential Exposure Scenario - With Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.01900
DBR (l/kg)	302
EF (350/365)	0.95890411
conv factor	0.000001
DOSEair =	5.50219E-06
CPF	1.1E+00
ED	70
AT	70
RISKair =	6.05E-06
RISK Per Million =	6.05

Quantification of Non Carcinogenic Risks
Residential Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.0038

Table A2
Quantification of Carcinogenic Risks
Worker Exposure Scenario - With Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00414
DBR (l/kg)	149
EF (245/365)	0.671232877
conv factor	0.000001
DOSEair =	4.14057E-07
CPF	1.1E+00
ED	40
AT	70
RISKair =	2.60E-07
RISK Per Million =	0.26

Quantification of Non Carcinogenic Risks
Worker Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000828

Table A3
Quantification of Carcinogenic Risks
School Child Exposure Scenario - With Indian

Mobile Sources - Diesel Particulates

$DOSEair = Cair \times [BR/BW] \times A \times EF \times (1 \times 10^{-6})$

$RISKair = DOSEair \times CPF \times ED/AT$

Cair	0.00472
DBR (l/kg)	581
EF (180/365)	0.493150685
conv factor	0.000001
DOSEair =	1.35238E-06
CPF	1.1E+00
ED	9
AT	70
RISKair =	1.91E-07
RISK Per Million =	0.191

Quantification of Non Carcinogenic Risks
School Child Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000944

Table 1
Quantification of Carcinogenic Risks and Noncarcinogenic Risks
Resident 30-Year Exposure Scenario (WO Indian St.)

	Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**										
						URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
		(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Diesel Particulates	2.39E-02	2.39E-05	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	8.1E-06	9.50E-06	5.0E+00	1.4E-03	4.8E-03							
	TOTAL								9.50E-06			4.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	30
inhalation rate (L/kg-day))	352
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	1
age sensitivity factor (age third trimester to 2 years	10
age sensitivity factor (ages 2 to 16 years old)	3
weighted age sensitivity factor	2.6

Table 2
Quantification of Carcinogenic Risks and Noncarcinogenic Risks
25-Year Worker Exposure Scenario (WO Indian St.)

	Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
						URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
		(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Diesel Particulates	4.64E-03	4.64E-06	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	8.3E-07	3.1E-07	5.0E+00	1.4E-03	9.3E-04							
	TOTAL								3.1E-07			9.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	240
exposure duration (years)	25
inhalation rate (L/kg-day))	271
inhalation absorption factor	1
averaging time (years)	70

Table 3
Quantification of Carcinogenic Risks and Noncarcinogenic Risks
9-Year School Child Exposure Scenario (WO Indian St.)

	Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
						URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
		(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Diesel Particulates	6.51E-03	6.51E-06	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.5E-06	5.9E-07	5.0E+00	1.4E-03	1.3E-03							
	TOTAL								5.9E-07			1.3E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	180
exposure duration (years)	9
inhalation rate (L/kg-day))	452
inhalation absorption factor	1
averaging time (years)	70
age sensitivity factor (ages 2-16)	3

Table 4
Quantification of Carcinogenic Risks and Noncarcinogenic Risks
Resident 30-Year Exposure Scenario (W Indian St.)

	Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
		(ug/m^3)	(mg/m^3)			URF (ug/m^3)$^{-1}$	CPF (mg/kg/day)$^{-1}$	DOSE (mg/kg-day)	RISK	REL (ug/m^3)	RfD (mg/kg/day)	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Diesel Particulates	2.38E-02	2.38E-05	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	8.0E-06	9.45E-06	5.0E+00	1.4E-03	4.8E-03							
	TOTAL								9.45E-06			4.8E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	30
inhalation rate (L/kg-day))	352
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	1
age sensitivity factor (age third trimester to 2 years	10
age sensitivity factor (ages 2 to 16 years old)	3
weighted age sensitivity factor	2.6

Table 5
Quantification of Carcinogenic Risks and Noncarcinogenic Risks
25-Year Worker Exposure Scenario (With Indian St.)

	Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
						URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
		(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Diesel Particulates	5.23E-03	5.23E-06	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	9.3E-07	3.5E-07	5.0E+00	1.4E-03	1.0E-03							
	TOTAL								3.5E-07			1.0E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	240
exposure duration (years)	25
inhalation rate (L/kg-day))	271
inhalation absorption factor	1
averaging time (years)	70

Table 6
Quantification of Carcinogenic Risks and Noncarcinogenic Risks
9-Year School Child Exposure Scenario (With Indian St.)

	Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
		(ug/m^3)	(mg/m^3)			URF (ug/m^3)$^{-1}$	CPF (mg/kg/day)$^{-1}$	DOSE (mg/kg-day)	RISK	REL (ug/m^3)	RfD (mg/kg/day)	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	Diesel Particulates	4.72E-03	4.72E-06	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.1E-06	4.3E-07	5.0E+00	1.4E-03	9.4E-04							
	TOTAL								4.3E-07			9.4E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	180
exposure duration (years)	9
inhalation rate (L/kg-day))	452
inhalation absorption factor	1
averaging time (years)	70
age sensitivity factor (ages 2-16)	3

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APPENDIX 5.3:

DPM EMISSIONS FROM PROJECT TRUCKS

Emission Rates - Residential Exposure (Average of emission factors for years 2017 through 2086) - UNMITIGATED

Truck Emission Rates (70 year average) - Without Indian Street Bridge						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.1296	6.59	7.629E-05
On-Site Idling - West of Building 1	174			0.1296	5.62	6.509E-05
On-Site Idling - South of Building 1	56			0.0190	0.27	3.084E-06
On-Site Idling - Building 2	92			0.1296	2.96	3.431E-05
On-Site Idling - Building 3	73			0.0190	0.34	3.993E-06
On-Site Idling Building 4	124			0.1296	4.02	4.650E-05
On-Site Travel - Building 1	865	798.49	0.0190		15.20	1.759E-04
On-Site Travel - Building 2	183	57.33	0.0190		1.09	1.263E-05
On-Site Travel - Building 3	145	37.51	0.0190		0.71	8.263E-06
On-Site Travel - Building 4	248	65.34	0.0190		1.24	1.439E-05
Off-Site Travel North on Heacock (70%)	1009	990.50	0.0097		9.57	1.108E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0097		2.18	2.524E-05
Off-Site Travel North on Heacock to Cactus to I-215 (60%)	865	3157.24	0.0097		30.50	3.530E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0097		2.10	2.434E-05
Off-Site Travel San Michele to Indian Av to I-215 (30%)	432	1310.27	0.0097		12.66	1.465E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - Worker Exposure (Average of emission factors for years 2017 through 2056) - UNMITIGATED

Truck Emission Rates (40 year average) - Without Indian Street Bridge						
Source	Trips Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.1534	7.80	9.027E-05
On-Site Idling - West of Building 1	174			0.1534	6.65	7.702E-05
On-Site Idling - South of Building 1	56			0.0255	0.36	4.125E-06
On-Site Idling - Building 2	92			0.1534	3.51	4.060E-05
On-Site Idling - Building 3	73			0.0255	0.46	5.341E-06
On-Site Idling Building 4	124			0.1534	4.75	5.502E-05
On-Site Travel - Building 1	865	798.49	0.0255		20.33	2.353E-04
On-Site Travel - Building 2	183	57.33	0.0255		1.46	1.689E-05
On-Site Travel - Building 3	145	37.51	0.0255		0.95	1.105E-05
On-Site Travel - Building 4	248	65.34	0.0255		1.66	1.925E-05
Off-Site Travel North on Heacock (70%)	1009	990.50	0.0121		11.99	1.387E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0121		2.73	3.161E-05
Off-Site Travel North on Heacock to Cactus to I-215 (60%)	865	3157.24	0.0121		38.20	4.422E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0121		2.63	3.048E-05
Off-Site Travel San Michele to Indian Av to I-215 (30%)	432	1310.27	0.0121		15.86	1.835E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - School Child Exposure (Average of emission factors for years 2017 through 2025) - UNMITIGATED

Truck Emission Rates (9 year average) Without Indian Street Bridge

Source	Trips Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.2471	12.57	1.454E-04
On-Site Idling - West of Building 1	174			0.2471	10.72	1.241E-04
On-Site Idling - South of Building 1	56			0.0635	0.89	1.029E-05
On-Site Idling - Building 2	92			0.2471	5.65	6.542E-05
On-Site Idling - Building 3	73			0.0635	1.15	1.332E-05
On-Site Idling Building 4	124			0.2471	7.66	8.866E-05
On-Site Travel - Building 1	865	798.49	0.0635		50.70	5.868E-04
On-Site Travel - Building 2	183	57.33	0.0635		3.64	4.213E-05
On-Site Travel - Building 3	145	37.51	0.0635		2.38	2.756E-05
On-Site Travel - Building 4	248	65.34	0.0635		4.15	4.801E-05
Off-Site Travel North on Heacock (70%)	1009	990.50	0.0271		26.89	3.112E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0271		6.13	7.092E-05
Off-Site Travel North on Heacock to Cactus to I-215 (60%)	865	3157.24	0.0271		85.72	9.921E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0271		5.91	6.839E-05
Off-Site Travel San Michele to Indian Av to I-215 (30%)	432	1310.27	0.0271		35.57	4.117E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - Residential Exposure (Average of emission factors for years 2017 through 2086) - UNMITIGATED

Truck Emission Rates (70 year average) - With Indian Street Bridge						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.1296	6.59	7.629E-05
On-Site Idling - West of Building 1	174			0.1296	5.62	6.509E-05
On-Site Idling - South of Building 1	56			0.0190	0.27	3.084E-06
On-Site Idling - Building 2	92			0.1296	2.96	3.431E-05
On-Site Idling - Building 3	73			0.0190	0.34	3.993E-06
On-Site Idling Building 4	124			0.1296	4.02	4.650E-05
On-Site Travel - Building 1	865	798.49	0.0190		15.20	1.759E-04
On-Site Travel - Building 2	183	57.33	0.0190		1.09	1.263E-05
On-Site Travel - Building 3	145	37.51	0.0190		0.71	8.263E-06
On-Site Travel - Building 4	248	65.34	0.0190		1.24	1.439E-05
Off-Site Travel North on Heacock (50%)	721	707.50	0.0097		6.84	7.911E-05
Off-Site Travel South on Heacock (30%)	432	225.69	0.0097		2.18	2.524E-05
Off-Site Travel South on Indian (20%)	288	150.46	0.0097		1.45	1.682E-05
Off-Site Travel North on Heacock to Cactus to I-215 (40%)	576	2104.83	0.0097		20.33	2.354E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0097		2.10	2.434E-05
Off-Site Travel on Indian Av to I-215 (50%)	721	2183.78	0.0097		21.10	2.442E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - Worker Exposure (Average of emission factors for years 2017 through 2056) - UNMITIGATED

Truck Emission Rates (40 year average) - With Indian Street Bridge						
Source	Trips Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.1534	7.80	9.027E-05
On-Site Idling - West of Building 1	174			0.1534	6.65	7.702E-05
On-Site Idling - South of Building 1	56			0.0255	0.36	4.125E-06
On-Site Idling - Building 2	92			0.1534	3.51	4.060E-05
On-Site Idling - Building 3	73			0.0255	0.46	5.341E-06
On-Site Idling Building 4	124			0.1534	4.75	5.502E-05
On-Site Travel - Building 1	865	798.49	0.0255		20.33	2.353E-04
On-Site Travel - Building 2	183	57.33	0.0255		1.46	1.689E-05
On-Site Travel - Building 3	145	37.51	0.0255		0.95	1.105E-05
On-Site Travel - Building 4	248	65.34	0.0255		1.66	1.925E-05
Off-Site Travel North on Heacock (50%)	721	707.50	0.0121		8.56	9.909E-05
Off-Site Travel South on Heacock (30%)	432	225.69	0.0121		2.73	3.161E-05
Off-Site Travel South on Indian (20%)	288	150.46	0.0121		1.82	2.107E-05
Off-Site Travel North on Heacock to Cactus to I-215 (40%)	576	2104.83	0.0121		25.47	2.948E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0121		2.63	3.048E-05
Off-Site Travel on Indian Av to I-215 (50%)	721	2183.78	0.0121		26.43	3.058E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - School Child Exposure (Average of emission factors for years 2017 through 2025) - UNMITIGATED

Truck Emission Rates (9 year average) - With Indian Street Bridge						
Source	**Trips Per Day**	**VMT [a] (miles/day)**	**Truck Emission Rate [b] (grams/mile)**	**Truck Emission Rate [b] (grams/idle-hour)**	**Daily Truck Emissions [c] (grams/day)**	**Modeled Emission Rates (g/second)**
On-Site Idling - East of Building 1	203			0.2471	12.57	1.454E-04
On-Site Idling - West of Building 1	174			0.2471	10.72	1.241E-04
On-Site Idling - South of Building 1	56			0.0635	0.89	1.029E-05
On-Site Idling - Building 2	92			0.2471	5.65	6.542E-05
On-Site Idling - Building 3	73			0.0635	1.15	1.332E-05
On-Site Idling Building 4	124			0.2471	7.66	8.866E-05
On-Site Travel - Building 1	865	798.49	0.0635		50.70	5.868E-04
On-Site Travel - Building 2	183	57.33	0.0635		3.64	4.213E-05
On-Site Travel - Building 3	145	37.51	0.0635		2.38	2.756E-05
On-Site Travel - Building 4	248	65.34	0.0635		4.15	4.801E-05
Off-Site Travel North on Heacock (50%)	721	707.50	0.0271		19.21	2.223E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0271		6.13	7.092E-05
Off-Site Travel South on Indian (20%)	288	150.46	0.0271		4.08	4.728E-05
Off-Site Travel North on Heacock to Cactus to I-215 (40%)	576	2104.83	0.0271		57.14	6.614E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0271		5.91	6.839E-05
Off-Site Travel on Indian Av to I-215 (50%)	721	2183.78	0.0271		59.29	6.862E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.031428571	g/bhp-hr	weighted average (2017-2020 and 2021-2086)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	0.566342857	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	43	truck trip/day (one-way)
Idle Rate	648.75	idle minutes/day
	0.450520833	idle-hrs/hr
Total Emissions:	**0.000070875**	**g/s**
Emissions per TRU Source:	**0.000007087**	**g/s**

TRUs Building 2

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	9	truck trip/day (one-way)
Idle Rate	137.25	idle minutes/day
	0.0953125	idle-hrs/hr
Total Emissions:	**0.000014994**	**g/s**
Emissions per TRU Source:	**0.000014994**	**g/s**

TRUs Building 3

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	7	truck trip/day (one-way)
Idle Rate	108.75	idle minutes/day
	0.075520833	idle-hrs/hr
Total Emissions:	**0.000011881**	**g/s**
Emissions per TRU Source:	**0.000011881**	**g/s**

TRUs Building 4

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	12	truck trip/day (one-way)
Idle Rate	186	idle minutes/day
	0.129166667	idle-hrs/hr
Total Emissions:	**0.000020320**	**g/s**
Emissions per TRU Source:	**0.000020320**	**g/s**

Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.04	g/bhp-hr	weighted average (2017-2020 and 2021-2056)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	0.7208	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	43	truck trip/day (one-way)
Idle Rate	648.75	idle minutes/day
	0.450520833	idle-hrs/hr
Total Emissions:	**0.000090204**	**g/s**
Emissions per TRU Source:	**0.000009020**	**g/s**

TRUs Building 2

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	9	truck trip/day (one-way)
Idle Rate	137.25	idle minutes/day
	0.0953125	idle-hrs/hr
Total Emissions:	**0.000019084**	**g/s**
Emissions per TRU Source:	**0.000019084**	**g/s**

TRUs Building 3

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	7	truck trip/day (one-way)
Idle Rate	108.75	idle minutes/day
	0.075520833	idle-hrs/hr
Total Emissions:	**0.000015121**	**g/s**
Emissions per TRU Source:	**0.000015121**	**g/s**

TRUs Building 4

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	12	truck trip/day (one-way)
Idle Rate	186	idle minutes/day
	0.129166667	idle-hrs/hr
Total Emissions:	**0.000025862**	**g/s**
Emissions per TRU Source:	**0.000025862**	**g/s**

Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.108888889	g/bhp-hr	weighted average (2017-2020 and 2021-2025)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	1.962177778	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	43	truck trip/day (one-way)
Idle Rate	648.75	idle minutes/day
	0.450520833	idle-hrs/hr
Total Emissions:	**0.000245556**	**g/s**
Emissions per TRU Source:	**0.000024556**	**g/s**

TRUs Building 2

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	9	truck trip/day (one-way)
Idle Rate	137.25	idle minutes/day
	0.0953125	idle-hrs/hr
Total Emissions:	**0.000051950**	**g/s**
Emissions per TRU Source:	**0.000051950**	**g/s**

TRUs Building 3

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	7	truck trip/day (one-way)
Idle Rate	108.75	idle minutes/day
	0.075520833	idle-hrs/hr
Total Emissions:	**0.000041163**	**g/s**
Emissions per TRU Source:	**0.000041163**	**g/s**

TRUs Building 4

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	12	truck trip/day (one-way)
Idle Rate	186	idle minutes/day
	0.129166667	idle-hrs/hr
Total Emissions:	**0.000070402**	**g/s**
Emissions per TRU Source:	**0.000070402**	**g/s**

Emission Rates - Residential Exposure (Average of emission factors for years 2017 through 2046) - UNMITIGATED

Truck Emission Rates (30 year average) - Without Indian Street Bridge						
Source	**Trucks Per Day**	**VMT [a] (miles/day)**	**Truck Emission Rate [b] (grams/mile)**	**Truck Emission Rate [b] (grams/idle-hour)**	**Daily Truck Emissions [c] (grams/day)**	**Modeled Emission Rates (g/second)**
On-Site Idling - East of Building 1	203			0.1715	8.72	1.010E-04
On-Site Idling - West of Building 1	174			0.1715	7.44	8.614E-05
On-Site Idling - South of Building 1	56			0.0304	0.43	4.929E-06
On-Site Idling - Building 2	92			0.1715	3.92	4.541E-05
On-Site Idling - Building 3	73			0.0304	0.55	6.383E-06
On-Site Idling Building 4	124			0.1715	5.32	6.154E-05
On-Site Travel - Building 1	865	798.49	0.0304		24.29	2.812E-04
On-Site Travel - Building 2	183	57.33	0.0304		1.74	2.019E-05
On-Site Travel - Building 3	145	37.51	0.0304		1.14	1.321E-05
On-Site Travel - Building 4	248	65.34	0.0304		1.99	2.301E-05
Off-Site Travel North on Heacock (70%)	1009	990.50	0.0140		13.85	1.604E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0140		3.16	3.654E-05
Off-Site Travel North on Heacock to Cactus to I-215 (60%)	865	3157.24	0.0140		44.16	5.111E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0140		3.04	3.524E-05
Off-Site Travel San Michele to Indian Av to I-215 (30%)	432	1310.27	0.0140		18.33	2.121E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - Worker Exposure (Average of emission factors for years 2017 through 2041) - UNMITIGATED

Truck Emission Rates (25 year average) - Without Indian Street Bridge						
Source	Trips Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.1841	9.36	1.084E-04
On-Site Idling - West of Building 1	174			0.1841	7.99	9.248E-05
On-Site Idling - South of Building 1	56			0.0342	0.48	5.539E-06
On-Site Idling - Building 2	92			0.1841	4.21	4.875E-05
On-Site Idling - Building 3	73			0.0342	0.62	7.173E-06
On-Site Idling Building 4	124			0.1841	5.71	6.607E-05
On-Site Travel - Building 1	865	798.49	0.0342		27.30	3.160E-04
On-Site Travel - Building 2	183	57.33	0.0342		1.96	2.269E-05
On-Site Travel - Building 3	145	37.51	0.0342		1.28	1.484E-05
On-Site Travel - Building 4	248	65.34	0.0342		2.23	2.586E-05
Off-Site Travel North on Heacock (70%)	1009	990.50	0.0154		15.28	1.769E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0154		3.48	4.031E-05
Off-Site Travel North on Heacock to Cactus to I-215 (60%)	865	3157.24	0.0154		48.72	5.638E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0154		3.36	3.887E-05
Off-Site Travel San Michele to Indian Av to I-215 (30%)	432	1310.27	0.0154		20.22	2.340E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - School Child Exposure (Average of emission factors for years 2017 through 2025) - UNMITIGATED

Truck Emission Rates (9 year average) Without Indian Street Bridge						
Source	Trips Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.2471	12.57	1.454E-04
On-Site Idling - West of Building 1	174			0.2471	10.72	1.241E-04
On-Site Idling - South of Building 1	56			0.0635	0.89	1.029E-05
On-Site Idling - Building 2	92			0.2471	5.65	6.542E-05
On-Site Idling - Building 3	73			0.0635	1.15	1.332E-05
On-Site Idling Building 4	124			0.2471	7.66	8.866E-05
On-Site Travel - Building 1	865	798.49	0.0635		50.70	5.868E-04
On-Site Travel - Building 2	183	57.33	0.0635		3.64	4.213E-05
On-Site Travel - Building 3	145	37.51	0.0635		2.38	2.756E-05
On-Site Travel - Building 4	248	65.34	0.0635		4.15	4.801E-05
Off-Site Travel North on Heacock (70%)	1009	990.50	0.0271		26.89	3.112E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0271		6.13	7.092E-05
Off-Site Travel North on Heacock to Cactus to I-215 (60%)	865	3157.24	0.0271		85.72	9.921E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0271		5.91	6.839E-05
Off-Site Travel San Michele to Indian Av to I-215 (30%)	432	1310.27	0.0271		35.57	4.117E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - Residential Exposure (Average of emission factors for years 2017 through 2046) - UNMITIGATED

Truck Emission Rates (30 year average) - With Indian Street Bridge						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.1715	8.72	1.010E-04
On-Site Idling - West of Building 1	174			0.1715	7.44	8.614E-05
On-Site Idling - South of Building 1	56			0.0304	0.43	4.929E-06
On-Site Idling - Building 2	92			0.1715	3.92	4.541E-05
On-Site Idling - Building 3	73			0.0304	0.55	6.383E-06
On-Site Idling Building 4	124			0.1715	5.32	6.154E-05
On-Site Travel - Building 1	865	798.49	0.0304		24.29	2.812E-04
On-Site Travel - Building 2	183	57.33	0.0304		1.74	2.019E-05
On-Site Travel - Building 3	145	37.51	0.0304		1.14	1.321E-05
On-Site Travel - Building 4	248	65.34	0.0304		1.99	2.301E-05
Off-Site Travel North on Heacock (50%)	721	707.50	0.0140		9.90	1.145E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0140		3.16	3.654E-05
Off-Site Travel South on Indian (20%)	288	150.46	0.0140		2.10	2.436E-05
Off-Site Travel North on Heacock to Cactus to I-215 (40%)	576	2104.83	0.0140		29.44	3.408E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0140		3.04	3.524E-05
Off-Site Travel on Indian Av to I-215 (50%)	721	2183.78	0.0140		30.55	3.535E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - Worker Exposure (Average of emission factors for years 2017 through 2041) - UNMITIGATED

Truck Emission Rates (25 year average) - With Indian Street Bridge						
Source	Trips Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling - East of Building 1	203			0.1841	9.36	1.084E-04
On-Site Idling - West of Building 1	174			0.1841	7.99	9.248E-05
On-Site Idling - South of Building 1	56			0.0342	0.48	5.539E-06
On-Site Idling - Building 2	92			0.1841	4.21	4.875E-05
On-Site Idling - Building 3	73			0.0342	0.62	7.173E-06
On-Site Idling Building 4	124			0.1841	5.71	6.607E-05
On-Site Travel - Building 1	865	798.49	0.0342		27.30	3.160E-04
On-Site Travel - Building 2	183	57.33	0.0342		1.96	2.269E-05
On-Site Travel - Building 3	145	37.51	0.0342		1.28	1.484E-05
On-Site Travel - Building 4	248	65.34	0.0342		2.23	2.586E-05
Off-Site Travel North on Heacock (50%)	721	707.50	0.0154		10.92	1.263E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0154		3.48	4.031E-05
Off-Site Travel South on Indian (20%)	288	150.46	0.0154		2.32	2.687E-05
Off-Site Travel North on Heacock to Cactus to I-215 (40%)	576	2104.83	0.0154		32.48	3.759E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0154		3.36	3.887E-05
Off-Site Travel on Indian Av to I-215 (50%)	721	2183.78	0.0154		33.70	3.900E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Emission Rates - School Child Exposure (Average of emission factors for years 2017 through 2025) - UNMITIGATED

Truck Emission Rates (9 year average) - With Indian Street Bridge						
Source	**Trips Per Day**	**VMT [a] (miles/day)**	**Truck Emission Rate [b] (grams/mile)**	**Truck Emission Rate [b] (grams/idle-hour)**	**Daily Truck Emissions [c] (grams/day)**	**Modeled Emission Rates (g/second)**
On-Site Idling - East of Building 1	203			0.2471	12.57	1.454E-04
On-Site Idling - West of Building 1	174			0.2471	10.72	1.241E-04
On-Site Idling - South of Building 1	56			0.0635	0.89	1.029E-05
On-Site Idling - Building 2	92			0.2471	5.65	6.542E-05
On-Site Idling - Building 3	73			0.0635	1.15	1.332E-05
On-Site Idling Building 4	124			0.2471	7.66	8.866E-05
On-Site Travel - Building 1	865	798.49	0.0635		50.70	5.868E-04
On-Site Travel - Building 2	183	57.33	0.0635		3.64	4.213E-05
On-Site Travel - Building 3	145	37.51	0.0635		2.38	2.756E-05
On-Site Travel - Building 4	248	65.34	0.0635		4.15	4.801E-05
Off-Site Travel North on Heacock (50%)	721	707.50	0.0271		19.21	2.223E-04
Off-Site Travel South on Heacock (30%)	432	225.69	0.0271		6.13	7.092E-05
Off-Site Travel South on Indian (20%)	288	150.46	0.0271		4.08	4.728E-05
Off-Site Travel North on Heacock to Cactus to I-215 (40%)	576	2104.83	0.0271		57.14	6.614E-04
Off-Site Travel North on Heacock past Cactus (10%)	144	217.64	0.0271		5.91	6.839E-05
Off-Site Travel on Indian Av to I-215 (50%)	721	2183.78	0.0271		59.29	6.862E-04

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2014. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.046666667	g/bhp-hr	weighted average (2017-2020 and 2021-2046)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	0.840933333	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	43	truck trip/day (one-way)
Idle Rate	648.75	idle minutes/day
	0.450520833	idle-hrs/hr
Total Emissions:	**0.000105238**	**g/s**
Emissions per TRU Source:	**0.000010524**	**g/s**

TRUs Building 2

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	9	truck trip/day (one-way)
Idle Rate	137.25	idle minutes/day
	0.0953125	idle-hrs/hr
Total Emissions:	**0.000022264**	**g/s**
Emissions per TRU Source:	**0.000022264**	**g/s**

TRUs Building 3

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	7	truck trip/day (one-way)
Idle Rate	108.75	idle minutes/day
	0.075520833	idle-hrs/hr
Total Emissions:	**0.000017641**	**g/s**
Emissions per TRU Source:	**0.000017641**	**g/s**

TRUs Building 4

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	12	truck trip/day (one-way)
Idle Rate	186	idle minutes/day
	0.129166667	idle-hrs/hr
Total Emissions:	**0.000030172**	**g/s**
Emissions per TRU Source:	**0.000030172**	**g/s**

Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.052	g/bhp-hr	weighted average (2017-2020 and 2021-2041)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	0.93704	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	43	truck trip/day (one-way)
Idle Rate	648.75	idle minutes/day
	0.450520833	idle-hrs/hr
Total Emissions:	**0.000117266**	**g/s**
Emissions per TRU Source:	**0.000011727**	**g/s**

TRUs Building 2

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	9	truck trip/day (one-way)
Idle Rate	137.25	idle minutes/day
	0.0953125	idle-hrs/hr
Total Emissions:	**0.000024809**	**g/s**
Emissions per TRU Source:	**0.000024809**	**g/s**

TRUs Building 3

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	7	truck trip/day (one-way)
Idle Rate	108.75	idle minutes/day
	0.075520833	idle-hrs/hr
Total Emissions:	**0.000019657**	**g/s**
Emissions per TRU Source:	**0.000019657**	**g/s**

TRUs Building 4

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	12	truck trip/day (one-way)
Idle Rate	186	idle minutes/day
	0.129166667	idle-hrs/hr
Total Emissions:	**0.000033621**	**g/s**
Emissions per TRU Source:	**0.000033621**	**g/s**

Idling / TRU Unmitigated

Emission Factor:

TRU EF	0.108888889	g/bhp-hr	weighted average (2017-2020 and 2021-2025)
TRU HP	34	HP	
TRU Load Factor	0.53		
TRU EF @34 HP and 0.53 LF	1.962177778	g/idle-hr	

Emission Calculations:

TRUs Building 1

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	43	truck trip/day (one-way)
Idle Rate	648.75	idle minutes/day
	0.450520833	idle-hrs/hr
Total Emissions:	**0.000245556**	**g/s**
Emissions per TRU Source:	**0.000024556**	**g/s**

TRUs Building 2

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	9	truck trip/day (one-way)
Idle Rate	137.25	idle minutes/day
	0.0953125	idle-hrs/hr
Total Emissions:	**0.000051950**	**g/s**
Emissions per TRU Source:	**0.000051950**	**g/s**

TRUs Building 3

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	7	truck trip/day (one-way)
Idle Rate	108.75	idle minutes/day
	0.075520833	idle-hrs/hr
Total Emissions:	**0.000041163**	**g/s**
Emissions per TRU Source:	**0.000041163**	**g/s**

TRUs Building 4

Travel Rate:

Idle Time	15	minutes/truck
Average Daily Truck Trips	12	truck trip/day (one-way)
Idle Rate	186	idle minutes/day
	0.129166667	idle-hrs/hr
Total Emissions:	**0.000070402**	**g/s**
Emissions per TRU Source:	**0.000070402**	**g/s**

Emissions from On-Site Equipment (Project Operations)

Engine Size:	200	hp (CARB Cargo Handling Equipment Yard Truck Emissions Testing Report)
Load Factor:	0.39	(CARB Cargo Handling Equipment Yard Truck Emissions Testing Report)
Operating hours	4	hr/day - based on the Port of Long Beach Air Emissions Inventory (July 2013)
Days	365	days per year
Conversion factor	453.59	g/lb

Calculation:																		
PM_{10} (DPM)	0.015	g/bhp-hr x	200	hp x	0.39	x	4	hr/day	x	365	/	453.59	=	3.76596	lb/yr	or;	0.01032	lb/day

Building 1

Number of CHE 5

Totals	lbs/day	lbs/year
PM_{10}	0.051588439	18.8297802

0.000716506 lbs/hr per source
0.002149518 lbs/hr

Buildings 2-4

Number of CHE 2

Totals	lbs/day	lbs/year
PM_{10}	0.020635376	7.531912079

0.000286602 lbs/hr per source
0.000859807 lbs/hr

Note: Emission Factors for ROG, NOx, and PM10 obatined from SCAQMD TABLE II-B - TIERS 1, 2, 3 & 4 OFF-ROAD ENGINE EMISSION STANDARDS, CO and SOx obtained from SCAB Fleet Average Composite Emission Factors (lb/hr) for Year 2017

*PM2.5 fraction based on CEIDARS Table available for use from the SCAQMD. The PM2.5 fraction of PM10 for Off-Road Diesel Vehicles is 0.92 (92%)

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March 17, 2016

Ms. Tracy Zinn
T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, CA 92780

SUBJECT: MORENO VALLEY LOGISTICS CENTER 300 FOOT SETBACK SITE PLAN

Dear Ms. Tracy Zinn:

Urban Crossroads, Inc. is pleased to submit the following supplemental analysis in support of the *Moreno Valley Logistics Center Project (Project)*. The purpose of this supplemental analysis is to determine the Project's health risk assessment impacts based on an alternative site plan with a 300 foot buffer zone to the nearest residential land uses consistent with the requirements of the Moreno Valley Industrial Area Plan (MVIAP).

Under this alternative assessment, the Project would simply provide a 300 foot setback but provide the same square footage as the preferred Project. As such, the alternative Project's regional air quality emissions and greenhouse gas emissions would be the same as the preferred Project. The 300 foot setback site plan would have no material effect on the Project AQIA or GHG conclusions regarding significance.

The Health Risk Assessment (HRA) was evaluated based on the 300 foot setback site plan. Overall, potential cancer risks have increased compared to the preferred Project. HRA impacts based on the 300 foot setback site plan will exceed the SCAQMD threshold of 10 in one million for impacts to adjacent residential uses.

A summary of the Project's health risk impacts based on the 300 foot setback site plan are summarized on Tables 3 and 4.

TABLE 3: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT – WITHOUT INDIAN STREET BRIDGE

Time Period	**Location**	**Maximum Lifetime Cancer Risk (Risk per Million)**	**Significance Threshold (Risk per Million)**	**Exceeds Significance Threshold**
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	18.25	10	YES
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.82	10	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.07	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	0.01	1.0	NO
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.003	1.0	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.0003	1.0	NO

TABLE 4: SUMMARY OF RISK ATTRIBUTABLE TO THE PROJECT – WITH INDIAN STREET BRIDGE

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	19.05	10	YES
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.81	10	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.21	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
70 Year Exposure (2017 to 2086)	Maximum Exposed Sensitive Receptor	0.012	1.0	NO
40 Year Exposure (2017 to 2056)	Maximum Exposed Worker Receptor	0.003	1.0	NO
9 Year Exposure (2017 to 2025)	Maximum Exposed School Child	0.001	1.0	NO

Attachment “A”

Modeling Outputs

Table A1
Quantification of Carcinogenic Risks
Residential Exposure Scenario - Without Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.05728
DBR (l/kg)	302
EF (350/365)	0.95890411
conv factor	0.000001
DOSEair =	1.65877E-05
CPF	1.1E+00
ED	70
AT	70
RISKair =	1.82E-05
RISK Per Million =	18.25

Quantification of Non Carcinogenic Risks
Residential Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.011456

Table A2

Quantification of Carcinogenic Risks

Worker Exposure Scenario - Without Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.01298
DBR (l/kg)	149
EF (245/365)	0.671232877
conv factor	0.000001
DOSEair =	1.29818E-06
CPF	1.1E+00
ED	40
AT	70
RISKair =	8.16E-07
RISK Per Million =	0.82

Quantification of Non Carcinogenic Risks

Worker Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.002596

Table A3
Quantification of Carcinogenic Risks
School Child Exposure Scenario - Without Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00161
DBR (l/kg)	581
EF (180/365)	0.493150685
conv factor	0.000001
DOSEair =	4.61298E-07
CPF	1.1E+00
ED	9
AT	70
RISKair =	6.52E-08
RISK Per Million =	0.065

Quantification of Non Carcinogenic Risks
School Child Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.000322

Table A1
Quantification of Carcinogenic Risks
Residential Exposure Scenario - With Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.05980
DBR (l/kg)	302
EF (350/365)	0.95890411
conv factor	0.000001
DOSEair =	1.73174E-05
CPF	1.1E+00
ED	70
AT	70
RISKair =	1.90E-05
RISK Per Million =	19.05

Quantification of Non Carcinogenic Risks
Residential Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.01196

Table A2
Quantification of Carcinogenic Risks
Worker Exposure Scenario - With Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.01291
DBR (l/kg)	149
EF (245/365)	0.671232877
conv factor	0.000001
DOSEair =	1.29118E-06
CPF	1.1E+00
ED	40
AT	70
RISKair =	8.12E-07
RISK Per Million =	0.81

Quantification of Non Carcinogenic Risks
Worker Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.002582

Table A3
Quantification of Carcinogenic Risks
School Child Exposure Scenario - With Indian

Mobile Sources - Diesel Particulates

DOSEair = Cair x [BR/BW] x A x EF x (1 x 10^{-6})

RISKair = DOSEair x CPF x ED/AT

Cair	0.00509
DBR (l/kg)	581
EF (180/365)	0.493150685
conv factor	0.000001
DOSEair =	1.45839E-06
CPF	1.1E+00
ED	9
AT	70
RISKair =	2.06E-07
RISK Per Million =	0.206

Quantification of Non Carcinogenic Risks
School Child Exposure Scenario

REL (ug/m3)	5
Hazard Index =	0.001018

```
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 3/22/2016
** File: C:\Lakes\AERMOD View\MVL\Revised\300 Ft Buffer\HRA WO Indian St Bridge\Residential\Residential.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Residential.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007629
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 478173.031, 3748893.095, 454.64, 4.00, 13.95
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   LOCATION L0011014     VOLUME   478170.898 3748427.002 451.00
   LOCATION L0011015     VOLUME   478171.035 3748457.001 451.00
   LOCATION L0011016     VOLUME   478171.172 3748487.001 451.01
   LOCATION L0011017     VOLUME   478171.309 3748517.001 452.00
   LOCATION L0011018     VOLUME   478171.447 3748547.000 452.00
   LOCATION L0011019     VOLUME   478171.584 3748577.000 452.00
   LOCATION L0011020     VOLUME   478171.721 3748607.000 452.00
   LOCATION L0011021     VOLUME   478171.859 3748636.999 452.00
   LOCATION L0011022     VOLUME   478171.996 3748666.999 452.00
   LOCATION L0011023     VOLUME   478172.133 3748696.999 452.00
   LOCATION L0011024     VOLUME   478172.271 3748726.998 452.00
   LOCATION L0011025     VOLUME   478172.408 3748756.998 452.01
   LOCATION L0011026     VOLUME   478172.545 3748786.998 453.00
   LOCATION L0011027     VOLUME   478172.682 3748816.997 453.00
   LOCATION L0011028     VOLUME   478172.820 3748846.997 453.00
   LOCATION L0011029     VOLUME   478172.957 3748876.997 453.00
** End of LINE VOLUME Source ID = SLINE1
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```
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00006509
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 477947.383, 3748908.539, 453.22, 4.00, 13.95
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   LOCATION L0008607     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0008608     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0008609     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0008610     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0008611     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0008612     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0008613     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0008614     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0008615     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0008616     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0008617     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0008618     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0008619     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003431
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** ----------------------------------------------------------------------
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   LOCATION L0008621     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0008622     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0008623     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0008624     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0008625     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0008626     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0008627     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.993E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
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** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
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```
                                                Residential
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0008628     VOLUME   477900.151 3748339.028 451.00
   LOCATION L0008629     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0008630     VOLUME   477917.150 3748338.902 451.00
   LOCATION L0008631     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0008632     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0008633     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0008634     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0008635     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0008636     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0008637     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0008638     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0008639     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0008640     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0008641     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0008642     VOLUME   477977.265 3748271.460 450.00
   LOCATION L0008643     VOLUME   477978.288 3748263.022 450.00
   LOCATION L0008644     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0008645     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0008646     VOLUME   477978.207 3748237.527 450.00
   LOCATION L0008647     VOLUME   477978.153 3748229.027 450.00
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** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000465
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
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** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
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   LOCATION L0008650     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0008651     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0008652     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0008653     VOLUME   477608.667 3748895.289 454.00
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   LOCATION L0008656     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0008657     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0008658     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0008659     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0008660     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0008661     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0008662     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0008663     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 3.084E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
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                                                          Residential
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
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   LOCATION L0008664     VOLUME   478043.005 3748335.195 451.00
   LOCATION L0008665     VOLUME   478072.998 3748334.546 451.00
   LOCATION L0008666     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0008667     VOLUME   478132.984 3748333.248 451.00
   LOCATION L0008668     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001759
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477903.119, 3748978.747, 454.37, 4.00, 3.95
** 477902.608, 3748952.152, 454.12, 4.00, 3.95
** 477899.027, 3748927.603, 453.00, 4.00, 3.95
** 477898.005, 3748872.879, 454.55, 4.00, 3.95
** 477894.936, 3748491.345, 451.92, 4.00, 3.95
** 477967.049, 3748356.836, 451.00, 4.00, 3.95
** 477978.301, 3748339.447, 451.26, 4.00, 3.95
** 478166.511, 3748341.493, 452.92, 4.00, 3.95
** 478170.602, 3748916.352, 453.33, 4.00, 3.95
** 478152.702, 3748975.167, 453.52, 4.00, 3.95
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   LOCATION L0010838     VOLUME   477903.037 3748974.497 453.26
   LOCATION L0010839     VOLUME   477902.874 3748965.999 453.00
   LOCATION L0010840     VOLUME   477902.711 3748957.501 453.00
   LOCATION L0010841     VOLUME   477902.153 3748949.035 453.00
   LOCATION L0010842     VOLUME   477900.926 3748940.624 453.00
   LOCATION L0010843     VOLUME   477899.699 3748932.213 453.00
   LOCATION L0010844     VOLUME   477898.955 3748923.762 453.00
   LOCATION L0010845     VOLUME   477898.796 3748915.264 453.00
   LOCATION L0010846     VOLUME   477898.638 3748906.765 453.00
   LOCATION L0010847     VOLUME   477898.479 3748898.266 453.00
   LOCATION L0010848     VOLUME   477898.320 3748889.768 453.00
   LOCATION L0010849     VOLUME   477898.162 3748881.269 453.00
   LOCATION L0010850     VOLUME   477898.004 3748872.771 453.00
   LOCATION L0010851     VOLUME   477897.936 3748864.271 453.00
   LOCATION L0010852     VOLUME   477897.867 3748855.771 453.00
   LOCATION L0010853     VOLUME   477897.799 3748847.272 453.00
   LOCATION L0010854     VOLUME   477897.731 3748838.772 453.00
   LOCATION L0010855     VOLUME   477897.662 3748830.272 453.00
   LOCATION L0010856     VOLUME   477897.594 3748821.773 453.00
   LOCATION L0010857     VOLUME   477897.525 3748813.273 453.00
   LOCATION L0010858     VOLUME   477897.457 3748804.773 453.00
   LOCATION L0010859     VOLUME   477897.389 3748796.273 453.00
   LOCATION L0010860     VOLUME   477897.320 3748787.774 453.00
   LOCATION L0010861     VOLUME   477897.252 3748779.274 453.00
   LOCATION L0010862     VOLUME   477897.184 3748770.774 453.00
   LOCATION L0010863     VOLUME   477897.115 3748762.274 453.00
   LOCATION L0010864     VOLUME   477897.047 3748753.775 453.00
   LOCATION L0010865     VOLUME   477896.978 3748745.275 453.00
   LOCATION L0010866     VOLUME   477896.910 3748736.775 453.00
   LOCATION L0010867     VOLUME   477896.842 3748728.276 453.00
   LOCATION L0010868     VOLUME   477896.773 3748719.776 453.00
   LOCATION L0010869     VOLUME   477896.705 3748711.276 453.00
   LOCATION L0010870     VOLUME   477896.637 3748702.776 453.00
   LOCATION L0010871     VOLUME   477896.568 3748694.277 452.92
   LOCATION L0010872     VOLUME   477896.500 3748685.777 452.64
   LOCATION L0010873     VOLUME   477896.431 3748677.277 452.36
   LOCATION L0010874     VOLUME   477896.363 3748668.777 452.07
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LOCATION L0010875     VOLUME   477896.295 3748660.278 452.00
LOCATION L0010876     VOLUME   477896.226 3748651.778 452.00
LOCATION L0010877     VOLUME   477896.158 3748643.278 452.00
LOCATION L0010878     VOLUME   477896.090 3748634.779 452.00
LOCATION L0010879     VOLUME   477896.021 3748626.279 452.00
LOCATION L0010880     VOLUME   477895.953 3748617.779 452.00
LOCATION L0010881     VOLUME   477895.885 3748609.279 452.00
LOCATION L0010882     VOLUME   477895.816 3748600.780 452.00
LOCATION L0010883     VOLUME   477895.748 3748592.280 452.00
LOCATION L0010884     VOLUME   477895.679 3748583.780 452.00
LOCATION L0010885     VOLUME   477895.611 3748575.281 452.00
LOCATION L0010886     VOLUME   477895.543 3748566.781 452.00
LOCATION L0010887     VOLUME   477895.474 3748558.281 452.00
LOCATION L0010888     VOLUME   477895.406 3748549.781 452.00
LOCATION L0010889     VOLUME   477895.338 3748541.282 452.00
LOCATION L0010890     VOLUME   477895.269 3748532.782 452.00
LOCATION L0010891     VOLUME   477895.201 3748524.282 452.00
LOCATION L0010892     VOLUME   477895.132 3748515.782 452.00
LOCATION L0010893     VOLUME   477895.064 3748507.283 452.00
LOCATION L0010894     VOLUME   477894.996 3748498.783 452.00
LOCATION L0010895     VOLUME   477895.437 3748490.409 452.00
LOCATION L0010896     VOLUME   477899.454 3748482.918 451.96
LOCATION L0010897     VOLUME   477903.470 3748475.427 451.92
LOCATION L0010898     VOLUME   477907.486 3748467.935 451.95
LOCATION L0010899     VOLUME   477911.502 3748460.444 451.94
LOCATION L0010900     VOLUME   477915.519 3748452.953 451.71
LOCATION L0010901     VOLUME   477919.535 3748445.461 451.43
LOCATION L0010902     VOLUME   477923.551 3748437.970 451.21
LOCATION L0010903     VOLUME   477927.567 3748430.479 451.05
LOCATION L0010904     VOLUME   477931.584 3748422.987 451.00
LOCATION L0010905     VOLUME   477935.600 3748415.496 451.00
LOCATION L0010906     VOLUME   477939.616 3748408.005 451.00
LOCATION L0010907     VOLUME   477943.632 3748400.513 451.00
LOCATION L0010908     VOLUME   477947.649 3748393.022 451.00
LOCATION L0010909     VOLUME   477951.665 3748385.531 451.00
LOCATION L0010910     VOLUME   477955.681 3748378.039 451.00
LOCATION L0010911     VOLUME   477959.697 3748370.548 451.00
LOCATION L0010912     VOLUME   477963.714 3748363.057 451.00
LOCATION L0010913     VOLUME   477967.832 3748355.626 451.00
LOCATION L0010914     VOLUME   477972.449 3748348.489 451.00
LOCATION L0010915     VOLUME   477977.067 3748341.353 451.00
LOCATION L0010916     VOLUME   477984.530 3748339.514 451.00
LOCATION L0010917     VOLUME   477993.029 3748339.607 451.00
LOCATION L0010918     VOLUME   478001.529 3748339.699 451.00
LOCATION L0010919     VOLUME   478010.028 3748339.792 451.00
LOCATION L0010920     VOLUME   478018.528 3748339.884 451.00
LOCATION L0010921     VOLUME   478027.027 3748339.976 451.00
LOCATION L0010922     VOLUME   478035.527 3748340.069 451.00
LOCATION L0010923     VOLUME   478044.026 3748340.161 451.00
LOCATION L0010924     VOLUME   478052.526 3748340.254 451.00
LOCATION L0010925     VOLUME   478061.025 3748340.346 451.00
LOCATION L0010926     VOLUME   478069.525 3748340.438 451.00
LOCATION L0010927     VOLUME   478078.024 3748340.531 451.00
LOCATION L0010928     VOLUME   478086.524 3748340.623 451.00
LOCATION L0010929     VOLUME   478095.023 3748340.716 451.00
LOCATION L0010930     VOLUME   478103.523 3748340.808 451.00
LOCATION L0010931     VOLUME   478112.022 3748340.900 451.00
LOCATION L0010932     VOLUME   478120.522 3748340.993 451.00
LOCATION L0010933     VOLUME   478129.021 3748341.085 451.00
LOCATION L0010934     VOLUME   478137.521 3748341.177 451.00
LOCATION L0010935     VOLUME   478146.020 3748341.270 451.00
LOCATION L0010936     VOLUME   478154.520 3748341.362 451.00
LOCATION L0010937     VOLUME   478163.019 3748341.455 451.00
LOCATION L0010938     VOLUME   478166.547 3748346.501 451.00
LOCATION L0010939     VOLUME   478166.607 3748355.000 451.00
LOCATION L0010940     VOLUME   478166.668 3748363.500 451.00
LOCATION L0010941     VOLUME   478166.728 3748372.000 451.00
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LOCATION L0010942     VOLUME   478166.788 3748380.500 451.00
LOCATION L0010943     VOLUME   478166.849 3748388.999 451.00
LOCATION L0010944     VOLUME   478166.909 3748397.499 451.00
LOCATION L0010945     VOLUME   478166.970 3748405.999 451.00
LOCATION L0010946     VOLUME   478167.030 3748414.499 451.00
LOCATION L0010947     VOLUME   478167.091 3748422.999 451.00
LOCATION L0010948     VOLUME   478167.151 3748431.498 451.00
LOCATION L0010949     VOLUME   478167.212 3748439.998 451.00
LOCATION L0010950     VOLUME   478167.272 3748448.498 451.00
LOCATION L0010951     VOLUME   478167.333 3748456.998 451.00
LOCATION L0010952     VOLUME   478167.393 3748465.498 451.00
LOCATION L0010953     VOLUME   478167.454 3748473.997 451.00
LOCATION L0010954     VOLUME   478167.514 3748482.497 451.00
LOCATION L0010955     VOLUME   478167.575 3748490.997 451.15
LOCATION L0010956     VOLUME   478167.635 3748499.497 451.43
LOCATION L0010957     VOLUME   478167.696 3748507.996 451.71
LOCATION L0010958     VOLUME   478167.756 3748516.496 452.00
LOCATION L0010959     VOLUME   478167.817 3748524.996 452.00
LOCATION L0010960     VOLUME   478167.877 3748533.496 452.00
LOCATION L0010961     VOLUME   478167.938 3748541.996 452.00
LOCATION L0010962     VOLUME   478167.998 3748550.495 452.00
LOCATION L0010963     VOLUME   478168.059 3748558.995 452.00
LOCATION L0010964     VOLUME   478168.119 3748567.495 452.00
LOCATION L0010965     VOLUME   478168.180 3748575.995 452.00
LOCATION L0010966     VOLUME   478168.240 3748584.495 452.00
LOCATION L0010967     VOLUME   478168.301 3748592.994 452.00
LOCATION L0010968     VOLUME   478168.361 3748601.494 452.00
LOCATION L0010969     VOLUME   478168.422 3748609.994 452.00
LOCATION L0010970     VOLUME   478168.482 3748618.494 452.00
LOCATION L0010971     VOLUME   478168.543 3748626.993 452.00
LOCATION L0010972     VOLUME   478168.603 3748635.493 452.00
LOCATION L0010973     VOLUME   478168.664 3748643.993 452.00
LOCATION L0010974     VOLUME   478168.724 3748652.493 452.00
LOCATION L0010975     VOLUME   478168.785 3748660.993 452.00
LOCATION L0010976     VOLUME   478168.845 3748669.492 452.00
LOCATION L0010977     VOLUME   478168.906 3748677.992 452.00
LOCATION L0010978     VOLUME   478168.966 3748686.492 452.00
LOCATION L0010979     VOLUME   478169.027 3748694.992 452.00
LOCATION L0010980     VOLUME   478169.087 3748703.491 452.00
LOCATION L0010981     VOLUME   478169.148 3748711.991 452.00
LOCATION L0010982     VOLUME   478169.208 3748720.491 452.00
LOCATION L0010983     VOLUME   478169.269 3748728.991 452.00
LOCATION L0010984     VOLUME   478169.329 3748737.491 452.00
LOCATION L0010985     VOLUME   478169.390 3748745.990 452.00
LOCATION L0010986     VOLUME   478169.450 3748754.490 452.00
LOCATION L0010987     VOLUME   478169.510 3748762.990 452.21
LOCATION L0010988     VOLUME   478169.571 3748771.490 452.50
LOCATION L0010989     VOLUME   478169.631 3748779.990 452.78
LOCATION L0010990     VOLUME   478169.692 3748788.489 453.00
LOCATION L0010991     VOLUME   478169.752 3748796.989 453.00
LOCATION L0010992     VOLUME   478169.813 3748805.489 453.00
LOCATION L0010993     VOLUME   478169.873 3748813.989 453.00
LOCATION L0010994     VOLUME   478169.934 3748822.488 453.00
LOCATION L0010995     VOLUME   478169.994 3748830.988 453.00
LOCATION L0010996     VOLUME   478170.055 3748839.488 453.00
LOCATION L0010997     VOLUME   478170.115 3748847.988 453.00
LOCATION L0010998     VOLUME   478170.176 3748856.488 453.00
LOCATION L0010999     VOLUME   478170.236 3748864.987 453.00
LOCATION L0011000     VOLUME   478170.297 3748873.487 453.00
LOCATION L0011001     VOLUME   478170.357 3748881.987 453.00
LOCATION L0011002     VOLUME   478170.418 3748890.487 453.00
LOCATION L0011003     VOLUME   478170.478 3748898.987 453.00
LOCATION L0011004     VOLUME   478170.539 3748907.486 453.00
LOCATION L0011005     VOLUME   478170.599 3748915.986 453.00
LOCATION L0011006     VOLUME   478168.233 3748924.134 453.00
LOCATION L0011007     VOLUME   478165.759 3748932.265 453.00
LOCATION L0011008     VOLUME   478163.284 3748940.397 453.00
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                                                  Residential
   LOCATION L0011009     VOLUME   478160.809 3748948.529 453.00
   LOCATION L0011010     VOLUME   478158.334 3748956.661 453.00
   LOCATION L0011011     VOLUME   478155.859 3748964.792 453.00
   LOCATION L0011012     VOLUME   478153.384 3748972.924 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001263
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0008844     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0008845     VOLUME   477852.822 3748843.717 453.00
   LOCATION L0008846     VOLUME   477852.867 3748852.217 453.00
   LOCATION L0008847     VOLUME   477852.913 3748860.717 453.00
   LOCATION L0008848     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0008849     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0008850     VOLUME   477853.051 3748886.216 453.00
   LOCATION L0008851     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0008852     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0008853     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0008854     VOLUME   477853.234 3748920.216 453.00
   LOCATION L0008855     VOLUME   477853.279 3748928.716 453.00
   LOCATION L0008856     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0008857     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0008858     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0008859     VOLUME   477853.463 3748962.715 453.00
   LOCATION L0008860     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0008861     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0008862     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0008863     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0008864     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0008865     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0008866     VOLUME   477811.027 3748979.586 454.00
   LOCATION L0008867     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0008868     VOLUME   477794.027 3748979.545 454.00
   LOCATION L0008869     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0008870     VOLUME   477777.027 3748979.504 454.00
   LOCATION L0008871     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0008872     VOLUME   477760.027 3748979.463 454.00
   LOCATION L0008873     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0008874     VOLUME   477743.027 3748979.422 454.00
   LOCATION L0008875     VOLUME   477742.701 3748971.202 454.00
   LOCATION L0008876     VOLUME   477742.653 3748962.702 454.00
   LOCATION L0008877     VOLUME   477742.605 3748954.202 454.00
   LOCATION L0008878     VOLUME   477742.557 3748945.702 454.00
   LOCATION L0008879     VOLUME   477742.508 3748937.202 454.00
   LOCATION L0008880     VOLUME   477742.460 3748928.702 453.89
   LOCATION L0008881     VOLUME   477742.412 3748920.202 453.77
   LOCATION L0008882     VOLUME   477742.364 3748911.703 453.65
   LOCATION L0008883     VOLUME   477742.316 3748903.203 453.58
   LOCATION L0008884     VOLUME   477742.268 3748894.703 453.58
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                                                         Residential
   LOCATION L0008885     VOLUME   477742.220 3748886.203 453.59
   LOCATION L0008886     VOLUME   477744.174 3748877.975 453.52
   LOCATION L0008887     VOLUME   477746.490 3748869.797 453.57
   LOCATION L0008888     VOLUME   477748.805 3748861.618 453.68
   LOCATION L0008889     VOLUME   477751.121 3748853.440 453.84
   LOCATION L0008890     VOLUME   477753.436 3748845.261 453.96
   LOCATION L0008891     VOLUME   477757.468 3748838.153 453.72
   LOCATION L0008892     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0008893     VOLUME   477770.126 3748826.806 453.22
   LOCATION L0008894     VOLUME   477778.582 3748826.536 453.12
   LOCATION L0008895     VOLUME   477787.080 3748826.374 453.03
   LOCATION L0008896     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0008897     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0008898     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0008899     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0008900     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0008901     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0008902     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 8.263E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0008903     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0008904     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0008905     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0008906     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0008907     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0008908     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0008909     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0008910     VOLUME   477885.558 3748263.233 450.92
   LOCATION L0008911     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0008912     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0008913     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0008914     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0008915     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0008916     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0008917     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0008918     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0008919     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0008920     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0008921     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0008922     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0008923     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0008924     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0008925     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0008926     VOLUME   477945.545 3748332.582 451.00
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                                                    Residential
   LOCATION L0008927     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0008928     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0008929     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0008930     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0008931     VOLUME   477968.225 3748296.672 450.00
   LOCATION L0008932     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0008933     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0008934     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0008935     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0008936     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0008937     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0008938     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0008939     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0008940     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0008941     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0008942     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0008943     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0008944     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0008945     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0008946     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0008947     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0008948     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0008949     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0008950     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0008951     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001439
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
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   LOCATION L0008952     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0008953     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0008954     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0008955     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0008956     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0008957     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0008958     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0008959     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0008960     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0008961     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0008962     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0008963     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0008964     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0008965     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0008966     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0008967     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0008968     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0008969     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0008970     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0008971     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0008972     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0008973     VOLUME   477626.243 3748896.866 454.00
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                                                Residential
   LOCATION L0008974     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0008975     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0008976     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0008977     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0008978     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0008979     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0008980     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0008981     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0008982     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0008983     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0008984     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0008985     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0008986     VOLUME   477618.478 3748795.702 454.00
   LOCATION L0008987     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0008988     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0008989     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0008990     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0008991     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0008992     VOLUME   477567.497 3748797.085 454.00
   LOCATION L0008993     VOLUME   477559.000 3748797.316 454.00
   LOCATION L0008994     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0008995     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0008996     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0008997     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0008998     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0008999     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0009000     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0009001     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 70% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001108
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0009002     VOLUME   478255.534 3748984.575 453.00
   LOCATION L0009003     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0009004     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0009005     VOLUME   478230.035 3748984.819 453.00
   LOCATION L0009006     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0009007     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0009008     VOLUME   478204.537 3748985.063 453.00
   LOCATION L0009009     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0009010     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0009011     VOLUME   478179.038 3748985.307 453.00
   LOCATION L0009012     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0009013     VOLUME   478162.038 3748985.469 453.00
   LOCATION L0009014     VOLUME   478153.539 3748985.551 453.00
   LOCATION L0009015     VOLUME   478145.039 3748985.632 453.00
   LOCATION L0009016     VOLUME   478136.540 3748985.713 453.00
   LOCATION L0009017     VOLUME   478128.040 3748985.795 453.00
   LOCATION L0009018     VOLUME   478119.540 3748985.876 453.00
   LOCATION L0009019     VOLUME   478111.041 3748985.957 453.00
   LOCATION L0009020     VOLUME   478102.541 3748986.039 453.00
   LOCATION L0009021     VOLUME   478094.042 3748986.120 453.00
   LOCATION L0009022     VOLUME   478085.542 3748986.201 453.00
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LOCATION L0009023     VOLUME   478077.042 3748986.283 453.00
LOCATION L0009024     VOLUME   478068.543 3748986.364 453.00
LOCATION L0009025     VOLUME   478060.043 3748986.445 453.00
LOCATION L0009026     VOLUME   478051.544 3748986.527 453.00
LOCATION L0009027     VOLUME   478043.044 3748986.608 453.00
LOCATION L0009028     VOLUME   478034.544 3748986.689 453.00
LOCATION L0009029     VOLUME   478026.045 3748986.771 453.00
LOCATION L0009030     VOLUME   478017.545 3748986.852 453.00
LOCATION L0009031     VOLUME   478009.045 3748986.933 453.00
LOCATION L0009032     VOLUME   478000.546 3748987.015 453.00
LOCATION L0009033     VOLUME   477992.046 3748987.096 453.00
LOCATION L0009034     VOLUME   477983.547 3748987.177 453.00
LOCATION L0009035     VOLUME   477975.047 3748987.259 453.00
LOCATION L0009036     VOLUME   477966.547 3748987.340 453.00
LOCATION L0009037     VOLUME   477958.048 3748987.421 453.00
LOCATION L0009038     VOLUME   477949.548 3748987.503 453.00
LOCATION L0009039     VOLUME   477941.049 3748987.584 453.00
LOCATION L0009040     VOLUME   477932.549 3748987.665 453.17
LOCATION L0009041     VOLUME   477924.049 3748987.747 453.37
LOCATION L0009042     VOLUME   477915.550 3748987.828 453.57
LOCATION L0009043     VOLUME   477907.050 3748987.909 453.71
LOCATION L0009044     VOLUME   477898.551 3748987.991 453.71
LOCATION L0009045     VOLUME   477890.051 3748988.072 453.72
LOCATION L0009046     VOLUME   477881.917 3748988.516 453.73
LOCATION L0009047     VOLUME   477881.917 3748997.016 454.00
LOCATION L0009048     VOLUME   477881.917 3749005.516 454.00
LOCATION L0009049     VOLUME   477881.917 3749014.016 454.00
LOCATION L0009050     VOLUME   477881.917 3749022.516 454.00
LOCATION L0009051     VOLUME   477881.917 3749031.016 454.00
LOCATION L0009052     VOLUME   477881.917 3749039.516 454.00
LOCATION L0009053     VOLUME   477881.917 3749048.016 454.00
LOCATION L0009054     VOLUME   477881.917 3749056.516 454.00
LOCATION L0009055     VOLUME   477881.917 3749065.016 454.00
LOCATION L0009056     VOLUME   477881.917 3749073.516 454.00
LOCATION L0009057     VOLUME   477881.917 3749082.016 454.00
LOCATION L0009058     VOLUME   477881.917 3749090.516 454.00
LOCATION L0009059     VOLUME   477881.917 3749099.016 454.00
LOCATION L0009060     VOLUME   477881.917 3749107.516 454.00
LOCATION L0009061     VOLUME   477881.917 3749116.016 454.00
LOCATION L0009062     VOLUME   477881.917 3749124.516 454.00
LOCATION L0009063     VOLUME   477881.917 3749133.016 454.00
LOCATION L0009064     VOLUME   477881.917 3749141.516 454.00
LOCATION L0009065     VOLUME   477881.917 3749150.016 454.00
LOCATION L0009066     VOLUME   477881.917 3749158.516 454.00
LOCATION L0009067     VOLUME   477881.917 3749167.016 454.00
LOCATION L0009068     VOLUME   477881.917 3749175.516 454.00
LOCATION L0009069     VOLUME   477881.917 3749184.016 454.00
LOCATION L0009070     VOLUME   477881.917 3749192.516 454.00
LOCATION L0009071     VOLUME   477881.917 3749201.016 454.00
LOCATION L0009072     VOLUME   477881.917 3749209.516 454.10
LOCATION L0009073     VOLUME   477881.917 3749218.016 454.38
LOCATION L0009074     VOLUME   477881.917 3749226.516 454.67
LOCATION L0009075     VOLUME   477881.917 3749235.016 454.95
LOCATION L0009076     VOLUME   477877.860 3749239.512 455.00
LOCATION L0009077     VOLUME   477869.360 3749239.626 455.00
LOCATION L0009078     VOLUME   477860.861 3749239.740 455.00
LOCATION L0009079     VOLUME   477852.362 3749239.854 455.00
LOCATION L0009080     VOLUME   477843.863 3749239.968 455.00
LOCATION L0009081     VOLUME   477835.363 3749240.081 455.00
LOCATION L0009082     VOLUME   477826.864 3749240.195 455.00
LOCATION L0009083     VOLUME   477818.365 3749240.309 455.00
LOCATION L0009084     VOLUME   477809.866 3749240.423 455.00
LOCATION L0009085     VOLUME   477801.367 3749240.537 455.00
LOCATION L0009086     VOLUME   477792.867 3749240.651 455.00
LOCATION L0009087     VOLUME   477784.368 3749240.764 455.00
LOCATION L0009088     VOLUME   477775.869 3749240.878 455.00
LOCATION L0009089     VOLUME   477767.370 3749240.992 455.00
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                                                 Residential
LOCATION L0009090     VOLUME   477758.870 3749241.106 455.00
LOCATION L0009091     VOLUME   477750.371 3749241.220 455.00
LOCATION L0009092     VOLUME   477741.872 3749241.334 455.00
LOCATION L0009093     VOLUME   477733.373 3749241.447 455.00
LOCATION L0009094     VOLUME   477724.873 3749241.561 455.00
LOCATION L0009095     VOLUME   477716.374 3749241.675 455.00
LOCATION L0009096     VOLUME   477707.875 3749241.789 455.00
LOCATION L0009097     VOLUME   477699.376 3749241.903 455.00
LOCATION L0009098     VOLUME   477690.876 3749242.017 455.00
LOCATION L0009099     VOLUME   477682.377 3749242.130 455.00
LOCATION L0009100     VOLUME   477673.878 3749242.244 455.00
LOCATION L0009101     VOLUME   477665.379 3749242.358 455.00
LOCATION L0009102     VOLUME   477656.879 3749242.472 455.00
LOCATION L0009103     VOLUME   477648.380 3749242.586 455.00
LOCATION L0009104     VOLUME   477639.881 3749242.700 455.00
LOCATION L0009105     VOLUME   477631.382 3749242.813 455.00
LOCATION L0009106     VOLUME   477622.883 3749242.927 455.00
LOCATION L0009107     VOLUME   477614.383 3749243.041 455.00
LOCATION L0009108     VOLUME   477605.884 3749243.155 455.00
LOCATION L0009109     VOLUME   477597.385 3749243.269 455.00
LOCATION L0009110     VOLUME   477588.886 3749243.383 455.00
LOCATION L0009111     VOLUME   477580.386 3749243.496 455.00
LOCATION L0009112     VOLUME   477571.887 3749243.610 455.00
LOCATION L0009113     VOLUME   477563.388 3749243.724 455.00
LOCATION L0009114     VOLUME   477554.889 3749243.838 455.00
LOCATION L0009115     VOLUME   477546.389 3749243.952 455.00
LOCATION L0009116     VOLUME   477537.890 3749244.066 455.00
LOCATION L0009117     VOLUME   477529.391 3749244.179 455.00
LOCATION L0009118     VOLUME   477520.892 3749244.293 455.00
LOCATION L0009119     VOLUME   477512.392 3749244.407 455.00
LOCATION L0009120     VOLUME   477503.893 3749244.521 455.00
LOCATION L0009121     VOLUME   477495.394 3749244.635 455.00
LOCATION L0009122     VOLUME   477486.895 3749244.749 455.00
LOCATION L0009123     VOLUME   477478.395 3749244.862 455.00
LOCATION L0009124     VOLUME   477476.838 3749251.917 455.00
LOCATION L0009125     VOLUME   477476.725 3749260.416 455.00
LOCATION L0009126     VOLUME   477476.613 3749268.915 455.00
LOCATION L0009127     VOLUME   477476.500 3749277.415 455.00
LOCATION L0009128     VOLUME   477476.388 3749285.914 455.00
LOCATION L0009129     VOLUME   477476.275 3749294.413 455.00
LOCATION L0009130     VOLUME   477476.162 3749302.912 455.10
LOCATION L0009131     VOLUME   477476.050 3749311.412 455.23
LOCATION L0009132     VOLUME   477475.937 3749319.911 455.36
LOCATION L0009133     VOLUME   477475.825 3749328.410 455.50
LOCATION L0009134     VOLUME   477475.712 3749336.909 455.65
LOCATION L0009135     VOLUME   477475.600 3749345.409 455.80
LOCATION L0009136     VOLUME   477475.487 3749353.908 455.95
LOCATION L0009137     VOLUME   477475.374 3749362.407 456.00
LOCATION L0009138     VOLUME   477475.262 3749370.906 456.00
LOCATION L0009139     VOLUME   477475.149 3749379.406 456.00
LOCATION L0009140     VOLUME   477475.037 3749387.905 456.00
LOCATION L0009141     VOLUME   477474.924 3749396.404 456.00
LOCATION L0009142     VOLUME   477474.811 3749404.903 456.00
LOCATION L0009143     VOLUME   477474.699 3749413.403 456.00
LOCATION L0009144     VOLUME   477474.586 3749421.902 456.00
LOCATION L0009145     VOLUME   477474.474 3749430.401 456.00
LOCATION L0009146     VOLUME   477474.361 3749438.900 456.00
LOCATION L0009147     VOLUME   477474.249 3749447.400 456.00
LOCATION L0009148     VOLUME   477474.136 3749455.899 456.00
LOCATION L0009149     VOLUME   477474.023 3749464.398 456.00
LOCATION L0009150     VOLUME   477473.911 3749472.897 456.00
LOCATION L0009151     VOLUME   477473.798 3749481.397 456.16
LOCATION L0009152     VOLUME   477473.686 3749489.896 456.44
LOCATION L0009153     VOLUME   477473.573 3749498.395 456.73
LOCATION L0009154     VOLUME   477473.461 3749506.894 457.00
LOCATION L0009155     VOLUME   477473.348 3749515.394 457.00
LOCATION L0009156     VOLUME   477473.235 3749523.893 457.00
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                                                    Residential
   LOCATION L0009157     VOLUME   477473.123 3749532.392 457.00
   LOCATION L0009158     VOLUME   477473.010 3749540.891 457.00
   LOCATION L0009159     VOLUME   477472.898 3749549.391 457.00
   LOCATION L0009160     VOLUME   477472.785 3749557.890 457.00
   LOCATION L0009161     VOLUME   477472.673 3749566.389 457.00
   LOCATION L0009162     VOLUME   477472.560 3749574.888 457.00
   LOCATION L0009163     VOLUME   477472.447 3749583.388 457.00
   LOCATION L0009164     VOLUME   477472.335 3749591.887 457.00
   LOCATION L0009165     VOLUME   477472.222 3749600.386 457.00
   LOCATION L0009166     VOLUME   477472.110 3749608.885 457.00
   LOCATION L0009167     VOLUME   477471.997 3749617.385 457.00
   LOCATION L0009168     VOLUME   477471.885 3749625.884 457.00
   LOCATION L0009169     VOLUME   477471.772 3749634.383 457.00
   LOCATION L0009170     VOLUME   477471.659 3749642.882 457.00
   LOCATION L0009171     VOLUME   477471.547 3749651.382 457.00
   LOCATION L0009172     VOLUME   477471.434 3749659.881 457.00
   LOCATION L0009173     VOLUME   477471.322 3749668.380 457.00
   LOCATION L0009174     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0009175     VOLUME   477471.097 3749685.379 457.00
   LOCATION L0009176     VOLUME   477470.984 3749693.878 457.00
   LOCATION L0009177     VOLUME   477470.871 3749702.377 457.00
   LOCATION L0009178     VOLUME   477470.759 3749710.877 457.00
   LOCATION L0009179     VOLUME   477470.646 3749719.376 457.00
   LOCATION L0009180     VOLUME   477470.534 3749727.875 457.00
   LOCATION L0009181     VOLUME   477470.421 3749736.374 457.00
   LOCATION L0009182     VOLUME   477470.309 3749744.874 457.00
   LOCATION L0009183     VOLUME   477470.196 3749753.373 457.23
   LOCATION L0009184     VOLUME   477470.083 3749761.872 457.51
   LOCATION L0009185     VOLUME   477469.971 3749770.371 457.79
   LOCATION L0009186     VOLUME   477469.858 3749778.871 458.00
   LOCATION L0009187     VOLUME   477469.746 3749787.370 458.00
** End of LINE VOLUME Source ID = SLINE11
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002524
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0009189     VOLUME   477893.354 3748181.603 450.00
   LOCATION L0009190     VOLUME   477884.855 3748181.671 450.00
   LOCATION L0009191     VOLUME   477876.355 3748181.739 450.00
   LOCATION L0009192     VOLUME   477867.855 3748181.806 450.00
   LOCATION L0009193     VOLUME   477859.355 3748181.874 450.00
   LOCATION L0009194     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0009195     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0009196     VOLUME   477833.856 3748182.076 450.46
   LOCATION L0009197     VOLUME   477825.357 3748182.144 450.71
   LOCATION L0009198     VOLUME   477816.857 3748182.212 450.88
   LOCATION L0009199     VOLUME   477808.357 3748182.279 450.92
   LOCATION L0009200     VOLUME   477799.857 3748182.347 450.96
   LOCATION L0009201     VOLUME   477791.358 3748182.414 450.99
   LOCATION L0009202     VOLUME   477782.858 3748182.482 451.00
   LOCATION L0009203     VOLUME   477774.358 3748182.549 451.00
   LOCATION L0009204     VOLUME   477765.858 3748182.617 451.00
   LOCATION L0009205     VOLUME   477757.359 3748182.685 451.00
   LOCATION L0009206     VOLUME   477748.859 3748182.752 451.00
   LOCATION L0009207     VOLUME   477740.359 3748182.820 451.00
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LOCATION L0009208     VOLUME   477731.860 3748182.887 451.00
LOCATION L0009209     VOLUME   477723.360 3748182.955 451.00
LOCATION L0009210     VOLUME   477714.860 3748183.023 451.00
LOCATION L0009211     VOLUME   477706.360 3748183.090 451.00
LOCATION L0009212     VOLUME   477697.861 3748183.158 451.00
LOCATION L0009213     VOLUME   477689.361 3748183.225 451.00
LOCATION L0009214     VOLUME   477680.861 3748183.293 451.00
LOCATION L0009215     VOLUME   477672.361 3748183.360 451.00
LOCATION L0009216     VOLUME   477663.862 3748183.428 451.00
LOCATION L0009217     VOLUME   477655.362 3748183.496 451.00
LOCATION L0009218     VOLUME   477646.862 3748183.563 451.00
LOCATION L0009219     VOLUME   477638.362 3748183.631 451.00
LOCATION L0009220     VOLUME   477629.863 3748183.698 451.00
LOCATION L0009221     VOLUME   477621.363 3748183.766 451.00
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LOCATION L0009223     VOLUME   477604.364 3748183.901 451.00
LOCATION L0009224     VOLUME   477595.864 3748183.969 451.00
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LOCATION L0009226     VOLUME   477578.864 3748184.104 451.00
LOCATION L0009227     VOLUME   477570.365 3748184.171 451.00
LOCATION L0009228     VOLUME   477561.865 3748184.239 451.00
LOCATION L0009229     VOLUME   477553.365 3748184.307 451.00
LOCATION L0009230     VOLUME   477544.865 3748184.374 451.00
LOCATION L0009231     VOLUME   477536.366 3748184.442 451.00
LOCATION L0009232     VOLUME   477527.866 3748184.509 451.00
LOCATION L0009233     VOLUME   477519.366 3748184.577 451.00
LOCATION L0009234     VOLUME   477510.866 3748184.644 451.00
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LOCATION L0009237     VOLUME   477485.367 3748184.847 451.00
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LOCATION L0009239     VOLUME   477471.123 3748182.143 451.00
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LOCATION L0009247     VOLUME   477469.614 3748114.160 451.00
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LOCATION L0009257     VOLUME   477467.729 3748029.181 451.00
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LOCATION L0009260     VOLUME   477467.163 3748003.687 451.00
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LOCATION L0009262     VOLUME   477466.786 3747986.692 451.00
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LOCATION L0009265     VOLUME   477466.221 3747961.198 451.00
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LOCATION L0009267     VOLUME   477465.844 3747944.202 451.00
LOCATION L0009268     VOLUME   477465.655 3747935.704 451.00
LOCATION L0009269     VOLUME   477465.467 3747927.206 451.00
LOCATION L0009270     VOLUME   477465.278 3747918.708 451.00
LOCATION L0009271     VOLUME   477465.090 3747910.210 451.00
LOCATION L0009272     VOLUME   477464.901 3747901.712 451.00
LOCATION L0009273     VOLUME   477464.713 3747893.215 451.00
LOCATION L0009274     VOLUME   477464.524 3747884.717 451.00
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   LOCATION L0009279     VOLUME   477463.582 3747842.227 451.00
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   LOCATION L0009282     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0009283     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0009284     VOLUME   477462.639 3747799.738 451.00
   LOCATION L0009285     VOLUME   477462.450 3747791.240 451.00
   LOCATION L0009286     VOLUME   477462.262 3747782.742 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478136.959  3748376.108      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478151.881  3748868.216      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478149.669  3748716.311      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478150.406  3748554.082      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478152.618  3748408.814      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 30% on San Michele to Indian to Fwy
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001465
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
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** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
** 477725.693, 3746359.638, 448.00, 4.00, 3.95
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LOCATION L0009603     VOLUME   477849.101 3746359.638 448.00
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LOCATION L0009801     VOLUME   476413.600 3746885.621 466.99
LOCATION L0009802     VOLUME   476409.623 3746893.133 467.05
LOCATION L0009803     VOLUME   476403.232 3746898.494 467.13
LOCATION L0009804     VOLUME   476396.228 3746903.310 467.22
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                    Residential
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** DESCRSRC Off-Site Travel 60% to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.000353
** Vertical Dimension = 4.00
** SZINIT = 1.86
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LOCATION L0010122     VOLUME   477474.014 3752018.173 469.00
LOCATION L0010123     VOLUME   477473.955 3752026.673 469.00
LOCATION L0010124     VOLUME   477473.897 3752035.173 469.14
LOCATION L0010125     VOLUME   477473.838 3752043.673 469.27
LOCATION L0010126     VOLUME   477473.780 3752052.172 469.40
LOCATION L0010127     VOLUME   477473.722 3752060.672 469.46
LOCATION L0010128     VOLUME   477473.663 3752069.172 469.46
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LOCATION L0010134     VOLUME   477473.313 3752120.171 470.05
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LOCATION L0010137     VOLUME   477473.138 3752145.670 470.43
LOCATION L0010138     VOLUME   477473.079 3752154.170 470.58
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LOCATION L0010179     VOLUME   477196.048 3752226.455 471.00
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LOCATION L0010182     VOLUME   477170.548 3752226.485 471.00
LOCATION L0010183     VOLUME   477162.048 3752226.495 471.00
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0010421     VOLUME   475139.049 3752228.867 476.00
LOCATION L0010422     VOLUME   475130.549 3752228.877 476.00
LOCATION L0010423     VOLUME   475122.049 3752228.887 476.00
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LOCATION L0010437     VOLUME   475003.049 3752229.027 475.52
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LOCATION L0010455     VOLUME   474850.050 3752229.206 474.54
LOCATION L0010456     VOLUME   474841.550 3752229.216 474.43
LOCATION L0010457     VOLUME   474833.050 3752229.226 474.32
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LOCATION L0010460     VOLUME   474807.550 3752229.256 474.02
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LOCATION L0010507     VOLUME   474412.538 3752169.552 476.14
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LOCATION L0010518     VOLUME   474320.089 3752155.572 477.00
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   LOCATION L0010520     VOLUME   474303.280 3752153.030 477.00
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   LOCATION L0010532     VOLUME   474202.427 3752137.779 477.00
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   LOCATION L0010534     VOLUME   474185.618 3752135.237 477.08
   LOCATION L0010535     VOLUME   474177.214 3752133.966 477.19
   LOCATION L0010536     VOLUME   474168.809 3752132.696 477.30
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   LOCATION L0010541     VOLUME   474126.883 3752125.738 477.85
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   LOCATION L0010543     VOLUME   474110.114 3752122.944 478.00
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   LOCATION L0010545     VOLUME   474093.345 3752120.149 478.00
   LOCATION L0010546     VOLUME   474084.961 3752118.751 478.00
   LOCATION L0010547     VOLUME   474076.577 3752117.354 478.00
   LOCATION L0010548     VOLUME   474068.192 3752115.956 478.00
   LOCATION L0010549     VOLUME   474059.808 3752114.559 478.00
   LOCATION L0010550     VOLUME   474051.424 3752113.162 478.00
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** End of LINE VOLUME Source ID = SLINE14
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002434
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477474.677, 3750167.941, 460.51, 0.00, 3.95
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** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
** 477472.585, 3752226.131, 471.76, 0.00, 3.95
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   LOCATION L0010561     VOLUME   477479.335 3749876.713 458.00
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   LOCATION L0010565     VOLUME   477478.791 3749910.708 458.00
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LOCATION L0010571     VOLUME   477477.975 3749961.702 458.17
LOCATION L0010572     VOLUME   477477.840 3749970.201 458.45
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LOCATION L0010724     VOLUME   477479.211 3751261.691 464.50
LOCATION L0010725     VOLUME   477479.152 3751270.191 464.79
LOCATION L0010726     VOLUME   477479.094 3751278.691 465.00
LOCATION L0010727     VOLUME   477479.035 3751287.190 465.00
LOCATION L0010728     VOLUME   477478.977 3751295.690 465.00
LOCATION L0010729     VOLUME   477478.919 3751304.190 465.00
LOCATION L0010730     VOLUME   477478.860 3751312.690 465.00
LOCATION L0010731     VOLUME   477478.802 3751321.190 465.00
LOCATION L0010732     VOLUME   477478.743 3751329.689 465.00
LOCATION L0010733     VOLUME   477478.685 3751338.189 465.00
LOCATION L0010734     VOLUME   477478.627 3751346.689 465.00
LOCATION L0010735     VOLUME   477478.568 3751355.189 465.00
LOCATION L0010736     VOLUME   477478.510 3751363.689 465.00
LOCATION L0010737     VOLUME   477478.451 3751372.188 465.00
LOCATION L0010738     VOLUME   477478.393 3751380.688 465.00
LOCATION L0010739     VOLUME   477478.335 3751389.188 465.00
LOCATION L0010740     VOLUME   477478.276 3751397.688 465.00
LOCATION L0010741     VOLUME   477478.218 3751406.188 465.00
LOCATION L0010742     VOLUME   477478.159 3751414.687 465.00
LOCATION L0010743     VOLUME   477478.101 3751423.187 465.00
LOCATION L0010744     VOLUME   477478.043 3751431.687 465.17
LOCATION L0010745     VOLUME   477477.984 3751440.187 465.45
LOCATION L0010746     VOLUME   477477.926 3751448.687 465.74
LOCATION L0010747     VOLUME   477477.867 3751457.186 466.00
LOCATION L0010748     VOLUME   477477.809 3751465.686 466.00
LOCATION L0010749     VOLUME   477477.751 3751474.186 466.00
LOCATION L0010750     VOLUME   477477.692 3751482.686 466.00
LOCATION L0010751     VOLUME   477477.634 3751491.186 466.00
LOCATION L0010752     VOLUME   477477.576 3751499.685 466.00
LOCATION L0010753     VOLUME   477477.517 3751508.185 466.00
LOCATION L0010754     VOLUME   477477.459 3751516.685 466.00
LOCATION L0010755     VOLUME   477477.400 3751525.185 466.00
LOCATION L0010756     VOLUME   477477.342 3751533.685 466.00
LOCATION L0010757     VOLUME   477477.284 3751542.184 466.00
LOCATION L0010758     VOLUME   477477.225 3751550.684 466.00
LOCATION L0010759     VOLUME   477477.167 3751559.184 466.00
LOCATION L0010760     VOLUME   477477.108 3751567.684 466.00
LOCATION L0010761     VOLUME   477477.050 3751576.184 466.00
LOCATION L0010762     VOLUME   477476.992 3751584.683 466.00
LOCATION L0010763     VOLUME   477476.933 3751593.183 466.00
LOCATION L0010764     VOLUME   477476.875 3751601.683 466.00
LOCATION L0010765     VOLUME   477476.816 3751610.183 466.07
LOCATION L0010766     VOLUME   477476.758 3751618.683 466.23
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                                                 Residential
LOCATION L0010767     VOLUME   477476.700 3751627.182 466.39
LOCATION L0010768     VOLUME   477476.641 3751635.682 466.55
LOCATION L0010769     VOLUME   477476.583 3751644.182 466.67
LOCATION L0010770     VOLUME   477476.524 3751652.682 466.80
LOCATION L0010771     VOLUME   477476.466 3751661.182 466.92
LOCATION L0010772     VOLUME   477476.408 3751669.681 467.00
LOCATION L0010773     VOLUME   477476.349 3751678.181 467.00
LOCATION L0010774     VOLUME   477476.291 3751686.681 467.00
LOCATION L0010775     VOLUME   477476.233 3751695.181 467.00
LOCATION L0010776     VOLUME   477476.174 3751703.681 467.00
LOCATION L0010777     VOLUME   477476.116 3751712.180 467.00
LOCATION L0010778     VOLUME   477476.057 3751720.680 467.00
LOCATION L0010779     VOLUME   477475.999 3751729.180 467.05
LOCATION L0010780     VOLUME   477475.941 3751737.680 467.20
LOCATION L0010781     VOLUME   477475.882 3751746.180 467.35
LOCATION L0010782     VOLUME   477475.824 3751754.679 467.50
LOCATION L0010783     VOLUME   477475.765 3751763.179 467.64
LOCATION L0010784     VOLUME   477475.707 3751771.679 467.77
LOCATION L0010785     VOLUME   477475.649 3751780.179 467.90
LOCATION L0010786     VOLUME   477475.590 3751788.679 468.00
LOCATION L0010787     VOLUME   477475.532 3751797.178 468.00
LOCATION L0010788     VOLUME   477475.473 3751805.678 468.00
LOCATION L0010789     VOLUME   477475.415 3751814.178 468.00
LOCATION L0010790     VOLUME   477475.357 3751822.678 468.00
LOCATION L0010791     VOLUME   477475.298 3751831.178 468.00
LOCATION L0010792     VOLUME   477475.240 3751839.677 468.00
LOCATION L0010793     VOLUME   477475.181 3751848.177 468.00
LOCATION L0010794     VOLUME   477475.123 3751856.677 468.00
LOCATION L0010795     VOLUME   477475.065 3751865.177 468.00
LOCATION L0010796     VOLUME   477475.006 3751873.677 468.00
LOCATION L0010797     VOLUME   477474.948 3751882.176 468.19
LOCATION L0010798     VOLUME   477474.890 3751890.676 468.47
LOCATION L0010799     VOLUME   477474.831 3751899.176 468.75
LOCATION L0010800     VOLUME   477474.773 3751907.676 469.00
LOCATION L0010801     VOLUME   477474.714 3751916.176 469.00
LOCATION L0010802     VOLUME   477474.656 3751924.675 469.00
LOCATION L0010803     VOLUME   477474.598 3751933.175 469.00
LOCATION L0010804     VOLUME   477474.539 3751941.675 469.00
LOCATION L0010805     VOLUME   477474.481 3751950.175 469.00
LOCATION L0010806     VOLUME   477474.422 3751958.675 469.00
LOCATION L0010807     VOLUME   477474.364 3751967.174 469.00
LOCATION L0010808     VOLUME   477474.306 3751975.674 469.00
LOCATION L0010809     VOLUME   477474.247 3751984.174 469.00
LOCATION L0010810     VOLUME   477474.189 3751992.674 469.00
LOCATION L0010811     VOLUME   477474.130 3752001.174 469.00
LOCATION L0010812     VOLUME   477474.072 3752009.673 469.00
LOCATION L0010813     VOLUME   477474.014 3752018.173 469.00
LOCATION L0010814     VOLUME   477473.955 3752026.673 469.00
LOCATION L0010815     VOLUME   477473.897 3752035.173 469.14
LOCATION L0010816     VOLUME   477473.838 3752043.673 469.27
LOCATION L0010817     VOLUME   477473.780 3752052.172 469.40
LOCATION L0010818     VOLUME   477473.722 3752060.672 469.46
LOCATION L0010819     VOLUME   477473.663 3752069.172 469.46
LOCATION L0010820     VOLUME   477473.605 3752077.672 469.46
LOCATION L0010821     VOLUME   477473.546 3752086.172 469.46
LOCATION L0010822     VOLUME   477473.488 3752094.671 469.60
LOCATION L0010823     VOLUME   477473.430 3752103.171 469.76
LOCATION L0010824     VOLUME   477473.371 3752111.671 469.91
LOCATION L0010825     VOLUME   477473.313 3752120.171 470.05
LOCATION L0010826     VOLUME   477473.255 3752128.671 470.18
LOCATION L0010827     VOLUME   477473.196 3752137.170 470.31
LOCATION L0010828     VOLUME   477473.138 3752145.670 470.43
LOCATION L0010829     VOLUME   477473.079 3752154.170 470.58
LOCATION L0010830     VOLUME   477473.021 3752162.670 470.74
LOCATION L0010831     VOLUME   477472.963 3752171.170 470.90
LOCATION L0010832     VOLUME   477472.904 3752179.669 471.00
LOCATION L0010833     VOLUME   477472.846 3752188.169 471.00
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                                                    Residential
   LOCATION L0010834     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0010835     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0010836     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0010837     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0011013     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011014     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011015     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011016     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011017     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011018     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011019     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011020     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011021     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011022     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011023     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011024     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011025     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011026     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011027     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011028     0.000004488      4.00     13.95      1.86
   SRCPARAM L0011029     0.000004488      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0008606     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008607     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008608     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008609     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008610     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008611     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008612     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008613     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008614     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008615     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008616     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008617     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008618     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008619     0.000004649      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0008620     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008621     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008622     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008623     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008624     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008625     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008626     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008627     0.000004289      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0008628     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008629     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008630     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008631     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008632     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008633     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008634     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008635     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008636     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008637     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008638     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008639     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008640     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008641     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008642     0.0000001901      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0008643     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008644     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008645     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008646     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008647     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008648     0.0000001901      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0008649     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008650     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008651     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008652     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008653     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008654     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008655     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008656     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008657     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008658     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008659     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008660     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008661     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008662     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008663     0.0000031      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0008664     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008665     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008666     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008667     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008668     0.0000006168      0.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0010838     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010839     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010840     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010841     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010842     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010843     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010844     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010845     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010846     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010847     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010848     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010849     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010850     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010851     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010852     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010853     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010854     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010855     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010856     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010857     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010858     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010859     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010860     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010861     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010862     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010863     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010864     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010865     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010866     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010867     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010868     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010869     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010870     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010871     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010872     0.000001005      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0010873     0.000001005      4.00      3.95      1.86
SRCPARAM L0010874     0.000001005      4.00      3.95      1.86
SRCPARAM L0010875     0.000001005      4.00      3.95      1.86
SRCPARAM L0010876     0.000001005      4.00      3.95      1.86
SRCPARAM L0010877     0.000001005      4.00      3.95      1.86
SRCPARAM L0010878     0.000001005      4.00      3.95      1.86
SRCPARAM L0010879     0.000001005      4.00      3.95      1.86
SRCPARAM L0010880     0.000001005      4.00      3.95      1.86
SRCPARAM L0010881     0.000001005      4.00      3.95      1.86
SRCPARAM L0010882     0.000001005      4.00      3.95      1.86
SRCPARAM L0010883     0.000001005      4.00      3.95      1.86
SRCPARAM L0010884     0.000001005      4.00      3.95      1.86
SRCPARAM L0010885     0.000001005      4.00      3.95      1.86
SRCPARAM L0010886     0.000001005      4.00      3.95      1.86
SRCPARAM L0010887     0.000001005      4.00      3.95      1.86
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SRCPARAM L0010889     0.000001005      4.00      3.95      1.86
SRCPARAM L0010890     0.000001005      4.00      3.95      1.86
SRCPARAM L0010891     0.000001005      4.00      3.95      1.86
SRCPARAM L0010892     0.000001005      4.00      3.95      1.86
SRCPARAM L0010893     0.000001005      4.00      3.95      1.86
SRCPARAM L0010894     0.000001005      4.00      3.95      1.86
SRCPARAM L0010895     0.000001005      4.00      3.95      1.86
SRCPARAM L0010896     0.000001005      4.00      3.95      1.86
SRCPARAM L0010897     0.000001005      4.00      3.95      1.86
SRCPARAM L0010898     0.000001005      4.00      3.95      1.86
SRCPARAM L0010899     0.000001005      4.00      3.95      1.86
SRCPARAM L0010900     0.000001005      4.00      3.95      1.86
SRCPARAM L0010901     0.000001005      4.00      3.95      1.86
SRCPARAM L0010902     0.000001005      4.00      3.95      1.86
SRCPARAM L0010903     0.000001005      4.00      3.95      1.86
SRCPARAM L0010904     0.000001005      4.00      3.95      1.86
SRCPARAM L0010905     0.000001005      4.00      3.95      1.86
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SRCPARAM L0010907     0.000001005      4.00      3.95      1.86
SRCPARAM L0010908     0.000001005      4.00      3.95      1.86
SRCPARAM L0010909     0.000001005      4.00      3.95      1.86
SRCPARAM L0010910     0.000001005      4.00      3.95      1.86
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SRCPARAM L0010914     0.000001005      4.00      3.95      1.86
SRCPARAM L0010915     0.000001005      4.00      3.95      1.86
SRCPARAM L0010916     0.000001005      4.00      3.95      1.86
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SRCPARAM L0010920     0.000001005      4.00      3.95      1.86
SRCPARAM L0010921     0.000001005      4.00      3.95      1.86
SRCPARAM L0010922     0.000001005      4.00      3.95      1.86
SRCPARAM L0010923     0.000001005      4.00      3.95      1.86
SRCPARAM L0010924     0.000001005      4.00      3.95      1.86
SRCPARAM L0010925     0.000001005      4.00      3.95      1.86
SRCPARAM L0010926     0.000001005      4.00      3.95      1.86
SRCPARAM L0010927     0.000001005      4.00      3.95      1.86
SRCPARAM L0010928     0.000001005      4.00      3.95      1.86
SRCPARAM L0010929     0.000001005      4.00      3.95      1.86
SRCPARAM L0010930     0.000001005      4.00      3.95      1.86
SRCPARAM L0010931     0.000001005      4.00      3.95      1.86
SRCPARAM L0010932     0.000001005      4.00      3.95      1.86
SRCPARAM L0010933     0.000001005      4.00      3.95      1.86
SRCPARAM L0010934     0.000001005      4.00      3.95      1.86
SRCPARAM L0010935     0.000001005      4.00      3.95      1.86
SRCPARAM L0010936     0.000001005      4.00      3.95      1.86
SRCPARAM L0010937     0.000001005      4.00      3.95      1.86
SRCPARAM L0010938     0.000001005      4.00      3.95      1.86
SRCPARAM L0010939     0.000001005      4.00      3.95      1.86
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                                                Residential
SRCPARAM L0010940     0.000001005      4.00       3.95      1.86
SRCPARAM L0010941     0.000001005      4.00       3.95      1.86
SRCPARAM L0010942     0.000001005      4.00       3.95      1.86
SRCPARAM L0010943     0.000001005      4.00       3.95      1.86
SRCPARAM L0010944     0.000001005      4.00       3.95      1.86
SRCPARAM L0010945     0.000001005      4.00       3.95      1.86
SRCPARAM L0010946     0.000001005      4.00       3.95      1.86
SRCPARAM L0010947     0.000001005      4.00       3.95      1.86
SRCPARAM L0010948     0.000001005      4.00       3.95      1.86
SRCPARAM L0010949     0.000001005      4.00       3.95      1.86
SRCPARAM L0010950     0.000001005      4.00       3.95      1.86
SRCPARAM L0010951     0.000001005      4.00       3.95      1.86
SRCPARAM L0010952     0.000001005      4.00       3.95      1.86
SRCPARAM L0010953     0.000001005      4.00       3.95      1.86
SRCPARAM L0010954     0.000001005      4.00       3.95      1.86
SRCPARAM L0010955     0.000001005      4.00       3.95      1.86
SRCPARAM L0010956     0.000001005      4.00       3.95      1.86
SRCPARAM L0010957     0.000001005      4.00       3.95      1.86
SRCPARAM L0010958     0.000001005      4.00       3.95      1.86
SRCPARAM L0010959     0.000001005      4.00       3.95      1.86
SRCPARAM L0010960     0.000001005      4.00       3.95      1.86
SRCPARAM L0010961     0.000001005      4.00       3.95      1.86
SRCPARAM L0010962     0.000001005      4.00       3.95      1.86
SRCPARAM L0010963     0.000001005      4.00       3.95      1.86
SRCPARAM L0010964     0.000001005      4.00       3.95      1.86
SRCPARAM L0010965     0.000001005      4.00       3.95      1.86
SRCPARAM L0010966     0.000001005      4.00       3.95      1.86
SRCPARAM L0010967     0.000001005      4.00       3.95      1.86
SRCPARAM L0010968     0.000001005      4.00       3.95      1.86
SRCPARAM L0010969     0.000001005      4.00       3.95      1.86
SRCPARAM L0010970     0.000001005      4.00       3.95      1.86
SRCPARAM L0010971     0.000001005      4.00       3.95      1.86
SRCPARAM L0010972     0.000001005      4.00       3.95      1.86
SRCPARAM L0010973     0.000001005      4.00       3.95      1.86
SRCPARAM L0010974     0.000001005      4.00       3.95      1.86
SRCPARAM L0010975     0.000001005      4.00       3.95      1.86
SRCPARAM L0010976     0.000001005      4.00       3.95      1.86
SRCPARAM L0010977     0.000001005      4.00       3.95      1.86
SRCPARAM L0010978     0.000001005      4.00       3.95      1.86
SRCPARAM L0010979     0.000001005      4.00       3.95      1.86
SRCPARAM L0010980     0.000001005      4.00       3.95      1.86
SRCPARAM L0010981     0.000001005      4.00       3.95      1.86
SRCPARAM L0010982     0.000001005      4.00       3.95      1.86
SRCPARAM L0010983     0.000001005      4.00       3.95      1.86
SRCPARAM L0010984     0.000001005      4.00       3.95      1.86
SRCPARAM L0010985     0.000001005      4.00       3.95      1.86
SRCPARAM L0010986     0.000001005      4.00       3.95      1.86
SRCPARAM L0010987     0.000001005      4.00       3.95      1.86
SRCPARAM L0010988     0.000001005      4.00       3.95      1.86
SRCPARAM L0010989     0.000001005      4.00       3.95      1.86
SRCPARAM L0010990     0.000001005      4.00       3.95      1.86
SRCPARAM L0010991     0.000001005      4.00       3.95      1.86
SRCPARAM L0010992     0.000001005      4.00       3.95      1.86
SRCPARAM L0010993     0.000001005      4.00       3.95      1.86
SRCPARAM L0010994     0.000001005      4.00       3.95      1.86
SRCPARAM L0010995     0.000001005      4.00       3.95      1.86
SRCPARAM L0010996     0.000001005      4.00       3.95      1.86
SRCPARAM L0010997     0.000001005      4.00       3.95      1.86
SRCPARAM L0010998     0.000001005      4.00       3.95      1.86
SRCPARAM L0010999     0.000001005      4.00       3.95      1.86
SRCPARAM L0011000     0.000001005      4.00       3.95      1.86
SRCPARAM L0011001     0.000001005      4.00       3.95      1.86
SRCPARAM L0011002     0.000001005      4.00       3.95      1.86
SRCPARAM L0011003     0.000001005      4.00       3.95      1.86
SRCPARAM L0011004     0.000001005      4.00       3.95      1.86
SRCPARAM L0011005     0.000001005      4.00       3.95      1.86
SRCPARAM L0011006     0.000001005      4.00       3.95      1.86
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                                                     Residential
   SRCPARAM L0011007     0.000001005      4.00      3.95      1.86
   SRCPARAM L0011008     0.000001005      4.00      3.95      1.86
   SRCPARAM L0011009     0.000001005      4.00      3.95      1.86
   SRCPARAM L0011010     0.000001005      4.00      3.95      1.86
   SRCPARAM L0011011     0.000001005      4.00      3.95      1.86
   SRCPARAM L0011012     0.000001005      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0008844     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008845     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008846     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008847     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008848     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008849     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008850     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008851     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008852     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008853     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008854     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008855     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008856     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008857     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008858     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008859     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008860     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008861     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008862     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008863     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008864     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008865     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008866     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008867     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008868     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008869     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008870     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008871     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008872     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008873     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008874     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008875     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008876     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008877     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008878     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008879     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008880     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008881     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008882     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008883     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008884     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008885     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008886     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008887     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008888     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008889     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008890     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008891     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008892     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008893     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008894     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008895     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008896     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008897     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008898     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008899     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008900     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008901     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008902     0.0000002141      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0008903     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008904     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008905     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008906     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008907     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008908     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008909     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008910     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008911     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008912     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008913     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008914     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008915     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008916     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008917     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008918     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008919     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008920     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008921     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008922     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008923     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008924     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008925     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008926     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008927     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008928     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008929     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008930     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008931     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008932     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008933     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008934     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008935     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008936     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008937     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008938     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008939     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008940     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008941     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008942     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008943     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008944     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008945     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008946     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008947     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008948     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008949     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008950     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008951     0.0000001686      4.00      3.95      1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0008952     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008953     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008954     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008955     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008956     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008957     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008958     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008959     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008960     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008961     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008962     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008963     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008964     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008965     0.0000002878      4.00      3.95      1.86
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                                                Residential
   SRCPARAM L0008966     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008967     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008968     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008969     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008970     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008971     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008972     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008973     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008974     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008975     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008976     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008977     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008978     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008979     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008980     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008981     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008982     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008983     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008984     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008985     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008986     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008987     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008988     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008989     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008990     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008991     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008992     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008993     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008994     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008995     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008996     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008997     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008998     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008999     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0009000     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0009001     0.0000002878      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0009002     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009003     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009004     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009005     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009006     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009007     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009008     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009009     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009010     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009011     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009012     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009013     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009014     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009015     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009016     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009017     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009018     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009019     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009020     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009021     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009022     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009023     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009024     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009025     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009026     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009027     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009028     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009029     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009030     0.0000005957      4.00      3.95      1.86
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SRCPARAM L0009031     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009032     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009033     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009034     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009035     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009036     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009037     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009038     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009039     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009040     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009041     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009042     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009043     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009044     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009045     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009046     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009047     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009048     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009049     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009050     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009051     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009052     0.0000005957      4.00      3.95      1.86
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SRCPARAM L0009055     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009056     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009057     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009058     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009059     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009060     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009061     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009062     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009063     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009064     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009065     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009066     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009067     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009068     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009069     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009070     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009071     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009072     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009073     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009074     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009075     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009076     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009077     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009078     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009079     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009080     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009081     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009082     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009083     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009084     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009085     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009086     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009087     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009088     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009089     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009090     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009091     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009092     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009093     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009094     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009095     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009096     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009097     0.0000005957      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0009098     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009099     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009100     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009101     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009102     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009103     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009104     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009105     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009106     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009107     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009108     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009109     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009110     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009111     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009112     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009113     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009114     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009115     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009116     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009117     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009118     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009119     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009120     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009121     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009122     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009123     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009124     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009125     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009126     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009127     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009128     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009129     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009130     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009131     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009132     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009133     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009134     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009135     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009136     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009137     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009138     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009139     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009140     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009141     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009142     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009143     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009144     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009145     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009146     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009147     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009148     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009149     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009150     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009151     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009152     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009153     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009154     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009155     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009156     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009157     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009158     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009159     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009160     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009161     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009162     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009163     0.0000005957      4.00      3.95      1.86
SRCPARAM L0009164     0.0000005957      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0009165     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009166     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009167     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009168     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009169     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009170     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009171     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009172     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009173     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009174     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009175     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009176     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009177     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009178     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009179     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009180     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009181     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009182     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009183     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009184     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009185     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009186     0.0000005957      4.00      3.95      1.86
   SRCPARAM L0009187     0.0000005957      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0009188     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009189     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009190     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009191     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009192     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009193     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009194     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009195     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009196     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009197     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009198     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009199     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009200     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009201     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009202     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009203     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009204     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009205     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009206     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009207     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009208     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009209     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009210     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009211     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009212     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009213     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009214     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009215     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009216     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009217     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009218     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009219     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009220     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009221     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009222     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009223     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009224     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009225     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009226     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009227     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009228     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009229     0.0000002549      4.00      3.95      1.86
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   SRCPARAM L0009230     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009231     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009232     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009233     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009234     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009235     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009236     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009237     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009238     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009239     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009240     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009241     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009242     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009243     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009244     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009245     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009246     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009247     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009248     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009249     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009250     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009251     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009252     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009253     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009254     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009255     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009256     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009257     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009258     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009259     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009260     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009261     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009262     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009263     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009264     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009265     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009266     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009267     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009268     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009269     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009270     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009271     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009272     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009273     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009274     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009275     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009276     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009277     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009278     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009279     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009280     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009281     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009282     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009283     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009284     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009285     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0009286     0.0000002549      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.351E-08     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        7.087E-06     3.960   501.000  49.98254     0.044
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   SRCPARAM STCK4        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000014994     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000011881     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.00002032     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0009287     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009288     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009289     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009290     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009291     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009292     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009293     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009294     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009295     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009296     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009297     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009298     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009299     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009300     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009301     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009302     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009303     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009304     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009305     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009306     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009307     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009308     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009309     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009310     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009311     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009312     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009313     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009314     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009315     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009316     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009317     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009318     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009319     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009320     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009321     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009322     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009323     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009324     0.0000002552      4.00      3.95      1.86
   SRCPARAM L0009325     0.0000002552      4.00      3.95      1.86
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SRCPARAM L0009416     0.0000002552      4.00      3.95      1.86
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SRCPARAM L0009418     0.0000002552      4.00      3.95      1.86
SRCPARAM L0009419     0.0000002552      4.00      3.95      1.86
SRCPARAM L0009420     0.0000002552      4.00      3.95      1.86
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SRCPARAM L0009476     0.0000002552      4.00      3.95      1.86
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SRCPARAM L0009811     0.0000002552      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   SRCPARAM L0009826     0.0000002552      4.00      3.95      1.86
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   SRCPARAM L0009833     0.0000002552      4.00      3.95      1.86
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   SRCPARAM L0009874     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0009875     0.0000005109      4.00      3.95      1.86
   SRCPARAM L0009876     0.0000005109      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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SRCPARAM L0009901     0.0000005109      4.00      3.95       1.86
SRCPARAM L0009902     0.0000005109      4.00      3.95       1.86
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                                                 Residential
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SRCPARAM L0010090     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010091     0.0000005109      4.00      3.95      1.86
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SRCPARAM L0010499     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010500     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010501     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010502     0.0000005109      4.00      3.95      1.86
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SRCPARAM L0010512     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010513     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010514     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010515     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010516     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010517     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010518     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010519     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010520     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010521     0.0000005109      4.00      3.95      1.86
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SRCPARAM L0010523     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010524     0.0000005109      4.00      3.95      1.86
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SRCPARAM L0010526     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010527     0.0000005109      4.00      3.95      1.86
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SRCPARAM L0010530     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010531     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010532     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010533     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010534     0.0000005109      4.00      3.95      1.86
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SRCPARAM L0010536     0.0000005109      4.00      3.95      1.86
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SRCPARAM L0010539     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010540     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010541     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010542     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010543     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010544     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010545     0.0000005109      4.00      3.95      1.86
SRCPARAM L0010546     0.0000005109      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                    Residential
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   SRCPARAM L0010551     0.0000005109      4.00      3.95      1.86
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   SRCPARAM L0010568     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010569     0.0000000851      0.00      3.95      1.86
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   SRCPARAM L0010611     0.0000000851      0.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0010745     0.0000000851      0.00      3.95      1.86
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SRCPARAM L0010786     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010787     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010788     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010789     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010790     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010791     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010792     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010793     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010794     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010795     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010796     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010797     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010798     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010799     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010800     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010801     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010802     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010803     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010804     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010805     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010806     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010807     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010808     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010809     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010810     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010811     0.0000000851      0.00      3.95      1.86
SRCPARAM L0010812     0.0000000851      0.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0010813     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010814     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010815     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010816     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010817     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010818     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010819     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010820     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010821     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010822     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010823     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010824     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010825     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010826     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010827     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010828     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010829     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010830     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010831     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010832     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010833     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010834     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010835     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010836     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0010837     0.0000000851      0.00      3.95      1.86
** ---------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
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BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00

BUILDWID STCK1          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK1          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK1          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK1          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK1          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK1          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK2          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK2          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK2          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK2          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK2          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK2          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK3          329.08   416.49   491.24   551.07   594.15   619.19
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BUILDWID STCK3          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK3          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK3          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK3          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK3          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK4          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK4          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK4          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK4          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK4          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK4          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK5          329.08   416.49   491.24   551.07   594.15   166.78
BUILDWID STCK5          161.62   151.55   136.87   147.39   153.99   155.91
BUILDWID STCK5          153.10   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK5          329.08   416.49   491.24   551.07   594.16   166.78
BUILDWID STCK5          161.62   612.62   583.26   587.57   153.99   155.91
BUILDWID STCK5          153.10   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK6          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK6          625.40   612.62   583.26   587.57   153.99   155.91
BUILDWID STCK6          153.10   145.63   133.74   344.22   284.14   231.67
BUILDWID STCK6          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK6          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK6          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK7          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK7          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK7          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK7          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK7          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK7          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK8          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK8          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK8          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK8          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK8          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK8          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK9          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK9          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK9          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK9          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK9          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK9          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK10         329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK10         625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK10         518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK10         329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK10         625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK10         518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK11         118.79   137.48   152.00   161.89   166.87   177.30
BUILDWID STCK11         174.45   166.29   153.08   166.29   174.45   155.91
BUILDWID STCK11         153.10   145.63   133.74   117.78    99.11    97.61
BUILDWID STCK11         118.79   137.48   152.00   161.89   166.87   166.78
BUILDWID STCK11         161.62   151.55   136.87   147.39   153.99   155.91
BUILDWID STCK11         153.10   145.63   133.74   117.78    99.11    97.61

BUILDWID STCK12         100.76   117.49   130.65   139.84   144.78   145.33
BUILDWID STCK12         141.45   133.28   122.66   126.50   128.90   127.39
BUILDWID STCK12         122.01   112.92   101.71    96.86   284.14   231.67
BUILDWID STCK12         329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK12         141.45   133.28   122.66   126.50   128.90   127.39
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BUILDWID STCK12         122.01   112.92   101.71    96.86   284.14    80.97

BUILDWID STCK13         114.68   136.42   154.01   166.93   174.77   177.30
BUILDWID STCK13         174.45   166.29   153.08   166.29   174.45   177.30
BUILDWID STCK13         174.77   166.93   154.01   136.42   114.68    89.46
BUILDWID STCK13         114.68   136.42   154.01   166.93   174.77   177.30
BUILDWID STCK13         174.45   166.29   153.08   166.29   174.45   177.30
BUILDWID STCK13         174.77   166.93   154.01   136.42   114.68    89.46

BUILDLEN STCK1          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK1          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK1          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK1          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK1          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK1          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK2          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK2          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK2          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK2          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK2          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK2          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK3          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK3          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK3          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK3          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK3          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK3          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK4          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK4          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK4          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK4          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK4          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK4          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK5          587.57   582.15   559.05   518.96   463.10   133.74
BUILDLEN STCK5          117.78    99.11    97.61   118.79   137.48   152.00
BUILDLEN STCK5          161.89   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK5          587.57   582.15   559.05   518.96   463.10   133.74
BUILDLEN STCK5          117.78   284.14   231.67   329.08   137.48   152.00
BUILDLEN STCK5          161.89   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK6          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK6          344.22   284.14   231.67   329.08   137.48   152.00
BUILDLEN STCK6          161.89   166.87   166.78   625.40   612.62   583.26
BUILDLEN STCK6          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK6          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK6          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK7          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK7          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK7          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK7          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK7          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK7          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK8          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK8          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK8          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK8          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK8          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK8          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK9          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK9          344.22   284.14   231.67   329.08   416.49   491.24
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BUILDLEN STCK9          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK9          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK9          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK9          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK10         587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK10         344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK10         551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK10         587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK10         344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK10         551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK11         147.39   153.99   155.91   153.10   145.63   154.01
BUILDLEN STCK11         136.42   114.68    89.46   114.68   136.42   152.00
BUILDLEN STCK11         161.89   166.87   166.78   161.62   151.55   136.87
BUILDLEN STCK11         147.39   153.99   155.91   153.10   145.63   133.74
BUILDLEN STCK11         117.78    99.11    97.61   118.79   137.48   152.00
BUILDLEN STCK11         161.89   166.87   166.78   161.62   151.55   136.87

BUILDLEN STCK12         126.50   128.90   127.39   122.01   112.92   101.71
BUILDLEN STCK12          96.86    89.07    80.97   100.76   117.49   130.65
BUILDLEN STCK12         139.84   144.78   145.33   141.45   612.62   583.26
BUILDLEN STCK12         587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK12          96.86    89.07    80.97   100.76   117.49   130.65
BUILDLEN STCK12         139.84   144.78   145.33   141.45   612.62   122.66

BUILDLEN STCK13         166.29   174.45   177.30   174.77   166.93   154.01
BUILDLEN STCK13         136.42   114.68    89.46   114.68   136.42   154.01
BUILDLEN STCK13         166.93   174.77   177.30   174.45   166.29   153.08
BUILDLEN STCK13         166.29   174.45   177.30   174.77   166.93   154.01
BUILDLEN STCK13         136.42   114.68    89.46   114.68   136.42   154.01
BUILDLEN STCK13         166.93   174.77   177.30   174.45   166.29   153.08

XBADJ    STCK1         -520.96  -519.07  -501.40  -468.50  -421.37  -362.12
XBADJ    STCK1         -323.45  -274.95  -220.13  -230.02  -232.93  -228.76
XBADJ    STCK1         -217.64  -199.90  -176.09  -146.93  -113.31   -76.24
XBADJ    STCK1          -66.61   -63.09   -57.64   -50.45   -41.73   -31.73
XBADJ    STCK1          -20.78    -9.19   -11.54   -99.05  -183.56  -262.48
XBADJ    STCK1         -333.44  -394.26  -443.10  -478.47  -499.31  -507.02

XBADJ    STCK2         -370.97  -375.56  -368.74  -350.71  -322.03  -284.25
XBADJ    STCK2         -269.41  -246.40  -217.92  -254.23  -282.81  -302.80
XBADJ    STCK2         -313.59  -314.85  -306.54  -288.92  -262.53  -228.15
XBADJ    STCK2         -216.60  -206.59  -190.31  -168.24  -141.07  -109.60
XBADJ    STCK2          -74.81   -37.74   -13.75   -74.85  -133.68  -188.44
XBADJ    STCK2         -237.48  -279.31  -312.64  -336.48  -350.09  -355.11

XBADJ    STCK3         -211.33  -223.37  -228.61  -226.91  -218.32  -203.77
XBADJ    STCK3         -214.62  -218.95  -218.66  -283.13  -338.99  -384.56
XBADJ    STCK3         -418.43  -439.60  -447.41  -441.62  -422.42  -390.38
XBADJ    STCK3         -376.23  -358.78  -330.43  -292.04  -244.78  -190.08
XBADJ    STCK3         -129.60   -65.19   -13.01   -45.95   -77.50  -106.69
XBADJ    STCK3         -132.64  -154.55  -171.78  -183.78  -190.20  -192.88

XBADJ    STCK4          -68.66   -87.61  -103.91  -117.05  -126.63  -133.05
XBADJ    STCK4         -167.01  -195.90  -220.87  -310.53  -390.75  -459.10
XBADJ    STCK4         -513.51  -552.30  -574.32  -578.89  -565.87  -535.65
XBADJ    STCK4         -518.91  -494.54  -455.14  -401.91  -336.46  -260.80
XBADJ    STCK4         -177.21   -88.23   -10.80   -18.55   -25.73   -32.14
XBADJ    STCK4          -37.57   -41.85   -44.86   -46.52   -46.75   -47.61

XBADJ    STCK5         -512.47  -476.46  -425.98  -362.55  -288.11  -192.89
XBADJ    STCK5         -196.70  -195.39  -205.53  -214.16  -217.41  -214.05
XBADJ    STCK5         -204.19   -54.28   -55.82   -55.67   -53.83   -50.35
XBADJ    STCK5          -75.09  -105.69  -133.07  -156.41  -174.99    59.15
XBADJ    STCK5           78.92  -197.41  -207.23  -296.27    79.93    62.05
XBADJ    STCK5           42.29  -539.88  -563.36  -569.73  -558.79  -532.91
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XBADJ     STCK6       -363.17  -335.04  -296.73  -249.41  -194.50  -134.37
XBADJ     STCK6       -101.75   -66.03   -30.34   -65.13  -275.16  -295.48
XBADJ     STCK6       -306.83  -308.85  -301.48  -201.13  -205.18  -203.00
XBADJ     STCK6       -224.40  -247.11  -262.32  -269.55  -268.59  -259.48
XBADJ     STCK6       -242.48  -218.11  -201.33  -263.95  -318.55  -363.47
XBADJ     STCK6       -397.34  -419.15  -428.21  -424.27  -407.43  -380.26

XBADJ     STCK7       -205.72  -184.93  -158.53  -127.31   -92.22   -55.01
XBADJ     STCK7        -47.72   -38.98   -31.08   -93.64  -153.36  -208.42
XBADJ     STCK7       -257.15  -298.06  -329.92  -351.75  -362.89  -363.01
XBADJ     STCK7       -381.85  -397.22  -400.52  -391.65  -370.88  -338.84
XBADJ     STCK7       -296.51  -245.16  -200.59  -235.43  -263.13  -282.82
XBADJ     STCK7       -293.92  -296.10  -289.27  -273.66  -249.73  -220.25

XBADJ     STCK8       -135.53  -118.22   -97.32   -73.46   -47.37   -20.52
XBADJ     STCK8        -24.63   -28.00   -32.55  -107.51  -179.21  -245.46
XBADJ     STCK8       -304.25  -353.80  -392.60  -419.47  -433.59  -434.54
XBADJ     STCK8       -452.04  -463.93  -461.73  -445.50  -415.73  -373.33
XBADJ     STCK8       -319.59  -256.14  -199.12  -221.57  -237.28  -245.78
XBADJ     STCK8       -246.82  -240.36  -226.59  -205.94  -179.03  -148.72

XBADJ     STCK9          1.53    -2.40    -6.24    -9.90   -13.26   -16.90
XBADJ     STCK9        -51.61   -84.75  -117.35  -217.79  -311.61  -395.96
XBADJ     STCK9       -468.28  -526.37  -568.47  -593.30  -600.09  -588.66
XBADJ     STCK9       -589.09  -579.76  -552.80  -509.05  -449.84  -376.95
XBADJ     STCK9       -292.62  -199.39  -114.32  -111.29  -104.88   -95.28
XBADJ     STCK9        -82.79   -67.78   -50.72   -32.11   -12.52     5.40

XBADJ     STCK10       -17.99   -39.35   -59.52   -77.87   -93.86  -107.68
XBADJ     STCK10      -149.82  -187.41  -221.33  -319.93  -408.81  -485.27
XBADJ     STCK10      -546.98  -592.07  -619.18  -627.47  -616.69  -587.18
XBADJ     STCK10      -569.58  -542.80  -499.53  -441.08  -369.23  -286.16
XBADJ     STCK10      -194.40   -96.73   -10.34    -9.15    -7.68    -5.97
XBADJ     STCK10        -4.09    -2.08    -0.01     2.06     4.07     3.92

XBADJ     STCK11       -76.12   -70.28   -62.31   -52.44   -40.98  -266.84
XBADJ     STCK11      -269.07  -263.12  -249.18  -254.25  -251.60   -32.60
XBADJ     STCK11       -40.31   -46.80   -51.86   -55.35   -57.15   -57.22
XBADJ     STCK11       -71.27   -83.71   -93.60  -100.66  -104.65  -105.47
XBADJ     STCK11      -103.08   -97.56   -91.88  -104.32  -113.58  -119.40
XBADJ     STCK11      -121.58  -120.07  -114.92  -106.27   -94.39   -79.65

XBADJ     STCK12       -71.48   -82.52   -91.06   -96.83   -99.65   -99.45
XBADJ     STCK12       -96.22   -90.08   -82.79   -92.71   -99.82  -103.89
XBADJ     STCK12      -104.81  -102.54   -97.16   -88.82  -674.92  -677.56
XBADJ     STCK12      -689.37  -688.35  -666.43  -624.25  -563.11  -484.86
XBADJ     STCK12        -0.64     1.01     1.82    -8.05   -17.67   -26.76
XBADJ     STCK12       -35.03   -42.24   -48.17   -52.63    62.30   -58.27

XBADJ     STCK13       -98.71  -112.75  -123.36  -130.22  -133.13  -131.99
XBADJ     STCK13      -126.84  -117.84  -105.26  -116.06  -123.34  -126.86
XBADJ     STCK13      -126.54  -122.36  -114.47  -103.10   -88.60   -71.41
XBADJ     STCK13       -67.58   -61.70   -53.94   -44.55   -33.80   -22.02
XBADJ     STCK13        -9.58     3.16    15.80     1.38   -13.09   -27.15
XBADJ     STCK13       -40.39   -52.41   -62.83   -71.34   -77.69   -81.67

YBADJ     STCK1         65.49    24.69   -16.86   -57.90   -97.18  -133.50
YBADJ     STCK1       -165.77  -193.00  -215.39  -227.17  -227.99  -221.88
YBADJ     STCK1       -209.03  -189.82  -165.19  -151.33  -132.88  -104.29
YBADJ     STCK1        -65.49   -24.69    16.86    57.90    97.18   133.50
YBADJ     STCK1        165.77   193.00   215.39   227.17   227.99   221.88
YBADJ     STCK1        209.03   189.82   165.19   151.33   132.88   104.29

YBADJ     STCK2         89.69    74.57    57.18    38.05    17.77    -3.05
YBADJ     STCK2        -23.78   -43.78   -63.48   -77.19   -84.49   -89.22
YBADJ     STCK2        -91.24   -90.48   -87.32   -97.30  -104.33  -102.08
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YBADJ     STCK2            -89.69   -74.57   -57.18   -38.05   -17.77     3.05
YBADJ     STCK2             23.78    43.78    63.48    77.19    84.49    89.22
YBADJ     STCK2             91.24    90.48    87.32    97.30   104.33   102.08

YBADJ     STCK3            118.59   130.75   138.93   142.90   142.52   137.82
YBADJ     STCK3            128.92   116.11    98.75    82.45    67.71    50.91
YBADJ     STCK3             32.56    13.23    -6.85   -42.51   -76.88  -102.83
YBADJ     STCK3           -118.59  -130.75  -138.93  -142.90  -142.52  -137.82
YBADJ     STCK3           -128.92  -116.11   -98.75   -82.45   -67.71   -50.91
YBADJ     STCK3            -32.56   -13.23     6.85    42.51    76.88   102.83

YBADJ     STCK4            145.99   182.51   213.48   237.97   255.23   264.73
YBADJ     STCK4            266.19   259.56   244.02   225.13   203.46   175.61
YBADJ     STCK4            142.43   104.91    63.87     5.10   -53.83  -105.04
YBADJ     STCK4           -145.99  -182.51  -213.48  -237.97  -255.23  -264.73
YBADJ     STCK4           -266.19  -259.56  -244.02  -225.13  -203.46  -175.61
YBADJ     STCK4           -142.43  -104.91   -63.87    -5.10    53.83   105.04

YBADJ     STCK5           -131.73  -168.06  -199.28  -224.45  -242.80    82.95
YBADJ     STCK5             58.69    32.65     5.61   -20.55   -45.81   -69.68
YBADJ     STCK5            -91.43   -56.56    -8.66    23.70    55.34    91.40
YBADJ     STCK5            131.73   168.06   199.28   224.45   242.80   -82.95
YBADJ     STCK5            -58.69   252.48   241.28   218.69    45.81    69.68
YBADJ     STCK5             91.43    56.56     8.66   -23.70   -55.34   -91.40

YBADJ     STCK6            -99.41  -110.30  -117.85  -121.81  -122.07  -118.62
YBADJ     STCK6           -111.57  -101.13   -88.63   -69.38    95.62    59.57
YBADJ     STCK6             21.72   -16.80   -54.80    70.36    76.04    85.50
YBADJ     STCK6             99.41   110.30   117.85   121.81   122.07   118.62
YBADJ     STCK6            111.57   101.13    88.63    69.38    43.96    17.21
YBADJ     STCK6            -10.07   -37.05   -62.55   -70.36   -76.04   -85.50

YBADJ     STCK7            -70.90   -54.88   -37.20   -18.39     0.98    20.32
YBADJ     STCK7             39.05    56.58    71.38    88.07   106.14   121.00
YBADJ     STCK7            132.17   139.33   141.92   124.39   103.09    84.75
YBADJ     STCK7             70.90    54.88    37.20    18.39    -0.98   -20.32
YBADJ     STCK7            -39.05   -56.58   -71.38   -88.07  -106.14  -121.00
YBADJ     STCK7           -132.17  -139.33  -141.92  -124.39  -103.09   -84.75

YBADJ     STCK8            -57.03   -29.04    -0.16    28.72    56.72    83.00
YBADJ     STCK8            106.76   127.28   142.91   158.26   172.86   182.21
YBADJ     STCK8            186.02   184.18   176.41   147.48   114.07    83.28
YBADJ     STCK8             57.03    29.04     0.16   -28.72   -56.72   -83.00
YBADJ     STCK8           -106.76  -127.28  -142.91  -158.26  -172.86  -182.21
YBADJ     STCK8           -186.02  -184.18  -176.41  -147.48  -114.07   -83.28

YBADJ     STCK9             53.25   103.36   150.34   192.74   229.29   258.88
YBADJ     STCK9            280.59   293.79   297.03   295.31   288.68   273.28
YBADJ     STCK9            249.58   218.29   180.03   120.50    57.32    -1.52
YBADJ     STCK9            -53.25  -103.36  -150.34  -192.74  -229.29  -258.88
YBADJ     STCK9           -280.59  -293.79  -297.03  -295.31  -288.68  -273.28
YBADJ     STCK9           -249.58  -218.29  -180.03  -120.50   -57.32     1.52

YBADJ     STCK10           155.39   200.57   239.65   271.45   295.00   309.58
YBADJ     STCK10           314.77   310.38   295.55   275.80   251.73   220.01
YBADJ     STCK10           181.61   137.68    89.24    22.29   -45.34  -105.50
YBADJ     STCK10          -155.39  -200.57  -239.65  -271.45  -295.00  -309.58
YBADJ     STCK10          -314.77  -310.38  -295.55  -275.80  -251.73  -220.01
YBADJ     STCK10          -181.61  -137.68   -89.24   -22.29    45.34   105.50

YBADJ     STCK11           -44.92   -44.84   -43.40   -40.64   -36.64    80.11
YBADJ     STCK11            45.93    10.35   -25.54   -60.65   -93.93    15.65
YBADJ     STCK11            24.11    31.84    38.60    44.19    48.00    43.08
YBADJ     STCK11            44.92    44.84    43.40    40.64    36.64    31.53
YBADJ     STCK11            25.46    18.62    11.21     2.43    -6.71   -15.65
YBADJ     STCK11           -24.11   -31.84   -38.60   -44.19   -48.00   -43.08
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                                                    Residential
   YBADJ    STCK12          42.33    41.07    38.57    34.89    30.15    24.50
   YBADJ    STCK12          18.10    11.15     3.06    -8.23   -18.07   -27.36
   YBADJ    STCK12         -35.82   -43.19   -48.59   -47.79   144.91    71.75
   YBADJ    STCK12           3.47   -64.92  -131.33  -193.76  -250.30  -299.23
   YBADJ    STCK12         -18.10   -11.15    -3.06     8.23    18.07    27.36
   YBADJ    STCK12          35.82    43.19    48.59    47.79  -144.91    42.31

   YBADJ    STCK13          58.72    55.13    49.86    43.07    34.98    25.82
   YBADJ    STCK13          15.88     5.46    -5.13   -15.56   -25.52   -34.71
   YBADJ    STCK13         -42.84   -49.67   -54.99   -58.63   -60.50   -60.53
   YBADJ    STCK13         -58.72   -55.13   -49.86   -43.07   -34.98   -25.82
   YBADJ    STCK13         -15.88    -5.46     5.13    15.56    25.52    34.71
   YBADJ    STCK13          42.84    49.67    54.99    58.63    60.50    60.53

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Residential.rou
RE FINISHED
**
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** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\..\..\peri8.sfc
   PROFFILE ..\..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
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** AERMOD Output Pathway
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**
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OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL RESIDENTIAL.AD\AN00GALL.PLT 31
   SUMMFILE Residential.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2268 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2268 Source(s);       1 Source Group(s); and       8 Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2249 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      7.8 MB of RAM.

 **Detailed Error/Message File:   Residential.err

 **File for Summary of Results:   Residential.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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                                                    Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 STCK1            0   0.70870E-05  478151.9 3748868.2   453.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK2            0   0.70870E-05  478149.7 3748716.3   452.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK3            0   0.70870E-05  478150.4 3748554.1   452.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK4            0   0.70870E-05  478152.6 3748408.8   451.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK5            0   0.70870E-05  477956.2 3748894.1   453.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK6            0   0.70870E-05  477962.1 3748741.5   453.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK7            0   0.70870E-05  477962.8 3748581.4   452.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK8            0   0.70870E-05  477964.3 3748509.9   451.8     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK9            0   0.70870E-05  478049.1 3748355.8   451.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK10           0   0.70870E-05  478153.1 3748357.3   451.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK11           0   0.14994E-04  477756.4 3748910.9   453.2     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK12           0   0.11881E-04  477975.8 3748266.9   450.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK13           0   0.20320E-04  477612.5 3748890.5   454.0     3.96   501.00    49.98     0.04    YES     YES
NO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0011013         0   0.44880E-05  478170.8 3748397.0   451.0     4.00    13.95     1.86     YES
 L0011014         0   0.44880E-05  478170.9 3748427.0   451.0     4.00    13.95     1.86     YES
 L0011015         0   0.44880E-05  478171.0 3748457.0   451.0     4.00    13.95     1.86     YES
 L0011016         0   0.44880E-05  478171.2 3748487.0   451.0     4.00    13.95     1.86     YES
 L0011017         0   0.44880E-05  478171.3 3748517.0   452.0     4.00    13.95     1.86     YES
```

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                                                   Residential
 L0011018         0   0.44880E-05  478171.4 3748547.0   452.0     4.00    13.95     1.86     YES
 L0011019         0   0.44880E-05  478171.6 3748577.0   452.0     4.00    13.95     1.86     YES
 L0011020         0   0.44880E-05  478171.7 3748607.0   452.0     4.00    13.95     1.86     YES
 L0011021         0   0.44880E-05  478171.9 3748637.0   452.0     4.00    13.95     1.86     YES
 L0011022         0   0.44880E-05  478172.0 3748667.0   452.0     4.00    13.95     1.86     YES
 L0011023         0   0.44880E-05  478172.1 3748697.0   452.0     4.00    13.95     1.86     YES
 L0011024         0   0.44880E-05  478172.3 3748727.0   452.0     4.00    13.95     1.86     YES
 L0011025         0   0.44880E-05  478172.4 3748757.0   452.0     4.00    13.95     1.86     YES
 L0011026         0   0.44880E-05  478172.5 3748787.0   453.0     4.00    13.95     1.86     YES
 L0011027         0   0.44880E-05  478172.7 3748817.0   453.0     4.00    13.95     1.86     YES
 L0011028         0   0.44880E-05  478172.8 3748847.0   453.0     4.00    13.95     1.86     YES
 L0011029         0   0.44880E-05  478173.0 3748877.0   453.0     4.00    13.95     1.86     YES
 L0008606         0   0.46490E-05  477943.9 3748501.1   451.5     4.00    13.95     1.86     YES
 L0008607         0   0.46490E-05  477944.1 3748531.1   452.0     4.00    13.95     1.86     YES
 L0008608         0   0.46490E-05  477944.4 3748561.1   452.0     4.00    13.95     1.86     YES
 L0008609         0   0.46490E-05  477944.7 3748591.1   452.0     4.00    13.95     1.86     YES
 L0008610         0   0.46490E-05  477944.9 3748621.1   452.0     4.00    13.95     1.86     YES
 L0008611         0   0.46490E-05  477945.2 3748651.1   452.0     4.00    13.95     1.86     YES
 L0008612         0   0.46490E-05  477945.4 3748681.1   452.5     4.00    13.95     1.86     YES
 L0008613         0   0.46490E-05  477945.7 3748711.1   453.0     4.00    13.95     1.86     YES
 L0008614         0   0.46490E-05  477945.9 3748741.1   453.0     4.00    13.95     1.86     YES
 L0008615         0   0.46490E-05  477946.2 3748771.1   453.0     4.00    13.95     1.86     YES
 L0008616         0   0.46490E-05  477946.5 3748801.1   453.0     4.00    13.95     1.86     YES
 L0008617         0   0.46490E-05  477946.7 3748831.1   453.0     4.00    13.95     1.86     YES
 L0008618         0   0.46490E-05  477947.0 3748861.1   453.0     4.00    13.95     1.86     YES
 L0008619         0   0.46490E-05  477947.2 3748891.1   453.0     4.00    13.95     1.86     YES
 L0008620         0   0.42890E-05  477756.7 3748938.5   454.0     4.00     3.95     1.86     YES
 L0008621         0   0.42890E-05  477756.7 3748930.0   453.8     4.00     3.95     1.86     YES
 L0008622         0   0.42890E-05  477756.7 3748921.5   453.6     4.00     3.95     1.86     YES
 L0008623         0   0.42890E-05  477756.7 3748913.0   453.3     4.00     3.95     1.86     YES
 L0008624         0   0.42890E-05  477756.7 3748904.5   453.1     4.00     3.95     1.86     YES
 L0008625         0   0.42890E-05  477756.7 3748896.0   453.1     4.00     3.95     1.86     YES
 L0008626         0   0.42890E-05  477756.7 3748887.5   453.1     4.00     3.95     1.86     YES
 L0008627         0   0.42890E-05  477756.7 3748879.0   453.1     4.00     3.95     1.86     YES
 L0008628         0   0.19010E-06  477900.2 3748339.0   451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)      X         Y    ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0008629         0   0.19010E-06  477908.7 3748339.0   451.0     4.00     3.95     1.86     YES
 L0008630         0   0.19010E-06  477917.1 3748338.9   451.0     4.00     3.95     1.86     YES
 L0008631         0   0.19010E-06  477925.6 3748338.8   451.0     4.00     3.95     1.86     YES
 L0008632         0   0.19010E-06  477934.1 3748338.8   451.0     4.00     3.95     1.86     YES
 L0008633         0   0.19010E-06  477942.6 3748338.0   451.0     4.00     3.95     1.86     YES
 L0008634         0   0.19010E-06  477947.6 3748331.8   451.0     4.00     3.95     1.86     YES
 L0008635         0   0.19010E-06  477951.8 3748324.5   451.0     4.00     3.95     1.86     YES
 L0008636         0   0.19010E-06  477956.1 3748317.1   450.0     4.00     3.95     1.86     YES
 L0008637         0   0.19010E-06  477960.3 3748309.7   450.0     4.00     3.95     1.86     YES
 L0008638         0   0.19010E-06  477964.6 3748302.3   450.0     4.00     3.95     1.86     YES
 L0008639         0   0.19010E-06  477968.8 3748295.0   450.0     4.00     3.95     1.86     YES
 L0008640         0   0.19010E-06  477973.0 3748287.6   450.0     4.00     3.95     1.86     YES
 L0008641         0   0.19010E-06  477976.2 3748279.9   450.0     4.00     3.95     1.86     YES
 L0008642         0   0.19010E-06  477977.3 3748271.5   450.0     4.00     3.95     1.86     YES
 L0008643         0   0.19010E-06  477978.3 3748263.0   450.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0008644         0   0.19010E-06  477978.3 3748254.5   450.0     4.00     3.95     1.86     YES
 L0008645         0   0.19010E-06  477978.3 3748246.0   450.0     4.00     3.95     1.86     YES
 L0008646         0   0.19010E-06  477978.2 3748237.5   450.0     4.00     3.95     1.86     YES
 L0008647         0   0.19010E-06  477978.2 3748229.0   450.0     4.00     3.95     1.86     YES
 L0008648         0   0.19010E-06  477978.1 3748220.5   450.0     4.00     3.95     1.86     YES
 L0008649         0   0.31000E-05  477608.7 3748929.3   454.0     0.00     3.95     1.86     YES
 L0008650         0   0.31000E-05  477608.7 3748920.8   454.0     0.00     3.95     1.86     YES
 L0008651         0   0.31000E-05  477608.7 3748912.3   454.0     0.00     3.95     1.86     YES
 L0008652         0   0.31000E-05  477608.7 3748903.8   454.0     0.00     3.95     1.86     YES
 L0008653         0   0.31000E-05  477608.7 3748895.3   454.0     0.00     3.95     1.86     YES
 L0008654         0   0.31000E-05  477608.7 3748886.8   454.0     0.00     3.95     1.86     YES
 L0008655         0   0.31000E-05  477608.7 3748878.3   454.0     0.00     3.95     1.86     YES
 L0008656         0   0.31000E-05  477608.7 3748869.8   454.0     0.00     3.95     1.86     YES
 L0008657         0   0.31000E-05  477608.7 3748861.3   454.0     0.00     3.95     1.86     YES
 L0008658         0   0.31000E-05  477608.7 3748852.8   454.0     0.00     3.95     1.86     YES
 L0008659         0   0.31000E-05  477608.7 3748844.3   454.0     0.00     3.95     1.86     YES
 L0008660         0   0.31000E-05  477608.7 3748835.8   454.0     0.00     3.95     1.86     YES
 L0008661         0   0.31000E-05  477608.7 3748827.3   454.0     0.00     3.95     1.86     YES
 L0008662         0   0.31000E-05  477608.7 3748818.8   454.0     0.00     3.95     1.86     YES
 L0008663         0   0.31000E-05  477608.7 3748810.3   454.0     0.00     3.95     1.86     YES
 L0008664         0   0.61680E-06  478043.0 3748335.2   451.0     0.00    13.95     1.86     YES
 L0008665         0   0.61680E-06  478073.0 3748334.5   451.0     0.00    13.95     1.86     YES
 L0008666         0   0.61680E-06  478103.0 3748333.9   451.0     0.00    13.95     1.86     YES
 L0008667         0   0.61680E-06  478133.0 3748333.2   451.0     0.00    13.95     1.86     YES
 L0008668         0   0.61680E-06  478163.0 3748332.6   451.0     0.00    13.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS)  (METERS) (METERS) (METERS)  (METERS) (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010838         0   0.10050E-05  477903.0 3748974.5   453.3     4.00     3.95     1.86     YES
 L0010839         0   0.10050E-05  477902.9 3748966.0   453.0     4.00     3.95     1.86     YES
 L0010840         0   0.10050E-05  477902.7 3748957.5   453.0     4.00     3.95     1.86     YES
 L0010841         0   0.10050E-05  477902.2 3748949.0   453.0     4.00     3.95     1.86     YES
 L0010842         0   0.10050E-05  477900.9 3748940.6   453.0     4.00     3.95     1.86     YES
 L0010843         0   0.10050E-05  477899.7 3748932.2   453.0     4.00     3.95     1.86     YES
 L0010844         0   0.10050E-05  477899.0 3748923.8   453.0     4.00     3.95     1.86     YES
 L0010845         0   0.10050E-05  477898.8 3748915.3   453.0     4.00     3.95     1.86     YES
 L0010846         0   0.10050E-05  477898.6 3748906.8   453.0     4.00     3.95     1.86     YES
 L0010847         0   0.10050E-05  477898.5 3748898.3   453.0     4.00     3.95     1.86     YES
 L0010848         0   0.10050E-05  477898.3 3748889.8   453.0     4.00     3.95     1.86     YES
 L0010849         0   0.10050E-05  477898.2 3748881.3   453.0     4.00     3.95     1.86     YES
 L0010850         0   0.10050E-05  477898.0 3748872.8   453.0     4.00     3.95     1.86     YES
 L0010851         0   0.10050E-05  477897.9 3748864.3   453.0     4.00     3.95     1.86     YES
 L0010852         0   0.10050E-05  477897.9 3748855.8   453.0     4.00     3.95     1.86     YES
 L0010853         0   0.10050E-05  477897.8 3748847.3   453.0     4.00     3.95     1.86     YES
 L0010854         0   0.10050E-05  477897.7 3748838.8   453.0     4.00     3.95     1.86     YES
 L0010855         0   0.10050E-05  477897.7 3748830.3   453.0     4.00     3.95     1.86     YES
 L0010856         0   0.10050E-05  477897.6 3748821.8   453.0     4.00     3.95     1.86     YES
 L0010857         0   0.10050E-05  477897.5 3748813.3   453.0     4.00     3.95     1.86     YES
 L0010858         0   0.10050E-05  477897.5 3748804.8   453.0     4.00     3.95     1.86     YES
 L0010859         0   0.10050E-05  477897.4 3748796.3   453.0     4.00     3.95     1.86     YES
 L0010860         0   0.10050E-05  477897.3 3748787.8   453.0     4.00     3.95     1.86     YES
 L0010861         0   0.10050E-05  477897.3 3748779.3   453.0     4.00     3.95     1.86     YES
 L0010862         0   0.10050E-05  477897.2 3748770.8   453.0     4.00     3.95     1.86     YES
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                                                Residential
 L0010863         0   0.10050E-05  477897.1 3748762.3   453.0     4.00     3.95     1.86     YES
 L0010864         0   0.10050E-05  477897.0 3748753.8   453.0     4.00     3.95     1.86     YES
 L0010865         0   0.10050E-05  477897.0 3748745.3   453.0     4.00     3.95     1.86     YES
 L0010866         0   0.10050E-05  477896.9 3748736.8   453.0     4.00     3.95     1.86     YES
 L0010867         0   0.10050E-05  477896.8 3748728.3   453.0     4.00     3.95     1.86     YES
 L0010868         0   0.10050E-05  477896.8 3748719.8   453.0     4.00     3.95     1.86     YES
 L0010869         0   0.10050E-05  477896.7 3748711.3   453.0     4.00     3.95     1.86     YES
 L0010870         0   0.10050E-05  477896.6 3748702.8   453.0     4.00     3.95     1.86     YES
 L0010871         0   0.10050E-05  477896.6 3748694.3   452.9     4.00     3.95     1.86     YES
 L0010872         0   0.10050E-05  477896.5 3748685.8   452.6     4.00     3.95     1.86     YES
 L0010873         0   0.10050E-05  477896.4 3748677.3   452.4     4.00     3.95     1.86     YES
 L0010874         0   0.10050E-05  477896.4 3748668.8   452.1     4.00     3.95     1.86     YES
 L0010875         0   0.10050E-05  477896.3 3748660.3   452.0     4.00     3.95     1.86     YES
 L0010876         0   0.10050E-05  477896.2 3748651.8   452.0     4.00     3.95     1.86     YES
 L0010877         0   0.10050E-05  477896.2 3748643.3   452.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010878         0   0.10050E-05  477896.1 3748634.8   452.0     4.00     3.95     1.86     YES
 L0010879         0   0.10050E-05  477896.0 3748626.3   452.0     4.00     3.95     1.86     YES
 L0010880         0   0.10050E-05  477896.0 3748617.8   452.0     4.00     3.95     1.86     YES
 L0010881         0   0.10050E-05  477895.9 3748609.3   452.0     4.00     3.95     1.86     YES
 L0010882         0   0.10050E-05  477895.8 3748600.8   452.0     4.00     3.95     1.86     YES
 L0010883         0   0.10050E-05  477895.7 3748592.3   452.0     4.00     3.95     1.86     YES
 L0010884         0   0.10050E-05  477895.7 3748583.8   452.0     4.00     3.95     1.86     YES
 L0010885         0   0.10050E-05  477895.6 3748575.3   452.0     4.00     3.95     1.86     YES
 L0010886         0   0.10050E-05  477895.5 3748566.8   452.0     4.00     3.95     1.86     YES
 L0010887         0   0.10050E-05  477895.5 3748558.3   452.0     4.00     3.95     1.86     YES
 L0010888         0   0.10050E-05  477895.4 3748549.8   452.0     4.00     3.95     1.86     YES
 L0010889         0   0.10050E-05  477895.3 3748541.3   452.0     4.00     3.95     1.86     YES
 L0010890         0   0.10050E-05  477895.3 3748532.8   452.0     4.00     3.95     1.86     YES
 L0010891         0   0.10050E-05  477895.2 3748524.3   452.0     4.00     3.95     1.86     YES
 L0010892         0   0.10050E-05  477895.1 3748515.8   452.0     4.00     3.95     1.86     YES
 L0010893         0   0.10050E-05  477895.1 3748507.3   452.0     4.00     3.95     1.86     YES
 L0010894         0   0.10050E-05  477895.0 3748498.8   452.0     4.00     3.95     1.86     YES
 L0010895         0   0.10050E-05  477895.4 3748490.4   452.0     4.00     3.95     1.86     YES
 L0010896         0   0.10050E-05  477899.5 3748482.9   452.0     4.00     3.95     1.86     YES
 L0010897         0   0.10050E-05  477903.5 3748475.4   451.9     4.00     3.95     1.86     YES
 L0010898         0   0.10050E-05  477907.5 3748467.9   451.9     4.00     3.95     1.86     YES
 L0010899         0   0.10050E-05  477911.5 3748460.4   451.9     4.00     3.95     1.86     YES
 L0010900         0   0.10050E-05  477915.5 3748453.0   451.7     4.00     3.95     1.86     YES
 L0010901         0   0.10050E-05  477919.5 3748445.5   451.4     4.00     3.95     1.86     YES
 L0010902         0   0.10050E-05  477923.6 3748438.0   451.2     4.00     3.95     1.86     YES
 L0010903         0   0.10050E-05  477927.6 3748430.5   451.1     4.00     3.95     1.86     YES
 L0010904         0   0.10050E-05  477931.6 3748423.0   451.0     4.00     3.95     1.86     YES
 L0010905         0   0.10050E-05  477935.6 3748415.5   451.0     4.00     3.95     1.86     YES
 L0010906         0   0.10050E-05  477939.6 3748408.0   451.0     4.00     3.95     1.86     YES
 L0010907         0   0.10050E-05  477943.6 3748400.5   451.0     4.00     3.95     1.86     YES
 L0010908         0   0.10050E-05  477947.6 3748393.0   451.0     4.00     3.95     1.86     YES
 L0010909         0   0.10050E-05  477951.7 3748385.5   451.0     4.00     3.95     1.86     YES
 L0010910         0   0.10050E-05  477955.7 3748378.0   451.0     4.00     3.95     1.86     YES
 L0010911         0   0.10050E-05  477959.7 3748370.5   451.0     4.00     3.95     1.86     YES
 L0010912         0   0.10050E-05  477963.7 3748363.1   451.0     4.00     3.95     1.86     YES
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                                                         Residential
 L0010913         0   0.10050E-05  477967.8 3748355.6    451.0     4.00     3.95     1.86     YES
 L0010914         0   0.10050E-05  477972.4 3748348.5    451.0     4.00     3.95     1.86     YES
 L0010915         0   0.10050E-05  477977.1 3748341.4    451.0     4.00     3.95     1.86     YES
 L0010916         0   0.10050E-05  477984.5 3748339.5    451.0     4.00     3.95     1.86     YES
 L0010917         0   0.10050E-05  477993.0 3748339.6    451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.    HEIGHT     SY       SZ      SOURCE  SCALAR VARY
    ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0010918         0   0.10050E-05  478001.5 3748339.7    451.0     4.00     3.95     1.86     YES
 L0010919         0   0.10050E-05  478010.0 3748339.8    451.0     4.00     3.95     1.86     YES
 L0010920         0   0.10050E-05  478018.5 3748339.9    451.0     4.00     3.95     1.86     YES
 L0010921         0   0.10050E-05  478027.0 3748340.0    451.0     4.00     3.95     1.86     YES
 L0010922         0   0.10050E-05  478035.5 3748340.1    451.0     4.00     3.95     1.86     YES
 L0010923         0   0.10050E-05  478044.0 3748340.2    451.0     4.00     3.95     1.86     YES
 L0010924         0   0.10050E-05  478052.5 3748340.3    451.0     4.00     3.95     1.86     YES
 L0010925         0   0.10050E-05  478061.0 3748340.3    451.0     4.00     3.95     1.86     YES
 L0010926         0   0.10050E-05  478069.5 3748340.4    451.0     4.00     3.95     1.86     YES
 L0010927         0   0.10050E-05  478078.0 3748340.5    451.0     4.00     3.95     1.86     YES
 L0010928         0   0.10050E-05  478086.5 3748340.6    451.0     4.00     3.95     1.86     YES
 L0010929         0   0.10050E-05  478095.0 3748340.7    451.0     4.00     3.95     1.86     YES
 L0010930         0   0.10050E-05  478103.5 3748340.8    451.0     4.00     3.95     1.86     YES
 L0010931         0   0.10050E-05  478112.0 3748340.9    451.0     4.00     3.95     1.86     YES
 L0010932         0   0.10050E-05  478120.5 3748341.0    451.0     4.00     3.95     1.86     YES
 L0010933         0   0.10050E-05  478129.0 3748341.1    451.0     4.00     3.95     1.86     YES
 L0010934         0   0.10050E-05  478137.5 3748341.2    451.0     4.00     3.95     1.86     YES
 L0010935         0   0.10050E-05  478146.0 3748341.3    451.0     4.00     3.95     1.86     YES
 L0010936         0   0.10050E-05  478154.5 3748341.4    451.0     4.00     3.95     1.86     YES
 L0010937         0   0.10050E-05  478163.0 3748341.5    451.0     4.00     3.95     1.86     YES
 L0010938         0   0.10050E-05  478166.5 3748346.5    451.0     4.00     3.95     1.86     YES
 L0010939         0   0.10050E-05  478166.6 3748355.0    451.0     4.00     3.95     1.86     YES
 L0010940         0   0.10050E-05  478166.7 3748363.5    451.0     4.00     3.95     1.86     YES
 L0010941         0   0.10050E-05  478166.7 3748372.0    451.0     4.00     3.95     1.86     YES
 L0010942         0   0.10050E-05  478166.8 3748380.5    451.0     4.00     3.95     1.86     YES
 L0010943         0   0.10050E-05  478166.8 3748389.0    451.0     4.00     3.95     1.86     YES
 L0010944         0   0.10050E-05  478166.9 3748397.5    451.0     4.00     3.95     1.86     YES
 L0010945         0   0.10050E-05  478167.0 3748406.0    451.0     4.00     3.95     1.86     YES
 L0010946         0   0.10050E-05  478167.0 3748414.5    451.0     4.00     3.95     1.86     YES
 L0010947         0   0.10050E-05  478167.1 3748423.0    451.0     4.00     3.95     1.86     YES
 L0010948         0   0.10050E-05  478167.2 3748431.5    451.0     4.00     3.95     1.86     YES
 L0010949         0   0.10050E-05  478167.2 3748440.0    451.0     4.00     3.95     1.86     YES
 L0010950         0   0.10050E-05  478167.3 3748448.5    451.0     4.00     3.95     1.86     YES
 L0010951         0   0.10050E-05  478167.3 3748457.0    451.0     4.00     3.95     1.86     YES
 L0010952         0   0.10050E-05  478167.4 3748465.5    451.0     4.00     3.95     1.86     YES
 L0010953         0   0.10050E-05  478167.5 3748474.0    451.0     4.00     3.95     1.86     YES
 L0010954         0   0.10050E-05  478167.5 3748482.5    451.0     4.00     3.95     1.86     YES
 L0010955         0   0.10050E-05  478167.6 3748491.0    451.2     4.00     3.95     1.86     YES
 L0010956         0   0.10050E-05  478167.6 3748499.5    451.4     4.00     3.95     1.86     YES
 L0010957         0   0.10050E-05  478167.7 3748508.0    451.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11
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                                                     Residential
   PAGE    8
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010958         0   0.10050E-05  478167.8 3748516.5   452.0     4.00     3.95     1.86     YES
 L0010959         0   0.10050E-05  478167.8 3748525.0   452.0     4.00     3.95     1.86     YES
 L0010960         0   0.10050E-05  478167.9 3748533.5   452.0     4.00     3.95     1.86     YES
 L0010961         0   0.10050E-05  478167.9 3748542.0   452.0     4.00     3.95     1.86     YES
 L0010962         0   0.10050E-05  478168.0 3748550.5   452.0     4.00     3.95     1.86     YES
 L0010963         0   0.10050E-05  478168.1 3748559.0   452.0     4.00     3.95     1.86     YES
 L0010964         0   0.10050E-05  478168.1 3748567.5   452.0     4.00     3.95     1.86     YES
 L0010965         0   0.10050E-05  478168.2 3748576.0   452.0     4.00     3.95     1.86     YES
 L0010966         0   0.10050E-05  478168.2 3748584.5   452.0     4.00     3.95     1.86     YES
 L0010967         0   0.10050E-05  478168.3 3748593.0   452.0     4.00     3.95     1.86     YES
 L0010968         0   0.10050E-05  478168.4 3748601.5   452.0     4.00     3.95     1.86     YES
 L0010969         0   0.10050E-05  478168.4 3748610.0   452.0     4.00     3.95     1.86     YES
 L0010970         0   0.10050E-05  478168.5 3748618.5   452.0     4.00     3.95     1.86     YES
 L0010971         0   0.10050E-05  478168.5 3748627.0   452.0     4.00     3.95     1.86     YES
 L0010972         0   0.10050E-05  478168.6 3748635.5   452.0     4.00     3.95     1.86     YES
 L0010973         0   0.10050E-05  478168.7 3748644.0   452.0     4.00     3.95     1.86     YES
 L0010974         0   0.10050E-05  478168.7 3748652.5   452.0     4.00     3.95     1.86     YES
 L0010975         0   0.10050E-05  478168.8 3748661.0   452.0     4.00     3.95     1.86     YES
 L0010976         0   0.10050E-05  478168.8 3748669.5   452.0     4.00     3.95     1.86     YES
 L0010977         0   0.10050E-05  478168.9 3748678.0   452.0     4.00     3.95     1.86     YES
 L0010978         0   0.10050E-05  478169.0 3748686.5   452.0     4.00     3.95     1.86     YES
 L0010979         0   0.10050E-05  478169.0 3748695.0   452.0     4.00     3.95     1.86     YES
 L0010980         0   0.10050E-05  478169.1 3748703.5   452.0     4.00     3.95     1.86     YES
 L0010981         0   0.10050E-05  478169.1 3748712.0   452.0     4.00     3.95     1.86     YES
 L0010982         0   0.10050E-05  478169.2 3748720.5   452.0     4.00     3.95     1.86     YES
 L0010983         0   0.10050E-05  478169.3 3748729.0   452.0     4.00     3.95     1.86     YES
 L0010984         0   0.10050E-05  478169.3 3748737.5   452.0     4.00     3.95     1.86     YES
 L0010985         0   0.10050E-05  478169.4 3748746.0   452.0     4.00     3.95     1.86     YES
 L0010986         0   0.10050E-05  478169.5 3748754.5   452.0     4.00     3.95     1.86     YES
 L0010987         0   0.10050E-05  478169.5 3748763.0   452.2     4.00     3.95     1.86     YES
 L0010988         0   0.10050E-05  478169.6 3748771.5   452.5     4.00     3.95     1.86     YES
 L0010989         0   0.10050E-05  478169.6 3748780.0   452.8     4.00     3.95     1.86     YES
 L0010990         0   0.10050E-05  478169.7 3748788.5   453.0     4.00     3.95     1.86     YES
 L0010991         0   0.10050E-05  478169.8 3748797.0   453.0     4.00     3.95     1.86     YES
 L0010992         0   0.10050E-05  478169.8 3748805.5   453.0     4.00     3.95     1.86     YES
 L0010993         0   0.10050E-05  478169.9 3748814.0   453.0     4.00     3.95     1.86     YES
 L0010994         0   0.10050E-05  478169.9 3748822.5   453.0     4.00     3.95     1.86     YES
 L0010995         0   0.10050E-05  478170.0 3748831.0   453.0     4.00     3.95     1.86     YES
 L0010996         0   0.10050E-05  478170.1 3748839.5   453.0     4.00     3.95     1.86     YES
 L0010997         0   0.10050E-05  478170.1 3748848.0   453.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   12:58:11

   PAGE    9
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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- - - -

 L0010998         0   0.10050E-05  478170.2 3748856.5    453.0     4.00     3.95     1.86     YES
 L0010999         0   0.10050E-05  478170.2 3748865.0    453.0     4.00     3.95     1.86     YES
 L0011000         0   0.10050E-05  478170.3 3748873.5    453.0     4.00     3.95     1.86     YES
 L0011001         0   0.10050E-05  478170.4 3748882.0    453.0     4.00     3.95     1.86     YES
 L0011002         0   0.10050E-05  478170.4 3748890.5    453.0     4.00     3.95     1.86     YES
 L0011003         0   0.10050E-05  478170.5 3748899.0    453.0     4.00     3.95     1.86     YES
 L0011004         0   0.10050E-05  478170.5 3748907.5    453.0     4.00     3.95     1.86     YES
 L0011005         0   0.10050E-05  478170.6 3748916.0    453.0     4.00     3.95     1.86     YES
 L0011006         0   0.10050E-05  478168.2 3748924.1    453.0     4.00     3.95     1.86     YES
 L0011007         0   0.10050E-05  478165.8 3748932.3    453.0     4.00     3.95     1.86     YES
 L0011008         0   0.10050E-05  478163.3 3748940.4    453.0     4.00     3.95     1.86     YES
 L0011009         0   0.10050E-05  478160.8 3748948.5    453.0     4.00     3.95     1.86     YES
 L0011010         0   0.10050E-05  478158.3 3748956.7    453.0     4.00     3.95     1.86     YES
 L0011011         0   0.10050E-05  478155.9 3748964.8    453.0     4.00     3.95     1.86     YES
 L0011012         0   0.10050E-05  478153.4 3748972.9    453.0     4.00     3.95     1.86     YES
 L0008844         0   0.21410E-06  477852.8 3748835.2    453.0     4.00     3.95     1.86     YES
 L0008845         0   0.21410E-06  477852.8 3748843.7    453.0     4.00     3.95     1.86     YES
 L0008846         0   0.21410E-06  477852.9 3748852.2    453.0     4.00     3.95     1.86     YES
 L0008847         0   0.21410E-06  477852.9 3748860.7    453.0     4.00     3.95     1.86     YES
 L0008848         0   0.21410E-06  477853.0 3748869.2    453.0     4.00     3.95     1.86     YES
 L0008849         0   0.21410E-06  477853.0 3748877.7    453.0     4.00     3.95     1.86     YES
 L0008850         0   0.21410E-06  477853.1 3748886.2    453.0     4.00     3.95     1.86     YES
 L0008851         0   0.21410E-06  477853.1 3748894.7    453.0     4.00     3.95     1.86     YES
 L0008852         0   0.21410E-06  477853.1 3748903.2    453.0     4.00     3.95     1.86     YES
 L0008853         0   0.21410E-06  477853.2 3748911.7    453.0     4.00     3.95     1.86     YES
 L0008854         0   0.21410E-06  477853.2 3748920.2    453.0     4.00     3.95     1.86     YES
 L0008855         0   0.21410E-06  477853.3 3748928.7    453.0     4.00     3.95     1.86     YES
 L0008856         0   0.21410E-06  477853.3 3748937.2    453.0     4.00     3.95     1.86     YES
 L0008857         0   0.21410E-06  477853.4 3748945.7    453.0     4.00     3.95     1.86     YES
 L0008858         0   0.21410E-06  477853.4 3748954.2    453.0     4.00     3.95     1.86     YES
 L0008859         0   0.21410E-06  477853.5 3748962.7    453.0     4.00     3.95     1.86     YES
 L0008860         0   0.21410E-06  477853.5 3748971.2    453.2     4.00     3.95     1.86     YES
 L0008861         0   0.21410E-06  477853.5 3748979.7    453.4     4.00     3.95     1.86     YES
 L0008862         0   0.21410E-06  477845.0 3748979.7    453.5     4.00     3.95     1.86     YES
 L0008863         0   0.21410E-06  477836.5 3748979.6    453.7     4.00     3.95     1.86     YES
 L0008864         0   0.21410E-06  477828.0 3748979.6    453.9     4.00     3.95     1.86     YES
 L0008865         0   0.21410E-06  477819.5 3748979.6    454.0     4.00     3.95     1.86     YES
 L0008866         0   0.21410E-06  477811.0 3748979.6    454.0     4.00     3.95     1.86     YES
 L0008867         0   0.21410E-06  477802.5 3748979.6    454.0     4.00     3.95     1.86     YES
 L0008868         0   0.21410E-06  477794.0 3748979.5    454.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)      X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008869         0   0.21410E-06  477785.5 3748979.5    454.0     4.00     3.95     1.86     YES
 L0008870         0   0.21410E-06  477777.0 3748979.5    454.0     4.00     3.95     1.86     YES
 L0008871         0   0.21410E-06  477768.5 3748979.5    454.0     4.00     3.95     1.86     YES
 L0008872         0   0.21410E-06  477760.0 3748979.5    454.0     4.00     3.95     1.86     YES
 L0008873         0   0.21410E-06  477751.5 3748979.4    454.0     4.00     3.95     1.86     YES
 L0008874         0   0.21410E-06  477743.0 3748979.4    454.0     4.00     3.95     1.86     YES
 L0008875         0   0.21410E-06  477742.7 3748971.2    454.0     4.00     3.95     1.86     YES
 L0008876         0   0.21410E-06  477742.7 3748962.7    454.0     4.00     3.95     1.86     YES
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                                                     Residential
 L0008877         0   0.21410E-06  477742.6 3748954.2   454.0      4.00      3.95      1.86      YES
 L0008878         0   0.21410E-06  477742.6 3748945.7   454.0      4.00      3.95      1.86      YES
 L0008879         0   0.21410E-06  477742.5 3748937.2   454.0      4.00      3.95      1.86      YES
 L0008880         0   0.21410E-06  477742.5 3748928.7   453.9      4.00      3.95      1.86      YES
 L0008881         0   0.21410E-06  477742.4 3748920.2   453.8      4.00      3.95      1.86      YES
 L0008882         0   0.21410E-06  477742.4 3748911.7   453.7      4.00      3.95      1.86      YES
 L0008883         0   0.21410E-06  477742.3 3748903.2   453.6      4.00      3.95      1.86      YES
 L0008884         0   0.21410E-06  477742.3 3748894.7   453.6      4.00      3.95      1.86      YES
 L0008885         0   0.21410E-06  477742.2 3748886.2   453.6      4.00      3.95      1.86      YES
 L0008886         0   0.21410E-06  477744.2 3748878.0   453.5      4.00      3.95      1.86      YES
 L0008887         0   0.21410E-06  477746.5 3748869.8   453.6      4.00      3.95      1.86      YES
 L0008888         0   0.21410E-06  477748.8 3748861.6   453.7      4.00      3.95      1.86      YES
 L0008889         0   0.21410E-06  477751.1 3748853.4   453.8      4.00      3.95      1.86      YES
 L0008890         0   0.21410E-06  477753.4 3748845.3   454.0      4.00      3.95      1.86      YES
 L0008891         0   0.21410E-06  477757.5 3748838.2   453.7      4.00      3.95      1.86      YES
 L0008892         0   0.21410E-06  477763.8 3748832.5   453.5      4.00      3.95      1.86      YES
 L0008893         0   0.21410E-06  477770.1 3748826.8   453.2      4.00      3.95      1.86      YES
 L0008894         0   0.21410E-06  477778.6 3748826.5   453.1      4.00      3.95      1.86      YES
 L0008895         0   0.21410E-06  477787.1 3748826.4   453.0      4.00      3.95      1.86      YES
 L0008896         0   0.21410E-06  477795.6 3748826.2   453.0      4.00      3.95      1.86      YES
 L0008897         0   0.21410E-06  477804.1 3748826.1   453.0      4.00      3.95      1.86      YES
 L0008898         0   0.21410E-06  477812.6 3748826.1   453.0      4.00      3.95      1.86      YES
 L0008899         0   0.21410E-06  477821.1 3748826.0   453.0      4.00      3.95      1.86      YES
 L0008900         0   0.21410E-06  477829.6 3748826.0   453.0      4.00      3.95      1.86      YES
 L0008901         0   0.21410E-06  477838.1 3748825.9   453.0      4.00      3.95      1.86      YES
 L0008902         0   0.21410E-06  477846.6 3748825.8   453.0      4.00      3.95      1.86      YES
 L0008903         0   0.16860E-06  477886.6 3748203.7   450.0      4.00      3.95      1.86      YES
 L0008904         0   0.16860E-06  477886.4 3748212.2   450.0      4.00      3.95      1.86      YES
 L0008905         0   0.16860E-06  477886.3 3748220.7   450.1      4.00      3.95      1.86      YES
 L0008906         0   0.16860E-06  477886.1 3748229.2   450.3      4.00      3.95      1.86      YES
 L0008907         0   0.16860E-06  477885.9 3748237.7   450.6      4.00      3.95      1.86      YES
 L0008908         0   0.16860E-06  477885.7 3748246.2   450.8      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                        ***
   12:58:11

   PAGE  11
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008909         0   0.16860E-06  477885.5 3748254.7   450.9      4.00      3.95      1.86      YES
 L0008910         0   0.16860E-06  477885.6 3748263.2   450.9      4.00      3.95      1.86      YES
 L0008911         0   0.16860E-06  477885.7 3748271.7   451.0      4.00      3.95      1.86      YES
 L0008912         0   0.16860E-06  477885.8 3748280.2   451.0      4.00      3.95      1.86      YES
 L0008913         0   0.16860E-06  477885.9 3748288.7   451.0      4.00      3.95      1.86      YES
 L0008914         0   0.16860E-06  477886.0 3748297.2   451.0      4.00      3.95      1.86      YES
 L0008915         0   0.16860E-06  477886.1 3748305.7   451.0      4.00      3.95      1.86      YES
 L0008916         0   0.16860E-06  477886.2 3748314.2   451.0      4.00      3.95      1.86      YES
 L0008917         0   0.16860E-06  477886.3 3748322.7   451.0      4.00      3.95      1.86      YES
 L0008918         0   0.16860E-06  477886.4 3748331.2   451.0      4.00      3.95      1.86      YES
 L0008919         0   0.16860E-06  477889.0 3748337.4   451.0      4.00      3.95      1.86      YES
 L0008920         0   0.16860E-06  477897.5 3748338.1   451.0      4.00      3.95      1.86      YES
 L0008921         0   0.16860E-06  477906.0 3748338.9   451.0      4.00      3.95      1.86      YES
 L0008922         0   0.16860E-06  477914.4 3748339.7   451.0      4.00      3.95      1.86      YES
 L0008923         0   0.16860E-06  477922.9 3748339.5   451.0      4.00      3.95      1.86      YES
 L0008924         0   0.16860E-06  477931.4 3748338.9   451.0      4.00      3.95      1.86      YES
 L0008925         0   0.16860E-06  477939.8 3748338.2   451.0      4.00      3.95      1.86      YES
 L0008926         0   0.16860E-06  477945.5 3748332.6   451.0      4.00      3.95      1.86      YES
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                                                       Residential
 L0008927         0   0.16860E-06  477950.6 3748325.7   451.0      4.00      3.95      1.86      YES
 L0008928         0   0.16860E-06  477955.0 3748318.5   450.0      4.00      3.95      1.86      YES
 L0008929         0   0.16860E-06  477959.4 3748311.2   450.0      4.00      3.95      1.86      YES
 L0008930         0   0.16860E-06  477963.8 3748303.9   450.0      4.00      3.95      1.86      YES
 L0008931         0   0.16860E-06  477968.2 3748296.7   450.0      4.00      3.95      1.86      YES
 L0008932         0   0.16860E-06  477972.6 3748289.4   450.0      4.00      3.95      1.86      YES
 L0008933         0   0.16860E-06  477975.8 3748281.7   450.0      4.00      3.95      1.86      YES
 L0008934         0   0.16860E-06  477977.7 3748273.4   450.0      4.00      3.95      1.86      YES
 L0008935         0   0.16860E-06  477979.6 3748265.1   450.0      4.00      3.95      1.86      YES
 L0008936         0   0.16860E-06  477981.3 3748256.8   450.0      4.00      3.95      1.86      YES
 L0008937         0   0.16860E-06  477980.6 3748248.3   450.0      4.00      3.95      1.86      YES
 L0008938         0   0.16860E-06  477979.9 3748239.8   450.0      4.00      3.95      1.86      YES
 L0008939         0   0.16860E-06  477979.2 3748231.4   450.0      4.00      3.95      1.86      YES
 L0008940         0   0.16860E-06  477978.4 3748222.9   450.0      4.00      3.95      1.86      YES
 L0008941         0   0.16860E-06  477982.6 3748217.0   450.0      4.00      3.95      1.86      YES
 L0008942         0   0.16860E-06  477990.0 3748212.7   450.0      4.00      3.95      1.86      YES
 L0008943         0   0.16860E-06  477994.0 3748206.5   450.0      4.00      3.95      1.86      YES
 L0008944         0   0.16860E-06  477994.1 3748198.0   450.0      4.00      3.95      1.86      YES
 L0008945         0   0.16860E-06  477986.1 3748197.5   450.0      4.00      3.95      1.86      YES
 L0008946         0   0.16860E-06  477977.6 3748197.5   450.0      4.00      3.95      1.86      YES
 L0008947         0   0.16860E-06  477969.1 3748197.5   450.0      4.00      3.95      1.86      YES
 L0008948         0   0.16860E-06  477960.6 3748197.5   450.0      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008949         0   0.16860E-06  477952.1 3748197.5   450.0      4.00      3.95      1.86      YES
 L0008950         0   0.16860E-06  477943.6 3748197.5   450.0      4.00      3.95      1.86      YES
 L0008951         0   0.16860E-06  477935.1 3748197.5   450.0      4.00      3.95      1.86      YES
 L0008952         0   0.28780E-06  477505.1 3748975.7   454.2      4.00      3.95      1.86      YES
 L0008953         0   0.28780E-06  477513.6 3748975.6   454.1      4.00      3.95      1.86      YES
 L0008954         0   0.28780E-06  477522.1 3748975.4   454.0      4.00      3.95      1.86      YES
 L0008955         0   0.28780E-06  477530.6 3748975.2   454.0      4.00      3.95      1.86      YES
 L0008956         0   0.28780E-06  477539.1 3748975.1   454.0      4.00      3.95      1.86      YES
 L0008957         0   0.28780E-06  477547.6 3748974.9   454.0      4.00      3.95      1.86      YES
 L0008958         0   0.28780E-06  477556.1 3748974.7   454.0      4.00      3.95      1.86      YES
 L0008959         0   0.28780E-06  477564.6 3748974.6   454.0      4.00      3.95      1.86      YES
 L0008960         0   0.28780E-06  477573.1 3748974.4   454.0      4.00      3.95      1.86      YES
 L0008961         0   0.28780E-06  477581.6 3748974.2   454.0      4.00      3.95      1.86      YES
 L0008962         0   0.28780E-06  477590.1 3748974.1   454.0      4.00      3.95      1.86      YES
 L0008963         0   0.28780E-06  477598.5 3748973.8   454.0      4.00      3.95      1.86      YES
 L0008964         0   0.28780E-06  477605.4 3748968.8   454.0      4.00      3.95      1.86      YES
 L0008965         0   0.28780E-06  477611.1 3748963.0   454.0      4.00      3.95      1.86      YES
 L0008966         0   0.28780E-06  477613.4 3748954.9   454.0      4.00      3.95      1.86      YES
 L0008967         0   0.28780E-06  477615.7 3748946.7   454.0      4.00      3.95      1.86      YES
 L0008968         0   0.28780E-06  477618.0 3748938.5   454.0      4.00      3.95      1.86      YES
 L0008969         0   0.28780E-06  477620.0 3748930.2   454.0      4.00      3.95      1.86      YES
 L0008970         0   0.28780E-06  477621.7 3748921.9   454.0      4.00      3.95      1.86      YES
 L0008971         0   0.28780E-06  477623.4 3748913.6   454.0      4.00      3.95      1.86      YES
 L0008972         0   0.28780E-06  477625.1 3748905.3   454.0      4.00      3.95      1.86      YES
 L0008973         0   0.28780E-06  477626.2 3748896.9   454.0      4.00      3.95      1.86      YES
 L0008974         0   0.28780E-06  477626.4 3748888.4   454.0      4.00      3.95      1.86      YES
 L0008975         0   0.28780E-06  477626.5 3748879.9   454.0      4.00      3.95      1.86      YES
 L0008976         0   0.28780E-06  477626.6 3748871.4   454.0      4.00      3.95      1.86      YES
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                                                     Residential
 L0008977         0   0.28780E-06  477626.7 3748862.9   454.0     4.00     3.95     1.86     YES
 L0008978         0   0.28780E-06  477626.8 3748854.4   454.0     4.00     3.95     1.86     YES
 L0008979         0   0.28780E-06  477626.9 3748845.9   454.0     4.00     3.95     1.86     YES
 L0008980         0   0.28780E-06  477627.0 3748837.4   454.0     4.00     3.95     1.86     YES
 L0008981         0   0.28780E-06  477627.1 3748828.9   454.0     4.00     3.95     1.86     YES
 L0008982         0   0.28780E-06  477627.2 3748820.4   454.0     4.00     3.95     1.86     YES
 L0008983         0   0.28780E-06  477627.3 3748811.9   454.0     4.00     3.95     1.86     YES
 L0008984         0   0.28780E-06  477627.5 3748803.4   454.0     4.00     3.95     1.86     YES
 L0008985         0   0.28780E-06  477627.0 3748795.5   454.0     4.00     3.95     1.86     YES
 L0008986         0   0.28780E-06  477618.5 3748795.7   454.0     4.00     3.95     1.86     YES
 L0008987         0   0.28780E-06  477610.0 3748795.9   454.0     4.00     3.95     1.86     YES
 L0008988         0   0.28780E-06  477601.5 3748796.2   454.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008989         0   0.28780E-06  477593.0 3748796.4   454.0     4.00     3.95     1.86     YES
 L0008990         0   0.28780E-06  477584.5 3748796.6   454.0     4.00     3.95     1.86     YES
 L0008991         0   0.28780E-06  477576.0 3748796.9   454.0     4.00     3.95     1.86     YES
 L0008992         0   0.28780E-06  477567.5 3748797.1   454.0     4.00     3.95     1.86     YES
 L0008993         0   0.28780E-06  477559.0 3748797.3   454.0     4.00     3.95     1.86     YES
 L0008994         0   0.28780E-06  477550.5 3748797.5   454.0     4.00     3.95     1.86     YES
 L0008995         0   0.28780E-06  477542.0 3748797.8   454.0     4.00     3.95     1.86     YES
 L0008996         0   0.28780E-06  477533.5 3748798.0   454.0     4.00     3.95     1.86     YES
 L0008997         0   0.28780E-06  477525.0 3748798.2   454.0     4.00     3.95     1.86     YES
 L0008998         0   0.28780E-06  477516.5 3748798.5   454.0     4.00     3.95     1.86     YES
 L0008999         0   0.28780E-06  477508.0 3748798.7   454.0     4.00     3.95     1.86     YES
 L0009000         0   0.28780E-06  477499.5 3748798.9   454.0     4.00     3.95     1.86     YES
 L0009001         0   0.28780E-06  477491.0 3748799.2   454.0     4.00     3.95     1.86     YES
 L0009002         0   0.59570E-06  478255.5 3748984.6   453.0     4.00     3.95     1.86     YES
 L0009003         0   0.59570E-06  478247.0 3748984.7   453.0     4.00     3.95     1.86     YES
 L0009004         0   0.59570E-06  478238.5 3748984.7   453.0     4.00     3.95     1.86     YES
 L0009005         0   0.59570E-06  478230.0 3748984.8   453.0     4.00     3.95     1.86     YES
 L0009006         0   0.59570E-06  478221.5 3748984.9   453.0     4.00     3.95     1.86     YES
 L0009007         0   0.59570E-06  478213.0 3748985.0   453.0     4.00     3.95     1.86     YES
 L0009008         0   0.59570E-06  478204.5 3748985.1   453.0     4.00     3.95     1.86     YES
 L0009009         0   0.59570E-06  478196.0 3748985.1   453.0     4.00     3.95     1.86     YES
 L0009010         0   0.59570E-06  478187.5 3748985.2   453.0     4.00     3.95     1.86     YES
 L0009011         0   0.59570E-06  478179.0 3748985.3   453.0     4.00     3.95     1.86     YES
 L0009012         0   0.59570E-06  478170.5 3748985.4   453.0     4.00     3.95     1.86     YES
 L0009013         0   0.59570E-06  478162.0 3748985.5   453.0     4.00     3.95     1.86     YES
 L0009014         0   0.59570E-06  478153.5 3748985.6   453.0     4.00     3.95     1.86     YES
 L0009015         0   0.59570E-06  478145.0 3748985.6   453.0     4.00     3.95     1.86     YES
 L0009016         0   0.59570E-06  478136.5 3748985.7   453.0     4.00     3.95     1.86     YES
 L0009017         0   0.59570E-06  478128.0 3748985.8   453.0     4.00     3.95     1.86     YES
 L0009018         0   0.59570E-06  478119.5 3748985.9   453.0     4.00     3.95     1.86     YES
 L0009019         0   0.59570E-06  478111.0 3748986.0   453.0     4.00     3.95     1.86     YES
 L0009020         0   0.59570E-06  478102.5 3748986.0   453.0     4.00     3.95     1.86     YES
 L0009021         0   0.59570E-06  478094.0 3748986.1   453.0     4.00     3.95     1.86     YES
 L0009022         0   0.59570E-06  478085.5 3748986.2   453.0     4.00     3.95     1.86     YES
 L0009023         0   0.59570E-06  478077.0 3748986.3   453.0     4.00     3.95     1.86     YES
 L0009024         0   0.59570E-06  478068.5 3748986.4   453.0     4.00     3.95     1.86     YES
 L0009025         0   0.59570E-06  478060.0 3748986.4   453.0     4.00     3.95     1.86     YES
 L0009026         0   0.59570E-06  478051.5 3748986.5   453.0     4.00     3.95     1.86     YES
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                                                          Residential
 L0009027         0   0.59570E-06  478043.0 3748986.6   453.0     4.00     3.95     1.86     YES
 L0009028         0   0.59570E-06  478034.5 3748986.7   453.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y     ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
    ID          CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0009029         0   0.59570E-06  478026.0 3748986.8   453.0     4.00     3.95     1.86     YES
 L0009030         0   0.59570E-06  478017.5 3748986.9   453.0     4.00     3.95     1.86     YES
 L0009031         0   0.59570E-06  478009.0 3748986.9   453.0     4.00     3.95     1.86     YES
 L0009032         0   0.59570E-06  478000.5 3748987.0   453.0     4.00     3.95     1.86     YES
 L0009033         0   0.59570E-06  477992.0 3748987.1   453.0     4.00     3.95     1.86     YES
 L0009034         0   0.59570E-06  477983.5 3748987.2   453.0     4.00     3.95     1.86     YES
 L0009035         0   0.59570E-06  477975.0 3748987.3   453.0     4.00     3.95     1.86     YES
 L0009036         0   0.59570E-06  477966.5 3748987.3   453.0     4.00     3.95     1.86     YES
 L0009037         0   0.59570E-06  477958.0 3748987.4   453.0     4.00     3.95     1.86     YES
 L0009038         0   0.59570E-06  477949.5 3748987.5   453.0     4.00     3.95     1.86     YES
 L0009039         0   0.59570E-06  477941.0 3748987.6   453.0     4.00     3.95     1.86     YES
 L0009040         0   0.59570E-06  477932.5 3748987.7   453.2     4.00     3.95     1.86     YES
 L0009041         0   0.59570E-06  477924.0 3748987.7   453.4     4.00     3.95     1.86     YES
 L0009042         0   0.59570E-06  477915.5 3748987.8   453.6     4.00     3.95     1.86     YES
 L0009043         0   0.59570E-06  477907.0 3748987.9   453.7     4.00     3.95     1.86     YES
 L0009044         0   0.59570E-06  477898.6 3748988.0   453.7     4.00     3.95     1.86     YES
 L0009045         0   0.59570E-06  477890.1 3748988.1   453.7     4.00     3.95     1.86     YES
 L0009046         0   0.59570E-06  477881.9 3748988.5   453.7     4.00     3.95     1.86     YES
 L0009047         0   0.59570E-06  477881.9 3748997.0   454.0     4.00     3.95     1.86     YES
 L0009048         0   0.59570E-06  477881.9 3749005.5   454.0     4.00     3.95     1.86     YES
 L0009049         0   0.59570E-06  477881.9 3749014.0   454.0     4.00     3.95     1.86     YES
 L0009050         0   0.59570E-06  477881.9 3749022.5   454.0     4.00     3.95     1.86     YES
 L0009051         0   0.59570E-06  477881.9 3749031.0   454.0     4.00     3.95     1.86     YES
 L0009052         0   0.59570E-06  477881.9 3749039.5   454.0     4.00     3.95     1.86     YES
 L0009053         0   0.59570E-06  477881.9 3749048.0   454.0     4.00     3.95     1.86     YES
 L0009054         0   0.59570E-06  477881.9 3749056.5   454.0     4.00     3.95     1.86     YES
 L0009055         0   0.59570E-06  477881.9 3749065.0   454.0     4.00     3.95     1.86     YES
 L0009056         0   0.59570E-06  477881.9 3749073.5   454.0     4.00     3.95     1.86     YES
 L0009057         0   0.59570E-06  477881.9 3749082.0   454.0     4.00     3.95     1.86     YES
 L0009058         0   0.59570E-06  477881.9 3749090.5   454.0     4.00     3.95     1.86     YES
 L0009059         0   0.59570E-06  477881.9 3749099.0   454.0     4.00     3.95     1.86     YES
 L0009060         0   0.59570E-06  477881.9 3749107.5   454.0     4.00     3.95     1.86     YES
 L0009061         0   0.59570E-06  477881.9 3749116.0   454.0     4.00     3.95     1.86     YES
 L0009062         0   0.59570E-06  477881.9 3749124.5   454.0     4.00     3.95     1.86     YES
 L0009063         0   0.59570E-06  477881.9 3749133.0   454.0     4.00     3.95     1.86     YES
 L0009064         0   0.59570E-06  477881.9 3749141.5   454.0     4.00     3.95     1.86     YES
 L0009065         0   0.59570E-06  477881.9 3749150.0   454.0     4.00     3.95     1.86     YES
 L0009066         0   0.59570E-06  477881.9 3749158.5   454.0     4.00     3.95     1.86     YES
 L0009067         0   0.59570E-06  477881.9 3749167.0   454.0     4.00     3.95     1.86     YES
 L0009068         0   0.59570E-06  477881.9 3749175.5   454.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                   Residential

                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009069         0   0.59570E-06  477881.9 3749184.0   454.0     4.00     3.95     1.86     YES
 L0009070         0   0.59570E-06  477881.9 3749192.5   454.0     4.00     3.95     1.86     YES
 L0009071         0   0.59570E-06  477881.9 3749201.0   454.0     4.00     3.95     1.86     YES
 L0009072         0   0.59570E-06  477881.9 3749209.5   454.1     4.00     3.95     1.86     YES
 L0009073         0   0.59570E-06  477881.9 3749218.0   454.4     4.00     3.95     1.86     YES
 L0009074         0   0.59570E-06  477881.9 3749226.5   454.7     4.00     3.95     1.86     YES
 L0009075         0   0.59570E-06  477881.9 3749235.0   454.9     4.00     3.95     1.86     YES
 L0009076         0   0.59570E-06  477877.9 3749239.5   455.0     4.00     3.95     1.86     YES
 L0009077         0   0.59570E-06  477869.4 3749239.6   455.0     4.00     3.95     1.86     YES
 L0009078         0   0.59570E-06  477860.9 3749239.7   455.0     4.00     3.95     1.86     YES
 L0009079         0   0.59570E-06  477852.4 3749239.9   455.0     4.00     3.95     1.86     YES
 L0009080         0   0.59570E-06  477843.9 3749240.0   455.0     4.00     3.95     1.86     YES
 L0009081         0   0.59570E-06  477835.4 3749240.1   455.0     4.00     3.95     1.86     YES
 L0009082         0   0.59570E-06  477826.9 3749240.2   455.0     4.00     3.95     1.86     YES
 L0009083         0   0.59570E-06  477818.4 3749240.3   455.0     4.00     3.95     1.86     YES
 L0009084         0   0.59570E-06  477809.9 3749240.4   455.0     4.00     3.95     1.86     YES
 L0009085         0   0.59570E-06  477801.4 3749240.5   455.0     4.00     3.95     1.86     YES
 L0009086         0   0.59570E-06  477792.9 3749240.7   455.0     4.00     3.95     1.86     YES
 L0009087         0   0.59570E-06  477784.4 3749240.8   455.0     4.00     3.95     1.86     YES
 L0009088         0   0.59570E-06  477775.9 3749240.9   455.0     4.00     3.95     1.86     YES
 L0009089         0   0.59570E-06  477767.4 3749241.0   455.0     4.00     3.95     1.86     YES
 L0009090         0   0.59570E-06  477758.9 3749241.1   455.0     4.00     3.95     1.86     YES
 L0009091         0   0.59570E-06  477750.4 3749241.2   455.0     4.00     3.95     1.86     YES
 L0009092         0   0.59570E-06  477741.9 3749241.3   455.0     4.00     3.95     1.86     YES
 L0009093         0   0.59570E-06  477733.4 3749241.4   455.0     4.00     3.95     1.86     YES
 L0009094         0   0.59570E-06  477724.9 3749241.6   455.0     4.00     3.95     1.86     YES
 L0009095         0   0.59570E-06  477716.4 3749241.7   455.0     4.00     3.95     1.86     YES
 L0009096         0   0.59570E-06  477707.9 3749241.8   455.0     4.00     3.95     1.86     YES
 L0009097         0   0.59570E-06  477699.4 3749241.9   455.0     4.00     3.95     1.86     YES
 L0009098         0   0.59570E-06  477690.9 3749242.0   455.0     4.00     3.95     1.86     YES
 L0009099         0   0.59570E-06  477682.4 3749242.1   455.0     4.00     3.95     1.86     YES
 L0009100         0   0.59570E-06  477673.9 3749242.2   455.0     4.00     3.95     1.86     YES
 L0009101         0   0.59570E-06  477665.4 3749242.4   455.0     4.00     3.95     1.86     YES
 L0009102         0   0.59570E-06  477656.9 3749242.5   455.0     4.00     3.95     1.86     YES
 L0009103         0   0.59570E-06  477648.4 3749242.6   455.0     4.00     3.95     1.86     YES
 L0009104         0   0.59570E-06  477639.9 3749242.7   455.0     4.00     3.95     1.86     YES
 L0009105         0   0.59570E-06  477631.4 3749242.8   455.0     4.00     3.95     1.86     YES
 L0009106         0   0.59570E-06  477622.9 3749242.9   455.0     4.00     3.95     1.86     YES
 L0009107         0   0.59570E-06  477614.4 3749243.0   455.0     4.00     3.95     1.86     YES
 L0009108         0   0.59570E-06  477605.9 3749243.2   455.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009109         0   0.59570E-06  477597.4 3749243.3   455.0     4.00     3.95     1.86     YES
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                                                Residential
 L0009110         0   0.59570E-06  477588.9 3749243.4   455.0     4.00     3.95     1.86     YES
 L0009111         0   0.59570E-06  477580.4 3749243.5   455.0     4.00     3.95     1.86     YES
 L0009112         0   0.59570E-06  477571.9 3749243.6   455.0     4.00     3.95     1.86     YES
 L0009113         0   0.59570E-06  477563.4 3749243.7   455.0     4.00     3.95     1.86     YES
 L0009114         0   0.59570E-06  477554.9 3749243.8   455.0     4.00     3.95     1.86     YES
 L0009115         0   0.59570E-06  477546.4 3749244.0   455.0     4.00     3.95     1.86     YES
 L0009116         0   0.59570E-06  477537.9 3749244.1   455.0     4.00     3.95     1.86     YES
 L0009117         0   0.59570E-06  477529.4 3749244.2   455.0     4.00     3.95     1.86     YES
 L0009118         0   0.59570E-06  477520.9 3749244.3   455.0     4.00     3.95     1.86     YES
 L0009119         0   0.59570E-06  477512.4 3749244.4   455.0     4.00     3.95     1.86     YES
 L0009120         0   0.59570E-06  477503.9 3749244.5   455.0     4.00     3.95     1.86     YES
 L0009121         0   0.59570E-06  477495.4 3749244.6   455.0     4.00     3.95     1.86     YES
 L0009122         0   0.59570E-06  477486.9 3749244.7   455.0     4.00     3.95     1.86     YES
 L0009123         0   0.59570E-06  477478.4 3749244.9   455.0     4.00     3.95     1.86     YES
 L0009124         0   0.59570E-06  477476.8 3749251.9   455.0     4.00     3.95     1.86     YES
 L0009125         0   0.59570E-06  477476.7 3749260.4   455.0     4.00     3.95     1.86     YES
 L0009126         0   0.59570E-06  477476.6 3749268.9   455.0     4.00     3.95     1.86     YES
 L0009127         0   0.59570E-06  477476.5 3749277.4   455.0     4.00     3.95     1.86     YES
 L0009128         0   0.59570E-06  477476.4 3749285.9   455.0     4.00     3.95     1.86     YES
 L0009129         0   0.59570E-06  477476.3 3749294.4   455.0     4.00     3.95     1.86     YES
 L0009130         0   0.59570E-06  477476.2 3749302.9   455.1     4.00     3.95     1.86     YES
 L0009131         0   0.59570E-06  477476.0 3749311.4   455.2     4.00     3.95     1.86     YES
 L0009132         0   0.59570E-06  477475.9 3749319.9   455.4     4.00     3.95     1.86     YES
 L0009133         0   0.59570E-06  477475.8 3749328.4   455.5     4.00     3.95     1.86     YES
 L0009134         0   0.59570E-06  477475.7 3749336.9   455.7     4.00     3.95     1.86     YES
 L0009135         0   0.59570E-06  477475.6 3749345.4   455.8     4.00     3.95     1.86     YES
 L0009136         0   0.59570E-06  477475.5 3749353.9   455.9     4.00     3.95     1.86     YES
 L0009137         0   0.59570E-06  477475.4 3749362.4   456.0     4.00     3.95     1.86     YES
 L0009138         0   0.59570E-06  477475.3 3749370.9   456.0     4.00     3.95     1.86     YES
 L0009139         0   0.59570E-06  477475.1 3749379.4   456.0     4.00     3.95     1.86     YES
 L0009140         0   0.59570E-06  477475.0 3749387.9   456.0     4.00     3.95     1.86     YES
 L0009141         0   0.59570E-06  477474.9 3749396.4   456.0     4.00     3.95     1.86     YES
 L0009142         0   0.59570E-06  477474.8 3749404.9   456.0     4.00     3.95     1.86     YES
 L0009143         0   0.59570E-06  477474.7 3749413.4   456.0     4.00     3.95     1.86     YES
 L0009144         0   0.59570E-06  477474.6 3749421.9   456.0     4.00     3.95     1.86     YES
 L0009145         0   0.59570E-06  477474.5 3749430.4   456.0     4.00     3.95     1.86     YES
 L0009146         0   0.59570E-06  477474.4 3749438.9   456.0     4.00     3.95     1.86     YES
 L0009147         0   0.59570E-06  477474.2 3749447.4   456.0     4.00     3.95     1.86     YES
 L0009148         0   0.59570E-06  477474.1 3749455.9   456.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0009149         0   0.59570E-06  477474.0 3749464.4   456.0     4.00     3.95     1.86     YES
 L0009150         0   0.59570E-06  477473.9 3749472.9   456.0     4.00     3.95     1.86     YES
 L0009151         0   0.59570E-06  477473.8 3749481.4   456.2     4.00     3.95     1.86     YES
 L0009152         0   0.59570E-06  477473.7 3749489.9   456.4     4.00     3.95     1.86     YES
 L0009153         0   0.59570E-06  477473.6 3749498.4   456.7     4.00     3.95     1.86     YES
 L0009154         0   0.59570E-06  477473.5 3749506.9   457.0     4.00     3.95     1.86     YES
 L0009155         0   0.59570E-06  477473.3 3749515.4   457.0     4.00     3.95     1.86     YES
 L0009156         0   0.59570E-06  477473.2 3749523.9   457.0     4.00     3.95     1.86     YES
 L0009157         0   0.59570E-06  477473.1 3749532.4   457.0     4.00     3.95     1.86     YES
 L0009158         0   0.59570E-06  477473.0 3749540.9   457.0     4.00     3.95     1.86     YES
 L0009159         0   0.59570E-06  477472.9 3749549.4   457.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0009160         0   0.59570E-06  477472.8 3749557.9   457.0     4.00     3.95     1.86     YES
 L0009161         0   0.59570E-06  477472.7 3749566.4   457.0     4.00     3.95     1.86     YES
 L0009162         0   0.59570E-06  477472.6 3749574.9   457.0     4.00     3.95     1.86     YES
 L0009163         0   0.59570E-06  477472.4 3749583.4   457.0     4.00     3.95     1.86     YES
 L0009164         0   0.59570E-06  477472.3 3749591.9   457.0     4.00     3.95     1.86     YES
 L0009165         0   0.59570E-06  477472.2 3749600.4   457.0     4.00     3.95     1.86     YES
 L0009166         0   0.59570E-06  477472.1 3749608.9   457.0     4.00     3.95     1.86     YES
 L0009167         0   0.59570E-06  477472.0 3749617.4   457.0     4.00     3.95     1.86     YES
 L0009168         0   0.59570E-06  477471.9 3749625.9   457.0     4.00     3.95     1.86     YES
 L0009169         0   0.59570E-06  477471.8 3749634.4   457.0     4.00     3.95     1.86     YES
 L0009170         0   0.59570E-06  477471.7 3749642.9   457.0     4.00     3.95     1.86     YES
 L0009171         0   0.59570E-06  477471.5 3749651.4   457.0     4.00     3.95     1.86     YES
 L0009172         0   0.59570E-06  477471.4 3749659.9   457.0     4.00     3.95     1.86     YES
 L0009173         0   0.59570E-06  477471.3 3749668.4   457.0     4.00     3.95     1.86     YES
 L0009174         0   0.59570E-06  477471.2 3749676.9   457.0     4.00     3.95     1.86     YES
 L0009175         0   0.59570E-06  477471.1 3749685.4   457.0     4.00     3.95     1.86     YES
 L0009176         0   0.59570E-06  477471.0 3749693.9   457.0     4.00     3.95     1.86     YES
 L0009177         0   0.59570E-06  477470.9 3749702.4   457.0     4.00     3.95     1.86     YES
 L0009178         0   0.59570E-06  477470.8 3749710.9   457.0     4.00     3.95     1.86     YES
 L0009179         0   0.59570E-06  477470.6 3749719.4   457.0     4.00     3.95     1.86     YES
 L0009180         0   0.59570E-06  477470.5 3749727.9   457.0     4.00     3.95     1.86     YES
 L0009181         0   0.59570E-06  477470.4 3749736.4   457.0     4.00     3.95     1.86     YES
 L0009182         0   0.59570E-06  477470.3 3749744.9   457.0     4.00     3.95     1.86     YES
 L0009183         0   0.59570E-06  477470.2 3749753.4   457.2     4.00     3.95     1.86     YES
 L0009184         0   0.59570E-06  477470.1 3749761.9   457.5     4.00     3.95     1.86     YES
 L0009185         0   0.59570E-06  477470.0 3749770.4   457.8     4.00     3.95     1.86     YES
 L0009186         0   0.59570E-06  477469.9 3749778.9   458.0     4.00     3.95     1.86     YES
 L0009187         0   0.59570E-06  477469.7 3749787.4   458.0     4.00     3.95     1.86     YES
 L0009188         0   0.25490E-06  477901.9 3748181.5   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                 ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0009189         0   0.25490E-06  477893.4 3748181.6   450.0     4.00     3.95     1.86     YES
 L0009190         0   0.25490E-06  477884.9 3748181.7   450.0     4.00     3.95     1.86     YES
 L0009191         0   0.25490E-06  477876.4 3748181.7   450.0     4.00     3.95     1.86     YES
 L0009192         0   0.25490E-06  477867.9 3748181.8   450.0     4.00     3.95     1.86     YES
 L0009193         0   0.25490E-06  477859.4 3748181.9   450.0     4.00     3.95     1.86     YES
 L0009194         0   0.25490E-06  477850.9 3748181.9   450.0     4.00     3.95     1.86     YES
 L0009195         0   0.25490E-06  477842.4 3748182.0   450.2     4.00     3.95     1.86     YES
 L0009196         0   0.25490E-06  477833.9 3748182.1   450.5     4.00     3.95     1.86     YES
 L0009197         0   0.25490E-06  477825.4 3748182.1   450.7     4.00     3.95     1.86     YES
 L0009198         0   0.25490E-06  477816.9 3748182.2   450.9     4.00     3.95     1.86     YES
 L0009199         0   0.25490E-06  477808.4 3748182.3   450.9     4.00     3.95     1.86     YES
 L0009200         0   0.25490E-06  477799.9 3748182.3   451.0     4.00     3.95     1.86     YES
 L0009201         0   0.25490E-06  477791.4 3748182.4   451.0     4.00     3.95     1.86     YES
 L0009202         0   0.25490E-06  477782.9 3748182.5   451.0     4.00     3.95     1.86     YES
 L0009203         0   0.25490E-06  477774.4 3748182.5   451.0     4.00     3.95     1.86     YES
 L0009204         0   0.25490E-06  477765.9 3748182.6   451.0     4.00     3.95     1.86     YES
 L0009205         0   0.25490E-06  477757.4 3748182.7   451.0     4.00     3.95     1.86     YES
 L0009206         0   0.25490E-06  477748.9 3748182.8   451.0     4.00     3.95     1.86     YES
 L0009207         0   0.25490E-06  477740.4 3748182.8   451.0     4.00     3.95     1.86     YES
 L0009208         0   0.25490E-06  477731.9 3748182.9   451.0     4.00     3.95     1.86     YES
 L0009209         0   0.25490E-06  477723.4 3748183.0   451.0     4.00     3.95     1.86     YES
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                     Residential
 L0009210         0   0.25490E-06  477714.9 3748183.0   451.0     4.00     3.95     1.86     YES
 L0009211         0   0.25490E-06  477706.4 3748183.1   451.0     4.00     3.95     1.86     YES
 L0009212         0   0.25490E-06  477697.9 3748183.2   451.0     4.00     3.95     1.86     YES
 L0009213         0   0.25490E-06  477689.4 3748183.2   451.0     4.00     3.95     1.86     YES
 L0009214         0   0.25490E-06  477680.9 3748183.3   451.0     4.00     3.95     1.86     YES
 L0009215         0   0.25490E-06  477672.4 3748183.4   451.0     4.00     3.95     1.86     YES
 L0009216         0   0.25490E-06  477663.9 3748183.4   451.0     4.00     3.95     1.86     YES
 L0009217         0   0.25490E-06  477655.4 3748183.5   451.0     4.00     3.95     1.86     YES
 L0009218         0   0.25490E-06  477646.9 3748183.6   451.0     4.00     3.95     1.86     YES
 L0009219         0   0.25490E-06  477638.4 3748183.6   451.0     4.00     3.95     1.86     YES
 L0009220         0   0.25490E-06  477629.9 3748183.7   451.0     4.00     3.95     1.86     YES
 L0009221         0   0.25490E-06  477621.4 3748183.8   451.0     4.00     3.95     1.86     YES
 L0009222         0   0.25490E-06  477612.9 3748183.8   451.0     4.00     3.95     1.86     YES
 L0009223         0   0.25490E-06  477604.4 3748183.9   451.0     4.00     3.95     1.86     YES
 L0009224         0   0.25490E-06  477595.9 3748184.0   451.0     4.00     3.95     1.86     YES
 L0009225         0   0.25490E-06  477587.4 3748184.0   451.0     4.00     3.95     1.86     YES
 L0009226         0   0.25490E-06  477578.9 3748184.1   451.0     4.00     3.95     1.86     YES
 L0009227         0   0.25490E-06  477570.4 3748184.2   451.0     4.00     3.95     1.86     YES
 L0009228         0   0.25490E-06  477561.9 3748184.2   451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0009229         0   0.25490E-06  477553.4 3748184.3   451.0     4.00     3.95     1.86     YES
 L0009230         0   0.25490E-06  477544.9 3748184.4   451.0     4.00     3.95     1.86     YES
 L0009231         0   0.25490E-06  477536.4 3748184.4   451.0     4.00     3.95     1.86     YES
 L0009232         0   0.25490E-06  477527.9 3748184.5   451.0     4.00     3.95     1.86     YES
 L0009233         0   0.25490E-06  477519.4 3748184.6   451.0     4.00     3.95     1.86     YES
 L0009234         0   0.25490E-06  477510.9 3748184.6   451.0     4.00     3.95     1.86     YES
 L0009235         0   0.25490E-06  477502.4 3748184.7   451.0     4.00     3.95     1.86     YES
 L0009236         0   0.25490E-06  477493.9 3748184.8   451.0     4.00     3.95     1.86     YES
 L0009237         0   0.25490E-06  477485.4 3748184.8   451.0     4.00     3.95     1.86     YES
 L0009238         0   0.25490E-06  477476.9 3748184.9   451.0     4.00     3.95     1.86     YES
 L0009239         0   0.25490E-06  477471.1 3748182.1   451.0     4.00     3.95     1.86     YES
 L0009240         0   0.25490E-06  477470.9 3748173.6   451.0     4.00     3.95     1.86     YES
 L0009241         0   0.25490E-06  477470.7 3748165.1   451.0     4.00     3.95     1.86     YES
 L0009242         0   0.25490E-06  477470.6 3748156.6   451.0     4.00     3.95     1.86     YES
 L0009243         0   0.25490E-06  477470.4 3748148.2   451.0     4.00     3.95     1.86     YES
 L0009244         0   0.25490E-06  477470.2 3748139.7   451.0     4.00     3.95     1.86     YES
 L0009245         0   0.25490E-06  477470.0 3748131.2   451.0     4.00     3.95     1.86     YES
 L0009246         0   0.25490E-06  477469.8 3748122.7   451.0     4.00     3.95     1.86     YES
 L0009247         0   0.25490E-06  477469.6 3748114.2   451.0     4.00     3.95     1.86     YES
 L0009248         0   0.25490E-06  477469.4 3748105.7   451.0     4.00     3.95     1.86     YES
 L0009249         0   0.25490E-06  477469.2 3748097.2   451.0     4.00     3.95     1.86     YES
 L0009250         0   0.25490E-06  477469.0 3748088.7   451.0     4.00     3.95     1.86     YES
 L0009251         0   0.25490E-06  477468.9 3748080.2   451.0     4.00     3.95     1.86     YES
 L0009252         0   0.25490E-06  477468.7 3748071.7   451.0     4.00     3.95     1.86     YES
 L0009253         0   0.25490E-06  477468.5 3748063.2   451.0     4.00     3.95     1.86     YES
 L0009254         0   0.25490E-06  477468.3 3748054.7   451.0     4.00     3.95     1.86     YES
 L0009255         0   0.25490E-06  477468.1 3748046.2   451.0     4.00     3.95     1.86     YES
 L0009256         0   0.25490E-06  477467.9 3748037.7   451.0     4.00     3.95     1.86     YES
 L0009257         0   0.25490E-06  477467.7 3748029.2   451.0     4.00     3.95     1.86     YES
 L0009258         0   0.25490E-06  477467.5 3748020.7   451.0     4.00     3.95     1.86     YES
 L0009259         0   0.25490E-06  477467.4 3748012.2   451.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0009260         0   0.25490E-06  477467.2 3748003.7    451.0     4.00     3.95     1.86     YES
 L0009261         0   0.25490E-06  477467.0 3747995.2    451.0     4.00     3.95     1.86     YES
 L0009262         0   0.25490E-06  477466.8 3747986.7    451.0     4.00     3.95     1.86     YES
 L0009263         0   0.25490E-06  477466.6 3747978.2    451.0     4.00     3.95     1.86     YES
 L0009264         0   0.25490E-06  477466.4 3747969.7    451.0     4.00     3.95     1.86     YES
 L0009265         0   0.25490E-06  477466.2 3747961.2    451.0     4.00     3.95     1.86     YES
 L0009266         0   0.25490E-06  477466.0 3747952.7    451.0     4.00     3.95     1.86     YES
 L0009267         0   0.25490E-06  477465.8 3747944.2    451.0     4.00     3.95     1.86     YES
 L0009268         0   0.25490E-06  477465.7 3747935.7    451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0009269         0   0.25490E-06  477465.5 3747927.2    451.0     4.00     3.95     1.86     YES
 L0009270         0   0.25490E-06  477465.3 3747918.7    451.0     4.00     3.95     1.86     YES
 L0009271         0   0.25490E-06  477465.1 3747910.2    451.0     4.00     3.95     1.86     YES
 L0009272         0   0.25490E-06  477464.9 3747901.7    451.0     4.00     3.95     1.86     YES
 L0009273         0   0.25490E-06  477464.7 3747893.2    451.0     4.00     3.95     1.86     YES
 L0009274         0   0.25490E-06  477464.5 3747884.7    451.0     4.00     3.95     1.86     YES
 L0009275         0   0.25490E-06  477464.3 3747876.2    451.0     4.00     3.95     1.86     YES
 L0009276         0   0.25490E-06  477464.1 3747867.7    451.0     4.00     3.95     1.86     YES
 L0009277         0   0.25490E-06  477464.0 3747859.2    451.0     4.00     3.95     1.86     YES
 L0009278         0   0.25490E-06  477463.8 3747850.7    451.0     4.00     3.95     1.86     YES
 L0009279         0   0.25490E-06  477463.6 3747842.2    451.0     4.00     3.95     1.86     YES
 L0009280         0   0.25490E-06  477463.4 3747833.7    451.0     4.00     3.95     1.86     YES
 L0009281         0   0.25490E-06  477463.2 3747825.2    451.0     4.00     3.95     1.86     YES
 L0009282         0   0.25490E-06  477463.0 3747816.7    451.0     4.00     3.95     1.86     YES
 L0009283         0   0.25490E-06  477462.8 3747808.2    451.0     4.00     3.95     1.86     YES
 L0009284         0   0.25490E-06  477462.6 3747799.7    451.0     4.00     3.95     1.86     YES
 L0009285         0   0.25490E-06  477462.5 3747791.2    451.0     4.00     3.95     1.86     YES
 L0009286         0   0.25490E-06  477462.3 3747782.7    451.0     4.00     3.95     1.86     YES
 L0009287         0   0.25520E-06  477466.5 3747781.2    451.0     4.00     3.95     1.86     YES
 L0009288         0   0.25520E-06  477475.0 3747781.2    451.0     4.00     3.95     1.86     YES
 L0009289         0   0.25520E-06  477483.5 3747781.1    451.0     4.00     3.95     1.86     YES
 L0009290         0   0.25520E-06  477492.0 3747781.1    451.0     4.00     3.95     1.86     YES
 L0009291         0   0.25520E-06  477500.5 3747781.0    451.0     4.00     3.95     1.86     YES
 L0009292         0   0.25520E-06  477509.0 3747781.0    451.0     4.00     3.95     1.86     YES
 L0009293         0   0.25520E-06  477517.5 3747780.9    451.0     4.00     3.95     1.86     YES
 L0009294         0   0.25520E-06  477526.0 3747780.9    451.0     4.00     3.95     1.86     YES
 L0009295         0   0.25520E-06  477534.5 3747780.8    451.0     4.00     3.95     1.86     YES
 L0009296         0   0.25520E-06  477543.0 3747780.7    451.0     4.00     3.95     1.86     YES
 L0009297         0   0.25520E-06  477551.5 3747780.7    451.0     4.00     3.95     1.86     YES
 L0009298         0   0.25520E-06  477560.0 3747780.6    451.0     4.00     3.95     1.86     YES
 L0009299         0   0.25520E-06  477568.5 3747780.6    451.0     4.00     3.95     1.86     YES
 L0009300         0   0.25520E-06  477577.0 3747780.5    451.0     4.00     3.95     1.86     YES
 L0009301         0   0.25520E-06  477585.5 3747780.5    451.0     4.00     3.95     1.86     YES
 L0009302         0   0.25520E-06  477594.0 3747780.4    451.0     4.00     3.95     1.86     YES
 L0009303         0   0.25520E-06  477602.5 3747780.3    451.0     4.00     3.95     1.86     YES
 L0009304         0   0.25520E-06  477611.0 3747780.3    451.0     4.00     3.95     1.86     YES
 L0009305         0   0.25520E-06  477619.5 3747780.2    451.0     4.00     3.95     1.86     YES
 L0009306         0   0.25520E-06  477628.0 3747780.2    451.0     4.00     3.95     1.86     YES
 L0009307         0   0.25520E-06  477636.5 3747780.1    451.0     4.00     3.95     1.86     YES
 L0009308         0   0.25520E-06  477645.0 3747780.1    450.9     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                         Residential
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
  12:58:11

  PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                         *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009309         0   0.25520E-06  477653.5 3747780.0   450.8     4.00     3.95     1.86     YES
 L0009310         0   0.25520E-06  477662.0 3747780.0   450.6     4.00     3.95     1.86     YES
 L0009311         0   0.25520E-06  477670.5 3747779.9   450.4     4.00     3.95     1.86     YES
 L0009312         0   0.25520E-06  477679.0 3747779.8   450.3     4.00     3.95     1.86     YES
 L0009313         0   0.25520E-06  477687.5 3747779.8   450.2     4.00     3.95     1.86     YES
 L0009314         0   0.25520E-06  477696.0 3747779.7   450.1     4.00     3.95     1.86     YES
 L0009315         0   0.25520E-06  477704.5 3747779.7   450.0     4.00     3.95     1.86     YES
 L0009316         0   0.25520E-06  477713.0 3747779.6   450.0     4.00     3.95     1.86     YES
 L0009317         0   0.25520E-06  477721.5 3747779.6   450.0     4.00     3.95     1.86     YES
 L0009318         0   0.25520E-06  477730.0 3747779.5   450.0     4.00     3.95     1.86     YES
 L0009319         0   0.25520E-06  477738.5 3747779.4   450.0     4.00     3.95     1.86     YES
 L0009320         0   0.25520E-06  477747.0 3747779.4   450.0     4.00     3.95     1.86     YES
 L0009321         0   0.25520E-06  477755.5 3747779.3   450.0     4.00     3.95     1.86     YES
 L0009322         0   0.25520E-06  477764.0 3747779.3   450.0     4.00     3.95     1.86     YES
 L0009323         0   0.25520E-06  477772.5 3747779.2   450.0     4.00     3.95     1.86     YES
 L0009324         0   0.25520E-06  477781.0 3747779.2   450.0     4.00     3.95     1.86     YES
 L0009325         0   0.25520E-06  477789.5 3747779.1   450.0     4.00     3.95     1.86     YES
 L0009326         0   0.25520E-06  477798.0 3747779.1   450.0     4.00     3.95     1.86     YES
 L0009327         0   0.25520E-06  477806.5 3747779.0   450.0     4.00     3.95     1.86     YES
 L0009328         0   0.25520E-06  477815.0 3747778.9   450.0     4.00     3.95     1.86     YES
 L0009329         0   0.25520E-06  477823.5 3747778.9   450.0     4.00     3.95     1.86     YES
 L0009330         0   0.25520E-06  477832.0 3747778.8   450.0     4.00     3.95     1.86     YES
 L0009331         0   0.25520E-06  477840.5 3747778.8   450.0     4.00     3.95     1.86     YES
 L0009332         0   0.25520E-06  477849.0 3747778.7   450.0     4.00     3.95     1.86     YES
 L0009333         0   0.25520E-06  477857.5 3747778.7   450.0     4.00     3.95     1.86     YES
 L0009334         0   0.25520E-06  477866.0 3747778.6   450.0     4.00     3.95     1.86     YES
 L0009335         0   0.25520E-06  477874.5 3747778.6   450.0     4.00     3.95     1.86     YES
 L0009336         0   0.25520E-06  477883.0 3747778.5   450.0     4.00     3.95     1.86     YES
 L0009337         0   0.25520E-06  477891.5 3747778.4   450.0     4.00     3.95     1.86     YES
 L0009338         0   0.25520E-06  477900.0 3747778.4   450.0     4.00     3.95     1.86     YES
 L0009339         0   0.25520E-06  477908.5 3747778.3   450.0     4.00     3.95     1.86     YES
 L0009340         0   0.25520E-06  477917.0 3747778.3   450.0     4.00     3.95     1.86     YES
 L0009341         0   0.25520E-06  477925.5 3747778.2   450.0     4.00     3.95     1.86     YES
 L0009342         0   0.25520E-06  477934.0 3747778.2   450.0     4.00     3.95     1.86     YES
 L0009343         0   0.25520E-06  477942.5 3747778.1   450.0     4.00     3.95     1.86     YES
 L0009344         0   0.25520E-06  477951.0 3747778.0   450.0     4.00     3.95     1.86     YES
 L0009345         0   0.25520E-06  477959.5 3747778.0   450.0     4.00     3.95     1.86     YES
 L0009346         0   0.25520E-06  477968.0 3747777.9   450.0     4.00     3.95     1.86     YES
 L0009347         0   0.25520E-06  477976.5 3747777.9   450.0     4.00     3.95     1.86     YES
 L0009348         0   0.25520E-06  477985.0 3747777.8   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
  12:58:11

  PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                         *** VOLUME SOURCE DATA ***
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                                                   Residential
              NUMBER EMISSION RATE                            BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y          ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0009349         0   0.25520E-06  477993.5 3747777.8   450.0     4.00     3.95     1.86     YES
 L0009350         0   0.25520E-06  478002.0 3747777.7   450.0     4.00     3.95     1.86     YES
 L0009351         0   0.25520E-06  478010.5 3747777.7   449.8     4.00     3.95     1.86     YES
 L0009352         0   0.25520E-06  478019.0 3747777.6   449.6     4.00     3.95     1.86     YES
 L0009353         0   0.25520E-06  478027.5 3747777.5   449.4     4.00     3.95     1.86     YES
 L0009354         0   0.25520E-06  478036.0 3747777.5   449.3     4.00     3.95     1.86     YES
 L0009355         0   0.25520E-06  478044.5 3747777.4   449.2     4.00     3.95     1.86     YES
 L0009356         0   0.25520E-06  478053.0 3747777.4   449.1     4.00     3.95     1.86     YES
 L0009357         0   0.25520E-06  478061.5 3747777.3   449.0     4.00     3.95     1.86     YES
 L0009358         0   0.25520E-06  478070.0 3747777.3   449.0     4.00     3.95     1.86     YES
 L0009359         0   0.25520E-06  478078.5 3747777.2   449.0     4.00     3.95     1.86     YES
 L0009360         0   0.25520E-06  478087.0 3747777.1   449.0     4.00     3.95     1.86     YES
 L0009361         0   0.25520E-06  478095.5 3747777.1   449.0     4.00     3.95     1.86     YES
 L0009362         0   0.25520E-06  478104.0 3747777.0   449.0     4.00     3.95     1.86     YES
 L0009363         0   0.25520E-06  478112.5 3747777.0   449.0     4.00     3.95     1.86     YES
 L0009364         0   0.25520E-06  478121.0 3747776.9   449.0     4.00     3.95     1.86     YES
 L0009365         0   0.25520E-06  478129.5 3747776.9   449.0     4.00     3.95     1.86     YES
 L0009366         0   0.25520E-06  478138.0 3747776.8   449.0     4.00     3.95     1.86     YES
 L0009367         0   0.25520E-06  478146.5 3747776.8   449.0     4.00     3.95     1.86     YES
 L0009368         0   0.25520E-06  478155.0 3747776.7   449.0     4.00     3.95     1.86     YES
 L0009369         0   0.25520E-06  478163.5 3747776.6   449.0     4.00     3.95     1.86     YES
 L0009370         0   0.25520E-06  478172.0 3747776.6   449.0     4.00     3.95     1.86     YES
 L0009371         0   0.25520E-06  478180.5 3747776.5   449.0     4.00     3.95     1.86     YES
 L0009372         0   0.25520E-06  478189.0 3747776.5   449.0     4.00     3.95     1.86     YES
 L0009373         0   0.25520E-06  478197.5 3747776.4   449.0     4.00     3.95     1.86     YES
 L0009374         0   0.25520E-06  478206.0 3747776.4   449.0     4.00     3.95     1.86     YES
 L0009375         0   0.25520E-06  478214.5 3747776.3   449.0     4.00     3.95     1.86     YES
 L0009376         0   0.25520E-06  478223.0 3747776.2   449.0     4.00     3.95     1.86     YES
 L0009377         0   0.25520E-06  478231.5 3747776.2   449.0     4.00     3.95     1.86     YES
 L0009378         0   0.25520E-06  478240.0 3747776.1   449.0     4.00     3.95     1.86     YES
 L0009379         0   0.25520E-06  478248.5 3747776.1   449.0     4.00     3.95     1.86     YES
 L0009380         0   0.25520E-06  478257.0 3747776.0   449.0     4.00     3.95     1.86     YES
 L0009381         0   0.25520E-06  478265.5 3747776.0   449.0     4.00     3.95     1.86     YES
 L0009382         0   0.25520E-06  478274.0 3747775.9   449.0     4.00     3.95     1.86     YES
 L0009383         0   0.25520E-06  478281.0 3747774.4   449.0     4.00     3.95     1.86     YES
 L0009384         0   0.25520E-06  478281.0 3747765.9   449.0     4.00     3.95     1.86     YES
 L0009385         0   0.25520E-06  478281.1 3747757.4   449.0     4.00     3.95     1.86     YES
 L0009386         0   0.25520E-06  478281.1 3747748.9   449.0     4.00     3.95     1.86     YES
 L0009387         0   0.25520E-06  478281.1 3747740.4   449.0     4.00     3.95     1.86     YES
 L0009388         0   0.25520E-06  478281.2 3747731.9   449.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                            BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y          ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0009389         0   0.25520E-06  478281.2 3747723.4   449.0     4.00     3.95     1.86     YES
 L0009390         0   0.25520E-06  478281.2 3747714.9   449.0     4.00     3.95     1.86     YES
 L0009391         0   0.25520E-06  478281.3 3747706.4   449.0     4.00     3.95     1.86     YES
 L0009392         0   0.25520E-06  478281.3 3747697.9   449.0     4.00     3.95     1.86     YES
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                                                    Residential
 L0009393         0   0.25520E-06  478281.3 3747689.4   449.0     4.00     3.95     1.86     YES
 L0009394         0   0.25520E-06  478281.4 3747680.9   449.0     4.00     3.95     1.86     YES
 L0009395         0   0.25520E-06  478281.4 3747672.4   448.9     4.00     3.95     1.86     YES
 L0009396         0   0.25520E-06  478281.4 3747663.9   448.6     4.00     3.95     1.86     YES
 L0009397         0   0.25520E-06  478281.5 3747655.4   448.3     4.00     3.95     1.86     YES
 L0009398         0   0.25520E-06  478281.5 3747646.9   448.0     4.00     3.95     1.86     YES
 L0009399         0   0.25520E-06  478281.5 3747638.4   448.0     4.00     3.95     1.86     YES
 L0009400         0   0.25520E-06  478281.5 3747629.9   448.0     4.00     3.95     1.86     YES
 L0009401         0   0.25520E-06  478281.6 3747621.4   448.0     4.00     3.95     1.86     YES
 L0009402         0   0.25520E-06  478281.6 3747612.9   448.0     4.00     3.95     1.86     YES
 L0009403         0   0.25520E-06  478281.6 3747604.4   448.0     4.00     3.95     1.86     YES
 L0009404         0   0.25520E-06  478281.7 3747595.9   448.0     4.00     3.95     1.86     YES
 L0009405         0   0.25520E-06  478281.7 3747587.4   448.0     4.00     3.95     1.86     YES
 L0009406         0   0.25520E-06  478281.7 3747578.9   448.0     4.00     3.95     1.86     YES
 L0009407         0   0.25520E-06  478281.8 3747570.4   448.0     4.00     3.95     1.86     YES
 L0009408         0   0.25520E-06  478281.8 3747561.9   448.0     4.00     3.95     1.86     YES
 L0009409         0   0.25520E-06  478281.8 3747553.4   448.0     4.00     3.95     1.86     YES
 L0009410         0   0.25520E-06  478281.9 3747544.9   448.0     4.00     3.95     1.86     YES
 L0009411         0   0.25520E-06  478281.9 3747536.4   448.0     4.00     3.95     1.86     YES
 L0009412         0   0.25520E-06  478281.9 3747527.9   448.0     4.00     3.95     1.86     YES
 L0009413         0   0.25520E-06  478282.0 3747519.4   448.0     4.00     3.95     1.86     YES
 L0009414         0   0.25520E-06  478282.0 3747510.9   448.0     4.00     3.95     1.86     YES
 L0009415         0   0.25520E-06  478282.0 3747502.4   448.0     4.00     3.95     1.86     YES
 L0009416         0   0.25520E-06  478282.1 3747493.9   448.0     4.00     3.95     1.86     YES
 L0009417         0   0.25520E-06  478282.1 3747485.4   448.0     4.00     3.95     1.86     YES
 L0009418         0   0.25520E-06  478282.1 3747476.9   448.0     4.00     3.95     1.86     YES
 L0009419         0   0.25520E-06  478282.2 3747468.4   448.0     4.00     3.95     1.86     YES
 L0009420         0   0.25520E-06  478282.2 3747459.9   448.0     4.00     3.95     1.86     YES
 L0009421         0   0.25520E-06  478282.2 3747451.4   448.0     4.00     3.95     1.86     YES
 L0009422         0   0.25520E-06  478282.3 3747442.9   448.0     4.00     3.95     1.86     YES
 L0009423         0   0.25520E-06  478282.3 3747434.4   448.0     4.00     3.95     1.86     YES
 L0009424         0   0.25520E-06  478282.3 3747425.9   448.0     4.00     3.95     1.86     YES
 L0009425         0   0.25520E-06  478282.4 3747417.4   448.0     4.00     3.95     1.86     YES
 L0009426         0   0.25520E-06  478282.4 3747408.9   448.0     4.00     3.95     1.86     YES
 L0009427         0   0.25520E-06  478282.4 3747400.4   448.0     4.00     3.95     1.86     YES
 L0009428         0   0.25520E-06  478282.5 3747391.9   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID           CATS.               (METERS)  (METERS) (METERS)  (METERS) (METERS) (METERS)             BY
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 L0009429         0   0.25520E-06  478282.5 3747383.4   448.0     4.00     3.95     1.86     YES
 L0009430         0   0.25520E-06  478282.5 3747374.9   448.0     4.00     3.95     1.86     YES
 L0009431         0   0.25520E-06  478282.6 3747366.4   448.0     4.00     3.95     1.86     YES
 L0009432         0   0.25520E-06  478282.6 3747357.9   448.0     4.00     3.95     1.86     YES
 L0009433         0   0.25520E-06  478282.6 3747349.4   448.0     4.00     3.95     1.86     YES
 L0009434         0   0.25520E-06  478282.6 3747340.9   448.0     4.00     3.95     1.86     YES
 L0009435         0   0.25520E-06  478282.7 3747332.4   448.0     4.00     3.95     1.86     YES
 L0009436         0   0.25520E-06  478282.7 3747323.9   448.0     4.00     3.95     1.86     YES
 L0009437         0   0.25520E-06  478282.7 3747315.4   448.0     4.00     3.95     1.86     YES
 L0009438         0   0.25520E-06  478282.8 3747306.9   448.0     4.00     3.95     1.86     YES
 L0009439         0   0.25520E-06  478282.8 3747298.4   448.0     4.00     3.95     1.86     YES
 L0009440         0   0.25520E-06  478282.8 3747289.9   448.0     4.00     3.95     1.86     YES
 L0009441         0   0.25520E-06  478282.9 3747281.4   448.0     4.00     3.95     1.86     YES
 L0009442         0   0.25520E-06  478282.9 3747272.9   448.0     4.00     3.95     1.86     YES
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                                                  Residential
 L0009443         0   0.25520E-06  478282.9 3747264.4   448.0      4.00      3.95      1.86      YES
 L0009444         0   0.25520E-06  478283.0 3747255.9   448.0      4.00      3.95      1.86      YES
 L0009445         0   0.25520E-06  478283.0 3747247.4   448.0      4.00      3.95      1.86      YES
 L0009446         0   0.25520E-06  478283.0 3747238.9   448.0      4.00      3.95      1.86      YES
 L0009447         0   0.25520E-06  478283.1 3747230.4   448.0      4.00      3.95      1.86      YES
 L0009448         0   0.25520E-06  478283.1 3747221.9   448.0      4.00      3.95      1.86      YES
 L0009449         0   0.25520E-06  478283.1 3747213.4   448.0      4.00      3.95      1.86      YES
 L0009450         0   0.25520E-06  478283.2 3747204.9   448.0      4.00      3.95      1.86      YES
 L0009451         0   0.25520E-06  478283.2 3747196.4   448.0      4.00      3.95      1.86      YES
 L0009452         0   0.25520E-06  478283.2 3747187.9   448.0      4.00      3.95      1.86      YES
 L0009453         0   0.25520E-06  478283.3 3747179.4   448.0      4.00      3.95      1.86      YES
 L0009454         0   0.25520E-06  478283.3 3747170.9   448.0      4.00      3.95      1.86      YES
 L0009455         0   0.25520E-06  478283.3 3747162.4   448.0      4.00      3.95      1.86      YES
 L0009456         0   0.25520E-06  478283.4 3747153.9   448.0      4.00      3.95      1.86      YES
 L0009457         0   0.25520E-06  478283.4 3747145.4   448.0      4.00      3.95      1.86      YES
 L0009458         0   0.25520E-06  478283.4 3747136.9   448.0      4.00      3.95      1.86      YES
 L0009459         0   0.25520E-06  478283.5 3747128.4   448.0      4.00      3.95      1.86      YES
 L0009460         0   0.25520E-06  478283.5 3747119.9   448.0      4.00      3.95      1.86      YES
 L0009461         0   0.25520E-06  478283.5 3747111.4   448.0      4.00      3.95      1.86      YES
 L0009462         0   0.25520E-06  478283.6 3747102.9   448.0      4.00      3.95      1.86      YES
 L0009463         0   0.25520E-06  478283.6 3747094.4   448.0      4.00      3.95      1.86      YES
 L0009464         0   0.25520E-06  478283.6 3747085.9   448.0      4.00      3.95      1.86      YES
 L0009465         0   0.25520E-06  478283.6 3747077.4   448.0      4.00      3.95      1.86      YES
 L0009466         0   0.25520E-06  478283.7 3747068.9   448.0      4.00      3.95      1.86      YES
 L0009467         0   0.25520E-06  478283.7 3747060.4   448.0      4.00      3.95      1.86      YES
 L0009468         0   0.25520E-06  478283.7 3747051.9   448.0      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)      X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0009469         0   0.25520E-06  478283.8 3747043.4   448.0      4.00      3.95      1.86      YES
 L0009470         0   0.25520E-06  478283.8 3747034.9   448.0      4.00      3.95      1.86      YES
 L0009471         0   0.25520E-06  478283.8 3747026.4   448.0      4.00      3.95      1.86      YES
 L0009472         0   0.25520E-06  478283.9 3747017.9   448.0      4.00      3.95      1.86      YES
 L0009473         0   0.25520E-06  478283.9 3747009.4   448.0      4.00      3.95      1.86      YES
 L0009474         0   0.25520E-06  478283.9 3747000.9   448.0      4.00      3.95      1.86      YES
 L0009475         0   0.25520E-06  478284.0 3746992.4   448.0      4.00      3.95      1.86      YES
 L0009476         0   0.25520E-06  478284.0 3746983.9   448.0      4.00      3.95      1.86      YES
 L0009477         0   0.25520E-06  478284.0 3746975.4   448.0      4.00      3.95      1.86      YES
 L0009478         0   0.25520E-06  478284.1 3746966.9   448.0      4.00      3.95      1.86      YES
 L0009479         0   0.25520E-06  478284.1 3746958.4   448.0      4.00      3.95      1.86      YES
 L0009480         0   0.25520E-06  478284.1 3746949.9   448.0      4.00      3.95      1.86      YES
 L0009481         0   0.25520E-06  478284.2 3746941.4   448.0      4.00      3.95      1.86      YES
 L0009482         0   0.25520E-06  478284.2 3746932.9   448.0      4.00      3.95      1.86      YES
 L0009483         0   0.25520E-06  478284.2 3746924.4   448.0      4.00      3.95      1.86      YES
 L0009484         0   0.25520E-06  478284.3 3746915.9   448.0      4.00      3.95      1.86      YES
 L0009485         0   0.25520E-06  478284.3 3746907.4   448.0      4.00      3.95      1.86      YES
 L0009486         0   0.25520E-06  478284.3 3746898.9   448.0      4.00      3.95      1.86      YES
 L0009487         0   0.25520E-06  478284.4 3746890.4   448.0      4.00      3.95      1.86      YES
 L0009488         0   0.25520E-06  478284.4 3746881.9   448.0      4.00      3.95      1.86      YES
 L0009489         0   0.25520E-06  478284.4 3746873.4   448.0      4.00      3.95      1.86      YES
 L0009490         0   0.25520E-06  478284.5 3746864.9   448.0      4.00      3.95      1.86      YES
 L0009491         0   0.25520E-06  478284.5 3746856.4   447.8      4.00      3.95      1.86      YES
 L0009492         0   0.25520E-06  478284.5 3746847.9   447.7      4.00      3.95      1.86      YES
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                                                   Residential
 L0009493         0   0.25520E-06  478284.6 3746839.4   447.6      4.00      3.95      1.86      YES
 L0009494         0   0.25520E-06  478284.6 3746830.9   447.4      4.00      3.95      1.86      YES
 L0009495         0   0.25520E-06  478284.6 3746822.4   447.3      4.00      3.95      1.86      YES
 L0009496         0   0.25520E-06  478284.6 3746813.9   447.1      4.00      3.95      1.86      YES
 L0009497         0   0.25520E-06  478284.7 3746805.4   447.0      4.00      3.95      1.86      YES
 L0009498         0   0.25520E-06  478284.7 3746796.9   447.0      4.00      3.95      1.86      YES
 L0009499         0   0.25520E-06  478284.7 3746788.4   447.0      4.00      3.95      1.86      YES
 L0009500         0   0.25520E-06  478284.8 3746779.9   447.0      4.00      3.95      1.86      YES
 L0009501         0   0.25520E-06  478284.8 3746771.4   447.0      4.00      3.95      1.86      YES
 L0009502         0   0.25520E-06  478284.8 3746762.9   447.0      4.00      3.95      1.86      YES
 L0009503         0   0.25520E-06  478284.9 3746754.4   447.0      4.00      3.95      1.86      YES
 L0009504         0   0.25520E-06  478284.9 3746745.9   447.0      4.00      3.95      1.86      YES
 L0009505         0   0.25520E-06  478284.9 3746737.4   447.0      4.00      3.95      1.86      YES
 L0009506         0   0.25520E-06  478285.0 3746728.9   447.0      4.00      3.95      1.86      YES
 L0009507         0   0.25520E-06  478285.0 3746720.4   447.0      4.00      3.95      1.86      YES
 L0009508         0   0.25520E-06  478285.0 3746711.9   447.0      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009509         0   0.25520E-06  478285.1 3746703.4   447.0      4.00      3.95      1.86      YES
 L0009510         0   0.25520E-06  478285.1 3746694.9   447.0      4.00      3.95      1.86      YES
 L0009511         0   0.25520E-06  478285.1 3746686.4   447.0      4.00      3.95      1.86      YES
 L0009512         0   0.25520E-06  478285.2 3746677.9   447.0      4.00      3.95      1.86      YES
 L0009513         0   0.25520E-06  478285.2 3746669.4   447.0      4.00      3.95      1.86      YES
 L0009514         0   0.25520E-06  478285.2 3746660.9   447.0      4.00      3.95      1.86      YES
 L0009515         0   0.25520E-06  478285.3 3746652.4   447.0      4.00      3.95      1.86      YES
 L0009516         0   0.25520E-06  478285.3 3746643.9   447.0      4.00      3.95      1.86      YES
 L0009517         0   0.25520E-06  478285.3 3746635.4   447.0      4.00      3.95      1.86      YES
 L0009518         0   0.25520E-06  478285.4 3746626.9   447.0      4.00      3.95      1.86      YES
 L0009519         0   0.25520E-06  478285.4 3746618.4   447.0      4.00      3.95      1.86      YES
 L0009520         0   0.25520E-06  478285.4 3746609.9   447.0      4.00      3.95      1.86      YES
 L0009521         0   0.25520E-06  478285.5 3746601.4   447.0      4.00      3.95      1.86      YES
 L0009522         0   0.25520E-06  478285.5 3746592.9   447.0      4.00      3.95      1.86      YES
 L0009523         0   0.25520E-06  478285.5 3746584.4   447.0      4.00      3.95      1.86      YES
 L0009524         0   0.25520E-06  478285.6 3746575.9   447.0      4.00      3.95      1.86      YES
 L0009525         0   0.25520E-06  478285.6 3746567.4   447.0      4.00      3.95      1.86      YES
 L0009526         0   0.25520E-06  478285.6 3746558.9   447.0      4.00      3.95      1.86      YES
 L0009527         0   0.25520E-06  478285.7 3746550.4   447.0      4.00      3.95      1.86      YES
 L0009528         0   0.25520E-06  478285.7 3746541.9   447.0      4.00      3.95      1.86      YES
 L0009529         0   0.25520E-06  478285.7 3746533.4   447.0      4.00      3.95      1.86      YES
 L0009530         0   0.25520E-06  478285.7 3746524.9   447.0      4.00      3.95      1.86      YES
 L0009531         0   0.25520E-06  478285.8 3746516.4   447.0      4.00      3.95      1.86      YES
 L0009532         0   0.25520E-06  478285.8 3746507.9   447.0      4.00      3.95      1.86      YES
 L0009533         0   0.25520E-06  478285.8 3746499.4   447.0      4.00      3.95      1.86      YES
 L0009534         0   0.25520E-06  478285.9 3746490.9   447.0      4.00      3.95      1.86      YES
 L0009535         0   0.25520E-06  478285.9 3746482.4   447.0      4.00      3.95      1.86      YES
 L0009536         0   0.25520E-06  478285.9 3746473.9   447.0      4.00      3.95      1.86      YES
 L0009537         0   0.25520E-06  478286.0 3746465.4   447.0      4.00      3.95      1.86      YES
 L0009538         0   0.25520E-06  478286.0 3746456.9   447.0      4.00      3.95      1.86      YES
 L0009539         0   0.25520E-06  478286.0 3746448.4   447.0      4.00      3.95      1.86      YES
 L0009540         0   0.25520E-06  478286.1 3746439.9   446.9      4.00      3.95      1.86      YES
 L0009541         0   0.25520E-06  478286.1 3746431.4   446.7      4.00      3.95      1.86      YES
 L0009542         0   0.25520E-06  478286.1 3746422.9   446.6      4.00      3.95      1.86      YES
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                                                 Residential
 L0009543         0   0.25520E-06  478286.2 3746414.4   446.5     4.00     3.95     1.86     YES
 L0009544         0   0.25520E-06  478286.2 3746405.9   446.5     4.00     3.95     1.86     YES
 L0009545         0   0.25520E-06  478286.2 3746397.4   446.5     4.00     3.95     1.86     YES
 L0009546         0   0.25520E-06  478286.3 3746388.9   446.4     4.00     3.95     1.86     YES
 L0009547         0   0.25520E-06  478286.3 3746380.4   446.4     4.00     3.95     1.86     YES
 L0009548         0   0.25520E-06  478286.3 3746371.9   446.4     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009549         0   0.25520E-06  478286.4 3746363.4   446.4     4.00     3.95     1.86     YES
 L0009550         0   0.25520E-06  478286.4 3746354.9   446.4     4.00     3.95     1.86     YES
 L0009551         0   0.25520E-06  478286.4 3746346.4   446.4     4.00     3.95     1.86     YES
 L0009552         0   0.25520E-06  478280.1 3746347.5   446.7     4.00     3.95     1.86     YES
 L0009553         0   0.25520E-06  478272.3 3746350.8   446.9     4.00     3.95     1.86     YES
 L0009554         0   0.25520E-06  478264.5 3746354.2   447.0     4.00     3.95     1.86     YES
 L0009555         0   0.25520E-06  478256.7 3746357.5   447.0     4.00     3.95     1.86     YES
 L0009556         0   0.25520E-06  478248.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009557         0   0.25520E-06  478240.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009558         0   0.25520E-06  478231.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009559         0   0.25520E-06  478223.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009560         0   0.25520E-06  478214.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009561         0   0.25520E-06  478206.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009562         0   0.25520E-06  478197.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009563         0   0.25520E-06  478189.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009564         0   0.25520E-06  478180.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009565         0   0.25520E-06  478172.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009566         0   0.25520E-06  478163.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009567         0   0.25520E-06  478155.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009568         0   0.25520E-06  478146.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009569         0   0.25520E-06  478138.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009570         0   0.25520E-06  478129.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009571         0   0.25520E-06  478121.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009572         0   0.25520E-06  478112.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009573         0   0.25520E-06  478104.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009574         0   0.25520E-06  478095.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009575         0   0.25520E-06  478087.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009576         0   0.25520E-06  478078.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009577         0   0.25520E-06  478070.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009578         0   0.25520E-06  478061.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009579         0   0.25520E-06  478053.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009580         0   0.25520E-06  478044.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009581         0   0.25520E-06  478036.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009582         0   0.25520E-06  478027.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009583         0   0.25520E-06  478019.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009584         0   0.25520E-06  478010.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009585         0   0.25520E-06  478002.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009586         0   0.25520E-06  477993.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009587         0   0.25520E-06  477985.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009588         0   0.25520E-06  477976.6 3746359.6   447.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11
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                                    Residential

   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009589         0   0.25520E-06  477968.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009590         0   0.25520E-06  477959.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0009591         0   0.25520E-06  477951.1 3746359.6   447.1     4.00     3.95     1.86     YES
 L0009592         0   0.25520E-06  477942.6 3746359.6   447.1     4.00     3.95     1.86     YES
 L0009593         0   0.25520E-06  477934.1 3746359.6   447.3     4.00     3.95     1.86     YES
 L0009594         0   0.25520E-06  477925.6 3746359.6   447.5     4.00     3.95     1.86     YES
 L0009595         0   0.25520E-06  477917.1 3746359.6   447.8     4.00     3.95     1.86     YES
 L0009596         0   0.25520E-06  477908.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009597         0   0.25520E-06  477900.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009598         0   0.25520E-06  477891.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009599         0   0.25520E-06  477883.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009600         0   0.25520E-06  477874.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009601         0   0.25520E-06  477866.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009602         0   0.25520E-06  477857.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009603         0   0.25520E-06  477849.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009604         0   0.25520E-06  477840.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009605         0   0.25520E-06  477832.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009606         0   0.25520E-06  477823.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009607         0   0.25520E-06  477815.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009608         0   0.25520E-06  477806.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009609         0   0.25520E-06  477798.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009610         0   0.25520E-06  477789.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009611         0   0.25520E-06  477781.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009612         0   0.25520E-06  477772.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009613         0   0.25520E-06  477764.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009614         0   0.25520E-06  477755.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009615         0   0.25520E-06  477747.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009616         0   0.25520E-06  477738.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009617         0   0.25520E-06  477730.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0009618         0   0.25520E-06  477721.6 3746359.7   448.0     4.00     3.95     1.86     YES
 L0009619         0   0.25520E-06  477713.1 3746359.8   448.0     4.00     3.95     1.86     YES
 L0009620         0   0.25520E-06  477704.6 3746359.9   448.0     4.00     3.95     1.86     YES
 L0009621         0   0.25520E-06  477696.1 3746359.9   448.0     4.00     3.95     1.86     YES
 L0009622         0   0.25520E-06  477687.6 3746360.0   448.0     4.00     3.95     1.86     YES
 L0009623         0   0.25520E-06  477679.1 3746360.1   448.0     4.00     3.95     1.86     YES
 L0009624         0   0.25520E-06  477670.6 3746360.2   448.0     4.00     3.95     1.86     YES
 L0009625         0   0.25520E-06  477662.1 3746360.3   448.0     4.00     3.95     1.86     YES
 L0009626         0   0.25520E-06  477653.6 3746360.4   448.0     4.00     3.95     1.86     YES
 L0009627         0   0.25520E-06  477645.1 3746360.5   448.0     4.00     3.95     1.86     YES
 L0009628         0   0.25520E-06  477636.6 3746360.6   448.1     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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                                                   Residential
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 L0009629        0   0.25520E-06  477628.1 3746360.6    448.4      4.00     3.95     1.86     YES
 L0009630        0   0.25520E-06  477619.6 3746360.7    448.7      4.00     3.95     1.86     YES
 L0009631        0   0.25520E-06  477611.1 3746360.8    449.0      4.00     3.95     1.86     YES
 L0009632        0   0.25520E-06  477602.6 3746360.9    449.0      4.00     3.95     1.86     YES
 L0009633        0   0.25520E-06  477594.1 3746361.0    449.0      4.00     3.95     1.86     YES
 L0009634        0   0.25520E-06  477585.6 3746361.1    449.0      4.00     3.95     1.86     YES
 L0009635        0   0.25520E-06  477577.1 3746361.2    449.0      4.00     3.95     1.86     YES
 L0009636        0   0.25520E-06  477568.6 3746361.3    449.0      4.00     3.95     1.86     YES
 L0009637        0   0.25520E-06  477560.1 3746361.3    449.0      4.00     3.95     1.86     YES
 L0009638        0   0.25520E-06  477551.6 3746361.4    449.0      4.00     3.95     1.86     YES
 L0009639        0   0.25520E-06  477543.1 3746361.5    449.0      4.00     3.95     1.86     YES
 L0009640        0   0.25520E-06  477534.6 3746361.6    449.0      4.00     3.95     1.86     YES
 L0009641        0   0.25520E-06  477526.1 3746361.7    449.0      4.00     3.95     1.86     YES
 L0009642        0   0.25520E-06  477517.6 3746361.8    449.0      4.00     3.95     1.86     YES
 L0009643        0   0.25520E-06  477509.1 3746361.9    449.0      4.00     3.95     1.86     YES
 L0009644        0   0.25520E-06  477500.6 3746362.0    449.0      4.00     3.95     1.86     YES
 L0009645        0   0.25520E-06  477492.1 3746362.0    449.0      4.00     3.95     1.86     YES
 L0009646        0   0.25520E-06  477483.6 3746362.4    449.2      4.00     3.95     1.86     YES
 L0009647        0   0.25520E-06  477475.3 3746364.0    449.5      4.00     3.95     1.86     YES
 L0009648        0   0.25520E-06  477466.9 3746365.6    449.8      4.00     3.95     1.86     YES
 L0009649        0   0.25520E-06  477458.6 3746367.2    450.0      4.00     3.95     1.86     YES
 L0009650        0   0.25520E-06  477450.3 3746368.8    450.0      4.00     3.95     1.86     YES
 L0009651        0   0.25520E-06  477441.9 3746370.4    450.0      4.00     3.95     1.86     YES
 L0009652        0   0.25520E-06  477433.6 3746372.0    450.0      4.00     3.95     1.86     YES
 L0009653        0   0.25520E-06  477425.2 3746373.6    450.0      4.00     3.95     1.86     YES
 L0009654        0   0.25520E-06  477417.3 3746376.4    450.0      4.00     3.95     1.86     YES
 L0009655        0   0.25520E-06  477410.0 3746380.7    450.0      4.00     3.95     1.86     YES
 L0009656        0   0.25520E-06  477402.7 3746385.0    450.0      4.00     3.95     1.86     YES
 L0009657        0   0.25520E-06  477395.3 3746389.4    450.0      4.00     3.95     1.86     YES
 L0009658        0   0.25520E-06  477388.0 3746393.7    450.0      4.00     3.95     1.86     YES
 L0009659        0   0.25520E-06  477380.7 3746398.0    450.0      4.00     3.95     1.86     YES
 L0009660        0   0.25520E-06  477373.4 3746402.3    450.0      4.00     3.95     1.86     YES
 L0009661        0   0.25520E-06  477366.1 3746406.6    450.0      4.00     3.95     1.86     YES
 L0009662        0   0.25520E-06  477358.7 3746411.0    450.0      4.00     3.95     1.86     YES
 L0009663        0   0.25520E-06  477351.4 3746415.3    450.0      4.00     3.95     1.86     YES
 L0009664        0   0.25520E-06  477344.1 3746419.6    450.0      4.00     3.95     1.86     YES
 L0009665        0   0.25520E-06  477336.8 3746423.9    450.0      4.00     3.95     1.86     YES
 L0009666        0   0.25520E-06  477329.5 3746428.2    450.0      4.00     3.95     1.86     YES
 L0009667        0   0.25520E-06  477322.2 3746432.7    450.0      4.00     3.95     1.86     YES
 L0009668        0   0.25520E-06  477315.4 3746437.8    450.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS)  (METERS) (METERS)             BY
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 L0009669        0   0.25520E-06  477308.6 3746442.9    450.0      4.00     3.95     1.86     YES
 L0009670        0   0.25520E-06  477301.8 3746448.0    450.0      4.00     3.95     1.86     YES
 L0009671        0   0.25520E-06  477295.0 3746453.1    450.0      4.00     3.95     1.86     YES
 L0009672        0   0.25520E-06  477288.2 3746458.2    450.0      4.00     3.95     1.86     YES
 L0009673        0   0.25520E-06  477281.4 3746463.3    450.0      4.00     3.95     1.86     YES
 L0009674        0   0.25520E-06  477274.6 3746468.4    450.0      4.00     3.95     1.86     YES
 L0009675        0   0.25520E-06  477267.7 3746473.3    450.0      4.00     3.95     1.86     YES
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                                                   Residential
 L0009676         0   0.25520E-06  477260.7 3746478.2   450.0      4.00      3.95      1.86      YES
 L0009677         0   0.25520E-06  477253.8 3746483.1   450.0      4.00      3.95      1.86      YES
 L0009678         0   0.25520E-06  477246.8 3746487.9   450.1      4.00      3.95      1.86      YES
 L0009679         0   0.25520E-06  477239.8 3746492.8   450.2      4.00      3.95      1.86      YES
 L0009680         0   0.25520E-06  477232.9 3746497.7   450.2      4.00      3.95      1.86      YES
 L0009681         0   0.25520E-06  477225.9 3746502.6   450.1      4.00      3.95      1.86      YES
 L0009682         0   0.25520E-06  477218.5 3746506.8   450.0      4.00      3.95      1.86      YES
 L0009683         0   0.25520E-06  477211.1 3746510.8   450.3      4.00      3.95      1.86      YES
 L0009684         0   0.25520E-06  477203.6 3746514.8   450.5      4.00      3.95      1.86      YES
 L0009685         0   0.25520E-06  477196.1 3746518.8   450.8      4.00      3.95      1.86      YES
 L0009686         0   0.25520E-06  477188.6 3746522.9   451.0      4.00      3.95      1.86      YES
 L0009687         0   0.25520E-06  477181.1 3746526.9   451.0      4.00      3.95      1.86      YES
 L0009688         0   0.25520E-06  477173.6 3746530.9   451.0      4.00      3.95      1.86      YES
 L0009689         0   0.25520E-06  477166.1 3746535.0   451.0      4.00      3.95      1.86      YES
 L0009690         0   0.25520E-06  477158.5 3746538.5   451.0      4.00      3.95      1.86      YES
 L0009691         0   0.25520E-06  477150.1 3746539.7   451.0      4.00      3.95      1.86      YES
 L0009692         0   0.25520E-06  477141.7 3746541.0   451.0      4.00      3.95      1.86      YES
 L0009693         0   0.25520E-06  477133.3 3746542.2   451.0      4.00      3.95      1.86      YES
 L0009694         0   0.25520E-06  477124.9 3746543.5   451.0      4.00      3.95      1.86      YES
 L0009695         0   0.25520E-06  477116.5 3746544.7   451.0      4.00      3.95      1.86      YES
 L0009696         0   0.25520E-06  477108.0 3746546.0   451.0      4.00      3.95      1.86      YES
 L0009697         0   0.25520E-06  477099.6 3746547.2   451.0      4.00      3.95      1.86      YES
 L0009698         0   0.25520E-06  477091.2 3746548.2   451.0      4.00      3.95      1.86      YES
 L0009699         0   0.25520E-06  477082.7 3746548.3   451.0      4.00      3.95      1.86      YES
 L0009700         0   0.25520E-06  477074.2 3746548.4   451.0      4.00      3.95      1.86      YES
 L0009701         0   0.25520E-06  477065.7 3746548.6   451.1      4.00      3.95      1.86      YES
 L0009702         0   0.25520E-06  477057.2 3746548.7   451.2      4.00      3.95      1.86      YES
 L0009703         0   0.25520E-06  477048.7 3746548.8   451.4      4.00      3.95      1.86      YES
 L0009704         0   0.25520E-06  477040.2 3746548.9   451.6      4.00      3.95      1.86      YES
 L0009705         0   0.25520E-06  477031.7 3746549.0   451.7      4.00      3.95      1.86      YES
 L0009706         0   0.25520E-06  477023.2 3746549.1   451.8      4.00      3.95      1.86      YES
 L0009707         0   0.25520E-06  477014.7 3746549.2   451.9      4.00      3.95      1.86      YES
 L0009708         0   0.25520E-06  477006.2 3746549.3   452.0      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009709         0   0.25520E-06  476997.7 3746549.4   452.0      4.00      3.95      1.86      YES
 L0009710         0   0.25520E-06  476989.2 3746549.6   452.0      4.00      3.95      1.86      YES
 L0009711         0   0.25520E-06  476980.7 3746549.7   452.0      4.00      3.95      1.86      YES
 L0009712         0   0.25520E-06  476972.2 3746549.8   452.0      4.00      3.95      1.86      YES
 L0009713         0   0.25520E-06  476963.7 3746549.9   452.0      4.00      3.95      1.86      YES
 L0009714         0   0.25520E-06  476955.2 3746550.0   452.0      4.00      3.95      1.86      YES
 L0009715         0   0.25520E-06  476946.7 3746550.1   452.0      4.00      3.95      1.86      YES
 L0009716         0   0.25520E-06  476938.2 3746550.2   452.0      4.00      3.95      1.86      YES
 L0009717         0   0.25520E-06  476929.7 3746550.3   452.0      4.00      3.95      1.86      YES
 L0009718         0   0.25520E-06  476921.2 3746550.4   452.0      4.00      3.95      1.86      YES
 L0009719         0   0.25520E-06  476912.7 3746550.6   452.1      4.00      3.95      1.86      YES
 L0009720         0   0.25520E-06  476904.2 3746550.7   452.3      4.00      3.95      1.86      YES
 L0009721         0   0.25520E-06  476895.7 3746550.8   452.4      4.00      3.95      1.86      YES
 L0009722         0   0.25520E-06  476887.2 3746550.9   452.6      4.00      3.95      1.86      YES
 L0009723         0   0.25520E-06  476878.7 3746551.0   452.7      4.00      3.95      1.86      YES
 L0009724         0   0.25520E-06  476870.2 3746551.1   452.8      4.00      3.95      1.86      YES
 L0009725         0   0.25520E-06  476861.7 3746551.2   453.0      4.00      3.95      1.86      YES
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                                                   Residential
 L0009726         0   0.25520E-06  476853.2 3746551.3   453.0     4.00     3.95     1.86     YES
 L0009727         0   0.25520E-06  476844.7 3746551.4   453.0     4.00     3.95     1.86     YES
 L0009728         0   0.25520E-06  476836.2 3746551.5   453.0     4.00     3.95     1.86     YES
 L0009729         0   0.25520E-06  476827.7 3746551.7   453.0     4.00     3.95     1.86     YES
 L0009730         0   0.25520E-06  476819.2 3746551.8   453.0     4.00     3.95     1.86     YES
 L0009731         0   0.25520E-06  476810.7 3746551.9   453.0     4.00     3.95     1.86     YES
 L0009732         0   0.25520E-06  476802.2 3746552.0   453.0     4.00     3.95     1.86     YES
 L0009733         0   0.25520E-06  476793.7 3746552.1   462.1     4.00     3.95     1.86     YES
 L0009734         0   0.25520E-06  476785.2 3746552.2   462.2     4.00     3.95     1.86     YES
 L0009735         0   0.25520E-06  476776.7 3746552.2   462.3     4.00     3.95     1.86     YES
 L0009736         0   0.25520E-06  476768.2 3746551.9   462.4     4.00     3.95     1.86     YES
 L0009737         0   0.25520E-06  476759.7 3746551.7   462.5     4.00     3.95     1.86     YES
 L0009738         0   0.25520E-06  476751.2 3746551.5   462.6     4.00     3.95     1.86     YES
 L0009739         0   0.25520E-06  476742.8 3746551.3   462.7     4.00     3.95     1.86     YES
 L0009740         0   0.25520E-06  476734.3 3746551.1   462.8     4.00     3.95     1.86     YES
 L0009741         0   0.25520E-06  476725.8 3746550.8   462.9     4.00     3.95     1.86     YES
 L0009742         0   0.25520E-06  476717.3 3746550.6   463.1     4.00     3.95     1.86     YES
 L0009743         0   0.25520E-06  476708.8 3746550.4   463.2     4.00     3.95     1.86     YES
 L0009744         0   0.25520E-06  476700.3 3746550.2   463.3     4.00     3.95     1.86     YES
 L0009745         0   0.25520E-06  476691.8 3746550.0   463.4     4.00     3.95     1.86     YES
 L0009746         0   0.25520E-06  476683.3 3746549.7   463.5     4.00     3.95     1.86     YES
 L0009747         0   0.25520E-06  476674.8 3746549.5   463.6     4.00     3.95     1.86     YES
 L0009748         0   0.25520E-06  476666.3 3746549.3   463.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)    X         Y      ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009749         0   0.25520E-06  476657.8 3746549.1   463.8     4.00     3.95     1.86     YES
 L0009750         0   0.25520E-06  476649.5 3746550.2   463.9     4.00     3.95     1.86     YES
 L0009751         0   0.25520E-06  476641.4 3746552.9   464.0     4.00     3.95     1.86     YES
 L0009752         0   0.25520E-06  476633.4 3746555.6   464.0     4.00     3.95     1.86     YES
 L0009753         0   0.25520E-06  476625.3 3746558.3   464.0     4.00     3.95     1.86     YES
 L0009754         0   0.25520E-06  476617.2 3746561.0   464.0     4.00     3.95     1.86     YES
 L0009755         0   0.25520E-06  476609.2 3746563.6   464.0     4.00     3.95     1.86     YES
 L0009756         0   0.25520E-06  476601.4 3746566.9   464.0     4.00     3.95     1.86     YES
 L0009757         0   0.25520E-06  476594.1 3746571.4   464.0     4.00     3.95     1.86     YES
 L0009758         0   0.25520E-06  476586.9 3746575.9   464.0     4.00     3.95     1.86     YES
 L0009759         0   0.25520E-06  476579.7 3746580.4   464.0     4.00     3.95     1.86     YES
 L0009760         0   0.25520E-06  476572.5 3746584.8   464.0     4.00     3.95     1.86     YES
 L0009761         0   0.25520E-06  476565.3 3746589.3   464.0     4.00     3.95     1.86     YES
 L0009762         0   0.25520E-06  476558.0 3746593.8   464.1     4.00     3.95     1.86     YES
 L0009763         0   0.25520E-06  476550.8 3746598.3   464.2     4.00     3.95     1.86     YES
 L0009764         0   0.25520E-06  476543.6 3746602.8   464.3     4.00     3.95     1.86     YES
 L0009765         0   0.25520E-06  476537.9 3746608.7   464.4     4.00     3.95     1.86     YES
 L0009766         0   0.25520E-06  476534.0 3746616.2   464.4     4.00     3.95     1.86     YES
 L0009767         0   0.25520E-06  476530.0 3746623.8   464.5     4.00     3.95     1.86     YES
 L0009768         0   0.25520E-06  476526.1 3746631.3   464.5     4.00     3.95     1.86     YES
 L0009769         0   0.25520E-06  476522.2 3746638.8   464.6     4.00     3.95     1.86     YES
 L0009770         0   0.25520E-06  476518.2 3746646.4   464.6     4.00     3.95     1.86     YES
 L0009771         0   0.25520E-06  476514.3 3746653.9   464.7     4.00     3.95     1.86     YES
 L0009772         0   0.25520E-06  476510.3 3746661.4   464.7     4.00     3.95     1.86     YES
 L0009773         0   0.25520E-06  476506.4 3746668.9   464.8     4.00     3.95     1.86     YES
 L0009774         0   0.25520E-06  476502.4 3746676.5   464.8     4.00     3.95     1.86     YES
 L0009775         0   0.25520E-06  476498.5 3746684.0   464.9     4.00     3.95     1.86     YES
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                                                                Residential
 L0009776         0   0.25520E-06  476494.5 3746691.5   464.9     4.00     3.95     1.86     YES
 L0009777         0   0.25520E-06  476490.6 3746699.1   465.0     4.00     3.95     1.86     YES
 L0009778         0   0.25520E-06  476486.6 3746706.6   465.1     4.00     3.95     1.86     YES
 L0009779         0   0.25520E-06  476482.7 3746714.1   465.2     4.00     3.95     1.86     YES
 L0009780         0   0.25520E-06  476478.7 3746721.6   465.3     4.00     3.95     1.86     YES
 L0009781         0   0.25520E-06  476474.8 3746729.2   465.4     4.00     3.95     1.86     YES
 L0009782         0   0.25520E-06  476470.9 3746736.7   465.5     4.00     3.95     1.86     YES
 L0009783         0   0.25520E-06  476467.8 3746744.5   465.6     4.00     3.95     1.86     YES
 L0009784         0   0.25520E-06  476466.4 3746752.9   465.6     4.00     3.95     1.86     YES
 L0009785         0   0.25520E-06  476465.0 3746761.3   465.7     4.00     3.95     1.86     YES
 L0009786         0   0.25520E-06  476463.6 3746769.7   465.7     4.00     3.95     1.86     YES
 L0009787         0   0.25520E-06  476462.2 3746778.1   465.7     4.00     3.95     1.86     YES
 L0009788         0   0.25520E-06  476460.8 3746786.4   465.8     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   12:58:11

   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                             *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009789         0   0.25520E-06  476459.4 3746794.8   465.8     4.00     3.95     1.86     YES
 L0009790         0   0.25520E-06  476457.3 3746803.0   465.9     4.00     3.95     1.86     YES
 L0009791         0   0.25520E-06  476453.4 3746810.5   465.9     4.00     3.95     1.86     YES
 L0009792         0   0.25520E-06  476449.4 3746818.0   466.1     4.00     3.95     1.86     YES
 L0009793         0   0.25520E-06  476445.4 3746825.5   466.2     4.00     3.95     1.86     YES
 L0009794         0   0.25520E-06  476441.4 3746833.0   466.3     4.00     3.95     1.86     YES
 L0009795         0   0.25520E-06  476437.5 3746840.5   466.4     4.00     3.95     1.86     YES
 L0009796         0   0.25520E-06  476433.5 3746848.1   466.5     4.00     3.95     1.86     YES
 L0009797         0   0.25520E-06  476429.5 3746855.6   466.6     4.00     3.95     1.86     YES
 L0009798         0   0.25520E-06  476425.5 3746863.1   466.7     4.00     3.95     1.86     YES
 L0009799         0   0.25520E-06  476421.6 3746870.6   466.8     4.00     3.95     1.86     YES
 L0009800         0   0.25520E-06  476417.6 3746878.1   466.9     4.00     3.95     1.86     YES
 L0009801         0   0.25520E-06  476413.6 3746885.6   467.0     4.00     3.95     1.86     YES
 L0009802         0   0.25520E-06  476409.6 3746893.1   467.1     4.00     3.95     1.86     YES
 L0009803         0   0.25520E-06  476403.2 3746898.5   467.1     4.00     3.95     1.86     YES
 L0009804         0   0.25520E-06  476396.2 3746903.3   467.2     4.00     3.95     1.86     YES
 L0009805         0   0.25520E-06  476389.2 3746908.1   467.3     4.00     3.95     1.86     YES
 L0009806         0   0.25520E-06  476382.2 3746912.9   467.4     4.00     3.95     1.86     YES
 L0009807         0   0.25520E-06  476375.2 3746917.8   467.5     4.00     3.95     1.86     YES
 L0009808         0   0.25520E-06  476368.2 3746922.6   467.6     4.00     3.95     1.86     YES
 L0009809         0   0.25520E-06  476361.2 3746927.4   467.7     4.00     3.95     1.86     YES
 L0009810         0   0.25520E-06  476354.2 3746932.2   467.8     4.00     3.95     1.86     YES
 L0009811         0   0.25520E-06  476347.2 3746937.0   467.9     4.00     3.95     1.86     YES
 L0009812         0   0.25520E-06  476340.2 3746941.8   467.9     4.00     3.95     1.86     YES
 L0009813         0   0.25520E-06  476332.1 3746943.7   468.1     4.00     3.95     1.86     YES
 L0009814         0   0.25520E-06  476323.7 3746944.5   468.2     4.00     3.95     1.86     YES
 L0009815         0   0.25520E-06  476315.2 3746945.4   468.3     4.00     3.95     1.86     YES
 L0009816         0   0.25520E-06  476306.7 3746946.2   468.4     4.00     3.95     1.86     YES
 L0009817         0   0.25520E-06  476298.3 3746947.0   468.5     4.00     3.95     1.86     YES
 L0009818         0   0.25520E-06  476289.8 3746947.9   468.6     4.00     3.95     1.86     YES
 L0009819         0   0.25520E-06  476281.4 3746948.7   468.7     4.00     3.95     1.86     YES
 L0009820         0   0.25520E-06  476272.9 3746949.5   468.8     4.00     3.95     1.86     YES
 L0009821         0   0.25520E-06  476264.4 3746950.4   468.9     4.00     3.95     1.86     YES
 L0009822         0   0.25520E-06  476256.0 3746950.8   469.0     4.00     3.95     1.86     YES
 L0009823         0   0.25520E-06  476247.5 3746950.7   469.2     4.00     3.95     1.86     YES
 L0009824         0   0.25520E-06  476239.0 3746950.7   469.3     4.00     3.95     1.86     YES
 L0009825         0   0.25520E-06  476230.5 3746950.6   469.4     4.00     3.95     1.86     YES
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                                                            Residential
 L0009826         0   0.25520E-06  476222.0 3746950.5   469.5     4.00     3.95     1.86     YES
 L0009827         0   0.25520E-06  476213.5 3746950.5   469.6     4.00     3.95     1.86     YES
 L0009828         0   0.25520E-06  476205.0 3746950.4   469.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0009829         0   0.25520E-06  476196.5 3746950.4   469.8     4.00     3.95     1.86     YES
 L0009830         0   0.25520E-06  476188.0 3746950.3   469.9     4.00     3.95     1.86     YES
 L0009831         0   0.25520E-06  476179.5 3746950.3   470.0     4.00     3.95     1.86     YES
 L0009832         0   0.25520E-06  476171.0 3746950.2   470.2     4.00     3.95     1.86     YES
 L0009833         0   0.25520E-06  476162.5 3746950.1   470.3     4.00     3.95     1.86     YES
 L0009834         0   0.25520E-06  476154.0 3746950.1   470.4     4.00     3.95     1.86     YES
 L0009835         0   0.25520E-06  476145.5 3746950.0   470.5     4.00     3.95     1.86     YES
 L0009836         0   0.25520E-06  476137.0 3746950.0   470.6     4.00     3.95     1.86     YES
 L0009837         0   0.25520E-06  476128.5 3746949.9   470.7     4.00     3.95     1.86     YES
 L0009838         0   0.25520E-06  476120.0 3746949.9   470.8     4.00     3.95     1.86     YES
 L0009839         0   0.25520E-06  476111.5 3746949.8   470.9     4.00     3.95     1.86     YES
 L0009840         0   0.25520E-06  476103.0 3746949.8   471.0     4.00     3.95     1.86     YES
 L0009841         0   0.25520E-06  476094.5 3746949.7   471.1     4.00     3.95     1.86     YES
 L0009842         0   0.25520E-06  476086.0 3746949.6   471.2     4.00     3.95     1.86     YES
 L0009843         0   0.25520E-06  476077.5 3746949.6   471.4     4.00     3.95     1.86     YES
 L0009844         0   0.25520E-06  476069.0 3746949.5   471.5     4.00     3.95     1.86     YES
 L0009845         0   0.25520E-06  476060.5 3746949.5   471.6     4.00     3.95     1.86     YES
 L0009846         0   0.25520E-06  476052.0 3746949.4   471.7     4.00     3.95     1.86     YES
 L0009847         0   0.25520E-06  476043.5 3746949.4   471.8     4.00     3.95     1.86     YES
 L0009848         0   0.25520E-06  476035.0 3746949.3   471.9     4.00     3.95     1.86     YES
 L0009849         0   0.25520E-06  476026.5 3746949.2   472.0     4.00     3.95     1.86     YES
 L0009850         0   0.25520E-06  476018.0 3746949.2   472.1     4.00     3.95     1.86     YES
 L0009851         0   0.25520E-06  476009.5 3746949.1   472.2     4.00     3.95     1.86     YES
 L0009852         0   0.25520E-06  476001.0 3746949.1   472.4     4.00     3.95     1.86     YES
 L0009853         0   0.25520E-06  475992.5 3746949.0   472.5     4.00     3.95     1.86     YES
 L0009854         0   0.25520E-06  475984.0 3746949.0   472.6     4.00     3.95     1.86     YES
 L0009855         0   0.25520E-06  475975.5 3746948.9   472.7     4.00     3.95     1.86     YES
 L0009856         0   0.25520E-06  475967.0 3746948.8   472.8     4.00     3.95     1.86     YES
 L0009857         0   0.25520E-06  475958.5 3746948.8   472.9     4.00     3.95     1.86     YES
 L0009858         0   0.25520E-06  475950.0 3746948.7   473.0     4.00     3.95     1.86     YES
 L0009859         0   0.25520E-06  475941.5 3746948.7   472.6     4.00     3.95     1.86     YES
 L0009860         0   0.25520E-06  475933.0 3746948.6   472.3     4.00     3.95     1.86     YES
 L0009861         0   0.51090E-06  477480.6 3749800.2   458.0     4.00     3.95     1.86     YES
 L0009862         0   0.51090E-06  477480.4 3749808.7   458.0     4.00     3.95     1.86     YES
 L0009863         0   0.51090E-06  477480.3 3749817.2   458.0     4.00     3.95     1.86     YES
 L0009864         0   0.51090E-06  477480.1 3749825.7   458.0     4.00     3.95     1.86     YES
 L0009865         0   0.51090E-06  477480.0 3749834.2   458.0     4.00     3.95     1.86     YES
 L0009866         0   0.51090E-06  477479.9 3749842.7   458.0     4.00     3.95     1.86     YES
 L0009867         0   0.51090E-06  477479.7 3749851.2   458.0     4.00     3.95     1.86     YES
 L0009868         0   0.51090E-06  477479.6 3749859.7   458.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE        PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)                BY
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 L0009869         0   0.51090E-06  477479.5 3749868.2   458.0      4.00     3.95     1.86     YES
 L0009870         0   0.51090E-06  477479.3 3749876.7   458.0      4.00     3.95     1.86     YES
 L0009871         0   0.51090E-06  477479.2 3749885.2   458.0      4.00     3.95     1.86     YES
 L0009872         0   0.51090E-06  477479.1 3749893.7   458.0      4.00     3.95     1.86     YES
 L0009873         0   0.51090E-06  477478.9 3749902.2   458.0      4.00     3.95     1.86     YES
 L0009874         0   0.51090E-06  477478.8 3749910.7   458.0      4.00     3.95     1.86     YES
 L0009875         0   0.51090E-06  477478.7 3749919.2   458.0      4.00     3.95     1.86     YES
 L0009876         0   0.51090E-06  477478.5 3749927.7   458.0      4.00     3.95     1.86     YES
 L0009877         0   0.51090E-06  477478.4 3749936.2   458.0      4.00     3.95     1.86     YES
 L0009878         0   0.51090E-06  477478.2 3749944.7   458.0      4.00     3.95     1.86     YES
 L0009879         0   0.51090E-06  477478.1 3749953.2   458.0      4.00     3.95     1.86     YES
 L0009880         0   0.51090E-06  477478.0 3749961.7   458.2      4.00     3.95     1.86     YES
 L0009881         0   0.51090E-06  477477.8 3749970.2   458.4      4.00     3.95     1.86     YES
 L0009882         0   0.51090E-06  477477.7 3749978.7   458.7      4.00     3.95     1.86     YES
 L0009883         0   0.51090E-06  477477.6 3749987.2   459.0      4.00     3.95     1.86     YES
 L0009884         0   0.51090E-06  477477.4 3749995.7   459.0      4.00     3.95     1.86     YES
 L0009885         0   0.51090E-06  477477.3 3750004.2   459.0      4.00     3.95     1.86     YES
 L0009886         0   0.51090E-06  477477.2 3750012.7   459.0      4.00     3.95     1.86     YES
 L0009887         0   0.51090E-06  477477.0 3750021.2   459.0      4.00     3.95     1.86     YES
 L0009888         0   0.51090E-06  477476.9 3750029.7   459.0      4.00     3.95     1.86     YES
 L0009889         0   0.51090E-06  477476.8 3750038.2   459.0      4.00     3.95     1.86     YES
 L0009890         0   0.51090E-06  477476.6 3750046.7   459.0      4.00     3.95     1.86     YES
 L0009891         0   0.51090E-06  477476.5 3750055.2   459.0      4.00     3.95     1.86     YES
 L0009892         0   0.51090E-06  477476.3 3750063.7   459.0      4.00     3.95     1.86     YES
 L0009893         0   0.51090E-06  477476.2 3750072.2   459.0      4.00     3.95     1.86     YES
 L0009894         0   0.51090E-06  477476.1 3750080.7   459.0      4.00     3.95     1.86     YES
 L0009895         0   0.51090E-06  477475.9 3750089.2   459.0      4.00     3.95     1.86     YES
 L0009896         0   0.51090E-06  477475.8 3750097.7   459.0      4.00     3.95     1.86     YES
 L0009897         0   0.51090E-06  477475.7 3750106.2   459.0      4.00     3.95     1.86     YES
 L0009898         0   0.51090E-06  477475.5 3750114.7   459.0      4.00     3.95     1.86     YES
 L0009899         0   0.51090E-06  477475.4 3750123.2   459.0      4.00     3.95     1.86     YES
 L0009900         0   0.51090E-06  477475.3 3750131.7   459.0      4.00     3.95     1.86     YES
 L0009901         0   0.51090E-06  477475.1 3750140.2   459.0      4.00     3.95     1.86     YES
 L0009902         0   0.51090E-06  477475.0 3750148.7   459.0      4.00     3.95     1.86     YES
 L0009903         0   0.51090E-06  477474.8 3750157.2   459.0      4.00     3.95     1.86     YES
 L0009904         0   0.51090E-06  477474.7 3750165.7   459.0      4.00     3.95     1.86     YES
 L0009905         0   0.51090E-06  477474.2 3750174.2   459.0      4.00     3.95     1.86     YES
 L0009906         0   0.51090E-06  477473.5 3750182.6   459.0      4.00     3.95     1.86     YES
 L0009907         0   0.51090E-06  477472.8 3750191.1   459.0      4.00     3.95     1.86     YES
 L0009908         0   0.51090E-06  477472.1 3750199.6   459.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
   12:58:11

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE        PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)                BY
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                                                   Residential
 L0009909         0  0.51090E-06  477471.4 3750208.0   459.2     4.00     3.95     1.86     YES
 L0009910         0  0.51090E-06  477470.7 3750216.5   459.2     4.00     3.95     1.86     YES
 L0009911         0  0.51090E-06  477470.0 3750225.0   459.3     4.00     3.95     1.86     YES
 L0009912         0  0.51090E-06  477469.3 3750233.5   459.5     4.00     3.95     1.86     YES
 L0009913         0  0.51090E-06  477468.7 3750241.9   459.7     4.00     3.95     1.86     YES
 L0009914         0  0.51090E-06  477468.0 3750250.4   459.9     4.00     3.95     1.86     YES
 L0009915         0  0.51090E-06  477467.3 3750258.9   460.0     4.00     3.95     1.86     YES
 L0009916         0  0.51090E-06  477466.6 3750267.3   460.0     4.00     3.95     1.86     YES
 L0009917         0  0.51090E-06  477466.5 3750275.8   460.0     4.00     3.95     1.86     YES
 L0009918         0  0.51090E-06  477466.5 3750284.3   460.0     4.00     3.95     1.86     YES
 L0009919         0  0.51090E-06  477466.5 3750292.8   460.0     4.00     3.95     1.86     YES
 L0009920         0  0.51090E-06  477466.6 3750301.3   460.0     4.00     3.95     1.86     YES
 L0009921         0  0.51090E-06  477466.6 3750309.8   460.0     4.00     3.95     1.86     YES
 L0009922         0  0.51090E-06  477466.6 3750318.3   460.0     4.00     3.95     1.86     YES
 L0009923         0  0.51090E-06  477466.7 3750326.8   460.0     4.00     3.95     1.86     YES
 L0009924         0  0.51090E-06  477466.7 3750335.3   460.0     4.00     3.95     1.86     YES
 L0009925         0  0.51090E-06  477466.7 3750343.8   460.0     4.00     3.95     1.86     YES
 L0009926         0  0.51090E-06  477466.8 3750352.3   460.0     4.00     3.95     1.86     YES
 L0009927         0  0.51090E-06  477466.8 3750360.8   460.0     4.00     3.95     1.86     YES
 L0009928         0  0.51090E-06  477466.9 3750369.3   460.0     4.00     3.95     1.86     YES
 L0009929         0  0.51090E-06  477466.9 3750377.8   460.0     4.00     3.95     1.86     YES
 L0009930         0  0.51090E-06  477466.9 3750386.3   460.0     4.00     3.95     1.86     YES
 L0009931         0  0.51090E-06  477467.0 3750394.8   460.0     4.00     3.95     1.86     YES
 L0009932         0  0.51090E-06  477467.0 3750403.3   460.0     4.00     3.95     1.86     YES
 L0009933         0  0.51090E-06  477467.0 3750411.8   460.0     4.00     3.95     1.86     YES
 L0009934         0  0.51090E-06  477467.1 3750420.3   460.0     4.00     3.95     1.86     YES
 L0009935         0  0.51090E-06  477467.1 3750428.8   460.0     4.00     3.95     1.86     YES
 L0009936         0  0.51090E-06  477467.1 3750437.3   460.0     4.00     3.95     1.86     YES
 L0009937         0  0.51090E-06  477467.2 3750445.8   460.0     4.00     3.95     1.86     YES
 L0009938         0  0.51090E-06  477467.2 3750454.3   460.0     4.00     3.95     1.86     YES
 L0009939         0  0.51090E-06  477467.3 3750462.8   460.0     4.00     3.95     1.86     YES
 L0009940         0  0.51090E-06  477467.3 3750471.3   460.2     4.00     3.95     1.86     YES
 L0009941         0  0.51090E-06  477467.3 3750479.8   460.4     4.00     3.95     1.86     YES
 L0009942         0  0.51090E-06  477467.4 3750488.3   460.7     4.00     3.95     1.86     YES
 L0009943         0  0.51090E-06  477467.4 3750496.8   461.0     4.00     3.95     1.86     YES
 L0009944         0  0.51090E-06  477467.4 3750505.3   461.0     4.00     3.95     1.86     YES
 L0009945         0  0.51090E-06  477467.5 3750513.8   461.0     4.00     3.95     1.86     YES
 L0009946         0  0.51090E-06  477467.5 3750522.3   461.0     4.00     3.95     1.86     YES
 L0009947         0  0.51090E-06  477467.5 3750530.8   461.0     4.00     3.95     1.86     YES
 L0009948         0  0.51090E-06  477467.6 3750539.3   461.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
  12:58:11

  PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                         BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)          BY
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 L0009949         0  0.51090E-06  477467.7 3750547.8   461.0     4.00     3.95     1.86     YES
 L0009950         0  0.51090E-06  477467.9 3750556.3   461.0     4.00     3.95     1.86     YES
 L0009951         0  0.51090E-06  477468.2 3750564.8   461.0     4.00     3.95     1.86     YES
 L0009952         0  0.51090E-06  477468.4 3750573.3   461.0     4.00     3.95     1.86     YES
 L0009953         0  0.51090E-06  477468.7 3750581.8   461.0     4.00     3.95     1.86     YES
 L0009954         0  0.51090E-06  477468.9 3750590.3   461.0     4.00     3.95     1.86     YES
 L0009955         0  0.51090E-06  477469.2 3750598.8   461.0     4.00     3.95     1.86     YES
 L0009956         0  0.51090E-06  477469.4 3750607.3   461.0     4.00     3.95     1.86     YES
 L0009957         0  0.51090E-06  477469.7 3750615.8   461.0     4.00     3.95     1.86     YES
 L0009958         0  0.51090E-06  477469.9 3750624.3   461.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0009959         0   0.51090E-06  477470.2 3750632.8   461.0     4.00     3.95     1.86     YES
 L0009960         0   0.51090E-06  477470.4 3750641.3   461.0     4.00     3.95     1.86     YES
 L0009961         0   0.51090E-06  477470.7 3750649.8   461.0     4.00     3.95     1.86     YES
 L0009962         0   0.51090E-06  477470.9 3750658.3   461.2     4.00     3.95     1.86     YES
 L0009963         0   0.51090E-06  477471.2 3750666.8   461.3     4.00     3.95     1.86     YES
 L0009964         0   0.51090E-06  477471.4 3750675.3   461.4     4.00     3.95     1.86     YES
 L0009965         0   0.51090E-06  477471.7 3750683.8   461.5     4.00     3.95     1.86     YES
 L0009966         0   0.51090E-06  477471.9 3750692.3   461.7     4.00     3.95     1.86     YES
 L0009967         0   0.51090E-06  477472.2 3750700.8   461.9     4.00     3.95     1.86     YES
 L0009968         0   0.51090E-06  477472.4 3750709.3   462.0     4.00     3.95     1.86     YES
 L0009969         0   0.51090E-06  477472.7 3750717.8   462.0     4.00     3.95     1.86     YES
 L0009970         0   0.51090E-06  477472.9 3750726.3   462.0     4.00     3.95     1.86     YES
 L0009971         0   0.51090E-06  477473.2 3750734.8   462.0     4.00     3.95     1.86     YES
 L0009972         0   0.51090E-06  477473.4 3750743.3   462.0     4.00     3.95     1.86     YES
 L0009973         0   0.51090E-06  477473.7 3750751.7   462.0     4.00     3.95     1.86     YES
 L0009974         0   0.51090E-06  477473.9 3750760.2   462.0     4.00     3.95     1.86     YES
 L0009975         0   0.51090E-06  477474.2 3750768.7   462.0     4.00     3.95     1.86     YES
 L0009976         0   0.51090E-06  477474.4 3750777.2   462.0     4.00     3.95     1.86     YES
 L0009977         0   0.51090E-06  477474.7 3750785.7   462.0     4.00     3.95     1.86     YES
 L0009978         0   0.51090E-06  477474.9 3750794.2   462.0     4.00     3.95     1.86     YES
 L0009979         0   0.51090E-06  477475.2 3750802.7   462.0     4.00     3.95     1.86     YES
 L0009980         0   0.51090E-06  477475.4 3750811.2   462.0     4.00     3.95     1.86     YES
 L0009981         0   0.51090E-06  477475.7 3750819.7   462.0     4.00     3.95     1.86     YES
 L0009982         0   0.51090E-06  477475.9 3750828.2   462.0     4.00     3.95     1.86     YES
 L0009983         0   0.51090E-06  477476.2 3750836.7   462.0     4.00     3.95     1.86     YES
 L0009984         0   0.51090E-06  477476.4 3750845.2   462.0     4.00     3.95     1.86     YES
 L0009985         0   0.51090E-06  477476.7 3750853.7   462.0     4.00     3.95     1.86     YES
 L0009986         0   0.51090E-06  477476.9 3750862.2   462.1     4.00     3.95     1.86     YES
 L0009987         0   0.51090E-06  477477.1 3750870.7   462.3     4.00     3.95     1.86     YES
 L0009988         0   0.51090E-06  477477.1 3750879.2   462.4     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0009989         0   0.51090E-06  477477.2 3750887.7   462.6     4.00     3.95     1.86     YES
 L0009990         0   0.51090E-06  477477.2 3750896.2   462.7     4.00     3.95     1.86     YES
 L0009991         0   0.51090E-06  477477.3 3750904.7   462.8     4.00     3.95     1.86     YES
 L0009992         0   0.51090E-06  477477.3 3750913.2   462.9     4.00     3.95     1.86     YES
 L0009993         0   0.51090E-06  477477.4 3750921.7   463.0     4.00     3.95     1.86     YES
 L0009994         0   0.51090E-06  477477.4 3750930.2   463.0     4.00     3.95     1.86     YES
 L0009995         0   0.51090E-06  477477.5 3750938.7   463.0     4.00     3.95     1.86     YES
 L0009996         0   0.51090E-06  477477.6 3750947.2   463.0     4.00     3.95     1.86     YES
 L0009997         0   0.51090E-06  477477.6 3750955.7   463.0     4.00     3.95     1.86     YES
 L0009998         0   0.51090E-06  477477.7 3750964.2   463.0     4.00     3.95     1.86     YES
 L0009999         0   0.51090E-06  477477.7 3750972.7   463.0     4.00     3.95     1.86     YES
 L0010000         0   0.51090E-06  477477.8 3750981.2   463.0     4.00     3.95     1.86     YES
 L0010001         0   0.51090E-06  477477.8 3750989.7   463.0     4.00     3.95     1.86     YES
 L0010002         0   0.51090E-06  477477.9 3750998.2   463.0     4.00     3.95     1.86     YES
 L0010003         0   0.51090E-06  477477.9 3751006.7   463.0     4.00     3.95     1.86     YES
 L0010004         0   0.51090E-06  477478.0 3751015.2   463.0     4.00     3.95     1.86     YES
 L0010005         0   0.51090E-06  477478.0 3751023.7   463.0     4.00     3.95     1.86     YES
 L0010006         0   0.51090E-06  477478.1 3751032.2   463.0     4.00     3.95     1.86     YES
 L0010007         0   0.51090E-06  477478.1 3751040.7   463.0     4.00     3.95     1.86     YES
 L0010008         0   0.51090E-06  477478.2 3751049.2   463.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0010009         0   0.51090E-06  477478.3 3751057.7   463.0     4.00     3.95     1.86     YES
 L0010010         0   0.51090E-06  477478.3 3751066.2   463.0     4.00     3.95     1.86     YES
 L0010011         0   0.51090E-06  477478.4 3751074.7   463.2     4.00     3.95     1.86     YES
 L0010012         0   0.51090E-06  477478.4 3751083.2   463.3     4.00     3.95     1.86     YES
 L0010013         0   0.51090E-06  477478.5 3751091.7   463.5     4.00     3.95     1.86     YES
 L0010014         0   0.51090E-06  477478.5 3751100.2   463.7     4.00     3.95     1.86     YES
 L0010015         0   0.51090E-06  477478.6 3751108.7   463.8     4.00     3.95     1.86     YES
 L0010016         0   0.51090E-06  477478.6 3751117.2   463.9     4.00     3.95     1.86     YES
 L0010017         0   0.51090E-06  477478.7 3751125.7   464.0     4.00     3.95     1.86     YES
 L0010018         0   0.51090E-06  477478.7 3751134.2   464.0     4.00     3.95     1.86     YES
 L0010019         0   0.51090E-06  477478.8 3751142.7   464.0     4.00     3.95     1.86     YES
 L0010020         0   0.51090E-06  477478.9 3751151.2   464.0     4.00     3.95     1.86     YES
 L0010021         0   0.51090E-06  477478.9 3751159.7   464.0     4.00     3.95     1.86     YES
 L0010022         0   0.51090E-06  477479.0 3751168.2   464.0     4.00     3.95     1.86     YES
 L0010023         0   0.51090E-06  477479.0 3751176.7   464.0     4.00     3.95     1.86     YES
 L0010024         0   0.51090E-06  477479.1 3751185.2   464.0     4.00     3.95     1.86     YES
 L0010025         0   0.51090E-06  477479.1 3751193.7   464.0     4.00     3.95     1.86     YES
 L0010026         0   0.51090E-06  477479.2 3751202.2   464.0     4.00     3.95     1.86     YES
 L0010027         0   0.51090E-06  477479.2 3751210.7   464.0     4.00     3.95     1.86     YES
 L0010028         0   0.51090E-06  477479.3 3751219.2   464.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010029         0   0.51090E-06  477479.3 3751227.7   464.0     4.00     3.95     1.86     YES
 L0010030         0   0.51090E-06  477479.4 3751236.2   464.0     4.00     3.95     1.86     YES
 L0010031         0   0.51090E-06  477479.3 3751244.7   464.0     4.00     3.95     1.86     YES
 L0010032         0   0.51090E-06  477479.3 3751253.2   464.2     4.00     3.95     1.86     YES
 L0010033         0   0.51090E-06  477479.2 3751261.7   464.5     4.00     3.95     1.86     YES
 L0010034         0   0.51090E-06  477479.2 3751270.2   464.8     4.00     3.95     1.86     YES
 L0010035         0   0.51090E-06  477479.1 3751278.7   465.0     4.00     3.95     1.86     YES
 L0010036         0   0.51090E-06  477479.0 3751287.2   465.0     4.00     3.95     1.86     YES
 L0010037         0   0.51090E-06  477479.0 3751295.7   465.0     4.00     3.95     1.86     YES
 L0010038         0   0.51090E-06  477478.9 3751304.2   465.0     4.00     3.95     1.86     YES
 L0010039         0   0.51090E-06  477478.9 3751312.7   465.0     4.00     3.95     1.86     YES
 L0010040         0   0.51090E-06  477478.8 3751321.2   465.0     4.00     3.95     1.86     YES
 L0010041         0   0.51090E-06  477478.7 3751329.7   465.0     4.00     3.95     1.86     YES
 L0010042         0   0.51090E-06  477478.7 3751338.2   465.0     4.00     3.95     1.86     YES
 L0010043         0   0.51090E-06  477478.6 3751346.7   465.0     4.00     3.95     1.86     YES
 L0010044         0   0.51090E-06  477478.6 3751355.2   465.0     4.00     3.95     1.86     YES
 L0010045         0   0.51090E-06  477478.5 3751363.7   465.0     4.00     3.95     1.86     YES
 L0010046         0   0.51090E-06  477478.5 3751372.2   465.0     4.00     3.95     1.86     YES
 L0010047         0   0.51090E-06  477478.4 3751380.7   465.0     4.00     3.95     1.86     YES
 L0010048         0   0.51090E-06  477478.3 3751389.2   465.0     4.00     3.95     1.86     YES
 L0010049         0   0.51090E-06  477478.3 3751397.7   465.0     4.00     3.95     1.86     YES
 L0010050         0   0.51090E-06  477478.2 3751406.2   465.0     4.00     3.95     1.86     YES
 L0010051         0   0.51090E-06  477478.2 3751414.7   465.0     4.00     3.95     1.86     YES
 L0010052         0   0.51090E-06  477478.1 3751423.2   465.0     4.00     3.95     1.86     YES
 L0010053         0   0.51090E-06  477478.0 3751431.7   465.2     4.00     3.95     1.86     YES
 L0010054         0   0.51090E-06  477478.0 3751440.2   465.4     4.00     3.95     1.86     YES
 L0010055         0   0.51090E-06  477477.9 3751448.7   465.7     4.00     3.95     1.86     YES
 L0010056         0   0.51090E-06  477477.9 3751457.2   466.0     4.00     3.95     1.86     YES
 L0010057         0   0.51090E-06  477477.8 3751465.7   466.0     4.00     3.95     1.86     YES
 L0010058         0   0.51090E-06  477477.8 3751474.2   466.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0010059         0   0.51090E-06  477477.7 3751482.7   466.0     4.00     3.95     1.86     YES
 L0010060         0   0.51090E-06  477477.6 3751491.2   466.0     4.00     3.95     1.86     YES
 L0010061         0   0.51090E-06  477477.6 3751499.7   466.0     4.00     3.95     1.86     YES
 L0010062         0   0.51090E-06  477477.5 3751508.2   466.0     4.00     3.95     1.86     YES
 L0010063         0   0.51090E-06  477477.5 3751516.7   466.0     4.00     3.95     1.86     YES
 L0010064         0   0.51090E-06  477477.4 3751525.2   466.0     4.00     3.95     1.86     YES
 L0010065         0   0.51090E-06  477477.3 3751533.7   466.0     4.00     3.95     1.86     YES
 L0010066         0   0.51090E-06  477477.3 3751542.2   466.0     4.00     3.95     1.86     YES
 L0010067         0   0.51090E-06  477477.2 3751550.7   466.0     4.00     3.95     1.86     YES
 L0010068         0   0.51090E-06  477477.2 3751559.2   466.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0010069         0   0.51090E-06  477477.1 3751567.7   466.0     4.00     3.95     1.86     YES
 L0010070         0   0.51090E-06  477477.0 3751576.2   466.0     4.00     3.95     1.86     YES
 L0010071         0   0.51090E-06  477477.0 3751584.7   466.0     4.00     3.95     1.86     YES
 L0010072         0   0.51090E-06  477476.9 3751593.2   466.0     4.00     3.95     1.86     YES
 L0010073         0   0.51090E-06  477476.9 3751601.7   466.0     4.00     3.95     1.86     YES
 L0010074         0   0.51090E-06  477476.8 3751610.2   466.1     4.00     3.95     1.86     YES
 L0010075         0   0.51090E-06  477476.8 3751618.7   466.2     4.00     3.95     1.86     YES
 L0010076         0   0.51090E-06  477476.7 3751627.2   466.4     4.00     3.95     1.86     YES
 L0010077         0   0.51090E-06  477476.6 3751635.7   466.6     4.00     3.95     1.86     YES
 L0010078         0   0.51090E-06  477476.6 3751644.2   466.7     4.00     3.95     1.86     YES
 L0010079         0   0.51090E-06  477476.5 3751652.7   466.8     4.00     3.95     1.86     YES
 L0010080         0   0.51090E-06  477476.5 3751661.2   466.9     4.00     3.95     1.86     YES
 L0010081         0   0.51090E-06  477476.4 3751669.7   467.0     4.00     3.95     1.86     YES
 L0010082         0   0.51090E-06  477476.3 3751678.2   467.0     4.00     3.95     1.86     YES
 L0010083         0   0.51090E-06  477476.3 3751686.7   467.0     4.00     3.95     1.86     YES
 L0010084         0   0.51090E-06  477476.2 3751695.2   467.0     4.00     3.95     1.86     YES
 L0010085         0   0.51090E-06  477476.2 3751703.7   467.0     4.00     3.95     1.86     YES
 L0010086         0   0.51090E-06  477476.1 3751712.2   467.0     4.00     3.95     1.86     YES
 L0010087         0   0.51090E-06  477476.1 3751720.7   467.0     4.00     3.95     1.86     YES
 L0010088         0   0.51090E-06  477476.0 3751729.2   467.1     4.00     3.95     1.86     YES
 L0010089         0   0.51090E-06  477475.9 3751737.7   467.2     4.00     3.95     1.86     YES
 L0010090         0   0.51090E-06  477475.9 3751746.2   467.4     4.00     3.95     1.86     YES
 L0010091         0   0.51090E-06  477475.8 3751754.7   467.5     4.00     3.95     1.86     YES
 L0010092         0   0.51090E-06  477475.8 3751763.2   467.6     4.00     3.95     1.86     YES
 L0010093         0   0.51090E-06  477475.7 3751771.7   467.8     4.00     3.95     1.86     YES
 L0010094         0   0.51090E-06  477475.6 3751780.2   467.9     4.00     3.95     1.86     YES
 L0010095         0   0.51090E-06  477475.6 3751788.7   468.0     4.00     3.95     1.86     YES
 L0010096         0   0.51090E-06  477475.5 3751797.2   468.0     4.00     3.95     1.86     YES
 L0010097         0   0.51090E-06  477475.5 3751805.7   468.0     4.00     3.95     1.86     YES
 L0010098         0   0.51090E-06  477475.4 3751814.2   468.0     4.00     3.95     1.86     YES
 L0010099         0   0.51090E-06  477475.4 3751822.7   468.0     4.00     3.95     1.86     YES
 L0010100         0   0.51090E-06  477475.3 3751831.2   468.0     4.00     3.95     1.86     YES
 L0010101         0   0.51090E-06  477475.2 3751839.7   468.0     4.00     3.95     1.86     YES
 L0010102         0   0.51090E-06  477475.2 3751848.2   468.0     4.00     3.95     1.86     YES
 L0010103         0   0.51090E-06  477475.1 3751856.7   468.0     4.00     3.95     1.86     YES
 L0010104         0   0.51090E-06  477475.1 3751865.2   468.0     4.00     3.95     1.86     YES
 L0010105         0   0.51090E-06  477475.0 3751873.7   468.0     4.00     3.95     1.86     YES
 L0010106         0   0.51090E-06  477474.9 3751882.2   468.2     4.00     3.95     1.86     YES
 L0010107         0   0.51090E-06  477474.9 3751890.7   468.5     4.00     3.95     1.86     YES
 L0010108         0   0.51090E-06  477474.8 3751899.2   468.8     4.00     3.95     1.86     YES
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010109         0   0.51090E-06  477474.8 3751907.7   469.0     4.00     3.95     1.86     YES
 L0010110         0   0.51090E-06  477474.7 3751916.2   469.0     4.00     3.95     1.86     YES
 L0010111         0   0.51090E-06  477474.7 3751924.7   469.0     4.00     3.95     1.86     YES
 L0010112         0   0.51090E-06  477474.6 3751933.2   469.0     4.00     3.95     1.86     YES
 L0010113         0   0.51090E-06  477474.5 3751941.7   469.0     4.00     3.95     1.86     YES
 L0010114         0   0.51090E-06  477474.5 3751950.2   469.0     4.00     3.95     1.86     YES
 L0010115         0   0.51090E-06  477474.4 3751958.7   469.0     4.00     3.95     1.86     YES
 L0010116         0   0.51090E-06  477474.4 3751967.2   469.0     4.00     3.95     1.86     YES
 L0010117         0   0.51090E-06  477474.3 3751975.7   469.0     4.00     3.95     1.86     YES
 L0010118         0   0.51090E-06  477474.2 3751984.2   469.0     4.00     3.95     1.86     YES
 L0010119         0   0.51090E-06  477474.2 3751992.7   469.0     4.00     3.95     1.86     YES
 L0010120         0   0.51090E-06  477474.1 3752001.2   469.0     4.00     3.95     1.86     YES
 L0010121         0   0.51090E-06  477474.1 3752009.7   469.0     4.00     3.95     1.86     YES
 L0010122         0   0.51090E-06  477474.0 3752018.2   469.0     4.00     3.95     1.86     YES
 L0010123         0   0.51090E-06  477474.0 3752026.7   469.0     4.00     3.95     1.86     YES
 L0010124         0   0.51090E-06  477473.9 3752035.2   469.1     4.00     3.95     1.86     YES
 L0010125         0   0.51090E-06  477473.8 3752043.7   469.3     4.00     3.95     1.86     YES
 L0010126         0   0.51090E-06  477473.8 3752052.2   469.4     4.00     3.95     1.86     YES
 L0010127         0   0.51090E-06  477473.7 3752060.7   469.5     4.00     3.95     1.86     YES
 L0010128         0   0.51090E-06  477473.7 3752069.2   469.5     4.00     3.95     1.86     YES
 L0010129         0   0.51090E-06  477473.6 3752077.7   469.5     4.00     3.95     1.86     YES
 L0010130         0   0.51090E-06  477473.5 3752086.2   469.5     4.00     3.95     1.86     YES
 L0010131         0   0.51090E-06  477473.5 3752094.7   469.6     4.00     3.95     1.86     YES
 L0010132         0   0.51090E-06  477473.4 3752103.2   469.8     4.00     3.95     1.86     YES
 L0010133         0   0.51090E-06  477473.4 3752111.7   469.9     4.00     3.95     1.86     YES
 L0010134         0   0.51090E-06  477473.3 3752120.2   470.1     4.00     3.95     1.86     YES
 L0010135         0   0.51090E-06  477473.3 3752128.7   470.2     4.00     3.95     1.86     YES
 L0010136         0   0.51090E-06  477473.2 3752137.2   470.3     4.00     3.95     1.86     YES
 L0010137         0   0.51090E-06  477473.1 3752145.7   470.4     4.00     3.95     1.86     YES
 L0010138         0   0.51090E-06  477473.1 3752154.2   470.6     4.00     3.95     1.86     YES
 L0010139         0   0.51090E-06  477473.0 3752162.7   470.7     4.00     3.95     1.86     YES
 L0010140         0   0.51090E-06  477473.0 3752171.2   470.9     4.00     3.95     1.86     YES
 L0010141         0   0.51090E-06  477472.9 3752179.7   471.0     4.00     3.95     1.86     YES
 L0010142         0   0.51090E-06  477472.8 3752188.2   471.0     4.00     3.95     1.86     YES
 L0010143         0   0.51090E-06  477472.8 3752196.7   471.0     4.00     3.95     1.86     YES
 L0010144         0   0.51090E-06  477472.7 3752205.2   471.0     4.00     3.95     1.86     YES
 L0010145         0   0.51090E-06  477472.7 3752213.7   471.2     4.00     3.95     1.86     YES
 L0010146         0   0.51090E-06  477472.6 3752222.2   471.5     4.00     3.95     1.86     YES
 L0010147         0   0.51090E-06  477468.0 3752226.1   471.7     4.00     3.95     1.86     YES
 L0010148         0   0.51090E-06  477459.5 3752226.1   471.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***
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                                  Residential

           NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE    PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID      CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0010149         0   0.51090E-06  477451.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0010150         0   0.51090E-06  477442.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0010151         0   0.51090E-06  477434.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0010152         0   0.51090E-06  477425.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0010153         0   0.51090E-06  477417.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0010154         0   0.51090E-06  477408.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0010155         0   0.51090E-06  477400.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0010156         0   0.51090E-06  477391.5 3752226.2   471.5     4.00     3.95     1.86     YES
 L0010157         0   0.51090E-06  477383.0 3752226.2   471.3     4.00     3.95     1.86     YES
 L0010158         0   0.51090E-06  477374.5 3752226.2   471.1     4.00     3.95     1.86     YES
 L0010159         0   0.51090E-06  477366.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010160         0   0.51090E-06  477357.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010161         0   0.51090E-06  477349.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010162         0   0.51090E-06  477340.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010163         0   0.51090E-06  477332.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010164         0   0.51090E-06  477323.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010165         0   0.51090E-06  477315.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010166         0   0.51090E-06  477306.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010167         0   0.51090E-06  477298.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010168         0   0.51090E-06  477289.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0010169         0   0.51090E-06  477281.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010170         0   0.51090E-06  477272.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010171         0   0.51090E-06  477264.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010172         0   0.51090E-06  477255.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010173         0   0.51090E-06  477247.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010174         0   0.51090E-06  477238.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010175         0   0.51090E-06  477230.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010176         0   0.51090E-06  477221.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010177         0   0.51090E-06  477213.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010178         0   0.51090E-06  477204.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0010179         0   0.51090E-06  477196.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010180         0   0.51090E-06  477187.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010181         0   0.51090E-06  477179.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010182         0   0.51090E-06  477170.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010183         0   0.51090E-06  477162.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010184         0   0.51090E-06  477153.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010185         0   0.51090E-06  477145.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010186         0   0.51090E-06  477136.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010187         0   0.51090E-06  477128.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0010188         0   0.51090E-06  477119.5 3752226.5   471.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                   *** VOLUME SOURCE DATA ***

           NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE    PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID      CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0010189         0   0.51090E-06  477111.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010190         0   0.51090E-06  477102.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010191         0   0.51090E-06  477094.0 3752226.6   471.0     4.00     3.95     1.86     YES
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                                                        Residential
 L0010192         0   0.51090E-06  477085.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010193         0   0.51090E-06  477077.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010194         0   0.51090E-06  477068.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010195         0   0.51090E-06  477060.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010196         0   0.51090E-06  477051.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010197         0   0.51090E-06  477043.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010198         0   0.51090E-06  477034.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0010199         0   0.51090E-06  477026.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010200         0   0.51090E-06  477017.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010201         0   0.51090E-06  477009.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010202         0   0.51090E-06  477000.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010203         0   0.51090E-06  476992.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010204         0   0.51090E-06  476983.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010205         0   0.51090E-06  476975.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010206         0   0.51090E-06  476966.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010207         0   0.51090E-06  476958.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010208         0   0.51090E-06  476949.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0010209         0   0.51090E-06  476941.0 3752226.8   471.2     4.00     3.95     1.86     YES
 L0010210         0   0.51090E-06  476932.5 3752226.8   471.4     4.00     3.95     1.86     YES
 L0010211         0   0.51090E-06  476924.0 3752226.8   471.6     4.00     3.95     1.86     YES
 L0010212         0   0.51090E-06  476915.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0010213         0   0.51090E-06  476907.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0010214         0   0.51090E-06  476898.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0010215         0   0.51090E-06  476890.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0010216         0   0.51090E-06  476881.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0010217         0   0.51090E-06  476873.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0010218         0   0.51090E-06  476864.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0010219         0   0.51090E-06  476856.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0010220         0   0.51090E-06  476847.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0010221         0   0.51090E-06  476839.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0010222         0   0.51090E-06  476830.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0010223         0   0.51090E-06  476822.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0010224         0   0.51090E-06  476813.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0010225         0   0.51090E-06  476805.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0010226         0   0.51090E-06  476796.5 3752226.9   477.2     4.00     3.95     1.86     YES
 L0010227         0   0.51090E-06  476788.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0010228         0   0.51090E-06  476779.5 3752226.9   477.2     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                   BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010229         0   0.51090E-06  476771.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0010230         0   0.51090E-06  476762.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0010231         0   0.51090E-06  476754.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0010232         0   0.51090E-06  476745.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0010233         0   0.51090E-06  476737.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0010234         0   0.51090E-06  476728.5 3752227.0   477.3     4.00     3.95     1.86     YES
 L0010235         0   0.51090E-06  476720.0 3752227.0   477.4     4.00     3.95     1.86     YES
 L0010236         0   0.51090E-06  476711.5 3752227.0   477.5     4.00     3.95     1.86     YES
 L0010237         0   0.51090E-06  476703.0 3752227.0   477.6     4.00     3.95     1.86     YES
 L0010238         0   0.51090E-06  476694.5 3752227.0   477.6     4.00     3.95     1.86     YES
 L0010239         0   0.51090E-06  476686.0 3752227.1   477.7     4.00     3.95     1.86     YES
 L0010240         0   0.51090E-06  476677.5 3752227.1   477.8     4.00     3.95     1.86     YES
 L0010241         0   0.51090E-06  476669.0 3752227.1   477.9     4.00     3.95     1.86     YES
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                                                             Residential
 L0010242         0   0.51090E-06  476660.5 3752227.1   478.0      4.00     3.95     1.86     YES
 L0010243         0   0.51090E-06  476652.0 3752227.1   478.0      4.00     3.95     1.86     YES
 L0010244         0   0.51090E-06  476643.5 3752227.1   478.0      4.00     3.95     1.86     YES
 L0010245         0   0.51090E-06  476635.0 3752227.1   478.0      4.00     3.95     1.86     YES
 L0010246         0   0.51090E-06  476626.5 3752227.1   478.0      4.00     3.95     1.86     YES
 L0010247         0   0.51090E-06  476618.0 3752227.1   478.0      4.00     3.95     1.86     YES
 L0010248         0   0.51090E-06  476609.5 3752227.1   478.0      4.00     3.95     1.86     YES
 L0010249         0   0.51090E-06  476601.0 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010250         0   0.51090E-06  476592.5 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010251         0   0.51090E-06  476584.0 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010252         0   0.51090E-06  476575.5 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010253         0   0.51090E-06  476567.0 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010254         0   0.51090E-06  476558.5 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010255         0   0.51090E-06  476550.0 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010256         0   0.51090E-06  476541.5 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010257         0   0.51090E-06  476533.0 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010258         0   0.51090E-06  476524.5 3752227.2   478.0      4.00     3.95     1.86     YES
 L0010259         0   0.51090E-06  476516.0 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010260         0   0.51090E-06  476507.5 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010261         0   0.51090E-06  476499.0 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010262         0   0.51090E-06  476490.5 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010263         0   0.51090E-06  476482.0 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010264         0   0.51090E-06  476473.5 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010265         0   0.51090E-06  476465.0 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010266         0   0.51090E-06  476456.5 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010267         0   0.51090E-06  476448.0 3752227.3   478.0      4.00     3.95     1.86     YES
 L0010268         0   0.51090E-06  476439.5 3752227.3   478.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   12:58:11

   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                            *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010269         0   0.51090E-06  476431.0 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010270         0   0.51090E-06  476422.5 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010271         0   0.51090E-06  476414.0 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010272         0   0.51090E-06  476405.5 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010273         0   0.51090E-06  476397.0 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010274         0   0.51090E-06  476388.5 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010275         0   0.51090E-06  476380.0 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010276         0   0.51090E-06  476371.5 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010277         0   0.51090E-06  476363.0 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010278         0   0.51090E-06  476354.5 3752227.4   478.0      4.00     3.95     1.86     YES
 L0010279         0   0.51090E-06  476346.0 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010280         0   0.51090E-06  476337.5 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010281         0   0.51090E-06  476329.0 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010282         0   0.51090E-06  476320.5 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010283         0   0.51090E-06  476312.0 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010284         0   0.51090E-06  476303.5 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010285         0   0.51090E-06  476295.0 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010286         0   0.51090E-06  476286.5 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010287         0   0.51090E-06  476278.0 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010288         0   0.51090E-06  476269.5 3752227.5   478.0      4.00     3.95     1.86     YES
 L0010289         0   0.51090E-06  476261.0 3752227.6   478.0      4.00     3.95     1.86     YES
 L0010290         0   0.51090E-06  476252.5 3752227.6   478.0      4.00     3.95     1.86     YES
 L0010291         0   0.51090E-06  476244.0 3752227.6   478.0      4.00     3.95     1.86     YES
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                                                 Residential
 L0010292        0   0.51090E-06  476235.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0010293        0   0.51090E-06  476227.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0010294        0   0.51090E-06  476218.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0010295        0   0.51090E-06  476210.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0010296        0   0.51090E-06  476201.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0010297        0   0.51090E-06  476193.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0010298        0   0.51090E-06  476184.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0010299        0   0.51090E-06  476176.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010300        0   0.51090E-06  476167.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010301        0   0.51090E-06  476159.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010302        0   0.51090E-06  476150.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010303        0   0.51090E-06  476142.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010304        0   0.51090E-06  476133.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010305        0   0.51090E-06  476125.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010306        0   0.51090E-06  476116.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0010307        0   0.51090E-06  476108.0 3752227.7   477.9     4.00     3.95     1.86     YES
 L0010308        0   0.51090E-06  476099.5 3752227.7   477.8     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  12:58:11

  PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
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 L0010309        0   0.51090E-06  476091.0 3752227.8   477.7     4.00     3.95     1.86     YES
 L0010310        0   0.51090E-06  476082.5 3752227.8   477.6     4.00     3.95     1.86     YES
 L0010311        0   0.51090E-06  476074.0 3752227.8   477.6     4.00     3.95     1.86     YES
 L0010312        0   0.51090E-06  476065.5 3752227.8   477.5     4.00     3.95     1.86     YES
 L0010313        0   0.51090E-06  476057.0 3752227.8   477.4     4.00     3.95     1.86     YES
 L0010314        0   0.51090E-06  476048.5 3752227.8   477.3     4.00     3.95     1.86     YES
 L0010315        0   0.51090E-06  476040.0 3752227.8   477.2     4.00     3.95     1.86     YES
 L0010316        0   0.51090E-06  476031.5 3752227.8   477.2     4.00     3.95     1.86     YES
 L0010317        0   0.51090E-06  476023.0 3752227.8   477.2     4.00     3.95     1.86     YES
 L0010318        0   0.51090E-06  476014.5 3752227.8   477.1     4.00     3.95     1.86     YES
 L0010319        0   0.51090E-06  476006.0 3752227.9   477.1     4.00     3.95     1.86     YES
 L0010320        0   0.51090E-06  475997.5 3752227.9   477.1     4.00     3.95     1.86     YES
 L0010321        0   0.51090E-06  475989.0 3752227.9   477.1     4.00     3.95     1.86     YES
 L0010322        0   0.51090E-06  475980.5 3752227.9   477.1     4.00     3.95     1.86     YES
 L0010323        0   0.51090E-06  475972.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0010324        0   0.51090E-06  475963.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0010325        0   0.51090E-06  475955.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0010326        0   0.51090E-06  475946.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0010327        0   0.51090E-06  475938.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0010328        0   0.51090E-06  475929.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0010329        0   0.51090E-06  475921.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0010330        0   0.51090E-06  475912.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010331        0   0.51090E-06  475904.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010332        0   0.51090E-06  475895.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010333        0   0.51090E-06  475887.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010334        0   0.51090E-06  475878.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010335        0   0.51090E-06  475870.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010336        0   0.51090E-06  475861.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010337        0   0.51090E-06  475853.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010338        0   0.51090E-06  475844.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010339        0   0.51090E-06  475836.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0010340        0   0.51090E-06  475827.5 3752228.1   477.0     4.00     3.95     1.86     YES
 L0010341        0   0.51090E-06  475819.0 3752228.1   477.0     4.00     3.95     1.86     YES
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                                                 Residential
 L0010342         0   0.51090E-06  475810.5 3752228.1   477.0     4.00     3.95     1.86     YES
 L0010343         0   0.51090E-06  475802.0 3752228.1   477.0     4.00     3.95     1.86     YES
 L0010344         0   0.51090E-06  475793.5 3752228.1   477.1     4.00     3.95     1.86     YES
 L0010345         0   0.51090E-06  475785.0 3752228.1   477.1     4.00     3.95     1.86     YES
 L0010346         0   0.51090E-06  475776.5 3752228.1   477.1     4.00     3.95     1.86     YES
 L0010347         0   0.51090E-06  475768.0 3752228.1   477.1     4.00     3.95     1.86     YES
 L0010348         0   0.51090E-06  475759.5 3752228.1   477.1     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  12:58:11

  PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0010349         0   0.51090E-06  475751.0 3752228.1   477.2     4.00     3.95     1.86     YES
 L0010350         0   0.51090E-06  475742.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010351         0   0.51090E-06  475734.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010352         0   0.51090E-06  475725.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010353         0   0.51090E-06  475717.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010354         0   0.51090E-06  475708.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010355         0   0.51090E-06  475700.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010356         0   0.51090E-06  475691.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010357         0   0.51090E-06  475683.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010358         0   0.51090E-06  475674.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010359         0   0.51090E-06  475666.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0010360         0   0.51090E-06  475657.5 3752228.3   477.2     4.00     3.95     1.86     YES
 L0010361         0   0.51090E-06  475649.0 3752228.3   477.2     4.00     3.95     1.86     YES
 L0010362         0   0.51090E-06  475640.5 3752228.3   477.2     4.00     3.95     1.86     YES
 L0010363         0   0.51090E-06  475632.0 3752228.3   477.2     4.00     3.95     1.86     YES
 L0010364         0   0.51090E-06  475623.5 3752228.3   477.1     4.00     3.95     1.86     YES
 L0010365         0   0.51090E-06  475615.0 3752228.3   477.1     4.00     3.95     1.86     YES
 L0010366         0   0.51090E-06  475606.5 3752228.3   477.1     4.00     3.95     1.86     YES
 L0010367         0   0.51090E-06  475598.0 3752228.3   477.1     4.00     3.95     1.86     YES
 L0010368         0   0.51090E-06  475589.5 3752228.3   477.0     4.00     3.95     1.86     YES
 L0010369         0   0.51090E-06  475581.0 3752228.3   477.0     4.00     3.95     1.86     YES
 L0010370         0   0.51090E-06  475572.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010371         0   0.51090E-06  475564.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010372         0   0.51090E-06  475555.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010373         0   0.51090E-06  475547.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010374         0   0.51090E-06  475538.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010375         0   0.51090E-06  475530.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010376         0   0.51090E-06  475521.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010377         0   0.51090E-06  475513.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010378         0   0.51090E-06  475504.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010379         0   0.51090E-06  475496.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0010380         0   0.51090E-06  475487.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010381         0   0.51090E-06  475479.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010382         0   0.51090E-06  475470.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010383         0   0.51090E-06  475462.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010384         0   0.51090E-06  475453.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010385         0   0.51090E-06  475445.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010386         0   0.51090E-06  475436.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010387         0   0.51090E-06  475428.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0010388         0   0.51090E-06  475419.5 3752228.5   476.9     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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                                                   Residential
   12:58:11

   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010389        0   0.51090E-06  475411.0 3752228.5   476.9     4.00     3.95     1.86     YES
 L0010390        0   0.51090E-06  475402.5 3752228.6   476.8     4.00     3.95     1.86     YES
 L0010391        0   0.51090E-06  475394.0 3752228.6   476.7     4.00     3.95     1.86     YES
 L0010392        0   0.51090E-06  475385.5 3752228.6   476.6     4.00     3.95     1.86     YES
 L0010393        0   0.51090E-06  475377.0 3752228.6   476.5     4.00     3.95     1.86     YES
 L0010394        0   0.51090E-06  475368.5 3752228.6   476.4     4.00     3.95     1.86     YES
 L0010395        0   0.51090E-06  475360.0 3752228.6   476.3     4.00     3.95     1.86     YES
 L0010396        0   0.51090E-06  475351.5 3752228.6   476.2     4.00     3.95     1.86     YES
 L0010397        0   0.51090E-06  475343.0 3752228.6   476.2     4.00     3.95     1.86     YES
 L0010398        0   0.51090E-06  475334.5 3752228.6   476.2     4.00     3.95     1.86     YES
 L0010399        0   0.51090E-06  475326.0 3752228.6   476.2     4.00     3.95     1.86     YES
 L0010400        0   0.51090E-06  475317.5 3752228.7   476.1     4.00     3.95     1.86     YES
 L0010401        0   0.51090E-06  475309.0 3752228.7   476.1     4.00     3.95     1.86     YES
 L0010402        0   0.51090E-06  475300.5 3752228.7   476.1     4.00     3.95     1.86     YES
 L0010403        0   0.51090E-06  475292.0 3752228.7   476.1     4.00     3.95     1.86     YES
 L0010404        0   0.51090E-06  475283.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0010405        0   0.51090E-06  475275.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0010406        0   0.51090E-06  475266.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0010407        0   0.51090E-06  475258.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0010408        0   0.51090E-06  475249.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0010409        0   0.51090E-06  475241.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0010410        0   0.51090E-06  475232.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010411        0   0.51090E-06  475224.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010412        0   0.51090E-06  475215.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010413        0   0.51090E-06  475207.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010414        0   0.51090E-06  475198.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010415        0   0.51090E-06  475190.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010416        0   0.51090E-06  475181.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010417        0   0.51090E-06  475173.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010418        0   0.51090E-06  475164.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010419        0   0.51090E-06  475156.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0010420        0   0.51090E-06  475147.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010421        0   0.51090E-06  475139.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010422        0   0.51090E-06  475130.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010423        0   0.51090E-06  475122.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010424        0   0.51090E-06  475113.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010425        0   0.51090E-06  475105.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010426        0   0.51090E-06  475096.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010427        0   0.51090E-06  475088.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010428        0   0.51090E-06  475079.5 3752228.9   476.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
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                                          Residential
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010429         0   0.51090E-06  475071.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0010430         0   0.51090E-06  475062.5 3752229.0   476.0     4.00     3.95     1.86     YES
 L0010431         0   0.51090E-06  475054.0 3752229.0   476.0     4.00     3.95     1.86     YES
 L0010432         0   0.51090E-06  475045.5 3752229.0   476.0     4.00     3.95     1.86     YES
 L0010433         0   0.51090E-06  475037.0 3752229.0   476.0     4.00     3.95     1.86     YES
 L0010434         0   0.51090E-06  475028.5 3752229.0   475.9     4.00     3.95     1.86     YES
 L0010435         0   0.51090E-06  475020.0 3752229.0   475.7     4.00     3.95     1.86     YES
 L0010436         0   0.51090E-06  475011.5 3752229.0   475.6     4.00     3.95     1.86     YES
 L0010437         0   0.51090E-06  475003.0 3752229.0   475.5     4.00     3.95     1.86     YES
 L0010438         0   0.51090E-06  474994.5 3752229.0   475.4     4.00     3.95     1.86     YES
 L0010439         0   0.51090E-06  474986.0 3752229.0   475.3     4.00     3.95     1.86     YES
 L0010440         0   0.51090E-06  474977.5 3752229.1   475.2     4.00     3.95     1.86     YES
 L0010441         0   0.51090E-06  474969.0 3752229.1   475.1     4.00     3.95     1.86     YES
 L0010442         0   0.51090E-06  474960.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010443         0   0.51090E-06  474952.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010444         0   0.51090E-06  474943.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010445         0   0.51090E-06  474935.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010446         0   0.51090E-06  474926.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010447         0   0.51090E-06  474918.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010448         0   0.51090E-06  474909.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010449         0   0.51090E-06  474901.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0010450         0   0.51090E-06  474892.5 3752229.2   475.0     4.00     3.95     1.86     YES
 L0010451         0   0.51090E-06  474884.0 3752229.2   475.0     4.00     3.95     1.86     YES
 L0010452         0   0.51090E-06  474875.5 3752229.2   474.9     4.00     3.95     1.86     YES
 L0010453         0   0.51090E-06  474867.0 3752229.2   474.8     4.00     3.95     1.86     YES
 L0010454         0   0.51090E-06  474858.5 3752229.2   474.7     4.00     3.95     1.86     YES
 L0010455         0   0.51090E-06  474850.0 3752229.2   474.5     4.00     3.95     1.86     YES
 L0010456         0   0.51090E-06  474841.5 3752229.2   474.4     4.00     3.95     1.86     YES
 L0010457         0   0.51090E-06  474833.0 3752229.2   474.3     4.00     3.95     1.86     YES
 L0010458         0   0.51090E-06  474824.5 3752229.2   474.2     4.00     3.95     1.86     YES
 L0010459         0   0.51090E-06  474816.0 3752229.2   474.1     4.00     3.95     1.86     YES
 L0010460         0   0.51090E-06  474807.5 3752229.3   474.0     4.00     3.95     1.86     YES
 L0010461         0   0.51090E-06  474799.1 3752228.0   474.1     4.00     3.95     1.86     YES
 L0010462         0   0.51090E-06  474790.7 3752226.7   474.2     4.00     3.95     1.86     YES
 L0010463         0   0.51090E-06  474782.3 3752225.5   474.3     4.00     3.95     1.86     YES
 L0010464         0   0.51090E-06  474773.9 3752224.2   474.4     4.00     3.95     1.86     YES
 L0010465         0   0.51090E-06  474765.5 3752222.9   474.6     4.00     3.95     1.86     YES
 L0010466         0   0.51090E-06  474757.1 3752221.7   474.7     4.00     3.95     1.86     YES
 L0010467         0   0.51090E-06  474748.7 3752220.4   474.8     4.00     3.95     1.86     YES
 L0010468         0   0.51090E-06  474740.3 3752219.1   474.9     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y      ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010469         0   0.51090E-06  474731.9 3752217.8   475.0     4.00     3.95     1.86     YES
 L0010470         0   0.51090E-06  474723.5 3752216.6   475.0     4.00     3.95     1.86     YES
 L0010471         0   0.51090E-06  474715.1 3752215.3   475.0     4.00     3.95     1.86     YES
 L0010472         0   0.51090E-06  474706.7 3752214.0   475.0     4.00     3.95     1.86     YES
 L0010473         0   0.51090E-06  474698.3 3752212.8   475.0     4.00     3.95     1.86     YES
 L0010474         0   0.51090E-06  474689.9 3752211.5   475.0     4.00     3.95     1.86     YES
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                                                                 Residential
 L0010475         0   0.51090E-06  474681.5 3752210.2   475.0     4.00     3.95     1.86     YES
 L0010476         0   0.51090E-06  474673.1 3752209.0   475.0     4.00     3.95     1.86     YES
 L0010477         0   0.51090E-06  474664.7 3752207.7   475.0     4.00     3.95     1.86     YES
 L0010478         0   0.51090E-06  474656.3 3752206.4   475.0     4.00     3.95     1.86     YES
 L0010479         0   0.51090E-06  474647.9 3752205.1   475.0     4.00     3.95     1.86     YES
 L0010480         0   0.51090E-06  474639.5 3752203.9   475.0     4.00     3.95     1.86     YES
 L0010481         0   0.51090E-06  474631.1 3752202.6   475.0     4.00     3.95     1.86     YES
 L0010482         0   0.51090E-06  474622.6 3752201.3   475.0     4.00     3.95     1.86     YES
 L0010483         0   0.51090E-06  474614.2 3752200.1   475.0     4.00     3.95     1.86     YES
 L0010484         0   0.51090E-06  474605.8 3752198.8   475.0     4.00     3.95     1.86     YES
 L0010485         0   0.51090E-06  474597.4 3752197.5   475.0     4.00     3.95     1.86     YES
 L0010486         0   0.51090E-06  474589.0 3752196.2   475.0     4.00     3.95     1.86     YES
 L0010487         0   0.51090E-06  474580.6 3752195.0   475.0     4.00     3.95     1.86     YES
 L0010488         0   0.51090E-06  474572.2 3752193.7   475.1     4.00     3.95     1.86     YES
 L0010489         0   0.51090E-06  474563.8 3752192.4   475.2     4.00     3.95     1.86     YES
 L0010490         0   0.51090E-06  474555.4 3752191.2   475.3     4.00     3.95     1.86     YES
 L0010491         0   0.51090E-06  474547.0 3752189.9   475.4     4.00     3.95     1.86     YES
 L0010492         0   0.51090E-06  474538.6 3752188.6   475.5     4.00     3.95     1.86     YES
 L0010493         0   0.51090E-06  474530.2 3752187.3   475.6     4.00     3.95     1.86     YES
 L0010494         0   0.51090E-06  474521.8 3752186.1   475.7     4.00     3.95     1.86     YES
 L0010495         0   0.51090E-06  474513.4 3752184.8   475.8     4.00     3.95     1.86     YES
 L0010496         0   0.51090E-06  474505.0 3752183.5   475.9     4.00     3.95     1.86     YES
 L0010497         0   0.51090E-06  474496.6 3752182.3   476.0     4.00     3.95     1.86     YES
 L0010498         0   0.51090E-06  474488.2 3752181.0   476.0     4.00     3.95     1.86     YES
 L0010499         0   0.51090E-06  474479.8 3752179.7   476.0     4.00     3.95     1.86     YES
 L0010500         0   0.51090E-06  474471.4 3752178.4   476.0     4.00     3.95     1.86     YES
 L0010501         0   0.51090E-06  474463.0 3752177.2   476.0     4.00     3.95     1.86     YES
 L0010502         0   0.51090E-06  474454.6 3752175.9   476.0     4.00     3.95     1.86     YES
 L0010503         0   0.51090E-06  474446.2 3752174.6   476.0     4.00     3.95     1.86     YES
 L0010504         0   0.51090E-06  474437.8 3752173.4   476.0     4.00     3.95     1.86     YES
 L0010505         0   0.51090E-06  474429.3 3752172.1   476.0     4.00     3.95     1.86     YES
 L0010506         0   0.51090E-06  474420.9 3752170.8   476.0     4.00     3.95     1.86     YES
 L0010507         0   0.51090E-06  474412.5 3752169.6   476.1     4.00     3.95     1.86     YES
 L0010508         0   0.51090E-06  474404.1 3752168.3   476.2     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0010509         0   0.51090E-06  474395.7 3752167.0   476.4     4.00     3.95     1.86     YES
 L0010510         0   0.51090E-06  474387.3 3752165.7   476.5     4.00     3.95     1.86     YES
 L0010511         0   0.51090E-06  474378.9 3752164.5   476.6     4.00     3.95     1.86     YES
 L0010512         0   0.51090E-06  474370.5 3752163.2   476.7     4.00     3.95     1.86     YES
 L0010513         0   0.51090E-06  474362.1 3752161.9   476.8     4.00     3.95     1.86     YES
 L0010514         0   0.51090E-06  474353.7 3752160.7   476.9     4.00     3.95     1.86     YES
 L0010515         0   0.51090E-06  474345.3 3752159.4   477.0     4.00     3.95     1.86     YES
 L0010516         0   0.51090E-06  474336.9 3752158.1   477.0     4.00     3.95     1.86     YES
 L0010517         0   0.51090E-06  474328.5 3752156.8   477.0     4.00     3.95     1.86     YES
 L0010518         0   0.51090E-06  474320.1 3752155.6   477.0     4.00     3.95     1.86     YES
 L0010519         0   0.51090E-06  474311.7 3752154.3   477.0     4.00     3.95     1.86     YES
 L0010520         0   0.51090E-06  474303.3 3752153.0   477.0     4.00     3.95     1.86     YES
 L0010521         0   0.51090E-06  474294.9 3752151.8   477.0     4.00     3.95     1.86     YES
 L0010522         0   0.51090E-06  474286.5 3752150.5   477.0     4.00     3.95     1.86     YES
 L0010523         0   0.51090E-06  474278.1 3752149.2   477.0     4.00     3.95     1.86     YES
 L0010524         0   0.51090E-06  474269.7 3752147.9   477.0     4.00     3.95     1.86     YES
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                                                     Residential
 L0010525         0   0.51090E-06  474261.3 3752146.7   477.0     4.00     3.95     1.86     YES
 L0010526         0   0.51090E-06  474252.9 3752145.4   477.0     4.00     3.95     1.86     YES
 L0010527         0   0.51090E-06  474244.4 3752144.1   477.0     4.00     3.95     1.86     YES
 L0010528         0   0.51090E-06  474236.0 3752142.9   477.0     4.00     3.95     1.86     YES
 L0010529         0   0.51090E-06  474227.6 3752141.6   477.0     4.00     3.95     1.86     YES
 L0010530         0   0.51090E-06  474219.2 3752140.3   477.0     4.00     3.95     1.86     YES
 L0010531         0   0.51090E-06  474210.8 3752139.0   477.0     4.00     3.95     1.86     YES
 L0010532         0   0.51090E-06  474202.4 3752137.8   477.0     4.00     3.95     1.86     YES
 L0010533         0   0.51090E-06  474194.0 3752136.5   477.0     4.00     3.95     1.86     YES
 L0010534         0   0.51090E-06  474185.6 3752135.2   477.1     4.00     3.95     1.86     YES
 L0010535         0   0.51090E-06  474177.2 3752134.0   477.2     4.00     3.95     1.86     YES
 L0010536         0   0.51090E-06  474168.8 3752132.7   477.3     4.00     3.95     1.86     YES
 L0010537         0   0.51090E-06  474160.4 3752131.3   477.4     4.00     3.95     1.86     YES
 L0010538         0   0.51090E-06  474152.0 3752129.9   477.5     4.00     3.95     1.86     YES
 L0010539         0   0.51090E-06  474143.7 3752128.5   477.6     4.00     3.95     1.86     YES
 L0010540         0   0.51090E-06  474135.3 3752127.1   477.7     4.00     3.95     1.86     YES
 L0010541         0   0.51090E-06  474126.9 3752125.7   477.9     4.00     3.95     1.86     YES
 L0010542         0   0.51090E-06  474118.5 3752124.3   478.0     4.00     3.95     1.86     YES
 L0010543         0   0.51090E-06  474110.1 3752122.9   478.0     4.00     3.95     1.86     YES
 L0010544         0   0.51090E-06  474101.7 3752121.5   478.0     4.00     3.95     1.86     YES
 L0010545         0   0.51090E-06  474093.3 3752120.1   478.0     4.00     3.95     1.86     YES
 L0010546         0   0.51090E-06  474085.0 3752118.8   478.0     4.00     3.95     1.86     YES
 L0010547         0   0.51090E-06  474076.6 3752117.4   478.0     4.00     3.95     1.86     YES
 L0010548         0   0.51090E-06  474068.2 3752116.0   478.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X          Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS) (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
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 L0010549         0   0.51090E-06  474059.8 3752114.6   478.0     4.00     3.95     1.86     YES
 L0010550         0   0.51090E-06  474051.4 3752113.2   478.0     4.00     3.95     1.86     YES
 L0010551         0   0.51090E-06  474043.0 3752111.8   478.0     4.00     3.95     1.86     YES
 L0010552         0   0.85100E-07  477480.6 3749800.2   458.0     0.00     3.95     1.86     YES
 L0010553         0   0.85100E-07  477480.4 3749808.7   458.0     0.00     3.95     1.86     YES
 L0010554         0   0.85100E-07  477480.3 3749817.2   458.0     0.00     3.95     1.86     YES
 L0010555         0   0.85100E-07  477480.1 3749825.7   458.0     0.00     3.95     1.86     YES
 L0010556         0   0.85100E-07  477480.0 3749834.2   458.0     0.00     3.95     1.86     YES
 L0010557         0   0.85100E-07  477479.9 3749842.7   458.0     0.00     3.95     1.86     YES
 L0010558         0   0.85100E-07  477479.7 3749851.2   458.0     0.00     3.95     1.86     YES
 L0010559         0   0.85100E-07  477479.6 3749859.7   458.0     0.00     3.95     1.86     YES
 L0010560         0   0.85100E-07  477479.5 3749868.2   458.0     0.00     3.95     1.86     YES
 L0010561         0   0.85100E-07  477479.3 3749876.7   458.0     0.00     3.95     1.86     YES
 L0010562         0   0.85100E-07  477479.2 3749885.2   458.0     0.00     3.95     1.86     YES
 L0010563         0   0.85100E-07  477479.1 3749893.7   458.0     0.00     3.95     1.86     YES
 L0010564         0   0.85100E-07  477478.9 3749902.2   458.0     0.00     3.95     1.86     YES
 L0010565         0   0.85100E-07  477478.8 3749910.7   458.0     0.00     3.95     1.86     YES
 L0010566         0   0.85100E-07  477478.7 3749919.2   458.0     0.00     3.95     1.86     YES
 L0010567         0   0.85100E-07  477478.5 3749927.7   458.0     0.00     3.95     1.86     YES
 L0010568         0   0.85100E-07  477478.4 3749936.2   458.0     0.00     3.95     1.86     YES
 L0010569         0   0.85100E-07  477478.2 3749944.7   458.0     0.00     3.95     1.86     YES
 L0010570         0   0.85100E-07  477478.1 3749953.2   458.0     0.00     3.95     1.86     YES
 L0010571         0   0.85100E-07  477478.0 3749961.7   458.2     0.00     3.95     1.86     YES
 L0010572         0   0.85100E-07  477477.8 3749970.2   458.4     0.00     3.95     1.86     YES
 L0010573         0   0.85100E-07  477477.7 3749978.7   458.7     0.00     3.95     1.86     YES
 L0010574         0   0.85100E-07  477477.6 3749987.2   459.0     0.00     3.95     1.86     YES
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                                                 Residential
 L0010575         0   0.85100E-07  477477.4 3749995.7   459.0     0.00     3.95     1.86     YES
 L0010576         0   0.85100E-07  477477.3 3750004.2   459.0     0.00     3.95     1.86     YES
 L0010577         0   0.85100E-07  477477.2 3750012.7   459.0     0.00     3.95     1.86     YES
 L0010578         0   0.85100E-07  477477.0 3750021.2   459.0     0.00     3.95     1.86     YES
 L0010579         0   0.85100E-07  477476.9 3750029.7   459.0     0.00     3.95     1.86     YES
 L0010580         0   0.85100E-07  477476.8 3750038.2   459.0     0.00     3.95     1.86     YES
 L0010581         0   0.85100E-07  477476.6 3750046.7   459.0     0.00     3.95     1.86     YES
 L0010582         0   0.85100E-07  477476.5 3750055.2   459.0     0.00     3.95     1.86     YES
 L0010583         0   0.85100E-07  477476.3 3750063.7   459.0     0.00     3.95     1.86     YES
 L0010584         0   0.85100E-07  477476.2 3750072.2   459.0     0.00     3.95     1.86     YES
 L0010585         0   0.85100E-07  477476.1 3750080.7   459.0     0.00     3.95     1.86     YES
 L0010586         0   0.85100E-07  477475.9 3750089.2   459.0     0.00     3.95     1.86     YES
 L0010587         0   0.85100E-07  477475.8 3750097.7   459.0     0.00     3.95     1.86     YES
 L0010588         0   0.85100E-07  477475.7 3750106.2   459.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010589         0   0.85100E-07  477475.5 3750114.7   459.0     0.00     3.95     1.86     YES
 L0010590         0   0.85100E-07  477475.4 3750123.2   459.0     0.00     3.95     1.86     YES
 L0010591         0   0.85100E-07  477475.3 3750131.7   459.0     0.00     3.95     1.86     YES
 L0010592         0   0.85100E-07  477475.1 3750140.2   459.0     0.00     3.95     1.86     YES
 L0010593         0   0.85100E-07  477475.0 3750148.7   459.0     0.00     3.95     1.86     YES
 L0010594         0   0.85100E-07  477474.8 3750157.2   459.0     0.00     3.95     1.86     YES
 L0010595         0   0.85100E-07  477474.7 3750165.7   459.0     0.00     3.95     1.86     YES
 L0010596         0   0.85100E-07  477474.2 3750174.2   459.0     0.00     3.95     1.86     YES
 L0010597         0   0.85100E-07  477473.5 3750182.6   459.0     0.00     3.95     1.86     YES
 L0010598         0   0.85100E-07  477472.8 3750191.1   459.0     0.00     3.95     1.86     YES
 L0010599         0   0.85100E-07  477472.1 3750199.6   459.0     0.00     3.95     1.86     YES
 L0010600         0   0.85100E-07  477471.4 3750208.0   459.2     0.00     3.95     1.86     YES
 L0010601         0   0.85100E-07  477470.7 3750216.5   459.2     0.00     3.95     1.86     YES
 L0010602         0   0.85100E-07  477470.0 3750225.0   459.3     0.00     3.95     1.86     YES
 L0010603         0   0.85100E-07  477469.3 3750233.5   459.5     0.00     3.95     1.86     YES
 L0010604         0   0.85100E-07  477468.7 3750241.9   459.7     0.00     3.95     1.86     YES
 L0010605         0   0.85100E-07  477468.0 3750250.4   459.9     0.00     3.95     1.86     YES
 L0010606         0   0.85100E-07  477467.3 3750258.9   460.0     0.00     3.95     1.86     YES
 L0010607         0   0.85100E-07  477466.6 3750267.3   460.0     0.00     3.95     1.86     YES
 L0010608         0   0.85100E-07  477466.5 3750275.8   460.0     0.00     3.95     1.86     YES
 L0010609         0   0.85100E-07  477466.5 3750284.3   460.0     0.00     3.95     1.86     YES
 L0010610         0   0.85100E-07  477466.5 3750292.8   460.0     0.00     3.95     1.86     YES
 L0010611         0   0.85100E-07  477466.6 3750301.3   460.0     0.00     3.95     1.86     YES
 L0010612         0   0.85100E-07  477466.6 3750309.8   460.0     0.00     3.95     1.86     YES
 L0010613         0   0.85100E-07  477466.6 3750318.3   460.0     0.00     3.95     1.86     YES
 L0010614         0   0.85100E-07  477466.7 3750326.8   460.0     0.00     3.95     1.86     YES
 L0010615         0   0.85100E-07  477466.7 3750335.3   460.0     0.00     3.95     1.86     YES
 L0010616         0   0.85100E-07  477466.7 3750343.8   460.0     0.00     3.95     1.86     YES
 L0010617         0   0.85100E-07  477466.8 3750352.3   460.0     0.00     3.95     1.86     YES
 L0010618         0   0.85100E-07  477466.8 3750360.8   460.0     0.00     3.95     1.86     YES
 L0010619         0   0.85100E-07  477466.9 3750369.3   460.0     0.00     3.95     1.86     YES
 L0010620         0   0.85100E-07  477466.9 3750377.8   460.0     0.00     3.95     1.86     YES
 L0010621         0   0.85100E-07  477466.9 3750386.3   460.0     0.00     3.95     1.86     YES
 L0010622         0   0.85100E-07  477467.0 3750394.8   460.0     0.00     3.95     1.86     YES
 L0010623         0   0.85100E-07  477467.0 3750403.3   460.0     0.00     3.95     1.86     YES
 L0010624         0   0.85100E-07  477467.0 3750411.8   460.0     0.00     3.95     1.86     YES
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                                                    Residential
 L0010625         0   0.85100E-07  477467.1 3750420.3   460.0     0.00     3.95     1.86     YES
 L0010626         0   0.85100E-07  477467.1 3750428.8   460.0     0.00     3.95     1.86     YES
 L0010627         0   0.85100E-07  477467.1 3750437.3   460.0     0.00     3.95     1.86     YES
 L0010628         0   0.85100E-07  477467.2 3750445.8   460.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010629         0   0.85100E-07  477467.2 3750454.3   460.0     0.00     3.95     1.86     YES
 L0010630         0   0.85100E-07  477467.3 3750462.8   460.0     0.00     3.95     1.86     YES
 L0010631         0   0.85100E-07  477467.3 3750471.3   460.2     0.00     3.95     1.86     YES
 L0010632         0   0.85100E-07  477467.3 3750479.8   460.4     0.00     3.95     1.86     YES
 L0010633         0   0.85100E-07  477467.4 3750488.3   460.7     0.00     3.95     1.86     YES
 L0010634         0   0.85100E-07  477467.4 3750496.8   461.0     0.00     3.95     1.86     YES
 L0010635         0   0.85100E-07  477467.4 3750505.3   461.0     0.00     3.95     1.86     YES
 L0010636         0   0.85100E-07  477467.5 3750513.8   461.0     0.00     3.95     1.86     YES
 L0010637         0   0.85100E-07  477467.5 3750522.3   461.0     0.00     3.95     1.86     YES
 L0010638         0   0.85100E-07  477467.5 3750530.8   461.0     0.00     3.95     1.86     YES
 L0010639         0   0.85100E-07  477467.6 3750539.3   461.0     0.00     3.95     1.86     YES
 L0010640         0   0.85100E-07  477467.7 3750547.8   461.0     0.00     3.95     1.86     YES
 L0010641         0   0.85100E-07  477467.9 3750556.3   461.0     0.00     3.95     1.86     YES
 L0010642         0   0.85100E-07  477468.2 3750564.8   461.0     0.00     3.95     1.86     YES
 L0010643         0   0.85100E-07  477468.4 3750573.3   461.0     0.00     3.95     1.86     YES
 L0010644         0   0.85100E-07  477468.7 3750581.8   461.0     0.00     3.95     1.86     YES
 L0010645         0   0.85100E-07  477468.9 3750590.3   461.0     0.00     3.95     1.86     YES
 L0010646         0   0.85100E-07  477469.2 3750598.8   461.0     0.00     3.95     1.86     YES
 L0010647         0   0.85100E-07  477469.4 3750607.3   461.0     0.00     3.95     1.86     YES
 L0010648         0   0.85100E-07  477469.7 3750615.8   461.0     0.00     3.95     1.86     YES
 L0010649         0   0.85100E-07  477469.9 3750624.3   461.0     0.00     3.95     1.86     YES
 L0010650         0   0.85100E-07  477470.2 3750632.8   461.0     0.00     3.95     1.86     YES
 L0010651         0   0.85100E-07  477470.4 3750641.3   461.0     0.00     3.95     1.86     YES
 L0010652         0   0.85100E-07  477470.7 3750649.8   461.0     0.00     3.95     1.86     YES
 L0010653         0   0.85100E-07  477470.9 3750658.3   461.2     0.00     3.95     1.86     YES
 L0010654         0   0.85100E-07  477471.2 3750666.8   461.3     0.00     3.95     1.86     YES
 L0010655         0   0.85100E-07  477471.4 3750675.3   461.4     0.00     3.95     1.86     YES
 L0010656         0   0.85100E-07  477471.7 3750683.8   461.5     0.00     3.95     1.86     YES
 L0010657         0   0.85100E-07  477471.9 3750692.3   461.7     0.00     3.95     1.86     YES
 L0010658         0   0.85100E-07  477472.2 3750700.8   461.9     0.00     3.95     1.86     YES
 L0010659         0   0.85100E-07  477472.4 3750709.3   462.0     0.00     3.95     1.86     YES
 L0010660         0   0.85100E-07  477472.7 3750717.8   462.0     0.00     3.95     1.86     YES
 L0010661         0   0.85100E-07  477472.9 3750726.3   462.0     0.00     3.95     1.86     YES
 L0010662         0   0.85100E-07  477473.2 3750734.8   462.0     0.00     3.95     1.86     YES
 L0010663         0   0.85100E-07  477473.4 3750743.3   462.0     0.00     3.95     1.86     YES
 L0010664         0   0.85100E-07  477473.7 3750751.7   462.0     0.00     3.95     1.86     YES
 L0010665         0   0.85100E-07  477473.9 3750760.2   462.0     0.00     3.95     1.86     YES
 L0010666         0   0.85100E-07  477474.2 3750768.7   462.0     0.00     3.95     1.86     YES
 L0010667         0   0.85100E-07  477474.4 3750777.2   462.0     0.00     3.95     1.86     YES
 L0010668         0   0.85100E-07  477474.7 3750785.7   462.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   12:58:11

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                                                Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010669         0   0.85100E-07  477474.9 3750794.2   462.0     0.00     3.95     1.86     YES
 L0010670         0   0.85100E-07  477475.2 3750802.7   462.0     0.00     3.95     1.86     YES
 L0010671         0   0.85100E-07  477475.4 3750811.2   462.0     0.00     3.95     1.86     YES
 L0010672         0   0.85100E-07  477475.7 3750819.7   462.0     0.00     3.95     1.86     YES
 L0010673         0   0.85100E-07  477475.9 3750828.2   462.0     0.00     3.95     1.86     YES
 L0010674         0   0.85100E-07  477476.2 3750836.7   462.0     0.00     3.95     1.86     YES
 L0010675         0   0.85100E-07  477476.4 3750845.2   462.0     0.00     3.95     1.86     YES
 L0010676         0   0.85100E-07  477476.7 3750853.7   462.0     0.00     3.95     1.86     YES
 L0010677         0   0.85100E-07  477476.9 3750862.2   462.1     0.00     3.95     1.86     YES
 L0010678         0   0.85100E-07  477477.1 3750870.7   462.3     0.00     3.95     1.86     YES
 L0010679         0   0.85100E-07  477477.1 3750879.2   462.4     0.00     3.95     1.86     YES
 L0010680         0   0.85100E-07  477477.2 3750887.7   462.6     0.00     3.95     1.86     YES
 L0010681         0   0.85100E-07  477477.2 3750896.2   462.7     0.00     3.95     1.86     YES
 L0010682         0   0.85100E-07  477477.3 3750904.7   462.8     0.00     3.95     1.86     YES
 L0010683         0   0.85100E-07  477477.3 3750913.2   462.9     0.00     3.95     1.86     YES
 L0010684         0   0.85100E-07  477477.4 3750921.7   463.0     0.00     3.95     1.86     YES
 L0010685         0   0.85100E-07  477477.4 3750930.2   463.0     0.00     3.95     1.86     YES
 L0010686         0   0.85100E-07  477477.5 3750938.7   463.0     0.00     3.95     1.86     YES
 L0010687         0   0.85100E-07  477477.6 3750947.2   463.0     0.00     3.95     1.86     YES
 L0010688         0   0.85100E-07  477477.6 3750955.7   463.0     0.00     3.95     1.86     YES
 L0010689         0   0.85100E-07  477477.7 3750964.2   463.0     0.00     3.95     1.86     YES
 L0010690         0   0.85100E-07  477477.7 3750972.7   463.0     0.00     3.95     1.86     YES
 L0010691         0   0.85100E-07  477477.8 3750981.2   463.0     0.00     3.95     1.86     YES
 L0010692         0   0.85100E-07  477477.8 3750989.7   463.0     0.00     3.95     1.86     YES
 L0010693         0   0.85100E-07  477477.9 3750998.2   463.0     0.00     3.95     1.86     YES
 L0010694         0   0.85100E-07  477477.9 3751006.7   463.0     0.00     3.95     1.86     YES
 L0010695         0   0.85100E-07  477478.0 3751015.2   463.0     0.00     3.95     1.86     YES
 L0010696         0   0.85100E-07  477478.0 3751023.7   463.0     0.00     3.95     1.86     YES
 L0010697         0   0.85100E-07  477478.1 3751032.2   463.0     0.00     3.95     1.86     YES
 L0010698         0   0.85100E-07  477478.1 3751040.7   463.0     0.00     3.95     1.86     YES
 L0010699         0   0.85100E-07  477478.2 3751049.2   463.0     0.00     3.95     1.86     YES
 L0010700         0   0.85100E-07  477478.3 3751057.7   463.0     0.00     3.95     1.86     YES
 L0010701         0   0.85100E-07  477478.3 3751066.2   463.0     0.00     3.95     1.86     YES
 L0010702         0   0.85100E-07  477478.4 3751074.7   463.2     0.00     3.95     1.86     YES
 L0010703         0   0.85100E-07  477478.4 3751083.2   463.3     0.00     3.95     1.86     YES
 L0010704         0   0.85100E-07  477478.5 3751091.7   463.5     0.00     3.95     1.86     YES
 L0010705         0   0.85100E-07  477478.5 3751100.2   463.7     0.00     3.95     1.86     YES
 L0010706         0   0.85100E-07  477478.6 3751108.7   463.8     0.00     3.95     1.86     YES
 L0010707         0   0.85100E-07  477478.6 3751117.2   463.9     0.00     3.95     1.86     YES
 L0010708         0   0.85100E-07  477478.7 3751125.7   464.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010709        0   0.85100E-07  477478.7 3751134.2   464.0     0.00     3.95     1.86     YES
 L0010710        0   0.85100E-07  477478.8 3751142.7   464.0     0.00     3.95     1.86     YES
 L0010711        0   0.85100E-07  477478.9 3751151.2   464.0     0.00     3.95     1.86     YES
 L0010712        0   0.85100E-07  477478.9 3751159.7   464.0     0.00     3.95     1.86     YES
 L0010713        0   0.85100E-07  477479.0 3751168.2   464.0     0.00     3.95     1.86     YES
 L0010714        0   0.85100E-07  477479.0 3751176.7   464.0     0.00     3.95     1.86     YES
 L0010715        0   0.85100E-07  477479.1 3751185.2   464.0     0.00     3.95     1.86     YES
 L0010716        0   0.85100E-07  477479.1 3751193.7   464.0     0.00     3.95     1.86     YES
 L0010717        0   0.85100E-07  477479.2 3751202.2   464.0     0.00     3.95     1.86     YES
 L0010718        0   0.85100E-07  477479.2 3751210.7   464.0     0.00     3.95     1.86     YES
 L0010719        0   0.85100E-07  477479.3 3751219.2   464.0     0.00     3.95     1.86     YES
 L0010720        0   0.85100E-07  477479.3 3751227.7   464.0     0.00     3.95     1.86     YES
 L0010721        0   0.85100E-07  477479.4 3751236.2   464.0     0.00     3.95     1.86     YES
 L0010722        0   0.85100E-07  477479.3 3751244.7   464.0     0.00     3.95     1.86     YES
 L0010723        0   0.85100E-07  477479.3 3751253.2   464.2     0.00     3.95     1.86     YES
 L0010724        0   0.85100E-07  477479.2 3751261.7   464.5     0.00     3.95     1.86     YES
 L0010725        0   0.85100E-07  477479.2 3751270.2   464.8     0.00     3.95     1.86     YES
 L0010726        0   0.85100E-07  477479.1 3751278.7   465.0     0.00     3.95     1.86     YES
 L0010727        0   0.85100E-07  477479.0 3751287.2   465.0     0.00     3.95     1.86     YES
 L0010728        0   0.85100E-07  477479.0 3751295.7   465.0     0.00     3.95     1.86     YES
 L0010729        0   0.85100E-07  477478.9 3751304.2   465.0     0.00     3.95     1.86     YES
 L0010730        0   0.85100E-07  477478.9 3751312.7   465.0     0.00     3.95     1.86     YES
 L0010731        0   0.85100E-07  477478.8 3751321.2   465.0     0.00     3.95     1.86     YES
 L0010732        0   0.85100E-07  477478.7 3751329.7   465.0     0.00     3.95     1.86     YES
 L0010733        0   0.85100E-07  477478.7 3751338.2   465.0     0.00     3.95     1.86     YES
 L0010734        0   0.85100E-07  477478.6 3751346.7   465.0     0.00     3.95     1.86     YES
 L0010735        0   0.85100E-07  477478.6 3751355.2   465.0     0.00     3.95     1.86     YES
 L0010736        0   0.85100E-07  477478.5 3751363.7   465.0     0.00     3.95     1.86     YES
 L0010737        0   0.85100E-07  477478.5 3751372.2   465.0     0.00     3.95     1.86     YES
 L0010738        0   0.85100E-07  477478.4 3751380.7   465.0     0.00     3.95     1.86     YES
 L0010739        0   0.85100E-07  477478.3 3751389.2   465.0     0.00     3.95     1.86     YES
 L0010740        0   0.85100E-07  477478.3 3751397.7   465.0     0.00     3.95     1.86     YES
 L0010741        0   0.85100E-07  477478.2 3751406.2   465.0     0.00     3.95     1.86     YES
 L0010742        0   0.85100E-07  477478.2 3751414.7   465.0     0.00     3.95     1.86     YES
 L0010743        0   0.85100E-07  477478.1 3751423.2   465.0     0.00     3.95     1.86     YES
 L0010744        0   0.85100E-07  477478.0 3751431.7   465.2     0.00     3.95     1.86     YES
 L0010745        0   0.85100E-07  477478.0 3751440.2   465.4     0.00     3.95     1.86     YES
 L0010746        0   0.85100E-07  477477.9 3751448.7   465.7     0.00     3.95     1.86     YES
 L0010747        0   0.85100E-07  477477.9 3751457.2   466.0     0.00     3.95     1.86     YES
 L0010748        0   0.85100E-07  477477.8 3751465.7   466.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS) (METERS) (METERS) (METERS)             BY
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 L0010749        0   0.85100E-07  477477.8 3751474.2   466.0     0.00     3.95     1.86     YES
 L0010750        0   0.85100E-07  477477.7 3751482.7   466.0     0.00     3.95     1.86     YES
 L0010751        0   0.85100E-07  477477.6 3751491.2   466.0     0.00     3.95     1.86     YES
 L0010752        0   0.85100E-07  477477.6 3751499.7   466.0     0.00     3.95     1.86     YES
 L0010753        0   0.85100E-07  477477.5 3751508.2   466.0     0.00     3.95     1.86     YES
 L0010754        0   0.85100E-07  477477.5 3751516.7   466.0     0.00     3.95     1.86     YES
 L0010755        0   0.85100E-07  477477.4 3751525.2   466.0     0.00     3.95     1.86     YES
 L0010756        0   0.85100E-07  477477.3 3751533.7   466.0     0.00     3.95     1.86     YES
 L0010757        0   0.85100E-07  477477.3 3751542.2   466.0     0.00     3.95     1.86     YES
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                                                   Residential
 L0010758         0   0.85100E-07  477477.2 3751550.7   466.0     0.00     3.95     1.86     YES
 L0010759         0   0.85100E-07  477477.2 3751559.2   466.0     0.00     3.95     1.86     YES
 L0010760         0   0.85100E-07  477477.1 3751567.7   466.0     0.00     3.95     1.86     YES
 L0010761         0   0.85100E-07  477477.0 3751576.2   466.0     0.00     3.95     1.86     YES
 L0010762         0   0.85100E-07  477477.0 3751584.7   466.0     0.00     3.95     1.86     YES
 L0010763         0   0.85100E-07  477476.9 3751593.2   466.0     0.00     3.95     1.86     YES
 L0010764         0   0.85100E-07  477476.9 3751601.7   466.0     0.00     3.95     1.86     YES
 L0010765         0   0.85100E-07  477476.8 3751610.2   466.1     0.00     3.95     1.86     YES
 L0010766         0   0.85100E-07  477476.8 3751618.7   466.2     0.00     3.95     1.86     YES
 L0010767         0   0.85100E-07  477476.7 3751627.2   466.4     0.00     3.95     1.86     YES
 L0010768         0   0.85100E-07  477476.6 3751635.7   466.6     0.00     3.95     1.86     YES
 L0010769         0   0.85100E-07  477476.6 3751644.2   466.7     0.00     3.95     1.86     YES
 L0010770         0   0.85100E-07  477476.5 3751652.7   466.8     0.00     3.95     1.86     YES
 L0010771         0   0.85100E-07  477476.5 3751661.2   466.9     0.00     3.95     1.86     YES
 L0010772         0   0.85100E-07  477476.4 3751669.7   467.0     0.00     3.95     1.86     YES
 L0010773         0   0.85100E-07  477476.3 3751678.2   467.0     0.00     3.95     1.86     YES
 L0010774         0   0.85100E-07  477476.3 3751686.7   467.0     0.00     3.95     1.86     YES
 L0010775         0   0.85100E-07  477476.2 3751695.2   467.0     0.00     3.95     1.86     YES
 L0010776         0   0.85100E-07  477476.2 3751703.7   467.0     0.00     3.95     1.86     YES
 L0010777         0   0.85100E-07  477476.1 3751712.2   467.0     0.00     3.95     1.86     YES
 L0010778         0   0.85100E-07  477476.1 3751720.7   467.0     0.00     3.95     1.86     YES
 L0010779         0   0.85100E-07  477476.0 3751729.2   467.1     0.00     3.95     1.86     YES
 L0010780         0   0.85100E-07  477475.9 3751737.7   467.2     0.00     3.95     1.86     YES
 L0010781         0   0.85100E-07  477475.9 3751746.2   467.4     0.00     3.95     1.86     YES
 L0010782         0   0.85100E-07  477475.8 3751754.7   467.5     0.00     3.95     1.86     YES
 L0010783         0   0.85100E-07  477475.8 3751763.2   467.6     0.00     3.95     1.86     YES
 L0010784         0   0.85100E-07  477475.7 3751771.7   467.8     0.00     3.95     1.86     YES
 L0010785         0   0.85100E-07  477475.6 3751780.2   467.9     0.00     3.95     1.86     YES
 L0010786         0   0.85100E-07  477475.6 3751788.7   468.0     0.00     3.95     1.86     YES
 L0010787         0   0.85100E-07  477475.5 3751797.2   468.0     0.00     3.95     1.86     YES
 L0010788         0   0.85100E-07  477475.5 3751805.7   468.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0010789         0   0.85100E-07  477475.4 3751814.2   468.0     0.00     3.95     1.86     YES
 L0010790         0   0.85100E-07  477475.4 3751822.7   468.0     0.00     3.95     1.86     YES
 L0010791         0   0.85100E-07  477475.3 3751831.2   468.0     0.00     3.95     1.86     YES
 L0010792         0   0.85100E-07  477475.2 3751839.7   468.0     0.00     3.95     1.86     YES
 L0010793         0   0.85100E-07  477475.2 3751848.2   468.0     0.00     3.95     1.86     YES
 L0010794         0   0.85100E-07  477475.1 3751856.7   468.0     0.00     3.95     1.86     YES
 L0010795         0   0.85100E-07  477475.1 3751865.2   468.0     0.00     3.95     1.86     YES
 L0010796         0   0.85100E-07  477475.0 3751873.7   468.0     0.00     3.95     1.86     YES
 L0010797         0   0.85100E-07  477474.9 3751882.2   468.2     0.00     3.95     1.86     YES
 L0010798         0   0.85100E-07  477474.9 3751890.7   468.5     0.00     3.95     1.86     YES
 L0010799         0   0.85100E-07  477474.8 3751899.2   468.8     0.00     3.95     1.86     YES
 L0010800         0   0.85100E-07  477474.8 3751907.7   469.0     0.00     3.95     1.86     YES
 L0010801         0   0.85100E-07  477474.7 3751916.2   469.0     0.00     3.95     1.86     YES
 L0010802         0   0.85100E-07  477474.7 3751924.7   469.0     0.00     3.95     1.86     YES
 L0010803         0   0.85100E-07  477474.6 3751933.2   469.0     0.00     3.95     1.86     YES
 L0010804         0   0.85100E-07  477474.5 3751941.7   469.0     0.00     3.95     1.86     YES
 L0010805         0   0.85100E-07  477474.5 3751950.2   469.0     0.00     3.95     1.86     YES
 L0010806         0   0.85100E-07  477474.4 3751958.7   469.0     0.00     3.95     1.86     YES
 L0010807         0   0.85100E-07  477474.4 3751967.2   469.0     0.00     3.95     1.86     YES
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                                                   Residential
 L0010808         0   0.85100E-07  477474.3 3751975.7   469.0     0.00     3.95     1.86     YES
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 L0010810         0   0.85100E-07  477474.2 3751992.7   469.0     0.00     3.95     1.86     YES
 L0010811         0   0.85100E-07  477474.1 3752001.2   469.0     0.00     3.95     1.86     YES
 L0010812         0   0.85100E-07  477474.1 3752009.7   469.0     0.00     3.95     1.86     YES
 L0010813         0   0.85100E-07  477474.0 3752018.2   469.0     0.00     3.95     1.86     YES
 L0010814         0   0.85100E-07  477474.0 3752026.7   469.0     0.00     3.95     1.86     YES
 L0010815         0   0.85100E-07  477473.9 3752035.2   469.1     0.00     3.95     1.86     YES
 L0010816         0   0.85100E-07  477473.8 3752043.7   469.3     0.00     3.95     1.86     YES
 L0010817         0   0.85100E-07  477473.8 3752052.2   469.4     0.00     3.95     1.86     YES
 L0010818         0   0.85100E-07  477473.7 3752060.7   469.5     0.00     3.95     1.86     YES
 L0010819         0   0.85100E-07  477473.7 3752069.2   469.5     0.00     3.95     1.86     YES
 L0010820         0   0.85100E-07  477473.6 3752077.7   469.5     0.00     3.95     1.86     YES
 L0010821         0   0.85100E-07  477473.5 3752086.2   469.5     0.00     3.95     1.86     YES
 L0010822         0   0.85100E-07  477473.5 3752094.7   469.6     0.00     3.95     1.86     YES
 L0010823         0   0.85100E-07  477473.4 3752103.2   469.8     0.00     3.95     1.86     YES
 L0010824         0   0.85100E-07  477473.4 3752111.7   469.9     0.00     3.95     1.86     YES
 L0010825         0   0.85100E-07  477473.3 3752120.2   470.1     0.00     3.95     1.86     YES
 L0010826         0   0.85100E-07  477473.3 3752128.7   470.2     0.00     3.95     1.86     YES
 L0010827         0   0.85100E-07  477473.2 3752137.2   470.3     0.00     3.95     1.86     YES
 L0010828         0   0.85100E-07  477473.1 3752145.7   470.4     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                ***
   12:58:11

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010829         0   0.85100E-07  477473.1 3752154.2   470.6     0.00     3.95     1.86     YES
 L0010830         0   0.85100E-07  477473.0 3752162.7   470.7     0.00     3.95     1.86     YES
 L0010831         0   0.85100E-07  477473.0 3752171.2   470.9     0.00     3.95     1.86     YES
 L0010832         0   0.85100E-07  477472.9 3752179.7   471.0     0.00     3.95     1.86     YES
 L0010833         0   0.85100E-07  477472.8 3752188.2   471.0     0.00     3.95     1.86     YES
 L0010834         0   0.85100E-07  477472.8 3752196.7   471.0     0.00     3.95     1.86     YES
 L0010835         0   0.85100E-07  477472.7 3752205.2   471.0     0.00     3.95     1.86     YES
 L0010836         0   0.85100E-07  477472.7 3752213.7   471.2     0.00     3.95     1.86     YES
 L0010837         0   0.85100E-07  477472.6 3752222.2   471.5     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                ***
   12:58:11

   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y       ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
      BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                   Residential
 AREA1            0   0.23510E-07  477895.8 3748485.6   452.0     5.00     75.04    426.52      0.00     0.00
YES
 AREA2            0   0.24890E-07  478137.0 3748376.1   451.0     5.00     57.92    521.96      0.00     0.00
YES
 AREA3            0   0.87222E-07  478027.4 3748303.6   450.0     5.00    143.40     60.16      0.00     0.00
YES
 AREA4            0   0.27037E-07  477696.2 3748836.0   454.0     5.00     72.15    152.50      0.00     0.00
YES
 AREA5            0   0.56522E-07  477967.7 3748183.6   450.0     5.00     61.27     85.90      0.00     0.00
YES
 AREA6            0   0.25323E-07  477599.3 3748788.1   454.0     5.00     65.18    180.23      0.00     0.00
YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                           SOURCE IDs
 -----------                                           ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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AREA6       ,

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STCK8       ,

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                            SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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                                                    Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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                                                 Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                            SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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                                                         Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0009069    , L0009070    , L0009071    , L0009072    , L0009073    , L0009074    , L0009075    ,
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L0009084    ,

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L0009092    ,

             L0009093    , L0009094    , L0009095    , L0009096    , L0009097    , L0009098    , L0009099    ,
L0009100    ,

             L0009101    , L0009102    , L0009103    , L0009104    , L0009105    , L0009106    , L0009107    ,
L0009108    ,

             L0009109    , L0009110    , L0009111    , L0009112    , L0009113    , L0009114    , L0009115    ,
L0009116    ,

             L0009117    , L0009118    , L0009119    , L0009120    , L0009121    , L0009122    , L0009123    ,
L0009124    ,

             L0009125    , L0009126    , L0009127    , L0009128    , L0009129    , L0009130    , L0009131    ,
L0009132    ,

             L0009133    , L0009134    , L0009135    , L0009136    , L0009137    , L0009138    , L0009139    ,
L0009140    ,

             L0009141    , L0009142    , L0009143    , L0009144    , L0009145    , L0009146    , L0009147    ,
L0009148    ,
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                  Residential
          L0009149    , L0009150    , L0009151    , L0009152    , L0009153    , L0009154    , L0009155    ,
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          L0009157    , L0009158    , L0009159    , L0009160    , L0009161    , L0009162    , L0009163    ,
L0009164    ,
          L0009165    , L0009166    , L0009167    , L0009168    , L0009169    , L0009170    , L0009171    ,
L0009172    ,
          L0009173    , L0009174    , L0009175    , L0009176    , L0009177    , L0009178    , L0009179    ,
L0009180    ,
          L0009181    , L0009182    , L0009183    , L0009184    , L0009185    , L0009186    , L0009187    ,
L0009188    ,
          L0009189    , L0009190    , L0009191    , L0009192    , L0009193    , L0009194    , L0009195    ,
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          L0009197    , L0009198    , L0009199    , L0009200    , L0009201    , L0009202    , L0009203    ,
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          L0009205    , L0009206    , L0009207    , L0009208    , L0009209    , L0009210    , L0009211    ,
L0009212    ,
          L0009213    , L0009214    , L0009215    , L0009216    , L0009217    , L0009218    , L0009219    ,
L0009220    ,
          L0009221    , L0009222    , L0009223    , L0009224    , L0009225    , L0009226    , L0009227    ,
L0009228    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                 ***
   12:58:11

   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


          L0009229    , L0009230    , L0009231    , L0009232    , L0009233    , L0009234    , L0009235    ,
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          L0009245    , L0009246    , L0009247    , L0009248    , L0009249    , L0009250    , L0009251    ,
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          L0009253    , L0009254    , L0009255    , L0009256    , L0009257    , L0009258    , L0009259    ,
L0009260    ,
          L0009261    , L0009262    , L0009263    , L0009264    , L0009265    , L0009266    , L0009267    ,
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          L0009269    , L0009270    , L0009271    , L0009272    , L0009273    , L0009274    , L0009275    ,
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          L0009277    , L0009278    , L0009279    , L0009280    , L0009281    , L0009282    , L0009283    ,
L0009284    ,
          L0009285    , L0009286    , AREA1       , AREA2       , AREA3       , AREA4       , AREA5       ,
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                                                    Residential
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STCK8      ,

          STCK9      , STCK10     , STCK11     , STCK12     , STCK13     , L0009287   , L0009288   ,
L0009289   ,

          L0009290   , L0009291   , L0009292   , L0009293   , L0009294   , L0009295   , L0009296   ,
L0009297   ,

          L0009298   , L0009299   , L0009300   , L0009301   , L0009302   , L0009303   , L0009304   ,
L0009305   ,

          L0009306   , L0009307   , L0009308   , L0009309   , L0009310   , L0009311   , L0009312   ,
L0009313   ,

          L0009314   , L0009315   , L0009316   , L0009317   , L0009318   , L0009319   , L0009320   ,
L0009321   ,

          L0009322   , L0009323   , L0009324   , L0009325   , L0009326   , L0009327   , L0009328   ,
L0009329   ,

          L0009330   , L0009331   , L0009332   , L0009333   , L0009334   , L0009335   , L0009336   ,
L0009337   ,

          L0009338   , L0009339   , L0009340   , L0009341   , L0009342   , L0009343   , L0009344   ,
L0009345   ,

          L0009346   , L0009347   , L0009348   , L0009349   , L0009350   , L0009351   , L0009352   ,
L0009353   ,

          L0009354   , L0009355   , L0009356   , L0009357   , L0009358   , L0009359   , L0009360   ,
L0009361   ,

          L0009362   , L0009363   , L0009364   , L0009365   , L0009366   , L0009367   , L0009368   ,
L0009369   ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                ***
   12:58:11

   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------


          L0009370   , L0009371   , L0009372   , L0009373   , L0009374   , L0009375   , L0009376   ,
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          L0009386   , L0009387   , L0009388   , L0009389   , L0009390   , L0009391   , L0009392   ,
L0009393   ,

          L0009394   , L0009395   , L0009396   , L0009397   , L0009398   , L0009399   , L0009400   ,
L0009401   ,

          L0009402   , L0009403   , L0009404   , L0009405   , L0009406   , L0009407   , L0009408   ,
L0009409   ,
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                                                    Residential
             L0009410    , L0009411    , L0009412    , L0009413    , L0009414    , L0009415    , L0009416    ,
L0009417    ,

             L0009418    , L0009419    , L0009420    , L0009421    , L0009422    , L0009423    , L0009424    ,
L0009425    ,

             L0009426    , L0009427    , L0009428    , L0009429    , L0009430    , L0009431    , L0009432    ,
L0009433    ,

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L0009441    ,

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             L0009450    , L0009451    , L0009452    , L0009453    , L0009454    , L0009455    , L0009456    ,
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             L0009474    , L0009475    , L0009476    , L0009477    , L0009478    , L0009479    , L0009480    ,
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             L0009482    , L0009483    , L0009484    , L0009485    , L0009486    , L0009487    , L0009488    ,
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             L0009522    , L0009523    , L0009524    , L0009525    , L0009526    , L0009527    , L0009528    ,
L0009529    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0009530    , L0009531    , L0009532    , L0009533    , L0009534    , L0009535    , L0009536    ,
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                                                Residential
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          L0009562    , L0009563    , L0009564    , L0009565    , L0009566    , L0009567    , L0009568    ,
L0009569    ,
          L0009570    , L0009571    , L0009572    , L0009573    , L0009574    , L0009575    , L0009576    ,
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          L0009578    , L0009579    , L0009580    , L0009581    , L0009582    , L0009583    , L0009584    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                              *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------

          L0009690    , L0009691    , L0009692    , L0009693    , L0009694    , L0009695    , L0009696    ,
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                Residential
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             L0009730    , L0009731    , L0009732    , L0009733    , L0009734    , L0009735    , L0009736    ,
L0009737     ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   12:58:11

   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                    Residential
                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                          SOURCE IDs
  --------   ---------                                          ----------


             L0009850    , L0009851    , L0009852    , L0009853    , L0009854    , L0009855    , L0009856    ,
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             L0009882    , L0009883    , L0009884    , L0009885    , L0009886    , L0009887    , L0009888    ,
L0009889    ,

             L0009890    , L0009891    , L0009892    , L0009893    , L0009894    , L0009895    , L0009896    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
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                                                 Residential
 *** AERMET - VERSION  14134 ***   ***                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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             L0010106    , L0010107    , L0010108    , L0010109    , L0010110    , L0010111    , L0010112    ,
L0010113    ,
             L0010114    , L0010115    , L0010116    , L0010117    , L0010118    , L0010119    , L0010120    ,
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                                         Residential
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                            SOURCE IDs
  --------   ---------                                            ----------


             L0010170    , L0010171    , L0010172    , L0010173    , L0010174    , L0010175    , L0010176    ,
L0010177    ,

             L0010178    , L0010179    , L0010180    , L0010181    , L0010182    , L0010183    , L0010184    ,
L0010185    ,

             L0010186    , L0010187    , L0010188    , L0010189    , L0010190    , L0010191    , L0010192    ,
L0010193    ,

             L0010194    , L0010195    , L0010196    , L0010197    , L0010198    , L0010199    , L0010200    ,
L0010201    ,

             L0010202    , L0010203    , L0010204    , L0010205    , L0010206    , L0010207    , L0010208    ,
L0010209    ,

             L0010210    , L0010211    , L0010212    , L0010213    , L0010214    , L0010215    , L0010216    ,
L0010217    ,

             L0010218    , L0010219    , L0010220    , L0010221    , L0010222    , L0010223    , L0010224    ,
L0010225    ,

             L0010226    , L0010227    , L0010228    , L0010229    , L0010230    , L0010231    , L0010232    ,
L0010233    ,

             L0010234    , L0010235    , L0010236    , L0010237    , L0010238    , L0010239    , L0010240    ,
L0010241    ,

             L0010242    , L0010243    , L0010244    , L0010245    , L0010246    , L0010247    , L0010248    ,
L0010249    ,

             L0010250    , L0010251    , L0010252    , L0010253    , L0010254    , L0010255    , L0010256    ,
L0010257    ,

             L0010258    , L0010259    , L0010260    , L0010261    , L0010262    , L0010263    , L0010264    ,
L0010265    ,

             L0010266    , L0010267    , L0010268    , L0010269    , L0010270    , L0010271    , L0010272    ,
L0010273    ,

             L0010274    , L0010275    , L0010276    , L0010277    , L0010278    , L0010279    , L0010280    ,
L0010281    ,

             L0010282    , L0010283    , L0010284    , L0010285    , L0010286    , L0010287    , L0010288    ,
L0010289    ,

             L0010290    , L0010291    , L0010292    , L0010293    , L0010294    , L0010295    , L0010296    ,
L0010297    ,
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                                                                 Residential

             L0010298    , L0010299    , L0010300    , L0010301    , L0010302    , L0010303    , L0010304    ,
L0010305    ,

             L0010306    , L0010307    , L0010308    , L0010309    , L0010310    , L0010311    , L0010312    ,
L0010313    ,

             L0010314    , L0010315    , L0010316    , L0010317    , L0010318    , L0010319    , L0010320    ,
L0010321    ,

             L0010322    , L0010323    , L0010324    , L0010325    , L0010326    , L0010327    , L0010328    ,
L0010329    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                       *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0010330    , L0010331    , L0010332    , L0010333    , L0010334    , L0010335    , L0010336    ,
L0010337    ,

             L0010338    , L0010339    , L0010340    , L0010341    , L0010342    , L0010343    , L0010344    ,
L0010345    ,

             L0010346    , L0010347    , L0010348    , L0010349    , L0010350    , L0010351    , L0010352    ,
L0010353    ,

             L0010354    , L0010355    , L0010356    , L0010357    , L0010358    , L0010359    , L0010360    ,
L0010361    ,

             L0010362    , L0010363    , L0010364    , L0010365    , L0010366    , L0010367    , L0010368    ,
L0010369    ,

             L0010370    , L0010371    , L0010372    , L0010373    , L0010374    , L0010375    , L0010376    ,
L0010377    ,

             L0010378    , L0010379    , L0010380    , L0010381    , L0010382    , L0010383    , L0010384    ,
L0010385    ,

             L0010386    , L0010387    , L0010388    , L0010389    , L0010390    , L0010391    , L0010392    ,
L0010393    ,

             L0010394    , L0010395    , L0010396    , L0010397    , L0010398    , L0010399    , L0010400    ,
L0010401    ,

             L0010402    , L0010403    , L0010404    , L0010405    , L0010406    , L0010407    , L0010408    ,
L0010409    ,

             L0010410    , L0010411    , L0010412    , L0010413    , L0010414    , L0010415    , L0010416    ,
L0010417    ,

             L0010418    , L0010419    , L0010420    , L0010421    , L0010422    , L0010423    , L0010424    ,
L0010425    ,

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L0010433    ,

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                                                    Residential
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L0010449    ,
             L0010450    , L0010451    , L0010452    , L0010453    , L0010454    , L0010455    , L0010456    ,
L0010457    ,
             L0010458    , L0010459    , L0010460    , L0010461    , L0010462    , L0010463    , L0010464    ,
L0010465    ,
             L0010466    , L0010467    , L0010468    , L0010469    , L0010470    , L0010471    , L0010472    ,
L0010473    ,
             L0010474    , L0010475    , L0010476    , L0010477    , L0010478    , L0010479    , L0010480    ,
L0010481    ,
             L0010482    , L0010483    , L0010484    , L0010485    , L0010486    , L0010487    , L0010488    ,
L0010489    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0010490    , L0010491    , L0010492    , L0010493    , L0010494    , L0010495    , L0010496    ,
L0010497    ,
             L0010498    , L0010499    , L0010500    , L0010501    , L0010502    , L0010503    , L0010504    ,
L0010505    ,
             L0010506    , L0010507    , L0010508    , L0010509    , L0010510    , L0010511    , L0010512    ,
L0010513    ,
             L0010514    , L0010515    , L0010516    , L0010517    , L0010518    , L0010519    , L0010520    ,
L0010521    ,
             L0010522    , L0010523    , L0010524    , L0010525    , L0010526    , L0010527    , L0010528    ,
L0010529    ,
             L0010530    , L0010531    , L0010532    , L0010533    , L0010534    , L0010535    , L0010536    ,
L0010537    ,
             L0010538    , L0010539    , L0010540    , L0010541    , L0010542    , L0010543    , L0010544    ,
L0010545    ,
             L0010546    , L0010547    , L0010548    , L0010549    , L0010550    , L0010551    , L0010552    ,
L0010553    ,
             L0010554    , L0010555    , L0010556    , L0010557    , L0010558    , L0010559    , L0010560    ,
L0010561    ,
             L0010562    , L0010563    , L0010564    , L0010565    , L0010566    , L0010567    , L0010568    ,
L0010569    ,
             L0010570    , L0010571    , L0010572    , L0010573    , L0010574    , L0010575    , L0010576    ,
L0010577    ,
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                                      Residential
             L0010578    , L0010579    , L0010580    , L0010581    , L0010582    , L0010583    , L0010584    ,
L0010585    ,

             L0010586    , L0010587    , L0010588    , L0010589    , L0010590    , L0010591    , L0010592    ,
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L0010601    ,

             L0010602    , L0010603    , L0010604    , L0010605    , L0010606    , L0010607    , L0010608    ,
L0010609    ,

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L0010617    ,

             L0010618    , L0010619    , L0010620    , L0010621    , L0010622    , L0010623    , L0010624    ,
L0010625    ,

             L0010626    , L0010627    , L0010628    , L0010629    , L0010630    , L0010631    , L0010632    ,
L0010633    ,

             L0010634    , L0010635    , L0010636    , L0010637    , L0010638    , L0010639    , L0010640    ,
L0010641    ,

             L0010642    , L0010643    , L0010644    , L0010645    , L0010646    , L0010647    , L0010648    ,
L0010649    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0010650    , L0010651    , L0010652    , L0010653    , L0010654    , L0010655    , L0010656    ,
L0010657    ,

             L0010658    , L0010659    , L0010660    , L0010661    , L0010662    , L0010663    , L0010664    ,
L0010665    ,

             L0010666    , L0010667    , L0010668    , L0010669    , L0010670    , L0010671    , L0010672    ,
L0010673    ,

             L0010674    , L0010675    , L0010676    , L0010677    , L0010678    , L0010679    , L0010680    ,
L0010681    ,

             L0010682    , L0010683    , L0010684    , L0010685    , L0010686    , L0010687    , L0010688    ,
L0010689    ,

             L0010690    , L0010691    , L0010692    , L0010693    , L0010694    , L0010695    , L0010696    ,
L0010697    ,

             L0010698    , L0010699    , L0010700    , L0010701    , L0010702    , L0010703    , L0010704    ,
L0010705    ,

             L0010706    , L0010707    , L0010708    , L0010709    , L0010710    , L0010711    , L0010712    ,
L0010713    ,

             L0010714    , L0010715    , L0010716    , L0010717    , L0010718    , L0010719    , L0010720    ,
L0010721    ,
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             L0010722    , L0010723    , L0010724    , L0010725    , L0010726    , L0010727    , L0010728    ,
L0010729    ,

             L0010730    , L0010731    , L0010732    , L0010733    , L0010734    , L0010735    , L0010736    ,
L0010737    ,

             L0010738    , L0010739    , L0010740    , L0010741    , L0010742    , L0010743    , L0010744    ,
L0010745    ,

             L0010746    , L0010747    , L0010748    , L0010749    , L0010750    , L0010751    , L0010752    ,
L0010753    ,

             L0010754    , L0010755    , L0010756    , L0010757    , L0010758    , L0010759    , L0010760    ,
L0010761    ,

             L0010762    , L0010763    , L0010764    , L0010765    , L0010766    , L0010767    , L0010768    ,
L0010769    ,

             L0010770    , L0010771    , L0010772    , L0010773    , L0010774    , L0010775    , L0010776    ,
L0010777    ,

             L0010778    , L0010779    , L0010780    , L0010781    , L0010782    , L0010783    , L0010784    ,
L0010785    ,

             L0010786    , L0010787    , L0010788    , L0010789    , L0010790    , L0010791    , L0010792    ,
L0010793    ,

             L0010794    , L0010795    , L0010796    , L0010797    , L0010798    , L0010799    , L0010800    ,
L0010801    ,

             L0010802    , L0010803    , L0010804    , L0010805    , L0010806    , L0010807    , L0010808    ,
L0010809    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0010810    , L0010811    , L0010812    , L0010813    , L0010814    , L0010815    , L0010816    ,
L0010817    ,

             L0010818    , L0010819    , L0010820    , L0010821    , L0010822    , L0010823    , L0010824    ,
L0010825    ,

             L0010826    , L0010827    , L0010828    , L0010829    , L0010830    , L0010831    , L0010832    ,
L0010833    ,

             L0010834    , L0010835    , L0010836    , L0010837    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***
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SOURCE ID: STCK1
 IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  329.1,  587.6, -521.0,   65.5,      2   42.0,  416.5,  582.1, -519.1,   24.7,
   3   42.0,  491.2,  559.0, -501.4,  -16.9,      4   42.0,  551.1,  519.0, -468.5,  -57.9,
   5   42.0,  594.1,  463.1, -421.4,  -97.2,      6   42.0,  619.2,  393.9, -362.1, -133.5,
   7   42.0,  625.4,  344.2, -323.4, -165.8,      8   42.0,  612.6,  284.1, -274.9, -193.0,
   9   42.0,  583.3,  231.7, -220.1, -215.4,     10   42.0,  587.6,  329.1, -230.0, -227.2,
  11   42.0,  582.1,  416.5, -232.9, -228.0,     12   42.0,  559.0,  491.2, -228.8, -221.9,
  13   42.0,  519.0,  551.1, -217.6, -209.0,     14   42.0,  463.1,  594.1, -199.9, -189.8,
  15   42.0,  393.9,  619.2, -176.1, -165.2,     16   42.0,  344.2,  625.4, -146.9, -151.3,
  17   42.0,  284.1,  612.6, -113.3, -132.9,     18   42.0,  231.7,  583.3,  -76.2, -104.3,
  19   42.0,  329.1,  587.6,  -66.6,  -65.5,     20   42.0,  416.5,  582.1,  -63.1,  -24.7,
  21   42.0,  491.2,  559.0,  -57.6,   16.9,     22   42.0,  551.1,  519.0,  -50.4,   57.9,
  23   42.0,  594.2,  463.1,  -41.7,   97.2,     24   42.0,  619.2,  393.9,  -31.7,  133.5,
  25   42.0,  625.4,  344.2,  -20.8,  165.8,     26   42.0,  612.6,  284.1,   -9.2,  193.0,
  27   42.0,  583.3,  231.7,  -11.5,  215.4,     28   42.0,  587.6,  329.1,  -99.0,  227.2,
  29   42.0,  582.1,  416.5, -183.6,  228.0,     30   42.0,  559.0,  491.2, -262.5,  221.9,
  31   42.0,  519.0,  551.1, -333.4,  209.0,     32   42.0,  463.1,  594.2, -394.3,  189.8,
  33   42.0,  393.9,  619.2, -443.1,  165.2,     34   42.0,  344.2,  625.4, -478.5,  151.3,
  35   42.0,  284.1,  612.6, -499.3,  132.9,     36   42.0,  231.7,  583.3, -507.0,  104.3,


SOURCE ID: STCK2
 IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  329.1,  587.6, -371.0,   89.7,      2   42.0,  416.5,  582.1, -375.6,   74.6,
   3   42.0,  491.2,  559.0, -368.7,   57.2,      4   42.0,  551.1,  519.0, -350.7,   38.0,
   5   42.0,  594.1,  463.1, -322.0,   17.8,      6   42.0,  619.2,  393.9, -284.2,   -3.0,
   7   42.0,  625.4,  344.2, -269.4,  -23.8,      8   42.0,  612.6,  284.1, -246.4,  -43.8,
   9   42.0,  583.3,  231.7, -217.9,  -63.5,     10   42.0,  587.6,  329.1, -254.2,  -77.2,
  11   42.0,  582.1,  416.5, -282.8,  -84.5,     12   42.0,  559.0,  491.2, -302.8,  -89.2,
  13   42.0,  519.0,  551.1, -313.6,  -91.2,     14   42.0,  463.1,  594.1, -314.9,  -90.5,
  15   42.0,  393.9,  619.2, -306.5,  -87.3,     16   42.0,  344.2,  625.4, -288.9,  -97.3,
  17   42.0,  284.1,  612.6, -262.5, -104.3,     18   42.0,  231.7,  583.3, -228.2, -102.1,
  19   42.0,  329.1,  587.6, -216.6,  -89.7,     20   42.0,  416.5,  582.1, -206.6,  -74.6,
  21   42.0,  491.2,  559.0, -190.3,  -57.2,     22   42.0,  551.1,  519.0, -168.2,  -38.0,
  23   42.0,  594.2,  463.1, -141.1,  -17.8,     24   42.0,  619.2,  393.9, -109.6,    3.0,
  25   42.0,  625.4,  344.2,  -74.8,   23.8,     26   42.0,  612.6,  284.1,  -37.7,   43.8,
  27   42.0,  583.3,  231.7,  -13.8,   63.5,     28   42.0,  587.6,  329.1,  -74.8,   77.2,
  29   42.0,  582.1,  416.5, -133.7,   84.5,     30   42.0,  559.0,  491.2, -188.4,   89.2,
  31   42.0,  519.0,  551.1, -237.5,   91.2,     32   42.0,  463.1,  594.2, -279.3,   90.5,
  33   42.0,  393.9,  619.2, -312.6,   87.3,     34   42.0,  344.2,  625.4, -336.5,   97.3,
  35   42.0,  284.1,  612.6, -350.1,  104.3,     36   42.0,  231.7,  583.3, -355.1,  102.1,


SOURCE ID: STCK3
 IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  329.1,  587.6, -211.3,  118.6,      2   42.0,  416.5,  582.1, -223.4,  130.8,
   3   42.0,  491.2,  559.0, -228.6,  138.9,      4   42.0,  551.1,  519.0, -226.9,  142.9,
   5   42.0,  594.1,  463.1, -218.3,  142.5,      6   42.0,  619.2,  393.9, -203.8,  137.8,
   7   42.0,  625.4,  344.2, -214.6,  128.9,      8   42.0,  612.6,  284.1, -219.0,  116.1,
   9   42.0,  583.3,  231.7, -218.7,   98.8,     10   42.0,  587.6,  329.1, -283.1,   82.5,
  11   42.0,  582.1,  416.5, -339.0,   67.7,     12   42.0,  559.0,  491.2, -384.6,   50.9,
  13   42.0,  519.0,  551.1, -418.4,   32.6,     14   42.0,  463.1,  594.1, -439.6,   13.2,
  15   42.0,  393.9,  619.2, -447.4,   -6.8,     16   42.0,  344.2,  625.4, -441.6,  -42.5,
  17   42.0,  284.1,  612.6, -422.4,  -76.9,     18   42.0,  231.7,  583.3, -390.4, -102.8,
  19   42.0,  329.1,  587.6, -376.2, -118.6,     20   42.0,  416.5,  582.1, -358.8, -130.8,
  21   42.0,  491.2,  559.0, -330.4, -138.9,     22   42.0,  551.1,  519.0, -292.0, -142.9,
  23   42.0,  594.2,  463.1, -244.8, -142.5,     24   42.0,  619.2,  393.9, -190.1, -137.8,
  25   42.0,  625.4,  344.2, -129.6, -128.9,     26   42.0,  612.6,  284.1,  -65.2, -116.1,
  27   42.0,  583.3,  231.7,  -13.0,  -98.8,     28   42.0,  587.6,  329.1,  -45.9,  -82.5,
  29   42.0,  582.1,  416.5,  -77.5,  -67.7,     30   42.0,  559.0,  491.2, -106.7,  -50.9,
  31   42.0,  519.0,  551.1, -132.6,  -32.6,     32   42.0,  463.1,  594.2, -154.6,  -13.2,
  33   42.0,  393.9,  619.2, -171.8,    6.8,     34   42.0,  344.2,  625.4, -183.8,   42.5,
  35   42.0,  284.1,  612.6, -190.2,   76.9,     36   42.0,  231.7,  583.3, -192.9,  102.8,
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 SOURCE ID: STCK4
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  329.1,  587.6,  -68.7,  146.0,      2   42.0,  416.5,  582.1,  -87.6,  182.5,
    3   42.0,  491.2,  559.0, -103.9,  213.5,      4   42.0,  551.1,  519.0, -117.0,  238.0,
    5   42.0,  594.1,  463.1, -126.6,  255.2,      6   42.0,  619.2,  393.9, -133.1,  264.7,
    7   42.0,  625.4,  344.2, -167.0,  266.2,      8   42.0,  612.6,  284.1, -195.9,  259.6,
    9   42.0,  583.3,  231.7, -220.9,  244.0,     10   42.0,  587.6,  329.1, -310.5,  225.1,
   11   42.0,  582.1,  416.5, -390.8,  203.5,     12   42.0,  559.0,  491.2, -459.1,  175.6,
   13   42.0,  519.0,  551.1, -513.5,  142.4,     14   42.0,  463.1,  594.1, -552.3,  104.9,
   15   42.0,  393.9,  619.2, -574.3,   63.9,     16   42.0,  344.2,  625.4, -578.9,    5.1,
   17   42.0,  284.1,  612.6, -565.9,  -53.8,     18   42.0,  231.7,  583.3, -535.6, -105.0,
   19   42.0,  329.1,  587.6, -518.9, -146.0,     20   42.0,  416.5,  582.1, -494.5, -182.5,
   21   42.0,  491.2,  559.0, -455.1, -213.5,     22   42.0,  551.1,  519.0, -401.9, -238.0,
   23   42.0,  594.2,  463.1, -336.5, -255.2,     24   42.0,  619.2,  393.9, -260.8, -264.7,
   25   42.0,  625.4,  344.2, -177.2, -266.2,     26   42.0,  612.6,  284.1,  -88.2, -259.6,
   27   42.0,  583.3,  231.7,  -10.8, -244.0,     28   42.0,  587.6,  329.1,  -18.6, -225.1,
   29   42.0,  582.1,  416.5,  -25.7, -203.5,     30   42.0,  559.0,  491.2,  -32.1, -175.6,
   31   42.0,  519.0,  551.1,  -37.6, -142.4,     32   42.0,  463.1,  594.2,  -41.8, -104.9,
   33   42.0,  393.9,  619.2,  -44.9,  -63.9,     34   42.0,  344.2,  625.4,  -46.5,   -5.1,
   35   42.0,  284.1,  612.6,  -46.8,   53.8,     36   42.0,  231.7,  583.3,  -47.6,  105.0,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   12:58:11

   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK5
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  329.1,  587.6, -512.5, -131.7,      2   42.0,  416.5,  582.1, -476.5, -168.1,
    3   42.0,  491.2,  559.0, -426.0, -199.3,      4   42.0,  551.1,  519.0, -362.6, -224.5,
    5   42.0,  594.1,  463.1, -288.1, -242.8,      6   42.0,  166.8,  133.7, -192.9,   83.0,
    7   42.0,  161.6,  117.8, -196.7,   58.7,      8   42.0,  151.6,   99.1, -195.4,   32.6,
    9   42.0,  136.9,   97.6, -205.5,    5.6,     10   42.0,  147.4,  118.8, -214.2,  -20.6,
   11   42.0,  154.0,  137.5, -217.4,  -45.8,     12   42.0,  155.9,  152.0, -214.1,  -69.7,
   13   42.0,  153.1,  161.9, -204.2,  -91.4,     14   42.0,  463.1,  594.1,  -54.3,  -56.6,
   15   42.0,  393.9,  619.2,  -55.8,   -8.7,     16   42.0,  344.2,  625.4,  -55.7,   23.7,
   17   42.0,  284.1,  612.6,  -53.8,   55.3,     18   42.0,  231.7,  583.3,  -50.3,   91.4,
   19   42.0,  329.1,  587.6,  -75.1,  131.7,     20   42.0,  416.5,  582.1, -105.7,  168.1,
   21   42.0,  491.2,  559.0, -133.1,  199.3,     22   42.0,  551.1,  519.0, -156.4,  224.5,
   23   42.0,  594.2,  463.1, -175.0,  242.8,     24   42.0,  166.8,  133.7,   59.1,  -83.0,
   25   42.0,  161.6,  117.8,   78.9,  -58.7,     26   42.0,  612.6,  284.1, -197.4,  252.5,
   27   42.0,  583.3,  231.7, -207.2,  241.3,     28   42.0,  587.6,  329.1, -296.3,  218.7,
   29   42.0,  154.0,  137.5,   79.9,   45.8,     30   42.0,  155.9,  152.0,   62.0,   69.7,
   31   42.0,  153.1,  161.9,   42.3,   91.4,     32   42.0,  463.1,  594.2, -539.9,   56.6,
   33   42.0,  393.9,  619.2, -563.4,    8.7,     34   42.0,  344.2,  625.4, -569.7,  -23.7,
   35   42.0,  284.1,  612.6, -558.8,  -55.3,     36   42.0,  231.7,  583.3, -532.9,  -91.4,


 SOURCE ID: STCK6
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  329.1,  587.6, -363.2,  -99.4,      2   42.0,  416.5,  582.1, -335.0, -110.3,
    3   42.0,  491.2,  559.0, -296.7, -117.8,      4   42.0,  551.1,  519.0, -249.4, -121.8,
    5   42.0,  594.1,  463.1, -194.5, -122.1,      6   42.0,  619.2,  393.9, -134.4, -118.6,
    7   42.0,  625.4,  344.2, -101.8, -111.6,      8   42.0,  612.6,  284.1,  -66.0, -101.1,
    9   42.0,  583.3,  231.7,  -30.3,  -88.6,     10   42.0,  587.6,  329.1,  -65.1,  -69.4,
   11   42.0,  154.0,  137.5, -275.2,   95.6,     12   42.0,  155.9,  152.0, -295.5,   59.6,
   13   42.0,  153.1,  161.9, -306.8,   21.7,     14   42.0,  145.6,  166.9, -308.9,  -16.8,
   15   42.0,  133.7,  166.8, -301.5,  -54.8,     16   42.0,  344.2,  625.4, -201.1,   70.4,
   17   42.0,  284.1,  612.6, -205.2,   76.0,     18   42.0,  231.7,  583.3, -203.0,   85.5,
   19   42.0,  329.1,  587.6, -224.4,   99.4,     20   42.0,  416.5,  582.1, -247.1,  110.3,
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   21    42.0,   491.2,   559.0, -262.3,   117.8,      22    42.0,   551.1,   519.0, -269.6,   121.8,
   23    42.0,   594.2,   463.1, -268.6,   122.1,      24    42.0,   619.2,   393.9, -259.5,   118.6,
   25    42.0,   625.4,   344.2, -242.5,   111.6,      26    42.0,   612.6,   284.1, -218.1,   101.1,
   27    42.0,   583.3,   231.7, -201.3,    88.6,      28    42.0,   587.6,   329.1, -263.9,    69.4,
   29    42.0,   582.1,   416.5, -318.6,    44.0,      30    42.0,   559.0,   491.2, -363.5,    17.2,
   31    42.0,   519.0,   551.1, -397.3,   -10.1,      32    42.0,   463.1,   594.2, -419.2,   -37.0,
   33    42.0,   393.9,   619.2, -428.2,   -62.5,      34    42.0,   344.2,   625.4, -424.3,   -70.4,
   35    42.0,   284.1,   612.6, -407.4,   -76.0,      36    42.0,   231.7,   583.3, -380.3,   -85.5,


 SOURCE ID: STCK7
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,   329.1,   587.6, -205.7,   -70.9,       2    42.0,   416.5,   582.1, -184.9,   -54.9,
    3    42.0,   491.2,   559.0, -158.5,   -37.2,       4    42.0,   551.1,   519.0, -127.3,   -18.4,
    5    42.0,   594.1,   463.1,  -92.2,     1.0,       6    42.0,   619.2,   393.9,  -55.0,    20.3,
    7    42.0,   625.4,   344.2,  -47.7,    39.0,       8    42.0,   612.6,   284.1,  -39.0,    56.6,
    9    42.0,   583.3,   231.7,  -31.1,    71.4,      10    42.0,   587.6,   329.1,  -93.6,    88.1,
   11    42.0,   582.1,   416.5, -153.4,   106.1,      12    42.0,   559.0,   491.2, -208.4,   121.0,
   13    42.0,   519.0,   551.1, -257.2,   132.2,      14    42.0,   463.1,   594.1, -298.1,   139.3,
   15    42.0,   393.9,   619.2, -329.9,   141.9,      16    42.0,   344.2,   625.4, -351.8,   124.4,
   17    42.0,   284.1,   612.6, -362.9,   103.1,      18    42.0,   231.7,   583.3, -363.0,    84.8,
   19    42.0,   329.1,   587.6, -381.9,    70.9,      20    42.0,   416.5,   582.1, -397.2,    54.9,
   21    42.0,   491.2,   559.0, -400.5,    37.2,      22    42.0,   551.1,   519.0, -391.7,    18.4,
   23    42.0,   594.2,   463.1, -370.9,    -1.0,      24    42.0,   619.2,   393.9, -338.8,   -20.3,
   25    42.0,   625.4,   344.2, -296.5,   -39.0,      26    42.0,   612.6,   284.1, -245.2,   -56.6,
   27    42.0,   583.3,   231.7, -200.6,   -71.4,      28    42.0,   587.6,   329.1, -235.4,   -88.1,
   29    42.0,   582.1,   416.5, -263.1,  -106.1,      30    42.0,   559.0,   491.2, -282.8,  -121.0,
   31    42.0,   519.0,   551.1, -293.9,  -132.2,      32    42.0,   463.1,   594.2, -296.1,  -139.3,
   33    42.0,   393.9,   619.2, -289.3,  -141.9,      34    42.0,   344.2,   625.4, -273.7,  -124.4,
   35    42.0,   284.1,   612.6, -249.7,  -103.1,      36    42.0,   231.7,   583.3, -220.2,   -84.8,


 SOURCE ID: STCK8
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,   329.1,   587.6, -135.5,   -57.0,       2    42.0,   416.5,   582.1, -118.2,   -29.0,
    3    42.0,   491.2,   559.0,  -97.3,    -0.2,       4    42.0,   551.1,   519.0,  -73.5,    28.7,
    5    42.0,   594.1,   463.1,  -47.4,    56.7,       6    42.0,   619.2,   393.9,  -20.5,    83.0,
    7    42.0,   625.4,   344.2,  -24.6,   106.8,       8    42.0,   612.6,   284.1,  -28.0,   127.3,
    9    42.0,   583.3,   231.7,  -32.5,   142.9,      10    42.0,   587.6,   329.1, -107.5,   158.3,
   11    42.0,   582.1,   416.5, -179.2,   172.9,      12    42.0,   559.0,   491.2, -245.5,   182.2,
   13    42.0,   519.0,   551.1, -304.2,   186.0,      14    42.0,   463.1,   594.1, -353.8,   184.2,
   15    42.0,   393.9,   619.2, -392.6,   176.4,      16    42.0,   344.2,   625.4, -419.5,   147.5,
   17    42.0,   284.1,   612.6, -433.6,   114.1,      18    42.0,   231.7,   583.3, -434.5,    83.3,
   19    42.0,   329.1,   587.6, -452.0,    57.0,      20    42.0,   416.5,   582.1, -463.9,    29.0,
   21    42.0,   491.2,   559.0, -461.7,     0.2,      22    42.0,   551.1,   519.0, -445.5,   -28.7,
   23    42.0,   594.2,   463.1, -415.7,   -56.7,      24    42.0,   619.2,   393.9, -373.3,   -83.0,
   25    42.0,   625.4,   344.2, -319.6,  -106.8,      26    42.0,   612.6,   284.1, -256.1,  -127.3,
   27    42.0,   583.3,   231.7, -199.1,  -142.9,      28    42.0,   587.6,   329.1, -221.6,  -158.3,
   29    42.0,   582.1,   416.5, -237.3,  -172.9,      30    42.0,   559.0,   491.2, -245.8,  -182.2,
   31    42.0,   519.0,   551.1, -246.8,  -186.0,      32    42.0,   463.1,   594.2, -240.4,  -184.2,
   33    42.0,   393.9,   619.2, -226.6,  -176.4,      34    42.0,   344.2,   625.4, -205.9,  -147.5,
   35    42.0,   284.1,   612.6, -179.0,  -114.1,      36    42.0,   231.7,   583.3, -148.7,   -83.3,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK9
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,   329.1,   587.6,    1.5,    53.2,       2    42.0,   416.5,   582.1,   -2.4,   103.4,
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                                                     Residential
     3    42.0,  491.2,  559.0,    -6.2,  150.3,       4    42.0,  551.1,  519.0,    -9.9,  192.7,
     5    42.0,  594.1,  463.1,   -13.3,  229.3,       6    42.0,  619.2,  393.9,   -16.9,  258.9,
     7    42.0,  625.4,  344.2,   -51.6,  280.6,       8    42.0,  612.6,  284.1,   -84.8,  293.8,
     9    42.0,  583.3,  231.7,  -117.3,  297.0,      10    42.0,  587.6,  329.1,  -217.8,  295.3,
    11    42.0,  582.1,  416.5,  -311.6,  288.7,      12    42.0,  559.0,  491.2,  -396.0,  273.3,
    13    42.0,  519.0,  551.1,  -468.3,  249.6,      14    42.0,  463.1,  594.1,  -526.4,  218.3,
    15    42.0,  393.9,  619.2,  -568.5,  180.0,      16    42.0,  344.2,  625.4,  -593.3,  120.5,
    17    42.0,  284.1,  612.6,  -600.1,   57.3,      18    42.0,  231.7,  583.3,  -588.7,   -1.5,
    19    42.0,  329.1,  587.6,  -589.1,  -53.2,      20    42.0,  416.5,  582.1,  -579.8, -103.4,
    21    42.0,  491.2,  559.0,  -552.8, -150.3,      22    42.0,  551.1,  519.0,  -509.1, -192.7,
    23    42.0,  594.2,  463.1,  -449.8, -229.3,      24    42.0,  619.2,  393.9,  -376.9, -258.9,
    25    42.0,  625.4,  344.2,  -292.6, -280.6,      26    42.0,  612.6,  284.1,  -199.4, -293.8,
    27    42.0,  583.3,  231.7,  -114.3, -297.0,      28    42.0,  587.6,  329.1,  -111.3, -295.3,
    29    42.0,  582.1,  416.5,  -104.9, -288.7,      30    42.0,  559.0,  491.2,   -95.3, -273.3,
    31    42.0,  519.0,  551.1,   -82.8, -249.6,      32    42.0,  463.1,  594.2,   -67.8, -218.3,
    33    42.0,  393.9,  619.2,   -50.7, -180.0,      34    42.0,  344.2,  625.4,   -32.1, -120.5,
    35    42.0,  284.1,  612.6,   -12.5,  -57.3,      36    42.0,  231.7,  583.3,     5.4,    1.5,


 SOURCE ID: STCK10
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
     1    42.0,  329.1,  587.6,   -18.0,  155.4,       2    42.0,  416.5,  582.1,   -39.3,  200.6,
     3    42.0,  491.2,  559.0,   -59.5,  239.7,       4    42.0,  551.1,  519.0,   -77.9,  271.4,
     5    42.0,  594.1,  463.1,   -93.9,  295.0,       6    42.0,  619.2,  393.9,  -107.7,  309.6,
     7    42.0,  625.4,  344.2,  -149.8,  314.8,       8    42.0,  612.6,  284.1,  -187.4,  310.4,
     9    42.0,  583.3,  231.7,  -221.3,  295.6,      10    42.0,  587.6,  329.1,  -319.9,  275.8,
    11    42.0,  582.1,  416.5,  -408.8,  251.7,      12    42.0,  559.0,  491.2,  -485.3,  220.0,
    13    42.0,  519.0,  551.1,  -547.0,  181.6,      14    42.0,  463.1,  594.1,  -592.1,  137.7,
    15    42.0,  393.9,  619.2,  -619.2,   89.2,      16    42.0,  344.2,  625.4,  -627.5,   22.3,
    17    42.0,  284.1,  612.6,  -616.7,  -45.3,      18    42.0,  231.7,  583.3,  -587.2, -105.5,
    19    42.0,  329.1,  587.6,  -569.6, -155.4,      20    42.0,  416.5,  582.1,  -542.8, -200.6,
    21    42.0,  491.2,  559.0,  -499.5, -239.7,      22    42.0,  551.1,  519.0,  -441.1, -271.4,
    23    42.0,  594.2,  463.1,  -369.2, -295.0,      24    42.0,  619.2,  393.9,  -286.2, -309.6,
    25    42.0,  625.4,  344.2,  -194.4, -314.8,      26    42.0,  612.6,  284.1,   -96.7, -310.4,
    27    42.0,  583.3,  231.7,   -10.3, -295.6,      28    42.0,  587.6,  329.1,    -9.2, -275.8,
    29    42.0,  582.1,  416.5,    -7.7, -251.7,      30    42.0,  559.0,  491.2,    -6.0, -220.0,
    31    42.0,  519.0,  551.1,    -4.1, -181.6,      32    42.0,  463.1,  594.2,    -2.1, -137.7,
    33    42.0,  393.9,  619.2,    -0.0,  -89.2,      34    42.0,  344.2,  625.4,     2.1,  -22.3,
    35    42.0,  284.1,  612.6,     4.1,   45.3,      36    42.0,  231.7,  583.3,     3.9,  105.5,


 SOURCE ID: STCK11
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
     1    42.0,  118.8,  147.4,   -76.1,  -44.9,       2    42.0,  137.5,  154.0,   -70.3,  -44.8,
     3    42.0,  152.0,  155.9,   -62.3,  -43.4,       4    42.0,  161.9,  153.1,   -52.4,  -40.6,
     5    42.0,  166.9,  145.6,   -41.0,  -36.6,       6    42.0,  177.3,  154.0,  -266.8,   80.1,
     7    42.0,  174.5,  136.4,  -269.1,   45.9,       8    42.0,  166.3,  114.7,  -263.1,   10.4,
     9    42.0,  153.1,   89.5,  -249.2,  -25.5,      10    42.0,  166.3,  114.7,  -254.2,  -60.6,
    11    42.0,  174.5,  136.4,  -251.6,  -93.9,      12    42.0,  155.9,  152.0,   -32.6,   15.7,
    13    42.0,  153.1,  161.9,   -40.3,   24.1,      14    42.0,  145.6,  166.9,   -46.8,   31.8,
    15    42.0,  133.7,  166.8,   -51.9,   38.6,      16    42.0,  117.8,  161.6,   -55.3,   44.2,
    17    42.0,   99.1,  151.6,   -57.1,   48.0,      18    42.0,   97.6,  136.9,   -57.2,   43.1,
    19    42.0,  118.8,  147.4,   -71.3,   44.9,      20    42.0,  137.5,  154.0,   -83.7,   44.8,
    21    42.0,  152.0,  155.9,   -93.6,   43.4,      22    42.0,  161.9,  153.1,  -100.7,   40.6,
    23    42.0,  166.9,  145.6,  -104.6,   36.6,      24    42.0,  166.8,  133.7,  -105.5,   31.5,
    25    42.0,  161.6,  117.8,  -103.1,   25.5,      26    42.0,  151.6,   99.1,   -97.6,   18.6,
    27    42.0,  136.9,   97.6,   -91.9,   11.2,      28    42.0,  147.4,  118.8,  -104.3,    2.4,
    29    42.0,  154.0,  137.5,  -113.6,   -6.7,      30    42.0,  155.9,  152.0,  -119.4,  -15.7,
    31    42.0,  153.1,  161.9,  -121.6,  -24.1,      32    42.0,  145.6,  166.9,  -120.1,  -31.8,
    33    42.0,  133.7,  166.8,  -114.9,  -38.6,      34    42.0,  117.8,  161.6,  -106.3,  -44.2,
    35    42.0,   99.1,  151.6,   -94.4,  -48.0,      36    42.0,   97.6,  136.9,   -79.6,  -43.1,


 SOURCE ID: STCK12
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
     1    42.0,  100.8,  126.5,   -71.5,   42.3,       2    42.0,  117.5,  128.9,   -82.5,   41.1,
     3    42.0,  130.7,  127.4,   -91.1,   38.6,       4    42.0,  139.8,  122.0,   -96.8,   34.9,
```

```
                                                       Residential
     5   42.0,  144.8,  112.9,  -99.6,   30.2,      6   42.0,  145.3,  101.7,  -99.5,   24.5,
     7   42.0,  141.5,   96.9,  -96.2,   18.1,      8   42.0,  133.3,   89.1,  -90.1,   11.2,
     9   42.0,  122.7,   81.0,  -82.8,    3.1,     10   42.0,  126.5,  100.8,  -92.7,   -8.2,
    11   42.0,  128.9,  117.5,  -99.8,  -18.1,     12   42.0,  127.4,  130.7, -103.9,  -27.4,
    13   42.0,  122.0,  139.8, -104.8,  -35.8,     14   42.0,  112.9,  144.8, -102.5,  -43.2,
    15   42.0,  101.7,  145.3,  -97.2,  -48.6,     16   42.0,   96.9,  141.5,  -88.8,  -47.8,
    17   42.0,  284.1,  612.6, -674.9,  144.9,     18   42.0,  231.7,  583.3, -677.6,   71.8,
    19   42.0,  329.1,  587.6, -689.4,    3.5,     20   42.0,  416.5,  582.1, -688.3,  -64.9,
    21   42.0,  491.2,  559.0, -666.4, -131.3,     22   42.0,  551.1,  519.0, -624.2, -193.8,
    23   42.0,  594.2,  463.1, -563.1, -250.3,     24   42.0,  619.2,  393.9, -484.9, -299.2,
    25   42.0,  141.5,   96.9,   -0.6,  -18.1,     26   42.0,  133.3,   89.1,    1.0,  -11.2,
    27   42.0,  122.7,   81.0,    1.8,   -3.1,     28   42.0,  126.5,  100.8,   -8.1,    8.2,
    29   42.0,  128.9,  117.5,  -17.7,   18.1,     30   42.0,  127.4,  130.7,  -26.8,   27.4,
    31   42.0,  122.0,  139.8,  -35.0,   35.8,     32   42.0,  112.9,  144.8,  -42.2,   43.2,
    33   42.0,  101.7,  145.3,  -48.2,   48.6,     34   42.0,   96.9,  141.5,  -52.6,   47.8,
    35   42.0,  284.1,  612.6,   62.3, -144.9,     36   42.0,   81.0,  122.7,  -58.3,   42.3,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   12:58:11

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK13
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  114.7,  166.3,  -98.7,   58.7,      2   42.0,  136.4,  174.5, -112.8,   55.1,
    3   42.0,  154.0,  177.3, -123.4,   49.9,      4   42.0,  166.9,  174.8, -130.2,   43.1,
    5   42.0,  174.8,  166.9, -133.1,   35.0,      6   42.0,  177.3,  154.0, -132.0,   25.8,
    7   42.0,  174.5,  136.4, -126.8,   15.9,      8   42.0,  166.3,  114.7, -117.8,    5.5,
    9   42.0,  153.1,   89.5, -105.3,   -5.1,     10   42.0,  166.3,  114.7, -116.1,  -15.6,
   11   42.0,  174.5,  136.4, -123.3,  -25.5,     12   42.0,  177.3,  154.0, -126.9,  -34.7,
   13   42.0,  174.8,  166.9, -126.5,  -42.8,     14   42.0,  166.9,  174.8, -122.4,  -49.7,
   15   42.0,  154.0,  177.3, -114.5,  -55.0,     16   42.0,  136.4,  174.5, -103.1,  -58.6,
   17   42.0,  114.7,  166.3,  -88.6,  -60.5,     18   42.0,   89.5,  153.1,  -71.4,  -60.5,
   19   42.0,  114.7,  166.3,  -67.6,  -58.7,     20   42.0,  136.4,  174.5,  -61.7,  -55.1,
   21   42.0,  154.0,  177.3,  -53.9,  -49.9,     22   42.0,  166.9,  174.8,  -44.5,  -43.1,
   23   42.0,  174.8,  166.9,  -33.8,  -35.0,     24   42.0,  177.3,  154.0,  -22.0,  -25.8,
   25   42.0,  174.5,  136.4,   -9.6,  -15.9,     26   42.0,  166.3,  114.7,    3.2,   -5.5,
   27   42.0,  153.1,   89.5,   15.8,    5.1,     28   42.0,  166.3,  114.7,    1.4,   15.6,
   29   42.0,  174.5,  136.4,  -13.1,   25.5,     30   42.0,  177.3,  154.0,  -27.2,   34.7,
   31   42.0,  174.8,  166.9,  -40.4,   42.8,     32   42.0,  166.9,  174.8,  -52.4,   49.7,
   33   42.0,  154.0,  177.3,  -62.8,   55.0,     34   42.0,  136.4,  174.5,  -71.3,   58.6,
   35   42.0,  114.7,  166.3,  -77.7,   60.5,     36   42.0,   89.5,  153.1,  -81.7,   60.5,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                *** DISCRETE CARTESIAN RECEPTORS ***
                                              (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                              (METERS)

     ( 477994.2, 3749818.5,     458.0,     467.0,       0.0);         ( 478348.6, 3749820.7,     458.3,     467.0,
     0.0);
     ( 478324.0, 3749446.9,     456.0,     467.0,       0.0);         ( 478321.9, 3749107.7,     454.0,     467.0,
     0.0);
     ( 478311.5, 3748947.3,     453.0,     466.0,       0.0);         ( 478314.5, 3748704.1,     452.0,     465.0,
     0.0);
```

```
                                                   Residential
     ( 478309.7, 3748401.3,     451.0,     464.0,       0.0);         ( 478302.7, 3748248.4,     450.0,     463.0,
     0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                          (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1

                       METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007   1  1  1
                                                              AND END DATE: 2007  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                         (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\..\..\..\peri8.sfc                                                        Met Version:
14134
   Profile file:   ..\..\..\..\peri8.pfl
   Surface format: FREE

   Profile format: FREE

   Surface station no.:        0                 Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN
                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
07 01 01    1 01    -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  133.    9.1  279.9
5.5
07 01 01    1 02    -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  192.    9.1  279.2
5.5
07 01 01    1 03    -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  160.    9.1  277.5
5.5
07 01 01    1 04    -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50   75.    9.1  277.5
5.5
07 01 01    1 05    -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50  282.    9.1  278.8
5.5
07 01 01    1 06    -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50   96.    9.1  277.5
5.5
07 01 01    1 07    -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  129.    9.1  278.1
5.5
07 01 01    1 08    -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00   0.54    0.50   99.    9.1  277.5
5.5
07 01 01    1 09    27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00   0.33    0.50  133.    9.1  278.1
5.5
07 01 01    1 10    76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00   0.26    0.50  174.    9.1  281.4
5.5
07 01 01    1 11   110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00   0.23    0.50   95.    9.1  284.9
5.5
07 01 01    1 12   125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00   0.22    1.30   94.    9.1  288.1
5.5
07 01 01    1 13   121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00   0.22    2.20   24.    9.1  291.4
5.5
07 01 01    1 14   102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00   0.23    3.60   13.    9.1  292.5
5.5
07 01 01    1 15    69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.    9.1  292.0
5.5
07 01 01    1 16    16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
5.5
07 01 01    1 17   -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
5.5
07 01 01    1 18   -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
5.5
07 01 01    1 19   -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
5.5
07 01 01    1 20   -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
5.5
07 01 01    1 21   -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
5.5
07 01 01    1 22   -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
5.5
07 01 01    1 23   -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
5.5
07 01 01    1 24    -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
5.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

F indicates top of profile (=1) or below (=0)
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   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                                        ***
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**MODELOPTs:   RegDFAULT CONC       ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
***
                                 INCLUDING SOURCE(S):     L0011013     , L0011014     , L0011015     , L0011016     ,
                                                   Page 170
```

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                                                                Residential
L0011017    ,
                 L0011018    , L0011019    , L0011020    , L0011021    , L0011022    , L0011023    , L0011024    ,
L0011025    ,
                 L0011026    , L0011027    , L0011028    , L0011029    , L0008606    , L0008607    , L0008608    ,
L0008609    ,
                 L0008610    , L0008611    , L0008612    , L0008613    , L0008614    , L0008615    , L0008616    ,
. . .      ,

                                                         *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                    ** CONC OF DPM      IN MICROGRAMS/M**3                         **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         477994.17    3749818.50        0.00973                         478348.59    3749820.73        0.00659

         478323.98    3749446.94        0.01011                         478321.90    3749107.70        0.01692

         478311.50    3748947.34        0.02465                         478314.46    3748704.06        0.04512

         478309.66    3748401.33        0.05286                         478302.71    3748248.43        0.05728

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                               *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                                ** CONC OF DPM      IN MICROGRAMS/M**3                         **


NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -

ALL       1ST HIGHEST VALUE IS       0.05728 AT (  478302.71,  3748248.43,   450.00,   463.00,    0.00)  DC

          2ND HIGHEST VALUE IS       0.05286 AT (  478309.66,  3748401.33,   451.00,   464.00,    0.00)  DC

          3RD HIGHEST VALUE IS       0.04512 AT (  478314.46,  3748704.06,   452.00,   465.00,    0.00)  DC

          4TH HIGHEST VALUE IS       0.02465 AT (  478311.50,  3748947.34,   453.00,   466.00,    0.00)  DC

          5TH HIGHEST VALUE IS       0.01692 AT (  478321.90,  3749107.70,   454.00,   467.00,    0.00)  DC

          6TH HIGHEST VALUE IS       0.01011 AT (  478323.98,  3749446.94,   456.00,   467.00,    0.00)  DC

          7TH HIGHEST VALUE IS       0.00973 AT (  477994.17,  3749818.50,   458.00,   467.00,    0.00)  DC

          8TH HIGHEST VALUE IS       0.00659 AT (  478348.59,  3749820.73,   458.30,   467.00,    0.00)  DC

          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

```
                                                    Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           0 Warning Message(s)
 A Total of         124 Informational Message(s)

 A Total of        8760 Hours Were Processed

 A Total of           0 Calm Hours Identified

 A Total of         124 Missing Hours Identified (  1.42 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 3/22/2016
** File: C:\Lakes\AERMOD View\MVL\Revised\300 Ft Buffer\HRA WO Indian St Bridge\Worker\Worker.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Worker.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
```

```
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00009027
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478173.314, 3748380.262, 451.00, 4.00, 13.95
** 478175.653, 3748891.355, 455.14, 4.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0008170     VOLUME   478173.382 3748395.262 451.00
   LOCATION L0008171     VOLUME   478173.520 3748425.261 451.00
   LOCATION L0008172     VOLUME   478173.657 3748455.261 451.00
   LOCATION L0008173     VOLUME   478173.794 3748485.261 451.00
   LOCATION L0008174     VOLUME   478173.932 3748515.260 451.96
   LOCATION L0008175     VOLUME   478174.069 3748545.260 452.00
   LOCATION L0008176     VOLUME   478174.206 3748575.260 452.00
   LOCATION L0008177     VOLUME   478174.343 3748605.259 452.00
   LOCATION L0008178     VOLUME   478174.481 3748635.259 452.00
   LOCATION L0008179     VOLUME   478174.618 3748665.259 452.00
   LOCATION L0008180     VOLUME   478174.755 3748695.259 452.00
   LOCATION L0008181     VOLUME   478174.893 3748725.258 452.00
   LOCATION L0008182     VOLUME   478175.030 3748755.258 452.00
   LOCATION L0008183     VOLUME   478175.167 3748785.258 452.96
   LOCATION L0008184     VOLUME   478175.305 3748815.257 453.00
   LOCATION L0008185     VOLUME   478175.442 3748845.257 453.00
   LOCATION L0008186     VOLUME   478175.579 3748875.257 453.00
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007702
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0005746     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0005747     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0005748     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0005749     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0005750     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0005751     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0005752     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0005753     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0005754     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0005755     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0005756     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0005757     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0005758     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0005759     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
```

```
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000406
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0005760     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0005761     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0005762     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0005763     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0005764     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0005765     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0005766     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0005767     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 5.341E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0005768     VOLUME   477900.151 3748339.028 451.00
   LOCATION L0005769     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0005770     VOLUME   477917.150 3748338.902 451.00
   LOCATION L0005771     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0005772     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0005773     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0005774     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0005775     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0005776     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0005777     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0005778     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0005779     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0005780     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0005781     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0005782     VOLUME   477977.265 3748271.460 450.00
   LOCATION L0005783     VOLUME   477978.288 3748263.022 450.00
   LOCATION L0005784     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0005785     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0005786     VOLUME   477978.207 3748237.527 450.00
   LOCATION L0005787     VOLUME   477978.153 3748229.027 450.00
   LOCATION L0005788     VOLUME   477978.100 3748220.527 450.00
** End of LINE VOLUME Source ID = SLINE5
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
```

```
** Emission Rate = 0.00005502
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0005789     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0005790     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0005791     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0005792     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0005793     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0005794     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0005795     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0005796     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0005797     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0005798     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0005799     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0005800     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0005801     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0005802     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0005803     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 4.125E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0005804     VOLUME   478043.005 3748335.195 451.00
   LOCATION L0005805     VOLUME   478072.998 3748334.546 451.00
   LOCATION L0005806     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0005807     VOLUME   478132.984 3748333.248 451.00
   LOCATION L0005808     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002353
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477908.728, 3748973.445, 453.33, 4.00, 3.95
** 477908.217, 3748946.850, 453.00, 4.00, 3.95
** 477904.636, 3748922.301, 453.00, 4.00, 3.95
** 477903.614, 3748867.577, 453.95, 4.00, 3.95
** 477900.545, 3748486.043, 451.96, 4.00, 3.95
** 477972.658, 3748351.534, 451.00, 4.00, 3.95
** 477983.910, 3748334.145, 451.32, 4.00, 3.95
** 478172.120, 3748336.191, 453.94, 4.00, 3.95
** 478176.211, 3748911.050, 453.10, 4.00, 3.95
** 478158.311, 3748969.865, 453.67, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0007995     VOLUME   477908.646 3748969.196 453.09
   LOCATION L0007996     VOLUME   477908.483 3748960.697 453.00
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                                                 Residential
LOCATION L0007997     VOLUME   477908.319 3748952.199 453.00
LOCATION L0007998     VOLUME   477907.762 3748943.733 453.00
LOCATION L0007999     VOLUME   477906.535 3748935.322 453.00
LOCATION L0008000     VOLUME   477905.308 3748926.911 453.00
LOCATION L0008001     VOLUME   477904.564 3748918.460 453.00
LOCATION L0008002     VOLUME   477904.405 3748909.962 453.00
LOCATION L0008003     VOLUME   477904.246 3748901.463 453.00
LOCATION L0008004     VOLUME   477904.088 3748892.965 453.00
LOCATION L0008005     VOLUME   477903.929 3748884.466 453.00
LOCATION L0008006     VOLUME   477903.770 3748875.968 453.00
LOCATION L0008007     VOLUME   477903.613 3748867.469 453.00
LOCATION L0008008     VOLUME   477903.544 3748858.969 453.00
LOCATION L0008009     VOLUME   477903.476 3748850.470 453.00
LOCATION L0008010     VOLUME   477903.408 3748841.970 453.00
LOCATION L0008011     VOLUME   477903.339 3748833.470 453.00
LOCATION L0008012     VOLUME   477903.271 3748824.971 453.00
LOCATION L0008013     VOLUME   477903.202 3748816.471 453.00
LOCATION L0008014     VOLUME   477903.134 3748807.971 453.00
LOCATION L0008015     VOLUME   477903.066 3748799.471 453.00
LOCATION L0008016     VOLUME   477902.997 3748790.972 453.00
LOCATION L0008017     VOLUME   477902.929 3748782.472 453.00
LOCATION L0008018     VOLUME   477902.861 3748773.972 453.00
LOCATION L0008019     VOLUME   477902.792 3748765.472 453.00
LOCATION L0008020     VOLUME   477902.724 3748756.973 453.00
LOCATION L0008021     VOLUME   477902.655 3748748.473 453.00
LOCATION L0008022     VOLUME   477902.587 3748739.973 453.00
LOCATION L0008023     VOLUME   477902.519 3748731.474 453.00
LOCATION L0008024     VOLUME   477902.450 3748722.974 453.00
LOCATION L0008025     VOLUME   477902.382 3748714.474 453.00
LOCATION L0008026     VOLUME   477902.314 3748705.974 453.00
LOCATION L0008027     VOLUME   477902.245 3748697.475 453.00
LOCATION L0008028     VOLUME   477902.177 3748688.975 452.75
LOCATION L0008029     VOLUME   477902.109 3748680.475 452.46
LOCATION L0008030     VOLUME   477902.040 3748671.975 452.18
LOCATION L0008031     VOLUME   477901.972 3748663.476 452.00
LOCATION L0008032     VOLUME   477901.903 3748654.976 452.00
LOCATION L0008033     VOLUME   477901.835 3748646.476 452.00
LOCATION L0008034     VOLUME   477901.767 3748637.977 452.00
LOCATION L0008035     VOLUME   477901.698 3748629.477 452.00
LOCATION L0008036     VOLUME   477901.630 3748620.977 452.00
LOCATION L0008037     VOLUME   477901.562 3748612.477 452.00
LOCATION L0008038     VOLUME   477901.493 3748603.978 452.00
LOCATION L0008039     VOLUME   477901.425 3748595.478 452.00
LOCATION L0008040     VOLUME   477901.356 3748586.978 452.00
LOCATION L0008041     VOLUME   477901.288 3748578.479 452.00
LOCATION L0008042     VOLUME   477901.220 3748569.979 452.00
LOCATION L0008043     VOLUME   477901.151 3748561.479 452.00
LOCATION L0008044     VOLUME   477901.083 3748552.979 452.00
LOCATION L0008045     VOLUME   477901.015 3748544.480 452.00
LOCATION L0008046     VOLUME   477900.946 3748535.980 452.00
LOCATION L0008047     VOLUME   477900.878 3748527.480 452.00
LOCATION L0008048     VOLUME   477900.809 3748518.980 452.00
LOCATION L0008049     VOLUME   477900.741 3748510.481 452.00
LOCATION L0008050     VOLUME   477900.673 3748501.981 452.00
LOCATION L0008051     VOLUME   477900.604 3748493.481 452.00
LOCATION L0008052     VOLUME   477901.046 3748485.107 451.99
LOCATION L0008053     VOLUME   477905.062 3748477.616 451.95
LOCATION L0008054     VOLUME   477909.079 3748470.125 451.99
LOCATION L0008055     VOLUME   477913.095 3748462.634 451.89
LOCATION L0008056     VOLUME   477917.111 3748455.142 451.72
LOCATION L0008057     VOLUME   477921.127 3748447.651 451.44
LOCATION L0008058     VOLUME   477925.144 3748440.160 451.22
LOCATION L0008059     VOLUME   477929.160 3748432.668 451.07
LOCATION L0008060     VOLUME   477933.176 3748425.177 451.00
LOCATION L0008061     VOLUME   477937.192 3748417.686 451.00
LOCATION L0008062     VOLUME   477941.208 3748410.194 451.00
LOCATION L0008063     VOLUME   477945.225 3748402.703 451.00
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                                                    Residential
LOCATION L0008064     VOLUME   477949.241 3748395.212 451.00
LOCATION L0008065     VOLUME   477953.257 3748387.720 451.00
LOCATION L0008066     VOLUME   477957.273 3748380.229 451.00
LOCATION L0008067     VOLUME   477961.290 3748372.738 451.00
LOCATION L0008068     VOLUME   477965.306 3748365.246 451.00
LOCATION L0008069     VOLUME   477969.322 3748357.755 451.00
LOCATION L0008070     VOLUME   477973.440 3748350.324 451.00
LOCATION L0008071     VOLUME   477978.058 3748343.188 451.00
LOCATION L0008072     VOLUME   477982.676 3748336.051 451.00
LOCATION L0008073     VOLUME   477990.138 3748334.213 451.00
LOCATION L0008074     VOLUME   477998.638 3748334.305 451.00
LOCATION L0008075     VOLUME   478007.137 3748334.397 451.00
LOCATION L0008076     VOLUME   478015.637 3748334.490 451.00
LOCATION L0008077     VOLUME   478024.136 3748334.582 451.00
LOCATION L0008078     VOLUME   478032.636 3748334.675 451.00
LOCATION L0008079     VOLUME   478041.135 3748334.767 451.00
LOCATION L0008080     VOLUME   478049.635 3748334.859 451.00
LOCATION L0008081     VOLUME   478058.134 3748334.952 451.00
LOCATION L0008082     VOLUME   478066.634 3748335.044 451.00
LOCATION L0008083     VOLUME   478075.133 3748335.137 451.00
LOCATION L0008084     VOLUME   478083.633 3748335.229 451.00
LOCATION L0008085     VOLUME   478092.132 3748335.321 451.00
LOCATION L0008086     VOLUME   478100.632 3748335.414 451.00
LOCATION L0008087     VOLUME   478109.131 3748335.506 451.00
LOCATION L0008088     VOLUME   478117.631 3748335.599 451.00
LOCATION L0008089     VOLUME   478126.130 3748335.691 451.00
LOCATION L0008090     VOLUME   478134.630 3748335.783 451.00
LOCATION L0008091     VOLUME   478143.129 3748335.876 451.00
LOCATION L0008092     VOLUME   478151.629 3748335.968 451.00
LOCATION L0008093     VOLUME   478160.128 3748336.061 451.00
LOCATION L0008094     VOLUME   478168.628 3748336.153 451.00
LOCATION L0008095     VOLUME   478172.155 3748341.199 451.00
LOCATION L0008096     VOLUME   478172.216 3748349.699 451.00
LOCATION L0008097     VOLUME   478172.276 3748358.198 451.00
LOCATION L0008098     VOLUME   478172.337 3748366.698 451.00
LOCATION L0008099     VOLUME   478172.397 3748375.198 451.00
LOCATION L0008100     VOLUME   478172.458 3748383.698 451.00
LOCATION L0008101     VOLUME   478172.518 3748392.198 451.00
LOCATION L0008102     VOLUME   478172.579 3748400.697 451.00
LOCATION L0008103     VOLUME   478172.639 3748409.197 451.00
LOCATION L0008104     VOLUME   478172.700 3748417.697 451.00
LOCATION L0008105     VOLUME   478172.760 3748426.197 451.00
LOCATION L0008106     VOLUME   478172.821 3748434.696 451.00
LOCATION L0008107     VOLUME   478172.881 3748443.196 451.00
LOCATION L0008108     VOLUME   478172.942 3748451.696 451.00
LOCATION L0008109     VOLUME   478173.002 3748460.196 451.00
LOCATION L0008110     VOLUME   478173.063 3748468.696 451.00
LOCATION L0008111     VOLUME   478173.123 3748477.195 451.00
LOCATION L0008112     VOLUME   478173.183 3748485.695 451.00
LOCATION L0008113     VOLUME   478173.244 3748494.195 451.25
LOCATION L0008114     VOLUME   478173.304 3748502.695 451.54
LOCATION L0008115     VOLUME   478173.365 3748511.195 451.82
LOCATION L0008116     VOLUME   478173.425 3748519.694 452.00
LOCATION L0008117     VOLUME   478173.486 3748528.194 452.00
LOCATION L0008118     VOLUME   478173.546 3748536.694 452.00
LOCATION L0008119     VOLUME   478173.607 3748545.194 452.00
LOCATION L0008120     VOLUME   478173.667 3748553.693 452.00
LOCATION L0008121     VOLUME   478173.728 3748562.193 452.00
LOCATION L0008122     VOLUME   478173.788 3748570.693 452.00
LOCATION L0008123     VOLUME   478173.849 3748579.193 452.00
LOCATION L0008124     VOLUME   478173.909 3748587.693 452.00
LOCATION L0008125     VOLUME   478173.970 3748596.192 452.00
LOCATION L0008126     VOLUME   478174.030 3748604.692 452.00
LOCATION L0008127     VOLUME   478174.091 3748613.192 452.00
LOCATION L0008128     VOLUME   478174.151 3748621.692 452.00
LOCATION L0008129     VOLUME   478174.212 3748630.191 452.00
LOCATION L0008130     VOLUME   478174.272 3748638.691 452.00
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                                                     Residential
   LOCATION L0008131     VOLUME   478174.333 3748647.191 452.00
   LOCATION L0008132     VOLUME   478174.393 3748655.691 452.00
   LOCATION L0008133     VOLUME   478174.454 3748664.191 452.00
   LOCATION L0008134     VOLUME   478174.514 3748672.690 452.00
   LOCATION L0008135     VOLUME   478174.575 3748681.190 452.00
   LOCATION L0008136     VOLUME   478174.635 3748689.690 452.00
   LOCATION L0008137     VOLUME   478174.696 3748698.190 452.00
   LOCATION L0008138     VOLUME   478174.756 3748706.690 452.00
   LOCATION L0008139     VOLUME   478174.817 3748715.189 452.00
   LOCATION L0008140     VOLUME   478174.877 3748723.689 452.00
   LOCATION L0008141     VOLUME   478174.938 3748732.189 452.00
   LOCATION L0008142     VOLUME   478174.998 3748740.689 452.00
   LOCATION L0008143     VOLUME   478175.059 3748749.188 452.00
   LOCATION L0008144     VOLUME   478175.119 3748757.688 452.04
   LOCATION L0008145     VOLUME   478175.180 3748766.188 452.32
   LOCATION L0008146     VOLUME   478175.240 3748774.688 452.60
   LOCATION L0008147     VOLUME   478175.301 3748783.188 452.89
   LOCATION L0008148     VOLUME   478175.361 3748791.687 453.00
   LOCATION L0008149     VOLUME   478175.422 3748800.187 453.00
   LOCATION L0008150     VOLUME   478175.482 3748808.687 453.00
   LOCATION L0008151     VOLUME   478175.543 3748817.187 453.00
   LOCATION L0008152     VOLUME   478175.603 3748825.687 453.00
   LOCATION L0008153     VOLUME   478175.664 3748834.186 453.00
   LOCATION L0008154     VOLUME   478175.724 3748842.686 453.00
   LOCATION L0008155     VOLUME   478175.785 3748851.186 453.00
   LOCATION L0008156     VOLUME   478175.845 3748859.686 453.00
   LOCATION L0008157     VOLUME   478175.905 3748868.185 453.00
   LOCATION L0008158     VOLUME   478175.966 3748876.685 453.00
   LOCATION L0008159     VOLUME   478176.026 3748885.185 453.00
   LOCATION L0008160     VOLUME   478176.087 3748893.685 453.00
   LOCATION L0008161     VOLUME   478176.147 3748902.185 453.00
   LOCATION L0008162     VOLUME   478176.208 3748910.684 453.00
   LOCATION L0008163     VOLUME   478173.842 3748918.832 453.00
   LOCATION L0008164     VOLUME   478171.367 3748926.964 453.00
   LOCATION L0008165     VOLUME   478168.892 3748935.095 453.00
   LOCATION L0008166     VOLUME   478166.418 3748943.227 453.00
   LOCATION L0008167     VOLUME   478163.943 3748951.359 453.00
   LOCATION L0008168     VOLUME   478161.468 3748959.491 453.00
   LOCATION L0008169     VOLUME   478158.993 3748967.622 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001689
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0005984     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0005985     VOLUME   477852.822 3748843.717 453.00
   LOCATION L0005986     VOLUME   477852.867 3748852.217 453.00
   LOCATION L0005987     VOLUME   477852.913 3748860.717 453.00
   LOCATION L0005988     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0005989     VOLUME   477853.005 3748877.716 453.00
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                                                Residential
   LOCATION L0005990     VOLUME   477853.051 3748886.216 453.00
   LOCATION L0005991     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0005992     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0005993     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0005994     VOLUME   477853.234 3748920.216 453.00
   LOCATION L0005995     VOLUME   477853.279 3748928.716 453.00
   LOCATION L0005996     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0005997     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0005998     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0005999     VOLUME   477853.463 3748962.715 453.00
   LOCATION L0006000     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0006001     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0006002     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0006003     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0006004     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0006005     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0006006     VOLUME   477811.027 3748979.586 454.00
   LOCATION L0006007     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0006008     VOLUME   477794.027 3748979.545 454.00
   LOCATION L0006009     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0006010     VOLUME   477777.027 3748979.504 454.00
   LOCATION L0006011     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0006012     VOLUME   477760.027 3748979.463 454.00
   LOCATION L0006013     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0006014     VOLUME   477743.027 3748979.422 454.00
   LOCATION L0006015     VOLUME   477742.701 3748971.202 454.00
   LOCATION L0006016     VOLUME   477742.653 3748962.702 454.00
   LOCATION L0006017     VOLUME   477742.605 3748954.202 454.00
   LOCATION L0006018     VOLUME   477742.557 3748945.702 454.00
   LOCATION L0006019     VOLUME   477742.508 3748937.202 454.00
   LOCATION L0006020     VOLUME   477742.460 3748928.702 453.89
   LOCATION L0006021     VOLUME   477742.412 3748920.202 453.77
   LOCATION L0006022     VOLUME   477742.364 3748911.703 453.65
   LOCATION L0006023     VOLUME   477742.316 3748903.203 453.58
   LOCATION L0006024     VOLUME   477742.268 3748894.703 453.58
   LOCATION L0006025     VOLUME   477742.220 3748886.203 453.59
   LOCATION L0006026     VOLUME   477744.174 3748877.975 453.52
   LOCATION L0006027     VOLUME   477746.490 3748869.797 453.57
   LOCATION L0006028     VOLUME   477748.805 3748861.618 453.68
   LOCATION L0006029     VOLUME   477751.121 3748853.440 453.84
   LOCATION L0006030     VOLUME   477753.436 3748845.261 453.96
   LOCATION L0006031     VOLUME   477757.468 3748838.153 453.72
   LOCATION L0006032     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0006033     VOLUME   477770.126 3748826.806 453.22
   LOCATION L0006034     VOLUME   477778.582 3748826.536 453.12
   LOCATION L0006035     VOLUME   477787.080 3748826.374 453.03
   LOCATION L0006036     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0006037     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0006038     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0006039     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0006040     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0006041     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0006042     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001105
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
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                                                 Residential
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
** ------------------------------------------------------------------
   LOCATION L0006043     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0006044     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0006045     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0006046     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0006047     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0006048     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0006049     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0006050     VOLUME   477885.558 3748263.233 450.92
   LOCATION L0006051     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0006052     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0006053     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0006054     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0006055     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0006056     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0006057     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0006058     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0006059     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0006060     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0006061     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0006062     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0006063     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0006064     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0006065     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0006066     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0006067     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0006068     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0006069     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0006070     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0006071     VOLUME   477968.225 3748296.672 450.00
   LOCATION L0006072     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0006073     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0006074     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0006075     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0006076     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0006077     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0006078     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0006079     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0006080     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0006081     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0006082     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0006083     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0006084     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0006085     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0006086     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0006087     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0006088     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0006089     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0006090     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0006091     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
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** Configuration = Adjacent
** Emission Rate = 0.00001925
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0006092     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0006093     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0006094     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0006095     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0006096     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0006097     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0006098     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0006099     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0006100     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0006101     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0006102     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0006103     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0006104     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0006105     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0006106     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0006107     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0006108     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0006109     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0006110     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0006111     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0006112     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0006113     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0006114     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0006115     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0006116     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0006117     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0006118     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0006119     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0006120     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0006121     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0006122     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0006123     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0006124     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0006125     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0006126     VOLUME   477618.478 3748795.702 454.00
   LOCATION L0006127     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0006128     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0006129     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0006130     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0006131     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0006132     VOLUME   477567.497 3748797.085 454.00
   LOCATION L0006133     VOLUME   477559.000 3748797.316 454.00
   LOCATION L0006134     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0006135     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0006136     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0006137     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0006138     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0006139     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0006140     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0006141     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
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                                                   Residential
** DESCRSRC Off-Site Travel 70% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001387
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0006142     VOLUME   478255.534 3748984.575 453.00
   LOCATION L0006143     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0006144     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0006145     VOLUME   478230.035 3748984.819 453.00
   LOCATION L0006146     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0006147     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0006148     VOLUME   478204.537 3748985.063 453.00
   LOCATION L0006149     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0006150     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0006151     VOLUME   478179.038 3748985.307 453.00
   LOCATION L0006152     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0006153     VOLUME   478162.038 3748985.469 453.00
   LOCATION L0006154     VOLUME   478153.539 3748985.551 453.00
   LOCATION L0006155     VOLUME   478145.039 3748985.632 453.00
   LOCATION L0006156     VOLUME   478136.540 3748985.713 453.00
   LOCATION L0006157     VOLUME   478128.040 3748985.795 453.00
   LOCATION L0006158     VOLUME   478119.540 3748985.876 453.00
   LOCATION L0006159     VOLUME   478111.041 3748985.957 453.00
   LOCATION L0006160     VOLUME   478102.541 3748986.039 453.00
   LOCATION L0006161     VOLUME   478094.042 3748986.120 453.00
   LOCATION L0006162     VOLUME   478085.542 3748986.201 453.00
   LOCATION L0006163     VOLUME   478077.042 3748986.283 453.00
   LOCATION L0006164     VOLUME   478068.543 3748986.364 453.00
   LOCATION L0006165     VOLUME   478060.043 3748986.445 453.00
   LOCATION L0006166     VOLUME   478051.544 3748986.527 453.00
   LOCATION L0006167     VOLUME   478043.044 3748986.608 453.00
   LOCATION L0006168     VOLUME   478034.544 3748986.689 453.00
   LOCATION L0006169     VOLUME   478026.045 3748986.771 453.00
   LOCATION L0006170     VOLUME   478017.545 3748986.852 453.00
   LOCATION L0006171     VOLUME   478009.045 3748986.933 453.00
   LOCATION L0006172     VOLUME   478000.546 3748987.015 453.00
   LOCATION L0006173     VOLUME   477992.046 3748987.096 453.00
   LOCATION L0006174     VOLUME   477983.547 3748987.177 453.00
   LOCATION L0006175     VOLUME   477975.047 3748987.259 453.00
   LOCATION L0006176     VOLUME   477966.547 3748987.340 453.00
   LOCATION L0006177     VOLUME   477958.048 3748987.421 453.00
   LOCATION L0006178     VOLUME   477949.548 3748987.503 453.00
   LOCATION L0006179     VOLUME   477941.049 3748987.584 453.00
   LOCATION L0006180     VOLUME   477932.549 3748987.665 453.17
   LOCATION L0006181     VOLUME   477924.049 3748987.747 453.37
   LOCATION L0006182     VOLUME   477915.550 3748987.828 453.57
   LOCATION L0006183     VOLUME   477907.050 3748987.909 453.71
   LOCATION L0006184     VOLUME   477898.551 3748987.991 453.71
   LOCATION L0006185     VOLUME   477890.051 3748988.072 453.72
   LOCATION L0006186     VOLUME   477881.917 3748988.516 453.73
   LOCATION L0006187     VOLUME   477881.917 3748997.016 454.00
   LOCATION L0006188     VOLUME   477881.917 3749005.516 454.00
   LOCATION L0006189     VOLUME   477881.917 3749014.016 454.00
   LOCATION L0006190     VOLUME   477881.917 3749022.516 454.00
   LOCATION L0006191     VOLUME   477881.917 3749031.016 454.00
   LOCATION L0006192     VOLUME   477881.917 3749039.516 454.00
   LOCATION L0006193     VOLUME   477881.917 3749048.016 454.00
   LOCATION L0006194     VOLUME   477881.917 3749056.516 454.00
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LOCATION L0006195     VOLUME   477881.917 3749065.016 454.00
LOCATION L0006196     VOLUME   477881.917 3749073.516 454.00
LOCATION L0006197     VOLUME   477881.917 3749082.016 454.00
LOCATION L0006198     VOLUME   477881.917 3749090.516 454.00
LOCATION L0006199     VOLUME   477881.917 3749099.016 454.00
LOCATION L0006200     VOLUME   477881.917 3749107.516 454.00
LOCATION L0006201     VOLUME   477881.917 3749116.016 454.00
LOCATION L0006202     VOLUME   477881.917 3749124.516 454.00
LOCATION L0006203     VOLUME   477881.917 3749133.016 454.00
LOCATION L0006204     VOLUME   477881.917 3749141.516 454.00
LOCATION L0006205     VOLUME   477881.917 3749150.016 454.00
LOCATION L0006206     VOLUME   477881.917 3749158.516 454.00
LOCATION L0006207     VOLUME   477881.917 3749167.016 454.00
LOCATION L0006208     VOLUME   477881.917 3749175.516 454.00
LOCATION L0006209     VOLUME   477881.917 3749184.016 454.00
LOCATION L0006210     VOLUME   477881.917 3749192.516 454.00
LOCATION L0006211     VOLUME   477881.917 3749201.016 454.00
LOCATION L0006212     VOLUME   477881.917 3749209.516 454.10
LOCATION L0006213     VOLUME   477881.917 3749218.016 454.38
LOCATION L0006214     VOLUME   477881.917 3749226.516 454.67
LOCATION L0006215     VOLUME   477881.917 3749235.016 454.95
LOCATION L0006216     VOLUME   477877.860 3749239.512 455.00
LOCATION L0006217     VOLUME   477869.360 3749239.626 455.00
LOCATION L0006218     VOLUME   477860.861 3749239.740 455.00
LOCATION L0006219     VOLUME   477852.362 3749239.854 455.00
LOCATION L0006220     VOLUME   477843.863 3749239.968 455.00
LOCATION L0006221     VOLUME   477835.363 3749240.081 455.00
LOCATION L0006222     VOLUME   477826.864 3749240.195 455.00
LOCATION L0006223     VOLUME   477818.365 3749240.309 455.00
LOCATION L0006224     VOLUME   477809.866 3749240.423 455.00
LOCATION L0006225     VOLUME   477801.367 3749240.537 455.00
LOCATION L0006226     VOLUME   477792.867 3749240.651 455.00
LOCATION L0006227     VOLUME   477784.368 3749240.764 455.00
LOCATION L0006228     VOLUME   477775.869 3749240.878 455.00
LOCATION L0006229     VOLUME   477767.370 3749240.992 455.00
LOCATION L0006230     VOLUME   477758.870 3749241.106 455.00
LOCATION L0006231     VOLUME   477750.371 3749241.220 455.00
LOCATION L0006232     VOLUME   477741.872 3749241.334 455.00
LOCATION L0006233     VOLUME   477733.373 3749241.447 455.00
LOCATION L0006234     VOLUME   477724.873 3749241.561 455.00
LOCATION L0006235     VOLUME   477716.374 3749241.675 455.00
LOCATION L0006236     VOLUME   477707.875 3749241.789 455.00
LOCATION L0006237     VOLUME   477699.376 3749241.903 455.00
LOCATION L0006238     VOLUME   477690.876 3749242.017 455.00
LOCATION L0006239     VOLUME   477682.377 3749242.130 455.00
LOCATION L0006240     VOLUME   477673.878 3749242.244 455.00
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LOCATION L0006244     VOLUME   477639.881 3749242.700 455.00
LOCATION L0006245     VOLUME   477631.382 3749242.813 455.00
LOCATION L0006246     VOLUME   477622.883 3749242.927 455.00
LOCATION L0006247     VOLUME   477614.383 3749243.041 455.00
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LOCATION L0006249     VOLUME   477597.385 3749243.269 455.00
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LOCATION L0006251     VOLUME   477580.386 3749243.496 455.00
LOCATION L0006252     VOLUME   477571.887 3749243.610 455.00
LOCATION L0006253     VOLUME   477563.388 3749243.724 455.00
LOCATION L0006254     VOLUME   477554.889 3749243.838 455.00
LOCATION L0006255     VOLUME   477546.389 3749243.952 455.00
LOCATION L0006256     VOLUME   477537.890 3749244.066 455.00
LOCATION L0006257     VOLUME   477529.391 3749244.179 455.00
LOCATION L0006258     VOLUME   477520.892 3749244.293 455.00
LOCATION L0006259     VOLUME   477512.392 3749244.407 455.00
LOCATION L0006260     VOLUME   477503.893 3749244.521 455.00
LOCATION L0006261     VOLUME   477495.394 3749244.635 455.00
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                                                     Residential
   LOCATION L0006262     VOLUME   477486.895 3749244.749 455.00
   LOCATION L0006263     VOLUME   477478.395 3749244.862 455.00
   LOCATION L0006264     VOLUME   477476.838 3749251.917 455.00
   LOCATION L0006265     VOLUME   477476.725 3749260.416 455.00
   LOCATION L0006266     VOLUME   477476.613 3749268.915 455.00
   LOCATION L0006267     VOLUME   477476.500 3749277.415 455.00
   LOCATION L0006268     VOLUME   477476.388 3749285.914 455.00
   LOCATION L0006269     VOLUME   477476.275 3749294.413 455.00
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   LOCATION L0006271     VOLUME   477476.050 3749311.412 455.23
   LOCATION L0006272     VOLUME   477475.937 3749319.911 455.36
   LOCATION L0006273     VOLUME   477475.825 3749328.410 455.50
   LOCATION L0006274     VOLUME   477475.712 3749336.909 455.65
   LOCATION L0006275     VOLUME   477475.600 3749345.409 455.80
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   LOCATION L0006277     VOLUME   477475.374 3749362.407 456.00
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   LOCATION L0006280     VOLUME   477475.037 3749387.905 456.00
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   LOCATION L0006289     VOLUME   477474.023 3749464.398 456.00
   LOCATION L0006290     VOLUME   477473.911 3749472.897 456.00
   LOCATION L0006291     VOLUME   477473.798 3749481.397 456.16
   LOCATION L0006292     VOLUME   477473.686 3749489.896 456.44
   LOCATION L0006293     VOLUME   477473.573 3749498.395 456.73
   LOCATION L0006294     VOLUME   477473.461 3749506.894 457.00
   LOCATION L0006295     VOLUME   477473.348 3749515.394 457.00
   LOCATION L0006296     VOLUME   477473.235 3749523.893 457.00
   LOCATION L0006297     VOLUME   477473.123 3749532.392 457.00
   LOCATION L0006298     VOLUME   477473.010 3749540.891 457.00
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   LOCATION L0006301     VOLUME   477472.673 3749566.389 457.00
   LOCATION L0006302     VOLUME   477472.560 3749574.888 457.00
   LOCATION L0006303     VOLUME   477472.447 3749583.388 457.00
   LOCATION L0006304     VOLUME   477472.335 3749591.887 457.00
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   LOCATION L0006308     VOLUME   477471.885 3749625.884 457.00
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   LOCATION L0006312     VOLUME   477471.434 3749659.881 457.00
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   LOCATION L0006314     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0006315     VOLUME   477471.097 3749685.379 457.00
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   LOCATION L0006317     VOLUME   477470.871 3749702.377 457.00
   LOCATION L0006318     VOLUME   477470.759 3749710.877 457.00
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   LOCATION L0006320     VOLUME   477470.534 3749727.875 457.00
   LOCATION L0006321     VOLUME   477470.421 3749736.374 457.00
   LOCATION L0006322     VOLUME   477470.309 3749744.874 457.00
   LOCATION L0006323     VOLUME   477470.196 3749753.373 457.23
   LOCATION L0006324     VOLUME   477470.083 3749761.872 457.51
   LOCATION L0006325     VOLUME   477469.971 3749770.371 457.79
   LOCATION L0006326     VOLUME   477469.858 3749778.871 458.00
   LOCATION L0006327     VOLUME   477469.746 3749787.370 458.00
** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003161
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0006330     VOLUME   477884.855 3748181.671 450.00
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   LOCATION L0006332     VOLUME   477867.855 3748181.806 450.00
   LOCATION L0006333     VOLUME   477859.355 3748181.874 450.00
   LOCATION L0006334     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0006335     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0006336     VOLUME   477833.856 3748182.076 450.46
   LOCATION L0006337     VOLUME   477825.357 3748182.144 450.71
   LOCATION L0006338     VOLUME   477816.857 3748182.212 450.88
   LOCATION L0006339     VOLUME   477808.357 3748182.279 450.92
   LOCATION L0006340     VOLUME   477799.857 3748182.347 450.96
   LOCATION L0006341     VOLUME   477791.358 3748182.414 450.99
   LOCATION L0006342     VOLUME   477782.858 3748182.482 451.00
   LOCATION L0006343     VOLUME   477774.358 3748182.549 451.00
   LOCATION L0006344     VOLUME   477765.858 3748182.617 451.00
   LOCATION L0006345     VOLUME   477757.359 3748182.685 451.00
   LOCATION L0006346     VOLUME   477748.859 3748182.752 451.00
   LOCATION L0006347     VOLUME   477740.359 3748182.820 451.00
   LOCATION L0006348     VOLUME   477731.860 3748182.887 451.00
   LOCATION L0006349     VOLUME   477723.360 3748182.955 451.00
   LOCATION L0006350     VOLUME   477714.860 3748183.023 451.00
   LOCATION L0006351     VOLUME   477706.360 3748183.090 451.00
   LOCATION L0006352     VOLUME   477697.861 3748183.158 451.00
   LOCATION L0006353     VOLUME   477689.361 3748183.225 451.00
   LOCATION L0006354     VOLUME   477680.861 3748183.293 451.00
   LOCATION L0006355     VOLUME   477672.361 3748183.360 451.00
   LOCATION L0006356     VOLUME   477663.862 3748183.428 451.00
   LOCATION L0006357     VOLUME   477655.362 3748183.496 451.00
   LOCATION L0006358     VOLUME   477646.862 3748183.563 451.00
   LOCATION L0006359     VOLUME   477638.362 3748183.631 451.00
   LOCATION L0006360     VOLUME   477629.863 3748183.698 451.00
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   LOCATION L0006362     VOLUME   477612.863 3748183.834 451.00
   LOCATION L0006363     VOLUME   477604.364 3748183.901 451.00
   LOCATION L0006364     VOLUME   477595.864 3748183.969 451.00
   LOCATION L0006365     VOLUME   477587.364 3748184.036 451.00
   LOCATION L0006366     VOLUME   477578.864 3748184.104 451.00
   LOCATION L0006367     VOLUME   477570.365 3748184.171 451.00
   LOCATION L0006368     VOLUME   477561.865 3748184.239 451.00
   LOCATION L0006369     VOLUME   477553.365 3748184.307 451.00
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   LOCATION L0006371     VOLUME   477536.366 3748184.442 451.00
   LOCATION L0006372     VOLUME   477527.866 3748184.509 451.00
   LOCATION L0006373     VOLUME   477519.366 3748184.577 451.00
   LOCATION L0006374     VOLUME   477510.866 3748184.644 451.00
   LOCATION L0006375     VOLUME   477502.367 3748184.712 451.00
   LOCATION L0006376     VOLUME   477493.867 3748184.780 451.00
   LOCATION L0006377     VOLUME   477485.367 3748184.847 451.00
   LOCATION L0006378     VOLUME   477476.868 3748184.915 451.00
   LOCATION L0006379     VOLUME   477471.123 3748182.143 451.00
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                                                    Residential
   LOCATION L0006380     VOLUME   477470.934 3748173.646 451.00
   LOCATION L0006381     VOLUME   477470.745 3748165.148 451.00
   LOCATION L0006382     VOLUME   477470.557 3748156.650 451.00
   LOCATION L0006383     VOLUME   477470.368 3748148.152 451.00
   LOCATION L0006384     VOLUME   477470.180 3748139.654 451.00
   LOCATION L0006385     VOLUME   477469.991 3748131.156 451.00
   LOCATION L0006386     VOLUME   477469.803 3748122.658 451.00
   LOCATION L0006387     VOLUME   477469.614 3748114.160 451.00
   LOCATION L0006388     VOLUME   477469.426 3748105.662 451.00
   LOCATION L0006389     VOLUME   477469.237 3748097.164 451.00
   LOCATION L0006390     VOLUME   477469.049 3748088.666 451.00
   LOCATION L0006391     VOLUME   477468.860 3748080.169 451.00
   LOCATION L0006392     VOLUME   477468.672 3748071.671 451.00
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   LOCATION L0006394     VOLUME   477468.295 3748054.675 451.00
   LOCATION L0006395     VOLUME   477468.106 3748046.177 451.00
   LOCATION L0006396     VOLUME   477467.918 3748037.679 451.00
   LOCATION L0006397     VOLUME   477467.729 3748029.181 451.00
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   LOCATION L0006399     VOLUME   477467.352 3748012.185 451.00
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   LOCATION L0006401     VOLUME   477466.975 3747995.189 451.00
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   LOCATION L0006405     VOLUME   477466.221 3747961.198 451.00
   LOCATION L0006406     VOLUME   477466.032 3747952.700 451.00
   LOCATION L0006407     VOLUME   477465.844 3747944.202 451.00
   LOCATION L0006408     VOLUME   477465.655 3747935.704 451.00
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   LOCATION L0006410     VOLUME   477465.278 3747918.708 451.00
   LOCATION L0006411     VOLUME   477465.090 3747910.210 451.00
   LOCATION L0006412     VOLUME   477464.901 3747901.712 451.00
   LOCATION L0006413     VOLUME   477464.713 3747893.215 451.00
   LOCATION L0006414     VOLUME   477464.524 3747884.717 451.00
   LOCATION L0006415     VOLUME   477464.336 3747876.219 451.00
   LOCATION L0006416     VOLUME   477464.147 3747867.721 451.00
   LOCATION L0006417     VOLUME   477463.959 3747859.223 451.00
   LOCATION L0006418     VOLUME   477463.770 3747850.725 451.00
   LOCATION L0006419     VOLUME   477463.582 3747842.227 451.00
   LOCATION L0006420     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0006421     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0006422     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0006423     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0006424     VOLUME   477462.639 3747799.738 451.00
   LOCATION L0006425     VOLUME   477462.450 3747791.240 451.00
   LOCATION L0006426     VOLUME   477462.262 3747782.742 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478134.270  3748371.289      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478168.629  3748871.075      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478166.417  3748719.170      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478167.154  3748556.941      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478169.366  3748411.673      451.000
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                 Residential
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 30% on San Michele to Indian to Fwy
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001835
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
** 477462.276, 3747781.275, 451.00, 4.00, 3.95
** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
** 477725.693, 3746359.638, 448.00, 4.00, 3.95
** 477485.022, 3746362.119, 449.09, 4.00, 3.95
** 477420.512, 3746374.524, 451.63, 4.00, 3.95
** 477323.747, 3746431.591, 450.00, 4.00, 3.95
** 477274.124, 3746468.808, 450.86, 4.00, 3.95
** 477224.501, 3746503.544, 450.08, 4.00, 3.95
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** 476780.928, 3746552.268, 455.52, 4.00, 3.95
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** 476603.680, 3746565.479, 464.00, 4.00, 3.95
** 476539.827, 3746605.112, 464.36, 4.00, 3.95
** 476468.267, 3746741.626, 465.24, 4.00, 3.95
** 476458.359, 3746801.076, 465.86, 4.00, 3.95
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** 476338.359, 3746943.094, 468.00, 4.00, 3.95
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   LOCATION L0006439     VOLUME   477568.524 3747780.573 451.00
   LOCATION L0006440     VOLUME   477577.023 3747780.517 451.00
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LOCATION L0006443     VOLUME   477602.523 3747780.349 451.00
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LOCATION L0006445     VOLUME   477619.523 3747780.236 451.00
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LOCATION L0006449     VOLUME   477653.522 3747780.012 450.75
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LOCATION L0006451     VOLUME   477670.521 3747779.899 450.45
LOCATION L0006452     VOLUME   477679.021 3747779.843 450.32
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LOCATION L0006455     VOLUME   477704.521 3747779.675 450.00
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LOCATION L0006465     VOLUME   477789.519 3747779.113 450.00
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LOCATION L0006467     VOLUME   477806.518 3747779.001 450.00
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LOCATION L0006470     VOLUME   477832.018 3747778.833 450.00
LOCATION L0006471     VOLUME   477840.518 3747778.777 450.00
LOCATION L0006472     VOLUME   477849.018 3747778.720 450.00
LOCATION L0006473     VOLUME   477857.517 3747778.664 450.00
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LOCATION L0006475     VOLUME   477874.517 3747778.552 450.00
LOCATION L0006476     VOLUME   477883.017 3747778.496 450.00
LOCATION L0006477     VOLUME   477891.517 3747778.440 450.00
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LOCATION L0006807      VOLUME   477322.245 3746432.717 450.00
LOCATION L0006808      VOLUME   477315.445 3746437.817 450.00
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LOCATION L0006818      VOLUME   477246.804 3746487.932 450.06
LOCATION L0006819      VOLUME   477239.840 3746492.807 450.15
LOCATION L0006820      VOLUME   477232.877 3746497.681 450.16
LOCATION L0006821      VOLUME   477225.913 3746502.555 450.10
LOCATION L0006822      VOLUME   477218.535 3746506.757 450.04
LOCATION L0006823      VOLUME   477211.051 3746510.786 450.29
LOCATION L0006824      VOLUME   477203.567 3746514.816 450.54
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LOCATION L0006841      VOLUME   477065.716 3746548.560 451.08
LOCATION L0006842      VOLUME   477057.217 3746548.671 451.25
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LOCATION L0006887     VOLUME   476674.776 3746549.522 463.60
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LOCATION L0006906     VOLUME   476533.994 3746616.240 464.43
LOCATION L0006907     VOLUME   476530.047 3746623.768 464.48
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LOCATION L0006909     VOLUME   476522.155 3746638.825 464.58
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LOCATION L0006915     VOLUME   476498.477 3746683.995 464.89
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LOCATION L0006921     VOLUME   476474.799 3746729.166 465.39
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LOCATION L0006976     VOLUME   476136.966 3746949.979 470.59
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   LOCATION L0006979     VOLUME   476111.466 3746949.809 470.92
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   LOCATION L0006981     VOLUME   476094.467 3746949.696 471.14
   LOCATION L0006982     VOLUME   476085.967 3746949.639 471.25
   LOCATION L0006983     VOLUME   476077.467 3746949.583 471.36
   LOCATION L0006984     VOLUME   476068.967 3746949.526 471.47
   LOCATION L0006985     VOLUME   476060.468 3746949.469 471.58
   LOCATION L0006986     VOLUME   476051.968 3746949.413 471.69
   LOCATION L0006987     VOLUME   476043.468 3746949.356 471.80
   LOCATION L0006988     VOLUME   476034.968 3746949.299 471.91
   LOCATION L0006989     VOLUME   476026.468 3746949.243 472.02
   LOCATION L0006990     VOLUME   476017.968 3746949.186 472.13
   LOCATION L0006991     VOLUME   476009.469 3746949.129 472.24
   LOCATION L0006992     VOLUME   476000.969 3746949.073 472.35
   LOCATION L0006993     VOLUME   475992.469 3746949.016 472.46
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   LOCATION L0006996     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0006997     VOLUME   475958.470 3746948.789 472.90
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   LOCATION L0006999     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0007000     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 60% to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0004422
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
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** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
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** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
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   LOCATION L0007020     VOLUME   477477.975 3749961.702 458.17
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LOCATION L0007023     VOLUME   477477.568 3749987.199 459.00
LOCATION L0007024     VOLUME   477477.432 3749995.697 459.00
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LOCATION L0007042     VOLUME   477474.985 3750148.678 459.00
LOCATION L0007043     VOLUME   477474.849 3750157.177 459.00
LOCATION L0007044     VOLUME   477474.713 3750165.676 459.00
LOCATION L0007045     VOLUME   477474.171 3750174.155 459.00
LOCATION L0007046     VOLUME   477473.482 3750182.627 459.00
LOCATION L0007047     VOLUME   477472.792 3750191.099 459.00
LOCATION L0007048     VOLUME   477472.102 3750199.571 459.04
LOCATION L0007049     VOLUME   477471.413 3750208.043 459.15
LOCATION L0007050     VOLUME   477470.723 3750216.515 459.24
LOCATION L0007051     VOLUME   477470.034 3750224.987 459.32
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LOCATION L0007076     VOLUME   477467.146 3750437.339 460.00
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LOCATION L0007079     VOLUME   477467.255 3750462.838 460.00
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LOCATION L0007084     VOLUME   477467.436 3750505.338 461.00
LOCATION L0007085     VOLUME   477467.473 3750513.838 461.00
LOCATION L0007086     VOLUME   477467.509 3750522.338 461.00
LOCATION L0007087     VOLUME   477467.545 3750530.838 461.00
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LOCATION L0007092     VOLUME   477468.438 3750573.326 461.00
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LOCATION L0007436     VOLUME   476201.549 3752227.621 478.00
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LOCATION L0007452     VOLUME   476065.549 3752227.781 477.47
LOCATION L0007453     VOLUME   476057.049 3752227.791 477.38
LOCATION L0007454     VOLUME   476048.549 3752227.801 477.30
LOCATION L0007455     VOLUME   476040.049 3752227.811 477.22
LOCATION L0007456     VOLUME   476031.549 3752227.821 477.19
LOCATION L0007457     VOLUME   476023.049 3752227.831 477.17
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LOCATION L0007459     VOLUME   476006.049 3752227.851 477.12
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LOCATION L0007461     VOLUME   475989.049 3752227.870 477.07
LOCATION L0007462     VOLUME   475980.549 3752227.880 477.05
LOCATION L0007463     VOLUME   475972.049 3752227.890 477.02
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LOCATION L0007484     VOLUME   475793.549 3752228.100 477.05
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LOCATION L0007486     VOLUME   475776.549 3752228.120 477.10
LOCATION L0007487     VOLUME   475768.049 3752228.130 477.12
LOCATION L0007488     VOLUME   475759.549 3752228.140 477.14
LOCATION L0007489     VOLUME   475751.049 3752228.150 477.17
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LOCATION L0007496     VOLUME   475691.549 3752228.219 477.22
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LOCATION L0007498     VOLUME   475674.549 3752228.239 477.22
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LOCATION L0007508     VOLUME   475589.549 3752228.339 477.03
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LOCATION L0007515     VOLUME   475530.049 3752228.409 477.00
LOCATION L0007516     VOLUME   475521.549 3752228.419 477.00
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LOCATION L0007518     VOLUME   475504.549 3752228.439 477.00
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LOCATION L0007550     VOLUME   475232.549 3752228.757 476.00
LOCATION L0007551     VOLUME   475224.049 3752228.767 476.00
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LOCATION L0007554     VOLUME   475198.549 3752228.797 476.00
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LOCATION L0007562     VOLUME   475130.549 3752228.877 476.00
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LOCATION L0007570     VOLUME   475062.549 3752228.957 476.00
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LOCATION L0007574     VOLUME   475028.549 3752228.997 475.85
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LOCATION L0007576     VOLUME   475011.549 3752229.017 475.63
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LOCATION L0007578     VOLUME   474994.549 3752229.037 475.41
LOCATION L0007579     VOLUME   474986.049 3752229.046 475.30
LOCATION L0007580     VOLUME   474977.549 3752229.056 475.19
LOCATION L0007581     VOLUME   474969.049 3752229.066 475.08
LOCATION L0007582     VOLUME   474960.549 3752229.076 475.00
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LOCATION L0007593     VOLUME   474867.050 3752229.186 474.76
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LOCATION L0007595     VOLUME   474850.050 3752229.206 474.54
LOCATION L0007596     VOLUME   474841.550 3752229.216 474.43
LOCATION L0007597     VOLUME   474833.050 3752229.226 474.32
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LOCATION L0007599     VOLUME   474816.050 3752229.246 474.10
LOCATION L0007600     VOLUME   474807.550 3752229.256 474.02
LOCATION L0007601     VOLUME   474799.143 3752228.014 474.12
LOCATION L0007602     VOLUME   474790.738 3752226.744 474.23
LOCATION L0007603     VOLUME   474782.334 3752225.473 474.34
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LOCATION L0007606     VOLUME   474757.121 3752221.660 474.67
LOCATION L0007607     VOLUME   474748.716 3752220.389 474.78
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LOCATION L0007623     VOLUME   474614.245 3752200.054 475.00
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LOCATION L0007628      VOLUME   474572.223 3752193.700 475.07
LOCATION L0007629      VOLUME   474563.818 3752192.429 475.18
LOCATION L0007630      VOLUME   474555.414 3752191.158 475.29
LOCATION L0007631      VOLUME   474547.009 3752189.887 475.40
LOCATION L0007632      VOLUME   474538.605 3752188.616 475.50
LOCATION L0007633      VOLUME   474530.201 3752187.345 475.61
LOCATION L0007634      VOLUME   474521.796 3752186.074 475.72
LOCATION L0007635      VOLUME   474513.392 3752184.803 475.83
LOCATION L0007636      VOLUME   474504.987 3752183.532 475.94
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LOCATION L0007638      VOLUME   474488.178 3752180.990 476.00
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LOCATION L0007640      VOLUME   474471.369 3752178.449 476.00
LOCATION L0007641      VOLUME   474462.965 3752177.178 476.00
LOCATION L0007642      VOLUME   474454.561 3752175.907 476.00
LOCATION L0007643      VOLUME   474446.156 3752174.636 476.00
LOCATION L0007644      VOLUME   474437.752 3752173.365 476.00
LOCATION L0007645      VOLUME   474429.347 3752172.094 476.00
LOCATION L0007646      VOLUME   474420.943 3752170.823 476.03
LOCATION L0007647      VOLUME   474412.538 3752169.552 476.14
LOCATION L0007648      VOLUME   474404.134 3752168.281 476.25
LOCATION L0007649      VOLUME   474395.729 3752167.010 476.36
LOCATION L0007650      VOLUME   474387.325 3752165.739 476.47
LOCATION L0007651      VOLUME   474378.920 3752164.468 476.58
LOCATION L0007652      VOLUME   474370.516 3752163.198 476.69
LOCATION L0007653      VOLUME   474362.112 3752161.927 476.79
LOCATION L0007654      VOLUME   474353.707 3752160.656 476.90
LOCATION L0007655      VOLUME   474345.303 3752159.385 477.00
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LOCATION L0007663      VOLUME   474278.067 3752149.217 477.00
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LOCATION L0007685      VOLUME   474093.345 3752120.149 478.00
LOCATION L0007686      VOLUME   474084.961 3752118.751 478.00
LOCATION L0007687      VOLUME   474076.577 3752117.354 478.00
LOCATION L0007688      VOLUME   474068.192 3752115.956 478.00
LOCATION L0007689      VOLUME   474059.808 3752114.559 478.00
LOCATION L0007690      VOLUME   474051.424 3752113.162 478.00
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                                                     Residential
   LOCATION L0007691     VOLUME   474043.039 3752111.764 478.00
** End of LINE VOLUME Source ID = SLINE14
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003048
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477474.677, 3750167.941, 460.51, 0.00, 3.95
** 477466.428, 3750269.283, 460.78, 0.00, 3.95
** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
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   LOCATION L0007695     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0007696     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0007697     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0007698     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0007699     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0007700     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0007701     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0007702     VOLUME   477479.199 3749885.212 458.00
   LOCATION L0007703     VOLUME   477479.063 3749893.711 458.00
   LOCATION L0007704     VOLUME   477478.927 3749902.209 458.00
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   LOCATION L0007706     VOLUME   477478.655 3749919.207 458.00
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   LOCATION L0007708     VOLUME   477478.383 3749936.205 458.00
   LOCATION L0007709     VOLUME   477478.247 3749944.704 458.00
   LOCATION L0007710     VOLUME   477478.111 3749953.203 458.00
   LOCATION L0007711     VOLUME   477477.975 3749961.702 458.17
   LOCATION L0007712     VOLUME   477477.840 3749970.201 458.45
   LOCATION L0007713     VOLUME   477477.704 3749978.700 458.74
   LOCATION L0007714     VOLUME   477477.568 3749987.199 459.00
   LOCATION L0007715     VOLUME   477477.432 3749995.697 459.00
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   LOCATION L0007717     VOLUME   477477.160 3750012.695 459.00
   LOCATION L0007718     VOLUME   477477.024 3750021.194 459.00
   LOCATION L0007719     VOLUME   477476.888 3750029.693 459.00
   LOCATION L0007720     VOLUME   477476.752 3750038.192 459.00
   LOCATION L0007721     VOLUME   477476.616 3750046.691 459.00
   LOCATION L0007722     VOLUME   477476.480 3750055.190 459.00
   LOCATION L0007723     VOLUME   477476.344 3750063.689 459.00
   LOCATION L0007724     VOLUME   477476.208 3750072.188 459.00
   LOCATION L0007725     VOLUME   477476.072 3750080.687 459.00
   LOCATION L0007726     VOLUME   477475.937 3750089.186 459.00
   LOCATION L0007727     VOLUME   477475.801 3750097.684 459.00
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   LOCATION L0007730     VOLUME   477475.393 3750123.181 459.00
   LOCATION L0007731     VOLUME   477475.257 3750131.680 459.00
   LOCATION L0007732     VOLUME   477475.121 3750140.179 459.00
   LOCATION L0007733     VOLUME   477474.985 3750148.678 459.00
   LOCATION L0007734     VOLUME   477474.849 3750157.177 459.00
   LOCATION L0007735     VOLUME   477474.713 3750165.676 459.00
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   LOCATION L0007737     VOLUME   477473.482 3750182.627 459.00
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                                                 Residential
LOCATION L0007738     VOLUME   477472.792 3750191.099 459.00
LOCATION L0007739     VOLUME   477472.102 3750199.571 459.04
LOCATION L0007740     VOLUME   477471.413 3750208.043 459.15
LOCATION L0007741     VOLUME   477470.723 3750216.515 459.24
LOCATION L0007742     VOLUME   477470.034 3750224.987 459.32
LOCATION L0007743     VOLUME   477469.344 3750233.459 459.48
LOCATION L0007744     VOLUME   477468.654 3750241.931 459.66
LOCATION L0007745     VOLUME   477467.965 3750250.403 459.85
LOCATION L0007746     VOLUME   477467.275 3750258.875 460.00
LOCATION L0007747     VOLUME   477466.586 3750267.347 460.00
LOCATION L0007748     VOLUME   477466.456 3750275.840 460.00
LOCATION L0007749     VOLUME   477466.492 3750284.340 460.00
LOCATION L0007750     VOLUME   477466.529 3750292.840 460.00
LOCATION L0007751     VOLUME   477466.565 3750301.340 460.00
LOCATION L0007752     VOLUME   477466.601 3750309.840 460.00
LOCATION L0007753     VOLUME   477466.638 3750318.340 460.00
LOCATION L0007754     VOLUME   477466.674 3750326.840 460.00
LOCATION L0007755     VOLUME   477466.710 3750335.340 460.00
LOCATION L0007756     VOLUME   477466.747 3750343.840 460.00
LOCATION L0007757     VOLUME   477466.783 3750352.340 460.00
LOCATION L0007758     VOLUME   477466.819 3750360.839 460.00
LOCATION L0007759     VOLUME   477466.855 3750369.339 460.00
LOCATION L0007760     VOLUME   477466.892 3750377.839 460.00
LOCATION L0007761     VOLUME   477466.928 3750386.339 460.00
LOCATION L0007762     VOLUME   477466.964 3750394.839 460.00
LOCATION L0007763     VOLUME   477467.001 3750403.339 460.00
LOCATION L0007764     VOLUME   477467.037 3750411.839 460.00
LOCATION L0007765     VOLUME   477467.073 3750420.339 460.00
LOCATION L0007766     VOLUME   477467.110 3750428.839 460.00
LOCATION L0007767     VOLUME   477467.146 3750437.339 460.00
LOCATION L0007768     VOLUME   477467.182 3750445.839 460.00
LOCATION L0007769     VOLUME   477467.219 3750454.339 460.00
LOCATION L0007770     VOLUME   477467.255 3750462.838 460.00
LOCATION L0007771     VOLUME   477467.291 3750471.338 460.16
LOCATION L0007772     VOLUME   477467.328 3750479.838 460.44
LOCATION L0007773     VOLUME   477467.364 3750488.338 460.73
LOCATION L0007774     VOLUME   477467.400 3750496.838 461.00
LOCATION L0007775     VOLUME   477467.436 3750505.338 461.00
LOCATION L0007776     VOLUME   477467.473 3750513.838 461.00
LOCATION L0007777     VOLUME   477467.509 3750522.338 461.00
LOCATION L0007778     VOLUME   477467.545 3750530.838 461.00
LOCATION L0007779     VOLUME   477467.582 3750539.338 461.00
LOCATION L0007780     VOLUME   477467.689 3750547.837 461.00
LOCATION L0007781     VOLUME   477467.939 3750556.333 461.00
LOCATION L0007782     VOLUME   477468.188 3750564.829 461.00
LOCATION L0007783     VOLUME   477468.438 3750573.326 461.00
LOCATION L0007784     VOLUME   477468.688 3750581.822 461.00
LOCATION L0007785     VOLUME   477468.938 3750590.318 461.00
LOCATION L0007786     VOLUME   477469.188 3750598.814 461.00
LOCATION L0007787     VOLUME   477469.438 3750607.311 461.00
LOCATION L0007788     VOLUME   477469.688 3750615.807 461.00
LOCATION L0007789     VOLUME   477469.938 3750624.303 461.00
LOCATION L0007790     VOLUME   477470.188 3750632.800 461.00
LOCATION L0007791     VOLUME   477470.437 3750641.296 461.00
LOCATION L0007792     VOLUME   477470.687 3750649.792 461.04
LOCATION L0007793     VOLUME   477470.937 3750658.289 461.15
LOCATION L0007794     VOLUME   477471.187 3750666.785 461.26
LOCATION L0007795     VOLUME   477471.437 3750675.281 461.37
LOCATION L0007796     VOLUME   477471.687 3750683.778 461.54
LOCATION L0007797     VOLUME   477471.937 3750692.274 461.72
LOCATION L0007798     VOLUME   477472.187 3750700.770 461.89
LOCATION L0007799     VOLUME   477472.437 3750709.267 462.00
LOCATION L0007800     VOLUME   477472.686 3750717.763 462.00
LOCATION L0007801     VOLUME   477472.936 3750726.259 462.00
LOCATION L0007802     VOLUME   477473.186 3750734.756 462.00
LOCATION L0007803     VOLUME   477473.436 3750743.252 462.00
LOCATION L0007804     VOLUME   477473.686 3750751.748 462.00
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                                                 Residential
LOCATION L0007805     VOLUME   477473.936 3750760.245 462.00
LOCATION L0007806     VOLUME   477474.186 3750768.741 462.00
LOCATION L0007807     VOLUME   477474.436 3750777.237 462.00
LOCATION L0007808     VOLUME   477474.686 3750785.734 462.00
LOCATION L0007809     VOLUME   477474.935 3750794.230 462.00
LOCATION L0007810     VOLUME   477475.185 3750802.726 462.00
LOCATION L0007811     VOLUME   477475.435 3750811.223 462.00
LOCATION L0007812     VOLUME   477475.685 3750819.719 462.00
LOCATION L0007813     VOLUME   477475.935 3750828.215 462.00
LOCATION L0007814     VOLUME   477476.185 3750836.712 462.00
LOCATION L0007815     VOLUME   477476.435 3750845.208 462.00
LOCATION L0007816     VOLUME   477476.685 3750853.704 462.00
LOCATION L0007817     VOLUME   477476.935 3750862.201 462.11
LOCATION L0007818     VOLUME   477477.066 3750870.699 462.27
LOCATION L0007819     VOLUME   477477.120 3750879.199 462.44
LOCATION L0007820     VOLUME   477477.174 3750887.699 462.60
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LOCATION L0007822     VOLUME   477477.282 3750904.698 462.84
LOCATION L0007823     VOLUME   477477.337 3750913.198 462.95
LOCATION L0007824     VOLUME   477477.391 3750921.698 463.00
LOCATION L0007825     VOLUME   477477.445 3750930.198 463.00
LOCATION L0007826     VOLUME   477477.499 3750938.698 463.00
LOCATION L0007827     VOLUME   477477.553 3750947.197 463.00
LOCATION L0007828     VOLUME   477477.607 3750955.697 463.00
LOCATION L0007829     VOLUME   477477.661 3750964.197 463.00
LOCATION L0007830     VOLUME   477477.716 3750972.697 463.00
LOCATION L0007831     VOLUME   477477.770 3750981.197 463.00
LOCATION L0007832     VOLUME   477477.824 3750989.697 463.00
LOCATION L0007833     VOLUME   477477.878 3750998.196 463.00
LOCATION L0007834     VOLUME   477477.932 3751006.696 463.00
LOCATION L0007835     VOLUME   477477.986 3751015.196 463.00
LOCATION L0007836     VOLUME   477478.040 3751023.696 463.00
LOCATION L0007837     VOLUME   477478.095 3751032.196 463.00
LOCATION L0007838     VOLUME   477478.149 3751040.696 463.00
LOCATION L0007839     VOLUME   477478.203 3751049.195 463.00
LOCATION L0007840     VOLUME   477478.257 3751057.695 463.00
LOCATION L0007841     VOLUME   477478.311 3751066.195 463.00
LOCATION L0007842     VOLUME   477478.365 3751074.695 463.17
LOCATION L0007843     VOLUME   477478.419 3751083.195 463.34
LOCATION L0007844     VOLUME   477478.474 3751091.695 463.52
LOCATION L0007845     VOLUME   477478.528 3751100.194 463.67
LOCATION L0007846     VOLUME   477478.582 3751108.694 463.78
LOCATION L0007847     VOLUME   477478.636 3751117.194 463.88
LOCATION L0007848     VOLUME   477478.690 3751125.694 463.99
LOCATION L0007849     VOLUME   477478.744 3751134.194 464.00
LOCATION L0007850     VOLUME   477478.798 3751142.694 464.00
LOCATION L0007851     VOLUME   477478.853 3751151.193 464.00
LOCATION L0007852     VOLUME   477478.907 3751159.693 464.00
LOCATION L0007853     VOLUME   477478.961 3751168.193 464.00
LOCATION L0007854     VOLUME   477479.015 3751176.693 464.00
LOCATION L0007855     VOLUME   477479.069 3751185.193 464.00
LOCATION L0007856     VOLUME   477479.123 3751193.692 464.00
LOCATION L0007857     VOLUME   477479.177 3751202.192 464.00
LOCATION L0007858     VOLUME   477479.232 3751210.692 464.00
LOCATION L0007859     VOLUME   477479.286 3751219.192 464.00
LOCATION L0007860     VOLUME   477479.340 3751227.692 464.00
LOCATION L0007861     VOLUME   477479.386 3751236.192 464.00
LOCATION L0007862     VOLUME   477479.327 3751244.691 464.00
LOCATION L0007863     VOLUME   477479.269 3751253.191 464.22
LOCATION L0007864     VOLUME   477479.211 3751261.691 464.50
LOCATION L0007865     VOLUME   477479.152 3751270.191 464.79
LOCATION L0007866     VOLUME   477479.094 3751278.691 465.00
LOCATION L0007867     VOLUME   477479.035 3751287.190 465.00
LOCATION L0007868     VOLUME   477478.977 3751295.690 465.00
LOCATION L0007869     VOLUME   477478.919 3751304.190 465.00
LOCATION L0007870     VOLUME   477478.860 3751312.690 465.00
LOCATION L0007871     VOLUME   477478.802 3751321.190 465.00
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                                                 Residential
LOCATION L0007872     VOLUME   477478.743 3751329.689 465.00
LOCATION L0007873     VOLUME   477478.685 3751338.189 465.00
LOCATION L0007874     VOLUME   477478.627 3751346.689 465.00
LOCATION L0007875     VOLUME   477478.568 3751355.189 465.00
LOCATION L0007876     VOLUME   477478.510 3751363.689 465.00
LOCATION L0007877     VOLUME   477478.451 3751372.188 465.00
LOCATION L0007878     VOLUME   477478.393 3751380.688 465.00
LOCATION L0007879     VOLUME   477478.335 3751389.188 465.00
LOCATION L0007880     VOLUME   477478.276 3751397.688 465.00
LOCATION L0007881     VOLUME   477478.218 3751406.188 465.00
LOCATION L0007882     VOLUME   477478.159 3751414.687 465.00
LOCATION L0007883     VOLUME   477478.101 3751423.187 465.00
LOCATION L0007884     VOLUME   477478.043 3751431.687 465.17
LOCATION L0007885     VOLUME   477477.984 3751440.187 465.45
LOCATION L0007886     VOLUME   477477.926 3751448.687 465.74
LOCATION L0007887     VOLUME   477477.867 3751457.186 466.00
LOCATION L0007888     VOLUME   477477.809 3751465.686 466.00
LOCATION L0007889     VOLUME   477477.751 3751474.186 466.00
LOCATION L0007890     VOLUME   477477.692 3751482.686 466.00
LOCATION L0007891     VOLUME   477477.634 3751491.186 466.00
LOCATION L0007892     VOLUME   477477.576 3751499.685 466.00
LOCATION L0007893     VOLUME   477477.517 3751508.185 466.00
LOCATION L0007894     VOLUME   477477.459 3751516.685 466.00
LOCATION L0007895     VOLUME   477477.400 3751525.185 466.00
LOCATION L0007896     VOLUME   477477.342 3751533.685 466.00
LOCATION L0007897     VOLUME   477477.284 3751542.184 466.00
LOCATION L0007898     VOLUME   477477.225 3751550.684 466.00
LOCATION L0007899     VOLUME   477477.167 3751559.184 466.00
LOCATION L0007900     VOLUME   477477.108 3751567.684 466.00
LOCATION L0007901     VOLUME   477477.050 3751576.184 466.00
LOCATION L0007902     VOLUME   477476.992 3751584.683 466.00
LOCATION L0007903     VOLUME   477476.933 3751593.183 466.00
LOCATION L0007904     VOLUME   477476.875 3751601.683 466.00
LOCATION L0007905     VOLUME   477476.816 3751610.183 466.07
LOCATION L0007906     VOLUME   477476.758 3751618.683 466.23
LOCATION L0007907     VOLUME   477476.700 3751627.182 466.39
LOCATION L0007908     VOLUME   477476.641 3751635.682 466.55
LOCATION L0007909     VOLUME   477476.583 3751644.182 466.67
LOCATION L0007910     VOLUME   477476.524 3751652.682 466.80
LOCATION L0007911     VOLUME   477476.466 3751661.182 466.92
LOCATION L0007912     VOLUME   477476.408 3751669.681 467.00
LOCATION L0007913     VOLUME   477476.349 3751678.181 467.00
LOCATION L0007914     VOLUME   477476.291 3751686.681 467.00
LOCATION L0007915     VOLUME   477476.233 3751695.181 467.00
LOCATION L0007916     VOLUME   477476.174 3751703.681 467.00
LOCATION L0007917     VOLUME   477476.116 3751712.180 467.00
LOCATION L0007918     VOLUME   477476.057 3751720.680 467.00
LOCATION L0007919     VOLUME   477475.999 3751729.180 467.05
LOCATION L0007920     VOLUME   477475.941 3751737.680 467.20
LOCATION L0007921     VOLUME   477475.882 3751746.180 467.35
LOCATION L0007922     VOLUME   477475.824 3751754.679 467.50
LOCATION L0007923     VOLUME   477475.765 3751763.179 467.64
LOCATION L0007924     VOLUME   477475.707 3751771.679 467.77
LOCATION L0007925     VOLUME   477475.649 3751780.179 467.90
LOCATION L0007926     VOLUME   477475.590 3751788.679 468.00
LOCATION L0007927     VOLUME   477475.532 3751797.178 468.00
LOCATION L0007928     VOLUME   477475.473 3751805.678 468.00
LOCATION L0007929     VOLUME   477475.415 3751814.178 468.00
LOCATION L0007930     VOLUME   477475.357 3751822.678 468.00
LOCATION L0007931     VOLUME   477475.298 3751831.178 468.00
LOCATION L0007932     VOLUME   477475.240 3751839.677 468.00
LOCATION L0007933     VOLUME   477475.181 3751848.177 468.00
LOCATION L0007934     VOLUME   477475.123 3751856.677 468.00
LOCATION L0007935     VOLUME   477475.065 3751865.177 468.00
LOCATION L0007936     VOLUME   477475.006 3751873.677 468.00
LOCATION L0007937     VOLUME   477474.948 3751882.176 468.19
LOCATION L0007938     VOLUME   477474.890 3751890.676 468.47
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                                                 Residential
   LOCATION L0007939     VOLUME   477474.831 3751899.176 468.75
   LOCATION L0007940     VOLUME   477474.773 3751907.676 469.00
   LOCATION L0007941     VOLUME   477474.714 3751916.176 469.00
   LOCATION L0007942     VOLUME   477474.656 3751924.675 469.00
   LOCATION L0007943     VOLUME   477474.598 3751933.175 469.00
   LOCATION L0007944     VOLUME   477474.539 3751941.675 469.00
   LOCATION L0007945     VOLUME   477474.481 3751950.175 469.00
   LOCATION L0007946     VOLUME   477474.422 3751958.675 469.00
   LOCATION L0007947     VOLUME   477474.364 3751967.174 469.00
   LOCATION L0007948     VOLUME   477474.306 3751975.674 469.00
   LOCATION L0007949     VOLUME   477474.247 3751984.174 469.00
   LOCATION L0007950     VOLUME   477474.189 3751992.674 469.00
   LOCATION L0007951     VOLUME   477474.130 3752001.174 469.00
   LOCATION L0007952     VOLUME   477474.072 3752009.673 469.00
   LOCATION L0007953     VOLUME   477474.014 3752018.173 469.00
   LOCATION L0007954     VOLUME   477473.955 3752026.673 469.00
   LOCATION L0007955     VOLUME   477473.897 3752035.173 469.14
   LOCATION L0007956     VOLUME   477473.838 3752043.673 469.27
   LOCATION L0007957     VOLUME   477473.780 3752052.172 469.40
   LOCATION L0007958     VOLUME   477473.722 3752060.672 469.46
   LOCATION L0007959     VOLUME   477473.663 3752069.172 469.46
   LOCATION L0007960     VOLUME   477473.605 3752077.672 469.46
   LOCATION L0007961     VOLUME   477473.546 3752086.172 469.46
   LOCATION L0007962     VOLUME   477473.488 3752094.671 469.60
   LOCATION L0007963     VOLUME   477473.430 3752103.171 469.76
   LOCATION L0007964     VOLUME   477473.371 3752111.671 469.91
   LOCATION L0007965     VOLUME   477473.313 3752120.171 470.05
   LOCATION L0007966     VOLUME   477473.255 3752128.671 470.18
   LOCATION L0007967     VOLUME   477473.196 3752137.170 470.31
   LOCATION L0007968     VOLUME   477473.138 3752145.670 470.43
   LOCATION L0007969     VOLUME   477473.079 3752154.170 470.58
   LOCATION L0007970     VOLUME   477473.021 3752162.670 470.74
   LOCATION L0007971     VOLUME   477472.963 3752171.170 470.90
   LOCATION L0007972     VOLUME   477472.904 3752179.669 471.00
   LOCATION L0007973     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0007974     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0007975     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0007976     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0007977     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0008170     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008171     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008172     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008173     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008174     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008175     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008176     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008177     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008178     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008179     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008180     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008181     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008182     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008183     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008184     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008185     0.00000531      4.00     13.95      1.86
   SRCPARAM L0008186     0.00000531      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0005746     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005747     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005748     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005749     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005750     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005751     0.000005501      4.00     13.95      1.86
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                                                    Residential
   SRCPARAM L0005752     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005753     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005754     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005755     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005756     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005757     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005758     0.000005501      4.00     13.95      1.86
   SRCPARAM L0005759     0.000005501      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0005760     0.000005075      4.00      3.95      1.86
   SRCPARAM L0005761     0.000005075      4.00      3.95      1.86
   SRCPARAM L0005762     0.000005075      4.00      3.95      1.86
   SRCPARAM L0005763     0.000005075      4.00      3.95      1.86
   SRCPARAM L0005764     0.000005075      4.00      3.95      1.86
   SRCPARAM L0005765     0.000005075      4.00      3.95      1.86
   SRCPARAM L0005766     0.000005075      4.00      3.95      1.86
   SRCPARAM L0005767     0.000005075      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0005768     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005769     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005770     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005771     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005772     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005773     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005774     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005775     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005776     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005777     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005778     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005779     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005780     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005781     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005782     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005783     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005784     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005785     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005786     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005787     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0005788     0.0000002543      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0005789     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005790     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005791     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005792     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005793     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005794     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005795     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005796     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005797     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005798     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005799     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005800     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005801     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005802     0.000003668      0.00      3.95      1.86
   SRCPARAM L0005803     0.000003668      0.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0005804     0.000000825      0.00     13.95      1.86
   SRCPARAM L0005805     0.000000825      0.00     13.95      1.86
   SRCPARAM L0005806     0.000000825      0.00     13.95      1.86
   SRCPARAM L0005807     0.000000825      0.00     13.95      1.86
   SRCPARAM L0005808     0.000000825      0.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
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                                                 Residential
SRCPARAM L0007995     0.000001345      4.00      3.95      1.86
SRCPARAM L0007996     0.000001345      4.00      3.95      1.86
SRCPARAM L0007997     0.000001345      4.00      3.95      1.86
SRCPARAM L0007998     0.000001345      4.00      3.95      1.86
SRCPARAM L0007999     0.000001345      4.00      3.95      1.86
SRCPARAM L0008000     0.000001345      4.00      3.95      1.86
SRCPARAM L0008001     0.000001345      4.00      3.95      1.86
SRCPARAM L0008002     0.000001345      4.00      3.95      1.86
SRCPARAM L0008003     0.000001345      4.00      3.95      1.86
SRCPARAM L0008004     0.000001345      4.00      3.95      1.86
SRCPARAM L0008005     0.000001345      4.00      3.95      1.86
SRCPARAM L0008006     0.000001345      4.00      3.95      1.86
SRCPARAM L0008007     0.000001345      4.00      3.95      1.86
SRCPARAM L0008008     0.000001345      4.00      3.95      1.86
SRCPARAM L0008009     0.000001345      4.00      3.95      1.86
SRCPARAM L0008010     0.000001345      4.00      3.95      1.86
SRCPARAM L0008011     0.000001345      4.00      3.95      1.86
SRCPARAM L0008012     0.000001345      4.00      3.95      1.86
SRCPARAM L0008013     0.000001345      4.00      3.95      1.86
SRCPARAM L0008014     0.000001345      4.00      3.95      1.86
SRCPARAM L0008015     0.000001345      4.00      3.95      1.86
SRCPARAM L0008016     0.000001345      4.00      3.95      1.86
SRCPARAM L0008017     0.000001345      4.00      3.95      1.86
SRCPARAM L0008018     0.000001345      4.00      3.95      1.86
SRCPARAM L0008019     0.000001345      4.00      3.95      1.86
SRCPARAM L0008020     0.000001345      4.00      3.95      1.86
SRCPARAM L0008021     0.000001345      4.00      3.95      1.86
SRCPARAM L0008022     0.000001345      4.00      3.95      1.86
SRCPARAM L0008023     0.000001345      4.00      3.95      1.86
SRCPARAM L0008024     0.000001345      4.00      3.95      1.86
SRCPARAM L0008025     0.000001345      4.00      3.95      1.86
SRCPARAM L0008026     0.000001345      4.00      3.95      1.86
SRCPARAM L0008027     0.000001345      4.00      3.95      1.86
SRCPARAM L0008028     0.000001345      4.00      3.95      1.86
SRCPARAM L0008029     0.000001345      4.00      3.95      1.86
SRCPARAM L0008030     0.000001345      4.00      3.95      1.86
SRCPARAM L0008031     0.000001345      4.00      3.95      1.86
SRCPARAM L0008032     0.000001345      4.00      3.95      1.86
SRCPARAM L0008033     0.000001345      4.00      3.95      1.86
SRCPARAM L0008034     0.000001345      4.00      3.95      1.86
SRCPARAM L0008035     0.000001345      4.00      3.95      1.86
SRCPARAM L0008036     0.000001345      4.00      3.95      1.86
SRCPARAM L0008037     0.000001345      4.00      3.95      1.86
SRCPARAM L0008038     0.000001345      4.00      3.95      1.86
SRCPARAM L0008039     0.000001345      4.00      3.95      1.86
SRCPARAM L0008040     0.000001345      4.00      3.95      1.86
SRCPARAM L0008041     0.000001345      4.00      3.95      1.86
SRCPARAM L0008042     0.000001345      4.00      3.95      1.86
SRCPARAM L0008043     0.000001345      4.00      3.95      1.86
SRCPARAM L0008044     0.000001345      4.00      3.95      1.86
SRCPARAM L0008045     0.000001345      4.00      3.95      1.86
SRCPARAM L0008046     0.000001345      4.00      3.95      1.86
SRCPARAM L0008047     0.000001345      4.00      3.95      1.86
SRCPARAM L0008048     0.000001345      4.00      3.95      1.86
SRCPARAM L0008049     0.000001345      4.00      3.95      1.86
SRCPARAM L0008050     0.000001345      4.00      3.95      1.86
SRCPARAM L0008051     0.000001345      4.00      3.95      1.86
SRCPARAM L0008052     0.000001345      4.00      3.95      1.86
SRCPARAM L0008053     0.000001345      4.00      3.95      1.86
SRCPARAM L0008054     0.000001345      4.00      3.95      1.86
SRCPARAM L0008055     0.000001345      4.00      3.95      1.86
SRCPARAM L0008056     0.000001345      4.00      3.95      1.86
SRCPARAM L0008057     0.000001345      4.00      3.95      1.86
SRCPARAM L0008058     0.000001345      4.00      3.95      1.86
SRCPARAM L0008059     0.000001345      4.00      3.95      1.86
SRCPARAM L0008060     0.000001345      4.00      3.95      1.86
SRCPARAM L0008061     0.000001345      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0008062     0.000001345      4.00      3.95      1.86
SRCPARAM L0008063     0.000001345      4.00      3.95      1.86
SRCPARAM L0008064     0.000001345      4.00      3.95      1.86
SRCPARAM L0008065     0.000001345      4.00      3.95      1.86
SRCPARAM L0008066     0.000001345      4.00      3.95      1.86
SRCPARAM L0008067     0.000001345      4.00      3.95      1.86
SRCPARAM L0008068     0.000001345      4.00      3.95      1.86
SRCPARAM L0008069     0.000001345      4.00      3.95      1.86
SRCPARAM L0008070     0.000001345      4.00      3.95      1.86
SRCPARAM L0008071     0.000001345      4.00      3.95      1.86
SRCPARAM L0008072     0.000001345      4.00      3.95      1.86
SRCPARAM L0008073     0.000001345      4.00      3.95      1.86
SRCPARAM L0008074     0.000001345      4.00      3.95      1.86
SRCPARAM L0008075     0.000001345      4.00      3.95      1.86
SRCPARAM L0008076     0.000001345      4.00      3.95      1.86
SRCPARAM L0008077     0.000001345      4.00      3.95      1.86
SRCPARAM L0008078     0.000001345      4.00      3.95      1.86
SRCPARAM L0008079     0.000001345      4.00      3.95      1.86
SRCPARAM L0008080     0.000001345      4.00      3.95      1.86
SRCPARAM L0008081     0.000001345      4.00      3.95      1.86
SRCPARAM L0008082     0.000001345      4.00      3.95      1.86
SRCPARAM L0008083     0.000001345      4.00      3.95      1.86
SRCPARAM L0008084     0.000001345      4.00      3.95      1.86
SRCPARAM L0008085     0.000001345      4.00      3.95      1.86
SRCPARAM L0008086     0.000001345      4.00      3.95      1.86
SRCPARAM L0008087     0.000001345      4.00      3.95      1.86
SRCPARAM L0008088     0.000001345      4.00      3.95      1.86
SRCPARAM L0008089     0.000001345      4.00      3.95      1.86
SRCPARAM L0008090     0.000001345      4.00      3.95      1.86
SRCPARAM L0008091     0.000001345      4.00      3.95      1.86
SRCPARAM L0008092     0.000001345      4.00      3.95      1.86
SRCPARAM L0008093     0.000001345      4.00      3.95      1.86
SRCPARAM L0008094     0.000001345      4.00      3.95      1.86
SRCPARAM L0008095     0.000001345      4.00      3.95      1.86
SRCPARAM L0008096     0.000001345      4.00      3.95      1.86
SRCPARAM L0008097     0.000001345      4.00      3.95      1.86
SRCPARAM L0008098     0.000001345      4.00      3.95      1.86
SRCPARAM L0008099     0.000001345      4.00      3.95      1.86
SRCPARAM L0008100     0.000001345      4.00      3.95      1.86
SRCPARAM L0008101     0.000001345      4.00      3.95      1.86
SRCPARAM L0008102     0.000001345      4.00      3.95      1.86
SRCPARAM L0008103     0.000001345      4.00      3.95      1.86
SRCPARAM L0008104     0.000001345      4.00      3.95      1.86
SRCPARAM L0008105     0.000001345      4.00      3.95      1.86
SRCPARAM L0008106     0.000001345      4.00      3.95      1.86
SRCPARAM L0008107     0.000001345      4.00      3.95      1.86
SRCPARAM L0008108     0.000001345      4.00      3.95      1.86
SRCPARAM L0008109     0.000001345      4.00      3.95      1.86
SRCPARAM L0008110     0.000001345      4.00      3.95      1.86
SRCPARAM L0008111     0.000001345      4.00      3.95      1.86
SRCPARAM L0008112     0.000001345      4.00      3.95      1.86
SRCPARAM L0008113     0.000001345      4.00      3.95      1.86
SRCPARAM L0008114     0.000001345      4.00      3.95      1.86
SRCPARAM L0008115     0.000001345      4.00      3.95      1.86
SRCPARAM L0008116     0.000001345      4.00      3.95      1.86
SRCPARAM L0008117     0.000001345      4.00      3.95      1.86
SRCPARAM L0008118     0.000001345      4.00      3.95      1.86
SRCPARAM L0008119     0.000001345      4.00      3.95      1.86
SRCPARAM L0008120     0.000001345      4.00      3.95      1.86
SRCPARAM L0008121     0.000001345      4.00      3.95      1.86
SRCPARAM L0008122     0.000001345      4.00      3.95      1.86
SRCPARAM L0008123     0.000001345      4.00      3.95      1.86
SRCPARAM L0008124     0.000001345      4.00      3.95      1.86
SRCPARAM L0008125     0.000001345      4.00      3.95      1.86
SRCPARAM L0008126     0.000001345      4.00      3.95      1.86
SRCPARAM L0008127     0.000001345      4.00      3.95      1.86
SRCPARAM L0008128     0.000001345      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0008129     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008130     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008131     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008132     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008133     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008134     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008135     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008136     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008137     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008138     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008139     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008140     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008141     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008142     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008143     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008144     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008145     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008146     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008147     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008148     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008149     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008150     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008151     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008152     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008153     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008154     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008155     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008156     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008157     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008158     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008159     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008160     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008161     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008162     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008163     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008164     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008165     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008166     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008167     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008168     0.000001345      4.00      3.95      1.86
   SRCPARAM L0008169     0.000001345      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0005984     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005985     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005986     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005987     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005988     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005989     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005990     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005991     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005992     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005993     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005994     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005995     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005996     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005997     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005998     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0005999     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006000     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006001     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006002     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006003     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006004     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006005     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006006     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006007     0.0000002863      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0006008     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006009     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006010     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006011     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006012     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006013     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006014     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006015     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006016     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006017     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006018     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006019     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006020     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006021     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006022     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006023     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006024     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006025     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006026     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006027     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006028     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006029     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006030     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006031     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006032     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006033     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006034     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006035     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006036     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006037     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006038     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006039     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006040     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006041     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0006042     0.0000002863      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0006043     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006044     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006045     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006046     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006047     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006048     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006049     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006050     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006051     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006052     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006053     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006054     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006055     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006056     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006057     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006058     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006059     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006060     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006061     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006062     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006063     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006064     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006065     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006066     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006067     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006068     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006069     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006070     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006071     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006072     0.0000002255      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0006073     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006074     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006075     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006076     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006077     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006078     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006079     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006080     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006081     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006082     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006083     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006084     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006085     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006086     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006087     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006088     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006089     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006090     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0006091     0.0000002255      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0006092     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006093     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006094     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006095     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006096     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006097     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006098     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006099     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006100     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006101     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006102     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006103     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006104     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006105     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006106     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006107     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006108     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006109     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006110     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006111     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006112     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006113     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006114     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006115     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006116     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006117     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006118     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006119     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006120     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006121     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006122     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006123     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006124     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006125     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006126     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006127     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006128     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006129     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006130     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006131     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006132     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006133     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006134     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006135     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006136     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006137     0.000000385      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0006138     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006139     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006140     0.000000385      4.00      3.95      1.86
   SRCPARAM L0006141     0.000000385      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0006142     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006143     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006144     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006145     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006146     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006147     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006148     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006149     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006150     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006151     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006152     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006153     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006154     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006155     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006156     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006157     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006158     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006159     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006160     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006161     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006162     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006163     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006164     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006165     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006166     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006167     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006168     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006169     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006170     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006171     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006172     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006173     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006174     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006175     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006176     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006177     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006178     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006179     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006180     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006181     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006182     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006183     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006184     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006185     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006186     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006187     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006188     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006189     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006190     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006191     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006192     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006193     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006194     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006195     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006196     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006197     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006198     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006199     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006200     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006201     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006202     0.0000007457      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006203     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006204     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006205     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006206     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006207     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006208     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006209     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006210     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006211     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006212     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006213     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006214     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006215     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006216     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006217     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006218     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006219     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006220     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006221     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006222     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006223     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006224     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006225     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006226     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006227     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006228     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006229     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006230     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006231     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006232     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006233     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006234     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006235     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006236     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006237     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006238     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006239     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006240     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006241     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006242     0.0000007457      4.00      3.95      1.86
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SRCPARAM L0006244     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006245     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006246     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006247     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006248     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006249     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006250     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006251     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006252     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006253     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006254     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006255     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006256     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006257     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006258     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006259     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006260     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006261     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006262     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006263     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006264     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006265     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006266     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006267     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006268     0.0000007457      4.00      3.95      1.86
SRCPARAM L0006269     0.0000007457      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                   Residential
   SRCPARAM L0006270     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006271     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006272     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006273     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006274     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006275     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006276     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006277     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006278     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006279     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006280     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006281     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006282     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006283     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006284     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006285     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006286     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006287     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006288     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006289     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006290     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006291     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006292     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006293     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006294     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006295     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006296     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006297     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006298     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006299     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006300     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006301     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006302     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006303     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006304     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006305     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006306     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006307     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006308     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006309     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006310     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006311     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006312     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006313     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006314     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006315     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006316     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006317     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006318     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006319     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006320     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006321     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006322     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006323     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006324     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006325     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006326     0.0000007457      4.00      3.95      1.86
   SRCPARAM L0006327     0.0000007457      4.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0006328     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006329     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006330     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006331     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006332     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006333     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006334     0.0000003193      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006335     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006336     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006337     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006338     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006339     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006340     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006341     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006342     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006343     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006344     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006345     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006346     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006347     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006348     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006349     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006350     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006351     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006352     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006353     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006354     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006355     0.0000003193      4.00      3.95      1.86
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SRCPARAM L0006357     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006358     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006359     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006360     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006361     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006362     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006363     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006364     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006365     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006366     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006367     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006368     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006369     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006370     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006371     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006372     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006373     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006374     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006375     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006376     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006377     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006378     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006379     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006380     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006381     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006382     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006383     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006384     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006385     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006386     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006387     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006388     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006389     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006390     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006391     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006392     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006393     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006394     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006395     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006396     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006397     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006398     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006399     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006400     0.0000003193      4.00      3.95      1.86
SRCPARAM L0006401     0.0000003193      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0006402     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006403     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006404     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006405     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006406     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006407     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006408     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006409     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006410     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006411     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006412     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006413     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006414     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006415     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006416     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006417     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006418     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006419     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006420     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006421     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006422     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006423     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006424     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006425     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0006426     0.0000003193      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.351E-08     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10        9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000019084     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000015121     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000025862     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0006427     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006428     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006429     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006430     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006431     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006432     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006433     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006434     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006435     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006436     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006437     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006438     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006439     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006440     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006441     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006442     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006443     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006444     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006445     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006446     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006447     0.0000003197      4.00      3.95      1.86
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                                                    Residential
SRCPARAM L0006448     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006449     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006450     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006451     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006452     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006453     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006454     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006455     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006456     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006457     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006458     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006459     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006460     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006461     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006462     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006463     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006464     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006465     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006466     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006467     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006468     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006469     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006470     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006471     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006472     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006473     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006474     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006475     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006476     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006477     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006478     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006479     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006480     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006481     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006482     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006483     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006484     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006485     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006486     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006487     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006488     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006489     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006490     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006491     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006492     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006493     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006494     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006495     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006496     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006497     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006498     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006499     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006500     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006501     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006502     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006508     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006510     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006511     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006512     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006513     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006514     0.0000003197      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006515     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006516     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006517     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006518     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006519     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006520     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006521     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006522     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006523     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006524     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006525     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006526     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006527     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006528     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006529     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006530     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006531     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006532     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006533     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006534     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006535     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006536     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006537     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006538     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006539     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006540     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006541     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006542     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006543     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006544     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006545     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006546     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006547     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006548     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006549     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006550     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006551     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006552     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006553     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006554     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006555     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006556     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006557     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006558     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006559     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006560     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006561     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006562     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006563     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006564     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006565     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006566     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006567     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006568     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006569     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006570     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006571     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006572     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006573     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006574     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006575     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006576     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006577     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006578     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006579     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006580     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006581     0.0000003197      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0006583     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006584     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006585     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006586     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006587     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006588     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006589     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006590     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006591     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006592     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006593     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006594     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006595     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006596     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006597     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006599     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006600     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006601     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006602     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006603     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006604     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006606     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006608     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006609     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006611     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006612     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006613     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006614     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006615     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006616     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006617     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006618     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006619     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006620     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006621     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006622     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006623     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006624     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006625     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006626     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006627     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006628     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006629     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006630     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006631     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006632     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006633     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006634     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006635     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006636     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006637     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006638     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006639     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006641     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006647     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006648     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006655     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006661     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006662     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006663     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006666     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006667     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006671     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006702     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006712     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006713     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006714     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006715     0.0000003197      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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SRCPARAM L0006716     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006720     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006721     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006722     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006723     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006724     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006725     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006726     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006738     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006740     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006782     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006916     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006927     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006929     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006930     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006931     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006932     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006933     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006934     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006935     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006936     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006937     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006938     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006939     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006940     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006941     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006942     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006943     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006944     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006945     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006946     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006947     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006948     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006949     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006950     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006951     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006952     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006953     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006954     0.0000003197      4.00      3.95      1.86
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SRCPARAM L0006957     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006958     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006959     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006960     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006961     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006962     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006963     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006964     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006965     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006966     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006967     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006968     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006969     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006970     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006971     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006972     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006973     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006974     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006975     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006976     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006977     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006978     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006979     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006980     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006981     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006982     0.0000003197      4.00      3.95      1.86
SRCPARAM L0006983     0.0000003197      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0006984     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006985     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006986     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006987     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006988     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006989     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006990     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006991     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006992     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006993     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006994     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006995     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006996     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006997     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006998     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0006999     0.0000003197      4.00      3.95      1.86
   SRCPARAM L0007000     0.0000003197      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE14
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   SRCPARAM L0007002     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007003     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007004     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007005     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007006     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007007     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007008     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007009     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007010     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007011     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007012     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007013     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007014     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007015     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007016     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007017     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007018     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007019     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007020     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007021     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007022     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007023     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007024     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007025     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007026     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007027     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007028     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007029     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007030     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007031     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007032     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007033     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007034     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007035     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007036     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007037     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007038     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007039     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007040     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007041     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007042     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007043     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007044     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007045     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007046     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007047     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007048     0.0000006399      4.00      3.95      1.86
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                                                Residential
SRCPARAM L0007049     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007050     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007053     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007054     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007055     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007056     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007057     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007058     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007059     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007060     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007061     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007062     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007063     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007064     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007065     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007066     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007067     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007068     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007069     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007070     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007071     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007072     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007073     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007074     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007075     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007076     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007077     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007078     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007079     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007080     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007081     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007082     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007083     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007084     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007085     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007086     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007087     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007088     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007089     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007090     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007091     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007092     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007093     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007094     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007097     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007099     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007100     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007102     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007103     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007104     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007105     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007106     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007107     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007108     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007109     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007110     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007111     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007112     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007113     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007115     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007116     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007117     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007118     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007119     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007120     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007121     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007122     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007123     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007124     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007125     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007126     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007127     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007128     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007129     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007130     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007131     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007132     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007133     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007134     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007135     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007136     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007137     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007138     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007141     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007142     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007143     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007144     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007145     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007147     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007148     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007159     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007160     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007162     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007163     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007164     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007165     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007168     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007169     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007170     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007172     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007173     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007180     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007181     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007182     0.0000006399      4.00      3.95      1.86
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                                                       Residential
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SRCPARAM L0007185     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007187     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007188     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007189     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007190     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007191     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007192     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007193     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007194     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007197     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007198     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007199     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007200     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007201     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007202     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007206     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007207     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007208     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007209     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007211     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007212     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007213     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007214     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007215     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007216     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007217     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007516     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007517     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007521     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007522     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007523     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007524     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007525     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007526     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007527     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007530     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007531     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007533     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007534     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007537     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007540     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007541     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007542     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007543     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007565     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007568     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007570     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007571     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007572     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007577     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007578     0.0000006399      4.00      3.95      1.86
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SRCPARAM L0007580     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007581     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007582     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007583     0.0000006399      4.00      3.95      1.86
SRCPARAM L0007584     0.0000006399      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                Residential
SRCPARAM L0007585     0.0000006399     4.00      3.95      1.86
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SRCPARAM L0007591     0.0000006399     4.00      3.95      1.86
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SRCPARAM L0007593     0.0000006399     4.00      3.95      1.86
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SRCPARAM L0007614     0.0000006399     4.00      3.95      1.86
SRCPARAM L0007615     0.0000006399     4.00      3.95      1.86
SRCPARAM L0007616     0.0000006399     4.00      3.95      1.86
SRCPARAM L0007617     0.0000006399     4.00      3.95      1.86
SRCPARAM L0007618     0.0000006399     4.00      3.95      1.86
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SRCPARAM L0007650     0.0000006399     4.00      3.95      1.86
SRCPARAM L0007651     0.0000006399     4.00      3.95      1.86
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   SRCPARAM L0007690     0.0000006399      4.00      3.95      1.86
   SRCPARAM L0007691     0.0000006399      4.00      3.95      1.86
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   SRCPARAM L0007701     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007702     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007704     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007705     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007714     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0007783     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0007799     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007800     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007801     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007802     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007803     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007804     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007805     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007806     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007807     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007808     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007809     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007810     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007811     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007812     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007813     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007814     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007815     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007816     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007817     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007818     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007819     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007820     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007821     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007822     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007823     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007824     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007825     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007826     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007827     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007828     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007829     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007830     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007831     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007832     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007833     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007834     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0007839     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007840     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007841     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007842     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0007846     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0007849     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007850     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0007913     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007914     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007915     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007916     0.0000001066      0.00      3.95      1.86
SRCPARAM L0007917     0.0000001066      0.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0007918     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007919     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007921     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007922     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007924     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007926     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007927     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007931     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007932     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007933     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007934     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007935     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007962     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007963     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007964     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007965     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007966     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007967     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007968     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007969     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007970     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007971     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0007973     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007974     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007975     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007976     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0007977     0.0000001066      0.00      3.95      1.86
** ---------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
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                                                     Residential
BUILDHGT STCK1          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK1          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK2          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK3          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK4          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK5          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK6          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK7          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK8          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK9          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK10         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10         42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK11         42.00    42.00    42.00    42.00    42.00    42.00
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BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13          42.00    42.00    42.00    42.00    42.00    42.00

BUILDWID STCK1          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK1          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK1          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK1          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK1          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK1          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK2          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK2          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK2          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK2          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK2          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK2          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK3          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK3          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK3          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK3          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK3          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK3          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK4          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK4          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK4          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK4          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK4          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK4          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK5          329.08   416.49   491.24   551.07   594.15   166.78
BUILDWID STCK5          161.62   151.55   136.87   147.39   153.99   155.91
BUILDWID STCK5          153.10   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK5          329.08   416.49   491.24   551.07   594.16   166.78
BUILDWID STCK5          161.62   612.62   583.26   587.57   153.99   155.91
BUILDWID STCK5          153.10   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK6          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK6          625.40   612.62   583.26   587.57   153.99   155.91
BUILDWID STCK6          153.10   145.63   133.74   344.22   284.14   231.67
BUILDWID STCK6          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK6          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK6          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK7          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK7          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK7          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK7          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK7          625.40   612.62   583.26   587.57   582.15   559.05
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BUILDWID STCK7          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK8          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK8          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK8          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK8          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK8          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK8          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK9          329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK9          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK9          518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK9          329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK9          625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK9          518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK10         329.08   416.49   491.24   551.07   594.15   619.19
BUILDWID STCK10         625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK10         518.96   463.10   393.85   344.22   284.14   231.67
BUILDWID STCK10         329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK10         625.40   612.62   583.26   587.57   582.15   559.05
BUILDWID STCK10         518.96   463.10   393.85   344.22   284.14   231.67

BUILDWID STCK11         118.79   137.48   152.00   161.89   166.87   177.29
BUILDWID STCK11         174.44   166.28   153.07   166.28   174.44   155.91
BUILDWID STCK11         153.10   145.63   133.74   117.78    99.11    97.61
BUILDWID STCK11         118.79   137.48   152.00   161.89   166.87   166.78
BUILDWID STCK11         161.62   151.55   136.87   147.39   153.99   155.91
BUILDWID STCK11         153.10   145.63   133.74   117.78    99.11    97.61

BUILDWID STCK12         100.76   117.49   130.65   139.84   144.78   145.33
BUILDWID STCK12         141.45   133.28   122.66   126.50   128.90   127.39
BUILDWID STCK12         122.01   112.92   101.71    96.86   284.14   231.67
BUILDWID STCK12         329.08   416.49   491.24   551.07   594.16   619.19
BUILDWID STCK12         141.45   133.28   122.66   126.50   128.90   127.39
BUILDWID STCK12         122.01   112.92   101.71    96.86   284.14    80.97

BUILDWID STCK13         114.68   136.42   154.01   166.92   174.76   177.29
BUILDWID STCK13         174.44   166.28   153.07   166.28   174.44   177.29
BUILDWID STCK13         174.76   166.92   154.01   136.42   114.68    89.46
BUILDWID STCK13         114.68   136.42   154.01   166.92   174.76   177.29
BUILDWID STCK13         174.44   166.28   153.07   166.28   174.44   177.29
BUILDWID STCK13         174.76   166.92   154.01   136.42   114.68    89.46

BUILDLEN STCK1          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK1          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK1          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK1          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK1          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK1          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK2          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK2          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK2          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK2          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK2          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK2          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK3          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK3          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK3          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK3          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK3          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK3          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK4          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK4          344.22   284.14   231.67   329.08   416.49   491.24
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                 Residential
BUILDLEN STCK4          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK4          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK4          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK4          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK5          587.57   582.15   559.05   518.96   463.10   133.74
BUILDLEN STCK5          117.78    99.11    97.61   118.79   137.48   152.00
BUILDLEN STCK5          161.89   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK5          587.57   582.15   559.05   518.96   463.10   133.74
BUILDLEN STCK5          117.78   284.14   231.67   329.08   137.48   152.00
BUILDLEN STCK5          161.89   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK6          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK6          344.22   284.14   231.67   329.08   137.48   152.00
BUILDLEN STCK6          161.89   166.87   166.78   625.40   612.62   583.26
BUILDLEN STCK6          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK6          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK6          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK7          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK7          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK7          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK7          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK7          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK7          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK8          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK8          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK8          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK8          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK8          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK8          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK9          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK9          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK9          551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK9          587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK9          344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK9          551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK10         587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK10         344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK10         551.07   594.15   619.19   625.40   612.62   583.26
BUILDLEN STCK10         587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK10         344.22   284.14   231.67   329.08   416.49   491.24
BUILDLEN STCK10         551.07   594.16   619.19   625.40   612.62   583.26

BUILDLEN STCK11         147.39   153.99   155.91   153.10   145.63   154.01
BUILDLEN STCK11         136.42   114.68    89.46   114.68   136.42   152.00
BUILDLEN STCK11         161.89   166.87   166.78   161.62   151.55   136.87
BUILDLEN STCK11         147.39   153.99   155.91   153.10   145.63   133.74
BUILDLEN STCK11         117.78    99.11    97.61   118.79   137.48   152.00
BUILDLEN STCK11         161.89   166.87   166.78   161.62   151.55   136.87

BUILDLEN STCK12         126.50   128.90   127.39   122.01   112.92   101.71
BUILDLEN STCK12          96.86    89.07    80.97   100.76   117.49   130.65
BUILDLEN STCK12         139.84   144.78   145.33   141.45   612.62   583.26
BUILDLEN STCK12         587.57   582.15   559.05   518.96   463.10   393.85
BUILDLEN STCK12          96.86    89.07    80.97   100.76   117.49   130.65
BUILDLEN STCK12         139.84   144.78   145.33   141.45   612.62   122.66

BUILDLEN STCK13         166.28   174.44   177.29   174.76   166.92   154.01
BUILDLEN STCK13         136.42   114.68    89.46   114.68   136.42   154.01
BUILDLEN STCK13         166.92   174.76   177.29   174.44   166.28   153.07
BUILDLEN STCK13         166.28   174.44   177.29   174.76   166.92   154.01
BUILDLEN STCK13         136.42   114.68    89.46   114.68   136.42   154.01
BUILDLEN STCK13         166.92   174.76   177.29   174.44   166.28   153.07
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Residential

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XBADJ    STCK1         -526.67  -527.47  -512.25  -481.45  -436.03  -378.05
XBADJ    STCK1         -340.16  -291.94  -236.88  -246.03  -247.70  -241.84
XBADJ    STCK1         -228.63  -208.48  -182.00  -149.98  -113.41   -73.39
XBADJ    STCK1          -60.89   -54.68   -46.80   -37.50   -27.06   -15.80
XBADJ    STCK1           -4.06     7.80     5.21   -83.05  -168.79  -249.40
XBADJ    STCK1         -322.44  -385.67  -437.19  -475.42  -499.21  -509.87

XBADJ    STCK2         -376.70  -383.98  -379.59  -363.67  -336.70  -300.18
XBADJ    STCK2         -286.13  -263.39  -234.67  -270.23  -297.57  -315.88
XBADJ    STCK2         -324.58  -323.43  -312.44  -291.97  -262.62  -225.29
XBADJ    STCK2         -210.87  -198.17  -179.46  -155.29  -126.40   -93.67
XBADJ    STCK2          -58.09   -20.75     3.00   -58.85  -118.92  -175.37
XBADJ    STCK2         -226.49  -270.73  -306.74  -333.44  -350.00  -357.97

XBADJ    STCK3         -217.06  -231.78  -239.46  -239.87  -232.98  -219.70
XBADJ    STCK3         -231.33  -235.94  -235.40  -299.12  -353.74  -397.62
XBADJ    STCK3         -429.42  -448.17  -453.30  -444.66  -422.51  -387.52
XBADJ    STCK3         -370.51  -350.37  -319.59  -279.09  -230.12  -174.15
XBADJ    STCK3         -112.89   -48.20     3.73   -29.96   -62.74   -93.62
XBADJ    STCK3         -121.65  -145.99  -165.88  -180.74  -190.11  -195.74

XBADJ    STCK4          -74.38   -96.03  -114.76  -130.01  -141.30  -148.99
XBADJ    STCK4         -183.73  -212.90  -237.62  -326.53  -405.51  -472.18
XBADJ    STCK4         -524.50  -560.88  -580.22  -581.93  -565.96  -532.79
XBADJ    STCK4         -513.19  -486.12  -444.28  -388.95  -321.79  -244.86
XBADJ    STCK4         -160.49   -71.24     5.95    -2.55   -10.97   -19.06
XBADJ    STCK4          -26.57   -33.27   -38.97   -43.47   -46.66   -50.47

XBADJ    STCK5         -512.47  -476.46  -425.98  -362.55  -288.11  -192.89
XBADJ    STCK5         -196.70  -195.39  -205.53  -214.16  -217.41  -214.05
XBADJ    STCK5         -204.19   -54.28   -55.82   -55.67   -53.83   -50.35
XBADJ    STCK5          -75.09  -105.69  -133.07  -156.41  -174.99    59.15
XBADJ    STCK5           78.92  -197.41  -207.23  -296.27    79.93    62.05
XBADJ    STCK5           42.29  -539.88  -563.36  -569.73  -558.79  -532.91

XBADJ    STCK6         -363.17  -335.04  -296.73  -249.41  -194.50  -134.37
XBADJ    STCK6         -101.75   -66.03   -30.34   -65.13  -275.16  -295.48
XBADJ    STCK6         -306.83  -308.85  -301.48  -201.13  -205.18  -203.00
XBADJ    STCK6         -224.40  -247.11  -262.32  -269.55  -268.59  -259.48
XBADJ    STCK6         -242.48  -218.11  -201.33  -263.95  -318.55  -363.47
XBADJ    STCK6         -397.34  -419.15  -428.21  -424.27  -407.43  -380.26

XBADJ    STCK7         -205.72  -184.93  -158.53  -127.31   -92.22   -55.01
XBADJ    STCK7          -47.72   -38.98   -31.08   -93.64  -153.36  -208.42
XBADJ    STCK7         -257.15  -298.06  -329.92  -351.75  -362.89  -363.01
XBADJ    STCK7         -381.85  -397.22  -400.52  -391.65  -370.88  -338.84
XBADJ    STCK7         -296.51  -245.16  -200.59  -235.43  -263.13  -282.82
XBADJ    STCK7         -293.92  -296.10  -289.27  -273.66  -249.73  -220.25

XBADJ    STCK8         -135.53  -118.22   -97.32   -73.46   -47.37   -20.52
XBADJ    STCK8          -24.63   -28.00   -32.55  -107.51  -179.21  -245.46
XBADJ    STCK8         -304.25  -353.80  -392.60  -419.47  -433.59  -434.54
XBADJ    STCK8         -452.04  -463.93  -461.73  -445.50  -415.73  -373.33
XBADJ    STCK8         -319.59  -256.14  -199.12  -221.57  -237.28  -245.78
XBADJ    STCK8         -246.82  -240.36  -226.59  -205.94  -179.03  -148.72

XBADJ    STCK9            1.53    -2.40    -6.24    -9.90   -13.26   -16.90
XBADJ    STCK9          -51.61   -84.75  -117.35  -217.79  -311.61  -395.96
XBADJ    STCK9         -468.28  -526.37  -568.47  -593.30  -600.09  -588.66
XBADJ    STCK9         -589.09  -579.76  -552.80  -509.05  -449.84  -376.95
XBADJ    STCK9         -292.62  -199.39  -114.32  -111.29  -104.88   -95.28
XBADJ    STCK9          -82.79   -67.78   -50.72   -32.11   -12.52     5.40

XBADJ    STCK10         -17.99   -39.35   -59.52   -77.87   -93.86  -107.68
XBADJ    STCK10        -149.82  -187.41  -221.33  -319.93  -408.81  -485.27
XBADJ    STCK10        -546.98  -592.07  -619.18  -627.47  -616.69  -587.18
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                                                      Residential
XBADJ     STCK10          -569.58   -542.80   -499.53   -441.08   -369.23   -286.16
XBADJ     STCK10          -194.40    -96.73    -10.34     -9.15     -7.68     -5.97
XBADJ     STCK10            -4.09     -2.08     -0.01      2.06      4.07      3.92

XBADJ     STCK11           -76.12    -70.28    -62.31    -52.44    -40.98   -266.84
XBADJ     STCK11          -269.07   -263.12   -249.18   -254.25   -251.59    -32.60
XBADJ     STCK11           -40.31    -46.80    -51.86    -55.35    -57.15    -57.22
XBADJ     STCK11           -71.27    -83.71    -93.60   -100.66   -104.65   -105.47
XBADJ     STCK11          -103.08    -97.56    -91.88   -104.32   -113.58   -119.40
XBADJ     STCK11          -121.58   -120.07   -114.92   -106.27    -94.39    -79.65

XBADJ     STCK12           -71.48    -82.52    -91.06    -96.83    -99.65    -99.45
XBADJ     STCK12           -96.22    -90.08    -82.79    -92.71    -99.82   -103.89
XBADJ     STCK12          -104.81   -102.54    -97.16    -88.82   -674.92   -677.56
XBADJ     STCK12          -689.37   -688.35   -666.43   -624.25   -563.11   -484.86
XBADJ     STCK12            -0.64      1.01      1.82     -8.05    -17.67    -26.76
XBADJ     STCK12           -35.03    -42.24    -48.17    -52.63     62.30    -58.27

XBADJ     STCK13           -98.71   -112.75   -123.36   -130.22   -133.13   -131.99
XBADJ     STCK13          -126.84   -117.84   -105.26   -116.06   -123.33   -126.86
XBADJ     STCK13          -126.53   -122.36   -114.46   -103.10    -88.59    -71.40
XBADJ     STCK13           -67.57    -61.69    -53.93    -44.54    -33.79    -22.02
XBADJ     STCK13            -9.57      3.16     15.80      1.38    -13.09    -27.15
XBADJ     STCK13           -40.39    -52.41    -62.83    -71.34    -77.69    -81.67

YBADJ     STCK1             81.49     39.45     -3.78    -46.90    -88.59   -127.60
YBADJ     STCK1           -162.72   -192.90   -218.24   -232.89   -236.40   -232.72
YBADJ     STCK1           -221.98   -204.48   -181.12   -168.05   -149.87   -121.04
YBADJ     STCK1            -81.49    -39.45      3.78     46.90     88.59    127.60
YBADJ     STCK1            162.72    192.90    218.24    232.89    236.40    232.72
YBADJ     STCK1            221.98    204.48    181.12    168.05    149.87    121.04

YBADJ     STCK2            105.69     89.33     70.25     49.05     26.35      2.85
YBADJ     STCK2            -20.74    -43.69    -66.34    -82.91    -92.90   -100.07
YBADJ     STCK2           -104.19   -105.15   -103.26   -114.02   -121.32   -118.83
YBADJ     STCK2           -105.69    -89.33    -70.25    -49.05    -26.35     -2.85
YBADJ     STCK2             20.74     43.69     66.34     82.91     92.90    100.07
YBADJ     STCK2            104.19    105.15    103.26    114.02    121.32    118.83

YBADJ     STCK3            134.58    145.50    152.00    153.88    151.09    143.71
YBADJ     STCK3            131.96    116.20     95.89     76.73     59.30     40.06
YBADJ     STCK3             19.61     -1.43    -22.77    -59.22    -93.87   -119.57
YBADJ     STCK3           -134.58   -145.50   -152.00   -153.88   -151.09   -143.71
YBADJ     STCK3           -131.96   -116.20    -95.89    -76.73    -59.30    -40.06
YBADJ     STCK3            -19.61      1.43     22.77     59.22     93.87    119.57

YBADJ     STCK4            161.99    197.27    226.56    248.96    263.80    270.63
YBADJ     STCK4            269.23    259.65    241.16    219.40    195.04    164.76
YBADJ     STCK4            129.47     90.24     47.94    -11.62    -70.83   -121.79
YBADJ     STCK4           -161.99   -197.27   -226.56   -248.96   -263.80   -270.63
YBADJ     STCK4           -269.23   -259.65   -241.16   -219.40   -195.04   -164.76
YBADJ     STCK4           -129.47    -90.24    -47.94     11.62     70.83    121.79

YBADJ     STCK5           -131.73   -168.06   -199.28   -224.45   -242.80     82.95
YBADJ     STCK5             58.69     32.65      5.61    -20.55    -45.81    -69.68
YBADJ     STCK5            -91.43    -56.56     -8.66     23.70     55.34     91.40
YBADJ     STCK5            131.73    168.06    199.28    224.45    242.80    -82.95
YBADJ     STCK5            -58.69    252.48    241.28    218.69     45.81     69.68
YBADJ     STCK5             91.43     56.56      8.66    -23.70    -55.34    -91.40

YBADJ     STCK6            -99.41   -110.30   -117.85   -121.81   -122.07   -118.62
YBADJ     STCK6           -111.57   -101.13    -88.63    -69.38     95.62     59.57
YBADJ     STCK6             21.72    -16.80    -54.80     70.36     76.04     85.50
YBADJ     STCK6             99.41    110.30    117.85    121.81    122.07    118.62
YBADJ     STCK6            111.57    101.13     88.63     69.38     43.96     17.21
YBADJ     STCK6            -10.07    -37.05    -62.55    -70.36    -76.04    -85.50
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                                                    Residential
   YBADJ    STCK7           -70.90   -54.88   -37.20   -18.39     0.98    20.32
   YBADJ    STCK7            39.05    56.58    71.38    88.07   106.14   121.00
   YBADJ    STCK7           132.17   139.33   141.92   124.39   103.09    84.75
   YBADJ    STCK7            70.90    54.88    37.20    18.39    -0.98   -20.32
   YBADJ    STCK7           -39.05   -56.58   -71.38   -88.07  -106.14  -121.00
   YBADJ    STCK7          -132.17  -139.33  -141.92  -124.39  -103.09   -84.75

   YBADJ    STCK8           -57.03   -29.04    -0.16    28.72    56.72    83.00
   YBADJ    STCK8           106.76   127.28   142.91   158.26   172.86   182.21
   YBADJ    STCK8           186.02   184.18   176.41   147.48   114.07    83.28
   YBADJ    STCK8            57.03    29.04     0.16   -28.72   -56.72   -83.00
   YBADJ    STCK8          -106.76  -127.28  -142.91  -158.26  -172.86  -182.21
   YBADJ    STCK8          -186.02  -184.18  -176.41  -147.48  -114.07   -83.28

   YBADJ    STCK9            53.25   103.36   150.34   192.74   229.29   258.88
   YBADJ    STCK9           280.59   293.79   297.03   295.31   288.68   273.28
   YBADJ    STCK9           249.58   218.29   180.03   120.50    57.32    -1.52
   YBADJ    STCK9           -53.25  -103.36  -150.34  -192.74  -229.29  -258.88
   YBADJ    STCK9          -280.59  -293.79  -297.03  -295.31  -288.68  -273.28
   YBADJ    STCK9          -249.58  -218.29  -180.03  -120.50   -57.32     1.52

   YBADJ    STCK10          155.39   200.57   239.65   271.45   295.00   309.58
   YBADJ    STCK10          314.77   310.38   295.55   275.80   251.73   220.01
   YBADJ    STCK10          181.61   137.68    89.24    22.29   -45.34  -105.50
   YBADJ    STCK10         -155.39  -200.57  -239.65  -271.45  -295.00  -309.58
   YBADJ    STCK10         -314.77  -310.38  -295.55  -275.80  -251.73  -220.01
   YBADJ    STCK10         -181.61  -137.68   -89.24   -22.29    45.34   105.50

   YBADJ    STCK11          -44.92   -44.84   -43.40   -40.64   -36.64    80.10
   YBADJ    STCK11           45.92    10.35   -25.55   -60.66   -93.93    15.65
   YBADJ    STCK11           24.11    31.84    38.60    44.19    48.00    43.08
   YBADJ    STCK11           44.92    44.84    43.40    40.64    36.64    31.53
   YBADJ    STCK11           25.46    18.62    11.21     2.43    -6.71   -15.65
   YBADJ    STCK11          -24.11   -31.84   -38.60   -44.19   -48.00   -43.08

   YBADJ    STCK12           42.33    41.07    38.57    34.89    30.15    24.50
   YBADJ    STCK12           18.10    11.15     3.06    -8.23   -18.07   -27.36
   YBADJ    STCK12          -35.82   -43.19   -48.59   -47.79   144.91    71.75
   YBADJ    STCK12            3.47   -64.92  -131.33  -193.76  -250.30  -299.23
   YBADJ    STCK12          -18.10   -11.15    -3.06     8.23    18.07    27.36
   YBADJ    STCK12           35.82    43.19    48.59    47.79  -144.91    42.31

   YBADJ    STCK13           58.72    55.12    49.85    43.07    34.97    25.82
   YBADJ    STCK13           15.88     5.45    -5.14   -15.57   -25.53   -34.71
   YBADJ    STCK13          -42.84   -49.67   -54.99   -58.64   -60.50   -60.53
   YBADJ    STCK13          -58.72   -55.12   -49.85   -43.07   -34.97   -25.82
   YBADJ    STCK13          -15.88    -5.45     5.14    15.57    25.53    34.71
   YBADJ    STCK13           42.84    49.67    54.99    58.64    60.50    60.53

   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Worker Exposure 12hrs"
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   EMISFACT L0008173     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0008152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0008152     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0006419     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0007164     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0007165     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0007166     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0007204     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0007422     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0007423     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0007424     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0007424     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0007425     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0007426     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0007426     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0007971     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0007972     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                     Residential
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   EMISFACT L0007977     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Worker.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\..\..\peri8.sfc
   PROFFILE ..\..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL WORKER.AD\AN00GALL.PLT 31
   SUMMFILE Worker.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -
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                                                     Residential
 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2268 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2268 Source(s);       1 Source Group(s); and      22 Receptor(s)

               with:     13 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:   2249 VOLUME source(s)
                and:      6 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      8.3 MB of RAM.

 **Detailed Error/Message File:   Worker.err

 **File for Summary of Results:   Worker.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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                                                     Residential
   13:21:15

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 STCK1            0   0.90200E-05  478168.6 3748871.1   453.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK2            0   0.90200E-05  478166.4 3748719.2   452.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK3            0   0.90200E-05  478167.2 3748556.9   452.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK4            0   0.90200E-05  478169.4 3748411.7   451.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK5            0   0.90200E-05  477956.2 3748894.1   453.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK6            0   0.90200E-05  477962.1 3748741.5   453.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK7            0   0.90200E-05  477962.8 3748581.4   452.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK8            0   0.90200E-05  477964.3 3748509.9   451.8     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK9            0   0.90200E-05  478049.1 3748355.8   451.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK10           0   0.90200E-05  478153.1 3748357.3   451.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK11           0   0.19084E-04  477756.4 3748910.9   453.2     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK12           0   0.15121E-04  477975.8 3748266.9   450.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK13           0   0.25862E-04  477612.5 3748890.5   454.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008170         0   0.53100E-05  478173.4 3748395.3   451.0     4.00    13.95      1.86     YES   HROFDY
 L0008171         0   0.53100E-05  478173.5 3748425.3   451.0     4.00    13.95      1.86     YES   HROFDY
 L0008172         0   0.53100E-05  478173.7 3748455.3   451.0     4.00    13.95      1.86     YES   HROFDY
 L0008173         0   0.53100E-05  478173.8 3748485.3   451.0     4.00    13.95      1.86     YES   HROFDY
 L0008174         0   0.53100E-05  478173.9 3748515.3   452.0     4.00    13.95      1.86     YES   HROFDY
 L0008175         0   0.53100E-05  478174.1 3748545.3   452.0     4.00    13.95      1.86     YES   HROFDY
 L0008176         0   0.53100E-05  478174.2 3748575.3   452.0     4.00    13.95      1.86     YES   HROFDY
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                                                   Residential
 L0008177         0   0.53100E-05  478174.3 3748605.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008178         0   0.53100E-05  478174.5 3748635.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008179         0   0.53100E-05  478174.6 3748665.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008180         0   0.53100E-05  478174.8 3748695.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008181         0   0.53100E-05  478174.9 3748725.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008182         0   0.53100E-05  478175.0 3748755.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008183         0   0.53100E-05  478175.2 3748785.3   453.0     4.00    13.95     1.86     YES   HROFDY
 L0008184         0   0.53100E-05  478175.3 3748815.3   453.0     4.00    13.95     1.86     YES   HROFDY
 L0008185         0   0.53100E-05  478175.4 3748845.3   453.0     4.00    13.95     1.86     YES   HROFDY
 L0008186         0   0.53100E-05  478175.6 3748875.3   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005746         0   0.55010E-05  477943.9 3748501.1   451.5     4.00    13.95     1.86     YES   HROFDY
 L0005747         0   0.55010E-05  477944.1 3748531.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0005748         0   0.55010E-05  477944.4 3748561.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0005749         0   0.55010E-05  477944.7 3748591.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0005750         0   0.55010E-05  477944.9 3748621.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0005751         0   0.55010E-05  477945.2 3748651.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0005752         0   0.55010E-05  477945.4 3748681.1   452.5     4.00    13.95     1.86     YES   HROFDY
 L0005753         0   0.55010E-05  477945.7 3748711.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005754         0   0.55010E-05  477945.9 3748741.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005755         0   0.55010E-05  477946.2 3748771.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005756         0   0.55010E-05  477946.5 3748801.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005757         0   0.55010E-05  477946.7 3748831.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005758         0   0.55010E-05  477947.0 3748861.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005759         0   0.55010E-05  477947.2 3748891.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0005760         0   0.50750E-05  477756.7 3748938.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0005761         0   0.50750E-05  477756.7 3748930.0   453.8     4.00     3.95     1.86     YES   HROFDY
 L0005762         0   0.50750E-05  477756.7 3748921.5   453.6     4.00     3.95     1.86     YES   HROFDY
 L0005763         0   0.50750E-05  477756.7 3748913.0   453.3     4.00     3.95     1.86     YES   HROFDY
 L0005764         0   0.50750E-05  477756.7 3748904.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0005765         0   0.50750E-05  477756.7 3748896.0   453.1     4.00     3.95     1.86     YES   HROFDY
 L0005766         0   0.50750E-05  477756.7 3748887.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0005767         0   0.50750E-05  477756.7 3748879.0   453.1     4.00     3.95     1.86     YES   HROFDY
 L0005768         0   0.25430E-06  477900.2 3748339.0   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X        Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0005769         0   0.25430E-06  477908.7 3748339.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005770         0   0.25430E-06  477917.1 3748338.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005771         0   0.25430E-06  477925.6 3748338.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005772         0   0.25430E-06  477934.1 3748338.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005773         0   0.25430E-06  477942.6 3748338.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005774         0   0.25430E-06  477947.6 3748331.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005775         0   0.25430E-06  477951.8 3748324.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005776         0   0.25430E-06  477956.1 3748317.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005777         0   0.25430E-06  477960.3 3748309.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005778         0   0.25430E-06  477964.6 3748302.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005779         0   0.25430E-06  477968.8 3748295.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005780         0   0.25430E-06  477973.0 3748287.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005781         0   0.25430E-06  477976.2 3748279.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005782         0   0.25430E-06  477977.3 3748271.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005783         0   0.25430E-06  477978.3 3748263.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005784         0   0.25430E-06  477978.3 3748254.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005785         0   0.25430E-06  477978.3 3748246.0   450.0     4.00     3.95     1.86     YES   HROFDY
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                                                          Residential
 L0005786         0   0.25430E-06  477978.2 3748237.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005787         0   0.25430E-06  477978.2 3748229.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005788         0   0.25430E-06  477978.1 3748220.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005789         0   0.36680E-05  477608.7 3748929.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005790         0   0.36680E-05  477608.7 3748920.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005791         0   0.36680E-05  477608.7 3748912.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005792         0   0.36680E-05  477608.7 3748903.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005793         0   0.36680E-05  477608.7 3748895.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005794         0   0.36680E-05  477608.7 3748886.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005795         0   0.36680E-05  477608.7 3748878.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005796         0   0.36680E-05  477608.7 3748869.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005797         0   0.36680E-05  477608.7 3748861.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005798         0   0.36680E-05  477608.7 3748852.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005799         0   0.36680E-05  477608.7 3748844.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005800         0   0.36680E-05  477608.7 3748835.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005801         0   0.36680E-05  477608.7 3748827.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005802         0   0.36680E-05  477608.7 3748818.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005803         0   0.36680E-05  477608.7 3748810.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0005804         0   0.82500E-06  478043.0 3748335.2   451.0     0.00    13.95     1.86     YES   HROFDY
 L0005805         0   0.82500E-06  478073.0 3748334.5   451.0     0.00    13.95     1.86     YES   HROFDY
 L0005806         0   0.82500E-06  478103.0 3748333.9   451.0     0.00    13.95     1.86     YES   HROFDY
 L0005807         0   0.82500E-06  478133.0 3748333.2   451.0     0.00    13.95     1.86     YES   HROFDY
 L0005808         0   0.82500E-06  478163.0 3748332.6   451.0     0.00    13.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y    ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007995         0   0.13450E-05  477908.6 3748969.2   453.1     4.00     3.95     1.86     YES   HROFDY
 L0007996         0   0.13450E-05  477908.5 3748960.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007997         0   0.13450E-05  477908.3 3748952.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007998         0   0.13450E-05  477907.8 3748943.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007999         0   0.13450E-05  477906.5 3748935.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008000         0   0.13450E-05  477905.3 3748926.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008001         0   0.13450E-05  477904.6 3748918.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008002         0   0.13450E-05  477904.4 3748910.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008003         0   0.13450E-05  477904.2 3748901.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008004         0   0.13450E-05  477904.1 3748893.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008005         0   0.13450E-05  477903.9 3748884.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008006         0   0.13450E-05  477903.8 3748876.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008007         0   0.13450E-05  477903.6 3748867.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008008         0   0.13450E-05  477903.5 3748859.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008009         0   0.13450E-05  477903.5 3748850.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008010         0   0.13450E-05  477903.4 3748842.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008011         0   0.13450E-05  477903.3 3748833.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008012         0   0.13450E-05  477903.3 3748825.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008013         0   0.13450E-05  477903.2 3748816.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008014         0   0.13450E-05  477903.1 3748808.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008015         0   0.13450E-05  477903.1 3748799.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008016         0   0.13450E-05  477903.0 3748791.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008017         0   0.13450E-05  477902.9 3748782.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008018         0   0.13450E-05  477902.9 3748774.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008019         0   0.13450E-05  477902.8 3748765.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008020         0   0.13450E-05  477902.7 3748757.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008021         0   0.13450E-05  477902.7 3748748.5   453.0     4.00     3.95     1.86     YES   HROFDY
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                         Residential
 L0008022         0   0.13450E-05  477902.6 3748740.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008023         0   0.13450E-05  477902.5 3748731.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008024         0   0.13450E-05  477902.5 3748723.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008025         0   0.13450E-05  477902.4 3748714.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008026         0   0.13450E-05  477902.3 3748706.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008027         0   0.13450E-05  477902.2 3748697.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008028         0   0.13450E-05  477902.2 3748689.0   452.8     4.00     3.95     1.86     YES   HROFDY
 L0008029         0   0.13450E-05  477902.1 3748680.5   452.5     4.00     3.95     1.86     YES   HROFDY
 L0008030         0   0.13450E-05  477902.0 3748672.0   452.2     4.00     3.95     1.86     YES   HROFDY
 L0008031         0   0.13450E-05  477902.0 3748663.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008032         0   0.13450E-05  477901.9 3748655.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008033         0   0.13450E-05  477901.8 3748646.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008034         0   0.13450E-05  477901.8 3748638.0   452.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS)  (METERS) (METERS)            BY
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 L0008035         0   0.13450E-05  477901.7 3748629.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008036         0   0.13450E-05  477901.6 3748621.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008037         0   0.13450E-05  477901.6 3748612.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008038         0   0.13450E-05  477901.5 3748604.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008039         0   0.13450E-05  477901.4 3748595.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008040         0   0.13450E-05  477901.4 3748587.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008041         0   0.13450E-05  477901.3 3748578.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008042         0   0.13450E-05  477901.2 3748570.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008043         0   0.13450E-05  477901.2 3748561.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008044         0   0.13450E-05  477901.1 3748553.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008045         0   0.13450E-05  477901.0 3748544.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008046         0   0.13450E-05  477900.9 3748536.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008047         0   0.13450E-05  477900.9 3748527.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008048         0   0.13450E-05  477900.8 3748519.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008049         0   0.13450E-05  477900.7 3748510.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008050         0   0.13450E-05  477900.7 3748502.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008051         0   0.13450E-05  477900.6 3748493.5   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008052         0   0.13450E-05  477901.0 3748485.1   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008053         0   0.13450E-05  477905.1 3748477.6   451.9     4.00     3.95     1.86     YES   HROFDY
 L0008054         0   0.13450E-05  477909.1 3748470.1   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008055         0   0.13450E-05  477913.1 3748462.6   451.9     4.00     3.95     1.86     YES   HROFDY
 L0008056         0   0.13450E-05  477917.1 3748455.1   451.7     4.00     3.95     1.86     YES   HROFDY
 L0008057         0   0.13450E-05  477921.1 3748447.7   451.4     4.00     3.95     1.86     YES   HROFDY
 L0008058         0   0.13450E-05  477925.1 3748440.2   451.2     4.00     3.95     1.86     YES   HROFDY
 L0008059         0   0.13450E-05  477929.2 3748432.7   451.1     4.00     3.95     1.86     YES   HROFDY
 L0008060         0   0.13450E-05  477933.2 3748425.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008061         0   0.13450E-05  477937.2 3748417.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008062         0   0.13450E-05  477941.2 3748410.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008063         0   0.13450E-05  477945.2 3748402.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008064         0   0.13450E-05  477949.2 3748395.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008065         0   0.13450E-05  477953.3 3748387.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008066         0   0.13450E-05  477957.3 3748380.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008067         0   0.13450E-05  477961.3 3748372.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008068         0   0.13450E-05  477965.3 3748365.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008069         0   0.13450E-05  477969.3 3748357.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008070         0   0.13450E-05  477973.4 3748350.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008071         0   0.13450E-05  477978.1 3748343.2   451.0     4.00     3.95     1.86     YES   HROFDY
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                                                       Residential
 L0008072         0   0.13450E-05  477982.7 3748336.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008073         0   0.13450E-05  477990.1 3748334.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008074         0   0.13450E-05  477998.6 3748334.3   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008075         0   0.13450E-05  478007.1 3748334.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008076         0   0.13450E-05  478015.6 3748334.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008077         0   0.13450E-05  478024.1 3748334.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008078         0   0.13450E-05  478032.6 3748334.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008079         0   0.13450E-05  478041.1 3748334.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008080         0   0.13450E-05  478049.6 3748334.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008081         0   0.13450E-05  478058.1 3748335.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008082         0   0.13450E-05  478066.6 3748335.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008083         0   0.13450E-05  478075.1 3748335.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008084         0   0.13450E-05  478083.6 3748335.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008085         0   0.13450E-05  478092.1 3748335.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008086         0   0.13450E-05  478100.6 3748335.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008087         0   0.13450E-05  478109.1 3748335.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008088         0   0.13450E-05  478117.6 3748335.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008089         0   0.13450E-05  478126.1 3748335.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008090         0   0.13450E-05  478134.6 3748335.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008091         0   0.13450E-05  478143.1 3748335.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008092         0   0.13450E-05  478151.6 3748336.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008093         0   0.13450E-05  478160.1 3748336.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008094         0   0.13450E-05  478168.6 3748336.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008095         0   0.13450E-05  478172.2 3748341.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008096         0   0.13450E-05  478172.2 3748349.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008097         0   0.13450E-05  478172.3 3748358.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008098         0   0.13450E-05  478172.3 3748366.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008099         0   0.13450E-05  478172.4 3748375.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008100         0   0.13450E-05  478172.5 3748383.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008101         0   0.13450E-05  478172.5 3748392.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008102         0   0.13450E-05  478172.6 3748400.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008103         0   0.13450E-05  478172.6 3748409.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008104         0   0.13450E-05  478172.7 3748417.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008105         0   0.13450E-05  478172.8 3748426.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008106         0   0.13450E-05  478172.8 3748434.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008107         0   0.13450E-05  478172.9 3748443.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008108         0   0.13450E-05  478172.9 3748451.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008109         0   0.13450E-05  478173.0 3748460.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008110         0   0.13450E-05  478173.1 3748468.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008111         0   0.13450E-05  478173.1 3748477.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008112         0   0.13450E-05  478173.2 3748485.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008113         0   0.13450E-05  478173.2 3748494.2   451.2     4.00     3.95     1.86     YES   HROFDY
 L0008114         0   0.13450E-05  478173.3 3748502.7   451.5     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                          Residential


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)               BY
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 L0008115         0   0.13450E-05  478173.4 3748511.2    451.8      4.00      3.95      1.86     YES    HROFDY
 L0008116         0   0.13450E-05  478173.4 3748519.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008117         0   0.13450E-05  478173.5 3748528.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008118         0   0.13450E-05  478173.5 3748536.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008119         0   0.13450E-05  478173.6 3748545.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008120         0   0.13450E-05  478173.7 3748553.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008121         0   0.13450E-05  478173.7 3748562.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008122         0   0.13450E-05  478173.8 3748570.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008123         0   0.13450E-05  478173.8 3748579.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008124         0   0.13450E-05  478173.9 3748587.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008125         0   0.13450E-05  478174.0 3748596.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008126         0   0.13450E-05  478174.0 3748604.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008127         0   0.13450E-05  478174.1 3748613.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008128         0   0.13450E-05  478174.2 3748621.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008129         0   0.13450E-05  478174.2 3748630.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008130         0   0.13450E-05  478174.3 3748638.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008131         0   0.13450E-05  478174.3 3748647.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008132         0   0.13450E-05  478174.4 3748655.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008133         0   0.13450E-05  478174.5 3748664.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008134         0   0.13450E-05  478174.5 3748672.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008135         0   0.13450E-05  478174.6 3748681.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008136         0   0.13450E-05  478174.6 3748689.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008137         0   0.13450E-05  478174.7 3748698.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008138         0   0.13450E-05  478174.8 3748706.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008139         0   0.13450E-05  478174.8 3748715.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008140         0   0.13450E-05  478174.9 3748723.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008141         0   0.13450E-05  478174.9 3748732.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008142         0   0.13450E-05  478175.0 3748740.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008143         0   0.13450E-05  478175.1 3748749.2    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008144         0   0.13450E-05  478175.1 3748757.7    452.0      4.00      3.95      1.86     YES    HROFDY
 L0008145         0   0.13450E-05  478175.2 3748766.2    452.3      4.00      3.95      1.86     YES    HROFDY
 L0008146         0   0.13450E-05  478175.2 3748774.7    452.6      4.00      3.95      1.86     YES    HROFDY
 L0008147         0   0.13450E-05  478175.3 3748783.2    452.9      4.00      3.95      1.86     YES    HROFDY
 L0008148         0   0.13450E-05  478175.4 3748791.7    453.0      4.00      3.95      1.86     YES    HROFDY
 L0008149         0   0.13450E-05  478175.4 3748800.2    453.0      4.00      3.95      1.86     YES    HROFDY
 L0008150         0   0.13450E-05  478175.5 3748808.7    453.0      4.00      3.95      1.86     YES    HROFDY
 L0008151         0   0.13450E-05  478175.5 3748817.2    453.0      4.00      3.95      1.86     YES    HROFDY
 L0008152         0   0.13450E-05  478175.6 3748825.7    453.0      4.00      3.95      1.86     YES    HROFDY
 L0008153         0   0.13450E-05  478175.7 3748834.2    453.0      4.00      3.95      1.86     YES    HROFDY
 L0008154         0   0.13450E-05  478175.7 3748842.7    453.0      4.00      3.95      1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)               BY
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                                                   Residential
 L0008155         0   0.13450E-05  478175.8 3748851.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008156         0   0.13450E-05  478175.8 3748859.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008157         0   0.13450E-05  478175.9 3748868.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008158         0   0.13450E-05  478176.0 3748876.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008159         0   0.13450E-05  478176.0 3748885.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008160         0   0.13450E-05  478176.1 3748893.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008161         0   0.13450E-05  478176.1 3748902.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008162         0   0.13450E-05  478176.2 3748910.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008163         0   0.13450E-05  478173.8 3748918.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008164         0   0.13450E-05  478171.4 3748927.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008165         0   0.13450E-05  478168.9 3748935.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008166         0   0.13450E-05  478166.4 3748943.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008167         0   0.13450E-05  478163.9 3748951.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008168         0   0.13450E-05  478161.5 3748959.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0008169         0   0.13450E-05  478159.0 3748967.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005984         0   0.28630E-06  477852.8 3748835.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005985         0   0.28630E-06  477852.8 3748843.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005986         0   0.28630E-06  477852.9 3748852.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005987         0   0.28630E-06  477852.9 3748860.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005988         0   0.28630E-06  477853.0 3748869.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005989         0   0.28630E-06  477853.0 3748877.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005990         0   0.28630E-06  477853.1 3748886.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005991         0   0.28630E-06  477853.1 3748894.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005992         0   0.28630E-06  477853.1 3748903.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005993         0   0.28630E-06  477853.2 3748911.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005994         0   0.28630E-06  477853.2 3748920.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005995         0   0.28630E-06  477853.3 3748928.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005996         0   0.28630E-06  477853.3 3748937.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005997         0   0.28630E-06  477853.4 3748945.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005998         0   0.28630E-06  477853.4 3748954.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0005999         0   0.28630E-06  477853.5 3748962.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006000         0   0.28630E-06  477853.5 3748971.2   453.2     4.00     3.95     1.86     YES   HROFDY
 L0006001         0   0.28630E-06  477853.5 3748979.7   453.4     4.00     3.95     1.86     YES   HROFDY
 L0006002         0   0.28630E-06  477845.0 3748979.7   453.5     4.00     3.95     1.86     YES   HROFDY
 L0006003         0   0.28630E-06  477836.5 3748979.6   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006004         0   0.28630E-06  477828.0 3748979.6   453.9     4.00     3.95     1.86     YES   HROFDY
 L0006005         0   0.28630E-06  477819.5 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006006         0   0.28630E-06  477811.0 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006007         0   0.28630E-06  477802.5 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006008         0   0.28630E-06  477794.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)              BY
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 L0006009         0   0.28630E-06  477785.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006010         0   0.28630E-06  477777.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006011         0   0.28630E-06  477768.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006012         0   0.28630E-06  477760.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006013         0   0.28630E-06  477751.5 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006014         0   0.28630E-06  477743.0 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006015         0   0.28630E-06  477742.7 3748971.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006016         0   0.28630E-06  477742.7 3748962.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006017         0   0.28630E-06  477742.6 3748954.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006018         0   0.28630E-06  477742.6 3748945.7   454.0     4.00     3.95     1.86     YES   HROFDY
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                                                Residential
 L0006019         0   0.28630E-06  477742.5 3748937.2   454.0       4.00      3.95      1.86      YES    HROFDY
 L0006020         0   0.28630E-06  477742.5 3748928.7   453.9       4.00      3.95      1.86      YES    HROFDY
 L0006021         0   0.28630E-06  477742.4 3748920.2   453.8       4.00      3.95      1.86      YES    HROFDY
 L0006022         0   0.28630E-06  477742.4 3748911.7   453.7       4.00      3.95      1.86      YES    HROFDY
 L0006023         0   0.28630E-06  477742.3 3748903.2   453.6       4.00      3.95      1.86      YES    HROFDY
 L0006024         0   0.28630E-06  477742.3 3748894.7   453.6       4.00      3.95      1.86      YES    HROFDY
 L0006025         0   0.28630E-06  477742.2 3748886.2   453.6       4.00      3.95      1.86      YES    HROFDY
 L0006026         0   0.28630E-06  477744.2 3748878.0   453.5       4.00      3.95      1.86      YES    HROFDY
 L0006027         0   0.28630E-06  477746.5 3748869.8   453.6       4.00      3.95      1.86      YES    HROFDY
 L0006028         0   0.28630E-06  477748.8 3748861.6   453.7       4.00      3.95      1.86      YES    HROFDY
 L0006029         0   0.28630E-06  477751.1 3748853.4   453.8       4.00      3.95      1.86      YES    HROFDY
 L0006030         0   0.28630E-06  477753.4 3748845.3   454.0       4.00      3.95      1.86      YES    HROFDY
 L0006031         0   0.28630E-06  477757.5 3748838.2   453.7       4.00      3.95      1.86      YES    HROFDY
 L0006032         0   0.28630E-06  477763.8 3748832.5   453.5       4.00      3.95      1.86      YES    HROFDY
 L0006033         0   0.28630E-06  477770.1 3748826.8   453.2       4.00      3.95      1.86      YES    HROFDY
 L0006034         0   0.28630E-06  477778.6 3748826.5   453.1       4.00      3.95      1.86      YES    HROFDY
 L0006035         0   0.28630E-06  477787.1 3748826.4   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006036         0   0.28630E-06  477795.6 3748826.2   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006037         0   0.28630E-06  477804.1 3748826.1   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006038         0   0.28630E-06  477812.6 3748826.1   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006039         0   0.28630E-06  477821.1 3748826.0   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006040         0   0.28630E-06  477829.6 3748826.0   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006041         0   0.28630E-06  477838.1 3748825.9   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006042         0   0.28630E-06  477846.6 3748825.8   453.0       4.00      3.95      1.86      YES    HROFDY
 L0006043         0   0.22550E-06  477886.6 3748203.7   450.0       4.00      3.95      1.86      YES    HROFDY
 L0006044         0   0.22550E-06  477886.4 3748212.2   450.0       4.00      3.95      1.86      YES    HROFDY
 L0006045         0   0.22550E-06  477886.3 3748220.7   450.1       4.00      3.95      1.86      YES    HROFDY
 L0006046         0   0.22550E-06  477886.1 3748229.2   450.3       4.00      3.95      1.86      YES    HROFDY
 L0006047         0   0.22550E-06  477885.9 3748237.7   450.6       4.00      3.95      1.86      YES    HROFDY
 L0006048         0   0.22550E-06  477885.7 3748246.2   450.8       4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

                           NUMBER EMISSION RATE                           BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE                  PART.  (GRAMS/SEC)      X         Y           ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID                    CATS.                (METERS)  (METERS)    (METERS)  (METERS)  (METERS) (METERS)              BY
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 L0006049         0   0.22550E-06  477885.5 3748254.7   450.9       4.00      3.95      1.86      YES    HROFDY
 L0006050         0   0.22550E-06  477885.6 3748263.2   450.9       4.00      3.95      1.86      YES    HROFDY
 L0006051         0   0.22550E-06  477885.7 3748271.7   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006052         0   0.22550E-06  477885.8 3748280.2   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006053         0   0.22550E-06  477885.9 3748288.7   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006054         0   0.22550E-06  477886.0 3748297.2   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006055         0   0.22550E-06  477886.1 3748305.7   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006056         0   0.22550E-06  477886.2 3748314.2   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006057         0   0.22550E-06  477886.3 3748322.7   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006058         0   0.22550E-06  477886.4 3748331.2   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006059         0   0.22550E-06  477889.0 3748337.4   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006060         0   0.22550E-06  477897.5 3748338.1   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006061         0   0.22550E-06  477906.0 3748338.9   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006062         0   0.22550E-06  477914.4 3748339.7   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006063         0   0.22550E-06  477922.9 3748339.5   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006064         0   0.22550E-06  477931.4 3748338.9   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006065         0   0.22550E-06  477939.8 3748338.2   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006066         0   0.22550E-06  477945.5 3748332.6   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006067         0   0.22550E-06  477950.6 3748325.7   451.0       4.00      3.95      1.86      YES    HROFDY
 L0006068         0   0.22550E-06  477955.0 3748318.5   450.0       4.00      3.95      1.86      YES    HROFDY
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                                                  Residential
 L0006069         0   0.22550E-06  477959.4 3748311.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006070         0   0.22550E-06  477963.8 3748303.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006071         0   0.22550E-06  477968.2 3748296.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006072         0   0.22550E-06  477972.6 3748289.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006073         0   0.22550E-06  477975.8 3748281.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006074         0   0.22550E-06  477977.7 3748273.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006075         0   0.22550E-06  477979.6 3748265.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006076         0   0.22550E-06  477981.3 3748256.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006077         0   0.22550E-06  477980.6 3748248.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006078         0   0.22550E-06  477979.9 3748239.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006079         0   0.22550E-06  477979.2 3748231.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006080         0   0.22550E-06  477978.4 3748222.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006081         0   0.22550E-06  477982.6 3748217.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006082         0   0.22550E-06  477990.0 3748212.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006083         0   0.22550E-06  477994.0 3748206.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006084         0   0.22550E-06  477994.1 3748198.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006085         0   0.22550E-06  477986.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006086         0   0.22550E-06  477977.6 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006087         0   0.22550E-06  477969.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006088         0   0.22550E-06  477960.6 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006089         0   0.22550E-06  477952.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006090         0   0.22550E-06  477943.6 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006091         0   0.22550E-06  477935.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006092         0   0.38500E-06  477505.1 3748975.7   454.2     4.00     3.95     1.86     YES   HROFDY
 L0006093         0   0.38500E-06  477513.6 3748975.6   454.1     4.00     3.95     1.86     YES   HROFDY
 L0006094         0   0.38500E-06  477522.1 3748975.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006095         0   0.38500E-06  477530.6 3748975.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006096         0   0.38500E-06  477539.1 3748975.1   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006097         0   0.38500E-06  477547.6 3748974.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006098         0   0.38500E-06  477556.1 3748974.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006099         0   0.38500E-06  477564.6 3748974.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006100         0   0.38500E-06  477573.1 3748974.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006101         0   0.38500E-06  477581.6 3748974.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006102         0   0.38500E-06  477590.1 3748974.1   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006103         0   0.38500E-06  477598.5 3748973.8   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006104         0   0.38500E-06  477605.4 3748968.8   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006105         0   0.38500E-06  477611.1 3748963.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006106         0   0.38500E-06  477613.4 3748954.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006107         0   0.38500E-06  477615.7 3748946.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006108         0   0.38500E-06  477618.0 3748938.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006109         0   0.38500E-06  477620.0 3748930.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006110         0   0.38500E-06  477621.7 3748921.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006111         0   0.38500E-06  477623.4 3748913.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006112         0   0.38500E-06  477625.1 3748905.3   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006113         0   0.38500E-06  477626.2 3748896.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006114         0   0.38500E-06  477626.4 3748888.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006115         0   0.38500E-06  477626.5 3748879.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006116         0   0.38500E-06  477626.6 3748871.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006117         0   0.38500E-06  477626.7 3748862.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006118         0   0.38500E-06  477626.8 3748854.4   454.0     4.00     3.95     1.86     YES   HROFDY
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                                                     Residential
 L0006119         0   0.38500E-06  477626.9 3748845.9   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006120         0   0.38500E-06  477627.0 3748837.4   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006121         0   0.38500E-06  477627.1 3748828.9   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006122         0   0.38500E-06  477627.2 3748820.4   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006123         0   0.38500E-06  477627.3 3748811.9   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006124         0   0.38500E-06  477627.5 3748803.4   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006125         0   0.38500E-06  477627.0 3748795.5   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006126         0   0.38500E-06  477618.5 3748795.7   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006127         0   0.38500E-06  477610.0 3748795.9   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006128         0   0.38500E-06  477601.5 3748796.2   454.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker                ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006129         0   0.38500E-06  477593.0 3748796.4   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006130         0   0.38500E-06  477584.5 3748796.6   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006131         0   0.38500E-06  477576.0 3748796.9   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006132         0   0.38500E-06  477567.5 3748797.1   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006133         0   0.38500E-06  477559.0 3748797.3   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006134         0   0.38500E-06  477550.5 3748797.5   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006135         0   0.38500E-06  477542.0 3748797.8   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006136         0   0.38500E-06  477533.5 3748798.0   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006137         0   0.38500E-06  477525.0 3748798.2   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006138         0   0.38500E-06  477516.5 3748798.5   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006139         0   0.38500E-06  477508.0 3748798.7   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006140         0   0.38500E-06  477499.5 3748798.9   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006141         0   0.38500E-06  477491.0 3748799.2   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006142         0   0.74570E-06  478255.5 3748984.6   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006143         0   0.74570E-06  478247.0 3748984.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006144         0   0.74570E-06  478238.5 3748984.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006145         0   0.74570E-06  478230.0 3748984.8   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006146         0   0.74570E-06  478221.5 3748984.9   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006147         0   0.74570E-06  478213.0 3748985.0   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006148         0   0.74570E-06  478204.5 3748985.1   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006149         0   0.74570E-06  478196.0 3748985.1   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006150         0   0.74570E-06  478187.5 3748985.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006151         0   0.74570E-06  478179.0 3748985.3   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006152         0   0.74570E-06  478170.5 3748985.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006153         0   0.74570E-06  478162.0 3748985.5   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006154         0   0.74570E-06  478153.5 3748985.6   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006155         0   0.74570E-06  478145.0 3748985.6   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006156         0   0.74570E-06  478136.5 3748985.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006157         0   0.74570E-06  478128.0 3748985.8   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006158         0   0.74570E-06  478119.5 3748985.9   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006159         0   0.74570E-06  478111.0 3748986.0   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006160         0   0.74570E-06  478102.5 3748986.0   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006161         0   0.74570E-06  478094.0 3748986.1   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006162         0   0.74570E-06  478085.5 3748986.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006163         0   0.74570E-06  478077.0 3748986.3   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006164         0   0.74570E-06  478068.5 3748986.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006165         0   0.74570E-06  478060.0 3748986.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006166         0   0.74570E-06  478051.5 3748986.5   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006167         0   0.74570E-06  478043.0 3748986.6   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006168         0   0.74570E-06  478034.5 3748986.7   453.0      4.00      3.95      1.86      YES    HROFDY
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                                                    Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

            NUMBER EMISSION RATE                         BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)      X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID       CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006169        0   0.74570E-06  478026.0 3748986.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006170        0   0.74570E-06  478017.5 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006171        0   0.74570E-06  478009.0 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006172        0   0.74570E-06  478000.5 3748987.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006173        0   0.74570E-06  477992.0 3748987.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006174        0   0.74570E-06  477983.5 3748987.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006175        0   0.74570E-06  477975.0 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006176        0   0.74570E-06  477966.5 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006177        0   0.74570E-06  477958.0 3748987.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006178        0   0.74570E-06  477949.5 3748987.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006179        0   0.74570E-06  477941.0 3748987.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006180        0   0.74570E-06  477932.5 3748987.7   453.2     4.00     3.95     1.86     YES   HROFDY
 L0006181        0   0.74570E-06  477924.0 3748987.7   453.4     4.00     3.95     1.86     YES   HROFDY
 L0006182        0   0.74570E-06  477915.5 3748987.8   453.6     4.00     3.95     1.86     YES   HROFDY
 L0006183        0   0.74570E-06  477907.0 3748987.9   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006184        0   0.74570E-06  477898.6 3748988.0   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006185        0   0.74570E-06  477890.1 3748988.1   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006186        0   0.74570E-06  477881.9 3748988.5   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006187        0   0.74570E-06  477881.9 3748997.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006188        0   0.74570E-06  477881.9 3749005.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006189        0   0.74570E-06  477881.9 3749014.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006190        0   0.74570E-06  477881.9 3749022.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006191        0   0.74570E-06  477881.9 3749031.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006192        0   0.74570E-06  477881.9 3749039.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006193        0   0.74570E-06  477881.9 3749048.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006194        0   0.74570E-06  477881.9 3749056.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006195        0   0.74570E-06  477881.9 3749065.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006196        0   0.74570E-06  477881.9 3749073.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006197        0   0.74570E-06  477881.9 3749082.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006198        0   0.74570E-06  477881.9 3749090.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006199        0   0.74570E-06  477881.9 3749099.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006200        0   0.74570E-06  477881.9 3749107.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006201        0   0.74570E-06  477881.9 3749116.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006202        0   0.74570E-06  477881.9 3749124.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006203        0   0.74570E-06  477881.9 3749133.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006204        0   0.74570E-06  477881.9 3749141.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006205        0   0.74570E-06  477881.9 3749150.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006206        0   0.74570E-06  477881.9 3749158.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006207        0   0.74570E-06  477881.9 3749167.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006208        0   0.74570E-06  477881.9 3749175.5   454.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***
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                                        Residential

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006209         0   0.74570E-06  477881.9 3749184.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006210         0   0.74570E-06  477881.9 3749192.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006211         0   0.74570E-06  477881.9 3749201.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006212         0   0.74570E-06  477881.9 3749209.5   454.1     4.00     3.95     1.86     YES   HROFDY
 L0006213         0   0.74570E-06  477881.9 3749218.0   454.4     4.00     3.95     1.86     YES   HROFDY
 L0006214         0   0.74570E-06  477881.9 3749226.5   454.7     4.00     3.95     1.86     YES   HROFDY
 L0006215         0   0.74570E-06  477881.9 3749235.0   454.9     4.00     3.95     1.86     YES   HROFDY
 L0006216         0   0.74570E-06  477877.9 3749239.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006217         0   0.74570E-06  477869.4 3749239.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006218         0   0.74570E-06  477860.9 3749239.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006219         0   0.74570E-06  477852.4 3749239.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006220         0   0.74570E-06  477843.9 3749240.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006221         0   0.74570E-06  477835.4 3749240.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006222         0   0.74570E-06  477826.9 3749240.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006223         0   0.74570E-06  477818.4 3749240.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006224         0   0.74570E-06  477809.9 3749240.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006225         0   0.74570E-06  477801.4 3749240.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006226         0   0.74570E-06  477792.9 3749240.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006227         0   0.74570E-06  477784.4 3749240.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006228         0   0.74570E-06  477775.9 3749240.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006229         0   0.74570E-06  477767.4 3749241.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006230         0   0.74570E-06  477758.9 3749241.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006231         0   0.74570E-06  477750.4 3749241.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006232         0   0.74570E-06  477741.9 3749241.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006233         0   0.74570E-06  477733.4 3749241.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006234         0   0.74570E-06  477724.9 3749241.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006235         0   0.74570E-06  477716.4 3749241.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006236         0   0.74570E-06  477707.9 3749241.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006237         0   0.74570E-06  477699.4 3749241.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006238         0   0.74570E-06  477690.9 3749242.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006239         0   0.74570E-06  477682.4 3749242.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006240         0   0.74570E-06  477673.9 3749242.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006241         0   0.74570E-06  477665.4 3749242.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006242         0   0.74570E-06  477656.9 3749242.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006243         0   0.74570E-06  477648.4 3749242.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006244         0   0.74570E-06  477639.9 3749242.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006245         0   0.74570E-06  477631.4 3749242.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006246         0   0.74570E-06  477622.9 3749242.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006247         0   0.74570E-06  477614.4 3749243.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006248         0   0.74570E-06  477605.9 3749243.2   455.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                     *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006249         0   0.74570E-06  477597.4 3749243.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006250         0   0.74570E-06  477588.9 3749243.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006251         0   0.74570E-06  477580.4 3749243.5   455.0     4.00     3.95     1.86     YES   HROFDY
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                                                                   Residential
 L0006252         0   0.74570E-06  477571.9 3749243.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006253         0   0.74570E-06  477563.4 3749243.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006254         0   0.74570E-06  477554.9 3749243.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006255         0   0.74570E-06  477546.4 3749244.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006256         0   0.74570E-06  477537.9 3749244.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006257         0   0.74570E-06  477529.4 3749244.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006258         0   0.74570E-06  477520.9 3749244.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006259         0   0.74570E-06  477512.4 3749244.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006260         0   0.74570E-06  477503.9 3749244.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006261         0   0.74570E-06  477495.4 3749244.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006262         0   0.74570E-06  477486.9 3749244.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006263         0   0.74570E-06  477478.4 3749244.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006264         0   0.74570E-06  477476.8 3749251.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006265         0   0.74570E-06  477476.7 3749260.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006266         0   0.74570E-06  477476.6 3749268.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006267         0   0.74570E-06  477476.5 3749277.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006268         0   0.74570E-06  477476.4 3749285.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006269         0   0.74570E-06  477476.3 3749294.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006270         0   0.74570E-06  477476.2 3749302.9   455.1     4.00     3.95     1.86     YES   HROFDY
 L0006271         0   0.74570E-06  477476.0 3749311.4   455.2     4.00     3.95     1.86     YES   HROFDY
 L0006272         0   0.74570E-06  477475.9 3749319.9   455.4     4.00     3.95     1.86     YES   HROFDY
 L0006273         0   0.74570E-06  477475.8 3749328.4   455.5     4.00     3.95     1.86     YES   HROFDY
 L0006274         0   0.74570E-06  477475.7 3749336.9   455.7     4.00     3.95     1.86     YES   HROFDY
 L0006275         0   0.74570E-06  477475.6 3749345.4   455.8     4.00     3.95     1.86     YES   HROFDY
 L0006276         0   0.74570E-06  477475.5 3749353.9   455.9     4.00     3.95     1.86     YES   HROFDY
 L0006277         0   0.74570E-06  477475.4 3749362.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006278         0   0.74570E-06  477475.3 3749370.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006279         0   0.74570E-06  477475.1 3749379.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006280         0   0.74570E-06  477475.0 3749387.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006281         0   0.74570E-06  477474.9 3749396.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006282         0   0.74570E-06  477474.8 3749404.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006283         0   0.74570E-06  477474.7 3749413.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006284         0   0.74570E-06  477474.6 3749421.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006285         0   0.74570E-06  477474.5 3749430.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006286         0   0.74570E-06  477474.4 3749438.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006287         0   0.74570E-06  477474.2 3749447.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006288         0   0.74570E-06  477474.1 3749455.9   456.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006289         0   0.74570E-06  477474.0 3749464.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006290         0   0.74570E-06  477473.9 3749472.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006291         0   0.74570E-06  477473.8 3749481.4   456.2     4.00     3.95     1.86     YES   HROFDY
 L0006292         0   0.74570E-06  477473.7 3749489.9   456.4     4.00     3.95     1.86     YES   HROFDY
 L0006293         0   0.74570E-06  477473.6 3749498.4   456.7     4.00     3.95     1.86     YES   HROFDY
 L0006294         0   0.74570E-06  477473.5 3749506.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006295         0   0.74570E-06  477473.3 3749515.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006296         0   0.74570E-06  477473.2 3749523.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006297         0   0.74570E-06  477473.1 3749532.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006298         0   0.74570E-06  477473.0 3749540.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006299         0   0.74570E-06  477472.9 3749549.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006300         0   0.74570E-06  477472.8 3749557.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006301         0   0.74570E-06  477472.7 3749566.4   457.0     4.00     3.95     1.86     YES   HROFDY
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                                                        Residential
 L0006302         0  0.74570E-06  477472.6 3749574.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006303         0  0.74570E-06  477472.4 3749583.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006304         0  0.74570E-06  477472.3 3749591.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006305         0  0.74570E-06  477472.2 3749600.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006306         0  0.74570E-06  477472.1 3749608.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006307         0  0.74570E-06  477472.0 3749617.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006308         0  0.74570E-06  477471.9 3749625.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006309         0  0.74570E-06  477471.8 3749634.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006310         0  0.74570E-06  477471.7 3749642.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006311         0  0.74570E-06  477471.5 3749651.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006312         0  0.74570E-06  477471.4 3749659.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006313         0  0.74570E-06  477471.3 3749668.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006314         0  0.74570E-06  477471.2 3749676.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006315         0  0.74570E-06  477471.1 3749685.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006316         0  0.74570E-06  477471.0 3749693.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006317         0  0.74570E-06  477470.9 3749702.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006318         0  0.74570E-06  477470.8 3749710.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006319         0  0.74570E-06  477470.6 3749719.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006320         0  0.74570E-06  477470.5 3749727.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006321         0  0.74570E-06  477470.4 3749736.4   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006322         0  0.74570E-06  477470.3 3749744.9   457.0      4.00      3.95      1.86      YES   HROFDY
 L0006323         0  0.74570E-06  477470.2 3749753.4   457.2      4.00      3.95      1.86      YES   HROFDY
 L0006324         0  0.74570E-06  477470.1 3749761.9   457.5      4.00      3.95      1.86      YES   HROFDY
 L0006325         0  0.74570E-06  477470.0 3749770.4   457.8      4.00      3.95      1.86      YES   HROFDY
 L0006326         0  0.74570E-06  477469.9 3749778.9   458.0      4.00      3.95      1.86      YES   HROFDY
 L0006327         0  0.74570E-06  477469.7 3749787.4   458.0      4.00      3.95      1.86      YES   HROFDY
 L0006328         0  0.31930E-06  477901.9 3748181.5   450.0      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006329         0  0.31930E-06  477893.4 3748181.6   450.0      4.00      3.95      1.86      YES   HROFDY
 L0006330         0  0.31930E-06  477884.9 3748181.7   450.0      4.00      3.95      1.86      YES   HROFDY
 L0006331         0  0.31930E-06  477876.4 3748181.7   450.0      4.00      3.95      1.86      YES   HROFDY
 L0006332         0  0.31930E-06  477867.9 3748181.8   450.0      4.00      3.95      1.86      YES   HROFDY
 L0006333         0  0.31930E-06  477859.4 3748181.9   450.0      4.00      3.95      1.86      YES   HROFDY
 L0006334         0  0.31930E-06  477850.9 3748181.9   450.0      4.00      3.95      1.86      YES   HROFDY
 L0006335         0  0.31930E-06  477842.4 3748182.0   450.2      4.00      3.95      1.86      YES   HROFDY
 L0006336         0  0.31930E-06  477833.9 3748182.1   450.5      4.00      3.95      1.86      YES   HROFDY
 L0006337         0  0.31930E-06  477825.4 3748182.1   450.7      4.00      3.95      1.86      YES   HROFDY
 L0006338         0  0.31930E-06  477816.9 3748182.2   450.9      4.00      3.95      1.86      YES   HROFDY
 L0006339         0  0.31930E-06  477808.4 3748182.3   450.9      4.00      3.95      1.86      YES   HROFDY
 L0006340         0  0.31930E-06  477799.9 3748182.3   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006341         0  0.31930E-06  477791.4 3748182.4   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006342         0  0.31930E-06  477782.9 3748182.5   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006343         0  0.31930E-06  477774.4 3748182.5   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006344         0  0.31930E-06  477765.9 3748182.6   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006345         0  0.31930E-06  477757.4 3748182.7   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006346         0  0.31930E-06  477748.9 3748182.8   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006347         0  0.31930E-06  477740.4 3748182.8   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006348         0  0.31930E-06  477731.9 3748182.9   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006349         0  0.31930E-06  477723.4 3748183.0   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006350         0  0.31930E-06  477714.9 3748183.0   451.0      4.00      3.95      1.86      YES   HROFDY
 L0006351         0  0.31930E-06  477706.4 3748183.1   451.0      4.00      3.95      1.86      YES   HROFDY
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                                                       Residential
 L0006352         0   0.31930E-06  477697.9 3748183.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006353         0   0.31930E-06  477689.4 3748183.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006354         0   0.31930E-06  477680.9 3748183.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006355         0   0.31930E-06  477672.4 3748183.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006356         0   0.31930E-06  477663.9 3748183.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006357         0   0.31930E-06  477655.4 3748183.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006358         0   0.31930E-06  477646.9 3748183.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006359         0   0.31930E-06  477638.4 3748183.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006360         0   0.31930E-06  477629.9 3748183.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006361         0   0.31930E-06  477621.4 3748183.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006362         0   0.31930E-06  477612.9 3748183.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006363         0   0.31930E-06  477604.4 3748183.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006364         0   0.31930E-06  477595.9 3748184.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006365         0   0.31930E-06  477587.4 3748184.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006366         0   0.31930E-06  477578.9 3748184.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006367         0   0.31930E-06  477570.4 3748184.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006368         0   0.31930E-06  477561.9 3748184.2   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:21:15

  PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE      PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
    ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
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 L0006369         0   0.31930E-06  477553.4 3748184.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006370         0   0.31930E-06  477544.9 3748184.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006371         0   0.31930E-06  477536.4 3748184.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006372         0   0.31930E-06  477527.9 3748184.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006373         0   0.31930E-06  477519.4 3748184.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006374         0   0.31930E-06  477510.9 3748184.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006375         0   0.31930E-06  477502.4 3748184.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006376         0   0.31930E-06  477493.9 3748184.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006377         0   0.31930E-06  477485.4 3748184.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006378         0   0.31930E-06  477476.9 3748184.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006379         0   0.31930E-06  477471.1 3748182.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006380         0   0.31930E-06  477470.9 3748173.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006381         0   0.31930E-06  477470.7 3748165.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006382         0   0.31930E-06  477470.6 3748156.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006383         0   0.31930E-06  477470.4 3748148.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006384         0   0.31930E-06  477470.2 3748139.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006385         0   0.31930E-06  477470.0 3748131.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006386         0   0.31930E-06  477469.8 3748122.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006387         0   0.31930E-06  477469.6 3748114.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006388         0   0.31930E-06  477469.4 3748105.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006389         0   0.31930E-06  477469.2 3748097.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006390         0   0.31930E-06  477469.0 3748088.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006391         0   0.31930E-06  477468.9 3748080.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006392         0   0.31930E-06  477468.7 3748071.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006393         0   0.31930E-06  477468.5 3748063.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006394         0   0.31930E-06  477468.3 3748054.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006395         0   0.31930E-06  477468.1 3748046.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006396         0   0.31930E-06  477467.9 3748037.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006397         0   0.31930E-06  477467.7 3748029.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006398         0   0.31930E-06  477467.5 3748020.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006399         0   0.31930E-06  477467.4 3748012.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006400         0   0.31930E-06  477467.2 3748003.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006401         0   0.31930E-06  477467.0 3747995.2   451.0     4.00     3.95     1.86     YES   HROFDY
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                                                  Residential
 L0006402         0   0.31930E-06  477466.8 3747986.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006403         0   0.31930E-06  477466.6 3747978.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006404         0   0.31930E-06  477466.4 3747969.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006405         0   0.31930E-06  477466.2 3747961.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006406         0   0.31930E-06  477466.0 3747952.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006407         0   0.31930E-06  477465.8 3747944.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006408         0   0.31930E-06  477465.7 3747935.7   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006409         0   0.31930E-06  477465.5 3747927.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006410         0   0.31930E-06  477465.3 3747918.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006411         0   0.31930E-06  477465.1 3747910.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006412         0   0.31930E-06  477464.9 3747901.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006413         0   0.31930E-06  477464.7 3747893.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006414         0   0.31930E-06  477464.5 3747884.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006415         0   0.31930E-06  477464.3 3747876.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006416         0   0.31930E-06  477464.1 3747867.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006417         0   0.31930E-06  477464.0 3747859.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006418         0   0.31930E-06  477463.8 3747850.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006419         0   0.31930E-06  477463.6 3747842.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006420         0   0.31930E-06  477463.4 3747833.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006421         0   0.31930E-06  477463.2 3747825.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006422         0   0.31930E-06  477463.0 3747816.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006423         0   0.31930E-06  477462.8 3747808.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006424         0   0.31930E-06  477462.6 3747799.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006425         0   0.31930E-06  477462.5 3747791.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006426         0   0.31930E-06  477462.3 3747782.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006427         0   0.31970E-06  477466.5 3747781.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006428         0   0.31970E-06  477475.0 3747781.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006429         0   0.31970E-06  477483.5 3747781.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006430         0   0.31970E-06  477492.0 3747781.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006431         0   0.31970E-06  477500.5 3747781.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006432         0   0.31970E-06  477509.0 3747781.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006433         0   0.31970E-06  477517.5 3747780.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006434         0   0.31970E-06  477526.0 3747780.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006435         0   0.31970E-06  477534.5 3747780.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006436         0   0.31970E-06  477543.0 3747780.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006437         0   0.31970E-06  477551.5 3747780.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006438         0   0.31970E-06  477560.0 3747780.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006439         0   0.31970E-06  477568.5 3747780.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006440         0   0.31970E-06  477577.0 3747780.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006441         0   0.31970E-06  477585.5 3747780.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006442         0   0.31970E-06  477594.0 3747780.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006443         0   0.31970E-06  477602.5 3747780.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006444         0   0.31970E-06  477611.0 3747780.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006445         0   0.31970E-06  477619.5 3747780.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006446         0   0.31970E-06  477628.0 3747780.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006447         0   0.31970E-06  477636.5 3747780.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006448         0   0.31970E-06  477645.0 3747780.1   450.9     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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                                                    Residential
   13:21:15

   PAGE  21
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006449         0   0.31970E-06  477653.5 3747780.0   450.8     4.00      3.95      1.86     YES   HROFDY
 L0006450         0   0.31970E-06  477662.0 3747780.0   450.6     4.00      3.95      1.86     YES   HROFDY
 L0006451         0   0.31970E-06  477670.5 3747779.9   450.4     4.00      3.95      1.86     YES   HROFDY
 L0006452         0   0.31970E-06  477679.0 3747779.8   450.3     4.00      3.95      1.86     YES   HROFDY
 L0006453         0   0.31970E-06  477687.5 3747779.8   450.2     4.00      3.95      1.86     YES   HROFDY
 L0006454         0   0.31970E-06  477696.0 3747779.7   450.1     4.00      3.95      1.86     YES   HROFDY
 L0006455         0   0.31970E-06  477704.5 3747779.7   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006456         0   0.31970E-06  477713.0 3747779.6   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006457         0   0.31970E-06  477721.5 3747779.6   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006458         0   0.31970E-06  477730.0 3747779.5   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006459         0   0.31970E-06  477738.5 3747779.4   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006460         0   0.31970E-06  477747.0 3747779.4   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006461         0   0.31970E-06  477755.5 3747779.3   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006462         0   0.31970E-06  477764.0 3747779.3   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006463         0   0.31970E-06  477772.5 3747779.2   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006464         0   0.31970E-06  477781.0 3747779.2   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006465         0   0.31970E-06  477789.5 3747779.1   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006466         0   0.31970E-06  477798.0 3747779.1   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006467         0   0.31970E-06  477806.5 3747779.0   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006468         0   0.31970E-06  477815.0 3747778.9   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006469         0   0.31970E-06  477823.5 3747778.9   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006470         0   0.31970E-06  477832.0 3747778.8   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006471         0   0.31970E-06  477840.5 3747778.8   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006472         0   0.31970E-06  477849.0 3747778.7   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006473         0   0.31970E-06  477857.5 3747778.7   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006474         0   0.31970E-06  477866.0 3747778.6   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006475         0   0.31970E-06  477874.5 3747778.6   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006476         0   0.31970E-06  477883.0 3747778.5   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006477         0   0.31970E-06  477891.5 3747778.4   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006478         0   0.31970E-06  477900.0 3747778.4   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006479         0   0.31970E-06  477908.5 3747778.3   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006480         0   0.31970E-06  477917.0 3747778.3   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006481         0   0.31970E-06  477925.5 3747778.2   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006482         0   0.31970E-06  477934.0 3747778.2   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006483         0   0.31970E-06  477942.5 3747778.1   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006484         0   0.31970E-06  477951.0 3747778.0   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006485         0   0.31970E-06  477959.5 3747778.0   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006486         0   0.31970E-06  477968.0 3747777.9   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006487         0   0.31970E-06  477976.5 3747777.9   450.0     4.00      3.95      1.86     YES   HROFDY
 L0006488         0   0.31970E-06  477985.0 3747777.8   450.0     4.00      3.95      1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  22
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
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                                                      Residential
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006489         0   0.31970E-06  477993.5 3747777.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006490         0   0.31970E-06  478002.0 3747777.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006491         0   0.31970E-06  478010.5 3747777.7   449.8     4.00     3.95     1.86     YES   HROFDY
 L0006492         0   0.31970E-06  478019.0 3747777.6   449.6     4.00     3.95     1.86     YES   HROFDY
 L0006493         0   0.31970E-06  478027.5 3747777.5   449.4     4.00     3.95     1.86     YES   HROFDY
 L0006494         0   0.31970E-06  478036.0 3747777.5   449.3     4.00     3.95     1.86     YES   HROFDY
 L0006495         0   0.31970E-06  478044.5 3747777.4   449.2     4.00     3.95     1.86     YES   HROFDY
 L0006496         0   0.31970E-06  478053.0 3747777.4   449.1     4.00     3.95     1.86     YES   HROFDY
 L0006497         0   0.31970E-06  478061.5 3747777.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006498         0   0.31970E-06  478070.0 3747777.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006499         0   0.31970E-06  478078.5 3747777.2   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006500         0   0.31970E-06  478087.0 3747777.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006501         0   0.31970E-06  478095.5 3747777.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006502         0   0.31970E-06  478104.0 3747777.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006503         0   0.31970E-06  478112.5 3747777.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006504         0   0.31970E-06  478121.0 3747776.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006505         0   0.31970E-06  478129.5 3747776.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006506         0   0.31970E-06  478138.0 3747776.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006507         0   0.31970E-06  478146.5 3747776.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006508         0   0.31970E-06  478155.0 3747776.7   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006509         0   0.31970E-06  478163.5 3747776.6   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006510         0   0.31970E-06  478172.0 3747776.6   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006511         0   0.31970E-06  478180.5 3747776.5   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006512         0   0.31970E-06  478189.0 3747776.5   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006513         0   0.31970E-06  478197.5 3747776.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006514         0   0.31970E-06  478206.0 3747776.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006515         0   0.31970E-06  478214.5 3747776.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006516         0   0.31970E-06  478223.0 3747776.2   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006517         0   0.31970E-06  478231.5 3747776.2   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006518         0   0.31970E-06  478240.0 3747776.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006519         0   0.31970E-06  478248.5 3747776.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006520         0   0.31970E-06  478257.0 3747776.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006521         0   0.31970E-06  478265.5 3747776.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006522         0   0.31970E-06  478274.0 3747775.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006523         0   0.31970E-06  478281.0 3747774.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006524         0   0.31970E-06  478281.0 3747765.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006525         0   0.31970E-06  478281.1 3747757.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006526         0   0.31970E-06  478281.1 3747748.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006527         0   0.31970E-06  478281.1 3747740.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006528         0   0.31970E-06  478281.2 3747731.9   449.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006529         0   0.31970E-06  478281.2 3747723.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006530         0   0.31970E-06  478281.2 3747714.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006531         0   0.31970E-06  478281.3 3747706.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006532         0   0.31970E-06  478281.3 3747697.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006533         0   0.31970E-06  478281.3 3747689.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0006534         0   0.31970E-06  478281.4 3747680.9   449.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0006535         0   0.31970E-06  478281.4 3747672.4   448.9      4.00      3.95      1.86      YES    HROFDY
 L0006536         0   0.31970E-06  478281.4 3747663.9   448.6      4.00      3.95      1.86      YES    HROFDY
 L0006537         0   0.31970E-06  478281.5 3747655.4   448.3      4.00      3.95      1.86      YES    HROFDY
 L0006538         0   0.31970E-06  478281.5 3747646.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006539         0   0.31970E-06  478281.5 3747638.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006540         0   0.31970E-06  478281.5 3747629.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006541         0   0.31970E-06  478281.6 3747621.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006542         0   0.31970E-06  478281.6 3747612.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006543         0   0.31970E-06  478281.6 3747604.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006544         0   0.31970E-06  478281.7 3747595.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006545         0   0.31970E-06  478281.7 3747587.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006546         0   0.31970E-06  478281.7 3747578.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006547         0   0.31970E-06  478281.8 3747570.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006548         0   0.31970E-06  478281.8 3747561.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006549         0   0.31970E-06  478281.8 3747553.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006550         0   0.31970E-06  478281.9 3747544.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006551         0   0.31970E-06  478281.9 3747536.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006552         0   0.31970E-06  478281.9 3747527.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006553         0   0.31970E-06  478282.0 3747519.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006554         0   0.31970E-06  478282.0 3747510.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006555         0   0.31970E-06  478282.0 3747502.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006556         0   0.31970E-06  478282.1 3747493.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006557         0   0.31970E-06  478282.1 3747485.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006558         0   0.31970E-06  478282.1 3747476.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006559         0   0.31970E-06  478282.2 3747468.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006560         0   0.31970E-06  478282.2 3747459.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006561         0   0.31970E-06  478282.2 3747451.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006562         0   0.31970E-06  478282.3 3747442.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006563         0   0.31970E-06  478282.3 3747434.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006564         0   0.31970E-06  478282.3 3747425.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006565         0   0.31970E-06  478282.4 3747417.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006566         0   0.31970E-06  478282.4 3747408.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006567         0   0.31970E-06  478282.4 3747400.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006568         0   0.31970E-06  478282.5 3747391.9   448.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X        Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006569         0   0.31970E-06  478282.5 3747383.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006570         0   0.31970E-06  478282.5 3747374.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006571         0   0.31970E-06  478282.6 3747366.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006572         0   0.31970E-06  478282.6 3747357.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006573         0   0.31970E-06  478282.6 3747349.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006574         0   0.31970E-06  478282.6 3747340.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006575         0   0.31970E-06  478282.7 3747332.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006576         0   0.31970E-06  478282.7 3747323.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006577         0   0.31970E-06  478282.7 3747315.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006578         0   0.31970E-06  478282.8 3747306.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006579         0   0.31970E-06  478282.8 3747298.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006580         0   0.31970E-06  478282.8 3747289.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006581         0   0.31970E-06  478282.9 3747281.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006582         0   0.31970E-06  478282.9 3747272.9   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006583         0   0.31970E-06  478282.9 3747264.4   448.0      4.00      3.95      1.86      YES    HROFDY
 L0006584         0   0.31970E-06  478283.0 3747255.9   448.0      4.00      3.95      1.86      YES    HROFDY
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                                                Residential
 L0006585         0   0.31970E-06  478283.0 3747247.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006586         0   0.31970E-06  478283.0 3747238.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006587         0   0.31970E-06  478283.1 3747230.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006588         0   0.31970E-06  478283.1 3747221.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006589         0   0.31970E-06  478283.1 3747213.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006590         0   0.31970E-06  478283.2 3747204.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006591         0   0.31970E-06  478283.2 3747196.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006592         0   0.31970E-06  478283.2 3747187.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006593         0   0.31970E-06  478283.3 3747179.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006594         0   0.31970E-06  478283.3 3747170.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006595         0   0.31970E-06  478283.3 3747162.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006596         0   0.31970E-06  478283.4 3747153.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006597         0   0.31970E-06  478283.4 3747145.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006598         0   0.31970E-06  478283.4 3747136.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006599         0   0.31970E-06  478283.5 3747128.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006600         0   0.31970E-06  478283.5 3747119.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006601         0   0.31970E-06  478283.5 3747111.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006602         0   0.31970E-06  478283.6 3747102.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006603         0   0.31970E-06  478283.6 3747094.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006604         0   0.31970E-06  478283.6 3747085.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006605         0   0.31970E-06  478283.6 3747077.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006606         0   0.31970E-06  478283.7 3747068.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006607         0   0.31970E-06  478283.7 3747060.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006608         0   0.31970E-06  478283.7 3747051.9   448.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006609         0   0.31970E-06  478283.8 3747043.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006610         0   0.31970E-06  478283.8 3747034.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006611         0   0.31970E-06  478283.8 3747026.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006612         0   0.31970E-06  478283.9 3747017.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006613         0   0.31970E-06  478283.9 3747009.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006614         0   0.31970E-06  478283.9 3747000.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006615         0   0.31970E-06  478284.0 3746992.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006616         0   0.31970E-06  478284.0 3746983.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006617         0   0.31970E-06  478284.0 3746975.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006618         0   0.31970E-06  478284.1 3746966.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006619         0   0.31970E-06  478284.1 3746958.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006620         0   0.31970E-06  478284.1 3746949.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006621         0   0.31970E-06  478284.2 3746941.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006622         0   0.31970E-06  478284.2 3746932.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006623         0   0.31970E-06  478284.2 3746924.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006624         0   0.31970E-06  478284.3 3746915.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006625         0   0.31970E-06  478284.3 3746907.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006626         0   0.31970E-06  478284.3 3746898.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006627         0   0.31970E-06  478284.4 3746890.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006628         0   0.31970E-06  478284.4 3746881.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006629         0   0.31970E-06  478284.4 3746873.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006630         0   0.31970E-06  478284.5 3746864.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006631         0   0.31970E-06  478284.5 3746856.4   447.8     4.00     3.95     1.86     YES   HROFDY
 L0006632         0   0.31970E-06  478284.5 3746847.9   447.7     4.00     3.95     1.86     YES   HROFDY
 L0006633         0   0.31970E-06  478284.6 3746839.4   447.6     4.00     3.95     1.86     YES   HROFDY
 L0006634         0   0.31970E-06  478284.6 3746830.9   447.4     4.00     3.95     1.86     YES   HROFDY
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                                                    Residential
 L0006635         0   0.31970E-06  478284.6 3746822.4   447.3      4.00     3.95      1.86      YES   HROFDY
 L0006636         0   0.31970E-06  478284.6 3746813.9   447.1      4.00     3.95      1.86      YES   HROFDY
 L0006637         0   0.31970E-06  478284.7 3746805.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006638         0   0.31970E-06  478284.7 3746796.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006639         0   0.31970E-06  478284.7 3746788.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006640         0   0.31970E-06  478284.8 3746779.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006641         0   0.31970E-06  478284.8 3746771.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006642         0   0.31970E-06  478284.8 3746762.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006643         0   0.31970E-06  478284.9 3746754.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006644         0   0.31970E-06  478284.9 3746745.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006645         0   0.31970E-06  478284.9 3746737.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006646         0   0.31970E-06  478285.0 3746728.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006647         0   0.31970E-06  478285.0 3746720.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006648         0   0.31970E-06  478285.0 3746711.9   447.0      4.00     3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006649         0   0.31970E-06  478285.1 3746703.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006650         0   0.31970E-06  478285.1 3746694.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006651         0   0.31970E-06  478285.1 3746686.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006652         0   0.31970E-06  478285.2 3746677.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006653         0   0.31970E-06  478285.2 3746669.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006654         0   0.31970E-06  478285.2 3746660.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006655         0   0.31970E-06  478285.3 3746652.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006656         0   0.31970E-06  478285.3 3746643.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006657         0   0.31970E-06  478285.3 3746635.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006658         0   0.31970E-06  478285.4 3746626.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006659         0   0.31970E-06  478285.4 3746618.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006660         0   0.31970E-06  478285.4 3746609.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006661         0   0.31970E-06  478285.5 3746601.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006662         0   0.31970E-06  478285.5 3746592.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006663         0   0.31970E-06  478285.5 3746584.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006664         0   0.31970E-06  478285.6 3746575.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006665         0   0.31970E-06  478285.6 3746567.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006666         0   0.31970E-06  478285.6 3746558.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006667         0   0.31970E-06  478285.7 3746550.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006668         0   0.31970E-06  478285.7 3746541.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006669         0   0.31970E-06  478285.7 3746533.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006670         0   0.31970E-06  478285.7 3746524.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006671         0   0.31970E-06  478285.8 3746516.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006672         0   0.31970E-06  478285.8 3746507.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006673         0   0.31970E-06  478285.8 3746499.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006674         0   0.31970E-06  478285.9 3746490.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006675         0   0.31970E-06  478285.9 3746482.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006676         0   0.31970E-06  478285.9 3746473.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006677         0   0.31970E-06  478286.0 3746465.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006678         0   0.31970E-06  478286.0 3746456.9   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006679         0   0.31970E-06  478286.0 3746448.4   447.0      4.00     3.95      1.86      YES   HROFDY
 L0006680         0   0.31970E-06  478286.1 3746439.9   446.9      4.00     3.95      1.86      YES   HROFDY
 L0006681         0   0.31970E-06  478286.1 3746431.4   446.7      4.00     3.95      1.86      YES   HROFDY
 L0006682         0   0.31970E-06  478286.1 3746422.9   446.6      4.00     3.95      1.86      YES   HROFDY
 L0006683         0   0.31970E-06  478286.2 3746414.4   446.5      4.00     3.95      1.86      YES   HROFDY
 L0006684         0   0.31970E-06  478286.2 3746405.9   446.5      4.00     3.95      1.86      YES   HROFDY
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                                                      Residential
 L0006685         0   0.31970E-06  478286.2 3746397.4   446.5     4.00     3.95     1.86     YES   HROFDY
 L0006686         0   0.31970E-06  478286.3 3746388.9   446.4     4.00     3.95     1.86     YES   HROFDY
 L0006687         0   0.31970E-06  478286.3 3746380.4   446.4     4.00     3.95     1.86     YES   HROFDY
 L0006688         0   0.31970E-06  478286.3 3746371.9   446.4     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS) (METERS)  (METERS) (METERS)             BY
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 L0006689         0   0.31970E-06  478286.4 3746363.4   446.4     4.00     3.95     1.86     YES   HROFDY
 L0006690         0   0.31970E-06  478286.4 3746354.9   446.4     4.00     3.95     1.86     YES   HROFDY
 L0006691         0   0.31970E-06  478286.4 3746346.4   446.4     4.00     3.95     1.86     YES   HROFDY
 L0006692         0   0.31970E-06  478280.1 3746347.5   446.7     4.00     3.95     1.86     YES   HROFDY
 L0006693         0   0.31970E-06  478272.3 3746350.8   446.9     4.00     3.95     1.86     YES   HROFDY
 L0006694         0   0.31970E-06  478264.5 3746354.2   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006695         0   0.31970E-06  478256.7 3746357.5   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006696         0   0.31970E-06  478248.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006697         0   0.31970E-06  478240.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006698         0   0.31970E-06  478231.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006699         0   0.31970E-06  478223.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006700         0   0.31970E-06  478214.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006701         0   0.31970E-06  478206.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006702         0   0.31970E-06  478197.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006703         0   0.31970E-06  478189.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006704         0   0.31970E-06  478180.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006705         0   0.31970E-06  478172.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006706         0   0.31970E-06  478163.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006707         0   0.31970E-06  478155.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006708         0   0.31970E-06  478146.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006709         0   0.31970E-06  478138.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006710         0   0.31970E-06  478129.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006711         0   0.31970E-06  478121.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006712         0   0.31970E-06  478112.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006713         0   0.31970E-06  478104.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006714         0   0.31970E-06  478095.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006715         0   0.31970E-06  478087.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006716         0   0.31970E-06  478078.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006717         0   0.31970E-06  478070.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006718         0   0.31970E-06  478061.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006719         0   0.31970E-06  478053.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006720         0   0.31970E-06  478044.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006721         0   0.31970E-06  478036.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006722         0   0.31970E-06  478027.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006723         0   0.31970E-06  478019.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006724         0   0.31970E-06  478010.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006725         0   0.31970E-06  478002.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006726         0   0.31970E-06  477993.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006727         0   0.31970E-06  477985.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006728         0   0.31970E-06  477976.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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                                                     Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)    X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006729         0   0.31970E-06  477968.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006730         0   0.31970E-06  477959.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0006731         0   0.31970E-06  477951.1 3746359.6   447.1     4.00     3.95     1.86     YES   HROFDY
 L0006732         0   0.31970E-06  477942.6 3746359.6   447.1     4.00     3.95     1.86     YES   HROFDY
 L0006733         0   0.31970E-06  477934.1 3746359.6   447.3     4.00     3.95     1.86     YES   HROFDY
 L0006734         0   0.31970E-06  477925.6 3746359.6   447.5     4.00     3.95     1.86     YES   HROFDY
 L0006735         0   0.31970E-06  477917.1 3746359.6   447.8     4.00     3.95     1.86     YES   HROFDY
 L0006736         0   0.31970E-06  477908.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006737         0   0.31970E-06  477900.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006738         0   0.31970E-06  477891.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006739         0   0.31970E-06  477883.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006740         0   0.31970E-06  477874.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006741         0   0.31970E-06  477866.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006742         0   0.31970E-06  477857.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006743         0   0.31970E-06  477849.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006744         0   0.31970E-06  477840.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006745         0   0.31970E-06  477832.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006746         0   0.31970E-06  477823.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006747         0   0.31970E-06  477815.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006748         0   0.31970E-06  477806.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006749         0   0.31970E-06  477798.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006750         0   0.31970E-06  477789.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006751         0   0.31970E-06  477781.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006752         0   0.31970E-06  477772.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006753         0   0.31970E-06  477764.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006754         0   0.31970E-06  477755.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006755         0   0.31970E-06  477747.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006756         0   0.31970E-06  477738.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006757         0   0.31970E-06  477730.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006758         0   0.31970E-06  477721.6 3746359.7   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006759         0   0.31970E-06  477713.1 3746359.8   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006760         0   0.31970E-06  477704.6 3746359.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006761         0   0.31970E-06  477696.1 3746359.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006762         0   0.31970E-06  477687.6 3746360.0   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006763         0   0.31970E-06  477679.1 3746360.1   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006764         0   0.31970E-06  477670.6 3746360.2   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006765         0   0.31970E-06  477662.1 3746360.3   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006766         0   0.31970E-06  477653.6 3746360.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006767         0   0.31970E-06  477645.1 3746360.5   448.0     4.00     3.95     1.86     YES   HROFDY
 L0006768         0   0.31970E-06  477636.6 3746360.6   448.1     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)    X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006769         0   0.31970E-06  477628.1 3746360.6   448.4     4.00      3.95      1.86      YES    HROFDY
 L0006770         0   0.31970E-06  477619.6 3746360.7   448.7     4.00      3.95      1.86      YES    HROFDY
 L0006771         0   0.31970E-06  477611.1 3746360.8   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006772         0   0.31970E-06  477602.6 3746360.9   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006773         0   0.31970E-06  477594.1 3746361.0   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006774         0   0.31970E-06  477585.6 3746361.1   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006775         0   0.31970E-06  477577.1 3746361.2   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006776         0   0.31970E-06  477568.6 3746361.3   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006777         0   0.31970E-06  477560.1 3746361.3   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006778         0   0.31970E-06  477551.6 3746361.4   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006779         0   0.31970E-06  477543.1 3746361.5   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006780         0   0.31970E-06  477534.6 3746361.6   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006781         0   0.31970E-06  477526.1 3746361.7   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006782         0   0.31970E-06  477517.6 3746361.8   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006783         0   0.31970E-06  477509.1 3746361.9   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006784         0   0.31970E-06  477500.6 3746362.0   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006785         0   0.31970E-06  477492.1 3746362.0   449.0     4.00      3.95      1.86      YES    HROFDY
 L0006786         0   0.31970E-06  477483.6 3746362.4   449.2     4.00      3.95      1.86      YES    HROFDY
 L0006787         0   0.31970E-06  477475.3 3746364.0   449.5     4.00      3.95      1.86      YES    HROFDY
 L0006788         0   0.31970E-06  477466.9 3746365.6   449.8     4.00      3.95      1.86      YES    HROFDY
 L0006789         0   0.31970E-06  477458.6 3746367.2   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006790         0   0.31970E-06  477450.3 3746368.8   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006791         0   0.31970E-06  477441.9 3746370.4   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006792         0   0.31970E-06  477433.6 3746372.0   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006793         0   0.31970E-06  477425.2 3746373.6   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006794         0   0.31970E-06  477417.3 3746376.4   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006795         0   0.31970E-06  477410.0 3746380.7   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006796         0   0.31970E-06  477402.7 3746385.0   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006797         0   0.31970E-06  477395.3 3746389.4   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006798         0   0.31970E-06  477388.0 3746393.7   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006799         0   0.31970E-06  477380.7 3746398.0   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006800         0   0.31970E-06  477373.4 3746402.3   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006801         0   0.31970E-06  477366.1 3746406.6   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006802         0   0.31970E-06  477358.7 3746411.0   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006803         0   0.31970E-06  477351.4 3746415.3   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006804         0   0.31970E-06  477344.1 3746419.6   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006805         0   0.31970E-06  477336.8 3746423.9   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006806         0   0.31970E-06  477329.5 3746428.2   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006807         0   0.31970E-06  477322.2 3746432.7   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006808         0   0.31970E-06  477315.4 3746437.8   450.0     4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0006809         0   0.31970E-06  477308.6 3746442.9   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006810         0   0.31970E-06  477301.8 3746448.0   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006811         0   0.31970E-06  477295.0 3746453.1   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006812         0   0.31970E-06  477288.2 3746458.2   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006813         0   0.31970E-06  477281.4 3746463.3   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006814         0   0.31970E-06  477274.6 3746468.4   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006815         0   0.31970E-06  477267.7 3746473.3   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006816         0   0.31970E-06  477260.7 3746478.2   450.0     4.00      3.95      1.86      YES    HROFDY
 L0006817         0   0.31970E-06  477253.8 3746483.1   450.0     4.00      3.95      1.86      YES    HROFDY
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                                                       Residential
 L0006818         0   0.31970E-06  477246.8 3746487.9   450.1     4.00     3.95     1.86     YES   HROFDY
 L0006819         0   0.31970E-06  477239.8 3746492.8   450.2     4.00     3.95     1.86     YES   HROFDY
 L0006820         0   0.31970E-06  477232.9 3746497.7   450.2     4.00     3.95     1.86     YES   HROFDY
 L0006821         0   0.31970E-06  477225.9 3746502.6   450.1     4.00     3.95     1.86     YES   HROFDY
 L0006822         0   0.31970E-06  477218.5 3746506.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006823         0   0.31970E-06  477211.1 3746510.8   450.3     4.00     3.95     1.86     YES   HROFDY
 L0006824         0   0.31970E-06  477203.6 3746514.8   450.5     4.00     3.95     1.86     YES   HROFDY
 L0006825         0   0.31970E-06  477196.1 3746518.8   450.8     4.00     3.95     1.86     YES   HROFDY
 L0006826         0   0.31970E-06  477188.6 3746522.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006827         0   0.31970E-06  477181.1 3746526.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006828         0   0.31970E-06  477173.6 3746530.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006829         0   0.31970E-06  477166.1 3746535.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006830         0   0.31970E-06  477158.5 3746538.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006831         0   0.31970E-06  477150.1 3746539.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006832         0   0.31970E-06  477141.7 3746541.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006833         0   0.31970E-06  477133.3 3746542.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006834         0   0.31970E-06  477124.9 3746543.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006835         0   0.31970E-06  477116.5 3746544.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006836         0   0.31970E-06  477108.0 3746546.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006837         0   0.31970E-06  477099.6 3746547.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006838         0   0.31970E-06  477091.2 3746548.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006839         0   0.31970E-06  477082.7 3746548.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006840         0   0.31970E-06  477074.2 3746548.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0006841         0   0.31970E-06  477065.7 3746548.6   451.1     4.00     3.95     1.86     YES   HROFDY
 L0006842         0   0.31970E-06  477057.2 3746548.7   451.2     4.00     3.95     1.86     YES   HROFDY
 L0006843         0   0.31970E-06  477048.7 3746548.8   451.4     4.00     3.95     1.86     YES   HROFDY
 L0006844         0   0.31970E-06  477040.2 3746548.9   451.6     4.00     3.95     1.86     YES   HROFDY
 L0006845         0   0.31970E-06  477031.7 3746549.0   451.7     4.00     3.95     1.86     YES   HROFDY
 L0006846         0   0.31970E-06  477023.2 3746549.1   451.8     4.00     3.95     1.86     YES   HROFDY
 L0006847         0   0.31970E-06  477014.7 3746549.2   451.9     4.00     3.95     1.86     YES   HROFDY
 L0006848         0   0.31970E-06  477006.2 3746549.3   452.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006849         0   0.31970E-06  476997.7 3746549.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006850         0   0.31970E-06  476989.2 3746549.6   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006851         0   0.31970E-06  476980.7 3746549.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006852         0   0.31970E-06  476972.2 3746549.8   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006853         0   0.31970E-06  476963.7 3746549.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006854         0   0.31970E-06  476955.2 3746550.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006855         0   0.31970E-06  476946.7 3746550.1   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006856         0   0.31970E-06  476938.2 3746550.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006857         0   0.31970E-06  476929.7 3746550.3   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006858         0   0.31970E-06  476921.2 3746550.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0006859         0   0.31970E-06  476912.7 3746550.6   452.1     4.00     3.95     1.86     YES   HROFDY
 L0006860         0   0.31970E-06  476904.2 3746550.7   452.3     4.00     3.95     1.86     YES   HROFDY
 L0006861         0   0.31970E-06  476895.7 3746550.8   452.4     4.00     3.95     1.86     YES   HROFDY
 L0006862         0   0.31970E-06  476887.2 3746550.9   452.6     4.00     3.95     1.86     YES   HROFDY
 L0006863         0   0.31970E-06  476878.7 3746551.0   452.7     4.00     3.95     1.86     YES   HROFDY
 L0006864         0   0.31970E-06  476870.2 3746551.1   452.8     4.00     3.95     1.86     YES   HROFDY
 L0006865         0   0.31970E-06  476861.7 3746551.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006866         0   0.31970E-06  476853.2 3746551.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006867         0   0.31970E-06  476844.7 3746551.4   453.0     4.00     3.95     1.86     YES   HROFDY
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                                                Residential
 L0006868         0   0.31970E-06  476836.2 3746551.5   453.0      4.00      3.95      1.86      YES   HROFDY
 L0006869         0   0.31970E-06  476827.7 3746551.7   453.0      4.00      3.95      1.86      YES   HROFDY
 L0006870         0   0.31970E-06  476819.2 3746551.8   453.0      4.00      3.95      1.86      YES   HROFDY
 L0006871         0   0.31970E-06  476810.7 3746551.9   453.0      4.00      3.95      1.86      YES   HROFDY
 L0006872         0   0.31970E-06  476802.2 3746552.0   453.0      4.00      3.95      1.86      YES   HROFDY
 L0006873         0   0.31970E-06  476793.7 3746552.1   462.1      4.00      3.95      1.86      YES   HROFDY
 L0006874         0   0.31970E-06  476785.2 3746552.2   462.2      4.00      3.95      1.86      YES   HROFDY
 L0006875         0   0.31970E-06  476776.7 3746552.2   462.3      4.00      3.95      1.86      YES   HROFDY
 L0006876         0   0.31970E-06  476768.2 3746551.9   462.4      4.00      3.95      1.86      YES   HROFDY
 L0006877         0   0.31970E-06  476759.7 3746551.7   462.5      4.00      3.95      1.86      YES   HROFDY
 L0006878         0   0.31970E-06  476751.2 3746551.5   462.6      4.00      3.95      1.86      YES   HROFDY
 L0006879         0   0.31970E-06  476742.8 3746551.3   462.7      4.00      3.95      1.86      YES   HROFDY
 L0006880         0   0.31970E-06  476734.3 3746551.1   462.8      4.00      3.95      1.86      YES   HROFDY
 L0006881         0   0.31970E-06  476725.8 3746550.8   462.9      4.00      3.95      1.86      YES   HROFDY
 L0006882         0   0.31970E-06  476717.3 3746550.6   463.1      4.00      3.95      1.86      YES   HROFDY
 L0006883         0   0.31970E-06  476708.8 3746550.4   463.2      4.00      3.95      1.86      YES   HROFDY
 L0006884         0   0.31970E-06  476700.3 3746550.2   463.3      4.00      3.95      1.86      YES   HROFDY
 L0006885         0   0.31970E-06  476691.8 3746550.0   463.4      4.00      3.95      1.86      YES   HROFDY
 L0006886         0   0.31970E-06  476683.3 3746549.7   463.5      4.00      3.95      1.86      YES   HROFDY
 L0006887         0   0.31970E-06  476674.8 3746549.5   463.6      4.00      3.95      1.86      YES   HROFDY
 L0006888         0   0.31970E-06  476666.3 3746549.3   463.7      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006889         0   0.31970E-06  476657.8 3746549.1   463.8      4.00      3.95      1.86      YES   HROFDY
 L0006890         0   0.31970E-06  476649.5 3746550.2   463.9      4.00      3.95      1.86      YES   HROFDY
 L0006891         0   0.31970E-06  476641.4 3746552.9   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006892         0   0.31970E-06  476633.4 3746555.6   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006893         0   0.31970E-06  476625.3 3746558.3   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006894         0   0.31970E-06  476617.2 3746561.0   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006895         0   0.31970E-06  476609.2 3746563.6   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006896         0   0.31970E-06  476601.4 3746566.9   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006897         0   0.31970E-06  476594.1 3746571.4   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006898         0   0.31970E-06  476586.9 3746575.9   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006899         0   0.31970E-06  476579.7 3746580.4   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006900         0   0.31970E-06  476572.5 3746584.8   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006901         0   0.31970E-06  476565.3 3746589.3   464.0      4.00      3.95      1.86      YES   HROFDY
 L0006902         0   0.31970E-06  476558.0 3746593.8   464.1      4.00      3.95      1.86      YES   HROFDY
 L0006903         0   0.31970E-06  476550.8 3746598.3   464.2      4.00      3.95      1.86      YES   HROFDY
 L0006904         0   0.31970E-06  476543.6 3746602.8   464.3      4.00      3.95      1.86      YES   HROFDY
 L0006905         0   0.31970E-06  476537.9 3746608.7   464.4      4.00      3.95      1.86      YES   HROFDY
 L0006906         0   0.31970E-06  476534.0 3746616.2   464.4      4.00      3.95      1.86      YES   HROFDY
 L0006907         0   0.31970E-06  476530.0 3746623.8   464.5      4.00      3.95      1.86      YES   HROFDY
 L0006908         0   0.31970E-06  476526.1 3746631.3   464.5      4.00      3.95      1.86      YES   HROFDY
 L0006909         0   0.31970E-06  476522.2 3746638.8   464.6      4.00      3.95      1.86      YES   HROFDY
 L0006910         0   0.31970E-06  476518.2 3746646.4   464.6      4.00      3.95      1.86      YES   HROFDY
 L0006911         0   0.31970E-06  476514.3 3746653.9   464.7      4.00      3.95      1.86      YES   HROFDY
 L0006912         0   0.31970E-06  476510.3 3746661.4   464.7      4.00      3.95      1.86      YES   HROFDY
 L0006913         0   0.31970E-06  476506.4 3746668.9   464.8      4.00      3.95      1.86      YES   HROFDY
 L0006914         0   0.31970E-06  476502.4 3746676.5   464.8      4.00      3.95      1.86      YES   HROFDY
 L0006915         0   0.31970E-06  476498.5 3746684.0   464.9      4.00      3.95      1.86      YES   HROFDY
 L0006916         0   0.31970E-06  476494.5 3746691.5   464.9      4.00      3.95      1.86      YES   HROFDY
 L0006917         0   0.31970E-06  476490.6 3746699.1   465.0      4.00      3.95      1.86      YES   HROFDY
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                                                 Residential
 L0006918         0   0.31970E-06  476486.6 3746706.6    465.1     4.00     3.95     1.86     YES   HROFDY
 L0006919         0   0.31970E-06  476482.7 3746714.1    465.2     4.00     3.95     1.86     YES   HROFDY
 L0006920         0   0.31970E-06  476478.7 3746721.6    465.3     4.00     3.95     1.86     YES   HROFDY
 L0006921         0   0.31970E-06  476474.8 3746729.2    465.4     4.00     3.95     1.86     YES   HROFDY
 L0006922         0   0.31970E-06  476470.9 3746736.7    465.5     4.00     3.95     1.86     YES   HROFDY
 L0006923         0   0.31970E-06  476467.8 3746744.5    465.6     4.00     3.95     1.86     YES   HROFDY
 L0006924         0   0.31970E-06  476466.4 3746752.9    465.6     4.00     3.95     1.86     YES   HROFDY
 L0006925         0   0.31970E-06  476465.0 3746761.3    465.7     4.00     3.95     1.86     YES   HROFDY
 L0006926         0   0.31970E-06  476463.6 3746769.7    465.7     4.00     3.95     1.86     YES   HROFDY
 L0006927         0   0.31970E-06  476462.2 3746778.1    465.7     4.00     3.95     1.86     YES   HROFDY
 L0006928         0   0.31970E-06  476460.8 3746786.4    465.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006929         0   0.31970E-06  476459.4 3746794.8    465.8     4.00     3.95     1.86     YES   HROFDY
 L0006930         0   0.31970E-06  476457.3 3746803.0    465.9     4.00     3.95     1.86     YES   HROFDY
 L0006931         0   0.31970E-06  476453.4 3746810.5    465.9     4.00     3.95     1.86     YES   HROFDY
 L0006932         0   0.31970E-06  476449.4 3746818.0    466.1     4.00     3.95     1.86     YES   HROFDY
 L0006933         0   0.31970E-06  476445.4 3746825.5    466.2     4.00     3.95     1.86     YES   HROFDY
 L0006934         0   0.31970E-06  476441.4 3746833.0    466.3     4.00     3.95     1.86     YES   HROFDY
 L0006935         0   0.31970E-06  476437.5 3746840.5    466.4     4.00     3.95     1.86     YES   HROFDY
 L0006936         0   0.31970E-06  476433.5 3746848.1    466.5     4.00     3.95     1.86     YES   HROFDY
 L0006937         0   0.31970E-06  476429.5 3746855.6    466.6     4.00     3.95     1.86     YES   HROFDY
 L0006938         0   0.31970E-06  476425.5 3746863.1    466.7     4.00     3.95     1.86     YES   HROFDY
 L0006939         0   0.31970E-06  476421.6 3746870.6    466.8     4.00     3.95     1.86     YES   HROFDY
 L0006940         0   0.31970E-06  476417.6 3746878.1    466.9     4.00     3.95     1.86     YES   HROFDY
 L0006941         0   0.31970E-06  476413.6 3746885.6    467.0     4.00     3.95     1.86     YES   HROFDY
 L0006942         0   0.31970E-06  476409.6 3746893.1    467.1     4.00     3.95     1.86     YES   HROFDY
 L0006943         0   0.31970E-06  476403.2 3746898.5    467.1     4.00     3.95     1.86     YES   HROFDY
 L0006944         0   0.31970E-06  476396.2 3746903.3    467.2     4.00     3.95     1.86     YES   HROFDY
 L0006945         0   0.31970E-06  476389.2 3746908.1    467.3     4.00     3.95     1.86     YES   HROFDY
 L0006946         0   0.31970E-06  476382.2 3746912.9    467.4     4.00     3.95     1.86     YES   HROFDY
 L0006947         0   0.31970E-06  476375.2 3746917.8    467.5     4.00     3.95     1.86     YES   HROFDY
 L0006948         0   0.31970E-06  476368.2 3746922.6    467.6     4.00     3.95     1.86     YES   HROFDY
 L0006949         0   0.31970E-06  476361.2 3746927.4    467.7     4.00     3.95     1.86     YES   HROFDY
 L0006950         0   0.31970E-06  476354.2 3746932.2    467.8     4.00     3.95     1.86     YES   HROFDY
 L0006951         0   0.31970E-06  476347.2 3746937.0    467.9     4.00     3.95     1.86     YES   HROFDY
 L0006952         0   0.31970E-06  476340.2 3746941.8    467.9     4.00     3.95     1.86     YES   HROFDY
 L0006953         0   0.31970E-06  476332.1 3746943.7    468.1     4.00     3.95     1.86     YES   HROFDY
 L0006954         0   0.31970E-06  476323.7 3746944.5    468.2     4.00     3.95     1.86     YES   HROFDY
 L0006955         0   0.31970E-06  476315.2 3746945.4    468.3     4.00     3.95     1.86     YES   HROFDY
 L0006956         0   0.31970E-06  476306.7 3746946.2    468.4     4.00     3.95     1.86     YES   HROFDY
 L0006957         0   0.31970E-06  476298.3 3746947.0    468.5     4.00     3.95     1.86     YES   HROFDY
 L0006958         0   0.31970E-06  476289.8 3746947.9    468.6     4.00     3.95     1.86     YES   HROFDY
 L0006959         0   0.31970E-06  476281.4 3746948.7    468.7     4.00     3.95     1.86     YES   HROFDY
 L0006960         0   0.31970E-06  476272.9 3746949.5    468.8     4.00     3.95     1.86     YES   HROFDY
 L0006961         0   0.31970E-06  476264.4 3746950.4    468.9     4.00     3.95     1.86     YES   HROFDY
 L0006962         0   0.31970E-06  476256.0 3746950.8    469.0     4.00     3.95     1.86     YES   HROFDY
 L0006963         0   0.31970E-06  476247.5 3746950.7    469.2     4.00     3.95     1.86     YES   HROFDY
 L0006964         0   0.31970E-06  476239.0 3746950.7    469.3     4.00     3.95     1.86     YES   HROFDY
 L0006965         0   0.31970E-06  476230.5 3746950.6    469.4     4.00     3.95     1.86     YES   HROFDY
 L0006966         0   0.31970E-06  476222.0 3746950.5    469.5     4.00     3.95     1.86     YES   HROFDY
 L0006967         0   0.31970E-06  476213.5 3746950.5    469.6     4.00     3.95     1.86     YES   HROFDY
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 L0006968         0   0.31970E-06  476205.0 3746950.4   469.7     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                      ***
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   PAGE  34
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y    ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006969         0   0.31970E-06  476196.5 3746950.4   469.8     4.00     3.95     1.86     YES   HROFDY
 L0006970         0   0.31970E-06  476188.0 3746950.3   469.9     4.00     3.95     1.86     YES   HROFDY
 L0006971         0   0.31970E-06  476179.5 3746950.3   470.0     4.00     3.95     1.86     YES   HROFDY
 L0006972         0   0.31970E-06  476171.0 3746950.2   470.2     4.00     3.95     1.86     YES   HROFDY
 L0006973         0   0.31970E-06  476162.5 3746950.1   470.3     4.00     3.95     1.86     YES   HROFDY
 L0006974         0   0.31970E-06  476154.0 3746950.1   470.4     4.00     3.95     1.86     YES   HROFDY
 L0006975         0   0.31970E-06  476145.5 3746950.0   470.5     4.00     3.95     1.86     YES   HROFDY
 L0006976         0   0.31970E-06  476137.0 3746950.0   470.6     4.00     3.95     1.86     YES   HROFDY
 L0006977         0   0.31970E-06  476128.5 3746949.9   470.7     4.00     3.95     1.86     YES   HROFDY
 L0006978         0   0.31970E-06  476120.0 3746949.9   470.8     4.00     3.95     1.86     YES   HROFDY
 L0006979         0   0.31970E-06  476111.5 3746949.8   470.9     4.00     3.95     1.86     YES   HROFDY
 L0006980         0   0.31970E-06  476103.0 3746949.8   471.0     4.00     3.95     1.86     YES   HROFDY
 L0006981         0   0.31970E-06  476094.5 3746949.7   471.1     4.00     3.95     1.86     YES   HROFDY
 L0006982         0   0.31970E-06  476086.0 3746949.6   471.2     4.00     3.95     1.86     YES   HROFDY
 L0006983         0   0.31970E-06  476077.5 3746949.6   471.4     4.00     3.95     1.86     YES   HROFDY
 L0006984         0   0.31970E-06  476069.0 3746949.5   471.5     4.00     3.95     1.86     YES   HROFDY
 L0006985         0   0.31970E-06  476060.5 3746949.5   471.6     4.00     3.95     1.86     YES   HROFDY
 L0006986         0   0.31970E-06  476052.0 3746949.4   471.7     4.00     3.95     1.86     YES   HROFDY
 L0006987         0   0.31970E-06  476043.5 3746949.4   471.8     4.00     3.95     1.86     YES   HROFDY
 L0006988         0   0.31970E-06  476035.0 3746949.3   471.9     4.00     3.95     1.86     YES   HROFDY
 L0006989         0   0.31970E-06  476026.5 3746949.2   472.0     4.00     3.95     1.86     YES   HROFDY
 L0006990         0   0.31970E-06  476018.0 3746949.2   472.1     4.00     3.95     1.86     YES   HROFDY
 L0006991         0   0.31970E-06  476009.5 3746949.1   472.2     4.00     3.95     1.86     YES   HROFDY
 L0006992         0   0.31970E-06  476001.0 3746949.1   472.4     4.00     3.95     1.86     YES   HROFDY
 L0006993         0   0.31970E-06  475992.5 3746949.0   472.5     4.00     3.95     1.86     YES   HROFDY
 L0006994         0   0.31970E-06  475984.0 3746949.0   472.6     4.00     3.95     1.86     YES   HROFDY
 L0006995         0   0.31970E-06  475975.5 3746948.9   472.7     4.00     3.95     1.86     YES   HROFDY
 L0006996         0   0.31970E-06  475967.0 3746948.8   472.8     4.00     3.95     1.86     YES   HROFDY
 L0006997         0   0.31970E-06  475958.5 3746948.8   472.9     4.00     3.95     1.86     YES   HROFDY
 L0006998         0   0.31970E-06  475950.0 3746948.7   473.0     4.00     3.95     1.86     YES   HROFDY
 L0006999         0   0.31970E-06  475941.5 3746948.7   472.6     4.00     3.95     1.86     YES   HROFDY
 L0007000         0   0.31970E-06  475933.0 3746948.6   472.3     4.00     3.95     1.86     YES   HROFDY
 L0007001         0   0.63990E-06  477480.6 3749800.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007002         0   0.63990E-06  477480.4 3749808.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007003         0   0.63990E-06  477480.3 3749817.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007004         0   0.63990E-06  477480.1 3749825.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007005         0   0.63990E-06  477480.0 3749834.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007006         0   0.63990E-06  477479.9 3749842.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007007         0   0.63990E-06  477479.7 3749851.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007008         0   0.63990E-06  477479.6 3749859.7   458.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                      ***
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   PAGE  35
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN
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                                                Residential
                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
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 L0007009         0   0.63990E-06  477479.5 3749868.2   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007010         0   0.63990E-06  477479.3 3749876.7   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007011         0   0.63990E-06  477479.2 3749885.2   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007012         0   0.63990E-06  477479.1 3749893.7   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007013         0   0.63990E-06  477478.9 3749902.2   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007014         0   0.63990E-06  477478.8 3749910.7   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007015         0   0.63990E-06  477478.7 3749919.2   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007016         0   0.63990E-06  477478.5 3749927.7   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007017         0   0.63990E-06  477478.4 3749936.2   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007018         0   0.63990E-06  477478.2 3749944.7   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007019         0   0.63990E-06  477478.1 3749953.2   458.0      4.00      3.95      1.86      YES    HROFDY
 L0007020         0   0.63990E-06  477478.0 3749961.7   458.2      4.00      3.95      1.86      YES    HROFDY
 L0007021         0   0.63990E-06  477477.8 3749970.2   458.4      4.00      3.95      1.86      YES    HROFDY
 L0007022         0   0.63990E-06  477477.7 3749978.7   458.7      4.00      3.95      1.86      YES    HROFDY
 L0007023         0   0.63990E-06  477477.6 3749987.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007024         0   0.63990E-06  477477.4 3749995.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007025         0   0.63990E-06  477477.3 3750004.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007026         0   0.63990E-06  477477.2 3750012.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007027         0   0.63990E-06  477477.0 3750021.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007028         0   0.63990E-06  477476.9 3750029.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007029         0   0.63990E-06  477476.8 3750038.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007030         0   0.63990E-06  477476.6 3750046.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007031         0   0.63990E-06  477476.5 3750055.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007032         0   0.63990E-06  477476.3 3750063.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007033         0   0.63990E-06  477476.2 3750072.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007034         0   0.63990E-06  477476.1 3750080.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007035         0   0.63990E-06  477475.9 3750089.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007036         0   0.63990E-06  477475.8 3750097.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007037         0   0.63990E-06  477475.7 3750106.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007038         0   0.63990E-06  477475.5 3750114.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007039         0   0.63990E-06  477475.4 3750123.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007040         0   0.63990E-06  477475.3 3750131.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007041         0   0.63990E-06  477475.1 3750140.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007042         0   0.63990E-06  477475.0 3750148.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007043         0   0.63990E-06  477474.8 3750157.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007044         0   0.63990E-06  477474.7 3750165.7   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007045         0   0.63990E-06  477474.2 3750174.2   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007046         0   0.63990E-06  477473.5 3750182.6   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007047         0   0.63990E-06  477472.8 3750191.1   459.0      4.00      3.95      1.86      YES    HROFDY
 L0007048         0   0.63990E-06  477472.1 3750199.6   459.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
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- - - -

 L0007049         0   0.63990E-06  477471.4 3750208.0   459.2      4.00      3.95      1.86      YES    HROFDY
 L0007050         0   0.63990E-06  477470.7 3750216.5   459.2      4.00      3.95      1.86      YES    HROFDY
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                                                     Residential
  L0007051         0   0.63990E-06  477470.0 3750225.0   459.3     4.00     3.95     1.86     YES   HROFDY
  L0007052         0   0.63990E-06  477469.3 3750233.5   459.5     4.00     3.95     1.86     YES   HROFDY
  L0007053         0   0.63990E-06  477468.7 3750241.9   459.7     4.00     3.95     1.86     YES   HROFDY
  L0007054         0   0.63990E-06  477468.0 3750250.4   459.9     4.00     3.95     1.86     YES   HROFDY
  L0007055         0   0.63990E-06  477467.3 3750258.9   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007056         0   0.63990E-06  477466.6 3750267.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007057         0   0.63990E-06  477466.5 3750275.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007058         0   0.63990E-06  477466.5 3750284.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007059         0   0.63990E-06  477466.5 3750292.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007060         0   0.63990E-06  477466.6 3750301.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007061         0   0.63990E-06  477466.6 3750309.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007062         0   0.63990E-06  477466.6 3750318.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007063         0   0.63990E-06  477466.7 3750326.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007064         0   0.63990E-06  477466.7 3750335.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007065         0   0.63990E-06  477466.7 3750343.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007066         0   0.63990E-06  477466.8 3750352.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007067         0   0.63990E-06  477466.8 3750360.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007068         0   0.63990E-06  477466.9 3750369.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007069         0   0.63990E-06  477466.9 3750377.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007070         0   0.63990E-06  477466.9 3750386.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007071         0   0.63990E-06  477467.0 3750394.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007072         0   0.63990E-06  477467.0 3750403.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007073         0   0.63990E-06  477467.0 3750411.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007074         0   0.63990E-06  477467.1 3750420.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007075         0   0.63990E-06  477467.1 3750428.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007076         0   0.63990E-06  477467.1 3750437.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007077         0   0.63990E-06  477467.2 3750445.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007078         0   0.63990E-06  477467.2 3750454.3   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007079         0   0.63990E-06  477467.3 3750462.8   460.0     4.00     3.95     1.86     YES   HROFDY
  L0007080         0   0.63990E-06  477467.3 3750471.3   460.2     4.00     3.95     1.86     YES   HROFDY
  L0007081         0   0.63990E-06  477467.3 3750479.8   460.4     4.00     3.95     1.86     YES   HROFDY
  L0007082         0   0.63990E-06  477467.4 3750488.3   460.7     4.00     3.95     1.86     YES   HROFDY
  L0007083         0   0.63990E-06  477467.4 3750496.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007084         0   0.63990E-06  477467.4 3750505.3   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007085         0   0.63990E-06  477467.5 3750513.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007086         0   0.63990E-06  477467.5 3750522.3   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007087         0   0.63990E-06  477467.5 3750530.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007088         0   0.63990E-06  477467.6 3750539.3   461.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:21:15

    PAGE  37
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                         BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
    SOURCE       PART.  (GRAMS/SEC)      X         Y         ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
      ID         CATS.                (METERS)  (METERS)   (METERS) (METERS) (METERS) (METERS)              BY
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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  L0007089         0   0.63990E-06  477467.7 3750547.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007090         0   0.63990E-06  477467.9 3750556.3   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007091         0   0.63990E-06  477468.2 3750564.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007092         0   0.63990E-06  477468.4 3750573.3   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007093         0   0.63990E-06  477468.7 3750581.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007094         0   0.63990E-06  477468.9 3750590.3   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007095         0   0.63990E-06  477469.2 3750598.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007096         0   0.63990E-06  477469.4 3750607.3   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007097         0   0.63990E-06  477469.7 3750615.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007098         0   0.63990E-06  477469.9 3750624.3   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007099         0   0.63990E-06  477470.2 3750632.8   461.0     4.00     3.95     1.86     YES   HROFDY
  L0007100         0   0.63990E-06  477470.4 3750641.3   461.0     4.00     3.95     1.86     YES   HROFDY
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                                                 Residential
 L0007101         0   0.63990E-06  477470.7 3750649.8   461.0      4.00     3.95     1.86      YES    HROFDY
 L0007102         0   0.63990E-06  477470.9 3750658.3   461.2      4.00     3.95     1.86      YES    HROFDY
 L0007103         0   0.63990E-06  477471.2 3750666.8   461.3      4.00     3.95     1.86      YES    HROFDY
 L0007104         0   0.63990E-06  477471.4 3750675.3   461.4      4.00     3.95     1.86      YES    HROFDY
 L0007105         0   0.63990E-06  477471.7 3750683.8   461.5      4.00     3.95     1.86      YES    HROFDY
 L0007106         0   0.63990E-06  477471.9 3750692.3   461.7      4.00     3.95     1.86      YES    HROFDY
 L0007107         0   0.63990E-06  477472.2 3750700.8   461.9      4.00     3.95     1.86      YES    HROFDY
 L0007108         0   0.63990E-06  477472.4 3750709.3   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007109         0   0.63990E-06  477472.7 3750717.8   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007110         0   0.63990E-06  477472.9 3750726.3   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007111         0   0.63990E-06  477473.2 3750734.8   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007112         0   0.63990E-06  477473.4 3750743.3   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007113         0   0.63990E-06  477473.7 3750751.7   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007114         0   0.63990E-06  477473.9 3750760.2   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007115         0   0.63990E-06  477474.2 3750768.7   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007116         0   0.63990E-06  477474.4 3750777.2   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007117         0   0.63990E-06  477474.7 3750785.7   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007118         0   0.63990E-06  477474.9 3750794.2   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007119         0   0.63990E-06  477475.2 3750802.7   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007120         0   0.63990E-06  477475.4 3750811.2   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007121         0   0.63990E-06  477475.7 3750819.7   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007122         0   0.63990E-06  477475.9 3750828.2   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007123         0   0.63990E-06  477476.2 3750836.7   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007124         0   0.63990E-06  477476.4 3750845.2   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007125         0   0.63990E-06  477476.7 3750853.7   462.0      4.00     3.95     1.86      YES    HROFDY
 L0007126         0   0.63990E-06  477476.9 3750862.2   462.1      4.00     3.95     1.86      YES    HROFDY
 L0007127         0   0.63990E-06  477477.1 3750870.7   462.3      4.00     3.95     1.86      YES    HROFDY
 L0007128         0   0.63990E-06  477477.1 3750879.2   462.4      4.00     3.95     1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:21:15

  PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                           BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)      X         Y           ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID       CATS.                (METERS)  (METERS)    (METERS)  (METERS)  (METERS)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007129         0   0.63990E-06  477477.2 3750887.7   462.6      4.00     3.95     1.86      YES    HROFDY
 L0007130         0   0.63990E-06  477477.2 3750896.2   462.7      4.00     3.95     1.86      YES    HROFDY
 L0007131         0   0.63990E-06  477477.3 3750904.7   462.8      4.00     3.95     1.86      YES    HROFDY
 L0007132         0   0.63990E-06  477477.3 3750913.2   462.9      4.00     3.95     1.86      YES    HROFDY
 L0007133         0   0.63990E-06  477477.4 3750921.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007134         0   0.63990E-06  477477.4 3750930.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007135         0   0.63990E-06  477477.5 3750938.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007136         0   0.63990E-06  477477.6 3750947.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007137         0   0.63990E-06  477477.6 3750955.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007138         0   0.63990E-06  477477.7 3750964.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007139         0   0.63990E-06  477477.7 3750972.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007140         0   0.63990E-06  477477.8 3750981.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007141         0   0.63990E-06  477477.8 3750989.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007142         0   0.63990E-06  477477.9 3750998.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007143         0   0.63990E-06  477477.9 3751006.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007144         0   0.63990E-06  477478.0 3751015.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007145         0   0.63990E-06  477478.0 3751023.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007146         0   0.63990E-06  477478.1 3751032.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007147         0   0.63990E-06  477478.1 3751040.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007148         0   0.63990E-06  477478.2 3751049.2   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007149         0   0.63990E-06  477478.3 3751057.7   463.0      4.00     3.95     1.86      YES    HROFDY
 L0007150         0   0.63990E-06  477478.3 3751066.2   463.0      4.00     3.95     1.86      YES    HROFDY
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                                                     Residential
 L0007151         0   0.63990E-06  477478.4 3751074.7   463.2      4.00      3.95      1.86      YES    HROFDY
 L0007152         0   0.63990E-06  477478.4 3751083.2   463.3      4.00      3.95      1.86      YES    HROFDY
 L0007153         0   0.63990E-06  477478.5 3751091.7   463.5      4.00      3.95      1.86      YES    HROFDY
 L0007154         0   0.63990E-06  477478.5 3751100.2   463.7      4.00      3.95      1.86      YES    HROFDY
 L0007155         0   0.63990E-06  477478.6 3751108.7   463.8      4.00      3.95      1.86      YES    HROFDY
 L0007156         0   0.63990E-06  477478.6 3751117.2   463.9      4.00      3.95      1.86      YES    HROFDY
 L0007157         0   0.63990E-06  477478.7 3751125.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007158         0   0.63990E-06  477478.7 3751134.2   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007159         0   0.63990E-06  477478.8 3751142.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007160         0   0.63990E-06  477478.9 3751151.2   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007161         0   0.63990E-06  477478.9 3751159.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007162         0   0.63990E-06  477479.0 3751168.2   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007163         0   0.63990E-06  477479.0 3751176.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007164         0   0.63990E-06  477479.1 3751185.2   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007165         0   0.63990E-06  477479.1 3751193.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007166         0   0.63990E-06  477479.2 3751202.2   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007167         0   0.63990E-06  477479.2 3751210.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007168         0   0.63990E-06  477479.3 3751219.2   464.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007169         0   0.63990E-06  477479.3 3751227.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007170         0   0.63990E-06  477479.4 3751236.2   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007171         0   0.63990E-06  477479.3 3751244.7   464.0      4.00      3.95      1.86      YES    HROFDY
 L0007172         0   0.63990E-06  477479.3 3751253.2   464.2      4.00      3.95      1.86      YES    HROFDY
 L0007173         0   0.63990E-06  477479.2 3751261.7   464.5      4.00      3.95      1.86      YES    HROFDY
 L0007174         0   0.63990E-06  477479.2 3751270.2   464.8      4.00      3.95      1.86      YES    HROFDY
 L0007175         0   0.63990E-06  477479.1 3751278.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007176         0   0.63990E-06  477479.0 3751287.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007177         0   0.63990E-06  477479.0 3751295.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007178         0   0.63990E-06  477478.9 3751304.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007179         0   0.63990E-06  477478.9 3751312.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007180         0   0.63990E-06  477478.8 3751321.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007181         0   0.63990E-06  477478.7 3751329.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007182         0   0.63990E-06  477478.7 3751338.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007183         0   0.63990E-06  477478.6 3751346.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007184         0   0.63990E-06  477478.6 3751355.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007185         0   0.63990E-06  477478.5 3751363.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007186         0   0.63990E-06  477478.5 3751372.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007187         0   0.63990E-06  477478.4 3751380.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007188         0   0.63990E-06  477478.3 3751389.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007189         0   0.63990E-06  477478.3 3751397.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007190         0   0.63990E-06  477478.2 3751406.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007191         0   0.63990E-06  477478.2 3751414.7   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007192         0   0.63990E-06  477478.1 3751423.2   465.0      4.00      3.95      1.86      YES    HROFDY
 L0007193         0   0.63990E-06  477478.0 3751431.7   465.2      4.00      3.95      1.86      YES    HROFDY
 L0007194         0   0.63990E-06  477478.0 3751440.2   465.4      4.00      3.95      1.86      YES    HROFDY
 L0007195         0   0.63990E-06  477477.9 3751448.7   465.7      4.00      3.95      1.86      YES    HROFDY
 L0007196         0   0.63990E-06  477477.9 3751457.2   466.0      4.00      3.95      1.86      YES    HROFDY
 L0007197         0   0.63990E-06  477477.8 3751465.7   466.0      4.00      3.95      1.86      YES    HROFDY
 L0007198         0   0.63990E-06  477477.8 3751474.2   466.0      4.00      3.95      1.86      YES    HROFDY
 L0007199         0   0.63990E-06  477477.7 3751482.7   466.0      4.00      3.95      1.86      YES    HROFDY
 L0007200         0   0.63990E-06  477477.6 3751491.2   466.0      4.00      3.95      1.86      YES    HROFDY
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                                                  Residential
 L0007201         0   0.63990E-06  477477.6 3751499.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007202         0   0.63990E-06  477477.5 3751508.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007203         0   0.63990E-06  477477.5 3751516.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007204         0   0.63990E-06  477477.4 3751525.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007205         0   0.63990E-06  477477.3 3751533.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007206         0   0.63990E-06  477477.3 3751542.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007207         0   0.63990E-06  477477.2 3751550.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007208         0   0.63990E-06  477477.2 3751559.2   466.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007209         0   0.63990E-06  477477.1 3751567.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007210         0   0.63990E-06  477477.0 3751576.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007211         0   0.63990E-06  477477.0 3751584.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007212         0   0.63990E-06  477476.9 3751593.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007213         0   0.63990E-06  477476.9 3751601.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007214         0   0.63990E-06  477476.8 3751610.2   466.1     4.00     3.95     1.86     YES   HROFDY
 L0007215         0   0.63990E-06  477476.8 3751618.7   466.2     4.00     3.95     1.86     YES   HROFDY
 L0007216         0   0.63990E-06  477476.7 3751627.2   466.4     4.00     3.95     1.86     YES   HROFDY
 L0007217         0   0.63990E-06  477476.6 3751635.7   466.6     4.00     3.95     1.86     YES   HROFDY
 L0007218         0   0.63990E-06  477476.6 3751644.2   466.7     4.00     3.95     1.86     YES   HROFDY
 L0007219         0   0.63990E-06  477476.5 3751652.7   466.8     4.00     3.95     1.86     YES   HROFDY
 L0007220         0   0.63990E-06  477476.5 3751661.2   466.9     4.00     3.95     1.86     YES   HROFDY
 L0007221         0   0.63990E-06  477476.4 3751669.7   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007222         0   0.63990E-06  477476.3 3751678.2   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007223         0   0.63990E-06  477476.3 3751686.7   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007224         0   0.63990E-06  477476.2 3751695.2   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007225         0   0.63990E-06  477476.2 3751703.7   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007226         0   0.63990E-06  477476.1 3751712.2   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007227         0   0.63990E-06  477476.1 3751720.7   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007228         0   0.63990E-06  477476.0 3751729.2   467.1     4.00     3.95     1.86     YES   HROFDY
 L0007229         0   0.63990E-06  477475.9 3751737.7   467.2     4.00     3.95     1.86     YES   HROFDY
 L0007230         0   0.63990E-06  477475.9 3751746.2   467.4     4.00     3.95     1.86     YES   HROFDY
 L0007231         0   0.63990E-06  477475.8 3751754.7   467.5     4.00     3.95     1.86     YES   HROFDY
 L0007232         0   0.63990E-06  477475.8 3751763.2   467.6     4.00     3.95     1.86     YES   HROFDY
 L0007233         0   0.63990E-06  477475.7 3751771.7   467.8     4.00     3.95     1.86     YES   HROFDY
 L0007234         0   0.63990E-06  477475.6 3751780.2   467.9     4.00     3.95     1.86     YES   HROFDY
 L0007235         0   0.63990E-06  477475.6 3751788.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007236         0   0.63990E-06  477475.5 3751797.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007237         0   0.63990E-06  477475.5 3751805.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007238         0   0.63990E-06  477475.4 3751814.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007239         0   0.63990E-06  477475.4 3751822.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007240         0   0.63990E-06  477475.3 3751831.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007241         0   0.63990E-06  477475.2 3751839.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007242         0   0.63990E-06  477475.2 3751848.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007243         0   0.63990E-06  477475.1 3751856.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007244         0   0.63990E-06  477475.1 3751865.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007245         0   0.63990E-06  477475.0 3751873.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007246         0   0.63990E-06  477474.9 3751882.2   468.2     4.00     3.95     1.86     YES   HROFDY
 L0007247         0   0.63990E-06  477474.9 3751890.7   468.5     4.00     3.95     1.86     YES   HROFDY
 L0007248         0   0.63990E-06  477474.8 3751899.2   468.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
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                                                    Residential
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007249        0   0.63990E-06  477474.8 3751907.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007250        0   0.63990E-06  477474.7 3751916.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007251        0   0.63990E-06  477474.7 3751924.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007252        0   0.63990E-06  477474.6 3751933.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007253        0   0.63990E-06  477474.5 3751941.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007254        0   0.63990E-06  477474.5 3751950.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007255        0   0.63990E-06  477474.4 3751958.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007256        0   0.63990E-06  477474.4 3751967.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007257        0   0.63990E-06  477474.3 3751975.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007258        0   0.63990E-06  477474.2 3751984.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007259        0   0.63990E-06  477474.2 3751992.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007260        0   0.63990E-06  477474.1 3752001.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007261        0   0.63990E-06  477474.1 3752009.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007262        0   0.63990E-06  477474.0 3752018.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007263        0   0.63990E-06  477474.0 3752026.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007264        0   0.63990E-06  477473.9 3752035.2   469.1     4.00     3.95     1.86     YES   HROFDY
 L0007265        0   0.63990E-06  477473.8 3752043.7   469.3     4.00     3.95     1.86     YES   HROFDY
 L0007266        0   0.63990E-06  477473.8 3752052.2   469.4     4.00     3.95     1.86     YES   HROFDY
 L0007267        0   0.63990E-06  477473.7 3752060.7   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007268        0   0.63990E-06  477473.7 3752069.2   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007269        0   0.63990E-06  477473.6 3752077.7   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007270        0   0.63990E-06  477473.5 3752086.2   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007271        0   0.63990E-06  477473.5 3752094.7   469.6     4.00     3.95     1.86     YES   HROFDY
 L0007272        0   0.63990E-06  477473.4 3752103.2   469.8     4.00     3.95     1.86     YES   HROFDY
 L0007273        0   0.63990E-06  477473.4 3752111.7   469.9     4.00     3.95     1.86     YES   HROFDY
 L0007274        0   0.63990E-06  477473.3 3752120.2   470.1     4.00     3.95     1.86     YES   HROFDY
 L0007275        0   0.63990E-06  477473.3 3752128.7   470.2     4.00     3.95     1.86     YES   HROFDY
 L0007276        0   0.63990E-06  477473.2 3752137.2   470.3     4.00     3.95     1.86     YES   HROFDY
 L0007277        0   0.63990E-06  477473.1 3752145.7   470.4     4.00     3.95     1.86     YES   HROFDY
 L0007278        0   0.63990E-06  477473.1 3752154.2   470.6     4.00     3.95     1.86     YES   HROFDY
 L0007279        0   0.63990E-06  477473.0 3752162.7   470.7     4.00     3.95     1.86     YES   HROFDY
 L0007280        0   0.63990E-06  477473.0 3752171.2   470.9     4.00     3.95     1.86     YES   HROFDY
 L0007281        0   0.63990E-06  477472.9 3752179.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007282        0   0.63990E-06  477472.8 3752188.2   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007283        0   0.63990E-06  477472.8 3752196.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007284        0   0.63990E-06  477472.7 3752205.2   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007285        0   0.63990E-06  477472.7 3752213.7   471.2     4.00     3.95     1.86     YES   HROFDY
 L0007286        0   0.63990E-06  477472.6 3752222.2   471.5     4.00     3.95     1.86     YES   HROFDY
 L0007287        0   0.63990E-06  477468.0 3752226.1   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007288        0   0.63990E-06  477459.5 3752226.1   471.7     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker            ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                     Residential
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY        SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007289         0   0.63990E-06  477451.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007290         0   0.63990E-06  477442.5 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007291         0   0.63990E-06  477434.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007292         0   0.63990E-06  477425.5 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007293         0   0.63990E-06  477417.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007294         0   0.63990E-06  477408.5 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007295         0   0.63990E-06  477400.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007296         0   0.63990E-06  477391.5 3752226.2   471.5     4.00     3.95     1.86     YES   HROFDY
 L0007297         0   0.63990E-06  477383.0 3752226.2   471.3     4.00     3.95     1.86     YES   HROFDY
 L0007298         0   0.63990E-06  477374.5 3752226.2   471.1     4.00     3.95     1.86     YES   HROFDY
 L0007299         0   0.63990E-06  477366.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007300         0   0.63990E-06  477357.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007301         0   0.63990E-06  477349.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007302         0   0.63990E-06  477340.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007303         0   0.63990E-06  477332.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007304         0   0.63990E-06  477323.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007305         0   0.63990E-06  477315.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007306         0   0.63990E-06  477306.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007307         0   0.63990E-06  477298.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007308         0   0.63990E-06  477289.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007309         0   0.63990E-06  477281.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007310         0   0.63990E-06  477272.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007311         0   0.63990E-06  477264.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007312         0   0.63990E-06  477255.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007313         0   0.63990E-06  477247.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007314         0   0.63990E-06  477238.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007315         0   0.63990E-06  477230.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007316         0   0.63990E-06  477221.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007317         0   0.63990E-06  477213.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007318         0   0.63990E-06  477204.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007319         0   0.63990E-06  477196.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007320         0   0.63990E-06  477187.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007321         0   0.63990E-06  477179.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007322         0   0.63990E-06  477170.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007323         0   0.63990E-06  477162.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007324         0   0.63990E-06  477153.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007325         0   0.63990E-06  477145.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007326         0   0.63990E-06  477136.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007327         0   0.63990E-06  477128.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007328         0   0.63990E-06  477119.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY        SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007329         0   0.63990E-06  477111.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007330         0   0.63990E-06  477102.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007331         0   0.63990E-06  477094.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007332         0   0.63990E-06  477085.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007333         0   0.63990E-06  477077.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0007334         0   0.63990E-06  477068.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007335         0   0.63990E-06  477060.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007336         0   0.63990E-06  477051.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007337         0   0.63990E-06  477043.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007338         0   0.63990E-06  477034.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007339         0   0.63990E-06  477026.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007340         0   0.63990E-06  477017.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007341         0   0.63990E-06  477009.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007342         0   0.63990E-06  477000.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007343         0   0.63990E-06  476992.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007344         0   0.63990E-06  476983.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007345         0   0.63990E-06  476975.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007346         0   0.63990E-06  476966.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007347         0   0.63990E-06  476958.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007348         0   0.63990E-06  476949.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007349         0   0.63990E-06  476941.0 3752226.8   471.2     4.00     3.95     1.86     YES   HROFDY
 L0007350         0   0.63990E-06  476932.5 3752226.8   471.4     4.00     3.95     1.86     YES   HROFDY
 L0007351         0   0.63990E-06  476924.0 3752226.8   471.6     4.00     3.95     1.86     YES   HROFDY
 L0007352         0   0.63990E-06  476915.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007353         0   0.63990E-06  476907.0 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007354         0   0.63990E-06  476898.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007355         0   0.63990E-06  476890.0 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007356         0   0.63990E-06  476881.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007357         0   0.63990E-06  476873.0 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007358         0   0.63990E-06  476864.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007359         0   0.63990E-06  476856.0 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007360         0   0.63990E-06  476847.5 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007361         0   0.63990E-06  476839.0 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007362         0   0.63990E-06  476830.5 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007363         0   0.63990E-06  476822.0 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007364         0   0.63990E-06  476813.5 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007365         0   0.63990E-06  476805.0 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007366         0   0.63990E-06  476796.5 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007367         0   0.63990E-06  476788.0 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007368         0   0.63990E-06  476779.5 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007369         0   0.63990E-06  476771.0 3752227.0   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007370         0   0.63990E-06  476762.5 3752227.0   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007371         0   0.63990E-06  476754.0 3752227.0   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007372         0   0.63990E-06  476745.5 3752227.0   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007373         0   0.63990E-06  476737.0 3752227.0   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007374         0   0.63990E-06  476728.5 3752227.0   477.3     4.00     3.95     1.86     YES   HROFDY
 L0007375         0   0.63990E-06  476720.0 3752227.0   477.4     4.00     3.95     1.86     YES   HROFDY
 L0007376         0   0.63990E-06  476711.5 3752227.0   477.5     4.00     3.95     1.86     YES   HROFDY
 L0007377         0   0.63990E-06  476703.0 3752227.0   477.6     4.00     3.95     1.86     YES   HROFDY
 L0007378         0   0.63990E-06  476694.5 3752227.0   477.6     4.00     3.95     1.86     YES   HROFDY
 L0007379         0   0.63990E-06  476686.0 3752227.1   477.7     4.00     3.95     1.86     YES   HROFDY
 L0007380         0   0.63990E-06  476677.5 3752227.1   477.8     4.00     3.95     1.86     YES   HROFDY
 L0007381         0   0.63990E-06  476669.0 3752227.1   477.9     4.00     3.95     1.86     YES   HROFDY
 L0007382         0   0.63990E-06  476660.5 3752227.1   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007383         0   0.63990E-06  476652.0 3752227.1   478.0     4.00     3.95     1.86     YES   HROFDY
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                                                        Residential
  L0007384         0   0.63990E-06  476643.5 3752227.1   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007385         0   0.63990E-06  476635.0 3752227.1   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007386         0   0.63990E-06  476626.5 3752227.1   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007387         0   0.63990E-06  476618.0 3752227.1   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007388         0   0.63990E-06  476609.5 3752227.1   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007389         0   0.63990E-06  476601.0 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007390         0   0.63990E-06  476592.5 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007391         0   0.63990E-06  476584.0 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007392         0   0.63990E-06  476575.5 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007393         0   0.63990E-06  476567.0 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007394         0   0.63990E-06  476558.5 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007395         0   0.63990E-06  476550.0 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007396         0   0.63990E-06  476541.5 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007397         0   0.63990E-06  476533.0 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007398         0   0.63990E-06  476524.5 3752227.2   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007399         0   0.63990E-06  476516.0 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007400         0   0.63990E-06  476507.5 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007401         0   0.63990E-06  476499.0 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007402         0   0.63990E-06  476490.5 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007403         0   0.63990E-06  476482.0 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007404         0   0.63990E-06  476473.5 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007405         0   0.63990E-06  476465.0 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007406         0   0.63990E-06  476456.5 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007407         0   0.63990E-06  476448.0 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007408         0   0.63990E-06  476439.5 3752227.3   478.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
    13:21:15

    PAGE  45
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

                 NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
    SOURCE        PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
      ID          CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS) (METERS)           BY
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  L0007409         0   0.63990E-06  476431.0 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007410         0   0.63990E-06  476422.5 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007411         0   0.63990E-06  476414.0 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007412         0   0.63990E-06  476405.5 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007413         0   0.63990E-06  476397.0 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007414         0   0.63990E-06  476388.5 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007415         0   0.63990E-06  476380.0 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007416         0   0.63990E-06  476371.5 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007417         0   0.63990E-06  476363.0 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007418         0   0.63990E-06  476354.5 3752227.4   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007419         0   0.63990E-06  476346.0 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007420         0   0.63990E-06  476337.5 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007421         0   0.63990E-06  476329.0 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007422         0   0.63990E-06  476320.5 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007423         0   0.63990E-06  476312.0 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007424         0   0.63990E-06  476303.5 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007425         0   0.63990E-06  476295.0 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007426         0   0.63990E-06  476286.5 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007427         0   0.63990E-06  476278.0 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007428         0   0.63990E-06  476269.5 3752227.5   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007429         0   0.63990E-06  476261.0 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007430         0   0.63990E-06  476252.5 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007431         0   0.63990E-06  476244.0 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007432         0   0.63990E-06  476235.5 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007433         0   0.63990E-06  476227.0 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
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                                                                 Residential
  L0007434          0   0.63990E-06  476218.5 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007435          0   0.63990E-06  476210.0 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007436          0   0.63990E-06  476201.5 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007437          0   0.63990E-06  476193.0 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007438          0   0.63990E-06  476184.5 3752227.6   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007439          0   0.63990E-06  476176.0 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007440          0   0.63990E-06  476167.5 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007441          0   0.63990E-06  476159.0 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007442          0   0.63990E-06  476150.5 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007443          0   0.63990E-06  476142.0 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007444          0   0.63990E-06  476133.5 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007445          0   0.63990E-06  476125.0 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007446          0   0.63990E-06  476116.5 3752227.7   478.0     4.00     3.95     1.86     YES   HROFDY
  L0007447          0   0.63990E-06  476108.0 3752227.7   477.9     4.00     3.95     1.86     YES   HROFDY
  L0007448          0   0.63990E-06  476099.5 3752227.7   477.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y    ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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  L0007449          0   0.63990E-06  476091.0 3752227.8   477.7     4.00     3.95     1.86     YES   HROFDY
  L0007450          0   0.63990E-06  476082.5 3752227.8   477.6     4.00     3.95     1.86     YES   HROFDY
  L0007451          0   0.63990E-06  476074.0 3752227.8   477.6     4.00     3.95     1.86     YES   HROFDY
  L0007452          0   0.63990E-06  476065.5 3752227.8   477.5     4.00     3.95     1.86     YES   HROFDY
  L0007453          0   0.63990E-06  476057.0 3752227.8   477.4     4.00     3.95     1.86     YES   HROFDY
  L0007454          0   0.63990E-06  476048.5 3752227.8   477.3     4.00     3.95     1.86     YES   HROFDY
  L0007455          0   0.63990E-06  476040.0 3752227.8   477.2     4.00     3.95     1.86     YES   HROFDY
  L0007456          0   0.63990E-06  476031.5 3752227.8   477.2     4.00     3.95     1.86     YES   HROFDY
  L0007457          0   0.63990E-06  476023.0 3752227.8   477.2     4.00     3.95     1.86     YES   HROFDY
  L0007458          0   0.63990E-06  476014.5 3752227.8   477.1     4.00     3.95     1.86     YES   HROFDY
  L0007459          0   0.63990E-06  476006.0 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
  L0007460          0   0.63990E-06  475997.5 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
  L0007461          0   0.63990E-06  475989.0 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
  L0007462          0   0.63990E-06  475980.5 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
  L0007463          0   0.63990E-06  475972.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007464          0   0.63990E-06  475963.5 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007465          0   0.63990E-06  475955.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007466          0   0.63990E-06  475946.5 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007467          0   0.63990E-06  475938.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007468          0   0.63990E-06  475929.5 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007469          0   0.63990E-06  475921.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007470          0   0.63990E-06  475912.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007471          0   0.63990E-06  475904.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007472          0   0.63990E-06  475895.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007473          0   0.63990E-06  475887.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007474          0   0.63990E-06  475878.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007475          0   0.63990E-06  475870.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007476          0   0.63990E-06  475861.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007477          0   0.63990E-06  475853.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007478          0   0.63990E-06  475844.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007479          0   0.63990E-06  475836.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007480          0   0.63990E-06  475827.5 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007481          0   0.63990E-06  475819.0 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007482          0   0.63990E-06  475810.5 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
  L0007483          0   0.63990E-06  475802.0 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
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                                                     Residential
 L0007484         0   0.63990E-06  475793.5 3752228.1    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007485         0   0.63990E-06  475785.0 3752228.1    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007486         0   0.63990E-06  475776.5 3752228.1    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007487         0   0.63990E-06  475768.0 3752228.1    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007488         0   0.63990E-06  475759.5 3752228.1    477.1      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007489         0   0.63990E-06  475751.0 3752228.1    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007490         0   0.63990E-06  475742.5 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007491         0   0.63990E-06  475734.0 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007492         0   0.63990E-06  475725.5 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007493         0   0.63990E-06  475717.0 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007494         0   0.63990E-06  475708.5 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007495         0   0.63990E-06  475700.0 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007496         0   0.63990E-06  475691.5 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007497         0   0.63990E-06  475683.0 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007498         0   0.63990E-06  475674.5 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007499         0   0.63990E-06  475666.0 3752228.2    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007500         0   0.63990E-06  475657.5 3752228.3    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007501         0   0.63990E-06  475649.0 3752228.3    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007502         0   0.63990E-06  475640.5 3752228.3    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007503         0   0.63990E-06  475632.0 3752228.3    477.2      4.00      3.95      1.86      YES   HROFDY
 L0007504         0   0.63990E-06  475623.5 3752228.3    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007505         0   0.63990E-06  475615.0 3752228.3    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007506         0   0.63990E-06  475606.5 3752228.3    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007507         0   0.63990E-06  475598.0 3752228.3    477.1      4.00      3.95      1.86      YES   HROFDY
 L0007508         0   0.63990E-06  475589.5 3752228.3    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007509         0   0.63990E-06  475581.0 3752228.3    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007510         0   0.63990E-06  475572.5 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007511         0   0.63990E-06  475564.0 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007512         0   0.63990E-06  475555.5 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007513         0   0.63990E-06  475547.0 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007514         0   0.63990E-06  475538.5 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007515         0   0.63990E-06  475530.0 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007516         0   0.63990E-06  475521.5 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007517         0   0.63990E-06  475513.0 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007518         0   0.63990E-06  475504.5 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007519         0   0.63990E-06  475496.0 3752228.4    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007520         0   0.63990E-06  475487.5 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007521         0   0.63990E-06  475479.0 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007522         0   0.63990E-06  475470.5 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007523         0   0.63990E-06  475462.0 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007524         0   0.63990E-06  475453.5 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007525         0   0.63990E-06  475445.0 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007526         0   0.63990E-06  475436.5 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007527         0   0.63990E-06  475428.0 3752228.5    477.0      4.00      3.95      1.86      YES   HROFDY
 L0007528         0   0.63990E-06  475419.5 3752228.5    476.9      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
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                                                    Residential
   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0007529        0   0.63990E-06  475411.0 3752228.5   476.9     4.00     3.95     1.86     YES   HROFDY
 L0007530        0   0.63990E-06  475402.5 3752228.6   476.8     4.00     3.95     1.86     YES   HROFDY
 L0007531        0   0.63990E-06  475394.0 3752228.6   476.7     4.00     3.95     1.86     YES   HROFDY
 L0007532        0   0.63990E-06  475385.5 3752228.6   476.6     4.00     3.95     1.86     YES   HROFDY
 L0007533        0   0.63990E-06  475377.0 3752228.6   476.5     4.00     3.95     1.86     YES   HROFDY
 L0007534        0   0.63990E-06  475368.5 3752228.6   476.4     4.00     3.95     1.86     YES   HROFDY
 L0007535        0   0.63990E-06  475360.0 3752228.6   476.3     4.00     3.95     1.86     YES   HROFDY
 L0007536        0   0.63990E-06  475351.5 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0007537        0   0.63990E-06  475343.0 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0007538        0   0.63990E-06  475334.5 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0007539        0   0.63990E-06  475326.0 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0007540        0   0.63990E-06  475317.5 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0007541        0   0.63990E-06  475309.0 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0007542        0   0.63990E-06  475300.5 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0007543        0   0.63990E-06  475292.0 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0007544        0   0.63990E-06  475283.5 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007545        0   0.63990E-06  475275.0 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007546        0   0.63990E-06  475266.5 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007547        0   0.63990E-06  475258.0 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007548        0   0.63990E-06  475249.5 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007549        0   0.63990E-06  475241.0 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007550        0   0.63990E-06  475232.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007551        0   0.63990E-06  475224.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007552        0   0.63990E-06  475215.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007553        0   0.63990E-06  475207.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007554        0   0.63990E-06  475198.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007555        0   0.63990E-06  475190.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007556        0   0.63990E-06  475181.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007557        0   0.63990E-06  475173.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007558        0   0.63990E-06  475164.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007559        0   0.63990E-06  475156.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007560        0   0.63990E-06  475147.5 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007561        0   0.63990E-06  475139.0 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007562        0   0.63990E-06  475130.5 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007563        0   0.63990E-06  475122.0 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007564        0   0.63990E-06  475113.5 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007565        0   0.63990E-06  475105.0 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007566        0   0.63990E-06  475096.5 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007567        0   0.63990E-06  475088.0 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007568        0   0.63990E-06  475079.5 3752228.9   476.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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  L0007569         0   0.63990E-06  475071.0 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
  L0007570         0   0.63990E-06  475062.5 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
  L0007571         0   0.63990E-06  475054.0 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
  L0007572         0   0.63990E-06  475045.5 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
  L0007573         0   0.63990E-06  475037.0 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
  L0007574         0   0.63990E-06  475028.5 3752229.0    475.9     4.00     3.95     1.86     YES   HROFDY
  L0007575         0   0.63990E-06  475020.0 3752229.0    475.7     4.00     3.95     1.86     YES   HROFDY
  L0007576         0   0.63990E-06  475011.5 3752229.0    475.6     4.00     3.95     1.86     YES   HROFDY
  L0007577         0   0.63990E-06  475003.0 3752229.0    475.5     4.00     3.95     1.86     YES   HROFDY
  L0007578         0   0.63990E-06  474994.5 3752229.0    475.4     4.00     3.95     1.86     YES   HROFDY
  L0007579         0   0.63990E-06  474986.0 3752229.0    475.3     4.00     3.95     1.86     YES   HROFDY
  L0007580         0   0.63990E-06  474977.5 3752229.1    475.2     4.00     3.95     1.86     YES   HROFDY
  L0007581         0   0.63990E-06  474969.0 3752229.1    475.1     4.00     3.95     1.86     YES   HROFDY
  L0007582         0   0.63990E-06  474960.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007583         0   0.63990E-06  474952.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007584         0   0.63990E-06  474943.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007585         0   0.63990E-06  474935.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007586         0   0.63990E-06  474926.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007587         0   0.63990E-06  474918.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007588         0   0.63990E-06  474909.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007589         0   0.63990E-06  474901.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007590         0   0.63990E-06  474892.5 3752229.2    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007591         0   0.63990E-06  474884.0 3752229.2    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007592         0   0.63990E-06  474875.5 3752229.2    474.9     4.00     3.95     1.86     YES   HROFDY
  L0007593         0   0.63990E-06  474867.0 3752229.2    474.8     4.00     3.95     1.86     YES   HROFDY
  L0007594         0   0.63990E-06  474858.5 3752229.2    474.7     4.00     3.95     1.86     YES   HROFDY
  L0007595         0   0.63990E-06  474850.0 3752229.2    474.5     4.00     3.95     1.86     YES   HROFDY
  L0007596         0   0.63990E-06  474841.5 3752229.2    474.4     4.00     3.95     1.86     YES   HROFDY
  L0007597         0   0.63990E-06  474833.0 3752229.2    474.3     4.00     3.95     1.86     YES   HROFDY
  L0007598         0   0.63990E-06  474824.5 3752229.2    474.2     4.00     3.95     1.86     YES   HROFDY
  L0007599         0   0.63990E-06  474816.0 3752229.2    474.1     4.00     3.95     1.86     YES   HROFDY
  L0007600         0   0.63990E-06  474807.5 3752229.3    474.0     4.00     3.95     1.86     YES   HROFDY
  L0007601         0   0.63990E-06  474799.1 3752228.0    474.1     4.00     3.95     1.86     YES   HROFDY
  L0007602         0   0.63990E-06  474790.7 3752226.7    474.2     4.00     3.95     1.86     YES   HROFDY
  L0007603         0   0.63990E-06  474782.3 3752225.5    474.3     4.00     3.95     1.86     YES   HROFDY
  L0007604         0   0.63990E-06  474773.9 3752224.2    474.4     4.00     3.95     1.86     YES   HROFDY
  L0007605         0   0.63990E-06  474765.5 3752222.9    474.6     4.00     3.95     1.86     YES   HROFDY
  L0007606         0   0.63990E-06  474757.1 3752221.7    474.7     4.00     3.95     1.86     YES   HROFDY
  L0007607         0   0.63990E-06  474748.7 3752220.4    474.8     4.00     3.95     1.86     YES   HROFDY
  L0007608         0   0.63990E-06  474740.3 3752219.1    474.9     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:21:15

    PAGE  50
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
    SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
      ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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  L0007609         0   0.63990E-06  474731.9 3752217.8    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007610         0   0.63990E-06  474723.5 3752216.6    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007611         0   0.63990E-06  474715.1 3752215.3    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007612         0   0.63990E-06  474706.7 3752214.0    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007613         0   0.63990E-06  474698.3 3752212.8    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007614         0   0.63990E-06  474689.9 3752211.5    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007615         0   0.63990E-06  474681.5 3752210.2    475.0     4.00     3.95     1.86     YES   HROFDY
  L0007616         0   0.63990E-06  474673.1 3752209.0    475.0     4.00     3.95     1.86     YES   HROFDY
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                                                  Residential
 L0007617         0   0.63990E-06  474664.7 3752207.7   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007618         0   0.63990E-06  474656.3 3752206.4   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007619         0   0.63990E-06  474647.9 3752205.1   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007620         0   0.63990E-06  474639.5 3752203.9   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007621         0   0.63990E-06  474631.1 3752202.6   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007622         0   0.63990E-06  474622.6 3752201.3   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007623         0   0.63990E-06  474614.2 3752200.1   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007624         0   0.63990E-06  474605.8 3752198.8   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007625         0   0.63990E-06  474597.4 3752197.5   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007626         0   0.63990E-06  474589.0 3752196.2   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007627         0   0.63990E-06  474580.6 3752195.0   475.0     4.00     3.95     1.86     YES   HROFDY
 L0007628         0   0.63990E-06  474572.2 3752193.7   475.1     4.00     3.95     1.86     YES   HROFDY
 L0007629         0   0.63990E-06  474563.8 3752192.4   475.2     4.00     3.95     1.86     YES   HROFDY
 L0007630         0   0.63990E-06  474555.4 3752191.2   475.3     4.00     3.95     1.86     YES   HROFDY
 L0007631         0   0.63990E-06  474547.0 3752189.9   475.4     4.00     3.95     1.86     YES   HROFDY
 L0007632         0   0.63990E-06  474538.6 3752188.6   475.5     4.00     3.95     1.86     YES   HROFDY
 L0007633         0   0.63990E-06  474530.2 3752187.3   475.6     4.00     3.95     1.86     YES   HROFDY
 L0007634         0   0.63990E-06  474521.8 3752186.1   475.7     4.00     3.95     1.86     YES   HROFDY
 L0007635         0   0.63990E-06  474513.4 3752184.8   475.8     4.00     3.95     1.86     YES   HROFDY
 L0007636         0   0.63990E-06  474505.0 3752183.5   475.9     4.00     3.95     1.86     YES   HROFDY
 L0007637         0   0.63990E-06  474496.6 3752182.3   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007638         0   0.63990E-06  474488.2 3752181.0   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007639         0   0.63990E-06  474479.8 3752179.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007640         0   0.63990E-06  474471.4 3752178.4   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007641         0   0.63990E-06  474463.0 3752177.2   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007642         0   0.63990E-06  474454.6 3752175.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007643         0   0.63990E-06  474446.2 3752174.6   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007644         0   0.63990E-06  474437.8 3752173.4   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007645         0   0.63990E-06  474429.3 3752172.1   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007646         0   0.63990E-06  474420.9 3752170.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0007647         0   0.63990E-06  474412.5 3752169.6   476.1     4.00     3.95     1.86     YES   HROFDY
 L0007648         0   0.63990E-06  474404.1 3752168.3   476.2     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                     ***
   13:21:15

   PAGE  51
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007649         0   0.63990E-06  474395.7 3752167.0   476.4     4.00     3.95     1.86     YES   HROFDY
 L0007650         0   0.63990E-06  474387.3 3752165.7   476.5     4.00     3.95     1.86     YES   HROFDY
 L0007651         0   0.63990E-06  474378.9 3752164.5   476.6     4.00     3.95     1.86     YES   HROFDY
 L0007652         0   0.63990E-06  474370.5 3752163.2   476.7     4.00     3.95     1.86     YES   HROFDY
 L0007653         0   0.63990E-06  474362.1 3752161.9   476.8     4.00     3.95     1.86     YES   HROFDY
 L0007654         0   0.63990E-06  474353.7 3752160.7   476.9     4.00     3.95     1.86     YES   HROFDY
 L0007655         0   0.63990E-06  474345.3 3752159.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007656         0   0.63990E-06  474336.9 3752158.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007657         0   0.63990E-06  474328.5 3752156.8   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007658         0   0.63990E-06  474320.1 3752155.6   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007659         0   0.63990E-06  474311.7 3752154.3   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007660         0   0.63990E-06  474303.3 3752153.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007661         0   0.63990E-06  474294.9 3752151.8   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007662         0   0.63990E-06  474286.5 3752150.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007663         0   0.63990E-06  474278.1 3752149.2   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007664         0   0.63990E-06  474269.7 3752147.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007665         0   0.63990E-06  474261.3 3752146.7   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007666         0   0.63990E-06  474252.9 3752145.4   477.0     4.00     3.95     1.86     YES   HROFDY
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                                                Residential
 L0007667         0   0.63990E-06  474244.4 3752144.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007668         0   0.63990E-06  474236.0 3752142.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007669         0   0.63990E-06  474227.6 3752141.6   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007670         0   0.63990E-06  474219.2 3752140.3   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007671         0   0.63990E-06  474210.8 3752139.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007672         0   0.63990E-06  474202.4 3752137.8   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007673         0   0.63990E-06  474194.0 3752136.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0007674         0   0.63990E-06  474185.6 3752135.2   477.1     4.00     3.95     1.86     YES   HROFDY
 L0007675         0   0.63990E-06  474177.2 3752134.0   477.2     4.00     3.95     1.86     YES   HROFDY
 L0007676         0   0.63990E-06  474168.8 3752132.7   477.3     4.00     3.95     1.86     YES   HROFDY
 L0007677         0   0.63990E-06  474160.4 3752131.3   477.4     4.00     3.95     1.86     YES   HROFDY
 L0007678         0   0.63990E-06  474152.0 3752129.9   477.5     4.00     3.95     1.86     YES   HROFDY
 L0007679         0   0.63990E-06  474143.7 3752128.5   477.6     4.00     3.95     1.86     YES   HROFDY
 L0007680         0   0.63990E-06  474135.3 3752127.1   477.7     4.00     3.95     1.86     YES   HROFDY
 L0007681         0   0.63990E-06  474126.9 3752125.7   477.9     4.00     3.95     1.86     YES   HROFDY
 L0007682         0   0.63990E-06  474118.5 3752124.3   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007683         0   0.63990E-06  474110.1 3752122.9   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007684         0   0.63990E-06  474101.7 3752121.5   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007685         0   0.63990E-06  474093.3 3752120.1   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007686         0   0.63990E-06  474085.0 3752118.8   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007687         0   0.63990E-06  474076.6 3752117.4   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007688         0   0.63990E-06  474068.2 3752116.0   478.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007689         0   0.63990E-06  474059.8 3752114.6   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007690         0   0.63990E-06  474051.4 3752113.2   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007691         0   0.63990E-06  474043.0 3752111.8   478.0     4.00     3.95     1.86     YES   HROFDY
 L0007692         0   0.10660E-06  477480.6 3749800.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007693         0   0.10660E-06  477480.4 3749808.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007694         0   0.10660E-06  477480.3 3749817.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007695         0   0.10660E-06  477480.1 3749825.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007696         0   0.10660E-06  477480.0 3749834.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007697         0   0.10660E-06  477479.9 3749842.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007698         0   0.10660E-06  477479.7 3749851.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007699         0   0.10660E-06  477479.6 3749859.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007700         0   0.10660E-06  477479.5 3749868.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007701         0   0.10660E-06  477479.3 3749876.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007702         0   0.10660E-06  477479.2 3749885.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007703         0   0.10660E-06  477479.1 3749893.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007704         0   0.10660E-06  477478.9 3749902.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007705         0   0.10660E-06  477478.8 3749910.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007706         0   0.10660E-06  477478.7 3749919.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007707         0   0.10660E-06  477478.5 3749927.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007708         0   0.10660E-06  477478.4 3749936.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007709         0   0.10660E-06  477478.2 3749944.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007710         0   0.10660E-06  477478.1 3749953.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0007711         0   0.10660E-06  477478.0 3749961.7   458.2     0.00     3.95     1.86     YES   HROFDY
 L0007712         0   0.10660E-06  477477.8 3749970.2   458.4     0.00     3.95     1.86     YES   HROFDY
 L0007713         0   0.10660E-06  477477.7 3749978.7   458.7     0.00     3.95     1.86     YES   HROFDY
 L0007714         0   0.10660E-06  477477.6 3749987.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007715         0   0.10660E-06  477477.4 3749995.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007716         0   0.10660E-06  477477.3 3750004.2   459.0     0.00     3.95     1.86     YES   HROFDY
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                                            Residential
 L0007717         0   0.10660E-06  477477.2 3750012.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007718         0   0.10660E-06  477477.0 3750021.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007719         0   0.10660E-06  477476.9 3750029.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007720         0   0.10660E-06  477476.8 3750038.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007721         0   0.10660E-06  477476.6 3750046.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007722         0   0.10660E-06  477476.5 3750055.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007723         0   0.10660E-06  477476.3 3750063.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007724         0   0.10660E-06  477476.2 3750072.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007725         0   0.10660E-06  477476.1 3750080.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007726         0   0.10660E-06  477475.9 3750089.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007727         0   0.10660E-06  477475.8 3750097.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007728         0   0.10660E-06  477475.7 3750106.2   459.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007729         0   0.10660E-06  477475.5 3750114.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007730         0   0.10660E-06  477475.4 3750123.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007731         0   0.10660E-06  477475.3 3750131.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007732         0   0.10660E-06  477475.1 3750140.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007733         0   0.10660E-06  477475.0 3750148.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007734         0   0.10660E-06  477474.8 3750157.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007735         0   0.10660E-06  477474.7 3750165.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007736         0   0.10660E-06  477474.2 3750174.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007737         0   0.10660E-06  477473.5 3750182.6   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007738         0   0.10660E-06  477472.8 3750191.1   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007739         0   0.10660E-06  477472.1 3750199.6   459.0     0.00     3.95     1.86     YES   HROFDY
 L0007740         0   0.10660E-06  477471.4 3750208.0   459.2     0.00     3.95     1.86     YES   HROFDY
 L0007741         0   0.10660E-06  477470.7 3750216.5   459.2     0.00     3.95     1.86     YES   HROFDY
 L0007742         0   0.10660E-06  477470.0 3750225.0   459.3     0.00     3.95     1.86     YES   HROFDY
 L0007743         0   0.10660E-06  477469.3 3750233.5   459.5     0.00     3.95     1.86     YES   HROFDY
 L0007744         0   0.10660E-06  477468.7 3750241.9   459.7     0.00     3.95     1.86     YES   HROFDY
 L0007745         0   0.10660E-06  477468.0 3750250.4   459.9     0.00     3.95     1.86     YES   HROFDY
 L0007746         0   0.10660E-06  477467.3 3750258.9   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007747         0   0.10660E-06  477466.6 3750267.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007748         0   0.10660E-06  477466.5 3750275.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007749         0   0.10660E-06  477466.5 3750284.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007750         0   0.10660E-06  477466.5 3750292.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007751         0   0.10660E-06  477466.6 3750301.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007752         0   0.10660E-06  477466.6 3750309.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007753         0   0.10660E-06  477466.6 3750318.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007754         0   0.10660E-06  477466.7 3750326.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007755         0   0.10660E-06  477466.7 3750335.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007756         0   0.10660E-06  477466.7 3750343.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007757         0   0.10660E-06  477466.8 3750352.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007758         0   0.10660E-06  477466.8 3750360.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007759         0   0.10660E-06  477466.9 3750369.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007760         0   0.10660E-06  477466.9 3750377.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007761         0   0.10660E-06  477466.9 3750386.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007762         0   0.10660E-06  477467.0 3750394.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007763         0   0.10660E-06  477467.0 3750403.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007764         0   0.10660E-06  477467.0 3750411.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007765         0   0.10660E-06  477467.1 3750420.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007766         0   0.10660E-06  477467.1 3750428.8   460.0     0.00     3.95     1.86     YES   HROFDY
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                       Residential
 L0007767         0   0.10660E-06  477467.1 3750437.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007768         0   0.10660E-06  477467.2 3750445.8   460.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:21:15

  PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007769         0   0.10660E-06  477467.2 3750454.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007770         0   0.10660E-06  477467.3 3750462.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0007771         0   0.10660E-06  477467.3 3750471.3   460.2     0.00     3.95     1.86     YES   HROFDY
 L0007772         0   0.10660E-06  477467.3 3750479.8   460.4     0.00     3.95     1.86     YES   HROFDY
 L0007773         0   0.10660E-06  477467.4 3750488.3   460.7     0.00     3.95     1.86     YES   HROFDY
 L0007774         0   0.10660E-06  477467.4 3750496.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007775         0   0.10660E-06  477467.4 3750505.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007776         0   0.10660E-06  477467.5 3750513.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007777         0   0.10660E-06  477467.5 3750522.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007778         0   0.10660E-06  477467.5 3750530.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007779         0   0.10660E-06  477467.6 3750539.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007780         0   0.10660E-06  477467.7 3750547.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007781         0   0.10660E-06  477467.9 3750556.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007782         0   0.10660E-06  477468.2 3750564.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007783         0   0.10660E-06  477468.4 3750573.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007784         0   0.10660E-06  477468.7 3750581.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007785         0   0.10660E-06  477468.9 3750590.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007786         0   0.10660E-06  477469.2 3750598.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007787         0   0.10660E-06  477469.4 3750607.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007788         0   0.10660E-06  477469.7 3750615.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007789         0   0.10660E-06  477469.9 3750624.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007790         0   0.10660E-06  477470.2 3750632.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007791         0   0.10660E-06  477470.4 3750641.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007792         0   0.10660E-06  477470.7 3750649.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0007793         0   0.10660E-06  477470.9 3750658.3   461.2     0.00     3.95     1.86     YES   HROFDY
 L0007794         0   0.10660E-06  477471.2 3750666.8   461.3     0.00     3.95     1.86     YES   HROFDY
 L0007795         0   0.10660E-06  477471.4 3750675.3   461.4     0.00     3.95     1.86     YES   HROFDY
 L0007796         0   0.10660E-06  477471.7 3750683.8   461.5     0.00     3.95     1.86     YES   HROFDY
 L0007797         0   0.10660E-06  477471.9 3750692.3   461.7     0.00     3.95     1.86     YES   HROFDY
 L0007798         0   0.10660E-06  477472.2 3750700.8   461.9     0.00     3.95     1.86     YES   HROFDY
 L0007799         0   0.10660E-06  477472.4 3750709.3   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007800         0   0.10660E-06  477472.7 3750717.8   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007801         0   0.10660E-06  477472.9 3750726.3   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007802         0   0.10660E-06  477473.2 3750734.8   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007803         0   0.10660E-06  477473.4 3750743.3   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007804         0   0.10660E-06  477473.7 3750751.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007805         0   0.10660E-06  477473.9 3750760.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007806         0   0.10660E-06  477474.2 3750768.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007807         0   0.10660E-06  477474.4 3750777.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0007808         0   0.10660E-06  477474.7 3750785.7   462.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:21:15

  PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                        Residential

                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007809         0   0.10660E-06  477474.9 3750794.2   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007810         0   0.10660E-06  477475.2 3750802.7   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007811         0   0.10660E-06  477475.4 3750811.2   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007812         0   0.10660E-06  477475.7 3750819.7   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007813         0   0.10660E-06  477475.9 3750828.2   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007814         0   0.10660E-06  477476.2 3750836.7   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007815         0   0.10660E-06  477476.4 3750845.2   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007816         0   0.10660E-06  477476.7 3750853.7   462.0     0.00     3.95     1.86     YES    HROFDY
 L0007817         0   0.10660E-06  477476.9 3750862.2   462.1     0.00     3.95     1.86     YES    HROFDY
 L0007818         0   0.10660E-06  477477.1 3750870.7   462.3     0.00     3.95     1.86     YES    HROFDY
 L0007819         0   0.10660E-06  477477.1 3750879.2   462.4     0.00     3.95     1.86     YES    HROFDY
 L0007820         0   0.10660E-06  477477.2 3750887.7   462.6     0.00     3.95     1.86     YES    HROFDY
 L0007821         0   0.10660E-06  477477.2 3750896.2   462.7     0.00     3.95     1.86     YES    HROFDY
 L0007822         0   0.10660E-06  477477.3 3750904.7   462.8     0.00     3.95     1.86     YES    HROFDY
 L0007823         0   0.10660E-06  477477.3 3750913.2   462.9     0.00     3.95     1.86     YES    HROFDY
 L0007824         0   0.10660E-06  477477.4 3750921.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007825         0   0.10660E-06  477477.4 3750930.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007826         0   0.10660E-06  477477.5 3750938.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007827         0   0.10660E-06  477477.6 3750947.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007828         0   0.10660E-06  477477.6 3750955.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007829         0   0.10660E-06  477477.7 3750964.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007830         0   0.10660E-06  477477.7 3750972.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007831         0   0.10660E-06  477477.8 3750981.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007832         0   0.10660E-06  477477.8 3750989.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007833         0   0.10660E-06  477477.9 3750998.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007834         0   0.10660E-06  477477.9 3751006.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007835         0   0.10660E-06  477478.0 3751015.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007836         0   0.10660E-06  477478.0 3751023.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007837         0   0.10660E-06  477478.1 3751032.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007838         0   0.10660E-06  477478.1 3751040.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007839         0   0.10660E-06  477478.2 3751049.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007840         0   0.10660E-06  477478.3 3751057.7   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007841         0   0.10660E-06  477478.3 3751066.2   463.0     0.00     3.95     1.86     YES    HROFDY
 L0007842         0   0.10660E-06  477478.4 3751074.7   463.2     0.00     3.95     1.86     YES    HROFDY
 L0007843         0   0.10660E-06  477478.4 3751083.2   463.3     0.00     3.95     1.86     YES    HROFDY
 L0007844         0   0.10660E-06  477478.5 3751091.7   463.5     0.00     3.95     1.86     YES    HROFDY
 L0007845         0   0.10660E-06  477478.5 3751100.2   463.7     0.00     3.95     1.86     YES    HROFDY
 L0007846         0   0.10660E-06  477478.6 3751108.7   463.8     0.00     3.95     1.86     YES    HROFDY
 L0007847         0   0.10660E-06  477478.6 3751117.2   463.9     0.00     3.95     1.86     YES    HROFDY
 L0007848         0   0.10660E-06  477478.7 3751125.7   464.0     0.00     3.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007849         0   0.10660E-06  477478.7 3751134.2   464.0     0.00     3.95     1.86     YES    HROFDY
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                                                   Residential
 L0007850        0   0.10660E-06  477478.8 3751142.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007851        0   0.10660E-06  477478.9 3751151.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007852        0   0.10660E-06  477478.9 3751159.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007853        0   0.10660E-06  477479.0 3751168.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007854        0   0.10660E-06  477479.0 3751176.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007855        0   0.10660E-06  477479.1 3751185.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007856        0   0.10660E-06  477479.1 3751193.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007857        0   0.10660E-06  477479.2 3751202.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007858        0   0.10660E-06  477479.2 3751210.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007859        0   0.10660E-06  477479.3 3751219.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007860        0   0.10660E-06  477479.3 3751227.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007861        0   0.10660E-06  477479.4 3751236.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007862        0   0.10660E-06  477479.3 3751244.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0007863        0   0.10660E-06  477479.3 3751253.2   464.2     0.00     3.95     1.86     YES   HROFDY
 L0007864        0   0.10660E-06  477479.2 3751261.7   464.5     0.00     3.95     1.86     YES   HROFDY
 L0007865        0   0.10660E-06  477479.2 3751270.2   464.8     0.00     3.95     1.86     YES   HROFDY
 L0007866        0   0.10660E-06  477479.1 3751278.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007867        0   0.10660E-06  477479.0 3751287.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007868        0   0.10660E-06  477479.0 3751295.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007869        0   0.10660E-06  477478.9 3751304.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007870        0   0.10660E-06  477478.9 3751312.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007871        0   0.10660E-06  477478.8 3751321.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007872        0   0.10660E-06  477478.7 3751329.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007873        0   0.10660E-06  477478.7 3751338.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007874        0   0.10660E-06  477478.6 3751346.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007875        0   0.10660E-06  477478.6 3751355.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007876        0   0.10660E-06  477478.5 3751363.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007877        0   0.10660E-06  477478.5 3751372.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007878        0   0.10660E-06  477478.4 3751380.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007879        0   0.10660E-06  477478.3 3751389.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007880        0   0.10660E-06  477478.3 3751397.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007881        0   0.10660E-06  477478.2 3751406.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007882        0   0.10660E-06  477478.2 3751414.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007883        0   0.10660E-06  477478.1 3751423.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0007884        0   0.10660E-06  477478.0 3751431.7   465.2     0.00     3.95     1.86     YES   HROFDY
 L0007885        0   0.10660E-06  477478.0 3751440.2   465.4     0.00     3.95     1.86     YES   HROFDY
 L0007886        0   0.10660E-06  477477.9 3751448.7   465.7     0.00     3.95     1.86     YES   HROFDY
 L0007887        0   0.10660E-06  477477.9 3751457.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007888        0   0.10660E-06  477477.8 3751465.7   466.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007889        0   0.10660E-06  477477.8 3751474.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007890        0   0.10660E-06  477477.7 3751482.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007891        0   0.10660E-06  477477.6 3751491.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007892        0   0.10660E-06  477477.6 3751499.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007893        0   0.10660E-06  477477.5 3751508.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007894        0   0.10660E-06  477477.5 3751516.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007895        0   0.10660E-06  477477.4 3751525.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007896        0   0.10660E-06  477477.3 3751533.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007897        0   0.10660E-06  477477.3 3751542.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007898        0   0.10660E-06  477477.2 3751550.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007899        0   0.10660E-06  477477.2 3751559.2   466.0     0.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0007900         0   0.10660E-06  477477.1 3751567.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007901         0   0.10660E-06  477477.0 3751576.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007902         0   0.10660E-06  477477.0 3751584.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007903         0   0.10660E-06  477476.9 3751593.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007904         0   0.10660E-06  477476.9 3751601.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0007905         0   0.10660E-06  477476.8 3751610.2   466.1     0.00     3.95     1.86     YES   HROFDY
 L0007906         0   0.10660E-06  477476.8 3751618.7   466.2     0.00     3.95     1.86     YES   HROFDY
 L0007907         0   0.10660E-06  477476.7 3751627.2   466.4     0.00     3.95     1.86     YES   HROFDY
 L0007908         0   0.10660E-06  477476.6 3751635.7   466.6     0.00     3.95     1.86     YES   HROFDY
 L0007909         0   0.10660E-06  477476.6 3751644.2   466.7     0.00     3.95     1.86     YES   HROFDY
 L0007910         0   0.10660E-06  477476.5 3751652.7   466.8     0.00     3.95     1.86     YES   HROFDY
 L0007911         0   0.10660E-06  477476.5 3751661.2   466.9     0.00     3.95     1.86     YES   HROFDY
 L0007912         0   0.10660E-06  477476.4 3751669.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0007913         0   0.10660E-06  477476.3 3751678.2   467.0     0.00     3.95     1.86     YES   HROFDY
 L0007914         0   0.10660E-06  477476.3 3751686.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0007915         0   0.10660E-06  477476.2 3751695.2   467.0     0.00     3.95     1.86     YES   HROFDY
 L0007916         0   0.10660E-06  477476.2 3751703.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0007917         0   0.10660E-06  477476.1 3751712.2   467.0     0.00     3.95     1.86     YES   HROFDY
 L0007918         0   0.10660E-06  477476.1 3751720.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0007919         0   0.10660E-06  477476.0 3751729.2   467.1     0.00     3.95     1.86     YES   HROFDY
 L0007920         0   0.10660E-06  477475.9 3751737.7   467.2     0.00     3.95     1.86     YES   HROFDY
 L0007921         0   0.10660E-06  477475.9 3751746.2   467.4     0.00     3.95     1.86     YES   HROFDY
 L0007922         0   0.10660E-06  477475.8 3751754.7   467.5     0.00     3.95     1.86     YES   HROFDY
 L0007923         0   0.10660E-06  477475.8 3751763.2   467.6     0.00     3.95     1.86     YES   HROFDY
 L0007924         0   0.10660E-06  477475.7 3751771.7   467.8     0.00     3.95     1.86     YES   HROFDY
 L0007925         0   0.10660E-06  477475.6 3751780.2   467.9     0.00     3.95     1.86     YES   HROFDY
 L0007926         0   0.10660E-06  477475.6 3751788.7   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007927         0   0.10660E-06  477475.5 3751797.2   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007928         0   0.10660E-06  477475.5 3751805.7   468.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0007929         0   0.10660E-06  477475.4 3751814.2   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007930         0   0.10660E-06  477475.4 3751822.7   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007931         0   0.10660E-06  477475.3 3751831.2   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007932         0   0.10660E-06  477475.2 3751839.7   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007933         0   0.10660E-06  477475.2 3751848.2   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007934         0   0.10660E-06  477475.1 3751856.7   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007935         0   0.10660E-06  477475.1 3751865.2   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007936         0   0.10660E-06  477475.0 3751873.7   468.0     0.00     3.95     1.86     YES   HROFDY
 L0007937         0   0.10660E-06  477474.9 3751882.2   468.2     0.00     3.95     1.86     YES   HROFDY
 L0007938         0   0.10660E-06  477474.9 3751890.7   468.5     0.00     3.95     1.86     YES   HROFDY
 L0007939         0   0.10660E-06  477474.8 3751899.2   468.8     0.00     3.95     1.86     YES   HROFDY
 L0007940         0   0.10660E-06  477474.8 3751907.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007941         0   0.10660E-06  477474.7 3751916.2   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007942         0   0.10660E-06  477474.7 3751924.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007943         0   0.10660E-06  477474.6 3751933.2   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007944         0   0.10660E-06  477474.5 3751941.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007945         0   0.10660E-06  477474.5 3751950.2   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007946         0   0.10660E-06  477474.4 3751958.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007947         0   0.10660E-06  477474.4 3751967.2   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007948         0   0.10660E-06  477474.3 3751975.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007949         0   0.10660E-06  477474.2 3751984.2   469.0     0.00     3.95     1.86     YES   HROFDY
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                                                         Residential
 L0007950         0   0.10660E-06  477474.2 3751992.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007951         0   0.10660E-06  477474.1 3752001.2   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007952         0   0.10660E-06  477474.1 3752009.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007953         0   0.10660E-06  477474.0 3752018.2   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007954         0   0.10660E-06  477474.0 3752026.7   469.0     0.00     3.95     1.86     YES   HROFDY
 L0007955         0   0.10660E-06  477473.9 3752035.2   469.1     0.00     3.95     1.86     YES   HROFDY
 L0007956         0   0.10660E-06  477473.8 3752043.7   469.3     0.00     3.95     1.86     YES   HROFDY
 L0007957         0   0.10660E-06  477473.8 3752052.2   469.4     0.00     3.95     1.86     YES   HROFDY
 L0007958         0   0.10660E-06  477473.7 3752060.7   469.5     0.00     3.95     1.86     YES   HROFDY
 L0007959         0   0.10660E-06  477473.7 3752069.2   469.5     0.00     3.95     1.86     YES   HROFDY
 L0007960         0   0.10660E-06  477473.6 3752077.7   469.5     0.00     3.95     1.86     YES   HROFDY
 L0007961         0   0.10660E-06  477473.5 3752086.2   469.5     0.00     3.95     1.86     YES   HROFDY
 L0007962         0   0.10660E-06  477473.5 3752094.7   469.6     0.00     3.95     1.86     YES   HROFDY
 L0007963         0   0.10660E-06  477473.4 3752103.2   469.8     0.00     3.95     1.86     YES   HROFDY
 L0007964         0   0.10660E-06  477473.4 3752111.7   469.9     0.00     3.95     1.86     YES   HROFDY
 L0007965         0   0.10660E-06  477473.3 3752120.2   470.1     0.00     3.95     1.86     YES   HROFDY
 L0007966         0   0.10660E-06  477473.3 3752128.7   470.2     0.00     3.95     1.86     YES   HROFDY
 L0007967         0   0.10660E-06  477473.2 3752137.2   470.3     0.00     3.95     1.86     YES   HROFDY
 L0007968         0   0.10660E-06  477473.1 3752145.7   470.4     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0007969         0   0.10660E-06  477473.1 3752154.2   470.6     0.00     3.95     1.86     YES   HROFDY
 L0007970         0   0.10660E-06  477473.0 3752162.7   470.7     0.00     3.95     1.86     YES   HROFDY
 L0007971         0   0.10660E-06  477473.0 3752171.2   470.9     0.00     3.95     1.86     YES   HROFDY
 L0007972         0   0.10660E-06  477472.9 3752179.7   471.0     0.00     3.95     1.86     YES   HROFDY
 L0007973         0   0.10660E-06  477472.8 3752188.2   471.0     0.00     3.95     1.86     YES   HROFDY
 L0007974         0   0.10660E-06  477472.8 3752196.7   471.0     0.00     3.95     1.86     YES   HROFDY
 L0007975         0   0.10660E-06  477472.7 3752205.2   471.0     0.00     3.95     1.86     YES   HROFDY
 L0007976         0   0.10660E-06  477472.7 3752213.7   471.2     0.00     3.95     1.86     YES   HROFDY
 L0007977         0   0.10660E-06  477472.6 3752222.2   471.5     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
      BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 AREA1            0   0.23510E-07  477895.8 3748485.6   452.0     5.00     75.04    426.52      0.00     0.00
YES   HROFDY
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                                                     Residential
 AREA2           0   0.24890E-07  478134.3 3748371.3   451.0     5.00     57.92     521.96      0.00     0.00
YES   HROFDY
 AREA3           0   0.87222E-07  478027.4 3748303.6   450.0     5.00    143.40      60.16      0.00     0.00
YES   HROFDY
 AREA4           0   0.27037E-07  477696.2 3748836.0   454.0     5.00     72.15     152.50      0.00     0.00
YES   HROFDY
 AREA5           0   0.56522E-07  477967.7 3748183.6   450.0     5.00     61.27      85.90      0.00     0.00
YES   HROFDY
 AREA6           0   0.25323E-07  477599.3 3748788.1   454.0     5.00     65.18     180.23      0.00     0.00
YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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  ALL        L0008170     , L0008171     , L0008172     , L0008173     , L0008174     , L0008175     , L0008176     ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
  03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:21:15

  PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                         SOURCE IDs
 -----------                                         ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker            ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                 Residential

                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

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   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                                        ***
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  PAGE  69
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                              SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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   PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
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 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
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                                                Residential
   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                       ***
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  PAGE  76
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

 URBAN ID   URBAN POP                                    SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                 Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                     SOURCE IDs
  --------   ---------                                     ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***
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                                                              Residential
  URBAN ID    URBAN POP                                             SOURCE IDs
  --------    ---------                                             ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                   Residential

   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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                                                   Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0007310    , L0007311    , L0007312    , L0007313    , L0007314    , L0007315    , L0007316    ,
L0007317    ,

             L0007318    , L0007319    , L0007320    , L0007321    , L0007322    , L0007323    , L0007324    ,
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             L0007326    , L0007327    , L0007328    , L0007329    , L0007330    , L0007331    , L0007332    ,
L0007333    ,

             L0007334    , L0007335    , L0007336    , L0007337    , L0007338    , L0007339    , L0007340    ,
L0007341    ,

             L0007342    , L0007343    , L0007344    , L0007345    , L0007346    , L0007347    , L0007348    ,
L0007349    ,

             L0007350    , L0007351    , L0007352    , L0007353    , L0007354    , L0007355    , L0007356    ,
L0007357    ,

             L0007358    , L0007359    , L0007360    , L0007361    , L0007362    , L0007363    , L0007364    ,
L0007365    ,

             L0007366    , L0007367    , L0007368    , L0007369    , L0007370    , L0007371    , L0007372    ,
L0007373    ,

             L0007374    , L0007375    , L0007376    , L0007377    , L0007378    , L0007379    , L0007380    ,
L0007381    ,

             L0007382    , L0007383    , L0007384    , L0007385    , L0007386    , L0007387    , L0007388    ,
L0007389    ,

             L0007390    , L0007391    , L0007392    , L0007393    , L0007394    , L0007395    , L0007396    ,
L0007397    ,

             L0007398    , L0007399    , L0007400    , L0007401    , L0007402    , L0007403    , L0007404    ,
L0007405    ,

             L0007406    , L0007407    , L0007408    , L0007409    , L0007410    , L0007411    , L0007412    ,
L0007413    ,

             L0007414    , L0007415    , L0007416    , L0007417    , L0007418    , L0007419    , L0007420    ,
L0007421    ,

             L0007422    , L0007423    , L0007424    , L0007425    , L0007426    , L0007427    , L0007428    ,
L0007429    ,

             L0007430    , L0007431    , L0007432    , L0007433    , L0007434    , L0007435    , L0007436    ,
L0007437    ,

             L0007438    , L0007439    , L0007440    , L0007441    , L0007442    , L0007443    , L0007444    ,
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                                                 Residential
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             L0007446     , L0007447     , L0007448     , L0007449     , L0007450     , L0007451     , L0007452     ,
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             L0007454     , L0007455     , L0007456     , L0007457     , L0007458     , L0007459     , L0007460     ,
L0007461     ,

             L0007462     , L0007463     , L0007464     , L0007465     , L0007466     , L0007467     , L0007468     ,
L0007469     ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0007470     , L0007471     , L0007472     , L0007473     , L0007474     , L0007475     , L0007476     ,
L0007477     ,

             L0007478     , L0007479     , L0007480     , L0007481     , L0007482     , L0007483     , L0007484     ,
L0007485     ,

             L0007486     , L0007487     , L0007488     , L0007489     , L0007490     , L0007491     , L0007492     ,
L0007493     ,

             L0007494     , L0007495     , L0007496     , L0007497     , L0007498     , L0007499     , L0007500     ,
L0007501     ,

             L0007502     , L0007503     , L0007504     , L0007505     , L0007506     , L0007507     , L0007508     ,
L0007509     ,

             L0007510     , L0007511     , L0007512     , L0007513     , L0007514     , L0007515     , L0007516     ,
L0007517     ,

             L0007518     , L0007519     , L0007520     , L0007521     , L0007522     , L0007523     , L0007524     ,
L0007525     ,

             L0007526     , L0007527     , L0007528     , L0007529     , L0007530     , L0007531     , L0007532     ,
L0007533     ,

             L0007534     , L0007535     , L0007536     , L0007537     , L0007538     , L0007539     , L0007540     ,
L0007541     ,

             L0007542     , L0007543     , L0007544     , L0007545     , L0007546     , L0007547     , L0007548     ,
L0007549     ,

             L0007550     , L0007551     , L0007552     , L0007553     , L0007554     , L0007555     , L0007556     ,
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L0007573     ,

             L0007574     , L0007575     , L0007576     , L0007577     , L0007578     , L0007579     , L0007580     ,
L0007581     ,
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             L0007590    , L0007591    , L0007592    , L0007593    , L0007594    , L0007595    , L0007596    ,
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             L0007598    , L0007599    , L0007600    , L0007601    , L0007602    , L0007603    , L0007604    ,
L0007605    ,

             L0007606    , L0007607    , L0007608    , L0007609    , L0007610    , L0007611    , L0007612    ,
L0007613    ,

             L0007614    , L0007615    , L0007616    , L0007617    , L0007618    , L0007619    , L0007620    ,
L0007621    ,

             L0007622    , L0007623    , L0007624    , L0007625    , L0007626    , L0007627    , L0007628    ,
L0007629    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0007630    , L0007631    , L0007632    , L0007633    , L0007634    , L0007635    , L0007636    ,
L0007637    ,

             L0007638    , L0007639    , L0007640    , L0007641    , L0007642    , L0007643    , L0007644    ,
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L0007653    ,

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L0007661    ,

             L0007662    , L0007663    , L0007664    , L0007665    , L0007666    , L0007667    , L0007668    ,
L0007669    ,

             L0007670    , L0007671    , L0007672    , L0007673    , L0007674    , L0007675    , L0007676    ,
L0007677    ,

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L0007685    ,

             L0007686    , L0007687    , L0007688    , L0007689    , L0007690    , L0007691    , L0007692    ,
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L0007701    ,

             L0007702    , L0007703    , L0007704    , L0007705    , L0007706    , L0007707    , L0007708    ,
L0007709    ,

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                                                     Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
  03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0007790    , L0007791    , L0007792    , L0007793    , L0007794    , L0007795    , L0007796    ,
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L0007821    ,

             L0007822    , L0007823    , L0007824    , L0007825    , L0007826    , L0007827    , L0007828    ,
L0007829    ,

             L0007830    , L0007831    , L0007832    , L0007833    , L0007834    , L0007835    , L0007836    ,
L0007837    ,

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                                                     Residential
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L0007877    ,
             L0007878    , L0007879    , L0007880    , L0007881    , L0007882    , L0007883    , L0007884    ,
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             L0007886    , L0007887    , L0007888    , L0007889    , L0007890    , L0007891    , L0007892    ,
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             L0007894    , L0007895    , L0007896    , L0007897    , L0007898    , L0007899    , L0007900    ,
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             L0007902    , L0007903    , L0007904    , L0007905    , L0007906    , L0007907    , L0007908    ,
L0007909    ,
             L0007910    , L0007911    , L0007912    , L0007913    , L0007914    , L0007915    , L0007916    ,
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             L0007918    , L0007919    , L0007920    , L0007921    , L0007922    , L0007923    , L0007924    ,
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             L0007926    , L0007927    , L0007928    , L0007929    , L0007930    , L0007931    , L0007932    ,
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L0007941    ,
             L0007942    , L0007943    , L0007944    , L0007945    , L0007946    , L0007947    , L0007948    ,
L0007949    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0007950    , L0007951    , L0007952    , L0007953    , L0007954    , L0007955    , L0007956    ,
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L0007973    ,
             L0007974    , L0007975    , L0007976    , L0007977    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***
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                                   Residential
SOURCE ID: STCK1
 IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  329.1,  587.6, -526.7,   81.5,      2   42.0,  416.5,  582.1, -527.5,   39.4,
   3   42.0,  491.2,  559.0, -512.2,   -3.8,      4   42.0,  551.1,  519.0, -481.4,  -46.9,
   5   42.0,  594.1,  463.1, -436.0,  -88.6,      6   42.0,  619.2,  393.9, -378.1, -127.6,
   7   42.0,  625.4,  344.2, -340.2, -162.7,      8   42.0,  612.6,  284.1, -291.9, -192.9,
   9   42.0,  583.3,  231.7, -236.9, -218.2,     10   42.0,  587.6,  329.1, -246.0, -232.9,
  11   42.0,  582.1,  416.5, -247.7, -236.4,     12   42.0,  559.0,  491.2, -241.8, -232.7,
  13   42.0,  519.0,  551.1, -228.6, -222.0,     14   42.0,  463.1,  594.1, -208.5, -204.5,
  15   42.0,  393.9,  619.2, -182.0, -181.1,     16   42.0,  344.2,  625.4, -150.0, -168.1,
  17   42.0,  284.1,  612.6, -113.4, -149.9,     18   42.0,  231.7,  583.3,  -73.4, -121.0,
  19   42.0,  329.1,  587.6,  -60.9,  -81.5,     20   42.0,  416.5,  582.1,  -54.7,  -39.4,
  21   42.0,  491.2,  559.0,  -46.8,    3.8,     22   42.0,  551.1,  519.0,  -37.5,   46.9,
  23   42.0,  594.2,  463.1,  -27.1,   88.6,     24   42.0,  619.2,  393.9,  -15.8,  127.6,
  25   42.0,  625.4,  344.2,   -4.1,  162.7,     26   42.0,  612.6,  284.1,    7.8,  192.9,
  27   42.0,  583.3,  231.7,    5.2,  218.2,     28   42.0,  587.6,  329.1,  -83.0,  232.9,
  29   42.0,  582.1,  416.5, -168.8,  236.4,     30   42.0,  559.0,  491.2, -249.4,  232.7,
  31   42.0,  519.0,  551.1, -322.4,  222.0,     32   42.0,  463.1,  594.2, -385.7,  204.5,
  33   42.0,  393.9,  619.2, -437.2,  181.1,     34   42.0,  344.2,  625.4, -475.4,  168.1,
  35   42.0,  284.1,  612.6, -499.2,  149.9,     36   42.0,  231.7,  583.3, -509.9,  121.0,


SOURCE ID: STCK2
 IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  329.1,  587.6, -376.7,  105.7,      2   42.0,  416.5,  582.1, -384.0,   89.3,
   3   42.0,  491.2,  559.0, -379.6,   70.2,      4   42.0,  551.1,  519.0, -363.7,   49.0,
   5   42.0,  594.1,  463.1, -336.7,   26.4,      6   42.0,  619.2,  393.9, -300.2,    2.8,
   7   42.0,  625.4,  344.2, -286.1,  -20.7,      8   42.0,  612.6,  284.1, -263.4,  -43.7,
   9   42.0,  583.3,  231.7, -234.7,  -66.3,     10   42.0,  587.6,  329.1, -270.2,  -82.9,
  11   42.0,  582.1,  416.5, -297.6,  -92.9,     12   42.0,  559.0,  491.2, -315.9, -100.1,
  13   42.0,  519.0,  551.1, -324.6, -104.2,     14   42.0,  463.1,  594.1, -323.4, -105.1,
  15   42.0,  393.9,  619.2, -312.4, -103.3,     16   42.0,  344.2,  625.4, -292.0, -114.0,
  17   42.0,  284.1,  612.6, -262.6, -121.3,     18   42.0,  231.7,  583.3, -225.3, -118.8,
  19   42.0,  329.1,  587.6, -210.9, -105.7,     20   42.0,  416.5,  582.1, -198.2,  -89.3,
  21   42.0,  491.2,  559.0, -179.5,  -70.2,     22   42.0,  551.1,  519.0, -155.3,  -49.0,
  23   42.0,  594.2,  463.1, -126.4,  -26.4,     24   42.0,  619.2,  393.9,  -93.7,   -2.8,
  25   42.0,  625.4,  344.2,  -58.1,   20.7,     26   42.0,  612.6,  284.1,  -20.8,   43.7,
  27   42.0,  583.3,  231.7,    3.0,   66.3,     28   42.0,  587.6,  329.1,  -58.8,   82.9,
  29   42.0,  582.1,  416.5, -118.9,   92.9,     30   42.0,  559.0,  491.2, -175.4,  100.1,
  31   42.0,  519.0,  551.1, -226.5,  104.2,     32   42.0,  463.1,  594.2, -270.7,  105.1,
  33   42.0,  393.9,  619.2, -306.7,  103.3,     34   42.0,  344.2,  625.4, -333.4,  114.0,
  35   42.0,  284.1,  612.6, -350.0,  121.3,     36   42.0,  231.7,  583.3, -358.0,  118.8,


SOURCE ID: STCK3
 IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  329.1,  587.6, -217.1,  134.6,      2   42.0,  416.5,  582.1, -231.8,  145.5,
   3   42.0,  491.2,  559.0, -239.5,  152.0,      4   42.0,  551.1,  519.0, -239.9,  153.9,
   5   42.0,  594.1,  463.1, -233.0,  151.1,      6   42.0,  619.2,  393.9, -219.7,  143.7,
   7   42.0,  625.4,  344.2, -231.3,  132.0,      8   42.0,  612.6,  284.1, -235.9,  116.2,
   9   42.0,  583.3,  231.7, -235.4,   95.9,     10   42.0,  587.6,  329.1, -299.1,   76.7,
  11   42.0,  582.1,  416.5, -353.7,   59.3,     12   42.0,  559.0,  491.2, -397.6,   40.1,
  13   42.0,  519.0,  551.1, -429.4,   19.6,     14   42.0,  463.1,  594.1, -448.2,   -1.4,
  15   42.0,  393.9,  619.2, -453.3,  -22.8,     16   42.0,  344.2,  625.4, -444.7,  -59.2,
  17   42.0,  284.1,  612.6, -422.5,  -93.9,     18   42.0,  231.7,  583.3, -387.5, -119.6,
  19   42.0,  329.1,  587.6, -370.5, -134.6,     20   42.0,  416.5,  582.1, -350.4, -145.5,
  21   42.0,  491.2,  559.0, -319.6, -152.0,     22   42.0,  551.1,  519.0, -279.1, -153.9,
  23   42.0,  594.2,  463.1, -230.1, -151.1,     24   42.0,  619.2,  393.9, -174.2, -143.7,
  25   42.0,  625.4,  344.2, -112.9, -132.0,     26   42.0,  612.6,  284.1,  -48.2, -116.2,
  27   42.0,  583.3,  231.7,    3.7,  -95.9,     28   42.0,  587.6,  329.1,  -30.0,  -76.7,
  29   42.0,  582.1,  416.5,  -62.7,  -59.3,     30   42.0,  559.0,  491.2,  -93.6,  -40.1,
  31   42.0,  519.0,  551.1, -121.6,  -19.6,     32   42.0,  463.1,  594.2, -146.0,    1.4,
  33   42.0,  393.9,  619.2, -165.9,   22.8,     34   42.0,  344.2,  625.4, -180.7,   59.2,
  35   42.0,  284.1,  612.6, -190.1,   93.9,     36   42.0,  231.7,  583.3, -195.7,  119.6,


SOURCE ID: STCK4
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                                                 Residential
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  329.1,  587.6,  -74.4,  162.0,      2   42.0,  416.5,  582.1,  -96.0,  197.3,
    3   42.0,  491.2,  559.0, -114.8,  226.6,      4   42.0,  551.1,  519.0, -130.0,  249.0,
    5   42.0,  594.1,  463.1, -141.3,  263.8,      6   42.0,  619.2,  393.9, -149.0,  270.6,
    7   42.0,  625.4,  344.2, -183.7,  269.2,      8   42.0,  612.6,  284.1, -212.9,  259.7,
    9   42.0,  583.3,  231.7, -237.6,  241.2,     10   42.0,  587.6,  329.1, -326.5,  219.4,
   11   42.0,  582.1,  416.5, -405.5,  195.0,     12   42.0,  559.0,  491.2, -472.2,  164.8,
   13   42.0,  519.0,  551.1, -524.5,  129.5,     14   42.0,  463.1,  594.1, -560.9,   90.2,
   15   42.0,  393.9,  619.2, -580.2,   47.9,     16   42.0,  344.2,  625.4, -581.9,  -11.6,
   17   42.0,  284.1,  612.6, -566.0,  -70.8,     18   42.0,  231.7,  583.3, -532.8, -121.8,
   19   42.0,  329.1,  587.6, -513.2, -162.0,     20   42.0,  416.5,  582.1, -486.1, -197.3,
   21   42.0,  491.2,  559.0, -444.3, -226.6,     22   42.0,  551.1,  519.0, -388.9, -249.0,
   23   42.0,  594.2,  463.1, -321.8, -263.8,     24   42.0,  619.2,  393.9, -244.9, -270.6,
   25   42.0,  625.4,  344.2, -160.5, -269.2,     26   42.0,  612.6,  284.1,  -71.2, -259.7,
   27   42.0,  583.3,  231.7,    6.0, -241.2,     28   42.0,  587.6,  329.1,   -2.5, -219.4,
   29   42.0,  582.1,  416.5,  -11.0, -195.0,     30   42.0,  559.0,  491.2,  -19.1, -164.8,
   31   42.0,  519.0,  551.1,  -26.6, -129.5,     32   42.0,  463.1,  594.2,  -33.3,  -90.2,
   33   42.0,  393.9,  619.2,  -39.0,  -47.9,     34   42.0,  344.2,  625.4,  -43.5,   11.6,
   35   42.0,  284.1,  612.6,  -46.7,   70.8,     36   42.0,  231.7,  583.3,  -50.5,  121.8,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:21:15

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK5
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  329.1,  587.6, -512.5, -131.7,      2   42.0,  416.5,  582.1, -476.5, -168.1,
    3   42.0,  491.2,  559.0, -426.0, -199.3,      4   42.0,  551.1,  519.0, -362.6, -224.5,
    5   42.0,  594.1,  463.1, -288.1, -242.8,      6   42.0,  166.8,  133.7, -192.9,   83.0,
    7   42.0,  161.6,  117.8, -196.7,   58.7,      8   42.0,  151.6,   99.1, -195.4,   32.6,
    9   42.0,  136.9,   97.6, -205.5,    5.6,     10   42.0,  147.4,  118.8, -214.2,  -20.6,
   11   42.0,  154.0,  137.5, -217.4,  -45.8,     12   42.0,  155.9,  152.0, -214.1,  -69.7,
   13   42.0,  153.1,  161.9, -204.2,  -91.4,     14   42.0,  463.1,  594.1,  -54.3,  -56.6,
   15   42.0,  393.9,  619.2,  -55.8,   -8.7,     16   42.0,  344.2,  625.4,  -55.7,   23.7,
   17   42.0,  284.1,  612.6,  -53.8,   55.3,     18   42.0,  231.7,  583.3,  -50.3,   91.4,
   19   42.0,  329.1,  587.6,  -75.1,  131.7,     20   42.0,  416.5,  582.1, -105.7,  168.1,
   21   42.0,  491.2,  559.0, -133.1,  199.3,     22   42.0,  551.1,  519.0, -156.4,  224.5,
   23   42.0,  594.2,  463.1, -175.0,  242.8,     24   42.0,  166.8,  133.7,   59.1,  -83.0,
   25   42.0,  161.6,  117.8,   78.9,  -58.7,     26   42.0,  612.6,  284.1, -197.4,  252.5,
   27   42.0,  583.3,  231.7, -207.2,  241.3,     28   42.0,  587.6,  329.1, -296.3,  218.7,
   29   42.0,  154.0,  137.5,   79.9,   45.8,     30   42.0,  155.9,  152.0,   62.0,   69.7,
   31   42.0,  153.1,  161.9,   42.3,   91.4,     32   42.0,  463.1,  594.2, -539.9,   56.6,
   33   42.0,  393.9,  619.2, -563.4,    8.7,     34   42.0,  344.2,  625.4, -569.7,  -23.7,
   35   42.0,  284.1,  612.6, -558.8,  -55.3,     36   42.0,  231.7,  583.3, -532.9,  -91.4,


 SOURCE ID: STCK6
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  329.1,  587.6, -363.2,  -99.4,      2   42.0,  416.5,  582.1, -335.0, -110.3,
    3   42.0,  491.2,  559.0, -296.7, -117.8,      4   42.0,  551.1,  519.0, -249.4, -121.8,
    5   42.0,  594.1,  463.1, -194.5, -122.1,      6   42.0,  619.2,  393.9, -134.4, -118.6,
    7   42.0,  625.4,  344.2, -101.8, -111.6,      8   42.0,  612.6,  284.1,  -66.0, -101.1,
    9   42.0,  583.3,  231.7,  -30.3,  -88.6,     10   42.0,  587.6,  329.1,  -65.1,  -69.4,
   11   42.0,  154.0,  137.5, -275.2,   95.6,     12   42.0,  155.9,  152.0, -295.5,   59.6,
   13   42.0,  153.1,  161.9, -306.8,   21.7,     14   42.0,  145.6,  166.9, -308.9,  -16.8,
   15   42.0,  133.7,  166.8, -301.5,  -54.8,     16   42.0,  344.2,  625.4, -201.1,   70.4,
   17   42.0,  284.1,  612.6, -205.2,   76.0,     18   42.0,  231.7,  583.3, -203.0,   85.5,
   19   42.0,  329.1,  587.6, -224.4,   99.4,     20   42.0,  416.5,  582.1, -247.1,  110.3,
   21   42.0,  491.2,  559.0, -262.3,  117.8,     22   42.0,  551.1,  519.0, -269.6,  121.8,
   23   42.0,  594.2,  463.1, -268.6,  122.1,     24   42.0,  619.2,  393.9, -259.5,  118.6,
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                                                 Residential
   25    42.0,  625.4,  344.2, -242.5,  111.6,      26    42.0,  612.6,  284.1, -218.1,  101.1,
   27    42.0,  583.3,  231.7, -201.3,   88.6,      28    42.0,  587.6,  329.1, -263.9,   69.4,
   29    42.0,  582.1,  416.5, -318.6,   44.0,      30    42.0,  559.0,  491.2, -363.5,   17.2,
   31    42.0,  519.0,  551.1, -397.3,  -10.1,      32    42.0,  463.1,  594.2, -419.2,  -37.0,
   33    42.0,  393.9,  619.2, -428.2,  -62.5,      34    42.0,  344.2,  625.4, -424.3,  -70.4,
   35    42.0,  284.1,  612.6, -407.4,  -76.0,      36    42.0,  231.7,  583.3, -380.3,  -85.5,


 SOURCE ID: STCK7
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  329.1,  587.6, -205.7,  -70.9,       2    42.0,  416.5,  582.1, -184.9,  -54.9,
    3    42.0,  491.2,  559.0, -158.5,  -37.2,       4    42.0,  551.1,  519.0, -127.3,  -18.4,
    5    42.0,  594.1,  463.1,  -92.2,    1.0,       6    42.0,  619.2,  393.9,  -55.0,   20.3,
    7    42.0,  625.4,  344.2,  -47.7,   39.0,       8    42.0,  612.6,  284.1,  -39.0,   56.6,
    9    42.0,  583.3,  231.7,  -31.1,   71.4,      10    42.0,  587.6,  329.1,  -93.6,   88.1,
   11    42.0,  582.1,  416.5, -153.4,  106.1,      12    42.0,  559.0,  491.2, -208.4,  121.0,
   13    42.0,  519.0,  551.1, -257.2,  132.2,      14    42.0,  463.1,  594.1, -298.1,  139.3,
   15    42.0,  393.9,  619.2, -329.9,  141.9,      16    42.0,  344.2,  625.4, -351.8,  124.4,
   17    42.0,  284.1,  612.6, -362.9,  103.1,      18    42.0,  231.7,  583.3, -363.0,   84.8,
   19    42.0,  329.1,  587.6, -381.9,   70.9,      20    42.0,  416.5,  582.1, -397.2,   54.9,
   21    42.0,  491.2,  559.0, -400.5,   37.2,      22    42.0,  551.1,  519.0, -391.7,   18.4,
   23    42.0,  594.2,  463.1, -370.9,   -1.0,      24    42.0,  619.2,  393.9, -338.8,  -20.3,
   25    42.0,  625.4,  344.2, -296.5,  -39.0,      26    42.0,  612.6,  284.1, -245.2,  -56.6,
   27    42.0,  583.3,  231.7, -200.6,  -71.4,      28    42.0,  587.6,  329.1, -235.4,  -88.1,
   29    42.0,  582.1,  416.5, -263.1, -106.1,      30    42.0,  559.0,  491.2, -282.8, -121.0,
   31    42.0,  519.0,  551.1, -293.9, -132.2,      32    42.0,  463.1,  594.2, -296.1, -139.3,
   33    42.0,  393.9,  619.2, -289.3, -141.9,      34    42.0,  344.2,  625.4, -273.7, -124.4,
   35    42.0,  284.1,  612.6, -249.7, -103.1,      36    42.0,  231.7,  583.3, -220.2,  -84.8,


 SOURCE ID: STCK8
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  329.1,  587.6, -135.5,  -57.0,       2    42.0,  416.5,  582.1, -118.2,  -29.0,
    3    42.0,  491.2,  559.0,  -97.3,   -0.2,       4    42.0,  551.1,  519.0,  -73.5,   28.7,
    5    42.0,  594.1,  463.1,  -47.4,   56.7,       6    42.0,  619.2,  393.9,  -20.5,   83.0,
    7    42.0,  625.4,  344.2,  -24.6,  106.8,       8    42.0,  612.6,  284.1,  -28.0,  127.3,
    9    42.0,  583.3,  231.7,  -32.5,  142.9,      10    42.0,  587.6,  329.1, -107.5,  158.3,
   11    42.0,  582.1,  416.5, -179.2,  172.9,      12    42.0,  559.0,  491.2, -245.5,  182.2,
   13    42.0,  519.0,  551.1, -304.2,  186.0,      14    42.0,  463.1,  594.1, -353.8,  184.2,
   15    42.0,  393.9,  619.2, -392.6,  176.4,      16    42.0,  344.2,  625.4, -419.5,  147.5,
   17    42.0,  284.1,  612.6, -433.6,  114.1,      18    42.0,  231.7,  583.3, -434.5,   83.3,
   19    42.0,  329.1,  587.6, -452.0,   57.0,      20    42.0,  416.5,  582.1, -463.9,   29.0,
   21    42.0,  491.2,  559.0, -461.7,    0.2,      22    42.0,  551.1,  519.0, -445.5,  -28.7,
   23    42.0,  594.2,  463.1, -415.7,  -56.7,      24    42.0,  619.2,  393.9, -373.3,  -83.0,
   25    42.0,  625.4,  344.2, -319.6, -106.8,      26    42.0,  612.6,  284.1, -256.1, -127.3,
   27    42.0,  583.3,  231.7, -199.1, -142.9,      28    42.0,  587.6,  329.1, -221.6, -158.3,
   29    42.0,  582.1,  416.5, -237.3, -172.9,      30    42.0,  559.0,  491.2, -245.8, -182.2,
   31    42.0,  519.0,  551.1, -246.8, -186.0,      32    42.0,  463.1,  594.2, -240.4, -184.2,
   33    42.0,  393.9,  619.2, -226.6, -176.4,      34    42.0,  344.2,  625.4, -205.9, -147.5,
   35    42.0,  284.1,  612.6, -179.0, -114.1,      36    42.0,  231.7,  583.3, -148.7,  -83.3,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK9
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  329.1,  587.6,    1.5,   53.2,       2    42.0,  416.5,  582.1,   -2.4,  103.4,
    3    42.0,  491.2,  559.0,   -6.2,  150.3,       4    42.0,  551.1,  519.0,   -9.9,  192.7,
    5    42.0,  594.1,  463.1,  -13.3,  229.3,       6    42.0,  619.2,  393.9,  -16.9,  258.9,
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   7   42.0,  625.4,  344.2,  -51.6,  280.6,       8   42.0,  612.6,  284.1,  -84.8,  293.8,
   9   42.0,  583.3,  231.7, -117.3,  297.0,      10   42.0,  587.6,  329.1, -217.8,  295.3,
  11   42.0,  582.1,  416.5, -311.6,  288.7,      12   42.0,  559.0,  491.2, -396.0,  273.3,
  13   42.0,  519.0,  551.1, -468.3,  249.6,      14   42.0,  463.1,  594.1, -526.4,  218.3,
  15   42.0,  393.9,  619.2, -568.5,  180.0,      16   42.0,  344.2,  625.4, -593.3,  120.5,
  17   42.0,  284.1,  612.6, -600.1,   57.3,      18   42.0,  231.7,  583.3, -588.7,   -1.5,
  19   42.0,  329.1,  587.6, -589.1,  -53.2,      20   42.0,  416.5,  582.1, -579.8, -103.4,
  21   42.0,  491.2,  559.0, -552.8, -150.3,      22   42.0,  551.1,  519.0, -509.1, -192.7,
  23   42.0,  594.2,  463.1, -449.8, -229.3,      24   42.0,  619.2,  393.9, -376.9, -258.9,
  25   42.0,  625.4,  344.2, -292.6, -280.6,      26   42.0,  612.6,  284.1, -199.4, -293.8,
  27   42.0,  583.3,  231.7, -114.3, -297.0,      28   42.0,  587.6,  329.1, -111.3, -295.3,
  29   42.0,  582.1,  416.5, -104.9, -288.7,      30   42.0,  559.0,  491.2,  -95.3, -273.3,
  31   42.0,  519.0,  551.1,  -82.8, -249.6,      32   42.0,  463.1,  594.2,  -67.8, -218.3,
  33   42.0,  393.9,  619.2,  -50.7, -180.0,      34   42.0,  344.2,  625.4,  -32.1, -120.5,
  35   42.0,  284.1,  612.6,  -12.5,  -57.3,      36   42.0,  231.7,  583.3,    5.4,    1.5,


SOURCE ID: STCK10
 IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  329.1,  587.6,  -18.0,  155.4,       2   42.0,  416.5,  582.1,  -39.3,  200.6,
   3   42.0,  491.2,  559.0,  -59.5,  239.7,       4   42.0,  551.1,  519.0,  -77.9,  271.4,
   5   42.0,  594.1,  463.1,  -93.9,  295.0,       6   42.0,  619.2,  393.9, -107.7,  309.6,
   7   42.0,  625.4,  344.2, -149.8,  314.8,       8   42.0,  612.6,  284.1, -187.4,  310.4,
   9   42.0,  583.3,  231.7, -221.3,  295.6,      10   42.0,  587.6,  329.1, -319.9,  275.8,
  11   42.0,  582.1,  416.5, -408.8,  251.7,      12   42.0,  559.0,  491.2, -485.3,  220.0,
  13   42.0,  519.0,  551.1, -547.0,  181.6,      14   42.0,  463.1,  594.1, -592.1,  137.7,
  15   42.0,  393.9,  619.2, -619.2,   89.2,      16   42.0,  344.2,  625.4, -627.5,   22.3,
  17   42.0,  284.1,  612.6, -616.7,  -45.3,      18   42.0,  231.7,  583.3, -587.2, -105.5,
  19   42.0,  329.1,  587.6, -569.6, -155.4,      20   42.0,  416.5,  582.1, -542.8, -200.6,
  21   42.0,  491.2,  559.0, -499.5, -239.7,      22   42.0,  551.1,  519.0, -441.1, -271.4,
  23   42.0,  594.2,  463.1, -369.2, -295.0,      24   42.0,  619.2,  393.9, -286.2, -309.6,
  25   42.0,  625.4,  344.2, -194.4, -314.8,      26   42.0,  612.6,  284.1,  -96.7, -310.4,
  27   42.0,  583.3,  231.7,  -10.3, -295.6,      28   42.0,  587.6,  329.1,   -9.2, -275.8,
  29   42.0,  582.1,  416.5,   -7.7, -251.7,      30   42.0,  559.0,  491.2,   -6.0, -220.0,
  31   42.0,  519.0,  551.1,   -4.1, -181.6,      32   42.0,  463.1,  594.2,   -2.1, -137.7,
  33   42.0,  393.9,  619.2,   -0.0,  -89.2,      34   42.0,  344.2,  625.4,    2.1,  -22.3,
  35   42.0,  284.1,  612.6,    4.1,   45.3,      36   42.0,  231.7,  583.3,    3.9,  105.5,


SOURCE ID: STCK11
 IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  118.8,  147.4,  -76.1,  -44.9,       2   42.0,  137.5,  154.0,  -70.3,  -44.8,
   3   42.0,  152.0,  155.9,  -62.3,  -43.4,       4   42.0,  161.9,  153.1,  -52.4,  -40.6,
   5   42.0,  166.9,  145.6,  -41.0,  -36.6,       6   42.0,  177.3,  154.0, -266.8,   80.1,
   7   42.0,  174.4,  136.4, -269.1,   45.9,       8   42.0,  166.3,  114.7, -263.1,   10.4,
   9   42.0,  153.1,   89.5, -249.2,  -25.6,      10   42.0,  166.3,  114.7, -254.2,  -60.7,
  11   42.0,  174.4,  136.4, -251.6,  -93.9,      12   42.0,  155.9,  152.0,  -32.6,   15.7,
  13   42.0,  153.1,  161.9,  -40.3,   24.1,      14   42.0,  145.6,  166.9,  -46.8,   31.8,
  15   42.0,  133.7,  166.8,  -51.9,   38.6,      16   42.0,  117.8,  161.6,  -55.3,   44.2,
  17   42.0,   99.1,  151.6,  -57.1,   48.0,      18   42.0,   97.6,  136.9,  -57.2,   43.1,
  19   42.0,  118.8,  147.4,  -71.3,   44.9,      20   42.0,  137.5,  154.0,  -83.7,   44.8,
  21   42.0,  152.0,  155.9,  -93.6,   43.4,      22   42.0,  161.9,  153.1, -100.7,   40.6,
  23   42.0,  166.9,  145.6, -104.6,   36.6,      24   42.0,  166.8,  133.7, -105.5,   31.5,
  25   42.0,  161.6,  117.8, -103.1,   25.5,      26   42.0,  151.6,   99.1,  -97.6,   18.6,
  27   42.0,  136.9,   97.6,  -91.9,   11.2,      28   42.0,  147.4,  118.8, -104.3,    2.4,
  29   42.0,  154.0,  137.5, -113.6,   -6.7,      30   42.0,  155.9,  152.0, -119.4,  -15.7,
  31   42.0,  153.1,  161.9, -121.6,  -24.1,      32   42.0,  145.6,  166.9, -120.1,  -31.8,
  33   42.0,  133.7,  166.8, -114.9,  -38.6,      34   42.0,  117.8,  161.6, -106.3,  -44.2,
  35   42.0,   99.1,  151.6,  -94.4,  -48.0,      36   42.0,   97.6,  136.9,  -79.6,  -43.1,


SOURCE ID: STCK12
 IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
   1   42.0,  100.8,  126.5,  -71.5,   42.3,       2   42.0,  117.5,  128.9,  -82.5,   41.1,
   3   42.0,  130.7,  127.4,  -91.1,   38.6,       4   42.0,  139.8,  122.0,  -96.8,   34.9,
   5   42.0,  144.8,  112.9,  -99.6,   30.2,       6   42.0,  145.3,  101.7,  -99.5,   24.5,
   7   42.0,  141.5,   96.9,  -96.2,   18.1,       8   42.0,  133.3,   89.1,  -90.1,   11.2,
```

```
                                                   Residential
    9    42.0,  122.7,   81.0,  -82.8,    3.1,     10   42.0,  126.5,  100.8,  -92.7,   -8.2,
   11    42.0,  128.9,  117.5,  -99.8,  -18.1,     12   42.0,  127.4,  130.7, -103.9,  -27.4,
   13    42.0,  122.0,  139.8, -104.8,  -35.8,     14   42.0,  112.9,  144.8, -102.5,  -43.2,
   15    42.0,  101.7,  145.3,  -97.2,  -48.6,     16   42.0,   96.9,  141.5,  -88.8,  -47.8,
   17    42.0,  284.1,  612.6, -674.9,  144.9,     18   42.0,  231.7,  583.3, -677.6,   71.8,
   19    42.0,  329.1,  587.6, -689.4,    3.5,     20   42.0,  416.5,  582.1, -688.3,  -64.9,
   21    42.0,  491.2,  559.0, -666.4, -131.3,     22   42.0,  551.1,  519.0, -624.2, -193.8,
   23    42.0,  594.2,  463.1, -563.1, -250.3,     24   42.0,  619.2,  393.9, -484.9, -299.2,
   25    42.0,  141.5,   96.9,   -0.6,  -18.1,     26   42.0,  133.3,   89.1,    1.0,  -11.2,
   27    42.0,  122.7,   81.0,    1.8,   -3.1,     28   42.0,  126.5,  100.8,   -8.1,    8.2,
   29    42.0,  128.9,  117.5,  -17.7,   18.1,     30   42.0,  127.4,  130.7,  -26.8,   27.4,
   31    42.0,  122.0,  139.8,  -35.0,   35.8,     32   42.0,  112.9,  144.8,  -42.2,   43.2,
   33    42.0,  101.7,  145.3,  -48.2,   48.6,     34   42.0,   96.9,  141.5,  -52.6,   47.8,
   35    42.0,  284.1,  612.6,   62.3, -144.9,     36   42.0,   81.0,  122.7,  -58.3,   42.3,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK13
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  114.7,  166.3,  -98.7,   58.7,      2   42.0,  136.4,  174.4, -112.8,   55.1,
    3    42.0,  154.0,  177.3, -123.4,   49.8,      4   42.0,  166.9,  174.8, -130.2,   43.1,
    5    42.0,  174.8,  166.9, -133.1,   35.0,      6   42.0,  177.3,  154.0, -132.0,   25.8,
    7    42.0,  174.4,  136.4, -126.8,   15.9,      8   42.0,  166.3,  114.7, -117.8,    5.5,
    9    42.0,  153.1,   89.5, -105.3,   -5.1,     10   42.0,  166.3,  114.7, -116.1,  -15.6,
   11    42.0,  174.4,  136.4, -123.3,  -25.5,     12   42.0,  177.3,  154.0, -126.9,  -34.7,
   13    42.0,  174.8,  166.9, -126.5,  -42.8,     14   42.0,  166.9,  174.8, -122.4,  -49.7,
   15    42.0,  154.0,  177.3, -114.5,  -55.0,     16   42.0,  136.4,  174.4, -103.1,  -58.6,
   17    42.0,  114.7,  166.3,  -88.6,  -60.5,     18   42.0,   89.5,  153.1,  -71.4,  -60.5,
   19    42.0,  114.7,  166.3,  -67.6,  -58.7,     20   42.0,  136.4,  174.4,  -61.7,  -55.1,
   21    42.0,  154.0,  177.3,  -53.9,  -49.8,     22   42.0,  166.9,  174.8,  -44.5,  -43.1,
   23    42.0,  174.8,  166.9,  -33.8,  -35.0,     24   42.0,  177.3,  154.0,  -22.0,  -25.8,
   25    42.0,  174.4,  136.4,   -9.6,  -15.9,     26   42.0,  166.3,  114.7,    3.2,   -5.5,
   27    42.0,  153.1,   89.5,   15.8,    5.1,     28   42.0,  166.3,  114.7,    1.4,   15.6,
   29    42.0,  174.4,  136.4,  -13.1,   25.5,     30   42.0,  177.3,  154.0,  -27.2,   34.7,
   31    42.0,  174.8,  166.9,  -40.4,   42.8,     32   42.0,  166.9,  174.8,  -52.4,   49.7,
   33    42.0,  154.0,  177.3,  -62.8,   55.0,     34   42.0,  136.4,  174.4,  -71.3,   58.6,
   35    42.0,  114.7,  166.3,  -77.7,   60.5,     36   42.0,   89.5,  153.1,  -81.7,   60.5,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008170     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008171     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008172     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008173     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008174     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008175     ; SOURCE TYPE = VOLUME   :
```

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                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008176     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008177     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008178     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008179     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0008180     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008181     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008182     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008183     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008184     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008185     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008186     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005746     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005747     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005748     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential
                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005750     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005751     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005752     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0005753     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15
```

```
   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0005754     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005755     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005756     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005757     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005758     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
```

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 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005759     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005760     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005761     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005762     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005763     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0005764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005765     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005766     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005767     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005768     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005769     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005772     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005774     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005775     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005776     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005777     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0005778     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005779     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005780     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0005783     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005784     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005785     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005786     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005787     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005788     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 107
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005789     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005790     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005791     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005792     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005793     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005794     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005795     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005796     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0005797     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005799     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005800     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005801     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005802     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005803     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005804     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005805     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005806     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005807     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005808     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007995     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007996     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007997     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007998     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007999     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008000     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008001     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008002     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008003     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008004     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 113
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008005     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008006     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008007     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008008     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008009     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008010     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008011     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008012     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008013     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008014     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008015     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
 SOURCE ID = L0008016     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008017     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008018     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008019     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008020     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                       Residential
.00000E+00


 SOURCE ID = L0008021     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008022     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008023     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008024     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008025     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                  Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008026     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008027     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008028     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008029     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008030     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                         Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008031     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008032     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008033     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008034     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 119
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0008035     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008036     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008037     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008038     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008039     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                   Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0008040     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008041     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008042     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008043     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008044     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008045     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008046     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008047     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008048     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008049     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 122
```

```
                                                  Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008050     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008051     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008053     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008054     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
```

```
                                                    Residential
   13:21:15

   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008055     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008056     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008057     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008058     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008059     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                        Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0008060     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008061     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008062     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008063     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008064     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008065     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008066     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008067     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 126
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008070     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008071     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008072     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008074     ; SOURCE TYPE = VOLUME    :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0008075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008078     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008079     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008080     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008081     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008082     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008083     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008084     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 129
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008085     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008086     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008087     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008088     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008089     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 130
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008090     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008091     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008092     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0008093     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008094     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008095     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008096     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008097     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0008098     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008099     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008100     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008101     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008102     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0008103      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0008104      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008105      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0008106      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0008107      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
```

```
                                                 Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008108     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008109     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 134
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008110     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008111     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential

 SOURCE ID = L0008112     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008113     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008114     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 135
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008115     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008116     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                          Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008117     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008118     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008119     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008120     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008121     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008122     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008123     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008124     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 137
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008125     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008126     ; SOURCE TYPE = VOLUME   :
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                  Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008127     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008128     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008129     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008130     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Residential

```
 SOURCE ID = L0008131     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008132     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008133     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008134     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   13:21:15

   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008135     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008136     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008137     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008138     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008139     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008140     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                       Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008141     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008142     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008144     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                    Residential
 SOURCE ID = L0008145     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008146     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008147     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008148     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008149     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                              Residential
 - - - - - - - -


  SOURCE ID = L0008150     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008151     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008152     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008153     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008154     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008155     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008156     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008157     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008158     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008159     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 144
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                     Residential

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008160     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008161     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008162     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008163     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008164     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
```

```
  PAGE 145
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008165     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008166     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008167     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008168     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008169     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005984     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005985     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005986     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005987     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005988     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005989     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005990     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005991     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005992     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005993     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 148
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005994     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005995     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005996     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005997     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005998     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 149
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005999     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006000     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006001     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006002     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                       Residential

 SOURCE ID = L0006003     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006004     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006005     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006006     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006007     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006008     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006009     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006010     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006011     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006012     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006013     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006014     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006015     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006016     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006017     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006018     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006019     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006020     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006021     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006022     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006023     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006024     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006025     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006026     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006027     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006028     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006029     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006030     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006031     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                                  Residential
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006032     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006033     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 156
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006034     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006035     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                        Residential
 SOURCE ID = L0006036     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006037     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006038     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006039     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006040     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0006041     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006042     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006043     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006044     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006045     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                        Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006046     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006047     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006048     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 159
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006049     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006050     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006051     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006052     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006053     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006054     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006055     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006056     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006057     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006058     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006059     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006060     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006061     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006062     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006063     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006065     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006066     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006067     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006068     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006069     ; SOURCE TYPE = VOLUME    :
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006070     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006071     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006072     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0006074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006078     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 165
 **MODELOPTs:   RegDFAULT CONC       ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006079     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006080     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006081     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006082     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006083     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                             Residential
                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006084     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006085     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006086     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006087     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006088     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
  PAGE 167
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006089     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006090     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006091     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006092     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006093     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
```

```
                                                 Residential
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006094     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006095     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006096     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006097     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006098     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 169
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006099     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006100     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006101     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006102     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006103     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 170
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006104     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006105     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006106     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006107     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006108     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006109     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006110     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006111     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006112     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                                  Residential
  SOURCE ID = L0006113     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
     03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                    ***
    13:21:15

    PAGE 172
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
 SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - -


  SOURCE ID = L0006114     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006115     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006116     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006117     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00


 SOURCE ID = L0006118     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006119     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006120     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006121     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006122     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006123     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006124     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006125     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006126     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006127     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006128     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006129     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006130     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006131     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006132     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006133     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***    
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***    
   13:21:15

   PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN 

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006134     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006135     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006136     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
```

```
                                                        Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006137     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006138     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 177
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006139     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006140     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006141     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006142     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006143     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 178
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006144     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006145     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006146     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006147     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006148     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006149     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006150     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006151     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006152     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006153     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 180
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006154     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006155     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006156     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006157     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006158     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 181
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006159     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006160     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006161     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006162     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006163     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006164     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0006165     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006166     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006167     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006168     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006169     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006170     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006171     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006172     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006173     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006174     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                    Residential
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0006175      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0006176      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0006177      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0006178      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 185
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006179      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006180     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006181     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006182     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006183     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 186
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0006184     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006185     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006186     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006187     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006188     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                   Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0006189     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006190     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006191     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006192     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006193     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006194     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006195     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006196     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006197     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006198     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 189
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```
                                                     Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006199     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006200     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006201     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006202     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006203     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
```

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                                                      Residential
   13:21:15

   PAGE 190
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006204     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006205     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006206     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006207     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006208     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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                                                         Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006209     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006210     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006211     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006212     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006213     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

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                                                           Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 192
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006214     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006215     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006216     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006217     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006218     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006219     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006220     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006221     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006222     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006223     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 194
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006224     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006225     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006226     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006227     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006228     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 195
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006229     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006230     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006231     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006232     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006233     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 196
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006234     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006235     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006236     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006237     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006238     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006239     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006240     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006241     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0006242     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006243     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006244     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006245     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006246     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006247     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006248     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006249     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006250     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006251     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                 Residential
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006252     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006253     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
     03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006254     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006255     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006256     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006257     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006258     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006259     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006260     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006261     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006262     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006263     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006264     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006265     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                          Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006266     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006267     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006268     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 203
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006269     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006270     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006271     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006272     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006273     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006274     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006275     ; SOURCE TYPE = VOLUME   :
```

```
                                                Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006276     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006277     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006278     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 205
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006279     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006280     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006281     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006282     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006283     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006284     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006285     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006286     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006287     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006288     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006289     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006290     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006291     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006292     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006293     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                   Residential
 SOURCE ID = L0006294     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006295     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006296     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006297     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006298     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                    Residential
 - - - - - - - -


  SOURCE ID = L0006299     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006300     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006301     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006302     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006303     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 210
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006304     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006305     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006306     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006307     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006308     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                               Residential

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0006309     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006310     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006311     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006312     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006313     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15
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                                                   Residential

    PAGE 212
  **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
 SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - -


  SOURCE ID = L0006314     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006315     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006316     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006317     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006318     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
 ♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
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                                                     Residential
   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                             ***
  13:21:15

  PAGE 213
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006319     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006320     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006321     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006322     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006323     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006324     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006325     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006326     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006327     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006328     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

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                                                               Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 215
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006329     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006330     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006331     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006332     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006333     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006334     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006335     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006336     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006337     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006338     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006339     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006340     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006341     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006342     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006343     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
   13:21:15

   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006344     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006345     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006346     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006347     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006348     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 219
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006349     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006350     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006351     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006352     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006353     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006354     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006355     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006356     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006357     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006358     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***   
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***   
   13:21:15

   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006360     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006361     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006362     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006363     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006364     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006365     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 223
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006369     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006370     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0006371     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006372     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006373     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006374     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006375     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006376     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006377     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006378     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 225
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006379     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006380     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006381     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006382     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006383     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 226
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006384     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006385     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006386     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006387     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006388     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006389     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential

 SOURCE ID = L0006390     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006391     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006392     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006393     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006394     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                      Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006396     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006397     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006398     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006399     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006400     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006401     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006402     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006403     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 230
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006404     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006405     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006406     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006407     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006408     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0006409     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006410     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006411     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006412     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0006414     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006415     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006416     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006417     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006418     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 233
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                   Residential
                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006419     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006420     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006421     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006423     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15
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                                                    Residential
   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006424     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006425     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006426     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA      :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA      :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
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 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA5        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA6        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK1        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 236
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK4        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK5        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK6        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                   Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK7        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK8        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK9        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK10       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK11       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK13       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006427     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006428     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0006429     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006430     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006433     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00


 SOURCE ID = L0006434     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 240
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006435     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006436     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006437     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006438     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006439      ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006440      ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006441      ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006442      ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006443      ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006444     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006445     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006446     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006447     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006448     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006449     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006450     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006451     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006452     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                               Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006453     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006454     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006455     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006456     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006457     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                           Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006458     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006459     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006460     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006461     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006462     ; SOURCE TYPE = VOLUME    :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006463     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006464     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006465     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006466     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006467     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006468     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006469     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 247
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006470     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006471     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006472     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006473     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006474     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 248
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006475     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006476     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006477     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006478     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006479     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 249
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006480     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0006481     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006482     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006483     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006484     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 250
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006485     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0006486     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006487     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006488     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006489     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 251
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006490     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                      Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006491     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006492     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006493     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006494     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 252
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006495     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006496     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006497     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006498     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006499     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 253
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                       Residential

 SOURCE ID = L0006500     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006501     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006502     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006503     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006504     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 254
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
```

```
                                                        Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0006505     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006506     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006507     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006508     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006509     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 255
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                 Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006510     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006511     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006512     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006513     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006514     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 256
```

```
                                                     Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006515     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006516     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006517     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006518     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006519     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                Residential
   13:21:15

   PAGE 257
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006520     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006521     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006522     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006523     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006524     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 258
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006525     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006526     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006527     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006528     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006529     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 259
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006531     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006532     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006533     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006534     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 260
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006535     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006536     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006537     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006538     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006539     ; SOURCE TYPE = VOLUME   :
```

```
                                                       Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 261
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006540     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006541     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006542     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006543     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006544     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 262
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006545     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006546     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006547     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006548     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                   Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006549     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 263
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006550     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006551     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006552     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006553     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 264
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006555     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006556     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006557     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                          Residential
 SOURCE ID = L0006558     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006559     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 265
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006560     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006561     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006562     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0006563     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006564     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 266
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006565     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006566     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006567     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0006568      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0006569      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 267
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006570      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0006571      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0006572      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006573     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006574     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 268
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006575     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006576     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                      Residential

 SOURCE ID = L0006577     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006578     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006579     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 269
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006580     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006581     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006582     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006583     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006584     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 270
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006585     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006586     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006587     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006588     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006589     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 271
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006590     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006591     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006592     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006593     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006594     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 272
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006595     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                 Residential


 SOURCE ID = L0006596     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006597     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006598     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006599     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***    
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***    
   13:21:15

   PAGE 273
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006600     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006601     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006602     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006603     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006604     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 274
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006605     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006606     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006607     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006608     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006609     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 275
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                       Residential
 SOURCE ID = L0006610     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006611     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006612     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006613     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006614     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 276
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                   Residential
 - - - - - - - -


  SOURCE ID = L0006615     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006616     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006617     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006618     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006619     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 277
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                     Residential
     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006620     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006621     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006622     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006623     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006624     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 278
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0006625     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006626     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006627     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006628     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006629     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                Residential

   PAGE 279
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006630     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006631     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006632     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006633     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006634     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
```

```
                                                   Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                        ***
   13:21:15

   PAGE 280
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006635     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006636     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006637     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006638     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006639     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 281
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006640     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006641     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006642     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006643     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006644     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 282
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006645     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006646     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006647     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006648     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006649     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 283
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006650     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006651     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006652     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006653     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006654     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 284
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006655     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006656     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006657     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006658     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                      Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006659     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 285
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006660     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006661     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006662     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006663     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006664     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 286
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006665     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006666     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006667     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006668     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006669     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 287
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006670     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006671     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006672     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006673     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006674     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 288
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006675     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006676     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006677     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006678     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006679     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 289
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006680     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006681     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006682     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006683     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006684     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 290
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006685     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006686     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                       Residential
 SOURCE ID = L0006687     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006688     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006689     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 291
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006690     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006691     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00


 SOURCE ID = L0006692     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006693     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006694     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 292
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006695     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006696     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006697     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006698     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006699     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 293
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006700     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006701     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006702     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006703     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006704     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 294
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006705     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006706     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006707     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006708     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006709     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 295
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006710     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                       Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006711     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006712     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006713     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006714     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 296
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006715     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006716     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006717     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006718     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006719     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 297
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006720     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006721     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006722     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006723     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006724     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 298
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0006725     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006726     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006727     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006728     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006729     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 299
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0006730     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006731     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006732     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006733     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006734     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 300
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                   Residential
                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006735     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006736     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006737     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006738     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006739     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
```

```
                                                                 Residential
   PAGE 301
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR 
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006740     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6 
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12 
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18 
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24 
.00000E+00


 SOURCE ID = L0006741     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6 
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12 
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18 
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24 
.00000E+00


 SOURCE ID = L0006742     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6 
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12 
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18 
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24 
.00000E+00


 SOURCE ID = L0006743     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6 
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12 
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18 
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24 
.00000E+00


 SOURCE ID = L0006744     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6 
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12 
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18 
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24 
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006745     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006746     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006747     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006748     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 303
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006750     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006751     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 304
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006759     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 305
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006760     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006761     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006762     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006763     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                                 Residential
 SOURCE ID = L0006764     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 306
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006765     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006766     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006767     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006768     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00


 SOURCE ID = L0006769     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 307
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006770     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006771     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006772     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006773     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006774     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 308
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006775     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006776     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006777     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006778     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006779     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 309
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006780     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006781     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006782     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006783     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 310
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006785     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006786     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006787     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006788     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006789     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 311
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006790     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006791     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006792     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                  Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006793     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006794     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 312
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006795     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006796     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006797     ; SOURCE TYPE = VOLUME    :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006798     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006799     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 313
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006800     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006801     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006802     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006803     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006804     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 314
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006805     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006806     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006807     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006808     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006809     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 315
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006810     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006811     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006812     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006813     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006814     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 316
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006815     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                            Residential
 SOURCE ID = L0006816     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006817     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006818     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006819     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 317
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006820     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006821     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006822     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006823     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006824     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 318
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006825     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006826     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006827     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006828     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006829     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 319
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006830     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006831     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006832     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006833     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006834     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 320
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                     Residential

  SOURCE ID = L0006835     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006836     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006837     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006838     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006839     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 321
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                     Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006840     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006841     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006842     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006843     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006844     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 322
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006845     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006846     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006847     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006848     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006849     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 323
```

```
                                                     Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006850     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006851     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006852     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006853     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006854     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006855     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006856     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006857     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006858     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006859     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 325
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006860     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006861     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006862     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006863     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006864     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 326
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006865     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006866     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006867     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006868     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006869     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 327
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006870     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006871     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006872     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006873     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006874     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 328
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006875     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006876     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006877     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006878     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006879     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 329
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006880     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006881     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006882     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006883     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006884     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 330
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006885     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006886     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006887     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006888     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006889     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 331
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006890     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006891     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006892     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0006893     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006894     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 332
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006895     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006896     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006897     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006898     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006899     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 333
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006900     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006901     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006902     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006903     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006904     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 334
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006905     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006906     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006907     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006908     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006909     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 335
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006910     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006911     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006912     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006913     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006914     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 336
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006915     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006916     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006917     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006918     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006919     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 337
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006920     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006921     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006922     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006923     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006924     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 338
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006925     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006926     ; SOURCE TYPE = VOLUME   :
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006927     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006928     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006929     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 339
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006930     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

```
 SOURCE ID = L0006931     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006932     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006933     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006934     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 340
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006935     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006936     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006937     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006938     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006939     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 341
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006940     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006941     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006942     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006943     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006944     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 342
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                            Residential
 SOURCE ID = L0006945     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006946     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006947     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006948     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006949     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 343
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                   Residential
 - - - - - - - -


  SOURCE ID = L0006950     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006951     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006952     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006953     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006954     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
     03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
    13:21:15

    PAGE 344
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                     Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006955     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006956     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006957     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006958     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006959     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 345
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                                 Residential

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006960     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006961     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006962     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006963     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006964     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
```

```
  PAGE 346
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006965     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006966     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006967     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006968     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006969     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
```

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   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                          ***
  13:21:15

  PAGE 347
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006970     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006971     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006972     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006973     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006974     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                          Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 348
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006975     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006976     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006977     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006978     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006979     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                        Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 349
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006980     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006981     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006982     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006983     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006984     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                  Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 350
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006985     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006986     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006987     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006988     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006989     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 351
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006990     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006991     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006992     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006993     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                                  Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006994     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 352
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006995     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006996     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006997     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006998     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006999     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 353
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007000     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007001     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007002     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007003     ; SOURCE TYPE = VOLUME   :
```

```
                                               Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007004     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 354
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007005     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007006     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007007     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007008     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007009     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 355
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007010     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007011     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007012     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007013     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007014     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 356
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007015     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007016     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007017     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007018     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007019     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 357
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007020     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007021     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0007022     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007023     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007024     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 358
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007025     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007026     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0007027     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007028     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007029     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 359
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007030     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007031     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                        Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007032     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007033     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007034     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 360
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007035     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007036     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007037     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007038     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007039     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 361
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007040     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                          Residential

 SOURCE ID = L0007041     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007042     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007043     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007044     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker            ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 362
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007045     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007046     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007047     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007048     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007049     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 363
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007050     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007051     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007053     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007054     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 364
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007055     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007056     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007057     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007058     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007059     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 365
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007060     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007061     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007062     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007063     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 366
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                     Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007065     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007066     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007067     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007068     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007069     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 367
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                            Residential
                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007070     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007071     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007072     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
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```
                                                  Residential
   PAGE 368
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007078     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007079     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
```

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 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 369
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007080     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007081     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007082     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007083     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007084     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 370
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007085     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007086     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007087     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007088     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007089     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                   Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 371
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007090     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007091     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007092     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007093     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007094     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                  Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 372
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007095     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007096     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007097     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007098     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0007099     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 373
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007100     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007101     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007102     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007103     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007104     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 374
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007105     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007106     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007107     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007108     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                 Residential
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007109      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 375
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007110      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007111      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007112      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007113      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007114     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 376
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007115     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007116     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007117     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                      Residential

 SOURCE ID = L0007118     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007119     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 377
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007120     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007121     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007122     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                       Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007123     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007124     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 378
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007125     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007126     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007127     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007128     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007129     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 379
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007130     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007131     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007132     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007133     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007134     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 380
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007135     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007136     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                               Residential


 SOURCE ID = L0007137     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007138     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007139     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 381
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007140     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007141     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007142     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007144     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 382
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007145     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007146     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007147     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007148     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007149     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 383
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007150     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0007151     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007152     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007153     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007154     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 384
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007155     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007156     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007157     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007158     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007159     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 385
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007160     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007161     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007162     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007163     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007164     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 386
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007165     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007166     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007167     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007168     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007169     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 387
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007170     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007171     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007172     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007173     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007174     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 388
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                      Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007175     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007176     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007177     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007178     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007179     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 389
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                         Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007180     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007181     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007182     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007183     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007184     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 390
```

```
                                                        Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007185     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007186     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007187     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007188     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007189     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
```

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                                                     Residential
   13:21:15

   PAGE 391
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007190     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007191     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007192     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007193     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007194     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                        Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 392
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007195     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007196     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007197     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007198     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007199     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                       Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 393
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007200     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007201     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007202     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007203     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007204     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 394
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007205     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007206     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007207     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007208     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007209     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 395
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007210     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007211     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007212     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007213     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007214     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 396
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007215     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007216     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007217     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007218     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007219     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 397
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007220     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007221     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007222     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007223     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                               Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007224     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 398
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007225     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007226     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007227     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                Residential
 SOURCE ID = L0007228     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007229     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 399
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007230     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007231     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007232     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007233     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007234     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 400
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007235     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007236     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007237     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007238      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007239      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 401
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007240      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007241      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007242      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007243     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007244     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 402
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007245     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007246     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007247     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007248     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007249     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 403
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007250     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007251     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                            Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007252     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007253     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007254     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 404
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007255     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007256     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007257     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007258     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007259     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 405
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007260     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007261     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007262     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007263     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007264     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 406
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007265     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

```
 SOURCE ID = L0007266     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007267     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007268     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007269     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 407
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007270     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007271     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007272     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007273     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007274     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 408
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007275     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                                Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007276     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007277     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007278     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007279     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 409
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
 SOURCE ID = L0007280     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007281     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007282     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007283     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007284     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 410
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
- - - - - - - -


 SOURCE ID = L0007285     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007286     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007287     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007288     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007289     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 411
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007290     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007291     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007292     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007293     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007294     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 412
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                   Residential

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0007295     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007296     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007297     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007298     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007299     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15
```

```
  PAGE 413
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0007300     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007301     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007302     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007303     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007304     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
```

```
                                                   Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                        ***
   13:21:15

   PAGE 414
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007305     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007306     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007307     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007308     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007309     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 415
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007310     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007311     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007312     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007313     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007314     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                        Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 416
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007315     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007316     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007317     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007318     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007319     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                 Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 417
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007320     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007321     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007322     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007323     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007324     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 418
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007325     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007326     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007327     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007328     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007329     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 419
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007330     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007331     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007332     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007333     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007334     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 420
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007335     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007336     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007337     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007338     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007339     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 421
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007340     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007341     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007342     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007343     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007344     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 422
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007345     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007346     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007347     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007348     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007349     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 423
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007350     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007351     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007352     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007353     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007354     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 424
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007355     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007356     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                      Residential
 SOURCE ID = L0007357     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007358     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 425
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007360     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007361     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007362     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007363     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007364     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 426
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007365     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007366     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007367     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007368     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007369     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 427
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007370     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0007371     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007372     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007373     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007374     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 428
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007375     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0007376     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007377     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007378     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007379     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 429
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007380     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                                 Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007381     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007382     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007383     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007384     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 430
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007385     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007386     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007387     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007388     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007389     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 431
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007390     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007391     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007392     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 432
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007396     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007397     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007398     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007399     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 433
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0007400     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007401     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007402     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007403     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007404     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 434
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential
                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007405     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007406     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007407     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007408     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007409     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15
```

```
                                                                    Residential
   PAGE 435
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007410     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007411     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007412     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
```

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                                                   Residential
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 436
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007417     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007418     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007419     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 437
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007420     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007421     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007422     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007423     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007424     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                         Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 438
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007425     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007426     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007427     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007428     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007429     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 439
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007430     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007431     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007432     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007433     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007434     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 440
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007435     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007436     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007437     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007438     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0007439     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 441
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007440     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007441     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007442     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007443     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                 Residential
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007444     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 442
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007445     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007446     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007447     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007448     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007449     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 443
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007450     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007451     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007452     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential

 SOURCE ID = L0007453     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007454     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 444
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007455     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007456     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007457     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007458     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007459     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 445
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007460     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007461     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007462     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007463     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007464     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 446
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007465     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007466     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007467     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007468     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007469     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 447
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007470     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007471     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007472     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007473     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007474     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 448
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007475     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007476     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007477     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007478     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007479     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 449
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007481     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007482     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007483     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007484     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 450
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007485     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0007486     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007487     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007488     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007489     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 451
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007490     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0007491     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007492     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007493     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007494     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 452
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007495     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007496     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007497     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007498     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007499     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 453
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007500     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007501     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007502     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007503     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007504     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 454
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential

 SOURCE ID = L0007505     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007506     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007507     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007508     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007509     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 455
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007510     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007511     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007512     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007513     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007514     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 456
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                     Residential

     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0007515     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007516     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007517     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007518     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007519     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 457
```

```
                                                       Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007520     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007521     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007522     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007523     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007524     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
```

```
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007525     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007526     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007527     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007528     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007529     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                      Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 459
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007531     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007532     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007533     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007534     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 460
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007535     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007536     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007537     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007538     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007539     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 461
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007540     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007541     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007542     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007543     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007544     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 462
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007545     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007546     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007547     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007548     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007549     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 463
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007550     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007551     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007552     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 464
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007555     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007556     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007557     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007558     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                          Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007559     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 465
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007560     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007561     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007562     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0007563     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007564     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 466
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007565     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007566     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007567     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007568     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007569     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 467
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007570     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007571     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007572     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007573     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007574     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 468
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007575     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007576     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007577     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007578     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007579     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 469
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007580     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007581     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                 Residential

 SOURCE ID = L0007582     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007583     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007584     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 470
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007585     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007586     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                 Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007587     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007588     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007589     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 471
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007590     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007591     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007592     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007593     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007594     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 472
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007595     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007596     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007597     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007598     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007599     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 473
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007600     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007601     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007602     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007603     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007604     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 474
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007605     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007606     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007608     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007609     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 475
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007610     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007611     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007612     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007613     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007614     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 476
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
 SOURCE ID = L0007615     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007616     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007617     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007618     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007619     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 477
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                    Residential
- - - - - - - - 


 SOURCE ID = L0007620     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007621     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007622     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007623     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007624     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 478
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                  Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007625     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007626     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007627     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007628     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007629     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 479
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                   Residential

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007630     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007631     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007632     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007633     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007634     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15
```

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                                                         Residential

  PAGE 480
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007635     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007636     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007637     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007638     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007639     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
```

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                                                       Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 481
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007640     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007641     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007642     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007643     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007644     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

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                                                   Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 482
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007645     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007646     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007647     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007648     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007649     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 483
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007650     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007651     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007652     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007653     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007654     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 484
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007655     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007656     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007657     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007658     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential

 SOURCE ID = L0007659     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 485
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007660     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007661     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007662     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007663     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                         Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007664     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 486
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007665     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007666     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007667     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007668     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007669     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 487
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007670     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007671     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007672     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007673     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007674     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 488
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007675     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007676     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007677     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007678     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007679     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 489
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007680     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007681     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007682     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007683     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007684     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 490
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007685     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007686     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007687     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007688     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007689     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 491
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007690     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007691     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                Residential
 SOURCE ID = L0007692     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007693     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007694     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 492
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007695     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007696     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0007697     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007698     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007699     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 493
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007700     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007701     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007702     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007703     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007704     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 494
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007705     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007706     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007707     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007708     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007709     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 495
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007710     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007711     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007712     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007713     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007714     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 496
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007715     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                               Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007716     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007717     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007718     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007719     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 497
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007720     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007721     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007722     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007723     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007724     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 498
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007725     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007726     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007727     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007728     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007729     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 499
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007730     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007731     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007732     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007733     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007734     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 500
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0007735     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007736     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007737     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007738     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007739     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 501
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                         Residential
                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007740     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007741     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007742     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007743     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007744     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15
```

```
                                                         Residential
   PAGE 502
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007745     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007746     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007747     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007748     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
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                                                   Residential
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 503
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007750     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007751     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007752     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007753     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007754     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 504
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007759     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 505
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007760     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007761     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007762     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007763     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 506
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007765     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007766     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007767     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007768     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                                 Residential
 SOURCE ID = L0007769     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 507
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007772     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0007774     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 508
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007775     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007776     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007777     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007778     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007779     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 509
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007780     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007781     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007782     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007783     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007784     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 510
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007785     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007786     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007787     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007788     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007789     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***     
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***     
   13:21:15

   PAGE 511
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007790     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007791     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007792     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
```

```
                                                                 Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007793     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007794     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 512
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007795     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007796     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007797     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007799     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 513
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007800     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007801     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007802     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007803     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007804     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 514
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007805     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007806     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007807     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007808     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007809     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***  
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***  
   13:21:15

   PAGE 515
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007810     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007811     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007812     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007813     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007814     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 516
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007815     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007816     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007817     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007818     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007819     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 517
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007820     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0007821     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007822     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007823     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007824     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 518
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007825     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                       Residential
.00000E+00


 SOURCE ID = L0007826     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007827     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007828     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007829     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 519
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007830     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007831     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007832     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007833     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007834     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:21:15

   PAGE 520
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007835     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007836     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007837     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007838     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007839     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 521
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007840     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007841     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007842     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007843     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007844     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 522
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                 Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0007845     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007846     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007847     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007848     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007849     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 523
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                      Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007850     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007851     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007852     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007853     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007854     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 524
```

```
                                                             Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007855     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007856     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007857     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007858     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007859     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007860     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007861     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007862     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007863     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007864     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 526
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007865     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007866     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007867     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007868     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007869     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                        Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 527
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007870     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007871     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007872     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007873     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007874     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 528
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007875     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007876     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007877     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007878     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007879     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 529
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007880     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007881     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007882     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007883     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007884     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 530
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007885     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007886     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007887     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007888     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007889     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 531
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007890     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007891     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007892     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007893     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007894     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 532
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007895     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007896     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007897     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0007898     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007899     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 533
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007900     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007901     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007902     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0007903     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007904     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 534
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007905     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007906     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007907     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007908     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007909     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 535
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007910     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007911     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007912     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007913     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007914     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 536
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007915     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007916     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007917     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007918     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007919     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 537
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007920     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007921     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007922     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007923     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007924     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 538
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007925     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007926     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007927     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007928     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007929     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 539
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007930     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007931     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007932     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007933     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007934     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 540
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007935     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential


 SOURCE ID = L0007936     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007937     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007938     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007939     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 541
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007940     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007941     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007942     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007943     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007944     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 542
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007945     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                  Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007946     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007947     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007948     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007949     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 543
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
 SOURCE ID = L0007950     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007951     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007952     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007953     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007954     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 544
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                 Residential
- - - - - - - -


 SOURCE ID = L0007955     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007956     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007957     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007958     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007959     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 545
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007960     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007961     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007962     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007963     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007964     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15

   PAGE 546
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                     Residential

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007965     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007966     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007967     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007968     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007969     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:21:15
```

```
  PAGE 547
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007970     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007971     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007972     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007973     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007974     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 548
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007975     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007976     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007977     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker            ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:21:15

   PAGE 549
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                        *** DISCRETE CARTESIAN RECEPTORS ***
                                                      (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                      (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478075.4, 3749064.8,     454.0,     465.0,
     0.0);
     ( 478011.5, 3748100.2,     450.0,     461.0,       0.0);         ( 478309.5, 3748103.0,     449.0,     463.0,
     0.0);
     ( 477805.2, 3748100.2,     450.0,     461.0,       0.0);         ( 478140.0, 3748101.6,     450.0,     462.0,
     0.0);
     ( 478312.7, 3747836.8,     449.0,     462.0,       0.0);         ( 478309.1, 3747964.1,     449.0,     462.0,
     0.0);
```

```
                                                     Residential
     ( 477725.8, 3748664.0,     453.0,     462.0,       0.0);        ( 477725.8, 3748462.0,     452.0,     462.0,
     0.0);
     ( 477547.8, 3748675.3,     454.0,     462.0,       0.0);        ( 477552.1, 3748483.2,     453.0,     461.0,
     0.0);
     ( 477617.0, 3748271.3,     451.0,     461.0,       0.0);        ( 477685.0, 3749052.3,     454.0,     463.0,
     0.0);
     ( 477532.1, 3749288.3,     455.0,     464.0,       0.0);        ( 478329.6, 3749871.1,     459.0,     467.0,
     0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);        ( 478344.6, 3749914.1,     459.0,     467.0,
     0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);        ( 478352.3, 3749701.1,     457.5,     467.0,
     0.0);
     ( 478061.0, 3749681.7,     457.0,     467.0,       0.0);        ( 477822.7, 3748296.8,     451.0,     461.0,
     0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 550
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                           (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

                       METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007   1  1  1
                                                            AND END DATE: 2007  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                          (METERS/SEC)

                                                 1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:21:15

   PAGE 551
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\..\..\..\peri8.sfc                                                        Met Version:
14134
   Profile file:   ..\..\..\..\peri8.pfl
   Surface format: FREE
```

```
                                                   Residential

  Profile format: FREE

  Surface station no.:        0                  Upper air station no.:     3190
                 Name: UNKNOWN                                    Name: UNKNOWN
                 Year:   2007                                     Year:   2007

First 24 hours of scalar data
YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA
 HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  133.    9.1  279.9
5.5
07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  192.    9.1  279.2
5.5
07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  160.    9.1  277.5
5.5
07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50   75.    9.1  277.5
5.5
07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50  282.    9.1  278.8
5.5
07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50   96.    9.1  277.5
5.5
07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  129.    9.1  278.1
5.5
07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00   0.54    0.50   99.    9.1  277.5
5.5
07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00   0.33    0.50  133.    9.1  278.1
5.5
07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00   0.26    0.50  174.    9.1  281.4
5.5
07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00   0.23    0.50   95.    9.1  284.9
5.5
07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00   0.22    1.30   94.    9.1  288.1
5.5
07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00   0.22    2.20   24.    9.1  291.4
5.5
07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00   0.23    3.60   13.    9.1  292.5
5.5
07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.    9.1  292.0
5.5
07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
5.5
07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
5.5
07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
5.5
07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
5.5
07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
5.5
07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
5.5
07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
5.5
07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
5.5
07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
5.5


First hour of profile data
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00
```

```
                                                   Residential
 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 552
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):     L0008170    , L0008171    , L0008172    , L0008173    ,
L0008174    ,
                 L0008175    , L0008176    , L0008177    , L0008178    , L0008179    , L0008180    , L0008181    ,
L0008182    ,
                 L0008183    , L0008184    , L0008185    , L0008186    , L0005746    , L0005747    , L0005748    ,
L0005749    ,
                 L0005750    , L0005751    , L0005752    , L0005753    , L0005754    , L0005755    , L0005756    ,
 . . .      ,

                                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                   ** CONC OF DPM      IN MICROGRAMS/M**3                        **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         478348.59    3749820.73        0.00105                      478075.38    3749064.82        0.00651

         478011.47    3748100.18        0.00897                      478309.53    3748103.00        0.00745

         477805.23    3748100.18        0.00442                      478140.02    3748101.59        0.00934

         478312.73    3747836.85        0.00274                      478309.13    3747964.13        0.00423

         477725.83    3748664.02        0.00979                      477725.83    3748462.01        0.00608

         477547.83    3748675.32        0.00546                      477552.06    3748483.20        0.00340

         477617.05    3748271.29        0.00320                      477684.97    3749052.32        0.01298

         477532.06    3749288.33        0.00502                      478329.61    3749871.11        0.00103

         478312.39    3749891.05        0.00103                      478344.56    3749914.15        0.00098

         478380.35    3749931.82        0.00093                      478352.31    3749701.09        0.00116

         478060.98    3749681.73        0.00169                      477822.73    3748296.77        0.00742
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 553
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3                        **


NETWORK
GROUP ID                       AVERAGE CONC               RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                      Residential
- -

ALL       1ST HIGHEST VALUE IS       0.01298 AT (  477684.97,  3749052.32,    454.00,    463.00,     0.00)  DC

          2ND HIGHEST VALUE IS       0.00979 AT (  477725.83,  3748664.02,    453.00,    462.00,     0.00)  DC

          3RD HIGHEST VALUE IS       0.00934 AT (  478140.02,  3748101.59,    450.00,    462.00,     0.00)  DC

          4TH HIGHEST VALUE IS       0.00897 AT (  478011.47,  3748100.18,    450.00,    461.00,     0.00)  DC

          5TH HIGHEST VALUE IS       0.00745 AT (  478309.53,  3748103.00,    449.00,    463.00,     0.00)  DC

          6TH HIGHEST VALUE IS       0.00742 AT (  477822.73,  3748296.77,    451.00,    461.00,     0.00)  DC

          7TH HIGHEST VALUE IS       0.00651 AT (  478075.38,  3749064.82,    454.00,    465.00,     0.00)  DC

          8TH HIGHEST VALUE IS       0.00608 AT (  477725.83,  3748462.01,    452.00,    462.00,     0.00)  DC

          9TH HIGHEST VALUE IS       0.00546 AT (  477547.83,  3748675.32,    454.00,    462.00,     0.00)  DC

         10TH HIGHEST VALUE IS       0.00502 AT (  477532.06,  3749288.33,    455.00,    464.00,     0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:21:15

   PAGE 554
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          124 Informational Message(s)

 A Total of         8760 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          124 Missing Hours Identified (  1.42 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
```

```
** Lakes Environmental Software Inc.
** Date: 3/22/2016
** File: C:\Lakes\AERMOD View\MVL\Revised\300 Ft Buffer\HRA WO Indian St Bridge\School\School.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL School.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001454
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478207.941, 3748400.232, 451.00, 4.00, 13.95
** 478210.280, 3748911.325, 453.00, 4.00, 13.95
** ------------------------------------------------------------------
   LOCATION L0008851     VOLUME   478208.010 3748415.232 451.00
   LOCATION L0008852     VOLUME   478208.147 3748445.232 451.00
   LOCATION L0008853     VOLUME   478208.285 3748475.232 451.00
   LOCATION L0008854     VOLUME   478208.422 3748505.231 451.62
   LOCATION L0008855     VOLUME   478208.559 3748535.231 452.00
   LOCATION L0008856     VOLUME   478208.696 3748565.231 452.00
   LOCATION L0008857     VOLUME   478208.834 3748595.230 452.00
   LOCATION L0008858     VOLUME   478208.971 3748625.230 452.00
   LOCATION L0008859     VOLUME   478209.108 3748655.230 452.00
   LOCATION L0008860     VOLUME   478209.246 3748685.229 452.00
   LOCATION L0008861     VOLUME   478209.383 3748715.229 452.00
   LOCATION L0008862     VOLUME   478209.520 3748745.229 452.00
   LOCATION L0008863     VOLUME   478209.658 3748775.228 452.00
   LOCATION L0008864     VOLUME   478209.795 3748805.228 452.62
   LOCATION L0008865     VOLUME   478209.932 3748835.228 453.00
   LOCATION L0008866     VOLUME   478210.069 3748865.227 453.00
   LOCATION L0008867     VOLUME   478210.207 3748895.227 453.00
** End of LINE VOLUME Source ID = SLINE1
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
```

```
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001241
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0006444     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0006445     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0006446     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0006447     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0006448     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0006449     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0006450     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0006451     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0006452     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0006453     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0006454     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0006455     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0006456     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0006457     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006542
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0006458     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0006459     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0006460     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0006461     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0006462     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0006463     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0006464     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0006465     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001332
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0006466     VOLUME   477900.151 3748339.028 451.00
   LOCATION L0006467     VOLUME   477908.651 3748338.965 451.00
```

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                                                   Residential
   LOCATION L0006468     VOLUME   477917.150 3748338.902 451.00
   LOCATION L0006469     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0006470     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0006471     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0006472     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0006473     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0006474     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0006475     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0006476     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0006477     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0006478     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0006479     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0006480     VOLUME   477977.265 3748271.460 450.00
   LOCATION L0006481     VOLUME   477978.288 3748263.022 450.00
   LOCATION L0006482     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0006483     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0006484     VOLUME   477978.207 3748237.527 450.00
   LOCATION L0006485     VOLUME   477978.153 3748229.027 450.00
   LOCATION L0006486     VOLUME   477978.100 3748220.527 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008866
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0006487     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0006488     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0006489     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0006490     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0006491     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0006492     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0006493     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0006494     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0006495     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0006496     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0006497     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0006498     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0006499     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0006500     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0006501     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00001029
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0006502     VOLUME   478043.005 3748335.195 451.00
   LOCATION L0006503     VOLUME   478072.998 3748334.546 451.00
   LOCATION L0006504     VOLUME   478102.991 3748333.897 451.00
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                                                 Residential
   LOCATION L0006505     VOLUME   478132.984 3748333.248 451.00
   LOCATION L0006506     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0005868
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477940.125, 3748975.666, 456.88, 4.00, 3.95
** 477939.614, 3748949.071, 453.00, 4.00, 3.95
** 477936.033, 3748924.522, 453.00, 4.00, 3.95
** 477935.011, 3748869.798, 455.34, 4.00, 3.95
** 477931.942, 3748488.264, 451.11, 4.00, 3.95
** 478004.055, 3748353.755, 451.00, 4.00, 3.95
** 478015.307, 3748336.366, 452.75, 4.00, 3.95
** 478203.517, 3748338.412, 451.43, 4.00, 3.95
** 478207.608, 3748913.271, 453.00, 4.00, 3.95
** 478189.708, 3748972.086, 458.32, 4.00, 3.95
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   LOCATION L0008677     VOLUME   477939.880 3748962.918 453.00
   LOCATION L0008678     VOLUME   477939.716 3748954.420 453.00
   LOCATION L0008679     VOLUME   477939.159 3748945.954 453.00
   LOCATION L0008680     VOLUME   477937.932 3748937.543 453.00
   LOCATION L0008681     VOLUME   477936.705 3748929.132 453.00
   LOCATION L0008682     VOLUME   477935.961 3748920.681 453.00
   LOCATION L0008683     VOLUME   477935.802 3748912.183 453.00
   LOCATION L0008684     VOLUME   477935.643 3748903.684 453.00
   LOCATION L0008685     VOLUME   477935.485 3748895.186 453.00
   LOCATION L0008686     VOLUME   477935.326 3748886.687 453.00
   LOCATION L0008687     VOLUME   477935.167 3748878.189 453.00
   LOCATION L0008688     VOLUME   477935.010 3748869.690 453.00
   LOCATION L0008689     VOLUME   477934.941 3748861.191 453.00
   LOCATION L0008690     VOLUME   477934.873 3748852.691 453.00
   LOCATION L0008691     VOLUME   477934.805 3748844.191 453.00
   LOCATION L0008692     VOLUME   477934.736 3748835.691 453.00
   LOCATION L0008693     VOLUME   477934.668 3748827.192 453.00
   LOCATION L0008694     VOLUME   477934.599 3748818.692 453.00
   LOCATION L0008695     VOLUME   477934.531 3748810.192 453.00
   LOCATION L0008696     VOLUME   477934.463 3748801.692 453.00
   LOCATION L0008697     VOLUME   477934.394 3748793.193 453.00
   LOCATION L0008698     VOLUME   477934.326 3748784.693 453.00
   LOCATION L0008699     VOLUME   477934.258 3748776.193 453.00
   LOCATION L0008700     VOLUME   477934.189 3748767.694 453.00
   LOCATION L0008701     VOLUME   477934.121 3748759.194 453.00
   LOCATION L0008702     VOLUME   477934.052 3748750.694 453.00
   LOCATION L0008703     VOLUME   477933.984 3748742.194 453.00
   LOCATION L0008704     VOLUME   477933.916 3748733.695 453.00
   LOCATION L0008705     VOLUME   477933.847 3748725.195 453.00
   LOCATION L0008706     VOLUME   477933.779 3748716.695 453.00
   LOCATION L0008707     VOLUME   477933.711 3748708.195 453.00
   LOCATION L0008708     VOLUME   477933.642 3748699.696 453.00
   LOCATION L0008709     VOLUME   477933.574 3748691.196 452.82
   LOCATION L0008710     VOLUME   477933.506 3748682.696 452.54
   LOCATION L0008711     VOLUME   477933.437 3748674.197 452.25
   LOCATION L0008712     VOLUME   477933.369 3748665.697 452.00
   LOCATION L0008713     VOLUME   477933.300 3748657.197 452.00
   LOCATION L0008714     VOLUME   477933.232 3748648.697 452.00
   LOCATION L0008715     VOLUME   477933.164 3748640.198 452.00
   LOCATION L0008716     VOLUME   477933.095 3748631.698 452.00
   LOCATION L0008717     VOLUME   477933.027 3748623.198 452.00
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LOCATION L0008718      VOLUME   477932.959 3748614.699 452.00
LOCATION L0008719      VOLUME   477932.890 3748606.199 452.00
LOCATION L0008720      VOLUME   477932.822 3748597.699 452.00
LOCATION L0008721      VOLUME   477932.753 3748589.199 452.00
LOCATION L0008722      VOLUME   477932.685 3748580.700 452.00
LOCATION L0008723      VOLUME   477932.617 3748572.200 452.00
LOCATION L0008724      VOLUME   477932.548 3748563.700 452.00
LOCATION L0008725      VOLUME   477932.480 3748555.200 452.00
LOCATION L0008726      VOLUME   477932.412 3748546.701 452.00
LOCATION L0008727      VOLUME   477932.343 3748538.201 452.00
LOCATION L0008728      VOLUME   477932.275 3748529.701 452.00
LOCATION L0008729      VOLUME   477932.206 3748521.202 452.00
LOCATION L0008730      VOLUME   477932.138 3748512.702 451.90
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LOCATION L0008732      VOLUME   477932.001 3748495.702 451.49
LOCATION L0008733      VOLUME   477932.443 3748487.329 451.26
LOCATION L0008734      VOLUME   477936.459 3748479.837 451.11
LOCATION L0008735      VOLUME   477940.476 3748472.346 451.00
LOCATION L0008736      VOLUME   477944.492 3748464.855 451.00
LOCATION L0008737      VOLUME   477948.508 3748457.363 451.00
LOCATION L0008738      VOLUME   477952.524 3748449.872 451.00
LOCATION L0008739      VOLUME   477956.541 3748442.381 451.00
LOCATION L0008740      VOLUME   477960.557 3748434.889 451.00
LOCATION L0008741      VOLUME   477964.573 3748427.398 451.00
LOCATION L0008742      VOLUME   477968.589 3748419.907 451.00
LOCATION L0008743      VOLUME   477972.605 3748412.415 451.00
LOCATION L0008744      VOLUME   477976.622 3748404.924 451.00
LOCATION L0008745      VOLUME   477980.638 3748397.433 451.00
LOCATION L0008746      VOLUME   477984.654 3748389.941 451.00
LOCATION L0008747      VOLUME   477988.670 3748382.450 451.00
LOCATION L0008748      VOLUME   477992.687 3748374.959 451.00
LOCATION L0008749      VOLUME   477996.703 3748367.468 451.00
LOCATION L0008750      VOLUME   478000.719 3748359.976 451.00
LOCATION L0008751      VOLUME   478004.837 3748352.545 451.00
LOCATION L0008752      VOLUME   478009.455 3748345.409 451.00
LOCATION L0008753      VOLUME   478014.073 3748338.273 451.00
LOCATION L0008754      VOLUME   478021.535 3748336.434 451.00
LOCATION L0008755      VOLUME   478030.035 3748336.526 451.00
LOCATION L0008756      VOLUME   478038.534 3748336.619 451.00
LOCATION L0008757      VOLUME   478047.034 3748336.711 451.00
LOCATION L0008758      VOLUME   478055.533 3748336.803 451.00
LOCATION L0008759      VOLUME   478064.033 3748336.896 451.00
LOCATION L0008760      VOLUME   478072.532 3748336.988 451.00
LOCATION L0008761      VOLUME   478081.032 3748337.080 451.00
LOCATION L0008762      VOLUME   478089.531 3748337.173 451.00
LOCATION L0008763      VOLUME   478098.031 3748337.265 451.00
LOCATION L0008764      VOLUME   478106.530 3748337.358 451.00
LOCATION L0008765      VOLUME   478115.030 3748337.450 451.00
LOCATION L0008766      VOLUME   478123.529 3748337.542 451.00
LOCATION L0008767      VOLUME   478132.029 3748337.635 451.00
LOCATION L0008768      VOLUME   478140.528 3748337.727 451.00
LOCATION L0008769      VOLUME   478149.028 3748337.820 451.00
LOCATION L0008770      VOLUME   478157.527 3748337.912 451.00
LOCATION L0008771      VOLUME   478166.027 3748338.004 451.00
LOCATION L0008772      VOLUME   478174.526 3748338.097 451.00
LOCATION L0008773      VOLUME   478183.026 3748338.189 451.00
LOCATION L0008774      VOLUME   478191.525 3748338.282 451.00
LOCATION L0008775      VOLUME   478200.025 3748338.374 451.00
LOCATION L0008776      VOLUME   478203.552 3748343.420 451.00
LOCATION L0008777      VOLUME   478203.613 3748351.920 451.00
LOCATION L0008778      VOLUME   478203.673 3748360.419 451.00
LOCATION L0008779      VOLUME   478203.734 3748368.919 451.00
LOCATION L0008780      VOLUME   478203.794 3748377.419 451.00
LOCATION L0008781      VOLUME   478203.855 3748385.919 451.00
LOCATION L0008782      VOLUME   478203.915 3748394.419 451.00
LOCATION L0008783      VOLUME   478203.976 3748402.918 451.00
LOCATION L0008784      VOLUME   478204.036 3748411.418 451.00
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                                                    Residential
   LOCATION L0008785     VOLUME   478204.097 3748419.918 451.00
   LOCATION L0008786     VOLUME   478204.157 3748428.418 451.00
   LOCATION L0008787     VOLUME   478204.218 3748436.918 451.00
   LOCATION L0008788     VOLUME   478204.278 3748445.417 451.00
   LOCATION L0008789     VOLUME   478204.339 3748453.917 451.00
   LOCATION L0008790     VOLUME   478204.399 3748462.417 451.00
   LOCATION L0008791     VOLUME   478204.460 3748470.917 451.00
   LOCATION L0008792     VOLUME   478204.520 3748479.416 451.00
   LOCATION L0008793     VOLUME   478204.580 3748487.916 451.05
   LOCATION L0008794     VOLUME   478204.641 3748496.416 451.33
   LOCATION L0008795     VOLUME   478204.701 3748504.916 451.61
   LOCATION L0008796     VOLUME   478204.762 3748513.416 451.90
   LOCATION L0008797     VOLUME   478204.822 3748521.915 452.00
   LOCATION L0008798     VOLUME   478204.883 3748530.415 452.00
   LOCATION L0008799     VOLUME   478204.943 3748538.915 452.00
   LOCATION L0008800     VOLUME   478205.004 3748547.415 452.00
   LOCATION L0008801     VOLUME   478205.064 3748555.915 452.00
   LOCATION L0008802     VOLUME   478205.125 3748564.414 452.00
   LOCATION L0008803     VOLUME   478205.185 3748572.914 452.00
   LOCATION L0008804     VOLUME   478205.246 3748581.414 452.00
   LOCATION L0008805     VOLUME   478205.306 3748589.914 452.00
   LOCATION L0008806     VOLUME   478205.367 3748598.413 452.00
   LOCATION L0008807     VOLUME   478205.427 3748606.913 452.00
   LOCATION L0008808     VOLUME   478205.488 3748615.413 452.00
   LOCATION L0008809     VOLUME   478205.548 3748623.913 452.00
   LOCATION L0008810     VOLUME   478205.609 3748632.413 452.00
   LOCATION L0008811     VOLUME   478205.669 3748640.912 452.00
   LOCATION L0008812     VOLUME   478205.730 3748649.412 452.00
   LOCATION L0008813     VOLUME   478205.790 3748657.912 452.00
   LOCATION L0008814     VOLUME   478205.851 3748666.412 452.00
   LOCATION L0008815     VOLUME   478205.911 3748674.912 452.00
   LOCATION L0008816     VOLUME   478205.972 3748683.411 452.00
   LOCATION L0008817     VOLUME   478206.032 3748691.911 452.00
   LOCATION L0008818     VOLUME   478206.093 3748700.411 452.00
   LOCATION L0008819     VOLUME   478206.153 3748708.911 452.00
   LOCATION L0008820     VOLUME   478206.214 3748717.410 452.00
   LOCATION L0008821     VOLUME   478206.274 3748725.910 452.00
   LOCATION L0008822     VOLUME   478206.335 3748734.410 452.00
   LOCATION L0008823     VOLUME   478206.395 3748742.910 452.00
   LOCATION L0008824     VOLUME   478206.456 3748751.410 452.00
   LOCATION L0008825     VOLUME   478206.516 3748759.909 452.01
   LOCATION L0008826     VOLUME   478206.577 3748768.409 452.04
   LOCATION L0008827     VOLUME   478206.637 3748776.909 452.07
   LOCATION L0008828     VOLUME   478206.698 3748785.409 452.10
   LOCATION L0008829     VOLUME   478206.758 3748793.908 452.32
   LOCATION L0008830     VOLUME   478206.819 3748802.408 452.58
   LOCATION L0008831     VOLUME   478206.879 3748810.908 452.83
   LOCATION L0008832     VOLUME   478206.940 3748819.408 453.00
   LOCATION L0008833     VOLUME   478207.000 3748827.908 453.00
   LOCATION L0008834     VOLUME   478207.061 3748836.407 453.00
   LOCATION L0008835     VOLUME   478207.121 3748844.907 453.00
   LOCATION L0008836     VOLUME   478207.182 3748853.407 453.00
   LOCATION L0008837     VOLUME   478207.242 3748861.907 453.00
   LOCATION L0008838     VOLUME   478207.302 3748870.407 453.00
   LOCATION L0008839     VOLUME   478207.363 3748878.906 453.00
   LOCATION L0008840     VOLUME   478207.423 3748887.406 453.00
   LOCATION L0008841     VOLUME   478207.484 3748895.906 453.00
   LOCATION L0008842     VOLUME   478207.544 3748904.406 453.00
   LOCATION L0008843     VOLUME   478207.605 3748912.905 453.00
   LOCATION L0008844     VOLUME   478205.239 3748921.053 453.00
   LOCATION L0008845     VOLUME   478202.764 3748929.185 453.00
   LOCATION L0008846     VOLUME   478200.289 3748937.317 453.00
   LOCATION L0008847     VOLUME   478197.815 3748945.448 453.00
   LOCATION L0008848     VOLUME   478195.340 3748953.580 453.00
   LOCATION L0008849     VOLUME   478192.865 3748961.712 453.00
   LOCATION L0008850     VOLUME   478190.390 3748969.843 453.00
** End of LINE VOLUME Source ID = SLINE7
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004213
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0006682     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0006683     VOLUME   477852.822 3748843.717 453.00
   LOCATION L0006684     VOLUME   477852.867 3748852.217 453.00
   LOCATION L0006685     VOLUME   477852.913 3748860.717 453.00
   LOCATION L0006686     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0006687     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0006688     VOLUME   477853.051 3748886.216 453.00
   LOCATION L0006689     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0006690     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0006691     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0006692     VOLUME   477853.234 3748920.216 453.00
   LOCATION L0006693     VOLUME   477853.279 3748928.716 453.00
   LOCATION L0006694     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0006695     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0006696     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0006697     VOLUME   477853.463 3748962.715 453.00
   LOCATION L0006698     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0006699     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0006700     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0006701     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0006702     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0006703     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0006704     VOLUME   477811.027 3748979.586 454.00
   LOCATION L0006705     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0006706     VOLUME   477794.027 3748979.545 454.00
   LOCATION L0006707     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0006708     VOLUME   477777.027 3748979.504 454.00
   LOCATION L0006709     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0006710     VOLUME   477760.027 3748979.463 454.00
   LOCATION L0006711     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0006712     VOLUME   477743.027 3748979.422 454.00
   LOCATION L0006713     VOLUME   477742.701 3748971.202 454.00
   LOCATION L0006714     VOLUME   477742.653 3748962.702 454.00
   LOCATION L0006715     VOLUME   477742.605 3748954.202 454.00
   LOCATION L0006716     VOLUME   477742.557 3748945.702 454.00
   LOCATION L0006717     VOLUME   477742.508 3748937.202 454.00
   LOCATION L0006718     VOLUME   477742.460 3748928.702 453.89
   LOCATION L0006719     VOLUME   477742.412 3748920.202 453.77
   LOCATION L0006720     VOLUME   477742.364 3748911.703 453.65
   LOCATION L0006721     VOLUME   477742.316 3748903.203 453.58
   LOCATION L0006722     VOLUME   477742.268 3748894.703 453.58
   LOCATION L0006723     VOLUME   477742.220 3748886.203 453.59
   LOCATION L0006724     VOLUME   477744.174 3748877.975 453.52
   LOCATION L0006725     VOLUME   477746.490 3748869.797 453.57
   LOCATION L0006726     VOLUME   477748.805 3748861.618 453.68
   LOCATION L0006727     VOLUME   477751.121 3748853.440 453.84
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                                                    Residential
   LOCATION L0006728     VOLUME   477753.436 3748845.261 453.96
   LOCATION L0006729     VOLUME   477757.468 3748838.153 453.72
   LOCATION L0006730     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0006731     VOLUME   477770.126 3748826.806 453.22
   LOCATION L0006732     VOLUME   477778.582 3748826.536 453.12
   LOCATION L0006733     VOLUME   477787.080 3748826.374 453.03
   LOCATION L0006734     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0006735     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0006736     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0006737     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0006738     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0006739     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0006740     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002756
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0006741     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0006742     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0006743     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0006744     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0006745     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0006746     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0006747     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0006748     VOLUME   477885.558 3748263.233 450.92
   LOCATION L0006749     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0006750     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0006751     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0006752     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0006753     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0006754     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0006755     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0006756     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0006757     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0006758     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0006759     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0006760     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0006761     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0006762     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0006763     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0006764     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0006765     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0006766     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0006767     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0006768     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0006769     VOLUME   477968.225 3748296.672 450.00
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   LOCATION L0006770     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0006771     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0006772     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0006773     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0006774     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0006775     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0006776     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0006777     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0006778     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0006779     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0006780     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0006781     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0006782     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0006783     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0006784     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0006785     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0006786     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0006787     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0006788     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0006789     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004801
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
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   LOCATION L0006790     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0006791     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0006792     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0006793     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0006794     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0006795     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0006796     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0006797     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0006798     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0006799     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0006800     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0006801     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0006802     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0006803     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0006804     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0006805     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0006806     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0006807     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0006808     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0006809     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0006810     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0006811     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0006812     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0006813     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0006814     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0006815     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0006816     VOLUME   477626.794 3748854.369 454.00
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                                                    Residential
   LOCATION L0006817     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0006818     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0006819     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0006820     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0006821     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0006822     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0006823     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0006824     VOLUME   477618.478 3748795.702 454.00
   LOCATION L0006825     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0006826     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0006827     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0006828     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0006829     VOLUME   477575.994 3748796.855 454.00
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   LOCATION L0006831     VOLUME   477559.000 3748797.316 454.00
   LOCATION L0006832     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0006833     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0006834     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0006835     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0006836     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0006837     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0006838     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0006839     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 70% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0003112
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0006841     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0006842     VOLUME   478238.535 3748984.737 453.00
   LOCATION L0006843     VOLUME   478230.035 3748984.819 453.00
   LOCATION L0006844     VOLUME   478221.536 3748984.900 453.00
   LOCATION L0006845     VOLUME   478213.036 3748984.981 453.00
   LOCATION L0006846     VOLUME   478204.537 3748985.063 453.00
   LOCATION L0006847     VOLUME   478196.037 3748985.144 453.00
   LOCATION L0006848     VOLUME   478187.537 3748985.225 453.00
   LOCATION L0006849     VOLUME   478179.038 3748985.307 453.00
   LOCATION L0006850     VOLUME   478170.538 3748985.388 453.00
   LOCATION L0006851     VOLUME   478162.038 3748985.469 453.00
   LOCATION L0006852     VOLUME   478153.539 3748985.551 453.00
   LOCATION L0006853     VOLUME   478145.039 3748985.632 453.00
   LOCATION L0006854     VOLUME   478136.540 3748985.713 453.00
   LOCATION L0006855     VOLUME   478128.040 3748985.795 453.00
   LOCATION L0006856     VOLUME   478119.540 3748985.876 453.00
   LOCATION L0006857     VOLUME   478111.041 3748985.957 453.00
   LOCATION L0006858     VOLUME   478102.541 3748986.039 453.00
   LOCATION L0006859     VOLUME   478094.042 3748986.120 453.00
   LOCATION L0006860     VOLUME   478085.542 3748986.201 453.00
   LOCATION L0006861     VOLUME   478077.042 3748986.283 453.00
   LOCATION L0006862     VOLUME   478068.543 3748986.364 453.00
   LOCATION L0006863     VOLUME   478060.043 3748986.445 453.00
   LOCATION L0006864     VOLUME   478051.544 3748986.527 453.00
   LOCATION L0006865     VOLUME   478043.044 3748986.608 453.00
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LOCATION L0006866     VOLUME   478034.544 3748986.689 453.00
LOCATION L0006867     VOLUME   478026.045 3748986.771 453.00
LOCATION L0006868     VOLUME   478017.545 3748986.852 453.00
LOCATION L0006869     VOLUME   478009.045 3748986.933 453.00
LOCATION L0006870     VOLUME   478000.546 3748987.015 453.00
LOCATION L0006871     VOLUME   477992.046 3748987.096 453.00
LOCATION L0006872     VOLUME   477983.547 3748987.177 453.00
LOCATION L0006873     VOLUME   477975.047 3748987.259 453.00
LOCATION L0006874     VOLUME   477966.547 3748987.340 453.00
LOCATION L0006875     VOLUME   477958.048 3748987.421 453.00
LOCATION L0006876     VOLUME   477949.548 3748987.503 453.00
LOCATION L0006877     VOLUME   477941.049 3748987.584 453.00
LOCATION L0006878     VOLUME   477932.549 3748987.665 453.17
LOCATION L0006879     VOLUME   477924.049 3748987.747 453.37
LOCATION L0006880     VOLUME   477915.550 3748987.828 453.57
LOCATION L0006881     VOLUME   477907.050 3748987.909 453.71
LOCATION L0006882     VOLUME   477898.551 3748987.991 453.71
LOCATION L0006883     VOLUME   477890.051 3748988.072 453.72
LOCATION L0006884     VOLUME   477881.917 3748988.516 453.73
LOCATION L0006885     VOLUME   477881.917 3748997.016 454.00
LOCATION L0006886     VOLUME   477881.917 3749005.516 454.00
LOCATION L0006887     VOLUME   477881.917 3749014.016 454.00
LOCATION L0006888     VOLUME   477881.917 3749022.516 454.00
LOCATION L0006889     VOLUME   477881.917 3749031.016 454.00
LOCATION L0006890     VOLUME   477881.917 3749039.516 454.00
LOCATION L0006891     VOLUME   477881.917 3749048.016 454.00
LOCATION L0006892     VOLUME   477881.917 3749056.516 454.00
LOCATION L0006893     VOLUME   477881.917 3749065.016 454.00
LOCATION L0006894     VOLUME   477881.917 3749073.516 454.00
LOCATION L0006895     VOLUME   477881.917 3749082.016 454.00
LOCATION L0006896     VOLUME   477881.917 3749090.516 454.00
LOCATION L0006897     VOLUME   477881.917 3749099.016 454.00
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LOCATION L0006900     VOLUME   477881.917 3749124.516 454.00
LOCATION L0006901     VOLUME   477881.917 3749133.016 454.00
LOCATION L0006902     VOLUME   477881.917 3749141.516 454.00
LOCATION L0006903     VOLUME   477881.917 3749150.016 454.00
LOCATION L0006904     VOLUME   477881.917 3749158.516 454.00
LOCATION L0006905     VOLUME   477881.917 3749167.016 454.00
LOCATION L0006906     VOLUME   477881.917 3749175.516 454.00
LOCATION L0006907     VOLUME   477881.917 3749184.016 454.00
LOCATION L0006908     VOLUME   477881.917 3749192.516 454.00
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LOCATION L0006911     VOLUME   477881.917 3749218.016 454.38
LOCATION L0006912     VOLUME   477881.917 3749226.516 454.67
LOCATION L0006913     VOLUME   477881.917 3749235.016 454.95
LOCATION L0006914     VOLUME   477877.860 3749239.512 455.00
LOCATION L0006915     VOLUME   477869.360 3749239.626 455.00
LOCATION L0006916     VOLUME   477860.861 3749239.740 455.00
LOCATION L0006917     VOLUME   477852.362 3749239.854 455.00
LOCATION L0006918     VOLUME   477843.863 3749239.968 455.00
LOCATION L0006919     VOLUME   477835.363 3749240.081 455.00
LOCATION L0006920     VOLUME   477826.864 3749240.195 455.00
LOCATION L0006921     VOLUME   477818.365 3749240.309 455.00
LOCATION L0006922     VOLUME   477809.866 3749240.423 455.00
LOCATION L0006923     VOLUME   477801.367 3749240.537 455.00
LOCATION L0006924     VOLUME   477792.867 3749240.651 455.00
LOCATION L0006925     VOLUME   477784.368 3749240.764 455.00
LOCATION L0006926     VOLUME   477775.869 3749240.878 455.00
LOCATION L0006927     VOLUME   477767.370 3749240.992 455.00
LOCATION L0006928     VOLUME   477758.870 3749241.106 455.00
LOCATION L0006929     VOLUME   477750.371 3749241.220 455.00
LOCATION L0006930     VOLUME   477741.872 3749241.334 455.00
LOCATION L0006931     VOLUME   477733.373 3749241.447 455.00
LOCATION L0006932     VOLUME   477724.873 3749241.561 455.00
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LOCATION L0006933     VOLUME   477716.374 3749241.675 455.00
LOCATION L0006934     VOLUME   477707.875 3749241.789 455.00
LOCATION L0006935     VOLUME   477699.376 3749241.903 455.00
LOCATION L0006936     VOLUME   477690.876 3749242.017 455.00
LOCATION L0006937     VOLUME   477682.377 3749242.130 455.00
LOCATION L0006938     VOLUME   477673.878 3749242.244 455.00
LOCATION L0006939     VOLUME   477665.379 3749242.358 455.00
LOCATION L0006940     VOLUME   477656.879 3749242.472 455.00
LOCATION L0006941     VOLUME   477648.380 3749242.586 455.00
LOCATION L0006942     VOLUME   477639.881 3749242.700 455.00
LOCATION L0006943     VOLUME   477631.382 3749242.813 455.00
LOCATION L0006944     VOLUME   477622.883 3749242.927 455.00
LOCATION L0006945     VOLUME   477614.383 3749243.041 455.00
LOCATION L0006946     VOLUME   477605.884 3749243.155 455.00
LOCATION L0006947     VOLUME   477597.385 3749243.269 455.00
LOCATION L0006948     VOLUME   477588.886 3749243.383 455.00
LOCATION L0006949     VOLUME   477580.386 3749243.496 455.00
LOCATION L0006950     VOLUME   477571.887 3749243.610 455.00
LOCATION L0006951     VOLUME   477563.388 3749243.724 455.00
LOCATION L0006952     VOLUME   477554.889 3749243.838 455.00
LOCATION L0006953     VOLUME   477546.389 3749243.952 455.00
LOCATION L0006954     VOLUME   477537.890 3749244.066 455.00
LOCATION L0006955     VOLUME   477529.391 3749244.179 455.00
LOCATION L0006956     VOLUME   477520.892 3749244.293 455.00
LOCATION L0006957     VOLUME   477512.392 3749244.407 455.00
LOCATION L0006958     VOLUME   477503.893 3749244.521 455.00
LOCATION L0006959     VOLUME   477495.394 3749244.635 455.00
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LOCATION L0006961     VOLUME   477478.395 3749244.862 455.00
LOCATION L0006962     VOLUME   477476.838 3749251.917 455.00
LOCATION L0006963     VOLUME   477476.725 3749260.416 455.00
LOCATION L0006964     VOLUME   477476.613 3749268.915 455.00
LOCATION L0006965     VOLUME   477476.500 3749277.415 455.00
LOCATION L0006966     VOLUME   477476.388 3749285.914 455.00
LOCATION L0006967     VOLUME   477476.275 3749294.413 455.00
LOCATION L0006968     VOLUME   477476.162 3749302.912 455.10
LOCATION L0006969     VOLUME   477476.050 3749311.412 455.23
LOCATION L0006970     VOLUME   477475.937 3749319.911 455.36
LOCATION L0006971     VOLUME   477475.825 3749328.410 455.50
LOCATION L0006972     VOLUME   477475.712 3749336.909 455.65
LOCATION L0006973     VOLUME   477475.600 3749345.409 455.80
LOCATION L0006974     VOLUME   477475.487 3749353.908 455.95
LOCATION L0006975     VOLUME   477475.374 3749362.407 456.00
LOCATION L0006976     VOLUME   477475.262 3749370.906 456.00
LOCATION L0006977     VOLUME   477475.149 3749379.406 456.00
LOCATION L0006978     VOLUME   477475.037 3749387.905 456.00
LOCATION L0006979     VOLUME   477474.924 3749396.404 456.00
LOCATION L0006980     VOLUME   477474.811 3749404.903 456.00
LOCATION L0006981     VOLUME   477474.699 3749413.403 456.00
LOCATION L0006982     VOLUME   477474.586 3749421.902 456.00
LOCATION L0006983     VOLUME   477474.474 3749430.401 456.00
LOCATION L0006984     VOLUME   477474.361 3749438.900 456.00
LOCATION L0006985     VOLUME   477474.249 3749447.400 456.00
LOCATION L0006986     VOLUME   477474.136 3749455.899 456.00
LOCATION L0006987     VOLUME   477474.023 3749464.398 456.00
LOCATION L0006988     VOLUME   477473.911 3749472.897 456.00
LOCATION L0006989     VOLUME   477473.798 3749481.397 456.16
LOCATION L0006990     VOLUME   477473.686 3749489.896 456.44
LOCATION L0006991     VOLUME   477473.573 3749498.395 456.73
LOCATION L0006992     VOLUME   477473.461 3749506.894 457.00
LOCATION L0006993     VOLUME   477473.348 3749515.394 457.00
LOCATION L0006994     VOLUME   477473.235 3749523.893 457.00
LOCATION L0006995     VOLUME   477473.123 3749532.392 457.00
LOCATION L0006996     VOLUME   477473.010 3749540.891 457.00
LOCATION L0006997     VOLUME   477472.898 3749549.391 457.00
LOCATION L0006998     VOLUME   477472.785 3749557.890 457.00
LOCATION L0006999     VOLUME   477472.673 3749566.389 457.00
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   LOCATION L0007000     VOLUME   477472.560 3749574.888 457.00
   LOCATION L0007001     VOLUME   477472.447 3749583.388 457.00
   LOCATION L0007002     VOLUME   477472.335 3749591.887 457.00
   LOCATION L0007003     VOLUME   477472.222 3749600.386 457.00
   LOCATION L0007004     VOLUME   477472.110 3749608.885 457.00
   LOCATION L0007005     VOLUME   477471.997 3749617.385 457.00
   LOCATION L0007006     VOLUME   477471.885 3749625.884 457.00
   LOCATION L0007007     VOLUME   477471.772 3749634.383 457.00
   LOCATION L0007008     VOLUME   477471.659 3749642.882 457.00
   LOCATION L0007009     VOLUME   477471.547 3749651.382 457.00
   LOCATION L0007010     VOLUME   477471.434 3749659.881 457.00
   LOCATION L0007011     VOLUME   477471.322 3749668.380 457.00
   LOCATION L0007012     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0007013     VOLUME   477471.097 3749685.379 457.00
   LOCATION L0007014     VOLUME   477470.984 3749693.878 457.00
   LOCATION L0007015     VOLUME   477470.871 3749702.377 457.00
   LOCATION L0007016     VOLUME   477470.759 3749710.877 457.00
   LOCATION L0007017     VOLUME   477470.646 3749719.376 457.00
   LOCATION L0007018     VOLUME   477470.534 3749727.875 457.00
   LOCATION L0007019     VOLUME   477470.421 3749736.374 457.00
   LOCATION L0007020     VOLUME   477470.309 3749744.874 457.00
   LOCATION L0007021     VOLUME   477470.196 3749753.373 457.23
   LOCATION L0007022     VOLUME   477470.083 3749761.872 457.51
   LOCATION L0007023     VOLUME   477469.971 3749770.371 457.79
   LOCATION L0007024     VOLUME   477469.858 3749778.871 458.00
   LOCATION L0007025     VOLUME   477469.746 3749787.370 458.00
** End of LINE VOLUME Source ID = SLINE11
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007092
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
** 477906.104, 3748181.502, 450.00, 4.00, 3.95
** 477471.185, 3748184.960, 451.00, 4.00, 3.95
** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0007027     VOLUME   477893.354 3748181.603 450.00
   LOCATION L0007028     VOLUME   477884.855 3748181.671 450.00
   LOCATION L0007029     VOLUME   477876.355 3748181.739 450.00
   LOCATION L0007030     VOLUME   477867.855 3748181.806 450.00
   LOCATION L0007031     VOLUME   477859.355 3748181.874 450.00
   LOCATION L0007032     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0007033     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0007034     VOLUME   477833.856 3748182.076 450.46
   LOCATION L0007035     VOLUME   477825.357 3748182.144 450.71
   LOCATION L0007036     VOLUME   477816.857 3748182.212 450.88
   LOCATION L0007037     VOLUME   477808.357 3748182.279 450.92
   LOCATION L0007038     VOLUME   477799.857 3748182.347 450.96
   LOCATION L0007039     VOLUME   477791.358 3748182.414 450.99
   LOCATION L0007040     VOLUME   477782.858 3748182.482 451.00
   LOCATION L0007041     VOLUME   477774.358 3748182.549 451.00
   LOCATION L0007042     VOLUME   477765.858 3748182.617 451.00
   LOCATION L0007043     VOLUME   477757.359 3748182.685 451.00
   LOCATION L0007044     VOLUME   477748.859 3748182.752 451.00
   LOCATION L0007045     VOLUME   477740.359 3748182.820 451.00
   LOCATION L0007046     VOLUME   477731.860 3748182.887 451.00
   LOCATION L0007047     VOLUME   477723.360 3748182.955 451.00
   LOCATION L0007048     VOLUME   477714.860 3748183.023 451.00
   LOCATION L0007049     VOLUME   477706.360 3748183.090 451.00
   LOCATION L0007050     VOLUME   477697.861 3748183.158 451.00
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LOCATION L0007051     VOLUME   477689.361 3748183.225 451.00
LOCATION L0007052     VOLUME   477680.861 3748183.293 451.00
LOCATION L0007053     VOLUME   477672.361 3748183.360 451.00
LOCATION L0007054     VOLUME   477663.862 3748183.428 451.00
LOCATION L0007055     VOLUME   477655.362 3748183.496 451.00
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LOCATION L0007057     VOLUME   477638.362 3748183.631 451.00
LOCATION L0007058     VOLUME   477629.863 3748183.698 451.00
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LOCATION L0007061     VOLUME   477604.364 3748183.901 451.00
LOCATION L0007062     VOLUME   477595.864 3748183.969 451.00
LOCATION L0007063     VOLUME   477587.364 3748184.036 451.00
LOCATION L0007064     VOLUME   477578.864 3748184.104 451.00
LOCATION L0007065     VOLUME   477570.365 3748184.171 451.00
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LOCATION L0007069     VOLUME   477536.366 3748184.442 451.00
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LOCATION L0007073     VOLUME   477502.367 3748184.712 451.00
LOCATION L0007074     VOLUME   477493.867 3748184.780 451.00
LOCATION L0007075     VOLUME   477485.367 3748184.847 451.00
LOCATION L0007076     VOLUME   477476.868 3748184.915 451.00
LOCATION L0007077     VOLUME   477471.123 3748182.143 451.00
LOCATION L0007078     VOLUME   477470.934 3748173.646 451.00
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LOCATION L0007081     VOLUME   477470.368 3748148.152 451.00
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LOCATION L0007084     VOLUME   477469.803 3748122.658 451.00
LOCATION L0007085     VOLUME   477469.614 3748114.160 451.00
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LOCATION L0007087     VOLUME   477469.237 3748097.164 451.00
LOCATION L0007088     VOLUME   477469.049 3748088.666 451.00
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LOCATION L0007098     VOLUME   477467.163 3748003.687 451.00
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LOCATION L0007100     VOLUME   477466.786 3747986.692 451.00
LOCATION L0007101     VOLUME   477466.598 3747978.194 451.00
LOCATION L0007102     VOLUME   477466.409 3747969.696 451.00
LOCATION L0007103     VOLUME   477466.221 3747961.198 451.00
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LOCATION L0007108     VOLUME   477465.278 3747918.708 451.00
LOCATION L0007109     VOLUME   477465.090 3747910.210 451.00
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LOCATION L0007111     VOLUME   477464.713 3747893.215 451.00
LOCATION L0007112     VOLUME   477464.524 3747884.717 451.00
LOCATION L0007113     VOLUME   477464.336 3747876.219 451.00
LOCATION L0007114     VOLUME   477464.147 3747867.721 451.00
LOCATION L0007115     VOLUME   477463.959 3747859.223 451.00
LOCATION L0007116     VOLUME   477463.770 3747850.725 451.00
LOCATION L0007117     VOLUME   477463.582 3747842.227 451.00
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   LOCATION L0007118     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0007119     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0007120     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0007121     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0007122     VOLUME   477462.639 3747799.738 451.00
   LOCATION L0007123     VOLUME   477462.450 3747791.240 451.00
   LOCATION L0007124     VOLUME   477462.262 3747782.742 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478163.737  3748384.843      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 30% on San Michele to Indian to Fwy
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0004117
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
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** 478280.995, 3747775.867, 452.44, 4.00, 3.95
** 478286.432, 3746344.751, 446.62, 4.00, 3.95
** 478251.696, 3746359.638, 447.00, 4.00, 3.95
** 477725.693, 3746359.638, 448.00, 4.00, 3.95
** 477485.022, 3746362.119, 449.09, 4.00, 3.95
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** 477323.747, 3746431.591, 450.00, 4.00, 3.95
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   LOCATION L0007135     VOLUME   477551.524 3747780.685 451.00
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   LOCATION L0007151     VOLUME   477687.521 3747779.787 450.19
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   LOCATION L0007154     VOLUME   477713.021 3747779.619 450.00
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LOCATION L0007312     VOLUME   478283.939 3747000.859 448.00
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LOCATION L0007643     VOLUME   476389.223 3746908.125 467.31
LOCATION L0007644     VOLUME   476382.219 3746912.941 467.40
LOCATION L0007645     VOLUME   476375.214 3746917.756 467.49
LOCATION L0007646     VOLUME   476368.210 3746922.572 467.59
LOCATION L0007647     VOLUME   476361.206 3746927.387 467.68
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   LOCATION L0007651     VOLUME   476332.114 3746943.710 468.05
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   LOCATION L0007664     VOLUME   476221.964 3746950.546 469.48
   LOCATION L0007665     VOLUME   476213.464 3746950.489 469.59
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   LOCATION L0007673     VOLUME   476145.466 3746950.036 470.48
   LOCATION L0007674     VOLUME   476136.966 3746949.979 470.59
   LOCATION L0007675     VOLUME   476128.466 3746949.923 470.70
   LOCATION L0007676     VOLUME   476119.966 3746949.866 470.81
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   LOCATION L0007679     VOLUME   476094.467 3746949.696 471.14
   LOCATION L0007680     VOLUME   476085.967 3746949.639 471.25
   LOCATION L0007681     VOLUME   476077.467 3746949.583 471.36
   LOCATION L0007682     VOLUME   476068.967 3746949.526 471.47
   LOCATION L0007683     VOLUME   476060.468 3746949.469 471.58
   LOCATION L0007684     VOLUME   476051.968 3746949.413 471.69
   LOCATION L0007685     VOLUME   476043.468 3746949.356 471.80
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   LOCATION L0007687     VOLUME   476026.468 3746949.243 472.02
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   LOCATION L0007692     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0007693     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0007694     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0007695     VOLUME   475958.470 3746948.789 472.90
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   LOCATION L0007697     VOLUME   475941.470 3746948.676 472.63
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** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 60% to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0009921
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
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** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
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** 474807.353, 3752229.256, 474.08, 4.00, 3.95
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   LOCATION L0007721     VOLUME   477477.568 3749987.199 459.00
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LOCATION L0008294     VOLUME   474841.550 3752229.216 474.43
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LOCATION L0008302     VOLUME   474773.930 3752224.202 474.45
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LOCATION L0008304     VOLUME   474757.121 3752221.660 474.67
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LOCATION L0008354     VOLUME   474336.898 3752158.114 477.00
LOCATION L0008355     VOLUME   474328.494 3752156.843 477.00
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LOCATION L0008358     VOLUME   474303.280 3752153.030 477.00
LOCATION L0008359     VOLUME   474294.876 3752151.759 477.00
LOCATION L0008360     VOLUME   474286.472 3752150.488 477.00
LOCATION L0008361     VOLUME   474278.067 3752149.217 477.00
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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** End of LINE VOLUME Source ID = SLINE14
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006839
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477477.033, 3750865.549, 462.00, 0.00, 3.95
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LOCATION L0008573     VOLUME   477478.568 3751355.189 465.00
LOCATION L0008574     VOLUME   477478.510 3751363.689 465.00
LOCATION L0008575     VOLUME   477478.451 3751372.188 465.00
LOCATION L0008576     VOLUME   477478.393 3751380.688 465.00
LOCATION L0008577     VOLUME   477478.335 3751389.188 465.00
LOCATION L0008578     VOLUME   477478.276 3751397.688 465.00
LOCATION L0008579     VOLUME   477478.218 3751406.188 465.00
LOCATION L0008580     VOLUME   477478.159 3751414.687 465.00
LOCATION L0008581     VOLUME   477478.101 3751423.187 465.00
LOCATION L0008582     VOLUME   477478.043 3751431.687 465.17
LOCATION L0008583     VOLUME   477477.984 3751440.187 465.45
LOCATION L0008584     VOLUME   477477.926 3751448.687 465.74
LOCATION L0008585     VOLUME   477477.867 3751457.186 466.00
LOCATION L0008586     VOLUME   477477.809 3751465.686 466.00
LOCATION L0008587     VOLUME   477477.751 3751474.186 466.00
LOCATION L0008588     VOLUME   477477.692 3751482.686 466.00
LOCATION L0008589     VOLUME   477477.634 3751491.186 466.00
LOCATION L0008590     VOLUME   477477.576 3751499.685 466.00
LOCATION L0008591     VOLUME   477477.517 3751508.185 466.00
LOCATION L0008592     VOLUME   477477.459 3751516.685 466.00
LOCATION L0008593     VOLUME   477477.400 3751525.185 466.00
LOCATION L0008594     VOLUME   477477.342 3751533.685 466.00
LOCATION L0008595     VOLUME   477477.284 3751542.184 466.00
LOCATION L0008596     VOLUME   477477.225 3751550.684 466.00
LOCATION L0008597     VOLUME   477477.167 3751559.184 466.00
LOCATION L0008598     VOLUME   477477.108 3751567.684 466.00
LOCATION L0008599     VOLUME   477477.050 3751576.184 466.00
LOCATION L0008600     VOLUME   477476.992 3751584.683 466.00
LOCATION L0008601     VOLUME   477476.933 3751593.183 466.00
LOCATION L0008602     VOLUME   477476.875 3751601.683 466.00
LOCATION L0008603     VOLUME   477476.816 3751610.183 466.07
LOCATION L0008604     VOLUME   477476.758 3751618.683 466.23
LOCATION L0008605     VOLUME   477476.700 3751627.182 466.39
LOCATION L0008606     VOLUME   477476.641 3751635.682 466.55
LOCATION L0008607     VOLUME   477476.583 3751644.182 466.67
LOCATION L0008608     VOLUME   477476.524 3751652.682 466.80
LOCATION L0008609     VOLUME   477476.466 3751661.182 466.92
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   LOCATION L0008610     VOLUME   477476.408 3751669.681 467.00
   LOCATION L0008611     VOLUME   477476.349 3751678.181 467.00
   LOCATION L0008612     VOLUME   477476.291 3751686.681 467.00
   LOCATION L0008613     VOLUME   477476.233 3751695.181 467.00
   LOCATION L0008614     VOLUME   477476.174 3751703.681 467.00
   LOCATION L0008615     VOLUME   477476.116 3751712.180 467.00
   LOCATION L0008616     VOLUME   477476.057 3751720.680 467.00
   LOCATION L0008617     VOLUME   477475.999 3751729.180 467.05
   LOCATION L0008618     VOLUME   477475.941 3751737.680 467.20
   LOCATION L0008619     VOLUME   477475.882 3751746.180 467.35
   LOCATION L0008620     VOLUME   477475.824 3751754.679 467.50
   LOCATION L0008621     VOLUME   477475.765 3751763.179 467.64
   LOCATION L0008622     VOLUME   477475.707 3751771.679 467.77
   LOCATION L0008623     VOLUME   477475.649 3751780.179 467.90
   LOCATION L0008624     VOLUME   477475.590 3751788.679 468.00
   LOCATION L0008625     VOLUME   477475.532 3751797.178 468.00
   LOCATION L0008626     VOLUME   477475.473 3751805.678 468.00
   LOCATION L0008627     VOLUME   477475.415 3751814.178 468.00
   LOCATION L0008628     VOLUME   477475.357 3751822.678 468.00
   LOCATION L0008629     VOLUME   477475.298 3751831.178 468.00
   LOCATION L0008630     VOLUME   477475.240 3751839.677 468.00
   LOCATION L0008631     VOLUME   477475.181 3751848.177 468.00
   LOCATION L0008632     VOLUME   477475.123 3751856.677 468.00
   LOCATION L0008633     VOLUME   477475.065 3751865.177 468.00
   LOCATION L0008634     VOLUME   477475.006 3751873.677 468.00
   LOCATION L0008635     VOLUME   477474.948 3751882.176 468.19
   LOCATION L0008636     VOLUME   477474.890 3751890.676 468.47
   LOCATION L0008637     VOLUME   477474.831 3751899.176 468.75
   LOCATION L0008638     VOLUME   477474.773 3751907.676 469.00
   LOCATION L0008639     VOLUME   477474.714 3751916.176 469.00
   LOCATION L0008640     VOLUME   477474.656 3751924.675 469.00
   LOCATION L0008641     VOLUME   477474.598 3751933.175 469.00
   LOCATION L0008642     VOLUME   477474.539 3751941.675 469.00
   LOCATION L0008643     VOLUME   477474.481 3751950.175 469.00
   LOCATION L0008644     VOLUME   477474.422 3751958.675 469.00
   LOCATION L0008645     VOLUME   477474.364 3751967.174 469.00
   LOCATION L0008646     VOLUME   477474.306 3751975.674 469.00
   LOCATION L0008647     VOLUME   477474.247 3751984.174 469.00
   LOCATION L0008648     VOLUME   477474.189 3751992.674 469.00
   LOCATION L0008649     VOLUME   477474.130 3752001.174 469.00
   LOCATION L0008650     VOLUME   477474.072 3752009.673 469.00
   LOCATION L0008651     VOLUME   477474.014 3752018.173 469.00
   LOCATION L0008652     VOLUME   477473.955 3752026.673 469.00
   LOCATION L0008653     VOLUME   477473.897 3752035.173 469.14
   LOCATION L0008654     VOLUME   477473.838 3752043.673 469.27
   LOCATION L0008655     VOLUME   477473.780 3752052.172 469.40
   LOCATION L0008656     VOLUME   477473.722 3752060.672 469.46
   LOCATION L0008657     VOLUME   477473.663 3752069.172 469.46
   LOCATION L0008658     VOLUME   477473.605 3752077.672 469.46
   LOCATION L0008659     VOLUME   477473.546 3752086.172 469.46
   LOCATION L0008660     VOLUME   477473.488 3752094.671 469.60
   LOCATION L0008661     VOLUME   477473.430 3752103.171 469.76
   LOCATION L0008662     VOLUME   477473.371 3752111.671 469.91
   LOCATION L0008663     VOLUME   477473.313 3752120.171 470.05
   LOCATION L0008664     VOLUME   477473.255 3752128.671 470.18
   LOCATION L0008665     VOLUME   477473.196 3752137.170 470.31
   LOCATION L0008666     VOLUME   477473.138 3752145.670 470.43
   LOCATION L0008667     VOLUME   477473.079 3752154.170 470.58
   LOCATION L0008668     VOLUME   477473.021 3752162.670 470.74
   LOCATION L0008669     VOLUME   477472.963 3752171.170 470.90
   LOCATION L0008670     VOLUME   477472.904 3752179.669 471.00
   LOCATION L0008671     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0008672     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0008673     VOLUME   477472.729 3752205.169 471.00
   LOCATION L0008674     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0008675     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
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** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0008851     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008852     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008853     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008854     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008855     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008856     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008857     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008858     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008859     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008860     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008861     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008862     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008863     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008864     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008865     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008866     0.000008553      4.00     13.95      1.86
   SRCPARAM L0008867     0.000008553      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0006444     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006445     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006446     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006447     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006448     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006449     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006450     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006451     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006452     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006453     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006454     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006455     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006456     0.000008864      4.00     13.95      1.86
   SRCPARAM L0006457     0.000008864      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0006458     0.000008177      4.00      3.95      1.86
   SRCPARAM L0006459     0.000008177      4.00      3.95      1.86
   SRCPARAM L0006460     0.000008177      4.00      3.95      1.86
   SRCPARAM L0006461     0.000008177      4.00      3.95      1.86
   SRCPARAM L0006462     0.000008177      4.00      3.95      1.86
   SRCPARAM L0006463     0.000008177      4.00      3.95      1.86
   SRCPARAM L0006464     0.000008177      4.00      3.95      1.86
   SRCPARAM L0006465     0.000008177      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0006466     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006467     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006468     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006469     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006470     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006471     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006472     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006473     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006474     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006475     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006476     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006477     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006478     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006479     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006480     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006481     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006482     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006483     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006484     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0006485     0.0000006343      4.00      3.95      1.86
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                                                       Residential
   SRCPARAM L0006486     0.0000006343      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0006487     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006488     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006489     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006490     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006491     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006492     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006493     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006494     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006495     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006496     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006497     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006498     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006499     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006500     0.000005911      0.00      3.95      1.86
   SRCPARAM L0006501     0.000005911      0.00      3.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0006502     0.000002058      0.00     13.95      1.86
   SRCPARAM L0006503     0.000002058      0.00     13.95      1.86
   SRCPARAM L0006504     0.000002058      0.00     13.95      1.86
   SRCPARAM L0006505     0.000002058      0.00     13.95      1.86
   SRCPARAM L0006506     0.000002058      0.00     13.95      1.86
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0008676     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008677     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008678     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008679     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008680     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008681     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008682     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008683     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008684     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008685     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008686     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008687     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008688     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0008692     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008693     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0008698     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0008700     0.000003353      4.00      3.95      1.86
   SRCPARAM L0008701     0.000003353      4.00      3.95      1.86
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                                                    Residential
SRCPARAM L0008716     0.000003353      4.00      3.95      1.86
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SRCPARAM L0008781     0.000003353      4.00      3.95      1.86
SRCPARAM L0008782     0.000003353      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0008783     0.000003353      4.00      3.95      1.86
SRCPARAM L0008784     0.000003353      4.00      3.95      1.86
SRCPARAM L0008785     0.000003353      4.00      3.95      1.86
SRCPARAM L0008786     0.000003353      4.00      3.95      1.86
SRCPARAM L0008787     0.000003353      4.00      3.95      1.86
SRCPARAM L0008788     0.000003353      4.00      3.95      1.86
SRCPARAM L0008789     0.000003353      4.00      3.95      1.86
SRCPARAM L0008790     0.000003353      4.00      3.95      1.86
SRCPARAM L0008791     0.000003353      4.00      3.95      1.86
SRCPARAM L0008792     0.000003353      4.00      3.95      1.86
SRCPARAM L0008793     0.000003353      4.00      3.95      1.86
SRCPARAM L0008794     0.000003353      4.00      3.95      1.86
SRCPARAM L0008795     0.000003353      4.00      3.95      1.86
SRCPARAM L0008796     0.000003353      4.00      3.95      1.86
SRCPARAM L0008797     0.000003353      4.00      3.95      1.86
SRCPARAM L0008798     0.000003353      4.00      3.95      1.86
SRCPARAM L0008799     0.000003353      4.00      3.95      1.86
SRCPARAM L0008800     0.000003353      4.00      3.95      1.86
SRCPARAM L0008801     0.000003353      4.00      3.95      1.86
SRCPARAM L0008802     0.000003353      4.00      3.95      1.86
SRCPARAM L0008803     0.000003353      4.00      3.95      1.86
SRCPARAM L0008804     0.000003353      4.00      3.95      1.86
SRCPARAM L0008805     0.000003353      4.00      3.95      1.86
SRCPARAM L0008806     0.000003353      4.00      3.95      1.86
SRCPARAM L0008807     0.000003353      4.00      3.95      1.86
SRCPARAM L0008808     0.000003353      4.00      3.95      1.86
SRCPARAM L0008809     0.000003353      4.00      3.95      1.86
SRCPARAM L0008810     0.000003353      4.00      3.95      1.86
SRCPARAM L0008811     0.000003353      4.00      3.95      1.86
SRCPARAM L0008812     0.000003353      4.00      3.95      1.86
SRCPARAM L0008813     0.000003353      4.00      3.95      1.86
SRCPARAM L0008814     0.000003353      4.00      3.95      1.86
SRCPARAM L0008815     0.000003353      4.00      3.95      1.86
SRCPARAM L0008816     0.000003353      4.00      3.95      1.86
SRCPARAM L0008817     0.000003353      4.00      3.95      1.86
SRCPARAM L0008818     0.000003353      4.00      3.95      1.86
SRCPARAM L0008819     0.000003353      4.00      3.95      1.86
SRCPARAM L0008820     0.000003353      4.00      3.95      1.86
SRCPARAM L0008821     0.000003353      4.00      3.95      1.86
SRCPARAM L0008822     0.000003353      4.00      3.95      1.86
SRCPARAM L0008823     0.000003353      4.00      3.95      1.86
SRCPARAM L0008824     0.000003353      4.00      3.95      1.86
SRCPARAM L0008825     0.000003353      4.00      3.95      1.86
SRCPARAM L0008826     0.000003353      4.00      3.95      1.86
SRCPARAM L0008827     0.000003353      4.00      3.95      1.86
SRCPARAM L0008828     0.000003353      4.00      3.95      1.86
SRCPARAM L0008829     0.000003353      4.00      3.95      1.86
SRCPARAM L0008830     0.000003353      4.00      3.95      1.86
SRCPARAM L0008831     0.000003353      4.00      3.95      1.86
SRCPARAM L0008832     0.000003353      4.00      3.95      1.86
SRCPARAM L0008833     0.000003353      4.00      3.95      1.86
SRCPARAM L0008834     0.000003353      4.00      3.95      1.86
SRCPARAM L0008835     0.000003353      4.00      3.95      1.86
SRCPARAM L0008836     0.000003353      4.00      3.95      1.86
SRCPARAM L0008837     0.000003353      4.00      3.95      1.86
SRCPARAM L0008838     0.000003353      4.00      3.95      1.86
SRCPARAM L0008839     0.000003353      4.00      3.95      1.86
SRCPARAM L0008840     0.000003353      4.00      3.95      1.86
SRCPARAM L0008841     0.000003353      4.00      3.95      1.86
SRCPARAM L0008842     0.000003353      4.00      3.95      1.86
SRCPARAM L0008843     0.000003353      4.00      3.95      1.86
SRCPARAM L0008844     0.000003353      4.00      3.95      1.86
SRCPARAM L0008845     0.000003353      4.00      3.95      1.86
SRCPARAM L0008846     0.000003353      4.00      3.95      1.86
SRCPARAM L0008847     0.000003353      4.00      3.95      1.86
SRCPARAM L0008848     0.000003353      4.00      3.95      1.86
SRCPARAM L0008849     0.000003353      4.00      3.95      1.86
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                                                     Residential
   SRCPARAM L0008850     0.000003353      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0006682     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006683     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006684     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006685     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006686     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006687     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006688     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006689     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006690     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006691     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006692     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006693     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006694     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006695     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006696     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006697     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006698     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006699     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006700     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006701     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006702     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006703     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006704     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006705     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006706     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006707     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006708     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006709     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006710     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006711     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006712     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006713     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006714     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006715     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006716     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006717     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006718     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006719     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006720     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006721     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006722     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006723     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006724     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006725     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006726     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006727     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006728     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006729     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006730     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006731     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006732     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006733     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006734     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006735     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006736     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006737     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006738     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006739     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0006740     0.0000007141      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0006741     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006742     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006743     0.0000005624      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0006744     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006745     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006746     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006747     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006748     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006749     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006750     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006751     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006752     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006753     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006754     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006755     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006756     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006757     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006758     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006759     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006760     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006761     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006762     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006763     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006764     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006765     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006766     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006767     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006768     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006769     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006770     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006771     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006772     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006773     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006774     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006775     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006776     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006777     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006778     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006779     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006780     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006781     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006782     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006783     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006784     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006785     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006786     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006787     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006788     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0006789     0.0000005624      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0006790     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006791     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006792     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006793     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006794     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006795     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006796     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006797     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006798     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006799     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006800     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006801     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006802     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006803     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006804     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006805     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006806     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006807     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006808     0.0000009602      4.00      3.95      1.86
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                                                 Residential
   SRCPARAM L0006809     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006810     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006811     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006812     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006813     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006814     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006815     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006816     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006817     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006818     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006819     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006820     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006821     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006822     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006823     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006824     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006825     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006826     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006827     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006828     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006829     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006830     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006831     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006832     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006833     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006834     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006835     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006836     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006837     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006838     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0006839     0.0000009602      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0006840     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006841     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006842     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006843     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006844     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006845     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006846     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006847     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006848     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006849     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006850     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006851     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006852     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006853     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006854     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006855     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006856     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006857     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006858     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006859     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006860     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006861     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006862     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006863     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006864     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006865     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006866     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006867     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006868     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006869     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006870     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006871     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006872     0.000001673     4.00      3.95      1.86
   SRCPARAM L0006873     0.000001673     4.00      3.95      1.86
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                                                   Residential
SRCPARAM L0006874     0.000001673      4.00      3.95      1.86
SRCPARAM L0006875     0.000001673      4.00      3.95      1.86
SRCPARAM L0006876     0.000001673      4.00      3.95      1.86
SRCPARAM L0006877     0.000001673      4.00      3.95      1.86
SRCPARAM L0006878     0.000001673      4.00      3.95      1.86
SRCPARAM L0006879     0.000001673      4.00      3.95      1.86
SRCPARAM L0006880     0.000001673      4.00      3.95      1.86
SRCPARAM L0006881     0.000001673      4.00      3.95      1.86
SRCPARAM L0006882     0.000001673      4.00      3.95      1.86
SRCPARAM L0006883     0.000001673      4.00      3.95      1.86
SRCPARAM L0006884     0.000001673      4.00      3.95      1.86
SRCPARAM L0006885     0.000001673      4.00      3.95      1.86
SRCPARAM L0006886     0.000001673      4.00      3.95      1.86
SRCPARAM L0006887     0.000001673      4.00      3.95      1.86
SRCPARAM L0006888     0.000001673      4.00      3.95      1.86
SRCPARAM L0006889     0.000001673      4.00      3.95      1.86
SRCPARAM L0006890     0.000001673      4.00      3.95      1.86
SRCPARAM L0006891     0.000001673      4.00      3.95      1.86
SRCPARAM L0006892     0.000001673      4.00      3.95      1.86
SRCPARAM L0006893     0.000001673      4.00      3.95      1.86
SRCPARAM L0006894     0.000001673      4.00      3.95      1.86
SRCPARAM L0006895     0.000001673      4.00      3.95      1.86
SRCPARAM L0006896     0.000001673      4.00      3.95      1.86
SRCPARAM L0006897     0.000001673      4.00      3.95      1.86
SRCPARAM L0006898     0.000001673      4.00      3.95      1.86
SRCPARAM L0006899     0.000001673      4.00      3.95      1.86
SRCPARAM L0006900     0.000001673      4.00      3.95      1.86
SRCPARAM L0006901     0.000001673      4.00      3.95      1.86
SRCPARAM L0006902     0.000001673      4.00      3.95      1.86
SRCPARAM L0006903     0.000001673      4.00      3.95      1.86
SRCPARAM L0006904     0.000001673      4.00      3.95      1.86
SRCPARAM L0006905     0.000001673      4.00      3.95      1.86
SRCPARAM L0006906     0.000001673      4.00      3.95      1.86
SRCPARAM L0006907     0.000001673      4.00      3.95      1.86
SRCPARAM L0006908     0.000001673      4.00      3.95      1.86
SRCPARAM L0006909     0.000001673      4.00      3.95      1.86
SRCPARAM L0006910     0.000001673      4.00      3.95      1.86
SRCPARAM L0006911     0.000001673      4.00      3.95      1.86
SRCPARAM L0006912     0.000001673      4.00      3.95      1.86
SRCPARAM L0006913     0.000001673      4.00      3.95      1.86
SRCPARAM L0006914     0.000001673      4.00      3.95      1.86
SRCPARAM L0006915     0.000001673      4.00      3.95      1.86
SRCPARAM L0006916     0.000001673      4.00      3.95      1.86
SRCPARAM L0006917     0.000001673      4.00      3.95      1.86
SRCPARAM L0006918     0.000001673      4.00      3.95      1.86
SRCPARAM L0006919     0.000001673      4.00      3.95      1.86
SRCPARAM L0006920     0.000001673      4.00      3.95      1.86
SRCPARAM L0006921     0.000001673      4.00      3.95      1.86
SRCPARAM L0006922     0.000001673      4.00      3.95      1.86
SRCPARAM L0006923     0.000001673      4.00      3.95      1.86
SRCPARAM L0006924     0.000001673      4.00      3.95      1.86
SRCPARAM L0006925     0.000001673      4.00      3.95      1.86
SRCPARAM L0006926     0.000001673      4.00      3.95      1.86
SRCPARAM L0006927     0.000001673      4.00      3.95      1.86
SRCPARAM L0006928     0.000001673      4.00      3.95      1.86
SRCPARAM L0006929     0.000001673      4.00      3.95      1.86
SRCPARAM L0006930     0.000001673      4.00      3.95      1.86
SRCPARAM L0006931     0.000001673      4.00      3.95      1.86
SRCPARAM L0006932     0.000001673      4.00      3.95      1.86
SRCPARAM L0006933     0.000001673      4.00      3.95      1.86
SRCPARAM L0006934     0.000001673      4.00      3.95      1.86
SRCPARAM L0006935     0.000001673      4.00      3.95      1.86
SRCPARAM L0006936     0.000001673      4.00      3.95      1.86
SRCPARAM L0006937     0.000001673      4.00      3.95      1.86
SRCPARAM L0006938     0.000001673      4.00      3.95      1.86
SRCPARAM L0006939     0.000001673      4.00      3.95      1.86
SRCPARAM L0006940     0.000001673      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006941     0.000001673      4.00      3.95     1.86
SRCPARAM L0006942     0.000001673      4.00      3.95     1.86
SRCPARAM L0006943     0.000001673      4.00      3.95     1.86
SRCPARAM L0006944     0.000001673      4.00      3.95     1.86
SRCPARAM L0006945     0.000001673      4.00      3.95     1.86
SRCPARAM L0006946     0.000001673      4.00      3.95     1.86
SRCPARAM L0006947     0.000001673      4.00      3.95     1.86
SRCPARAM L0006948     0.000001673      4.00      3.95     1.86
SRCPARAM L0006949     0.000001673      4.00      3.95     1.86
SRCPARAM L0006950     0.000001673      4.00      3.95     1.86
SRCPARAM L0006951     0.000001673      4.00      3.95     1.86
SRCPARAM L0006952     0.000001673      4.00      3.95     1.86
SRCPARAM L0006953     0.000001673      4.00      3.95     1.86
SRCPARAM L0006954     0.000001673      4.00      3.95     1.86
SRCPARAM L0006955     0.000001673      4.00      3.95     1.86
SRCPARAM L0006956     0.000001673      4.00      3.95     1.86
SRCPARAM L0006957     0.000001673      4.00      3.95     1.86
SRCPARAM L0006958     0.000001673      4.00      3.95     1.86
SRCPARAM L0006959     0.000001673      4.00      3.95     1.86
SRCPARAM L0006960     0.000001673      4.00      3.95     1.86
SRCPARAM L0006961     0.000001673      4.00      3.95     1.86
SRCPARAM L0006962     0.000001673      4.00      3.95     1.86
SRCPARAM L0006963     0.000001673      4.00      3.95     1.86
SRCPARAM L0006964     0.000001673      4.00      3.95     1.86
SRCPARAM L0006965     0.000001673      4.00      3.95     1.86
SRCPARAM L0006966     0.000001673      4.00      3.95     1.86
SRCPARAM L0006967     0.000001673      4.00      3.95     1.86
SRCPARAM L0006968     0.000001673      4.00      3.95     1.86
SRCPARAM L0006969     0.000001673      4.00      3.95     1.86
SRCPARAM L0006970     0.000001673      4.00      3.95     1.86
SRCPARAM L0006971     0.000001673      4.00      3.95     1.86
SRCPARAM L0006972     0.000001673      4.00      3.95     1.86
SRCPARAM L0006973     0.000001673      4.00      3.95     1.86
SRCPARAM L0006974     0.000001673      4.00      3.95     1.86
SRCPARAM L0006975     0.000001673      4.00      3.95     1.86
SRCPARAM L0006976     0.000001673      4.00      3.95     1.86
SRCPARAM L0006977     0.000001673      4.00      3.95     1.86
SRCPARAM L0006978     0.000001673      4.00      3.95     1.86
SRCPARAM L0006979     0.000001673      4.00      3.95     1.86
SRCPARAM L0006980     0.000001673      4.00      3.95     1.86
SRCPARAM L0006981     0.000001673      4.00      3.95     1.86
SRCPARAM L0006982     0.000001673      4.00      3.95     1.86
SRCPARAM L0006983     0.000001673      4.00      3.95     1.86
SRCPARAM L0006984     0.000001673      4.00      3.95     1.86
SRCPARAM L0006985     0.000001673      4.00      3.95     1.86
SRCPARAM L0006986     0.000001673      4.00      3.95     1.86
SRCPARAM L0006987     0.000001673      4.00      3.95     1.86
SRCPARAM L0006988     0.000001673      4.00      3.95     1.86
SRCPARAM L0006989     0.000001673      4.00      3.95     1.86
SRCPARAM L0006990     0.000001673      4.00      3.95     1.86
SRCPARAM L0006991     0.000001673      4.00      3.95     1.86
SRCPARAM L0006992     0.000001673      4.00      3.95     1.86
SRCPARAM L0006993     0.000001673      4.00      3.95     1.86
SRCPARAM L0006994     0.000001673      4.00      3.95     1.86
SRCPARAM L0006995     0.000001673      4.00      3.95     1.86
SRCPARAM L0006996     0.000001673      4.00      3.95     1.86
SRCPARAM L0006997     0.000001673      4.00      3.95     1.86
SRCPARAM L0006998     0.000001673      4.00      3.95     1.86
SRCPARAM L0006999     0.000001673      4.00      3.95     1.86
SRCPARAM L0007000     0.000001673      4.00      3.95     1.86
SRCPARAM L0007001     0.000001673      4.00      3.95     1.86
SRCPARAM L0007002     0.000001673      4.00      3.95     1.86
SRCPARAM L0007003     0.000001673      4.00      3.95     1.86
SRCPARAM L0007004     0.000001673      4.00      3.95     1.86
SRCPARAM L0007005     0.000001673      4.00      3.95     1.86
SRCPARAM L0007006     0.000001673      4.00      3.95     1.86
SRCPARAM L0007007     0.000001673      4.00      3.95     1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                    Residential
   SRCPARAM L0007008     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007009     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007010     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007011     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007012     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007013     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007014     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007015     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007016     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007017     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007018     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007019     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007020     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007021     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007022     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007023     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007024     0.000001673      4.00      3.95      1.86
   SRCPARAM L0007025     0.000001673      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0007026     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007027     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007028     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007029     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007030     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007031     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007032     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007033     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007034     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007035     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007036     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007037     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007038     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007039     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007040     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007041     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007042     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007043     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007044     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007045     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007046     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007047     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007048     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007049     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007050     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007051     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007052     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007053     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007054     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007055     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007056     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007057     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007058     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007059     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007060     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007061     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007062     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007063     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007064     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007065     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007066     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007067     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007068     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007069     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007070     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007071     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007072     0.0000007164      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0007073     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007074     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007075     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007076     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007077     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007078     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007079     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007080     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007081     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007082     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007083     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007084     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007085     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007086     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007087     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007088     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007089     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007090     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007091     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007092     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007093     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007094     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007095     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007096     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007097     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007098     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007099     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007100     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007101     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007102     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007103     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007104     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007105     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007106     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007107     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007108     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007109     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007110     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007111     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007112     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007113     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007114     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007115     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007116     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007117     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007118     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007119     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007120     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007121     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007122     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007123     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0007124     0.0000007164      4.00      3.95      1.86
** --------------------------------------------------------------------
   SRCPARAM AREA1        2.351E-08     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        0.000024556     3.960   501.000  49.98254     0.044
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                                                    Residential
   SRCPARAM STCK9        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.00005195     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000041163     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000070402     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0007125     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007126     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007127     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007128     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007129     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007130     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007131     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007132     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007133     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007134     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007135     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007136     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007137     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007138     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007139     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007140     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007141     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007142     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007143     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007144     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007145     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007146     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007147     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007148     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007149     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007150     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007151     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007152     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007153     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007154     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007155     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007156     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007157     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007158     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007159     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007160     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007161     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007162     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007163     0.0000007172      4.00      3.95      1.86
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   SRCPARAM L0007171     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007172     0.0000007172      4.00      3.95      1.86
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   SRCPARAM L0007180     0.0000007172      4.00      3.95      1.86
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   SRCPARAM L0007182     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007183     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007184     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007185     0.0000007172      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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SRCPARAM L0007186     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007460     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007461     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007464     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007466     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007467     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007468     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007469     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007470     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007471     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007478     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007480     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007481     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007485     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007498     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007499     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007500     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007501     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007510     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007511     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007512     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007513     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007514     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007515     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007516     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007517     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007518     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007519     0.0000007172       4.00       3.95       1.86
SRCPARAM L0007520     0.0000007172       4.00       3.95       1.86
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SRCPARAM L0007523     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007524     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007525     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007526     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007527     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007528     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007529     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007530     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007531     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007532     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007533     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007535     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007536     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007537     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007538     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007539     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007540     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007541     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007542     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007543     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007544     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007545     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007546     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007547     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007549     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007554     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007564     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007567     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007568     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007569     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007570     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007571     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007573     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007574     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007575     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007576     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007577     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007578     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007579     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007580     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007581     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007582     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007583     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007584     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007585     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007587     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007593     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007601     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007608     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007609     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007611     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007612     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007613     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007614     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007615     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007616     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007617     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007618     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007619     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007620     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007622     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007623     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007624     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007625     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007626     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007627     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007628     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007629     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007630     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007631     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007632     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007633     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007634     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007635     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007636     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007637     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007638     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007639     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007640     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007641     0.0000007172      4.00      3.95      1.86
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SRCPARAM L0007650     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007651     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007652     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007653     0.0000007172      4.00      3.95      1.86
SRCPARAM L0007654     0.0000007172      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0007655     0.0000007172      4.00      3.95      1.86
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   SRCPARAM L0007659     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007660     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007661     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007662     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007663     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007664     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007665     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007666     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007667     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007668     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007669     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007670     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007671     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007672     0.0000007172      4.00      3.95      1.86
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   SRCPARAM L0007674     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007675     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007676     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007677     0.0000007172      4.00      3.95      1.86
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   SRCPARAM L0007679     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007680     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007681     0.0000007172      4.00      3.95      1.86
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   SRCPARAM L0007685     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007686     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007687     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007688     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007689     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007690     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007691     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007692     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007693     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007694     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007695     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007696     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007697     0.0000007172      4.00      3.95      1.86
   SRCPARAM L0007698     0.0000007172      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE14
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   SRCPARAM L0007700     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007701     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007702     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007703     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007704     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007705     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007706     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007707     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007708     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007709     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007710     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007711     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007712     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007713     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007714     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007715     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007716     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007717     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007718     0.000001436      4.00      3.95      1.86
   SRCPARAM L0007719     0.000001436      4.00      3.95      1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                 Residential
SRCPARAM L0007720    0.000001436      4.00      3.95      1.86
SRCPARAM L0007721    0.000001436      4.00      3.95      1.86
SRCPARAM L0007722    0.000001436      4.00      3.95      1.86
SRCPARAM L0007723    0.000001436      4.00      3.95      1.86
SRCPARAM L0007724    0.000001436      4.00      3.95      1.86
SRCPARAM L0007725    0.000001436      4.00      3.95      1.86
SRCPARAM L0007726    0.000001436      4.00      3.95      1.86
SRCPARAM L0007727    0.000001436      4.00      3.95      1.86
SRCPARAM L0007728    0.000001436      4.00      3.95      1.86
SRCPARAM L0007729    0.000001436      4.00      3.95      1.86
SRCPARAM L0007730    0.000001436      4.00      3.95      1.86
SRCPARAM L0007731    0.000001436      4.00      3.95      1.86
SRCPARAM L0007732    0.000001436      4.00      3.95      1.86
SRCPARAM L0007733    0.000001436      4.00      3.95      1.86
SRCPARAM L0007734    0.000001436      4.00      3.95      1.86
SRCPARAM L0007735    0.000001436      4.00      3.95      1.86
SRCPARAM L0007736    0.000001436      4.00      3.95      1.86
SRCPARAM L0007737    0.000001436      4.00      3.95      1.86
SRCPARAM L0007738    0.000001436      4.00      3.95      1.86
SRCPARAM L0007739    0.000001436      4.00      3.95      1.86
SRCPARAM L0007740    0.000001436      4.00      3.95      1.86
SRCPARAM L0007741    0.000001436      4.00      3.95      1.86
SRCPARAM L0007742    0.000001436      4.00      3.95      1.86
SRCPARAM L0007743    0.000001436      4.00      3.95      1.86
SRCPARAM L0007744    0.000001436      4.00      3.95      1.86
SRCPARAM L0007745    0.000001436      4.00      3.95      1.86
SRCPARAM L0007746    0.000001436      4.00      3.95      1.86
SRCPARAM L0007747    0.000001436      4.00      3.95      1.86
SRCPARAM L0007748    0.000001436      4.00      3.95      1.86
SRCPARAM L0007749    0.000001436      4.00      3.95      1.86
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SRCPARAM L0007759    0.000001436      4.00      3.95      1.86
SRCPARAM L0007760    0.000001436      4.00      3.95      1.86
SRCPARAM L0007761    0.000001436      4.00      3.95      1.86
SRCPARAM L0007762    0.000001436      4.00      3.95      1.86
SRCPARAM L0007763    0.000001436      4.00      3.95      1.86
SRCPARAM L0007764    0.000001436      4.00      3.95      1.86
SRCPARAM L0007765    0.000001436      4.00      3.95      1.86
SRCPARAM L0007766    0.000001436      4.00      3.95      1.86
SRCPARAM L0007767    0.000001436      4.00      3.95      1.86
SRCPARAM L0007768    0.000001436      4.00      3.95      1.86
SRCPARAM L0007769    0.000001436      4.00      3.95      1.86
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SRCPARAM L0007772    0.000001436      4.00      3.95      1.86
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SRCPARAM L0007774    0.000001436      4.00      3.95      1.86
SRCPARAM L0007775    0.000001436      4.00      3.95      1.86
SRCPARAM L0007776    0.000001436      4.00      3.95      1.86
SRCPARAM L0007777    0.000001436      4.00      3.95      1.86
SRCPARAM L0007778    0.000001436      4.00      3.95      1.86
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SRCPARAM L0007780    0.000001436      4.00      3.95      1.86
SRCPARAM L0007781    0.000001436      4.00      3.95      1.86
SRCPARAM L0007782    0.000001436      4.00      3.95      1.86
SRCPARAM L0007783    0.000001436      4.00      3.95      1.86
SRCPARAM L0007784    0.000001436      4.00      3.95      1.86
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SRCPARAM L0007812     0.000001436      4.00      3.95      1.86
SRCPARAM L0007813     0.000001436      4.00      3.95      1.86
SRCPARAM L0007814     0.000001436      4.00      3.95      1.86
SRCPARAM L0007815     0.000001436      4.00      3.95      1.86
SRCPARAM L0007816     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007820     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007822     0.000001436      4.00      3.95      1.86
SRCPARAM L0007823     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007917     0.000001436      4.00      3.95      1.86
SRCPARAM L0007918     0.000001436      4.00      3.95      1.86
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                                                Residential
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SRCPARAM L0007923     0.000001436      4.00      3.95      1.86
SRCPARAM L0007924     0.000001436      4.00      3.95      1.86
SRCPARAM L0007925     0.000001436      4.00      3.95      1.86
SRCPARAM L0007926     0.000001436      4.00      3.95      1.86
SRCPARAM L0007927     0.000001436      4.00      3.95      1.86
SRCPARAM L0007928     0.000001436      4.00      3.95      1.86
SRCPARAM L0007929     0.000001436      4.00      3.95      1.86
SRCPARAM L0007930     0.000001436      4.00      3.95      1.86
SRCPARAM L0007931     0.000001436      4.00      3.95      1.86
SRCPARAM L0007932     0.000001436      4.00      3.95      1.86
SRCPARAM L0007933     0.000001436      4.00      3.95      1.86
SRCPARAM L0007934     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007936     0.000001436      4.00      3.95      1.86
SRCPARAM L0007937     0.000001436      4.00      3.95      1.86
SRCPARAM L0007938     0.000001436      4.00      3.95      1.86
SRCPARAM L0007939     0.000001436      4.00      3.95      1.86
SRCPARAM L0007940     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007943     0.000001436      4.00      3.95      1.86
SRCPARAM L0007944     0.000001436      4.00      3.95      1.86
SRCPARAM L0007945     0.000001436      4.00      3.95      1.86
SRCPARAM L0007946     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007975     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007978     0.000001436      4.00      3.95      1.86
SRCPARAM L0007979     0.000001436      4.00      3.95      1.86
SRCPARAM L0007980     0.000001436      4.00      3.95      1.86
SRCPARAM L0007981     0.000001436      4.00      3.95      1.86
SRCPARAM L0007982     0.000001436      4.00      3.95      1.86
SRCPARAM L0007983     0.000001436      4.00      3.95      1.86
SRCPARAM L0007984     0.000001436      4.00      3.95      1.86
SRCPARAM L0007985     0.000001436      4.00      3.95      1.86
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SRCPARAM L0007987     0.000001436      4.00      3.95      1.86
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                                                  Residential
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SRCPARAM L0008000     0.000001436      4.00       3.95      1.86
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SRCPARAM L0008002     0.000001436      4.00       3.95      1.86
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SRCPARAM L0008036     0.000001436      4.00       3.95      1.86
SRCPARAM L0008037     0.000001436      4.00       3.95      1.86
SRCPARAM L0008038     0.000001436      4.00       3.95      1.86
SRCPARAM L0008039     0.000001436      4.00       3.95      1.86
SRCPARAM L0008040     0.000001436      4.00       3.95      1.86
SRCPARAM L0008041     0.000001436      4.00       3.95      1.86
SRCPARAM L0008042     0.000001436      4.00       3.95      1.86
SRCPARAM L0008043     0.000001436      4.00       3.95      1.86
SRCPARAM L0008044     0.000001436      4.00       3.95      1.86
SRCPARAM L0008045     0.000001436      4.00       3.95      1.86
SRCPARAM L0008046     0.000001436      4.00       3.95      1.86
SRCPARAM L0008047     0.000001436      4.00       3.95      1.86
SRCPARAM L0008048     0.000001436      4.00       3.95      1.86
SRCPARAM L0008049     0.000001436      4.00       3.95      1.86
SRCPARAM L0008050     0.000001436      4.00       3.95      1.86
SRCPARAM L0008051     0.000001436      4.00       3.95      1.86
SRCPARAM L0008052     0.000001436      4.00       3.95      1.86
SRCPARAM L0008053     0.000001436      4.00       3.95      1.86
SRCPARAM L0008054     0.000001436      4.00       3.95      1.86
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                                                 Residential
SRCPARAM L0008055     0.000001436      4.00      3.95      1.86
SRCPARAM L0008056     0.000001436      4.00      3.95      1.86
SRCPARAM L0008057     0.000001436      4.00      3.95      1.86
SRCPARAM L0008058     0.000001436      4.00      3.95      1.86
SRCPARAM L0008059     0.000001436      4.00      3.95      1.86
SRCPARAM L0008060     0.000001436      4.00      3.95      1.86
SRCPARAM L0008061     0.000001436      4.00      3.95      1.86
SRCPARAM L0008062     0.000001436      4.00      3.95      1.86
SRCPARAM L0008063     0.000001436      4.00      3.95      1.86
SRCPARAM L0008064     0.000001436      4.00      3.95      1.86
SRCPARAM L0008065     0.000001436      4.00      3.95      1.86
SRCPARAM L0008066     0.000001436      4.00      3.95      1.86
SRCPARAM L0008067     0.000001436      4.00      3.95      1.86
SRCPARAM L0008068     0.000001436      4.00      3.95      1.86
SRCPARAM L0008069     0.000001436      4.00      3.95      1.86
SRCPARAM L0008070     0.000001436      4.00      3.95      1.86
SRCPARAM L0008071     0.000001436      4.00      3.95      1.86
SRCPARAM L0008072     0.000001436      4.00      3.95      1.86
SRCPARAM L0008073     0.000001436      4.00      3.95      1.86
SRCPARAM L0008074     0.000001436      4.00      3.95      1.86
SRCPARAM L0008075     0.000001436      4.00      3.95      1.86
SRCPARAM L0008076     0.000001436      4.00      3.95      1.86
SRCPARAM L0008077     0.000001436      4.00      3.95      1.86
SRCPARAM L0008078     0.000001436      4.00      3.95      1.86
SRCPARAM L0008079     0.000001436      4.00      3.95      1.86
SRCPARAM L0008080     0.000001436      4.00      3.95      1.86
SRCPARAM L0008081     0.000001436      4.00      3.95      1.86
SRCPARAM L0008082     0.000001436      4.00      3.95      1.86
SRCPARAM L0008083     0.000001436      4.00      3.95      1.86
SRCPARAM L0008084     0.000001436      4.00      3.95      1.86
SRCPARAM L0008085     0.000001436      4.00      3.95      1.86
SRCPARAM L0008086     0.000001436      4.00      3.95      1.86
SRCPARAM L0008087     0.000001436      4.00      3.95      1.86
SRCPARAM L0008088     0.000001436      4.00      3.95      1.86
SRCPARAM L0008089     0.000001436      4.00      3.95      1.86
SRCPARAM L0008090     0.000001436      4.00      3.95      1.86
SRCPARAM L0008091     0.000001436      4.00      3.95      1.86
SRCPARAM L0008092     0.000001436      4.00      3.95      1.86
SRCPARAM L0008093     0.000001436      4.00      3.95      1.86
SRCPARAM L0008094     0.000001436      4.00      3.95      1.86
SRCPARAM L0008095     0.000001436      4.00      3.95      1.86
SRCPARAM L0008096     0.000001436      4.00      3.95      1.86
SRCPARAM L0008097     0.000001436      4.00      3.95      1.86
SRCPARAM L0008098     0.000001436      4.00      3.95      1.86
SRCPARAM L0008099     0.000001436      4.00      3.95      1.86
SRCPARAM L0008100     0.000001436      4.00      3.95      1.86
SRCPARAM L0008101     0.000001436      4.00      3.95      1.86
SRCPARAM L0008102     0.000001436      4.00      3.95      1.86
SRCPARAM L0008103     0.000001436      4.00      3.95      1.86
SRCPARAM L0008104     0.000001436      4.00      3.95      1.86
SRCPARAM L0008105     0.000001436      4.00      3.95      1.86
SRCPARAM L0008106     0.000001436      4.00      3.95      1.86
SRCPARAM L0008107     0.000001436      4.00      3.95      1.86
SRCPARAM L0008108     0.000001436      4.00      3.95      1.86
SRCPARAM L0008109     0.000001436      4.00      3.95      1.86
SRCPARAM L0008110     0.000001436      4.00      3.95      1.86
SRCPARAM L0008111     0.000001436      4.00      3.95      1.86
SRCPARAM L0008112     0.000001436      4.00      3.95      1.86
SRCPARAM L0008113     0.000001436      4.00      3.95      1.86
SRCPARAM L0008114     0.000001436      4.00      3.95      1.86
SRCPARAM L0008115     0.000001436      4.00      3.95      1.86
SRCPARAM L0008116     0.000001436      4.00      3.95      1.86
SRCPARAM L0008117     0.000001436      4.00      3.95      1.86
SRCPARAM L0008118     0.000001436      4.00      3.95      1.86
SRCPARAM L0008119     0.000001436      4.00      3.95      1.86
SRCPARAM L0008120     0.000001436      4.00      3.95      1.86
SRCPARAM L0008121     0.000001436      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0008122     0.000001436      4.00      3.95      1.86
SRCPARAM L0008123     0.000001436      4.00      3.95      1.86
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SRCPARAM L0008125     0.000001436      4.00      3.95      1.86
SRCPARAM L0008126     0.000001436      4.00      3.95      1.86
SRCPARAM L0008127     0.000001436      4.00      3.95      1.86
SRCPARAM L0008128     0.000001436      4.00      3.95      1.86
SRCPARAM L0008129     0.000001436      4.00      3.95      1.86
SRCPARAM L0008130     0.000001436      4.00      3.95      1.86
SRCPARAM L0008131     0.000001436      4.00      3.95      1.86
SRCPARAM L0008132     0.000001436      4.00      3.95      1.86
SRCPARAM L0008133     0.000001436      4.00      3.95      1.86
SRCPARAM L0008134     0.000001436      4.00      3.95      1.86
SRCPARAM L0008135     0.000001436      4.00      3.95      1.86
SRCPARAM L0008136     0.000001436      4.00      3.95      1.86
SRCPARAM L0008137     0.000001436      4.00      3.95      1.86
SRCPARAM L0008138     0.000001436      4.00      3.95      1.86
SRCPARAM L0008139     0.000001436      4.00      3.95      1.86
SRCPARAM L0008140     0.000001436      4.00      3.95      1.86
SRCPARAM L0008141     0.000001436      4.00      3.95      1.86
SRCPARAM L0008142     0.000001436      4.00      3.95      1.86
SRCPARAM L0008143     0.000001436      4.00      3.95      1.86
SRCPARAM L0008144     0.000001436      4.00      3.95      1.86
SRCPARAM L0008145     0.000001436      4.00      3.95      1.86
SRCPARAM L0008146     0.000001436      4.00      3.95      1.86
SRCPARAM L0008147     0.000001436      4.00      3.95      1.86
SRCPARAM L0008148     0.000001436      4.00      3.95      1.86
SRCPARAM L0008149     0.000001436      4.00      3.95      1.86
SRCPARAM L0008150     0.000001436      4.00      3.95      1.86
SRCPARAM L0008151     0.000001436      4.00      3.95      1.86
SRCPARAM L0008152     0.000001436      4.00      3.95      1.86
SRCPARAM L0008153     0.000001436      4.00      3.95      1.86
SRCPARAM L0008154     0.000001436      4.00      3.95      1.86
SRCPARAM L0008155     0.000001436      4.00      3.95      1.86
SRCPARAM L0008156     0.000001436      4.00      3.95      1.86
SRCPARAM L0008157     0.000001436      4.00      3.95      1.86
SRCPARAM L0008158     0.000001436      4.00      3.95      1.86
SRCPARAM L0008159     0.000001436      4.00      3.95      1.86
SRCPARAM L0008160     0.000001436      4.00      3.95      1.86
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SRCPARAM L0008162     0.000001436      4.00      3.95      1.86
SRCPARAM L0008163     0.000001436      4.00      3.95      1.86
SRCPARAM L0008164     0.000001436      4.00      3.95      1.86
SRCPARAM L0008165     0.000001436      4.00      3.95      1.86
SRCPARAM L0008166     0.000001436      4.00      3.95      1.86
SRCPARAM L0008167     0.000001436      4.00      3.95      1.86
SRCPARAM L0008168     0.000001436      4.00      3.95      1.86
SRCPARAM L0008169     0.000001436      4.00      3.95      1.86
SRCPARAM L0008170     0.000001436      4.00      3.95      1.86
SRCPARAM L0008171     0.000001436      4.00      3.95      1.86
SRCPARAM L0008172     0.000001436      4.00      3.95      1.86
SRCPARAM L0008173     0.000001436      4.00      3.95      1.86
SRCPARAM L0008174     0.000001436      4.00      3.95      1.86
SRCPARAM L0008175     0.000001436      4.00      3.95      1.86
SRCPARAM L0008176     0.000001436      4.00      3.95      1.86
SRCPARAM L0008177     0.000001436      4.00      3.95      1.86
SRCPARAM L0008178     0.000001436      4.00      3.95      1.86
SRCPARAM L0008179     0.000001436      4.00      3.95      1.86
SRCPARAM L0008180     0.000001436      4.00      3.95      1.86
SRCPARAM L0008181     0.000001436      4.00      3.95      1.86
SRCPARAM L0008182     0.000001436      4.00      3.95      1.86
SRCPARAM L0008183     0.000001436      4.00      3.95      1.86
SRCPARAM L0008184     0.000001436      4.00      3.95      1.86
SRCPARAM L0008185     0.000001436      4.00      3.95      1.86
SRCPARAM L0008186     0.000001436      4.00      3.95      1.86
SRCPARAM L0008187     0.000001436      4.00      3.95      1.86
SRCPARAM L0008188     0.000001436      4.00      3.95      1.86
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SRCPARAM L0008190     0.000001436      4.00       3.95      1.86
SRCPARAM L0008191     0.000001436      4.00       3.95      1.86
SRCPARAM L0008192     0.000001436      4.00       3.95      1.86
SRCPARAM L0008193     0.000001436      4.00       3.95      1.86
SRCPARAM L0008194     0.000001436      4.00       3.95      1.86
SRCPARAM L0008195     0.000001436      4.00       3.95      1.86
SRCPARAM L0008196     0.000001436      4.00       3.95      1.86
SRCPARAM L0008197     0.000001436      4.00       3.95      1.86
SRCPARAM L0008198     0.000001436      4.00       3.95      1.86
SRCPARAM L0008199     0.000001436      4.00       3.95      1.86
SRCPARAM L0008200     0.000001436      4.00       3.95      1.86
SRCPARAM L0008201     0.000001436      4.00       3.95      1.86
SRCPARAM L0008202     0.000001436      4.00       3.95      1.86
SRCPARAM L0008203     0.000001436      4.00       3.95      1.86
SRCPARAM L0008204     0.000001436      4.00       3.95      1.86
SRCPARAM L0008205     0.000001436      4.00       3.95      1.86
SRCPARAM L0008206     0.000001436      4.00       3.95      1.86
SRCPARAM L0008207     0.000001436      4.00       3.95      1.86
SRCPARAM L0008208     0.000001436      4.00       3.95      1.86
SRCPARAM L0008209     0.000001436      4.00       3.95      1.86
SRCPARAM L0008210     0.000001436      4.00       3.95      1.86
SRCPARAM L0008211     0.000001436      4.00       3.95      1.86
SRCPARAM L0008212     0.000001436      4.00       3.95      1.86
SRCPARAM L0008213     0.000001436      4.00       3.95      1.86
SRCPARAM L0008214     0.000001436      4.00       3.95      1.86
SRCPARAM L0008215     0.000001436      4.00       3.95      1.86
SRCPARAM L0008216     0.000001436      4.00       3.95      1.86
SRCPARAM L0008217     0.000001436      4.00       3.95      1.86
SRCPARAM L0008218     0.000001436      4.00       3.95      1.86
SRCPARAM L0008219     0.000001436      4.00       3.95      1.86
SRCPARAM L0008220     0.000001436      4.00       3.95      1.86
SRCPARAM L0008221     0.000001436      4.00       3.95      1.86
SRCPARAM L0008222     0.000001436      4.00       3.95      1.86
SRCPARAM L0008223     0.000001436      4.00       3.95      1.86
SRCPARAM L0008224     0.000001436      4.00       3.95      1.86
SRCPARAM L0008225     0.000001436      4.00       3.95      1.86
SRCPARAM L0008226     0.000001436      4.00       3.95      1.86
SRCPARAM L0008227     0.000001436      4.00       3.95      1.86
SRCPARAM L0008228     0.000001436      4.00       3.95      1.86
SRCPARAM L0008229     0.000001436      4.00       3.95      1.86
SRCPARAM L0008230     0.000001436      4.00       3.95      1.86
SRCPARAM L0008231     0.000001436      4.00       3.95      1.86
SRCPARAM L0008232     0.000001436      4.00       3.95      1.86
SRCPARAM L0008233     0.000001436      4.00       3.95      1.86
SRCPARAM L0008234     0.000001436      4.00       3.95      1.86
SRCPARAM L0008235     0.000001436      4.00       3.95      1.86
SRCPARAM L0008236     0.000001436      4.00       3.95      1.86
SRCPARAM L0008237     0.000001436      4.00       3.95      1.86
SRCPARAM L0008238     0.000001436      4.00       3.95      1.86
SRCPARAM L0008239     0.000001436      4.00       3.95      1.86
SRCPARAM L0008240     0.000001436      4.00       3.95      1.86
SRCPARAM L0008241     0.000001436      4.00       3.95      1.86
SRCPARAM L0008242     0.000001436      4.00       3.95      1.86
SRCPARAM L0008243     0.000001436      4.00       3.95      1.86
SRCPARAM L0008244     0.000001436      4.00       3.95      1.86
SRCPARAM L0008245     0.000001436      4.00       3.95      1.86
SRCPARAM L0008246     0.000001436      4.00       3.95      1.86
SRCPARAM L0008247     0.000001436      4.00       3.95      1.86
SRCPARAM L0008248     0.000001436      4.00       3.95      1.86
SRCPARAM L0008249     0.000001436      4.00       3.95      1.86
SRCPARAM L0008250     0.000001436      4.00       3.95      1.86
SRCPARAM L0008251     0.000001436      4.00       3.95      1.86
SRCPARAM L0008252     0.000001436      4.00       3.95      1.86
SRCPARAM L0008253     0.000001436      4.00       3.95      1.86
SRCPARAM L0008254     0.000001436      4.00       3.95      1.86
SRCPARAM L0008255     0.000001436      4.00       3.95      1.86
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                                                 Residential
SRCPARAM L0008256     0.000001436      4.00      3.95       1.86
SRCPARAM L0008257     0.000001436      4.00      3.95       1.86
SRCPARAM L0008258     0.000001436      4.00      3.95       1.86
SRCPARAM L0008259     0.000001436      4.00      3.95       1.86
SRCPARAM L0008260     0.000001436      4.00      3.95       1.86
SRCPARAM L0008261     0.000001436      4.00      3.95       1.86
SRCPARAM L0008262     0.000001436      4.00      3.95       1.86
SRCPARAM L0008263     0.000001436      4.00      3.95       1.86
SRCPARAM L0008264     0.000001436      4.00      3.95       1.86
SRCPARAM L0008265     0.000001436      4.00      3.95       1.86
SRCPARAM L0008266     0.000001436      4.00      3.95       1.86
SRCPARAM L0008267     0.000001436      4.00      3.95       1.86
SRCPARAM L0008268     0.000001436      4.00      3.95       1.86
SRCPARAM L0008269     0.000001436      4.00      3.95       1.86
SRCPARAM L0008270     0.000001436      4.00      3.95       1.86
SRCPARAM L0008271     0.000001436      4.00      3.95       1.86
SRCPARAM L0008272     0.000001436      4.00      3.95       1.86
SRCPARAM L0008273     0.000001436      4.00      3.95       1.86
SRCPARAM L0008274     0.000001436      4.00      3.95       1.86
SRCPARAM L0008275     0.000001436      4.00      3.95       1.86
SRCPARAM L0008276     0.000001436      4.00      3.95       1.86
SRCPARAM L0008277     0.000001436      4.00      3.95       1.86
SRCPARAM L0008278     0.000001436      4.00      3.95       1.86
SRCPARAM L0008279     0.000001436      4.00      3.95       1.86
SRCPARAM L0008280     0.000001436      4.00      3.95       1.86
SRCPARAM L0008281     0.000001436      4.00      3.95       1.86
SRCPARAM L0008282     0.000001436      4.00      3.95       1.86
SRCPARAM L0008283     0.000001436      4.00      3.95       1.86
SRCPARAM L0008284     0.000001436      4.00      3.95       1.86
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SRCPARAM L0008287     0.000001436      4.00      3.95       1.86
SRCPARAM L0008288     0.000001436      4.00      3.95       1.86
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SRCPARAM L0008290     0.000001436      4.00      3.95       1.86
SRCPARAM L0008291     0.000001436      4.00      3.95       1.86
SRCPARAM L0008292     0.000001436      4.00      3.95       1.86
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SRCPARAM L0008294     0.000001436      4.00      3.95       1.86
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SRCPARAM L0008297     0.000001436      4.00      3.95       1.86
SRCPARAM L0008298     0.000001436      4.00      3.95       1.86
SRCPARAM L0008299     0.000001436      4.00      3.95       1.86
SRCPARAM L0008300     0.000001436      4.00      3.95       1.86
SRCPARAM L0008301     0.000001436      4.00      3.95       1.86
SRCPARAM L0008302     0.000001436      4.00      3.95       1.86
SRCPARAM L0008303     0.000001436      4.00      3.95       1.86
SRCPARAM L0008304     0.000001436      4.00      3.95       1.86
SRCPARAM L0008305     0.000001436      4.00      3.95       1.86
SRCPARAM L0008306     0.000001436      4.00      3.95       1.86
SRCPARAM L0008307     0.000001436      4.00      3.95       1.86
SRCPARAM L0008308     0.000001436      4.00      3.95       1.86
SRCPARAM L0008309     0.000001436      4.00      3.95       1.86
SRCPARAM L0008310     0.000001436      4.00      3.95       1.86
SRCPARAM L0008311     0.000001436      4.00      3.95       1.86
SRCPARAM L0008312     0.000001436      4.00      3.95       1.86
SRCPARAM L0008313     0.000001436      4.00      3.95       1.86
SRCPARAM L0008314     0.000001436      4.00      3.95       1.86
SRCPARAM L0008315     0.000001436      4.00      3.95       1.86
SRCPARAM L0008316     0.000001436      4.00      3.95       1.86
SRCPARAM L0008317     0.000001436      4.00      3.95       1.86
SRCPARAM L0008318     0.000001436      4.00      3.95       1.86
SRCPARAM L0008319     0.000001436      4.00      3.95       1.86
SRCPARAM L0008320     0.000001436      4.00      3.95       1.86
SRCPARAM L0008321     0.000001436      4.00      3.95       1.86
SRCPARAM L0008322     0.000001436      4.00      3.95       1.86
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                                                 Residential
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SRCPARAM L0008324     0.000001436      4.00      3.95      1.86
SRCPARAM L0008325     0.000001436      4.00      3.95      1.86
SRCPARAM L0008326     0.000001436      4.00      3.95      1.86
SRCPARAM L0008327     0.000001436      4.00      3.95      1.86
SRCPARAM L0008328     0.000001436      4.00      3.95      1.86
SRCPARAM L0008329     0.000001436      4.00      3.95      1.86
SRCPARAM L0008330     0.000001436      4.00      3.95      1.86
SRCPARAM L0008331     0.000001436      4.00      3.95      1.86
SRCPARAM L0008332     0.000001436      4.00      3.95      1.86
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SRCPARAM L0008618     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008619     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008620     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008621     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008622     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008623     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008624     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008625     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008626     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008627     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008628     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008629     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008630     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008631     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008632     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008633     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008634     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008635     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008636     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008637     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008638     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008639     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008640     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008641     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008642     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008643     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008644     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008645     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008646     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008647     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008648     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008649     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008650     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008651     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008652     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008653     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008654     0.0000002391      0.00      3.95      1.86
SRCPARAM L0008655     0.0000002391      0.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0008656     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008657     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008658     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008659     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008660     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008661     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008662     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008663     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008664     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008665     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008666     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008667     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008668     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008669     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008670     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008671     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008672     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008673     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008674     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0008675     0.0000002391      0.00      3.95      1.86
** ---------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK1           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00

   BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
   BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
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BUILDHGT STCK7            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7            42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK8            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8            42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK9            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9            42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9            42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK10           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK11           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK12           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK13           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13           42.00    42.00    42.00    42.00    42.00    42.00

BUILDWID STCK1           317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK1           616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK1           583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK1           317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK1           616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK1           583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK2           317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK2           616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK2           583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK2           317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK2           616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK2           583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK3           317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK3           616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK3           583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK3           317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK3           616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK3           583.02   539.26   479.12   404.42   317.43   220.80
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BUILDWID STCK4          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK4          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK4          583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK4          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK4          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK4          583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK5          317.43   404.42   479.12   539.26   168.47   168.41
BUILDWID STCK5          163.24   153.11   138.33   146.66   152.91   154.50
BUILDWID STCK5          151.41   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK5          317.43   404.42   479.12   539.26   168.47   168.41
BUILDWID STCK5          163.24   605.39   575.80   605.39   152.91   154.50
BUILDWID STCK5          151.41   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK6          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK6          616.59   605.39   575.80   605.39   152.91   154.50
BUILDWID STCK6          151.41   143.71   131.65   404.42   317.43   220.80
BUILDWID STCK6          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK6          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK6          583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK7          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK7          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK7          583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK7          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK7          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK7          583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK8          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK8          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK8          583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK8          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK8          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK8          583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK9          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK9          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK9          583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK9          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK9          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK9          583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK10         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK10         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK10         583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK10         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK10         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK10         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK11         119.77   138.68   153.37   163.40   168.47   180.12
BUILDWID STCK11         177.03   168.57   154.99   168.57   177.03   154.50
BUILDWID STCK11         151.41   143.71   131.65   115.59    96.25    97.23
BUILDWID STCK11         119.77   138.68   153.37   163.40   168.47   168.41
BUILDWID STCK11         163.24   153.11   138.33   146.66   152.91   154.50
BUILDWID STCK11         151.41   143.71   131.65   115.59    96.25    97.23

BUILDWID STCK12          99.49   116.12   479.12   539.26   583.02   609.06
BUILDWID STCK12         140.21   132.19   123.32   127.99   130.35   128.75
BUILDWID STCK12         123.24   113.98   102.56    97.33   317.43   220.80
BUILDWID STCK12         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK12         140.21   132.19   123.32   127.99   130.35   128.75
BUILDWID STCK12         123.24   113.98   102.56    97.33   317.43    79.84

BUILDWID STCK13         117.30   139.25   156.98   169.93   177.72   180.12
BUILDWID STCK13         177.03   168.57   154.99   168.57   177.03   180.12
BUILDWID STCK13         177.72   169.93   156.98   139.25   117.30    91.78
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BUILDWID STCK13         117.30   139.25   156.98   169.93   177.72   180.12
BUILDWID STCK13         177.03   168.57   154.99   168.57   177.03   180.12
BUILDWID STCK13         177.72   169.93   156.98   139.25   117.30    91.78

BUILDLEN STCK1          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK1          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK1          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK1          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK1          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK1          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK2          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK2          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK2          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK2          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK2          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK2          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK3          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK3          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK3          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK3          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK3          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK3          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK4          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK4          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK4          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK4          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK4          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK4          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK5          605.39   616.59   609.06   583.02   143.71   131.65
BUILDLEN STCK5          115.59    96.25    97.23   119.77   138.68   153.37
BUILDLEN STCK5          163.40   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK5          605.39   616.59   609.06   583.02   143.71   131.65
BUILDLEN STCK5          115.59   317.43   220.80   317.43   138.68   153.37
BUILDLEN STCK5          163.40   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK6          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK6          404.42   317.43   220.80   317.43   138.68   153.37
BUILDLEN STCK6          163.40   168.47   168.41   616.59   605.39   575.80
BUILDLEN STCK6          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK6          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK6          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK7          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK7          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK7          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK7          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK7          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK7          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK8          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK8          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK8          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK8          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK8          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK8          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK9          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK9          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK9          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK9          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK9          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK9          539.26   583.02   609.06   616.59   605.39   575.80
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BUILDLEN STCK10         605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK10         404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK10         539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK10         605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK10         404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK10         539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK11         146.66   152.91   154.50   151.41   143.71   156.98
BUILDLEN STCK11         139.25   117.30    91.78   117.30   139.25   153.37
BUILDLEN STCK11         163.40   168.47   168.41   163.24   153.11   138.33
BUILDLEN STCK11         146.66   152.91   154.50   151.41   143.71   131.65
BUILDLEN STCK11         115.59    96.25    97.23   119.77   138.68   153.37
BUILDLEN STCK11         163.40   168.47   168.41   163.24   153.11   138.33

BUILDLEN STCK12         127.99   130.35   609.06   583.02   539.26   479.12
BUILDLEN STCK12          97.33    89.15    79.84    99.49   116.12   129.22
BUILDLEN STCK12         138.39   143.36   143.97   140.21   605.39   575.80
BUILDLEN STCK12         605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK12          97.33    89.15    79.84    99.49   116.12   129.22
BUILDLEN STCK12         138.39   143.36   143.97   140.21   605.39   123.32

BUILDLEN STCK13         168.57   177.03   180.12   177.72   169.93   156.98
BUILDLEN STCK13         139.25   117.30    91.78   117.30   139.25   156.98
BUILDLEN STCK13         169.93   177.72   180.12   177.03   168.57   154.99
BUILDLEN STCK13         168.57   177.03   180.12   177.72   169.93   156.98
BUILDLEN STCK13         139.25   117.30    91.78   117.30   139.25   156.98
BUILDLEN STCK13         169.93   177.72   180.12   177.03   168.57   154.99

XBADJ    STCK1         -554.03  -569.86  -568.38  -549.62  -514.17  -463.09
XBADJ    STCK1         -397.94  -320.70  -233.72  -239.62  -238.24  -229.62
XBADJ    STCK1         -214.03  -191.93  -164.00  -131.08   -94.19   -54.43
XBADJ    STCK1          -51.36   -46.73   -40.68   -33.39   -25.09   -16.03
XBADJ    STCK1           -6.48     3.27    12.92   -77.81  -166.18  -249.50
XBADJ    STCK1         -325.23  -391.09  -445.06  -485.51  -511.21  -521.37

XBADJ    STCK2         -404.05  -426.36  -435.72  -431.83  -414.83  -385.22
XBADJ    STCK2         -343.91  -292.15  -231.51  -263.82  -288.12  -303.66
XBADJ    STCK2         -309.98  -306.88  -294.45  -273.08  -243.41  -206.34
XBADJ    STCK2         -201.35  -190.23  -173.34  -151.18  -124.43   -93.89
XBADJ    STCK2          -60.51   -25.28    10.71   -53.61  -116.30  -175.46
XBADJ    STCK2         -229.28  -276.14  -314.61  -343.52  -361.99  -369.46

XBADJ    STCK3         -244.42  -274.17  -295.60  -308.04  -311.12  -304.75
XBADJ    STCK3         -289.11  -264.70  -232.24  -292.71  -344.29  -385.41
XBADJ    STCK3         -414.81  -431.61  -435.30  -425.76  -403.29  -368.56
XBADJ    STCK3         -360.97  -342.42  -313.46  -274.98  -228.14  -174.37
XBADJ    STCK3         -115.30   -52.73    11.44   -24.72   -60.13   -93.71
XBADJ    STCK3         -124.45  -151.40  -173.76  -190.83  -202.11  -207.24

XBADJ    STCK4         -101.74  -138.42  -170.90  -198.18  -219.44  -234.03
XBADJ    STCK4         -241.52  -241.66  -234.46  -320.12  -396.06  -459.96
XBADJ    STCK4         -509.89  -544.32  -562.22  -563.03  -546.74  -513.83
XBADJ    STCK4         -503.65  -478.17  -438.16  -384.84  -319.82  -245.08
XBADJ    STCK4         -162.90   -75.77    13.66     2.69    -8.36   -19.16
XBADJ    STCK4          -29.37   -38.69   -46.84   -53.56   -58.66   -61.97

XBADJ    STCK5         -518.70  -493.63  -453.57  -399.72  -181.95  -191.54
XBADJ    STCK5         -195.30  -193.38  -204.86  -214.78  -218.18  -214.95
XBADJ    STCK5         -205.19   -31.85   -37.68   -42.37   -45.78   -47.79
XBADJ    STCK5          -86.69  -122.96  -155.49  -183.30    38.24    59.89
XBADJ    STCK5           79.72  -233.04  -228.21  -316.43    79.50    61.58
XBADJ    STCK5           41.79  -551.17  -571.38  -574.22  -559.62  -528.01

XBADJ    STCK6         -369.40  -352.21  -324.32  -286.57  -240.12  -186.37
XBADJ    STCK6         -126.96   -63.69     1.51   -33.32  -275.93  -296.38
XBADJ    STCK6         -307.83  -309.92  -302.59  -187.84  -197.13  -200.44
XBADJ    STCK6         -236.00  -264.39  -284.74  -296.44  -299.14  -292.75
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XBADJ    STCK6      -277.46 -253.74 -222.31 -284.11 -337.28 -380.21
XBADJ    STCK6      -411.58 -430.44 -436.23 -428.76 -408.26 -375.36

XBADJ    STCK7      -211.94 -202.10 -186.11 -164.47 -137.83 -107.01
XBADJ    STCK7       -72.93  -36.64    0.77  -61.83 -122.56 -179.56
XBADJ    STCK7      -231.10 -275.63 -311.77 -338.45 -354.84 -360.45
XBADJ    STCK7      -393.45 -414.49 -422.94 -418.54 -401.43 -372.11
XBADJ    STCK7      -331.49 -280.80 -221.57 -255.60 -281.86 -299.56
XBADJ    STCK7      -308.16 -307.39 -297.28 -278.14 -250.55 -215.35

XBADJ    STCK8      -141.76 -135.39 -124.90 -110.62  -92.98  -72.52
XBADJ    STCK8       -49.85  -25.66   -0.70  -75.70 -148.40 -216.60
XBADJ    STCK8      -278.21 -331.37 -374.46 -406.17 -425.54 -431.98
XBADJ    STCK8      -463.64 -481.21 -484.16 -472.39 -446.28 -406.60
XBADJ    STCK8      -354.57 -291.77 -220.10 -241.73 -256.02 -262.52
XBADJ    STCK8      -261.05 -251.65 -234.60 -210.43 -179.85 -143.82

XBADJ    STCK9        -4.70  -19.56  -33.83  -47.07  -58.88  -68.90
XBADJ    STCK9       -76.82  -82.41  -85.50 -185.98 -280.80 -367.10
XBADJ    STCK9      -442.23 -503.94 -550.33 -580.00 -592.04 -586.10
XBADJ    STCK9      -600.69 -597.03 -575.23 -535.95 -480.38 -410.22
XBADJ    STCK9      -327.60 -235.02 -135.30 -131.46 -123.62 -112.02
XBADJ    STCK9       -97.03  -79.08  -58.73  -36.60  -13.35   10.30

XBADJ    STCK10      -24.22  -56.52  -87.10 -115.04 -139.48 -159.68
XBADJ    STCK10     -175.04 -185.07 -189.48 -288.12 -378.00 -456.40
XBADJ    STCK10     -520.94 -569.64 -601.04 -614.17 -608.64 -584.62
XBADJ    STCK10     -581.18 -560.08 -521.96 -467.98 -399.78 -319.43
XBADJ    STCK10     -229.38 -132.36  -31.32  -29.31  -26.41  -22.71
XBADJ    STCK10      -18.32  -13.38   -8.02   -2.42    3.25    8.82

XBADJ    STCK11      -75.54  -69.49  -61.33  -51.30  -39.71 -269.34
XBADJ    STCK11     -271.64 -265.68 -251.65 -256.89 -254.32  -33.50
XBADJ    STCK11      -41.31  -47.87  -52.97  -56.46  -58.23  -58.24
XBADJ    STCK11      -71.12  -83.42  -93.18 -100.11 -104.00 -104.73
XBADJ    STCK11     -102.28  -96.72  -92.17 -104.68 -114.00 -119.87
XBADJ    STCK11     -122.09 -120.60 -115.44 -106.78  -94.88  -80.09

XBADJ    STCK12      -71.82  -82.89   79.79   68.13   54.40   39.01
XBADJ    STCK12      -96.54  -90.35  -82.21  -92.20  -99.40 -103.57
XBADJ    STCK12     -104.60 -102.44  -97.18  -88.96 -666.87 -675.00
XBADJ    STCK12     -700.96 -705.63 -688.85 -651.15 -593.66 -518.13
XBADJ    STCK12       -0.79    1.20    2.37   -7.29  -16.72  -25.65
XBADJ    STCK12      -33.79  -40.92  -46.79  -51.25   61.48  -58.57

XBADJ    STCK13      -99.86 -114.28 -125.23 -132.37 -135.49 -134.50
XBADJ    STCK13     -129.42 -120.40 -107.73 -118.70 -126.06 -129.59
XBADJ    STCK13     -129.19 -124.85 -116.73 -105.06  -90.19  -72.59
XBADJ    STCK13      -68.72  -62.76  -54.89  -45.35  -34.44  -22.48
XBADJ    STCK13       -9.84    3.10   15.95    1.40  -13.19  -27.39
XBADJ    STCK13      -40.75  -52.87  -63.39  -71.98  -78.38  -82.40

YBADJ    STCK1        80.90   36.03   -9.94  -55.60  -99.58 -140.53
YBADJ    STCK1      -177.21 -208.51 -233.47 -251.34 -261.57 -263.85
YBADJ    STCK1      -258.12 -244.54 -223.53 -195.73 -161.99 -123.32
YBADJ    STCK1       -80.90  -36.03    9.94   55.60   99.58  140.53
YBADJ    STCK1       177.21  208.51  233.47  251.34  261.57  263.85
YBADJ    STCK1       258.12  244.54  223.53  195.73  161.99  123.32

YBADJ    STCK2       105.11   85.91   64.10   40.35   15.37  -10.08
YBADJ    STCK2       -35.22  -59.29  -81.56 -101.35 -118.06 -131.19
YBADJ    STCK2      -140.33 -145.20 -145.66 -141.70 -133.43 -121.11
YBADJ    STCK2      -105.11  -85.91  -64.10  -40.35  -15.37   10.08
YBADJ    STCK2        35.22   59.29   81.56  101.35  118.06  131.19
YBADJ    STCK2       140.33  145.20  145.66  141.70  133.43  121.11

YBADJ    STCK3       134.00  142.08  145.85  145.18  140.11  130.77
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                                                 Residential
YBADJ    STCK3          117.47   100.59    80.66    58.28    34.12     8.93
YBADJ    STCK3          -16.53   -41.49   -65.19   -86.90  -105.98  -121.84
YBADJ    STCK3         -134.00  -142.08  -145.85  -145.18  -140.11  -130.77
YBADJ    STCK3         -117.47  -100.59   -80.66   -58.28   -34.12    -8.93
YBADJ    STCK3           16.53    41.49    65.19    86.90   105.98   121.84

YBADJ    STCK4          161.41   193.85   220.40   240.26   252.82   257.69
YBADJ    STCK4          254.74   244.04   225.93   200.95   169.87   133.63
YBADJ    STCK4           93.33    50.19     5.53   -39.31   -82.94  -124.06
YBADJ    STCK4         -161.41  -193.85  -220.40  -240.26  -252.82  -257.69
YBADJ    STCK4         -254.74  -244.04  -225.93  -200.95  -169.87  -133.63
YBADJ    STCK4          -93.33   -50.19    -5.53    39.31    82.94   124.06

YBADJ    STCK5         -157.71  -192.83  -222.08  -244.59   104.96    83.24
YBADJ    STCK5           58.99    32.95     5.90   -20.33   -45.56   -69.40
YBADJ    STCK5          -91.13   -64.09   -18.03    28.58    74.33   117.81
YBADJ    STCK5          157.71   192.83   222.08   244.59  -104.96   -83.24
YBADJ    STCK5          -58.99   256.92   240.11   216.00    45.56    69.40
YBADJ    STCK5           91.13    64.09    18.03   -28.58   -74.33  -117.81

YBADJ    STCK6         -125.40  -135.07  -140.65  -141.95  -138.93  -131.70
YBADJ    STCK6         -120.46  -105.56   -87.46   -66.70    95.87    59.85
YBADJ    STCK6           22.01   -16.49   -54.50    75.25    95.02   111.91
YBADJ    STCK6          125.40   135.07   140.65   141.95   138.93   131.70
YBADJ    STCK6          120.46   105.56    87.46    66.70    43.91    19.79
YBADJ    STCK6           -4.94   -29.51   -53.19   -75.25   -95.02  -111.91

YBADJ    STCK7          -96.88   -79.65   -60.00   -38.53   -15.88     7.25
YBADJ    STCK7           30.15    52.14    72.55    90.75   106.20   118.42
YBADJ    STCK7          127.04   131.80   132.55   129.28   122.08   111.17
YBADJ    STCK7           96.88    79.65    60.00    38.53    15.88    -7.25
YBADJ    STCK7          -30.15   -52.14   -72.55   -90.75  -106.20  -118.42
YBADJ    STCK7         -127.04  -131.80  -132.55  -129.28  -122.08  -111.17

YBADJ    STCK8          -83.01   -53.81   -22.96     8.58    39.86    69.93
YBADJ    STCK8           97.87   122.84   144.08   160.94   172.91   179.63
YBADJ    STCK8          180.89   176.65   167.04   152.36   133.05   109.70
YBADJ    STCK8           83.01    53.81    22.96    -8.58   -39.86   -69.93
YBADJ    STCK8          -97.87  -122.84  -144.08  -160.94  -172.91  -179.63
YBADJ    STCK8         -180.89  -176.65  -167.04  -152.36  -133.05  -109.70

YBADJ    STCK9           27.26    78.59   127.54   172.60   212.43   245.80
YBADJ    STCK9          271.70   289.35   298.20   297.99   288.73   270.70
YBADJ    STCK9          244.44   210.75   170.66   125.39    76.30    24.90
YBADJ    STCK9          -27.26   -78.59  -127.54  -172.60  -212.43  -245.80
YBADJ    STCK9         -271.70  -289.35  -298.20  -297.99  -288.73  -270.70
YBADJ    STCK9         -244.44  -210.75  -170.66  -125.39   -76.30   -24.90

YBADJ    STCK10         129.40   175.80   216.85   251.31   278.13   296.51
YBADJ    STCK10         305.87   305.94   296.72   278.48   251.78   217.43
YBADJ    STCK10         176.47   130.15    79.87    27.17   -26.35   -79.08
YBADJ    STCK10        -129.40  -175.80  -216.85  -251.31  -278.13  -296.51
YBADJ    STCK10        -305.87  -305.94  -296.72  -278.48  -251.78  -217.43
YBADJ    STCK10        -176.47  -130.15   -79.87   -27.17    26.35    79.08

YBADJ    STCK11         -44.79   -44.66   -43.18   -40.39   -36.37    80.96
YBADJ    STCK11          46.59    10.80   -25.32   -60.66   -94.16    15.93
YBADJ    STCK11          24.41    32.14    38.91    44.48    48.59    43.56
YBADJ    STCK11          44.79    44.66    43.18    40.39    36.37    31.24
YBADJ    STCK11          25.16    18.32    10.92     2.21    -6.96   -15.93
YBADJ    STCK11         -24.41   -32.14   -38.91   -44.48   -48.59   -43.56

YBADJ    STCK12          42.46    41.34   108.53   173.62   233.43   286.15
YBADJ    STCK12          18.86    11.95     3.09    -7.82   -17.71   -27.06
YBADJ    STCK12         -35.58   -43.03   -48.52   -47.87   163.90    98.17
YBADJ    STCK12          29.46   -40.15  -108.53  -173.62  -233.43  -286.15
YBADJ    STCK12         -18.86   -11.95    -3.09     7.82    17.71    27.06
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                                                Residential
   YBADJ    STCK12          35.58    43.03    48.52    47.87  -163.90    42.29

   YBADJ    STCK13          60.05    56.43    51.10    44.22    35.99    26.67
   YBADJ    STCK13          16.54     5.91    -4.90   -15.57   -25.76   -35.17
   YBADJ    STCK13         -43.51   -50.53   -56.01   -59.79   -61.75   -61.84
   YBADJ    STCK13         -60.05   -56.43   -51.10   -44.22   -35.99   -26.67
   YBADJ    STCK13         -16.54    -5.91     4.90    15.57    25.76    35.17
   YBADJ    STCK13          43.51    50.53    56.01    59.79    61.75    61.84

   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Worker Exposure 12hrs"
   EMISFACT L0008851     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008851     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008851     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008851     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008852     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008852     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008852     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008852     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008853     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008853     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008853     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008853     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008854     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008854     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008854     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008854     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008855     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008855     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008855     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008855     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008856     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008856     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008856     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008856     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008857     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008857     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008857     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008857     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008858     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008858     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008858     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0006758     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT STCK5       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT STCK6       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT STCK8       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT STCK9       HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT STCK13      HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0008211     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0008212     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008213     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0008213     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0008215     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0008657     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0008658     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008658     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008658     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008658     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008659     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008659     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008659     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008659     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008660     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008660     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008660     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008660     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008661     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008661     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008661     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008661     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008662     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008662     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008662     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008662     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008663     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008663     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008663     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008663     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008664     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008664     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008664     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008664     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008665     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0008665     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008665     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0008665     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
```

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                                                    Residential
   EMISFACT L0008666     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008666     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008666     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008666     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008667     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008667     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008667     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008667     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008668     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008668     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008668     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008668     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008669     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008669     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008669     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008669     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008670     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008670     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008670     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008670     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008671     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008671     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008671     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008671     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008672     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008672     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008672     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008672     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008673     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008673     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008673     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008673     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008674     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008674     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008674     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008674     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008675     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0008675     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008675     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0008675     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED School.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\..\..\peri8.sfc
   PROFFILE ..\..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
**
```

```
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL SCHOOL.AD\AN00GALL.PLT 31
   SUMMFILE School.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2268 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2268 Source(s);       1 Source Group(s); and      20 Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2249 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.
```

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                                                                Residential

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      8.3 MB of RAM.

 **Detailed Error/Message File:   School.err

 **File for Summary of Results:   School.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

 STCK1           0   0.24556E-04  478197.3 3748887.5   453.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK2           0   0.24556E-04  478195.1 3748735.6   452.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK3           0   0.24556E-04  478195.8 3748573.3   452.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK4           0   0.24556E-04  478198.1 3748428.1   451.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK5           0   0.24556E-04  477956.2 3748894.1   453.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK6           0   0.24556E-04  477962.1 3748741.5   453.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK7           0   0.24556E-04  477962.8 3748581.4   452.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK8           0   0.24556E-04  477964.3 3748509.9   451.8     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK9           0   0.24556E-04  478049.1 3748355.8   451.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK10          0   0.24556E-04  478153.1 3748357.3   451.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK11          0   0.51950E-04  477756.4 3748910.9   453.2     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
 STCK12          0   0.41163E-04  477975.8 3748266.9   450.0     3.96   501.00    49.98     0.04    YES     YES
```

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                                                     Residential
NO  HROFDY
 STCK13           0   0.70402E-04  477612.5 3748890.5   454.0     3.96   501.00    49.98     0.04    YES     YES
NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0008851         0   0.85530E-05  478208.0 3748415.2   451.0     4.00    13.95     1.86     YES   HROFDY
 L0008852         0   0.85530E-05  478208.1 3748445.2   451.0     4.00    13.95     1.86     YES   HROFDY
 L0008853         0   0.85530E-05  478208.3 3748475.2   451.0     4.00    13.95     1.86     YES   HROFDY
 L0008854         0   0.85530E-05  478208.4 3748505.2   451.6     4.00    13.95     1.86     YES   HROFDY
 L0008855         0   0.85530E-05  478208.6 3748535.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008856         0   0.85530E-05  478208.7 3748565.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008857         0   0.85530E-05  478208.8 3748595.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008858         0   0.85530E-05  478209.0 3748625.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008859         0   0.85530E-05  478209.1 3748655.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008860         0   0.85530E-05  478209.2 3748685.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008861         0   0.85530E-05  478209.4 3748715.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008862         0   0.85530E-05  478209.5 3748745.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008863         0   0.85530E-05  478209.7 3748775.2   452.0     4.00    13.95     1.86     YES   HROFDY
 L0008864         0   0.85530E-05  478209.8 3748805.2   452.6     4.00    13.95     1.86     YES   HROFDY
 L0008865         0   0.85530E-05  478209.9 3748835.2   453.0     4.00    13.95     1.86     YES   HROFDY
 L0008866         0   0.85530E-05  478210.1 3748865.2   453.0     4.00    13.95     1.86     YES   HROFDY
 L0008867         0   0.85530E-05  478210.2 3748895.2   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006444         0   0.88640E-05  477943.9 3748501.1   451.5     4.00    13.95     1.86     YES   HROFDY
 L0006445         0   0.88640E-05  477944.1 3748531.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0006446         0   0.88640E-05  477944.4 3748561.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0006447         0   0.88640E-05  477944.7 3748591.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0006448         0   0.88640E-05  477944.9 3748621.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0006449         0   0.88640E-05  477945.2 3748651.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0006450         0   0.88640E-05  477945.4 3748681.1   452.5     4.00    13.95     1.86     YES   HROFDY
 L0006451         0   0.88640E-05  477945.7 3748711.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006452         0   0.88640E-05  477945.9 3748741.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006453         0   0.88640E-05  477946.2 3748771.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006454         0   0.88640E-05  477946.5 3748801.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006455         0   0.88640E-05  477946.7 3748831.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006456         0   0.88640E-05  477947.0 3748861.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006457         0   0.88640E-05  477947.2 3748891.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0006458         0   0.81770E-05  477756.7 3748938.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006459         0   0.81770E-05  477756.7 3748930.0   453.8     4.00     3.95     1.86     YES   HROFDY
 L0006460         0   0.81770E-05  477756.7 3748921.5   453.6     4.00     3.95     1.86     YES   HROFDY
 L0006461         0   0.81770E-05  477756.7 3748913.0   453.3     4.00     3.95     1.86     YES   HROFDY
 L0006462         0   0.81770E-05  477756.7 3748904.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0006463         0   0.81770E-05  477756.7 3748896.0   453.1     4.00     3.95     1.86     YES   HROFDY
 L0006464         0   0.81770E-05  477756.7 3748887.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0006465         0   0.81770E-05  477756.7 3748879.0   453.1     4.00     3.95     1.86     YES   HROFDY
 L0006466         0   0.63430E-06  477900.2 3748339.0   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                          Residential


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)    X         Y        ELEV.    HEIGHT     SY       SZ      SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0006467         0   0.63430E-06  477908.7 3748339.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006468         0   0.63430E-06  477917.1 3748338.9   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006469         0   0.63430E-06  477925.6 3748338.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006470         0   0.63430E-06  477934.1 3748338.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006471         0   0.63430E-06  477942.6 3748338.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006472         0   0.63430E-06  477947.6 3748331.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006473         0   0.63430E-06  477951.8 3748324.5   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006474         0   0.63430E-06  477956.1 3748317.1   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006475         0   0.63430E-06  477960.3 3748309.7   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006476         0   0.63430E-06  477964.6 3748302.3   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006477         0   0.63430E-06  477968.8 3748295.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006478         0   0.63430E-06  477973.0 3748287.6   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006479         0   0.63430E-06  477976.2 3748279.9   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006480         0   0.63430E-06  477977.3 3748271.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006481         0   0.63430E-06  477978.3 3748263.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006482         0   0.63430E-06  477978.3 3748254.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006483         0   0.63430E-06  477978.3 3748246.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006484         0   0.63430E-06  477978.2 3748237.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006485         0   0.63430E-06  477978.2 3748229.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006486         0   0.63430E-06  477978.1 3748220.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006487         0   0.59110E-05  477608.7 3748929.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006488         0   0.59110E-05  477608.7 3748920.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006489         0   0.59110E-05  477608.7 3748912.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006490         0   0.59110E-05  477608.7 3748903.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006491         0   0.59110E-05  477608.7 3748895.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006492         0   0.59110E-05  477608.7 3748886.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006493         0   0.59110E-05  477608.7 3748878.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006494         0   0.59110E-05  477608.7 3748869.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006495         0   0.59110E-05  477608.7 3748861.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006496         0   0.59110E-05  477608.7 3748852.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006497         0   0.59110E-05  477608.7 3748844.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006498         0   0.59110E-05  477608.7 3748835.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006499         0   0.59110E-05  477608.7 3748827.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006500         0   0.59110E-05  477608.7 3748818.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006501         0   0.59110E-05  477608.7 3748810.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0006502         0   0.20580E-05  478043.0 3748335.2   451.0     0.00    13.95     1.86     YES    HROFDY
 L0006503         0   0.20580E-05  478073.0 3748334.5   451.0     0.00    13.95     1.86     YES    HROFDY
 L0006504         0   0.20580E-05  478103.0 3748333.9   451.0     0.00    13.95     1.86     YES    HROFDY
 L0006505         0   0.20580E-05  478133.0 3748333.2   451.0     0.00    13.95     1.86     YES    HROFDY
 L0006506         0   0.20580E-05  478163.0 3748332.6   451.0     0.00    13.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)    X         Y        ELEV.    HEIGHT     SY       SZ      SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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                                                   Residential
 L0008676         0   0.33530E-05  477940.0 3748971.4   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008677         0   0.33530E-05  477939.9 3748962.9   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008678         0   0.33530E-05  477939.7 3748954.4   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008679         0   0.33530E-05  477939.2 3748946.0   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008680         0   0.33530E-05  477937.9 3748937.5   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008681         0   0.33530E-05  477936.7 3748929.1   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008682         0   0.33530E-05  477936.0 3748920.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008683         0   0.33530E-05  477935.8 3748912.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008684         0   0.33530E-05  477935.6 3748903.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008685         0   0.33530E-05  477935.5 3748895.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008686         0   0.33530E-05  477935.3 3748886.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008687         0   0.33530E-05  477935.2 3748878.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008688         0   0.33530E-05  477935.0 3748869.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008689         0   0.33530E-05  477934.9 3748861.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008690         0   0.33530E-05  477934.9 3748852.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008691         0   0.33530E-05  477934.8 3748844.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008692         0   0.33530E-05  477934.7 3748835.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008693         0   0.33530E-05  477934.7 3748827.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008694         0   0.33530E-05  477934.6 3748818.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008695         0   0.33530E-05  477934.5 3748810.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008696         0   0.33530E-05  477934.5 3748801.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008697         0   0.33530E-05  477934.4 3748793.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008698         0   0.33530E-05  477934.3 3748784.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008699         0   0.33530E-05  477934.3 3748776.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008700         0   0.33530E-05  477934.2 3748767.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008701         0   0.33530E-05  477934.1 3748759.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008702         0   0.33530E-05  477934.1 3748750.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008703         0   0.33530E-05  477934.0 3748742.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008704         0   0.33530E-05  477933.9 3748733.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008705         0   0.33530E-05  477933.8 3748725.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008706         0   0.33530E-05  477933.8 3748716.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008707         0   0.33530E-05  477933.7 3748708.2   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008708         0   0.33530E-05  477933.6 3748699.7   453.0      4.00     3.95     1.86     YES   HROFDY
 L0008709         0   0.33530E-05  477933.6 3748691.2   452.8      4.00     3.95     1.86     YES   HROFDY
 L0008710         0   0.33530E-05  477933.5 3748682.7   452.5      4.00     3.95     1.86     YES   HROFDY
 L0008711         0   0.33530E-05  477933.4 3748674.2   452.2      4.00     3.95     1.86     YES   HROFDY
 L0008712         0   0.33530E-05  477933.4 3748665.7   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008713         0   0.33530E-05  477933.3 3748657.2   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008714         0   0.33530E-05  477933.2 3748648.7   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008715         0   0.33530E-05  477933.2 3748640.2   452.0      4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008716         0   0.33530E-05  477933.1 3748631.7   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008717         0   0.33530E-05  477933.0 3748623.2   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008718         0   0.33530E-05  477933.0 3748614.7   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008719         0   0.33530E-05  477932.9 3748606.2   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008720         0   0.33530E-05  477932.8 3748597.7   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008721         0   0.33530E-05  477932.8 3748589.2   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008722         0   0.33530E-05  477932.7 3748580.7   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008723         0   0.33530E-05  477932.6 3748572.2   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008724         0   0.33530E-05  477932.5 3748563.7   452.0      4.00     3.95     1.86     YES   HROFDY
 L0008725         0   0.33530E-05  477932.5 3748555.2   452.0      4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0008726         0   0.33530E-05  477932.4 3748546.7   452.0      4.00      3.95      1.86      YES    HROFDY
 L0008727         0   0.33530E-05  477932.3 3748538.2   452.0      4.00      3.95      1.86      YES    HROFDY
 L0008728         0   0.33530E-05  477932.3 3748529.7   452.0      4.00      3.95      1.86      YES    HROFDY
 L0008729         0   0.33530E-05  477932.2 3748521.2   452.0      4.00      3.95      1.86      YES    HROFDY
 L0008730         0   0.33530E-05  477932.1 3748512.7   451.9      4.00      3.95      1.86      YES    HROFDY
 L0008731         0   0.33530E-05  477932.1 3748504.2   451.7      4.00      3.95      1.86      YES    HROFDY
 L0008732         0   0.33530E-05  477932.0 3748495.7   451.5      4.00      3.95      1.86      YES    HROFDY
 L0008733         0   0.33530E-05  477932.4 3748487.3   451.3      4.00      3.95      1.86      YES    HROFDY
 L0008734         0   0.33530E-05  477936.5 3748479.8   451.1      4.00      3.95      1.86      YES    HROFDY
 L0008735         0   0.33530E-05  477940.5 3748472.3   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008736         0   0.33530E-05  477944.5 3748464.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008737         0   0.33530E-05  477948.5 3748457.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008738         0   0.33530E-05  477952.5 3748449.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008739         0   0.33530E-05  477956.5 3748442.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008740         0   0.33530E-05  477960.6 3748434.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008741         0   0.33530E-05  477964.6 3748427.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008742         0   0.33530E-05  477968.6 3748419.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008743         0   0.33530E-05  477972.6 3748412.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008744         0   0.33530E-05  477976.6 3748404.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008745         0   0.33530E-05  477980.6 3748397.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008746         0   0.33530E-05  477984.7 3748389.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008747         0   0.33530E-05  477988.7 3748382.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008748         0   0.33530E-05  477992.7 3748375.0   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008749         0   0.33530E-05  477996.7 3748367.5   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008750         0   0.33530E-05  478000.7 3748360.0   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008751         0   0.33530E-05  478004.8 3748352.5   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008752         0   0.33530E-05  478009.5 3748345.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008753         0   0.33530E-05  478014.1 3748338.3   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008754         0   0.33530E-05  478021.5 3748336.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008755         0   0.33530E-05  478030.0 3748336.5   451.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0008756         0   0.33530E-05  478038.5 3748336.6   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008757         0   0.33530E-05  478047.0 3748336.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008758         0   0.33530E-05  478055.5 3748336.8   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008759         0   0.33530E-05  478064.0 3748336.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008760         0   0.33530E-05  478072.5 3748337.0   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008761         0   0.33530E-05  478081.0 3748337.1   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008762         0   0.33530E-05  478089.5 3748337.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008763         0   0.33530E-05  478098.0 3748337.3   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008764         0   0.33530E-05  478106.5 3748337.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008765         0   0.33530E-05  478115.0 3748337.4   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008766         0   0.33530E-05  478123.5 3748337.5   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008767         0   0.33530E-05  478132.0 3748337.6   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008768         0   0.33530E-05  478140.5 3748337.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008769         0   0.33530E-05  478149.0 3748337.8   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008770         0   0.33530E-05  478157.5 3748337.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008771         0   0.33530E-05  478166.0 3748338.0   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008772         0   0.33530E-05  478174.5 3748338.1   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008773         0   0.33530E-05  478183.0 3748338.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008774         0   0.33530E-05  478191.5 3748338.3   451.0      4.00      3.95      1.86      YES    HROFDY
 L0008775         0   0.33530E-05  478200.0 3748338.4   451.0      4.00      3.95      1.86      YES    HROFDY
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                                                       Residential
 L0008776         0   0.33530E-05  478203.6 3748343.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008777         0   0.33530E-05  478203.6 3748351.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008778         0   0.33530E-05  478203.7 3748360.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008779         0   0.33530E-05  478203.7 3748368.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008780         0   0.33530E-05  478203.8 3748377.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008781         0   0.33530E-05  478203.9 3748385.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008782         0   0.33530E-05  478203.9 3748394.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008783         0   0.33530E-05  478204.0 3748402.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008784         0   0.33530E-05  478204.0 3748411.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008785         0   0.33530E-05  478204.1 3748419.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008786         0   0.33530E-05  478204.2 3748428.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008787         0   0.33530E-05  478204.2 3748436.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008788         0   0.33530E-05  478204.3 3748445.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008789         0   0.33530E-05  478204.3 3748453.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008790         0   0.33530E-05  478204.4 3748462.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008791         0   0.33530E-05  478204.5 3748470.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008792         0   0.33530E-05  478204.5 3748479.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0008793         0   0.33530E-05  478204.6 3748487.9   451.1     4.00     3.95     1.86     YES   HROFDY
 L0008794         0   0.33530E-05  478204.6 3748496.4   451.3     4.00     3.95     1.86     YES   HROFDY
 L0008795         0   0.33530E-05  478204.7 3748504.9   451.6     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                    ***
   13:10:02

   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008796         0   0.33530E-05  478204.8 3748513.4   451.9     4.00     3.95     1.86     YES   HROFDY
 L0008797         0   0.33530E-05  478204.8 3748521.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008798         0   0.33530E-05  478204.9 3748530.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008799         0   0.33530E-05  478204.9 3748538.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008800         0   0.33530E-05  478205.0 3748547.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008801         0   0.33530E-05  478205.1 3748555.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008802         0   0.33530E-05  478205.1 3748564.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008803         0   0.33530E-05  478205.2 3748572.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008804         0   0.33530E-05  478205.2 3748581.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008805         0   0.33530E-05  478205.3 3748589.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008806         0   0.33530E-05  478205.4 3748598.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008807         0   0.33530E-05  478205.4 3748606.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008808         0   0.33530E-05  478205.5 3748615.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008809         0   0.33530E-05  478205.5 3748623.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008810         0   0.33530E-05  478205.6 3748632.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008811         0   0.33530E-05  478205.7 3748640.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008812         0   0.33530E-05  478205.7 3748649.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008813         0   0.33530E-05  478205.8 3748657.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008814         0   0.33530E-05  478205.9 3748666.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008815         0   0.33530E-05  478205.9 3748674.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008816         0   0.33530E-05  478206.0 3748683.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008817         0   0.33530E-05  478206.0 3748691.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008818         0   0.33530E-05  478206.1 3748700.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008819         0   0.33530E-05  478206.2 3748708.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008820         0   0.33530E-05  478206.2 3748717.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008821         0   0.33530E-05  478206.3 3748725.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008822         0   0.33530E-05  478206.3 3748734.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008823         0   0.33530E-05  478206.4 3748742.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008824         0   0.33530E-05  478206.5 3748751.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0008825         0   0.33530E-05  478206.5 3748759.9   452.0     4.00     3.95     1.86     YES   HROFDY
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 L0008826         0   0.33530E-05  478206.6 3748768.4   452.0      4.00      3.95      1.86      YES    HROFDY
 L0008827         0   0.33530E-05  478206.6 3748776.9   452.1      4.00      3.95      1.86      YES    HROFDY
 L0008828         0   0.33530E-05  478206.7 3748785.4   452.1      4.00      3.95      1.86      YES    HROFDY
 L0008829         0   0.33530E-05  478206.8 3748793.9   452.3      4.00      3.95      1.86      YES    HROFDY
 L0008830         0   0.33530E-05  478206.8 3748802.4   452.6      4.00      3.95      1.86      YES    HROFDY
 L0008831         0   0.33530E-05  478206.9 3748810.9   452.8      4.00      3.95      1.86      YES    HROFDY
 L0008832         0   0.33530E-05  478206.9 3748819.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008833         0   0.33530E-05  478207.0 3748827.9   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008834         0   0.33530E-05  478207.1 3748836.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008835         0   0.33530E-05  478207.1 3748844.9   453.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0008836         0   0.33530E-05  478207.2 3748853.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008837         0   0.33530E-05  478207.2 3748861.9   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008838         0   0.33530E-05  478207.3 3748870.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008839         0   0.33530E-05  478207.4 3748878.9   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008840         0   0.33530E-05  478207.4 3748887.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008841         0   0.33530E-05  478207.5 3748895.9   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008842         0   0.33530E-05  478207.5 3748904.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008843         0   0.33530E-05  478207.6 3748912.9   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008844         0   0.33530E-05  478205.2 3748921.1   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008845         0   0.33530E-05  478202.8 3748929.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008846         0   0.33530E-05  478200.3 3748937.3   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008847         0   0.33530E-05  478197.8 3748945.4   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008848         0   0.33530E-05  478195.3 3748953.6   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008849         0   0.33530E-05  478192.9 3748961.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0008850         0   0.33530E-05  478190.4 3748969.8   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006682         0   0.71410E-06  477852.8 3748835.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006683         0   0.71410E-06  477852.8 3748843.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006684         0   0.71410E-06  477852.9 3748852.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006685         0   0.71410E-06  477852.9 3748860.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006686         0   0.71410E-06  477853.0 3748869.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006687         0   0.71410E-06  477853.0 3748877.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006688         0   0.71410E-06  477853.1 3748886.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006689         0   0.71410E-06  477853.1 3748894.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006690         0   0.71410E-06  477853.1 3748903.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006691         0   0.71410E-06  477853.2 3748911.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006692         0   0.71410E-06  477853.2 3748920.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006693         0   0.71410E-06  477853.3 3748928.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006694         0   0.71410E-06  477853.3 3748937.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006695         0   0.71410E-06  477853.4 3748945.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006696         0   0.71410E-06  477853.4 3748954.2   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006697         0   0.71410E-06  477853.5 3748962.7   453.0      4.00      3.95      1.86      YES    HROFDY
 L0006698         0   0.71410E-06  477853.5 3748971.2   453.2      4.00      3.95      1.86      YES    HROFDY
 L0006699         0   0.71410E-06  477853.5 3748979.7   453.4      4.00      3.95      1.86      YES    HROFDY
 L0006700         0   0.71410E-06  477845.0 3748979.7   453.5      4.00      3.95      1.86      YES    HROFDY
 L0006701         0   0.71410E-06  477836.5 3748979.6   453.7      4.00      3.95      1.86      YES    HROFDY
 L0006702         0   0.71410E-06  477828.0 3748979.6   453.9      4.00      3.95      1.86      YES    HROFDY
 L0006703         0   0.71410E-06  477819.5 3748979.6   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006704         0   0.71410E-06  477811.0 3748979.6   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006705         0   0.71410E-06  477802.5 3748979.6   454.0      4.00      3.95      1.86      YES    HROFDY
 L0006706         0   0.71410E-06  477794.0 3748979.5   454.0      4.00      3.95      1.86      YES    HROFDY
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006707         0   0.71410E-06  477785.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006708         0   0.71410E-06  477777.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006709         0   0.71410E-06  477768.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006710         0   0.71410E-06  477760.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006711         0   0.71410E-06  477751.5 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006712         0   0.71410E-06  477743.0 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006713         0   0.71410E-06  477742.7 3748971.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006714         0   0.71410E-06  477742.7 3748962.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006715         0   0.71410E-06  477742.6 3748954.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006716         0   0.71410E-06  477742.6 3748945.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006717         0   0.71410E-06  477742.5 3748937.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006718         0   0.71410E-06  477742.5 3748928.7   453.9     4.00     3.95     1.86     YES   HROFDY
 L0006719         0   0.71410E-06  477742.4 3748920.2   453.8     4.00     3.95     1.86     YES   HROFDY
 L0006720         0   0.71410E-06  477742.4 3748911.7   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006721         0   0.71410E-06  477742.3 3748903.2   453.6     4.00     3.95     1.86     YES   HROFDY
 L0006722         0   0.71410E-06  477742.3 3748894.7   453.6     4.00     3.95     1.86     YES   HROFDY
 L0006723         0   0.71410E-06  477742.2 3748886.2   453.6     4.00     3.95     1.86     YES   HROFDY
 L0006724         0   0.71410E-06  477744.2 3748878.0   453.5     4.00     3.95     1.86     YES   HROFDY
 L0006725         0   0.71410E-06  477746.5 3748869.8   453.6     4.00     3.95     1.86     YES   HROFDY
 L0006726         0   0.71410E-06  477748.8 3748861.6   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006727         0   0.71410E-06  477751.1 3748853.4   453.8     4.00     3.95     1.86     YES   HROFDY
 L0006728         0   0.71410E-06  477753.4 3748845.3   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006729         0   0.71410E-06  477757.5 3748838.2   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006730         0   0.71410E-06  477763.8 3748832.5   453.5     4.00     3.95     1.86     YES   HROFDY
 L0006731         0   0.71410E-06  477770.1 3748826.8   453.2     4.00     3.95     1.86     YES   HROFDY
 L0006732         0   0.71410E-06  477778.6 3748826.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0006733         0   0.71410E-06  477787.1 3748826.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006734         0   0.71410E-06  477795.6 3748826.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006735         0   0.71410E-06  477804.1 3748826.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006736         0   0.71410E-06  477812.6 3748826.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006737         0   0.71410E-06  477821.1 3748826.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006738         0   0.71410E-06  477829.6 3748826.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006739         0   0.71410E-06  477838.1 3748825.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006740         0   0.71410E-06  477846.6 3748825.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006741         0   0.56240E-06  477886.6 3748203.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006742         0   0.56240E-06  477886.4 3748212.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0006743         0   0.56240E-06  477886.3 3748220.7   450.1     4.00     3.95     1.86     YES   HROFDY
 L0006744         0   0.56240E-06  477886.1 3748229.2   450.3     4.00     3.95     1.86     YES   HROFDY
 L0006745         0   0.56240E-06  477885.9 3748237.7   450.6     4.00     3.95     1.86     YES   HROFDY
 L0006746         0   0.56240E-06  477885.7 3748246.2   450.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***
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                                        Residential

            NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID      CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006747        0   0.56240E-06  477885.5 3748254.7   450.9     4.00     3.95     1.86     YES    HROFDY
 L0006748        0   0.56240E-06  477885.6 3748263.2   450.9     4.00     3.95     1.86     YES    HROFDY
 L0006749        0   0.56240E-06  477885.7 3748271.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006750        0   0.56240E-06  477885.8 3748280.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006751        0   0.56240E-06  477885.9 3748288.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006752        0   0.56240E-06  477886.0 3748297.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006753        0   0.56240E-06  477886.1 3748305.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006754        0   0.56240E-06  477886.2 3748314.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006755        0   0.56240E-06  477886.3 3748322.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006756        0   0.56240E-06  477886.4 3748331.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006757        0   0.56240E-06  477889.0 3748337.4   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006758        0   0.56240E-06  477897.5 3748338.1   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006759        0   0.56240E-06  477906.0 3748338.9   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006760        0   0.56240E-06  477914.4 3748339.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006761        0   0.56240E-06  477922.9 3748339.5   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006762        0   0.56240E-06  477931.4 3748338.9   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006763        0   0.56240E-06  477939.8 3748338.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006764        0   0.56240E-06  477945.5 3748332.6   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006765        0   0.56240E-06  477950.6 3748325.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0006766        0   0.56240E-06  477955.0 3748318.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006767        0   0.56240E-06  477959.4 3748311.2   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006768        0   0.56240E-06  477963.8 3748303.9   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006769        0   0.56240E-06  477968.2 3748296.7   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006770        0   0.56240E-06  477972.6 3748289.4   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006771        0   0.56240E-06  477975.8 3748281.7   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006772        0   0.56240E-06  477977.7 3748273.4   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006773        0   0.56240E-06  477979.6 3748265.1   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006774        0   0.56240E-06  477981.3 3748256.8   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006775        0   0.56240E-06  477980.6 3748248.3   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006776        0   0.56240E-06  477979.9 3748239.8   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006777        0   0.56240E-06  477979.2 3748231.4   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006778        0   0.56240E-06  477978.4 3748222.9   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006779        0   0.56240E-06  477982.6 3748217.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006780        0   0.56240E-06  477990.0 3748212.7   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006781        0   0.56240E-06  477994.0 3748206.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006782        0   0.56240E-06  477994.1 3748198.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006783        0   0.56240E-06  477986.1 3748197.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006784        0   0.56240E-06  477977.6 3748197.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006785        0   0.56240E-06  477969.1 3748197.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006786        0   0.56240E-06  477960.6 3748197.5   450.0     4.00     3.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** VOLUME SOURCE DATA ***

            NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE    PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID      CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006787        0   0.56240E-06  477952.1 3748197.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006788        0   0.56240E-06  477943.6 3748197.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0006789        0   0.56240E-06  477935.1 3748197.5   450.0     4.00     3.95     1.86     YES    HROFDY
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                                             Residential
 L0006790        0   0.96020E-06  477505.1 3748975.7   454.2      4.00      3.95      1.86      YES   HROFDY
 L0006791        0   0.96020E-06  477513.6 3748975.6   454.1      4.00      3.95      1.86      YES   HROFDY
 L0006792        0   0.96020E-06  477522.1 3748975.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006793        0   0.96020E-06  477530.6 3748975.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006794        0   0.96020E-06  477539.1 3748975.1   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006795        0   0.96020E-06  477547.6 3748974.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006796        0   0.96020E-06  477556.1 3748974.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006797        0   0.96020E-06  477564.6 3748974.6   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006798        0   0.96020E-06  477573.1 3748974.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006799        0   0.96020E-06  477581.6 3748974.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006800        0   0.96020E-06  477590.1 3748974.1   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006801        0   0.96020E-06  477598.5 3748973.8   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006802        0   0.96020E-06  477605.4 3748968.8   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006803        0   0.96020E-06  477611.1 3748963.0   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006804        0   0.96020E-06  477613.4 3748954.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006805        0   0.96020E-06  477615.7 3748946.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006806        0   0.96020E-06  477618.0 3748938.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006807        0   0.96020E-06  477620.0 3748930.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006808        0   0.96020E-06  477621.7 3748921.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006809        0   0.96020E-06  477623.4 3748913.6   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006810        0   0.96020E-06  477625.1 3748905.3   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006811        0   0.96020E-06  477626.2 3748896.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006812        0   0.96020E-06  477626.4 3748888.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006813        0   0.96020E-06  477626.5 3748879.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006814        0   0.96020E-06  477626.6 3748871.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006815        0   0.96020E-06  477626.7 3748862.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006816        0   0.96020E-06  477626.8 3748854.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006817        0   0.96020E-06  477626.9 3748845.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006818        0   0.96020E-06  477627.0 3748837.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006819        0   0.96020E-06  477627.1 3748828.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006820        0   0.96020E-06  477627.2 3748820.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006821        0   0.96020E-06  477627.3 3748811.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006822        0   0.96020E-06  477627.5 3748803.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006823        0   0.96020E-06  477627.0 3748795.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006824        0   0.96020E-06  477618.5 3748795.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006825        0   0.96020E-06  477610.0 3748795.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006826        0   0.96020E-06  477601.5 3748796.2   454.0      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006827        0   0.96020E-06  477593.0 3748796.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006828        0   0.96020E-06  477584.5 3748796.6   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006829        0   0.96020E-06  477576.0 3748796.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006830        0   0.96020E-06  477567.5 3748797.1   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006831        0   0.96020E-06  477559.0 3748797.3   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006832        0   0.96020E-06  477550.5 3748797.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006833        0   0.96020E-06  477542.0 3748797.8   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006834        0   0.96020E-06  477533.5 3748798.0   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006835        0   0.96020E-06  477525.0 3748798.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006836        0   0.96020E-06  477516.5 3748798.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006837        0   0.96020E-06  477508.0 3748798.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006838        0   0.96020E-06  477499.5 3748798.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0006839        0   0.96020E-06  477491.0 3748799.2   454.0      4.00      3.95      1.86      YES   HROFDY
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                                              Residential
 L0006840         0   0.16730E-05  478255.5 3748984.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006841         0   0.16730E-05  478247.0 3748984.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006842         0   0.16730E-05  478238.5 3748984.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006843         0   0.16730E-05  478230.0 3748984.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006844         0   0.16730E-05  478221.5 3748984.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006845         0   0.16730E-05  478213.0 3748985.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006846         0   0.16730E-05  478204.5 3748985.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006847         0   0.16730E-05  478196.0 3748985.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006848         0   0.16730E-05  478187.5 3748985.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006849         0   0.16730E-05  478179.0 3748985.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006850         0   0.16730E-05  478170.5 3748985.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006851         0   0.16730E-05  478162.0 3748985.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006852         0   0.16730E-05  478153.5 3748985.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006853         0   0.16730E-05  478145.0 3748985.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006854         0   0.16730E-05  478136.5 3748985.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006855         0   0.16730E-05  478128.0 3748985.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006856         0   0.16730E-05  478119.5 3748985.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006857         0   0.16730E-05  478111.0 3748986.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006858         0   0.16730E-05  478102.5 3748986.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006859         0   0.16730E-05  478094.0 3748986.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006860         0   0.16730E-05  478085.5 3748986.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006861         0   0.16730E-05  478077.0 3748986.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006862         0   0.16730E-05  478068.5 3748986.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006863         0   0.16730E-05  478060.0 3748986.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006864         0   0.16730E-05  478051.5 3748986.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006865         0   0.16730E-05  478043.0 3748986.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006866         0   0.16730E-05  478034.5 3748986.7   453.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                       BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)      X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS)  (METERS)  (METERS) (METERS) (METERS) (METERS)               BY
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 L0006867         0   0.16730E-05  478026.0 3748986.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006868         0   0.16730E-05  478017.5 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006869         0   0.16730E-05  478009.0 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006870         0   0.16730E-05  478000.5 3748987.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006871         0   0.16730E-05  477992.0 3748987.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006872         0   0.16730E-05  477983.5 3748987.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006873         0   0.16730E-05  477975.0 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006874         0   0.16730E-05  477966.5 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006875         0   0.16730E-05  477958.0 3748987.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006876         0   0.16730E-05  477949.5 3748987.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006877         0   0.16730E-05  477941.0 3748987.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0006878         0   0.16730E-05  477932.5 3748987.7   453.2     4.00     3.95     1.86     YES   HROFDY
 L0006879         0   0.16730E-05  477924.0 3748987.7   453.4     4.00     3.95     1.86     YES   HROFDY
 L0006880         0   0.16730E-05  477915.5 3748987.8   453.6     4.00     3.95     1.86     YES   HROFDY
 L0006881         0   0.16730E-05  477907.0 3748987.9   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006882         0   0.16730E-05  477898.6 3748988.0   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006883         0   0.16730E-05  477890.1 3748988.1   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006884         0   0.16730E-05  477881.9 3748988.5   453.7     4.00     3.95     1.86     YES   HROFDY
 L0006885         0   0.16730E-05  477881.9 3748997.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006886         0   0.16730E-05  477881.9 3749005.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006887         0   0.16730E-05  477881.9 3749014.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006888         0   0.16730E-05  477881.9 3749022.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0006889         0   0.16730E-05  477881.9 3749031.0   454.0     4.00     3.95     1.86     YES   HROFDY
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                 Residential
 L0006890         0   0.16730E-05  477881.9 3749039.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006891         0   0.16730E-05  477881.9 3749048.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006892         0   0.16730E-05  477881.9 3749056.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006893         0   0.16730E-05  477881.9 3749065.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006894         0   0.16730E-05  477881.9 3749073.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006895         0   0.16730E-05  477881.9 3749082.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006896         0   0.16730E-05  477881.9 3749090.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006897         0   0.16730E-05  477881.9 3749099.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006898         0   0.16730E-05  477881.9 3749107.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006899         0   0.16730E-05  477881.9 3749116.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006900         0   0.16730E-05  477881.9 3749124.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006901         0   0.16730E-05  477881.9 3749133.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006902         0   0.16730E-05  477881.9 3749141.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006903         0   0.16730E-05  477881.9 3749150.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006904         0   0.16730E-05  477881.9 3749158.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006905         0   0.16730E-05  477881.9 3749167.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006906         0   0.16730E-05  477881.9 3749175.5   454.0     4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  15
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006907         0   0.16730E-05  477881.9 3749184.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006908         0   0.16730E-05  477881.9 3749192.5   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006909         0   0.16730E-05  477881.9 3749201.0   454.0     4.00      3.95      1.86      YES   HROFDY
 L0006910         0   0.16730E-05  477881.9 3749209.5   454.1     4.00      3.95      1.86      YES   HROFDY
 L0006911         0   0.16730E-05  477881.9 3749218.0   454.4     4.00      3.95      1.86      YES   HROFDY
 L0006912         0   0.16730E-05  477881.9 3749226.5   454.7     4.00      3.95      1.86      YES   HROFDY
 L0006913         0   0.16730E-05  477881.9 3749235.0   454.9     4.00      3.95      1.86      YES   HROFDY
 L0006914         0   0.16730E-05  477877.9 3749239.5   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006915         0   0.16730E-05  477869.4 3749239.6   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006916         0   0.16730E-05  477860.9 3749239.7   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006917         0   0.16730E-05  477852.4 3749239.9   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006918         0   0.16730E-05  477843.9 3749240.0   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006919         0   0.16730E-05  477835.4 3749240.1   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006920         0   0.16730E-05  477826.9 3749240.2   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006921         0   0.16730E-05  477818.4 3749240.3   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006922         0   0.16730E-05  477809.9 3749240.4   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006923         0   0.16730E-05  477801.4 3749240.5   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006924         0   0.16730E-05  477792.9 3749240.7   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006925         0   0.16730E-05  477784.4 3749240.8   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006926         0   0.16730E-05  477775.9 3749240.9   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006927         0   0.16730E-05  477767.4 3749241.0   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006928         0   0.16730E-05  477758.9 3749241.1   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006929         0   0.16730E-05  477750.4 3749241.2   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006930         0   0.16730E-05  477741.9 3749241.3   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006931         0   0.16730E-05  477733.4 3749241.4   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006932         0   0.16730E-05  477724.9 3749241.6   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006933         0   0.16730E-05  477716.4 3749241.7   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006934         0   0.16730E-05  477707.9 3749241.8   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006935         0   0.16730E-05  477699.4 3749241.9   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006936         0   0.16730E-05  477690.9 3749242.0   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006937         0   0.16730E-05  477682.4 3749242.1   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006938         0   0.16730E-05  477673.9 3749242.2   455.0     4.00      3.95      1.86      YES   HROFDY
 L0006939         0   0.16730E-05  477665.4 3749242.4   455.0     4.00      3.95      1.86      YES   HROFDY
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                                                    Residential
 L0006940         0   0.16730E-05  477656.9 3749242.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006941         0   0.16730E-05  477648.4 3749242.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006942         0   0.16730E-05  477639.9 3749242.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006943         0   0.16730E-05  477631.4 3749242.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006944         0   0.16730E-05  477622.9 3749242.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006945         0   0.16730E-05  477614.4 3749243.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006946         0   0.16730E-05  477605.9 3749243.2   455.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006947         0   0.16730E-05  477597.4 3749243.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006948         0   0.16730E-05  477588.9 3749243.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006949         0   0.16730E-05  477580.4 3749243.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006950         0   0.16730E-05  477571.9 3749243.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006951         0   0.16730E-05  477563.4 3749243.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006952         0   0.16730E-05  477554.9 3749243.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006953         0   0.16730E-05  477546.4 3749244.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006954         0   0.16730E-05  477537.9 3749244.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006955         0   0.16730E-05  477529.4 3749244.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006956         0   0.16730E-05  477520.9 3749244.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006957         0   0.16730E-05  477512.4 3749244.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006958         0   0.16730E-05  477503.9 3749244.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006959         0   0.16730E-05  477495.4 3749244.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006960         0   0.16730E-05  477486.9 3749244.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006961         0   0.16730E-05  477478.4 3749244.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006962         0   0.16730E-05  477476.8 3749251.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006963         0   0.16730E-05  477476.7 3749260.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006964         0   0.16730E-05  477476.6 3749268.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006965         0   0.16730E-05  477476.5 3749277.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006966         0   0.16730E-05  477476.4 3749285.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006967         0   0.16730E-05  477476.3 3749294.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0006968         0   0.16730E-05  477476.2 3749302.9   455.1     4.00     3.95     1.86     YES   HROFDY
 L0006969         0   0.16730E-05  477476.0 3749311.4   455.2     4.00     3.95     1.86     YES   HROFDY
 L0006970         0   0.16730E-05  477475.9 3749319.9   455.4     4.00     3.95     1.86     YES   HROFDY
 L0006971         0   0.16730E-05  477475.8 3749328.4   455.5     4.00     3.95     1.86     YES   HROFDY
 L0006972         0   0.16730E-05  477475.7 3749336.9   455.7     4.00     3.95     1.86     YES   HROFDY
 L0006973         0   0.16730E-05  477475.6 3749345.4   455.8     4.00     3.95     1.86     YES   HROFDY
 L0006974         0   0.16730E-05  477475.5 3749353.9   455.9     4.00     3.95     1.86     YES   HROFDY
 L0006975         0   0.16730E-05  477475.4 3749362.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006976         0   0.16730E-05  477475.3 3749370.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006977         0   0.16730E-05  477475.1 3749379.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006978         0   0.16730E-05  477475.0 3749387.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006979         0   0.16730E-05  477474.9 3749396.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006980         0   0.16730E-05  477474.8 3749404.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006981         0   0.16730E-05  477474.7 3749413.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006982         0   0.16730E-05  477474.6 3749421.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006983         0   0.16730E-05  477474.5 3749430.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006984         0   0.16730E-05  477474.4 3749438.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006985         0   0.16730E-05  477474.2 3749447.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006986         0   0.16730E-05  477474.1 3749455.9   456.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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                                                    Residential
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  PAGE  17
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006987         0   0.16730E-05  477474.0 3749464.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006988         0   0.16730E-05  477473.9 3749472.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0006989         0   0.16730E-05  477473.8 3749481.4   456.2     4.00     3.95     1.86     YES   HROFDY
 L0006990         0   0.16730E-05  477473.7 3749489.9   456.4     4.00     3.95     1.86     YES   HROFDY
 L0006991         0   0.16730E-05  477473.6 3749498.4   456.7     4.00     3.95     1.86     YES   HROFDY
 L0006992         0   0.16730E-05  477473.5 3749506.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006993         0   0.16730E-05  477473.3 3749515.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006994         0   0.16730E-05  477473.2 3749523.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006995         0   0.16730E-05  477473.1 3749532.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006996         0   0.16730E-05  477473.0 3749540.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006997         0   0.16730E-05  477472.9 3749549.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006998         0   0.16730E-05  477472.8 3749557.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0006999         0   0.16730E-05  477472.7 3749566.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007000         0   0.16730E-05  477472.6 3749574.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007001         0   0.16730E-05  477472.4 3749583.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007002         0   0.16730E-05  477472.3 3749591.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007003         0   0.16730E-05  477472.2 3749600.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007004         0   0.16730E-05  477472.1 3749608.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007005         0   0.16730E-05  477472.0 3749617.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007006         0   0.16730E-05  477471.9 3749625.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007007         0   0.16730E-05  477471.8 3749634.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007008         0   0.16730E-05  477471.7 3749642.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007009         0   0.16730E-05  477471.5 3749651.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007010         0   0.16730E-05  477471.4 3749659.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007011         0   0.16730E-05  477471.3 3749668.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007012         0   0.16730E-05  477471.2 3749676.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007013         0   0.16730E-05  477471.1 3749685.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007014         0   0.16730E-05  477471.0 3749693.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007015         0   0.16730E-05  477470.9 3749702.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007016         0   0.16730E-05  477470.8 3749710.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007017         0   0.16730E-05  477470.6 3749719.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007018         0   0.16730E-05  477470.5 3749727.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007019         0   0.16730E-05  477470.4 3749736.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007020         0   0.16730E-05  477470.3 3749744.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0007021         0   0.16730E-05  477470.2 3749753.4   457.2     4.00     3.95     1.86     YES   HROFDY
 L0007022         0   0.16730E-05  477470.1 3749761.9   457.5     4.00     3.95     1.86     YES   HROFDY
 L0007023         0   0.16730E-05  477470.0 3749770.4   457.8     4.00     3.95     1.86     YES   HROFDY
 L0007024         0   0.16730E-05  477469.9 3749778.9   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007025         0   0.16730E-05  477469.7 3749787.4   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007026         0   0.71640E-06  477901.9 3748181.5   450.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:10:02

  PAGE  18
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
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                                            Residential
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007027         0   0.71640E-06  477893.4 3748181.6   450.0     4.00     3.95     1.86     YES    HROFDY
 L0007028         0   0.71640E-06  477884.9 3748181.7   450.0     4.00     3.95     1.86     YES    HROFDY
 L0007029         0   0.71640E-06  477876.4 3748181.7   450.0     4.00     3.95     1.86     YES    HROFDY
 L0007030         0   0.71640E-06  477867.9 3748181.8   450.0     4.00     3.95     1.86     YES    HROFDY
 L0007031         0   0.71640E-06  477859.4 3748181.9   450.0     4.00     3.95     1.86     YES    HROFDY
 L0007032         0   0.71640E-06  477850.9 3748181.9   450.0     4.00     3.95     1.86     YES    HROFDY
 L0007033         0   0.71640E-06  477842.4 3748182.0   450.2     4.00     3.95     1.86     YES    HROFDY
 L0007034         0   0.71640E-06  477833.9 3748182.1   450.5     4.00     3.95     1.86     YES    HROFDY
 L0007035         0   0.71640E-06  477825.4 3748182.1   450.7     4.00     3.95     1.86     YES    HROFDY
 L0007036         0   0.71640E-06  477816.9 3748182.2   450.9     4.00     3.95     1.86     YES    HROFDY
 L0007037         0   0.71640E-06  477808.4 3748182.3   450.9     4.00     3.95     1.86     YES    HROFDY
 L0007038         0   0.71640E-06  477799.9 3748182.3   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007039         0   0.71640E-06  477791.4 3748182.4   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007040         0   0.71640E-06  477782.9 3748182.5   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007041         0   0.71640E-06  477774.4 3748182.5   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007042         0   0.71640E-06  477765.9 3748182.6   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007043         0   0.71640E-06  477757.4 3748182.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007044         0   0.71640E-06  477748.9 3748182.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007045         0   0.71640E-06  477740.4 3748182.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007046         0   0.71640E-06  477731.9 3748182.9   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007047         0   0.71640E-06  477723.4 3748183.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007048         0   0.71640E-06  477714.9 3748183.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007049         0   0.71640E-06  477706.4 3748183.1   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007050         0   0.71640E-06  477697.9 3748183.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007051         0   0.71640E-06  477689.4 3748183.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007052         0   0.71640E-06  477680.9 3748183.3   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007053         0   0.71640E-06  477672.4 3748183.4   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007054         0   0.71640E-06  477663.9 3748183.4   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007055         0   0.71640E-06  477655.4 3748183.5   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007056         0   0.71640E-06  477646.9 3748183.6   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007057         0   0.71640E-06  477638.4 3748183.6   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007058         0   0.71640E-06  477629.9 3748183.7   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007059         0   0.71640E-06  477621.4 3748183.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007060         0   0.71640E-06  477612.9 3748183.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007061         0   0.71640E-06  477604.4 3748183.9   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007062         0   0.71640E-06  477595.9 3748184.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007063         0   0.71640E-06  477587.4 3748184.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007064         0   0.71640E-06  477578.9 3748184.1   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007065         0   0.71640E-06  477570.4 3748184.2   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007066         0   0.71640E-06  477561.9 3748184.2   451.0     4.00     3.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007067         0   0.71640E-06  477553.4 3748184.3   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007068         0   0.71640E-06  477544.9 3748184.4   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007069         0   0.71640E-06  477536.4 3748184.4   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007070         0   0.71640E-06  477527.9 3748184.5   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007071         0   0.71640E-06  477519.4 3748184.6   451.0     4.00     3.95     1.86     YES    HROFDY
 L0007072         0   0.71640E-06  477510.9 3748184.6   451.0     4.00     3.95     1.86     YES    HROFDY
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                                                         Residential
 L0007073         0   0.71640E-06  477502.4 3748184.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007074         0   0.71640E-06  477493.9 3748184.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007075         0   0.71640E-06  477485.4 3748184.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007076         0   0.71640E-06  477476.9 3748184.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007077         0   0.71640E-06  477471.1 3748182.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007078         0   0.71640E-06  477470.9 3748173.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007079         0   0.71640E-06  477470.7 3748165.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007080         0   0.71640E-06  477470.6 3748156.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007081         0   0.71640E-06  477470.4 3748148.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007082         0   0.71640E-06  477470.2 3748139.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007083         0   0.71640E-06  477470.0 3748131.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007084         0   0.71640E-06  477469.8 3748122.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007085         0   0.71640E-06  477469.6 3748114.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007086         0   0.71640E-06  477469.4 3748105.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007087         0   0.71640E-06  477469.2 3748097.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007088         0   0.71640E-06  477469.0 3748088.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007089         0   0.71640E-06  477468.9 3748080.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007090         0   0.71640E-06  477468.7 3748071.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007091         0   0.71640E-06  477468.5 3748063.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007092         0   0.71640E-06  477468.3 3748054.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007093         0   0.71640E-06  477468.1 3748046.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007094         0   0.71640E-06  477467.9 3748037.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007095         0   0.71640E-06  477467.7 3748029.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007096         0   0.71640E-06  477467.5 3748020.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007097         0   0.71640E-06  477467.4 3748012.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007098         0   0.71640E-06  477467.2 3748003.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007099         0   0.71640E-06  477467.0 3747995.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007100         0   0.71640E-06  477466.8 3747986.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007101         0   0.71640E-06  477466.6 3747978.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007102         0   0.71640E-06  477466.4 3747969.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007103         0   0.71640E-06  477466.2 3747961.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007104         0   0.71640E-06  477466.0 3747952.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007105         0   0.71640E-06  477465.8 3747944.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007106         0   0.71640E-06  477465.7 3747935.7   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
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 L0007107         0   0.71640E-06  477465.5 3747927.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007108         0   0.71640E-06  477465.3 3747918.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007109         0   0.71640E-06  477465.1 3747910.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007110         0   0.71640E-06  477464.9 3747901.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007111         0   0.71640E-06  477464.7 3747893.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007112         0   0.71640E-06  477464.5 3747884.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007113         0   0.71640E-06  477464.3 3747876.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007114         0   0.71640E-06  477464.1 3747867.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007115         0   0.71640E-06  477464.0 3747859.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007116         0   0.71640E-06  477463.8 3747850.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007117         0   0.71640E-06  477463.6 3747842.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007118         0   0.71640E-06  477463.4 3747833.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007119         0   0.71640E-06  477463.2 3747825.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007120         0   0.71640E-06  477463.0 3747816.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007121         0   0.71640E-06  477462.8 3747808.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007122         0   0.71640E-06  477462.6 3747799.7   451.0     4.00     3.95     1.86     YES   HROFDY
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                                                       Residential
 L0007123         0   0.71640E-06  477462.5 3747791.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007124         0   0.71640E-06  477462.3 3747782.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007125         0   0.71720E-06  477466.5 3747781.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007126         0   0.71720E-06  477475.0 3747781.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007127         0   0.71720E-06  477483.5 3747781.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007128         0   0.71720E-06  477492.0 3747781.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007129         0   0.71720E-06  477500.5 3747781.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007130         0   0.71720E-06  477509.0 3747781.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007131         0   0.71720E-06  477517.5 3747780.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007132         0   0.71720E-06  477526.0 3747780.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007133         0   0.71720E-06  477534.5 3747780.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007134         0   0.71720E-06  477543.0 3747780.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007135         0   0.71720E-06  477551.5 3747780.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007136         0   0.71720E-06  477560.0 3747780.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007137         0   0.71720E-06  477568.5 3747780.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007138         0   0.71720E-06  477577.0 3747780.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007139         0   0.71720E-06  477585.5 3747780.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007140         0   0.71720E-06  477594.0 3747780.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007141         0   0.71720E-06  477602.5 3747780.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007142         0   0.71720E-06  477611.0 3747780.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007143         0   0.71720E-06  477619.5 3747780.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007144         0   0.71720E-06  477628.0 3747780.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007145         0   0.71720E-06  477636.5 3747780.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007146         0   0.71720E-06  477645.0 3747780.1   450.9     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)    X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007147         0   0.71720E-06  477653.5 3747780.0   450.8     4.00     3.95     1.86     YES   HROFDY
 L0007148         0   0.71720E-06  477662.0 3747780.0   450.6     4.00     3.95     1.86     YES   HROFDY
 L0007149         0   0.71720E-06  477670.5 3747779.9   450.4     4.00     3.95     1.86     YES   HROFDY
 L0007150         0   0.71720E-06  477679.0 3747779.8   450.3     4.00     3.95     1.86     YES   HROFDY
 L0007151         0   0.71720E-06  477687.5 3747779.8   450.2     4.00     3.95     1.86     YES   HROFDY
 L0007152         0   0.71720E-06  477696.0 3747779.7   450.1     4.00     3.95     1.86     YES   HROFDY
 L0007153         0   0.71720E-06  477704.5 3747779.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007154         0   0.71720E-06  477713.0 3747779.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007155         0   0.71720E-06  477721.5 3747779.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007156         0   0.71720E-06  477730.0 3747779.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007157         0   0.71720E-06  477738.5 3747779.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007158         0   0.71720E-06  477747.0 3747779.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007159         0   0.71720E-06  477755.5 3747779.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007160         0   0.71720E-06  477764.0 3747779.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007161         0   0.71720E-06  477772.5 3747779.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007162         0   0.71720E-06  477781.0 3747779.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007163         0   0.71720E-06  477789.5 3747779.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007164         0   0.71720E-06  477798.0 3747779.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007165         0   0.71720E-06  477806.5 3747779.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007166         0   0.71720E-06  477815.0 3747778.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007167         0   0.71720E-06  477823.5 3747778.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007168         0   0.71720E-06  477832.0 3747778.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007169         0   0.71720E-06  477840.5 3747778.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007170         0   0.71720E-06  477849.0 3747778.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007171         0   0.71720E-06  477857.5 3747778.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007172         0   0.71720E-06  477866.0 3747778.6   450.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0007173         0   0.71720E-06  477874.5 3747778.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007174         0   0.71720E-06  477883.0 3747778.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007175         0   0.71720E-06  477891.5 3747778.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007176         0   0.71720E-06  477900.0 3747778.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007177         0   0.71720E-06  477908.5 3747778.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007178         0   0.71720E-06  477917.0 3747778.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007179         0   0.71720E-06  477925.5 3747778.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007180         0   0.71720E-06  477934.0 3747778.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007181         0   0.71720E-06  477942.5 3747778.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007182         0   0.71720E-06  477951.0 3747778.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007183         0   0.71720E-06  477959.5 3747778.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007184         0   0.71720E-06  477968.0 3747777.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007185         0   0.71720E-06  477976.5 3747777.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007186         0   0.71720E-06  477985.0 3747777.8   450.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS) (METERS)  (METERS)  (METERS)             BY
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 L0007187         0   0.71720E-06  477993.5 3747777.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007188         0   0.71720E-06  478002.0 3747777.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007189         0   0.71720E-06  478010.5 3747777.7   449.8     4.00     3.95     1.86     YES   HROFDY
 L0007190         0   0.71720E-06  478019.0 3747777.6   449.6     4.00     3.95     1.86     YES   HROFDY
 L0007191         0   0.71720E-06  478027.5 3747777.5   449.4     4.00     3.95     1.86     YES   HROFDY
 L0007192         0   0.71720E-06  478036.0 3747777.5   449.3     4.00     3.95     1.86     YES   HROFDY
 L0007193         0   0.71720E-06  478044.5 3747777.4   449.2     4.00     3.95     1.86     YES   HROFDY
 L0007194         0   0.71720E-06  478053.0 3747777.4   449.1     4.00     3.95     1.86     YES   HROFDY
 L0007195         0   0.71720E-06  478061.5 3747777.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007196         0   0.71720E-06  478070.0 3747777.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007197         0   0.71720E-06  478078.5 3747777.2   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007198         0   0.71720E-06  478087.0 3747777.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007199         0   0.71720E-06  478095.5 3747777.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007200         0   0.71720E-06  478104.0 3747777.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007201         0   0.71720E-06  478112.5 3747777.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007202         0   0.71720E-06  478121.0 3747776.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007203         0   0.71720E-06  478129.5 3747776.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007204         0   0.71720E-06  478138.0 3747776.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007205         0   0.71720E-06  478146.5 3747776.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007206         0   0.71720E-06  478155.0 3747776.7   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007207         0   0.71720E-06  478163.5 3747776.6   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007208         0   0.71720E-06  478172.0 3747776.6   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007209         0   0.71720E-06  478180.5 3747776.5   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007210         0   0.71720E-06  478189.0 3747776.5   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007211         0   0.71720E-06  478197.5 3747776.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007212         0   0.71720E-06  478206.0 3747776.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007213         0   0.71720E-06  478214.5 3747776.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007214         0   0.71720E-06  478223.0 3747776.2   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007215         0   0.71720E-06  478231.5 3747776.2   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007216         0   0.71720E-06  478240.0 3747776.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007217         0   0.71720E-06  478248.5 3747776.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007218         0   0.71720E-06  478257.0 3747776.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007219         0   0.71720E-06  478265.5 3747776.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007220         0   0.71720E-06  478274.0 3747775.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007221         0   0.71720E-06  478281.0 3747774.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007222         0   0.71720E-06  478281.0 3747765.9   449.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0007223         0   0.71720E-06  478281.1 3747757.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007224         0   0.71720E-06  478281.1 3747748.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007225         0   0.71720E-06  478281.1 3747740.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007226         0   0.71720E-06  478281.2 3747731.9   449.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS)  (METERS) (METERS)              BY
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 L0007227         0   0.71720E-06  478281.2 3747723.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007228         0   0.71720E-06  478281.2 3747714.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007229         0   0.71720E-06  478281.3 3747706.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007230         0   0.71720E-06  478281.3 3747697.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007231         0   0.71720E-06  478281.3 3747689.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007232         0   0.71720E-06  478281.4 3747680.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007233         0   0.71720E-06  478281.4 3747672.4   448.9     4.00     3.95     1.86     YES   HROFDY
 L0007234         0   0.71720E-06  478281.4 3747663.9   448.6     4.00     3.95     1.86     YES   HROFDY
 L0007235         0   0.71720E-06  478281.5 3747655.4   448.3     4.00     3.95     1.86     YES   HROFDY
 L0007236         0   0.71720E-06  478281.5 3747646.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007237         0   0.71720E-06  478281.5 3747638.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007238         0   0.71720E-06  478281.5 3747629.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007239         0   0.71720E-06  478281.6 3747621.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007240         0   0.71720E-06  478281.6 3747612.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007241         0   0.71720E-06  478281.6 3747604.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007242         0   0.71720E-06  478281.7 3747595.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007243         0   0.71720E-06  478281.7 3747587.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007244         0   0.71720E-06  478281.7 3747578.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007245         0   0.71720E-06  478281.8 3747570.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007246         0   0.71720E-06  478281.8 3747561.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007247         0   0.71720E-06  478281.8 3747553.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007248         0   0.71720E-06  478281.9 3747544.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007249         0   0.71720E-06  478281.9 3747536.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007250         0   0.71720E-06  478281.9 3747527.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007251         0   0.71720E-06  478282.0 3747519.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007252         0   0.71720E-06  478282.0 3747510.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007253         0   0.71720E-06  478282.0 3747502.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007254         0   0.71720E-06  478282.1 3747493.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007255         0   0.71720E-06  478282.1 3747485.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007256         0   0.71720E-06  478282.1 3747476.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007257         0   0.71720E-06  478282.2 3747468.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007258         0   0.71720E-06  478282.2 3747459.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007259         0   0.71720E-06  478282.2 3747451.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007260         0   0.71720E-06  478282.3 3747442.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007261         0   0.71720E-06  478282.3 3747434.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007262         0   0.71720E-06  478282.3 3747425.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007263         0   0.71720E-06  478282.4 3747417.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007264         0   0.71720E-06  478282.4 3747408.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007265         0   0.71720E-06  478282.4 3747400.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007266         0   0.71720E-06  478282.5 3747391.9   448.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

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                                                       Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007267         0   0.71720E-06  478282.5 3747383.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007268         0   0.71720E-06  478282.5 3747374.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007269         0   0.71720E-06  478282.6 3747366.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007270         0   0.71720E-06  478282.6 3747357.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007271         0   0.71720E-06  478282.6 3747349.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007272         0   0.71720E-06  478282.6 3747340.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007273         0   0.71720E-06  478282.7 3747332.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007274         0   0.71720E-06  478282.7 3747323.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007275         0   0.71720E-06  478282.7 3747315.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007276         0   0.71720E-06  478282.8 3747306.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007277         0   0.71720E-06  478282.8 3747298.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007278         0   0.71720E-06  478282.8 3747289.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007279         0   0.71720E-06  478282.9 3747281.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007280         0   0.71720E-06  478282.9 3747272.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007281         0   0.71720E-06  478282.9 3747264.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007282         0   0.71720E-06  478283.0 3747255.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007283         0   0.71720E-06  478283.0 3747247.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007284         0   0.71720E-06  478283.0 3747238.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007285         0   0.71720E-06  478283.1 3747230.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007286         0   0.71720E-06  478283.1 3747221.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007287         0   0.71720E-06  478283.1 3747213.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007288         0   0.71720E-06  478283.2 3747204.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007289         0   0.71720E-06  478283.2 3747196.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007290         0   0.71720E-06  478283.2 3747187.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007291         0   0.71720E-06  478283.3 3747179.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007292         0   0.71720E-06  478283.3 3747170.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007293         0   0.71720E-06  478283.3 3747162.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007294         0   0.71720E-06  478283.4 3747153.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007295         0   0.71720E-06  478283.4 3747145.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007296         0   0.71720E-06  478283.4 3747136.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007297         0   0.71720E-06  478283.5 3747128.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007298         0   0.71720E-06  478283.5 3747119.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007299         0   0.71720E-06  478283.5 3747111.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007300         0   0.71720E-06  478283.6 3747102.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007301         0   0.71720E-06  478283.6 3747094.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007302         0   0.71720E-06  478283.6 3747085.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007303         0   0.71720E-06  478283.6 3747077.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007304         0   0.71720E-06  478283.7 3747068.9   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007305         0   0.71720E-06  478283.7 3747060.4   448.0      4.00     3.95     1.86     YES   HROFDY
 L0007306         0   0.71720E-06  478283.7 3747051.9   448.0      4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
  03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007307         0   0.71720E-06  478283.8 3747043.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007308         0   0.71720E-06  478283.8 3747034.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007309         0   0.71720E-06  478283.8 3747026.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007310         0   0.71720E-06  478283.9 3747017.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007311         0   0.71720E-06  478283.9 3747009.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007312         0   0.71720E-06  478283.9 3747000.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007313         0   0.71720E-06  478284.0 3746992.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007314         0   0.71720E-06  478284.0 3746983.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007315         0   0.71720E-06  478284.0 3746975.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007316         0   0.71720E-06  478284.1 3746966.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007317         0   0.71720E-06  478284.1 3746958.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007318         0   0.71720E-06  478284.1 3746949.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007319         0   0.71720E-06  478284.2 3746941.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007320         0   0.71720E-06  478284.2 3746932.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007321         0   0.71720E-06  478284.2 3746924.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007322         0   0.71720E-06  478284.3 3746915.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007323         0   0.71720E-06  478284.3 3746907.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007324         0   0.71720E-06  478284.3 3746898.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007325         0   0.71720E-06  478284.4 3746890.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007326         0   0.71720E-06  478284.4 3746881.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007327         0   0.71720E-06  478284.4 3746873.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007328         0   0.71720E-06  478284.5 3746864.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007329         0   0.71720E-06  478284.5 3746856.4   447.8     4.00     3.95     1.86     YES   HROFDY
 L0007330         0   0.71720E-06  478284.5 3746847.9   447.7     4.00     3.95     1.86     YES   HROFDY
 L0007331         0   0.71720E-06  478284.6 3746839.4   447.6     4.00     3.95     1.86     YES   HROFDY
 L0007332         0   0.71720E-06  478284.6 3746830.9   447.4     4.00     3.95     1.86     YES   HROFDY
 L0007333         0   0.71720E-06  478284.6 3746822.4   447.3     4.00     3.95     1.86     YES   HROFDY
 L0007334         0   0.71720E-06  478284.6 3746813.9   447.1     4.00     3.95     1.86     YES   HROFDY
 L0007335         0   0.71720E-06  478284.7 3746805.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007336         0   0.71720E-06  478284.7 3746796.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007337         0   0.71720E-06  478284.7 3746788.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007338         0   0.71720E-06  478284.8 3746779.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007339         0   0.71720E-06  478284.8 3746771.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007340         0   0.71720E-06  478284.8 3746762.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007341         0   0.71720E-06  478284.9 3746754.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007342         0   0.71720E-06  478284.9 3746745.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007343         0   0.71720E-06  478284.9 3746737.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007344         0   0.71720E-06  478285.0 3746728.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007345         0   0.71720E-06  478285.0 3746720.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007346         0   0.71720E-06  478285.0 3746711.9   447.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
    ID          CATS.                (METERS)  (METERS) (METERS)  (METERS)  (METERS) (METERS)          BY
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 L0007347         0   0.71720E-06  478285.1 3746703.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007348         0   0.71720E-06  478285.1 3746694.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007349         0   0.71720E-06  478285.1 3746686.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007350         0   0.71720E-06  478285.2 3746677.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007351         0   0.71720E-06  478285.2 3746669.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007352         0   0.71720E-06  478285.2 3746660.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007353         0   0.71720E-06  478285.3 3746652.4   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007354         0   0.71720E-06  478285.3 3746643.9   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007355         0   0.71720E-06  478285.3 3746635.4   447.0     4.00     3.95     1.86     YES   HROFDY
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                                                    Residential
 L0007356         0   0.71720E-06  478285.4 3746626.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007357         0   0.71720E-06  478285.4 3746618.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007358         0   0.71720E-06  478285.4 3746609.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007359         0   0.71720E-06  478285.5 3746601.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007360         0   0.71720E-06  478285.5 3746592.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007361         0   0.71720E-06  478285.5 3746584.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007362         0   0.71720E-06  478285.6 3746575.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007363         0   0.71720E-06  478285.6 3746567.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007364         0   0.71720E-06  478285.6 3746558.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007365         0   0.71720E-06  478285.7 3746550.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007366         0   0.71720E-06  478285.7 3746541.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007367         0   0.71720E-06  478285.7 3746533.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007368         0   0.71720E-06  478285.7 3746524.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007369         0   0.71720E-06  478285.8 3746516.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007370         0   0.71720E-06  478285.8 3746507.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007371         0   0.71720E-06  478285.8 3746499.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007372         0   0.71720E-06  478285.9 3746490.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007373         0   0.71720E-06  478285.9 3746482.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007374         0   0.71720E-06  478285.9 3746473.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007375         0   0.71720E-06  478286.0 3746465.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007376         0   0.71720E-06  478286.0 3746456.9   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007377         0   0.71720E-06  478286.0 3746448.4   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007378         0   0.71720E-06  478286.1 3746439.9   446.9      4.00     3.95     1.86      YES    HROFDY
 L0007379         0   0.71720E-06  478286.1 3746431.4   446.7      4.00     3.95     1.86      YES    HROFDY
 L0007380         0   0.71720E-06  478286.1 3746422.9   446.6      4.00     3.95     1.86      YES    HROFDY
 L0007381         0   0.71720E-06  478286.2 3746414.4   446.5      4.00     3.95     1.86      YES    HROFDY
 L0007382         0   0.71720E-06  478286.2 3746405.9   446.5      4.00     3.95     1.86      YES    HROFDY
 L0007383         0   0.71720E-06  478286.2 3746397.4   446.5      4.00     3.95     1.86      YES    HROFDY
 L0007384         0   0.71720E-06  478286.3 3746388.9   446.4      4.00     3.95     1.86      YES    HROFDY
 L0007385         0   0.71720E-06  478286.3 3746380.4   446.4      4.00     3.95     1.86      YES    HROFDY
 L0007386         0   0.71720E-06  478286.3 3746371.9   446.4      4.00     3.95     1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y    ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007387         0   0.71720E-06  478286.4 3746363.4   446.4      4.00     3.95     1.86      YES    HROFDY
 L0007388         0   0.71720E-06  478286.4 3746354.9   446.4      4.00     3.95     1.86      YES    HROFDY
 L0007389         0   0.71720E-06  478286.4 3746346.4   446.4      4.00     3.95     1.86      YES    HROFDY
 L0007390         0   0.71720E-06  478280.1 3746347.5   446.7      4.00     3.95     1.86      YES    HROFDY
 L0007391         0   0.71720E-06  478272.3 3746350.8   446.9      4.00     3.95     1.86      YES    HROFDY
 L0007392         0   0.71720E-06  478264.5 3746354.2   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007393         0   0.71720E-06  478256.7 3746357.5   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007394         0   0.71720E-06  478248.6 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007395         0   0.71720E-06  478240.1 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007396         0   0.71720E-06  478231.6 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007397         0   0.71720E-06  478223.1 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007398         0   0.71720E-06  478214.6 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007399         0   0.71720E-06  478206.1 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007400         0   0.71720E-06  478197.6 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007401         0   0.71720E-06  478189.1 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007402         0   0.71720E-06  478180.6 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007403         0   0.71720E-06  478172.1 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007404         0   0.71720E-06  478163.6 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
 L0007405         0   0.71720E-06  478155.1 3746359.6   447.0      4.00     3.95     1.86      YES    HROFDY
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                                                       Residential
 L0007406         0   0.71720E-06  478146.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007407         0   0.71720E-06  478138.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007408         0   0.71720E-06  478129.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007409         0   0.71720E-06  478121.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007410         0   0.71720E-06  478112.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007411         0   0.71720E-06  478104.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007412         0   0.71720E-06  478095.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007413         0   0.71720E-06  478087.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007414         0   0.71720E-06  478078.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007415         0   0.71720E-06  478070.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007416         0   0.71720E-06  478061.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007417         0   0.71720E-06  478053.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007418         0   0.71720E-06  478044.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007419         0   0.71720E-06  478036.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007420         0   0.71720E-06  478027.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007421         0   0.71720E-06  478019.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007422         0   0.71720E-06  478010.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007423         0   0.71720E-06  478002.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007424         0   0.71720E-06  477993.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007425         0   0.71720E-06  477985.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007426         0   0.71720E-06  477976.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007427         0   0.71720E-06  477968.1 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007428         0   0.71720E-06  477959.6 3746359.6   447.0     4.00     3.95     1.86     YES   HROFDY
 L0007429         0   0.71720E-06  477951.1 3746359.6   447.1     4.00     3.95     1.86     YES   HROFDY
 L0007430         0   0.71720E-06  477942.6 3746359.6   447.1     4.00     3.95     1.86     YES   HROFDY
 L0007431         0   0.71720E-06  477934.1 3746359.6   447.3     4.00     3.95     1.86     YES   HROFDY
 L0007432         0   0.71720E-06  477925.6 3746359.6   447.5     4.00     3.95     1.86     YES   HROFDY
 L0007433         0   0.71720E-06  477917.1 3746359.6   447.8     4.00     3.95     1.86     YES   HROFDY
 L0007434         0   0.71720E-06  477908.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007435         0   0.71720E-06  477900.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007436         0   0.71720E-06  477891.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007437         0   0.71720E-06  477883.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007438         0   0.71720E-06  477874.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007439         0   0.71720E-06  477866.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007440         0   0.71720E-06  477857.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007441         0   0.71720E-06  477849.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007442         0   0.71720E-06  477840.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007443         0   0.71720E-06  477832.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007444         0   0.71720E-06  477823.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007445         0   0.71720E-06  477815.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007446         0   0.71720E-06  477806.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007447         0   0.71720E-06  477798.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007448         0   0.71720E-06  477789.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007449         0   0.71720E-06  477781.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007450         0   0.71720E-06  477772.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007451         0   0.71720E-06  477764.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007452         0   0.71720E-06  477755.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007453         0   0.71720E-06  477747.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007454         0   0.71720E-06  477738.6 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007455         0   0.71720E-06  477730.1 3746359.6   448.0     4.00     3.95     1.86     YES   HROFDY
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                                                    Residential
 L0007456         0   0.71720E-06  477721.6 3746359.7   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007457         0   0.71720E-06  477713.1 3746359.8   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007458         0   0.71720E-06  477704.6 3746359.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007459         0   0.71720E-06  477696.1 3746359.9   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007460         0   0.71720E-06  477687.6 3746360.0   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007461         0   0.71720E-06  477679.1 3746360.1   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007462         0   0.71720E-06  477670.6 3746360.2   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007463         0   0.71720E-06  477662.1 3746360.3   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007464         0   0.71720E-06  477653.6 3746360.4   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007465         0   0.71720E-06  477645.1 3746360.5   448.0     4.00     3.95     1.86     YES   HROFDY
 L0007466         0   0.71720E-06  477636.6 3746360.6   448.1     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007467         0   0.71720E-06  477628.1 3746360.6   448.4     4.00     3.95     1.86     YES   HROFDY
 L0007468         0   0.71720E-06  477619.6 3746360.7   448.7     4.00     3.95     1.86     YES   HROFDY
 L0007469         0   0.71720E-06  477611.1 3746360.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007470         0   0.71720E-06  477602.6 3746360.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007471         0   0.71720E-06  477594.1 3746361.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007472         0   0.71720E-06  477585.6 3746361.1   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007473         0   0.71720E-06  477577.1 3746361.2   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007474         0   0.71720E-06  477568.6 3746361.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007475         0   0.71720E-06  477560.1 3746361.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007476         0   0.71720E-06  477551.6 3746361.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007477         0   0.71720E-06  477543.1 3746361.5   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007478         0   0.71720E-06  477534.6 3746361.6   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007479         0   0.71720E-06  477526.1 3746361.7   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007480         0   0.71720E-06  477517.6 3746361.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007481         0   0.71720E-06  477509.1 3746361.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007482         0   0.71720E-06  477500.6 3746362.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007483         0   0.71720E-06  477492.1 3746362.0   449.0     4.00     3.95     1.86     YES   HROFDY
 L0007484         0   0.71720E-06  477483.6 3746362.4   449.2     4.00     3.95     1.86     YES   HROFDY
 L0007485         0   0.71720E-06  477475.3 3746364.0   449.5     4.00     3.95     1.86     YES   HROFDY
 L0007486         0   0.71720E-06  477466.9 3746365.6   449.8     4.00     3.95     1.86     YES   HROFDY
 L0007487         0   0.71720E-06  477458.6 3746367.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007488         0   0.71720E-06  477450.3 3746368.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007489         0   0.71720E-06  477441.9 3746370.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007490         0   0.71720E-06  477433.6 3746372.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007491         0   0.71720E-06  477425.2 3746373.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007492         0   0.71720E-06  477417.3 3746376.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007493         0   0.71720E-06  477410.0 3746380.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007494         0   0.71720E-06  477402.7 3746385.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007495         0   0.71720E-06  477395.3 3746389.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007496         0   0.71720E-06  477388.0 3746393.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007497         0   0.71720E-06  477380.7 3746398.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007498         0   0.71720E-06  477373.4 3746402.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007499         0   0.71720E-06  477366.1 3746406.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007500         0   0.71720E-06  477358.7 3746411.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007501         0   0.71720E-06  477351.4 3746415.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007502         0   0.71720E-06  477344.1 3746419.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007503         0   0.71720E-06  477336.8 3746423.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007504         0   0.71720E-06  477329.5 3746428.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007505         0   0.71720E-06  477322.2 3746432.7   450.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0007506         0   0.71720E-06  477315.4 3746437.8   450.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007507         0   0.71720E-06  477308.6 3746442.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007508         0   0.71720E-06  477301.8 3746448.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007509         0   0.71720E-06  477295.0 3746453.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007510         0   0.71720E-06  477288.2 3746458.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007511         0   0.71720E-06  477281.4 3746463.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007512         0   0.71720E-06  477274.6 3746468.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007513         0   0.71720E-06  477267.7 3746473.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007514         0   0.71720E-06  477260.7 3746478.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007515         0   0.71720E-06  477253.8 3746483.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007516         0   0.71720E-06  477246.8 3746487.9   450.1     4.00     3.95     1.86     YES   HROFDY
 L0007517         0   0.71720E-06  477239.8 3746492.8   450.2     4.00     3.95     1.86     YES   HROFDY
 L0007518         0   0.71720E-06  477232.9 3746497.7   450.2     4.00     3.95     1.86     YES   HROFDY
 L0007519         0   0.71720E-06  477225.9 3746502.6   450.1     4.00     3.95     1.86     YES   HROFDY
 L0007520         0   0.71720E-06  477218.5 3746506.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0007521         0   0.71720E-06  477211.1 3746510.8   450.3     4.00     3.95     1.86     YES   HROFDY
 L0007522         0   0.71720E-06  477203.6 3746514.8   450.5     4.00     3.95     1.86     YES   HROFDY
 L0007523         0   0.71720E-06  477196.1 3746518.8   450.8     4.00     3.95     1.86     YES   HROFDY
 L0007524         0   0.71720E-06  477188.6 3746522.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007525         0   0.71720E-06  477181.1 3746526.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007526         0   0.71720E-06  477173.6 3746530.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007527         0   0.71720E-06  477166.1 3746535.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007528         0   0.71720E-06  477158.5 3746538.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007529         0   0.71720E-06  477150.1 3746539.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007530         0   0.71720E-06  477141.7 3746541.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007531         0   0.71720E-06  477133.3 3746542.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007532         0   0.71720E-06  477124.9 3746543.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007533         0   0.71720E-06  477116.5 3746544.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007534         0   0.71720E-06  477108.0 3746546.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007535         0   0.71720E-06  477099.6 3746547.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007536         0   0.71720E-06  477091.2 3746548.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007537         0   0.71720E-06  477082.7 3746548.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007538         0   0.71720E-06  477074.2 3746548.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0007539         0   0.71720E-06  477065.7 3746548.6   451.1     4.00     3.95     1.86     YES   HROFDY
 L0007540         0   0.71720E-06  477057.2 3746548.7   451.2     4.00     3.95     1.86     YES   HROFDY
 L0007541         0   0.71720E-06  477048.7 3746548.8   451.4     4.00     3.95     1.86     YES   HROFDY
 L0007542         0   0.71720E-06  477040.2 3746548.9   451.6     4.00     3.95     1.86     YES   HROFDY
 L0007543         0   0.71720E-06  477031.7 3746549.0   451.7     4.00     3.95     1.86     YES   HROFDY
 L0007544         0   0.71720E-06  477023.2 3746549.1   451.8     4.00     3.95     1.86     YES   HROFDY
 L0007545         0   0.71720E-06  477014.7 3746549.2   451.9     4.00     3.95     1.86     YES   HROFDY
 L0007546         0   0.71720E-06  477006.2 3746549.3   452.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                    Residential
                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007547         0   0.71720E-06  476997.7 3746549.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007548         0   0.71720E-06  476989.2 3746549.6   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007549         0   0.71720E-06  476980.7 3746549.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007550         0   0.71720E-06  476972.2 3746549.8   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007551         0   0.71720E-06  476963.7 3746549.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007552         0   0.71720E-06  476955.2 3746550.0   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007553         0   0.71720E-06  476946.7 3746550.1   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007554         0   0.71720E-06  476938.2 3746550.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007555         0   0.71720E-06  476929.7 3746550.3   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007556         0   0.71720E-06  476921.2 3746550.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0007557         0   0.71720E-06  476912.7 3746550.6   452.1     4.00     3.95     1.86     YES   HROFDY
 L0007558         0   0.71720E-06  476904.2 3746550.7   452.3     4.00     3.95     1.86     YES   HROFDY
 L0007559         0   0.71720E-06  476895.7 3746550.8   452.4     4.00     3.95     1.86     YES   HROFDY
 L0007560         0   0.71720E-06  476887.2 3746550.9   452.6     4.00     3.95     1.86     YES   HROFDY
 L0007561         0   0.71720E-06  476878.7 3746551.0   452.7     4.00     3.95     1.86     YES   HROFDY
 L0007562         0   0.71720E-06  476870.2 3746551.1   452.8     4.00     3.95     1.86     YES   HROFDY
 L0007563         0   0.71720E-06  476861.7 3746551.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007564         0   0.71720E-06  476853.2 3746551.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007565         0   0.71720E-06  476844.7 3746551.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007566         0   0.71720E-06  476836.2 3746551.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007567         0   0.71720E-06  476827.7 3746551.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007568         0   0.71720E-06  476819.2 3746551.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007569         0   0.71720E-06  476810.7 3746551.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007570         0   0.71720E-06  476802.2 3746552.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0007571         0   0.71720E-06  476793.7 3746552.1   462.1     4.00     3.95     1.86     YES   HROFDY
 L0007572         0   0.71720E-06  476785.2 3746552.2   462.2     4.00     3.95     1.86     YES   HROFDY
 L0007573         0   0.71720E-06  476776.7 3746552.2   462.3     4.00     3.95     1.86     YES   HROFDY
 L0007574         0   0.71720E-06  476768.2 3746551.9   462.4     4.00     3.95     1.86     YES   HROFDY
 L0007575         0   0.71720E-06  476759.7 3746551.7   462.5     4.00     3.95     1.86     YES   HROFDY
 L0007576         0   0.71720E-06  476751.2 3746551.5   462.6     4.00     3.95     1.86     YES   HROFDY
 L0007577         0   0.71720E-06  476742.8 3746551.3   462.7     4.00     3.95     1.86     YES   HROFDY
 L0007578         0   0.71720E-06  476734.3 3746551.1   462.8     4.00     3.95     1.86     YES   HROFDY
 L0007579         0   0.71720E-06  476725.8 3746550.8   462.9     4.00     3.95     1.86     YES   HROFDY
 L0007580         0   0.71720E-06  476717.3 3746550.6   463.1     4.00     3.95     1.86     YES   HROFDY
 L0007581         0   0.71720E-06  476708.8 3746550.4   463.2     4.00     3.95     1.86     YES   HROFDY
 L0007582         0   0.71720E-06  476700.3 3746550.2   463.3     4.00     3.95     1.86     YES   HROFDY
 L0007583         0   0.71720E-06  476691.8 3746550.0   463.4     4.00     3.95     1.86     YES   HROFDY
 L0007584         0   0.71720E-06  476683.3 3746549.7   463.5     4.00     3.95     1.86     YES   HROFDY
 L0007585         0   0.71720E-06  476674.8 3746549.5   463.6     4.00     3.95     1.86     YES   HROFDY
 L0007586         0   0.71720E-06  476666.3 3746549.3   463.7     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                     ***
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   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007587         0   0.71720E-06  476657.8 3746549.1   463.8     4.00     3.95     1.86     YES   HROFDY
 L0007588         0   0.71720E-06  476649.5 3746550.2   463.9     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0007589         0   0.71720E-06  476641.4 3746552.9   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007590         0   0.71720E-06  476633.4 3746555.6   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007591         0   0.71720E-06  476625.3 3746558.3   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007592         0   0.71720E-06  476617.2 3746561.0   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007593         0   0.71720E-06  476609.2 3746563.6   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007594         0   0.71720E-06  476601.4 3746566.9   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007595         0   0.71720E-06  476594.1 3746571.4   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007596         0   0.71720E-06  476586.9 3746575.9   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007597         0   0.71720E-06  476579.7 3746580.4   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007598         0   0.71720E-06  476572.5 3746584.8   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007599         0   0.71720E-06  476565.3 3746589.3   464.0      4.00     3.95     1.86     YES   HROFDY
 L0007600         0   0.71720E-06  476558.0 3746593.8   464.1      4.00     3.95     1.86     YES   HROFDY
 L0007601         0   0.71720E-06  476550.8 3746598.3   464.2      4.00     3.95     1.86     YES   HROFDY
 L0007602         0   0.71720E-06  476543.6 3746602.8   464.3      4.00     3.95     1.86     YES   HROFDY
 L0007603         0   0.71720E-06  476537.9 3746608.7   464.4      4.00     3.95     1.86     YES   HROFDY
 L0007604         0   0.71720E-06  476534.0 3746616.2   464.4      4.00     3.95     1.86     YES   HROFDY
 L0007605         0   0.71720E-06  476530.0 3746623.8   464.5      4.00     3.95     1.86     YES   HROFDY
 L0007606         0   0.71720E-06  476526.1 3746631.3   464.5      4.00     3.95     1.86     YES   HROFDY
 L0007607         0   0.71720E-06  476522.2 3746638.8   464.6      4.00     3.95     1.86     YES   HROFDY
 L0007608         0   0.71720E-06  476518.2 3746646.4   464.6      4.00     3.95     1.86     YES   HROFDY
 L0007609         0   0.71720E-06  476514.3 3746653.9   464.7      4.00     3.95     1.86     YES   HROFDY
 L0007610         0   0.71720E-06  476510.3 3746661.4   464.7      4.00     3.95     1.86     YES   HROFDY
 L0007611         0   0.71720E-06  476506.4 3746668.9   464.8      4.00     3.95     1.86     YES   HROFDY
 L0007612         0   0.71720E-06  476502.4 3746676.5   464.8      4.00     3.95     1.86     YES   HROFDY
 L0007613         0   0.71720E-06  476498.5 3746684.0   464.9      4.00     3.95     1.86     YES   HROFDY
 L0007614         0   0.71720E-06  476494.5 3746691.5   464.9      4.00     3.95     1.86     YES   HROFDY
 L0007615         0   0.71720E-06  476490.6 3746699.1   465.0      4.00     3.95     1.86     YES   HROFDY
 L0007616         0   0.71720E-06  476486.6 3746706.6   465.1      4.00     3.95     1.86     YES   HROFDY
 L0007617         0   0.71720E-06  476482.7 3746714.1   465.2      4.00     3.95     1.86     YES   HROFDY
 L0007618         0   0.71720E-06  476478.7 3746721.6   465.3      4.00     3.95     1.86     YES   HROFDY
 L0007619         0   0.71720E-06  476474.8 3746729.2   465.4      4.00     3.95     1.86     YES   HROFDY
 L0007620         0   0.71720E-06  476470.9 3746736.7   465.5      4.00     3.95     1.86     YES   HROFDY
 L0007621         0   0.71720E-06  476467.8 3746744.5   465.6      4.00     3.95     1.86     YES   HROFDY
 L0007622         0   0.71720E-06  476466.4 3746752.9   465.6      4.00     3.95     1.86     YES   HROFDY
 L0007623         0   0.71720E-06  476465.0 3746761.3   465.7      4.00     3.95     1.86     YES   HROFDY
 L0007624         0   0.71720E-06  476463.6 3746769.7   465.7      4.00     3.95     1.86     YES   HROFDY
 L0007625         0   0.71720E-06  476462.2 3746778.1   465.7      4.00     3.95     1.86     YES   HROFDY
 L0007626         0   0.71720E-06  476460.8 3746786.4   465.8      4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)       X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                 (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0007627         0   0.71720E-06  476459.4 3746794.8   465.8      4.00     3.95     1.86     YES   HROFDY
 L0007628         0   0.71720E-06  476457.3 3746803.0   465.9      4.00     3.95     1.86     YES   HROFDY
 L0007629         0   0.71720E-06  476453.4 3746810.5   465.9      4.00     3.95     1.86     YES   HROFDY
 L0007630         0   0.71720E-06  476449.4 3746818.0   466.1      4.00     3.95     1.86     YES   HROFDY
 L0007631         0   0.71720E-06  476445.4 3746825.5   466.2      4.00     3.95     1.86     YES   HROFDY
 L0007632         0   0.71720E-06  476441.4 3746833.0   466.3      4.00     3.95     1.86     YES   HROFDY
 L0007633         0   0.71720E-06  476437.5 3746840.5   466.4      4.00     3.95     1.86     YES   HROFDY
 L0007634         0   0.71720E-06  476433.5 3746848.1   466.5      4.00     3.95     1.86     YES   HROFDY
 L0007635         0   0.71720E-06  476429.5 3746855.6   466.6      4.00     3.95     1.86     YES   HROFDY
 L0007636         0   0.71720E-06  476425.5 3746863.1   466.7      4.00     3.95     1.86     YES   HROFDY
 L0007637         0   0.71720E-06  476421.6 3746870.6   466.8      4.00     3.95     1.86     YES   HROFDY
 L0007638         0   0.71720E-06  476417.6 3746878.1   466.9      4.00     3.95     1.86     YES   HROFDY
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                                                 Residential
 L0007639         0  0.71720E-06  476413.6 3746885.6   467.0      4.00     3.95     1.86     YES   HROFDY
 L0007640         0  0.71720E-06  476409.6 3746893.1   467.1      4.00     3.95     1.86     YES   HROFDY
 L0007641         0  0.71720E-06  476403.2 3746898.5   467.1      4.00     3.95     1.86     YES   HROFDY
 L0007642         0  0.71720E-06  476396.2 3746903.3   467.2      4.00     3.95     1.86     YES   HROFDY
 L0007643         0  0.71720E-06  476389.2 3746908.1   467.3      4.00     3.95     1.86     YES   HROFDY
 L0007644         0  0.71720E-06  476382.2 3746912.9   467.4      4.00     3.95     1.86     YES   HROFDY
 L0007645         0  0.71720E-06  476375.2 3746917.8   467.5      4.00     3.95     1.86     YES   HROFDY
 L0007646         0  0.71720E-06  476368.2 3746922.6   467.6      4.00     3.95     1.86     YES   HROFDY
 L0007647         0  0.71720E-06  476361.2 3746927.4   467.7      4.00     3.95     1.86     YES   HROFDY
 L0007648         0  0.71720E-06  476354.2 3746932.2   467.8      4.00     3.95     1.86     YES   HROFDY
 L0007649         0  0.71720E-06  476347.2 3746937.0   467.9      4.00     3.95     1.86     YES   HROFDY
 L0007650         0  0.71720E-06  476340.2 3746941.8   467.9      4.00     3.95     1.86     YES   HROFDY
 L0007651         0  0.71720E-06  476332.1 3746943.7   468.1      4.00     3.95     1.86     YES   HROFDY
 L0007652         0  0.71720E-06  476323.7 3746944.5   468.2      4.00     3.95     1.86     YES   HROFDY
 L0007653         0  0.71720E-06  476315.2 3746945.4   468.3      4.00     3.95     1.86     YES   HROFDY
 L0007654         0  0.71720E-06  476306.7 3746946.2   468.4      4.00     3.95     1.86     YES   HROFDY
 L0007655         0  0.71720E-06  476298.3 3746947.0   468.5      4.00     3.95     1.86     YES   HROFDY
 L0007656         0  0.71720E-06  476289.8 3746947.9   468.6      4.00     3.95     1.86     YES   HROFDY
 L0007657         0  0.71720E-06  476281.4 3746948.7   468.7      4.00     3.95     1.86     YES   HROFDY
 L0007658         0  0.71720E-06  476272.9 3746949.5   468.8      4.00     3.95     1.86     YES   HROFDY
 L0007659         0  0.71720E-06  476264.4 3746950.4   468.9      4.00     3.95     1.86     YES   HROFDY
 L0007660         0  0.71720E-06  476256.0 3746950.8   469.0      4.00     3.95     1.86     YES   HROFDY
 L0007661         0  0.71720E-06  476247.5 3746950.7   469.2      4.00     3.95     1.86     YES   HROFDY
 L0007662         0  0.71720E-06  476239.0 3746950.7   469.3      4.00     3.95     1.86     YES   HROFDY
 L0007663         0  0.71720E-06  476230.5 3746950.6   469.4      4.00     3.95     1.86     YES   HROFDY
 L0007664         0  0.71720E-06  476222.0 3746950.5   469.5      4.00     3.95     1.86     YES   HROFDY
 L0007665         0  0.71720E-06  476213.5 3746950.5   469.6      4.00     3.95     1.86     YES   HROFDY
 L0007666         0  0.71720E-06  476205.0 3746950.4   469.7      4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
      03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007667         0  0.71720E-06  476196.5 3746950.4   469.8      4.00     3.95     1.86     YES   HROFDY
 L0007668         0  0.71720E-06  476188.0 3746950.3   469.9      4.00     3.95     1.86     YES   HROFDY
 L0007669         0  0.71720E-06  476179.5 3746950.3   470.0      4.00     3.95     1.86     YES   HROFDY
 L0007670         0  0.71720E-06  476171.0 3746950.2   470.2      4.00     3.95     1.86     YES   HROFDY
 L0007671         0  0.71720E-06  476162.5 3746950.1   470.3      4.00     3.95     1.86     YES   HROFDY
 L0007672         0  0.71720E-06  476154.0 3746950.1   470.4      4.00     3.95     1.86     YES   HROFDY
 L0007673         0  0.71720E-06  476145.5 3746950.0   470.5      4.00     3.95     1.86     YES   HROFDY
 L0007674         0  0.71720E-06  476137.0 3746950.0   470.6      4.00     3.95     1.86     YES   HROFDY
 L0007675         0  0.71720E-06  476128.5 3746949.9   470.7      4.00     3.95     1.86     YES   HROFDY
 L0007676         0  0.71720E-06  476120.0 3746949.9   470.8      4.00     3.95     1.86     YES   HROFDY
 L0007677         0  0.71720E-06  476111.5 3746949.8   470.9      4.00     3.95     1.86     YES   HROFDY
 L0007678         0  0.71720E-06  476103.0 3746949.8   471.0      4.00     3.95     1.86     YES   HROFDY
 L0007679         0  0.71720E-06  476094.5 3746949.7   471.1      4.00     3.95     1.86     YES   HROFDY
 L0007680         0  0.71720E-06  476086.0 3746949.6   471.2      4.00     3.95     1.86     YES   HROFDY
 L0007681         0  0.71720E-06  476077.5 3746949.6   471.4      4.00     3.95     1.86     YES   HROFDY
 L0007682         0  0.71720E-06  476069.0 3746949.5   471.5      4.00     3.95     1.86     YES   HROFDY
 L0007683         0  0.71720E-06  476060.5 3746949.5   471.6      4.00     3.95     1.86     YES   HROFDY
 L0007684         0  0.71720E-06  476052.0 3746949.4   471.7      4.00     3.95     1.86     YES   HROFDY
 L0007685         0  0.71720E-06  476043.5 3746949.4   471.8      4.00     3.95     1.86     YES   HROFDY
 L0007686         0  0.71720E-06  476035.0 3746949.3   471.9      4.00     3.95     1.86     YES   HROFDY
 L0007687         0  0.71720E-06  476026.5 3746949.2   472.0      4.00     3.95     1.86     YES   HROFDY
 L0007688         0  0.71720E-06  476018.0 3746949.2   472.1      4.00     3.95     1.86     YES   HROFDY
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                                                  Residential
 L0007689         0  0.71720E-06  476009.5 3746949.1   472.2     4.00     3.95     1.86     YES   HROFDY
 L0007690         0  0.71720E-06  476001.0 3746949.1   472.4     4.00     3.95     1.86     YES   HROFDY
 L0007691         0  0.71720E-06  475992.5 3746949.0   472.5     4.00     3.95     1.86     YES   HROFDY
 L0007692         0  0.71720E-06  475984.0 3746949.0   472.6     4.00     3.95     1.86     YES   HROFDY
 L0007693         0  0.71720E-06  475975.5 3746948.9   472.7     4.00     3.95     1.86     YES   HROFDY
 L0007694         0  0.71720E-06  475967.0 3746948.8   472.8     4.00     3.95     1.86     YES   HROFDY
 L0007695         0  0.71720E-06  475958.5 3746948.8   472.9     4.00     3.95     1.86     YES   HROFDY
 L0007696         0  0.71720E-06  475950.0 3746948.7   473.0     4.00     3.95     1.86     YES   HROFDY
 L0007697         0  0.71720E-06  475941.5 3746948.7   472.6     4.00     3.95     1.86     YES   HROFDY
 L0007698         0  0.71720E-06  475933.0 3746948.6   472.3     4.00     3.95     1.86     YES   HROFDY
 L0007699         0  0.14360E-05  477480.6 3749800.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007700         0  0.14360E-05  477480.4 3749808.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007701         0  0.14360E-05  477480.3 3749817.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007702         0  0.14360E-05  477480.1 3749825.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007703         0  0.14360E-05  477480.0 3749834.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007704         0  0.14360E-05  477479.9 3749842.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007705         0  0.14360E-05  477479.7 3749851.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007706         0  0.14360E-05  477479.6 3749859.7   458.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0007707         0  0.14360E-05  477479.5 3749868.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007708         0  0.14360E-05  477479.3 3749876.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007709         0  0.14360E-05  477479.2 3749885.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007710         0  0.14360E-05  477479.1 3749893.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007711         0  0.14360E-05  477478.9 3749902.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007712         0  0.14360E-05  477478.8 3749910.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007713         0  0.14360E-05  477478.7 3749919.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007714         0  0.14360E-05  477478.5 3749927.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007715         0  0.14360E-05  477478.4 3749936.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007716         0  0.14360E-05  477478.2 3749944.7   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007717         0  0.14360E-05  477478.1 3749953.2   458.0     4.00     3.95     1.86     YES   HROFDY
 L0007718         0  0.14360E-05  477478.0 3749961.7   458.2     4.00     3.95     1.86     YES   HROFDY
 L0007719         0  0.14360E-05  477477.8 3749970.2   458.4     4.00     3.95     1.86     YES   HROFDY
 L0007720         0  0.14360E-05  477477.7 3749978.7   458.7     4.00     3.95     1.86     YES   HROFDY
 L0007721         0  0.14360E-05  477477.6 3749987.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007722         0  0.14360E-05  477477.4 3749995.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007723         0  0.14360E-05  477477.3 3750004.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007724         0  0.14360E-05  477477.2 3750012.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007725         0  0.14360E-05  477477.0 3750021.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007726         0  0.14360E-05  477476.9 3750029.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007727         0  0.14360E-05  477476.8 3750038.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007728         0  0.14360E-05  477476.6 3750046.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007729         0  0.14360E-05  477476.5 3750055.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007730         0  0.14360E-05  477476.3 3750063.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007731         0  0.14360E-05  477476.2 3750072.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007732         0  0.14360E-05  477476.1 3750080.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007733         0  0.14360E-05  477475.9 3750089.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007734         0  0.14360E-05  477475.8 3750097.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007735         0  0.14360E-05  477475.7 3750106.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007736         0  0.14360E-05  477475.5 3750114.7   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007737         0  0.14360E-05  477475.4 3750123.2   459.0     4.00     3.95     1.86     YES   HROFDY
 L0007738         0  0.14360E-05  477475.3 3750131.7   459.0     4.00     3.95     1.86     YES   HROFDY
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                                                 Residential
 L0007739         0   0.14360E-05  477475.1 3750140.2    459.0     4.00     3.95     1.86     YES   HROFDY
 L0007740         0   0.14360E-05  477475.0 3750148.7    459.0     4.00     3.95     1.86     YES   HROFDY
 L0007741         0   0.14360E-05  477474.8 3750157.2    459.0     4.00     3.95     1.86     YES   HROFDY
 L0007742         0   0.14360E-05  477474.7 3750165.7    459.0     4.00     3.95     1.86     YES   HROFDY
 L0007743         0   0.14360E-05  477474.2 3750174.2    459.0     4.00     3.95     1.86     YES   HROFDY
 L0007744         0   0.14360E-05  477473.5 3750182.6    459.0     4.00     3.95     1.86     YES   HROFDY
 L0007745         0   0.14360E-05  477472.8 3750191.1    459.0     4.00     3.95     1.86     YES   HROFDY
 L0007746         0   0.14360E-05  477472.1 3750199.6    459.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007747         0   0.14360E-05  477471.4 3750208.0    459.2     4.00     3.95     1.86     YES   HROFDY
 L0007748         0   0.14360E-05  477470.7 3750216.5    459.2     4.00     3.95     1.86     YES   HROFDY
 L0007749         0   0.14360E-05  477470.0 3750225.0    459.3     4.00     3.95     1.86     YES   HROFDY
 L0007750         0   0.14360E-05  477469.3 3750233.5    459.5     4.00     3.95     1.86     YES   HROFDY
 L0007751         0   0.14360E-05  477468.7 3750241.9    459.7     4.00     3.95     1.86     YES   HROFDY
 L0007752         0   0.14360E-05  477468.0 3750250.4    459.9     4.00     3.95     1.86     YES   HROFDY
 L0007753         0   0.14360E-05  477467.3 3750258.9    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007754         0   0.14360E-05  477466.6 3750267.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007755         0   0.14360E-05  477466.5 3750275.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007756         0   0.14360E-05  477466.5 3750284.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007757         0   0.14360E-05  477466.5 3750292.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007758         0   0.14360E-05  477466.6 3750301.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007759         0   0.14360E-05  477466.6 3750309.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007760         0   0.14360E-05  477466.6 3750318.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007761         0   0.14360E-05  477466.7 3750326.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007762         0   0.14360E-05  477466.7 3750335.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007763         0   0.14360E-05  477466.7 3750343.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007764         0   0.14360E-05  477466.8 3750352.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007765         0   0.14360E-05  477466.8 3750360.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007766         0   0.14360E-05  477466.9 3750369.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007767         0   0.14360E-05  477466.9 3750377.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007768         0   0.14360E-05  477466.9 3750386.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007769         0   0.14360E-05  477467.0 3750394.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007770         0   0.14360E-05  477467.0 3750403.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007771         0   0.14360E-05  477467.0 3750411.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007772         0   0.14360E-05  477467.1 3750420.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007773         0   0.14360E-05  477467.1 3750428.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007774         0   0.14360E-05  477467.1 3750437.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007775         0   0.14360E-05  477467.2 3750445.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007776         0   0.14360E-05  477467.2 3750454.3    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007777         0   0.14360E-05  477467.3 3750462.8    460.0     4.00     3.95     1.86     YES   HROFDY
 L0007778         0   0.14360E-05  477467.3 3750471.3    460.2     4.00     3.95     1.86     YES   HROFDY
 L0007779         0   0.14360E-05  477467.3 3750479.8    460.4     4.00     3.95     1.86     YES   HROFDY
 L0007780         0   0.14360E-05  477467.4 3750488.3    460.7     4.00     3.95     1.86     YES   HROFDY
 L0007781         0   0.14360E-05  477467.4 3750496.8    461.0     4.00     3.95     1.86     YES   HROFDY
 L0007782         0   0.14360E-05  477467.4 3750505.3    461.0     4.00     3.95     1.86     YES   HROFDY
 L0007783         0   0.14360E-05  477467.5 3750513.8    461.0     4.00     3.95     1.86     YES   HROFDY
 L0007784         0   0.14360E-05  477467.5 3750522.3    461.0     4.00     3.95     1.86     YES   HROFDY
 L0007785         0   0.14360E-05  477467.5 3750530.8    461.0     4.00     3.95     1.86     YES   HROFDY
 L0007786         0   0.14360E-05  477467.6 3750539.3    461.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
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                                                Residential
 *** AERMET - VERSION  14134 ***   ***                                                             ***
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   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007787         0   0.14360E-05  477467.7 3750547.8   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007788         0   0.14360E-05  477467.9 3750556.3   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007789         0   0.14360E-05  477468.2 3750564.8   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007790         0   0.14360E-05  477468.4 3750573.3   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007791         0   0.14360E-05  477468.7 3750581.8   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007792         0   0.14360E-05  477468.9 3750590.3   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007793         0   0.14360E-05  477469.2 3750598.8   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007794         0   0.14360E-05  477469.4 3750607.3   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007795         0   0.14360E-05  477469.7 3750615.8   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007796         0   0.14360E-05  477469.9 3750624.3   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007797         0   0.14360E-05  477470.2 3750632.8   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007798         0   0.14360E-05  477470.4 3750641.3   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007799         0   0.14360E-05  477470.7 3750649.8   461.0     4.00     3.95     1.86     YES   HROFDY
 L0007800         0   0.14360E-05  477470.9 3750658.3   461.2     4.00     3.95     1.86     YES   HROFDY
 L0007801         0   0.14360E-05  477471.2 3750666.8   461.3     4.00     3.95     1.86     YES   HROFDY
 L0007802         0   0.14360E-05  477471.4 3750675.3   461.4     4.00     3.95     1.86     YES   HROFDY
 L0007803         0   0.14360E-05  477471.7 3750683.8   461.5     4.00     3.95     1.86     YES   HROFDY
 L0007804         0   0.14360E-05  477471.9 3750692.3   461.7     4.00     3.95     1.86     YES   HROFDY
 L0007805         0   0.14360E-05  477472.2 3750700.8   461.9     4.00     3.95     1.86     YES   HROFDY
 L0007806         0   0.14360E-05  477472.4 3750709.3   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007807         0   0.14360E-05  477472.7 3750717.8   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007808         0   0.14360E-05  477472.9 3750726.3   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007809         0   0.14360E-05  477473.2 3750734.8   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007810         0   0.14360E-05  477473.4 3750743.3   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007811         0   0.14360E-05  477473.7 3750751.7   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007812         0   0.14360E-05  477473.9 3750760.2   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007813         0   0.14360E-05  477474.2 3750768.7   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007814         0   0.14360E-05  477474.4 3750777.2   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007815         0   0.14360E-05  477474.7 3750785.7   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007816         0   0.14360E-05  477474.9 3750794.2   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007817         0   0.14360E-05  477475.2 3750802.7   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007818         0   0.14360E-05  477475.4 3750811.2   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007819         0   0.14360E-05  477475.7 3750819.7   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007820         0   0.14360E-05  477475.9 3750828.2   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007821         0   0.14360E-05  477476.2 3750836.7   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007822         0   0.14360E-05  477476.4 3750845.2   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007823         0   0.14360E-05  477476.7 3750853.7   462.0     4.00     3.95     1.86     YES   HROFDY
 L0007824         0   0.14360E-05  477476.9 3750862.2   462.1     4.00     3.95     1.86     YES   HROFDY
 L0007825         0   0.14360E-05  477477.1 3750870.7   462.3     4.00     3.95     1.86     YES   HROFDY
 L0007826         0   0.14360E-05  477477.1 3750879.2   462.4     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School           ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                             ***
   13:10:02

   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
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                                                 Residential
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE   SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007827         0   0.14360E-05  477477.2 3750887.7   462.6      4.00     3.95     1.86     YES    HROFDY
 L0007828         0   0.14360E-05  477477.2 3750896.2   462.7      4.00     3.95     1.86     YES    HROFDY
 L0007829         0   0.14360E-05  477477.3 3750904.7   462.8      4.00     3.95     1.86     YES    HROFDY
 L0007830         0   0.14360E-05  477477.3 3750913.2   462.9      4.00     3.95     1.86     YES    HROFDY
 L0007831         0   0.14360E-05  477477.4 3750921.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007832         0   0.14360E-05  477477.4 3750930.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007833         0   0.14360E-05  477477.5 3750938.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007834         0   0.14360E-05  477477.6 3750947.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007835         0   0.14360E-05  477477.6 3750955.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007836         0   0.14360E-05  477477.7 3750964.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007837         0   0.14360E-05  477477.7 3750972.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007838         0   0.14360E-05  477477.8 3750981.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007839         0   0.14360E-05  477477.8 3750989.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007840         0   0.14360E-05  477477.9 3750998.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007841         0   0.14360E-05  477477.9 3751006.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007842         0   0.14360E-05  477478.0 3751015.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007843         0   0.14360E-05  477478.0 3751023.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007844         0   0.14360E-05  477478.1 3751032.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007845         0   0.14360E-05  477478.1 3751040.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007846         0   0.14360E-05  477478.2 3751049.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007847         0   0.14360E-05  477478.3 3751057.7   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007848         0   0.14360E-05  477478.3 3751066.2   463.0      4.00     3.95     1.86     YES    HROFDY
 L0007849         0   0.14360E-05  477478.4 3751074.7   463.2      4.00     3.95     1.86     YES    HROFDY
 L0007850         0   0.14360E-05  477478.4 3751083.2   463.3      4.00     3.95     1.86     YES    HROFDY
 L0007851         0   0.14360E-05  477478.5 3751091.7   463.5      4.00     3.95     1.86     YES    HROFDY
 L0007852         0   0.14360E-05  477478.5 3751100.2   463.7      4.00     3.95     1.86     YES    HROFDY
 L0007853         0   0.14360E-05  477478.6 3751108.7   463.8      4.00     3.95     1.86     YES    HROFDY
 L0007854         0   0.14360E-05  477478.6 3751117.2   463.9      4.00     3.95     1.86     YES    HROFDY
 L0007855         0   0.14360E-05  477478.7 3751125.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007856         0   0.14360E-05  477478.7 3751134.2   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007857         0   0.14360E-05  477478.8 3751142.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007858         0   0.14360E-05  477478.9 3751151.2   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007859         0   0.14360E-05  477478.9 3751159.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007860         0   0.14360E-05  477479.0 3751168.2   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007861         0   0.14360E-05  477479.0 3751176.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007862         0   0.14360E-05  477479.1 3751185.2   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007863         0   0.14360E-05  477479.1 3751193.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007864         0   0.14360E-05  477479.2 3751202.2   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007865         0   0.14360E-05  477479.2 3751210.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007866         0   0.14360E-05  477479.3 3751219.2   464.0      4.00     3.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE   SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0007867         0   0.14360E-05  477479.3 3751227.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007868         0   0.14360E-05  477479.4 3751236.2   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007869         0   0.14360E-05  477479.3 3751244.7   464.0      4.00     3.95     1.86     YES    HROFDY
 L0007870         0   0.14360E-05  477479.3 3751253.2   464.2      4.00     3.95     1.86     YES    HROFDY
 L0007871         0   0.14360E-05  477479.2 3751261.7   464.5      4.00     3.95     1.86     YES    HROFDY
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                                                 Residential
 L0007872         0   0.14360E-05  477479.2 3751270.2   464.8     4.00     3.95     1.86     YES   HROFDY
 L0007873         0   0.14360E-05  477479.1 3751278.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007874         0   0.14360E-05  477479.0 3751287.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007875         0   0.14360E-05  477479.0 3751295.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007876         0   0.14360E-05  477478.9 3751304.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007877         0   0.14360E-05  477478.9 3751312.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007878         0   0.14360E-05  477478.8 3751321.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007879         0   0.14360E-05  477478.7 3751329.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007880         0   0.14360E-05  477478.7 3751338.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007881         0   0.14360E-05  477478.6 3751346.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007882         0   0.14360E-05  477478.6 3751355.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007883         0   0.14360E-05  477478.5 3751363.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007884         0   0.14360E-05  477478.5 3751372.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007885         0   0.14360E-05  477478.4 3751380.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007886         0   0.14360E-05  477478.3 3751389.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007887         0   0.14360E-05  477478.3 3751397.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007888         0   0.14360E-05  477478.2 3751406.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007889         0   0.14360E-05  477478.2 3751414.7   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007890         0   0.14360E-05  477478.1 3751423.2   465.0     4.00     3.95     1.86     YES   HROFDY
 L0007891         0   0.14360E-05  477478.0 3751431.7   465.2     4.00     3.95     1.86     YES   HROFDY
 L0007892         0   0.14360E-05  477478.0 3751440.2   465.4     4.00     3.95     1.86     YES   HROFDY
 L0007893         0   0.14360E-05  477477.9 3751448.7   465.7     4.00     3.95     1.86     YES   HROFDY
 L0007894         0   0.14360E-05  477477.9 3751457.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007895         0   0.14360E-05  477477.8 3751465.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007896         0   0.14360E-05  477477.8 3751474.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007897         0   0.14360E-05  477477.7 3751482.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007898         0   0.14360E-05  477477.6 3751491.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007899         0   0.14360E-05  477477.6 3751499.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007900         0   0.14360E-05  477477.5 3751508.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007901         0   0.14360E-05  477477.5 3751516.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007902         0   0.14360E-05  477477.4 3751525.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007903         0   0.14360E-05  477477.3 3751533.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007904         0   0.14360E-05  477477.3 3751542.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007905         0   0.14360E-05  477477.2 3751550.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007906         0   0.14360E-05  477477.2 3751559.2   466.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
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 L0007907         0   0.14360E-05  477477.1 3751567.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007908         0   0.14360E-05  477477.0 3751576.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007909         0   0.14360E-05  477477.0 3751584.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007910         0   0.14360E-05  477476.9 3751593.2   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007911         0   0.14360E-05  477476.9 3751601.7   466.0     4.00     3.95     1.86     YES   HROFDY
 L0007912         0   0.14360E-05  477476.8 3751610.2   466.1     4.00     3.95     1.86     YES   HROFDY
 L0007913         0   0.14360E-05  477476.8 3751618.7   466.2     4.00     3.95     1.86     YES   HROFDY
 L0007914         0   0.14360E-05  477476.7 3751627.2   466.4     4.00     3.95     1.86     YES   HROFDY
 L0007915         0   0.14360E-05  477476.6 3751635.7   466.6     4.00     3.95     1.86     YES   HROFDY
 L0007916         0   0.14360E-05  477476.6 3751644.2   466.7     4.00     3.95     1.86     YES   HROFDY
 L0007917         0   0.14360E-05  477476.5 3751652.7   466.8     4.00     3.95     1.86     YES   HROFDY
 L0007918         0   0.14360E-05  477476.5 3751661.2   466.9     4.00     3.95     1.86     YES   HROFDY
 L0007919         0   0.14360E-05  477476.4 3751669.7   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007920         0   0.14360E-05  477476.3 3751678.2   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007921         0   0.14360E-05  477476.3 3751686.7   467.0     4.00     3.95     1.86     YES   HROFDY
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                                             Residential
 L0007922         0   0.14360E-05  477476.2 3751695.2   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007923         0   0.14360E-05  477476.2 3751703.7   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007924         0   0.14360E-05  477476.1 3751712.2   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007925         0   0.14360E-05  477476.1 3751720.7   467.0     4.00     3.95     1.86     YES   HROFDY
 L0007926         0   0.14360E-05  477476.0 3751729.2   467.1     4.00     3.95     1.86     YES   HROFDY
 L0007927         0   0.14360E-05  477475.9 3751737.7   467.2     4.00     3.95     1.86     YES   HROFDY
 L0007928         0   0.14360E-05  477475.9 3751746.2   467.4     4.00     3.95     1.86     YES   HROFDY
 L0007929         0   0.14360E-05  477475.8 3751754.7   467.5     4.00     3.95     1.86     YES   HROFDY
 L0007930         0   0.14360E-05  477475.8 3751763.2   467.6     4.00     3.95     1.86     YES   HROFDY
 L0007931         0   0.14360E-05  477475.7 3751771.7   467.8     4.00     3.95     1.86     YES   HROFDY
 L0007932         0   0.14360E-05  477475.6 3751780.2   467.9     4.00     3.95     1.86     YES   HROFDY
 L0007933         0   0.14360E-05  477475.6 3751788.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007934         0   0.14360E-05  477475.5 3751797.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007935         0   0.14360E-05  477475.5 3751805.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007936         0   0.14360E-05  477475.4 3751814.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007937         0   0.14360E-05  477475.4 3751822.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007938         0   0.14360E-05  477475.3 3751831.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007939         0   0.14360E-05  477475.2 3751839.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007940         0   0.14360E-05  477475.2 3751848.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007941         0   0.14360E-05  477475.1 3751856.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007942         0   0.14360E-05  477475.1 3751865.2   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007943         0   0.14360E-05  477475.0 3751873.7   468.0     4.00     3.95     1.86     YES   HROFDY
 L0007944         0   0.14360E-05  477474.9 3751882.2   468.2     4.00     3.95     1.86     YES   HROFDY
 L0007945         0   0.14360E-05  477474.9 3751890.7   468.5     4.00     3.95     1.86     YES   HROFDY
 L0007946         0   0.14360E-05  477474.8 3751899.2   468.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0007947         0   0.14360E-05  477474.8 3751907.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007948         0   0.14360E-05  477474.7 3751916.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007949         0   0.14360E-05  477474.7 3751924.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007950         0   0.14360E-05  477474.6 3751933.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007951         0   0.14360E-05  477474.5 3751941.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007952         0   0.14360E-05  477474.5 3751950.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007953         0   0.14360E-05  477474.4 3751958.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007954         0   0.14360E-05  477474.4 3751967.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007955         0   0.14360E-05  477474.3 3751975.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007956         0   0.14360E-05  477474.2 3751984.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007957         0   0.14360E-05  477474.2 3751992.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007958         0   0.14360E-05  477474.1 3752001.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007959         0   0.14360E-05  477474.1 3752009.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007960         0   0.14360E-05  477474.0 3752018.2   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007961         0   0.14360E-05  477474.0 3752026.7   469.0     4.00     3.95     1.86     YES   HROFDY
 L0007962         0   0.14360E-05  477473.9 3752035.2   469.1     4.00     3.95     1.86     YES   HROFDY
 L0007963         0   0.14360E-05  477473.8 3752043.7   469.3     4.00     3.95     1.86     YES   HROFDY
 L0007964         0   0.14360E-05  477473.8 3752052.2   469.4     4.00     3.95     1.86     YES   HROFDY
 L0007965         0   0.14360E-05  477473.7 3752060.7   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007966         0   0.14360E-05  477473.7 3752069.2   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007967         0   0.14360E-05  477473.6 3752077.7   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007968         0   0.14360E-05  477473.5 3752086.2   469.5     4.00     3.95     1.86     YES   HROFDY
 L0007969         0   0.14360E-05  477473.5 3752094.7   469.6     4.00     3.95     1.86     YES   HROFDY
 L0007970         0   0.14360E-05  477473.4 3752103.2   469.8     4.00     3.95     1.86     YES   HROFDY
 L0007971         0   0.14360E-05  477473.4 3752111.7   469.9     4.00     3.95     1.86     YES   HROFDY
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                                                       Residential
 L0007972         0   0.14360E-05  477473.3 3752120.2   470.1     4.00     3.95     1.86     YES   HROFDY
 L0007973         0   0.14360E-05  477473.3 3752128.7   470.2     4.00     3.95     1.86     YES   HROFDY
 L0007974         0   0.14360E-05  477473.2 3752137.2   470.3     4.00     3.95     1.86     YES   HROFDY
 L0007975         0   0.14360E-05  477473.1 3752145.7   470.4     4.00     3.95     1.86     YES   HROFDY
 L0007976         0   0.14360E-05  477473.1 3752154.2   470.6     4.00     3.95     1.86     YES   HROFDY
 L0007977         0   0.14360E-05  477473.0 3752162.7   470.7     4.00     3.95     1.86     YES   HROFDY
 L0007978         0   0.14360E-05  477473.0 3752171.2   470.9     4.00     3.95     1.86     YES   HROFDY
 L0007979         0   0.14360E-05  477472.9 3752179.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007980         0   0.14360E-05  477472.8 3752188.2   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007981         0   0.14360E-05  477472.8 3752196.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007982         0   0.14360E-05  477472.7 3752205.2   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007983         0   0.14360E-05  477472.7 3752213.7   471.2     4.00     3.95     1.86     YES   HROFDY
 L0007984         0   0.14360E-05  477472.6 3752222.2   471.5     4.00     3.95     1.86     YES   HROFDY
 L0007985         0   0.14360E-05  477468.0 3752226.1   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007986         0   0.14360E-05  477459.5 3752226.1   471.7     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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  PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
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 L0007987         0   0.14360E-05  477451.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007988         0   0.14360E-05  477442.5 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007989         0   0.14360E-05  477434.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007990         0   0.14360E-05  477425.5 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007991         0   0.14360E-05  477417.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007992         0   0.14360E-05  477408.5 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007993         0   0.14360E-05  477400.0 3752226.2   471.7     4.00     3.95     1.86     YES   HROFDY
 L0007994         0   0.14360E-05  477391.5 3752226.2   471.5     4.00     3.95     1.86     YES   HROFDY
 L0007995         0   0.14360E-05  477383.0 3752226.2   471.3     4.00     3.95     1.86     YES   HROFDY
 L0007996         0   0.14360E-05  477374.5 3752226.2   471.1     4.00     3.95     1.86     YES   HROFDY
 L0007997         0   0.14360E-05  477366.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007998         0   0.14360E-05  477357.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0007999         0   0.14360E-05  477349.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008000         0   0.14360E-05  477340.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008001         0   0.14360E-05  477332.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008002         0   0.14360E-05  477323.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008003         0   0.14360E-05  477315.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008004         0   0.14360E-05  477306.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008005         0   0.14360E-05  477298.0 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008006         0   0.14360E-05  477289.5 3752226.3   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008007         0   0.14360E-05  477281.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008008         0   0.14360E-05  477272.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008009         0   0.14360E-05  477264.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008010         0   0.14360E-05  477255.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008011         0   0.14360E-05  477247.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008012         0   0.14360E-05  477238.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008013         0   0.14360E-05  477230.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008014         0   0.14360E-05  477221.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008015         0   0.14360E-05  477213.0 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008016         0   0.14360E-05  477204.5 3752226.4   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008017         0   0.14360E-05  477196.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008018         0   0.14360E-05  477187.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008019         0   0.14360E-05  477179.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008020         0   0.14360E-05  477170.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008021         0   0.14360E-05  477162.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
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                                                     Residential
 L0008022         0   0.14360E-05  477153.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008023         0   0.14360E-05  477145.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008024         0   0.14360E-05  477136.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008025         0   0.14360E-05  477128.0 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008026         0   0.14360E-05  477119.5 3752226.5   471.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:10:02

  PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE        PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008027         0   0.14360E-05  477111.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008028         0   0.14360E-05  477102.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008029         0   0.14360E-05  477094.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008030         0   0.14360E-05  477085.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008031         0   0.14360E-05  477077.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008032         0   0.14360E-05  477068.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008033         0   0.14360E-05  477060.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008034         0   0.14360E-05  477051.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008035         0   0.14360E-05  477043.0 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008036         0   0.14360E-05  477034.5 3752226.6   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008037         0   0.14360E-05  477026.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008038         0   0.14360E-05  477017.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008039         0   0.14360E-05  477009.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008040         0   0.14360E-05  477000.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008041         0   0.14360E-05  476992.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008042         0   0.14360E-05  476983.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008043         0   0.14360E-05  476975.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008044         0   0.14360E-05  476966.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008045         0   0.14360E-05  476958.0 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008046         0   0.14360E-05  476949.5 3752226.7   471.0     4.00     3.95     1.86     YES   HROFDY
 L0008047         0   0.14360E-05  476941.0 3752226.8   471.2     4.00     3.95     1.86     YES   HROFDY
 L0008048         0   0.14360E-05  476932.5 3752226.8   471.4     4.00     3.95     1.86     YES   HROFDY
 L0008049         0   0.14360E-05  476924.0 3752226.8   471.6     4.00     3.95     1.86     YES   HROFDY
 L0008050         0   0.14360E-05  476915.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008051         0   0.14360E-05  476907.0 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008052         0   0.14360E-05  476898.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008053         0   0.14360E-05  476890.0 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008054         0   0.14360E-05  476881.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008055         0   0.14360E-05  476873.0 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008056         0   0.14360E-05  476864.5 3752226.8   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008057         0   0.14360E-05  476856.0 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008058         0   0.14360E-05  476847.5 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008059         0   0.14360E-05  476839.0 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008060         0   0.14360E-05  476830.5 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008061         0   0.14360E-05  476822.0 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008062         0   0.14360E-05  476813.5 3752226.9   471.7     4.00     3.95     1.86     YES   HROFDY
 L0008063         0   0.14360E-05  476805.0 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008064         0   0.14360E-05  476796.5 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008065         0   0.14360E-05  476788.0 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008066         0   0.14360E-05  476779.5 3752226.9   477.2     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:10:02
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                                                  Residential
   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0008067         0   0.14360E-05  476771.0 3752227.0    477.2     4.00     3.95     1.86     YES    HROFDY
 L0008068         0   0.14360E-05  476762.5 3752227.0    477.2     4.00     3.95     1.86     YES    HROFDY
 L0008069         0   0.14360E-05  476754.0 3752227.0    477.2     4.00     3.95     1.86     YES    HROFDY
 L0008070         0   0.14360E-05  476745.5 3752227.0    477.2     4.00     3.95     1.86     YES    HROFDY
 L0008071         0   0.14360E-05  476737.0 3752227.0    477.2     4.00     3.95     1.86     YES    HROFDY
 L0008072         0   0.14360E-05  476728.5 3752227.0    477.3     4.00     3.95     1.86     YES    HROFDY
 L0008073         0   0.14360E-05  476720.0 3752227.0    477.4     4.00     3.95     1.86     YES    HROFDY
 L0008074         0   0.14360E-05  476711.5 3752227.0    477.5     4.00     3.95     1.86     YES    HROFDY
 L0008075         0   0.14360E-05  476703.0 3752227.0    477.6     4.00     3.95     1.86     YES    HROFDY
 L0008076         0   0.14360E-05  476694.5 3752227.0    477.6     4.00     3.95     1.86     YES    HROFDY
 L0008077         0   0.14360E-05  476686.0 3752227.1    477.7     4.00     3.95     1.86     YES    HROFDY
 L0008078         0   0.14360E-05  476677.5 3752227.1    477.8     4.00     3.95     1.86     YES    HROFDY
 L0008079         0   0.14360E-05  476669.0 3752227.1    477.9     4.00     3.95     1.86     YES    HROFDY
 L0008080         0   0.14360E-05  476660.5 3752227.1    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008081         0   0.14360E-05  476652.0 3752227.1    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008082         0   0.14360E-05  476643.5 3752227.1    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008083         0   0.14360E-05  476635.0 3752227.1    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008084         0   0.14360E-05  476626.5 3752227.1    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008085         0   0.14360E-05  476618.0 3752227.1    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008086         0   0.14360E-05  476609.5 3752227.1    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008087         0   0.14360E-05  476601.0 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008088         0   0.14360E-05  476592.5 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008089         0   0.14360E-05  476584.0 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008090         0   0.14360E-05  476575.5 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008091         0   0.14360E-05  476567.0 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008092         0   0.14360E-05  476558.5 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008093         0   0.14360E-05  476550.0 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008094         0   0.14360E-05  476541.5 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008095         0   0.14360E-05  476533.0 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008096         0   0.14360E-05  476524.5 3752227.2    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008097         0   0.14360E-05  476516.0 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008098         0   0.14360E-05  476507.5 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008099         0   0.14360E-05  476499.0 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008100         0   0.14360E-05  476490.5 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008101         0   0.14360E-05  476482.0 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008102         0   0.14360E-05  476473.5 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008103         0   0.14360E-05  476465.0 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008104         0   0.14360E-05  476456.5 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008105         0   0.14360E-05  476448.0 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
 L0008106         0   0.14360E-05  476439.5 3752227.3    478.0     4.00     3.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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                                                         Residential
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 L0008107         0   0.14360E-05  476431.0 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008108         0   0.14360E-05  476422.5 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008109         0   0.14360E-05  476414.0 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008110         0   0.14360E-05  476405.5 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008111         0   0.14360E-05  476397.0 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008112         0   0.14360E-05  476388.5 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008113         0   0.14360E-05  476380.0 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008114         0   0.14360E-05  476371.5 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008115         0   0.14360E-05  476363.0 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008116         0   0.14360E-05  476354.5 3752227.4    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008117         0   0.14360E-05  476346.0 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008118         0   0.14360E-05  476337.5 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008119         0   0.14360E-05  476329.0 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008120         0   0.14360E-05  476320.5 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008121         0   0.14360E-05  476312.0 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008122         0   0.14360E-05  476303.5 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008123         0   0.14360E-05  476295.0 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008124         0   0.14360E-05  476286.5 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008125         0   0.14360E-05  476278.0 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008126         0   0.14360E-05  476269.5 3752227.5    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008127         0   0.14360E-05  476261.0 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008128         0   0.14360E-05  476252.5 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008129         0   0.14360E-05  476244.0 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008130         0   0.14360E-05  476235.5 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008131         0   0.14360E-05  476227.0 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008132         0   0.14360E-05  476218.5 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008133         0   0.14360E-05  476210.0 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008134         0   0.14360E-05  476201.5 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008135         0   0.14360E-05  476193.0 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008136         0   0.14360E-05  476184.5 3752227.6    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008137         0   0.14360E-05  476176.0 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008138         0   0.14360E-05  476167.5 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008139         0   0.14360E-05  476159.0 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008140         0   0.14360E-05  476150.5 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008141         0   0.14360E-05  476142.0 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008142         0   0.14360E-05  476133.5 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008143         0   0.14360E-05  476125.0 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008144         0   0.14360E-05  476116.5 3752227.7    478.0     4.00     3.95     1.86     YES   HROFDY
 L0008145         0   0.14360E-05  476108.0 3752227.7    477.9     4.00     3.95     1.86     YES   HROFDY
 L0008146         0   0.14360E-05  476099.5 3752227.7    477.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:10:02

  PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008147         0   0.14360E-05  476091.0 3752227.8    477.7     4.00     3.95     1.86     YES   HROFDY
 L0008148         0   0.14360E-05  476082.5 3752227.8    477.6     4.00     3.95     1.86     YES   HROFDY
 L0008149         0   0.14360E-05  476074.0 3752227.8    477.6     4.00     3.95     1.86     YES   HROFDY
 L0008150         0   0.14360E-05  476065.5 3752227.8    477.5     4.00     3.95     1.86     YES   HROFDY
 L0008151         0   0.14360E-05  476057.0 3752227.8    477.4     4.00     3.95     1.86     YES   HROFDY
 L0008152         0   0.14360E-05  476048.5 3752227.8    477.3     4.00     3.95     1.86     YES   HROFDY
 L0008153         0   0.14360E-05  476040.0 3752227.8    477.2     4.00     3.95     1.86     YES   HROFDY
 L0008154         0   0.14360E-05  476031.5 3752227.8    477.2     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0008155         0   0.14360E-05  476023.0 3752227.8   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008156         0   0.14360E-05  476014.5 3752227.8   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008157         0   0.14360E-05  476006.0 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008158         0   0.14360E-05  475997.5 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008159         0   0.14360E-05  475989.0 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008160         0   0.14360E-05  475980.5 3752227.9   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008161         0   0.14360E-05  475972.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008162         0   0.14360E-05  475963.5 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008163         0   0.14360E-05  475955.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008164         0   0.14360E-05  475946.5 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008165         0   0.14360E-05  475938.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008166         0   0.14360E-05  475929.5 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008167         0   0.14360E-05  475921.0 3752227.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008168         0   0.14360E-05  475912.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008169         0   0.14360E-05  475904.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008170         0   0.14360E-05  475895.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008171         0   0.14360E-05  475887.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008172         0   0.14360E-05  475878.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008173         0   0.14360E-05  475870.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008174         0   0.14360E-05  475861.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008175         0   0.14360E-05  475853.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008176         0   0.14360E-05  475844.5 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008177         0   0.14360E-05  475836.0 3752228.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008178         0   0.14360E-05  475827.5 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008179         0   0.14360E-05  475819.0 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008180         0   0.14360E-05  475810.5 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008181         0   0.14360E-05  475802.0 3752228.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008182         0   0.14360E-05  475793.5 3752228.1   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008183         0   0.14360E-05  475785.0 3752228.1   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008184         0   0.14360E-05  475776.5 3752228.1   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008185         0   0.14360E-05  475768.0 3752228.1   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008186         0   0.14360E-05  475759.5 3752228.1   477.1     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y    ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0008187         0   0.14360E-05  475751.0 3752228.1   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008188         0   0.14360E-05  475742.5 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008189         0   0.14360E-05  475734.0 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008190         0   0.14360E-05  475725.5 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008191         0   0.14360E-05  475717.0 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008192         0   0.14360E-05  475708.5 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008193         0   0.14360E-05  475700.0 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008194         0   0.14360E-05  475691.5 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008195         0   0.14360E-05  475683.0 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008196         0   0.14360E-05  475674.5 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008197         0   0.14360E-05  475666.0 3752228.2   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008198         0   0.14360E-05  475657.5 3752228.3   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008199         0   0.14360E-05  475649.0 3752228.3   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008200         0   0.14360E-05  475640.5 3752228.3   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008201         0   0.14360E-05  475632.0 3752228.3   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008202         0   0.14360E-05  475623.5 3752228.3   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008203         0   0.14360E-05  475615.0 3752228.3   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008204         0   0.14360E-05  475606.5 3752228.3   477.1     4.00     3.95     1.86     YES   HROFDY
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                                                      Residential
 L0008205         0   0.14360E-05  475598.0 3752228.3   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008206         0   0.14360E-05  475589.5 3752228.3   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008207         0   0.14360E-05  475581.0 3752228.3   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008208         0   0.14360E-05  475572.5 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008209         0   0.14360E-05  475564.0 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008210         0   0.14360E-05  475555.5 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008211         0   0.14360E-05  475547.0 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008212         0   0.14360E-05  475538.5 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008213         0   0.14360E-05  475530.0 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008214         0   0.14360E-05  475521.5 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008215         0   0.14360E-05  475513.0 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008216         0   0.14360E-05  475504.5 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008217         0   0.14360E-05  475496.0 3752228.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008218         0   0.14360E-05  475487.5 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008219         0   0.14360E-05  475479.0 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008220         0   0.14360E-05  475470.5 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008221         0   0.14360E-05  475462.0 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008222         0   0.14360E-05  475453.5 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008223         0   0.14360E-05  475445.0 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008224         0   0.14360E-05  475436.5 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008225         0   0.14360E-05  475428.0 3752228.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008226         0   0.14360E-05  475419.5 3752228.5   476.9     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008227         0   0.14360E-05  475411.0 3752228.5   476.9     4.00     3.95     1.86     YES   HROFDY
 L0008228         0   0.14360E-05  475402.5 3752228.6   476.8     4.00     3.95     1.86     YES   HROFDY
 L0008229         0   0.14360E-05  475394.0 3752228.6   476.7     4.00     3.95     1.86     YES   HROFDY
 L0008230         0   0.14360E-05  475385.5 3752228.6   476.6     4.00     3.95     1.86     YES   HROFDY
 L0008231         0   0.14360E-05  475377.0 3752228.6   476.5     4.00     3.95     1.86     YES   HROFDY
 L0008232         0   0.14360E-05  475368.5 3752228.6   476.4     4.00     3.95     1.86     YES   HROFDY
 L0008233         0   0.14360E-05  475360.0 3752228.6   476.3     4.00     3.95     1.86     YES   HROFDY
 L0008234         0   0.14360E-05  475351.5 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0008235         0   0.14360E-05  475343.0 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0008236         0   0.14360E-05  475334.5 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0008237         0   0.14360E-05  475326.0 3752228.6   476.2     4.00     3.95     1.86     YES   HROFDY
 L0008238         0   0.14360E-05  475317.5 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0008239         0   0.14360E-05  475309.0 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0008240         0   0.14360E-05  475300.5 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0008241         0   0.14360E-05  475292.0 3752228.7   476.1     4.00     3.95     1.86     YES   HROFDY
 L0008242         0   0.14360E-05  475283.5 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008243         0   0.14360E-05  475275.0 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008244         0   0.14360E-05  475266.5 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008245         0   0.14360E-05  475258.0 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008246         0   0.14360E-05  475249.5 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008247         0   0.14360E-05  475241.0 3752228.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008248         0   0.14360E-05  475232.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008249         0   0.14360E-05  475224.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008250         0   0.14360E-05  475215.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008251         0   0.14360E-05  475207.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008252         0   0.14360E-05  475198.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008253         0   0.14360E-05  475190.0 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008254         0   0.14360E-05  475181.5 3752228.8   476.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0008255         0   0.14360E-05  475173.0 3752228.8    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008256         0   0.14360E-05  475164.5 3752228.8    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008257         0   0.14360E-05  475156.0 3752228.8    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008258         0   0.14360E-05  475147.5 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008259         0   0.14360E-05  475139.0 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008260         0   0.14360E-05  475130.5 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008261         0   0.14360E-05  475122.0 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008262         0   0.14360E-05  475113.5 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008263         0   0.14360E-05  475105.0 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008264         0   0.14360E-05  475096.5 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008265         0   0.14360E-05  475088.0 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008266         0   0.14360E-05  475079.5 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008267         0   0.14360E-05  475071.0 3752228.9    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008268         0   0.14360E-05  475062.5 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008269         0   0.14360E-05  475054.0 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008270         0   0.14360E-05  475045.5 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008271         0   0.14360E-05  475037.0 3752229.0    476.0     4.00     3.95     1.86     YES   HROFDY
 L0008272         0   0.14360E-05  475028.5 3752229.0    475.9     4.00     3.95     1.86     YES   HROFDY
 L0008273         0   0.14360E-05  475020.0 3752229.0    475.7     4.00     3.95     1.86     YES   HROFDY
 L0008274         0   0.14360E-05  475011.5 3752229.0    475.6     4.00     3.95     1.86     YES   HROFDY
 L0008275         0   0.14360E-05  475003.0 3752229.0    475.5     4.00     3.95     1.86     YES   HROFDY
 L0008276         0   0.14360E-05  474994.5 3752229.0    475.4     4.00     3.95     1.86     YES   HROFDY
 L0008277         0   0.14360E-05  474986.0 3752229.0    475.3     4.00     3.95     1.86     YES   HROFDY
 L0008278         0   0.14360E-05  474977.5 3752229.1    475.2     4.00     3.95     1.86     YES   HROFDY
 L0008279         0   0.14360E-05  474969.0 3752229.1    475.1     4.00     3.95     1.86     YES   HROFDY
 L0008280         0   0.14360E-05  474960.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008281         0   0.14360E-05  474952.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008282         0   0.14360E-05  474943.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008283         0   0.14360E-05  474935.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008284         0   0.14360E-05  474926.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008285         0   0.14360E-05  474918.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008286         0   0.14360E-05  474909.5 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008287         0   0.14360E-05  474901.0 3752229.1    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008288         0   0.14360E-05  474892.5 3752229.2    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008289         0   0.14360E-05  474884.0 3752229.2    475.0     4.00     3.95     1.86     YES   HROFDY
 L0008290         0   0.14360E-05  474875.5 3752229.2    474.9     4.00     3.95     1.86     YES   HROFDY
 L0008291         0   0.14360E-05  474867.0 3752229.2    474.8     4.00     3.95     1.86     YES   HROFDY
 L0008292         0   0.14360E-05  474858.5 3752229.2    474.7     4.00     3.95     1.86     YES   HROFDY
 L0008293         0   0.14360E-05  474850.0 3752229.2    474.5     4.00     3.95     1.86     YES   HROFDY
 L0008294         0   0.14360E-05  474841.5 3752229.2    474.4     4.00     3.95     1.86     YES   HROFDY
 L0008295         0   0.14360E-05  474833.0 3752229.2    474.3     4.00     3.95     1.86     YES   HROFDY
 L0008296         0   0.14360E-05  474824.5 3752229.2    474.2     4.00     3.95     1.86     YES   HROFDY
 L0008297         0   0.14360E-05  474816.0 3752229.2    474.1     4.00     3.95     1.86     YES   HROFDY
 L0008298         0   0.14360E-05  474807.5 3752229.3    474.0     4.00     3.95     1.86     YES   HROFDY
 L0008299         0   0.14360E-05  474799.1 3752228.0    474.1     4.00     3.95     1.86     YES   HROFDY
 L0008300         0   0.14360E-05  474790.7 3752226.7    474.2     4.00     3.95     1.86     YES   HROFDY
 L0008301         0   0.14360E-05  474782.3 3752225.5    474.3     4.00     3.95     1.86     YES   HROFDY
 L0008302         0   0.14360E-05  474773.9 3752224.2    474.4     4.00     3.95     1.86     YES   HROFDY
 L0008303         0   0.14360E-05  474765.5 3752222.9    474.6     4.00     3.95     1.86     YES   HROFDY
 L0008304         0   0.14360E-05  474757.1 3752221.7    474.7     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0008305         0   0.14360E-05  474748.7 3752220.4   474.8     4.00     3.95     1.86     YES   HROFDY
 L0008306         0   0.14360E-05  474740.3 3752219.1   474.9     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)     X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID       CATS.               (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
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 L0008307         0   0.14360E-05  474731.9 3752217.8   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008308         0   0.14360E-05  474723.5 3752216.6   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008309         0   0.14360E-05  474715.1 3752215.3   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008310         0   0.14360E-05  474706.7 3752214.0   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008311         0   0.14360E-05  474698.3 3752212.8   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008312         0   0.14360E-05  474689.9 3752211.5   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008313         0   0.14360E-05  474681.5 3752210.2   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008314         0   0.14360E-05  474673.1 3752209.0   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008315         0   0.14360E-05  474664.7 3752207.7   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008316         0   0.14360E-05  474656.3 3752206.4   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008317         0   0.14360E-05  474647.9 3752205.1   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008318         0   0.14360E-05  474639.5 3752203.9   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008319         0   0.14360E-05  474631.1 3752202.6   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008320         0   0.14360E-05  474622.6 3752201.3   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008321         0   0.14360E-05  474614.2 3752200.1   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008322         0   0.14360E-05  474605.8 3752198.8   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008323         0   0.14360E-05  474597.4 3752197.5   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008324         0   0.14360E-05  474589.0 3752196.2   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008325         0   0.14360E-05  474580.6 3752195.0   475.0     4.00     3.95     1.86     YES   HROFDY
 L0008326         0   0.14360E-05  474572.2 3752193.7   475.1     4.00     3.95     1.86     YES   HROFDY
 L0008327         0   0.14360E-05  474563.8 3752192.4   475.2     4.00     3.95     1.86     YES   HROFDY
 L0008328         0   0.14360E-05  474555.4 3752191.2   475.3     4.00     3.95     1.86     YES   HROFDY
 L0008329         0   0.14360E-05  474547.0 3752189.9   475.4     4.00     3.95     1.86     YES   HROFDY
 L0008330         0   0.14360E-05  474538.6 3752188.6   475.5     4.00     3.95     1.86     YES   HROFDY
 L0008331         0   0.14360E-05  474530.2 3752187.3   475.6     4.00     3.95     1.86     YES   HROFDY
 L0008332         0   0.14360E-05  474521.8 3752186.1   475.7     4.00     3.95     1.86     YES   HROFDY
 L0008333         0   0.14360E-05  474513.4 3752184.8   475.8     4.00     3.95     1.86     YES   HROFDY
 L0008334         0   0.14360E-05  474505.0 3752183.5   475.9     4.00     3.95     1.86     YES   HROFDY
 L0008335         0   0.14360E-05  474496.6 3752182.3   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008336         0   0.14360E-05  474488.2 3752181.0   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008337         0   0.14360E-05  474479.8 3752179.7   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008338         0   0.14360E-05  474471.4 3752178.4   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008339         0   0.14360E-05  474463.0 3752177.2   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008340         0   0.14360E-05  474454.6 3752175.9   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008341         0   0.14360E-05  474446.2 3752174.6   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008342         0   0.14360E-05  474437.8 3752173.4   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008343         0   0.14360E-05  474429.3 3752172.1   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008344         0   0.14360E-05  474420.9 3752170.8   476.0     4.00     3.95     1.86     YES   HROFDY
 L0008345         0   0.14360E-05  474412.5 3752169.6   476.1     4.00     3.95     1.86     YES   HROFDY
 L0008346         0   0.14360E-05  474404.1 3752168.3   476.2     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                  Residential

                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008347        0   0.14360E-05  474395.7 3752167.0   476.4     4.00     3.95     1.86     YES   HROFDY
 L0008348        0   0.14360E-05  474387.3 3752165.7   476.5     4.00     3.95     1.86     YES   HROFDY
 L0008349        0   0.14360E-05  474378.9 3752164.5   476.6     4.00     3.95     1.86     YES   HROFDY
 L0008350        0   0.14360E-05  474370.5 3752163.2   476.7     4.00     3.95     1.86     YES   HROFDY
 L0008351        0   0.14360E-05  474362.1 3752161.9   476.8     4.00     3.95     1.86     YES   HROFDY
 L0008352        0   0.14360E-05  474353.7 3752160.7   476.9     4.00     3.95     1.86     YES   HROFDY
 L0008353        0   0.14360E-05  474345.3 3752159.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008354        0   0.14360E-05  474336.9 3752158.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008355        0   0.14360E-05  474328.5 3752156.8   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008356        0   0.14360E-05  474320.1 3752155.6   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008357        0   0.14360E-05  474311.7 3752154.3   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008358        0   0.14360E-05  474303.3 3752153.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008359        0   0.14360E-05  474294.9 3752151.8   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008360        0   0.14360E-05  474286.5 3752150.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008361        0   0.14360E-05  474278.1 3752149.2   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008362        0   0.14360E-05  474269.7 3752147.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008363        0   0.14360E-05  474261.3 3752146.7   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008364        0   0.14360E-05  474252.9 3752145.4   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008365        0   0.14360E-05  474244.4 3752144.1   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008366        0   0.14360E-05  474236.0 3752142.9   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008367        0   0.14360E-05  474227.6 3752141.6   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008368        0   0.14360E-05  474219.2 3752140.3   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008369        0   0.14360E-05  474210.8 3752139.0   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008370        0   0.14360E-05  474202.4 3752137.8   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008371        0   0.14360E-05  474194.0 3752136.5   477.0     4.00     3.95     1.86     YES   HROFDY
 L0008372        0   0.14360E-05  474185.6 3752135.2   477.1     4.00     3.95     1.86     YES   HROFDY
 L0008373        0   0.14360E-05  474177.2 3752134.0   477.2     4.00     3.95     1.86     YES   HROFDY
 L0008374        0   0.14360E-05  474168.8 3752132.7   477.3     4.00     3.95     1.86     YES   HROFDY
 L0008375        0   0.14360E-05  474160.4 3752131.3   477.4     4.00     3.95     1.86     YES   HROFDY
 L0008376        0   0.14360E-05  474152.0 3752129.9   477.5     4.00     3.95     1.86     YES   HROFDY
 L0008377        0   0.14360E-05  474143.7 3752128.5   477.6     4.00     3.95     1.86     YES   HROFDY
 L0008378        0   0.14360E-05  474135.3 3752127.1   477.7     4.00     3.95     1.86     YES   HROFDY
 L0008379        0   0.14360E-05  474126.9 3752125.7   477.9     4.00     3.95     1.86     YES   HROFDY
 L0008380        0   0.14360E-05  474118.5 3752124.3   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008381        0   0.14360E-05  474110.1 3752122.9   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008382        0   0.14360E-05  474101.7 3752121.5   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008383        0   0.14360E-05  474093.3 3752120.1   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008384        0   0.14360E-05  474085.0 3752118.8   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008385        0   0.14360E-05  474076.6 3752117.4   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008386        0   0.14360E-05  474068.2 3752116.0   478.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008387        0   0.14360E-05  474059.8 3752114.6   478.0     4.00     3.95     1.86     YES   HROFDY
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                                                         Residential
 L0008388         0   0.14360E-05  474051.4 3752113.2   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008389         0   0.14360E-05  474043.0 3752111.8   478.0     4.00     3.95     1.86     YES   HROFDY
 L0008390         0   0.23910E-06  477480.6 3749800.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008391         0   0.23910E-06  477480.4 3749808.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008392         0   0.23910E-06  477480.3 3749817.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008393         0   0.23910E-06  477480.1 3749825.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008394         0   0.23910E-06  477480.0 3749834.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008395         0   0.23910E-06  477479.9 3749842.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008396         0   0.23910E-06  477479.7 3749851.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008397         0   0.23910E-06  477479.6 3749859.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008398         0   0.23910E-06  477479.5 3749868.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008399         0   0.23910E-06  477479.3 3749876.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008400         0   0.23910E-06  477479.2 3749885.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008401         0   0.23910E-06  477479.1 3749893.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008402         0   0.23910E-06  477478.9 3749902.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008403         0   0.23910E-06  477478.8 3749910.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008404         0   0.23910E-06  477478.7 3749919.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008405         0   0.23910E-06  477478.5 3749927.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008406         0   0.23910E-06  477478.4 3749936.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008407         0   0.23910E-06  477478.2 3749944.7   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008408         0   0.23910E-06  477478.1 3749953.2   458.0     0.00     3.95     1.86     YES   HROFDY
 L0008409         0   0.23910E-06  477478.0 3749961.7   458.2     0.00     3.95     1.86     YES   HROFDY
 L0008410         0   0.23910E-06  477477.8 3749970.2   458.4     0.00     3.95     1.86     YES   HROFDY
 L0008411         0   0.23910E-06  477477.7 3749978.7   458.7     0.00     3.95     1.86     YES   HROFDY
 L0008412         0   0.23910E-06  477477.6 3749987.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008413         0   0.23910E-06  477477.4 3749995.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008414         0   0.23910E-06  477477.3 3750004.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008415         0   0.23910E-06  477477.2 3750012.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008416         0   0.23910E-06  477477.0 3750021.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008417         0   0.23910E-06  477476.9 3750029.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008418         0   0.23910E-06  477476.8 3750038.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008419         0   0.23910E-06  477476.6 3750046.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008420         0   0.23910E-06  477476.5 3750055.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008421         0   0.23910E-06  477476.3 3750063.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008422         0   0.23910E-06  477476.2 3750072.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008423         0   0.23910E-06  477476.1 3750080.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008424         0   0.23910E-06  477475.9 3750089.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008425         0   0.23910E-06  477475.8 3750097.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008426         0   0.23910E-06  477475.7 3750106.2   459.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                          BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y          ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)   (METERS)  (METERS)  (METERS)  (METERS)           BY
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 L0008427         0   0.23910E-06  477475.5 3750114.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008428         0   0.23910E-06  477475.4 3750123.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008429         0   0.23910E-06  477475.3 3750131.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008430         0   0.23910E-06  477475.1 3750140.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008431         0   0.23910E-06  477475.0 3750148.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008432         0   0.23910E-06  477474.8 3750157.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008433         0   0.23910E-06  477474.7 3750165.7   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008434         0   0.23910E-06  477474.2 3750174.2   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008435         0   0.23910E-06  477473.5 3750182.6   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008436         0   0.23910E-06  477472.8 3750191.1   459.0     0.00     3.95     1.86     YES   HROFDY
 L0008437         0   0.23910E-06  477472.1 3750199.6   459.0     0.00     3.95     1.86     YES   HROFDY
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                                                    Residential
 L0008438         0   0.23910E-06  477471.4 3750208.0   459.2     0.00     3.95     1.86     YES   HROFDY
 L0008439         0   0.23910E-06  477470.7 3750216.5   459.2     0.00     3.95     1.86     YES   HROFDY
 L0008440         0   0.23910E-06  477470.0 3750225.0   459.3     0.00     3.95     1.86     YES   HROFDY
 L0008441         0   0.23910E-06  477469.3 3750233.5   459.5     0.00     3.95     1.86     YES   HROFDY
 L0008442         0   0.23910E-06  477468.7 3750241.9   459.7     0.00     3.95     1.86     YES   HROFDY
 L0008443         0   0.23910E-06  477468.0 3750250.4   459.9     0.00     3.95     1.86     YES   HROFDY
 L0008444         0   0.23910E-06  477467.3 3750258.9   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008445         0   0.23910E-06  477466.6 3750267.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008446         0   0.23910E-06  477466.5 3750275.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008447         0   0.23910E-06  477466.5 3750284.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008448         0   0.23910E-06  477466.5 3750292.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008449         0   0.23910E-06  477466.6 3750301.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008450         0   0.23910E-06  477466.6 3750309.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008451         0   0.23910E-06  477466.6 3750318.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008452         0   0.23910E-06  477466.7 3750326.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008453         0   0.23910E-06  477466.7 3750335.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008454         0   0.23910E-06  477466.7 3750343.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008455         0   0.23910E-06  477466.8 3750352.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008456         0   0.23910E-06  477466.8 3750360.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008457         0   0.23910E-06  477466.9 3750369.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008458         0   0.23910E-06  477466.9 3750377.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008459         0   0.23910E-06  477466.9 3750386.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008460         0   0.23910E-06  477467.0 3750394.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008461         0   0.23910E-06  477467.0 3750403.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008462         0   0.23910E-06  477467.0 3750411.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008463         0   0.23910E-06  477467.1 3750420.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008464         0   0.23910E-06  477467.1 3750428.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008465         0   0.23910E-06  477467.1 3750437.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008466         0   0.23910E-06  477467.2 3750445.8   460.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                          BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y          ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)                  BY
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 L0008467         0   0.23910E-06  477467.2 3750454.3   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008468         0   0.23910E-06  477467.3 3750462.8   460.0     0.00     3.95     1.86     YES   HROFDY
 L0008469         0   0.23910E-06  477467.3 3750471.3   460.2     0.00     3.95     1.86     YES   HROFDY
 L0008470         0   0.23910E-06  477467.3 3750479.8   460.4     0.00     3.95     1.86     YES   HROFDY
 L0008471         0   0.23910E-06  477467.4 3750488.3   460.7     0.00     3.95     1.86     YES   HROFDY
 L0008472         0   0.23910E-06  477467.4 3750496.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008473         0   0.23910E-06  477467.4 3750505.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008474         0   0.23910E-06  477467.5 3750513.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008475         0   0.23910E-06  477467.5 3750522.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008476         0   0.23910E-06  477467.5 3750530.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008477         0   0.23910E-06  477467.6 3750539.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008478         0   0.23910E-06  477467.7 3750547.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008479         0   0.23910E-06  477467.9 3750556.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008480         0   0.23910E-06  477468.2 3750564.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008481         0   0.23910E-06  477468.4 3750573.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008482         0   0.23910E-06  477468.7 3750581.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008483         0   0.23910E-06  477468.9 3750590.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008484         0   0.23910E-06  477469.2 3750598.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008485         0   0.23910E-06  477469.4 3750607.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008486         0   0.23910E-06  477469.7 3750615.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008487         0   0.23910E-06  477469.9 3750624.3   461.0     0.00     3.95     1.86     YES   HROFDY
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                                                       Residential
 L0008488         0   0.23910E-06  477470.2 3750632.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008489         0   0.23910E-06  477470.4 3750641.3   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008490         0   0.23910E-06  477470.7 3750649.8   461.0     0.00     3.95     1.86     YES   HROFDY
 L0008491         0   0.23910E-06  477470.9 3750658.3   461.2     0.00     3.95     1.86     YES   HROFDY
 L0008492         0   0.23910E-06  477471.2 3750666.8   461.3     0.00     3.95     1.86     YES   HROFDY
 L0008493         0   0.23910E-06  477471.4 3750675.3   461.4     0.00     3.95     1.86     YES   HROFDY
 L0008494         0   0.23910E-06  477471.7 3750683.8   461.5     0.00     3.95     1.86     YES   HROFDY
 L0008495         0   0.23910E-06  477471.9 3750692.3   461.7     0.00     3.95     1.86     YES   HROFDY
 L0008496         0   0.23910E-06  477472.2 3750700.8   461.9     0.00     3.95     1.86     YES   HROFDY
 L0008497         0   0.23910E-06  477472.4 3750709.3   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008498         0   0.23910E-06  477472.7 3750717.8   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008499         0   0.23910E-06  477472.9 3750726.3   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008500         0   0.23910E-06  477473.2 3750734.8   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008501         0   0.23910E-06  477473.4 3750743.3   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008502         0   0.23910E-06  477473.7 3750751.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008503         0   0.23910E-06  477473.9 3750760.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008504         0   0.23910E-06  477474.2 3750768.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008505         0   0.23910E-06  477474.4 3750777.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008506         0   0.23910E-06  477474.7 3750785.7   462.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008507         0   0.23910E-06  477474.9 3750794.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008508         0   0.23910E-06  477475.2 3750802.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008509         0   0.23910E-06  477475.4 3750811.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008510         0   0.23910E-06  477475.7 3750819.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008511         0   0.23910E-06  477475.9 3750828.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008512         0   0.23910E-06  477476.2 3750836.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008513         0   0.23910E-06  477476.4 3750845.2   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008514         0   0.23910E-06  477476.7 3750853.7   462.0     0.00     3.95     1.86     YES   HROFDY
 L0008515         0   0.23910E-06  477476.9 3750862.2   462.1     0.00     3.95     1.86     YES   HROFDY
 L0008516         0   0.23910E-06  477477.1 3750870.7   462.3     0.00     3.95     1.86     YES   HROFDY
 L0008517         0   0.23910E-06  477477.1 3750879.2   462.4     0.00     3.95     1.86     YES   HROFDY
 L0008518         0   0.23910E-06  477477.2 3750887.7   462.6     0.00     3.95     1.86     YES   HROFDY
 L0008519         0   0.23910E-06  477477.2 3750896.2   462.7     0.00     3.95     1.86     YES   HROFDY
 L0008520         0   0.23910E-06  477477.3 3750904.7   462.8     0.00     3.95     1.86     YES   HROFDY
 L0008521         0   0.23910E-06  477477.3 3750913.2   462.9     0.00     3.95     1.86     YES   HROFDY
 L0008522         0   0.23910E-06  477477.4 3750921.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008523         0   0.23910E-06  477477.4 3750930.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008524         0   0.23910E-06  477477.5 3750938.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008525         0   0.23910E-06  477477.6 3750947.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008526         0   0.23910E-06  477477.6 3750955.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008527         0   0.23910E-06  477477.7 3750964.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008528         0   0.23910E-06  477477.7 3750972.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008529         0   0.23910E-06  477477.8 3750981.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008530         0   0.23910E-06  477477.8 3750989.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008531         0   0.23910E-06  477477.9 3750998.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008532         0   0.23910E-06  477477.9 3751006.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008533         0   0.23910E-06  477478.0 3751015.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008534         0   0.23910E-06  477478.0 3751023.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008535         0   0.23910E-06  477478.1 3751032.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008536         0   0.23910E-06  477478.1 3751040.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008537         0   0.23910E-06  477478.2 3751049.2   463.0     0.00     3.95     1.86     YES   HROFDY
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                                                    Residential
 L0008538         0   0.23910E-06  477478.3 3751057.7   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008539         0   0.23910E-06  477478.3 3751066.2   463.0     0.00     3.95     1.86     YES   HROFDY
 L0008540         0   0.23910E-06  477478.4 3751074.7   463.2     0.00     3.95     1.86     YES   HROFDY
 L0008541         0   0.23910E-06  477478.4 3751083.2   463.3     0.00     3.95     1.86     YES   HROFDY
 L0008542         0   0.23910E-06  477478.5 3751091.7   463.5     0.00     3.95     1.86     YES   HROFDY
 L0008543         0   0.23910E-06  477478.5 3751100.2   463.7     0.00     3.95     1.86     YES   HROFDY
 L0008544         0   0.23910E-06  477478.6 3751108.7   463.8     0.00     3.95     1.86     YES   HROFDY
 L0008545         0   0.23910E-06  477478.6 3751117.2   463.9     0.00     3.95     1.86     YES   HROFDY
 L0008546         0   0.23910E-06  477478.7 3751125.7   464.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008547         0   0.23910E-06  477478.7 3751134.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008548         0   0.23910E-06  477478.8 3751142.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008549         0   0.23910E-06  477478.9 3751151.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008550         0   0.23910E-06  477478.9 3751159.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008551         0   0.23910E-06  477479.0 3751168.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008552         0   0.23910E-06  477479.0 3751176.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008553         0   0.23910E-06  477479.1 3751185.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008554         0   0.23910E-06  477479.1 3751193.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008555         0   0.23910E-06  477479.2 3751202.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008556         0   0.23910E-06  477479.2 3751210.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008557         0   0.23910E-06  477479.3 3751219.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008558         0   0.23910E-06  477479.3 3751227.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008559         0   0.23910E-06  477479.4 3751236.2   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008560         0   0.23910E-06  477479.3 3751244.7   464.0     0.00     3.95     1.86     YES   HROFDY
 L0008561         0   0.23910E-06  477479.3 3751253.2   464.2     0.00     3.95     1.86     YES   HROFDY
 L0008562         0   0.23910E-06  477479.2 3751261.7   464.5     0.00     3.95     1.86     YES   HROFDY
 L0008563         0   0.23910E-06  477479.2 3751270.2   464.8     0.00     3.95     1.86     YES   HROFDY
 L0008564         0   0.23910E-06  477479.1 3751278.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008565         0   0.23910E-06  477479.0 3751287.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008566         0   0.23910E-06  477479.0 3751295.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008567         0   0.23910E-06  477478.9 3751304.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008568         0   0.23910E-06  477478.9 3751312.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008569         0   0.23910E-06  477478.8 3751321.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008570         0   0.23910E-06  477478.7 3751329.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008571         0   0.23910E-06  477478.7 3751338.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008572         0   0.23910E-06  477478.6 3751346.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008573         0   0.23910E-06  477478.6 3751355.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008574         0   0.23910E-06  477478.5 3751363.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008575         0   0.23910E-06  477478.5 3751372.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008576         0   0.23910E-06  477478.4 3751380.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008577         0   0.23910E-06  477478.3 3751389.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008578         0   0.23910E-06  477478.3 3751397.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008579         0   0.23910E-06  477478.2 3751406.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008580         0   0.23910E-06  477478.2 3751414.7   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008581         0   0.23910E-06  477478.1 3751423.2   465.0     0.00     3.95     1.86     YES   HROFDY
 L0008582         0   0.23910E-06  477478.0 3751431.7   465.2     0.00     3.95     1.86     YES   HROFDY
 L0008583         0   0.23910E-06  477478.0 3751440.2   465.4     0.00     3.95     1.86     YES   HROFDY
 L0008584         0   0.23910E-06  477477.9 3751448.7   465.7     0.00     3.95     1.86     YES   HROFDY
 L0008585         0   0.23910E-06  477477.9 3751457.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008586         0   0.23910E-06  477477.8 3751465.7   466.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
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                                                  Residential
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:10:02

  PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008587         0   0.23910E-06  477477.8 3751474.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008588         0   0.23910E-06  477477.7 3751482.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008589         0   0.23910E-06  477477.6 3751491.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008590         0   0.23910E-06  477477.6 3751499.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008591         0   0.23910E-06  477477.5 3751508.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008592         0   0.23910E-06  477477.5 3751516.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008593         0   0.23910E-06  477477.4 3751525.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008594         0   0.23910E-06  477477.3 3751533.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008595         0   0.23910E-06  477477.3 3751542.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008596         0   0.23910E-06  477477.2 3751550.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008597         0   0.23910E-06  477477.2 3751559.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008598         0   0.23910E-06  477477.1 3751567.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008599         0   0.23910E-06  477477.0 3751576.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008600         0   0.23910E-06  477477.0 3751584.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008601         0   0.23910E-06  477476.9 3751593.2   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008602         0   0.23910E-06  477476.9 3751601.7   466.0     0.00     3.95     1.86     YES   HROFDY
 L0008603         0   0.23910E-06  477476.8 3751610.2   466.1     0.00     3.95     1.86     YES   HROFDY
 L0008604         0   0.23910E-06  477476.8 3751618.7   466.2     0.00     3.95     1.86     YES   HROFDY
 L0008605         0   0.23910E-06  477476.7 3751627.2   466.4     0.00     3.95     1.86     YES   HROFDY
 L0008606         0   0.23910E-06  477476.6 3751635.7   466.6     0.00     3.95     1.86     YES   HROFDY
 L0008607         0   0.23910E-06  477476.6 3751644.2   466.7     0.00     3.95     1.86     YES   HROFDY
 L0008608         0   0.23910E-06  477476.5 3751652.7   466.8     0.00     3.95     1.86     YES   HROFDY
 L0008609         0   0.23910E-06  477476.5 3751661.2   466.9     0.00     3.95     1.86     YES   HROFDY
 L0008610         0   0.23910E-06  477476.4 3751669.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0008611         0   0.23910E-06  477476.3 3751678.2   467.0     0.00     3.95     1.86     YES   HROFDY
 L0008612         0   0.23910E-06  477476.3 3751686.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0008613         0   0.23910E-06  477476.2 3751695.2   467.0     0.00     3.95     1.86     YES   HROFDY
 L0008614         0   0.23910E-06  477476.2 3751703.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0008615         0   0.23910E-06  477476.1 3751712.2   467.0     0.00     3.95     1.86     YES   HROFDY
 L0008616         0   0.23910E-06  477476.1 3751720.7   467.0     0.00     3.95     1.86     YES   HROFDY
 L0008617         0   0.23910E-06  477476.0 3751729.2   467.1     0.00     3.95     1.86     YES   HROFDY
 L0008618         0   0.23910E-06  477475.9 3751737.7   467.2     0.00     3.95     1.86     YES   HROFDY
 L0008619         0   0.23910E-06  477475.9 3751746.2   467.4     0.00     3.95     1.86     YES   HROFDY
 L0008620         0   0.23910E-06  477475.8 3751754.7   467.5     0.00     3.95     1.86     YES   HROFDY
 L0008621         0   0.23910E-06  477475.8 3751763.2   467.6     0.00     3.95     1.86     YES   HROFDY
 L0008622         0   0.23910E-06  477475.7 3751771.7   467.8     0.00     3.95     1.86     YES   HROFDY
 L0008623         0   0.23910E-06  477475.6 3751780.2   467.9     0.00     3.95     1.86     YES   HROFDY
 L0008624         0   0.23910E-06  477475.6 3751788.7   468.0     0.00     3.95     1.86     YES   HROFDY
 L0008625         0   0.23910E-06  477475.5 3751797.2   468.0     0.00     3.95     1.86     YES   HROFDY
 L0008626         0   0.23910E-06  477475.5 3751805.7   468.0     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:10:02

  PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***
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                                                   Residential
               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008627         0   0.23910E-06  477475.4 3751814.2   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008628         0   0.23910E-06  477475.4 3751822.7   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008629         0   0.23910E-06  477475.3 3751831.2   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008630         0   0.23910E-06  477475.2 3751839.7   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008631         0   0.23910E-06  477475.2 3751848.2   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008632         0   0.23910E-06  477475.1 3751856.7   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008633         0   0.23910E-06  477475.1 3751865.2   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008634         0   0.23910E-06  477475.0 3751873.7   468.0     0.00     3.95     1.86     YES    HROFDY
 L0008635         0   0.23910E-06  477474.9 3751882.2   468.2     0.00     3.95     1.86     YES    HROFDY
 L0008636         0   0.23910E-06  477474.9 3751890.7   468.5     0.00     3.95     1.86     YES    HROFDY
 L0008637         0   0.23910E-06  477474.8 3751899.2   468.8     0.00     3.95     1.86     YES    HROFDY
 L0008638         0   0.23910E-06  477474.8 3751907.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008639         0   0.23910E-06  477474.7 3751916.2   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008640         0   0.23910E-06  477474.7 3751924.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008641         0   0.23910E-06  477474.6 3751933.2   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008642         0   0.23910E-06  477474.5 3751941.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008643         0   0.23910E-06  477474.5 3751950.2   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008644         0   0.23910E-06  477474.4 3751958.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008645         0   0.23910E-06  477474.4 3751967.2   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008646         0   0.23910E-06  477474.3 3751975.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008647         0   0.23910E-06  477474.2 3751984.2   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008648         0   0.23910E-06  477474.2 3751992.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008649         0   0.23910E-06  477474.1 3752001.2   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008650         0   0.23910E-06  477474.1 3752009.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008651         0   0.23910E-06  477474.0 3752018.2   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008652         0   0.23910E-06  477474.0 3752026.7   469.0     0.00     3.95     1.86     YES    HROFDY
 L0008653         0   0.23910E-06  477473.9 3752035.2   469.1     0.00     3.95     1.86     YES    HROFDY
 L0008654         0   0.23910E-06  477473.8 3752043.7   469.3     0.00     3.95     1.86     YES    HROFDY
 L0008655         0   0.23910E-06  477473.8 3752052.2   469.4     0.00     3.95     1.86     YES    HROFDY
 L0008656         0   0.23910E-06  477473.7 3752060.7   469.5     0.00     3.95     1.86     YES    HROFDY
 L0008657         0   0.23910E-06  477473.7 3752069.2   469.5     0.00     3.95     1.86     YES    HROFDY
 L0008658         0   0.23910E-06  477473.6 3752077.7   469.5     0.00     3.95     1.86     YES    HROFDY
 L0008659         0   0.23910E-06  477473.5 3752086.2   469.5     0.00     3.95     1.86     YES    HROFDY
 L0008660         0   0.23910E-06  477473.5 3752094.7   469.6     0.00     3.95     1.86     YES    HROFDY
 L0008661         0   0.23910E-06  477473.4 3752103.2   469.8     0.00     3.95     1.86     YES    HROFDY
 L0008662         0   0.23910E-06  477473.4 3752111.7   469.9     0.00     3.95     1.86     YES    HROFDY
 L0008663         0   0.23910E-06  477473.3 3752120.2   470.1     0.00     3.95     1.86     YES    HROFDY
 L0008664         0   0.23910E-06  477473.3 3752128.7   470.2     0.00     3.95     1.86     YES    HROFDY
 L0008665         0   0.23910E-06  477473.2 3752137.2   470.3     0.00     3.95     1.86     YES    HROFDY
 L0008666         0   0.23910E-06  477473.1 3752145.7   470.4     0.00     3.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008667         0   0.23910E-06  477473.1 3752154.2   470.6     0.00     3.95     1.86     YES    HROFDY
 L0008668         0   0.23910E-06  477473.0 3752162.7   470.7     0.00     3.95     1.86     YES    HROFDY
 L0008669         0   0.23910E-06  477473.0 3752171.2   470.9     0.00     3.95     1.86     YES    HROFDY
 L0008670         0   0.23910E-06  477472.9 3752179.7   471.0     0.00     3.95     1.86     YES    HROFDY
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                                                    Residential
 L0008671         0   0.23910E-06  477472.8 3752188.2   471.0     0.00     3.95     1.86     YES   HROFDY
 L0008672         0   0.23910E-06  477472.8 3752196.7   471.0     0.00     3.95     1.86     YES   HROFDY
 L0008673         0   0.23910E-06  477472.7 3752205.2   471.0     0.00     3.95     1.86     YES   HROFDY
 L0008674         0   0.23910E-06  477472.7 3752213.7   471.2     0.00     3.95     1.86     YES   HROFDY
 L0008675         0   0.23910E-06  477472.6 3752222.2   471.5     0.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
        BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 AREA1            0   0.23510E-07  477895.8 3748485.6   452.0     5.00     75.04    426.52      0.00     0.00
YES   HROFDY
 AREA2            0   0.24890E-07  478163.7 3748384.8   451.0     5.00     57.92    521.96      0.00     0.00
YES   HROFDY
 AREA3            0   0.87222E-07  478027.4 3748303.6   450.0     5.00    143.40     60.16      0.00     0.00
YES   HROFDY
 AREA4            0   0.27037E-07  477696.2 3748836.0   454.0     5.00     72.15    152.50      0.00     0.00
YES   HROFDY
 AREA5            0   0.56522E-07  477967.7 3748183.6   450.0     5.00     61.27     85.90      0.00     0.00
YES   HROFDY
 AREA6            0   0.25323E-07  477599.3 3748788.1   454.0     5.00     65.18    180.23      0.00     0.00
YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                      Residential
                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
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                                                   Residential
*** AERMET - VERSION  14134 ***   ***                                                                    ***
  13:10:02

  PAGE  65
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                       SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE  69
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                               SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

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                                                    Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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                                                Residential
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                               SOURCE IDs
  --------   ---------                               ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  79
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                      SOURCE IDs
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                                                   Residential
   --------   ---------                                   ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
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                                                    Residential
   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID    URBAN POP                                    SOURCE IDs
  --------    ---------                                    ----------


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                                                 Residential
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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                                                 Residential

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L0007527    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                       *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  86
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------


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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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                                             Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                SOURCE IDs
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L0008575    ,
             L0008576    , L0008577    , L0008578    , L0008579    , L0008580    , L0008581    , L0008582    ,
L0008583    ,
             L0008584    , L0008585    , L0008586    , L0008587    , L0008588    , L0008589    , L0008590    ,
L0008591    ,
             L0008592    , L0008593    , L0008594    , L0008595    , L0008596    , L0008597    , L0008598    ,
L0008599    ,
             L0008600    , L0008601    , L0008602    , L0008603    , L0008604    , L0008605    , L0008606    ,
L0008607    ,
             L0008608    , L0008609    , L0008610    , L0008611    , L0008612    , L0008613    , L0008614    ,
L0008615    ,
             L0008616    , L0008617    , L0008618    , L0008619    , L0008620    , L0008621    , L0008622    ,
L0008623    ,
             L0008624    , L0008625    , L0008626    , L0008627    , L0008628    , L0008629    , L0008630    ,
L0008631    ,
             L0008632    , L0008633    , L0008634    , L0008635    , L0008636    , L0008637    , L0008638    ,
L0008639    ,
             L0008640    , L0008641    , L0008642    , L0008643    , L0008644    , L0008645    , L0008646    ,
L0008647    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                      Residential
                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID    URBAN POP                                          SOURCE IDs
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             L0008648    , L0008649    , L0008650    , L0008651    , L0008652    , L0008653    , L0008654    ,
L0008655    ,

             L0008656    , L0008657    , L0008658    , L0008659    , L0008660    , L0008661    , L0008662    ,
L0008663    ,

             L0008664    , L0008665    , L0008666    , L0008667    , L0008668    , L0008669    , L0008670    ,
L0008671    ,

             L0008672    , L0008673    , L0008674    , L0008675    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK1
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  317.4,  605.4, -554.0,   80.9,      2   42.0,  404.4,  616.6, -569.9,   36.0,
    3   42.0,  479.1,  609.1, -568.4,   -9.9,      4   42.0,  539.3,  583.0, -549.6,  -55.6,
    5   42.0,  583.0,  539.3, -514.2,  -99.6,      6   42.0,  609.1,  479.1, -463.1, -140.5,
    7   42.0,  616.6,  404.4, -397.9, -177.2,      8   42.0,  605.4,  317.4, -320.7, -208.5,
    9   42.0,  575.8,  220.8, -233.7, -233.5,     10   42.0,  605.4,  317.4, -239.6, -251.3,
   11   42.0,  616.6,  404.4, -238.2, -261.6,     12   42.0,  609.1,  479.1, -229.6, -263.9,
   13   42.0,  583.0,  539.3, -214.0, -258.1,     14   42.0,  539.3,  583.0, -191.9, -244.5,
   15   42.0,  479.1,  609.1, -164.0, -223.5,     16   42.0,  404.4,  616.6, -131.1, -195.7,
   17   42.0,  317.4,  605.4,  -94.2, -162.0,     18   42.0,  220.8,  575.8,  -54.4, -123.3,
   19   42.0,  317.4,  605.4,  -51.4,  -80.9,     20   42.0,  404.4,  616.6,  -46.7,  -36.0,
   21   42.0,  479.1,  609.1,  -40.7,    9.9,     22   42.0,  539.3,  583.0,  -33.4,   55.6,
   23   42.0,  583.0,  539.3,  -25.1,   99.6,     24   42.0,  609.1,  479.1,  -16.0,  140.5,
   25   42.0,  616.6,  404.4,   -6.5,  177.2,     26   42.0,  605.4,  317.4,    3.3,  208.5,
   27   42.0,  575.8,  220.8,   12.9,  233.5,     28   42.0,  605.4,  317.4,  -77.8,  251.3,
   29   42.0,  616.6,  404.4, -166.2,  261.6,     30   42.0,  609.1,  479.1, -249.5,  263.9,
   31   42.0,  583.0,  539.3, -325.2,  258.1,     32   42.0,  539.3,  583.0, -391.1,  244.5,
   33   42.0,  479.1,  609.1, -445.1,  223.5,     34   42.0,  404.4,  616.6, -485.5,  195.7,
   35   42.0,  317.4,  605.4, -511.2,  162.0,     36   42.0,  220.8,  575.8, -521.4,  123.3,


 SOURCE ID: STCK2
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1   42.0,  317.4,  605.4, -404.1,  105.1,      2   42.0,  404.4,  616.6, -426.4,   85.9,
    3   42.0,  479.1,  609.1, -435.7,   64.1,      4   42.0,  539.3,  583.0, -431.8,   40.3,
    5   42.0,  583.0,  539.3, -414.8,   15.4,      6   42.0,  609.1,  479.1, -385.2,  -10.1,
    7   42.0,  616.6,  404.4, -343.9,  -35.2,      8   42.0,  605.4,  317.4, -292.2,  -59.3,
    9   42.0,  575.8,  220.8, -231.5,  -81.6,     10   42.0,  605.4,  317.4, -263.8, -101.3,
   11   42.0,  616.6,  404.4, -288.1, -118.1,     12   42.0,  609.1,  479.1, -303.7, -131.2,
   13   42.0,  583.0,  539.3, -310.0, -140.3,     14   42.0,  539.3,  583.0, -306.9, -145.2,
   15   42.0,  479.1,  609.1, -294.4, -145.7,     16   42.0,  404.4,  616.6, -273.1, -141.7,
   17   42.0,  317.4,  605.4, -243.4, -133.4,     18   42.0,  220.8,  575.8, -206.3, -121.1,
   19   42.0,  317.4,  605.4, -201.4, -105.1,     20   42.0,  404.4,  616.6, -190.2,  -85.9,
   21   42.0,  479.1,  609.1, -173.3,  -64.1,     22   42.0,  539.3,  583.0, -151.2,  -40.3,
   23   42.0,  583.0,  539.3, -124.4,  -15.4,     24   42.0,  609.1,  479.1,  -93.9,   10.1,
   25   42.0,  616.6,  404.4,  -60.5,   35.2,     26   42.0,  605.4,  317.4,  -25.3,   59.3,
   27   42.0,  575.8,  220.8,   10.7,   81.6,     28   42.0,  605.4,  317.4,  -53.6,  101.3,
   29   42.0,  616.6,  404.4, -116.3,  118.1,     30   42.0,  609.1,  479.1, -175.5,  131.2,
   31   42.0,  583.0,  539.3, -229.3,  140.3,     32   42.0,  539.3,  583.0, -276.1,  145.2,
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                                                      Residential
    33    42.0,  479.1,  609.1, -314.6,  145.7,      34    42.0,  404.4,  616.6, -343.5,  141.7,
    35    42.0,  317.4,  605.4, -362.0,  133.4,      36    42.0,  220.8,  575.8, -369.5,  121.1,


  SOURCE ID: STCK3
   IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
     1    42.0,  317.4,  605.4, -244.4,  134.0,       2    42.0,  404.4,  616.6, -274.2,  142.1,
     3    42.0,  479.1,  609.1, -295.6,  145.9,       4    42.0,  539.3,  583.0, -308.0,  145.2,
     5    42.0,  583.0,  539.3, -311.1,  140.1,       6    42.0,  609.1,  479.1, -304.8,  130.8,
     7    42.0,  616.6,  404.4, -289.1,  117.5,       8    42.0,  605.4,  317.4, -264.7,  100.6,
     9    42.0,  575.8,  220.8, -232.2,   80.7,      10    42.0,  605.4,  317.4, -292.7,   58.3,
    11    42.0,  616.6,  404.4, -344.3,   34.1,      12    42.0,  609.1,  479.1, -385.4,    8.9,
    13    42.0,  583.0,  539.3, -414.8,  -16.5,      14    42.0,  539.3,  583.0, -431.6,  -41.5,
    15    42.0,  479.1,  609.1, -435.3,  -65.2,      16    42.0,  404.4,  616.6, -425.8,  -86.9,
    17    42.0,  317.4,  605.4, -403.3, -106.0,      18    42.0,  220.8,  575.8, -368.6, -121.8,
    19    42.0,  317.4,  605.4, -361.0, -134.0,      20    42.0,  404.4,  616.6, -342.4, -142.1,
    21    42.0,  479.1,  609.1, -313.5, -145.9,      22    42.0,  539.3,  583.0, -275.0, -145.2,
    23    42.0,  583.0,  539.3, -228.1, -140.1,      24    42.0,  609.1,  479.1, -174.4, -130.8,
    25    42.0,  616.6,  404.4, -115.3, -117.5,      26    42.0,  605.4,  317.4,  -52.7, -100.6,
    27    42.0,  575.8,  220.8,   11.4,  -80.7,      28    42.0,  605.4,  317.4,  -24.7,  -58.3,
    29    42.0,  616.6,  404.4,  -60.1,  -34.1,      30    42.0,  609.1,  479.1,  -93.7,   -8.9,
    31    42.0,  583.0,  539.3, -124.5,   16.5,      32    42.0,  539.3,  583.0, -151.4,   41.5,
    33    42.0,  479.1,  609.1, -173.8,   65.2,      34    42.0,  404.4,  616.6, -190.8,   86.9,
    35    42.0,  317.4,  605.4, -202.1,  106.0,      36    42.0,  220.8,  575.8, -207.2,  121.8,


  SOURCE ID: STCK4
   IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
     1    42.0,  317.4,  605.4, -101.7,  161.4,       2    42.0,  404.4,  616.6, -138.4,  193.9,
     3    42.0,  479.1,  609.1, -170.9,  220.4,       4    42.0,  539.3,  583.0, -198.2,  240.3,
     5    42.0,  583.0,  539.3, -219.4,  252.8,       6    42.0,  609.1,  479.1, -234.0,  257.7,
     7    42.0,  616.6,  404.4, -241.5,  254.7,       8    42.0,  605.4,  317.4, -241.7,  244.0,
     9    42.0,  575.8,  220.8, -234.5,  225.9,      10    42.0,  605.4,  317.4, -320.1,  201.0,
    11    42.0,  616.6,  404.4, -396.1,  169.9,      12    42.0,  609.1,  479.1, -460.0,  133.6,
    13    42.0,  583.0,  539.3, -509.9,   93.3,      14    42.0,  539.3,  583.0, -544.3,   50.2,
    15    42.0,  479.1,  609.1, -562.2,    5.5,      16    42.0,  404.4,  616.6, -563.0,  -39.3,
    17    42.0,  317.4,  605.4, -546.7,  -82.9,      18    42.0,  220.8,  575.8, -513.8, -124.1,
    19    42.0,  317.4,  605.4, -503.7, -161.4,      20    42.0,  404.4,  616.6, -478.2, -193.9,
    21    42.0,  479.1,  609.1, -438.2, -220.4,      22    42.0,  539.3,  583.0, -384.8, -240.3,
    23    42.0,  583.0,  539.3, -319.8, -252.8,      24    42.0,  609.1,  479.1, -245.1, -257.7,
    25    42.0,  616.6,  404.4, -162.9, -254.7,      26    42.0,  605.4,  317.4,  -75.8, -244.0,
    27    42.0,  575.8,  220.8,   13.7, -225.9,      28    42.0,  605.4,  317.4,    2.7, -201.0,
    29    42.0,  616.6,  404.4,   -8.4, -169.9,      30    42.0,  609.1,  479.1,  -19.2, -133.6,
    31    42.0,  583.0,  539.3,  -29.4,  -93.3,      32    42.0,  539.3,  583.0,  -38.7,  -50.2,
    33    42.0,  479.1,  609.1,  -46.8,   -5.5,      34    42.0,  404.4,  616.6,  -53.6,   39.3,
    35    42.0,  317.4,  605.4,  -58.7,   82.9,      36    42.0,  220.8,  575.8,  -62.0,  124.1,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
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  *** AERMET - VERSION  14134 ***   ***                                                                     ***
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  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


  SOURCE ID: STCK5
   IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
     1    42.0,  317.4,  605.4, -518.7, -157.7,       2    42.0,  404.4,  616.6, -493.6, -192.8,
     3    42.0,  479.1,  609.1, -453.6, -222.1,       4    42.0,  539.3,  583.0, -399.7, -244.6,
     5    42.0,  168.5,  143.7, -182.0,  105.0,       6    42.0,  168.4,  131.7, -191.5,   83.2,
     7    42.0,  163.2,  115.6, -195.3,   59.0,       8    42.0,  153.1,   96.2, -193.4,   32.9,
     9    42.0,  138.3,   97.2, -204.9,    5.9,      10    42.0,  146.7,  119.8, -214.8,  -20.3,
    11    42.0,  152.9,  138.7, -218.2,  -45.6,      12    42.0,  154.5,  153.4, -215.0,  -69.4,
    13    42.0,  151.4,  163.4, -205.2,  -91.1,      14    42.0,  539.3,  583.0,  -31.9,  -64.1,
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   15    42.0,  479.1,  609.1,  -37.7,  -18.0,     16    42.0,  404.4,  616.6,  -42.4,   28.6,
   17    42.0,  317.4,  605.4,  -45.8,   74.3,     18    42.0,  220.8,  575.8,  -47.8,  117.8,
   19    42.0,  317.4,  605.4,  -86.7,  157.7,     20    42.0,  404.4,  616.6, -123.0,  192.8,
   21    42.0,  479.1,  609.1, -155.5,  222.1,     22    42.0,  539.3,  583.0, -183.3,  244.6,
   23    42.0,  168.5,  143.7,   38.2, -105.0,     24    42.0,  168.4,  131.7,   59.9,  -83.2,
   25    42.0,  163.2,  115.6,   79.7,  -59.0,     26    42.0,  605.4,  317.4, -233.0,  256.9,
   27    42.0,  575.8,  220.8, -228.2,  240.1,     28    42.0,  605.4,  317.4, -316.4,  216.0,
   29    42.0,  152.9,  138.7,   79.5,   45.6,     30    42.0,  154.5,  153.4,   61.6,   69.4,
   31    42.0,  151.4,  163.4,   41.8,   91.1,     32    42.0,  539.3,  583.0, -551.2,   64.1,
   33    42.0,  479.1,  609.1, -571.4,   18.0,     34    42.0,  404.4,  616.6, -574.2,  -28.6,
   35    42.0,  317.4,  605.4, -559.6,  -74.3,     36    42.0,  220.8,  575.8, -528.0, -117.8,


 SOURCE ID: STCK6
  IFV    BH      BW      BL      XADJ    YADJ     IFV    BH      BW      BL      XADJ    YADJ
    1    42.0,  317.4,  605.4, -369.4, -125.4,      2    42.0,  404.4,  616.6, -352.2, -135.1,
    3    42.0,  479.1,  609.1, -324.3, -140.7,      4    42.0,  539.3,  583.0, -286.6, -142.0,
    5    42.0,  583.0,  539.3, -240.1, -138.9,      6    42.0,  609.1,  479.1, -186.4, -131.7,
    7    42.0,  616.6,  404.4, -127.0, -120.5,      8    42.0,  605.4,  317.4,  -63.7, -105.6,
    9    42.0,  575.8,  220.8,    1.5,  -87.5,     10    42.0,  605.4,  317.4,  -33.3,  -66.7,
   11    42.0,  152.9,  138.7, -275.9,   95.9,     12    42.0,  154.5,  153.4, -296.4,   59.8,
   13    42.0,  151.4,  163.4, -307.8,   22.0,     14    42.0,  143.7,  168.5, -309.9,  -16.5,
   15    42.0,  131.7,  168.4, -302.6,  -54.5,     16    42.0,  404.4,  616.6, -187.8,   75.2,
   17    42.0,  317.4,  605.4, -197.1,   95.0,     18    42.0,  220.8,  575.8, -200.4,  111.9,
   19    42.0,  317.4,  605.4, -236.0,  125.4,     20    42.0,  404.4,  616.6, -264.4,  135.1,
   21    42.0,  479.1,  609.1, -284.7,  140.7,     22    42.0,  539.3,  583.0, -296.4,  142.0,
   23    42.0,  583.0,  539.3, -299.1,  138.9,     24    42.0,  609.1,  479.1, -292.8,  131.7,
   25    42.0,  616.6,  404.4, -277.5,  120.5,     26    42.0,  605.4,  317.4, -253.7,  105.6,
   27    42.0,  575.8,  220.8, -222.3,   87.5,     28    42.0,  605.4,  317.4, -284.1,   66.7,
   29    42.0,  616.6,  404.4, -337.3,   43.9,     30    42.0,  609.1,  479.1, -380.2,   19.8,
   31    42.0,  583.0,  539.3, -411.6,   -4.9,     32    42.0,  539.3,  583.0, -430.4,  -29.5,
   33    42.0,  479.1,  609.1, -436.2,  -53.2,     34    42.0,  404.4,  616.6, -428.8,  -75.2,
   35    42.0,  317.4,  605.4, -408.3,  -95.0,     36    42.0,  220.8,  575.8, -375.4, -111.9,


 SOURCE ID: STCK7
  IFV    BH      BW      BL      XADJ    YADJ     IFV    BH      BW      BL      XADJ    YADJ
    1    42.0,  317.4,  605.4, -211.9,  -96.9,      2    42.0,  404.4,  616.6, -202.1,  -79.6,
    3    42.0,  479.1,  609.1, -186.1,  -60.0,      4    42.0,  539.3,  583.0, -164.5,  -38.5,
    5    42.0,  583.0,  539.3, -137.8,  -15.9,      6    42.0,  609.1,  479.1, -107.0,    7.2,
    7    42.0,  616.6,  404.4,  -72.9,   30.2,      8    42.0,  605.4,  317.4,  -36.6,   52.1,
    9    42.0,  575.8,  220.8,    0.8,   72.5,     10    42.0,  605.4,  317.4,  -61.8,   90.8,
   11    42.0,  616.6,  404.4, -122.6,  106.2,     12    42.0,  609.1,  479.1, -179.6,  118.4,
   13    42.0,  583.0,  539.3, -231.1,  127.0,     14    42.0,  539.3,  583.0, -275.6,  131.8,
   15    42.0,  479.1,  609.1, -311.8,  132.6,     16    42.0,  404.4,  616.6, -338.4,  129.3,
   17    42.0,  317.4,  605.4, -354.8,  122.1,     18    42.0,  220.8,  575.8, -360.4,  111.2,
   19    42.0,  317.4,  605.4, -393.4,   96.9,     20    42.0,  404.4,  616.6, -414.5,   79.6,
   21    42.0,  479.1,  609.1, -422.9,   60.0,     22    42.0,  539.3,  583.0, -418.5,   38.5,
   23    42.0,  583.0,  539.3, -401.4,   15.9,     24    42.0,  609.1,  479.1, -372.1,   -7.2,
   25    42.0,  616.6,  404.4, -331.5,  -30.2,     26    42.0,  605.4,  317.4, -280.8,  -52.1,
   27    42.0,  575.8,  220.8, -221.6,  -72.5,     28    42.0,  605.4,  317.4, -255.6,  -90.8,
   29    42.0,  616.6,  404.4, -281.9, -106.2,     30    42.0,  609.1,  479.1, -299.6, -118.4,
   31    42.0,  583.0,  539.3, -308.2, -127.0,     32    42.0,  539.3,  583.0, -307.4, -131.8,
   33    42.0,  479.1,  609.1, -297.3, -132.6,     34    42.0,  404.4,  616.6, -278.1, -129.3,
   35    42.0,  317.4,  605.4, -250.6, -122.1,     36    42.0,  220.8,  575.8, -215.4, -111.2,


 SOURCE ID: STCK8
  IFV    BH      BW      BL      XADJ    YADJ     IFV    BH      BW      BL      XADJ    YADJ
    1    42.0,  317.4,  605.4, -141.8,  -83.0,      2    42.0,  404.4,  616.6, -135.4,  -53.8,
    3    42.0,  479.1,  609.1, -124.9,  -23.0,      4    42.0,  539.3,  583.0, -110.6,    8.6,
    5    42.0,  583.0,  539.3,  -93.0,   39.9,      6    42.0,  609.1,  479.1,  -72.5,   69.9,
    7    42.0,  616.6,  404.4,  -49.8,   97.9,      8    42.0,  605.4,  317.4,  -25.7,  122.8,
    9    42.0,  575.8,  220.8,   -0.7,  144.1,     10    42.0,  605.4,  317.4,  -75.7,  160.9,
   11    42.0,  616.6,  404.4, -148.4,  172.9,     12    42.0,  609.1,  479.1, -216.6,  179.6,
   13    42.0,  583.0,  539.3, -278.2,  180.9,     14    42.0,  539.3,  583.0, -331.4,  176.7,
   15    42.0,  479.1,  609.1, -374.5,  167.0,     16    42.0,  404.4,  616.6, -406.2,  152.4,
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                                                    Residential
   17    42.0,  317.4,  605.4, -425.5,  133.1,     18    42.0,  220.8,  575.8, -432.0,  109.7,
   19    42.0,  317.4,  605.4, -463.6,   83.0,     20    42.0,  404.4,  616.6, -481.2,   53.8,
   21    42.0,  479.1,  609.1, -484.2,   23.0,     22    42.0,  539.3,  583.0, -472.4,   -8.6,
   23    42.0,  583.0,  539.3, -446.3,  -39.9,     24    42.0,  609.1,  479.1, -406.6,  -69.9,
   25    42.0,  616.6,  404.4, -354.6,  -97.9,     26    42.0,  605.4,  317.4, -291.8, -122.8,
   27    42.0,  575.8,  220.8, -220.1, -144.1,     28    42.0,  605.4,  317.4, -241.7, -160.9,
   29    42.0,  616.6,  404.4, -256.0, -172.9,     30    42.0,  609.1,  479.1, -262.5, -179.6,
   31    42.0,  583.0,  539.3, -261.1, -180.9,     32    42.0,  539.3,  583.0, -251.7, -176.7,
   33    42.0,  479.1,  609.1, -234.6, -167.0,     34    42.0,  404.4,  616.6, -210.4, -152.4,
   35    42.0,  317.4,  605.4, -179.9, -133.1,     36    42.0,  220.8,  575.8, -143.8, -109.7,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK9
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  317.4,  605.4,   -4.7,   27.3,      2    42.0,  404.4,  616.6,  -19.6,   78.6,
    3    42.0,  479.1,  609.1,  -33.8,  127.5,      4    42.0,  539.3,  583.0,  -47.1,  172.6,
    5    42.0,  583.0,  539.3,  -58.9,  212.4,      6    42.0,  609.1,  479.1,  -68.9,  245.8,
    7    42.0,  616.6,  404.4,  -76.8,  271.7,      8    42.0,  605.4,  317.4,  -82.4,  289.4,
    9    42.0,  575.8,  220.8,  -85.5,  298.2,     10    42.0,  605.4,  317.4, -186.0,  298.0,
   11    42.0,  616.6,  404.4, -280.8,  288.7,     12    42.0,  609.1,  479.1, -367.1,  270.7,
   13    42.0,  583.0,  539.3, -442.2,  244.4,     14    42.0,  539.3,  583.0, -503.9,  210.8,
   15    42.0,  479.1,  609.1, -550.3,  170.7,     16    42.0,  404.4,  616.6, -580.0,  125.4,
   17    42.0,  317.4,  605.4, -592.0,   76.3,     18    42.0,  220.8,  575.8, -586.1,   24.9,
   19    42.0,  317.4,  605.4, -600.7,  -27.3,     20    42.0,  404.4,  616.6, -597.0,  -78.6,
   21    42.0,  479.1,  609.1, -575.2, -127.5,     22    42.0,  539.3,  583.0, -535.9, -172.6,
   23    42.0,  583.0,  539.3, -480.4, -212.4,     24    42.0,  609.1,  479.1, -410.2, -245.8,
   25    42.0,  616.6,  404.4, -327.6, -271.7,     26    42.0,  605.4,  317.4, -235.0, -289.4,
   27    42.0,  575.8,  220.8, -135.3, -298.2,     28    42.0,  605.4,  317.4, -131.5, -298.0,
   29    42.0,  616.6,  404.4, -123.6, -288.7,     30    42.0,  609.1,  479.1, -112.0, -270.7,
   31    42.0,  583.0,  539.3,  -97.0, -244.4,     32    42.0,  539.3,  583.0,  -79.1, -210.8,
   33    42.0,  479.1,  609.1,  -58.7, -170.7,     34    42.0,  404.4,  616.6,  -36.6, -125.4,
   35    42.0,  317.4,  605.4,  -13.4,  -76.3,     36    42.0,  220.8,  575.8,   10.3,  -24.9,


 SOURCE ID: STCK10
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  317.4,  605.4,  -24.2,  129.4,      2    42.0,  404.4,  616.6,  -56.5,  175.8,
    3    42.0,  479.1,  609.1,  -87.1,  216.9,      4    42.0,  539.3,  583.0, -115.0,  251.3,
    5    42.0,  583.0,  539.3, -139.5,  278.1,      6    42.0,  609.1,  479.1, -159.7,  296.5,
    7    42.0,  616.6,  404.4, -175.0,  305.9,      8    42.0,  605.4,  317.4, -185.1,  305.9,
    9    42.0,  575.8,  220.8, -189.5,  296.7,     10    42.0,  605.4,  317.4, -288.1,  278.5,
   11    42.0,  616.6,  404.4, -378.0,  251.8,     12    42.0,  609.1,  479.1, -456.4,  217.4,
   13    42.0,  583.0,  539.3, -520.9,  176.5,     14    42.0,  539.3,  583.0, -569.6,  130.2,
   15    42.0,  479.1,  609.1, -601.0,   79.9,     16    42.0,  404.4,  616.6, -614.2,   27.2,
   17    42.0,  317.4,  605.4, -608.6,  -26.4,     18    42.0,  220.8,  575.8, -584.6,  -79.1,
   19    42.0,  317.4,  605.4, -581.2, -129.4,     20    42.0,  404.4,  616.6, -560.1, -175.8,
   21    42.0,  479.1,  609.1, -522.0, -216.9,     22    42.0,  539.3,  583.0, -468.0, -251.3,
   23    42.0,  583.0,  539.3, -399.8, -278.1,     24    42.0,  609.1,  479.1, -319.4, -296.5,
   25    42.0,  616.6,  404.4, -229.4, -305.9,     26    42.0,  605.4,  317.4, -132.4, -305.9,
   27    42.0,  575.8,  220.8,  -31.3, -296.7,     28    42.0,  605.4,  317.4,  -29.3, -278.5,
   29    42.0,  616.6,  404.4,  -26.4, -251.8,     30    42.0,  609.1,  479.1,  -22.7, -217.4,
   31    42.0,  583.0,  539.3,  -18.3, -176.5,     32    42.0,  539.3,  583.0,  -13.4, -130.2,
   33    42.0,  479.1,  609.1,   -8.0,  -79.9,     34    42.0,  404.4,  616.6,   -2.4,  -27.2,
   35    42.0,  317.4,  605.4,    3.2,   26.4,     36    42.0,  220.8,  575.8,    8.8,   79.1,


 SOURCE ID: STCK11
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                                                     Residential
  IFV     BH      BW      BL     XADJ     YADJ      IFV     BH      BW      BL     XADJ     YADJ
    1    42.0,  119.8,  146.7,  -75.5,  -44.8,       2    42.0,  138.7,  152.9,  -69.5,  -44.7,
    3    42.0,  153.4,  154.5,  -61.3,  -43.2,       4    42.0,  163.4,  151.4,  -51.3,  -40.4,
    5    42.0,  168.5,  143.7,  -39.7,  -36.4,       6    42.0,  180.1,  157.0, -269.3,   81.0,
    7    42.0,  177.0,  139.2, -271.6,   46.6,       8    42.0,  168.6,  117.3, -265.7,   10.8,
    9    42.0,  155.0,   91.8, -251.7,  -25.3,      10    42.0,  168.6,  117.3, -256.9,  -60.7,
   11    42.0,  177.0,  139.2, -254.3,  -94.2,      12    42.0,  154.5,  153.4,  -33.5,   15.9,
   13    42.0,  151.4,  163.4,  -41.3,   24.4,      14    42.0,  143.7,  168.5,  -47.9,   32.1,
   15    42.0,  131.7,  168.4,  -53.0,   38.9,      16    42.0,  115.6,  163.2,  -56.5,   44.5,
   17    42.0,   96.2,  153.1,  -58.2,   48.6,      18    42.0,   97.2,  138.3,  -58.2,   43.6,
   19    42.0,  119.8,  146.7,  -71.1,   44.8,      20    42.0,  138.7,  152.9,  -83.4,   44.7,
   21    42.0,  153.4,  154.5,  -93.2,   43.2,      22    42.0,  163.4,  151.4, -100.1,   40.4,
   23    42.0,  168.5,  143.7, -104.0,   36.4,      24    42.0,  168.4,  131.7, -104.7,   31.2,
   25    42.0,  163.2,  115.6, -102.3,   25.2,      26    42.0,  153.1,   96.2,  -96.7,   18.3,
   27    42.0,  138.3,   97.2,  -92.2,   10.9,      28    42.0,  146.7,  119.8, -104.7,    2.2,
   29    42.0,  152.9,  138.7, -114.0,   -7.0,      30    42.0,  154.5,  153.4, -119.9,  -15.9,
   31    42.0,  151.4,  163.4, -122.1,  -24.4,      32    42.0,  143.7,  168.5, -120.6,  -32.1,
   33    42.0,  131.7,  168.4, -115.4,  -38.9,      34    42.0,  115.6,  163.2, -106.8,  -44.5,
   35    42.0,   96.2,  153.1,  -94.9,  -48.6,      36    42.0,   97.2,  138.3,  -80.1,  -43.6,


 SOURCE ID: STCK12
  IFV     BH      BW      BL     XADJ     YADJ      IFV     BH      BW      BL     XADJ     YADJ
    1    42.0,   99.5,  128.0,  -71.8,   42.5,       2    42.0,  116.1,  130.4,  -82.9,   41.3,
    3    42.0,  479.1,  609.1,   79.8,  108.5,       4    42.0,  539.3,  583.0,   68.1,  173.6,
    5    42.0,  583.0,  539.3,   54.4,  233.4,       6    42.0,  609.1,  479.1,   39.0,  286.2,
    7    42.0,  140.2,   97.3,  -96.5,   18.9,       8    42.0,  132.2,   89.1,  -90.3,   12.0,
    9    42.0,  123.3,   79.8,  -82.2,    3.1,      10    42.0,  128.0,   99.5,  -92.2,   -7.8,
   11    42.0,  130.4,  116.1,  -99.4,  -17.7,      12    42.0,  128.8,  129.2, -103.6,  -27.1,
   13    42.0,  123.2,  138.4, -104.6,  -35.6,      14    42.0,  114.0,  143.4, -102.4,  -43.0,
   15    42.0,  102.6,  144.0,  -97.2,  -48.5,      16    42.0,   97.3,  140.2,  -89.0,  -47.9,
   17    42.0,  317.4,  605.4, -666.9,  163.9,      18    42.0,  220.8,  575.8, -675.0,   98.2,
   19    42.0,  317.4,  605.4, -701.0,   29.5,      20    42.0,  404.4,  616.6, -705.6,  -40.1,
   21    42.0,  479.1,  609.1, -688.8, -108.5,      22    42.0,  539.3,  583.0, -651.1, -173.6,
   23    42.0,  583.0,  539.3, -593.7, -233.4,      24    42.0,  609.1,  479.1, -518.1, -286.2,
   25    42.0,  140.2,   97.3,   -0.8,  -18.9,      26    42.0,  132.2,   89.1,    1.2,  -12.0,
   27    42.0,  123.3,   79.8,    2.4,   -3.1,      28    42.0,  128.0,   99.5,   -7.3,    7.8,
   29    42.0,  130.4,  116.1,  -16.7,   17.7,      30    42.0,  128.8,  129.2,  -25.7,   27.1,
   31    42.0,  123.2,  138.4,  -33.8,   35.6,      32    42.0,  114.0,  143.4,  -40.9,   43.0,
   33    42.0,  102.6,  144.0,  -46.8,   48.5,      34    42.0,   97.3,  140.2,  -51.2,   47.9,
   35    42.0,  317.4,  605.4,   61.5, -163.9,      36    42.0,   79.8,  123.3,  -58.6,   42.3,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK13
  IFV     BH      BW      BL     XADJ     YADJ      IFV     BH      BW      BL     XADJ     YADJ
    1    42.0,  117.3,  168.6,  -99.9,   60.0,       2    42.0,  139.2,  177.0, -114.3,   56.4,
    3    42.0,  157.0,  180.1, -125.2,   51.1,       4    42.0,  169.9,  177.7, -132.4,   44.2,
    5    42.0,  177.7,  169.9, -135.5,   36.0,       6    42.0,  180.1,  157.0, -134.5,   26.7,
    7    42.0,  177.0,  139.2, -129.4,   16.5,       8    42.0,  168.6,  117.3, -120.4,    5.9,
    9    42.0,  155.0,   91.8, -107.7,   -4.9,      10    42.0,  168.6,  117.3, -118.7,  -15.6,
   11    42.0,  177.0,  139.2, -126.1,  -25.8,      12    42.0,  180.1,  157.0, -129.6,  -35.2,
   13    42.0,  177.7,  169.9, -129.2,  -43.5,      14    42.0,  169.9,  177.7, -124.8,  -50.5,
   15    42.0,  157.0,  180.1, -116.7,  -56.0,      16    42.0,  139.2,  177.0, -105.1,  -59.8,
   17    42.0,  117.3,  168.6,  -90.2,  -61.8,      18    42.0,   91.8,  155.0,  -72.6,  -61.8,
   19    42.0,  117.3,  168.6,  -68.7,  -60.0,      20    42.0,  139.2,  177.0,  -62.8,  -56.4,
   21    42.0,  157.0,  180.1,  -54.9,  -51.1,      22    42.0,  169.9,  177.7,  -45.3,  -44.2,
   23    42.0,  177.7,  169.9,  -34.4,  -36.0,      24    42.0,  180.1,  157.0,  -22.5,  -26.7,
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                                                 Residential
   25   42.0,  177.0,  139.2,   -9.8,  -16.5,     26   42.0,  168.6,  117.3,    3.1,   -5.9,
   27   42.0,  155.0,   91.8,   16.0,    4.9,     28   42.0,  168.6,  117.3,    1.4,   15.6,
   29   42.0,  177.0,  139.2,  -13.2,   25.8,     30   42.0,  180.1,  157.0,  -27.4,   35.2,
   31   42.0,  177.7,  169.9,  -40.8,   43.5,     32   42.0,  169.9,  177.7,  -52.9,   50.5,
   33   42.0,  157.0,  180.1,  -63.4,   56.0,     34   42.0,  139.2,  177.0,  -72.0,   59.8,
   35   42.0,  117.3,  168.6,  -78.4,   61.8,     36   42.0,   91.8,  155.0,  -82.4,   61.8,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008851     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008852     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008853     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008854     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0008855     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008856     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008857     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008858     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008859     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0008860     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008861     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008862     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008863     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008864     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008865     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008866     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008867     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006444     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006445     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006446     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006447     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006448     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006449     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential

 SOURCE ID = L0006450     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006451     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006452     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006453     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006454     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                         Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006455      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006456      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006457      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006458      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006459      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006460     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006461     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006462     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006463     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006464     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006465     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006466     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006467     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006468     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006469     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006470     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006471     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***     
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***     
   13:10:02

   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN  

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006472     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0006473     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006474     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006475     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006476     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006477     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006478     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006479     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006481     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006482     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential
 SOURCE ID = L0006483     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006484     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006485     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006486     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School            ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 107
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006487     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0006488     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006489     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006490     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006491     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006492     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                               Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006493     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006494     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006495     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006496     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006497     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                        Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006498     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006499     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006500     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006501     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                      Residential

 SOURCE ID = L0006502     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006503     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006504     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006505     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006506     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                       Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008676     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008677     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008678     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008679     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008680     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                   Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008681     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008682     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008683     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008684     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008685     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 113
```

```
                                                                 Residential
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008686     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008687     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008688     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008689     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008690     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
```

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                                                    Residential
   13:10:02

   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008691     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008692     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008693     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008694     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008695     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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                                                      Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -



 SOURCE ID = L0008696     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008697     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008698     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008699     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008700     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

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                                                                Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008701     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008702     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008703     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008704     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008705     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008706     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008707     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008708     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008709     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008710     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008711     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008712     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008713     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008714     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008715     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 119
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008716     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008717     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008718     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008719     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008720     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008721     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008722     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008723     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008724     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008725     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008726     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008727     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008728     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0008729     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008730     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 122
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008731     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008732     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008733     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0008734     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008735     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008736     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008737     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008738     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008739     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008740     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008741     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008742     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008743     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008744     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008745     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008746     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008747     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008748     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008750     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 126
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008751     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008752     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                            Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008759     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008760     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008761     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008762     ; SOURCE TYPE = VOLUME   :
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008763     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008764     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008765     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 129
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008766     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008767     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008768     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008769     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 130
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                          Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008772     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008774     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008775     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008776     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008777     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008778     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008779     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008780     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                   Residential
 SOURCE ID = L0008781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008783     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008785     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                           Residential
 - - - - - - - -


  SOURCE ID = L0008786     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008787     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008788     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008789     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0008790     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
    13:10:02

    PAGE 134
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                     Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008791     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008792     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008793     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008794     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008795     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 135
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                    Residential

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0008796     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008797     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008798     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008799     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008800     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
```

```
                                                    Residential

   PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008801     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008802     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008803     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008804     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008805     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
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                                                   Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
   13:10:02

   PAGE 137
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0008806     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008807     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008808     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008809     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008810     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

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                                                    Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008811     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008812     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008813     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008814     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008815     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                   Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008816     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008817     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008818     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008819     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008820     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008821     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008822     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008823     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008824     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008825     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008826     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008827     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008828     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008829     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008830     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008831     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008832     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008833     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008834     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008835     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008836     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008837     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008838     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008839     ; SOURCE TYPE = VOLUME   :
```

```
                                              Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008840     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 144
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008841     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008842     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008843     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

```
 SOURCE ID = L0008844     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008845     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 145
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008846     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008847     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008848     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0008849     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0008850     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 146
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006682     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0006683     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0006684     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006685     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006686     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006687     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006688     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0006689     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006690     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006691     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 148
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006692     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006693     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006694     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006695     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006696     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 149
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006697     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006698     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006699     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006700     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006701     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006702     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006703     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006704     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006705     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006706     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006707     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential

 SOURCE ID = L0006708     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006709     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006710     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006711     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006712     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                       Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006713     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006714     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006715     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006716     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006717     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006718     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006719     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006720     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006721     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006722     ; SOURCE TYPE = VOLUME   :
```

```
                                                         Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006723     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006724     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006725     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006726     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0006727     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006728     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006729     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006730     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006731     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 156
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                  Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006732     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006733     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006734     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006735     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006736     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                          Residential
                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006737     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006738     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006739     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006740     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0006741     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02
```

```
                                                        Residential
   PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006742     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006743     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006744     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006745     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006746     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
```

```
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
   13:10:02

   PAGE 159
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006747     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006748     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006750     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006751     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                   Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006759     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006760     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006761     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006762     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006763     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006764     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006765     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                Residential
 SOURCE ID = L0006766     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006767     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006768     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006769     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006770     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0006771     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006772     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006773     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006774     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006775     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006776     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 165
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006777     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006778     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006779     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006780     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006781     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0006782     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006783     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006784     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006785     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006786     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 167
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006787     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006788     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006789     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006790     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006791     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006792     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006793     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006794     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006795     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006796     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 169
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006797     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006799     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006800     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006801     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 170
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006802     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006803     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006804     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006805     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006806     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006807     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006808     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006809     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006810     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006811     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 172
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006812     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006813     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006814     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006815     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006816     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006817     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006818     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006819     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006820     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006821     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School            ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006822     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006823     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006824     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006825     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006826     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006827     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006828     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006829     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006830     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006831     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006832     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006833     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006834     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006835     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006836     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 177
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0006837     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006838     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006839     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006840     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006841     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 178
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                   Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0006842     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006843     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006844     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006845     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006846     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006847     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006848     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006849     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006850     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006851     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 180
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                                                       Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006852     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006853     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006854     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006855     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006856     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006857     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006858     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006859     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006860     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006861     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006862     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006863     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006864     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006865     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006866     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006867     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006868     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006869     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006870     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006871     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006872     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006873     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006874     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006875     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006876     ; SOURCE TYPE = VOLUME   :
```

```
                                                  Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 185
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006877     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006878     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006879     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006880     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006881     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 186
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006882     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006883     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006884     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006885     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006886     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006887     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006888     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006889     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006890     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006891     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006892     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006893     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006894     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0006895     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006896     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 189
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006897     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006898     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006899     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00


 SOURCE ID = L0006900     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006901     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 190
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006902     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006903     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006904     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006905     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006906     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006907     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006908     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006909     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006910     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006911     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 192
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006912     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006913     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006914     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006915     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006916     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006917     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006918     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                       Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006919     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006920     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006921     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 194
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006922     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006923     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006924     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006925     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006926     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006927     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006928     ; SOURCE TYPE = VOLUME   :
```

```
                                                       Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006929     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006930     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006931     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 196
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006932     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006933     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006934     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006935     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006936     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006937     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                       Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006938     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006939     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006940     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006941     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006942     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006943     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006944     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006945     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006946     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
  SOURCE ID = L0006947     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006948     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006949     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006950     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0006951     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 200
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
 SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                   Residential
- - - - - - - -


 SOURCE ID = L0006952     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006953     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006954     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006955     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006956     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                     Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006957     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006958     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006959     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006960     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006961     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                    Residential

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006962     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006963     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006964     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006965     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006966     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
```

```
  PAGE 203
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006967     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006968     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006969     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006970     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006971     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                 Residential
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                 ***
  13:10:02

  PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0006972     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006973     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006974     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006975     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006976     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 205
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006977     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006978     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006979     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006980     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006981     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006982     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006983     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006984     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006985     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006986     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006987     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006988     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006989     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006990     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0006991     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006992     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006993     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006994     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006995     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006996     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0006997     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006998     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0006999     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007000     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                      Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007001     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007002     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007003     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007004     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007005     ; SOURCE TYPE = VOLUME   :
```

```
                                           Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007006     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007007     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007008     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007009     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007010     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007011     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 212
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007012     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007013     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007014     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                      Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007015     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007016     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 213
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007017     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007018     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007019     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007020     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007021     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007022     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007023     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                                   Residential
  SOURCE ID = L0007024     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


  SOURCE ID = L0007025     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


  SOURCE ID = L0007026     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
    13:10:02

    PAGE 215
  **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


  SOURCE ID = L0007027     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


  SOURCE ID = L0007028     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007029     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007030     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007031     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007032     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007033     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007034     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007035     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007036     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007037     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007038     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007039     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007040     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007041     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007042     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007043     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007044     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007045     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007046     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 219
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007047     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                               Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007048     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007049     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007050     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007051     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007052     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007053     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007054     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007055     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007056     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007057     ; SOURCE TYPE = VOLUME   :
```

```
                                                Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007058     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007059     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007060     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007061     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   13:10:02

   PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0007062     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007063     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007065     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007066     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 223
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                     Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0007067     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007070     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007071     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                           Residential
                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007072     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
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```
                                                       Residential
   PAGE 225
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007078     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007079     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007080     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007081     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007082     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007083     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007084     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007085     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007086     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007087     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007088     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007089     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007090     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007091     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007092     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007093     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007094     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007095     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007096     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007097     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007098     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007099     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007100     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                        Residential
 SOURCE ID = L0007101     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 230
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007102     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007103     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007104     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007105     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007106     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007107     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007108     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007109     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007110     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007111     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007112     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007113     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007114     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007115     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007116     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 233
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007117     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007118     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007119     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007120     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007121     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007122     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007123     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007124     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA5        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA6        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK1        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 236
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK4        ; SOURCE TYPE = POINT    :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK5        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK6        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK7        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK8        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = STCK9        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK10       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK11       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK13       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                          Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007125     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007126     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007127     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007128     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007129     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007130     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007131     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007132     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 240
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007133     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0007134     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007135     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007136     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007137     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007138     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0007139     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007140     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007141     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007142     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007144     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007145     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007146     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007147     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007148     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                        Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007149     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007150     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007151     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007152     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007153     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007154     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007155     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007156     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007157     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                         Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007158     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007159     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007160     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007161     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007162     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007163     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007164     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007165     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007166     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007167     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 247
```

```
                                                   Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007168     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007169     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007170     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007171     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007172     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
```

```
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007173     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007174     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007175     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007176     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007177     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                    Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 249
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 



 SOURCE ID = L0007178     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007179     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007180     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007181     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007182     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 250
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007183     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007184     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007185     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007186     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007187     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 251
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007188     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007189     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007190     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007191     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007192     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 252
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007193     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007194     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007195     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007196     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007197     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 253
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007198     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007199     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007200     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007201     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007202     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 254
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007203     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007204     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007205     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007206     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007207     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 255
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007208     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007209     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007210     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0007211     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007212     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 256
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007213     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007214     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007215     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0007216     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007217     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 257
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007218     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007219     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007220     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007221     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007222     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 258
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007223     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007224     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007225     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                      Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007226     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007227     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 259
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007228     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007229     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007230     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007231     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007232     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 260
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007233     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007234     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007235     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007236     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007237     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 261
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007238     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007239     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007240     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007241     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007242     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 262
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007243     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007244     ; SOURCE TYPE = VOLUME   :
```

```
                                                      Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007245     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007246     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007247     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 263
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007248     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007249     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007250     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007251     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007252     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 264
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007253     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007254     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007255     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007256     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007257     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 265
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007258     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007259     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007260     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007261     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007262     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 266
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
 SOURCE ID = L0007263     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007264     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007265     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007266     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007267     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 267
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                    Residential
 - - - - - - - -


  SOURCE ID = L0007268     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007269     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007270     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007271     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007272     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 268
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007273     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007274     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007275     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007276     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007277     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 269
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007278     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007279     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007280     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007281     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007282     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02
```

```
                                                  Residential

   PAGE 270
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007283     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007284     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007285     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007286     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007287     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
```

```
                                                    Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
   13:10:02

   PAGE 271
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007288     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007289     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007290     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007291     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007292     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 272
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007293     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007294     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007295     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007296     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007297     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 273
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007298     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007299     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007300     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007301     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007302     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 274
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007303     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007304     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007305     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007306     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0007307     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 275
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007308     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007309     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007310     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007311     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                 Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007312     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 276
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007313     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007314     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007315     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007316     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007317     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 277
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007318     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007319     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007320     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007321     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007322     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 278
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007323     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007324     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007325     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007326     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007327     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 279
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007328     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007329     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007330     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007331     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007332     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 280
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007333     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007334     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007335     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007336     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007337     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 281
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007338     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007339     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0007340     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007341     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007342     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 282
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007343     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007344     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007345     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007346     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007347     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 283
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007348     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007349     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                        Residential
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007350      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007351      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007352      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 284
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007353      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007354      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007355     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007356     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007357     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 285
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007358     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007359     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007360     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007361     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007362     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 286
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007363     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                               Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007364     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007365     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 287
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007369     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007370     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007371     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007372     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 288
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007373     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007374     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007375     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007376     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007377     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 289
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007378     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007379     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007380     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007381     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007382     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 290
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                     Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0007383     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007384     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007385     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007386     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007387     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 291
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                        Residential
                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007388     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007389     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007390     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007391     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007392     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
```

```
                                                     Residential
   PAGE 292
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007396     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007397     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007398     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007399     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007400     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007401     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007402     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 294
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007403     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007404     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007405     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007406     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007407     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 295
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007408     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007409     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007410     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007411     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007412     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                             Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 296
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0007417     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 297
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007418     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007419     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007420     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007421     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0007422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 298
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007423     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007424     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007425     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007426     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                  Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007427     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 299
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007428     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007429     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007430     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007432     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 300
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007433     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007434     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007435     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007436     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007437     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 301
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007438     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007439     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007440     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007441     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007442     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
    13:10:02

    PAGE 302
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
 SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - -


  SOURCE ID = L0007443     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007444     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007445     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007446     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007447     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 303
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007448     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007449     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007450     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007451     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007452     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 304
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007453     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007454     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                  Residential


 SOURCE ID = L0007455     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007456     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007457     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 305
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007458     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007459     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007460     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007461     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007462     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 306
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007463     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007464     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007465     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007466     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007467     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 307
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007468     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0007469     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007470     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007471     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007472     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 308
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007473     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00


 SOURCE ID = L0007474     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007475     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007476     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007477     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 309
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007478     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007479     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007481     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007482     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 310
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007483     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                 Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007484     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007485     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007486     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007487     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 311
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007488     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007489     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007490     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007491     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007492     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 312
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                              Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0007493     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007494     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007495     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007496     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007497     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 313
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                     Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007498     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007499     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007500     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007501     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007502     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 314
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```
                                                                 Residential
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007503     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007504     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007505     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007506     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007507     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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                                                    Residential
   13:10:02

   PAGE 315
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007508     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007509     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007510     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007511     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007512     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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                                                         Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 316
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007513     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007514     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007515     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007516     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007517     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

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                                                        Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 317
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007518     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007519     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007520     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007521     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007522     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 318
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007523     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007524     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007525     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007526     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007527     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 319
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007528     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007529     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007531     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0007532     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 320
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007533     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007534     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007535     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007536     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007537     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 321
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007538     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007539     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007540     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007541     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007542     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 322
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007543     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007544     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007545     ; SOURCE TYPE = VOLUME    :
         1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
         7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
        13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
        19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                  Residential
 SOURCE ID = L0007546     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007547     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 323
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007548     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007549     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007550     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007551     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007552     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 324
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007553     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007554     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007555     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007556     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007557     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 325
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007558     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007559     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007560     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007561     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007562     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 326
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007563     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007564     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                              Residential

 SOURCE ID = L0007565     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007566     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007567     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 327
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007568     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007569     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007570     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007571     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007572     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 328
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007573     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007574     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007575     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007576     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007577     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 329
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007578     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007579     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007580     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007581     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007582     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 330
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007583     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007584     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007585     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007586     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007587     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 331
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007588     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007589     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007590     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007591     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007592     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 332
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007593     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007594     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007595     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007596     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007597     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 333
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
 SOURCE ID = L0007598     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007599     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007600     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007601     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007602     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 334
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
- - - - - - - -


 SOURCE ID = L0007603     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007604     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007605     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007606     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007607     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 335
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                   Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007608     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007609     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007610     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007611     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007612     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 336
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                 Residential

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007613     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007614     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007615     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007616     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007617     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02
```

```
                                                    Residential

   PAGE 337
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007618     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007619     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007620     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007621     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007622     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
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                                                         Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 338
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007623     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007624     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007625     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007626     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007627     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 339
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007628     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007629     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007630     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007631     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007632     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                   Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 340
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007633     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007634     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007635     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007636     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007637     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 341
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007638     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007639     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007640     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007641     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007642     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 342
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007643     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007644     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007645     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007646     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007647     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 343
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007648     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007649     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007650     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007651     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007652     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 344
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007653     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007654     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007655     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007656     ; SOURCE TYPE = VOLUME   :
```

```
                                                         Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007657     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 345
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007658     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007659     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007660     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007661     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007662     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 346
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007663     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007664     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007665     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007666     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007667     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 347
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007668     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007669     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007670     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007671     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007672     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 348
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007673     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007674     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                                Residential
 SOURCE ID = L0007675     ; SOURCE TYPE = VOLUME     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007676     ; SOURCE TYPE = VOLUME     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007677     ; SOURCE TYPE = VOLUME     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 349
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007678     ; SOURCE TYPE = VOLUME     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007679     ; SOURCE TYPE = VOLUME     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0007680     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007681     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007682     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 350
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007683     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007684     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                        Residential
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007685      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007686      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007687      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 351
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007688      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
       7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
      13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
      19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0007689      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007690     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007691     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007692     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 352
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007693     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential

 SOURCE ID = L0007694     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007695     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007696     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007697     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 353
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007698     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007699     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007700     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007701     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007702     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 354
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007703     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007704     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007705     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007706     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007707     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 355
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007708     ; SOURCE TYPE = VOLUME   :
```

```
                                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007709     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007710     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007711     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007712     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 356
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0007713     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007714     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007715     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007716     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007717     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 357
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0007718     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007719     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007720     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007721     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007722     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 358
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential
                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007723     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007724     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007725     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007726     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0007727     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
```

```
                                                     Residential
   PAGE 359
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007728     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00     2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01     8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01    14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00    20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007729     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00     2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01     8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01    14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00    20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007730     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00     2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01     8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01    14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00    20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007731     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00     2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01     8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01    14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00    20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007732     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00     2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01     8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01    14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00    20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
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 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 360
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007733     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007734     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007735     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007736     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007737     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 361
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007738     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007739     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007740     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007741     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007742     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 362
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007743     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007744     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007745     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007746     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007747     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 363
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007748     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007749     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007750     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007751     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
 SOURCE ID = L0007752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 364
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007754     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00


 SOURCE ID = L0007757     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 365
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007758     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007759     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007760     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007761     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                          Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007762     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 366
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007763     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007764     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007765     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007766     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007767     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 367
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007768     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007769     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007770     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007771     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007772     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 368
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007773     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007774     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007775     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                         Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007776     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007777     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 369
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007778     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007779     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007780     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                  Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 370
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007783     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007785     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007786     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007787     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 371
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007788     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007789     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007790     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007791     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007792     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***    
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***    
   13:10:02

   PAGE 372
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007793     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007794     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007795     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007796     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007797     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 373
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007799     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007800     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007801     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007802     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 374
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007803     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0007804     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007805     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007806     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007807     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 375
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007808     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00


 SOURCE ID = L0007809     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007810     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007811     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007812     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 376
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007813     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007814     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007815     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007816     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007817     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 377
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007818     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007819     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007820     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007821     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007822     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 378
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                         Residential

  SOURCE ID = L0007823     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007824     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007825     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007826     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007827     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 379
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                    Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007828     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007829     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007830     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007831     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007832     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 380
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                 Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007833     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007834     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007835     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007836     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007837     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 381
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```
                                                  Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007838     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007839     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007840     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007841     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007842     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
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                                                     Residential
   13:10:02

   PAGE 382
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007843     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007844     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007845     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007846     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007847     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 383
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007848     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007849     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007850     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007851     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007852     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 384
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007853     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007854     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007855     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007856     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007857     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 385
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007858     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007859     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007860     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007861     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007862     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 386
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007863     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007864     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007865     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007866     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007867     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 387
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007868     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007869     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007870     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007871     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007872     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 388
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007873     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007874     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007875     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007876     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                         Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007877     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 389
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007878     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007879     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007880     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0007881     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007882     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 390
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007883     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007884     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007885     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0007886     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007887     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 391
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007888     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007889     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007890     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007891     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007892     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 392
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007893     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007894     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007895     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007896     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007897     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 393
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007898     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007899     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007900     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007901     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007902     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 394
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007903     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007904     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007905     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007906     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007907     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 395
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007908     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007909     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007910     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007911     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007912     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 396
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007913     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007914     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007915     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007916     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007917     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 397
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007918     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007919     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007920     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007921     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0007922     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***    
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***    
   13:10:02

   PAGE 398
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007923     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007924     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007925     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007926     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007927     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 399
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007928     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007929     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007930     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007931     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007932     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 400
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
  SOURCE ID = L0007933     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007934     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007935     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007936     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0007937     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 401
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
 SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                            Residential
- - - - - - - -


 SOURCE ID = L0007938     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007939     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007940     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007941     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007942     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 402
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007943     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007944     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007945     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007946     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007947     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 403
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                    Residential

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007948     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007949     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007950     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007951     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007952     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02
```

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  PAGE 404
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007953     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007954     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007955     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007956     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007957     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
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```
                                                    Residential
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                        ***
   13:10:02

   PAGE 405
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0007958     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007959     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007960     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007961     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007962     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 406
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007963     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007964     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007965     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007966     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007967     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 407
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007968     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007969     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007970     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007971     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007972     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 408
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007973     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007974     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007975     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007976     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007977     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 409
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007978     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007979     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007980     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007981     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                 Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007982     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 410
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007983     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007984     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007985     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007986     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007987     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 411
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007988     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007989     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007990     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007991     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007992     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 412
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007993     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007994     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007995     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0007996     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007997     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 413
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0007998     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0007999     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008000     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                   Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008001     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008002     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 414
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008003     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008004     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008005     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                      Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008006     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008007     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 415
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008008     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008009     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                        Residential
 SOURCE ID = L0008010     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008011     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008012     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 416
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008013     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008014     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0008015     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008016     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008017     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 417
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008018     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008019     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008020     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008021     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008022     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 418
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008023     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008024     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008025     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008026     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008027     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 419
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008028     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                          Residential

 SOURCE ID = L0008029     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008030     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008031     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008032     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 420
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008033     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008034     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008035     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008036     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008037     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 421
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008038     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008039     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008040     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008041     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008042     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 422
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008043     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008044     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008045     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008046     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008047     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 423
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0008048     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008049     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008050     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008051     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008052     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 424
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0008053     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008054     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008055     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008056     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008057     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 425
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential
                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008058     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008059     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008060     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008061     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008062     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
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```
                                                 Residential
   PAGE 426
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 



 SOURCE ID = L0008063     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008064     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008065     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008066     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008067     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
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 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 427
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008070     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008071     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008072     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 428
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 429
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008078     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008079     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008080     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008081     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008082     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 430
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008083     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008084     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008085     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008086     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                 Residential
 SOURCE ID = L0008087     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 431
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008088     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008089     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008090     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008091     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0008092     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 432
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008093     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008094     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008095     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008096     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                 Residential
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0008097     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 433
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008098     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0008099     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0008100     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0008101     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008102     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 434
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008103     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008104     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008105     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008106     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008107     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 435
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008108     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008109     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008110     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                                 Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008111     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008112     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 436
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008113     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008114     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008115     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008116     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008117     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 437
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008118     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008119     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008120     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008121     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008122     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 438
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008123     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008124     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008125     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008126     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008127     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 439
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008128     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008129     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008130     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008131     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008132     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 440
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008133     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008134     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008135     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008136     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008137     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 441
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008138     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential
 SOURCE ID = L0008139     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008140     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008141     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008142     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 442
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00


 SOURCE ID = L0008144     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008145     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008146     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008147     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 443
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008148     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                  Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008149     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008150     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008151     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008152     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 444
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008153     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                       Residential
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008154     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008155     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008156     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008157     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 445
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0008158     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008159     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008160     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008161     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008162     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 446
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                            Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0008163     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008164     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008165     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008166     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008167     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 447
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008168     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008169     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008170     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008171     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008172     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 448
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```
                                                        Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008173     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008174     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008175     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008176     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008177     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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                                                    Residential
   13:10:02

   PAGE 449
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008178     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008179     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008180     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008181     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008182     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 450
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0008183     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008184     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008185     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008186     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008187     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                       Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 451
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008188     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008189     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008190     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008191     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008192     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 452
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008193     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008194     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008195     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008196     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008197     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 453
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008198     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008199     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008200     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008201     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008202     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 454
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008203     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008204     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008205     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008206     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008207     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 455
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008208     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008209     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008210     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008211     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                         Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008212     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 456
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008213     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008214     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008215     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0008216     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008217     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 457
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008218     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008219     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008220     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0008221     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008222     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 458
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008223     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008224     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008225     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008226     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008227     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 459
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008228     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008229     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008230     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008231     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008232     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 460
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008233     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008234     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008235     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008236     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008237     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 461
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008238     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008239     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                       Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008240     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008241     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008242     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 462
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008243     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008244     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008245     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008246     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008247     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 463
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008248     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008249     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008250     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008251     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008252     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 464
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008253     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008254     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008255     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008256     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008257     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 465
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008258     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008259     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008260     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008261     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008262     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 466
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008263     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008264     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008265     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008266     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008267     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 467
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                         Residential
 SOURCE ID = L0008268     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008269     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008270     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008271     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008272     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 468
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                 Residential
- - - - - - - -


 SOURCE ID = L0008273     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008274     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008275     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008276     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008277     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 469
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008278     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008279     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008280     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008281     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008282     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 470
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                                 Residential

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0008283     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008284     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008285     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008286     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008287     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02
```

```
                                                     Residential

   PAGE 471
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008288     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008289     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008290     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008291     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008292     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0008293     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008294     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008295     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008296     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008297     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 473
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008298     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008299     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008300     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008301     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008302     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 474
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008303     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008304     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008305     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008306     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008307     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 475
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008308     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008309     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008310     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008311     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008312     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 476
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008313     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008314     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008315     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008316     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008317     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 477
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008318     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008319     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008320     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008321     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008322     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 478
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008323     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008324     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008325     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008326     ; SOURCE TYPE = VOLUME   :
```

```
                                                       Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008327     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 479
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008328     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008329     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008330     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

```
 SOURCE ID = L0008331     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008332     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 480
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008333     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008334     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008335     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008336     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008337     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 481
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008338     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008339     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008340     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                             Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008341     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008342     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 482
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008343     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008344     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0008345     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008346     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008347     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 483
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008348     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008349     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0008350     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008351     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008352     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 484
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008353     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008354     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008355     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008356     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008357     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 485
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008358     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008360     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008361     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008362     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 486
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008363     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008364     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008365     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 487
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                        Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008369     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008370     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008371     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008372     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 488
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008373     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008374     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008375     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008376     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008377     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 489
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008378     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008379     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008380     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008381     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008382     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 490
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Residential

```
 SOURCE ID = L0008383     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008384     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008385     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008386     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008387     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 491
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                     Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0008388     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008389     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008390     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008391     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008392     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 492
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                   Residential
                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008396     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008397     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
```

```
                                                    Residential
   PAGE 493
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008398     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008399     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008400     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008401     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008402     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
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                                                    Residential
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
   13:10:02

   PAGE 494
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008403     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008404     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008405     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008406     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008407     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 495
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008408     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008409     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008410     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008411     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008412     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 496
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008417     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 497
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008418     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008419     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008420     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008421     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0008422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 498
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008423     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008424     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008425     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008426     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0008427     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 499
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008428     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008429     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008430     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008431     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                  Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 500
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008433     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008434     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008435     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008436     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008437     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 501
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008438     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008439     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008440     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008441     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008442     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 502
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008443     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008444     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008445     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008446     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008447     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 503
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008448     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008449     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008450     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008451     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008452     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 504
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008453     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008454     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008455     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008456     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008457     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 505
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008458     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008459     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008460     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008461     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008462     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***     
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***     
   13:10:02

   PAGE 506
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008463     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008464     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                       Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008465     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008466     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008467     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 507
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008468     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008469     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008470     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008471     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008472     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 508
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008473     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0008474     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008475     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008476     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008477     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 509
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008478     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0008479     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008480     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008481     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008482     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 510
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008483     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008484     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008485     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008486     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008487     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 511
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008488     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008489     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008490     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008491     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008492     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 512
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0008493     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008494     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008495     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008496     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008497     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 513
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                       Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008498     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008499     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008500     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008501     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008502     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 514
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                 Residential

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008503     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008504     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008505     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008506     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008507     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 515
```

```
                                                         Residential
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008508     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008509     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008510     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008511     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008512     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0008513     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008514     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008515     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008516     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008517     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 517
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008518     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008519     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008520     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008521     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008522     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 518
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008523     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008524     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008525     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008526     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008527     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 519
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008528     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008529     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008530     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008531     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008532     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 520
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008533     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008534     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008535     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008536     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008537     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 521
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008538     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008539     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008540     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008541     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008542     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 522
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008543     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008544     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008545     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008546     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008547     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 523
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008548     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008549     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008550     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0008551     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008552     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 524
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008555     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0008556     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008557     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 525
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008558     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008559     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008560     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                       Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008561     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008562     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 526
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008563     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008564     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008565     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008566     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008567     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 527
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008568     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008569     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008570     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008571     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008572     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 528
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008573     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008574     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008575     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008576     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008577     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 529
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008578     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008579     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008580     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008581     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008582     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 530
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008583     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008584     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6
.00000E+00
      7   .10000E+01     8   .10000E+01     9   .10000E+01    10   .10000E+01    11   .10000E+01    12
.10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .10000E+01    18
.10000E+01
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24
.00000E+00


 SOURCE ID = L0008585     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6
.00000E+00
      7   .10000E+01     8   .10000E+01     9   .10000E+01    10   .10000E+01    11   .10000E+01    12
.10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .10000E+01    18
.10000E+01
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24
.00000E+00


 SOURCE ID = L0008586     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6
.00000E+00
      7   .10000E+01     8   .10000E+01     9   .10000E+01    10   .10000E+01    11   .10000E+01    12
.10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .10000E+01    18
.10000E+01
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24
.00000E+00


 SOURCE ID = L0008587     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6
.00000E+00
      7   .10000E+01     8   .10000E+01     9   .10000E+01    10   .10000E+01    11   .10000E+01    12
.10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .10000E+01    18
.10000E+01
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   13:10:02

   PAGE 531
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008588     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00     2   .00000E+00     3   .00000E+00     4   .00000E+00     5   .00000E+00     6
.00000E+00
      7   .10000E+01     8   .10000E+01     9   .10000E+01    10   .10000E+01    11   .10000E+01    12
.10000E+01
     13   .10000E+01    14   .10000E+01    15   .10000E+01    16   .10000E+01    17   .10000E+01    18
.10000E+01
     19   .00000E+00    20   .00000E+00    21   .00000E+00    22   .00000E+00    23   .00000E+00    24
.00000E+00
```

```
 SOURCE ID = L0008589     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008590     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008591     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0008592     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 532
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008593     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008594     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008595     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008596     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008597     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 533
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008598     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008599     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008600     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008601     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008602     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 534
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                 Residential
  SOURCE ID = L0008603      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


  SOURCE ID = L0008604      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


  SOURCE ID = L0008605      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


  SOURCE ID = L0008606      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


  SOURCE ID = L0008607      ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:10:02

    PAGE 535
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     
SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                         Residential
- - - - - - - -


 SOURCE ID = L0008608     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008609     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008610     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008611     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008612     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 536
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                 Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008613     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008614     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008615     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008616     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008617     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:10:02

   PAGE 537
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008618     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008619     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008620     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008621     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008622     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02
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                                                                  Residential

   PAGE 538
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008623     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008624     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008625     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008626     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0008627     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
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                                                 Residential
   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:10:02

  PAGE 539
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008628     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008629     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008630     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008631     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008632     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 540
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008633     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008634     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008635     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008636     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008637     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School             ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 541
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008638     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008639     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008640     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008641     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008642     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 542
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008643     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008644     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008645     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008646     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008647     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 543
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008648     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008649     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008650     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008651     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008652     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 544
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008653     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008654     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008655     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008656     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                 Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008657     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 545
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008658     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008659     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008660     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008661     ; SOURCE TYPE = VOLUME   :
```

```
                                                Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008662     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 546
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008663     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008664     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008665     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0008666     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008667     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 547
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008668     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008669     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008670     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                   Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008671     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008672     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:10:02

   PAGE 548
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0008673     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008674     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0008675     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 549
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478329.6, 3749871.1,     459.0,     467.0,
     0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);         ( 478344.6, 3749914.1,     459.0,     467.0,
     0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);         ( 479198.5, 3749445.6,     455.0,     468.0,
     0.0);
     ( 479276.2, 3749431.1,     455.0,     780.0,       0.0);         ( 479238.2, 3749507.6,     456.0,     469.0,
     0.0);
     ( 479392.7, 3749458.5,     454.7,     780.0,       0.0);         ( 479266.8, 3749584.9,     456.0,     469.0,
     0.0);
     ( 479216.5, 3749531.8,     456.0,     468.0,       0.0);         ( 479216.5, 3749499.9,     456.0,     468.0,
     0.0);
     ( 478420.7, 3750106.6,     460.0,     467.0,       0.0);         ( 478374.5, 3750050.1,     460.0,     467.0,
     0.0);
     ( 479735.8, 3748832.3,     450.0,     780.0,       0.0);         ( 479739.1, 3748875.1,     450.9,     780.0,
     0.0);
     ( 477612.1, 3751848.4,     468.0,     476.0,       0.0);         ( 478306.5, 3751863.5,     471.0,     471.0,
     0.0);
     ( 478687.4, 3751837.0,     471.0,     475.0,       0.0);         ( 477090.2, 3750813.4,     462.0,     471.0,
     0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:10:02

   PAGE 550
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                              (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                       METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007   1  1  1
```

```
                                                       Residential
                                                              AND END DATE: 2007  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                           *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                                   (METERS/SEC)

                                                    1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 551
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\..\..\..\peri8.sfc                                                            Met Version:
14134
   Profile file:   ..\..\..\..\peri8.pfl
   Surface format: FREE

   Profile format: FREE

   Surface station no.:        0                  Upper air station no.:     3190
                  Name: UNKNOWN                                   Name: UNKNOWN
                  Year:   2007                                    Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS    WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 07 01 01    1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  133.    9.1  279.9
 5.5
 07 01 01    1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  192.    9.1  279.2
 5.5
 07 01 01    1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  160.    9.1  277.5
 5.5
 07 01 01    1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50   75.    9.1  277.5
 5.5
 07 01 01    1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50  282.    9.1  278.8
 5.5
 07 01 01    1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50   96.    9.1  277.5
 5.5
 07 01 01    1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  129.    9.1  278.1
 5.5
 07 01 01    1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00   0.54    0.50   99.    9.1  277.5
 5.5
 07 01 01    1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00   0.33    0.50  133.    9.1  278.1
 5.5
 07 01 01    1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00   0.26    0.50  174.    9.1  281.4
 5.5
 07 01 01    1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00   0.23    0.50   95.    9.1  284.9
 5.5
 07 01 01    1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00   0.22    1.30   94.    9.1  288.1
 5.5
 07 01 01    1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00   0.22    2.20   24.    9.1  291.4
 5.5
 07 01 01    1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00   0.23    3.60   13.    9.1  292.5
 5.5
 07 01 01    1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.    9.1  292.0
 5.5
```

```
                                                     Residential
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.    9.1  291.4
 5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.    9.1  289.9
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.    9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.    9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.    9.1  287.5
 5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:10:02

   PAGE 552
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):     L0008851    , L0008852    , L0008853    , L0008854    ,
L0008855    ,
                 L0008856    , L0008857    , L0008858    , L0008859    , L0008860    , L0008861    , L0008862    ,
L0008863    ,
                 L0008864    , L0008865    , L0008866    , L0008867    , L0006444    , L0006445    , L0006446    ,
L0006447    ,
                 L0006448    , L0006449    , L0006450    , L0006451    , L0006452    , L0006453    , L0006454    ,
. . .       ,

                                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                   ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         478348.59    3749820.73       0.00144                         478329.61    3749871.11       0.00142

         478312.39    3749891.05       0.00142                         478344.56    3749914.15       0.00135

         478380.35    3749931.82       0.00128                         479198.50    3749445.63       0.00058

         479276.24    3749431.09       0.00055                         479238.25    3749507.60       0.00055

         479392.66    3749458.49       0.00049                         479266.82    3749584.89       0.00052

         479216.49    3749531.76       0.00055                         479216.49    3749499.88       0.00056

         478420.74    3750106.65       0.00110                         478374.50    3750050.13       0.00119

         479735.76    3748832.26       0.00048                         479739.12    3748875.07       0.00047
```

```
                                                   Residential

         477612.13    3751848.38        0.00161                      478306.45    3751863.55        0.00054

         478687.39    3751836.97        0.00043                      477090.18    3750813.40        0.00104

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 553
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                   ** CONC OF DPM      IN MICROGRAMS/M**3                          **


NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -

ALL       1ST HIGHEST VALUE IS       0.00161 AT (  477612.13,  3751848.38,   468.00,   476.00,    0.00)  DC

          2ND HIGHEST VALUE IS       0.00144 AT (  478348.59,  3749820.73,   458.30,   467.00,    0.00)  DC

          3RD HIGHEST VALUE IS       0.00142 AT (  478312.39,  3749891.05,   459.00,   467.00,    0.00)  DC

          4TH HIGHEST VALUE IS       0.00142 AT (  478329.61,  3749871.11,   459.00,   467.00,    0.00)  DC

          5TH HIGHEST VALUE IS       0.00135 AT (  478344.56,  3749914.15,   459.00,   467.00,    0.00)  DC

          6TH HIGHEST VALUE IS       0.00128 AT (  478380.35,  3749931.82,   459.00,   467.00,    0.00)  DC

          7TH HIGHEST VALUE IS       0.00119 AT (  478374.50,  3750050.13,   460.00,   467.00,    0.00)  DC

          8TH HIGHEST VALUE IS       0.00110 AT (  478420.74,  3750106.65,   460.00,   467.00,    0.00)  DC

          9TH HIGHEST VALUE IS       0.00104 AT (  477090.18,  3750813.40,   462.00,   471.00,    0.00)  DC

         10TH HIGHEST VALUE IS       0.00058 AT (  479198.50,  3749445.63,   455.04,   468.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\School              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:10:02

   PAGE 554
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           0 Warning Message(s)
 A Total of         124 Informational Message(s)
```

```
                                                         Residential
 A Total of         8760 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          124 Missing Hours Identified (  1.42 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 3/22/2016
** File: C:\Lakes\AERMOD View\MVL\Revised\300 Ft Buffer\HRA W Indian St Bridge\Residential\Residential.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Residential.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007629
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478172.909, 3748404.882, 451.00, 4.00, 13.95
** 478175.248, 3748915.975, 453.24, 4.00, 13.95
** ------------------------------------------------------------------
```

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                                                   Residential
   LOCATION L0010668     VOLUME   478172.977 3748419.882 451.00
   LOCATION L0010669     VOLUME   478173.115 3748449.882 451.00
   LOCATION L0010670     VOLUME   478173.252 3748479.881 451.00
   LOCATION L0010671     VOLUME   478173.389 3748509.881 451.78
   LOCATION L0010672     VOLUME   478173.526 3748539.881 452.00
   LOCATION L0010673     VOLUME   478173.664 3748569.880 452.00
   LOCATION L0010674     VOLUME   478173.801 3748599.880 452.00
   LOCATION L0010675     VOLUME   478173.938 3748629.880 452.00
   LOCATION L0010676     VOLUME   478174.076 3748659.880 452.00
   LOCATION L0010677     VOLUME   478174.213 3748689.879 452.00
   LOCATION L0010678     VOLUME   478174.350 3748719.879 452.00
   LOCATION L0010679     VOLUME   478174.487 3748749.879 452.00
   LOCATION L0010680     VOLUME   478174.625 3748779.878 452.78
   LOCATION L0010681     VOLUME   478174.762 3748809.878 453.00
   LOCATION L0010682     VOLUME   478174.899 3748839.878 453.00
   LOCATION L0010683     VOLUME   478175.037 3748869.877 453.00
   LOCATION L0010684     VOLUME   478175.174 3748899.877 453.00
** End of LINE VOLUME Source ID = SLINE1
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00006509
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0008004     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0008005     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0008006     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0008007     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0008008     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0008009     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0008010     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0008011     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0008012     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0008013     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0008014     VOLUME   477946.461 3748801.113 453.00
   LOCATION L0008015     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0008016     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0008017     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003431
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0008018     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0008019     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0008020     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0008021     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0008022     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0008023     VOLUME   477756.670 3748895.967 453.10
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                                                Residential
   LOCATION L0008024     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0008025     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 3.993E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0008026     VOLUME   477900.151 3748339.028 451.00
   LOCATION L0008027     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0008028     VOLUME   477917.150 3748338.902 451.00
   LOCATION L0008029     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0008030     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0008031     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0008032     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0008033     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0008034     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0008035     VOLUME   477960.317 3748309.715 450.00
   LOCATION L0008036     VOLUME   477964.551 3748302.345 450.00
   LOCATION L0008037     VOLUME   477968.786 3748294.975 450.00
   LOCATION L0008038     VOLUME   477973.021 3748287.605 450.00
   LOCATION L0008039     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0008040     VOLUME   477977.265 3748271.460 450.00
   LOCATION L0008041     VOLUME   477978.288 3748263.022 450.00
   LOCATION L0008042     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0008043     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0008044     VOLUME   477978.207 3748237.527 450.00
   LOCATION L0008045     VOLUME   477978.153 3748229.027 450.00
   LOCATION L0008046     VOLUME   477978.100 3748220.527 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000465
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0008047     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0008048     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0008049     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0008050     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0008051     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0008052     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0008053     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0008054     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0008055     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0008056     VOLUME   477608.667 3748852.789 454.00
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                                                   Residential
   LOCATION L0008057     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0008058     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0008059     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0008060     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0008061     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 3.084E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0008062     VOLUME   478043.005 3748335.195 451.00
   LOCATION L0008063     VOLUME   478072.998 3748334.546 451.00
   LOCATION L0008064     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0008065     VOLUME   478132.984 3748333.248 451.00
   LOCATION L0008066     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0001759
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477903.782, 3748978.923, 454.31, 4.00, 3.95
** 477903.271, 3748952.328, 454.06, 4.00, 3.95
** 477899.690, 3748927.779, 453.00, 4.00, 3.95
** 477898.668, 3748873.055, 454.40, 4.00, 3.95
** 477895.599, 3748491.521, 451.92, 4.00, 3.95
** 477967.712, 3748357.012, 451.00, 4.00, 3.95
** 477978.964, 3748339.623, 451.28, 4.00, 3.95
** 478167.174, 3748341.669, 453.05, 4.00, 3.95
** 478171.265, 3748916.528, 453.32, 4.00, 3.95
** 478153.365, 3748975.343, 453.55, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0010493     VOLUME   477903.700 3748974.673 453.27
   LOCATION L0010494     VOLUME   477903.537 3748966.175 453.00
   LOCATION L0010495     VOLUME   477903.374 3748957.677 453.00
   LOCATION L0010496     VOLUME   477902.816 3748949.211 453.00
   LOCATION L0010497     VOLUME   477901.589 3748940.800 453.00
   LOCATION L0010498     VOLUME   477900.362 3748932.389 453.00
   LOCATION L0010499     VOLUME   477899.618 3748923.938 453.00
   LOCATION L0010500     VOLUME   477899.459 3748915.440 453.00
   LOCATION L0010501     VOLUME   477899.301 3748906.941 453.00
   LOCATION L0010502     VOLUME   477899.142 3748898.443 453.00
   LOCATION L0010503     VOLUME   477898.983 3748889.944 453.00
   LOCATION L0010504     VOLUME   477898.824 3748881.446 453.00
   LOCATION L0010505     VOLUME   477898.667 3748872.947 453.00
   LOCATION L0010506     VOLUME   477898.598 3748864.447 453.00
   LOCATION L0010507     VOLUME   477898.530 3748855.948 453.00
   LOCATION L0010508     VOLUME   477898.462 3748847.448 453.00
   LOCATION L0010509     VOLUME   477898.393 3748838.948 453.00
   LOCATION L0010510     VOLUME   477898.325 3748830.448 453.00
   LOCATION L0010511     VOLUME   477898.257 3748821.949 453.00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                 Residential
LOCATION L0010512     VOLUME   477898.188 3748813.449 453.00
LOCATION L0010513     VOLUME   477898.120 3748804.949 453.00
LOCATION L0010514     VOLUME   477898.052 3748796.449 453.00
LOCATION L0010515     VOLUME   477897.983 3748787.950 453.00
LOCATION L0010516     VOLUME   477897.915 3748779.450 453.00
LOCATION L0010517     VOLUME   477897.846 3748770.950 453.00
LOCATION L0010518     VOLUME   477897.778 3748762.451 453.00
LOCATION L0010519     VOLUME   477897.710 3748753.951 453.00
LOCATION L0010520     VOLUME   477897.641 3748745.451 453.00
LOCATION L0010521     VOLUME   477897.573 3748736.951 453.00
LOCATION L0010522     VOLUME   477897.505 3748728.452 453.00
LOCATION L0010523     VOLUME   477897.436 3748719.952 453.00
LOCATION L0010524     VOLUME   477897.368 3748711.452 453.00
LOCATION L0010525     VOLUME   477897.299 3748702.952 453.00
LOCATION L0010526     VOLUME   477897.231 3748694.453 452.93
LOCATION L0010527     VOLUME   477897.163 3748685.953 452.65
LOCATION L0010528     VOLUME   477897.094 3748677.453 452.36
LOCATION L0010529     VOLUME   477897.026 3748668.954 452.08
LOCATION L0010530     VOLUME   477896.958 3748660.454 452.00
LOCATION L0010531     VOLUME   477896.889 3748651.954 452.00
LOCATION L0010532     VOLUME   477896.821 3748643.454 452.00
LOCATION L0010533     VOLUME   477896.752 3748634.955 452.00
LOCATION L0010534     VOLUME   477896.684 3748626.455 452.00
LOCATION L0010535     VOLUME   477896.616 3748617.955 452.00
LOCATION L0010536     VOLUME   477896.547 3748609.455 452.00
LOCATION L0010537     VOLUME   477896.479 3748600.956 452.00
LOCATION L0010538     VOLUME   477896.411 3748592.456 452.00
LOCATION L0010539     VOLUME   477896.342 3748583.956 452.00
LOCATION L0010540     VOLUME   477896.274 3748575.457 452.00
LOCATION L0010541     VOLUME   477896.206 3748566.957 452.00
LOCATION L0010542     VOLUME   477896.137 3748558.457 452.00
LOCATION L0010543     VOLUME   477896.069 3748549.957 452.00
LOCATION L0010544     VOLUME   477896.000 3748541.458 452.00
LOCATION L0010545     VOLUME   477895.932 3748532.958 452.00
LOCATION L0010546     VOLUME   477895.864 3748524.458 452.00
LOCATION L0010547     VOLUME   477895.795 3748515.959 452.00
LOCATION L0010548     VOLUME   477895.727 3748507.459 452.00
LOCATION L0010549     VOLUME   477895.659 3748498.959 452.00
LOCATION L0010550     VOLUME   477896.100 3748490.585 452.00
LOCATION L0010551     VOLUME   477900.116 3748483.094 451.96
LOCATION L0010552     VOLUME   477904.133 3748475.603 451.93
LOCATION L0010553     VOLUME   477908.149 3748468.111 451.97
LOCATION L0010554     VOLUME   477912.165 3748460.620 451.92
LOCATION L0010555     VOLUME   477916.181 3748453.129 451.70
LOCATION L0010556     VOLUME   477920.198 3748445.637 451.42
LOCATION L0010557     VOLUME   477924.214 3748438.146 451.20
LOCATION L0010558     VOLUME   477928.230 3748430.655 451.05
LOCATION L0010559     VOLUME   477932.246 3748423.163 451.00
LOCATION L0010560     VOLUME   477936.263 3748415.672 451.00
LOCATION L0010561     VOLUME   477940.279 3748408.181 451.00
LOCATION L0010562     VOLUME   477944.295 3748400.690 451.00
LOCATION L0010563     VOLUME   477948.311 3748393.198 451.00
LOCATION L0010564     VOLUME   477952.328 3748385.707 451.00
LOCATION L0010565     VOLUME   477956.344 3748378.216 451.00
LOCATION L0010566     VOLUME   477960.360 3748370.724 451.00
LOCATION L0010567     VOLUME   477964.376 3748363.233 451.00
LOCATION L0010568     VOLUME   477968.495 3748355.802 451.00
LOCATION L0010569     VOLUME   477973.112 3748348.666 451.00
LOCATION L0010570     VOLUME   477977.730 3748341.529 451.00
LOCATION L0010571     VOLUME   477985.193 3748339.690 451.00
LOCATION L0010572     VOLUME   477993.692 3748339.783 451.00
LOCATION L0010573     VOLUME   478002.192 3748339.875 451.00
LOCATION L0010574     VOLUME   478010.691 3748339.968 451.00
LOCATION L0010575     VOLUME   478019.191 3748340.060 451.00
LOCATION L0010576     VOLUME   478027.690 3748340.152 451.00
LOCATION L0010577     VOLUME   478036.190 3748340.245 451.00
LOCATION L0010578     VOLUME   478044.689 3748340.337 451.00
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                                                    Residential
LOCATION L0010579     VOLUME   478053.188 3748340.430 451.00
LOCATION L0010580     VOLUME   478061.688 3748340.522 451.00
LOCATION L0010581     VOLUME   478070.187 3748340.614 451.00
LOCATION L0010582     VOLUME   478078.687 3748340.707 451.00
LOCATION L0010583     VOLUME   478087.186 3748340.799 451.00
LOCATION L0010584     VOLUME   478095.686 3748340.892 451.00
LOCATION L0010585     VOLUME   478104.185 3748340.984 451.00
LOCATION L0010586     VOLUME   478112.685 3748341.076 451.00
LOCATION L0010587     VOLUME   478121.184 3748341.169 451.00
LOCATION L0010588     VOLUME   478129.684 3748341.261 451.00
LOCATION L0010589     VOLUME   478138.183 3748341.354 451.00
LOCATION L0010590     VOLUME   478146.683 3748341.446 451.00
LOCATION L0010591     VOLUME   478155.182 3748341.538 451.00
LOCATION L0010592     VOLUME   478163.682 3748341.631 451.00
LOCATION L0010593     VOLUME   478167.209 3748346.677 451.00
LOCATION L0010594     VOLUME   478167.270 3748355.176 451.00
LOCATION L0010595     VOLUME   478167.330 3748363.676 451.00
LOCATION L0010596     VOLUME   478167.391 3748372.176 451.00
LOCATION L0010597     VOLUME   478167.451 3748380.676 451.00
LOCATION L0010598     VOLUME   478167.512 3748389.176 451.00
LOCATION L0010599     VOLUME   478167.572 3748397.675 451.00
LOCATION L0010600     VOLUME   478167.633 3748406.175 451.00
LOCATION L0010601     VOLUME   478167.693 3748414.675 451.00
LOCATION L0010602     VOLUME   478167.754 3748423.175 451.00
LOCATION L0010603     VOLUME   478167.814 3748431.674 451.00
LOCATION L0010604     VOLUME   478167.875 3748440.174 451.00
LOCATION L0010605     VOLUME   478167.935 3748448.674 451.00
LOCATION L0010606     VOLUME   478167.996 3748457.174 451.00
LOCATION L0010607     VOLUME   478168.056 3748465.674 451.00
LOCATION L0010608     VOLUME   478168.117 3748474.173 451.00
LOCATION L0010609     VOLUME   478168.177 3748482.673 451.00
LOCATION L0010610     VOLUME   478168.238 3748491.173 451.15
LOCATION L0010611     VOLUME   478168.298 3748499.673 451.44
LOCATION L0010612     VOLUME   478168.359 3748508.173 451.72
LOCATION L0010613     VOLUME   478168.419 3748516.672 452.00
LOCATION L0010614     VOLUME   478168.480 3748525.172 452.00
LOCATION L0010615     VOLUME   478168.540 3748533.672 452.00
LOCATION L0010616     VOLUME   478168.601 3748542.172 452.00
LOCATION L0010617     VOLUME   478168.661 3748550.671 452.00
LOCATION L0010618     VOLUME   478168.722 3748559.171 452.00
LOCATION L0010619     VOLUME   478168.782 3748567.671 452.00
LOCATION L0010620     VOLUME   478168.843 3748576.171 452.00
LOCATION L0010621     VOLUME   478168.903 3748584.671 452.00
LOCATION L0010622     VOLUME   478168.964 3748593.170 452.00
LOCATION L0010623     VOLUME   478169.024 3748601.670 452.00
LOCATION L0010624     VOLUME   478169.085 3748610.170 452.00
LOCATION L0010625     VOLUME   478169.145 3748618.670 452.00
LOCATION L0010626     VOLUME   478169.206 3748627.170 452.00
LOCATION L0010627     VOLUME   478169.266 3748635.669 452.00
LOCATION L0010628     VOLUME   478169.326 3748644.169 452.00
LOCATION L0010629     VOLUME   478169.387 3748652.669 452.00
LOCATION L0010630     VOLUME   478169.447 3748661.169 452.00
LOCATION L0010631     VOLUME   478169.508 3748669.668 452.00
LOCATION L0010632     VOLUME   478169.568 3748678.168 452.00
LOCATION L0010633     VOLUME   478169.629 3748686.668 452.00
LOCATION L0010634     VOLUME   478169.689 3748695.168 452.00
LOCATION L0010635     VOLUME   478169.750 3748703.668 452.00
LOCATION L0010636     VOLUME   478169.810 3748712.167 452.00
LOCATION L0010637     VOLUME   478169.871 3748720.667 452.00
LOCATION L0010638     VOLUME   478169.931 3748729.167 452.00
LOCATION L0010639     VOLUME   478169.992 3748737.667 452.00
LOCATION L0010640     VOLUME   478170.052 3748746.166 452.00
LOCATION L0010641     VOLUME   478170.113 3748754.666 452.00
LOCATION L0010642     VOLUME   478170.173 3748763.166 452.22
LOCATION L0010643     VOLUME   478170.234 3748771.666 452.50
LOCATION L0010644     VOLUME   478170.294 3748780.166 452.79
LOCATION L0010645     VOLUME   478170.355 3748788.665 453.00
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                                                   Residential
   LOCATION L0010646     VOLUME   478170.415 3748797.165 453.00
   LOCATION L0010647     VOLUME   478170.476 3748805.665 453.00
   LOCATION L0010648     VOLUME   478170.536 3748814.165 453.00
   LOCATION L0010649     VOLUME   478170.597 3748822.665 453.00
   LOCATION L0010650     VOLUME   478170.657 3748831.164 453.00
   LOCATION L0010651     VOLUME   478170.718 3748839.664 453.00
   LOCATION L0010652     VOLUME   478170.778 3748848.164 453.00
   LOCATION L0010653     VOLUME   478170.839 3748856.664 453.00
   LOCATION L0010654     VOLUME   478170.899 3748865.163 453.00
   LOCATION L0010655     VOLUME   478170.960 3748873.663 453.00
   LOCATION L0010656     VOLUME   478171.020 3748882.163 453.00
   LOCATION L0010657     VOLUME   478171.081 3748890.663 453.00
   LOCATION L0010658     VOLUME   478171.141 3748899.163 453.00
   LOCATION L0010659     VOLUME   478171.202 3748907.662 453.00
   LOCATION L0010660     VOLUME   478171.262 3748916.162 453.00
   LOCATION L0010661     VOLUME   478168.896 3748924.310 453.00
   LOCATION L0010662     VOLUME   478166.421 3748932.441 453.00
   LOCATION L0010663     VOLUME   478163.947 3748940.573 453.00
   LOCATION L0010664     VOLUME   478161.472 3748948.705 453.00
   LOCATION L0010665     VOLUME   478158.997 3748956.837 453.00
   LOCATION L0010666     VOLUME   478156.522 3748964.968 453.00
   LOCATION L0010667     VOLUME   478154.047 3748973.100 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001263
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0008242     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0008243     VOLUME   477852.822 3748843.717 453.00
   LOCATION L0008244     VOLUME   477852.867 3748852.217 453.00
   LOCATION L0008245     VOLUME   477852.913 3748860.717 453.00
   LOCATION L0008246     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0008247     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0008248     VOLUME   477853.051 3748886.216 453.00
   LOCATION L0008249     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0008250     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0008251     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0008252     VOLUME   477853.234 3748920.216 453.00
   LOCATION L0008253     VOLUME   477853.279 3748928.716 453.00
   LOCATION L0008254     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0008255     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0008256     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0008257     VOLUME   477853.463 3748962.715 453.00
   LOCATION L0008258     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0008259     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0008260     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0008261     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0008262     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0008263     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0008264     VOLUME   477811.027 3748979.586 454.00
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                                                    Residential
   LOCATION L0008265     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0008266     VOLUME   477794.027 3748979.545 454.00
   LOCATION L0008267     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0008268     VOLUME   477777.027 3748979.504 454.00
   LOCATION L0008269     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0008270     VOLUME   477760.027 3748979.463 454.00
   LOCATION L0008271     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0008272     VOLUME   477743.027 3748979.422 454.00
   LOCATION L0008273     VOLUME   477742.701 3748971.202 454.00
   LOCATION L0008274     VOLUME   477742.653 3748962.702 454.00
   LOCATION L0008275     VOLUME   477742.605 3748954.202 454.00
   LOCATION L0008276     VOLUME   477742.557 3748945.702 454.00
   LOCATION L0008277     VOLUME   477742.508 3748937.202 454.00
   LOCATION L0008278     VOLUME   477742.460 3748928.702 453.89
   LOCATION L0008279     VOLUME   477742.412 3748920.202 453.77
   LOCATION L0008280     VOLUME   477742.364 3748911.703 453.65
   LOCATION L0008281     VOLUME   477742.316 3748903.203 453.58
   LOCATION L0008282     VOLUME   477742.268 3748894.703 453.58
   LOCATION L0008283     VOLUME   477742.220 3748886.203 453.59
   LOCATION L0008284     VOLUME   477744.174 3748877.975 453.52
   LOCATION L0008285     VOLUME   477746.490 3748869.797 453.57
   LOCATION L0008286     VOLUME   477748.805 3748861.618 453.68
   LOCATION L0008287     VOLUME   477751.121 3748853.440 453.84
   LOCATION L0008288     VOLUME   477753.436 3748845.261 453.96
   LOCATION L0008289     VOLUME   477757.468 3748838.153 453.72
   LOCATION L0008290     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0008291     VOLUME   477770.126 3748826.806 453.22
   LOCATION L0008292     VOLUME   477778.582 3748826.536 453.12
   LOCATION L0008293     VOLUME   477787.080 3748826.374 453.03
   LOCATION L0008294     VOLUME   477795.579 3748826.213 453.00
   LOCATION L0008295     VOLUME   477804.078 3748826.127 453.00
   LOCATION L0008296     VOLUME   477812.578 3748826.077 453.00
   LOCATION L0008297     VOLUME   477821.078 3748826.027 453.00
   LOCATION L0008298     VOLUME   477829.578 3748825.977 453.00
   LOCATION L0008299     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0008300     VOLUME   477846.576 3748825.816 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 8.263E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0008301     VOLUME   477886.643 3748203.747 450.00
   LOCATION L0008302     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0008303     VOLUME   477886.254 3748220.742 450.12
   LOCATION L0008304     VOLUME   477886.060 3748229.240 450.34
   LOCATION L0008305     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0008306     VOLUME   477885.671 3748246.236 450.81
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                                                    Residential
   LOCATION L0008307     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0008308     VOLUME   477885.558 3748263.233 450.92
   LOCATION L0008309     VOLUME   477885.658 3748271.732 450.97
   LOCATION L0008310     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0008311     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0008312     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0008313     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0008314     VOLUME   477886.154 3748314.229 451.00
   LOCATION L0008315     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0008316     VOLUME   477886.352 3748331.228 451.00
   LOCATION L0008317     VOLUME   477889.025 3748337.356 451.00
   LOCATION L0008318     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0008319     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0008320     VOLUME   477914.414 3748339.736 451.00
   LOCATION L0008321     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0008322     VOLUME   477931.359 3748338.860 451.00
   LOCATION L0008323     VOLUME   477939.834 3748338.200 451.00
   LOCATION L0008324     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0008325     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0008326     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0008327     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0008328     VOLUME   477963.826 3748303.945 450.00
   LOCATION L0008329     VOLUME   477968.225 3748296.672 450.00
   LOCATION L0008330     VOLUME   477972.624 3748289.399 450.00
   LOCATION L0008331     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0008332     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0008333     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0008334     VOLUME   477981.316 3748256.764 450.00
   LOCATION L0008335     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0008336     VOLUME   477979.880 3748239.825 450.00
   LOCATION L0008337     VOLUME   477979.163 3748231.355 450.00
   LOCATION L0008338     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0008339     VOLUME   477982.637 3748216.975 450.00
   LOCATION L0008340     VOLUME   477989.992 3748212.714 450.00
   LOCATION L0008341     VOLUME   477993.961 3748206.454 450.00
   LOCATION L0008342     VOLUME   477994.138 3748197.956 450.00
   LOCATION L0008343     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0008344     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0008345     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0008346     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0008347     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0008348     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0008349     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001439
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0008350     VOLUME   477505.071 3748975.727 454.15
   LOCATION L0008351     VOLUME   477513.570 3748975.562 454.06
   LOCATION L0008352     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0008353     VOLUME   477530.566 3748975.232 454.00
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                                                 Residential
   LOCATION L0008354     VOLUME   477539.065 3748975.067 454.00
   LOCATION L0008355     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0008356     VOLUME   477556.062 3748974.736 454.00
   LOCATION L0008357     VOLUME   477564.560 3748974.571 454.00
   LOCATION L0008358     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0008359     VOLUME   477581.557 3748974.241 454.00
   LOCATION L0008360     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0008361     VOLUME   477598.509 3748973.774 454.00
   LOCATION L0008362     VOLUME   477605.436 3748968.848 454.00
   LOCATION L0008363     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0008364     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0008365     VOLUME   477615.729 3748946.682 454.00
   LOCATION L0008366     VOLUME   477618.034 3748938.501 454.00
   LOCATION L0008367     VOLUME   477619.969 3748930.229 454.00
   LOCATION L0008368     VOLUME   477621.685 3748921.904 454.00
   LOCATION L0008369     VOLUME   477623.401 3748913.579 454.00
   LOCATION L0008370     VOLUME   477625.117 3748905.254 454.00
   LOCATION L0008371     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0008372     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0008373     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0008374     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0008375     VOLUME   477626.684 3748862.868 454.00
   LOCATION L0008376     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0008377     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0008378     VOLUME   477627.014 3748837.370 454.00
   LOCATION L0008379     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0008380     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0008381     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0008382     VOLUME   477627.454 3748803.373 454.00
   LOCATION L0008383     VOLUME   477626.975 3748795.472 454.00
   LOCATION L0008384     VOLUME   477618.478 3748795.702 454.00
   LOCATION L0008385     VOLUME   477609.981 3748795.933 454.00
   LOCATION L0008386     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0008387     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0008388     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0008389     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0008390     VOLUME   477567.497 3748797.085 454.00
   LOCATION L0008391     VOLUME   477559.000 3748797.316 454.00
   LOCATION L0008392     VOLUME   477550.503 3748797.546 454.00
   LOCATION L0008393     VOLUME   477542.006 3748797.777 454.00
   LOCATION L0008394     VOLUME   477533.510 3748798.008 454.00
   LOCATION L0008395     VOLUME   477525.013 3748798.238 454.00
   LOCATION L0008396     VOLUME   477516.516 3748798.469 454.00
   LOCATION L0008397     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0008398     VOLUME   477499.522 3748798.930 454.00
   LOCATION L0008399     VOLUME   477491.025 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 50% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007911
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 5
** 478259.784, 3748984.534, 453.00, 4.00, 3.95
** 477881.917, 3748988.150, 454.74, 4.00, 3.95
** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0008400     VOLUME   478255.534 3748984.575 453.00
   LOCATION L0008401     VOLUME   478247.035 3748984.656 453.00
   LOCATION L0008402     VOLUME   478238.535 3748984.737 453.00
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                                                Residential
LOCATION L0008403     VOLUME   478230.035 3748984.819 453.00
LOCATION L0008404     VOLUME   478221.536 3748984.900 453.00
LOCATION L0008405     VOLUME   478213.036 3748984.981 453.00
LOCATION L0008406     VOLUME   478204.537 3748985.063 453.00
LOCATION L0008407     VOLUME   478196.037 3748985.144 453.00
LOCATION L0008408     VOLUME   478187.537 3748985.225 453.00
LOCATION L0008409     VOLUME   478179.038 3748985.307 453.00
LOCATION L0008410     VOLUME   478170.538 3748985.388 453.00
LOCATION L0008411     VOLUME   478162.038 3748985.469 453.00
LOCATION L0008412     VOLUME   478153.539 3748985.551 453.00
LOCATION L0008413     VOLUME   478145.039 3748985.632 453.00
LOCATION L0008414     VOLUME   478136.540 3748985.713 453.00
LOCATION L0008415     VOLUME   478128.040 3748985.795 453.00
LOCATION L0008416     VOLUME   478119.540 3748985.876 453.00
LOCATION L0008417     VOLUME   478111.041 3748985.957 453.00
LOCATION L0008418     VOLUME   478102.541 3748986.039 453.00
LOCATION L0008419     VOLUME   478094.042 3748986.120 453.00
LOCATION L0008420     VOLUME   478085.542 3748986.201 453.00
LOCATION L0008421     VOLUME   478077.042 3748986.283 453.00
LOCATION L0008422     VOLUME   478068.543 3748986.364 453.00
LOCATION L0008423     VOLUME   478060.043 3748986.445 453.00
LOCATION L0008424     VOLUME   478051.544 3748986.527 453.00
LOCATION L0008425     VOLUME   478043.044 3748986.608 453.00
LOCATION L0008426     VOLUME   478034.544 3748986.689 453.00
LOCATION L0008427     VOLUME   478026.045 3748986.771 453.00
LOCATION L0008428     VOLUME   478017.545 3748986.852 453.00
LOCATION L0008429     VOLUME   478009.045 3748986.933 453.00
LOCATION L0008430     VOLUME   478000.546 3748987.015 453.00
LOCATION L0008431     VOLUME   477992.046 3748987.096 453.00
LOCATION L0008432     VOLUME   477983.547 3748987.177 453.00
LOCATION L0008433     VOLUME   477975.047 3748987.259 453.00
LOCATION L0008434     VOLUME   477966.547 3748987.340 453.00
LOCATION L0008435     VOLUME   477958.048 3748987.421 453.00
LOCATION L0008436     VOLUME   477949.548 3748987.503 453.00
LOCATION L0008437     VOLUME   477941.049 3748987.584 453.00
LOCATION L0008438     VOLUME   477932.549 3748987.665 453.17
LOCATION L0008439     VOLUME   477924.049 3748987.747 453.37
LOCATION L0008440     VOLUME   477915.550 3748987.828 453.57
LOCATION L0008441     VOLUME   477907.050 3748987.909 453.71
LOCATION L0008442     VOLUME   477898.551 3748987.991 453.71
LOCATION L0008443     VOLUME   477890.051 3748988.072 453.72
LOCATION L0008444     VOLUME   477881.917 3748988.516 453.73
LOCATION L0008445     VOLUME   477881.917 3748997.016 454.00
LOCATION L0008446     VOLUME   477881.917 3749005.516 454.00
LOCATION L0008447     VOLUME   477881.917 3749014.016 454.00
LOCATION L0008448     VOLUME   477881.917 3749022.516 454.00
LOCATION L0008449     VOLUME   477881.917 3749031.016 454.00
LOCATION L0008450     VOLUME   477881.917 3749039.516 454.00
LOCATION L0008451     VOLUME   477881.917 3749048.016 454.00
LOCATION L0008452     VOLUME   477881.917 3749056.516 454.00
LOCATION L0008453     VOLUME   477881.917 3749065.016 454.00
LOCATION L0008454     VOLUME   477881.917 3749073.516 454.00
LOCATION L0008455     VOLUME   477881.917 3749082.016 454.00
LOCATION L0008456     VOLUME   477881.917 3749090.516 454.00
LOCATION L0008457     VOLUME   477881.917 3749099.016 454.00
LOCATION L0008458     VOLUME   477881.917 3749107.516 454.00
LOCATION L0008459     VOLUME   477881.917 3749116.016 454.00
LOCATION L0008460     VOLUME   477881.917 3749124.516 454.00
LOCATION L0008461     VOLUME   477881.917 3749133.016 454.00
LOCATION L0008462     VOLUME   477881.917 3749141.516 454.00
LOCATION L0008463     VOLUME   477881.917 3749150.016 454.00
LOCATION L0008464     VOLUME   477881.917 3749158.516 454.00
LOCATION L0008465     VOLUME   477881.917 3749167.016 454.00
LOCATION L0008466     VOLUME   477881.917 3749175.516 454.00
LOCATION L0008467     VOLUME   477881.917 3749184.016 454.00
LOCATION L0008468     VOLUME   477881.917 3749192.516 454.00
LOCATION L0008469     VOLUME   477881.917 3749201.016 454.00
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LOCATION L0008470     VOLUME   477881.917 3749209.516 454.10
LOCATION L0008471     VOLUME   477881.917 3749218.016 454.38
LOCATION L0008472     VOLUME   477881.917 3749226.516 454.67
LOCATION L0008473     VOLUME   477881.917 3749235.016 454.95
LOCATION L0008474     VOLUME   477877.860 3749239.512 455.00
LOCATION L0008475     VOLUME   477869.360 3749239.626 455.00
LOCATION L0008476     VOLUME   477860.861 3749239.740 455.00
LOCATION L0008477     VOLUME   477852.362 3749239.854 455.00
LOCATION L0008478     VOLUME   477843.863 3749239.968 455.00
LOCATION L0008479     VOLUME   477835.363 3749240.081 455.00
LOCATION L0008480     VOLUME   477826.864 3749240.195 455.00
LOCATION L0008481     VOLUME   477818.365 3749240.309 455.00
LOCATION L0008482     VOLUME   477809.866 3749240.423 455.00
LOCATION L0008483     VOLUME   477801.367 3749240.537 455.00
LOCATION L0008484     VOLUME   477792.867 3749240.651 455.00
LOCATION L0008485     VOLUME   477784.368 3749240.764 455.00
LOCATION L0008486     VOLUME   477775.869 3749240.878 455.00
LOCATION L0008487     VOLUME   477767.370 3749240.992 455.00
LOCATION L0008488     VOLUME   477758.870 3749241.106 455.00
LOCATION L0008489     VOLUME   477750.371 3749241.220 455.00
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LOCATION L0008492     VOLUME   477724.873 3749241.561 455.00
LOCATION L0008493     VOLUME   477716.374 3749241.675 455.00
LOCATION L0008494     VOLUME   477707.875 3749241.789 455.00
LOCATION L0008495     VOLUME   477699.376 3749241.903 455.00
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LOCATION L0008497     VOLUME   477682.377 3749242.130 455.00
LOCATION L0008498     VOLUME   477673.878 3749242.244 455.00
LOCATION L0008499     VOLUME   477665.379 3749242.358 455.00
LOCATION L0008500     VOLUME   477656.879 3749242.472 455.00
LOCATION L0008501     VOLUME   477648.380 3749242.586 455.00
LOCATION L0008502     VOLUME   477639.881 3749242.700 455.00
LOCATION L0008503     VOLUME   477631.382 3749242.813 455.00
LOCATION L0008504     VOLUME   477622.883 3749242.927 455.00
LOCATION L0008505     VOLUME   477614.383 3749243.041 455.00
LOCATION L0008506     VOLUME   477605.884 3749243.155 455.00
LOCATION L0008507     VOLUME   477597.385 3749243.269 455.00
LOCATION L0008508     VOLUME   477588.886 3749243.383 455.00
LOCATION L0008509     VOLUME   477580.386 3749243.496 455.00
LOCATION L0008510     VOLUME   477571.887 3749243.610 455.00
LOCATION L0008511     VOLUME   477563.388 3749243.724 455.00
LOCATION L0008512     VOLUME   477554.889 3749243.838 455.00
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LOCATION L0008514     VOLUME   477537.890 3749244.066 455.00
LOCATION L0008515     VOLUME   477529.391 3749244.179 455.00
LOCATION L0008516     VOLUME   477520.892 3749244.293 455.00
LOCATION L0008517     VOLUME   477512.392 3749244.407 455.00
LOCATION L0008518     VOLUME   477503.893 3749244.521 455.00
LOCATION L0008519     VOLUME   477495.394 3749244.635 455.00
LOCATION L0008520     VOLUME   477486.895 3749244.749 455.00
LOCATION L0008521     VOLUME   477478.395 3749244.862 455.00
LOCATION L0008522     VOLUME   477476.838 3749251.917 455.00
LOCATION L0008523     VOLUME   477476.725 3749260.416 455.00
LOCATION L0008524     VOLUME   477476.613 3749268.915 455.00
LOCATION L0008525     VOLUME   477476.500 3749277.415 455.00
LOCATION L0008526     VOLUME   477476.388 3749285.914 455.00
LOCATION L0008527     VOLUME   477476.275 3749294.413 455.00
LOCATION L0008528     VOLUME   477476.162 3749302.912 455.10
LOCATION L0008529     VOLUME   477476.050 3749311.412 455.23
LOCATION L0008530     VOLUME   477475.937 3749319.911 455.36
LOCATION L0008531     VOLUME   477475.825 3749328.410 455.50
LOCATION L0008532     VOLUME   477475.712 3749336.909 455.65
LOCATION L0008533     VOLUME   477475.600 3749345.409 455.80
LOCATION L0008534     VOLUME   477475.487 3749353.908 455.95
LOCATION L0008535     VOLUME   477475.374 3749362.407 456.00
LOCATION L0008536     VOLUME   477475.262 3749370.906 456.00
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                    Residential
   LOCATION L0008537     VOLUME   477475.149 3749379.406 456.00
   LOCATION L0008538     VOLUME   477475.037 3749387.905 456.00
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   LOCATION L0008540     VOLUME   477474.811 3749404.903 456.00
   LOCATION L0008541     VOLUME   477474.699 3749413.403 456.00
   LOCATION L0008542     VOLUME   477474.586 3749421.902 456.00
   LOCATION L0008543     VOLUME   477474.474 3749430.401 456.00
   LOCATION L0008544     VOLUME   477474.361 3749438.900 456.00
   LOCATION L0008545     VOLUME   477474.249 3749447.400 456.00
   LOCATION L0008546     VOLUME   477474.136 3749455.899 456.00
   LOCATION L0008547     VOLUME   477474.023 3749464.398 456.00
   LOCATION L0008548     VOLUME   477473.911 3749472.897 456.00
   LOCATION L0008549     VOLUME   477473.798 3749481.397 456.16
   LOCATION L0008550     VOLUME   477473.686 3749489.896 456.44
   LOCATION L0008551     VOLUME   477473.573 3749498.395 456.73
   LOCATION L0008552     VOLUME   477473.461 3749506.894 457.00
   LOCATION L0008553     VOLUME   477473.348 3749515.394 457.00
   LOCATION L0008554     VOLUME   477473.235 3749523.893 457.00
   LOCATION L0008555     VOLUME   477473.123 3749532.392 457.00
   LOCATION L0008556     VOLUME   477473.010 3749540.891 457.00
   LOCATION L0008557     VOLUME   477472.898 3749549.391 457.00
   LOCATION L0008558     VOLUME   477472.785 3749557.890 457.00
   LOCATION L0008559     VOLUME   477472.673 3749566.389 457.00
   LOCATION L0008560     VOLUME   477472.560 3749574.888 457.00
   LOCATION L0008561     VOLUME   477472.447 3749583.388 457.00
   LOCATION L0008562     VOLUME   477472.335 3749591.887 457.00
   LOCATION L0008563     VOLUME   477472.222 3749600.386 457.00
   LOCATION L0008564     VOLUME   477472.110 3749608.885 457.00
   LOCATION L0008565     VOLUME   477471.997 3749617.385 457.00
   LOCATION L0008566     VOLUME   477471.885 3749625.884 457.00
   LOCATION L0008567     VOLUME   477471.772 3749634.383 457.00
   LOCATION L0008568     VOLUME   477471.659 3749642.882 457.00
   LOCATION L0008569     VOLUME   477471.547 3749651.382 457.00
   LOCATION L0008570     VOLUME   477471.434 3749659.881 457.00
   LOCATION L0008571     VOLUME   477471.322 3749668.380 457.00
   LOCATION L0008572     VOLUME   477471.209 3749676.879 457.00
   LOCATION L0008573     VOLUME   477471.097 3749685.379 457.00
   LOCATION L0008574     VOLUME   477470.984 3749693.878 457.00
   LOCATION L0008575     VOLUME   477470.871 3749702.377 457.00
   LOCATION L0008576     VOLUME   477470.759 3749710.877 457.00
   LOCATION L0008577     VOLUME   477470.646 3749719.376 457.00
   LOCATION L0008578     VOLUME   477470.534 3749727.875 457.00
   LOCATION L0008579     VOLUME   477470.421 3749736.374 457.00
   LOCATION L0008580     VOLUME   477470.309 3749744.874 457.00
   LOCATION L0008581     VOLUME   477470.196 3749753.373 457.23
   LOCATION L0008582     VOLUME   477470.083 3749761.872 457.51
   LOCATION L0008583     VOLUME   477469.971 3749770.371 457.79
   LOCATION L0008584     VOLUME   477469.858 3749778.871 458.00
   LOCATION L0008585     VOLUME   477469.746 3749787.370 458.00
** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002524
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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** 477471.185, 3748184.960, 451.00, 4.00, 3.95
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   LOCATION L0008587     VOLUME   477893.354 3748181.603 450.00
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                                                 Residential
LOCATION L0008588     VOLUME   477884.855 3748181.671 450.00
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LOCATION L0008590     VOLUME   477867.855 3748181.806 450.00
LOCATION L0008591     VOLUME   477859.355 3748181.874 450.00
LOCATION L0008592     VOLUME   477850.856 3748181.941 450.00
LOCATION L0008593     VOLUME   477842.356 3748182.009 450.22
LOCATION L0008594     VOLUME   477833.856 3748182.076 450.46
LOCATION L0008595     VOLUME   477825.357 3748182.144 450.71
LOCATION L0008596     VOLUME   477816.857 3748182.212 450.88
LOCATION L0008597     VOLUME   477808.357 3748182.279 450.92
LOCATION L0008598     VOLUME   477799.857 3748182.347 450.96
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LOCATION L0008601     VOLUME   477774.358 3748182.549 451.00
LOCATION L0008602     VOLUME   477765.858 3748182.617 451.00
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LOCATION L0008604     VOLUME   477748.859 3748182.752 451.00
LOCATION L0008605     VOLUME   477740.359 3748182.820 451.00
LOCATION L0008606     VOLUME   477731.860 3748182.887 451.00
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LOCATION L0008608     VOLUME   477714.860 3748183.023 451.00
LOCATION L0008609     VOLUME   477706.360 3748183.090 451.00
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LOCATION L0008611     VOLUME   477689.361 3748183.225 451.00
LOCATION L0008612     VOLUME   477680.861 3748183.293 451.00
LOCATION L0008613     VOLUME   477672.361 3748183.360 451.00
LOCATION L0008614     VOLUME   477663.862 3748183.428 451.00
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LOCATION L0008616     VOLUME   477646.862 3748183.563 451.00
LOCATION L0008617     VOLUME   477638.362 3748183.631 451.00
LOCATION L0008618     VOLUME   477629.863 3748183.698 451.00
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LOCATION L0008623     VOLUME   477587.364 3748184.036 451.00
LOCATION L0008624     VOLUME   477578.864 3748184.104 451.00
LOCATION L0008625     VOLUME   477570.365 3748184.171 451.00
LOCATION L0008626     VOLUME   477561.865 3748184.239 451.00
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LOCATION L0008631     VOLUME   477519.366 3748184.577 451.00
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LOCATION L0008652     VOLUME   477468.295 3748054.675 451.00
LOCATION L0008653     VOLUME   477468.106 3748046.177 451.00
LOCATION L0008654     VOLUME   477467.918 3748037.679 451.00
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   LOCATION L0008657     VOLUME   477467.352 3748012.185 451.00
   LOCATION L0008658     VOLUME   477467.163 3748003.687 451.00
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   LOCATION L0008661     VOLUME   477466.598 3747978.194 451.00
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   LOCATION L0008668     VOLUME   477465.278 3747918.708 451.00
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   LOCATION L0008671     VOLUME   477464.713 3747893.215 451.00
   LOCATION L0008672     VOLUME   477464.524 3747884.717 451.00
   LOCATION L0008673     VOLUME   477464.336 3747876.219 451.00
   LOCATION L0008674     VOLUME   477464.147 3747867.721 451.00
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   LOCATION L0008677     VOLUME   477463.582 3747842.227 451.00
   LOCATION L0008678     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0008679     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0008680     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0008681     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0008682     VOLUME   477462.639 3747799.738 451.00
   LOCATION L0008683     VOLUME   477462.450 3747791.240 451.00
   LOCATION L0008684     VOLUME   477462.262 3747782.742 451.00
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   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478139.826  3748384.226      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
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                                                 Residential
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 20% South on Indian
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001682
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478279.139, 3748325.068, 454.06, 4.00, 3.95
** 478288.327, 3747768.514, 450.42, 4.00, 3.95
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   LOCATION L0008686     VOLUME   478279.349 3748312.320 450.00
   LOCATION L0008687     VOLUME   478279.490 3748303.821 450.00
   LOCATION L0008688     VOLUME   478279.630 3748295.322 450.00
   LOCATION L0008689     VOLUME   478279.770 3748286.823 450.00
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   LOCATION L0008691     VOLUME   478280.051 3748269.826 450.00
   LOCATION L0008692     VOLUME   478280.191 3748261.327 450.00
   LOCATION L0008693     VOLUME   478280.332 3748252.828 450.00
   LOCATION L0008694     VOLUME   478280.472 3748244.329 450.00
   LOCATION L0008695     VOLUME   478280.612 3748235.830 450.00
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   LOCATION L0008702     VOLUME   478281.594 3748176.338 450.00
   LOCATION L0008703     VOLUME   478281.735 3748167.839 450.00
   LOCATION L0008704     VOLUME   478281.875 3748159.341 450.00
   LOCATION L0008705     VOLUME   478282.015 3748150.842 449.82
   LOCATION L0008706     VOLUME   478282.156 3748142.343 449.54
   LOCATION L0008707     VOLUME   478282.296 3748133.844 449.25
   LOCATION L0008708     VOLUME   478282.436 3748125.345 449.00
   LOCATION L0008709     VOLUME   478282.576 3748116.846 449.00
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   LOCATION L0008711     VOLUME   478282.857 3748099.849 449.00
   LOCATION L0008712     VOLUME   478282.997 3748091.350 449.00
   LOCATION L0008713     VOLUME   478283.138 3748082.851 449.00
   LOCATION L0008714     VOLUME   478283.278 3748074.352 449.00
   LOCATION L0008715     VOLUME   478283.418 3748065.853 449.00
   LOCATION L0008716     VOLUME   478283.559 3748057.354 449.00
   LOCATION L0008717     VOLUME   478283.699 3748048.856 449.00
   LOCATION L0008718     VOLUME   478283.839 3748040.357 449.00
   LOCATION L0008719     VOLUME   478283.980 3748031.858 449.00
   LOCATION L0008720     VOLUME   478284.120 3748023.359 449.00
   LOCATION L0008721     VOLUME   478284.260 3748014.860 449.00
   LOCATION L0008722     VOLUME   478284.400 3748006.361 449.00
   LOCATION L0008723     VOLUME   478284.541 3747997.863 449.00
   LOCATION L0008724     VOLUME   478284.681 3747989.364 449.00
   LOCATION L0008725     VOLUME   478284.821 3747980.865 449.00
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   LOCATION L0008727     VOLUME   478285.102 3747963.867 449.00
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   LOCATION L0008730     VOLUME   478285.523 3747938.371 449.00
   LOCATION L0008731     VOLUME   478285.663 3747929.872 449.00
   LOCATION L0008732     VOLUME   478285.803 3747921.373 449.00
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   LOCATION L0008735     VOLUME   478286.224 3747895.876 449.00
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                                                      Residential
   LOCATION L0008736     VOLUME   478286.365 3747887.378 449.00
   LOCATION L0008737     VOLUME   478286.505 3747878.879 449.00
   LOCATION L0008738     VOLUME   478286.645 3747870.380 449.00
   LOCATION L0008739     VOLUME   478286.786 3747861.881 449.00
   LOCATION L0008740     VOLUME   478286.926 3747853.382 449.00
   LOCATION L0008741     VOLUME   478287.066 3747844.883 449.00
   LOCATION L0008742     VOLUME   478287.207 3747836.385 449.00
   LOCATION L0008743     VOLUME   478287.347 3747827.886 449.00
   LOCATION L0008744     VOLUME   478287.487 3747819.387 449.00
   LOCATION L0008745     VOLUME   478287.627 3747810.888 449.00
   LOCATION L0008746     VOLUME   478287.768 3747802.389 449.00
   LOCATION L0008747     VOLUME   478287.908 3747793.890 449.00
   LOCATION L0008748     VOLUME   478288.048 3747785.392 449.00
   LOCATION L0008749     VOLUME   478288.189 3747776.893 449.00
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 40% North on Heacock to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002354
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477480.626, 3749795.973, 459.75, 4.00, 3.95
** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0008750     VOLUME   477480.558 3749800.222 458.00
   LOCATION L0008751     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0008752     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0008753     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0008754     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0008755     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0008756     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0008757     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0008758     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0008759     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0008760     VOLUME   477479.199 3749885.212 458.00
   LOCATION L0008761     VOLUME   477479.063 3749893.711 458.00
   LOCATION L0008762     VOLUME   477478.927 3749902.209 458.00
   LOCATION L0008763     VOLUME   477478.791 3749910.708 458.00
   LOCATION L0008764     VOLUME   477478.655 3749919.207 458.00
   LOCATION L0008765     VOLUME   477478.519 3749927.706 458.00
   LOCATION L0008766     VOLUME   477478.383 3749936.205 458.00
   LOCATION L0008767     VOLUME   477478.247 3749944.704 458.00
   LOCATION L0008768     VOLUME   477478.111 3749953.203 458.00
   LOCATION L0008769     VOLUME   477477.975 3749961.702 458.17
   LOCATION L0008770     VOLUME   477477.840 3749970.201 458.45
   LOCATION L0008771     VOLUME   477477.704 3749978.700 458.74
   LOCATION L0008772     VOLUME   477477.568 3749987.199 459.00
   LOCATION L0008773     VOLUME   477477.432 3749995.697 459.00
   LOCATION L0008774     VOLUME   477477.296 3750004.196 459.00
   LOCATION L0008775     VOLUME   477477.160 3750012.695 459.00
   LOCATION L0008776     VOLUME   477477.024 3750021.194 459.00
   LOCATION L0008777     VOLUME   477476.888 3750029.693 459.00
   LOCATION L0008778     VOLUME   477476.752 3750038.192 459.00
   LOCATION L0008779     VOLUME   477476.616 3750046.691 459.00
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                                                 Residential
LOCATION L0008780      VOLUME   477476.480 3750055.190 459.00
LOCATION L0008781      VOLUME   477476.344 3750063.689 459.00
LOCATION L0008782      VOLUME   477476.208 3750072.188 459.00
LOCATION L0008783      VOLUME   477476.072 3750080.687 459.00
LOCATION L0008784      VOLUME   477475.937 3750089.186 459.00
LOCATION L0008785      VOLUME   477475.801 3750097.684 459.00
LOCATION L0008786      VOLUME   477475.665 3750106.183 459.00
LOCATION L0008787      VOLUME   477475.529 3750114.682 459.00
LOCATION L0008788      VOLUME   477475.393 3750123.181 459.00
LOCATION L0008789      VOLUME   477475.257 3750131.680 459.00
LOCATION L0008790      VOLUME   477475.121 3750140.179 459.00
LOCATION L0008791      VOLUME   477474.985 3750148.678 459.00
LOCATION L0008792      VOLUME   477474.849 3750157.177 459.00
LOCATION L0008793      VOLUME   477474.713 3750165.676 459.00
LOCATION L0008794      VOLUME   477474.171 3750174.155 459.00
LOCATION L0008795      VOLUME   477473.482 3750182.627 459.00
LOCATION L0008796      VOLUME   477472.792 3750191.099 459.00
LOCATION L0008797      VOLUME   477472.102 3750199.571 459.04
LOCATION L0008798      VOLUME   477471.413 3750208.043 459.15
LOCATION L0008799      VOLUME   477470.723 3750216.515 459.24
LOCATION L0008800      VOLUME   477470.034 3750224.987 459.32
LOCATION L0008801      VOLUME   477469.344 3750233.459 459.48
LOCATION L0008802      VOLUME   477468.654 3750241.931 459.66
LOCATION L0008803      VOLUME   477467.965 3750250.403 459.85
LOCATION L0008804      VOLUME   477467.275 3750258.875 460.00
LOCATION L0008805      VOLUME   477466.586 3750267.347 460.00
LOCATION L0008806      VOLUME   477466.456 3750275.840 460.00
LOCATION L0008807      VOLUME   477466.492 3750284.340 460.00
LOCATION L0008808      VOLUME   477466.529 3750292.840 460.00
LOCATION L0008809      VOLUME   477466.565 3750301.340 460.00
LOCATION L0008810      VOLUME   477466.601 3750309.840 460.00
LOCATION L0008811      VOLUME   477466.638 3750318.340 460.00
LOCATION L0008812      VOLUME   477466.674 3750326.840 460.00
LOCATION L0008813      VOLUME   477466.710 3750335.340 460.00
LOCATION L0008814      VOLUME   477466.747 3750343.840 460.00
LOCATION L0008815      VOLUME   477466.783 3750352.340 460.00
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LOCATION L0008817      VOLUME   477466.855 3750369.339 460.00
LOCATION L0008818      VOLUME   477466.892 3750377.839 460.00
LOCATION L0008819      VOLUME   477466.928 3750386.339 460.00
LOCATION L0008820      VOLUME   477466.964 3750394.839 460.00
LOCATION L0008821      VOLUME   477467.001 3750403.339 460.00
LOCATION L0008822      VOLUME   477467.037 3750411.839 460.00
LOCATION L0008823      VOLUME   477467.073 3750420.339 460.00
LOCATION L0008824      VOLUME   477467.110 3750428.839 460.00
LOCATION L0008825      VOLUME   477467.146 3750437.339 460.00
LOCATION L0008826      VOLUME   477467.182 3750445.839 460.00
LOCATION L0008827      VOLUME   477467.219 3750454.339 460.00
LOCATION L0008828      VOLUME   477467.255 3750462.838 460.00
LOCATION L0008829      VOLUME   477467.291 3750471.338 460.16
LOCATION L0008830      VOLUME   477467.328 3750479.838 460.44
LOCATION L0008831      VOLUME   477467.364 3750488.338 460.73
LOCATION L0008832      VOLUME   477467.400 3750496.838 461.00
LOCATION L0008833      VOLUME   477467.436 3750505.338 461.00
LOCATION L0008834      VOLUME   477467.473 3750513.838 461.00
LOCATION L0008835      VOLUME   477467.509 3750522.338 461.00
LOCATION L0008836      VOLUME   477467.545 3750530.838 461.00
LOCATION L0008837      VOLUME   477467.582 3750539.338 461.00
LOCATION L0008838      VOLUME   477467.689 3750547.837 461.00
LOCATION L0008839      VOLUME   477467.939 3750556.333 461.00
LOCATION L0008840      VOLUME   477468.188 3750564.829 461.00
LOCATION L0008841      VOLUME   477468.438 3750573.326 461.00
LOCATION L0008842      VOLUME   477468.688 3750581.822 461.00
LOCATION L0008843      VOLUME   477468.938 3750590.318 461.00
LOCATION L0008844      VOLUME   477469.188 3750598.814 461.00
LOCATION L0008845      VOLUME   477469.438 3750607.311 461.00
LOCATION L0008846      VOLUME   477469.688 3750615.807 461.00
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LOCATION L0008847     VOLUME   477469.938 3750624.303 461.00
LOCATION L0008848     VOLUME   477470.188 3750632.800 461.00
LOCATION L0008849     VOLUME   477470.437 3750641.296 461.00
LOCATION L0008850     VOLUME   477470.687 3750649.792 461.04
LOCATION L0008851     VOLUME   477470.937 3750658.289 461.15
LOCATION L0008852     VOLUME   477471.187 3750666.785 461.26
LOCATION L0008853     VOLUME   477471.437 3750675.281 461.37
LOCATION L0008854     VOLUME   477471.687 3750683.778 461.54
LOCATION L0008855     VOLUME   477471.937 3750692.274 461.72
LOCATION L0008856     VOLUME   477472.187 3750700.770 461.89
LOCATION L0008857     VOLUME   477472.437 3750709.267 462.00
LOCATION L0008858     VOLUME   477472.686 3750717.763 462.00
LOCATION L0008859     VOLUME   477472.936 3750726.259 462.00
LOCATION L0008860     VOLUME   477473.186 3750734.756 462.00
LOCATION L0008861     VOLUME   477473.436 3750743.252 462.00
LOCATION L0008862     VOLUME   477473.686 3750751.748 462.00
LOCATION L0008863     VOLUME   477473.936 3750760.245 462.00
LOCATION L0008864     VOLUME   477474.186 3750768.741 462.00
LOCATION L0008865     VOLUME   477474.436 3750777.237 462.00
LOCATION L0008866     VOLUME   477474.686 3750785.734 462.00
LOCATION L0008867     VOLUME   477474.935 3750794.230 462.00
LOCATION L0008868     VOLUME   477475.185 3750802.726 462.00
LOCATION L0008869     VOLUME   477475.435 3750811.223 462.00
LOCATION L0008870     VOLUME   477475.685 3750819.719 462.00
LOCATION L0008871     VOLUME   477475.935 3750828.215 462.00
LOCATION L0008872     VOLUME   477476.185 3750836.712 462.00
LOCATION L0008873     VOLUME   477476.435 3750845.208 462.00
LOCATION L0008874     VOLUME   477476.685 3750853.704 462.00
LOCATION L0008875     VOLUME   477476.935 3750862.201 462.11
LOCATION L0008876     VOLUME   477477.066 3750870.699 462.27
LOCATION L0008877     VOLUME   477477.120 3750879.199 462.44
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LOCATION L0008882     VOLUME   477477.391 3750921.698 463.00
LOCATION L0008883     VOLUME   477477.445 3750930.198 463.00
LOCATION L0008884     VOLUME   477477.499 3750938.698 463.00
LOCATION L0008885     VOLUME   477477.553 3750947.197 463.00
LOCATION L0008886     VOLUME   477477.607 3750955.697 463.00
LOCATION L0008887     VOLUME   477477.661 3750964.197 463.00
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LOCATION L0008895     VOLUME   477478.095 3751032.196 463.00
LOCATION L0008896     VOLUME   477478.149 3751040.696 463.00
LOCATION L0008897     VOLUME   477478.203 3751049.195 463.00
LOCATION L0008898     VOLUME   477478.257 3751057.695 463.00
LOCATION L0008899     VOLUME   477478.311 3751066.195 463.00
LOCATION L0008900     VOLUME   477478.365 3751074.695 463.17
LOCATION L0008901     VOLUME   477478.419 3751083.195 463.34
LOCATION L0008902     VOLUME   477478.474 3751091.695 463.52
LOCATION L0008903     VOLUME   477478.528 3751100.194 463.67
LOCATION L0008904     VOLUME   477478.582 3751108.694 463.78
LOCATION L0008905     VOLUME   477478.636 3751117.194 463.88
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LOCATION L0008908     VOLUME   477478.798 3751142.694 464.00
LOCATION L0008909     VOLUME   477478.853 3751151.193 464.00
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LOCATION L0008911     VOLUME   477478.961 3751168.193 464.00
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LOCATION L0008913     VOLUME   477479.069 3751185.193 464.00
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LOCATION L0008914     VOLUME   477479.123 3751193.692 464.00
LOCATION L0008915     VOLUME   477479.177 3751202.192 464.00
LOCATION L0008916     VOLUME   477479.232 3751210.692 464.00
LOCATION L0008917     VOLUME   477479.286 3751219.192 464.00
LOCATION L0008918     VOLUME   477479.340 3751227.692 464.00
LOCATION L0008919     VOLUME   477479.386 3751236.192 464.00
LOCATION L0008920     VOLUME   477479.327 3751244.691 464.00
LOCATION L0008921     VOLUME   477479.269 3751253.191 464.22
LOCATION L0008922     VOLUME   477479.211 3751261.691 464.50
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LOCATION L0008924     VOLUME   477479.094 3751278.691 465.00
LOCATION L0008925     VOLUME   477479.035 3751287.190 465.00
LOCATION L0008926     VOLUME   477478.977 3751295.690 465.00
LOCATION L0008927     VOLUME   477478.919 3751304.190 465.00
LOCATION L0008928     VOLUME   477478.860 3751312.690 465.00
LOCATION L0008929     VOLUME   477478.802 3751321.190 465.00
LOCATION L0008930     VOLUME   477478.743 3751329.689 465.00
LOCATION L0008931     VOLUME   477478.685 3751338.189 465.00
LOCATION L0008932     VOLUME   477478.627 3751346.689 465.00
LOCATION L0008933     VOLUME   477478.568 3751355.189 465.00
LOCATION L0008934     VOLUME   477478.510 3751363.689 465.00
LOCATION L0008935     VOLUME   477478.451 3751372.188 465.00
LOCATION L0008936     VOLUME   477478.393 3751380.688 465.00
LOCATION L0008937     VOLUME   477478.335 3751389.188 465.00
LOCATION L0008938     VOLUME   477478.276 3751397.688 465.00
LOCATION L0008939     VOLUME   477478.218 3751406.188 465.00
LOCATION L0008940     VOLUME   477478.159 3751414.687 465.00
LOCATION L0008941     VOLUME   477478.101 3751423.187 465.00
LOCATION L0008942     VOLUME   477478.043 3751431.687 465.17
LOCATION L0008943     VOLUME   477477.984 3751440.187 465.45
LOCATION L0008944     VOLUME   477477.926 3751448.687 465.74
LOCATION L0008945     VOLUME   477477.867 3751457.186 466.00
LOCATION L0008946     VOLUME   477477.809 3751465.686 466.00
LOCATION L0008947     VOLUME   477477.751 3751474.186 466.00
LOCATION L0008948     VOLUME   477477.692 3751482.686 466.00
LOCATION L0008949     VOLUME   477477.634 3751491.186 466.00
LOCATION L0008950     VOLUME   477477.576 3751499.685 466.00
LOCATION L0008951     VOLUME   477477.517 3751508.185 466.00
LOCATION L0008952     VOLUME   477477.459 3751516.685 466.00
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LOCATION L0008963     VOLUME   477476.816 3751610.183 466.07
LOCATION L0008964     VOLUME   477476.758 3751618.683 466.23
LOCATION L0008965     VOLUME   477476.700 3751627.182 466.39
LOCATION L0008966     VOLUME   477476.641 3751635.682 466.55
LOCATION L0008967     VOLUME   477476.583 3751644.182 466.67
LOCATION L0008968     VOLUME   477476.524 3751652.682 466.80
LOCATION L0008969     VOLUME   477476.466 3751661.182 466.92
LOCATION L0008970     VOLUME   477476.408 3751669.681 467.00
LOCATION L0008971     VOLUME   477476.349 3751678.181 467.00
LOCATION L0008972     VOLUME   477476.291 3751686.681 467.00
LOCATION L0008973     VOLUME   477476.233 3751695.181 467.00
LOCATION L0008974     VOLUME   477476.174 3751703.681 467.00
LOCATION L0008975     VOLUME   477476.116 3751712.180 467.00
LOCATION L0008976     VOLUME   477476.057 3751720.680 467.00
LOCATION L0008977     VOLUME   477475.999 3751729.180 467.05
LOCATION L0008978     VOLUME   477475.941 3751737.680 467.20
LOCATION L0008979     VOLUME   477475.882 3751746.180 467.35
LOCATION L0008980     VOLUME   477475.824 3751754.679 467.50
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LOCATION L0008981     VOLUME   477475.765 3751763.179 467.64
LOCATION L0008982     VOLUME   477475.707 3751771.679 467.77
LOCATION L0008983     VOLUME   477475.649 3751780.179 467.90
LOCATION L0008984     VOLUME   477475.590 3751788.679 468.00
LOCATION L0008985     VOLUME   477475.532 3751797.178 468.00
LOCATION L0008986     VOLUME   477475.473 3751805.678 468.00
LOCATION L0008987     VOLUME   477475.415 3751814.178 468.00
LOCATION L0008988     VOLUME   477475.357 3751822.678 468.00
LOCATION L0008989     VOLUME   477475.298 3751831.178 468.00
LOCATION L0008990     VOLUME   477475.240 3751839.677 468.00
LOCATION L0008991     VOLUME   477475.181 3751848.177 468.00
LOCATION L0008992     VOLUME   477475.123 3751856.677 468.00
LOCATION L0008993     VOLUME   477475.065 3751865.177 468.00
LOCATION L0008994     VOLUME   477475.006 3751873.677 468.00
LOCATION L0008995     VOLUME   477474.948 3751882.176 468.19
LOCATION L0008996     VOLUME   477474.890 3751890.676 468.47
LOCATION L0008997     VOLUME   477474.831 3751899.176 468.75
LOCATION L0008998     VOLUME   477474.773 3751907.676 469.00
LOCATION L0008999     VOLUME   477474.714 3751916.176 469.00
LOCATION L0009000     VOLUME   477474.656 3751924.675 469.00
LOCATION L0009001     VOLUME   477474.598 3751933.175 469.00
LOCATION L0009002     VOLUME   477474.539 3751941.675 469.00
LOCATION L0009003     VOLUME   477474.481 3751950.175 469.00
LOCATION L0009004     VOLUME   477474.422 3751958.675 469.00
LOCATION L0009005     VOLUME   477474.364 3751967.174 469.00
LOCATION L0009006     VOLUME   477474.306 3751975.674 469.00
LOCATION L0009007     VOLUME   477474.247 3751984.174 469.00
LOCATION L0009008     VOLUME   477474.189 3751992.674 469.00
LOCATION L0009009     VOLUME   477474.130 3752001.174 469.00
LOCATION L0009010     VOLUME   477474.072 3752009.673 469.00
LOCATION L0009011     VOLUME   477474.014 3752018.173 469.00
LOCATION L0009012     VOLUME   477473.955 3752026.673 469.00
LOCATION L0009013     VOLUME   477473.897 3752035.173 469.14
LOCATION L0009014     VOLUME   477473.838 3752043.673 469.27
LOCATION L0009015     VOLUME   477473.780 3752052.172 469.40
LOCATION L0009016     VOLUME   477473.722 3752060.672 469.46
LOCATION L0009017     VOLUME   477473.663 3752069.172 469.46
LOCATION L0009018     VOLUME   477473.605 3752077.672 469.46
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LOCATION L0009021     VOLUME   477473.430 3752103.171 469.76
LOCATION L0009022     VOLUME   477473.371 3752111.671 469.91
LOCATION L0009023     VOLUME   477473.313 3752120.171 470.05
LOCATION L0009024     VOLUME   477473.255 3752128.671 470.18
LOCATION L0009025     VOLUME   477473.196 3752137.170 470.31
LOCATION L0009026     VOLUME   477473.138 3752145.670 470.43
LOCATION L0009027     VOLUME   477473.079 3752154.170 470.58
LOCATION L0009028     VOLUME   477473.021 3752162.670 470.74
LOCATION L0009029     VOLUME   477472.963 3752171.170 470.90
LOCATION L0009030     VOLUME   477472.904 3752179.669 471.00
LOCATION L0009031     VOLUME   477472.846 3752188.169 471.00
LOCATION L0009032     VOLUME   477472.787 3752196.669 471.00
LOCATION L0009033     VOLUME   477472.729 3752205.169 471.00
LOCATION L0009034     VOLUME   477472.671 3752213.669 471.24
LOCATION L0009035     VOLUME   477472.612 3752222.168 471.52
LOCATION L0009036     VOLUME   477468.048 3752226.136 471.65
LOCATION L0009037     VOLUME   477459.548 3752226.146 471.65
LOCATION L0009038     VOLUME   477451.048 3752226.156 471.65
LOCATION L0009039     VOLUME   477442.548 3752226.166 471.65
LOCATION L0009040     VOLUME   477434.048 3752226.176 471.65
LOCATION L0009041     VOLUME   477425.548 3752226.186 471.66
LOCATION L0009042     VOLUME   477417.048 3752226.196 471.66
LOCATION L0009043     VOLUME   477408.548 3752226.206 471.66
LOCATION L0009044     VOLUME   477400.048 3752226.216 471.66
LOCATION L0009045     VOLUME   477391.548 3752226.226 471.48
LOCATION L0009046     VOLUME   477383.048 3752226.236 471.29
LOCATION L0009047     VOLUME   477374.548 3752226.246 471.10
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LOCATION L0009048     VOLUME   477366.048 3752226.256 471.00
LOCATION L0009049     VOLUME   477357.548 3752226.266 471.00
LOCATION L0009050     VOLUME   477349.048 3752226.276 471.00
LOCATION L0009051     VOLUME   477340.548 3752226.286 471.00
LOCATION L0009052     VOLUME   477332.048 3752226.296 471.00
LOCATION L0009053     VOLUME   477323.548 3752226.306 471.00
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LOCATION L0009382     VOLUME   474530.201 3752187.345 475.61
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** End of LINE VOLUME Source ID = SLINE14
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002434
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** SZINIT = 1.86
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LOCATION L0009687     VOLUME   477474.890 3751890.676 468.47
LOCATION L0009688     VOLUME   477474.831 3751899.176 468.75
LOCATION L0009689     VOLUME   477474.773 3751907.676 469.00
LOCATION L0009690     VOLUME   477474.714 3751916.176 469.00
LOCATION L0009691     VOLUME   477474.656 3751924.675 469.00
LOCATION L0009692     VOLUME   477474.598 3751933.175 469.00
LOCATION L0009693     VOLUME   477474.539 3751941.675 469.00
LOCATION L0009694     VOLUME   477474.481 3751950.175 469.00
LOCATION L0009695     VOLUME   477474.422 3751958.675 469.00
LOCATION L0009696     VOLUME   477474.364 3751967.174 469.00
LOCATION L0009697     VOLUME   477474.306 3751975.674 469.00
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   LOCATION L0009700     VOLUME   477474.130 3752001.174 469.00
   LOCATION L0009701     VOLUME   477474.072 3752009.673 469.00
   LOCATION L0009702     VOLUME   477474.014 3752018.173 469.00
   LOCATION L0009703     VOLUME   477473.955 3752026.673 469.00
   LOCATION L0009704     VOLUME   477473.897 3752035.173 469.14
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   LOCATION L0009712     VOLUME   477473.430 3752103.171 469.76
   LOCATION L0009713     VOLUME   477473.371 3752111.671 469.91
   LOCATION L0009714     VOLUME   477473.313 3752120.171 470.05
   LOCATION L0009715     VOLUME   477473.255 3752128.671 470.18
   LOCATION L0009716     VOLUME   477473.196 3752137.170 470.31
   LOCATION L0009717     VOLUME   477473.138 3752145.670 470.43
   LOCATION L0009718     VOLUME   477473.079 3752154.170 470.58
   LOCATION L0009719     VOLUME   477473.021 3752162.670 470.74
   LOCATION L0009720     VOLUME   477472.963 3752171.170 470.90
   LOCATION L0009721     VOLUME   477472.904 3752179.669 471.00
   LOCATION L0009722     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0009723     VOLUME   477472.787 3752196.669 471.00
   LOCATION L0009724     VOLUME   477472.729 3752205.169 471.00
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   LOCATION L0009726     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SRC00001
** DESCRSRC Off-Site Travel 50% on Indian to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002442
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 22
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LOCATION L0009734     VOLUME   477526.025 3747780.854 451.00
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LOCATION L0009736     VOLUME   477543.024 3747780.742 451.00
LOCATION L0009737     VOLUME   477551.524 3747780.685 451.00
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LOCATION L0009755     VOLUME   477704.521 3747779.675 450.00
LOCATION L0009756     VOLUME   477713.021 3747779.619 450.00
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LOCATION L0009758     VOLUME   477730.020 3747779.506 450.00
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LOCATION L0009818     VOLUME   478240.009 3747776.138 449.00
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   LOCATION L0010294     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0010295     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0010296     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0010297     VOLUME   475958.470 3746948.789 472.90
   LOCATION L0010298     VOLUME   475949.970 3746948.733 472.96
   LOCATION L0010299     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0010300     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SRC00001
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0010668     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010669     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010670     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010671     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010672     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010673     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010674     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010675     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010676     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010677     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010678     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010679     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010680     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010681     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010682     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010683     0.000004488      4.00     13.95      1.86
   SRCPARAM L0010684     0.000004488      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0008004     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008005     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008006     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008007     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008008     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008009     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008010     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008011     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008012     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008013     0.000004649      4.00     13.95      1.86
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                                                    Residential
   SRCPARAM L0008014     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008015     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008016     0.000004649      4.00     13.95      1.86
   SRCPARAM L0008017     0.000004649      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0008018     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008019     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008020     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008021     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008022     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008023     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008024     0.000004289      4.00      3.95      1.86
   SRCPARAM L0008025     0.000004289      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0008026     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008027     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008028     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008029     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008030     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008031     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008032     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008033     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008034     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008035     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008036     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008037     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008038     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008039     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008040     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008041     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008042     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008043     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008044     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008045     0.0000001901      4.00      3.95      1.86
   SRCPARAM L0008046     0.0000001901      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0008047     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008048     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008049     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008050     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008051     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008052     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008053     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008054     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008055     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008056     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008057     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008058     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008059     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008060     0.0000031      0.00      3.95      1.86
   SRCPARAM L0008061     0.0000031      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0008062     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008063     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008064     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008065     0.0000006168      0.00     13.95      1.86
   SRCPARAM L0008066     0.0000006168      0.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0010493     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010494     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010495     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010496     0.000001005      4.00      3.95      1.86
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                                                Residential
SRCPARAM L0010497     0.000001005      4.00      3.95      1.86
SRCPARAM L0010498     0.000001005      4.00      3.95      1.86
SRCPARAM L0010499     0.000001005      4.00      3.95      1.86
SRCPARAM L0010500     0.000001005      4.00      3.95      1.86
SRCPARAM L0010501     0.000001005      4.00      3.95      1.86
SRCPARAM L0010502     0.000001005      4.00      3.95      1.86
SRCPARAM L0010503     0.000001005      4.00      3.95      1.86
SRCPARAM L0010504     0.000001005      4.00      3.95      1.86
SRCPARAM L0010505     0.000001005      4.00      3.95      1.86
SRCPARAM L0010506     0.000001005      4.00      3.95      1.86
SRCPARAM L0010507     0.000001005      4.00      3.95      1.86
SRCPARAM L0010508     0.000001005      4.00      3.95      1.86
SRCPARAM L0010509     0.000001005      4.00      3.95      1.86
SRCPARAM L0010510     0.000001005      4.00      3.95      1.86
SRCPARAM L0010511     0.000001005      4.00      3.95      1.86
SRCPARAM L0010512     0.000001005      4.00      3.95      1.86
SRCPARAM L0010513     0.000001005      4.00      3.95      1.86
SRCPARAM L0010514     0.000001005      4.00      3.95      1.86
SRCPARAM L0010515     0.000001005      4.00      3.95      1.86
SRCPARAM L0010516     0.000001005      4.00      3.95      1.86
SRCPARAM L0010517     0.000001005      4.00      3.95      1.86
SRCPARAM L0010518     0.000001005      4.00      3.95      1.86
SRCPARAM L0010519     0.000001005      4.00      3.95      1.86
SRCPARAM L0010520     0.000001005      4.00      3.95      1.86
SRCPARAM L0010521     0.000001005      4.00      3.95      1.86
SRCPARAM L0010522     0.000001005      4.00      3.95      1.86
SRCPARAM L0010523     0.000001005      4.00      3.95      1.86
SRCPARAM L0010524     0.000001005      4.00      3.95      1.86
SRCPARAM L0010525     0.000001005      4.00      3.95      1.86
SRCPARAM L0010526     0.000001005      4.00      3.95      1.86
SRCPARAM L0010527     0.000001005      4.00      3.95      1.86
SRCPARAM L0010528     0.000001005      4.00      3.95      1.86
SRCPARAM L0010529     0.000001005      4.00      3.95      1.86
SRCPARAM L0010530     0.000001005      4.00      3.95      1.86
SRCPARAM L0010531     0.000001005      4.00      3.95      1.86
SRCPARAM L0010532     0.000001005      4.00      3.95      1.86
SRCPARAM L0010533     0.000001005      4.00      3.95      1.86
SRCPARAM L0010534     0.000001005      4.00      3.95      1.86
SRCPARAM L0010535     0.000001005      4.00      3.95      1.86
SRCPARAM L0010536     0.000001005      4.00      3.95      1.86
SRCPARAM L0010537     0.000001005      4.00      3.95      1.86
SRCPARAM L0010538     0.000001005      4.00      3.95      1.86
SRCPARAM L0010539     0.000001005      4.00      3.95      1.86
SRCPARAM L0010540     0.000001005      4.00      3.95      1.86
SRCPARAM L0010541     0.000001005      4.00      3.95      1.86
SRCPARAM L0010542     0.000001005      4.00      3.95      1.86
SRCPARAM L0010543     0.000001005      4.00      3.95      1.86
SRCPARAM L0010544     0.000001005      4.00      3.95      1.86
SRCPARAM L0010545     0.000001005      4.00      3.95      1.86
SRCPARAM L0010546     0.000001005      4.00      3.95      1.86
SRCPARAM L0010547     0.000001005      4.00      3.95      1.86
SRCPARAM L0010548     0.000001005      4.00      3.95      1.86
SRCPARAM L0010549     0.000001005      4.00      3.95      1.86
SRCPARAM L0010550     0.000001005      4.00      3.95      1.86
SRCPARAM L0010551     0.000001005      4.00      3.95      1.86
SRCPARAM L0010552     0.000001005      4.00      3.95      1.86
SRCPARAM L0010553     0.000001005      4.00      3.95      1.86
SRCPARAM L0010554     0.000001005      4.00      3.95      1.86
SRCPARAM L0010555     0.000001005      4.00      3.95      1.86
SRCPARAM L0010556     0.000001005      4.00      3.95      1.86
SRCPARAM L0010557     0.000001005      4.00      3.95      1.86
SRCPARAM L0010558     0.000001005      4.00      3.95      1.86
SRCPARAM L0010559     0.000001005      4.00      3.95      1.86
SRCPARAM L0010560     0.000001005      4.00      3.95      1.86
SRCPARAM L0010561     0.000001005      4.00      3.95      1.86
SRCPARAM L0010562     0.000001005      4.00      3.95      1.86
SRCPARAM L0010563     0.000001005      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0010564     0.000001005      4.00      3.95      1.86
SRCPARAM L0010565     0.000001005      4.00      3.95      1.86
SRCPARAM L0010566     0.000001005      4.00      3.95      1.86
SRCPARAM L0010567     0.000001005      4.00      3.95      1.86
SRCPARAM L0010568     0.000001005      4.00      3.95      1.86
SRCPARAM L0010569     0.000001005      4.00      3.95      1.86
SRCPARAM L0010570     0.000001005      4.00      3.95      1.86
SRCPARAM L0010571     0.000001005      4.00      3.95      1.86
SRCPARAM L0010572     0.000001005      4.00      3.95      1.86
SRCPARAM L0010573     0.000001005      4.00      3.95      1.86
SRCPARAM L0010574     0.000001005      4.00      3.95      1.86
SRCPARAM L0010575     0.000001005      4.00      3.95      1.86
SRCPARAM L0010576     0.000001005      4.00      3.95      1.86
SRCPARAM L0010577     0.000001005      4.00      3.95      1.86
SRCPARAM L0010578     0.000001005      4.00      3.95      1.86
SRCPARAM L0010579     0.000001005      4.00      3.95      1.86
SRCPARAM L0010580     0.000001005      4.00      3.95      1.86
SRCPARAM L0010581     0.000001005      4.00      3.95      1.86
SRCPARAM L0010582     0.000001005      4.00      3.95      1.86
SRCPARAM L0010583     0.000001005      4.00      3.95      1.86
SRCPARAM L0010584     0.000001005      4.00      3.95      1.86
SRCPARAM L0010585     0.000001005      4.00      3.95      1.86
SRCPARAM L0010586     0.000001005      4.00      3.95      1.86
SRCPARAM L0010587     0.000001005      4.00      3.95      1.86
SRCPARAM L0010588     0.000001005      4.00      3.95      1.86
SRCPARAM L0010589     0.000001005      4.00      3.95      1.86
SRCPARAM L0010590     0.000001005      4.00      3.95      1.86
SRCPARAM L0010591     0.000001005      4.00      3.95      1.86
SRCPARAM L0010592     0.000001005      4.00      3.95      1.86
SRCPARAM L0010593     0.000001005      4.00      3.95      1.86
SRCPARAM L0010594     0.000001005      4.00      3.95      1.86
SRCPARAM L0010595     0.000001005      4.00      3.95      1.86
SRCPARAM L0010596     0.000001005      4.00      3.95      1.86
SRCPARAM L0010597     0.000001005      4.00      3.95      1.86
SRCPARAM L0010598     0.000001005      4.00      3.95      1.86
SRCPARAM L0010599     0.000001005      4.00      3.95      1.86
SRCPARAM L0010600     0.000001005      4.00      3.95      1.86
SRCPARAM L0010601     0.000001005      4.00      3.95      1.86
SRCPARAM L0010602     0.000001005      4.00      3.95      1.86
SRCPARAM L0010603     0.000001005      4.00      3.95      1.86
SRCPARAM L0010604     0.000001005      4.00      3.95      1.86
SRCPARAM L0010605     0.000001005      4.00      3.95      1.86
SRCPARAM L0010606     0.000001005      4.00      3.95      1.86
SRCPARAM L0010607     0.000001005      4.00      3.95      1.86
SRCPARAM L0010608     0.000001005      4.00      3.95      1.86
SRCPARAM L0010609     0.000001005      4.00      3.95      1.86
SRCPARAM L0010610     0.000001005      4.00      3.95      1.86
SRCPARAM L0010611     0.000001005      4.00      3.95      1.86
SRCPARAM L0010612     0.000001005      4.00      3.95      1.86
SRCPARAM L0010613     0.000001005      4.00      3.95      1.86
SRCPARAM L0010614     0.000001005      4.00      3.95      1.86
SRCPARAM L0010615     0.000001005      4.00      3.95      1.86
SRCPARAM L0010616     0.000001005      4.00      3.95      1.86
SRCPARAM L0010617     0.000001005      4.00      3.95      1.86
SRCPARAM L0010618     0.000001005      4.00      3.95      1.86
SRCPARAM L0010619     0.000001005      4.00      3.95      1.86
SRCPARAM L0010620     0.000001005      4.00      3.95      1.86
SRCPARAM L0010621     0.000001005      4.00      3.95      1.86
SRCPARAM L0010622     0.000001005      4.00      3.95      1.86
SRCPARAM L0010623     0.000001005      4.00      3.95      1.86
SRCPARAM L0010624     0.000001005      4.00      3.95      1.86
SRCPARAM L0010625     0.000001005      4.00      3.95      1.86
SRCPARAM L0010626     0.000001005      4.00      3.95      1.86
SRCPARAM L0010627     0.000001005      4.00      3.95      1.86
SRCPARAM L0010628     0.000001005      4.00      3.95      1.86
SRCPARAM L0010629     0.000001005      4.00      3.95      1.86
SRCPARAM L0010630     0.000001005      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0010631     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010632     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010633     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010634     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010635     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010636     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010637     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010638     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010639     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010640     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010641     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010642     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010643     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010644     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010645     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010646     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010647     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010648     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010649     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010650     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010651     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010652     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010653     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010654     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010655     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010656     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010657     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010658     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010659     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010660     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010661     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010662     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010663     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010664     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010665     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010666     0.000001005      4.00      3.95      1.86
   SRCPARAM L0010667     0.000001005      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0008242     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008243     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008244     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008245     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008246     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008247     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008248     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008249     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008250     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008251     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008252     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008253     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008254     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008255     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008256     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008257     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008258     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008259     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008260     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008261     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008262     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008263     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008264     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008265     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008266     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008267     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008268     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008269     0.0000002141      4.00      3.95      1.86
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                                                        Residential
   SRCPARAM L0008270     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008271     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008272     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008273     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008274     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008275     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008276     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008277     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008278     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008279     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008280     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008281     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008282     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008283     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008284     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008285     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008286     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008287     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008288     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008289     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008290     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008291     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008292     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008293     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008294     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008295     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008296     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008297     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008298     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008299     0.0000002141      4.00      3.95      1.86
   SRCPARAM L0008300     0.0000002141      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0008301     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008302     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008303     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008304     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008305     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008306     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008307     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008308     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008309     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008310     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008311     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008312     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008313     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008314     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008315     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008316     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008317     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008318     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008319     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008320     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008321     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008322     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008323     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008324     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008325     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008326     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008327     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008328     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008329     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008330     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008331     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008332     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008333     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008334     0.0000001686      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0008335     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008336     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008337     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008338     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008339     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008340     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008341     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008342     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008343     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008344     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008345     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008346     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008347     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008348     0.0000001686      4.00      3.95      1.86
   SRCPARAM L0008349     0.0000001686      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0008350     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008351     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008352     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008353     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008354     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008355     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008356     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008357     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008358     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008359     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008360     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008361     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008362     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008363     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008364     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008365     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008366     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008367     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008368     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008369     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008370     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008371     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008372     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008373     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008374     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008375     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008376     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008377     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008378     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008379     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008380     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008381     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008382     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008383     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008384     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008385     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008386     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008387     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008388     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008389     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008390     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008391     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008392     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008393     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008394     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008395     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008396     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008397     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008398     0.0000002878      4.00      3.95      1.86
   SRCPARAM L0008399     0.0000002878      4.00      3.95      1.86
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                                                       Residential
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0008400     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008401     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008402     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008403     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008404     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008405     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008406     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008407     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008408     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008409     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008410     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008411     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008412     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008413     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008414     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008415     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008416     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008417     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008418     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008419     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008420     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008421     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008422     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008423     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008424     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008425     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008426     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008427     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008428     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008429     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008430     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008431     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008432     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008433     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008434     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008435     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008436     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008437     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008438     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008439     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008440     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008441     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008442     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008443     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008444     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008445     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008446     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008447     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008448     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008449     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008450     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008451     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008452     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008453     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008454     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008455     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008456     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008457     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008458     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008459     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008460     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008461     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008462     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008463     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008464     0.0000004253      4.00      3.95      1.86
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SRCPARAM L0008465     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008466     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008467     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008468     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008469     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008470     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008471     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008472     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008473     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008474     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008475     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008476     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008477     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008478     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008479     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008480     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008481     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008482     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008483     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008484     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008485     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008486     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008487     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008488     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008489     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008490     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008491     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008492     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008493     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008494     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008495     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008496     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008497     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008498     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008499     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008500     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008501     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008502     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008503     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008504     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008505     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008506     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008507     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008508     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008509     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008510     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008511     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008512     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008513     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008514     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008515     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008516     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008517     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008518     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008519     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008520     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008521     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008522     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008523     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008524     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008525     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008526     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008527     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008528     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008529     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008530     0.0000004253      4.00      3.95      1.86
SRCPARAM L0008531     0.0000004253      4.00      3.95      1.86
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                                                         Residential
   SRCPARAM L0008532     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008533     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008534     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008535     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008536     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008537     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008538     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008539     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008540     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008541     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008542     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008543     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008544     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008545     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008546     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008547     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008548     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008549     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008550     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008551     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008552     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008553     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008554     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008555     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008556     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008557     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008558     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008559     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008560     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008561     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008562     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008563     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008564     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008565     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008566     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008567     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008568     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008569     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008570     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008571     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008572     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008573     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008574     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008575     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008576     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008577     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008578     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008579     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008580     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008581     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008582     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008583     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008584     0.0000004253      4.00      3.95      1.86
   SRCPARAM L0008585     0.0000004253      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0008586     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008587     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008588     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008589     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008590     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008591     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008592     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008593     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008594     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008595     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008596     0.0000002549      4.00      3.95      1.86
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SRCPARAM L0008597     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008598     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008599     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008600     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008601     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008602     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008603     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008604     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008605     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008606     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008607     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008608     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008609     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008610     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008611     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008612     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008613     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008614     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008615     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008616     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008617     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008618     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008619     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008620     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008621     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008622     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008623     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008624     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008625     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008626     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008627     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008628     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008629     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008630     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008631     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008632     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008633     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008634     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008635     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008636     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008637     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008638     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008639     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008640     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008641     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008642     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008643     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008644     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008645     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008646     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008647     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008648     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008649     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008650     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008651     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008652     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008653     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008654     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008655     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008656     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008657     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008658     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008659     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008660     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008661     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008662     0.0000002549      4.00      3.95      1.86
SRCPARAM L0008663     0.0000002549      4.00      3.95      1.86
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   SRCPARAM L0008664     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008665     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008666     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008667     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008668     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008669     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008670     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008671     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008672     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008673     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008674     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008675     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008676     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008677     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008678     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008679     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008680     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008681     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008682     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008683     0.0000002549      4.00      3.95      1.86
   SRCPARAM L0008684     0.0000002549      4.00      3.95      1.86
** ---------------------------------------------------------------------
   SRCPARAM AREA1        2.351E-08     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       7.087E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000014994     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000011881     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.00002032     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0008685     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008686     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008687     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008688     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008689     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008690     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008691     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008692     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008693     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008694     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008695     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008696     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008697     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008698     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008699     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008700     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008701     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008702     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008703     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008704     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008705     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008706     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008707     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008708     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008709     0.0000002588      4.00      3.95      1.86
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                                                   Residential
   SRCPARAM L0008710     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008711     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008712     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008713     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008714     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008715     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008716     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008717     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008718     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008719     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008720     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008721     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008722     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008723     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008724     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008725     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008726     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008727     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008728     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008729     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008730     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008731     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008732     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008733     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008734     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008735     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008736     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008737     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008738     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008739     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008740     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008741     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008742     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008743     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008744     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008745     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008746     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008747     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008748     0.0000002588      4.00      3.95      1.86
   SRCPARAM L0008749     0.0000002588      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0008750     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008751     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008752     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008753     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008754     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008755     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008756     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008757     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008758     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008759     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008760     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008761     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008762     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008763     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008764     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008765     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008766     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008767     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008768     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008769     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008770     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008771     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008772     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008773     0.0000003407      4.00      3.95      1.86
   SRCPARAM L0008774     0.0000003407      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0008775     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008776     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008777     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008778     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008779     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008780     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008781     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008782     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008783     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008784     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008785     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008786     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008787     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008788     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008789     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008790     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008791     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008792     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008793     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008794     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008795     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008796     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008797     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008798     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008799     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008800     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008801     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008802     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008803     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008804     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008805     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008806     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008807     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008808     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008809     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008810     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008811     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008812     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008813     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008814     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008815     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008816     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008817     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008818     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008819     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008820     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008821     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008822     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008823     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008824     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008825     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008826     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008827     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008828     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008829     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008830     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008831     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008832     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008833     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008834     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008835     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008836     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008837     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008838     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008839     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008840     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008841     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008842     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008843     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008844     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008845     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008846     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008847     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008848     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008849     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008850     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008858     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008859     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008860     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008861     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008862     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008863     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008864     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008865     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008866     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008867     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008868     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008869     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008870     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008871     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008872     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008873     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008874     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008875     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008876     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008877     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008878     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008879     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008880     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008881     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008882     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008883     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008884     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008885     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008886     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008887     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008888     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008889     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008890     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008891     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008892     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008893     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008895     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008896     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008897     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008898     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008899     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008900     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008901     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008902     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008903     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008904     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008905     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008906     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008908     0.0000003407      4.00      3.95      1.86
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                                           Residential
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SRCPARAM L0008912     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008913     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008914     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008915     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008916     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008917     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008918     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008919     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008920     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008921     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008922     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008923     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008924     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008925     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008926     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008927     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008928     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008929     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008930     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008931     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008932     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008933     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008934     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008935     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008936     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008937     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008938     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008939     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008940     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008942     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008943     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008944     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008962     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008963     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008965     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008967     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008968     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008969     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008970     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008971     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008972     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008973     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008974     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008975     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008978     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008979     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008980     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008981     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008982     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008983     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008984     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008985     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008986     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008987     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008988     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008989     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0008991     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008992     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008993     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008994     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008995     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008996     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008997     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008998     0.0000003407      4.00      3.95      1.86
SRCPARAM L0008999     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009000     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009001     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009002     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009003     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009004     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009006     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009021     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009022     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009023     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009024     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009025     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009026     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009027     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009028     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009029     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009030     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009031     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009032     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009033     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009034     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009035     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009036     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009037     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009038     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009039     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009040     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009041     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009042     0.0000003407      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0009047     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009048     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009063     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009065     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009067     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009068     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009069     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009071     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009073     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009074     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009075     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009076     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009077     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009078     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009079     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009080     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009081     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009082     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009083     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009085     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009086     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009087     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009088     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009089     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009090     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009091     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009092     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009093     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009094     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009095     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009096     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009098     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009099     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009100     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009103     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009104     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009105     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009106     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009107     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009108     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009109     0.0000003407      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0009110     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009111     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009112     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009113     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009114     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009115     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009116     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009117     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009118     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009119     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009120     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009121     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009122     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009123     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009124     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009125     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009126     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009127     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009128     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009129     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009130     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009131     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009132     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009133     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009134     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009135     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009136     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009137     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009138     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009139     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009140     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009141     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009142     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009143     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009144     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009145     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009146     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009147     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009148     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009149     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009150     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009151     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009152     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009153     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009154     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009155     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009156     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009157     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009158     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009159     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009160     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009161     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009162     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009163     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009164     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009165     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009166     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009167     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009168     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009169     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009170     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009171     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009172     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009173     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009174     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009175     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009176     0.0000003407      4.00      3.95      1.86
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                                               Residential
SRCPARAM L0009177     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009178     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009179     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009180     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009181     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009182     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009183     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009184     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009185     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009186     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009187     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009188     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009189     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009190     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009191     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009192     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009193     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009194     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009195     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009196     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009197     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009198     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009199     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009200     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009201     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009202     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009203     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009204     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009205     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009206     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009207     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009208     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009209     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009210     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009211     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009212     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009213     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009214     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009215     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009216     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009217     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009218     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009219     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009220     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009221     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009222     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009223     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009224     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009225     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009226     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009227     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009228     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009229     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009230     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009231     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009232     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009233     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009234     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009235     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009236     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009237     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009238     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009239     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009240     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009241     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009242     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009243     0.0000003407      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0009244     0.0000003407      4.00      3.95      1.86
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SRCPARAM L0009247     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009248     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009249     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009250     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009251     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009252     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009253     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009254     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009255     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009256     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009257     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009258     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009259     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009260     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009261     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009262     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009263     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009264     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009265     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009266     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009267     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009268     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009269     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009270     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009271     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009272     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009273     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009274     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009275     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009276     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009277     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009278     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009279     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009280     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009281     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009282     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009283     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009284     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009285     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009286     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009287     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009288     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009289     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009290     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009291     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009292     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009293     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009294     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009295     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009296     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009297     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009298     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009299     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009300     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009301     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009302     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009303     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009304     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009305     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009306     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009307     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009308     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009309     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009310     0.0000003407      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0009311     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009312     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009313     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009314     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009315     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009316     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009317     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009318     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009319     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009320     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009321     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009322     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009323     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009324     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009325     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009326     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009327     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009328     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009329     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009330     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009331     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009332     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009333     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009334     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009335     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009336     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009337     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009338     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009339     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009340     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009341     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009342     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009343     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009344     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009345     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009346     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009347     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009348     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009349     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009350     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009351     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009352     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009353     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009354     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009355     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009356     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009357     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009358     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009359     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009360     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009361     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009362     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009363     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009364     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009365     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009366     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009367     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009368     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009369     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009370     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009371     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009372     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009373     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009374     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009375     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009376     0.0000003407      4.00      3.95      1.86
SRCPARAM L0009377     0.0000003407      4.00      3.95      1.86
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                                              Residential
   SRCPARAM L0009378  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009379  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009380  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009381  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009382  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009383  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009384  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009385  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009386  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009387  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009388  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009389  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009390  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009391  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009392  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009393  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009394  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009395  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009396  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009397  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009398  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009399  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009400  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009401  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009402  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009403  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009404  0.0000003407    4.00     3.95     1.86
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   SRCPARAM L0009406  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009407  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009408  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009409  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009410  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009411  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009412  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009413  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009414  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009415  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009416  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009417  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009418  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009419  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009420  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009421  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009422  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009423  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009424  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009425  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009426  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009427  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009428  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009429  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009430  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009431  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009432  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009433  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009434  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009435  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009436  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009437  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009438  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009439  0.0000003407    4.00     3.95     1.86
   SRCPARAM L0009440  0.0000003407    4.00     3.95     1.86
** -------------------------------------------------------------
** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0009441  0.0000000851    0.00     3.95     1.86
   SRCPARAM L0009442  0.0000000851    0.00     3.95     1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                Residential
SRCPARAM L0009443     0.0000000851      0.00      3.95      1.86
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SRCPARAM L0009467     0.0000000851      0.00      3.95      1.86
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SRCPARAM L0009509     0.0000000851      0.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0009576     0.0000000851      0.00      3.95      1.86
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                                                  Residential
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SRCPARAM L0009702     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009703     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009704     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009705     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009706     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009707     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009708     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009709     0.0000000851      0.00      3.95      1.86
SRCPARAM L0009710     0.0000000851      0.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0009711     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009712     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009713     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009714     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009715     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009716     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009717     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009718     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009719     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009720     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009721     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009722     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009723     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009724     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009725     0.0000000851      0.00      3.95      1.86
   SRCPARAM L0009726     0.0000000851      0.00      3.95      1.86
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** LINE VOLUME Source ID = SRC00001
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   SRCPARAM L0009728     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009729     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009730     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009731     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009732     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009733     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009734     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009735     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009736     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009737     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009738     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009739     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009740     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009741     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009742     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009743     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009744     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009745     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009746     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009747     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009748     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009749     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009750     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009751     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009752     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009753     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009754     0.0000004254      4.00      3.95      1.86
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   SRCPARAM L0009759     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009760     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009761     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009762     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009763     0.0000004254      4.00      3.95      1.86
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   SRCPARAM L0009765     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009766     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009767     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009768     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009769     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009770     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009771     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009772     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0009773     0.0000004254      4.00      3.95      1.86
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   SRCPARAM L0009775     0.0000004254      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0009777     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009780     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009781     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009782     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009783     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009784     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009785     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009786     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009787     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009788     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009789     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009790     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009794     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009795     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009796     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009797     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009799     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009800     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009801     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009802     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009803     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009806     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009807     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009809     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009810     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009811     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009812     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009813     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009814     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009815     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009816     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009817     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009818     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009819     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009820     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009821     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009822     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009827     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009830     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009831     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009832     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009833     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009834     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009835     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009836     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009837     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009838     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009839     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009840     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009842     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009847     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009848     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009849     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009850     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009851     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009852     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009856     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009858     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009861     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009862     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009863     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009864     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009865     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009866     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009867     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009868     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009869     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009870     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009871     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009875     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009876     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009878     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009898     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009899     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009900     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009901     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009902     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009904     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009905     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009906     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009907     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009908     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009909     0.0000004254      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0009911     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009912     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009913     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009914     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009915     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009916     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009917     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009918     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009919     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009920     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009921     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009923     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009924     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009925     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009926     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009927     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009928     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009929     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009930     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009932     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009933     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009934     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009935     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009937     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009938     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009944     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009963     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009964     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009965     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009966     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009967     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009968     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009970     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0009982     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009983     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009984     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009985     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009986     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009987     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009988     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009989     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009990     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009991     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009992     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009993     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009994     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009995     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009996     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009997     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009998     0.0000004254      4.00      3.95      1.86
SRCPARAM L0009999     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010000     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010001     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010002     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010003     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010004     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010005     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010006     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010007     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010008     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010009     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010010     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010011     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010012     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010013     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010014     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010015     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010016     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010017     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010018     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010019     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010020     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010021     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010022     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010023     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010024     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010025     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010026     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010027     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010028     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010029     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010030     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010031     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010032     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010033     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010034     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010035     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010036     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010037     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010038     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010039     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010040     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010041     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010042     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010043     0.0000004254      4.00      3.95      1.86
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                                                    Residential
SRCPARAM L0010044      0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010046      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010047      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010048      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010049      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010050      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010051      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010052      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010053      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010054      0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010056      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010057      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010058      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010059      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010060      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010061      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010062      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010063      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010064      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010065      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010066      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010067      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010068      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010069      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010070      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010071      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010072      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010073      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010074      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010075      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010076      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010077      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010078      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010079      0.0000004254      4.00      3.95      1.86
SRCPARAM L0010080      0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010091      0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010117     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010118     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010119     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010120     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010127     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010134     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010136     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010145     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010146     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010153     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010155     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010162     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010164     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010165     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010166     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010167     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010168     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010169     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010170     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010171     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010172     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010173     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010174     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010175     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010176     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010177     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010180     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010181     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010182     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010183     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010184     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010185     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010186     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010187     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010188     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010189     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010190     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010191     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010192     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010193     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010194     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010195     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010196     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010197     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010202     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010211     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010212     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010213     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010214     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010215     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010216     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010217     0.0000004254      4.00      3.95      1.86
SRCPARAM L0010218     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010233     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010236     0.0000004254      4.00      3.95      1.86
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SRCPARAM L0010244     0.0000004254      4.00      3.95      1.86
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                                                    Residential
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   SRCPARAM L0010260     0.0000004254      4.00      3.95      1.86
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   SRCPARAM L0010279     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010280     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010281     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010282     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010283     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010284     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010285     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010286     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010287     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010288     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010289     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010290     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010291     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010292     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010293     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010294     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010295     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010296     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010297     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010298     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010299     0.0000004254      4.00      3.95      1.86
   SRCPARAM L0010300     0.0000004254      4.00      3.95      1.86
** ----------------------------------------------------------------------

** Building Downwash **
   BUILDHGT STCK1           42.00     42.00     42.00     42.00     42.00     42.00
   BUILDHGT STCK1           42.00     42.00     42.00     42.00     42.00     42.00
   BUILDHGT STCK1           42.00     42.00     42.00     42.00     42.00     42.00
   BUILDHGT STCK1           42.00     42.00     42.00     42.00     42.00     42.00
   BUILDHGT STCK1           42.00     42.00     42.00     42.00     42.00     42.00
   BUILDHGT STCK1           42.00     42.00     42.00     42.00     42.00     42.00

   BUILDHGT STCK2           42.00     42.00     42.00     42.00     42.00     42.00
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BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK2           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK3           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK4           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK5           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK6           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK7           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK8           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK9           42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK10          42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK11          42.00    42.00    42.00    42.00    42.00    42.00
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BUILDHGT STCK11         42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK12         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK12         42.00    42.00    42.00    42.00    42.00    42.00

BUILDHGT STCK13         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13         42.00    42.00    42.00    42.00    42.00    42.00
BUILDHGT STCK13         42.00    42.00    42.00    42.00    42.00    42.00

BUILDWID STCK1         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK1         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK1         583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK1         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK1         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK1         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK2         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK2         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK2         583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK2         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK2         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK2         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK3         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK3         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK3         583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK3         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK3         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK3         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK4         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK4         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK4         583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK4         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK4         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK4         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK5         317.43   404.42   479.12   539.26   168.47   168.41
BUILDWID STCK5         163.24   153.11   138.33   146.66   152.91   154.50
BUILDWID STCK5         151.41   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK5         317.43   404.42   479.12   539.26   168.47   168.41
BUILDWID STCK5         163.24   605.39   575.80   605.39   152.91   154.50
BUILDWID STCK5         151.41   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK6         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK6         616.59   605.39   575.80   605.39   152.91   154.50
BUILDWID STCK6         151.41   143.71   131.65   404.42   317.43   220.80
BUILDWID STCK6         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK6         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK6         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK7         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK7         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK7         583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK7         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK7         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK7         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK8         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK8         616.59   605.39   575.80   605.39   616.59   609.06
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BUILDWID STCK8          583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK8          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK8          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK8          583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK9          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK9          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK9          583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK9          317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK9          616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK9          583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK10         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK10         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK10         583.02   539.26   479.12   404.42   317.43   220.80
BUILDWID STCK10         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK10         616.59   605.39   575.80   605.39   616.59   609.06
BUILDWID STCK10         583.02   539.26   479.12   404.42   317.43   220.80

BUILDWID STCK11         119.77   138.68   153.37   163.40   168.47   180.12
BUILDWID STCK11         177.03   168.57   154.99   168.57   177.03   154.50
BUILDWID STCK11         151.41   143.71   131.65   115.59    96.25    97.23
BUILDWID STCK11         119.77   138.68   153.37   163.40   168.47   168.41
BUILDWID STCK11         163.24   153.11   138.33   146.66   152.91   154.50
BUILDWID STCK11         151.41   143.71   131.65   115.59    96.25    97.23

BUILDWID STCK12          99.49   116.12   479.12   539.26   583.02   609.06
BUILDWID STCK12         140.21   132.19   123.32   127.99   130.35   128.75
BUILDWID STCK12         123.24   113.98   102.56    97.33   317.43   220.80
BUILDWID STCK12         317.43   404.42   479.12   539.26   583.02   609.06
BUILDWID STCK12         140.21   132.19   123.32   127.99   130.35   128.75
BUILDWID STCK12         123.24   113.98   102.56    97.33   317.43    79.84

BUILDWID STCK13         117.30   139.25   156.98   169.93   177.72   180.12
BUILDWID STCK13         177.03   168.57   154.99   168.57   177.03   180.12
BUILDWID STCK13         177.72   169.93   156.98   139.25   117.30    91.78
BUILDWID STCK13         117.30   139.25   156.98   169.93   177.72   180.12
BUILDWID STCK13         177.03   168.57   154.99   168.57   177.03   180.12
BUILDWID STCK13         177.72   169.93   156.98   139.25   117.30    91.78

BUILDLEN STCK1          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK1          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK1          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK1          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK1          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK1          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK2          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK2          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK2          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK2          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK2          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK2          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK3          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK3          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK3          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK3          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK3          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK3          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK4          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK4          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK4          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK4          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK4          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK4          539.26   583.02   609.06   616.59   605.39   575.80
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BUILDLEN STCK5          605.39   616.59   609.06   583.02   143.71   131.65
BUILDLEN STCK5          115.59    96.25    97.23   119.77   138.68   153.37
BUILDLEN STCK5          163.40   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK5          605.39   616.59   609.06   583.02   143.71   131.65
BUILDLEN STCK5          115.59   317.43   220.80   317.43   138.68   153.37
BUILDLEN STCK5          163.40   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK6          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK6          404.42   317.43   220.80   317.43   138.68   153.37
BUILDLEN STCK6          163.40   168.47   168.41   616.59   605.39   575.80
BUILDLEN STCK6          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK6          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK6          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK7          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK7          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK7          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK7          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK7          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK7          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK8          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK8          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK8          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK8          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK8          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK8          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK9          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK9          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK9          539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK9          605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK9          404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK9          539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK10         605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK10         404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK10         539.26   583.02   609.06   616.59   605.39   575.80
BUILDLEN STCK10         605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK10         404.42   317.43   220.80   317.43   404.42   479.12
BUILDLEN STCK10         539.26   583.02   609.06   616.59   605.39   575.80

BUILDLEN STCK11         146.66   152.91   154.50   151.41   143.71   156.98
BUILDLEN STCK11         139.25   117.30    91.78   117.30   139.25   153.37
BUILDLEN STCK11         163.40   168.47   168.41   163.24   153.11   138.33
BUILDLEN STCK11         146.66   152.91   154.50   151.41   143.71   131.65
BUILDLEN STCK11         115.59    96.25    97.23   119.77   138.68   153.37
BUILDLEN STCK11         163.40   168.47   168.41   163.24   153.11   138.33

BUILDLEN STCK12         127.99   130.35   609.06   583.02   539.26   479.12
BUILDLEN STCK12          97.33    89.15    79.84    99.49   116.12   129.22
BUILDLEN STCK12         138.39   143.36   143.97   140.21   605.39   575.80
BUILDLEN STCK12         605.39   616.59   609.06   583.02   539.26   479.12
BUILDLEN STCK12          97.33    89.15    79.84    99.49   116.12   129.22
BUILDLEN STCK12         138.39   143.36   143.97   140.21   605.39   123.32

BUILDLEN STCK13         168.57   177.03   180.12   177.72   169.93   156.98
BUILDLEN STCK13         139.25   117.30    91.78   117.30   139.25   156.98
BUILDLEN STCK13         169.93   177.72   180.12   177.03   168.57   154.99
BUILDLEN STCK13         168.57   177.03   180.12   177.72   169.93   156.98
BUILDLEN STCK13         139.25   117.30    91.78   117.30   139.25   156.98
BUILDLEN STCK13         169.93   177.72   180.12   177.03   168.57   154.99

XBADJ    STCK1         -554.03  -569.86  -568.38  -549.62  -514.17  -463.09
XBADJ    STCK1         -397.94  -320.70  -233.72  -239.62  -238.24  -229.62
XBADJ    STCK1         -214.03  -191.93  -164.00  -131.08   -94.19   -54.43
```

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                                              Residential
XBADJ    STCK1           -51.36   -46.73   -40.68   -33.39   -25.09   -16.03
XBADJ    STCK1            -6.48     3.27    12.92   -77.81  -166.18  -249.50
XBADJ    STCK1          -325.23  -391.09  -445.06  -485.51  -511.21  -521.37

XBADJ    STCK2          -404.05  -426.36  -435.72  -431.83  -414.83  -385.22
XBADJ    STCK2          -343.91  -292.15  -231.51  -263.82  -288.12  -303.66
XBADJ    STCK2          -309.98  -306.88  -294.45  -273.08  -243.41  -206.34
XBADJ    STCK2          -201.35  -190.23  -173.34  -151.18  -124.43   -93.89
XBADJ    STCK2           -60.51   -25.28    10.71   -53.61  -116.30  -175.46
XBADJ    STCK2          -229.28  -276.14  -314.61  -343.52  -361.99  -369.46

XBADJ    STCK3          -244.42  -274.17  -295.60  -308.04  -311.12  -304.75
XBADJ    STCK3          -289.11  -264.70  -232.24  -292.71  -344.29  -385.41
XBADJ    STCK3          -414.81  -431.61  -435.30  -425.76  -403.29  -368.56
XBADJ    STCK3          -360.97  -342.42  -313.46  -274.98  -228.14  -174.37
XBADJ    STCK3          -115.30   -52.73    11.44   -24.72   -60.13   -93.71
XBADJ    STCK3          -124.45  -151.40  -173.76  -190.83  -202.11  -207.24

XBADJ    STCK4          -101.74  -138.42  -170.90  -198.18  -219.44  -234.03
XBADJ    STCK4          -241.52  -241.66  -234.46  -320.12  -396.06  -459.96
XBADJ    STCK4          -509.89  -544.32  -562.22  -563.03  -546.74  -513.83
XBADJ    STCK4          -503.65  -478.17  -438.16  -384.84  -319.82  -245.08
XBADJ    STCK4          -162.90   -75.77    13.66     2.69    -8.36   -19.16
XBADJ    STCK4           -29.37   -38.69   -46.84   -53.56   -58.66   -61.97

XBADJ    STCK5          -518.70  -493.63  -453.57  -399.72  -181.95  -191.54
XBADJ    STCK5          -195.30  -193.38  -204.86  -214.78  -218.18  -214.95
XBADJ    STCK5          -205.19   -31.85   -37.68   -42.37   -45.78   -47.79
XBADJ    STCK5           -86.69  -122.96  -155.49  -183.30    38.24    59.89
XBADJ    STCK5            79.72  -233.04  -228.21  -316.43    79.50    61.58
XBADJ    STCK5            41.79  -551.17  -571.38  -574.22  -559.62  -528.01

XBADJ    STCK6          -369.40  -352.21  -324.32  -286.57  -240.12  -186.37
XBADJ    STCK6          -126.96   -63.69     1.51   -33.32  -275.93  -296.38
XBADJ    STCK6          -307.83  -309.92  -302.59  -187.84  -197.13  -200.44
XBADJ    STCK6          -236.00  -264.39  -284.74  -296.44  -299.14  -292.75
XBADJ    STCK6          -277.46  -253.74  -222.31  -284.11  -337.28  -380.21
XBADJ    STCK6          -411.58  -430.44  -436.23  -428.76  -408.26  -375.36

XBADJ    STCK7          -211.94  -202.10  -186.11  -164.47  -137.83  -107.01
XBADJ    STCK7           -72.93   -36.64     0.77   -61.83  -122.56  -179.56
XBADJ    STCK7          -231.10  -275.63  -311.77  -338.45  -354.84  -360.45
XBADJ    STCK7          -393.45  -414.49  -422.94  -418.54  -401.43  -372.11
XBADJ    STCK7          -331.49  -280.80  -221.57  -255.60  -281.86  -299.56
XBADJ    STCK7          -308.16  -307.39  -297.28  -278.14  -250.55  -215.35

XBADJ    STCK8          -141.76  -135.39  -124.90  -110.62   -92.98   -72.52
XBADJ    STCK8           -49.85   -25.66    -0.70   -75.70  -148.40  -216.60
XBADJ    STCK8          -278.21  -331.37  -374.46  -406.17  -425.54  -431.98
XBADJ    STCK8          -463.64  -481.21  -484.16  -472.39  -446.28  -406.60
XBADJ    STCK8          -354.57  -291.77  -220.10  -241.73  -256.02  -262.52
XBADJ    STCK8          -261.05  -251.65  -234.60  -210.43  -179.85  -143.82

XBADJ    STCK9            -4.70   -19.56   -33.83   -47.07   -58.88   -68.90
XBADJ    STCK9           -76.82   -82.41   -85.50  -185.98  -280.80  -367.10
XBADJ    STCK9          -442.23  -503.94  -550.33  -580.00  -592.04  -586.10
XBADJ    STCK9          -600.69  -597.03  -575.23  -535.95  -480.38  -410.22
XBADJ    STCK9          -327.60  -235.02  -135.30  -131.46  -123.62  -112.02
XBADJ    STCK9           -97.03   -79.08   -58.73   -36.60   -13.35    10.30

XBADJ    STCK10          -24.22   -56.52   -87.10  -115.04  -139.48  -159.68
XBADJ    STCK10         -175.04  -185.07  -189.48  -288.12  -378.00  -456.40
XBADJ    STCK10         -520.94  -569.64  -601.04  -614.17  -608.64  -584.62
XBADJ    STCK10         -581.18  -560.08  -521.96  -467.98  -399.78  -319.43
XBADJ    STCK10         -229.38  -132.36   -31.32   -29.31   -26.41   -22.71
XBADJ    STCK10          -18.32   -13.38    -8.02    -2.42     3.25     8.82
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
XBADJ     STCK11           -75.54    -69.49    -61.33    -51.30    -39.71   -269.34
XBADJ     STCK11          -271.64   -265.68   -251.65   -256.89   -254.32    -33.50
XBADJ     STCK11           -41.31    -47.87    -52.97    -56.46    -58.23    -58.24
XBADJ     STCK11           -71.12    -83.42    -93.18   -100.11   -104.00   -104.73
XBADJ     STCK11          -102.28    -96.72    -92.17   -104.68   -114.00   -119.87
XBADJ     STCK11          -122.09   -120.60   -115.44   -106.78    -94.88    -80.09

XBADJ     STCK12           -71.82    -82.89     79.79     68.13     54.40     39.01
XBADJ     STCK12           -96.54    -90.35    -82.21    -92.20    -99.40   -103.57
XBADJ     STCK12          -104.60   -102.44    -97.18    -88.96   -666.87   -675.00
XBADJ     STCK12          -700.96   -705.63   -688.85   -651.15   -593.66   -518.13
XBADJ     STCK12            -0.79      1.20      2.37     -7.29    -16.72    -25.65
XBADJ     STCK12           -33.79    -40.92    -46.79    -51.25     61.48    -58.57

XBADJ     STCK13           -99.86   -114.28   -125.23   -132.37   -135.49   -134.50
XBADJ     STCK13          -129.42   -120.40   -107.73   -118.70   -126.06   -129.59
XBADJ     STCK13          -129.19   -124.85   -116.73   -105.06    -90.19    -72.59
XBADJ     STCK13           -68.72    -62.76    -54.89    -45.35    -34.44    -22.48
XBADJ     STCK13            -9.84      3.10     15.95      1.40    -13.19    -27.39
XBADJ     STCK13           -40.75    -52.87    -63.39    -71.98    -78.38    -82.40

YBADJ     STCK1             80.90     36.03     -9.94    -55.60    -99.58   -140.53
YBADJ     STCK1           -177.21   -208.51   -233.47   -251.34   -261.57   -263.85
YBADJ     STCK1           -258.12   -244.54   -223.53   -195.73   -161.99   -123.32
YBADJ     STCK1            -80.90    -36.03      9.94     55.60     99.58    140.53
YBADJ     STCK1            177.21    208.51    233.47    251.34    261.57    263.85
YBADJ     STCK1            258.12    244.54    223.53    195.73    161.99    123.32

YBADJ     STCK2            105.11     85.91     64.10     40.35     15.37    -10.08
YBADJ     STCK2            -35.22    -59.29    -81.56   -101.35   -118.06   -131.19
YBADJ     STCK2           -140.33   -145.20   -145.66   -141.70   -133.43   -121.11
YBADJ     STCK2           -105.11    -85.91    -64.10    -40.35    -15.37     10.08
YBADJ     STCK2             35.22     59.29     81.56    101.35    118.06    131.19
YBADJ     STCK2            140.33    145.20    145.66    141.70    133.43    121.11

YBADJ     STCK3            134.00    142.08    145.85    145.18    140.11    130.77
YBADJ     STCK3            117.47    100.59     80.66     58.28     34.12      8.93
YBADJ     STCK3            -16.53    -41.49    -65.19    -86.90   -105.98   -121.84
YBADJ     STCK3           -134.00   -142.08   -145.85   -145.18   -140.11   -130.77
YBADJ     STCK3           -117.47   -100.59    -80.66    -58.28    -34.12     -8.93
YBADJ     STCK3             16.53     41.49     65.19     86.90    105.98    121.84

YBADJ     STCK4            161.41    193.85    220.40    240.26    252.82    257.69
YBADJ     STCK4            254.74    244.04    225.93    200.95    169.87    133.63
YBADJ     STCK4             93.33     50.19      5.53    -39.31    -82.94   -124.06
YBADJ     STCK4           -161.41   -193.85   -220.40   -240.26   -252.82   -257.69
YBADJ     STCK4           -254.74   -244.04   -225.93   -200.95   -169.87   -133.63
YBADJ     STCK4            -93.33    -50.19     -5.53     39.31     82.94    124.06

YBADJ     STCK5           -157.71   -192.83   -222.08   -244.59    104.96     83.24
YBADJ     STCK5             58.99     32.95      5.90    -20.33    -45.56    -69.40
YBADJ     STCK5            -91.13    -64.09    -18.03     28.58     74.33    117.81
YBADJ     STCK5            157.71    192.83    222.08    244.59   -104.96    -83.24
YBADJ     STCK5            -58.99    256.92    240.11    216.00     45.56     69.40
YBADJ     STCK5             91.13     64.09     18.03    -28.58    -74.33   -117.81

YBADJ     STCK6           -125.40   -135.07   -140.65   -141.95   -138.93   -131.70
YBADJ     STCK6           -120.46   -105.56    -87.46    -66.70     95.87     59.85
YBADJ     STCK6             22.01    -16.49    -54.50     75.25     95.02    111.91
YBADJ     STCK6            125.40    135.07    140.65    141.95    138.93    131.70
YBADJ     STCK6            120.46    105.56     87.46     66.70     43.91     19.79
YBADJ     STCK6             -4.94    -29.51    -53.19    -75.25    -95.02   -111.91

YBADJ     STCK7            -96.88    -79.65    -60.00    -38.53    -15.88      7.25
YBADJ     STCK7             30.15     52.14     72.55     90.75    106.20    118.42
YBADJ     STCK7            127.04    131.80    132.55    129.28    122.08    111.17
YBADJ     STCK7             96.88     79.65     60.00     38.53     15.88     -7.25
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   YBADJ    STCK7          -30.15   -52.14   -72.55   -90.75  -106.20  -118.42
   YBADJ    STCK7         -127.04  -131.80  -132.55  -129.28  -122.08  -111.17

   YBADJ    STCK8          -83.01   -53.81   -22.96     8.58    39.86    69.93
   YBADJ    STCK8           97.87   122.84   144.08   160.94   172.91   179.63
   YBADJ    STCK8          180.89   176.65   167.04   152.36   133.05   109.70
   YBADJ    STCK8           83.01    53.81    22.96    -8.58   -39.86   -69.93
   YBADJ    STCK8          -97.87  -122.84  -144.08  -160.94  -172.91  -179.63
   YBADJ    STCK8         -180.89  -176.65  -167.04  -152.36  -133.05  -109.70

   YBADJ    STCK9           27.26    78.59   127.54   172.60   212.43   245.80
   YBADJ    STCK9          271.70   289.35   298.20   297.99   288.73   270.70
   YBADJ    STCK9          244.44   210.75   170.66   125.39    76.30    24.90
   YBADJ    STCK9          -27.26   -78.59  -127.54  -172.60  -212.43  -245.80
   YBADJ    STCK9         -271.70  -289.35  -298.20  -297.99  -288.73  -270.70
   YBADJ    STCK9         -244.44  -210.75  -170.66  -125.39   -76.30   -24.90

   YBADJ    STCK10         129.40   175.80   216.85   251.31   278.13   296.51
   YBADJ    STCK10         305.87   305.94   296.72   278.48   251.78   217.43
   YBADJ    STCK10         176.47   130.15    79.87    27.17   -26.35   -79.08
   YBADJ    STCK10        -129.40  -175.80  -216.85  -251.31  -278.13  -296.51
   YBADJ    STCK10        -305.87  -305.94  -296.72  -278.48  -251.78  -217.43
   YBADJ    STCK10        -176.47  -130.15   -79.87   -27.17    26.35    79.08

   YBADJ    STCK11         -44.79   -44.66   -43.18   -40.39   -36.37    80.96
   YBADJ    STCK11          46.59    10.80   -25.32   -60.66   -94.16    15.93
   YBADJ    STCK11          24.41    32.14    38.91    44.48    48.59    43.56
   YBADJ    STCK11          44.79    44.66    43.18    40.39    36.37    31.24
   YBADJ    STCK11          25.16    18.32    10.92     2.21    -6.96   -15.93
   YBADJ    STCK11         -24.41   -32.14   -38.91   -44.48   -48.59   -43.56

   YBADJ    STCK12          42.46    41.34   108.53   173.62   233.43   286.15
   YBADJ    STCK12          18.86    11.95     3.09    -7.82   -17.71   -27.06
   YBADJ    STCK12         -35.58   -43.03   -48.52   -47.87   163.90    98.17
   YBADJ    STCK12          29.46   -40.15  -108.53  -173.62  -233.43  -286.15
   YBADJ    STCK12         -18.86   -11.95    -3.09     7.82    17.71    27.06
   YBADJ    STCK12          35.58    43.03    48.52    47.87  -163.90    42.29

   YBADJ    STCK13          60.05    56.43    51.10    44.22    35.99    26.67
   YBADJ    STCK13          16.54     5.91    -4.90   -15.57   -25.76   -35.17
   YBADJ    STCK13         -43.51   -50.53   -56.01   -59.79   -61.75   -61.84
   YBADJ    STCK13         -60.05   -56.43   -51.10   -44.22   -35.99   -26.67
   YBADJ    STCK13         -16.54    -5.91     4.90    15.57    25.76    35.17
   YBADJ    STCK13          43.51    50.53    56.01    59.79    61.75    61.84

   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Residential.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
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ME STARTING
   SURFFILE ..\..\..\..\peri8.sfc
   PROFFILE ..\..\..\..\peri8.pfl
   SURFDATA 0 2007
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   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL RESIDENTIAL.AD\AN00GALL.PLT 31
   SUMMFILE Residential.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2333 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2333 Source(s);       1 Source Group(s); and       8 Receptor(s)

               with:     13 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:   2314 VOLUME source(s)
```

```
                                                    Residential
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                 ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      8.0 MB of RAM.

 **Detailed Error/Message File:   Residential.err

 **File for Summary of Results:   Residential.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

 STCK1            0   0.70870E-05  478197.3 3748887.5   453.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK2            0   0.70870E-05  478195.1 3748735.6   452.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK3            0   0.70870E-05  478195.8 3748573.3   452.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK4            0   0.70870E-05  478198.1 3748428.1   451.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK5            0   0.70870E-05  477956.2 3748894.1   453.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK6            0   0.70870E-05  477962.1 3748741.5   453.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK7            0   0.70870E-05  477962.8 3748581.4   452.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK8            0   0.70870E-05  477964.3 3748509.9   451.8     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK9            0   0.70870E-05  478049.1 3748355.8   451.0     3.96   501.00    49.98     0.04    YES     YES
```

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                                                   Residential
NO
 STCK10           0   0.70870E-05  478153.1 3748357.3    451.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK11           0   0.14994E-04  477756.4 3748910.9    453.2     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK12           0   0.11881E-04  477975.8 3748266.9    450.0     3.96   501.00    49.98     0.04    YES     YES
NO
 STCK13           0   0.20320E-04  477612.5 3748890.5    454.0     3.96   501.00    49.98     0.04    YES     YES
NO
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010668         0   0.44880E-05  478173.0 3748419.9    451.0     4.00    13.95     1.86     YES
 L0010669         0   0.44880E-05  478173.1 3748449.9    451.0     4.00    13.95     1.86     YES
 L0010670         0   0.44880E-05  478173.3 3748479.9    451.0     4.00    13.95     1.86     YES
 L0010671         0   0.44880E-05  478173.4 3748509.9    451.8     4.00    13.95     1.86     YES
 L0010672         0   0.44880E-05  478173.5 3748539.9    452.0     4.00    13.95     1.86     YES
 L0010673         0   0.44880E-05  478173.7 3748569.9    452.0     4.00    13.95     1.86     YES
 L0010674         0   0.44880E-05  478173.8 3748599.9    452.0     4.00    13.95     1.86     YES
 L0010675         0   0.44880E-05  478173.9 3748629.9    452.0     4.00    13.95     1.86     YES
 L0010676         0   0.44880E-05  478174.1 3748659.9    452.0     4.00    13.95     1.86     YES
 L0010677         0   0.44880E-05  478174.2 3748689.9    452.0     4.00    13.95     1.86     YES
 L0010678         0   0.44880E-05  478174.3 3748719.9    452.0     4.00    13.95     1.86     YES
 L0010679         0   0.44880E-05  478174.5 3748749.9    452.0     4.00    13.95     1.86     YES
 L0010680         0   0.44880E-05  478174.6 3748779.9    452.8     4.00    13.95     1.86     YES
 L0010681         0   0.44880E-05  478174.8 3748809.9    453.0     4.00    13.95     1.86     YES
 L0010682         0   0.44880E-05  478174.9 3748839.9    453.0     4.00    13.95     1.86     YES
 L0010683         0   0.44880E-05  478175.0 3748869.9    453.0     4.00    13.95     1.86     YES
 L0010684         0   0.44880E-05  478175.2 3748899.9    453.0     4.00    13.95     1.86     YES
 L0008004         0   0.46490E-05  477943.9 3748501.1    451.5     4.00    13.95     1.86     YES
 L0008005         0   0.46490E-05  477944.1 3748531.1    452.0     4.00    13.95     1.86     YES
 L0008006         0   0.46490E-05  477944.4 3748561.1    452.0     4.00    13.95     1.86     YES
 L0008007         0   0.46490E-05  477944.7 3748591.1    452.0     4.00    13.95     1.86     YES
 L0008008         0   0.46490E-05  477944.9 3748621.1    452.0     4.00    13.95     1.86     YES
 L0008009         0   0.46490E-05  477945.2 3748651.1    452.0     4.00    13.95     1.86     YES
 L0008010         0   0.46490E-05  477945.4 3748681.1    452.5     4.00    13.95     1.86     YES
 L0008011         0   0.46490E-05  477945.7 3748711.1    453.0     4.00    13.95     1.86     YES
 L0008012         0   0.46490E-05  477945.9 3748741.1    453.0     4.00    13.95     1.86     YES
 L0008013         0   0.46490E-05  477946.2 3748771.1    453.0     4.00    13.95     1.86     YES
 L0008014         0   0.46490E-05  477946.5 3748801.1    453.0     4.00    13.95     1.86     YES
 L0008015         0   0.46490E-05  477946.7 3748831.1    453.0     4.00    13.95     1.86     YES
 L0008016         0   0.46490E-05  477947.0 3748861.1    453.0     4.00    13.95     1.86     YES
 L0008017         0   0.46490E-05  477947.2 3748891.1    453.0     4.00    13.95     1.86     YES
 L0008018         0   0.42890E-05  477756.7 3748938.5    454.0     4.00     3.95     1.86     YES
 L0008019         0   0.42890E-05  477756.7 3748930.0    453.8     4.00     3.95     1.86     YES
 L0008020         0   0.42890E-05  477756.7 3748921.5    453.6     4.00     3.95     1.86     YES
 L0008021         0   0.42890E-05  477756.7 3748913.0    453.3     4.00     3.95     1.86     YES
 L0008022         0   0.42890E-05  477756.7 3748904.5    453.1     4.00     3.95     1.86     YES
 L0008023         0   0.42890E-05  477756.7 3748896.0    453.1     4.00     3.95     1.86     YES
 L0008024         0   0.42890E-05  477756.7 3748887.5    453.1     4.00     3.95     1.86     YES
 L0008025         0   0.42890E-05  477756.7 3748879.0    453.1     4.00     3.95     1.86     YES
 L0008026         0   0.19010E-06  477900.2 3748339.0    451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
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                                                 Residential
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
  13:32:39

  PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE        PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0008027         0   0.19010E-06  477908.7 3748339.0   451.0     4.00     3.95     1.86     YES
 L0008028         0   0.19010E-06  477917.1 3748338.9   451.0     4.00     3.95     1.86     YES
 L0008029         0   0.19010E-06  477925.6 3748338.8   451.0     4.00     3.95     1.86     YES
 L0008030         0   0.19010E-06  477934.1 3748338.8   451.0     4.00     3.95     1.86     YES
 L0008031         0   0.19010E-06  477942.6 3748338.0   451.0     4.00     3.95     1.86     YES
 L0008032         0   0.19010E-06  477947.6 3748331.8   451.0     4.00     3.95     1.86     YES
 L0008033         0   0.19010E-06  477951.8 3748324.5   451.0     4.00     3.95     1.86     YES
 L0008034         0   0.19010E-06  477956.1 3748317.1   450.0     4.00     3.95     1.86     YES
 L0008035         0   0.19010E-06  477960.3 3748309.7   450.0     4.00     3.95     1.86     YES
 L0008036         0   0.19010E-06  477964.6 3748302.3   450.0     4.00     3.95     1.86     YES
 L0008037         0   0.19010E-06  477968.8 3748295.0   450.0     4.00     3.95     1.86     YES
 L0008038         0   0.19010E-06  477973.0 3748287.6   450.0     4.00     3.95     1.86     YES
 L0008039         0   0.19010E-06  477976.2 3748279.9   450.0     4.00     3.95     1.86     YES
 L0008040         0   0.19010E-06  477977.3 3748271.5   450.0     4.00     3.95     1.86     YES
 L0008041         0   0.19010E-06  477978.3 3748263.0   450.0     4.00     3.95     1.86     YES
 L0008042         0   0.19010E-06  477978.3 3748254.5   450.0     4.00     3.95     1.86     YES
 L0008043         0   0.19010E-06  477978.3 3748246.0   450.0     4.00     3.95     1.86     YES
 L0008044         0   0.19010E-06  477978.2 3748237.5   450.0     4.00     3.95     1.86     YES
 L0008045         0   0.19010E-06  477978.2 3748229.0   450.0     4.00     3.95     1.86     YES
 L0008046         0   0.19010E-06  477978.1 3748220.5   450.0     4.00     3.95     1.86     YES
 L0008047         0   0.31000E-05  477608.7 3748929.3   454.0     0.00     3.95     1.86     YES
 L0008048         0   0.31000E-05  477608.7 3748920.8   454.0     0.00     3.95     1.86     YES
 L0008049         0   0.31000E-05  477608.7 3748912.3   454.0     0.00     3.95     1.86     YES
 L0008050         0   0.31000E-05  477608.7 3748903.8   454.0     0.00     3.95     1.86     YES
 L0008051         0   0.31000E-05  477608.7 3748895.3   454.0     0.00     3.95     1.86     YES
 L0008052         0   0.31000E-05  477608.7 3748886.8   454.0     0.00     3.95     1.86     YES
 L0008053         0   0.31000E-05  477608.7 3748878.3   454.0     0.00     3.95     1.86     YES
 L0008054         0   0.31000E-05  477608.7 3748869.8   454.0     0.00     3.95     1.86     YES
 L0008055         0   0.31000E-05  477608.7 3748861.3   454.0     0.00     3.95     1.86     YES
 L0008056         0   0.31000E-05  477608.7 3748852.8   454.0     0.00     3.95     1.86     YES
 L0008057         0   0.31000E-05  477608.7 3748844.3   454.0     0.00     3.95     1.86     YES
 L0008058         0   0.31000E-05  477608.7 3748835.8   454.0     0.00     3.95     1.86     YES
 L0008059         0   0.31000E-05  477608.7 3748827.3   454.0     0.00     3.95     1.86     YES
 L0008060         0   0.31000E-05  477608.7 3748818.8   454.0     0.00     3.95     1.86     YES
 L0008061         0   0.31000E-05  477608.7 3748810.3   454.0     0.00     3.95     1.86     YES
 L0008062         0   0.61680E-06  478043.0 3748335.2   451.0     0.00    13.95     1.86     YES
 L0008063         0   0.61680E-06  478073.0 3748334.5   451.0     0.00    13.95     1.86     YES
 L0008064         0   0.61680E-06  478103.0 3748333.9   451.0     0.00    13.95     1.86     YES
 L0008065         0   0.61680E-06  478133.0 3748333.2   451.0     0.00    13.95     1.86     YES
 L0008066         0   0.61680E-06  478163.0 3748332.6   451.0     0.00    13.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
  13:32:39

  PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***
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                                                      Residential
              NUMBER EMISSION RATE                              BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART. (GRAMS/SEC)     X         Y        ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0010493         0   0.10050E-05  477903.7 3748974.7   453.3     4.00     3.95     1.86     YES
 L0010494         0   0.10050E-05  477903.5 3748966.2   453.0     4.00     3.95     1.86     YES
 L0010495         0   0.10050E-05  477903.4 3748957.7   453.0     4.00     3.95     1.86     YES
 L0010496         0   0.10050E-05  477902.8 3748949.2   453.0     4.00     3.95     1.86     YES
 L0010497         0   0.10050E-05  477901.6 3748940.8   453.0     4.00     3.95     1.86     YES
 L0010498         0   0.10050E-05  477900.4 3748932.4   453.0     4.00     3.95     1.86     YES
 L0010499         0   0.10050E-05  477899.6 3748923.9   453.0     4.00     3.95     1.86     YES
 L0010500         0   0.10050E-05  477899.5 3748915.4   453.0     4.00     3.95     1.86     YES
 L0010501         0   0.10050E-05  477899.3 3748906.9   453.0     4.00     3.95     1.86     YES
 L0010502         0   0.10050E-05  477899.1 3748898.4   453.0     4.00     3.95     1.86     YES
 L0010503         0   0.10050E-05  477899.0 3748889.9   453.0     4.00     3.95     1.86     YES
 L0010504         0   0.10050E-05  477898.8 3748881.4   453.0     4.00     3.95     1.86     YES
 L0010505         0   0.10050E-05  477898.7 3748872.9   453.0     4.00     3.95     1.86     YES
 L0010506         0   0.10050E-05  477898.6 3748864.4   453.0     4.00     3.95     1.86     YES
 L0010507         0   0.10050E-05  477898.5 3748855.9   453.0     4.00     3.95     1.86     YES
 L0010508         0   0.10050E-05  477898.5 3748847.4   453.0     4.00     3.95     1.86     YES
 L0010509         0   0.10050E-05  477898.4 3748838.9   453.0     4.00     3.95     1.86     YES
 L0010510         0   0.10050E-05  477898.3 3748830.4   453.0     4.00     3.95     1.86     YES
 L0010511         0   0.10050E-05  477898.3 3748821.9   453.0     4.00     3.95     1.86     YES
 L0010512         0   0.10050E-05  477898.2 3748813.4   453.0     4.00     3.95     1.86     YES
 L0010513         0   0.10050E-05  477898.1 3748804.9   453.0     4.00     3.95     1.86     YES
 L0010514         0   0.10050E-05  477898.1 3748796.4   453.0     4.00     3.95     1.86     YES
 L0010515         0   0.10050E-05  477898.0 3748787.9   453.0     4.00     3.95     1.86     YES
 L0010516         0   0.10050E-05  477897.9 3748779.4   453.0     4.00     3.95     1.86     YES
 L0010517         0   0.10050E-05  477897.8 3748770.9   453.0     4.00     3.95     1.86     YES
 L0010518         0   0.10050E-05  477897.8 3748762.5   453.0     4.00     3.95     1.86     YES
 L0010519         0   0.10050E-05  477897.7 3748754.0   453.0     4.00     3.95     1.86     YES
 L0010520         0   0.10050E-05  477897.6 3748745.5   453.0     4.00     3.95     1.86     YES
 L0010521         0   0.10050E-05  477897.6 3748737.0   453.0     4.00     3.95     1.86     YES
 L0010522         0   0.10050E-05  477897.5 3748728.5   453.0     4.00     3.95     1.86     YES
 L0010523         0   0.10050E-05  477897.4 3748720.0   453.0     4.00     3.95     1.86     YES
 L0010524         0   0.10050E-05  477897.4 3748711.5   453.0     4.00     3.95     1.86     YES
 L0010525         0   0.10050E-05  477897.3 3748703.0   453.0     4.00     3.95     1.86     YES
 L0010526         0   0.10050E-05  477897.2 3748694.5   452.9     4.00     3.95     1.86     YES
 L0010527         0   0.10050E-05  477897.2 3748686.0   452.7     4.00     3.95     1.86     YES
 L0010528         0   0.10050E-05  477897.1 3748677.5   452.4     4.00     3.95     1.86     YES
 L0010529         0   0.10050E-05  477897.0 3748669.0   452.1     4.00     3.95     1.86     YES
 L0010530         0   0.10050E-05  477897.0 3748660.5   452.0     4.00     3.95     1.86     YES
 L0010531         0   0.10050E-05  477896.9 3748652.0   452.0     4.00     3.95     1.86     YES
 L0010532         0   0.10050E-05  477896.8 3748643.5   452.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:32:39

   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                              BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART. (GRAMS/SEC)     X         Y        ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0010533         0   0.10050E-05  477896.8 3748635.0   452.0     4.00     3.95     1.86     YES
 L0010534         0   0.10050E-05  477896.7 3748626.5   452.0     4.00     3.95     1.86     YES
 L0010535         0   0.10050E-05  477896.6 3748618.0   452.0     4.00     3.95     1.86     YES
 L0010536         0   0.10050E-05  477896.5 3748609.5   452.0     4.00     3.95     1.86     YES
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                                                    Residential
 L0010537         0   0.10050E-05  477896.5 3748601.0   452.0     4.00     3.95     1.86     YES
 L0010538         0   0.10050E-05  477896.4 3748592.5   452.0     4.00     3.95     1.86     YES
 L0010539         0   0.10050E-05  477896.3 3748584.0   452.0     4.00     3.95     1.86     YES
 L0010540         0   0.10050E-05  477896.3 3748575.5   452.0     4.00     3.95     1.86     YES
 L0010541         0   0.10050E-05  477896.2 3748567.0   452.0     4.00     3.95     1.86     YES
 L0010542         0   0.10050E-05  477896.1 3748558.5   452.0     4.00     3.95     1.86     YES
 L0010543         0   0.10050E-05  477896.1 3748550.0   452.0     4.00     3.95     1.86     YES
 L0010544         0   0.10050E-05  477896.0 3748541.5   452.0     4.00     3.95     1.86     YES
 L0010545         0   0.10050E-05  477895.9 3748533.0   452.0     4.00     3.95     1.86     YES
 L0010546         0   0.10050E-05  477895.9 3748524.5   452.0     4.00     3.95     1.86     YES
 L0010547         0   0.10050E-05  477895.8 3748516.0   452.0     4.00     3.95     1.86     YES
 L0010548         0   0.10050E-05  477895.7 3748507.5   452.0     4.00     3.95     1.86     YES
 L0010549         0   0.10050E-05  477895.7 3748499.0   452.0     4.00     3.95     1.86     YES
 L0010550         0   0.10050E-05  477896.1 3748490.6   452.0     4.00     3.95     1.86     YES
 L0010551         0   0.10050E-05  477900.1 3748483.1   452.0     4.00     3.95     1.86     YES
 L0010552         0   0.10050E-05  477904.1 3748475.6   451.9     4.00     3.95     1.86     YES
 L0010553         0   0.10050E-05  477908.1 3748468.1   452.0     4.00     3.95     1.86     YES
 L0010554         0   0.10050E-05  477912.2 3748460.6   451.9     4.00     3.95     1.86     YES
 L0010555         0   0.10050E-05  477916.2 3748453.1   451.7     4.00     3.95     1.86     YES
 L0010556         0   0.10050E-05  477920.2 3748445.6   451.4     4.00     3.95     1.86     YES
 L0010557         0   0.10050E-05  477924.2 3748438.1   451.2     4.00     3.95     1.86     YES
 L0010558         0   0.10050E-05  477928.2 3748430.7   451.1     4.00     3.95     1.86     YES
 L0010559         0   0.10050E-05  477932.2 3748423.2   451.0     4.00     3.95     1.86     YES
 L0010560         0   0.10050E-05  477936.3 3748415.7   451.0     4.00     3.95     1.86     YES
 L0010561         0   0.10050E-05  477940.3 3748408.2   451.0     4.00     3.95     1.86     YES
 L0010562         0   0.10050E-05  477944.3 3748400.7   451.0     4.00     3.95     1.86     YES
 L0010563         0   0.10050E-05  477948.3 3748393.2   451.0     4.00     3.95     1.86     YES
 L0010564         0   0.10050E-05  477952.3 3748385.7   451.0     4.00     3.95     1.86     YES
 L0010565         0   0.10050E-05  477956.3 3748378.2   451.0     4.00     3.95     1.86     YES
 L0010566         0   0.10050E-05  477960.4 3748370.7   451.0     4.00     3.95     1.86     YES
 L0010567         0   0.10050E-05  477964.4 3748363.2   451.0     4.00     3.95     1.86     YES
 L0010568         0   0.10050E-05  477968.5 3748355.8   451.0     4.00     3.95     1.86     YES
 L0010569         0   0.10050E-05  477973.1 3748348.7   451.0     4.00     3.95     1.86     YES
 L0010570         0   0.10050E-05  477977.7 3748341.5   451.0     4.00     3.95     1.86     YES
 L0010571         0   0.10050E-05  477985.2 3748339.7   451.0     4.00     3.95     1.86     YES
 L0010572         0   0.10050E-05  477993.7 3748339.8   451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE   7
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0010573         0   0.10050E-05  478002.2 3748339.9   451.0     4.00     3.95     1.86     YES
 L0010574         0   0.10050E-05  478010.7 3748340.0   451.0     4.00     3.95     1.86     YES
 L0010575         0   0.10050E-05  478019.2 3748340.1   451.0     4.00     3.95     1.86     YES
 L0010576         0   0.10050E-05  478027.7 3748340.2   451.0     4.00     3.95     1.86     YES
 L0010577         0   0.10050E-05  478036.2 3748340.2   451.0     4.00     3.95     1.86     YES
 L0010578         0   0.10050E-05  478044.7 3748340.3   451.0     4.00     3.95     1.86     YES
 L0010579         0   0.10050E-05  478053.2 3748340.4   451.0     4.00     3.95     1.86     YES
 L0010580         0   0.10050E-05  478061.7 3748340.5   451.0     4.00     3.95     1.86     YES
 L0010581         0   0.10050E-05  478070.2 3748340.6   451.0     4.00     3.95     1.86     YES
 L0010582         0   0.10050E-05  478078.7 3748340.7   451.0     4.00     3.95     1.86     YES
 L0010583         0   0.10050E-05  478087.2 3748340.8   451.0     4.00     3.95     1.86     YES
 L0010584         0   0.10050E-05  478095.7 3748340.9   451.0     4.00     3.95     1.86     YES
 L0010585         0   0.10050E-05  478104.2 3748341.0   451.0     4.00     3.95     1.86     YES
 L0010586         0   0.10050E-05  478112.7 3748341.1   451.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0010587         0   0.10050E-05  478121.2 3748341.2   451.0     4.00     3.95     1.86     YES
 L0010588         0   0.10050E-05  478129.7 3748341.3   451.0     4.00     3.95     1.86     YES
 L0010589         0   0.10050E-05  478138.2 3748341.4   451.0     4.00     3.95     1.86     YES
 L0010590         0   0.10050E-05  478146.7 3748341.4   451.0     4.00     3.95     1.86     YES
 L0010591         0   0.10050E-05  478155.2 3748341.5   451.0     4.00     3.95     1.86     YES
 L0010592         0   0.10050E-05  478163.7 3748341.6   451.0     4.00     3.95     1.86     YES
 L0010593         0   0.10050E-05  478167.2 3748346.7   451.0     4.00     3.95     1.86     YES
 L0010594         0   0.10050E-05  478167.3 3748355.2   451.0     4.00     3.95     1.86     YES
 L0010595         0   0.10050E-05  478167.3 3748363.7   451.0     4.00     3.95     1.86     YES
 L0010596         0   0.10050E-05  478167.4 3748372.2   451.0     4.00     3.95     1.86     YES
 L0010597         0   0.10050E-05  478167.5 3748380.7   451.0     4.00     3.95     1.86     YES
 L0010598         0   0.10050E-05  478167.5 3748389.2   451.0     4.00     3.95     1.86     YES
 L0010599         0   0.10050E-05  478167.6 3748397.7   451.0     4.00     3.95     1.86     YES
 L0010600         0   0.10050E-05  478167.6 3748406.2   451.0     4.00     3.95     1.86     YES
 L0010601         0   0.10050E-05  478167.7 3748414.7   451.0     4.00     3.95     1.86     YES
 L0010602         0   0.10050E-05  478167.8 3748423.2   451.0     4.00     3.95     1.86     YES
 L0010603         0   0.10050E-05  478167.8 3748431.7   451.0     4.00     3.95     1.86     YES
 L0010604         0   0.10050E-05  478167.9 3748440.2   451.0     4.00     3.95     1.86     YES
 L0010605         0   0.10050E-05  478167.9 3748448.7   451.0     4.00     3.95     1.86     YES
 L0010606         0   0.10050E-05  478168.0 3748457.2   451.0     4.00     3.95     1.86     YES
 L0010607         0   0.10050E-05  478168.1 3748465.7   451.0     4.00     3.95     1.86     YES
 L0010608         0   0.10050E-05  478168.1 3748474.2   451.0     4.00     3.95     1.86     YES
 L0010609         0   0.10050E-05  478168.2 3748482.7   451.0     4.00     3.95     1.86     YES
 L0010610         0   0.10050E-05  478168.2 3748491.2   451.2     4.00     3.95     1.86     YES
 L0010611         0   0.10050E-05  478168.3 3748499.7   451.4     4.00     3.95     1.86     YES
 L0010612         0   0.10050E-05  478168.4 3748508.2   451.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
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  PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE        PART.  (GRAMS/SEC)       X          Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)              BY
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 L0010613         0   0.10050E-05  478168.4 3748516.7   452.0     4.00     3.95     1.86     YES
 L0010614         0   0.10050E-05  478168.5 3748525.2   452.0     4.00     3.95     1.86     YES
 L0010615         0   0.10050E-05  478168.5 3748533.7   452.0     4.00     3.95     1.86     YES
 L0010616         0   0.10050E-05  478168.6 3748542.2   452.0     4.00     3.95     1.86     YES
 L0010617         0   0.10050E-05  478168.7 3748550.7   452.0     4.00     3.95     1.86     YES
 L0010618         0   0.10050E-05  478168.7 3748559.2   452.0     4.00     3.95     1.86     YES
 L0010619         0   0.10050E-05  478168.8 3748567.7   452.0     4.00     3.95     1.86     YES
 L0010620         0   0.10050E-05  478168.8 3748576.2   452.0     4.00     3.95     1.86     YES
 L0010621         0   0.10050E-05  478168.9 3748584.7   452.0     4.00     3.95     1.86     YES
 L0010622         0   0.10050E-05  478169.0 3748593.2   452.0     4.00     3.95     1.86     YES
 L0010623         0   0.10050E-05  478169.0 3748601.7   452.0     4.00     3.95     1.86     YES
 L0010624         0   0.10050E-05  478169.1 3748610.2   452.0     4.00     3.95     1.86     YES
 L0010625         0   0.10050E-05  478169.1 3748618.7   452.0     4.00     3.95     1.86     YES
 L0010626         0   0.10050E-05  478169.2 3748627.2   452.0     4.00     3.95     1.86     YES
 L0010627         0   0.10050E-05  478169.3 3748635.7   452.0     4.00     3.95     1.86     YES
 L0010628         0   0.10050E-05  478169.3 3748644.2   452.0     4.00     3.95     1.86     YES
 L0010629         0   0.10050E-05  478169.4 3748652.7   452.0     4.00     3.95     1.86     YES
 L0010630         0   0.10050E-05  478169.4 3748661.2   452.0     4.00     3.95     1.86     YES
 L0010631         0   0.10050E-05  478169.5 3748669.7   452.0     4.00     3.95     1.86     YES
 L0010632         0   0.10050E-05  478169.6 3748678.2   452.0     4.00     3.95     1.86     YES
 L0010633         0   0.10050E-05  478169.6 3748686.7   452.0     4.00     3.95     1.86     YES
 L0010634         0   0.10050E-05  478169.7 3748695.2   452.0     4.00     3.95     1.86     YES
 L0010635         0   0.10050E-05  478169.8 3748703.7   452.0     4.00     3.95     1.86     YES
 L0010636         0   0.10050E-05  478169.8 3748712.2   452.0     4.00     3.95     1.86     YES
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                                                         Residential
 L0010637         0   0.10050E-05  478169.9 3748720.7   452.0     4.00     3.95     1.86     YES
 L0010638         0   0.10050E-05  478169.9 3748729.2   452.0     4.00     3.95     1.86     YES
 L0010639         0   0.10050E-05  478170.0 3748737.7   452.0     4.00     3.95     1.86     YES
 L0010640         0   0.10050E-05  478170.1 3748746.2   452.0     4.00     3.95     1.86     YES
 L0010641         0   0.10050E-05  478170.1 3748754.7   452.0     4.00     3.95     1.86     YES
 L0010642         0   0.10050E-05  478170.2 3748763.2   452.2     4.00     3.95     1.86     YES
 L0010643         0   0.10050E-05  478170.2 3748771.7   452.5     4.00     3.95     1.86     YES
 L0010644         0   0.10050E-05  478170.3 3748780.2   452.8     4.00     3.95     1.86     YES
 L0010645         0   0.10050E-05  478170.4 3748788.7   453.0     4.00     3.95     1.86     YES
 L0010646         0   0.10050E-05  478170.4 3748797.2   453.0     4.00     3.95     1.86     YES
 L0010647         0   0.10050E-05  478170.5 3748805.7   453.0     4.00     3.95     1.86     YES
 L0010648         0   0.10050E-05  478170.5 3748814.2   453.0     4.00     3.95     1.86     YES
 L0010649         0   0.10050E-05  478170.6 3748822.7   453.0     4.00     3.95     1.86     YES
 L0010650         0   0.10050E-05  478170.7 3748831.2   453.0     4.00     3.95     1.86     YES
 L0010651         0   0.10050E-05  478170.7 3748839.7   453.0     4.00     3.95     1.86     YES
 L0010652         0   0.10050E-05  478170.8 3748848.2   453.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                 ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)   (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0010653         0   0.10050E-05  478170.8 3748856.7   453.0     4.00     3.95     1.86     YES
 L0010654         0   0.10050E-05  478170.9 3748865.2   453.0     4.00     3.95     1.86     YES
 L0010655         0   0.10050E-05  478171.0 3748873.7   453.0     4.00     3.95     1.86     YES
 L0010656         0   0.10050E-05  478171.0 3748882.2   453.0     4.00     3.95     1.86     YES
 L0010657         0   0.10050E-05  478171.1 3748890.7   453.0     4.00     3.95     1.86     YES
 L0010658         0   0.10050E-05  478171.1 3748899.2   453.0     4.00     3.95     1.86     YES
 L0010659         0   0.10050E-05  478171.2 3748907.7   453.0     4.00     3.95     1.86     YES
 L0010660         0   0.10050E-05  478171.3 3748916.2   453.0     4.00     3.95     1.86     YES
 L0010661         0   0.10050E-05  478168.9 3748924.3   453.0     4.00     3.95     1.86     YES
 L0010662         0   0.10050E-05  478166.4 3748932.4   453.0     4.00     3.95     1.86     YES
 L0010663         0   0.10050E-05  478163.9 3748940.6   453.0     4.00     3.95     1.86     YES
 L0010664         0   0.10050E-05  478161.5 3748948.7   453.0     4.00     3.95     1.86     YES
 L0010665         0   0.10050E-05  478159.0 3748956.8   453.0     4.00     3.95     1.86     YES
 L0010666         0   0.10050E-05  478156.5 3748965.0   453.0     4.00     3.95     1.86     YES
 L0010667         0   0.10050E-05  478154.0 3748973.1   453.0     4.00     3.95     1.86     YES
 L0008242         0   0.21410E-06  477852.8 3748835.2   453.0     4.00     3.95     1.86     YES
 L0008243         0   0.21410E-06  477852.8 3748843.7   453.0     4.00     3.95     1.86     YES
 L0008244         0   0.21410E-06  477852.9 3748852.2   453.0     4.00     3.95     1.86     YES
 L0008245         0   0.21410E-06  477852.9 3748860.7   453.0     4.00     3.95     1.86     YES
 L0008246         0   0.21410E-06  477853.0 3748869.2   453.0     4.00     3.95     1.86     YES
 L0008247         0   0.21410E-06  477853.0 3748877.7   453.0     4.00     3.95     1.86     YES
 L0008248         0   0.21410E-06  477853.1 3748886.2   453.0     4.00     3.95     1.86     YES
 L0008249         0   0.21410E-06  477853.1 3748894.7   453.0     4.00     3.95     1.86     YES
 L0008250         0   0.21410E-06  477853.1 3748903.2   453.0     4.00     3.95     1.86     YES
 L0008251         0   0.21410E-06  477853.2 3748911.7   453.0     4.00     3.95     1.86     YES
 L0008252         0   0.21410E-06  477853.2 3748920.2   453.0     4.00     3.95     1.86     YES
 L0008253         0   0.21410E-06  477853.3 3748928.7   453.0     4.00     3.95     1.86     YES
 L0008254         0   0.21410E-06  477853.3 3748937.2   453.0     4.00     3.95     1.86     YES
 L0008255         0   0.21410E-06  477853.4 3748945.7   453.0     4.00     3.95     1.86     YES
 L0008256         0   0.21410E-06  477853.4 3748954.2   453.0     4.00     3.95     1.86     YES
 L0008257         0   0.21410E-06  477853.5 3748962.7   453.0     4.00     3.95     1.86     YES
 L0008258         0   0.21410E-06  477853.5 3748971.2   453.2     4.00     3.95     1.86     YES
 L0008259         0   0.21410E-06  477853.5 3748979.7   453.4     4.00     3.95     1.86     YES
 L0008260         0   0.21410E-06  477845.0 3748979.7   453.5     4.00     3.95     1.86     YES
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                                                     Residential
 L0008261         0   0.21410E-06  477836.5 3748979.6   453.7     4.00     3.95     1.86     YES
 L0008262         0   0.21410E-06  477828.0 3748979.6   453.9     4.00     3.95     1.86     YES
 L0008263         0   0.21410E-06  477819.5 3748979.6   454.0     4.00     3.95     1.86     YES
 L0008264         0   0.21410E-06  477811.0 3748979.6   454.0     4.00     3.95     1.86     YES
 L0008265         0   0.21410E-06  477802.5 3748979.6   454.0     4.00     3.95     1.86     YES
 L0008266         0   0.21410E-06  477794.0 3748979.5   454.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X        Y    ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008267         0   0.21410E-06  477785.5 3748979.5   454.0     4.00     3.95     1.86     YES
 L0008268         0   0.21410E-06  477777.0 3748979.5   454.0     4.00     3.95     1.86     YES
 L0008269         0   0.21410E-06  477768.5 3748979.5   454.0     4.00     3.95     1.86     YES
 L0008270         0   0.21410E-06  477760.0 3748979.5   454.0     4.00     3.95     1.86     YES
 L0008271         0   0.21410E-06  477751.5 3748979.4   454.0     4.00     3.95     1.86     YES
 L0008272         0   0.21410E-06  477743.0 3748979.4   454.0     4.00     3.95     1.86     YES
 L0008273         0   0.21410E-06  477742.7 3748971.2   454.0     4.00     3.95     1.86     YES
 L0008274         0   0.21410E-06  477742.7 3748962.7   454.0     4.00     3.95     1.86     YES
 L0008275         0   0.21410E-06  477742.6 3748954.2   454.0     4.00     3.95     1.86     YES
 L0008276         0   0.21410E-06  477742.6 3748945.7   454.0     4.00     3.95     1.86     YES
 L0008277         0   0.21410E-06  477742.5 3748937.2   454.0     4.00     3.95     1.86     YES
 L0008278         0   0.21410E-06  477742.5 3748928.7   453.9     4.00     3.95     1.86     YES
 L0008279         0   0.21410E-06  477742.4 3748920.2   453.8     4.00     3.95     1.86     YES
 L0008280         0   0.21410E-06  477742.4 3748911.7   453.7     4.00     3.95     1.86     YES
 L0008281         0   0.21410E-06  477742.3 3748903.2   453.6     4.00     3.95     1.86     YES
 L0008282         0   0.21410E-06  477742.3 3748894.7   453.6     4.00     3.95     1.86     YES
 L0008283         0   0.21410E-06  477742.2 3748886.2   453.6     4.00     3.95     1.86     YES
 L0008284         0   0.21410E-06  477744.2 3748878.0   453.5     4.00     3.95     1.86     YES
 L0008285         0   0.21410E-06  477746.5 3748869.8   453.6     4.00     3.95     1.86     YES
 L0008286         0   0.21410E-06  477748.8 3748861.6   453.7     4.00     3.95     1.86     YES
 L0008287         0   0.21410E-06  477751.1 3748853.4   453.8     4.00     3.95     1.86     YES
 L0008288         0   0.21410E-06  477753.4 3748845.3   454.0     4.00     3.95     1.86     YES
 L0008289         0   0.21410E-06  477757.5 3748838.2   453.7     4.00     3.95     1.86     YES
 L0008290         0   0.21410E-06  477763.8 3748832.5   453.5     4.00     3.95     1.86     YES
 L0008291         0   0.21410E-06  477770.1 3748826.8   453.2     4.00     3.95     1.86     YES
 L0008292         0   0.21410E-06  477778.6 3748826.5   453.1     4.00     3.95     1.86     YES
 L0008293         0   0.21410E-06  477787.1 3748826.4   453.0     4.00     3.95     1.86     YES
 L0008294         0   0.21410E-06  477795.6 3748826.2   453.0     4.00     3.95     1.86     YES
 L0008295         0   0.21410E-06  477804.1 3748826.1   453.0     4.00     3.95     1.86     YES
 L0008296         0   0.21410E-06  477812.6 3748826.1   453.0     4.00     3.95     1.86     YES
 L0008297         0   0.21410E-06  477821.1 3748826.0   453.0     4.00     3.95     1.86     YES
 L0008298         0   0.21410E-06  477829.6 3748826.0   453.0     4.00     3.95     1.86     YES
 L0008299         0   0.21410E-06  477838.1 3748825.9   453.0     4.00     3.95     1.86     YES
 L0008300         0   0.21410E-06  477846.6 3748825.8   453.0     4.00     3.95     1.86     YES
 L0008301         0   0.16860E-06  477886.6 3748203.7   450.0     4.00     3.95     1.86     YES
 L0008302         0   0.16860E-06  477886.4 3748212.2   450.0     4.00     3.95     1.86     YES
 L0008303         0   0.16860E-06  477886.3 3748220.7   450.1     4.00     3.95     1.86     YES
 L0008304         0   0.16860E-06  477886.1 3748229.2   450.3     4.00     3.95     1.86     YES
 L0008305         0   0.16860E-06  477885.9 3748237.7   450.6     4.00     3.95     1.86     YES
 L0008306         0   0.16860E-06  477885.7 3748246.2   450.8     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                        Residential

   PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT     SY       SZ      SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0008307        0   0.16860E-06  477885.5 3748254.7   450.9     4.00     3.95     1.86     YES
 L0008308        0   0.16860E-06  477885.6 3748263.2   450.9     4.00     3.95     1.86     YES
 L0008309        0   0.16860E-06  477885.7 3748271.7   451.0     4.00     3.95     1.86     YES
 L0008310        0   0.16860E-06  477885.8 3748280.2   451.0     4.00     3.95     1.86     YES
 L0008311        0   0.16860E-06  477885.9 3748288.7   451.0     4.00     3.95     1.86     YES
 L0008312        0   0.16860E-06  477886.0 3748297.2   451.0     4.00     3.95     1.86     YES
 L0008313        0   0.16860E-06  477886.1 3748305.7   451.0     4.00     3.95     1.86     YES
 L0008314        0   0.16860E-06  477886.2 3748314.2   451.0     4.00     3.95     1.86     YES
 L0008315        0   0.16860E-06  477886.3 3748322.7   451.0     4.00     3.95     1.86     YES
 L0008316        0   0.16860E-06  477886.4 3748331.2   451.0     4.00     3.95     1.86     YES
 L0008317        0   0.16860E-06  477889.0 3748337.4   451.0     4.00     3.95     1.86     YES
 L0008318        0   0.16860E-06  477897.5 3748338.1   451.0     4.00     3.95     1.86     YES
 L0008319        0   0.16860E-06  477906.0 3748338.9   451.0     4.00     3.95     1.86     YES
 L0008320        0   0.16860E-06  477914.4 3748339.7   451.0     4.00     3.95     1.86     YES
 L0008321        0   0.16860E-06  477922.9 3748339.5   451.0     4.00     3.95     1.86     YES
 L0008322        0   0.16860E-06  477931.4 3748338.9   451.0     4.00     3.95     1.86     YES
 L0008323        0   0.16860E-06  477939.8 3748338.2   451.0     4.00     3.95     1.86     YES
 L0008324        0   0.16860E-06  477945.5 3748332.6   451.0     4.00     3.95     1.86     YES
 L0008325        0   0.16860E-06  477950.6 3748325.7   451.0     4.00     3.95     1.86     YES
 L0008326        0   0.16860E-06  477955.0 3748318.5   450.0     4.00     3.95     1.86     YES
 L0008327        0   0.16860E-06  477959.4 3748311.2   450.0     4.00     3.95     1.86     YES
 L0008328        0   0.16860E-06  477963.8 3748303.9   450.0     4.00     3.95     1.86     YES
 L0008329        0   0.16860E-06  477968.2 3748296.7   450.0     4.00     3.95     1.86     YES
 L0008330        0   0.16860E-06  477972.6 3748289.4   450.0     4.00     3.95     1.86     YES
 L0008331        0   0.16860E-06  477975.8 3748281.7   450.0     4.00     3.95     1.86     YES
 L0008332        0   0.16860E-06  477977.7 3748273.4   450.0     4.00     3.95     1.86     YES
 L0008333        0   0.16860E-06  477979.6 3748265.1   450.0     4.00     3.95     1.86     YES
 L0008334        0   0.16860E-06  477981.3 3748256.8   450.0     4.00     3.95     1.86     YES
 L0008335        0   0.16860E-06  477980.6 3748248.3   450.0     4.00     3.95     1.86     YES
 L0008336        0   0.16860E-06  477979.9 3748239.8   450.0     4.00     3.95     1.86     YES
 L0008337        0   0.16860E-06  477979.2 3748231.4   450.0     4.00     3.95     1.86     YES
 L0008338        0   0.16860E-06  477978.4 3748222.9   450.0     4.00     3.95     1.86     YES
 L0008339        0   0.16860E-06  477982.6 3748217.0   450.0     4.00     3.95     1.86     YES
 L0008340        0   0.16860E-06  477990.0 3748212.7   450.0     4.00     3.95     1.86     YES
 L0008341        0   0.16860E-06  477994.0 3748206.5   450.0     4.00     3.95     1.86     YES
 L0008342        0   0.16860E-06  477994.1 3748198.0   450.0     4.00     3.95     1.86     YES
 L0008343        0   0.16860E-06  477986.1 3748197.5   450.0     4.00     3.95     1.86     YES
 L0008344        0   0.16860E-06  477977.6 3748197.5   450.0     4.00     3.95     1.86     YES
 L0008345        0   0.16860E-06  477969.1 3748197.5   450.0     4.00     3.95     1.86     YES
 L0008346        0   0.16860E-06  477960.6 3748197.5   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT     SY       SZ      SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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                                              Residential
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 L0008347        0   0.16860E-06  477952.1 3748197.5   450.0     4.00     3.95     1.86     YES
 L0008348        0   0.16860E-06  477943.6 3748197.5   450.0     4.00     3.95     1.86     YES
 L0008349        0   0.16860E-06  477935.1 3748197.5   450.0     4.00     3.95     1.86     YES
 L0008350        0   0.28780E-06  477505.1 3748975.7   454.2     4.00     3.95     1.86     YES
 L0008351        0   0.28780E-06  477513.6 3748975.6   454.1     4.00     3.95     1.86     YES
 L0008352        0   0.28780E-06  477522.1 3748975.4   454.0     4.00     3.95     1.86     YES
 L0008353        0   0.28780E-06  477530.6 3748975.2   454.0     4.00     3.95     1.86     YES
 L0008354        0   0.28780E-06  477539.1 3748975.1   454.0     4.00     3.95     1.86     YES
 L0008355        0   0.28780E-06  477547.6 3748974.9   454.0     4.00     3.95     1.86     YES
 L0008356        0   0.28780E-06  477556.1 3748974.7   454.0     4.00     3.95     1.86     YES
 L0008357        0   0.28780E-06  477564.6 3748974.6   454.0     4.00     3.95     1.86     YES
 L0008358        0   0.28780E-06  477573.1 3748974.4   454.0     4.00     3.95     1.86     YES
 L0008359        0   0.28780E-06  477581.6 3748974.2   454.0     4.00     3.95     1.86     YES
 L0008360        0   0.28780E-06  477590.1 3748974.1   454.0     4.00     3.95     1.86     YES
 L0008361        0   0.28780E-06  477598.5 3748973.8   454.0     4.00     3.95     1.86     YES
 L0008362        0   0.28780E-06  477605.4 3748968.8   454.0     4.00     3.95     1.86     YES
 L0008363        0   0.28780E-06  477611.1 3748963.0   454.0     4.00     3.95     1.86     YES
 L0008364        0   0.28780E-06  477613.4 3748954.9   454.0     4.00     3.95     1.86     YES
 L0008365        0   0.28780E-06  477615.7 3748946.7   454.0     4.00     3.95     1.86     YES
 L0008366        0   0.28780E-06  477618.0 3748938.5   454.0     4.00     3.95     1.86     YES
 L0008367        0   0.28780E-06  477620.0 3748930.2   454.0     4.00     3.95     1.86     YES
 L0008368        0   0.28780E-06  477621.7 3748921.9   454.0     4.00     3.95     1.86     YES
 L0008369        0   0.28780E-06  477623.4 3748913.6   454.0     4.00     3.95     1.86     YES
 L0008370        0   0.28780E-06  477625.1 3748905.3   454.0     4.00     3.95     1.86     YES
 L0008371        0   0.28780E-06  477626.2 3748896.9   454.0     4.00     3.95     1.86     YES
 L0008372        0   0.28780E-06  477626.4 3748888.4   454.0     4.00     3.95     1.86     YES
 L0008373        0   0.28780E-06  477626.5 3748879.9   454.0     4.00     3.95     1.86     YES
 L0008374        0   0.28780E-06  477626.6 3748871.4   454.0     4.00     3.95     1.86     YES
 L0008375        0   0.28780E-06  477626.7 3748862.9   454.0     4.00     3.95     1.86     YES
 L0008376        0   0.28780E-06  477626.8 3748854.4   454.0     4.00     3.95     1.86     YES
 L0008377        0   0.28780E-06  477626.9 3748845.9   454.0     4.00     3.95     1.86     YES
 L0008378        0   0.28780E-06  477627.0 3748837.4   454.0     4.00     3.95     1.86     YES
 L0008379        0   0.28780E-06  477627.1 3748828.9   454.0     4.00     3.95     1.86     YES
 L0008380        0   0.28780E-06  477627.2 3748820.4   454.0     4.00     3.95     1.86     YES
 L0008381        0   0.28780E-06  477627.3 3748811.9   454.0     4.00     3.95     1.86     YES
 L0008382        0   0.28780E-06  477627.5 3748803.4   454.0     4.00     3.95     1.86     YES
 L0008383        0   0.28780E-06  477627.0 3748795.5   454.0     4.00     3.95     1.86     YES
 L0008384        0   0.28780E-06  477618.5 3748795.7   454.0     4.00     3.95     1.86     YES
 L0008385        0   0.28780E-06  477610.0 3748795.9   454.0     4.00     3.95     1.86     YES
 L0008386        0   0.28780E-06  477601.5 3748796.2   454.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008387        0   0.28780E-06  477593.0 3748796.4   454.0     4.00     3.95     1.86     YES
 L0008388        0   0.28780E-06  477584.5 3748796.6   454.0     4.00     3.95     1.86     YES
 L0008389        0   0.28780E-06  477576.0 3748796.9   454.0     4.00     3.95     1.86     YES
 L0008390        0   0.28780E-06  477567.5 3748797.1   454.0     4.00     3.95     1.86     YES
 L0008391        0   0.28780E-06  477559.0 3748797.3   454.0     4.00     3.95     1.86     YES
 L0008392        0   0.28780E-06  477550.5 3748797.5   454.0     4.00     3.95     1.86     YES
 L0008393        0   0.28780E-06  477542.0 3748797.8   454.0     4.00     3.95     1.86     YES
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                                                  Residential
 L0008394         0   0.28780E-06  477533.5 3748798.0   454.0      4.00     3.95     1.86     YES
 L0008395         0   0.28780E-06  477525.0 3748798.2   454.0      4.00     3.95     1.86     YES
 L0008396         0   0.28780E-06  477516.5 3748798.5   454.0      4.00     3.95     1.86     YES
 L0008397         0   0.28780E-06  477508.0 3748798.7   454.0      4.00     3.95     1.86     YES
 L0008398         0   0.28780E-06  477499.5 3748798.9   454.0      4.00     3.95     1.86     YES
 L0008399         0   0.28780E-06  477491.0 3748799.2   454.0      4.00     3.95     1.86     YES
 L0008400         0   0.42530E-06  478255.5 3748984.6   453.0      4.00     3.95     1.86     YES
 L0008401         0   0.42530E-06  478247.0 3748984.7   453.0      4.00     3.95     1.86     YES
 L0008402         0   0.42530E-06  478238.5 3748984.7   453.0      4.00     3.95     1.86     YES
 L0008403         0   0.42530E-06  478230.0 3748984.8   453.0      4.00     3.95     1.86     YES
 L0008404         0   0.42530E-06  478221.5 3748984.9   453.0      4.00     3.95     1.86     YES
 L0008405         0   0.42530E-06  478213.0 3748985.0   453.0      4.00     3.95     1.86     YES
 L0008406         0   0.42530E-06  478204.5 3748985.1   453.0      4.00     3.95     1.86     YES
 L0008407         0   0.42530E-06  478196.0 3748985.1   453.0      4.00     3.95     1.86     YES
 L0008408         0   0.42530E-06  478187.5 3748985.2   453.0      4.00     3.95     1.86     YES
 L0008409         0   0.42530E-06  478179.0 3748985.3   453.0      4.00     3.95     1.86     YES
 L0008410         0   0.42530E-06  478170.5 3748985.4   453.0      4.00     3.95     1.86     YES
 L0008411         0   0.42530E-06  478162.0 3748985.5   453.0      4.00     3.95     1.86     YES
 L0008412         0   0.42530E-06  478153.5 3748985.6   453.0      4.00     3.95     1.86     YES
 L0008413         0   0.42530E-06  478145.0 3748985.6   453.0      4.00     3.95     1.86     YES
 L0008414         0   0.42530E-06  478136.5 3748985.7   453.0      4.00     3.95     1.86     YES
 L0008415         0   0.42530E-06  478128.0 3748985.8   453.0      4.00     3.95     1.86     YES
 L0008416         0   0.42530E-06  478119.5 3748985.9   453.0      4.00     3.95     1.86     YES
 L0008417         0   0.42530E-06  478111.0 3748986.0   453.0      4.00     3.95     1.86     YES
 L0008418         0   0.42530E-06  478102.5 3748986.0   453.0      4.00     3.95     1.86     YES
 L0008419         0   0.42530E-06  478094.0 3748986.1   453.0      4.00     3.95     1.86     YES
 L0008420         0   0.42530E-06  478085.5 3748986.2   453.0      4.00     3.95     1.86     YES
 L0008421         0   0.42530E-06  478077.0 3748986.3   453.0      4.00     3.95     1.86     YES
 L0008422         0   0.42530E-06  478068.5 3748986.4   453.0      4.00     3.95     1.86     YES
 L0008423         0   0.42530E-06  478060.0 3748986.4   453.0      4.00     3.95     1.86     YES
 L0008424         0   0.42530E-06  478051.5 3748986.5   453.0      4.00     3.95     1.86     YES
 L0008425         0   0.42530E-06  478043.0 3748986.6   453.0      4.00     3.95     1.86     YES
 L0008426         0   0.42530E-06  478034.5 3748986.7   453.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS)  (METERS)  (METERS)  (METERS) (METERS)            BY
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 L0008427         0   0.42530E-06  478026.0 3748986.8   453.0      4.00     3.95     1.86     YES
 L0008428         0   0.42530E-06  478017.5 3748986.9   453.0      4.00     3.95     1.86     YES
 L0008429         0   0.42530E-06  478009.0 3748986.9   453.0      4.00     3.95     1.86     YES
 L0008430         0   0.42530E-06  478000.5 3748987.0   453.0      4.00     3.95     1.86     YES
 L0008431         0   0.42530E-06  477992.0 3748987.1   453.0      4.00     3.95     1.86     YES
 L0008432         0   0.42530E-06  477983.5 3748987.2   453.0      4.00     3.95     1.86     YES
 L0008433         0   0.42530E-06  477975.0 3748987.3   453.0      4.00     3.95     1.86     YES
 L0008434         0   0.42530E-06  477966.5 3748987.3   453.0      4.00     3.95     1.86     YES
 L0008435         0   0.42530E-06  477958.0 3748987.4   453.0      4.00     3.95     1.86     YES
 L0008436         0   0.42530E-06  477949.5 3748987.5   453.0      4.00     3.95     1.86     YES
 L0008437         0   0.42530E-06  477941.0 3748987.6   453.0      4.00     3.95     1.86     YES
 L0008438         0   0.42530E-06  477932.5 3748987.7   453.2      4.00     3.95     1.86     YES
 L0008439         0   0.42530E-06  477924.0 3748987.7   453.4      4.00     3.95     1.86     YES
 L0008440         0   0.42530E-06  477915.5 3748987.8   453.6      4.00     3.95     1.86     YES
 L0008441         0   0.42530E-06  477907.0 3748987.9   453.7      4.00     3.95     1.86     YES
 L0008442         0   0.42530E-06  477898.6 3748988.0   453.7      4.00     3.95     1.86     YES
 L0008443         0   0.42530E-06  477890.1 3748988.1   453.7      4.00     3.95     1.86     YES
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                                                    Residential
 L0008444         0   0.42530E-06  477881.9 3748988.5   453.7     4.00     3.95     1.86     YES
 L0008445         0   0.42530E-06  477881.9 3748997.0   454.0     4.00     3.95     1.86     YES
 L0008446         0   0.42530E-06  477881.9 3749005.5   454.0     4.00     3.95     1.86     YES
 L0008447         0   0.42530E-06  477881.9 3749014.0   454.0     4.00     3.95     1.86     YES
 L0008448         0   0.42530E-06  477881.9 3749022.5   454.0     4.00     3.95     1.86     YES
 L0008449         0   0.42530E-06  477881.9 3749031.0   454.0     4.00     3.95     1.86     YES
 L0008450         0   0.42530E-06  477881.9 3749039.5   454.0     4.00     3.95     1.86     YES
 L0008451         0   0.42530E-06  477881.9 3749048.0   454.0     4.00     3.95     1.86     YES
 L0008452         0   0.42530E-06  477881.9 3749056.5   454.0     4.00     3.95     1.86     YES
 L0008453         0   0.42530E-06  477881.9 3749065.0   454.0     4.00     3.95     1.86     YES
 L0008454         0   0.42530E-06  477881.9 3749073.5   454.0     4.00     3.95     1.86     YES
 L0008455         0   0.42530E-06  477881.9 3749082.0   454.0     4.00     3.95     1.86     YES
 L0008456         0   0.42530E-06  477881.9 3749090.5   454.0     4.00     3.95     1.86     YES
 L0008457         0   0.42530E-06  477881.9 3749099.0   454.0     4.00     3.95     1.86     YES
 L0008458         0   0.42530E-06  477881.9 3749107.5   454.0     4.00     3.95     1.86     YES
 L0008459         0   0.42530E-06  477881.9 3749116.0   454.0     4.00     3.95     1.86     YES
 L0008460         0   0.42530E-06  477881.9 3749124.5   454.0     4.00     3.95     1.86     YES
 L0008461         0   0.42530E-06  477881.9 3749133.0   454.0     4.00     3.95     1.86     YES
 L0008462         0   0.42530E-06  477881.9 3749141.5   454.0     4.00     3.95     1.86     YES
 L0008463         0   0.42530E-06  477881.9 3749150.0   454.0     4.00     3.95     1.86     YES
 L0008464         0   0.42530E-06  477881.9 3749158.5   454.0     4.00     3.95     1.86     YES
 L0008465         0   0.42530E-06  477881.9 3749167.0   454.0     4.00     3.95     1.86     YES
 L0008466         0   0.42530E-06  477881.9 3749175.5   454.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS)  (METERS) (METERS)             BY
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 L0008467         0   0.42530E-06  477881.9 3749184.0   454.0     4.00     3.95     1.86     YES
 L0008468         0   0.42530E-06  477881.9 3749192.5   454.0     4.00     3.95     1.86     YES
 L0008469         0   0.42530E-06  477881.9 3749201.0   454.0     4.00     3.95     1.86     YES
 L0008470         0   0.42530E-06  477881.9 3749209.5   454.1     4.00     3.95     1.86     YES
 L0008471         0   0.42530E-06  477881.9 3749218.0   454.4     4.00     3.95     1.86     YES
 L0008472         0   0.42530E-06  477881.9 3749226.5   454.7     4.00     3.95     1.86     YES
 L0008473         0   0.42530E-06  477881.9 3749235.0   454.9     4.00     3.95     1.86     YES
 L0008474         0   0.42530E-06  477877.9 3749239.5   455.0     4.00     3.95     1.86     YES
 L0008475         0   0.42530E-06  477869.4 3749239.6   455.0     4.00     3.95     1.86     YES
 L0008476         0   0.42530E-06  477860.9 3749239.7   455.0     4.00     3.95     1.86     YES
 L0008477         0   0.42530E-06  477852.4 3749239.9   455.0     4.00     3.95     1.86     YES
 L0008478         0   0.42530E-06  477843.9 3749240.0   455.0     4.00     3.95     1.86     YES
 L0008479         0   0.42530E-06  477835.4 3749240.1   455.0     4.00     3.95     1.86     YES
 L0008480         0   0.42530E-06  477826.9 3749240.2   455.0     4.00     3.95     1.86     YES
 L0008481         0   0.42530E-06  477818.4 3749240.3   455.0     4.00     3.95     1.86     YES
 L0008482         0   0.42530E-06  477809.9 3749240.4   455.0     4.00     3.95     1.86     YES
 L0008483         0   0.42530E-06  477801.4 3749240.5   455.0     4.00     3.95     1.86     YES
 L0008484         0   0.42530E-06  477792.9 3749240.7   455.0     4.00     3.95     1.86     YES
 L0008485         0   0.42530E-06  477784.4 3749240.8   455.0     4.00     3.95     1.86     YES
 L0008486         0   0.42530E-06  477775.9 3749240.9   455.0     4.00     3.95     1.86     YES
 L0008487         0   0.42530E-06  477767.4 3749241.0   455.0     4.00     3.95     1.86     YES
 L0008488         0   0.42530E-06  477758.9 3749241.1   455.0     4.00     3.95     1.86     YES
 L0008489         0   0.42530E-06  477750.4 3749241.2   455.0     4.00     3.95     1.86     YES
 L0008490         0   0.42530E-06  477741.9 3749241.3   455.0     4.00     3.95     1.86     YES
 L0008491         0   0.42530E-06  477733.4 3749241.4   455.0     4.00     3.95     1.86     YES
 L0008492         0   0.42530E-06  477724.9 3749241.6   455.0     4.00     3.95     1.86     YES
 L0008493         0   0.42530E-06  477716.4 3749241.7   455.0     4.00     3.95     1.86     YES
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                    Residential
 L0008494         0   0.42530E-06  477707.9 3749241.8   455.0     4.00     3.95     1.86     YES
 L0008495         0   0.42530E-06  477699.4 3749241.9   455.0     4.00     3.95     1.86     YES
 L0008496         0   0.42530E-06  477690.9 3749242.0   455.0     4.00     3.95     1.86     YES
 L0008497         0   0.42530E-06  477682.4 3749242.1   455.0     4.00     3.95     1.86     YES
 L0008498         0   0.42530E-06  477673.9 3749242.2   455.0     4.00     3.95     1.86     YES
 L0008499         0   0.42530E-06  477665.4 3749242.4   455.0     4.00     3.95     1.86     YES
 L0008500         0   0.42530E-06  477656.9 3749242.5   455.0     4.00     3.95     1.86     YES
 L0008501         0   0.42530E-06  477648.4 3749242.6   455.0     4.00     3.95     1.86     YES
 L0008502         0   0.42530E-06  477639.9 3749242.7   455.0     4.00     3.95     1.86     YES
 L0008503         0   0.42530E-06  477631.4 3749242.8   455.0     4.00     3.95     1.86     YES
 L0008504         0   0.42530E-06  477622.9 3749242.9   455.0     4.00     3.95     1.86     YES
 L0008505         0   0.42530E-06  477614.4 3749243.0   455.0     4.00     3.95     1.86     YES
 L0008506         0   0.42530E-06  477605.9 3749243.2   455.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008507         0   0.42530E-06  477597.4 3749243.3   455.0     4.00     3.95     1.86     YES
 L0008508         0   0.42530E-06  477588.9 3749243.4   455.0     4.00     3.95     1.86     YES
 L0008509         0   0.42530E-06  477580.4 3749243.5   455.0     4.00     3.95     1.86     YES
 L0008510         0   0.42530E-06  477571.9 3749243.6   455.0     4.00     3.95     1.86     YES
 L0008511         0   0.42530E-06  477563.4 3749243.7   455.0     4.00     3.95     1.86     YES
 L0008512         0   0.42530E-06  477554.9 3749243.8   455.0     4.00     3.95     1.86     YES
 L0008513         0   0.42530E-06  477546.4 3749244.0   455.0     4.00     3.95     1.86     YES
 L0008514         0   0.42530E-06  477537.9 3749244.1   455.0     4.00     3.95     1.86     YES
 L0008515         0   0.42530E-06  477529.4 3749244.2   455.0     4.00     3.95     1.86     YES
 L0008516         0   0.42530E-06  477520.9 3749244.3   455.0     4.00     3.95     1.86     YES
 L0008517         0   0.42530E-06  477512.4 3749244.4   455.0     4.00     3.95     1.86     YES
 L0008518         0   0.42530E-06  477503.9 3749244.5   455.0     4.00     3.95     1.86     YES
 L0008519         0   0.42530E-06  477495.4 3749244.6   455.0     4.00     3.95     1.86     YES
 L0008520         0   0.42530E-06  477486.9 3749244.7   455.0     4.00     3.95     1.86     YES
 L0008521         0   0.42530E-06  477478.4 3749244.9   455.0     4.00     3.95     1.86     YES
 L0008522         0   0.42530E-06  477476.8 3749251.9   455.0     4.00     3.95     1.86     YES
 L0008523         0   0.42530E-06  477476.7 3749260.4   455.0     4.00     3.95     1.86     YES
 L0008524         0   0.42530E-06  477476.6 3749268.9   455.0     4.00     3.95     1.86     YES
 L0008525         0   0.42530E-06  477476.5 3749277.4   455.0     4.00     3.95     1.86     YES
 L0008526         0   0.42530E-06  477476.4 3749285.9   455.0     4.00     3.95     1.86     YES
 L0008527         0   0.42530E-06  477476.3 3749294.4   455.0     4.00     3.95     1.86     YES
 L0008528         0   0.42530E-06  477476.2 3749302.9   455.1     4.00     3.95     1.86     YES
 L0008529         0   0.42530E-06  477476.0 3749311.4   455.2     4.00     3.95     1.86     YES
 L0008530         0   0.42530E-06  477475.9 3749319.9   455.4     4.00     3.95     1.86     YES
 L0008531         0   0.42530E-06  477475.8 3749328.4   455.5     4.00     3.95     1.86     YES
 L0008532         0   0.42530E-06  477475.7 3749336.9   455.7     4.00     3.95     1.86     YES
 L0008533         0   0.42530E-06  477475.6 3749345.4   455.8     4.00     3.95     1.86     YES
 L0008534         0   0.42530E-06  477475.5 3749353.9   455.9     4.00     3.95     1.86     YES
 L0008535         0   0.42530E-06  477475.4 3749362.4   456.0     4.00     3.95     1.86     YES
 L0008536         0   0.42530E-06  477475.3 3749370.9   456.0     4.00     3.95     1.86     YES
 L0008537         0   0.42530E-06  477475.1 3749379.4   456.0     4.00     3.95     1.86     YES
 L0008538         0   0.42530E-06  477475.0 3749387.9   456.0     4.00     3.95     1.86     YES
 L0008539         0   0.42530E-06  477474.9 3749396.4   456.0     4.00     3.95     1.86     YES
 L0008540         0   0.42530E-06  477474.8 3749404.9   456.0     4.00     3.95     1.86     YES
 L0008541         0   0.42530E-06  477474.7 3749413.4   456.0     4.00     3.95     1.86     YES
 L0008542         0   0.42530E-06  477474.6 3749421.9   456.0     4.00     3.95     1.86     YES
 L0008543         0   0.42530E-06  477474.5 3749430.4   456.0     4.00     3.95     1.86     YES
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                                                     Residential
 L0008544         0   0.42530E-06  477474.4 3749438.9   456.0     4.00     3.95     1.86     YES
 L0008545         0   0.42530E-06  477474.2 3749447.4   456.0     4.00     3.95     1.86     YES
 L0008546         0   0.42530E-06  477474.1 3749455.9   456.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008547         0   0.42530E-06  477474.0 3749464.4   456.0     4.00     3.95     1.86     YES
 L0008548         0   0.42530E-06  477473.9 3749472.9   456.0     4.00     3.95     1.86     YES
 L0008549         0   0.42530E-06  477473.8 3749481.4   456.2     4.00     3.95     1.86     YES
 L0008550         0   0.42530E-06  477473.7 3749489.9   456.4     4.00     3.95     1.86     YES
 L0008551         0   0.42530E-06  477473.6 3749498.4   456.7     4.00     3.95     1.86     YES
 L0008552         0   0.42530E-06  477473.5 3749506.9   457.0     4.00     3.95     1.86     YES
 L0008553         0   0.42530E-06  477473.3 3749515.4   457.0     4.00     3.95     1.86     YES
 L0008554         0   0.42530E-06  477473.2 3749523.9   457.0     4.00     3.95     1.86     YES
 L0008555         0   0.42530E-06  477473.1 3749532.4   457.0     4.00     3.95     1.86     YES
 L0008556         0   0.42530E-06  477473.0 3749540.9   457.0     4.00     3.95     1.86     YES
 L0008557         0   0.42530E-06  477472.9 3749549.4   457.0     4.00     3.95     1.86     YES
 L0008558         0   0.42530E-06  477472.8 3749557.9   457.0     4.00     3.95     1.86     YES
 L0008559         0   0.42530E-06  477472.7 3749566.4   457.0     4.00     3.95     1.86     YES
 L0008560         0   0.42530E-06  477472.6 3749574.9   457.0     4.00     3.95     1.86     YES
 L0008561         0   0.42530E-06  477472.4 3749583.4   457.0     4.00     3.95     1.86     YES
 L0008562         0   0.42530E-06  477472.3 3749591.9   457.0     4.00     3.95     1.86     YES
 L0008563         0   0.42530E-06  477472.2 3749600.4   457.0     4.00     3.95     1.86     YES
 L0008564         0   0.42530E-06  477472.1 3749608.9   457.0     4.00     3.95     1.86     YES
 L0008565         0   0.42530E-06  477472.0 3749617.4   457.0     4.00     3.95     1.86     YES
 L0008566         0   0.42530E-06  477471.9 3749625.9   457.0     4.00     3.95     1.86     YES
 L0008567         0   0.42530E-06  477471.8 3749634.4   457.0     4.00     3.95     1.86     YES
 L0008568         0   0.42530E-06  477471.7 3749642.9   457.0     4.00     3.95     1.86     YES
 L0008569         0   0.42530E-06  477471.5 3749651.4   457.0     4.00     3.95     1.86     YES
 L0008570         0   0.42530E-06  477471.4 3749659.9   457.0     4.00     3.95     1.86     YES
 L0008571         0   0.42530E-06  477471.3 3749668.4   457.0     4.00     3.95     1.86     YES
 L0008572         0   0.42530E-06  477471.2 3749676.9   457.0     4.00     3.95     1.86     YES
 L0008573         0   0.42530E-06  477471.1 3749685.4   457.0     4.00     3.95     1.86     YES
 L0008574         0   0.42530E-06  477471.0 3749693.9   457.0     4.00     3.95     1.86     YES
 L0008575         0   0.42530E-06  477470.9 3749702.4   457.0     4.00     3.95     1.86     YES
 L0008576         0   0.42530E-06  477470.8 3749710.9   457.0     4.00     3.95     1.86     YES
 L0008577         0   0.42530E-06  477470.6 3749719.4   457.0     4.00     3.95     1.86     YES
 L0008578         0   0.42530E-06  477470.5 3749727.9   457.0     4.00     3.95     1.86     YES
 L0008579         0   0.42530E-06  477470.4 3749736.4   457.0     4.00     3.95     1.86     YES
 L0008580         0   0.42530E-06  477470.3 3749744.9   457.0     4.00     3.95     1.86     YES
 L0008581         0   0.42530E-06  477470.2 3749753.4   457.2     4.00     3.95     1.86     YES
 L0008582         0   0.42530E-06  477470.1 3749761.9   457.5     4.00     3.95     1.86     YES
 L0008583         0   0.42530E-06  477470.0 3749770.4   457.8     4.00     3.95     1.86     YES
 L0008584         0   0.42530E-06  477469.9 3749778.9   458.0     4.00     3.95     1.86     YES
 L0008585         0   0.42530E-06  477469.7 3749787.4   458.0     4.00     3.95     1.86     YES
 L0008586         0   0.25490E-06  477901.9 3748181.5   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                 Residential


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS)  (METERS) (METERS)             BY
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 L0008587         0   0.25490E-06  477893.4 3748181.6   450.0      4.00     3.95     1.86     YES
 L0008588         0   0.25490E-06  477884.9 3748181.7   450.0      4.00     3.95     1.86     YES
 L0008589         0   0.25490E-06  477876.4 3748181.7   450.0      4.00     3.95     1.86     YES
 L0008590         0   0.25490E-06  477867.9 3748181.8   450.0      4.00     3.95     1.86     YES
 L0008591         0   0.25490E-06  477859.4 3748181.9   450.0      4.00     3.95     1.86     YES
 L0008592         0   0.25490E-06  477850.9 3748181.9   450.0      4.00     3.95     1.86     YES
 L0008593         0   0.25490E-06  477842.4 3748182.0   450.2      4.00     3.95     1.86     YES
 L0008594         0   0.25490E-06  477833.9 3748182.1   450.5      4.00     3.95     1.86     YES
 L0008595         0   0.25490E-06  477825.4 3748182.1   450.7      4.00     3.95     1.86     YES
 L0008596         0   0.25490E-06  477816.9 3748182.2   450.9      4.00     3.95     1.86     YES
 L0008597         0   0.25490E-06  477808.4 3748182.3   450.9      4.00     3.95     1.86     YES
 L0008598         0   0.25490E-06  477799.9 3748182.3   451.0      4.00     3.95     1.86     YES
 L0008599         0   0.25490E-06  477791.4 3748182.4   451.0      4.00     3.95     1.86     YES
 L0008600         0   0.25490E-06  477782.9 3748182.5   451.0      4.00     3.95     1.86     YES
 L0008601         0   0.25490E-06  477774.4 3748182.5   451.0      4.00     3.95     1.86     YES
 L0008602         0   0.25490E-06  477765.9 3748182.6   451.0      4.00     3.95     1.86     YES
 L0008603         0   0.25490E-06  477757.4 3748182.7   451.0      4.00     3.95     1.86     YES
 L0008604         0   0.25490E-06  477748.9 3748182.8   451.0      4.00     3.95     1.86     YES
 L0008605         0   0.25490E-06  477740.4 3748182.8   451.0      4.00     3.95     1.86     YES
 L0008606         0   0.25490E-06  477731.9 3748182.9   451.0      4.00     3.95     1.86     YES
 L0008607         0   0.25490E-06  477723.4 3748183.0   451.0      4.00     3.95     1.86     YES
 L0008608         0   0.25490E-06  477714.9 3748183.0   451.0      4.00     3.95     1.86     YES
 L0008609         0   0.25490E-06  477706.4 3748183.1   451.0      4.00     3.95     1.86     YES
 L0008610         0   0.25490E-06  477697.9 3748183.2   451.0      4.00     3.95     1.86     YES
 L0008611         0   0.25490E-06  477689.4 3748183.2   451.0      4.00     3.95     1.86     YES
 L0008612         0   0.25490E-06  477680.9 3748183.3   451.0      4.00     3.95     1.86     YES
 L0008613         0   0.25490E-06  477672.4 3748183.4   451.0      4.00     3.95     1.86     YES
 L0008614         0   0.25490E-06  477663.9 3748183.4   451.0      4.00     3.95     1.86     YES
 L0008615         0   0.25490E-06  477655.4 3748183.5   451.0      4.00     3.95     1.86     YES
 L0008616         0   0.25490E-06  477646.9 3748183.6   451.0      4.00     3.95     1.86     YES
 L0008617         0   0.25490E-06  477638.4 3748183.6   451.0      4.00     3.95     1.86     YES
 L0008618         0   0.25490E-06  477629.9 3748183.7   451.0      4.00     3.95     1.86     YES
 L0008619         0   0.25490E-06  477621.4 3748183.8   451.0      4.00     3.95     1.86     YES
 L0008620         0   0.25490E-06  477612.9 3748183.8   451.0      4.00     3.95     1.86     YES
 L0008621         0   0.25490E-06  477604.4 3748183.9   451.0      4.00     3.95     1.86     YES
 L0008622         0   0.25490E-06  477595.9 3748184.0   451.0      4.00     3.95     1.86     YES
 L0008623         0   0.25490E-06  477587.4 3748184.0   451.0      4.00     3.95     1.86     YES
 L0008624         0   0.25490E-06  477578.9 3748184.1   451.0      4.00     3.95     1.86     YES
 L0008625         0   0.25490E-06  477570.4 3748184.2   451.0      4.00     3.95     1.86     YES
 L0008626         0   0.25490E-06  477561.9 3748184.2   451.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:32:39

   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS)  (METERS) (METERS)             BY
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                                                   Residential
 L0008627         0   0.25490E-06  477553.4 3748184.3   451.0     4.00     3.95     1.86     YES
 L0008628         0   0.25490E-06  477544.9 3748184.4   451.0     4.00     3.95     1.86     YES
 L0008629         0   0.25490E-06  477536.4 3748184.4   451.0     4.00     3.95     1.86     YES
 L0008630         0   0.25490E-06  477527.9 3748184.5   451.0     4.00     3.95     1.86     YES
 L0008631         0   0.25490E-06  477519.4 3748184.6   451.0     4.00     3.95     1.86     YES
 L0008632         0   0.25490E-06  477510.9 3748184.6   451.0     4.00     3.95     1.86     YES
 L0008633         0   0.25490E-06  477502.4 3748184.7   451.0     4.00     3.95     1.86     YES
 L0008634         0   0.25490E-06  477493.9 3748184.8   451.0     4.00     3.95     1.86     YES
 L0008635         0   0.25490E-06  477485.4 3748184.8   451.0     4.00     3.95     1.86     YES
 L0008636         0   0.25490E-06  477476.9 3748184.9   451.0     4.00     3.95     1.86     YES
 L0008637         0   0.25490E-06  477471.1 3748182.1   451.0     4.00     3.95     1.86     YES
 L0008638         0   0.25490E-06  477470.9 3748173.6   451.0     4.00     3.95     1.86     YES
 L0008639         0   0.25490E-06  477470.7 3748165.1   451.0     4.00     3.95     1.86     YES
 L0008640         0   0.25490E-06  477470.6 3748156.6   451.0     4.00     3.95     1.86     YES
 L0008641         0   0.25490E-06  477470.4 3748148.2   451.0     4.00     3.95     1.86     YES
 L0008642         0   0.25490E-06  477470.2 3748139.7   451.0     4.00     3.95     1.86     YES
 L0008643         0   0.25490E-06  477470.0 3748131.2   451.0     4.00     3.95     1.86     YES
 L0008644         0   0.25490E-06  477469.8 3748122.7   451.0     4.00     3.95     1.86     YES
 L0008645         0   0.25490E-06  477469.6 3748114.2   451.0     4.00     3.95     1.86     YES
 L0008646         0   0.25490E-06  477469.4 3748105.7   451.0     4.00     3.95     1.86     YES
 L0008647         0   0.25490E-06  477469.2 3748097.2   451.0     4.00     3.95     1.86     YES
 L0008648         0   0.25490E-06  477469.0 3748088.7   451.0     4.00     3.95     1.86     YES
 L0008649         0   0.25490E-06  477468.9 3748080.2   451.0     4.00     3.95     1.86     YES
 L0008650         0   0.25490E-06  477468.7 3748071.7   451.0     4.00     3.95     1.86     YES
 L0008651         0   0.25490E-06  477468.5 3748063.2   451.0     4.00     3.95     1.86     YES
 L0008652         0   0.25490E-06  477468.3 3748054.7   451.0     4.00     3.95     1.86     YES
 L0008653         0   0.25490E-06  477468.1 3748046.2   451.0     4.00     3.95     1.86     YES
 L0008654         0   0.25490E-06  477467.9 3748037.7   451.0     4.00     3.95     1.86     YES
 L0008655         0   0.25490E-06  477467.7 3748029.2   451.0     4.00     3.95     1.86     YES
 L0008656         0   0.25490E-06  477467.5 3748020.7   451.0     4.00     3.95     1.86     YES
 L0008657         0   0.25490E-06  477467.4 3748012.2   451.0     4.00     3.95     1.86     YES
 L0008658         0   0.25490E-06  477467.2 3748003.7   451.0     4.00     3.95     1.86     YES
 L0008659         0   0.25490E-06  477467.0 3747995.2   451.0     4.00     3.95     1.86     YES
 L0008660         0   0.25490E-06  477466.8 3747986.7   451.0     4.00     3.95     1.86     YES
 L0008661         0   0.25490E-06  477466.6 3747978.2   451.0     4.00     3.95     1.86     YES
 L0008662         0   0.25490E-06  477466.4 3747969.7   451.0     4.00     3.95     1.86     YES
 L0008663         0   0.25490E-06  477466.2 3747961.2   451.0     4.00     3.95     1.86     YES
 L0008664         0   0.25490E-06  477466.0 3747952.7   451.0     4.00     3.95     1.86     YES
 L0008665         0   0.25490E-06  477465.8 3747944.2   451.0     4.00     3.95     1.86     YES
 L0008666         0   0.25490E-06  477465.7 3747935.7   451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
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 L0008667         0   0.25490E-06  477465.5 3747927.2   451.0     4.00     3.95     1.86     YES
 L0008668         0   0.25490E-06  477465.3 3747918.7   451.0     4.00     3.95     1.86     YES
 L0008669         0   0.25490E-06  477465.1 3747910.2   451.0     4.00     3.95     1.86     YES
 L0008670         0   0.25490E-06  477464.9 3747901.7   451.0     4.00     3.95     1.86     YES
 L0008671         0   0.25490E-06  477464.7 3747893.2   451.0     4.00     3.95     1.86     YES
 L0008672         0   0.25490E-06  477464.5 3747884.7   451.0     4.00     3.95     1.86     YES
 L0008673         0   0.25490E-06  477464.3 3747876.2   451.0     4.00     3.95     1.86     YES
 L0008674         0   0.25490E-06  477464.1 3747867.7   451.0     4.00     3.95     1.86     YES
 L0008675         0   0.25490E-06  477464.0 3747859.2   451.0     4.00     3.95     1.86     YES
 L0008676         0   0.25490E-06  477463.8 3747850.7   451.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0008677         0   0.25490E-06  477463.6 3747842.2   451.0     4.00     3.95     1.86     YES
 L0008678         0   0.25490E-06  477463.4 3747833.7   451.0     4.00     3.95     1.86     YES
 L0008679         0   0.25490E-06  477463.2 3747825.2   451.0     4.00     3.95     1.86     YES
 L0008680         0   0.25490E-06  477463.0 3747816.7   451.0     4.00     3.95     1.86     YES
 L0008681         0   0.25490E-06  477462.8 3747808.2   451.0     4.00     3.95     1.86     YES
 L0008682         0   0.25490E-06  477462.6 3747799.7   451.0     4.00     3.95     1.86     YES
 L0008683         0   0.25490E-06  477462.5 3747791.2   451.0     4.00     3.95     1.86     YES
 L0008684         0   0.25490E-06  477462.3 3747782.7   451.0     4.00     3.95     1.86     YES
 L0008685         0   0.25880E-06  478279.2 3748320.8   450.0     4.00     3.95     1.86     YES
 L0008686         0   0.25880E-06  478279.3 3748312.3   450.0     4.00     3.95     1.86     YES
 L0008687         0   0.25880E-06  478279.5 3748303.8   450.0     4.00     3.95     1.86     YES
 L0008688         0   0.25880E-06  478279.6 3748295.3   450.0     4.00     3.95     1.86     YES
 L0008689         0   0.25880E-06  478279.8 3748286.8   450.0     4.00     3.95     1.86     YES
 L0008690         0   0.25880E-06  478279.9 3748278.3   450.0     4.00     3.95     1.86     YES
 L0008691         0   0.25880E-06  478280.1 3748269.8   450.0     4.00     3.95     1.86     YES
 L0008692         0   0.25880E-06  478280.2 3748261.3   450.0     4.00     3.95     1.86     YES
 L0008693         0   0.25880E-06  478280.3 3748252.8   450.0     4.00     3.95     1.86     YES
 L0008694         0   0.25880E-06  478280.5 3748244.3   450.0     4.00     3.95     1.86     YES
 L0008695         0   0.25880E-06  478280.6 3748235.8   450.0     4.00     3.95     1.86     YES
 L0008696         0   0.25880E-06  478280.8 3748227.3   450.0     4.00     3.95     1.86     YES
 L0008697         0   0.25880E-06  478280.9 3748218.8   450.0     4.00     3.95     1.86     YES
 L0008698         0   0.25880E-06  478281.0 3748210.3   450.0     4.00     3.95     1.86     YES
 L0008699         0   0.25880E-06  478281.2 3748201.8   450.0     4.00     3.95     1.86     YES
 L0008700         0   0.25880E-06  478281.3 3748193.3   450.0     4.00     3.95     1.86     YES
 L0008701         0   0.25880E-06  478281.5 3748184.8   450.0     4.00     3.95     1.86     YES
 L0008702         0   0.25880E-06  478281.6 3748176.3   450.0     4.00     3.95     1.86     YES
 L0008703         0   0.25880E-06  478281.7 3748167.8   450.0     4.00     3.95     1.86     YES
 L0008704         0   0.25880E-06  478281.9 3748159.3   450.0     4.00     3.95     1.86     YES
 L0008705         0   0.25880E-06  478282.0 3748150.8   449.8     4.00     3.95     1.86     YES
 L0008706         0   0.25880E-06  478282.2 3748142.3   449.5     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   13:32:39

   PAGE  21
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0008707         0   0.25880E-06  478282.3 3748133.8   449.2     4.00     3.95     1.86     YES
 L0008708         0   0.25880E-06  478282.4 3748125.3   449.0     4.00     3.95     1.86     YES
 L0008709         0   0.25880E-06  478282.6 3748116.8   449.0     4.00     3.95     1.86     YES
 L0008710         0   0.25880E-06  478282.7 3748108.3   449.0     4.00     3.95     1.86     YES
 L0008711         0   0.25880E-06  478282.9 3748099.8   449.0     4.00     3.95     1.86     YES
 L0008712         0   0.25880E-06  478283.0 3748091.3   449.0     4.00     3.95     1.86     YES
 L0008713         0   0.25880E-06  478283.1 3748082.9   449.0     4.00     3.95     1.86     YES
 L0008714         0   0.25880E-06  478283.3 3748074.4   449.0     4.00     3.95     1.86     YES
 L0008715         0   0.25880E-06  478283.4 3748065.9   449.0     4.00     3.95     1.86     YES
 L0008716         0   0.25880E-06  478283.6 3748057.4   449.0     4.00     3.95     1.86     YES
 L0008717         0   0.25880E-06  478283.7 3748048.9   449.0     4.00     3.95     1.86     YES
 L0008718         0   0.25880E-06  478283.8 3748040.4   449.0     4.00     3.95     1.86     YES
 L0008719         0   0.25880E-06  478284.0 3748031.9   449.0     4.00     3.95     1.86     YES
 L0008720         0   0.25880E-06  478284.1 3748023.4   449.0     4.00     3.95     1.86     YES
 L0008721         0   0.25880E-06  478284.3 3748014.9   449.0     4.00     3.95     1.86     YES
 L0008722         0   0.25880E-06  478284.4 3748006.4   449.0     4.00     3.95     1.86     YES
 L0008723         0   0.25880E-06  478284.5 3747997.9   449.0     4.00     3.95     1.86     YES
 L0008724         0   0.25880E-06  478284.7 3747989.4   449.0     4.00     3.95     1.86     YES
 L0008725         0   0.25880E-06  478284.8 3747980.9   449.0     4.00     3.95     1.86     YES
 L0008726         0   0.25880E-06  478285.0 3747972.4   449.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0008727         0   0.25880E-06  478285.1 3747963.9   449.0     4.00     3.95     1.86     YES
 L0008728         0   0.25880E-06  478285.2 3747955.4   449.0     4.00     3.95     1.86     YES
 L0008729         0   0.25880E-06  478285.4 3747946.9   449.0     4.00     3.95     1.86     YES
 L0008730         0   0.25880E-06  478285.5 3747938.4   449.0     4.00     3.95     1.86     YES
 L0008731         0   0.25880E-06  478285.7 3747929.9   449.0     4.00     3.95     1.86     YES
 L0008732         0   0.25880E-06  478285.8 3747921.4   449.0     4.00     3.95     1.86     YES
 L0008733         0   0.25880E-06  478285.9 3747912.9   449.0     4.00     3.95     1.86     YES
 L0008734         0   0.25880E-06  478286.1 3747904.4   449.0     4.00     3.95     1.86     YES
 L0008735         0   0.25880E-06  478286.2 3747895.9   449.0     4.00     3.95     1.86     YES
 L0008736         0   0.25880E-06  478286.4 3747887.4   449.0     4.00     3.95     1.86     YES
 L0008737         0   0.25880E-06  478286.5 3747878.9   449.0     4.00     3.95     1.86     YES
 L0008738         0   0.25880E-06  478286.6 3747870.4   449.0     4.00     3.95     1.86     YES
 L0008739         0   0.25880E-06  478286.8 3747861.9   449.0     4.00     3.95     1.86     YES
 L0008740         0   0.25880E-06  478286.9 3747853.4   449.0     4.00     3.95     1.86     YES
 L0008741         0   0.25880E-06  478287.1 3747844.9   449.0     4.00     3.95     1.86     YES
 L0008742         0   0.25880E-06  478287.2 3747836.4   449.0     4.00     3.95     1.86     YES
 L0008743         0   0.25880E-06  478287.3 3747827.9   449.0     4.00     3.95     1.86     YES
 L0008744         0   0.25880E-06  478287.5 3747819.4   449.0     4.00     3.95     1.86     YES
 L0008745         0   0.25880E-06  478287.6 3747810.9   449.0     4.00     3.95     1.86     YES
 L0008746         0   0.25880E-06  478287.8 3747802.4   449.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   13:32:39

   PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008747         0   0.25880E-06  478287.9 3747793.9   449.0     4.00     3.95     1.86     YES
 L0008748         0   0.25880E-06  478288.0 3747785.4   449.0     4.00     3.95     1.86     YES
 L0008749         0   0.25880E-06  478288.2 3747776.9   449.0     4.00     3.95     1.86     YES
 L0008750         0   0.34070E-06  477480.6 3749800.2   458.0     4.00     3.95     1.86     YES
 L0008751         0   0.34070E-06  477480.4 3749808.7   458.0     4.00     3.95     1.86     YES
 L0008752         0   0.34070E-06  477480.3 3749817.2   458.0     4.00     3.95     1.86     YES
 L0008753         0   0.34070E-06  477480.1 3749825.7   458.0     4.00     3.95     1.86     YES
 L0008754         0   0.34070E-06  477480.0 3749834.2   458.0     4.00     3.95     1.86     YES
 L0008755         0   0.34070E-06  477479.9 3749842.7   458.0     4.00     3.95     1.86     YES
 L0008756         0   0.34070E-06  477479.7 3749851.2   458.0     4.00     3.95     1.86     YES
 L0008757         0   0.34070E-06  477479.6 3749859.7   458.0     4.00     3.95     1.86     YES
 L0008758         0   0.34070E-06  477479.5 3749868.2   458.0     4.00     3.95     1.86     YES
 L0008759         0   0.34070E-06  477479.3 3749876.7   458.0     4.00     3.95     1.86     YES
 L0008760         0   0.34070E-06  477479.2 3749885.2   458.0     4.00     3.95     1.86     YES
 L0008761         0   0.34070E-06  477479.1 3749893.7   458.0     4.00     3.95     1.86     YES
 L0008762         0   0.34070E-06  477478.9 3749902.2   458.0     4.00     3.95     1.86     YES
 L0008763         0   0.34070E-06  477478.8 3749910.7   458.0     4.00     3.95     1.86     YES
 L0008764         0   0.34070E-06  477478.7 3749919.2   458.0     4.00     3.95     1.86     YES
 L0008765         0   0.34070E-06  477478.5 3749927.7   458.0     4.00     3.95     1.86     YES
 L0008766         0   0.34070E-06  477478.4 3749936.2   458.0     4.00     3.95     1.86     YES
 L0008767         0   0.34070E-06  477478.2 3749944.7   458.0     4.00     3.95     1.86     YES
 L0008768         0   0.34070E-06  477478.1 3749953.2   458.0     4.00     3.95     1.86     YES
 L0008769         0   0.34070E-06  477478.0 3749961.7   458.2     4.00     3.95     1.86     YES
 L0008770         0   0.34070E-06  477477.8 3749970.2   458.4     4.00     3.95     1.86     YES
 L0008771         0   0.34070E-06  477477.7 3749978.7   458.7     4.00     3.95     1.86     YES
 L0008772         0   0.34070E-06  477477.6 3749987.2   459.0     4.00     3.95     1.86     YES
 L0008773         0   0.34070E-06  477477.4 3749995.7   459.0     4.00     3.95     1.86     YES
 L0008774         0   0.34070E-06  477477.3 3750004.2   459.0     4.00     3.95     1.86     YES
 L0008775         0   0.34070E-06  477477.2 3750012.7   459.0     4.00     3.95     1.86     YES
 L0008776         0   0.34070E-06  477477.0 3750021.2   459.0     4.00     3.95     1.86     YES
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                                                Residential
 L0008777         0   0.34070E-06  477476.9 3750029.7   459.0     4.00     3.95     1.86     YES
 L0008778         0   0.34070E-06  477476.8 3750038.2   459.0     4.00     3.95     1.86     YES
 L0008779         0   0.34070E-06  477476.6 3750046.7   459.0     4.00     3.95     1.86     YES
 L0008780         0   0.34070E-06  477476.5 3750055.2   459.0     4.00     3.95     1.86     YES
 L0008781         0   0.34070E-06  477476.3 3750063.7   459.0     4.00     3.95     1.86     YES
 L0008782         0   0.34070E-06  477476.2 3750072.2   459.0     4.00     3.95     1.86     YES
 L0008783         0   0.34070E-06  477476.1 3750080.7   459.0     4.00     3.95     1.86     YES
 L0008784         0   0.34070E-06  477475.9 3750089.2   459.0     4.00     3.95     1.86     YES
 L0008785         0   0.34070E-06  477475.8 3750097.7   459.0     4.00     3.95     1.86     YES
 L0008786         0   0.34070E-06  477475.7 3750106.2   459.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008787         0   0.34070E-06  477475.5 3750114.7   459.0     4.00     3.95     1.86     YES
 L0008788         0   0.34070E-06  477475.4 3750123.2   459.0     4.00     3.95     1.86     YES
 L0008789         0   0.34070E-06  477475.3 3750131.7   459.0     4.00     3.95     1.86     YES
 L0008790         0   0.34070E-06  477475.1 3750140.2   459.0     4.00     3.95     1.86     YES
 L0008791         0   0.34070E-06  477475.0 3750148.7   459.0     4.00     3.95     1.86     YES
 L0008792         0   0.34070E-06  477474.8 3750157.2   459.0     4.00     3.95     1.86     YES
 L0008793         0   0.34070E-06  477474.7 3750165.7   459.0     4.00     3.95     1.86     YES
 L0008794         0   0.34070E-06  477474.2 3750174.2   459.0     4.00     3.95     1.86     YES
 L0008795         0   0.34070E-06  477473.5 3750182.6   459.0     4.00     3.95     1.86     YES
 L0008796         0   0.34070E-06  477472.8 3750191.1   459.0     4.00     3.95     1.86     YES
 L0008797         0   0.34070E-06  477472.1 3750199.6   459.0     4.00     3.95     1.86     YES
 L0008798         0   0.34070E-06  477471.4 3750208.0   459.2     4.00     3.95     1.86     YES
 L0008799         0   0.34070E-06  477470.7 3750216.5   459.2     4.00     3.95     1.86     YES
 L0008800         0   0.34070E-06  477470.0 3750225.0   459.3     4.00     3.95     1.86     YES
 L0008801         0   0.34070E-06  477469.3 3750233.5   459.5     4.00     3.95     1.86     YES
 L0008802         0   0.34070E-06  477468.7 3750241.9   459.7     4.00     3.95     1.86     YES
 L0008803         0   0.34070E-06  477468.0 3750250.4   459.9     4.00     3.95     1.86     YES
 L0008804         0   0.34070E-06  477467.3 3750258.9   460.0     4.00     3.95     1.86     YES
 L0008805         0   0.34070E-06  477466.6 3750267.3   460.0     4.00     3.95     1.86     YES
 L0008806         0   0.34070E-06  477466.5 3750275.8   460.0     4.00     3.95     1.86     YES
 L0008807         0   0.34070E-06  477466.5 3750284.3   460.0     4.00     3.95     1.86     YES
 L0008808         0   0.34070E-06  477466.5 3750292.8   460.0     4.00     3.95     1.86     YES
 L0008809         0   0.34070E-06  477466.6 3750301.3   460.0     4.00     3.95     1.86     YES
 L0008810         0   0.34070E-06  477466.6 3750309.8   460.0     4.00     3.95     1.86     YES
 L0008811         0   0.34070E-06  477466.6 3750318.3   460.0     4.00     3.95     1.86     YES
 L0008812         0   0.34070E-06  477466.7 3750326.8   460.0     4.00     3.95     1.86     YES
 L0008813         0   0.34070E-06  477466.7 3750335.3   460.0     4.00     3.95     1.86     YES
 L0008814         0   0.34070E-06  477466.7 3750343.8   460.0     4.00     3.95     1.86     YES
 L0008815         0   0.34070E-06  477466.8 3750352.3   460.0     4.00     3.95     1.86     YES
 L0008816         0   0.34070E-06  477466.8 3750360.8   460.0     4.00     3.95     1.86     YES
 L0008817         0   0.34070E-06  477466.9 3750369.3   460.0     4.00     3.95     1.86     YES
 L0008818         0   0.34070E-06  477466.9 3750377.8   460.0     4.00     3.95     1.86     YES
 L0008819         0   0.34070E-06  477466.9 3750386.3   460.0     4.00     3.95     1.86     YES
 L0008820         0   0.34070E-06  477467.0 3750394.8   460.0     4.00     3.95     1.86     YES
 L0008821         0   0.34070E-06  477467.0 3750403.3   460.0     4.00     3.95     1.86     YES
 L0008822         0   0.34070E-06  477467.0 3750411.8   460.0     4.00     3.95     1.86     YES
 L0008823         0   0.34070E-06  477467.1 3750420.3   460.0     4.00     3.95     1.86     YES
 L0008824         0   0.34070E-06  477467.1 3750428.8   460.0     4.00     3.95     1.86     YES
 L0008825         0   0.34070E-06  477467.1 3750437.3   460.0     4.00     3.95     1.86     YES
 L0008826         0   0.34070E-06  477467.2 3750445.8   460.0     4.00     3.95     1.86     YES
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                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:32:39

   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0008827         0   0.34070E-06  477467.2 3750454.3   460.0     4.00     3.95     1.86     YES
 L0008828         0   0.34070E-06  477467.3 3750462.8   460.0     4.00     3.95     1.86     YES
 L0008829         0   0.34070E-06  477467.3 3750471.3   460.2     4.00     3.95     1.86     YES
 L0008830         0   0.34070E-06  477467.3 3750479.8   460.4     4.00     3.95     1.86     YES
 L0008831         0   0.34070E-06  477467.4 3750488.3   460.7     4.00     3.95     1.86     YES
 L0008832         0   0.34070E-06  477467.4 3750496.8   461.0     4.00     3.95     1.86     YES
 L0008833         0   0.34070E-06  477467.4 3750505.3   461.0     4.00     3.95     1.86     YES
 L0008834         0   0.34070E-06  477467.5 3750513.8   461.0     4.00     3.95     1.86     YES
 L0008835         0   0.34070E-06  477467.5 3750522.3   461.0     4.00     3.95     1.86     YES
 L0008836         0   0.34070E-06  477467.5 3750530.8   461.0     4.00     3.95     1.86     YES
 L0008837         0   0.34070E-06  477467.6 3750539.3   461.0     4.00     3.95     1.86     YES
 L0008838         0   0.34070E-06  477467.7 3750547.8   461.0     4.00     3.95     1.86     YES
 L0008839         0   0.34070E-06  477467.9 3750556.3   461.0     4.00     3.95     1.86     YES
 L0008840         0   0.34070E-06  477468.2 3750564.8   461.0     4.00     3.95     1.86     YES
 L0008841         0   0.34070E-06  477468.4 3750573.3   461.0     4.00     3.95     1.86     YES
 L0008842         0   0.34070E-06  477468.7 3750581.8   461.0     4.00     3.95     1.86     YES
 L0008843         0   0.34070E-06  477468.9 3750590.3   461.0     4.00     3.95     1.86     YES
 L0008844         0   0.34070E-06  477469.2 3750598.8   461.0     4.00     3.95     1.86     YES
 L0008845         0   0.34070E-06  477469.4 3750607.3   461.0     4.00     3.95     1.86     YES
 L0008846         0   0.34070E-06  477469.7 3750615.8   461.0     4.00     3.95     1.86     YES
 L0008847         0   0.34070E-06  477469.9 3750624.3   461.0     4.00     3.95     1.86     YES
 L0008848         0   0.34070E-06  477470.2 3750632.8   461.0     4.00     3.95     1.86     YES
 L0008849         0   0.34070E-06  477470.4 3750641.3   461.0     4.00     3.95     1.86     YES
 L0008850         0   0.34070E-06  477470.7 3750649.8   461.0     4.00     3.95     1.86     YES
 L0008851         0   0.34070E-06  477470.9 3750658.3   461.2     4.00     3.95     1.86     YES
 L0008852         0   0.34070E-06  477471.2 3750666.8   461.3     4.00     3.95     1.86     YES
 L0008853         0   0.34070E-06  477471.4 3750675.3   461.4     4.00     3.95     1.86     YES
 L0008854         0   0.34070E-06  477471.7 3750683.8   461.5     4.00     3.95     1.86     YES
 L0008855         0   0.34070E-06  477471.9 3750692.3   461.7     4.00     3.95     1.86     YES
 L0008856         0   0.34070E-06  477472.2 3750700.8   461.9     4.00     3.95     1.86     YES
 L0008857         0   0.34070E-06  477472.4 3750709.3   462.0     4.00     3.95     1.86     YES
 L0008858         0   0.34070E-06  477472.7 3750717.8   462.0     4.00     3.95     1.86     YES
 L0008859         0   0.34070E-06  477472.9 3750726.3   462.0     4.00     3.95     1.86     YES
 L0008860         0   0.34070E-06  477473.2 3750734.8   462.0     4.00     3.95     1.86     YES
 L0008861         0   0.34070E-06  477473.4 3750743.3   462.0     4.00     3.95     1.86     YES
 L0008862         0   0.34070E-06  477473.7 3750751.7   462.0     4.00     3.95     1.86     YES
 L0008863         0   0.34070E-06  477473.9 3750760.2   462.0     4.00     3.95     1.86     YES
 L0008864         0   0.34070E-06  477474.2 3750768.7   462.0     4.00     3.95     1.86     YES
 L0008865         0   0.34070E-06  477474.4 3750777.2   462.0     4.00     3.95     1.86     YES
 L0008866         0   0.34070E-06  477474.7 3750785.7   462.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:32:39

   PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***
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                                   Residential

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0008867         0   0.34070E-06  477474.9 3750794.2   462.0     4.00     3.95     1.86     YES
 L0008868         0   0.34070E-06  477475.2 3750802.7   462.0     4.00     3.95     1.86     YES
 L0008869         0   0.34070E-06  477475.4 3750811.2   462.0     4.00     3.95     1.86     YES
 L0008870         0   0.34070E-06  477475.7 3750819.7   462.0     4.00     3.95     1.86     YES
 L0008871         0   0.34070E-06  477475.9 3750828.2   462.0     4.00     3.95     1.86     YES
 L0008872         0   0.34070E-06  477476.2 3750836.7   462.0     4.00     3.95     1.86     YES
 L0008873         0   0.34070E-06  477476.4 3750845.2   462.0     4.00     3.95     1.86     YES
 L0008874         0   0.34070E-06  477476.7 3750853.7   462.0     4.00     3.95     1.86     YES
 L0008875         0   0.34070E-06  477476.9 3750862.2   462.1     4.00     3.95     1.86     YES
 L0008876         0   0.34070E-06  477477.1 3750870.7   462.3     4.00     3.95     1.86     YES
 L0008877         0   0.34070E-06  477477.1 3750879.2   462.4     4.00     3.95     1.86     YES
 L0008878         0   0.34070E-06  477477.2 3750887.7   462.6     4.00     3.95     1.86     YES
 L0008879         0   0.34070E-06  477477.2 3750896.2   462.7     4.00     3.95     1.86     YES
 L0008880         0   0.34070E-06  477477.3 3750904.7   462.8     4.00     3.95     1.86     YES
 L0008881         0   0.34070E-06  477477.3 3750913.2   462.9     4.00     3.95     1.86     YES
 L0008882         0   0.34070E-06  477477.4 3750921.7   463.0     4.00     3.95     1.86     YES
 L0008883         0   0.34070E-06  477477.4 3750930.2   463.0     4.00     3.95     1.86     YES
 L0008884         0   0.34070E-06  477477.5 3750938.7   463.0     4.00     3.95     1.86     YES
 L0008885         0   0.34070E-06  477477.6 3750947.2   463.0     4.00     3.95     1.86     YES
 L0008886         0   0.34070E-06  477477.6 3750955.7   463.0     4.00     3.95     1.86     YES
 L0008887         0   0.34070E-06  477477.7 3750964.2   463.0     4.00     3.95     1.86     YES
 L0008888         0   0.34070E-06  477477.7 3750972.7   463.0     4.00     3.95     1.86     YES
 L0008889         0   0.34070E-06  477477.8 3750981.2   463.0     4.00     3.95     1.86     YES
 L0008890         0   0.34070E-06  477477.8 3750989.7   463.0     4.00     3.95     1.86     YES
 L0008891         0   0.34070E-06  477477.9 3750998.2   463.0     4.00     3.95     1.86     YES
 L0008892         0   0.34070E-06  477477.9 3751006.7   463.0     4.00     3.95     1.86     YES
 L0008893         0   0.34070E-06  477478.0 3751015.2   463.0     4.00     3.95     1.86     YES
 L0008894         0   0.34070E-06  477478.0 3751023.7   463.0     4.00     3.95     1.86     YES
 L0008895         0   0.34070E-06  477478.1 3751032.2   463.0     4.00     3.95     1.86     YES
 L0008896         0   0.34070E-06  477478.1 3751040.7   463.0     4.00     3.95     1.86     YES
 L0008897         0   0.34070E-06  477478.2 3751049.2   463.0     4.00     3.95     1.86     YES
 L0008898         0   0.34070E-06  477478.3 3751057.7   463.0     4.00     3.95     1.86     YES
 L0008899         0   0.34070E-06  477478.3 3751066.2   463.0     4.00     3.95     1.86     YES
 L0008900         0   0.34070E-06  477478.4 3751074.7   463.2     4.00     3.95     1.86     YES
 L0008901         0   0.34070E-06  477478.4 3751083.2   463.3     4.00     3.95     1.86     YES
 L0008902         0   0.34070E-06  477478.5 3751091.7   463.5     4.00     3.95     1.86     YES
 L0008903         0   0.34070E-06  477478.5 3751100.2   463.7     4.00     3.95     1.86     YES
 L0008904         0   0.34070E-06  477478.6 3751108.7   463.8     4.00     3.95     1.86     YES
 L0008905         0   0.34070E-06  477478.6 3751117.2   463.9     4.00     3.95     1.86     YES
 L0008906         0   0.34070E-06  477478.7 3751125.7   464.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39

   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0008907         0   0.34070E-06  477478.7 3751134.2   464.0     4.00     3.95     1.86     YES
 L0008908         0   0.34070E-06  477478.8 3751142.7   464.0     4.00     3.95     1.86     YES
 L0008909         0   0.34070E-06  477478.9 3751151.2   464.0     4.00     3.95     1.86     YES
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                        Residential
 L0008910         0   0.34070E-06  477478.9 3751159.7   464.0     4.00     3.95     1.86     YES
 L0008911         0   0.34070E-06  477479.0 3751168.2   464.0     4.00     3.95     1.86     YES
 L0008912         0   0.34070E-06  477479.0 3751176.7   464.0     4.00     3.95     1.86     YES
 L0008913         0   0.34070E-06  477479.1 3751185.2   464.0     4.00     3.95     1.86     YES
 L0008914         0   0.34070E-06  477479.1 3751193.7   464.0     4.00     3.95     1.86     YES
 L0008915         0   0.34070E-06  477479.2 3751202.2   464.0     4.00     3.95     1.86     YES
 L0008916         0   0.34070E-06  477479.2 3751210.7   464.0     4.00     3.95     1.86     YES
 L0008917         0   0.34070E-06  477479.3 3751219.2   464.0     4.00     3.95     1.86     YES
 L0008918         0   0.34070E-06  477479.3 3751227.7   464.0     4.00     3.95     1.86     YES
 L0008919         0   0.34070E-06  477479.4 3751236.2   464.0     4.00     3.95     1.86     YES
 L0008920         0   0.34070E-06  477479.3 3751244.7   464.0     4.00     3.95     1.86     YES
 L0008921         0   0.34070E-06  477479.3 3751253.2   464.2     4.00     3.95     1.86     YES
 L0008922         0   0.34070E-06  477479.2 3751261.7   464.5     4.00     3.95     1.86     YES
 L0008923         0   0.34070E-06  477479.2 3751270.2   464.8     4.00     3.95     1.86     YES
 L0008924         0   0.34070E-06  477479.1 3751278.7   465.0     4.00     3.95     1.86     YES
 L0008925         0   0.34070E-06  477479.0 3751287.2   465.0     4.00     3.95     1.86     YES
 L0008926         0   0.34070E-06  477479.0 3751295.7   465.0     4.00     3.95     1.86     YES
 L0008927         0   0.34070E-06  477478.9 3751304.2   465.0     4.00     3.95     1.86     YES
 L0008928         0   0.34070E-06  477478.9 3751312.7   465.0     4.00     3.95     1.86     YES
 L0008929         0   0.34070E-06  477478.8 3751321.2   465.0     4.00     3.95     1.86     YES
 L0008930         0   0.34070E-06  477478.7 3751329.7   465.0     4.00     3.95     1.86     YES
 L0008931         0   0.34070E-06  477478.7 3751338.2   465.0     4.00     3.95     1.86     YES
 L0008932         0   0.34070E-06  477478.6 3751346.7   465.0     4.00     3.95     1.86     YES
 L0008933         0   0.34070E-06  477478.6 3751355.2   465.0     4.00     3.95     1.86     YES
 L0008934         0   0.34070E-06  477478.5 3751363.7   465.0     4.00     3.95     1.86     YES
 L0008935         0   0.34070E-06  477478.5 3751372.2   465.0     4.00     3.95     1.86     YES
 L0008936         0   0.34070E-06  477478.4 3751380.7   465.0     4.00     3.95     1.86     YES
 L0008937         0   0.34070E-06  477478.3 3751389.2   465.0     4.00     3.95     1.86     YES
 L0008938         0   0.34070E-06  477478.3 3751397.7   465.0     4.00     3.95     1.86     YES
 L0008939         0   0.34070E-06  477478.2 3751406.2   465.0     4.00     3.95     1.86     YES
 L0008940         0   0.34070E-06  477478.2 3751414.7   465.0     4.00     3.95     1.86     YES
 L0008941         0   0.34070E-06  477478.1 3751423.2   465.0     4.00     3.95     1.86     YES
 L0008942         0   0.34070E-06  477478.0 3751431.7   465.2     4.00     3.95     1.86     YES
 L0008943         0   0.34070E-06  477478.0 3751440.2   465.4     4.00     3.95     1.86     YES
 L0008944         0   0.34070E-06  477477.9 3751448.7   465.7     4.00     3.95     1.86     YES
 L0008945         0   0.34070E-06  477477.9 3751457.2   466.0     4.00     3.95     1.86     YES
 L0008946         0   0.34070E-06  477477.8 3751465.7   466.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39

   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0008947         0   0.34070E-06  477477.8 3751474.2   466.0     4.00     3.95     1.86     YES
 L0008948         0   0.34070E-06  477477.7 3751482.7   466.0     4.00     3.95     1.86     YES
 L0008949         0   0.34070E-06  477477.6 3751491.2   466.0     4.00     3.95     1.86     YES
 L0008950         0   0.34070E-06  477477.6 3751499.7   466.0     4.00     3.95     1.86     YES
 L0008951         0   0.34070E-06  477477.5 3751508.2   466.0     4.00     3.95     1.86     YES
 L0008952         0   0.34070E-06  477477.5 3751516.7   466.0     4.00     3.95     1.86     YES
 L0008953         0   0.34070E-06  477477.4 3751525.2   466.0     4.00     3.95     1.86     YES
 L0008954         0   0.34070E-06  477477.3 3751533.7   466.0     4.00     3.95     1.86     YES
 L0008955         0   0.34070E-06  477477.3 3751542.2   466.0     4.00     3.95     1.86     YES
 L0008956         0   0.34070E-06  477477.2 3751550.7   466.0     4.00     3.95     1.86     YES
 L0008957         0   0.34070E-06  477477.2 3751559.2   466.0     4.00     3.95     1.86     YES
 L0008958         0   0.34070E-06  477477.1 3751567.7   466.0     4.00     3.95     1.86     YES
 L0008959         0   0.34070E-06  477477.0 3751576.2   466.0     4.00     3.95     1.86     YES
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                                                    Residential
 L0008960         0   0.34070E-06  477477.0 3751584.7   466.0      4.00      3.95      1.86      YES
 L0008961         0   0.34070E-06  477476.9 3751593.2   466.0      4.00      3.95      1.86      YES
 L0008962         0   0.34070E-06  477476.9 3751601.7   466.0      4.00      3.95      1.86      YES
 L0008963         0   0.34070E-06  477476.8 3751610.2   466.1      4.00      3.95      1.86      YES
 L0008964         0   0.34070E-06  477476.8 3751618.7   466.2      4.00      3.95      1.86      YES
 L0008965         0   0.34070E-06  477476.7 3751627.2   466.4      4.00      3.95      1.86      YES
 L0008966         0   0.34070E-06  477476.6 3751635.7   466.6      4.00      3.95      1.86      YES
 L0008967         0   0.34070E-06  477476.6 3751644.2   466.7      4.00      3.95      1.86      YES
 L0008968         0   0.34070E-06  477476.5 3751652.7   466.8      4.00      3.95      1.86      YES
 L0008969         0   0.34070E-06  477476.5 3751661.2   466.9      4.00      3.95      1.86      YES
 L0008970         0   0.34070E-06  477476.4 3751669.7   467.0      4.00      3.95      1.86      YES
 L0008971         0   0.34070E-06  477476.3 3751678.2   467.0      4.00      3.95      1.86      YES
 L0008972         0   0.34070E-06  477476.3 3751686.7   467.0      4.00      3.95      1.86      YES
 L0008973         0   0.34070E-06  477476.2 3751695.2   467.0      4.00      3.95      1.86      YES
 L0008974         0   0.34070E-06  477476.2 3751703.7   467.0      4.00      3.95      1.86      YES
 L0008975         0   0.34070E-06  477476.1 3751712.2   467.0      4.00      3.95      1.86      YES
 L0008976         0   0.34070E-06  477476.1 3751720.7   467.0      4.00      3.95      1.86      YES
 L0008977         0   0.34070E-06  477476.0 3751729.2   467.1      4.00      3.95      1.86      YES
 L0008978         0   0.34070E-06  477475.9 3751737.7   467.2      4.00      3.95      1.86      YES
 L0008979         0   0.34070E-06  477475.9 3751746.2   467.4      4.00      3.95      1.86      YES
 L0008980         0   0.34070E-06  477475.8 3751754.7   467.5      4.00      3.95      1.86      YES
 L0008981         0   0.34070E-06  477475.8 3751763.2   467.6      4.00      3.95      1.86      YES
 L0008982         0   0.34070E-06  477475.7 3751771.7   467.8      4.00      3.95      1.86      YES
 L0008983         0   0.34070E-06  477475.6 3751780.2   467.9      4.00      3.95      1.86      YES
 L0008984         0   0.34070E-06  477475.6 3751788.7   468.0      4.00      3.95      1.86      YES
 L0008985         0   0.34070E-06  477475.5 3751797.2   468.0      4.00      3.95      1.86      YES
 L0008986         0   0.34070E-06  477475.5 3751805.7   468.0      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:32:39

   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0008987         0   0.34070E-06  477475.4 3751814.2   468.0      4.00      3.95      1.86      YES
 L0008988         0   0.34070E-06  477475.4 3751822.7   468.0      4.00      3.95      1.86      YES
 L0008989         0   0.34070E-06  477475.3 3751831.2   468.0      4.00      3.95      1.86      YES
 L0008990         0   0.34070E-06  477475.2 3751839.7   468.0      4.00      3.95      1.86      YES
 L0008991         0   0.34070E-06  477475.2 3751848.2   468.0      4.00      3.95      1.86      YES
 L0008992         0   0.34070E-06  477475.1 3751856.7   468.0      4.00      3.95      1.86      YES
 L0008993         0   0.34070E-06  477475.1 3751865.2   468.0      4.00      3.95      1.86      YES
 L0008994         0   0.34070E-06  477475.0 3751873.7   468.0      4.00      3.95      1.86      YES
 L0008995         0   0.34070E-06  477474.9 3751882.2   468.2      4.00      3.95      1.86      YES
 L0008996         0   0.34070E-06  477474.9 3751890.7   468.5      4.00      3.95      1.86      YES
 L0008997         0   0.34070E-06  477474.8 3751899.2   468.8      4.00      3.95      1.86      YES
 L0008998         0   0.34070E-06  477474.8 3751907.7   469.0      4.00      3.95      1.86      YES
 L0008999         0   0.34070E-06  477474.7 3751916.2   469.0      4.00      3.95      1.86      YES
 L0009000         0   0.34070E-06  477474.7 3751924.7   469.0      4.00      3.95      1.86      YES
 L0009001         0   0.34070E-06  477474.6 3751933.2   469.0      4.00      3.95      1.86      YES
 L0009002         0   0.34070E-06  477474.5 3751941.7   469.0      4.00      3.95      1.86      YES
 L0009003         0   0.34070E-06  477474.5 3751950.2   469.0      4.00      3.95      1.86      YES
 L0009004         0   0.34070E-06  477474.4 3751958.7   469.0      4.00      3.95      1.86      YES
 L0009005         0   0.34070E-06  477474.4 3751967.2   469.0      4.00      3.95      1.86      YES
 L0009006         0   0.34070E-06  477474.3 3751975.7   469.0      4.00      3.95      1.86      YES
 L0009007         0   0.34070E-06  477474.2 3751984.2   469.0      4.00      3.95      1.86      YES
 L0009008         0   0.34070E-06  477474.2 3751992.7   469.0      4.00      3.95      1.86      YES
 L0009009         0   0.34070E-06  477474.1 3752001.2   469.0      4.00      3.95      1.86      YES
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                                                     Residential
 L0009010         0   0.34070E-06  477474.1 3752009.7    469.0      4.00      3.95      1.86      YES
 L0009011         0   0.34070E-06  477474.0 3752018.2    469.0      4.00      3.95      1.86      YES
 L0009012         0   0.34070E-06  477474.0 3752026.7    469.0      4.00      3.95      1.86      YES
 L0009013         0   0.34070E-06  477473.9 3752035.2    469.1      4.00      3.95      1.86      YES
 L0009014         0   0.34070E-06  477473.8 3752043.7    469.3      4.00      3.95      1.86      YES
 L0009015         0   0.34070E-06  477473.8 3752052.2    469.4      4.00      3.95      1.86      YES
 L0009016         0   0.34070E-06  477473.7 3752060.7    469.5      4.00      3.95      1.86      YES
 L0009017         0   0.34070E-06  477473.7 3752069.2    469.5      4.00      3.95      1.86      YES
 L0009018         0   0.34070E-06  477473.6 3752077.7    469.5      4.00      3.95      1.86      YES
 L0009019         0   0.34070E-06  477473.5 3752086.2    469.5      4.00      3.95      1.86      YES
 L0009020         0   0.34070E-06  477473.5 3752094.7    469.6      4.00      3.95      1.86      YES
 L0009021         0   0.34070E-06  477473.4 3752103.2    469.8      4.00      3.95      1.86      YES
 L0009022         0   0.34070E-06  477473.4 3752111.7    469.9      4.00      3.95      1.86      YES
 L0009023         0   0.34070E-06  477473.3 3752120.2    470.1      4.00      3.95      1.86      YES
 L0009024         0   0.34070E-06  477473.3 3752128.7    470.2      4.00      3.95      1.86      YES
 L0009025         0   0.34070E-06  477473.2 3752137.2    470.3      4.00      3.95      1.86      YES
 L0009026         0   0.34070E-06  477473.1 3752145.7    470.4      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)          BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0009027         0   0.34070E-06  477473.1 3752154.2    470.6      4.00      3.95      1.86      YES
 L0009028         0   0.34070E-06  477473.0 3752162.7    470.7      4.00      3.95      1.86      YES
 L0009029         0   0.34070E-06  477473.0 3752171.2    470.9      4.00      3.95      1.86      YES
 L0009030         0   0.34070E-06  477472.9 3752179.7    471.0      4.00      3.95      1.86      YES
 L0009031         0   0.34070E-06  477472.8 3752188.2    471.0      4.00      3.95      1.86      YES
 L0009032         0   0.34070E-06  477472.8 3752196.7    471.0      4.00      3.95      1.86      YES
 L0009033         0   0.34070E-06  477472.7 3752205.2    471.0      4.00      3.95      1.86      YES
 L0009034         0   0.34070E-06  477472.7 3752213.7    471.2      4.00      3.95      1.86      YES
 L0009035         0   0.34070E-06  477472.6 3752222.2    471.5      4.00      3.95      1.86      YES
 L0009036         0   0.34070E-06  477468.0 3752226.1    471.7      4.00      3.95      1.86      YES
 L0009037         0   0.34070E-06  477459.5 3752226.1    471.7      4.00      3.95      1.86      YES
 L0009038         0   0.34070E-06  477451.0 3752226.2    471.7      4.00      3.95      1.86      YES
 L0009039         0   0.34070E-06  477442.5 3752226.2    471.7      4.00      3.95      1.86      YES
 L0009040         0   0.34070E-06  477434.0 3752226.2    471.7      4.00      3.95      1.86      YES
 L0009041         0   0.34070E-06  477425.5 3752226.2    471.7      4.00      3.95      1.86      YES
 L0009042         0   0.34070E-06  477417.0 3752226.2    471.7      4.00      3.95      1.86      YES
 L0009043         0   0.34070E-06  477408.5 3752226.2    471.7      4.00      3.95      1.86      YES
 L0009044         0   0.34070E-06  477400.0 3752226.2    471.7      4.00      3.95      1.86      YES
 L0009045         0   0.34070E-06  477391.5 3752226.2    471.5      4.00      3.95      1.86      YES
 L0009046         0   0.34070E-06  477383.0 3752226.2    471.3      4.00      3.95      1.86      YES
 L0009047         0   0.34070E-06  477374.5 3752226.2    471.1      4.00      3.95      1.86      YES
 L0009048         0   0.34070E-06  477366.0 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009049         0   0.34070E-06  477357.5 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009050         0   0.34070E-06  477349.0 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009051         0   0.34070E-06  477340.5 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009052         0   0.34070E-06  477332.0 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009053         0   0.34070E-06  477323.5 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009054         0   0.34070E-06  477315.0 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009055         0   0.34070E-06  477306.5 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009056         0   0.34070E-06  477298.0 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009057         0   0.34070E-06  477289.5 3752226.3    471.0      4.00      3.95      1.86      YES
 L0009058         0   0.34070E-06  477281.0 3752226.4    471.0      4.00      3.95      1.86      YES
 L0009059         0   0.34070E-06  477272.5 3752226.4    471.0      4.00      3.95      1.86      YES
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                                                     Residential
 L0009060         0   0.34070E-06  477264.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0009061         0   0.34070E-06  477255.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0009062         0   0.34070E-06  477247.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0009063         0   0.34070E-06  477238.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0009064         0   0.34070E-06  477230.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0009065         0   0.34070E-06  477221.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0009066         0   0.34070E-06  477213.0 3752226.4   471.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0009067         0   0.34070E-06  477204.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0009068         0   0.34070E-06  477196.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009069         0   0.34070E-06  477187.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009070         0   0.34070E-06  477179.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009071         0   0.34070E-06  477170.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009072         0   0.34070E-06  477162.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009073         0   0.34070E-06  477153.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009074         0   0.34070E-06  477145.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009075         0   0.34070E-06  477136.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009076         0   0.34070E-06  477128.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009077         0   0.34070E-06  477119.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0009078         0   0.34070E-06  477111.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009079         0   0.34070E-06  477102.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009080         0   0.34070E-06  477094.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009081         0   0.34070E-06  477085.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009082         0   0.34070E-06  477077.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009083         0   0.34070E-06  477068.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009084         0   0.34070E-06  477060.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009085         0   0.34070E-06  477051.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009086         0   0.34070E-06  477043.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009087         0   0.34070E-06  477034.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0009088         0   0.34070E-06  477026.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009089         0   0.34070E-06  477017.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009090         0   0.34070E-06  477009.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009091         0   0.34070E-06  477000.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009092         0   0.34070E-06  476992.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009093         0   0.34070E-06  476983.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009094         0   0.34070E-06  476975.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009095         0   0.34070E-06  476966.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009096         0   0.34070E-06  476958.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009097         0   0.34070E-06  476949.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0009098         0   0.34070E-06  476941.0 3752226.8   471.2     4.00     3.95     1.86     YES
 L0009099         0   0.34070E-06  476932.5 3752226.8   471.4     4.00     3.95     1.86     YES
 L0009100         0   0.34070E-06  476924.0 3752226.8   471.6     4.00     3.95     1.86     YES
 L0009101         0   0.34070E-06  476915.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0009102         0   0.34070E-06  476907.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0009103         0   0.34070E-06  476898.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0009104         0   0.34070E-06  476890.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0009105         0   0.34070E-06  476881.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0009106         0   0.34070E-06  476873.0 3752226.8   471.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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                                          Residential
  13:32:39

  PAGE  31
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE        PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009107         0   0.34070E-06  476864.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0009108         0   0.34070E-06  476856.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0009109         0   0.34070E-06  476847.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0009110         0   0.34070E-06  476839.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0009111         0   0.34070E-06  476830.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0009112         0   0.34070E-06  476822.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0009113         0   0.34070E-06  476813.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0009114         0   0.34070E-06  476805.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0009115         0   0.34070E-06  476796.5 3752226.9   477.2     4.00     3.95     1.86     YES
 L0009116         0   0.34070E-06  476788.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0009117         0   0.34070E-06  476779.5 3752226.9   477.2     4.00     3.95     1.86     YES
 L0009118         0   0.34070E-06  476771.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0009119         0   0.34070E-06  476762.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0009120         0   0.34070E-06  476754.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0009121         0   0.34070E-06  476745.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0009122         0   0.34070E-06  476737.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0009123         0   0.34070E-06  476728.5 3752227.0   477.3     4.00     3.95     1.86     YES
 L0009124         0   0.34070E-06  476720.0 3752227.0   477.4     4.00     3.95     1.86     YES
 L0009125         0   0.34070E-06  476711.5 3752227.0   477.5     4.00     3.95     1.86     YES
 L0009126         0   0.34070E-06  476703.0 3752227.0   477.6     4.00     3.95     1.86     YES
 L0009127         0   0.34070E-06  476694.5 3752227.0   477.6     4.00     3.95     1.86     YES
 L0009128         0   0.34070E-06  476686.0 3752227.1   477.7     4.00     3.95     1.86     YES
 L0009129         0   0.34070E-06  476677.5 3752227.1   477.8     4.00     3.95     1.86     YES
 L0009130         0   0.34070E-06  476669.0 3752227.1   477.9     4.00     3.95     1.86     YES
 L0009131         0   0.34070E-06  476660.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0009132         0   0.34070E-06  476652.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0009133         0   0.34070E-06  476643.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0009134         0   0.34070E-06  476635.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0009135         0   0.34070E-06  476626.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0009136         0   0.34070E-06  476618.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0009137         0   0.34070E-06  476609.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0009138         0   0.34070E-06  476601.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009139         0   0.34070E-06  476592.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009140         0   0.34070E-06  476584.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009141         0   0.34070E-06  476575.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009142         0   0.34070E-06  476567.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009143         0   0.34070E-06  476558.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009144         0   0.34070E-06  476550.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009145         0   0.34070E-06  476541.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0009146         0   0.34070E-06  476533.0 3752227.2   478.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE        PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
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                                                       Residential
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009147         0   0.34070E-06  476524.5 3752227.2    478.0     4.00     3.95     1.86     YES
 L0009148         0   0.34070E-06  476516.0 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009149         0   0.34070E-06  476507.5 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009150         0   0.34070E-06  476499.0 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009151         0   0.34070E-06  476490.5 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009152         0   0.34070E-06  476482.0 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009153         0   0.34070E-06  476473.5 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009154         0   0.34070E-06  476465.0 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009155         0   0.34070E-06  476456.5 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009156         0   0.34070E-06  476448.0 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009157         0   0.34070E-06  476439.5 3752227.3    478.0     4.00     3.95     1.86     YES
 L0009158         0   0.34070E-06  476431.0 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009159         0   0.34070E-06  476422.5 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009160         0   0.34070E-06  476414.0 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009161         0   0.34070E-06  476405.5 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009162         0   0.34070E-06  476397.0 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009163         0   0.34070E-06  476388.5 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009164         0   0.34070E-06  476380.0 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009165         0   0.34070E-06  476371.5 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009166         0   0.34070E-06  476363.0 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009167         0   0.34070E-06  476354.5 3752227.4    478.0     4.00     3.95     1.86     YES
 L0009168         0   0.34070E-06  476346.0 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009169         0   0.34070E-06  476337.5 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009170         0   0.34070E-06  476329.0 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009171         0   0.34070E-06  476320.5 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009172         0   0.34070E-06  476312.0 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009173         0   0.34070E-06  476303.5 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009174         0   0.34070E-06  476295.0 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009175         0   0.34070E-06  476286.5 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009176         0   0.34070E-06  476278.0 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009177         0   0.34070E-06  476269.5 3752227.5    478.0     4.00     3.95     1.86     YES
 L0009178         0   0.34070E-06  476261.0 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009179         0   0.34070E-06  476252.5 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009180         0   0.34070E-06  476244.0 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009181         0   0.34070E-06  476235.5 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009182         0   0.34070E-06  476227.0 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009183         0   0.34070E-06  476218.5 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009184         0   0.34070E-06  476210.0 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009185         0   0.34070E-06  476201.5 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009186         0   0.34070E-06  476193.0 3752227.6    478.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009187         0   0.34070E-06  476184.5 3752227.6    478.0     4.00     3.95     1.86     YES
 L0009188         0   0.34070E-06  476176.0 3752227.7    478.0     4.00     3.95     1.86     YES
 L0009189         0   0.34070E-06  476167.5 3752227.7    478.0     4.00     3.95     1.86     YES
 L0009190         0   0.34070E-06  476159.0 3752227.7    478.0     4.00     3.95     1.86     YES
 L0009191         0   0.34070E-06  476150.5 3752227.7    478.0     4.00     3.95     1.86     YES
 L0009192         0   0.34070E-06  476142.0 3752227.7    478.0     4.00     3.95     1.86     YES
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                                                    Residential
 L0009193         0   0.34070E-06  476133.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0009194         0   0.34070E-06  476125.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0009195         0   0.34070E-06  476116.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0009196         0   0.34070E-06  476108.0 3752227.7   477.9     4.00     3.95     1.86     YES
 L0009197         0   0.34070E-06  476099.5 3752227.7   477.8     4.00     3.95     1.86     YES
 L0009198         0   0.34070E-06  476091.0 3752227.8   477.7     4.00     3.95     1.86     YES
 L0009199         0   0.34070E-06  476082.5 3752227.8   477.6     4.00     3.95     1.86     YES
 L0009200         0   0.34070E-06  476074.0 3752227.8   477.6     4.00     3.95     1.86     YES
 L0009201         0   0.34070E-06  476065.5 3752227.8   477.5     4.00     3.95     1.86     YES
 L0009202         0   0.34070E-06  476057.0 3752227.8   477.4     4.00     3.95     1.86     YES
 L0009203         0   0.34070E-06  476048.5 3752227.8   477.3     4.00     3.95     1.86     YES
 L0009204         0   0.34070E-06  476040.0 3752227.8   477.2     4.00     3.95     1.86     YES
 L0009205         0   0.34070E-06  476031.5 3752227.8   477.2     4.00     3.95     1.86     YES
 L0009206         0   0.34070E-06  476023.0 3752227.8   477.2     4.00     3.95     1.86     YES
 L0009207         0   0.34070E-06  476014.5 3752227.8   477.1     4.00     3.95     1.86     YES
 L0009208         0   0.34070E-06  476006.0 3752227.9   477.1     4.00     3.95     1.86     YES
 L0009209         0   0.34070E-06  475997.5 3752227.9   477.1     4.00     3.95     1.86     YES
 L0009210         0   0.34070E-06  475989.0 3752227.9   477.1     4.00     3.95     1.86     YES
 L0009211         0   0.34070E-06  475980.5 3752227.9   477.1     4.00     3.95     1.86     YES
 L0009212         0   0.34070E-06  475972.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0009213         0   0.34070E-06  475963.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0009214         0   0.34070E-06  475955.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0009215         0   0.34070E-06  475946.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0009216         0   0.34070E-06  475938.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0009217         0   0.34070E-06  475929.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0009218         0   0.34070E-06  475921.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0009219         0   0.34070E-06  475912.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009220         0   0.34070E-06  475904.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009221         0   0.34070E-06  475895.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009222         0   0.34070E-06  475887.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009223         0   0.34070E-06  475878.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009224         0   0.34070E-06  475870.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009225         0   0.34070E-06  475861.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009226         0   0.34070E-06  475853.0 3752228.0   477.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                         BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y         ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)          BY
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 L0009227         0   0.34070E-06  475844.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009228         0   0.34070E-06  475836.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0009229         0   0.34070E-06  475827.5 3752228.1   477.0     4.00     3.95     1.86     YES
 L0009230         0   0.34070E-06  475819.0 3752228.1   477.0     4.00     3.95     1.86     YES
 L0009231         0   0.34070E-06  475810.5 3752228.1   477.0     4.00     3.95     1.86     YES
 L0009232         0   0.34070E-06  475802.0 3752228.1   477.0     4.00     3.95     1.86     YES
 L0009233         0   0.34070E-06  475793.5 3752228.1   477.1     4.00     3.95     1.86     YES
 L0009234         0   0.34070E-06  475785.0 3752228.1   477.1     4.00     3.95     1.86     YES
 L0009235         0   0.34070E-06  475776.5 3752228.1   477.1     4.00     3.95     1.86     YES
 L0009236         0   0.34070E-06  475768.0 3752228.1   477.1     4.00     3.95     1.86     YES
 L0009237         0   0.34070E-06  475759.5 3752228.1   477.1     4.00     3.95     1.86     YES
 L0009238         0   0.34070E-06  475751.0 3752228.1   477.2     4.00     3.95     1.86     YES
 L0009239         0   0.34070E-06  475742.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009240         0   0.34070E-06  475734.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009241         0   0.34070E-06  475725.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009242         0   0.34070E-06  475717.0 3752228.2   477.2     4.00     3.95     1.86     YES
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                                                 Residential
 L0009243         0   0.34070E-06  475708.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009244         0   0.34070E-06  475700.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009245         0   0.34070E-06  475691.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009246         0   0.34070E-06  475683.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009247         0   0.34070E-06  475674.5 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009248         0   0.34070E-06  475666.0 3752228.2   477.2     4.00     3.95     1.86     YES
 L0009249         0   0.34070E-06  475657.5 3752228.3   477.2     4.00     3.95     1.86     YES
 L0009250         0   0.34070E-06  475649.0 3752228.3   477.2     4.00     3.95     1.86     YES
 L0009251         0   0.34070E-06  475640.5 3752228.3   477.2     4.00     3.95     1.86     YES
 L0009252         0   0.34070E-06  475632.0 3752228.3   477.2     4.00     3.95     1.86     YES
 L0009253         0   0.34070E-06  475623.5 3752228.3   477.1     4.00     3.95     1.86     YES
 L0009254         0   0.34070E-06  475615.0 3752228.3   477.1     4.00     3.95     1.86     YES
 L0009255         0   0.34070E-06  475606.5 3752228.3   477.1     4.00     3.95     1.86     YES
 L0009256         0   0.34070E-06  475598.0 3752228.3   477.1     4.00     3.95     1.86     YES
 L0009257         0   0.34070E-06  475589.5 3752228.3   477.0     4.00     3.95     1.86     YES
 L0009258         0   0.34070E-06  475581.0 3752228.3   477.0     4.00     3.95     1.86     YES
 L0009259         0   0.34070E-06  475572.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009260         0   0.34070E-06  475564.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009261         0   0.34070E-06  475555.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009262         0   0.34070E-06  475547.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009263         0   0.34070E-06  475538.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009264         0   0.34070E-06  475530.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009265         0   0.34070E-06  475521.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009266         0   0.34070E-06  475513.0 3752228.4   477.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                ***
   13:32:39

   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0009267         0   0.34070E-06  475504.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009268         0   0.34070E-06  475496.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0009269         0   0.34070E-06  475487.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009270         0   0.34070E-06  475479.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009271         0   0.34070E-06  475470.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009272         0   0.34070E-06  475462.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009273         0   0.34070E-06  475453.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009274         0   0.34070E-06  475445.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009275         0   0.34070E-06  475436.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009276         0   0.34070E-06  475428.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0009277         0   0.34070E-06  475419.5 3752228.5   476.9     4.00     3.95     1.86     YES
 L0009278         0   0.34070E-06  475411.0 3752228.5   476.9     4.00     3.95     1.86     YES
 L0009279         0   0.34070E-06  475402.5 3752228.6   476.8     4.00     3.95     1.86     YES
 L0009280         0   0.34070E-06  475394.0 3752228.6   476.7     4.00     3.95     1.86     YES
 L0009281         0   0.34070E-06  475385.5 3752228.6   476.6     4.00     3.95     1.86     YES
 L0009282         0   0.34070E-06  475377.0 3752228.6   476.5     4.00     3.95     1.86     YES
 L0009283         0   0.34070E-06  475368.5 3752228.6   476.4     4.00     3.95     1.86     YES
 L0009284         0   0.34070E-06  475360.0 3752228.6   476.3     4.00     3.95     1.86     YES
 L0009285         0   0.34070E-06  475351.5 3752228.6   476.2     4.00     3.95     1.86     YES
 L0009286         0   0.34070E-06  475343.0 3752228.6   476.2     4.00     3.95     1.86     YES
 L0009287         0   0.34070E-06  475334.5 3752228.6   476.2     4.00     3.95     1.86     YES
 L0009288         0   0.34070E-06  475326.0 3752228.6   476.2     4.00     3.95     1.86     YES
 L0009289         0   0.34070E-06  475317.5 3752228.7   476.1     4.00     3.95     1.86     YES
 L0009290         0   0.34070E-06  475309.0 3752228.7   476.1     4.00     3.95     1.86     YES
 L0009291         0   0.34070E-06  475300.5 3752228.7   476.1     4.00     3.95     1.86     YES
 L0009292         0   0.34070E-06  475292.0 3752228.7   476.1     4.00     3.95     1.86     YES
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                                                   Residential
 L0009293         0   0.34070E-06  475283.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0009294         0   0.34070E-06  475275.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0009295         0   0.34070E-06  475266.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0009296         0   0.34070E-06  475258.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0009297         0   0.34070E-06  475249.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0009298         0   0.34070E-06  475241.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0009299         0   0.34070E-06  475232.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009300         0   0.34070E-06  475224.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009301         0   0.34070E-06  475215.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009302         0   0.34070E-06  475207.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009303         0   0.34070E-06  475198.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009304         0   0.34070E-06  475190.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009305         0   0.34070E-06  475181.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009306         0   0.34070E-06  475173.0 3752228.8   476.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                                 BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)             BY
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 L0009307         0   0.34070E-06  475164.5 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009308         0   0.34070E-06  475156.0 3752228.8   476.0     4.00     3.95     1.86     YES
 L0009309         0   0.34070E-06  475147.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009310         0   0.34070E-06  475139.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009311         0   0.34070E-06  475130.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009312         0   0.34070E-06  475122.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009313         0   0.34070E-06  475113.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009314         0   0.34070E-06  475105.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009315         0   0.34070E-06  475096.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009316         0   0.34070E-06  475088.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009317         0   0.34070E-06  475079.5 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009318         0   0.34070E-06  475071.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0009319         0   0.34070E-06  475062.5 3752229.0   476.0     4.00     3.95     1.86     YES
 L0009320         0   0.34070E-06  475054.0 3752229.0   476.0     4.00     3.95     1.86     YES
 L0009321         0   0.34070E-06  475045.5 3752229.0   476.0     4.00     3.95     1.86     YES
 L0009322         0   0.34070E-06  475037.0 3752229.0   476.0     4.00     3.95     1.86     YES
 L0009323         0   0.34070E-06  475028.5 3752229.0   475.9     4.00     3.95     1.86     YES
 L0009324         0   0.34070E-06  475020.0 3752229.0   475.7     4.00     3.95     1.86     YES
 L0009325         0   0.34070E-06  475011.5 3752229.0   475.6     4.00     3.95     1.86     YES
 L0009326         0   0.34070E-06  475003.0 3752229.0   475.5     4.00     3.95     1.86     YES
 L0009327         0   0.34070E-06  474994.5 3752229.0   475.4     4.00     3.95     1.86     YES
 L0009328         0   0.34070E-06  474986.0 3752229.0   475.3     4.00     3.95     1.86     YES
 L0009329         0   0.34070E-06  474977.5 3752229.1   475.2     4.00     3.95     1.86     YES
 L0009330         0   0.34070E-06  474969.0 3752229.1   475.1     4.00     3.95     1.86     YES
 L0009331         0   0.34070E-06  474960.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009332         0   0.34070E-06  474952.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009333         0   0.34070E-06  474943.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009334         0   0.34070E-06  474935.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009335         0   0.34070E-06  474926.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009336         0   0.34070E-06  474918.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009337         0   0.34070E-06  474909.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009338         0   0.34070E-06  474901.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0009339         0   0.34070E-06  474892.5 3752229.2   475.0     4.00     3.95     1.86     YES
 L0009340         0   0.34070E-06  474884.0 3752229.2   475.0     4.00     3.95     1.86     YES
 L0009341         0   0.34070E-06  474875.5 3752229.2   474.9     4.00     3.95     1.86     YES
 L0009342         0   0.34070E-06  474867.0 3752229.2   474.8     4.00     3.95     1.86     YES
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                                                            Residential
 L0009343         0   0.34070E-06  474858.5 3752229.2   474.7     4.00     3.95     1.86     YES
 L0009344         0   0.34070E-06  474850.0 3752229.2   474.5     4.00     3.95     1.86     YES
 L0009345         0   0.34070E-06  474841.5 3752229.2   474.4     4.00     3.95     1.86     YES
 L0009346         0   0.34070E-06  474833.0 3752229.2   474.3     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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  PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE         PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
    ID           CATS.              (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0009347         0   0.34070E-06  474824.5 3752229.2   474.2     4.00     3.95     1.86     YES
 L0009348         0   0.34070E-06  474816.0 3752229.2   474.1     4.00     3.95     1.86     YES
 L0009349         0   0.34070E-06  474807.5 3752229.3   474.0     4.00     3.95     1.86     YES
 L0009350         0   0.34070E-06  474799.1 3752228.0   474.1     4.00     3.95     1.86     YES
 L0009351         0   0.34070E-06  474790.7 3752226.7   474.2     4.00     3.95     1.86     YES
 L0009352         0   0.34070E-06  474782.3 3752225.5   474.3     4.00     3.95     1.86     YES
 L0009353         0   0.34070E-06  474773.9 3752224.2   474.4     4.00     3.95     1.86     YES
 L0009354         0   0.34070E-06  474765.5 3752222.9   474.6     4.00     3.95     1.86     YES
 L0009355         0   0.34070E-06  474757.1 3752221.7   474.7     4.00     3.95     1.86     YES
 L0009356         0   0.34070E-06  474748.7 3752220.4   474.8     4.00     3.95     1.86     YES
 L0009357         0   0.34070E-06  474740.3 3752219.1   474.9     4.00     3.95     1.86     YES
 L0009358         0   0.34070E-06  474731.9 3752217.8   475.0     4.00     3.95     1.86     YES
 L0009359         0   0.34070E-06  474723.5 3752216.6   475.0     4.00     3.95     1.86     YES
 L0009360         0   0.34070E-06  474715.1 3752215.3   475.0     4.00     3.95     1.86     YES
 L0009361         0   0.34070E-06  474706.7 3752214.0   475.0     4.00     3.95     1.86     YES
 L0009362         0   0.34070E-06  474698.3 3752212.8   475.0     4.00     3.95     1.86     YES
 L0009363         0   0.34070E-06  474689.9 3752211.5   475.0     4.00     3.95     1.86     YES
 L0009364         0   0.34070E-06  474681.5 3752210.2   475.0     4.00     3.95     1.86     YES
 L0009365         0   0.34070E-06  474673.1 3752209.0   475.0     4.00     3.95     1.86     YES
 L0009366         0   0.34070E-06  474664.7 3752207.7   475.0     4.00     3.95     1.86     YES
 L0009367         0   0.34070E-06  474656.3 3752206.4   475.0     4.00     3.95     1.86     YES
 L0009368         0   0.34070E-06  474647.9 3752205.1   475.0     4.00     3.95     1.86     YES
 L0009369         0   0.34070E-06  474639.5 3752203.9   475.0     4.00     3.95     1.86     YES
 L0009370         0   0.34070E-06  474631.1 3752202.6   475.0     4.00     3.95     1.86     YES
 L0009371         0   0.34070E-06  474622.6 3752201.3   475.0     4.00     3.95     1.86     YES
 L0009372         0   0.34070E-06  474614.2 3752200.1   475.0     4.00     3.95     1.86     YES
 L0009373         0   0.34070E-06  474605.8 3752198.8   475.0     4.00     3.95     1.86     YES
 L0009374         0   0.34070E-06  474597.4 3752197.5   475.0     4.00     3.95     1.86     YES
 L0009375         0   0.34070E-06  474589.0 3752196.2   475.0     4.00     3.95     1.86     YES
 L0009376         0   0.34070E-06  474580.6 3752195.0   475.0     4.00     3.95     1.86     YES
 L0009377         0   0.34070E-06  474572.2 3752193.7   475.1     4.00     3.95     1.86     YES
 L0009378         0   0.34070E-06  474563.8 3752192.4   475.2     4.00     3.95     1.86     YES
 L0009379         0   0.34070E-06  474555.4 3752191.2   475.3     4.00     3.95     1.86     YES
 L0009380         0   0.34070E-06  474547.0 3752189.9   475.4     4.00     3.95     1.86     YES
 L0009381         0   0.34070E-06  474538.6 3752188.6   475.5     4.00     3.95     1.86     YES
 L0009382         0   0.34070E-06  474530.2 3752187.3   475.6     4.00     3.95     1.86     YES
 L0009383         0   0.34070E-06  474521.8 3752186.1   475.7     4.00     3.95     1.86     YES
 L0009384         0   0.34070E-06  474513.4 3752184.8   475.8     4.00     3.95     1.86     YES
 L0009385         0   0.34070E-06  474505.0 3752183.5   475.9     4.00     3.95     1.86     YES
 L0009386         0   0.34070E-06  474496.6 3752182.3   476.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:32:39

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                                                   Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009387         0   0.34070E-06  474488.2 3752181.0   476.0      4.00     3.95     1.86     YES
 L0009388         0   0.34070E-06  474479.8 3752179.7   476.0      4.00     3.95     1.86     YES
 L0009389         0   0.34070E-06  474471.4 3752178.4   476.0      4.00     3.95     1.86     YES
 L0009390         0   0.34070E-06  474463.0 3752177.2   476.0      4.00     3.95     1.86     YES
 L0009391         0   0.34070E-06  474454.6 3752175.9   476.0      4.00     3.95     1.86     YES
 L0009392         0   0.34070E-06  474446.2 3752174.6   476.0      4.00     3.95     1.86     YES
 L0009393         0   0.34070E-06  474437.8 3752173.4   476.0      4.00     3.95     1.86     YES
 L0009394         0   0.34070E-06  474429.3 3752172.1   476.0      4.00     3.95     1.86     YES
 L0009395         0   0.34070E-06  474420.9 3752170.8   476.0      4.00     3.95     1.86     YES
 L0009396         0   0.34070E-06  474412.5 3752169.6   476.1      4.00     3.95     1.86     YES
 L0009397         0   0.34070E-06  474404.1 3752168.3   476.2      4.00     3.95     1.86     YES
 L0009398         0   0.34070E-06  474395.7 3752167.0   476.4      4.00     3.95     1.86     YES
 L0009399         0   0.34070E-06  474387.3 3752165.7   476.5      4.00     3.95     1.86     YES
 L0009400         0   0.34070E-06  474378.9 3752164.5   476.6      4.00     3.95     1.86     YES
 L0009401         0   0.34070E-06  474370.5 3752163.2   476.7      4.00     3.95     1.86     YES
 L0009402         0   0.34070E-06  474362.1 3752161.9   476.8      4.00     3.95     1.86     YES
 L0009403         0   0.34070E-06  474353.7 3752160.7   476.9      4.00     3.95     1.86     YES
 L0009404         0   0.34070E-06  474345.3 3752159.4   477.0      4.00     3.95     1.86     YES
 L0009405         0   0.34070E-06  474336.9 3752158.1   477.0      4.00     3.95     1.86     YES
 L0009406         0   0.34070E-06  474328.5 3752156.8   477.0      4.00     3.95     1.86     YES
 L0009407         0   0.34070E-06  474320.1 3752155.6   477.0      4.00     3.95     1.86     YES
 L0009408         0   0.34070E-06  474311.7 3752154.3   477.0      4.00     3.95     1.86     YES
 L0009409         0   0.34070E-06  474303.3 3752153.0   477.0      4.00     3.95     1.86     YES
 L0009410         0   0.34070E-06  474294.9 3752151.8   477.0      4.00     3.95     1.86     YES
 L0009411         0   0.34070E-06  474286.5 3752150.5   477.0      4.00     3.95     1.86     YES
 L0009412         0   0.34070E-06  474278.1 3752149.2   477.0      4.00     3.95     1.86     YES
 L0009413         0   0.34070E-06  474269.7 3752147.9   477.0      4.00     3.95     1.86     YES
 L0009414         0   0.34070E-06  474261.3 3752146.7   477.0      4.00     3.95     1.86     YES
 L0009415         0   0.34070E-06  474252.9 3752145.4   477.0      4.00     3.95     1.86     YES
 L0009416         0   0.34070E-06  474244.4 3752144.1   477.0      4.00     3.95     1.86     YES
 L0009417         0   0.34070E-06  474236.0 3752142.9   477.0      4.00     3.95     1.86     YES
 L0009418         0   0.34070E-06  474227.6 3752141.6   477.0      4.00     3.95     1.86     YES
 L0009419         0   0.34070E-06  474219.2 3752140.3   477.0      4.00     3.95     1.86     YES
 L0009420         0   0.34070E-06  474210.8 3752139.0   477.0      4.00     3.95     1.86     YES
 L0009421         0   0.34070E-06  474202.4 3752137.8   477.0      4.00     3.95     1.86     YES
 L0009422         0   0.34070E-06  474194.0 3752136.5   477.0      4.00     3.95     1.86     YES
 L0009423         0   0.34070E-06  474185.6 3752135.2   477.1      4.00     3.95     1.86     YES
 L0009424         0   0.34070E-06  474177.2 3752134.0   477.2      4.00     3.95     1.86     YES
 L0009425         0   0.34070E-06  474168.8 3752132.7   477.3      4.00     3.95     1.86     YES
 L0009426         0   0.34070E-06  474160.4 3752131.3   477.4      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:32:39

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009427         0   0.34070E-06  474152.0 3752129.9   477.5     4.00     3.95     1.86     YES
 L0009428         0   0.34070E-06  474143.7 3752128.5   477.6     4.00     3.95     1.86     YES
 L0009429         0   0.34070E-06  474135.3 3752127.1   477.7     4.00     3.95     1.86     YES
 L0009430         0   0.34070E-06  474126.9 3752125.7   477.9     4.00     3.95     1.86     YES
 L0009431         0   0.34070E-06  474118.5 3752124.3   478.0     4.00     3.95     1.86     YES
 L0009432         0   0.34070E-06  474110.1 3752122.9   478.0     4.00     3.95     1.86     YES
 L0009433         0   0.34070E-06  474101.7 3752121.5   478.0     4.00     3.95     1.86     YES
 L0009434         0   0.34070E-06  474093.3 3752120.1   478.0     4.00     3.95     1.86     YES
 L0009435         0   0.34070E-06  474085.0 3752118.8   478.0     4.00     3.95     1.86     YES
 L0009436         0   0.34070E-06  474076.6 3752117.4   478.0     4.00     3.95     1.86     YES
 L0009437         0   0.34070E-06  474068.2 3752116.0   478.0     4.00     3.95     1.86     YES
 L0009438         0   0.34070E-06  474059.8 3752114.6   478.0     4.00     3.95     1.86     YES
 L0009439         0   0.34070E-06  474051.4 3752113.2   478.0     4.00     3.95     1.86     YES
 L0009440         0   0.34070E-06  474043.0 3752111.8   478.0     4.00     3.95     1.86     YES
 L0009441         0   0.85100E-07  477480.6 3749800.2   458.0     0.00     3.95     1.86     YES
 L0009442         0   0.85100E-07  477480.4 3749808.7   458.0     0.00     3.95     1.86     YES
 L0009443         0   0.85100E-07  477480.3 3749817.2   458.0     0.00     3.95     1.86     YES
 L0009444         0   0.85100E-07  477480.1 3749825.7   458.0     0.00     3.95     1.86     YES
 L0009445         0   0.85100E-07  477480.0 3749834.2   458.0     0.00     3.95     1.86     YES
 L0009446         0   0.85100E-07  477479.9 3749842.7   458.0     0.00     3.95     1.86     YES
 L0009447         0   0.85100E-07  477479.7 3749851.2   458.0     0.00     3.95     1.86     YES
 L0009448         0   0.85100E-07  477479.6 3749859.7   458.0     0.00     3.95     1.86     YES
 L0009449         0   0.85100E-07  477479.5 3749868.2   458.0     0.00     3.95     1.86     YES
 L0009450         0   0.85100E-07  477479.3 3749876.7   458.0     0.00     3.95     1.86     YES
 L0009451         0   0.85100E-07  477479.2 3749885.2   458.0     0.00     3.95     1.86     YES
 L0009452         0   0.85100E-07  477479.1 3749893.7   458.0     0.00     3.95     1.86     YES
 L0009453         0   0.85100E-07  477478.9 3749902.2   458.0     0.00     3.95     1.86     YES
 L0009454         0   0.85100E-07  477478.8 3749910.7   458.0     0.00     3.95     1.86     YES
 L0009455         0   0.85100E-07  477478.7 3749919.2   458.0     0.00     3.95     1.86     YES
 L0009456         0   0.85100E-07  477478.5 3749927.7   458.0     0.00     3.95     1.86     YES
 L0009457         0   0.85100E-07  477478.4 3749936.2   458.0     0.00     3.95     1.86     YES
 L0009458         0   0.85100E-07  477478.2 3749944.7   458.0     0.00     3.95     1.86     YES
 L0009459         0   0.85100E-07  477478.1 3749953.2   458.0     0.00     3.95     1.86     YES
 L0009460         0   0.85100E-07  477478.0 3749961.7   458.2     0.00     3.95     1.86     YES
 L0009461         0   0.85100E-07  477477.8 3749970.2   458.4     0.00     3.95     1.86     YES
 L0009462         0   0.85100E-07  477477.7 3749978.7   458.7     0.00     3.95     1.86     YES
 L0009463         0   0.85100E-07  477477.6 3749987.2   459.0     0.00     3.95     1.86     YES
 L0009464         0   0.85100E-07  477477.4 3749995.7   459.0     0.00     3.95     1.86     YES
 L0009465         0   0.85100E-07  477477.3 3750004.2   459.0     0.00     3.95     1.86     YES
 L0009466         0   0.85100E-07  477477.2 3750012.7   459.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:32:39

   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS)  (METERS)  (METERS) (METERS)  (METERS) (METERS)            BY
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 L0009467         0   0.85100E-07  477477.0 3750021.2   459.0     0.00     3.95     1.86     YES
 L0009468         0   0.85100E-07  477476.9 3750029.7   459.0     0.00     3.95     1.86     YES
 L0009469         0   0.85100E-07  477476.8 3750038.2   459.0     0.00     3.95     1.86     YES
 L0009470         0   0.85100E-07  477476.6 3750046.7   459.0     0.00     3.95     1.86     YES
 L0009471         0   0.85100E-07  477476.5 3750055.2   459.0     0.00     3.95     1.86     YES
 L0009472         0   0.85100E-07  477476.3 3750063.7   459.0     0.00     3.95     1.86     YES
 L0009473         0   0.85100E-07  477476.2 3750072.2   459.0     0.00     3.95     1.86     YES
 L0009474         0   0.85100E-07  477476.1 3750080.7   459.0     0.00     3.95     1.86     YES
 L0009475         0   0.85100E-07  477475.9 3750089.2   459.0     0.00     3.95     1.86     YES
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                                                    Residential
 L0009476         0   0.85100E-07  477475.8 3750097.7   459.0     0.00     3.95     1.86     YES
 L0009477         0   0.85100E-07  477475.7 3750106.2   459.0     0.00     3.95     1.86     YES
 L0009478         0   0.85100E-07  477475.5 3750114.7   459.0     0.00     3.95     1.86     YES
 L0009479         0   0.85100E-07  477475.4 3750123.2   459.0     0.00     3.95     1.86     YES
 L0009480         0   0.85100E-07  477475.3 3750131.7   459.0     0.00     3.95     1.86     YES
 L0009481         0   0.85100E-07  477475.1 3750140.2   459.0     0.00     3.95     1.86     YES
 L0009482         0   0.85100E-07  477475.0 3750148.7   459.0     0.00     3.95     1.86     YES
 L0009483         0   0.85100E-07  477474.8 3750157.2   459.0     0.00     3.95     1.86     YES
 L0009484         0   0.85100E-07  477474.7 3750165.7   459.0     0.00     3.95     1.86     YES
 L0009485         0   0.85100E-07  477474.2 3750174.2   459.0     0.00     3.95     1.86     YES
 L0009486         0   0.85100E-07  477473.5 3750182.6   459.0     0.00     3.95     1.86     YES
 L0009487         0   0.85100E-07  477472.8 3750191.1   459.0     0.00     3.95     1.86     YES
 L0009488         0   0.85100E-07  477472.1 3750199.6   459.0     0.00     3.95     1.86     YES
 L0009489         0   0.85100E-07  477471.4 3750208.0   459.2     0.00     3.95     1.86     YES
 L0009490         0   0.85100E-07  477470.7 3750216.5   459.2     0.00     3.95     1.86     YES
 L0009491         0   0.85100E-07  477470.0 3750225.0   459.3     0.00     3.95     1.86     YES
 L0009492         0   0.85100E-07  477469.3 3750233.5   459.5     0.00     3.95     1.86     YES
 L0009493         0   0.85100E-07  477468.7 3750241.9   459.7     0.00     3.95     1.86     YES
 L0009494         0   0.85100E-07  477468.0 3750250.4   459.9     0.00     3.95     1.86     YES
 L0009495         0   0.85100E-07  477467.3 3750258.9   460.0     0.00     3.95     1.86     YES
 L0009496         0   0.85100E-07  477466.6 3750267.3   460.0     0.00     3.95     1.86     YES
 L0009497         0   0.85100E-07  477466.5 3750275.8   460.0     0.00     3.95     1.86     YES
 L0009498         0   0.85100E-07  477466.5 3750284.3   460.0     0.00     3.95     1.86     YES
 L0009499         0   0.85100E-07  477466.5 3750292.8   460.0     0.00     3.95     1.86     YES
 L0009500         0   0.85100E-07  477466.6 3750301.3   460.0     0.00     3.95     1.86     YES
 L0009501         0   0.85100E-07  477466.6 3750309.8   460.0     0.00     3.95     1.86     YES
 L0009502         0   0.85100E-07  477466.6 3750318.3   460.0     0.00     3.95     1.86     YES
 L0009503         0   0.85100E-07  477466.7 3750326.8   460.0     0.00     3.95     1.86     YES
 L0009504         0   0.85100E-07  477466.7 3750335.3   460.0     0.00     3.95     1.86     YES
 L0009505         0   0.85100E-07  477466.7 3750343.8   460.0     0.00     3.95     1.86     YES
 L0009506         0   0.85100E-07  477466.8 3750352.3   460.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS) (METERS)  (METERS) (METERS)            BY
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 L0009507         0   0.85100E-07  477466.8 3750360.8   460.0     0.00     3.95     1.86     YES
 L0009508         0   0.85100E-07  477466.9 3750369.3   460.0     0.00     3.95     1.86     YES
 L0009509         0   0.85100E-07  477466.9 3750377.8   460.0     0.00     3.95     1.86     YES
 L0009510         0   0.85100E-07  477466.9 3750386.3   460.0     0.00     3.95     1.86     YES
 L0009511         0   0.85100E-07  477467.0 3750394.8   460.0     0.00     3.95     1.86     YES
 L0009512         0   0.85100E-07  477467.0 3750403.3   460.0     0.00     3.95     1.86     YES
 L0009513         0   0.85100E-07  477467.0 3750411.8   460.0     0.00     3.95     1.86     YES
 L0009514         0   0.85100E-07  477467.1 3750420.3   460.0     0.00     3.95     1.86     YES
 L0009515         0   0.85100E-07  477467.1 3750428.8   460.0     0.00     3.95     1.86     YES
 L0009516         0   0.85100E-07  477467.1 3750437.3   460.0     0.00     3.95     1.86     YES
 L0009517         0   0.85100E-07  477467.2 3750445.8   460.0     0.00     3.95     1.86     YES
 L0009518         0   0.85100E-07  477467.2 3750454.3   460.0     0.00     3.95     1.86     YES
 L0009519         0   0.85100E-07  477467.3 3750462.8   460.0     0.00     3.95     1.86     YES
 L0009520         0   0.85100E-07  477467.3 3750471.3   460.2     0.00     3.95     1.86     YES
 L0009521         0   0.85100E-07  477467.3 3750479.8   460.4     0.00     3.95     1.86     YES
 L0009522         0   0.85100E-07  477467.4 3750488.3   460.7     0.00     3.95     1.86     YES
 L0009523         0   0.85100E-07  477467.4 3750496.8   461.0     0.00     3.95     1.86     YES
 L0009524         0   0.85100E-07  477467.4 3750505.3   461.0     0.00     3.95     1.86     YES
 L0009525         0   0.85100E-07  477467.5 3750513.8   461.0     0.00     3.95     1.86     YES
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                                                 Residential
 L0009526         0   0.85100E-07  477467.5 3750522.3   461.0     0.00     3.95     1.86     YES
 L0009527         0   0.85100E-07  477467.5 3750530.8   461.0     0.00     3.95     1.86     YES
 L0009528         0   0.85100E-07  477467.6 3750539.3   461.0     0.00     3.95     1.86     YES
 L0009529         0   0.85100E-07  477467.7 3750547.8   461.0     0.00     3.95     1.86     YES
 L0009530         0   0.85100E-07  477467.9 3750556.3   461.0     0.00     3.95     1.86     YES
 L0009531         0   0.85100E-07  477468.2 3750564.8   461.0     0.00     3.95     1.86     YES
 L0009532         0   0.85100E-07  477468.4 3750573.3   461.0     0.00     3.95     1.86     YES
 L0009533         0   0.85100E-07  477468.7 3750581.8   461.0     0.00     3.95     1.86     YES
 L0009534         0   0.85100E-07  477468.9 3750590.3   461.0     0.00     3.95     1.86     YES
 L0009535         0   0.85100E-07  477469.2 3750598.8   461.0     0.00     3.95     1.86     YES
 L0009536         0   0.85100E-07  477469.4 3750607.3   461.0     0.00     3.95     1.86     YES
 L0009537         0   0.85100E-07  477469.7 3750615.8   461.0     0.00     3.95     1.86     YES
 L0009538         0   0.85100E-07  477469.9 3750624.3   461.0     0.00     3.95     1.86     YES
 L0009539         0   0.85100E-07  477470.2 3750632.8   461.0     0.00     3.95     1.86     YES
 L0009540         0   0.85100E-07  477470.4 3750641.3   461.0     0.00     3.95     1.86     YES
 L0009541         0   0.85100E-07  477470.7 3750649.8   461.0     0.00     3.95     1.86     YES
 L0009542         0   0.85100E-07  477470.9 3750658.3   461.2     0.00     3.95     1.86     YES
 L0009543         0   0.85100E-07  477471.2 3750666.8   461.3     0.00     3.95     1.86     YES
 L0009544         0   0.85100E-07  477471.4 3750675.3   461.4     0.00     3.95     1.86     YES
 L0009545         0   0.85100E-07  477471.7 3750683.8   461.5     0.00     3.95     1.86     YES
 L0009546         0   0.85100E-07  477471.9 3750692.3   461.7     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009547         0   0.85100E-07  477472.2 3750700.8   461.9     0.00     3.95     1.86     YES
 L0009548         0   0.85100E-07  477472.4 3750709.3   462.0     0.00     3.95     1.86     YES
 L0009549         0   0.85100E-07  477472.7 3750717.8   462.0     0.00     3.95     1.86     YES
 L0009550         0   0.85100E-07  477472.9 3750726.3   462.0     0.00     3.95     1.86     YES
 L0009551         0   0.85100E-07  477473.2 3750734.8   462.0     0.00     3.95     1.86     YES
 L0009552         0   0.85100E-07  477473.4 3750743.3   462.0     0.00     3.95     1.86     YES
 L0009553         0   0.85100E-07  477473.7 3750751.7   462.0     0.00     3.95     1.86     YES
 L0009554         0   0.85100E-07  477473.9 3750760.2   462.0     0.00     3.95     1.86     YES
 L0009555         0   0.85100E-07  477474.2 3750768.7   462.0     0.00     3.95     1.86     YES
 L0009556         0   0.85100E-07  477474.4 3750777.2   462.0     0.00     3.95     1.86     YES
 L0009557         0   0.85100E-07  477474.7 3750785.7   462.0     0.00     3.95     1.86     YES
 L0009558         0   0.85100E-07  477474.9 3750794.2   462.0     0.00     3.95     1.86     YES
 L0009559         0   0.85100E-07  477475.2 3750802.7   462.0     0.00     3.95     1.86     YES
 L0009560         0   0.85100E-07  477475.4 3750811.2   462.0     0.00     3.95     1.86     YES
 L0009561         0   0.85100E-07  477475.7 3750819.7   462.0     0.00     3.95     1.86     YES
 L0009562         0   0.85100E-07  477475.9 3750828.2   462.0     0.00     3.95     1.86     YES
 L0009563         0   0.85100E-07  477476.2 3750836.7   462.0     0.00     3.95     1.86     YES
 L0009564         0   0.85100E-07  477476.4 3750845.2   462.0     0.00     3.95     1.86     YES
 L0009565         0   0.85100E-07  477476.7 3750853.7   462.0     0.00     3.95     1.86     YES
 L0009566         0   0.85100E-07  477476.9 3750862.2   462.1     0.00     3.95     1.86     YES
 L0009567         0   0.85100E-07  477477.1 3750870.7   462.3     0.00     3.95     1.86     YES
 L0009568         0   0.85100E-07  477477.1 3750879.2   462.4     0.00     3.95     1.86     YES
 L0009569         0   0.85100E-07  477477.2 3750887.7   462.6     0.00     3.95     1.86     YES
 L0009570         0   0.85100E-07  477477.2 3750896.2   462.7     0.00     3.95     1.86     YES
 L0009571         0   0.85100E-07  477477.3 3750904.7   462.8     0.00     3.95     1.86     YES
 L0009572         0   0.85100E-07  477477.3 3750913.2   462.9     0.00     3.95     1.86     YES
 L0009573         0   0.85100E-07  477477.4 3750921.7   463.0     0.00     3.95     1.86     YES
 L0009574         0   0.85100E-07  477477.4 3750930.2   463.0     0.00     3.95     1.86     YES
 L0009575         0   0.85100E-07  477477.5 3750938.7   463.0     0.00     3.95     1.86     YES
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                                                   Residential
 L0009576         0   0.85100E-07  477477.6 3750947.2   463.0     0.00     3.95     1.86     YES
 L0009577         0   0.85100E-07  477477.6 3750955.7   463.0     0.00     3.95     1.86     YES
 L0009578         0   0.85100E-07  477477.7 3750964.2   463.0     0.00     3.95     1.86     YES
 L0009579         0   0.85100E-07  477477.7 3750972.7   463.0     0.00     3.95     1.86     YES
 L0009580         0   0.85100E-07  477477.8 3750981.2   463.0     0.00     3.95     1.86     YES
 L0009581         0   0.85100E-07  477477.8 3750989.7   463.0     0.00     3.95     1.86     YES
 L0009582         0   0.85100E-07  477477.9 3750998.2   463.0     0.00     3.95     1.86     YES
 L0009583         0   0.85100E-07  477477.9 3751006.7   463.0     0.00     3.95     1.86     YES
 L0009584         0   0.85100E-07  477478.0 3751015.2   463.0     0.00     3.95     1.86     YES
 L0009585         0   0.85100E-07  477478.0 3751023.7   463.0     0.00     3.95     1.86     YES
 L0009586         0   0.85100E-07  477478.1 3751032.2   463.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   13:32:39

   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0009587         0   0.85100E-07  477478.1 3751040.7   463.0     0.00     3.95     1.86     YES
 L0009588         0   0.85100E-07  477478.2 3751049.2   463.0     0.00     3.95     1.86     YES
 L0009589         0   0.85100E-07  477478.3 3751057.7   463.0     0.00     3.95     1.86     YES
 L0009590         0   0.85100E-07  477478.3 3751066.2   463.0     0.00     3.95     1.86     YES
 L0009591         0   0.85100E-07  477478.4 3751074.7   463.2     0.00     3.95     1.86     YES
 L0009592         0   0.85100E-07  477478.4 3751083.2   463.3     0.00     3.95     1.86     YES
 L0009593         0   0.85100E-07  477478.5 3751091.7   463.5     0.00     3.95     1.86     YES
 L0009594         0   0.85100E-07  477478.5 3751100.2   463.7     0.00     3.95     1.86     YES
 L0009595         0   0.85100E-07  477478.6 3751108.7   463.8     0.00     3.95     1.86     YES
 L0009596         0   0.85100E-07  477478.6 3751117.2   463.9     0.00     3.95     1.86     YES
 L0009597         0   0.85100E-07  477478.7 3751125.7   464.0     0.00     3.95     1.86     YES
 L0009598         0   0.85100E-07  477478.7 3751134.2   464.0     0.00     3.95     1.86     YES
 L0009599         0   0.85100E-07  477478.8 3751142.7   464.0     0.00     3.95     1.86     YES
 L0009600         0   0.85100E-07  477478.9 3751151.2   464.0     0.00     3.95     1.86     YES
 L0009601         0   0.85100E-07  477478.9 3751159.7   464.0     0.00     3.95     1.86     YES
 L0009602         0   0.85100E-07  477479.0 3751168.2   464.0     0.00     3.95     1.86     YES
 L0009603         0   0.85100E-07  477479.0 3751176.7   464.0     0.00     3.95     1.86     YES
 L0009604         0   0.85100E-07  477479.1 3751185.2   464.0     0.00     3.95     1.86     YES
 L0009605         0   0.85100E-07  477479.1 3751193.7   464.0     0.00     3.95     1.86     YES
 L0009606         0   0.85100E-07  477479.2 3751202.2   464.0     0.00     3.95     1.86     YES
 L0009607         0   0.85100E-07  477479.2 3751210.7   464.0     0.00     3.95     1.86     YES
 L0009608         0   0.85100E-07  477479.3 3751219.2   464.0     0.00     3.95     1.86     YES
 L0009609         0   0.85100E-07  477479.3 3751227.7   464.0     0.00     3.95     1.86     YES
 L0009610         0   0.85100E-07  477479.4 3751236.2   464.0     0.00     3.95     1.86     YES
 L0009611         0   0.85100E-07  477479.3 3751244.7   464.0     0.00     3.95     1.86     YES
 L0009612         0   0.85100E-07  477479.3 3751253.2   464.2     0.00     3.95     1.86     YES
 L0009613         0   0.85100E-07  477479.2 3751261.7   464.5     0.00     3.95     1.86     YES
 L0009614         0   0.85100E-07  477479.2 3751270.2   464.8     0.00     3.95     1.86     YES
 L0009615         0   0.85100E-07  477479.1 3751278.7   465.0     0.00     3.95     1.86     YES
 L0009616         0   0.85100E-07  477479.0 3751287.2   465.0     0.00     3.95     1.86     YES
 L0009617         0   0.85100E-07  477479.0 3751295.7   465.0     0.00     3.95     1.86     YES
 L0009618         0   0.85100E-07  477478.9 3751304.2   465.0     0.00     3.95     1.86     YES
 L0009619         0   0.85100E-07  477478.9 3751312.7   465.0     0.00     3.95     1.86     YES
 L0009620         0   0.85100E-07  477478.8 3751321.2   465.0     0.00     3.95     1.86     YES
 L0009621         0   0.85100E-07  477478.7 3751329.7   465.0     0.00     3.95     1.86     YES
 L0009622         0   0.85100E-07  477478.7 3751338.2   465.0     0.00     3.95     1.86     YES
 L0009623         0   0.85100E-07  477478.6 3751346.7   465.0     0.00     3.95     1.86     YES
 L0009624         0   0.85100E-07  477478.6 3751355.2   465.0     0.00     3.95     1.86     YES
 L0009625         0   0.85100E-07  477478.5 3751363.7   465.0     0.00     3.95     1.86     YES
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                                                   Residential
 L0009626         0   0.85100E-07  477478.5 3751372.2   465.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009627         0   0.85100E-07  477478.4 3751380.7   465.0     0.00     3.95     1.86     YES
 L0009628         0   0.85100E-07  477478.3 3751389.2   465.0     0.00     3.95     1.86     YES
 L0009629         0   0.85100E-07  477478.3 3751397.7   465.0     0.00     3.95     1.86     YES
 L0009630         0   0.85100E-07  477478.2 3751406.2   465.0     0.00     3.95     1.86     YES
 L0009631         0   0.85100E-07  477478.2 3751414.7   465.0     0.00     3.95     1.86     YES
 L0009632         0   0.85100E-07  477478.1 3751423.2   465.0     0.00     3.95     1.86     YES
 L0009633         0   0.85100E-07  477478.0 3751431.7   465.2     0.00     3.95     1.86     YES
 L0009634         0   0.85100E-07  477478.0 3751440.2   465.4     0.00     3.95     1.86     YES
 L0009635         0   0.85100E-07  477477.9 3751448.7   465.7     0.00     3.95     1.86     YES
 L0009636         0   0.85100E-07  477477.9 3751457.2   466.0     0.00     3.95     1.86     YES
 L0009637         0   0.85100E-07  477477.8 3751465.7   466.0     0.00     3.95     1.86     YES
 L0009638         0   0.85100E-07  477477.8 3751474.2   466.0     0.00     3.95     1.86     YES
 L0009639         0   0.85100E-07  477477.7 3751482.7   466.0     0.00     3.95     1.86     YES
 L0009640         0   0.85100E-07  477477.6 3751491.2   466.0     0.00     3.95     1.86     YES
 L0009641         0   0.85100E-07  477477.6 3751499.7   466.0     0.00     3.95     1.86     YES
 L0009642         0   0.85100E-07  477477.5 3751508.2   466.0     0.00     3.95     1.86     YES
 L0009643         0   0.85100E-07  477477.5 3751516.7   466.0     0.00     3.95     1.86     YES
 L0009644         0   0.85100E-07  477477.4 3751525.2   466.0     0.00     3.95     1.86     YES
 L0009645         0   0.85100E-07  477477.3 3751533.7   466.0     0.00     3.95     1.86     YES
 L0009646         0   0.85100E-07  477477.3 3751542.2   466.0     0.00     3.95     1.86     YES
 L0009647         0   0.85100E-07  477477.2 3751550.7   466.0     0.00     3.95     1.86     YES
 L0009648         0   0.85100E-07  477477.2 3751559.2   466.0     0.00     3.95     1.86     YES
 L0009649         0   0.85100E-07  477477.1 3751567.7   466.0     0.00     3.95     1.86     YES
 L0009650         0   0.85100E-07  477477.0 3751576.2   466.0     0.00     3.95     1.86     YES
 L0009651         0   0.85100E-07  477477.0 3751584.7   466.0     0.00     3.95     1.86     YES
 L0009652         0   0.85100E-07  477476.9 3751593.2   466.0     0.00     3.95     1.86     YES
 L0009653         0   0.85100E-07  477476.9 3751601.7   466.0     0.00     3.95     1.86     YES
 L0009654         0   0.85100E-07  477476.8 3751610.2   466.1     0.00     3.95     1.86     YES
 L0009655         0   0.85100E-07  477476.8 3751618.7   466.2     0.00     3.95     1.86     YES
 L0009656         0   0.85100E-07  477476.7 3751627.2   466.4     0.00     3.95     1.86     YES
 L0009657         0   0.85100E-07  477476.6 3751635.7   466.6     0.00     3.95     1.86     YES
 L0009658         0   0.85100E-07  477476.6 3751644.2   466.7     0.00     3.95     1.86     YES
 L0009659         0   0.85100E-07  477476.5 3751652.7   466.8     0.00     3.95     1.86     YES
 L0009660         0   0.85100E-07  477476.5 3751661.2   466.9     0.00     3.95     1.86     YES
 L0009661         0   0.85100E-07  477476.4 3751669.7   467.0     0.00     3.95     1.86     YES
 L0009662         0   0.85100E-07  477476.3 3751678.2   467.0     0.00     3.95     1.86     YES
 L0009663         0   0.85100E-07  477476.3 3751686.7   467.0     0.00     3.95     1.86     YES
 L0009664         0   0.85100E-07  477476.2 3751695.2   467.0     0.00     3.95     1.86     YES
 L0009665         0   0.85100E-07  477476.2 3751703.7   467.0     0.00     3.95     1.86     YES
 L0009666         0   0.85100E-07  477476.1 3751712.2   467.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                          Residential
                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X         Y        ELEV.     HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009667         0   0.85100E-07  477476.1 3751720.7   467.0     0.00     3.95     1.86     YES
 L0009668         0   0.85100E-07  477476.0 3751729.2   467.1     0.00     3.95     1.86     YES
 L0009669         0   0.85100E-07  477475.9 3751737.7   467.2     0.00     3.95     1.86     YES
 L0009670         0   0.85100E-07  477475.9 3751746.2   467.4     0.00     3.95     1.86     YES
 L0009671         0   0.85100E-07  477475.8 3751754.7   467.5     0.00     3.95     1.86     YES
 L0009672         0   0.85100E-07  477475.8 3751763.2   467.6     0.00     3.95     1.86     YES
 L0009673         0   0.85100E-07  477475.7 3751771.7   467.8     0.00     3.95     1.86     YES
 L0009674         0   0.85100E-07  477475.6 3751780.2   467.9     0.00     3.95     1.86     YES
 L0009675         0   0.85100E-07  477475.6 3751788.7   468.0     0.00     3.95     1.86     YES
 L0009676         0   0.85100E-07  477475.5 3751797.2   468.0     0.00     3.95     1.86     YES
 L0009677         0   0.85100E-07  477475.5 3751805.7   468.0     0.00     3.95     1.86     YES
 L0009678         0   0.85100E-07  477475.4 3751814.2   468.0     0.00     3.95     1.86     YES
 L0009679         0   0.85100E-07  477475.4 3751822.7   468.0     0.00     3.95     1.86     YES
 L0009680         0   0.85100E-07  477475.3 3751831.2   468.0     0.00     3.95     1.86     YES
 L0009681         0   0.85100E-07  477475.2 3751839.7   468.0     0.00     3.95     1.86     YES
 L0009682         0   0.85100E-07  477475.2 3751848.2   468.0     0.00     3.95     1.86     YES
 L0009683         0   0.85100E-07  477475.1 3751856.7   468.0     0.00     3.95     1.86     YES
 L0009684         0   0.85100E-07  477475.1 3751865.2   468.0     0.00     3.95     1.86     YES
 L0009685         0   0.85100E-07  477475.0 3751873.7   468.0     0.00     3.95     1.86     YES
 L0009686         0   0.85100E-07  477474.9 3751882.2   468.2     0.00     3.95     1.86     YES
 L0009687         0   0.85100E-07  477474.9 3751890.7   468.5     0.00     3.95     1.86     YES
 L0009688         0   0.85100E-07  477474.8 3751899.2   468.8     0.00     3.95     1.86     YES
 L0009689         0   0.85100E-07  477474.8 3751907.7   469.0     0.00     3.95     1.86     YES
 L0009690         0   0.85100E-07  477474.7 3751916.2   469.0     0.00     3.95     1.86     YES
 L0009691         0   0.85100E-07  477474.7 3751924.7   469.0     0.00     3.95     1.86     YES
 L0009692         0   0.85100E-07  477474.6 3751933.2   469.0     0.00     3.95     1.86     YES
 L0009693         0   0.85100E-07  477474.5 3751941.7   469.0     0.00     3.95     1.86     YES
 L0009694         0   0.85100E-07  477474.5 3751950.2   469.0     0.00     3.95     1.86     YES
 L0009695         0   0.85100E-07  477474.4 3751958.7   469.0     0.00     3.95     1.86     YES
 L0009696         0   0.85100E-07  477474.4 3751967.2   469.0     0.00     3.95     1.86     YES
 L0009697         0   0.85100E-07  477474.3 3751975.7   469.0     0.00     3.95     1.86     YES
 L0009698         0   0.85100E-07  477474.2 3751984.2   469.0     0.00     3.95     1.86     YES
 L0009699         0   0.85100E-07  477474.2 3751992.7   469.0     0.00     3.95     1.86     YES
 L0009700         0   0.85100E-07  477474.1 3752001.2   469.0     0.00     3.95     1.86     YES
 L0009701         0   0.85100E-07  477474.1 3752009.7   469.0     0.00     3.95     1.86     YES
 L0009702         0   0.85100E-07  477474.0 3752018.2   469.0     0.00     3.95     1.86     YES
 L0009703         0   0.85100E-07  477474.0 3752026.7   469.0     0.00     3.95     1.86     YES
 L0009704         0   0.85100E-07  477473.9 3752035.2   469.1     0.00     3.95     1.86     YES
 L0009705         0   0.85100E-07  477473.8 3752043.7   469.3     0.00     3.95     1.86     YES
 L0009706         0   0.85100E-07  477473.8 3752052.2   469.4     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X         Y        ELEV.     HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009707         0   0.85100E-07  477473.7 3752060.7   469.5     0.00     3.95     1.86     YES
 L0009708         0   0.85100E-07  477473.7 3752069.2   469.5     0.00     3.95     1.86     YES
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                                                    Residential
 L0009709         0   0.85100E-07  477473.6 3752077.7   469.5     0.00     3.95     1.86     YES
 L0009710         0   0.85100E-07  477473.5 3752086.2   469.5     0.00     3.95     1.86     YES
 L0009711         0   0.85100E-07  477473.5 3752094.7   469.6     0.00     3.95     1.86     YES
 L0009712         0   0.85100E-07  477473.4 3752103.2   469.8     0.00     3.95     1.86     YES
 L0009713         0   0.85100E-07  477473.4 3752111.7   469.9     0.00     3.95     1.86     YES
 L0009714         0   0.85100E-07  477473.3 3752120.2   470.1     0.00     3.95     1.86     YES
 L0009715         0   0.85100E-07  477473.3 3752128.7   470.2     0.00     3.95     1.86     YES
 L0009716         0   0.85100E-07  477473.2 3752137.2   470.3     0.00     3.95     1.86     YES
 L0009717         0   0.85100E-07  477473.1 3752145.7   470.4     0.00     3.95     1.86     YES
 L0009718         0   0.85100E-07  477473.1 3752154.2   470.6     0.00     3.95     1.86     YES
 L0009719         0   0.85100E-07  477473.0 3752162.7   470.7     0.00     3.95     1.86     YES
 L0009720         0   0.85100E-07  477473.0 3752171.2   470.9     0.00     3.95     1.86     YES
 L0009721         0   0.85100E-07  477472.9 3752179.7   471.0     0.00     3.95     1.86     YES
 L0009722         0   0.85100E-07  477472.8 3752188.2   471.0     0.00     3.95     1.86     YES
 L0009723         0   0.85100E-07  477472.8 3752196.7   471.0     0.00     3.95     1.86     YES
 L0009724         0   0.85100E-07  477472.7 3752205.2   471.0     0.00     3.95     1.86     YES
 L0009725         0   0.85100E-07  477472.7 3752213.7   471.2     0.00     3.95     1.86     YES
 L0009726         0   0.85100E-07  477472.6 3752222.2   471.5     0.00     3.95     1.86     YES
 L0009727         0   0.42540E-06  477466.5 3747781.2   451.0     4.00     3.95     1.86     YES
 L0009728         0   0.42540E-06  477475.0 3747781.2   451.0     4.00     3.95     1.86     YES
 L0009729         0   0.42540E-06  477483.5 3747781.1   451.0     4.00     3.95     1.86     YES
 L0009730         0   0.42540E-06  477492.0 3747781.1   451.0     4.00     3.95     1.86     YES
 L0009731         0   0.42540E-06  477500.5 3747781.0   451.0     4.00     3.95     1.86     YES
 L0009732         0   0.42540E-06  477509.0 3747781.0   451.0     4.00     3.95     1.86     YES
 L0009733         0   0.42540E-06  477517.5 3747780.9   451.0     4.00     3.95     1.86     YES
 L0009734         0   0.42540E-06  477526.0 3747780.9   451.0     4.00     3.95     1.86     YES
 L0009735         0   0.42540E-06  477534.5 3747780.8   451.0     4.00     3.95     1.86     YES
 L0009736         0   0.42540E-06  477543.0 3747780.7   451.0     4.00     3.95     1.86     YES
 L0009737         0   0.42540E-06  477551.5 3747780.7   451.0     4.00     3.95     1.86     YES
 L0009738         0   0.42540E-06  477560.0 3747780.6   451.0     4.00     3.95     1.86     YES
 L0009739         0   0.42540E-06  477568.5 3747780.6   451.0     4.00     3.95     1.86     YES
 L0009740         0   0.42540E-06  477577.0 3747780.5   451.0     4.00     3.95     1.86     YES
 L0009741         0   0.42540E-06  477585.5 3747780.5   451.0     4.00     3.95     1.86     YES
 L0009742         0   0.42540E-06  477594.0 3747780.4   451.0     4.00     3.95     1.86     YES
 L0009743         0   0.42540E-06  477602.5 3747780.3   451.0     4.00     3.95     1.86     YES
 L0009744         0   0.42540E-06  477611.0 3747780.3   451.0     4.00     3.95     1.86     YES
 L0009745         0   0.42540E-06  477619.5 3747780.2   451.0     4.00     3.95     1.86     YES
 L0009746         0   0.42540E-06  477628.0 3747780.2   451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                          BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y          ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)   (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0009747         0   0.42540E-06  477636.5 3747780.1   451.0     4.00     3.95     1.86     YES
 L0009748         0   0.42540E-06  477645.0 3747780.1   450.9     4.00     3.95     1.86     YES
 L0009749         0   0.42540E-06  477653.5 3747780.0   450.8     4.00     3.95     1.86     YES
 L0009750         0   0.42540E-06  477662.0 3747780.0   450.6     4.00     3.95     1.86     YES
 L0009751         0   0.42540E-06  477670.5 3747779.9   450.4     4.00     3.95     1.86     YES
 L0009752         0   0.42540E-06  477679.0 3747779.8   450.3     4.00     3.95     1.86     YES
 L0009753         0   0.42540E-06  477687.5 3747779.8   450.2     4.00     3.95     1.86     YES
 L0009754         0   0.42540E-06  477696.0 3747779.7   450.1     4.00     3.95     1.86     YES
 L0009755         0   0.42540E-06  477704.5 3747779.7   450.0     4.00     3.95     1.86     YES
 L0009756         0   0.42540E-06  477713.0 3747779.6   450.0     4.00     3.95     1.86     YES
 L0009757         0   0.42540E-06  477721.5 3747779.6   450.0     4.00     3.95     1.86     YES
 L0009758         0   0.42540E-06  477730.0 3747779.5   450.0     4.00     3.95     1.86     YES
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                                                     Residential
 L0009759         0   0.42540E-06  477738.5 3747779.4   450.0      4.00     3.95     1.86     YES
 L0009760         0   0.42540E-06  477747.0 3747779.4   450.0      4.00     3.95     1.86     YES
 L0009761         0   0.42540E-06  477755.5 3747779.3   450.0      4.00     3.95     1.86     YES
 L0009762         0   0.42540E-06  477764.0 3747779.3   450.0      4.00     3.95     1.86     YES
 L0009763         0   0.42540E-06  477772.5 3747779.2   450.0      4.00     3.95     1.86     YES
 L0009764         0   0.42540E-06  477781.0 3747779.2   450.0      4.00     3.95     1.86     YES
 L0009765         0   0.42540E-06  477789.5 3747779.1   450.0      4.00     3.95     1.86     YES
 L0009766         0   0.42540E-06  477798.0 3747779.1   450.0      4.00     3.95     1.86     YES
 L0009767         0   0.42540E-06  477806.5 3747779.0   450.0      4.00     3.95     1.86     YES
 L0009768         0   0.42540E-06  477815.0 3747778.9   450.0      4.00     3.95     1.86     YES
 L0009769         0   0.42540E-06  477823.5 3747778.9   450.0      4.00     3.95     1.86     YES
 L0009770         0   0.42540E-06  477832.0 3747778.8   450.0      4.00     3.95     1.86     YES
 L0009771         0   0.42540E-06  477840.5 3747778.8   450.0      4.00     3.95     1.86     YES
 L0009772         0   0.42540E-06  477849.0 3747778.7   450.0      4.00     3.95     1.86     YES
 L0009773         0   0.42540E-06  477857.5 3747778.7   450.0      4.00     3.95     1.86     YES
 L0009774         0   0.42540E-06  477866.0 3747778.6   450.0      4.00     3.95     1.86     YES
 L0009775         0   0.42540E-06  477874.5 3747778.6   450.0      4.00     3.95     1.86     YES
 L0009776         0   0.42540E-06  477883.0 3747778.5   450.0      4.00     3.95     1.86     YES
 L0009777         0   0.42540E-06  477891.5 3747778.4   450.0      4.00     3.95     1.86     YES
 L0009778         0   0.42540E-06  477900.0 3747778.4   450.0      4.00     3.95     1.86     YES
 L0009779         0   0.42540E-06  477908.5 3747778.3   450.0      4.00     3.95     1.86     YES
 L0009780         0   0.42540E-06  477917.0 3747778.3   450.0      4.00     3.95     1.86     YES
 L0009781         0   0.42540E-06  477925.5 3747778.2   450.0      4.00     3.95     1.86     YES
 L0009782         0   0.42540E-06  477934.0 3747778.2   450.0      4.00     3.95     1.86     YES
 L0009783         0   0.42540E-06  477942.5 3747778.1   450.0      4.00     3.95     1.86     YES
 L0009784         0   0.42540E-06  477951.0 3747778.0   450.0      4.00     3.95     1.86     YES
 L0009785         0   0.42540E-06  477959.5 3747778.0   450.0      4.00     3.95     1.86     YES
 L0009786         0   0.42540E-06  477968.0 3747777.9   450.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0009787         0   0.42540E-06  477976.5 3747777.9   450.0      4.00     3.95     1.86     YES
 L0009788         0   0.42540E-06  477985.0 3747777.8   450.0      4.00     3.95     1.86     YES
 L0009789         0   0.42540E-06  477993.5 3747777.8   450.0      4.00     3.95     1.86     YES
 L0009790         0   0.42540E-06  478002.0 3747777.7   450.0      4.00     3.95     1.86     YES
 L0009791         0   0.42540E-06  478010.5 3747777.7   449.8      4.00     3.95     1.86     YES
 L0009792         0   0.42540E-06  478019.0 3747777.6   449.6      4.00     3.95     1.86     YES
 L0009793         0   0.42540E-06  478027.5 3747777.5   449.4      4.00     3.95     1.86     YES
 L0009794         0   0.42540E-06  478036.0 3747777.5   449.3      4.00     3.95     1.86     YES
 L0009795         0   0.42540E-06  478044.5 3747777.4   449.2      4.00     3.95     1.86     YES
 L0009796         0   0.42540E-06  478053.0 3747777.4   449.1      4.00     3.95     1.86     YES
 L0009797         0   0.42540E-06  478061.5 3747777.3   449.0      4.00     3.95     1.86     YES
 L0009798         0   0.42540E-06  478070.0 3747777.3   449.0      4.00     3.95     1.86     YES
 L0009799         0   0.42540E-06  478078.5 3747777.2   449.0      4.00     3.95     1.86     YES
 L0009800         0   0.42540E-06  478087.0 3747777.1   449.0      4.00     3.95     1.86     YES
 L0009801         0   0.42540E-06  478095.5 3747777.1   449.0      4.00     3.95     1.86     YES
 L0009802         0   0.42540E-06  478104.0 3747777.0   449.0      4.00     3.95     1.86     YES
 L0009803         0   0.42540E-06  478112.5 3747777.0   449.0      4.00     3.95     1.86     YES
 L0009804         0   0.42540E-06  478121.0 3747776.9   449.0      4.00     3.95     1.86     YES
 L0009805         0   0.42540E-06  478129.5 3747776.9   449.0      4.00     3.95     1.86     YES
 L0009806         0   0.42540E-06  478138.0 3747776.8   449.0      4.00     3.95     1.86     YES
 L0009807         0   0.42540E-06  478146.5 3747776.8   449.0      4.00     3.95     1.86     YES
 L0009808         0   0.42540E-06  478155.0 3747776.7   449.0      4.00     3.95     1.86     YES
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                                                       Residential
 L0009809         0  0.42540E-06  478163.5 3747776.6   449.0      4.00     3.95     1.86     YES
 L0009810         0  0.42540E-06  478172.0 3747776.6   449.0      4.00     3.95     1.86     YES
 L0009811         0  0.42540E-06  478180.5 3747776.5   449.0      4.00     3.95     1.86     YES
 L0009812         0  0.42540E-06  478189.0 3747776.5   449.0      4.00     3.95     1.86     YES
 L0009813         0  0.42540E-06  478197.5 3747776.4   449.0      4.00     3.95     1.86     YES
 L0009814         0  0.42540E-06  478206.0 3747776.4   449.0      4.00     3.95     1.86     YES
 L0009815         0  0.42540E-06  478214.5 3747776.3   449.0      4.00     3.95     1.86     YES
 L0009816         0  0.42540E-06  478223.0 3747776.2   449.0      4.00     3.95     1.86     YES
 L0009817         0  0.42540E-06  478231.5 3747776.2   449.0      4.00     3.95     1.86     YES
 L0009818         0  0.42540E-06  478240.0 3747776.1   449.0      4.00     3.95     1.86     YES
 L0009819         0  0.42540E-06  478248.5 3747776.1   449.0      4.00     3.95     1.86     YES
 L0009820         0  0.42540E-06  478257.0 3747776.0   449.0      4.00     3.95     1.86     YES
 L0009821         0  0.42540E-06  478265.5 3747776.0   449.0      4.00     3.95     1.86     YES
 L0009822         0  0.42540E-06  478274.0 3747775.9   449.0      4.00     3.95     1.86     YES
 L0009823         0  0.42540E-06  478281.0 3747774.4   449.0      4.00     3.95     1.86     YES
 L0009824         0  0.42540E-06  478281.0 3747765.9   449.0      4.00     3.95     1.86     YES
 L0009825         0  0.42540E-06  478281.1 3747757.4   449.0      4.00     3.95     1.86     YES
 L0009826         0  0.42540E-06  478281.1 3747748.9   449.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                              ***
   13:32:39

   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS)  (METERS) (METERS)              BY
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 L0009827         0  0.42540E-06  478281.1 3747740.4   449.0      4.00     3.95     1.86     YES
 L0009828         0  0.42540E-06  478281.2 3747731.9   449.0      4.00     3.95     1.86     YES
 L0009829         0  0.42540E-06  478281.2 3747723.4   449.0      4.00     3.95     1.86     YES
 L0009830         0  0.42540E-06  478281.2 3747714.9   449.0      4.00     3.95     1.86     YES
 L0009831         0  0.42540E-06  478281.3 3747706.4   449.0      4.00     3.95     1.86     YES
 L0009832         0  0.42540E-06  478281.3 3747697.9   449.0      4.00     3.95     1.86     YES
 L0009833         0  0.42540E-06  478281.3 3747689.4   449.0      4.00     3.95     1.86     YES
 L0009834         0  0.42540E-06  478281.4 3747680.9   449.0      4.00     3.95     1.86     YES
 L0009835         0  0.42540E-06  478281.4 3747672.4   448.9      4.00     3.95     1.86     YES
 L0009836         0  0.42540E-06  478281.4 3747663.9   448.6      4.00     3.95     1.86     YES
 L0009837         0  0.42540E-06  478281.5 3747655.4   448.3      4.00     3.95     1.86     YES
 L0009838         0  0.42540E-06  478281.5 3747646.9   448.0      4.00     3.95     1.86     YES
 L0009839         0  0.42540E-06  478281.5 3747638.4   448.0      4.00     3.95     1.86     YES
 L0009840         0  0.42540E-06  478281.5 3747629.9   448.0      4.00     3.95     1.86     YES
 L0009841         0  0.42540E-06  478281.6 3747621.4   448.0      4.00     3.95     1.86     YES
 L0009842         0  0.42540E-06  478281.6 3747612.9   448.0      4.00     3.95     1.86     YES
 L0009843         0  0.42540E-06  478281.6 3747604.4   448.0      4.00     3.95     1.86     YES
 L0009844         0  0.42540E-06  478281.7 3747595.9   448.0      4.00     3.95     1.86     YES
 L0009845         0  0.42540E-06  478281.7 3747587.4   448.0      4.00     3.95     1.86     YES
 L0009846         0  0.42540E-06  478281.7 3747578.9   448.0      4.00     3.95     1.86     YES
 L0009847         0  0.42540E-06  478281.8 3747570.4   448.0      4.00     3.95     1.86     YES
 L0009848         0  0.42540E-06  478281.8 3747561.9   448.0      4.00     3.95     1.86     YES
 L0009849         0  0.42540E-06  478281.8 3747553.4   448.0      4.00     3.95     1.86     YES
 L0009850         0  0.42540E-06  478281.9 3747544.9   448.0      4.00     3.95     1.86     YES
 L0009851         0  0.42540E-06  478281.9 3747536.4   448.0      4.00     3.95     1.86     YES
 L0009852         0  0.42540E-06  478281.9 3747527.9   448.0      4.00     3.95     1.86     YES
 L0009853         0  0.42540E-06  478282.0 3747519.4   448.0      4.00     3.95     1.86     YES
 L0009854         0  0.42540E-06  478282.0 3747510.9   448.0      4.00     3.95     1.86     YES
 L0009855         0  0.42540E-06  478282.0 3747502.4   448.0      4.00     3.95     1.86     YES
 L0009856         0  0.42540E-06  478282.1 3747493.9   448.0      4.00     3.95     1.86     YES
 L0009857         0  0.42540E-06  478282.1 3747485.4   448.0      4.00     3.95     1.86     YES
 L0009858         0  0.42540E-06  478282.1 3747476.9   448.0      4.00     3.95     1.86     YES
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                                                   Residential
 L0009859        0   0.42540E-06  478282.2 3747468.4   448.0     4.00     3.95     1.86     YES
 L0009860        0   0.42540E-06  478282.2 3747459.9   448.0     4.00     3.95     1.86     YES
 L0009861        0   0.42540E-06  478282.2 3747451.4   448.0     4.00     3.95     1.86     YES
 L0009862        0   0.42540E-06  478282.3 3747442.9   448.0     4.00     3.95     1.86     YES
 L0009863        0   0.42540E-06  478282.3 3747434.4   448.0     4.00     3.95     1.86     YES
 L0009864        0   0.42540E-06  478282.3 3747425.9   448.0     4.00     3.95     1.86     YES
 L0009865        0   0.42540E-06  478282.4 3747417.4   448.0     4.00     3.95     1.86     YES
 L0009866        0   0.42540E-06  478282.4 3747408.9   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0009867        0   0.42540E-06  478282.4 3747400.4   448.0     4.00     3.95     1.86     YES
 L0009868        0   0.42540E-06  478282.5 3747391.9   448.0     4.00     3.95     1.86     YES
 L0009869        0   0.42540E-06  478282.5 3747383.4   448.0     4.00     3.95     1.86     YES
 L0009870        0   0.42540E-06  478282.5 3747374.9   448.0     4.00     3.95     1.86     YES
 L0009871        0   0.42540E-06  478282.6 3747366.4   448.0     4.00     3.95     1.86     YES
 L0009872        0   0.42540E-06  478282.6 3747357.9   448.0     4.00     3.95     1.86     YES
 L0009873        0   0.42540E-06  478282.6 3747349.4   448.0     4.00     3.95     1.86     YES
 L0009874        0   0.42540E-06  478282.6 3747340.9   448.0     4.00     3.95     1.86     YES
 L0009875        0   0.42540E-06  478282.7 3747332.4   448.0     4.00     3.95     1.86     YES
 L0009876        0   0.42540E-06  478282.7 3747323.9   448.0     4.00     3.95     1.86     YES
 L0009877        0   0.42540E-06  478282.7 3747315.4   448.0     4.00     3.95     1.86     YES
 L0009878        0   0.42540E-06  478282.8 3747306.9   448.0     4.00     3.95     1.86     YES
 L0009879        0   0.42540E-06  478282.8 3747298.4   448.0     4.00     3.95     1.86     YES
 L0009880        0   0.42540E-06  478282.8 3747289.9   448.0     4.00     3.95     1.86     YES
 L0009881        0   0.42540E-06  478282.9 3747281.4   448.0     4.00     3.95     1.86     YES
 L0009882        0   0.42540E-06  478282.9 3747272.9   448.0     4.00     3.95     1.86     YES
 L0009883        0   0.42540E-06  478282.9 3747264.4   448.0     4.00     3.95     1.86     YES
 L0009884        0   0.42540E-06  478283.0 3747255.9   448.0     4.00     3.95     1.86     YES
 L0009885        0   0.42540E-06  478283.0 3747247.4   448.0     4.00     3.95     1.86     YES
 L0009886        0   0.42540E-06  478283.0 3747238.9   448.0     4.00     3.95     1.86     YES
 L0009887        0   0.42540E-06  478283.1 3747230.4   448.0     4.00     3.95     1.86     YES
 L0009888        0   0.42540E-06  478283.1 3747221.9   448.0     4.00     3.95     1.86     YES
 L0009889        0   0.42540E-06  478283.1 3747213.4   448.0     4.00     3.95     1.86     YES
 L0009890        0   0.42540E-06  478283.2 3747204.9   448.0     4.00     3.95     1.86     YES
 L0009891        0   0.42540E-06  478283.2 3747196.4   448.0     4.00     3.95     1.86     YES
 L0009892        0   0.42540E-06  478283.2 3747187.9   448.0     4.00     3.95     1.86     YES
 L0009893        0   0.42540E-06  478283.3 3747179.4   448.0     4.00     3.95     1.86     YES
 L0009894        0   0.42540E-06  478283.3 3747170.9   448.0     4.00     3.95     1.86     YES
 L0009895        0   0.42540E-06  478283.3 3747162.4   448.0     4.00     3.95     1.86     YES
 L0009896        0   0.42540E-06  478283.4 3747153.9   448.0     4.00     3.95     1.86     YES
 L0009897        0   0.42540E-06  478283.4 3747145.4   448.0     4.00     3.95     1.86     YES
 L0009898        0   0.42540E-06  478283.4 3747136.9   448.0     4.00     3.95     1.86     YES
 L0009899        0   0.42540E-06  478283.5 3747128.4   448.0     4.00     3.95     1.86     YES
 L0009900        0   0.42540E-06  478283.5 3747119.9   448.0     4.00     3.95     1.86     YES
 L0009901        0   0.42540E-06  478283.5 3747111.4   448.0     4.00     3.95     1.86     YES
 L0009902        0   0.42540E-06  478283.6 3747102.9   448.0     4.00     3.95     1.86     YES
 L0009903        0   0.42540E-06  478283.6 3747094.4   448.0     4.00     3.95     1.86     YES
 L0009904        0   0.42540E-06  478283.6 3747085.9   448.0     4.00     3.95     1.86     YES
 L0009905        0   0.42540E-06  478283.6 3747077.4   448.0     4.00     3.95     1.86     YES
 L0009906        0   0.42540E-06  478283.7 3747068.9   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
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                                                     Residential
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
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   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0009907         0   0.42540E-06  478283.7 3747060.4   448.0     4.00     3.95     1.86     YES
 L0009908         0   0.42540E-06  478283.7 3747051.9   448.0     4.00     3.95     1.86     YES
 L0009909         0   0.42540E-06  478283.8 3747043.4   448.0     4.00     3.95     1.86     YES
 L0009910         0   0.42540E-06  478283.8 3747034.9   448.0     4.00     3.95     1.86     YES
 L0009911         0   0.42540E-06  478283.8 3747026.4   448.0     4.00     3.95     1.86     YES
 L0009912         0   0.42540E-06  478283.9 3747017.9   448.0     4.00     3.95     1.86     YES
 L0009913         0   0.42540E-06  478283.9 3747009.4   448.0     4.00     3.95     1.86     YES
 L0009914         0   0.42540E-06  478283.9 3747000.9   448.0     4.00     3.95     1.86     YES
 L0009915         0   0.42540E-06  478284.0 3746992.4   448.0     4.00     3.95     1.86     YES
 L0009916         0   0.42540E-06  478284.0 3746983.9   448.0     4.00     3.95     1.86     YES
 L0009917         0   0.42540E-06  478284.0 3746975.4   448.0     4.00     3.95     1.86     YES
 L0009918         0   0.42540E-06  478284.1 3746966.9   448.0     4.00     3.95     1.86     YES
 L0009919         0   0.42540E-06  478284.1 3746958.4   448.0     4.00     3.95     1.86     YES
 L0009920         0   0.42540E-06  478284.1 3746949.9   448.0     4.00     3.95     1.86     YES
 L0009921         0   0.42540E-06  478284.2 3746941.4   448.0     4.00     3.95     1.86     YES
 L0009922         0   0.42540E-06  478284.2 3746932.9   448.0     4.00     3.95     1.86     YES
 L0009923         0   0.42540E-06  478284.2 3746924.4   448.0     4.00     3.95     1.86     YES
 L0009924         0   0.42540E-06  478284.3 3746915.9   448.0     4.00     3.95     1.86     YES
 L0009925         0   0.42540E-06  478284.3 3746907.4   448.0     4.00     3.95     1.86     YES
 L0009926         0   0.42540E-06  478284.3 3746898.9   448.0     4.00     3.95     1.86     YES
 L0009927         0   0.42540E-06  478284.4 3746890.4   448.0     4.00     3.95     1.86     YES
 L0009928         0   0.42540E-06  478284.4 3746881.9   448.0     4.00     3.95     1.86     YES
 L0009929         0   0.42540E-06  478284.4 3746873.4   448.0     4.00     3.95     1.86     YES
 L0009930         0   0.42540E-06  478284.5 3746864.9   448.0     4.00     3.95     1.86     YES
 L0009931         0   0.42540E-06  478284.5 3746856.4   447.8     4.00     3.95     1.86     YES
 L0009932         0   0.42540E-06  478284.5 3746847.9   447.7     4.00     3.95     1.86     YES
 L0009933         0   0.42540E-06  478284.6 3746839.4   447.6     4.00     3.95     1.86     YES
 L0009934         0   0.42540E-06  478284.6 3746830.9   447.4     4.00     3.95     1.86     YES
 L0009935         0   0.42540E-06  478284.6 3746822.4   447.3     4.00     3.95     1.86     YES
 L0009936         0   0.42540E-06  478284.6 3746813.9   447.1     4.00     3.95     1.86     YES
 L0009937         0   0.42540E-06  478284.7 3746805.4   447.0     4.00     3.95     1.86     YES
 L0009938         0   0.42540E-06  478284.7 3746796.9   447.0     4.00     3.95     1.86     YES
 L0009939         0   0.42540E-06  478284.7 3746788.4   447.0     4.00     3.95     1.86     YES
 L0009940         0   0.42540E-06  478284.8 3746779.9   447.0     4.00     3.95     1.86     YES
 L0009941         0   0.42540E-06  478284.8 3746771.4   447.0     4.00     3.95     1.86     YES
 L0009942         0   0.42540E-06  478284.8 3746762.9   447.0     4.00     3.95     1.86     YES
 L0009943         0   0.42540E-06  478284.9 3746754.4   447.0     4.00     3.95     1.86     YES
 L0009944         0   0.42540E-06  478284.9 3746745.9   447.0     4.00     3.95     1.86     YES
 L0009945         0   0.42540E-06  478284.9 3746737.4   447.0     4.00     3.95     1.86     YES
 L0009946         0   0.42540E-06  478285.0 3746728.9   447.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
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                                                    Residential
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY        SZ      SOURCE   SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0009947         0   0.42540E-06  478285.0 3746720.4    447.0      4.00      3.95      1.86     YES
 L0009948         0   0.42540E-06  478285.0 3746711.9    447.0      4.00      3.95      1.86     YES
 L0009949         0   0.42540E-06  478285.1 3746703.4    447.0      4.00      3.95      1.86     YES
 L0009950         0   0.42540E-06  478285.1 3746694.9    447.0      4.00      3.95      1.86     YES
 L0009951         0   0.42540E-06  478285.1 3746686.4    447.0      4.00      3.95      1.86     YES
 L0009952         0   0.42540E-06  478285.2 3746677.9    447.0      4.00      3.95      1.86     YES
 L0009953         0   0.42540E-06  478285.2 3746669.4    447.0      4.00      3.95      1.86     YES
 L0009954         0   0.42540E-06  478285.2 3746660.9    447.0      4.00      3.95      1.86     YES
 L0009955         0   0.42540E-06  478285.3 3746652.4    447.0      4.00      3.95      1.86     YES
 L0009956         0   0.42540E-06  478285.3 3746643.9    447.0      4.00      3.95      1.86     YES
 L0009957         0   0.42540E-06  478285.3 3746635.4    447.0      4.00      3.95      1.86     YES
 L0009958         0   0.42540E-06  478285.4 3746626.9    447.0      4.00      3.95      1.86     YES
 L0009959         0   0.42540E-06  478285.4 3746618.4    447.0      4.00      3.95      1.86     YES
 L0009960         0   0.42540E-06  478285.4 3746609.9    447.0      4.00      3.95      1.86     YES
 L0009961         0   0.42540E-06  478285.5 3746601.4    447.0      4.00      3.95      1.86     YES
 L0009962         0   0.42540E-06  478285.5 3746592.9    447.0      4.00      3.95      1.86     YES
 L0009963         0   0.42540E-06  478285.5 3746584.4    447.0      4.00      3.95      1.86     YES
 L0009964         0   0.42540E-06  478285.6 3746575.9    447.0      4.00      3.95      1.86     YES
 L0009965         0   0.42540E-06  478285.6 3746567.4    447.0      4.00      3.95      1.86     YES
 L0009966         0   0.42540E-06  478285.6 3746558.9    447.0      4.00      3.95      1.86     YES
 L0009967         0   0.42540E-06  478285.7 3746550.4    447.0      4.00      3.95      1.86     YES
 L0009968         0   0.42540E-06  478285.7 3746541.9    447.0      4.00      3.95      1.86     YES
 L0009969         0   0.42540E-06  478285.7 3746533.4    447.0      4.00      3.95      1.86     YES
 L0009970         0   0.42540E-06  478285.7 3746524.9    447.0      4.00      3.95      1.86     YES
 L0009971         0   0.42540E-06  478285.8 3746516.4    447.0      4.00      3.95      1.86     YES
 L0009972         0   0.42540E-06  478285.8 3746507.9    447.0      4.00      3.95      1.86     YES
 L0009973         0   0.42540E-06  478285.8 3746499.4    447.0      4.00      3.95      1.86     YES
 L0009974         0   0.42540E-06  478285.9 3746490.9    447.0      4.00      3.95      1.86     YES
 L0009975         0   0.42540E-06  478285.9 3746482.4    447.0      4.00      3.95      1.86     YES
 L0009976         0   0.42540E-06  478285.9 3746473.9    447.0      4.00      3.95      1.86     YES
 L0009977         0   0.42540E-06  478286.0 3746465.4    447.0      4.00      3.95      1.86     YES
 L0009978         0   0.42540E-06  478286.0 3746456.9    447.0      4.00      3.95      1.86     YES
 L0009979         0   0.42540E-06  478286.0 3746448.4    447.0      4.00      3.95      1.86     YES
 L0009980         0   0.42540E-06  478286.1 3746439.9    446.9      4.00      3.95      1.86     YES
 L0009981         0   0.42540E-06  478286.1 3746431.4    446.7      4.00      3.95      1.86     YES
 L0009982         0   0.42540E-06  478286.1 3746422.9    446.6      4.00      3.95      1.86     YES
 L0009983         0   0.42540E-06  478286.2 3746414.4    446.5      4.00      3.95      1.86     YES
 L0009984         0   0.42540E-06  478286.2 3746405.9    446.5      4.00      3.95      1.86     YES
 L0009985         0   0.42540E-06  478286.2 3746397.4    446.5      4.00      3.95      1.86     YES
 L0009986         0   0.42540E-06  478286.3 3746388.9    446.4      4.00      3.95      1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                         BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY        SZ      SOURCE   SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0009987         0   0.42540E-06  478286.3 3746380.4    446.4      4.00      3.95      1.86     YES
 L0009988         0   0.42540E-06  478286.3 3746371.9    446.4      4.00      3.95      1.86     YES
 L0009989         0   0.42540E-06  478286.4 3746363.4    446.4      4.00      3.95      1.86     YES
 L0009990         0   0.42540E-06  478286.4 3746354.9    446.4      4.00      3.95      1.86     YES
 L0009991         0   0.42540E-06  478286.4 3746346.4    446.4      4.00      3.95      1.86     YES
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                                                 Residential
 L0009992         0   0.42540E-06  478280.1 3746347.5   446.7      4.00      3.95      1.86      YES
 L0009993         0   0.42540E-06  478272.3 3746350.8   446.9      4.00      3.95      1.86      YES
 L0009994         0   0.42540E-06  478264.5 3746354.2   447.0      4.00      3.95      1.86      YES
 L0009995         0   0.42540E-06  478256.7 3746357.5   447.0      4.00      3.95      1.86      YES
 L0009996         0   0.42540E-06  478248.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0009997         0   0.42540E-06  478240.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0009998         0   0.42540E-06  478231.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0009999         0   0.42540E-06  478223.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010000         0   0.42540E-06  478214.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010001         0   0.42540E-06  478206.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010002         0   0.42540E-06  478197.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010003         0   0.42540E-06  478189.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010004         0   0.42540E-06  478180.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010005         0   0.42540E-06  478172.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010006         0   0.42540E-06  478163.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010007         0   0.42540E-06  478155.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010008         0   0.42540E-06  478146.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010009         0   0.42540E-06  478138.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010010         0   0.42540E-06  478129.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010011         0   0.42540E-06  478121.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010012         0   0.42540E-06  478112.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010013         0   0.42540E-06  478104.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010014         0   0.42540E-06  478095.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010015         0   0.42540E-06  478087.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010016         0   0.42540E-06  478078.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010017         0   0.42540E-06  478070.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010018         0   0.42540E-06  478061.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010019         0   0.42540E-06  478053.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010020         0   0.42540E-06  478044.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010021         0   0.42540E-06  478036.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010022         0   0.42540E-06  478027.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010023         0   0.42540E-06  478019.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010024         0   0.42540E-06  478010.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010025         0   0.42540E-06  478002.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010026         0   0.42540E-06  477993.6 3746359.6   447.0      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                 ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X          Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010027         0   0.42540E-06  477985.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010028         0   0.42540E-06  477976.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010029         0   0.42540E-06  477968.1 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010030         0   0.42540E-06  477959.6 3746359.6   447.0      4.00      3.95      1.86      YES
 L0010031         0   0.42540E-06  477951.1 3746359.6   447.1      4.00      3.95      1.86      YES
 L0010032         0   0.42540E-06  477942.6 3746359.6   447.1      4.00      3.95      1.86      YES
 L0010033         0   0.42540E-06  477934.1 3746359.6   447.3      4.00      3.95      1.86      YES
 L0010034         0   0.42540E-06  477925.6 3746359.6   447.5      4.00      3.95      1.86      YES
 L0010035         0   0.42540E-06  477917.1 3746359.6   447.8      4.00      3.95      1.86      YES
 L0010036         0   0.42540E-06  477908.6 3746359.6   448.0      4.00      3.95      1.86      YES
 L0010037         0   0.42540E-06  477900.1 3746359.6   448.0      4.00      3.95      1.86      YES
 L0010038         0   0.42540E-06  477891.6 3746359.6   448.0      4.00      3.95      1.86      YES
 L0010039         0   0.42540E-06  477883.1 3746359.6   448.0      4.00      3.95      1.86      YES
 L0010040         0   0.42540E-06  477874.6 3746359.6   448.0      4.00      3.95      1.86      YES
 L0010041         0   0.42540E-06  477866.1 3746359.6   448.0      4.00      3.95      1.86      YES
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                                                    Residential
 L0010042         0   0.42540E-06  477857.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010043         0   0.42540E-06  477849.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010044         0   0.42540E-06  477840.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010045         0   0.42540E-06  477832.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010046         0   0.42540E-06  477823.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010047         0   0.42540E-06  477815.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010048         0   0.42540E-06  477806.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010049         0   0.42540E-06  477798.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010050         0   0.42540E-06  477789.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010051         0   0.42540E-06  477781.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010052         0   0.42540E-06  477772.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010053         0   0.42540E-06  477764.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010054         0   0.42540E-06  477755.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010055         0   0.42540E-06  477747.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010056         0   0.42540E-06  477738.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010057         0   0.42540E-06  477730.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0010058         0   0.42540E-06  477721.6 3746359.7   448.0     4.00     3.95     1.86     YES
 L0010059         0   0.42540E-06  477713.1 3746359.8   448.0     4.00     3.95     1.86     YES
 L0010060         0   0.42540E-06  477704.6 3746359.9   448.0     4.00     3.95     1.86     YES
 L0010061         0   0.42540E-06  477696.1 3746359.9   448.0     4.00     3.95     1.86     YES
 L0010062         0   0.42540E-06  477687.6 3746360.0   448.0     4.00     3.95     1.86     YES
 L0010063         0   0.42540E-06  477679.1 3746360.1   448.0     4.00     3.95     1.86     YES
 L0010064         0   0.42540E-06  477670.6 3746360.2   448.0     4.00     3.95     1.86     YES
 L0010065         0   0.42540E-06  477662.1 3746360.3   448.0     4.00     3.95     1.86     YES
 L0010066         0   0.42540E-06  477653.6 3746360.4   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:32:39

  PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.   (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010067         0   0.42540E-06  477645.1 3746360.5   448.0     4.00     3.95     1.86     YES
 L0010068         0   0.42540E-06  477636.6 3746360.6   448.1     4.00     3.95     1.86     YES
 L0010069         0   0.42540E-06  477628.1 3746360.6   448.4     4.00     3.95     1.86     YES
 L0010070         0   0.42540E-06  477619.6 3746360.7   448.7     4.00     3.95     1.86     YES
 L0010071         0   0.42540E-06  477611.1 3746360.8   449.0     4.00     3.95     1.86     YES
 L0010072         0   0.42540E-06  477602.6 3746360.9   449.0     4.00     3.95     1.86     YES
 L0010073         0   0.42540E-06  477594.1 3746361.0   449.0     4.00     3.95     1.86     YES
 L0010074         0   0.42540E-06  477585.6 3746361.1   449.0     4.00     3.95     1.86     YES
 L0010075         0   0.42540E-06  477577.1 3746361.2   449.0     4.00     3.95     1.86     YES
 L0010076         0   0.42540E-06  477568.6 3746361.3   449.0     4.00     3.95     1.86     YES
 L0010077         0   0.42540E-06  477560.1 3746361.3   449.0     4.00     3.95     1.86     YES
 L0010078         0   0.42540E-06  477551.6 3746361.4   449.0     4.00     3.95     1.86     YES
 L0010079         0   0.42540E-06  477543.1 3746361.5   449.0     4.00     3.95     1.86     YES
 L0010080         0   0.42540E-06  477534.6 3746361.6   449.0     4.00     3.95     1.86     YES
 L0010081         0   0.42540E-06  477526.1 3746361.7   449.0     4.00     3.95     1.86     YES
 L0010082         0   0.42540E-06  477517.6 3746361.8   449.0     4.00     3.95     1.86     YES
 L0010083         0   0.42540E-06  477509.1 3746361.9   449.0     4.00     3.95     1.86     YES
 L0010084         0   0.42540E-06  477500.6 3746362.0   449.0     4.00     3.95     1.86     YES
 L0010085         0   0.42540E-06  477492.1 3746362.0   449.0     4.00     3.95     1.86     YES
 L0010086         0   0.42540E-06  477483.6 3746362.4   449.2     4.00     3.95     1.86     YES
 L0010087         0   0.42540E-06  477475.3 3746364.0   449.5     4.00     3.95     1.86     YES
 L0010088         0   0.42540E-06  477466.9 3746365.6   449.8     4.00     3.95     1.86     YES
 L0010089         0   0.42540E-06  477458.6 3746367.2   450.0     4.00     3.95     1.86     YES
 L0010090         0   0.42540E-06  477450.3 3746368.8   450.0     4.00     3.95     1.86     YES
 L0010091         0   0.42540E-06  477441.9 3746370.4   450.0     4.00     3.95     1.86     YES
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                                                                 Residential
 L0010092         0   0.42540E-06  477433.6 3746372.0   450.0     4.00     3.95     1.86     YES
 L0010093         0   0.42540E-06  477425.2 3746373.6   450.0     4.00     3.95     1.86     YES
 L0010094         0   0.42540E-06  477417.3 3746376.4   450.0     4.00     3.95     1.86     YES
 L0010095         0   0.42540E-06  477410.0 3746380.7   450.0     4.00     3.95     1.86     YES
 L0010096         0   0.42540E-06  477402.7 3746385.0   450.0     4.00     3.95     1.86     YES
 L0010097         0   0.42540E-06  477395.3 3746389.4   450.0     4.00     3.95     1.86     YES
 L0010098         0   0.42540E-06  477388.0 3746393.7   450.0     4.00     3.95     1.86     YES
 L0010099         0   0.42540E-06  477380.7 3746398.0   450.0     4.00     3.95     1.86     YES
 L0010100         0   0.42540E-06  477373.4 3746402.3   450.0     4.00     3.95     1.86     YES
 L0010101         0   0.42540E-06  477366.1 3746406.6   450.0     4.00     3.95     1.86     YES
 L0010102         0   0.42540E-06  477358.7 3746411.0   450.0     4.00     3.95     1.86     YES
 L0010103         0   0.42540E-06  477351.4 3746415.3   450.0     4.00     3.95     1.86     YES
 L0010104         0   0.42540E-06  477344.1 3746419.6   450.0     4.00     3.95     1.86     YES
 L0010105         0   0.42540E-06  477336.8 3746423.9   450.0     4.00     3.95     1.86     YES
 L0010106         0   0.42540E-06  477329.5 3746428.2   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
    ID          CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0010107         0   0.42540E-06  477322.2 3746432.7   450.0     4.00     3.95     1.86     YES
 L0010108         0   0.42540E-06  477315.4 3746437.8   450.0     4.00     3.95     1.86     YES
 L0010109         0   0.42540E-06  477308.6 3746442.9   450.0     4.00     3.95     1.86     YES
 L0010110         0   0.42540E-06  477301.8 3746448.0   450.0     4.00     3.95     1.86     YES
 L0010111         0   0.42540E-06  477295.0 3746453.1   450.0     4.00     3.95     1.86     YES
 L0010112         0   0.42540E-06  477288.2 3746458.2   450.0     4.00     3.95     1.86     YES
 L0010113         0   0.42540E-06  477281.4 3746463.3   450.0     4.00     3.95     1.86     YES
 L0010114         0   0.42540E-06  477274.6 3746468.4   450.0     4.00     3.95     1.86     YES
 L0010115         0   0.42540E-06  477267.7 3746473.3   450.0     4.00     3.95     1.86     YES
 L0010116         0   0.42540E-06  477260.7 3746478.2   450.0     4.00     3.95     1.86     YES
 L0010117         0   0.42540E-06  477253.8 3746483.1   450.0     4.00     3.95     1.86     YES
 L0010118         0   0.42540E-06  477246.8 3746487.9   450.1     4.00     3.95     1.86     YES
 L0010119         0   0.42540E-06  477239.8 3746492.8   450.2     4.00     3.95     1.86     YES
 L0010120         0   0.42540E-06  477232.9 3746497.7   450.2     4.00     3.95     1.86     YES
 L0010121         0   0.42540E-06  477225.9 3746502.6   450.1     4.00     3.95     1.86     YES
 L0010122         0   0.42540E-06  477218.5 3746506.8   450.0     4.00     3.95     1.86     YES
 L0010123         0   0.42540E-06  477211.1 3746510.8   450.3     4.00     3.95     1.86     YES
 L0010124         0   0.42540E-06  477203.6 3746514.8   450.5     4.00     3.95     1.86     YES
 L0010125         0   0.42540E-06  477196.1 3746518.8   450.8     4.00     3.95     1.86     YES
 L0010126         0   0.42540E-06  477188.6 3746522.9   451.0     4.00     3.95     1.86     YES
 L0010127         0   0.42540E-06  477181.1 3746526.9   451.0     4.00     3.95     1.86     YES
 L0010128         0   0.42540E-06  477173.6 3746530.9   451.0     4.00     3.95     1.86     YES
 L0010129         0   0.42540E-06  477166.1 3746535.0   451.0     4.00     3.95     1.86     YES
 L0010130         0   0.42540E-06  477158.5 3746538.5   451.0     4.00     3.95     1.86     YES
 L0010131         0   0.42540E-06  477150.1 3746539.7   451.0     4.00     3.95     1.86     YES
 L0010132         0   0.42540E-06  477141.7 3746541.0   451.0     4.00     3.95     1.86     YES
 L0010133         0   0.42540E-06  477133.3 3746542.2   451.0     4.00     3.95     1.86     YES
 L0010134         0   0.42540E-06  477124.9 3746543.5   451.0     4.00     3.95     1.86     YES
 L0010135         0   0.42540E-06  477116.5 3746544.7   451.0     4.00     3.95     1.86     YES
 L0010136         0   0.42540E-06  477108.0 3746546.0   451.0     4.00     3.95     1.86     YES
 L0010137         0   0.42540E-06  477099.6 3746547.2   451.0     4.00     3.95     1.86     YES
 L0010138         0   0.42540E-06  477091.2 3746548.2   451.0     4.00     3.95     1.86     YES
 L0010139         0   0.42540E-06  477082.7 3746548.3   451.0     4.00     3.95     1.86     YES
 L0010140         0   0.42540E-06  477074.2 3746548.4   451.0     4.00     3.95     1.86     YES
 L0010141         0   0.42540E-06  477065.7 3746548.6   451.1     4.00     3.95     1.86     YES
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                                                         Residential
 L0010142         0   0.42540E-06  477057.2 3746548.7   451.2     4.00     3.95     1.86     YES
 L0010143         0   0.42540E-06  477048.7 3746548.8   451.4     4.00     3.95     1.86     YES
 L0010144         0   0.42540E-06  477040.2 3746548.9   451.6     4.00     3.95     1.86     YES
 L0010145         0   0.42540E-06  477031.7 3746549.0   451.7     4.00     3.95     1.86     YES
 L0010146         0   0.42540E-06  477023.2 3746549.1   451.8     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0010147         0   0.42540E-06  477014.7 3746549.2   451.9     4.00     3.95     1.86     YES
 L0010148         0   0.42540E-06  477006.2 3746549.3   452.0     4.00     3.95     1.86     YES
 L0010149         0   0.42540E-06  476997.7 3746549.4   452.0     4.00     3.95     1.86     YES
 L0010150         0   0.42540E-06  476989.2 3746549.6   452.0     4.00     3.95     1.86     YES
 L0010151         0   0.42540E-06  476980.7 3746549.7   452.0     4.00     3.95     1.86     YES
 L0010152         0   0.42540E-06  476972.2 3746549.8   452.0     4.00     3.95     1.86     YES
 L0010153         0   0.42540E-06  476963.7 3746549.9   452.0     4.00     3.95     1.86     YES
 L0010154         0   0.42540E-06  476955.2 3746550.0   452.0     4.00     3.95     1.86     YES
 L0010155         0   0.42540E-06  476946.7 3746550.1   452.0     4.00     3.95     1.86     YES
 L0010156         0   0.42540E-06  476938.2 3746550.2   452.0     4.00     3.95     1.86     YES
 L0010157         0   0.42540E-06  476929.7 3746550.3   452.0     4.00     3.95     1.86     YES
 L0010158         0   0.42540E-06  476921.2 3746550.4   452.0     4.00     3.95     1.86     YES
 L0010159         0   0.42540E-06  476912.7 3746550.6   452.1     4.00     3.95     1.86     YES
 L0010160         0   0.42540E-06  476904.2 3746550.7   452.3     4.00     3.95     1.86     YES
 L0010161         0   0.42540E-06  476895.7 3746550.8   452.4     4.00     3.95     1.86     YES
 L0010162         0   0.42540E-06  476887.2 3746550.9   452.6     4.00     3.95     1.86     YES
 L0010163         0   0.42540E-06  476878.7 3746551.0   452.7     4.00     3.95     1.86     YES
 L0010164         0   0.42540E-06  476870.2 3746551.1   452.8     4.00     3.95     1.86     YES
 L0010165         0   0.42540E-06  476861.7 3746551.2   453.0     4.00     3.95     1.86     YES
 L0010166         0   0.42540E-06  476853.2 3746551.3   453.0     4.00     3.95     1.86     YES
 L0010167         0   0.42540E-06  476844.7 3746551.4   453.0     4.00     3.95     1.86     YES
 L0010168         0   0.42540E-06  476836.2 3746551.5   453.0     4.00     3.95     1.86     YES
 L0010169         0   0.42540E-06  476827.7 3746551.7   453.0     4.00     3.95     1.86     YES
 L0010170         0   0.42540E-06  476819.2 3746551.8   453.0     4.00     3.95     1.86     YES
 L0010171         0   0.42540E-06  476810.7 3746551.9   453.0     4.00     3.95     1.86     YES
 L0010172         0   0.42540E-06  476802.2 3746552.0   453.0     4.00     3.95     1.86     YES
 L0010173         0   0.42540E-06  476793.7 3746552.1   462.1     4.00     3.95     1.86     YES
 L0010174         0   0.42540E-06  476785.2 3746552.2   462.2     4.00     3.95     1.86     YES
 L0010175         0   0.42540E-06  476776.7 3746552.2   462.3     4.00     3.95     1.86     YES
 L0010176         0   0.42540E-06  476768.2 3746551.9   462.4     4.00     3.95     1.86     YES
 L0010177         0   0.42540E-06  476759.7 3746551.7   462.5     4.00     3.95     1.86     YES
 L0010178         0   0.42540E-06  476751.2 3746551.5   462.6     4.00     3.95     1.86     YES
 L0010179         0   0.42540E-06  476742.8 3746551.3   462.7     4.00     3.95     1.86     YES
 L0010180         0   0.42540E-06  476734.3 3746551.1   462.8     4.00     3.95     1.86     YES
 L0010181         0   0.42540E-06  476725.8 3746550.8   462.9     4.00     3.95     1.86     YES
 L0010182         0   0.42540E-06  476717.3 3746550.6   463.1     4.00     3.95     1.86     YES
 L0010183         0   0.42540E-06  476708.8 3746550.4   463.2     4.00     3.95     1.86     YES
 L0010184         0   0.42540E-06  476700.3 3746550.2   463.3     4.00     3.95     1.86     YES
 L0010185         0   0.42540E-06  476691.8 3746550.0   463.4     4.00     3.95     1.86     YES
 L0010186         0   0.42540E-06  476683.3 3746549.7   463.5     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39
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                                                 Residential
  PAGE  58
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE   RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.  HEIGHT     SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0010187         0   0.42540E-06  476674.8 3746549.5   463.6     4.00     3.95     1.86     YES
 L0010188         0   0.42540E-06  476666.3 3746549.3   463.7     4.00     3.95     1.86     YES
 L0010189         0   0.42540E-06  476657.8 3746549.1   463.8     4.00     3.95     1.86     YES
 L0010190         0   0.42540E-06  476649.5 3746550.2   463.9     4.00     3.95     1.86     YES
 L0010191         0   0.42540E-06  476641.4 3746552.9   464.0     4.00     3.95     1.86     YES
 L0010192         0   0.42540E-06  476633.4 3746555.6   464.0     4.00     3.95     1.86     YES
 L0010193         0   0.42540E-06  476625.3 3746558.3   464.0     4.00     3.95     1.86     YES
 L0010194         0   0.42540E-06  476617.2 3746561.0   464.0     4.00     3.95     1.86     YES
 L0010195         0   0.42540E-06  476609.2 3746563.6   464.0     4.00     3.95     1.86     YES
 L0010196         0   0.42540E-06  476601.4 3746566.9   464.0     4.00     3.95     1.86     YES
 L0010197         0   0.42540E-06  476594.1 3746571.4   464.0     4.00     3.95     1.86     YES
 L0010198         0   0.42540E-06  476586.9 3746575.9   464.0     4.00     3.95     1.86     YES
 L0010199         0   0.42540E-06  476579.7 3746580.4   464.0     4.00     3.95     1.86     YES
 L0010200         0   0.42540E-06  476572.5 3746584.8   464.0     4.00     3.95     1.86     YES
 L0010201         0   0.42540E-06  476565.3 3746589.3   464.0     4.00     3.95     1.86     YES
 L0010202         0   0.42540E-06  476558.0 3746593.8   464.1     4.00     3.95     1.86     YES
 L0010203         0   0.42540E-06  476550.8 3746598.3   464.2     4.00     3.95     1.86     YES
 L0010204         0   0.42540E-06  476543.6 3746602.8   464.3     4.00     3.95     1.86     YES
 L0010205         0   0.42540E-06  476537.9 3746608.7   464.4     4.00     3.95     1.86     YES
 L0010206         0   0.42540E-06  476534.0 3746616.2   464.4     4.00     3.95     1.86     YES
 L0010207         0   0.42540E-06  476530.0 3746623.8   464.5     4.00     3.95     1.86     YES
 L0010208         0   0.42540E-06  476526.1 3746631.3   464.5     4.00     3.95     1.86     YES
 L0010209         0   0.42540E-06  476522.2 3746638.8   464.6     4.00     3.95     1.86     YES
 L0010210         0   0.42540E-06  476518.2 3746646.4   464.6     4.00     3.95     1.86     YES
 L0010211         0   0.42540E-06  476514.3 3746653.9   464.7     4.00     3.95     1.86     YES
 L0010212         0   0.42540E-06  476510.3 3746661.4   464.7     4.00     3.95     1.86     YES
 L0010213         0   0.42540E-06  476506.4 3746668.9   464.8     4.00     3.95     1.86     YES
 L0010214         0   0.42540E-06  476502.4 3746676.5   464.8     4.00     3.95     1.86     YES
 L0010215         0   0.42540E-06  476498.5 3746684.0   464.9     4.00     3.95     1.86     YES
 L0010216         0   0.42540E-06  476494.5 3746691.5   464.9     4.00     3.95     1.86     YES
 L0010217         0   0.42540E-06  476490.6 3746699.1   465.0     4.00     3.95     1.86     YES
 L0010218         0   0.42540E-06  476486.6 3746706.6   465.1     4.00     3.95     1.86     YES
 L0010219         0   0.42540E-06  476482.7 3746714.1   465.2     4.00     3.95     1.86     YES
 L0010220         0   0.42540E-06  476478.7 3746721.6   465.3     4.00     3.95     1.86     YES
 L0010221         0   0.42540E-06  476474.8 3746729.2   465.4     4.00     3.95     1.86     YES
 L0010222         0   0.42540E-06  476470.9 3746736.7   465.5     4.00     3.95     1.86     YES
 L0010223         0   0.42540E-06  476467.8 3746744.5   465.6     4.00     3.95     1.86     YES
 L0010224         0   0.42540E-06  476466.4 3746752.9   465.6     4.00     3.95     1.86     YES
 L0010225         0   0.42540E-06  476465.0 3746761.3   465.7     4.00     3.95     1.86     YES
 L0010226         0   0.42540E-06  476463.6 3746769.7   465.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

  PAGE  59
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE   RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.  HEIGHT     SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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                                                 Residential
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 L0010227         0   0.42540E-06  476462.2 3746778.1   465.7     4.00     3.95     1.86     YES
 L0010228         0   0.42540E-06  476460.8 3746786.4   465.8     4.00     3.95     1.86     YES
 L0010229         0   0.42540E-06  476459.4 3746794.8   465.8     4.00     3.95     1.86     YES
 L0010230         0   0.42540E-06  476457.3 3746803.0   465.9     4.00     3.95     1.86     YES
 L0010231         0   0.42540E-06  476453.4 3746810.5   465.9     4.00     3.95     1.86     YES
 L0010232         0   0.42540E-06  476449.4 3746818.0   466.1     4.00     3.95     1.86     YES
 L0010233         0   0.42540E-06  476445.4 3746825.5   466.2     4.00     3.95     1.86     YES
 L0010234         0   0.42540E-06  476441.4 3746833.0   466.3     4.00     3.95     1.86     YES
 L0010235         0   0.42540E-06  476437.5 3746840.5   466.4     4.00     3.95     1.86     YES
 L0010236         0   0.42540E-06  476433.5 3746848.1   466.5     4.00     3.95     1.86     YES
 L0010237         0   0.42540E-06  476429.5 3746855.6   466.6     4.00     3.95     1.86     YES
 L0010238         0   0.42540E-06  476425.5 3746863.1   466.7     4.00     3.95     1.86     YES
 L0010239         0   0.42540E-06  476421.6 3746870.6   466.8     4.00     3.95     1.86     YES
 L0010240         0   0.42540E-06  476417.6 3746878.1   466.9     4.00     3.95     1.86     YES
 L0010241         0   0.42540E-06  476413.6 3746885.6   467.0     4.00     3.95     1.86     YES
 L0010242         0   0.42540E-06  476409.6 3746893.1   467.1     4.00     3.95     1.86     YES
 L0010243         0   0.42540E-06  476403.2 3746898.5   467.1     4.00     3.95     1.86     YES
 L0010244         0   0.42540E-06  476396.2 3746903.3   467.2     4.00     3.95     1.86     YES
 L0010245         0   0.42540E-06  476389.2 3746908.1   467.3     4.00     3.95     1.86     YES
 L0010246         0   0.42540E-06  476382.2 3746912.9   467.4     4.00     3.95     1.86     YES
 L0010247         0   0.42540E-06  476375.2 3746917.8   467.5     4.00     3.95     1.86     YES
 L0010248         0   0.42540E-06  476368.2 3746922.6   467.6     4.00     3.95     1.86     YES
 L0010249         0   0.42540E-06  476361.2 3746927.4   467.7     4.00     3.95     1.86     YES
 L0010250         0   0.42540E-06  476354.2 3746932.2   467.8     4.00     3.95     1.86     YES
 L0010251         0   0.42540E-06  476347.2 3746937.0   467.9     4.00     3.95     1.86     YES
 L0010252         0   0.42540E-06  476340.2 3746941.8   467.9     4.00     3.95     1.86     YES
 L0010253         0   0.42540E-06  476332.1 3746943.7   468.1     4.00     3.95     1.86     YES
 L0010254         0   0.42540E-06  476323.7 3746944.5   468.2     4.00     3.95     1.86     YES
 L0010255         0   0.42540E-06  476315.2 3746945.4   468.3     4.00     3.95     1.86     YES
 L0010256         0   0.42540E-06  476306.7 3746946.2   468.4     4.00     3.95     1.86     YES
 L0010257         0   0.42540E-06  476298.3 3746947.0   468.5     4.00     3.95     1.86     YES
 L0010258         0   0.42540E-06  476289.8 3746947.9   468.6     4.00     3.95     1.86     YES
 L0010259         0   0.42540E-06  476281.4 3746948.7   468.7     4.00     3.95     1.86     YES
 L0010260         0   0.42540E-06  476272.9 3746949.5   468.8     4.00     3.95     1.86     YES
 L0010261         0   0.42540E-06  476264.4 3746950.4   468.9     4.00     3.95     1.86     YES
 L0010262         0   0.42540E-06  476256.0 3746950.8   469.0     4.00     3.95     1.86     YES
 L0010263         0   0.42540E-06  476247.5 3746950.7   469.2     4.00     3.95     1.86     YES
 L0010264         0   0.42540E-06  476239.0 3746950.7   469.3     4.00     3.95     1.86     YES
 L0010265         0   0.42540E-06  476230.5 3746950.6   469.4     4.00     3.95     1.86     YES
 L0010266         0   0.42540E-06  476222.0 3746950.5   469.5     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   13:32:39

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 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.               (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0010267         0   0.42540E-06  476213.5 3746950.5   469.6     4.00     3.95     1.86     YES
 L0010268         0   0.42540E-06  476205.0 3746950.4   469.7     4.00     3.95     1.86     YES
 L0010269         0   0.42540E-06  476196.5 3746950.4   469.8     4.00     3.95     1.86     YES
 L0010270         0   0.42540E-06  476188.0 3746950.3   469.9     4.00     3.95     1.86     YES
 L0010271         0   0.42540E-06  476179.5 3746950.3   470.0     4.00     3.95     1.86     YES
 L0010272         0   0.42540E-06  476171.0 3746950.2   470.2     4.00     3.95     1.86     YES
 L0010273         0   0.42540E-06  476162.5 3746950.1   470.3     4.00     3.95     1.86     YES
 L0010274         0   0.42540E-06  476154.0 3746950.1   470.4     4.00     3.95     1.86     YES
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                                                                 Residential
 L0010275         0   0.42540E-06  476145.5 3746950.0   470.5      4.00     3.95     1.86     YES
 L0010276         0   0.42540E-06  476137.0 3746950.0   470.6      4.00     3.95     1.86     YES
 L0010277         0   0.42540E-06  476128.5 3746949.9   470.7      4.00     3.95     1.86     YES
 L0010278         0   0.42540E-06  476120.0 3746949.9   470.8      4.00     3.95     1.86     YES
 L0010279         0   0.42540E-06  476111.5 3746949.8   470.9      4.00     3.95     1.86     YES
 L0010280         0   0.42540E-06  476103.0 3746949.8   471.0      4.00     3.95     1.86     YES
 L0010281         0   0.42540E-06  476094.5 3746949.7   471.1      4.00     3.95     1.86     YES
 L0010282         0   0.42540E-06  476086.0 3746949.6   471.2      4.00     3.95     1.86     YES
 L0010283         0   0.42540E-06  476077.5 3746949.6   471.4      4.00     3.95     1.86     YES
 L0010284         0   0.42540E-06  476069.0 3746949.5   471.5      4.00     3.95     1.86     YES
 L0010285         0   0.42540E-06  476060.5 3746949.5   471.6      4.00     3.95     1.86     YES
 L0010286         0   0.42540E-06  476052.0 3746949.4   471.7      4.00     3.95     1.86     YES
 L0010287         0   0.42540E-06  476043.5 3746949.4   471.8      4.00     3.95     1.86     YES
 L0010288         0   0.42540E-06  476035.0 3746949.3   471.9      4.00     3.95     1.86     YES
 L0010289         0   0.42540E-06  476026.5 3746949.2   472.0      4.00     3.95     1.86     YES
 L0010290         0   0.42540E-06  476018.0 3746949.2   472.1      4.00     3.95     1.86     YES
 L0010291         0   0.42540E-06  476009.5 3746949.1   472.2      4.00     3.95     1.86     YES
 L0010292         0   0.42540E-06  476001.0 3746949.1   472.4      4.00     3.95     1.86     YES
 L0010293         0   0.42540E-06  475992.5 3746949.0   472.5      4.00     3.95     1.86     YES
 L0010294         0   0.42540E-06  475984.0 3746949.0   472.6      4.00     3.95     1.86     YES
 L0010295         0   0.42540E-06  475975.5 3746948.9   472.7      4.00     3.95     1.86     YES
 L0010296         0   0.42540E-06  475967.0 3746948.8   472.8      4.00     3.95     1.86     YES
 L0010297         0   0.42540E-06  475958.5 3746948.8   472.9      4.00     3.95     1.86     YES
 L0010298         0   0.42540E-06  475950.0 3746948.7   473.0      4.00     3.95     1.86     YES
 L0010299         0   0.42540E-06  475941.5 3746948.7   472.6      4.00     3.95     1.86     YES
 L0010300         0   0.42540E-06  475933.0 3746948.6   472.3      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                             *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y       ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
        BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 AREA1            0   0.23510E-07  477895.8 3748485.6   452.0      5.00     75.04    426.52      0.00     0.00
YES
 AREA2            0   0.24890E-07  478139.8 3748384.2   451.0      5.00     57.92    521.96      0.00     0.00
YES
 AREA3            0   0.87222E-07  478027.4 3748303.6   450.0      5.00    143.40     60.16      0.00     0.00
YES
 AREA4            0   0.27037E-07  477696.2 3748836.0   454.0      5.00     72.15    152.50      0.00     0.00
YES
 AREA5            0   0.56522E-07  477967.7 3748183.6   450.0      5.00     61.27     85.90      0.00     0.00
YES
 AREA6            0   0.25323E-07  477599.3 3748788.1   454.0      5.00     65.18    180.23      0.00     0.00
YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:32:39

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                        Residential
                                *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                         SOURCE IDs
 -----------                                         ----------


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                                                 *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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                                                    Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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             L0010549    , L0010550    , L0010551    , L0010552    , L0010553    , L0010554    , L0010555    ,
L0010556    ,

             L0010557    , L0010558    , L0010559    , L0010560    , L0010561    , L0010562    , L0010563    ,
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L0010572    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0010573    , L0010574    , L0010575    , L0010576    , L0010577    , L0010578    , L0010579    ,
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             L0010597    , L0010598    , L0010599    , L0010600    , L0010601    , L0010602    , L0010603    ,
L0010604    ,

             L0010605    , L0010606    , L0010607    , L0010608    , L0010609    , L0010610    , L0010611    ,
L0010612    ,

             L0010613    , L0010614    , L0010615    , L0010616    , L0010617    , L0010618    , L0010619    ,
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             L0010637    , L0010638    , L0010639    , L0010640    , L0010641    , L0010642    , L0010643    ,
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             L0010661    , L0010662    , L0010663    , L0010664    , L0010665    , L0010666    , L0010667    ,
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             L0008243    , L0008244    , L0008245    , L0008246    , L0008247    , L0008248    , L0008249    ,
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             L0008275    , L0008276    , L0008277    , L0008278    , L0008279    , L0008280    , L0008281    ,
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             L0008283    , L0008284    , L0008285    , L0008286    , L0008287    , L0008288    , L0008289    ,
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             L0008291    , L0008292    , L0008293    , L0008294    , L0008295    , L0008296    , L0008297    ,
L0008298    ,
             L0008299    , L0008300    , L0008301    , L0008302    , L0008303    , L0008304    , L0008305    ,
L0008306    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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             L0008323    , L0008324    , L0008325    , L0008326    , L0008327    , L0008328    , L0008329    ,
L0008330    ,
             L0008331    , L0008332    , L0008333    , L0008334    , L0008335    , L0008336    , L0008337    ,
L0008338    ,
             L0008339    , L0008340    , L0008341    , L0008342    , L0008343    , L0008344    , L0008345    ,
L0008346    ,
             L0008347    , L0008348    , L0008349    , L0008350    , L0008351    , L0008352    , L0008353    ,
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             L0008355    , L0008356    , L0008357    , L0008358    , L0008359    , L0008360    , L0008361    ,
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             L0008363    , L0008364    , L0008365    , L0008366    , L0008367    , L0008368    , L0008369    ,
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             L0008371    , L0008372    , L0008373    , L0008374    , L0008375    , L0008376    , L0008377    ,
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             L0008379    , L0008380    , L0008381    , L0008382    , L0008383    , L0008384    , L0008385    ,
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             L0008387    , L0008388    , L0008389    , L0008390    , L0008391    , L0008392    , L0008393    ,
L0008394    ,
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                                                 Residential
             L0008395    , L0008396    , L0008397    , L0008398    , L0008399    , L0008400    , L0008401    ,
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             L0008403    , L0008404    , L0008405    , L0008406    , L0008407    , L0008408    , L0008409    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                   SOURCE IDs
  --------   ---------                                   ----------


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L0008498    ,

             L0008499    , L0008500    , L0008501    , L0008502    , L0008503    , L0008504    , L0008505    ,
L0008506    ,

             L0008507    , L0008508    , L0008509    , L0008510    , L0008511    , L0008512    , L0008513    ,
L0008514    ,

             L0008515    , L0008516    , L0008517    , L0008518    , L0008519    , L0008520    , L0008521    ,
L0008522    ,

             L0008523    , L0008524    , L0008525    , L0008526    , L0008527    , L0008528    , L0008529    ,
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L0008538    ,
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                                             Residential

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L0008546    ,

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             L0008619    , L0008620    , L0008621    , L0008622    , L0008623    , L0008624    , L0008625    ,
L0008626    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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L0008650    ,

             L0008651    , L0008652    , L0008653    , L0008654    , L0008655    , L0008656    , L0008657    ,
L0008658    ,

             L0008659    , L0008660    , L0008661    , L0008662    , L0008663    , L0008664    , L0008665    ,
L0008666    ,

             L0008667    , L0008668    , L0008669    , L0008670    , L0008671    , L0008672    , L0008673    ,
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AREA6       ,
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STCK8       ,
             STCK9       , STCK10      , STCK11      , STCK12      , STCK13      , L0008685    , L0008686    ,
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             L0008704    , L0008705    , L0008706    , L0008707    , L0008708    , L0008709    , L0008710    ,
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             L0008744    , L0008745    , L0008746    , L0008747    , L0008748    , L0008749    , L0008750    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                      SOURCE IDs
  --------   ---------                                      ----------


             L0008768    , L0008769    , L0008770    , L0008771    , L0008772    , L0008773    , L0008774    ,
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                                                         Residential
             L0008800     , L0008801     , L0008802     , L0008803     , L0008804     , L0008805     , L0008806     ,
L0008807     ,

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L0008815     ,

             L0008816     , L0008817     , L0008818     , L0008819     , L0008820     , L0008821     , L0008822     ,
L0008823     ,

             L0008824     , L0008825     , L0008826     , L0008827     , L0008828     , L0008829     , L0008830     ,
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             L0008832     , L0008833     , L0008834     , L0008835     , L0008836     , L0008837     , L0008838     ,
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L0008919     ,

             L0008920     , L0008921     , L0008922     , L0008923     , L0008924     , L0008925     , L0008926     ,
L0008927     ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------
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             L0009104    , L0009105    , L0009106    , L0009107    , L0009108    , L0009109    , L0009110    ,
L0009111    ,

             L0009112    , L0009113    , L0009114    , L0009115    , L0009116    , L0009117    , L0009118    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39

   PAGE  85
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                                                        Residential
  **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                                   *** SOURCE IDs DEFINED AS URBAN SOURCES ***

   URBAN ID    URBAN POP                                        SOURCE IDs
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             L0009272     , L0009273     , L0009274     , L0009275     , L0009276     , L0009277     , L0009278     ,
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                                                     Residential
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

   PAGE  86
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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L0009439    ,

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                                                 Residential
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39

   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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                                                  Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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                                                     Residential
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             L0009992     , L0009993     , L0009994     , L0009995     , L0009996     , L0009997     , L0009998     ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                       Residential
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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                                                   Residential
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                 *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK1
  IFV    BH      BW      BL     XADJ     YADJ     IFV    BH      BW      BL     XADJ     YADJ
   1   42.0,  317.4,  605.4, -554.0,   80.9,      2   42.0,  404.4,  616.6, -569.9,   36.0,
   3   42.0,  479.1,  609.1, -568.4,   -9.9,      4   42.0,  539.3,  583.0, -549.6,  -55.6,
   5   42.0,  583.0,  539.3, -514.2,  -99.6,      6   42.0,  609.1,  479.1, -463.1, -140.5,
   7   42.0,  616.6,  404.4, -397.9, -177.2,      8   42.0,  605.4,  317.4, -320.7, -208.5,
   9   42.0,  575.8,  220.8, -233.7, -233.5,     10   42.0,  605.4,  317.4, -239.6, -251.3,
  11   42.0,  616.6,  404.4, -238.2, -261.6,     12   42.0,  609.1,  479.1, -229.6, -263.9,
  13   42.0,  583.0,  539.3, -214.0, -258.1,     14   42.0,  539.3,  583.0, -191.9, -244.5,
  15   42.0,  479.1,  609.1, -164.0, -223.5,     16   42.0,  404.4,  616.6, -131.1, -195.7,
  17   42.0,  317.4,  605.4,  -94.2, -162.0,     18   42.0,  220.8,  575.8,  -54.4, -123.3,
  19   42.0,  317.4,  605.4,  -51.4,  -80.9,     20   42.0,  404.4,  616.6,  -46.7,  -36.0,
  21   42.0,  479.1,  609.1,  -40.7,    9.9,     22   42.0,  539.3,  583.0,  -33.4,   55.6,
  23   42.0,  583.0,  539.3,  -25.1,   99.6,     24   42.0,  609.1,  479.1,  -16.0,  140.5,
  25   42.0,  616.6,  404.4,   -6.5,  177.2,     26   42.0,  605.4,  317.4,    3.3,  208.5,
  27   42.0,  575.8,  220.8,   12.9,  233.5,     28   42.0,  605.4,  317.4,  -77.8,  251.3,
  29   42.0,  616.6,  404.4, -166.2,  261.6,     30   42.0,  609.1,  479.1, -249.5,  263.9,
  31   42.0,  583.0,  539.3, -325.2,  258.1,     32   42.0,  539.3,  583.0, -391.1,  244.5,
  33   42.0,  479.1,  609.1, -445.1,  223.5,     34   42.0,  404.4,  616.6, -485.5,  195.7,
  35   42.0,  317.4,  605.4, -511.2,  162.0,     36   42.0,  220.8,  575.8, -521.4,  123.3,


 SOURCE ID: STCK2
  IFV    BH      BW      BL     XADJ     YADJ     IFV    BH      BW      BL     XADJ     YADJ
   1   42.0,  317.4,  605.4, -404.1,  105.1,      2   42.0,  404.4,  616.6, -426.4,   85.9,
   3   42.0,  479.1,  609.1, -435.7,   64.1,      4   42.0,  539.3,  583.0, -431.8,   40.3,
   5   42.0,  583.0,  539.3, -414.8,   15.4,      6   42.0,  609.1,  479.1, -385.2,  -10.1,
   7   42.0,  616.6,  404.4, -343.9,  -35.2,      8   42.0,  605.4,  317.4, -292.2,  -59.3,
   9   42.0,  575.8,  220.8, -231.5,  -81.6,     10   42.0,  605.4,  317.4, -263.8, -101.3,
  11   42.0,  616.6,  404.4, -288.1, -118.1,     12   42.0,  609.1,  479.1, -303.7, -131.2,
  13   42.0,  583.0,  539.3, -310.0, -140.3,     14   42.0,  539.3,  583.0, -306.9, -145.2,
  15   42.0,  479.1,  609.1, -294.4, -145.7,     16   42.0,  404.4,  616.6, -273.1, -141.7,
  17   42.0,  317.4,  605.4, -243.4, -133.4,     18   42.0,  220.8,  575.8, -206.3, -121.1,
  19   42.0,  317.4,  605.4, -201.4, -105.1,     20   42.0,  404.4,  616.6, -190.2,  -85.9,
  21   42.0,  479.1,  609.1, -173.3,  -64.1,     22   42.0,  539.3,  583.0, -151.2,  -40.3,
  23   42.0,  583.0,  539.3, -124.4,  -15.4,     24   42.0,  609.1,  479.1,  -93.9,   10.1,
  25   42.0,  616.6,  404.4,  -60.5,   35.2,     26   42.0,  605.4,  317.4,  -25.3,   59.3,
  27   42.0,  575.8,  220.8,   10.7,   81.6,     28   42.0,  605.4,  317.4,  -53.6,  101.3,
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                                                         Residential
   29   42.0,  616.6,  404.4, -116.3,  118.1,     30   42.0,  609.1,  479.1, -175.5,  131.2,
   31   42.0,  583.0,  539.3, -229.3,  140.3,     32   42.0,  539.3,  583.0, -276.1,  145.2,
   33   42.0,  479.1,  609.1, -314.6,  145.7,     34   42.0,  404.4,  616.6, -343.5,  141.7,
   35   42.0,  317.4,  605.4, -362.0,  133.4,     36   42.0,  220.8,  575.8, -369.5,  121.1,


 SOURCE ID: STCK3
  IFV    BH      BW      BL      XADJ    YADJ      IFV    BH      BW      BL      XADJ    YADJ
    1   42.0,  317.4,  605.4, -244.4,  134.0,      2   42.0,  404.4,  616.6, -274.2,  142.1,
    3   42.0,  479.1,  609.1, -295.6,  145.9,      4   42.0,  539.3,  583.0, -308.0,  145.2,
    5   42.0,  583.0,  539.3, -311.1,  140.1,      6   42.0,  609.1,  479.1, -304.8,  130.8,
    7   42.0,  616.6,  404.4, -289.1,  117.5,      8   42.0,  605.4,  317.4, -264.7,  100.6,
    9   42.0,  575.8,  220.8, -232.2,   80.7,     10   42.0,  605.4,  317.4, -292.7,   58.3,
   11   42.0,  616.6,  404.4, -344.3,   34.1,     12   42.0,  609.1,  479.1, -385.4,    8.9,
   13   42.0,  583.0,  539.3, -414.8,  -16.5,     14   42.0,  539.3,  583.0, -431.6,  -41.5,
   15   42.0,  479.1,  609.1, -435.3,  -65.2,     16   42.0,  404.4,  616.6, -425.8,  -86.9,
   17   42.0,  317.4,  605.4, -403.3, -106.0,     18   42.0,  220.8,  575.8, -368.6, -121.8,
   19   42.0,  317.4,  605.4, -361.0, -134.0,     20   42.0,  404.4,  616.6, -342.4, -142.1,
   21   42.0,  479.1,  609.1, -313.5, -145.9,     22   42.0,  539.3,  583.0, -275.0, -145.2,
   23   42.0,  583.0,  539.3, -228.1, -140.1,     24   42.0,  609.1,  479.1, -174.4, -130.8,
   25   42.0,  616.6,  404.4, -115.3, -117.5,     26   42.0,  605.4,  317.4,  -52.7, -100.6,
   27   42.0,  575.8,  220.8,   11.4,  -80.7,     28   42.0,  605.4,  317.4,  -24.7,  -58.3,
   29   42.0,  616.6,  404.4,  -60.1,  -34.1,     30   42.0,  609.1,  479.1,  -93.7,   -8.9,
   31   42.0,  583.0,  539.3, -124.5,   16.5,     32   42.0,  539.3,  583.0, -151.4,   41.5,
   33   42.0,  479.1,  609.1, -173.8,   65.2,     34   42.0,  404.4,  616.6, -190.8,   86.9,
   35   42.0,  317.4,  605.4, -202.1,  106.0,     36   42.0,  220.8,  575.8, -207.2,  121.8,


 SOURCE ID: STCK4
  IFV    BH      BW      BL      XADJ    YADJ      IFV    BH      BW      BL      XADJ    YADJ
    1   42.0,  317.4,  605.4, -101.7,  161.4,      2   42.0,  404.4,  616.6, -138.4,  193.9,
    3   42.0,  479.1,  609.1, -170.9,  220.4,      4   42.0,  539.3,  583.0, -198.2,  240.3,
    5   42.0,  583.0,  539.3, -219.4,  252.8,      6   42.0,  609.1,  479.1, -234.0,  257.7,
    7   42.0,  616.6,  404.4, -241.5,  254.7,      8   42.0,  605.4,  317.4, -241.7,  244.0,
    9   42.0,  575.8,  220.8, -234.5,  225.9,     10   42.0,  605.4,  317.4, -320.1,  201.0,
   11   42.0,  616.6,  404.4, -396.1,  169.9,     12   42.0,  609.1,  479.1, -460.0,  133.6,
   13   42.0,  583.0,  539.3, -509.9,   93.3,     14   42.0,  539.3,  583.0, -544.3,   50.2,
   15   42.0,  479.1,  609.1, -562.2,    5.5,     16   42.0,  404.4,  616.6, -563.0,  -39.3,
   17   42.0,  317.4,  605.4, -546.7,  -82.9,     18   42.0,  220.8,  575.8, -513.8, -124.1,
   19   42.0,  317.4,  605.4, -503.7, -161.4,     20   42.0,  404.4,  616.6, -478.2, -193.9,
   21   42.0,  479.1,  609.1, -438.2, -220.4,     22   42.0,  539.3,  583.0, -384.8, -240.3,
   23   42.0,  583.0,  539.3, -319.8, -252.8,     24   42.0,  609.1,  479.1, -245.1, -257.7,
   25   42.0,  616.6,  404.4, -162.9, -254.7,     26   42.0,  605.4,  317.4,  -75.8, -244.0,
   27   42.0,  575.8,  220.8,   13.7, -225.9,     28   42.0,  605.4,  317.4,    2.7, -201.0,
   29   42.0,  616.6,  404.4,   -8.4, -169.9,     30   42.0,  609.1,  479.1,  -19.2, -133.6,
   31   42.0,  583.0,  539.3,  -29.4,  -93.3,     32   42.0,  539.3,  583.0,  -38.7,  -50.2,
   33   42.0,  479.1,  609.1,  -46.8,   -5.5,     34   42.0,  404.4,  616.6,  -53.6,   39.3,
   35   42.0,  317.4,  605.4,  -58.7,   82.9,     36   42.0,  220.8,  575.8,  -62.0,  124.1,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:32:39

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK5
  IFV    BH      BW      BL      XADJ    YADJ      IFV    BH      BW      BL      XADJ    YADJ
    1   42.0,  317.4,  605.4, -518.7, -157.7,      2   42.0,  404.4,  616.6, -493.6, -192.8,
    3   42.0,  479.1,  609.1, -453.6, -222.1,      4   42.0,  539.3,  583.0, -399.7, -244.6,
    5   42.0,  168.5,  143.7, -182.0,  105.0,      6   42.0,  168.4,  131.7, -191.5,   83.2,
    7   42.0,  163.2,  115.6, -195.3,   59.0,      8   42.0,  153.1,   96.2, -193.4,   32.9,
    9   42.0,  138.3,   97.2, -204.9,    5.9,     10   42.0,  146.7,  119.8, -214.8,  -20.3,
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                                                 Residential
   11    42.0,  152.9,  138.7, -218.2,  -45.6,     12    42.0,  154.5,  153.4, -215.0,  -69.4,
   13    42.0,  151.4,  163.4, -205.2,  -91.1,     14    42.0,  539.3,  583.0,  -31.9,  -64.1,
   15    42.0,  479.1,  609.1,  -37.7,  -18.0,     16    42.0,  404.4,  616.6,  -42.4,   28.6,
   17    42.0,  317.4,  605.4,  -45.8,   74.3,     18    42.0,  220.8,  575.8,  -47.8,  117.8,
   19    42.0,  317.4,  605.4,  -86.7,  157.7,     20    42.0,  404.4,  616.6, -123.0,  192.8,
   21    42.0,  479.1,  609.1, -155.5,  222.1,     22    42.0,  539.3,  583.0, -183.3,  244.6,
   23    42.0,  168.5,  143.7,   38.2, -105.0,     24    42.0,  168.4,  131.7,   59.9,  -83.2,
   25    42.0,  163.2,  115.6,   79.7,  -59.0,     26    42.0,  605.4,  317.4, -233.0,  256.9,
   27    42.0,  575.8,  220.8, -228.2,  240.1,     28    42.0,  605.4,  317.4, -316.4,  216.0,
   29    42.0,  152.9,  138.7,   79.5,   45.6,     30    42.0,  154.5,  153.4,   61.6,   69.4,
   31    42.0,  151.4,  163.4,   41.8,   91.1,     32    42.0,  539.3,  583.0, -551.2,   64.1,
   33    42.0,  479.1,  609.1, -571.4,   18.0,     34    42.0,  404.4,  616.6, -574.2,  -28.6,
   35    42.0,  317.4,  605.4, -559.6,  -74.3,     36    42.0,  220.8,  575.8, -528.0, -117.8,


 SOURCE ID: STCK6
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  317.4,  605.4, -369.4, -125.4,      2    42.0,  404.4,  616.6, -352.2, -135.1,
    3    42.0,  479.1,  609.1, -324.3, -140.7,      4    42.0,  539.3,  583.0, -286.6, -142.0,
    5    42.0,  583.0,  539.3, -240.1, -138.9,      6    42.0,  609.1,  479.1, -186.4, -131.7,
    7    42.0,  616.6,  404.4, -127.0, -120.5,      8    42.0,  605.4,  317.4,  -63.7, -105.6,
    9    42.0,  575.8,  220.8,    1.5,  -87.5,     10    42.0,  605.4,  317.4,  -33.3,  -66.7,
   11    42.0,  152.9,  138.7, -275.9,   95.9,     12    42.0,  154.5,  153.4, -296.4,   59.8,
   13    42.0,  151.4,  163.4, -307.8,   22.0,     14    42.0,  143.7,  168.5, -309.9,  -16.5,
   15    42.0,  131.7,  168.4, -302.6,  -54.5,     16    42.0,  404.4,  616.6, -187.8,   75.2,
   17    42.0,  317.4,  605.4, -197.1,   95.0,     18    42.0,  220.8,  575.8, -200.4,  111.9,
   19    42.0,  317.4,  605.4, -236.0,  125.4,     20    42.0,  404.4,  616.6, -264.4,  135.1,
   21    42.0,  479.1,  609.1, -284.7,  140.7,     22    42.0,  539.3,  583.0, -296.4,  142.0,
   23    42.0,  583.0,  539.3, -299.1,  138.9,     24    42.0,  609.1,  479.1, -292.8,  131.7,
   25    42.0,  616.6,  404.4, -277.5,  120.5,     26    42.0,  605.4,  317.4, -253.7,  105.6,
   27    42.0,  575.8,  220.8, -222.3,   87.5,     28    42.0,  605.4,  317.4, -284.1,   66.7,
   29    42.0,  616.6,  404.4, -337.3,   43.9,     30    42.0,  609.1,  479.1, -380.2,   19.8,
   31    42.0,  583.0,  539.3, -411.6,   -4.9,     32    42.0,  539.3,  583.0, -430.4,  -29.5,
   33    42.0,  479.1,  609.1, -436.2,  -53.2,     34    42.0,  404.4,  616.6, -428.8,  -75.2,
   35    42.0,  317.4,  605.4, -408.3,  -95.0,     36    42.0,  220.8,  575.8, -375.4, -111.9,


 SOURCE ID: STCK7
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  317.4,  605.4, -211.9,  -96.9,      2    42.0,  404.4,  616.6, -202.1,  -79.6,
    3    42.0,  479.1,  609.1, -186.1,  -60.0,      4    42.0,  539.3,  583.0, -164.5,  -38.5,
    5    42.0,  583.0,  539.3, -137.8,  -15.9,      6    42.0,  609.1,  479.1, -107.0,    7.2,
    7    42.0,  616.6,  404.4,  -72.9,   30.2,      8    42.0,  605.4,  317.4,  -36.6,   52.1,
    9    42.0,  575.8,  220.8,    0.8,   72.5,     10    42.0,  605.4,  317.4,  -61.8,   90.8,
   11    42.0,  616.6,  404.4, -122.6,  106.2,     12    42.0,  609.1,  479.1, -179.6,  118.4,
   13    42.0,  583.0,  539.3, -231.1,  127.0,     14    42.0,  539.3,  583.0, -275.6,  131.8,
   15    42.0,  479.1,  609.1, -311.8,  132.6,     16    42.0,  404.4,  616.6, -338.4,  129.3,
   17    42.0,  317.4,  605.4, -354.8,  122.1,     18    42.0,  220.8,  575.8, -360.4,  111.2,
   19    42.0,  317.4,  605.4, -393.4,   96.9,     20    42.0,  404.4,  616.6, -414.5,   79.6,
   21    42.0,  479.1,  609.1, -422.9,   60.0,     22    42.0,  539.3,  583.0, -418.5,   38.5,
   23    42.0,  583.0,  539.3, -401.4,   15.9,     24    42.0,  609.1,  479.1, -372.1,   -7.2,
   25    42.0,  616.6,  404.4, -331.5,  -30.2,     26    42.0,  605.4,  317.4, -280.8,  -52.1,
   27    42.0,  575.8,  220.8, -221.6,  -72.5,     28    42.0,  605.4,  317.4, -255.6,  -90.8,
   29    42.0,  616.6,  404.4, -281.9, -106.2,     30    42.0,  609.1,  479.1, -299.6, -118.4,
   31    42.0,  583.0,  539.3, -308.2, -127.0,     32    42.0,  539.3,  583.0, -307.4, -131.8,
   33    42.0,  479.1,  609.1, -297.3, -132.6,     34    42.0,  404.4,  616.6, -278.1, -129.3,
   35    42.0,  317.4,  605.4, -250.6, -122.1,     36    42.0,  220.8,  575.8, -215.4, -111.2,


 SOURCE ID: STCK8
  IFV    BH      BW      BL     XADJ    YADJ      IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  317.4,  605.4, -141.8,  -83.0,      2    42.0,  404.4,  616.6, -135.4,  -53.8,
    3    42.0,  479.1,  609.1, -124.9,  -23.0,      4    42.0,  539.3,  583.0, -110.6,    8.6,
    5    42.0,  583.0,  539.3,  -93.0,   39.9,      6    42.0,  609.1,  479.1,  -72.5,   69.9,
    7    42.0,  616.6,  404.4,  -49.8,   97.9,      8    42.0,  605.4,  317.4,  -25.7,  122.8,
    9    42.0,  575.8,  220.8,   -0.7,  144.1,     10    42.0,  605.4,  317.4,  -75.7,  160.9,
   11    42.0,  616.6,  404.4, -148.4,  172.9,     12    42.0,  609.1,  479.1, -216.6,  179.6,
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                                                    Residential
   13    42.0,  583.0,  539.3, -278.2,  180.9,     14   42.0,  539.3,  583.0, -331.4,  176.7,
   15    42.0,  479.1,  609.1, -374.5,  167.0,     16   42.0,  404.4,  616.6, -406.2,  152.4,
   17    42.0,  317.4,  605.4, -425.5,  133.1,     18   42.0,  220.8,  575.8, -432.0,  109.7,
   19    42.0,  317.4,  605.4, -463.6,   83.0,     20   42.0,  404.4,  616.6, -481.2,   53.8,
   21    42.0,  479.1,  609.1, -484.2,   23.0,     22   42.0,  539.3,  583.0, -472.4,   -8.6,
   23    42.0,  583.0,  539.3, -446.3,  -39.9,     24   42.0,  609.1,  479.1, -406.6,  -69.9,
   25    42.0,  616.6,  404.4, -354.6,  -97.9,     26   42.0,  605.4,  317.4, -291.8, -122.8,
   27    42.0,  575.8,  220.8, -220.1, -144.1,     28   42.0,  605.4,  317.4, -241.7, -160.9,
   29    42.0,  616.6,  404.4, -256.0, -172.9,     30   42.0,  609.1,  479.1, -262.5, -179.6,
   31    42.0,  583.0,  539.3, -261.1, -180.9,     32   42.0,  539.3,  583.0, -251.7, -176.7,
   33    42.0,  479.1,  609.1, -234.6, -167.0,     34   42.0,  404.4,  616.6, -210.4, -152.4,
   35    42.0,  317.4,  605.4, -179.9, -133.1,     36   42.0,  220.8,  575.8, -143.8, -109.7,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK9
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  317.4,  605.4,   -4.7,   27.3,      2   42.0,  404.4,  616.6,  -19.6,   78.6,
    3    42.0,  479.1,  609.1,  -33.8,  127.5,      4   42.0,  539.3,  583.0,  -47.1,  172.6,
    5    42.0,  583.0,  539.3,  -58.9,  212.4,      6   42.0,  609.1,  479.1,  -68.9,  245.8,
    7    42.0,  616.6,  404.4,  -76.8,  271.7,      8   42.0,  605.4,  317.4,  -82.4,  289.4,
    9    42.0,  575.8,  220.8,  -85.5,  298.2,     10   42.0,  605.4,  317.4, -186.0,  298.0,
   11    42.0,  616.6,  404.4, -280.8,  288.7,     12   42.0,  609.1,  479.1, -367.1,  270.7,
   13    42.0,  583.0,  539.3, -442.2,  244.4,     14   42.0,  539.3,  583.0, -503.9,  210.8,
   15    42.0,  479.1,  609.1, -550.3,  170.7,     16   42.0,  404.4,  616.6, -580.0,  125.4,
   17    42.0,  317.4,  605.4, -592.0,   76.3,     18   42.0,  220.8,  575.8, -586.1,   24.9,
   19    42.0,  317.4,  605.4, -600.7,  -27.3,     20   42.0,  404.4,  616.6, -597.0,  -78.6,
   21    42.0,  479.1,  609.1, -575.2, -127.5,     22   42.0,  539.3,  583.0, -535.9, -172.6,
   23    42.0,  583.0,  539.3, -480.4, -212.4,     24   42.0,  609.1,  479.1, -410.2, -245.8,
   25    42.0,  616.6,  404.4, -327.6, -271.7,     26   42.0,  605.4,  317.4, -235.0, -289.4,
   27    42.0,  575.8,  220.8, -135.3, -298.2,     28   42.0,  605.4,  317.4, -131.5, -298.0,
   29    42.0,  616.6,  404.4, -123.6, -288.7,     30   42.0,  609.1,  479.1, -112.0, -270.7,
   31    42.0,  583.0,  539.3,  -97.0, -244.4,     32   42.0,  539.3,  583.0,  -79.1, -210.8,
   33    42.0,  479.1,  609.1,  -58.7, -170.7,     34   42.0,  404.4,  616.6,  -36.6, -125.4,
   35    42.0,  317.4,  605.4,  -13.4,  -76.3,     36   42.0,  220.8,  575.8,   10.3,  -24.9,


 SOURCE ID: STCK10
  IFV    BH      BW      BL     XADJ    YADJ     IFV    BH      BW      BL     XADJ    YADJ
    1    42.0,  317.4,  605.4,  -24.2,  129.4,      2   42.0,  404.4,  616.6,  -56.5,  175.8,
    3    42.0,  479.1,  609.1,  -87.1,  216.9,      4   42.0,  539.3,  583.0, -115.0,  251.3,
    5    42.0,  583.0,  539.3, -139.5,  278.1,      6   42.0,  609.1,  479.1, -159.7,  296.5,
    7    42.0,  616.6,  404.4, -175.0,  305.9,      8   42.0,  605.4,  317.4, -185.1,  305.9,
    9    42.0,  575.8,  220.8, -189.5,  296.7,     10   42.0,  605.4,  317.4, -288.1,  278.5,
   11    42.0,  616.6,  404.4, -378.0,  251.8,     12   42.0,  609.1,  479.1, -456.4,  217.4,
   13    42.0,  583.0,  539.3, -520.9,  176.5,     14   42.0,  539.3,  583.0, -569.6,  130.2,
   15    42.0,  479.1,  609.1, -601.0,   79.9,     16   42.0,  404.4,  616.6, -614.2,   27.2,
   17    42.0,  317.4,  605.4, -608.6,  -26.4,     18   42.0,  220.8,  575.8, -584.6,  -79.1,
   19    42.0,  317.4,  605.4, -581.2, -129.4,     20   42.0,  404.4,  616.6, -560.1, -175.8,
   21    42.0,  479.1,  609.1, -522.0, -216.9,     22   42.0,  539.3,  583.0, -468.0, -251.3,
   23    42.0,  583.0,  539.3, -399.8, -278.1,     24   42.0,  609.1,  479.1, -319.4, -296.5,
   25    42.0,  616.6,  404.4, -229.4, -305.9,     26   42.0,  605.4,  317.4, -132.4, -305.9,
   27    42.0,  575.8,  220.8,  -31.3, -296.7,     28   42.0,  605.4,  317.4,  -29.3, -278.5,
   29    42.0,  616.6,  404.4,  -26.4, -251.8,     30   42.0,  609.1,  479.1,  -22.7, -217.4,
   31    42.0,  583.0,  539.3,  -18.3, -176.5,     32   42.0,  539.3,  583.0,  -13.4, -130.2,
   33    42.0,  479.1,  609.1,   -8.0,  -79.9,     34   42.0,  404.4,  616.6,   -2.4,  -27.2,
   35    42.0,  317.4,  605.4,    3.2,   26.4,     36   42.0,  220.8,  575.8,    8.8,   79.1,
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                                        Residential

 SOURCE ID: STCK11
  IFV    BH      BW      BL     XADJ     YADJ      IFV    BH      BW      BL     XADJ     YADJ
    1   42.0,  119.8,  146.7,  -75.5,  -44.8,        2   42.0,  138.7,  152.9,  -69.5,  -44.7,
    3   42.0,  153.4,  154.5,  -61.3,  -43.2,        4   42.0,  163.4,  151.4,  -51.3,  -40.4,
    5   42.0,  168.5,  143.7,  -39.7,  -36.4,        6   42.0,  180.1,  157.0, -269.3,   81.0,
    7   42.0,  177.0,  139.2, -271.6,   46.6,        8   42.0,  168.6,  117.3, -265.7,   10.8,
    9   42.0,  155.0,   91.8, -251.7,  -25.3,       10   42.0,  168.6,  117.3, -256.9,  -60.7,
   11   42.0,  177.0,  139.2, -254.3,  -94.2,       12   42.0,  154.5,  153.4,  -33.5,   15.9,
   13   42.0,  151.4,  163.4,  -41.3,   24.4,       14   42.0,  143.7,  168.5,  -47.9,   32.1,
   15   42.0,  131.7,  168.4,  -53.0,   38.9,       16   42.0,  115.6,  163.2,  -56.5,   44.5,
   17   42.0,   96.2,  153.1,  -58.2,   48.6,       18   42.0,   97.2,  138.3,  -58.2,   43.6,
   19   42.0,  119.8,  146.7,  -71.1,   44.8,       20   42.0,  138.7,  152.9,  -83.4,   44.7,
   21   42.0,  153.4,  154.5,  -93.2,   43.2,       22   42.0,  163.4,  151.4, -100.1,   40.4,
   23   42.0,  168.5,  143.7, -104.0,   36.4,       24   42.0,  168.4,  131.7, -104.7,   31.2,
   25   42.0,  163.2,  115.6, -102.3,   25.2,       26   42.0,  153.1,   96.2,  -96.7,   18.3,
   27   42.0,  138.3,   97.2,  -92.2,   10.9,       28   42.0,  146.7,  119.8, -104.7,    2.2,
   29   42.0,  152.9,  138.7, -114.0,   -7.0,       30   42.0,  154.5,  153.4, -119.9,  -15.9,
   31   42.0,  151.4,  163.4, -122.1,  -24.4,       32   42.0,  143.7,  168.5, -120.6,  -32.1,
   33   42.0,  131.7,  168.4, -115.4,  -38.9,       34   42.0,  115.6,  163.2, -106.8,  -44.5,
   35   42.0,   96.2,  153.1,  -94.9,  -48.6,       36   42.0,   97.2,  138.3,  -80.1,  -43.6,


 SOURCE ID: STCK12
  IFV    BH      BW      BL     XADJ     YADJ      IFV    BH      BW      BL     XADJ     YADJ
    1   42.0,   99.5,  128.0,  -71.8,   42.5,        2   42.0,  116.1,  130.4,  -82.9,   41.3,
    3   42.0,  479.1,  609.1,   79.8,  108.5,        4   42.0,  539.3,  583.0,   68.1,  173.6,
    5   42.0,  583.0,  539.3,   54.4,  233.4,        6   42.0,  609.1,  479.1,   39.0,  286.2,
    7   42.0,  140.2,   97.3,  -96.5,   18.9,        8   42.0,  132.2,   89.1,  -90.3,   12.0,
    9   42.0,  123.3,   79.8,  -82.2,    3.1,       10   42.0,  128.0,   99.5,  -92.2,   -7.8,
   11   42.0,  130.4,  116.1,  -99.4,  -17.7,       12   42.0,  128.8,  129.2, -103.6,  -27.1,
   13   42.0,  123.2,  138.4, -104.6,  -35.6,       14   42.0,  114.0,  143.4, -102.4,  -43.0,
   15   42.0,  102.6,  144.0,  -97.2,  -48.5,       16   42.0,   97.3,  140.2,  -89.0,  -47.9,
   17   42.0,  317.4,  605.4, -666.9,  163.9,       18   42.0,  220.8,  575.8, -675.0,   98.2,
   19   42.0,  317.4,  605.4, -701.0,   29.5,       20   42.0,  404.4,  616.6, -705.6,  -40.1,
   21   42.0,  479.1,  609.1, -688.8, -108.5,       22   42.0,  539.3,  583.0, -651.1, -173.6,
   23   42.0,  583.0,  539.3, -593.7, -233.4,       24   42.0,  609.1,  479.1, -518.1, -286.2,
   25   42.0,  140.2,   97.3,   -0.8,  -18.9,       26   42.0,  132.2,   89.1,    1.2,  -12.0,
   27   42.0,  123.3,   79.8,    2.4,   -3.1,       28   42.0,  128.0,   99.5,   -7.3,    7.8,
   29   42.0,  130.4,  116.1,  -16.7,   17.7,       30   42.0,  128.8,  129.2,  -25.7,   27.1,
   31   42.0,  123.2,  138.4,  -33.8,   35.6,       32   42.0,  114.0,  143.4,  -40.9,   43.0,
   33   42.0,  102.6,  144.0,  -46.8,   48.5,       34   42.0,   97.3,  140.2,  -51.2,   47.9,
   35   42.0,  317.4,  605.4,   61.5, -163.9,       36   42.0,   79.8,  123.3,  -58.6,   42.3,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** DIRECTION SPECIFIC BUILDING DIMENSIONS ***


 SOURCE ID: STCK13
  IFV    BH      BW      BL     XADJ     YADJ      IFV    BH      BW      BL     XADJ     YADJ
    1   42.0,  117.3,  168.6,  -99.9,   60.0,        2   42.0,  139.2,  177.0, -114.3,   56.4,
    3   42.0,  157.0,  180.1, -125.2,   51.1,        4   42.0,  169.9,  177.7, -132.4,   44.2,
    5   42.0,  177.7,  169.9, -135.5,   36.0,        6   42.0,  180.1,  157.0, -134.5,   26.7,
    7   42.0,  177.0,  139.2, -129.4,   16.5,        8   42.0,  168.6,  117.3, -120.4,    5.9,
    9   42.0,  155.0,   91.8, -107.7,   -4.9,       10   42.0,  168.6,  117.3, -118.7,  -15.6,
   11   42.0,  177.0,  139.2, -126.1,  -25.8,       12   42.0,  180.1,  157.0, -129.6,  -35.2,
   13   42.0,  177.7,  169.9, -129.2,  -43.5,       14   42.0,  169.9,  177.7, -124.8,  -50.5,
   15   42.0,  157.0,  180.1, -116.7,  -56.0,       16   42.0,  139.2,  177.0, -105.1,  -59.8,
   17   42.0,  117.3,  168.6,  -90.2,  -61.8,       18   42.0,   91.8,  155.0,  -72.6,  -61.8,
   19   42.0,  117.3,  168.6,  -68.7,  -60.0,       20   42.0,  139.2,  177.0,  -62.8,  -56.4,
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                                                 Residential
   21   42.0,  157.0,  180.1,  -54.9,  -51.1,     22   42.0,  169.9,  177.7,  -45.3,  -44.2,
   23   42.0,  177.7,  169.9,  -34.4,  -36.0,     24   42.0,  180.1,  157.0,  -22.5,  -26.7,
   25   42.0,  177.0,  139.2,   -9.8,  -16.5,     26   42.0,  168.6,  117.3,    3.1,   -5.9,
   27   42.0,  155.0,   91.8,   16.0,    4.9,     28   42.0,  168.6,  117.3,    1.4,   15.6,
   29   42.0,  177.0,  139.2,  -13.2,   25.8,     30   42.0,  180.1,  157.0,  -27.4,   35.2,
   31   42.0,  177.7,  169.9,  -40.8,   43.5,     32   42.0,  169.9,  177.7,  -52.9,   50.5,
   33   42.0,  157.0,  180.1,  -63.4,   56.0,     34   42.0,  139.2,  177.0,  -72.0,   59.8,
   35   42.0,  117.3,  168.6,  -78.4,   61.8,     36   42.0,   91.8,  155.0,  -82.4,   61.8,

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                       (METERS)

     ( 477994.2, 3749818.5,     458.0,     467.0,       0.0);         ( 478348.6, 3749820.7,     458.3,     467.0,
     0.0);
     ( 478324.0, 3749446.9,     456.0,     467.0,       0.0);         ( 478321.9, 3749107.7,     454.0,     467.0,
     0.0);
     ( 478311.5, 3748947.3,     453.0,     466.0,       0.0);         ( 478314.5, 3748704.1,     452.0,     465.0,
     0.0);
     ( 478309.7, 3748401.3,     451.0,     464.0,       0.0);         ( 478302.7, 3748248.4,     450.0,     463.0,
     0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                           (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

                       METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007   1  1  1
                                                             AND END DATE: 2007  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                            (METERS/SEC)
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                                                   Residential
                                                1.54,    3.09,    5.14,    8.23,   10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\..\..\..\peri8.sfc                                                         Met Version:
14134
   Profile file:   ..\..\..\..\peri8.pfl
   Surface format: FREE

   Profile format: FREE

   Surface station no.:         0                  Upper air station no.:     3190
                  Name: UNKNOWN                                     Name: UNKNOWN
                  Year:   2007                                      Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 07 01 01   1 01   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  133.     9.1  279.9
 5.5
 07 01 01   1 02   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  192.     9.1  279.2
 5.5
 07 01 01   1 03   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  160.     9.1  277.5
 5.5
 07 01 01   1 04   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50   75.     9.1  277.5
 5.5
 07 01 01   1 05   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50  282.     9.1  278.8
 5.5
 07 01 01   1 06   -0.6  0.026 -9.000 -9.000 -999.   10.      2.6  0.19   1.00   1.00    0.50   96.     9.1  277.5
 5.5
 07 01 01   1 07   -0.5  0.026 -9.000 -9.000 -999.   10.      3.0  0.19   1.00   1.00    0.50  129.     9.1  278.1
 5.5
 07 01 01   1 08   -0.4  0.026 -9.000 -9.000 -999.   10.      3.7  0.19   1.00   0.54    0.50   99.     9.1  277.5
 5.5
 07 01 01   1 09   27.8  0.091  0.542  0.005  196.   66.     -2.3  0.19   1.00   0.33    0.50  133.     9.1  278.1
 5.5
 07 01 01   1 10   76.9  0.104  1.050  0.005  516.   81.     -1.3  0.19   1.00   0.26    0.50  174.     9.1  281.4
 5.5
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19   1.00   0.23    0.50   95.     9.1  284.9
 5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19   1.00   0.22    1.30   94.     9.1  288.1
 5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19   1.00   0.22    2.20   24.     9.1  291.4
 5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19   1.00   0.23    3.60   13.     9.1  292.5
 5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19   1.00   0.27    5.80  318.     9.1  292.0
 5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19   1.00   0.36    5.80  329.     9.1  291.4
 5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19   1.00   0.64    4.50  333.     9.1  289.9
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19   1.00   1.00    3.60  305.     9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19   1.00   1.00    4.50  276.     9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19   1.00   1.00    3.60  323.     9.1  287.5
 5.5
```

```
                                                 Residential
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19   1.00   1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19   1.00   1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19   1.00   1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19   1.00   1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:32:39

   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                  INCLUDING SOURCE(S):     L0010668    , L0010669    , L0010670    , L0010671    ,
L0010672    ,
                 L0010673    , L0010674    , L0010675    , L0010676    , L0010677    , L0010678    , L0010679    ,
L0010680    ,
                 L0010681    , L0010682    , L0010683    , L0010684    , L0008004    , L0008005    , L0008006    ,
L0008007    ,
                 L0008008    , L0008009    , L0008010    , L0008011    , L0008012    , L0008013    , L0008014    ,
. . .      ,

                                                  *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                             ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         477994.17    3749818.50        0.00955                      478348.59    3749820.73        0.00650

         478323.98    3749446.94        0.01004                      478321.90    3749107.70        0.01696

         478311.50    3748947.34        0.02491                      478314.46    3748704.06        0.04608

         478309.66    3748401.33        0.05333                      478302.71    3748248.43        0.05980

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:32:39

   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                    ** CONC OF DPM      IN MICROGRAMS/M**3                          **


NETWORK
GROUP ID                        AVERAGE CONC              RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
```

```
                                                     Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - -

ALL       1ST HIGHEST VALUE IS       0.05980 AT (  478302.71,  3748248.43,   450.00,   463.00,    0.00)  DC

          2ND HIGHEST VALUE IS       0.05333 AT (  478309.66,  3748401.33,   451.00,   464.00,    0.00)  DC

          3RD HIGHEST VALUE IS       0.04608 AT (  478314.46,  3748704.06,   452.00,   465.00,    0.00)  DC

          4TH HIGHEST VALUE IS       0.02491 AT (  478311.50,  3748947.34,   453.00,   466.00,    0.00)  DC

          5TH HIGHEST VALUE IS       0.01696 AT (  478321.90,  3749107.70,   454.00,   467.00,    0.00)  DC

          6TH HIGHEST VALUE IS       0.01004 AT (  478323.98,  3749446.94,   456.00,   467.00,    0.00)  DC

          7TH HIGHEST VALUE IS       0.00955 AT (  477994.17,  3749818.50,   458.00,   467.00,    0.00)  DC

          8TH HIGHEST VALUE IS       0.00650 AT (  478348.59,  3749820.73,   458.30,   467.00,    0.00)  DC

          9TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)
         10TH HIGHEST VALUE IS       0.00000 AT (       0.00,        0.00,     0.00,     0.00,    0.00)

 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA WO Indian St Bridge\Residential\Residen ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:32:39

   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           0 Warning Message(s)
 A Total of         124 Informational Message(s)

 A Total of        8760 Hours Were Processed

 A Total of           0 Calm Hours Identified

 A Total of         124 Missing Hours Identified (  1.42 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
```

```
** Lakes Environmental Software Inc.
** Date: 3/22/2016
** File: C:\Lakes\AERMOD View\MVL\Revised\300 Ft Buffer\HRA W Indian St Bridge\Worker\Worker.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL Worker.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00009027
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0003043     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0003044     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0003045     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0003046     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0003047     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0003048     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0003049     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0003050     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0003051     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0003052     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0003053     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0003054     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0003055     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0003056     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0003057     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0003058     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0003059     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
```

```
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00007702
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ---------------------------------------------------------------------
   LOCATION L0003060     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0003061     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0003062     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0003063     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0003064     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0003065     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0003066     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0003067     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0003068     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0003069     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0003070     VOLUME   477946.460 3748801.113 453.00
   LOCATION L0003071     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0003072     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0003073     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0000406
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0003074     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0003075     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0003076     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0003077     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0003078     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0003079     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0003080     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0003081     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 5.341E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0003082     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0003083     VOLUME   477908.651 3748338.965 451.00
```

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                                                    Residential
   LOCATION L0003084     VOLUME   477917.151 3748338.902 451.00
   LOCATION L0003085     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0003086     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0003087     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0003088     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0003089     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0003090     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0003091     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0003092     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0003093     VOLUME   477968.786 3748294.974 450.00
   LOCATION L0003094     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0003095     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0003096     VOLUME   477977.265 3748271.459 450.00
   LOCATION L0003097     VOLUME   477978.288 3748263.021 450.00
   LOCATION L0003098     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0003099     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0003100     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0003101     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0003102     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00005502
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0003103     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0003104     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0003105     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0003106     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0003107     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0003108     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0003109     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0003110     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0003111     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0003112     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0003113     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0003114     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0003115     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0003116     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0003117     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 4.125E-06
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** ------------------------------------------------------------------------
   LOCATION L0003118     VOLUME   478043.006 3748335.195 451.00
   LOCATION L0003119     VOLUME   478072.999 3748334.546 451.00
   LOCATION L0003120     VOLUME   478102.991 3748333.897 451.00
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                                                    Residential
   LOCATION L0003121     VOLUME   478132.984 3748333.247 451.00
   LOCATION L0003122     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002353
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 457.44, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 454.22, 4.00, 3.95
** ------------------------------------------------------------------------
   LOCATION L0003123     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0003124     VOLUME   477952.164 3748962.919 453.00
   LOCATION L0003125     VOLUME   477952.000 3748954.420 453.00
   LOCATION L0003126     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0003127     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0003128     VOLUME   477948.990 3748929.132 453.00
   LOCATION L0003129     VOLUME   477948.246 3748920.682 453.00
   LOCATION L0003130     VOLUME   477948.087 3748912.183 453.00
   LOCATION L0003131     VOLUME   477947.928 3748903.685 453.00
   LOCATION L0003132     VOLUME   477947.769 3748895.186 453.00
   LOCATION L0003133     VOLUME   477947.610 3748886.688 453.00
   LOCATION L0003134     VOLUME   477947.451 3748878.189 453.00
   LOCATION L0003135     VOLUME   477947.294 3748869.691 453.00
   LOCATION L0003136     VOLUME   477947.225 3748861.191 453.00
   LOCATION L0003137     VOLUME   477947.157 3748852.691 453.00
   LOCATION L0003138     VOLUME   477947.089 3748844.191 453.00
   LOCATION L0003139     VOLUME   477947.020 3748835.692 453.00
   LOCATION L0003140     VOLUME   477946.952 3748827.192 453.00
   LOCATION L0003141     VOLUME   477946.884 3748818.692 453.00
   LOCATION L0003142     VOLUME   477946.815 3748810.192 453.00
   LOCATION L0003143     VOLUME   477946.747 3748801.693 453.00
   LOCATION L0003144     VOLUME   477946.678 3748793.193 453.00
   LOCATION L0003145     VOLUME   477946.610 3748784.693 453.00
   LOCATION L0003146     VOLUME   477946.542 3748776.194 453.00
   LOCATION L0003147     VOLUME   477946.473 3748767.694 453.00
   LOCATION L0003148     VOLUME   477946.405 3748759.194 453.00
   LOCATION L0003149     VOLUME   477946.337 3748750.694 453.00
   LOCATION L0003150     VOLUME   477946.268 3748742.195 453.00
   LOCATION L0003151     VOLUME   477946.200 3748733.695 453.00
   LOCATION L0003152     VOLUME   477946.132 3748725.195 453.00
   LOCATION L0003153     VOLUME   477946.063 3748716.695 453.00
   LOCATION L0003154     VOLUME   477945.995 3748708.196 453.00
   LOCATION L0003155     VOLUME   477945.926 3748699.696 453.00
   LOCATION L0003156     VOLUME   477945.858 3748691.196 452.82
   LOCATION L0003157     VOLUME   477945.790 3748682.697 452.54
   LOCATION L0003158     VOLUME   477945.721 3748674.197 452.25
   LOCATION L0003159     VOLUME   477945.653 3748665.697 452.00
   LOCATION L0003160     VOLUME   477945.585 3748657.197 452.00
   LOCATION L0003161     VOLUME   477945.516 3748648.698 452.00
   LOCATION L0003162     VOLUME   477945.448 3748640.198 452.00
   LOCATION L0003163     VOLUME   477945.380 3748631.698 452.00
   LOCATION L0003164     VOLUME   477945.311 3748623.198 452.00
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                                                 Residential
LOCATION L0003165     VOLUME   477945.243 3748614.699 452.00
LOCATION L0003166     VOLUME   477945.174 3748606.199 452.00
LOCATION L0003167     VOLUME   477945.106 3748597.699 452.00
LOCATION L0003168     VOLUME   477945.038 3748589.200 452.00
LOCATION L0003169     VOLUME   477944.969 3748580.700 452.00
LOCATION L0003170     VOLUME   477944.901 3748572.200 452.00
LOCATION L0003171     VOLUME   477944.833 3748563.700 452.00
LOCATION L0003172     VOLUME   477944.764 3748555.201 452.00
LOCATION L0003173     VOLUME   477944.696 3748546.701 452.00
LOCATION L0003174     VOLUME   477944.628 3748538.201 452.00
LOCATION L0003175     VOLUME   477944.559 3748529.702 452.00
LOCATION L0003176     VOLUME   477944.491 3748521.202 452.00
LOCATION L0003177     VOLUME   477944.422 3748512.702 451.87
LOCATION L0003178     VOLUME   477944.354 3748504.202 451.59
LOCATION L0003179     VOLUME   477944.286 3748495.703 451.30
LOCATION L0003180     VOLUME   477944.727 3748487.329 451.03
LOCATION L0003181     VOLUME   477948.744 3748479.837 451.00
LOCATION L0003182     VOLUME   477952.760 3748472.346 451.00
LOCATION L0003183     VOLUME   477956.776 3748464.855 451.00
LOCATION L0003184     VOLUME   477960.792 3748457.364 451.00
LOCATION L0003185     VOLUME   477964.809 3748449.872 451.00
LOCATION L0003186     VOLUME   477968.825 3748442.381 451.00
LOCATION L0003187     VOLUME   477972.841 3748434.890 451.00
LOCATION L0003188     VOLUME   477976.857 3748427.398 451.00
LOCATION L0003189     VOLUME   477980.874 3748419.907 451.00
LOCATION L0003190     VOLUME   477984.890 3748412.416 451.00
LOCATION L0003191     VOLUME   477988.906 3748404.924 451.00
LOCATION L0003192     VOLUME   477992.922 3748397.433 451.00
LOCATION L0003193     VOLUME   477996.939 3748389.942 451.00
LOCATION L0003194     VOLUME   478000.955 3748382.450 451.00
LOCATION L0003195     VOLUME   478004.971 3748374.959 451.00
LOCATION L0003196     VOLUME   478008.987 3748367.468 451.00
LOCATION L0003197     VOLUME   478013.004 3748359.977 451.00
LOCATION L0003198     VOLUME   478017.122 3748352.545 451.00
LOCATION L0003199     VOLUME   478021.739 3748345.409 451.00
LOCATION L0003200     VOLUME   478026.357 3748338.273 451.00
LOCATION L0003201     VOLUME   478033.820 3748336.434 451.00
LOCATION L0003202     VOLUME   478042.319 3748336.526 451.00
LOCATION L0003203     VOLUME   478050.819 3748336.619 451.00
LOCATION L0003204     VOLUME   478059.318 3748336.711 451.00
LOCATION L0003205     VOLUME   478067.818 3748336.803 451.00
LOCATION L0003206     VOLUME   478076.317 3748336.896 451.00
LOCATION L0003207     VOLUME   478084.817 3748336.988 451.00
LOCATION L0003208     VOLUME   478093.316 3748337.081 451.00
LOCATION L0003209     VOLUME   478101.816 3748337.173 451.00
LOCATION L0003210     VOLUME   478110.315 3748337.265 451.00
LOCATION L0003211     VOLUME   478118.815 3748337.358 451.00
LOCATION L0003212     VOLUME   478127.314 3748337.450 451.00
LOCATION L0003213     VOLUME   478135.814 3748337.543 451.00
LOCATION L0003214     VOLUME   478144.313 3748337.635 451.00
LOCATION L0003215     VOLUME   478152.813 3748337.727 451.00
LOCATION L0003216     VOLUME   478161.312 3748337.820 451.00
LOCATION L0003217     VOLUME   478169.812 3748337.912 451.00
LOCATION L0003218     VOLUME   478178.311 3748338.005 451.00
LOCATION L0003219     VOLUME   478186.811 3748338.097 451.00
LOCATION L0003220     VOLUME   478195.310 3748338.189 451.00
LOCATION L0003221     VOLUME   478203.810 3748338.282 451.00
LOCATION L0003222     VOLUME   478212.309 3748338.374 451.00
LOCATION L0003223     VOLUME   478215.836 3748343.420 451.00
LOCATION L0003224     VOLUME   478215.897 3748351.920 451.00
LOCATION L0003225     VOLUME   478215.957 3748360.420 451.00
LOCATION L0003226     VOLUME   478216.018 3748368.919 451.00
LOCATION L0003227     VOLUME   478216.078 3748377.419 451.00
LOCATION L0003228     VOLUME   478216.139 3748385.919 451.00
LOCATION L0003229     VOLUME   478216.199 3748394.419 451.00
LOCATION L0003230     VOLUME   478216.260 3748402.919 451.00
LOCATION L0003231     VOLUME   478216.320 3748411.418 451.00
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                                                    Residential
    LOCATION L0003232     VOLUME   478216.381 3748419.918 451.00
    LOCATION L0003233     VOLUME   478216.441 3748428.418 451.00
    LOCATION L0003234     VOLUME   478216.502 3748436.918 451.00
    LOCATION L0003235     VOLUME   478216.562 3748445.417 451.00
    LOCATION L0003236     VOLUME   478216.623 3748453.917 451.00
    LOCATION L0003237     VOLUME   478216.683 3748462.417 451.04
    LOCATION L0003238     VOLUME   478216.744 3748470.917 451.11
    LOCATION L0003239     VOLUME   478216.804 3748479.417 451.18
    LOCATION L0003240     VOLUME   478216.865 3748487.916 451.27
    LOCATION L0003241     VOLUME   478216.925 3748496.416 451.49
    LOCATION L0003242     VOLUME   478216.986 3748504.916 451.70
    LOCATION L0003243     VOLUME   478217.046 3748513.416 451.92
    LOCATION L0003244     VOLUME   478217.107 3748521.916 452.00
    LOCATION L0003245     VOLUME   478217.167 3748530.415 452.00
    LOCATION L0003246     VOLUME   478217.228 3748538.915 452.00
    LOCATION L0003247     VOLUME   478217.288 3748547.415 452.00
    LOCATION L0003248     VOLUME   478217.349 3748555.915 452.00
    LOCATION L0003249     VOLUME   478217.409 3748564.414 452.00
    LOCATION L0003250     VOLUME   478217.470 3748572.914 452.00
    LOCATION L0003251     VOLUME   478217.530 3748581.414 452.00
    LOCATION L0003252     VOLUME   478217.591 3748589.914 452.00
    LOCATION L0003253     VOLUME   478217.651 3748598.414 452.00
    LOCATION L0003254     VOLUME   478217.712 3748606.913 452.00
    LOCATION L0003255     VOLUME   478217.772 3748615.413 452.00
    LOCATION L0003256     VOLUME   478217.833 3748623.913 452.00
    LOCATION L0003257     VOLUME   478217.893 3748632.413 452.00
    LOCATION L0003258     VOLUME   478217.954 3748640.913 452.00
    LOCATION L0003259     VOLUME   478218.014 3748649.412 452.00
    LOCATION L0003260     VOLUME   478218.075 3748657.912 452.00
    LOCATION L0003261     VOLUME   478218.135 3748666.412 452.00
    LOCATION L0003262     VOLUME   478218.196 3748674.912 452.00
    LOCATION L0003263     VOLUME   478218.256 3748683.411 452.00
    LOCATION L0003264     VOLUME   478218.317 3748691.911 452.00
    LOCATION L0003265     VOLUME   478218.377 3748700.411 452.00
    LOCATION L0003266     VOLUME   478218.438 3748708.911 452.00
    LOCATION L0003267     VOLUME   478218.498 3748717.411 452.00
    LOCATION L0003268     VOLUME   478218.559 3748725.910 452.00
    LOCATION L0003269     VOLUME   478218.619 3748734.410 452.00
    LOCATION L0003270     VOLUME   478218.680 3748742.910 452.00
    LOCATION L0003271     VOLUME   478218.740 3748751.410 452.00
    LOCATION L0003272     VOLUME   478218.801 3748759.910 452.00
    LOCATION L0003273     VOLUME   478218.861 3748768.409 452.00
    LOCATION L0003274     VOLUME   478218.922 3748776.909 452.00
    LOCATION L0003275     VOLUME   478218.982 3748785.409 452.00
    LOCATION L0003276     VOLUME   478219.043 3748793.909 452.25
    LOCATION L0003277     VOLUME   478219.103 3748802.408 452.53
    LOCATION L0003278     VOLUME   478219.164 3748810.908 452.81
    LOCATION L0003279     VOLUME   478219.224 3748819.408 453.00
    LOCATION L0003280     VOLUME   478219.285 3748827.908 453.00
    LOCATION L0003281     VOLUME   478219.345 3748836.408 453.00
    LOCATION L0003282     VOLUME   478219.406 3748844.907 453.00
    LOCATION L0003283     VOLUME   478219.466 3748853.407 453.00
    LOCATION L0003284     VOLUME   478219.527 3748861.907 453.00
    LOCATION L0003285     VOLUME   478219.587 3748870.407 453.00
    LOCATION L0003286     VOLUME   478219.648 3748878.907 453.00
    LOCATION L0003287     VOLUME   478219.708 3748887.406 453.00
    LOCATION L0003288     VOLUME   478219.769 3748895.906 453.00
    LOCATION L0003289     VOLUME   478219.829 3748904.406 453.00
    LOCATION L0003290     VOLUME   478219.890 3748912.906 453.00
    LOCATION L0003291     VOLUME   478217.524 3748921.053 453.00
    LOCATION L0003292     VOLUME   478215.049 3748929.185 453.00
    LOCATION L0003293     VOLUME   478212.574 3748937.317 453.00
    LOCATION L0003294     VOLUME   478210.099 3748945.448 453.00
    LOCATION L0003295     VOLUME   478207.624 3748953.580 453.00
    LOCATION L0003296     VOLUME   478205.149 3748961.712 453.00
    LOCATION L0003297     VOLUME   478202.674 3748969.844 453.00
 ** End of LINE VOLUME Source ID = SLINE7
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001689
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
** ----------------------------------------------------------------------
   LOCATION L0003298     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0003299     VOLUME   477852.821 3748843.717 453.00
   LOCATION L0003300     VOLUME   477852.867 3748852.216 453.00
   LOCATION L0003301     VOLUME   477852.913 3748860.716 453.00
   LOCATION L0003302     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0003303     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0003304     VOLUME   477853.050 3748886.216 453.00
   LOCATION L0003305     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0003306     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0003307     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0003308     VOLUME   477853.233 3748920.215 453.00
   LOCATION L0003309     VOLUME   477853.279 3748928.715 453.00
   LOCATION L0003310     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0003311     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0003312     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0003313     VOLUME   477853.462 3748962.715 453.00
   LOCATION L0003314     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0003315     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0003316     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0003317     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0003318     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0003319     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0003320     VOLUME   477811.027 3748979.585 454.00
   LOCATION L0003321     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0003322     VOLUME   477794.027 3748979.544 454.00
   LOCATION L0003323     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0003324     VOLUME   477777.027 3748979.503 454.00
   LOCATION L0003325     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0003326     VOLUME   477760.027 3748979.462 454.00
   LOCATION L0003327     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0003328     VOLUME   477743.027 3748979.421 454.00
   LOCATION L0003329     VOLUME   477742.701 3748971.201 454.00
   LOCATION L0003330     VOLUME   477742.653 3748962.701 454.00
   LOCATION L0003331     VOLUME   477742.605 3748954.201 454.00
   LOCATION L0003332     VOLUME   477742.557 3748945.701 454.00
   LOCATION L0003333     VOLUME   477742.509 3748937.201 454.00
   LOCATION L0003334     VOLUME   477742.461 3748928.701 453.89
   LOCATION L0003335     VOLUME   477742.413 3748920.202 453.77
   LOCATION L0003336     VOLUME   477742.365 3748911.702 453.65
   LOCATION L0003337     VOLUME   477742.317 3748903.202 453.58
   LOCATION L0003338     VOLUME   477742.269 3748894.702 453.58
   LOCATION L0003339     VOLUME   477742.221 3748886.202 453.59
   LOCATION L0003340     VOLUME   477744.175 3748877.974 453.52
   LOCATION L0003341     VOLUME   477746.490 3748869.796 453.57
   LOCATION L0003342     VOLUME   477748.806 3748861.617 453.68
   LOCATION L0003343     VOLUME   477751.121 3748853.439 453.84
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                                                 Residential
   LOCATION L0003344     VOLUME   477753.437 3748845.260 453.96
   LOCATION L0003345     VOLUME   477757.469 3748838.153 453.72
   LOCATION L0003346     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0003347     VOLUME   477770.126 3748826.804 453.22
   LOCATION L0003348     VOLUME   477778.583 3748826.536 453.12
   LOCATION L0003349     VOLUME   477787.081 3748826.374 453.03
   LOCATION L0003350     VOLUME   477795.580 3748826.212 453.00
   LOCATION L0003351     VOLUME   477804.079 3748826.127 453.00
   LOCATION L0003352     VOLUME   477812.579 3748826.077 453.00
   LOCATION L0003353     VOLUME   477821.079 3748826.027 453.00
   LOCATION L0003354     VOLUME   477829.579 3748825.977 453.00
   LOCATION L0003355     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0003356     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001105
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0003357     VOLUME   477886.642 3748203.747 450.00
   LOCATION L0003358     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0003359     VOLUME   477886.254 3748220.743 450.12
   LOCATION L0003360     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0003361     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0003362     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0003363     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0003364     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0003365     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0003366     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0003367     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0003368     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0003369     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0003370     VOLUME   477886.154 3748314.230 451.00
   LOCATION L0003371     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0003372     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0003373     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0003374     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0003375     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0003376     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0003377     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0003378     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0003379     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0003380     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0003381     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0003382     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0003383     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0003384     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0003385     VOLUME   477968.225 3748296.673 450.00
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                                                    Residential
   LOCATION L0003386     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0003387     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0003388     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0003389     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0003390     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0003391     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0003392     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0003393     VOLUME   477979.163 3748231.356 450.00
   LOCATION L0003394     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0003395     VOLUME   477982.636 3748216.976 450.00
   LOCATION L0003396     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0003397     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0003398     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0003399     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0003400     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0003401     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0003402     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0003403     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0003404     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0003405     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001925
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0003406     VOLUME   477505.071 3748975.728 454.15
   LOCATION L0003407     VOLUME   477513.569 3748975.562 454.06
   LOCATION L0003408     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0003409     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0003410     VOLUME   477539.064 3748975.067 454.00
   LOCATION L0003411     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0003412     VOLUME   477556.061 3748974.736 454.00
   LOCATION L0003413     VOLUME   477564.559 3748974.571 454.00
   LOCATION L0003414     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0003415     VOLUME   477581.556 3748974.240 454.00
   LOCATION L0003416     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0003417     VOLUME   477598.508 3748973.774 454.00
   LOCATION L0003418     VOLUME   477605.435 3748968.848 454.00
   LOCATION L0003419     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0003420     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0003421     VOLUME   477615.729 3748946.683 454.00
   LOCATION L0003422     VOLUME   477618.035 3748938.501 454.00
   LOCATION L0003423     VOLUME   477619.970 3748930.230 454.00
   LOCATION L0003424     VOLUME   477621.685 3748921.905 454.00
   LOCATION L0003425     VOLUME   477623.401 3748913.580 454.00
   LOCATION L0003426     VOLUME   477625.117 3748905.255 454.00
   LOCATION L0003427     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0003428     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0003429     VOLUME   477626.464 3748879.867 454.00
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   LOCATION L0003431     VOLUME   477626.684 3748862.869 454.00
   LOCATION L0003432     VOLUME   477626.794 3748854.369 454.00
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                                                       Residential
   LOCATION L0003433     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0003434     VOLUME   477627.014 3748837.371 454.00
   LOCATION L0003435     VOLUME   477627.124 3748828.871 454.00
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   LOCATION L0003437     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0003438     VOLUME   477627.455 3748803.374 454.00
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   LOCATION L0003440     VOLUME   477618.479 3748795.702 454.00
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   LOCATION L0003444     VOLUME   477584.491 3748796.624 454.00
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** End of LINE VOLUME Source ID = SLINE10
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 50% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00009909
** Vertical Dimension = 4.00
** SZINIT = 1.86
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   LOCATION L0003473     VOLUME   478111.041 3748985.957 453.00
   LOCATION L0003474     VOLUME   478102.541 3748986.038 453.00
   LOCATION L0003475     VOLUME   478094.042 3748986.120 453.00
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   LOCATION L0003477     VOLUME   478077.042 3748986.282 453.00
   LOCATION L0003478     VOLUME   478068.543 3748986.364 453.00
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   LOCATION L0003481     VOLUME   478043.044 3748986.608 453.00
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LOCATION L0003483     VOLUME   478026.045 3748986.770 453.00
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LOCATION L0003485     VOLUME   478009.046 3748986.933 453.00
LOCATION L0003486     VOLUME   478000.546 3748987.014 453.00
LOCATION L0003487     VOLUME   477992.046 3748987.096 453.00
LOCATION L0003488     VOLUME   477983.547 3748987.177 453.00
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LOCATION L0003490     VOLUME   477966.547 3748987.340 453.00
LOCATION L0003491     VOLUME   477958.048 3748987.421 453.00
LOCATION L0003492     VOLUME   477949.548 3748987.502 453.00
LOCATION L0003493     VOLUME   477941.049 3748987.584 453.00
LOCATION L0003494     VOLUME   477932.549 3748987.665 453.17
LOCATION L0003495     VOLUME   477924.049 3748987.746 453.37
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LOCATION L0003501     VOLUME   477881.917 3748997.015 454.00
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LOCATION L0003503     VOLUME   477881.917 3749014.015 454.00
LOCATION L0003504     VOLUME   477881.917 3749022.515 454.00
LOCATION L0003505     VOLUME   477881.917 3749031.015 454.00
LOCATION L0003506     VOLUME   477881.917 3749039.515 454.00
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LOCATION L0003508     VOLUME   477881.917 3749056.515 454.00
LOCATION L0003509     VOLUME   477881.917 3749065.015 454.00
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LOCATION L0003511     VOLUME   477881.917 3749082.015 454.00
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LOCATION L0003515     VOLUME   477881.917 3749116.015 454.00
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LOCATION L0003518     VOLUME   477881.917 3749141.515 454.00
LOCATION L0003519     VOLUME   477881.917 3749150.015 454.00
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LOCATION L0003574     VOLUME   477503.894 3749244.521 455.00
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LOCATION L0003581     VOLUME   477476.500 3749277.414 455.00
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LOCATION L0003585     VOLUME   477476.049 3749311.411 455.23
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LOCATION L0003598     VOLUME   477474.586 3749421.901 456.00
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LOCATION L0003601     VOLUME   477474.248 3749447.399 456.00
LOCATION L0003602     VOLUME   477474.136 3749455.898 456.00
LOCATION L0003603     VOLUME   477474.023 3749464.397 456.00
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LOCATION L0003605     VOLUME   477473.798 3749481.396 456.16
LOCATION L0003606     VOLUME   477473.685 3749489.895 456.44
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LOCATION L0003608     VOLUME   477473.460 3749506.893 457.00
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LOCATION L0003610     VOLUME   477473.235 3749523.892 457.00
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LOCATION L0003612     VOLUME   477473.010 3749540.890 457.00
LOCATION L0003613     VOLUME   477472.897 3749549.390 457.00
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   LOCATION L0003617     VOLUME   477472.447 3749583.387 457.00
   LOCATION L0003618     VOLUME   477472.335 3749591.886 457.00
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   LOCATION L0003621     VOLUME   477471.997 3749617.384 457.00
   LOCATION L0003622     VOLUME   477471.884 3749625.883 457.00
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   LOCATION L0003632     VOLUME   477470.759 3749710.876 457.00
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   LOCATION L0003634     VOLUME   477470.533 3749727.874 457.00
   LOCATION L0003635     VOLUME   477470.421 3749736.373 457.00
   LOCATION L0003636     VOLUME   477470.308 3749744.873 457.00
   LOCATION L0003637     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0003638     VOLUME   477470.083 3749761.871 457.51
   LOCATION L0003639     VOLUME   477469.971 3749770.370 457.79
   LOCATION L0003640     VOLUME   477469.858 3749778.870 458.00
   LOCATION L0003641     VOLUME   477469.745 3749787.369 458.00
** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003161
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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   LOCATION L0005363     VOLUME   477850.856 3748181.941 450.00
   LOCATION L0005364     VOLUME   477842.356 3748182.009 450.22
   LOCATION L0005365     VOLUME   477833.856 3748182.077 450.46
   LOCATION L0005366     VOLUME   477825.356 3748182.144 450.71
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   LOCATION L0005376     VOLUME   477740.359 3748182.820 451.00
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LOCATION L0005384     VOLUME   477672.361 3748183.360 451.00
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LOCATION L0005388     VOLUME   477638.362 3748183.631 451.00
LOCATION L0005389     VOLUME   477629.863 3748183.698 451.00
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LOCATION L0005397     VOLUME   477561.865 3748184.239 451.00
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LOCATION L0005403     VOLUME   477510.866 3748184.644 451.00
LOCATION L0005404     VOLUME   477502.367 3748184.712 451.00
LOCATION L0005405     VOLUME   477493.867 3748184.779 451.00
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LOCATION L0005408     VOLUME   477471.122 3748182.143 451.00
LOCATION L0005409     VOLUME   477470.934 3748173.645 451.00
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LOCATION L0005412     VOLUME   477470.368 3748148.151 451.00
LOCATION L0005413     VOLUME   477470.180 3748139.653 451.00
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LOCATION L0005426     VOLUME   477467.729 3748029.181 451.00
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LOCATION L0005432     VOLUME   477466.598 3747978.193 451.00
LOCATION L0005433     VOLUME   477466.409 3747969.695 451.00
LOCATION L0005434     VOLUME   477466.221 3747961.197 451.00
LOCATION L0005435     VOLUME   477466.032 3747952.699 451.00
LOCATION L0005436     VOLUME   477465.844 3747944.202 451.00
LOCATION L0005437     VOLUME   477465.655 3747935.704 451.00
LOCATION L0005438     VOLUME   477465.467 3747927.206 451.00
LOCATION L0005439     VOLUME   477465.278 3747918.708 451.00
LOCATION L0005440     VOLUME   477465.090 3747910.210 451.00
LOCATION L0005441     VOLUME   477464.901 3747901.712 451.00
LOCATION L0005442     VOLUME   477464.713 3747893.214 451.00
LOCATION L0005443     VOLUME   477464.524 3747884.716 451.00
LOCATION L0005444     VOLUME   477464.336 3747876.218 451.00
LOCATION L0005445     VOLUME   477464.147 3747867.720 451.00
LOCATION L0005446     VOLUME   477463.959 3747859.222 451.00
LOCATION L0005447     VOLUME   477463.770 3747850.725 451.00
LOCATION L0005448     VOLUME   477463.582 3747842.227 451.00
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                                                 Residential
   LOCATION L0005449     VOLUME   477463.393 3747833.729 451.00
   LOCATION L0005450     VOLUME   477463.204 3747825.231 451.00
   LOCATION L0005451     VOLUME   477463.016 3747816.733 451.00
   LOCATION L0005452     VOLUME   477462.827 3747808.235 451.00
   LOCATION L0005453     VOLUME   477462.639 3747799.737 451.00
   LOCATION L0005454     VOLUME   477462.450 3747791.239 451.00
   LOCATION L0005455     VOLUME   477462.262 3747782.741 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
   LOCATION STCK7        POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8        POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9        POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10       POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11       POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12       POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13       POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** ---------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 20% South on Indian
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002107
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478279.139, 3748325.068, 454.06, 4.00, 3.95
** 478288.327, 3747768.514, 450.42, 4.00, 3.95
** ---------------------------------------------------------------------
   LOCATION L0003741     VOLUME   478279.209 3748320.818 450.00
   LOCATION L0003742     VOLUME   478279.349 3748312.319 450.00
   LOCATION L0003743     VOLUME   478279.490 3748303.820 450.00
   LOCATION L0003744     VOLUME   478279.630 3748295.322 450.00
   LOCATION L0003745     VOLUME   478279.770 3748286.823 450.00
   LOCATION L0003746     VOLUME   478279.911 3748278.324 450.00
   LOCATION L0003747     VOLUME   478280.051 3748269.825 450.00
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                                                Residential
    LOCATION L0003748     VOLUME   478280.191 3748261.326 450.00
    LOCATION L0003749     VOLUME   478280.332 3748252.827 450.00
    LOCATION L0003750     VOLUME   478280.472 3748244.329 450.00
    LOCATION L0003751     VOLUME   478280.612 3748235.830 450.00
    LOCATION L0003752     VOLUME   478280.752 3748227.331 450.00
    LOCATION L0003753     VOLUME   478280.893 3748218.832 450.00
    LOCATION L0003754     VOLUME   478281.033 3748210.333 450.00
    LOCATION L0003755     VOLUME   478281.173 3748201.834 450.00
    LOCATION L0003756     VOLUME   478281.314 3748193.335 450.00
    LOCATION L0003757     VOLUME   478281.454 3748184.837 450.00
    LOCATION L0003758     VOLUME   478281.594 3748176.338 450.00
    LOCATION L0003759     VOLUME   478281.735 3748167.839 450.00
    LOCATION L0003760     VOLUME   478281.875 3748159.340 450.00
    LOCATION L0003761     VOLUME   478282.015 3748150.841 449.82
    LOCATION L0003762     VOLUME   478282.155 3748142.342 449.54
    LOCATION L0003763     VOLUME   478282.296 3748133.844 449.25
    LOCATION L0003764     VOLUME   478282.436 3748125.345 449.00
    LOCATION L0003765     VOLUME   478282.576 3748116.846 449.00
    LOCATION L0003766     VOLUME   478282.717 3748108.347 449.00
    LOCATION L0003767     VOLUME   478282.857 3748099.848 449.00
    LOCATION L0003768     VOLUME   478282.997 3748091.349 449.00
    LOCATION L0003769     VOLUME   478283.138 3748082.851 449.00
    LOCATION L0003770     VOLUME   478283.278 3748074.352 449.00
    LOCATION L0003771     VOLUME   478283.418 3748065.853 449.00
    LOCATION L0003772     VOLUME   478283.558 3748057.354 449.00
    LOCATION L0003773     VOLUME   478283.699 3748048.855 449.00
    LOCATION L0003774     VOLUME   478283.839 3748040.356 449.00
    LOCATION L0003775     VOLUME   478283.979 3748031.857 449.00
    LOCATION L0003776     VOLUME   478284.120 3748023.359 449.00
    LOCATION L0003777     VOLUME   478284.260 3748014.860 449.00
    LOCATION L0003778     VOLUME   478284.400 3748006.361 449.00
    LOCATION L0003779     VOLUME   478284.541 3747997.862 449.00
    LOCATION L0003780     VOLUME   478284.681 3747989.363 449.00
    LOCATION L0003781     VOLUME   478284.821 3747980.864 449.00
    LOCATION L0003782     VOLUME   478284.962 3747972.366 449.00
    LOCATION L0003783     VOLUME   478285.102 3747963.867 449.00
    LOCATION L0003784     VOLUME   478285.242 3747955.368 449.00
    LOCATION L0003785     VOLUME   478285.382 3747946.869 449.00
    LOCATION L0003786     VOLUME   478285.523 3747938.370 449.00
    LOCATION L0003787     VOLUME   478285.663 3747929.871 449.00
    LOCATION L0003788     VOLUME   478285.803 3747921.373 449.00
    LOCATION L0003789     VOLUME   478285.944 3747912.874 449.00
    LOCATION L0003790     VOLUME   478286.084 3747904.375 449.00
    LOCATION L0003791     VOLUME   478286.224 3747895.876 449.00
    LOCATION L0003792     VOLUME   478286.365 3747887.377 449.00
    LOCATION L0003793     VOLUME   478286.505 3747878.878 449.00
    LOCATION L0003794     VOLUME   478286.645 3747870.379 449.00
    LOCATION L0003795     VOLUME   478286.785 3747861.881 449.00
    LOCATION L0003796     VOLUME   478286.926 3747853.382 449.00
    LOCATION L0003797     VOLUME   478287.066 3747844.883 449.00
    LOCATION L0003798     VOLUME   478287.206 3747836.384 449.00
    LOCATION L0003799     VOLUME   478287.347 3747827.885 449.00
    LOCATION L0003800     VOLUME   478287.487 3747819.386 449.00
    LOCATION L0003801     VOLUME   478287.627 3747810.888 449.00
    LOCATION L0003802     VOLUME   478287.768 3747802.389 449.00
    LOCATION L0003803     VOLUME   478287.908 3747793.890 449.00
    LOCATION L0003804     VOLUME   478288.048 3747785.391 449.00
    LOCATION L0003805     VOLUME   478288.188 3747776.892 449.00
** End of LINE VOLUME Source ID = SLINE13
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 40% North on Heacock to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002948
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** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477480.626, 3749795.973, 459.75, 4.00, 3.95
** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0005456     VOLUME   477480.558 3749800.222 458.00
   LOCATION L0005457     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0005458     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0005459     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0005460     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0005461     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0005462     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0005463     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0005464     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0005465     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0005466     VOLUME   477479.199 3749885.212 458.00
   LOCATION L0005467     VOLUME   477479.063 3749893.711 458.00
   LOCATION L0005468     VOLUME   477478.927 3749902.209 458.00
   LOCATION L0005469     VOLUME   477478.791 3749910.708 458.00
   LOCATION L0005470     VOLUME   477478.655 3749919.207 458.00
   LOCATION L0005471     VOLUME   477478.519 3749927.706 458.00
   LOCATION L0005472     VOLUME   477478.383 3749936.205 458.00
   LOCATION L0005473     VOLUME   477478.247 3749944.704 458.00
   LOCATION L0005474     VOLUME   477478.111 3749953.203 458.00
   LOCATION L0005475     VOLUME   477477.975 3749961.702 458.17
   LOCATION L0005476     VOLUME   477477.840 3749970.201 458.45
   LOCATION L0005477     VOLUME   477477.704 3749978.700 458.74
   LOCATION L0005478     VOLUME   477477.568 3749987.199 459.00
   LOCATION L0005479     VOLUME   477477.432 3749995.697 459.00
   LOCATION L0005480     VOLUME   477477.296 3750004.196 459.00
   LOCATION L0005481     VOLUME   477477.160 3750012.695 459.00
   LOCATION L0005482     VOLUME   477477.024 3750021.194 459.00
   LOCATION L0005483     VOLUME   477476.888 3750029.693 459.00
   LOCATION L0005484     VOLUME   477476.752 3750038.192 459.00
   LOCATION L0005485     VOLUME   477476.616 3750046.691 459.00
   LOCATION L0005486     VOLUME   477476.480 3750055.190 459.00
   LOCATION L0005487     VOLUME   477476.344 3750063.689 459.00
   LOCATION L0005488     VOLUME   477476.208 3750072.188 459.00
   LOCATION L0005489     VOLUME   477476.072 3750080.687 459.00
   LOCATION L0005490     VOLUME   477475.937 3750089.186 459.00
   LOCATION L0005491     VOLUME   477475.801 3750097.684 459.00
   LOCATION L0005492     VOLUME   477475.665 3750106.183 459.00
   LOCATION L0005493     VOLUME   477475.529 3750114.682 459.00
   LOCATION L0005494     VOLUME   477475.393 3750123.181 459.00
   LOCATION L0005495     VOLUME   477475.257 3750131.680 459.00
   LOCATION L0005496     VOLUME   477475.121 3750140.179 459.00
   LOCATION L0005497     VOLUME   477474.985 3750148.678 459.00
   LOCATION L0005498     VOLUME   477474.849 3750157.177 459.00
   LOCATION L0005499     VOLUME   477474.713 3750165.676 459.00
   LOCATION L0005500     VOLUME   477474.171 3750174.155 459.00
   LOCATION L0005501     VOLUME   477473.482 3750182.627 459.00
   LOCATION L0005502     VOLUME   477472.792 3750191.099 459.00
   LOCATION L0005503     VOLUME   477472.102 3750199.571 459.04
   LOCATION L0005504     VOLUME   477471.413 3750208.043 459.15
   LOCATION L0005505     VOLUME   477470.723 3750216.515 459.24
   LOCATION L0005506     VOLUME   477470.034 3750224.987 459.32
   LOCATION L0005507     VOLUME   477469.344 3750233.459 459.48
   LOCATION L0005508     VOLUME   477468.654 3750241.931 459.66
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                                                      Residential
LOCATION L0005509     VOLUME   477467.965 3750250.403 459.85
LOCATION L0005510     VOLUME   477467.275 3750258.875 460.00
LOCATION L0005511     VOLUME   477466.586 3750267.347 460.00
LOCATION L0005512     VOLUME   477466.456 3750275.840 460.00
LOCATION L0005513     VOLUME   477466.492 3750284.340 460.00
LOCATION L0005514     VOLUME   477466.529 3750292.840 460.00
LOCATION L0005515     VOLUME   477466.565 3750301.340 460.00
LOCATION L0005516     VOLUME   477466.601 3750309.840 460.00
LOCATION L0005517     VOLUME   477466.638 3750318.340 460.00
LOCATION L0005518     VOLUME   477466.674 3750326.840 460.00
LOCATION L0005519     VOLUME   477466.710 3750335.340 460.00
LOCATION L0005520     VOLUME   477466.747 3750343.840 460.00
LOCATION L0005521     VOLUME   477466.783 3750352.340 460.00
LOCATION L0005522     VOLUME   477466.819 3750360.839 460.00
LOCATION L0005523     VOLUME   477466.855 3750369.339 460.00
LOCATION L0005524     VOLUME   477466.892 3750377.839 460.00
LOCATION L0005525     VOLUME   477466.928 3750386.339 460.00
LOCATION L0005526     VOLUME   477466.964 3750394.839 460.00
LOCATION L0005527     VOLUME   477467.001 3750403.339 460.00
LOCATION L0005528     VOLUME   477467.037 3750411.839 460.00
LOCATION L0005529     VOLUME   477467.073 3750420.339 460.00
LOCATION L0005530     VOLUME   477467.110 3750428.839 460.00
LOCATION L0005531     VOLUME   477467.146 3750437.339 460.00
LOCATION L0005532     VOLUME   477467.182 3750445.839 460.00
LOCATION L0005533     VOLUME   477467.219 3750454.339 460.00
LOCATION L0005534     VOLUME   477467.255 3750462.838 460.00
LOCATION L0005535     VOLUME   477467.291 3750471.338 460.16
LOCATION L0005536     VOLUME   477467.328 3750479.838 460.44
LOCATION L0005537     VOLUME   477467.364 3750488.338 460.73
LOCATION L0005538     VOLUME   477467.400 3750496.838 461.00
LOCATION L0005539     VOLUME   477467.436 3750505.338 461.00
LOCATION L0005540     VOLUME   477467.473 3750513.838 461.00
LOCATION L0005541     VOLUME   477467.509 3750522.338 461.00
LOCATION L0005542     VOLUME   477467.545 3750530.838 461.00
LOCATION L0005543     VOLUME   477467.582 3750539.338 461.00
LOCATION L0005544     VOLUME   477467.689 3750547.837 461.00
LOCATION L0005545     VOLUME   477467.939 3750556.333 461.00
LOCATION L0005546     VOLUME   477468.188 3750564.829 461.00
LOCATION L0005547     VOLUME   477468.438 3750573.326 461.00
LOCATION L0005548     VOLUME   477468.688 3750581.822 461.00
LOCATION L0005549     VOLUME   477468.938 3750590.318 461.00
LOCATION L0005550     VOLUME   477469.188 3750598.814 461.00
LOCATION L0005551     VOLUME   477469.438 3750607.311 461.00
LOCATION L0005552     VOLUME   477469.688 3750615.807 461.00
LOCATION L0005553     VOLUME   477469.938 3750624.303 461.00
LOCATION L0005554     VOLUME   477470.188 3750632.800 461.00
LOCATION L0005555     VOLUME   477470.437 3750641.296 461.00
LOCATION L0005556     VOLUME   477470.687 3750649.792 461.04
LOCATION L0005557     VOLUME   477470.937 3750658.289 461.15
LOCATION L0005558     VOLUME   477471.187 3750666.785 461.26
LOCATION L0005559     VOLUME   477471.437 3750675.281 461.37
LOCATION L0005560     VOLUME   477471.687 3750683.778 461.54
LOCATION L0005561     VOLUME   477471.937 3750692.274 461.72
LOCATION L0005562     VOLUME   477472.187 3750700.770 461.89
LOCATION L0005563     VOLUME   477472.437 3750709.267 462.00
LOCATION L0005564     VOLUME   477472.686 3750717.763 462.00
LOCATION L0005565     VOLUME   477472.936 3750726.259 462.00
LOCATION L0005566     VOLUME   477473.186 3750734.756 462.00
LOCATION L0005567     VOLUME   477473.436 3750743.252 462.00
LOCATION L0005568     VOLUME   477473.686 3750751.748 462.00
LOCATION L0005569     VOLUME   477473.936 3750760.245 462.00
LOCATION L0005570     VOLUME   477474.186 3750768.741 462.00
LOCATION L0005571     VOLUME   477474.436 3750777.237 462.00
LOCATION L0005572     VOLUME   477474.686 3750785.734 462.00
LOCATION L0005573     VOLUME   477474.935 3750794.230 462.00
LOCATION L0005574     VOLUME   477475.185 3750802.726 462.00
LOCATION L0005575     VOLUME   477475.435 3750811.223 462.00
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                                                  Residential
LOCATION L0005576     VOLUME   477475.685 3750819.719 462.00
LOCATION L0005577     VOLUME   477475.935 3750828.215 462.00
LOCATION L0005578     VOLUME   477476.185 3750836.712 462.00
LOCATION L0005579     VOLUME   477476.435 3750845.208 462.00
LOCATION L0005580     VOLUME   477476.685 3750853.704 462.00
LOCATION L0005581     VOLUME   477476.935 3750862.201 462.11
LOCATION L0005582     VOLUME   477477.066 3750870.699 462.27
LOCATION L0005583     VOLUME   477477.120 3750879.199 462.44
LOCATION L0005584     VOLUME   477477.174 3750887.699 462.60
LOCATION L0005585     VOLUME   477477.228 3750896.199 462.72
LOCATION L0005586     VOLUME   477477.282 3750904.698 462.84
LOCATION L0005587     VOLUME   477477.337 3750913.198 462.95
LOCATION L0005588     VOLUME   477477.391 3750921.698 463.00
LOCATION L0005589     VOLUME   477477.445 3750930.198 463.00
LOCATION L0005590     VOLUME   477477.499 3750938.698 463.00
LOCATION L0005591     VOLUME   477477.553 3750947.197 463.00
LOCATION L0005592     VOLUME   477477.607 3750955.697 463.00
LOCATION L0005593     VOLUME   477477.661 3750964.197 463.00
LOCATION L0005594     VOLUME   477477.716 3750972.697 463.00
LOCATION L0005595     VOLUME   477477.770 3750981.197 463.00
LOCATION L0005596     VOLUME   477477.824 3750989.697 463.00
LOCATION L0005597     VOLUME   477477.878 3750998.196 463.00
LOCATION L0005598     VOLUME   477477.932 3751006.696 463.00
LOCATION L0005599     VOLUME   477477.986 3751015.196 463.00
LOCATION L0005600     VOLUME   477478.040 3751023.696 463.00
LOCATION L0005601     VOLUME   477478.095 3751032.196 463.00
LOCATION L0005602     VOLUME   477478.149 3751040.696 463.00
LOCATION L0005603     VOLUME   477478.203 3751049.195 463.00
LOCATION L0005604     VOLUME   477478.257 3751057.695 463.00
LOCATION L0005605     VOLUME   477478.311 3751066.195 463.00
LOCATION L0005606     VOLUME   477478.365 3751074.695 463.17
LOCATION L0005607     VOLUME   477478.419 3751083.195 463.34
LOCATION L0005608     VOLUME   477478.474 3751091.695 463.52
LOCATION L0005609     VOLUME   477478.528 3751100.194 463.67
LOCATION L0005610     VOLUME   477478.582 3751108.694 463.78
LOCATION L0005611     VOLUME   477478.636 3751117.194 463.88
LOCATION L0005612     VOLUME   477478.690 3751125.694 463.99
LOCATION L0005613     VOLUME   477478.744 3751134.194 464.00
LOCATION L0005614     VOLUME   477478.798 3751142.694 464.00
LOCATION L0005615     VOLUME   477478.853 3751151.193 464.00
LOCATION L0005616     VOLUME   477478.907 3751159.693 464.00
LOCATION L0005617     VOLUME   477478.961 3751168.193 464.00
LOCATION L0005618     VOLUME   477479.015 3751176.693 464.00
LOCATION L0005619     VOLUME   477479.069 3751185.193 464.00
LOCATION L0005620     VOLUME   477479.123 3751193.692 464.00
LOCATION L0005621     VOLUME   477479.177 3751202.192 464.00
LOCATION L0005622     VOLUME   477479.232 3751210.692 464.00
LOCATION L0005623     VOLUME   477479.286 3751219.192 464.00
LOCATION L0005624     VOLUME   477479.340 3751227.692 464.00
LOCATION L0005625     VOLUME   477479.386 3751236.192 464.00
LOCATION L0005626     VOLUME   477479.327 3751244.691 464.00
LOCATION L0005627     VOLUME   477479.269 3751253.191 464.22
LOCATION L0005628     VOLUME   477479.211 3751261.691 464.50
LOCATION L0005629     VOLUME   477479.152 3751270.191 464.79
LOCATION L0005630     VOLUME   477479.094 3751278.691 465.00
LOCATION L0005631     VOLUME   477479.035 3751287.190 465.00
LOCATION L0005632     VOLUME   477478.977 3751295.690 465.00
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LOCATION L0005956     VOLUME   475649.049 3752228.269 477.20
LOCATION L0005957     VOLUME   475640.549 3752228.279 477.17
LOCATION L0005958     VOLUME   475632.049 3752228.289 477.15
LOCATION L0005959     VOLUME   475623.549 3752228.299 477.12
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LOCATION L0005972     VOLUME   475513.049 3752228.429 477.00
LOCATION L0005973     VOLUME   475504.549 3752228.439 477.00
LOCATION L0005974     VOLUME   475496.049 3752228.448 477.00
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LOCATION L0005977     VOLUME   475470.549 3752228.478 477.00
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LOCATION L0005980     VOLUME   475445.049 3752228.508 477.00
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LOCATION L0005983     VOLUME   475419.549 3752228.538 476.94
LOCATION L0005984     VOLUME   475411.049 3752228.548 476.86
LOCATION L0005985     VOLUME   475402.549 3752228.558 476.77
LOCATION L0005986     VOLUME   475394.049 3752228.568 476.68
LOCATION L0005987     VOLUME   475385.549 3752228.578 476.60
LOCATION L0005988     VOLUME   475377.049 3752228.588 476.51
LOCATION L0005989     VOLUME   475368.549 3752228.598 476.42
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LOCATION L0005991     VOLUME   475351.549 3752228.618 476.25
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LOCATION L0005993     VOLUME   475334.549 3752228.638 476.17
LOCATION L0005994     VOLUME   475326.049 3752228.648 476.15
LOCATION L0005995     VOLUME   475317.549 3752228.658 476.13
LOCATION L0005996     VOLUME   475309.049 3752228.668 476.10
LOCATION L0005997     VOLUME   475300.549 3752228.678 476.08
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LOCATION L0006007     VOLUME   475215.549 3752228.777 476.00
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LOCATION L0006037     VOLUME   474960.549 3752229.076 475.00
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LOCATION L0006048     VOLUME   474867.050 3752229.186 474.76
LOCATION L0006049     VOLUME   474858.550 3752229.196 474.65
LOCATION L0006050     VOLUME   474850.050 3752229.206 474.54
LOCATION L0006051     VOLUME   474841.550 3752229.216 474.43
LOCATION L0006052     VOLUME   474833.050 3752229.226 474.32
LOCATION L0006053     VOLUME   474824.550 3752229.236 474.21
LOCATION L0006054     VOLUME   474816.050 3752229.246 474.10
LOCATION L0006055     VOLUME   474807.550 3752229.256 474.02
LOCATION L0006056     VOLUME   474799.143 3752228.014 474.12
LOCATION L0006057     VOLUME   474790.738 3752226.744 474.23
LOCATION L0006058     VOLUME   474782.334 3752225.473 474.34
LOCATION L0006059     VOLUME   474773.930 3752224.202 474.45
LOCATION L0006060     VOLUME   474765.525 3752222.931 474.56
LOCATION L0006061     VOLUME   474757.121 3752221.660 474.67
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LOCATION L0006063     VOLUME   474740.312 3752219.118 474.89
LOCATION L0006064     VOLUME   474731.907 3752217.847 475.00
LOCATION L0006065     VOLUME   474723.503 3752216.576 475.00
LOCATION L0006066     VOLUME   474715.098 3752215.305 475.00
LOCATION L0006067     VOLUME   474706.694 3752214.034 475.00
LOCATION L0006068     VOLUME   474698.290 3752212.763 475.00
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LOCATION L0006080     VOLUME   474597.436 3752197.512 475.00
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LOCATION L0006107     VOLUME   474370.516 3752163.198 476.69
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   LOCATION L0006126     VOLUME   474210.831 3752139.050 477.00
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   LOCATION L0006128     VOLUME   474194.023 3752136.508 477.00
   LOCATION L0006129     VOLUME   474185.618 3752135.237 477.08
   LOCATION L0006130     VOLUME   474177.214 3752133.966 477.19
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   LOCATION L0006132     VOLUME   474160.420 3752131.328 477.41
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   LOCATION L0006135     VOLUME   474135.267 3752127.136 477.74
   LOCATION L0006136     VOLUME   474126.883 3752125.738 477.85
   LOCATION L0006137     VOLUME   474118.498 3752124.341 477.96
   LOCATION L0006138     VOLUME   474110.114 3752122.944 478.00
   LOCATION L0006139     VOLUME   474101.730 3752121.546 478.00
   LOCATION L0006140     VOLUME   474093.345 3752120.149 478.00
   LOCATION L0006141     VOLUME   474084.961 3752118.751 478.00
   LOCATION L0006142     VOLUME   474076.577 3752117.354 478.00
   LOCATION L0006143     VOLUME   474068.192 3752115.956 478.00
   LOCATION L0006144     VOLUME   474059.808 3752114.559 478.00
   LOCATION L0006145     VOLUME   474051.424 3752113.162 478.00
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** End of LINE VOLUME Source ID = SLINE14
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00003048
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477474.677, 3750167.941, 460.51, 0.00, 3.95
** 477466.428, 3750269.283, 460.78, 0.00, 3.95
** 477467.606, 3750545.027, 461.83, 0.00, 3.95
** 477477.033, 3750865.549, 462.00, 0.00, 3.95
** 477479.390, 3751235.564, 464.00, 0.00, 3.95
** 477472.585, 3752226.131, 471.76, 0.00, 3.95
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   LOCATION L0006151     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0006152     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0006153     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0006154     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0006155     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0006156     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0006157     VOLUME   477479.199 3749885.212 458.00
   LOCATION L0006158     VOLUME   477479.063 3749893.711 458.00
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LOCATION L0006160     VOLUME   477478.791 3749910.708 458.00
LOCATION L0006161     VOLUME   477478.655 3749919.207 458.00
LOCATION L0006162     VOLUME   477478.519 3749927.706 458.00
LOCATION L0006163     VOLUME   477478.383 3749936.205 458.00
LOCATION L0006164     VOLUME   477478.247 3749944.704 458.00
LOCATION L0006165     VOLUME   477478.111 3749953.203 458.00
LOCATION L0006166     VOLUME   477477.975 3749961.702 458.17
LOCATION L0006167     VOLUME   477477.840 3749970.201 458.45
LOCATION L0006168     VOLUME   477477.704 3749978.700 458.74
LOCATION L0006169     VOLUME   477477.568 3749987.199 459.00
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LOCATION L0006171     VOLUME   477477.296 3750004.196 459.00
LOCATION L0006172     VOLUME   477477.160 3750012.695 459.00
LOCATION L0006173     VOLUME   477477.024 3750021.194 459.00
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LOCATION L0006181     VOLUME   477475.937 3750089.186 459.00
LOCATION L0006182     VOLUME   477475.801 3750097.684 459.00
LOCATION L0006183     VOLUME   477475.665 3750106.183 459.00
LOCATION L0006184     VOLUME   477475.529 3750114.682 459.00
LOCATION L0006185     VOLUME   477475.393 3750123.181 459.00
LOCATION L0006186     VOLUME   477475.257 3750131.680 459.00
LOCATION L0006187     VOLUME   477475.121 3750140.179 459.00
LOCATION L0006188     VOLUME   477474.985 3750148.678 459.00
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LOCATION L0006190     VOLUME   477474.713 3750165.676 459.00
LOCATION L0006191     VOLUME   477474.171 3750174.155 459.00
LOCATION L0006192     VOLUME   477473.482 3750182.627 459.00
LOCATION L0006193     VOLUME   477472.792 3750191.099 459.00
LOCATION L0006194     VOLUME   477472.102 3750199.571 459.04
LOCATION L0006195     VOLUME   477471.413 3750208.043 459.15
LOCATION L0006196     VOLUME   477470.723 3750216.515 459.24
LOCATION L0006197     VOLUME   477470.034 3750224.987 459.32
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LOCATION L0006225     VOLUME   477467.255 3750462.838 460.00
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LOCATION L0006255     VOLUME   477472.686 3750717.763 462.00
LOCATION L0006256     VOLUME   477472.936 3750726.259 462.00
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LOCATION L0006264     VOLUME   477474.935 3750794.230 462.00
LOCATION L0006265     VOLUME   477475.185 3750802.726 462.00
LOCATION L0006266     VOLUME   477475.435 3750811.223 462.00
LOCATION L0006267     VOLUME   477475.685 3750819.719 462.00
LOCATION L0006268     VOLUME   477475.935 3750828.215 462.00
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LOCATION L0006271     VOLUME   477476.685 3750853.704 462.00
LOCATION L0006272     VOLUME   477476.935 3750862.201 462.11
LOCATION L0006273     VOLUME   477477.066 3750870.699 462.27
LOCATION L0006274     VOLUME   477477.120 3750879.199 462.44
LOCATION L0006275     VOLUME   477477.174 3750887.699 462.60
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LOCATION L0006277     VOLUME   477477.282 3750904.698 462.84
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LOCATION L0006279     VOLUME   477477.391 3750921.698 463.00
LOCATION L0006280     VOLUME   477477.445 3750930.198 463.00
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LOCATION L0006282     VOLUME   477477.553 3750947.197 463.00
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LOCATION L0006284     VOLUME   477477.661 3750964.197 463.00
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LOCATION L0006287     VOLUME   477477.824 3750989.697 463.00
LOCATION L0006288     VOLUME   477477.878 3750998.196 463.00
LOCATION L0006289     VOLUME   477477.932 3751006.696 463.00
LOCATION L0006290     VOLUME   477477.986 3751015.196 463.00
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LOCATION L0006292     VOLUME   477478.095 3751032.196 463.00
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                                                 Residential
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LOCATION L0006332     VOLUME   477478.451 3751372.188 465.00
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LOCATION L0006358     VOLUME   477476.933 3751593.183 466.00
LOCATION L0006359     VOLUME   477476.875 3751601.683 466.00
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LOCATION L0006361     VOLUME   477476.758 3751618.683 466.23
LOCATION L0006362     VOLUME   477476.700 3751627.182 466.39
LOCATION L0006363     VOLUME   477476.641 3751635.682 466.55
LOCATION L0006364     VOLUME   477476.583 3751644.182 466.67
LOCATION L0006365     VOLUME   477476.524 3751652.682 466.80
LOCATION L0006366     VOLUME   477476.466 3751661.182 466.92
LOCATION L0006367     VOLUME   477476.408 3751669.681 467.00
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LOCATION L0006374     VOLUME   477475.999 3751729.180 467.05
LOCATION L0006375     VOLUME   477475.941 3751737.680 467.20
LOCATION L0006376     VOLUME   477475.882 3751746.180 467.35
LOCATION L0006377     VOLUME   477475.824 3751754.679 467.50
LOCATION L0006378     VOLUME   477475.765 3751763.179 467.64
LOCATION L0006379     VOLUME   477475.707 3751771.679 467.77
LOCATION L0006380     VOLUME   477475.649 3751780.179 467.90
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LOCATION L0006393     VOLUME   477474.890 3751890.676 468.47
LOCATION L0006394     VOLUME   477474.831 3751899.176 468.75
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LOCATION L0006399     VOLUME   477474.539 3751941.675 469.00
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LOCATION L0006410     VOLUME   477473.897 3752035.173 469.14
LOCATION L0006411     VOLUME   477473.838 3752043.673 469.27
LOCATION L0006412     VOLUME   477473.780 3752052.172 469.40
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LOCATION L0006417     VOLUME   477473.488 3752094.671 469.60
LOCATION L0006418     VOLUME   477473.430 3752103.171 469.76
LOCATION L0006419     VOLUME   477473.371 3752111.671 469.91
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LOCATION L0006421     VOLUME   477473.255 3752128.671 470.18
LOCATION L0006422     VOLUME   477473.196 3752137.170 470.31
LOCATION L0006423     VOLUME   477473.138 3752145.670 470.43
LOCATION L0006424     VOLUME   477473.079 3752154.170 470.58
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LOCATION L0006426     VOLUME   477472.963 3752171.170 470.90
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   LOCATION L0006428     VOLUME   477472.846 3752188.169 471.00
   LOCATION L0006429     VOLUME   477472.787 3752196.669 471.00
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   LOCATION L0006431     VOLUME   477472.671 3752213.669 471.24
   LOCATION L0006432     VOLUME   477472.612 3752222.168 471.52
** End of LINE VOLUME Source ID = SLINE15
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SRC00001
** DESCRSRC Off-Site Travel 50% on Indian to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0003058
** Vertical Dimension = 4.00
** SZINIT = 1.86
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LOCATION L0006880     VOLUME   476785.240 3746552.212 462.16
LOCATION L0006881     VOLUME   476776.742 3746552.160 462.27
LOCATION L0006882     VOLUME   476768.244 3746551.940 462.38
LOCATION L0006883     VOLUME   476759.747 3746551.720 462.49
LOCATION L0006884     VOLUME   476751.250 3746551.500 462.60
LOCATION L0006885     VOLUME   476742.753 3746551.281 462.71
LOCATION L0006886     VOLUME   476734.256 3746551.061 462.83
LOCATION L0006887     VOLUME   476725.759 3746550.841 462.94
LOCATION L0006888     VOLUME   476717.261 3746550.621 463.05
LOCATION L0006889     VOLUME   476708.764 3746550.402 463.16
LOCATION L0006890     VOLUME   476700.267 3746550.182 463.27
LOCATION L0006891     VOLUME   476691.770 3746549.962 463.38
LOCATION L0006892     VOLUME   476683.273 3746549.742 463.49
LOCATION L0006893     VOLUME   476674.776 3746549.522 463.60
LOCATION L0006894     VOLUME   476666.278 3746549.303 463.71
LOCATION L0006895     VOLUME   476657.781 3746549.083 463.82
LOCATION L0006896     VOLUME   476649.485 3746550.211 463.92
LOCATION L0006897     VOLUME   476641.421 3746552.899 464.00
LOCATION L0006898     VOLUME   476633.357 3746555.587 464.00
LOCATION L0006899     VOLUME   476625.294 3746558.274 464.00
LOCATION L0006900     VOLUME   476617.230 3746560.962 464.00
LOCATION L0006901     VOLUME   476609.166 3746563.650 464.00
LOCATION L0006902     VOLUME   476601.371 3746566.912 464.00
LOCATION L0006903     VOLUME   476594.149 3746571.395 464.00
LOCATION L0006904     VOLUME   476586.927 3746575.877 464.00
LOCATION L0006905     VOLUME   476579.705 3746580.360 464.00
LOCATION L0006906     VOLUME   476572.484 3746584.842 464.00
LOCATION L0006907     VOLUME   476565.262 3746589.325 464.02
LOCATION L0006908     VOLUME   476558.040 3746593.808 464.11
LOCATION L0006909     VOLUME   476550.818 3746598.290 464.21
LOCATION L0006910     VOLUME   476543.596 3746602.773 464.30
LOCATION L0006911     VOLUME   476537.940 3746608.712 464.37
LOCATION L0006912     VOLUME   476533.994 3746616.240 464.43
LOCATION L0006913     VOLUME   476530.047 3746623.768 464.48
LOCATION L0006914     VOLUME   476526.101 3746631.297 464.53
LOCATION L0006915     VOLUME   476522.155 3746638.825 464.58
LOCATION L0006916     VOLUME   476518.208 3746646.354 464.63
LOCATION L0006917     VOLUME   476514.262 3746653.882 464.68
LOCATION L0006918     VOLUME   476510.316 3746661.410 464.73
LOCATION L0006919     VOLUME   476506.369 3746668.939 464.79
LOCATION L0006920     VOLUME   476502.423 3746676.467 464.84
LOCATION L0006921     VOLUME   476498.477 3746683.995 464.89
LOCATION L0006922     VOLUME   476494.530 3746691.524 464.94
LOCATION L0006923     VOLUME   476490.584 3746699.052 464.99
LOCATION L0006924     VOLUME   476486.638 3746706.581 465.08
LOCATION L0006925     VOLUME   476482.691 3746714.109 465.19
LOCATION L0006926     VOLUME   476478.745 3746721.637 465.29
LOCATION L0006927     VOLUME   476474.799 3746729.166 465.39
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                                                    Residential
LOCATION L0006928     VOLUME   476470.852 3746736.694 465.50
LOCATION L0006929     VOLUME   476467.785 3746744.518 465.58
LOCATION L0006930     VOLUME   476466.388 3746752.902 465.61
LOCATION L0006931     VOLUME   476464.990 3746761.286 465.65
LOCATION L0006932     VOLUME   476463.593 3746769.671 465.69
LOCATION L0006933     VOLUME   476462.196 3746778.055 465.72
LOCATION L0006934     VOLUME   476460.798 3746786.439 465.76
LOCATION L0006935     VOLUME   476459.401 3746794.824 465.80
LOCATION L0006936     VOLUME   476457.348 3746802.986 465.85
LOCATION L0006937     VOLUME   476453.371 3746810.499 465.95
LOCATION L0006938     VOLUME   476449.394 3746818.011 466.06
LOCATION L0006939     VOLUME   476445.417 3746825.523 466.16
LOCATION L0006940     VOLUME   476441.440 3746833.035 466.27
LOCATION L0006941     VOLUME   476437.463 3746840.547 466.37
LOCATION L0006942     VOLUME   476433.485 3746848.060 466.47
LOCATION L0006943     VOLUME   476429.508 3746855.572 466.58
LOCATION L0006944     VOLUME   476425.531 3746863.084 466.68
LOCATION L0006945     VOLUME   476421.554 3746870.596 466.78
LOCATION L0006946     VOLUME   476417.577 3746878.108 466.89
LOCATION L0006947     VOLUME   476413.600 3746885.621 466.99
LOCATION L0006948     VOLUME   476409.623 3746893.133 467.05
LOCATION L0006949     VOLUME   476403.232 3746898.494 467.13
LOCATION L0006950     VOLUME   476396.228 3746903.310 467.22
LOCATION L0006951     VOLUME   476389.223 3746908.125 467.31
LOCATION L0006952     VOLUME   476382.219 3746912.941 467.40
LOCATION L0006953     VOLUME   476375.214 3746917.756 467.49
LOCATION L0006954     VOLUME   476368.210 3746922.572 467.59
LOCATION L0006955     VOLUME   476361.206 3746927.387 467.68
LOCATION L0006956     VOLUME   476354.201 3746932.203 467.77
LOCATION L0006957     VOLUME   476347.197 3746937.018 467.86
LOCATION L0006958     VOLUME   476340.193 3746941.833 467.95
LOCATION L0006959     VOLUME   476332.114 3746943.710 468.05
LOCATION L0006960     VOLUME   476323.655 3746944.544 468.16
LOCATION L0006961     VOLUME   476315.196 3746945.378 468.27
LOCATION L0006962     VOLUME   476306.737 3746946.212 468.38
LOCATION L0006963     VOLUME   476298.278 3746947.046 468.49
LOCATION L0006964     VOLUME   476289.819 3746947.880 468.60
LOCATION L0006965     VOLUME   476281.360 3746948.714 468.71
LOCATION L0006966     VOLUME   476272.901 3746949.548 468.82
LOCATION L0006967     VOLUME   476264.442 3746950.382 468.93
LOCATION L0006968     VOLUME   476255.963 3746950.773 469.04
LOCATION L0006969     VOLUME   476247.463 3746950.716 469.15
LOCATION L0006970     VOLUME   476238.964 3746950.659 469.26
LOCATION L0006971     VOLUME   476230.464 3746950.603 469.37
LOCATION L0006972     VOLUME   476221.964 3746950.546 469.48
LOCATION L0006973     VOLUME   476213.464 3746950.489 469.59
LOCATION L0006974     VOLUME   476204.964 3746950.433 469.70
LOCATION L0006975     VOLUME   476196.464 3746950.376 469.81
LOCATION L0006976     VOLUME   476187.965 3746950.319 469.92
LOCATION L0006977     VOLUME   476179.465 3746950.263 470.04
LOCATION L0006978     VOLUME   476170.965 3746950.206 470.15
LOCATION L0006979     VOLUME   476162.465 3746950.149 470.26
LOCATION L0006980     VOLUME   476153.965 3746950.093 470.37
LOCATION L0006981     VOLUME   476145.466 3746950.036 470.48
LOCATION L0006982     VOLUME   476136.966 3746949.979 470.59
LOCATION L0006983     VOLUME   476128.466 3746949.923 470.70
LOCATION L0006984     VOLUME   476119.966 3746949.866 470.81
LOCATION L0006985     VOLUME   476111.466 3746949.809 470.92
LOCATION L0006986     VOLUME   476102.967 3746949.753 471.03
LOCATION L0006987     VOLUME   476094.467 3746949.696 471.14
LOCATION L0006988     VOLUME   476085.967 3746949.639 471.25
LOCATION L0006989     VOLUME   476077.467 3746949.583 471.36
LOCATION L0006990     VOLUME   476068.967 3746949.526 471.47
LOCATION L0006991     VOLUME   476060.468 3746949.469 471.58
LOCATION L0006992     VOLUME   476051.968 3746949.413 471.69
LOCATION L0006993     VOLUME   476043.468 3746949.356 471.80
LOCATION L0006994     VOLUME   476034.968 3746949.299 471.91
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                                                    Residential
   LOCATION L0006995     VOLUME   476026.468 3746949.243 472.02
   LOCATION L0006996     VOLUME   476017.968 3746949.186 472.13
   LOCATION L0006997     VOLUME   476009.469 3746949.129 472.24
   LOCATION L0006998     VOLUME   476000.969 3746949.073 472.35
   LOCATION L0006999     VOLUME   475992.469 3746949.016 472.46
   LOCATION L0007000     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0007001     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0007002     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0007003     VOLUME   475958.470 3746948.789 472.90
   LOCATION L0007004     VOLUME   475949.970 3746948.733 472.96
   LOCATION L0007005     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0007006     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SRC00001
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0003043     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003044     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003045     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003046     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003047     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003048     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003049     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003050     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003051     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003052     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003053     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003054     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003055     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003056     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003057     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003058     0.00000531      4.00     13.95      1.86
   SRCPARAM L0003059     0.00000531      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0003060     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003061     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003062     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003063     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003064     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003065     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003066     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003067     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003068     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003069     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003070     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003071     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003072     0.000005501      4.00     13.95      1.86
   SRCPARAM L0003073     0.000005501      4.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0003074     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003075     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003076     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003077     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003078     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003079     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003080     0.000005075      4.00      3.95      1.86
   SRCPARAM L0003081     0.000005075      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0003082     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003083     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003084     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003085     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003086     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003087     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003088     0.0000002543      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0003089     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003090     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003091     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003092     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003093     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003094     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003095     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003096     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003097     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003098     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003099     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003100     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003101     0.0000002543      4.00      3.95      1.86
   SRCPARAM L0003102     0.0000002543      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0003103     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003104     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003105     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003106     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003107     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003108     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003109     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003110     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003111     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003112     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003113     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003114     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003115     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003116     0.000003668      0.00      3.95      1.86
   SRCPARAM L0003117     0.000003668      0.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0003118     0.000000825      0.00     13.95      1.86
   SRCPARAM L0003119     0.000000825      0.00     13.95      1.86
   SRCPARAM L0003120     0.000000825      0.00     13.95      1.86
   SRCPARAM L0003121     0.000000825      0.00     13.95      1.86
   SRCPARAM L0003122     0.000000825      0.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0003123     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003124     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003125     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003126     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003127     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003128     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003129     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003130     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003131     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003132     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003133     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003134     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003135     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003136     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003137     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003138     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003139     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003140     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003141     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003142     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003143     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003144     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003145     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003146     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003147     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003148     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003149     0.000001345      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0003150     0.000001345      4.00      3.95      1.86
SRCPARAM L0003151     0.000001345      4.00      3.95      1.86
SRCPARAM L0003152     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003166     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003170     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003172     0.000001345      4.00      3.95      1.86
SRCPARAM L0003173     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003175     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003177     0.000001345      4.00      3.95      1.86
SRCPARAM L0003178     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003186     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003200     0.000001345      4.00      3.95      1.86
SRCPARAM L0003201     0.000001345      4.00      3.95      1.86
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SRCPARAM L0003209     0.000001345      4.00      3.95      1.86
SRCPARAM L0003210     0.000001345      4.00      3.95      1.86
SRCPARAM L0003211     0.000001345      4.00      3.95      1.86
SRCPARAM L0003212     0.000001345      4.00      3.95      1.86
SRCPARAM L0003213     0.000001345      4.00      3.95      1.86
SRCPARAM L0003214     0.000001345      4.00      3.95      1.86
SRCPARAM L0003215     0.000001345      4.00      3.95      1.86
SRCPARAM L0003216     0.000001345      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0003217     0.000001345      4.00      3.95      1.86
SRCPARAM L0003218     0.000001345      4.00      3.95      1.86
SRCPARAM L0003219     0.000001345      4.00      3.95      1.86
SRCPARAM L0003220     0.000001345      4.00      3.95      1.86
SRCPARAM L0003221     0.000001345      4.00      3.95      1.86
SRCPARAM L0003222     0.000001345      4.00      3.95      1.86
SRCPARAM L0003223     0.000001345      4.00      3.95      1.86
SRCPARAM L0003224     0.000001345      4.00      3.95      1.86
SRCPARAM L0003225     0.000001345      4.00      3.95      1.86
SRCPARAM L0003226     0.000001345      4.00      3.95      1.86
SRCPARAM L0003227     0.000001345      4.00      3.95      1.86
SRCPARAM L0003228     0.000001345      4.00      3.95      1.86
SRCPARAM L0003229     0.000001345      4.00      3.95      1.86
SRCPARAM L0003230     0.000001345      4.00      3.95      1.86
SRCPARAM L0003231     0.000001345      4.00      3.95      1.86
SRCPARAM L0003232     0.000001345      4.00      3.95      1.86
SRCPARAM L0003233     0.000001345      4.00      3.95      1.86
SRCPARAM L0003234     0.000001345      4.00      3.95      1.86
SRCPARAM L0003235     0.000001345      4.00      3.95      1.86
SRCPARAM L0003236     0.000001345      4.00      3.95      1.86
SRCPARAM L0003237     0.000001345      4.00      3.95      1.86
SRCPARAM L0003238     0.000001345      4.00      3.95      1.86
SRCPARAM L0003239     0.000001345      4.00      3.95      1.86
SRCPARAM L0003240     0.000001345      4.00      3.95      1.86
SRCPARAM L0003241     0.000001345      4.00      3.95      1.86
SRCPARAM L0003242     0.000001345      4.00      3.95      1.86
SRCPARAM L0003243     0.000001345      4.00      3.95      1.86
SRCPARAM L0003244     0.000001345      4.00      3.95      1.86
SRCPARAM L0003245     0.000001345      4.00      3.95      1.86
SRCPARAM L0003246     0.000001345      4.00      3.95      1.86
SRCPARAM L0003247     0.000001345      4.00      3.95      1.86
SRCPARAM L0003248     0.000001345      4.00      3.95      1.86
SRCPARAM L0003249     0.000001345      4.00      3.95      1.86
SRCPARAM L0003250     0.000001345      4.00      3.95      1.86
SRCPARAM L0003251     0.000001345      4.00      3.95      1.86
SRCPARAM L0003252     0.000001345      4.00      3.95      1.86
SRCPARAM L0003253     0.000001345      4.00      3.95      1.86
SRCPARAM L0003254     0.000001345      4.00      3.95      1.86
SRCPARAM L0003255     0.000001345      4.00      3.95      1.86
SRCPARAM L0003256     0.000001345      4.00      3.95      1.86
SRCPARAM L0003257     0.000001345      4.00      3.95      1.86
SRCPARAM L0003258     0.000001345      4.00      3.95      1.86
SRCPARAM L0003259     0.000001345      4.00      3.95      1.86
SRCPARAM L0003260     0.000001345      4.00      3.95      1.86
SRCPARAM L0003261     0.000001345      4.00      3.95      1.86
SRCPARAM L0003262     0.000001345      4.00      3.95      1.86
SRCPARAM L0003263     0.000001345      4.00      3.95      1.86
SRCPARAM L0003264     0.000001345      4.00      3.95      1.86
SRCPARAM L0003265     0.000001345      4.00      3.95      1.86
SRCPARAM L0003266     0.000001345      4.00      3.95      1.86
SRCPARAM L0003267     0.000001345      4.00      3.95      1.86
SRCPARAM L0003268     0.000001345      4.00      3.95      1.86
SRCPARAM L0003269     0.000001345      4.00      3.95      1.86
SRCPARAM L0003270     0.000001345      4.00      3.95      1.86
SRCPARAM L0003271     0.000001345      4.00      3.95      1.86
SRCPARAM L0003272     0.000001345      4.00      3.95      1.86
SRCPARAM L0003273     0.000001345      4.00      3.95      1.86
SRCPARAM L0003274     0.000001345      4.00      3.95      1.86
SRCPARAM L0003275     0.000001345      4.00      3.95      1.86
SRCPARAM L0003276     0.000001345      4.00      3.95      1.86
SRCPARAM L0003277     0.000001345      4.00      3.95      1.86
SRCPARAM L0003278     0.000001345      4.00      3.95      1.86
SRCPARAM L0003279     0.000001345      4.00      3.95      1.86
SRCPARAM L0003280     0.000001345      4.00      3.95      1.86
SRCPARAM L0003281     0.000001345      4.00      3.95      1.86
SRCPARAM L0003282     0.000001345      4.00      3.95      1.86
SRCPARAM L0003283     0.000001345      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0003284     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003285     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003286     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003287     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003288     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003289     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003290     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003291     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003292     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003293     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003294     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003295     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003296     0.000001345      4.00      3.95      1.86
   SRCPARAM L0003297     0.000001345      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0003298     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003299     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003300     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003301     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003302     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003303     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003304     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003305     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003306     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003307     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003308     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003309     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003310     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003311     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003312     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003313     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003314     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003315     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003316     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003317     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003318     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003319     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003320     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003321     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003322     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003323     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003324     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003325     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003326     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003327     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003328     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003329     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003330     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003331     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003332     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003333     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003334     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003335     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003336     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003337     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003338     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003339     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003340     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003341     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003342     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003343     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003344     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003345     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003346     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003347     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003348     0.0000002863      4.00      3.95      1.86
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   SRCPARAM L0003349     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003350     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003351     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003352     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003353     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003354     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003355     0.0000002863      4.00      3.95      1.86
   SRCPARAM L0003356     0.0000002863      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0003357     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003358     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003359     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003360     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003361     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003362     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003363     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003364     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003365     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003366     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003367     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003368     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003369     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003370     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003371     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003372     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003373     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003374     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003375     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003376     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003377     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003378     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003379     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003380     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003381     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003382     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003383     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003384     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003385     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003386     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003387     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003388     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003389     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003390     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003391     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003392     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003393     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003394     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003395     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003396     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003397     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003398     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003399     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003400     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003401     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003402     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003403     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003404     0.0000002255      4.00      3.95      1.86
   SRCPARAM L0003405     0.0000002255      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0003406     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003407     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003408     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003409     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003410     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003411     0.000000385      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0003412     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003413     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003414     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003415     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003416     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003417     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003418     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003419     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003420     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003421     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003422     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003423     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003424     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003425     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003426     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003427     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003428     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003429     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003430     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003431     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003432     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003433     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003434     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003435     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003436     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003437     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003438     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003439     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003440     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003441     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003442     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003443     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003444     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003445     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003446     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003447     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003448     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003449     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003450     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003451     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003452     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003453     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003454     0.000000385      4.00      3.95      1.86
   SRCPARAM L0003455     0.000000385      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0003456     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003457     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003458     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003459     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003460     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003461     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003462     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003463     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003464     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003465     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003466     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003467     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003468     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003469     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003470     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003471     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003472     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003473     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003474     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003475     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003476     0.0000005327      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0003477     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003478     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003479     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003480     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003481     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003482     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003483     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003484     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003485     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003486     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003487     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003488     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003489     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003490     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003491     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003492     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003493     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003494     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003495     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003496     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003497     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003498     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003499     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003500     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003501     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003502     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003503     0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003510     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003511     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003512     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003513     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003514     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003515     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003516     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003517     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003518     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003519     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003520     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003521     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003522     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003523     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003524     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003525     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003526     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003527     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003528     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003529     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003530     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003531     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003532     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003533     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003534     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003535     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003536     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003537     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003538     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003539     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003540     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003541     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003542     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003543     0.0000005327      4.00      3.95      1.86
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                                                   Residential
SRCPARAM L0003544     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003545     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003546     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003547     0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003549     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003550     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003551     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003552     0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003559     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003560     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003561     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003562     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003563     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003564     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003565     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003566     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003567     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003568     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003569     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003570     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003571     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003572     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003573     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003574     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003575     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003576     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003577     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003578     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003579     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003580     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003581     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003582     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003583     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003584     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003585     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003586     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003587     0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003590     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003591     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003592     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003593     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003594     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003595     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003596     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003597     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003598     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003599     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003600     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003601     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003602     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003603     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003604     0.0000005327      4.00      3.95      1.86
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SRCPARAM L0003607     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003608     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003609     0.0000005327      4.00      3.95      1.86
SRCPARAM L0003610     0.0000005327      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0003611     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003612     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003613     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003614     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003615     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003616     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003617     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003618     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003619     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003620     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003621     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003622     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003623     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003624     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003625     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003626     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003627     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003628     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003629     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003630     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003631     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003632     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003633     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003634     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003635     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003636     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003637     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003638     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003639     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003640     0.0000005327      4.00      3.95      1.86
   SRCPARAM L0003641     0.0000005327      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE12
   SRCPARAM L0005357     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005358     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005359     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005360     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005361     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005362     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005363     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005364     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005365     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005366     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005367     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005368     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005369     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005370     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005371     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005372     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005373     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005374     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005375     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005376     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005377     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005378     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005379     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005380     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005381     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005382     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005383     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005384     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005385     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005386     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005387     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005388     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005389     0.0000003193      4.00      3.95      1.86
   SRCPARAM L0005390     0.0000003193      4.00      3.95      1.86
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                                                                    Residential
    SRCPARAM L0005391     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005392     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005393     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005394     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005395     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005396     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005397     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005398     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005399     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005400     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005401     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005402     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005403     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005404     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005405     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005406     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005407     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005408     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005409     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005410     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005411     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005412     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005413     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005414     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005415     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005416     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005417     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005418     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005419     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005420     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005421     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005422     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005423     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005424     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005425     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005426     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005427     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005428     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005429     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005430     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005431     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005432     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005433     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005434     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005435     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005436     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005437     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005438     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005439     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005440     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005441     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005442     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005443     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005444     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005445     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005446     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005447     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005448     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005449     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005450     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005451     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005452     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005453     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005454     0.0000003193      4.00      3.95      1.86
    SRCPARAM L0005455     0.0000003193      4.00      3.95      1.86
 ** ----------------------------------------------------------------------
    SRCPARAM AREA1        2.351E-08     5.000    75.040    426.520     0.000
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                  Residential
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9         9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10        9.02E-06     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.000019084     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000015121     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000025862     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0003741     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003742     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003743     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003744     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003745     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003746     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003747     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003748     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003749     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003750     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003751     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003752     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003753     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003754     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003755     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003756     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003757     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003758     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003759     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003760     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003761     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003762     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003763     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003764     0.0000003242      4.00       3.95       1.86
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   SRCPARAM L0003767     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003768     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003769     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003770     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003771     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003772     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003773     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003774     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003775     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003776     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003777     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003778     0.0000003242      4.00       3.95       1.86
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   SRCPARAM L0003785     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003786     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003787     0.0000003242      4.00       3.95       1.86
   SRCPARAM L0003788     0.0000003242      4.00       3.95       1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                    Residential
   SRCPARAM L0003789     0.0000003242      4.00      3.95      1.86
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   SRCPARAM L0003793     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003794     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003795     0.0000003242      4.00      3.95      1.86
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   SRCPARAM L0003798     0.0000003242      4.00      3.95      1.86
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   SRCPARAM L0003800     0.0000003242      4.00      3.95      1.86
   SRCPARAM L0003801     0.0000003242      4.00      3.95      1.86
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   SRCPARAM L0005469     0.0000004266      4.00      3.95      1.86
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   SRCPARAM L0005471     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005512     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005513     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005514     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005517     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005518     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005520     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005582   0.0000004266    4.00     3.95     1.86
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SRCPARAM L0005637   0.0000004266    4.00     3.95     1.86
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SRCPARAM L0005692     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005693     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005694     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005695     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005696     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005697     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005698     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005699     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005700     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005701     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005702     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005703     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005704     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005705     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005706     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005708     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005709     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005710     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005711     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005712     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005713     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005714     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005715     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005716     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005717     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005718     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005719     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005720     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005721     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005722     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005723     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005724     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005725     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005726     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005727     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005728     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005729     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005730     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005731     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005732     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005733     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005734     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005735     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005736     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005737     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005738     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005739     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005740     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005741     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005742     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005743     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005744     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005748     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005749     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005763     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005765     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005766     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005767     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005768     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005769     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005770     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005771     0.0000004266      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0005772     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005773     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005775     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005776     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005777     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005778     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005780     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005781     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005782     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005783     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005784     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005789     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005790     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005791     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005795     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005797     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005798     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005799     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005801     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005805     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005806     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005807     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005808     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005809     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005811     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005812     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005813     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005814     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005815     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005816     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005817     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005818     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005819     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005820     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005821     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005822     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005823     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005824     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005825     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005826     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005827     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005828     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005829     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005830     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005831     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005832     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005833     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005834     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005835     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005836     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005837     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005838     0.0000004266      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0005839     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005840     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005841     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005842     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005843     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005844     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005845     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005846     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005847     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005848     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005849     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005850     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005851     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005853     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005854     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005856     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005857     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005858     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005860     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005861     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005862     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005863     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005864     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005865     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005866     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005867     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005868     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005869     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005870     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005871     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005872     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005875     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005879     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005881     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005882     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005883     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005884     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005885     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005886     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005887     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005888     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005889     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005890     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005891     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005893     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005895     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005896     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005897     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005898     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005899     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005900     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005901     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005902     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005903     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005904     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005905     0.0000004266      4.00      3.95      1.86
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                                                Residential
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SRCPARAM L0005907     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005908     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005909     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005910     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005911     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005912     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005913     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005914     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005915     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005916     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005917     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005918     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005919     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005920     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005921     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005922     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005923     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005924     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005925     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005926     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005927     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005928     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005929     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005930     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005931     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005935     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005936     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005937     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005938     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005939     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005940     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005941     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005942     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005943     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005944     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005945     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005949     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005950     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005959     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005961     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005962     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005963     0.0000004266      4.00      3.95      1.86
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SRCPARAM L0005966     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005967     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005968     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005969     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005970     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005971     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005972     0.0000004266      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0005974     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005975     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005976     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005977     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005978     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005979     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005980     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005981     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005982     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005983     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005984     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005985     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005986     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005987     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005988     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005989     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005990     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005991     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005992     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005993     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005994     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005995     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005996     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005997     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005998     0.0000004266      4.00      3.95      1.86
SRCPARAM L0005999     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006000     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006001     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006002     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006003     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006004     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006005     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006006     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006007     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006008     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006009     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006010     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006011     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006012     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006013     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006014     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006015     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006016     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006017     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006018     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006019     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006020     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006021     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006022     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006023     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006024     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006025     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006026     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006027     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006028     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006029     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006030     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006031     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006032     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006033     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006034     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006035     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006036     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006037     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006038     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006039     0.0000004266      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006040     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006041     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006042     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006043     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006044     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006045     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006046     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006047     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006048     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006049     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006050     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006051     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006052     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006053     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006054     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006055     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006056     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006057     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006058     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006059     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006060     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006061     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006062     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006063     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006064     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006065     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006066     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006067     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006068     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006069     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006070     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006071     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006072     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006073     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006074     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006075     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006076     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006077     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006078     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006079     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006080     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006081     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006082     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006083     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006084     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006085     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006086     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006087     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006088     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006089     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006090     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006091     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006092     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006093     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006094     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006095     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006096     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006097     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006098     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006099     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006100     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006101     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006102     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006103     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006104     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006105     0.0000004266      4.00      3.95      1.86
SRCPARAM L0006106     0.0000004266      4.00      3.95      1.86
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                                                   Residential
   SRCPARAM L0006107     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006108     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006109     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006110     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006111     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006112     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006113     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006114     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006115     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006116     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006117     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006118     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006119     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006120     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006121     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006122     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006123     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006124     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006125     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006126     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006127     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006128     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006129     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006130     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006131     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006132     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006133     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006134     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006135     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006136     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006137     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006138     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006139     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006140     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006141     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006142     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006143     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006144     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006145     0.0000004266      4.00      3.95      1.86
   SRCPARAM L0006146     0.0000004266      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0006147     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006148     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006149     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006150     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006151     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006152     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006153     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006154     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006155     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006156     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006157     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006158     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006159     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006160     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006161     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006162     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006163     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006164     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006165     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006166     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006167     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006168     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006169     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006170     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006171     0.0000001066      0.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006172     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006173     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006174     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006175     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006176     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006177     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006178     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006179     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006180     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006181     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006182     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006183     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006184     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006185     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006186     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006187     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006188     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006189     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006190     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006191     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006192     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006193     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006194     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006195     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006196     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006197     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006198     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006199     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006200     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006201     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006202     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006203     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006204     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006205     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006206     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006207     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006208     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006209     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006210     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006211     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006212     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006214     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006215     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006216     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006217     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006218     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006219     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006220     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006221     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006223     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006224     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006225     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006226     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006227     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006228     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006229     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006230     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006231     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006232     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006233     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006234     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006235     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006236     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006238     0.0000001066      0.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006239     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006240     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006241     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006244     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006246     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006247     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006248     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006249     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006250     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006251     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006252     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006253     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006254     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006255     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006256     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006257     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006258     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006266     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006267     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006274     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006276     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006277     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006278     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006279     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006280     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006281     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006282     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006283     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006288     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006289     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006290     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006291     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006292     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006293     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006294     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006295     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006296     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006297     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006298     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006299     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006300     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006301     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006302     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006303     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006304     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006305     0.0000001066      0.00      3.95      1.86
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                                                   Residential
SRCPARAM L0006306     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006307     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006308     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006309     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006310     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006311     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006312     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006313     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006314     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006315     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006316     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006317     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006318     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006319     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006320     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006321     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006330     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006331     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006332     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006333     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006337     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006338     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006339     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006342     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006359     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006360     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006361     0.0000001066      0.00      3.95      1.86
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SRCPARAM L0006363     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006364     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006365     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006366     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006367     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006368     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006369     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006370     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006371     0.0000001066      0.00      3.95      1.86
SRCPARAM L0006372     0.0000001066      0.00      3.95      1.86
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                                                Residential
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   SRCPARAM L0006375     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006376     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0006379     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006380     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006381     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006382     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006383     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006384     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006385     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006386     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006387     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006388     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006389     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006390     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006391     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006392     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006393     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006394     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006395     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006396     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006397     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006398     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006399     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006400     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006401     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006402     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006403     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006404     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006405     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006406     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006407     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006408     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006409     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0006412     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0006414     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006415     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006416     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006417     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006418     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006419     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0006422     0.0000001066      0.00      3.95      1.86
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   SRCPARAM L0006424     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006425     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006426     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006427     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006428     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006429     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006430     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006431     0.0000001066      0.00      3.95      1.86
   SRCPARAM L0006432     0.0000001066      0.00      3.95      1.86
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** LINE VOLUME Source ID = SRC00001
   SRCPARAM L0006433     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006434     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006435     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006436     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006437     0.0000005328      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006438     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006439     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006440     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006441     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006442     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006443     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006444     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006445     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006446     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006447     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006448     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006449     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006450     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006451     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006452     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006453     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006454     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006455     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006456     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006457     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006458     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006460     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006461     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006462     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006463     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006464     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006465     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006466     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006467     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006469     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006470     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006473     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006475     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006476     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006479     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006480     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006481     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006482     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006483     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006504     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006510     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006511     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006512     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006513     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006514     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006516     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006518     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006520     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006540     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006565     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006566     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006567     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006568     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006569     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006570     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006571     0.0000005328      4.00      3.95      1.86
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                                                         Residential
SRCPARAM L0006572     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006573     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006574     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006575     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006576     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006577     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006578     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006579     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006580     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006581     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006582     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006583     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006584     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006585     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006586     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006587     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006588     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006589     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006590     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006591     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006592     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006593     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006594     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006595     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006596     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006597     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006598     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006599     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006600     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006601     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006602     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006603     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006604     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006605     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006606     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006608     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006609     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006610     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006611     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006612     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006613     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006614     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006615     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006616     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006617     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006618     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006619     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006620     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006621     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006622     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006623     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006624     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006625     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006626     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006627     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006628     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006629     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006630     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006631     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006632     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006633     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006634     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006635     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006636     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006638     0.0000005328      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006639     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006640     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006647     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006650     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006653     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006656     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006658     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006659     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006660     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006661     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006662     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006663     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006664     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006665     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006666     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006667     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006668     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006669     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006672     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006673     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006674     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006675     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006682     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006683     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006684     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006685     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006686     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006687     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006688     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006690     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006692     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006693     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006694     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006695     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006696     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006697     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006698     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006699     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006700     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006701     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006702     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006703     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006704     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006705     0.0000005328      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0006707     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006708     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006709     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006710     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006711     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006712     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006713     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006714     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006715     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006716     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006717     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006718     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006719     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006720     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006721     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006722     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006723     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006724     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006725     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006726     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006727     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006728     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006729     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006730     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006731     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006732     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006733     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006734     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006735     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006736     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006737     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006738     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006739     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006740     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006741     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006742     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006743     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006744     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006745     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006746     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006747     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006748     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006749     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006750     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006751     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006752     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006753     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006754     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006755     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006756     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006757     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006758     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006759     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006760     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006761     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006762     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006763     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006764     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006765     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006766     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006767     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006768     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006769     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006770     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006771     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006772     0.0000005328      4.00      3.95      1.86
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                                                   Residential
SRCPARAM L0006773     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006774     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006775     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006776     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006777     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006778     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006779     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006780     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006781     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006782     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006783     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006784     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006785     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006786     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006787     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006788     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006789     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006790     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006791     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006792     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006793     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006794     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006795     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006796     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006797     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006798     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006799     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006800     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006810     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006811     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006812     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006818     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006824     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006825     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006826     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006827     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006831     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006832     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006833     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006834     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006836     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006837     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006838     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006839     0.0000005328      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0006842     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006844     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006847     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006848     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006849     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006850     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006851     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006852     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006853     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006854     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006855     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006856     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006857     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006860     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006861     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006862     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006863     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006864     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006865     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006867     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006868     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006870     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006872     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006874     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006875     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006876     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006877     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006878     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006879     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006880     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006881     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006882     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006892     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006893     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006894     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006896     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006897     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006898     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006899     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006900     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006901     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006902     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006903     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006904     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006906     0.0000005328      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006907     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006910     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006911     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006912     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006913     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006914     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006915     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006916     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006917     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006918     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006919     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006920     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006921     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006922     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006924     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006930     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006931     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006932     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006933     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006934     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006935     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006936     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006938     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006940     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006941     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006942     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006943     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006945     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006946     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006947     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006948     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006949     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006950     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006951     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006952     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006958     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006959     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006960     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006961     0.0000005328      4.00      3.95      1.86
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SRCPARAM L0006966     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006967     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006968     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006969     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006970     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006971     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006972     0.0000005328      4.00      3.95      1.86
SRCPARAM L0006973     0.0000005328      4.00      3.95      1.86
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                                                                          Residential
   SRCPARAM L0006974     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006975     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006976     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006977     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006978     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006979     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006980     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006981     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006982     0.0000005328      4.00      3.95      1.86
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   SRCPARAM L0006985     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006986     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0006987     0.0000005328      4.00      3.95      1.86
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   SRCPARAM L0007000     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007001     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007002     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007003     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007004     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007005     0.0000005328      4.00      3.95      1.86
   SRCPARAM L0007006     0.0000005328      4.00      3.95      1.86
** --------------------------------------------------------------------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Worker"
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   EMISFACT L0003045     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0003046     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003046     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0003047     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0003048     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003049     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0003049     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003050     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003051     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003052     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003052     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003053     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0003053     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003062     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003066     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003068     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003266     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003267     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003267     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EMISFACT L0005361     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0005363     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0005367     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0005368     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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SRCGROUP Other    L0003403 L0003404 L0003405 L0003406 L0003407 L0003408
SRCGROUP Other    L0003409 L0003410 L0003411 L0003412 L0003413 L0003414
SRCGROUP Other    L0003415 L0003416 L0003417 L0003418 L0003419 L0003420
SRCGROUP Other    L0003421 L0003422 L0003423 L0003424 L0003425 L0003426
SRCGROUP Other    L0003427 L0003428 L0003429 L0003430 L0003431 L0003432
SRCGROUP Other    L0003433 L0003434 L0003435 L0003436 L0003437 L0003438
SRCGROUP Other    L0003439 L0003440 L0003441 L0003442 L0003443 L0003444
SRCGROUP Other    L0003445 L0003446 L0003447 L0003448 L0003449 L0003450
SRCGROUP Other    L0003451 L0003452 L0003453 L0003454 L0003455 L0003456
SRCGROUP Other    L0003457 L0003458 L0003459 L0003460 L0003461 L0003462
SRCGROUP Other    L0003463 L0003464 L0003465 L0003466 L0003467 L0003468
SRCGROUP Other    L0003469 L0003470 L0003471 L0003472 L0003473 L0003474
SRCGROUP Other    L0003475 L0003476 L0003477 L0003478 L0003479 L0003480
SRCGROUP Other    L0003481 L0003482 L0003483 L0003484 L0003485 L0003486
SRCGROUP Other    L0003487 L0003488 L0003489 L0003490 L0003491 L0003492
SRCGROUP Other    L0003493 L0003494 L0003495 L0003496 L0003497 L0003498
SRCGROUP Other    L0003499 L0003500 L0003501 L0003502 L0003503 L0003504
SRCGROUP Other    L0003505 L0003506 L0003507 L0003508 L0003509 L0003510
SRCGROUP Other    L0003511 L0003512 L0003513 L0003514 L0003515 L0003516
SRCGROUP Other    L0003517 L0003518 L0003519 L0003520 L0003521 L0003522
SRCGROUP Other    L0003523 L0003524 L0003525 L0003526 L0003527 L0003528
SRCGROUP Other    L0003529 L0003530 L0003531 L0003532 L0003533 L0003534
SRCGROUP Other    L0003535 L0003536 L0003537 L0003538 L0003539 L0003540
SRCGROUP Other    L0003541 L0003542 L0003543 L0003544 L0003545 L0003546
SRCGROUP Other    L0003547 L0003548 L0003549 L0003550 L0003551 L0003552
SRCGROUP Other    L0003553 L0003554 L0003555 L0003556 L0003557 L0003558
SRCGROUP Other    L0003559 L0003560 L0003561 L0003562 L0003563 L0003564
SRCGROUP Other    L0003565 L0003566 L0003567 L0003568 L0003569 L0003570
SRCGROUP Other    L0003571 L0003572 L0003573 L0003574 L0003575 L0003576
SRCGROUP Other    L0003577 L0003578 L0003579 L0003580 L0003581 L0003582
SRCGROUP Other    L0003583 L0003584 L0003585 L0003586 L0003587 L0003588
SRCGROUP Other    L0003589 L0003590 L0003591 L0003592 L0003593 L0003594
SRCGROUP Other    L0003595 L0003596 L0003597 L0003598 L0003599 L0003600
SRCGROUP Other    L0003601 L0003602 L0003603 L0003604 L0003605 L0003606
SRCGROUP Other    L0003607 L0003608 L0003609 L0003610 L0003611 L0003612
SRCGROUP Other    L0003613 L0003614 L0003615 L0003616 L0003617 L0003618
SRCGROUP Other    L0003619 L0003620 L0003621 L0003622 L0003623 L0003624
SRCGROUP Other    L0003625 L0003626 L0003627 L0003628 L0003629 L0003630
SRCGROUP Other    L0003631 L0003632 L0003633 L0003634 L0003635 L0003636
SRCGROUP Other    L0003637 L0003638 L0003639 L0003640 L0003641 L0005357
SRCGROUP Other    L0005358 L0005359 L0005360 L0005361 L0005362 L0005363
SRCGROUP Other    L0005364 L0005365 L0005366 L0005367 L0005368 L0005369
SRCGROUP Other    L0005370 L0005371 L0005372 L0005373 L0005374 L0005375
SRCGROUP Other    L0005376 L0005377 L0005378 L0005379 L0005380 L0005381
SRCGROUP Other    L0005382 L0005383 L0005384 L0005385 L0005386 L0005387
SRCGROUP Other    L0005388 L0005389 L0005390 L0005391 L0005392 L0005393
SRCGROUP Other    L0005394 L0005395 L0005396 L0005397 L0005398 L0005399
SRCGROUP Other    L0005400 L0005401 L0005402 L0005403 L0005404 L0005405
SRCGROUP Other    L0005406 L0005407 L0005408 L0005409 L0005410 L0005411
SRCGROUP Other    L0005412 L0005413 L0005414 L0005415 L0005416 L0005417
SRCGROUP Other    L0005418 L0005419 L0005420 L0005421 L0005422 L0005423
SRCGROUP Other    L0005424 L0005425 L0005426 L0005427 L0005428 L0005429
SRCGROUP Other    L0005430 L0005431 L0005432 L0005433 L0005434 L0005435
SRCGROUP Other    L0005436 L0005437 L0005438 L0005439 L0005440 L0005441
SRCGROUP Other    L0005442 L0005443 L0005444 L0005445 L0005446 L0005447
SRCGROUP Other    L0005448 L0005449 L0005450 L0005451 L0005452 L0005453
```

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                                                    Residential
   SRCGROUP Other    L0005454 L0005455 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED Worker.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\..\..\peri8.sfc
   PROFFILE ..\..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL WORKER.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac WORKER.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other WORKER.AD\AN00G002.PLT 33
   SUMMFILE Worker.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2333 Source(s),
```

```
                                                         Residential
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2333 Source(s);       3 Source Group(s); and      22 Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2314 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      5.2 MB of RAM.

 **Detailed Error/Message File:   Worker.err

 **File for Summary of Results:   Worker.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
```

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                                                    Residential
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 STCK1            0   0.90200E-05  478197.3 3748887.5    453.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK2            0   0.90200E-05  478195.1 3748735.6    452.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK3            0   0.90200E-05  478195.8 3748573.3    452.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK4            0   0.90200E-05  478198.1 3748428.1    451.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK5            0   0.90200E-05  477956.2 3748894.1    453.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK6            0   0.90200E-05  477962.1 3748741.5    453.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK7            0   0.90200E-05  477962.8 3748581.4    452.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK8            0   0.90200E-05  477964.3 3748509.9    451.8     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK9            0   0.90200E-05  478049.1 3748355.8    451.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK10           0   0.90200E-05  478153.1 3748357.3    451.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK11           0   0.19084E-04  477756.4 3748910.9    453.2     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK12           0   0.15121E-04  477975.8 3748266.9    450.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
 STCK13           0   0.25862E-04  477612.5 3748890.5    454.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE   3
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0003043         0   0.53100E-05  478216.2 3748416.3    451.0     4.00    13.95     1.86      YES    HROFDY
 L0003044         0   0.53100E-05  478216.3 3748446.3    451.0     4.00    13.95     1.86      YES    HROFDY
 L0003045         0   0.53100E-05  478216.5 3748476.3    451.2     4.00    13.95     1.86      YES    HROFDY
 L0003046         0   0.53100E-05  478216.6 3748506.3    451.7     4.00    13.95     1.86      YES    HROFDY
 L0003047         0   0.53100E-05  478216.7 3748536.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003048         0   0.53100E-05  478216.9 3748566.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003049         0   0.53100E-05  478217.0 3748596.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003050         0   0.53100E-05  478217.2 3748626.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003051         0   0.53100E-05  478217.3 3748656.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003052         0   0.53100E-05  478217.4 3748686.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003053         0   0.53100E-05  478217.6 3748716.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003054         0   0.53100E-05  478217.7 3748746.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003055         0   0.53100E-05  478217.8 3748776.3    452.0     4.00    13.95     1.86      YES    HROFDY
 L0003056         0   0.53100E-05  478218.0 3748806.3    452.7     4.00    13.95     1.86      YES    HROFDY
 L0003057         0   0.53100E-05  478218.1 3748836.3    453.0     4.00    13.95     1.86      YES    HROFDY
 L0003058         0   0.53100E-05  478218.3 3748866.3    453.0     4.00    13.95     1.86      YES    HROFDY
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                                                 Residential
 L0003059         0   0.53100E-05  478218.4 3748896.3   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003060         0   0.55010E-05  477943.9 3748501.1   451.5      4.00     13.95      1.86      YES    HROFDY
 L0003061         0   0.55010E-05  477944.1 3748531.1   452.0      4.00     13.95      1.86      YES    HROFDY
 L0003062         0   0.55010E-05  477944.4 3748561.1   452.0      4.00     13.95      1.86      YES    HROFDY
 L0003063         0   0.55010E-05  477944.7 3748591.1   452.0      4.00     13.95      1.86      YES    HROFDY
 L0003064         0   0.55010E-05  477944.9 3748621.1   452.0      4.00     13.95      1.86      YES    HROFDY
 L0003065         0   0.55010E-05  477945.2 3748651.1   452.0      4.00     13.95      1.86      YES    HROFDY
 L0003066         0   0.55010E-05  477945.4 3748681.1   452.5      4.00     13.95      1.86      YES    HROFDY
 L0003067         0   0.55010E-05  477945.7 3748711.1   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003068         0   0.55010E-05  477945.9 3748741.1   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003069         0   0.55010E-05  477946.2 3748771.1   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003070         0   0.55010E-05  477946.5 3748801.1   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003071         0   0.55010E-05  477946.7 3748831.1   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003072         0   0.55010E-05  477947.0 3748861.1   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003073         0   0.55010E-05  477947.2 3748891.1   453.0      4.00     13.95      1.86      YES    HROFDY
 L0003074         0   0.50750E-05  477756.7 3748938.5   454.0      4.00      3.95      1.86      YES    HROFDY
 L0003075         0   0.50750E-05  477756.7 3748930.0   453.8      4.00      3.95      1.86      YES    HROFDY
 L0003076         0   0.50750E-05  477756.7 3748921.5   453.6      4.00      3.95      1.86      YES    HROFDY
 L0003077         0   0.50750E-05  477756.7 3748913.0   453.3      4.00      3.95      1.86      YES    HROFDY
 L0003078         0   0.50750E-05  477756.7 3748904.5   453.1      4.00      3.95      1.86      YES    HROFDY
 L0003079         0   0.50750E-05  477756.7 3748896.0   453.1      4.00      3.95      1.86      YES    HROFDY
 L0003080         0   0.50750E-05  477756.7 3748887.5   453.1      4.00      3.95      1.86      YES    HROFDY
 L0003081         0   0.50750E-05  477756.7 3748879.0   453.1      4.00      3.95      1.86      YES    HROFDY
 L0003082         0   0.25430E-06  477900.2 3748339.0   451.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE   4
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0003083         0   0.25430E-06  477908.7 3748339.0   451.0      4.00      3.95      1.86      YES    HROFDY
 L0003084         0   0.25430E-06  477917.2 3748338.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0003085         0   0.25430E-06  477925.6 3748338.8   451.0      4.00      3.95      1.86      YES    HROFDY
 L0003086         0   0.25430E-06  477934.1 3748338.8   451.0      4.00      3.95      1.86      YES    HROFDY
 L0003087         0   0.25430E-06  477942.6 3748338.0   451.0      4.00      3.95      1.86      YES    HROFDY
 L0003088         0   0.25430E-06  477947.6 3748331.8   451.0      4.00      3.95      1.86      YES    HROFDY
 L0003089         0   0.25430E-06  477951.8 3748324.5   451.0      4.00      3.95      1.86      YES    HROFDY
 L0003090         0   0.25430E-06  477956.1 3748317.1   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003091         0   0.25430E-06  477960.3 3748309.7   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003092         0   0.25430E-06  477964.6 3748302.3   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003093         0   0.25430E-06  477968.8 3748295.0   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003094         0   0.25430E-06  477973.0 3748287.6   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003095         0   0.25430E-06  477976.2 3748279.9   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003096         0   0.25430E-06  477977.3 3748271.5   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003097         0   0.25430E-06  477978.3 3748263.0   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003098         0   0.25430E-06  477978.3 3748254.5   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003099         0   0.25430E-06  477978.3 3748246.0   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003100         0   0.25430E-06  477978.2 3748237.5   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003101         0   0.25430E-06  477978.2 3748229.0   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003102         0   0.25430E-06  477978.1 3748220.5   450.0      4.00      3.95      1.86      YES    HROFDY
 L0003103         0   0.36680E-05  477608.7 3748929.3   454.0      0.00      3.95      1.86      YES    HROFDY
 L0003104         0   0.36680E-05  477608.7 3748920.8   454.0      0.00      3.95      1.86      YES    HROFDY
 L0003105         0   0.36680E-05  477608.7 3748912.3   454.0      0.00      3.95      1.86      YES    HROFDY
 L0003106         0   0.36680E-05  477608.7 3748903.8   454.0      0.00      3.95      1.86      YES    HROFDY
 L0003107         0   0.36680E-05  477608.7 3748895.3   454.0      0.00      3.95      1.86      YES    HROFDY
 L0003108         0   0.36680E-05  477608.7 3748886.8   454.0      0.00      3.95      1.86      YES    HROFDY
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                                                    Residential
 L0003109         0   0.36680E-05  477608.7 3748878.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003110         0   0.36680E-05  477608.7 3748869.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003111         0   0.36680E-05  477608.7 3748861.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003112         0   0.36680E-05  477608.7 3748852.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003113         0   0.36680E-05  477608.7 3748844.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003114         0   0.36680E-05  477608.7 3748835.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003115         0   0.36680E-05  477608.7 3748827.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003116         0   0.36680E-05  477608.7 3748818.8   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003117         0   0.36680E-05  477608.7 3748810.3   454.0     0.00     3.95     1.86     YES   HROFDY
 L0003118         0   0.82500E-06  478043.0 3748335.2   451.0     0.00    13.95     1.86     YES   HROFDY
 L0003119         0   0.82500E-06  478073.0 3748334.5   451.0     0.00    13.95     1.86     YES   HROFDY
 L0003120         0   0.82500E-06  478103.0 3748333.9   451.0     0.00    13.95     1.86     YES   HROFDY
 L0003121         0   0.82500E-06  478133.0 3748333.2   451.0     0.00    13.95     1.86     YES   HROFDY
 L0003122         0   0.82500E-06  478163.0 3748332.6   451.0     0.00    13.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y    ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0003123         0   0.13450E-05  477952.3 3748971.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003124         0   0.13450E-05  477952.2 3748962.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003125         0   0.13450E-05  477952.0 3748954.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003126         0   0.13450E-05  477951.4 3748946.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003127         0   0.13450E-05  477950.2 3748937.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003128         0   0.13450E-05  477949.0 3748929.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003129         0   0.13450E-05  477948.2 3748920.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003130         0   0.13450E-05  477948.1 3748912.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003131         0   0.13450E-05  477947.9 3748903.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003132         0   0.13450E-05  477947.8 3748895.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003133         0   0.13450E-05  477947.6 3748886.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003134         0   0.13450E-05  477947.5 3748878.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003135         0   0.13450E-05  477947.3 3748869.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003136         0   0.13450E-05  477947.2 3748861.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003137         0   0.13450E-05  477947.2 3748852.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003138         0   0.13450E-05  477947.1 3748844.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003139         0   0.13450E-05  477947.0 3748835.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003140         0   0.13450E-05  477947.0 3748827.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003141         0   0.13450E-05  477946.9 3748818.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003142         0   0.13450E-05  477946.8 3748810.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003143         0   0.13450E-05  477946.7 3748801.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003144         0   0.13450E-05  477946.7 3748793.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003145         0   0.13450E-05  477946.6 3748784.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003146         0   0.13450E-05  477946.5 3748776.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003147         0   0.13450E-05  477946.5 3748767.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003148         0   0.13450E-05  477946.4 3748759.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003149         0   0.13450E-05  477946.3 3748750.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003150         0   0.13450E-05  477946.3 3748742.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003151         0   0.13450E-05  477946.2 3748733.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003152         0   0.13450E-05  477946.1 3748725.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003153         0   0.13450E-05  477946.1 3748716.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003154         0   0.13450E-05  477946.0 3748708.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003155         0   0.13450E-05  477945.9 3748699.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003156         0   0.13450E-05  477945.9 3748691.2   452.8     4.00     3.95     1.86     YES   HROFDY
 L0003157         0   0.13450E-05  477945.8 3748682.7   452.5     4.00     3.95     1.86     YES   HROFDY
 L0003158         0   0.13450E-05  477945.7 3748674.2   452.2     4.00     3.95     1.86     YES   HROFDY
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                                                     Residential
 L0003159         0   0.13450E-05  477945.7 3748665.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003160         0   0.13450E-05  477945.6 3748657.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003161         0   0.13450E-05  477945.5 3748648.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003162         0   0.13450E-05  477945.4 3748640.2   452.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:40:13

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0003163         0   0.13450E-05  477945.4 3748631.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003164         0   0.13450E-05  477945.3 3748623.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003165         0   0.13450E-05  477945.2 3748614.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003166         0   0.13450E-05  477945.2 3748606.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003167         0   0.13450E-05  477945.1 3748597.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003168         0   0.13450E-05  477945.0 3748589.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003169         0   0.13450E-05  477945.0 3748580.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003170         0   0.13450E-05  477944.9 3748572.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003171         0   0.13450E-05  477944.8 3748563.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003172         0   0.13450E-05  477944.8 3748555.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003173         0   0.13450E-05  477944.7 3748546.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003174         0   0.13450E-05  477944.6 3748538.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003175         0   0.13450E-05  477944.6 3748529.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003176         0   0.13450E-05  477944.5 3748521.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003177         0   0.13450E-05  477944.4 3748512.7   451.9     4.00     3.95     1.86     YES   HROFDY
 L0003178         0   0.13450E-05  477944.4 3748504.2   451.6     4.00     3.95     1.86     YES   HROFDY
 L0003179         0   0.13450E-05  477944.3 3748495.7   451.3     4.00     3.95     1.86     YES   HROFDY
 L0003180         0   0.13450E-05  477944.7 3748487.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003181         0   0.13450E-05  477948.7 3748479.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003182         0   0.13450E-05  477952.8 3748472.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003183         0   0.13450E-05  477956.8 3748464.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003184         0   0.13450E-05  477960.8 3748457.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003185         0   0.13450E-05  477964.8 3748449.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003186         0   0.13450E-05  477968.8 3748442.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003187         0   0.13450E-05  477972.8 3748434.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003188         0   0.13450E-05  477976.9 3748427.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003189         0   0.13450E-05  477980.9 3748419.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003190         0   0.13450E-05  477984.9 3748412.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003191         0   0.13450E-05  477988.9 3748404.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003192         0   0.13450E-05  477992.9 3748397.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003193         0   0.13450E-05  477996.9 3748389.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003194         0   0.13450E-05  478001.0 3748382.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003195         0   0.13450E-05  478005.0 3748375.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003196         0   0.13450E-05  478009.0 3748367.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003197         0   0.13450E-05  478013.0 3748360.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003198         0   0.13450E-05  478017.1 3748352.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003199         0   0.13450E-05  478021.7 3748345.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003200         0   0.13450E-05  478026.4 3748338.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003201         0   0.13450E-05  478033.8 3748336.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003202         0   0.13450E-05  478042.3 3748336.5   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:40:13

  PAGE   7
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                                                 Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID       CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003203        0   0.13450E-05  478050.8 3748336.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003204        0   0.13450E-05  478059.3 3748336.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003205        0   0.13450E-05  478067.8 3748336.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003206        0   0.13450E-05  478076.3 3748336.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003207        0   0.13450E-05  478084.8 3748337.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003208        0   0.13450E-05  478093.3 3748337.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003209        0   0.13450E-05  478101.8 3748337.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003210        0   0.13450E-05  478110.3 3748337.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003211        0   0.13450E-05  478118.8 3748337.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003212        0   0.13450E-05  478127.3 3748337.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003213        0   0.13450E-05  478135.8 3748337.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003214        0   0.13450E-05  478144.3 3748337.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003215        0   0.13450E-05  478152.8 3748337.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003216        0   0.13450E-05  478161.3 3748337.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003217        0   0.13450E-05  478169.8 3748337.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003218        0   0.13450E-05  478178.3 3748338.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003219        0   0.13450E-05  478186.8 3748338.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003220        0   0.13450E-05  478195.3 3748338.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003221        0   0.13450E-05  478203.8 3748338.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003222        0   0.13450E-05  478212.3 3748338.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003223        0   0.13450E-05  478215.8 3748343.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003224        0   0.13450E-05  478215.9 3748351.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003225        0   0.13450E-05  478216.0 3748360.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003226        0   0.13450E-05  478216.0 3748368.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003227        0   0.13450E-05  478216.1 3748377.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003228        0   0.13450E-05  478216.1 3748385.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003229        0   0.13450E-05  478216.2 3748394.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003230        0   0.13450E-05  478216.3 3748402.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003231        0   0.13450E-05  478216.3 3748411.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003232        0   0.13450E-05  478216.4 3748419.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003233        0   0.13450E-05  478216.4 3748428.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003234        0   0.13450E-05  478216.5 3748436.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003235        0   0.13450E-05  478216.6 3748445.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003236        0   0.13450E-05  478216.6 3748453.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003237        0   0.13450E-05  478216.7 3748462.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003238        0   0.13450E-05  478216.7 3748470.9   451.1     4.00     3.95     1.86     YES   HROFDY
 L0003239        0   0.13450E-05  478216.8 3748479.4   451.2     4.00     3.95     1.86     YES   HROFDY
 L0003240        0   0.13450E-05  478216.9 3748487.9   451.3     4.00     3.95     1.86     YES   HROFDY
 L0003241        0   0.13450E-05  478216.9 3748496.4   451.5     4.00     3.95     1.86     YES   HROFDY
 L0003242        0   0.13450E-05  478217.0 3748504.9   451.7     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE   8
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID       CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003243         0   0.13450E-05  478217.0 3748513.4   451.9     4.00     3.95     1.86     YES   HROFDY
 L0003244         0   0.13450E-05  478217.1 3748521.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003245         0   0.13450E-05  478217.2 3748530.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003246         0   0.13450E-05  478217.2 3748538.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003247         0   0.13450E-05  478217.3 3748547.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003248         0   0.13450E-05  478217.3 3748555.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003249         0   0.13450E-05  478217.4 3748564.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003250         0   0.13450E-05  478217.5 3748572.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003251         0   0.13450E-05  478217.5 3748581.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003252         0   0.13450E-05  478217.6 3748589.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003253         0   0.13450E-05  478217.7 3748598.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003254         0   0.13450E-05  478217.7 3748606.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003255         0   0.13450E-05  478217.8 3748615.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003256         0   0.13450E-05  478217.8 3748623.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003257         0   0.13450E-05  478217.9 3748632.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003258         0   0.13450E-05  478218.0 3748640.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003259         0   0.13450E-05  478218.0 3748649.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003260         0   0.13450E-05  478218.1 3748657.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003261         0   0.13450E-05  478218.1 3748666.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003262         0   0.13450E-05  478218.2 3748674.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003263         0   0.13450E-05  478218.3 3748683.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003264         0   0.13450E-05  478218.3 3748691.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003265         0   0.13450E-05  478218.4 3748700.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003266         0   0.13450E-05  478218.4 3748708.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003267         0   0.13450E-05  478218.5 3748717.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003268         0   0.13450E-05  478218.6 3748725.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003269         0   0.13450E-05  478218.6 3748734.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003270         0   0.13450E-05  478218.7 3748742.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003271         0   0.13450E-05  478218.7 3748751.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003272         0   0.13450E-05  478218.8 3748759.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003273         0   0.13450E-05  478218.9 3748768.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003274         0   0.13450E-05  478218.9 3748776.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003275         0   0.13450E-05  478219.0 3748785.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003276         0   0.13450E-05  478219.0 3748793.9   452.2     4.00     3.95     1.86     YES   HROFDY
 L0003277         0   0.13450E-05  478219.1 3748802.4   452.5     4.00     3.95     1.86     YES   HROFDY
 L0003278         0   0.13450E-05  478219.2 3748810.9   452.8     4.00     3.95     1.86     YES   HROFDY
 L0003279         0   0.13450E-05  478219.2 3748819.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003280         0   0.13450E-05  478219.3 3748827.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003281         0   0.13450E-05  478219.3 3748836.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003282         0   0.13450E-05  478219.4 3748844.9   453.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0003283         0   0.13450E-05  478219.5 3748853.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003284         0   0.13450E-05  478219.5 3748861.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003285         0   0.13450E-05  478219.6 3748870.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003286         0   0.13450E-05  478219.6 3748878.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003287         0   0.13450E-05  478219.7 3748887.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003288         0   0.13450E-05  478219.8 3748895.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003289         0   0.13450E-05  478219.8 3748904.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003290         0   0.13450E-05  478219.9 3748912.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003291         0   0.13450E-05  478217.5 3748921.1   453.0     4.00     3.95     1.86     YES   HROFDY
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                                                     Residential
 L0003292         0   0.13450E-05  478215.0 3748929.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003293         0   0.13450E-05  478212.6 3748937.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003294         0   0.13450E-05  478210.1 3748945.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003295         0   0.13450E-05  478207.6 3748953.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003296         0   0.13450E-05  478205.1 3748961.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003297         0   0.13450E-05  478202.7 3748969.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003298         0   0.28630E-06  477852.8 3748835.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003299         0   0.28630E-06  477852.8 3748843.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003300         0   0.28630E-06  477852.9 3748852.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003301         0   0.28630E-06  477852.9 3748860.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003302         0   0.28630E-06  477853.0 3748869.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003303         0   0.28630E-06  477853.0 3748877.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003304         0   0.28630E-06  477853.0 3748886.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003305         0   0.28630E-06  477853.1 3748894.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003306         0   0.28630E-06  477853.1 3748903.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003307         0   0.28630E-06  477853.2 3748911.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003308         0   0.28630E-06  477853.2 3748920.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003309         0   0.28630E-06  477853.3 3748928.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003310         0   0.28630E-06  477853.3 3748937.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003311         0   0.28630E-06  477853.4 3748945.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003312         0   0.28630E-06  477853.4 3748954.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003313         0   0.28630E-06  477853.5 3748962.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003314         0   0.28630E-06  477853.5 3748971.2   453.2     4.00     3.95     1.86     YES   HROFDY
 L0003315         0   0.28630E-06  477853.5 3748979.7   453.4     4.00     3.95     1.86     YES   HROFDY
 L0003316         0   0.28630E-06  477845.0 3748979.7   453.5     4.00     3.95     1.86     YES   HROFDY
 L0003317         0   0.28630E-06  477836.5 3748979.6   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003318         0   0.28630E-06  477828.0 3748979.6   453.9     4.00     3.95     1.86     YES   HROFDY
 L0003319         0   0.28630E-06  477819.5 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003320         0   0.28630E-06  477811.0 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003321         0   0.28630E-06  477802.5 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003322         0   0.28630E-06  477794.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0003323         0   0.28630E-06  477785.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003324         0   0.28630E-06  477777.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003325         0   0.28630E-06  477768.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003326         0   0.28630E-06  477760.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003327         0   0.28630E-06  477751.5 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003328         0   0.28630E-06  477743.0 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003329         0   0.28630E-06  477742.7 3748971.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003330         0   0.28630E-06  477742.7 3748962.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003331         0   0.28630E-06  477742.6 3748954.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003332         0   0.28630E-06  477742.6 3748945.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003333         0   0.28630E-06  477742.5 3748937.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003334         0   0.28630E-06  477742.5 3748928.7   453.9     4.00     3.95     1.86     YES   HROFDY
 L0003335         0   0.28630E-06  477742.4 3748920.2   453.8     4.00     3.95     1.86     YES   HROFDY
 L0003336         0   0.28630E-06  477742.4 3748911.7   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003337         0   0.28630E-06  477742.3 3748903.2   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003338         0   0.28630E-06  477742.3 3748894.7   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003339         0   0.28630E-06  477742.2 3748886.2   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003340         0   0.28630E-06  477744.2 3748878.0   453.5     4.00     3.95     1.86     YES   HROFDY
 L0003341         0   0.28630E-06  477746.5 3748869.8   453.6     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0003342         0   0.28630E-06  477748.8 3748861.6   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003343         0   0.28630E-06  477751.1 3748853.4   453.8     4.00     3.95     1.86     YES   HROFDY
 L0003344         0   0.28630E-06  477753.4 3748845.3   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003345         0   0.28630E-06  477757.5 3748838.2   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003346         0   0.28630E-06  477763.8 3748832.5   453.5     4.00     3.95     1.86     YES   HROFDY
 L0003347         0   0.28630E-06  477770.1 3748826.8   453.2     4.00     3.95     1.86     YES   HROFDY
 L0003348         0   0.28630E-06  477778.6 3748826.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0003349         0   0.28630E-06  477787.1 3748826.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003350         0   0.28630E-06  477795.6 3748826.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003351         0   0.28630E-06  477804.1 3748826.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003352         0   0.28630E-06  477812.6 3748826.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003353         0   0.28630E-06  477821.1 3748826.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003354         0   0.28630E-06  477829.6 3748826.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003355         0   0.28630E-06  477838.1 3748825.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003356         0   0.28630E-06  477846.6 3748825.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003357         0   0.22550E-06  477886.6 3748203.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003358         0   0.22550E-06  477886.4 3748212.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003359         0   0.22550E-06  477886.3 3748220.7   450.1     4.00     3.95     1.86     YES   HROFDY
 L0003360         0   0.22550E-06  477886.1 3748229.2   450.3     4.00     3.95     1.86     YES   HROFDY
 L0003361         0   0.22550E-06  477885.9 3748237.7   450.6     4.00     3.95     1.86     YES   HROFDY
 L0003362         0   0.22550E-06  477885.7 3748246.2   450.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003363         0   0.22550E-06  477885.5 3748254.7   450.9     4.00     3.95     1.86     YES   HROFDY
 L0003364         0   0.22550E-06  477885.6 3748263.2   450.9     4.00     3.95     1.86     YES   HROFDY
 L0003365         0   0.22550E-06  477885.7 3748271.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003366         0   0.22550E-06  477885.8 3748280.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003367         0   0.22550E-06  477885.9 3748288.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003368         0   0.22550E-06  477886.0 3748297.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003369         0   0.22550E-06  477886.1 3748305.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003370         0   0.22550E-06  477886.2 3748314.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003371         0   0.22550E-06  477886.3 3748322.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003372         0   0.22550E-06  477886.4 3748331.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003373         0   0.22550E-06  477889.0 3748337.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003374         0   0.22550E-06  477897.5 3748338.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003375         0   0.22550E-06  477906.0 3748338.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003376         0   0.22550E-06  477914.4 3748339.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003377         0   0.22550E-06  477922.9 3748339.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003378         0   0.22550E-06  477931.4 3748338.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003379         0   0.22550E-06  477939.8 3748338.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003380         0   0.22550E-06  477945.5 3748332.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003381         0   0.22550E-06  477950.6 3748325.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003382         0   0.22550E-06  477955.0 3748318.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003383         0   0.22550E-06  477959.4 3748311.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003384         0   0.22550E-06  477963.8 3748303.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003385         0   0.22550E-06  477968.2 3748296.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003386         0   0.22550E-06  477972.6 3748289.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003387         0   0.22550E-06  477975.8 3748281.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003388         0   0.22550E-06  477977.7 3748273.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003389         0   0.22550E-06  477979.6 3748265.1   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003390         0   0.22550E-06  477981.3 3748256.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003391         0   0.22550E-06  477980.6 3748248.3   450.0     4.00     3.95     1.86     YES   HROFDY
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                                                         Residential
 L0003392         0   0.22550E-06  477979.9 3748239.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003393         0   0.22550E-06  477979.2 3748231.4   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003394         0   0.22550E-06  477978.4 3748222.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003395         0   0.22550E-06  477982.6 3748217.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003396         0   0.22550E-06  477990.0 3748212.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003397         0   0.22550E-06  477994.0 3748206.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003398         0   0.22550E-06  477994.1 3748198.0   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003399         0   0.22550E-06  477986.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003400         0   0.22550E-06  477977.6 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003401         0   0.22550E-06  477969.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003402         0   0.22550E-06  477960.6 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:40:13

  PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0003403         0   0.22550E-06  477952.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003404         0   0.22550E-06  477943.6 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003405         0   0.22550E-06  477935.1 3748197.5   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003406         0   0.38500E-06  477505.1 3748975.7   454.2     4.00     3.95     1.86     YES   HROFDY
 L0003407         0   0.38500E-06  477513.6 3748975.6   454.1     4.00     3.95     1.86     YES   HROFDY
 L0003408         0   0.38500E-06  477522.1 3748975.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003409         0   0.38500E-06  477530.6 3748975.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003410         0   0.38500E-06  477539.1 3748975.1   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003411         0   0.38500E-06  477547.6 3748974.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003412         0   0.38500E-06  477556.1 3748974.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003413         0   0.38500E-06  477564.6 3748974.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003414         0   0.38500E-06  477573.1 3748974.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003415         0   0.38500E-06  477581.6 3748974.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003416         0   0.38500E-06  477590.1 3748974.1   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003417         0   0.38500E-06  477598.5 3748973.8   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003418         0   0.38500E-06  477605.4 3748968.8   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003419         0   0.38500E-06  477611.1 3748963.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003420         0   0.38500E-06  477613.4 3748954.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003421         0   0.38500E-06  477615.7 3748946.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003422         0   0.38500E-06  477618.0 3748938.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003423         0   0.38500E-06  477620.0 3748930.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003424         0   0.38500E-06  477621.7 3748921.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003425         0   0.38500E-06  477623.4 3748913.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003426         0   0.38500E-06  477625.1 3748905.3   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003427         0   0.38500E-06  477626.2 3748896.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003428         0   0.38500E-06  477626.4 3748888.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003429         0   0.38500E-06  477626.5 3748879.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003430         0   0.38500E-06  477626.6 3748871.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003431         0   0.38500E-06  477626.7 3748862.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003432         0   0.38500E-06  477626.8 3748854.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003433         0   0.38500E-06  477626.9 3748845.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003434         0   0.38500E-06  477627.0 3748837.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003435         0   0.38500E-06  477627.1 3748828.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003436         0   0.38500E-06  477627.2 3748820.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003437         0   0.38500E-06  477627.3 3748811.9   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003438         0   0.38500E-06  477627.5 3748803.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003439         0   0.38500E-06  477627.0 3748795.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003440         0   0.38500E-06  477618.5 3748795.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003441         0   0.38500E-06  477610.0 3748795.9   454.0     4.00     3.95     1.86     YES   HROFDY
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                                                           Residential
 L0003442         0   0.38500E-06  477601.5 3748796.2   454.0      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0003443         0   0.38500E-06  477593.0 3748796.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003444         0   0.38500E-06  477584.5 3748796.6   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003445         0   0.38500E-06  477576.0 3748796.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003446         0   0.38500E-06  477567.5 3748797.1   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003447         0   0.38500E-06  477559.0 3748797.3   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003448         0   0.38500E-06  477550.5 3748797.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003449         0   0.38500E-06  477542.0 3748797.8   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003450         0   0.38500E-06  477533.5 3748798.0   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003451         0   0.38500E-06  477525.0 3748798.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003452         0   0.38500E-06  477516.5 3748798.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003453         0   0.38500E-06  477508.0 3748798.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003454         0   0.38500E-06  477499.5 3748798.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003455         0   0.38500E-06  477491.0 3748799.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003456         0   0.53270E-06  478255.5 3748984.6   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003457         0   0.53270E-06  478247.0 3748984.7   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003458         0   0.53270E-06  478238.5 3748984.7   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003459         0   0.53270E-06  478230.0 3748984.8   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003460         0   0.53270E-06  478221.5 3748984.9   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003461         0   0.53270E-06  478213.0 3748985.0   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003462         0   0.53270E-06  478204.5 3748985.1   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003463         0   0.53270E-06  478196.0 3748985.1   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003464         0   0.53270E-06  478187.5 3748985.2   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003465         0   0.53270E-06  478179.0 3748985.3   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003466         0   0.53270E-06  478170.5 3748985.4   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003467         0   0.53270E-06  478162.0 3748985.5   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003468         0   0.53270E-06  478153.5 3748985.5   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003469         0   0.53270E-06  478145.0 3748985.6   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003470         0   0.53270E-06  478136.5 3748985.7   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003471         0   0.53270E-06  478128.0 3748985.8   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003472         0   0.53270E-06  478119.5 3748985.9   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003473         0   0.53270E-06  478111.0 3748986.0   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003474         0   0.53270E-06  478102.5 3748986.0   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003475         0   0.53270E-06  478094.0 3748986.1   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003476         0   0.53270E-06  478085.5 3748986.2   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003477         0   0.53270E-06  478077.0 3748986.3   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003478         0   0.53270E-06  478068.5 3748986.4   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003479         0   0.53270E-06  478060.0 3748986.4   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003480         0   0.53270E-06  478051.5 3748986.5   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003481         0   0.53270E-06  478043.0 3748986.6   453.0      4.00      3.95      1.86      YES   HROFDY
 L0003482         0   0.53270E-06  478034.5 3748986.7   453.0      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                      ***
   13:40:13

   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                         Residential
                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003483         0   0.53270E-06  478026.0 3748986.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003484         0   0.53270E-06  478017.5 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003485         0   0.53270E-06  478009.0 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003486         0   0.53270E-06  478000.5 3748987.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003487         0   0.53270E-06  477992.0 3748987.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003488         0   0.53270E-06  477983.5 3748987.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003489         0   0.53270E-06  477975.0 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003490         0   0.53270E-06  477966.5 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003491         0   0.53270E-06  477958.0 3748987.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003492         0   0.53270E-06  477949.5 3748987.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003493         0   0.53270E-06  477941.0 3748987.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003494         0   0.53270E-06  477932.5 3748987.7   453.2     4.00     3.95     1.86     YES   HROFDY
 L0003495         0   0.53270E-06  477924.0 3748987.7   453.4     4.00     3.95     1.86     YES   HROFDY
 L0003496         0   0.53270E-06  477915.5 3748987.8   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003497         0   0.53270E-06  477907.0 3748987.9   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003498         0   0.53270E-06  477898.6 3748988.0   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003499         0   0.53270E-06  477890.1 3748988.1   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003500         0   0.53270E-06  477881.9 3748988.5   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003501         0   0.53270E-06  477881.9 3748997.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003502         0   0.53270E-06  477881.9 3749005.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003503         0   0.53270E-06  477881.9 3749014.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003504         0   0.53270E-06  477881.9 3749022.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003505         0   0.53270E-06  477881.9 3749031.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003506         0   0.53270E-06  477881.9 3749039.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003507         0   0.53270E-06  477881.9 3749048.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003508         0   0.53270E-06  477881.9 3749056.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003509         0   0.53270E-06  477881.9 3749065.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003510         0   0.53270E-06  477881.9 3749073.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003511         0   0.53270E-06  477881.9 3749082.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003512         0   0.53270E-06  477881.9 3749090.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003513         0   0.53270E-06  477881.9 3749099.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003514         0   0.53270E-06  477881.9 3749107.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003515         0   0.53270E-06  477881.9 3749116.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003516         0   0.53270E-06  477881.9 3749124.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003517         0   0.53270E-06  477881.9 3749133.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003518         0   0.53270E-06  477881.9 3749141.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003519         0   0.53270E-06  477881.9 3749150.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003520         0   0.53270E-06  477881.9 3749158.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003521         0   0.53270E-06  477881.9 3749167.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003522         0   0.53270E-06  477881.9 3749175.5   454.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003523         0   0.53270E-06  477881.9 3749184.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003524         0   0.53270E-06  477881.9 3749192.5   454.0     4.00     3.95     1.86     YES   HROFDY
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                                                     Residential
 L0003525         0   0.53270E-06  477881.9 3749201.0   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003526         0   0.53270E-06  477881.9 3749209.5   454.1      4.00      3.95      1.86      YES   HROFDY
 L0003527         0   0.53270E-06  477881.9 3749218.0   454.4      4.00      3.95      1.86      YES   HROFDY
 L0003528         0   0.53270E-06  477881.9 3749226.5   454.7      4.00      3.95      1.86      YES   HROFDY
 L0003529         0   0.53270E-06  477881.9 3749235.0   454.9      4.00      3.95      1.86      YES   HROFDY
 L0003530         0   0.53270E-06  477877.9 3749239.5   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003531         0   0.53270E-06  477869.4 3749239.6   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003532         0   0.53270E-06  477860.9 3749239.7   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003533         0   0.53270E-06  477852.4 3749239.9   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003534         0   0.53270E-06  477843.9 3749240.0   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003535         0   0.53270E-06  477835.4 3749240.1   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003536         0   0.53270E-06  477826.9 3749240.2   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003537         0   0.53270E-06  477818.4 3749240.3   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003538         0   0.53270E-06  477809.9 3749240.4   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003539         0   0.53270E-06  477801.4 3749240.5   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003540         0   0.53270E-06  477792.9 3749240.7   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003541         0   0.53270E-06  477784.4 3749240.8   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003542         0   0.53270E-06  477775.9 3749240.9   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003543         0   0.53270E-06  477767.4 3749241.0   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003544         0   0.53270E-06  477758.9 3749241.1   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003545         0   0.53270E-06  477750.4 3749241.2   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003546         0   0.53270E-06  477741.9 3749241.3   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003547         0   0.53270E-06  477733.4 3749241.4   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003548         0   0.53270E-06  477724.9 3749241.6   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003549         0   0.53270E-06  477716.4 3749241.7   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003550         0   0.53270E-06  477707.9 3749241.8   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003551         0   0.53270E-06  477699.4 3749241.9   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003552         0   0.53270E-06  477690.9 3749242.0   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003553         0   0.53270E-06  477682.4 3749242.1   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003554         0   0.53270E-06  477673.9 3749242.2   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003555         0   0.53270E-06  477665.4 3749242.4   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003556         0   0.53270E-06  477656.9 3749242.5   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003557         0   0.53270E-06  477648.4 3749242.6   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003558         0   0.53270E-06  477639.9 3749242.7   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003559         0   0.53270E-06  477631.4 3749242.8   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003560         0   0.53270E-06  477622.9 3749242.9   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003561         0   0.53270E-06  477614.4 3749243.0   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003562         0   0.53270E-06  477605.9 3749243.2   455.0      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                           BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X           Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)              BY
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 L0003563         0   0.53270E-06  477597.4 3749243.3   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003564         0   0.53270E-06  477588.9 3749243.4   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003565         0   0.53270E-06  477580.4 3749243.5   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003566         0   0.53270E-06  477571.9 3749243.6   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003567         0   0.53270E-06  477563.4 3749243.7   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003568         0   0.53270E-06  477554.9 3749243.8   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003569         0   0.53270E-06  477546.4 3749244.0   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003570         0   0.53270E-06  477537.9 3749244.1   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003571         0   0.53270E-06  477529.4 3749244.2   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003572         0   0.53270E-06  477520.9 3749244.3   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003573         0   0.53270E-06  477512.4 3749244.4   455.0      4.00      3.95      1.86      YES   HROFDY
 L0003574         0   0.53270E-06  477503.9 3749244.5   455.0      4.00      3.95      1.86      YES   HROFDY
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                                                   Residential
 L0003575         0   0.53270E-06  477495.4 3749244.6    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003576         0   0.53270E-06  477486.9 3749244.7    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003577         0   0.53270E-06  477478.4 3749244.9    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003578         0   0.53270E-06  477476.8 3749251.9    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003579         0   0.53270E-06  477476.7 3749260.4    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003580         0   0.53270E-06  477476.6 3749268.9    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003581         0   0.53270E-06  477476.5 3749277.4    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003582         0   0.53270E-06  477476.4 3749285.9    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003583         0   0.53270E-06  477476.3 3749294.4    455.0      4.00      3.95      1.86      YES    HROFDY
 L0003584         0   0.53270E-06  477476.2 3749302.9    455.1      4.00      3.95      1.86      YES    HROFDY
 L0003585         0   0.53270E-06  477476.0 3749311.4    455.2      4.00      3.95      1.86      YES    HROFDY
 L0003586         0   0.53270E-06  477475.9 3749319.9    455.4      4.00      3.95      1.86      YES    HROFDY
 L0003587         0   0.53270E-06  477475.8 3749328.4    455.5      4.00      3.95      1.86      YES    HROFDY
 L0003588         0   0.53270E-06  477475.7 3749336.9    455.7      4.00      3.95      1.86      YES    HROFDY
 L0003589         0   0.53270E-06  477475.6 3749345.4    455.8      4.00      3.95      1.86      YES    HROFDY
 L0003590         0   0.53270E-06  477475.5 3749353.9    455.9      4.00      3.95      1.86      YES    HROFDY
 L0003591         0   0.53270E-06  477475.4 3749362.4    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003592         0   0.53270E-06  477475.3 3749370.9    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003593         0   0.53270E-06  477475.1 3749379.4    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003594         0   0.53270E-06  477475.0 3749387.9    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003595         0   0.53270E-06  477474.9 3749396.4    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003596         0   0.53270E-06  477474.8 3749404.9    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003597         0   0.53270E-06  477474.7 3749413.4    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003598         0   0.53270E-06  477474.6 3749421.9    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003599         0   0.53270E-06  477474.5 3749430.4    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003600         0   0.53270E-06  477474.4 3749438.9    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003601         0   0.53270E-06  477474.2 3749447.4    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003602         0   0.53270E-06  477474.1 3749455.9    456.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
     03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                          BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)       X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                 (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0003603         0   0.53270E-06  477474.0 3749464.4    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003604         0   0.53270E-06  477473.9 3749472.9    456.0      4.00      3.95      1.86      YES    HROFDY
 L0003605         0   0.53270E-06  477473.8 3749481.4    456.2      4.00      3.95      1.86      YES    HROFDY
 L0003606         0   0.53270E-06  477473.7 3749489.9    456.4      4.00      3.95      1.86      YES    HROFDY
 L0003607         0   0.53270E-06  477473.6 3749498.4    456.7      4.00      3.95      1.86      YES    HROFDY
 L0003608         0   0.53270E-06  477473.5 3749506.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003609         0   0.53270E-06  477473.3 3749515.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003610         0   0.53270E-06  477473.2 3749523.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003611         0   0.53270E-06  477473.1 3749532.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003612         0   0.53270E-06  477473.0 3749540.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003613         0   0.53270E-06  477472.9 3749549.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003614         0   0.53270E-06  477472.8 3749557.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003615         0   0.53270E-06  477472.7 3749566.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003616         0   0.53270E-06  477472.6 3749574.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003617         0   0.53270E-06  477472.4 3749583.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003618         0   0.53270E-06  477472.3 3749591.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003619         0   0.53270E-06  477472.2 3749600.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003620         0   0.53270E-06  477472.1 3749608.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003621         0   0.53270E-06  477472.0 3749617.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003622         0   0.53270E-06  477471.9 3749625.9    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003623         0   0.53270E-06  477471.8 3749634.4    457.0      4.00      3.95      1.86      YES    HROFDY
 L0003624         0   0.53270E-06  477471.7 3749642.9    457.0      4.00      3.95      1.86      YES    HROFDY
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                                                 Residential
 L0003625         0   0.53270E-06  477471.5 3749651.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003626         0   0.53270E-06  477471.4 3749659.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003627         0   0.53270E-06  477471.3 3749668.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003628         0   0.53270E-06  477471.2 3749676.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003629         0   0.53270E-06  477471.1 3749685.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003630         0   0.53270E-06  477471.0 3749693.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003631         0   0.53270E-06  477470.9 3749702.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003632         0   0.53270E-06  477470.8 3749710.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003633         0   0.53270E-06  477470.6 3749719.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003634         0   0.53270E-06  477470.5 3749727.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003635         0   0.53270E-06  477470.4 3749736.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003636         0   0.53270E-06  477470.3 3749744.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003637         0   0.53270E-06  477470.2 3749753.4   457.2     4.00     3.95     1.86     YES   HROFDY
 L0003638         0   0.53270E-06  477470.1 3749761.9   457.5     4.00     3.95     1.86     YES   HROFDY
 L0003639         0   0.53270E-06  477470.0 3749770.4   457.8     4.00     3.95     1.86     YES   HROFDY
 L0003640         0   0.53270E-06  477469.9 3749778.9   458.0     4.00     3.95     1.86     YES   HROFDY
 L0003641         0   0.53270E-06  477469.7 3749787.4   458.0     4.00     3.95     1.86     YES   HROFDY
 L0005357         0   0.31930E-06  477901.9 3748181.5   450.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0005358         0   0.31930E-06  477893.4 3748181.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005359         0   0.31930E-06  477884.9 3748181.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005360         0   0.31930E-06  477876.4 3748181.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005361         0   0.31930E-06  477867.9 3748181.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005362         0   0.31930E-06  477859.4 3748181.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005363         0   0.31930E-06  477850.9 3748181.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005364         0   0.31930E-06  477842.4 3748182.0   450.2     4.00     3.95     1.86     YES   HROFDY
 L0005365         0   0.31930E-06  477833.9 3748182.1   450.5     4.00     3.95     1.86     YES   HROFDY
 L0005366         0   0.31930E-06  477825.4 3748182.1   450.7     4.00     3.95     1.86     YES   HROFDY
 L0005367         0   0.31930E-06  477816.9 3748182.2   450.9     4.00     3.95     1.86     YES   HROFDY
 L0005368         0   0.31930E-06  477808.4 3748182.3   450.9     4.00     3.95     1.86     YES   HROFDY
 L0005369         0   0.31930E-06  477799.9 3748182.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005370         0   0.31930E-06  477791.4 3748182.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005371         0   0.31930E-06  477782.9 3748182.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005372         0   0.31930E-06  477774.4 3748182.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005373         0   0.31930E-06  477765.9 3748182.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005374         0   0.31930E-06  477757.4 3748182.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005375         0   0.31930E-06  477748.9 3748182.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005376         0   0.31930E-06  477740.4 3748182.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005377         0   0.31930E-06  477731.9 3748182.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005378         0   0.31930E-06  477723.4 3748183.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005379         0   0.31930E-06  477714.9 3748183.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005380         0   0.31930E-06  477706.4 3748183.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005381         0   0.31930E-06  477697.9 3748183.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005382         0   0.31930E-06  477689.4 3748183.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005383         0   0.31930E-06  477680.9 3748183.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005384         0   0.31930E-06  477672.4 3748183.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005385         0   0.31930E-06  477663.9 3748183.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005386         0   0.31930E-06  477655.4 3748183.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005387         0   0.31930E-06  477646.9 3748183.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005388         0   0.31930E-06  477638.4 3748183.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005389         0   0.31930E-06  477629.9 3748183.7   451.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0005390         0   0.31930E-06  477621.4 3748183.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005391         0   0.31930E-06  477612.9 3748183.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005392         0   0.31930E-06  477604.4 3748183.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005393         0   0.31930E-06  477595.9 3748184.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005394         0   0.31930E-06  477587.4 3748184.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005395         0   0.31930E-06  477578.9 3748184.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005396         0   0.31930E-06  477570.4 3748184.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005397         0   0.31930E-06  477561.9 3748184.2   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0005398         0   0.31930E-06  477553.4 3748184.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005399         0   0.31930E-06  477544.9 3748184.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005400         0   0.31930E-06  477536.4 3748184.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005401         0   0.31930E-06  477527.9 3748184.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005402         0   0.31930E-06  477519.4 3748184.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005403         0   0.31930E-06  477510.9 3748184.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005404         0   0.31930E-06  477502.4 3748184.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005405         0   0.31930E-06  477493.9 3748184.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005406         0   0.31930E-06  477485.4 3748184.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005407         0   0.31930E-06  477476.9 3748184.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005408         0   0.31930E-06  477471.1 3748182.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005409         0   0.31930E-06  477470.9 3748173.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005410         0   0.31930E-06  477470.7 3748165.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005411         0   0.31930E-06  477470.6 3748156.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005412         0   0.31930E-06  477470.4 3748148.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005413         0   0.31930E-06  477470.2 3748139.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005414         0   0.31930E-06  477470.0 3748131.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005415         0   0.31930E-06  477469.8 3748122.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005416         0   0.31930E-06  477469.6 3748114.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005417         0   0.31930E-06  477469.4 3748105.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005418         0   0.31930E-06  477469.2 3748097.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005419         0   0.31930E-06  477469.0 3748088.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005420         0   0.31930E-06  477468.9 3748080.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005421         0   0.31930E-06  477468.7 3748071.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005422         0   0.31930E-06  477468.5 3748063.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005423         0   0.31930E-06  477468.3 3748054.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005424         0   0.31930E-06  477468.1 3748046.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005425         0   0.31930E-06  477467.9 3748037.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005426         0   0.31930E-06  477467.7 3748029.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005427         0   0.31930E-06  477467.5 3748020.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005428         0   0.31930E-06  477467.4 3748012.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005429         0   0.31930E-06  477467.2 3748003.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005430         0   0.31930E-06  477467.0 3747995.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005431         0   0.31930E-06  477466.8 3747986.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005432         0   0.31930E-06  477466.6 3747978.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005433         0   0.31930E-06  477466.4 3747969.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005434         0   0.31930E-06  477466.2 3747961.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005435         0   0.31930E-06  477466.0 3747952.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005436         0   0.31930E-06  477465.8 3747944.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005437         0   0.31930E-06  477465.7 3747935.7   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
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                                                    Residential
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   13:40:13

   PAGE  20
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0005438         0   0.31930E-06  477465.5 3747927.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005439         0   0.31930E-06  477465.3 3747918.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005440         0   0.31930E-06  477465.1 3747910.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005441         0   0.31930E-06  477464.9 3747901.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005442         0   0.31930E-06  477464.7 3747893.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005443         0   0.31930E-06  477464.5 3747884.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005444         0   0.31930E-06  477464.3 3747876.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005445         0   0.31930E-06  477464.1 3747867.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005446         0   0.31930E-06  477464.0 3747859.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005447         0   0.31930E-06  477463.8 3747850.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005448         0   0.31930E-06  477463.6 3747842.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005449         0   0.31930E-06  477463.4 3747833.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005450         0   0.31930E-06  477463.2 3747825.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005451         0   0.31930E-06  477463.0 3747816.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005452         0   0.31930E-06  477462.8 3747808.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005453         0   0.31930E-06  477462.6 3747799.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005454         0   0.31930E-06  477462.5 3747791.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005455         0   0.31930E-06  477462.3 3747782.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0003741         0   0.32420E-06  478279.2 3748320.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003742         0   0.32420E-06  478279.3 3748312.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003743         0   0.32420E-06  478279.5 3748303.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003744         0   0.32420E-06  478279.6 3748295.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003745         0   0.32420E-06  478279.8 3748286.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003746         0   0.32420E-06  478279.9 3748278.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003747         0   0.32420E-06  478280.1 3748269.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003748         0   0.32420E-06  478280.2 3748261.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003749         0   0.32420E-06  478280.3 3748252.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003750         0   0.32420E-06  478280.5 3748244.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003751         0   0.32420E-06  478280.6 3748235.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003752         0   0.32420E-06  478280.8 3748227.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003753         0   0.32420E-06  478280.9 3748218.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003754         0   0.32420E-06  478281.0 3748210.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003755         0   0.32420E-06  478281.2 3748201.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003756         0   0.32420E-06  478281.3 3748193.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003757         0   0.32420E-06  478281.5 3748184.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003758         0   0.32420E-06  478281.6 3748176.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003759         0   0.32420E-06  478281.7 3748167.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003760         0   0.32420E-06  478281.9 3748159.3   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003761         0   0.32420E-06  478282.0 3748150.8   449.8     4.00     3.95     1.86     YES   HROFDY
 L0003762         0   0.32420E-06  478282.2 3748142.3   449.5     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   13:40:13

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
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                                                        Residential
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT      SY        SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0003763         0   0.32420E-06  478282.3 3748133.8   449.2     4.00     3.95     1.86     YES   HROFDY
 L0003764         0   0.32420E-06  478282.4 3748125.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003765         0   0.32420E-06  478282.6 3748116.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003766         0   0.32420E-06  478282.7 3748108.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003767         0   0.32420E-06  478282.9 3748099.8   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003768         0   0.32420E-06  478283.0 3748091.3   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003769         0   0.32420E-06  478283.1 3748082.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003770         0   0.32420E-06  478283.3 3748074.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003771         0   0.32420E-06  478283.4 3748065.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003772         0   0.32420E-06  478283.6 3748057.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003773         0   0.32420E-06  478283.7 3748048.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003774         0   0.32420E-06  478283.8 3748040.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003775         0   0.32420E-06  478284.0 3748031.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003776         0   0.32420E-06  478284.1 3748023.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003777         0   0.32420E-06  478284.3 3748014.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003778         0   0.32420E-06  478284.4 3748006.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003779         0   0.32420E-06  478284.5 3747997.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003780         0   0.32420E-06  478284.7 3747989.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003781         0   0.32420E-06  478284.8 3747980.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003782         0   0.32420E-06  478285.0 3747972.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003783         0   0.32420E-06  478285.1 3747963.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003784         0   0.32420E-06  478285.2 3747955.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003785         0   0.32420E-06  478285.4 3747946.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003786         0   0.32420E-06  478285.5 3747938.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003787         0   0.32420E-06  478285.7 3747929.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003788         0   0.32420E-06  478285.8 3747921.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003789         0   0.32420E-06  478285.9 3747912.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003790         0   0.32420E-06  478286.1 3747904.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003791         0   0.32420E-06  478286.2 3747895.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003792         0   0.32420E-06  478286.4 3747887.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003793         0   0.32420E-06  478286.5 3747878.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003794         0   0.32420E-06  478286.6 3747870.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003795         0   0.32420E-06  478286.8 3747861.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003796         0   0.32420E-06  478286.9 3747853.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003797         0   0.32420E-06  478287.1 3747844.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003798         0   0.32420E-06  478287.2 3747836.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003799         0   0.32420E-06  478287.3 3747827.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003800         0   0.32420E-06  478287.5 3747819.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003801         0   0.32420E-06  478287.6 3747810.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003802         0   0.32420E-06  478287.8 3747802.4   449.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT      SY        SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0003803         0   0.32420E-06  478287.9 3747793.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003804         0   0.32420E-06  478288.0 3747785.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003805         0   0.32420E-06  478288.2 3747776.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0005456         0   0.42660E-06  477480.6 3749800.2   458.0     4.00     3.95     1.86     YES
 L0005457         0   0.42660E-06  477480.4 3749808.7   458.0     4.00     3.95     1.86     YES
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                                             Residential
  L0005458         0   0.42660E-06  477480.3 3749817.2   458.0     4.00     3.95     1.86     YES
  L0005459         0   0.42660E-06  477480.1 3749825.7   458.0     4.00     3.95     1.86     YES
  L0005460         0   0.42660E-06  477480.0 3749834.2   458.0     4.00     3.95     1.86     YES
  L0005461         0   0.42660E-06  477479.9 3749842.7   458.0     4.00     3.95     1.86     YES
  L0005462         0   0.42660E-06  477479.7 3749851.2   458.0     4.00     3.95     1.86     YES
  L0005463         0   0.42660E-06  477479.6 3749859.7   458.0     4.00     3.95     1.86     YES
  L0005464         0   0.42660E-06  477479.5 3749868.2   458.0     4.00     3.95     1.86     YES
  L0005465         0   0.42660E-06  477479.3 3749876.7   458.0     4.00     3.95     1.86     YES
  L0005466         0   0.42660E-06  477479.2 3749885.2   458.0     4.00     3.95     1.86     YES
  L0005467         0   0.42660E-06  477479.1 3749893.7   458.0     4.00     3.95     1.86     YES
  L0005468         0   0.42660E-06  477478.9 3749902.2   458.0     4.00     3.95     1.86     YES
  L0005469         0   0.42660E-06  477478.8 3749910.7   458.0     4.00     3.95     1.86     YES
  L0005470         0   0.42660E-06  477478.7 3749919.2   458.0     4.00     3.95     1.86     YES
  L0005471         0   0.42660E-06  477478.5 3749927.7   458.0     4.00     3.95     1.86     YES
  L0005472         0   0.42660E-06  477478.4 3749936.2   458.0     4.00     3.95     1.86     YES
  L0005473         0   0.42660E-06  477478.2 3749944.7   458.0     4.00     3.95     1.86     YES
  L0005474         0   0.42660E-06  477478.1 3749953.2   458.0     4.00     3.95     1.86     YES
  L0005475         0   0.42660E-06  477478.0 3749961.7   458.2     4.00     3.95     1.86     YES
  L0005476         0   0.42660E-06  477477.8 3749970.2   458.4     4.00     3.95     1.86     YES
  L0005477         0   0.42660E-06  477477.7 3749978.7   458.7     4.00     3.95     1.86     YES
  L0005478         0   0.42660E-06  477477.6 3749987.2   459.0     4.00     3.95     1.86     YES
  L0005479         0   0.42660E-06  477477.4 3749995.7   459.0     4.00     3.95     1.86     YES
  L0005480         0   0.42660E-06  477477.3 3750004.2   459.0     4.00     3.95     1.86     YES
  L0005481         0   0.42660E-06  477477.2 3750012.7   459.0     4.00     3.95     1.86     YES
  L0005482         0   0.42660E-06  477477.0 3750021.2   459.0     4.00     3.95     1.86     YES
  L0005483         0   0.42660E-06  477476.9 3750029.7   459.0     4.00     3.95     1.86     YES
  L0005484         0   0.42660E-06  477476.8 3750038.2   459.0     4.00     3.95     1.86     YES
  L0005485         0   0.42660E-06  477476.6 3750046.7   459.0     4.00     3.95     1.86     YES
  L0005486         0   0.42660E-06  477476.5 3750055.2   459.0     4.00     3.95     1.86     YES
  L0005487         0   0.42660E-06  477476.3 3750063.7   459.0     4.00     3.95     1.86     YES
  L0005488         0   0.42660E-06  477476.2 3750072.2   459.0     4.00     3.95     1.86     YES
  L0005489         0   0.42660E-06  477476.1 3750080.7   459.0     4.00     3.95     1.86     YES
  L0005490         0   0.42660E-06  477475.9 3750089.2   459.0     4.00     3.95     1.86     YES
  L0005491         0   0.42660E-06  477475.8 3750097.7   459.0     4.00     3.95     1.86     YES
  L0005492         0   0.42660E-06  477475.7 3750106.2   459.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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  L0005493         0   0.42660E-06  477475.5 3750114.7   459.0     4.00     3.95     1.86     YES
  L0005494         0   0.42660E-06  477475.4 3750123.2   459.0     4.00     3.95     1.86     YES
  L0005495         0   0.42660E-06  477475.3 3750131.7   459.0     4.00     3.95     1.86     YES
  L0005496         0   0.42660E-06  477475.1 3750140.2   459.0     4.00     3.95     1.86     YES
  L0005497         0   0.42660E-06  477475.0 3750148.7   459.0     4.00     3.95     1.86     YES
  L0005498         0   0.42660E-06  477474.8 3750157.2   459.0     4.00     3.95     1.86     YES
  L0005499         0   0.42660E-06  477474.7 3750165.7   459.0     4.00     3.95     1.86     YES
  L0005500         0   0.42660E-06  477474.2 3750174.2   459.0     4.00     3.95     1.86     YES
  L0005501         0   0.42660E-06  477473.5 3750182.6   459.0     4.00     3.95     1.86     YES
  L0005502         0   0.42660E-06  477472.8 3750191.1   459.0     4.00     3.95     1.86     YES
  L0005503         0   0.42660E-06  477472.1 3750199.6   459.0     4.00     3.95     1.86     YES
  L0005504         0   0.42660E-06  477471.4 3750208.0   459.2     4.00     3.95     1.86     YES
  L0005505         0   0.42660E-06  477470.7 3750216.5   459.2     4.00     3.95     1.86     YES
  L0005506         0   0.42660E-06  477470.0 3750225.0   459.3     4.00     3.95     1.86     YES
  L0005507         0   0.42660E-06  477469.3 3750233.5   459.5     4.00     3.95     1.86     YES
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                                                  Residential
 L0005508         0   0.42660E-06  477468.7 3750241.9   459.7     4.00     3.95     1.86     YES
 L0005509         0   0.42660E-06  477468.0 3750250.4   459.9     4.00     3.95     1.86     YES
 L0005510         0   0.42660E-06  477467.3 3750258.9   460.0     4.00     3.95     1.86     YES
 L0005511         0   0.42660E-06  477466.6 3750267.3   460.0     4.00     3.95     1.86     YES
 L0005512         0   0.42660E-06  477466.5 3750275.8   460.0     4.00     3.95     1.86     YES
 L0005513         0   0.42660E-06  477466.5 3750284.3   460.0     4.00     3.95     1.86     YES
 L0005514         0   0.42660E-06  477466.5 3750292.8   460.0     4.00     3.95     1.86     YES
 L0005515         0   0.42660E-06  477466.6 3750301.3   460.0     4.00     3.95     1.86     YES
 L0005516         0   0.42660E-06  477466.6 3750309.8   460.0     4.00     3.95     1.86     YES
 L0005517         0   0.42660E-06  477466.6 3750318.3   460.0     4.00     3.95     1.86     YES
 L0005518         0   0.42660E-06  477466.7 3750326.8   460.0     4.00     3.95     1.86     YES
 L0005519         0   0.42660E-06  477466.7 3750335.3   460.0     4.00     3.95     1.86     YES
 L0005520         0   0.42660E-06  477466.7 3750343.8   460.0     4.00     3.95     1.86     YES
 L0005521         0   0.42660E-06  477466.8 3750352.3   460.0     4.00     3.95     1.86     YES
 L0005522         0   0.42660E-06  477466.8 3750360.8   460.0     4.00     3.95     1.86     YES
 L0005523         0   0.42660E-06  477466.9 3750369.3   460.0     4.00     3.95     1.86     YES
 L0005524         0   0.42660E-06  477466.9 3750377.8   460.0     4.00     3.95     1.86     YES
 L0005525         0   0.42660E-06  477466.9 3750386.3   460.0     4.00     3.95     1.86     YES
 L0005526         0   0.42660E-06  477467.0 3750394.8   460.0     4.00     3.95     1.86     YES
 L0005527         0   0.42660E-06  477467.0 3750403.3   460.0     4.00     3.95     1.86     YES
 L0005528         0   0.42660E-06  477467.0 3750411.8   460.0     4.00     3.95     1.86     YES
 L0005529         0   0.42660E-06  477467.1 3750420.3   460.0     4.00     3.95     1.86     YES
 L0005530         0   0.42660E-06  477467.1 3750428.8   460.0     4.00     3.95     1.86     YES
 L0005531         0   0.42660E-06  477467.1 3750437.3   460.0     4.00     3.95     1.86     YES
 L0005532         0   0.42660E-06  477467.2 3750445.8   460.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0005533         0   0.42660E-06  477467.2 3750454.3   460.0     4.00     3.95     1.86     YES
 L0005534         0   0.42660E-06  477467.3 3750462.8   460.0     4.00     3.95     1.86     YES
 L0005535         0   0.42660E-06  477467.3 3750471.3   460.2     4.00     3.95     1.86     YES
 L0005536         0   0.42660E-06  477467.3 3750479.8   460.4     4.00     3.95     1.86     YES
 L0005537         0   0.42660E-06  477467.4 3750488.3   460.7     4.00     3.95     1.86     YES
 L0005538         0   0.42660E-06  477467.4 3750496.8   461.0     4.00     3.95     1.86     YES
 L0005539         0   0.42660E-06  477467.4 3750505.3   461.0     4.00     3.95     1.86     YES
 L0005540         0   0.42660E-06  477467.5 3750513.8   461.0     4.00     3.95     1.86     YES
 L0005541         0   0.42660E-06  477467.5 3750522.3   461.0     4.00     3.95     1.86     YES
 L0005542         0   0.42660E-06  477467.5 3750530.8   461.0     4.00     3.95     1.86     YES
 L0005543         0   0.42660E-06  477467.6 3750539.3   461.0     4.00     3.95     1.86     YES
 L0005544         0   0.42660E-06  477467.7 3750547.8   461.0     4.00     3.95     1.86     YES
 L0005545         0   0.42660E-06  477467.9 3750556.3   461.0     4.00     3.95     1.86     YES
 L0005546         0   0.42660E-06  477468.2 3750564.8   461.0     4.00     3.95     1.86     YES
 L0005547         0   0.42660E-06  477468.4 3750573.3   461.0     4.00     3.95     1.86     YES
 L0005548         0   0.42660E-06  477468.7 3750581.8   461.0     4.00     3.95     1.86     YES
 L0005549         0   0.42660E-06  477468.9 3750590.3   461.0     4.00     3.95     1.86     YES
 L0005550         0   0.42660E-06  477469.2 3750598.8   461.0     4.00     3.95     1.86     YES
 L0005551         0   0.42660E-06  477469.4 3750607.3   461.0     4.00     3.95     1.86     YES
 L0005552         0   0.42660E-06  477469.7 3750615.8   461.0     4.00     3.95     1.86     YES
 L0005553         0   0.42660E-06  477469.9 3750624.3   461.0     4.00     3.95     1.86     YES
 L0005554         0   0.42660E-06  477470.2 3750632.8   461.0     4.00     3.95     1.86     YES
 L0005555         0   0.42660E-06  477470.4 3750641.3   461.0     4.00     3.95     1.86     YES
 L0005556         0   0.42660E-06  477470.7 3750649.8   461.0     4.00     3.95     1.86     YES
 L0005557         0   0.42660E-06  477470.9 3750658.3   461.2     4.00     3.95     1.86     YES
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                                                       Residential
 L0005558         0   0.42660E-06  477471.2 3750666.8   461.3      4.00     3.95     1.86     YES
 L0005559         0   0.42660E-06  477471.4 3750675.3   461.4      4.00     3.95     1.86     YES
 L0005560         0   0.42660E-06  477471.7 3750683.8   461.5      4.00     3.95     1.86     YES
 L0005561         0   0.42660E-06  477471.9 3750692.3   461.7      4.00     3.95     1.86     YES
 L0005562         0   0.42660E-06  477472.2 3750700.8   461.9      4.00     3.95     1.86     YES
 L0005563         0   0.42660E-06  477472.4 3750709.3   462.0      4.00     3.95     1.86     YES
 L0005564         0   0.42660E-06  477472.7 3750717.8   462.0      4.00     3.95     1.86     YES
 L0005565         0   0.42660E-06  477472.9 3750726.3   462.0      4.00     3.95     1.86     YES
 L0005566         0   0.42660E-06  477473.2 3750734.8   462.0      4.00     3.95     1.86     YES
 L0005567         0   0.42660E-06  477473.4 3750743.3   462.0      4.00     3.95     1.86     YES
 L0005568         0   0.42660E-06  477473.7 3750751.7   462.0      4.00     3.95     1.86     YES
 L0005569         0   0.42660E-06  477473.9 3750760.2   462.0      4.00     3.95     1.86     YES
 L0005570         0   0.42660E-06  477474.2 3750768.7   462.0      4.00     3.95     1.86     YES
 L0005571         0   0.42660E-06  477474.4 3750777.2   462.0      4.00     3.95     1.86     YES
 L0005572         0   0.42660E-06  477474.7 3750785.7   462.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  25
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                  BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0005573         0   0.42660E-06  477474.9 3750794.2   462.0      4.00     3.95     1.86     YES
 L0005574         0   0.42660E-06  477475.2 3750802.7   462.0      4.00     3.95     1.86     YES
 L0005575         0   0.42660E-06  477475.4 3750811.2   462.0      4.00     3.95     1.86     YES
 L0005576         0   0.42660E-06  477475.7 3750819.7   462.0      4.00     3.95     1.86     YES
 L0005577         0   0.42660E-06  477475.9 3750828.2   462.0      4.00     3.95     1.86     YES
 L0005578         0   0.42660E-06  477476.2 3750836.7   462.0      4.00     3.95     1.86     YES
 L0005579         0   0.42660E-06  477476.4 3750845.2   462.0      4.00     3.95     1.86     YES
 L0005580         0   0.42660E-06  477476.7 3750853.7   462.0      4.00     3.95     1.86     YES
 L0005581         0   0.42660E-06  477476.9 3750862.2   462.1      4.00     3.95     1.86     YES
 L0005582         0   0.42660E-06  477477.1 3750870.7   462.3      4.00     3.95     1.86     YES
 L0005583         0   0.42660E-06  477477.1 3750879.2   462.4      4.00     3.95     1.86     YES
 L0005584         0   0.42660E-06  477477.2 3750887.7   462.6      4.00     3.95     1.86     YES
 L0005585         0   0.42660E-06  477477.2 3750896.2   462.7      4.00     3.95     1.86     YES
 L0005586         0   0.42660E-06  477477.3 3750904.7   462.8      4.00     3.95     1.86     YES
 L0005587         0   0.42660E-06  477477.3 3750913.2   462.9      4.00     3.95     1.86     YES
 L0005588         0   0.42660E-06  477477.4 3750921.7   463.0      4.00     3.95     1.86     YES
 L0005589         0   0.42660E-06  477477.4 3750930.2   463.0      4.00     3.95     1.86     YES
 L0005590         0   0.42660E-06  477477.5 3750938.7   463.0      4.00     3.95     1.86     YES
 L0005591         0   0.42660E-06  477477.6 3750947.2   463.0      4.00     3.95     1.86     YES
 L0005592         0   0.42660E-06  477477.6 3750955.7   463.0      4.00     3.95     1.86     YES
 L0005593         0   0.42660E-06  477477.7 3750964.2   463.0      4.00     3.95     1.86     YES
 L0005594         0   0.42660E-06  477477.7 3750972.7   463.0      4.00     3.95     1.86     YES
 L0005595         0   0.42660E-06  477477.8 3750981.2   463.0      4.00     3.95     1.86     YES
 L0005596         0   0.42660E-06  477477.8 3750989.7   463.0      4.00     3.95     1.86     YES
 L0005597         0   0.42660E-06  477477.9 3750998.2   463.0      4.00     3.95     1.86     YES
 L0005598         0   0.42660E-06  477477.9 3751006.7   463.0      4.00     3.95     1.86     YES
 L0005599         0   0.42660E-06  477478.0 3751015.2   463.0      4.00     3.95     1.86     YES
 L0005600         0   0.42660E-06  477478.0 3751023.7   463.0      4.00     3.95     1.86     YES
 L0005601         0   0.42660E-06  477478.1 3751032.2   463.0      4.00     3.95     1.86     YES
 L0005602         0   0.42660E-06  477478.1 3751040.7   463.0      4.00     3.95     1.86     YES
 L0005603         0   0.42660E-06  477478.2 3751049.2   463.0      4.00     3.95     1.86     YES
 L0005604         0   0.42660E-06  477478.3 3751057.7   463.0      4.00     3.95     1.86     YES
 L0005605         0   0.42660E-06  477478.3 3751066.2   463.0      4.00     3.95     1.86     YES
 L0005606         0   0.42660E-06  477478.4 3751074.7   463.2      4.00     3.95     1.86     YES
 L0005607         0   0.42660E-06  477478.4 3751083.2   463.3      4.00     3.95     1.86     YES
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                                         Residential
 L0005608         0   0.42660E-06  477478.5 3751091.7   463.5     4.00     3.95     1.86     YES
 L0005609         0   0.42660E-06  477478.5 3751100.2   463.7     4.00     3.95     1.86     YES
 L0005610         0   0.42660E-06  477478.6 3751108.7   463.8     4.00     3.95     1.86     YES
 L0005611         0   0.42660E-06  477478.6 3751117.2   463.9     4.00     3.95     1.86     YES
 L0005612         0   0.42660E-06  477478.7 3751125.7   464.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:40:13

  PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0005613         0   0.42660E-06  477478.7 3751134.2   464.0     4.00     3.95     1.86     YES
 L0005614         0   0.42660E-06  477478.8 3751142.7   464.0     4.00     3.95     1.86     YES
 L0005615         0   0.42660E-06  477478.9 3751151.2   464.0     4.00     3.95     1.86     YES
 L0005616         0   0.42660E-06  477478.9 3751159.7   464.0     4.00     3.95     1.86     YES
 L0005617         0   0.42660E-06  477479.0 3751168.2   464.0     4.00     3.95     1.86     YES
 L0005618         0   0.42660E-06  477479.0 3751176.7   464.0     4.00     3.95     1.86     YES
 L0005619         0   0.42660E-06  477479.1 3751185.2   464.0     4.00     3.95     1.86     YES
 L0005620         0   0.42660E-06  477479.1 3751193.7   464.0     4.00     3.95     1.86     YES
 L0005621         0   0.42660E-06  477479.2 3751202.2   464.0     4.00     3.95     1.86     YES
 L0005622         0   0.42660E-06  477479.2 3751210.7   464.0     4.00     3.95     1.86     YES
 L0005623         0   0.42660E-06  477479.3 3751219.2   464.0     4.00     3.95     1.86     YES
 L0005624         0   0.42660E-06  477479.3 3751227.7   464.0     4.00     3.95     1.86     YES
 L0005625         0   0.42660E-06  477479.4 3751236.2   464.0     4.00     3.95     1.86     YES
 L0005626         0   0.42660E-06  477479.3 3751244.7   464.0     4.00     3.95     1.86     YES
 L0005627         0   0.42660E-06  477479.3 3751253.2   464.2     4.00     3.95     1.86     YES
 L0005628         0   0.42660E-06  477479.2 3751261.7   464.5     4.00     3.95     1.86     YES
 L0005629         0   0.42660E-06  477479.2 3751270.2   464.8     4.00     3.95     1.86     YES
 L0005630         0   0.42660E-06  477479.1 3751278.7   465.0     4.00     3.95     1.86     YES
 L0005631         0   0.42660E-06  477479.0 3751287.2   465.0     4.00     3.95     1.86     YES
 L0005632         0   0.42660E-06  477479.0 3751295.7   465.0     4.00     3.95     1.86     YES
 L0005633         0   0.42660E-06  477478.9 3751304.2   465.0     4.00     3.95     1.86     YES
 L0005634         0   0.42660E-06  477478.9 3751312.7   465.0     4.00     3.95     1.86     YES
 L0005635         0   0.42660E-06  477478.8 3751321.2   465.0     4.00     3.95     1.86     YES
 L0005636         0   0.42660E-06  477478.7 3751329.7   465.0     4.00     3.95     1.86     YES
 L0005637         0   0.42660E-06  477478.7 3751338.2   465.0     4.00     3.95     1.86     YES
 L0005638         0   0.42660E-06  477478.6 3751346.7   465.0     4.00     3.95     1.86     YES
 L0005639         0   0.42660E-06  477478.6 3751355.2   465.0     4.00     3.95     1.86     YES
 L0005640         0   0.42660E-06  477478.5 3751363.7   465.0     4.00     3.95     1.86     YES
 L0005641         0   0.42660E-06  477478.5 3751372.2   465.0     4.00     3.95     1.86     YES
 L0005642         0   0.42660E-06  477478.4 3751380.7   465.0     4.00     3.95     1.86     YES
 L0005643         0   0.42660E-06  477478.3 3751389.2   465.0     4.00     3.95     1.86     YES
 L0005644         0   0.42660E-06  477478.3 3751397.7   465.0     4.00     3.95     1.86     YES
 L0005645         0   0.42660E-06  477478.2 3751406.2   465.0     4.00     3.95     1.86     YES
 L0005646         0   0.42660E-06  477478.2 3751414.7   465.0     4.00     3.95     1.86     YES
 L0005647         0   0.42660E-06  477478.1 3751423.2   465.0     4.00     3.95     1.86     YES
 L0005648         0   0.42660E-06  477478.0 3751431.7   465.2     4.00     3.95     1.86     YES
 L0005649         0   0.42660E-06  477478.0 3751440.2   465.4     4.00     3.95     1.86     YES
 L0005650         0   0.42660E-06  477477.9 3751448.7   465.7     4.00     3.95     1.86     YES
 L0005651         0   0.42660E-06  477477.9 3751457.2   466.0     4.00     3.95     1.86     YES
 L0005652         0   0.42660E-06  477477.8 3751465.7   466.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
  13:40:13
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  PAGE  27
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

            NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE     PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID       CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0005653        0   0.42660E-06  477477.8 3751474.2   466.0     4.00     3.95     1.86     YES
 L0005654        0   0.42660E-06  477477.7 3751482.7   466.0     4.00     3.95     1.86     YES
 L0005655        0   0.42660E-06  477477.6 3751491.2   466.0     4.00     3.95     1.86     YES
 L0005656        0   0.42660E-06  477477.6 3751499.7   466.0     4.00     3.95     1.86     YES
 L0005657        0   0.42660E-06  477477.5 3751508.2   466.0     4.00     3.95     1.86     YES
 L0005658        0   0.42660E-06  477477.5 3751516.7   466.0     4.00     3.95     1.86     YES
 L0005659        0   0.42660E-06  477477.4 3751525.2   466.0     4.00     3.95     1.86     YES
 L0005660        0   0.42660E-06  477477.3 3751533.7   466.0     4.00     3.95     1.86     YES
 L0005661        0   0.42660E-06  477477.3 3751542.2   466.0     4.00     3.95     1.86     YES
 L0005662        0   0.42660E-06  477477.2 3751550.7   466.0     4.00     3.95     1.86     YES
 L0005663        0   0.42660E-06  477477.2 3751559.2   466.0     4.00     3.95     1.86     YES
 L0005664        0   0.42660E-06  477477.1 3751567.7   466.0     4.00     3.95     1.86     YES
 L0005665        0   0.42660E-06  477477.0 3751576.2   466.0     4.00     3.95     1.86     YES
 L0005666        0   0.42660E-06  477477.0 3751584.7   466.0     4.00     3.95     1.86     YES
 L0005667        0   0.42660E-06  477476.9 3751593.2   466.0     4.00     3.95     1.86     YES
 L0005668        0   0.42660E-06  477476.9 3751601.7   466.0     4.00     3.95     1.86     YES
 L0005669        0   0.42660E-06  477476.8 3751610.2   466.1     4.00     3.95     1.86     YES
 L0005670        0   0.42660E-06  477476.8 3751618.7   466.2     4.00     3.95     1.86     YES
 L0005671        0   0.42660E-06  477476.7 3751627.2   466.4     4.00     3.95     1.86     YES
 L0005672        0   0.42660E-06  477476.6 3751635.7   466.6     4.00     3.95     1.86     YES
 L0005673        0   0.42660E-06  477476.6 3751644.2   466.7     4.00     3.95     1.86     YES
 L0005674        0   0.42660E-06  477476.5 3751652.7   466.8     4.00     3.95     1.86     YES
 L0005675        0   0.42660E-06  477476.5 3751661.2   466.9     4.00     3.95     1.86     YES
 L0005676        0   0.42660E-06  477476.4 3751669.7   467.0     4.00     3.95     1.86     YES
 L0005677        0   0.42660E-06  477476.3 3751678.2   467.0     4.00     3.95     1.86     YES
 L0005678        0   0.42660E-06  477476.3 3751686.7   467.0     4.00     3.95     1.86     YES
 L0005679        0   0.42660E-06  477476.2 3751695.2   467.0     4.00     3.95     1.86     YES
 L0005680        0   0.42660E-06  477476.2 3751703.7   467.0     4.00     3.95     1.86     YES
 L0005681        0   0.42660E-06  477476.1 3751712.2   467.0     4.00     3.95     1.86     YES
 L0005682        0   0.42660E-06  477476.1 3751720.7   467.0     4.00     3.95     1.86     YES
 L0005683        0   0.42660E-06  477476.0 3751729.2   467.1     4.00     3.95     1.86     YES
 L0005684        0   0.42660E-06  477475.9 3751737.7   467.2     4.00     3.95     1.86     YES
 L0005685        0   0.42660E-06  477475.9 3751746.2   467.4     4.00     3.95     1.86     YES
 L0005686        0   0.42660E-06  477475.8 3751754.7   467.5     4.00     3.95     1.86     YES
 L0005687        0   0.42660E-06  477475.8 3751763.2   467.6     4.00     3.95     1.86     YES
 L0005688        0   0.42660E-06  477475.7 3751771.7   467.8     4.00     3.95     1.86     YES
 L0005689        0   0.42660E-06  477475.6 3751780.2   467.9     4.00     3.95     1.86     YES
 L0005690        0   0.42660E-06  477475.6 3751788.7   468.0     4.00     3.95     1.86     YES
 L0005691        0   0.42660E-06  477475.5 3751797.2   468.0     4.00     3.95     1.86     YES
 L0005692        0   0.42660E-06  477475.5 3751805.7   468.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

  PAGE  28
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

            NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE     PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID       CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                   Residential
- - - -

 L0005693         0   0.42660E-06  477475.4 3751814.2   468.0     4.00     3.95     1.86     YES
 L0005694         0   0.42660E-06  477475.4 3751822.7   468.0     4.00     3.95     1.86     YES
 L0005695         0   0.42660E-06  477475.3 3751831.2   468.0     4.00     3.95     1.86     YES
 L0005696         0   0.42660E-06  477475.2 3751839.7   468.0     4.00     3.95     1.86     YES
 L0005697         0   0.42660E-06  477475.2 3751848.2   468.0     4.00     3.95     1.86     YES
 L0005698         0   0.42660E-06  477475.1 3751856.7   468.0     4.00     3.95     1.86     YES
 L0005699         0   0.42660E-06  477475.1 3751865.2   468.0     4.00     3.95     1.86     YES
 L0005700         0   0.42660E-06  477475.0 3751873.7   468.0     4.00     3.95     1.86     YES
 L0005701         0   0.42660E-06  477474.9 3751882.2   468.2     4.00     3.95     1.86     YES
 L0005702         0   0.42660E-06  477474.9 3751890.7   468.5     4.00     3.95     1.86     YES
 L0005703         0   0.42660E-06  477474.8 3751899.2   468.8     4.00     3.95     1.86     YES
 L0005704         0   0.42660E-06  477474.8 3751907.7   469.0     4.00     3.95     1.86     YES
 L0005705         0   0.42660E-06  477474.7 3751916.2   469.0     4.00     3.95     1.86     YES
 L0005706         0   0.42660E-06  477474.7 3751924.7   469.0     4.00     3.95     1.86     YES
 L0005707         0   0.42660E-06  477474.6 3751933.2   469.0     4.00     3.95     1.86     YES
 L0005708         0   0.42660E-06  477474.5 3751941.7   469.0     4.00     3.95     1.86     YES
 L0005709         0   0.42660E-06  477474.5 3751950.2   469.0     4.00     3.95     1.86     YES
 L0005710         0   0.42660E-06  477474.4 3751958.7   469.0     4.00     3.95     1.86     YES
 L0005711         0   0.42660E-06  477474.4 3751967.2   469.0     4.00     3.95     1.86     YES
 L0005712         0   0.42660E-06  477474.3 3751975.7   469.0     4.00     3.95     1.86     YES
 L0005713         0   0.42660E-06  477474.2 3751984.2   469.0     4.00     3.95     1.86     YES
 L0005714         0   0.42660E-06  477474.2 3751992.7   469.0     4.00     3.95     1.86     YES
 L0005715         0   0.42660E-06  477474.1 3752001.2   469.0     4.00     3.95     1.86     YES
 L0005716         0   0.42660E-06  477474.1 3752009.7   469.0     4.00     3.95     1.86     YES
 L0005717         0   0.42660E-06  477474.0 3752018.2   469.0     4.00     3.95     1.86     YES
 L0005718         0   0.42660E-06  477474.0 3752026.7   469.0     4.00     3.95     1.86     YES
 L0005719         0   0.42660E-06  477473.9 3752035.2   469.1     4.00     3.95     1.86     YES
 L0005720         0   0.42660E-06  477473.8 3752043.7   469.3     4.00     3.95     1.86     YES
 L0005721         0   0.42660E-06  477473.8 3752052.2   469.4     4.00     3.95     1.86     YES
 L0005722         0   0.42660E-06  477473.7 3752060.7   469.5     4.00     3.95     1.86     YES
 L0005723         0   0.42660E-06  477473.7 3752069.2   469.5     4.00     3.95     1.86     YES
 L0005724         0   0.42660E-06  477473.6 3752077.7   469.5     4.00     3.95     1.86     YES
 L0005725         0   0.42660E-06  477473.5 3752086.2   469.5     4.00     3.95     1.86     YES
 L0005726         0   0.42660E-06  477473.5 3752094.7   469.6     4.00     3.95     1.86     YES
 L0005727         0   0.42660E-06  477473.4 3752103.2   469.8     4.00     3.95     1.86     YES
 L0005728         0   0.42660E-06  477473.4 3752111.7   469.9     4.00     3.95     1.86     YES
 L0005729         0   0.42660E-06  477473.3 3752120.2   470.1     4.00     3.95     1.86     YES
 L0005730         0   0.42660E-06  477473.3 3752128.7   470.2     4.00     3.95     1.86     YES
 L0005731         0   0.42660E-06  477473.2 3752137.2   470.3     4.00     3.95     1.86     YES
 L0005732         0   0.42660E-06  477473.1 3752145.7   470.4     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID          CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0005733         0   0.42660E-06  477473.1 3752154.2   470.6     4.00     3.95     1.86     YES
 L0005734         0   0.42660E-06  477473.0 3752162.7   470.7     4.00     3.95     1.86     YES
 L0005735         0   0.42660E-06  477473.0 3752171.2   470.9     4.00     3.95     1.86     YES
 L0005736         0   0.42660E-06  477472.9 3752179.7   471.0     4.00     3.95     1.86     YES
 L0005737         0   0.42660E-06  477472.8 3752188.2   471.0     4.00     3.95     1.86     YES
 L0005738         0   0.42660E-06  477472.8 3752196.7   471.0     4.00     3.95     1.86     YES
 L0005739         0   0.42660E-06  477472.7 3752205.2   471.0     4.00     3.95     1.86     YES
 L0005740         0   0.42660E-06  477472.7 3752213.7   471.2     4.00     3.95     1.86     YES
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                                                 Residential
 L0005741         0   0.42660E-06  477472.6 3752222.2   471.5     4.00     3.95     1.86     YES
 L0005742         0   0.42660E-06  477468.0 3752226.1   471.7     4.00     3.95     1.86     YES
 L0005743         0   0.42660E-06  477459.5 3752226.1   471.7     4.00     3.95     1.86     YES
 L0005744         0   0.42660E-06  477451.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005745         0   0.42660E-06  477442.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005746         0   0.42660E-06  477434.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005747         0   0.42660E-06  477425.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005748         0   0.42660E-06  477417.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005749         0   0.42660E-06  477408.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005750         0   0.42660E-06  477400.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005751         0   0.42660E-06  477391.5 3752226.2   471.5     4.00     3.95     1.86     YES
 L0005752         0   0.42660E-06  477383.0 3752226.2   471.3     4.00     3.95     1.86     YES
 L0005753         0   0.42660E-06  477374.5 3752226.2   471.1     4.00     3.95     1.86     YES
 L0005754         0   0.42660E-06  477366.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005755         0   0.42660E-06  477357.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005756         0   0.42660E-06  477349.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005757         0   0.42660E-06  477340.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005758         0   0.42660E-06  477332.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005759         0   0.42660E-06  477323.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005760         0   0.42660E-06  477315.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005761         0   0.42660E-06  477306.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005762         0   0.42660E-06  477298.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005763         0   0.42660E-06  477289.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005764         0   0.42660E-06  477281.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005765         0   0.42660E-06  477272.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005766         0   0.42660E-06  477264.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005767         0   0.42660E-06  477255.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005768         0   0.42660E-06  477247.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005769         0   0.42660E-06  477238.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005770         0   0.42660E-06  477230.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005771         0   0.42660E-06  477221.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005772         0   0.42660E-06  477213.0 3752226.4   471.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0005773         0   0.42660E-06  477204.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005774         0   0.42660E-06  477196.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005775         0   0.42660E-06  477187.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005776         0   0.42660E-06  477179.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005777         0   0.42660E-06  477170.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005778         0   0.42660E-06  477162.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005779         0   0.42660E-06  477153.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005780         0   0.42660E-06  477145.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005781         0   0.42660E-06  477136.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005782         0   0.42660E-06  477128.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005783         0   0.42660E-06  477119.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005784         0   0.42660E-06  477111.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005785         0   0.42660E-06  477102.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005786         0   0.42660E-06  477094.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005787         0   0.42660E-06  477085.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005788         0   0.42660E-06  477077.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005789         0   0.42660E-06  477068.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005790         0   0.42660E-06  477060.0 3752226.6   471.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0005791         0   0.42660E-06  477051.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005792         0   0.42660E-06  477043.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005793         0   0.42660E-06  477034.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005794         0   0.42660E-06  477026.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005795         0   0.42660E-06  477017.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005796         0   0.42660E-06  477009.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005797         0   0.42660E-06  477000.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005798         0   0.42660E-06  476992.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005799         0   0.42660E-06  476983.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005800         0   0.42660E-06  476975.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005801         0   0.42660E-06  476966.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005802         0   0.42660E-06  476958.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005803         0   0.42660E-06  476949.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005804         0   0.42660E-06  476941.0 3752226.8   471.2     4.00     3.95     1.86     YES
 L0005805         0   0.42660E-06  476932.5 3752226.8   471.4     4.00     3.95     1.86     YES
 L0005806         0   0.42660E-06  476924.0 3752226.8   471.6     4.00     3.95     1.86     YES
 L0005807         0   0.42660E-06  476915.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005808         0   0.42660E-06  476907.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005809         0   0.42660E-06  476898.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005810         0   0.42660E-06  476890.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005811         0   0.42660E-06  476881.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005812         0   0.42660E-06  476873.0 3752226.8   471.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                         BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0005813         0   0.42660E-06  476864.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005814         0   0.42660E-06  476856.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005815         0   0.42660E-06  476847.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005816         0   0.42660E-06  476839.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005817         0   0.42660E-06  476830.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005818         0   0.42660E-06  476822.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005819         0   0.42660E-06  476813.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005820         0   0.42660E-06  476805.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005821         0   0.42660E-06  476796.5 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005822         0   0.42660E-06  476788.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005823         0   0.42660E-06  476779.5 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005824         0   0.42660E-06  476771.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005825         0   0.42660E-06  476762.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005826         0   0.42660E-06  476754.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005827         0   0.42660E-06  476745.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005828         0   0.42660E-06  476737.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005829         0   0.42660E-06  476728.5 3752227.0   477.3     4.00     3.95     1.86     YES
 L0005830         0   0.42660E-06  476720.0 3752227.0   477.4     4.00     3.95     1.86     YES
 L0005831         0   0.42660E-06  476711.5 3752227.0   477.5     4.00     3.95     1.86     YES
 L0005832         0   0.42660E-06  476703.0 3752227.0   477.6     4.00     3.95     1.86     YES
 L0005833         0   0.42660E-06  476694.5 3752227.0   477.6     4.00     3.95     1.86     YES
 L0005834         0   0.42660E-06  476686.0 3752227.1   477.7     4.00     3.95     1.86     YES
 L0005835         0   0.42660E-06  476677.5 3752227.1   477.8     4.00     3.95     1.86     YES
 L0005836         0   0.42660E-06  476669.0 3752227.1   477.9     4.00     3.95     1.86     YES
 L0005837         0   0.42660E-06  476660.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005838         0   0.42660E-06  476652.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005839         0   0.42660E-06  476643.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005840         0   0.42660E-06  476635.0 3752227.1   478.0     4.00     3.95     1.86     YES
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                                                 Residential
 L0005841         0   0.42660E-06  476626.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005842         0   0.42660E-06  476618.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005843         0   0.42660E-06  476609.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005844         0   0.42660E-06  476601.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005845         0   0.42660E-06  476592.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005846         0   0.42660E-06  476584.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005847         0   0.42660E-06  476575.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005848         0   0.42660E-06  476567.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005849         0   0.42660E-06  476558.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005850         0   0.42660E-06  476550.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005851         0   0.42660E-06  476541.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005852         0   0.42660E-06  476533.0 3752227.2   478.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0005853         0   0.42660E-06  476524.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005854         0   0.42660E-06  476516.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005855         0   0.42660E-06  476507.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005856         0   0.42660E-06  476499.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005857         0   0.42660E-06  476490.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005858         0   0.42660E-06  476482.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005859         0   0.42660E-06  476473.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005860         0   0.42660E-06  476465.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005861         0   0.42660E-06  476456.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005862         0   0.42660E-06  476448.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005863         0   0.42660E-06  476439.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005864         0   0.42660E-06  476431.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005865         0   0.42660E-06  476422.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005866         0   0.42660E-06  476414.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005867         0   0.42660E-06  476405.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005868         0   0.42660E-06  476397.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005869         0   0.42660E-06  476388.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005870         0   0.42660E-06  476380.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005871         0   0.42660E-06  476371.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005872         0   0.42660E-06  476363.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005873         0   0.42660E-06  476354.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005874         0   0.42660E-06  476346.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005875         0   0.42660E-06  476337.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005876         0   0.42660E-06  476329.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005877         0   0.42660E-06  476320.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005878         0   0.42660E-06  476312.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005879         0   0.42660E-06  476303.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005880         0   0.42660E-06  476295.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005881         0   0.42660E-06  476286.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005882         0   0.42660E-06  476278.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005883         0   0.42660E-06  476269.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005884         0   0.42660E-06  476261.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005885         0   0.42660E-06  476252.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005886         0   0.42660E-06  476244.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005887         0   0.42660E-06  476235.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005888         0   0.42660E-06  476227.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005889         0   0.42660E-06  476218.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005890         0   0.42660E-06  476210.0 3752227.6   478.0     4.00     3.95     1.86     YES
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                                                  Residential
 L0005891         0   0.42660E-06  476201.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005892         0   0.42660E-06  476193.0 3752227.6   478.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
  13:40:13

  PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS)  (METERS) (METERS)  (METERS) (METERS) (METERS)              BY
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 L0005893         0   0.42660E-06  476184.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005894         0   0.42660E-06  476176.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005895         0   0.42660E-06  476167.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005896         0   0.42660E-06  476159.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005897         0   0.42660E-06  476150.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005898         0   0.42660E-06  476142.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005899         0   0.42660E-06  476133.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005900         0   0.42660E-06  476125.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005901         0   0.42660E-06  476116.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005902         0   0.42660E-06  476108.0 3752227.7   477.9     4.00     3.95     1.86     YES
 L0005903         0   0.42660E-06  476099.5 3752227.7   477.8     4.00     3.95     1.86     YES
 L0005904         0   0.42660E-06  476091.0 3752227.8   477.7     4.00     3.95     1.86     YES
 L0005905         0   0.42660E-06  476082.5 3752227.8   477.6     4.00     3.95     1.86     YES
 L0005906         0   0.42660E-06  476074.0 3752227.8   477.6     4.00     3.95     1.86     YES
 L0005907         0   0.42660E-06  476065.5 3752227.8   477.5     4.00     3.95     1.86     YES
 L0005908         0   0.42660E-06  476057.0 3752227.8   477.4     4.00     3.95     1.86     YES
 L0005909         0   0.42660E-06  476048.5 3752227.8   477.3     4.00     3.95     1.86     YES
 L0005910         0   0.42660E-06  476040.0 3752227.8   477.2     4.00     3.95     1.86     YES
 L0005911         0   0.42660E-06  476031.5 3752227.8   477.2     4.00     3.95     1.86     YES
 L0005912         0   0.42660E-06  476023.0 3752227.8   477.2     4.00     3.95     1.86     YES
 L0005913         0   0.42660E-06  476014.5 3752227.8   477.1     4.00     3.95     1.86     YES
 L0005914         0   0.42660E-06  476006.0 3752227.9   477.1     4.00     3.95     1.86     YES
 L0005915         0   0.42660E-06  475997.5 3752227.9   477.1     4.00     3.95     1.86     YES
 L0005916         0   0.42660E-06  475989.0 3752227.9   477.1     4.00     3.95     1.86     YES
 L0005917         0   0.42660E-06  475980.5 3752227.9   477.1     4.00     3.95     1.86     YES
 L0005918         0   0.42660E-06  475972.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0005919         0   0.42660E-06  475963.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0005920         0   0.42660E-06  475955.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0005921         0   0.42660E-06  475946.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0005922         0   0.42660E-06  475938.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0005923         0   0.42660E-06  475929.5 3752227.9   477.0     4.00     3.95     1.86     YES
 L0005924         0   0.42660E-06  475921.0 3752227.9   477.0     4.00     3.95     1.86     YES
 L0005925         0   0.42660E-06  475912.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0005926         0   0.42660E-06  475904.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0005927         0   0.42660E-06  475895.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0005928         0   0.42660E-06  475887.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0005929         0   0.42660E-06  475878.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0005930         0   0.42660E-06  475870.0 3752228.0   477.0     4.00     3.95     1.86     YES
 L0005931         0   0.42660E-06  475861.5 3752228.0   477.0     4.00     3.95     1.86     YES
 L0005932         0   0.42660E-06  475853.0 3752228.0   477.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
  13:40:13

  PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                    Residential

                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0005933         0   0.42660E-06  475844.5 3752228.0   477.0      4.00     3.95     1.86     YES
 L0005934         0   0.42660E-06  475836.0 3752228.0   477.0      4.00     3.95     1.86     YES
 L0005935         0   0.42660E-06  475827.5 3752228.1   477.0      4.00     3.95     1.86     YES
 L0005936         0   0.42660E-06  475819.0 3752228.1   477.0      4.00     3.95     1.86     YES
 L0005937         0   0.42660E-06  475810.5 3752228.1   477.0      4.00     3.95     1.86     YES
 L0005938         0   0.42660E-06  475802.0 3752228.1   477.0      4.00     3.95     1.86     YES
 L0005939         0   0.42660E-06  475793.5 3752228.1   477.1      4.00     3.95     1.86     YES
 L0005940         0   0.42660E-06  475785.0 3752228.1   477.1      4.00     3.95     1.86     YES
 L0005941         0   0.42660E-06  475776.5 3752228.1   477.1      4.00     3.95     1.86     YES
 L0005942         0   0.42660E-06  475768.0 3752228.1   477.1      4.00     3.95     1.86     YES
 L0005943         0   0.42660E-06  475759.5 3752228.1   477.1      4.00     3.95     1.86     YES
 L0005944         0   0.42660E-06  475751.0 3752228.1   477.2      4.00     3.95     1.86     YES
 L0005945         0   0.42660E-06  475742.5 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005946         0   0.42660E-06  475734.0 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005947         0   0.42660E-06  475725.5 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005948         0   0.42660E-06  475717.0 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005949         0   0.42660E-06  475708.5 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005950         0   0.42660E-06  475700.0 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005951         0   0.42660E-06  475691.5 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005952         0   0.42660E-06  475683.0 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005953         0   0.42660E-06  475674.5 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005954         0   0.42660E-06  475666.0 3752228.2   477.2      4.00     3.95     1.86     YES
 L0005955         0   0.42660E-06  475657.5 3752228.3   477.2      4.00     3.95     1.86     YES
 L0005956         0   0.42660E-06  475649.0 3752228.3   477.2      4.00     3.95     1.86     YES
 L0005957         0   0.42660E-06  475640.5 3752228.3   477.2      4.00     3.95     1.86     YES
 L0005958         0   0.42660E-06  475632.0 3752228.3   477.2      4.00     3.95     1.86     YES
 L0005959         0   0.42660E-06  475623.5 3752228.3   477.1      4.00     3.95     1.86     YES
 L0005960         0   0.42660E-06  475615.0 3752228.3   477.1      4.00     3.95     1.86     YES
 L0005961         0   0.42660E-06  475606.5 3752228.3   477.1      4.00     3.95     1.86     YES
 L0005962         0   0.42660E-06  475598.0 3752228.3   477.1      4.00     3.95     1.86     YES
 L0005963         0   0.42660E-06  475589.5 3752228.3   477.0      4.00     3.95     1.86     YES
 L0005964         0   0.42660E-06  475581.0 3752228.3   477.0      4.00     3.95     1.86     YES
 L0005965         0   0.42660E-06  475572.5 3752228.4   477.0      4.00     3.95     1.86     YES
 L0005966         0   0.42660E-06  475564.0 3752228.4   477.0      4.00     3.95     1.86     YES
 L0005967         0   0.42660E-06  475555.5 3752228.4   477.0      4.00     3.95     1.86     YES
 L0005968         0   0.42660E-06  475547.0 3752228.4   477.0      4.00     3.95     1.86     YES
 L0005969         0   0.42660E-06  475538.5 3752228.4   477.0      4.00     3.95     1.86     YES
 L0005970         0   0.42660E-06  475530.0 3752228.4   477.0      4.00     3.95     1.86     YES
 L0005971         0   0.42660E-06  475521.5 3752228.4   477.0      4.00     3.95     1.86     YES
 L0005972         0   0.42660E-06  475513.0 3752228.4   477.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0005973         0   0.42660E-06  475504.5 3752228.4   477.0      4.00     3.95     1.86     YES
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                                                              Residential
  L0005974         0   0.42660E-06  475496.0 3752228.4   477.0     4.00     3.95     1.86     YES
  L0005975         0   0.42660E-06  475487.5 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005976         0   0.42660E-06  475479.0 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005977         0   0.42660E-06  475470.5 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005978         0   0.42660E-06  475462.0 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005979         0   0.42660E-06  475453.5 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005980         0   0.42660E-06  475445.0 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005981         0   0.42660E-06  475436.5 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005982         0   0.42660E-06  475428.0 3752228.5   477.0     4.00     3.95     1.86     YES
  L0005983         0   0.42660E-06  475419.5 3752228.5   476.9     4.00     3.95     1.86     YES
  L0005984         0   0.42660E-06  475411.0 3752228.5   476.9     4.00     3.95     1.86     YES
  L0005985         0   0.42660E-06  475402.5 3752228.6   476.8     4.00     3.95     1.86     YES
  L0005986         0   0.42660E-06  475394.0 3752228.6   476.7     4.00     3.95     1.86     YES
  L0005987         0   0.42660E-06  475385.5 3752228.6   476.6     4.00     3.95     1.86     YES
  L0005988         0   0.42660E-06  475377.0 3752228.6   476.5     4.00     3.95     1.86     YES
  L0005989         0   0.42660E-06  475368.5 3752228.6   476.4     4.00     3.95     1.86     YES
  L0005990         0   0.42660E-06  475360.0 3752228.6   476.3     4.00     3.95     1.86     YES
  L0005991         0   0.42660E-06  475351.5 3752228.6   476.2     4.00     3.95     1.86     YES
  L0005992         0   0.42660E-06  475343.0 3752228.6   476.2     4.00     3.95     1.86     YES
  L0005993         0   0.42660E-06  475334.5 3752228.6   476.2     4.00     3.95     1.86     YES
  L0005994         0   0.42660E-06  475326.0 3752228.6   476.2     4.00     3.95     1.86     YES
  L0005995         0   0.42660E-06  475317.5 3752228.7   476.1     4.00     3.95     1.86     YES
  L0005996         0   0.42660E-06  475309.0 3752228.7   476.1     4.00     3.95     1.86     YES
  L0005997         0   0.42660E-06  475300.5 3752228.7   476.1     4.00     3.95     1.86     YES
  L0005998         0   0.42660E-06  475292.0 3752228.7   476.1     4.00     3.95     1.86     YES
  L0005999         0   0.42660E-06  475283.5 3752228.7   476.0     4.00     3.95     1.86     YES
  L0006000         0   0.42660E-06  475275.0 3752228.7   476.0     4.00     3.95     1.86     YES
  L0006001         0   0.42660E-06  475266.5 3752228.7   476.0     4.00     3.95     1.86     YES
  L0006002         0   0.42660E-06  475258.0 3752228.7   476.0     4.00     3.95     1.86     YES
  L0006003         0   0.42660E-06  475249.5 3752228.7   476.0     4.00     3.95     1.86     YES
  L0006004         0   0.42660E-06  475241.0 3752228.7   476.0     4.00     3.95     1.86     YES
  L0006005         0   0.42660E-06  475232.5 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006006         0   0.42660E-06  475224.0 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006007         0   0.42660E-06  475215.5 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006008         0   0.42660E-06  475207.0 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006009         0   0.42660E-06  475198.5 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006010         0   0.42660E-06  475190.0 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006011         0   0.42660E-06  475181.5 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006012         0   0.42660E-06  475173.0 3752228.8   476.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                            *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)              BY
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  L0006013         0   0.42660E-06  475164.5 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006014         0   0.42660E-06  475156.0 3752228.8   476.0     4.00     3.95     1.86     YES
  L0006015         0   0.42660E-06  475147.5 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006016         0   0.42660E-06  475139.0 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006017         0   0.42660E-06  475130.5 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006018         0   0.42660E-06  475122.0 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006019         0   0.42660E-06  475113.5 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006020         0   0.42660E-06  475105.0 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006021         0   0.42660E-06  475096.5 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006022         0   0.42660E-06  475088.0 3752228.9   476.0     4.00     3.95     1.86     YES
  L0006023         0   0.42660E-06  475079.5 3752228.9   476.0     4.00     3.95     1.86     YES
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                                                     Residential
 L0006024         0   0.42660E-06  475071.0 3752228.9   476.0     4.00     3.95     1.86     YES
 L0006025         0   0.42660E-06  475062.5 3752229.0   476.0     4.00     3.95     1.86     YES
 L0006026         0   0.42660E-06  475054.0 3752229.0   476.0     4.00     3.95     1.86     YES
 L0006027         0   0.42660E-06  475045.5 3752229.0   476.0     4.00     3.95     1.86     YES
 L0006028         0   0.42660E-06  475037.0 3752229.0   476.0     4.00     3.95     1.86     YES
 L0006029         0   0.42660E-06  475028.5 3752229.0   475.9     4.00     3.95     1.86     YES
 L0006030         0   0.42660E-06  475020.0 3752229.0   475.7     4.00     3.95     1.86     YES
 L0006031         0   0.42660E-06  475011.5 3752229.0   475.6     4.00     3.95     1.86     YES
 L0006032         0   0.42660E-06  475003.0 3752229.0   475.5     4.00     3.95     1.86     YES
 L0006033         0   0.42660E-06  474994.5 3752229.0   475.4     4.00     3.95     1.86     YES
 L0006034         0   0.42660E-06  474986.0 3752229.0   475.3     4.00     3.95     1.86     YES
 L0006035         0   0.42660E-06  474977.5 3752229.1   475.2     4.00     3.95     1.86     YES
 L0006036         0   0.42660E-06  474969.0 3752229.1   475.1     4.00     3.95     1.86     YES
 L0006037         0   0.42660E-06  474960.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006038         0   0.42660E-06  474952.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006039         0   0.42660E-06  474943.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006040         0   0.42660E-06  474935.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006041         0   0.42660E-06  474926.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006042         0   0.42660E-06  474918.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006043         0   0.42660E-06  474909.5 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006044         0   0.42660E-06  474901.0 3752229.1   475.0     4.00     3.95     1.86     YES
 L0006045         0   0.42660E-06  474892.5 3752229.2   475.0     4.00     3.95     1.86     YES
 L0006046         0   0.42660E-06  474884.0 3752229.2   475.0     4.00     3.95     1.86     YES
 L0006047         0   0.42660E-06  474875.5 3752229.2   474.9     4.00     3.95     1.86     YES
 L0006048         0   0.42660E-06  474867.0 3752229.2   474.8     4.00     3.95     1.86     YES
 L0006049         0   0.42660E-06  474858.5 3752229.2   474.7     4.00     3.95     1.86     YES
 L0006050         0   0.42660E-06  474850.0 3752229.2   474.5     4.00     3.95     1.86     YES
 L0006051         0   0.42660E-06  474841.5 3752229.2   474.4     4.00     3.95     1.86     YES
 L0006052         0   0.42660E-06  474833.0 3752229.2   474.3     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006053         0   0.42660E-06  474824.5 3752229.2   474.2     4.00     3.95     1.86     YES
 L0006054         0   0.42660E-06  474816.0 3752229.2   474.1     4.00     3.95     1.86     YES
 L0006055         0   0.42660E-06  474807.5 3752229.3   474.0     4.00     3.95     1.86     YES
 L0006056         0   0.42660E-06  474799.1 3752228.0   474.1     4.00     3.95     1.86     YES
 L0006057         0   0.42660E-06  474790.7 3752226.7   474.2     4.00     3.95     1.86     YES
 L0006058         0   0.42660E-06  474782.3 3752225.5   474.3     4.00     3.95     1.86     YES
 L0006059         0   0.42660E-06  474773.9 3752224.2   474.4     4.00     3.95     1.86     YES
 L0006060         0   0.42660E-06  474765.5 3752222.9   474.6     4.00     3.95     1.86     YES
 L0006061         0   0.42660E-06  474757.1 3752221.7   474.7     4.00     3.95     1.86     YES
 L0006062         0   0.42660E-06  474748.7 3752220.4   474.8     4.00     3.95     1.86     YES
 L0006063         0   0.42660E-06  474740.3 3752219.1   474.9     4.00     3.95     1.86     YES
 L0006064         0   0.42660E-06  474731.9 3752217.8   475.0     4.00     3.95     1.86     YES
 L0006065         0   0.42660E-06  474723.5 3752216.6   475.0     4.00     3.95     1.86     YES
 L0006066         0   0.42660E-06  474715.1 3752215.3   475.0     4.00     3.95     1.86     YES
 L0006067         0   0.42660E-06  474706.7 3752214.0   475.0     4.00     3.95     1.86     YES
 L0006068         0   0.42660E-06  474698.3 3752212.8   475.0     4.00     3.95     1.86     YES
 L0006069         0   0.42660E-06  474689.9 3752211.5   475.0     4.00     3.95     1.86     YES
 L0006070         0   0.42660E-06  474681.5 3752210.2   475.0     4.00     3.95     1.86     YES
 L0006071         0   0.42660E-06  474673.1 3752209.0   475.0     4.00     3.95     1.86     YES
 L0006072         0   0.42660E-06  474664.7 3752207.7   475.0     4.00     3.95     1.86     YES
 L0006073         0   0.42660E-06  474656.3 3752206.4   475.0     4.00     3.95     1.86     YES
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                                                         Residential
 L0006074         0   0.42660E-06  474647.9 3752205.1   475.0     4.00     3.95     1.86     YES
 L0006075         0   0.42660E-06  474639.5 3752203.9   475.0     4.00     3.95     1.86     YES
 L0006076         0   0.42660E-06  474631.1 3752202.6   475.0     4.00     3.95     1.86     YES
 L0006077         0   0.42660E-06  474622.6 3752201.3   475.0     4.00     3.95     1.86     YES
 L0006078         0   0.42660E-06  474614.2 3752200.1   475.0     4.00     3.95     1.86     YES
 L0006079         0   0.42660E-06  474605.8 3752198.8   475.0     4.00     3.95     1.86     YES
 L0006080         0   0.42660E-06  474597.4 3752197.5   475.0     4.00     3.95     1.86     YES
 L0006081         0   0.42660E-06  474589.0 3752196.2   475.0     4.00     3.95     1.86     YES
 L0006082         0   0.42660E-06  474580.6 3752195.0   475.0     4.00     3.95     1.86     YES
 L0006083         0   0.42660E-06  474572.2 3752193.7   475.1     4.00     3.95     1.86     YES
 L0006084         0   0.42660E-06  474563.8 3752192.4   475.2     4.00     3.95     1.86     YES
 L0006085         0   0.42660E-06  474555.4 3752191.2   475.3     4.00     3.95     1.86     YES
 L0006086         0   0.42660E-06  474547.0 3752189.9   475.4     4.00     3.95     1.86     YES
 L0006087         0   0.42660E-06  474538.6 3752188.6   475.5     4.00     3.95     1.86     YES
 L0006088         0   0.42660E-06  474530.2 3752187.3   475.6     4.00     3.95     1.86     YES
 L0006089         0   0.42660E-06  474521.8 3752186.1   475.7     4.00     3.95     1.86     YES
 L0006090         0   0.42660E-06  474513.4 3752184.8   475.8     4.00     3.95     1.86     YES
 L0006091         0   0.42660E-06  474505.0 3752183.5   475.9     4.00     3.95     1.86     YES
 L0006092         0   0.42660E-06  474496.6 3752182.3   476.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
   13:40:13

   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)          BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006093         0   0.42660E-06  474488.2 3752181.0   476.0     4.00     3.95     1.86     YES
 L0006094         0   0.42660E-06  474479.8 3752179.7   476.0     4.00     3.95     1.86     YES
 L0006095         0   0.42660E-06  474471.4 3752178.4   476.0     4.00     3.95     1.86     YES
 L0006096         0   0.42660E-06  474463.0 3752177.2   476.0     4.00     3.95     1.86     YES
 L0006097         0   0.42660E-06  474454.6 3752175.9   476.0     4.00     3.95     1.86     YES
 L0006098         0   0.42660E-06  474446.2 3752174.6   476.0     4.00     3.95     1.86     YES
 L0006099         0   0.42660E-06  474437.8 3752173.4   476.0     4.00     3.95     1.86     YES
 L0006100         0   0.42660E-06  474429.3 3752172.1   476.0     4.00     3.95     1.86     YES
 L0006101         0   0.42660E-06  474420.9 3752170.8   476.0     4.00     3.95     1.86     YES
 L0006102         0   0.42660E-06  474412.5 3752169.6   476.1     4.00     3.95     1.86     YES
 L0006103         0   0.42660E-06  474404.1 3752168.3   476.2     4.00     3.95     1.86     YES
 L0006104         0   0.42660E-06  474395.7 3752167.0   476.4     4.00     3.95     1.86     YES
 L0006105         0   0.42660E-06  474387.3 3752165.7   476.5     4.00     3.95     1.86     YES
 L0006106         0   0.42660E-06  474378.9 3752164.5   476.6     4.00     3.95     1.86     YES
 L0006107         0   0.42660E-06  474370.5 3752163.2   476.7     4.00     3.95     1.86     YES
 L0006108         0   0.42660E-06  474362.1 3752161.9   476.8     4.00     3.95     1.86     YES
 L0006109         0   0.42660E-06  474353.7 3752160.7   476.9     4.00     3.95     1.86     YES
 L0006110         0   0.42660E-06  474345.3 3752159.4   477.0     4.00     3.95     1.86     YES
 L0006111         0   0.42660E-06  474336.9 3752158.1   477.0     4.00     3.95     1.86     YES
 L0006112         0   0.42660E-06  474328.5 3752156.8   477.0     4.00     3.95     1.86     YES
 L0006113         0   0.42660E-06  474320.1 3752155.6   477.0     4.00     3.95     1.86     YES
 L0006114         0   0.42660E-06  474311.7 3752154.3   477.0     4.00     3.95     1.86     YES
 L0006115         0   0.42660E-06  474303.3 3752153.0   477.0     4.00     3.95     1.86     YES
 L0006116         0   0.42660E-06  474294.9 3752151.8   477.0     4.00     3.95     1.86     YES
 L0006117         0   0.42660E-06  474286.5 3752150.5   477.0     4.00     3.95     1.86     YES
 L0006118         0   0.42660E-06  474278.1 3752149.2   477.0     4.00     3.95     1.86     YES
 L0006119         0   0.42660E-06  474269.7 3752147.9   477.0     4.00     3.95     1.86     YES
 L0006120         0   0.42660E-06  474261.3 3752146.7   477.0     4.00     3.95     1.86     YES
 L0006121         0   0.42660E-06  474252.9 3752145.4   477.0     4.00     3.95     1.86     YES
 L0006122         0   0.42660E-06  474244.4 3752144.1   477.0     4.00     3.95     1.86     YES
 L0006123         0   0.42660E-06  474236.0 3752142.9   477.0     4.00     3.95     1.86     YES
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                                                            Residential
 L0006124         0   0.42660E-06  474227.6 3752141.6    477.0     4.00     3.95     1.86     YES
 L0006125         0   0.42660E-06  474219.2 3752140.3    477.0     4.00     3.95     1.86     YES
 L0006126         0   0.42660E-06  474210.8 3752139.0    477.0     4.00     3.95     1.86     YES
 L0006127         0   0.42660E-06  474202.4 3752137.8    477.0     4.00     3.95     1.86     YES
 L0006128         0   0.42660E-06  474194.0 3752136.5    477.0     4.00     3.95     1.86     YES
 L0006129         0   0.42660E-06  474185.6 3752135.2    477.1     4.00     3.95     1.86     YES
 L0006130         0   0.42660E-06  474177.2 3752134.0    477.2     4.00     3.95     1.86     YES
 L0006131         0   0.42660E-06  474168.8 3752132.7    477.3     4.00     3.95     1.86     YES
 L0006132         0   0.42660E-06  474160.4 3752131.3    477.4     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006133         0   0.42660E-06  474152.0 3752129.9    477.5     4.00     3.95     1.86     YES
 L0006134         0   0.42660E-06  474143.7 3752128.5    477.6     4.00     3.95     1.86     YES
 L0006135         0   0.42660E-06  474135.3 3752127.1    477.7     4.00     3.95     1.86     YES
 L0006136         0   0.42660E-06  474126.9 3752125.7    477.9     4.00     3.95     1.86     YES
 L0006137         0   0.42660E-06  474118.5 3752124.3    478.0     4.00     3.95     1.86     YES
 L0006138         0   0.42660E-06  474110.1 3752122.9    478.0     4.00     3.95     1.86     YES
 L0006139         0   0.42660E-06  474101.7 3752121.5    478.0     4.00     3.95     1.86     YES
 L0006140         0   0.42660E-06  474093.3 3752120.1    478.0     4.00     3.95     1.86     YES
 L0006141         0   0.42660E-06  474085.0 3752118.8    478.0     4.00     3.95     1.86     YES
 L0006142         0   0.42660E-06  474076.6 3752117.4    478.0     4.00     3.95     1.86     YES
 L0006143         0   0.42660E-06  474068.2 3752116.0    478.0     4.00     3.95     1.86     YES
 L0006144         0   0.42660E-06  474059.8 3752114.6    478.0     4.00     3.95     1.86     YES
 L0006145         0   0.42660E-06  474051.4 3752113.2    478.0     4.00     3.95     1.86     YES
 L0006146         0   0.42660E-06  474043.0 3752111.8    478.0     4.00     3.95     1.86     YES
 L0006147         0   0.10660E-06  477480.6 3749800.2    458.0     0.00     3.95     1.86     YES
 L0006148         0   0.10660E-06  477480.4 3749808.7    458.0     0.00     3.95     1.86     YES
 L0006149         0   0.10660E-06  477480.3 3749817.2    458.0     0.00     3.95     1.86     YES
 L0006150         0   0.10660E-06  477480.1 3749825.7    458.0     0.00     3.95     1.86     YES
 L0006151         0   0.10660E-06  477480.0 3749834.2    458.0     0.00     3.95     1.86     YES
 L0006152         0   0.10660E-06  477479.9 3749842.7    458.0     0.00     3.95     1.86     YES
 L0006153         0   0.10660E-06  477479.7 3749851.2    458.0     0.00     3.95     1.86     YES
 L0006154         0   0.10660E-06  477479.6 3749859.7    458.0     0.00     3.95     1.86     YES
 L0006155         0   0.10660E-06  477479.5 3749868.2    458.0     0.00     3.95     1.86     YES
 L0006156         0   0.10660E-06  477479.3 3749876.7    458.0     0.00     3.95     1.86     YES
 L0006157         0   0.10660E-06  477479.2 3749885.2    458.0     0.00     3.95     1.86     YES
 L0006158         0   0.10660E-06  477479.1 3749893.7    458.0     0.00     3.95     1.86     YES
 L0006159         0   0.10660E-06  477478.9 3749902.2    458.0     0.00     3.95     1.86     YES
 L0006160         0   0.10660E-06  477478.8 3749910.7    458.0     0.00     3.95     1.86     YES
 L0006161         0   0.10660E-06  477478.7 3749919.2    458.0     0.00     3.95     1.86     YES
 L0006162         0   0.10660E-06  477478.5 3749927.7    458.0     0.00     3.95     1.86     YES
 L0006163         0   0.10660E-06  477478.4 3749936.2    458.0     0.00     3.95     1.86     YES
 L0006164         0   0.10660E-06  477478.2 3749944.7    458.0     0.00     3.95     1.86     YES
 L0006165         0   0.10660E-06  477478.1 3749953.2    458.0     0.00     3.95     1.86     YES
 L0006166         0   0.10660E-06  477478.0 3749961.7    458.2     0.00     3.95     1.86     YES
 L0006167         0   0.10660E-06  477477.8 3749970.2    458.4     0.00     3.95     1.86     YES
 L0006168         0   0.10660E-06  477477.7 3749978.7    458.7     0.00     3.95     1.86     YES
 L0006169         0   0.10660E-06  477477.6 3749987.2    459.0     0.00     3.95     1.86     YES
 L0006170         0   0.10660E-06  477477.4 3749995.7    459.0     0.00     3.95     1.86     YES
 L0006171         0   0.10660E-06  477477.3 3750004.2    459.0     0.00     3.95     1.86     YES
 L0006172         0   0.10660E-06  477477.2 3750012.7    459.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
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                                                    Residential
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:40:13

  PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006173         0   0.10660E-06  477477.0 3750021.2   459.0     0.00     3.95     1.86     YES
 L0006174         0   0.10660E-06  477476.9 3750029.7   459.0     0.00     3.95     1.86     YES
 L0006175         0   0.10660E-06  477476.8 3750038.2   459.0     0.00     3.95     1.86     YES
 L0006176         0   0.10660E-06  477476.6 3750046.7   459.0     0.00     3.95     1.86     YES
 L0006177         0   0.10660E-06  477476.5 3750055.2   459.0     0.00     3.95     1.86     YES
 L0006178         0   0.10660E-06  477476.3 3750063.7   459.0     0.00     3.95     1.86     YES
 L0006179         0   0.10660E-06  477476.2 3750072.2   459.0     0.00     3.95     1.86     YES
 L0006180         0   0.10660E-06  477476.1 3750080.7   459.0     0.00     3.95     1.86     YES
 L0006181         0   0.10660E-06  477475.9 3750089.2   459.0     0.00     3.95     1.86     YES
 L0006182         0   0.10660E-06  477475.8 3750097.7   459.0     0.00     3.95     1.86     YES
 L0006183         0   0.10660E-06  477475.7 3750106.2   459.0     0.00     3.95     1.86     YES
 L0006184         0   0.10660E-06  477475.5 3750114.7   459.0     0.00     3.95     1.86     YES
 L0006185         0   0.10660E-06  477475.4 3750123.2   459.0     0.00     3.95     1.86     YES
 L0006186         0   0.10660E-06  477475.3 3750131.7   459.0     0.00     3.95     1.86     YES
 L0006187         0   0.10660E-06  477475.1 3750140.2   459.0     0.00     3.95     1.86     YES
 L0006188         0   0.10660E-06  477475.0 3750148.7   459.0     0.00     3.95     1.86     YES
 L0006189         0   0.10660E-06  477474.8 3750157.2   459.0     0.00     3.95     1.86     YES
 L0006190         0   0.10660E-06  477474.7 3750165.7   459.0     0.00     3.95     1.86     YES
 L0006191         0   0.10660E-06  477474.2 3750174.2   459.0     0.00     3.95     1.86     YES
 L0006192         0   0.10660E-06  477473.5 3750182.6   459.0     0.00     3.95     1.86     YES
 L0006193         0   0.10660E-06  477472.8 3750191.1   459.0     0.00     3.95     1.86     YES
 L0006194         0   0.10660E-06  477472.1 3750199.6   459.0     0.00     3.95     1.86     YES
 L0006195         0   0.10660E-06  477471.4 3750208.0   459.2     0.00     3.95     1.86     YES
 L0006196         0   0.10660E-06  477470.7 3750216.5   459.2     0.00     3.95     1.86     YES
 L0006197         0   0.10660E-06  477470.0 3750225.0   459.3     0.00     3.95     1.86     YES
 L0006198         0   0.10660E-06  477469.3 3750233.5   459.5     0.00     3.95     1.86     YES
 L0006199         0   0.10660E-06  477468.7 3750241.9   459.7     0.00     3.95     1.86     YES
 L0006200         0   0.10660E-06  477468.0 3750250.4   459.9     0.00     3.95     1.86     YES
 L0006201         0   0.10660E-06  477467.3 3750258.9   460.0     0.00     3.95     1.86     YES
 L0006202         0   0.10660E-06  477466.6 3750267.3   460.0     0.00     3.95     1.86     YES
 L0006203         0   0.10660E-06  477466.5 3750275.8   460.0     0.00     3.95     1.86     YES
 L0006204         0   0.10660E-06  477466.5 3750284.3   460.0     0.00     3.95     1.86     YES
 L0006205         0   0.10660E-06  477466.5 3750292.8   460.0     0.00     3.95     1.86     YES
 L0006206         0   0.10660E-06  477466.6 3750301.3   460.0     0.00     3.95     1.86     YES
 L0006207         0   0.10660E-06  477466.6 3750309.8   460.0     0.00     3.95     1.86     YES
 L0006208         0   0.10660E-06  477466.6 3750318.3   460.0     0.00     3.95     1.86     YES
 L0006209         0   0.10660E-06  477466.7 3750326.8   460.0     0.00     3.95     1.86     YES
 L0006210         0   0.10660E-06  477466.7 3750335.3   460.0     0.00     3.95     1.86     YES
 L0006211         0   0.10660E-06  477466.7 3750343.8   460.0     0.00     3.95     1.86     YES
 L0006212         0   0.10660E-06  477466.8 3750352.3   460.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker                  ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:40:13

  PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***
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                                                       Residential
                 NUMBER EMISSION RATE                              BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE         PART.  (GRAMS/SEC)     X         Y          ELEV.    HEIGHT     SY       SZ      SOURCE  SCALAR VARY
     ID           CATS.                (METERS)  (METERS)   (METERS)  (METERS)  (METERS)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006213         0   0.10660E-06  477466.8 3750360.8   460.0     0.00     3.95     1.86     YES
 L0006214         0   0.10660E-06  477466.9 3750369.3   460.0     0.00     3.95     1.86     YES
 L0006215         0   0.10660E-06  477466.9 3750377.8   460.0     0.00     3.95     1.86     YES
 L0006216         0   0.10660E-06  477466.9 3750386.3   460.0     0.00     3.95     1.86     YES
 L0006217         0   0.10660E-06  477467.0 3750394.8   460.0     0.00     3.95     1.86     YES
 L0006218         0   0.10660E-06  477467.0 3750403.3   460.0     0.00     3.95     1.86     YES
 L0006219         0   0.10660E-06  477467.0 3750411.8   460.0     0.00     3.95     1.86     YES
 L0006220         0   0.10660E-06  477467.1 3750420.3   460.0     0.00     3.95     1.86     YES
 L0006221         0   0.10660E-06  477467.1 3750428.8   460.0     0.00     3.95     1.86     YES
 L0006222         0   0.10660E-06  477467.1 3750437.3   460.0     0.00     3.95     1.86     YES
 L0006223         0   0.10660E-06  477467.2 3750445.8   460.0     0.00     3.95     1.86     YES
 L0006224         0   0.10660E-06  477467.2 3750454.3   460.0     0.00     3.95     1.86     YES
 L0006225         0   0.10660E-06  477467.3 3750462.8   460.0     0.00     3.95     1.86     YES
 L0006226         0   0.10660E-06  477467.3 3750471.3   460.2     0.00     3.95     1.86     YES
 L0006227         0   0.10660E-06  477467.3 3750479.8   460.4     0.00     3.95     1.86     YES
 L0006228         0   0.10660E-06  477467.4 3750488.3   460.7     0.00     3.95     1.86     YES
 L0006229         0   0.10660E-06  477467.4 3750496.8   461.0     0.00     3.95     1.86     YES
 L0006230         0   0.10660E-06  477467.4 3750505.3   461.0     0.00     3.95     1.86     YES
 L0006231         0   0.10660E-06  477467.5 3750513.8   461.0     0.00     3.95     1.86     YES
 L0006232         0   0.10660E-06  477467.5 3750522.3   461.0     0.00     3.95     1.86     YES
 L0006233         0   0.10660E-06  477467.5 3750530.8   461.0     0.00     3.95     1.86     YES
 L0006234         0   0.10660E-06  477467.6 3750539.3   461.0     0.00     3.95     1.86     YES
 L0006235         0   0.10660E-06  477467.7 3750547.8   461.0     0.00     3.95     1.86     YES
 L0006236         0   0.10660E-06  477467.9 3750556.3   461.0     0.00     3.95     1.86     YES
 L0006237         0   0.10660E-06  477468.2 3750564.8   461.0     0.00     3.95     1.86     YES
 L0006238         0   0.10660E-06  477468.4 3750573.3   461.0     0.00     3.95     1.86     YES
 L0006239         0   0.10660E-06  477468.7 3750581.8   461.0     0.00     3.95     1.86     YES
 L0006240         0   0.10660E-06  477468.9 3750590.3   461.0     0.00     3.95     1.86     YES
 L0006241         0   0.10660E-06  477469.2 3750598.8   461.0     0.00     3.95     1.86     YES
 L0006242         0   0.10660E-06  477469.4 3750607.3   461.0     0.00     3.95     1.86     YES
 L0006243         0   0.10660E-06  477469.7 3750615.8   461.0     0.00     3.95     1.86     YES
 L0006244         0   0.10660E-06  477469.9 3750624.3   461.0     0.00     3.95     1.86     YES
 L0006245         0   0.10660E-06  477470.2 3750632.8   461.0     0.00     3.95     1.86     YES
 L0006246         0   0.10660E-06  477470.4 3750641.3   461.0     0.00     3.95     1.86     YES
 L0006247         0   0.10660E-06  477470.7 3750649.8   461.0     0.00     3.95     1.86     YES
 L0006248         0   0.10660E-06  477470.9 3750658.3   461.2     0.00     3.95     1.86     YES
 L0006249         0   0.10660E-06  477471.2 3750666.8   461.3     0.00     3.95     1.86     YES
 L0006250         0   0.10660E-06  477471.4 3750675.3   461.4     0.00     3.95     1.86     YES
 L0006251         0   0.10660E-06  477471.7 3750683.8   461.5     0.00     3.95     1.86     YES
 L0006252         0   0.10660E-06  477471.9 3750692.3   461.7     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

                 NUMBER EMISSION RATE                              BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE         PART.  (GRAMS/SEC)     X         Y          ELEV.    HEIGHT     SY       SZ      SOURCE  SCALAR VARY
     ID           CATS.                (METERS)  (METERS)   (METERS)  (METERS)  (METERS)  (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006253         0   0.10660E-06  477472.2 3750700.8   461.9     0.00     3.95     1.86     YES
 L0006254         0   0.10660E-06  477472.4 3750709.3   462.0     0.00     3.95     1.86     YES
 L0006255         0   0.10660E-06  477472.7 3750717.8   462.0     0.00     3.95     1.86     YES
 L0006256         0   0.10660E-06  477472.9 3750726.3   462.0     0.00     3.95     1.86     YES
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                                                    Residential
 L0006257         0   0.10660E-06  477473.2 3750734.8   462.0     0.00     3.95     1.86     YES
 L0006258         0   0.10660E-06  477473.4 3750743.3   462.0     0.00     3.95     1.86     YES
 L0006259         0   0.10660E-06  477473.7 3750751.7   462.0     0.00     3.95     1.86     YES
 L0006260         0   0.10660E-06  477473.9 3750760.2   462.0     0.00     3.95     1.86     YES
 L0006261         0   0.10660E-06  477474.2 3750768.7   462.0     0.00     3.95     1.86     YES
 L0006262         0   0.10660E-06  477474.4 3750777.2   462.0     0.00     3.95     1.86     YES
 L0006263         0   0.10660E-06  477474.7 3750785.7   462.0     0.00     3.95     1.86     YES
 L0006264         0   0.10660E-06  477474.9 3750794.2   462.0     0.00     3.95     1.86     YES
 L0006265         0   0.10660E-06  477475.2 3750802.7   462.0     0.00     3.95     1.86     YES
 L0006266         0   0.10660E-06  477475.4 3750811.2   462.0     0.00     3.95     1.86     YES
 L0006267         0   0.10660E-06  477475.7 3750819.7   462.0     0.00     3.95     1.86     YES
 L0006268         0   0.10660E-06  477475.9 3750828.2   462.0     0.00     3.95     1.86     YES
 L0006269         0   0.10660E-06  477476.2 3750836.7   462.0     0.00     3.95     1.86     YES
 L0006270         0   0.10660E-06  477476.4 3750845.2   462.0     0.00     3.95     1.86     YES
 L0006271         0   0.10660E-06  477476.7 3750853.7   462.0     0.00     3.95     1.86     YES
 L0006272         0   0.10660E-06  477476.9 3750862.2   462.1     0.00     3.95     1.86     YES
 L0006273         0   0.10660E-06  477477.1 3750870.7   462.3     0.00     3.95     1.86     YES
 L0006274         0   0.10660E-06  477477.1 3750879.2   462.4     0.00     3.95     1.86     YES
 L0006275         0   0.10660E-06  477477.2 3750887.7   462.6     0.00     3.95     1.86     YES
 L0006276         0   0.10660E-06  477477.2 3750896.2   462.7     0.00     3.95     1.86     YES
 L0006277         0   0.10660E-06  477477.3 3750904.7   462.8     0.00     3.95     1.86     YES
 L0006278         0   0.10660E-06  477477.3 3750913.2   462.9     0.00     3.95     1.86     YES
 L0006279         0   0.10660E-06  477477.4 3750921.7   463.0     0.00     3.95     1.86     YES
 L0006280         0   0.10660E-06  477477.4 3750930.2   463.0     0.00     3.95     1.86     YES
 L0006281         0   0.10660E-06  477477.5 3750938.7   463.0     0.00     3.95     1.86     YES
 L0006282         0   0.10660E-06  477477.6 3750947.2   463.0     0.00     3.95     1.86     YES
 L0006283         0   0.10660E-06  477477.6 3750955.7   463.0     0.00     3.95     1.86     YES
 L0006284         0   0.10660E-06  477477.7 3750964.2   463.0     0.00     3.95     1.86     YES
 L0006285         0   0.10660E-06  477477.7 3750972.7   463.0     0.00     3.95     1.86     YES
 L0006286         0   0.10660E-06  477477.8 3750981.2   463.0     0.00     3.95     1.86     YES
 L0006287         0   0.10660E-06  477477.8 3750989.7   463.0     0.00     3.95     1.86     YES
 L0006288         0   0.10660E-06  477477.9 3750998.2   463.0     0.00     3.95     1.86     YES
 L0006289         0   0.10660E-06  477477.9 3751006.7   463.0     0.00     3.95     1.86     YES
 L0006290         0   0.10660E-06  477478.0 3751015.2   463.0     0.00     3.95     1.86     YES
 L0006291         0   0.10660E-06  477478.0 3751023.7   463.0     0.00     3.95     1.86     YES
 L0006292         0   0.10660E-06  477478.1 3751032.2   463.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006293         0   0.10660E-06  477478.1 3751040.7   463.0     0.00     3.95     1.86     YES
 L0006294         0   0.10660E-06  477478.2 3751049.2   463.0     0.00     3.95     1.86     YES
 L0006295         0   0.10660E-06  477478.3 3751057.7   463.0     0.00     3.95     1.86     YES
 L0006296         0   0.10660E-06  477478.3 3751066.2   463.0     0.00     3.95     1.86     YES
 L0006297         0   0.10660E-06  477478.4 3751074.7   463.2     0.00     3.95     1.86     YES
 L0006298         0   0.10660E-06  477478.4 3751083.2   463.3     0.00     3.95     1.86     YES
 L0006299         0   0.10660E-06  477478.5 3751091.7   463.5     0.00     3.95     1.86     YES
 L0006300         0   0.10660E-06  477478.5 3751100.2   463.7     0.00     3.95     1.86     YES
 L0006301         0   0.10660E-06  477478.6 3751108.7   463.8     0.00     3.95     1.86     YES
 L0006302         0   0.10660E-06  477478.6 3751117.2   463.9     0.00     3.95     1.86     YES
 L0006303         0   0.10660E-06  477478.7 3751125.7   464.0     0.00     3.95     1.86     YES
 L0006304         0   0.10660E-06  477478.7 3751134.2   464.0     0.00     3.95     1.86     YES
 L0006305         0   0.10660E-06  477478.8 3751142.7   464.0     0.00     3.95     1.86     YES
 L0006306         0   0.10660E-06  477478.9 3751151.2   464.0     0.00     3.95     1.86     YES
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                                                   Residential
 L0006307         0   0.10660E-06  477478.9 3751159.7   464.0     0.00     3.95     1.86     YES
 L0006308         0   0.10660E-06  477479.0 3751168.2   464.0     0.00     3.95     1.86     YES
 L0006309         0   0.10660E-06  477479.0 3751176.7   464.0     0.00     3.95     1.86     YES
 L0006310         0   0.10660E-06  477479.1 3751185.2   464.0     0.00     3.95     1.86     YES
 L0006311         0   0.10660E-06  477479.1 3751193.7   464.0     0.00     3.95     1.86     YES
 L0006312         0   0.10660E-06  477479.2 3751202.2   464.0     0.00     3.95     1.86     YES
 L0006313         0   0.10660E-06  477479.2 3751210.7   464.0     0.00     3.95     1.86     YES
 L0006314         0   0.10660E-06  477479.3 3751219.2   464.0     0.00     3.95     1.86     YES
 L0006315         0   0.10660E-06  477479.3 3751227.7   464.0     0.00     3.95     1.86     YES
 L0006316         0   0.10660E-06  477479.4 3751236.2   464.0     0.00     3.95     1.86     YES
 L0006317         0   0.10660E-06  477479.3 3751244.7   464.0     0.00     3.95     1.86     YES
 L0006318         0   0.10660E-06  477479.3 3751253.2   464.2     0.00     3.95     1.86     YES
 L0006319         0   0.10660E-06  477479.2 3751261.7   464.5     0.00     3.95     1.86     YES
 L0006320         0   0.10660E-06  477479.2 3751270.2   464.8     0.00     3.95     1.86     YES
 L0006321         0   0.10660E-06  477479.1 3751278.7   465.0     0.00     3.95     1.86     YES
 L0006322         0   0.10660E-06  477479.0 3751287.2   465.0     0.00     3.95     1.86     YES
 L0006323         0   0.10660E-06  477479.0 3751295.7   465.0     0.00     3.95     1.86     YES
 L0006324         0   0.10660E-06  477478.9 3751304.2   465.0     0.00     3.95     1.86     YES
 L0006325         0   0.10660E-06  477478.9 3751312.7   465.0     0.00     3.95     1.86     YES
 L0006326         0   0.10660E-06  477478.8 3751321.2   465.0     0.00     3.95     1.86     YES
 L0006327         0   0.10660E-06  477478.7 3751329.7   465.0     0.00     3.95     1.86     YES
 L0006328         0   0.10660E-06  477478.7 3751338.2   465.0     0.00     3.95     1.86     YES
 L0006329         0   0.10660E-06  477478.6 3751346.7   465.0     0.00     3.95     1.86     YES
 L0006330         0   0.10660E-06  477478.6 3751355.2   465.0     0.00     3.95     1.86     YES
 L0006331         0   0.10660E-06  477478.5 3751363.7   465.0     0.00     3.95     1.86     YES
 L0006332         0   0.10660E-06  477478.5 3751372.2   465.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  44
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X           Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
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 L0006333         0   0.10660E-06  477478.4 3751380.7   465.0     0.00     3.95     1.86     YES
 L0006334         0   0.10660E-06  477478.3 3751389.2   465.0     0.00     3.95     1.86     YES
 L0006335         0   0.10660E-06  477478.3 3751397.7   465.0     0.00     3.95     1.86     YES
 L0006336         0   0.10660E-06  477478.2 3751406.2   465.0     0.00     3.95     1.86     YES
 L0006337         0   0.10660E-06  477478.2 3751414.7   465.0     0.00     3.95     1.86     YES
 L0006338         0   0.10660E-06  477478.1 3751423.2   465.0     0.00     3.95     1.86     YES
 L0006339         0   0.10660E-06  477478.0 3751431.7   465.2     0.00     3.95     1.86     YES
 L0006340         0   0.10660E-06  477478.0 3751440.2   465.4     0.00     3.95     1.86     YES
 L0006341         0   0.10660E-06  477477.9 3751448.7   465.7     0.00     3.95     1.86     YES
 L0006342         0   0.10660E-06  477477.9 3751457.2   466.0     0.00     3.95     1.86     YES
 L0006343         0   0.10660E-06  477477.8 3751465.7   466.0     0.00     3.95     1.86     YES
 L0006344         0   0.10660E-06  477477.8 3751474.2   466.0     0.00     3.95     1.86     YES
 L0006345         0   0.10660E-06  477477.7 3751482.7   466.0     0.00     3.95     1.86     YES
 L0006346         0   0.10660E-06  477477.6 3751491.2   466.0     0.00     3.95     1.86     YES
 L0006347         0   0.10660E-06  477477.6 3751499.7   466.0     0.00     3.95     1.86     YES
 L0006348         0   0.10660E-06  477477.5 3751508.2   466.0     0.00     3.95     1.86     YES
 L0006349         0   0.10660E-06  477477.5 3751516.7   466.0     0.00     3.95     1.86     YES
 L0006350         0   0.10660E-06  477477.4 3751525.2   466.0     0.00     3.95     1.86     YES
 L0006351         0   0.10660E-06  477477.3 3751533.7   466.0     0.00     3.95     1.86     YES
 L0006352         0   0.10660E-06  477477.3 3751542.2   466.0     0.00     3.95     1.86     YES
 L0006353         0   0.10660E-06  477477.2 3751550.7   466.0     0.00     3.95     1.86     YES
 L0006354         0   0.10660E-06  477477.2 3751559.2   466.0     0.00     3.95     1.86     YES
 L0006355         0   0.10660E-06  477477.1 3751567.7   466.0     0.00     3.95     1.86     YES
 L0006356         0   0.10660E-06  477477.0 3751576.2   466.0     0.00     3.95     1.86     YES
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                                                   Residential
 L0006357         0   0.10660E-06  477477.0 3751584.7   466.0     0.00     3.95     1.86     YES
 L0006358         0   0.10660E-06  477476.9 3751593.2   466.0     0.00     3.95     1.86     YES
 L0006359         0   0.10660E-06  477476.9 3751601.7   466.0     0.00     3.95     1.86     YES
 L0006360         0   0.10660E-06  477476.8 3751610.2   466.1     0.00     3.95     1.86     YES
 L0006361         0   0.10660E-06  477476.8 3751618.7   466.2     0.00     3.95     1.86     YES
 L0006362         0   0.10660E-06  477476.7 3751627.2   466.4     0.00     3.95     1.86     YES
 L0006363         0   0.10660E-06  477476.6 3751635.7   466.6     0.00     3.95     1.86     YES
 L0006364         0   0.10660E-06  477476.6 3751644.2   466.7     0.00     3.95     1.86     YES
 L0006365         0   0.10660E-06  477476.5 3751652.7   466.8     0.00     3.95     1.86     YES
 L0006366         0   0.10660E-06  477476.5 3751661.2   466.9     0.00     3.95     1.86     YES
 L0006367         0   0.10660E-06  477476.4 3751669.7   467.0     0.00     3.95     1.86     YES
 L0006368         0   0.10660E-06  477476.3 3751678.2   467.0     0.00     3.95     1.86     YES
 L0006369         0   0.10660E-06  477476.3 3751686.7   467.0     0.00     3.95     1.86     YES
 L0006370         0   0.10660E-06  477476.2 3751695.2   467.0     0.00     3.95     1.86     YES
 L0006371         0   0.10660E-06  477476.2 3751703.7   467.0     0.00     3.95     1.86     YES
 L0006372         0   0.10660E-06  477476.1 3751712.2   467.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  45
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
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 L0006373         0   0.10660E-06  477476.1 3751720.7   467.0     0.00     3.95     1.86     YES
 L0006374         0   0.10660E-06  477476.0 3751729.2   467.1     0.00     3.95     1.86     YES
 L0006375         0   0.10660E-06  477475.9 3751737.7   467.2     0.00     3.95     1.86     YES
 L0006376         0   0.10660E-06  477475.9 3751746.2   467.4     0.00     3.95     1.86     YES
 L0006377         0   0.10660E-06  477475.8 3751754.7   467.5     0.00     3.95     1.86     YES
 L0006378         0   0.10660E-06  477475.8 3751763.2   467.6     0.00     3.95     1.86     YES
 L0006379         0   0.10660E-06  477475.7 3751771.7   467.8     0.00     3.95     1.86     YES
 L0006380         0   0.10660E-06  477475.6 3751780.2   467.9     0.00     3.95     1.86     YES
 L0006381         0   0.10660E-06  477475.6 3751788.7   468.0     0.00     3.95     1.86     YES
 L0006382         0   0.10660E-06  477475.5 3751797.2   468.0     0.00     3.95     1.86     YES
 L0006383         0   0.10660E-06  477475.5 3751805.7   468.0     0.00     3.95     1.86     YES
 L0006384         0   0.10660E-06  477475.4 3751814.2   468.0     0.00     3.95     1.86     YES
 L0006385         0   0.10660E-06  477475.4 3751822.7   468.0     0.00     3.95     1.86     YES
 L0006386         0   0.10660E-06  477475.3 3751831.2   468.0     0.00     3.95     1.86     YES
 L0006387         0   0.10660E-06  477475.2 3751839.7   468.0     0.00     3.95     1.86     YES
 L0006388         0   0.10660E-06  477475.2 3751848.2   468.0     0.00     3.95     1.86     YES
 L0006389         0   0.10660E-06  477475.1 3751856.7   468.0     0.00     3.95     1.86     YES
 L0006390         0   0.10660E-06  477475.1 3751865.2   468.0     0.00     3.95     1.86     YES
 L0006391         0   0.10660E-06  477475.0 3751873.7   468.0     0.00     3.95     1.86     YES
 L0006392         0   0.10660E-06  477474.9 3751882.2   468.2     0.00     3.95     1.86     YES
 L0006393         0   0.10660E-06  477474.9 3751890.7   468.5     0.00     3.95     1.86     YES
 L0006394         0   0.10660E-06  477474.8 3751899.2   468.8     0.00     3.95     1.86     YES
 L0006395         0   0.10660E-06  477474.8 3751907.7   469.0     0.00     3.95     1.86     YES
 L0006396         0   0.10660E-06  477474.7 3751916.2   469.0     0.00     3.95     1.86     YES
 L0006397         0   0.10660E-06  477474.7 3751924.7   469.0     0.00     3.95     1.86     YES
 L0006398         0   0.10660E-06  477474.6 3751933.2   469.0     0.00     3.95     1.86     YES
 L0006399         0   0.10660E-06  477474.5 3751941.7   469.0     0.00     3.95     1.86     YES
 L0006400         0   0.10660E-06  477474.5 3751950.2   469.0     0.00     3.95     1.86     YES
 L0006401         0   0.10660E-06  477474.4 3751958.7   469.0     0.00     3.95     1.86     YES
 L0006402         0   0.10660E-06  477474.4 3751967.2   469.0     0.00     3.95     1.86     YES
 L0006403         0   0.10660E-06  477474.3 3751975.7   469.0     0.00     3.95     1.86     YES
 L0006404         0   0.10660E-06  477474.2 3751984.2   469.0     0.00     3.95     1.86     YES
 L0006405         0   0.10660E-06  477474.2 3751992.7   469.0     0.00     3.95     1.86     YES
 L0006406         0   0.10660E-06  477474.1 3752001.2   469.0     0.00     3.95     1.86     YES
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                                                 Residential
 L0006407         0   0.10660E-06  477474.1 3752009.7   469.0     0.00     3.95     1.86     YES
 L0006408         0   0.10660E-06  477474.0 3752018.2   469.0     0.00     3.95     1.86     YES
 L0006409         0   0.10660E-06  477474.0 3752026.7   469.0     0.00     3.95     1.86     YES
 L0006410         0   0.10660E-06  477473.9 3752035.2   469.1     0.00     3.95     1.86     YES
 L0006411         0   0.10660E-06  477473.8 3752043.7   469.3     0.00     3.95     1.86     YES
 L0006412         0   0.10660E-06  477473.8 3752052.2   469.4     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  46
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006413         0   0.10660E-06  477473.7 3752060.7   469.5     0.00     3.95     1.86     YES
 L0006414         0   0.10660E-06  477473.7 3752069.2   469.5     0.00     3.95     1.86     YES
 L0006415         0   0.10660E-06  477473.6 3752077.7   469.5     0.00     3.95     1.86     YES
 L0006416         0   0.10660E-06  477473.5 3752086.2   469.5     0.00     3.95     1.86     YES
 L0006417         0   0.10660E-06  477473.5 3752094.7   469.6     0.00     3.95     1.86     YES
 L0006418         0   0.10660E-06  477473.4 3752103.2   469.8     0.00     3.95     1.86     YES
 L0006419         0   0.10660E-06  477473.4 3752111.7   469.9     0.00     3.95     1.86     YES
 L0006420         0   0.10660E-06  477473.3 3752120.2   470.1     0.00     3.95     1.86     YES
 L0006421         0   0.10660E-06  477473.3 3752128.7   470.2     0.00     3.95     1.86     YES
 L0006422         0   0.10660E-06  477473.2 3752137.2   470.3     0.00     3.95     1.86     YES
 L0006423         0   0.10660E-06  477473.1 3752145.7   470.4     0.00     3.95     1.86     YES
 L0006424         0   0.10660E-06  477473.1 3752154.2   470.6     0.00     3.95     1.86     YES
 L0006425         0   0.10660E-06  477473.0 3752162.7   470.7     0.00     3.95     1.86     YES
 L0006426         0   0.10660E-06  477473.0 3752171.2   470.9     0.00     3.95     1.86     YES
 L0006427         0   0.10660E-06  477472.9 3752179.7   471.0     0.00     3.95     1.86     YES
 L0006428         0   0.10660E-06  477472.8 3752188.2   471.0     0.00     3.95     1.86     YES
 L0006429         0   0.10660E-06  477472.8 3752196.7   471.0     0.00     3.95     1.86     YES
 L0006430         0   0.10660E-06  477472.7 3752205.2   471.0     0.00     3.95     1.86     YES
 L0006431         0   0.10660E-06  477472.7 3752213.7   471.2     0.00     3.95     1.86     YES
 L0006432         0   0.10660E-06  477472.6 3752222.2   471.5     0.00     3.95     1.86     YES
 L0006433         0   0.53280E-06  477466.5 3747781.2   451.0     4.00     3.95     1.86     YES
 L0006434         0   0.53280E-06  477475.0 3747781.2   451.0     4.00     3.95     1.86     YES
 L0006435         0   0.53280E-06  477483.5 3747781.1   451.0     4.00     3.95     1.86     YES
 L0006436         0   0.53280E-06  477492.0 3747781.1   451.0     4.00     3.95     1.86     YES
 L0006437         0   0.53280E-06  477500.5 3747781.0   451.0     4.00     3.95     1.86     YES
 L0006438         0   0.53280E-06  477509.0 3747781.0   451.0     4.00     3.95     1.86     YES
 L0006439         0   0.53280E-06  477517.5 3747780.9   451.0     4.00     3.95     1.86     YES
 L0006440         0   0.53280E-06  477526.0 3747780.9   451.0     4.00     3.95     1.86     YES
 L0006441         0   0.53280E-06  477534.5 3747780.8   451.0     4.00     3.95     1.86     YES
 L0006442         0   0.53280E-06  477543.0 3747780.7   451.0     4.00     3.95     1.86     YES
 L0006443         0   0.53280E-06  477551.5 3747780.7   451.0     4.00     3.95     1.86     YES
 L0006444         0   0.53280E-06  477560.0 3747780.6   451.0     4.00     3.95     1.86     YES
 L0006445         0   0.53280E-06  477568.5 3747780.6   451.0     4.00     3.95     1.86     YES
 L0006446         0   0.53280E-06  477577.0 3747780.5   451.0     4.00     3.95     1.86     YES
 L0006447         0   0.53280E-06  477585.5 3747780.5   451.0     4.00     3.95     1.86     YES
 L0006448         0   0.53280E-06  477594.0 3747780.4   451.0     4.00     3.95     1.86     YES
 L0006449         0   0.53280E-06  477602.5 3747780.3   451.0     4.00     3.95     1.86     YES
 L0006450         0   0.53280E-06  477611.0 3747780.3   451.0     4.00     3.95     1.86     YES
 L0006451         0   0.53280E-06  477619.5 3747780.2   451.0     4.00     3.95     1.86     YES
 L0006452         0   0.53280E-06  477628.0 3747780.2   451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                          Residential

   PAGE  47
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006453         0   0.53280E-06  477636.5 3747780.1   451.0     4.00     3.95     1.86     YES
 L0006454         0   0.53280E-06  477645.0 3747780.1   450.9     4.00     3.95     1.86     YES
 L0006455         0   0.53280E-06  477653.5 3747780.0   450.8     4.00     3.95     1.86     YES
 L0006456         0   0.53280E-06  477662.0 3747780.0   450.6     4.00     3.95     1.86     YES
 L0006457         0   0.53280E-06  477670.5 3747779.9   450.4     4.00     3.95     1.86     YES
 L0006458         0   0.53280E-06  477679.0 3747779.8   450.3     4.00     3.95     1.86     YES
 L0006459         0   0.53280E-06  477687.5 3747779.8   450.2     4.00     3.95     1.86     YES
 L0006460         0   0.53280E-06  477696.0 3747779.7   450.1     4.00     3.95     1.86     YES
 L0006461         0   0.53280E-06  477704.5 3747779.7   450.0     4.00     3.95     1.86     YES
 L0006462         0   0.53280E-06  477713.0 3747779.6   450.0     4.00     3.95     1.86     YES
 L0006463         0   0.53280E-06  477721.5 3747779.6   450.0     4.00     3.95     1.86     YES
 L0006464         0   0.53280E-06  477730.0 3747779.5   450.0     4.00     3.95     1.86     YES
 L0006465         0   0.53280E-06  477738.5 3747779.4   450.0     4.00     3.95     1.86     YES
 L0006466         0   0.53280E-06  477747.0 3747779.4   450.0     4.00     3.95     1.86     YES
 L0006467         0   0.53280E-06  477755.5 3747779.3   450.0     4.00     3.95     1.86     YES
 L0006468         0   0.53280E-06  477764.0 3747779.3   450.0     4.00     3.95     1.86     YES
 L0006469         0   0.53280E-06  477772.5 3747779.2   450.0     4.00     3.95     1.86     YES
 L0006470         0   0.53280E-06  477781.0 3747779.2   450.0     4.00     3.95     1.86     YES
 L0006471         0   0.53280E-06  477789.5 3747779.1   450.0     4.00     3.95     1.86     YES
 L0006472         0   0.53280E-06  477798.0 3747779.1   450.0     4.00     3.95     1.86     YES
 L0006473         0   0.53280E-06  477806.5 3747779.0   450.0     4.00     3.95     1.86     YES
 L0006474         0   0.53280E-06  477815.0 3747778.9   450.0     4.00     3.95     1.86     YES
 L0006475         0   0.53280E-06  477823.5 3747778.9   450.0     4.00     3.95     1.86     YES
 L0006476         0   0.53280E-06  477832.0 3747778.8   450.0     4.00     3.95     1.86     YES
 L0006477         0   0.53280E-06  477840.5 3747778.8   450.0     4.00     3.95     1.86     YES
 L0006478         0   0.53280E-06  477849.0 3747778.7   450.0     4.00     3.95     1.86     YES
 L0006479         0   0.53280E-06  477857.5 3747778.7   450.0     4.00     3.95     1.86     YES
 L0006480         0   0.53280E-06  477866.0 3747778.6   450.0     4.00     3.95     1.86     YES
 L0006481         0   0.53280E-06  477874.5 3747778.6   450.0     4.00     3.95     1.86     YES
 L0006482         0   0.53280E-06  477883.0 3747778.5   450.0     4.00     3.95     1.86     YES
 L0006483         0   0.53280E-06  477891.5 3747778.4   450.0     4.00     3.95     1.86     YES
 L0006484         0   0.53280E-06  477900.0 3747778.4   450.0     4.00     3.95     1.86     YES
 L0006485         0   0.53280E-06  477908.5 3747778.3   450.0     4.00     3.95     1.86     YES
 L0006486         0   0.53280E-06  477917.0 3747778.3   450.0     4.00     3.95     1.86     YES
 L0006487         0   0.53280E-06  477925.5 3747778.2   450.0     4.00     3.95     1.86     YES
 L0006488         0   0.53280E-06  477934.0 3747778.2   450.0     4.00     3.95     1.86     YES
 L0006489         0   0.53280E-06  477942.5 3747778.1   450.0     4.00     3.95     1.86     YES
 L0006490         0   0.53280E-06  477951.0 3747778.0   450.0     4.00     3.95     1.86     YES
 L0006491         0   0.53280E-06  477959.5 3747778.0   450.0     4.00     3.95     1.86     YES
 L0006492         0   0.53280E-06  477968.0 3747777.9   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  48
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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                                                       Residential
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 L0006493         0   0.53280E-06  477976.5 3747777.9   450.0     4.00     3.95     1.86     YES
 L0006494         0   0.53280E-06  477985.0 3747777.8   450.0     4.00     3.95     1.86     YES
 L0006495         0   0.53280E-06  477993.5 3747777.8   450.0     4.00     3.95     1.86     YES
 L0006496         0   0.53280E-06  478002.0 3747777.7   450.0     4.00     3.95     1.86     YES
 L0006497         0   0.53280E-06  478010.5 3747777.7   449.8     4.00     3.95     1.86     YES
 L0006498         0   0.53280E-06  478019.0 3747777.6   449.6     4.00     3.95     1.86     YES
 L0006499         0   0.53280E-06  478027.5 3747777.5   449.4     4.00     3.95     1.86     YES
 L0006500         0   0.53280E-06  478036.0 3747777.5   449.3     4.00     3.95     1.86     YES
 L0006501         0   0.53280E-06  478044.5 3747777.4   449.2     4.00     3.95     1.86     YES
 L0006502         0   0.53280E-06  478053.0 3747777.4   449.1     4.00     3.95     1.86     YES
 L0006503         0   0.53280E-06  478061.5 3747777.3   449.0     4.00     3.95     1.86     YES
 L0006504         0   0.53280E-06  478070.0 3747777.3   449.0     4.00     3.95     1.86     YES
 L0006505         0   0.53280E-06  478078.5 3747777.2   449.0     4.00     3.95     1.86     YES
 L0006506         0   0.53280E-06  478087.0 3747777.1   449.0     4.00     3.95     1.86     YES
 L0006507         0   0.53280E-06  478095.5 3747777.1   449.0     4.00     3.95     1.86     YES
 L0006508         0   0.53280E-06  478104.0 3747777.0   449.0     4.00     3.95     1.86     YES
 L0006509         0   0.53280E-06  478112.5 3747777.0   449.0     4.00     3.95     1.86     YES
 L0006510         0   0.53280E-06  478121.0 3747776.9   449.0     4.00     3.95     1.86     YES
 L0006511         0   0.53280E-06  478129.5 3747776.9   449.0     4.00     3.95     1.86     YES
 L0006512         0   0.53280E-06  478138.0 3747776.8   449.0     4.00     3.95     1.86     YES
 L0006513         0   0.53280E-06  478146.5 3747776.8   449.0     4.00     3.95     1.86     YES
 L0006514         0   0.53280E-06  478155.0 3747776.7   449.0     4.00     3.95     1.86     YES
 L0006515         0   0.53280E-06  478163.5 3747776.6   449.0     4.00     3.95     1.86     YES
 L0006516         0   0.53280E-06  478172.0 3747776.6   449.0     4.00     3.95     1.86     YES
 L0006517         0   0.53280E-06  478180.5 3747776.5   449.0     4.00     3.95     1.86     YES
 L0006518         0   0.53280E-06  478189.0 3747776.5   449.0     4.00     3.95     1.86     YES
 L0006519         0   0.53280E-06  478197.5 3747776.4   449.0     4.00     3.95     1.86     YES
 L0006520         0   0.53280E-06  478206.0 3747776.4   449.0     4.00     3.95     1.86     YES
 L0006521         0   0.53280E-06  478214.5 3747776.3   449.0     4.00     3.95     1.86     YES
 L0006522         0   0.53280E-06  478223.0 3747776.2   449.0     4.00     3.95     1.86     YES
 L0006523         0   0.53280E-06  478231.5 3747776.2   449.0     4.00     3.95     1.86     YES
 L0006524         0   0.53280E-06  478240.0 3747776.1   449.0     4.00     3.95     1.86     YES
 L0006525         0   0.53280E-06  478248.5 3747776.1   449.0     4.00     3.95     1.86     YES
 L0006526         0   0.53280E-06  478257.0 3747776.0   449.0     4.00     3.95     1.86     YES
 L0006527         0   0.53280E-06  478265.5 3747776.0   449.0     4.00     3.95     1.86     YES
 L0006528         0   0.53280E-06  478274.0 3747775.9   449.0     4.00     3.95     1.86     YES
 L0006529         0   0.53280E-06  478281.0 3747774.4   449.0     4.00     3.95     1.86     YES
 L0006530         0   0.53280E-06  478281.0 3747765.9   449.0     4.00     3.95     1.86     YES
 L0006531         0   0.53280E-06  478281.1 3747757.4   449.0     4.00     3.95     1.86     YES
 L0006532         0   0.53280E-06  478281.1 3747748.9   449.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X        Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006533         0   0.53280E-06  478281.1 3747740.4   449.0     4.00     3.95     1.86     YES
 L0006534         0   0.53280E-06  478281.2 3747731.9   449.0     4.00     3.95     1.86     YES
 L0006535         0   0.53280E-06  478281.2 3747723.4   449.0     4.00     3.95     1.86     YES
 L0006536         0   0.53280E-06  478281.2 3747714.9   449.0     4.00     3.95     1.86     YES
 L0006537         0   0.53280E-06  478281.3 3747706.4   449.0     4.00     3.95     1.86     YES
 L0006538         0   0.53280E-06  478281.3 3747697.9   449.0     4.00     3.95     1.86     YES
 L0006539         0   0.53280E-06  478281.3 3747689.4   449.0     4.00     3.95     1.86     YES
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                                                        Residential
 L0006540         0   0.53280E-06  478281.4 3747680.9   449.0     4.00     3.95     1.86     YES
 L0006541         0   0.53280E-06  478281.4 3747672.4   448.9     4.00     3.95     1.86     YES
 L0006542         0   0.53280E-06  478281.4 3747663.9   448.6     4.00     3.95     1.86     YES
 L0006543         0   0.53280E-06  478281.5 3747655.4   448.3     4.00     3.95     1.86     YES
 L0006544         0   0.53280E-06  478281.5 3747646.9   448.0     4.00     3.95     1.86     YES
 L0006545         0   0.53280E-06  478281.5 3747638.4   448.0     4.00     3.95     1.86     YES
 L0006546         0   0.53280E-06  478281.5 3747629.9   448.0     4.00     3.95     1.86     YES
 L0006547         0   0.53280E-06  478281.6 3747621.4   448.0     4.00     3.95     1.86     YES
 L0006548         0   0.53280E-06  478281.6 3747612.9   448.0     4.00     3.95     1.86     YES
 L0006549         0   0.53280E-06  478281.6 3747604.4   448.0     4.00     3.95     1.86     YES
 L0006550         0   0.53280E-06  478281.7 3747595.9   448.0     4.00     3.95     1.86     YES
 L0006551         0   0.53280E-06  478281.7 3747587.4   448.0     4.00     3.95     1.86     YES
 L0006552         0   0.53280E-06  478281.7 3747578.9   448.0     4.00     3.95     1.86     YES
 L0006553         0   0.53280E-06  478281.8 3747570.4   448.0     4.00     3.95     1.86     YES
 L0006554         0   0.53280E-06  478281.8 3747561.9   448.0     4.00     3.95     1.86     YES
 L0006555         0   0.53280E-06  478281.8 3747553.4   448.0     4.00     3.95     1.86     YES
 L0006556         0   0.53280E-06  478281.9 3747544.9   448.0     4.00     3.95     1.86     YES
 L0006557         0   0.53280E-06  478281.9 3747536.4   448.0     4.00     3.95     1.86     YES
 L0006558         0   0.53280E-06  478281.9 3747527.9   448.0     4.00     3.95     1.86     YES
 L0006559         0   0.53280E-06  478282.0 3747519.4   448.0     4.00     3.95     1.86     YES
 L0006560         0   0.53280E-06  478282.0 3747510.9   448.0     4.00     3.95     1.86     YES
 L0006561         0   0.53280E-06  478282.0 3747502.4   448.0     4.00     3.95     1.86     YES
 L0006562         0   0.53280E-06  478282.1 3747493.9   448.0     4.00     3.95     1.86     YES
 L0006563         0   0.53280E-06  478282.1 3747485.4   448.0     4.00     3.95     1.86     YES
 L0006564         0   0.53280E-06  478282.1 3747476.9   448.0     4.00     3.95     1.86     YES
 L0006565         0   0.53280E-06  478282.2 3747468.4   448.0     4.00     3.95     1.86     YES
 L0006566         0   0.53280E-06  478282.2 3747459.9   448.0     4.00     3.95     1.86     YES
 L0006567         0   0.53280E-06  478282.2 3747451.4   448.0     4.00     3.95     1.86     YES
 L0006568         0   0.53280E-06  478282.3 3747442.9   448.0     4.00     3.95     1.86     YES
 L0006569         0   0.53280E-06  478282.3 3747434.4   448.0     4.00     3.95     1.86     YES
 L0006570         0   0.53280E-06  478282.3 3747425.9   448.0     4.00     3.95     1.86     YES
 L0006571         0   0.53280E-06  478282.4 3747417.4   448.0     4.00     3.95     1.86     YES
 L0006572         0   0.53280E-06  478282.4 3747408.9   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006573         0   0.53280E-06  478282.4 3747400.4   448.0     4.00     3.95     1.86     YES
 L0006574         0   0.53280E-06  478282.5 3747391.9   448.0     4.00     3.95     1.86     YES
 L0006575         0   0.53280E-06  478282.5 3747383.4   448.0     4.00     3.95     1.86     YES
 L0006576         0   0.53280E-06  478282.5 3747374.9   448.0     4.00     3.95     1.86     YES
 L0006577         0   0.53280E-06  478282.6 3747366.4   448.0     4.00     3.95     1.86     YES
 L0006578         0   0.53280E-06  478282.6 3747357.9   448.0     4.00     3.95     1.86     YES
 L0006579         0   0.53280E-06  478282.6 3747349.4   448.0     4.00     3.95     1.86     YES
 L0006580         0   0.53280E-06  478282.6 3747340.9   448.0     4.00     3.95     1.86     YES
 L0006581         0   0.53280E-06  478282.7 3747332.4   448.0     4.00     3.95     1.86     YES
 L0006582         0   0.53280E-06  478282.7 3747323.9   448.0     4.00     3.95     1.86     YES
 L0006583         0   0.53280E-06  478282.7 3747315.4   448.0     4.00     3.95     1.86     YES
 L0006584         0   0.53280E-06  478282.8 3747306.9   448.0     4.00     3.95     1.86     YES
 L0006585         0   0.53280E-06  478282.8 3747298.4   448.0     4.00     3.95     1.86     YES
 L0006586         0   0.53280E-06  478282.8 3747289.9   448.0     4.00     3.95     1.86     YES
 L0006587         0   0.53280E-06  478282.9 3747281.4   448.0     4.00     3.95     1.86     YES
 L0006588         0   0.53280E-06  478282.9 3747272.9   448.0     4.00     3.95     1.86     YES
 L0006589         0   0.53280E-06  478282.9 3747264.4   448.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0006590         0   0.53280E-06  478283.0 3747255.9   448.0     4.00     3.95     1.86     YES
 L0006591         0   0.53280E-06  478283.0 3747247.4   448.0     4.00     3.95     1.86     YES
 L0006592         0   0.53280E-06  478283.0 3747238.9   448.0     4.00     3.95     1.86     YES
 L0006593         0   0.53280E-06  478283.1 3747230.4   448.0     4.00     3.95     1.86     YES
 L0006594         0   0.53280E-06  478283.1 3747221.9   448.0     4.00     3.95     1.86     YES
 L0006595         0   0.53280E-06  478283.1 3747213.4   448.0     4.00     3.95     1.86     YES
 L0006596         0   0.53280E-06  478283.2 3747204.9   448.0     4.00     3.95     1.86     YES
 L0006597         0   0.53280E-06  478283.2 3747196.4   448.0     4.00     3.95     1.86     YES
 L0006598         0   0.53280E-06  478283.2 3747187.9   448.0     4.00     3.95     1.86     YES
 L0006599         0   0.53280E-06  478283.3 3747179.4   448.0     4.00     3.95     1.86     YES
 L0006600         0   0.53280E-06  478283.3 3747170.9   448.0     4.00     3.95     1.86     YES
 L0006601         0   0.53280E-06  478283.3 3747162.4   448.0     4.00     3.95     1.86     YES
 L0006602         0   0.53280E-06  478283.4 3747153.9   448.0     4.00     3.95     1.86     YES
 L0006603         0   0.53280E-06  478283.4 3747145.4   448.0     4.00     3.95     1.86     YES
 L0006604         0   0.53280E-06  478283.4 3747136.9   448.0     4.00     3.95     1.86     YES
 L0006605         0   0.53280E-06  478283.5 3747128.4   448.0     4.00     3.95     1.86     YES
 L0006606         0   0.53280E-06  478283.5 3747119.9   448.0     4.00     3.95     1.86     YES
 L0006607         0   0.53280E-06  478283.5 3747111.4   448.0     4.00     3.95     1.86     YES
 L0006608         0   0.53280E-06  478283.6 3747102.9   448.0     4.00     3.95     1.86     YES
 L0006609         0   0.53280E-06  478283.6 3747094.4   448.0     4.00     3.95     1.86     YES
 L0006610         0   0.53280E-06  478283.6 3747085.9   448.0     4.00     3.95     1.86     YES
 L0006611         0   0.53280E-06  478283.6 3747077.4   448.0     4.00     3.95     1.86     YES
 L0006612         0   0.53280E-06  478283.7 3747068.9   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006613         0   0.53280E-06  478283.7 3747060.4   448.0     4.00     3.95     1.86     YES
 L0006614         0   0.53280E-06  478283.7 3747051.9   448.0     4.00     3.95     1.86     YES
 L0006615         0   0.53280E-06  478283.8 3747043.4   448.0     4.00     3.95     1.86     YES
 L0006616         0   0.53280E-06  478283.8 3747034.9   448.0     4.00     3.95     1.86     YES
 L0006617         0   0.53280E-06  478283.8 3747026.4   448.0     4.00     3.95     1.86     YES
 L0006618         0   0.53280E-06  478283.9 3747017.9   448.0     4.00     3.95     1.86     YES
 L0006619         0   0.53280E-06  478283.9 3747009.4   448.0     4.00     3.95     1.86     YES
 L0006620         0   0.53280E-06  478283.9 3747000.9   448.0     4.00     3.95     1.86     YES
 L0006621         0   0.53280E-06  478284.0 3746992.4   448.0     4.00     3.95     1.86     YES
 L0006622         0   0.53280E-06  478284.0 3746983.9   448.0     4.00     3.95     1.86     YES
 L0006623         0   0.53280E-06  478284.0 3746975.4   448.0     4.00     3.95     1.86     YES
 L0006624         0   0.53280E-06  478284.1 3746966.9   448.0     4.00     3.95     1.86     YES
 L0006625         0   0.53280E-06  478284.1 3746958.4   448.0     4.00     3.95     1.86     YES
 L0006626         0   0.53280E-06  478284.1 3746949.9   448.0     4.00     3.95     1.86     YES
 L0006627         0   0.53280E-06  478284.2 3746941.4   448.0     4.00     3.95     1.86     YES
 L0006628         0   0.53280E-06  478284.2 3746932.9   448.0     4.00     3.95     1.86     YES
 L0006629         0   0.53280E-06  478284.2 3746924.4   448.0     4.00     3.95     1.86     YES
 L0006630         0   0.53280E-06  478284.3 3746915.9   448.0     4.00     3.95     1.86     YES
 L0006631         0   0.53280E-06  478284.3 3746907.4   448.0     4.00     3.95     1.86     YES
 L0006632         0   0.53280E-06  478284.3 3746898.9   448.0     4.00     3.95     1.86     YES
 L0006633         0   0.53280E-06  478284.4 3746890.4   448.0     4.00     3.95     1.86     YES
 L0006634         0   0.53280E-06  478284.4 3746881.9   448.0     4.00     3.95     1.86     YES
 L0006635         0   0.53280E-06  478284.4 3746873.4   448.0     4.00     3.95     1.86     YES
 L0006636         0   0.53280E-06  478284.5 3746864.9   448.0     4.00     3.95     1.86     YES
 L0006637         0   0.53280E-06  478284.5 3746856.4   447.8     4.00     3.95     1.86     YES
 L0006638         0   0.53280E-06  478284.5 3746847.9   447.7     4.00     3.95     1.86     YES
 L0006639         0   0.53280E-06  478284.6 3746839.4   447.6     4.00     3.95     1.86     YES
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                                                 Residential
 L0006640        0   0.53280E-06  478284.6 3746830.9   447.4     4.00     3.95     1.86     YES
 L0006641        0   0.53280E-06  478284.6 3746822.4   447.3     4.00     3.95     1.86     YES
 L0006642        0   0.53280E-06  478284.6 3746813.9   447.1     4.00     3.95     1.86     YES
 L0006643        0   0.53280E-06  478284.7 3746805.4   447.0     4.00     3.95     1.86     YES
 L0006644        0   0.53280E-06  478284.7 3746796.9   447.0     4.00     3.95     1.86     YES
 L0006645        0   0.53280E-06  478284.7 3746788.4   447.0     4.00     3.95     1.86     YES
 L0006646        0   0.53280E-06  478284.8 3746779.9   447.0     4.00     3.95     1.86     YES
 L0006647        0   0.53280E-06  478284.8 3746771.4   447.0     4.00     3.95     1.86     YES
 L0006648        0   0.53280E-06  478284.8 3746762.9   447.0     4.00     3.95     1.86     YES
 L0006649        0   0.53280E-06  478284.9 3746754.4   447.0     4.00     3.95     1.86     YES
 L0006650        0   0.53280E-06  478284.9 3746745.9   447.0     4.00     3.95     1.86     YES
 L0006651        0   0.53280E-06  478284.9 3746737.4   447.0     4.00     3.95     1.86     YES
 L0006652        0   0.53280E-06  478285.0 3746728.9   447.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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   PAGE  52
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006653        0   0.53280E-06  478285.0 3746720.4   447.0     4.00     3.95     1.86     YES
 L0006654        0   0.53280E-06  478285.0 3746711.9   447.0     4.00     3.95     1.86     YES
 L0006655        0   0.53280E-06  478285.1 3746703.4   447.0     4.00     3.95     1.86     YES
 L0006656        0   0.53280E-06  478285.1 3746694.9   447.0     4.00     3.95     1.86     YES
 L0006657        0   0.53280E-06  478285.1 3746686.4   447.0     4.00     3.95     1.86     YES
 L0006658        0   0.53280E-06  478285.2 3746677.9   447.0     4.00     3.95     1.86     YES
 L0006659        0   0.53280E-06  478285.2 3746669.4   447.0     4.00     3.95     1.86     YES
 L0006660        0   0.53280E-06  478285.2 3746660.9   447.0     4.00     3.95     1.86     YES
 L0006661        0   0.53280E-06  478285.3 3746652.4   447.0     4.00     3.95     1.86     YES
 L0006662        0   0.53280E-06  478285.3 3746643.9   447.0     4.00     3.95     1.86     YES
 L0006663        0   0.53280E-06  478285.3 3746635.4   447.0     4.00     3.95     1.86     YES
 L0006664        0   0.53280E-06  478285.4 3746626.9   447.0     4.00     3.95     1.86     YES
 L0006665        0   0.53280E-06  478285.4 3746618.4   447.0     4.00     3.95     1.86     YES
 L0006666        0   0.53280E-06  478285.4 3746609.9   447.0     4.00     3.95     1.86     YES
 L0006667        0   0.53280E-06  478285.5 3746601.4   447.0     4.00     3.95     1.86     YES
 L0006668        0   0.53280E-06  478285.5 3746592.9   447.0     4.00     3.95     1.86     YES
 L0006669        0   0.53280E-06  478285.5 3746584.4   447.0     4.00     3.95     1.86     YES
 L0006670        0   0.53280E-06  478285.6 3746575.9   447.0     4.00     3.95     1.86     YES
 L0006671        0   0.53280E-06  478285.6 3746567.4   447.0     4.00     3.95     1.86     YES
 L0006672        0   0.53280E-06  478285.6 3746558.9   447.0     4.00     3.95     1.86     YES
 L0006673        0   0.53280E-06  478285.7 3746550.4   447.0     4.00     3.95     1.86     YES
 L0006674        0   0.53280E-06  478285.7 3746541.9   447.0     4.00     3.95     1.86     YES
 L0006675        0   0.53280E-06  478285.7 3746533.4   447.0     4.00     3.95     1.86     YES
 L0006676        0   0.53280E-06  478285.7 3746524.9   447.0     4.00     3.95     1.86     YES
 L0006677        0   0.53280E-06  478285.8 3746516.4   447.0     4.00     3.95     1.86     YES
 L0006678        0   0.53280E-06  478285.8 3746507.9   447.0     4.00     3.95     1.86     YES
 L0006679        0   0.53280E-06  478285.8 3746499.4   447.0     4.00     3.95     1.86     YES
 L0006680        0   0.53280E-06  478285.9 3746490.9   447.0     4.00     3.95     1.86     YES
 L0006681        0   0.53280E-06  478285.9 3746482.4   447.0     4.00     3.95     1.86     YES
 L0006682        0   0.53280E-06  478285.9 3746473.9   447.0     4.00     3.95     1.86     YES
 L0006683        0   0.53280E-06  478286.0 3746465.4   447.0     4.00     3.95     1.86     YES
 L0006684        0   0.53280E-06  478286.0 3746456.9   447.0     4.00     3.95     1.86     YES
 L0006685        0   0.53280E-06  478286.0 3746448.4   447.0     4.00     3.95     1.86     YES
 L0006686        0   0.53280E-06  478286.1 3746439.9   446.9     4.00     3.95     1.86     YES
 L0006687        0   0.53280E-06  478286.1 3746431.4   446.7     4.00     3.95     1.86     YES
 L0006688        0   0.53280E-06  478286.1 3746422.9   446.6     4.00     3.95     1.86     YES
 L0006689        0   0.53280E-06  478286.2 3746414.4   446.5     4.00     3.95     1.86     YES
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                                                   Residential
 L0006690         0   0.53280E-06  478286.2 3746405.9   446.5     4.00     3.95     1.86     YES
 L0006691         0   0.53280E-06  478286.2 3746397.4   446.5     4.00     3.95     1.86     YES
 L0006692         0   0.53280E-06  478286.3 3746388.9   446.4     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006693         0   0.53280E-06  478286.3 3746380.4   446.4     4.00     3.95     1.86     YES
 L0006694         0   0.53280E-06  478286.3 3746371.9   446.4     4.00     3.95     1.86     YES
 L0006695         0   0.53280E-06  478286.4 3746363.4   446.4     4.00     3.95     1.86     YES
 L0006696         0   0.53280E-06  478286.4 3746354.9   446.4     4.00     3.95     1.86     YES
 L0006697         0   0.53280E-06  478286.4 3746346.4   446.4     4.00     3.95     1.86     YES
 L0006698         0   0.53280E-06  478280.1 3746347.5   446.7     4.00     3.95     1.86     YES
 L0006699         0   0.53280E-06  478272.3 3746350.8   446.9     4.00     3.95     1.86     YES
 L0006700         0   0.53280E-06  478264.5 3746354.2   447.0     4.00     3.95     1.86     YES
 L0006701         0   0.53280E-06  478256.7 3746357.5   447.0     4.00     3.95     1.86     YES
 L0006702         0   0.53280E-06  478248.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006703         0   0.53280E-06  478240.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006704         0   0.53280E-06  478231.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006705         0   0.53280E-06  478223.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006706         0   0.53280E-06  478214.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006707         0   0.53280E-06  478206.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006708         0   0.53280E-06  478197.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006709         0   0.53280E-06  478189.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006710         0   0.53280E-06  478180.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006711         0   0.53280E-06  478172.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006712         0   0.53280E-06  478163.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006713         0   0.53280E-06  478155.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006714         0   0.53280E-06  478146.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006715         0   0.53280E-06  478138.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006716         0   0.53280E-06  478129.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006717         0   0.53280E-06  478121.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006718         0   0.53280E-06  478112.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006719         0   0.53280E-06  478104.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006720         0   0.53280E-06  478095.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006721         0   0.53280E-06  478087.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006722         0   0.53280E-06  478078.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006723         0   0.53280E-06  478070.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006724         0   0.53280E-06  478061.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006725         0   0.53280E-06  478053.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006726         0   0.53280E-06  478044.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006727         0   0.53280E-06  478036.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006728         0   0.53280E-06  478027.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006729         0   0.53280E-06  478019.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006730         0   0.53280E-06  478010.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006731         0   0.53280E-06  478002.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006732         0   0.53280E-06  477993.6 3746359.6   447.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006733         0   0.53280E-06  477985.1 3746359.6   447.0      4.00      3.95     1.86     YES
 L0006734         0   0.53280E-06  477976.6 3746359.6   447.0      4.00      3.95     1.86     YES
 L0006735         0   0.53280E-06  477968.1 3746359.6   447.0      4.00      3.95     1.86     YES
 L0006736         0   0.53280E-06  477959.6 3746359.6   447.0      4.00      3.95     1.86     YES
 L0006737         0   0.53280E-06  477951.1 3746359.6   447.1      4.00      3.95     1.86     YES
 L0006738         0   0.53280E-06  477942.6 3746359.6   447.1      4.00      3.95     1.86     YES
 L0006739         0   0.53280E-06  477934.1 3746359.6   447.3      4.00      3.95     1.86     YES
 L0006740         0   0.53280E-06  477925.6 3746359.6   447.5      4.00      3.95     1.86     YES
 L0006741         0   0.53280E-06  477917.1 3746359.6   447.8      4.00      3.95     1.86     YES
 L0006742         0   0.53280E-06  477908.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006743         0   0.53280E-06  477900.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006744         0   0.53280E-06  477891.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006745         0   0.53280E-06  477883.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006746         0   0.53280E-06  477874.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006747         0   0.53280E-06  477866.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006748         0   0.53280E-06  477857.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006749         0   0.53280E-06  477849.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006750         0   0.53280E-06  477840.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006751         0   0.53280E-06  477832.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006752         0   0.53280E-06  477823.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006753         0   0.53280E-06  477815.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006754         0   0.53280E-06  477806.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006755         0   0.53280E-06  477798.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006756         0   0.53280E-06  477789.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006757         0   0.53280E-06  477781.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006758         0   0.53280E-06  477772.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006759         0   0.53280E-06  477764.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006760         0   0.53280E-06  477755.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006761         0   0.53280E-06  477747.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006762         0   0.53280E-06  477738.6 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006763         0   0.53280E-06  477730.1 3746359.6   448.0      4.00      3.95     1.86     YES
 L0006764         0   0.53280E-06  477721.6 3746359.7   448.0      4.00      3.95     1.86     YES
 L0006765         0   0.53280E-06  477713.1 3746359.8   448.0      4.00      3.95     1.86     YES
 L0006766         0   0.53280E-06  477704.6 3746359.9   448.0      4.00      3.95     1.86     YES
 L0006767         0   0.53280E-06  477696.1 3746359.9   448.0      4.00      3.95     1.86     YES
 L0006768         0   0.53280E-06  477687.6 3746360.0   448.0      4.00      3.95     1.86     YES
 L0006769         0   0.53280E-06  477679.1 3746360.1   448.0      4.00      3.95     1.86     YES
 L0006770         0   0.53280E-06  477670.6 3746360.2   448.0      4.00      3.95     1.86     YES
 L0006771         0   0.53280E-06  477662.1 3746360.3   448.0      4.00      3.95     1.86     YES
 L0006772         0   0.53280E-06  477653.6 3746360.4   448.0      4.00      3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  55
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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                                                    Residential
 L0006773         0   0.53280E-06  477645.1 3746360.5   448.0     4.00     3.95     1.86     YES
 L0006774         0   0.53280E-06  477636.6 3746360.6   448.1     4.00     3.95     1.86     YES
 L0006775         0   0.53280E-06  477628.1 3746360.6   448.4     4.00     3.95     1.86     YES
 L0006776         0   0.53280E-06  477619.6 3746360.7   448.7     4.00     3.95     1.86     YES
 L0006777         0   0.53280E-06  477611.1 3746360.8   449.0     4.00     3.95     1.86     YES
 L0006778         0   0.53280E-06  477602.6 3746360.9   449.0     4.00     3.95     1.86     YES
 L0006779         0   0.53280E-06  477594.1 3746361.0   449.0     4.00     3.95     1.86     YES
 L0006780         0   0.53280E-06  477585.6 3746361.1   449.0     4.00     3.95     1.86     YES
 L0006781         0   0.53280E-06  477577.1 3746361.2   449.0     4.00     3.95     1.86     YES
 L0006782         0   0.53280E-06  477568.6 3746361.3   449.0     4.00     3.95     1.86     YES
 L0006783         0   0.53280E-06  477560.1 3746361.3   449.0     4.00     3.95     1.86     YES
 L0006784         0   0.53280E-06  477551.6 3746361.4   449.0     4.00     3.95     1.86     YES
 L0006785         0   0.53280E-06  477543.1 3746361.5   449.0     4.00     3.95     1.86     YES
 L0006786         0   0.53280E-06  477534.6 3746361.6   449.0     4.00     3.95     1.86     YES
 L0006787         0   0.53280E-06  477526.1 3746361.7   449.0     4.00     3.95     1.86     YES
 L0006788         0   0.53280E-06  477517.6 3746361.8   449.0     4.00     3.95     1.86     YES
 L0006789         0   0.53280E-06  477509.1 3746361.9   449.0     4.00     3.95     1.86     YES
 L0006790         0   0.53280E-06  477500.6 3746362.0   449.0     4.00     3.95     1.86     YES
 L0006791         0   0.53280E-06  477492.1 3746362.0   449.0     4.00     3.95     1.86     YES
 L0006792         0   0.53280E-06  477483.6 3746362.4   449.2     4.00     3.95     1.86     YES
 L0006793         0   0.53280E-06  477475.3 3746364.0   449.5     4.00     3.95     1.86     YES
 L0006794         0   0.53280E-06  477466.9 3746365.6   449.8     4.00     3.95     1.86     YES
 L0006795         0   0.53280E-06  477458.6 3746367.2   450.0     4.00     3.95     1.86     YES
 L0006796         0   0.53280E-06  477450.3 3746368.8   450.0     4.00     3.95     1.86     YES
 L0006797         0   0.53280E-06  477441.9 3746370.4   450.0     4.00     3.95     1.86     YES
 L0006798         0   0.53280E-06  477433.6 3746372.0   450.0     4.00     3.95     1.86     YES
 L0006799         0   0.53280E-06  477425.2 3746373.6   450.0     4.00     3.95     1.86     YES
 L0006800         0   0.53280E-06  477417.3 3746376.4   450.0     4.00     3.95     1.86     YES
 L0006801         0   0.53280E-06  477410.0 3746380.7   450.0     4.00     3.95     1.86     YES
 L0006802         0   0.53280E-06  477402.7 3746385.0   450.0     4.00     3.95     1.86     YES
 L0006803         0   0.53280E-06  477395.3 3746389.4   450.0     4.00     3.95     1.86     YES
 L0006804         0   0.53280E-06  477388.0 3746393.7   450.0     4.00     3.95     1.86     YES
 L0006805         0   0.53280E-06  477380.7 3746398.0   450.0     4.00     3.95     1.86     YES
 L0006806         0   0.53280E-06  477373.4 3746402.3   450.0     4.00     3.95     1.86     YES
 L0006807         0   0.53280E-06  477366.1 3746406.6   450.0     4.00     3.95     1.86     YES
 L0006808         0   0.53280E-06  477358.7 3746411.0   450.0     4.00     3.95     1.86     YES
 L0006809         0   0.53280E-06  477351.4 3746415.3   450.0     4.00     3.95     1.86     YES
 L0006810         0   0.53280E-06  477344.1 3746419.6   450.0     4.00     3.95     1.86     YES
 L0006811         0   0.53280E-06  477336.8 3746423.9   450.0     4.00     3.95     1.86     YES
 L0006812         0   0.53280E-06  477329.5 3746428.2   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  56
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006813         0   0.53280E-06  477322.2 3746432.7   450.0     4.00     3.95     1.86     YES
 L0006814         0   0.53280E-06  477315.4 3746437.8   450.0     4.00     3.95     1.86     YES
 L0006815         0   0.53280E-06  477308.6 3746442.9   450.0     4.00     3.95     1.86     YES
 L0006816         0   0.53280E-06  477301.8 3746448.0   450.0     4.00     3.95     1.86     YES
 L0006817         0   0.53280E-06  477295.0 3746453.1   450.0     4.00     3.95     1.86     YES
 L0006818         0   0.53280E-06  477288.2 3746458.2   450.0     4.00     3.95     1.86     YES
 L0006819         0   0.53280E-06  477281.4 3746463.3   450.0     4.00     3.95     1.86     YES
 L0006820         0   0.53280E-06  477274.6 3746468.4   450.0     4.00     3.95     1.86     YES
 L0006821         0   0.53280E-06  477267.7 3746473.3   450.0     4.00     3.95     1.86     YES
 L0006822         0   0.53280E-06  477260.7 3746478.2   450.0     4.00     3.95     1.86     YES
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                                                        Residential
 L0006823         0   0.53280E-06  477253.8 3746483.1   450.0     4.00     3.95     1.86     YES
 L0006824         0   0.53280E-06  477246.8 3746487.9   450.1     4.00     3.95     1.86     YES
 L0006825         0   0.53280E-06  477239.8 3746492.8   450.2     4.00     3.95     1.86     YES
 L0006826         0   0.53280E-06  477232.9 3746497.7   450.2     4.00     3.95     1.86     YES
 L0006827         0   0.53280E-06  477225.9 3746502.6   450.1     4.00     3.95     1.86     YES
 L0006828         0   0.53280E-06  477218.5 3746506.8   450.0     4.00     3.95     1.86     YES
 L0006829         0   0.53280E-06  477211.1 3746510.8   450.3     4.00     3.95     1.86     YES
 L0006830         0   0.53280E-06  477203.6 3746514.8   450.5     4.00     3.95     1.86     YES
 L0006831         0   0.53280E-06  477196.1 3746518.8   450.8     4.00     3.95     1.86     YES
 L0006832         0   0.53280E-06  477188.6 3746522.9   451.0     4.00     3.95     1.86     YES
 L0006833         0   0.53280E-06  477181.1 3746526.9   451.0     4.00     3.95     1.86     YES
 L0006834         0   0.53280E-06  477173.6 3746530.9   451.0     4.00     3.95     1.86     YES
 L0006835         0   0.53280E-06  477166.1 3746535.0   451.0     4.00     3.95     1.86     YES
 L0006836         0   0.53280E-06  477158.5 3746538.5   451.0     4.00     3.95     1.86     YES
 L0006837         0   0.53280E-06  477150.1 3746539.7   451.0     4.00     3.95     1.86     YES
 L0006838         0   0.53280E-06  477141.7 3746541.0   451.0     4.00     3.95     1.86     YES
 L0006839         0   0.53280E-06  477133.3 3746542.2   451.0     4.00     3.95     1.86     YES
 L0006840         0   0.53280E-06  477124.9 3746543.5   451.0     4.00     3.95     1.86     YES
 L0006841         0   0.53280E-06  477116.5 3746544.7   451.0     4.00     3.95     1.86     YES
 L0006842         0   0.53280E-06  477108.0 3746546.0   451.0     4.00     3.95     1.86     YES
 L0006843         0   0.53280E-06  477099.6 3746547.2   451.0     4.00     3.95     1.86     YES
 L0006844         0   0.53280E-06  477091.2 3746548.2   451.0     4.00     3.95     1.86     YES
 L0006845         0   0.53280E-06  477082.7 3746548.3   451.0     4.00     3.95     1.86     YES
 L0006846         0   0.53280E-06  477074.2 3746548.4   451.0     4.00     3.95     1.86     YES
 L0006847         0   0.53280E-06  477065.7 3746548.6   451.1     4.00     3.95     1.86     YES
 L0006848         0   0.53280E-06  477057.2 3746548.7   451.2     4.00     3.95     1.86     YES
 L0006849         0   0.53280E-06  477048.7 3746548.8   451.4     4.00     3.95     1.86     YES
 L0006850         0   0.53280E-06  477040.2 3746548.9   451.6     4.00     3.95     1.86     YES
 L0006851         0   0.53280E-06  477031.7 3746549.0   451.7     4.00     3.95     1.86     YES
 L0006852         0   0.53280E-06  477023.2 3746549.1   451.8     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID          CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006853         0   0.53280E-06  477014.7 3746549.2   451.9     4.00     3.95     1.86     YES
 L0006854         0   0.53280E-06  477006.2 3746549.3   452.0     4.00     3.95     1.86     YES
 L0006855         0   0.53280E-06  476997.7 3746549.4   452.0     4.00     3.95     1.86     YES
 L0006856         0   0.53280E-06  476989.2 3746549.6   452.0     4.00     3.95     1.86     YES
 L0006857         0   0.53280E-06  476980.7 3746549.7   452.0     4.00     3.95     1.86     YES
 L0006858         0   0.53280E-06  476972.2 3746549.8   452.0     4.00     3.95     1.86     YES
 L0006859         0   0.53280E-06  476963.7 3746549.9   452.0     4.00     3.95     1.86     YES
 L0006860         0   0.53280E-06  476955.2 3746550.0   452.0     4.00     3.95     1.86     YES
 L0006861         0   0.53280E-06  476946.7 3746550.1   452.0     4.00     3.95     1.86     YES
 L0006862         0   0.53280E-06  476938.2 3746550.2   452.0     4.00     3.95     1.86     YES
 L0006863         0   0.53280E-06  476929.7 3746550.3   452.0     4.00     3.95     1.86     YES
 L0006864         0   0.53280E-06  476921.2 3746550.4   452.0     4.00     3.95     1.86     YES
 L0006865         0   0.53280E-06  476912.7 3746550.6   452.1     4.00     3.95     1.86     YES
 L0006866         0   0.53280E-06  476904.2 3746550.7   452.3     4.00     3.95     1.86     YES
 L0006867         0   0.53280E-06  476895.7 3746550.8   452.4     4.00     3.95     1.86     YES
 L0006868         0   0.53280E-06  476887.2 3746550.9   452.6     4.00     3.95     1.86     YES
 L0006869         0   0.53280E-06  476878.7 3746551.0   452.7     4.00     3.95     1.86     YES
 L0006870         0   0.53280E-06  476870.2 3746551.1   452.8     4.00     3.95     1.86     YES
 L0006871         0   0.53280E-06  476861.7 3746551.2   453.0     4.00     3.95     1.86     YES
 L0006872         0   0.53280E-06  476853.2 3746551.3   453.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0006873         0   0.53280E-06  476844.7 3746551.4   453.0     4.00     3.95     1.86     YES
 L0006874         0   0.53280E-06  476836.2 3746551.5   453.0     4.00     3.95     1.86     YES
 L0006875         0   0.53280E-06  476827.7 3746551.7   453.0     4.00     3.95     1.86     YES
 L0006876         0   0.53280E-06  476819.2 3746551.8   453.0     4.00     3.95     1.86     YES
 L0006877         0   0.53280E-06  476810.7 3746551.9   453.0     4.00     3.95     1.86     YES
 L0006878         0   0.53280E-06  476802.2 3746552.0   453.0     4.00     3.95     1.86     YES
 L0006879         0   0.53280E-06  476793.7 3746552.1   462.1     4.00     3.95     1.86     YES
 L0006880         0   0.53280E-06  476785.2 3746552.2   462.2     4.00     3.95     1.86     YES
 L0006881         0   0.53280E-06  476776.7 3746552.2   462.3     4.00     3.95     1.86     YES
 L0006882         0   0.53280E-06  476768.2 3746551.9   462.4     4.00     3.95     1.86     YES
 L0006883         0   0.53280E-06  476759.7 3746551.7   462.5     4.00     3.95     1.86     YES
 L0006884         0   0.53280E-06  476751.2 3746551.5   462.6     4.00     3.95     1.86     YES
 L0006885         0   0.53280E-06  476742.8 3746551.3   462.7     4.00     3.95     1.86     YES
 L0006886         0   0.53280E-06  476734.3 3746551.1   462.8     4.00     3.95     1.86     YES
 L0006887         0   0.53280E-06  476725.8 3746550.8   462.9     4.00     3.95     1.86     YES
 L0006888         0   0.53280E-06  476717.3 3746550.6   463.1     4.00     3.95     1.86     YES
 L0006889         0   0.53280E-06  476708.8 3746550.4   463.2     4.00     3.95     1.86     YES
 L0006890         0   0.53280E-06  476700.3 3746550.2   463.3     4.00     3.95     1.86     YES
 L0006891         0   0.53280E-06  476691.8 3746550.0   463.4     4.00     3.95     1.86     YES
 L0006892         0   0.53280E-06  476683.3 3746549.7   463.5     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART. (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006893         0   0.53280E-06  476674.8 3746549.5   463.6     4.00     3.95     1.86     YES
 L0006894         0   0.53280E-06  476666.3 3746549.3   463.7     4.00     3.95     1.86     YES
 L0006895         0   0.53280E-06  476657.8 3746549.1   463.8     4.00     3.95     1.86     YES
 L0006896         0   0.53280E-06  476649.5 3746550.2   463.9     4.00     3.95     1.86     YES
 L0006897         0   0.53280E-06  476641.4 3746552.9   464.0     4.00     3.95     1.86     YES
 L0006898         0   0.53280E-06  476633.4 3746555.6   464.0     4.00     3.95     1.86     YES
 L0006899         0   0.53280E-06  476625.3 3746558.3   464.0     4.00     3.95     1.86     YES
 L0006900         0   0.53280E-06  476617.2 3746561.0   464.0     4.00     3.95     1.86     YES
 L0006901         0   0.53280E-06  476609.2 3746563.6   464.0     4.00     3.95     1.86     YES
 L0006902         0   0.53280E-06  476601.4 3746566.9   464.0     4.00     3.95     1.86     YES
 L0006903         0   0.53280E-06  476594.1 3746571.4   464.0     4.00     3.95     1.86     YES
 L0006904         0   0.53280E-06  476586.9 3746575.9   464.0     4.00     3.95     1.86     YES
 L0006905         0   0.53280E-06  476579.7 3746580.4   464.0     4.00     3.95     1.86     YES
 L0006906         0   0.53280E-06  476572.5 3746584.8   464.0     4.00     3.95     1.86     YES
 L0006907         0   0.53280E-06  476565.3 3746589.3   464.0     4.00     3.95     1.86     YES
 L0006908         0   0.53280E-06  476558.0 3746593.8   464.1     4.00     3.95     1.86     YES
 L0006909         0   0.53280E-06  476550.8 3746598.3   464.2     4.00     3.95     1.86     YES
 L0006910         0   0.53280E-06  476543.6 3746602.8   464.3     4.00     3.95     1.86     YES
 L0006911         0   0.53280E-06  476537.9 3746608.7   464.4     4.00     3.95     1.86     YES
 L0006912         0   0.53280E-06  476534.0 3746616.2   464.4     4.00     3.95     1.86     YES
 L0006913         0   0.53280E-06  476530.0 3746623.8   464.5     4.00     3.95     1.86     YES
 L0006914         0   0.53280E-06  476526.1 3746631.3   464.5     4.00     3.95     1.86     YES
 L0006915         0   0.53280E-06  476522.2 3746638.8   464.6     4.00     3.95     1.86     YES
 L0006916         0   0.53280E-06  476518.2 3746646.4   464.6     4.00     3.95     1.86     YES
 L0006917         0   0.53280E-06  476514.3 3746653.9   464.7     4.00     3.95     1.86     YES
 L0006918         0   0.53280E-06  476510.3 3746661.4   464.7     4.00     3.95     1.86     YES
 L0006919         0   0.53280E-06  476506.4 3746668.9   464.8     4.00     3.95     1.86     YES
 L0006920         0   0.53280E-06  476502.4 3746676.5   464.8     4.00     3.95     1.86     YES
 L0006921         0   0.53280E-06  476498.5 3746684.0   464.9     4.00     3.95     1.86     YES
 L0006922         0   0.53280E-06  476494.5 3746691.5   464.9     4.00     3.95     1.86     YES
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                                                        Residential
 L0006923         0   0.53280E-06  476490.6 3746699.1   465.0      4.00      3.95      1.86      YES
 L0006924         0   0.53280E-06  476486.6 3746706.6   465.1      4.00      3.95      1.86      YES
 L0006925         0   0.53280E-06  476482.7 3746714.1   465.2      4.00      3.95      1.86      YES
 L0006926         0   0.53280E-06  476478.7 3746721.6   465.3      4.00      3.95      1.86      YES
 L0006927         0   0.53280E-06  476474.8 3746729.2   465.4      4.00      3.95      1.86      YES
 L0006928         0   0.53280E-06  476470.9 3746736.7   465.5      4.00      3.95      1.86      YES
 L0006929         0   0.53280E-06  476467.8 3746744.5   465.6      4.00      3.95      1.86      YES
 L0006930         0   0.53280E-06  476466.4 3746752.9   465.6      4.00      3.95      1.86      YES
 L0006931         0   0.53280E-06  476465.0 3746761.3   465.7      4.00      3.95      1.86      YES
 L0006932         0   0.53280E-06  476463.6 3746769.7   465.7      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)    X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0006933         0   0.53280E-06  476462.2 3746778.1   465.7      4.00      3.95      1.86      YES
 L0006934         0   0.53280E-06  476460.8 3746786.4   465.8      4.00      3.95      1.86      YES
 L0006935         0   0.53280E-06  476459.4 3746794.8   465.8      4.00      3.95      1.86      YES
 L0006936         0   0.53280E-06  476457.3 3746803.0   465.9      4.00      3.95      1.86      YES
 L0006937         0   0.53280E-06  476453.4 3746810.5   465.9      4.00      3.95      1.86      YES
 L0006938         0   0.53280E-06  476449.4 3746818.0   466.1      4.00      3.95      1.86      YES
 L0006939         0   0.53280E-06  476445.4 3746825.5   466.2      4.00      3.95      1.86      YES
 L0006940         0   0.53280E-06  476441.4 3746833.0   466.3      4.00      3.95      1.86      YES
 L0006941         0   0.53280E-06  476437.5 3746840.5   466.4      4.00      3.95      1.86      YES
 L0006942         0   0.53280E-06  476433.5 3746848.1   466.5      4.00      3.95      1.86      YES
 L0006943         0   0.53280E-06  476429.5 3746855.6   466.6      4.00      3.95      1.86      YES
 L0006944         0   0.53280E-06  476425.5 3746863.1   466.7      4.00      3.95      1.86      YES
 L0006945         0   0.53280E-06  476421.6 3746870.6   466.8      4.00      3.95      1.86      YES
 L0006946         0   0.53280E-06  476417.6 3746878.1   466.9      4.00      3.95      1.86      YES
 L0006947         0   0.53280E-06  476413.6 3746885.6   467.0      4.00      3.95      1.86      YES
 L0006948         0   0.53280E-06  476409.6 3746893.1   467.1      4.00      3.95      1.86      YES
 L0006949         0   0.53280E-06  476403.2 3746898.5   467.1      4.00      3.95      1.86      YES
 L0006950         0   0.53280E-06  476396.2 3746903.3   467.2      4.00      3.95      1.86      YES
 L0006951         0   0.53280E-06  476389.2 3746908.1   467.3      4.00      3.95      1.86      YES
 L0006952         0   0.53280E-06  476382.2 3746912.9   467.4      4.00      3.95      1.86      YES
 L0006953         0   0.53280E-06  476375.2 3746917.8   467.5      4.00      3.95      1.86      YES
 L0006954         0   0.53280E-06  476368.2 3746922.6   467.6      4.00      3.95      1.86      YES
 L0006955         0   0.53280E-06  476361.2 3746927.4   467.7      4.00      3.95      1.86      YES
 L0006956         0   0.53280E-06  476354.2 3746932.2   467.8      4.00      3.95      1.86      YES
 L0006957         0   0.53280E-06  476347.2 3746937.0   467.9      4.00      3.95      1.86      YES
 L0006958         0   0.53280E-06  476340.2 3746941.8   467.9      4.00      3.95      1.86      YES
 L0006959         0   0.53280E-06  476332.1 3746943.7   468.1      4.00      3.95      1.86      YES
 L0006960         0   0.53280E-06  476323.7 3746944.5   468.2      4.00      3.95      1.86      YES
 L0006961         0   0.53280E-06  476315.2 3746945.4   468.3      4.00      3.95      1.86      YES
 L0006962         0   0.53280E-06  476306.7 3746946.2   468.4      4.00      3.95      1.86      YES
 L0006963         0   0.53280E-06  476298.3 3746947.0   468.5      4.00      3.95      1.86      YES
 L0006964         0   0.53280E-06  476289.8 3746947.9   468.6      4.00      3.95      1.86      YES
 L0006965         0   0.53280E-06  476281.4 3746948.7   468.7      4.00      3.95      1.86      YES
 L0006966         0   0.53280E-06  476272.9 3746949.5   468.8      4.00      3.95      1.86      YES
 L0006967         0   0.53280E-06  476264.4 3746950.4   468.9      4.00      3.95      1.86      YES
 L0006968         0   0.53280E-06  476256.0 3746950.8   469.0      4.00      3.95      1.86      YES
 L0006969         0   0.53280E-06  476247.5 3746950.7   469.2      4.00      3.95      1.86      YES
 L0006970         0   0.53280E-06  476239.0 3746950.7   469.3      4.00      3.95      1.86      YES
 L0006971         0   0.53280E-06  476230.5 3746950.6   469.4      4.00      3.95      1.86      YES
 L0006972         0   0.53280E-06  476222.0 3746950.5   469.5      4.00      3.95      1.86      YES
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                                                                Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006973         0   0.53280E-06  476213.5 3746950.5    469.6     4.00     3.95     1.86     YES
 L0006974         0   0.53280E-06  476205.0 3746950.4    469.7     4.00     3.95     1.86     YES
 L0006975         0   0.53280E-06  476196.5 3746950.4    469.8     4.00     3.95     1.86     YES
 L0006976         0   0.53280E-06  476188.0 3746950.3    469.9     4.00     3.95     1.86     YES
 L0006977         0   0.53280E-06  476179.5 3746950.3    470.0     4.00     3.95     1.86     YES
 L0006978         0   0.53280E-06  476171.0 3746950.2    470.2     4.00     3.95     1.86     YES
 L0006979         0   0.53280E-06  476162.5 3746950.1    470.3     4.00     3.95     1.86     YES
 L0006980         0   0.53280E-06  476154.0 3746950.1    470.4     4.00     3.95     1.86     YES
 L0006981         0   0.53280E-06  476145.5 3746950.0    470.5     4.00     3.95     1.86     YES
 L0006982         0   0.53280E-06  476137.0 3746950.0    470.6     4.00     3.95     1.86     YES
 L0006983         0   0.53280E-06  476128.5 3746949.9    470.7     4.00     3.95     1.86     YES
 L0006984         0   0.53280E-06  476120.0 3746949.9    470.8     4.00     3.95     1.86     YES
 L0006985         0   0.53280E-06  476111.5 3746949.8    470.9     4.00     3.95     1.86     YES
 L0006986         0   0.53280E-06  476103.0 3746949.8    471.0     4.00     3.95     1.86     YES
 L0006987         0   0.53280E-06  476094.5 3746949.7    471.1     4.00     3.95     1.86     YES
 L0006988         0   0.53280E-06  476086.0 3746949.6    471.2     4.00     3.95     1.86     YES
 L0006989         0   0.53280E-06  476077.5 3746949.6    471.4     4.00     3.95     1.86     YES
 L0006990         0   0.53280E-06  476069.0 3746949.5    471.5     4.00     3.95     1.86     YES
 L0006991         0   0.53280E-06  476060.5 3746949.5    471.6     4.00     3.95     1.86     YES
 L0006992         0   0.53280E-06  476052.0 3746949.4    471.7     4.00     3.95     1.86     YES
 L0006993         0   0.53280E-06  476043.5 3746949.4    471.8     4.00     3.95     1.86     YES
 L0006994         0   0.53280E-06  476035.0 3746949.3    471.9     4.00     3.95     1.86     YES
 L0006995         0   0.53280E-06  476026.5 3746949.2    472.0     4.00     3.95     1.86     YES
 L0006996         0   0.53280E-06  476018.0 3746949.2    472.1     4.00     3.95     1.86     YES
 L0006997         0   0.53280E-06  476009.5 3746949.1    472.2     4.00     3.95     1.86     YES
 L0006998         0   0.53280E-06  476001.0 3746949.1    472.4     4.00     3.95     1.86     YES
 L0006999         0   0.53280E-06  475992.5 3746949.0    472.5     4.00     3.95     1.86     YES
 L0007000         0   0.53280E-06  475984.0 3746949.0    472.6     4.00     3.95     1.86     YES
 L0007001         0   0.53280E-06  475975.5 3746948.9    472.7     4.00     3.95     1.86     YES
 L0007002         0   0.53280E-06  475967.0 3746948.8    472.8     4.00     3.95     1.86     YES
 L0007003         0   0.53280E-06  475958.5 3746948.8    472.9     4.00     3.95     1.86     YES
 L0007004         0   0.53280E-06  475950.0 3746948.7    473.0     4.00     3.95     1.86     YES
 L0007005         0   0.53280E-06  475941.5 3746948.7    472.6     4.00     3.95     1.86     YES
 L0007006         0   0.53280E-06  475933.0 3746948.6    472.3     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                              *** AREA SOURCE DATA ***

              NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA   OF AREA  OF AREA     SZ
SOURCE  SCALAR VARY
     ID        CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)   (METERS)   (DEG.)  (METERS)
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                                                     Residential
       BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - -

 AREA1             0   0.23510E-07  477895.8 3748485.6   452.0     5.00     75.04    426.52      0.00     0.00
YES   HROFDY
 AREA2             0   0.24890E-07  478189.3 3748386.9   451.0     5.00     57.92    521.96      0.00     0.00
YES   HROFDY
 AREA3             0   0.87222E-07  478027.4 3748303.6   450.0     5.00    143.40     60.16      0.00     0.00
YES   HROFDY
 AREA4             0   0.27037E-07  477696.2 3748836.0   454.0     5.00     72.15    152.50      0.00     0.00
YES   HROFDY
 AREA5             0   0.56522E-07  477967.7 3748183.6   450.0     5.00     61.27     85.90      0.00     0.00
YES   HROFDY
 AREA6             0   0.25323E-07  477599.3 3748788.1   454.0     5.00     65.18    180.23      0.00     0.00
YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  YARDTRAC   AREA1       , AREA2       , AREA3       , AREA4       , AREA5       , AREA6       ,

  OTHER      L0003043    , L0003044    , L0003045    , L0003046    , L0003047    , L0003048    , L0003049    ,
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L0003058    ,

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L0003074    ,

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L0003082    ,

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L0003122    ,

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             L0003131    , L0003132    , L0003133    , L0003134    , L0003135    , L0003136    , L0003137    ,
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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L0003186    ,

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L0003194    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
 -----------                                             ----------


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                                       Residential
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L0003354    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
  03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
  13:40:13

  PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker                ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***
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                                                  Residential
 SRCGROUP ID                                            SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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                                                    Residential

   PAGE  69
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

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    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  71
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
  03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:40:13

  PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  74
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                            Residential

                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                Residential
   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                        ***
  13:40:13

  PAGE  79
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

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                                                   Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE  86
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                                                  Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                   SOURCE IDs
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AREA6       ,

             STCK1       , STCK2       , STCK3       , STCK4       , STCK5       , STCK6       , STCK7       ,
STCK8       ,

             STCK9       , STCK10      , STCK11      , STCK12      , STCK13      , L0003741    , L0003742    ,
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                                                 Residential
L0005473    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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L0005633    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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                                                    Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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             L0006402    , L0006403    , L0006404    , L0006405    , L0006406    , L0006407    , L0006408    ,
L0006409    ,
             L0006410    , L0006411    , L0006412    , L0006413    , L0006414    , L0006415    , L0006416    ,
L0006417    ,
             L0006418    , L0006419    , L0006420    , L0006421    , L0006422    , L0006423    , L0006424    ,
L0006425    ,
             L0006426    , L0006427    , L0006428    , L0006429    , L0006430    , L0006431    , L0006432    ,
L0006433    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                 ***
   13:40:13

   PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0006434    , L0006435    , L0006436    , L0006437    , L0006438    , L0006439    , L0006440    ,
L0006441    ,
             L0006442    , L0006443    , L0006444    , L0006445    , L0006446    , L0006447    , L0006448    ,
L0006449    ,
             L0006450    , L0006451    , L0006452    , L0006453    , L0006454    , L0006455    , L0006456    ,
L0006457    ,
```

```
                                               Residential
             L0006458    , L0006459    , L0006460    , L0006461    , L0006462    , L0006463    , L0006464    ,
L0006465    ,

             L0006466    , L0006467    , L0006468    , L0006469    , L0006470    , L0006471    , L0006472    ,
L0006473    ,

             L0006474    , L0006475    , L0006476    , L0006477    , L0006478    , L0006479    , L0006480    ,
L0006481    ,

             L0006482    , L0006483    , L0006484    , L0006485    , L0006486    , L0006487    , L0006488    ,
L0006489    ,

             L0006490    , L0006491    , L0006492    , L0006493    , L0006494    , L0006495    , L0006496    ,
L0006497    ,

             L0006498    , L0006499    , L0006500    , L0006501    , L0006502    , L0006503    , L0006504    ,
L0006505    ,

             L0006506    , L0006507    , L0006508    , L0006509    , L0006510    , L0006511    , L0006512    ,
L0006513    ,

             L0006514    , L0006515    , L0006516    , L0006517    , L0006518    , L0006519    , L0006520    ,
L0006521    ,

             L0006522    , L0006523    , L0006524    , L0006525    , L0006526    , L0006527    , L0006528    ,
L0006529    ,

             L0006530    , L0006531    , L0006532    , L0006533    , L0006534    , L0006535    , L0006536    ,
L0006537    ,

             L0006538    , L0006539    , L0006540    , L0006541    , L0006542    , L0006543    , L0006544    ,
L0006545    ,

             L0006546    , L0006547    , L0006548    , L0006549    , L0006550    , L0006551    , L0006552    ,
L0006553    ,

             L0006554    , L0006555    , L0006556    , L0006557    , L0006558    , L0006559    , L0006560    ,
L0006561    ,

             L0006562    , L0006563    , L0006564    , L0006565    , L0006566    , L0006567    , L0006568    ,
L0006569    ,

             L0006570    , L0006571    , L0006572    , L0006573    , L0006574    , L0006575    , L0006576    ,
L0006577    ,

             L0006578    , L0006579    , L0006580    , L0006581    , L0006582    , L0006583    , L0006584    ,
L0006585    ,

             L0006586    , L0006587    , L0006588    , L0006589    , L0006590    , L0006591    , L0006592    ,
L0006593    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


             L0006594    , L0006595    , L0006596    , L0006597    , L0006598    , L0006599    , L0006600    ,
L0006601    ,
```

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                                                 Residential
             L0006602    , L0006603    , L0006604    , L0006605    , L0006606    , L0006607    , L0006608    ,
L0006609    ,
             L0006610    , L0006611    , L0006612    , L0006613    , L0006614    , L0006615    , L0006616    ,
L0006617    ,
             L0006618    , L0006619    , L0006620    , L0006621    , L0006622    , L0006623    , L0006624    ,
L0006625    ,
             L0006626    , L0006627    , L0006628    , L0006629    , L0006630    , L0006631    , L0006632    ,
L0006633    ,
             L0006634    , L0006635    , L0006636    , L0006637    , L0006638    , L0006639    , L0006640    ,
L0006641    ,
             L0006642    , L0006643    , L0006644    , L0006645    , L0006646    , L0006647    , L0006648    ,
L0006649    ,
             L0006650    , L0006651    , L0006652    , L0006653    , L0006654    , L0006655    , L0006656    ,
L0006657    ,
             L0006658    , L0006659    , L0006660    , L0006661    , L0006662    , L0006663    , L0006664    ,
L0006665    ,
             L0006666    , L0006667    , L0006668    , L0006669    , L0006670    , L0006671    , L0006672    ,
L0006673    ,
             L0006674    , L0006675    , L0006676    , L0006677    , L0006678    , L0006679    , L0006680    ,
L0006681    ,
             L0006682    , L0006683    , L0006684    , L0006685    , L0006686    , L0006687    , L0006688    ,
L0006689    ,
             L0006690    , L0006691    , L0006692    , L0006693    , L0006694    , L0006695    , L0006696    ,
L0006697    ,
             L0006698    , L0006699    , L0006700    , L0006701    , L0006702    , L0006703    , L0006704    ,
L0006705    ,
             L0006706    , L0006707    , L0006708    , L0006709    , L0006710    , L0006711    , L0006712    ,
L0006713    ,
             L0006714    , L0006715    , L0006716    , L0006717    , L0006718    , L0006719    , L0006720    ,
L0006721    ,
             L0006722    , L0006723    , L0006724    , L0006725    , L0006726    , L0006727    , L0006728    ,
L0006729    ,
             L0006730    , L0006731    , L0006732    , L0006733    , L0006734    , L0006735    , L0006736    ,
L0006737    ,
             L0006738    , L0006739    , L0006740    , L0006741    , L0006742    , L0006743    , L0006744    ,
L0006745    ,
             L0006746    , L0006747    , L0006748    , L0006749    , L0006750    , L0006751    , L0006752    ,
L0006753    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***
```

```
                                                       Residential

   URBAN ID    URBAN POP                                    SOURCE IDs
   --------    ---------                                    ----------


             L0006754    , L0006755    , L0006756    , L0006757    , L0006758    , L0006759    , L0006760    ,
 L0006761    ,
             L0006762    , L0006763    , L0006764    , L0006765    , L0006766    , L0006767    , L0006768    ,
 L0006769    ,
             L0006770    , L0006771    , L0006772    , L0006773    , L0006774    , L0006775    , L0006776    ,
 L0006777    ,
             L0006778    , L0006779    , L0006780    , L0006781    , L0006782    , L0006783    , L0006784    ,
 L0006785    ,
             L0006786    , L0006787    , L0006788    , L0006789    , L0006790    , L0006791    , L0006792    ,
 L0006793    ,
             L0006794    , L0006795    , L0006796    , L0006797    , L0006798    , L0006799    , L0006800    ,
 L0006801    ,
             L0006802    , L0006803    , L0006804    , L0006805    , L0006806    , L0006807    , L0006808    ,
 L0006809    ,
             L0006810    , L0006811    , L0006812    , L0006813    , L0006814    , L0006815    , L0006816    ,
 L0006817    ,
             L0006818    , L0006819    , L0006820    , L0006821    , L0006822    , L0006823    , L0006824    ,
 L0006825    ,
             L0006826    , L0006827    , L0006828    , L0006829    , L0006830    , L0006831    , L0006832    ,
 L0006833    ,
             L0006834    , L0006835    , L0006836    , L0006837    , L0006838    , L0006839    , L0006840    ,
 L0006841    ,
             L0006842    , L0006843    , L0006844    , L0006845    , L0006846    , L0006847    , L0006848    ,
 L0006849    ,
             L0006850    , L0006851    , L0006852    , L0006853    , L0006854    , L0006855    , L0006856    ,
 L0006857    ,
             L0006858    , L0006859    , L0006860    , L0006861    , L0006862    , L0006863    , L0006864    ,
 L0006865    ,
             L0006866    , L0006867    , L0006868    , L0006869    , L0006870    , L0006871    , L0006872    ,
 L0006873    ,
             L0006874    , L0006875    , L0006876    , L0006877    , L0006878    , L0006879    , L0006880    ,
 L0006881    ,
             L0006882    , L0006883    , L0006884    , L0006885    , L0006886    , L0006887    , L0006888    ,
 L0006889    ,
             L0006890    , L0006891    , L0006892    , L0006893    , L0006894    , L0006895    , L0006896    ,
 L0006897    ,
             L0006898    , L0006899    , L0006900    , L0006901    , L0006902    , L0006903    , L0006904    ,
 L0006905    ,
             L0006906    , L0006907    , L0006908    , L0006909    , L0006910    , L0006911    , L0006912    ,
 L0006913    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
```

```
                                                 Residential
   13:40:13

   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                     SOURCE IDs
  --------   ---------                                     ----------


             L0006914    , L0006915    , L0006916    , L0006917    , L0006918    , L0006919    , L0006920    ,
L0006921    ,

             L0006922    , L0006923    , L0006924    , L0006925    , L0006926    , L0006927    , L0006928    ,
L0006929    ,

             L0006930    , L0006931    , L0006932    , L0006933    , L0006934    , L0006935    , L0006936    ,
L0006937    ,

             L0006938    , L0006939    , L0006940    , L0006941    , L0006942    , L0006943    , L0006944    ,
L0006945    ,

             L0006946    , L0006947    , L0006948    , L0006949    , L0006950    , L0006951    , L0006952    ,
L0006953    ,

             L0006954    , L0006955    , L0006956    , L0006957    , L0006958    , L0006959    , L0006960    ,
L0006961    ,

             L0006962    , L0006963    , L0006964    , L0006965    , L0006966    , L0006967    , L0006968    ,
L0006969    ,

             L0006970    , L0006971    , L0006972    , L0006973    , L0006974    , L0006975    , L0006976    ,
L0006977    ,

             L0006978    , L0006979    , L0006980    , L0006981    , L0006982    , L0006983    , L0006984    ,
L0006985    ,

             L0006986    , L0006987    , L0006988    , L0006989    , L0006990    , L0006991    , L0006992    ,
L0006993    ,

             L0006994    , L0006995    , L0006996    , L0006997    , L0006998    , L0006999    , L0007000    ,
L0007001    ,

             L0007002    , L0007003    , L0007004    , L0007005    , L0007006    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003043     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003044     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003045     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003046     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003047     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003048     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003049     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003050     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003051     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003052     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                  Residential

 SOURCE ID = L0003053     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003054     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003055     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003056     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003057     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

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                                                      Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003058     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003059     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003060     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003061     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003062     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003063     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003064     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003065     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003066     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003067     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 102
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                                                       Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003070     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003071     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003072     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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                                                   Residential
   13:40:13

   PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003073     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003074     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
```

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                                                    Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003078     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003079     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003080     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003081     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003082     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
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                                                     Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003083     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003084     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003085     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003086     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003087     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003088     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003089     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003090     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003091     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003092     ; SOURCE TYPE = VOLUME   :
```

```
                                                      Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 107
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003093     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003094     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003095     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003096     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0003097     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003098     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003099     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003100     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003101     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003102     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003103     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003104     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003105     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003106     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003107     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003108     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003109     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003110     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0003111     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003112     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003113     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003114     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003115     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0003116     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003117     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003118     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003119     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003120     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003121     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003122     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 113
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003123     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003124     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003125     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003126     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003127     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003128     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003129     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                  Residential

 SOURCE ID = L0003130     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003131     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003132     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003133     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003134     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                  Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003135     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003136     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003137     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003138     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003139     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003140     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003141     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003142     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003143     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003144     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003145     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003146     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003147     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003148     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003149     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003150     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003151     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003152     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 119
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003153     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003154     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003155     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003156     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003157     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003158     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003159     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003160     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003161     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003162     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                 Residential
 SOURCE ID = L0003163     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003164     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003165     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003166     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003167     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 122
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                 Residential
- - - - - - - -


 SOURCE ID = L0003168     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003169     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003170     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003171     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003172     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003173     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003174     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003175     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003176     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003177     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01      8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01     14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00     20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                       Residential

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0003178     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003179     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003180     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003181     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003182     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13
```

```
                                                          Residential

   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003183     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003184     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003185     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003186     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003187     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                Residential
   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:40:13

  PAGE 126
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003188     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003189     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003190     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003191     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003192     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003193     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003194     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003195     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003196     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003197     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003198     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003199     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003200     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003201     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003202     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 129
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003203     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003204     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003205     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003206     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                      Residential

 SOURCE ID = L0003207     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 130
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003208     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003209     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003210     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003211     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003212     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003213     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003214     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003215     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003216     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003217     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003218     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003219     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003220     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003221     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003222     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003223     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003224     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003225     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003226     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003227     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 134
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003228     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003229     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003230     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003231     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003232     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 135
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003233     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003234     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003235     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                  Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003236     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003237     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003238     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003239     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                             Residential
 SOURCE ID = L0003240     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003241     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003242     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 137
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003243     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003244     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
.00000E+00


 SOURCE ID = L0003245     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003246     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003247     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003248     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003249     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                          Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003250     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003251     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003252     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003253     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003254     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                         Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003255     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003256     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003257     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003258     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential

 SOURCE ID = L0003259     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003260     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003261     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003262     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003263     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003264     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003265     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003266     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003267     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003268     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003269     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003270     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003271     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003272     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003273     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003274     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003275     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003276     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003277     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 144
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0003278     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003279     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003280     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003281     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003282     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 145
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003283     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003284     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003285     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003286     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003287     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 146
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                           Residential
                          * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003288     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003289     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003290     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003291     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003292     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13
```

```
                                                                  Residential
   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003293     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003294     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003295     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003296     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003297     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003298     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003299     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003300     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003301     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003302     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 149
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003303     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003304     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003305     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003306     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003307     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                   Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003308     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003309     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003310     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003311     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003312     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003313     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003314     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003315     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003316     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0003317     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003318     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003319     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003320     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003321     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0003322     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003323     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003324     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003325     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003326     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                 Residential
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003327     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003328     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003329     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003330     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003331     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                   Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003332     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003333     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003334     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003335     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential

 SOURCE ID = L0003336     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0003337     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***   
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***   
   13:40:13

   PAGE 156
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003338     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0003339     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0003340     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
```

```
                                                          Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003341     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003342     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003343     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003344     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003345     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003346     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003347     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003348     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003349     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003350     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003351     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003352     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 159
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003353     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003354     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003355     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003356     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003357     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003358     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003360     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003361     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003362     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003363     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003364     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003365     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0003369     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003370     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003371     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003372     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003373     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                 Residential
.00000E+00


 SOURCE ID = L0003374     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003375     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003376     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003377     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003378     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003379     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003380     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003381     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003382     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 165
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003383     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                         Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003384     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003385     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003386     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003387     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                  Residential

  SOURCE ID = L0003388     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003389     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003390     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003391     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003392     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 167
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR        HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
 SCALAR
```

```
                                                  Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003396     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003397     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0003398     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003399     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003400     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003401     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003402     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 169
```

```
                                                    Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003403     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003404     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003405     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003406     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003407     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003408     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003409     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003410     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003411     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003412     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003413     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003414     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003415     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003416     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003417     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                  Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 172
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003418     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003419     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003420     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003421     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003422     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003423     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003424     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003425     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003426     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003427     ; SOURCE TYPE = VOLUME    :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003428     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003429     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003430     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003431     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003433     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003434     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003435     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003436     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003437     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003438     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003439     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003440     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003441     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                              Residential
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003442     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 177
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003443     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003444     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003445     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0003446     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003447     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 178
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003448     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003449     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003450     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00


 SOURCE ID = L0003451     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003452     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003453     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003454     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003455     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003456     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003457     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 180
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003458     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003459     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003460     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003461     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003462     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 181
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003463     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003464     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0003465     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003466     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003467     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003468     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003469     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003470     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003471     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003472     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003473     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003474     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003475     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003476     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003477     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003478     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003479     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003480     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003481     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003482     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 185
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003483     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential


  SOURCE ID = L0003484     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003485     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003486     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003487     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:40:13

    PAGE 186
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
 SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - -


  SOURCE ID = L0003488     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003489     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003490     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003491     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003492     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003493     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                       Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003494     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003495     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003496     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003497     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                                Residential
  SOURCE ID = L0003498     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003499     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003500     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003501     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003502     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 189
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

      HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
 SCALAR
  - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                     Residential
- - - - - - - -


 SOURCE ID = L0003503     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003504     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003505     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003506     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003507     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 190
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR     SCALAR        HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003508      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003509      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003510      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003511      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003512      ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0003513     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003514     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003515     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003516     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003517     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13
```

```
  PAGE 192
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003518     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003519     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003520     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003521     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003522     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
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   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:40:13

  PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003523     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003524     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003525     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003526     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003527     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                          Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 194
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003528     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003529     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003531     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003532     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                  Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 195
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003533     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003534     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003535     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003536     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003537     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 196
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003538     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003539     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003540     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003541     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential

 SOURCE ID = L0003542     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003543     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003544     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003545     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003546     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003547     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003548     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003549     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003550     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003551     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003552     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003555     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003556     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003557     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003558     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003559     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003560     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003561     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003562     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003563     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003564     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003565     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003566     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003567     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 202
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003568     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003569     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003570     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003571     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003572     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 203
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003573     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003574     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                     Residential
 SOURCE ID = L0003575     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0003576     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0003577     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR   
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003578     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
.00000E+00


 SOURCE ID = L0003579     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6   
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12   
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18   
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24   
```

```
                                                         Residential
.00000E+00


 SOURCE ID = L0003580     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003581     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003582     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 205
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003583     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003584     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003585     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003586     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003587     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003588     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003589     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003590     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003591     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003592     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003593     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                      Residential

 SOURCE ID = L0003594     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003595     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003596     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003597     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003598     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                         Residential
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003599     ; SOURCE TYPE = VOLUME   :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003600     ; SOURCE TYPE = VOLUME   :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003601     ; SOURCE TYPE = VOLUME   :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003602     ; SOURCE TYPE = VOLUME   :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
       13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
       19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003603     ; SOURCE TYPE = VOLUME   :
        1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
        7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
```

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003604     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003605     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003606     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003608     ; SOURCE TYPE = VOLUME   :
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003609     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003610     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003611     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003612     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0003613     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003614     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003615     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003616     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003617     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 212
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003618     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003619     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003620     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003621     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003622     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 213
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                        Residential
                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003623     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003624     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003625     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003626     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003627     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13
```

```
                                                         Residential
   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003628     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003629     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003630     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003631     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003632     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
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```
                                                   Residential
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 215
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003633     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003634     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003635     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003636     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003637     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003638     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003639     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003640     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003641     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005357     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005358     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005359     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005360     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005361     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005362     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005363     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005364     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005365     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005366     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential
 SOURCE ID = L0005367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 219
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005369     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005370     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005371     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                Residential
.00000E+00


 SOURCE ID = L0005372     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005373     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005374     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005375     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005376     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                        Residential
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0005377      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005378      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0005379      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0005380      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0005381      ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005382     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005383     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005384     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005385     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential

 SOURCE ID = L0005386     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005387     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 223
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005388     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005389     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005390     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                                Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005391     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005392     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005393     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005394     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005395     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005396     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005397     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 225
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005398     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005399     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005400     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005401     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005402     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 226
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005403     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005404     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0005405     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005406     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005407     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005408     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005409     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0005410     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0005411     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0005412     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005413     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0005414     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005415     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005416     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005417     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005418     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0005419     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005420     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005421     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005422     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 230
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005423     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0005424     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005425     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005426     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005427     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005428     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                        Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005429     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005430     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005433     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                       Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005434     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005435     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005436     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005437     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 233
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0005438     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005439     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005440     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005441     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005442     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                      Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0005443     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005444     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005445     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005446     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005447     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005448     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005449     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005450     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005451     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005452     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 236
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```
                                                            Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005453     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005454     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005455     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
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                                                Residential
   13:40:13

   PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA5        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA6        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK1        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -



 SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK4        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK5        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK6        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                   Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK7        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK8        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK9        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK10       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK11       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 240
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK13       ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003741     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003742     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003743     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003744     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003745     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003746     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003747     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003748     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003749     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003750     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003751     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003753     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003754     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003755     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003756     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003757     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003758     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003759     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003760     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003761     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0003762     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003763     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003765     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003766     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0003767     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003768     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003769     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003770     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003771     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                  Residential
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003772      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003773      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 247
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003774      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003775      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003776      ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003777     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003778     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:40:13

   PAGE 248
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003779     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003780     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003781     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003782     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003783     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 249
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003784     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003785     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                               Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003786     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003787     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003788     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 250
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003789     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003790     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003791     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003792     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003793     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 251
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003794     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003795     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003796     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003797     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003798     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 252
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003799     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003800     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003801     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003802     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003803     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:40:13

   PAGE 253
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003804     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                      Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003805     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 254
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         *** DISCRETE CARTESIAN RECEPTORS ***
                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                       (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478075.4, 3749064.8,     454.0,     465.0,
     0.0);
     ( 478011.5, 3748100.2,     450.0,     461.0,       0.0);         ( 478309.5, 3748103.0,     449.0,     463.0,
     0.0);
     ( 477805.2, 3748100.2,     450.0,     461.0,       0.0);         ( 478140.0, 3748101.6,     450.0,     462.0,
     0.0);
     ( 478312.7, 3747836.8,     449.0,     462.0,       0.0);         ( 478309.1, 3747964.1,     449.0,     462.0,
     0.0);
     ( 477725.8, 3748664.0,     453.0,     462.0,       0.0);         ( 477725.8, 3748462.0,     452.0,     462.0,
     0.0);
     ( 477547.8, 3748675.3,     454.0,     462.0,       0.0);         ( 477552.1, 3748483.2,     453.0,     461.0,
     0.0);
     ( 477617.0, 3748271.3,     451.0,     461.0,       0.0);         ( 477685.0, 3749052.3,     454.0,     463.0,
     0.0);
     ( 477532.1, 3749288.3,     455.0,     464.0,       0.0);         ( 478329.6, 3749871.1,     459.0,     467.0,
     0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);         ( 478344.6, 3749914.1,     459.0,     467.0,
     0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);         ( 478352.3, 3749701.1,     457.5,     467.0,
     0.0);
     ( 478061.0, 3749681.7,     457.0,     467.0,       0.0);         ( 477822.7, 3748296.8,     451.0,     461.0,
     0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 255
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                          (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
```

```
                                                        Residential
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

                       METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007   1  1  1
                                                    AND END DATE: 2007  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                   *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                        (METERS/SEC)

                                                  1.54,    3.09,    5.14,    8.23,   10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker                ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:40:13

   PAGE 256
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\..\..\..\peri8.sfc                                                         Met Version:
14134
   Profile file:   ..\..\..\..\peri8.pfl
   Surface format: FREE

   Profile format: FREE

   Surface station no.:        0                  Upper air station no.:     3190
                  Name: UNKNOWN                                 Name: UNKNOWN
                  Year:   2007                                  Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS   WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 07 01 01    1 01   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  133.     9.1  279.9
 5.5
 07 01 01    1 02   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  192.     9.1  279.2
 5.5
 07 01 01    1 03   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  160.     9.1  277.5
 5.5
 07 01 01    1 04   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50   75.     9.1  277.5
 5.5
 07 01 01    1 05   -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00   1.00    0.50  282.     9.1  278.8
 5.5
 07 01 01    1 06   -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00   1.00    0.50   96.     9.1  277.5
 5.5
 07 01 01    1 07   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  129.     9.1  278.1
 5.5
 07 01 01    1 08   -0.4  0.026 -9.000 -9.000 -999.    10.      3.7  0.19   1.00   0.54    0.50   99.     9.1  277.5
 5.5
 07 01 01    1 09   27.8  0.091  0.542  0.005  196.    66.     -2.3  0.19   1.00   0.33    0.50  133.     9.1  278.1
 5.5
 07 01 01    1 10   76.9  0.104  1.050  0.005  516.    81.     -1.3  0.19   1.00   0.26    0.50  174.     9.1  281.4
 5.5
```

```
                                                     Residential
 07 01 01   1 11  110.0  0.109  1.374  0.009  810.   87.     -1.0  0.19    1.00    0.23    0.50   95.    9.1  284.9
 5.5
 07 01 01   1 12  125.7  0.201  1.589  0.018 1095.  216.     -5.5  0.19    1.00    0.22    1.30   94.    9.1  288.1
 5.5
 07 01 01   1 13  121.7  0.287  1.641  0.022 1248.  369.    -16.6  0.19    1.00    0.22    2.20   24.    9.1  291.4
 5.5
 07 01 01   1 14  102.8  0.414  1.559  0.021 1265.  639.    -59.1  0.19    1.00    0.23    3.60   13.    9.1  292.5
 5.5
 07 01 01   1 15   69.9  0.619  1.374  0.021 1276. 1169.   -291.2  0.19    1.00    0.27    5.80  318.    9.1  292.0
 5.5
 07 01 01   1 16   16.8  0.607  0.856  0.021 1277. 1135.  -1137.8  0.19    1.00    0.36    5.80  329.    9.1  291.4
 5.5
 07 01 01   1 17  -42.2  0.437 -9.000 -9.000 -999.  720.    169.3  0.19    1.00    0.64    4.50  333.    9.1  289.9
 5.5
 07 01 01   1 18  -18.5  0.353 -9.000 -9.000 -999.  510.    204.1  0.19    1.00    1.00    3.60  305.    9.1  288.8
 5.5
 07 01 01   1 19  -42.3  0.437 -9.000 -9.000 -999.  692.    168.7  0.19    1.00    1.00    4.50  276.    9.1  287.5
 5.5
 07 01 01   1 20  -32.3  0.334 -9.000 -9.000 -999.  470.     98.6  0.19    1.00    1.00    3.60  323.    9.1  287.5
 5.5
 07 01 01   1 21  -36.7  0.380 -9.000 -9.000 -999.  562.    128.3  0.19    1.00    1.00    4.00  322.    9.1  288.1
 5.5
 07 01 01   1 22  -45.6  0.434 -9.000 -9.000 -999.  685.    153.6  0.19    1.00    1.00    4.50   30.    9.1  288.1
 5.5
 07 01 01   1 23  -39.7  0.377 -9.000 -9.000 -999.  557.    115.4  0.19    1.00    1.00    4.00  343.    9.1  287.0
 5.5
 07 01 01   1 24   -7.7  0.093 -9.000 -9.000 -999.  215.      9.1  0.19    1.00    1.00    1.80  155.    9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00   279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13

   PAGE 257
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP:
YARDTRAC ***
                                 INCLUDING SOURCE(S):     AREA1       , AREA2       , AREA3       , AREA4       ,
AREA5       ,
                 AREA6       ,

                                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                   ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         478348.59    3749820.73        0.00077                         478075.38    3749064.82        0.00429

         478011.47    3748100.18        0.00766                         478309.53    3748103.00        0.00631

         477805.23    3748100.18        0.00326                         478140.02    3748101.59        0.00809

         478312.73    3747836.85        0.00202                         478309.13    3747964.13        0.00345

         477725.83    3748664.02        0.00748                         477725.83    3748462.01        0.00451
```

```
                                                        Residential
         477547.83    3748675.32        0.00398                      477552.06    3748483.20        0.00244

         477617.05    3748271.29        0.00218                      477684.97    3749052.32        0.01057

         477532.06    3749288.33        0.00258                      478329.61    3749871.11        0.00075

         478312.39    3749891.05        0.00076                      478344.56    3749914.15        0.00071

         478380.35    3749931.82        0.00067                      478352.31    3749701.09        0.00085

         478060.98    3749681.73        0.00125                      477822.73    3748296.77        0.00544

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 258
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER    1 YEARS FOR SOURCE GROUP: OTHER
 ***
                               INCLUDING SOURCE(S):     L0003043    , L0003044    , L0003045    , L0003046    ,
L0003047    ,
                 L0003048    , L0003049    , L0003050    , L0003051    , L0003052    , L0003053    , L0003054    ,
L0003055    ,
                 L0003056    , L0003057    , L0003058    , L0003059    , L0003060    , L0003061    , L0003062    ,
L0003063    ,
                 L0003064    , L0003065    , L0003066    , L0003067    , L0003068    , L0003069    , L0003070    ,
 . . .      ,

                                                     *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                ** CONC OF DPM      IN MICROGRAMS/M**3                         **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         478348.59    3749820.73        0.00019                      478075.38    3749064.82        0.00163

         478011.47    3748100.18        0.00108                      478309.53    3748103.00        0.00089

         477805.23    3748100.18        0.00096                      478140.02    3748101.59        0.00104

         478312.73    3747836.85        0.00040                      478309.13    3747964.13        0.00056

         477725.83    3748664.02        0.00185                      477725.83    3748462.01        0.00117

         477547.83    3748675.32        0.00125                      477552.06    3748483.20        0.00074

         477617.05    3748271.29        0.00082                      477684.97    3749052.32        0.00192

         477532.06    3749288.33        0.00172                      478329.61    3749871.11        0.00018

         478312.39    3749891.05        0.00018                      478344.56    3749914.15        0.00017

         478380.35    3749931.82        0.00017                      478352.31    3749701.09        0.00022

         478060.98    3749681.73        0.00028                      477822.73    3748296.77        0.00145

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 259
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                  Residential
                              *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                             INCLUDING SOURCE(S):     L0003043    , L0003044    , L0003045    , L0003046    ,
L0003047    ,
                 L0003048    , L0003049    , L0003050    , L0003051    , L0003052    , L0003053    , L0003054    ,
L0003055    ,
                 L0003056    , L0003057    , L0003058    , L0003059    , L0003060    , L0003061    , L0003062    ,
L0003063    ,
                 L0003064    , L0003065    , L0003066    , L0003067    , L0003068    , L0003069    , L0003070    ,
. . .      ,

                                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                   ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         478348.59    3749820.73        0.00135                         478075.38    3749064.82        0.00631

         478011.47    3748100.18        0.00975                         478309.53    3748103.00        0.00894

         477805.23    3748100.18        0.00518                         478140.02    3748101.59        0.01018

         478312.73    3747836.85        0.00579                         478309.13    3747964.13        0.00624

         477725.83    3748664.02        0.00978                         477725.83    3748462.01        0.00621

         477547.83    3748675.32        0.00568                         477552.06    3748483.20        0.00369

         477617.05    3748271.29        0.00363                         477684.97    3749052.32        0.01291

         477532.06    3749288.33        0.00476                         478329.61    3749871.11        0.00134

         478312.39    3749891.05        0.00135                         478344.56    3749914.15        0.00129

         478380.35    3749931.82        0.00123                         478352.31    3749701.09        0.00145

         478060.98    3749681.73        0.00201                         477822.73    3748296.77        0.00756

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:40:13

   PAGE 260
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
                                              *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                               ** CONC OF DPM      IN MICROGRAMS/M**3                          **


NETWORK
GROUP ID                         AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -

YARDTRAC  1ST HIGHEST VALUE IS       0.01057 AT (  477684.97,  3749052.32,   454.00,   463.00,    0.00)  DC

          2ND HIGHEST VALUE IS       0.00809 AT (  478140.02,  3748101.59,   450.00,   462.00,    0.00)  DC

          3RD HIGHEST VALUE IS       0.00766 AT (  478011.47,  3748100.18,   450.00,   461.00,    0.00)  DC
```

```
                                            Residential
          4TH HIGHEST VALUE IS       0.00748 AT (  477725.83,  3748664.02,    453.00,    462.00,     0.00)  DC

          5TH HIGHEST VALUE IS       0.00631 AT (  478309.53,  3748103.00,    449.00,    463.00,     0.00)  DC

          6TH HIGHEST VALUE IS       0.00544 AT (  477822.73,  3748296.77,    451.00,    461.00,     0.00)  DC

          7TH HIGHEST VALUE IS       0.00451 AT (  477725.83,  3748462.01,    452.00,    462.00,     0.00)  DC

          8TH HIGHEST VALUE IS       0.00429 AT (  478075.38,  3749064.82,    454.00,    465.00,     0.00)  DC

          9TH HIGHEST VALUE IS       0.00398 AT (  477547.83,  3748675.32,    454.00,    462.00,     0.00)  DC

         10TH HIGHEST VALUE IS       0.00345 AT (  478309.13,  3747964.13,    449.00,    462.00,     0.00)  DC


OTHER     1ST HIGHEST VALUE IS       0.00192 AT (  477684.97,  3749052.32,    454.00,    463.00,     0.00)  DC

          2ND HIGHEST VALUE IS       0.00185 AT (  477725.83,  3748664.02,    453.00,    462.00,     0.00)  DC

          3RD HIGHEST VALUE IS       0.00172 AT (  477532.06,  3749288.33,    455.00,    464.00,     0.00)  DC

          4TH HIGHEST VALUE IS       0.00163 AT (  478075.38,  3749064.82,    454.00,    465.00,     0.00)  DC

          5TH HIGHEST VALUE IS       0.00145 AT (  477822.73,  3748296.77,    451.00,    461.00,     0.00)  DC

          6TH HIGHEST VALUE IS       0.00125 AT (  477547.83,  3748675.32,    454.00,    462.00,     0.00)  DC

          7TH HIGHEST VALUE IS       0.00117 AT (  477725.83,  3748462.01,    452.00,    462.00,     0.00)  DC

          8TH HIGHEST VALUE IS       0.00108 AT (  478011.47,  3748100.18,    450.00,    461.00,     0.00)  DC

          9TH HIGHEST VALUE IS       0.00104 AT (  478140.02,  3748101.59,    450.00,    462.00,     0.00)  DC

         10TH HIGHEST VALUE IS       0.00096 AT (  477805.23,  3748100.18,    450.00,    461.00,     0.00)  DC


ALL       1ST HIGHEST VALUE IS       0.01291 AT (  477684.97,  3749052.32,    454.00,    463.00,     0.00)  DC

          2ND HIGHEST VALUE IS       0.01018 AT (  478140.02,  3748101.59,    450.00,    462.00,     0.00)  DC

          3RD HIGHEST VALUE IS       0.00978 AT (  477725.83,  3748664.02,    453.00,    462.00,     0.00)  DC

          4TH HIGHEST VALUE IS       0.00975 AT (  478011.47,  3748100.18,    450.00,    461.00,     0.00)  DC

          5TH HIGHEST VALUE IS       0.00894 AT (  478309.53,  3748103.00,    449.00,    463.00,     0.00)  DC

          6TH HIGHEST VALUE IS       0.00756 AT (  477822.73,  3748296.77,    451.00,    461.00,     0.00)  DC

          7TH HIGHEST VALUE IS       0.00631 AT (  478075.38,  3749064.82,    454.00,    465.00,     0.00)  DC

          8TH HIGHEST VALUE IS       0.00624 AT (  478309.13,  3747964.13,    449.00,    462.00,     0.00)  DC

          9TH HIGHEST VALUE IS       0.00621 AT (  477725.83,  3748462.01,    452.00,    462.00,     0.00)  DC

         10TH HIGHEST VALUE IS       0.00579 AT (  478312.73,  3747836.85,    449.00,    462.00,     0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:40:13
```

```
                                                   Residential
   PAGE 261
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of           0 Fatal Error Message(s)
 A Total of           0 Warning Message(s)
 A Total of         124 Informational Message(s)

 A Total of        8760 Hours Were Processed

 A Total of           0 Calm Hours Identified

 A Total of         124 Missing Hours Identified (  1.42 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************

**
****************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.0.0
** Lakes Environmental Software Inc.
** Date: 3/22/2016
** File: C:\Lakes\AERMOD View\MVL\Revised\300 Ft Buffer\HRA W Indian St Bridge\School\School.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   URBANOPT 2100516
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL School.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
```

```
** LINE VOLUME Source ID = SLINE1
** DESCRSRC On-Site Idling East of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001454
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478216.131, 3748401.256, 451.00, 4.00, 13.95
** 478218.470, 3748912.349, 453.00, 4.00, 13.95
** ----------------------------------------------------------------------
   LOCATION L0003043     VOLUME   478216.200 3748416.256 451.00
   LOCATION L0003044     VOLUME   478216.337 3748446.256 451.00
   LOCATION L0003045     VOLUME   478216.474 3748476.255 451.15
   LOCATION L0003046     VOLUME   478216.612 3748506.255 451.73
   LOCATION L0003047     VOLUME   478216.749 3748536.255 452.00
   LOCATION L0003048     VOLUME   478216.886 3748566.254 452.00
   LOCATION L0003049     VOLUME   478217.024 3748596.254 452.00
   LOCATION L0003050     VOLUME   478217.161 3748626.254 452.00
   LOCATION L0003051     VOLUME   478217.298 3748656.253 452.00
   LOCATION L0003052     VOLUME   478217.435 3748686.253 452.00
   LOCATION L0003053     VOLUME   478217.573 3748716.253 452.00
   LOCATION L0003054     VOLUME   478217.710 3748746.252 452.00
   LOCATION L0003055     VOLUME   478217.847 3748776.252 452.00
   LOCATION L0003056     VOLUME   478217.985 3748806.252 452.66
   LOCATION L0003057     VOLUME   478218.122 3748836.251 453.00
   LOCATION L0003058     VOLUME   478218.259 3748866.251 453.00
   LOCATION L0003059     VOLUME   478218.397 3748896.251 453.00
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC On-Site Idling West of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.0001241
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477943.756, 3748486.125, 451.01, 4.00, 13.95
** 477947.383, 3748908.539, 453.22, 4.00, 13.95
** ----------------------------------------------------------------------
   LOCATION L0003060     VOLUME   477943.885 3748501.124 451.49
   LOCATION L0003061     VOLUME   477944.142 3748531.123 452.00
   LOCATION L0003062     VOLUME   477944.400 3748561.122 452.00
   LOCATION L0003063     VOLUME   477944.658 3748591.121 452.00
   LOCATION L0003064     VOLUME   477944.915 3748621.120 452.00
   LOCATION L0003065     VOLUME   477945.173 3748651.119 452.00
   LOCATION L0003066     VOLUME   477945.430 3748681.118 452.49
   LOCATION L0003067     VOLUME   477945.688 3748711.117 453.00
   LOCATION L0003068     VOLUME   477945.945 3748741.116 453.00
   LOCATION L0003069     VOLUME   477946.203 3748771.114 453.00
   LOCATION L0003070     VOLUME   477946.460 3748801.113 453.00
   LOCATION L0003071     VOLUME   477946.718 3748831.112 453.00
   LOCATION L0003072     VOLUME   477946.976 3748861.111 453.00
   LOCATION L0003073     VOLUME   477947.233 3748891.110 453.00
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC On-Site Idling Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006542
```

```
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477756.670, 3748942.717, 453.94, 4.00, 3.95
** 477756.670, 3748877.200, 453.13, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003074     VOLUME   477756.670 3748938.467 454.00
   LOCATION L0003075     VOLUME   477756.670 3748929.967 453.80
   LOCATION L0003076     VOLUME   477756.670 3748921.467 453.55
   LOCATION L0003077     VOLUME   477756.670 3748912.967 453.30
   LOCATION L0003078     VOLUME   477756.670 3748904.467 453.10
   LOCATION L0003079     VOLUME   477756.670 3748895.967 453.10
   LOCATION L0003080     VOLUME   477756.670 3748887.467 453.10
   LOCATION L0003081     VOLUME   477756.670 3748878.967 453.10
** End of LINE VOLUME Source ID = SLINE4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC On-site Idling Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00001332
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 6
** 477895.901, 3748339.060, 452.69, 4.00, 3.95
** 477936.827, 3748338.755, 453.97, 4.00, 3.95
** 477944.157, 3748337.839, 455.15, 4.00, 3.95
** 477975.920, 3748282.559, 450.00, 4.00, 3.95
** 477978.363, 3748262.401, 450.00, 4.00, 3.95
** 477978.058, 3748213.840, 450.34, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003082     VOLUME   477900.151 3748339.029 451.00
   LOCATION L0003083     VOLUME   477908.651 3748338.965 451.00
   LOCATION L0003084     VOLUME   477917.151 3748338.902 451.00
   LOCATION L0003085     VOLUME   477925.650 3748338.838 451.00
   LOCATION L0003086     VOLUME   477934.150 3748338.775 451.00
   LOCATION L0003087     VOLUME   477942.605 3748338.033 451.00
   LOCATION L0003088     VOLUME   477947.612 3748331.825 451.00
   LOCATION L0003089     VOLUME   477951.847 3748324.455 451.00
   LOCATION L0003090     VOLUME   477956.082 3748317.085 450.00
   LOCATION L0003091     VOLUME   477960.316 3748309.714 450.00
   LOCATION L0003092     VOLUME   477964.551 3748302.344 450.00
   LOCATION L0003093     VOLUME   477968.786 3748294.974 450.00
   LOCATION L0003094     VOLUME   477973.021 3748287.604 450.00
   LOCATION L0003095     VOLUME   477976.242 3748279.898 450.00
   LOCATION L0003096     VOLUME   477977.265 3748271.459 450.00
   LOCATION L0003097     VOLUME   477978.288 3748263.021 450.00
   LOCATION L0003098     VOLUME   477978.314 3748254.526 450.00
   LOCATION L0003099     VOLUME   477978.260 3748246.026 450.00
   LOCATION L0003100     VOLUME   477978.207 3748237.526 450.00
   LOCATION L0003101     VOLUME   477978.153 3748229.026 450.00
   LOCATION L0003102     VOLUME   477978.100 3748220.526 450.00
** End of LINE VOLUME Source ID = SLINE5
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC On-Site Idling Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00008866
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 477608.667, 3748933.539, 454.00, 0.00, 3.95
```

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                                                    Residential
** 477608.667, 3748808.378, 454.00, 0.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003103     VOLUME   477608.667 3748929.289 454.00
   LOCATION L0003104     VOLUME   477608.667 3748920.789 454.00
   LOCATION L0003105     VOLUME   477608.667 3748912.289 454.00
   LOCATION L0003106     VOLUME   477608.667 3748903.789 454.00
   LOCATION L0003107     VOLUME   477608.667 3748895.289 454.00
   LOCATION L0003108     VOLUME   477608.667 3748886.789 454.00
   LOCATION L0003109     VOLUME   477608.667 3748878.289 454.00
   LOCATION L0003110     VOLUME   477608.667 3748869.789 454.00
   LOCATION L0003111     VOLUME   477608.667 3748861.289 454.00
   LOCATION L0003112     VOLUME   477608.667 3748852.789 454.00
   LOCATION L0003113     VOLUME   477608.667 3748844.289 454.00
   LOCATION L0003114     VOLUME   477608.667 3748835.789 454.00
   LOCATION L0003115     VOLUME   477608.667 3748827.289 454.00
   LOCATION L0003116     VOLUME   477608.667 3748818.789 454.00
   LOCATION L0003117     VOLUME   477608.667 3748810.289 454.00
** End of LINE VOLUME Source ID = SLINE6
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE2
** DESCRSRC On-Site Idling South of Building 1
** PREFIX
** Length of Side = 30.00
** Configuration = Adjacent
** Emission Rate = 0.00001029
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478028.009, 3748335.520, 455.56, 0.00, 13.95
** 478166.972, 3748332.512, 453.31, 0.00, 13.95
** --------------------------------------------------------------------
   LOCATION L0003118     VOLUME   478043.006 3748335.195 451.00
   LOCATION L0003119     VOLUME   478072.999 3748334.546 451.00
   LOCATION L0003120     VOLUME   478102.991 3748333.897 451.00
   LOCATION L0003121     VOLUME   478132.984 3748333.247 451.00
   LOCATION L0003122     VOLUME   478162.977 3748332.598 451.00
** End of LINE VOLUME Source ID = SLINE2
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC On-Site Travel Building 1
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0005868
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477952.409, 3748975.666, 457.44, 4.00, 3.95
** 477951.898, 3748949.071, 453.00, 4.00, 3.95
** 477948.317, 3748924.522, 453.00, 4.00, 3.95
** 477947.295, 3748869.798, 457.00, 4.00, 3.95
** 477944.226, 3748488.264, 451.01, 4.00, 3.95
** 478016.339, 3748353.755, 451.00, 4.00, 3.95
** 478027.591, 3748336.366, 455.39, 4.00, 3.95
** 478215.801, 3748338.412, 451.12, 4.00, 3.95
** 478219.892, 3748913.271, 453.00, 4.00, 3.95
** 478201.992, 3748972.086, 454.22, 4.00, 3.95
** --------------------------------------------------------------------
   LOCATION L0003123     VOLUME   477952.327 3748971.417 453.00
   LOCATION L0003124     VOLUME   477952.164 3748962.919 453.00
   LOCATION L0003125     VOLUME   477952.000 3748954.420 453.00
   LOCATION L0003126     VOLUME   477951.443 3748945.954 453.00
   LOCATION L0003127     VOLUME   477950.216 3748937.543 453.00
   LOCATION L0003128     VOLUME   477948.990 3748929.132 453.00
   LOCATION L0003129     VOLUME   477948.246 3748920.682 453.00
```

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                                                 Residential
LOCATION L0003130     VOLUME   477948.087 3748912.183 453.00
LOCATION L0003131     VOLUME   477947.928 3748903.685 453.00
LOCATION L0003132     VOLUME   477947.769 3748895.186 453.00
LOCATION L0003133     VOLUME   477947.610 3748886.688 453.00
LOCATION L0003134     VOLUME   477947.451 3748878.189 453.00
LOCATION L0003135     VOLUME   477947.294 3748869.691 453.00
LOCATION L0003136     VOLUME   477947.225 3748861.191 453.00
LOCATION L0003137     VOLUME   477947.157 3748852.691 453.00
LOCATION L0003138     VOLUME   477947.089 3748844.191 453.00
LOCATION L0003139     VOLUME   477947.020 3748835.692 453.00
LOCATION L0003140     VOLUME   477946.952 3748827.192 453.00
LOCATION L0003141     VOLUME   477946.884 3748818.692 453.00
LOCATION L0003142     VOLUME   477946.815 3748810.192 453.00
LOCATION L0003143     VOLUME   477946.747 3748801.693 453.00
LOCATION L0003144     VOLUME   477946.678 3748793.193 453.00
LOCATION L0003145     VOLUME   477946.610 3748784.693 453.00
LOCATION L0003146     VOLUME   477946.542 3748776.194 453.00
LOCATION L0003147     VOLUME   477946.473 3748767.694 453.00
LOCATION L0003148     VOLUME   477946.405 3748759.194 453.00
LOCATION L0003149     VOLUME   477946.337 3748750.694 453.00
LOCATION L0003150     VOLUME   477946.268 3748742.195 453.00
LOCATION L0003151     VOLUME   477946.200 3748733.695 453.00
LOCATION L0003152     VOLUME   477946.132 3748725.195 453.00
LOCATION L0003153     VOLUME   477946.063 3748716.695 453.00
LOCATION L0003154     VOLUME   477945.995 3748708.196 453.00
LOCATION L0003155     VOLUME   477945.926 3748699.696 453.00
LOCATION L0003156     VOLUME   477945.858 3748691.196 452.82
LOCATION L0003157     VOLUME   477945.790 3748682.697 452.54
LOCATION L0003158     VOLUME   477945.721 3748674.197 452.25
LOCATION L0003159     VOLUME   477945.653 3748665.697 452.00
LOCATION L0003160     VOLUME   477945.585 3748657.197 452.00
LOCATION L0003161     VOLUME   477945.516 3748648.698 452.00
LOCATION L0003162     VOLUME   477945.448 3748640.198 452.00
LOCATION L0003163     VOLUME   477945.380 3748631.698 452.00
LOCATION L0003164     VOLUME   477945.311 3748623.198 452.00
LOCATION L0003165     VOLUME   477945.243 3748614.699 452.00
LOCATION L0003166     VOLUME   477945.174 3748606.199 452.00
LOCATION L0003167     VOLUME   477945.106 3748597.699 452.00
LOCATION L0003168     VOLUME   477945.038 3748589.200 452.00
LOCATION L0003169     VOLUME   477944.969 3748580.700 452.00
LOCATION L0003170     VOLUME   477944.901 3748572.200 452.00
LOCATION L0003171     VOLUME   477944.833 3748563.700 452.00
LOCATION L0003172     VOLUME   477944.764 3748555.201 452.00
LOCATION L0003173     VOLUME   477944.696 3748546.701 452.00
LOCATION L0003174     VOLUME   477944.628 3748538.201 452.00
LOCATION L0003175     VOLUME   477944.559 3748529.702 452.00
LOCATION L0003176     VOLUME   477944.491 3748521.202 452.00
LOCATION L0003177     VOLUME   477944.422 3748512.702 451.87
LOCATION L0003178     VOLUME   477944.354 3748504.202 451.59
LOCATION L0003179     VOLUME   477944.286 3748495.703 451.30
LOCATION L0003180     VOLUME   477944.727 3748487.329 451.03
LOCATION L0003181     VOLUME   477948.744 3748479.837 451.00
LOCATION L0003182     VOLUME   477952.760 3748472.346 451.00
LOCATION L0003183     VOLUME   477956.776 3748464.855 451.00
LOCATION L0003184     VOLUME   477960.792 3748457.364 451.00
LOCATION L0003185     VOLUME   477964.809 3748449.872 451.00
LOCATION L0003186     VOLUME   477968.825 3748442.381 451.00
LOCATION L0003187     VOLUME   477972.841 3748434.890 451.00
LOCATION L0003188     VOLUME   477976.857 3748427.398 451.00
LOCATION L0003189     VOLUME   477980.874 3748419.907 451.00
LOCATION L0003190     VOLUME   477984.890 3748412.416 451.00
LOCATION L0003191     VOLUME   477988.906 3748404.924 451.00
LOCATION L0003192     VOLUME   477992.922 3748397.433 451.00
LOCATION L0003193     VOLUME   477996.939 3748389.942 451.00
LOCATION L0003194     VOLUME   478000.955 3748382.450 451.00
LOCATION L0003195     VOLUME   478004.971 3748374.959 451.00
LOCATION L0003196     VOLUME   478008.987 3748367.468 451.00
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LOCATION L0003197     VOLUME   478013.004 3748359.977 451.00
LOCATION L0003198     VOLUME   478017.122 3748352.545 451.00
LOCATION L0003199     VOLUME   478021.739 3748345.409 451.00
LOCATION L0003200     VOLUME   478026.357 3748338.273 451.00
LOCATION L0003201     VOLUME   478033.820 3748336.434 451.00
LOCATION L0003202     VOLUME   478042.319 3748336.526 451.00
LOCATION L0003203     VOLUME   478050.819 3748336.619 451.00
LOCATION L0003204     VOLUME   478059.318 3748336.711 451.00
LOCATION L0003205     VOLUME   478067.818 3748336.803 451.00
LOCATION L0003206     VOLUME   478076.317 3748336.896 451.00
LOCATION L0003207     VOLUME   478084.817 3748336.988 451.00
LOCATION L0003208     VOLUME   478093.316 3748337.081 451.00
LOCATION L0003209     VOLUME   478101.816 3748337.173 451.00
LOCATION L0003210     VOLUME   478110.315 3748337.265 451.00
LOCATION L0003211     VOLUME   478118.815 3748337.358 451.00
LOCATION L0003212     VOLUME   478127.314 3748337.450 451.00
LOCATION L0003213     VOLUME   478135.814 3748337.543 451.00
LOCATION L0003214     VOLUME   478144.313 3748337.635 451.00
LOCATION L0003215     VOLUME   478152.813 3748337.727 451.00
LOCATION L0003216     VOLUME   478161.312 3748337.820 451.00
LOCATION L0003217     VOLUME   478169.812 3748337.912 451.00
LOCATION L0003218     VOLUME   478178.311 3748338.005 451.00
LOCATION L0003219     VOLUME   478186.811 3748338.097 451.00
LOCATION L0003220     VOLUME   478195.310 3748338.189 451.00
LOCATION L0003221     VOLUME   478203.810 3748338.282 451.00
LOCATION L0003222     VOLUME   478212.309 3748338.374 451.00
LOCATION L0003223     VOLUME   478215.836 3748343.420 451.00
LOCATION L0003224     VOLUME   478215.897 3748351.920 451.00
LOCATION L0003225     VOLUME   478215.957 3748360.420 451.00
LOCATION L0003226     VOLUME   478216.018 3748368.919 451.00
LOCATION L0003227     VOLUME   478216.078 3748377.419 451.00
LOCATION L0003228     VOLUME   478216.139 3748385.919 451.00
LOCATION L0003229     VOLUME   478216.199 3748394.419 451.00
LOCATION L0003230     VOLUME   478216.260 3748402.919 451.00
LOCATION L0003231     VOLUME   478216.320 3748411.418 451.00
LOCATION L0003232     VOLUME   478216.381 3748419.918 451.00
LOCATION L0003233     VOLUME   478216.441 3748428.418 451.00
LOCATION L0003234     VOLUME   478216.502 3748436.918 451.00
LOCATION L0003235     VOLUME   478216.562 3748445.417 451.00
LOCATION L0003236     VOLUME   478216.623 3748453.917 451.00
LOCATION L0003237     VOLUME   478216.683 3748462.417 451.04
LOCATION L0003238     VOLUME   478216.744 3748470.917 451.11
LOCATION L0003239     VOLUME   478216.804 3748479.417 451.18
LOCATION L0003240     VOLUME   478216.865 3748487.916 451.27
LOCATION L0003241     VOLUME   478216.925 3748496.416 451.49
LOCATION L0003242     VOLUME   478216.986 3748504.916 451.70
LOCATION L0003243     VOLUME   478217.046 3748513.416 451.92
LOCATION L0003244     VOLUME   478217.107 3748521.916 452.00
LOCATION L0003245     VOLUME   478217.167 3748530.415 452.00
LOCATION L0003246     VOLUME   478217.228 3748538.915 452.00
LOCATION L0003247     VOLUME   478217.288 3748547.415 452.00
LOCATION L0003248     VOLUME   478217.349 3748555.915 452.00
LOCATION L0003249     VOLUME   478217.409 3748564.414 452.00
LOCATION L0003250     VOLUME   478217.470 3748572.914 452.00
LOCATION L0003251     VOLUME   478217.530 3748581.414 452.00
LOCATION L0003252     VOLUME   478217.591 3748589.914 452.00
LOCATION L0003253     VOLUME   478217.651 3748598.414 452.00
LOCATION L0003254     VOLUME   478217.712 3748606.913 452.00
LOCATION L0003255     VOLUME   478217.772 3748615.413 452.00
LOCATION L0003256     VOLUME   478217.833 3748623.913 452.00
LOCATION L0003257     VOLUME   478217.893 3748632.413 452.00
LOCATION L0003258     VOLUME   478217.954 3748640.913 452.00
LOCATION L0003259     VOLUME   478218.014 3748649.412 452.00
LOCATION L0003260     VOLUME   478218.075 3748657.912 452.00
LOCATION L0003261     VOLUME   478218.135 3748666.412 452.00
LOCATION L0003262     VOLUME   478218.196 3748674.912 452.00
LOCATION L0003263     VOLUME   478218.256 3748683.411 452.00
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                                                     Residential
   LOCATION L0003264     VOLUME   478218.317 3748691.911 452.00
   LOCATION L0003265     VOLUME   478218.377 3748700.411 452.00
   LOCATION L0003266     VOLUME   478218.438 3748708.911 452.00
   LOCATION L0003267     VOLUME   478218.498 3748717.411 452.00
   LOCATION L0003268     VOLUME   478218.559 3748725.910 452.00
   LOCATION L0003269     VOLUME   478218.619 3748734.410 452.00
   LOCATION L0003270     VOLUME   478218.680 3748742.910 452.00
   LOCATION L0003271     VOLUME   478218.740 3748751.410 452.00
   LOCATION L0003272     VOLUME   478218.801 3748759.910 452.00
   LOCATION L0003273     VOLUME   478218.861 3748768.409 452.00
   LOCATION L0003274     VOLUME   478218.922 3748776.909 452.00
   LOCATION L0003275     VOLUME   478218.982 3748785.409 452.00
   LOCATION L0003276     VOLUME   478219.043 3748793.909 452.25
   LOCATION L0003277     VOLUME   478219.103 3748802.408 452.53
   LOCATION L0003278     VOLUME   478219.164 3748810.908 452.81
   LOCATION L0003279     VOLUME   478219.224 3748819.408 453.00
   LOCATION L0003280     VOLUME   478219.285 3748827.908 453.00
   LOCATION L0003281     VOLUME   478219.345 3748836.408 453.00
   LOCATION L0003282     VOLUME   478219.406 3748844.907 453.00
   LOCATION L0003283     VOLUME   478219.466 3748853.407 453.00
   LOCATION L0003284     VOLUME   478219.527 3748861.907 453.00
   LOCATION L0003285     VOLUME   478219.587 3748870.407 453.00
   LOCATION L0003286     VOLUME   478219.648 3748878.907 453.00
   LOCATION L0003287     VOLUME   478219.708 3748887.406 453.00
   LOCATION L0003288     VOLUME   478219.769 3748895.906 453.00
   LOCATION L0003289     VOLUME   478219.829 3748904.406 453.00
   LOCATION L0003290     VOLUME   478219.890 3748912.906 453.00
   LOCATION L0003291     VOLUME   478217.524 3748921.053 453.00
   LOCATION L0003292     VOLUME   478215.049 3748929.185 453.00
   LOCATION L0003293     VOLUME   478212.574 3748937.317 453.00
   LOCATION L0003294     VOLUME   478210.099 3748945.448 453.00
   LOCATION L0003295     VOLUME   478207.624 3748953.580 453.00
   LOCATION L0003296     VOLUME   478205.149 3748961.712 453.00
   LOCATION L0003297     VOLUME   478202.674 3748969.844 453.00
** End of LINE VOLUME Source ID = SLINE7
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC On-Site Travel Building 2
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004213
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 9
** 477852.753, 3748830.967, 453.00, 4.00, 3.95
** 477853.554, 3748979.688, 453.78, 4.00, 3.95
** 477742.747, 3748979.421, 456.25, 4.00, 3.95
** 477742.213, 3748884.901, 455.79, 4.00, 3.95
** 477754.762, 3748840.579, 453.84, 4.00, 3.95
** 477770.249, 3748826.695, 453.00, 4.00, 3.95
** 477798.284, 3748826.161, 453.27, 4.00, 3.95
** 477843.675, 3748825.894, 453.00, 4.00, 3.95
** 477853.554, 3748825.627, 453.00, 4.00, 3.95
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   LOCATION L0003298     VOLUME   477852.776 3748835.217 453.00
   LOCATION L0003299     VOLUME   477852.821 3748843.717 453.00
   LOCATION L0003300     VOLUME   477852.867 3748852.216 453.00
   LOCATION L0003301     VOLUME   477852.913 3748860.716 453.00
   LOCATION L0003302     VOLUME   477852.959 3748869.216 453.00
   LOCATION L0003303     VOLUME   477853.005 3748877.716 453.00
   LOCATION L0003304     VOLUME   477853.050 3748886.216 453.00
   LOCATION L0003305     VOLUME   477853.096 3748894.716 453.00
   LOCATION L0003306     VOLUME   477853.142 3748903.216 453.00
   LOCATION L0003307     VOLUME   477853.188 3748911.716 453.00
   LOCATION L0003308     VOLUME   477853.233 3748920.215 453.00
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                                                  Residential
   LOCATION L0003309     VOLUME   477853.279 3748928.715 453.00
   LOCATION L0003310     VOLUME   477853.325 3748937.215 453.00
   LOCATION L0003311     VOLUME   477853.371 3748945.715 453.00
   LOCATION L0003312     VOLUME   477853.417 3748954.215 453.00
   LOCATION L0003313     VOLUME   477853.462 3748962.715 453.00
   LOCATION L0003314     VOLUME   477853.508 3748971.215 453.16
   LOCATION L0003315     VOLUME   477853.527 3748979.688 453.44
   LOCATION L0003316     VOLUME   477845.027 3748979.667 453.53
   LOCATION L0003317     VOLUME   477836.527 3748979.647 453.69
   LOCATION L0003318     VOLUME   477828.027 3748979.626 453.85
   LOCATION L0003319     VOLUME   477819.527 3748979.606 454.00
   LOCATION L0003320     VOLUME   477811.027 3748979.585 454.00
   LOCATION L0003321     VOLUME   477802.527 3748979.565 454.00
   LOCATION L0003322     VOLUME   477794.027 3748979.544 454.00
   LOCATION L0003323     VOLUME   477785.527 3748979.524 454.00
   LOCATION L0003324     VOLUME   477777.027 3748979.503 454.00
   LOCATION L0003325     VOLUME   477768.527 3748979.483 454.00
   LOCATION L0003326     VOLUME   477760.027 3748979.462 454.00
   LOCATION L0003327     VOLUME   477751.527 3748979.442 454.00
   LOCATION L0003328     VOLUME   477743.027 3748979.421 454.00
   LOCATION L0003329     VOLUME   477742.701 3748971.201 454.00
   LOCATION L0003330     VOLUME   477742.653 3748962.701 454.00
   LOCATION L0003331     VOLUME   477742.605 3748954.201 454.00
   LOCATION L0003332     VOLUME   477742.557 3748945.701 454.00
   LOCATION L0003333     VOLUME   477742.509 3748937.201 454.00
   LOCATION L0003334     VOLUME   477742.461 3748928.701 453.89
   LOCATION L0003335     VOLUME   477742.413 3748920.202 453.77
   LOCATION L0003336     VOLUME   477742.365 3748911.702 453.65
   LOCATION L0003337     VOLUME   477742.317 3748903.202 453.58
   LOCATION L0003338     VOLUME   477742.269 3748894.702 453.58
   LOCATION L0003339     VOLUME   477742.221 3748886.202 453.59
   LOCATION L0003340     VOLUME   477744.175 3748877.974 453.52
   LOCATION L0003341     VOLUME   477746.490 3748869.796 453.57
   LOCATION L0003342     VOLUME   477748.806 3748861.617 453.68
   LOCATION L0003343     VOLUME   477751.121 3748853.439 453.84
   LOCATION L0003344     VOLUME   477753.437 3748845.260 453.96
   LOCATION L0003345     VOLUME   477757.469 3748838.153 453.72
   LOCATION L0003346     VOLUME   477763.797 3748832.479 453.46
   LOCATION L0003347     VOLUME   477770.126 3748826.804 453.22
   LOCATION L0003348     VOLUME   477778.583 3748826.536 453.12
   LOCATION L0003349     VOLUME   477787.081 3748826.374 453.03
   LOCATION L0003350     VOLUME   477795.580 3748826.212 453.00
   LOCATION L0003351     VOLUME   477804.079 3748826.127 453.00
   LOCATION L0003352     VOLUME   477812.579 3748826.077 453.00
   LOCATION L0003353     VOLUME   477821.079 3748826.027 453.00
   LOCATION L0003354     VOLUME   477829.579 3748825.977 453.00
   LOCATION L0003355     VOLUME   477838.078 3748825.927 453.00
   LOCATION L0003356     VOLUME   477846.577 3748825.815 453.00
** End of LINE VOLUME Source ID = SLINE8
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC On-Site Travel Building 3
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00002756
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 12
** 477886.740, 3748199.498, 450.00, 4.00, 3.95
** 477885.465, 3748255.245, 453.31, 4.00, 3.95
** 477886.421, 3748337.112, 454.84, 4.00, 3.95
** 477917.002, 3748339.979, 451.39, 4.00, 3.95
** 477941.530, 3748338.068, 454.79, 4.00, 3.95
** 477951.087, 3748325.007, 455.81, 4.00, 3.95
** 477974.978, 3748285.507, 450.00, 4.00, 3.95
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** 477981.349, 3748257.156, 450.00, 4.00, 3.95
** 477978.164, 3748219.567, 450.34, 4.00, 3.95
** 477993.877, 3748210.463, 450.24, 4.00, 3.95
** 477994.148, 3748197.465, 450.00, 4.00, 3.95
** 477931.056, 3748197.465, 450.00, 4.00, 3.95
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   LOCATION L0003357     VOLUME   477886.642 3748203.747 450.00
   LOCATION L0003358     VOLUME   477886.448 3748212.245 450.00
   LOCATION L0003359     VOLUME   477886.254 3748220.743 450.12
   LOCATION L0003360     VOLUME   477886.060 3748229.241 450.34
   LOCATION L0003361     VOLUME   477885.865 3748237.738 450.57
   LOCATION L0003362     VOLUME   477885.671 3748246.236 450.81
   LOCATION L0003363     VOLUME   477885.477 3748254.734 450.87
   LOCATION L0003364     VOLUME   477885.559 3748263.233 450.92
   LOCATION L0003365     VOLUME   477885.658 3748271.733 450.97
   LOCATION L0003366     VOLUME   477885.757 3748280.232 451.00
   LOCATION L0003367     VOLUME   477885.856 3748288.731 451.00
   LOCATION L0003368     VOLUME   477885.955 3748297.231 451.00
   LOCATION L0003369     VOLUME   477886.055 3748305.730 451.00
   LOCATION L0003370     VOLUME   477886.154 3748314.230 451.00
   LOCATION L0003371     VOLUME   477886.253 3748322.729 451.00
   LOCATION L0003372     VOLUME   477886.352 3748331.229 451.00
   LOCATION L0003373     VOLUME   477889.025 3748337.357 451.00
   LOCATION L0003374     VOLUME   477897.488 3748338.150 451.00
   LOCATION L0003375     VOLUME   477905.951 3748338.943 451.00
   LOCATION L0003376     VOLUME   477914.414 3748339.737 451.00
   LOCATION L0003377     VOLUME   477922.885 3748339.521 451.00
   LOCATION L0003378     VOLUME   477931.359 3748338.861 451.00
   LOCATION L0003379     VOLUME   477939.833 3748338.200 451.00
   LOCATION L0003380     VOLUME   477945.545 3748332.582 451.00
   LOCATION L0003381     VOLUME   477950.564 3748325.722 451.00
   LOCATION L0003382     VOLUME   477955.028 3748318.492 450.00
   LOCATION L0003383     VOLUME   477959.427 3748311.219 450.00
   LOCATION L0003384     VOLUME   477963.826 3748303.946 450.00
   LOCATION L0003385     VOLUME   477968.225 3748296.673 450.00
   LOCATION L0003386     VOLUME   477972.624 3748289.400 450.00
   LOCATION L0003387     VOLUME   477975.844 3748281.652 450.00
   LOCATION L0003388     VOLUME   477977.708 3748273.359 450.00
   LOCATION L0003389     VOLUME   477979.572 3748265.066 450.00
   LOCATION L0003390     VOLUME   477981.316 3748256.765 450.00
   LOCATION L0003391     VOLUME   477980.598 3748248.295 450.00
   LOCATION L0003392     VOLUME   477979.881 3748239.825 450.00
   LOCATION L0003393     VOLUME   477979.163 3748231.356 450.00
   LOCATION L0003394     VOLUME   477978.445 3748222.886 450.00
   LOCATION L0003395     VOLUME   477982.636 3748216.976 450.00
   LOCATION L0003396     VOLUME   477989.991 3748212.714 450.00
   LOCATION L0003397     VOLUME   477993.960 3748206.455 450.00
   LOCATION L0003398     VOLUME   477994.137 3748197.957 450.00
   LOCATION L0003399     VOLUME   477986.139 3748197.465 450.00
   LOCATION L0003400     VOLUME   477977.639 3748197.465 450.00
   LOCATION L0003401     VOLUME   477969.139 3748197.465 450.00
   LOCATION L0003402     VOLUME   477960.639 3748197.465 450.00
   LOCATION L0003403     VOLUME   477952.139 3748197.465 450.00
   LOCATION L0003404     VOLUME   477943.639 3748197.465 450.00
   LOCATION L0003405     VOLUME   477935.139 3748197.465 450.00
** End of LINE VOLUME Source ID = SLINE9
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC On-Site Travel Building 4
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004801
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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** 477500.822, 3748975.810, 457.00, 4.00, 3.95
** 477598.310, 3748973.915, 454.96, 4.00, 3.95
** 477610.497, 3748965.249, 454.04, 4.00, 3.95
** 477618.891, 3748935.461, 454.00, 4.00, 3.95
** 477626.203, 3748899.986, 454.00, 4.00, 3.95
** 477627.557, 3748795.456, 455.83, 4.00, 3.95
** 477487.823, 3748799.247, 456.65, 4.00, 3.95
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   LOCATION L0003406     VOLUME   477505.071 3748975.728 454.15
   LOCATION L0003407     VOLUME   477513.569 3748975.562 454.06
   LOCATION L0003408     VOLUME   477522.068 3748975.397 454.00
   LOCATION L0003409     VOLUME   477530.566 3748975.232 454.00
   LOCATION L0003410     VOLUME   477539.064 3748975.067 454.00
   LOCATION L0003411     VOLUME   477547.563 3748974.901 454.00
   LOCATION L0003412     VOLUME   477556.061 3748974.736 454.00
   LOCATION L0003413     VOLUME   477564.559 3748974.571 454.00
   LOCATION L0003414     VOLUME   477573.058 3748974.406 454.00
   LOCATION L0003415     VOLUME   477581.556 3748974.240 454.00
   LOCATION L0003416     VOLUME   477590.055 3748974.075 454.00
   LOCATION L0003417     VOLUME   477598.508 3748973.774 454.00
   LOCATION L0003418     VOLUME   477605.435 3748968.848 454.00
   LOCATION L0003419     VOLUME   477611.118 3748963.045 454.00
   LOCATION L0003420     VOLUME   477613.423 3748954.864 454.00
   LOCATION L0003421     VOLUME   477615.729 3748946.683 454.00
   LOCATION L0003422     VOLUME   477618.035 3748938.501 454.00
   LOCATION L0003423     VOLUME   477619.970 3748930.230 454.00
   LOCATION L0003424     VOLUME   477621.685 3748921.905 454.00
   LOCATION L0003425     VOLUME   477623.401 3748913.580 454.00
   LOCATION L0003426     VOLUME   477625.117 3748905.255 454.00
   LOCATION L0003427     VOLUME   477626.243 3748896.866 454.00
   LOCATION L0003428     VOLUME   477626.354 3748888.366 454.00
   LOCATION L0003429     VOLUME   477626.464 3748879.867 454.00
   LOCATION L0003430     VOLUME   477626.574 3748871.368 454.00
   LOCATION L0003431     VOLUME   477626.684 3748862.869 454.00
   LOCATION L0003432     VOLUME   477626.794 3748854.369 454.00
   LOCATION L0003433     VOLUME   477626.904 3748845.870 454.00
   LOCATION L0003434     VOLUME   477627.014 3748837.371 454.00
   LOCATION L0003435     VOLUME   477627.124 3748828.871 454.00
   LOCATION L0003436     VOLUME   477627.234 3748820.372 454.00
   LOCATION L0003437     VOLUME   477627.344 3748811.873 454.00
   LOCATION L0003438     VOLUME   477627.455 3748803.374 454.00
   LOCATION L0003439     VOLUME   477626.976 3748795.472 454.00
   LOCATION L0003440     VOLUME   477618.479 3748795.702 454.00
   LOCATION L0003441     VOLUME   477609.982 3748795.933 454.00
   LOCATION L0003442     VOLUME   477601.485 3748796.163 454.00
   LOCATION L0003443     VOLUME   477592.988 3748796.394 454.00
   LOCATION L0003444     VOLUME   477584.491 3748796.624 454.00
   LOCATION L0003445     VOLUME   477575.994 3748796.855 454.00
   LOCATION L0003446     VOLUME   477567.498 3748797.085 454.00
   LOCATION L0003447     VOLUME   477559.001 3748797.316 454.00
   LOCATION L0003448     VOLUME   477550.504 3748797.546 454.00
   LOCATION L0003449     VOLUME   477542.007 3748797.777 454.00
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   LOCATION L0003451     VOLUME   477525.013 3748798.238 454.00
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   LOCATION L0003453     VOLUME   477508.019 3748798.699 454.00
   LOCATION L0003454     VOLUME   477499.523 3748798.930 454.00
   LOCATION L0003455     VOLUME   477491.026 3748799.160 454.00
** End of LINE VOLUME Source ID = SLINE10
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE11
** DESCRSRC Off-Site Travel 50% North on Heacock
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0002223
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** 477881.917, 3749239.458, 459.89, 4.00, 3.95
** 477476.931, 3749244.882, 457.04, 4.00, 3.95
** 477469.699, 3749790.891, 458.84, 4.00, 3.95
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   LOCATION L0003494     VOLUME   477932.549 3748987.665 453.17
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   LOCATION L0003513     VOLUME   477881.917 3749099.015 454.00
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LOCATION L0003574     VOLUME   477503.894 3749244.521 455.00
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   LOCATION L0003637     VOLUME   477470.196 3749753.372 457.23
   LOCATION L0003638     VOLUME   477470.083 3749761.871 457.51
   LOCATION L0003639     VOLUME   477469.971 3749770.370 457.79
   LOCATION L0003640     VOLUME   477469.858 3749778.870 458.00
   LOCATION L0003641     VOLUME   477469.745 3749787.369 458.00
** End of LINE VOLUME Source ID = SLINE11
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE12
** DESCRSRC Off-Site Travel 30% South on Heacock
** PREFIX
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** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00007092
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 3
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** 477462.196, 3747779.773, 451.47, 4.00, 3.95
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   LOCATION L0005362     VOLUME   477859.355 3748181.874 450.00
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   LOCATION L0005364     VOLUME   477842.356 3748182.009 450.22
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   LOCATION L0005453     VOLUME   477462.639 3747799.737 451.00
   LOCATION L0005454     VOLUME   477462.450 3747791.239 451.00
   LOCATION L0005455     VOLUME   477462.262 3747782.741 451.00
** End of LINE VOLUME Source ID = SLINE12
   LOCATION AREA1        AREA       477895.770  3748485.620      451.990
** DESCRSRC On-Site Equipment West of Building 1
   LOCATION AREA2        AREA       478189.330  3748386.890      451.000
** DESCRSRC On-Site Equipment East of Building 1
   LOCATION AREA3        AREA       478027.410  3748303.650      450.000
** DESCRSRC On-Site Equipment South of Building 1
   LOCATION AREA4        AREA       477696.200  3748836.040      454.000
** DESCRSRC On-Site Idling Building 2
   LOCATION AREA5        AREA       477967.690  3748183.560      450.000
** DESCRSRC On-Site Equipment Building 3
   LOCATION AREA6        AREA       477599.310  3748788.100      454.000
** DESCRSRC On-Site Equipment Building 4
   LOCATION STCK1        POINT      478197.320  3748887.470      453.000
** DESCRSRC Building 1
   LOCATION STCK2        POINT      478195.108  3748735.565      452.000
** DESCRSRC Building 1
   LOCATION STCK3        POINT      478195.845  3748573.336      452.000
** DESCRSRC Building 1
   LOCATION STCK4        POINT      478198.057  3748428.068      451.000
** DESCRSRC Building 1
   LOCATION STCK5        POINT      477956.189  3748894.107      453.000
** DESCRSRC Building 1
   LOCATION STCK6        POINT      477962.088  3748741.464      453.000
** DESCRSRC Building 1
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                                                 Residential
   LOCATION STCK7         POINT      477962.826  3748581.448      452.000
** DESCRSRC Building 1
   LOCATION STCK8         POINT      477964.301  3748509.920      451.780
** DESCRSRC Building 1
   LOCATION STCK9         POINT      478049.102  3748355.802      451.000
** DESCRSRC Building 1
   LOCATION STCK10        POINT      478153.076  3748357.277      451.000
** DESCRSRC Building 1
   LOCATION STCK11        POINT      477756.390  3748910.945      453.240
** DESCRSRC Building 2
   LOCATION STCK12        POINT      477975.834  3748266.902      450.000
** DESCRSRC Building 3
   LOCATION STCK13        POINT      477612.475  3748890.532      454.000
** DESCRSRC Building 4
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE13
** DESCRSRC Off-Site Travel 20% South on Indian
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00004728
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 2
** 478279.139, 3748325.068, 454.06, 4.00, 3.95
** 478288.327, 3747768.514, 450.42, 4.00, 3.95
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   LOCATION L0003741      VOLUME   478279.209 3748320.818 450.00
   LOCATION L0003742      VOLUME   478279.349 3748312.319 450.00
   LOCATION L0003743      VOLUME   478279.490 3748303.820 450.00
   LOCATION L0003744      VOLUME   478279.630 3748295.322 450.00
   LOCATION L0003745      VOLUME   478279.770 3748286.823 450.00
   LOCATION L0003746      VOLUME   478279.911 3748278.324 450.00
   LOCATION L0003747      VOLUME   478280.051 3748269.825 450.00
   LOCATION L0003748      VOLUME   478280.191 3748261.326 450.00
   LOCATION L0003749      VOLUME   478280.332 3748252.827 450.00
   LOCATION L0003750      VOLUME   478280.472 3748244.329 450.00
   LOCATION L0003751      VOLUME   478280.612 3748235.830 450.00
   LOCATION L0003752      VOLUME   478280.752 3748227.331 450.00
   LOCATION L0003753      VOLUME   478280.893 3748218.832 450.00
   LOCATION L0003754      VOLUME   478281.033 3748210.333 450.00
   LOCATION L0003755      VOLUME   478281.173 3748201.834 450.00
   LOCATION L0003756      VOLUME   478281.314 3748193.335 450.00
   LOCATION L0003757      VOLUME   478281.454 3748184.837 450.00
   LOCATION L0003758      VOLUME   478281.594 3748176.338 450.00
   LOCATION L0003759      VOLUME   478281.735 3748167.839 450.00
   LOCATION L0003760      VOLUME   478281.875 3748159.340 450.00
   LOCATION L0003761      VOLUME   478282.015 3748150.841 449.82
   LOCATION L0003762      VOLUME   478282.155 3748142.342 449.54
   LOCATION L0003763      VOLUME   478282.296 3748133.844 449.25
   LOCATION L0003764      VOLUME   478282.436 3748125.345 449.00
   LOCATION L0003765      VOLUME   478282.576 3748116.846 449.00
   LOCATION L0003766      VOLUME   478282.717 3748108.347 449.00
   LOCATION L0003767      VOLUME   478282.857 3748099.848 449.00
   LOCATION L0003768      VOLUME   478282.997 3748091.349 449.00
   LOCATION L0003769      VOLUME   478283.138 3748082.851 449.00
   LOCATION L0003770      VOLUME   478283.278 3748074.352 449.00
   LOCATION L0003771      VOLUME   478283.418 3748065.853 449.00
   LOCATION L0003772      VOLUME   478283.558 3748057.354 449.00
   LOCATION L0003773      VOLUME   478283.699 3748048.855 449.00
   LOCATION L0003774      VOLUME   478283.839 3748040.356 449.00
   LOCATION L0003775      VOLUME   478283.979 3748031.857 449.00
   LOCATION L0003776      VOLUME   478284.120 3748023.359 449.00
   LOCATION L0003777      VOLUME   478284.260 3748014.860 449.00
   LOCATION L0003778      VOLUME   478284.400 3748006.361 449.00
   LOCATION L0003779      VOLUME   478284.541 3747997.862 449.00
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                                                     Residential
   LOCATION L0003780     VOLUME   478284.681 3747989.363 449.00
   LOCATION L0003781     VOLUME   478284.821 3747980.864 449.00
   LOCATION L0003782     VOLUME   478284.962 3747972.366 449.00
   LOCATION L0003783     VOLUME   478285.102 3747963.867 449.00
   LOCATION L0003784     VOLUME   478285.242 3747955.368 449.00
   LOCATION L0003785     VOLUME   478285.382 3747946.869 449.00
   LOCATION L0003786     VOLUME   478285.523 3747938.370 449.00
   LOCATION L0003787     VOLUME   478285.663 3747929.871 449.00
   LOCATION L0003788     VOLUME   478285.803 3747921.373 449.00
   LOCATION L0003789     VOLUME   478285.944 3747912.874 449.00
   LOCATION L0003790     VOLUME   478286.084 3747904.375 449.00
   LOCATION L0003791     VOLUME   478286.224 3747895.876 449.00
   LOCATION L0003792     VOLUME   478286.365 3747887.377 449.00
   LOCATION L0003793     VOLUME   478286.505 3747878.878 449.00
   LOCATION L0003794     VOLUME   478286.645 3747870.379 449.00
   LOCATION L0003795     VOLUME   478286.785 3747861.881 449.00
   LOCATION L0003796     VOLUME   478286.926 3747853.382 449.00
   LOCATION L0003797     VOLUME   478287.066 3747844.883 449.00
   LOCATION L0003798     VOLUME   478287.206 3747836.384 449.00
   LOCATION L0003799     VOLUME   478287.347 3747827.885 449.00
   LOCATION L0003800     VOLUME   478287.487 3747819.386 449.00
   LOCATION L0003801     VOLUME   478287.627 3747810.888 449.00
   LOCATION L0003802     VOLUME   478287.768 3747802.389 449.00
   LOCATION L0003803     VOLUME   478287.908 3747793.890 449.00
   LOCATION L0003804     VOLUME   478288.048 3747785.391 449.00
   LOCATION L0003805     VOLUME   478288.188 3747776.892 449.00
** End of LINE VOLUME Source ID = SLINE13
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE14
** DESCRSRC Off-Site Travel 40% North on Heacock to I-215 at Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0006614
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 10
** 477480.626, 3749795.973, 459.75, 4.00, 3.95
** 477474.677, 3750167.941, 460.51, 4.00, 3.95
** 477466.428, 3750269.283, 460.78, 4.00, 3.95
** 477467.606, 3750545.027, 461.83, 4.00, 3.95
** 477477.033, 3750865.549, 462.00, 4.00, 3.95
** 477479.390, 3751235.564, 464.00, 4.00, 3.95
** 477472.585, 3752226.131, 471.76, 4.00, 3.95
** 474807.353, 3752229.256, 474.08, 4.00, 3.95
** 474166.822, 3752132.395, 477.25, 4.00, 3.95
** 474035.592, 3752110.523, 478.00, 4.00, 3.95
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   LOCATION L0005457     VOLUME   477480.422 3749808.721 458.00
   LOCATION L0005458     VOLUME   477480.286 3749817.220 458.00
   LOCATION L0005459     VOLUME   477480.150 3749825.719 458.00
   LOCATION L0005460     VOLUME   477480.014 3749834.218 458.00
   LOCATION L0005461     VOLUME   477479.878 3749842.717 458.00
   LOCATION L0005462     VOLUME   477479.742 3749851.216 458.00
   LOCATION L0005463     VOLUME   477479.607 3749859.715 458.00
   LOCATION L0005464     VOLUME   477479.471 3749868.214 458.00
   LOCATION L0005465     VOLUME   477479.335 3749876.713 458.00
   LOCATION L0005466     VOLUME   477479.199 3749885.212 458.00
   LOCATION L0005467     VOLUME   477479.063 3749893.711 458.00
   LOCATION L0005468     VOLUME   477478.927 3749902.209 458.00
   LOCATION L0005469     VOLUME   477478.791 3749910.708 458.00
   LOCATION L0005470     VOLUME   477478.655 3749919.207 458.00
   LOCATION L0005471     VOLUME   477478.519 3749927.706 458.00
   LOCATION L0005472     VOLUME   477478.383 3749936.205 458.00
   LOCATION L0005473     VOLUME   477478.247 3749944.704 458.00
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                                                  Residential
LOCATION L0005474     VOLUME   477478.111 3749953.203 458.00
LOCATION L0005475     VOLUME   477477.975 3749961.702 458.17
LOCATION L0005476     VOLUME   477477.840 3749970.201 458.45
LOCATION L0005477     VOLUME   477477.704 3749978.700 458.74
LOCATION L0005478     VOLUME   477477.568 3749987.199 459.00
LOCATION L0005479     VOLUME   477477.432 3749995.697 459.00
LOCATION L0005480     VOLUME   477477.296 3750004.196 459.00
LOCATION L0005481     VOLUME   477477.160 3750012.695 459.00
LOCATION L0005482     VOLUME   477477.024 3750021.194 459.00
LOCATION L0005483     VOLUME   477476.888 3750029.693 459.00
LOCATION L0005484     VOLUME   477476.752 3750038.192 459.00
LOCATION L0005485     VOLUME   477476.616 3750046.691 459.00
LOCATION L0005486     VOLUME   477476.480 3750055.190 459.00
LOCATION L0005487     VOLUME   477476.344 3750063.689 459.00
LOCATION L0005488     VOLUME   477476.208 3750072.188 459.00
LOCATION L0005489     VOLUME   477476.072 3750080.687 459.00
LOCATION L0005490     VOLUME   477475.937 3750089.186 459.00
LOCATION L0005491     VOLUME   477475.801 3750097.684 459.00
LOCATION L0005492     VOLUME   477475.665 3750106.183 459.00
LOCATION L0005493     VOLUME   477475.529 3750114.682 459.00
LOCATION L0005494     VOLUME   477475.393 3750123.181 459.00
LOCATION L0005495     VOLUME   477475.257 3750131.680 459.00
LOCATION L0005496     VOLUME   477475.121 3750140.179 459.00
LOCATION L0005497     VOLUME   477474.985 3750148.678 459.00
LOCATION L0005498     VOLUME   477474.849 3750157.177 459.00
LOCATION L0005499     VOLUME   477474.713 3750165.676 459.00
LOCATION L0005500     VOLUME   477474.171 3750174.155 459.00
LOCATION L0005501     VOLUME   477473.482 3750182.627 459.00
LOCATION L0005502     VOLUME   477472.792 3750191.099 459.00
LOCATION L0005503     VOLUME   477472.102 3750199.571 459.04
LOCATION L0005504     VOLUME   477471.413 3750208.043 459.15
LOCATION L0005505     VOLUME   477470.723 3750216.515 459.24
LOCATION L0005506     VOLUME   477470.034 3750224.987 459.32
LOCATION L0005507     VOLUME   477469.344 3750233.459 459.48
LOCATION L0005508     VOLUME   477468.654 3750241.931 459.66
LOCATION L0005509     VOLUME   477467.965 3750250.403 459.85
LOCATION L0005510     VOLUME   477467.275 3750258.875 460.00
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LOCATION L0005512     VOLUME   477466.456 3750275.840 460.00
LOCATION L0005513     VOLUME   477466.492 3750284.340 460.00
LOCATION L0005514     VOLUME   477466.529 3750292.840 460.00
LOCATION L0005515     VOLUME   477466.565 3750301.340 460.00
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LOCATION L0005520     VOLUME   477466.747 3750343.840 460.00
LOCATION L0005521     VOLUME   477466.783 3750352.340 460.00
LOCATION L0005522     VOLUME   477466.819 3750360.839 460.00
LOCATION L0005523     VOLUME   477466.855 3750369.339 460.00
LOCATION L0005524     VOLUME   477466.892 3750377.839 460.00
LOCATION L0005525     VOLUME   477466.928 3750386.339 460.00
LOCATION L0005526     VOLUME   477466.964 3750394.839 460.00
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LOCATION L0005529     VOLUME   477467.073 3750420.339 460.00
LOCATION L0005530     VOLUME   477467.110 3750428.839 460.00
LOCATION L0005531     VOLUME   477467.146 3750437.339 460.00
LOCATION L0005532     VOLUME   477467.182 3750445.839 460.00
LOCATION L0005533     VOLUME   477467.219 3750454.339 460.00
LOCATION L0005534     VOLUME   477467.255 3750462.838 460.00
LOCATION L0005535     VOLUME   477467.291 3750471.338 460.16
LOCATION L0005536     VOLUME   477467.328 3750479.838 460.44
LOCATION L0005537     VOLUME   477467.364 3750488.338 460.73
LOCATION L0005538     VOLUME   477467.400 3750496.838 461.00
LOCATION L0005539     VOLUME   477467.436 3750505.338 461.00
LOCATION L0005540     VOLUME   477467.473 3750513.838 461.00
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                                                      Residential
LOCATION L0005541     VOLUME   477467.509 3750522.338 461.00
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LOCATION L0005544     VOLUME   477467.689 3750547.837 461.00
LOCATION L0005545     VOLUME   477467.939 3750556.333 461.00
LOCATION L0005546     VOLUME   477468.188 3750564.829 461.00
LOCATION L0005547     VOLUME   477468.438 3750573.326 461.00
LOCATION L0005548     VOLUME   477468.688 3750581.822 461.00
LOCATION L0005549     VOLUME   477468.938 3750590.318 461.00
LOCATION L0005550     VOLUME   477469.188 3750598.814 461.00
LOCATION L0005551     VOLUME   477469.438 3750607.311 461.00
LOCATION L0005552     VOLUME   477469.688 3750615.807 461.00
LOCATION L0005553     VOLUME   477469.938 3750624.303 461.00
LOCATION L0005554     VOLUME   477470.188 3750632.800 461.00
LOCATION L0005555     VOLUME   477470.437 3750641.296 461.00
LOCATION L0005556     VOLUME   477470.687 3750649.792 461.04
LOCATION L0005557     VOLUME   477470.937 3750658.289 461.15
LOCATION L0005558     VOLUME   477471.187 3750666.785 461.26
LOCATION L0005559     VOLUME   477471.437 3750675.281 461.37
LOCATION L0005560     VOLUME   477471.687 3750683.778 461.54
LOCATION L0005561     VOLUME   477471.937 3750692.274 461.72
LOCATION L0005562     VOLUME   477472.187 3750700.770 461.89
LOCATION L0005563     VOLUME   477472.437 3750709.267 462.00
LOCATION L0005564     VOLUME   477472.686 3750717.763 462.00
LOCATION L0005565     VOLUME   477472.936 3750726.259 462.00
LOCATION L0005566     VOLUME   477473.186 3750734.756 462.00
LOCATION L0005567     VOLUME   477473.436 3750743.252 462.00
LOCATION L0005568     VOLUME   477473.686 3750751.748 462.00
LOCATION L0005569     VOLUME   477473.936 3750760.245 462.00
LOCATION L0005570     VOLUME   477474.186 3750768.741 462.00
LOCATION L0005571     VOLUME   477474.436 3750777.237 462.00
LOCATION L0005572     VOLUME   477474.686 3750785.734 462.00
LOCATION L0005573     VOLUME   477474.935 3750794.230 462.00
LOCATION L0005574     VOLUME   477475.185 3750802.726 462.00
LOCATION L0005575     VOLUME   477475.435 3750811.223 462.00
LOCATION L0005576     VOLUME   477475.685 3750819.719 462.00
LOCATION L0005577     VOLUME   477475.935 3750828.215 462.00
LOCATION L0005578     VOLUME   477476.185 3750836.712 462.00
LOCATION L0005579     VOLUME   477476.435 3750845.208 462.00
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LOCATION L0005581     VOLUME   477476.935 3750862.201 462.11
LOCATION L0005582     VOLUME   477477.066 3750870.699 462.27
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LOCATION L0005586     VOLUME   477477.282 3750904.698 462.84
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LOCATION L0005598     VOLUME   477477.932 3751006.696 463.00
LOCATION L0005599     VOLUME   477477.986 3751015.196 463.00
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LOCATION L0005601     VOLUME   477478.095 3751032.196 463.00
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LOCATION L0005603     VOLUME   477478.203 3751049.195 463.00
LOCATION L0005604     VOLUME   477478.257 3751057.695 463.00
LOCATION L0005605     VOLUME   477478.311 3751066.195 463.00
LOCATION L0005606     VOLUME   477478.365 3751074.695 463.17
LOCATION L0005607     VOLUME   477478.419 3751083.195 463.34
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LOCATION L0005608     VOLUME   477478.474 3751091.695 463.52
LOCATION L0005609     VOLUME   477478.528 3751100.194 463.67
LOCATION L0005610     VOLUME   477478.582 3751108.694 463.78
LOCATION L0005611     VOLUME   477478.636 3751117.194 463.88
LOCATION L0005612     VOLUME   477478.690 3751125.694 463.99
LOCATION L0005613     VOLUME   477478.744 3751134.194 464.00
LOCATION L0005614     VOLUME   477478.798 3751142.694 464.00
LOCATION L0005615     VOLUME   477478.853 3751151.193 464.00
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LOCATION L0005618     VOLUME   477479.015 3751176.693 464.00
LOCATION L0005619     VOLUME   477479.069 3751185.193 464.00
LOCATION L0005620     VOLUME   477479.123 3751193.692 464.00
LOCATION L0005621     VOLUME   477479.177 3751202.192 464.00
LOCATION L0005622     VOLUME   477479.232 3751210.692 464.00
LOCATION L0005623     VOLUME   477479.286 3751219.192 464.00
LOCATION L0005624     VOLUME   477479.340 3751227.692 464.00
LOCATION L0005625     VOLUME   477479.386 3751236.192 464.00
LOCATION L0005626     VOLUME   477479.327 3751244.691 464.00
LOCATION L0005627     VOLUME   477479.269 3751253.191 464.22
LOCATION L0005628     VOLUME   477479.211 3751261.691 464.50
LOCATION L0005629     VOLUME   477479.152 3751270.191 464.79
LOCATION L0005630     VOLUME   477479.094 3751278.691 465.00
LOCATION L0005631     VOLUME   477479.035 3751287.190 465.00
LOCATION L0005632     VOLUME   477478.977 3751295.690 465.00
LOCATION L0005633     VOLUME   477478.919 3751304.190 465.00
LOCATION L0005634     VOLUME   477478.860 3751312.690 465.00
LOCATION L0005635     VOLUME   477478.802 3751321.190 465.00
LOCATION L0005636     VOLUME   477478.743 3751329.689 465.00
LOCATION L0005637     VOLUME   477478.685 3751338.189 465.00
LOCATION L0005638     VOLUME   477478.627 3751346.689 465.00
LOCATION L0005639     VOLUME   477478.568 3751355.189 465.00
LOCATION L0005640     VOLUME   477478.510 3751363.689 465.00
LOCATION L0005641     VOLUME   477478.451 3751372.188 465.00
LOCATION L0005642     VOLUME   477478.393 3751380.688 465.00
LOCATION L0005643     VOLUME   477478.335 3751389.188 465.00
LOCATION L0005644     VOLUME   477478.276 3751397.688 465.00
LOCATION L0005645     VOLUME   477478.218 3751406.188 465.00
LOCATION L0005646     VOLUME   477478.159 3751414.687 465.00
LOCATION L0005647     VOLUME   477478.101 3751423.187 465.00
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LOCATION L0005650     VOLUME   477477.926 3751448.687 465.74
LOCATION L0005651     VOLUME   477477.867 3751457.186 466.00
LOCATION L0005652     VOLUME   477477.809 3751465.686 466.00
LOCATION L0005653     VOLUME   477477.751 3751474.186 466.00
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LOCATION L0005986     VOLUME   475394.049 3752228.568 476.68
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LOCATION L0005992     VOLUME   475343.049 3752228.628 476.20
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LOCATION L0005995     VOLUME   475317.549 3752228.658 476.13
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LOCATION L0005998     VOLUME   475292.049 3752228.688 476.06
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LOCATION L0006001     VOLUME   475266.549 3752228.718 476.00
LOCATION L0006002     VOLUME   475258.049 3752228.728 476.00
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LOCATION L0006009     VOLUME   475198.549 3752228.797 476.00
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LOCATION L0006036     VOLUME   474969.049 3752229.066 475.08
LOCATION L0006037     VOLUME   474960.549 3752229.076 475.00
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LOCATION L0006047     VOLUME   474875.550 3752229.176 474.87
LOCATION L0006048     VOLUME   474867.050 3752229.186 474.76
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LOCATION L0006052     VOLUME   474833.050 3752229.226 474.32
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LOCATION L0006088     VOLUME   474530.201 3752187.345 475.61
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LOCATION L0006091     VOLUME   474504.987 3752183.532 475.94
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LOCATION L0006102     VOLUME   474412.538 3752169.552 476.14
LOCATION L0006103     VOLUME   474404.134 3752168.281 476.25
LOCATION L0006104     VOLUME   474395.729 3752167.010 476.36
LOCATION L0006105     VOLUME   474387.325 3752165.739 476.47
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LOCATION L0006108     VOLUME   474362.112 3752161.927 476.79
LOCATION L0006109     VOLUME   474353.707 3752160.656 476.90
LOCATION L0006110     VOLUME   474345.303 3752159.385 477.00
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LOCATION L0006124     VOLUME   474227.640 3752141.592 477.00
LOCATION L0006125     VOLUME   474219.236 3752140.321 477.00
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LOCATION L0006127     VOLUME   474202.427 3752137.779 477.00
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LOCATION L0006129     VOLUME   474185.618 3752135.237 477.08
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LOCATION L0006131     VOLUME   474168.809 3752132.696 477.30
LOCATION L0006132     VOLUME   474160.420 3752131.328 477.41
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LOCATION L0006138     VOLUME   474110.114 3752122.944 478.00
LOCATION L0006139     VOLUME   474101.730 3752121.546 478.00
LOCATION L0006140     VOLUME   474093.345 3752120.149 478.00
LOCATION L0006141     VOLUME   474084.961 3752118.751 478.00
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LOCATION L0006143     VOLUME   474068.192 3752115.956 478.00
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   LOCATION L0006145     VOLUME   474051.424 3752113.162 478.00
   LOCATION L0006146     VOLUME   474043.039 3752111.764 478.00
** End of LINE VOLUME Source ID = SLINE14
** --------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE15
** DESCRSRC Off-Site Travel 10% N on Heacock St. past Cactus
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.00006839
** Vertical Dimension = 4.00
** SZINIT = 1.86
** Nodes = 7
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   LOCATION L0006154     VOLUME   477479.607 3749859.715 458.00
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   LOCATION L0006188     VOLUME   477474.985 3750148.678 459.00
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   LOCATION L0006190     VOLUME   477474.713 3750165.676 459.00
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LOCATION L0006197     VOLUME   477470.034 3750224.987 459.32
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LOCATION L0006224     VOLUME   477467.219 3750454.339 460.00
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LOCATION L0006254     VOLUME   477472.437 3750709.267 462.00
LOCATION L0006255     VOLUME   477472.686 3750717.763 462.00
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LOCATION L0006264     VOLUME   477474.935 3750794.230 462.00
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** LINE VOLUME Source ID = SRC00001
** DESCRSRC Off-Site Travel 50% on Indian to I-215
** PREFIX
** Length of Side = 8.50
** Configuration = Adjacent
** Emission Rate = 0.0006862
** Vertical Dimension = 4.00
** SZINIT = 1.86
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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LOCATION L0006899     VOLUME   476625.294 3746558.274 464.00
LOCATION L0006900     VOLUME   476617.230 3746560.962 464.00
LOCATION L0006901     VOLUME   476609.166 3746563.650 464.00
LOCATION L0006902     VOLUME   476601.371 3746566.912 464.00
LOCATION L0006903     VOLUME   476594.149 3746571.395 464.00
LOCATION L0006904     VOLUME   476586.927 3746575.877 464.00
LOCATION L0006905     VOLUME   476579.705 3746580.360 464.00
LOCATION L0006906     VOLUME   476572.484 3746584.842 464.00
LOCATION L0006907     VOLUME   476565.262 3746589.325 464.02
LOCATION L0006908     VOLUME   476558.040 3746593.808 464.11
LOCATION L0006909     VOLUME   476550.818 3746598.290 464.21
LOCATION L0006910     VOLUME   476543.596 3746602.773 464.30
LOCATION L0006911     VOLUME   476537.940 3746608.712 464.37
LOCATION L0006912     VOLUME   476533.994 3746616.240 464.43
LOCATION L0006913     VOLUME   476530.047 3746623.768 464.48
LOCATION L0006914     VOLUME   476526.101 3746631.297 464.53
LOCATION L0006915     VOLUME   476522.155 3746638.825 464.58
LOCATION L0006916     VOLUME   476518.208 3746646.354 464.63
LOCATION L0006917     VOLUME   476514.262 3746653.882 464.68
LOCATION L0006918     VOLUME   476510.316 3746661.410 464.73
LOCATION L0006919     VOLUME   476506.369 3746668.939 464.79
LOCATION L0006920     VOLUME   476502.423 3746676.467 464.84
LOCATION L0006921     VOLUME   476498.477 3746683.995 464.89
LOCATION L0006922     VOLUME   476494.530 3746691.524 464.94
LOCATION L0006923     VOLUME   476490.584 3746699.052 464.99
LOCATION L0006924     VOLUME   476486.638 3746706.581 465.08
LOCATION L0006925     VOLUME   476482.691 3746714.109 465.19
LOCATION L0006926     VOLUME   476478.745 3746721.637 465.29
LOCATION L0006927     VOLUME   476474.799 3746729.166 465.39
LOCATION L0006928     VOLUME   476470.852 3746736.694 465.50
LOCATION L0006929     VOLUME   476467.785 3746744.518 465.58
LOCATION L0006930     VOLUME   476466.388 3746752.902 465.61
LOCATION L0006931     VOLUME   476464.990 3746761.286 465.65
LOCATION L0006932     VOLUME   476463.593 3746769.671 465.69
LOCATION L0006933     VOLUME   476462.196 3746778.055 465.72
LOCATION L0006934     VOLUME   476460.798 3746786.439 465.76
LOCATION L0006935     VOLUME   476459.401 3746794.824 465.80
LOCATION L0006936     VOLUME   476457.348 3746802.986 465.85
LOCATION L0006937     VOLUME   476453.371 3746810.499 465.95
LOCATION L0006938     VOLUME   476449.394 3746818.011 466.06
LOCATION L0006939     VOLUME   476445.417 3746825.523 466.16
LOCATION L0006940     VOLUME   476441.440 3746833.035 466.27
LOCATION L0006941     VOLUME   476437.463 3746840.547 466.37
LOCATION L0006942     VOLUME   476433.485 3746848.060 466.47
LOCATION L0006943     VOLUME   476429.508 3746855.572 466.58
LOCATION L0006944     VOLUME   476425.531 3746863.084 466.68
LOCATION L0006945     VOLUME   476421.554 3746870.596 466.78
LOCATION L0006946     VOLUME   476417.577 3746878.108 466.89
LOCATION L0006947     VOLUME   476413.600 3746885.621 466.99
LOCATION L0006948     VOLUME   476409.623 3746893.133 467.05
LOCATION L0006949     VOLUME   476403.232 3746898.494 467.13
LOCATION L0006950     VOLUME   476396.228 3746903.310 467.22
LOCATION L0006951     VOLUME   476389.223 3746908.125 467.31
LOCATION L0006952     VOLUME   476382.219 3746912.941 467.40
LOCATION L0006953     VOLUME   476375.214 3746917.756 467.49
LOCATION L0006954     VOLUME   476368.210 3746922.572 467.59
LOCATION L0006955     VOLUME   476361.206 3746927.387 467.68
LOCATION L0006956     VOLUME   476354.201 3746932.203 467.77
LOCATION L0006957     VOLUME   476347.197 3746937.018 467.86
LOCATION L0006958     VOLUME   476340.193 3746941.833 467.95
LOCATION L0006959     VOLUME   476332.114 3746943.710 468.05
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                                                    Residential
   LOCATION L0006960     VOLUME   476323.655 3746944.544 468.16
   LOCATION L0006961     VOLUME   476315.196 3746945.378 468.27
   LOCATION L0006962     VOLUME   476306.737 3746946.212 468.38
   LOCATION L0006963     VOLUME   476298.278 3746947.046 468.49
   LOCATION L0006964     VOLUME   476289.819 3746947.880 468.60
   LOCATION L0006965     VOLUME   476281.360 3746948.714 468.71
   LOCATION L0006966     VOLUME   476272.901 3746949.548 468.82
   LOCATION L0006967     VOLUME   476264.442 3746950.382 468.93
   LOCATION L0006968     VOLUME   476255.963 3746950.773 469.04
   LOCATION L0006969     VOLUME   476247.463 3746950.716 469.15
   LOCATION L0006970     VOLUME   476238.964 3746950.659 469.26
   LOCATION L0006971     VOLUME   476230.464 3746950.603 469.37
   LOCATION L0006972     VOLUME   476221.964 3746950.546 469.48
   LOCATION L0006973     VOLUME   476213.464 3746950.489 469.59
   LOCATION L0006974     VOLUME   476204.964 3746950.433 469.70
   LOCATION L0006975     VOLUME   476196.464 3746950.376 469.81
   LOCATION L0006976     VOLUME   476187.965 3746950.319 469.92
   LOCATION L0006977     VOLUME   476179.465 3746950.263 470.04
   LOCATION L0006978     VOLUME   476170.965 3746950.206 470.15
   LOCATION L0006979     VOLUME   476162.465 3746950.149 470.26
   LOCATION L0006980     VOLUME   476153.965 3746950.093 470.37
   LOCATION L0006981     VOLUME   476145.466 3746950.036 470.48
   LOCATION L0006982     VOLUME   476136.966 3746949.979 470.59
   LOCATION L0006983     VOLUME   476128.466 3746949.923 470.70
   LOCATION L0006984     VOLUME   476119.966 3746949.866 470.81
   LOCATION L0006985     VOLUME   476111.466 3746949.809 470.92
   LOCATION L0006986     VOLUME   476102.967 3746949.753 471.03
   LOCATION L0006987     VOLUME   476094.467 3746949.696 471.14
   LOCATION L0006988     VOLUME   476085.967 3746949.639 471.25
   LOCATION L0006989     VOLUME   476077.467 3746949.583 471.36
   LOCATION L0006990     VOLUME   476068.967 3746949.526 471.47
   LOCATION L0006991     VOLUME   476060.468 3746949.469 471.58
   LOCATION L0006992     VOLUME   476051.968 3746949.413 471.69
   LOCATION L0006993     VOLUME   476043.468 3746949.356 471.80
   LOCATION L0006994     VOLUME   476034.968 3746949.299 471.91
   LOCATION L0006995     VOLUME   476026.468 3746949.243 472.02
   LOCATION L0006996     VOLUME   476017.968 3746949.186 472.13
   LOCATION L0006997     VOLUME   476009.469 3746949.129 472.24
   LOCATION L0006998     VOLUME   476000.969 3746949.073 472.35
   LOCATION L0006999     VOLUME   475992.469 3746949.016 472.46
   LOCATION L0007000     VOLUME   475983.969 3746948.959 472.57
   LOCATION L0007001     VOLUME   475975.469 3746948.903 472.68
   LOCATION L0007002     VOLUME   475966.970 3746948.846 472.79
   LOCATION L0007003     VOLUME   475958.470 3746948.789 472.90
   LOCATION L0007004     VOLUME   475949.970 3746948.733 472.96
   LOCATION L0007005     VOLUME   475941.470 3746948.676 472.63
   LOCATION L0007006     VOLUME   475932.970 3746948.619 472.30
** End of LINE VOLUME Source ID = SRC00001
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0003043     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003044     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003045     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003046     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003047     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003048     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003049     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003050     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003051     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003052     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003053     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003054     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003055     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003056     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003057     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003058     0.000008553      4.00     13.95      1.86
   SRCPARAM L0003059     0.000008553      4.00     13.95      1.86
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                                                     Residential
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0003060     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003061     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003062     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003063     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003064     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003065     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003066     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003067     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003068     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003069     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003070     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003071     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003072     0.000008864      4.00     13.95      1.86
   SRCPARAM L0003073     0.000008864      4.00     13.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0003074     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003075     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003076     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003077     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003078     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003079     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003080     0.000008177      4.00      3.95      1.86
   SRCPARAM L0003081     0.000008177      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0003082     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003083     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003084     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003085     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003086     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003087     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003088     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003089     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003090     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003091     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003092     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003093     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003094     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003095     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003096     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003097     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003098     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003099     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003100     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003101     0.0000006343      4.00      3.95      1.86
   SRCPARAM L0003102     0.0000006343      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0003103     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003104     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003105     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003106     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003107     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003108     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003109     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003110     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003111     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003112     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003113     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003114     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003115     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003116     0.000005911      0.00      3.95      1.86
   SRCPARAM L0003117     0.000005911      0.00      3.95      1.86
** --------------------------------------------------------------------
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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** LINE VOLUME Source ID = SLINE2
   SRCPARAM L0003118     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003119     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003120     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003121     0.000002058      0.00     13.95      1.86
   SRCPARAM L0003122     0.000002058      0.00     13.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0003123     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003124     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003125     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003126     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003127     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003128     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003129     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003130     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003131     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003132     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003133     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003134     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003135     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003136     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003137     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003138     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003139     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003140     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003141     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003142     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003143     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003144     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003145     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003146     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003147     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003148     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003149     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0003151     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0003153     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0003158     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0003160     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003161     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0003166     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003167     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0003169     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003170     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003171     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003172     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003173     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003174     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003175     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003176     0.000003353      4.00      3.95      1.86
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   SRCPARAM L0003178     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003179     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003180     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003181     0.000003353      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0003182     0.000003353      4.00      3.95      1.86
SRCPARAM L0003183     0.000003353      4.00      3.95      1.86
SRCPARAM L0003184     0.000003353      4.00      3.95      1.86
SRCPARAM L0003185     0.000003353      4.00      3.95      1.86
SRCPARAM L0003186     0.000003353      4.00      3.95      1.86
SRCPARAM L0003187     0.000003353      4.00      3.95      1.86
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SRCPARAM L0003193     0.000003353      4.00      3.95      1.86
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SRCPARAM L0003200     0.000003353      4.00      3.95      1.86
SRCPARAM L0003201     0.000003353      4.00      3.95      1.86
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SRCPARAM L0003219     0.000003353      4.00      3.95      1.86
SRCPARAM L0003220     0.000003353      4.00      3.95      1.86
SRCPARAM L0003221     0.000003353      4.00      3.95      1.86
SRCPARAM L0003222     0.000003353      4.00      3.95      1.86
SRCPARAM L0003223     0.000003353      4.00      3.95      1.86
SRCPARAM L0003224     0.000003353      4.00      3.95      1.86
SRCPARAM L0003225     0.000003353      4.00      3.95      1.86
SRCPARAM L0003226     0.000003353      4.00      3.95      1.86
SRCPARAM L0003227     0.000003353      4.00      3.95      1.86
SRCPARAM L0003228     0.000003353      4.00      3.95      1.86
SRCPARAM L0003229     0.000003353      4.00      3.95      1.86
SRCPARAM L0003230     0.000003353      4.00      3.95      1.86
SRCPARAM L0003231     0.000003353      4.00      3.95      1.86
SRCPARAM L0003232     0.000003353      4.00      3.95      1.86
SRCPARAM L0003233     0.000003353      4.00      3.95      1.86
SRCPARAM L0003234     0.000003353      4.00      3.95      1.86
SRCPARAM L0003235     0.000003353      4.00      3.95      1.86
SRCPARAM L0003236     0.000003353      4.00      3.95      1.86
SRCPARAM L0003237     0.000003353      4.00      3.95      1.86
SRCPARAM L0003238     0.000003353      4.00      3.95      1.86
SRCPARAM L0003239     0.000003353      4.00      3.95      1.86
SRCPARAM L0003240     0.000003353      4.00      3.95      1.86
SRCPARAM L0003241     0.000003353      4.00      3.95      1.86
SRCPARAM L0003242     0.000003353      4.00      3.95      1.86
SRCPARAM L0003243     0.000003353      4.00      3.95      1.86
SRCPARAM L0003244     0.000003353      4.00      3.95      1.86
SRCPARAM L0003245     0.000003353      4.00      3.95      1.86
SRCPARAM L0003246     0.000003353      4.00      3.95      1.86
SRCPARAM L0003247     0.000003353      4.00      3.95      1.86
SRCPARAM L0003248     0.000003353      4.00      3.95      1.86
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                                                      Residential
   SRCPARAM L0003249     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003250     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003251     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003252     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003253     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003254     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003255     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003256     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003257     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003258     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003259     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003260     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003261     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003262     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003263     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003264     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003265     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003266     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003267     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003268     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003269     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003270     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003271     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003272     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003273     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003274     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003275     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003276     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003277     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003278     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003279     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003280     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003281     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003282     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003283     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003284     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003285     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003286     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003287     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003288     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003289     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003290     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003291     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003292     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003293     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003294     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003295     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003296     0.000003353      4.00      3.95      1.86
   SRCPARAM L0003297     0.000003353      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0003298     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003299     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003300     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003301     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003302     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003303     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003304     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003305     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003306     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003307     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003308     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003309     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003310     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003311     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003312     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003313     0.0000007141      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0003314     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003315     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003316     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003317     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003318     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003319     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003320     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003321     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003322     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003323     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003324     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003325     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003326     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003327     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003328     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003329     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003330     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003331     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003332     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003333     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003334     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003335     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003336     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003337     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003338     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003339     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003340     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003341     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003342     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003343     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003344     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003345     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003346     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003347     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003348     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003349     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003350     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003351     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003352     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003353     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003354     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003355     0.0000007141      4.00      3.95      1.86
   SRCPARAM L0003356     0.0000007141      4.00      3.95      1.86
** --------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0003357     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003358     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003359     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003360     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003361     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003362     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003363     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003364     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003365     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003366     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003367     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003368     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003369     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003370     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003371     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003372     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003373     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003374     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003375     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003376     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003377     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003378     0.0000005624      4.00      3.95      1.86
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                                                 Residential
   SRCPARAM L0003379     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003380     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003381     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003382     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003383     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003384     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003385     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003386     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003387     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003388     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003389     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003390     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003391     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003392     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003393     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003394     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003395     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003396     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003397     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003398     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003399     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003400     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003401     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003402     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003403     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003404     0.0000005624      4.00      3.95      1.86
   SRCPARAM L0003405     0.0000005624      4.00      3.95      1.86
** ------------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0003406     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003407     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003408     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003409     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003410     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003411     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003412     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003413     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003414     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003415     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003416     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003417     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003418     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003419     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003420     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003421     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003422     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003423     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003424     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003425     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003426     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003427     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003428     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003429     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003430     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003431     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003432     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003433     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003434     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003435     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003436     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003437     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003438     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003439     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003440     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003441     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003442     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003443     0.0000009602      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0003444     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003445     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003446     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003447     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003448     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003449     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003450     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003451     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003452     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003453     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003454     0.0000009602      4.00      3.95      1.86
   SRCPARAM L0003455     0.0000009602      4.00      3.95      1.86
** ---------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE11
   SRCPARAM L0003456     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003457     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003458     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003459     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003460     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003461     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003462     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003463     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003464     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003465     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003466     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003467     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003468     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003469     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003470     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003471     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003472     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003473     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003474     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003475     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003476     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003477     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003478     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003479     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003480     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003481     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003482     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003483     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003484     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003485     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003486     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003487     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003488     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003489     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003490     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003491     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003492     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003493     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003494     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003495     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003496     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003497     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003498     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003499     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003500     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003501     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003502     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003503     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003504     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003505     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003506     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003507     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003508     0.000001195      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0003509     0.000001195      4.00      3.95      1.86
SRCPARAM L0003510     0.000001195      4.00      3.95      1.86
SRCPARAM L0003511     0.000001195      4.00      3.95      1.86
SRCPARAM L0003512     0.000001195      4.00      3.95      1.86
SRCPARAM L0003513     0.000001195      4.00      3.95      1.86
SRCPARAM L0003514     0.000001195      4.00      3.95      1.86
SRCPARAM L0003515     0.000001195      4.00      3.95      1.86
SRCPARAM L0003516     0.000001195      4.00      3.95      1.86
SRCPARAM L0003517     0.000001195      4.00      3.95      1.86
SRCPARAM L0003518     0.000001195      4.00      3.95      1.86
SRCPARAM L0003519     0.000001195      4.00      3.95      1.86
SRCPARAM L0003520     0.000001195      4.00      3.95      1.86
SRCPARAM L0003521     0.000001195      4.00      3.95      1.86
SRCPARAM L0003522     0.000001195      4.00      3.95      1.86
SRCPARAM L0003523     0.000001195      4.00      3.95      1.86
SRCPARAM L0003524     0.000001195      4.00      3.95      1.86
SRCPARAM L0003525     0.000001195      4.00      3.95      1.86
SRCPARAM L0003526     0.000001195      4.00      3.95      1.86
SRCPARAM L0003527     0.000001195      4.00      3.95      1.86
SRCPARAM L0003528     0.000001195      4.00      3.95      1.86
SRCPARAM L0003529     0.000001195      4.00      3.95      1.86
SRCPARAM L0003530     0.000001195      4.00      3.95      1.86
SRCPARAM L0003531     0.000001195      4.00      3.95      1.86
SRCPARAM L0003532     0.000001195      4.00      3.95      1.86
SRCPARAM L0003533     0.000001195      4.00      3.95      1.86
SRCPARAM L0003534     0.000001195      4.00      3.95      1.86
SRCPARAM L0003535     0.000001195      4.00      3.95      1.86
SRCPARAM L0003536     0.000001195      4.00      3.95      1.86
SRCPARAM L0003537     0.000001195      4.00      3.95      1.86
SRCPARAM L0003538     0.000001195      4.00      3.95      1.86
SRCPARAM L0003539     0.000001195      4.00      3.95      1.86
SRCPARAM L0003540     0.000001195      4.00      3.95      1.86
SRCPARAM L0003541     0.000001195      4.00      3.95      1.86
SRCPARAM L0003542     0.000001195      4.00      3.95      1.86
SRCPARAM L0003543     0.000001195      4.00      3.95      1.86
SRCPARAM L0003544     0.000001195      4.00      3.95      1.86
SRCPARAM L0003545     0.000001195      4.00      3.95      1.86
SRCPARAM L0003546     0.000001195      4.00      3.95      1.86
SRCPARAM L0003547     0.000001195      4.00      3.95      1.86
SRCPARAM L0003548     0.000001195      4.00      3.95      1.86
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SRCPARAM L0003550     0.000001195      4.00      3.95      1.86
SRCPARAM L0003551     0.000001195      4.00      3.95      1.86
SRCPARAM L0003552     0.000001195      4.00      3.95      1.86
SRCPARAM L0003553     0.000001195      4.00      3.95      1.86
SRCPARAM L0003554     0.000001195      4.00      3.95      1.86
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SRCPARAM L0003558     0.000001195      4.00      3.95      1.86
SRCPARAM L0003559     0.000001195      4.00      3.95      1.86
SRCPARAM L0003560     0.000001195      4.00      3.95      1.86
SRCPARAM L0003561     0.000001195      4.00      3.95      1.86
SRCPARAM L0003562     0.000001195      4.00      3.95      1.86
SRCPARAM L0003563     0.000001195      4.00      3.95      1.86
SRCPARAM L0003564     0.000001195      4.00      3.95      1.86
SRCPARAM L0003565     0.000001195      4.00      3.95      1.86
SRCPARAM L0003566     0.000001195      4.00      3.95      1.86
SRCPARAM L0003567     0.000001195      4.00      3.95      1.86
SRCPARAM L0003568     0.000001195      4.00      3.95      1.86
SRCPARAM L0003569     0.000001195      4.00      3.95      1.86
SRCPARAM L0003570     0.000001195      4.00      3.95      1.86
SRCPARAM L0003571     0.000001195      4.00      3.95      1.86
SRCPARAM L0003572     0.000001195      4.00      3.95      1.86
SRCPARAM L0003573     0.000001195      4.00      3.95      1.86
SRCPARAM L0003574     0.000001195      4.00      3.95      1.86
SRCPARAM L0003575     0.000001195      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0003576     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003577     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003578     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003579     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003580     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003581     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003582     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003583     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003584     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003585     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003586     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003587     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003588     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003589     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003590     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003591     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003592     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003593     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003594     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003595     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003596     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003597     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003598     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003599     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003600     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003601     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003602     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003603     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003604     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003605     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003606     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003607     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003608     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003609     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0003611     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003612     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003613     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003614     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003615     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003616     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003617     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003618     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003619     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003620     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003621     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003622     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003623     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003624     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003625     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003626     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003627     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003628     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003629     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003630     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003631     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003632     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003633     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003634     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003635     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003636     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003637     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003638     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003639     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003640     0.000001195      4.00      3.95      1.86
   SRCPARAM L0003641     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0005358     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005359     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005360     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005361     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005362     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005363     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005364     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005365     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005366     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005367     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005368     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005369     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005370     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005371     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005372     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005373     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005374     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005375     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005376     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005377     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005378     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005379     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005380     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005381     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005382     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005383     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005384     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005385     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005386     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005387     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005388     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005389     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005390     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005391     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005392     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005393     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005394     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005395     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005396     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005397     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005398     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005399     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005400     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005401     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005402     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005403     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005404     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005405     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005406     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005407     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005408     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005409     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005410     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005411     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005412     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005413     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005414     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005415     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005416     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005417     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005418     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005419     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005420     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005421     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005422     0.0000007164      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0005423     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005424     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005425     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005426     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005427     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005428     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005429     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005430     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005431     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005432     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005433     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005434     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005435     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005436     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005437     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005438     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005439     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005440     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005441     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005442     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005443     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005444     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005445     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005446     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005447     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005448     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005449     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005450     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005451     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005452     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005453     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005454     0.0000007164      4.00      3.95      1.86
   SRCPARAM L0005455     0.0000007164      4.00      3.95      1.86
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   SRCPARAM AREA1        2.351E-08     5.000    75.040   426.520     0.000
   SRCPARAM AREA2        2.489E-08     5.000    57.920   521.960     0.000
   SRCPARAM AREA3        8.7222E-08     5.000   143.400    60.160     0.000
   SRCPARAM AREA4        2.7037E-08     5.000    72.150   152.500     0.000
   SRCPARAM AREA5        5.6522E-08     5.000    61.270    85.900     0.000
   SRCPARAM AREA6        2.5323E-08     5.000    65.180   180.230     0.000
   SRCPARAM STCK1        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK2        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK3        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK4        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK5        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK6        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK7        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK8        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK9        0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK10       0.000024556     3.960   501.000  49.98254     0.044
   SRCPARAM STCK11       0.00005195     3.960   501.000  49.98254     0.044
   SRCPARAM STCK12       0.000041163     3.960   501.000  49.98254     0.044
   SRCPARAM STCK13       0.000070402     3.960   501.000  49.98254     0.044
** LINE VOLUME Source ID = SLINE13
   SRCPARAM L0003741     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003742     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003743     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003744     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003745     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003746     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003747     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003748     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003749     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003750     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003751     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003752     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003753     0.0000007274      4.00      3.95      1.86
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                                                   Residential
   SRCPARAM L0003754     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003755     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003756     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003757     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003758     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003759     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003760     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003761     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003762     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003763     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003764     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003765     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003766     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003767     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003768     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003769     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003770     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003771     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003772     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003773     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003774     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003775     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003776     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003777     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003778     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003779     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003780     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003781     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003782     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003783     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003784     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003785     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003786     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003787     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003788     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003789     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003790     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003791     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003792     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003793     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003794     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003795     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003796     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003797     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003798     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003799     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003800     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003801     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003802     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003803     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003804     0.0000007274      4.00      3.95      1.86
   SRCPARAM L0003805     0.0000007274      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE14
   SRCPARAM L0005456     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005457     0.0000009572      4.00      3.95      1.86
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   SRCPARAM L0005459     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005460     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005461     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005462     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005463     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005464     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005465     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005466     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005467     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0005468     0.0000009572      4.00      3.95      1.86
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                                               Residential
SRCPARAM L0005469     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005470     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005471     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005472     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005473     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005474     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005475     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005476     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005477     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005478     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005479     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005480     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005481     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005482     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005483     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005484     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005485     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005486     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005487     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005488     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005489     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005490     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005491     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005492     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005493     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005494     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005495     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005496     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005497     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005498     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005499     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005500     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005501     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005502     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005503     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005504     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005505     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005506     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005507     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005508     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005509     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005510     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005511     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005512     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005513     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005514     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005515     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005516     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005517     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005518     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005519     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005520     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005521     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005522     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005523     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005524     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005525     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005526     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005527     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005528     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005529     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005530     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005531     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005532     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005533     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005534     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005535     0.0000009572      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0005536     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005537     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005538     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005539     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005540     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005541     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005542     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005543     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005544     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005545     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005546     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005547     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005548     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005549     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005550     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005551     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005552     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005553     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005554     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005555     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005556     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005557     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005558     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005559     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005560     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005561     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005562     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005563     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005564     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005565     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005566     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005567     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005568     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005569     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005570     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005571     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005572     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005573     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005574     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005575     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005576     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005577     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005578     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005579     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005580     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005581     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005582     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005583     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005584     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005585     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005586     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005587     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005588     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005589     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005590     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005591     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005592     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005593     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005594     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005595     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005596     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005597     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005598     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005599     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005600     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005601     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005602     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005603     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005604     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005608     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005609     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005610     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005611     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005612     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005613     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005614     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005615     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005616     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005617     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005618     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005619     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005620     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005621     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005622     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005623     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005624     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005625     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005626     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005627     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005628     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005629     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005630     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005631     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005632     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005633     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005634     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005635     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005636     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005637     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005638     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005639     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005640     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005641     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005652     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005655     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005661     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005662     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005664     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005665     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005666     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005667     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005668     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005669     0.0000009572      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0005670     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005671     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005672     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005673     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005674     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005675     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005676     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005677     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005678     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005679     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005680     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005681     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005682     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005683     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005684     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005685     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005686     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005687     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005688     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005689     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005690     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005691     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005692     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005693     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005694     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005695     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005696     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005697     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005698     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005699     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005700     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005701     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005702     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005703     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005704     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005705     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005706     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005707     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005708     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005709     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005710     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005711     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005712     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005713     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005714     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005715     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005716     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005717     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005718     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005719     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005720     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005721     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005722     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005723     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005724     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005725     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005726     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005727     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005728     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005729     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005730     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005731     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005732     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005733     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005734     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005735     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005736     0.0000009572      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0005737     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005739     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005740     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005741     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005742     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005743     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005744     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005745     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005746     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005747     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005748     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005749     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005750     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005751     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005752     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005754     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005759     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005760     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005761     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005762     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005763     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005764     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005765     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005766     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005767     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005768     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005769     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005770     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005771     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005780     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005781     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005782     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005784     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005785     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005786     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005788     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005789     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005790     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005791     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005792     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005793     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005794     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005795     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005796     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005797     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005798     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005799     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005800     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005801     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005802     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005803     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005805     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005807     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005808     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005809     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005810     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005811     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005812     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005813     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005814     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005815     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005816     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005817     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005818     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005819     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005820     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005821     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005822     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005823     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005824     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005825     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005826     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005827     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005828     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005829     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005830     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005831     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005832     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005833     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005834     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005835     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005836     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005837     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005838     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005839     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005840     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005841     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005842     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005843     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005844     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005845     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005846     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005847     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005848     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005849     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005850     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005852     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005853     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005854     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005856     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005861     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005862     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005864     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005865     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005866     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005867     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005868     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005869     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005870     0.0000009572      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0005872     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005873     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005874     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005875     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005876     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005877     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005878     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005879     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005880     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005881     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005882     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005883     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005885     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005888     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005889     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005890     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005893     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005894     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005895     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005898     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005903     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005904     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005905     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005906     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005907     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005908     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005909     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005910     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005914     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005915     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005916     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005918     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005925     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005926     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005927     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005929     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005933     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005934     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005935     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005937     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005944     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005945     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005961     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005963     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005965     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005966     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005968     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005969     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005972     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005973     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005974     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005975     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005976     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005977     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005978     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005979     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005980     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005981     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005982     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005983     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005984     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005985     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005987     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005988     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005989     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005990     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005991     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005992     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0005996     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005997     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005998     0.0000009572      4.00      3.95      1.86
SRCPARAM L0005999     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006000     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006001     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006002     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006003     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006004     0.0000009572      4.00      3.95      1.86
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                                                 Residential
SRCPARAM L0006005     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006006     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006007     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006008     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006009     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006010     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006011     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006012     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006013     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006014     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006015     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006016     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006017     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006018     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006019     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006020     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006021     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006022     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006023     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006024     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006025     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006026     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006027     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006028     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006029     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006030     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006031     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006032     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006033     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006034     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006035     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006036     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006037     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006038     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006039     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006040     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006041     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006042     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006043     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006044     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006045     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006046     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006047     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006048     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006049     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006050     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006051     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006052     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006053     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006054     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006055     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006056     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006057     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006058     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006059     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006060     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006061     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006062     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006063     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006064     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006065     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006066     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006067     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006068     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006069     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006070     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006071     0.0000009572      4.00      3.95      1.86
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SRCPARAM L0006072     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006073     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006074     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006075     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006076     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006077     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006078     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006079     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006080     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006081     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006082     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006083     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006084     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006085     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006086     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006087     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006088     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006089     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006090     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006091     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006092     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006093     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006094     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006095     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006096     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006097     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006098     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006099     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006100     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006101     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006102     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006103     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006104     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006105     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006106     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006107     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006108     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006109     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006110     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006111     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006112     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006113     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006114     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006115     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006116     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006117     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006118     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006119     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006120     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006121     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006122     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006123     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006124     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006125     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006126     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006127     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006128     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006129     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006130     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006131     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006132     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006133     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006134     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006135     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006136     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006137     0.0000009572      4.00      3.95      1.86
SRCPARAM L0006138     0.0000009572      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0006139     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0006140     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0006141     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0006142     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0006143     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0006144     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0006145     0.0000009572      4.00      3.95      1.86
   SRCPARAM L0006146     0.0000009572      4.00      3.95      1.86
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** LINE VOLUME Source ID = SLINE15
   SRCPARAM L0006147     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006148     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006149     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006150     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006151     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006152     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006153     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006154     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006155     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006156     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006157     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006158     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006159     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006160     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006161     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006162     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006163     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006164     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006165     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006166     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006167     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006168     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006169     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006170     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006171     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006172     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006173     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006174     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006175     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006176     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006177     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006178     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006179     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006180     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006181     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006182     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006183     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006184     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006185     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006186     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006187     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006188     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006189     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006190     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006191     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006192     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006193     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006194     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006195     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006196     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006197     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006198     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006199     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006200     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006201     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006202     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006203     0.0000002391      0.00      3.95      1.86
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                                                Residential
SRCPARAM L0006204     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006205     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006206     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006207     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006208     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006209     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006210     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006211     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006212     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006213     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006214     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006215     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006216     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006217     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006218     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006219     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006220     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006221     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006222     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006223     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006224     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006225     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006226     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006227     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006228     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006229     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006230     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006231     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006232     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006233     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006234     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006235     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006240     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006244     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006249     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006250     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006251     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006252     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006253     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006257     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006258     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006259     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006260     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006261     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006262     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006263     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006264     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006265     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006266     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006267     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006268     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006270     0.0000002391      0.00      3.95      1.86
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                                                   Residential
SRCPARAM L0006271     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006272     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006273     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006274     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006275     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006276     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006277     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006278     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006279     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006280     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006281     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006282     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006283     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006284     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006285     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006286     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006287     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006288     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006289     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006298     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006301     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006312     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006313     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006315     0.0000002391      0.00      3.95      1.86
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SRCPARAM L0006401     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006402     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006403     0.0000002391      0.00      3.95      1.86
SRCPARAM L0006404     0.0000002391      0.00      3.95      1.86
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                                                           Residential
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   SRCPARAM L0006411     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006412     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006413     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006414     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006415     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006416     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006417     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006418     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006419     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006420     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006421     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006422     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006423     0.0000002391      0.00      3.95      1.86
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   SRCPARAM L0006425     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006426     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006427     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006428     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006429     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006430     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006431     0.0000002391      0.00      3.95      1.86
   SRCPARAM L0006432     0.0000002391      0.00      3.95      1.86
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** LINE VOLUME Source ID = SRC00001
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   SRCPARAM L0006437     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006438     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006439     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006440     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006441     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006442     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006443     0.000001195      4.00      3.95      1.86
   SRCPARAM L0006444     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006446     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006460     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006462     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006464     0.000001195      4.00      3.95      1.86
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   SRCPARAM L0006469     0.000001195      4.00      3.95      1.86
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                                                   Residential
SRCPARAM L0006470     0.000001195      4.00       3.95       1.86
SRCPARAM L0006471     0.000001195      4.00       3.95       1.86
SRCPARAM L0006472     0.000001195      4.00       3.95       1.86
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SRCPARAM L0006474     0.000001195      4.00       3.95       1.86
SRCPARAM L0006475     0.000001195      4.00       3.95       1.86
SRCPARAM L0006476     0.000001195      4.00       3.95       1.86
SRCPARAM L0006477     0.000001195      4.00       3.95       1.86
SRCPARAM L0006478     0.000001195      4.00       3.95       1.86
SRCPARAM L0006479     0.000001195      4.00       3.95       1.86
SRCPARAM L0006480     0.000001195      4.00       3.95       1.86
SRCPARAM L0006481     0.000001195      4.00       3.95       1.86
SRCPARAM L0006482     0.000001195      4.00       3.95       1.86
SRCPARAM L0006483     0.000001195      4.00       3.95       1.86
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SRCPARAM L0006485     0.000001195      4.00       3.95       1.86
SRCPARAM L0006486     0.000001195      4.00       3.95       1.86
SRCPARAM L0006487     0.000001195      4.00       3.95       1.86
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SRCPARAM L0006515     0.000001195      4.00       3.95       1.86
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SRCPARAM L0006519     0.000001195      4.00       3.95       1.86
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                                                  Residential
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SRCPARAM L0006568     0.000001195       4.00       3.95      1.86
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SRCPARAM L0006570     0.000001195       4.00       3.95      1.86
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SRCPARAM L0006572     0.000001195       4.00       3.95      1.86
SRCPARAM L0006573     0.000001195       4.00       3.95      1.86
SRCPARAM L0006574     0.000001195       4.00       3.95      1.86
SRCPARAM L0006575     0.000001195       4.00       3.95      1.86
SRCPARAM L0006576     0.000001195       4.00       3.95      1.86
SRCPARAM L0006577     0.000001195       4.00       3.95      1.86
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SRCPARAM L0006579     0.000001195       4.00       3.95      1.86
SRCPARAM L0006580     0.000001195       4.00       3.95      1.86
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SRCPARAM L0006583     0.000001195       4.00       3.95      1.86
SRCPARAM L0006584     0.000001195       4.00       3.95      1.86
SRCPARAM L0006585     0.000001195       4.00       3.95      1.86
SRCPARAM L0006586     0.000001195       4.00       3.95      1.86
SRCPARAM L0006587     0.000001195       4.00       3.95      1.86
SRCPARAM L0006588     0.000001195       4.00       3.95      1.86
SRCPARAM L0006589     0.000001195       4.00       3.95      1.86
SRCPARAM L0006590     0.000001195       4.00       3.95      1.86
SRCPARAM L0006591     0.000001195       4.00       3.95      1.86
SRCPARAM L0006592     0.000001195       4.00       3.95      1.86
SRCPARAM L0006593     0.000001195       4.00       3.95      1.86
SRCPARAM L0006594     0.000001195       4.00       3.95      1.86
SRCPARAM L0006595     0.000001195       4.00       3.95      1.86
SRCPARAM L0006596     0.000001195       4.00       3.95      1.86
SRCPARAM L0006597     0.000001195       4.00       3.95      1.86
SRCPARAM L0006598     0.000001195       4.00       3.95      1.86
SRCPARAM L0006599     0.000001195       4.00       3.95      1.86
SRCPARAM L0006600     0.000001195       4.00       3.95      1.86
SRCPARAM L0006601     0.000001195       4.00       3.95      1.86
SRCPARAM L0006602     0.000001195       4.00       3.95      1.86
SRCPARAM L0006603     0.000001195       4.00       3.95      1.86
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SRCPARAM L0006608     0.000001195      4.00      3.95      1.86
SRCPARAM L0006609     0.000001195      4.00      3.95      1.86
SRCPARAM L0006610     0.000001195      4.00      3.95      1.86
SRCPARAM L0006611     0.000001195      4.00      3.95      1.86
SRCPARAM L0006612     0.000001195      4.00      3.95      1.86
SRCPARAM L0006613     0.000001195      4.00      3.95      1.86
SRCPARAM L0006614     0.000001195      4.00      3.95      1.86
SRCPARAM L0006615     0.000001195      4.00      3.95      1.86
SRCPARAM L0006616     0.000001195      4.00      3.95      1.86
SRCPARAM L0006617     0.000001195      4.00      3.95      1.86
SRCPARAM L0006618     0.000001195      4.00      3.95      1.86
SRCPARAM L0006619     0.000001195      4.00      3.95      1.86
SRCPARAM L0006620     0.000001195      4.00      3.95      1.86
SRCPARAM L0006621     0.000001195      4.00      3.95      1.86
SRCPARAM L0006622     0.000001195      4.00      3.95      1.86
SRCPARAM L0006623     0.000001195      4.00      3.95      1.86
SRCPARAM L0006624     0.000001195      4.00      3.95      1.86
SRCPARAM L0006625     0.000001195      4.00      3.95      1.86
SRCPARAM L0006626     0.000001195      4.00      3.95      1.86
SRCPARAM L0006627     0.000001195      4.00      3.95      1.86
SRCPARAM L0006628     0.000001195      4.00      3.95      1.86
SRCPARAM L0006629     0.000001195      4.00      3.95      1.86
SRCPARAM L0006630     0.000001195      4.00      3.95      1.86
SRCPARAM L0006631     0.000001195      4.00      3.95      1.86
SRCPARAM L0006632     0.000001195      4.00      3.95      1.86
SRCPARAM L0006633     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006635     0.000001195      4.00      3.95      1.86
SRCPARAM L0006636     0.000001195      4.00      3.95      1.86
SRCPARAM L0006637     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006639     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006670     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006675     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006679     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006704     0.000001195      4.00      3.95      1.86
SRCPARAM L0006705     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006717     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006720     0.000001195      4.00      3.95      1.86
SRCPARAM L0006721     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006727     0.000001195      4.00      3.95      1.86
SRCPARAM L0006728     0.000001195      4.00      3.95      1.86
SRCPARAM L0006729     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006731     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006733     0.000001195      4.00      3.95      1.86
SRCPARAM L0006734     0.000001195      4.00      3.95      1.86
SRCPARAM L0006735     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006737     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006741     0.000001195      4.00      3.95      1.86
SRCPARAM L0006742     0.000001195      4.00      3.95      1.86
SRCPARAM L0006743     0.000001195      4.00      3.95      1.86
SRCPARAM L0006744     0.000001195      4.00      3.95      1.86
SRCPARAM L0006745     0.000001195      4.00      3.95      1.86
SRCPARAM L0006746     0.000001195      4.00      3.95      1.86
SRCPARAM L0006747     0.000001195      4.00      3.95      1.86
SRCPARAM L0006748     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006762     0.000001195      4.00      3.95      1.86
SRCPARAM L0006763     0.000001195      4.00      3.95      1.86
SRCPARAM L0006764     0.000001195      4.00      3.95      1.86
SRCPARAM L0006765     0.000001195      4.00      3.95      1.86
SRCPARAM L0006766     0.000001195      4.00      3.95      1.86
SRCPARAM L0006767     0.000001195      4.00      3.95      1.86
SRCPARAM L0006768     0.000001195      4.00      3.95      1.86
SRCPARAM L0006769     0.000001195      4.00      3.95      1.86
SRCPARAM L0006770     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006775     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006777     0.000001195      4.00      3.95      1.86
SRCPARAM L0006778     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006783     0.000001195      4.00      3.95      1.86
SRCPARAM L0006784     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006786     0.000001195      4.00      3.95      1.86
SRCPARAM L0006787     0.000001195      4.00      3.95      1.86
SRCPARAM L0006788     0.000001195      4.00      3.95      1.86
SRCPARAM L0006789     0.000001195      4.00      3.95      1.86
SRCPARAM L0006790     0.000001195      4.00      3.95      1.86
SRCPARAM L0006791     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006793     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006799     0.000001195      4.00      3.95      1.86
SRCPARAM L0006800     0.000001195      4.00      3.95      1.86
SRCPARAM L0006801     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006804     0.000001195      4.00      3.95      1.86
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                                                 Residential
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SRCPARAM L0006812     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006814     0.000001195      4.00      3.95      1.86
SRCPARAM L0006815     0.000001195      4.00      3.95      1.86
SRCPARAM L0006816     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006818     0.000001195      4.00      3.95      1.86
SRCPARAM L0006819     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006822     0.000001195      4.00      3.95      1.86
SRCPARAM L0006823     0.000001195      4.00      3.95      1.86
SRCPARAM L0006824     0.000001195      4.00      3.95      1.86
SRCPARAM L0006825     0.000001195      4.00      3.95      1.86
SRCPARAM L0006826     0.000001195      4.00      3.95      1.86
SRCPARAM L0006827     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006836     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006868     0.000001195      4.00      3.95      1.86
SRCPARAM L0006869     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006871     0.000001195      4.00      3.95      1.86
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SRCPARAM L0006883     0.000001195      4.00      3.95      1.86
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SRCPARAM L0007002     0.000001195      4.00      3.95      1.86
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SRCPARAM L0007004     0.000001195      4.00      3.95      1.86
SRCPARAM L0007005     0.000001195      4.00      3.95      1.86
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                                                    Residential
   SRCPARAM L0007006     0.000001195      4.00      3.95      1.86
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   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "School Exposure"
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                                                   Residential
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EMISFACT L0003275     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0003277     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0003278     HROFDY 1.0 1.0 1.0 1.0 1.0 1.0
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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   SRCGROUP Other    L0003577 L0003578 L0003579 L0003580 L0003581 L0003582
   SRCGROUP Other    L0003583 L0003584 L0003585 L0003586 L0003587 L0003588
   SRCGROUP Other    L0003589 L0003590 L0003591 L0003592 L0003593 L0003594
   SRCGROUP Other    L0003595 L0003596 L0003597 L0003598 L0003599 L0003600
   SRCGROUP Other    L0003601 L0003602 L0003603 L0003604 L0003605 L0003606
   SRCGROUP Other    L0003607 L0003608 L0003609 L0003610 L0003611 L0003612
   SRCGROUP Other    L0003613 L0003614 L0003615 L0003616 L0003617 L0003618
   SRCGROUP Other    L0003619 L0003620 L0003621 L0003622 L0003623 L0003624
   SRCGROUP Other    L0003625 L0003626 L0003627 L0003628 L0003629 L0003630
   SRCGROUP Other    L0003631 L0003632 L0003633 L0003634 L0003635 L0003636
   SRCGROUP Other    L0003637 L0003638 L0003639 L0003640 L0003641 L0005357
   SRCGROUP Other    L0005358 L0005359 L0005360 L0005361 L0005362 L0005363
   SRCGROUP Other    L0005364 L0005365 L0005366 L0005367 L0005368 L0005369
   SRCGROUP Other    L0005370 L0005371 L0005372 L0005373 L0005374 L0005375
   SRCGROUP Other    L0005376 L0005377 L0005378 L0005379 L0005380 L0005381
   SRCGROUP Other    L0005382 L0005383 L0005384 L0005385 L0005386 L0005387
   SRCGROUP Other    L0005388 L0005389 L0005390 L0005391 L0005392 L0005393
   SRCGROUP Other    L0005394 L0005395 L0005396 L0005397 L0005398 L0005399
   SRCGROUP Other    L0005400 L0005401 L0005402 L0005403 L0005404 L0005405
   SRCGROUP Other    L0005406 L0005407 L0005408 L0005409 L0005410 L0005411
   SRCGROUP Other    L0005412 L0005413 L0005414 L0005415 L0005416 L0005417
   SRCGROUP Other    L0005418 L0005419 L0005420 L0005421 L0005422 L0005423
   SRCGROUP Other    L0005424 L0005425 L0005426 L0005427 L0005428 L0005429
   SRCGROUP Other    L0005430 L0005431 L0005432 L0005433 L0005434 L0005435
   SRCGROUP Other    L0005436 L0005437 L0005438 L0005439 L0005440 L0005441
   SRCGROUP Other    L0005442 L0005443 L0005444 L0005445 L0005446 L0005447
   SRCGROUP Other    L0005448 L0005449 L0005450 L0005451 L0005452 L0005453
   SRCGROUP Other    L0005454 L0005455 STCK1 STCK2 STCK3 STCK4 STCK5 STCK6
   SRCGROUP Other    STCK7 STCK8 STCK9 STCK10 STCK11 STCK12 STCK13
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED School.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\..\..\peri8.sfc
   PROFFILE ..\..\..\..\peri8.pfl
   SURFDATA 0 2007
   UAIRDATA 3190 2007
   SITEDATA 99999 2007
   PROFBASE 442.0 METERS
   STARTEND 2007 1 1 1 2007 12 31 24
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
```

```
                                                    Residential
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL SCHOOL.AD\AN00GALL.PLT 31
   PLOTFILE ANNUAL YardTrac SCHOOL.AD\AN00G001.PLT 32
   PLOTFILE ANNUAL Other SCHOOL.AD\AN00G002.PLT 33
   SUMMFILE School.sum
OU FINISHED

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE   1
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for  2333 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2100516.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
         1. Stack-tip Downwash.
         2. Model Accounts for ELEVated Terrain Effects.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:   2333 Source(s);       3 Source Group(s); and      20 Receptor(s)

                with:     13 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:   2314 VOLUME source(s)
                 and:      6 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 OPENPIT source(s)


 **Model Set To Continue RUNning After the Setup Testing.
```

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                                                    Residential
 **The AERMET Input Meteorological Data Version Date:  14134

 **Output Options Selected:
          Model Outputs Tables of ANNUAL Averages by Receptor
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   442.00 ;  Decay Coef. =    0.000     ;  Rot. Angle
=     0.0
                  Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =
0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      5.2 MB of RAM.

 **Detailed Error/Message File:   School.err

 **File for Summary of Results:   School.sum

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE   2
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** POINT SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     STACK   STACK    STACK     STACK    BLDG   URBAN
CAP/  EMIS RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT  TEMP.   EXIT VEL. DIAMETER  EXISTS SOURCE
HOR   SCALAR
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (DEG.K)  (M/SEC)  (METERS)
    VARY BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -

 STCK1          0   0.24556E-04  478197.3 3748887.5   453.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK2          0   0.24556E-04  478195.1 3748735.6   452.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK3          0   0.24556E-04  478195.8 3748573.3   452.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK4          0   0.24556E-04  478198.1 3748428.1   451.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK5          0   0.24556E-04  477956.2 3748894.1   453.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK6          0   0.24556E-04  477962.1 3748741.5   453.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK7          0   0.24556E-04  477962.8 3748581.4   452.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK8          0   0.24556E-04  477964.3 3748509.9   451.8     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK9          0   0.24556E-04  478049.1 3748355.8   451.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK10         0   0.24556E-04  478153.1 3748357.3   451.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK11         0   0.51950E-04  477756.4 3748910.9   453.2     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
 STCK12         0   0.41163E-04  477975.8 3748266.9   450.0     3.96   501.00     49.98     0.04    NO      YES
NO  HROFDY
```

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                                                    Residential
 STCK13           0   0.70402E-04  477612.5 3748890.5   454.0     3.96   501.00    49.98     0.04    NO      YES
NO  HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE   3
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 L0003043         0   0.85530E-05  478216.2 3748416.3   451.0     4.00    13.95     1.86     YES   HROFDY
 L0003044         0   0.85530E-05  478216.3 3748446.3   451.0     4.00    13.95     1.86     YES   HROFDY
 L0003045         0   0.85530E-05  478216.5 3748476.3   451.2     4.00    13.95     1.86     YES   HROFDY
 L0003046         0   0.85530E-05  478216.6 3748506.3   451.7     4.00    13.95     1.86     YES   HROFDY
 L0003047         0   0.85530E-05  478216.7 3748536.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003048         0   0.85530E-05  478216.9 3748566.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003049         0   0.85530E-05  478217.0 3748596.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003050         0   0.85530E-05  478217.2 3748626.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003051         0   0.85530E-05  478217.3 3748656.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003052         0   0.85530E-05  478217.4 3748686.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003053         0   0.85530E-05  478217.6 3748716.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003054         0   0.85530E-05  478217.7 3748746.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003055         0   0.85530E-05  478217.8 3748776.3   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003056         0   0.85530E-05  478218.0 3748806.3   452.7     4.00    13.95     1.86     YES   HROFDY
 L0003057         0   0.85530E-05  478218.1 3748836.3   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003058         0   0.85530E-05  478218.3 3748866.3   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003059         0   0.85530E-05  478218.4 3748896.3   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003060         0   0.88640E-05  477943.9 3748501.1   451.5     4.00    13.95     1.86     YES   HROFDY
 L0003061         0   0.88640E-05  477944.1 3748531.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003062         0   0.88640E-05  477944.4 3748561.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003063         0   0.88640E-05  477944.7 3748591.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003064         0   0.88640E-05  477944.9 3748621.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003065         0   0.88640E-05  477945.2 3748651.1   452.0     4.00    13.95     1.86     YES   HROFDY
 L0003066         0   0.88640E-05  477945.4 3748681.1   452.5     4.00    13.95     1.86     YES   HROFDY
 L0003067         0   0.88640E-05  477945.7 3748711.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003068         0   0.88640E-05  477945.9 3748741.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003069         0   0.88640E-05  477946.2 3748771.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003070         0   0.88640E-05  477946.5 3748801.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003071         0   0.88640E-05  477946.7 3748831.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003072         0   0.88640E-05  477947.0 3748861.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003073         0   0.88640E-05  477947.2 3748891.1   453.0     4.00    13.95     1.86     YES   HROFDY
 L0003074         0   0.81770E-05  477756.7 3748938.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003075         0   0.81770E-05  477756.7 3748930.0   453.8     4.00     3.95     1.86     YES   HROFDY
 L0003076         0   0.81770E-05  477756.7 3748921.5   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003077         0   0.81770E-05  477756.7 3748913.0   453.3     4.00     3.95     1.86     YES   HROFDY
 L0003078         0   0.81770E-05  477756.7 3748904.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0003079         0   0.81770E-05  477756.7 3748896.0   453.1     4.00     3.95     1.86     YES   HROFDY
 L0003080         0   0.81770E-05  477756.7 3748887.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0003081         0   0.81770E-05  477756.7 3748879.0   453.1     4.00     3.95     1.86     YES   HROFDY
 L0003082         0   0.63430E-06  477900.2 3748339.0   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE   4
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN
```

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                                        Residential

                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003083         0   0.63430E-06  477908.7 3748339.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0003084         0   0.63430E-06  477917.2 3748338.9   451.0     4.00     3.95     1.86     YES    HROFDY
 L0003085         0   0.63430E-06  477925.6 3748338.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0003086         0   0.63430E-06  477934.1 3748338.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0003087         0   0.63430E-06  477942.6 3748338.0   451.0     4.00     3.95     1.86     YES    HROFDY
 L0003088         0   0.63430E-06  477947.6 3748331.8   451.0     4.00     3.95     1.86     YES    HROFDY
 L0003089         0   0.63430E-06  477951.8 3748324.5   451.0     4.00     3.95     1.86     YES    HROFDY
 L0003090         0   0.63430E-06  477956.1 3748317.1   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003091         0   0.63430E-06  477960.3 3748309.7   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003092         0   0.63430E-06  477964.6 3748302.3   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003093         0   0.63430E-06  477968.8 3748295.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003094         0   0.63430E-06  477973.0 3748287.6   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003095         0   0.63430E-06  477976.2 3748279.9   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003096         0   0.63430E-06  477977.3 3748271.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003097         0   0.63430E-06  477978.3 3748263.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003098         0   0.63430E-06  477978.3 3748254.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003099         0   0.63430E-06  477978.3 3748246.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003100         0   0.63430E-06  477978.2 3748237.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003101         0   0.63430E-06  477978.2 3748229.0   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003102         0   0.63430E-06  477978.1 3748220.5   450.0     4.00     3.95     1.86     YES    HROFDY
 L0003103         0   0.59110E-05  477608.7 3748929.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003104         0   0.59110E-05  477608.7 3748920.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003105         0   0.59110E-05  477608.7 3748912.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003106         0   0.59110E-05  477608.7 3748903.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003107         0   0.59110E-05  477608.7 3748895.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003108         0   0.59110E-05  477608.7 3748886.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003109         0   0.59110E-05  477608.7 3748878.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003110         0   0.59110E-05  477608.7 3748869.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003111         0   0.59110E-05  477608.7 3748861.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003112         0   0.59110E-05  477608.7 3748852.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003113         0   0.59110E-05  477608.7 3748844.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003114         0   0.59110E-05  477608.7 3748835.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003115         0   0.59110E-05  477608.7 3748827.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003116         0   0.59110E-05  477608.7 3748818.8   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003117         0   0.59110E-05  477608.7 3748810.3   454.0     0.00     3.95     1.86     YES    HROFDY
 L0003118         0   0.20580E-05  478043.0 3748335.2   451.0     0.00    13.95     1.86     YES    HROFDY
 L0003119         0   0.20580E-05  478073.0 3748334.5   451.0     0.00    13.95     1.86     YES    HROFDY
 L0003120         0   0.20580E-05  478103.0 3748333.9   451.0     0.00    13.95     1.86     YES    HROFDY
 L0003121         0   0.20580E-05  478133.0 3748333.2   451.0     0.00    13.95     1.86     YES    HROFDY
 L0003122         0   0.20580E-05  478163.0 3748332.6   451.0     0.00    13.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE   5
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003123         0   0.33530E-05  477952.3 3748971.4   453.0     4.00     3.95     1.86     YES    HROFDY
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                                                     Residential
 L0003124         0   0.33530E-05  477952.2 3748962.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003125         0   0.33530E-05  477952.0 3748954.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003126         0   0.33530E-05  477951.4 3748946.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003127         0   0.33530E-05  477950.2 3748937.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003128         0   0.33530E-05  477949.0 3748929.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003129         0   0.33530E-05  477948.2 3748920.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003130         0   0.33530E-05  477948.1 3748912.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003131         0   0.33530E-05  477947.9 3748903.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003132         0   0.33530E-05  477947.8 3748895.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003133         0   0.33530E-05  477947.6 3748886.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003134         0   0.33530E-05  477947.5 3748878.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003135         0   0.33530E-05  477947.3 3748869.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003136         0   0.33530E-05  477947.2 3748861.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003137         0   0.33530E-05  477947.2 3748852.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003138         0   0.33530E-05  477947.1 3748844.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003139         0   0.33530E-05  477947.0 3748835.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003140         0   0.33530E-05  477947.0 3748827.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003141         0   0.33530E-05  477946.9 3748818.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003142         0   0.33530E-05  477946.8 3748810.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003143         0   0.33530E-05  477946.7 3748801.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003144         0   0.33530E-05  477946.7 3748793.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003145         0   0.33530E-05  477946.6 3748784.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003146         0   0.33530E-05  477946.5 3748776.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003147         0   0.33530E-05  477946.5 3748767.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003148         0   0.33530E-05  477946.4 3748759.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003149         0   0.33530E-05  477946.3 3748750.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003150         0   0.33530E-05  477946.3 3748742.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003151         0   0.33530E-05  477946.2 3748733.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003152         0   0.33530E-05  477946.1 3748725.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003153         0   0.33530E-05  477946.1 3748716.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003154         0   0.33530E-05  477946.0 3748708.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003155         0   0.33530E-05  477945.9 3748699.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003156         0   0.33530E-05  477945.9 3748691.2   452.8     4.00     3.95     1.86     YES   HROFDY
 L0003157         0   0.33530E-05  477945.8 3748682.7   452.5     4.00     3.95     1.86     YES   HROFDY
 L0003158         0   0.33530E-05  477945.7 3748674.2   452.2     4.00     3.95     1.86     YES   HROFDY
 L0003159         0   0.33530E-05  477945.7 3748665.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003160         0   0.33530E-05  477945.6 3748657.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003161         0   0.33530E-05  477945.5 3748648.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003162         0   0.33530E-05  477945.4 3748640.2   452.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE   6
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y        ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)              BY
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 L0003163         0   0.33530E-05  477945.4 3748631.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003164         0   0.33530E-05  477945.3 3748623.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003165         0   0.33530E-05  477945.2 3748614.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003166         0   0.33530E-05  477945.2 3748606.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003167         0   0.33530E-05  477945.1 3748597.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003168         0   0.33530E-05  477945.0 3748589.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003169         0   0.33530E-05  477945.0 3748580.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003170         0   0.33530E-05  477944.9 3748572.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003171         0   0.33530E-05  477944.8 3748563.7   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003172         0   0.33530E-05  477944.8 3748555.2   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003173         0   0.33530E-05  477944.7 3748546.7   452.0     4.00     3.95     1.86     YES   HROFDY
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                                                    Residential
  L0003174         0   0.33530E-05  477944.6 3748538.2   452.0      4.00     3.95     1.86     YES   HROFDY
  L0003175         0   0.33530E-05  477944.6 3748529.7   452.0      4.00     3.95     1.86     YES   HROFDY
  L0003176         0   0.33530E-05  477944.5 3748521.2   452.0      4.00     3.95     1.86     YES   HROFDY
  L0003177         0   0.33530E-05  477944.4 3748512.7   451.9      4.00     3.95     1.86     YES   HROFDY
  L0003178         0   0.33530E-05  477944.4 3748504.2   451.6      4.00     3.95     1.86     YES   HROFDY
  L0003179         0   0.33530E-05  477944.3 3748495.7   451.3      4.00     3.95     1.86     YES   HROFDY
  L0003180         0   0.33530E-05  477944.7 3748487.3   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003181         0   0.33530E-05  477948.7 3748479.8   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003182         0   0.33530E-05  477952.8 3748472.3   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003183         0   0.33530E-05  477956.8 3748464.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003184         0   0.33530E-05  477960.8 3748457.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003185         0   0.33530E-05  477964.8 3748449.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003186         0   0.33530E-05  477968.8 3748442.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003187         0   0.33530E-05  477972.8 3748434.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003188         0   0.33530E-05  477976.9 3748427.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003189         0   0.33530E-05  477980.9 3748419.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003190         0   0.33530E-05  477984.9 3748412.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003191         0   0.33530E-05  477988.9 3748404.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003192         0   0.33530E-05  477992.9 3748397.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003193         0   0.33530E-05  477996.9 3748389.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003194         0   0.33530E-05  478001.0 3748382.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003195         0   0.33530E-05  478005.0 3748375.0   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003196         0   0.33530E-05  478009.0 3748367.5   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003197         0   0.33530E-05  478013.0 3748360.0   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003198         0   0.33530E-05  478017.1 3748352.5   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003199         0   0.33530E-05  478021.7 3748345.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003200         0   0.33530E-05  478026.4 3748338.3   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003201         0   0.33530E-05  478033.8 3748336.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003202         0   0.33530E-05  478042.3 3748336.5   451.0      4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:56:09

    PAGE   7
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
    SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
      ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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  L0003203         0   0.33530E-05  478050.8 3748336.6   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003204         0   0.33530E-05  478059.3 3748336.7   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003205         0   0.33530E-05  478067.8 3748336.8   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003206         0   0.33530E-05  478076.3 3748336.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003207         0   0.33530E-05  478084.8 3748337.0   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003208         0   0.33530E-05  478093.3 3748337.1   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003209         0   0.33530E-05  478101.8 3748337.2   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003210         0   0.33530E-05  478110.3 3748337.3   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003211         0   0.33530E-05  478118.8 3748337.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003212         0   0.33530E-05  478127.3 3748337.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003213         0   0.33530E-05  478135.8 3748337.5   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003214         0   0.33530E-05  478144.3 3748337.6   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003215         0   0.33530E-05  478152.8 3748337.7   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003216         0   0.33530E-05  478161.3 3748337.8   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003217         0   0.33530E-05  478169.8 3748337.9   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003218         0   0.33530E-05  478178.3 3748338.0   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003219         0   0.33530E-05  478186.8 3748338.1   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003220         0   0.33530E-05  478195.3 3748338.2   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003221         0   0.33530E-05  478203.8 3748338.3   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003222         0   0.33530E-05  478212.3 3748338.4   451.0      4.00     3.95     1.86     YES   HROFDY
  L0003223         0   0.33530E-05  478215.8 3748343.4   451.0      4.00     3.95     1.86     YES   HROFDY
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                                                Residential
  L0003224         0   0.33530E-05  478215.9 3748351.9   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003225         0   0.33530E-05  478216.0 3748360.4   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003226         0   0.33530E-05  478216.0 3748368.9   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003227         0   0.33530E-05  478216.1 3748377.4   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003228         0   0.33530E-05  478216.1 3748385.9   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003229         0   0.33530E-05  478216.2 3748394.4   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003230         0   0.33530E-05  478216.3 3748402.9   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003231         0   0.33530E-05  478216.3 3748411.4   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003232         0   0.33530E-05  478216.4 3748419.9   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003233         0   0.33530E-05  478216.4 3748428.4   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003234         0   0.33530E-05  478216.5 3748436.9   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003235         0   0.33530E-05  478216.6 3748445.4   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003236         0   0.33530E-05  478216.6 3748453.9   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003237         0   0.33530E-05  478216.7 3748462.4   451.0     4.00     3.95     1.86     YES   HROFDY
  L0003238         0   0.33530E-05  478216.7 3748470.9   451.1     4.00     3.95     1.86     YES   HROFDY
  L0003239         0   0.33530E-05  478216.8 3748479.4   451.2     4.00     3.95     1.86     YES   HROFDY
  L0003240         0   0.33530E-05  478216.9 3748487.9   451.3     4.00     3.95     1.86     YES   HROFDY
  L0003241         0   0.33530E-05  478216.9 3748496.4   451.5     4.00     3.95     1.86     YES   HROFDY
  L0003242         0   0.33530E-05  478217.0 3748504.9   451.7     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:56:09

    PAGE   8
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
    SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
      ID         CATS.               (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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  L0003243         0   0.33530E-05  478217.0 3748513.4   451.9     4.00     3.95     1.86     YES   HROFDY
  L0003244         0   0.33530E-05  478217.1 3748521.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003245         0   0.33530E-05  478217.2 3748530.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003246         0   0.33530E-05  478217.2 3748538.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003247         0   0.33530E-05  478217.3 3748547.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003248         0   0.33530E-05  478217.3 3748555.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003249         0   0.33530E-05  478217.4 3748564.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003250         0   0.33530E-05  478217.5 3748572.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003251         0   0.33530E-05  478217.5 3748581.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003252         0   0.33530E-05  478217.6 3748589.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003253         0   0.33530E-05  478217.7 3748598.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003254         0   0.33530E-05  478217.7 3748606.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003255         0   0.33530E-05  478217.8 3748615.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003256         0   0.33530E-05  478217.8 3748623.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003257         0   0.33530E-05  478217.9 3748632.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003258         0   0.33530E-05  478218.0 3748640.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003259         0   0.33530E-05  478218.0 3748649.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003260         0   0.33530E-05  478218.1 3748657.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003261         0   0.33530E-05  478218.1 3748666.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003262         0   0.33530E-05  478218.2 3748674.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003263         0   0.33530E-05  478218.3 3748683.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003264         0   0.33530E-05  478218.3 3748691.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003265         0   0.33530E-05  478218.4 3748700.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003266         0   0.33530E-05  478218.4 3748708.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003267         0   0.33530E-05  478218.5 3748717.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003268         0   0.33530E-05  478218.6 3748725.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003269         0   0.33530E-05  478218.6 3748734.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003270         0   0.33530E-05  478218.7 3748742.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003271         0   0.33530E-05  478218.7 3748751.4   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003272         0   0.33530E-05  478218.8 3748759.9   452.0     4.00     3.95     1.86     YES   HROFDY
  L0003273         0   0.33530E-05  478218.9 3748768.4   452.0     4.00     3.95     1.86     YES   HROFDY
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                                                        Residential
 L0003274         0   0.33530E-05  478218.9 3748776.9   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003275         0   0.33530E-05  478219.0 3748785.4   452.0     4.00     3.95     1.86     YES   HROFDY
 L0003276         0   0.33530E-05  478219.0 3748793.9   452.2     4.00     3.95     1.86     YES   HROFDY
 L0003277         0   0.33530E-05  478219.1 3748802.4   452.5     4.00     3.95     1.86     YES   HROFDY
 L0003278         0   0.33530E-05  478219.2 3748810.9   452.8     4.00     3.95     1.86     YES   HROFDY
 L0003279         0   0.33530E-05  478219.2 3748819.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003280         0   0.33530E-05  478219.3 3748827.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003281         0   0.33530E-05  478219.3 3748836.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003282         0   0.33530E-05  478219.4 3748844.9   453.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE   9
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003283         0   0.33530E-05  478219.5 3748853.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003284         0   0.33530E-05  478219.5 3748861.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003285         0   0.33530E-05  478219.6 3748870.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003286         0   0.33530E-05  478219.6 3748878.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003287         0   0.33530E-05  478219.7 3748887.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003288         0   0.33530E-05  478219.8 3748895.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003289         0   0.33530E-05  478219.8 3748904.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003290         0   0.33530E-05  478219.9 3748912.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003291         0   0.33530E-05  478217.5 3748921.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003292         0   0.33530E-05  478215.0 3748929.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003293         0   0.33530E-05  478212.6 3748937.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003294         0   0.33530E-05  478210.1 3748945.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003295         0   0.33530E-05  478207.6 3748953.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003296         0   0.33530E-05  478205.1 3748961.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003297         0   0.33530E-05  478202.7 3748969.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003298         0   0.71410E-06  477852.8 3748835.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003299         0   0.71410E-06  477852.8 3748843.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003300         0   0.71410E-06  477852.9 3748852.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003301         0   0.71410E-06  477852.9 3748860.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003302         0   0.71410E-06  477853.0 3748869.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003303         0   0.71410E-06  477853.0 3748877.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003304         0   0.71410E-06  477853.0 3748886.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003305         0   0.71410E-06  477853.1 3748894.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003306         0   0.71410E-06  477853.1 3748903.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003307         0   0.71410E-06  477853.2 3748911.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003308         0   0.71410E-06  477853.2 3748920.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003309         0   0.71410E-06  477853.3 3748928.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003310         0   0.71410E-06  477853.3 3748937.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003311         0   0.71410E-06  477853.4 3748945.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003312         0   0.71410E-06  477853.4 3748954.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003313         0   0.71410E-06  477853.5 3748962.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003314         0   0.71410E-06  477853.5 3748971.2   453.2     4.00     3.95     1.86     YES   HROFDY
 L0003315         0   0.71410E-06  477853.5 3748979.7   453.4     4.00     3.95     1.86     YES   HROFDY
 L0003316         0   0.71410E-06  477845.0 3748979.7   453.5     4.00     3.95     1.86     YES   HROFDY
 L0003317         0   0.71410E-06  477836.5 3748979.6   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003318         0   0.71410E-06  477828.0 3748979.6   453.9     4.00     3.95     1.86     YES   HROFDY
 L0003319         0   0.71410E-06  477819.5 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003320         0   0.71410E-06  477811.0 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003321         0   0.71410E-06  477802.5 3748979.6   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003322         0   0.71410E-06  477794.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
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                                              Residential
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                         ***
  13:56:09

  PAGE  10
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003323         0   0.71410E-06  477785.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003324         0   0.71410E-06  477777.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003325         0   0.71410E-06  477768.5 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003326         0   0.71410E-06  477760.0 3748979.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003327         0   0.71410E-06  477751.5 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003328         0   0.71410E-06  477743.0 3748979.4   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003329         0   0.71410E-06  477742.7 3748971.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003330         0   0.71410E-06  477742.7 3748962.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003331         0   0.71410E-06  477742.6 3748954.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003332         0   0.71410E-06  477742.6 3748945.7   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003333         0   0.71410E-06  477742.5 3748937.2   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003334         0   0.71410E-06  477742.5 3748928.7   453.9     4.00     3.95     1.86     YES   HROFDY
 L0003335         0   0.71410E-06  477742.4 3748920.2   453.8     4.00     3.95     1.86     YES   HROFDY
 L0003336         0   0.71410E-06  477742.4 3748911.7   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003337         0   0.71410E-06  477742.3 3748903.2   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003338         0   0.71410E-06  477742.3 3748894.7   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003339         0   0.71410E-06  477742.2 3748886.2   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003340         0   0.71410E-06  477744.2 3748878.0   453.5     4.00     3.95     1.86     YES   HROFDY
 L0003341         0   0.71410E-06  477746.5 3748869.8   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003342         0   0.71410E-06  477748.8 3748861.6   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003343         0   0.71410E-06  477751.1 3748853.4   453.8     4.00     3.95     1.86     YES   HROFDY
 L0003344         0   0.71410E-06  477753.4 3748845.3   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003345         0   0.71410E-06  477757.5 3748838.2   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003346         0   0.71410E-06  477763.8 3748832.5   453.5     4.00     3.95     1.86     YES   HROFDY
 L0003347         0   0.71410E-06  477770.1 3748826.8   453.2     4.00     3.95     1.86     YES   HROFDY
 L0003348         0   0.71410E-06  477778.6 3748826.5   453.1     4.00     3.95     1.86     YES   HROFDY
 L0003349         0   0.71410E-06  477787.1 3748826.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003350         0   0.71410E-06  477795.6 3748826.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003351         0   0.71410E-06  477804.1 3748826.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003352         0   0.71410E-06  477812.6 3748826.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003353         0   0.71410E-06  477821.1 3748826.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003354         0   0.71410E-06  477829.6 3748826.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003355         0   0.71410E-06  477838.1 3748825.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003356         0   0.71410E-06  477846.6 3748825.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003357         0   0.56240E-06  477886.6 3748203.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003358         0   0.56240E-06  477886.4 3748212.2   450.0     4.00     3.95     1.86     YES   HROFDY
 L0003359         0   0.56240E-06  477886.3 3748220.7   450.1     4.00     3.95     1.86     YES   HROFDY
 L0003360         0   0.56240E-06  477886.1 3748229.2   450.3     4.00     3.95     1.86     YES   HROFDY
 L0003361         0   0.56240E-06  477885.9 3748237.7   450.6     4.00     3.95     1.86     YES   HROFDY
 L0003362         0   0.56240E-06  477885.7 3748246.2   450.8     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                         ***
  13:56:09

  PAGE  11
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***
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                                                 Residential
               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0003363         0   0.56240E-06  477885.5 3748254.7   450.9      4.00     3.95     1.86     YES    HROFDY
 L0003364         0   0.56240E-06  477885.6 3748263.2   450.9      4.00     3.95     1.86     YES    HROFDY
 L0003365         0   0.56240E-06  477885.7 3748271.7   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003366         0   0.56240E-06  477885.8 3748280.2   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003367         0   0.56240E-06  477885.9 3748288.7   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003368         0   0.56240E-06  477886.0 3748297.2   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003369         0   0.56240E-06  477886.1 3748305.7   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003370         0   0.56240E-06  477886.2 3748314.2   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003371         0   0.56240E-06  477886.3 3748322.7   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003372         0   0.56240E-06  477886.4 3748331.2   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003373         0   0.56240E-06  477889.0 3748337.4   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003374         0   0.56240E-06  477897.5 3748338.1   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003375         0   0.56240E-06  477906.0 3748338.9   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003376         0   0.56240E-06  477914.4 3748339.7   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003377         0   0.56240E-06  477922.9 3748339.5   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003378         0   0.56240E-06  477931.4 3748338.9   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003379         0   0.56240E-06  477939.8 3748338.2   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003380         0   0.56240E-06  477945.5 3748332.6   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003381         0   0.56240E-06  477950.6 3748325.7   451.0      4.00     3.95     1.86     YES    HROFDY
 L0003382         0   0.56240E-06  477955.0 3748318.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003383         0   0.56240E-06  477959.4 3748311.2   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003384         0   0.56240E-06  477963.8 3748303.9   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003385         0   0.56240E-06  477968.2 3748296.7   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003386         0   0.56240E-06  477972.6 3748289.4   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003387         0   0.56240E-06  477975.8 3748281.7   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003388         0   0.56240E-06  477977.7 3748273.4   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003389         0   0.56240E-06  477979.6 3748265.1   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003390         0   0.56240E-06  477981.3 3748256.8   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003391         0   0.56240E-06  477980.6 3748248.3   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003392         0   0.56240E-06  477979.9 3748239.8   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003393         0   0.56240E-06  477979.2 3748231.4   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003394         0   0.56240E-06  477978.4 3748222.9   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003395         0   0.56240E-06  477982.6 3748217.0   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003396         0   0.56240E-06  477990.0 3748212.7   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003397         0   0.56240E-06  477994.0 3748206.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003398         0   0.56240E-06  477994.1 3748198.0   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003399         0   0.56240E-06  477986.1 3748197.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003400         0   0.56240E-06  477977.6 3748197.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003401         0   0.56240E-06  477969.1 3748197.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003402         0   0.56240E-06  477960.6 3748197.5   450.0      4.00     3.95     1.86     YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE  12
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y         ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0003403         0   0.56240E-06  477952.1 3748197.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003404         0   0.56240E-06  477943.6 3748197.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003405         0   0.56240E-06  477935.1 3748197.5   450.0      4.00     3.95     1.86     YES    HROFDY
 L0003406         0   0.96020E-06  477505.1 3748975.7   454.2      4.00     3.95     1.86     YES    HROFDY
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                                                        Residential
 L0003407        0   0.96020E-06  477513.6 3748975.6   454.1      4.00      3.95      1.86      YES   HROFDY
 L0003408        0   0.96020E-06  477522.1 3748975.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003409        0   0.96020E-06  477530.6 3748975.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003410        0   0.96020E-06  477539.1 3748975.1   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003411        0   0.96020E-06  477547.6 3748974.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003412        0   0.96020E-06  477556.1 3748974.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003413        0   0.96020E-06  477564.6 3748974.6   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003414        0   0.96020E-06  477573.1 3748974.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003415        0   0.96020E-06  477581.6 3748974.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003416        0   0.96020E-06  477590.1 3748974.1   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003417        0   0.96020E-06  477598.5 3748973.8   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003418        0   0.96020E-06  477605.4 3748968.8   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003419        0   0.96020E-06  477611.1 3748963.0   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003420        0   0.96020E-06  477613.4 3748954.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003421        0   0.96020E-06  477615.7 3748946.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003422        0   0.96020E-06  477618.0 3748938.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003423        0   0.96020E-06  477620.0 3748930.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003424        0   0.96020E-06  477621.7 3748921.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003425        0   0.96020E-06  477623.4 3748913.6   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003426        0   0.96020E-06  477625.1 3748905.3   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003427        0   0.96020E-06  477626.2 3748896.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003428        0   0.96020E-06  477626.4 3748888.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003429        0   0.96020E-06  477626.5 3748879.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003430        0   0.96020E-06  477626.6 3748871.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003431        0   0.96020E-06  477626.7 3748862.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003432        0   0.96020E-06  477626.8 3748854.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003433        0   0.96020E-06  477626.9 3748845.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003434        0   0.96020E-06  477627.0 3748837.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003435        0   0.96020E-06  477627.1 3748828.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003436        0   0.96020E-06  477627.2 3748820.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003437        0   0.96020E-06  477627.3 3748811.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003438        0   0.96020E-06  477627.5 3748803.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003439        0   0.96020E-06  477627.0 3748795.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003440        0   0.96020E-06  477618.5 3748795.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003441        0   0.96020E-06  477610.0 3748795.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003442        0   0.96020E-06  477601.5 3748796.2   454.0      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  13
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)      X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)              BY
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 L0003443        0   0.96020E-06  477593.0 3748796.4   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003444        0   0.96020E-06  477584.5 3748796.6   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003445        0   0.96020E-06  477576.0 3748796.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003446        0   0.96020E-06  477567.5 3748797.1   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003447        0   0.96020E-06  477559.0 3748797.3   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003448        0   0.96020E-06  477550.5 3748797.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003449        0   0.96020E-06  477542.0 3748797.8   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003450        0   0.96020E-06  477533.5 3748798.0   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003451        0   0.96020E-06  477525.0 3748798.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003452        0   0.96020E-06  477516.5 3748798.5   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003453        0   0.96020E-06  477508.0 3748798.7   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003454        0   0.96020E-06  477499.5 3748798.9   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003455        0   0.96020E-06  477491.0 3748799.2   454.0      4.00      3.95      1.86      YES   HROFDY
 L0003456        0   0.11950E-05  478255.5 3748984.6   453.0      4.00      3.95      1.86      YES   HROFDY
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                                                     Residential
 L0003457         0   0.11950E-05  478247.0 3748984.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003458         0   0.11950E-05  478238.5 3748984.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003459         0   0.11950E-05  478230.0 3748984.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003460         0   0.11950E-05  478221.5 3748984.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003461         0   0.11950E-05  478213.0 3748985.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003462         0   0.11950E-05  478204.5 3748985.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003463         0   0.11950E-05  478196.0 3748985.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003464         0   0.11950E-05  478187.5 3748985.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003465         0   0.11950E-05  478179.0 3748985.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003466         0   0.11950E-05  478170.5 3748985.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003467         0   0.11950E-05  478162.0 3748985.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003468         0   0.11950E-05  478153.5 3748985.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003469         0   0.11950E-05  478145.0 3748985.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003470         0   0.11950E-05  478136.5 3748985.7   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003471         0   0.11950E-05  478128.0 3748985.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003472         0   0.11950E-05  478119.5 3748985.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003473         0   0.11950E-05  478111.0 3748986.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003474         0   0.11950E-05  478102.5 3748986.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003475         0   0.11950E-05  478094.0 3748986.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003476         0   0.11950E-05  478085.5 3748986.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003477         0   0.11950E-05  478077.0 3748986.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003478         0   0.11950E-05  478068.5 3748986.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003479         0   0.11950E-05  478060.0 3748986.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003480         0   0.11950E-05  478051.5 3748986.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003481         0   0.11950E-05  478043.0 3748986.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003482         0   0.11950E-05  478034.5 3748986.7   453.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE  14
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

             NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE     PART.  (GRAMS/SEC)      X        Y      ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID       CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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- - - -

 L0003483         0   0.11950E-05  478026.0 3748986.8   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003484         0   0.11950E-05  478017.5 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003485         0   0.11950E-05  478009.0 3748986.9   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003486         0   0.11950E-05  478000.5 3748987.0   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003487         0   0.11950E-05  477992.0 3748987.1   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003488         0   0.11950E-05  477983.5 3748987.2   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003489         0   0.11950E-05  477975.0 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003490         0   0.11950E-05  477966.5 3748987.3   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003491         0   0.11950E-05  477958.0 3748987.4   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003492         0   0.11950E-05  477949.5 3748987.5   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003493         0   0.11950E-05  477941.0 3748987.6   453.0     4.00     3.95     1.86     YES   HROFDY
 L0003494         0   0.11950E-05  477932.5 3748987.7   453.2     4.00     3.95     1.86     YES   HROFDY
 L0003495         0   0.11950E-05  477924.0 3748987.7   453.4     4.00     3.95     1.86     YES   HROFDY
 L0003496         0   0.11950E-05  477915.5 3748987.8   453.6     4.00     3.95     1.86     YES   HROFDY
 L0003497         0   0.11950E-05  477907.0 3748987.9   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003498         0   0.11950E-05  477898.6 3748988.0   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003499         0   0.11950E-05  477890.1 3748988.1   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003500         0   0.11950E-05  477881.9 3748988.5   453.7     4.00     3.95     1.86     YES   HROFDY
 L0003501         0   0.11950E-05  477881.9 3748997.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003502         0   0.11950E-05  477881.9 3749005.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003503         0   0.11950E-05  477881.9 3749014.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003504         0   0.11950E-05  477881.9 3749022.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003505         0   0.11950E-05  477881.9 3749031.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003506         0   0.11950E-05  477881.9 3749039.5   454.0     4.00     3.95     1.86     YES   HROFDY
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                                                   Residential
 L0003507         0   0.11950E-05  477881.9 3749048.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003508         0   0.11950E-05  477881.9 3749056.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003509         0   0.11950E-05  477881.9 3749065.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003510         0   0.11950E-05  477881.9 3749073.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003511         0   0.11950E-05  477881.9 3749082.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003512         0   0.11950E-05  477881.9 3749090.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003513         0   0.11950E-05  477881.9 3749099.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003514         0   0.11950E-05  477881.9 3749107.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003515         0   0.11950E-05  477881.9 3749116.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003516         0   0.11950E-05  477881.9 3749124.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003517         0   0.11950E-05  477881.9 3749133.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003518         0   0.11950E-05  477881.9 3749141.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003519         0   0.11950E-05  477881.9 3749150.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003520         0   0.11950E-05  477881.9 3749158.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003521         0   0.11950E-05  477881.9 3749167.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003522         0   0.11950E-05  477881.9 3749175.5   454.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y        ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)            BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0003523         0   0.11950E-05  477881.9 3749184.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003524         0   0.11950E-05  477881.9 3749192.5   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003525         0   0.11950E-05  477881.9 3749201.0   454.0     4.00     3.95     1.86     YES   HROFDY
 L0003526         0   0.11950E-05  477881.9 3749209.5   454.1     4.00     3.95     1.86     YES   HROFDY
 L0003527         0   0.11950E-05  477881.9 3749218.0   454.4     4.00     3.95     1.86     YES   HROFDY
 L0003528         0   0.11950E-05  477881.9 3749226.5   454.7     4.00     3.95     1.86     YES   HROFDY
 L0003529         0   0.11950E-05  477881.9 3749235.0   454.9     4.00     3.95     1.86     YES   HROFDY
 L0003530         0   0.11950E-05  477877.9 3749239.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003531         0   0.11950E-05  477869.4 3749239.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003532         0   0.11950E-05  477860.9 3749239.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003533         0   0.11950E-05  477852.4 3749239.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003534         0   0.11950E-05  477843.9 3749240.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003535         0   0.11950E-05  477835.4 3749240.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003536         0   0.11950E-05  477826.9 3749240.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003537         0   0.11950E-05  477818.4 3749240.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003538         0   0.11950E-05  477809.9 3749240.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003539         0   0.11950E-05  477801.4 3749240.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003540         0   0.11950E-05  477792.9 3749240.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003541         0   0.11950E-05  477784.4 3749240.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003542         0   0.11950E-05  477775.9 3749240.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003543         0   0.11950E-05  477767.4 3749241.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003544         0   0.11950E-05  477758.9 3749241.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003545         0   0.11950E-05  477750.4 3749241.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003546         0   0.11950E-05  477741.9 3749241.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003547         0   0.11950E-05  477733.4 3749241.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003548         0   0.11950E-05  477724.9 3749241.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003549         0   0.11950E-05  477716.4 3749241.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003550         0   0.11950E-05  477707.9 3749241.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003551         0   0.11950E-05  477699.4 3749241.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003552         0   0.11950E-05  477690.9 3749242.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003553         0   0.11950E-05  477682.4 3749242.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003554         0   0.11950E-05  477673.9 3749242.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003555         0   0.11950E-05  477665.4 3749242.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003556         0   0.11950E-05  477656.9 3749242.5   455.0     4.00     3.95     1.86     YES   HROFDY
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                                                       Residential
 L0003557         0   0.11950E-05  477648.4 3749242.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003558         0   0.11950E-05  477639.9 3749242.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003559         0   0.11950E-05  477631.4 3749242.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003560         0   0.11950E-05  477622.9 3749242.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003561         0   0.11950E-05  477614.4 3749243.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003562         0   0.11950E-05  477605.9 3749243.2   455.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  16
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0003563         0   0.11950E-05  477597.4 3749243.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003564         0   0.11950E-05  477588.9 3749243.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003565         0   0.11950E-05  477580.4 3749243.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003566         0   0.11950E-05  477571.9 3749243.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003567         0   0.11950E-05  477563.4 3749243.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003568         0   0.11950E-05  477554.9 3749243.8   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003569         0   0.11950E-05  477546.4 3749244.0   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003570         0   0.11950E-05  477537.9 3749244.1   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003571         0   0.11950E-05  477529.4 3749244.2   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003572         0   0.11950E-05  477520.9 3749244.3   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003573         0   0.11950E-05  477512.4 3749244.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003574         0   0.11950E-05  477503.9 3749244.5   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003575         0   0.11950E-05  477495.4 3749244.6   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003576         0   0.11950E-05  477486.9 3749244.7   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003577         0   0.11950E-05  477478.4 3749244.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003578         0   0.11950E-05  477476.8 3749251.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003579         0   0.11950E-05  477476.7 3749260.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003580         0   0.11950E-05  477476.6 3749268.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003581         0   0.11950E-05  477476.5 3749277.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003582         0   0.11950E-05  477476.4 3749285.9   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003583         0   0.11950E-05  477476.3 3749294.4   455.0     4.00     3.95     1.86     YES   HROFDY
 L0003584         0   0.11950E-05  477476.2 3749302.9   455.1     4.00     3.95     1.86     YES   HROFDY
 L0003585         0   0.11950E-05  477476.0 3749311.4   455.2     4.00     3.95     1.86     YES   HROFDY
 L0003586         0   0.11950E-05  477475.9 3749319.9   455.4     4.00     3.95     1.86     YES   HROFDY
 L0003587         0   0.11950E-05  477475.8 3749328.4   455.5     4.00     3.95     1.86     YES   HROFDY
 L0003588         0   0.11950E-05  477475.7 3749336.9   455.7     4.00     3.95     1.86     YES   HROFDY
 L0003589         0   0.11950E-05  477475.6 3749345.4   455.8     4.00     3.95     1.86     YES   HROFDY
 L0003590         0   0.11950E-05  477475.5 3749353.9   455.9     4.00     3.95     1.86     YES   HROFDY
 L0003591         0   0.11950E-05  477475.4 3749362.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003592         0   0.11950E-05  477475.3 3749370.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003593         0   0.11950E-05  477475.1 3749379.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003594         0   0.11950E-05  477475.0 3749387.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003595         0   0.11950E-05  477474.9 3749396.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003596         0   0.11950E-05  477474.8 3749404.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003597         0   0.11950E-05  477474.7 3749413.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003598         0   0.11950E-05  477474.6 3749421.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003599         0   0.11950E-05  477474.5 3749430.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003600         0   0.11950E-05  477474.4 3749438.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003601         0   0.11950E-05  477474.2 3749447.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003602         0   0.11950E-05  477474.1 3749455.9   456.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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   PAGE  17
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0003603        0   0.11950E-05  477474.0 3749464.4   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003604        0   0.11950E-05  477473.9 3749472.9   456.0     4.00     3.95     1.86     YES   HROFDY
 L0003605        0   0.11950E-05  477473.8 3749481.4   456.2     4.00     3.95     1.86     YES   HROFDY
 L0003606        0   0.11950E-05  477473.7 3749489.9   456.4     4.00     3.95     1.86     YES   HROFDY
 L0003607        0   0.11950E-05  477473.6 3749498.4   456.7     4.00     3.95     1.86     YES   HROFDY
 L0003608        0   0.11950E-05  477473.5 3749506.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003609        0   0.11950E-05  477473.3 3749515.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003610        0   0.11950E-05  477473.2 3749523.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003611        0   0.11950E-05  477473.1 3749532.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003612        0   0.11950E-05  477473.0 3749540.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003613        0   0.11950E-05  477472.9 3749549.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003614        0   0.11950E-05  477472.8 3749557.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003615        0   0.11950E-05  477472.7 3749566.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003616        0   0.11950E-05  477472.6 3749574.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003617        0   0.11950E-05  477472.4 3749583.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003618        0   0.11950E-05  477472.3 3749591.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003619        0   0.11950E-05  477472.2 3749600.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003620        0   0.11950E-05  477472.1 3749608.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003621        0   0.11950E-05  477472.0 3749617.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003622        0   0.11950E-05  477471.9 3749625.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003623        0   0.11950E-05  477471.8 3749634.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003624        0   0.11950E-05  477471.7 3749642.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003625        0   0.11950E-05  477471.5 3749651.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003626        0   0.11950E-05  477471.4 3749659.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003627        0   0.11950E-05  477471.3 3749668.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003628        0   0.11950E-05  477471.2 3749676.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003629        0   0.11950E-05  477471.1 3749685.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003630        0   0.11950E-05  477471.0 3749693.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003631        0   0.11950E-05  477470.9 3749702.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003632        0   0.11950E-05  477470.8 3749710.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003633        0   0.11950E-05  477470.6 3749719.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003634        0   0.11950E-05  477470.5 3749727.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003635        0   0.11950E-05  477470.4 3749736.4   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003636        0   0.11950E-05  477470.3 3749744.9   457.0     4.00     3.95     1.86     YES   HROFDY
 L0003637        0   0.11950E-05  477470.2 3749753.4   457.2     4.00     3.95     1.86     YES   HROFDY
 L0003638        0   0.11950E-05  477470.1 3749761.9   457.5     4.00     3.95     1.86     YES   HROFDY
 L0003639        0   0.11950E-05  477470.0 3749770.4   457.8     4.00     3.95     1.86     YES   HROFDY
 L0003640        0   0.11950E-05  477469.9 3749778.9   458.0     4.00     3.95     1.86     YES   HROFDY
 L0003641        0   0.11950E-05  477469.7 3749787.4   458.0     4.00     3.95     1.86     YES   HROFDY
 L0005357        0   0.71640E-06  477901.9 3748181.5   450.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  18
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X        Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0005358        0   0.71640E-06  477893.4 3748181.6   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005359        0   0.71640E-06  477884.9 3748181.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005360        0   0.71640E-06  477876.4 3748181.7   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005361        0   0.71640E-06  477867.9 3748181.8   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005362        0   0.71640E-06  477859.4 3748181.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005363        0   0.71640E-06  477850.9 3748181.9   450.0     4.00     3.95     1.86     YES   HROFDY
 L0005364        0   0.71640E-06  477842.4 3748182.0   450.2     4.00     3.95     1.86     YES   HROFDY
 L0005365        0   0.71640E-06  477833.9 3748182.1   450.5     4.00     3.95     1.86     YES   HROFDY
 L0005366        0   0.71640E-06  477825.4 3748182.1   450.7     4.00     3.95     1.86     YES   HROFDY
 L0005367        0   0.71640E-06  477816.9 3748182.2   450.9     4.00     3.95     1.86     YES   HROFDY
 L0005368        0   0.71640E-06  477808.4 3748182.3   450.9     4.00     3.95     1.86     YES   HROFDY
 L0005369        0   0.71640E-06  477799.9 3748182.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005370        0   0.71640E-06  477791.4 3748182.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005371        0   0.71640E-06  477782.9 3748182.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005372        0   0.71640E-06  477774.4 3748182.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005373        0   0.71640E-06  477765.9 3748182.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005374        0   0.71640E-06  477757.4 3748182.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005375        0   0.71640E-06  477748.9 3748182.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005376        0   0.71640E-06  477740.4 3748182.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005377        0   0.71640E-06  477731.9 3748182.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005378        0   0.71640E-06  477723.4 3748183.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005379        0   0.71640E-06  477714.9 3748183.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005380        0   0.71640E-06  477706.4 3748183.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005381        0   0.71640E-06  477697.9 3748183.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005382        0   0.71640E-06  477689.4 3748183.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005383        0   0.71640E-06  477680.9 3748183.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005384        0   0.71640E-06  477672.4 3748183.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005385        0   0.71640E-06  477663.9 3748183.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005386        0   0.71640E-06  477655.4 3748183.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005387        0   0.71640E-06  477646.9 3748183.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005388        0   0.71640E-06  477638.4 3748183.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005389        0   0.71640E-06  477629.9 3748183.7   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005390        0   0.71640E-06  477621.4 3748183.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005391        0   0.71640E-06  477612.9 3748183.8   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005392        0   0.71640E-06  477604.4 3748183.9   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005393        0   0.71640E-06  477595.9 3748184.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005394        0   0.71640E-06  477587.4 3748184.0   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005395        0   0.71640E-06  477578.9 3748184.1   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005396        0   0.71640E-06  477570.4 3748184.2   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005397        0   0.71640E-06  477561.9 3748184.2   451.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  19
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y    ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0005398        0   0.71640E-06  477553.4 3748184.3   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005399        0   0.71640E-06  477544.9 3748184.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005400        0   0.71640E-06  477536.4 3748184.4   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005401        0   0.71640E-06  477527.9 3748184.5   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005402        0   0.71640E-06  477519.4 3748184.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005403        0   0.71640E-06  477510.9 3748184.6   451.0     4.00     3.95     1.86     YES   HROFDY
 L0005404        0   0.71640E-06  477502.4 3748184.7   451.0     4.00     3.95     1.86     YES   HROFDY
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 L0005405         0   0.71640E-06  477493.9 3748184.8   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005406         0   0.71640E-06  477485.4 3748184.8   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005407         0   0.71640E-06  477476.9 3748184.9   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005408         0   0.71640E-06  477471.1 3748182.1   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005409         0   0.71640E-06  477470.9 3748173.6   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005410         0   0.71640E-06  477470.7 3748165.1   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005411         0   0.71640E-06  477470.6 3748156.6   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005412         0   0.71640E-06  477470.4 3748148.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005413         0   0.71640E-06  477470.2 3748139.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005414         0   0.71640E-06  477470.0 3748131.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005415         0   0.71640E-06  477469.8 3748122.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005416         0   0.71640E-06  477469.6 3748114.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005417         0   0.71640E-06  477469.4 3748105.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005418         0   0.71640E-06  477469.2 3748097.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005419         0   0.71640E-06  477469.0 3748088.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005420         0   0.71640E-06  477468.9 3748080.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005421         0   0.71640E-06  477468.7 3748071.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005422         0   0.71640E-06  477468.5 3748063.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005423         0   0.71640E-06  477468.3 3748054.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005424         0   0.71640E-06  477468.1 3748046.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005425         0   0.71640E-06  477467.9 3748037.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005426         0   0.71640E-06  477467.7 3748029.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005427         0   0.71640E-06  477467.5 3748020.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005428         0   0.71640E-06  477467.4 3748012.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005429         0   0.71640E-06  477467.2 3748003.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005430         0   0.71640E-06  477467.0 3747995.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005431         0   0.71640E-06  477466.8 3747986.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005432         0   0.71640E-06  477466.6 3747978.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005433         0   0.71640E-06  477466.4 3747969.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005434         0   0.71640E-06  477466.2 3747961.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005435         0   0.71640E-06  477466.0 3747952.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005436         0   0.71640E-06  477465.8 3747944.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005437         0   0.71640E-06  477465.7 3747935.7   451.0      4.00      3.95      1.86      YES    HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0005438         0   0.71640E-06  477465.5 3747927.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005439         0   0.71640E-06  477465.3 3747918.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005440         0   0.71640E-06  477465.1 3747910.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005441         0   0.71640E-06  477464.9 3747901.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005442         0   0.71640E-06  477464.7 3747893.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005443         0   0.71640E-06  477464.5 3747884.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005444         0   0.71640E-06  477464.3 3747876.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005445         0   0.71640E-06  477464.1 3747867.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005446         0   0.71640E-06  477464.0 3747859.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005447         0   0.71640E-06  477463.8 3747850.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005448         0   0.71640E-06  477463.6 3747842.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005449         0   0.71640E-06  477463.4 3747833.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005450         0   0.71640E-06  477463.2 3747825.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005451         0   0.71640E-06  477463.0 3747816.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005452         0   0.71640E-06  477462.8 3747808.2   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005453         0   0.71640E-06  477462.6 3747799.7   451.0      4.00      3.95      1.86      YES    HROFDY
 L0005454         0   0.71640E-06  477462.5 3747791.2   451.0      4.00      3.95      1.86      YES    HROFDY
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                                                   Residential
  L0005455         0   0.71640E-06  477462.3 3747782.7   451.0      4.00      3.95      1.86      YES   HROFDY
  L0003741         0   0.72740E-06  478279.2 3748320.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003742         0   0.72740E-06  478279.3 3748312.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003743         0   0.72740E-06  478279.5 3748303.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003744         0   0.72740E-06  478279.6 3748295.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003745         0   0.72740E-06  478279.8 3748286.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003746         0   0.72740E-06  478279.9 3748278.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003747         0   0.72740E-06  478280.1 3748269.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003748         0   0.72740E-06  478280.2 3748261.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003749         0   0.72740E-06  478280.3 3748252.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003750         0   0.72740E-06  478280.5 3748244.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003751         0   0.72740E-06  478280.6 3748235.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003752         0   0.72740E-06  478280.8 3748227.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003753         0   0.72740E-06  478280.9 3748218.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003754         0   0.72740E-06  478281.0 3748210.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003755         0   0.72740E-06  478281.2 3748201.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003756         0   0.72740E-06  478281.3 3748193.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003757         0   0.72740E-06  478281.5 3748184.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003758         0   0.72740E-06  478281.6 3748176.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003759         0   0.72740E-06  478281.7 3748167.8   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003760         0   0.72740E-06  478281.9 3748159.3   450.0      4.00      3.95      1.86      YES   HROFDY
  L0003761         0   0.72740E-06  478282.0 3748150.8   449.8      4.00      3.95      1.86      YES   HROFDY
  L0003762         0   0.72740E-06  478282.2 3748142.3   449.5      4.00      3.95      1.86      YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:56:09

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  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

                  NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
    SOURCE         PART.  (GRAMS/SEC)      X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
      ID           CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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  L0003763         0   0.72740E-06  478282.3 3748133.8   449.2      4.00      3.95      1.86      YES   HROFDY
  L0003764         0   0.72740E-06  478282.4 3748125.3   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003765         0   0.72740E-06  478282.6 3748116.8   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003766         0   0.72740E-06  478282.7 3748108.3   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003767         0   0.72740E-06  478282.9 3748099.8   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003768         0   0.72740E-06  478283.0 3748091.3   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003769         0   0.72740E-06  478283.1 3748082.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003770         0   0.72740E-06  478283.3 3748074.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003771         0   0.72740E-06  478283.4 3748065.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003772         0   0.72740E-06  478283.6 3748057.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003773         0   0.72740E-06  478283.7 3748048.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003774         0   0.72740E-06  478283.8 3748040.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003775         0   0.72740E-06  478284.0 3748031.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003776         0   0.72740E-06  478284.1 3748023.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003777         0   0.72740E-06  478284.3 3748014.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003778         0   0.72740E-06  478284.4 3748006.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003779         0   0.72740E-06  478284.5 3747997.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003780         0   0.72740E-06  478284.7 3747989.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003781         0   0.72740E-06  478284.8 3747980.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003782         0   0.72740E-06  478285.0 3747972.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003783         0   0.72740E-06  478285.1 3747963.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003784         0   0.72740E-06  478285.2 3747955.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003785         0   0.72740E-06  478285.4 3747946.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003786         0   0.72740E-06  478285.5 3747938.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003787         0   0.72740E-06  478285.7 3747929.9   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003788         0   0.72740E-06  478285.8 3747921.4   449.0      4.00      3.95      1.86      YES   HROFDY
  L0003789         0   0.72740E-06  478285.9 3747912.9   449.0      4.00      3.95      1.86      YES   HROFDY
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                   Residential
 L0003790         0   0.72740E-06  478286.1 3747904.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003791         0   0.72740E-06  478286.2 3747895.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003792         0   0.72740E-06  478286.4 3747887.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003793         0   0.72740E-06  478286.5 3747878.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003794         0   0.72740E-06  478286.6 3747870.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003795         0   0.72740E-06  478286.8 3747861.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003796         0   0.72740E-06  478286.9 3747853.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003797         0   0.72740E-06  478287.1 3747844.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003798         0   0.72740E-06  478287.2 3747836.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003799         0   0.72740E-06  478287.3 3747827.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003800         0   0.72740E-06  478287.5 3747819.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003801         0   0.72740E-06  478287.6 3747810.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003802         0   0.72740E-06  478287.8 3747802.4   449.0     4.00     3.95     1.86     YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  22
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0003803         0   0.72740E-06  478287.9 3747793.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003804         0   0.72740E-06  478288.0 3747785.4   449.0     4.00     3.95     1.86     YES   HROFDY
 L0003805         0   0.72740E-06  478288.2 3747776.9   449.0     4.00     3.95     1.86     YES   HROFDY
 L0005456         0   0.95720E-06  477480.6 3749800.2   458.0     4.00     3.95     1.86     YES
 L0005457         0   0.95720E-06  477480.4 3749808.7   458.0     4.00     3.95     1.86     YES
 L0005458         0   0.95720E-06  477480.3 3749817.2   458.0     4.00     3.95     1.86     YES
 L0005459         0   0.95720E-06  477480.1 3749825.7   458.0     4.00     3.95     1.86     YES
 L0005460         0   0.95720E-06  477480.0 3749834.2   458.0     4.00     3.95     1.86     YES
 L0005461         0   0.95720E-06  477479.9 3749842.7   458.0     4.00     3.95     1.86     YES
 L0005462         0   0.95720E-06  477479.7 3749851.2   458.0     4.00     3.95     1.86     YES
 L0005463         0   0.95720E-06  477479.6 3749859.7   458.0     4.00     3.95     1.86     YES
 L0005464         0   0.95720E-06  477479.5 3749868.2   458.0     4.00     3.95     1.86     YES
 L0005465         0   0.95720E-06  477479.3 3749876.7   458.0     4.00     3.95     1.86     YES
 L0005466         0   0.95720E-06  477479.2 3749885.2   458.0     4.00     3.95     1.86     YES
 L0005467         0   0.95720E-06  477479.1 3749893.7   458.0     4.00     3.95     1.86     YES
 L0005468         0   0.95720E-06  477478.9 3749902.2   458.0     4.00     3.95     1.86     YES
 L0005469         0   0.95720E-06  477478.8 3749910.7   458.0     4.00     3.95     1.86     YES
 L0005470         0   0.95720E-06  477478.7 3749919.2   458.0     4.00     3.95     1.86     YES
 L0005471         0   0.95720E-06  477478.5 3749927.7   458.0     4.00     3.95     1.86     YES
 L0005472         0   0.95720E-06  477478.4 3749936.2   458.0     4.00     3.95     1.86     YES
 L0005473         0   0.95720E-06  477478.2 3749944.7   458.0     4.00     3.95     1.86     YES
 L0005474         0   0.95720E-06  477478.1 3749953.2   458.0     4.00     3.95     1.86     YES
 L0005475         0   0.95720E-06  477478.0 3749961.7   458.2     4.00     3.95     1.86     YES
 L0005476         0   0.95720E-06  477477.8 3749970.2   458.4     4.00     3.95     1.86     YES
 L0005477         0   0.95720E-06  477477.7 3749978.7   458.7     4.00     3.95     1.86     YES
 L0005478         0   0.95720E-06  477477.6 3749987.2   459.0     4.00     3.95     1.86     YES
 L0005479         0   0.95720E-06  477477.4 3749995.7   459.0     4.00     3.95     1.86     YES
 L0005480         0   0.95720E-06  477477.3 3750004.2   459.0     4.00     3.95     1.86     YES
 L0005481         0   0.95720E-06  477477.2 3750012.7   459.0     4.00     3.95     1.86     YES
 L0005482         0   0.95720E-06  477477.0 3750021.2   459.0     4.00     3.95     1.86     YES
 L0005483         0   0.95720E-06  477476.9 3750029.7   459.0     4.00     3.95     1.86     YES
 L0005484         0   0.95720E-06  477476.8 3750038.2   459.0     4.00     3.95     1.86     YES
 L0005485         0   0.95720E-06  477476.6 3750046.7   459.0     4.00     3.95     1.86     YES
 L0005486         0   0.95720E-06  477476.5 3750055.2   459.0     4.00     3.95     1.86     YES
 L0005487         0   0.95720E-06  477476.3 3750063.7   459.0     4.00     3.95     1.86     YES
 L0005488         0   0.95720E-06  477476.2 3750072.2   459.0     4.00     3.95     1.86     YES
 L0005489         0   0.95720E-06  477476.1 3750080.7   459.0     4.00     3.95     1.86     YES
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                                                             Residential
 L0005490         0   0.95720E-06  477475.9 3750089.2   459.0     4.00     3.95     1.86     YES
 L0005491         0   0.95720E-06  477475.8 3750097.7   459.0     4.00     3.95     1.86     YES
 L0005492         0   0.95720E-06  477475.7 3750106.2   459.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

  PAGE  23
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                           *** VOLUME SOURCE DATA ***

                NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE        PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID          CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0005493         0   0.95720E-06  477475.5 3750114.7   459.0     4.00     3.95     1.86     YES
 L0005494         0   0.95720E-06  477475.4 3750123.2   459.0     4.00     3.95     1.86     YES
 L0005495         0   0.95720E-06  477475.3 3750131.7   459.0     4.00     3.95     1.86     YES
 L0005496         0   0.95720E-06  477475.1 3750140.2   459.0     4.00     3.95     1.86     YES
 L0005497         0   0.95720E-06  477475.0 3750148.7   459.0     4.00     3.95     1.86     YES
 L0005498         0   0.95720E-06  477474.8 3750157.2   459.0     4.00     3.95     1.86     YES
 L0005499         0   0.95720E-06  477474.7 3750165.7   459.0     4.00     3.95     1.86     YES
 L0005500         0   0.95720E-06  477474.2 3750174.2   459.0     4.00     3.95     1.86     YES
 L0005501         0   0.95720E-06  477473.5 3750182.6   459.0     4.00     3.95     1.86     YES
 L0005502         0   0.95720E-06  477472.8 3750191.1   459.0     4.00     3.95     1.86     YES
 L0005503         0   0.95720E-06  477472.1 3750199.6   459.0     4.00     3.95     1.86     YES
 L0005504         0   0.95720E-06  477471.4 3750208.0   459.2     4.00     3.95     1.86     YES
 L0005505         0   0.95720E-06  477470.7 3750216.5   459.2     4.00     3.95     1.86     YES
 L0005506         0   0.95720E-06  477470.0 3750225.0   459.3     4.00     3.95     1.86     YES
 L0005507         0   0.95720E-06  477469.3 3750233.5   459.5     4.00     3.95     1.86     YES
 L0005508         0   0.95720E-06  477468.7 3750241.9   459.7     4.00     3.95     1.86     YES
 L0005509         0   0.95720E-06  477468.0 3750250.4   459.9     4.00     3.95     1.86     YES
 L0005510         0   0.95720E-06  477467.3 3750258.9   460.0     4.00     3.95     1.86     YES
 L0005511         0   0.95720E-06  477466.6 3750267.3   460.0     4.00     3.95     1.86     YES
 L0005512         0   0.95720E-06  477466.5 3750275.8   460.0     4.00     3.95     1.86     YES
 L0005513         0   0.95720E-06  477466.5 3750284.3   460.0     4.00     3.95     1.86     YES
 L0005514         0   0.95720E-06  477466.5 3750292.8   460.0     4.00     3.95     1.86     YES
 L0005515         0   0.95720E-06  477466.6 3750301.3   460.0     4.00     3.95     1.86     YES
 L0005516         0   0.95720E-06  477466.6 3750309.8   460.0     4.00     3.95     1.86     YES
 L0005517         0   0.95720E-06  477466.6 3750318.3   460.0     4.00     3.95     1.86     YES
 L0005518         0   0.95720E-06  477466.7 3750326.8   460.0     4.00     3.95     1.86     YES
 L0005519         0   0.95720E-06  477466.7 3750335.3   460.0     4.00     3.95     1.86     YES
 L0005520         0   0.95720E-06  477466.7 3750343.8   460.0     4.00     3.95     1.86     YES
 L0005521         0   0.95720E-06  477466.8 3750352.3   460.0     4.00     3.95     1.86     YES
 L0005522         0   0.95720E-06  477466.8 3750360.8   460.0     4.00     3.95     1.86     YES
 L0005523         0   0.95720E-06  477466.9 3750369.3   460.0     4.00     3.95     1.86     YES
 L0005524         0   0.95720E-06  477466.9 3750377.8   460.0     4.00     3.95     1.86     YES
 L0005525         0   0.95720E-06  477466.9 3750386.3   460.0     4.00     3.95     1.86     YES
 L0005526         0   0.95720E-06  477467.0 3750394.8   460.0     4.00     3.95     1.86     YES
 L0005527         0   0.95720E-06  477467.0 3750403.3   460.0     4.00     3.95     1.86     YES
 L0005528         0   0.95720E-06  477467.0 3750411.8   460.0     4.00     3.95     1.86     YES
 L0005529         0   0.95720E-06  477467.1 3750420.3   460.0     4.00     3.95     1.86     YES
 L0005530         0   0.95720E-06  477467.1 3750428.8   460.0     4.00     3.95     1.86     YES
 L0005531         0   0.95720E-06  477467.1 3750437.3   460.0     4.00     3.95     1.86     YES
 L0005532         0   0.95720E-06  477467.2 3750445.8   460.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

  PAGE  24
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                       Residential


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0005533         0   0.95720E-06  477467.2 3750454.3   460.0     4.00     3.95     1.86     YES
 L0005534         0   0.95720E-06  477467.3 3750462.8   460.0     4.00     3.95     1.86     YES
 L0005535         0   0.95720E-06  477467.3 3750471.3   460.2     4.00     3.95     1.86     YES
 L0005536         0   0.95720E-06  477467.3 3750479.8   460.4     4.00     3.95     1.86     YES
 L0005537         0   0.95720E-06  477467.4 3750488.3   460.7     4.00     3.95     1.86     YES
 L0005538         0   0.95720E-06  477467.4 3750496.8   461.0     4.00     3.95     1.86     YES
 L0005539         0   0.95720E-06  477467.4 3750505.3   461.0     4.00     3.95     1.86     YES
 L0005540         0   0.95720E-06  477467.5 3750513.8   461.0     4.00     3.95     1.86     YES
 L0005541         0   0.95720E-06  477467.5 3750522.3   461.0     4.00     3.95     1.86     YES
 L0005542         0   0.95720E-06  477467.5 3750530.8   461.0     4.00     3.95     1.86     YES
 L0005543         0   0.95720E-06  477467.6 3750539.3   461.0     4.00     3.95     1.86     YES
 L0005544         0   0.95720E-06  477467.7 3750547.8   461.0     4.00     3.95     1.86     YES
 L0005545         0   0.95720E-06  477467.9 3750556.3   461.0     4.00     3.95     1.86     YES
 L0005546         0   0.95720E-06  477468.2 3750564.8   461.0     4.00     3.95     1.86     YES
 L0005547         0   0.95720E-06  477468.4 3750573.3   461.0     4.00     3.95     1.86     YES
 L0005548         0   0.95720E-06  477468.7 3750581.8   461.0     4.00     3.95     1.86     YES
 L0005549         0   0.95720E-06  477468.9 3750590.3   461.0     4.00     3.95     1.86     YES
 L0005550         0   0.95720E-06  477469.2 3750598.8   461.0     4.00     3.95     1.86     YES
 L0005551         0   0.95720E-06  477469.4 3750607.3   461.0     4.00     3.95     1.86     YES
 L0005552         0   0.95720E-06  477469.7 3750615.8   461.0     4.00     3.95     1.86     YES
 L0005553         0   0.95720E-06  477469.9 3750624.3   461.0     4.00     3.95     1.86     YES
 L0005554         0   0.95720E-06  477470.2 3750632.8   461.0     4.00     3.95     1.86     YES
 L0005555         0   0.95720E-06  477470.4 3750641.3   461.0     4.00     3.95     1.86     YES
 L0005556         0   0.95720E-06  477470.7 3750649.8   461.0     4.00     3.95     1.86     YES
 L0005557         0   0.95720E-06  477470.9 3750658.3   461.2     4.00     3.95     1.86     YES
 L0005558         0   0.95720E-06  477471.2 3750666.8   461.3     4.00     3.95     1.86     YES
 L0005559         0   0.95720E-06  477471.4 3750675.3   461.4     4.00     3.95     1.86     YES
 L0005560         0   0.95720E-06  477471.7 3750683.8   461.5     4.00     3.95     1.86     YES
 L0005561         0   0.95720E-06  477471.9 3750692.3   461.7     4.00     3.95     1.86     YES
 L0005562         0   0.95720E-06  477472.2 3750700.8   461.9     4.00     3.95     1.86     YES
 L0005563         0   0.95720E-06  477472.4 3750709.3   462.0     4.00     3.95     1.86     YES
 L0005564         0   0.95720E-06  477472.7 3750717.8   462.0     4.00     3.95     1.86     YES
 L0005565         0   0.95720E-06  477472.9 3750726.3   462.0     4.00     3.95     1.86     YES
 L0005566         0   0.95720E-06  477473.2 3750734.8   462.0     4.00     3.95     1.86     YES
 L0005567         0   0.95720E-06  477473.4 3750743.3   462.0     4.00     3.95     1.86     YES
 L0005568         0   0.95720E-06  477473.7 3750751.7   462.0     4.00     3.95     1.86     YES
 L0005569         0   0.95720E-06  477473.9 3750760.2   462.0     4.00     3.95     1.86     YES
 L0005570         0   0.95720E-06  477474.2 3750768.7   462.0     4.00     3.95     1.86     YES
 L0005571         0   0.95720E-06  477474.4 3750777.2   462.0     4.00     3.95     1.86     YES
 L0005572         0   0.95720E-06  477474.7 3750785.7   462.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y       ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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                                                      Residential
 L0005573         0   0.95720E-06  477474.9 3750794.2   462.0     4.00     3.95     1.86     YES
 L0005574         0   0.95720E-06  477475.2 3750802.7   462.0     4.00     3.95     1.86     YES
 L0005575         0   0.95720E-06  477475.4 3750811.2   462.0     4.00     3.95     1.86     YES
 L0005576         0   0.95720E-06  477475.7 3750819.7   462.0     4.00     3.95     1.86     YES
 L0005577         0   0.95720E-06  477475.9 3750828.2   462.0     4.00     3.95     1.86     YES
 L0005578         0   0.95720E-06  477476.2 3750836.7   462.0     4.00     3.95     1.86     YES
 L0005579         0   0.95720E-06  477476.4 3750845.2   462.0     4.00     3.95     1.86     YES
 L0005580         0   0.95720E-06  477476.7 3750853.7   462.0     4.00     3.95     1.86     YES
 L0005581         0   0.95720E-06  477476.9 3750862.2   462.1     4.00     3.95     1.86     YES
 L0005582         0   0.95720E-06  477477.1 3750870.7   462.3     4.00     3.95     1.86     YES
 L0005583         0   0.95720E-06  477477.1 3750879.2   462.4     4.00     3.95     1.86     YES
 L0005584         0   0.95720E-06  477477.2 3750887.7   462.6     4.00     3.95     1.86     YES
 L0005585         0   0.95720E-06  477477.2 3750896.2   462.7     4.00     3.95     1.86     YES
 L0005586         0   0.95720E-06  477477.3 3750904.7   462.8     4.00     3.95     1.86     YES
 L0005587         0   0.95720E-06  477477.3 3750913.2   462.9     4.00     3.95     1.86     YES
 L0005588         0   0.95720E-06  477477.4 3750921.7   463.0     4.00     3.95     1.86     YES
 L0005589         0   0.95720E-06  477477.4 3750930.2   463.0     4.00     3.95     1.86     YES
 L0005590         0   0.95720E-06  477477.5 3750938.7   463.0     4.00     3.95     1.86     YES
 L0005591         0   0.95720E-06  477477.6 3750947.2   463.0     4.00     3.95     1.86     YES
 L0005592         0   0.95720E-06  477477.6 3750955.7   463.0     4.00     3.95     1.86     YES
 L0005593         0   0.95720E-06  477477.7 3750964.2   463.0     4.00     3.95     1.86     YES
 L0005594         0   0.95720E-06  477477.7 3750972.7   463.0     4.00     3.95     1.86     YES
 L0005595         0   0.95720E-06  477477.8 3750981.2   463.0     4.00     3.95     1.86     YES
 L0005596         0   0.95720E-06  477477.8 3750989.7   463.0     4.00     3.95     1.86     YES
 L0005597         0   0.95720E-06  477477.9 3750998.2   463.0     4.00     3.95     1.86     YES
 L0005598         0   0.95720E-06  477477.9 3751006.7   463.0     4.00     3.95     1.86     YES
 L0005599         0   0.95720E-06  477478.0 3751015.2   463.0     4.00     3.95     1.86     YES
 L0005600         0   0.95720E-06  477478.0 3751023.7   463.0     4.00     3.95     1.86     YES
 L0005601         0   0.95720E-06  477478.1 3751032.2   463.0     4.00     3.95     1.86     YES
 L0005602         0   0.95720E-06  477478.1 3751040.7   463.0     4.00     3.95     1.86     YES
 L0005603         0   0.95720E-06  477478.2 3751049.2   463.0     4.00     3.95     1.86     YES
 L0005604         0   0.95720E-06  477478.3 3751057.7   463.0     4.00     3.95     1.86     YES
 L0005605         0   0.95720E-06  477478.3 3751066.2   463.0     4.00     3.95     1.86     YES
 L0005606         0   0.95720E-06  477478.4 3751074.7   463.2     4.00     3.95     1.86     YES
 L0005607         0   0.95720E-06  477478.4 3751083.2   463.3     4.00     3.95     1.86     YES
 L0005608         0   0.95720E-06  477478.5 3751091.7   463.5     4.00     3.95     1.86     YES
 L0005609         0   0.95720E-06  477478.5 3751100.2   463.7     4.00     3.95     1.86     YES
 L0005610         0   0.95720E-06  477478.6 3751108.7   463.8     4.00     3.95     1.86     YES
 L0005611         0   0.95720E-06  477478.6 3751117.2   463.9     4.00     3.95     1.86     YES
 L0005612         0   0.95720E-06  477478.7 3751125.7   464.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  26
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                    *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y         ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS) (METERS)            BY
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 L0005613         0   0.95720E-06  477478.7 3751134.2   464.0     4.00     3.95     1.86     YES
 L0005614         0   0.95720E-06  477478.8 3751142.7   464.0     4.00     3.95     1.86     YES
 L0005615         0   0.95720E-06  477478.9 3751151.2   464.0     4.00     3.95     1.86     YES
 L0005616         0   0.95720E-06  477478.9 3751159.7   464.0     4.00     3.95     1.86     YES
 L0005617         0   0.95720E-06  477479.0 3751168.2   464.0     4.00     3.95     1.86     YES
 L0005618         0   0.95720E-06  477479.0 3751176.7   464.0     4.00     3.95     1.86     YES
 L0005619         0   0.95720E-06  477479.1 3751185.2   464.0     4.00     3.95     1.86     YES
 L0005620         0   0.95720E-06  477479.1 3751193.7   464.0     4.00     3.95     1.86     YES
 L0005621         0   0.95720E-06  477479.2 3751202.2   464.0     4.00     3.95     1.86     YES
 L0005622         0   0.95720E-06  477479.2 3751210.7   464.0     4.00     3.95     1.86     YES
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                                                     Residential
 L0005623         0   0.95720E-06  477479.3 3751219.2   464.0     4.00     3.95     1.86     YES
 L0005624         0   0.95720E-06  477479.3 3751227.7   464.0     4.00     3.95     1.86     YES
 L0005625         0   0.95720E-06  477479.4 3751236.2   464.0     4.00     3.95     1.86     YES
 L0005626         0   0.95720E-06  477479.3 3751244.7   464.0     4.00     3.95     1.86     YES
 L0005627         0   0.95720E-06  477479.3 3751253.2   464.2     4.00     3.95     1.86     YES
 L0005628         0   0.95720E-06  477479.2 3751261.7   464.5     4.00     3.95     1.86     YES
 L0005629         0   0.95720E-06  477479.2 3751270.2   464.8     4.00     3.95     1.86     YES
 L0005630         0   0.95720E-06  477479.1 3751278.7   465.0     4.00     3.95     1.86     YES
 L0005631         0   0.95720E-06  477479.0 3751287.2   465.0     4.00     3.95     1.86     YES
 L0005632         0   0.95720E-06  477479.0 3751295.7   465.0     4.00     3.95     1.86     YES
 L0005633         0   0.95720E-06  477478.9 3751304.2   465.0     4.00     3.95     1.86     YES
 L0005634         0   0.95720E-06  477478.9 3751312.7   465.0     4.00     3.95     1.86     YES
 L0005635         0   0.95720E-06  477478.8 3751321.2   465.0     4.00     3.95     1.86     YES
 L0005636         0   0.95720E-06  477478.7 3751329.7   465.0     4.00     3.95     1.86     YES
 L0005637         0   0.95720E-06  477478.7 3751338.2   465.0     4.00     3.95     1.86     YES
 L0005638         0   0.95720E-06  477478.6 3751346.7   465.0     4.00     3.95     1.86     YES
 L0005639         0   0.95720E-06  477478.6 3751355.2   465.0     4.00     3.95     1.86     YES
 L0005640         0   0.95720E-06  477478.5 3751363.7   465.0     4.00     3.95     1.86     YES
 L0005641         0   0.95720E-06  477478.5 3751372.2   465.0     4.00     3.95     1.86     YES
 L0005642         0   0.95720E-06  477478.4 3751380.7   465.0     4.00     3.95     1.86     YES
 L0005643         0   0.95720E-06  477478.3 3751389.2   465.0     4.00     3.95     1.86     YES
 L0005644         0   0.95720E-06  477478.3 3751397.7   465.0     4.00     3.95     1.86     YES
 L0005645         0   0.95720E-06  477478.2 3751406.2   465.0     4.00     3.95     1.86     YES
 L0005646         0   0.95720E-06  477478.2 3751414.7   465.0     4.00     3.95     1.86     YES
 L0005647         0   0.95720E-06  477478.1 3751423.2   465.0     4.00     3.95     1.86     YES
 L0005648         0   0.95720E-06  477478.0 3751431.7   465.2     4.00     3.95     1.86     YES
 L0005649         0   0.95720E-06  477478.0 3751440.2   465.4     4.00     3.95     1.86     YES
 L0005650         0   0.95720E-06  477477.9 3751448.7   465.7     4.00     3.95     1.86     YES
 L0005651         0   0.95720E-06  477477.9 3751457.2   466.0     4.00     3.95     1.86     YES
 L0005652         0   0.95720E-06  477477.8 3751465.7   466.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  27
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

                 NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE         PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID           CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0005653         0   0.95720E-06  477477.8 3751474.2   466.0     4.00     3.95     1.86     YES
 L0005654         0   0.95720E-06  477477.7 3751482.7   466.0     4.00     3.95     1.86     YES
 L0005655         0   0.95720E-06  477477.6 3751491.2   466.0     4.00     3.95     1.86     YES
 L0005656         0   0.95720E-06  477477.6 3751499.7   466.0     4.00     3.95     1.86     YES
 L0005657         0   0.95720E-06  477477.5 3751508.2   466.0     4.00     3.95     1.86     YES
 L0005658         0   0.95720E-06  477477.5 3751516.7   466.0     4.00     3.95     1.86     YES
 L0005659         0   0.95720E-06  477477.4 3751525.2   466.0     4.00     3.95     1.86     YES
 L0005660         0   0.95720E-06  477477.3 3751533.7   466.0     4.00     3.95     1.86     YES
 L0005661         0   0.95720E-06  477477.3 3751542.2   466.0     4.00     3.95     1.86     YES
 L0005662         0   0.95720E-06  477477.2 3751550.7   466.0     4.00     3.95     1.86     YES
 L0005663         0   0.95720E-06  477477.2 3751559.2   466.0     4.00     3.95     1.86     YES
 L0005664         0   0.95720E-06  477477.1 3751567.7   466.0     4.00     3.95     1.86     YES
 L0005665         0   0.95720E-06  477477.0 3751576.2   466.0     4.00     3.95     1.86     YES
 L0005666         0   0.95720E-06  477477.0 3751584.7   466.0     4.00     3.95     1.86     YES
 L0005667         0   0.95720E-06  477476.9 3751593.2   466.0     4.00     3.95     1.86     YES
 L0005668         0   0.95720E-06  477476.9 3751601.7   466.0     4.00     3.95     1.86     YES
 L0005669         0   0.95720E-06  477476.8 3751610.2   466.1     4.00     3.95     1.86     YES
 L0005670         0   0.95720E-06  477476.8 3751618.7   466.2     4.00     3.95     1.86     YES
 L0005671         0   0.95720E-06  477476.7 3751627.2   466.4     4.00     3.95     1.86     YES
 L0005672         0   0.95720E-06  477476.6 3751635.7   466.6     4.00     3.95     1.86     YES
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                                                     Residential
 L0005673         0   0.95720E-06  477476.6 3751644.2   466.7     4.00     3.95     1.86     YES
 L0005674         0   0.95720E-06  477476.5 3751652.7   466.8     4.00     3.95     1.86     YES
 L0005675         0   0.95720E-06  477476.5 3751661.2   466.9     4.00     3.95     1.86     YES
 L0005676         0   0.95720E-06  477476.4 3751669.7   467.0     4.00     3.95     1.86     YES
 L0005677         0   0.95720E-06  477476.3 3751678.2   467.0     4.00     3.95     1.86     YES
 L0005678         0   0.95720E-06  477476.3 3751686.7   467.0     4.00     3.95     1.86     YES
 L0005679         0   0.95720E-06  477476.2 3751695.2   467.0     4.00     3.95     1.86     YES
 L0005680         0   0.95720E-06  477476.2 3751703.7   467.0     4.00     3.95     1.86     YES
 L0005681         0   0.95720E-06  477476.1 3751712.2   467.0     4.00     3.95     1.86     YES
 L0005682         0   0.95720E-06  477476.1 3751720.7   467.0     4.00     3.95     1.86     YES
 L0005683         0   0.95720E-06  477476.0 3751729.2   467.1     4.00     3.95     1.86     YES
 L0005684         0   0.95720E-06  477475.9 3751737.7   467.2     4.00     3.95     1.86     YES
 L0005685         0   0.95720E-06  477475.9 3751746.2   467.4     4.00     3.95     1.86     YES
 L0005686         0   0.95720E-06  477475.8 3751754.7   467.5     4.00     3.95     1.86     YES
 L0005687         0   0.95720E-06  477475.8 3751763.2   467.6     4.00     3.95     1.86     YES
 L0005688         0   0.95720E-06  477475.7 3751771.7   467.8     4.00     3.95     1.86     YES
 L0005689         0   0.95720E-06  477475.6 3751780.2   467.9     4.00     3.95     1.86     YES
 L0005690         0   0.95720E-06  477475.6 3751788.7   468.0     4.00     3.95     1.86     YES
 L0005691         0   0.95720E-06  477475.5 3751797.2   468.0     4.00     3.95     1.86     YES
 L0005692         0   0.95720E-06  477475.5 3751805.7   468.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  28
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X        Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0005693         0   0.95720E-06  477475.4 3751814.2   468.0     4.00     3.95     1.86     YES
 L0005694         0   0.95720E-06  477475.4 3751822.7   468.0     4.00     3.95     1.86     YES
 L0005695         0   0.95720E-06  477475.3 3751831.2   468.0     4.00     3.95     1.86     YES
 L0005696         0   0.95720E-06  477475.2 3751839.7   468.0     4.00     3.95     1.86     YES
 L0005697         0   0.95720E-06  477475.2 3751848.2   468.0     4.00     3.95     1.86     YES
 L0005698         0   0.95720E-06  477475.1 3751856.7   468.0     4.00     3.95     1.86     YES
 L0005699         0   0.95720E-06  477475.1 3751865.2   468.0     4.00     3.95     1.86     YES
 L0005700         0   0.95720E-06  477475.0 3751873.7   468.0     4.00     3.95     1.86     YES
 L0005701         0   0.95720E-06  477474.9 3751882.2   468.2     4.00     3.95     1.86     YES
 L0005702         0   0.95720E-06  477474.9 3751890.7   468.5     4.00     3.95     1.86     YES
 L0005703         0   0.95720E-06  477474.8 3751899.2   468.8     4.00     3.95     1.86     YES
 L0005704         0   0.95720E-06  477474.8 3751907.7   469.0     4.00     3.95     1.86     YES
 L0005705         0   0.95720E-06  477474.7 3751916.2   469.0     4.00     3.95     1.86     YES
 L0005706         0   0.95720E-06  477474.7 3751924.7   469.0     4.00     3.95     1.86     YES
 L0005707         0   0.95720E-06  477474.6 3751933.2   469.0     4.00     3.95     1.86     YES
 L0005708         0   0.95720E-06  477474.5 3751941.7   469.0     4.00     3.95     1.86     YES
 L0005709         0   0.95720E-06  477474.5 3751950.2   469.0     4.00     3.95     1.86     YES
 L0005710         0   0.95720E-06  477474.4 3751958.7   469.0     4.00     3.95     1.86     YES
 L0005711         0   0.95720E-06  477474.4 3751967.2   469.0     4.00     3.95     1.86     YES
 L0005712         0   0.95720E-06  477474.3 3751975.7   469.0     4.00     3.95     1.86     YES
 L0005713         0   0.95720E-06  477474.2 3751984.2   469.0     4.00     3.95     1.86     YES
 L0005714         0   0.95720E-06  477474.2 3751992.7   469.0     4.00     3.95     1.86     YES
 L0005715         0   0.95720E-06  477474.1 3752001.2   469.0     4.00     3.95     1.86     YES
 L0005716         0   0.95720E-06  477474.1 3752009.7   469.0     4.00     3.95     1.86     YES
 L0005717         0   0.95720E-06  477474.0 3752018.2   469.0     4.00     3.95     1.86     YES
 L0005718         0   0.95720E-06  477474.0 3752026.7   469.0     4.00     3.95     1.86     YES
 L0005719         0   0.95720E-06  477473.9 3752035.2   469.1     4.00     3.95     1.86     YES
 L0005720         0   0.95720E-06  477473.8 3752043.7   469.3     4.00     3.95     1.86     YES
 L0005721         0   0.95720E-06  477473.8 3752052.2   469.4     4.00     3.95     1.86     YES
 L0005722         0   0.95720E-06  477473.7 3752060.7   469.5     4.00     3.95     1.86     YES
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                                           Residential
 L0005723         0   0.95720E-06  477473.7 3752069.2   469.5     4.00     3.95     1.86     YES
 L0005724         0   0.95720E-06  477473.6 3752077.7   469.5     4.00     3.95     1.86     YES
 L0005725         0   0.95720E-06  477473.5 3752086.2   469.5     4.00     3.95     1.86     YES
 L0005726         0   0.95720E-06  477473.5 3752094.7   469.6     4.00     3.95     1.86     YES
 L0005727         0   0.95720E-06  477473.4 3752103.2   469.8     4.00     3.95     1.86     YES
 L0005728         0   0.95720E-06  477473.4 3752111.7   469.9     4.00     3.95     1.86     YES
 L0005729         0   0.95720E-06  477473.3 3752120.2   470.1     4.00     3.95     1.86     YES
 L0005730         0   0.95720E-06  477473.3 3752128.7   470.2     4.00     3.95     1.86     YES
 L0005731         0   0.95720E-06  477473.2 3752137.2   470.3     4.00     3.95     1.86     YES
 L0005732         0   0.95720E-06  477473.1 3752145.7   470.4     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
  13:56:09

  PAGE  29
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0005733         0   0.95720E-06  477473.1 3752154.2   470.6     4.00     3.95     1.86     YES
 L0005734         0   0.95720E-06  477473.0 3752162.7   470.7     4.00     3.95     1.86     YES
 L0005735         0   0.95720E-06  477473.0 3752171.2   470.9     4.00     3.95     1.86     YES
 L0005736         0   0.95720E-06  477472.9 3752179.7   471.0     4.00     3.95     1.86     YES
 L0005737         0   0.95720E-06  477472.8 3752188.2   471.0     4.00     3.95     1.86     YES
 L0005738         0   0.95720E-06  477472.8 3752196.7   471.0     4.00     3.95     1.86     YES
 L0005739         0   0.95720E-06  477472.7 3752205.2   471.0     4.00     3.95     1.86     YES
 L0005740         0   0.95720E-06  477472.7 3752213.7   471.2     4.00     3.95     1.86     YES
 L0005741         0   0.95720E-06  477472.6 3752222.2   471.5     4.00     3.95     1.86     YES
 L0005742         0   0.95720E-06  477468.0 3752226.1   471.7     4.00     3.95     1.86     YES
 L0005743         0   0.95720E-06  477459.5 3752226.1   471.7     4.00     3.95     1.86     YES
 L0005744         0   0.95720E-06  477451.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005745         0   0.95720E-06  477442.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005746         0   0.95720E-06  477434.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005747         0   0.95720E-06  477425.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005748         0   0.95720E-06  477417.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005749         0   0.95720E-06  477408.5 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005750         0   0.95720E-06  477400.0 3752226.2   471.7     4.00     3.95     1.86     YES
 L0005751         0   0.95720E-06  477391.5 3752226.2   471.5     4.00     3.95     1.86     YES
 L0005752         0   0.95720E-06  477383.0 3752226.2   471.3     4.00     3.95     1.86     YES
 L0005753         0   0.95720E-06  477374.5 3752226.2   471.1     4.00     3.95     1.86     YES
 L0005754         0   0.95720E-06  477366.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005755         0   0.95720E-06  477357.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005756         0   0.95720E-06  477349.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005757         0   0.95720E-06  477340.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005758         0   0.95720E-06  477332.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005759         0   0.95720E-06  477323.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005760         0   0.95720E-06  477315.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005761         0   0.95720E-06  477306.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005762         0   0.95720E-06  477298.0 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005763         0   0.95720E-06  477289.5 3752226.3   471.0     4.00     3.95     1.86     YES
 L0005764         0   0.95720E-06  477281.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005765         0   0.95720E-06  477272.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005766         0   0.95720E-06  477264.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005767         0   0.95720E-06  477255.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005768         0   0.95720E-06  477247.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005769         0   0.95720E-06  477238.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005770         0   0.95720E-06  477230.0 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005771         0   0.95720E-06  477221.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005772         0   0.95720E-06  477213.0 3752226.4   471.0     4.00     3.95     1.86     YES
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                                                              Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  30
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                            *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0005773         0   0.95720E-06  477204.5 3752226.4   471.0     4.00     3.95     1.86     YES
 L0005774         0   0.95720E-06  477196.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005775         0   0.95720E-06  477187.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005776         0   0.95720E-06  477179.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005777         0   0.95720E-06  477170.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005778         0   0.95720E-06  477162.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005779         0   0.95720E-06  477153.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005780         0   0.95720E-06  477145.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005781         0   0.95720E-06  477136.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005782         0   0.95720E-06  477128.0 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005783         0   0.95720E-06  477119.5 3752226.5   471.0     4.00     3.95     1.86     YES
 L0005784         0   0.95720E-06  477111.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005785         0   0.95720E-06  477102.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005786         0   0.95720E-06  477094.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005787         0   0.95720E-06  477085.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005788         0   0.95720E-06  477077.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005789         0   0.95720E-06  477068.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005790         0   0.95720E-06  477060.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005791         0   0.95720E-06  477051.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005792         0   0.95720E-06  477043.0 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005793         0   0.95720E-06  477034.5 3752226.6   471.0     4.00     3.95     1.86     YES
 L0005794         0   0.95720E-06  477026.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005795         0   0.95720E-06  477017.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005796         0   0.95720E-06  477009.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005797         0   0.95720E-06  477000.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005798         0   0.95720E-06  476992.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005799         0   0.95720E-06  476983.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005800         0   0.95720E-06  476975.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005801         0   0.95720E-06  476966.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005802         0   0.95720E-06  476958.0 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005803         0   0.95720E-06  476949.5 3752226.7   471.0     4.00     3.95     1.86     YES
 L0005804         0   0.95720E-06  476941.0 3752226.8   471.2     4.00     3.95     1.86     YES
 L0005805         0   0.95720E-06  476932.5 3752226.8   471.4     4.00     3.95     1.86     YES
 L0005806         0   0.95720E-06  476924.0 3752226.8   471.6     4.00     3.95     1.86     YES
 L0005807         0   0.95720E-06  476915.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005808         0   0.95720E-06  476907.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005809         0   0.95720E-06  476898.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005810         0   0.95720E-06  476890.0 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005811         0   0.95720E-06  476881.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005812         0   0.95720E-06  476873.0 3752226.8   471.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  31
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                            *** VOLUME SOURCE DATA ***
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                                                                 Residential

                   NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE            PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID              CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0005813          0   0.95720E-06  476864.5 3752226.8   471.7     4.00     3.95     1.86     YES
 L0005814          0   0.95720E-06  476856.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005815          0   0.95720E-06  476847.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005816          0   0.95720E-06  476839.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005817          0   0.95720E-06  476830.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005818          0   0.95720E-06  476822.0 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005819          0   0.95720E-06  476813.5 3752226.9   471.7     4.00     3.95     1.86     YES
 L0005820          0   0.95720E-06  476805.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005821          0   0.95720E-06  476796.5 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005822          0   0.95720E-06  476788.0 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005823          0   0.95720E-06  476779.5 3752226.9   477.2     4.00     3.95     1.86     YES
 L0005824          0   0.95720E-06  476771.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005825          0   0.95720E-06  476762.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005826          0   0.95720E-06  476754.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005827          0   0.95720E-06  476745.5 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005828          0   0.95720E-06  476737.0 3752227.0   477.2     4.00     3.95     1.86     YES
 L0005829          0   0.95720E-06  476728.5 3752227.0   477.3     4.00     3.95     1.86     YES
 L0005830          0   0.95720E-06  476720.0 3752227.0   477.4     4.00     3.95     1.86     YES
 L0005831          0   0.95720E-06  476711.5 3752227.0   477.5     4.00     3.95     1.86     YES
 L0005832          0   0.95720E-06  476703.0 3752227.0   477.6     4.00     3.95     1.86     YES
 L0005833          0   0.95720E-06  476694.5 3752227.0   477.6     4.00     3.95     1.86     YES
 L0005834          0   0.95720E-06  476686.0 3752227.1   477.7     4.00     3.95     1.86     YES
 L0005835          0   0.95720E-06  476677.5 3752227.1   477.8     4.00     3.95     1.86     YES
 L0005836          0   0.95720E-06  476669.0 3752227.1   477.9     4.00     3.95     1.86     YES
 L0005837          0   0.95720E-06  476660.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005838          0   0.95720E-06  476652.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005839          0   0.95720E-06  476643.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005840          0   0.95720E-06  476635.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005841          0   0.95720E-06  476626.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005842          0   0.95720E-06  476618.0 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005843          0   0.95720E-06  476609.5 3752227.1   478.0     4.00     3.95     1.86     YES
 L0005844          0   0.95720E-06  476601.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005845          0   0.95720E-06  476592.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005846          0   0.95720E-06  476584.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005847          0   0.95720E-06  476575.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005848          0   0.95720E-06  476567.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005849          0   0.95720E-06  476558.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005850          0   0.95720E-06  476550.0 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005851          0   0.95720E-06  476541.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005852          0   0.95720E-06  476533.0 3752227.2   478.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  32
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                               *** VOLUME SOURCE DATA ***

                   NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
  SOURCE            PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID              CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0005853          0   0.95720E-06  476524.5 3752227.2   478.0     4.00     3.95     1.86     YES
 L0005854          0   0.95720E-06  476516.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005855          0   0.95720E-06  476507.5 3752227.3   478.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0005856         0   0.95720E-06  476499.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005857         0   0.95720E-06  476490.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005858         0   0.95720E-06  476482.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005859         0   0.95720E-06  476473.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005860         0   0.95720E-06  476465.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005861         0   0.95720E-06  476456.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005862         0   0.95720E-06  476448.0 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005863         0   0.95720E-06  476439.5 3752227.3   478.0     4.00     3.95     1.86     YES
 L0005864         0   0.95720E-06  476431.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005865         0   0.95720E-06  476422.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005866         0   0.95720E-06  476414.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005867         0   0.95720E-06  476405.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005868         0   0.95720E-06  476397.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005869         0   0.95720E-06  476388.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005870         0   0.95720E-06  476380.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005871         0   0.95720E-06  476371.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005872         0   0.95720E-06  476363.0 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005873         0   0.95720E-06  476354.5 3752227.4   478.0     4.00     3.95     1.86     YES
 L0005874         0   0.95720E-06  476346.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005875         0   0.95720E-06  476337.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005876         0   0.95720E-06  476329.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005877         0   0.95720E-06  476320.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005878         0   0.95720E-06  476312.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005879         0   0.95720E-06  476303.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005880         0   0.95720E-06  476295.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005881         0   0.95720E-06  476286.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005882         0   0.95720E-06  476278.0 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005883         0   0.95720E-06  476269.5 3752227.5   478.0     4.00     3.95     1.86     YES
 L0005884         0   0.95720E-06  476261.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005885         0   0.95720E-06  476252.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005886         0   0.95720E-06  476244.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005887         0   0.95720E-06  476235.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005888         0   0.95720E-06  476227.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005889         0   0.95720E-06  476218.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005890         0   0.95720E-06  476210.0 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005891         0   0.95720E-06  476201.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005892         0   0.95720E-06  476193.0 3752227.6   478.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  33
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.               (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0005893         0   0.95720E-06  476184.5 3752227.6   478.0     4.00     3.95     1.86     YES
 L0005894         0   0.95720E-06  476176.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005895         0   0.95720E-06  476167.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005896         0   0.95720E-06  476159.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005897         0   0.95720E-06  476150.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005898         0   0.95720E-06  476142.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005899         0   0.95720E-06  476133.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005900         0   0.95720E-06  476125.0 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005901         0   0.95720E-06  476116.5 3752227.7   478.0     4.00     3.95     1.86     YES
 L0005902         0   0.95720E-06  476108.0 3752227.7   477.9     4.00     3.95     1.86     YES
 L0005903         0   0.95720E-06  476099.5 3752227.7   477.8     4.00     3.95     1.86     YES
 L0005904         0   0.95720E-06  476091.0 3752227.8   477.7     4.00     3.95     1.86     YES
 L0005905         0   0.95720E-06  476082.5 3752227.8   477.6     4.00     3.95     1.86     YES
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                                                     Residential
  L0005906         0  0.95720E-06  476074.0 3752227.8   477.6     4.00     3.95     1.86     YES
  L0005907         0  0.95720E-06  476065.5 3752227.8   477.5     4.00     3.95     1.86     YES
  L0005908         0  0.95720E-06  476057.0 3752227.8   477.4     4.00     3.95     1.86     YES
  L0005909         0  0.95720E-06  476048.5 3752227.8   477.3     4.00     3.95     1.86     YES
  L0005910         0  0.95720E-06  476040.0 3752227.8   477.2     4.00     3.95     1.86     YES
  L0005911         0  0.95720E-06  476031.5 3752227.8   477.2     4.00     3.95     1.86     YES
  L0005912         0  0.95720E-06  476023.0 3752227.8   477.2     4.00     3.95     1.86     YES
  L0005913         0  0.95720E-06  476014.5 3752227.8   477.1     4.00     3.95     1.86     YES
  L0005914         0  0.95720E-06  476006.0 3752227.9   477.1     4.00     3.95     1.86     YES
  L0005915         0  0.95720E-06  475997.5 3752227.9   477.1     4.00     3.95     1.86     YES
  L0005916         0  0.95720E-06  475989.0 3752227.9   477.1     4.00     3.95     1.86     YES
  L0005917         0  0.95720E-06  475980.5 3752227.9   477.1     4.00     3.95     1.86     YES
  L0005918         0  0.95720E-06  475972.0 3752227.9   477.0     4.00     3.95     1.86     YES
  L0005919         0  0.95720E-06  475963.5 3752227.9   477.0     4.00     3.95     1.86     YES
  L0005920         0  0.95720E-06  475955.0 3752227.9   477.0     4.00     3.95     1.86     YES
  L0005921         0  0.95720E-06  475946.5 3752227.9   477.0     4.00     3.95     1.86     YES
  L0005922         0  0.95720E-06  475938.0 3752227.9   477.0     4.00     3.95     1.86     YES
  L0005923         0  0.95720E-06  475929.5 3752227.9   477.0     4.00     3.95     1.86     YES
  L0005924         0  0.95720E-06  475921.0 3752227.9   477.0     4.00     3.95     1.86     YES
  L0005925         0  0.95720E-06  475912.5 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005926         0  0.95720E-06  475904.0 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005927         0  0.95720E-06  475895.5 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005928         0  0.95720E-06  475887.0 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005929         0  0.95720E-06  475878.5 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005930         0  0.95720E-06  475870.0 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005931         0  0.95720E-06  475861.5 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005932         0  0.95720E-06  475853.0 3752228.0   477.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  34
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS) (METERS) (METERS) (METERS)            BY
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  L0005933         0  0.95720E-06  475844.5 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005934         0  0.95720E-06  475836.0 3752228.0   477.0     4.00     3.95     1.86     YES
  L0005935         0  0.95720E-06  475827.5 3752228.1   477.0     4.00     3.95     1.86     YES
  L0005936         0  0.95720E-06  475819.0 3752228.1   477.0     4.00     3.95     1.86     YES
  L0005937         0  0.95720E-06  475810.5 3752228.1   477.0     4.00     3.95     1.86     YES
  L0005938         0  0.95720E-06  475802.0 3752228.1   477.0     4.00     3.95     1.86     YES
  L0005939         0  0.95720E-06  475793.5 3752228.1   477.1     4.00     3.95     1.86     YES
  L0005940         0  0.95720E-06  475785.0 3752228.1   477.1     4.00     3.95     1.86     YES
  L0005941         0  0.95720E-06  475776.5 3752228.1   477.1     4.00     3.95     1.86     YES
  L0005942         0  0.95720E-06  475768.0 3752228.1   477.1     4.00     3.95     1.86     YES
  L0005943         0  0.95720E-06  475759.5 3752228.1   477.1     4.00     3.95     1.86     YES
  L0005944         0  0.95720E-06  475751.0 3752228.1   477.2     4.00     3.95     1.86     YES
  L0005945         0  0.95720E-06  475742.5 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005946         0  0.95720E-06  475734.0 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005947         0  0.95720E-06  475725.5 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005948         0  0.95720E-06  475717.0 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005949         0  0.95720E-06  475708.5 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005950         0  0.95720E-06  475700.0 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005951         0  0.95720E-06  475691.5 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005952         0  0.95720E-06  475683.0 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005953         0  0.95720E-06  475674.5 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005954         0  0.95720E-06  475666.0 3752228.2   477.2     4.00     3.95     1.86     YES
  L0005955         0  0.95720E-06  475657.5 3752228.3   477.2     4.00     3.95     1.86     YES
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                                                                 Residential
 L0005956         0   0.95720E-06  475649.0 3752228.3   477.2     4.00     3.95     1.86     YES
 L0005957         0   0.95720E-06  475640.5 3752228.3   477.2     4.00     3.95     1.86     YES
 L0005958         0   0.95720E-06  475632.0 3752228.3   477.2     4.00     3.95     1.86     YES
 L0005959         0   0.95720E-06  475623.5 3752228.3   477.1     4.00     3.95     1.86     YES
 L0005960         0   0.95720E-06  475615.0 3752228.3   477.1     4.00     3.95     1.86     YES
 L0005961         0   0.95720E-06  475606.5 3752228.3   477.1     4.00     3.95     1.86     YES
 L0005962         0   0.95720E-06  475598.0 3752228.3   477.1     4.00     3.95     1.86     YES
 L0005963         0   0.95720E-06  475589.5 3752228.3   477.0     4.00     3.95     1.86     YES
 L0005964         0   0.95720E-06  475581.0 3752228.3   477.0     4.00     3.95     1.86     YES
 L0005965         0   0.95720E-06  475572.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005966         0   0.95720E-06  475564.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005967         0   0.95720E-06  475555.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005968         0   0.95720E-06  475547.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005969         0   0.95720E-06  475538.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005970         0   0.95720E-06  475530.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005971         0   0.95720E-06  475521.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005972         0   0.95720E-06  475513.0 3752228.4   477.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

  PAGE  35
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                       BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT     SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS) (METERS)           BY
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 L0005973         0   0.95720E-06  475504.5 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005974         0   0.95720E-06  475496.0 3752228.4   477.0     4.00     3.95     1.86     YES
 L0005975         0   0.95720E-06  475487.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005976         0   0.95720E-06  475479.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005977         0   0.95720E-06  475470.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005978         0   0.95720E-06  475462.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005979         0   0.95720E-06  475453.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005980         0   0.95720E-06  475445.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005981         0   0.95720E-06  475436.5 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005982         0   0.95720E-06  475428.0 3752228.5   477.0     4.00     3.95     1.86     YES
 L0005983         0   0.95720E-06  475419.5 3752228.5   476.9     4.00     3.95     1.86     YES
 L0005984         0   0.95720E-06  475411.0 3752228.5   476.9     4.00     3.95     1.86     YES
 L0005985         0   0.95720E-06  475402.5 3752228.6   476.8     4.00     3.95     1.86     YES
 L0005986         0   0.95720E-06  475394.0 3752228.6   476.7     4.00     3.95     1.86     YES
 L0005987         0   0.95720E-06  475385.5 3752228.6   476.6     4.00     3.95     1.86     YES
 L0005988         0   0.95720E-06  475377.0 3752228.6   476.5     4.00     3.95     1.86     YES
 L0005989         0   0.95720E-06  475368.5 3752228.6   476.4     4.00     3.95     1.86     YES
 L0005990         0   0.95720E-06  475360.0 3752228.6   476.3     4.00     3.95     1.86     YES
 L0005991         0   0.95720E-06  475351.5 3752228.6   476.2     4.00     3.95     1.86     YES
 L0005992         0   0.95720E-06  475343.0 3752228.6   476.2     4.00     3.95     1.86     YES
 L0005993         0   0.95720E-06  475334.5 3752228.6   476.2     4.00     3.95     1.86     YES
 L0005994         0   0.95720E-06  475326.0 3752228.6   476.2     4.00     3.95     1.86     YES
 L0005995         0   0.95720E-06  475317.5 3752228.7   476.1     4.00     3.95     1.86     YES
 L0005996         0   0.95720E-06  475309.0 3752228.7   476.1     4.00     3.95     1.86     YES
 L0005997         0   0.95720E-06  475300.5 3752228.7   476.1     4.00     3.95     1.86     YES
 L0005998         0   0.95720E-06  475292.0 3752228.7   476.1     4.00     3.95     1.86     YES
 L0005999         0   0.95720E-06  475283.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0006000         0   0.95720E-06  475275.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0006001         0   0.95720E-06  475266.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0006002         0   0.95720E-06  475258.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0006003         0   0.95720E-06  475249.5 3752228.7   476.0     4.00     3.95     1.86     YES
 L0006004         0   0.95720E-06  475241.0 3752228.7   476.0     4.00     3.95     1.86     YES
 L0006005         0   0.95720E-06  475232.5 3752228.8   476.0     4.00     3.95     1.86     YES
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                                                                   Residential
 L0006006         0   0.95720E-06  475224.0 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006007         0   0.95720E-06  475215.5 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006008         0   0.95720E-06  475207.0 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006009         0   0.95720E-06  475198.5 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006010         0   0.95720E-06  475190.0 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006011         0   0.95720E-06  475181.5 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006012         0   0.95720E-06  475173.0 3752228.8   476.0      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  36
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                               *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006013         0   0.95720E-06  475164.5 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006014         0   0.95720E-06  475156.0 3752228.8   476.0      4.00     3.95     1.86     YES
 L0006015         0   0.95720E-06  475147.5 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006016         0   0.95720E-06  475139.0 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006017         0   0.95720E-06  475130.5 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006018         0   0.95720E-06  475122.0 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006019         0   0.95720E-06  475113.5 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006020         0   0.95720E-06  475105.0 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006021         0   0.95720E-06  475096.5 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006022         0   0.95720E-06  475088.0 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006023         0   0.95720E-06  475079.5 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006024         0   0.95720E-06  475071.0 3752228.9   476.0      4.00     3.95     1.86     YES
 L0006025         0   0.95720E-06  475062.5 3752229.0   476.0      4.00     3.95     1.86     YES
 L0006026         0   0.95720E-06  475054.0 3752229.0   476.0      4.00     3.95     1.86     YES
 L0006027         0   0.95720E-06  475045.5 3752229.0   476.0      4.00     3.95     1.86     YES
 L0006028         0   0.95720E-06  475037.0 3752229.0   476.0      4.00     3.95     1.86     YES
 L0006029         0   0.95720E-06  475028.5 3752229.0   475.9      4.00     3.95     1.86     YES
 L0006030         0   0.95720E-06  475020.0 3752229.0   475.7      4.00     3.95     1.86     YES
 L0006031         0   0.95720E-06  475011.5 3752229.0   475.6      4.00     3.95     1.86     YES
 L0006032         0   0.95720E-06  475003.0 3752229.0   475.5      4.00     3.95     1.86     YES
 L0006033         0   0.95720E-06  474994.5 3752229.0   475.4      4.00     3.95     1.86     YES
 L0006034         0   0.95720E-06  474986.0 3752229.0   475.3      4.00     3.95     1.86     YES
 L0006035         0   0.95720E-06  474977.5 3752229.1   475.2      4.00     3.95     1.86     YES
 L0006036         0   0.95720E-06  474969.0 3752229.1   475.1      4.00     3.95     1.86     YES
 L0006037         0   0.95720E-06  474960.5 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006038         0   0.95720E-06  474952.0 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006039         0   0.95720E-06  474943.5 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006040         0   0.95720E-06  474935.0 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006041         0   0.95720E-06  474926.5 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006042         0   0.95720E-06  474918.0 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006043         0   0.95720E-06  474909.5 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006044         0   0.95720E-06  474901.0 3752229.1   475.0      4.00     3.95     1.86     YES
 L0006045         0   0.95720E-06  474892.5 3752229.2   475.0      4.00     3.95     1.86     YES
 L0006046         0   0.95720E-06  474884.0 3752229.2   475.0      4.00     3.95     1.86     YES
 L0006047         0   0.95720E-06  474875.5 3752229.2   474.9      4.00     3.95     1.86     YES
 L0006048         0   0.95720E-06  474867.0 3752229.2   474.8      4.00     3.95     1.86     YES
 L0006049         0   0.95720E-06  474858.5 3752229.2   474.7      4.00     3.95     1.86     YES
 L0006050         0   0.95720E-06  474850.0 3752229.2   474.5      4.00     3.95     1.86     YES
 L0006051         0   0.95720E-06  474841.5 3752229.2   474.4      4.00     3.95     1.86     YES
 L0006052         0   0.95720E-06  474833.0 3752229.2   474.3      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                   Residential
   13:56:09

   PAGE  37
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006053         0   0.95720E-06  474824.5 3752229.2   474.2     4.00     3.95     1.86     YES
 L0006054         0   0.95720E-06  474816.0 3752229.2   474.1     4.00     3.95     1.86     YES
 L0006055         0   0.95720E-06  474807.5 3752229.3   474.0     4.00     3.95     1.86     YES
 L0006056         0   0.95720E-06  474799.1 3752228.0   474.1     4.00     3.95     1.86     YES
 L0006057         0   0.95720E-06  474790.7 3752226.7   474.2     4.00     3.95     1.86     YES
 L0006058         0   0.95720E-06  474782.3 3752225.5   474.3     4.00     3.95     1.86     YES
 L0006059         0   0.95720E-06  474773.9 3752224.2   474.4     4.00     3.95     1.86     YES
 L0006060         0   0.95720E-06  474765.5 3752222.9   474.6     4.00     3.95     1.86     YES
 L0006061         0   0.95720E-06  474757.1 3752221.7   474.7     4.00     3.95     1.86     YES
 L0006062         0   0.95720E-06  474748.7 3752220.4   474.8     4.00     3.95     1.86     YES
 L0006063         0   0.95720E-06  474740.3 3752219.1   474.9     4.00     3.95     1.86     YES
 L0006064         0   0.95720E-06  474731.9 3752217.8   475.0     4.00     3.95     1.86     YES
 L0006065         0   0.95720E-06  474723.5 3752216.6   475.0     4.00     3.95     1.86     YES
 L0006066         0   0.95720E-06  474715.1 3752215.3   475.0     4.00     3.95     1.86     YES
 L0006067         0   0.95720E-06  474706.7 3752214.0   475.0     4.00     3.95     1.86     YES
 L0006068         0   0.95720E-06  474698.3 3752212.8   475.0     4.00     3.95     1.86     YES
 L0006069         0   0.95720E-06  474689.9 3752211.5   475.0     4.00     3.95     1.86     YES
 L0006070         0   0.95720E-06  474681.5 3752210.2   475.0     4.00     3.95     1.86     YES
 L0006071         0   0.95720E-06  474673.1 3752209.0   475.0     4.00     3.95     1.86     YES
 L0006072         0   0.95720E-06  474664.7 3752207.7   475.0     4.00     3.95     1.86     YES
 L0006073         0   0.95720E-06  474656.3 3752206.4   475.0     4.00     3.95     1.86     YES
 L0006074         0   0.95720E-06  474647.9 3752205.1   475.0     4.00     3.95     1.86     YES
 L0006075         0   0.95720E-06  474639.5 3752203.9   475.0     4.00     3.95     1.86     YES
 L0006076         0   0.95720E-06  474631.1 3752202.6   475.0     4.00     3.95     1.86     YES
 L0006077         0   0.95720E-06  474622.6 3752201.3   475.0     4.00     3.95     1.86     YES
 L0006078         0   0.95720E-06  474614.2 3752200.1   475.0     4.00     3.95     1.86     YES
 L0006079         0   0.95720E-06  474605.8 3752198.8   475.0     4.00     3.95     1.86     YES
 L0006080         0   0.95720E-06  474597.4 3752197.5   475.0     4.00     3.95     1.86     YES
 L0006081         0   0.95720E-06  474589.0 3752196.2   475.0     4.00     3.95     1.86     YES
 L0006082         0   0.95720E-06  474580.6 3752195.0   475.0     4.00     3.95     1.86     YES
 L0006083         0   0.95720E-06  474572.2 3752193.7   475.1     4.00     3.95     1.86     YES
 L0006084         0   0.95720E-06  474563.8 3752192.4   475.2     4.00     3.95     1.86     YES
 L0006085         0   0.95720E-06  474555.4 3752191.2   475.3     4.00     3.95     1.86     YES
 L0006086         0   0.95720E-06  474547.0 3752189.9   475.4     4.00     3.95     1.86     YES
 L0006087         0   0.95720E-06  474538.6 3752188.6   475.5     4.00     3.95     1.86     YES
 L0006088         0   0.95720E-06  474530.2 3752187.3   475.6     4.00     3.95     1.86     YES
 L0006089         0   0.95720E-06  474521.8 3752186.1   475.7     4.00     3.95     1.86     YES
 L0006090         0   0.95720E-06  474513.4 3752184.8   475.8     4.00     3.95     1.86     YES
 L0006091         0   0.95720E-06  474505.0 3752183.5   475.9     4.00     3.95     1.86     YES
 L0006092         0   0.95720E-06  474496.6 3752182.3   476.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE  38
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
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                                                   Residential
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006093         0   0.95720E-06  474488.2 3752181.0   476.0      4.00     3.95      1.86     YES
 L0006094         0   0.95720E-06  474479.8 3752179.7   476.0      4.00     3.95      1.86     YES
 L0006095         0   0.95720E-06  474471.4 3752178.4   476.0      4.00     3.95      1.86     YES
 L0006096         0   0.95720E-06  474463.0 3752177.2   476.0      4.00     3.95      1.86     YES
 L0006097         0   0.95720E-06  474454.6 3752175.9   476.0      4.00     3.95      1.86     YES
 L0006098         0   0.95720E-06  474446.2 3752174.6   476.0      4.00     3.95      1.86     YES
 L0006099         0   0.95720E-06  474437.8 3752173.4   476.0      4.00     3.95      1.86     YES
 L0006100         0   0.95720E-06  474429.3 3752172.1   476.0      4.00     3.95      1.86     YES
 L0006101         0   0.95720E-06  474420.9 3752170.8   476.0      4.00     3.95      1.86     YES
 L0006102         0   0.95720E-06  474412.5 3752169.6   476.1      4.00     3.95      1.86     YES
 L0006103         0   0.95720E-06  474404.1 3752168.3   476.2      4.00     3.95      1.86     YES
 L0006104         0   0.95720E-06  474395.7 3752167.0   476.4      4.00     3.95      1.86     YES
 L0006105         0   0.95720E-06  474387.3 3752165.7   476.5      4.00     3.95      1.86     YES
 L0006106         0   0.95720E-06  474378.9 3752164.5   476.6      4.00     3.95      1.86     YES
 L0006107         0   0.95720E-06  474370.5 3752163.2   476.7      4.00     3.95      1.86     YES
 L0006108         0   0.95720E-06  474362.1 3752161.9   476.8      4.00     3.95      1.86     YES
 L0006109         0   0.95720E-06  474353.7 3752160.7   476.9      4.00     3.95      1.86     YES
 L0006110         0   0.95720E-06  474345.3 3752159.4   477.0      4.00     3.95      1.86     YES
 L0006111         0   0.95720E-06  474336.9 3752158.1   477.0      4.00     3.95      1.86     YES
 L0006112         0   0.95720E-06  474328.5 3752156.8   477.0      4.00     3.95      1.86     YES
 L0006113         0   0.95720E-06  474320.1 3752155.6   477.0      4.00     3.95      1.86     YES
 L0006114         0   0.95720E-06  474311.7 3752154.3   477.0      4.00     3.95      1.86     YES
 L0006115         0   0.95720E-06  474303.3 3752153.0   477.0      4.00     3.95      1.86     YES
 L0006116         0   0.95720E-06  474294.9 3752151.8   477.0      4.00     3.95      1.86     YES
 L0006117         0   0.95720E-06  474286.5 3752150.5   477.0      4.00     3.95      1.86     YES
 L0006118         0   0.95720E-06  474278.1 3752149.2   477.0      4.00     3.95      1.86     YES
 L0006119         0   0.95720E-06  474269.7 3752147.9   477.0      4.00     3.95      1.86     YES
 L0006120         0   0.95720E-06  474261.3 3752146.7   477.0      4.00     3.95      1.86     YES
 L0006121         0   0.95720E-06  474252.9 3752145.4   477.0      4.00     3.95      1.86     YES
 L0006122         0   0.95720E-06  474244.4 3752144.1   477.0      4.00     3.95      1.86     YES
 L0006123         0   0.95720E-06  474236.0 3752142.9   477.0      4.00     3.95      1.86     YES
 L0006124         0   0.95720E-06  474227.6 3752141.6   477.0      4.00     3.95      1.86     YES
 L0006125         0   0.95720E-06  474219.2 3752140.3   477.0      4.00     3.95      1.86     YES
 L0006126         0   0.95720E-06  474210.8 3752139.0   477.0      4.00     3.95      1.86     YES
 L0006127         0   0.95720E-06  474202.4 3752137.8   477.0      4.00     3.95      1.86     YES
 L0006128         0   0.95720E-06  474194.0 3752136.5   477.0      4.00     3.95      1.86     YES
 L0006129         0   0.95720E-06  474185.6 3752135.2   477.1      4.00     3.95      1.86     YES
 L0006130         0   0.95720E-06  474177.2 3752134.0   477.2      4.00     3.95      1.86     YES
 L0006131         0   0.95720E-06  474168.8 3752132.7   477.3      4.00     3.95      1.86     YES
 L0006132         0   0.95720E-06  474160.4 3752131.3   477.4      4.00     3.95      1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                     ***
   13:56:09

   PAGE  39
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006133         0   0.95720E-06  474152.0 3752129.9   477.5      4.00     3.95      1.86     YES
 L0006134         0   0.95720E-06  474143.7 3752128.5   477.6      4.00     3.95      1.86     YES
 L0006135         0   0.95720E-06  474135.3 3752127.1   477.7      4.00     3.95      1.86     YES
 L0006136         0   0.95720E-06  474126.9 3752125.7   477.9      4.00     3.95      1.86     YES
 L0006137         0   0.95720E-06  474118.5 3752124.3   478.0      4.00     3.95      1.86     YES
 L0006138         0   0.95720E-06  474110.1 3752122.9   478.0      4.00     3.95      1.86     YES
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                                                       Residential
 L0006139         0   0.95720E-06  474101.7 3752121.5    478.0     4.00     3.95     1.86     YES
 L0006140         0   0.95720E-06  474093.3 3752120.1    478.0     4.00     3.95     1.86     YES
 L0006141         0   0.95720E-06  474085.0 3752118.8    478.0     4.00     3.95     1.86     YES
 L0006142         0   0.95720E-06  474076.6 3752117.4    478.0     4.00     3.95     1.86     YES
 L0006143         0   0.95720E-06  474068.2 3752116.0    478.0     4.00     3.95     1.86     YES
 L0006144         0   0.95720E-06  474059.8 3752114.6    478.0     4.00     3.95     1.86     YES
 L0006145         0   0.95720E-06  474051.4 3752113.2    478.0     4.00     3.95     1.86     YES
 L0006146         0   0.95720E-06  474043.0 3752111.8    478.0     4.00     3.95     1.86     YES
 L0006147         0   0.23910E-06  477480.6 3749800.2    458.0     0.00     3.95     1.86     YES
 L0006148         0   0.23910E-06  477480.4 3749808.7    458.0     0.00     3.95     1.86     YES
 L0006149         0   0.23910E-06  477480.3 3749817.2    458.0     0.00     3.95     1.86     YES
 L0006150         0   0.23910E-06  477480.1 3749825.7    458.0     0.00     3.95     1.86     YES
 L0006151         0   0.23910E-06  477480.0 3749834.2    458.0     0.00     3.95     1.86     YES
 L0006152         0   0.23910E-06  477479.9 3749842.7    458.0     0.00     3.95     1.86     YES
 L0006153         0   0.23910E-06  477479.7 3749851.2    458.0     0.00     3.95     1.86     YES
 L0006154         0   0.23910E-06  477479.6 3749859.7    458.0     0.00     3.95     1.86     YES
 L0006155         0   0.23910E-06  477479.5 3749868.2    458.0     0.00     3.95     1.86     YES
 L0006156         0   0.23910E-06  477479.3 3749876.7    458.0     0.00     3.95     1.86     YES
 L0006157         0   0.23910E-06  477479.2 3749885.2    458.0     0.00     3.95     1.86     YES
 L0006158         0   0.23910E-06  477479.1 3749893.7    458.0     0.00     3.95     1.86     YES
 L0006159         0   0.23910E-06  477478.9 3749902.2    458.0     0.00     3.95     1.86     YES
 L0006160         0   0.23910E-06  477478.8 3749910.7    458.0     0.00     3.95     1.86     YES
 L0006161         0   0.23910E-06  477478.7 3749919.2    458.0     0.00     3.95     1.86     YES
 L0006162         0   0.23910E-06  477478.5 3749927.7    458.0     0.00     3.95     1.86     YES
 L0006163         0   0.23910E-06  477478.4 3749936.2    458.0     0.00     3.95     1.86     YES
 L0006164         0   0.23910E-06  477478.2 3749944.7    458.0     0.00     3.95     1.86     YES
 L0006165         0   0.23910E-06  477478.1 3749953.2    458.0     0.00     3.95     1.86     YES
 L0006166         0   0.23910E-06  477478.0 3749961.7    458.2     0.00     3.95     1.86     YES
 L0006167         0   0.23910E-06  477477.8 3749970.2    458.4     0.00     3.95     1.86     YES
 L0006168         0   0.23910E-06  477477.7 3749978.7    458.7     0.00     3.95     1.86     YES
 L0006169         0   0.23910E-06  477477.6 3749987.2    459.0     0.00     3.95     1.86     YES
 L0006170         0   0.23910E-06  477477.4 3749995.7    459.0     0.00     3.95     1.86     YES
 L0006171         0   0.23910E-06  477477.3 3750004.2    459.0     0.00     3.95     1.86     YES
 L0006172         0   0.23910E-06  477477.2 3750012.7    459.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  40
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006173         0   0.23910E-06  477477.0 3750021.2    459.0     0.00     3.95     1.86     YES
 L0006174         0   0.23910E-06  477476.9 3750029.7    459.0     0.00     3.95     1.86     YES
 L0006175         0   0.23910E-06  477476.8 3750038.2    459.0     0.00     3.95     1.86     YES
 L0006176         0   0.23910E-06  477476.6 3750046.7    459.0     0.00     3.95     1.86     YES
 L0006177         0   0.23910E-06  477476.5 3750055.2    459.0     0.00     3.95     1.86     YES
 L0006178         0   0.23910E-06  477476.3 3750063.7    459.0     0.00     3.95     1.86     YES
 L0006179         0   0.23910E-06  477476.2 3750072.2    459.0     0.00     3.95     1.86     YES
 L0006180         0   0.23910E-06  477476.1 3750080.7    459.0     0.00     3.95     1.86     YES
 L0006181         0   0.23910E-06  477475.9 3750089.2    459.0     0.00     3.95     1.86     YES
 L0006182         0   0.23910E-06  477475.8 3750097.7    459.0     0.00     3.95     1.86     YES
 L0006183         0   0.23910E-06  477475.7 3750106.2    459.0     0.00     3.95     1.86     YES
 L0006184         0   0.23910E-06  477475.5 3750114.7    459.0     0.00     3.95     1.86     YES
 L0006185         0   0.23910E-06  477475.4 3750123.2    459.0     0.00     3.95     1.86     YES
 L0006186         0   0.23910E-06  477475.3 3750131.7    459.0     0.00     3.95     1.86     YES
 L0006187         0   0.23910E-06  477475.1 3750140.2    459.0     0.00     3.95     1.86     YES
 L0006188         0   0.23910E-06  477475.0 3750148.7    459.0     0.00     3.95     1.86     YES
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                                                Residential
 L0006189         0   0.23910E-06  477474.8 3750157.2   459.0     0.00     3.95     1.86     YES
 L0006190         0   0.23910E-06  477474.7 3750165.7   459.0     0.00     3.95     1.86     YES
 L0006191         0   0.23910E-06  477474.2 3750174.2   459.0     0.00     3.95     1.86     YES
 L0006192         0   0.23910E-06  477473.5 3750182.6   459.0     0.00     3.95     1.86     YES
 L0006193         0   0.23910E-06  477472.8 3750191.1   459.0     0.00     3.95     1.86     YES
 L0006194         0   0.23910E-06  477472.1 3750199.6   459.0     0.00     3.95     1.86     YES
 L0006195         0   0.23910E-06  477471.4 3750208.0   459.2     0.00     3.95     1.86     YES
 L0006196         0   0.23910E-06  477470.7 3750216.5   459.2     0.00     3.95     1.86     YES
 L0006197         0   0.23910E-06  477470.0 3750225.0   459.3     0.00     3.95     1.86     YES
 L0006198         0   0.23910E-06  477469.3 3750233.5   459.5     0.00     3.95     1.86     YES
 L0006199         0   0.23910E-06  477468.7 3750241.9   459.7     0.00     3.95     1.86     YES
 L0006200         0   0.23910E-06  477468.0 3750250.4   459.9     0.00     3.95     1.86     YES
 L0006201         0   0.23910E-06  477467.3 3750258.9   460.0     0.00     3.95     1.86     YES
 L0006202         0   0.23910E-06  477466.6 3750267.3   460.0     0.00     3.95     1.86     YES
 L0006203         0   0.23910E-06  477466.5 3750275.8   460.0     0.00     3.95     1.86     YES
 L0006204         0   0.23910E-06  477466.5 3750284.3   460.0     0.00     3.95     1.86     YES
 L0006205         0   0.23910E-06  477466.5 3750292.8   460.0     0.00     3.95     1.86     YES
 L0006206         0   0.23910E-06  477466.6 3750301.3   460.0     0.00     3.95     1.86     YES
 L0006207         0   0.23910E-06  477466.6 3750309.8   460.0     0.00     3.95     1.86     YES
 L0006208         0   0.23910E-06  477466.6 3750318.3   460.0     0.00     3.95     1.86     YES
 L0006209         0   0.23910E-06  477466.7 3750326.8   460.0     0.00     3.95     1.86     YES
 L0006210         0   0.23910E-06  477466.7 3750335.3   460.0     0.00     3.95     1.86     YES
 L0006211         0   0.23910E-06  477466.7 3750343.8   460.0     0.00     3.95     1.86     YES
 L0006212         0   0.23910E-06  477466.8 3750352.3   460.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE  41
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0006213         0   0.23910E-06  477466.8 3750360.8   460.0     0.00     3.95     1.86     YES
 L0006214         0   0.23910E-06  477466.9 3750369.3   460.0     0.00     3.95     1.86     YES
 L0006215         0   0.23910E-06  477466.9 3750377.8   460.0     0.00     3.95     1.86     YES
 L0006216         0   0.23910E-06  477466.9 3750386.3   460.0     0.00     3.95     1.86     YES
 L0006217         0   0.23910E-06  477467.0 3750394.8   460.0     0.00     3.95     1.86     YES
 L0006218         0   0.23910E-06  477467.0 3750403.3   460.0     0.00     3.95     1.86     YES
 L0006219         0   0.23910E-06  477467.0 3750411.8   460.0     0.00     3.95     1.86     YES
 L0006220         0   0.23910E-06  477467.1 3750420.3   460.0     0.00     3.95     1.86     YES
 L0006221         0   0.23910E-06  477467.1 3750428.8   460.0     0.00     3.95     1.86     YES
 L0006222         0   0.23910E-06  477467.1 3750437.3   460.0     0.00     3.95     1.86     YES
 L0006223         0   0.23910E-06  477467.2 3750445.8   460.0     0.00     3.95     1.86     YES
 L0006224         0   0.23910E-06  477467.2 3750454.3   460.0     0.00     3.95     1.86     YES
 L0006225         0   0.23910E-06  477467.3 3750462.8   460.0     0.00     3.95     1.86     YES
 L0006226         0   0.23910E-06  477467.3 3750471.3   460.2     0.00     3.95     1.86     YES
 L0006227         0   0.23910E-06  477467.3 3750479.8   460.4     0.00     3.95     1.86     YES
 L0006228         0   0.23910E-06  477467.4 3750488.3   460.7     0.00     3.95     1.86     YES
 L0006229         0   0.23910E-06  477467.4 3750496.8   461.0     0.00     3.95     1.86     YES
 L0006230         0   0.23910E-06  477467.4 3750505.3   461.0     0.00     3.95     1.86     YES
 L0006231         0   0.23910E-06  477467.5 3750513.8   461.0     0.00     3.95     1.86     YES
 L0006232         0   0.23910E-06  477467.5 3750522.3   461.0     0.00     3.95     1.86     YES
 L0006233         0   0.23910E-06  477467.5 3750530.8   461.0     0.00     3.95     1.86     YES
 L0006234         0   0.23910E-06  477467.6 3750539.3   461.0     0.00     3.95     1.86     YES
 L0006235         0   0.23910E-06  477467.7 3750547.8   461.0     0.00     3.95     1.86     YES
 L0006236         0   0.23910E-06  477467.9 3750556.3   461.0     0.00     3.95     1.86     YES
 L0006237         0   0.23910E-06  477468.2 3750564.8   461.0     0.00     3.95     1.86     YES
 L0006238         0   0.23910E-06  477468.4 3750573.3   461.0     0.00     3.95     1.86     YES
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                                                    Residential
 L0006239         0   0.23910E-06  477468.7 3750581.8   461.0     0.00     3.95     1.86     YES
 L0006240         0   0.23910E-06  477468.9 3750590.3   461.0     0.00     3.95     1.86     YES
 L0006241         0   0.23910E-06  477469.2 3750598.8   461.0     0.00     3.95     1.86     YES
 L0006242         0   0.23910E-06  477469.4 3750607.3   461.0     0.00     3.95     1.86     YES
 L0006243         0   0.23910E-06  477469.7 3750615.8   461.0     0.00     3.95     1.86     YES
 L0006244         0   0.23910E-06  477469.9 3750624.3   461.0     0.00     3.95     1.86     YES
 L0006245         0   0.23910E-06  477470.2 3750632.8   461.0     0.00     3.95     1.86     YES
 L0006246         0   0.23910E-06  477470.4 3750641.3   461.0     0.00     3.95     1.86     YES
 L0006247         0   0.23910E-06  477470.7 3750649.8   461.0     0.00     3.95     1.86     YES
 L0006248         0   0.23910E-06  477470.9 3750658.3   461.2     0.00     3.95     1.86     YES
 L0006249         0   0.23910E-06  477471.2 3750666.8   461.3     0.00     3.95     1.86     YES
 L0006250         0   0.23910E-06  477471.4 3750675.3   461.4     0.00     3.95     1.86     YES
 L0006251         0   0.23910E-06  477471.7 3750683.8   461.5     0.00     3.95     1.86     YES
 L0006252         0   0.23910E-06  477471.9 3750692.3   461.7     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  42
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006253         0   0.23910E-06  477472.2 3750700.8   461.9     0.00     3.95     1.86     YES
 L0006254         0   0.23910E-06  477472.4 3750709.3   462.0     0.00     3.95     1.86     YES
 L0006255         0   0.23910E-06  477472.7 3750717.8   462.0     0.00     3.95     1.86     YES
 L0006256         0   0.23910E-06  477472.9 3750726.3   462.0     0.00     3.95     1.86     YES
 L0006257         0   0.23910E-06  477473.2 3750734.8   462.0     0.00     3.95     1.86     YES
 L0006258         0   0.23910E-06  477473.4 3750743.3   462.0     0.00     3.95     1.86     YES
 L0006259         0   0.23910E-06  477473.7 3750751.7   462.0     0.00     3.95     1.86     YES
 L0006260         0   0.23910E-06  477473.9 3750760.2   462.0     0.00     3.95     1.86     YES
 L0006261         0   0.23910E-06  477474.2 3750768.7   462.0     0.00     3.95     1.86     YES
 L0006262         0   0.23910E-06  477474.4 3750777.2   462.0     0.00     3.95     1.86     YES
 L0006263         0   0.23910E-06  477474.7 3750785.7   462.0     0.00     3.95     1.86     YES
 L0006264         0   0.23910E-06  477474.9 3750794.2   462.0     0.00     3.95     1.86     YES
 L0006265         0   0.23910E-06  477475.2 3750802.7   462.0     0.00     3.95     1.86     YES
 L0006266         0   0.23910E-06  477475.4 3750811.2   462.0     0.00     3.95     1.86     YES
 L0006267         0   0.23910E-06  477475.7 3750819.7   462.0     0.00     3.95     1.86     YES
 L0006268         0   0.23910E-06  477475.9 3750828.2   462.0     0.00     3.95     1.86     YES
 L0006269         0   0.23910E-06  477476.2 3750836.7   462.0     0.00     3.95     1.86     YES
 L0006270         0   0.23910E-06  477476.4 3750845.2   462.0     0.00     3.95     1.86     YES
 L0006271         0   0.23910E-06  477476.7 3750853.7   462.0     0.00     3.95     1.86     YES
 L0006272         0   0.23910E-06  477476.9 3750862.2   462.1     0.00     3.95     1.86     YES
 L0006273         0   0.23910E-06  477477.1 3750870.7   462.3     0.00     3.95     1.86     YES
 L0006274         0   0.23910E-06  477477.1 3750879.2   462.4     0.00     3.95     1.86     YES
 L0006275         0   0.23910E-06  477477.2 3750887.7   462.6     0.00     3.95     1.86     YES
 L0006276         0   0.23910E-06  477477.2 3750896.2   462.7     0.00     3.95     1.86     YES
 L0006277         0   0.23910E-06  477477.3 3750904.7   462.8     0.00     3.95     1.86     YES
 L0006278         0   0.23910E-06  477477.3 3750913.2   462.9     0.00     3.95     1.86     YES
 L0006279         0   0.23910E-06  477477.4 3750921.7   463.0     0.00     3.95     1.86     YES
 L0006280         0   0.23910E-06  477477.4 3750930.2   463.0     0.00     3.95     1.86     YES
 L0006281         0   0.23910E-06  477477.5 3750938.7   463.0     0.00     3.95     1.86     YES
 L0006282         0   0.23910E-06  477477.6 3750947.2   463.0     0.00     3.95     1.86     YES
 L0006283         0   0.23910E-06  477477.6 3750955.7   463.0     0.00     3.95     1.86     YES
 L0006284         0   0.23910E-06  477477.7 3750964.2   463.0     0.00     3.95     1.86     YES
 L0006285         0   0.23910E-06  477477.7 3750972.7   463.0     0.00     3.95     1.86     YES
 L0006286         0   0.23910E-06  477477.8 3750981.2   463.0     0.00     3.95     1.86     YES
 L0006287         0   0.23910E-06  477477.8 3750989.7   463.0     0.00     3.95     1.86     YES
 L0006288         0   0.23910E-06  477477.9 3750998.2   463.0     0.00     3.95     1.86     YES
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                                                   Residential
 L0006289         0   0.23910E-06  477477.9 3751006.7   463.0     0.00     3.95     1.86     YES
 L0006290         0   0.23910E-06  477478.0 3751015.2   463.0     0.00     3.95     1.86     YES
 L0006291         0   0.23910E-06  477478.0 3751023.7   463.0     0.00     3.95     1.86     YES
 L0006292         0   0.23910E-06  477478.1 3751032.2   463.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

  PAGE  43
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)      X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006293         0   0.23910E-06  477478.1 3751040.7   463.0     0.00     3.95     1.86     YES
 L0006294         0   0.23910E-06  477478.2 3751049.2   463.0     0.00     3.95     1.86     YES
 L0006295         0   0.23910E-06  477478.3 3751057.7   463.0     0.00     3.95     1.86     YES
 L0006296         0   0.23910E-06  477478.3 3751066.2   463.0     0.00     3.95     1.86     YES
 L0006297         0   0.23910E-06  477478.4 3751074.7   463.2     0.00     3.95     1.86     YES
 L0006298         0   0.23910E-06  477478.4 3751083.2   463.3     0.00     3.95     1.86     YES
 L0006299         0   0.23910E-06  477478.5 3751091.7   463.5     0.00     3.95     1.86     YES
 L0006300         0   0.23910E-06  477478.5 3751100.2   463.7     0.00     3.95     1.86     YES
 L0006301         0   0.23910E-06  477478.6 3751108.7   463.8     0.00     3.95     1.86     YES
 L0006302         0   0.23910E-06  477478.6 3751117.2   463.9     0.00     3.95     1.86     YES
 L0006303         0   0.23910E-06  477478.7 3751125.7   464.0     0.00     3.95     1.86     YES
 L0006304         0   0.23910E-06  477478.7 3751134.2   464.0     0.00     3.95     1.86     YES
 L0006305         0   0.23910E-06  477478.8 3751142.7   464.0     0.00     3.95     1.86     YES
 L0006306         0   0.23910E-06  477478.9 3751151.2   464.0     0.00     3.95     1.86     YES
 L0006307         0   0.23910E-06  477478.9 3751159.7   464.0     0.00     3.95     1.86     YES
 L0006308         0   0.23910E-06  477479.0 3751168.2   464.0     0.00     3.95     1.86     YES
 L0006309         0   0.23910E-06  477479.0 3751176.7   464.0     0.00     3.95     1.86     YES
 L0006310         0   0.23910E-06  477479.1 3751185.2   464.0     0.00     3.95     1.86     YES
 L0006311         0   0.23910E-06  477479.1 3751193.7   464.0     0.00     3.95     1.86     YES
 L0006312         0   0.23910E-06  477479.2 3751202.2   464.0     0.00     3.95     1.86     YES
 L0006313         0   0.23910E-06  477479.2 3751210.7   464.0     0.00     3.95     1.86     YES
 L0006314         0   0.23910E-06  477479.3 3751219.2   464.0     0.00     3.95     1.86     YES
 L0006315         0   0.23910E-06  477479.3 3751227.7   464.0     0.00     3.95     1.86     YES
 L0006316         0   0.23910E-06  477479.4 3751236.2   464.0     0.00     3.95     1.86     YES
 L0006317         0   0.23910E-06  477479.3 3751244.7   464.0     0.00     3.95     1.86     YES
 L0006318         0   0.23910E-06  477479.3 3751253.2   464.2     0.00     3.95     1.86     YES
 L0006319         0   0.23910E-06  477479.2 3751261.7   464.5     0.00     3.95     1.86     YES
 L0006320         0   0.23910E-06  477479.2 3751270.2   464.8     0.00     3.95     1.86     YES
 L0006321         0   0.23910E-06  477479.1 3751278.7   465.0     0.00     3.95     1.86     YES
 L0006322         0   0.23910E-06  477479.0 3751287.2   465.0     0.00     3.95     1.86     YES
 L0006323         0   0.23910E-06  477479.0 3751295.7   465.0     0.00     3.95     1.86     YES
 L0006324         0   0.23910E-06  477478.9 3751304.2   465.0     0.00     3.95     1.86     YES
 L0006325         0   0.23910E-06  477478.9 3751312.7   465.0     0.00     3.95     1.86     YES
 L0006326         0   0.23910E-06  477478.8 3751321.2   465.0     0.00     3.95     1.86     YES
 L0006327         0   0.23910E-06  477478.7 3751329.7   465.0     0.00     3.95     1.86     YES
 L0006328         0   0.23910E-06  477478.7 3751338.2   465.0     0.00     3.95     1.86     YES
 L0006329         0   0.23910E-06  477478.6 3751346.7   465.0     0.00     3.95     1.86     YES
 L0006330         0   0.23910E-06  477478.6 3751355.2   465.0     0.00     3.95     1.86     YES
 L0006331         0   0.23910E-06  477478.5 3751363.7   465.0     0.00     3.95     1.86     YES
 L0006332         0   0.23910E-06  477478.5 3751372.2   465.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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                                                   Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART. (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006333         0   0.23910E-06  477478.4 3751380.7   465.0     0.00     3.95     1.86     YES
 L0006334         0   0.23910E-06  477478.3 3751389.2   465.0     0.00     3.95     1.86     YES
 L0006335         0   0.23910E-06  477478.3 3751397.7   465.0     0.00     3.95     1.86     YES
 L0006336         0   0.23910E-06  477478.2 3751406.2   465.0     0.00     3.95     1.86     YES
 L0006337         0   0.23910E-06  477478.2 3751414.7   465.0     0.00     3.95     1.86     YES
 L0006338         0   0.23910E-06  477478.1 3751423.2   465.0     0.00     3.95     1.86     YES
 L0006339         0   0.23910E-06  477478.0 3751431.7   465.2     0.00     3.95     1.86     YES
 L0006340         0   0.23910E-06  477478.0 3751440.2   465.4     0.00     3.95     1.86     YES
 L0006341         0   0.23910E-06  477477.9 3751448.7   465.7     0.00     3.95     1.86     YES
 L0006342         0   0.23910E-06  477477.9 3751457.2   466.0     0.00     3.95     1.86     YES
 L0006343         0   0.23910E-06  477477.8 3751465.7   466.0     0.00     3.95     1.86     YES
 L0006344         0   0.23910E-06  477477.8 3751474.2   466.0     0.00     3.95     1.86     YES
 L0006345         0   0.23910E-06  477477.7 3751482.7   466.0     0.00     3.95     1.86     YES
 L0006346         0   0.23910E-06  477477.6 3751491.2   466.0     0.00     3.95     1.86     YES
 L0006347         0   0.23910E-06  477477.6 3751499.7   466.0     0.00     3.95     1.86     YES
 L0006348         0   0.23910E-06  477477.5 3751508.2   466.0     0.00     3.95     1.86     YES
 L0006349         0   0.23910E-06  477477.5 3751516.7   466.0     0.00     3.95     1.86     YES
 L0006350         0   0.23910E-06  477477.4 3751525.2   466.0     0.00     3.95     1.86     YES
 L0006351         0   0.23910E-06  477477.3 3751533.7   466.0     0.00     3.95     1.86     YES
 L0006352         0   0.23910E-06  477477.3 3751542.2   466.0     0.00     3.95     1.86     YES
 L0006353         0   0.23910E-06  477477.2 3751550.7   466.0     0.00     3.95     1.86     YES
 L0006354         0   0.23910E-06  477477.2 3751559.2   466.0     0.00     3.95     1.86     YES
 L0006355         0   0.23910E-06  477477.1 3751567.7   466.0     0.00     3.95     1.86     YES
 L0006356         0   0.23910E-06  477477.0 3751576.2   466.0     0.00     3.95     1.86     YES
 L0006357         0   0.23910E-06  477477.0 3751584.7   466.0     0.00     3.95     1.86     YES
 L0006358         0   0.23910E-06  477476.9 3751593.2   466.0     0.00     3.95     1.86     YES
 L0006359         0   0.23910E-06  477476.9 3751601.7   466.0     0.00     3.95     1.86     YES
 L0006360         0   0.23910E-06  477476.8 3751610.2   466.1     0.00     3.95     1.86     YES
 L0006361         0   0.23910E-06  477476.8 3751618.7   466.2     0.00     3.95     1.86     YES
 L0006362         0   0.23910E-06  477476.7 3751627.2   466.4     0.00     3.95     1.86     YES
 L0006363         0   0.23910E-06  477476.6 3751635.7   466.6     0.00     3.95     1.86     YES
 L0006364         0   0.23910E-06  477476.6 3751644.2   466.7     0.00     3.95     1.86     YES
 L0006365         0   0.23910E-06  477476.5 3751652.7   466.8     0.00     3.95     1.86     YES
 L0006366         0   0.23910E-06  477476.5 3751661.2   466.9     0.00     3.95     1.86     YES
 L0006367         0   0.23910E-06  477476.4 3751669.7   467.0     0.00     3.95     1.86     YES
 L0006368         0   0.23910E-06  477476.3 3751678.2   467.0     0.00     3.95     1.86     YES
 L0006369         0   0.23910E-06  477476.3 3751686.7   467.0     0.00     3.95     1.86     YES
 L0006370         0   0.23910E-06  477476.2 3751695.2   467.0     0.00     3.95     1.86     YES
 L0006371         0   0.23910E-06  477476.2 3751703.7   467.0     0.00     3.95     1.86     YES
 L0006372         0   0.23910E-06  477476.1 3751712.2   467.0     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART. (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006373         0   0.23910E-06  477476.1 3751720.7   467.0     0.00     3.95     1.86     YES
 L0006374         0   0.23910E-06  477476.0 3751729.2   467.1     0.00     3.95     1.86     YES
 L0006375         0   0.23910E-06  477475.9 3751737.7   467.2     0.00     3.95     1.86     YES
 L0006376         0   0.23910E-06  477475.9 3751746.2   467.4     0.00     3.95     1.86     YES
 L0006377         0   0.23910E-06  477475.8 3751754.7   467.5     0.00     3.95     1.86     YES
 L0006378         0   0.23910E-06  477475.8 3751763.2   467.6     0.00     3.95     1.86     YES
 L0006379         0   0.23910E-06  477475.7 3751771.7   467.8     0.00     3.95     1.86     YES
 L0006380         0   0.23910E-06  477475.6 3751780.2   467.9     0.00     3.95     1.86     YES
 L0006381         0   0.23910E-06  477475.6 3751788.7   468.0     0.00     3.95     1.86     YES
 L0006382         0   0.23910E-06  477475.5 3751797.2   468.0     0.00     3.95     1.86     YES
 L0006383         0   0.23910E-06  477475.5 3751805.7   468.0     0.00     3.95     1.86     YES
 L0006384         0   0.23910E-06  477475.4 3751814.2   468.0     0.00     3.95     1.86     YES
 L0006385         0   0.23910E-06  477475.4 3751822.7   468.0     0.00     3.95     1.86     YES
 L0006386         0   0.23910E-06  477475.3 3751831.2   468.0     0.00     3.95     1.86     YES
 L0006387         0   0.23910E-06  477475.2 3751839.7   468.0     0.00     3.95     1.86     YES
 L0006388         0   0.23910E-06  477475.2 3751848.2   468.0     0.00     3.95     1.86     YES
 L0006389         0   0.23910E-06  477475.1 3751856.7   468.0     0.00     3.95     1.86     YES
 L0006390         0   0.23910E-06  477475.1 3751865.2   468.0     0.00     3.95     1.86     YES
 L0006391         0   0.23910E-06  477475.0 3751873.7   468.0     0.00     3.95     1.86     YES
 L0006392         0   0.23910E-06  477474.9 3751882.2   468.2     0.00     3.95     1.86     YES
 L0006393         0   0.23910E-06  477474.9 3751890.7   468.5     0.00     3.95     1.86     YES
 L0006394         0   0.23910E-06  477474.8 3751899.2   468.8     0.00     3.95     1.86     YES
 L0006395         0   0.23910E-06  477474.8 3751907.7   469.0     0.00     3.95     1.86     YES
 L0006396         0   0.23910E-06  477474.7 3751916.2   469.0     0.00     3.95     1.86     YES
 L0006397         0   0.23910E-06  477474.7 3751924.7   469.0     0.00     3.95     1.86     YES
 L0006398         0   0.23910E-06  477474.6 3751933.2   469.0     0.00     3.95     1.86     YES
 L0006399         0   0.23910E-06  477474.5 3751941.7   469.0     0.00     3.95     1.86     YES
 L0006400         0   0.23910E-06  477474.5 3751950.2   469.0     0.00     3.95     1.86     YES
 L0006401         0   0.23910E-06  477474.4 3751958.7   469.0     0.00     3.95     1.86     YES
 L0006402         0   0.23910E-06  477474.4 3751967.2   469.0     0.00     3.95     1.86     YES
 L0006403         0   0.23910E-06  477474.3 3751975.7   469.0     0.00     3.95     1.86     YES
 L0006404         0   0.23910E-06  477474.2 3751984.2   469.0     0.00     3.95     1.86     YES
 L0006405         0   0.23910E-06  477474.2 3751992.7   469.0     0.00     3.95     1.86     YES
 L0006406         0   0.23910E-06  477474.1 3752001.2   469.0     0.00     3.95     1.86     YES
 L0006407         0   0.23910E-06  477474.1 3752009.7   469.0     0.00     3.95     1.86     YES
 L0006408         0   0.23910E-06  477474.0 3752018.2   469.0     0.00     3.95     1.86     YES
 L0006409         0   0.23910E-06  477474.0 3752026.7   469.0     0.00     3.95     1.86     YES
 L0006410         0   0.23910E-06  477473.9 3752035.2   469.1     0.00     3.95     1.86     YES
 L0006411         0   0.23910E-06  477473.8 3752043.7   469.3     0.00     3.95     1.86     YES
 L0006412         0   0.23910E-06  477473.8 3752052.2   469.4     0.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                  ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                    *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006413         0   0.23910E-06  477473.7 3752060.7   469.5     0.00     3.95     1.86     YES
 L0006414         0   0.23910E-06  477473.7 3752069.2   469.5     0.00     3.95     1.86     YES
 L0006415         0   0.23910E-06  477473.6 3752077.7   469.5     0.00     3.95     1.86     YES
 L0006416         0   0.23910E-06  477473.5 3752086.2   469.5     0.00     3.95     1.86     YES
 L0006417         0   0.23910E-06  477473.5 3752094.7   469.6     0.00     3.95     1.86     YES
 L0006418         0   0.23910E-06  477473.4 3752103.2   469.8     0.00     3.95     1.86     YES
 L0006419         0   0.23910E-06  477473.4 3752111.7   469.9     0.00     3.95     1.86     YES
 L0006420         0   0.23910E-06  477473.3 3752120.2   470.1     0.00     3.95     1.86     YES
 L0006421         0   0.23910E-06  477473.3 3752128.7   470.2     0.00     3.95     1.86     YES
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 L0006422         0   0.23910E-06  477473.2 3752137.2   470.3     0.00     3.95     1.86     YES
 L0006423         0   0.23910E-06  477473.1 3752145.7   470.4     0.00     3.95     1.86     YES
 L0006424         0   0.23910E-06  477473.1 3752154.2   470.6     0.00     3.95     1.86     YES
 L0006425         0   0.23910E-06  477473.0 3752162.7   470.7     0.00     3.95     1.86     YES
 L0006426         0   0.23910E-06  477473.0 3752171.2   470.9     0.00     3.95     1.86     YES
 L0006427         0   0.23910E-06  477472.9 3752179.7   471.0     0.00     3.95     1.86     YES
 L0006428         0   0.23910E-06  477472.8 3752188.2   471.0     0.00     3.95     1.86     YES
 L0006429         0   0.23910E-06  477472.8 3752196.7   471.0     0.00     3.95     1.86     YES
 L0006430         0   0.23910E-06  477472.7 3752205.2   471.0     0.00     3.95     1.86     YES
 L0006431         0   0.23910E-06  477472.7 3752213.7   471.2     0.00     3.95     1.86     YES
 L0006432         0   0.23910E-06  477472.6 3752222.2   471.5     0.00     3.95     1.86     YES
 L0006433         0   0.11950E-05  477466.5 3747781.2   451.0     4.00     3.95     1.86     YES
 L0006434         0   0.11950E-05  477475.0 3747781.2   451.0     4.00     3.95     1.86     YES
 L0006435         0   0.11950E-05  477483.5 3747781.1   451.0     4.00     3.95     1.86     YES
 L0006436         0   0.11950E-05  477492.0 3747781.1   451.0     4.00     3.95     1.86     YES
 L0006437         0   0.11950E-05  477500.5 3747781.0   451.0     4.00     3.95     1.86     YES
 L0006438         0   0.11950E-05  477509.0 3747781.0   451.0     4.00     3.95     1.86     YES
 L0006439         0   0.11950E-05  477517.5 3747780.9   451.0     4.00     3.95     1.86     YES
 L0006440         0   0.11950E-05  477526.0 3747780.9   451.0     4.00     3.95     1.86     YES
 L0006441         0   0.11950E-05  477534.5 3747780.8   451.0     4.00     3.95     1.86     YES
 L0006442         0   0.11950E-05  477543.0 3747780.7   451.0     4.00     3.95     1.86     YES
 L0006443         0   0.11950E-05  477551.5 3747780.7   451.0     4.00     3.95     1.86     YES
 L0006444         0   0.11950E-05  477560.0 3747780.6   451.0     4.00     3.95     1.86     YES
 L0006445         0   0.11950E-05  477568.5 3747780.6   451.0     4.00     3.95     1.86     YES
 L0006446         0   0.11950E-05  477577.0 3747780.5   451.0     4.00     3.95     1.86     YES
 L0006447         0   0.11950E-05  477585.5 3747780.5   451.0     4.00     3.95     1.86     YES
 L0006448         0   0.11950E-05  477594.0 3747780.4   451.0     4.00     3.95     1.86     YES
 L0006449         0   0.11950E-05  477602.5 3747780.3   451.0     4.00     3.95     1.86     YES
 L0006450         0   0.11950E-05  477611.0 3747780.3   451.0     4.00     3.95     1.86     YES
 L0006451         0   0.11950E-05  477619.5 3747780.2   451.0     4.00     3.95     1.86     YES
 L0006452         0   0.11950E-05  477628.0 3747780.2   451.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT     SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS) (METERS) (METERS) (METERS) (METERS)           BY
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 L0006453         0   0.11950E-05  477636.5 3747780.1   451.0     4.00     3.95     1.86     YES
 L0006454         0   0.11950E-05  477645.0 3747780.1   450.9     4.00     3.95     1.86     YES
 L0006455         0   0.11950E-05  477653.5 3747780.0   450.8     4.00     3.95     1.86     YES
 L0006456         0   0.11950E-05  477662.0 3747780.0   450.6     4.00     3.95     1.86     YES
 L0006457         0   0.11950E-05  477670.5 3747779.9   450.4     4.00     3.95     1.86     YES
 L0006458         0   0.11950E-05  477679.0 3747779.8   450.3     4.00     3.95     1.86     YES
 L0006459         0   0.11950E-05  477687.5 3747779.8   450.2     4.00     3.95     1.86     YES
 L0006460         0   0.11950E-05  477696.0 3747779.7   450.1     4.00     3.95     1.86     YES
 L0006461         0   0.11950E-05  477704.5 3747779.7   450.0     4.00     3.95     1.86     YES
 L0006462         0   0.11950E-05  477713.0 3747779.6   450.0     4.00     3.95     1.86     YES
 L0006463         0   0.11950E-05  477721.5 3747779.6   450.0     4.00     3.95     1.86     YES
 L0006464         0   0.11950E-05  477730.0 3747779.5   450.0     4.00     3.95     1.86     YES
 L0006465         0   0.11950E-05  477738.5 3747779.4   450.0     4.00     3.95     1.86     YES
 L0006466         0   0.11950E-05  477747.0 3747779.4   450.0     4.00     3.95     1.86     YES
 L0006467         0   0.11950E-05  477755.5 3747779.3   450.0     4.00     3.95     1.86     YES
 L0006468         0   0.11950E-05  477764.0 3747779.3   450.0     4.00     3.95     1.86     YES
 L0006469         0   0.11950E-05  477772.5 3747779.2   450.0     4.00     3.95     1.86     YES
 L0006470         0   0.11950E-05  477781.0 3747779.2   450.0     4.00     3.95     1.86     YES
 L0006471         0   0.11950E-05  477789.5 3747779.1   450.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0006472         0   0.11950E-05  477798.0 3747779.1   450.0      4.00      3.95      1.86      YES
 L0006473         0   0.11950E-05  477806.5 3747779.0   450.0      4.00      3.95      1.86      YES
 L0006474         0   0.11950E-05  477815.0 3747778.9   450.0      4.00      3.95      1.86      YES
 L0006475         0   0.11950E-05  477823.5 3747778.9   450.0      4.00      3.95      1.86      YES
 L0006476         0   0.11950E-05  477832.0 3747778.8   450.0      4.00      3.95      1.86      YES
 L0006477         0   0.11950E-05  477840.5 3747778.8   450.0      4.00      3.95      1.86      YES
 L0006478         0   0.11950E-05  477849.0 3747778.7   450.0      4.00      3.95      1.86      YES
 L0006479         0   0.11950E-05  477857.5 3747778.7   450.0      4.00      3.95      1.86      YES
 L0006480         0   0.11950E-05  477866.0 3747778.6   450.0      4.00      3.95      1.86      YES
 L0006481         0   0.11950E-05  477874.5 3747778.6   450.0      4.00      3.95      1.86      YES
 L0006482         0   0.11950E-05  477883.0 3747778.5   450.0      4.00      3.95      1.86      YES
 L0006483         0   0.11950E-05  477891.5 3747778.4   450.0      4.00      3.95      1.86      YES
 L0006484         0   0.11950E-05  477900.0 3747778.4   450.0      4.00      3.95      1.86      YES
 L0006485         0   0.11950E-05  477908.5 3747778.3   450.0      4.00      3.95      1.86      YES
 L0006486         0   0.11950E-05  477917.0 3747778.3   450.0      4.00      3.95      1.86      YES
 L0006487         0   0.11950E-05  477925.5 3747778.2   450.0      4.00      3.95      1.86      YES
 L0006488         0   0.11950E-05  477934.0 3747778.2   450.0      4.00      3.95      1.86      YES
 L0006489         0   0.11950E-05  477942.5 3747778.1   450.0      4.00      3.95      1.86      YES
 L0006490         0   0.11950E-05  477951.0 3747778.0   450.0      4.00      3.95      1.86      YES
 L0006491         0   0.11950E-05  477959.5 3747778.0   450.0      4.00      3.95      1.86      YES
 L0006492         0   0.11950E-05  477968.0 3747777.9   450.0      4.00      3.95      1.86      YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                 *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006493         0   0.11950E-05  477976.5 3747777.9   450.0      4.00      3.95      1.86      YES
 L0006494         0   0.11950E-05  477985.0 3747777.8   450.0      4.00      3.95      1.86      YES
 L0006495         0   0.11950E-05  477993.5 3747777.8   450.0      4.00      3.95      1.86      YES
 L0006496         0   0.11950E-05  478002.0 3747777.7   450.0      4.00      3.95      1.86      YES
 L0006497         0   0.11950E-05  478010.5 3747777.7   449.8      4.00      3.95      1.86      YES
 L0006498         0   0.11950E-05  478019.0 3747777.6   449.6      4.00      3.95      1.86      YES
 L0006499         0   0.11950E-05  478027.5 3747777.5   449.4      4.00      3.95      1.86      YES
 L0006500         0   0.11950E-05  478036.0 3747777.5   449.3      4.00      3.95      1.86      YES
 L0006501         0   0.11950E-05  478044.5 3747777.4   449.2      4.00      3.95      1.86      YES
 L0006502         0   0.11950E-05  478053.0 3747777.4   449.1      4.00      3.95      1.86      YES
 L0006503         0   0.11950E-05  478061.5 3747777.3   449.0      4.00      3.95      1.86      YES
 L0006504         0   0.11950E-05  478070.0 3747777.3   449.0      4.00      3.95      1.86      YES
 L0006505         0   0.11950E-05  478078.5 3747777.2   449.0      4.00      3.95      1.86      YES
 L0006506         0   0.11950E-05  478087.0 3747777.1   449.0      4.00      3.95      1.86      YES
 L0006507         0   0.11950E-05  478095.5 3747777.1   449.0      4.00      3.95      1.86      YES
 L0006508         0   0.11950E-05  478104.0 3747777.0   449.0      4.00      3.95      1.86      YES
 L0006509         0   0.11950E-05  478112.5 3747777.0   449.0      4.00      3.95      1.86      YES
 L0006510         0   0.11950E-05  478121.0 3747776.9   449.0      4.00      3.95      1.86      YES
 L0006511         0   0.11950E-05  478129.5 3747776.9   449.0      4.00      3.95      1.86      YES
 L0006512         0   0.11950E-05  478138.0 3747776.8   449.0      4.00      3.95      1.86      YES
 L0006513         0   0.11950E-05  478146.5 3747776.8   449.0      4.00      3.95      1.86      YES
 L0006514         0   0.11950E-05  478155.0 3747776.7   449.0      4.00      3.95      1.86      YES
 L0006515         0   0.11950E-05  478163.5 3747776.6   449.0      4.00      3.95      1.86      YES
 L0006516         0   0.11950E-05  478172.0 3747776.6   449.0      4.00      3.95      1.86      YES
 L0006517         0   0.11950E-05  478180.5 3747776.5   449.0      4.00      3.95      1.86      YES
 L0006518         0   0.11950E-05  478189.0 3747776.5   449.0      4.00      3.95      1.86      YES
 L0006519         0   0.11950E-05  478197.5 3747776.4   449.0      4.00      3.95      1.86      YES
 L0006520         0   0.11950E-05  478206.0 3747776.4   449.0      4.00      3.95      1.86      YES
 L0006521         0   0.11950E-05  478214.5 3747776.3   449.0      4.00      3.95      1.86      YES
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                                                    Residential
 L0006522         0   0.11950E-05  478223.0 3747776.2   449.0     4.00     3.95     1.86     YES
 L0006523         0   0.11950E-05  478231.5 3747776.2   449.0     4.00     3.95     1.86     YES
 L0006524         0   0.11950E-05  478240.0 3747776.1   449.0     4.00     3.95     1.86     YES
 L0006525         0   0.11950E-05  478248.5 3747776.1   449.0     4.00     3.95     1.86     YES
 L0006526         0   0.11950E-05  478257.0 3747776.0   449.0     4.00     3.95     1.86     YES
 L0006527         0   0.11950E-05  478265.5 3747776.0   449.0     4.00     3.95     1.86     YES
 L0006528         0   0.11950E-05  478274.0 3747775.9   449.0     4.00     3.95     1.86     YES
 L0006529         0   0.11950E-05  478281.0 3747774.4   449.0     4.00     3.95     1.86     YES
 L0006530         0   0.11950E-05  478281.0 3747765.9   449.0     4.00     3.95     1.86     YES
 L0006531         0   0.11950E-05  478281.1 3747757.4   449.0     4.00     3.95     1.86     YES
 L0006532         0   0.11950E-05  478281.1 3747748.9   449.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***    ***                                                                     ***
   13:56:09

   PAGE  49
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                     BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006533         0   0.11950E-05  478281.1 3747740.4   449.0     4.00     3.95     1.86     YES
 L0006534         0   0.11950E-05  478281.2 3747731.9   449.0     4.00     3.95     1.86     YES
 L0006535         0   0.11950E-05  478281.2 3747723.4   449.0     4.00     3.95     1.86     YES
 L0006536         0   0.11950E-05  478281.2 3747714.9   449.0     4.00     3.95     1.86     YES
 L0006537         0   0.11950E-05  478281.3 3747706.4   449.0     4.00     3.95     1.86     YES
 L0006538         0   0.11950E-05  478281.3 3747697.9   449.0     4.00     3.95     1.86     YES
 L0006539         0   0.11950E-05  478281.3 3747689.4   449.0     4.00     3.95     1.86     YES
 L0006540         0   0.11950E-05  478281.4 3747680.9   449.0     4.00     3.95     1.86     YES
 L0006541         0   0.11950E-05  478281.4 3747672.4   448.9     4.00     3.95     1.86     YES
 L0006542         0   0.11950E-05  478281.4 3747663.9   448.6     4.00     3.95     1.86     YES
 L0006543         0   0.11950E-05  478281.5 3747655.4   448.3     4.00     3.95     1.86     YES
 L0006544         0   0.11950E-05  478281.5 3747646.9   448.0     4.00     3.95     1.86     YES
 L0006545         0   0.11950E-05  478281.5 3747638.4   448.0     4.00     3.95     1.86     YES
 L0006546         0   0.11950E-05  478281.5 3747629.9   448.0     4.00     3.95     1.86     YES
 L0006547         0   0.11950E-05  478281.6 3747621.4   448.0     4.00     3.95     1.86     YES
 L0006548         0   0.11950E-05  478281.6 3747612.9   448.0     4.00     3.95     1.86     YES
 L0006549         0   0.11950E-05  478281.6 3747604.4   448.0     4.00     3.95     1.86     YES
 L0006550         0   0.11950E-05  478281.7 3747595.9   448.0     4.00     3.95     1.86     YES
 L0006551         0   0.11950E-05  478281.7 3747587.4   448.0     4.00     3.95     1.86     YES
 L0006552         0   0.11950E-05  478281.7 3747578.9   448.0     4.00     3.95     1.86     YES
 L0006553         0   0.11950E-05  478281.8 3747570.4   448.0     4.00     3.95     1.86     YES
 L0006554         0   0.11950E-05  478281.8 3747561.9   448.0     4.00     3.95     1.86     YES
 L0006555         0   0.11950E-05  478281.8 3747553.4   448.0     4.00     3.95     1.86     YES
 L0006556         0   0.11950E-05  478281.9 3747544.9   448.0     4.00     3.95     1.86     YES
 L0006557         0   0.11950E-05  478281.9 3747536.4   448.0     4.00     3.95     1.86     YES
 L0006558         0   0.11950E-05  478281.9 3747527.9   448.0     4.00     3.95     1.86     YES
 L0006559         0   0.11950E-05  478282.0 3747519.4   448.0     4.00     3.95     1.86     YES
 L0006560         0   0.11950E-05  478282.0 3747510.9   448.0     4.00     3.95     1.86     YES
 L0006561         0   0.11950E-05  478282.0 3747502.4   448.0     4.00     3.95     1.86     YES
 L0006562         0   0.11950E-05  478282.1 3747493.9   448.0     4.00     3.95     1.86     YES
 L0006563         0   0.11950E-05  478282.1 3747485.4   448.0     4.00     3.95     1.86     YES
 L0006564         0   0.11950E-05  478282.1 3747476.9   448.0     4.00     3.95     1.86     YES
 L0006565         0   0.11950E-05  478282.2 3747468.4   448.0     4.00     3.95     1.86     YES
 L0006566         0   0.11950E-05  478282.2 3747459.9   448.0     4.00     3.95     1.86     YES
 L0006567         0   0.11950E-05  478282.2 3747451.4   448.0     4.00     3.95     1.86     YES
 L0006568         0   0.11950E-05  478282.3 3747442.9   448.0     4.00     3.95     1.86     YES
 L0006569         0   0.11950E-05  478282.3 3747434.4   448.0     4.00     3.95     1.86     YES
 L0006570         0   0.11950E-05  478282.3 3747425.9   448.0     4.00     3.95     1.86     YES
 L0006571         0   0.11950E-05  478282.4 3747417.4   448.0     4.00     3.95     1.86     YES
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                                                   Residential
 L0006572         0   0.11950E-05  478282.4 3747408.9   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:56:09

  PAGE  50
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)            BY
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 L0006573         0   0.11950E-05  478282.4 3747400.4   448.0     4.00     3.95     1.86     YES
 L0006574         0   0.11950E-05  478282.5 3747391.9   448.0     4.00     3.95     1.86     YES
 L0006575         0   0.11950E-05  478282.5 3747383.4   448.0     4.00     3.95     1.86     YES
 L0006576         0   0.11950E-05  478282.5 3747374.9   448.0     4.00     3.95     1.86     YES
 L0006577         0   0.11950E-05  478282.6 3747366.4   448.0     4.00     3.95     1.86     YES
 L0006578         0   0.11950E-05  478282.6 3747357.9   448.0     4.00     3.95     1.86     YES
 L0006579         0   0.11950E-05  478282.6 3747349.4   448.0     4.00     3.95     1.86     YES
 L0006580         0   0.11950E-05  478282.6 3747340.9   448.0     4.00     3.95     1.86     YES
 L0006581         0   0.11950E-05  478282.7 3747332.4   448.0     4.00     3.95     1.86     YES
 L0006582         0   0.11950E-05  478282.7 3747323.9   448.0     4.00     3.95     1.86     YES
 L0006583         0   0.11950E-05  478282.7 3747315.4   448.0     4.00     3.95     1.86     YES
 L0006584         0   0.11950E-05  478282.8 3747306.9   448.0     4.00     3.95     1.86     YES
 L0006585         0   0.11950E-05  478282.8 3747298.4   448.0     4.00     3.95     1.86     YES
 L0006586         0   0.11950E-05  478282.8 3747289.9   448.0     4.00     3.95     1.86     YES
 L0006587         0   0.11950E-05  478282.9 3747281.4   448.0     4.00     3.95     1.86     YES
 L0006588         0   0.11950E-05  478282.9 3747272.9   448.0     4.00     3.95     1.86     YES
 L0006589         0   0.11950E-05  478282.9 3747264.4   448.0     4.00     3.95     1.86     YES
 L0006590         0   0.11950E-05  478283.0 3747255.9   448.0     4.00     3.95     1.86     YES
 L0006591         0   0.11950E-05  478283.0 3747247.4   448.0     4.00     3.95     1.86     YES
 L0006592         0   0.11950E-05  478283.0 3747238.9   448.0     4.00     3.95     1.86     YES
 L0006593         0   0.11950E-05  478283.1 3747230.4   448.0     4.00     3.95     1.86     YES
 L0006594         0   0.11950E-05  478283.1 3747221.9   448.0     4.00     3.95     1.86     YES
 L0006595         0   0.11950E-05  478283.1 3747213.4   448.0     4.00     3.95     1.86     YES
 L0006596         0   0.11950E-05  478283.2 3747204.9   448.0     4.00     3.95     1.86     YES
 L0006597         0   0.11950E-05  478283.2 3747196.4   448.0     4.00     3.95     1.86     YES
 L0006598         0   0.11950E-05  478283.2 3747187.9   448.0     4.00     3.95     1.86     YES
 L0006599         0   0.11950E-05  478283.3 3747179.4   448.0     4.00     3.95     1.86     YES
 L0006600         0   0.11950E-05  478283.3 3747170.9   448.0     4.00     3.95     1.86     YES
 L0006601         0   0.11950E-05  478283.3 3747162.4   448.0     4.00     3.95     1.86     YES
 L0006602         0   0.11950E-05  478283.4 3747153.9   448.0     4.00     3.95     1.86     YES
 L0006603         0   0.11950E-05  478283.4 3747145.4   448.0     4.00     3.95     1.86     YES
 L0006604         0   0.11950E-05  478283.4 3747136.9   448.0     4.00     3.95     1.86     YES
 L0006605         0   0.11950E-05  478283.5 3747128.4   448.0     4.00     3.95     1.86     YES
 L0006606         0   0.11950E-05  478283.5 3747119.9   448.0     4.00     3.95     1.86     YES
 L0006607         0   0.11950E-05  478283.5 3747111.4   448.0     4.00     3.95     1.86     YES
 L0006608         0   0.11950E-05  478283.6 3747102.9   448.0     4.00     3.95     1.86     YES
 L0006609         0   0.11950E-05  478283.6 3747094.4   448.0     4.00     3.95     1.86     YES
 L0006610         0   0.11950E-05  478283.6 3747085.9   448.0     4.00     3.95     1.86     YES
 L0006611         0   0.11950E-05  478283.6 3747077.4   448.0     4.00     3.95     1.86     YES
 L0006612         0   0.11950E-05  478283.7 3747068.9   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***    *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:56:09

  PAGE  51
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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                                        Residential
                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006613         0   0.11950E-05  478283.7 3747060.4   448.0     4.00     3.95     1.86     YES
 L0006614         0   0.11950E-05  478283.7 3747051.9   448.0     4.00     3.95     1.86     YES
 L0006615         0   0.11950E-05  478283.8 3747043.4   448.0     4.00     3.95     1.86     YES
 L0006616         0   0.11950E-05  478283.8 3747034.9   448.0     4.00     3.95     1.86     YES
 L0006617         0   0.11950E-05  478283.8 3747026.4   448.0     4.00     3.95     1.86     YES
 L0006618         0   0.11950E-05  478283.9 3747017.9   448.0     4.00     3.95     1.86     YES
 L0006619         0   0.11950E-05  478283.9 3747009.4   448.0     4.00     3.95     1.86     YES
 L0006620         0   0.11950E-05  478283.9 3747000.9   448.0     4.00     3.95     1.86     YES
 L0006621         0   0.11950E-05  478284.0 3746992.4   448.0     4.00     3.95     1.86     YES
 L0006622         0   0.11950E-05  478284.0 3746983.9   448.0     4.00     3.95     1.86     YES
 L0006623         0   0.11950E-05  478284.0 3746975.4   448.0     4.00     3.95     1.86     YES
 L0006624         0   0.11950E-05  478284.1 3746966.9   448.0     4.00     3.95     1.86     YES
 L0006625         0   0.11950E-05  478284.1 3746958.4   448.0     4.00     3.95     1.86     YES
 L0006626         0   0.11950E-05  478284.1 3746949.9   448.0     4.00     3.95     1.86     YES
 L0006627         0   0.11950E-05  478284.2 3746941.4   448.0     4.00     3.95     1.86     YES
 L0006628         0   0.11950E-05  478284.2 3746932.9   448.0     4.00     3.95     1.86     YES
 L0006629         0   0.11950E-05  478284.2 3746924.4   448.0     4.00     3.95     1.86     YES
 L0006630         0   0.11950E-05  478284.3 3746915.9   448.0     4.00     3.95     1.86     YES
 L0006631         0   0.11950E-05  478284.3 3746907.4   448.0     4.00     3.95     1.86     YES
 L0006632         0   0.11950E-05  478284.3 3746898.9   448.0     4.00     3.95     1.86     YES
 L0006633         0   0.11950E-05  478284.4 3746890.4   448.0     4.00     3.95     1.86     YES
 L0006634         0   0.11950E-05  478284.4 3746881.9   448.0     4.00     3.95     1.86     YES
 L0006635         0   0.11950E-05  478284.4 3746873.4   448.0     4.00     3.95     1.86     YES
 L0006636         0   0.11950E-05  478284.5 3746864.9   448.0     4.00     3.95     1.86     YES
 L0006637         0   0.11950E-05  478284.5 3746856.4   447.8     4.00     3.95     1.86     YES
 L0006638         0   0.11950E-05  478284.5 3746847.9   447.7     4.00     3.95     1.86     YES
 L0006639         0   0.11950E-05  478284.6 3746839.4   447.6     4.00     3.95     1.86     YES
 L0006640         0   0.11950E-05  478284.6 3746830.9   447.4     4.00     3.95     1.86     YES
 L0006641         0   0.11950E-05  478284.6 3746822.4   447.3     4.00     3.95     1.86     YES
 L0006642         0   0.11950E-05  478284.6 3746813.9   447.1     4.00     3.95     1.86     YES
 L0006643         0   0.11950E-05  478284.7 3746805.4   447.0     4.00     3.95     1.86     YES
 L0006644         0   0.11950E-05  478284.7 3746796.9   447.0     4.00     3.95     1.86     YES
 L0006645         0   0.11950E-05  478284.7 3746788.4   447.0     4.00     3.95     1.86     YES
 L0006646         0   0.11950E-05  478284.8 3746779.9   447.0     4.00     3.95     1.86     YES
 L0006647         0   0.11950E-05  478284.8 3746771.4   447.0     4.00     3.95     1.86     YES
 L0006648         0   0.11950E-05  478284.8 3746762.9   447.0     4.00     3.95     1.86     YES
 L0006649         0   0.11950E-05  478284.9 3746754.4   447.0     4.00     3.95     1.86     YES
 L0006650         0   0.11950E-05  478284.9 3746745.9   447.0     4.00     3.95     1.86     YES
 L0006651         0   0.11950E-05  478284.9 3746737.4   447.0     4.00     3.95     1.86     YES
 L0006652         0   0.11950E-05  478285.0 3746728.9   447.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ      SOURCE  SCALAR VARY
     ID        CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006653         0   0.11950E-05  478285.0 3746720.4   447.0     4.00     3.95     1.86     YES
 L0006654         0   0.11950E-05  478285.0 3746711.9   447.0     4.00     3.95     1.86     YES
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                                                       Residential
 L0006655         0   0.11950E-05  478285.1 3746703.4   447.0     4.00     3.95     1.86     YES
 L0006656         0   0.11950E-05  478285.1 3746694.9   447.0     4.00     3.95     1.86     YES
 L0006657         0   0.11950E-05  478285.1 3746686.4   447.0     4.00     3.95     1.86     YES
 L0006658         0   0.11950E-05  478285.2 3746677.9   447.0     4.00     3.95     1.86     YES
 L0006659         0   0.11950E-05  478285.2 3746669.4   447.0     4.00     3.95     1.86     YES
 L0006660         0   0.11950E-05  478285.2 3746660.9   447.0     4.00     3.95     1.86     YES
 L0006661         0   0.11950E-05  478285.3 3746652.4   447.0     4.00     3.95     1.86     YES
 L0006662         0   0.11950E-05  478285.3 3746643.9   447.0     4.00     3.95     1.86     YES
 L0006663         0   0.11950E-05  478285.3 3746635.4   447.0     4.00     3.95     1.86     YES
 L0006664         0   0.11950E-05  478285.4 3746626.9   447.0     4.00     3.95     1.86     YES
 L0006665         0   0.11950E-05  478285.4 3746618.4   447.0     4.00     3.95     1.86     YES
 L0006666         0   0.11950E-05  478285.4 3746609.9   447.0     4.00     3.95     1.86     YES
 L0006667         0   0.11950E-05  478285.5 3746601.4   447.0     4.00     3.95     1.86     YES
 L0006668         0   0.11950E-05  478285.5 3746592.9   447.0     4.00     3.95     1.86     YES
 L0006669         0   0.11950E-05  478285.5 3746584.4   447.0     4.00     3.95     1.86     YES
 L0006670         0   0.11950E-05  478285.6 3746575.9   447.0     4.00     3.95     1.86     YES
 L0006671         0   0.11950E-05  478285.6 3746567.4   447.0     4.00     3.95     1.86     YES
 L0006672         0   0.11950E-05  478285.6 3746558.9   447.0     4.00     3.95     1.86     YES
 L0006673         0   0.11950E-05  478285.7 3746550.4   447.0     4.00     3.95     1.86     YES
 L0006674         0   0.11950E-05  478285.7 3746541.9   447.0     4.00     3.95     1.86     YES
 L0006675         0   0.11950E-05  478285.7 3746533.4   447.0     4.00     3.95     1.86     YES
 L0006676         0   0.11950E-05  478285.7 3746524.9   447.0     4.00     3.95     1.86     YES
 L0006677         0   0.11950E-05  478285.8 3746516.4   447.0     4.00     3.95     1.86     YES
 L0006678         0   0.11950E-05  478285.8 3746507.9   447.0     4.00     3.95     1.86     YES
 L0006679         0   0.11950E-05  478285.8 3746499.4   447.0     4.00     3.95     1.86     YES
 L0006680         0   0.11950E-05  478285.9 3746490.9   447.0     4.00     3.95     1.86     YES
 L0006681         0   0.11950E-05  478285.9 3746482.4   447.0     4.00     3.95     1.86     YES
 L0006682         0   0.11950E-05  478285.9 3746473.9   447.0     4.00     3.95     1.86     YES
 L0006683         0   0.11950E-05  478286.0 3746465.4   447.0     4.00     3.95     1.86     YES
 L0006684         0   0.11950E-05  478286.0 3746456.9   447.0     4.00     3.95     1.86     YES
 L0006685         0   0.11950E-05  478286.0 3746448.4   447.0     4.00     3.95     1.86     YES
 L0006686         0   0.11950E-05  478286.1 3746439.9   446.9     4.00     3.95     1.86     YES
 L0006687         0   0.11950E-05  478286.1 3746431.4   446.7     4.00     3.95     1.86     YES
 L0006688         0   0.11950E-05  478286.1 3746422.9   446.6     4.00     3.95     1.86     YES
 L0006689         0   0.11950E-05  478286.2 3746414.4   446.5     4.00     3.95     1.86     YES
 L0006690         0   0.11950E-05  478286.2 3746405.9   446.5     4.00     3.95     1.86     YES
 L0006691         0   0.11950E-05  478286.2 3746397.4   446.5     4.00     3.95     1.86     YES
 L0006692         0   0.11950E-05  478286.3 3746388.9   446.4     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
  13:56:09

  PAGE  53
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)               BY
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 L0006693         0   0.11950E-05  478286.3 3746380.4   446.4     4.00     3.95     1.86     YES
 L0006694         0   0.11950E-05  478286.3 3746371.9   446.4     4.00     3.95     1.86     YES
 L0006695         0   0.11950E-05  478286.4 3746363.4   446.4     4.00     3.95     1.86     YES
 L0006696         0   0.11950E-05  478286.4 3746354.9   446.4     4.00     3.95     1.86     YES
 L0006697         0   0.11950E-05  478286.4 3746346.4   446.4     4.00     3.95     1.86     YES
 L0006698         0   0.11950E-05  478280.1 3746347.5   446.7     4.00     3.95     1.86     YES
 L0006699         0   0.11950E-05  478272.3 3746350.8   446.9     4.00     3.95     1.86     YES
 L0006700         0   0.11950E-05  478264.5 3746354.2   447.0     4.00     3.95     1.86     YES
 L0006701         0   0.11950E-05  478256.7 3746357.5   447.0     4.00     3.95     1.86     YES
 L0006702         0   0.11950E-05  478248.6 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006703         0   0.11950E-05  478240.1 3746359.6   447.0     4.00     3.95     1.86     YES
 L0006704         0   0.11950E-05  478231.6 3746359.6   447.0     4.00     3.95     1.86     YES
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                                                 Residential
  L0006705         0   0.11950E-05  478223.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006706         0   0.11950E-05  478214.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006707         0   0.11950E-05  478206.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006708         0   0.11950E-05  478197.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006709         0   0.11950E-05  478189.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006710         0   0.11950E-05  478180.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006711         0   0.11950E-05  478172.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006712         0   0.11950E-05  478163.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006713         0   0.11950E-05  478155.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006714         0   0.11950E-05  478146.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006715         0   0.11950E-05  478138.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006716         0   0.11950E-05  478129.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006717         0   0.11950E-05  478121.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006718         0   0.11950E-05  478112.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006719         0   0.11950E-05  478104.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006720         0   0.11950E-05  478095.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006721         0   0.11950E-05  478087.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006722         0   0.11950E-05  478078.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006723         0   0.11950E-05  478070.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006724         0   0.11950E-05  478061.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006725         0   0.11950E-05  478053.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006726         0   0.11950E-05  478044.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006727         0   0.11950E-05  478036.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006728         0   0.11950E-05  478027.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006729         0   0.11950E-05  478019.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006730         0   0.11950E-05  478010.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006731         0   0.11950E-05  478002.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006732         0   0.11950E-05  477993.6 3746359.6   447.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                   ***
   13:56:09

   PAGE  54
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                               *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X         Y         ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS)  (METERS)           BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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  L0006733         0   0.11950E-05  477985.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006734         0   0.11950E-05  477976.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006735         0   0.11950E-05  477968.1 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006736         0   0.11950E-05  477959.6 3746359.6   447.0     4.00     3.95     1.86     YES
  L0006737         0   0.11950E-05  477951.1 3746359.6   447.1     4.00     3.95     1.86     YES
  L0006738         0   0.11950E-05  477942.6 3746359.6   447.1     4.00     3.95     1.86     YES
  L0006739         0   0.11950E-05  477934.1 3746359.6   447.3     4.00     3.95     1.86     YES
  L0006740         0   0.11950E-05  477925.6 3746359.6   447.5     4.00     3.95     1.86     YES
  L0006741         0   0.11950E-05  477917.1 3746359.6   447.8     4.00     3.95     1.86     YES
  L0006742         0   0.11950E-05  477908.6 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006743         0   0.11950E-05  477900.1 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006744         0   0.11950E-05  477891.6 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006745         0   0.11950E-05  477883.1 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006746         0   0.11950E-05  477874.6 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006747         0   0.11950E-05  477866.1 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006748         0   0.11950E-05  477857.6 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006749         0   0.11950E-05  477849.1 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006750         0   0.11950E-05  477840.6 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006751         0   0.11950E-05  477832.1 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006752         0   0.11950E-05  477823.6 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006753         0   0.11950E-05  477815.1 3746359.6   448.0     4.00     3.95     1.86     YES
  L0006754         0   0.11950E-05  477806.6 3746359.6   448.0     4.00     3.95     1.86     YES
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                                                 Residential
 L0006755         0   0.11950E-05  477798.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006756         0   0.11950E-05  477789.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006757         0   0.11950E-05  477781.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006758         0   0.11950E-05  477772.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006759         0   0.11950E-05  477764.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006760         0   0.11950E-05  477755.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006761         0   0.11950E-05  477747.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006762         0   0.11950E-05  477738.6 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006763         0   0.11950E-05  477730.1 3746359.6   448.0     4.00     3.95     1.86     YES
 L0006764         0   0.11950E-05  477721.6 3746359.7   448.0     4.00     3.95     1.86     YES
 L0006765         0   0.11950E-05  477713.1 3746359.8   448.0     4.00     3.95     1.86     YES
 L0006766         0   0.11950E-05  477704.6 3746359.9   448.0     4.00     3.95     1.86     YES
 L0006767         0   0.11950E-05  477696.1 3746359.9   448.0     4.00     3.95     1.86     YES
 L0006768         0   0.11950E-05  477687.6 3746360.0   448.0     4.00     3.95     1.86     YES
 L0006769         0   0.11950E-05  477679.1 3746360.1   448.0     4.00     3.95     1.86     YES
 L0006770         0   0.11950E-05  477670.6 3746360.2   448.0     4.00     3.95     1.86     YES
 L0006771         0   0.11950E-05  477662.1 3746360.3   448.0     4.00     3.95     1.86     YES
 L0006772         0   0.11950E-05  477653.6 3746360.4   448.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y       ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS)  (METERS)  (METERS)  (METERS)  (METERS) (METERS)           BY
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 L0006773         0   0.11950E-05  477645.1 3746360.5   448.0     4.00     3.95     1.86     YES
 L0006774         0   0.11950E-05  477636.6 3746360.6   448.1     4.00     3.95     1.86     YES
 L0006775         0   0.11950E-05  477628.1 3746360.6   448.4     4.00     3.95     1.86     YES
 L0006776         0   0.11950E-05  477619.6 3746360.7   448.7     4.00     3.95     1.86     YES
 L0006777         0   0.11950E-05  477611.1 3746360.8   449.0     4.00     3.95     1.86     YES
 L0006778         0   0.11950E-05  477602.6 3746360.9   449.0     4.00     3.95     1.86     YES
 L0006779         0   0.11950E-05  477594.1 3746361.0   449.0     4.00     3.95     1.86     YES
 L0006780         0   0.11950E-05  477585.6 3746361.1   449.0     4.00     3.95     1.86     YES
 L0006781         0   0.11950E-05  477577.1 3746361.2   449.0     4.00     3.95     1.86     YES
 L0006782         0   0.11950E-05  477568.6 3746361.3   449.0     4.00     3.95     1.86     YES
 L0006783         0   0.11950E-05  477560.1 3746361.3   449.0     4.00     3.95     1.86     YES
 L0006784         0   0.11950E-05  477551.6 3746361.4   449.0     4.00     3.95     1.86     YES
 L0006785         0   0.11950E-05  477543.1 3746361.5   449.0     4.00     3.95     1.86     YES
 L0006786         0   0.11950E-05  477534.6 3746361.6   449.0     4.00     3.95     1.86     YES
 L0006787         0   0.11950E-05  477526.1 3746361.7   449.0     4.00     3.95     1.86     YES
 L0006788         0   0.11950E-05  477517.6 3746361.8   449.0     4.00     3.95     1.86     YES
 L0006789         0   0.11950E-05  477509.1 3746361.9   449.0     4.00     3.95     1.86     YES
 L0006790         0   0.11950E-05  477500.6 3746362.0   449.0     4.00     3.95     1.86     YES
 L0006791         0   0.11950E-05  477492.1 3746362.0   449.0     4.00     3.95     1.86     YES
 L0006792         0   0.11950E-05  477483.6 3746362.4   449.2     4.00     3.95     1.86     YES
 L0006793         0   0.11950E-05  477475.3 3746364.0   449.5     4.00     3.95     1.86     YES
 L0006794         0   0.11950E-05  477466.9 3746365.6   449.8     4.00     3.95     1.86     YES
 L0006795         0   0.11950E-05  477458.6 3746367.2   450.0     4.00     3.95     1.86     YES
 L0006796         0   0.11950E-05  477450.3 3746368.8   450.0     4.00     3.95     1.86     YES
 L0006797         0   0.11950E-05  477441.9 3746370.4   450.0     4.00     3.95     1.86     YES
 L0006798         0   0.11950E-05  477433.6 3746372.0   450.0     4.00     3.95     1.86     YES
 L0006799         0   0.11950E-05  477425.2 3746373.6   450.0     4.00     3.95     1.86     YES
 L0006800         0   0.11950E-05  477417.3 3746376.4   450.0     4.00     3.95     1.86     YES
 L0006801         0   0.11950E-05  477410.0 3746380.7   450.0     4.00     3.95     1.86     YES
 L0006802         0   0.11950E-05  477402.7 3746385.0   450.0     4.00     3.95     1.86     YES
 L0006803         0   0.11950E-05  477395.3 3746389.4   450.0     4.00     3.95     1.86     YES
 L0006804         0   0.11950E-05  477388.0 3746393.7   450.0     4.00     3.95     1.86     YES
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                                                     Residential
 L0006805         0   0.11950E-05  477380.7 3746398.0   450.0     4.00     3.95     1.86     YES
 L0006806         0   0.11950E-05  477373.4 3746402.3   450.0     4.00     3.95     1.86     YES
 L0006807         0   0.11950E-05  477366.1 3746406.6   450.0     4.00     3.95     1.86     YES
 L0006808         0   0.11950E-05  477358.7 3746411.0   450.0     4.00     3.95     1.86     YES
 L0006809         0   0.11950E-05  477351.4 3746415.3   450.0     4.00     3.95     1.86     YES
 L0006810         0   0.11950E-05  477344.1 3746419.6   450.0     4.00     3.95     1.86     YES
 L0006811         0   0.11950E-05  477336.8 3746423.9   450.0     4.00     3.95     1.86     YES
 L0006812         0   0.11950E-05  477329.5 3746428.2   450.0     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
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 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                    BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
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 L0006813         0   0.11950E-05  477322.2 3746432.7   450.0     4.00     3.95     1.86     YES
 L0006814         0   0.11950E-05  477315.4 3746437.8   450.0     4.00     3.95     1.86     YES
 L0006815         0   0.11950E-05  477308.6 3746442.9   450.0     4.00     3.95     1.86     YES
 L0006816         0   0.11950E-05  477301.8 3746448.0   450.0     4.00     3.95     1.86     YES
 L0006817         0   0.11950E-05  477295.0 3746453.1   450.0     4.00     3.95     1.86     YES
 L0006818         0   0.11950E-05  477288.2 3746458.2   450.0     4.00     3.95     1.86     YES
 L0006819         0   0.11950E-05  477281.4 3746463.3   450.0     4.00     3.95     1.86     YES
 L0006820         0   0.11950E-05  477274.6 3746468.4   450.0     4.00     3.95     1.86     YES
 L0006821         0   0.11950E-05  477267.7 3746473.3   450.0     4.00     3.95     1.86     YES
 L0006822         0   0.11950E-05  477260.7 3746478.2   450.0     4.00     3.95     1.86     YES
 L0006823         0   0.11950E-05  477253.8 3746483.1   450.0     4.00     3.95     1.86     YES
 L0006824         0   0.11950E-05  477246.8 3746487.9   450.1     4.00     3.95     1.86     YES
 L0006825         0   0.11950E-05  477239.8 3746492.8   450.2     4.00     3.95     1.86     YES
 L0006826         0   0.11950E-05  477232.9 3746497.7   450.2     4.00     3.95     1.86     YES
 L0006827         0   0.11950E-05  477225.9 3746502.6   450.1     4.00     3.95     1.86     YES
 L0006828         0   0.11950E-05  477218.5 3746506.8   450.0     4.00     3.95     1.86     YES
 L0006829         0   0.11950E-05  477211.1 3746510.8   450.3     4.00     3.95     1.86     YES
 L0006830         0   0.11950E-05  477203.6 3746514.8   450.5     4.00     3.95     1.86     YES
 L0006831         0   0.11950E-05  477196.1 3746518.8   450.8     4.00     3.95     1.86     YES
 L0006832         0   0.11950E-05  477188.6 3746522.9   451.0     4.00     3.95     1.86     YES
 L0006833         0   0.11950E-05  477181.1 3746526.9   451.0     4.00     3.95     1.86     YES
 L0006834         0   0.11950E-05  477173.6 3746530.9   451.0     4.00     3.95     1.86     YES
 L0006835         0   0.11950E-05  477166.1 3746535.0   451.0     4.00     3.95     1.86     YES
 L0006836         0   0.11950E-05  477158.5 3746538.5   451.0     4.00     3.95     1.86     YES
 L0006837         0   0.11950E-05  477150.1 3746539.7   451.0     4.00     3.95     1.86     YES
 L0006838         0   0.11950E-05  477141.7 3746541.0   451.0     4.00     3.95     1.86     YES
 L0006839         0   0.11950E-05  477133.3 3746542.2   451.0     4.00     3.95     1.86     YES
 L0006840         0   0.11950E-05  477124.9 3746543.5   451.0     4.00     3.95     1.86     YES
 L0006841         0   0.11950E-05  477116.5 3746544.7   451.0     4.00     3.95     1.86     YES
 L0006842         0   0.11950E-05  477108.0 3746546.0   451.0     4.00     3.95     1.86     YES
 L0006843         0   0.11950E-05  477099.6 3746547.2   451.0     4.00     3.95     1.86     YES
 L0006844         0   0.11950E-05  477091.2 3746548.2   451.0     4.00     3.95     1.86     YES
 L0006845         0   0.11950E-05  477082.7 3746548.3   451.0     4.00     3.95     1.86     YES
 L0006846         0   0.11950E-05  477074.2 3746548.4   451.0     4.00     3.95     1.86     YES
 L0006847         0   0.11950E-05  477065.7 3746548.6   451.1     4.00     3.95     1.86     YES
 L0006848         0   0.11950E-05  477057.2 3746548.7   451.2     4.00     3.95     1.86     YES
 L0006849         0   0.11950E-05  477048.7 3746548.8   451.4     4.00     3.95     1.86     YES
 L0006850         0   0.11950E-05  477040.2 3746548.9   451.6     4.00     3.95     1.86     YES
 L0006851         0   0.11950E-05  477031.7 3746549.0   451.7     4.00     3.95     1.86     YES
 L0006852         0   0.11950E-05  477023.2 3746549.1   451.8     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
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                                                   Residential
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  57
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y     ELEV.   HEIGHT      SY       SZ    SOURCE  SCALAR VARY
     ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)          BY
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 L0006853         0   0.11950E-05  477014.7 3746549.2   451.9     4.00     3.95     1.86     YES
 L0006854         0   0.11950E-05  477006.2 3746549.3   452.0     4.00     3.95     1.86     YES
 L0006855         0   0.11950E-05  476997.7 3746549.4   452.0     4.00     3.95     1.86     YES
 L0006856         0   0.11950E-05  476989.2 3746549.6   452.0     4.00     3.95     1.86     YES
 L0006857         0   0.11950E-05  476980.7 3746549.7   452.0     4.00     3.95     1.86     YES
 L0006858         0   0.11950E-05  476972.2 3746549.8   452.0     4.00     3.95     1.86     YES
 L0006859         0   0.11950E-05  476963.7 3746549.9   452.0     4.00     3.95     1.86     YES
 L0006860         0   0.11950E-05  476955.2 3746550.0   452.0     4.00     3.95     1.86     YES
 L0006861         0   0.11950E-05  476946.7 3746550.1   452.0     4.00     3.95     1.86     YES
 L0006862         0   0.11950E-05  476938.2 3746550.2   452.0     4.00     3.95     1.86     YES
 L0006863         0   0.11950E-05  476929.7 3746550.3   452.0     4.00     3.95     1.86     YES
 L0006864         0   0.11950E-05  476921.2 3746550.4   452.0     4.00     3.95     1.86     YES
 L0006865         0   0.11950E-05  476912.7 3746550.6   452.1     4.00     3.95     1.86     YES
 L0006866         0   0.11950E-05  476904.2 3746550.7   452.3     4.00     3.95     1.86     YES
 L0006867         0   0.11950E-05  476895.7 3746550.8   452.4     4.00     3.95     1.86     YES
 L0006868         0   0.11950E-05  476887.2 3746550.9   452.6     4.00     3.95     1.86     YES
 L0006869         0   0.11950E-05  476878.7 3746551.0   452.7     4.00     3.95     1.86     YES
 L0006870         0   0.11950E-05  476870.2 3746551.1   452.8     4.00     3.95     1.86     YES
 L0006871         0   0.11950E-05  476861.7 3746551.2   453.0     4.00     3.95     1.86     YES
 L0006872         0   0.11950E-05  476853.2 3746551.3   453.0     4.00     3.95     1.86     YES
 L0006873         0   0.11950E-05  476844.7 3746551.4   453.0     4.00     3.95     1.86     YES
 L0006874         0   0.11950E-05  476836.2 3746551.5   453.0     4.00     3.95     1.86     YES
 L0006875         0   0.11950E-05  476827.7 3746551.7   453.0     4.00     3.95     1.86     YES
 L0006876         0   0.11950E-05  476819.2 3746551.8   453.0     4.00     3.95     1.86     YES
 L0006877         0   0.11950E-05  476810.7 3746551.9   453.0     4.00     3.95     1.86     YES
 L0006878         0   0.11950E-05  476802.2 3746552.0   453.0     4.00     3.95     1.86     YES
 L0006879         0   0.11950E-05  476793.7 3746552.1   462.1     4.00     3.95     1.86     YES
 L0006880         0   0.11950E-05  476785.2 3746552.2   462.2     4.00     3.95     1.86     YES
 L0006881         0   0.11950E-05  476776.7 3746552.2   462.3     4.00     3.95     1.86     YES
 L0006882         0   0.11950E-05  476768.2 3746551.9   462.4     4.00     3.95     1.86     YES
 L0006883         0   0.11950E-05  476759.7 3746551.7   462.5     4.00     3.95     1.86     YES
 L0006884         0   0.11950E-05  476751.2 3746551.5   462.6     4.00     3.95     1.86     YES
 L0006885         0   0.11950E-05  476742.8 3746551.3   462.7     4.00     3.95     1.86     YES
 L0006886         0   0.11950E-05  476734.3 3746551.1   462.8     4.00     3.95     1.86     YES
 L0006887         0   0.11950E-05  476725.8 3746550.8   462.9     4.00     3.95     1.86     YES
 L0006888         0   0.11950E-05  476717.3 3746550.6   463.1     4.00     3.95     1.86     YES
 L0006889         0   0.11950E-05  476708.8 3746550.4   463.2     4.00     3.95     1.86     YES
 L0006890         0   0.11950E-05  476700.3 3746550.2   463.3     4.00     3.95     1.86     YES
 L0006891         0   0.11950E-05  476691.8 3746550.0   463.4     4.00     3.95     1.86     YES
 L0006892         0   0.11950E-05  476683.3 3746549.7   463.5     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker                ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  58
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                   BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
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                                                      Residential
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY        SZ     SOURCE   SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006893         0   0.11950E-05  476674.8 3746549.5   463.6     4.00     3.95     1.86     YES
 L0006894         0   0.11950E-05  476666.3 3746549.3   463.7     4.00     3.95     1.86     YES
 L0006895         0   0.11950E-05  476657.8 3746549.1   463.8     4.00     3.95     1.86     YES
 L0006896         0   0.11950E-05  476649.5 3746550.2   463.9     4.00     3.95     1.86     YES
 L0006897         0   0.11950E-05  476641.4 3746552.9   464.0     4.00     3.95     1.86     YES
 L0006898         0   0.11950E-05  476633.4 3746555.6   464.0     4.00     3.95     1.86     YES
 L0006899         0   0.11950E-05  476625.3 3746558.3   464.0     4.00     3.95     1.86     YES
 L0006900         0   0.11950E-05  476617.2 3746561.0   464.0     4.00     3.95     1.86     YES
 L0006901         0   0.11950E-05  476609.2 3746563.6   464.0     4.00     3.95     1.86     YES
 L0006902         0   0.11950E-05  476601.4 3746566.9   464.0     4.00     3.95     1.86     YES
 L0006903         0   0.11950E-05  476594.1 3746571.4   464.0     4.00     3.95     1.86     YES
 L0006904         0   0.11950E-05  476586.9 3746575.9   464.0     4.00     3.95     1.86     YES
 L0006905         0   0.11950E-05  476579.7 3746580.4   464.0     4.00     3.95     1.86     YES
 L0006906         0   0.11950E-05  476572.5 3746584.8   464.0     4.00     3.95     1.86     YES
 L0006907         0   0.11950E-05  476565.3 3746589.3   464.0     4.00     3.95     1.86     YES
 L0006908         0   0.11950E-05  476558.0 3746593.8   464.1     4.00     3.95     1.86     YES
 L0006909         0   0.11950E-05  476550.8 3746598.3   464.2     4.00     3.95     1.86     YES
 L0006910         0   0.11950E-05  476543.6 3746602.8   464.3     4.00     3.95     1.86     YES
 L0006911         0   0.11950E-05  476537.9 3746608.7   464.4     4.00     3.95     1.86     YES
 L0006912         0   0.11950E-05  476534.0 3746616.2   464.4     4.00     3.95     1.86     YES
 L0006913         0   0.11950E-05  476530.0 3746623.8   464.5     4.00     3.95     1.86     YES
 L0006914         0   0.11950E-05  476526.1 3746631.3   464.5     4.00     3.95     1.86     YES
 L0006915         0   0.11950E-05  476522.2 3746638.8   464.6     4.00     3.95     1.86     YES
 L0006916         0   0.11950E-05  476518.2 3746646.4   464.6     4.00     3.95     1.86     YES
 L0006917         0   0.11950E-05  476514.3 3746653.9   464.7     4.00     3.95     1.86     YES
 L0006918         0   0.11950E-05  476510.3 3746661.4   464.7     4.00     3.95     1.86     YES
 L0006919         0   0.11950E-05  476506.4 3746668.9   464.8     4.00     3.95     1.86     YES
 L0006920         0   0.11950E-05  476502.4 3746676.5   464.8     4.00     3.95     1.86     YES
 L0006921         0   0.11950E-05  476498.5 3746684.0   464.9     4.00     3.95     1.86     YES
 L0006922         0   0.11950E-05  476494.5 3746691.5   464.9     4.00     3.95     1.86     YES
 L0006923         0   0.11950E-05  476490.6 3746699.1   465.0     4.00     3.95     1.86     YES
 L0006924         0   0.11950E-05  476486.6 3746706.6   465.1     4.00     3.95     1.86     YES
 L0006925         0   0.11950E-05  476482.7 3746714.1   465.2     4.00     3.95     1.86     YES
 L0006926         0   0.11950E-05  476478.7 3746721.6   465.3     4.00     3.95     1.86     YES
 L0006927         0   0.11950E-05  476474.8 3746729.2   465.4     4.00     3.95     1.86     YES
 L0006928         0   0.11950E-05  476470.9 3746736.7   465.5     4.00     3.95     1.86     YES
 L0006929         0   0.11950E-05  476467.8 3746744.5   465.6     4.00     3.95     1.86     YES
 L0006930         0   0.11950E-05  476466.4 3746752.9   465.6     4.00     3.95     1.86     YES
 L0006931         0   0.11950E-05  476465.0 3746761.3   465.7     4.00     3.95     1.86     YES
 L0006932         0   0.11950E-05  476463.6 3746769.7   465.7     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  59
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                   *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                        BASE    RELEASE    INIT.    INIT.    URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)     X         Y       ELEV.   HEIGHT      SY        SZ     SOURCE   SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
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 L0006933         0   0.11950E-05  476462.2 3746778.1   465.7     4.00     3.95     1.86     YES
 L0006934         0   0.11950E-05  476460.8 3746786.4   465.8     4.00     3.95     1.86     YES
 L0006935         0   0.11950E-05  476459.4 3746794.8   465.8     4.00     3.95     1.86     YES
 L0006936         0   0.11950E-05  476457.3 3746803.0   465.9     4.00     3.95     1.86     YES
 L0006937         0   0.11950E-05  476453.4 3746810.5   465.9     4.00     3.95     1.86     YES
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                                         Residential
 L0006938         0   0.11950E-05  476449.4 3746818.0    466.1      4.00     3.95     1.86     YES
 L0006939         0   0.11950E-05  476445.4 3746825.5    466.2      4.00     3.95     1.86     YES
 L0006940         0   0.11950E-05  476441.4 3746833.0    466.3      4.00     3.95     1.86     YES
 L0006941         0   0.11950E-05  476437.5 3746840.5    466.4      4.00     3.95     1.86     YES
 L0006942         0   0.11950E-05  476433.5 3746848.1    466.5      4.00     3.95     1.86     YES
 L0006943         0   0.11950E-05  476429.5 3746855.6    466.6      4.00     3.95     1.86     YES
 L0006944         0   0.11950E-05  476425.5 3746863.1    466.7      4.00     3.95     1.86     YES
 L0006945         0   0.11950E-05  476421.6 3746870.6    466.8      4.00     3.95     1.86     YES
 L0006946         0   0.11950E-05  476417.6 3746878.1    466.9      4.00     3.95     1.86     YES
 L0006947         0   0.11950E-05  476413.6 3746885.6    467.0      4.00     3.95     1.86     YES
 L0006948         0   0.11950E-05  476409.6 3746893.1    467.1      4.00     3.95     1.86     YES
 L0006949         0   0.11950E-05  476403.2 3746898.5    467.1      4.00     3.95     1.86     YES
 L0006950         0   0.11950E-05  476396.2 3746903.3    467.2      4.00     3.95     1.86     YES
 L0006951         0   0.11950E-05  476389.2 3746908.1    467.3      4.00     3.95     1.86     YES
 L0006952         0   0.11950E-05  476382.2 3746912.9    467.4      4.00     3.95     1.86     YES
 L0006953         0   0.11950E-05  476375.2 3746917.8    467.5      4.00     3.95     1.86     YES
 L0006954         0   0.11950E-05  476368.2 3746922.6    467.6      4.00     3.95     1.86     YES
 L0006955         0   0.11950E-05  476361.2 3746927.4    467.7      4.00     3.95     1.86     YES
 L0006956         0   0.11950E-05  476354.2 3746932.2    467.8      4.00     3.95     1.86     YES
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 L0006958         0   0.11950E-05  476340.2 3746941.8    467.9      4.00     3.95     1.86     YES
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 L0006960         0   0.11950E-05  476323.7 3746944.5    468.2      4.00     3.95     1.86     YES
 L0006961         0   0.11950E-05  476315.2 3746945.4    468.3      4.00     3.95     1.86     YES
 L0006962         0   0.11950E-05  476306.7 3746946.2    468.4      4.00     3.95     1.86     YES
 L0006963         0   0.11950E-05  476298.3 3746947.0    468.5      4.00     3.95     1.86     YES
 L0006964         0   0.11950E-05  476289.8 3746947.9    468.6      4.00     3.95     1.86     YES
 L0006965         0   0.11950E-05  476281.4 3746948.7    468.7      4.00     3.95     1.86     YES
 L0006966         0   0.11950E-05  476272.9 3746949.5    468.8      4.00     3.95     1.86     YES
 L0006967         0   0.11950E-05  476264.4 3746950.4    468.9      4.00     3.95     1.86     YES
 L0006968         0   0.11950E-05  476256.0 3746950.8    469.0      4.00     3.95     1.86     YES
 L0006969         0   0.11950E-05  476247.5 3746950.7    469.2      4.00     3.95     1.86     YES
 L0006970         0   0.11950E-05  476239.0 3746950.7    469.3      4.00     3.95     1.86     YES
 L0006971         0   0.11950E-05  476230.5 3746950.6    469.4      4.00     3.95     1.86     YES
 L0006972         0   0.11950E-05  476222.0 3746950.5    469.5      4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  60
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                       *** VOLUME SOURCE DATA ***

               NUMBER EMISSION RATE                      BASE     RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC)      X         Y      ELEV.    HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID         CATS.                (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)              BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 L0006973         0   0.11950E-05  476213.5 3746950.5    469.6      4.00     3.95     1.86     YES
 L0006974         0   0.11950E-05  476205.0 3746950.4    469.7      4.00     3.95     1.86     YES
 L0006975         0   0.11950E-05  476196.5 3746950.4    469.8      4.00     3.95     1.86     YES
 L0006976         0   0.11950E-05  476188.0 3746950.3    469.9      4.00     3.95     1.86     YES
 L0006977         0   0.11950E-05  476179.5 3746950.3    470.0      4.00     3.95     1.86     YES
 L0006978         0   0.11950E-05  476171.0 3746950.2    470.2      4.00     3.95     1.86     YES
 L0006979         0   0.11950E-05  476162.5 3746950.1    470.3      4.00     3.95     1.86     YES
 L0006980         0   0.11950E-05  476154.0 3746950.1    470.4      4.00     3.95     1.86     YES
 L0006981         0   0.11950E-05  476145.5 3746950.0    470.5      4.00     3.95     1.86     YES
 L0006982         0   0.11950E-05  476137.0 3746950.0    470.6      4.00     3.95     1.86     YES
 L0006983         0   0.11950E-05  476128.5 3746949.9    470.7      4.00     3.95     1.86     YES
 L0006984         0   0.11950E-05  476120.0 3746949.9    470.8      4.00     3.95     1.86     YES
 L0006985         0   0.11950E-05  476111.5 3746949.8    470.9      4.00     3.95     1.86     YES
 L0006986         0   0.11950E-05  476103.0 3746949.8    471.0      4.00     3.95     1.86     YES
 L0006987         0   0.11950E-05  476094.5 3746949.7    471.1      4.00     3.95     1.86     YES
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                                                               Residential
 L0006988         0   0.11950E-05  476086.0 3746949.6   471.2     4.00     3.95     1.86     YES
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 L0006990         0   0.11950E-05  476069.0 3746949.5   471.5     4.00     3.95     1.86     YES
 L0006991         0   0.11950E-05  476060.5 3746949.5   471.6     4.00     3.95     1.86     YES
 L0006992         0   0.11950E-05  476052.0 3746949.4   471.7     4.00     3.95     1.86     YES
 L0006993         0   0.11950E-05  476043.5 3746949.4   471.8     4.00     3.95     1.86     YES
 L0006994         0   0.11950E-05  476035.0 3746949.3   471.9     4.00     3.95     1.86     YES
 L0006995         0   0.11950E-05  476026.5 3746949.2   472.0     4.00     3.95     1.86     YES
 L0006996         0   0.11950E-05  476018.0 3746949.2   472.1     4.00     3.95     1.86     YES
 L0006997         0   0.11950E-05  476009.5 3746949.1   472.2     4.00     3.95     1.86     YES
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 L0006999         0   0.11950E-05  475992.5 3746949.0   472.5     4.00     3.95     1.86     YES
 L0007000         0   0.11950E-05  475984.0 3746949.0   472.6     4.00     3.95     1.86     YES
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 L0007005         0   0.11950E-05  475941.5 3746948.7   472.6     4.00     3.95     1.86     YES
 L0007006         0   0.11950E-05  475933.0 3746948.6   472.3     4.00     3.95     1.86     YES
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE  61
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                             *** AREA SOURCE DATA ***

               NUMBER EMISSION RATE  COORD (SW CORNER)  BASE     RELEASE  X-DIM     Y-DIM    ORIENT.    INIT.
URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X         Y      ELEV.    HEIGHT  OF AREA   OF AREA   OF AREA     SZ
SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS) (METERS)  (METERS)   (DEG.)  (METERS)
        BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

 AREA1            0   0.23510E-07  477895.8 3748485.6   452.0     5.00     75.04    426.52      0.00     0.00
YES   HROFDY
 AREA2            0   0.24890E-07  478189.3 3748386.9   451.0     5.00     57.92    521.96      0.00     0.00
YES   HROFDY
 AREA3            0   0.87222E-07  478027.4 3748303.6   450.0     5.00    143.40     60.16      0.00     0.00
YES   HROFDY
 AREA4            0   0.27037E-07  477696.2 3748836.0   454.0     5.00     72.15    152.50      0.00     0.00
YES   HROFDY
 AREA5            0   0.56522E-07  477967.7 3748183.6   450.0     5.00     61.27     85.90      0.00     0.00
YES   HROFDY
 AREA6            0   0.25323E-07  477599.3 3748788.1   454.0     5.00     65.18    180.23      0.00     0.00
YES   HROFDY
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE  62
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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  YARDTRAC    AREA1       , AREA2       , AREA3       , AREA4       , AREA5       , AREA6       ,
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                                                   Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  63
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***
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                                                   Residential

  SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
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                                                     Residential
   13:56:09

   PAGE  64
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  65
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                         SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  66
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                     *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  67
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
  03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

  PAGE  68
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE  69
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                            *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE  70
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                              *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  71
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                             SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  72
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                            SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  73
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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                                                        Residential

                                                  *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
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                                                    Residential
   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                         ***
  13:56:09

  PAGE  74
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  75
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  76
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                           *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE  77
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                      *** SOURCE IDs DEFINING SOURCE GROUPS ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE  78
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  79
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                      SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE  80
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                           SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
  03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
  13:56:09

  PAGE  81
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                       *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                              SOURCE IDs
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             L0006994     , L0006995     , L0006996     , L0006997     , L0006998     , L0006999     , L0007000     ,
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             L0007002     , L0007003     , L0007004     , L0007005     , L0007006     ,
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                                                   Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  82
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------


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L0003074    ,

            L0003075    , L0003076    , L0003077    , L0003078    , L0003079    , L0003080    , L0003081    ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  83
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------


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                                                        Residential

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  84
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                  *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                     SOURCE IDs
  --------   ---------                                     ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE  85
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                 SOURCE IDs
  --------   ---------                                 ----------


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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  86
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                  SOURCE IDs
  --------   ---------                                  ----------


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AREA6       ,
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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STCK8       ,
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  87
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                 SOURCE IDs
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  88
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  89
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  90
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                        *** SOURCE IDs DEFINED AS URBAN SOURCES ***
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                                               Residential

   URBAN ID    URBAN POP                                     SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
     03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                      ***
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                                                 Residential
   13:56:09

   PAGE  91
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  92
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                                       *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                     SOURCE IDs
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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE  93
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                      *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
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L0006521    ,

             L0006522    , L0006523    , L0006524    , L0006525    , L0006526    , L0006527    , L0006528    ,
L0006529    ,

             L0006530    , L0006531    , L0006532    , L0006533    , L0006534    , L0006535    , L0006536    ,
L0006537    ,

             L0006538    , L0006539    , L0006540    , L0006541    , L0006542    , L0006543    , L0006544    ,
L0006545    ,
```

```
                                                   Residential

             L0006546    , L0006547    , L0006548    , L0006549    , L0006550    , L0006551    , L0006552    ,
L0006553    ,

             L0006554    , L0006555    , L0006556    , L0006557    , L0006558    , L0006559    , L0006560    ,
L0006561    ,

             L0006562    , L0006563    , L0006564    , L0006565    , L0006566    , L0006567    , L0006568    ,
L0006569    ,

             L0006570    , L0006571    , L0006572    , L0006573    , L0006574    , L0006575    , L0006576    ,
L0006577    ,

             L0006578    , L0006579    , L0006580    , L0006581    , L0006582    , L0006583    , L0006584    ,
L0006585    ,

             L0006586    , L0006587    , L0006588    , L0006589    , L0006590    , L0006591    , L0006592    ,
L0006593    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  94
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                         *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0006594    , L0006595    , L0006596    , L0006597    , L0006598    , L0006599    , L0006600    ,
L0006601    ,

             L0006602    , L0006603    , L0006604    , L0006605    , L0006606    , L0006607    , L0006608    ,
L0006609    ,

             L0006610    , L0006611    , L0006612    , L0006613    , L0006614    , L0006615    , L0006616    ,
L0006617    ,

             L0006618    , L0006619    , L0006620    , L0006621    , L0006622    , L0006623    , L0006624    ,
L0006625    ,

             L0006626    , L0006627    , L0006628    , L0006629    , L0006630    , L0006631    , L0006632    ,
L0006633    ,

             L0006634    , L0006635    , L0006636    , L0006637    , L0006638    , L0006639    , L0006640    ,
L0006641    ,

             L0006642    , L0006643    , L0006644    , L0006645    , L0006646    , L0006647    , L0006648    ,
L0006649    ,

             L0006650    , L0006651    , L0006652    , L0006653    , L0006654    , L0006655    , L0006656    ,
L0006657    ,

             L0006658    , L0006659    , L0006660    , L0006661    , L0006662    , L0006663    , L0006664    ,
L0006665    ,

             L0006666    , L0006667    , L0006668    , L0006669    , L0006670    , L0006671    , L0006672    ,
L0006673    ,

             L0006674    , L0006675    , L0006676    , L0006677    , L0006678    , L0006679    , L0006680    ,
L0006681    ,

             L0006682    , L0006683    , L0006684    , L0006685    , L0006686    , L0006687    , L0006688    ,
```

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                                                   Residential
L0006689    ,

             L0006690    , L0006691    , L0006692    , L0006693    , L0006694    , L0006695    , L0006696    ,
L0006697    ,

             L0006698    , L0006699    , L0006700    , L0006701    , L0006702    , L0006703    , L0006704    ,
L0006705    ,

             L0006706    , L0006707    , L0006708    , L0006709    , L0006710    , L0006711    , L0006712    ,
L0006713    ,

             L0006714    , L0006715    , L0006716    , L0006717    , L0006718    , L0006719    , L0006720    ,
L0006721    ,

             L0006722    , L0006723    , L0006724    , L0006725    , L0006726    , L0006727    , L0006728    ,
L0006729    ,

             L0006730    , L0006731    , L0006732    , L0006733    , L0006734    , L0006735    , L0006736    ,
L0006737    ,

             L0006738    , L0006739    , L0006740    , L0006741    , L0006742    , L0006743    , L0006744    ,
L0006745    ,

             L0006746    , L0006747    , L0006748    , L0006749    , L0006750    , L0006751    , L0006752    ,
L0006753    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE  95
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                             *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0006754    , L0006755    , L0006756    , L0006757    , L0006758    , L0006759    , L0006760    ,
L0006761    ,

             L0006762    , L0006763    , L0006764    , L0006765    , L0006766    , L0006767    , L0006768    ,
L0006769    ,

             L0006770    , L0006771    , L0006772    , L0006773    , L0006774    , L0006775    , L0006776    ,
L0006777    ,

             L0006778    , L0006779    , L0006780    , L0006781    , L0006782    , L0006783    , L0006784    ,
L0006785    ,

             L0006786    , L0006787    , L0006788    , L0006789    , L0006790    , L0006791    , L0006792    ,
L0006793    ,

             L0006794    , L0006795    , L0006796    , L0006797    , L0006798    , L0006799    , L0006800    ,
L0006801    ,

             L0006802    , L0006803    , L0006804    , L0006805    , L0006806    , L0006807    , L0006808    ,
L0006809    ,

             L0006810    , L0006811    , L0006812    , L0006813    , L0006814    , L0006815    , L0006816    ,
L0006817    ,

             L0006818    , L0006819    , L0006820    , L0006821    , L0006822    , L0006823    , L0006824    ,
L0006825    ,
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                                   Residential
             L0006826    , L0006827    , L0006828    , L0006829    , L0006830    , L0006831    , L0006832    ,
L0006833    ,

             L0006834    , L0006835    , L0006836    , L0006837    , L0006838    , L0006839    , L0006840    ,
L0006841    ,

             L0006842    , L0006843    , L0006844    , L0006845    , L0006846    , L0006847    , L0006848    ,
L0006849    ,

             L0006850    , L0006851    , L0006852    , L0006853    , L0006854    , L0006855    , L0006856    ,
L0006857    ,

             L0006858    , L0006859    , L0006860    , L0006861    , L0006862    , L0006863    , L0006864    ,
L0006865    ,

             L0006866    , L0006867    , L0006868    , L0006869    , L0006870    , L0006871    , L0006872    ,
L0006873    ,

             L0006874    , L0006875    , L0006876    , L0006877    , L0006878    , L0006879    , L0006880    ,
L0006881    ,

             L0006882    , L0006883    , L0006884    , L0006885    , L0006886    , L0006887    , L0006888    ,
L0006889    ,

             L0006890    , L0006891    , L0006892    , L0006893    , L0006894    , L0006895    , L0006896    ,
L0006897    ,

             L0006898    , L0006899    , L0006900    , L0006901    , L0006902    , L0006903    , L0006904    ,
L0006905    ,

             L0006906    , L0006907    , L0006908    , L0006909    , L0006910    , L0006911    , L0006912    ,
L0006913    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  96
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP                                    SOURCE IDs
  --------   ---------                                    ----------


             L0006914    , L0006915    , L0006916    , L0006917    , L0006918    , L0006919    , L0006920    ,
L0006921    ,

             L0006922    , L0006923    , L0006924    , L0006925    , L0006926    , L0006927    , L0006928    ,
L0006929    ,

             L0006930    , L0006931    , L0006932    , L0006933    , L0006934    , L0006935    , L0006936    ,
L0006937    ,

             L0006938    , L0006939    , L0006940    , L0006941    , L0006942    , L0006943    , L0006944    ,
L0006945    ,

             L0006946    , L0006947    , L0006948    , L0006949    , L0006950    , L0006951    , L0006952    ,
L0006953    ,

             L0006954    , L0006955    , L0006956    , L0006957    , L0006958    , L0006959    , L0006960    ,
L0006961    ,

             L0006962    , L0006963    , L0006964    , L0006965    , L0006966    , L0006967    , L0006968    ,
L0006969    ,
```

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                                                     Residential

             L0006970    , L0006971    , L0006972    , L0006973    , L0006974    , L0006975    , L0006976    ,
L0006977    ,

             L0006978    , L0006979    , L0006980    , L0006981    , L0006982    , L0006983    , L0006984    ,
L0006985    ,

             L0006986    , L0006987    , L0006988    , L0006989    , L0006990    , L0006991    , L0006992    ,
L0006993    ,

             L0006994    , L0006995    , L0006996    , L0006997    , L0006998    , L0006999    , L0007000    ,
L0007001    ,

             L0007002    , L0007003    , L0007004    , L0007005    , L0007006    ,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  97
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003043     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003044     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003045     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003046     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003047     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE  98
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003048     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003049     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003050     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003051     ; SOURCE TYPE = VOLUME   :
```

```
                                           Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003052     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
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   PAGE  99
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003053     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003054     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003055     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003056     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003057     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 100
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003058     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003059     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003060     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003061     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003062     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 101
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003063     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003064     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003065     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003066     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003067     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 102
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003068     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003069     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                        Residential
 SOURCE ID = L0003070     ; SOURCE TYPE = VOLUME    :
      1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
      7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
     13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
     19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003071     ; SOURCE TYPE = VOLUME    :
      1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
      7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
     13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
     19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003072     ; SOURCE TYPE = VOLUME    :
      1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
      7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
     13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
     19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 103
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003073     ; SOURCE TYPE = VOLUME    :
      1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
      7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
     13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
     19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003074     ; SOURCE TYPE = VOLUME    :
      1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
      7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
     13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
     19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0003075     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003076     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003077     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 104
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003078     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003079     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                                 Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003080     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003081     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003082     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 105
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003083     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003084     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003085     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003086     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003087     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 106
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003088     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                             Residential

 SOURCE ID = L0003089     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003090     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003091     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003092     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 107
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003093     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                        Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003094     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003095     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003096     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003097     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 108
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003098     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                   Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003099     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003100     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003101     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003102     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 109
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003103     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003104     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003105     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003106     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003107     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE 110
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Residential

```
 SOURCE ID = L0003108     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003109     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003110     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003111     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003112     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 111
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                    Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003113     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003114     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003115     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003116     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003117     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 112
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                   Residential
                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003118     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003119     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003120     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003121     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003122     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09
```

```
                                                     Residential
   PAGE 113
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003123     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003124     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003125     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003126     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003127     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
```

```
                                                Residential
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 114
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003128     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003129     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003130     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003131     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003132     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 115
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003133     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003134     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003135     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003136     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003137     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 116
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003138     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003139     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003140     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003141     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003142     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 117
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003143     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003144     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003145     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003146     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                              Residential
 SOURCE ID = L0003147     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 118
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003148     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003149     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003150     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003151     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0003152     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 119
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003153     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003154     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003155     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003156     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003157     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 120
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003158     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003159     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003160     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003161     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003162     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 121
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003163     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003164     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003165     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential

 SOURCE ID = L0003166     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003167     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 122
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003168     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003169     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003170     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003171     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003172     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 123
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003173     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003174     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003175     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003176     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003177     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 124
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003178     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003179     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003180     ; SOURCE TYPE = VOLUME   :
```

```
                                                Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003181     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003182     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE 125
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003183     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003184     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003185     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003186     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003187     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 126
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003188     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003189     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003190     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003191     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003192     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 127
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003193     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003194     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003195     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003196     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003197     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 128
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003198     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                 Residential
 SOURCE ID = L0003199     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003200     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003201     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003202     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE 129
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003203     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00


 SOURCE ID = L0003204     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003205     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003206     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003207     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 130
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003208     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                              Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003209     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003210     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003211     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003212     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 131
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003213     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003214     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003215     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003216     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003217     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 132
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0003218     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003219     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003220     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003221     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003222     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 133
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                                   Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003223     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003224     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003225     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003226     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003227     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 134
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                 Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003228     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003229     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003230     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003231     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003232     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 135
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Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                     Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003233     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003234     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003235     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003236     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003237     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
```

```
                                                     Residential
   13:56:09

   PAGE 136
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003238     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003239     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003240     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003241     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003242     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 137
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003243     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003244     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003245     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003246     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003247     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 138
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003248     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003249     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003250     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003251     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003252     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                     Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 139
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003253     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003254     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003255     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003256     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003257     ; SOURCE TYPE = VOLUME    :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 140
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003258     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003259     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003260     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003261     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003262     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 141
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003263     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003264     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003265     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003266     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003267     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 142
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003268     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003269     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003270     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003271     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003272     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 143
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003273     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003274     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003275     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential
 SOURCE ID = L0003276     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003277     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 144
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003278     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003279     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003280     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0003281     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003282     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 145
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003283     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003284     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003285     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                           Residential
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003286     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003287     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 146
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003288     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003289     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003290     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
```

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003291     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003292     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 147
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003293     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003294     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential

 SOURCE ID = L0003295     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003296     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003297     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 148
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003298     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003299     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                         Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003300     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003301     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003302     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 149
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003303     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003304     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003305     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003306     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003307     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE 150
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003308     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003309     ; SOURCE TYPE = VOLUME   :
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003310     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003311     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003312     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 151
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003313     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003314     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003315     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003316     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003317     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 152
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003318     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003319     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003320     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003321     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003322     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 153
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003323     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                   Residential
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0003324     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0003325     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0003326     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00


 SOURCE ID = L0003327     ; SOURCE TYPE = VOLUME    :
        1    .00000E+00       2    .00000E+00       3    .00000E+00       4    .00000E+00       5    .00000E+00       6
.00000E+00
        7    .10000E+01       8    .10000E+01       9    .10000E+01      10    .10000E+01      11    .10000E+01      12
.10000E+01
       13    .10000E+01      14    .10000E+01      15    .10000E+01      16    .10000E+01      17    .10000E+01      18
.10000E+01
       19    .00000E+00      20    .00000E+00      21    .00000E+00      22    .00000E+00      23    .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 154
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                   Residential
 SOURCE ID = L0003328     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003329     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003330     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003331     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003332     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 155
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                  Residential
 - - - - - - - -


  SOURCE ID = L0003333     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003334     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003335     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003336     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0003337     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
     03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                     ***
    13:56:09

    PAGE 156
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                 Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003338     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003339     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003340     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003341     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003342     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 157
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                              Residential

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003343     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003344     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003345     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003346     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003347     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09
```

```
                                                Residential

   PAGE 158
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003348     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003349     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003350     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003351     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003352     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
```

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003353     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003354     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003355     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003356     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003357     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                       Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 160
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003358     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003359     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003360     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003361     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003362     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE 161
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                               * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003363     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003364     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003365     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003366     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003367     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 162
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003368     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003369     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003370     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003371     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential

 SOURCE ID = L0003372     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 163
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003373     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003374     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003375     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003376     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                             Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003377     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 164
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003378     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003379     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003380     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003381     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                              Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003382     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 165
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003383     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003384     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003385     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003386     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003387     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 166
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                              * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003388     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003389     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003390     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003391     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003392     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 167
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003393     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003394     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003395     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003396     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003397     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 168
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003398     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003399     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003400     ; SOURCE TYPE = VOLUME   :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
```

```
                                                   Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003401     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003402     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 169
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                           * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003403     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003404     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                         Residential
 SOURCE ID = L0003405     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003406     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003407     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 170
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003408     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003409     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0003410     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003411     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003412     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 171
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                             Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003417     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 172
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003418     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003419     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003420     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003421     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003422     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 173
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003423     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003424     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003425     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003426     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003427     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 174
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003428     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                     Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003429     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003430     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003431     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003432     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 175
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003433     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003434     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003435     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003436     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003437     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 176
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003438     ; SOURCE TYPE = VOLUME   :
```

```
                                                       Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003439     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003440     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003441     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003442     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 177
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0003443     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003444     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003445     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003446     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003447     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 178
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

```
                                                     Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0003448     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003449     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003450     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003451     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003452     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 179
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                 Residential
                                  * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -


 SOURCE ID = L0003453     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003454     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003455     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003456     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003457     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                   Residential
   PAGE 180
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - 


 SOURCE ID = L0003458     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003459     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003460     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003461     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003462     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker                ***
    03/22/16
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                        Residential
 *** AERMET - VERSION  14134 ***   ***                                                                         ***
   13:56:09

   PAGE 181
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003463     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003464     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003465     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003466     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003467     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 182
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003468     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003469     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003470     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003471     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003472     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 183
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                 * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003473     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003474     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003475     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003476     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003477     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 184
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003478     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003479     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003480     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003481     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                Residential
 SOURCE ID = L0003482     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 185
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003483     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003484     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003485     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003486     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                     Residential
.00000E+00


 SOURCE ID = L0003487     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 186
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003488     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003489     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003490     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003491     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                     Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003492     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 187
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003493     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003494     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003495     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003496     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                     Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003497     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 188
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003498     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003499     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003500     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003501     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003502     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 189
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003503     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003504     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003505     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                        Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003506     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003507     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 190
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                      * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003508     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003509     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003510     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003511     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003512     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 191
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003513     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003514     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003515     ; SOURCE TYPE = VOLUME   :
```

```
                                                    Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003516     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003517     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 192
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003518     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003519     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003520     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003521     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003522     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 193
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003523     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003524     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003525     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003526     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003527     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 194
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003528     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003529     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003530     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003531     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003532     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 195
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003533     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 SOURCE ID = L0003534     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003535     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003536     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003537     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 196
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                         * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003538     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                   Residential
.00000E+00


 SOURCE ID = L0003539     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003540     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003541     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003542     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 197
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003543     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                         Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003544     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003545     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003546     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003547     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 198
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003548     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003549     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003550     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003551     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003552     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 199
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
 SOURCE ID = L0003553     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003554     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003555     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003556     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003557     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 200
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
```

```
                                              Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003558     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003559     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003560     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003561     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003562     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 201
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003563     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003564     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003565     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003566     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003567     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 202
```

```
                                                      Residential
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003568     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003569     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003570     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003571     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003572     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003573     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003574     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003575     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003576     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003577     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00
```

```
                                                       Residential
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 204
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003578     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003579     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003580     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003581     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003582     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 205
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003583     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003584     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003585     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003586     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003587     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 206
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003588     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003589     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003590     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003591     ; SOURCE TYPE = VOLUME    :
       1    .00000E+00      2    .00000E+00      3    .00000E+00      4    .00000E+00      5    .00000E+00      6
.00000E+00
       7    .10000E+01      8    .10000E+01      9    .10000E+01     10    .10000E+01     11    .10000E+01     12
.10000E+01
      13    .10000E+01     14    .10000E+01     15    .10000E+01     16    .10000E+01     17    .10000E+01     18
.10000E+01
      19    .00000E+00     20    .00000E+00     21    .00000E+00     22    .00000E+00     23    .00000E+00     24
.00000E+00


 SOURCE ID = L0003592     ; SOURCE TYPE = VOLUME    :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 207
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003593     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003594     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003595     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003596     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

Residential

```
 SOURCE ID = L0003597     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 208
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003598     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003599     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003600     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003601     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                     Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003602     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 209
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003603     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003604     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003605     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003606     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                    Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003607     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 210
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003608     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003609     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003610     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                     Residential
 SOURCE ID = L0003611     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003612     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 211
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003613     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003614     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003615     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00


 SOURCE ID = L0003616     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003617     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 212
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003618     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003619     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003620     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                  Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003621     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003622     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 213
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003623     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003624     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003625     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003626     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003627     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 214
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003628     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003629     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0003630     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003631     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003632     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 215
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003633     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003634     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                               Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003635     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003636     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003637     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 216
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003638     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003639     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003640     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003641     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005357     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 217
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005358     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005359     ; SOURCE TYPE = VOLUME   :
```

```
                                                 Residential
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005360     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005361     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005362     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 218
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005363     ; SOURCE TYPE = VOLUME    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
 SOURCE ID = L0005364     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005365     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005366     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005367     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 219
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005368     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005369     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005370     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005371     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005372     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 220
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005373     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005374     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005375     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005376     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005377     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 221
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

```
                                                    Residential
 SOURCE ID = L0005378     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005379     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005380     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005381     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005382     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 222
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

```
                                                     Residential
 - - - - - - - -


  SOURCE ID = L0005383     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0005384     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0005385     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0005386     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00


  SOURCE ID = L0005387     ; SOURCE TYPE = VOLUME    :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
 .00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
 .10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
 .10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
 .00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
  *** AERMET - VERSION  14134 ***   ***                                                                  ***
    13:56:09

    PAGE 223
  **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *
```

```
                                                    Residential
     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005388     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005389     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005390     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005391     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005392     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 224
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                         Residential

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005393     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005394     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005395     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005396     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005397     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09
```

```
                                                    Residential

   PAGE 225
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005398     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005399     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005400     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005401     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005402     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
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                                                     Residential
   03/22/16
*** AERMET - VERSION  14134 ***   ***                                                                   ***
  13:56:09

  PAGE 226
**MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

    HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005403     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005404     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005405     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005406     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005407     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                  Residential
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 227
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005408     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005409     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005410     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005411     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005412     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                                    Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 228
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005413     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005414     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005415     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005416     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005417     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                        Residential
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 229
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                             * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005418     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005419     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005420     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005421     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                   Residential

 SOURCE ID = L0005422     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 230
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005423     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005424     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005425     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005426     ; SOURCE TYPE = VOLUME   :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                 Residential
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005427     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 231
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005428     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005429     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005430     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005431     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
                                                    Residential
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005432     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 232
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005433     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005434     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005435     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005436     ; SOURCE TYPE = VOLUME   :
```

```
                                                   Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005437     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 233
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR    SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005438     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005439     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005440     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                    Residential


 SOURCE ID = L0005441     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005442     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 234
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005443     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005444     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005445     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005446     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005447     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 235
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005448     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005449     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005450     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                     Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005451     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005452     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 236
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR     SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0005453     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0005454     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                Residential
 SOURCE ID = L0005455     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA1        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA2        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 237
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = AREA3        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA4        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                 Residential
.00000E+00


 SOURCE ID = AREA5        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = AREA6        ; SOURCE TYPE = AREA     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK1        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 238
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK2        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK3        ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
```

```
                                               Residential
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK4         ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK5         ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK6         ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE 239
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK7         ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK8         ; SOURCE TYPE = POINT    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
```

```
                                                    Residential
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK9        ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK10       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = STCK11       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 240
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = STCK12       ; SOURCE TYPE = POINT    :
      1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
      7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
     13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
     19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                      Residential

 SOURCE ID = STCK13       ; SOURCE TYPE = POINT     :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003741     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003742     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003743     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 241
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003744     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
```

```
                                                    Residential
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003745     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003746     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003747     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003748     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
       13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
       19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 242
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003749     ; SOURCE TYPE = VOLUME   :
        1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
        7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
```

```
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003750     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003751     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003752     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003753     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 243
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003754     ; SOURCE TYPE = VOLUME   :
```

```
                                                     Residential
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003755     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003756     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003757     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003758     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 244
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
```

Residential

```
 SOURCE ID = L0003759     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003760     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003761     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003762     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003763     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 245
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                                Residential
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003764     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003765     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003766     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003767     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003768     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 246
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN
```

```
                                                 Residential
                                     * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003769     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003770     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003771     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003772     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00


 SOURCE ID = L0003773     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00       2   .00000E+00       3   .00000E+00       4   .00000E+00       5   .00000E+00       6
.00000E+00
       7   .10000E+01       8   .10000E+01       9   .10000E+01      10   .10000E+01      11   .10000E+01      12
.10000E+01
      13   .10000E+01      14   .10000E+01      15   .10000E+01      16   .10000E+01      17   .10000E+01      18
.10000E+01
      19   .00000E+00      20   .00000E+00      21   .00000E+00      22   .00000E+00      23   .00000E+00      24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09
```

```
                                                     Residential
   PAGE 247
 **MODELOPTs:    RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003774     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003775     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003776     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003777     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003778     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
```

```
                                                 Residential
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 248
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003779     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003780     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003781     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003782     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003783     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

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♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 249
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                       * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -



 SOURCE ID = L0003784     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003785     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003786     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003787     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003788     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
```

```
                                                    Residential
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker              ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                    ***
   13:56:09

   PAGE 250
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                            * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003789     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003790     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003791     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003792     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003793     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
```

```
                                                 Residential
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                     ***
   13:56:09

   PAGE 251
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003794     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003795     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003796     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003797     ; SOURCE TYPE = VOLUME    :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00
```

```
                                                                Residential
 SOURCE ID = L0003798     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                       ***
   13:56:09

   PAGE 252
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR     SCALAR       HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003799     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003800     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003801     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003802     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
```

```
                                                    Residential
.00000E+00


 SOURCE ID = L0003803     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 253
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        * SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

     HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR    SCALAR      HOUR
SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -


 SOURCE ID = L0003804     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00


 SOURCE ID = L0003805     ; SOURCE TYPE = VOLUME   :
       1   .00000E+00      2   .00000E+00      3   .00000E+00      4   .00000E+00      5   .00000E+00      6
.00000E+00
       7   .10000E+01      8   .10000E+01      9   .10000E+01     10   .10000E+01     11   .10000E+01     12
.10000E+01
      13   .10000E+01     14   .10000E+01     15   .10000E+01     16   .10000E+01     17   .10000E+01     18
.10000E+01
      19   .00000E+00     20   .00000E+00     21   .00000E+00     22   .00000E+00     23   .00000E+00     24
.00000E+00

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 254
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                                         *** DISCRETE CARTESIAN RECEPTORS ***
                                                       (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                       (METERS)

     ( 478348.6, 3749820.7,     458.3,     467.0,       0.0);         ( 478329.6, 3749871.1,     459.0,     467.0,
     0.0);
     ( 478312.4, 3749891.0,     459.0,     467.0,       0.0);         ( 478344.6, 3749914.1,     459.0,     467.0,
     0.0);
     ( 478380.3, 3749931.8,     459.0,     467.0,       0.0);         ( 479198.5, 3749445.6,     455.0,     468.0,
```

Attachment: B3 - Supplemental Air Quality Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
                                          Residential
     0.0);
     ( 479276.2, 3749431.1,     455.0,     780.0,       0.0);        ( 479238.2, 3749507.6,     456.0,     469.0,
     0.0);
     ( 479392.7, 3749458.5,     454.7,     780.0,       0.0);        ( 479266.8, 3749584.9,     456.0,     469.0,
     0.0);
     ( 479216.5, 3749531.8,     456.0,     468.0,       0.0);        ( 479216.5, 3749499.9,     456.0,     468.0,
     0.0);
     ( 478420.7, 3750106.6,     460.0,     467.0,       0.0);        ( 478374.5, 3750050.1,     460.0,     467.0,
     0.0);
     ( 479735.8, 3748832.3,     450.0,     780.0,       0.0);        ( 479739.1, 3748875.1,     450.9,     780.0,
     0.0);
     ( 477612.1, 3751848.4,     468.0,     476.0,       0.0);        ( 478306.5, 3751863.5,     471.0,     471.0,
     0.0);
     ( 478687.4, 3751837.0,     471.0,     475.0,       0.0);        ( 477090.2, 3750813.4,     462.0,     471.0,
     0.0);
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 255
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                          (1=YES; 0=NO)

            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1
1 1
            1 1 1 1 1 1 1 1 1 1  1 1 1 1 1

                       METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2007   1  1  1
                                                           AND END DATE: 2007  12 31 24

                NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA
FILE.


                                 *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
                                                       (METERS/SEC)

                                              1.54,   3.09,   5.14,   8.23,  10.80,
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 256
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                   *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:   ..\..\..\..\peri8.sfc                                                             Met Version:
14134
   Profile file:   ..\..\..\..\peri8.pfl
```

```
                                                 Residential
   Surface format: FREE

   Profile format: FREE

   Surface station no.:        0                  Upper air station no.:     3190
                  Name: UNKNOWN                                  Name: UNKNOWN
                  Year:   2007                                   Year:   2007

 First 24 hours of scalar data
 YR MO DY JDY HR     H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS    WD     HT  REF TA
  HT
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 07 01 01    1 01   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  133.     9.1  279.9
 5.5
 07 01 01    1 02   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  192.     9.1  279.2
 5.5
 07 01 01    1 03   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  160.     9.1  277.5
 5.5
 07 01 01    1 04   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50   75.     9.1  277.5
 5.5
 07 01 01    1 05   -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00   1.00    0.50  282.     9.1  278.8
 5.5
 07 01 01    1 06   -0.6  0.026 -9.000 -9.000 -999.    10.      2.6  0.19   1.00   1.00    0.50   96.     9.1  277.5
 5.5
 07 01 01    1 07   -0.5  0.026 -9.000 -9.000 -999.    10.      3.0  0.19   1.00   1.00    0.50  129.     9.1  278.1
 5.5
 07 01 01    1 08   -0.4  0.026 -9.000 -9.000 -999.    10.      3.7  0.19   1.00   0.54    0.50   99.     9.1  277.5
 5.5
 07 01 01    1 09   27.8  0.091  0.542  0.005  196.    66.     -2.3  0.19   1.00   0.33    0.50  133.     9.1  278.1
 5.5
 07 01 01    1 10   76.9  0.104  1.050  0.005  516.    81.     -1.3  0.19   1.00   0.26    0.50  174.     9.1  281.4
 5.5
 07 01 01    1 11  110.0  0.109  1.374  0.009  810.    87.     -1.0  0.19   1.00   0.23    0.50   95.     9.1  284.9
 5.5
 07 01 01    1 12  125.7  0.201  1.589  0.018 1095.   216.     -5.5  0.19   1.00   0.22    1.30   94.     9.1  288.1
 5.5
 07 01 01    1 13  121.7  0.287  1.641  0.022 1248.   369.    -16.6  0.19   1.00   0.22    2.20   24.     9.1  291.4
 5.5
 07 01 01    1 14  102.8  0.414  1.559  0.021 1265.   639.    -59.1  0.19   1.00   0.23    3.60   13.     9.1  292.5
 5.5
 07 01 01    1 15   69.9  0.619  1.374  0.021 1276.  1169.   -291.2  0.19   1.00   0.27    5.80  318.     9.1  292.0
 5.5
 07 01 01    1 16   16.8  0.607  0.856  0.021 1277.  1135.  -1137.8  0.19   1.00   0.36    5.80  329.     9.1  291.4
 5.5
 07 01 01    1 17  -42.2  0.437 -9.000 -9.000 -999.   720.    169.3  0.19   1.00   0.64    4.50  333.     9.1  289.9
 5.5
 07 01 01    1 18  -18.5  0.353 -9.000 -9.000 -999.   510.    204.1  0.19   1.00   1.00    3.60  305.     9.1  288.8
 5.5
 07 01 01    1 19  -42.3  0.437 -9.000 -9.000 -999.   692.    168.7  0.19   1.00   1.00    4.50  276.     9.1  287.5
 5.5
 07 01 01    1 20  -32.3  0.334 -9.000 -9.000 -999.   470.     98.6  0.19   1.00   1.00    3.60  323.     9.1  287.5
 5.5
 07 01 01    1 21  -36.7  0.380 -9.000 -9.000 -999.   562.    128.3  0.19   1.00   1.00    4.00  322.     9.1  288.1
 5.5
 07 01 01    1 22  -45.6  0.434 -9.000 -9.000 -999.   685.    153.6  0.19   1.00   1.00    4.50   30.     9.1  288.1
 5.5
 07 01 01    1 23  -39.7  0.377 -9.000 -9.000 -999.   557.    115.4  0.19   1.00   1.00    4.00  343.     9.1  287.0
 5.5
 07 01 01    1 24   -7.7  0.093 -9.000 -9.000 -999.   215.      9.1  0.19   1.00   1.00    1.80  155.     9.1  283.8
 5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 07 01 01 01    5.5 0 -999.  -99.00  279.9   99.0  -99.00  -99.00
 07 01 01 01    9.1 1  133.    0.50 -999.0   99.0  -99.00  -99.00
```

```
                                                    Residential

 F indicates top of profile (=1) or below (=0)
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

  PAGE 257
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP:
YARDTRAC ***
                                 INCLUDING SOURCE(S):     AREA1       , AREA2       , AREA3       , AREA4       ,
AREA5       ,
                 AREA6       ,

                                                         *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                    ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
         478348.59    3749820.73       0.00077                          478329.61    3749871.11       0.00075

         478312.39    3749891.05       0.00076                          478344.56    3749914.15       0.00071

         478380.35    3749931.82       0.00067                          479198.50    3749445.63       0.00019

         479276.24    3749431.09       0.00018                          479238.25    3749507.60       0.00018

         479392.66    3749458.49       0.00015                          479266.82    3749584.89       0.00017

         479216.49    3749531.76       0.00018                          479216.49    3749499.88       0.00018

         478420.74    3750106.65       0.00056                          478374.50    3750050.13       0.00061

         479735.76    3748832.26       0.00017                          479739.12    3748875.07       0.00017

         477612.13    3751848.38       0.00026                          478306.45    3751863.55       0.00023

         478687.39    3751836.97       0.00020                          477090.18    3750813.40       0.00042

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
  13:56:09

  PAGE 258
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: OTHER
 ***
                                 INCLUDING SOURCE(S):     L0003043    , L0003044    , L0003045    , L0003046    ,
L0003047    ,
                 L0003048    , L0003049    , L0003050    , L0003051    , L0003052    , L0003053    , L0003054    ,
L0003055    ,
                 L0003056    , L0003057    , L0003058    , L0003059    , L0003060    , L0003061    , L0003062    ,
L0003063    ,
                 L0003064    , L0003065    , L0003066    , L0003067    , L0003068    , L0003069    , L0003070    ,
 . . .      ,

                                                         *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                    ** CONC OF DPM      IN MICROGRAMS/M**3                          **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)   Y-COORD (M)        CONC
```

```
                                                     Residential
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -
         478348.59    3749820.73        0.00042                          478329.61    3749871.11        0.00040

         478312.39    3749891.05        0.00040                          478344.56    3749914.15        0.00038

         478380.35    3749931.82        0.00037                          479198.50    3749445.63        0.00026

         479276.24    3749431.09        0.00025                          479238.25    3749507.60        0.00025

         479392.66    3749458.49        0.00022                          479266.82    3749584.89        0.00023

         479216.49    3749531.76        0.00025                          479216.49    3749499.88        0.00025

         478420.74    3750106.65        0.00030                          478374.50    3750050.13        0.00032

         479735.76    3748832.26        0.00021                          479739.12    3748875.07        0.00020

         477612.13    3751848.38        0.00011                          478306.45    3751863.55        0.00011

         478687.39    3751836.97        0.00010                          477090.18    3750813.40        0.00017

♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
   13:56:09

   PAGE 259
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                 INCLUDING SOURCE(S):     L0003043    , L0003044    , L0003045    , L0003046    ,
L0003047    ,
                 L0003048    , L0003049    , L0003050    , L0003051    , L0003052    , L0003053    , L0003054    ,
L0003055    ,
                 L0003056    , L0003057    , L0003058    , L0003059    , L0003060    , L0003061    , L0003062    ,
L0003063    ,
                 L0003064    , L0003065    , L0003066    , L0003067    , L0003068    , L0003069    , L0003070    ,
 . . .      ,

                                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                                   ** CONC OF DPM      IN MICROGRAMS/M**3                          **

        X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)   Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -
         478348.59    3749820.73        0.00207                          478329.61    3749871.11        0.00206

         478312.39    3749891.05        0.00208                          478344.56    3749914.15        0.00199

         478380.35    3749931.82        0.00191                          479198.50    3749445.63        0.00100

         479276.24    3749431.09        0.00095                          479238.25    3749507.60        0.00095

         479392.66    3749458.49        0.00088                          479266.82    3749584.89        0.00092

         479216.49    3749531.76        0.00096                          479216.49    3749499.88        0.00097

         478420.74    3750106.65        0.00174                          478374.50    3750050.13        0.00184

         479735.76    3748832.26        0.00085                          479739.12    3748875.07        0.00084

         477612.13    3751848.38        0.00509                          478306.45    3751863.55        0.00124

         478687.39    3751836.97        0.00091                          477090.18    3750813.40        0.00267
```

```
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
    03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                      ***
   13:56:09

   PAGE 260
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

                                    *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER   1 YEARS ***


                                     ** CONC OF DPM      IN MICROGRAMS/M**3                         **


NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR, ZELEV, ZHILL, ZFLAG)  OF TYPE
GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- -

YARDTRAC  1ST HIGHEST VALUE IS       0.00077 AT (  478348.59,  3749820.73,    458.30,   467.00,    0.00)  DC

          2ND HIGHEST VALUE IS       0.00076 AT (  478312.39,  3749891.05,    459.00,   467.00,    0.00)  DC

          3RD HIGHEST VALUE IS       0.00075 AT (  478329.61,  3749871.11,    459.00,   467.00,    0.00)  DC

          4TH HIGHEST VALUE IS       0.00071 AT (  478344.56,  3749914.15,    459.00,   467.00,    0.00)  DC

          5TH HIGHEST VALUE IS       0.00067 AT (  478380.35,  3749931.82,    459.00,   467.00,    0.00)  DC

          6TH HIGHEST VALUE IS       0.00061 AT (  478374.50,  3750050.13,    460.00,   467.00,    0.00)  DC

          7TH HIGHEST VALUE IS       0.00056 AT (  478420.74,  3750106.65,    460.00,   467.00,    0.00)  DC

          8TH HIGHEST VALUE IS       0.00042 AT (  477090.18,  3750813.40,    462.00,   471.00,    0.00)  DC

          9TH HIGHEST VALUE IS       0.00026 AT (  477612.13,  3751848.38,    468.00,   476.00,    0.00)  DC

         10TH HIGHEST VALUE IS       0.00023 AT (  478306.45,  3751863.55,    471.00,   471.00,    0.00)  DC

OTHER     1ST HIGHEST VALUE IS       0.00042 AT (  478348.59,  3749820.73,    458.30,   467.00,    0.00)  DC

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          4TH HIGHEST VALUE IS       0.00038 AT (  478344.56,  3749914.15,    459.00,   467.00,    0.00)  DC

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ALL       1ST HIGHEST VALUE IS       0.00509 AT (  477612.13,  3751848.38,    468.00,   476.00,    0.00)  DC

          2ND HIGHEST VALUE IS       0.00267 AT (  477090.18,  3750813.40,    462.00,   471.00,    0.00)  DC
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                                               Residential
         3RD HIGHEST VALUE IS       0.00208 AT (  478312.39,  3749891.05,    459.00,    467.00,     0.00)  DC

         4TH HIGHEST VALUE IS       0.00207 AT (  478348.59,  3749820.73,    458.30,    467.00,     0.00)  DC

         5TH HIGHEST VALUE IS       0.00206 AT (  478329.61,  3749871.11,    459.00,    467.00,     0.00)  DC

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         9TH HIGHEST VALUE IS       0.00174 AT (  478420.74,  3750106.65,    460.00,    467.00,     0.00)  DC

        10TH HIGHEST VALUE IS       0.00124 AT (  478306.45,  3751863.55,    471.00,    471.00,     0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
♀ *** AERMOD - VERSION  15181 ***   *** C:\Lakes\AERMOD View\MVL\HRA W Indian St Bridge\Worker               ***
   03/22/16
 *** AERMET - VERSION  14134 ***   ***                                                                        ***
  13:56:09

  PAGE 261
 **MODELOPTs:   RegDFAULT CONC      ELEV      URBAN

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            0 Warning Message(s)
 A Total of          124 Informational Message(s)

 A Total of         8760 Hours Were Processed

 A Total of            0 Calm Hours Identified

 A Total of          124 Missing Hours Identified (  1.42 Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
               ***  NONE  ***


    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
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BIOLOGICAL TECHNICAL REPORT

FOR THE

MORENO VALLEY LOGISTICS CENTER

MORENO VALLEY
RIVERSIDE COUNTY, CALIFORNIA

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Report Preparer: David Moskovitz

May 12, 2015
[Revised March 17, 2016]

INFORMATION SUMMARY

A.	**Report Date:**	May 12, 2015 [Revised March 17, 2016]
B.	**Report Title:**	Biological Technical Report for the Moreno Valley Logistics Center Project
C.	**Project Site Location:**	Moreno Valley, Riverside County, California
D.	**Applicant:**	Prologis L.P. 2817 E. Cedar Street Suite 200 Ontario, California 91761 Contact: Scott Mulkay Phone: (909) 673-8730
E.	**Principal Investigator:**	Glenn Lukos Associates, Inc. 29 Orchard Lake Forest, California 92630 Phone: (949) 837-0404, ext. 42 Fax: (949) 837-5834 Report Preparer: David Moskovitz

F. **Report Summary:**

This document provides the results of general and focused biological surveys for the 89.4-acre Moreno Valley Logistics Center Project ("Project site") located in the City of Moreno Valley, Riverside County, California. The Project also includes 0.34-acre of offsite impacts associated with the installation of storm drain outfall structures along the adjacent Perris Valley Storm Drain. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The Project site is located immediately east of March Air Reserve Base (MARB) in Moreno Valley and historically has been disturbed regularly due to agricultural operations and discing practices. Site topography is flat and the Perris Valley Storm Drain bisects portions of the property.

The Project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area. As such, the Project is not subject to the MSHCP Habitat Evaluation and Negotiation Strategy (HANS) or Joint Project Review (JPR) processes. The Project site located within the burrowing owl (*Athene cunicularia*) survey area, but it not located within the Narrow Endemic Plant Species Survey Area (NEPSSA), Criteria Area Plant Species Survey Area (CAPSSA), amphibian, or mammal survey areas.

Pursuant to MSHCP requirements, focused surveys were conducted for the burrowing owl following MSHCP protocols. No burrowing owls were detected onsite; however, the site has a potential to support burrowing owls in the future. Pursuant to MSHCP requirements, and as a Project avoidance measure, pre-construction burrowing owl surveys will be conducted within 30 days of site disturbance associated with Project grading. If burrowing owls are detected during the pre-construction surveys, then owls will be relocated from the site following accepted protocols.

The proposed Project will result in the loss of habitat with the potential to support several special-status animal species, including listed and non-listed species. One listed species, Stephens' kangaroo rat (*Dipodomys stephensi*) [SKR] has the potential to occur on site. The loss of habitat for SKR is potentially significant, both individually and cumulatively. However, the Project site is located within the SKR Fee Assessment Area as established by the SKR Habitat Conservation Plan (SKR HCP). Coverage for impacts to SKR would be provided to the proposed Project through payment of the SKR fee. In addition, the proposed Project will impact habitat with the potential to support non-listed, special-status species, all of which are designated as MSHCP Covered Species. Potential impacts to these species would be less than significant, both individually and cumulatively, as a result of a low level of sensitivity, marginal quality of habitat onsite, and/or limited impacts by the proposed Project. The proposed Project will not result in potentially significant impacts, either individually or cumulatively, to MSHCP "non-Covered Species". The Project will not impact special-status plants.

The Project has the potential to impact nesting birds if vegetation is removed during the nesting season (February 1 to August 31). Impacts to nesting birds are prohibited by the MBTA and California Fish and Game Code. To avoid impacts to nesting birds, a nesting bird survey will be performed prior to any vegetation removal if conducted during the nesting season.

The proposed Project will impact jurisdictional waters associated with the PVSD due to the installation of the offsite outfall structures. The Project will permanently impact 0.002 acre of U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (Regional Board) jurisdiction, and 0.02 acre of California Department of Fish and Wildlife (CDFW) jurisdiction, none of which consists of jurisdictional wetlands/riparian habitat. In addition, the Project will temporarily impact 0.09 acre of Corps and Regional Board jurisdiction and 0.18 acre of CDFW jurisdiction, none of which consists of jurisdictional wetlands/riparian habitat. The impacts to jurisdictional waters would be less than significant due to the lack of riparian/wetland habitat, the negligible function to biological resources, the lack of local significance, and the small amount of impact.

The Project will permanently impact approximately 0.02 acre of unvegetated riverine areas associated with the PVSD channel due to the construction of the storm drain outfall structures, and will temporarily impact 0.18 acre of the channel during construction. Impacts to the PVSD channel have been minimized to the maximum extent practicable through the minimum number of outfall structures required, and the minimum impact footprint needed for each structure.

Furthermore, construction of the outfall structures will not impact any riparian habitat. Due to the minimal footprint associated with each structure, and with the lack of impact to riparian resources, construction of the outfall structures would not adversely affect riparian/riverine functions and values as it pertains to MSHCP Covered Species. In addition, the Project would not have any potential to directly or cumulatively impact biological functions and values as it relates to downstream resources. Since the Project will not result in a loss of functions and values as it pertains to MSHCP Covered Species within the Project footprint or within downstream areas, the Determination of Biologically Equivalent or Superior Preservation (DBESP) requirements do not apply to the Project.

The proposed Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the Project's relationship to reserve assembly, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

G. Individuals Conducting Fieldwork:

Jeff Ahrens
Martin Rasnick
Amy Walters

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Attachment: C1 - Biological Technical Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLES

EXHIBITS

Attachment: C1 - Biological Technical Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDICES

1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general and focused biological surveys for the 89.4-acre Moreno Valley Logistics Center Project (the Project) located in City of Moreno Valley, Riverside County, California. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the Project site, all methods employed regarding the general biological surveys and focused biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species (including species with applicable MSHCP survey requirements); (4) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (5) focused burrowing owl surveys; (6) assessments for MSHCP riparian/riverine areas and vernal pools; and (7) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act, the Regional Water Quality Control Board (Regional Board) pursuant to Section 401 of the Clean Water Act, and CDFW pursuant to Division 2, Chapter 6, Section 1600–1616 of the California Fish and Game Code. Observations of all plant and wildlife species were recorded during the general biological surveys and are included as Appendix A (Floral Compendium) and Appendix B (Faunal Compendium).

1.2 Project Location

The Project site comprises 89.48 acres in the Moreno Valley, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section 30 of Township 4 South, Range 3 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Perris (dated 1967 and photorevised in 1979) and Section 30 of Township 4 South, Range 3 West of the Sunnymead quadrangle map (dated 1967 and photorevised in 1980) [Exhibit 2 – Vicinity Map]. The Project site is bordered by Krameria Avenue to the north, Indian Street to the east, Cardinal Avenue and Perris Valley Storm Drain to the south, and Heacock Street to the west and is bisected by the Perris Valley Storm Drain.

The Project is bounded by undeveloped land to the north, residential land to the east, commerical development to the south, and Heacock Street and March Air Reserve Base to the west. The Project site supports one blue-line stream, the Perris Valley Storm Drain (as depicted on the U.S. Geological Survey (USGS) topographic map Sunnymead, California [dated 1967 and photorevised in 1980]) [Exhibit 2]. The Project is located within or a portion of Assessor's Parcel Numbers (APN) 316-100-028, 030, 048, 051, and 052.

1.3 Project Description

The proposed Project involves the development of an approximately 89.4 gross-acre property located at the southwest corner of the intersection of Krameria Avenue and Indian Street in the City of Moreno Valley, Riverside County, California. The proposed Project consists of an application for a Specific Plan Amendment (P15-036), Tentative Parcel Map (PA15-0018), and four individual Building Plot Plan applications (PA15-0014, PA15-0015, PA15-0016, and PA15-0017) to construct and operate a logistics center with four buildings providing 1,737,518 square feet (s.f.) of total building space. Associated improvements to the property would include loading docks, surface parking areas (passenger car parking and truck trailer parking), drive aisles, roadway improvements, utility infrastructure (including off-site storm water drainage improvements within the Perris Valley Storm Drain Channel), landscaping, exterior lighting, signage, and water quality detention basins. The Project also includes public street vacations and street dedications [Exhibit 3 – Site Plan].

1.4 Existing Conditions

The Project Site is comprised of former agricultural land that is highly disturbed and supports ruderal vegetation. Surrounding land uses include March Air Reserve Base, commercial and residential development, and undeveloped land. The Perris Valley Storm Drain bisects portions of the Project.

1.5 Relationship of the Project to the MSHCP

1.5.1 MSHCP Background

The Western Riverside County MSHCP is a comprehensive habitat conservation/planning program for Western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to special-status species and associated native habitats.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and CDFW, the MSHCP designates 146 special-status animal and plant species as Covered Species, of which the majority have no project-specific survey/conservation requirements. The MSHCP provides mitigation for project-specific impacts to these species for Projects that are compliant/consistent with MSHCP requirements, such that the impacts are reduced to below a level of significance pursuant to CEQA.

The Covered Species that are not yet adequately conserved have additional requirements in order for these species to ultimately be considered "adequately conserved". A number of these species have survey requirements based on a project's occurrence within a designated MSHCP survey area and/or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP *Volume I, Section 6.1.3*), as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species (MSHCP *Volume I, Section 6.3.2*) identified by the Criteria Area Plant Species Survey Areas (CAPSSA); animals species (burrowing owl, mammals, amphibians) identified by survey areas (MSHCP *Volume I, Section 6.3.2*); and species associated with riparian/riverine areas and vernal pool habitats, i.e., least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, and three species of listed fairy shrimp (MSHCP *Volume I, Section 6.1.2*). An additional 28 species (MSHCP *Volume I*, *Table 9.3*) not yet adequately conserved have species-specific objectives in order for the species to become adequately conserved. However, these species do not have project-specific survey requirements.

The goal of the MSHCP is to have a total Conservation Area in excess of 500,000 acres, including approximately 347,000 acres on existing Public/Quasi-Public (PQP) Lands, and approximately 153,000 acres of Additional Reserve Lands targeted within the MSHCP Criteria Area. The MSHCP is divided into 16 separate Area Plans, each with its own conservation goals and objectives. Within each Area Plan, the Criteria Area is divided into Subunits, and further divided into Criteria Cells and Cell Groups (a group of criteria cells). Each Cell Group and ungrouped, independent Cell has designated "criteria" for the purpose of targeting additional conservation lands for acquisition. Projects located within the Criteria Area are subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process to determine if lands are targeted for inclusion in the MSHCP Reserve. In addition, all Projects located within the Criteria Area are subject to the Joint Project Review (JPR) process, where the Project is reviewed by the Regional Conservation Authority (RCA) to determine overall compliance/consistency with the biological requirements of the MSHCP.

1.6.2 Relationship of the Project Site to the MSHCP

The Project site is located within the Reche Canyon/Badlands Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area [Exhibit 4 – MSHCP Overlay Map]. The Project site is located within the MSHCP Burrowing Owl Survey Area; however, the Project site is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA), the Criteria Area Plant Species Survey Area (CAPSSA), or the MSHCP Mammal or Amphibian Survey Areas. The Perris Valley Storm Drain (PVSD), which is located adjacent to the Project site, is designated as Public/Quasi-Public (PQP) Conserved Lands. The proposed Project includes the construction of five storm drain outfall structures within the PVSD.

Within the designated Survey Areas, the MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species have been met throughout the MSHCP. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met, if applicable. If equivalency findings cannot be demonstrated, then “biologically equivalent or superior preservation” must be provided.

2.0 METHODOLOGY

In order to adequately identify biological resources in accordance with the requirements of CEQA, Glenn Lukos Associates (GLA) assembled biological data consisting of the following main components:

- Performance of general biological surveys and vegetation mapping for the Project Site; and
- Performance of habitat assessments, and site-specific biological surveys to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB [CDFW 2016], CNPS 8th edition online inventory (CNPS 2010), Natural Resource Conservation Service (NRCS) soil data, MSHCP species and habitat maps, MSHCP sensitive soil maps, other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project Site were conducted on foot in the proposed development areas for each target plant or animal species identified below.

2.1 Summary of Surveys

GLA conducted biological studies in order to identify and analyze actual or potential impacts to biological resources associated with the Project site. Observations of all plant and wildlife species were recorded during each of the above mentioned survey efforts [Appendix A: Floral Compendium and Appendix B: Faunal Compendium]. The studies conducted include the following:

- Performance of general biological surveys and vegetation mapping;
- Performance of site-specific habitat assessments and biological surveys to evaluate the potential presence/absence of special-status species (or potentially suitable habitat) to the satisfaction of CEQA, federal and state regulations, and MSHCP requirements;
- Performance of focused burrowing owl surveys; and
- Delineation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and CDFW, as well as MSHCP riparian/riverine resources.

Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Project Site.

Survey Type	Survey Dates	Biologists
Habitat Assessments and General Biological Surveys	3/12, 3/16, 2015	JA
Focused Burrow Mapping and Focused Burrowing Owl Surveys	3/12, 3/16, 3/26, 4/1, and 4/9, 2015	JA
Jurisdictional Delineation	1/15/2015	MR & AW
Vegetation Mapping	3/12/2015	JA

JA = Jeff Ahrens, MR = Martin Rasnick, AW = Amy Walters

Individual plants and wildlife species are evaluated in this report based on their “special-status.” For the purpose of this report, plants were considered “special-status” based on one or more of the following criteria:

- Listing through the Federal and/or State Endangered Species Act (ESA);
- Occurrence in the CNPS Rare Plant Inventory (Rank 1A/1B, 2A/2B, 3, or 4); and/or
- Occurrence in the CNDDB inventory.

Wildlife species were considered “special-status” based on one or more of the following criteria:

- Listing through the Federal and/or State ESA; and
- Designation by the State as a Species of Special Concern (SSC) or California Fully Protected (CFP) species.

Vegetation communities and habitats were considered “special-status” based on one or more of the following criteria:

- Global (G) and/or State (S) ranking of category 3 or less based on CDFW (see Section 3.2.2 below for further explanation); and
- Riparian habitat.

2.2 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Project site, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Project Site; (3) general field reconnaissance surveys; (4) vegetation mapping; and (5) habitat assessments and focused surveys for special-status plants (including those with MSHCP requirements).

2.2.1 Literature Search

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- CNPS *Inventory of Rare and Endangered Plants of California* (eighth edition). Rare Plant Advisory Committee, David Tibor, Convening Editor, California Native Plant Society. Sacramento, CA x + 388pp; (CNPS 2010); and
- CNDDB for the USGS 7.5' quadrangles: Sunnymead, Perris, Riverside East, and Steele Peak (CNDDB 2016).

2.2.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to the List of Vegetation Alliances and Associations (or Natural Communities List). The list is based on A Manual of California Vegetation, Second Edition or MCVII, which is the California expression of the National Vegetation Classification. Where necessary, deviations were made when areas did not fit into exact habitat descriptions. These vegetation communities were named based on the dominant plant species present. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. A vegetation map is included as Exhibit 5. Representative site photographs are included as Exhibit 6.

2.2.3 Special-Status Plant Species and Habitats Evaluated for the Project Site

A literature search was conducted to obtain a list of special status plants with the potential to occur within the Project site. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2010).

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Project site were developed and incorporated into a mapping and survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floristic compendium; (3) identify the potential for any special status plants that may occur within the Project Site; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Project site, if applicable.

The Project site is not located within the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) or Criteria Area Plant Species Survey Area (CAPSSA). As such, focused plant surveys are not required pursuant to the MSHCP.

2.2.5 Botanical Surveys

GLA biologist Jeff Ahrens visited the site on March 12, 16, and 26, and April 1 and 9, 2015 to conduct habitat assessments, general biological surveys and focused burrowing owl surveys. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, surveys were conducted at appropriate times based on precipitation and flowering periods. An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984). A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), and Munz (1974).

2.3 Wildlife Resources

Wildlife species were evaluated and detected during field surveys by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Project Site by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit. A complete list of wildlife species observed within the Project site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFG 2008), Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians 6th Edition, Collins and Taggert (2009) for amphibians and reptiles, and the American Ornithologists' Union Checklist 7th Edition (2009) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

2.3.1 General Surveys

Birds

During the general biological and reconnaissance survey within the Project site, birds were identified incidentally within each habitat type. Birds were detected by both direct observation and by vocalizations, and were recorded in field notes.

Mammals

During general biological and reconnaissance survey within the Project site, mammals were identified incidentally within each habitat type. Mammals were detected both by direct observations and by the presence of diagnostic sign (i.e., tracks, burrows, scat, etc.).

Reptiles and Amphibians

During general biological and reconnaissance surveys within the Project site, reptiles and amphibians were identified incidentally during surveys within each habitat type. Habitats were examined for diagnostic reptile sign, which include shed skins, scat, tracks, snake prints, and lizard tail drag marks. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

2.3.2 Special-Status Animal Species Evaluated for the Project Site

A literature search was conducted in order to obtain a list of special-status wildlife species with the potential to occur within the Project site. Species were evaluated based on two factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status animals that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs on the Project site.

2.3.3 Habitat Assessment for Special Status Animal Species

GLA biologist Jeff Ahrens conducted habitat assessments for special-status animal species on March 12 and 16, 2015. An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project Site.

2.3.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

The Project site is located within the MSHCP survey area for the burrowing owl (*Athene cunicularia*). GLA biologist Jeff Ahrens conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site and offsite impact areas along the Perris Valley Storm Drain. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey Instructions. The guidelines stipulate that four focused survey visits should be conducted between March 1 and August 31. Within areas of suitable habitat, the MSHCP first requires a focused burrow survey to map all suitable burrows. The focused burrow survey was conducted on March 12, 2015. Focused burrowing owl surveys were conducted on March 16 and 26, and April 1 and 9, 2015. As recommended by the survey guidelines, the survey visits were generally conducted from one hour prior to sunrise to two hours after sunrise. Weather conditions during the surveys were conducive to a high level of bird activity.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 8 identifies the burrowing owl survey areas at the Project site. Transects were spaced between 7 m and 20 m apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 100 m along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. Exhibit 8 provides locations of suitable burrows mapped during the transect surveys. Table 2-2 summarizes the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Table 2-2. Summary of Burrowing Owl Surveys

Survey Date	Survey Type	Biologist	Start/End Time	Start/End Temperature	Start/End Wind Speed (mph)	Cloud Cover (%)
3/12/15	Burrow Mapping	JA	0800-1210	56/73	1	0/0
3/16/15	Focused Survey	JA	0700-1040	51/77	1/1	0/0
3/26/15	Focused Survey	JA	0705-1020	58/80	1/2	0/0
4/1/15	Focused Survey	JA	0700-1030	52/63	1/3	100/100
4/9/15	Focused Survey	JA	0650-1015	42/68	2/4	30/40

JA = Jeff Ahrens

2.4 Jurisdictional Delineation

Prior to beginning the field delineation a 200-scale color aerial photograph and the previously cited USGS topographic maps were examined to determine the locations of potential areas of Corps/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Potential wetland habitats at the subject site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[1] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)[2]. The presence of an Ordinary High Water Mark (OHWM) was determined using the 2008 Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States[3] in conjunction with the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.[4] While in the field the limits of the OHWM,

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[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[2] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Version 2.0). Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

[3] Lichvar, R. W., and S. M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. (http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf).

[4] Curtis, Katherine E. and Robert Lichevar. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.

wetlands, and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets. The results of the Jurisdictional Delineation are depicted on Exhibit 9.

2.5 MSHCP Riparian/Riverine Areas and Vernal Pools

GLA surveyed the site for riparian/riverine areas and vernal pool/seasonal pool habitat. *Volume I, Section 6.1.2* of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSCHP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSCHP Conservation Area are maintained. The MSHCP requires that as projects are proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed.

The MSHCP defines riparian/riverine areas as *lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depend upon soils moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*

The MSHCP defines vernal pools as *seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indictors of hydrology and/or vegetation during the drier portion of the growing season.*

With the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

3.0 REGULATORY SETTING

The proposed Project is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state- and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

3.1 State and/or Federally Listed Plants or Animals

3.1.1 State of California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

3.1.3 State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.1.4 Take Authorizations Pursuant to the MSHCP

The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the Federal and State Wildlife Agencies (USFWS and CDFW) and participating entities. The MSHCP is a comprehensive habitat conservation-planning program for western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall

Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 “Covered Species” designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through project participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as “Covered Species not yet adequately conserved”. These include Narrow Endemic Plant Species, as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species identified by the Criteria Area Species Survey Areas (CASSA); animal species as identified by survey area; and plant and animal species associated with riparian/riverine areas and vernal pool habitats (*Volume I, Section 6.1.2* of the MSHCP document).

3.1.5 Take Authorization Pursuant to the SKR HCP

The Stephens’ kangaroo rat (*Dipodomys stephensi*, SKR) Habitat Conservation Plan (SKR HCP) was adopted in 1996 to provide take authorization for impacts to SKR within designated areas of Western Riverside County. The Riverside County Conservation Agency (RCHCA) established the SKR HCP in conjunction with the USFWS and CDFW to authorize take of SKR within the covered areas. Through the HCP, seven Core Reserves for SKR were established or expanded to provide adequate conservation of the species within Western Riverside County. Through the SKR HCP, the SKR Fee Assessment Area was established whereby projects located within the Fee Assessment Area would pay a fee to mitigate potential impacts to SKR occupied habitat. The Project is located within the boundaries of the SKR HCP, including within the SKR Fee Assessment Area. As such, the Project is subject to the fee requirements in order to be consistent with the SKR HCP.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

CEQA requires evaluation of a project’s impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW recognizes that plants on Lists 1A, 1B, or 2 of the CNPS *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 or 4.

3.2.2 Non-Listed Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA

Federally Designated Special-Status Species

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. This term is employed in this document, but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For this report the following acronyms are used for federal special-status species:

• FE	Federally listed as Endangered
• FT	Federally listed as Threatened
• FPE	Federally proposed for listing as Endangered
• FPT	Federally proposed for listing as Threatened
• FC	Federal Candidate Species (former C1 species)
• FSC	Federal Species of Concern (former C2 species)

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW’s CNDDB project. Informally listed taxa are not protected, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

• SE	State-listed as Endangered
• ST	State-listed as Threatened
• SR	State-listed as Rare
• SCE	State Candidate for listing as Endangered
• SCT	State Candidate for listing as Threatened
• SFP	State Fully Protected
• SP	State Protected
• SSC	State Species of Special Concern

CNDDB Global/State Rankings

The CNDDB provides global and state rankings for species and communities based on a system developed by The Nature Conservancy to measure rarity of a species. The ranking provides a shorthand formula about how rare a species/community is, and is based on the best information available from multiple sources, including state and federal listings, and other groups that recognize species as sensitive (e.g., Bureau of Land Management, Audubon Society, etc.). State and global rankings are used to prioritize conservation and protection efforts so that the rarest species/communities receive immediate attention. In both cases, the lower ranking (i.e., G1 or S1) indicates extreme rarity. Rare species are given a ranking from 1 to 3. Species with a ranking of 4 or 5 is considered to be common. If the exact global/state ranking is undetermined, a range is generally provided. For example, a global ranking of “G1G3” indicates that a species/community global rarity is between G1 and G3. If the animal being considered is a subspecies of a broader species, a “T” ranking is attached to the global ranking. The following are descriptions of global and state rankings:

Global Rankings

- G1 – Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or because of some factor(s) making it especially vulnerable to extinction.
- G2 – Imperiled globally because of rarity (6-20 occurrences), or because of some other factor(s) making it very vulnerable to extinction throughout its range.
- G3 – Either very rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g., a physiographic region), or because of some other factor(s) making it vulnerable to extinction throughout its range.
- G4 – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 – Common, widespread and abundant.

State Rankings

- S1 – Extremely rare; typically 5 or fewer known occurrences in the state; or only a few remaining individuals; may be especially vulnerable to extirpation.
- S2 – Very rare; typically between 6 and 20 known occurrences; may be susceptible to becoming extirpated.
- S3 – Rare to uncommon; typically 21 to 50 known occurrences; S3 ranked species are not yet susceptible to becoming extirpated in the state but may be if additional populations are destroyed.
- S4 - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 - Common, widespread, and abundant in the state.

California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS's Eighth Edition of the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five ranks. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by CDFW. CNPS has developed five categories of rarity that are summarized in Table 3-1.

Table 3-1. CNPS Ranks 1, 2, 3, & 4, and Threat Code Extensions

CNPS Rank	**Comments**
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California
Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
Rank 4 – Plants of Limited Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	**Comments**
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

Attachment: C1 - Biological Technical Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

3.3 Federal and State Nesting Bird Provisions

3.3.1 Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755, and as amended by: Chapter 634; June 20, 1936; 49 Stat. 1556; P.L. 86-732; September 8, 1960; 74 Stat. 866; P.L. 90-578; October 17, 1968; 82 Stat. 1118; P.L. 91-135; December 5, 1969; 83 Stat. 282; P.L. 93-300; June 1, 1974; 88 Stat. 190; P.L. 95-616; November 8, 1978; 92 Stat. 3111; P.L. 99-645; November 10, 1986; 100 Stat. 3590 and P.L. 105-312; October 30, 1998; 112 Stat. 2956) makes it illegal for anyone to "take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations."

Applied to development projects, the MBTA prohibits the impact to the active nests of birds protected by the MBTA.

3.3.2 California Fish and Game Code

The California Fish and Game Code contains three sections (3503 and 3503.5) that are applied to nesting birds. Section 3503 states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto." Section 3503.5 more specifically applies to birds-of-prey and states that It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Similar to the MBTA provisions, applied to development projects, the Fish and Game Code sections prohibit the impact to active nests.

3.4 Jurisdictional Waters

3.4.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation*

or destruction of which could affect foreign commerce including any such waters:

- *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
- *(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*
- *(iii) Which are used or could be used for industrial purpose by industries in interstate commerce;*

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

(8) Waters of the United States do not include prior converted cropland.[5]

Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

> *...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology

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[5] The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is <u>inundated for no more than 14 consecutive days</u> during the growing season…." [Emphasis added.]

and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands[6]);
- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

On January 9, 2001 and June 5, 2007 the Supreme Court of the United States issued two rulings *(Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al [SWANCC]. and Rapanos v. United States and Carabell v. United States [Rapanos], respectively). The first case reiterated that “isolated” waters (those with no interstate commerce connection) are not subject to federal jurisdiction under Section 404 of the Clean Water Act. The second case determined (in a plurality vote) that a water must have a nexus with a “traditionally navigable water (an undefined term) to be subject to federal jurisdiction under Section 404 of the Clean Water Act. The Corps and EPA continue to grapple with providing clear guidance on these two decisions and continue to propose and/or issue guidance. In the meantime, applicants who believe they have waters that would be exempt from federal jurisdiction pursuant to these two rulings must go through a formal process with the Corps* ***and*** *EPA to obtain concurrence.*

3.4.2 Regional Water Quality Control Board

Section 401 of the Clean Water Act requires any applicant for a Section 404 permit to obtain certification from the State that the discharge (and the operation of the facility being constructed) will comply with the applicable effluent limitation and water quality standards. In California this 401 certification is obtained from the Regional Water Quality Control Board. The Corps, by law, cannot issue a Section 404 permit until a 401 certification is issued or waived.

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.[7] The memorandum stating that for waters that are no longer considered subject to federal jurisdiction pursuant to Section 404 of the Clean Water Act,

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[6] Lichvar, R. W. 2013. *The National Wetland Plant List:* 2013 wetland ratings. Phytoneuron 2013-49: 1-241.

[7] Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

but which remain “waters of the state”, the State will continue to regulate discharges under the Porter-Cologne Act. In such cases the applicant must apply for and obtain a Waste Discharge Requirement from the Regional Board.

3.4.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFCDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFW Legal Advisor has prepared the following opinion[8]:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFW] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFW jurisdictional limits closely mirror those of the Corps. Exceptions are CDFW's addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

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[8] California Department of Fish and Game. Environmental Services Division (ESD). 1994. A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607, California Fish and Game Code.

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, an assessment for MSHCP riparian/riverine areas and vernal pools, and a jurisdictional delineation for waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

The Project site appears historically to have been used for agricultural purposes and exhibits evidence of being routinely disked over many years as indicated by the presence of annual native and non-vegetation. The Project Site is highly disturbed and as a result primarily supports ruderal non-native vegetation.

The adjacent properties contain March Air Reserve Base (MARB), undeveloped fields, and vacant and occupied residences. The vacant fields occur to the north, east support ruderal vegetation. MARB borders the western side of the Project site.

The topography of the study area is generally flat. The Perris Valley Storm Drain (PVSD) bisects the Project site and traverses the site beginning from the northwest and exiting near the southeastern corner of the site. The elevation at the Project site ranges approximately between 1,465 to 1,495 feet above mean sea level. A few debris piles, small earth bike jump area and light trash occur on the Project site.

4.2 Vegetation Mapping

The entire Project site (89.4 acres) is disturbed as a result of long-standing agricultural activities and discing/mowing operations. Common vegetation identified on site includes London rocket (*Sisymbrium irio*), common goldfields (*Lasthenia californica),* common fiddleneck *(Amsinkia menziessii* var. *intermedia),* redstem filaree (*Erodium cicutarium*), cultivated barley (*Hordeum vulgare*), wild oat (*Avena fatua*), Russian thistle (*Salsola tragus*), cheeseweed (*Malva parviflora*), red brome (*Bromus madritensis* ssp. *rubens*), stinknet (*Oncosiphon piluliferum*), wild radish (*Raphanus sativus*), minature lupine (*Lupinus bicolor*), and summer mustard (*Brassica geniculata*). A complete floral compendium is included in Appendix A. Offsite portions of the Project include five proposed storm drain outlets within the adjacent PVSD, totalling approximately 0.34 acre. The PVSD consists of a disturbed access road on either side, disturbed banks (including riprap in some sections), and an unvegetated soft-bottom channel. The access roads were classified as disturbed, with the remainder of the channel classified as unvegetated riverine. The portions of the PVSD to be affected by the Project do not suppor riparian habitats. A Vegetation Map is attached as Exhibit 5. Representative site photographs are attached as Exhibit 6.

4.3 Special-Status Habitats

The CNDDB identifies the following three special-status vegetation communities for the Sunnymead, Perris, Riverside East, and Steele Peak quadrangle maps: Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, and Southern Sycamore Alder Riparian Woodland. The Project site does not contain any special-status vegetation types, including those identified by the CNDDB.

4.4 Special-Status Plants

No special-status plants were detected at the Project site. Table 4-1 provides a list of special-status plants evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors: 1) species identified by the CNDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Project site; and 2) any other special-status plants that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs within the site.

Table 4-1. Special-Status Plants Evaluated for the Project Site

Status

Federal	**State**
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FC – Federal Candidate	

CNPS
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A – Plants presumed extirpated in California, but common elsewhere.
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 – Plants about which more information is needed (a review list).
Rank 4 – Plants of limited distribution (a watch list).

Threat Code extension
.1 – Seriously endangered in California (over 80% occurrences threatened)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

Occurrence

- Not expected to occur – The species is not expected to occur onsite due to the lack of suitable habitat.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat.
- Present – The species was detected onsite during biological surveys.

Species Name	Status	Habitat Requirements	Occurrence
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: List 1B.1 MSHCP: Not Covered	Sandy soils in chaparral, coastal sage scrub.	Not expected to occur.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Marshes, playas and vernal pools; usually alkaline soils. Known from below 1,500 meters (< 4,900 feet) MSL. Blooms March through June.	Not expected to occur.
Davidson's saltscale *Atriplex serenanana* var. *davidsonii*	Federal: None State: None CNPS: List 1B.2 MSHCP: Covered	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Not expected to occur.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: List 1B.2 MSHCP: Covered	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Not expected to occur.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Chenopod scrub, playas, vernal pools.	Not expected to occur.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Dry sometimes-sandy soils in chaparral and coastal scrub. Known from 40 to 1,750 meters (100 to 5,700 feet) MSL. Active April through June.	Not expected to occur.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CNPS: List 4.2 MSHCP: Covered	Occurs in recently burned or disturbed areas within chaparral, coastal sage scrub and grasslands. Known from 60 to 2,200 meters (200 to 7,200 feet) MSL. Identifiable March through June.	Not expected to occur.
Robinson's pepper-grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: List 1B.2 MSHCP: Not Covered	Dry soils in chaparral and coastal scrub. Known from below 500 meters (< 1,600 feet) MSL. Active January through July.	Not expected to occur.
Round-leaved filaree *California macrophylla*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Clay soils in cismontane woodland, valley and foothill grassland	Not expected to occur.

Attachment: C1 - Biological Technical Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Species Name	Status	Habitat Requirements	Occurrence
San Bernardino aster *Symphyotrichum defoliatum*	Federal: FE State: None CNPS: List 1B.2 MSHCP: Not Covered	Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes swamps, and valley and foothill grassland in vernally mesic areas near ditches, streams, and springs. Known from 2 to 2,040 meters (7 to 6,690 feet) MSL. Blooms in July through November.	Not expected to occur.
San Jacinto Valley Crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CNPS: List 1B.1 MSHCP: Covered	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Not expected to occur.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: List 1B.1 MSHCP: Covered	Mature undisturbed floodplain terraces and benches with overbank deposits every 50 to 100 years from large washes and rivers. Known from 200 to 770 meters (600 to 2,500 feet) MSL. Blooms April through June.	Not expected to occur.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: List 1B.1 MSHCP: Covered	Alkaline areas in chenopod scrub, meadows and seeps, ditches, playas, riparian woodland and valley and foothill grassland. Known from below 480 meters (1,600 feet) MSL. Active April through Sept.	Not detected on site, but known to occur in close proximity to Project site.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: List 1B.1 MSHCP: Covered	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Not expected to occur.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CNPS: List 1B.1 MSHCP: Covered	Clay, loamy sand or alkaline soils in grasslands at edges of vernal pools or floodplains. Known from below 1,220 meters (< 4,000 feet) MSL. Identifiable April through June.	Not expected to occur.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CNPS: List 2B.1 MSHCP: Covered	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Not expected to occur.

4.5 Special-Status Animals

One special-status animal species, the San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) was detected at the Project site. Table 4-2 provides a list of special-status animals evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, 2) applicable MSHCP survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the Project site, for which potentially suitable habitat occurs on the site.

Table 4-2. Special Status Animals Evaluated for the Project Site

Status

Federal	**State**
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FPT – Federally Proposed Threatened	CFP – California Fully-Protected Species
FC – Federal Candidate	SSC – Species of Special Concern

Western Bat Working Group (WBWG)
H – High Priority
LM – Low-Medium Priority
M – Medium Priority
MH – Medium-High Priority

Occurrence

- Absent – The species is absent from the site, either because the site lacks suitable habitat for the species, the site is located outside of the known range of the species, or focused surveys has confirmed the absence of the species.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

Species Name	**Status**	**Habitat Requirements**	**Occurrence**
Invertebrates			
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None MSHCP: Covered	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include *Plantago erecta* and *Castilleja exserta*. Adults occur on sparsely vegetated rounded hilltops and ridgelines, and are known to disperse through disturbed habitats to reach suitable nectar plants.	Absent
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None MSHCP: Covered	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Absent
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP: Covered	Seasonal vernal pools	Absent
Amphibians			
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP: Covered	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Absent
Reptiles			
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC MSHCP: Covered	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Not expected to occur.
Orange-throated whiptail *Aspidoscelis hyperythra*	Federal: None State: SSC MSHCP: Covered	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Not expected to occur.
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC MSHCP: Covered	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Not expected to occur.
Silvery legless lizard *Anniella pulchra pulchra*	Federal: None State: SSC MSHCP: Not Covered	Occurs primarily in areas with sandy or loose organic soil, or where there is plenty of leaf litter. Associated with coastal sage scrub, chaparral, coastal dunes, valley/foothill grasslands, oak woodlands, and pine forests.	Not expected to occur.

Species Name	Status	Habitat Requirements	Occurrence
Two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC MSHCP: Not Covered	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Absent
Western pond turtle *Emys marmorata*	Federal: None State: SSC MSHCP: Covered	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Absent
Birds			
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None State: SSC MSHCP: Covered	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Absent, but with the potential to occur.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC MSHCP: Covered	Low elevation coastal sage scrub and coastal bluff scrub.	Absent
Ferruginous hawk (wintering) *Buteo regalis*	Federal: FSC State: WL MSHCP: Covered	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Low potential to occur on site (wintering).
Golden eagle (nesting & wintering) *Aquila chrysaetos*	Federal: BCC State: WL, FP MSHCP: Covered	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Low potential to occur on site (wintering).
Least Bell's vireo (nesting) *Vireo bellii pusillus*	Federal: FE State: SE MSHCP: Covered	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Absent

Species Name	**Status**	**Habitat Requirements**	**Occurrence**
Loggerhead shrike (nesting) *Lanius ludovicianus*	Federal: None State: SSC MSHCP: Covered	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Low to moderate potential to occur on site for foraging.
Northern harrier (nesting) *Circus cyaneus*	Federal: None State: SSC MSHCP: Covered	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Not expected to occur on site for nesting. Low potential for foraging.
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE MSHCP: Covered	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Absent
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: BCC State: ST MSHCP: Covered	Summer in wide open spaces of the American West. Nest in grasslands, but can use sage flats and agricultural lands. Nests are placed in lone trees.	Absent
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: FP MSHCP: Covered	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Absent (nesting). Low potential for foraging.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC MSHCP: Covered	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Absent
Yellow warbler (nesting) *Setophaga petechia*	Federal: None State: SSC MSHCP: Covered	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Absent

Species Name	**Status**	**Habitat Requirements**	**Occurrence**
Mammals			
Los Angeles Pocket Mouse	Federal: None State: SSC MSHCP: Covered	Fine, sandy soils in coastal sage scrub and grasslands.	Low potential to occur on site.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC MSHCP: Covered	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Low potential to occur on site.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC MSHCP: Covered	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Not expected to occur.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC MSHCP: Covered	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	Present
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC MSHCP: Covered	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Absent
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST MSHCP: Covered	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Low to moderate potential to occur on site.
Western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC WBWG: H MSHCP: Not Covered	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Not expected to occur.

4.6 Critical Habitat

The Project site is not located within any Critical Habitat areas designated by the USFWS.

4.7 Raptor Use

The Project site provides suitable foraging habitat for a number of raptor species, including special-status raptors; however, raptors are not expected to breed onsite due to a lack of suitable habitat.

4.8 Nesting Birds

The Project site contains ground cover providing suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[9]

4.9 Soil Mapping

The Natural Resource Conservation Service (NRCS) identifies the following soil types (series) as occurring (currently or historically) within the Project site [Exhibit 7]:

Exeter Sandy Loam, 0 to 2 Percent Slopes (EnA), Exeter Sandy Loam, Deep, 0 to 2 Percent Slopes (EpA), Exeter Very Fine Sandy Loam, Deep, 0 to 5 Percent Slopes (EyB)

The soils of the Exeter Series have slopes of 0 to 8 percent, and they lie in basins and on alluvial fans. These soils are well drained and developed in alluvium from moderately coarse granite materials. The upper 16 inches of soil consist of brown (10YR 5/3 and 10YR 4/3) sandy loam when dry and dark brown (10YR 3/3) sandy loam when moist. The soils of the Exeter Series are used for dryland grain and pasture, for irrigated alfalfa, potatoes, citrus, grapes, and for home sites.

Greenfield Sandy Loam, 0 to 2 Percent Slopes (GyA)

The soils of the Greenfield Series are deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. Greenfield soils occur on alluvial fans and terraces and have slopes of 0 to 30 percent. The upper 23 inches consist of pale brown (10YR 6/3) coarse sandy loam when dry and dark brown (10YR 4/3) coarse sandy loam when moist. The soils of the Greenfield Series are used for the production of a wide variety of irrigated field, forage and fruit crops and also for growing dryland grain and pasture. Principal vegetation on uncultivated areas consists of annual grass, forbs, some shrubs and scattered oak trees.

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[9] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

Hanford Coarse Sandy Loam, 0 to 2 Percent Slopes (HcA)

The soils of the Hanford Series consist of well drained and somewhat excessively drained soils on alluvial fans and slopes supporting this soil range from 0 to 15 percent. The Hanford Series developed in alluvium made up of granitic materials. The upper 18 inches consist of grayish brown (10YR 5/2) coarse sandy loam when dry and very dark grayish brown (10YR 3/2) coarse sandy loam when moist. The soils of the Hanford Series are used for dryland grain and pasture, for irrigated alfalfa, potatoes, and truck crops, and for home sites.

None of the soils within the Study Area are identified as hydric in the SCS's publication, Hydric Soils of the United States[10]; nor are any of these soils listed as hydric in the Soil Survey for Western Riverside County, California.

4.10 Jurisdictional Delineation

The Project site is located adjacent to the Perris Valley Storm Drain (PVSD), which is subject to the jurisdiction of the Corps, Regional Board, and CDFW. The Project is adjacent to approximately 3,990 linear feet of the PVSD. Corps/Regional Board jurisdiction associated with this segment of the PVSD totals approximately 8.55 acres, none of which supports jurisdictional wetlands. CDFW jurisdiction associated with this segment totals approximately 11.97 acres, none of which supports riparian vegetation. The Project proposes five storm drain outfall structures to be placed at the edges of the PVSD. Corps/Regional Board jurisdiction associated with the offsite structures totals approximately 0.092 acre, none of which supports jurisdictional wetlands. CDFW jurisdiction associated with the offsite structures totals approximately 0.20 acre, none of which supports riparian vegetation.

4.11 MSHCP Riparian/Riverine Areas and Vernal Pools

As discussed above in Section 4.10, the Project site is located adjacent to the PVSD, which is considered a MSHCP riverine feature. The Project proposes five storm drain outfall structures to be placed at the edges of the PVSD. Approximately 0.20 acre of the outfall structure footprints are located within MSHCP riverine areas, none of which support riparian vegetation.

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[10] United States Department of Agriculture, Soil Conservation Service. 1991. Hydric Soils of the United States, 3rd Edition, Miscellaneous Publication Number 1491. (In cooperation with the National Technical Committee for Hydric Soils.)

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed project. Impacts (or effects) can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or animals, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not immediately related to a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project, but occur at a different time or place. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located downstream from projects, and other off site areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in a slow replacement of native plants by non-native invasives, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

> *“Prevent the elimination of fish or wildlife species due to man’s activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and*

> *preserve for future generations representations of all plant and animal communities...”*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

> *“The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ...”*

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 1998 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

> *a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2 Impacts to Special-Status Species

CEQA threshold (a) asks if a project will "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service."

5.2.1 Impacts to Special-Status Plants

The proposed Project will not impact special-status plants.

5.2.2 Impacts to Special-Status Animals

The proposed Project will result in the loss of habitat with the potential to support several special-status species, including listed and non-listed species. One listed species (Stephens' kangaroo rat [SKR]) has the potential to occur on site. The loss of habitat for SKR is potentially significant, both individually and cumulatively. However, the Project site is located within the SKR Fee Assessment Area as established by the SKR Habitat Conservation Plan (SKR HCP). Coverage for impacts to SKR would be provided to the proposed Project through payment of the SKR fee.

In addition to the listed species discussed above, the proposed Project will impact habitat with the potential to support non-listed, special-status species, all of which are designated as MSHCP Covered Species. Potential impacts to the following species would be less than significant, both individually and cumulatively, as a result of a low level of sensitivity, marginal quality of habitat onsite, and/or limited impacts by the proposed Project: ferruginous hawk (winter foraging), golden eagle (winter foraging), loggerhead shrike (foraging), northern harrier (foraging), white-tailed kite (foraging), Los Angeles pocket mouse, northwestern San Diego pocket mouse, and San Diego black-tailed jackrabbit. The proposed Project will not result in potentially significant impacts, either individually or cumulatively, to MSHCP "non-Covered Species".
The Project will not impact any USFWS-designated Critical Habitat.

5.3 Impacts to Special-Status Vegetation Communities

CEQA threshold (b) asks if a project will "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service."

The Project will not impact any native vegetation types, including riparian habitat or other special-status vegetation types. Development of the Project site will impact approximately 89.4 acres of disturbed/ruderal areas. In addition, the construction of offsite outfall structures within the adjacent PVSD will impact 0.14 acre of disturbed areas associated within the channel access road, and 0.20 acre of unvegetated riverine areas associated with the channel. Of the 0.20 acre of impact to riverine areas, only 0.02 acre of impact will be permanent, while 0.18 acre will consist of temporary impacts during to construction. Following the construction of the outfall structures, the temporarily impacts areas of the channel will be restored to pre-construction contours.

5.4 Impacts to Jurisdictional Waters

CEQA threshold (c) asks if a project will "have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means."

5.4.1 Impacts to Corps/Regional Board Jurisdiction

The proposed Project will permanently impact 0.002 acre of waters of the U.S. (Corps and Regional Board jurisdiction), none of which consists of jurisdictional wetlands. In addition, the Project will temporarily impact 0.09 acre of Corps and Regional Board jurisdiction, none of which consists of jurisdictional wetlands. Impacts to Corps jurisdiction will require a Clean Water Act Section 404 permit from the Corps, and is expected to be authorized under the Nationwide Permit (NWP) program. In addition, the impacts would require a Clean Water Act Section 401 Water Quality Certification from the Regional Board. The impacts to water of the U.S. will be less than significant due to the lack of wetland habitat, the negligible function to biological resources, the lack of local significance, and the small amount of impact.

5.4.2 Impacts to CDFW Jurisdiction

The proposed Project will permanently impact 0.02 acre of CDFW jurisdiction, none of which consists of riparian habitat. In addition, the Project will temporarily impact 0.18 acre of CDFW jurisdiction, none of which consists of riparian habitat. Impacts to CDFW jurisdiction will require a Fish and Game Code Section 1602 Streambed Alteration Agreement from CDFW. The impacts to CDFW jurisdiction will be less than significant due to the lack of riparian habitat, the negligible function to biological resources, the lack of local significance, and the small amount of impact.

5.4.3 Impacts to MSHCP Riparian/Riverine Areas

The proposed Project will permanently impact 0.02 acre of unvegetated riverine areas associated with the PVSD channel due to the construction of the storm drain outfall structures, and will temporarily impact 0.18 acre of the channel during construction. Following the construction of the outfalls, the channel will be restored to pre-construction contours. Impacts to the PVSD channel have been minimized to the maximum extent practicable through the minimum number of outfall structures required, and the minimum impact footprint needed for each structure. Furthermore, construction of the outfall structures will not impact any riparian habitat. Due to the minimal footprint associated with each structure, and with the lack of impact to riparian resources, construction of the outfall structures would not adversely affect riparian/riverine functions and values as it pertains to MSHCP Covered Species.

The total volume of water flow entering the PVSD channel would be very similar to existing conditions. Although the flows would increase in the 100-year condition from 76 cfs to 174 cfs without on-site detention, several detention basins are proposed as part of the Project to reduce the flows discharging into the channel to at or below existing conditions. Any differences would be nominal and immeasurable at this stage of the Project's design. As such, the Project's storm drain discharge would have a less than significant effect to downstream riparian resources in the San Jacinto River. The Project site is located approximately 10 linear miles upstream from the nearest riparian resources in the San Jacinto River. This distance, combined with the fact that the Project's water discharge into the PVSD channel would be very similar to existing conditions, the Project is not expected to adversely affect downstream riparian/riverine resources with regards to water quantities.

With regards to water quality, the Project will comply with a Water Quality Management Plan (WQMP), including Best Management Practices (BMPs) that address the quality of water runoff. The WQMP identifies treatment control BMPs consisting of six sand filter basins. The basins are designed to avoid infiltration over a known groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of the County of Riverside Airport Land Use Commission (ALUC). The treatment control BMPs are designed to efficiently remove priority pollutants of concern such as bacterial indicators, metals, trash and debris, and toxic organic compounds. The Project will utilize permanent structural source control BMPs and operational source control BMPs to address potential sources of runoff pollutants such as on-site storm drain inlets, interior floor drains and elevator shaft sump pumps, landscape/outdoor pesticide use, refuse areas, industrial processes, loading docks, and parking lots. BMPs include properly marking storm drain inlets, plumbing floor drains and sump pumps to the sanitary sewer, minimizing irrigation and subsequent runoff, promoting surface infiltration, minimizing the use of fertilizers and pesticides, use of pest resistant plants adjacent to hardscape, proper handling/disposal of refuse on a weekly basis, ensuring that all industrial processes are performed indoors, and ensuring the immediate proper cleanup and disposal of any spills. As such, changes in the quality of discharged water from the Project site would not have any potential to directly or cumulatively impact biological functions and values as it relates to downstream resources.

Since the Project will not result in a loss of functions and values as it pertains to MSHCP Covered Species within the Project footprint or within downstream areas, the Determination of Biologically Equivalent or Superior Preservation (DBESP) requirements do not apply to the Project.

5.5 Impacts to Wildlife Movement

Threshold (d) asks if a Project will interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. As noted in Volume I, Section 3.2.3 of the MSHCP document, the MSHCP Conservation Area is comprised of a variety of existing and proposed Cores, Extensions of Existing Cores, Linkages, Constrained Linkages, and Non-contiguous Habitat Blocks. Along with other flood control facilities within the MSHCP, the Perris Valley Storm Drain (PVSD) is part of the MSHCP Conservation Area as existing Public/Quasi-Public (PQP) Lands; however, the PVSD is not identified as part of a Core (existing or proposed) or Linkage (existing or proposed). As such, the MSHCP does not identify the PVSD as a critical Linkage for providing movement and live-in habitat between Core Habitat areas within the MSHCP Reserve. Regardless, the PVSD does provide a connection between the March Air Reserve Base (MARB) and the Lake Perris State Recreation Area and the San Jacinto River. The portion of the PVSD that bisects the Project site does not support any riparian habitat, but is approximately 100-feet wide with a soft bottom, which would allow for the movement of wildlife, including medium to large-sized mammals. The proposed Project will develop on both sides of the PVSD, but besides constructing outfall structures at the existing slopes, the Project will not alter the PVSD in any way that would interfere substantially with wildlife movement. The width and natural streambed will be maintained through the Project site.

5.6 Conflicts with Local Ordinances, HCPs, NCCPs or other Conservation Plans

CEQA threshold (e) asks if a project will “conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.” The proposed Project will not conflict with any local policies or ordinances designed to protect biological resources.

CEQA threshold (f) asks if a project will “conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.” As discussed throughout this report, the Project is located within the Western Riverside County MSHCP. As described below in Section 7.0 of this report, the Project will be consistent with the biological requirements of the MSHCP. In addition, the Project is located within the SKR HCP and will consistent with the requirements of that HCP. As such, the Project will not conflict with the provisions of either HCP.

5.7 Impacts to Nesting Birds

The proposed Project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to August 31). Impacts to nesting birds are prohibited by the

MBTA and California Fish and Game Code. A project-specific measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

5.8 Indirect Impacts to Biological Resources

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to adjacent native open space. Potential indirect effects associated with development include water quality impacts from associated with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

The Project is located adjacent to the PVSD channel, which is designated as existing PQP lands under the MSHCP; however the adjacent channel does not contain native open space, and therefore indirect impacts are not anticipated to special-status biological resources. The adjacent PVSD does not support riparian habitat, and is not expected to in the future with the implementation of routine flood control maintenance. Furthermore, the Project will not result in adverse water quality impacts to downstream resources. As noted above, the total volume of water flow entering the PVSD channel would be very similar to existing conditions. Although the flows would increase in the 100-year condition from 76 cfs to 174 cfs without on-site detention, several detention basins are proposed as part of the Project to reduce the flows discharging into the channel to at or below existing conditions. In addition, the Project will comply with a WQMP that utilizes both treatment and source control BMPs. Treatment control BMPs consist of six sand filter basins. The basins are designed to avoid infiltration over a known groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of the Riverside ALUC. The treatment control BMPs are designed to efficiently remove priority pollutants of concern such as bacterial indicators, metals, trash and debris, and toxic organic compounds. The Project will utilize permanent structural source control BMPs and operational source control BMPs to address potential sources of runoff pollutants. With the proposed design features and implementation of water quality BMPs, the Project is not expected to adversely affect downstream riparian/riverine resources with regards to water quantity or quality.

5.9 Cumulative Impacts to Biological Resources

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. “Related projects” refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

As noted above in Section 5.4 of this report, the Project will impact habitat with the potential to support one listed species (SKR). The loss of potential habitat for SKR is potentially cumulatively significant. However, the Project site is located within the SKR Fee Assessment Area as established by the SKR HCP. Coverage for impacts to SKR would be provided to the proposed Project through payment of the SKR fee. Section 5.4 of this report also notes the actual or potential occurrence of other non-listed, special-status species, including the black-tailed jackrabbit (detected onsite), Los Angeles pocket mouse, northwestern San Diego pocket mouse, and several species of birds (including raptors) that would not breed onsite, but that have the potential to forage onsite. The loss of actual or potential habitat for these species would not be cumulatively significant due the level of site disturbance, the low habitat quality, and the low level of sensitivity of these species. Furthermore, these species are all designated as Covered Species under the MSHCP, and therefore the Project would receive coverage for the species through participation with the MSHCP.

6.0 AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

6.1 Burrowing Owl

The Project site contains suitable habitat for burrowing owls; however, burrowing owls were not detected onsite during focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys prior to site grading. As such, the following measure is recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP:

- A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If burrowing owls are detected onsite, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the RCA and wildlife agencies.

6.2 Nesting Birds

The Project site contains vegetation with the potential to support nesting birds. As discussed above, the MBTA and California Fish and Game Code prohibit impacts to nesting birds. The following measure is recommended to avoid impacts to nesting birds:

- As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

7.0 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed Project with respect to compliance with biological aspects of the Western Riverside County MSHCP. Specifically, this analysis evaluates the proposed Project with respect to the Project's consistency with MSHCP Reserve assembly requirements, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

7.1 Project Relationship to Reserve Assembly

The Project site is not located within the MSHCP Criteria Area, and is therefore not subject to the HANS or JPR processes. The adjacent PVSD channel is designated as existing PQP Conserved Lands under the MSHCP. However, the Project will not adversely affect functions as it relates to MSHCP Covered Species within the PVSD channel or further downstream within the San Jacinto River. Adjacent to the Project site, the PVSD channel bottom ranges in width from approximately 70 to 100 feet. The channel consists of a sandy bottom lacking any riparian/wetland habitat. The slopes are either earthen lacking native vegetation or contain ungrouted riprap. Although the channel lacks native habitat, it does provide connectivity for wildlife movement between MARB and the Lake Perris State Recreation Area, and the downstream San Jacinto River, but the PVSD is not specifically recognized as a critical habitat Linkage under the MSHCP. Regardless, the Project is not expected to adversely affect movement within the PVSD channel. The Project will result in a very small amount of permanent impact (0.02 acre) to the channel for the construction of storm drain outfall structures. However, the remainder of the channel will not be affected by the Project, and therefore will not restrict the opportunity for movement through the channel. Furthermore, the Project will comply with a WQMP that identifies BMPs to address potential sources of runoff pollutants in order to ensure that the Project will not result in adverse impacts to downstream resources.

7.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

Volume I, Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSCHP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSCHP Conservation Area are maintained. The MSHCP requires that as projects are proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed.

As noted above in Section 5.7, the Project will permanently impact approximately 0.02 acre of unvegetated riverine areas associated with the PVSD channel due to the construction of the storm drain outfall structures, and will temporarily impact 0.18 acre of the channel during construction. Following the construction of the outfalls, the channel will be restored to pre-construction contours. Impacts to the PVSD channel have been minimized to the maximum extent practicable through the minimum number of outfall structures required, and the minimum impact footprint needed for each structure. Furthermore, construction of the outfall structures will not impact any riparian habitat. Due to the minimal footprint associated with each structure, and with the lack of impact to riparian resources, construction of the outfall structures would not adversely affect riparian/riverine functions and values as it pertains to MSHCP Covered Species.

The total volume of water flow entering the PVSD channel would be very similar to existing conditions. Although the flows would increase in the 100-year condition from 76 cfs to 174 cfs without on-site detention, several detention basins are proposed as part of the Project to reduce the flows discharging into the channel to at or below existing conditions. Any differences would be nominal and immeasurable at this stage of the Project's design. As such, the Project's storm drain discharge would have a less than significant effect to downstream riparian resources in the San Jacinto River. The Project site is located approximately 10 linear miles upstream from the nearest riparian resources in the San Jacinto River. This distance, combined with the fact that the Project's water discharge into the PVSD channel would be very similar to existing conditions, the Project is not expected to adversely affect downstream riparian/riverine resources with regards to water quantities.

With regards to water quality, the Project will comply with a WQMP, including BMPs that address the quality of water runoff. The WQMP identifies treatment control BMPs consisting of six sand filter basins. The basins are designed to avoid infiltration over a known groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of the County of Riverside ALUC. The treatment control BMPs are designed to efficiently remove priority pollutants of concern such as bacterial indicators, metals, trash and debris, and toxic organic compounds. The Project will utilize permanent structural source control BMPs and operational source control BMPs to address potential sources of runoff pollutants such as on-site storm drain inlets, interior floor drains and elevator shaft sump pumps, landscape/outdoor pesticide use, refuse areas, industrial processes, loading docks, and parking lots. BMPs include properly marking storm drain inlets, plumbing floor drains and sump pumps to the sanitary sewer, minimizing irrigation and subsequent runoff, promoting surface infiltration, minimizing the use of fertilizers and pesticides, use of pest resistant plants adjacent to hardscape, proper handling/disposal of refuse on a weekly basis, ensuring that all industrial processes are performed indoors, and ensuring the immediate proper cleanup and disposal of any spills. As such, changes in the quality of discharged water from the Project site would not have any potential to directly or cumulatively impact biological functions and values as it relates to downstream resources.

Since the Project will not result in a loss of functions and values as it pertains to MSHCP Covered Species within the Project footprint or within downstream areas, the DBESP requirements do not apply to the Project. The Project is consistent with *Volume I, Section 6.1.2* of the MSHCP.

7.3 Protection of Narrow Endemic Plants

Volume I, Section 6.1.3 of the MSHCP requires that within identified Narrow Endemic Plant Species Survey Areas (NEPSSA), site-specific focused surveys for Narrow Endemic Plants Species will be required for all public and private projects where appropriate soils and habitat are present. The Project site is not located within the NEPSSA. Focused plant surveys are not required pursuant to the MSHCP. The Project is consistent with *Volume I, Section 6.1.3*.

7.4 Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area. Future development in proximity to the MSHCP Conservation Area may result in edge effects with the potential to adversely affect biological resources within the Conservation Area. To minimize such edge effects, the guidelines shall be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area and address the following:

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasive species;
- Barriers;
- Grading/Land Development.

As discussed in Section 5.0 of this report, the Project is not located adjacent to native open space, and therefore indirect impacts are not anticipated to special-status biological resources. The adjacent PVSD does not support riparian habitat, and is not expected to in the future with the implementation of routine flood control maintenance. Furthermore, the Project will not result in adverse water quality impacts to downstream resources.

7.5 Additional Survey Needs and Procedures

Volume I, Section 6.3.2 of the MSHCP identifies that in addition to the Narrow Endemic Plant Species addressed in *Section 6.1.3*, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required if a project site occurs within a designated Criteria Area Plant Species Survey Area (CAPSSA), or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). The Project site is located within the burrowing owl survey area, but is not located within the amphibian or mammal survey areas, or within the CAPSSA. Focused burrowing owl surveys were conducted for the Project site, and no burrowing owls were detected. As indicated in Section 6.2 of this report, pre-construction burrowing owl surveys will be conducted within the 30 days of site disturbance in conjunction with MSHCP requirements. With the implementation of this measure, the Project will be consistent with MSHCP *Volume I, Section 6.3.2*.

7.6 Conclusion of MSHCP Consistency

As outlined above, the proposed Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the Project's relationship to reserve assembly, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

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9.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

David F.

Signed:________________________________ Date: 3/17/16

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Source: ESRI World Street Map

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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MORENO VALLEY LOGISTICS CENTER PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

Adapted from USGS Sunnymead and Perris, CA quadrangles

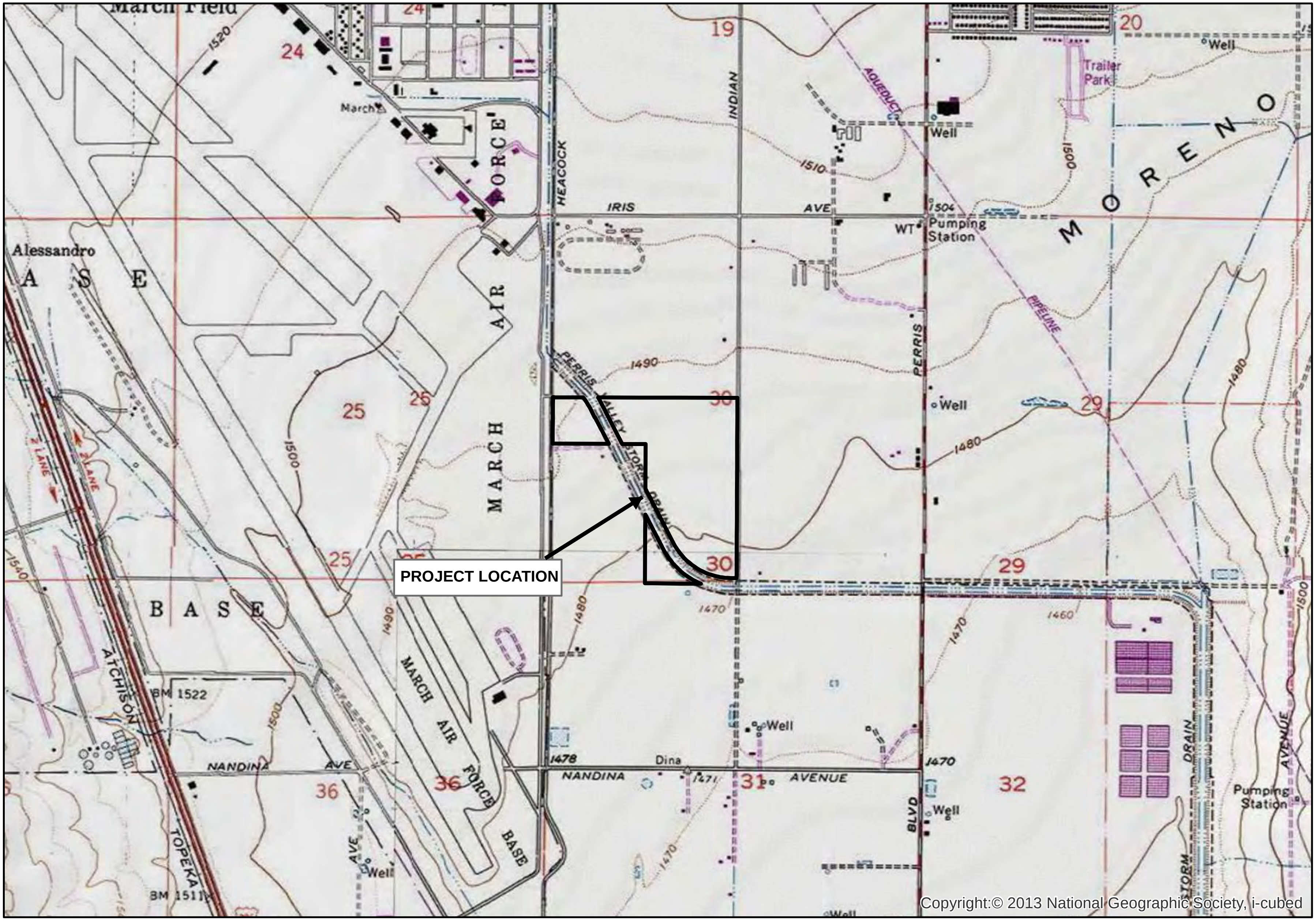

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MORENO VALLEY LOGISTICS CENTER PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

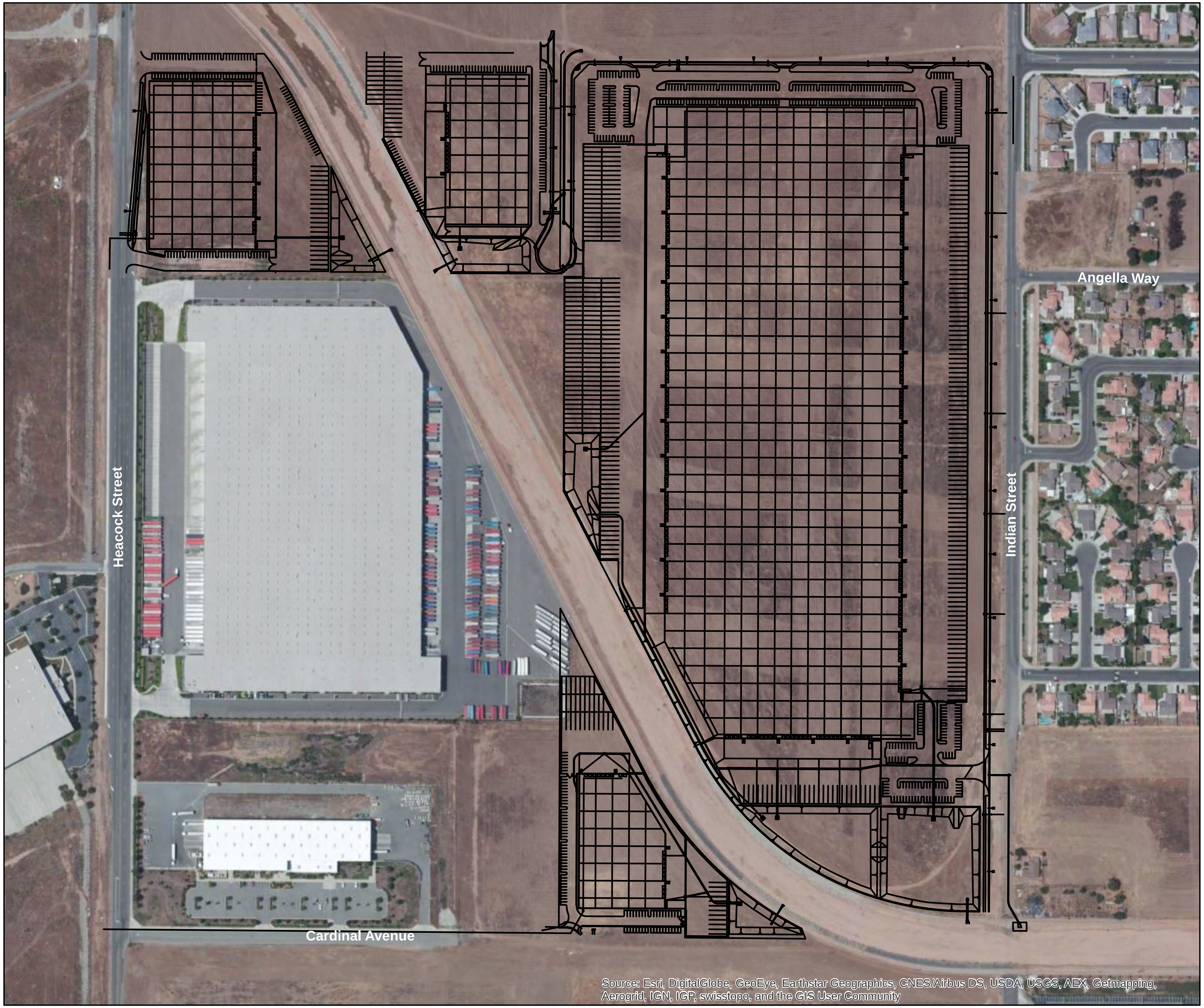

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

—— Project Footprint

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0 150 300 600

Feet

MORENO VALLEY LOGISTICS CENTER PROJECT

Project Site Plan

GLENN LUKOS ASSOCIATES

Exhibit 3

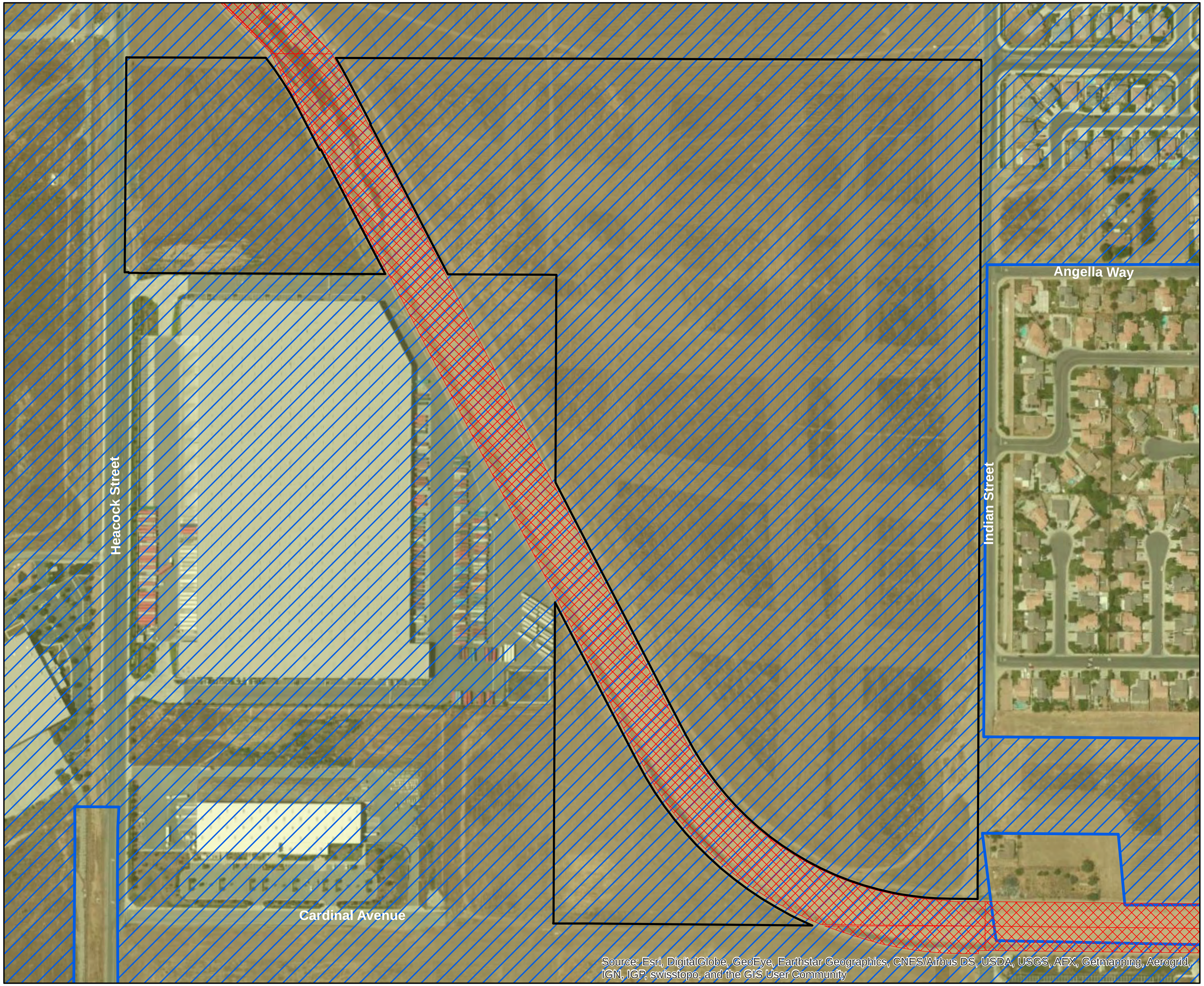

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

☐	Project Boundary
▨	PQP Conserved Lands
▨	Burrowing Owl Survey
▭	SKR Plan Fee

MORENO VALLEY LOGISTICS CENTER PROJECT

MSHCP Overlay

GLENN LUKOS ASSOCIATES

Exhibit 4

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

MORENO VALLEY LOGISTICS CENTER PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

Photograph 1: View looking south from the southwestern portion of the Project site (located west of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 2: View looking north from the northwestern portion of the Project site (located west of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 3: View looking north from the southeastern portion of the Project site (located east and north of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 4: View looking west from the southern portion of the Project site (located north and east of the Perris Valley Storm Drain). Photo taken March 12, 2015.

GLENN LUKOS ASSOCIATES

Exhibit 6

MORENO VALLEY LOGISTICS CENTER PROJECT

Site Photographs

Photograph 5: View looking west from the northern portion of the Project site (located east of the Perris Valley Storm Drain). Photo taken March 12, 2015.

Photograph 6: View looking at a California ground squirrel burrow complex located on site. Photo taken March 12, 2015.

Photograph 7: View looking at the Project site. Photo taken April 9, 2015.

Photograph 8: View looking within the Perris Valley Storm Drain. Photo taken March 26, 2015.

GLENN LUKOS ASSOCIATES

Exhibit 6

MORENO VALLEY LOGISTICS CENTER PROJECT

Site Photographs

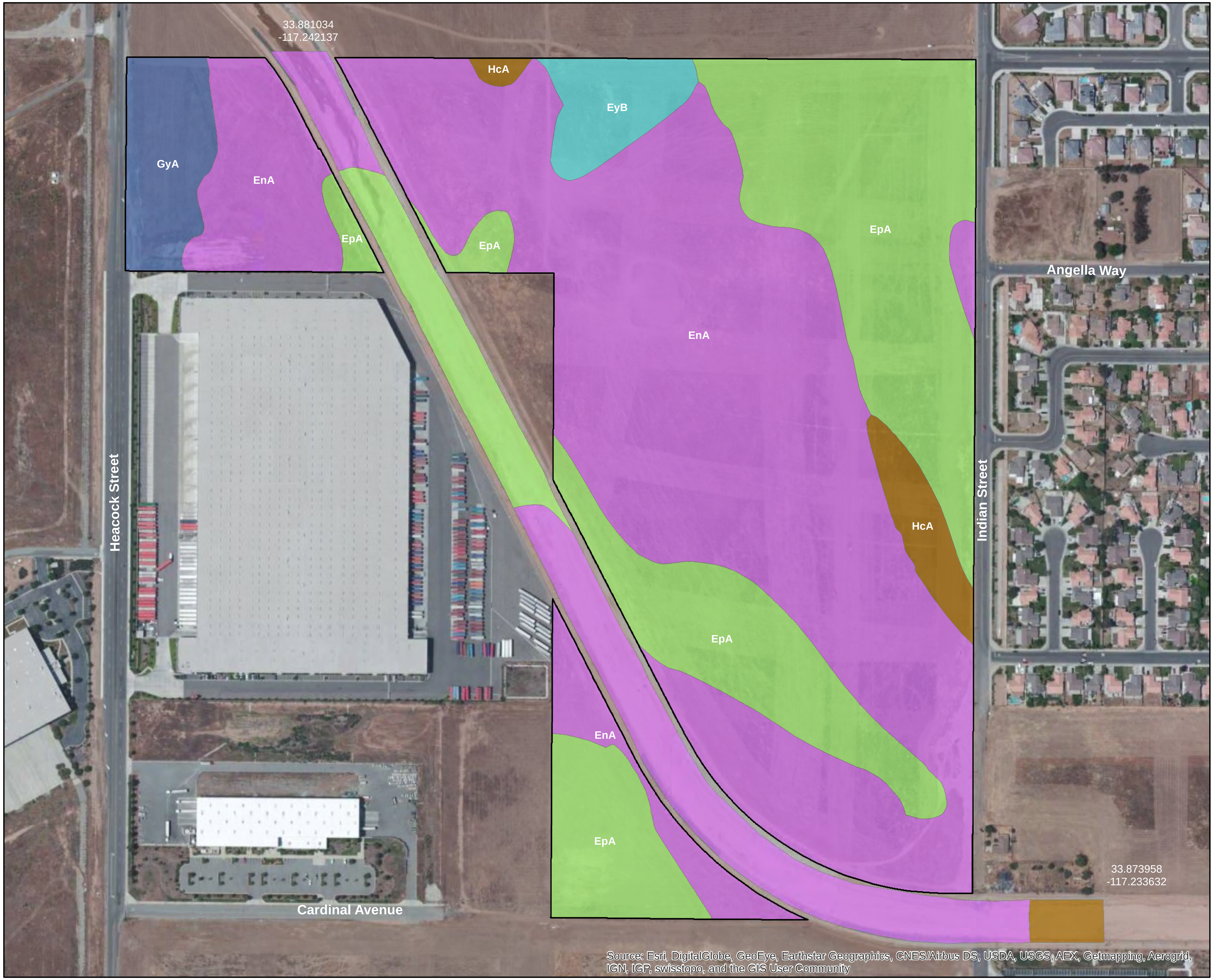

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

☐ Project Boundary
🟪 EnA - Exeter sandy loam, 0 to 2 percent slopes
🟩 EpA - Exeter sandy loam, deep, 0 to 2 percent slopes
🟦 EyB -Exeter very fine sandy loam, deep, 0 to 5 percent slopes
🟦 GyA - Greenfield sandy loam, 0 to 2 percent slopes
🟫 HcA - Hanford coarse sandy loam, 0 to 2 percent slopes

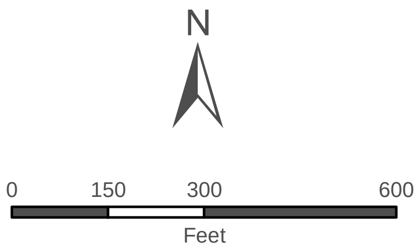

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 7

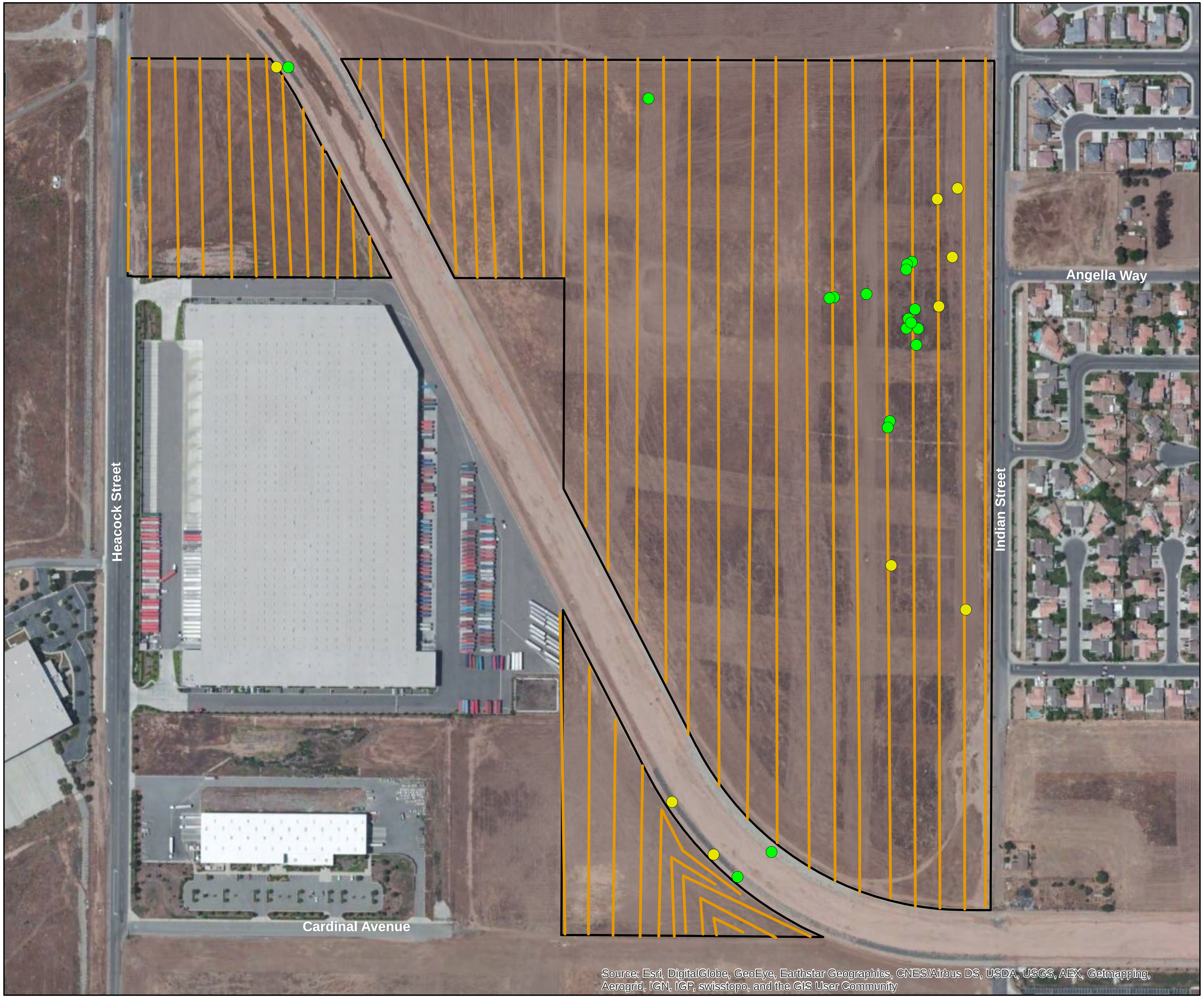

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

▭	Project Boundary
―	Burrowing Owl Transects
●	Burrow
●	Burrow Complex

N

0 150 300 600
Feet

MORENO VALLEY LOGISTICS CENTER PROJECT

Burrowing Owl Map

GLENN LUKOS ASSOCIATES

Exhibit 8

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

☐ Project Boundary

▨ Corps/RWQCB Non-Wetland Waters

🟩 CDFW Unvegetated Streambed

N

0 150 300 600
Feet

1 inch = 300 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

Corps/CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 9

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

☐ Project Boundary

🟩 MSHCP Riverine

N

0 150 300 600
Feet

1 inch = 300 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

MSHCP Riverine

GLENN LUKOS ASSOCIATES

Exhibit 10

Appendix A

Floral Compendium

The floral compendium lists all species identified during biological surveys conducted for the Project site. Taxonomy typically follows Baldwin et al (2012). Common plant names are taken from Baldwin (2012), Munz (1974), Roberts et al (2004), and Roberts (2008). An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME	COMMON NAME
DICOTYLEDONES	**DICOT FLOWERING PLANTS**
ASTERACEAE	**Sunflower Family**
* *Centaurea melitensis*	Tocalote
Encelia farinosa	Brittlebush
Helianthus annuus	Common sunflower
Lasthenia californica	Common goldfields
* *Oncosiphon piluliferum*	Stinknet
BORAGINACEAE	**Borage Family**
Amsinkia menziessii	Common fiddleneck
BRASSICACEAE	**Mustard Family**
* *Brassica geniculata*	Shortpod mustard
* *Raphanus sativus*	Wild radish
* *Sisymbrium irio*	London rocket
CHENOPODIACEAE	**Goosefoot Family**
* *Salsola tragus*	Russian thistle
FABACEAE	**Legume Family**
Lupinus bicolor	Miniature lupine
GERANIACEAE	**Geranium Family**
* *Erodium cicutarium*	Red-stemmed filaree
LAMIACEAE	**Mint Family**
* *Marrubium vulgare*	Horehound
MALACEAE	**Mallow Family**
* *Malva parviflora*	Cheeseweed

Attachment: C1 - Biological Technical Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

MONOCOTYLEDONES	**MONOCOT FLOWERING PLANTS**
POACEAE	**Grass Family**
* *Avena fatua*	Wild oat
* *Bromus diandrus*	Ripgut
* *Bromus madritensis* ssp. *rubens*	Foxtail chess
* *Hordeum murinum*	Mouse barley
* *Hordeum vulgare*	Barley

Appendix B

Faunal Compendium

The faunal compendium lists species identified on the Project site. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (2009) for amphibians and reptiles, Baker, et al. (2003) for mammals, and AOU Checklist (1998) for birds. An (*) denotes non-native species.

REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**Phrynosomatid Lizards**
Sceloporus occidentalis longipes	Great Basin fence lizard
Uta stansburiana	common side-blotched lizard

AVES	**BIRDS**
ACCIPITRIDAE	**Hawks And Old World Vultures**
Buteo jamaicensis	red-tailed hawk
ALAUDIDAE	**Larks**
Eremophila alpestris	horned lark
ANATIDAE	**Ducks, Geese and Swans**
Anas platythynchos	mallard
COLUMBIDAE	**Pigeons and doves**
* *Columba livia*	rock pigeon
* *Streptopelia decaocto*	Eurasian collared-dove
Zenaida macroura	mourning dove
CORVIDAE	**Crows And Jays**
Corvus brachyrhynchos	American crow
EMBERIZIDAE	**Emberizids**
Passeerculus sandwichensis	savannah sparrow
Zonotrichia leucophrys	white-crowned sparrow
FALCONIDAE	**CARACARAS AND FALCONS**
Falco sparverius	American kestrel
FRINGILLIDAE	**Fringilline And Cardueline Finches and Allies**
Haemorhous mexicanus	house finch

Spinus psaltria	lesser goldfinch
HIRUNDINIDAE	**Swallows**
Petrochelidon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
ICTERIDAE	**Blackbirds**
Agelaius phoeniceus	red-winged blackbird
Sturnella neglecta	western meadowlark
Xanthocephalus xanthocephalus	yellow-headed blackbird
MIMIDAE	**Mockingbirds and Thrashers**
Mimus polyglottos	northern mockingbird
MOTACILLIDAE	**Wagtails and Pipits**
Anthus rubescens	American pipit
STURNIDAE	**Starlings**
* *Sturnus vulgaris*	European starling
TROCHILIDAE	**Hummingbirds**
Calypte anna	Anna’s hummingbird
Selasphorus sasin	Allen’s hummingbird
TYRANNIDAE	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Sayornis saya	Say’s phoebe
Tyrannus vociferans	Cassin’s kingbird
MAMMALIA	**MAMMALS**
CANIDAE	**Dogs, Coyotes, Foxes**
* *Canis lupus familiaris*	Domestic dog
GEOMYIDAE	**Pocket Gophers**
Thomomys bottae	Botta’s pocket gopher
LEPORIDAE	**Rabbits And Hares**
Lepus californicus bennettii	San Diego black-tailed jackrabbit
Sylvilagus audubonii	Audubon’s (desert) cottontail
SCIURIDAE	**Squirrels, Chipmunks, And Marmots**
Otospermophilus beecheyi	California ground squirrel

GLENN LUKOS ASSOCIATES
Regulatory Services

May 12, 2015

Ms. Tracy Zinn
T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, California 92780

SUBJECT: Jurisdictional Delineation of the Moreno Valley Logistics Center Project Study Area, an 89.5-Acre Property Located in the City of Moreno Valley, Riverside County, California.

Dear Ms. Zinn:

This letter report summarizes our findings of U.S. Army Corps of Engineers (Corps), Santa Ana Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

The Moreno Valley Logistics Center Project Study Area (Study Area) is located at Latitude 33.878275° and Longitude –117.237434° within Section 30, Township 3 South, and Range 3 West within the City of Moreno Valley, Riverside County, California [Exhibit 1]. The Study Area comprises approximately 89.50 acres of land and a segment of the Perris Valley Storm Drain (PVSD) that bifurcates the property. The Study Area is generally bounded by undeveloped land and a warehouse building to the north, Cardinal Avenue and the Perris Valley Storm Drain [PVSD] to the south, Indian Street to the east, and Heacock Street and the March Air Reserve Base to the west. The Study Area is traversed by one blue-line stream, the PVSD (as depicted on the U.S. Geological Survey (USGS) topographic maps Sunnymead, California (dated 1967 and photorevised in 1980) and Perris, California (dated 1967 and photorevised in 1979) [Exhibit 2].

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[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries. If a final jurisdictional determination is required, GLA can assist in getting written confirmation of jurisdictional boundaries from the agencies.

On January 15, 2015, regulatory specialists from Glenn Lukos Associates, Inc. (GLA) examined the Study Area to determine the limits of Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC) [the Porter-Cologne Act], and CDFW jurisdiction pursuant to Division 2, Chapter 6, Sections 1600-1616 of the Fish and Game Code. Enclosed is a 300-scale map [Exhibit 3], which depicts the limits of Corps, Regional Board, and CDFW jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4 and a soils map is included as Exhibit 5.

Potential Corps and Regional Board jurisdiction associated with the Study Area totals 8.55 acres, none of which consists of jurisdictional wetlands. A total of 3,990 linear feet of streambed is present.

Potential CDFW jurisdiction associated with the Study Area totals 11.97 acres, none of which consists of vegetated riparian habitat. A total of 3,990 linear feet of streambed is present.

I. METHODOLOGY

Prior to beginning the field delineation a 200-scale color aerial photograph, a 200-scale topographic base map of the property, and the previously cited USGS topographic map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[2] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0[3] (Arid West Supplement). Lateral limits of non-wetland waters were identified using field indicators of an Ordinary High Water Mark (OHWM).[4] While in the field jurisdiction areas were recorded onto

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[2] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experimental Station.

[3] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Ed. J.S. Wakeley, R.W. Lichevar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center and Engineering Laboratory.

[4] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. R. W. Lichvar and S. M. McColley. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Cold Regions Research and Engineering Laboratory.

a 200-scale color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The Soil Conservation Service (SCS)[5] has mapped the following soil types as occurring within the general vicinity of the Study Area:

Exeter Sandy Loam, 0 to 2 Percent Slopes (EnA), Exeter Sandy Loam, Deep, 0 to 2 Percent Slopes (EpA), Exeter Very Fine Sandy Loam, Deep, 0 to 5 Percent Slopes (EyB)

The soils of the Exeter Series have slopes of 0 to 8 percent, and they lie in basins and on alluvial fans. These soils are well drained and developed in alluvium from moderately coarse granite materials. The upper 16 inches of soil consist of brown (10YR 5/3 and 10YR 4/3) sandy loam when dry and dark brown (10YR 3/3) sandy loam when moist. The soils of the Exeter Series are used for dryland grain and pasture, for irrigated alfalfa, potatoes, citrus, grapes, and for home sites.

Greenfield Sandy Loam, 0 to 2 Percent Slopes (GyA)

The soils of the Greenfield Series are deep, well drained soils that formed in moderately coarse and coarse textured alluvium derived from granitic and mixed rock sources. Greenfield soils occur on alluvial fans and terraces and have slopes of 0 to 30 percent. The upper 23 inches consist of pale brown (10YR 6/3) coarse sandy loam when dry and dark brown (10YR 4/3) coarse sandy loam when moist. The soils of the Greenfield Series are used for the production of a wide variety of irrigated field, forage and fruit crops and also for growing dryland grain and pasture. Principal vegetation on uncultivated areas consists of annual grass, forbs, some shrubs and scattered oak trees.

Hanford Coarse Sandy Loam, 0 to 2 Percent Slopes (HcA)

The soils of the Hanford Series consist of well drained and somewhat excessively drained soils on alluvial fans and slopes supporting this soil range from 0 to 15 percent. The Hanford Series developed in alluvium made up of granitic materials. The upper 18 inches consist of grayish brown (10YR 5/2) coarse sandy loam when dry and very dark grayish brown (10YR 3/2) coarse sandy loam when moist. The soils of the Hanford Series are used for dryland grain and pasture, for irrigated alfalfa, potatoes, and truck crops, and for home sites.

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[5] SCS is now known as the National Resource Conservation Service or NRCS.

None of the soils within the Study Area are identified as hydric in the SCS's publication, Hydric Soils of the United States[6]; nor are any of these soils listed as hydric in the Soil Survey for Western Riverside County, California.

It is important to note that under the Arid West Supplement, the presence of mapped hydric soils is no longer dispositive for the presence of hydric soils. Rather, the presence of hydric soils must now be confirmed in the field.

II. JURISDICTION

A. Corps Jurisdiction

Pursuant to Section 404 of the CWA, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters, which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
>
>> *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
>> *(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*
>> *(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...*
>
> *(4) All impoundments of waters otherwise defined as waters of the United States under the definition;*
> *(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;*

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[6] United States Department of Agriculture, Soil Conservation Service. 1991. Hydric Soils of the United States, 3rd Edition, Miscellaneous Publication Number 1491. (In cooperation with the National Technical Committee for Hydric Soils.)

> *(6) The territorial seas;*
> *(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.*

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

> *(8) Waters of the United States do not include prior converted cropland.*[7] *Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding CWA jurisdiction remains with the U.S. Environmental Protection Agency (EPA).*

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) which is defined at 33 CFR 328.3(e) as:

> *...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

1. Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, EPA asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

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[7] The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is <u>inundated for no more than 14 consecutive days</u> during the growing season…." [Emphasis added.]

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the CWA.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the CWA (regardless of any interstate commerce connection). However, the Corps and U.S. Environmental Protection Agency (EPA) have issued a joint memorandum, which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

2. Rapanos v. United States and Carabell v. United States

On June 5, 2007, the EPA and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the CWA in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For project sites that include waters other than TNWs and/or their adjacent wetlands or Relatively Permanent Waters (RPWs) tributary to TNWs and/or their adjacent wetlands as set forth in the chart below, the Corps must apply the significant nexus standard, that includes the data set forth in the *Approved Jurisdictional Determination Form*.

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps. The information pertaining to isolated waters is also included on the *Approved Jurisdictional Determination Form*.

The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)
- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water
-

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors

3. Corps Preliminary Jurisdictional Determination

A *Corps Preliminary Jurisdictional Determination Form* may be used to concede Corps jurisdiction where all streambeds within the project area are considered Corps jurisdictional waters. The project would be able to move forward pursuant to Corps Regulatory Guidance Letter (RGL) 08-02, issued on June 26, 2008, which allows the Corps to issue preliminary jurisdictional determinations (Preliminary JD) for a project. A Preliminary JD allows a project

to move forward by setting aside/voluntarily waiving questions regarding CWA jurisdiction over drainages onsite in the interest of allowing expeditiously obtaining a Section 404 Permit.
As stated in RGL 08-02:

While a landowner, permit applicant, or other affected party can elect to request and obtain an approved JD, he or she can also decline to request an approved JD, and instead obtain a Corps individual or general permit authorization based on either a preliminary JD, or, in appropriate circumstances (such as authorizations by non-reporting nationwide general permits), no JD whatsoever. The Corps will determine what form of JD is appropriate for any particular circumstance based on all the relevant factors, to include, but not limited to, the applicant's preference, what kind of permit authorization is being used (individual permit versus general permit), and the nature of the proposed activity needing authorization.

The Corps typically completes Preliminary JDs within 60 days of receipt of the request for such a determination. If the Corps project manager cannot complete the Preliminary JD within the 60-day timeframe, they must provide their supervisor, who would also provide the applicant, with a schedule to complete the determination (i.e., unlike the Rapanos significant nexus guidelines, there is a specific timeframe to complete the Preliminary JD and move forward with the jurisdictional determination, without uncertainty, and the EPA will not be involved with the Preliminary JD process as the Corps is not required to coordinate with the EPA to review Preliminary JDs).

4. Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands[8]);

- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

B. Regional Water Quality Control Board

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.[9] The memorandum states:

California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required…

The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states….

Water Code section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." (Water Code § 13260(a)(1) (emphasis added).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e).) The U.S. Supreme

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[8] Reed, P.B., Jr. 1988. National List of Plant Species that Occur in Wetlands. U.S. Fish and Wildlife Service Biological Report 88(26.10).

[9] Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

Court's ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification….

In this memorandum the SWRCB's Chief Counsel has made the clear assumption that fill material to be discharged into isolated waters of the United States is to be considered equivalent to "waste" and therefore subject to the authority of the Porter Cologne Water Quality Act. However, while providing a recounting of the Act's definition of waters of the United States, this memorandum fails to also reference the Act's own definition of waste:

"Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

The lack of inclusion of a reference to "fill material," "dirt," "earth" or other similar terms in the Act's definition of "waste," or elsewhere in the Act, suggests that no such association was intended. Thus, the Chief Counsel's memorandum signals that the SWRCB is attempting to retain jurisdiction over discharge of fill material into isolated waters of the United States by administratively expanding the definition of "waste" to include "fill material" without actually seeking amendment of the Act's definition of waste (an amendment would require action by the state legislature). Consequently, discharge of fill material into waters of the State not subject to the jurisdiction of the Corps pursuant to Section 404 of the CWA may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements (WDRs) or through waiver of WDRs, despite the lack of a clear regulatory imperative.

C. California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1616 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs."

CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. The CDFW Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways...
- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated by [CDFW] as natural waterways...
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions...

Thus, CDFW jurisdictional limits closely mirror those of the Corps. Exceptions are CDFW's exclusion of isolated wetlands (those not associated with a river, stream, or lake), the addition of artificial stock ponds and irrigation ditches constructed on uplands, and the addition of riparian habitat supported by a river, stream, or lake regardless of the riparian area's federal wetland status.

III. RESULTS

A. <u>Corps Jurisdiction</u>

Corps jurisdiction associated with the Study Area totals 8.55 acres, none of which consists of jurisdictional wetlands, and includes 3,990 linear feet of ephemeral streambed. Corps jurisdiction within the Study Area is limited to one streambed, the PVSD. The PVSD is an improved, ephemeral drainage feature, which accepts urban runoff from areas surrounding the March Air Reserve Base and in the Cities of Perris and Moreno Valley.

The PVSD enters the Study Area from the northwestern portion of the Project boundary and flows from north/northwest to southeast for approximately 3,990 linear feet across the Study Area before exiting the property and flowing toward Perris Boulevard, ultimately discharging into the San Jacinto River, which is a tributary to Canyon Lake, which is a tributary to the downstream segment of the San Jacinto River, which is a tributary of Lake Elsinore, which empties into Alberhill Creek/Temescal Wash, which is a tributary of the Santa Ana River, which is a tributary of the Pacific Ocean, a TNW. The PVSD is an incised, somewhat improved and maintained, flood control channel with partially improved side slopes and a soft-bottom. The PVSD supports an OHWM ranging in width from 90 to 105 feet and is evidenced by water marks, presence of litter and debris, changes in soil characteristics, wracking, and shelving. The PVSD is generally unvegetated; therefore, no delineation data pits were necessary as no potential wetland areas are or were present.

A graphic depicting the limits of Corps jurisdiction within the PVSD is attached as Exhibit 3.

B. Regional Water Quality Control Board Jurisdiction

The PVSD has been determined to be Corps jurisdictional waters subject to regulation pursuant to Section 404 of the CWA and is also subject to regulation by the Regional Board pursuant to Section 401 of the CWA; therefore, Corps waters on site are also subject to Regional Board jurisdiction. As such, the PVSD does not need to be addressed separately pursuant to Section 13260 of the CWC, the Porter –Cologne Act. There are no other Regional Board jurisdictional waters within the Study Area.

A graphic depicting the limits of potential Regional Board jurisdiction is attached as Exhibit 3.

C. CDFW Jurisdiction

CDFW jurisdiction associated with the Study Area totals 11.97 acres, none of which consists of vegetated riparian habitat, and includes 3,990 linear feet of ephemeral streambed. CDFW jurisdiction within the Study Area is limited to one streambed, the PVSD. The PVSD is an improved, maintained, ephemeral drainage feature, which accepts urban runoff from areas surrounding the March Air Reserve Base and the Cities of Perris and Moreno Valley.

The PVSD enters the Study Area from the northwestern portion of the Project boundary and flows from north/northwest to southeast for approximately 3,990 linear feet across the Study Area before exiting the property and ultimately discharging into the San Jacinto River. The PVSD is an incised, somewhat improved, maintained, flood control channel with partially improved side slopes and a soft-bottom. The PVSD is generally unvegetated, and supports a high water mark (HWM) ranging in width from 130 to 165 feet and is evidenced by the presence of bed, bank, and channel.

A graphic depicting the limits of CDFW jurisdiction within the PVSD is attached as Exhibit 3.

IV. DISCUSSION

A. <u>Impact Analysis</u>

An analysis of impacts will be performed, based upon this delineation and the current Project design (or design alternative) upon the client’s request. This analysis will be provided as a separate memorandum and accompanying map.

If you have any questions about this letter report, please feel free to contact me at (949) 837-0404 ext 20.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Martin A. Rasnick
Sr. Regulatory Specialist

s: 0849-16_JD.docx

Exhibit 1

Regional Map

Source: ESRI World Street Map

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

MORENO VALLEY LOGISTICS CENTER PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

Exhibit 2

Vicinity Map

Adapted from USGS Sunnymeade and Perris, CA quadrangles

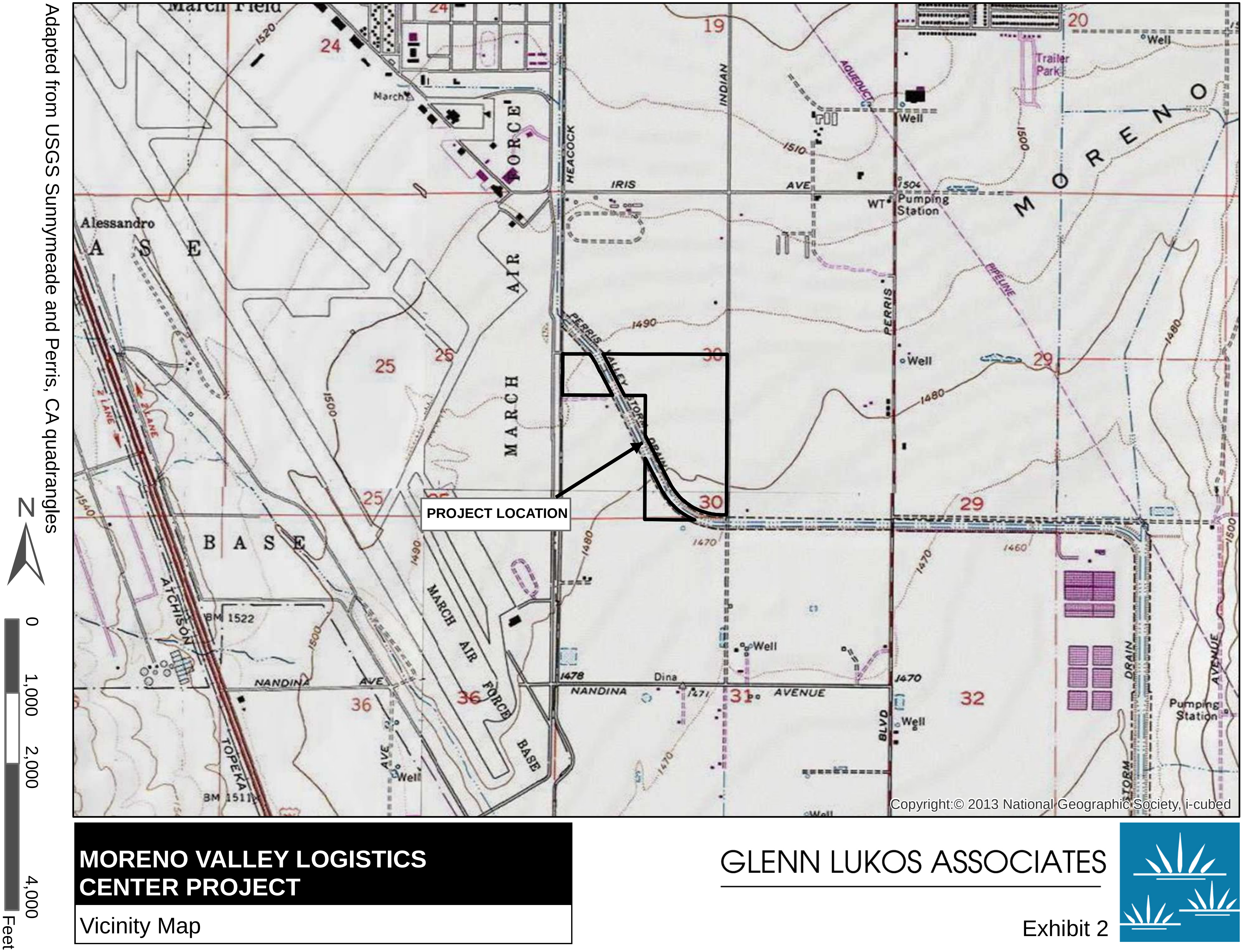

MORENO VALLEY LOGISTICS CENTER PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Exhibit 3

Jurisdictional Delineation Map

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

☐ Project Boundary

▨ Corps/RWQCB Non-Wetland Waters

🟩 CDFW Unvegetated Streambed

— Widths (First Number is Corps Second is CDFW)

N

0 150 300 600
Feet

1 inch = 300 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3

Exhibit 4

Site Photographs

GLENN LUKOS ASSOCIATES

Exhibit 4

Photograph 1: Photograph depicting the Perris Valley Storm Drain.

Photograph 2: Photograph depicting the Perris Valley Storm Drain.

Moreno Valley Logistics Center Project

Site Photographs

Photograph 3: Photograph depicting the Project site. Note the lack of jurisdictional waters on site.

Photograph 4: Photograph depicting the Project site. Note the lack of jurisdictional waters on site.

GLENN LUKOS ASSOCIATES

Exhibit 4

Moreno Valley Logistics Center Project

Site Photographs

Attachment: C2 - Jurisdictional Delineation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Exhibit 5

Soils Map

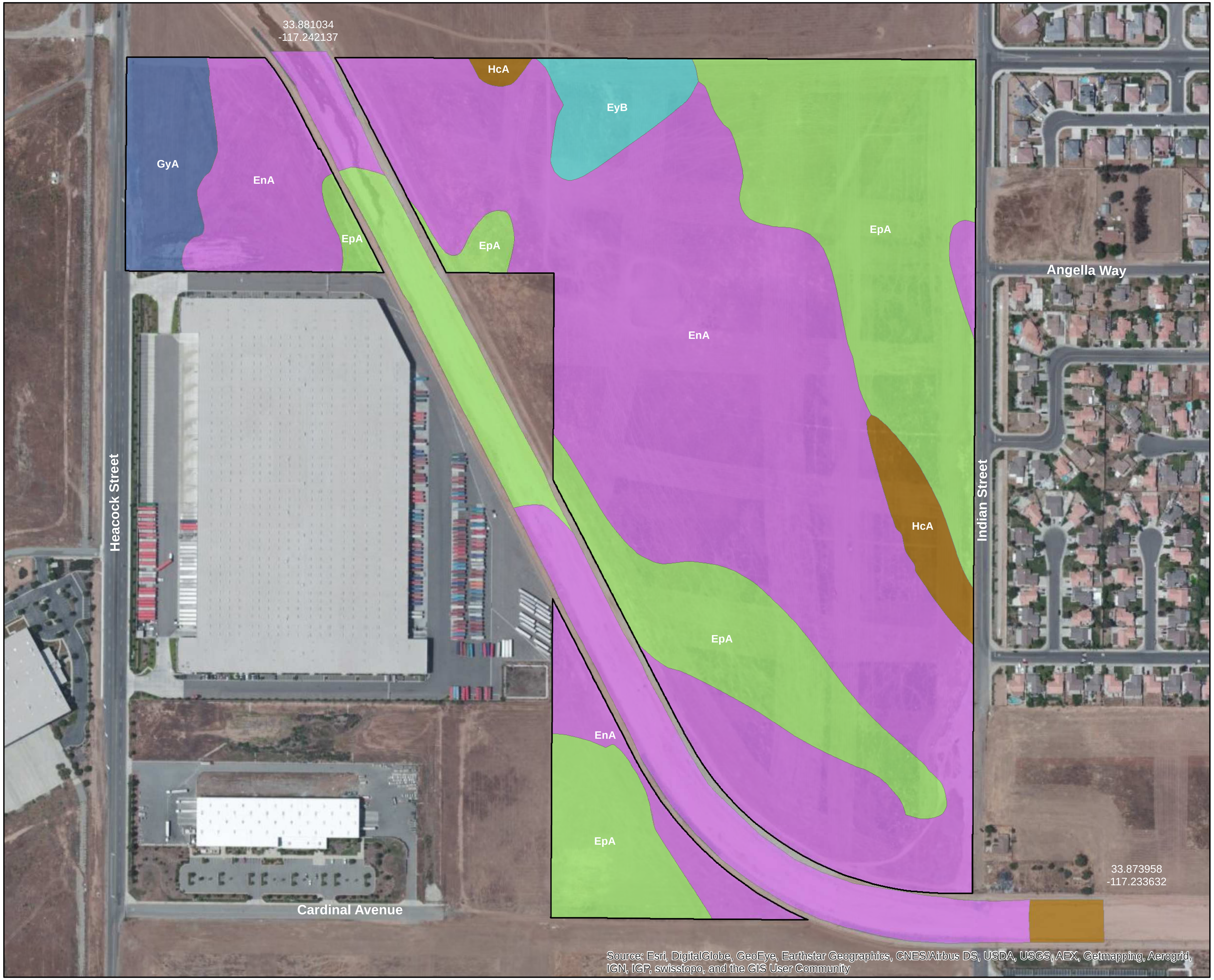

Legend

☐ Project Boundary

🟪 EnA - Exeter sandy loam, 0 to 2 percent slopes

🟩 EpA - Exeter sandy loam, deep, 0 to 2 percent slopes

🟦 EyB -Exeter very fine sandy loam, deep, 0 to 5 percent slopes

🟦 GyA - Greenfield sandy loam, 0 to 2 percent slopes

🟫 HcA - Hanford coarse sandy loam, 0 to 2 percent slopes

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

Appendix A

Impact Analysis Memorandum

MEMORANDUM

GLENN LUKOS ASSOCIATES
Regulatory Services

PROJECT NUMBER: 0849-0016more

TO:
Ms. Tracy Zinn
Principal
T&B Planning, Inc.
17542 East 17th Street,
Suite 100
Tustin, California 92780

FROM: Martin Rasnick

DATE: May 12, 2015

SUBJECT: Moreno Valley Logistics Center Project Study Area; Located in the City of Moreno Valley; Riverside County, California: Jurisdictional Delineation Impact Analysis.

Ms. Zinn:

This memorandum summarizes Glenn Lukos Associates' (GLA) impact analysis of U.S. Army Corps of Engineers (Corps), California Department of Fish and Wildlife (CDFW), and Santa Ana Regional Water Quality Control Board (Regional Board) jurisdiction for the Moreno Valley Logistics Center Project Study Area (Study Area) located in the City of Moreno Valley; Riverside County, California. The Study Area encompasses approximately 89.4 acres of property on which the Moreno Valley Logistics Center is proposed (the "Project site") and a segment of the off site Perris Valley Storm Drain (PVSD) that bifurcates the property. An impact analysis was conducted for the Project based upon files received from T& B Planning and the Project team. Impacts to each regulatory jurisdiction are described below.

1. Impacts to Corps and Regional Board Jurisdiction

Potential Corps and Regional Board jurisdiction associated with the Study Area totals 8.55 acres, none of which consists of jurisdictional wetlands, and is limited to the off site Perris Valley Storm Drain (PVSD) as the on site Project does not contain Corps or Regional Board jurisdiction. A total of 3,990 linear feet of streambed is present. The Project, as proposed, would permanently impact 0.002 acre of Corps and Regional Board jurisdiction, none of which consists of jurisdictional wetlands, off site within the PVSD. A total of 52 linear feet of streambed will be permanently impacted. The Project would temporarily impact 0.09 acre of Corps and Regional Board jurisdiction none of which consists of jurisdictional wetlands, off site within the PVSD. A total of 196 linear feet of streambed will be temporarily disturbed.

Table One below depicts permanent impacts to Corps and Regional Board jurisdiction. Table Two below depicts temporary impacts to Corps and Regional Board jurisdiction. A graphic depicting permanent and temporary impact to Corps and Regional Board jurisdiction is attached as Exhibit 1A.

Table One. Permanent Impacts to Corps and Regional Board Jurisdiction

Drainage Features	Permanent Impacts to Corps Non-Wetland Waters (Acres)	Permanent Impacts to Corps Wetland Waters (Acres)	Total Permanent Impacts to Corps Jurisdiction (Acres)	Total Permanent Linear-Foot Impacts (Feet)
Perris Valley Storm Drain	0.002	0	0.002	52
Total(s)	**0.002**	**0**	**0.002**	**52**

Table Two. Temporary Impacts to Corps and Regional Board Jurisdiction

Drainage Features	Temporary Impacts to Corps Non-Wetland Waters (Acres)	Temporary Impacts to Corps Wetland Waters (Acres)	Total Temporary Impacts to Corps Jurisdiction (Acres)	Total Temporary Linear-Foot Impacts (Feet)
Perris Valley Storm Drain	0.09	0	0.09	196
Total(s)	**0.09**	**0**	**0.09**	**196**

2. Impacts to CDFW Jurisdiction

Potential CDFW jurisdiction associated with the Study Area totals 11.97 acres, none of which consist of vegetated riparian habitat, and is limited to the off site PVSD as the on site Project does not contain CDFW jurisdiction. A total of 3,990 linear feet of streambed is present. The Project, as proposed, would permanently impact 0.02 acre of CDFW jurisdiction off site, none of which consists of vegetated riparian habitat. A total of 66 linear feet of streambed will be permanently impacted. The Project would temporarily impact 0.18 acre of CDFW jurisdiction, none of which consists of vegetated riparian habitat. A total of 203 linear feet of streambed will be temporarily disturbed. Table Three below depicts permanent impacts to CDFW jurisdiction and Table Four depicts temporary impacts to CDFW jurisdiction. A graphic depicting permanent and temporary impact to CDFW jurisdiction is attached as Exhibit 1B.

Table Three. Permanent Impacts to CDFW Jurisdiction

Drainage Features	Permanent Impacts to CDFW Unvegetated Streambed (Acres)	Permanent Impacts to CDFW Vegetated Riparian Habitat (Acres)	Total Permanent Impacts to CDFW Jurisdiction (Acres)	Total Permanent Linear-Foot Impacts (Feet)
Perris Valley Storm Drain	0.02	0	0.02	66
Total(s)	**0.02**	**0**	**0.02**	**66**

Table Four. Temporary Impacts to CDFW Jurisdiction

Drainage Features	Temporary Impacts to CDFW Unvegetated Streambed (Acres)	Temporary Impacts to CDFW Vegetated Riparian Habitat (Acres)	Total Temporary Impacts to CDFW Jurisdiction (Acres)	Total Temporary Linear-Foot Impacts (Feet)
Perris Valley Storm Drain	0.18	0	0.18	203
Total(s)	**0.18**	**0**	**0.18**	**203**

The impacts identified above would require a Corps Section 404 Permit under the Corps' Nationwide Permit Program, a Section 401 Water Quality Certification from the Regional Board, and a Section 1602 Streambed Alteration Agreement from the CDFW.

If you have any questions regarding this memorandum, please call me at (949) 837-0404, Ext. 20. Thank you.

s: 0849-16_impactmemo.doc

Attachment: C2 - Jurisdictional Delineation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

☐ Project Boundary
🟦 Offsite Permanent Impact
🟦 Offsite Temporary Impact
▨ Corps/RWQCB Non-Wetland Waters

N

0 150 300 600
Feet

1 inch = 300 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

Corps/RWQCB Jurisdictional Delineation Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 1A

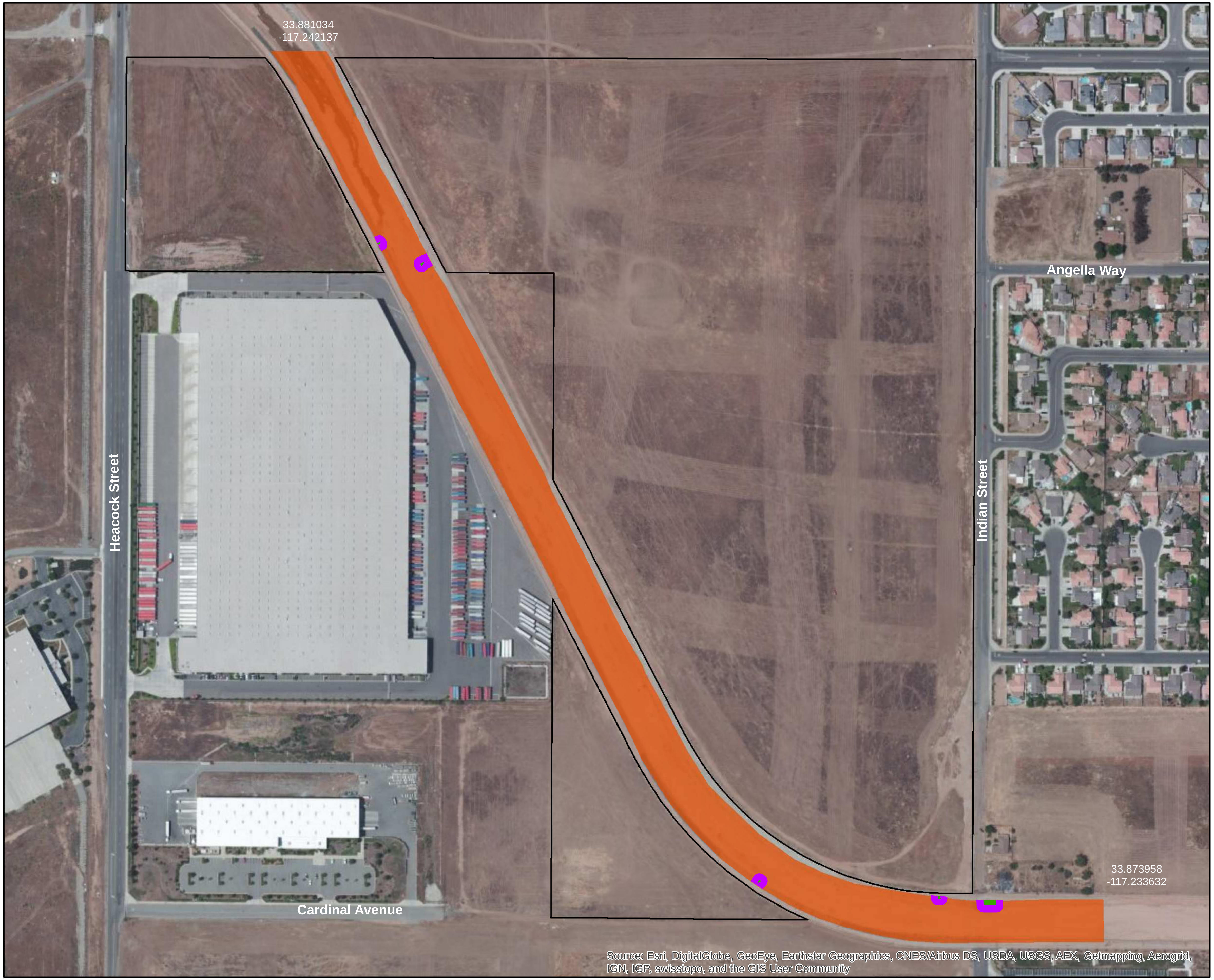

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

- ☐ Project Boundary
- 🟩 Offsite Permanent Impact
- 🟪 Offsite Temporary Impact
- 🟧 CDFW Unvegetated Streambed

N

0 150 300 600
Feet

1 inch = 300 feet

Aerial Photo: ESRI Basemaps
Reference Elevation Datum: State Plane 6 NAD 83
Map Prepared by: C. Lukos, GLA
Date Prepared: April 17, 2015

MORENO VALLEY LOGISTICS CENTER PROJECT

CDFW Jurisdictional Delineation Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 1B

PHASE I CULTURAL RESOURCES SURVEY FOR THE MORENO VALLEY LOGISTICS CENTER PROJECT

CITY OF MORENO VALLEY, COUNTY OF RIVERSIDE

APNs 316-100-028, -030, -048, -051, and -052

Prepared for:

T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, California 92780

Prepared by:

Brian F. Smith and Associates, Inc.
14010 Poway Road, Suite A
Poway, California 92064

February 10, 2015; Revised December 2, 2015; Revised March 4, 2016

Archaeological Database Information

Author(s): Mary M. Lenich and Brian F. Smith

Prepared by: Brian F. Smith and Associates, Inc.
14010 Poway Road, Suite A
Poway, California 92064
(858) 484-0915

Report Date: February 10, 2015; Revised December 2, 2015; Revised March 4, 2016

Report Title: Phase I Cultural Resources Survey for the Moreno Valley Logistics Center Project, City of Moreno Valley, County of Riverside

Prepared for: T&B Planning, Inc
17542 East 17th Street, Suite 100
Tustin, California 92780

Lead Agency Identifier: APNs 316-100-028, -030, -048, -051, and -052

USGS Quadrangle: *Sunnymead, California* (7.5 minute)

Study Area: Approximately 86 acres

Key Words: Cultural resources survey; City of Moreno Valley; negative survey; no mitigation measures recommended.

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Appendices

**Deleted for public review and bound separately in the Confidential Appendix*

Attachment: D1 - Phase I Cultural Resources Survey (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

List of Figures

List of Plates

List of Tables

1.0 MANAGEMENT SUMMARY/ABSTRACT

The following report describes the results of a Phase I cultural resources assessment conducted by Brian F. Smith and Associates, Inc. (BFSA) for the Moreno Valley Logistics Center Project. The survey covered approximately 86 acres located within the city of Moreno Valley in Riverside County, California, situated to the east of March Air Force Base. The development will include grading for four commercial buildings and a new public street. Excavation at the buildings will range from three to five feet below existing ground surface. This depth of excavation will comprise most of the cuts. The maximum depth of excavation will be nine feet, which will only occur at the detention basins.

Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). The property lies between Heacock Street and Indian Street, approximately 1.35 miles east of Interstate 215. BFSA, in compliance with the California Environmental Quality Act (CEQA) and City of Moreno Valley environmental guidelines, conducted the assessment to locate and record any cultural resources present within the project area.

The cultural resources investigation of the subject property also included a review of a records search performed by the Eastern Information Center (EIC) at the University of California at Riverside (UCR) on December 2, 2014 in order to assess previous archaeological studies and identify any previously recorded cultural resources within the project boundaries or in the immediate vicinity. Results of the records search from the EIC indicate that six cultural resource properties have been recorded within a one-mile radius of the project area. None of these properties involved the project area.

BFSA requested a review of the Sacred Lands File by the Native American Heritage Commission (NAHC) on November 17, 2014. The search results received from the NAHC on November 24, 2014 did not indicate that any Native American religious, ritual, or other special activities occurred at this location. In accordance with the recommendations of the NAHC, BFSA contacted all Native American consultants listed in the NAHC response letter on December 2, 2014. As of the date of this report, the only response to the BFSA letters was from the Soboba Band of Luiseño Indians on February 6, 2015. The Soboba Band stated that although the project is outside of their existing reservation, it is within the bounds of Luiseño Tribal Traditional Use Areas.

The cultural resources survey of the property was conducted on November 18, 2014. Survey conditions were generally good and ground visibility was good in most areas. Much of the property has been disturbed by grading and agricultural use in the past, and previous impacts to the property include an aqueduct that separates the northern and southern parcels of the project. No prehistoric or historic cultural resources were identified during the survey. Because no cultural resources were identified, monitoring of grading is not recommended as a condition of approval for the project.

A copy of this report will be permanently filed with the EIC at UCR. All notes, photographs, and other materials related to this project will be curated at the archaeological laboratory of BFSA in Poway, California.

2.0 INTRODUCTION

In response to a request by T&B Planning, Inc., BFSA conducted a cultural resources assessment of the Moreno Valley Logistics Center Project situated east of March Air Force Base. The cultural resources survey and evaluation program for the project were conducted in order to comply with CEQA and City of Moreno Valley environmental guidelines. The project is located in an area of low archaeological sensitivity, as suggested by known site density and predictive modeling.

The project is an approximately 86-acre property located in Moreno Valley, Riverside County, California. The project is identified as Assessor's Parcel Numbers (APNs) 316-100-028, -030, -048, -051, and -052. The project is situated between Heacock Street and Indian Street, adjacent to March Air Force Base. Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). The current project is a proposed subdivision of the property for commercial development including four buildings and a new public street. The development will include grading for four commercial buildings and a new public street. Excavation at the buildings will range from three to five feet below existing ground surface. This depth of excavation will comprise most of the cuts. The maximum depth of excavation will be nine feet, which will only occur at the detention basins.

Principal Investigator Brian F. Smith directed the Phase I archaeological assessment for the project with assistance from field archaeologist Clarence Hoff. The technical report was prepared by Mary Lenich under the direction of Brian Smith. Elena Buckley conducted technical editing and report production, and Jennifer Kraft created the report graphics. Qualifications of key personnel are provided in Appendix A.

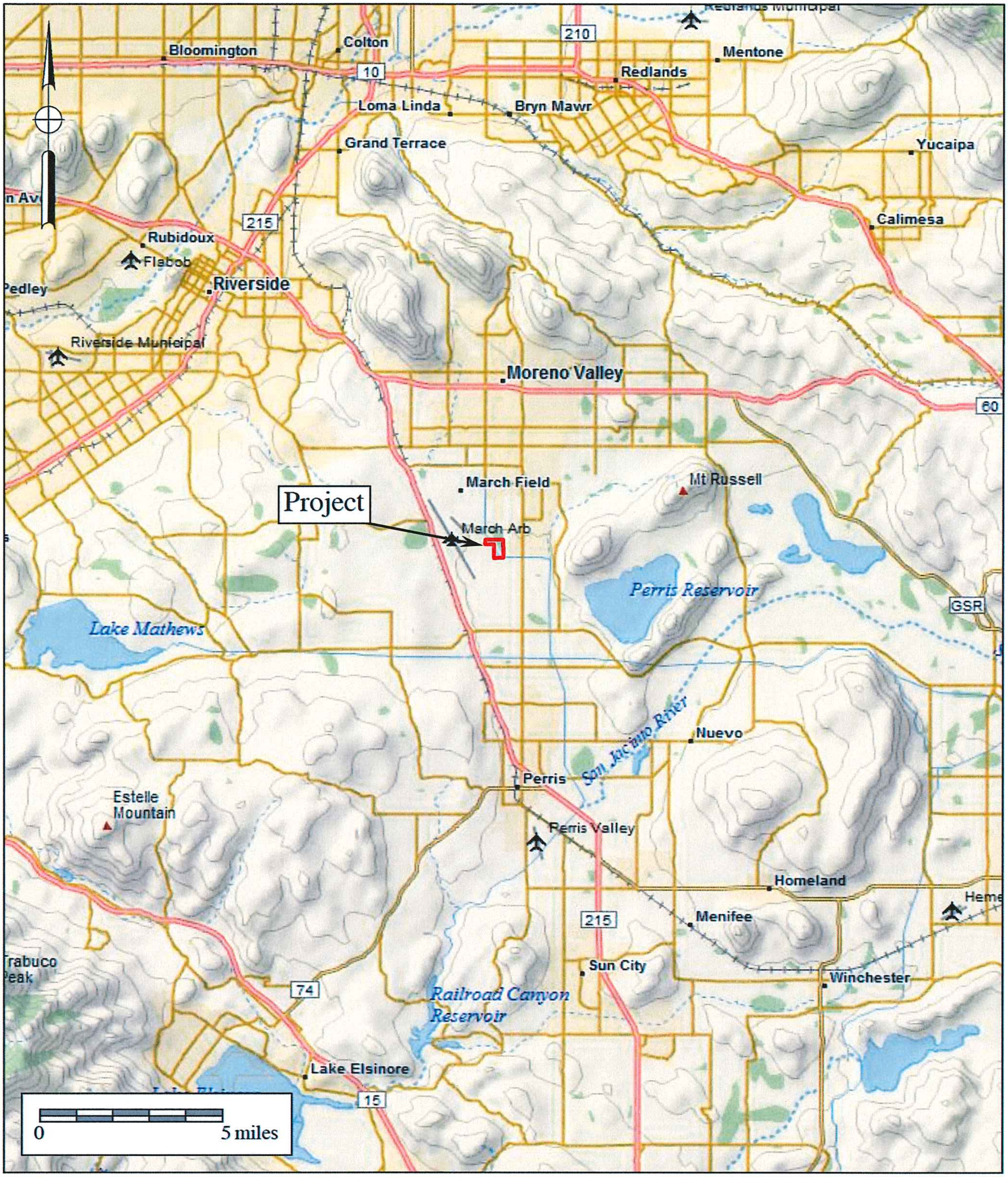

Figure 2.0–1

General Location Map

The Moreno Valley Logistics Center Project

DeLorme (1:250,000)

Brian F. Smith and Associates, Inc. Environmental Consultants

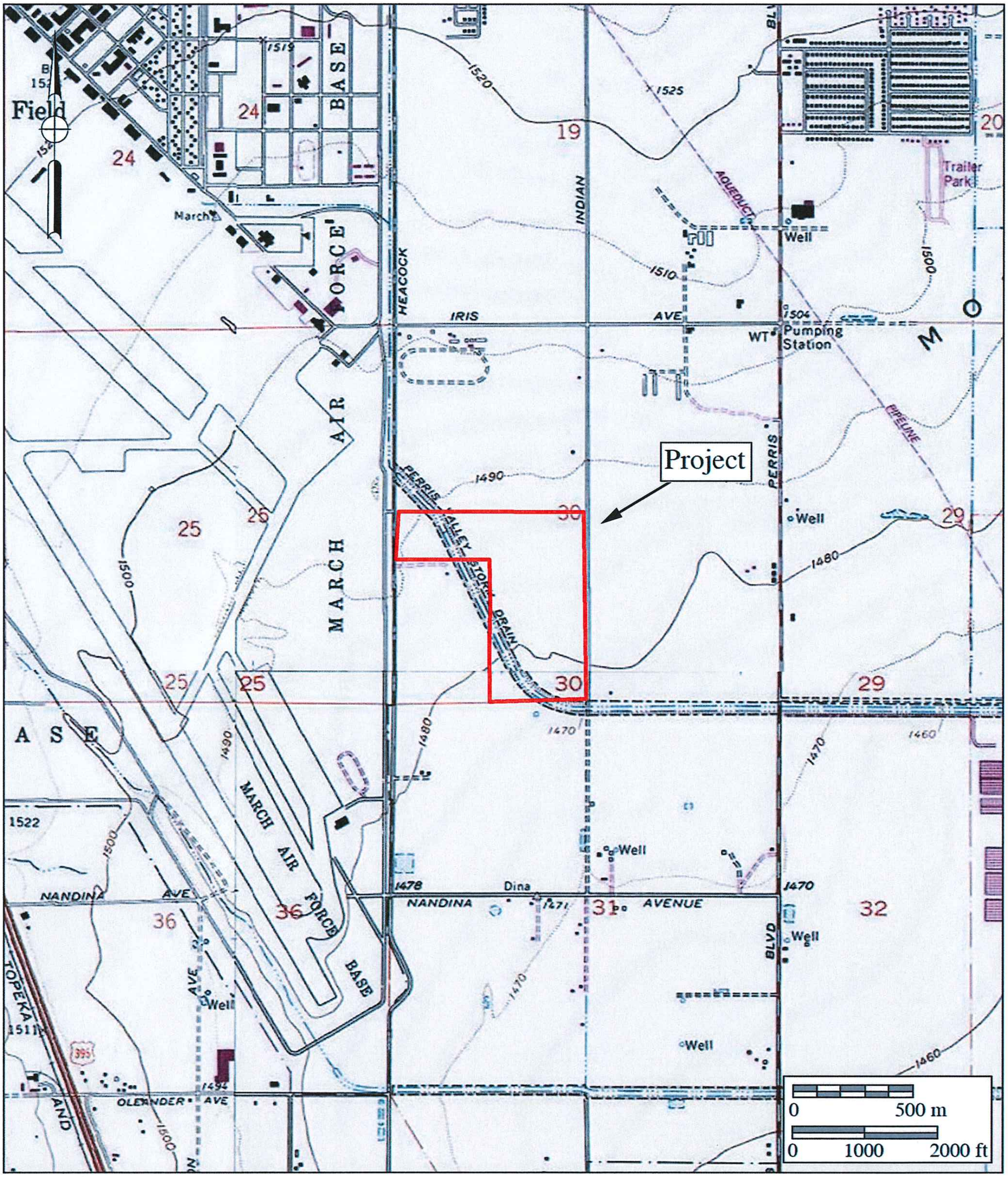

Figure 2.0–2

Project Location Map

The Moreno Valley Logistics Center Project

USGS *Sunnymead* Quadrangle (7.5-minute series)

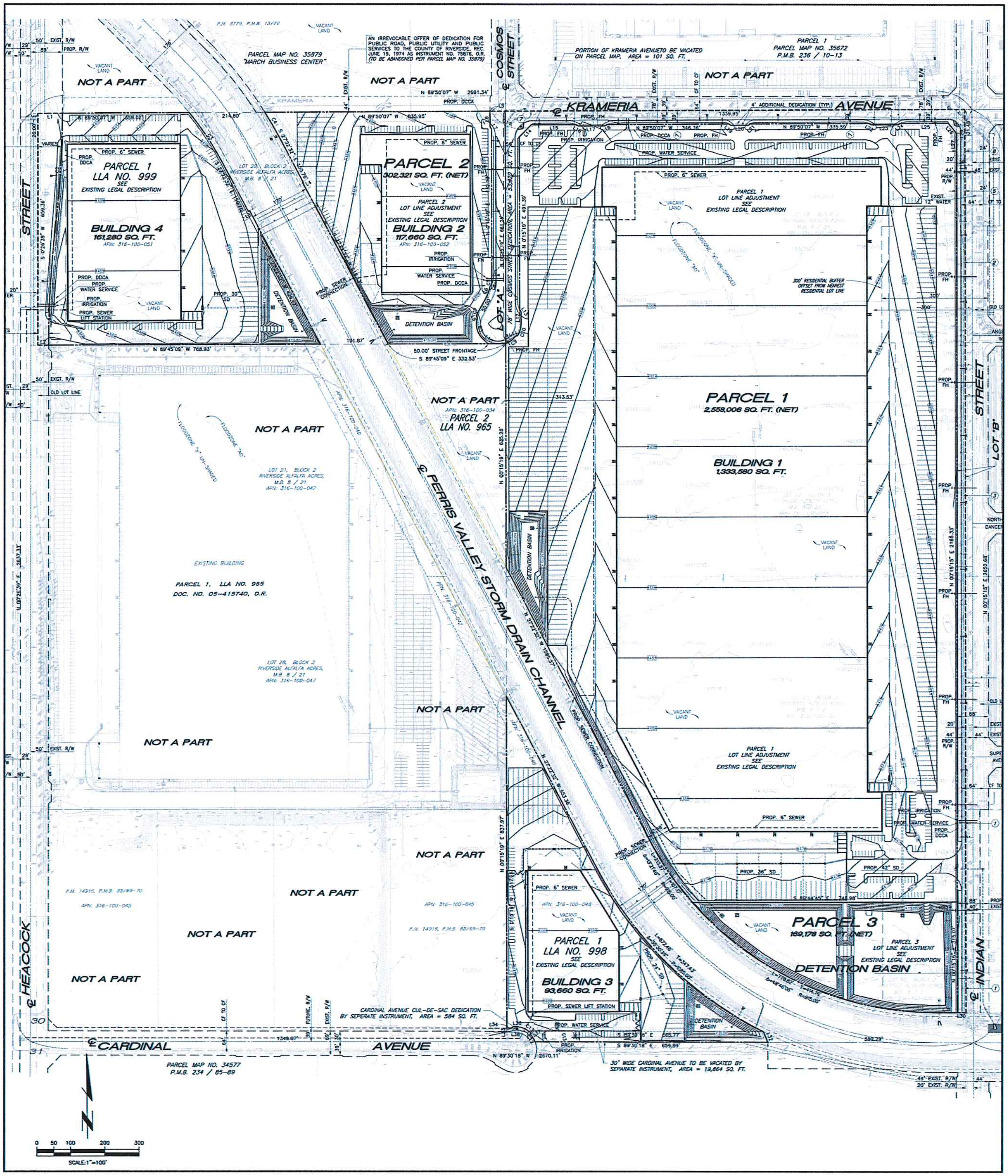

Figure 2.0–3

Project Development Map

The Moreno Valley Logistics Center Project

Brian F. Smith and Associates, Inc.
Environmental Consultants

3.0 PROJECT SETTING

The project setting includes the natural physical, geological, and biological contexts of the proposed project, as well as the cultural setting of prehistoric and historic human activities in the general area. The following sections discuss both the environmental and cultural settings at the subject property, the relationship between the two, and the relevance of that relationship to the project.

3.1 Environmental Setting

Riverside County lies in the Peninsular Range Geologic Province of southern California. The range, which lies in a northwest to southeast trend through the county, extends some 1,000 miles from the Raymond-Malibu Fault Zone in western Los Angeles County to the southern tip of Baja California. The subject property is located just northwest of the Perris Reservoir. The project area is relatively flat, with the property's lowest point located at its southeast corner and its highest point located at its northwest corner. Elevations within the project area range from approximately 1,468 to 1,497 feet above mean sea level (AMSL). The entire project area has been disked in the past and disturbed by the placement of an aqueduct. Currently, vegetation within the project area is characterized as primarily Russian thistle that covers 100 percent of the property.

3.2 Cultural Setting

3.2.1 Prehistoric Period

Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Shoshonean groups are the three general cultural periods represented in Riverside County. The following discussion of the cultural history of Riverside County references the San Dieguito Complex, Encinitas Tradition, Milling Stone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component in the area of Riverside County was represented by the Cahuilla, Gabrielino, and Luiseño Indians.

Absolute chronological information, where possible, will be incorporated into this discussion to examine the effectiveness of continuing to use these terms interchangeably. Reference will be made to the geological framework that divides the culture chronology of the area into four segments: late Pleistocene (20,000 to 10,000 years before the present [YBP]), early Holocene (10,000 to 6,650 YBP), middle Holocene (6,650 to 3,350 YBP), and late Holocene (3,350 to 200 YBP).

Paleo Indian Period (Late Pleistocene: 11,500 to circa 9,000 YBP)

The Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The coastal shoreline at 10,000 YBP, depending on the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location (Masters 1983).

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation, utilizing a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995).

Archaic Period (Early and Middle Holocene: circa 9,000 to 1,300 YBP)

Between 9,000 and 8,000 YBP, a widespread complex was established in the southern California region, primarily along the coast (Warren and True 1961). This complex is locally known as the La Jolla Complex (Rogers 1939; Moriarty 1966), which is regionally associated with the Encinitas Tradition (Warren 1968) and shared cultural components with the widespread Milling Stone Horizon (Wallace 1955). The coastal expression of this complex, with a focus on coastal resources and development of deeply stratified shell middens located primarily around bays and lagoons, appeared in the southern California coastal areas, where the older sites associated with this expression are located at Topanga Canyon, Newport Bay, Agua Hedionda Lagoon, and some of the Channel Islands. Radiocarbon dates from sites attributed to this complex span a period of over 7,000 years in this region, beginning over 9,000 YBP.

The Encinitas Tradition is best recognized for its pattern of large coastal sites characterized by shell middens, grinding tools closely associated with the marine resources of the area, cobble-based tools, and flexed human burials (Shumway et al. 1961; Smith and Moriarty 1985). While ground stone tools and scrapers are the most recognized tool types, coastal Encinitas Tradition sites also contain numerous utilized flakes, which may have been used to pry open shellfish. Artifact assemblages at coastal sites indicate a subsistence pattern focused on shellfish collection and nearshore fishing, suggesting an incipient maritime adaptation with regional similarities to more northern sites of the same period (Koerper et al. 1986). Other artifacts associated with Encinitas Tradition sites include stone bowls, doughnut stones, discoidals, stone balls, and stone, bone, and shell beads.

The coastal lagoons in southern California supported large Milling Stone Horizon populations circa 6,000 YBP, as shown by numerous radiocarbon dates from the many sites adjacent to the lagoons. The ensuing millennia were not stable environmentally, and by 3,000 YBP, many of the coastal sites in central San Diego County had been abandoned (Gallegos 1987, 1992). The abandonment of the area is usually attributed to the sedimentation of coastal lagoons

Attachment: D1 - Phase I Cultural Resources Survey (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

and the resulting deterioration of fish and mollusk habitat, a situation well documented at Batiquitos Lagoon (Miller 1966; Gallegos 1987). Over a period of two thousand years at Batiquitos Lagoon, dominant mollusk species occurring in archaeological middens shift from deep-water mollusks (*Argopecten* sp.) to species tolerant of tidal flat conditions (*Chione* sp.), indicating water depth and temperature changes (Miller 1966; Gallegos 1987). This situation likely occurred for other small drainages (Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks) along the central San Diego coast, where low flow rates did not produce sufficient discharge to flush the lagoons they fed (Buena Vista, Agua Hedionda, Batiquitos, and San Elijo lagoons) (Byrd 1998). Drainages along the northern and southern San Diego coastline were larger and flushed the coastal hydrological features they fed, keeping them open to the ocean and allowing for continued human exploitation (Byrd 1998). Peñasquitos Lagoon exhibits dates as late as 2,355 YBP (Smith and Moriarty 1985). San Diego Bay showed continuous occupation until the close of the Milling Stone Horizon (Gallegos and Kyle 1988). Additionally, data from several drainages in Camp Pendleton indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time (Byrd 1998).

By 5,000 YBP, an inland expression of the La Jolla Complex, which exhibits influences from the Campbell Tradition from the north, is evident in the archaeological record. These inland Milling Stone Horizon sites have been termed “Pauma Complex” (True 1958; Warren et al. 1961; Meighan 1954). By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have a greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex (True 1980), it appears that these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. Evidence from the 4S Ranch Project in inland San Diego County suggests that these inland sites may represent seasonal components within an annual subsistence round by La Jolla Complex populations (Raven-Jennings et al. 1996). Including both coastal and inland sites of this time period in discussions of the Encinitas Tradition, therefore, provides a more complete appraisal of the settlement and subsistence system exhibited by this cultural complex.

Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)

Approximately 1,350 YBP, a Shoshonean-speaking group from the Great Basin region moved into Riverside County marking the transition to the Late Prehistoric Period. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period, with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600, as well as the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including the Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far-reaching as the Colorado River Basin and cremation of the dead.

Protohistoric Period (Late Holocene: 1790 to Present)

Ethnohistorical and ethnographic evidence indicates that three Shoshonean-speaking groups occupied portions of Riverside County during the Protohistoric Period, including the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries between these groups in pre- and proto-historic times are difficult to place.

At the time of Spanish contact in the sixteenth century, the Cahuilla occupied territory that included the San Bernardino Mountains, Orocopia Mountain, and the Chocolate Mountains to the east, the Salton Sea and Borrego Springs to the south, Palomar Mountain and Lake Mathews to the west, and the Santa Ana River to the north. The Cahuilla were a Takic-speaking people closely related to their Gabrielino and Luiseño neighbors, although relations with the Gabrielino were more intense than with the Luiseño. They differed from the Luiseño and Gabrielino in that their religion was more similar to the Mohave tribes of the eastern deserts than the *Chingichngish* cult of the Luiseño and Gabrielino.

The territory of the Gabrielino, at the time of Spanish contact in the sixteenth century, was located in much of present-day Los Angeles and Orange counties. The southern extent of this group was bounded by Aliso Creek, the eastern extent was located east of present-day San Bernardino along the Santa Ana River, the northern extent included the San Fernando Valley, and the western extent included portions of the Santa Monica Mountains. The Gabrielino also occupied several Channel Islands, including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island. Because of their access to certain resources, including a steatite source from Santa Catalina Island, this group was among the wealthiest and most populous aboriginal groups in all of southern California. Trade of materials and resources controlled by the Gabrielino extended as far north as the San Joaquin Valley, as far east as the Colorado River, and as far south as Baja California (Bean and Smith 1978; Kroeber 1925).

The Luiseño were a seasonal hunting and gathering people with cultural elements that were very distinct from the Archaic Period peoples, including cremation, the use of the bow and arrow, and use of the acorn as a main food staple (Moratto 1984). Along the coast, the Luiseño made use of available marine resources by fishing and collecting mollusks for food. Seasonally available terrestrial resources, including acorns and game, were also sources of nourishment for Luiseño groups. The elaborate kinship and clan systems between the Luiseño and other groups facilitated a wide-reaching trade network that included trade of Obsidian Butte obsidian and other resources from the eastern deserts and steatite from the Channel Islands.

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3.2.2 Historic Period

The historic background of the project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region (Brigandi 1998). In the late eighteenth century, the San Gabriel (Los Angeles County), San Juan Capistrano (Orange County), and San Luis Rey (San Diego County) missions began colonizing southern California and gradually expanded their use of the interior valley (into what is now western Riverside County) for raising grain and cattle to support the missions (Riverside County n.d.). The San Gabriel Mission claimed lands in what is now Jurupa, Riverside, San Jacinto, and the San Gorgonio Pass, while the San Luis Rey Mission claimed land in what is now Lake Elsinore, Temecula, and Murrieta (American Local History Network: Riverside County, California 1998). The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions (Pourade 1964). Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order (Cook 1937).

In the mid- to late 1770s, Juan Bautista de Anza passed through much of Riverside County while searching for an overland route from Sonora, Mexico to San Gabriel and Los Angeles, and described fertile valleys, lakes, and sub-desert areas (American Local History Network: Riverside County, California 1998; Riverside County n.d.). In 1797, Father Presidente Lausen, Father Norberto de Santiago, and Corporal Pedro Lisalde led an expedition from Mission San Juan Capistrano through southwestern Riverside County in search of a new mission site before constructing Mission San Luis Rey in northern San Diego County (Brigandi 1998).

While no missions were ever built in what would become Riverside County (American Local History Network: Riverside County, California 1998), many mission outposts, or *asistencias,* were established in the early years of the nineteenth century to extend the missions' influence to the backcountry (Brigandi 1998). Two outposts that were located in Riverside County include San Jacinto and Temecula.

Mexico gained independence in 1822 and desecularized the missions in 1832, signifying the end of the Mission Period (Brigandi 1998; Riverside County n.d.). By this time, the missions owned some of the best and most fertile land in southern California. In order for California to develop, the land would have to be made productive enough to turn a profit (Brigandi 1998). The new government began distributing the vast mission holdings to wealthy and politically connected Mexican citizens. The "grants" were called "ranchos," of which Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo were located in present-day Riverside County. Many of these ranchos have lent their names to modern-day locales (American Local History Network: Riverside County, California 1998). The first grant in present-day Riverside County was Rancho Jurupa, given to Juan Bandini in 1838. The project area is located within this grant. The ranchos included in the grant were all located in the valley environments typical of western Riverside County.

The treatment of Native Americans grew worse during the Rancho Period. Most of the Native Americans were forced off of their land or put to work on the now privately owned ranchos, most often as slave labor. In light of the brutal ranchos, the degree to which Native Americans had become dependent on the mission system is evident when, in 1838, a group of Native Americans from the San Luis Rey Mission petitioned government officials in San Diego to relieve suffering at the hands of the rancheros:

> We have suffered incalculable losses, for some of which we are in part to be blamed for because many of us have abandoned the Mission...We plead and beseech you...to grant us a Rev. Father for this place. We have been accustomed to the Rev. Fathers and to their manner of managing the duties. We labored under their intelligent directions, and we were obedient to the Fathers according to the regulations, because we considered it as good for us. (Brigandi 1998:21)

Native American culture had been disrupted to the point where they could no longer rely on prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become on the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while integrating them into their society. The ranchers, both Mexican and American, did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated (Cook 1976).

In 1846, war erupted between Mexico and the United States. In 1848, with the signing of the Treaty of Guadalupe Hidalgo, the region was annexed as a territory of the United States, and in 1850, California became a state. These events generated a steady flow of settlers into the area, including gold miners, entrepreneurs, health-seekers, speculators, politicians, adventurers, seekers of religious freedom, and individuals desiring to create utopian colonies.

In early 1852, the Native Americans of southern Riverside County, including the Luiseño and the Cahuilla, thought they had signed a treaty resulting in their ownership of all lands from Temecula to Aguanga east to the desert, including the San Jacinto Valley and the San Gorgonio Pass. The Temecula Treaty also included food and clothing provisions for the Indians. However, Congress never ratified the treaties, and the promise of one large reservation was rescinded (Brigandi 1998).

In 1852, following the law set forth in the Land Act of 1851, Juan Bandini filed a claim for a major portion of his original grant. This claim was confirmed in 1855 by the United States

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District Court. In 1857, Juan Bandini sold his portion of the Jurupa land grant to his son-in-law, Abel Stearns (Elliot 1883 [1965]).

With the completion of the transcontinental railroad in 1869, land speculators, developers, and colonists began to invest in southern California. The first colony in what was to become Riverside County was Riverside itself. Judge John Wesley North, an abolitionist from Tennessee, brought a group of associates and co-investors out to southern California and founded Riverside on part of the Jurupa Rancho. A few years later the navel orange was planted and found to be such a success that it quickly became the agricultural staple of the region (American Local History Network: Riverside County, California 1998).

By the late 1880s and early 1890s, there was growing discontent between Riverside and San Bernardino, its neighbor 10 miles to the north, due to differences in opinion concerning religion, morality, the Civil War, politics, and fierce competition to attract settlers. After a series of instances in which charges were claimed about unfair use of tax monies to the benefit of the city of San Bernardino only, several people from Riverside decided to investigate the possibility of a new county. In May of 1893, voters living within portions of San Bernardino County (to the north) and San Diego County (to the south) approved the formation of Riverside County. Early business opportunities were linked to the agriculture industry but commerce, construction, manufacturing, transportation, and tourism also provided a healthy local economy. By the time of Riverside County's formation, Riverside had grown to become the wealthiest city per capita in the country due to the successful cultivation of the navel orange (American Local History Network: Riverside County, California 1998; Riverside County n.d.).

3.3 Applicable Regulations

Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of Riverside County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, criteria outlined in CEQA provide the guidance for making such a determination. The following sections detail the CEQA criteria that a resource must meet in order to be determined important.

3.3.1 California Environmental Quality Act (CEQA)

According to CEQA (§15064.5a), the term "historical resource" includes the following:

1) A resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR. Section 4850 et seq.).
2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public

Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14, Section 4852) including the following:

    a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    b) Is associated with the lives of persons important in our past;
    c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    d) Has yielded, or may be likely to yield, information important in prehistory or history.

4) The fact that a resource is not listed in, or determined eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

According to CEQA (§15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
2) The significance of an historical resource is materially impaired when a project:

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a) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the California Register of Historical Resources;

b) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant;

c) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

1. When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).
2. If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, Section 15126.4 of the guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
3. If an archaeological site does not meet the criteria defined in subsection (a), but does meet the definition of a unique archaeological resource in Section 21803.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
4. If an archaeological resource is neither a unique archaeological nor historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or Environmental Impact Report, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

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Section 15064.5 (d) & (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

> (d) When an initial study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC, as provided in Public Resources Code SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the NAHC. Action implementing such an agreement is exempt from:
>
> 1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5)
> 2) The requirement of CEQA and the Coastal Act.

3.4 Research Design

The primary goal of the research design is to attempt to understand the way in which humans have used the land and resources within the project area through time, as well as to aid in the determination of resource significance. For the current project, the study area under investigation is the western portion of Riverside County and the southern portion of the city of Moreno Valley. The scope of work for the archaeological program conducted for the Moreno Valley Logistics Center Project included the survey of an approximately 86-acre area. Given the area involved in this Phase I survey, the research design for this project was limited and general in nature. Since the main objective of the investigation was to identify the presence of and potential impacts to cultural resources, the goal here is not necessarily to answer wide-reaching theories regarding the development of early southern California, but to investigate the role and importance of the identified resources. Nevertheless, the assessment of the significance of a resource must take into consideration a variety of characteristics, as well as the ability of the resource to address regional research topics and issues.

Although survey-level investigations are limited in terms of the amount of information available, several specific research questions were developed that could be used to guide the initial investigations of any observed cultural resources. The following research questions take into account the small size and location of the project area discussed above.

Research Questions

- Can located cultural resources be situated with a specific time period, population, or individual?

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- Do the types of located cultural resources allow a site activity/function to be determined from a preliminary investigation? What are the site activities? What is the site function? What resources were exploited?
- How do the located sites compare to others reported from different surveys conducted in the area?
- How do the located sites fit existing models of settlement and subsistence for valley environments of the region?

Data Needs

At the survey level, the principle research objective is a generalized investigation of changing settlement patterns in both the prehistoric and historic periods within the study area. The overall goal is to understand settlement and resource procurement patterns of the project area occupants. Therefore, adequate information on site function, context, and chronology from an archaeological perspective is essential for the investigation. The fieldwork and archival research was undertaken with these primary research goals in mind:

1) To identify cultural resources occurring within the project area;
2) To determine, if possible, site type and function, context of the deposit, and chronological placement of each cultural resource identified;
3) To place each cultural resource identified within a regional perspective; and
4) To provide recommendations for the treatment of each of the cultural resources identified.

4.0 METHODOLOGY

The cultural resources assessment conducted for the Moreno Valley Logistics Center Project consisted of a reconnaissance of the property by qualified archaeologists and an institutional records search. This archaeological study conformed to City of Moreno Valley environmental guidelines, and the statutory requirements of CEQA were followed in evaluating potential impacts.

4.1 Field Methodology

The cultural resources survey of the project was conducted on November 18, 2014. The survey of the entire approximately 86-acre property was an intensive pedestrian reconnaissance consisting of a series of parallel transects spaced at approximately five-meter intervals, which covered all areas of the project. Approximately 85 percent of the ground surface was visible during the survey. No constraints were encountered. Digital photographs were taken to document project conditions during the survey (see Section 5.2).

4.2 Records Search

The records search conducted by the EIC at UCR on December 2, 2014 was reviewed for an area of one mile surrounding the project in order to determine the presence of any previously recorded cultural resources. Results of the records search are provided in Appendix B and discussed in Section 5.1. The EIC also provided the standard review of the National Register of Historic Places and the Office of Historic Preservation Historic Property Directory. Land patent records held by the Bureau of Land Management (BLM) and accessible through the BLM General Land Office (GLO) website were also reviewed for pertinent project information. In addition, the BFSA research library was also consulted for any relevant historical information.

4.3 Report Preparation and Recordation

This report contains information regarding previous studies, statutory requirements for the project, and a brief description of the setting, research methods employed, and the overall results of the monitoring program and significance evaluation. The report includes all appropriate illustrations and tabular information needed to make a complete and comprehensive presentation of these activities, including the methodologies employed and the personnel involved. A copy of this report will be placed at the EIC at UCR. Any newly recorded sites or sites requiring updated information will be recorded on the appropriate Department of Parks and Recreation (DPR) forms, which will be filed with the EIC.

4.4 Native American Consultation

BFSA requested a review of the Sacred Lands File by the NAHC on November 17, 2014 to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within one mile of the project. The search results received from the NAHC on November 24, 2014 did not indicate that any Native American religious, ritual, or other special activities occurred at this location. In accordance with the recommendations of the NAHC, BFSA contacted all Native American consultants listed in the NAHC response letter on December 2, 2014. As of the date of this report, the only response to the BFSA letters was from the Soboba Band of Luiseño Indians on February 6, 2015. The Soboba Band stated that although the project is outside of their existing reservation, it is within the bounds of Luiseño Tribal Traditional Use Areas. Results of the review are provided in Appendix C and discussed in Section 5.1.

5.0 REPORT OF FINDINGS

5.1 Results of the Institutional Records Searches

A records search was conducted by the EIC at UCR on December 2, 2014, the results of which were reviewed by BFSA. The EIC reported that there are six cultural resources present within a one-mile radius of the project area. None of the six recorded cultural resources were recorded within the project boundaries. The records search also indicated that there have been a total of 17 cultural resource studies conducted within a one-mile radius of the project, two of which involved portions of the project area (McCarthy 1987; White 1993). The 1987 study by McCarthy involved a general inventory of recorded sites completed for the City of Moreno Valley. The 680-acre survey included only a small area of the Moreno Valley Logistics Center property, and this survey did not identify any cultural resources within the subject property. The Perris Valley Storm Drain Channel that passes through the project was surveyed in 1993 by Robert White of Archaeological Associates. White did not identify any sites within the Moreno Valley Logistics Center property. For the current project, the EIC reviewed the following historic sources:

- The National Register of Historic Places Index
- The Office of Historic Preservation, Archaeological Determinations of Eligibility
- The Office of Historic Preservation, Directory of Properties in the Historic Property Data File
- The 15' USGS *Riverside* topographic map (1901 and 1942)
- The 15' USGS *Perris* topographic map (1943)
- The 30' USGS *Elsinore* topographic map (1901)

These sources did not indicate the presence of any cultural resources within the project area. The nearest recorded resources were identified as historic structures, remnants, or isolates associated with farming residences or military housing. The complete records search results are provided in Appendix B.

Table 5.1–1

Cultural Resources Located Within a One-Mile
Radius of the Moreno Valley Logistics Center Project

Site	Description
P-33-005562	Historic glass shards
P-33-007649	Historic World War II military barracks
P-33-011604	Historic well
P-33-011757	Historic residence

Site	Description
P-33-015854	Historic standpipe, well, and brick remnants
RIV-11,291	Historic foundation of a grain mill facility

A request for a Sacred Lands File search was sent to the NAHC on November 17, 2014. The search results received from the NAHC on November 24, 2014 did not indicate that any Native American religious, ritual, or other special activities occurred at this location; however, the absence of positive results does not necessarily indicate the absence of cultural resources. Consequently, a cultural resources survey was conducted for the project area.

Given the valley setting and lack of exposed bedrock outcrops for the project area, predictive modeling would suggest that if prehistoric sites are present within the project area, they will likely be artifact scatters or specialized resource processing loci that would have developed as a result of prehistoric resource extraction practices. In addition, any historic sites are likely to be surface deposits resulting from rural dumping practices.

5.2 Results of the Field Survey

The cultural resources survey took place on November 18, 2014. The survey was directed by Brian F. Smith with assistance from Clarence Hoff. The survey of the property was an intensive reconnaissance consisting of a series of parallel survey transects spaced at approximately five-meter intervals, which covered all areas of the project. The entire property was accessible and approximately 85 percent of the ground surface was visible.

The pedestrian survey indicated that the entirety of the project area had been disturbed by disking and the construction of an aqueduct. Photographs were taken to document project conditions at the time of the survey (Plates 5.2–1 and 5.2–2). The survey did not result in the identification of any cultural resources. No historic or prehistoric resources were observed during the survey. The potential for buried or masked cultural deposits within the project is considered low based upon the lack of identified resources on this property and previous impacts to the property.

Plate 5.2–1: Overview of the project area, facing northwest.

Plate 5.2–2: Overview of the project area, facing east.

6.0 RECOMMENDED MITIGATION

The Phase I cultural resources study of the Moreno Valley Logistics Center Project did not identify any historic or prehistoric sites within the project area. No registered prehistoric or historic resources were recorded within the property boundaries based upon the records search results from the EIC at UCR. The records search indicated that there had been two previous surveys involving portions of the current project area (McCarthy 1987; White 1993). The survey of the property by BFSA did not identify any historic or prehistoric resources.

During the course of the City of Moreno Valley's Native American consultation for the current project, the Pechanga Band of Mission Indians raised concerns about the influx of traffic and vehicles that may increase air pollution, and the cumulative effects this may have on rock art on adjacent boulder outcrops. The fact that the deterioration of open-air prehistoric rock art is accelerated by air pollutants is acknowledged as an inevitable consequence of natural erosions enhanced by man-made pollution (Van Grieken et al. 1998). However, stone weathering itself is not a simple process and cannot be applied simplistically to all circumstances of the weathering of rock (Giesen et al. 2014). The exfoliation of rock surfaces and graffiti are the primary causes of the deterioration of prehistoric rock art. Rocks exposed to the air are affected by diurnal heating and cooling events, the natural chemical properties of soils surrounding the rock, and exposure to wind and/or airborne salts, all of which are major stressors that affect the integrity of the stone surface (Giesen et al. 2014).

Air pollutants and naturally occurring chemicals such as carbon dioxide, sulphur oxides, nitrogen oxides, particular matter, ammonia, ozone, hydrogen fluoride, and hydrogen chloride are known to have deleterious effects on rock. Those pollutants and chemicals that occur in the atmosphere are deposited on the rock surfaces either through dry deposition (the settling of particles) or wet deposition (rain or fog). While dry deposition is dependent upon the air quality in the immediate vicinity of the feature being affected, wet deposition relies upon the chemicals being transferred in cloud droplets, which may originate many miles away. Unfortunately, the current levels of research that have been conducted for the effects of air pollution on rock art within Riverside County provide no gauge for measuring the potential impacts of the current project to rock art. Fortunately, no prehistoric rock art sites, or prehistoric sites in general have been recorded within a mile of the current project Area of Potential Effect (APE). As a result, the effects of any additional pollution generated by the increase in traffic resulting from the current project would not likely be adverse with regards to prehistoric rock art.

The cultural resources study has provided information that forms the basis for the conclusion that the planned development of the Moreno Valley Logistics Center Project will not affect any cultural resources. No resource-specific mitigation measures are recommended as a condition of approval for this project. Mitigation monitoring of the grading of the Moreno Valley Logistics Center Project will not be required due to the absence of identified cultural resources and the very low potential for any buried cultural resources at this location. No

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additional studies or mitigation measures will be recommended as a result of this cultural resources study.

7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

March 4, 2016

Brian F. Smith
Principal Investigator

Date

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APPENDIX A

Qualifications of Key Personnel

Brian F. Smith, MA

Owner, Principal Investigator
Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: bsmith@bfsa-ca.com

Education

Master of Arts, History, University of San Diego, California **1982**

Bachelor of Arts, History and Anthropology, University of San Diego, California **1975**

Experience

Principal Investigator **1977–Present**
Brian F. Smith and Associates, Inc.

Brian F. Smith is the owner and principal historical and archaeological consultant for Brian F. Smith and Associates. In the past 35 years, he has conducted over 2,500 cultural resource studies in California, Arizona, Nevada, Montana, and Texas. These studies include every possible aspect of archaeology from literature searches and large-scale surveys to intensive data recovery excavations. Reports prepared by Brian Smith have been submitted to all facets of local, state, and federal review agencies, including the US Army Crops of Engineers (USACE), the Bureau of Land Management (BLM), Bureau of Reclamation (BR), the Department of Defense (DOD), and Department of Homeland Security. In addition, Mr. Smith has conducted studies for utility companies (Sempra Energy) and state highway departments (CalTrans).

Professional Accomplishments

These selected major professional accomplishments represent research efforts which have added significantly to the body of knowledge concerning the prehistoric lifeways of cultures once present in the southern California area and historic settlement since the late 18th century. Mr. Smith has been principal investigator on the following select projects, except where noted.

Downtown San Diego Mitigation and Monitoring Reporting Programs: Large number of downtown San Diego mitigation and monitoring projects submitted to the Centre City Development Corporation, some of which included Strata (2008), Hotel Indigo (2008), Lofts at 707 10th Avenue Project (2007), Breeza (2007), Bayside at the Embarcadero (2007), Aria (2007), Icon (2007), Vantage Pointe (2007), Aperture (2007), Sapphire Tower (2007), Lofts at 655 Sixth Avenue (2007), Metrowork (2007), The Legend (2006), The Mark (2006), Smart Corner (2006), Lofts at 677 7th Avenue (2005), Aloft on Cortez Hill (2005), Front and Beech Apartments (2003), Bella Via Condominiums (2003), Acqua Vista Residential Tower (2003), Northblock Lofts (2003), Westin Park Place Hotel (2001), Parkloft Apartment Complex (2001), Renaissance Park (2001), and Laurel Bay Apartments (2001).

Archaeology at the Padres Ballpark: Involved the analysis of historic resources within a seven block area of the "East Village" area of San Diego, where occupation spanned a period from the 1870s to the 1940s. Over a period of two years, BFSA recovered over 200,000 artifacts and hundreds of pounds of metal, construction debris, unidentified broken glass, and wood. Collectively, the Ballpark project and the other downtown mitigation and monitoring projects represent the largest historical archaeological program anywhere in the country in the past decade. 2000-2007.

The Navy Broadway Complex: Architectural and historical assessment of over 25 structures that comprise the Naval Supply Depot, many of which have been in use since World War I and were used extensively during World War II. The EIR/EIS which was prepared included National Register evaluations of all structures. The archaeological component of the project involved the excavation of backhoe trenches to search for evidence of the remains of elements of the historic waterfront features that characterized the bay front in the latter half of the 19th century. This study was successful in locating portions of wharves and shanties that existed on the site prior to capping of this area after construction of the sea wall in the early 20th century.

4S Ranch Archaeological and Historical Cultural Resources Study: Data recovery program consisted of the excavation of over 2,000 square meters of archaeological deposits that produced over one million artifacts, primarily prehistoric materials. The archaeological program at 4S Ranch is the largest archaeological study ever undertaken in the San Diego County area and has produced data that has exceeded expectations regarding the resolution of long-standing research questions and regional prehistoric settlement patterns.

Charles H. Brown Site: Attracted international attention to the discovery of evidence of the antiquity of man in North America. Site located in Mission Valley, in the City of San Diego.

Del Mar Man Site: Study of the now famous Early Man Site in Del Mar, California, for the San Diego Science Foundation and the San Diego Museum of Man, under the direction of Dr. Spencer Rogers and Dr. James R. Moriarty.

Old Town State Park Projects: Consulting Historical Archaeologist. Projects completed in the Old Town State Park involved development of individual lots for commercial enterprises. The projects completed in Old Town include Archaeological and Historical Site Assessment for the Great Wall Cafe (1992), Archaeological Study for the Old Town Commercial Project (1991), and Cultural Resources Site Survey at the Old San Diego Inn (1988).

Site W-20, Del Mar, California: A two-year-long investigation of a major prehistoric site in the Del Mar area of the City of San Diego. This research effort documented the earliest practice of religious/ceremonial activities in San Diego County (circa 6,000 years ago), facilitated the projection of major non-material aspects of the La Jolla Complex, and revealed the pattern of civilization at this site over a continuous period of 5,000 years. The report for the investigation included over 600 pages, with nearly 500,000 words of text, illustrations, maps, and photographs which document this major study.

City of San Diego Reclaimed Water Distribution System: A cultural resource study of nearly 400 miles of pipeline in the City and County of San Diego.

Master Environmental Assessment Project, City of Poway: Conducted for the City of Poway to produce a complete inventory of all recorded historic and prehistoric properties within the City. The information was used in conjunction with the City's General Plan Update to produce a map matrix of the City showing areas of high, moderate, and low potential for the presence of cultural resources. The effort also included the development of the City's Cultural Resource Guidelines, which were adopted as City policy.

Draft of the City of Carlsbad Historical and Archaeological Guidelines: Contracted by the City of Carlsbad to produce the draft of the City's historical and archaeological guidelines for use by the Planning Department of the City.

The Midbayfront Project for the City of Chula Vista: Involved a large expanse of undeveloped agricultural land situated between the railroad and San Diego Bay in the northwestern portion of the City. The study included the analysis of some potentially historic features and numerous prehistoric sites.

Cultural resources survey and test of sites within the proposed development of the Audie Murphy Ranch, Riverside County, California: Project Manager/Director of the investigation of 1,113.4 acres and 43 sites, both prehistoric and historic—included project coordination; direction of field crews; evaluation of sites for significance based on County of Riverside and CEQA guidelines; assessment of cupule, pictograph, and rock shelter sites, co-authoring of cultural resources project report. February-September 2002.

Cultural resources evaluation of sites within the proposed development of the Otay Ranch Village 13 Project, San Diego County, California: Project Manager/Director of the investigation of 1,947 acres and 76 sites, both prehistoric and historic—included project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of San Diego and CEQA guidelines; co-authoring of cultural resources project report. May-November 2002.

Cultural resources survey for the Remote Video Surveillance Project, El Centro Sector, Imperial County: Project Manager/Director for a survey of 29 individual sites near the U.S./Mexico Border for proposed video surveillance camera locations associated with the San Diego Border barrier Project—project coordination and budgeting; direction of field crews; site identification and recordation; assessment of potential impacts to cultural resources; meeting and coordinating with U.S. Army Corps of Engineers, U.S. Border Patrol, and other government agencies involved; co-authoring of cultural resources project report. January, February, and July 2002.

Cultural resources survey and test of sites within the proposed development of the Menifee West GPA, Riverside County, California: Project Manager/Director of the investigation of nine sites, both prehistoric and historic—included project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of Riverside and CEQA guidelines; historic research; co-authoring of cultural resources project report. January-March 2002.

Mitigation of a Archaic cultural resource for the Eastlake III Woods Project for the City of Chula Vista, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. September 2001-March 2002.

Cultural resources survey and test of sites within the proposed French Valley Specific Plan/EIR, Riverside County, California: Project Manager/Director of the investigation of two prehistoric and three historic sites—included project coordination and budgeting; survey of project area; Native American consultation; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural resources survey and test of sites within the proposed Lawson Valley Project, San Diego County, California: Project Manager/Director of the investigation of 28 prehistoric and two historic sites—included project coordination; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural resource survey and geotechnical monitoring for the Mohyi Residence Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; field survey; assessment of parcel for potentially buried cultural deposits; monitoring of geotechnichal borings; authoring of cultural resources project report. Brian F. Smith and Associates, San Diego, California. June 2000.

Enhanced cultural resource survey and evaluation for the Prewitt/Schmucker/Cavadias Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; direction of field crews; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. June 2000.

Cultural resources survey and test of sites within the proposed development of the Menifee Ranch, Riverside County, California: Project Manager/Director of the investigation of one prehistoric and five historic sites—included project coordination and budgeting; direction of field crews; feature recordation; historic structure assessments; assessment of sites for significance based on CEQA guidelines; historic research; co-authoring of cultural resources project report. February-June 2000.

Salvage mitigation of a portion of the San Diego Presidio identified during water pipe construction for the City of San Diego, California: Project Archaeologist/Director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. April 2000.

Enhanced cultural resource survey and evaluation for the Tyrian 3 Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced cultural resource survey and evaluation for the Lamont 5 Project, Pacific Beach, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced cultural resource survey and evaluation for the Reiss Residence Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. March-April 2000.

Salvage mitigation of a portion of Site SDM-W-95 (CA-SDI-211) for the Poinsettia Shores Santalina Development Project and Caltrans, Carlsbad, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. December 1999-January 2000.

Survey and testing of two prehistoric cultural resources for the Airway Truck Parking Project, Otay Mesa, California: Project Archaeologist/Director—included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; authoring of cultural resources project report, in prep. December 1999-January 2000.

Cultural resources Phase I and II investigations for the Tin Can Hill Segment of the Immigration and Naturalization Services Triple Fence Project along the International Border, San Diego County, California: Project Manager/Director for a survey and testing of a prehistoric quarry site along the border—NRHP eligibility assessment; project coordination and budgeting; direction of field crews; feature recordation; meeting and coordinating with U.S. Army Corps of Engineers; co-authoring of cultural resources project report. December 1999-January 2000.

Mitigation of a prehistoric cultural resource for the Westview High School Project for the City of San Diego, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. October 1999-January 2000.

Mitigation of a prehistoric cultural resource for the Otay Ranch SPA-One West Project for the City of Chula Vista, California: Project Archaeologist/Director—included direction of field crews; development of data recovery program; management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report, in prep. September 1999-January 2000.

Monitoring of grading for the Herschel Place Project, La Jolla, California: Project Archaeologist/ Monitor—included monitoring of grading activities associated with the development of a single-dwelling parcel. September 1999.

Survey and testing of an historic resource for the Osterkamp Development Project, Valley Center, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program; budget development; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and testing of a prehistoric cultural resource for the Proposed College Boulevard Alignment Project, Carlsbad, California: Project Manager/Director —included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report, in prep. July-August 1999.

Survey and evaluation of cultural resources for the Palomar Christian Conference Center Project, Palomar Mountain, California: Project Archaeologist—included direction of field crews; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and evaluation of cultural resources at the Village 2 High School Site, Otay Ranch, City of Chula Vista, California: Project Manager/Director —management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report. July 1999.

Cultural resources Phase I, II, and III investigations for the Immigration and Naturalization Services Triple Fence Project along the International Border, San Diego County, California: Project Manager/Director for the survey, testing, and mitigation of sites along border—supervision of multiple field crews, NRHP eligibility assessments, Native American consultation, contribution to Environmental Assessment document, lithic and marine shell analysis, authoring of cultural resources project report. August 1997-January 2000.

Phase I, II, and II investigations for the Scripps Poway Parkway East Project, Poway California: Project

Archaeologist/Project Director—included recordation and assessment of multicomponent prehistoric and historic sites; direction of Phase II and III investigations; direction of laboratory analyses including prehistoric and historic collections; curation of collections; data synthesis; coauthorship of final cultural resources report. February 1994; March-September 1994; September-December 1995.

Archaeological evaluation of cultural resources within the proposed corridor for the San Elijo Water Reclamation System Project, San Elijo, California: Project Manager/Director —test excavations; direction of artifact identification and analysis; graphics production; coauthorship of final cultural resources report. December 1994-July 1995.

Evaluation of Cultural Resources for the Environmental Impact Report for the Rose Canyon Trunk Sewer Project, San Diego, California: Project Manager/Director —direction of test excavations; identification and analysis of prehistoric and historic artifact collections; data synthesis; co-authorship of final cultural resources report, San Diego, California. June 1991-March 1992.

Reports/Papers

Author, coauthor, or contributor, to over 2,500 cultural resources management publications, a selection of which are presented below.

2009	Cultural Resource Assessment of the North Ocean Beach Gateway Project City of San Diego #64A-003A; Project #154116.
2009	Archaeological constraints study of the Morgan Valley Wind Assessment Project, Lake County, California.
2008	Results of an archaeological review of the Helen Park Lane 3.1-acre Property (APN 314-561-31), Poway, California.
2008	Archaeological Letter Report for a Phase I Archaeological Assessment of the Valley Park Condominium Project, Ramona, California; APN 282-262-75-00.
2007	Archaeology at the Ballpark. Brian F. Smith and Associates, San Diego, California. Submitted to the Centre City Development Corporation.
2007	Result of an Archaeological Survey for the Villages at Promenade Project (APNs 115-180-007-3,115-180-049-1, 115-180-042-4, 115-180-047-9) in te City of Corona, Riverside County.
2007	Monitoring Results for the Capping of Site CA-SDI-6038/SDM-W-5517 within the Katzer Jamul Center Project; P00-017.
2006	Archaeological Assessment for The Johnson Project (APN 322-011-10), Poway, California.
2005	Results of archaeological monitoring at the El Camino Del Teatro Accelerated Sewer Replacement Project (Bid No. K041364; WO # 177741; CIP # 46-610.6.
2005	Results of archaeological monitoring at the Baltazar Draper Avenue Project (Project No. 15857; APN: 351-040-09).
2004	TM 5325 ER #03-14-043 Cultural Resources.

Jennifer R. Kraft, BA

Project Archaeologist, Faunal Analyst
Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 484-0915 • Fax: (858) 679-9896 • E-Mail: jenni.kraft@gmail.com

Education

Master of Science, Cultural Resource Management Archaeology — **In Progress**
St. Cloud State University, St. Cloud, Minnesota — **2015**

Bachelor of Arts, Anthropology — **2004**
University of California, Santa Cruz

Specialized Education/Training

Archaeological Field School — **2014**

Pimu Catalina Island Archaeology Project

Research Interests

California Coastal Archaeology

Medical Anthropology

Human Behavioral Ecology

Zooarchaeology

Historical Archaeology

Taphonomic Studies

Experience

Project Archaeologist, Faunal Analyst — **November 2006–Present**
Brian F. Smith and Associates, Inc.

Duties include report writing, editing and production; construction monitoring management; coordination of field survey and excavation crews; laboratory and office management. Currently conducts faunal, prehistoric, and historic laboratory analysis and has conducted such analysis for over 500 projects over the past 7 years. Knowledgeable in the most recent archaeological and paleontological monitoring requirements for all Southern California lead agencies, as well as Native American monitoring requirements.

UC Santa Cruz Monterey Bay Archaeology Archives Supervisor **December 2003–March 2004**
Santa Cruz, California

Supervising intern for archaeological collections housed at UC Santa Cruz. Supervised undergraduate interns and maintained curated archaeological materials recovered from the greater Monterey Bay region.

Faunal Analyst, Research Assistant **June 2003–December 2003**
University of California, Santa Cruz

Intern assisting in laboratory analysis and cataloging for faunal remains collected from CA-MNT-234. Analysis included detailed zoological identification and taphonomic analysis of prehistoric marine and terrestrial mammals, birds, and fish inhabiting the greater Monterey Bay region.

Archaeological Technician, Office Manager **January 2000-December 2001**
Archaeological Resource Management

Conducted construction monitoring, field survey, excavation, report editing, report production, monitoring coordination and office management.

Certifications

City of San Diego Certified Archaeological and Paleontological Monitor

40-Hour Hazardous Waste/Emergency Response OSHA 29 CFR 1910.120 (e)

Technical Reports

Kennedy, George L., Todd A. Wirths and Jennifer R. **Kraft**
2013 *Negative Paleontological, Archaeological, and Native American Monitoring and Mitigation Report, Tri-City Christian High School, 302 North Emerald Drive, Vista, San Diego County, California (APN 166-411-75).* Prepared for Tri-City Christian School. Report on file at the California South Coastal Information Center.

Kraft, Jennifer R.
2012 *Cultural Resources Monitoring Report for the Pottery Court Project (TPM 36193) City of Lake Elsinore*. Prepared for BRIDGE Housing Corporation. Report on file at the California Eastern Information Center.

Kraft, Jennifer R. and Brian F. Smith
2013 *Archaeological Monitoring Report for the Webster Residence, La Jolla, California.* Prepared for KW Building and Development. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Alvarado Trunk Sewer Phase III Project, City of San Diego.* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Alvarado Trunk Sewer Phase IIIA Project, City of San Diego.* Prepared for TC Construction, Inc. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Coral Mountain Apartments Project, City of La Quinta, California*. Prepared for Coral Mountain Apartments, LP. Report on file at the California Eastern Information Center.

2013 *Cultural Resource Monitoring Report for the F Street Emergency Water Main Replacement Project, City of San Diego*. Prepared for Orion Construction. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Harbor Drive Trunk Sewer Project, City of San Diego*. Prepared for Burtech Pipeline. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Hyde Residence.* Prepared for Dr. Paul Hyde. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Juniper Street Sidewalk Project, City of San Diego*. Prepared for Palm Engineering Construction Company, Inc. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Kates Residence Project.* Prepared for Brad and Shannon Kates. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Pump Station 84 Upgrade and Pump Station 62 Abandonment Project.* Prepared for TC Construction, Inc. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Sewer and Water Group 781 Project*. Prepared for TC Construction, Inc. Report on file at the California South Coastal Information Center.

2013 *Cultural Resource Monitoring Report for the Woolf Residence Project*. Prepared for A.J. Woolf Family Trust. Report on file at the California South Coastal Information Center.

2013 *Cultural Resources Study of the Fairway Drive Project.* Prepared for CV Communities, LLC. Report on file at the California Eastern Information Center.

2013 *Cultural Resource Monitoring Report for the Old Town Community Church Project, 2444 Congress Street, San Diego, California 92110.* Prepared for Soltek Pacific, Inc. Report on file at the California South Coastal Information Center.

2013 *Historic Structure Assessment, 161 West San Ysidro Boulevard, San Diego, California (APN 666-030-09)*. Prepared for Blue Key Realty. Report on file at the California South Coastal Information Center.

2013 *Historic Structure Assessment, 2603 Dove Street, San Diego, California (APN) 452-674-32).* Prepared for Barzal and Scotti Real Estate Corporation. Report on file at the California South Coastal Information Center.

2013 *Historic Structure Assessment at the Western Christian School, 3105 Padua Avenue, Claremont, California 91711 (APN 8671-005-053).* Prepared for Western Christian School. Report on file at the City of Claremont.

2013 *Mitigation Monitoring Report for the 7th and F Street Parking Project, City of San Diego*. Prepared for DZI Construction. Report on file at the California South Coastal Information Center.

2013 *Mitigation Monitoring Report for the 1919 Spindrift Drive Project*. Prepared for V.J. and Uma Joshi. Report on file at the California South Coastal Information Center.

2013 *Mitigation Monitoring Report for the Knight Residence Project, 7970 Roseland Avenue, La Jolla, California*. Prepared for Mr. Dennis Knight. Report on file at the California South Coastal Information Center.

2013 *Mitigation Monitoring Report for the Sewer Group 799-750 Project.* Prepared for Burtech Pipeline. Report on file at the California South Coastal Information Center.

2013 *Negative Cultural Resource Monitoring Report for the Citywide Pump Station Upgrades Group II Project.* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at the California South Coastal Information Center.

2013 *Negative Cultural Resource Monitoring Report for the Citywide Pump Station Upgrades Group III Project, City of San Diego*. Prepared for TC Construction, Inc. Report on file at the California South Coastal Information Center.

2013 *Phase I Cultural Resource Study for the 3364 Randy Lane Project, Chula Vista, California*. Prepared for H&M Construction. Report on file at the California South Coastal Information Center.

2013 *Phase I Cultural Resources Survey for the Ecos Diamond Valley Project, Community of Winchester, County of Riverside.* Prepared for Ecos Energy, LLC. Report on file at the California Eastern Information Center.

2013 *Phase I Cultural Resources Survey for the Ecos Nuevo Project, Community of Nuevo, County of Riverside*. Prepared for Ecos Energy, LLC. Report on file at the California Eastern Information Center.

2012 *Cultural Resource Monitoring Report for the Sewer and Water Group 754 Project, City of San Diego (Project No. 177711/187301)*. Prepared for S.C. Valley Engineering, Inc. Report on file at the California South Coastal Information Center

2012 *Cultural Resource Monitoring Report for the Sewer Group 714 Project.* Prepared for Burtech Pipeline. Report on file at the California South Coastal Information Center.

2012 *Cultural Resource Monitoring Report for the Sewer and Water Group 780 Project*. Prepared for Burtech Pipeline. Report on file at the California South Coastal Information Center.

2012 *Mitigation Monitoring of the 47th Street Warehouse Project, San Diego, California.* Prepared for Aardema Development. Report on file at the California South Coastal Information Center.

2012 *Mitigation Monitoring Report for the Florida Street Apartments Project (The Kalos Project).* Prepared for Florida Street Housing Associates. Report on file at the California South Coastal Information Center.

2012 *Mitigation Monitoring Report for the Pacific Highway Trunk Sewer Project*. Prepared for HPS Mechanical. Report on file at the California South Coastal Information Center.

2011 *Phase I Cultural Resource Study for the Wesley Palms Retirement Community Project, San Diego, California.* Prepared for Front Porch Development Company. Report on file at the California South Coastal Information Center.

Kraft, Jennifer R. and Tracy A. Stropes

2013 *Phase I Cultural Resources Survey for the Orange Street Project.* Prepared for Mike Lesle. Report on file at the California Eastern Information Center.

2012 *Mitigation Monitoring Report for the 13th & Market Project*. Prepared for The Hanover Company. Report on file at the California South Coastal Information Center.

2012 *Mitigation Monitoring Report for the T-Mobile West, LLC Telecommunications Candidate SD02867C (Presidio Park).* Prepared for Michael Brandmann Associates. Report on file at the California South Coastal Information Center.

Kraft, Jennifer R., Tracy A. Stropes, and Brian F. Smith

2013 *Mitigation Monitoring Report for the Ariel Suites Project*. Prepared for Ariel Suites, LP. Report on file at the California South Coastal Information Center.

Smith, Brian F., Claire M. Allen, Mary M. Lenich, and Jennifer R. **Kraft**

2013 *Phase I and Phase II Cultural Resource Assessment for the Citrus Heights II Project, TTM 36475, Riverside County, California*. Prepared for CV Communities, LLC. Report on file at the California Eastern Information Center.

Smith, Brian F. and Jennifer R. **Kraft**

2013 *Cultural Resources Study for the Los Peñasquitos Adobe Drainage Project.* Prepared for HELIX Environmental Planning, Inc. Report on file at the California South Coastal Information Center.

2013 *Cultural Resources Study for the Rancho Peñasquitos Adobe Drainage MND Project, San Diego County, California (CSD-04.03).* Prepared for HELIX Environmental Planning, Inc. Report on file at the California South Coastal Information Center.

Contributing Author /Analyst

2011 Faunal Analysis and Report Section for *A Cultural Resource Data Recovery Program for SDI-4606 Locus B for St. Gabriel's Catholic Church, Poway, California* by Brian F. Smith and Tracy A. Stropes. Prepared for St. Gabriel's Catholic Church. Report on file at the California South Coastal Information Center.

2010 Faunal Analysis and Report Section for *An Archaeological Study for the 1912 Spindrift Drive Project, La Jolla, California* by Brian F. Smith and Tracy A. Stropes. Prepared for Island Architects. Report on file at the California South Coastal Information Center.

2010 Faunal Analysis and Report Section for *Results of a Cultural Mitigation and Monitoring Program for Robertson Ranch: Archaic and Late Prehistoric Camps near the Agua Hedionda Lagoon* by Brian F. Smith. Prepared for McMillan Land Development. Report on file at the California South Coastal Information Center.

2009 Faunal Identification for "An Earlier Extirpation of Fur Seals in the Monterey Bay Region: Recent Findings and Social Implications" by Diane Gifford-Gonzalez and Charlotte K. Sunseri. *Proceedings of the Society for California Archaeology, Vol. 21, 2009*

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Archaeologist, Field Supervisor, Paleontological Monitor

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Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: budhoff9@gmail.com

Education

Bachelor of Arts, History, University of California, Los Angeles **1996**

Specialized Education/Training

City of San Diego Certified Archaeological and Paleontological Monitor

40-Hour Hazardous Waste/Emergency Response OSHA 29 CFR 1910.120 (e)

Experience

Archaeologist, Field Supervisor, Paleontological Monitor **April 1996–Present**
Brian F. Smith and Associates, Inc. **Poway, California**

Supervising, planning, and participating in archaeological surveys, testing, and data recovery programs, laboratory analysis of prehistoric and historic artifacts, and archaeological/paleontological monitoring of utility trenching projects, building excavations, and mass grading projects.

Project Experience

Sewer and Water Group 719 Project. San Diego, California. Served as archaeological and paleontological monitor, and assisted in laboratory fossil preparation under the supervision of Dr. George Kennedy, project paleontologist. Bay Point Formation.

La Jolla Cove Wall Replacement Project. La Jolla, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Bay Point Formation (marine terraces), Point Loma Formation. Project ongoing (on hold during summer months).

Audie Murphy Ranch. Riverside County. Served as archaeological and paleontological monitor for the project area under Larry Pierson, project archaeologist and Dr. George Kennedy, project paleontologist.

Charities 9th and F Street Apartments Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Bay Point Formation, unnamed middle Pleistocene formation.

Broadway 655 Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of George Kennedy, project paleontologist.

Diamond Terrace Apartments Project. Downtown San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Discovered and collected marine invertebrate fossil specimens from unnamed formation. Bay Point Formation, unnamed middle Pleistocene formation.

Riverside County Line Channel Project. Northwestern Riverside County, California. Served as archaeological and paleontological monitor for the project area under the supervision of Larry Pierson, project archaeologist and Dr. George Kennedy, project paleontologist.

Seacliff Residence Project. La Jolla, California. Served as archaeological monitor, under the supervision of Dr. George Kennedy, project paleontologist. Collected cretaceous plant fossils. Bay Point Formation, Point Loma Formation.

Pinnacle Museum Tower Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Bay Point Formation; unnamed middle Pleistocene formation. Discovered, recorded, and collected marine fossils, including specimens from the middle Pleistocene "upper Broadway fauna."

Sewer and Water Group 651 Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Bay Point Formation, unnamed middle Pleistocene formation, San Diego Formation.

Sewer and Water Group 707 Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Lindavista, San Diego, and Mission Valley Formations.

Sewer and Water Group 653 Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Bay Point Formation, unnamed middle Pleistocene formation, San Diego Formation.

Windansea Project. La Jolla, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Point Loma Formation.

Mid-City Pipeline Project. East San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Lindavista Formation, San Diego Formation, Mission Valley Formation.

Laurel Bay Apartments Project. City of San Diego, California. Served as archaeological and paleontological monitoring the supervision of Dr. George Kennedy, project paleontologist. Vertebrate and invertebrate marine fossil specimens recovered from the San Diego Formation. Lindavista Formation.

Home Avenue Trunk Sewer III Project. East San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Lindavista Formation, San Diego Formation, Mission Valley Formation.

Bayview Reservoir Project. San Diego, California. Served as paleontological field monitor under the supervision of Dr. George Kennedy, project paleontologist. Discovered and collected a new genus and species of fossil whale from the San Diego Formation.

Westview High School. San Diego, California. Served as paleontological monitor and paleontological laboratory technician under the supervision of Dr. George Kennedy, project paleontologist. Monitored exposures of the Del Mar Formation, Torrey Sandstone, Scripps Formation, and Friars Formation. Assisted with the recording and recovery of marine invertebrate, terrestrial vertebrate faunas, and associated paleoflora. Discovered and collected the only known Eocene water bug ("toe biter"). Concurrent experience as paleontological laboratory technician, assisting in the preparation, processing, curation, and cataloging of fossil specimens.

Deerfield Water Pump and Transmission Pipelines Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Friars Formation.

Sewer and Water Group 637 Project. San Diego, California. Served as archaeological and paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Bay Point Formation [older terraces and unnamed middle Pleistocene formation], Lindavista Formation, Cabrillo Formation.

Congregation Beth Israel. San Diego, California. Served as paleontological monitor under the supervision of Dr. George Kennedy, project paleontologist. Collected fossil specimens of Eocene estuarine invertebrates and aquatic and terrestrial plants. Lindavista Formation, Scripps Formation.

4S Ranch Project. San Diego, California. Served as archaeological and paleontological field monitor, as well as paleontological laboratory technician under the supervision of Dr. George Kennedy, project paleontologist. Recorded and collected fossil marine invertebrates, terrestrial and aquatic reptiles, terrestrial mammals, and paleobotanical materials. Further duties included laboratory processing of fossil samples, preparation and curation (labeling, and cataloging) of specimens recovered from monitoring. Laboratory duties served concurrently with active project monitoring. "Mission Valley Formation" and "Stadium Conglomerate" [upper member of Friars Formation], Friars Formation, lower member.

Selected Technical Reports

Hoff, Clarence L., Tracy A. Stropes, and Brian F. Smith

2012 Cultural Resource Monitoring Report for the Sewer Group 753 Project, City of San Diego, Project No. 27526. Submitted to the City of San Diego Development Services Department. Report on file at the South Coastal Information Center.

2011 Mitigation Monitoring Report for the 1887 Viking Way Project. Prepared for Jerry Pikolysky. Submitted to City of San Diego Development Services Department. Report on file at the South Coastal Information Center.

Smith, Brian F., Clarence L. **Hoff**, and Sara Clowery-Moreno

2009 Cultural Resource Study of Moody Creek Farms, San Diego County, California (MUP Modification 79-134-07; KIVA No. 09-0107476; ER79-02-208B), APNs: 127-480-19, -66 to -69 and 127-490-47 to -48. Prepared for Moody Creek Farms, LLC and EMW Investments, LLC. Submitted to the County of San Diego Department of Planning and Land Use. Report on file at the South Coastal Information Center.

Smith, Brian F., Tracy A. Stropes, and Clarence L. **Hoff**

2015 A Phase II Cultural Resource Assessment for the Munro Valley Solar Project, Inyo County, California. Prepared for Ecos Energy, LLC. Submitted to the County of Inyo. Report on file at the Eastern Information Center.

Clowery-Moreno, Sara and Clarence L. **Hoff**

2008 Cultural Resource Assessment of SDI-4606 for St. Gabriel's Catholic Church, Poway, California. Prepared for Saint Gabriel Church. Submitted to the City of Poway Planning Department. Report on file at the South Coastal Information Center.

Hoff, Clarence L. and Brian F. Smith

2014 Phase I Cultural Resources Survey for the Sedrak Fairfield Inn Project. Prepared for Fayez Sedrak. Submitted to the Riverside County Planning Department. Report on file at the Eastern Information Center.

2001 An Archaeological Survey and Evaluation of a Cultural Resource for the Johnson Lot Split, TPM 00-07, Poway, California. Prepared for Howard Johnson. Submitted to the City of Poway Planning Department. Report on file at the California South Coastal Information Center.

Smith, Brian F. and Clarence L. **Hoff**

2014 Phase I Archaeological Survey for the Via Del Mar Project. Prepared for TJL Idea Cultivation. Submitted to the City of San Diego Development Services Department. Report on file at the South Coastal Information Center.

2012 A Phase I Cultural Resource Study for the Roberts Residence at 9438 La Jolla Farms Road, La Jolla, California. Prepared for Diane B. Roberts. Submitted to the City of San Diego Development Services Department. Report on file at the South Coastal Information Center.

2011 A Phase I Cultural Resource Study for the Sauvage Residence Project, La Jolla, California. Prepared for Alan Sauvage. Submitted to the City of San Diego Development Services Department. Report on file at the South Coastal Information Center.

2011 A Cultural Resources Survey Update and Evaluation for the Robertson Ranch West Project and an Evaluation of National Register Eligibility of Archaeological Sites for Section 106 Review (NHPA). Prepared for Shapell Industries. Submitted to the U.S. Army Corps of Engineers.

Mary M. Lenich, BA

Archaeologist

Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: marylenich@hotmail.com

Education

Bachelor of Arts, Anthropology, St. Cloud State University, Minnesota **2011**

Specialized Education/Training

Archaeological summer field school, St. Cloud University, Shoemaker Site, five-weeks, 2010

Experience

Archaeologist **December 2012–Present**
Brian F. Smith and Associates, Inc. **Poway, California**

Assist with Phase I excavations of prehistoric shovel test units, operate a large-scale wet screen, manage daily paperwork, sort recovery in the laboratory, and have gained some experience with monitoring construction sites.

Archaeological Technician I **August 2012–October 2012**
Aecom **Los Angeles, California**

Researched historical artifacts, data entry, washed/organized historical artifacts, completed some desert surveys utilizing a Tremble GPS, and filled out proper paperwork pertaining to any discoveries.

Crew Chief **August 2011–July 2012**
Illinois State Archaeological Society **Wood River, Illinois**

Assisted with Phase III excavations of prehistoric and occasional historic features in East St. Lois, Illinois by methods of shovel and trowel, created profiles and profile maps of features, planned mapping features, took floats, filled out proper paperwork, cleaned/labeled found artifacts, scribed features/took photographs of features/artifacts, utilized Total Station, and read Munsell color charts.

Technical Reports

Lenich, Mary M. and Brian F. Smith

2015 Cultural Resources Study for the Lilac Plaza Project, Valley Center, San Diego County, California (PDS2013-MPA-13-018). Prepared for JG Consulting & Engineering. Submitted to the County of San Diego Planning and Development Services Department. Report on file at the South Coastal Information Center.

2015 Phase I Cultural Resources Survey for the Moreno Valley Logistics Center Project, City of Moreno Valley, County of Riverside. Prepared for T&B Planning, Inc. Submitted to the City of Moreno Valley. Report on file at the Eastern Information Center.

2014 Cultural Resource Monitoring Report for the Cesar Chavez Community College Parking Structure Project. Prepared for San Diego Community College District. Submitted to the City of San Diego Development Services Department. Report on file at the South Coastal Information Center.

2014 Phase I Archaeological Assessment for the TPM 36660 Project, County of Riverside. Prepared for Brian Smith Development. Submitted to the Riverside County Planning Department. Report on file at the Eastern Information Center.

Lenich, Mary M., Tracy A. Stropes, and Brian F. Smith

2014 An Extended Phase I Cultural Resource Assessment for the Belvedere-Webster Project, City of Poway, California (APN 323-010-26-00). Prepared for Webster Realty Group. Submitted to the City of Poway Development Services Department. Report on file at the South Coastal Information Center.

Smith, Brian F., Claire M. Allen, Mary M. **Lenich,** and Jennifer R. Kraft

2013 A Phase I and Phase II Cultural Resource Assessment for the Citrus Heights II Project, TTM 36475, Riverside County, California. Prepared for CV Communities, LLC. Submitted to the County of Riverside Planning Department. Report on file at the California Eastern Information Center.

APPENDIX B

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX C

NAHC Sacred Lands File Search Results

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

November 17 2014

For: Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, California 95814

From: Tracy A Stropes, M.A., RPA
Brian F. Smith and Associates
14010 Poway Rd. Suite A
Poway, CA 92064

Re: Request for a Sacred Lands File records search for the Moreno Valley Logistics Center Project Riverside County, California.

I am writing to request a record search of the Sacred Lands File and a list of appropriate Native American contacts for the Moreno Valley Logistics Center Project. The location of this project is within the County of Riverside, California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. The project location may be found in Section 30 of the USGS 7.5-minute *Sunnymead*, California topographic map, Townships 3 south, Range 3 west. A copy of the project map, with the project area and one-mile search radius buffer depicted thereon, has been included for your records.

Sincerely,

Tracy A. Stropes

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
Phone: 858-484-0915
Email: tstropes@bfsa-ca.com

Attachments:
USGS 7.5 minute *Sunnymead,* California topographic map with project area delineated.

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION

915 Capitol Mall, RM 364   Sacramento, CA 95814   (916) 653-4082
(916) 657-5390 – Fax
nahc@pacbell.net

Information Below is Required for a Sacred Lands File Search

Project: Moreno Valley Logistics Center Project

County: Riverside

USGS Quadrangle Name: *Sunnymead*

Township: 3S   Range: 3W Section 30

Company/Firm/Agency: Brian F. Smith & Associates

Contact Person: Tracy A. Stropes, RPA

Street Address: 14010 Poway Road, Suite A

City: Poway   Zip: 92064

Phone: 858-484-0915

Fax: 858-679-9896

Email: tstropes@bfsa-ca.com

Project Description:

The project is a Phase I cultural resource survey project for the Moreno Valley Logistics Center Project in Riverside County California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. The project location may be found in Section 30 of the USGS 7.5-minute *Sunnymead*, California topographic map, Townships 3 south, Range 3 west. A copy of the project map, with the project area and one-mile search radius buffer depicted thereon, has been included for your records.

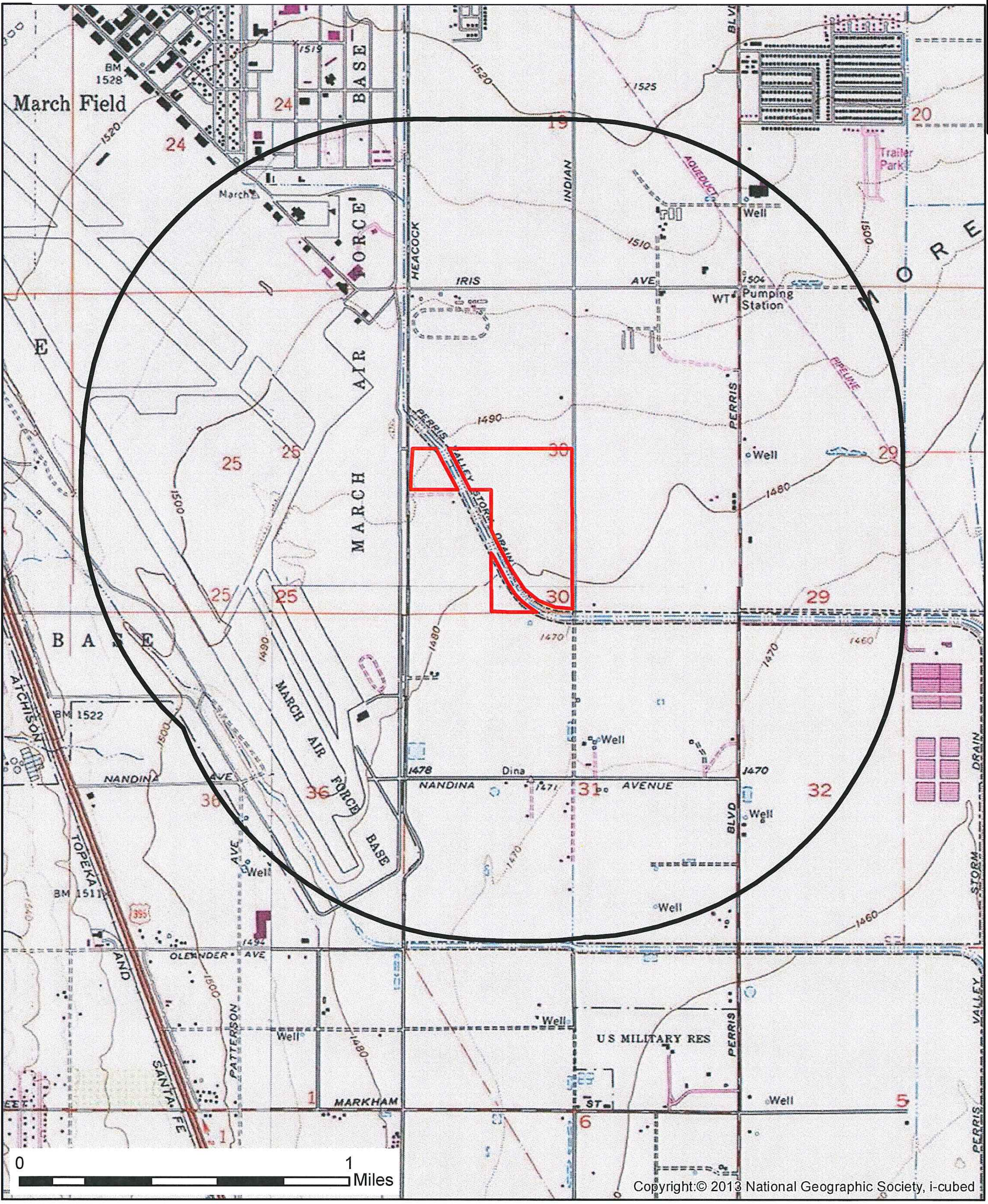

Record Search Location Map
The Moreno Valley Logistics Center Project
USGS Sunnymead, Perris, Riverside East, and Steele Peak
7.5-minute Quadrangles

Legend

▭ Buffer
▭ APE

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

November 24, 2014

Tracy A. Stropes
Brian F. Smith and Associates, Inc.
14010 Poway Road, Suite A
Poway, CA 92064

Sent by Fax: (858) 679-9896
Number of Pages: 3

Re: The Moreno Valley Logistics Center Project, Riverside County.

Dear Ms. Stropes,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

Native American Contacts
Riverside County
November 21, 2014

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Ramona Band of Mission Indians
John Gomez, Environmental Coordinator
P.O. Box 391670 Cahuilla
Anza , CA 92539
Jgomez@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Soboba Band of Mission Indians
Rosemary Morillo, Chairperson; Attn: Carrie Garcia
P.O. Box 487 Luiseno
San Jacinto , CA 92581
carrieg@soboba-nsn.gov
(951) 654-2765
(951) 654-4198 Fax

Santa Rosa Band of Mission Indians
Terry Hughes, Tribal Administrator
P.O. Box 609 Cahuilla
Hemet , CA 92546
tkentucky@aol.com
(951) 658-5311
(951) 658-6733 Fax

Morongo Band of Mission Indians
Denisa Torres, Cultural Resources Manager
12700 Pumarra Road Cahuilla
Banning , CA 92220 Serrano
dtorres@morongo-nsn.gov
(951) 572-6004 Fax

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad Cahuilla
Banning , CA 92220 Serrano
(951) 849-8807
(951) 755-5200
(951) 922-8146 Fax

Ramona Band of Cahuilla Indians
Manuel Hamilton, Vice Chairperson
P.O. Box 391670 Cahuilla
Anza , CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Cahuilla Band of Indians
Luther Salgado, Chairperson
P.O. Box 391760 Cahuilla
Anza , CA 92539
Chairman@cahuilla.net
(760) 763-5549
(760) 763-2631Tribal EPA

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed Moreno Valley Logistics Center Project, Riverside County.

Native American Contacts
Riverside County
November 21, 2014

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning , CA 92220 Cahuilla
siva@dishmail.net
(951) 849-4676

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Luiseno
San Jacinto , CA 92581
jontiveros@soboba-nsn.gov
(951) 663-5279
(951) 654-5544, ext 4137
(951) 654-4198 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting locative Americans with regard to cultural resources for the proposed Moreno Valley Logistics Center Project, Riverside County.

Brian F. Smith and Associates, Inc.

Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

Joseph Hamilton
Chairman
Ramona Band of Cahuilla Mission Indians
P.O. Box 391670
Anza, California 92539

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Hamilton:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

The project is in Moreno Valley, within Riverside County, California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). Please find enclosed sections of the USGS *Sunnymead* Quadrangle map on which the project is delineated.

Although according to the Sacred Lands File no *known* resources are present within the Moreno Valley Logistics Center Project property, the Native American Heritage Commission requested that we consult with you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. If you do have information to provide regarding any resources on or near the project, please contact Brian Smith or myself at (858) 484-0915, or contact the City of Moreno Valley directly. We would like to extend our thanks for your response regarding this issue.

Sincerely,

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

14010 Poway Road, Suite A, Poway, CA 92064; Phone (858) 679-8218 or (951) 681-9950; Fax (858) 679-9896; www.bfsa-ca.com
Business Office: 14678 Ibex Court, San Diego, CA 92129; Phone (858) 484-0915; Fax (858) 484-0988

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

Rosemary Morillo, Chairperson
c/o Carrie Garcia
Soboba Band of Mission Indians
P.O. Box 487
San Jacinto, California 92581

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Ms. Morillo:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

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Sincerely,

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Senior Project Archaeologist
tstropes@bfsa-ca.com

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Business Office: 14678 Ibex Court, San Diego, CA 92129; Phone (858) 484-0915; Fax (858) 484-0988

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

Denisa Torres
Cultural Resources Manager
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, California 92220

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Ms. Torres:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

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Although according to the Sacred Lands File no *known* resources are present within the Moreno Valley Logistics Center Project property, the Native American Heritage Commission requested that we consult with you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. If you do have information to provide regarding any resources on or near the project, please contact Brian Smith or myself at (858) 484-0915, or contact the City of Moreno Valley directly. We would like to extend our thanks for your response regarding this issue.

Sincerely,

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

Brian F. Smith and Associates, Inc.

Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

Manuel Hamilton
Vice Chairperson
Ramona Band of Cahuilla Indians
P.O. Box 391670
Anza, California 92539

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Hamilton:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

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Sincerely,

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

14010 Poway Road, Suite A, Poway, CA 92064; Phone (858) 679-8218 or (951) 681-9950; Fax (858) 679-9896; www.bfsa-ca.com
Business Office: 14678 Ibex Court, San Diego, CA 92129; Phone (858) 484-0915; Fax (858) 484-0988

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

John Gomez
Environmental Coordinator
Ramona Band of Mission Indians
P.O. Box 391670
Anza, California 92539

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Gomez:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

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Sincerely,

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

Terry Hughes
Tribal Administrator
Santa Rosa Band of Mission Indians
P.O. Box 609
Hemet, California 92546

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Hughes:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

The project is in Moreno Valley, within Riverside County, California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). Please find enclosed sections of the USGS *Sunnymead* Quadrangle map on which the project is delineated.

Although according to the Sacred Lands File no *known* resources are present within the Moreno Valley Logistics Center Project property, the Native American Heritage Commission requested that we consult with you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. If you do have information to provide regarding any resources on or near the project, please contact Brian Smith or myself at (858) 484-0915, or contact the City of Moreno Valley directly. We would like to extend our thanks for your response regarding this issue.

Sincerely,

Tracy A. Stropes

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

14010 Poway Road, Suite A, Poway, CA 92064; Phone (858) 679-8218 or (951) 681-9950; Fax (858) 679-9896; www.bfsa-ca.com
Business Office: 14678 Ibex Court, San Diego, CA 92129; Phone (858) 484-0915; Fax (858) 484-0988

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

Robert Martin
Chairperson
Morongo Band of Mission Indians
12700 Pumarra Road
Banning, California 92220

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Martin:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

The project is in Moreno Valley, within Riverside County, California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). Please find enclosed sections of the USGS *Sunnymead* Quadrangle map on which the project is delineated.

Although according to the Sacred Lands File no *known* resources are present within the Moreno Valley Logistics Center Project property, the Native American Heritage Commission requested that we consult with you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. If you do have information to provide regarding any resources on or near the project, please contact Brian Smith or myself at (858) 484-0915, or contact the City of Moreno Valley directly. We would like to extend our thanks for your response regarding this issue.

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Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

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Brian F. Smith and Associates, Inc.
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December 2, 2014

Luther Salgado
Chairperson
Cahuilla Band of Indians
P.O. Box 391760
Anza, California 92539

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Salgado:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

The project is in Moreno Valley, within Riverside County, California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). Please find enclosed sections of the USGS *Sunnymead* Quadrangle map on which the project is delineated.

Although according to the Sacred Lands File no *known* resources are present within the Moreno Valley Logistics Center Project property, the Native American Heritage Commission requested that we consult with you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. If you do have information to provide regarding any resources on or near the project, please contact Brian Smith or myself at (858) 484-0915, or contact the City of Moreno Valley directly. We would like to extend our thanks for your response regarding this issue.

Sincerely,

Tracy A. Stropes

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

December 2, 2014

Ernest H. Siva
Tribal Elder
Morongo Band of Mission Indians
9570 Mias Canyon Road
Banning, California 92220

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Siva:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

The project is in Moreno Valley, within Riverside County, California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). Please find enclosed sections of the USGS *Sunnymead* Quadrangle map on which the project is delineated.

Although according to the Sacred Lands File no *known* resources are present within the Moreno Valley Logistics Center Project property, the Native American Heritage Commission requested that we consult with you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. If you do have information to provide regarding any resources on or near the project, please contact Brian Smith or myself at (858) 484-0915, or contact the City of Moreno Valley directly. We would like to extend our thanks for your response regarding this issue.

Sincerely,

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

14010 Poway Road, Suite A, Poway, CA 92064; Phone (858) 679-8218 or (951) 681-9950; Fax (858) 679-9896; www.bfsa-ca.com
Business Office: 14678 Ibex Court, San Diego, CA 92129; Phone (858) 484-0915; Fax (858) 484-0988

Brian F. Smith and Associates, Inc.
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December 2, 2014

Joseph Ontiveros
Cultural Resource Department
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, California 92581

Subject: Information regarding Native American cultural resources on or near the Moreno Valley Logistics Center Project, Moreno Valley, Riverside County, California

Dear Mr. Ontiveros:

This inquiry is requesting information you may have regarding the existence of Native American cultural resources on or near the Moreno Valley Logistics Center Project. The information you provide will be used to assess areas of potential adverse impact within the proposed project's Area of Potential Effect (APE). Any information you might provide will be kept confidential and will not be divulged to the public.

The project is in Moreno Valley, within Riverside County, California. The southwest corner of the project area can be found near the intersection of Heacock Street and Cardinal Avenue. Specifically, this project is located within Section 30 of the USGS 7.5-minute *Sunnymead, California* topographic quadrangle (Township 3 South, Range 3 West). Please find enclosed sections of the USGS *Sunnymead* Quadrangle map on which the project is delineated.

Although according to the Sacred Lands File no *known* resources are present within the Moreno Valley Logistics Center Project property, the Native American Heritage Commission requested that we consult with you directly regarding the potential for the presence of Native American cultural resources that may be impacted by this project. If you do have information to provide regarding any resources on or near the project, please contact Brian Smith or myself at (858) 484-0915, or contact the City of Moreno Valley directly. We would like to extend our thanks for your response regarding this issue.

Sincerely,

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
tstropes@bfsa-ca.com

Attachment:
USGS 7.5-minute *Sunnymead, California* topographic map with project area delineated

SOBOBA BAND OF LUISEÑO INDIANS
EST. JUNE 19, 1883

February 6, 2015

Attn: Tracy A. Stropes, M.A., RPA,
Senior Project Archaeologist
Brian F. Smith & Associates
14010 Poway Road, Suite A
Poway, California 92064

Re: Moreno Valley Logistics Center Project
Located on the southwest corner of the intersection of Heacock Street and Cardinal Avenue, City of Moreno Valley, Riverside County

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Luiseño Tribal Traditional Use Areas.

Soboba Band of Luiseño Indians is requesting the following:

1. To initiate a consultation with the Project Developer and Land owner.

2. Soboba Band of Luiseño Indians continues to act as a consulting tribal entity for this project, including the transfer of information to the Soboba Band of Luiseño Indians regarding the progress of this project should be done as soon as new developments occur.

3. Working in and around traditional use areas intensifies the possibility of encountering cultural resources during the construction/excavation phase. For this reason the Soboba Band of Luiseño Indians requests that Native American Monitor(s) from the Soboba Band of Luiseño Indians Cultural Resource Department to be present during any ground disturbing proceedings. Including surveys and archaeological testing.

4. Request that proper procedures be taken and requests of the tribe be honored (Please see the attachment)

Sincerely,

Joseph Ontiveros
Director of Cultural Resources
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Cultural Items (Artifacts). Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer should agree to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. When appropriate and agreed upon in advance, the Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

The Developer should waive any and all claims to ownership of Native American ceremonial and cultural artifacts that may be found on the Project site. Upon completion of authorized and mandatory archeological analysis, the Developer should return said artifacts to the Soboba Band within a reasonable time period agreed to by the Parties and not to exceed (30) days from the initial recovery of the items.

Treatment and Disposition of Remains.

A. The Soboba Band shall be allowed, under California Public Resources Code § 5097.98 (a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods shall be treated and disposed of with appropriate dignity.

B. The Soboba Band, as MLD, shall complete its inspection within twenty-four (24) hours of receiving notification from either the Developer or the NAHC, as required by California Public Resources Code § 5097.98 (a). The Parties agree to discuss in good faith what constitutes "appropriate dignity" as that term is used in the applicable statutes.

C. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code § 5097.98 (a) and (b). The Soboba Band, as the MLD in consultation with the Developer, shall make the final discretionary determination regarding the appropriate disposition and treatment of human remains.

D. All parties are aware that the Soboba Band may wish to rebury the human remains and associated ceremonial and cultural items (artifacts) on or near, the site of their discovery, in an area that shall not be subject to future subsurface disturbances. The Developer should accommodate on-site reburial in a location mutually agreed upon by the Parties.

E. The term "human remains" encompasses more than human bones because the Soboba Band's traditions periodically necessitated the ceremonial burning of human remains. Grave goods are those artifacts associated with any human remains. These items, and other funerary remnants and their ashes are to be treated in the same manner as human bone fragments or bones that remain intact.

Coordination with County Coroner's Office. The Lead Agencies and the Developer should immediately contact both the Coroner and the Soboba Band in the event that any human remains are discovered during implementation of the Project. If the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner shall ensure that notification is provided to the NAHC within twenty-four (24) hours of the determination, as required by California Health and Safety Code § 7050.5 (c).

Non-Disclosure of Location Reburials. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or cultural artifacts shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code § 6254 (r).
Ceremonial items and items of cultural patrimony reflect traditional religious beliefs and practices of the Soboba Band. The Developer agrees to return all Native American ceremonial items and items of cultural patrimony that may be found on the project site to the Soboba Band for appropriate treatment. In addition, the Soboba Band requests the return of all other cultural items (artifacts) that are recovered during the course of archaeological investigations. Where appropriate and agreed upon in advance, Developer's archeologist may conduct analyses of certain artifact classes if required by CEQA, Section 106 of NHPA, the mitigation measures or conditions of approval for the Project. This may include but is not limited or restricted to include shell, bone, ceramic, stone or other artifacts.

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

17 March 2015
Revised, 3 March 2016

Ms. Tracy Zinn
T&B Planning, Inc.
17542 East 17th Street, Suite 100
Tustin, California 92780

Subject: Paleontological Resource and Monitoring Assessment, Moreno Valley Logistics Center Project, City of Moreno Valley, Riverside County, California (APNs 316-100-028, -030, -048, -051, and -052)

Dear Ms. Zinn:

Site Location: A paleontological resource assessment has been completed for the Moreno Valley Logistics Center Project located in the city of Moreno Valley, west of the Perris Reservoir and comprising much of the southwestern part of Section 30, Township 3 South, Range 3 West, San Bernardino Base and Meridian (U. S. Geological Survey 7.5-minute Sunnymead and Perris, California topographic quadrangle maps), Riverside County, California (Attachments 1 and 2). The approximately 86.5-acre property is comprised of five parcels (Assessor's Parcel Numbers [APNs] 316-100-028, -030, -048, -051, and -052) and is bounded to the north by Krameria Avenue and a vacant lot, to the east by Indian Street, to the south by a commercial property, and to the west by a commercial/industrial facility, Heacock Street, and the east side of March Air Force Base. The Perris Valley Storm Drain passes through the project site, but is not part of the project. The proposed project involves construction of two slab-on-grade buildings, truck parking areas, and a storm water detention basin.

Geology: Published geologic reports and maps of the project area and immediately surrounding areas include those of D. M. Morton, 2003 (Preliminary geologic map of the Perris 7.5' quadrangle, Riverside County, California), and D. M. Morton and J. C. Matti, 2001 (Preliminary geologic map of the Sunnymead 7.5' quadrangle, Riverside County, California). The maps indicate that the project site is underlain by lower Pleistocene (approximately 1.8 million to perhaps 200,000 to 300,000 year old) very old alluvial fan deposits ($Qvof_a$, shown in brown on Attachment 3). Nearby deposits include Holocene and upper Pleistocene (10,000 to perhaps 100,000 year old) young alluvial valley deposits (Qyv_{sa}, shown in yellow on Attachment 3), and young alluvial fan deposits (Qyf_a, shown in pale yellow on Attachment 3). The geotechnical report prepared for this project (R. G.

Trazo and J. A. Seminara, 2014) only identified alluvium to a depth of 30 feet below ground level, but did not comment on the age of the sediments (*i.e.*, whether or not they were Holocene [“modern”] in age or older, being early to late Pleistocene). The age of these sediments is important in determining if they should be accorded a low paleontological sensitivity (Holocene) or a high paleontological sensitivity (Pleistocene).

Paleontological Sensitivity: A paleontological sensitivity map generated by the Riverside County Land Information System on December 17, 2014 (Attachment 4) ranks the entire project area as having a High Potential/Sensitivity (High B), which is “based on [the presence of] geologic formations or mappable rock units that contain fossilized body elements, and trace fossils such as tracks, nests and eggs. These fossils occur on or below the surface.” The category “High B” indicates that fossils are likely to be encountered at or below four feet of depth, and may be impacted during excavation by construction activities. Alluvial sediments with a High Potential/Sensitivity (High B) to yield nonrenewable paleontological resources (*i.e.*, fossils) are shown in amber tint on Attachment 4.

Results: Based on a paleontological literature review and a collections and records search conducted by the Geological Sciences Division of the San Bernardino County Museum in Redlands, California for the project site (E. G. Scott, March 12, 2015, attached), older Pleistocene alluvial fan deposits (Qvof$_a$ on Attachment 3) have a high potential to contain significant nonrenewable paleontological resources (*i.e.*, fossils), and were thus assigned a “high paleontological resource sensitivity” by Scott (2015). Similar older Pleistocene sediments throughout the lowland (valley) areas of western Riverside County and the Inland Empire have been reported to yield significant fossils of extinct terrestrial mammals from the last Ice Age (see references in Scott, 2015), such as mammoths, mastodons, giant ground sloths, dire wolves, short-faced bears, saber-toothed cats, large and small horses, camels, and bison. The collections and records search report (Scott, 2015), however, did not identify any known fossil localities within the boundaries of the proposed Moreno Valley Logistics Center site, nor within at least one mile in any direction of the project site. The closest recorded fossil locality may be that reported by R. E. Reynolds (2004) from a location five miles northeast of the current project site. The only fossil recovered there was a limb bone of an unidentified species of *Bison* sp. In French Valley and Menifee Valley, vertebrate fossils have been found at depths between 14 and 15 feet below ground level (R. R. Reynolds and R. L. Reynolds, 1991).

Recommendations: Because of the High paleontological sensitivity (High B) assigned to the lower Pleistocene older alluvial fan deposits across the site, full-time paleontological monitoring of mass grading and excavation (utility trenching, etc.) activities in areas so mapped should be required in order to mitigate any adverse impacts (loss or destruction) to potential nonrenewable paleontological resources. The age of these sediments is more important in determining the need for paleontological monitoring than the possible depth of their current burial. The mitigation program should be consistent with the provisions of the California Environmental Quality Act (CEQA), regulations currently implemented by the City of Moreno Valley (as the lead agency for the project), the County of Riverside, and the proposed guidelines of the Society of Vertebrate Paleontology (see page 5, following).

If you have any questions concerning this evaluation, please feel free to contact us at our Poway address. Thank you for the opportunity to have provided paleontological services for this project.

Sincerely,

TODD A. WIRTHS
NO. 7588

Todd Wirths, M.S., P.G.
California Professional Geologist No. 7588

George L. Kennedy, Ph.D.
Senior Paleontologist

Attachments: Index maps, geologic map, paleontological sensitivity map, SBCM records search report, geotechnical boring logs

References:

Morton, D. M. 2003. Preliminary geologic map of the Perris 7.5' quadrangle, Riverside County, California: U. S. Geological Survey Open-File Report 03-270, scale 1:24,000.

Morton, D. M., and Matti, J. C. 2001. Preliminary geologic map of the Sunnymead 7.5' quadrangle, Riverside County, California: U. S. Geological Survey Open-File Report 01-450, scale 1:24,000.

Reynolds, R. E. 2004. Paleontological resource investigation, Moreno Highlands fault investigation. *In* unpublished geologic report prepared by Leighton & Associates, 2004, Preliminary fault investigation, Tentative Tract Map No. 32501, Moreno Highlands, City of Moreno Valley, Project No. 111061-1031.

Reynolds, R. E., and Reynolds, R. L. 1991. The Pleistocene beneath our feet: Near-surface Pleistocene fossils from inland southern California basins. San Bernardino County Museum Association Quarterly, 38(3&4): 41-43.

Trazo, R. G., and Seminara, J. A. 2014. Geotechnical investigation, proposed Moreno Valley Logistics Center, SWC Krameria Avenue and Indian Street, Moreno Valley, California. Unpublished geotechnical report prepared for ProLogis, Ontario, California, by Southern California Geotechnical, Inc., Yorba Linda, California.

Paleontological Mitigation Program
Moreno Valley Logistics Center Project

(APNs 316-100-028, -030, -048, -051, and -052)

1. Monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources by a qualified paleontologist or paleontological monitor. Full-time monitoring will be conducted in areas of grading or excavation in undisturbed, very old alluvial fan sediments ($Qvof_a$ on Attachment 3). Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow for the removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

2. Preparation of recovered specimens to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Preparation of individual vertebrate fossils is often more time-consuming than for accumulations of invertebrate fossils.

3. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage (*e.g.*, the Western Science Center Museum, 2345 Searl Parkway, Hemet, California 92543). The paleontological program should include a written repository agreement prior to the initiation of mitigation activities.

4. Preparation of a final monitoring and mitigation report of findings and significance, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location. The report, when submitted to the appropriate lead agency (City of Moreno Valley), will signify satisfactory completion of the project program to mitigate impacts to any paleontological resources.

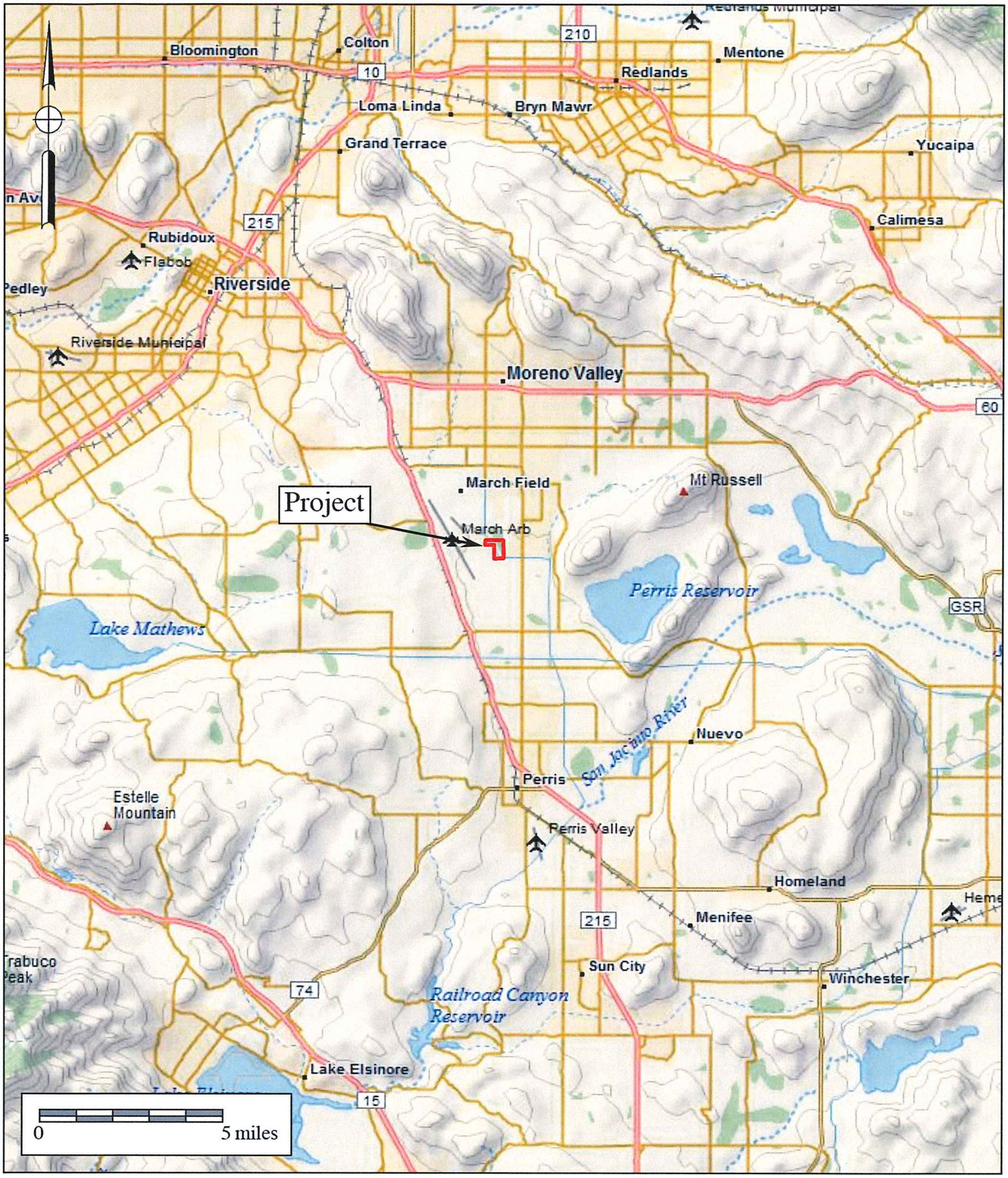

Attachment 1

General Location Map

The Moreno Valley Logistics Center Project

DeLorme (1:250,000)

Brian F. Smith and Associates, Inc. Environmental Consultants

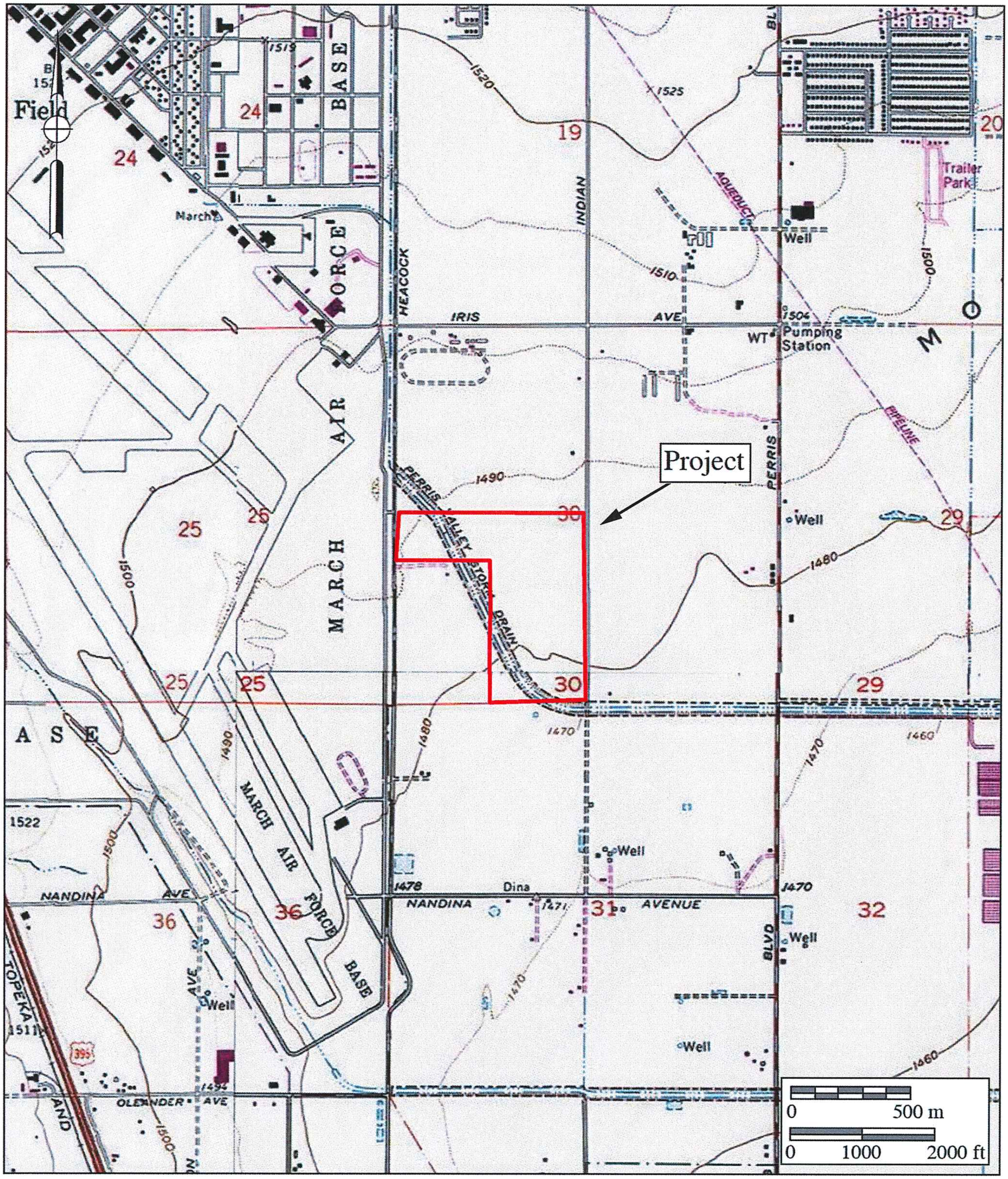

Attachment 2

Project Location Map

The Moreno Valley Logistics Center Project

USGS *Riverside East, Sunnymead, Steele Peak,* and *Perris* Quadrangles (7.5-minute series)

Brian F. Smith and Associates, Inc. Environmental Consultants

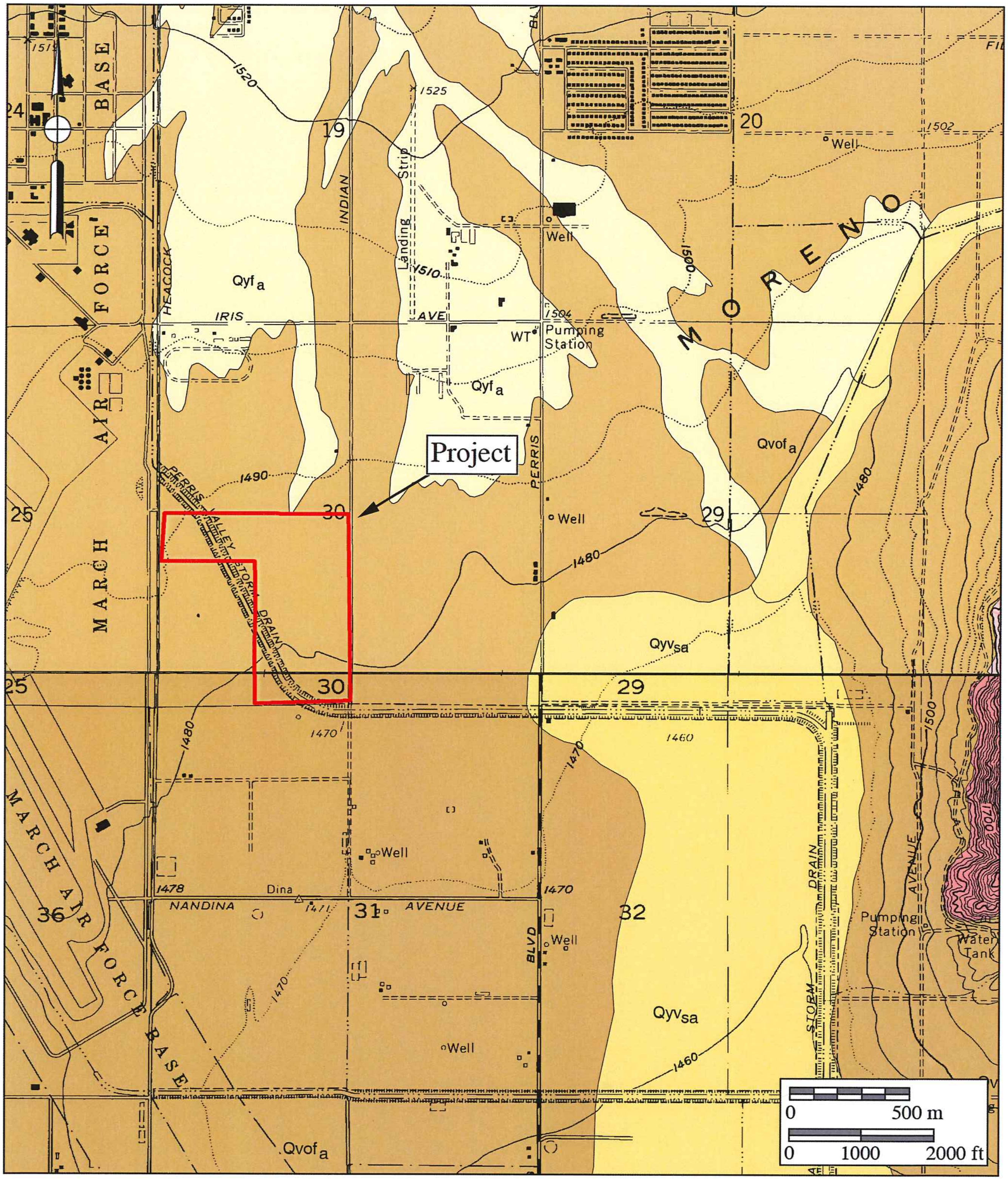

Attachment 3

Geologic Map

The Moreno Valley Logistics Center Project

Geology after U.S. Geological Survey

Brian F. Smith and Associates, Inc.
Environmental Consultants

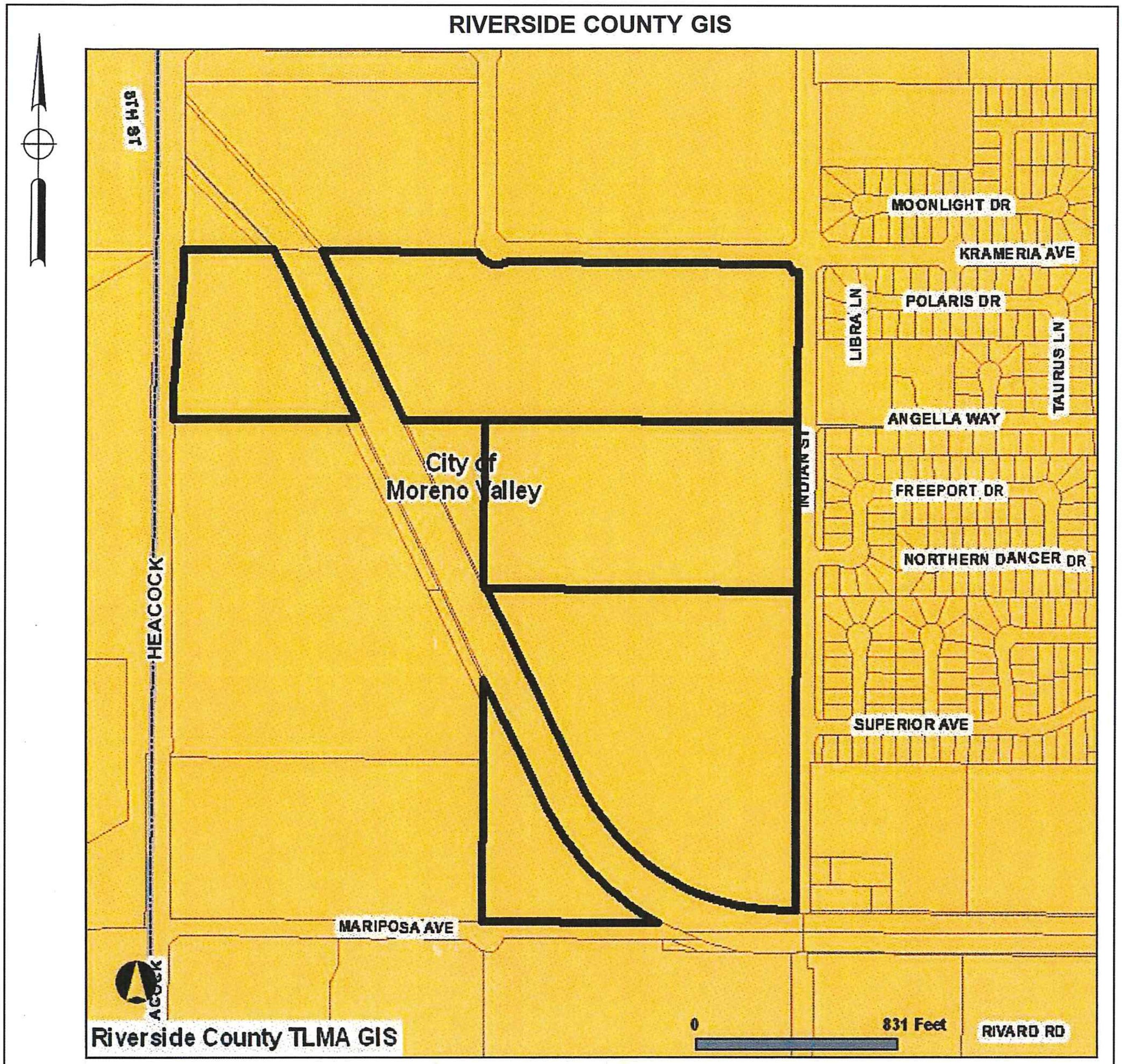

Selected parcel(s):
316-100-028 316-100-030 316-100-048 316-100-051 316-100-052

PALEONTOLOGICAL SENSITIVITY

☐ SELECTED PARCEL	INTERSTATES	HIGHWAYS	☐ CITY
☐ PARCELS	🟨 HIGH POTENTIAL/SENSITIVITY (HIGH B)		

Attachment 4

Paleontological Sensitivity Map

The Moreno Valley Logistics Center Project

2024 Orange Tree Lane, Redlands, California 92374 | Phone: 909.798.8608
www.SBCounty.gov

SAN BERNARDINO COUNTY

Museum

Leonard X. Hernandez
Interim Museum Director

12 March 2015

Brian F. Smith and Associates
attn: George L. Kennedy, Ph.D., Senior Paleontologist
14010 Poway Road, Suite A
Poway, CA 92064

---

re: **PALEONTOLOGY LITERATURE AND RECORDS REVIEW, MORENO VALLEY LOGISTICS CENTER, CITY OF MORENO VALLEY, RIVERSIDE COUNTY, CALIFORNIA**

Dear Dr. Kennedy,

The Division of Geological Sciences of the San Bernardino County Museum (SBCM) has completed a literature review and records search for the above-named project in the City of Moreno Valley, Riverside County, California. Specifically, the proposed study area is located in the southwestern quadrant of section 30, Township 3 South, Range 3 West, San Bernardino Base and Meridian, as seen on the Perris, California and the Sunnymead, California 7.5' United States Geological Survey topographic quadrangle maps (1967 editions, photorevised 1973 and 1980, respectively).

Previous mapping of the proposed property (Rogers, 1965; Morton and Matti, 2001; Morton, 2003) indicates that the study area is situated entirely upon surface exposures of early Pleistocene alluvial fan deposits (= unit **Qvof$_a$**). These Pleistocene fan deposits may have high paleontologic sensitivity, depending upon their lithology. Pleistocene alluvium elsewhere throughout Riverside County and the Inland Empire has repeatedly been reported to yield significant fossils of extinct animals from the Ice Age (Jefferson, 1991; Reynolds, 1991; Anderson and others, 2002; Scott and Cox, 2008; Springer and others, 2009, 2010; Scott, 2010). Fossils recovered from these Pleistocene sediments represent extinct taxa including mammoths, mastodons, ground sloths, dire wolves, sabre-toothed cats, large and small horses, large and small camels, and bison (Jefferson, 1991; Reynolds, 1991; Scott and Cox, 2008; Springer and others, 2009, 2010; Scott, 2010), as well as plant macro- and microfossils (Anderson and others, 2002). If not previously disturbed by development, and depending upon the lithology exhibited, these sediments have high potential to contain significant nonrenewable paleontologic resources.

For this review, I conducted a search of the Regional Paleontologic Locality Inventory (RPLI) at the SBCM. The results of this search indicate that no previously-recorded fossil resource localities from Pleistocene older alluvium are present within the boundaries of the proposed development property, nor from at least within one mile in any direction.

Recommendations

The results of the literature review and the search of the RPLI at the SBCM demonstrate that the proposed study area is situated upon Pleistocene older alluvial deposits that, if not previously disturbed by development and depending upon their lithology, have high potential to contain paleontologic resources. Excavation in this older alluvium therefore has high potential to impact paleontologic resources. A qualified vertebrate paleontologist must develop a program to mitigate impacts to nonrenewable paleontologic resources. This mitigation program must be consistent with the provisions of the California Environmental Quality Act (Scott and Springer, 2003), as well as with regulations currently implemented by the County of Riverside. This program should include, but not be limited to:

1. Monitoring of excavation in areas identified as likely to contain paleontologic resources by a qualified paleontologic monitor. Areas requiring monitoring include all previously-undisturbed Pleistocene older alluvial sediments present, at the surface or at depth, within the boundaries of the property. Paleontologic monitors should be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring may be reduced or eliminated if the potentially-fossiliferous units described herein are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources.

2. Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Preparation and stabilization of all recovered fossils are essential in order to fully mitigate adverse impacts to the resources (Scott and others, 2004).

3. Identification and curation of specimens into an established, accredited museum repository with permanent retrievable paleontologic storage. These procedures are also essential steps in effective paleontologic mitigation (Scott and others, 2004) and CEQA compliance (Scott and Springer, 2003). The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. Mitigation of adverse impacts to significant paleontologic resources is not complete until such curation into an established, accredited museum repository has been fully completed and documented.

4. Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the appropriate Lead Agency along with confirmation of the curation of recovered specimens into an established, accredited museum

repository, would signify completion of the program to mitigate impacts to paleontologic resources.

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Please do not hesitate to contact us with any further questions you may have.

Sincerely,

Eric Scott, Curator of Paleontology
Division of Geological Sciences
San Bernardino County Museum

SOUTHERN CALIFORNIA GEOTECHNICAL
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**BORING NO.
B-1**

JOB NO.: 14G160	DRILLING DATE: 6/24/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	12			ALLUVIUM: Brown Silty fine Sand, trace medium Sand, trace to little Clay, slightly porous, loose to medium dense-dry to damp		3					
	☒	9					5					
5												
	☒	15			Brown Clayey fine Sand, trace Silt, medium dense-damp to moist		9					
	☒	21	3.5		Dark Brown fine Sandy Clay to Clayey fine Sand, medium dense to very stiff-moist		13					
10												
	☒	29	3.5				11 7					
					Brown Silty fine to medium Sand, medium dense-damp to moist							
15												
					Brown fine Sandy Silt, little Clay, stiff to very stiff-moist to very moist							
	☒	17					19					
20												
	☒	13					17					
25					Boring Terminated at 25'							

TBL 14G160.GPJ SOCALGEO.GDT 7/14/14

SOUTHERN CALIFORNIA GEOTECHNICAL
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BORING NO. B-2

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 6/24/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres
WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	⧗	26			ALLUVIUM: Brown Silty fine Sand, trace medium Sand, medium dense-dry to damp	105	2					
	⧗	11			Brown Silty fine to medium Sand, loose-dry to damp	108	3					
5	⧗	38				123	3					
					Brown Clayey fine Sand, little to some Silt, trace medium Sand, dense-damp							
	⧗	26	4.5+		Dark Brown fine Sandy Clay, trace to little Silt, slightly porous, very stiff-damp to moist	122	9					
	⧗	26	4.5+			115	19					
10												
	⧖	25	4.5+		@ 13½ to 15 feet, trace calcareous veining		14					
15												
					Dark Brown Silty fine Sand, little to some Clay, slightly porous, medium dense-damp to moist							
	⧖	16					8					
20												
					Brown Clayey fine Sand, little Silt, medium dense-moist							
	⧖	20					12					
25												
					Dark Brown Silty fine Sand, little to some Clay, medium dense-moist							
	⧖	23					11					
30												
					Boring Terminated at 30'							

TEST BORING LOG

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BORING NO. B-3

JOB NO.: 14G160	DRILLING DATE: 6/24/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
				⁘	ALLUVIUM: Brown Silty fine Sand, trace Clay, medium dense-dry to damp							
	⧗	23		⁘		88	2					
				▥	Dark Brown Clayey Silt, little to some fine Sand, slightly porous, stiff-dry to damp							
	⧗	15		▨	Brown Clayey fine Sand, little to some Silt, trace calcareous veining, medium dense-damp to moist	105	7					
5	⧗	30		▨		113	7					
	⧗	18		⁘	Dark Brown Silty fine to medium Sand, trace to little Clay, medium dense-damp to moist	111	4					
	⧗	33		⁘		130	7					
10				⁘								
				▨	Brown Clayey fine Sand, medium dense-damp to moist							
	☒	29		▨			8					
15												
					Boring Terminated at 15'							

TEST BORING LOG

PLATE B-3

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BORING NO.
B-4

JOB NO.: 14G160	DRILLING DATE: 6/24/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	26	4.5+		ALLUVIUM: Dark Brown Silty Clay, trace calcareous veining, very stiff-dry to damp		8					EI = 66 @ 0 to 5 feet
5	☒	15	3.0		Brown Clayey Silt, little fine Sand, trace calcareous veining, stiff to very stiff-damp to moist		13					
	☒	14			Dark Brown Silty fine Sand, little Clay, medium dense-damp to moist		10					
10	☒	24			Dark Brown Clayey fine Sand, little to some Silt, medium dense-damp to moist		6					
	☒	24					10					
15					Dark Brown fine to medium Sand, trace Silt, medium dense-damp to moist		7					
20	☒	37	4.5+		Brown Silty Clay, hard-damp		10					
					Boring Terminated at 20'							

TEST BORING LOG

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BORING NO. B-5

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 6/24/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres
WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	16			ALLUVIUM: Brown Silty fine to medium Sand, medium dense-dry to damp		2					
5	☒	8			Brown fine to medium Sand, trace Silt, trace fine Gravel, loose-dry to damp		2					
	☒	20	4.25		Dark Brown to Gray Brown Silty Clay, trace to little fine Sand, slightly porous, very stiff-damp to moist		10					
10	☒	25	4.5+		Dark Brown Silty Clay, trace fine Sand, very stiff-damp to moist		11					
15	☒	27	4.5+				9					
20	☒	19	3.5		Brown Silty fine Sand, little to some Clay, medium dense-damp to moist		9					
					Boring Terminated at 20'							

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
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BORING NO. B-6

JOB NO.: 14G160	DRILLING DATE: 6/24/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					ALLUVIUM: Brown Silty fine Sand to fine Sandy Silt, medium dense-dry to damp							
	⧗	26				111	3					
	⧗	32				102	3					
					Brown Clayey Silt, trace fine Sand, trace calcareous veining, hard-dry to damp							
5	⧗	54				102	6					
	⧗	55	1.5			106	5					
					Dark Brown Silty Clay, hard-damp							
	⧗	78			Dark Brown Clayey fine Sand to fine Sandy Clay, little to some Silt, very dense-damp	111	5					
10												
					Dark Brown to Red Brown fine Sandy Clay, trace Silt, very stiff-damp to moist							
	☒	22	3.75				10					
15												
					Dark Brown fine to medium Sand, trace Silt, slightly cemented, medium dense-damp							
	☒	40					6					
20					Brown Silty fine Sand, little Clay, meidum dense-damp to moist		10					

Boring Terminated at 20'

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BORING NO. B-7

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 6/24/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres
WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	22			ALLUVIUM: Brown Silty fine Sand, trace to little Clay, medium dense-dry to damp		4					
5	☒	21			Brown fine Sandy Silt, trace Clay, trace calcareous veining, medium dense-dry to damp		6					
					Boring Terminated at 5'							

TEST BORING LOG

PLATE B-7

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BORING NO. B-8

JOB NO.: 14G160	DRILLING DATE: 6/25/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

SURFACE ELEVATION: --- MSL

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					ALLUVIUM: Brown Silty fine Sand, little Clay, very dense-dry to damp							
	☒	62					2					
					Gray Brown to Brown Clayey fine Sand to fine Sandy Clay, trace to little Silt, trace calcareous veining, very stiff to medium dense to dense-damp							
	☒	35	4.5+				6					
5												
	☒	25	4.5+				6					
	☒	28	2.0 4.5+				7 11					
					Dark Brown to Gray Brown Silty Clay, trace fine Sand, very stiff-damp to moist							
10												
					Gray Brown fine Sandy Clay, trace Silt, very stiff-moist							
	☒	23	3.0				13					
15												
					Gray Brown Silty fine Sand, trace Silt, trace medium Sand, medium dense-damp to moist							
	☒	23					8					
20												
					Boring Terminated at 20'							

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TEST BORING LOG

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BORING NO. B-9

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres
WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	31			ALLUVIUM: Dark Brown Clayey fine Sand, little Silt, slightly porous, medium dense-dry to damp	114	2					
	☒	43			Brown Silty fine Sand, trace to little Clay, medium dense-damp	110	3					
5	☒	33			Brown fine to medium Sand, trace Silt, trace Clay, medium dense-damp	107	3					
	☒	56	4.5+		Brown Clayey fine Sand to fine Sandy Clay, little Silt, trace medium Sand, medium dense-damp	118	6					
10	☒	49	4.5+		Brown to Red Brown fine Sandy Clay, trace Silt, hard-damp to moist	116	11					
15	☒	32			Red Brown Clayey fine Sand, trace Silt, medium dense-moist		12					
					Boring Terminated at 15'							

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TEST BORING LOG

PLATE B-9

SOUTHERN CALIFORNIA GEOTECHNICAL
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BORING NO. B-10

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION SURFACE ELEVATION: --- MSL	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG		DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
	☒	31	4.5+		ALLUVIUM: Dark Brown Clayey Silt, trace to little fine Sand, hard-dry to damp		4					EI = 33 @ 0 to 5 feet
	☒	20			Brown Silty fine Sand, little to some Silt, medium dense-damp to moist		10					
5												
	☒	27					11					
	☒	38			Brown Silty fine Sand, little Clay, dense-damp to moist		9					
10												
	☒	20	4.5+		Brown to Red Brown Silty Clay, trace to little fine Sand, trace calcareous veining, very stiff-moist		13					
15												
	☒	19	3.0		Brown fine Sandy Clay, trace to little Silt, very stiff-moist		14					
20												
	☒	46	4.5+		Dark Brown fine Sandy Clay, hard-moist		13					
25					Boring Terminated at 25'							

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BORING NO. B-11

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					ALLUVIUM: Brown Silty fine Sand, trace Clay, medium dense-dry to damp							
	☒	31				110	4					
					Brown fine Sandy Clay, trace to little Silt, trace calcareous veining, very stiff to hard-damp							
	☒	49	4.5+			114	9					
					Brown Clayey Silt, trace fine Sand, very stiff-damp							
5	☒	33	4.5+			108	8					
	☒	43	4.5+			116	8					
					Brown Silty fine Sand, little to some Clay, trace medium Sand, medium dense-damp							
	☒	36				117	5					
10												
	☒	31					6					
					Brown to Gray Brown Silty fine to medium Sand, trace Silt, trace Clay, slightly cemented, dense-moist							
15							14					
					Brown to Red Brown Clayey fine Sand, little Silt, medium dense-damp to moist							
	☒	25					10					
					Brown Silty fine Sand, trace Clay, medium dense-damp to moist		9					
20												
					Dark Brown Clayey fine to medium Sand, trace Silt, medium dense-damp to moist							
	☒	23					9					
25												
	☒	26					8					
30												
					Boring Terminated at 30'							

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BORING NO. B-12

JOB NO.: 14G160	DRILLING DATE: 6/25/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

SURFACE ELEVATION: --- MSL

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
				░	ALLUVIUM: Dark Brown to Brown Silty fine Sand, little Clay, trace medium Sand, medium dense-dry to damp							
	⧓	21		░		102	4					
	⧓	12		░		107	5					
5	⧓	25		░		115	7					
				▨	Dark Brown fine Sandy Clay, trace Silt, slightly cemented, very stiff to hard-damp to moist							
	⧓	55	4.5+	▨		118	13					
	⧓	24	3.75	▨		107	25					
10				▨	Brown Silty Clay, trace fine Sand, very stiff-moist to very moist							
				▩	Brown Clayey fine Sand, little to some Silt, medium dense-moist							
	⋈	15		▩			12					
15				░	Brown Silty fine Sand, trace medium Sand, trace Clay, medium dense-damp to moist		8					
				▨	Brown fine Sandy Clay, trace Silt, very stiff-damp to moist							
20	⋈	18	3.5	▨			12					
				░	Brown fine to medium Sand, little to some Clay, trace Silt, medium dense-moist							
	⋈	25		░			11					
25			4.5+	▨	Gray Brown Silty Clay, trace fine Sand, very stiff-moist		15					

Boring Terminated at 25'

TEST BORING LOG

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BORING NO.
B-13

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
	☒	26		░	ALLUVIUM: Dark Brown Silty fine Sand, medium dense-dry to damp		3					EI = 0 @ 0 to 5 feet
	☒	24	2.5	▥	Brown Clayey Silt, trace to little Clay, very stiff-damp to moist		8					
5	☒	16	2.5	▨	Dark Brown Silty Clay, trace fine Sand, very stiff-damp to moist		10					
	☒	14	3.0	▨			12					
10				▨								
	☒	21		▨	Dark Brown Clayey fine to medium Sand, trace Silt, stiff-damp to moist		9					
15					Boring Terminated at 15'							

TBL 14G160.GPJ SOCALGEO.GDT 7/14/14

TEST BORING LOG

PLATE B-13

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-14

JOB NO.: 14G160	DRILLING DATE: 6/25/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION SURFACE ELEVATION: --- MSL	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG		DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
				⁘	ALLUVIUM: Dark Brown Silty fine Sand, trace to little Clay, loose to medium dense-dry to damp							
	⧓	19		⁘		107	3					
	⧓	9		⁘		103	4					
5	⧓	20		▨	Brown Clayey fine Sand, trace Silt, medium dense-moist	106	16					
	⧓	46	4.5+	▨	Brown fine Sandy Clay, little Silt, very stiff-damp to moist	119	8					
10	⧓	16		⁘	Gray Brown Silty fine Sand, trace Clay, medium dense-damp to moist	110	8					
				▥	Brown to Gray Brown fine Sandy Silt, trace Clay, stiff to very stiff-moist							
15	☒	15		▥			12					
20	☒	28		▥			16					
					Boring Terminated at 20'							

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

BORING NO.
B-15

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres
WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	30	4.5+	▨	ALLUVIUM: Brown fine Sandy Clay, little to some Silt, trace calcareous veining, very stiff to hard-dry to damp		6					
	☒	24		▥	Light Brown fine Sandy Silt, medium dense-damp to moist		8					
5												
					Boring Terminated at 5'							

TBL 14G160.GPJ SOCALGEO.GDT 7/14/14

TEST BORING LOG

PLATE B-15

Moreno Valley Logistics Center

GREENHOUSE GAS ANALYSIS

CITY OF MORENO VALLEY

PREPARED BY:

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MARCH 17, 2016

09302-06 GHG Report

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LIST OF ABBREVIATED TERMS

(1)	Reference
ARB	California Air Resources Board
AQIA	Air Quality Impact Analysis
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CAT	Climate Action Team
CBSC	California Building Standards Commission
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CH4	Methane
CO	Carbon Monoxide
CO2	Carbon Dioxide
CO2e	Carbon Dioxide Equivalent
CPUC	California Public Utilities Commission
EPA	Environmental Protection Agency
EPS	Emission Performance Standard
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
GWP	Global Warming Potential
HFC	Hydrofluorocarbons
LCA	Life-Cycle Analysis
MMs	Mitigation Measures
MMTCO2e	Million Metric Ton of Carbon Dioxide Equivalent
MTCO2e	Metric Ton of Carbon Dioxide Equivalent
N20	Nitrogen Dioxide
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFC	Perfluorocarbons
PM10	Particulate Matter 10 microns in diameter or less
PM2.5	Particulate Matter 2.5 microns in diameter or less

PPM	Parts Per Million
Project	Moreno Valley Logistics Center
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile Organic Compounds

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EXECUTIVE SUMMARY

For informational purposes herein, the Project's GHG emissions are evaluated to determine if they fall 28.5% or more below BAU, in accordance with the goals of AB 32. The total amount of Project-related GHG emissions for BAU without accounting for any project design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total 56,466.71 MMTCO2e.

The total amount of Project-related GHG emissions when accounting for applicable regulatory developments, project design features, and mitigation measures that would reduce GHG emissions from direct and indirect sources combined would total 42,404.68 MMTCO2e. This results in a 24.90% reduction from BAU, thus with implementation of the Project's design features and regulatory developments, the Project's GHG reduction would not meet the AB 32 reduction target of 28.5% as shown on Table 1-1 (1). Both of these quantities are above the significance criterion used herein of 10,000 MTCO2e per year. Thus, GHG emissions is a significant cumulatively considerable impact of the proposed Project.

TABLE 1-1: SUMMARY OF GHG EMISSIONS FOR BAU VS PROJECT

Emission Source	CO2e Emissions Levels by Year (Metric Tons Per Year)	
	BAU	**Project**
Annual Construction-related emissions amortized over 30 years	206.75	206.75
Area	0.10	0.10
Energy Use	6,286.00	4,482.91
Mobile Sources	48,644.03	36,497.57
Off-road	430.74	358.25
Waste	795.64	795.64
Water Usage	103.45	63.46
Total	56,466.71	42,404.68
Project Improvement over BAU	**24.90%**	
Project Minimum Improvement	**28.5%**	
Meets Requirement?	**NO**	

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this EIR is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

The Project will result in approximately 5,548.86 MTCO2e per year from construction, area, energy, waste, and water usage. In addition, the Project has the potential to result in an additional 36,855.82 MTCO2e per year from mobile sources if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 42,404.68 MTCO2e per year. As such, the Project would exceed the SCAQMD's numeric threshold of 10,000 MTCO2e if it were applied. Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1 INTRODUCTION

This report presents the results of the greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc., for the proposed Moreno Valley Logistics Center ("Project"). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project.

1.1 SITE LOCATION

The proposed Moreno Valley Logistics Center site is located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. The Project site is currently vacant. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are designated by the Moreno Valley Industrial Area Plan (MVIAP) for future industrial development; to the west by March Air Reserve Base, and to the east by a single-family residential neighborhood. The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel. (2) The Interstate 215 (I-215) Freeway is located approximately 1.3 miles west of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1). Building 2, located on the southwest corner of Cosmos Street and Krameria Avenue, is proposed to consist of 122,516 sf of general light industrial use; Building 3, located at the eastern terminus of Cardinal Avenue, is proposed to consist of 97,222 sf of general light industrial use; and Building 4, located on the east of Heacock Street and south of Krameria Avenue (North), is proposed to consist of 166,010 sf of general light industrial use, as shown on Exhibit 1-B[1]. This analysis accounts for emissions and impacts associated with tenants that require cold storage (refrigeration). For analytical purposes, a maximum of 10% cold storage is proposed and analyzed. The Project is anticipated to be constructed and occupied by Year 2017.

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event the alternate site plan is implemented, the truck trailer parking lot will be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be

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[1] This report analyzes a slightly higher general light industrial square footage (385,748 square feet compared to 384,417 square feet) than what was analyzed in the EIR. As such, the report represents a more conservative estimate of emissions.

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

powered by diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

EXHIBIT 1-A: LOCATION MAP

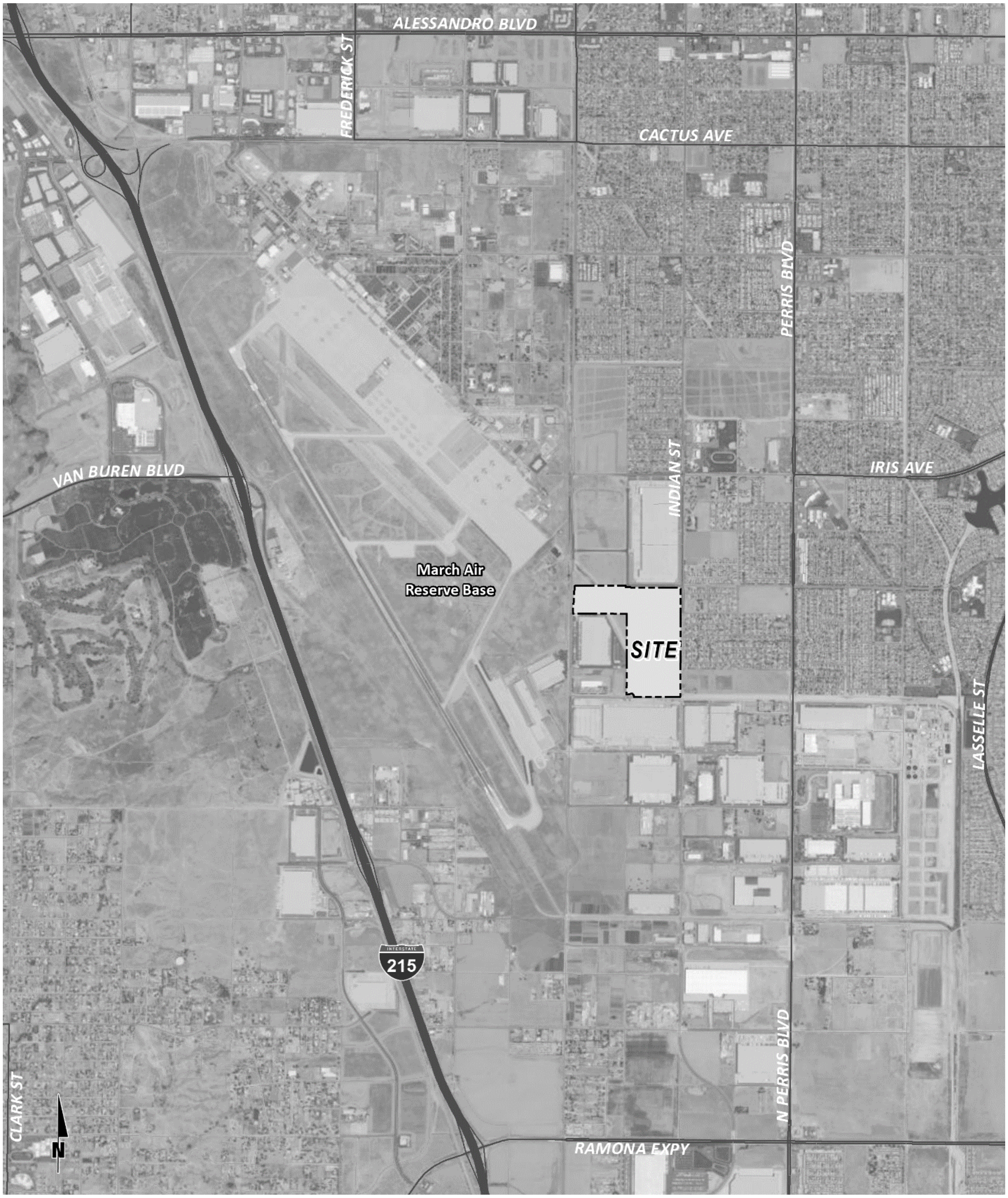

EXHIBIT 1-B: SITE PLAN

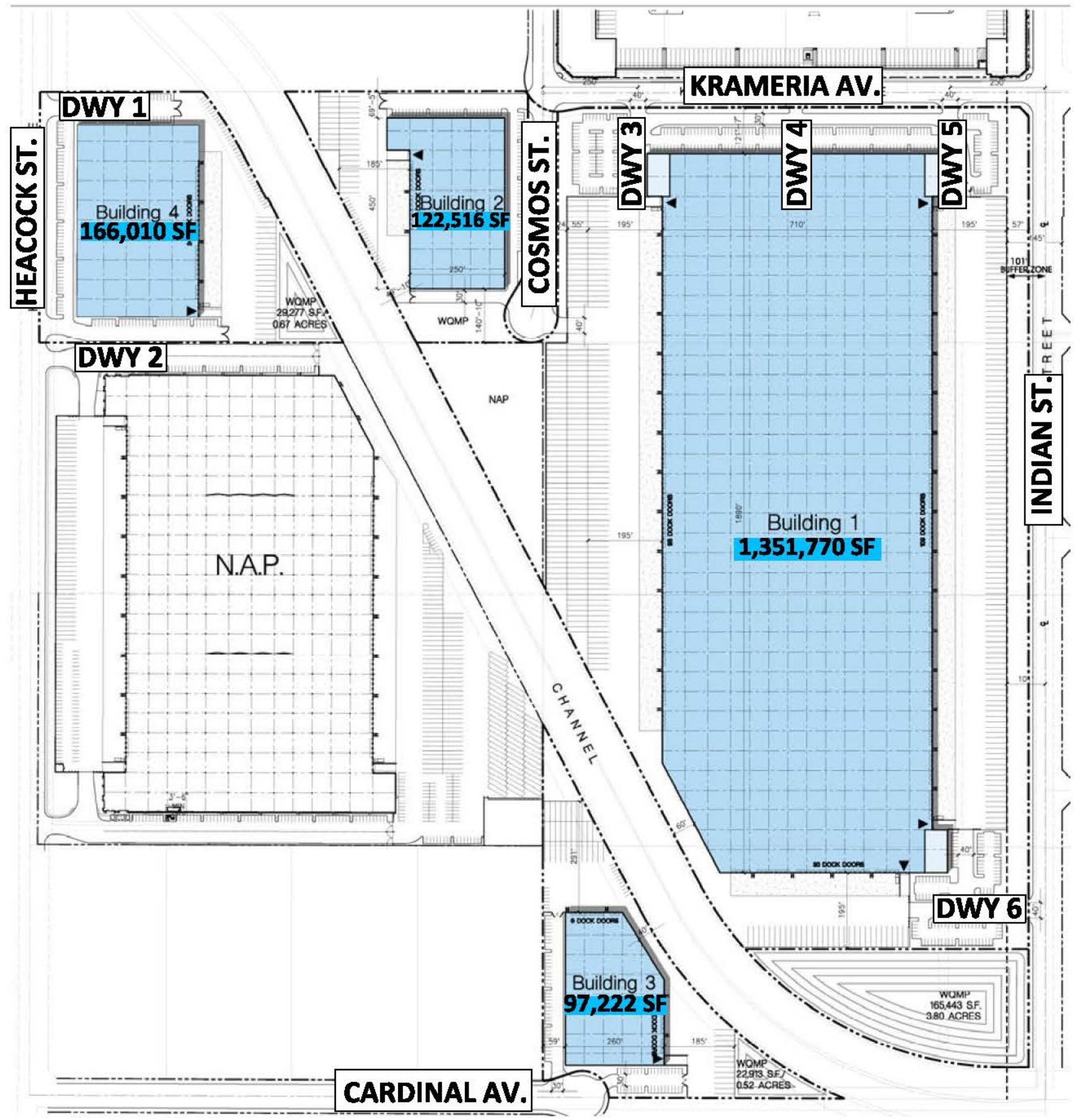

2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. GCC is currently one of the most controversial environmental issues in the United States, and much debate exists within the scientific community about whether or not GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred in the past over the course of thousands or millions of years. These historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GREENHOUSE GAS EMISSIONS INVENTORIES

Global

Worldwide anthropogenic (man-made) GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations are available through 2011. For the Year 2011 the sum of these emissions totaled approximately 25,285,543 gigagrams (Gg) CO2e[2] (3) (4). The GHG emissions in more recent years may differ from the inventories presented in Table 2-1; however, the data is representative of currently available inventory data.

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[2] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2005 data, the UNFCCC data for the most recent year were used. United Nations Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF,"

United States

As noted in Table 2-1, the United States, as a single country, was the number two producer of GHG emissions in 2012. The primary greenhouse gas emitted by human activities in the United States was CO2, representing approximately 83 percent of total greenhouse gas emissions (5). Carbon dioxide from fossil fuel combustion, the largest source of US greenhouse gas emissions, accounted for approximately 78 percent of the GHG emissions.

TABLE 2-1: TOP GHG PRODUCER COUNTRIES AND THE EUROPEAN UNION [3]

Emitting Countries	GHG Emissions (Gg CO2e)
China	10,975,500
United States	6,665,700
European Union (28 member countries)	4,544,224
India	3,013,770
Russian Federation	2,322,220
Japan	1,344,580
Total	**28,865,994**

State of California

CARB compiles GHG inventories for the State of California. CARB GHG inventory data indicates that in 2013 (the most recent inventory of record) California GHG emissions totaled approximately 459.3 Million Metric Tons of Carbon Dioxide Equivalent ($MMTCO_2e$).[4] "In 2010, California accounted for 6.8 percent of all emissions in the country [United States], and ranked second highest among the states with total emissions of 453 $MMTCO_2e$, only behind Texas with 763 $MMTCO_2e$. From a per capita standpoint, California has the 45th lowest emissions with 12.1 $MMTCO_2e$ /person in 2010."[5]

2.3 GLOBAL CLIMATE CHANGE DEFINED

Global Climate Change (GCC) refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO2 (Carbon Dioxide), N2O (Nitrous Oxide), CH4 (Methane), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. According to the California Air Resources Board (CARB), the

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[3] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer in http://www.wri.org site to reference Non-Annex I countries such as China and India.

4 Cal EPA. "California Greenhouse Gas Emission Inventory - 2015 Edition." California's Greenhouse Gas Emission Inventory. Cal EPA, n.d. Web. 29 Oct. 2015.

5 California Environmental Protection Agency. Air Resources Board. California's Greenhouse Gas Emission Inventory - 2014 Edition (May 2014), p. 28.

climate change since the industrial revolution differs from previous climate changes in both rate and magnitude (6).

Gases that trap heat in the atmosphere are often referred to as greenhouse gases. Greenhouse gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than today's current condition. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Although California's rate of growth of greenhouse gas emissions is slowing, the state is still a substantial contributor to the U.S. emissions inventory total. In 2004, California is estimated to have produced 492 million gross metric tons of carbon dioxide equivalent (CO2e) greenhouse gas emissions. Despite a population increase of 16 percent between 1990 and 2004, California has significantly slowed the rate of growth of greenhouse gas emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls (7).

2.4 GREENHOUSE GASES

For the purposes of this analysis, emissions of carbon dioxide, methane, and nitrous oxide were evaluated (see Table 3-4 later in this report) because these gasses are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well-defined and no accepted emissions factors or methodology exist to accurately calculate these gases.

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. Carbon dioxide is utilized as the reference gas for GWP, and thus has a GWP of 1.

The atmospheric lifetime and GWP of selected greenhouse gases are summarized at Table 2-2. As shown in the table below, GWP for the SAR range from 1 for carbon dioxide to 23,900 for sulfur hexafluoride and GWP for the AR4 range from 1 for carbon dioxide to 22,800 for sulfur hexafluoride.

TABLE 2-2: GLOBAL WARMING POTENTIAL AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	**Atmospheric Lifetime (years)**	**Global Warming Potential (100 year time horizon)**	
		Second Assessment Report (SAR)	**4th Assessment Report (AR4)**
Carbon Dioxide	50-200	1	1
Methane	12 ± 3	21	25
Nitrous Oxide	120	310	298
HFC-23	264	11,700	14,800
HFC-134a	14.6	1,300	1,430
HFC-152a	1.5	140	124
Sulfur Hexafluoride (SF6)	3,200	23,900	22,800

Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

Water Vapor: Water vapor (H20) is the most abundant, important, and variable greenhouse gas in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.

Carbon Dioxide: Carbon dioxide (CO2) is an odorless and colorless GHG. Outdoor levels of carbon dioxide are not high enough to result in negative health effects. Carbon dioxide is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (8).

Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Left unchecked, the concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (9).

Methane: Methane (CH4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.

Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide: Nitrous oxide (N2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (10).

Concentrations of nitrous oxide also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. Nitrous oxide can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction

Chlorofluorocarbons: Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C2H6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs are no longer being used; therefore, it is not likely that health effects would be experienced. Nonetheless, in confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons: Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the greenhouse gases, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF3), HFC-134a (CF3CH2F), and HFC-152a (CH3CHF2). Prior to 1990, the only significant emissions were of HFC-23. HFC-134a emissions are increasing due to its use as a refrigerant. The U.S. EPA estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt (11). No health effects are known to result from exposure to HFCs, which are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons: Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF4) and hexafluoroethane (C2F6). The U.S. EPA estimates that concentrations of CF4 in the atmosphere are over 70 ppt.

No health effects are known to result from exposure to PFCs. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur Hexafluoride: Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (22,800). The U.S. EPA indicates that concentrations in the 1990s were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

2.5 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35 percent under the lower warming range (3-5.5°F) to 75 to 85 percent under the medium warming range (5.5-8°F). In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming range scenario (8-10.5°F), there could be up to 100 more days per year with temperatures above 90oF in Los Angeles and 95oF in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

Agriculture

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Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25 percent of the water supply they need. Although higher CO2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate O3 pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts.

In addition, continued global climate change could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued global climate change could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global climate change has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90 percent due to decreased precipitation.

Moreover, continued global climate change has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of global climate change.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

2.6 HUMAN HEALTH EFFECTS

The potential health effects related directly to the emissions of carbon dioxide, methane, and nitrous oxide as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to global climate change have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (12). Exhibit 2-A presents the potential impacts of global warming.

<u>Water Vapor</u>: There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

<u>Carbon Dioxide</u>: According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of carbon dioxide can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of carbon dioxide in the earth's atmosphere are estimated to be approximately 370 parts per million (ppm), the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (13).

Specific health effects associated with directly emitted GHG emissions are as follows:

<u>Methane</u>: Methane is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Methane is also an asphyxiant and may displace oxygen in an enclosed space (14).

<u>Nitrous Oxide</u>: Nitrous Oxide is often referred to as laughing gas; it is a colorless greenhouse gas. The health effects associated with exposure to elevated concentrations of nitrous oxide include dizziness, euphoria, slight hallucinations, and in extreme cases of elevated concentrations nitrous oxide can also cause brain damage (14).

<u>Fluorinated Gases</u>: High concentrations of fluorinated gases can also result in adverse health effects such as asphyxiation, dizziness, headache, cardiovascular disease, cardiac disorders, and in extreme cases, increased mortality (13).

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EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT

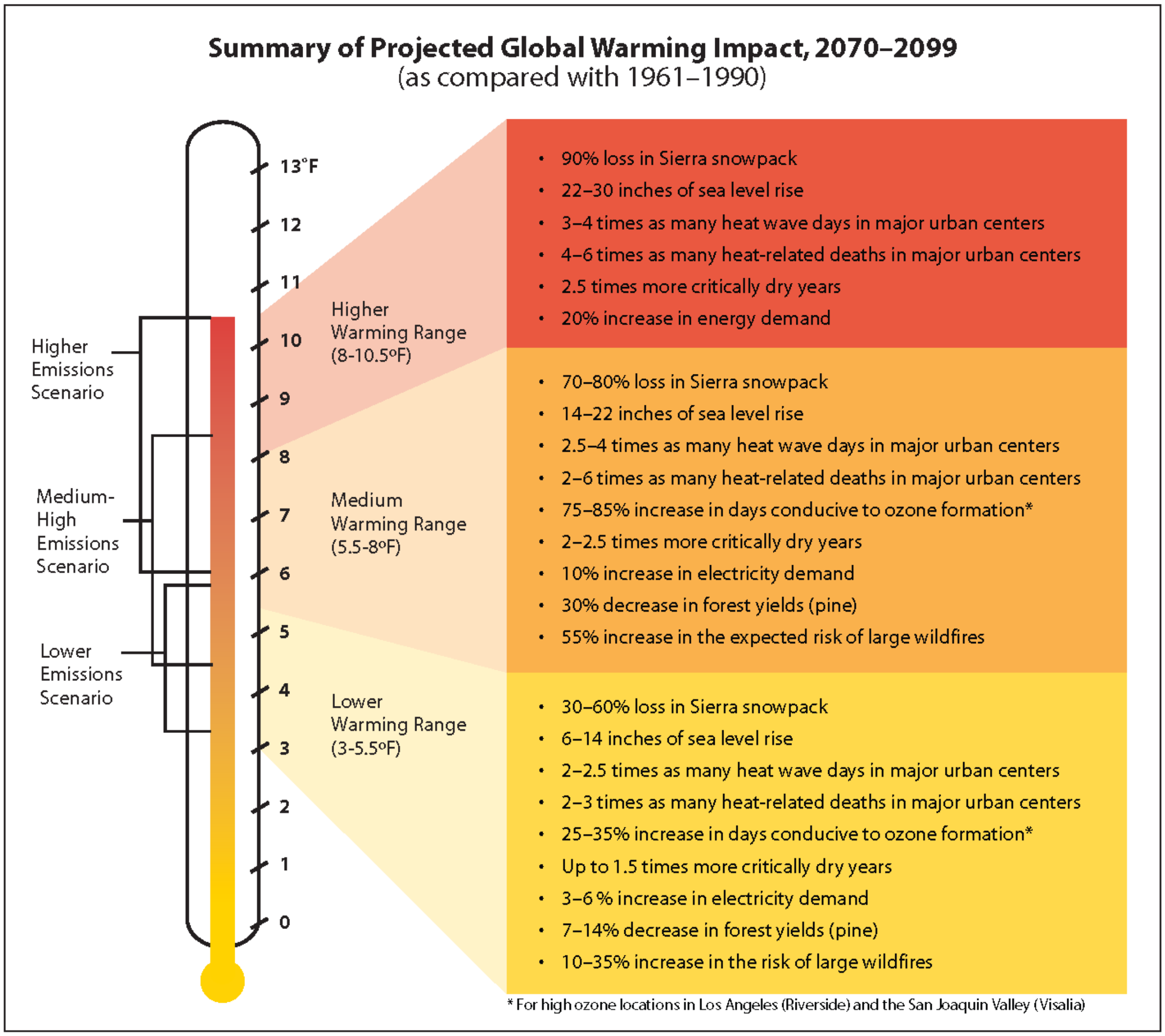

Summary of Projected Global Warming Impact, 2070–2099
(as compared with 1961–1990)

- 90% loss in Sierra snowpack
- 22–30 inches of sea level rise
- 3–4 times as many heat wave days in major urban centers
- 4–6 times as many heat-related deaths in major urban centers
- 2.5 times more critically dry years
- 20% increase in energy demand

- 70–80% loss in Sierra snowpack
- 14–22 inches of sea level rise
- 2.5–4 times as many heat wave days in major urban centers
- 2–6 times as many heat-related deaths in major urban centers
- 75–85% increase in days conducive to ozone formation*
- 2–2.5 times more critically dry years
- 10% increase in electricity demand
- 30% decrease in forest yields (pine)
- 55% increase in the expected risk of large wildfires

- 30–60% loss in Sierra snowpack
- 6–14 inches of sea level rise
- 2–2.5 times as many heat wave days in major urban centers
- 2–3 times as many heat-related deaths in major urban centers
- 25–35% increase in days conducive to ozone formation*
- Up to 1.5 times more critically dry years
- 3–6 % increase in electricity demand
- 7–14% decrease in forest yields (pine)
- 10–35% increase in the risk of large wildfires

* For high ozone locations in Los Angeles (Riverside) and the San Joaquin Valley (Visalia)

Aerosols: The health effects of aerosols are similar to that of other fine particulate matter. Thus aerosols can cause elevated respiratory and cardiovascular diseases as well as increased mortality (15).

2.7 REGULATORY SETTING

International Regulation and the Kyoto Protocol:

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt.

The Kyoto protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto protocol are met, global GHG emissions could be reduced an estimated five percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto.

2015 United Nations Paris Climate Change Conference

On December 12, 2015, which marks the 11th meeting of the Parties to the Kyoto Protocol, 195 nations, including the United States and China, agreed upon a strategy for combatting global climate change to be in effect in 2020. This historic meeting, known as the 21st annual Conference of the Parties (COP21), focused on five key elements: mitigation, a transparency system and global stock-take, adaptation, loss and damage, and support.

In mitigating global climate change, COP 21 participating nations agreed upon a universal long-term goal of keeping the global temperature to well below 2°C or 3.6°F well above pre-industrial levels. The agreement also encouraged participating nations to limit temperature increases even further to 1.5°C or 2.7°F above pre-industrial levels. In addition to that, nations agreed to peak their GHG emissions as soon as possible, with the recognition that developing countries may take longer than developed countries. Thereafter, nations are to undergo rapid reductions in accordance to best available technological advances. The nations are to submit national climate action plans that detail future objectives to address climate change.

In supporting a transparency system and global stock-take, the participating nations agreed to meet every 5 years to set more ambitious targets on global climate change as technologically feasible. The nations are to report to each other and to the public on their progress towards implementing targets and goals through a transparency and accountability system.

In adaptation, participating nations are to strengthen the ability of nations to deal with climate impacts and provide continued international support for adaptation to developing countries.

In supporting loss and damage, participating nations understand the importance of minimizing and addressing the loss and damage associated with adverse effects of global climate change. These nations acknowledge the need to corporate with each other and support each other through safeguards, such as early warning systems, emergency preparedness, and risk insurance.

Participating nations are to support each other in their efforts to fight against global climate change. Developed countries within the COP21 are to continue their existing collective goal of utilizing 100 billion per year in support of the poorest and most vulnerable participating nations, known as climate finance, until 2025, when a new collective goal will be set. (16) (17)

Federal Regulation and the Clean Air Act:

Coinciding 2009 meeting in Copenhagen, on December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has already begun to develop them.

Previously the EPA had not regulated GHGs under the Clean Air Act (18) because it asserted that the Act did not authorize it to issue mandatory regulations to address global climate change and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 (2007), however, the U.S. Supreme Court held that GHGs are pollutants under the Clean Air Act and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA’s Endangerment Finding paves the way for federal regulation of GHGs with or without Congress.

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the unintended reduction of greenhouse gas emissions. In order to manage the state’s energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975.

Title 24 Energy Standards:

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (19) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The Energy Commission's most recent standard, 2013 Building Energy Efficiency Standard, is 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which took effect on July 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses. Some improved measures in the Standards include:

Residential:

- Solar-ready roofs to allow homeowners to add solar photovoltaic panels at a future date
- More efficient windows to allow increased sunlight, while decreasing heat gain

- Insulated hot water pipes, to save water and energy and reduce the time it takes to deliver hot water
- Whole house fans to cool homes and attics with evening air reducing the need for air conditioning load
- Air conditioner installation verification to insure efficient operation

Nonresidential:

- High performance windows, sensors and controls that allow buildings to use "daylighting"
- Efficient process equipment in supermarkets, computer data centers, commercial kitchens, laboratories, and parking garages
- Advanced lighting controls to synchronize light levels with daylight and building occupancy, and provide demand response capability
- Solar-ready roofs to allow businesses to add solar photovoltaic panels at a future date
- Cool roof technologies

CALGreen:

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code) (20). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). The CBSC has released the 2010 California Green Building Standards Code on its Web site. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code.

CALGreen contains both mandatory and voluntary measures, for Non-Residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 sf. There are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures.

The 2013 CALGreen includes additions and amendments to the water efficiency standards for non residential buildings in order to comply with the reduced flow rate table. The 2013 CALGreen has also been rewritten to clarify and definitively identify the requirements and applicability for residential and nonresidential buildings.

California Assembly Bill No. 1493 (AB 1493):

AB 1493 requires CARB to develop and adopt the nation’s first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California (21). Further, the legislature stated that technological solutions to reduce greenhouse gas emissions would stimulate the California economy and provide jobs.

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016.

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the federal CAA provides authority for USEPA to regulate CO2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in California's favor. On December 19, 2007, the USEPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging USEPA's denial on January 2, 2008.

The Obama administration subsequently directed the USEPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the USEPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with USEPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal CAFE program to demonstrate compliance with the AB 1493 regulations (CARB 2009, http://www.arb.ca.gov/regact/2009/ghgpv09/ghgpvisor.pdf) both of these programs are aimed at light-duty auto and light-duty trucks.

Executive Order S-3-05:

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change (22). It declares that increased temperatures could reduce the Sierra's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020, and to 80% below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with the Executive Order, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs.

California Assembly Bill 32 (AB 32):

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020 (1). This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 MMTs (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG

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emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the 28.4 percent reduction to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs.

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plants, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO2 emissions in the State.

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020.

Table 2-3 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTons of CO2e, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 MMTons tons of CO2e (or approximately 1.2 percent of the GHG reduction target).

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and

TABLE 2-3: SCOPING PLAN GHG REDUCTION MEASURES TOWARDS 2020 TARGET

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e

[1] Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2] According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and California Climate Action Team early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

In connection with its preparation of the August 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB released revised estimates of the 2020 emissions level projection in light of the economic recession and the availability of updated information from development of measure-specific regulations. Based on the new economic data, CARB determined the 2020 emissions level projection in the BAU condition would be reduced from 596 metric tons of CO2 equivalent (MTCO2e) to 545 MTCO2e. (23) Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 MTCO2e, or 21.7 percent (down from 28.5 percent), from the BAU condition.

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 MTCO2e. As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 MTCO2e, or approximately 16 percent (down from 28.5 percent), from the BAU condition. (23) (24)

On February 10, 2014, CARB released a Draft Proposed First Update of the Scoping Plan. The draft recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 MTCO2e 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MTCO2e. (25) Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MTCO2e (down from 509 MTCO2e), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (23) (24) (25)

Although CARB has released an update to the Scoping Plan and reduction targets from BAU, it is still appropriate to utilize the previous 28.5% reduction from BAU since the modeling tools available are not able to easily segregate the inclusion of the renewable portfolio standards, and Pavley requirements that are now included in the revised BAU scenario.

<u>California Senate Bill No. 1368 (SB 1368):</u>

In 2006, the State Legislature adopted Senate Bill 1368 ("SB 1368"), which was subsequently signed into law by the Governor (26). SB 1368 directs the California Public Utilities Commission ("CPUC") to adopt a greenhouse gas emission performance standard ("EPS") for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants.

Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of

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the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368.

CEQA Guidelines

CEQA Guideline § 15064.4(a)"A lead agency shall have discretion to determine, in the context of a particular project, whether to: 1. Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use . . .; or 2. Rely on a qualitative analysis or performance based standards."

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are championed. The revision to the cumulative impact discussion requirement (Section 15130) simply directs agencies to analyze greenhouse gas emissions in an EIR when a Project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emission are cumulatively considerable.

Section 15183.5 permits programmatic greenhouse gas analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Compliance with such plans can support determination that a Project's cumulative effect is not cumulatively considerable, according to proposed Section 15183.5(b).

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines Section 15130(f)).

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Executive Order S-01-07:

On January 18, 2007 California Governor Arnold Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least ten percent by 2020 (27). The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels.

Senate Bills 1078 and 107 and Executive Order S-14-08:

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20% of their supply from renewable sources by 2017 (28). SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010 (27). In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33% renewable power by 2020 (29).

Executive Order B-30-15:

In January 2015, Governor Brown, in his inaugural address and annual report to the Legislature, established supplementary goals which would further reduce GHG emissions over the next 15 years. These goals include an increase in California's renewable energy portfolio from 33% to 50%, a reduction in vehicle petroleum use for cars and trucks by up to 50% measures to double the efficiency of existing buildings, and decreasing emissions associated with heating fuels.

On April 29, 2015 California Governor Jerry Brown, through Executive Order B-30-15 ("BEO") states a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030.

The BEO sets an ambitious new Statewide GHG emissions reduction target of 40% below 1990 levels by 2030 as a "mid-term" benchmark needed to achieve the 80% below 1990 levels by 2050. It should be noted however that this target has not been formally enacted by the Legislature or even CARB. As such, the BEO does not appear to constitute a new regulation or requirement adopted to implement a statewide, regional or local plan for the reduction of GHG emissions within the context of CEQA.

The Project reduces its GHG emissions to the maximum extent feasible as discussed in this document. At this time, no further analysis is necessary or required by CEQA as it pertains to Executive Order B-30-15.

Additionally, as described previously, the project applicant would not actively interfere with any future City-mandated, state-mandated, or federally-mandated retrofit obligations enacted or promulgated to legally require development City-wide, state-wide, or nation-wide to assist in meeting state-adopted greenhouse gas emissions reduction targets, including that established under Executive Order S-3-05 or Executive Order B-30-15.

Based on the foregoing, the Project does not interfere with the state's implementation of (i) Executive Order B-30-15's target of reducing statewide GHG emissions to 40% below 1990 levels by 2030 or (ii) Executive Order S-3-05's target of reducing statewide GHG emissions to

80% below 1990 levels by 2050 because it does not interfere with the state's implementation of GHG reduction plans described in the CARB's Updated Scoping Plan, including the state providing for 12,000 MW of renewable distributed generation by 2020, the California Building Commission mandating net zero energy homes in the building code after 2020, or existing building retrofits under AB 758. Therefore, the project's impacts on greenhouse gas emissions in the 2030 and 2050 horizon years are less than significant.

Senate Bill 375:

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035.

These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects will not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from 5 years to 8 years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

The Southern California Association of Governments (SCAG) is required by law to update the Southern California Regional Transportation Plan (RTP) every four years. The 2012 draft plan has been released, this draft plan differs from past plans because it includes development of a SCS. The RTP/SCS incorporates land use and housing policies to meet the greenhouse gas emissions targets established by the California Air Resource Board (CARB) for 2020 (8% reduction) and 2035 (13% reduction). On April 4, 2012, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future.

South Coast Air Quality Management District Recommendations for Significance Thresholds:

In April 2008, the South Coast Air Quality Management District (SCAQMD), in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents, convened a "GHG CEQA Significance Threshold Working Group." The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA.

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects—residential; non-residential; industrial; etc (30). However, the threshold is still under development. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold for stationary source projects where it is the lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of carbon dioxide equivalent (MTCO2e) as a screening numerical threshold for stationary sources. More importantly it should be noted that when setting the 10,000 MTCO2e threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore it would be misleading to apply a threshold that was developed without consideration for mobile sources to a Project where the majority of emissions are related to mobile sources.

In September 2010 (31), the Working Group released additional revisions that consist of the following recommended tiered approach:

- Tier 1 consists of evaluating whether or not the Project qualifies for applicable CEQA exemptions.
- Tier 2 consists of determining whether or not a Project is consistent with a greenhouse gas reduction plan. If a Project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.
- Tier 3 consists of screening values at the discretion of the lead agency; however they should be consistent for all projects within its jurisdiction. Project-related construction emissions should be amortized over 30 years and should be added back the Project's operational emissions. The following thresholds are proposed for consideration:
    - 3,000 MTCO2e per year for all land use types

      or
    - 3,500 MTCO2e per year for residential; 1,400 MTCO2e per year for commercial; or 3,000 MTCO2e per year for mixed-use projects
- Tier 4 has the following options:
    - Option 1: Reduce emissions from business as usual by a certain percentage (currently undefined)
    - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
    - Option 3: A project-level efficiency target of 4.8 MTCO2e per service population as a 2020 target and 3.0 MTCO2e per service population as a 2035 target. The recommended plan-level target for 2020 is 6.6 MTCO2e and the plan level target for 2035 is 4.1 MTCO2e
- Tier 5 involves mitigation offsets to achieve target significance thresholds

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG reductions. However, these rules address boilers and process heater, forestry, and manure management projects, none of which are required by the Project

2.8 SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY

The 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the SCAG region was prepared to ensure that the Southern California region attains the per capita vehicle miles targets for passenger vehicles identified by CARB, as required by Senate Bill 375 (32). The Project would be consistent with the plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The Project's consistency with the proposed RTP strategies would therefore not conflict with GHG reduction goals set forth in the SAG 2012 RTP/SCS.

2.9 CITY OF MORENO VALLEY GENERAL PLAN MEASURES

Although the City of Moreno Valley General Plan does not identify specific GHG or climate change policies or goal, a number of the measures identified in the General Plan's Air Quality Element act to reduce or control criteria pollutant emissions and peripherally reduce GHG emissions. The proposed Project has been evaluated for consistency with the City's General Plan Air Quality Element, as shown on Table 2-4.

TABLE 2-4: CITY OF MORENO VALLEY GENERAL PLAN CONSISTENCY

Objective 6.6: Promote land use patterns that reduce daily automotive trips and reduce trip distance for work, shopping, school, and recreation.	**Consistent.** *The Project site is providing employment opportunities to Moreno Valley and the surrounding area.*
Objective 6.7: Reduce mobile and stationary source air pollutant emissions.	**Consistent.** *The Project site is located proximate to existing and proposed major roadways, acting to generally reduce vehicle trip lengths, thereby reducing mobile source emissions. The Project will further reduce mobile source emissions by creating local employment opportunities, reducing commuter vehicle miles traveled (VMT) within the region. Additionally, the Project will implement energy efficient designs and operational programs meeting or surpassing California Code of Regulations (CCR) Title 24 Building Standards, including but not limited to compliance with or betterment of, energy conservation requirements identified at CCR Title 24, Part 6, Energy Code. Energy efficient designs and programs implemented by the Project reduce resources consumption with correlating reductions in stationary-source emissions.*
Policy 6.7.5: Require grading activities to comply with South Coast Air Quality Management District's Rule 403 regarding the control of fugitive dust.	**Consistent.** *The Project will be required to implement fugitive dust control measures consistent with SCAQMD Rule 403.*
Policy 6.7.6: Require building construction to comply with the energy conservation requirements of Title 24 of the California Administrative Code [California Code of Regulations].	**Consistent.** *Pursuant to City and State Building Code requirements, the Project will meet or surpass applicable CCR Title 24 energy conservation requirements.*

Source: City of Moreno Valley General Plan, Safety Element

2.10 CITY OF MORENO VALLEY ENERGY EFFICIENCY AND CLIMATE ACTION STRATEGY

The City of Moreno Valley released an Energy Efficiency and Climate Action Strategy (CAS) as well as a Greenhouse Gas Analysis for public review on May 8, 2012. The documents were approved on October 9, 2012. The CAS identifies ways that the City can reduce energy and water consumption and greenhouse gas emissions as an organization (its employees and the operation of its facilities) and outlines the actions that the City can encourage and community members can employ to reduce their own energy and water consumption and greenhouse gas emissions. The policies in the document are to reduce greenhouse gas emissions in 2010 by 15 percent by 2020. The following consists of an analysis of project consistency with the policies in the CAS.

- R2-T1: Land Use Based Trips and VMT Reduction Policies. Encourage the development of Transit Priority Projects along High Quality Transit Corridors identified in the SCAG Sustainable Communities Plan, to allow a reduction in vehicle miles traveled.

  Project consistency: Not applicable.
- R2-T3: Employment-Based Trip Reductions. Require a Transportation Demand Management (TDM) program for new development to reduce automobile travel by encouraging ride-sharing, carpooling, and alternative modes of transportation.

  Project consistency: Consistent with implementation of MM AQ-5.
- R2-E1: New Construction Residential Energy Efficiency Requirements. Require energy efficient design for all new residential buildings to be 10 percent beyond the current Title 24 standards. (Reach Code)

  Project consistency: Not applicable; this measure applies to residential projects.
- R2-E2: New Construction Residential Renewable Energy. Facilitate the use of renewable energy (such as solar (photovoltaic) panels or small wind turbines) for new residential developments. Alternative approach would be the purchase of renewable energy resources offsite.

  Project consistency: Not applicable; this measure applies to residential projects.
- R2-E5: New Construction Commercial Energy Efficiency Requirements. Require energy efficient design for all new commercial buildings to be 10% beyond the 2008 Title 24 standards (which were in effect at the time the CAP was adopted). (Reach Code)

  Project consistency: Consistent; Current 2013 Title 24 requirements would achieve greater reduction than envisioned by the City's Climate Action Strategy. Further, the Project would be required to comply with any adopted municipal code requirements set forth by the City of Moreno Valley. As such the Project would be consistent with R2-E5
- R3-E1: Energy Efficient Development, and Renewable Energy Deployment Facilitation and Streamlining. Updating of codes and zoning requirements and guidelines to further implement green building practices. This could include incentives for energy efficient projects.
- Project consistency: Not applicable on a project-level.
- R3-L2: Heat Island Plan. Develop measures that address "heat islands." Potential measures include using strategically placed shade trees, using paving materials with a Solar Reflective Index of at least 29, an open grid pavement system, or covered parking.

  Project consistency: Consistent; the Project will comply with the City of Moreno Valley's landscaping requirements.

- R2-W1: Water Use Reduction Initiative. Consider adopting a per capita water use reduction goal, which mandates the reduction of water use of 20 percent per capita with requirements applicable to new development and with cooperative support of the water agencies.

  Project consistency: Consistent. California Green Building Standards Code, Chapter 5, Division 5.3, Section 5.303.2 requires that indoor water use be reduced by 20 percent. Section 5.304.3 requires irrigation controllers and sensors. MM AQ-4 also requires water conservation.
- R3-W1: Water Efficiency Training and Education. Work with EMWD and local water companies to implement a public information and education program that promotes water conservation.

  Project consistency: Not applicable at a project-level.
- R2-S1: City Diversion Program. For Solid Waste, consider a target of increasing the waste diverted from the landfill to a total of 75 percent by 2020.

  Project consistency: Consistent; the Project will comply with the City of Moreno Valley's citywide goal of solid waste reduction. Additionally the Project will be compliant with the City of Moreno Valley's Municipal Code 8.80.030 by implementing a Waste Management Plan.

As shown above and in Appendix 3.2, Project Consistency with Moreno Valley Energy Efficiency and Climate Action Strategy, of this report, many of the measures are not applicable to the project.

2.11 CONSISTENCY WITH CARB SCOPING PLAN

Table 2-5 below, presents the 39 Recommended Actions (qualitative measures) identified to date by CARB in its Climate Change Proposed Scoping Plan. Of the 39 measures identified, those that would be considered to be applicable to the Project would primarily be those actions related to transportation, electricity and natural gas use, green building design and industrial uses. Consistency of the Project with these measures is evaluated by each source-type measure below. Table 3-5 identifies which CARB Recommended Actions apply to the Project, and of those, whether the Project is consistent therewith. A discussion of how the Project is consistent with each applicable CARB Recommended Action is set forth after Table 2-5.

TABLE 2-5: RECOMMENDED ACTIONS FOR CLIMATE CHANGED PROPOSED SCOPING PLAN

ID #	Sector	Strategy Name	Applicable to Project?	Will Project Conflict With Implementation?
T-1	Transportation	Pavley I and II – Light-Duty Vehicle GHG Standards	NO	NO
T-2	Transportation	Low Carbon Fuel Standard (Discrete Early Action)	NO	NO
T-3	Transportation	Regional Transportation-Related GHG Targets	NO	NO
T-4	Transportation	Vehicle Efficiency Measures	NO	NO
T-5	Transportation	Ship Electrification at Ports (Discrete Early Action)	NO	NO
T-6	Transportation	Goods-movement Efficiency Measures	NO	NO
T-7	Transportation	Heavy Duty Vehicle Greenhouse Gas Emission Reduction Measure – Aerodynamic Efficiency (Discrete Early Action)	NO	NO
T-8	Transportation	Medium and Heavy-Duty Vehicle Hybridization	NO	NO
T-9	Transportation	High Speed Rail	NO	NO
E-1	Electricity and Natural Gas	Increased Utility Energy efficiency programs More stringent Building and Appliance Standards	YES	NO
E-2	Electricity and Natural Gas	Increase Combined Heat and Power Use by 30,000GWh	NO	NO
E-3	Electricity and Natural Gas	Renewable Portfolio Standard	NO	NO
E-4	Electricity and Natural Gas	Million Solar Roofs	YES	NO
CR-1	Electricity and Natural Gas	Energy Efficiency	YES	NO
CR-2	Electricity and Natural Gas	Solar Water Heating	NO	NO
GB-1	Green Buildings	Green Buildings	YES	NO
W-1	Water	Water Use Efficiency	YES	NO
W-2	Water	Water Recycling	NO	NO
W-3	Water	Water System Energy Efficiency	YES	NO
W-4	Water	Reuse Urban Runoff	NO	NO
W-5	Water	Increase Renewable Energy Production	NO	NO
W-6	Water	Public Goods Charge (Water)	NO	NO
I-1	Industry	Energy Efficiency and Co-benefits Audits for Large Industrial Sources	YES	NO
I-2	Industry	Oil and Gas Extraction GHG Emission Reduction	NO	NO
I-3	Industry	GHG Leak Reduction from Oil and Gas Transmission	NO	NO
I-4	Industry	Refinery Flare Recovery Process Improvements	NO	NO
I-5	Industry	Removal of Methane Exemption from Existing Refinery Regulations	NO	NO
RW-1	Recycling and Waste Management	Landfill Methane Control (Discrete Early Action)	NO	NO
RW-2	Recycling and Waste Management	Additional Reductions in Landfill Methane – Capture Improvements	NO	NO
RW-3	Recycling and Waste Management	High Recycling/Zero Waste	NO	NO
F-1	Forestry	Sustainable Forest Target	NO	NO
H-1	High Global Warming Potential Gases	Motor Vehicle Air Conditioning Systems (Discrete Early Action)	NO	NO
H-2	High Global Warming Potential Gases	SF_6 Limits in Non-Utility and Non-Semiconductor Applications (Discrete Early Action)	NO	NO
H-3	High Global Warming Potential Gases	Reduction in Perfluorocarbons in Semiconductor Manufacturing (Discrete Early Action)	NO	NO
H-4	High Global Warming Potential Gases	Limit High GWP Use in Consumer Products (Discrete Early Action, Adopted June 2008)	NO	NO
H-5	High Global Warming Potential Gases	High GWP Reductions from Mobile Sources	NO	NO
H-6	High Global Warming Potential Gases	High GWP Reductions from Stationary Sources	NO	NO
H-7	High Global Warming Potential Gases	Mitigation Fee on High GWP Gases	NO	NO
A-1	Agriculture	Methane Capture at Large Dairies	NO	NO

SOURCE: CARB, 2008.

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Discussion of the applicability of each measure and Project consistency with or support of its implementation follows. It also noted that certain measures and enforcement actions listed below are beyond the scope of control of the Project. Notwithstanding implementation and enforcement of these measures by the State or other responsible entity will act to reduce areawide GHG emissions.

Transportation

CARB's Scoping Plan identifies nine transportation-related recommended actions. Action T-1 concerns improvements to light-duty vehicle technology for the purposes of reducing GHG emissions. This action focuses on legislating improved controls for vehicle manufacturers and would not generally be considered applicable to the proposed Project. Implementation of the Pavley standards is dependent on implementation by the State on vehicle fuel economy standards.

Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the Pavley standards.

Action T-2 concerns implementation of a low carbon fuel standard. To reduce the carbon intensity of transportation fuels, CARB is developing a Low Carbon Fuel Standard (LCFS), which would reduce the carbon intensity of California's transportation fuels by at least ten percent by 2020 as called for by Governor Schwarzenegger in Executive Order S-01-07. LCFS will incorporate compliance mechanisms that provide flexibility to fuel providers in how they meet the requirements to reduce greenhouse gas emissions.

Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning the use of low carbon fuels.

Action T-3 addressees regional transportation targets for reducing GHG emissions. SB 375 requires CARB to develop, in consultation with metropolitan planning organizations (MPOs), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035. It sets forth a collaborative process to establish these targets, including the appointment by CARB of a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting greenhouse gas emissions reduction targets. SB 375 also provides incentives – relief from certain California Environmental Quality Act (CEQA) requirements for development projects that are consistent with regional plans that achieve the targets.

Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with measures concerning SB375.

Action T-4 is concerned with vehicle efficiency measures. The California Integrated Waste Management Board (CIWMB) with various partners continues to conduct a public awareness campaign to promote sustainable tire practices. CARB is pursuing a regulation to ensure that tires are properly inflated when vehicles are serviced. In addition, CEC in consultation with CIWMB is developing an efficient tire program focusing first on data gathering and outreach, then on potential adoption of minimum fuel-efficient tire standards, and lastly on the development of consumer information requirements for replacing tires. CARB is also pursuing ways to reduce engine load via lower friction oil and reducing the need for air conditioner use. ARB is actively engaged in the regulatory development process for the tire inflation component of this measure.

Implementation of such a standard is not within the purview of this Project. Therefore, the proposed Project would not conflict with applicable measures.

Action T-5 addresses electrification of ships at ports and is not applicable to the proposed Project.

Action T-6 also primarily addresses port operations and is not applicable to the proposed Project.

Action T-7 requires existing trucks/trailers to be retrofitted with the best available technology and/or CARB-approved technology.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-8 focuses on hybridization of medium- and heavy-duty vehicles. The implementation approach to Action T-8 is to adopt a regulation and/or incentive program that reduces GHG emissions by encouraging hybrid technology as applied to vocational applications that have significant urban, stop-and-go driving, idling, and power take-off operations in their duty cycle. Such applications include parcel delivery trucks and vans.

Implementation of such a standard is not within the purview of the proposed Project since various trucks fleets from numerous commercial entities may access the site. Therefore, the proposed Project would not conflict with this measure.

Action T-9 concerns implementation of a high speed rail system. This measure is not applicable to the Project.

Electricity and Natural Gas

Action E-1/CR-1, together with Action GB-1 (Green Building), aims to reduce electricity demand by increased efficiency of Utility Energy Programs and adoption of more stringent building and appliance standards.

The Project will comply with or surpass incumbent Title 24 Energy Efficiency Standards.. Therefore, the proposed Project would not conflict with this measure.

Action E-2 encourages an increase in the use of combined heat and power (CHP) use, or co-generation, facilities. California has supported CHP for many years, but market and other barriers continue to keep CHP from reaching its full market potential. Increasing the deployment of efficient CHP will require a multi-pronged approach that includes addressing significant barriers and instituting incentives or mandates where appropriate.

Implementation of such a standard is not within the purview of the proposed Project; therefore, the proposed Project would not conflict with this measure.

Action E-3 concerns Renewable Portfolio Standards for utilities and does not apply to development projects.

Action E-4 strives to promote solar generated electricity.

Project building designs will accommodate renewable energy sources, such as photovoltaic solar electricity systems, appropriate to their architectural design(s). The Project would therefore not conflict with the recommended measure.

Action CR-2 strives to promote solar water heaters (SWH). The ARB recommends that California pursue approaches with the goal of developing a viable SWH industry for 2020 and beyond.

Implementation of such a standard is not within the purview of the Project; therefore, the proposed Project would not conflict with this measure.

Water Use

Implementation of all but two of the Recommended Actions related to water use are not within the purview of the proposed Project. The two measures that apply are measures W-1 (Water Use Efficiency) and W-3 (Water System Energy Efficiency). However, since the proposed Project would not exceed the audit threshold of 25,000 MT CO_2 (33) from on-site combustion and related activities, the proposed Project is consistent with and would not obstruct the recommended actions.

Industrial Use

All but one of the Recommended Actions related to industrial use are specific to oil and gas extraction, refining and transmission and are not applicable to the proposed Project. The one other Action I-1 targets large emitters of GHGs (in excess of 0.5 million metric tons (MMT)/year of CO_2E (equivalent)) for auditing[6] (34). Because the proposed Project would not exceed the audit threshold, as set forth in Section 3.0, the proposed Project is consistent with and would not obstruct the recommended actions.

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[6] Certain "covered sectors" of activities in California account for 85% of GHG emissions. Each source in these sectors will be subject to a system of declining GHG emissions allowances issued by CARB under a total emissions cap, as well as an allowance trading system. The Plan's lynch-pin is a cap-and-trade program that would apply to the electricity sector, the transportation sector, the commercial and residential sector, and large industrial sources (those emitting more than 0.5 million metric tons per year of carbon dioxide ("CO2") equivalents).

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3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant greenhouse gas impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related greenhouse gas impacts are taken from the Initial Study Checklist in Appendix G of the State CEQA Guidelines (14 California Code of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

For informational purposes, the SCAQMD's Tier 4 Option 1 approach is utilized within this greenhouse gas analysis in order to evaluate if the Project GHG emissions fall 28.5% or more below BAU in accordance with the goals of AB 32.

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this EIR is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

3.3 PROJECT RELATED GREENHOUSE GAS EMISSIONS

CEQA Guidelines 15064.4 (b) (1) states that a lead agency may use a model or methodology to quantify greenhouse gas emissions associated with a project (35).

On October 2, 2013, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM_{10}, $PM_{2.5}$, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (36). Accordingly, the latest version of CalEEMod™ has been used for this Project to determine construction and operational air quality impacts. Output from the model runs for both construction and operational activity are provided in Appendix 3.1

3.4 CONSTRUCTION AND OPERATIONAL LIFE-CYCLE ANALYSIS

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time. Life-cycle analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development, infrastructure and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time a LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood or documented, and would be challenging to mitigate (37). Additionally, the science to calculate life cycle emissions is not yet established or well defined, therefore SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

3.5 CONSTRUCTION EMISSIONS

Construction activities associated with the proposed Project will result in emissions of CO2 and CH4 from construction activities.

The report Moreno Valley Logistics Center Air Quality Impact Analysis Report, Urban Crossroads, Inc. (2016) contains detailed information regarding construction activity (38).

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by the a 30 year project life then adding that number to the annual operational phase GHG emissions (39). As such, construction emissions were amortized over a 30 year period and added to the annual operational phase GHG emissions.

3.6 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO2, CH4, and N2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment and Distribution
- On-Site Equipment Emissions

3.6.1 AREA SOURCE EMISSIONS

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.6.2 ENERGY SOURCE EMISSIONS

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used.

3.6.3 MOBILE SOURCE EMISSIONS

Vehicles

GHG emissions will also result from mobile sources associated with the Project. These mobile source emissions will result from the typical daily operation of motor vehicles by visitors, employees, and customers.

Project operational (vehicular) impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Neither the Project Applicant nor the City has any regulatory control over these tail pipe emissions. Rather, vehicle tail pipe source emissions are regulated by CARB and USEPA. As summarized previously herein, as the result of CARB and USEPA actions, Basin-wide vehicular-source emissions have been reduced dramatically over the past years and are expected to further decline as clean vehicle and fuel technologies improve.

Project mobile source air quality impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, Moreno Valley Logistics Center Traffic Impact Analysis (Urban Crossroads) 2016 were utilized in this analysis (40). It should be noted that the Project's traffic study presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at the study area intersections. Notwithstanding, for purposes of the air quality study, the PCE trips were not used. Rather, to more accurately estimate and model vehicular-source emissions, the actual number of vehicles, by vehicle classification (e.g., passenger cars (including light trucks), heavy trucks) were used in the analysis.

For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- ITE land use code 110 (General Light Industrial) has been used to derive site specific trip generation estimates for Buildings 2 through 4. The ITE Trip Generation manual includes very limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix has been obtained from a separate report; the City of Fontana Truck Trip Generation Study (August 2003) for the general light industrial uses proposed as part of the Project. Buildings 2 through 4 have been identified as light industrial. The "Light Industrial" vehicle mix data has been utilized for all 3 buildings. As identified in the Project's TIA, 78.6% of the fleet mix consists of passenger cars and 21.4% of the fleet mix consists of trucks. The following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the light industrial land uses: 37.40% of the total trucks as 2-axle trucks, 18.23% of the total trucks as 3-axle trucks, and 44.37% of the total trucks as 4+-axle trucks.
- ITE land use code 152 (High-Cube Warehousing) has been used to derive site specific trip generation estimates for Building 1. Total vehicle mix percentages were also obtained from the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type (41). The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies being prepared for the Project. The percentage of trucks

has been determined from the table shown on page 267 of the ITE Trip Generation manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. As identified in the Project's TIA, 61.9% of the fleet mix consists of passenger cars and 31.8% of the fleet mix consists of trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, was obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the high-cube warehouse land uses: 22.0% of the total trucks as 2-axle trucks, 17.7% of the total trucks as 3-axle trucks, and 60.3% of the total trucks as 4+-axle trucks.

3.6.3.1 Trip Length

Background

A technical deficiency inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project x average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for a distribution warehouse center such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Fontana Commerce Development Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.

Provided below is a summary of the VMT recommendations of the SCAQMD and SCAG, followed by a description of the methodology used to calculate the VMT rates used in this GHGA.

SCAQMD Recommendation

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects (42). The SCAQMD asserts that the model-default trip length in CalEEMod™ and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod™ and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length.

Southern California Association of Government (SCAG) Heavy Duty Truck Model

SCAG is comprised of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 190 cities in Southern California, and is the organization charged with addressing and resolving short- and long-term regional policy issues. The SCAG region also consists of 14 subregional entities recognized by the Regional Council as partners in the regional policy planning process. The SCAG region has more than 19 million residents and encompasses more than 38,000 square miles, representing the largest and most diverse region in the country.

SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks.

Approach for Analysis of the Project

Trip lengths and VMT estimates employed in this GHG report generate vehicular-source emissions that would represent a maximum impact scenario. Other Environmental Impact Reports (EIRs) for similar land use projects within the region have utilized these same or similar estimates. Though the VMT analyzed in this analysis may differ from the Project's traffic impact analysis, to maintain analytic consistency and establish the maximum impact scenario noted above, the following approach has been utilized in calculating emissions associated with vehicles accessing the Project. This approach is consistent with professional industry practice (43) (44) (45).

For passenger car trips, the San Bernardino County CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the South Coast Air Basin (SCAB) as follows.

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;
- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go East on the State Route 60, 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations and the remainder as Moreno Valley destinations. The average truck trip length is calculated as 61 miles.

For each land use (High-Cube Warehouse and General Light Industrial Warehouse), two separate model runs were utilized in order to more accurately model emissions resulting from vehicle operations. The first run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second run analyzed truck emissions, which incorporated an average truck trip length of 61 miles. A fleet mix of 22.03% LHD, 17.66% MHD, and 60.31% HHD was used for High-Cube Warehouse and a fleet mix of 37.40% LHD, 18.23% MHD, and 44.37% HHD was used for General Light Industrial Warehouse. The estimated emissions resulting from vehicle operations are summarized in Table 3-7 (presented later in this report.) Detailed emission calculations are provided in Appendix 3.2.

3.6.4 SOLID WASTE

Industrial land uses will result in the generation and disposal of solid waste. A large percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™ model using default parameters.

3.6.5 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Water demand rates from the Moreno Valley WSA were utilized. The WSA determined a 550 gallons per day per acre (gpd/ac), which is equivalent to approximately 0.62 AFY[7].

3.6.6 ON-SITE EQUIPMENT EMISSIONS

It is common for an industrial warehouse project to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp (46). Based on the latest available information from SCAQMD (47); high-cube warehouse projects typically have 3.6 yard trucks per million square feet of building space. For this particular Project, on-site modeled operational equipment includes seven 200 hp yard tractors operating at 4 hours a day (48) for 365 days of the year[8]. In addition to the use of yard trucks operating at the Project site, forklifts are a common piece of equipment used in warehouse operations. The Project includes seven 89 hp yard forklifts operating at 4 hours a day for 365 days of the year interior to the

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[7] At the time the GHGA was prepared, a Water Supply Assessment (WSA) for the Project was unavailable. Water demand rates from Eastern Municipal Water District (EMWD) for a similar project in the City of Moreno Valley, Modular Logistics, was utilized. EMWD provided a 0.75 demand per unit of acre-feet per year (AFY). As such, the water demand utilized in the report is more conservative than the water demand determined by the Moreno Valley Logistics Center WSA.

[8] 4 hour daily on-site operation of the yard trucks is based on the Southern California International Gateway Recirculated Draft EIR. Table C1.2-BL-17 Activity Data for Existing Business CHE – 2010 Baseline indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forklifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pieces of equipment equals 52. As such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to 4 hours for analytical purposes.

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

building. However for purposes of the GHGA forklifts are not included in the health risk calculations since there is no diesel exhaust associated with the forklifts as they are assumed to be non-diesel consistent with industry standards.

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by diesel fueled diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

3.7 EMISSIONS SUMMARY

The total amount of Project-related GHG emissions for BAU without accounting for any project design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total 56,466.71 MMTCO2e as shown on Table 3-2.

The total amount of Project-related GHG emissions when accounting for applicable regulatory developments, project design features, and mitigation measures that would reduce GHG emissions from direct and indirect sources combined would total 42,404.68 MMTCO2e as shown on Table 3-3. This results in a 24.90% reduction from BAU, thus with implementation of the Project's design features and regulatory developments, the Project's GHG reduction would not meet the AB 32 reduction target of 28.5% (1). Both of these quantities are above the significance criterion used herein of 10,000 MTCO2e per year. Thus, GHG emissions is a significant cumulatively considerable impact of the proposed Project.

TABLE 3-1: "BUSINESS AS USUAL" GREENHOUSE GAS EMISSIONS

Emission Source	**Emissions (metric tons per year)**			
	CO_2	**CH_4**	**N_2O**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	206.07	3.00E-02	--	206.75
High-Cube				
Area	0.07	3.20E-04	--	0.07
Energy	4,137.95	0.16	0.04	4,154.67
Mobile Sources (Trucks)	25,834.35	1.00	--	25,855.27
Mobile Sources (Passenger Cars)	3103.59	0.26	--	3,109.00
On-site Emissions	307.00	0.03	--	307.67
Waste	257.93	15.24	--	578.04
Water Usage	61.60	0.47	0.01	75.05
Light Industrial				
Area	0.02	1.20E-04	--	0.03
Energy	2,121.86	0.07	0.03	2,131.33
Mobile Sources (Trucks)	14,992.75	0.58	--	15,004.87
Mobile Sources (Passenger Cars)	4666.75	0.39	--	4,674.89
On-site Emissions	122.80	0.01	--	123.07
Waste	97.10	5.74	--	217.60
Water Usage	23.31	0.18	4.37E-03	28.40
Total CO_2E (All Sources)	**56,466.71**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^b") and is followed by the value of the exponent

TABLE 3-2: 2020 GREENHOUSE GAS EMISSIONS WITH APPLICABLE REGULATORY DEVELOPMENTS, DESIGN FEATURES AND MITIGATION MEASURES

Emission Source	**Emissions (metric tons per year)**			
	CO_2	**CH_4**	**N_2O**	**Total CO_2E**
Annual construction-related emissions amortized over 30 years	206.07	3.00E-02	--	206.75
High-Cube				
Area	0.07	1.80E-04	--	0.07
Energy	2,927.08	0.16	0.04	2,943.02
Mobile Sources (Trucks)	20,351.64	0.13	--	20,354.46
Mobile Sources (Passenger Cars)	1,773.78	0.06	--	1,775.09
On-site Emissions	254.16	0.08		255.89
Waste	257.93	15.24	--	578.04
Water Usage	35.29	0.38	9.22E-03	46.04
Light Industrial				
Area	0.02	7.00E-05	--	0.03
Energy	1,930.01	0.07	0.02	1,539.89
Mobile Sources (Trucks)	11,697.12	0.07	0.02	11,698.88
Mobile Sources (Passenger Cars)	2,667.17	0.09	--	2,669.14
On-site Emissions	101.67	0.03		102.36
Waste	97.10	5.74	--	217.60
Water Usage	13.35	0.14	3.49E-03	17.42
Total CO_2E (All Sources)	**42,404.68**			

Source: CalEEMod™ model output, See Appendix 3.1 for detailed model outputs.
Note: Totals obtained from CalEEMod™ and may not total 100% due to rounding.

Table results include scientific notation. *e* is used to represent *times ten raised to the power of* (which would be written as x 10^{b}") and is followed by the value of the exponent

ALTERNATE SITE PLAN GHG IMPACTS

As previously discussed, the alternate site plan omits Building 2 with the addition of truck trailer parking in its place, thus decreasing total building area and operational capacity. Should the alternate site plan be implemented, greenhouse gas impacts would not exceed the level of greenhouse gas impacts analyzed within the current Project scenario. As such, the Project scenario analysis represents a "worst-case" analysis scenario.

INCREMENTAL PROJECT GHG EMISSIONS ARE CUMULATIVELY CONSIDERABLE

The City of Moreno Valley does not have an adopted threshold of significance for GHG emissions. For CEQA purposes, the City has discretion to select an appropriate significance criterion, based on substantial evidence. The AQMD's adopted numerical threshold of 10,000 MTCO2e per year for industrial stationary source emissions is selected as the significance criterion. The AQMD-adopted industrial threshold was selected by the City because the proposed Project is analogous to an industrial use much more closely than any other land use such as commercial or residential in terms of its expected operating characteristics. The Project proposes large buildings with loading bays and fenced truck courts that are expected to house businesses that serve mid- stream functions in the goods movement chain between manufacturers and consumers, characteristic of an industrial operation. Further, analysis of the Project's traffic generation in this EIR is based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012 for industrial and warehouse uses. Also, 10,000 MTCO2e has been used as the significance threshold by many local government lead agencies for logistics projects throughout the SCAG region since the AQMD adopted this threshold for its own use. Further, to ensure that the threshold is conservative in its application, although the AQMD uses their adopted 10,000 MTCO2e threshold to determine the significance of stationary source emissions for industrial projects, the 10,000 MTCO2e threshold used in this EIR is applied to all sources of Project-related GHG emissions whether stationary source, mobile source, area source, or other.

Use of this threshold is also consistent with guidance provided in the CAPCOA *CEQA and Climate Change* handbook, as such the City has opted to use a non-zero threshold approach based on Approach 2 of the handbook. Threshold 2.5 (Unit-Based Thresholds Based on Market Capture) establishes a numerical threshold based on capture of approximately 90 percent of emissions from future development. The latest threshold developed by SCAQMD using this method is 10,000 metric tons carbon dioxide equivalent (MTCO2E) per year for industrial projects. This threshold is based on the review of 711 CEQA projects.

The Project will result in approximately 5,548.86 MTCO2e per year from construction, area, energy, waste, and water usage. In addition, the Project has the potential to result in an additional 36,855.82 MTCO2e per year from mobile sources if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, the Project has the potential to generate a total of approximately 42,404.68 MTCO2e per year. As such, the Project would exceed the SCAQMD's numeric threshold of 10,000 MTCO2e if it were applied. Thus, the Project has the potential to result in a cumulatively considerable impact with respect to GHG emissions.

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4 FINDINGS & CONCLUSIONS

The total amount of Project-related GHG emissions for BAU without accounting for any project design features or regulatory developments that would reduce GHG emissions from direct and indirect sources combined would total 56,466.71 MMTCO2e.

The total amount of Project-related GHG emissions when accounting for applicable regulatory developments, project design features, and mitigation measures that would reduce GHG emissions from direct and indirect sources combined would total 42,404.68 MMTCO2e. This results in a 24.90% reduction from BAU, thus with implementation of the Project's design features and regulatory developments, the Project's GHG reduction would not meet the AB 32 reduction target of 28.5% (1). Both of these quantities are above the significance criterion used herein of 10,000 MTCO2e per year. Thus, GHG emissions is a significant cumulatively considerable impact of the proposed Project.

4.1 REGULATORY REQUIREMENTS

The Project would be required to comply with all mandates imposed by the State of California and the South Coast Air Quality Management District aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions are:

- Global Warming Solutions Act of 2006 (AB32) (1)
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375) (49)
- Pavely Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles (21).
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (50).
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances (51).
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (52).
- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (53).
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (26).
- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020 (54).

Promulgated regulations that will affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, the Pavley Standards, Low

Carbon Fuel Standards, and Renewable Portfolio Standards (RPS) will be in effect for the AB 32 target year of 2020, and therefore are accounted for in the Project's emission calculations. The BAU scenario emissions do not include regulations designed to meet AB 32 standards; therefore these regulations were not included in the GHG emissions calculations for the BAU scenario.

4.2 CONSTRUCTION-SOURCE AIR POLLUTANT EMISSIONS MITIGATION MEASURES

The Project Air Quality Impact Analysis (AQIA) establishes construction activity mitigation measures that would globally reduce air pollutant emissions generated by subsequent development proposals within the Project site. Although these measures could act to reduce GHG emissions, there is insufficient data to support any reductions associated with the construction activity mitigation measures identified in the AQIA. Thus, as a conservative measure no reduction in GHG emissions are taken for construction activity mitigation measures identified in the AQIA.

4.3 OPERATIONAL-SOURCE MITIGATION MEASURES

MM AQ-3:

Prior to the issuance of building permits, the Project applicant shall ensure that the Project is designed to achieve efficiency equal to or exceeding then incumbent (2013 or later) California Building Code Title 24 requirements.

MM AQ-4:

To reduce water consumption and the associated energy-usage, the Project will be designed to comply with the mandatory reductions in indoor water usage contained in the incumbent CalGreen Code (55) and any mandated reduction in outdoor water usage contained in the City's water efficient landscape requirements. Additionally, the Project shall implement the following:

- Landscaping palette emphasizing drought tolerant plants;
- Use of water-efficient irrigation techniques;
- U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

MM AQ-5:

The Project will reduce vehicle miles traveled and emissions associated with by implementing the following measures:

- Pedestrian and bicycle connections shall be provided to surrounding areas consistent with the City's General Plan.
- Implement a voluntary trip reduction program, for which all employees shall be eligible to participate.

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

MM AQ-6:

The truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:

a) Truck drivers shall turn off engines when not in use;

b) Diesel delivery trucks servicing the Project shall not idle for more than five (5) minutes[1]; and

c) Telephone numbers of the building facilities manager and the CARB to report violations.

MM AQ-7:

- Site design shall allow for trucks to check-in within the facility area to prevent queuing of trucks outside the facility.[2]
- Signs shall be posted in loading dock areas that instruct truck drivers to shut down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park", and the parking brake is engaged (56).

MM AQ-8

A frequent CEQA petitioner in the Inland Empire routinely asks lead agencies to impose dozens and dozens of a variety of mitigation measures. This list includes suggestions that are often duplicative of current SCAQMD Rules and are duplicative in and of themselves. In an effort to hopefully forestall a future dispute on air quality issues, this assessment has already included most of the mitigation measures from this list that are not already duplicative of existing Rules, State law, and other mitigation measures. As a conservative measure, no reduction for any of the measures listed under MM AQ-8 is taken in the analysis.

Construction Impacts

- Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.
- Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.)
- Limit fugitive dust sources to 20 percent opacity.
- Require a dust control plan for earthmoving operations.
- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All streets shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.

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[1] While restricted idling is required per MM HRA-1, the analysis presented here takes no quantified credit or reduction in emissions for restricted idling, and reflects an assumed 15-minute "worst case" idling condition.

[2] As above, no quantified credit or reduction in emissions is taken for site design requirements reflected in MM HRA-2

- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.
- Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.
- Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.
- A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.
- Implement activity management techniques including
- Development of a comprehensive construction management plan designed to minimize the number of large construction equipment operating during any given time period;
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emission;
- Require the use of CARB certified equipment for construction activities.
- Utilize only CARB certified equipment for construction activities.
- The developer shall require all contractors to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.
- Restrict engine size of construction equipment to minimum practical size.
- Install catalytic converters on gasoline-powered equipment.
- Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.
- Reroute construction trucks away from congested streets and sensitive receptor areas.
- Configure construction parking to minimize traffic interference.
- Minimize construction worker trips by requiring carpooling and providing for lunch onsite.
- Provide on-site food service options for the construction crew.
- Provide shuttle service to transit stations/multimodal center for the construction crew.

Operational Emissions

- Encourage all fleet vehicles to conform to 2010 air quality standards or better. Users shall maintain compliance through normal course of business. Any spaces utilizing refrigerated storage, including restaurants and food or beverage stores, shall provide an electrical hookup for refrigeration units on delivery trucks. Trucks incapable of utilizing the electrical hookup for powering refrigeration shall be prohibited from accessing the site.
- Install catalytic converters on gasoline-powered equipment.
- Electrical powered equipment should be utilized in-lieu of gasoline-powered engines where technically feasible.
- All forklifts shall be electric or natural gas powered.

- Prohibit idling of trucks for periods exceeding three minutes.
- Charge reduced or no parking fee for EVs and CNG vehicles.
- Provide preferential parking locations for EVs and CNG vehicles.
- Planting shade trees in parking lots to provide minimum 50% cover to reduce evaporative emission from parked vehicles.
- Provide preferential parking for carpool/vanpool vehicles.
- Provide secure, weather protected bicycle parking for employees.
- Design buildings for passive heating and cooling and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.

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6 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed Moreno Valley Logistics Center Project. The information contained in this greenhouse gas report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

MoVal Logistics Center- Construction

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	385.75	1000sqft	16.70	385,748.00	0
Unrefrigerated Warehouse-No Rail	1,351.77	1000sqft	50.14	1,351,770.00	0
Parking Lot	1,998.00	Space	17.98	799,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage:84.82; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking=3.27 parking spaces.

Construction Phase - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Off-road Equipment - Based on client specifications
Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Trips and VMT - Based on client specifications

Grading -

Architectural Coating - Based on client specifications; Use 50g/L Low VOC Paint

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - Based on client specifications

Table Name	Column Name	Default Value	New Value
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tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
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tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00

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Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

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Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

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tblOffRoadEquipment	HorsePower	171.00	354.00
tblOffRoadEquipment	HorsePower	171.00	354.00
tblOffRoadEquipment	HorsePower	171.00	354.00

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblOffRoadEquipment	HorsePower	171.00	354.00
tblOffRoadEquipment	HorsePower	171.00	354.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	478.33	0.00
tblSolidWaste	SolidWasteGenerationRate	1,270.66	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,078.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,758.00
tblTripsAndVMT	HaulingTripNumber	0.00	728.00
tblTripsAndVMT	HaulingTripNumber	0.00	778.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,152.00
tblTripsAndVMT	HaulingTripNumber	0.00	838.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,384.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,374.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
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tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	89,204,687.50	0.00

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblWater	IndoorWaterUseRate	312,596,812.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.6791	37.7091	27.9859	0.0583	1.5183	1.2935	2.8118	0.4066	1.1900	1.5966	0.0000	5,344.4448	5,344.4448	0.8305	0.0000	5,361.8845
2017	1.0745	6.5290	5.6239	0.0133	0.3350	0.2000	0.5350	0.0927	0.1840	0.2767	0.0000	1,179.5583	1,179.5583	0.1348	0.0000	1,182.3892
Total	**4.7537**	**44.2381**	**33.6099**	**0.0715**	**1.8533**	**1.4936**	**3.3468**	**0.4994**	**1.3740**	**1.8734**	**0.0000**	**6,524.0030**	**6,524.0030**	**0.9653**	**0.0000**	**6,544.2737**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	2.1054	17.2071	27.1824	0.0583	1.2477	0.4730	1.7207	0.3409	0.4508	0.7917	0.0000	5,344.4416	5,344.4416	0.8305	0.0000	5,361.8813
2017	0.8504	3.8001	5.7843	0.0133	0.3350	0.0905	0.4255	0.0927	0.0859	0.1787	0.0000	1,179.5578	1,179.5578	0.1348	0.0000	1,182.3887
Total	**2.9557**	**21.0072**	**32.9667**	**0.0715**	**1.5827**	**0.5635**	**2.1461**	**0.4337**	**0.5367**	**0.9703**	**0.0000**	**6,523.9994**	**6,523.9994**	**0.9653**	**0.0000**	**6,544.2700**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**37.82**	**52.51**	**1.91**	**0.00**	**14.60**	**62.27**	**35.88**	**13.16**	**60.94**	**48.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading 1	Grading	4/29/2016	6/30/2016	5	45	
2	Grading 2	Grading	7/1/2016	7/20/2016	5	14	
3	Trenching 1	Trenching	7/1/2016	11/15/2016	5	98	

4	Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	5	82	
5	Trenching 2	Trenching	7/15/2016	8/31/2016	5	34	
6	Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	5	50	
7	Grading 3	Grading	8/4/2016	8/19/2016	5	12	
8	Trenching 3	Trenching	8/15/2016	9/28/2016	5	33	
9	Grading 4	Grading	8/22/2016	9/14/2016	5	18	
10	Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	5	47	
11	Trenching 4	Trenching	9/8/2016	10/26/2016	5	35	
12	Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	5	50	
13	Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	5	47	
14	Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	5	22	
15	Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	5	20	
16	Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	5	23	
17	Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	5	48	
18	Paving 2	Paving	11/8/2016	12/15/2016	5	28	
19	Architectural Coating 2	Architectural Coating	11/14/2016	12/7/2016	5	18	
20	Misc. Finishes 2	Building Construction	11/18/2016	12/29/2016	5	30	
21	Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	5	22	
22	Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	5	23	
23	Paving 3	Paving	12/2/2016	1/10/2017	5	28	
24	Architectural Coating 1	Architectural Coating	12/7/2016	1/30/2017	5	39	
25	Misc. Finishes 3	Building Construction	12/8/2016	1/17/2017	5	29	
26	Architectural Coating 3	Architectural Coating	12/8/2016	1/2/2017	5	18	
27	Paving 1	Paving	12/23/2016	4/26/2017	5	89	
28	Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	5	24	
29	Architectural Coating 4	Architectural Coating	1/11/2017	2/7/2017	5	20	
30	Paving 4	Paving	1/12/2017	3/2/2017	5	36	
31	Misc. Finishes 4	Building Construction	1/17/2017	2/28/2017	5	31	

32	Misc. Finishes 1	Building Construction	1/20/2017	4/20/2017	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 51,832; Non-Residential Outdoor: 51,832 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading 1	Crawler Tractors	1	8.00	410	0.43
Grading 1	Excavators	0	8.00	162	0.38
Grading 1	Graders	1	8.00	302	0.41
Grading 1	Off-Highway Tractors	2	8.00	485	0.44
Grading 1	Other Construction Equipment	2	8.00	354	0.44
Grading 1	Other General Industrial Equipment	3	8.00	330	0.37
Grading 1	Rubber Tired Dozers	1	8.00	451	0.40
Grading 1	Rubber Tired Loaders	1	8.00	350	0.36
Grading 1	Scrapers	8	8.00	452	0.48
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Cranes	0	7.00	226	0.29
Grading 2	Crawler Tractors	1	8.00	410	0.43
Grading 2	Excavators	0	8.00	162	0.38
Grading 2	Forklifts	0	8.00	89	0.20
Grading 2	Generator Sets	0	8.00	84	0.74
Grading 2	Graders	1	8.00	302	0.41
Grading 2	Other Construction Equipment	1	8.00	354	0.42
Grading 2	Other General Industrial Equipment	1	8.00	330	0.37

Grading 2	Pavers	0	8.00	125	0.42
Grading 2	Paving Equipment	0	8.00	49	0.36
Grading 2	Rollers	0	8.00	80	0.38
Grading 2	Rubber Tired Dozers	0	8.00	255	0.40
Grading 2	Rubber Tired Loaders	1	8.00	350	0.36
Grading 2	Scrapers	3	8.00	452	0.48
Grading 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 2	Welders	0	8.00	46	0.45
Trenching 1	Excavators	2	8.00	268	0.38
Trenching 1	Other Construction Equipment	2	8.00	354	0.42
Trenching 1	Other Material Handling Equipment	2	8.00	249	0.40
Trenching 1	Rubber Tired Loaders	2	8.00	350	0.36
Trenching 1	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 1	Cranes	0	7.00	226	0.29
Concrete Shell 1	Excavators	0	8.00	268	0.38
Concrete Shell 1	Forklifts	0	8.00	89	0.20
Concrete Shell 1	Generator Sets	0	8.00	84	0.74
Concrete Shell 1	Other Construction Equipment	5	8.00	354	0.42
Concrete Shell 1	Other Material Handling Equipment	0	8.00	249	0.43
Concrete Shell 1	Pavers	0	8.00	125	0.42
Concrete Shell 1	Paving Equipment	0	8.00	49	0.36
Concrete Shell 1	Rollers	0	8.00	80	0.38
Concrete Shell 1	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 1	Surfacing Equipment	0	8.00	350	0.30
Concrete Shell 1	Tractors/Loaders/Backhoes	4	8.00	110	0.37
Concrete Shell 1	Welders	0	8.00	46	0.45
Trenching 2	Excavators	1	8.00	268	0.38
Trenching 2	Other Construction Equipment	1	8.00	354	0.42

Trenching 2	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 2	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 2	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 2	Air Compressors	0	6.00	78	0.48
Concrete Shell 2	Cranes	0	7.00	226	0.29
Concrete Shell 2	Forklifts	0	8.00	89	0.20
Concrete Shell 2	Generator Sets	0	8.00	84	0.74
Concrete Shell 2	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 2	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 2	Welders	0	8.00	46	0.45
Grading 3	Air Compressors	0	6.00	78	0.48
Grading 3	Cranes	0	8.00	215	0.29
Grading 3	Crawler Tractors	1	8.00	410	0.43
Grading 3	Excavators	0	8.00	162	0.38
Grading 3	Forklifts	0	8.00	89	0.20
Grading 3	Generator Sets	0	8.00	84	0.74
Grading 3	Graders	1	8.00	302	0.41
Grading 3	Off-Highway Tractors	0	8.00	485	0.44
Grading 3	Other Construction Equipment	1	8.00	354	0.42
Grading 3	Other General Industrial Equipment	1	8.00	330	0.34
Grading 3	Rubber Tired Dozers	0	8.00	255	0.40
Grading 3	Rubber Tired Loaders	1	8.00	350	0.36
Grading 3	Scrapers	3	8.00	452	0.48
Grading 3	Surfacing Equipment	0	8.00	350	0.30
Grading 3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 3	Welders	0	8.00	46	0.45
Trenching 3	Excavators	1	8.00	268	0.38
Trenching 3	Other Construction Equipment	1	8.00	354	0.42

Trenching 3	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 3	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 3	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Grading 4	Aerial Lifts	0	8.00	48	0.31
Grading 4	Cranes	0	8.00	215	0.29
Grading 4	Crawler Tractors	1	8.00	410	0.43
Grading 4	Excavators	0	8.00	162	0.38
Grading 4	Forklifts	0	8.00	110	0.20
Grading 4	Generator Sets	0	8.00	84	0.74
Grading 4	Graders	1	8.00	302	0.41
Grading 4	Other Construction Equipment	1	8.00	354	0.42
Grading 4	Other General Industrial Equipment	1	8.00	330	0.34
Grading 4	Rubber Tired Dozers	0	8.00	255	0.40
Grading 4	Rubber Tired Loaders	1	8.00	350	0.36
Grading 4	Scrapers	3	8.00	452	0.48
Grading 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 4	Welders	0	8.00	46	0.45
Concrete Shell 3	Cranes	0	7.00	226	0.29
Concrete Shell 3	Forklifts	0	8.00	89	0.20
Concrete Shell 3	Generator Sets	0	8.00	84	0.74
Concrete Shell 3	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 3	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 3	Welders	0	8.00	46	0.45
Trenching 4	Excavators	1	8.00	268	0.38
Trenching 4	Other Construction Equipment	1	8.00	354	0.42
Trenching 4	Other Material Handling Equipment	1	8.00	249	0.40
Trenching 4	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 4	Tractors/Loaders/Backhoes	1	8.00	110	0.37

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Concrete Shell 4	Air Compressors	0	6.00	78	0.48
Concrete Shell 4	Cranes	0	7.00	226	0.29
Concrete Shell 4	Excavators	0	8.00	268	0.38
Concrete Shell 4	Forklifts	0	8.00	89	0.20
Concrete Shell 4	Generator Sets	0	8.00	84	0.74
Concrete Shell 4	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 4	Other Material Handling Equipment	0	8.00	249	0.40
Concrete Shell 4	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 4	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 4	Welders	0	8.00	46	0.45
Steel & Roof 1	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 1	Air Compressors	0	6.00	78	0.48
Steel & Roof 1	Cranes	2	8.00	215	0.29
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Generator Sets	0	8.00	84	0.74
Steel & Roof 1	Other Construction Equipment	3	8.00	354	0.42
Steel & Roof 1	Pavers	0	8.00	125	0.42
Steel & Roof 1	Paving Equipment	0	8.00	130	0.36
Steel & Roof 1	Rollers	0	8.00	80	0.38
Steel & Roof 1	Rubber Tired Loaders	0	8.00	350	0.36
Steel & Roof 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 1	Trenchers	0	8.00	81	0.50
Steel & Roof 1	Welders	0	8.00	46	0.45
Steel & Roof 2	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 2	Air Compressors	0	6.00	78	0.48
Steel & Roof 2	Cranes	1	8.00	215	0.29
Steel & Roof 2	Crawler Tractors	0	8.00	410	0.43

Steel & Roof 2	Excavators	0	8.00	162	0.38
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Generator Sets	0	8.00	84	0.74
Steel & Roof 2	Graders	0	8.00	302	0.41
Steel & Roof 2	Off-Highway Tractors	0	8.00	485	0.44
Steel & Roof 2	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 2	Rubber Tired Dozers	0	8.00	255	0.40
Steel & Roof 2	Scrapers	0	8.00	452	0.48
Steel & Roof 2	Surfacing Equipment	0	8.00	350	0.30
Steel & Roof 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 2	Welders	0	8.00	46	0.45
Steel & Roof 3	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 3	Cranes	1	8.00	215	0.29
Steel & Roof 3	Forklifts	0	8.00	110	0.20
Steel & Roof 3	Generator Sets	0	8.00	84	0.74
Steel & Roof 3	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Steel & Roof 3	Welders	0	8.00	46	0.45
Roofing & Overhead Work 2	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 2	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 2	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 2	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 2	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 2	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 2	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41

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Roofing & Overhead Work 2	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 2	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 2	Other General Industrial Equipment	0	8.00	330	0.34
Roofing & Overhead Work 2	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 2	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 2	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 2	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 2	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 2	Scrapers	0	8.00	330	0.48
Roofing & Overhead Work 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 1	Aerial Lifts	3	8.00	48	0.31
Roofing & Overhead Work 1	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 1	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 1	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 1	Forklifts	2	8.00	110	0.20
Roofing & Overhead Work 1	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 1	Other Construction Equipment	3	8.00	354	0.42
Roofing & Overhead Work 1	Other Material Handling Equipment	0	8.00	249	0.43
Roofing & Overhead Work 1	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 1	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 1	Welders	0	8.00	46	0.45
Paving 2	Aerial Lifts	0	8.00	48	0.31
Paving 2	Cranes	0	7.00	226	0.29
Paving 2	Crawler Tractors	0	8.00	249	0.43
Paving 2	Excavators	0	8.00	268	0.38
Paving 2	Forklifts	0	8.00	110	0.20
Paving 2	Generator Sets	0	8.00	84	0.74

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Paving 2	Graders	0	8.00	174	0.41
Paving 2	Other Construction Equipment	1	8.00	354	0.42
Paving 2	Pavers	0	8.00	125	0.42
Paving 2	Paving Equipment	0	8.00	130	0.36
Paving 2	Rollers	0	8.00	80	0.38
Paving 2	Rubber Tired Dozers	0	8.00	255	0.40
Paving 2	Rubber Tired Loaders	1	8.00	350	0.36
Paving 2	Scrapers	0	8.00	361	0.48
Paving 2	Surfacing Equipment	0	8.00	350	0.30
Paving 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Paving 2	Trenchers	1	8.00	81	0.50
Paving 2	Welders	0	8.00	46	0.45
Architectural Coating 2	Air Compressors	0	6.00	78	0.48
Architectural Coating 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 2	Cranes	0	7.00	226	0.29
Misc. Finishes 2	Forklifts	0	8.00	89	0.20
Misc. Finishes 2	Generator Sets	0	8.00	84	0.74
Misc. Finishes 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 3	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 3	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 3	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 3	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 3	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 3	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 3	Generator Sets	0	8.00	84	0.74

Roofing & Overhead Work 3	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 3	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 3	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 3	Welders	0	8.00	46	0.45
Steel & Roof 4	Cranes	1	8.00	215	0.29
Steel & Roof 4	Forklifts	0	8.00	89	0.20
Steel & Roof 4	Generator Sets	0	8.00	84	0.74
Steel & Roof 4	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 4	Welders	0	8.00	46	0.45
Paving 3	Other Construction Equipment	1	8.00	354	0.42
Paving 3	Pavers	0	8.00	125	0.42
Paving 3	Paving Equipment	0	8.00	130	0.36
Paving 3	Rollers	0	8.00	80	0.38
Paving 3	Rubber Tired Loaders	1	8.00	350	0.36
Paving 3	Trenchers	1	8.00	81	0.50
Architectural Coating 1	Air Compressors	0	6.00	78	0.48
Architectural Coating 1	Other Construction Equipment	4	8.00	354	0.42
Misc. Finishes 3	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 3	Cranes	0	7.00	226	0.29
Misc. Finishes 3	Forklifts	0	8.00	89	0.20
Misc. Finishes 3	Generator Sets	0	8.00	84	0.74
Misc. Finishes 3	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 3	Welders	0	8.00	46	0.45
Architectural Coating 3	Air Compressors	0	6.00	78	0.48
Architectural Coating 3	Other Construction Equipment	1	8.00	354	0.42

Paving 1	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	0	8.00	130	0.36
Paving 1	Rollers	0	8.00	80	0.38
Paving 1	Rubber Tired Loaders	2	8.00	350	0.36
Paving 1	Trenchers	1	8.00	81	0.50
Roofing & Overhead Work 4	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 4	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 4	Concrete/Industrial Saws	0	8.00	81	0.73
Roofing & Overhead Work 4	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	410	0.43
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 4	Excavators	0	8.00	162	0.38
Roofing & Overhead Work 4	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 4	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 4	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 4	Graders	0	8.00	302	0.41
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	485	0.44
Roofing & Overhead Work 4	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 4	Other General Industrial Equipment	0	8.00	330	0.37
Roofing & Overhead Work 4	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 4	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 4	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 4	Rubber Tired Dozers	0	8.00	451	0.40
Roofing & Overhead Work 4	Rubber Tired Loaders	0	8.00	350	0.37
Roofing & Overhead Work 4	Scrapers	0	8.00	452	0.48
Roofing & Overhead Work 4	Surfacing Equipment	0	8.00	350	0.30

Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Roofing & Overhead Work 4	Welders	0	8.00	46	0.45
Architectural Coating 4	Air Compressors	0	6.00	78	0.48
Architectural Coating 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Pavers	0	8.00	125	0.42
Paving 4	Paving Equipment	0	8.00	130	0.36
Paving 4	Rollers	0	8.00	80	0.38
Paving 4	Rubber Tired Loaders	1	8.00	350	0.36
Paving 4	Trenchers	1	8.00	81	0.50
Misc. Finishes 4	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 4	Cranes	0	7.00	226	0.29
Misc. Finishes 4	Forklifts	0	8.00	89	0.20
Misc. Finishes 4	Generator Sets	0	8.00	84	0.74
Misc. Finishes 4	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 4	Welders	0	8.00	46	0.45
Misc. Finishes 1	Aerial Lifts	2	8.00	48	0.31
Misc. Finishes 1	Cranes	0	7.00	226	0.29
Misc. Finishes 1	Forklifts	0	8.00	89	0.20
Misc. Finishes 1	Generator Sets	0	8.00	84	0.74
Misc. Finishes 1	Other Construction Equipment	2	8.00	354	0.42
Misc. Finishes 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 1	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading 1	19	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 1	9	125.00	416.00	10,384.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 2	6	40.00	416.00	1,374.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 3	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 4	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 3	6	40.00	416.00	1,078.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 4	6	40.00	416.00	1,758.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 1	5	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 2	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 3	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 2	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 1	8	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	3	8.00	0.00	728.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 2	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 3	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 4	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 3	3	8.00	0.00	778.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	4	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 3	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 3	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Paving 1	4	10.00	0.00	4,152.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 4	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 4	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 4	3	8.00	0.00	838.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 4	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 1	4	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Grading 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3503	0.0000	0.3503	0.0977	0.0000	0.0977	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5124	6.4082	3.9145	5.8500e-003		0.2573	0.2573		0.2367	0.2367	0.0000	551.4246	551.4246	0.1663	0.0000	554.9175
Total	**0.5124**	**6.4082**	**3.9145**	**5.8500e-003**	**0.3503**	**0.2573**	**0.6076**	**0.0977**	**0.2367**	**0.3344**	**0.0000**	**551.4246**	**551.4246**	**0.1663**	**0.0000**	**554.9175**

3.2 Grading 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799
Total	**3.7100e-003**	**5.4300e-003**	**0.0547**	**1.3000e-004**	**0.0119**	**8.0000e-005**	**0.0120**	**3.1500e-003**	**7.0000e-005**	**3.2200e-003**	**0.0000**	**10.0701**	**10.0701**	**4.7000e-004**	**0.0000**	**10.0799**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1366	0.0000	0.1366	0.0381	0.0000	0.0381	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1328	1.3915	3.0024	5.8500e-003		0.0559	0.0559		0.0539	0.0539	0.0000	551.4239	551.4239	0.1663	0.0000	554.9169
Total	**0.1328**	**1.3915**	**3.0024**	**5.8500e-003**	**0.1366**	**0.0559**	**0.1925**	**0.0381**	**0.0539**	**0.0920**	**0.0000**	**551.4239**	**551.4239**	**0.1663**	**0.0000**	**554.9169**

3.2 Grading 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799
Total	**3.7100e-003**	**5.4300e-003**	**0.0547**	**1.3000e-004**	**0.0119**	**8.0000e-005**	**0.0120**	**3.1500e-003**	**7.0000e-005**	**3.2200e-003**	**0.0000**	**10.0701**	**10.0701**	**4.7000e-004**	**0.0000**	**10.0799**

3.3 Grading 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0297	0.0000	0.0297	3.2100e-003	0.0000	3.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0670	0.8435	0.4878	8.1000e-004		0.0332	0.0332		0.0305	0.0305	0.0000	76.4976	76.4976	0.0231	0.0000	76.9822
Total	**0.0670**	**0.8435**	**0.4878**	**8.1000e-004**	**0.0297**	**0.0332**	**0.0629**	**3.2100e-003**	**0.0305**	**0.0337**	**0.0000**	**76.4976**	**76.4976**	**0.0231**	**0.0000**	**76.9822**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.3 Grading 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067
Total	**4.8000e-004**	**7.0000e-004**	**7.0900e-003**	**2.0000e-005**	**1.5400e-003**	**1.0000e-005**	**1.5500e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3054**	**1.3054**	**6.0000e-005**	**0.0000**	**1.3067**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0116	0.0000	0.0116	1.2500e-003	0.0000	1.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1512	0.3870	8.1000e-004		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	76.4975	76.4975	0.0231	0.0000	76.9821
Total	**0.0131**	**0.1512**	**0.3870**	**8.1000e-004**	**0.0116**	**5.5200e-003**	**0.0171**	**1.2500e-003**	**5.5200e-003**	**6.7700e-003**	**0.0000**	**76.4975**	**76.4975**	**0.0231**	**0.0000**	**76.9821**

3.3 Grading 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067
Total	**4.8000e-004**	**7.0000e-004**	**7.0900e-003**	**2.0000e-005**	**1.5400e-003**	**1.0000e-005**	**1.5500e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3054**	**1.3054**	**6.0000e-005**	**0.0000**	**1.3067**

3.4 Trenching 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3082	3.8105	1.8246	4.3500e-003		0.1529	0.1529		0.1407	0.1407	0.0000	409.8082	409.8082	0.1236	0.0000	412.4040
Total	**0.3082**	**3.8105**	**1.8246**	**4.3500e-003**		**0.1529**	**0.1529**		**0.1407**	**0.1407**	**0.0000**	**409.8082**	**409.8082**	**0.1236**	**0.0000**	**412.4040**

3.4 Trenching 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333
Total	**4.2100e-003**	**6.1500e-003**	**0.0621**	**1.5000e-004**	**0.0135**	**9.0000e-005**	**0.0136**	**3.5800e-003**	**8.0000e-005**	**3.6500e-003**	**0.0000**	**11.4221**	**11.4221**	**5.3000e-004**	**0.0000**	**11.4333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0815	1.2180	2.2283	4.3500e-003		0.0516	0.0516		0.0516	0.0516	0.0000	409.8077	409.8077	0.1236	0.0000	412.4035
Total	**0.0815**	**1.2180**	**2.2283**	**4.3500e-003**		**0.0516**	**0.0516**		**0.0516**	**0.0516**	**0.0000**	**409.8077**	**409.8077**	**0.1236**	**0.0000**	**412.4035**

3.4 Trenching 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333
Total	**4.2100e-003**	**6.1500e-003**	**0.0621**	**1.5000e-004**	**0.0135**	**9.0000e-005**	**0.0136**	**3.5800e-003**	**8.0000e-005**	**3.6500e-003**	**0.0000**	**11.4221**	**11.4221**	**5.3000e-004**	**0.0000**	**11.4333**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2287	2.8039	1.6770	3.2200e-003		0.1276	0.1276		0.1174	0.1174	0.0000	303.1787	303.1787	0.0915	0.0000	305.0991
Total	**0.2287**	**2.8039**	**1.6770**	**3.2200e-003**		**0.1276**	**0.1276**		**0.1174**	**0.1174**	**0.0000**	**303.1787**	**303.1787**	**0.0915**	**0.0000**	**305.0991**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0807	1.4507	0.9900	3.6900e-003	0.0893	0.0252	0.1145	0.0245	0.0232	0.0477	0.0000	337.8962	337.8962	2.1500e-003	0.0000	337.9414
Vendor	0.1399	1.4959	1.7508	3.5800e-003	0.1058	0.0279	0.1337	0.0303	0.0256	0.0559	0.0000	325.7243	325.7243	2.1600e-003	0.0000	325.7696
Worker	0.0176	0.0258	0.2596	6.4000e-004	0.0563	3.6000e-004	0.0567	0.0150	3.3000e-004	0.0153	0.0000	47.7863	47.7863	2.2300e-003	0.0000	47.8330
Total	**0.2382**	**2.9724**	**3.0004**	**7.9100e-003**	**0.2514**	**0.0535**	**0.3048**	**0.0697**	**0.0492**	**0.1189**	**0.0000**	**711.4069**	**711.4069**	**6.5400e-003**	**0.0000**	**711.5441**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0464	0.4623	1.6182	3.2200e-003		0.0269	0.0269		0.0269	0.0269	0.0000	303.1783	303.1783	0.0915	0.0000	305.0988
Total	**0.0464**	**0.4623**	**1.6182**	**3.2200e-003**		**0.0269**	**0.0269**		**0.0269**	**0.0269**	**0.0000**	**303.1783**	**303.1783**	**0.0915**	**0.0000**	**305.0988**

3.5 Concrete Shell 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0807	1.4507	0.9900	3.6900e-003	0.0893	0.0252	0.1145	0.0245	0.0232	0.0477	0.0000	337.8962	337.8962	2.1500e-003	0.0000	337.9414
Vendor	0.1399	1.4959	1.7508	3.5800e-003	0.1058	0.0279	0.1337	0.0303	0.0256	0.0559	0.0000	325.7243	325.7243	2.1600e-003	0.0000	325.7696
Worker	0.0176	0.0258	0.2596	6.4000e-004	0.0563	3.6000e-004	0.0567	0.0150	3.3000e-004	0.0153	0.0000	47.7863	47.7863	2.2300e-003	0.0000	47.8330
Total	**0.2382**	**2.9724**	**3.0004**	**7.9100e-003**	**0.2514**	**0.0535**	**0.3048**	**0.0697**	**0.0492**	**0.1189**	**0.0000**	**711.4069**	**711.4069**	**6.5400e-003**	**0.0000**	**711.5441**

3.6 Trenching 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0544	0.6726	0.3202	7.7000e-004		0.0270	0.0270		0.0248	0.0248	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731
Total	**0.0544**	**0.6726**	**0.3202**	**7.7000e-004**		**0.0270**	**0.0270**		**0.0248**	**0.0248**	**0.0000**	**72.1163**	**72.1163**	**0.0218**	**0.0000**	**72.5731**

3.6 Trenching 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627
Total	**7.6000e-004**	**1.1100e-003**	**0.0112**	**3.0000e-005**	**2.4300e-003**	**2.0000e-005**	**2.4400e-003**	**6.5000e-004**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**2.0606**	**2.0606**	**1.0000e-004**	**0.0000**	**2.0627**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0143	0.2119	0.3915	7.7000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731
Total	**0.0143**	**0.2119**	**0.3915**	**7.7000e-004**		**8.9700e-003**	**8.9700e-003**		**8.9700e-003**	**8.9700e-003**	**0.0000**	**72.1163**	**72.1163**	**0.0218**	**0.0000**	**72.5731**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.6 Trenching 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627
Total	**7.6000e-004**	**1.1100e-003**	**0.0112**	**3.0000e-005**	**2.4300e-003**	**2.0000e-005**	**2.4400e-003**	**6.5000e-004**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**2.0606**	**2.0606**	**1.0000e-004**	**0.0000**	**2.0627**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759
Total	**0.1000**	**1.2570**	**0.7360**	**1.4600e-003**		**0.0537**	**0.0537**		**0.0494**	**0.0494**	**0.0000**	**137.9024**	**137.9024**	**0.0416**	**0.0000**	**138.7759**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.1920	0.1310	4.9000e-004	0.0118	3.3300e-003	0.0151	3.2400e-003	3.0700e-003	6.3100e-003	0.0000	44.7101	44.7101	2.8000e-004	0.0000	44.7161
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.0994**	**1.1091**	**1.2492**	**2.7900e-003**	**0.0873**	**0.0204**	**0.1077**	**0.0246**	**0.0188**	**0.0434**	**0.0000**	**252.6466**	**252.6466**	**2.0300e-003**	**0.0000**	**252.6894**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758
Total	**0.0200**	**0.1665**	**0.7097**	**1.4600e-003**		**8.9900e-003**	**8.9900e-003**		**8.9900e-003**	**8.9900e-003**	**0.0000**	**137.9022**	**137.9022**	**0.0416**	**0.0000**	**138.7758**

3.7 Concrete Shell 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.1920	0.1310	4.9000e-004	0.0118	3.3300e-003	0.0151	3.2400e-003	3.0700e-003	6.3100e-003	0.0000	44.7101	44.7101	2.8000e-004	0.0000	44.7161
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.0994**	**1.1091**	**1.2492**	**2.7900e-003**	**0.0873**	**0.0204**	**0.1077**	**0.0246**	**0.0188**	**0.0434**	**0.0000**	**252.6466**	**252.6466**	**2.0300e-003**	**0.0000**	**252.6894**

3.8 Grading 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0255	0.0000	0.0255	2.7500e-003	0.0000	2.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0571	0.7187	0.4156	6.9000e-004		0.0283	0.0283		0.0260	0.0260	0.0000	65.0874	65.0874	0.0196	0.0000	65.4997
Total	**0.0571**	**0.7187**	**0.4156**	**6.9000e-004**	**0.0255**	**0.0283**	**0.0537**	**2.7500e-003**	**0.0260**	**0.0288**	**0.0000**	**65.0874**	**65.0874**	**0.0196**	**0.0000**	**65.4997**

3.8 Grading 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200
Total	**4.1000e-004**	**6.0000e-004**	**6.0800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1189**	**1.1189**	**5.0000e-005**	**0.0000**	**1.1200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.9300e-003	0.0000	9.9300e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1272	0.3290	6.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	65.0874	65.0874	0.0196	0.0000	65.4996
Total	**0.0111**	**0.1272**	**0.3290**	**6.9000e-004**	**9.9300e-003**	**4.6400e-003**	**0.0146**	**1.0700e-003**	**4.6400e-003**	**5.7100e-003**	**0.0000**	**65.0874**	**65.0874**	**0.0196**	**0.0000**	**65.4996**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.8 Grading 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200
Total	**4.1000e-004**	**6.0000e-004**	**6.0800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1189**	**1.1189**	**5.0000e-005**	**0.0000**	**1.1200**

3.9 Trenching 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0528	0.6529	0.3108	7.4000e-004		0.0262	0.0262		0.0241	0.0241	0.0000	69.9953	69.9953	0.0211	0.0000	70.4386
Total	**0.0528**	**0.6529**	**0.3108**	**7.4000e-004**		**0.0262**	**0.0262**		**0.0241**	**0.0241**	**0.0000**	**69.9953**	**69.9953**	**0.0211**	**0.0000**	**70.4386**

3.9 Trenching 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020
Total	**7.4000e-004**	**1.0800e-003**	**0.0109**	**3.0000e-005**	**2.3600e-003**	**1.0000e-005**	**2.3700e-003**	**6.3000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**2.0000**	**2.0000**	**9.0000e-005**	**0.0000**	**2.0020**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.2056	0.3800	7.4000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	69.9952	69.9952	0.0211	0.0000	70.4386
Total	**0.0138**	**0.2056**	**0.3800**	**7.4000e-004**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**	**0.0000**	**69.9952**	**69.9952**	**0.0211**	**0.0000**	**70.4386**

3.9 Trenching 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020
Total	**7.4000e-004**	**1.0800e-003**	**0.0109**	**3.0000e-005**	**2.3600e-003**	**1.0000e-005**	**2.3700e-003**	**6.3000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**2.0000**	**2.0000**	**9.0000e-005**	**0.0000**	**2.0020**

3.10 Grading 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0382	0.0000	0.0382	4.1200e-003	0.0000	4.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0856	1.0780	0.6234	1.0400e-003		0.0424	0.0424		0.0390	0.0390	0.0000	97.6311	97.6311	0.0295	0.0000	98.2496
Total	**0.0856**	**1.0780**	**0.6234**	**1.0400e-003**	**0.0382**	**0.0424**	**0.0806**	**4.1200e-003**	**0.0390**	**0.0431**	**0.0000**	**97.6311**	**97.6311**	**0.0295**	**0.0000**	**98.2496**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.10 Grading 4 - 2016

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800
Total	**6.2000e-004**	**9.0000e-004**	**9.1200e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6784**	**1.6784**	**8.0000e-005**	**0.0000**	**1.6800**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0149	0.0000	0.0149	1.6100e-003	0.0000	1.6100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0167	0.1908	0.4935	1.0400e-003		6.9600e-003	6.9600e-003		6.9600e-003	6.9600e-003	0.0000	97.6310	97.6310	0.0295	0.0000	98.2495
Total	**0.0167**	**0.1908**	**0.4935**	**1.0400e-003**	**0.0149**	**6.9600e-003**	**0.0219**	**1.6100e-003**	**6.9600e-003**	**8.5700e-003**	**0.0000**	**97.6310**	**97.6310**	**0.0295**	**0.0000**	**98.2495**

3.10 Grading 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800
Total	**6.2000e-004**	**9.0000e-004**	**9.1200e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6784**	**1.6784**	**8.0000e-005**	**0.0000**	**1.6800**

3.11 Concrete Shell 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0940	1.1816	0.6918	1.3800e-003		0.0505	0.0505		0.0465	0.0465	0.0000	129.6283	129.6283	0.0391	0.0000	130.4494
Total	**0.0940**	**1.1816**	**0.6918**	**1.3800e-003**		**0.0505**	**0.0505**		**0.0465**	**0.0465**	**0.0000**	**129.6283**	**129.6283**	**0.0391**	**0.0000**	**130.4494**

3.11 Concrete Shell 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1506	0.1028	3.8000e-004	9.2700e-003	2.6200e-003	0.0119	2.5400e-003	2.4100e-003	4.9500e-003	0.0000	35.0782	35.0782	2.2000e-004	0.0000	35.0829
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	3.2300e-003	4.7200e-003	0.0476	1.2000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	6.0000e-005	2.8000e-003	0.0000	8.7647	8.7647	4.1000e-004	0.0000	8.7733
Total	**0.0918**	**1.0128**	**1.1539**	**2.5500e-003**	**0.0803**	**0.0187**	**0.0989**	**0.0226**	**0.0172**	**0.0398**	**0.0000**	**230.5386**	**230.5386**	**1.8700e-003**	**0.0000**	**230.5778**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0188	0.1565	0.6671	1.3800e-003		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	129.6281	129.6281	0.0391	0.0000	130.4492
Total	**0.0188**	**0.1565**	**0.6671**	**1.3800e-003**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**	**0.0000**	**129.6281**	**129.6281**	**0.0391**	**0.0000**	**130.4492**

3.11 Concrete Shell 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1506	0.1028	3.8000e-004	9.2700e-003	2.6200e-003	0.0119	2.5400e-003	2.4100e-003	4.9500e-003	0.0000	35.0782	35.0782	2.2000e-004	0.0000	35.0829
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	3.2300e-003	4.7200e-003	0.0476	1.2000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	6.0000e-005	2.8000e-003	0.0000	8.7647	8.7647	4.1000e-004	0.0000	8.7733
Total	**0.0918**	**1.0128**	**1.1539**	**2.5500e-003**	**0.0803**	**0.0187**	**0.0989**	**0.0226**	**0.0172**	**0.0398**	**0.0000**	**230.5386**	**230.5386**	**1.8700e-003**	**0.0000**	**230.5778**

3.12 Trenching 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.6804	0.3258	7.8000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	73.1800	73.1800	0.0221	0.0000	73.6436
Total	**0.0550**	**0.6804**	**0.3258**	**7.8000e-004**		**0.0273**	**0.0273**		**0.0251**	**0.0251**	**0.0000**	**73.1800**	**73.1800**	**0.0221**	**0.0000**	**73.6436**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.12 Trenching 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233
Total	**7.8000e-004**	**1.1400e-003**	**0.0115**	**3.0000e-005**	**2.5000e-003**	**2.0000e-005**	**2.5200e-003**	**6.6000e-004**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**2.1213**	**2.1213**	**1.0000e-004**	**0.0000**	**2.1233**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.2175	0.3979	7.8000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	73.1799	73.1799	0.0221	0.0000	73.6435
Total	**0.0145**	**0.2175**	**0.3979**	**7.8000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**73.1799**	**73.1799**	**0.0221**	**0.0000**	**73.6435**

3.12 Trenching 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233
Total	**7.8000e-004**	**1.1400e-003**	**0.0115**	**3.0000e-005**	**2.5000e-003**	**2.0000e-005**	**2.5200e-003**	**6.6000e-004**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**2.1213**	**2.1213**	**1.0000e-004**	**0.0000**	**2.1233**

3.13 Concrete Shell 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759
Total	**0.1000**	**1.2570**	**0.7360**	**1.4600e-003**		**0.0537**	**0.0537**		**0.0494**	**0.0494**	**0.0000**	**137.9024**	**137.9024**	**0.0416**	**0.0000**	**138.7759**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.13 Concrete Shell 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.2456	0.1676	6.3000e-004	0.0151	4.2700e-003	0.0194	4.1500e-003	3.9200e-003	8.0700e-003	0.0000	57.2055	57.2055	3.6000e-004	0.0000	57.2131
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.1024**	**1.1628**	**1.2859**	**2.9300e-003**	**0.0906**	**0.0213**	**0.1120**	**0.0255**	**0.0196**	**0.0452**	**0.0000**	**265.1420**	**265.1420**	**2.1100e-003**	**0.0000**	**265.1864**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758
Total	**0.0200**	**0.1665**	**0.7097**	**1.4600e-003**		**8.9900e-003**	**8.9900e-003**		**8.9900e-003**	**8.9900e-003**	**0.0000**	**137.9022**	**137.9022**	**0.0416**	**0.0000**	**138.7758**

3.13 Concrete Shell 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.2456	0.1676	6.3000e-004	0.0151	4.2700e-003	0.0194	4.1500e-003	3.9200e-003	8.0700e-003	0.0000	57.2055	57.2055	3.6000e-004	0.0000	57.2131
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.1024**	**1.1628**	**1.2859**	**2.9300e-003**	**0.0906**	**0.0213**	**0.1120**	**0.0255**	**0.0196**	**0.0452**	**0.0000**	**265.1420**	**265.1420**	**2.1100e-003**	**0.0000**	**265.1864**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0891	1.1375	0.5559	1.1600e-003		0.0452	0.0452		0.0416	0.0416	0.0000	109.2624	109.2624	0.0330	0.0000	109.9545
Total	**0.0891**	**1.1375**	**0.5559**	**1.1600e-003**		**0.0452**	**0.0452**		**0.0416**	**0.0416**	**0.0000**	**109.2624**	**109.2624**	**0.0330**	**0.0000**	**109.9545**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	0.0101	0.0148	0.1488	3.6000e-004	0.0323	2.1000e-004	0.0325	8.5700e-003	1.9000e-004	8.7600e-003	0.0000	27.3897	27.3897	1.2800e-003	0.0000	27.4165
Total	**0.0903**	**0.8722**	**1.1523**	**2.4100e-003**	**0.0929**	**0.0162**	**0.1091**	**0.0259**	**0.0149**	**0.0408**	**0.0000**	**214.0854**	**214.0854**	**2.5200e-003**	**0.0000**	**214.1381**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.4295	0.5402	1.1600e-003		0.0188	0.0188		0.0174	0.0174	0.0000	109.2623	109.2623	0.0330	0.0000	109.9544
Total	**0.0433**	**0.4295**	**0.5402**	**1.1600e-003**		**0.0188**	**0.0188**		**0.0174**	**0.0174**	**0.0000**	**109.2623**	**109.2623**	**0.0330**	**0.0000**	**109.9544**

3.14 Steel & Roof 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	0.0101	0.0148	0.1488	3.6000e-004	0.0323	2.1000e-004	0.0325	8.5700e-003	1.9000e-004	8.7600e-003	0.0000	27.3897	27.3897	1.2800e-003	0.0000	27.4165
Total	**0.0903**	**0.8722**	**1.1523**	**2.4100e-003**	**0.0929**	**0.0162**	**0.1091**	**0.0259**	**0.0149**	**0.0408**	**0.0000**	**214.0854**	**214.0854**	**2.5200e-003**	**0.0000**	**214.1381**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0253	0.3252	0.1631	3.4000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	32.2410	32.2410	9.7300e-003	0.0000	32.4452
Total	**0.0253**	**0.3252**	**0.1631**	**3.4000e-004**		**0.0127**	**0.0127**		**0.0117**	**0.0117**	**0.0000**	**32.2410**	**32.2410**	**9.7300e-003**	**0.0000**	**32.4452**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1043	0.1582	3.4000e-004		4.5100e-003	4.5100e-003		4.1900e-003	4.1900e-003	0.0000	32.2409	32.2409	9.7300e-003	0.0000	32.4452
Total	**0.0110**	**0.1043**	**0.1582**	**3.4000e-004**		**4.5100e-003**	**4.5100e-003**		**4.1900e-003**	**4.1900e-003**	**0.0000**	**32.2409**	**32.2409**	**9.7300e-003**	**0.0000**	**32.4452**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.15 Steel & Roof 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0230	0.2957	0.1482	3.1000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	29.3100	29.3100	8.8400e-003	0.0000	29.4956
Total	**0.0230**	**0.2957**	**0.1482**	**3.1000e-004**		**0.0116**	**0.0116**		**0.0107**	**0.0107**	**0.0000**	**29.3100**	**29.3100**	**8.8400e-003**	**0.0000**	**29.4956**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0341	0.3649	0.4270	8.7000e-004	0.0258	6.8000e-003	0.0326	7.3900e-003	6.2500e-003	0.0136	0.0000	79.4450	79.4450	5.3000e-004	0.0000	79.4560
Worker	1.3700e-003	2.0100e-003	0.0203	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.7297	3.7297	1.7000e-004	0.0000	3.7333
Total	**0.0355**	**0.3669**	**0.4473**	**9.2000e-004**	**0.0302**	**6.8300e-003**	**0.0370**	**8.5600e-003**	**6.2800e-003**	**0.0148**	**0.0000**	**83.1746**	**83.1746**	**7.0000e-004**	**0.0000**	**83.1893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0100	0.0948	0.1438	3.1000e-004		4.1000e-003	4.1000e-003		3.8100e-003	3.8100e-003	0.0000	29.3099	29.3099	8.8400e-003	0.0000	29.4956
Total	**0.0100**	**0.0948**	**0.1438**	**3.1000e-004**		**4.1000e-003**	**4.1000e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**29.3099**	**29.3099**	**8.8400e-003**	**0.0000**	**29.4956**

3.16 Steel & Roof 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0341	0.3649	0.4270	8.7000e-004	0.0258	6.8000e-003	0.0326	7.3900e-003	6.2500e-003	0.0136	0.0000	79.4450	79.4450	5.3000e-004	0.0000	79.4560
Worker	1.3700e-003	2.0100e-003	0.0203	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.7297	3.7297	1.7000e-004	0.0000	3.7333
Total	**0.0355**	**0.3669**	**0.4473**	**9.2000e-004**	**0.0302**	**6.8300e-003**	**0.0370**	**8.5600e-003**	**6.2800e-003**	**0.0148**	**0.0000**	**83.1746**	**83.1746**	**7.0000e-004**	**0.0000**	**83.1893**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0225	0.2855	0.1654	3.3000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756
Total	**0.0225**	**0.2855**	**0.1654**	**3.3000e-004**		**0.0117**	**0.0117**		**0.0108**	**0.0108**	**0.0000**	**31.4762**	**31.4762**	**9.4900e-003**	**0.0000**	**31.6756**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.5300e-003	0.0545	0.1603	3.3000e-004		3.1200e-003	3.1200e-003		2.9100e-003	2.9100e-003	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756
Total	**7.5300e-003**	**0.0545**	**0.1603**	**3.3000e-004**		**3.1200e-003**	**3.1200e-003**		**2.9100e-003**	**2.9100e-003**	**0.0000**	**31.4762**	**31.4762**	**9.4900e-003**	**0.0000**	**31.6756**

3.17 Roofing & Overhead Work 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0695	0.8777	0.5195	1.0300e-003		0.0368	0.0368		0.0338	0.0338	0.0000	96.7040	96.7040	0.0292	0.0000	97.3165
Total	**0.0695**	**0.8777**	**0.5195**	**1.0300e-003**		**0.0368**	**0.0368**		**0.0338**	**0.0338**	**0.0000**	**96.7040**	**96.7040**	**0.0292**	**0.0000**	**97.3165**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0751	0.8027	0.9395	1.9200e-003	0.0568	0.0150	0.0717	0.0163	0.0138	0.0300	0.0000	174.7789	174.7789	1.1600e-003	0.0000	174.8032
Worker	9.4500e-003	0.0138	0.1393	3.4000e-004	0.0302	1.9000e-004	0.0304	8.0300e-003	1.8000e-004	8.2000e-003	0.0000	25.6414	25.6414	1.1900e-003	0.0000	25.6665
Total	**0.0845**	**0.8165**	**1.0788**	**2.2600e-003**	**0.0870**	**0.0152**	**0.1022**	**0.0243**	**0.0139**	**0.0382**	**0.0000**	**200.4204**	**200.4204**	**2.3500e-003**	**0.0000**	**200.4697**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0267	0.2149	0.5048	1.0300e-003		0.0121	0.0121		0.0112	0.0112	0.0000	96.7039	96.7039	0.0292	0.0000	97.3164
Total	**0.0267**	**0.2149**	**0.5048**	**1.0300e-003**		**0.0121**	**0.0121**		**0.0112**	**0.0112**	**0.0000**	**96.7039**	**96.7039**	**0.0292**	**0.0000**	**97.3164**

3.18 Roofing & Overhead Work 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0751	0.8027	0.9395	1.9200e-003	0.0568	0.0150	0.0717	0.0163	0.0138	0.0300	0.0000	174.7789	174.7789	1.1600e-003	0.0000	174.8032
Worker	9.4500e-003	0.0138	0.1393	3.4000e-004	0.0302	1.9000e-004	0.0304	8.0300e-003	1.8000e-004	8.2000e-003	0.0000	25.6414	25.6414	1.1900e-003	0.0000	25.6665
Total	**0.0845**	**0.8165**	**1.0788**	**2.2600e-003**	**0.0870**	**0.0152**	**0.1022**	**0.0243**	**0.0139**	**0.0382**	**0.0000**	**200.4204**	**200.4204**	**2.3500e-003**	**0.0000**	**200.4697**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9300e-003	0.0739	0.0445	9.0000e-005		3.0400e-003	3.0400e-003		2.8000e-003	2.8000e-003	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009
Total	**5.9300e-003**	**0.0739**	**0.0445**	**9.0000e-005**		**3.0400e-003**	**3.0400e-003**		**2.8000e-003**	**2.8000e-003**	**0.0000**	**8.6453**	**8.6453**	**2.6500e-003**	**0.0000**	**8.7009**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1500e-003	0.0662	0.0806	1.7000e-004	5.1600e-003	1.2200e-003	6.3800e-003	1.4800e-003	1.1200e-003	2.6000e-003	0.0000	15.6205	15.6205	1.0000e-004	0.0000	15.6227
Worker	7.7000e-004	1.1300e-003	0.0113	3.0000e-005	2.7500e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2385	2.2385	1.0000e-004	0.0000	2.2406
Total	**6.9200e-003**	**0.0673**	**0.0920**	**2.0000e-004**	**7.9100e-003**	**1.2400e-003**	**9.1400e-003**	**2.2100e-003**	**1.1400e-003**	**3.3500e-003**	**0.0000**	**17.8591**	**17.8591**	**2.0000e-004**	**0.0000**	**17.8633**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3200e-003	0.0186	0.0458	9.0000e-005		1.0000e-003	1.0000e-003		9.3000e-004	9.3000e-004	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009
Total	**2.3200e-003**	**0.0186**	**0.0458**	**9.0000e-005**		**1.0000e-003**	**1.0000e-003**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**8.6453**	**8.6453**	**2.6500e-003**	**0.0000**	**8.7009**

3.18 Roofing & Overhead Work 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1500e-003	0.0662	0.0806	1.7000e-004	5.1600e-003	1.2200e-003	6.3800e-003	1.4800e-003	1.1200e-003	2.6000e-003	0.0000	15.6205	15.6205	1.0000e-004	0.0000	15.6227
Worker	7.7000e-004	1.1300e-003	0.0113	3.0000e-005	2.7500e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2385	2.2385	1.0000e-004	0.0000	2.2406
Total	**6.9200e-003**	**0.0673**	**0.0920**	**2.0000e-004**	**7.9100e-003**	**1.2400e-003**	**9.1400e-003**	**2.2100e-003**	**1.1400e-003**	**3.3500e-003**	**0.0000**	**17.8591**	**17.8591**	**2.0000e-004**	**0.0000**	**17.8633**

3.19 Paving 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3631	0.1908	3.8000e-004		0.0164	0.0164		0.0150	0.0150	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0549**	**0.3631**	**0.1908**	**3.8000e-004**		**0.0164**	**0.0164**		**0.0150**	**0.0150**	**0.0000**	**35.7254**	**35.7254**	**0.0108**	**0.0000**	**35.9517**

3.19 Paving 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6600e-003	0.1017	0.0694	2.6000e-004	6.2600e-003	1.7700e-003	8.0200e-003	1.7200e-003	1.6300e-003	3.3400e-003	0.0000	23.6892	23.6892	1.5000e-004	0.0000	23.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.6700e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0443	1.0443	5.0000e-005	0.0000	1.0453
Total	**6.0400e-003**	**0.1023**	**0.0751**	**2.7000e-004**	**7.4900e-003**	**1.7800e-003**	**9.2600e-003**	**2.0500e-003**	**1.6400e-003**	**3.6700e-003**	**0.0000**	**24.7335**	**24.7335**	**2.0000e-004**	**0.0000**	**24.7377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1400e-003	0.1091	0.1987	3.8000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0307**	**0.1091**	**0.1987**	**3.8000e-004**		**4.9500e-003**	**4.9500e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**35.7254**	**35.7254**	**0.0108**	**0.0000**	**35.9517**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.19 Paving 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6600e-003	0.1017	0.0694	2.6000e-004	6.2600e-003	1.7700e-003	8.0200e-003	1.7200e-003	1.6300e-003	3.3400e-003	0.0000	23.6892	23.6892	1.5000e-004	0.0000	23.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.6700e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0443	1.0443	5.0000e-005	0.0000	1.0453
Total	**6.0400e-003**	**0.1023**	**0.0751**	**2.7000e-004**	**7.4900e-003**	**1.7800e-003**	**9.2600e-003**	**2.0500e-003**	**1.6400e-003**	**3.6700e-003**	**0.0000**	**24.7335**	**24.7335**	**2.0000e-004**	**0.0000**	**24.7377**

3.20 Architectural Coating 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2600e-003	0.0965	0.0539	1.2000e-004		3.5600e-003	3.5600e-003		3.2700e-003	3.2700e-003	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819
Total	**0.1274**	**0.0965**	**0.0539**	**1.2000e-004**		**3.5600e-003**	**3.5600e-003**		**3.2700e-003**	**3.2700e-003**	**0.0000**	**10.9128**	**10.9128**	**3.2900e-003**	**0.0000**	**10.9819**

3.20 Architectural Coating 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4200e-003	6.1400e-003	0.0519	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819
Total	**0.1215**	**6.1400e-003**	**0.0519**	**1.2000e-004**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**10.9128**	**10.9128**	**3.2900e-003**	**0.0000**	**10.9819**

3.20 Architectural Coating 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0130	0.1753	0.1025	2.1000e-004		6.3400e-003	6.3400e-003		5.8300e-003	5.8300e-003	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3265
Total	**0.0130**	**0.1753**	**0.1025**	**2.1000e-004**		**6.3400e-003**	**6.3400e-003**		**5.8300e-003**	**5.8300e-003**	**0.0000**	**20.1985**	**20.1985**	**6.0900e-003**	**0.0000**	**20.3265**

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	0.5473	0.6406	1.3100e-003	0.0387	0.0102	0.0489	0.0111	9.3800e-003	0.0205	0.0000	119.1674	119.1674	7.9000e-004	0.0000	119.1840
Worker	2.0600e-003	3.0100e-003	0.0304	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.5945	5.5945	2.6000e-004	0.0000	5.6000
Total	**0.0533**	**0.5503**	**0.6709**	**1.3800e-003**	**0.0453**	**0.0102**	**0.0556**	**0.0128**	**9.4200e-003**	**0.0223**	**0.0000**	**124.7619**	**124.7619**	**1.0500e-003**	**0.0000**	**124.7840**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2600e-003	0.0247	0.0991	2.1000e-004		7.3000e-004	7.3000e-004		6.9000e-004	6.9000e-004	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3264
Total	**3.2600e-003**	**0.0247**	**0.0991**	**2.1000e-004**		**7.3000e-004**	**7.3000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**20.1985**	**20.1985**	**6.0900e-003**	**0.0000**	**20.3264**

3.21 Misc. Finishes 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	0.5473	0.6406	1.3100e-003	0.0387	0.0102	0.0489	0.0111	9.3800e-003	0.0205	0.0000	119.1674	119.1674	7.9000e-004	0.0000	119.1840
Worker	2.0600e-003	3.0100e-003	0.0304	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.5945	5.5945	2.6000e-004	0.0000	5.6000
Total	**0.0533**	**0.5503**	**0.6709**	**1.3800e-003**	**0.0453**	**0.0102**	**0.0556**	**0.0128**	**9.4200e-003**	**0.0223**	**0.0000**	**124.7619**	**124.7619**	**1.0500e-003**	**0.0000**	**124.7840**

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0215	0.2731	0.1582	3.2000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984
Total	**0.0215**	**0.2731**	**0.1582**	**3.2000e-004**		**0.0112**	**0.0112**		**0.0103**	**0.0103**	**0.0000**	**30.1077**	**30.1077**	**9.0800e-003**	**0.0000**	**30.2984**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-003	0.0522	0.1533	3.2000e-004		2.9800e-003	2.9800e-003		2.7800e-003	2.7800e-003	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984
Total	**7.2000e-003**	**0.0522**	**0.1533**	**3.2000e-004**		**2.9800e-003**	**2.9800e-003**		**2.7800e-003**	**2.7800e-003**	**0.0000**	**30.1077**	**30.1077**	**9.0800e-003**	**0.0000**	**30.2984**

3.22 Roofing & Overhead Work 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

3.23 Steel & Roof 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0264	0.3400	0.1705	3.6000e-004		0.0133	0.0133		0.0123	0.0123	0.0000	33.7065	33.7065	0.0102	0.0000	33.9200
Total	**0.0264**	**0.3400**	**0.1705**	**3.6000e-004**		**0.0133**	**0.0133**		**0.0123**	**0.0123**	**0.0000**	**33.7065**	**33.7065**	**0.0102**	**0.0000**	**33.9200**

3.23 Steel & Roof 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0115	0.1090	0.1653	3.6000e-004		4.7200e-003	4.7200e-003		4.3800e-003	4.3800e-003	0.0000	33.7064	33.7064	0.0102	0.0000	33.9199
Total	**0.0115**	**0.1090**	**0.1653**	**3.6000e-004**		**4.7200e-003**	**4.7200e-003**		**4.3800e-003**	**4.3800e-003**	**0.0000**	**33.7064**	**33.7064**	**0.0102**	**0.0000**	**33.9199**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.23 Steel & Roof 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

3.24 Paving 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0235	0.2724	0.1431	2.8000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	26.7941	26.7941	8.0800e-003	0.0000	26.9638
Paving	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0412**	**0.2724**	**0.1431**	**2.8000e-004**		**0.0123**	**0.0123**		**0.0113**	**0.0113**	**0.0000**	**26.7941**	**26.7941**	**8.0800e-003**	**0.0000**	**26.9638**

3.24 Paving 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.0815	0.0556	2.1000e-004	6.2800e-003	1.4200e-003	7.6900e-003	1.6900e-003	1.3000e-003	2.9900e-003	0.0000	18.9871	18.9871	1.2000e-004	0.0000	18.9897
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.2000e-004	4.2500e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7832	0.7832	4.0000e-005	0.0000	0.7840
Total	**4.8200e-003**	**0.0819**	**0.0599**	**2.2000e-004**	**7.2000e-003**	**1.4300e-003**	**8.6200e-003**	**1.9400e-003**	**1.3100e-003**	**3.2400e-003**	**0.0000**	**19.7704**	**19.7704**	**1.6000e-004**	**0.0000**	**19.7737**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3500e-003	0.0818	0.1490	2.8000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	26.7940	26.7940	8.0800e-003	0.0000	26.9638
Paving	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0230**	**0.0818**	**0.1490**	**2.8000e-004**		**3.7100e-003**	**3.7100e-003**		**3.7100e-003**	**3.7100e-003**	**0.0000**	**26.7940**	**26.7940**	**8.0800e-003**	**0.0000**	**26.9638**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.24 Paving 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.0815	0.0556	2.1000e-004	6.2800e-003	1.4200e-003	7.6900e-003	1.6900e-003	1.3000e-003	2.9900e-003	0.0000	18.9871	18.9871	1.2000e-004	0.0000	18.9897
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.2000e-004	4.2500e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7832	0.7832	4.0000e-005	0.0000	0.7840
Total	**4.8200e-003**	**0.0819**	**0.0599**	**2.2000e-004**	**7.2000e-003**	**1.4300e-003**	**8.6200e-003**	**1.9400e-003**	**1.3100e-003**	**3.2400e-003**	**0.0000**	**19.7704**	**19.7704**	**1.6000e-004**	**0.0000**	**19.7737**

3.24 Paving 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4400e-003	0.0844	0.0454	9.0000e-005		3.8200e-003	3.8200e-003		3.5200e-003	3.5200e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410
Paving	5.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0133**	**0.0844**	**0.0454**	**9.0000e-005**		**3.8200e-003**	**3.8200e-003**		**3.5200e-003**	**3.5200e-003**	**0.0000**	**8.7845**	**8.7845**	**2.6900e-003**	**0.0000**	**8.8410**

3.24 Paving 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0249	0.0178	7.0000e-005	5.4600e-003	4.3000e-004	5.8900e-003	1.3900e-003	4.0000e-004	1.7900e-003	0.0000	6.2218	6.2218	4.0000e-005	0.0000	6.2226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	1.3000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2507	0.2507	1.0000e-005	0.0000	0.2510
Total	**1.4900e-003**	**0.0250**	**0.0191**	**7.0000e-005**	**5.7700e-003**	**4.3000e-004**	**6.2000e-003**	**1.4700e-003**	**4.0000e-004**	**1.8700e-003**	**0.0000**	**6.4725**	**6.4725**	**5.0000e-005**	**0.0000**	**6.4736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7800e-003	0.0273	0.0497	9.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410
Paving	5.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.6700e-003**	**0.0273**	**0.0497**	**9.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**8.7845**	**8.7845**	**2.6900e-003**	**0.0000**	**8.8410**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis)

3.24 Paving 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0249	0.0178	7.0000e-005	5.4600e-003	4.3000e-004	5.8900e-003	1.3900e-003	4.0000e-004	1.7900e-003	0.0000	6.2218	6.2218	4.0000e-005	0.0000	6.2226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	1.3000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2507	0.2507	1.0000e-005	0.0000	0.2510
Total	**1.4900e-003**	**0.0250**	**0.0191**	**7.0000e-005**	**5.7700e-003**	**4.3000e-004**	**6.2000e-003**	**1.4700e-003**	**4.0000e-004**	**1.8700e-003**	**0.0000**	**6.4725**	**6.4725**	**5.0000e-005**	**0.0000**	**6.4736**

3.25 Architectural Coating 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0290	0.3861	0.2157	4.6000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	43.6511	43.6511	0.0132	0.0000	43.9276
Total	**0.2890**	**0.3861**	**0.2157**	**4.6000e-004**		**0.0142**	**0.0142**		**0.0131**	**0.0131**	**0.0000**	**43.6511**	**43.6511**	**0.0132**	**0.0000**	**43.9276**

3.25 Architectural Coating 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6600e-003	0.0245	0.2077	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	43.6510	43.6510	0.0132	0.0000	43.9275
Total	**0.2657**	**0.0245**	**0.2077**	**4.6000e-004**		**7.6000e-004**	**7.6000e-004**		**7.6000e-004**	**7.6000e-004**	**0.0000**	**43.6510**	**43.6510**	**0.0132**	**0.0000**	**43.9275**

3.25 Architectural Coating 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

3.25 Architectural Coating 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.4160	0.2336	5.4000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	50.0693	50.0693	0.0153	0.0000	50.3915
Total	**0.3353**	**0.4160**	**0.2336**	**5.4000e-004**		**0.0152**	**0.0152**		**0.0140**	**0.0140**	**0.0000**	**50.0693**	**50.0693**	**0.0153**	**0.0000**	**50.3915**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.25 Architectural Coating 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447
Total	**6.8600e-003**	**0.0101**	**0.1014**	**2.8000e-004**	**0.0246**	**1.5000e-004**	**0.0247**	**6.5300e-003**	**1.4000e-004**	**6.6700e-003**	**0.0000**	**20.0260**	**20.0260**	**8.9000e-004**	**0.0000**	**20.0447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6100e-003	0.0286	0.2423	5.4000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	50.0693	50.0693	0.0153	0.0000	50.3914
Total	**0.3099**	**0.0286**	**0.2423**	**5.4000e-004**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**50.0693**	**50.0693**	**0.0153**	**0.0000**	**50.3914**

3.25 Architectural Coating 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447
Total	**6.8600e-003**	**0.0101**	**0.1014**	**2.8000e-004**	**0.0246**	**1.5000e-004**	**0.0247**	**6.5300e-003**	**1.4000e-004**	**6.6700e-003**	**0.0000**	**20.0260**	**20.0260**	**8.9000e-004**	**0.0000**	**20.0447**

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3600e-003	0.0994	0.0581	1.2000e-004		3.5900e-003	3.5900e-003		3.3000e-003	3.3000e-003	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183
Total	**7.3600e-003**	**0.0994**	**0.0581**	**1.2000e-004**		**3.5900e-003**	**3.5900e-003**		**3.3000e-003**	**3.3000e-003**	**0.0000**	**11.4458**	**11.4458**	**3.4500e-003**	**0.0000**	**11.5183**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.3101	0.3630	7.4000e-004	0.0219	5.7800e-003	0.0277	6.2800e-003	5.3200e-003	0.0116	0.0000	67.5282	67.5282	4.5000e-004	0.0000	67.5376
Worker	1.1700e-003	1.7100e-003	0.0172	4.0000e-005	3.7400e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1702	3.1702	1.5000e-004	0.0000	3.1733
Total	**0.0302**	**0.3118**	**0.3802**	**7.8000e-004**	**0.0257**	**5.8000e-003**	**0.0315**	**7.2700e-003**	**5.3400e-003**	**0.0126**	**0.0000**	**70.6984**	**70.6984**	**6.0000e-004**	**0.0000**	**70.7109**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8500e-003	0.0140	0.0562	1.2000e-004		4.1000e-004	4.1000e-004		3.9000e-004	3.9000e-004	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183
Total	**1.8500e-003**	**0.0140**	**0.0562**	**1.2000e-004**		**4.1000e-004**	**4.1000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**11.4458**	**11.4458**	**3.4500e-003**	**0.0000**	**11.5183**

3.26 Misc. Finishes 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.3101	0.3630	7.4000e-004	0.0219	5.7800e-003	0.0277	6.2800e-003	5.3200e-003	0.0116	0.0000	67.5282	67.5282	4.5000e-004	0.0000	67.5376
Worker	1.1700e-003	1.7100e-003	0.0172	4.0000e-005	3.7400e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1702	3.1702	1.5000e-004	0.0000	3.1733
Total	**0.0302**	**0.3118**	**0.3802**	**7.8000e-004**	**0.0257**	**5.8000e-003**	**0.0315**	**7.2700e-003**	**5.3400e-003**	**0.0126**	**0.0000**	**70.6984**	**70.6984**	**6.0000e-004**	**0.0000**	**70.7109**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8900e-003	0.0649	0.0384	9.0000e-005		2.3000e-003	2.3000e-003		2.1200e-003	2.1200e-003	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956
Total	**4.8900e-003**	**0.0649**	**0.0384**	**9.0000e-005**		**2.3000e-003**	**2.3000e-003**		**2.1200e-003**	**2.1200e-003**	**0.0000**	**7.9445**	**7.9445**	**2.4300e-003**	**0.0000**	**7.9956**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.1984	0.2419	5.2000e-004	0.0155	3.6600e-003	0.0191	4.4300e-003	3.3600e-003	7.8000e-003	0.0000	46.8616	46.8616	3.0000e-004	0.0000	46.8680
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1490	2.1490	1.0000e-004	0.0000	2.1510
Total	**0.0192**	**0.1995**	**0.2527**	**5.5000e-004**	**0.0181**	**3.6800e-003**	**0.0218**	**5.1300e-003**	**3.3800e-003**	**8.5200e-003**	**0.0000**	**49.0106**	**49.0106**	**4.0000e-004**	**0.0000**	**49.0190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	9.5500e-003	0.0396	9.0000e-005		2.5000e-004	2.5000e-004		2.4000e-004	2.4000e-004	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956
Total	**1.2700e-003**	**9.5500e-003**	**0.0396**	**9.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**7.9445**	**7.9445**	**2.4300e-003**	**0.0000**	**7.9956**

3.26 Misc. Finishes 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.1984	0.2419	5.2000e-004	0.0155	3.6600e-003	0.0191	4.4300e-003	3.3600e-003	7.8000e-003	0.0000	46.8616	46.8616	3.0000e-004	0.0000	46.8680
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1490	2.1490	1.0000e-004	0.0000	2.1510
Total	**0.0192**	**0.1995**	**0.2527**	**5.5000e-004**	**0.0181**	**3.6800e-003**	**0.0218**	**5.1300e-003**	**3.3800e-003**	**8.5200e-003**	**0.0000**	**49.0106**	**49.0106**	**4.0000e-004**	**0.0000**	**49.0190**

3.27 Architectural Coating 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8500e-003	0.0912	0.0509	1.1000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718
Total	**0.1026**	**0.0912**	**0.0509**	**1.1000e-004**		**3.3600e-003**	**3.3600e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**10.3065**	**10.3065**	**3.1100e-003**	**0.0000**	**10.3718**

3.27 Architectural Coating 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979
Total	**6.2200e-003**	**9.1000e-003**	**0.0917**	**2.2000e-004**	**0.0199**	**1.3000e-004**	**0.0200**	**5.2800e-003**	**1.2000e-004**	**5.4000e-003**	**0.0000**	**16.8814**	**16.8814**	**7.9000e-004**	**0.0000**	**16.8979**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e-003	5.8000e-003	0.0490	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718
Total	**0.0971**	**5.8000e-003**	**0.0490**	**1.1000e-004**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**10.3065**	**10.3065**	**3.1100e-003**	**0.0000**	**10.3718**

3.27 Architectural Coating 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979
Total	**6.2200e-003**	**9.1000e-003**	**0.0917**	**2.2000e-004**	**0.0199**	**1.3000e-004**	**0.0200**	**5.2800e-003**	**1.2000e-004**	**5.4000e-003**	**0.0000**	**16.8814**	**16.8814**	**7.9000e-004**	**0.0000**	**16.8979**

3.27 Architectural Coating 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8000e-004	4.9500e-003	2.7800e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999
Total	**6.0100e-003**	**4.9500e-003**	**2.7800e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.5961**	**0.5961**	**1.8000e-004**	**0.0000**	**0.5999**

3.27 Architectural Coating 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545
Total	**3.3000e-004**	**4.8000e-004**	**4.8300e-003**	**1.0000e-005**	**1.1700e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9536**	**0.9536**	**4.0000e-005**	**0.0000**	**0.9545**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-005	3.4000e-004	2.8800e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999
Total	**5.7100e-003**	**3.4000e-004**	**2.8800e-003**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.5961**	**0.5961**	**1.8000e-004**	**0.0000**	**0.5999**

3.27 Architectural Coating 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545
Total	**3.3000e-004**	**4.8000e-004**	**4.8300e-003**	**1.0000e-005**	**1.1700e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9536**	**0.9536**	**4.0000e-005**	**0.0000**	**0.9545**

3.28 Paving 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.3200e-003	0.1087	0.0553	1.1000e-004		4.6600e-003	4.6600e-003		4.2900e-003	4.2900e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1087**	**0.0553**	**1.1000e-004**		**4.6600e-003**	**4.6600e-003**		**4.2900e-003**	**4.2900e-003**	**0.0000**	**10.6821**	**10.6821**	**3.2200e-003**	**0.0000**	**10.7497**

3.28 Paving 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1800e-003	0.0391	0.0267	1.0000e-004	0.0275	6.8000e-004	0.0282	6.8200e-003	6.2000e-004	7.4500e-003	0.0000	9.1083	9.1083	6.0000e-005	0.0000	9.1095
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2797	0.2797	1.0000e-005	0.0000	0.2800
Total	**2.2800e-003**	**0.0393**	**0.0282**	**1.0000e-004**	**0.0278**	**6.8000e-004**	**0.0285**	**6.9100e-003**	**6.2000e-004**	**7.5400e-003**	**0.0000**	**9.3880**	**9.3880**	**7.0000e-005**	**0.0000**	**9.3895**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3300e-003	0.0389	0.0599	1.1000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9200e-003**	**0.0389**	**0.0599**	**1.1000e-004**		**1.6500e-003**	**1.6500e-003**		**1.6500e-003**	**1.6500e-003**	**0.0000**	**10.6821**	**10.6821**	**3.2200e-003**	**0.0000**	**10.7497**

3.28 Paving 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1800e-003	0.0391	0.0267	1.0000e-004	0.0275	6.8000e-004	0.0282	6.8200e-003	6.2000e-004	7.4500e-003	0.0000	9.1083	9.1083	6.0000e-005	0.0000	9.1095
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2797	0.2797	1.0000e-005	0.0000	0.2800
Total	**2.2800e-003**	**0.0393**	**0.0282**	**1.0000e-004**	**0.0278**	**6.8000e-004**	**0.0285**	**6.9100e-003**	**6.2000e-004**	**7.5400e-003**	**0.0000**	**9.3880**	**9.3880**	**7.0000e-005**	**0.0000**	**9.3895**

3.28 Paving 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1222	1.3935	0.7285	1.5700e-003		0.0601	0.0601		0.0553	0.0553	0.0000	145.3445	145.3445	0.0445	0.0000	146.2797
Paving	0.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1442**	**1.3935**	**0.7285**	**1.5700e-003**		**0.0601**	**0.0601**		**0.0553**	**0.0553**	**0.0000**	**145.3445**	**145.3445**	**0.0445**	**0.0000**	**146.2797**

3.28 Paving 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0279	0.4949	0.3548	1.3800e-003	0.0351	8.6400e-003	0.0437	9.5800e-003	7.9500e-003	0.0175	0.0000	123.8626	123.8626	7.8000e-004	0.0000	123.8790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	1.8700e-003	0.0188	5.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	3.0000e-005	1.2400e-003	0.0000	3.7160	3.7160	1.7000e-004	0.0000	3.7194
Total	**0.0292**	**0.4968**	**0.3736**	**1.4300e-003**	**0.0397**	**8.6700e-003**	**0.0483**	**0.0108**	**7.9800e-003**	**0.0188**	**0.0000**	**127.5785**	**127.5785**	**9.5000e-004**	**0.0000**	**127.5984**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0322	0.5374	0.8287	1.5700e-003		0.0228	0.0228		0.0228	0.0228	0.0000	145.3443	145.3443	0.0445	0.0000	146.2795
Paving	0.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0542**	**0.5374**	**0.8287**	**1.5700e-003**		**0.0228**	**0.0228**		**0.0228**	**0.0228**	**0.0000**	**145.3443**	**145.3443**	**0.0445**	**0.0000**	**146.2795**

3.28 Paving 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0279	0.4949	0.3548	1.3800e-003	0.0351	8.6400e-003	0.0437	9.5800e-003	7.9500e-003	0.0175	0.0000	123.8626	123.8626	7.8000e-004	0.0000	123.8790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	1.8700e-003	0.0188	5.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	3.0000e-005	1.2400e-003	0.0000	3.7160	3.7160	1.7000e-004	0.0000	3.7194
Total	**0.0292**	**0.4968**	**0.3736**	**1.4300e-003**	**0.0397**	**8.6700e-003**	**0.0483**	**0.0108**	**7.9800e-003**	**0.0188**	**0.0000**	**127.5785**	**127.5785**	**9.5000e-004**	**0.0000**	**127.5984**

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9100e-003	0.0497	0.0288	6.0000e-005		2.0400e-003	2.0400e-003		1.8800e-003	1.8800e-003	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088
Total	**3.9100e-003**	**0.0497**	**0.0288**	**6.0000e-005**		**2.0400e-003**	**2.0400e-003**		**1.8800e-003**	**1.8800e-003**	**0.0000**	**5.4741**	**5.4741**	**1.6500e-003**	**0.0000**	**5.5088**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8300e-003	0.0730	0.0854	1.7000e-004	5.1600e-003	1.3600e-003	6.5200e-003	1.4800e-003	1.2500e-003	2.7300e-003	0.0000	15.8890	15.8890	1.1000e-004	0.0000	15.8912
Worker	2.7000e-004	4.0000e-004	4.0500e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7459	0.7459	3.0000e-005	0.0000	0.7467
Total	**7.1000e-003**	**0.0734**	**0.0895**	**1.8000e-004**	**6.0400e-003**	**1.3700e-003**	**7.4000e-003**	**1.7100e-003**	**1.2600e-003**	**2.9700e-003**	**0.0000**	**16.6349**	**16.6349**	**1.4000e-004**	**0.0000**	**16.6379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3100e-003	9.4800e-003	0.0279	6.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088
Total	**1.3100e-003**	**9.4800e-003**	**0.0279**	**6.0000e-005**		**5.4000e-004**	**5.4000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**5.4741**	**5.4741**	**1.6500e-003**	**0.0000**	**5.5088**

3.29 Roofing & Overhead Work 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8300e-003	0.0730	0.0854	1.7000e-004	5.1600e-003	1.3600e-003	6.5200e-003	1.4800e-003	1.2500e-003	2.7300e-003	0.0000	15.8890	15.8890	1.1000e-004	0.0000	15.8912
Worker	2.7000e-004	4.0000e-004	4.0500e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7459	0.7459	3.0000e-005	0.0000	0.7467
Total	**7.1000e-003**	**0.0734**	**0.0895**	**1.8000e-004**	**6.0400e-003**	**1.3700e-003**	**7.4000e-003**	**1.7100e-003**	**1.2600e-003**	**2.9700e-003**	**0.0000**	**16.6349**	**16.6349**	**1.4000e-004**	**0.0000**	**16.6379**

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.2298	0.1350	2.9000e-004		9.3200e-003	9.3200e-003		8.5700e-003	8.5700e-003	0.0000	26.9141	26.9141	8.2500e-003	0.0000	27.0873
Total	**0.0184**	**0.2298**	**0.1350**	**2.9000e-004**		**9.3200e-003**	**9.3200e-003**		**8.5700e-003**	**8.5700e-003**	**0.0000**	**26.9141**	**26.9141**	**8.2500e-003**	**0.0000**	**27.0873**

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	0.3307	0.4031	8.7000e-004	0.0258	6.0900e-003	0.0319	7.3900e-003	5.6000e-003	0.0130	0.0000	78.1026	78.1026	5.1000e-004	0.0000	78.1133
Worker	1.2300e-003	1.8000e-003	0.0181	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.5817	3.5817	1.6000e-004	0.0000	3.5850
Total	**0.0320**	**0.3325**	**0.4212**	**9.2000e-004**	**0.0302**	**6.1200e-003**	**0.0363**	**8.5600e-003**	**5.6300e-003**	**0.0142**	**0.0000**	**81.6843**	**81.6843**	**6.7000e-004**	**0.0000**	**81.6983**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-003	0.0453	0.1391	2.9000e-004		2.4900e-003	2.4900e-003		2.3200e-003	2.3200e-003	0.0000	26.9140	26.9140	8.2500e-003	0.0000	27.0872
Total	**6.3000e-003**	**0.0453**	**0.1391**	**2.9000e-004**		**2.4900e-003**	**2.4900e-003**		**2.3200e-003**	**2.3200e-003**	**0.0000**	**26.9140**	**26.9140**	**8.2500e-003**	**0.0000**	**27.0872**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.29 Roofing & Overhead Work 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	0.3307	0.4031	8.7000e-004	0.0258	6.0900e-003	0.0319	7.3900e-003	5.6000e-003	0.0130	0.0000	78.1026	78.1026	5.1000e-004	0.0000	78.1133
Worker	1.2300e-003	1.8000e-003	0.0181	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.5817	3.5817	1.6000e-004	0.0000	3.5850
Total	**0.0320**	**0.3325**	**0.4212**	**9.2000e-004**	**0.0302**	**6.1200e-003**	**0.0363**	**8.5600e-003**	**5.6300e-003**	**0.0142**	**0.0000**	**81.6843**	**81.6843**	**6.7000e-004**	**0.0000**	**81.6983**

3.30 Architectural Coating 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-003	0.0990	0.0556	1.3000e-004		3.6200e-003	3.6200e-003		3.3300e-003	3.3300e-003	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980
Total	**0.1483**	**0.0990**	**0.0556**	**1.3000e-004**		**3.6200e-003**	**3.6200e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**11.9213**	**11.9213**	**3.6500e-003**	**0.0000**	**11.9980**

3.30 Architectural Coating 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902
Total	**6.5300e-003**	**9.6000e-003**	**0.0966**	**2.6000e-004**	**0.0234**	**1.4000e-004**	**0.0236**	**6.2200e-003**	**1.3000e-004**	**6.3500e-003**	**0.0000**	**19.0723**	**19.0723**	**8.5000e-004**	**0.0000**	**19.0902**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5700e-003	6.8200e-003	0.0577	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980
Total	**0.1423**	**6.8200e-003**	**0.0577**	**1.3000e-004**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**11.9213**	**11.9213**	**3.6500e-003**	**0.0000**	**11.9980**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

3.30 Architectural Coating 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902
Total	**6.5300e-003**	**9.6000e-003**	**0.0966**	**2.6000e-004**	**0.0234**	**1.4000e-004**	**0.0236**	**6.2200e-003**	**1.3000e-004**	**6.3500e-003**	**0.0000**	**19.0723**	**19.0723**	**8.5000e-004**	**0.0000**	**19.0902**

3.31 Paving 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0382	0.4343	0.2336	4.9000e-004		0.0197	0.0197		0.0181	0.0181	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0618**	**0.4343**	**0.2336**	**4.9000e-004**		**0.0197**	**0.0197**		**0.0181**	**0.0181**	**0.0000**	**45.1772**	**45.1772**	**0.0138**	**0.0000**	**45.4679**

3.31 Paving 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1071	0.0768	3.0000e-004	7.2000e-003	1.8700e-003	9.0700e-003	1.9800e-003	1.7200e-003	3.7000e-003	0.0000	26.8064	26.8064	1.7000e-004	0.0000	26.8100
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	6.5000e-004	6.5300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2894	1.2894	6.0000e-005	0.0000	1.2906
Total	**6.4800e-003**	**0.1078**	**0.0833**	**3.2000e-004**	**8.7800e-003**	**1.8800e-003**	**0.0107**	**2.4000e-003**	**1.7300e-003**	**4.1300e-003**	**0.0000**	**28.0958**	**28.0958**	**2.3000e-004**	**0.0000**	**28.1006**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1800e-003	0.1403	0.2554	4.9000e-004		6.3700e-003	6.3700e-003		6.3700e-003	6.3700e-003	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0327**	**0.1403**	**0.2554**	**4.9000e-004**		**6.3700e-003**	**6.3700e-003**		**6.3700e-003**	**6.3700e-003**	**0.0000**	**45.1772**	**45.1772**	**0.0138**	**0.0000**	**45.4679**

3.31 Paving 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1071	0.0768	3.0000e-004	7.2000e-003	1.8700e-003	9.0700e-003	1.9800e-003	1.7200e-003	3.7000e-003	0.0000	26.8064	26.8064	1.7000e-004	0.0000	26.8100
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	6.5000e-004	6.5300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2894	1.2894	6.0000e-005	0.0000	1.2906
Total	**6.4800e-003**	**0.1078**	**0.0833**	**3.2000e-004**	**8.7800e-003**	**1.8800e-003**	**0.0107**	**2.4000e-003**	**1.7300e-003**	**4.1300e-003**	**0.0000**	**28.0958**	**28.0958**	**2.3000e-004**	**0.0000**	**28.1006**

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1676	0.0991	2.2000e-004		5.9400e-003	5.9400e-003		5.4600e-003	5.4600e-003	0.0000	20.5233	20.5233	6.2900e-003	0.0000	20.6553
Total	**0.0126**	**0.1676**	**0.0991**	**2.2000e-004**		**5.9400e-003**	**5.9400e-003**		**5.4600e-003**	**5.4600e-003**	**0.0000**	**20.5233**	**20.5233**	**6.2900e-003**	**0.0000**	**20.6553**

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0477	0.5126	0.6248	1.3500e-003	0.0400	9.4500e-003	0.0495	0.0115	8.6900e-003	0.0201	0.0000	121.0591	121.0591	7.9000e-004	0.0000	121.0756
Worker	1.9000e-003	2.7900e-003	0.0281	8.0000e-005	6.8100e-003	4.0000e-005	6.8600e-003	1.8100e-003	4.0000e-005	1.8500e-003	0.0000	5.5516	5.5516	2.5000e-004	0.0000	5.5568
Total	**0.0496**	**0.5154**	**0.6529**	**1.4300e-003**	**0.0468**	**9.4900e-003**	**0.0563**	**0.0133**	**8.7300e-003**	**0.0220**	**0.0000**	**126.6106**	**126.6106**	**1.0400e-003**	**0.0000**	**126.6323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2900e-003	0.0247	0.1023	2.2000e-004		6.5000e-004	6.5000e-004		6.2000e-004	6.2000e-004	0.0000	20.5232	20.5232	6.2900e-003	0.0000	20.6553
Total	**3.2900e-003**	**0.0247**	**0.1023**	**2.2000e-004**		**6.5000e-004**	**6.5000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**20.5232**	**20.5232**	**6.2900e-003**	**0.0000**	**20.6553**

3.32 Misc. Finishes 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0477	0.5126	0.6248	1.3500e-003	0.0400	9.4500e-003	0.0495	0.0115	8.6900e-003	0.0201	0.0000	121.0591	121.0591	7.9000e-004	0.0000	121.0756
Worker	1.9000e-003	2.7900e-003	0.0281	8.0000e-005	6.8100e-003	4.0000e-005	6.8600e-003	1.8100e-003	4.0000e-005	1.8500e-003	0.0000	5.5516	5.5516	2.5000e-004	0.0000	5.5568
Total	**0.0496**	**0.5154**	**0.6529**	**1.4300e-003**	**0.0468**	**9.4900e-003**	**0.0563**	**0.0133**	**8.7300e-003**	**0.0220**	**0.0000**	**126.6106**	**126.6106**	**1.0400e-003**	**0.0000**	**126.6323**

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0530	0.7030	0.4156	9.3000e-004		0.0249	0.0249		0.0229	0.0229	0.0000	86.0653	86.0653	0.0264	0.0000	86.6191
Total	**0.0530**	**0.7030**	**0.4156**	**9.3000e-004**		**0.0249**	**0.0249**		**0.0229**	**0.0229**	**0.0000**	**86.0653**	**86.0653**	**0.0264**	**0.0000**	**86.6191**

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0999	1.0749	1.3101	2.8300e-003	0.0839	0.0198	0.1037	0.0240	0.0182	0.0422	0.0000	253.8335	253.8335	1.6500e-003	0.0000	253.8681
Worker	0.0125	0.0183	0.1842	5.0000e-004	0.0447	2.8000e-004	0.0449	0.0119	2.5000e-004	0.0121	0.0000	36.3762	36.3762	1.6200e-003	0.0000	36.4102
Total	**0.1124**	**1.0932**	**1.4942**	**3.3300e-003**	**0.1285**	**0.0201**	**0.1486**	**0.0359**	**0.0185**	**0.0543**	**0.0000**	**290.2097**	**290.2097**	**3.2700e-003**	**0.0000**	**290.2784**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1035	0.4290	9.3000e-004		2.7100e-003	2.7100e-003		2.6000e-003	2.6000e-003	0.0000	86.0652	86.0652	0.0264	0.0000	86.6190
Total	**0.0138**	**0.1035**	**0.4290**	**9.3000e-004**		**2.7100e-003**	**2.7100e-003**		**2.6000e-003**	**2.6000e-003**	**0.0000**	**86.0652**	**86.0652**	**0.0264**	**0.0000**	**86.6190**

3.33 Misc. Finishes 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0999	1.0749	1.3101	2.8300e-003	0.0839	0.0198	0.1037	0.0240	0.0182	0.0422	0.0000	253.8335	253.8335	1.6500e-003	0.0000	253.8681
Worker	0.0125	0.0183	0.1842	5.0000e-004	0.0447	2.8000e-004	0.0449	0.0119	2.5000e-004	0.0121	0.0000	36.3762	36.3762	1.6200e-003	0.0000	36.4102
Total	**0.1124**	**1.0932**	**1.4942**	**3.3300e-003**	**0.1285**	**0.0201**	**0.1486**	**0.0359**	**0.0185**	**0.0543**	**0.0000**	**290.2097**	**290.2097**	**3.2700e-003**	**0.0000**	**290.2784**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Unmitigated	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.1664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.1664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

MoVal Logistics Center- 2005 High Cube (Trucks)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	673.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44. Year 2008 used in absense of year 2005.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operational run only

Trips and VMT - Operational Run Only.

Vehicle Trips - ITE Truck Trip Rate for High-Cube Warehouse.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Area Coating -

Energy Use - Used historical data

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Area Mitigation -

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	673.35
tblProjectCharacteristics	OperationalYear	2014	2005

tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	HHD	0.03	0.60
tblVehicleEF	LDA	0.44	0.00
tblVehicleEF	LDA	0.44	0.00
tblVehicleEF	LDA	0.44	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.03	0.22
tblVehicleEF	LHD1	0.03	0.22
tblVehicleEF	LHD1	0.03	0.22
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MH	3.6440e-003	0.00

tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Energy	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	4,137.9482	4,137.9482	0.1629	0.0429	4,154.6674
Mobile	20.5449	303.2362	128.7295	2.0804	6.5596	11.9984	18.5580	2.1777	11.9984	14.1761	0.0000	25,834.3521	25,834.3521	0.9962	0.0000	25,855.2720
Offroad	0.3924	4.2761	1.0564	0.0339		0.1524	0.1524		0.1524	0.1524	0.0000	306.9957	306.9957	0.0319	0.0000	307.6650
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	57.0519	61.6031	0.4699	0.0116	75.0504
Total	**29.4813**	**308.1000**	**130.3236**	**2.1178**	**6.5596**	**12.1956**	**18.7553**	**2.1777**	**12.1956**	**14.3733**	**262.4837**	**30,336.4158**	**30,598.8995**	**16.9046**	**0.0545**	**30,970.7727**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Energy	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	4,137.9482	4,137.9482	0.1629	0.0429	4,154.6674
Mobile	20.5449	303.2362	128.7295	2.0804	6.5596	11.9984	18.5580	2.1777	11.9984	14.1761	0.0000	25,834.3521	25,834.3521	0.9962	0.0000	25,855.2720
Offroad	0.3924	4.2761	1.0564	0.0339		0.1524	0.1524		0.1524	0.1524	0.0000	306.9957	306.9957	0.0319	0.0000	307.6650
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	57.0519	61.6031	0.4698	0.0115	75.0431
Total	**29.4813**	**308.1000**	**130.3236**	**2.1178**	**6.5596**	**12.1956**	**18.7553**	**2.1777**	**12.1956**	**14.3733**	**262.4837**	**30,336.4158**	**30,598.8995**	**16.9045**	**0.0544**	**30,970.7654**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.33**	**1.39**	**0.81**	**1.60**	**0.00**	**1.25**	**0.81**	**0.00**	**1.25**	**1.06**	**0.00**	**1.01**	**1.00**	**0.19**	**0.04**	**0.99**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	20.5449	303.2362	128.7295	2.0804	6.5596	11.9984	18.5580	2.1777	11.9984	14.1761	0.0000	25,834.3521	25,834.3521	0.9962	0.0000	25,855.2720
Mitigated	20.5449	303.2362	128.7295	2.0804	6.5596	11.9984	18.5580	2.1777	11.9984	14.1761	0.0000	25,834.3521	25,834.3521	0.9962	0.0000	25,855.2720

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	111.20	111.20	111.20	2,302,543	2,302,543
Unrefrigerated Warehouse-No Rail	753.93	753.93	753.93	15,611,175	15,611,175
Total	865.13	865.13	865.13	17,913,718	17,913,718

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3

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LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	639.2807	639.2807	0.0123	0.0117	643.1713
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,498.6675	3,498.6675	0.1507	0.0312	3,511.4962
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,498.6675	3,498.6675	0.1507	0.0312	3,511.4962
NaturalGas Mitigated	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	639.2807	639.2807	0.0123	0.0117	643.1713

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	9.02284e+006	0.0487	0.4423	0.3715	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.4930	481.4930	9.2300e-003	8.8300e-003	484.4233
Unrefrigerated Warehouse-No Rail	2.95683e+006	0.0159	0.1449	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.7877	157.7877	3.0200e-003	2.8900e-003	158.7480
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0646**	**0.5872**	**0.4933**	**3.5200e-003**		**0.0446**	**0.0446**		**0.0446**	**0.0446**	**0.0000**	**639.2807**	**639.2807**	**0.0123**	**0.0117**	**643.1713**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	9.02284e+006	0.0487	0.4423	0.3715	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.4930	481.4930	9.2300e-003	8.8300e-003	484.4233
Unrefrigerated Warehouse-No Rail	2.95683e+006	0.0159	0.1449	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.7877	157.7877	3.0200e-003	2.8900e-003	158.7480
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0646**	**0.5872**	**0.4933**	**3.5200e-003**		**0.0446**	**0.0446**		**0.0446**	**0.0446**	**0.0000**	**639.2807**	**639.2807**	**0.0123**	**0.0117**	**643.1713**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	149.0090	6.4200e-003	1.3300e-003	149.5554
Refrigerated Warehouse-No Rail	7.22105e+006	2,205.4995	0.0950	0.0197	2,213.5865
Unrefrigerated Warehouse-No Rail	3.7461e+006	1,144.1590	0.0493	0.0102	1,148.3544
Total		**3,498.6675**	**0.1507**	**0.0312**	**3,511.4962**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	149.0090	6.4200e-003	1.3300e-003	149.5554
Refrigerated Warehouse-No Rail	7.22105e+006	2,205.4995	0.0950	0.0197	2,213.5865
Unrefrigerated Warehouse-No Rail	3.7461e+006	1,144.1590	0.0493	0.0102	1,148.3544
Total		**3,498.6675**	**0.1507**	**0.0312**	**3,511.4962**

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Mitigated	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7500e-003	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Total	**8.4793**	**5.3000e-004**	**0.0445**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0679**	**0.0679**	**3.2000e-004**	**0.0000**	**0.0746**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7500e-003	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Total	**8.4793**	**5.3000e-004**	**0.0445**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0679**	**0.0679**	**3.2000e-004**	**0.0000**	**0.0746**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	61.6031	0.4699	0.0116	75.0504
Mitigated	61.6031	0.4698	0.0115	75.0431

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	7.9182	0.0604	1.4800e-003	9.6466
Unrefrigerated Warehouse-No Rail	12.5017 / 0	53.6849	0.4095	0.0101	65.4038
Total		**61.6031**	**0.4699**	**0.0115**	**75.0504**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	7.9182	0.0604	1.4800e-003	9.6457
Unrefrigerated Warehouse-No Rail	12.5017 / 0	53.6849	0.4094	0.0101	65.3975
Total		**61.6031**	**0.4698**	**0.0115**	**75.0431**

8.0 Waste Detail

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.3924	4.2761	1.0564	0.0339		0.1524	0.1524		0.1524	0.1524	0.0000	306.9957	306.9957	0.0319	0.0000	307.6650
Total	**0.3924**	**4.2761**	**1.0564**	**0.0339**		**0.1524**	**0.1524**		**0.1524**	**0.1524**	**0.0000**	**306.9957**	**306.9957**	**0.0319**	**0.0000**	**307.6650**

10.0 Vegetation

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

MoVal Logistics Center- 2005 High Cube (Passenger Car)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	673.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocation," cells AH/AQ 35-44. Year 2008 used in absense of year 2005.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

Vehicle Trips - ITE Passenger Cars Trip Rate for High-Cube Warehouse. For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Area Coating -

Energy Use - Used historical data

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	NumDays	70.00	1.00
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00

tblProjectCharacteristics	CO2IntensityFactor	630.89	673.35
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.44	1.00
tblVehicleEF	LDA	0.44	1.00
tblVehicleEF	LDA	0.44	1.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MDV	0.13	0.00

tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Energy	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	4,137.9482	4,137.9482	0.1629	0.0429	4,154.6674
Mobile	2.6214	3.4333	39.2724	0.0345	2.7257	0.0912	2.8169	0.7877	0.0912	0.8788	0.0000	3,103.5898	3,103.5898	0.2579	0.0000	3,109.0046
Offroad	0.3924	4.2761	1.0564	0.0339		0.1524	0.1524		0.1524	0.1524	0.0000	306.9957	306.9957	0.0319	0.0000	307.6650
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	57.0519	61.6031	0.4699	0.0116	75.0504
Total	**11.5577**	**8.2971**	**40.8665**	**0.0720**	**2.7257**	**0.2884**	**3.0141**	**0.7877**	**0.2884**	**1.0761**	**262.4837**	**7,605.6535**	**7,868.1372**	**16.1663**	**0.0545**	**8,224.5053**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Energy	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	4,137.9482	4,137.9482	0.1629	0.0429	4,154.6674
Mobile	2.6214	3.4333	39.2724	0.0345	2.7257	0.0912	2.8169	0.7877	0.0912	0.8788	0.0000	3,103.5898	3,103.5898	0.2579	0.0000	3,109.0046
Offroad	0.3924	4.2761	1.0564	0.0339		0.1524	0.1524		0.1524	0.1524	0.0000	306.9957	306.9957	0.0319	0.0000	307.6650
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	57.0519	61.6031	0.4698	0.0115	75.0431
Total	**11.5577**	**8.2971**	**40.8665**	**0.0720**	**2.7257**	**0.2884**	**3.0141**	**0.7877**	**0.2884**	**1.0761**	**262.4837**	**7,605.6535**	**7,868.1372**	**16.1662**	**0.0544**	**8,224.4981**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**3.40**	**51.54**	**2.58**	**47.15**	**0.00**	**52.86**	**5.06**	**0.00**	**52.86**	**14.17**	**0.00**	**4.04**	**3.90**	**0.20**	**0.04**	**3.74**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.6214	3.4333	39.2724	0.0345	2.7257	0.0912	2.8169	0.7877	0.0912	0.8788	0.0000	3,103.5898	3,103.5898	0.2579	0.0000	3,109.0046
Mitigated	2.6214	3.4333	39.2724	0.0345	2.7257	0.0912	2.8169	0.7877	0.0912	0.8788	0.0000	3,103.5898	3,103.5898	0.2579	0.0000	3,109.0046

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	180.70	180.70	180.70	1,018,358	1,018,358
Unrefrigerated Warehouse-No Rail	1,225.14	1,225.14	1225.14	6,904,440	6,904,440
Total	1,405.84	1,405.84	1,405.84	7,922,799	7,922,799

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	639.2807	639.2807	0.0123	0.0117	643.1713
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,498.6675	3,498.6675	0.1507	0.0312	3,511.4962
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,498.6675	3,498.6675	0.1507	0.0312	3,511.4962
NaturalGas Mitigated	0.0646	0.5872	0.4933	3.5200e-003		0.0446	0.0446		0.0446	0.0446	0.0000	639.2807	639.2807	0.0123	0.0117	643.1713

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	9.02284e+006	0.0487	0.4423	0.3715	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.4930	481.4930	9.2300e-003	8.8300e-003	484.4233
Unrefrigerated Warehouse-No Rail	2.95683e+006	0.0159	0.1449	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.7877	157.7877	3.0200e-003	2.8900e-003	158.7480
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0646**	**0.5872**	**0.4933**	**3.5200e-003**		**0.0446**	**0.0446**		**0.0446**	**0.0446**	**0.0000**	**639.2807**	**639.2807**	**0.0123**	**0.0117**	**643.1713**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	9.02284e+006	0.0487	0.4423	0.3715	2.6500e-003		0.0336	0.0336		0.0336	0.0336	0.0000	481.4930	481.4930	9.2300e-003	8.8300e-003	484.4233
Unrefrigerated Warehouse-No Rail	2.95683e+006	0.0159	0.1449	0.1218	8.7000e-004		0.0110	0.0110		0.0110	0.0110	0.0000	157.7877	157.7877	3.0200e-003	2.8900e-003	158.7480
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0646**	**0.5872**	**0.4933**	**3.5200e-003**		**0.0446**	**0.0446**		**0.0446**	**0.0446**	**0.0000**	**639.2807**	**639.2807**	**0.0123**	**0.0117**	**643.1713**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	149.0090	6.4200e-003	1.3300e-003	149.5554
Refrigerated Warehouse-No Rail	7.22105e+006	2,205.4995	0.0950	0.0197	2,213.5865
Unrefrigerated Warehouse-No Rail	3.7461e+006	1,144.1590	0.0493	0.0102	1,148.3544
Total		**3,498.6675**	**0.1507**	**0.0312**	**3,511.4962**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	149.0090	6.4200e-003	1.3300e-003	149.5554
Refrigerated Warehouse-No Rail	7.22105e+006	2,205.4995	0.0950	0.0197	2,213.5865
Unrefrigerated Warehouse-No Rail	3.7461e+006	1,144.1590	0.0493	0.0102	1,148.3544
Total		**3,498.6675**	**0.1507**	**0.0312**	**3,511.4962**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Mitigated	8.4793	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7500e-003	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Total	**8.4793**	**5.3000e-004**	**0.0445**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0679**	**0.0679**	**3.2000e-004**	**0.0000**	**0.0746**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7500e-003	5.3000e-004	0.0445	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0679	0.0679	3.2000e-004	0.0000	0.0746
Total	**8.4793**	**5.3000e-004**	**0.0445**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.0679**	**0.0679**	**3.2000e-004**	**0.0000**	**0.0746**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	61.6031	0.4699	0.0116	75.0504
Mitigated	61.6031	0.4698	0.0115	75.0431

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	7.9182	0.0604	1.4800e-003	9.6466
Unrefrigerated Warehouse-No Rail	12.5017 / 0	53.6849	0.4095	0.0101	65.4038
Total		**61.6031**	**0.4699**	**0.0115**	**75.0504**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	7.9182	0.0604	1.4800e-003	9.6457
Unrefrigerated Warehouse-No Rail	12.5017 / 0	53.6849	0.4094	0.0101	65.3975
Total		**61.6031**	**0.4698**	**0.0115**	**75.0431**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.3924	4.2761	1.0564	0.0339		0.1524	0.1524		0.1524	0.1524	0.0000	306.9957	306.9957	0.0319	0.0000	307.6650
Total	**0.3924**	**4.2761**	**1.0564**	**0.0339**		**0.1524**	**0.1524**		**0.1524**	**0.1524**	**0.0000**	**306.9957**	**306.9957**	**0.0319**	**0.0000**	**307.6650**

10.0 Vegetation

MoVal Logistics Center- 2005 Light Industrial (Trucks)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	673.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44. Year 2008 used in absense of year 2005

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase - Operation run only

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Truck Trip Rate based on Traffic Study

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Energy Use - Used historical data

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	PhaseEndDate	1/28/2016	1/1/2016
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00

tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	673.35
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.03	0.44
tblVehicleEF	HHD	0.03	0.44
tblVehicleEF	HHD	0.03	0.44
tblVehicleEF	LDA	0.44	0.00
tblVehicleEF	LDA	0.44	0.00
tblVehicleEF	LDA	0.44	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.03	0.37
tblVehicleEF	LHD1	0.03	0.37
tblVehicleEF	LHD1	0.03	0.37
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MDV	0.13	0.00

tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Energy	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	2,121.8585	2,121.8585	0.0747	0.0255	2,131.3265
Mobile	11.0234	165.8729	79.7350	1.1133	4.2953	6.0435	10.3387	1.3840	6.0435	7.4275	0.0000	14,992.7469	14,992.7469	0.5774	0.0000	15,004.8732
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	21.5864	23.3084	0.1778	4.3700e-003	28.3964
Total	**13.9869**	**168.2244**	**80.7120**	**1.1307**	**4.2953**	**6.1532**	**10.4485**	**1.3840**	**6.1532**	**7.5372**	**98.8187**	**17,259.0149**	**17,357.8335**	**6.5811**	**0.0299**	**17,505.2891**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Energy	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	2,121.8585	2,121.8585	0.0747	0.0255	2,131.3265
Mobile	11.0234	165.8729	79.7350	1.1133	4.2953	6.0435	10.3387	1.3840	6.0435	7.4275	0.0000	14,992.7469	14,992.7469	0.5774	0.0000	15,004.8732
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	21.5864	23.3084	0.1778	4.3600e-003	28.3937
Total	**13.9869**	**168.2244**	**80.7120**	**1.1307**	**4.2953**	**6.1532**	**10.4485**	**1.3840**	**6.1532**	**7.5372**	**98.8187**	**17,259.0149**	**17,357.8335**	**6.5810**	**0.0298**	**17,505.2864**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.12**	**1.02**	**0.52**	**1.20**	**0.00**	**0.99**	**0.58**	**0.00**	**0.99**	**0.81**	**0.00**	**0.71**	**0.71**	**0.19**	**0.03**	**0.70**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	20	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	11.0234	165.8729	79.7350	1.1133	4.2953	6.0435	10.3387	1.3840	6.0435	7.4275	0.0000	14,992.7469	14,992.7469	0.5774	0.0000	15,004.8732
Mitigated	11.0234	165.8729	79.7350	1.1133	4.2953	6.0435	10.3387	1.3840	6.0435	7.4275	0.0000	14,992.7469	14,992.7469	0.5774	0.0000	15,004.8732

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	182.55	182.55	182.55	3,780,038	3,780,038
General Light Industry	144.86	144.86	144.86	2,999,472	2,999,472
General Light Industry	247.35	247.35	247.35	5,121,810	5,121,810
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	574.77	574.77	574.77	11,901,321	11,901,321

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.374000	0.000000	0.182300	0.443700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.6251	697.6251	0.0134	0.0128	701.8707
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,424.2335	1,424.2335	0.0613	0.0127	1,429.4558
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,424.2335	1,424.2335	0.0613	0.0127	1,429.4558
NaturalGas Mitigated	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.6251	697.6251	0.0134	0.0128	701.8707

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.29485e+006	0.0178	0.1615	0.1357	9.7000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	175.8259	175.8259	3.3700e-003	3.2200e-003	176.8960
General Light Industry	4.15207e+006	0.0224	0.2035	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155	0.0000	221.5701	221.5701	4.2500e-003	4.0600e-003	222.9186
General Light Industry	5.62608e+006	0.0303	0.2758	0.2317	1.6500e-003		0.0210	0.0210		0.0210	0.0210	0.0000	300.2290	300.2290	5.7500e-003	5.5000e-003	302.0561
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0705**	**0.6408**	**0.5383**	**3.8400e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**697.6251**	**697.6251**	**0.0134**	**0.0128**	**701.8707**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	3.29485e+006	0.0178	0.1615	0.1357	9.7000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	175.8259	175.8259	3.3700e-003	3.2200e-003	176.8960
General Light Industry	4.15207e+006	0.0224	0.2035	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155	0.0000	221.5701	221.5701	4.2500e-003	4.0600e-003	222.9186
General Light Industry	5.62608e+006	0.0303	0.2758	0.2317	1.6500e-003		0.0210	0.0210		0.0210	0.0210	0.0000	300.2290	300.2290	5.7500e-003	5.5000e-003	302.0561
Total		**0.0705**	**0.6408**	**0.5383**	**3.8400e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**697.6251**	**697.6251**	**0.0134**	**0.0128**	**701.8707**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.12097e +006	342.3738	0.0148	3.0500e-003	343.6292
General Light Industry	1.41261e +006	431.4483	0.0186	3.8400e-003	433.0303
General Light Industry	1.9141e +006	584.6153	0.0252	5.2100e-003	586.7589
Parking Lot	65824	20.1044	8.7000e-004	1.8000e-004	20.1781
Parking Lot	72160	22.0396	9.5000e-004	2.0000e-004	22.1204
Parking Lot	77440	23.6522	1.0200e-003	2.1000e-004	23.7390
Total		**1,424.2335**	**0.0614**	**0.0127**	**1,429.4558**

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.12097e +006	342.3738	0.0148	3.0500e-003	343.6292
General Light Industry	1.41261e +006	431.4483	0.0186	3.8400e-003	433.0303
General Light Industry	1.9141e +006	584.6153	0.0252	5.2100e-003	586.7589
Parking Lot	65824	20.1044	8.7000e-004	1.8000e-004	20.1781
Parking Lot	72160	22.0396	9.5000e-004	2.0000e-004	22.1204
Parking Lot	77440	23.6522	1.0200e-003	2.1000e-004	23.7390
Total		**1,424.2335**	**0.0614**	**0.0127**	**1,429.4558**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Mitigated	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0900e-003	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Total	**2.7361**	**1.9000e-004**	**0.0162**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**1.2000e-004**	**0.0000**	**0.0272**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0900e-003	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Total	**2.7361**	**1.9000e-004**	**0.0162**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**1.2000e-004**	**0.0000**	**0.0272**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	23.3084	0.1778	4.3700e-003	28.3964
Mitigated	23.3084	0.1778	4.3600e-003	28.3937

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	23.3084	0.1778	4.3700e-003	28.3964
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**23.3084**	**0.1778**	**4.3700e-003**	**28.3964**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	23.3084	0.1778	4.3600e-003	28.3937
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**23.3084**	**0.1778**	**4.3600e-003**	**28.3937**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Total	**0.1570**	**1.7104**	**0.4225**	**0.0136**		**0.0610**	**0.0610**		**0.0610**	**0.0610**	**0.0000**	**122.7983**	**122.7983**	**0.0128**	**0.0000**	**123.0660**

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10.0 Vegetation

MoVal Logistics Center- 2005 Light Industrial (Passenger Cars)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2005
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	673.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44. Year 2008 used in absense of year 2005

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase - Operation run only

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Passenger Trip Rate based on Traffic Study; For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Energy Use - Used historical data

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	100
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	50
tblConstructionPhase	NumDays	20.00	1.00
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00

tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	673.35
tblProjectCharacteristics	OperationalYear	2014	2005
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	HHD	0.03	0.00
tblVehicleEF	LDA	0.44	1.00
tblVehicleEF	LDA	0.44	1.00
tblVehicleEF	LDA	0.44	1.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT1	0.10	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LDT2	0.23	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD1	0.03	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	LHD2	7.6570e-003	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MCY	0.01	0.00
tblVehicleEF	MDV	0.13	0.00

tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MDV	0.13	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MH	3.6440e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	OBUS	7.1000e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	SBUS	9.7400e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleEF	UBUS	6.1800e-004	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	5.48
tblVehicleTrips	SU_TR	0.68	5.48
tblVehicleTrips	WD_TR	6.97	5.48
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Energy	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	2,121.8585	2,121.8585	0.0747	0.0255	2,131.3265
Mobile	3.9417	5.1625	59.0525	0.0519	4.0985	0.1371	4.2356	1.1844	0.1371	1.3215	0.0000	4,666.7514	4,666.7514	0.3877	0.0000	4,674.8934
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	21.5864	23.3084	0.1778	4.3700e-003	28.3964
Total	**6.9052**	**7.5139**	**60.0295**	**0.0693**	**4.0985**	**0.2468**	**4.3454**	**1.1844**	**0.2468**	**1.4312**	**98.8187**	**6,933.0194**	**7,031.8381**	**6.3913**	**0.0299**	**7,175.3093**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Energy	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	2,121.8585	2,121.8585	0.0747	0.0255	2,131.3265
Mobile	3.9417	5.1625	59.0525	0.0519	4.0985	0.1371	4.2356	1.1844	0.1371	1.3215	0.0000	4,666.7514	4,666.7514	0.3877	0.0000	4,674.8934
Offroad	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	21.5864	23.3084	0.1778	4.3600e-003	28.3937
Total	**6.9052**	**7.5139**	**60.0295**	**0.0693**	**4.0985**	**0.2468**	**4.3454**	**1.1844**	**0.2468**	**1.4312**	**98.8187**	**6,933.0194**	**7,031.8381**	**6.3913**	**0.0298**	**7,175.3066**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**2.27**	**22.76**	**0.70**	**19.58**	**0.00**	**24.71**	**1.40**	**0.00**	**24.71**	**4.26**	**0.00**	**1.77**	**1.75**	**0.20**	**0.03**	**1.72**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	3.9417	5.1625	59.0525	0.0519	4.0985	0.1371	4.2356	1.1844	0.1371	1.3215	0.0000	4,666.7514	4,666.7514	0.3877	0.0000	4,674.8934
Mitigated	3.9417	5.1625	59.0525	0.0519	4.0985	0.1371	4.2356	1.1844	0.1371	1.3215	0.0000	4,666.7514	4,666.7514	0.3877	0.0000	4,674.8934

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	671.41	671.41	671.41	3,783,816	3,783,816
General Light Industry	532.77	532.77	532.77	3,002,470	3,002,470
General Light Industry	909.73	909.73	909.73	5,126,929	5,126,929
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,113.91	2,113.91	2,113.91	11,913,215	11,913,215

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.6251	697.6251	0.0134	0.0128	701.8707
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,424.2335	1,424.2335	0.0613	0.0127	1,429.4558
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,424.2335	1,424.2335	0.0613	0.0127	1,429.4558
NaturalGas Mitigated	0.0705	0.6408	0.5383	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.6251	697.6251	0.0134	0.0128	701.8707

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	3.29485e +006	0.0178	0.1615	0.1357	9.7000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	175.8259	175.8259	3.3700e-003	3.2200e-003	176.8960
General Light Industry	4.15207e +006	0.0224	0.2035	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155	0.0000	221.5701	221.5701	4.2500e-003	4.0600e-003	222.9186
General Light Industry	5.62608e +006	0.0303	0.2758	0.2317	1.6500e-003		0.0210	0.0210		0.0210	0.0210	0.0000	300.2290	300.2290	5.7500e-003	5.5000e-003	302.0561
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0705**	**0.6408**	**0.5383**	**3.8400e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**697.6251**	**697.6251**	**0.0134**	**0.0128**	**701.8707**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	3.29485e+006	0.0178	0.1615	0.1357	9.7000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	175.8259	175.8259	3.3700e-003	3.2200e-003	176.8960
General Light Industry	4.15207e+006	0.0224	0.2035	0.1710	1.2200e-003		0.0155	0.0155		0.0155	0.0155	0.0000	221.5701	221.5701	4.2500e-003	4.0600e-003	222.9186
General Light Industry	5.62608e+006	0.0303	0.2758	0.2317	1.6500e-003		0.0210	0.0210		0.0210	0.0210	0.0000	300.2290	300.2290	5.7500e-003	5.5000e-003	302.0561
Total		**0.0705**	**0.6408**	**0.5383**	**3.8400e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**697.6251**	**697.6251**	**0.0134**	**0.0128**	**701.8707**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.12097e +006	342.3738	0.0148	3.0500e-003	343.6292
General Light Industry	1.41261e +006	431.4483	0.0186	3.8400e-003	433.0303
General Light Industry	1.9141e +006	584.6153	0.0252	5.2100e-003	586.7589
Parking Lot	65824	20.1044	8.7000e-004	1.8000e-004	20.1781
Parking Lot	72160	22.0396	9.5000e-004	2.0000e-004	22.1204
Parking Lot	77440	23.6522	1.0200e-003	2.1000e-004	23.7390
Total		**1,424.2335**	**0.0614**	**0.0127**	**1,429.4558**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.12097e+006	342.3738	0.0148	3.0500e-003	343.6292
General Light Industry	1.41261e+006	431.4483	0.0186	3.8400e-003	433.0303
General Light Industry	1.9141e+006	584.6153	0.0252	5.2100e-003	586.7589
Parking Lot	65824	20.1044	8.7000e-004	1.8000e-004	20.1781
Parking Lot	72160	22.0396	9.5000e-004	2.0000e-004	22.1204
Parking Lot	77440	23.6522	1.0200e-003	2.1000e-004	23.7390
Total		**1,424.2335**	**0.0614**	**0.0127**	**1,429.4558**

6.0 Area Detail

6.1 Mitigation Measures Area

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Mitigated	2.7361	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0900e-003	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Total	**2.7361**	**1.9000e-004**	**0.0162**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**1.2000e-004**	**0.0000**	**0.0272**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0900e-003	1.9000e-004	0.0162	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0248	0.0248	1.2000e-004	0.0000	0.0272
Total	**2.7361**	**1.9000e-004**	**0.0162**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**1.2000e-004**	**0.0000**	**0.0272**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	23.3084	0.1778	4.3700e-003	28.3964
Mitigated	23.3084	0.1778	4.3600e-003	28.3937

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	23.3084	0.1778	4.3700e-003	28.3964
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**23.3084**	**0.1778**	**4.3700e-003**	**28.3964**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	23.3084	0.1778	4.3600e-003	28.3937
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**23.3084**	**0.1778**	**4.3600e-003**	**28.3937**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.1570	1.7104	0.4225	0.0136		0.0610	0.0610		0.0610	0.0610	0.0000	122.7983	122.7983	0.0128	0.0000	123.0660
Total	**0.1570**	**1.7104**	**0.4225**	**0.0136**		**0.0610**	**0.0610**		**0.0610**	**0.0610**	**0.0000**	**122.7983**	**122.7983**	**0.0128**	**0.0000**	**123.0660**

10.0 Vegetation

MoVal Logistics Center- 2020 High Cube (Trucks)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operational run only

Trips and VMT - Operational Run Only.

Vehicle Trips - ITE Truck Trip Rate for High-Cube Warehouse.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64

tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	3.3388	61.1427	33.0996	0.2437	7.6556	1.3959	9.0515	2.1285	1.2843	3.4128	0.0000	20,763.9797	20,763.9797	0.1368	0.0000	20,766.8515
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	39.5605	44.1117	0.4699	0.0116	57.5591
Total	**12.0093**	**63.3142**	**34.3012**	**0.2499**	**7.6556**	**1.4906**	**9.1462**	**2.1285**	**1.3747**	**3.5032**	**262.4837**	**23,984.8475**	**24,247.3312**	**16.0889**	**0.0524**	**24,601.4393**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	3.2838	59.9586	32.6731	0.2389	7.5025	1.3681	8.8706	2.0860	1.2586	3.3446	0.0000	20,351.6423	20,351.6423	0.1342	0.0000	20,354.4594
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	3.6410	31.6484	35.2894	0.3759	9.2200e-003	46.0415
Total	**11.9543**	**62.1301**	**33.8747**	**0.2450**	**7.5025**	**1.4628**	**8.9653**	**2.0860**	**1.3491**	**3.4350**	**261.5735**	**23,564.5980**	**23,826.1714**	**15.9923**	**0.0501**	**24,177.5295**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.57**	**4.45**	**3.32**	**3.09**	**2.00**	**5.46**	**2.56**	**2.00**	**5.44**	**3.35**	**0.35**	**2.81**	**2.79**	**1.11**	**4.45**	**2.76**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	3.3388	61.1427	33.0996	0.2437	7.6556	1.3959	9.0515	2.1285	1.2843	3.4128	0.0000	20,763.9797	20,763.9797	0.1368	0.0000	20,766.8515
Mitigated	3.2838	59.9586	32.6731	0.2389	7.5025	1.3681	8.8706	2.0860	1.2586	3.3446	0.0000	20,351.6423	20,351.6423	0.1342	0.0000	20,354.4594

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	111.20	111.20	111.20	2,302,543	2,256,492
Unrefrigerated Warehouse-No Rail	753.93	753.93	753.93	15,611,175	15,298,952
Total	865.13	865.13	865.13	17,913,718	17,555,444

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
NaturalGas Mitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Mitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	44.1117	0.4699	0.0116	57.5591
Mitigated	35.2894	0.3759	9.2200e-003	46.0415

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	5.6699	0.0604	1.4800e-003	7.3984
Unrefrigerated Warehouse-No Rail	12.5017 / 0	38.4418	0.4095	0.0101	50.1607
Total		**44.1117**	**0.4699**	**0.0115**	**57.5591**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.47513 / 0	4.5359	0.0483	1.1900e-003	5.9179
Unrefrigerated Warehouse-No Rail	10.0014 / 0	30.7535	0.3276	8.0400e-003	40.1235
Total		**35.2894**	**0.3759**	**9.2300e-003**	**46.0415**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Total	**0.1341**	**1.6304**	**0.7121**	**2.8900e-003**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**254.1640**	**254.1640**	**0.0822**	**0.0000**	**255.8902**

10.0 Vegetation

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

MoVal Logistics Center- 2020 High Cube (Passenger Car)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocation," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

Vehicle Trips - ITE Passenger Cars Trip Rate for High-Cube Warehouse. For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04

tblVehicleTrips	WD_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	0.3504	0.5912	6.3621	0.0293	2.9593	0.0151	2.9744	0.7855	0.0140	0.7995	0.0000	1,809.4387	1,809.4387	0.0636	0.0000	1,810.7741
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	39.5605	44.1117	0.4699	0.0116	57.5591
Total	**9.0209**	**2.7627**	**7.5636**	**0.0355**	**2.9593**	**0.1098**	**3.0691**	**0.7855**	**0.1045**	**0.8899**	**262.4837**	**5,030.3065**	**5,292.7902**	**16.0158**	**0.0524**	**5,645.3618**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	0.3485	0.5802	6.2491	0.0288	2.9001	0.0149	2.9150	0.7698	0.0138	0.7835	0.0000	1,773.7831	1,773.7831	0.0624	0.0000	1,775.0928
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	3.6410	31.6484	35.2894	0.3759	9.2200e-003	46.0415
Total	**9.0190**	**2.7517**	**7.4506**	**0.0349**	**2.9001**	**0.1096**	**3.0097**	**0.7698**	**0.1042**	**0.8740**	**261.5735**	**4,986.7387**	**5,248.3122**	**15.9205**	**0.0501**	**5,598.1629**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.51**	**59.41**	**10.91**	**9.78**	**2.00**	**48.93**	**3.68**	**2.00**	**47.34**	**7.32**	**0.35**	**5.92**	**5.64**	**1.11**	**4.45**	**5.37**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.3504	0.5912	6.3621	0.0293	2.9593	0.0151	2.9744	0.7855	0.0140	0.7995	0.0000	1,809.4387	1,809.4387	0.0636	0.0000	1,810.7741
Mitigated	0.3485	0.5802	6.2491	0.0288	2.9001	0.0149	2.9150	0.7698	0.0138	0.7835	0.0000	1,773.7831	1,773.7831	0.0624	0.0000	1,775.0928

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	180.70	180.70	180.70	1,018,358	997,991
Unrefrigerated Warehouse-No Rail	1,225.14	1,225.14	1225.14	6,904,440	6,766,351
Total	1,405.84	1,405.84	1,405.84	7,922,799	7,764,343

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
NaturalGas Mitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e +006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e +006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e +006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e +006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Mitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	44.1117	0.4699	0.0116	57.5591
Mitigated	35.2894	0.3759	9.2200e-003	46.0415

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	5.6699	0.0604	1.4800e-003	7.3984
Unrefrigerated Warehouse-No Rail	12.5017 / 0	38.4418	0.4095	0.0101	50.1607
Total		**44.1117**	**0.4699**	**0.0115**	**57.5591**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.47513 / 0	4.5359	0.0483	1.1900e-003	5.9179
Unrefrigerated Warehouse-No Rail	10.0014 / 0	30.7535	0.3276	8.0400e-003	40.1235
Total		**35.2894**	**0.3759**	**9.2300e-003**	**46.0415**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Total	**0.1341**	**1.6304**	**0.7121**	**2.8900e-003**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**254.1640**	**254.1640**	**0.0822**	**0.0000**	**255.8902**

10.0 Vegetation

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

MoVal Logistics Center- 2020 Light Industrial (Trucks)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Truck Trip Rate based on Traffic Study

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	1.8593	34.5609	18.4798	0.1405	5.0192	0.7377	5.7568	1.3949	0.6787	2.0736	0.0000	11,934.1878	11,934.1878	0.0854	0.0000	11,935.9819
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	14.9683	16.6903	0.1778	4.3700e-003	21.7783
Total	**4.7118**	**35.7914**	**19.2632**	**0.1451**	**5.0192**	**0.8031**	**5.8222**	**1.3949**	**0.7423**	**2.1373**	**98.8187**	**13,582.1368**	**13,680.9555**	**6.1025**	**0.0275**	**13,817.6323**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	1.8291	33.8911	18.2319	0.1377	4.9188	0.7229	5.6417	1.3670	0.6651	2.0322	0.0000	11,697.1168	11,697.1168	0.0838	0.0000	11,698.8766
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.3776	11.9747	13.3523	0.1422	3.4900e-003	17.4205
Total	**4.6816**	**35.1216**	**19.0153**	**0.1423**	**4.9188**	**0.7883**	**5.7071**	**1.3670**	**0.7288**	**2.0958**	**98.4743**	**13,342.0721**	**13,440.5464**	**6.0653**	**0.0266**	**13,576.1692**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.78**	**3.69**	**2.77**	**2.72**	**2.00**	**4.50**	**2.34**	**2.00**	**4.48**	**2.86**	**0.35**	**2.52**	**2.50**	**1.15**	**3.20**	**2.49**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.8593	34.5609	18.4798	0.1405	5.0192	0.7377	5.7568	1.3949	0.6787	2.0736	0.0000	11,934.1878	11,934.1878	0.0854	0.0000	11,935.9819
Mitigated	1.8291	33.8911	18.2319	0.1377	4.9188	0.7229	5.6417	1.3670	0.6651	2.0322	0.0000	11,697.1168	11,697.1168	0.0838	0.0000	11,698.8766

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	182.55	182.55	182.55	3,780,038	3,704,438
General Light Industry	144.86	144.86	144.86	2,999,472	2,939,483
General Light Industry	247.35	247.35	247.35	5,121,810	5,019,374
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	574.77	574.77	574.77	11,901,321	11,663,295

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.374000	0.000000	0.182300	0.443700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
NaturalGas Mitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e +006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e +006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e +006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e +006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e +006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e +006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Mitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6903	0.1778	4.3700e-003	21.7783
Mitigated	13.3523	0.1422	3.4900e-003	17.4205

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	16.6903	0.1778	4.3700e-003	21.7783
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**16.6903**	**0.1778**	**4.3700e-003**	**21.7783**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.3423 / 0	13.3523	0.1422	3.4900e-003	17.4205
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.3523**	**0.1422**	**3.4900e-003**	**17.4205**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	**0.0537**	**0.6521**	**0.2849**	**1.1600e-003**		**0.0214**	**0.0214**		**0.0197**	**0.0197**	**0.0000**	**101.6656**	**101.6656**	**0.0329**	**0.0000**	**102.3561**

10.0 Vegetation

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

MoVal Logistics Center- 2020 Light Industrial (Passenger Cars)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Passenger Trip Rate based on Traffic Study; For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	5.48
tblVehicleTrips	SU_TR	0.68	5.48
tblVehicleTrips	WD_TR	6.97	5.48
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	0.5269	0.8889	9.5664	0.0441	4.4498	0.0227	4.4725	1.1811	0.0211	1.2022	0.0000	2,720.7850	2,720.7850	0.0956	0.0000	2,722.7930
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	14.9683	16.6903	0.1778	4.3700e-003	21.7783
Total	**3.3793**	**2.1194**	**10.3498**	**0.0487**	**4.4498**	**0.0881**	**4.5379**	**1.1811**	**0.0848**	**1.2658**	**98.8187**	**4,368.7340**	**4,467.5527**	**6.1127**	**0.0275**	**4,604.4434**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	0.5240	0.8725	9.3965	0.0432	4.3608	0.0223	4.3831	1.1575	0.0207	1.1782	0.0000	2,667.1709	2,667.1709	0.0938	0.0000	2,669.1403
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.3776	11.9747	13.3523	0.1422	3.4900e-003	17.4205
Total	**3.3764**	**2.1030**	**10.1799**	**0.0479**	**4.3608**	**0.0877**	**4.4485**	**1.1575**	**0.0844**	**1.2418**	**98.4743**	**4,312.1263**	**4,410.6006**	**6.0753**	**0.0266**	**4,546.4329**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.67**	**31.54**	**4.39**	**4.16**	**2.00**	**24.73**	**2.44**	**2.00**	**23.66**	**3.45**	**0.35**	**3.62**	**3.55**	**1.15**	**3.20**	**3.48**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.5269	0.8889	9.5664	0.0441	4.4498	0.0227	4.4725	1.1811	0.0211	1.2022	0.0000	2,720.7850	2,720.7850	0.0956	0.0000	2,722.7930
Mitigated	0.5240	0.8725	9.3965	0.0432	4.3608	0.0223	4.3831	1.1575	0.0207	1.1782	0.0000	2,667.1709	2,667.1709	0.0938	0.0000	2,669.1403

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	671.41	671.41	671.41	3,783,816	3,708,140
General Light Industry	532.77	532.77	532.77	3,002,470	2,942,420
General Light Industry	909.73	909.73	909.73	5,126,929	5,024,390
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,113.91	2,113.91	2,113.91	11,913,215	11,674,950

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
NaturalGas Mitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e +006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e +006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e +006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e +006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e +006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e +006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Mitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6903	0.1778	4.3700e-003	21.7783
Mitigated	13.3523	0.1422	3.4900e-003	17.4205

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	16.6903	0.1778	4.3700e-003	21.7783
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**16.6903**	**0.1778**	**4.3700e-003**	**21.7783**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.3423 / 0	13.3523	0.1422	3.4900e-003	17.4205
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.3523**	**0.1422**	**3.4900e-003**	**17.4205**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	**0.0537**	**0.6521**	**0.2849**	**1.1600e-003**		**0.0214**	**0.0214**		**0.0197**	**0.0197**	**0.0000**	**101.6656**	**101.6656**	**0.0329**	**0.0000**	**102.3561**

10.0 Vegetation

Attachment: E - Greenhouse Gas Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis

FARALLON
CONSULTING

Washington
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PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

INDIAN BUSINESS PARK
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CALIFORNIA

Submitted by:
Farallon Consulting, L.L.C.
975 5th Avenue Northwest
Issaquah, Washington 98027

Farallon PN: 1071-007 (Task 6)

Prepared For:
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March 23, 2015

Prepared by:

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Kevin Sheridan
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Tina Huff, R.E.P.A.
Senior Regulatory Specialist

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Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

FIGURES

APPENDICES

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (Phase I ESA) Report was prepared by Farallon Consulting, L.L.C. (Farallon) for the Indian Business Park property on Indian Street and Krameria Avenue in Moreno Valley, California (herein referred to as the Site).

This Phase I ESA Report was prepared for Prologis, Inc. (Prologis) in accordance with the Environmental Engagement Letter dated March 12, 2015. The scope of work for this Phase I ESA is consistent with ASTM International Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13). ASTM E1527-13 is intended to permit a user to satisfy the requirements to qualify for protection from potential liability under the Comprehensive Environmental Response, Compensation, and Liability Act as the innocent landowner, contiguous property owner, or bona fide prospective purchaser. ASTM E1527-13 constitutes "all appropriate inquiry" into the previous ownership, uses, and environmental conditions of a property consistent with good commercial or customary practice, as defined in Section 9601(35)(B) of Title 42 of the U.S. Code. There were no significant deviations from ASTM E1527-13 during the completion of this Phase I ESA. There were no limiting conditions or significant data gaps encountered during the completion of this Phase I ESA Report.

The purpose of this Phase I ESA was to identify, as practicable, recognized environmental conditions on the Site or proximate to the Site that have caused and/or may cause an adverse environmental condition. This Phase I ESA Report provides the results of investigation into past and present ownership and uses of the Site, consistent with good commercial and/or customary practice.

The Site consists of six noncontiguous parcels of land east and west of the Perris Valley Storm Drain (PVSD), west of Indian Street, south of Krameria Avenue, east of Heacock Street, and north of Cardinal Avenue in the city of Moreno Valley, Riverside County, California. The Site currently has no assigned address with local agencies. The Site is located at an approximate Latitude North 33.8782000 and Longitude West 117.2391000. According to the Riverside Assessor–County Clerk—Recorder Property Information Center database, the Site Parcel Nos. are 316-100-028, 316-100-030, 316-100-034, 316-100-048, 316-100-051, and 316-100-052 together totaling 89.86 acres.

The Site consists of approximately 90 acres, primarily flat vacant dirt-covered land with no structures or improvements. The concrete-lined PVSD bisects the irregular-shaped Site. For development purposes, the Site has been divided into four future building areas, identified as Lots 1 through 4. Lots 1 and 2 are located on four contiguous parcels (approximately 75 acres) adjacent to/east of the PVSD. Lot 4 (approximately 8 acres) and Lot 3 (approximately 6 acres) are located adjacent to/west of the PVSD, on parcels north and southeast, respectively, of two developed commercial properties. Access to the Site is gained from unpaved areas off Krameria

Avenue to the north, Indian Street to the east, Heacock Street to the west, and Cardinal Avenue to the southwest.

Based on Farallon's review of historical aerial photographs and topographic maps, the Site has consisted of undeveloped land, either vacant or used for agricultural activities, since at least 1938. The potential presence of agricultural chemicals in Site soil from historical agricultural activities is considered de minimis under a commercial setting, but soil should be appropriately managed during development of the Site.

At the time of the site reconnaissance, the Site consisted of undeveloped land covered with weeds. Farallon did not observe storage or handling of hazardous substances. No evidence of stained soil, stressed vegetation, fill material, aboveground or underground storage tanks, or significant chemical release was observed on the Site at the time of the site reconnaissance.

The Environmental Data Resources, Inc. (EDR) report prepared for the Site and Site vicinity did not identify the Site in any of the regulatory databases reviewed. The only facility in the vicinity of the Site identified in the EDR report was March Air Force Base (MAFB), which was listed on various regulatory databases for the known presence of volatile organic compounds (VOCs) in groundwater. MAFB is west-adjacent to Lot 4 and up-gradient with respect to groundwater flow. The Site is located within the MAFB groundwater plume, identified as Operable Unit #1, Site 7, which is listed as performing ongoing long-term groundwater monitoring, extraction, and treatment for a solvent groundwater plume. The Site is listed as restricted from residential use. Several groundwater monitoring wells are present on or proximate to the Site. Plume maps show that shallow groundwater beneath the Site, located greater than 100 feet below ground surface, is not impacted by constituents of concern, but underlying groundwater, referred to as the lower alluvium, contains low (at or less than 13 micrograms per liter) concentrations of VOCs. The known migration of VOCs in groundwater from the neighboring MAFB property to the Site represents a recognized environmental condition.

Farallon performed a Phase I ESA for the Indian Business Park property on Indian Street and Krameria Avenue in Moreno Valley, California in general conformance with the scope and limitations of ASTM E1527-13. This assessment revealed the known migration of VOCs in groundwater from the neighboring MAFB property to the Site as a recognized environmental condition in connection with the Site.

As requested by Prologis, Farallon has included additional opinions on recognized environmental conditions beyond those specified under ASTM E1527-13. Based on the low concentrations of VOCs reported proximate to the Site and the depth to groundwater of over 100 feet below ground surface, the presence of VOCs in groundwater is not anticipated to pose a concern to occupants of the Site under a commercial use.

This Executive Summary is presented for convenience only and should not be used in lieu of information presented in the entire Phase I ESA Report.

1.0 INTRODUCTION

This Phase I Environmental Site Assessment (Phase I ESA) Report was prepared by Farallon Consulting, L.L.C. (Farallon) for the Indian Business Park property on Indian Street and Krameria Avenue in Moreno Valley, California (herein referred to as the Site) (Figure 1). This section discusses the project purpose, scope of work, user reliance, deletions and deviations, limiting conditions, and data gaps, and the qualifications of the environmental professionals conducting and reviewing the Phase I ESA work.

This Phase I ESA Report was prepared for Prologis, Inc. (Prologis) (2015) in accordance with the Environmental Engagement Letter dated March 12, 2015. The scope of work for this Phase I ESA is consistent with ASTM International Standard E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13).

1.1 PURPOSE

The purpose of the Phase I ESA was to identify, as practicable, recognized environmental conditions on the Site and within the appropriate study area that have caused and/or may cause an adverse environmental impact. ASTM E1527-13 is intended to permit a user to satisfy one of the requirements to qualify for protection from potential liability under the Comprehensive Environmental Response, Compensation, and Liability Act as the innocent landowner, contiguous property owner, or bona fide prospective purchaser. ASTM E1527-13 constitutes “all appropriate inquiry” into the previous ownership, uses, and environmental conditions of a property consistent with good commercial or customary practice, as defined in Section 9601(35)(B) of Title 42 of the U.S. Code.

The objective of the Phase I ESA was to perform an appropriate inquiry into past and present ownership and uses of the Site, consistent with good commercial and/or customary practice. The Phase I ESA Report is to be used as a risk management tool to meet all appropriate inquiry requirements and the Comprehensive Environmental Response, Compensation, and Liability Act liability defense. The Phase I ESA does not guarantee that there are no impacts to the Site.

For the purpose of this Phase I ESA Report, the term “recognized environmental condition” is defined as the presence or likely presence of any hazardous substance or petroleum product on the Site under conditions that indicate a past or existing release or material threat of release of any hazardous substance into a structure on the Site, or into the ground, groundwater, or surface water of the Site. The term is not intended to include de minimis conditions that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies.

1.2 SCOPE OF WORK

This Phase I ESA Report has been prepared in accordance with the scope of work presented in ASTM E1527-13 and the Environmental Engagement Letter between Prologis (2015) and Farallon dated March 12, 2015. The Phase I ESA was performed in accordance with the *Master Services Agreement* between Prologis (2011) and Farallon dated August 4, 2011.

The scope of work for this Phase I ESA included a records review, literature research and review, a site reconnaissance, interviews with individuals familiar with the Site, interviews with local governmental officials, and preparation of this Phase I ESA Report.

1.3 USER RELIANCE

This Phase I ESA Report has been prepared for use solely by Prologis, and shall not be relied upon by or transferred to any other party, or used for any other purpose, without the express written authorization of Farallon.

1.4 DELETIONS AND DEVIATIONS

It was the intent of the Phase I ESA to make all appropriate inquiry into the previous ownership and uses of the Site consistent with good commercial or customary practice. It is the intent of this Phase I ESA Report to permit Prologis to satisfy one of the requirements to qualify for the innocent landowner defense to Comprehensive Environmental Response, Compensation, and Liability Act liability. This Phase I ESA did not deviate from the general requirements set forth in ASTM E1527-13, U.S. Environmental Protection Agency (EPA) all appropriate inquiry.

1.5 LIMITING CONDITIONS

No limiting conditions were encountered during completion of this Phase I ESA.

1.6 DATA GAPS

Data gaps may affect the ability to identify recognized environmental conditions and Farallon's ability to render opinions and conclusions for presentation in the Phase I ESA Report. Farallon did not encounter significant data gaps during the completion of this Phase I ESA.

1.7 PROFESSIONAL QUALIFICATIONS

The Phase I ESA was conducted by Mr. Kevin Sheridan, and was reviewed and approved by Mr. Scott Allin and Ms. Tina Huff. All are environmental professionals with the specific education, training, and experience to qualify them to assess a property of the nature, history, and setting of the Site. Messrs. Sheridan and Allin and Ms. Huff have an understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions, and the ability to develop opinions regarding conditions indicative of a release or threatened release of hazardous substances and petroleum products. These environmental professionals have

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

developed and performed all appropriate inquiry, in conformance with the standards and practices set forth in Part 312 of Title 40 of the Code of Federal Regulations. The professional qualifications of Messrs. Sheridan and Allin and Ms. Huff are provided in Appendix A.

2.0 SITE DESCRIPTION

This section provides an overview of the Site, including its legal description, improvements, owner, zoning, utilities, and current use.

2.1 LEGAL DESCRIPTION

The Site consists of six noncontiguous parcels of land east and west of the Perris Valley Storm Drain (PVSD), west of Indian Street, south of Krameria Avenue, east of Heacock Street, and north of Cardinal Avenue in the city of Moreno Valley, Riverside County, California. The Site currently has no assigned address with local agencies. The Site is located at an approximate Latitude North 33.8782000 and Longitude West 117.2391000. According to the Riverside Assessor–County Clerk—Recorder (2015) Property Information Center database, the Site Parcel Nos. are 316-100-028, 316-100-030, 316-100-034, 316-100-048, 316-100-051, and 316-100-052, together totaling 89.86 acres.

2.2 SITE IMPROVEMENTS

The Site consists of approximately 90 acres, primarily flat vacant dirt-covered land with no structures or improvements. The concrete-lined PVSD bisects the irregular-shaped Site. For development purposes, the Site has been divided into four future building areas, identified as Lots 1 through 4. Lots 1 and 2 are located on four contiguous parcels (approximately 75 acres) adjacent to/east of the PVSD. Lot 4 (approximately 8 acres) and Lot 3 (approximately 6 acres) are located adjacent to /west of the PVSD, on parcels north and southeast, respectively, of two developed commercial properties. The lots are outlined on Figure 2. Access to the Site is gained from unpaved areas off Krameria Avenue to the north, Indian Street to the east, Heacock Street to the west, and Cardinal Avenue to the southwest.

Figure 2 presents a plan map of the Site. Additional details pertaining to the Site are provided in Section 6.2, Site Features. Site photographs are presented in Appendix B.

2.3 SITE OWNER

Farallon did not obtain a chain-of-title report for this Phase I ESA. According to the interviewed Site representative, the Site is owned primarily by Moorpark County Regency Inc., who purchased the Site in the 1980s (Farallon 2015).

2.4 ZONING

According to a prior assessment of the Site prepared by Farallon (2014), the Site is zoned SP - 208i, Specific Plan Industrial zone. With the exception of the residential land across Indian Street to the east, all adjacent sites also are zoned SP – 208i for industrial uses.

2.5 UTILITIES

No utilities are currently provided to the Site. Utility main lines are present in adjacent roadways, and power poles are present along major roads. Electricity is provided to the area by Moreno Valley Electric Utility and Southern California Edison (SCE). Water and sewer are provided to the area by the Eastern Municipal Water District. Natural gas is provided to the area by The Gas Company. Trash Service is supplied to the area by Waste Management of Inland Valley.

2.6 CURRENT USE

The Site consisted of unoccupied graded land covered with weeds at the time of the site reconnaissance.

3.0 REGIONAL DESCRIPTION

The physical setting of the Site, including topography, surface water, flood plains, geology, and hydrogeology, is described in this section. Properties surrounding the Site also are discussed.

3.1 TOPOGRAPHY

Farallon reviewed the U.S. Geological Survey (USGS) topographic map for Sunnymead, California from Environmental Data Resources, Inc. (EDR) (2014b). The map depicts the Site as relatively flat terrain, sloping gently down to the south/southeast, at an elevation of approximately 1,486 feet above mean sea level.

3.2 SURFACE WATER

According to topographic maps reviewed during this Phase I ESA, the nearest surface water body is the PVSD, which bisects the Site, as previously described in Section 2.2, Site Improvements (EDR 2014b)

3.3 FLOOD PLAINS

According to EDR (2015), the Site is in 100- and 500-year floodplains, the 100-year floodplain being located along the adjacent PVSD (FEMA Map panel #06065C).

3.4 GEOLOGY

The Site is at the northern end of the Peninsular Ranges of southern California, northeast of the Los Angeles Basin. This Site area is in the western portion of the Perris Valley on the northern end of a broad alluvial plain (Perris Plain), which extends from the south side of the San Bernardino Mountains. The Site is south of the Box Springs Mountains and west of the Lake Perris State Recreation Area in a relatively flat valley floor that gently dips to the south toward the San Jacinto River.

According to USGS (1963), the Site is underlain by Quaternary (recent) alluvium and alluvial fan deposits that were deposited on Pleistocene through Pliocene alluvium over granitic bedrock. This general area is structurally complex, with a series of northerly plunging folds and northwest-trending faults primarily from the San Andreas and San Jacinto Fault Zones. According to Farallon (2014), the Site is not in a fault-ruptured hazard zone, as defined in the Alquist-Priolo Earthquake Fault Zoning Act.

The soils in the Site vicinity are mapped by the U.S. Department of Agriculture (USDA) Soil Conservation Service (1980) in the Exeter and Hanford Series mapping unit as well-drained, nearly level soils (0 to 15 percent slopes) on long broad alluvial fans. These soils are described as fine sand and loamy sand to approximately 60 inches below ground surface (bgs). According to the USDA Soil Conservation Service (1980), these soils are used principally for growing grapes, alfalfa, plants, and some citrus, and for pasture.

3.5 HYDROGEOLOGY

No water wells were observed on the Site during the site reconnaissance. Farallon observed several groundwater monitoring wells on adjacent properties, as shown on Figure 2. In addition, numerous groundwater extraction wells are present on the west side of Heacock Street, west of Lot 4. These groundwater monitoring and extraction wells are associated with releases from the neighboring March Air Force Base (MAFB) property to the west/northwest. According to EDR (2015), two water wells are present within 1 mile of the Site, both of which are USGS wells approximately 0.50 mile east and southeast of the Site. No well depth was reported.

According to Farallon (2014), all potable water supplied to this area is obtained from deep groundwater wells in the underlying Perris North Groundwater Basin. According to the GeoTracker Database website (State of California Water Resources Control Board (2015), groundwater in the Site vicinity occurs at a depth of approximately 100 to 150 feet bgs, and flows to the south/southeast.

Areas of groundwater contamination originating from the MAFB property have been identified in the region, including beneath the Site. The chemical impact includes primarily carbon tetrachloride, tetrachloroethene, and trichloroethene. MAFB currently performs groundwater extraction and aboveground treatment to clean contaminated groundwater. According to AECOM Technical Services, Inc. (AECOM) (2014), the Site is within the MAFB groundwater plume, identified as Operable Unit #1, Site 7, which is listed as performing ongoing long-term groundwater monitoring, extraction, and treatment for a solvent groundwater plume. EPA (2015b) also lists the Site area as restricted from residential use.

3.6 SURROUNDING PROPERTIES

The Site is bordered by the following properties:

- Vacant undeveloped land and Krameria Avenue to the north, followed by a vacant lot, Cosmos Avenue, and a newly completed large industrial building identified as “P&G.” Single-family residences are present to the northeast.
- Indian Street, followed by single-family residences and a vacant plot of land to the east.
- The PVSD and Cardinal Avenue, followed by two large newly completed industrial properties occupied by Amazon to the south. O’Reilly Auto Parts is to the southeast.
- The PVSD, followed by the Moreno Valley Coastal Holdings facility and Cardinal TG to the west. Heacock Street borders the northwestern portion of the Site. Further west is MAFB and March Inland Public Airport.

Farallon observed evidence of monitoring wells on adjacent properties and roadways, which have been identified as part of MAFB groundwater investigations and remediation. The monitoring wells are further discussed in Section 7.1.2, Surrounding Property Listings. No visual evidence of recognized environmental conditions was observed on adjacent or nearby properties during the site reconnaissance, with the exception of MAFB, discussed in Section 7.1.2, Surrounding Property Listings.

4.0 USER-PROVIDED INFORMATION

Farallon understands that the user of this Phase I ESA Report, Prologis, is seeking to follow the standards set forth in ASTM E1527-13 to complete an environmental assessment of the Site. The user has specific responsibilities for fulfilling ASTM E1527-13 requirements to help identify the possibility of recognized environmental conditions in connection with the Site. These responsibilities do not require the technical expertise of an environmental professional, and were not performed by the environmental professional who completed the Phase I ESA at the Site.

To facilitate fulfillment of the ASTM E1527-13 requirements identified below, Farallon (2015) provided Prologis with a copy of the *Phase I Environmental Site Assessment User Questionnaire* (User Questionnaire) to complete. The completed User Questionnaire is provided in Appendix C of this Phase I ESA Report.

4.1 TITLE AND LIEN RECORDS

Prologis was requested to engage a title company or title professional to undertake a review of reasonably ascertainable recorded land title records and lien records for environmental liens or activity and use limitations currently recorded against or relating to the Site.

According to Prologis representative, Ms. Janet Frentzel, environmental liens or environmental use limitations are not known to exist for the Site (Farallon 2015). However, according to EPA (2015b), the Site is located within the MAFB groundwater plume and is restricted from residential use.

4.2 EXPERIENCE AND SPECIALIZED KNOWLEDGE

Prologis is responsible for providing information based on experience and/or specialized knowledge that is material to recognized environmental conditions in connection with the Site. Prologis is responsible for communicating to Farallon during the completion of the Phase I ESA any information based on such experience and/or specialized knowledge.

Prologis representative Ms. Frentzel indicated that she has no experience or specialized knowledge material to recognized environmental conditions in connection with the Site (Farallon 2015).

4.3 VALUATION

In a transaction involving the purchase of a parcel of commercial real estate, the purchaser is to assess the relationship of the purchase price of the Site to the fair market value of the Site if the Site was not affected by hazardous substances or petroleum products. Farallon requested Prologis to provide an explanation for a lower purchase price that does not reasonably reflect fair market value if the Site was not contaminated, and to provide a written record of such explanation.

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According to Prologis representative, Ms. Frentzel, the property valuation was not below fair market value for environmental reasons at the time of completion of the questionnaire (Farallon 2015).

4.4 COMMONLY KNOWN INFORMATION

If the user is aware of Site information that is commonly known or reasonably ascertainable within the local community that is material to a recognized environmental condition in connection with the Site, it is the user's responsibility to communicate that information to Farallon. Farallon requested that Prologis provide information for the Site that is commonly known or reasonably ascertainable. Prologis provided general property improvement information and Site boundaries.

4.5 PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT USERS

Farallon requested that Prologis provide a list of the users that may rely on this Phase I ESA Report. Prologis is the only user of this Phase I ESA Report.

5.0 SITE AND REGIONAL HISTORY

Farallon reviewed the following historical sources during completion of this Phase I ESA. Farallon also obtained additional historical information regarding the Site and adjacent properties from a previous Phase I ESA report prepared by Farallon (2014).

5.1 AERIAL PHOTOGRAPHS

Farallon reviewed aerial photographs of the Moreno Valley, California area dated 1938, 1953, 1967, 1977, 1989, 1994, 2002, 2005, 2006, 2009, 2010, and 2012 obtained from EDR (2014c). Copies of the aerial photographs are provided in Appendix D. Information obtained from the review of aerial photography is summarized below.

1938 and 1953: The 1938 and 1953 aerial photographs showed the Site and adjacent properties in all directions as undeveloped land, either vacant or used for agricultural activities. A stream bed was shown meandering through the western/southwestern portion of the Site generally where the PVSD currently exists. The only existing roads appeared to be several unpaved roads: one along the eastern property line where Indian Street currently exists, one along the western property line where Heacock Street exists, and another along the southern property line where Cardinal Avenue and the PVSD exist. Only a few residences or farm-related structures were seen in the surrounding area.

1967 and 1977: The 1967 and 1977 aerial photographs showed the Site and adjacent properties in all directions as undeveloped land used for agricultural activities. The former stream bed was replaced by the current PVSD. Heacock Street appeared paved. A small structure or pond was present on the Site near the center of the eastern property line.

1989 and 1994: The 1989 and 1994 aerial photographs showed the Site and adjacent properties to the north, south, and west as undeveloped land used for agricultural activities. The small structure or pond formerly along the eastern property line was no longer present. Indian Street was paved, and adjacent properties across Indian Street to the east were occupied by some of the current single-family residences, or were vacant in preparation for development. A few larger commercial or industrial structures were present farther north. No other significant changes from previous photographs were noted.

2002 and 2005: The 2002 and 2005 aerial photographs showed the Site and adjacent properties to the north, south, and west as undeveloped land consisting of a combination of vacant land and land used for agricultural activities. An industrial building was present to the southwest. Indian Street was paved, across which was increased single-family residential development. No other significant changes from previous photographs were noted.

2006: The 2006 aerial photograph showed the Site and adjacent properties to the north and south as undeveloped land consisting of a combination of vacant land and land used for agricultural activities. The current distribution facility along Heacock Street south of Lot 4 was developed.

Single-family residential developments continued to replace vacant or agricultural land beyond Indian Street to the east. No other significant changes from previous photographs were noted.

2009 to 2012: The 2009 to 2012 aerial photographs showed the Site and adjacent properties to the north and south as undeveloped land consisting of a combination of vacant land and land used for agricultural activities. The O'Reilly's Auto Parts building was present to the southeast. The PVSD was seen in its current configuration (wider than in previous photographs and without water). No other significant changes from previous photographs were noted.

Based on Farallon's review of aerial photographs, the Site has been undeveloped vacant or agricultural land from at least 1938 through 2012. A stream bed meandered through the western/southwestern portion of the Site near the location of the current adjacent PVSD. From at least 1967 to 1977, a small structure or pond was present on the Site near the center of the eastern property line, which was no longer present by 1989. No recognized environmental conditions were identified during the review of aerial photographs. The potential presence of agricultural chemicals in Site soil from historical agricultural activities is considered de minimis under a commercial setting, but soil should be appropriately managed during development of the Site.

5.2 TOPOGRAPHIC MAPS

Farallon reviewed USGS Topographic Maps of Sunnymead, California for the years 1901, 1943, 1953, 1967, 1973, 1979, and 1980 obtained from EDR (2014b). Copies of the topographic maps are included in Appendix D. Information obtained from the review of topographic maps is summarized below:

- **1901:** The 1901 topographic map depicted the general area of the Site and surrounding properties as undeveloped. A few roads or railroads were present in the surrounding area, with occasional small structures (residences) scattered along them.
- **1943 and 1953:** The 1943 and 1953 topographic maps depicted the Site as undeveloped vacant land with an unidentified small stream meandering through the western/southwestern portion of the Site and southwest-adjacent sites. Heacock Street and Indian Street were depicted along the western and eastern property lines, respectively. MAFB was shown to the west, beyond Heacock Street. The adjacent and surrounding area was depicted as undeveloped, with the exception of scattered small structures, mostly along Indian Street and Perris Boulevard to the east.
- **1967 and 1973:** The 1967 and 1973 topographic maps depicted the Site and adjacent properties as vacant undeveloped land. The PVSD was shown along the southern and western property lines. No other significant changes from the previous maps were noted.
- **1979 and 1980:** The 1979 and 1980 topographic maps depicted the Site and adjacent properties unchanged from the 1967 and 1973 maps. A small increase in development in the surrounding area was shown, including a mixture of residential streets and structures

to the east and farther north, and industrial structures on the MAFB property to the west and northwest.

The topographic map observations were relatively consistent with those from the aerial photographs, and no recognized environmental conditions were identified on the topographic maps reviewed.

5.3 SANBORN MAPS

A search for Sanborn Fire Insurance Maps resulted in notification that there was no coverage for the Site EDR (2014a).

5.4 CITY DIRECTORIES

According to a City Directory Image Report obtained from EDR (2014d), historical listings for adjacent properties on the 17000 block of Indian Street began in 1985 and consisted primarily of residential developments. Listings for adjacent properties (northeast) on the 25000 block of Krameria Avenue began in 2003 and consisted primarily of listings for schools, with some residential listings. Similar listings for these streets were present in subsequent directories. No listings of environmental concern, such as gas stations or dry cleaners, were noted for adjacent properties on Indian Street.

5.5 HISTORICAL SITE OCCUPANTS

According to historical documents reviewed during this Phase I ESA, the Site has no history of development, and no historical occupants of the Site were identified during this Phase I ESA.

5.6 HISTORICAL SITE OWNERSHIP

Farallon did not obtain a chain-of-title report, and no historical Site ownership information was obtained during this Phase I ESA.

5.7 PRIOR ASSESSMENTS

Farallon (2014) performed a previous Phase I ESA for Lot 1, described as approximately 65.5 acres of land. At the time of the previous Phase I ESA, the Site was undeveloped land. The findings from the 2014 Phase I ESA were consistent with the findings of this Phase I ESA.

6.0 INTERVIEWS AND SITE INSPECTION

6.1 INTERVIEWS

Farallon conducted interviews with individuals familiar with the Site, and contacted relevant local governmental agencies to obtain additional Site information. The responses from the parties contacted are provided below.

6.1.1 Interview with Owner/Representative

Farallon was not provided access to interview an owner representative during this Phase I ESA. During the Phase I ESA of Lot 1 performed by Farallon in 2014, Farallon interviewed Mr. Russell Muranaka, Property Manager of the Site and owner representative, on May 28, 2014. At that time, Mr. Muranaka stated that he has not been made aware of any pending, threatened, or past:

- Litigation relevant to hazardous substances or petroleum products in, on, or from the Site;
- Administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Site; or
- Notices from a governmental entity regarding violations of environmental laws or liability relating to hazardous substances or petroleum products.

6.1.2 Interview with Operations Manager

At the time of the site reconnaissance, the Site consisted of a vacant undeveloped and unpaved dirt lot covered with weeds. The Site does not have an Operations Manager to interview.

6.2 SITE FEATURES

Farallon conducted a site reconnaissance on March 16, 2015 to observe the Site for physical evidence of recognized environmental conditions. The methodology used for the site reconnaissance and the observations made during the reconnaissance are discussed below. A description of the Site is provided in Section 2.2, Site Improvements. Photographs taken during the site reconnaissance are presented in Appendix B.

6.3 SITE INSPECTION METHODOLOGY

Farallon completed a walk around the perimeter and throughout the Site, and inspected accessible areas. No limiting conditions were encountered during the inspection.

6.4 SITE INSPECTION OBSERVATIONS

Weather conditions at the time of the reconnaissance were overcast, with a temperature of approximately 88 degrees Fahrenheit. There were no weather-related access restrictions encountered during the site reconnaissance.

6.4.1 Interior Observations

Because the Site is undeveloped, Farallon's site reconnaissance did not include interior observations.

6.4.2 Exterior Observations

Farallon's observations of the exterior of the Site during the site reconnaissance are documented in the table below. Comments pertaining to notable exterior observations follow.

EXTERIOR OBSERVATIONS	YES	NO
Odor		X
Staining and/or Corrosion		X
Storage Tank(s), Vent Pipe(s), and/or Fuel Port(s)		X
Drum(s) and/or Other Container(s)		X
Pool(s) of Liquid		X
Hazardous Material(s) and/or Petroleum Product(s)		X
Hazardous Waste		X
Pit(s), Pond(s), and/or Lagoon(s)		X
Stressed Vegetation		X
Solid (Non-Hazardous) Waste—Evidence of Dumping	X	
Wastewater		X
Domestic Water		X
Water Well(s)		X
Septic/Sewer System		X
Stormwater		X

EXTERIOR OBSERVATIONS	YES	NO
Air Emissions		X
Potential Polychlorinated Biphenyl (PCB)-Containing Equipment		X
Significant Amount of Fill Material		X

6.4.3 Exterior Observation Comments

Solid (Non-Hazardous) Waste—Evidence of Dumping

Farallon observed tires, construction debris, and minor trash in debris piles and scattered throughout the Site, primarily on Lot 1. These waste materials appeared to be non-hazardous solid wastes and are considered a de minimis condition for the Site.

7.0 ENVIRONMENTAL RECORD REVIEW

EDR (2015) performed a review of environmental regulatory agency database listings to identify reported environmental issues related to the Site and facilities in the Site vicinity. Farallon used the greater of each approximate minimum search distance from the Site for each of the referenced federal and state environmental databases, as specified in ASTM E1527-13. The descriptions of the databases searched and the associated search distances from the Site are presented in The EDR (2015) Radius Map Report with GeoCheck prepared for the Site dated March 15, 2015 (EDR report), provided in Appendix E.

Farallon reviewed the results of the EDR report to note reported facilities in the vicinity of the Site that were considered to have a potential to adversely impact the Site (i.e., are known to have resulted in or are expected to result in a recognized environmental condition). Reported facilities identified in the EDR report were evaluated with respect to the nature and extent of a given release, the distance of the reported facility from the Site, the stratigraphy of soils, the expected soil permeability, and the topographic position of a reported facility with respect to known or expected local and/or regional groundwater flow direction. Shallow groundwater flow in the region has been documented to the south-southeast.

7.1 FEDERAL AND STATE DATABASE REVIEW

A summary of the databases identified in the EDR report is presented in the following table. A discussion of the facilities follows.

Type of Database[1]	Number of Listings in Specified Search Radius			
	Site and Adjacent	0.125 to 0.25 mile from Site	0.25 to 0.5 mile from Site	0.5 to 1 mile from Site
National Priority List (NPL)	0	0	1	0
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)/Federal Facility	0	0	1	0
National CERCLIS/No Further Remedial Action Planned (NFRAP)	0	0	0	0
CORRACTS	0	0	0	0
Resource Conservation and Recovery Act (RCRA) Corrective Action Treatment, Storage, and Disposal Facility (TSDF)	0	0	0	0
RCRA Generators: Small Quantity Generator (SQG); Large Quantity Generator (LQG); Conditionally Exempt Small Quantity Generator (CESQG); Non-Generator / No Longer Reportable (NonGen / NLR)	0	0	1	
US Engineering Controls/Institutional Controls	0	0	1	0
Emergency Response Notification System (ERNS)	0			

Type of Database[1]	Number of Listings in Specified Search Radius			
	Site and Adjacent	0.125 to 0.25 mile from Site	0.25 to 0.5 mile from Site	0.5 to 1 mile from Site
CA Response	0	0	0	1
CA EnviroStor	0	0	0	3
Local Solid Waste, Landfills, and Recycling facility databases (SWF/LF, WMUDS/SWAT, SWRCY)	0	0	0	▨
CA Leaking Underground Storage Tanks (LUSTs)	0	0	6	▨
Statewide Spills, Leaks, Investigations and Cleanup (SLIC)	0	0	0	▨
CA Underground Storage Tank (UST)	0	0	0	▨
CA Aboveground Storage Tank (AST)	0	0	0	▨
Voluntary Cleanup Program (VCP)	0	0	0	0
US Brownfields	0	0	0	0
California Facility Inventory Database (FID) UST	0	0	0	▨
Historical UST (HIST UST)	0	0	0	▨
Statewide Environmental Evaluation and Planning System (SWEEPS) UST	0	0	0	▨
CA Hazardous Material Incident Report System (CHMRIS)	0	▨	▨	▨
CA Land Disposal Site (LDS)	0	▨	▨	▨
CA Military Cleanup Site (MCS)	0	▨	▨	▨
Toxic Chemical Release Inventory System (TRIS)	0	▨	▨	▨
Material Licensing Tracking System (MLTS)	0	▨	▨	▨
Facility Index System/Facility Registry System (FINDS)	0	▨	▨	▨
CA National Pollution Discharge Elimination System (NPDES)	0	▨	▨	▨
CA Hazardous Waste & Substance List (Cortese)	0	0	0	0
CA Historic Cortese	0	0	0	▨
CA Enforcement Action List (ENF)	0	▨	▨	▨
CA Facility and Manifest Data (HAZNET)	0	▨	▨	▨
CA Emissions Inventory Data (EMI)	0	▨	▨	▨
CA EnviroStor Permitted (HWP)	0	0	0	0
Recovered Government Archive LUST	0	0	0	0
Waste Discharge Systems (WDS)	0	▨	▨	▨

NOTES:

[1] See Appendix E for the complete EDR report and maps identifying the facilities summarized above, including a description of each database reviewed.

▨ Shaded areas not searched.

7.1.1 Site Listings

The Site was not identified in any of the reviewed databases.

7.1.2 Surrounding Property Listings

Reported facilities within 0.25 mile up-gradient or 0.125 mile cross-gradient or adjacent down-gradient of the Site are considered to have a potential to have impacted the Site. Facilities that were listed in the database search report but not identified as a reported release facility (e.g., a facility listed as a hazardous waste generator but not as having had a release) and facilities that were listed as "closed" were not considered to have a potential to have impacted the Site, unless existing on an adjacent property.

One release property proximate to the Site, MAFB, was identified in the EDR report. MAFB is west-adjacent to Lot 4, up-gradient with respect to groundwater flow. EDR identified MAFB in the NPL, CERCLIS, RCRA-LQG, US ENG CONTROLS, US INST CONTROL, CA RESPONSE, EnviroStor, LUST, HIST CALSITES, DOD, ROD, CA BOND EXP. PLAN, and CA NOTIFY 65 databases. These database listings relate to releases that have impacted groundwater in the region. The primary constituents of concern in groundwater are volatile organic compounds (VOCs).

According to AECOM (2014), the Site is located within the MAFB groundwater plume, identified as Operable Unit #1, Site 7, which is listed as performing ongoing long-term groundwater monitoring, extraction, and treatment for a solvent groundwater plume. EPA (2015b) lists the Site area as restricted from residential use.

According to the AECOM (2013), several groundwater monitoring wells are present on or proximate to the Site. Plume maps in the AECOM (2013) report show that shallow groundwater beneath the Site, located greater than 100 feet bgs, is not impacted by constituents of concern, but underlying groundwater, referred to as the lower alluvium, contains low (at or less than 13 micrograms per liter) concentrations of VOCs. Copies of select figures from the AECOM (2013) report showing monitoring well locations and VOCs in groundwater are included in Appendix F.

The known migration of VOCs in groundwater from the neighboring MAFB property to the Site represents a recognized environmental condition.

7.1.3 Orphan Facilities

EDR did not identify any facilities as "orphan sites," facilities that EDR was unable to map due to inaccurate or inadequate address information.

7.2 LOCAL AGENCY REVIEW

Local agency file reviews are performed by site address. Based on the absence of an address for the Site, as confirmed by Prologis (Farallon 2015) and by review of the Riverside Assessor–County Clerk—Recorder (2015) website, local agency file reviews with the City of Moreno Valley Building and Safety Department or the Riverside County Fire Department are not practical. The findings from Farallon's review of online State regulator database maps are provided below.

7.2.1 GeoTracker Database

On March 13, 2015, Farallon reviewed the GeoTracker online database maintained by the State of California Water Resources Control Board (2015) for releases associated with the Site and surrounding properties. A search of the GeoTracker database maps did not identify listings for the Site or adjacent properties, with the exception of the MAFB property, as summarized in Section 7.1.2, Surrounding Property Listings.

7.2.2 EnviroStor Database

On March 13, 2015, Farallon reviewed the EnviroStor online database maintained by the California Department of Toxic Substance Control (2015) for releases associated with the Site and surrounding properties. A search of the EnviroStor database maps did not identify listings for the Site or adjacent properties, with the exception of the MAFB property.

7.2.3 ECHO Database

On March 13, 2015, Farallon reviewed the Enforcement and Compliance History (ECHO) online database maintained by EPA (2015a) for listings associated with the Site and surrounding properties. A search of the ECHO database maps did not identify listings for the Site or adjacent properties.

8.0 SUPPLEMENTAL CONSIDERATIONS

At the request of Prologis, Farallon conducted environmental services in addition to those specified in ASTM E1527-13. These services are considered non-scope items and are not required to satisfy ASTM E1527-13.

8.1 WETLANDS

Wetlands are jointly defined by EPA and the U.S. Army Corps of Engineers as “those areas that are inundated or saturated by surface or groundwater for a duration and frequency sufficient to support and under normal circumstances do support a prevalence of vegetation adapted for life in saturated soil conditions.” Farallon did not observe suspect wetlands vegetation on the Site. According to EDR (2015), no designated national wetlands areas are within 1 mile of the Site.

8.2 ASBESTOS

In June 1978, EPA initiated a ban on the use of asbestos-containing material in spray application products such as structural fireproofing and acoustic ceilings, pipe lagging, joint compounds, and spackles. No structures were identified on the Site that may contain asbestos.

8.3 LEAD-BASED PAINT

In 1978, EPA initiated a ban on the manufacture and use of lead-based paints. During Farallon’s site reconnaissance, no painted surfaces were observed. No structures were identified on the Site that may contain lead-based paint.

8.4 LEAD IN DRINKING WATER

Water is not plumbed to the Site.

8.5 RADON

Radon is a colorless, tasteless, radioactive gas with an EPA-specified action level of 4.0 picocuries per liter (pCi/L) of air. Radon gas has a short half-life of 3.8 days. The health risk potential of radon is associated with its rate of accumulation within confined areas, particularly those near or in the ground such as basements, where vapors can readily transfer from the ground to indoor air through foundation cracks or other pathways.

According to EDR (2015), the Site is located in Radon Zone 2, with predicted average indoor screening levels below 2.0 and 4.0 pCi/L. The EPA zone designation reflects the average short-term radon measurement that can be expected to be measured in a building without implementation of radon-control methods. Based on the EPA designation and the absence of structures on the Site, radon gas is not expected to pose an environmental concern to Site occupants.

8.6 WATER INTRUSION

No structures were located on the Site. Therefore, no areas of water intrusion were observed by Farallon.

9.0 FINDINGS AND OPINIONS

There were no significant deviations from ASTM E1527-13, and no significant limiting conditions were encountered during the completion of this Phase I ESA.

Farallon did not encounter significant data gaps during the completion of this Phase I ESA.

At the time of the site reconnaissance, the Site consisted of undeveloped land covered with weeds. Farallon did not observe storage or handling of hazardous substances. No evidence of stained soil, stressed vegetation, fill material, ASTs, USTs, or significant chemical release was observed on the Site at the time of the site reconnaissance.

Based on Farallon's review of historical aerial photographs and topographic maps, the Site has consisted of undeveloped land, either vacant or used for agricultural activities, since at least 1938. The potential presence of agricultural chemicals in Site soil from historical agricultural activities is considered de minimis under a commercial setting, but soil should be appropriately managed during development of the Site.

The Site was not identified in regulatory agency databases searched for this Phase I ESA.

One release property proximate to the Site was identified in the EDR report. MAFB is west-adjacent to Lot 4, up-gradient with respect to groundwater flow. EDR identified MAFB in the NPL, CERCLIS, RCRA-LQG, US ENG CONTROLS, US INST CONTROL, CA RESPONSE, EnviroStor, LUST, HIST CALSITES, DOD, ROD, CA BOND EXP. PLAN, and CA NOTIFY 65 databases. These database listings relate to releases that have impacted groundwater in the region. The primary constituents of concern in groundwater are VOCs. According to AECOM (2014), the Site is located within the MAFB groundwater plume, identified as Operable Unit #1, Site 7, which is listed as performing ongoing long-term groundwater monitoring, extraction, and treatment for a solvent groundwater plume. EPA (2015b) also listed the Site area as restricted from residential use. According to AECOM (2013), several groundwater monitoring wells are present on or proximate to the Site. Plume maps in the AECOM (2013) report show that shallow groundwater beneath the Site, located greater than 100 feet bgs, is not impacted by constituents of concern, but underlying groundwater, referred to as the lower alluvium, contains low (at or less than 13 micrograms per liter) concentrations of VOCs. The known migration of VOCs in groundwater from the neighboring MAFB property to the Site represents a recognized environmental condition.

As requested by Prologis, Farallon has included in this Phase I ESA Report, additional opinions on recognized environmental conditions or notable conditions beyond those specified in ASTM E1527-13. Based on the low concentrations of VOCs reported in the AECOM (2013) report and the depth to groundwater of over 100 feet bgs, the presence of VOCs in groundwater is not anticipated to pose a concern to occupants of the Site under a commercial use.

10.0 CONCLUSIONS

Farallon performed a Phase I ESA for the Indian Business Park property on Indian Street and Krameria Avenue in Moreno Valley, California in general conformance with the scope and limitations of ASTM E1527-13. This assessment revealed the known migration of VOCs in groundwater from the neighboring MAFB property to the Site as a recognized environmental condition in connection with the Site.

As requested by Prologis, Farallon has included additional opinions on recognized environmental conditions or notable conditions beyond those specified in ASTM E1527-13. Based on the low concentrations of VOCs reported proximate to the Site and the depth to groundwater of over 100 feet bgs, the presence of VOCs in groundwater is not anticipated to pose a concern to occupants of the Site under a commercial use.

11.0 REFERENCES

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12.0 STATEMENT OF LIMITATIONS

The conclusions and recommendations contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location, and are subject to the following inherent limitations:

- **Accuracy of Information**. Certain information used by Farallon in this report/assessment has been obtained, reviewed, and evaluated from various sources believed to be reliable, including the previously discussed interviews and local fire and health departments. Although Farallon's conclusions, opinions, and recommendations are based in part on such information, Farallon's services did not include verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance**. Farallon performed a reconnaissance of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions, while other areas received limited attention, or were inaccessible at the time of the reconnaissance.
- **Limitations**. Because Farallon's report is based on information, the accuracy of which has not been determined, and because Farallon's observations made during site reconnaissance are limited, Farallon cannot and does not guarantee that the Site is free of hazardous or potentially hazardous materials or conditions, or that latent or undiscovered conditions will not become evident in the future. Since Site activities beyond Farallon's control could change at any time after the completion of this report/assessment, Farallon's observations, findings, and opinions can be considered valid only as of the date of the report hereof. This report/assessment has been prepared in accordance with the client contract and currently accepted industry standards, and no other warranties, representations, or certifications are made. Unless stated otherwise herein, this report is intended for and restricted to the sole use of Prologis, Inc. Any use, interpretation, or reliance upon this report/assessment by anyone other than Prologis, Inc. is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

FIGURES

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-007 (Task 6)

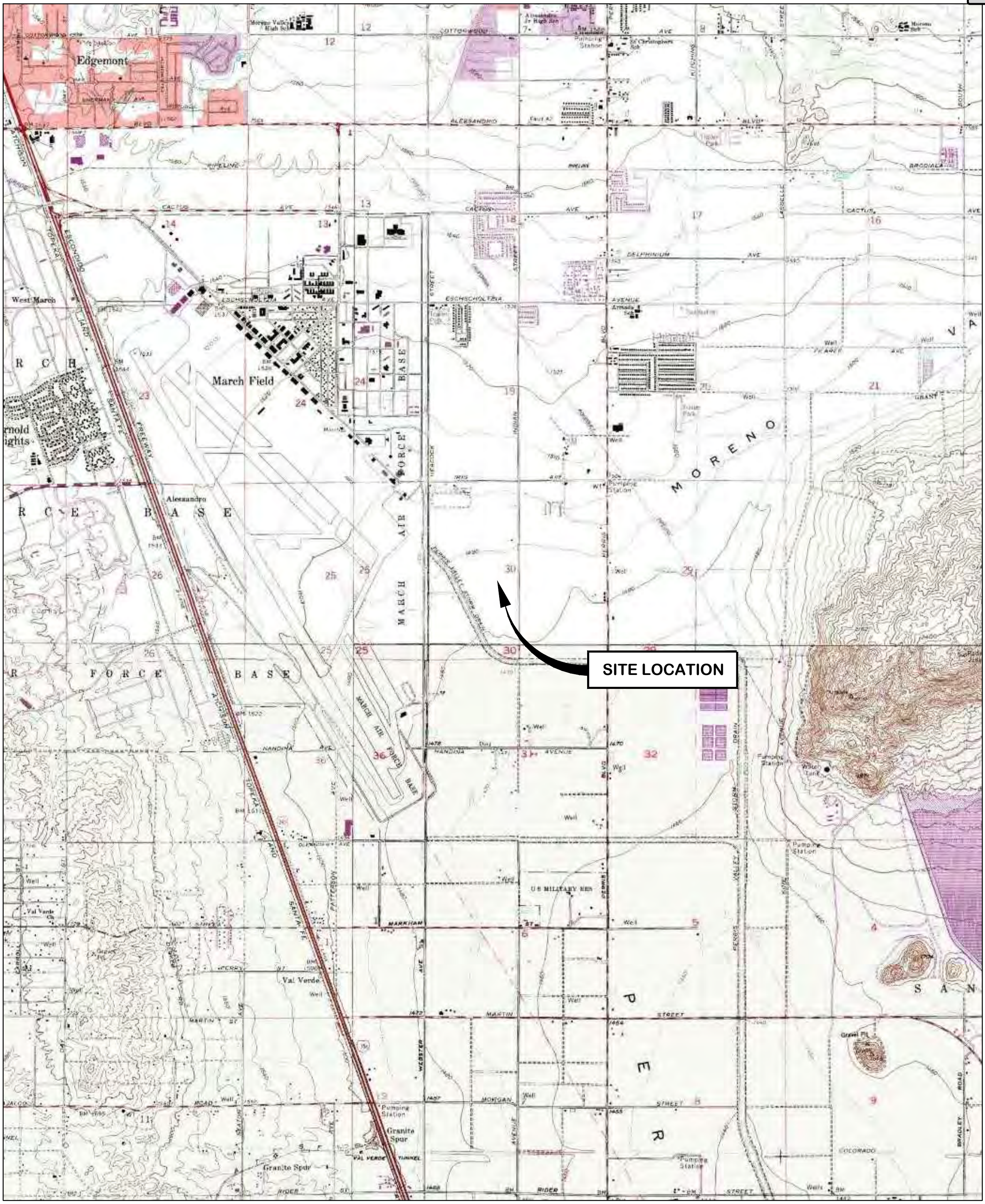

REFERENCE: 7.5 MINUTE USGS QUADRANGLE SUNNYMEAD, CALIFORNIA. DATED 1967 AND PHOTOREVISED 1980

N

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Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Bend

California
Oakland | Sacramento | Irvine

FIGURE 1

SITE VICINITY MAP
INDIAN BUSINESS PARK
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CALIFORNIA

FARALLON PN: 1071-007-6

Drawn By: GPF | Checked By: SA | Date: 3/19/2015 | Disk Reference: 1

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

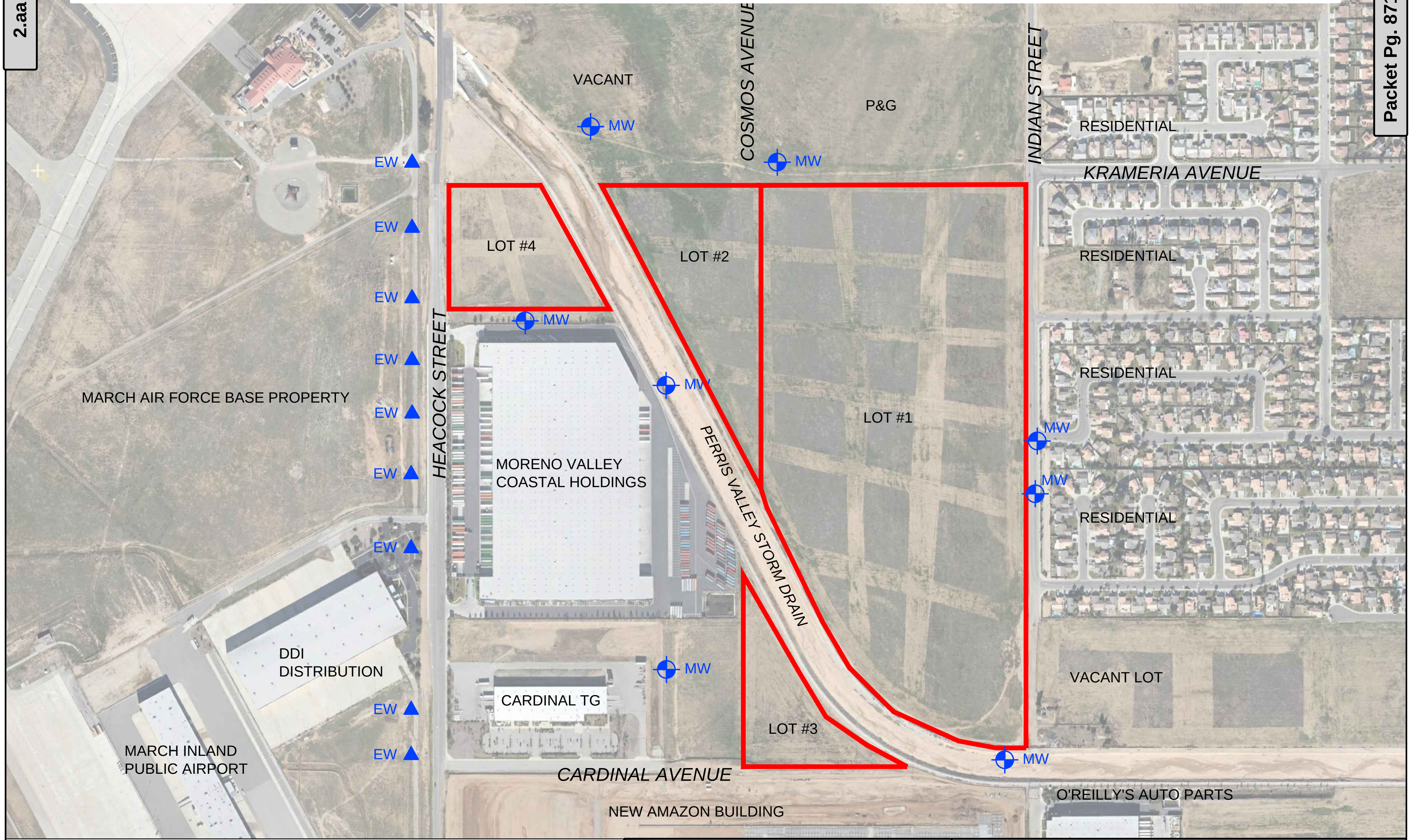

LEGEND

🟥	SITE BOUNDARY
MW ⊕	MAFB MONITORING WELL
EW ▲	MAFB EXTRACTION WELL

0 600
Scale in feet

N

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FIGURE 2

SITE PLAN
INDIAN BUSINESS PARK
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CALIFORNIA

FARALLON PN:1071-007-6

Drawn By: GPF Checked By: SA Date: 3/19/2015 Disk Reference: 1071-007-6

APPENDIX A
PROFESSIONAL QUALIFICATIONS

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-007 (Task 6)

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KEVIN SHERIDAN, P.G.	Nevada Certified Environmental Manager
Professional Geologist	25 years experience

Mr. Sheridan has over 25 years of experience providing national environmental due diligence and site assessment services and directing environmental remedial actions for oil companies, real estate developers and other national and local clients. Mr. Sheridan's responsibilities routinely include performing Phase I Environmental Assessments; Phase II soil, groundwater and air quality assessments; and managing active soil and groundwater remediation projects.

SCOTT ALLIN	BS Physical Science (Hydrology)
Principal Environmental Scientist	25 years experience

Mr. Allin has over 25 years of project and program management experience in the evaluation and reporting of the environmental liability associated with the sale or Brownfields redevelopment of impaired properties. He has supported the needs of developers and others in the acquisition of Cost Cap and Finite Risk environmental insurance to manage long-term environmental risks. He has provided clients with value-added due diligence services, both nationally and internationally, for single properties or large multi-million-dollar mixed-use portfolios. He has provided guidance for evaluating environmental risks during complex mergers and acquisitions. In addition, Mr. Allin has provided management services for implementation of remedial actions, asbestos abatement, environmental audit programs, and environmentally sensitive property improvements.

TINA M. HUFF	BA Environmental Studies
Senior Regulatory Specialist	14 years experience

Ms. Huff has a broad range of experience with environmental due diligence and regulatory requirements. She manages and conducts environmental due diligence for property transactions, including Phase I ESAs, risk assessment audits, environmental compliance audits, and Phase II Site Investigations throughout the western United States. She is Asbestos Hazard Emergency Response Act-certified for asbestos, and has completed training for ASTM E1527-13 Phase I ESA protocol and for mold in construction. Ms. Huff has certificates in Dangerous Waste Management and Occupational Safety and Health Administration Compliance.

APPENDIX B
SITE PHOTOGRAPHS

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-007 (Task 6)

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SITE PHOTOGRAPHS
Phase I Environmental Site Assessment
Indian Business Park
Moreno Valley, California
Farallon PN: 1071-001 Task 6

Photograph 1: Lot 1, looking northwest from southeast corner.

Photograph 2: Center of Lot 1, looking northeast.

Photograph 3: Northern property line of Lot 1.

Photograph 4: Monitoring wells adjacent to southern property line of Lot 1.

Photograph 5: Debris pile along eastern property line of Lot 1.

Photograph 6: Debris pile along western property line of Lot 1.

Photograph 7: Looking northeast from Lot 2.

Photograph 8: Southern property line of Lot 2 adjacent to Perris Valley Storm Drain.

Photograph 9: Western property line of Lot 3, looking north.

Photograph 10: Northwest corner of Lot 4, looking south.

Photograph 11: Both monitoring wells on Indian Street.

SITE PHOTOGRAPHS (continued)
Phase I Environmental Site Assessment
Indian Business Park
Moreno Valley, California

Photograph 1: Lot 1, looking northwest from southeast corner.

Photograph 2: Center of Lot 1, looking northeast.

SITE PHOTOGRAPHS (continued)
Phase I Environmental Site Assessment
Indian Business Park
Moreno Valley, California

Photograph 3: Northern property line of Lot 1.

Photograph 4: Monitoring wells adjacent to southern property line of Lot 1.

SITE PHOTOGRAPHS (continued)
Phase I Environmental Site Assessment
Indian Business Park
Moreno Valley, California

Photograph 5: Debris pile along eastern property line of Lot 1.

Photograph 6: Debris pile along western property line of Lot 1.

SITE PHOTOGRAPHS (continued)
Phase I Environmental Site Assessment
Indian Business Park
Moreno Valley, California

Photograph 7: Looking northeast from Lot 2.

Photograph 8: Southern property line of Lot 2 adjacent to Perris Valley Storm Drain.

SITE PHOTOGRAPHS (continued)
Phase I Environmental Site Assessment
Indian Business Park
Moreno Valley, California

Photograph 9: Western property line of Lot 3, looking north.

Photograph 10: Northwest corner of Lot 4, looking south.

SITE PHOTOGRAPHS (continued)
Phase I Environmental Site Assessment
Indian Business Park
Moreno Valley, California

Photograph 11: Both monitoring wells on Indian Street.

APPENDIX C
USER QUESTIONNAIRE

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-007 (Task 6)

PHASE I ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

To qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the Phase I Environmental Site Assessment (Phase I ESA) Report user must provide the following information (if available) to the environmental professional (Farallon Consulting, L.L.C.). Failure to provide this information could result in the determination that "all appropriate inquiry" has not been completed.

Date: March 17, 2015

■ PROJECT/SITE INFORMATION

Client Name: Prologis | Client Telephone: 415-394-9000

Client Address: Pier 1, Bay 1, San Francisco, CA 94111

Asset #: | Project/Site Name: Moreno Valley Logistics Center

Project Street Address: NA

City: Moreno Valley | County: Riverside | State: CA | Zip:

Why is this Phase I ESA required?

Property Transaction:

☐ Sale ☒ Purchase ☐ Exchange ☐ Other

Comments:

■ PROPERTY USE & SPECIFICATIONS

☐ Single-Family Residential	☒ Vacant or Undeveloped Land
☐ Multi-Family Residential #Units:	☐ Agricultural (*Specify type*):
☐ Commercial Office	☐ Industrial (*Specify type*): Warehouse
☐ Commercial Retail	☐ Other (*Specify type*):

Provide a general Site description:89.86 acres of undeveloped land

Legal description/plat plan/boundary survey available? ☐ Yes ☒ No ☐ Already provided

Current Property Status: ☒ Vacant ☐ Occupied ☐ Improved ☐ Unimproved

Total Property Size: 89.86 acres | Original Construction Date: NA

Total # of Buildings: 0 | Was Construction Phased? ☐ Yes ☒ No ☐ Unknown

Total Sq. Ft. of Buildings: NA | Date(s) of Renovation(s)/Phases:

Does Site have an undeveloped area equal to 1 acre or more? ☒ Yes ☐ No

Are any bodies of water on or immediately adjacent to the Site? ☐ Yes ☒ No If Yes, describe:

Comments:

Refer to documents provided

Potable water source at Site? ☐ On-Site well ☐ Utility (*Specify provider)* None

Wastewater discharge at Site? ☐ Septic Tank/Drainfield ☐ Sanitary Sewer ☐ Other (Specify): NOne

Building plans available at the Site? ☐ Yes ☒ No ☐ Unknown ☐ Already provided

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

■ OWNERS

Current Owner(s): Moorpark County Regency

Previous Owner(s): Unknown

■ OCCUPANTS/TENANTS

Current Occupant(s)/Tenant(s) and operations: Vacant

Previous Occupant(s)/Tenant(s) and operations: Unknown

■ PREVIOUS PROPERTY USES

Describe previous use(s) of the Site: Unknown.

■ PREVIOUS INVESTIGATIONS

Has any previous environmental investigation been conducted at Site? ☐ Yes ☒ No ☐ Unknown

If Yes, note type and describe: ☐ Phase I ESA ☐ Asbestos ☐ Lead Paint ☐ Lead in Water

☐ Radon ☐ Wetlands ☐ Indoor Air ☐ UST/AST ☐ Other (*Specify type below)*

Comments:

■ ON-SITE ENVIRONMENTAL CONDITIONS

Are you aware of any of the following environmental conditions at the Site, either current or former?

Environmental Condition/Issue	**Response**	**Comment if Yes Response**
Aboveground Storage Tank	☐ Yes ☒ No	I am not aware of any ASTs other than what is disclosed in the documents provided.
Underground Storage Tank	☐ Yes ☒ No	I am not aware of any USTs other than what is disclosed in documents provided.
Hazardous/Toxic Substance	☐ Yes ☒ No	I am not aware of any Hazardous/ Toxic Substance other than what is disclosed in documents provided.
Stored Chemical	☐ Yes ☒ No	I am not aware of any Stored Chemical other than what is disclosed in the documents provided.
Chemical Spill/Release	☐ Yes ☒ No	I am not aware of any chemical spill/ release other than what is disclosed in the documents provided.
Dump Area/Landfill	☐ Yes ☒ No	I am not aware of any dump area/ landfill other

		than what is disclosed in the documents provided.
Waste Treatment System	☐ Yes ☒ No	I am not aware of any waste treatment system other than what is disclosed in the documents provided.
Wastewater Discharge	☐ Yes ☒ No	I am not aware of any wastewater discharge other than what is disclosed in the documents provided.
Air Stack/Vent/Odor	☐ Yes ☒ No	I am not aware of Air Stack/Vent/Odor other than what is disclosed in the documents provided.
Indoor Air Quality Complaint	☐ Yes ☒ No	I am not aware of Indoor Air Quality complaint other than what is disclosed in the documents provided.
Floor Drain/Sump	☐ Yes ☒ No	I am not aware of floor drain/sump other than what is disclosed in the documents provided.
Pit, Pond, Lagoon	☐ Yes ☒ No	I am not aware of pit, pond, lagoon other than what is disclosed in the documents provided.
Stained Soil/Vegetation Impact	☐ Yes ☒ No	I am not aware of stained soil/ vegetation impact other what is disclosed in the documents provided.

Other specialized knowledge of an environmental condition or issue at the Site?
None.

■ ADDITIONAL ON-SITE ENVIRONMENTAL CONDITIONS

Are you aware of any of the following environmental conditions on the Site, either current or former?

Environmental Condition/Issue	**Response**	**Comment if Yes Response**
Pesticide/Herbicide Use	☐ Yes ☒ No	I am not aware of any Pesticide/Herbicide use other than what is disclosed in the documents provided.
Polychlorinated Biphenyls	☐ Yes ☒ No	I am not aware of any Polychlorinated Biphenyls other than what is disclosed in the documents provided.
Electrical Transformer	☐ Yes ☒ No	I am not aware of any Electrical Transformer other than what is disclosed in the documents provided.
Hydraulic Lift	☐ Yes ☒ No	I am not aware of any Hydraulic Lift other than what is disclosed in the documents provided.
Elevator	☐ Yes ☒ No	I am not aware of any elevator other than what is disclosed in the documents provided.
Drycleaner Business	☐ Yes ☒ No	I am not aware of any drycleaner business other than what is disclosed in the documents provided.
Asbestos	☐ Yes ☒ No	I am not aware of any asbestos other than what is disclosed in the documents provided.
Lead Paint	☐ Yes ☒ No	I am not aware of any lead paint other than what is disclosed in the documents provided.
Lead Piping/Lead in Water	☐ Yes ☒ No	I am not aware of any lead piping/lead in water other than what is disclosed in the documents provided.
Elevated Radon Level	☐ Yes ☒ No	I am not aware of elevated radon levels other than what is disclosed in the documents provided.
Fluorescent Light Fixture	☐ Yes ☐ No	I am not aware of any Flourescent Light Fixture other than what is disclosed in the documents provided.

Wetland, Flooding	☐ Yes ☒ No	I am not aware of any wetland, flooding other than what is disclosed in the documents provided.
Unique Wildlife Species	☐ Yes ☒ No	I am not aware of any unique wildlife species other what is disclosed in the documents provided.
Archeological Resource	☐ Yes ☒ No	I am not aware of any archeological resource other than what is disclosed in the documents provided.
Historic/National Landmark	☐ Yes ☐ No	I am not aware of any historic/national landmark other than what is disclosed in the documents provided.
Oil/Gas Well	☐ Yes ☒ No	I am not aware of any oil/gas well other than what is disclosed in the documents provided.
Water Well	☐ Yes ☒ No	I am not aware of any water well other than what is disclosed in the documents provided.
Environmental Cleanup	☐ Yes ☒ No	I am not aware of any environmental cleanup other then what is disclosed in the documents provided.
Environmental Permit	☐ Yes ☒ No	I am not aware of any environmental permit other then what is disclosed in the documents provided.

■ OFF-SITE ENVIRONMENTAL CONDITIONS

On adjoining property, are there any: Gasoline Stations? ☐ Yes ☒ No Drycleaners? ☐ Yes ☒ No

Are you aware of any other environmental conditions or concerns on adjacent or nearby properties? ☐ Yes ☒ No

Comments

I am not aware of any other environmental conditions or concerns on adjacent or nearby properties other than what is disclosed in the documents provided.

(1) Environmental cleanup liens that have been filed or recorded against the Site (Part 312.25 of Title 40 of the Code of Federal Regulations [40 CFR 312.25])

Are you aware of any environmental cleanup liens against the Site that have been filed or recorded under federal, tribal, state, or local law?

I am not aware of any environmental cleanup liens agains the Site other than what is disclosed in the documents provided.

(2) Activity and land use limitations that are in place at the Site or that have been filed or recorded in a registry (40 CFR 312.26)

Are you aware of any activity and land use limitation (such as engineering controls, land use restrictions, or institutional controls) that are in place at the Site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?

I am not aware of any activity and land use limitation other than what is disclosed in the documents provided.

(3) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28)

As the user of the Phase I ESA Report, do you have any specialized knowledge or experience related to the Site or nearby properties? For example, are you involved in the same line of business as the current or former occupant(s) of the Site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No, I have no specialized knowledge other than what is disclosed in the documents provided.

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

(4) Relationship of the purchase price to the fair market value of the Site if it were not contaminated (40 CFR 312.29)

Does the purchase price being paid for this Site reasonably reflect the fair market value of the Site? If you conclude that there is a difference between the purchase price and the fair market value, have you considered whether the lower purchase price is because contamination is known or believed to be present at the Site?

I have no knowledge of the purchase price being discounted for environmental conditions

(5) Commonly known or reasonably ascertainable information about the property (40 CFR 312.30)

Are you aware of commonly known or reasonably ascertainable information about the Site that would help Farallon Consulting, L.L.C. to identify conditions indicative of a chemical or other release or threatened release? For example, as user of the Phase I ESA Report:

Do you know the past use(s) of the Site? (If yes, please specify.) No, other than what is disclosed in the documents provided.

Do you know of a specific chemical(s) present at the Site, or present at one time? (If yes, please specify.) No, other than what is disclosed in the documents provided.

Do you know of a chemical and/or other spill(s) or release(s) that have taken place at the Site? (If yes, please specify.) No, other than what is disclosed in the documents provided.

Do you know of any environmental cleanup(s) that have taken place at the Site? (If yes, please specify.) No, other than what is disclosed in the documents provided.

(6) The degree of obviousness of the presence or likely presence of contamination at the Site, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)

As the user of the Phase I ESA Report, based on your knowledge and experience related to the Site, is there any obvious indicator(s) that point to the presence or likely presence of contamination at the Site? (If yes, please specify.)

No, other than what is disclosed in the documents provided.

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Identify all parties who will rely on the Phase I ESA Report, including:

Name of Business: Prologis

Name of Contact: Ms. Janet Frentzel

Address: Pier 1, Bay 1, San Francisco, CA

Telephone Number: 415-394-9000

E-mail Address: jfrentzel@prologis.com

Has any party that will rely on the Phase I ESA Report required services beyond the standard ASTM E1527-05? (For example, an asbestos, lead-based paint, lead in drinking water, or wetlands investigation) (If yes, please specify.) Visual or desk top survey for asbestos, lead-based paint, lead in drinking water, wetlands, radon gas, and water intrusion

Who is the Site contact, and how can the contact be reached?

Name of Business: Prologis

Name of Contact: Russell Muranaka

Address:

Telephone Number:

E-mail Address:

Are there any special terms and conditions that must be agreed upon by Farallon Consulting, L.L.C.? (If yes, please specify.)

No

APPENDIX D
HISTORICAL RESEARCH DOCUMENTS

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-007 (Task 6)

Moreno Valley Logistics Center
Indian Street/Krameria Avenue
Moreno Valley, CA 92551

Inquiry Number: 3957184.9
June 02, 2014

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Flo
Shelton, Connecticut 0648
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:

Aerial Photography June 02, 2014

Target Property:

Indian Street/Krameria Avenue
Moreno Valley, CA 92551

Year	***Scale***	***Details***	***Source***
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	EDR
1953	Aerial Photograph. Scale: 1"=500'	Flight Year: 1953	EDR
1967	Aerial Photograph. Scale: 1"=500'	Flight Year: 1967	Western
1977	Aerial Photograph. Scale: 1"=500'	Flight Year: 1977	Teledyne
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 2002	EDR
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Flight Year: 2006	EDR
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	EDR
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	EDR
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	EDR

INQUIRY #: 3957184.9

YEAR: 1938

= 500'

INQUIRY #: 3957184.9

YEAR: 1953

INQUIRY #: 3957184.9

YEAR: 1967

INQUIRY #: 3957184.9

YEAR: 1977

= 500'

N

INQUIRY #: 3957184.9

YEAR: 1989

= 500'

INQUIRY #: 3957184.9

YEAR: 1994

= 500'

INQUIRY #: 3957184.9

YEAR: 2002

= 500'

INQUIRY #: 3957184.9

YEAR: 2005

= 500'

N

EDR

INQUIRY #: 3957184.9

YEAR: 2006

= 500'

INQUIRY #: 3957184.9

YEAR: 2009

= 500'

INQUIRY #: 3957184.9

YEAR: 2010

= 500'


INQUIRY #: 3957184.9
YEAR: 2012
= 500'
N
EDR

Moreno Valley Logistics Center
Indian Street/Krameria Avenue
Moreno Valley, CA 92551

Inquiry Number: 3957184.4
May 30, 2014

EDR Historical Topographic Map Report

6 Armstrong Road, 4th Floo
Shelton, Connecticut 0648
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

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Historical Topographic Map

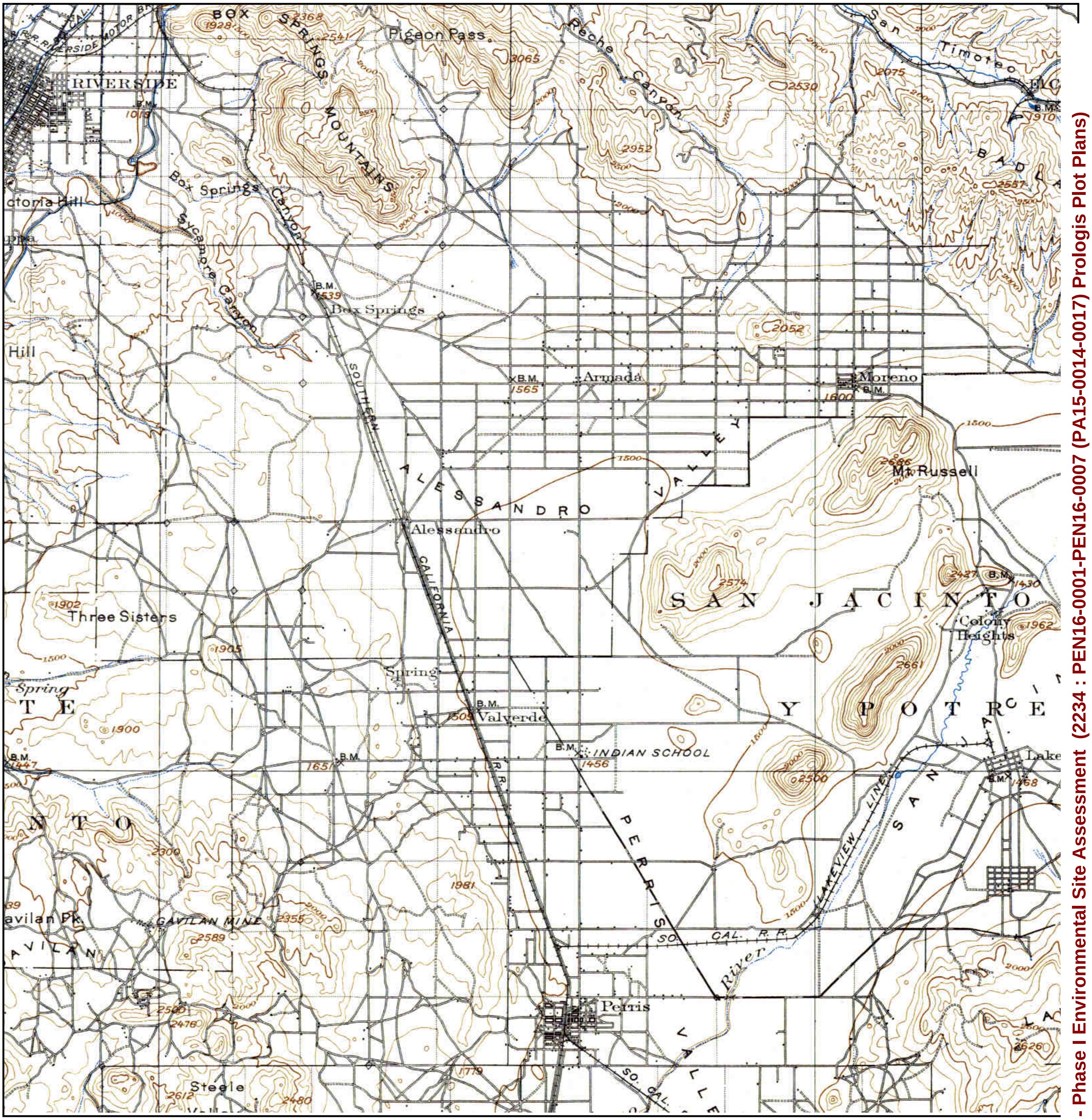

N

TARGET QUAD
NAME: ELSINORE
MAP YEAR: 1901

SERIES: 30
SCALE: 1:125000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Historical Topographic Map

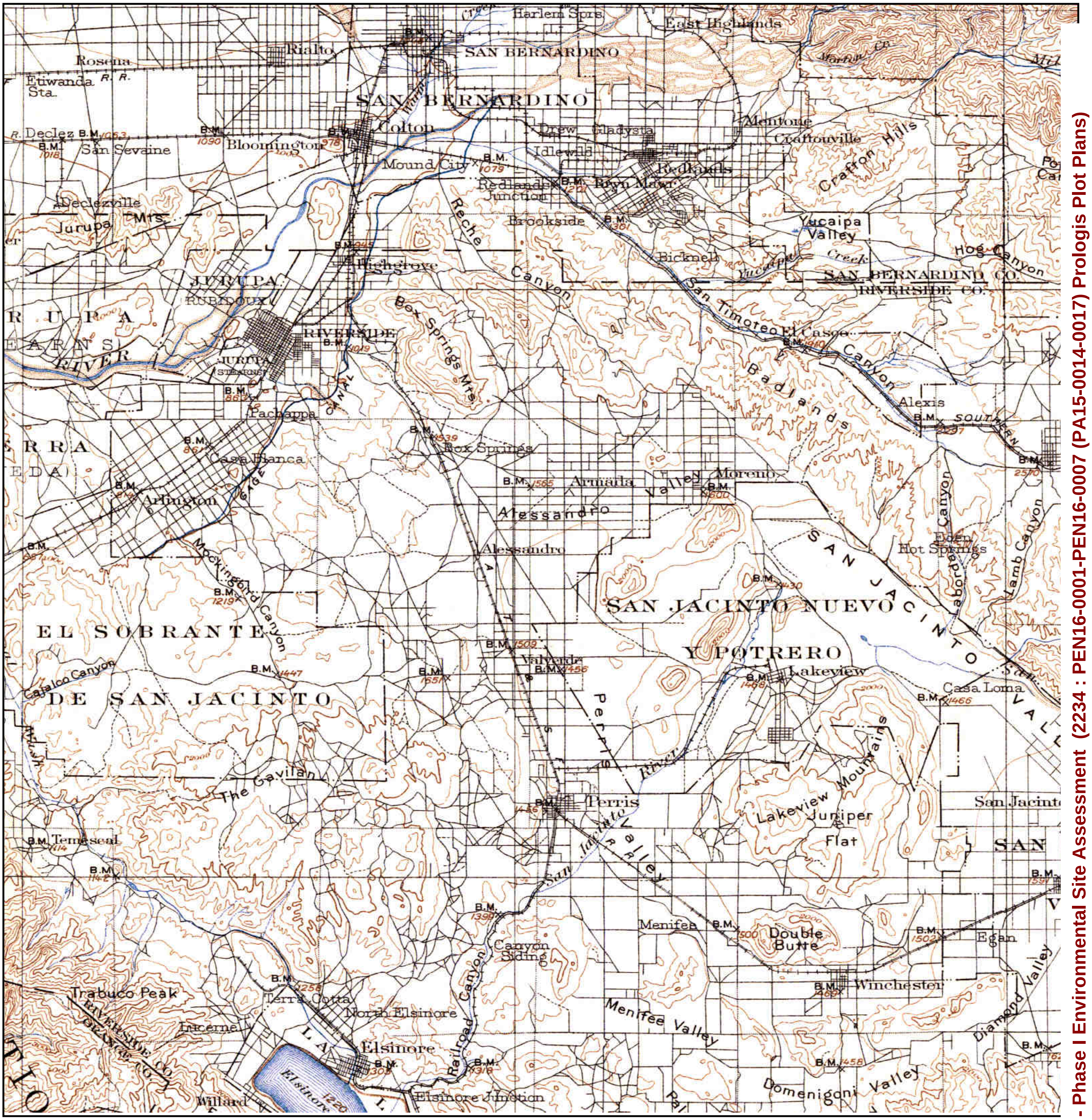

N

TARGET QUAD
NAME: SOUTHERN CA SHEET 1
MAP YEAR: 1901

SERIES: 60
SCALE: 1:250000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Historical Topographic Map

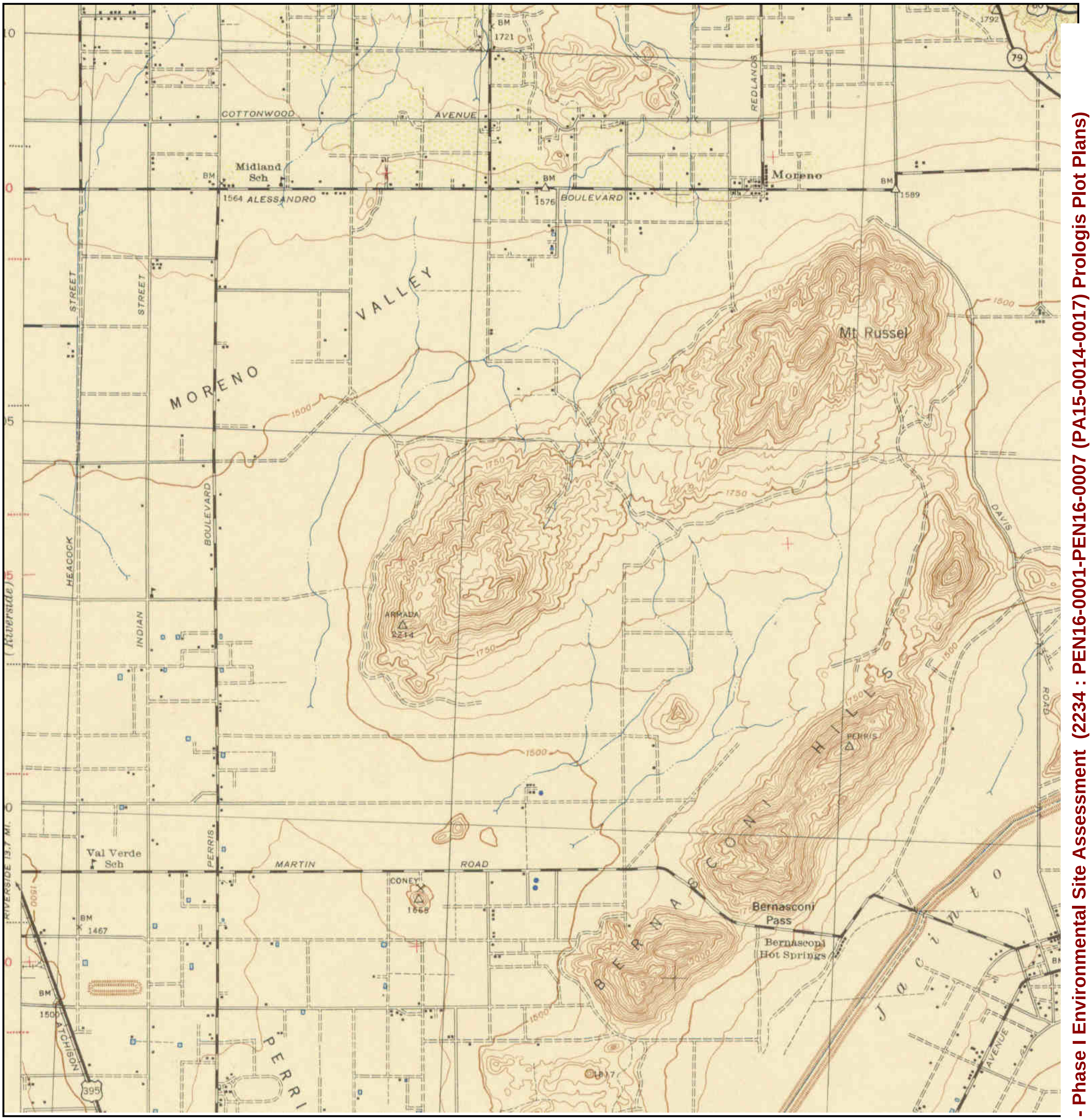

N

TARGET QUAD
NAME: PERRIS
MAP YEAR: 1943

SERIES: 15
SCALE: 1:62500

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Historical Topographic Map

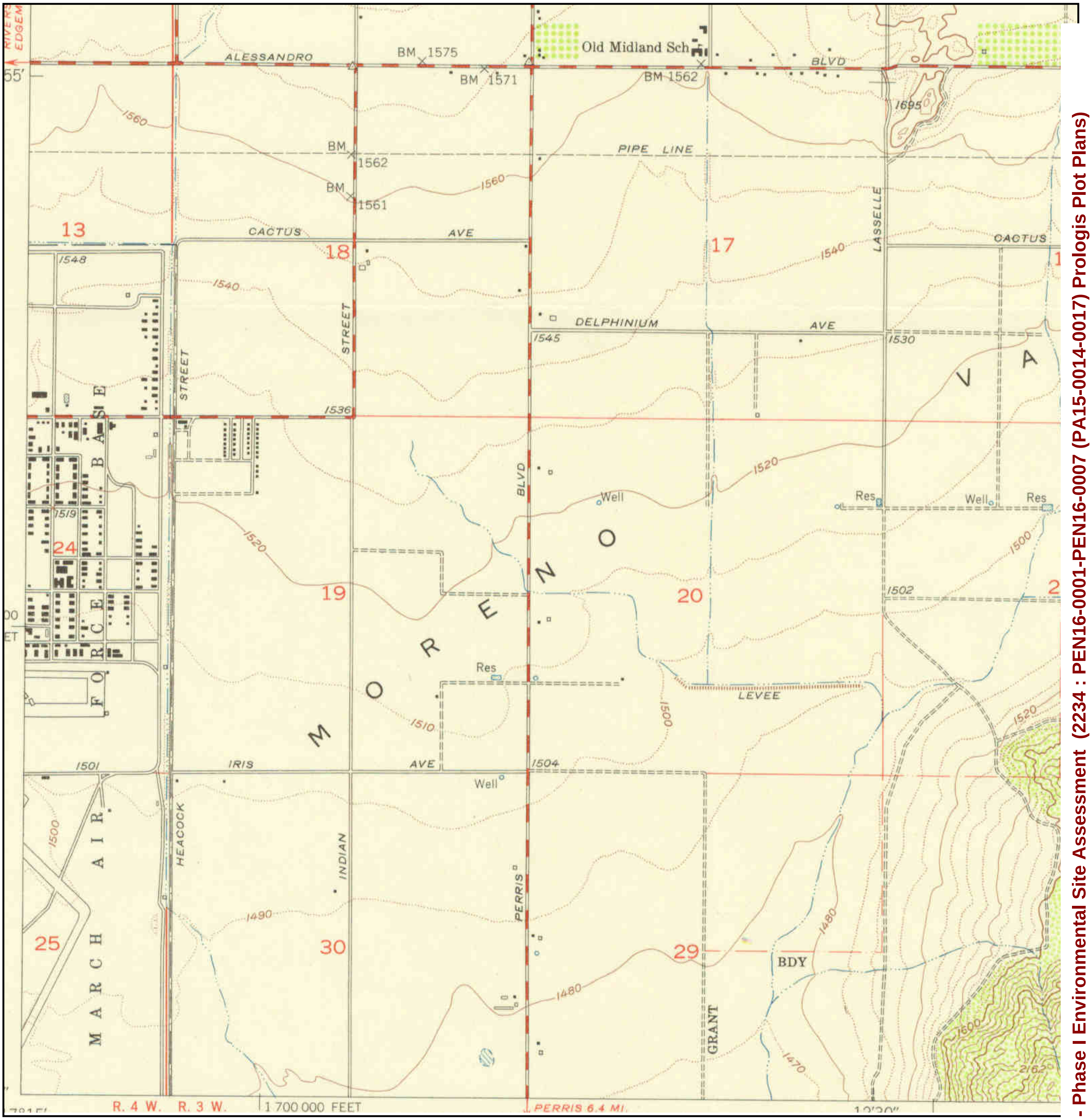

N

TARGET QUAD
NAME: SUNNYMEAD
MAP YEAR: 1953

SERIES: 7.5
SCALE: 1:24000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Historical Topographic Map

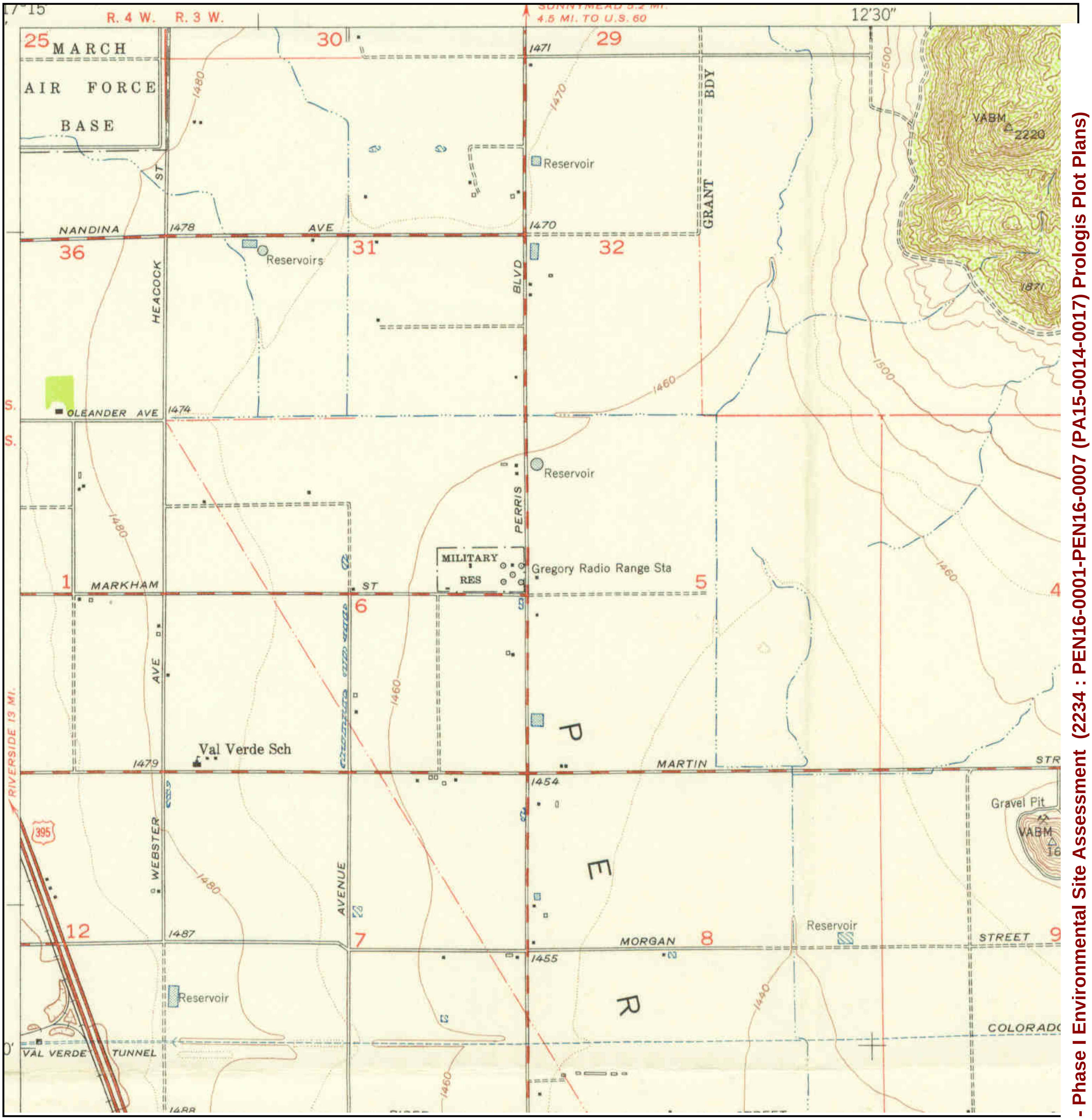

N

TARGET QUAD
NAME: PERRIS
MAP YEAR: 1953

SERIES: 7.5
SCALE: 1:24000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Historical Topographic Map

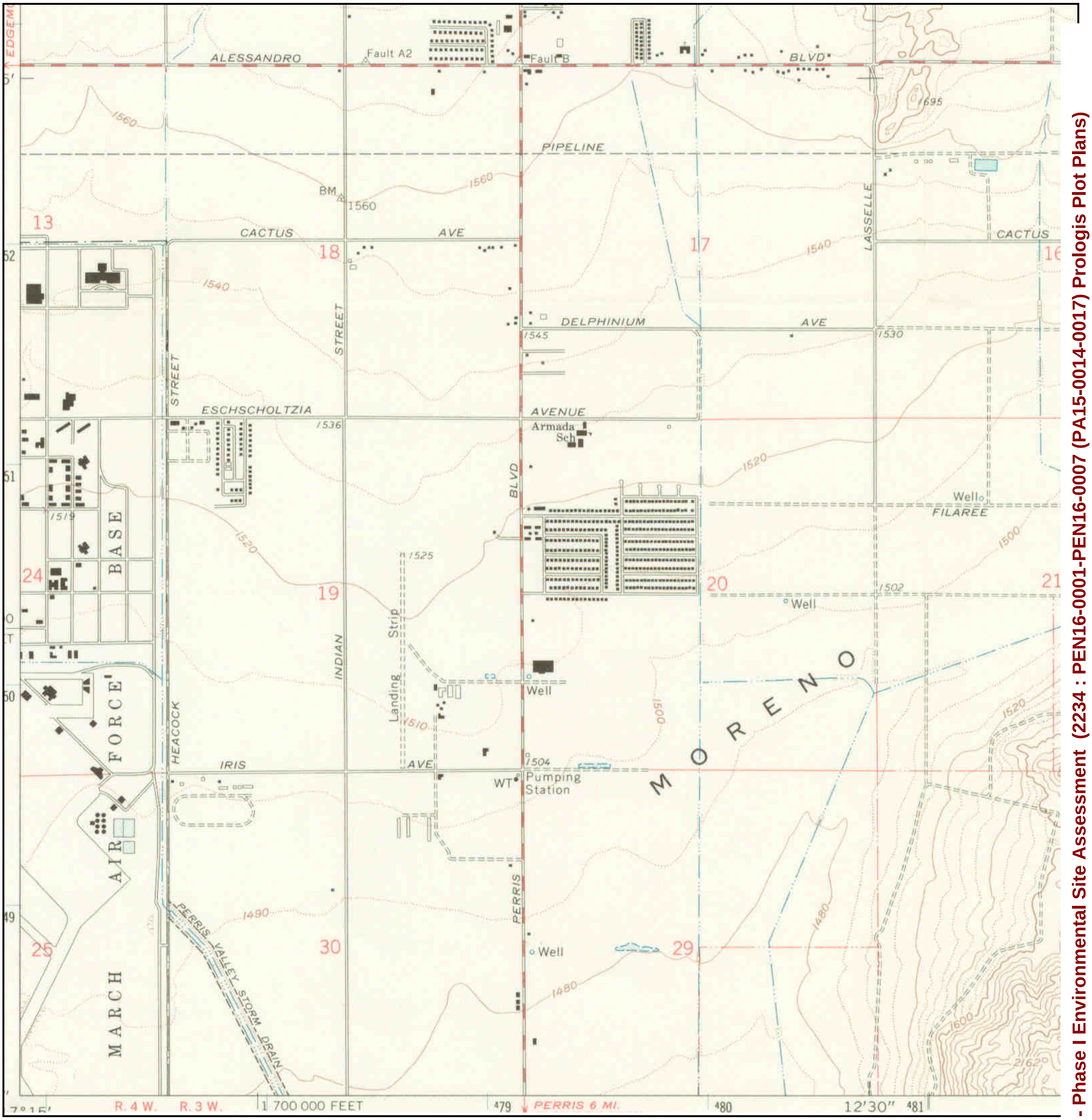

N

TARGET QUAD
NAME: SUNNYMEAD
MAP YEAR: 1967

SERIES: 7.5
SCALE: 1:24000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Historical Topographic Map

2.aa

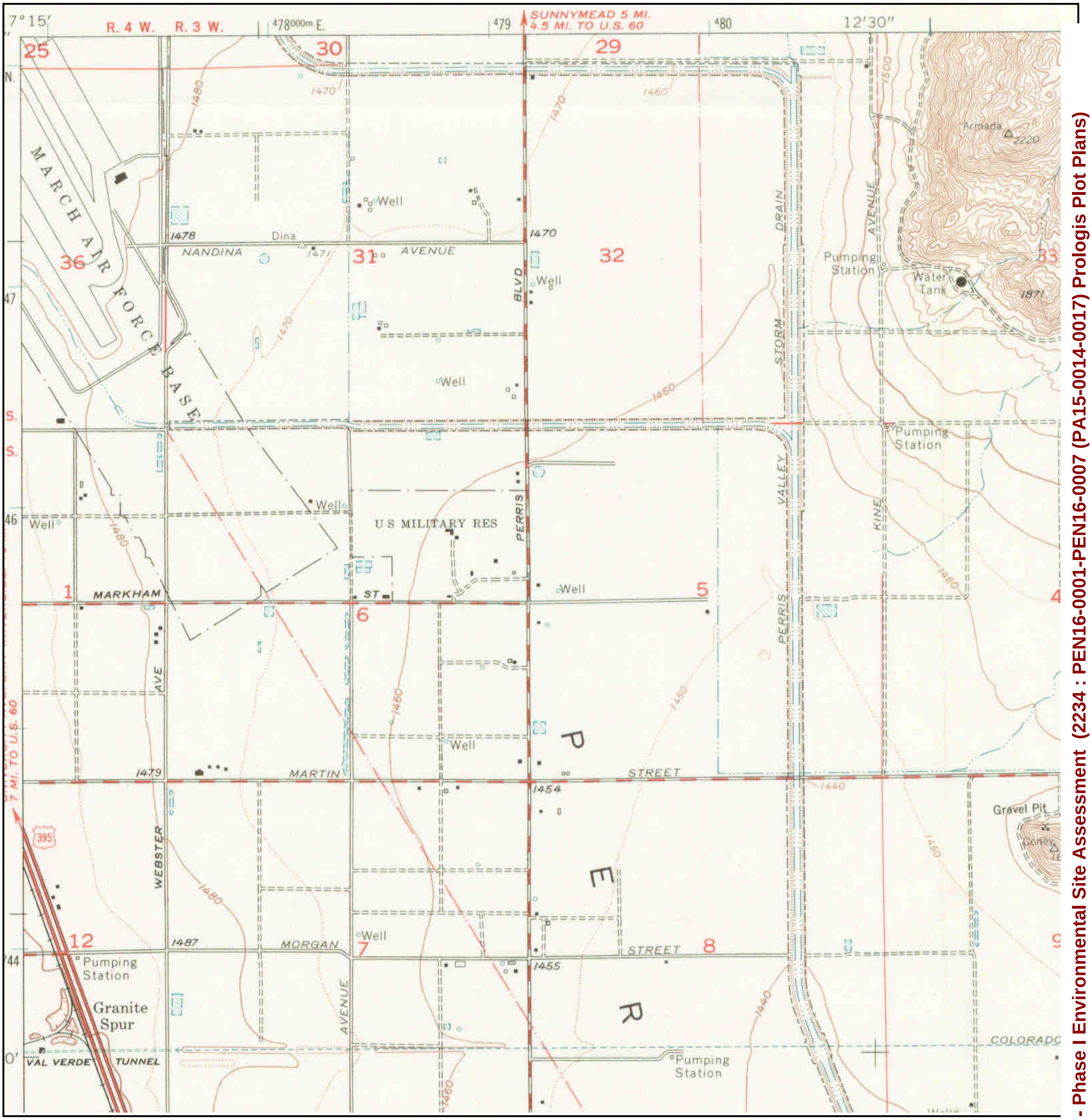

TARGET QUAD NAME: PERRIS MAP YEAR: 1967 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Moreno Valley Logistics Center ADDRESS: Indian Street/Krameria Avenue Moreno Valley, CA 92551 LAT/LONG: 33.8779 / -117.2369	CLIENT: Farallon Consulting, LLC CONTACT: Scott Allin INQUIRY#: 3957184.4 RESEARCH DATE: 05/30/2014

N

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Historical Topographic Map

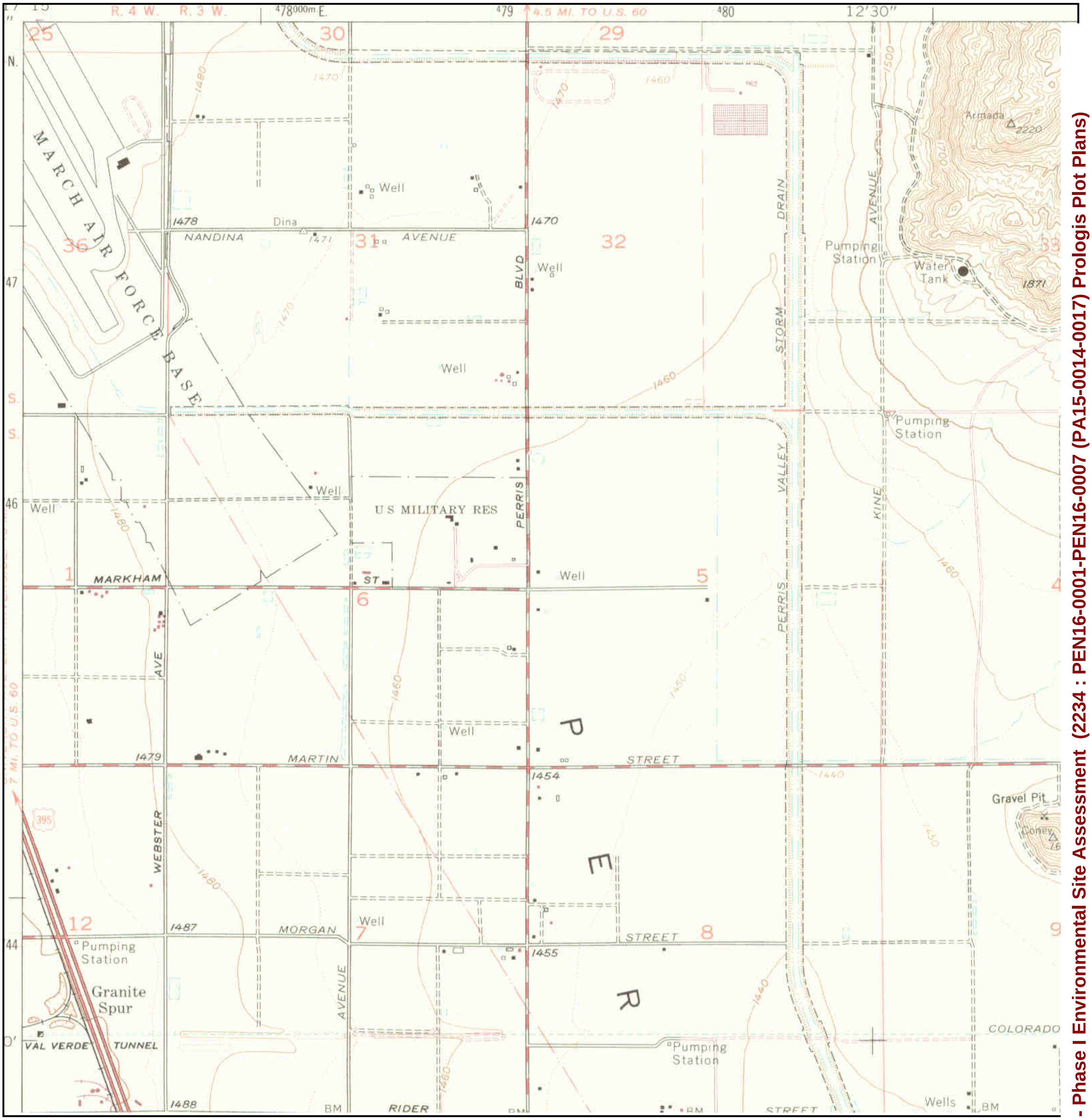

N

TARGET QUAD
NAME: PERRIS
MAP YEAR: 1973
PHOTOREVISED FROM :1967
SERIES: 7.5
SCALE: 1:24000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Historical Topographic Map

2.aa

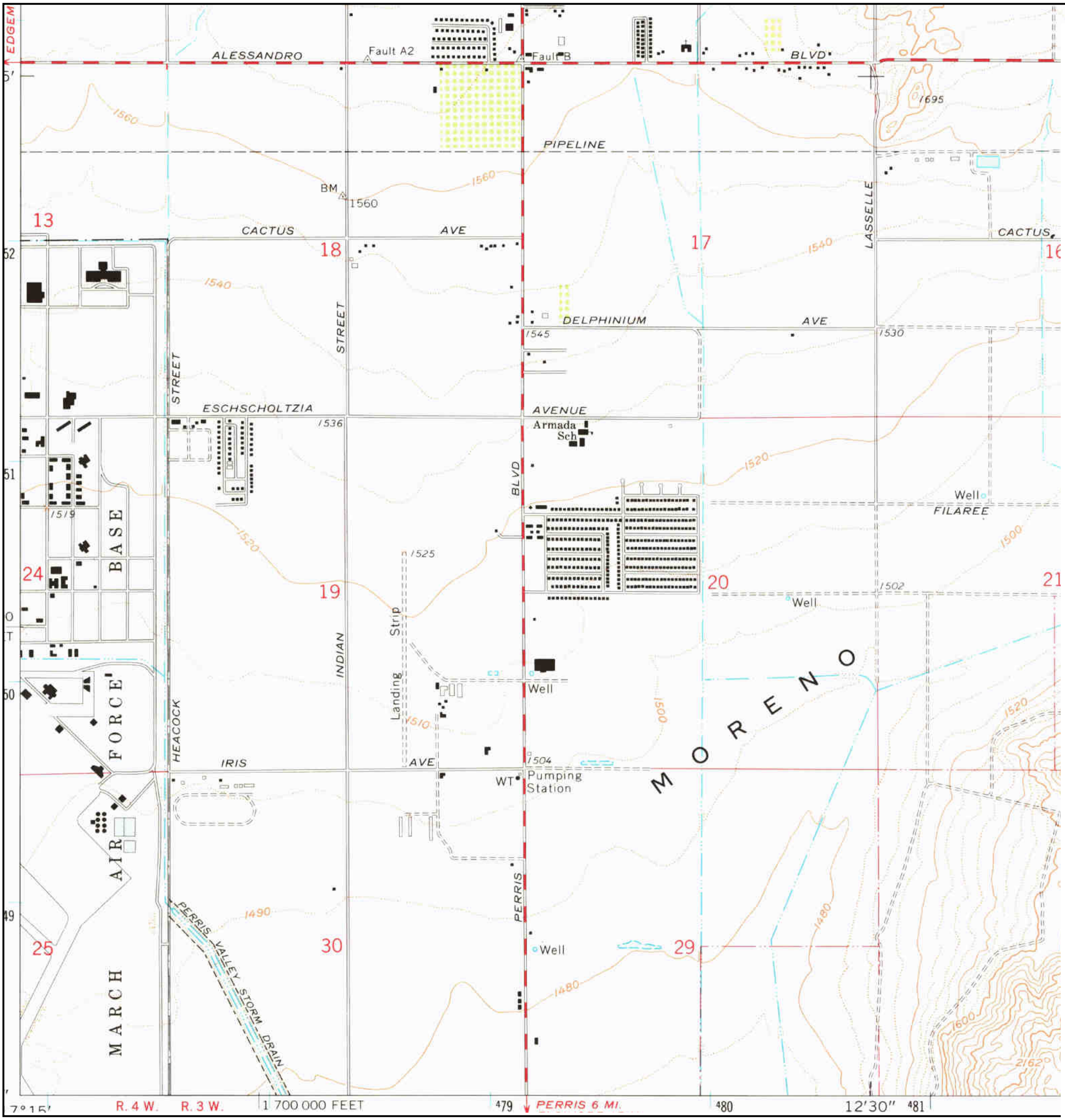

N

TARGET QUAD
NAME: SUNNYMEAD
MAP YEAR: 1973
PHOTOINSPECTED FROM : 1967
SERIES: 7.5
SCALE: 1:24000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Historical Topographic Map

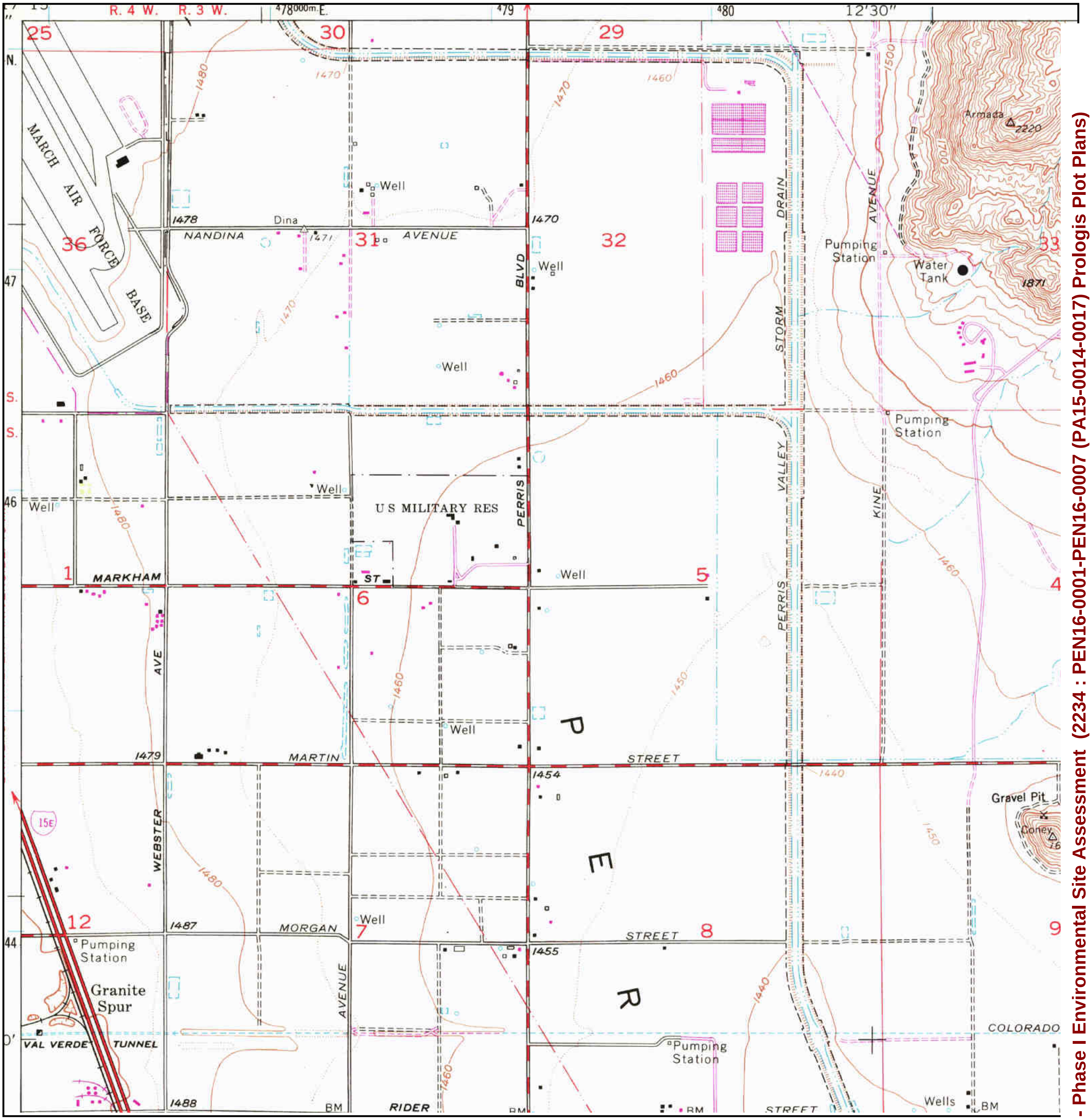

	TARGET QUAD		SITE NAME:	Moreno Valley Logistics Center	CLIENT:	Farallon Consulting, LLC
N	NAME:	PERRIS	ADDRESS:	Indian Street/Krameria Avenue	CONTACT:	Scott Allin
	MAP YEAR:	1979		Moreno Valley, CA 92551	INQUIRY#:	3957184.4
	PHOTOREVISED FROM :	1967	LAT/LONG:	33.8779 / -117.2369	RESEARCH DATE:	05/30/2014
	SERIES:	7.5				
	SCALE:	1:24000				

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Historical Topographic Map

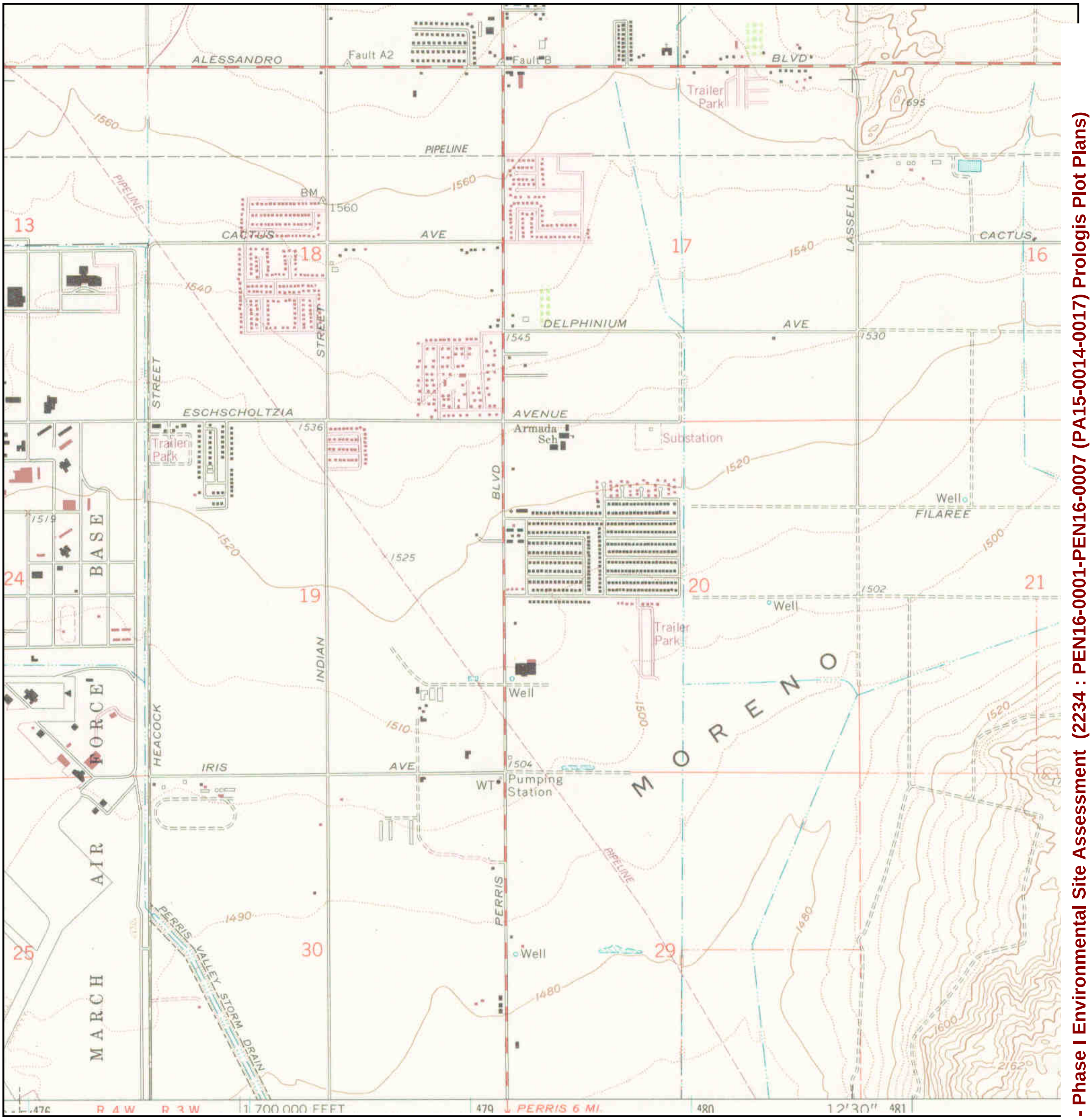

N

TARGET QUAD
NAME: SUNNYMEAD
MAP YEAR: 1980
PHOTOREVISED FROM :1967
SERIES: 7.5
SCALE: 1:24000

SITE NAME: Moreno Valley Logistics Center
ADDRESS: Indian Street/Krameria Avenue
Moreno Valley, CA 92551
LAT/LONG: 33.8779 / -117.2369

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY#: 3957184.4
RESEARCH DATE: 05/30/2014

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Moreno Valley Logistics Center
Indian Street/Krameria Avenue
Moreno Valley, CA 92551

Inquiry Number: 3957184.3
May 29, 2014

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Shelton, Connecticut 0648
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Certified Sanborn® Map Report

5/29/14

Site Name:
Moreno Valley Logistics Center
Indian Street/Krameria Avenue
Moreno Valley, CA 92551

EDR Inquiry # 3957184.3

Client Name:
Farallon Consulting, LLC
975 5th Ave NW
Issaquah, WA 98027

Contact: Scott Allin

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name:	Moreno Valley Logistics Center
Address:	Indian Street/Krameria Avenue
City, State, Zip:	Moreno Valley, CA 92551
Cross Street:	
P.O. #	NA
Project:	NA
Certification #	D196-4365-BE53

UNMAPPED PROPERTY

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Sanborn® Library search results
Certification # D196-4365-BE53

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Moreno Valley Logistics Center
Indian Street Krameria Avenue
Moreno Valley, CA 92551

Inquiry Number: 3957184.5
June 02, 2014

The EDR-City Directory Image Repor

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

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with any questions or comments.

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Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.’s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR’s City Directory Report includes a search of available city directory data at 5 year intervals.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	***Target Street***	***Cross Street***	***Source***
2013	☑	☑	Cole Information Services
2008	☑	☑	Cole Information Services
2003	☑	☑	Cole Information Services
1999	☑	☑	Cole Information Services
1995	☑	☑	Haines Criss-Cross Directory
1990	☑	☐	Haines Criss-Cross Directory
1985	☑	☐	Haines Criss-Cross Directory
1980	☑	☐	Haines Criss-Cross Directory
1975	☐	☐	Haines Criss-Cross Directory

RECORD SOURCES

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FINDINGS

TARGET PROPERTY STREET

Indian Street Krameria Avenue
Moreno Valley, CA 92551

Year	CD Image	Source	
INDIAN ST			
2013	pg A1	Cole Information Services	
2008	pg A3	Cole Information Services	
2003	pg A5	Cole Information Services	
1999	pg A7	Cole Information Services	
1995	pg A10	Haines Criss-Cross Directory	
1995	pg A9	Haines Criss-Cross Directory	
1990	pg A12	Haines Criss-Cross Directory	
1990	pg A13	Haines Criss-Cross Directory	
1985	pg A14	Haines Criss-Cross Directory	
1980	pg A15	Haines Criss-Cross Directory	
1980	pg A16	Haines Criss-Cross Directory	
1975	-	Haines Criss-Cross Directory	Target and Adjoining not listed in Source

FINDINGS

CROSS STREETS

KRAMERIA ST

Year	CD Image	Source	
2013	pg. A2	Cole Information Services	
2008	pg. A4	Cole Information Services	
2003	pg. A6	Cole Information Services	
1999	pg. A8	Cole Information Services	
1995	pg. A11	Haines Criss-Cross Directory	
1990	-	Haines Criss-Cross Directory	Street not listed in Source
1985	-	Haines Criss-Cross Directory	Street not listed in Source
1980	-	Haines Criss-Cross Directory	Street not listed in Source
1975	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 2013

15111	COUNTY OF RIVERSIDE
15800	MARCH MIDDLE SCHOOL
15950	RAINBOW RIDGE ELEMENTARY SCHOOL
16059	IMANI PRAISE FELLOWSHIP
16171	CONNIE LEMAY
16180	OCCUPANT UNKNOWN
16220	OCCUPANT UNKNOWN
16275	FRANCISCO BURROLA
16410	OCCUPANT UNKNOWN
16950	GUILLERMINA HERNANDEZ
16980	RICHARD DNARVARTE
17325	ADRIANA MORA
17700	CLEAN ENERGY
	WASTE MANAGEMENT
17731	OCCUPANT UNKNOWN

KRAMERIA ST 2013

25390	MARY MCLEOD BTHUNE MIDDLE SCHL
25777	VISTA VERDE MIDDLE SCHOOL

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 2008

15111	COUNTY OF RIVERSIDE
15800	MLM MARCH MIDDLE SCHOOL
15950	VAL VERDE UNIFIED SCHOOL DISTRICT
16050	VALLEY VISTA SEVENTH DAY
16171	CONNIE LEMAY
16180	ADAM VILLARREAL
16220	O PIERCE
16275	ELIZABETH CORTEZ
16410	WILLIAM VACA
16958	RICHARD DNARVARTE
17325	DELORES MORA
17700	WASTE MANAGEMENT
17731	LORRAINE GRIPPIN
	ZODON EXPRESS
17845	H SUH

Target Street	Cross Street	Source
-	✓	Cole Information Services

KRAMERIA ST 2008

25390	MARY MCLEOD BETHUNE ELEMENTARY SCHOO
	VAL VERDE UNIFIED SCHOOL DST
25777	VAL VERDE UNIFIED SCHOOL DST

Target Street	Cross Street	Source
✓	-	Cole Information Services

INDIAN ST 2003

15111	OCCUPANT UNKNOWN
	RIVERSIDE COUNTY OF FIRE DEPT
15345	JANET BECKER
16050	JANETTE FRANCIS
16059	VALLEY VISTA SVNTH DAY ADVNTST
16180	FRANCIS FOX
16220	OCCUPANT UNKNOWN
16275	FRANCISCO BURROLA
16311	OCCUPANT UNKNOWN
16410	OCCUPANT UNKNOWN
16550	OCCUPANT UNKNOWN
16950	FRANCISCO MONTEJANO
16958	FERNANDEZ RIVERA
16980	CLIFFORD STOUT
17325	LUIS MORA
17700	WASTE MANAGEMENT
17731	OCCUPANT UNKNOWN
	ZODON EXPRESS
17845	BARRY ENGELIMETER
	OCCUPANT UNKNOWN

KRAMERIA ST 2003

25390	MARY MCLEOD BTHN ELMNTRY SCHL
	MARY MCLEON ELEMENTARY SCHOOL
	OCCUPANT UNKNOWN
25777	RODOLFO RIOS
	VISTA VERDE MDL SCHL PEP SQUAD
	VISTA VERDE MIDDLE SCHOOL

INDIAN ST 1999

15111	RIVERSIDE COUNTY OF FIRE DEPARTMENT
15950	RAINBOW RIDGE ELEMENTARY SCHOOL VAL VERDE UNIFIED SCHOOL DISTRICT VAL VERDE UNIFIED SCHOOL DISTRICT RNBW RDG SCHOOL
16059	VALLEY VISTA SEVENTH DAY ADVENTIST CHURCH
16171	CONNIE LEMAY
16220	O PIERCE
16275	FRANCISCO BURROLA
16410	OCCUPANT UNKNOWN
16950	FRANCISCO MONTEJANO OCCUPANT UNKNOWN
16958	RICHARD DNARVARTE
16980	OCCUPANT UNKNOWN
17325	DELORES MORA
17700	MORENO VALLEY MATERIAL RECOVERY FACILITY
17731	CALIFORNIA EASTERN LANDSTAR RANGER LORRAINE GRIPPIN ZODON EXPRESS
17845	H SUH

Target Street	Cross Street	Source
-	✓	Cole Information Services

KRAMERIA ST 1999

25390	MARY MCLEOD BETHUNE SCHOOL
	VAL VERDE UNIFIED SCHOOL DISTRICT
	VAL VERDE UNIFIED SCHOOL DISTRICT MARY MCLEOD BETHUNE
25777	VAL VERDE UNIFIED SCHOOL DISTRICT
	VAL VERDE UNIFIED SCHOOL DISTRICT VIS VERDE MID SCHOOL
	VISTA VERDE MIDDLE SCHOOL

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

2.a

INDIAN ST 1995

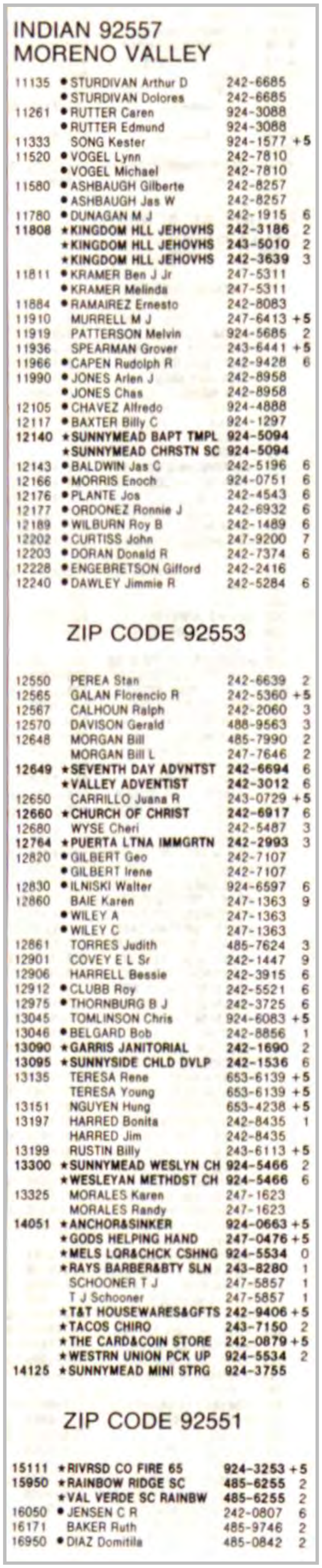

INDIAN 92557
MORENO VALLEY

11135	• STURDIVAN Arthur D	242-6685	
	• STURDIVAN Dolores	242-6685	
11261	• RUTTER Caren	924-3088	
	• RUTTER Edmund	924-3088	
11333	SONG Kester	924-1577	+5
11520	• VOGEL Lynn	242-7810	
	• VOGEL Michael	242-7810	
11580	• ASHBAUGH Gilberte	242-8257	
	• ASHBAUGH Jas W	242-8257	
11780	• DUNAGAN M J	242-1915	6
11808	**★KINGDOM HLL JEHOVHS**	**242-3186**	2
	★KINGDOM HLL JEHOVHS	**243-5010**	2
	★KINGDOM HLL JEHOVHS	**242-3639**	3
11811	• KRAMER Ben J Jr	247-5311	
	• KRAMER Melinda	247-5311	
11884	• RAMAIREZ Ernesto	242-8083	
11910	MURRELL M J	247-6413	+5
11919	PATTERSON Melvin	924-5685	2
11936	SPEARMAN Grover	243-6441	+5
11966	• CAPEN Rudolph R	242-9428	6
11990	• JONES Arlen J	242-8958	
	• JONES Chas	242-8958	
12105	• CHAVEZ Alfredo	924-4888	
12117	• BAXTER Billy C	924-1297	
12140	**★SUNNYMEAD BAPT TMPL**	**924-5094**	
	★SUNNYMEAD CHRSTN SC	**924-5094**	
12143	• BALDWIN Jas C	242-5196	6
12166	• MORRIS Enoch	924-0751	6
12176	• PLANTE Jos	242-4543	6
12177	• ORDONEZ Ronnie J	242-6932	6
12189	• WILBURN Roy B	242-1489	6
12202	• CURTISS John	247-9200	7
12203	• DORAN Donald R	242-7374	6
12228	• ENGEBRETSON Gifford	242-2416	
12240	• DAWLEY Jimmie R	242-5284	6

ZIP CODE 92553

12550	PEREA Stan	242-6639	2
12565	GALAN Florencio R	242-5360	+5
12567	CALHOUN Ralph	242-2060	3
12570	DAVISON Gerald	488-9563	3
12648	MORGAN Bill	485-7990	2
	MORGAN Bill L	247-7646	2
12649	**★SEVENTH DAY ADVNTST**	**242-6694**	6
	★VALLEY ADVENTIST	**242-3012**	6
12650	CARRILLO Juana R	243-0729	+5
12660	**★CHURCH OF CHRIST**	**242-6917**	6
12680	WYSE Cheri	242-5487	3
12764	**★PUERTA LTNA IMMGRTN**	**242-2993**	3
12820	• GILBERT Geo	242-7107	
	• GILBERT Irene	242-7107	
12830	• ILNISKI Walter	924-6597	6
12860	BAIE Karen	247-1363	9
	• WILEY A	247-1363	
	• WILEY C	247-1363	
12861	TORRES Judith	485-7624	3
12901	COVEY E L Sr	242-1447	9
12906	HARRELL Bessie	242-3915	6
12912	• CLUBB Roy	242-5521	6
12975	• THORNBURG B J	242-3725	6
13045	TOMLINSON Chris	924-6083	+5
13046	• BELGARD Bob	242-8856	1
13090	**★GARRIS JANITORIAL**	**242-1690**	2
13095	**★SUNNYSIDE CHLD DVLP**	**242-1536**	6
13135	TERESA Rene	653-6139	+5
	TERESA Young	653-6139	+5
13151	NGUYEN Hung	653-4238	+5
13197	HARRED Bonita	242-8435	1
	HARRED Jim	242-8435	
13199	RUSTIN Billy	243-6113	+5
13300	**★SUNNYMEAD WESLYN CH**	**924-5466**	2
	★WESLEYAN METHDST CH	**924-5466**	6
13325	MORALES Karen	247-1623	
	MORALES Randy	247-1623	
14051	**★ANCHOR&SINKER**	**924-0663**	+5
	★GODS HELPING HAND	**247-0476**	+5
	★MELS LQR&CHCK CSHNG	**924-5534**	0
	★RAYS BARBER&BTY SLN	**243-8280**	1
	SCHOONER T J	247-5857	1
	T J Schooner	247-5857	1
	★T&T HOUSEWARES&GFTS	**242-9406**	+5
	★TACOS CHIRO	**243-7150**	2
	★THE CARD&COIN STORE	**242-0879**	+5
	★WESTRN UNION PCK UP	**924-5534**	2
14125	**★SUNNYMEAD MINI STRG**	**924-3755**	

ZIP CODE 92551

15111	**★RIVRSD CO FIRE 65**	**924-3253**	+5
15950	**★RAINBOW RIDGE SC**	**485-6255**	2
	★VAL VERDE SC RAINBW	**485-6255**	2
16050	• JENSEN C R	242-0807	6
16171	BAKER Ruth	485-9746	2
16950	• DIAZ Domitila	485-0842	2

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

INDIAN ST 1995

2.a

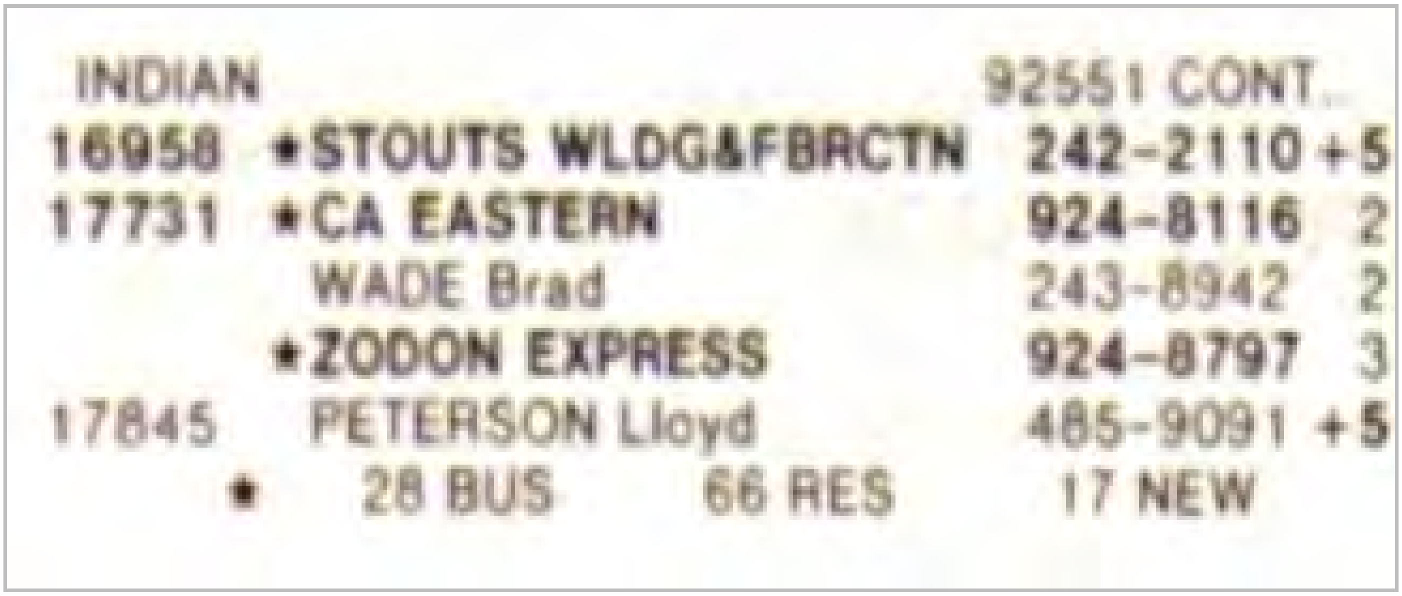

INDIAN 92551 CONT.

16958	★STOUTS WLDG&FBRCTN	242-2110	+5
17731	★CA EASTERN	924-8116	2
	WADE Brad	243-8942	2
	★ZODON EXPRESS	924-8797	3
17845	PETERSON Lloyd	485-9091	+5

★ 28 BUS 66 RES 17 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

KRAMERIA ST 1995

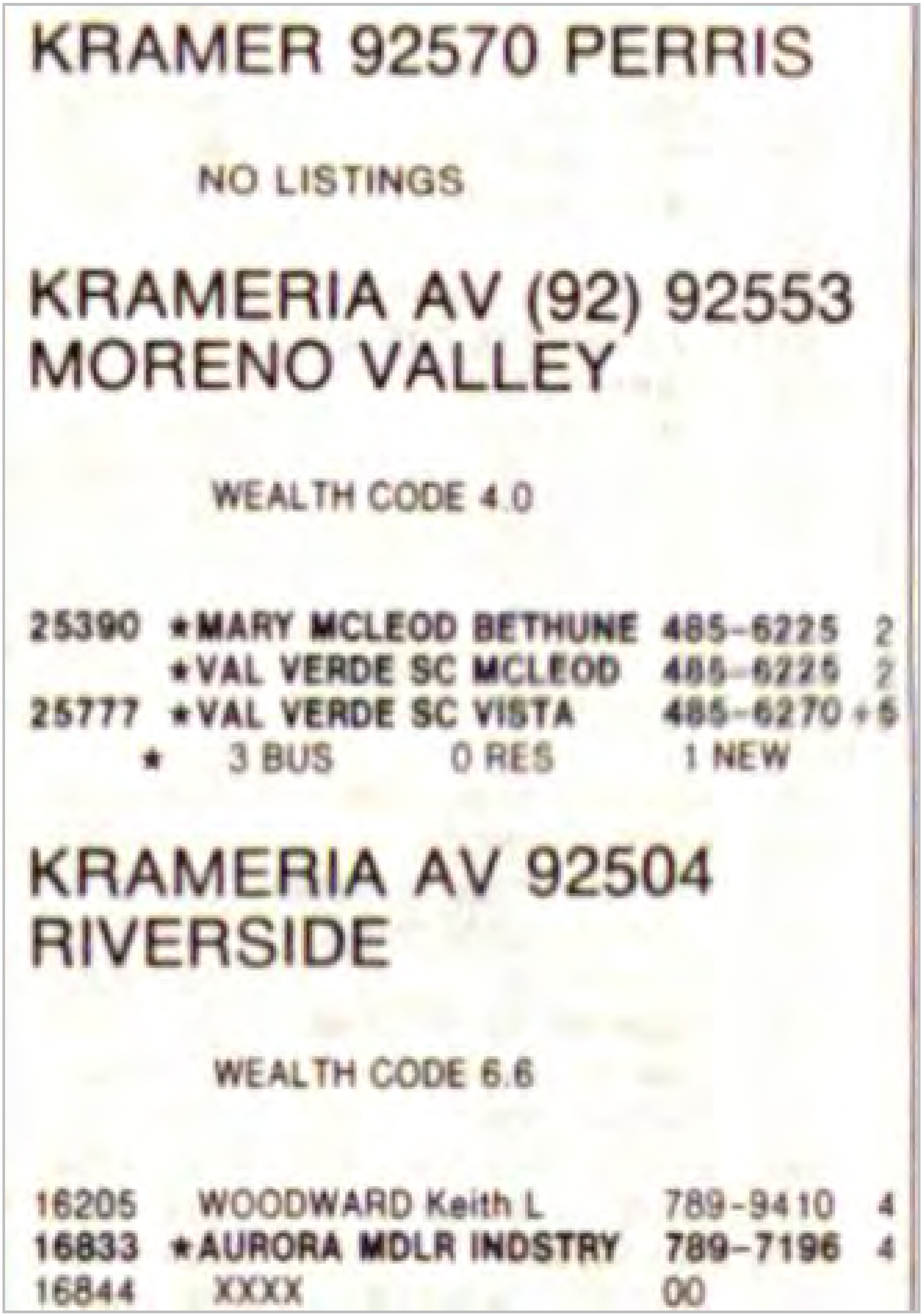

KRAMER 92570 PERRIS

NO LISTINGS

KRAMERIA AV (92) 92553 MORENO VALLEY

WEALTH CODE 4.0

25390	*MARY MCLEOD BETHUNE	485-6225	2
	*VAL VERDE SC MCLEOD	485-6225	2
25777	*VAL VERDE SC VISTA	485-6270	+5

* 3 BUS 0 RES 1 NEW

KRAMERIA AV 92504 RIVERSIDE

WEALTH CODE 6.6

16205	WOODWARD Keith L	789-9410	4
16833	*AURORA MDLR INDSTRY	789-7196	4
16844	XXXX	00	

Target Street	**Cross Street**	**Source**
✓	-	Haines Criss-Cross Directory

INDIAN ST 1990

INDIAN AV 92387
MORENO VALLEY

11030	XXXX	00	
11135	STURDIVAN Arthur D	242-6685	
	STURDIVAN Dolores	242-6685	6
11175	ZUPPARDO Chas	242-4342	6
	ZUPPARDO Chas Jr	924-5366	9
11195	POSNIKOFF Jack	242-7506	6
11261	RUTTER Caren	924-3088	
	RUTTER Edmond	924-3088	5
11333	**★ACE PAINTING&MNTC**	**242-9666**	+0
	SONG Hal	242-9421	+0
11520	VOGEL Lynn	242-7810	
	VOGEL Michael	242-7810	
11580	ASHBAUGH Gilberte	242-8257	
	ASHBAUGH Jas W	242-8257	
11608	XXXX	00	
11780	DUNAGAN M J	242-1915	6
11861	GONZALEZ Edgar	924-3616	6
11864	XXXX	00	
11884	RAMIREZ Bella	242-8083	
	RAMIREZ Ernesto	242-8083	
11898	XXXX	00	
11919	PATTERSON Melvin	242-3550	6
11935	XXXX	00	
11936	XXXX	00	
11953	BAKER Michael	242-7768	9
11966	CAPEN Rudolph R	242-9428	6
11990	JONES Arlen J	242-8958	6
	JONES Chas	242-8958	
12000	KROWEL Elmer	242-4689	6
12035	OLSON Chas G	242-6441	+0
12069	MATHEWS John Jay	242-7170	6
12105	CHAVEZ Alfredo	924-4888	5
12117	BAXTER Billy C	924-1297	5
	★BAXTERS CONSULTING	**924-8990**	9
12140	**★SUNNYMEAD BAPT TMPL**	**924-5094**	6
12143	BALDWIN Jas C	242-5196	6
12166	MORRIS Enoch	924-0751	6
12176	PLANTE Jos	242-4543	6
12177	ORDONEZ Ronnie J	242-6932	6
12189	WILBURN Roy B	242-1489	6
12202	CURTISS John	247-9200	7
12203	DORAN Donald	242-1004	6
	DORAN Donald R	242-7374	6
12217	LEE Kenney	242-2283	6
12228	ENGEBRETSON Gifford	242-2416	
12240	DAWLEY Jimmie R	242-5284	6
12376	ROSS Carl W	00	4

ZIP CODE 92388

12550	**★VALLEY BATTERY&TIRE**	**924-3955**	5
12565	HITCHCOCK Lynne M	00	7
12567	VAUGHN Edw E	242-9477	6
12569	ELDRIDGE W M	924-9409	6
12570	OLIVAS Jorge	00	6
12572	VILLANUEVA Leonor	00	+0
12585	SWEET Diane E	00	7
12642	XXXX	00	
12648	LUWTS Tarrael	247-5862	+0
12649	**★SEVENTH DAY ADVNTST**	**242-6694**	6
	★VALLEY ADVENTIST	**242-3012**	6
12660	**★CHURCH OF CHRIST**	**242-6917**	6
12711	ALLEN Carie J	00	4
	MEDLIN Cherri C	00	4
12721	POILLOT Jean	00	2
12735	ROSS Carl	00	2
12745	GRIFFIN Mary E	00	4
	MUNGUIA Blanca E	00	5
12755	PAOLINO John V	00	1
12764	HYLLA D C	924-7870	9
	HYLLA R E	924-7870	
12771	BOARTFIELD Bobby	924-0522	9
12780	HERNANDEZ John C	00	5
12820	GILBERT Geo	242-7107	
	GILBERT Irene	242-7107	
12830	ILNISKI Walter	924-6597	8
12833	BRADLEY Jerry	00	4
12846	JACKMAN Rickey A	00	5
12860	BAIE Karen	247-1363	9
	WILEY A	247-1363	9
	WILEY C	247-1363	
12861	SPEARMAN Darrel A	00	7
12892	XXXX	00	
12901	COVEY E L Sr	242-1447	9
	SANCHEZ Ruben R	00	+0
12906	HARRELL Bessie	242-3915	6
12908	XXXX	00	
12912	CLUBB Roy	242-5521	6
12917	HERNANDEZ Dolores	00	+0
12919	MILES Elizabeth L	00	4
12925	ANSIEL Fred H Jr	00	8
12926	JENKINS David E	242-1608	6
	JENKINS Dorothy	247-4611	+0
12945	XXXX	00	
12946	CRAIG Reginald A	00	5
12974	WHIPPLE Betty M	00	2
12975	THORNBURG B J	242-3725	6
13022	TORRES Viviano	00	+0
13025	XXXX	00	
13042	EBELING Rodney W	00	4
13045	HESTER Greg A	924-0901	6
	★PAC POOL SERVICE	**924-0901**	6
13055	XXXX	00	
13057	GLIDEWELL Tonya L	00	2
13095	DAVIS Luther	00	4
	★SUNNYSIDE DAY CARE	**242-1536**	6
13135	WELTNER B	653-7008	+0
13136	ALFORD Karla	247-5232	+0
13151	HARTT Margaret J	00	8
13175	CASKEY John R	00	7
13176	CONOVER Joe	247-2358	9
13191	XXXX	00	
13199	HARRED Lewis O	00	7
13300	**★TECUMAH CHRSTN SC**	**242-0756**	+0
	★WESLEYAN METHDST CH	**924-5466**	6
13326	EMIG Orlando K	00	+0
13365	STEBNITZ Charles R	00	2
13533	ROISTACHER Leslee J	00	6
13545	ARAGON Eugene H	00	5
	CANDELARIO Mike D 3	00	9
13555	PALMER Robert L	00	8
14051	**★MELS LQR&CHCK CSHNG**	**924-5534**	+0
14125	**★SUNNYMEAD MINI STRG**	**924-3755**	5
	VEALE Robert W	00	+0
14161	**★BURGESS CO**	**247-4858**	+0
15111	**★RIVRSD CO FIRE**	**924-3253**	7
16050	CREAMEAN Carl T	00	6
	JENSEN C R	242-0807	6
16171	BELLINIS Alex	242-1692	6
	★BELLINIS W A NRSRY	**242-6672**	6
16180	**★EMBLY RANCH**	**242-8098**	6
	FOX Francie J	00	4
16220	BRANSFORD Charlie	924-6732	
	BRANSFORD Janet	924-6732	9
	★TREE HOUSE NURSERY	**242-5640**	6
16275	TATE Wilma V	242-4285	6

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

INDIAN ST 1990

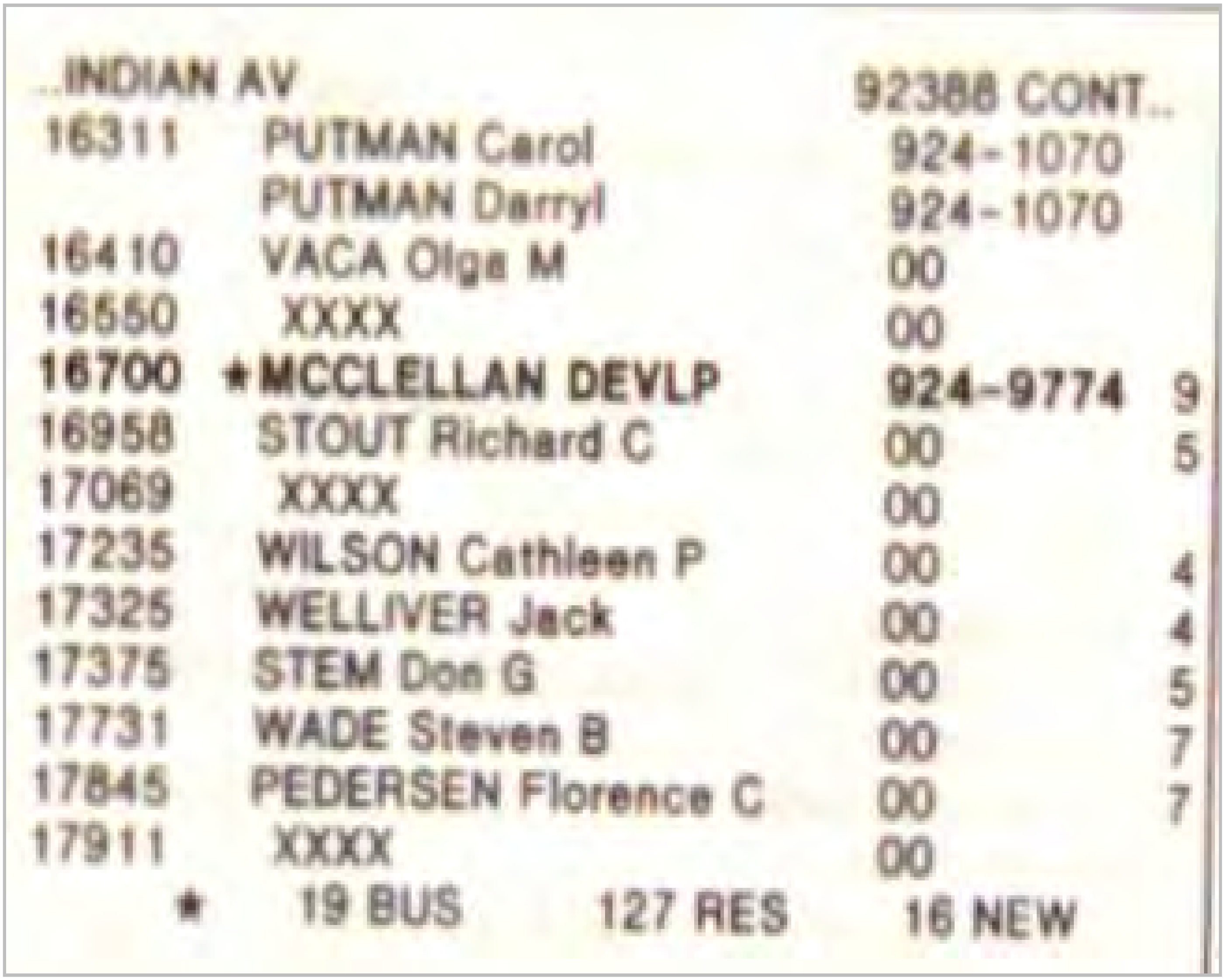

..INDIAN AV		92388 CONT..	
16311	PUTMAN Carol	924-1070	
	PUTMAN Darryl	924-1070	
16410	VACA Olga M	00	
16550	XXXX	00	
16700	★MCCLELLAN DEVLP	924-9774	9
16958	STOUT Richard C	00	5
17069	XXXX	00	
17235	WILSON Cathleen P	00	4
17325	WELLIVER Jack	00	4
17375	STEM Don G	00	5
17731	WADE Steven B	00	7
17845	PEDERSEN Florence C	00	7
17911	XXXX	00	

★ 19 BUS 127 RES 16 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

2.a

INDIAN ST 1985

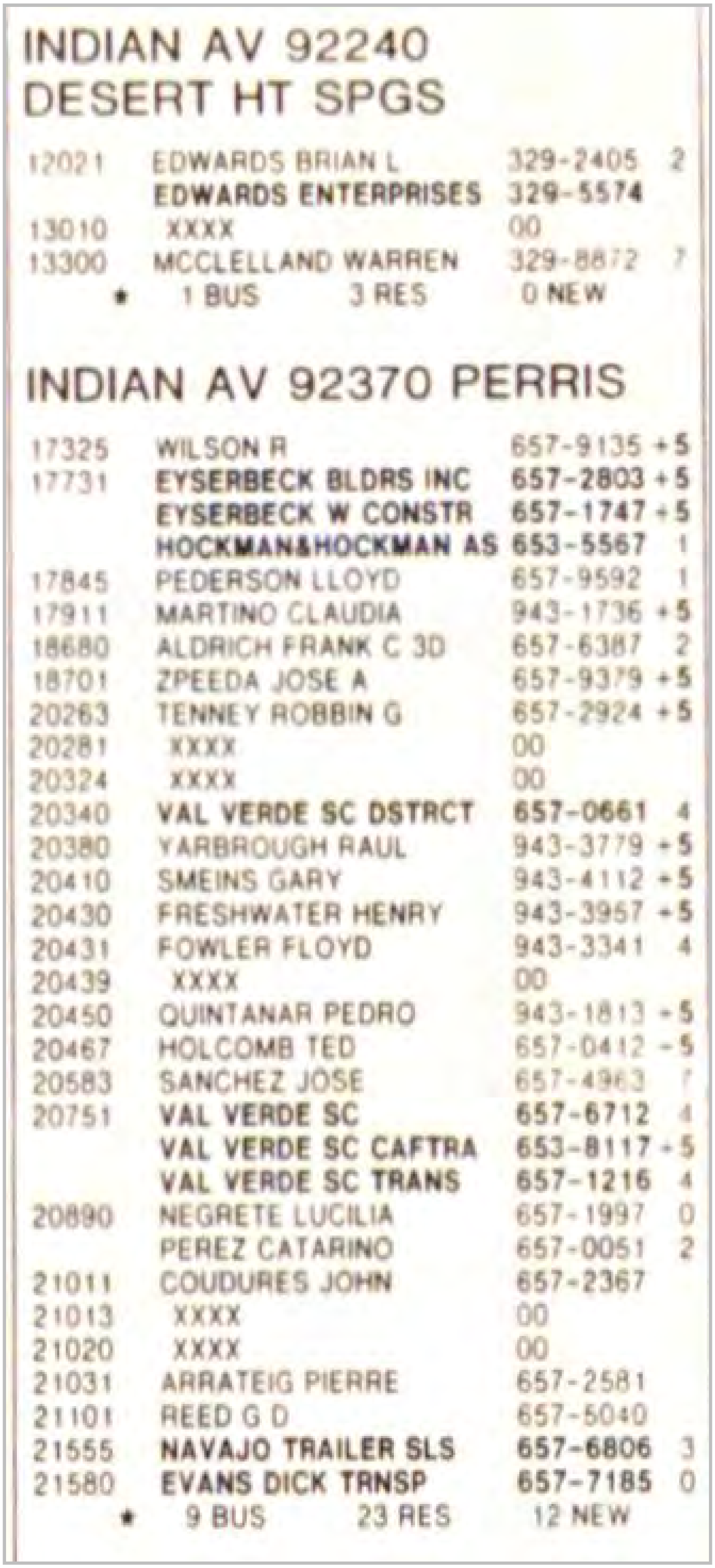

INDIAN AV 92240
DESERT HT SPGS

12021	EDWARDS BRIAN L	329-2405	2
	EDWARDS ENTERPRISES	**329-5574**	
13010	XXXX	00	
13300	MCCLELLAND WARREN	329-8872	7
*	1 BUS	3 RES	0 NEW

INDIAN AV 92370 PERRIS

17325	WILSON R	657-9135	+5
17731	**EYSERBECK BLDRS INC**	**657-2803**	+5
	EYSERBECK W CONSTR	**657-1747**	+5
	HOCKMAN&HOCKMAN AS	**653-5567**	1
17845	PEDERSON LLOYD	657-9592	1
17911	MARTINO CLAUDIA	943-1736	+5
18680	ALDRICH FRANK C 3D	657-6387	2
18701	ZPEEDA JOSE A	657-9379	+5
20263	TENNEY ROBBIN G	657-2924	+5
20281	XXXX	00	
20324	XXXX	00	
20340	**VAL VERDE SC DSTRCT**	**657-0661**	4
20380	YARBROUGH RAUL	943-3779	+5
20410	SMEINS GARY	943-4112	+5
20430	FRESHWATER HENRY	943-3967	+5
20431	FOWLER FLOYD	943-3341	4
20439	XXXX	00	
20450	QUINTANAR PEDRO	943-1813	+5
20467	HOLCOMB TED	657-0412	+5
20583	SANCHEZ JOSE	657-4963	7
20751	**VAL VERDE SC**	**657-6712**	4
	VAL VERDE SC CAFTRA	**653-8117**	+5
	VAL VERDE SC TRANS	**657-1216**	4
20890	NEGRETE LUCILIA	657-1997	0
	PEREZ CATARINO	657-0051	2
21011	COUDURES JOHN	657-2367	
21013	XXXX	00	
21020	XXXX	00	
21031	ARRATEIG PIERRE	657-2581	
21101	REED G D	657-5040	
21555	**NAVAJO TRAILER SLS**	**657-6806**	3
21580	**EVANS DICK TRNSP**	**657-7185**	0
*	9 BUS	23 RES	12 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

INDIAN ST 1980

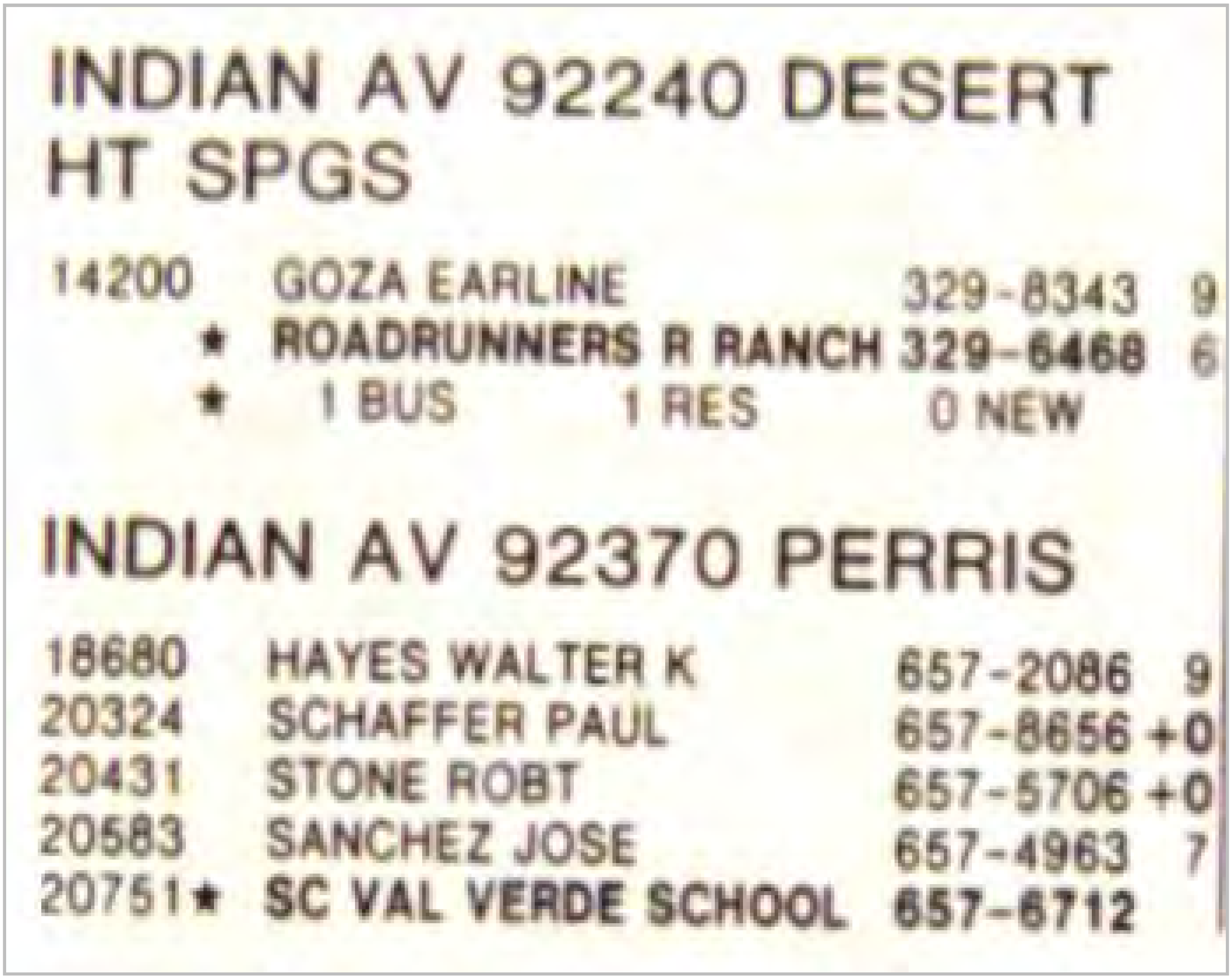

INDIAN AV 92240 DESERT HT SPGS

14200	GOZA EARLINE	329-8343	9
★	**ROADRUNNERS R RANCH**	**329-6468**	6
★	1 BUS	1 RES	0 NEW

INDIAN AV 92370 PERRIS

18680	HAYES WALTER K	657-2086	9
20324	SCHAFFER PAUL	657-8656	+0
20431	STONE ROBT	657-5706	+0
20583	SANCHEZ JOSE	657-4963	7
20751★	**SC VAL VERDE SCHOOL**	**657-6712**	

2.a

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

2.a

INDIAN ST 1980

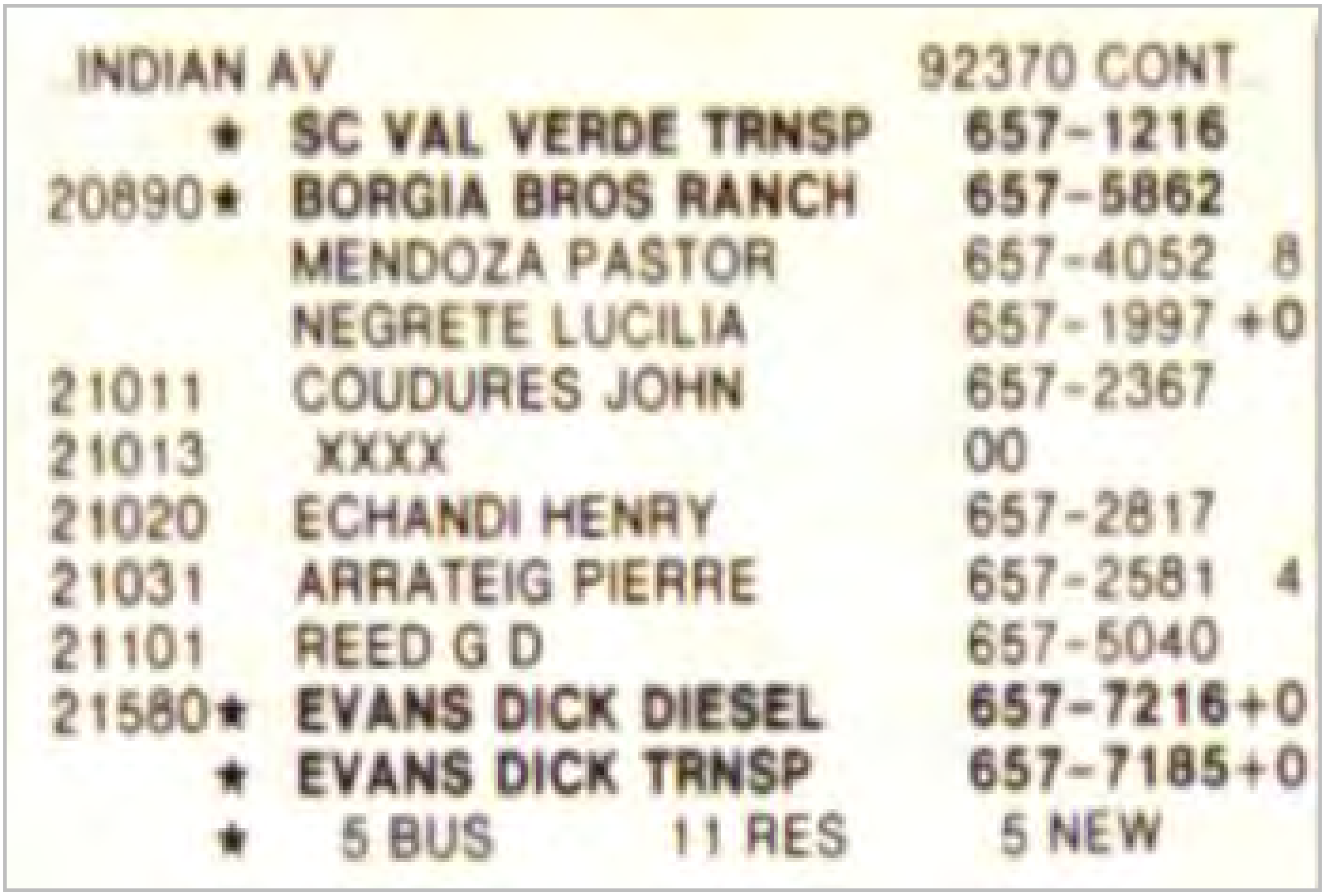

INDIAN AV 92370 CONT

	*	SC VAL VERDE TRNSP	657-1216	
20890	*	BORGIA BROS RANCH	657-5862	
		MENDOZA PASTOR	657-4052	8
		NEGRETE LUCILIA	657-1997	+0
21011		COUDURES JOHN	657-2367	
21013		XXXX	00	
21020		ECHANDI HENRY	657-2817	
21031		ARRATEIG PIERRE	657-2581	4
21101		REED G D	657-5040	
21580	*	EVANS DICK DIESEL	657-7216	+0
	*	EVANS DICK TRNSP	657-7185	+0

* 5 BUS 11 RES 5 NEW

APPENDIX E
ENVIRONMENTAL DATABASE REPORT

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-007 (Task 6)

Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, CA 92551

Inquiry Number: 4233142.2s
March 13, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

FORM-LBE-MEM

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist fro other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

INDIAN STREET AND KRAMERIA AVENUE
RIVERSIDE County, CA 92551

COORDINATES

Latitude (North):	33.8782000 - 33˚ 52' 41.52''
Longitude (West):	117.2391000 - 117˚ 14' 20.76''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	477887.7
UTM Y (Meters):	3748482.8
Elevation:	1488 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	33117-H2 SUNNYMEAD, CA
Most Recent Revision:	1980
South Map:	33117-G2 PERRIS, CA
Most Recent Revision:	1979
Southwest Map:	33117-G3 STEELE PEAK, CA
Most Recent Revision:	1978
West Map:	33117-H3 RIVERSIDE EAST, CA
Most Recent Revision:	1980

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120519
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

Proposed NPL	Proposed National Priority List Sites
NPL LIENS	Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL	National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY	Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP	CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS	Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF	RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-SQG	RCRA - Small Quantity Generators
RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS	Land Use Control Information System

Federal ERNS list

ERNS	Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

CA SWF/LF	Solid Waste Information System

State and tribal leaking storage tank lists

CA SLIC	Statewide SLIC Cases

EXECUTIVE SUMMARY

INDIAN LUST	Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

CA UST	Active UST Facilities
CA AST	Aboveground Petroleum Storage Tank Facilities
INDIAN UST	Underground Storage Tanks on Indian Land
FEMA UST	Underground Storage Tank Listing

State and tribal voluntary cleanup sites

CA VCP	Voluntary Cleanup Program Properties
INDIAN VCP	Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS	A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
CA SWRCY	Recycler Database
CA HAULERS	Registered Waste Tire Haulers Listing
INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
CA WMUDS/SWAT	Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL	Clandestine Drug Labs
CA Toxic Pits	Toxic Pits Cleanup Act Sites
CA CDL	Clandestine Drug Labs
US HIST CDL	National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST	Facility Inventory Database
CA HIST UST	Hazardous Substance Storage Container Database
CA SWEEPS UST	SWEEPS UST Listing

Local Land Records

LIENS 2	CERCLA Lien Information
CA LIENS	Environmental Liens Listing
CA DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CA LDS	Land Disposal Sites Listing
CA MCS	Military Cleanup Sites Listing
CA SPILLS 90	SPILLS 90 data from FirstSearch

EXECUTIVE SUMMARY

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
DOT OPS	Incident and Accident Data
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
CA UIC	UIC Listing
CA NPDES	NPDES Permits Listing
CA HIST CORTESE	Hazardous Waste & Substance Site List
CA CUPA Listings	CUPA Resources List
CA DRYCLEANERS	Cleaner Facilities
CA WIP	Well Investigation Program Case List
CA ENF	Enforcement Action Listing
CA HAZNET	Facility and Manifest Data
CA EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
CA PROC	Certified Processors Database
CA Financial Assurance	Financial Assurance Information Listing
CA MWMP	Medical Waste Management Program Listing
CA HWP	EnviroStor Permitted Facilities Listing
CA HWT	Registered Hazardous Waste Transporter Database
CA WDS	Waste Discharge System
US AIRS	Aerometric Information Retrieval System Facility Subsystem
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
LEAD SMELTERS	Lead Smelter Sites
2020 COR ACTION	2020 Corrective Action Program List
COAL ASH DOE	Steam-Electric Plant Operation Data

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR US Hist Auto Stat	EDR Exclusive Historic Gas Stations

EXECUTIVE SUMMARY

EDR US Hist Cleaners	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

CA RGA LF	Recovered Government Archive Solid Waste Facilities List
CA RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: Also known as Superfund, the National Priority List database is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund program. The source of this database is the U.S. EPA.

A review of the NPL list, as provided by EDR, and dated 12/16/2014 has revealed that there is 1 NPL site within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***W 1/4 - 1/2 (0.270 mi.)***	***0***	***8***

Federal CERCLIS list

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERCLIS site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***W 1/4 - 1/2 (0.270 mi.)***	***0***	***8***

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSW of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 12/09/2014 has revealed that there is 1 RCRA-LQG site within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***W 1/4 - 1/2 (0.270 mi.)***	***0***	***8***

Federal institutional controls / engineering controls registries

US ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the US ENG CONTROLS list, as provided by EDR, and dated 09/18/2014 has revealed that there is 1 US ENG CONTROLS site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***W 1/4 - 1/2 (0.270 mi.)***	***0***	***8***

US INST CONTROL: A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROL list, as provided by EDR, and dated 09/18/2014 has revealed that there is 1 US INST CONTROL site within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***W 1/4 - 1/2 (0.270 mi.)***	***0***	***8***

State- and tribal - equivalent NPL

CA RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the CA RESPONSE list, as provided by EDR, and dated 02/02/2015 has revealed that there is 1 CA RESPONSE site within approximately 1.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE - SITE 24	***7,123 ACRES; EAST OF RI***	***SSW 1/2 - 1 (0.749 mi.)***	***B8***	***62***

EXECUTIVE SUMMARY

State- and tribal - equivalent CERCLIS

CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the CA ENVIROSTOR list, as provided by EDR, and dated 02/02/2015 has revealed that there are 3 CA ENVIROSTOR sites within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
INDIAN MIDDLE SCHOOL Status: Certified	***INDIAN AVENUE / IRIS AV***	***NNE 1/2 - 1 (0.737 mi.)***	***7***	***56***

Lower Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE - SITE 24 Status: Certified	***7,123 ACRES; EAST OF RI***	***SSW 1/2 - 1 (0.749 mi.)***	***B8***	***62***
MARCH AIR RESERVE BASE Status: Active	***3,545 ACRES; EAST OF RI***	***SSW 1/2 - 1 (0.749 mi.)***	***B11***	***76***

State and tribal leaking storage tank lists

CA LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the CA LUST list, as provided by EDR, and dated 01/20/2015 has revealed that there are 6 CA LUST sites within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH A F B FLITE LINE	BLDG 1244	WNW 1/4 - 1/2 (0.495 mi.)	A1	49
MARCH A F B REFUELING SYSTEM	BLDG 1269	WNW 1/4 - 1/2 (0.495 mi.)	A2	50
MARCH A F B ALERT FACILITY	BLDG 1305	WNW 1/4 - 1/2 (0.495 mi.)	A3	52
MARCH A F B BLDG 3406	BLDG 3406	WNW 1/4 - 1/2 (0.495 mi.)	A4	53
MARCH A F B BLDG 3409	BLDGS 3409	WNW 1/4 - 1/2 (0.495 mi.)	A5	54
MARCH A F B BLDG 550	BLDG 3407	WNW 1/4 - 1/2 (0.495 mi.)	A6	55

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

EXECUTIVE SUMMARY

CA HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the CA HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 3 CA HIST Cal-Sites sites within approximately 1.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE - SITE 24	***7,123 ACRES; EAST OF RI***	***SSW 1/2 - 1 (0.749 mi.)***	***B8***	***62***
MARCH AIR FORCE BASE - SITE 40	7,123 ACRES; EAST OF RI	SSW 1/2 - 1 (0.749 mi.)	B9	71
MARCH AIR RESERVE BASE	***3,545 ACRES; EAST OF RI***	***SSW 1/2 - 1 (0.749 mi.)***	***B11***	***76***

Other Ascertainable Records

DOD: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 12/31/2005 has revealed that there is 1 DOD site within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE (CLOSED)		W 1/4 - 1/2 (0.271 mi.)	0	8

ROD: Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid the cleanup.

A review of the ROD list, as provided by EDR, and dated 11/25/2013 has revealed that there is 1 ROD site within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE	***22 CSG/CC***	***W 1/4 - 1/2 (0.270 mi.)***	***0***	***8***

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
MARCH AIR FORCE BASE		SSW 1/2 - 1 (0.749 mi.)	B12	114

CA Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the CA Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there

EXECUTIVE SUMMARY

are 2 CA Notify 65 sites within approximately 1.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BUILDING 962	***MARCH AFB***	***SSW 1/2 - 1 (0.749 mi.)***	***B10***	***75***
PANERO AIRCRAFT FUELING SYST.	MARCH AFB	SSW 1/2 - 1 (0.749 mi.)	B13	115

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 4233142.2S

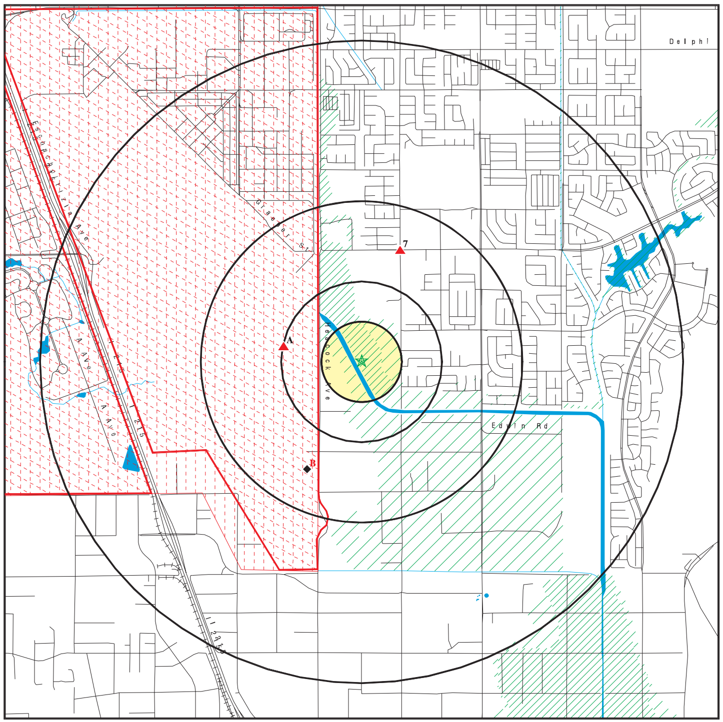

- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ♟ Manufactured Gas Plants
- ▧ National Priority List Sites
- ▨ Dept. Defense Sites
- ▨ Indian Reservations BIA
- /\/ Oil & Gas pipelines from USGS
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- ▦ Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Indian Business Park
ADDRESS: Indian Street and Krameria Avenue
Moreno Valley CA 92551
LAT/LONG: 33.8782 / 117.2391

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY #: 4233142.2s
DATE: March 13, 2015 1:06 pm

DETAIL MAP - 4233142.2S

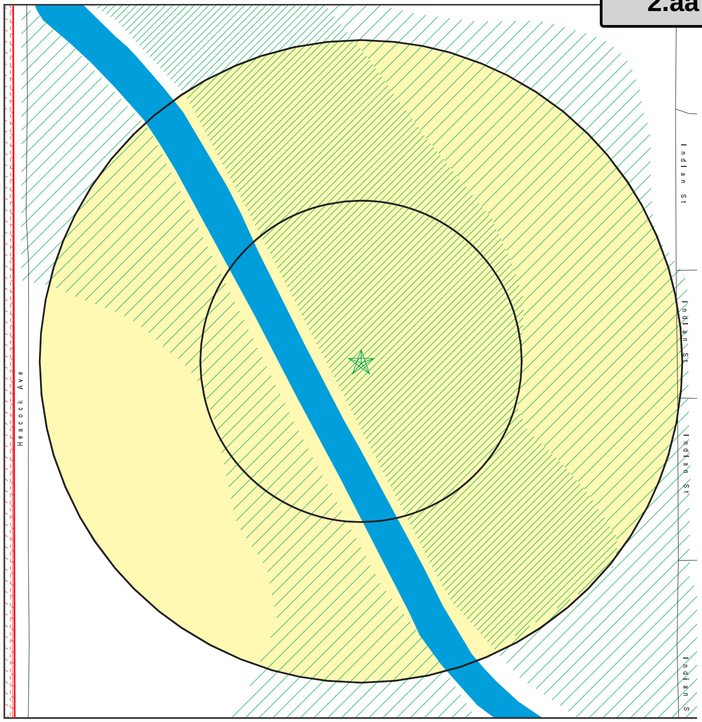

- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ♟ Manufactured Gas Plants
- ⚑ Sensitive Receptors
- ▧ National Priority List Sites
- ▨ Dept. Defense Sites
- ▨ Indian Reservations BIA
- /\/ Oil & Gas pipelines from USGS
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- ▦ Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Indian Business Park
ADDRESS: Indian Street and Krameria Avenue
Moreno Valley CA 92551
LAT/LONG: 33.8782 / 117.2391

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY #: 4233142.2s
DATE: March 13, 2015 1:07 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.125		0	0	1	0	0	1
Proposed NPL	1.125		0	0	0	0	0	0
NPL LIENS	0.125		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.125		0	0	0	0	0	0
Federal CERCLIS list								
CERCLIS	0.625		0	0	1	0	NR	1
FEDERAL FACILITY	0.625		0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.625		0	0	0	0	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.125		0	0	0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.625		0	0	0	0	NR	0
Federal RCRA generators list								
RCRA-LQG	0.375		0	0	1	NR	NR	1
RCRA-SQG	0.375		0	0	0	NR	NR	0
RCRA-CESQG	0.375		0	0	0	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.625		0	0	1	0	NR	1
US INST CONTROL	0.625		0	0	1	0	NR	1
LUCIS	0.625		0	0	0	0	NR	0
Federal ERNS list								
ERNS	0.125		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
CA RESPONSE	1.125		0	0	0	1	0	1
State- and tribal - equivalent CERCLIS								
CA ENVIROSTOR	1.125		0	0	0	3	0	3
State and tribal landfill and/or solid waste disposal site lists								
CA SWF/LF	0.625		0	0	0	0	NR	0
State and tribal leaking storage tank lists								
CA LUST	0.625		0	0	6	0	NR	6

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA SLIC	0.625		0	0	0	0	NR	0
INDIAN LUST	0.625		0	0	0	0	NR	0
State and tribal registered storage tank lists								
CA UST	0.375		0	0	0	NR	NR	0
CA AST	0.375		0	0	0	NR	NR	0
INDIAN UST	0.375		0	0	0	NR	NR	0
FEMA UST	0.375		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
CA VCP	0.625		0	0	0	0	NR	0
INDIAN VCP	0.625		0	0	0	0	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.625		0	0	0	0	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.625		0	0	0	0	NR	0
ODI	0.625		0	0	0	0	NR	0
CA SWRCY	0.625		0	0	0	0	NR	0
CA HAULERS	0.125		0	NR	NR	NR	NR	0
INDIAN ODI	0.625		0	0	0	0	NR	0
CA WMUDS/SWAT	0.625		0	0	0	0	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	0.125		0	NR	NR	NR	NR	0
CA HIST Cal-Sites	1.125		0	0	0	3	0	3
CA SCH	0.375		0	0	0	NR	NR	0
CA Toxic Pits	1.125		0	0	0	0	0	0
CA CDL	0.125		0	NR	NR	NR	NR	0
US HIST CDL	0.125		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.375		0	0	0	NR	NR	0
CA HIST UST	0.375		0	0	0	NR	NR	0
CA SWEEPS UST	0.375		0	0	0	NR	NR	0
Local Land Records								
LIENS 2	0.125		0	NR	NR	NR	NR	0
CA LIENS	0.125		0	NR	NR	NR	NR	0
CA DEED	0.625		0	0	0	0	NR	0
Records of Emergency Release Reports								
HMIRS	0.125		0	NR	NR	NR	NR	0
CA CHMIRS	0.125		0	NR	NR	NR	NR	0
CA LDS	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA MCS	0.125		0	NR	NR	NR	NR	0
CA SPILLS 90	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.375		0	0	0	NR	NR	0
DOT OPS	0.125		0	NR	NR	NR	NR	0
DOD	1.125		0	0	1	0	0	1
FUDS	1.125		0	0	0	0	0	0
CONSENT	1.125		0	0	0	0	0	0
ROD	1.125		0	0	1	0	0	1
UMTRA	0.625		0	0	0	0	NR	0
US MINES	0.375		0	0	0	NR	NR	0
TRIS	0.125		0	NR	NR	NR	NR	0
TSCA	0.125		0	NR	NR	NR	NR	0
FTTS	0.125		0	NR	NR	NR	NR	0
HIST FTTS	0.125		0	NR	NR	NR	NR	0
SSTS	0.125		0	NR	NR	NR	NR	0
ICIS	0.125		0	NR	NR	NR	NR	0
PADS	0.125		0	NR	NR	NR	NR	0
MLTS	0.125		0	NR	NR	NR	NR	0
RADINFO	0.125		0	NR	NR	NR	NR	0
FINDS	0.125		0	NR	NR	NR	NR	0
RAATS	0.125		0	NR	NR	NR	NR	0
RMP	0.125		0	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.125		0	0	0	1	0	1
CA UIC	0.125		0	NR	NR	NR	NR	0
CA NPDES	0.125		0	NR	NR	NR	NR	0
CA Cortese	0.625		0	0	0	0	NR	0
CA HIST CORTESE	0.500		0	0	0	NR	NR	0
CA CUPA Listings	0.375		0	0	0	NR	NR	0
NY MANIFEST	0.250		0	0	NR	NR	NR	0
CA Notify 65	1.125		0	0	0	2	0	2
CA DRYCLEANERS	0.375		0	0	0	NR	NR	0
CA WIP	0.375		0	0	0	NR	NR	0
CA ENF	0.125		0	NR	NR	NR	NR	0
CA HAZNET	0.125		0	NR	NR	NR	NR	0
CA EMI	0.125		0	NR	NR	NR	NR	0
INDIAN RESERV	1.125		0	0	0	0	0	0
SCRD DRYCLEANERS	0.625		0	0	0	0	NR	0
CA PROC	0.625		0	0	0	0	NR	0
CA Financial Assurance	0.125		0	NR	NR	NR	NR	0
CA MWMP	0.375		0	0	0	NR	NR	0
CA HWP	1.125		0	0	0	0	0	0
CA HWT	0.375		0	0	0	NR	NR	0
CA WDS	0.125		0	NR	NR	NR	NR	0
US AIRS	0.125		0	NR	NR	NR	NR	0
COAL ASH EPA	0.625		0	0	0	0	NR	0
PCB TRANSFORMER	0.125		0	NR	NR	NR	NR	0
US FIN ASSUR	0.125		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.125		0	NR	NR	NR	NR	0
LEAD SMELTERS	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PRP	0.125		0	NR	NR	NR	NR	0
2020 COR ACTION	0.375		0	0	0	NR	NR	0
COAL ASH DOE	0.125		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.125		0	0	0	0	0	0
EDR US Hist Auto Stat	0.375		0	0	0	NR	NR	0
EDR US Hist Cleaners	0.375		0	0	0	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
CA RGA LF	0.125		0	NR	NR	NR	NR	0
CA RGA LUST	0.125		0	NR	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
DOD **Region** **West** **1/4-1/2** **1431 ft.**	**MARCH AIR FORCE BASE (CLOSED)** **MARCH AIR FORCE BASE (CLO (County), CA**	**DOD**	**CUSA143538** **N/A**

DOD:
Feature 1: Air Force DOD
Feature 2: Not reported
Feature 3: Not reported
URL: Not reported
Name 1: March Air Force Base (Closed)
Name 2: Not reported
Name 3: Not reported
State: CA
DOD Site: Yes
Tile name: CARIVERSIDE

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
NPL **Region** **West** **1/4-1/2** **1426 ft.**	**MARCH AIR FORCE BASE** **22 CSG/CC** **RIVERSIDE, CA 92518**	**NPL** **CERCLIS** **RCRA-LQG** **US ENG CONTROLS** **US INST CONTROL** **ROD** **NY MANIFEST** **PRP**	**1000169261** **CA4570024527**

NPL:
EPA ID: CA4570024527
EPA Region: 09
Federal: Y
Final Date: 1989-11-21 00:00:00

Category Details:
NPL Status: Currently on the Final NPL
Category Description: Depth To Aquifer-> 50 And <= 100 Feet
Category Value: 65

NPL Status: Currently on the Final NPL
Category Description: Distance To Nearest Population-> 0 And <= 1/4 Mile
Category Value: 10

Site Details:
Site Name: MARCH AIR FORCE BASE
Site Status: Final
Site Zip: 92518
Site City: RIVERSIDE
Site State: CA
Federal Site: Yes
Site County: RIVERSIDE
EPA Region: 09
Date Proposed: 07/14/89
Date Deleted: Not reported
Date Finalized: 11/21/89

Substance Details:
NPL Status: Currently on the Final NPL
Substance ID: Not reported

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
	MARCH AIR FORCE BASE (Continued)		**1000169261**

Substance: Not reported
CAS #: Not reported
Pathway: Not reported
Scoring: Not reported

NPL Status: Currently on the Final NPL
Substance ID: A046
Substance: POLYCHLORINATED BIPHENYLS
CAS #: 1336-36-3
Pathway: GROUND WATER PATHWAY
Scoring: 3

NPL Status: Currently on the Final NPL
Substance ID: U210
Substance: TETRACHLOROETHENE
CAS #: 127-18-4
Pathway: GROUND WATER PATHWAY
Scoring: 2

NPL Status: Currently on the Final NPL
Substance ID: U228
Substance: TRICHLOROETHYLENE (TCE)
CAS #: 79-01-6
Pathway: GROUND WATER PATHWAY
Scoring: 2

Summary Details:

Conditions at proposal July 14, 1989): March Air Force Base MAFB) covers approximately 7,000 acres near Riverside in the Moreno Valley in Riverside County, California. MAFB is adjacent to light industrial, agricultural, and residential areas. Established in 1918 as the Alessandro Aviation Field, MAFB has served as a training base and refueling operations base. Industrial operations including aircraft maintenance and repair) involved use of solvents and disposal of solvent wastes. MAFB is participating in the Installation Restoration Program IRP), established in 1978. Under this program, the Department of Defense seeks to identify, investigate, and clean up contamination from ha ardous materials. As part ofIRP, the Air Force investigated 28 potentially contaminated disposal areas. MAFB Well No. 1 on-base was found to be contaminated with trichloroethylene, tetrachloroethylene, and cis-1,2-dichloroethylene at levels that exceed State drinking water standards. It was taken out of service. Soils on the base are contaminated with toluene and ben ene. An estimated 11,600 people obtain drinking water from municipal wells within 3 miles of ha ardous substances on MAFB. The Air Forceis conducting a remedial investigation/ feasibility study RI/FS) to determine the type and extent of contamination at the base and identify alternatives for remedial action. Status November 21, 1989): Field work continues on the RI/FS.

Site Status Details:
NPL Status: Final
Proposed Date: 07/14/1989
Final Date: 11/21/1989
Deleted Date: Not reported

Narratives Details:
NPL Name: MARCH AIR FORCE BASE
City: RIVERSIDE

MARCH AIR FORCE BASE (Continued) **1000169261**

State: CA

CERCLIS:
Site ID: 0902761
EPA ID: CA4570024527
Facility County: RIVERSIDE
Short Name: MARCH AIR FORCE BASE
Congressional District: 41
IFMS ID: 09N6
SMSA Number: 6780
USGC Hydro Unit: 18070202
Federal Facility: Federal Facility
DMNSN Number: 7000.00000
Site Orphan Flag: N
RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 09
Classification: Federal Facility
Site Settings Code: SU
NPL Status: Currently on the Final NPL
DMNSN Unit Code: ACRE
RBRAC Code: Not reported
RResp Fed Agency Code: USAF
Non NPL Status: Not reported
Non NPL Status Date: / /
Site Fips Code: 06065
CC Concurrence Date: / /
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):
Contact ID: 9000102.00000
Contact Name: John Lucey
Contact Tel: (415) 972-3145
Contact Title: Remedial Project Manager (RPM)
Contact Email: Not reported

Contact ID: 13003854.00000
Contact Name: Leslie Ramirez
Contact Tel: (415) 972-3978
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13003858.00000
Contact Name: Sharon Murray
Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000

MARCH AIR FORCE BASE (Continued) **1000169261**

Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

CERCLIS Site Alias Name(s):
Alias ID: 101
Alias Name: MARCH AFB
Alias Address: Not reported
CA
Alias ID: 102
Alias Name: MARCH AIR FORCE BASE
Alias Address: 22 CSG/CC
MARCH AFB, CA 92518
Alias ID: 103
Alias Name: MARCH AIR FORCE BASE
Alias Address: 22 CSG/CC
RIVERSIDE, CA 92518
Alias ID: 9270150
Alias Name: MARCH USAF BASE
Alias Address: OLDB MARCH 3430 BUNDY AVENUE
MARCH AFB, CA 92311
Alias ID: 101
Alias Comments: PREVIOUS EPA ID# AZD 981 416 977
Site Description: March Air Force Base originally a 640 acres site called Alessandro Aviation Field, was officially opened March 1, 1918. The base was initially used to train "Jenny" pilots during World War I. The base was closed for about four years after the war and was then reopened in 1927. By 1938, the base was considered to be the central location for west coast bombing and gunnery training. In 1949, the Strategic Air Command took control of the base. Since that time, the base has hosted bombers, refuelers, and cargo aircraft. In June 1992, the base became an Air Mobility Command installation. Its primary mission is refueling, but reserve and guard units have cargo and fighter missions as well. In September 1993, March AFB was designated by Congress to realign its forces. The Base will be redesignated "March Air Reserve Base" and is xpected to decrease to about 1/3 of its present size. After realignment, property that is not retained by the base will be available for transfer.

The U.S. Air Force, due to its primary mission in national defense, has long been engaged in a wide variety of operations that involve the use, storage, and disposal of hazardous waste. In 1980, the Installation Restoration Program (IRP) was developed by the Department of Defense (DOD) to locate and cleanup hazardous waste sites. At March AFB, aircraft maintenance, fuel storage operations, fire-training exercises, and base operations have generated a variety of hazardous wastes. Consequently, several areas of soil and groundwater on-base have been contaminated. In September 1983 the IRP process began. The results were records indicating 30 potentially contaminated sites which required further investigation. A second study, completed in March 1987, indicated that 5 of the 30 sites required even further investigation to determine the type and extent of contamination in the soil and groundwater. In June 1987, further investigation was done, indicating that additional work was required to better define the extent of contamination and to research possible off-base migration of TCE in groundwater. In November 1989, March AFB was add to the National Priorities List (NPL) primarily due to the contamination of groundwater on-base. In September 1990, a Federal Facilities Agreement (FFA) was signed by the Air Force, U.S. Environmental Protection Agency (EPA), and the State of California. Three separate OUs were created based on geographic location of sites, similarity of contaminants, and

MARCH AIR FORCE BASE (Continued) **1000169261**

location of groundwater contaminant plumes. The subject of this ROD (6/20/96) is OU-1, OU-1 includes Sites 4,5,7,9,10,13,14,15,16,18,29,31,34, and 38. Groundwater at Sites 4, 18,31,and the OU-1 Groundwater Plume, and soil at Sites 4,10,15,18,31, and 34 require remedial action. Sites 5,7,9,13,14,6,29, and 38 are considered no further action. Sites 21 and 23 are covered in OU-2 ROD. Site 33, the Panero Aircraft Fueling System is detailed in OU-3. The following are Sites that require Groundwater remediation: OU 1-Groundwater Plume - The OU-1 Groundwater Plume is the most widespread plume at the base, extending from Site 31 south and east through the area of Sites 34, 9, and 5, and extending to a maximum of approximately 1300 feet beyond the eastern boundary and 1500 feet south of Site 5 off-base. Numerous contaminants, including TCE, were detected. Site 4 Groundwater Plume - This plume is localized in the vicinity of Site 4 with the apparent source area near the southern end of Site 4. The contaminants with the highest concentration are TCE and PCE. Site 18 - Groundwater Plume - This plume is localized in the vicinity of Site 18 with the apparent source area west of the engine test cell in the center of Site 18. Fuel has been detected in four of the ten monitoring wells to date. Site 31 - Groundwater Plume - Concentrations of contaminants at Site 31, primarily TCE, are much higher than those in the rest of the OU-1 Plume, and these high concentrations are confined to a relatively small area. These conditions coupled with the history of Site 31 (reported solvent disposal) indicate that Site 31 is a likely source for much of the TCE found in OU-1 groundwater. Therefore, even though the Site 31 plume has the same contaminants and is continuous with the OU-1 plume, it is appropriate to treat Site 31 separately from the remainder of the OU-1 plume, in order to eliminate the source of contamination. Sites That Require Soil Remediation Include: Site 4 - Landfill No.6 - a landfill operating from 1955 to 1969, covering 8.5 acres, and located along the eastern boundary of the base, south of the East Gate. The landfill is up to 25 feet deep, containing primarily sanitary waste, construction rubble, and debris. Small amounts of medical wastes and empty fuel containers are also present. There are low levels of chlorinated solvents in the soil and soil gas, as well as elevated concentrations of trichloroethylene (TCE) and tetrachloroethylene (PCE) in the groundwater. Both TCE and PCE are found in solvents used to clean and degrease military equipment. Vinyl chloride, a breakdown product of TCE and PCE, has also been detected in Site 4 groundwater. The landfill is considered the source of contaminants detected in groundwater downgradient of the Site. Site 10 - Flightline Drainage Channel - This site, installed prior to 1940, is located southeast of the flightline aircraft maintenance areas. The channel is concrete lined (since the 1960s) up to the eastern boundary of the base where it discharges to the Perris Valley Storm Drain (PVSD). The PVSD flows east approximately 2 miles, where it joins another drainage and flows south approximately 6 miles to the San Jacinto River. The channel has reportedly received various waste oils, hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents, including TCE. Prior to 1974, wastes may have been discharged directly to the PVSD. Since 1974, the main oil/water separator has pretreated the runoff before its discharge off-base. Site 15 - Fire Protection Training Area No.3- This site is located southeast of the end of runway 12-30 and between Sites 5 and 7. The area was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Foam (AFFF), and residual fuel used during training exercises were drained to a formerly unlined water holding pond located adjacent to Site 15. Approximately 6,000 gallons per year of contaminated JP-4 have been burned in training exercises since the facility was constructed in 1978. This Site is no longer being used as a fire training area. Site 18 - Engine Test Cell - This site is located on the flightline,

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south of Taxiway No.2, and has been inactive for several years. The test cell was constructed in 1957 for the purpose of testing aircraft engines. An oil/water separator was installed in 1976, water from the seperator was discharged to the base wastewater treatment plant. The oil was collected by a contractor for off-base disposal. Prior to 1976, spills of oil, fuel, and solvents were drained to a nearby ditch. Potential sources of fuel include overflow of tanker trucks and fuel tanks on aircraft that have been parked nearby. Site 31 - Unconfirmed Solvent Disposal - Site 31 is located off Graeber Street on the east side of Building 1211. The practice of discharging solvents on the ground reportedly occurred from about the mid-1950s to the mid-1970s. In addition, floor drains from maintenance shops may have leaked solvents to the subsurface. Groundwater sampling at the site has indicated TCE concentrations which exceed State and Federal drinking water standards. Site 34 - Pritchard Aircraft Fueling System - Site 34 is located next to Building 1245, at the southeast end of Taxiway No, 1. In 1962, six 50,000 gallon tanks were moved to this site from the Pabero Fueling System. In 1990, this system was discontinued, and in 1991, the tanks and system were removed. During a geological investigation stained soils and fuel odors were observed. Sites With No Further Action Planned: Site 5 - Landfill No.3 - This Site covers approximately 5 acres and is located southeast of the present flightline. The landfill was reportedly operated from the late 1940s to approximately 1960. Landfill wastes consist primarily of sanitary waste and construction rubble.

Site 7 - Fire Training Area No.2 - This Site is located on the eastern part of the base, north of the Alert Facility. Between 1954 and 1978, fire training exercises were conducted in unlined training pits. Three distinct burn pits were identified in historic aerial photographs of the base. A portion of this Site may have been used for crash rescue training. Wastes used in those exercises reportedly included contaminated fuel, waste solids, and spent solvents. Site 9 - Main Oil/Water Separator - Site 9 is located north of the Site 5 at the southeast end of the flightline apron. The facility was constructed in 1974 and serves the main storm, drainage system for the flightline apron and the flightline shops. The storm drains have reportedly received waste oils, hydraulic fluids, diesel fuel, waste paints, spent solvents, paint strippers, paint thinners, and battery acids. The oil/water separator is of earthen construction with a large baffle that divides the separator into two compartments. The separated oil is picked up by a skimmer and pumped to a holding tank for Off-base disposal. This facility drains into the flightline Drainage Channel (Site 10) and then to the Perris Valley Storm Drain Lateral A. Site 13 - Tank Truck Spill Site - Site 13 is located along the eastern perimeter road of the base, within the northern portion of Site 5. In 1973, approximately 5,000 gallons of JP-4 jet fuel spilled from a tank truck to the ground at this location. The accidental discharge resulted from a mechanical malfunction. There was no reported containment or cleanup activities. Site 14 - Liquid Fuel Pump Station Overflow - Site 14 is located southeast of the flightline apron and about 50 to100 feet west of the East March Sludge Drying Beds (Site 16). In 1973, approximately 1,000 gallons of JP-4 jet fuel spilled onto the ground. The spill occurred due to an overflow of the liquid fuel pump station at Building 1245. The spill was contained in the unpaved area south of the pump station and allowed to percolate into the ground. Site 16 - East March Sludge Drying Beds - Site 16 is located on the eastern part of the base, at the south end of the flight line parking apron, and near the former East March Wastewater Treatment Plant. The treatment plant was constructed in 1938 and provided secondary treatment for sanitary and industrial wasterwater. Primary and secondary sludges were digested anaerobically, dewatered on unlined sludge drying beds, and disposed of in an on-base landfill. The sludge may have contained heavy metals and organics resulting from discharges of industrial wastes to the sanitary sewer system.

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These drying beds ope3rated from 1938 to 1977, when the plant was destroyed in place. Site 29 - Fire Training Area No.1 - Site 29 is located at the eastern part of the base, north of Site 9. The area was used as a fire training pit prior to 1951. Suspected contaminants at the site include contaminated fuel, waste oil, and spent solvents Site 38 (PCB Contamination, Building 1311), Building 1311 is located at the southeast end of the taxiway, northwest of IRP Site 23. In 1984, soils from four areas contaminated with transformer oils were sampled. Soils from two of the areas (Buildings 317 and 1305) were determined to be PCB-contaminated. The soils were excavated and removed from the Base. Records to verify the cleanup have not been located. The RI/FS report and Proposed Plan for OU-1 were released to the public on April 28, 1994. These two documents were made available via the Administrative Record, the information repositories at the Moreno Valley and March AFB libraries, and at the Moreno Valley Chamber of Commerce. A fact sheet, condensed from the Proposed Plan, was sent to everyone on the March AFB mailing list, which includes Restoration Advisory Board (RAB) members. An OU-1 RI/FS subcommittee, formed by the RAB, provided oral comments to the RAB at its April 26, 1994 meeting. The Final RI/FS Report was published in July 1994. A public comment period was held from April 28 to May 28, 1994. In addition, a public meeting was held on May 12, 1994 at 7 p.m. at Best Western Image Suites in Moreno Valley. Representatives of the U.S. Air Force, EPA, Department of Toxic Substances Control, and California Regional Water Quality Control Board, Santa Ana, attended the public meeting to address any questions about the RI/FS and Proposed Plan. March Air Force Base (AFB) is located on 7,123 Acres in the northern end of the Perris Valley, east of the city of Riverside, in Riverside County, California, approximately 60 miles east of Los Angeles and 90 miles north of San Diego. The base lies in sections of Township 3 South, Range 4 West. The population of Riverside County is 1,700,413 and consists primarily of English and Spanish speaking citizens. The climate of the March AFB area is characterized as Mediterranean to semi-arid, varying according to elevation and distance from the Pacific Ocean. The weather generally consists of warm to hot, dry summers and mild winters. Current land use on March AFB is classified as residential and light industrial. Maintenance facilities, warehouses, and administrative centers support the mission. The land surrounding March AFB area includes areas of residences in all directions around the Site, light industry to the north, and agriculture to the east and south. With the exception of small surface water ponds that are used for agricultural purposes, there are two permanent surface water bodies within 3.5 miles of March AFB. Lake Perris, located 4 miles southeast of the base, provides approximately 130,000 acre feet of storage for State Project Water brought in by the California Aqueduct which runs north and east of the base. An east-west portion of the Colorado River Aqueduct is located approximately 3.5 miles south of the base. This aqueduct flows in to Lake Matthews, which is located about 10 miles west of March AFB. A very small recreation lake is located approximately 2 miles east of the base. It is maintained by the Moreno Valley Ranch homeowners association and is located just south of Iris Street and west of Lasselle Street in the City of Moreno Valley. A number of wetlands and riparian areas have been identified on and in the immediate area of the base, most are located on West March, outside OU-1. The U.S. Army Corps of Engineers determined that approximately 2.17 acres of jurisdictional wetlands exist in the Heacock Drain Channel, with .8 acres of wetlands adjacent to the Site 4 landfill. The wetlands are not continuous but are localized patches of wetland vegetation that change position each year due to high volume, high velocity storm water flow from the spring rains through these channels which causes scouring of the earthen bottom and sides. Manyindustrial, agricultural and domestic wells exist in the Perris Valley. Four on-base wells and two off-site wells southeast of the base were

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formerly used for the base water supply. One of these wells was shut down in February 1984 due to trichloroethylene (TCE) contamination, the other 3 on-base wells were shut down due to low yields. The two off-site wells are located southeast of the base in the center of Perris Valley. Although both of these wells are operable only one is occasionally used for emergency service, while the other is dormant. All base water is currently supplied by the Eastern Municipal Water District. OU-1 is made up of Sites 4,5,7,9,10,13,14,15,16,18,29,31,34, and 38. Sites 21 and 23 are included in the OU-2 ROD. Site 10 (Flightline Drainage Channel). This site is located southeast of the flightline aircraft maintenance areas. The drainage channel, which was installed prior to 1940, has reportedly received various waste oils, hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents (including TCE). The drainage channel is concrete lined (since the 1960s) up to the eastern boundary of the base where it discharges to the Penis Valley Storm Drain. The Penis Valley Storm Drain flows east approximately 2 miles, where joins another drainage and flows south approximately 6 miles to the San Jacinto River. Prior to 1974, waste disposed of in the drainage channel may have been discharged directly to the Penis Valley Storm Drain. Since 1974, the main oil/water separator (Site 9) has pretreated the runoff before its discharge off base. Primary contaminants of concern are polycyclic aromatic hydrocarbons (PAHs), which were detected in drainage ditch sediments. PAHs are a series of petroleum derivatives found in many fuel and asphalt compounds. Site 15 (Fire Protection Training Area Number 3). This site is located southeast of runway 12-30 and between Sites 5 and 7. The area was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Foam (AFFF), and residual fuel used during training exercises were drained to a formerly unlined water holding pond located adjacent to Site 15. Approximately 6,000 gallons per year of contaminated JP-4 have been burned in framing exercises since the facility was constructed in 1978. The site is no longer being used as a fire training area. The primary contaminant of concern is phenanthrene, a PAH. Selected Remedy (as described in the OU 1 ROD): For both Sites 10 and 15, the preferred method of cleanup of these soils is excavation and low-temperature thermal desorption. Need for Explanation of Significant Differences (ESD): The Record of Decision (ROD) selected remedy for soils at Sites 10 and 15 was excavation and low temperature thermal desorption. The soils were excavated and treated by bio-remediation and properly recycled to approved regulatory standards. This ESD will be entered in the Administrative Record maintained at March AFB. An Explanation of Significant Differences for Operable Unit 01 for the March Air Force Base Site was completed in August 2000. Sites that require soil remediation include Sites 4, 10, 15, 18, 31, 34. Sites that require groundwater remediation include OU1 and Sites 4,18, and 31 groundwater plumes. Sites with No Further Action Planned: Site 5,7,9,13,14,16,29,38.

OU 2: In 1980, the Installation Restoration Program (IRP) was developed by the Department of Defense as the mechanism for the CERCLA process, incorporating applicable Resource Conservation Recovery Act (RCRA) regulations as well as meeting requirements of the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) (40 CFR. Part 300). The Air Force conducted a Phase I records search of 30 potentially contaminated IRP sites on the Base. There are now a total of 44 IRP sites at the former March AFB and current March ARB. The primary contaminants identified in the IRP include chlorinated solvents, fuels, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs). Contamination by PAHs and PCBs appears to be restricted to surface and near-surface soils whereas fuel hydrocarbons and solvents tend to be predominant contaminants in subsurface soils and groundwater. The lead agency for cleanup of the closed portions of March AFB is the Air Force. The

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EPA, the California Department of Toxic Substances Control (DTSC), and the Santa Ana Regional Water Quality Control Board (RWQCB) are all support agencies for cleanup activities at the Base. The current land use and adjacent land use for most of the OU 2 Air Force Real Property Agency (AFRPA) sites is vacant land/open space with limited commercial and residential land use adjacent to some of the sites. Site 3 and the adjacent areas are undeveloped land. Site 6 contains an engineered waste cell. There is a residential area to the south and a golf course is to the east of Site 6. Site 12 was the former civil engineering yard with numerous structures. Site 12 is not currently utilized. Residential land use occurs to the east of Site 17. Air Force commercial facilities such as offices are located to the north and west of the Site 17. Site 19 is currently a part of the operating wastewater treatment plant. Structures relating to plant operations are located on-site and to the west and north. Site 20 and 26 and the adjacent areas are undeveloped land. A former water treatment plant is south of Site 26 and west of Site 20. This facility is no longer used. Site 23 is an active agricultural area, surrounded by currently vacant land to the north, south and east. Air Force land consisting of open space is west of Site 23. Site 25 and the adjacent areas is undeveloped land, with nearby residential development to the south. The three Site 35 subareas and Site 42 are former UST locations within landscaped areas adjacent to structures. The areas near Site 35a, 35b and Site 42 are still actively used as office and dormitory areas, but the Site 35c area is no longer used. Sites 30 and 40 are open space with some riparian vegetation. A residential area is located to the north and west of Site 40. The OU 2 sites are located on that portion of March AFB that may be converted to non-Air Force use. Site 23 is on private land. The anticipated land use for most of the OU 2 Air Force Real Property Agency (AFRPA) sites is commercial or industrial use. Alternative land uses have also been assessed and areas of West March could remain open space such as the Stephens’ Kangaroo Rat (SKR) Conservation Area. March AFB is located in the North Perris Groundwater Basin. Currently, there are no potable groundwater resources extracted at the OU 2 AFRPA sites. The relatively thin water-bearing zone on West March is not anticipated to yield substantial quantities of water. Therefore, the potential for extraction and use of groundwater from the West March AFRPA sites is limited, both now and in the foreseeable future. Water-bearing zones producing sufficient groundwater for use may be present at AFRPA sites on the Main Base and Site 23, and should be considered a potential potable water source. Surface water is not currently used at the OU 2 AFRPA sites. Surface water areas such as at Site 6, 30 and 40 may remain as wetlands depending on future site development. OU2 consists of a number of sites. Each site is described below. Site 3 is a former 23-acre landfill located south of Cactus Avenue and west of Plummer Road. Riparian vegetation is found in the drainage areas. Site 3 is located in the 1,300-acre Stephens’ Kangaroo Rat (SKR) reserve. The Site 3 landfill was used from 1954 through 1974. The landfill received household and dumpster waste, construction debris, and military waste from the Base. The military wastes included empty tanks, spent munitions, and miscellaneous wastes such as parachutes, medical waste, and fire hoses. Some of the contaminants found in the wastes included volatile organic compounds, pesticides, PCBs, PAHs, and munitions residues. The Air Force was concerned that the waste in the landfill might contaminate the soil and groundwater. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the landfilled waste. An interim removal action was completed in late 1995 and early 1996. Approximately 223,200 cubic yards of landfilled materials and soil were removed. Excavated materials from Site 3 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 6 is located on West March,

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north of the Air Force Village West residential development, south of Van Buren Boulevard, east of Plummer Road, and west of Air Force Village West Drive. The landfill comprised three discrete areas: Site 6a (approximately 15 acres) the location of the main former landfill area; Site 6b Quarry (approximately 0.6 acre) the location of a former quarry; and Site 6b Pond (approximately 2.6 acres) the location of a pond. Site 6 was used by March AFB from the early 1950s to the early 1 980s for disposal of household waste and construction debris. Polynuclear aromatic hydrocarbons (PAHs), PCBs, pesticides, herbicides, and dioxins were found in samples of soil and water collected during the OU2 RI. An interim, removal action was conducted in 1995; approximately 63,000 cubic yards of waste were removed from Site 6a and temporarily stockpiled. Waste at Site 6a was removed from the vadose zone and beneath groundwater including soil contaminated with petroleum hydrocarbons. Waste was also removed from the pond, including debris and tar. Two engineered waste cells, over 12 acres in size, were constructed in the Site 6a area. No confirmation samples were taken of soils and bedrock under Site 6a because the bottom of the excavation was below the water table and sample results would not be meaningful. This site was treated as a closure in place rather than a clean closure. Stockpiled waste from Site 6a was landfilled back into the engineered waste cells over Site 6a. Excavated materials from Site 6a to be disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 12, the 20-acre Base Civil Engineering Yard, is located north of MacDill Street, between Lackland Avenue and Travis Avenue. The area is developed with numerous structures and is partially paved with asphalt. From the l950’s to 1996, Site 12 was the civil engineering yard for general maintenance operations for March AFB. It included a carpentry shop, electrical shop, paint shop, pesticide shop, and storage areas for heavy equipment. These shops used and stored a variety of hazardous materials including paints and paint-related products, pesticides, solvents, acids, and drums labeled hazardous waste. During the OU2 RI, PAHs and hexavalent chromium were found in soil samples. The contaminant 1,1-dichloroethene (1, 1-DCE) was found in soil vapor samples in a small area in deeper soils near Building 2507. Groundwater beneath Site 12 has become impacted by trichloroethene (TCE) and tetrachloroethene (PCE). The groundwater contamination is in a small area and is only slightly above maximum contaminant levels (MCLs). Periodic monitoring of the groundwater to observe changes in contaminant concentrations is being conducted. After discussions with the regulatory agencies and the public, a limited interim removal action was taken in 1996 to ensure that the site could be used for industrial purposes by removing soils contaminated with PAHs and hexavalent chromium at the northwest portion of Site 12. Approximately 2,000 cubic yards of non-hazardous contaminated soil was excavated from a small area in the northwest portion of the site and placed in the engineered waste cells at Site 6. Excavated materials from Site 12 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and prior to excavation activities for the removal action according to approved work plans. Site 17 is a former Base swimming pool located on the Main Base on U Street between DeKay and K Streets. The area is vacant land, adjoining Base housing to the east and south. The former swimming pool at Site 17 was closed in the 1 970s. After it was closed, the pool was used as a disposal site and the wastes were covered with soil. After discussions with the regulatory agencies and the public, a decision was made to clean the site by removing the waste. The pool and its contents were removed during a 1994 interim removal action. The wastes were taken off the Base for disposal. After the interim removal action, low levels of PCBs were still detected in soils at least 8 feet beneath the ground surface. The pool

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excavation was filled with clean soil, leaving the PCBs in place. No PCB contamination has been found in the groundwater and the PCBs are not expected to migrate to groundwater. Confirmation sampling conducted after the interim removal action demonstrated that PCBs remain at the site at levels of concern to human health Site 19 is about 7 acres in size, located at the southern end of West March, east of the active wastewater treatment plant. The site is generally vacant land with four concrete lined drying beds in the western portion of the site. Site 19 contains the four active lined sludge-drying beds and three inactive, unlined sludge-drying beds associated with the wastewater treatment plant. The plant was constructed in 1941 and used to process the wastewater from Camp Haan and March AFB. A total of 10 sludge-drying beds have historically been used at the site. Three of these beds have been backfilled. In 1990 when the plant was upgraded, four lined drying beds were constructed at the location of previously unlined beds. In the past, wastewater treatment sludge was spread out in the unlined drying beds to dry. When dry, the sludge was removed from the drying beds. Recently, the dried sludge has been removed from the Base for disposal. Past disposal practices are unknown. PAHs, PCBs, hexavalent chromium, and thallium were found in soil samples in the area of the unlined sludge beds at levels above residential PRGs. Site 20 is located adjacent to the southwest portion of March AFB, on the property acquired by the Department of Veterans Affairs from the Air Force in the 1970s. Site 20 is a former landfill about 7 acres in size used between 1958 and 1965 as a disposal site for household waste and construction debris. Some of the chemicals found in the soils at Site 20 included PAHs, dieldrin, PCBs, and 1 ,4-dichlorobenzene. The Air Force was concerned the waste in the landfill could contaminate soil and groundwater. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the landfilled waste. The interim removal action at Site 20 was conducted in conjunction with the removal of dried sludge at Site 26a and 26b Dried sludge of Site 26b covered a portion of Site 20. Approximately 116,000 cubic yards of non-hazardous soil, debris, and dried sludge were removed from Sites 20 and 26 in 1996 and placed in the engineered waste cells at Site. Excavated materials from Site 20 to be transported to and disposed of in he engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans According to the As-Built Construction Report OU2, Site 6a, all materials from Site 20 placed in the Site 6 engineered waste cells met the requirements of CCR Title 23, Section 2523 (currently CCR Title 27, Section 20220) for a non-hazardous solid waste landfill. After the waste was removed from Site 20, confirmation samples from beneath the former landfill were tested. The results confirmed that the site had been cleaned to levels protective of human health and the environment. No restriction on future use of the land is required. Site 22 is a suspected former landfill east of and adjacent to Interstate 215. The original 7-acre area of Site 22 was expanded to 15 acres by extending the northern site boundary to ensure all potential areas of concern were investigated. The location of the landfill was based on limited evidence. Investigations could not locate any landfllled materials or debris. Geophysical surveys were used to fmd buried metal or disturbed soils. Soil gas sampling was also conducted at this site. Finally, soil and groundwater were sampled. No contaminants were found in any of the samples and the geophysical surveys found no buried waste. This evidence showed that a landfill did not exist in this area. This site was investigated during the OU2 remedial investigation and levels of contamination requiring remedial action were not identified. There was no risk assessment completed on Site 22 because no contaminants were found and the site poses no risk to human health or the environment. No restriction on future use of the land is required. Site 23 is located off-Base to the east, near the intersection of Nandina Avenue

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andHeacock Street in the City of Moreno Valley. Between 1938 and 1977, Site 23 was a 1-acre holding pond for wastewater that had been treated and used for irrigation of agricultural crops. In 1991, the pond was filled in, and it and the surrounding areas were leveled. The land is now used as a commercial sod farm and irrigated with reclaimed water from the Moreno Valley wastewater treatment plant. This site was investigated during the OU1 remedial investigation and no contamination requiring remedial action was identified. There was no risk assessment completed on Site 23 because no contaminants were found and the site poses no risk to human health or the environment. No restriction on future use of the land is required. Site 24 is a former 3-acre landfill, west of Site 19. Site 24 was reportedly used between 1941 and 1965 to dispose of household waste and military waste. A small amount of soil from bullet backstop berms may have been placed in the landfill as well as some ash from an incinerator. Some of the contaminants found in the waste included PAHs, PCBs, antimony, barium, and cadmium. The Air Force was concerned that the waste in the landfill could contaminate groundwater. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the landfilled waste. In December 1996, approximately 19,300 cubic yards of non-hazardous, landfilled waste was removed and placed in the engineered waste cells at Site 6. Excavated materials from Site 24 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 25 covers approximately 33 acres and is located south of Cactus Avenue. Site 25 was used in the past for open air detonation and burning of munitions. Three areas with shallow trenches were used to bury munitions residue after destruction. Some of the contaminants found in the soils at this site included nickel, l,3,5-trinitrobenzene, nitroglycerin, benzo(a)pyrene, and RDX, all of which are munition residues. Additionally, 1,1 -dichloroethene was also found. The Air Force was concerned that the contaminants in soil would cause groundwater contamination. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the debris and contaminated soils. Approximately 3,000 cubic yards of non-hazardous waste from the trenches and contaminated soils were removed and disposed of in the engineered waste cells at Site 6. Excavated materials from Site 25 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents at a rate of about 1 sample for every 200 cubic yards of excavated materials during the removal action. Testing was also performed as part of the remedial investigation. Site 26 covers approximately 3 acres and is located in the southwest portion of March AFB. Site 26 is subdivided into two areas, Site 26a and 26b. Site 26b is located over a portion of the Site 20 landfill. Site 26a is located on property controlled by the AFRPA and Site 26b is on the property of the Department of Veterans Affairs. Site 26 was used for disposal of lime sludge that was a waste from the treatment of drinking water for March AFB. From 1941 to 1984, the water treatment plant treated Colorado River water used to supplement the drinking water supply for the Base. Arsenic from the treated Colorado River water was found in the lime sludge at low levels. After discussions with the regulatory agencies and the public, a decision was made to clean up the site by removing the sludge. As mentioned in the description of the landfill at Site 20, approximately 116,000 cubic yards of non-hazardous soil and dried sludge were removed from Sites 20 and 26 in 1996 and disposed of in the engineered waste cells at Site 6. Excavated materials from Site 26 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents during the remedial investigation and monitored during the removal action according to approved work plans. Site 30 covered approximately 40 acres, south of Alessandro Boulevard and west of Interstate

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215. Site 30 is located in the 1,300 acre SKR reserve. There is no evidence that Site 30 ever operated as a March AFB-controlled landfill, but illegal dumping of domestic waste from the surrounding community has occurred and some minor amounts of construction debris were found. Soil and groundwater samples taken at the site did not detect contaminants at levels not protective of human health. After discussions with the regulators and the public, a decision was made to clean up the site by removing the domestic and construction debris. Domestic and construction debris was, removed from the site in April 1997 and disposed of off the Base. The Air Force has installed gates on access roads to prevent vehicular traffic to the site. Warning signs were placed in several areas, and gates remain padlocked to help prevent access by unauthorized persons. Site 35 consisted of three subareas (Sites 35a, 35b, and 35c) located in the former 15th Air Force Headquarter complex on West March. The subareas were locations of former underground storage tanks (USTs) associated with. Buildings 3409 (Site 35a), 3417/34 18 (Site 35b), and 3406 (Site 35c). Site 35a, a former 8,000-gallon fuel oil tank, was located west of Allen Avenue and south of 11th street, east of Building 3409. Site 35b, two former diesel tanks of 6,650-gallon and 3,500-gallon, was located between Building 3417 and 3418, west of Allen Avenue and Bundy Avenue. Site 35c, a former 1,000-gallon diesel tank, was located north of 5th Street and west of Dalla Avenue, east of Building 3406. All tanks have been removed and the locations closed without restrictions in accordance with state and county regulations. Fuel leaks have been associated with the tanks at Site 35. Sites 35a and 35b were investigated during the OU2 remedial investigation and other studies and levels of contamination requiring remedial action were not identified. After discussions with the regulatory agencies, the Air Force decided to clean up the soil by bioventing at Site 35c where fuel had leaked. Bioventing has reduced diesel fuel contamination to levels protective of human health and the environment at Site 35c. No restriction on future use of the land is required.

Site 40 covers approximately 49 acres on West March, north of Van Buren Boulevard and west of Plummer Road. The most prominent feature at the site is the abandoned quarry, containing a pond with riparian vegetation. The pond is replenished by groundwater and by surface flow from an intermittent stream channel entering the pond from the west. Site 40 is located in the 1,300 acre SKR reserve. Site 40 was used as a disposal location for drums, construction debris, battery casings, and motor vehicle parts. After discussions with the regulatory agencies, a decision was made to complete an expedited cleanup of the area exposed by the erosion and other debris at the site. The time-critical removal action completed in 1994 included removal of the drums, miscellaneous waste, and contaminated soil. Hazardous waste from the site was taken off the Base for proper disposal. Approximately 6,800 cubic, yards of non-hazardous materials were disposed of at the Site 6 engineered waste cells. Excavated materials from Site 40 to be transported to and disposed of in the engineered waste cells at Site 6 were tested for organic and inorganic constituents at a rate of about one sample for every 100 cubic yards of excavated materials during the removal action. Testing was also performed as part of the remedial investigation. Building 3404 is located on less than one acre near the intersections of 1 1th Street and Davis Avenue on West March. Transformers located in Building 3404 reportedly leaked oils containing PCBs onto the floor of the transformer room. These oils were also spilled onto the soil surrounding the building. After discussions with the regulatory agencies and the public, a decision was made to clean up the area outside of Building 3404 by removing the contaminated soil. In the interim removal action, the contaminated soils were excavated and taken offsite for proper disposal. A total of 330 tons of contaminated soils were removed from the site. The PCB concentrations were low enough to allow disposal of 292 tons of contaminated soils as non-hazardous waste. An additional 38 tons was disposed of off the Base as hazardous waste.

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Clean fill was placed in the excavation to grade and a gravel cover was placed on top of the previously excavated area. Confirmation sampling conducted after the interim removal action confirmed that the site had been cleaned to levels protective of human health and the environment. No restriction on future use of the land is required. Transformer oils may be present in the concrete floor of Building 3404. The Air Force attempted to remove the PCBs from the concrete. Minimal levels of PCBs were left and have been encapsulated. The concrete is not addressed in this AFRPA OU2 ROD because building interiors are not regulated under CERCLA. The current landowner, the County of Riverside, has entered into a land use covenant with the State that restricts use of the building to industrial activities and contains other measures to prevent exposure to residual contamination. The current land use and adjacent land use for most of the OU2 AFRPA sites is vacant land/open space with limited commercial and residential land use adjacent to some of the sites as discussed below. Site 3 and the adjacent areas are undeveloped land. Site 6 contains an engineered waste cell. There is a residential area to the south and a golf course is to the east of Site 6. Site 12 was the former civil engineering yard with numerous structures. Site 12 is not currently utilized. Residential land use occurs to the east of Site 17. Air Force commercial facilities such as offices are located to the north and west of the Site 17. Site 19 is currently a part of the operating wastewater treatment plant. Structures relating to plant operations are located on-site and to the west and north. Site 20 and 26 and the adjacent areas are undeveloped land. A former water treatment plant is south of Site 26 and west of Site 20. This facility is no longer used. Site 23 is an active agricultural area, surrounded by currently vacant land to the north, south and east. Air Force land consisting of open space is west of Site 23. Site 25 and the adjacent areas is undeveloped land, with nearby residential development to the south. The three Site 35 subareas and Site 42 are former UST locations within landscaped areas adjacent to structures. The areas near Site 35a, 35b and Site 42 are still actively used as office and dormitory areas, but the Site 35c area is no longer used. Sites 30 and 40 are open space with some riparian vegetation. A residential area is located to the north and west of Site 40. The OU2 sites other than site 23 discussed in this AFRPA OU2 ROD are located on that portion of March AFB that may be converted to non-Air Force use. Site 23 is on private land. The anticipated land use for most of the OU2 AFRPA sites is commercial or industrial use. Alternative land uses have also been assessed and areas of West March could remain open space such as the SKR Conservation Area. March AFB is located in the North Perris Groundwater Basin. Currently, there are no potable groundwater resources extracted at the OU2 AFRPA sites. The relatively thin water-bearing zone on West March is not anticipated to yield substantial quantities of water. Therefore, the potential for extraction and use of groundwater from the West March AFRPA sites is limited, both now and in the foreseeable future. Water-bearing zones producing sufficient groundwater for use may be present at AFRPA sites on the Main Base and Site 23, and should be considered a potential potable water source. Surface water is not currently used at the OU2 AFRPA sites. Surface water areas such as at Site 6, 30 and 40 may remain as wetlands depending on future site development. A Record of Decision (ROD) for OU2 was completed May 11, 2004. A ROD addressing OU2 was completed in September 2005. Operable Unit (OU) 4: A total of three IRP sites (IRP Sites 21, 41, and 44), three AOCs (Water Tower 3410, Water Tank 6601, and the former Base Hospital and Dental Clinic), and one RFA site (Site L) are addressed in this OU4. Site 21 is off base approximately 1.5 miles south of the southern extension of the active March ARB runway. Although never physically part of March AFB, the site is considered to be part of the former base for purposes of the IRP because treated wastewater produced on base was held in this off-base pond. John Cordures, property owner until his death, used the water for irrigation of

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surrounding agricultural land from 1941 to 1946 and again from 1955 to 1984. The estate was sold to Ross Department Stores in 2001. The site is near the intersection of Morgan Street and Webster Avenue, in the City of Perris. Site 21 encompasses 1.5 acres and is part of a landscaped berm and below-grade parking area for warehouse trucks associated with a Ross warehouse distribution facility. The general surface-water drainage in the area is to the east following the gently sloping terrain (surface gradient at the site is approximately 20 to 40 feet per mile). Bedrock was not encountered during the investigation phases at Site 21. Groundwater at Site 21 is at a depth of more than 150 feet below ground surface (bgs) and the general groundwater flow direction is to the south and southeast. Site 21 was used from 1941 to 1946, and again from 1955 to 1984, to hold treated wastewater from the base. Sanitary and industrial wastewater received primary and secondary treatment on the base prior to discharge into this holding pond. The treated effluent was held in the pond and used for irrigation of the surrounding agricultural land. The boundaries of the effluent pond were physically well defined by the pond’s berm during the 1993 OU1 Remedial Investigation/Feasibility Study (RI/FS). At that time the site covered an area of approximately 2.2 acres and was being used by private parties as an illegal dump. In approximately 1998, the berm was removed, and the site was incorporated into the surrounding sod farm. In 2001, the land was sold and the former pond area now consists of a landscaped berm on the west side of the site and a truck parking area that lies approximately 8 feet below grade on the east side. Based on historic use, the primary contaminants of concern at Site 21 include metals, volatile organic compounds (VOCs), and pesticides. Site 21 is part of a Ross warehouse distribution facility in the city of Perris. Adjacent and surrounding land uses consist of commercial/industrial development, and some land is in agricultural production. Although much of the surrounding property is currently agriculture, other properties are zoned for light industrial/commercial. As development occurs, agriculture zoning will likely change to general industrial. Site 41 is approximately 1 mile south of State Highway 58 and 11 miles east of Kramer Junction (the intersection of U.S. Highway 395 and State Highway 58) in San Bernardino County, California. Structures currently remaining at the site include a concrete bunker no longer in use. The general surface water drainage is to the northeast following the very gently sloping terrain (surface gradient at the site is approximately 20 to 40 feet per mile). Depth to beneficial groundwater is approximately 300 feet bgs. However, perched zone water is found between 100 and 150 feet bgs at nearby sites. A regional hardpan soil, approximately 3 to 4 feet thick at a depth of approximately 34 feet bgs, is reported in the area. The Air Force obtained right of entry for an approximate 315-acre parcel from the Bureau of Land Management (BLM) in the late 1950s for construction and operation of a radio relay station for use by George AFB. The parcel was transferred to Edwards AFB in 1963 and to March AFB in February 1968. The Radio Relay Annex was declared excess and was scheduled for deactivation in October 1968. The station facilities included a septic system, storage tanks for water and petroleum products, 4 miles of runway, a radio tower, a water well, an aboveground bunker, and several support buildings. The Air Force closed the station in the mid-1980s. Investigations and cleanup actions were conducted between February 1995 and May 1996 and included identification and removal of asbestos-containing material and lead-based paint, destruction of the water-supply well, removal of underground storage tanks (USTs) (oil, water, and septic) and contaminated soil, and confirmation sampling. Small amounts of diesel fuel leaked from the USTs. Based on historic use, the primary contaminant of concern at the site is total petroleum hydrocarbons (TPH) diesel fuel. Site 41 is in a remote area of the Mojave Desert. The Hawes site extends across 315 acres of desert land. The site is in the process of being transferred from the DOD back to the BLM, and the

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site will likely remain vacant due to its remote location and reversion to BLM control. Site 44 is in the central portion of the March ARB, east of the intersection of Graeber Street and Meyer Drive. Site 44 includes a 110-foot-tall, 200,000-gallon water tower, two large water storage tanks, and several buildings used by March ARB water system maintenance personnel. The area is characterized by relatively flat topography. A concrete-lined drainage ditch, just north of the site, flows eastward to the Heacock Storm Drain that drains south along the eastern perimeter of the former base. Groundwater at Site 44 is estimated to be approximately 30 feet bgs. Groundwater flow direction in this area is generally to the south and southeast. The water tower at Site 44 utilized a valve controller with a 6-inch mercury pot for water flow control. Past spills from the mercury pot caused mercury contamination of soils beneath and surrounding the valve controller. The flow controller at the water tower was in a subsurface valve box, 12 feet below grade. During a construction project to place a concrete floor in the below-grade box, approximately 80 cubic feet of soil were removed and stockpiled south and east of the valve box. In November 1995, the Air Force contracted to characterize the valve box and surrounding area for elemental mercury contamination. Based on the results of initial investigations at Site 44, the Air Force initiated a removal action. Soil was excavated in several discrete areas around the water tower. The primary soil removal areas were the valve box and surface soils in areas adjacent to the borings that identified "hot spots" of contamination. The excavated soil was segregated and packaged for off-site disposal. Once excavation of the valve pit was completed, the site was restored by filling the excavated area with sand to approximately 3 feet below the valve. A 6-inch-thick concrete floor was installed in the bottom of the valve pit. Land uses on adjacent and surrounding properties are exclusively industrial and commercial. As Site 44 will remain Air Force property, Site 44 is expected to stay industrial/commercial in the foreseeable future. Water Tower 3410 is an aboveground water storage tank on Former March AFB at the intersection of Plummer Road and 11th Street. Water Tower 3410 is in an area characterized by relatively flat topography, with a gentle slope to the east/northeast. No surface water bodies or major surface water drainages are associated with the site. Groundwater levels underlying Water Tower 3410 are between approximately 33 and 48 feet bgs. The groundwater flow direction is to the east. Although Water Tower 3410 was not specifically included in the Basewide RI/FS Work Plan, due to the presence of mercury pot water flow controllers at other March water storage facilities and the similarity of Water Tower 3410 with Water Tower 407 (Site 44), it was suspected that Water Tower 3410 might also have mercury-contaminated soils. March ARB Department of Public Works was contacted to determine if a mercury vault ever existed at the site. Interviews with Department personnel indicated that the building never contained a mercury vault. The only mercury controls at Water Tower 3410 are those that control associated pumps. Four aboveground controls are attached to the water tower rather than in a vault and contain only small amounts of elemental mercury. Water Tower 3410 is in an area characterized by industrial/commercial land use intermixed with vacant parcels. Adjacent and surrounding land use is also a mix of industrial/commercial use and vacant parcels. March Joint Powers Authority (MJPA) plans for the area, including Water Tower 3410, are for an industrial/business park. Water Tank 6601 is an aboveground storage tank north of Van Buren Boulevard and west of Plummer Road, west of 1-215. Water Tank 6601 is at an elevation of approximately 1,660 feet above mean sea level. The site is characterized by highly dissected upland topography and consists of highly eroded gullies and exposures of weathered bedrock. The primary flow of surface water in the vicinity of Water Tank 6601 is to the east. One primary intermittent stream channel drains to the east near the facility. The site is underlain by shallow surface soils, with a maximum

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thickness of soil only tens of feet thick. Based on information presented by Tetra Tech in the OU2 RI/FS, just south of the water tank, groundwater is encountered in weathered bedrock at depths ranging from 10 to 40 feet bgs. Groundwater flow is generally to the east. Water Tank 6601 is an active, 200,000-gallon water tank constructed in approximately 1942, with valves, piping, and electronic controls inside a fenced area with a concrete floor and a metal roof. The enclosure was constructed in the mid 1980s, in response to repeated vandalism at the site. Each incidence of vandalism resulted in releases of elemental mercury at the site due to breakage of a reservoir or "mercury pot." Some of the elemental mercury was recovered after each incident; however, no formal cleanup actions were performed. A cage was constructed to protect the controls from additional vandalism. The mercury control was removed and replaced with controls without mercury prior to the OU4 RI/FS investigation. Water Tank 6601 is in an undeveloped area, which is fenced. Adjacent and surrounding land use is mixed industrial/ vacant. Water Tank 6601 is expected to remain industrial. MJPA plans for the adjacent and surrounding land are for industrial/commercial development. The former base Hospital and Dental Clinics are in the northeast corner of the former base, near the intersection of Cactus Avenue and Heacock Street. The main Hospital building is five stories and the Dental Clinic is a one-story structure. The surface topography in and around the site is relatively flat with a gentle slope (surface gradient at the site is approximately 20 to 30 feet per mile). Major drainage features lie north and east of the site and consist of intermittent drainage channels (Cactus Channel Storm Drain and Heacock Storm Drain). There are no major drainages across the site, and there are no perennial water bodies near the site. While groundwater was not part of the investigation, groundwater is reported to be 25 to 30 feet bgs in the area of the former hospital and dental clinic. Groundwater flow direction is to the south and east. Construction of the Hospital was completed in 1966 and modified in subsequent years. The latest addition was completed in 1974. The original construction of the Dental Clinic was completed in 1985. A sewer main extends from the Hospital/Dental Clinic complex, south along the eastern base boundary to the last manhole before the connection of the hospital lines with the "old trunk line" from western portions of the March ARB. The sewer line, which services both the Hospital and Dental Clinic, was first brought on line with completion of the original hospital building. Two primary lines collect effluent from the complex. The two lines ultimately empty into the old sewer main that flows directly south to the current lifting station, from which sewage is transferred around the south end of the active runway to the current wastewater treatment plant. The former base Hospital and Dental Clinic are in an area characterized by institutional (i.e., medical) land use. Adjacent and surrounding land use is a mix of residential, commercial, a small amount of vacant property and land in agricultural use, and a small corridor of public facilities to the east of the Hospital for an electrical transmission line easement. MJPA plans for the Hospital/Dental Clinic site are for similar reuse. Site L, formerly a swimming pool at the Non-Commissioned Officer (NCO) Club, is east of Riverside Drive and north of Meyer Drive. The site is outside the boundary of March ARB that was established as a result of the realignment of March AFB in May 1996. It is part of the land identified as available for transfer by the AFRPA. Site L is in an area characterized by relatively flat topography. No major drainages are associated with the site. Groundwater levels at the site are approximately 26 feet bgs. The groundwater flow direction is to the southeast. The swimming pool at Site L was reportedly constructed in 1953 along with the NCO Club. After decommissioning at an unspecified time, it was used as a repository for a variety of wastes, some potentially hazardous. The pool and wastes were covered with soil, and the area was allowed to become overgrown with grass and weeds. The facility was

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abandoned and a chain-link fence restricted access to the former pool. In 1993, the pool was identified as an AOC during a comprehensive RFA/Expanded Source Investigation (ESI), which concluded that the pool was filled with a variety of wastes, including waste soils, solvents, and PCBs. In 1994, as part of the RFA investigation, a soil gas survey was conducted to screen for the presence of VOCs. No VOCs were detected above the laboratory reporting limits. Site L is currently open space (parking lot) with no structures, and is bordered on the north by vacant land and on the south by a parking area adjacent to Meyer Drive. The NCO Club is to the east of Site L, and the U.S. Army Reserve Center, with associated landscaping and parking is to the west. Surrounding land uses include institutional/medical, commercial, public facilities/recreation, and vacant land. The MJPA plans for Site L and the surrounding land are commercial in nature. A portion of the parcel in which Site L is located is currently leased to a catering business. A Record of Decision addressing OU4 was completed in September of 2005.

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 02/01/85
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 02/01/87
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 06/01/87
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

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Action Code: 001
Action: HAZARD RANKING SYSTEM PACKAGE
Date Started: / /
Date Completed: 06/01/87
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: PROPOSAL TO NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 07/14/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FINAL LISTING ON NATIONAL PRIORITIES LIST
Date Started: / /
Date Completed: 11/21/89
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Notice Letters Issued
Date Started: / /
Date Completed: 02/07/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: INTERAGENCY AGREEMENT NEGOTIATIONS
Date Started: 02/07/90

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Date Completed: 09/27/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Alternate
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL INTERAGENCY AGREEMENT
Date Started: 09/27/90
Date Completed: 09/27/90
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Enforcement
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 01/24/92
Date Completed: 04/30/95
Priority Level: Not reported
Operable Unit: WEST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL FACILITY REMEDIAL DESIGN
Date Started: 04/07/96
Date Completed: 04/18/96
Priority Level: Not reported
Operable Unit: EAST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/27/90
Date Completed: 06/20/96
Priority Level: Not reported
Operable Unit: EAST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities

MARCH AIR FORCE BASE (Continued) **1000169261**

Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 06/20/96
Priority Level: Not reported
Operable Unit: EAST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: Explanation Of Significant Differences
Date Started: / /
Date Completed: 08/24/00
Priority Level: Not reported
Operable Unit: EAST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL FACILITY FIVE YEAR REVIEW
Date Started: 09/30/03
Date Completed: 11/19/03
Priority Level: Not reported
Operable Unit: EAST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 004
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 05/11/04
Priority Level: Not reported
Operable Unit: WEST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

MARCH AIR FORCE BASE (Continued) **1000169261**

For detailed financial records, contact EDR for a Site Report.:

Action Code: 002
Action: FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 09/27/90
Date Completed: 09/29/05
Priority Level: Not reported
Operable Unit: BASEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/29/05
Priority Level: Not reported
Operable Unit: BASEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: RECORD OF DECISION
Date Started: / /
Date Completed: 09/30/05
Priority Level: Not reported
Operable Unit: WEST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 003
Action: FEDERAL FACILITY FIVE YEAR REVIEW
Date Started: / /
Date Completed: 09/30/09
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001

MARCH AIR FORCE BASE (Continued) **1000169261**

Action: Restoration Advisory Board
Date Started: 01/01/93
Date Completed: / /
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 001
Action: FEDERAL FACILITY REMEDIAL ACTION
Date Started: 03/05/96
Date Completed: / /
Priority Level: Not reported
Operable Unit: EAST MARCH - SOILS/GW
Primary Responsibility: Federal Facilities
Planning Status: Primary
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Action Code: 005
Action: FEDERAL FACILITY REMEDIAL INVESTIGATION/FEASIBILITY STUDY
Date Started: 10/30/05
Date Completed: / /
Priority Level: Not reported
Operable Unit: SITE 8 & 36
Primary Responsibility: Federal Facilities
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

For detailed financial records, contact EDR for a Site Report.:

Federal Register Details:
Fed Register Date: 11/21/89
Fed Register Volume: 54
Page Number: 48184

Fed Register Date: 07/14/89
Fed Register Volume: 54
Page Number: 29820

Click this hyperlink while viewing on your computer to access
90 additional US CERCLIS Financial: record(s) in the EDR Site Report.

RCRA-LQG:
Date form received by agency: 10/22/2014
Facility name: MARCH AIR RESERVE BASE
Facility address: 610 MEYER DR
MARCH ARB, CA 92518

MARCH AIR FORCE BASE (Continued) **1000169261**

EPA ID: CA4570024527
Mailing address: MEYER DR BLDG 2403
MARCH ARB, CA 92518
Contact: CRAIG R HUNTER
Contact address: MEYER DR BLDG 2403
MARCH ARB, CA 92518
Contact country: Not reported
Contact telephone: (951) 655-5082
Contact email: CRAIG.HUNTER.1@US.AF.MIL
EPA Region: 09
Land type: Federal
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: US AIR FORCE
Owner/operator address: GRAEBER ST, BLDG 470
MARCH ARB, CA 92518
Owner/operator country: Not reported
Owner/operator telephone: (951) 655-4665
Legal status: Federal
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1947
Owner/Op end date: Not reported

Owner/operator name: COL. RUSSELL A MUNCY
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Federal
Owner/Operator Type: Operator
Owner/Op start date: 11/01/2013
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No

MARCH AIR FORCE BASE (Continued) **1000169261**

Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Universal Waste Summary:
Waste type: Batteries
Accumulated waste on-site: Yes
Generated waste on-site: No

Waste type: Lamps
Accumulated waste on-site: Yes
Generated waste on-site: No

Historical Generators:
Date form received by agency: 03/20/2013
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 07/15/2010
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 03/26/2008
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 02/08/2006
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 02/25/2004
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 04/10/2002
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Site name: MARCH ARB CA
Classification: Large Quantity Generator

Date form received by agency: 07/14/2000
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: MARCH ARB, CA
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: MARCH AIR RESERVE BASE
Classification: Large Quantity Generator

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Date form received by agency: 03/26/1996
Site name: MARCH AFB, CA
Classification: Large Quantity Generator

Date form received by agency: 03/31/1994
Site name: MARCH AIR FORCE BASE, CA
Classification: Large Quantity Generator

Date form received by agency: 03/30/1992
Site name: MARCH AIR FORCE BASE
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: 181
Waste name: 181

Waste code: 214
Waste name: 214

Waste code: 223
Waste name: 223

Waste code: 281
Waste name: 281

Waste code: 342
Waste name: 342

Waste code: 343
Waste name: 343

Waste code: 352
Waste name: 352

Waste code: 461
Waste name: 461

Waste code: 541
Waste name: 541

Waste code: 792
Waste name: 792

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOIN LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS

MARCH AIR FORCE BASE (Continued) **1000169261**

USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE

MARCH AIR FORCE BASE (Continued) **1000169261**

MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MOF OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AI SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETH ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVE MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETH KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLEI CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVEI LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF

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THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D005
Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF

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ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVEI LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOIN LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: F001
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASIN CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS L IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F002
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MOF OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AI SPENT SOLVENT MIXTURES.

Waste code: F003
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETH ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR

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MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D003
Waste name: A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.

Waste code: D004
Waste name: ARSENIC

Waste code: D005
Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: P098

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Waste name: POTASSIUM CYANIDE

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOIN LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D004
Waste name: ARSENIC

Waste code: D005
Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOIN LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D006

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Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.

Waste code: D004
Waste name: ARSENIC

Waste code: D005
Waste name: BARIUM

Waste code: D006
Waste name: CADMIUM

Waste code: D007
Waste name: CHROMIUM

Waste code: D008
Waste name: LEAD

Waste code: D009
Waste name: MERCURY

Waste code: D011
Waste name: SILVER

Waste code: D018
Waste name: BENZENE

Waste code: D021
Waste name: CHLOROBENZENE

Waste code: D035
Waste name: METHYL ETHYL KETONE

Waste code: F002

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Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MOF OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AI SPENT SOLVENT MIXTURES.

Waste code: F005
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETH KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLE CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVE LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: U188
Waste name: PHENOL

Waste code: U227
Waste name: ETHANE, 1,1,2-TRICHLORO-

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.30-34.C
Area of violation: Generators - General
Date violation determined: 04/27/1995
Date achieved compliance: 04/27/2000
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 04/28/1995
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 03/05/1984
Date achieved compliance: 04/04/1995
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/18/1984
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 11/02/2006

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Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/06/1996
Evaluation: FOLLOW-UP INSPECTION
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/04/1995
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/27/2000
Evaluation lead agency: EPA

Evaluation date: 03/05/1984
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 04/04/1995
Evaluation lead agency: EPA

US ENG CONTROLS:
EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Actual Date: 09/30/2005

Action ID: 001
Action Name: Explanation Of Significant Differences
Action Completion date: 08/24/2000
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Bioremediation (Ex-Situ)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Discharge

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Extraction

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996

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Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Liquid Phase Carbon Adsorption

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Monitoring

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Groundwater
Engineering Control: Other, (N.O.S.)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Cap

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Disposal

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Excavation

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Impermeable Barrier

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Low Temperature Thermal Desorption

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01

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Contaminated Media : Soil
Engineering Control: Monitoring

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Operations & Maintenance (O&M)

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Recycling

Action ID: 001
Action Name: RECORD OF DECISION
Action Completion date: 06/20/1996
Operable Unit: 01
Contaminated Media : Soil
Engineering Control: Soil Vapor Extraction (in-situ)

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/2005
Operable Unit: 04
Contaminated Media : Groundwater
Engineering Control: No Action

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil
Engineering Control: Monitoring

Action ID: 003
Action Name: RECORD OF DECISION
Action Completion date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil
Engineering Control: No Action

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2005
Operable Unit: 02
Contaminated Media : Groundwater
Engineering Control: No Action

Action ID: 005
Action Name: RECORD OF DECISION
Action Completion date: 09/30/2005
Operable Unit: 02
Contaminated Media : Soil

MARCH AIR FORCE BASE (Continued) **1000169261**

Engineering Control: No Action

US INST CONTROL:
EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Deed Notices
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Subdivision regulation
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE

MARCH AIR FORCE BASE (Continued) **1000169261**

Event Code: Not reported
Inst. Control: Zoning regulation
Actual Date: 09/30/2005
Complet. Date: 09/29/2005
Operable Unit: 04
Contaminated Media : Soil

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 06/15/2004
Complet. Date: 05/11/2004
Operable Unit: 02
Contaminated Media : Groundwater

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Covenant
Actual Date: 06/15/2004
Complet. Date: 05/11/2004
Operable Unit: 02
Contaminated Media : Soil

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC
RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Base use plan change
Actual Date: 09/30/2005
Complet. Date: 09/30/2005
Operable Unit: 02
Contaminated Media : Soil

EPA ID: CA4570024527
Site ID: 0902761
Name: MARCH AIR FORCE BASE
Action Name: RECORD OF DECISION
Address: 22 CSG/CC

MARCH AIR FORCE BASE (Continued) **1000169261**

RIVERSIDE, CA 92518
EPA Region: 09
County: RIVERSIDE
Event Code: Not reported
Inst. Control: Building, demolition, or excavation regulation
Actual Date: 09/30/2005
Complet. Date: 09/30/2005
Operable Unit: 02
Contaminated Media : Soil

ROD:
Full-text of USEPA Record of Decision(s) is available from EDR.

NY MANIFEST:
EPA ID: CA4570024527
Country: USA

Mailing Info:
Name: UNITED STATES MILITARY - MARCH AIR FORCE
Contact: UNITED STATES MILITARY - MARCH AIR FORCE
Address: BASE - 22 CSG/DEEV
City/State/Zip: MARCH AIR FORCE BASE, CA 92518
Country: USA
Phone: 714-655-4858

Manifest:

Document ID: NYA3918835
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: 64661
Trans2 State ID: Not reported
Generator Ship Date: 02/14/1986
Trans1 Recv Date: 02/14/1986
Trans2 Recv Date: 02/19/1986
TSD Site Recv Date: 03/21/1986
Part A Recv Date: 02/25/1986
Part B Recv Date: 03/27/1986
Generator EPA ID: CA4570024527
Trans1 EPA ID: GAD042097261
Trans2 EPA ID: Not reported
TSDF ID: NYD000632372
Waste Code: D003 - NON-LISTED REACTIVE WASTES
Quantity: 00043
Units: P - Pounds
Number of Containers: 001
Container Type: DM - Metal drums, barrels
Handling Method: T Chemical, physical, or biological treatment.
Specific Gravity: 100
Year: 1986

Document ID: NYA2651571
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: 54068
Trans2 State ID: GATX43254
Generator Ship Date: 05/30/1985

MARCH AIR FORCE BASE (Continued) **1000169261**

Trans1 Recv Date: 05/30/1985
Trans2 Recv Date: / /
TSD Site Recv Date: 09/06/1985
Part A Recv Date: 06/25/1985
Part B Recv Date: 09/16/1985
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 01560
Units: G - Gallons (liquids only)* (8.3 pounds)
Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1985

Document ID: NYA2651598
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: 54068
Trans2 State ID: ACFX88990
Generator Ship Date: 05/28/1985
Trans1 Recv Date: 05/28/1985
Trans2 Recv Date: / /
TSD Site Recv Date: 07/10/1985
Part A Recv Date: 06/05/1985
Part B Recv Date: 07/23/1985
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 05100
Units: G - Gallons (liquids only)* (8.3 pounds)
Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1985

Document ID: NYA2651589
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: Not reported
Trans2 State ID: ACFX88990
Generator Ship Date: 05/24/1985
Trans1 Recv Date: 05/24/1985
Trans2 Recv Date: / /
TSD Site Recv Date: 07/10/1985
Part A Recv Date: 06/05/1985
Part B Recv Date: 07/23/1985
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975

MARCH AIR FORCE BASE (Continued) **1000169261**

Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 06000
Units: G - Gallons (liquids only)* (8.3 pounds)
Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1985

Document ID: NYA3077741
Manifest Status: Completed after the designated time period for a TSDF to get a copy to the DEC
Trans1 State ID: ACFX88331
Trans2 State ID: ACFX88331
Generator Ship Date: 01/27/1986
Trans1 Recv Date: 01/27/1986
Trans2 Recv Date: / /
TSD Site Recv Date: 04/17/1986
Part A Recv Date: 01/31/1986
Part B Recv Date: 04/23/1986
Generator EPA ID: CA4570024527
Trans1 EPA ID: CAD006913206
Trans2 EPA ID: CAD006913206
TSDF ID: NY7890008975
Waste Code: D001 - NON-LISTED IGNITABLE WASTES
Quantity: 03500
Units: G - Gallons (liquids only)* (8.3 pounds)
Number of Containers: 001
Container Type: TT - Cargo tank, tank trucks
Handling Method: B Incineration, heat recovery, burning.
Specific Gravity: 100
Year: 1986

PRP:
PRP name: STATE OF CALIFORNIA/DEPT. OF HEALTH SERVICES
STATE OF CALIFORNIA/DEPT. OF WATER QUALITY
U.S. AIR FORCE
U.S. AIR FORCE

A1 **MARCH A F B FLITE LINE** **CA LUST** **S101300481**
WNW **BLDG 1244** **N/A**
1/4-1/2 **MARCH A F B, CA 92518**
0.495 mi.
2613 ft. **Site 1 of 6 in cluster A**

Relative:
Higher

Actual:
1494 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Pollution Characterization
Case Number: 083302120T
Local Case Num: Not reported
Case Type: Soil only
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: Not reported

MARCH A F B FLITE LINE (Continued) **S101300481**

Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK
Global ID: T0606500294
How Stopped Date: 5/9/1991
Enter Date: 9/28/1992
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 5/7/1991
Enforcement Date: Not reported
Close Date: Not reported
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: 12/19/1996
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 9/28/1992
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: DOD
Latitude: 33.8993744
Longitude: -117.2809678
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: JCB
Staff Initials: UNK
Lead Agency: Local Agency
Local Agency: 33000L
Hydr Basin #: SAN JACINTO (8-5)
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

A2 **MARCH A F B REFUELING SYSTEM** **CA LUST** **S101300482**
WNW **BLDG 1269** **N/A**
1/4-1/2 **MARCH A F B, CA 92518**
0.495 mi.
2613 ft. **Site 2 of 6 in cluster A**

Relative:
Higher

Actual:
1494 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Pollution Characterization
Case Number: 083302116T

MARCH A F B REFUELING SYSTEM (Continued) **S101300482**

Local Case Num: Not reported
Case Type: Soil only
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK
Global ID: T0606500290
How Stopped Date: 5/9/1991
Enter Date: 9/28/1992
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 5/9/1991
Enforcement Date: Not reported
Close Date: Not reported
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: 12/19/1996
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 9/28/1992
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: DOD
Latitude: 33.8993744
Longitude: -117.2809678
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: JCB
Staff Initials: UNK
Lead Agency: Local Agency
Local Agency: 33000L
Hydr Basin #: SAN JACINTO (8-5)
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

A3 **MARCH A F B ALERT FACILITY** **CA LUST** **S101300483**
WNW **BLDG 1305** **N/A**
1/4-1/2 **MARCH A F B, CA 92518**
0.495 mi.
2613 ft. **Site 3 of 6 in cluster A**

Relative:
Higher

Actual:
1494 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083302118T
Local Case Num: Not reported
Case Type: Soil only
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK
Global ID: T0606500292
How Stopped Date: 5/9/1991
Enter Date: 9/28/1992
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 5/9/1991
Enforcement Date: Not reported
Close Date: 9/12/1996
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 9/28/1992
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: DOD
Latitude: 33.8993744
Longitude: -117.2809678
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: JCB
Staff Initials: UNK
Lead Agency: Regional Board
Local Agency: 33000L
Hydr Basin #: SAN JACINTO (8-5)
Beneficial: Not reported

MARCH A F B ALERT FACILITY (Continued) **S101300483**

Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

A4 **MARCH A F B BLDG 3406** **CA LUST** **S103249162**
WNW **BLDG 3406** **N/A**
1/4-1/2 **MARCH A F B, CA 92518**
0.495 mi.
2613 ft. **Site 4 of 6 in cluster A**

Relative:
Higher

Actual:
1494 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083302962T
Local Case Num: Not reported
Case Type: Soil only
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: PLUMMER
Enf Type: Not reported
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Global ID: T0606500486
How Stopped Date: Not reported
Enter Date: 3/14/1997
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 3/1/1988
Enforcement Date: Not reported
Close Date: 8/27/1997
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 3/14/1997
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: DOD
Latitude: 33.8993744
Longitude: -117.2809678
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *

MARCH A F B BLDG 3406 (Continued) **S103249162**

Staff: JCB
Staff Initials: UNK
Lead Agency: Regional Board
Local Agency: 33000L
Hydr Basin #: SAN JACINTO (8-5)
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: IRP SITE 35C

A5
WNW
1/4-1/2
0.495 mi.
2613 ft.

MARCH A F B BLDG 3409
BLDGS 3409
MARCH A F B, CA 92518

CA LUST **S102770000**
N/A

Site 5 of 6 in cluster A

Relative:
Higher

Actual:
1494 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083300866T
Local Case Num: Not reported
Case Type: Soil only
Substance: Heater Fuel
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: PLUMMER
Enf Type: Not reported
Funding: Not reported
How Discovered: OM
How Stopped: Not reported
Leak Cause: Corrosion
Leak Source: UNK
Global ID: T0606500090
How Stopped Date: Not reported
Enter Date: 5/26/1988
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 3/1/1988
Enforcement Date: Not reported
Close Date: 2/25/1997
Date Prelim Assessment Workplan Submitted: Not reported
Date Pollution Characterization Began: 5/26/1988
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 5/26/1988
GW Qualifies: Not reported
Soil Qualifies: Not reported
Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: DOD
Latitude: 33.8993744
Longitude: -117.2809678
MTBE Date: Not reported

MARCH A F B BLDG 3409 (Continued) **S102770000**

Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: JCB
Staff Initials: UNK
Lead Agency: Regional Board
Local Agency: 33000L
Hydr Basin #: SAN JACINTO (8-5)
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: IRP SITE 35A

A6
WNW
1/4-1/2
0.495 mi.
2613 ft.

MARCH A F B BLDG 550
BLDG 3407
MARCH A F B, CA 92518

CA LUST **S102361786**
N/A

Site 6 of 6 in cluster A

Relative:
Higher

Actual:
1494 ft.

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083302550T
Local Case Num: Not reported
Case Type: Soil only
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Cross Street: 10TH/ ALLEN
Enf Type: Not reported
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: UNK
Leak Source: UNK
Global ID: T0606500402
How Stopped Date: 1/17/1991
Enter Date: 12/13/1994
Date Confirmation of Leak Began: 8/30/1994
Date Preliminary Assessment Began: 3/14/1996
Discover Date: 1/17/1991
Enforcement Date: Not reported
Close Date: 7/25/1996
Date Prelim Assessment Workplan Submitted: 6/5/1995
Date Pollution Characterization Began: 3/14/1996
Date Remediation Plan Submitted: 6/5/1995
Date Remedial Action Underway: 3/14/1996
Date Post Remedial Action Monitoring: Not reported
Enter Date: 12/13/1994
GW Qualifies: Not reported
Soil Qualifies: Not reported

MARCH A F B BLDG 550 (Continued) **S102361786**

Operator: Not reported
Facility Contact: Not reported
Interim: Not reported
Oversite Program: DOD
Latitude: 33.8993744
Longitude: -117.2809678
MTBE Date: Not reported
Max MTBE GW: Not reported
MTBE Concentration: 0
Max MTBE Soil: Not reported
MTBE Fuel: 0
MTBE Tested: Not Required to be Tested.
MTBE Class: *
Staff: JCB
Staff Initials: UNK
Lead Agency: Local Agency
Local Agency: 33000L
Hydr Basin #: SAN JACINTO (8-5)
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

7
NNE
1/2-1
0.737 mi.
3893 ft.

INDIAN MIDDLE SCHOOL
INDIAN AVENUE / IRIS AVENUE
MORENO VALLEY, CA 92551

CA SCH **S106568096**
CA ENVIROSTOR **N/A**

Relative:
Higher

Actual:
1506 ft.

SCH:

Facility ID: 33000006
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 29
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Amit Pathak
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404555
Assembly: 61
Senate: 31
Special Program Status: Not reported
Status: Certified
Status Date: 03/10/2006
Restricted Use: NO
Funding: School District
Latitude: 33.8911
Longitude: -117.2342
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: DDT, Toxaphene
Confirmed COC: DDT, Toxaphene

INDIAN MIDDLE SCHOOL (Continued) **S106568096**

Potential Description: SOIL
Alias Name: INDIAN MIDDLE SCHOOL
Alias Type: Alternate Name
Alias Name: VAL VERDE UNIFIED
Alias Type: Alternate Name
Alias Name: VAL VERDE USD-PRPSD INDIAN MID SCL
Alias Type: Alternate Name
Alias Name: 110033615112
Alias Type: EPA (FRS #)
Alias Name: 404555
Alias Type: Project Code (Site Code)
Alias Name: 33000006
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/09/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 06/30/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 11/09/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 04/28/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 07/06/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 03/01/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/09/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE

INDIAN MIDDLE SCHOOL (Continued) **S106568096**

Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/01/2005
Comments: Further Action with RAW for Toxaphene and DDT

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/28/2005
Comments: Approved along with NOE/Public Comment Response Letter

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 12/20/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 12/20/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/06/2006
Comments: DTSC issued a No Further Action determination based on a Removal Action Completion Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 03/01/2005
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 11/18/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 01/03/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/02/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification

INDIAN MIDDLE SCHOOL (Continued) **S106568096**

Completed Date: 03/10/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/13/2005
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 33000006
Status: Certified
Status Date: 03/10/2006
Site Code: 404555
Site Type: School Cleanup
Site Type Detailed: School
Acres: 29
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Amit Pathak
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 61
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.8911
Longitude: -117.2342
APN: NONE SPECIFIED
Past Use: AGRICULTURAL - ROW CROPS
Potential COC: DDT Toxaphene
Confirmed COC: DDT Toxaphene
Potential Description: SOIL
Alias Name: INDIAN MIDDLE SCHOOL
Alias Type: Alternate Name
Alias Name: VAL VERDE UNIFIED
Alias Type: Alternate Name
Alias Name: VAL VERDE USD-PRPSD INDIAN MID SCL
Alias Type: Alternate Name
Alias Name: 110033615112
Alias Type: EPA (FRS #)
Alias Name: 404555
Alias Type: Project Code (Site Code)
Alias Name: 33000006

INDIAN MIDDLE SCHOOL (Continued) **S106568096**

Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/09/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 06/30/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 11/09/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 04/28/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 07/06/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 03/01/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 08/09/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/01/2005
Comments: Further Action with RAW for Toxaphene and DDT

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/28/2005
Comments: Approved along with NOE/Public Comment Response Letter

Completed Area Name: PROJECT WIDE

INDIAN MIDDLE SCHOOL (Continued) **S106568096**

Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 12/20/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 12/20/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 03/06/2006
Comments: DTSC issued a No Further Action determination based on a Removal Action Completion Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 03/01/2005
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 11/18/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 01/03/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/02/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 03/10/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/13/2005
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported

INDIAN MIDDLE SCHOOL (Continued) **S106568096**

Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

B8
SSW
1/2-1
0.749 mi.
3957 ft.
Site 1 of 6 in cluster B

Relative:
Lower

Actual:
1483 ft.

MARCH AIR FORCE BASE - SITE 24
7,123 ACRES; EAST OF RIVERSIDE, CA
RIVERSIDE, CA 92518

CA HIST Cal-Sites
CA RESPONSE
CA ENVIROSTOR

S101272803
N/A

Calsite:
Region: GLENDALE
Facility ID: 33350014
Facility Type: CLOSE
Type: CLOSED MILITARY BASE
Branch: SO
Branch Name: OMF-SOUTHERN CALIF
File Name: Not reported
State Senate District: 05011986
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name: CERTIFIED
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
NPL: Not Listed
SIC Code: 35
SIC Name: MANU - INDUSTRIAL MACHINERY & EQUIPMENT
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: Not reported
Supervisor Responsible for Site: Not reported
Region Water Control Board: Not reported
Region Water Control Board Name: Not reported
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 64
State Senate District Code: 36
Facility ID: 33350014
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: STE24
Proposed Budget: 0
AWP Completion Date: 09221995
Revised Due Date: Not reported
Comments Date: 09221995
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: CERT
Definition of Status: CERTIFIED
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33350014
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: STE24
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 07221996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: CERT
Definition of Status: CERTIFIED
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Alternate Address: 7,123 ACRES; EAST OF RIVERSIDE, CA
Alternate City,St,Zip: RIVERSIDE, CA 92518
Alternate Address: 7,123; EAST OF RIVERSIDE, CA
Alternate City,St,Zip: RIVERSIDE, CA 92518
Background Info: Not reported
Comments Date: Not reported
Comments: Not reported
ID Name: Not reported
ID Value: Not reported
Alternate Name: MARCH AIR FORCE BASE - SITE 24
Special Programs Code: Not reported
Special Programs Name: Not reported

RESPONSE:
Facility ID: 33970003
Site Type: State Response
Site Type Detail: Closed Base
Acres: 18
National Priorities List: NO
Cleanup Oversight Agencies: US EPA
Lead Agency Description: US EPA
Project Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Site Code: Not reported
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 61
Senate: 31
Special Program Status: Not reported
Status: Certified
Status Date: 10/04/1995
Restricted Use: NO
Funding: * Defense Environmental Restoration Program (DERP)
Latitude: 33.88333
Longitude: -117.2630
APN: NONE SPECIFIED
Past Use: LANDFILL - DOMESTIC
Potential COC : * Asbestos and Naturally Occurring Asbestos (NOA
Confirmed COC: * Asbestos and Naturally Occurring Asbestos (NOA
Potential Description: OTH, SOIL
Alias Name: ALESSANDRO AVIATION FIELD
Alias Type: Alternate Name
Alias Name: 110033608656
Alias Type: EPA (FRS #)
Alias Name: 33970003
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Removal Action Completion Report
Completed Date: 06/28/1995
Comments: Removal Action (RA) - The primary objective of this time- critical RA was to prevent potential contamination of the surface and storm water in the channel due to exposure to drums and debris buried in the channel bed. Field execution of the RA resulted in removing approximately 70 5-gallon to 20-gallon decomposed drums filled with sodium hydroxide and 30 55 gallon drums filled with roofing tar, asphalt solids and waste, and oil grease solids. Approximately 200 cubic yards of contaminated overburden material extending above and to the sides of the drums, in addition to the drums, were combined in 85 gallon overpack drums and transported off site for treatment/stabilization in lined end-dumps at the Landlaw Environmental. Approximately 14 tons of debris containing non-friable asbestos as less than 10% by total weight were placed in a lined roll-off box and transported off-site to BDC Services, Inc. for disposal. In addition, approximately 6,800 cubic yards of non hazardous materials (consisting of soil and debris) were transported to IRP Site 6a. As part of Site 40 restoration, the water's elevation in the pond was raised by installing a concrete weir at the outlet of the pond. Each site location, including the creek bed, was restored. Vegetation destroyed during construction was replaced with California native plants. This RA, at Site 40, is undertaken as part of the ongoing long term remedial actions (RI/FS OU-2). 100 drums, 200 cubic yards of contaminated soil, 14 tons of non-friable asbestos debris, and 6,800 cubic yards of non-hazardous materials were removed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Feasibility Study Report
Completed Date: 10/13/1994

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Comments: RI/FS - This RI/FS was completed via an EECA for Site 40 which DTSC approved on October 13, 1994. Site 40 is a former landfill used for disposing military wastes. It is approximately 18 acres and the central portion of the property consists of a pond which accumulates surface run- off. There are drums buried at this landfill that appear to contain a mixture of chemicals, clothing, and domestic refuse. The Air Force will: 1) excavate buried drums and other solid waste from the creek bed to prepare subgrade for the liner. Containerized waste will be segragated, sampled and characterized for disposal, 2) construct a new channel, 3) raise the water level in the pond by constructing a weir, 4) trench at three areas outside of the orignial excavation area which responded positively during the magnotometer survey, 5) engineer the drainage inlet and outlet to limit contact between the water in the pond and the remaining contaminants, if any. Approximate cost = not available; funding = BRAC

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Certification
Completed Date: 10/04/1995
Comments: Certification - Confirmation sampling has shown the soil to be suitable for unrestricted use. DTSC has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/ remedial action is necessary.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 33350014
Site Type: State Response
Site Type Detail: Closed Base
Acres: 4
National Priorities List: NO
Cleanup Oversight Agencies: US EPA
Lead Agency Description: US EPA
Project Manager: Not reported
Supervisor: Manny Alonzo
Division Branch: Cleanup Cypress
Site Code: Not reported
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 61
Senate: 31
Special Program Status: Not reported
Status: Certified
Status Date: 05/01/1986
Restricted Use: NO
Funding: * Defense Environmental Restoration Program (DERP)
Latitude: 33.8676
Longitude: -117.2636

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

APN: NONE SPECIFIED
Past Use: INCINERATOR - OTHER
Potential COC : NONE SPECIFIED
Confirmed COC: 31000-NO
Potential Description: OTH, SOIL
Alias Name: 110033608647
Alias Type: EPA (FRS #)
Alias Name: DOD100278600
Alias Type: GeoTracker Global ID
Alias Name: DOD100278800
Alias Type: GeoTracker Global ID
Alias Name: DOD100280300
Alias Type: GeoTracker Global ID
Alias Name: DOD100280500
Alias Type: GeoTracker Global ID
Alias Name: DOD100281800
Alias Type: GeoTracker Global ID
Alias Name: DOD100281900
Alias Type: GeoTracker Global ID
Alias Name: DOD100282000
Alias Type: GeoTracker Global ID
Alias Name: DOD100282100
Alias Type: GeoTracker Global ID
Alias Name: DOD100283700
Alias Type: GeoTracker Global ID
Alias Name: DOD100285000
Alias Type: GeoTracker Global ID
Alias Name: DOD100285100
Alias Type: GeoTracker Global ID
Alias Name: DOD100285200
Alias Type: GeoTracker Global ID
Alias Name: DOD100286600
Alias Type: GeoTracker Global ID
Alias Name: DOD100288200
Alias Type: GeoTracker Global ID
Alias Name: DOD100288300
Alias Type: GeoTracker Global ID
Alias Name: DOD100290000
Alias Type: GeoTracker Global ID
Alias Name: DOD100291300
Alias Type: GeoTracker Global ID
Alias Name: DOD100291400
Alias Type: GeoTracker Global ID
Alias Name: DOD100291500
Alias Type: GeoTracker Global ID
Alias Name: DOD100291600
Alias Type: GeoTracker Global ID
Alias Name: DOD100319500
Alias Type: GeoTracker Global ID
Alias Name: DOD100319700
Alias Type: GeoTracker Global ID
Alias Name: T0606500618
Alias Type: GeoTracker Global ID
Alias Name: 33350014
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Sites With No Operable Unit

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Completed Sub Area Name: STE24
Completed Document Type: Feasibility Study Report
Completed Date: 09/22/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE24
Completed Document Type: Certification
Completed Date: 07/22/1996
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 33970003
Status: Certified
Status Date: 10/04/1995
Site Code: Not reported
Site Type: State Response
Site Type Detailed: Closed Base
Acres: 18
NPL: NO
Regulatory Agencies: US EPA
Lead Agency: US EPA
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 61
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: * Defense Environmental Restoration Program (DERP)
Latitude: 33.88333
Longitude: -117.2630
APN: NONE SPECIFIED
Past Use: LANDFILL - DOMESTIC
Potential COC: * Asbestos and Naturally Occurring Asbestos (NOA
Confirmed COC: * Asbestos and Naturally Occurring Asbestos (NOA
Potential Description: OTH, SOIL
Alias Name: ALESSANDRO AVIATION FIELD
Alias Type: Alternate Name
Alias Name: 110033608656
Alias Type: EPA (FRS #)
Alias Name: 33970003
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Sites With No Operable Unit

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Completed Sub Area Name: STE40
Completed Document Type: Removal Action Completion Report
Completed Date: 06/28/1995
Comments: Removal Action (RA) - The primary objective of this time- critical RA was to prevent potential contamination of the surface and storm water in the channel due to exposure to drums and debris buried in the channel bed. Field execution of the RA resulted in removing approximately 70 5-gallon to 20-gallon decomposed drums filled with sodium hydroxide and 30 55 gallon drums filled with roofing tar, asphalt solids and waste, and oil grease solids. Approximately 200 cubic yards of contaminated overburden material extending above and to the sides of the drums, in addition to the drums, were combined in 85 gallon overpack drums and transported off site for treatment/stabilization in lined end-dumps at the Landlaw Environmental. Approximately 14 tons of debris containing non-friable asbestos as less than 10% by total weight were placed in a lined roll-off box and transported off-site to BDC Services, Inc. for disposal. In addition, approximately 6,800 cubic yards of non hazardous materials (consisting of soil and debris) were transported to IRP Site 6a. As part of Site 40 restoration, the water's elevation in the pond was raised by installing a concrete weir at the outlet of the pond. Each site location, including the creek bed, was restored. Vegetation destroyed during construction was replaced with California native plants. This RA, at Site 40, is undertaken as part of the ongoing long term remedial actions (RI/FS OU-2). 100 drums, 200 cubic yards of contaminated soil, 14 tons of non-friable asbestos debris, and 6,800 cubic yards of non-hazardous materials were removed.

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Feasibility Study Report
Completed Date: 10/13/1994
Comments: RI/FS - This RI/FS was completed via an EECA for Site 40 which DTSC approved on October 13, 1994. Site 40 is a former landfill used for disposing military wastes. It is approximately 18 acres and the central portion of the property consists of a pond which accumulates surface run- off. There are drums buried at this landfill that appear to contain a mixture of chemicals, clothing, and domestic refuse. The Air Force will: 1) excavate buried drums and other solid waste from the creek bed to prepare subgrade for the liner. Containerized waste will be segragated, sampled and characterized for disposal, 2) construct a new channel, 3) raise the water level in the pond by constructing a weir, 4) trench at three areas outside of the orignial excavation area which responded positively during the magnotometer survey, 5) engineer the drainage inlet and outlet to limit contact between the water in the pond and the remaining contaminants, if any. Approximate cost = not available; funding = BRAC

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE40
Completed Document Type: Certification
Completed Date: 10/04/1995
Comments: Certification - Confirmation sampling has shown the soil to be suitable for unrestricted use. DTSC has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

remedial action is necessary.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 33350014
Status: Certified
Status Date: 05/01/1986
Site Code: Not reported
Site Type: State Response
Site Type Detailed: Closed Base
Acres: 4
NPL: NO
Regulatory Agencies: US EPA
Lead Agency: US EPA
Program Manager: Not reported
Supervisor: Manny Alonzo
Division Branch: Cleanup Cypress
Assembly: 61
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: * Defense Environmental Restoration Program (DERP)
Latitude: 33.8676
Longitude: -117.2636
APN: NONE SPECIFIED
Past Use: INCINERATOR - OTHER
Potential COC: NONE SPECIFIED
Confirmed COC: 31000-NO
Potential Description: OTH, SOIL
Alias Name: 110033608647
Alias Type: EPA (FRS #)
Alias Name: DOD100278600
Alias Type: GeoTracker Global ID
Alias Name: DOD100278800
Alias Type: GeoTracker Global ID
Alias Name: DOD100280300
Alias Type: GeoTracker Global ID
Alias Name: DOD100280500
Alias Type: GeoTracker Global ID
Alias Name: DOD100281800
Alias Type: GeoTracker Global ID
Alias Name: DOD100281900
Alias Type: GeoTracker Global ID
Alias Name: DOD100282000
Alias Type: GeoTracker Global ID
Alias Name: DOD100282100
Alias Type: GeoTracker Global ID
Alias Name: DOD100283700

MARCH AIR FORCE BASE - SITE 24 (Continued) **S101272803**

Alias Type: GeoTracker Global ID
Alias Name: DOD100285000
Alias Type: GeoTracker Global ID
Alias Name: DOD100285100
Alias Type: GeoTracker Global ID
Alias Name: DOD100285200
Alias Type: GeoTracker Global ID
Alias Name: DOD100286600
Alias Type: GeoTracker Global ID
Alias Name: DOD100288200
Alias Type: GeoTracker Global ID
Alias Name: DOD100288300
Alias Type: GeoTracker Global ID
Alias Name: DOD100290000
Alias Type: GeoTracker Global ID
Alias Name: DOD100291300
Alias Type: GeoTracker Global ID
Alias Name: DOD100291400
Alias Type: GeoTracker Global ID
Alias Name: DOD100291500
Alias Type: GeoTracker Global ID
Alias Name: DOD100291600
Alias Type: GeoTracker Global ID
Alias Name: DOD100319500
Alias Type: GeoTracker Global ID
Alias Name: DOD100319700
Alias Type: GeoTracker Global ID
Alias Name: T0606500618
Alias Type: GeoTracker Global ID
Alias Name: 33350014
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE24
Completed Document Type: Feasibility Study Report
Completed Date: 09/22/1995
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: STE24
Completed Document Type: Certification
Completed Date: 07/22/1996
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

B9 **MARCH AIR FORCE BASE - SITE 40** **CA HIST Cal-Sites** **S102008377**
SSW **7,123 ACRES; EAST OF RIVERSIDE, CA** **N/A**
1/2-1 **RIVERSIDE, CA 92518**
0.749 mi.
3957 ft. **Site 2 of 6 in cluster B**

Relative:
Lower

Actual:
1483 ft.

Calsite:
Region: GLENDALE
Facility ID: 33970003
Facility Type: CLOSE
Type: CLOSED MILITARY BASE
Branch: SO
Branch Name: OMF-SOUTHERN CALIF
File Name: Not reported
State Senate District: 10041995
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name: CERTIFIED
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
NPL: Not Listed
SIC Code: 97
SIC Name: NATIONAL SECURITY/INTERNATIONAL AFFAIRS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: Not reported
Supervisor Responsible for Site: Not reported
Region Water Control Board: Not reported
Region Water Control Board Name: Not reported
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/long Description: Not reported
State Assembly District Code: 64
State Senate District Code: 36
Facility ID: 33970003
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: STE40
Proposed Budget: 0
AWP Completion Date: 06281995
Revised Due Date: Not reported
Comments Date: 06281995
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: CERT
Definition of Status: CERTIFIED
Liquids Removed (Gals): 214
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: EXCAVATION AND OFF-SITE DISPOSAL OF 70 5-GAL TO 20-GAL DRUMS, 30 55
DRUMS, 14 TONS OF DEBRIS CONTAINING ASBESTOS, 200 CY OF
CONTAMINATEDSOIL, AND 6800 CY OF NON-HAZARDOUS MATERIALS REMOV
For Commercial Reuse: 0

MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970003
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: STE40
Proposed Budget: 0
AWP Completion Date: 10131994
Revised Due Date: Not reported
Comments Date: 10131994
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: CERT
Definition of Status: CERTIFIED
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970003
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: STE40
Proposed Budget: 0
AWP Completion Date: Not reported
Revised Due Date: Not reported
Comments Date: 10041995
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: CERT
Definition of Status: CERTIFIED
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Alternate Address: 22 CSG/CC
Alternate City,St,Zip: RIVERSIDE, CA 92518
Alternate Address: 7,123 ACRES; EAST OF RIVERSIDE, CA
Alternate City,St,Zip: RIVERSIDE, CA 92518
Background Info: Site 40 is a former landfill used for disposing wastes from March
AFB. Site 40 is approximately 18 acres of rolling land and the c

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MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

entral portion of the property consists of a pond which accumulat
es surface runoff. Buried drums at this landfill were filled wit
h sodium hydroxide, roofing tar, asphalt solids and waste, and oi
l and grease. There is potential contamination of the surface an
d storm water due to exposure to the drums and debris. March AFB
was included on the NPL in 1989. A Federal Facilities Agreement
(FFA) was signed between EPA, DHS, the Santa Ana RWQCB and the Ai
r Force in September 1990, to provide for the remediation of the
Base. For details on other efforts at March AFB refer to March AF
B site IDNUN 33970002.
Comments Date: 04301992
Comments: Landfill #8, Site 40 fence and posted complete. This land-
Comments Date: 04301992
Comments: fill was exposed when a water tank overflowed after rain,
Comments Date: 04301992
Comments: and washed down a gulley north of Van Buren Blvd. and west
Comments Date: 04301992
Comments: of Plummer Road.
Comments Date: 06281995
Comments: Removal Action (RA) - The primary objective of this time- critica
Comments Date: 06281995
Comments: l RA was to prevent potential contamination of the surface and st
Comments Date: 06281995
Comments: orm water in the channel due to exposure to drums and debris buri
Comments Date: 06281995
Comments: ed in the channel bed. Field execution of the RA resulted in rem
Comments Date: 06281995
Comments: oving approximately 70 5-gallon to 20-gallon decomposed drums fil
Comments Date: 06281995
Comments: led with sodium hydroxide and 30 55 gallon drums filled with roof
Comments Date: 06281995
Comments: ing tar, asphalt solids and waste, and oil grease solids. Approx
Comments Date: 06281995
Comments: imately 200 cubic yards of contaminated overburden material exten
Comments Date: 06281995
Comments: ding above and to the sides of the drums, in addition to the drum
Comments Date: 06281995
Comments: s, were combined in 85 gallon overpack drums and transported off
Comments Date: 06281995
Comments: site for treatment/stabilization in lined end-dumps at the Landla
Comments Date: 06281995
Comments: w Environmental. Approximately 14 tons of debris containing non-
Comments Date: 06281995
Comments: friable asbestos as less than 10% by total weight were placed in
Comments Date: 06281995
Comments: a lined roll-off box and transported off-site to BDC Services, In
Comments Date: 06281995
Comments: c. for disposal. In addition, approximately 6,800 cubic yards of
Comments Date: 06281995
Comments: non hazardous materials (consisting of soil and debris) were tra
Comments Date: 06281995
Comments: nsported to IRP Site 6a. As part of Site 40 restoration, the wat
Comments Date: 06281995
Comments: er's elevation in the pond was raised by installing a concrete we
Comments Date: 06281995
Comments: ir at the outlet of the pond. Each site location, including the
Comments Date: 06281995

MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

Comments: creek bed, was restored. Vegetation destroyed during constructio
Comments Date: 06281995
Comments: n was replaced with California native plants. This RA, at Site 40
Comments Date: 06281995
Comments: , is undertaken as part of the ongoing long term remedial actions
Comments Date: 06281995
Comments: (RI/FS OU-2). 100 drums, 200 cubic yards of contaminated so
Comments Date: 06281995
Comments: il, 14 tons of non-friable asbestos debris, and 6,800 cubic yards
Comments Date: 06281995
Comments: of non-hazardous materials were removed.
Comments Date: 10041995
Comments: Certification - Confirmation sampling has shown the soil to be s
Comments Date: 10041995
Comments: uitable for unrestricted use. DTSC has determined that all appr
Comments Date: 10041995
Comments: opriate response actions have been completed, that all acceptable
Comments Date: 10041995
Comments: engineering practices were implemented and that no further remov
Comments Date: 10041995
Comments: al/ remedial action is necessary.
Comments Date: 10131994
Comments: RI/FS - This RI/FS was completed via an EECA for Site 40 which DT
Comments Date: 10131994
Comments: SC approved on October 13, 1994. Site 40 is a former landfill use
Comments Date: 10131994
Comments: d for disposing military wastes. It is approximately 18 acres an
Comments Date: 10131994
Comments: d the central portion of the property consists of a pond which ac
Comments Date: 10131994
Comments: cumulates surface run- off. There are drums buried at this landfi
Comments Date: 10131994
Comments: ll that appear to contain a mixture of chemicals, clothing, and d
Comments Date: 10131994
Comments: omestic refuse. The Air Force will: 1) excavate buried drums and
Comments Date: 10131994
Comments: other solid waste from the creek bed to prepare subgrade for the
Comments Date: 10131994
Comments: liner. Containerized waste will be segragated, sampled and char
Comments Date: 10131994
Comments: acterized for disposal, 2) construct a new channel, 3) raise the
Comments Date: 10131994
Comments: water level in the pond by constructing a weir, 4) trench at thre
Comments Date: 10131994
Comments: e areas outside of the orignial excavation area which responded p
Comments Date: 10131994
Comments: ositively during the magnotometer survey, 5) engineer the drainag
Comments Date: 10131994
Comments: e inlet and outlet to limit contact between the water in the pond
Comments Date: 10131994
Comments: and the remaining contaminants, if any. Approximate cost = not a
Comments Date: 10131994
Comments: vailable; funding = BRAC
ID Name: Not reported
ID Value: Not reported
Alternate Name: ALESSANDRO AVIATION FIELDMARCH AIR FORCE BASE - SITE 40
Special Programs Code: Not reported

MARCH AIR FORCE BASE - SITE 40 (Continued) **S102008377**

Special Programs Name: Not reported

B10
SSW
1/2-1
0.749 mi.
3957 ft.

BUILDING 962 **CA CHMIRS** **S100179024**
MARCH AFB **CA Notify 65** **N/A**
MORENO VALLEY, CA 90062

Site 3 of 6 in cluster B

Relative:
Lower

Actual:
1483 ft.

CHMIRS:
OES Incident Number: 97-1205
OES notification: 03/24/1997
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported
Waterway Involved: No
Waterway: Not reported
Spill Site: Not reported
Cleanup By: Reporting Party
Containment: Not reported
What Happened: Not reported
Type: Not reported
Measure: Not reported
Other: Not reported
Date/Time: Not reported
Year: 1997
Agency: AFB Conversion Agency
Incident Date: 3/23/199712:00:00 AM
Admin Agency: Riverside County Environmental Health
Amount: Not reported
Contained: Yes
Site Type: Military Base
E Date: Not reported
Substance: Trichloroethylene

BUILDING 962 (Continued) **S100179024**

Gallons: btwn 500-1000
Unknown: 0
Substance #2: Not reported
Substance #3: Not reported
Evacuations: 0
Number of Injuries: 0
Number of Fatalities: 0
#1 Pipeline: Not reported
#2 Pipeline: Not reported
#3 Pipeline: Not reported
#1 Vessel >= 300 Tons: Not reported
#2 Vessel >= 300 Tons: Not reported
#3 Vessel >= 300 Tons: Not reported
Evacs: Not reported
Injuries: Not reported
Fatals: Not reported
Comments: Not reported
Description: Somehow the pump tripped at the lift station. Two check valves failed causing tank to overflow. The average concentration is 19.6 PPB

NOTIFY 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 90062

B11
SSW
1/2-1
0.749 mi.
3957 ft.

MARCH AIR RESERVE BASE **CA HIST Cal-Sites** **S104241831**
3,545 ACRES; EAST OF RIVERSIDE **CA Cortese** **N/A**
RIVERSIDE, CA 92518 **CA ENVIROSTOR**

Site 4 of 6 in cluster B

Relative:
Lower

Actual:
1483 ft.

Calsite:
Region: GLENDALE
Facility ID: 33970004
Facility Type: OPEN
Type: OPEN MILITARY BASE
Branch: SO
Branch Name: OMF-SOUTHERN CALIF
File Name: Not reported
State Senate District: 07131998
Status: ANNUAL WORKPLAN (AWP) - ACTIVE SITE
Status Name: ANNUAL WORKPLAN - ACTIVE SITE
Lead Agency: ENVIRONMENTAL PROTECTION AGENCY
NPL: Listed
SIC Code: 97
SIC Name: NATIONAL SECURITY/INTERNATIONAL AFFAIRS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Confirmed
Staff Member Responsible for Site: SNIOU
Supervisor Responsible for Site: Not reported
Region Water Control Board: SA

MARCH AIR RESERVE BASE (Continued) **S104241831**

Region Water Control Board Name: SANTA ANA
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 62
State Senate District Code: 32
Facility ID: 33970004
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: OU2
Proposed Budget: 0
AWP Completion Date: 12312004
Revised Due Date: 06302006
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: STE34
Proposed Budget: 0
AWP Completion Date: 07111996
Revised Due Date: Not reported
Comments Date: 07111996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES

MARCH AIR RESERVE BASE (Continued) **S104241831**

Activity Name: DESIGN
AWP Code: STE33
Proposed Budget: 0
AWP Completion Date: 07081996
Revised Due Date: Not reported
Comments Date: 07081996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: PANER
Proposed Budget: 0
AWP Completion Date: 06171996
Revised Due Date: Not reported
Comments Date: 06171996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: SIT31
Proposed Budget: 0
AWP Completion Date: 05081996
Revised Due Date: Not reported
Comments Date: 05081996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported

MARCH AIR RESERVE BASE (Continued) **S104241831**

Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: SIT31
Proposed Budget: 0
AWP Completion Date: 05081996
Revised Due Date: Not reported
Comments Date: 05081996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: SIT11
Proposed Budget: 0
AWP Completion Date: 05011996
Revised Due Date: Not reported
Comments Date: 05011996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 380
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: CONTAMINATED SOIL REMOVED AND STOCKPILED AT SITE 15 FOR REMEDIA

MARCH AIR RESERVE BASE (Continued) **S104241831**

For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: STE 1
Proposed Budget: 0
AWP Completion Date: 03251996
Revised Due Date: Not reported
Comments Date: 03251996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RIFS
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AWP Code: STE 9
Proposed Budget: 0
AWP Completion Date: 03251996
Revised Due Date: Not reported
Comments Date: 03251996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: STE10
Proposed Budget: 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

AWP Completion Date: 02021996
Revised Due Date: Not reported
Comments Date: 02021996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: STE15
Proposed Budget: 0
AWP Completion Date: 02021996
Revised Due Date: Not reported
Comments Date: 02021996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: OU-3
Proposed Budget: 0
AWP Completion Date: 09141995
Revised Due Date: Not reported
Comments Date: 09141995
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: STE34
Proposed Budget: 0
AWP Completion Date: 07111996
Revised Due Date: Not reported
Comments Date: 07111996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: STE34
Proposed Budget: 0
AWP Completion Date: 07111996
Revised Due Date: Not reported
Comments Date: 07111996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Unknown Type: 0
Facility ID: 33970004
Activity: RAP
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION
AWP Code: OU-3
Proposed Budget: 0
AWP Completion Date: 11131996
Revised Due Date: Not reported
Comments Date: 11131996
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: SITEB
Proposed Budget: 0
AWP Completion Date: 04102000
Revised Due Date: Not reported
Comments Date: 04102000
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: SITE8
Proposed Budget: 0
AWP Completion Date: 12312006
Revised Due Date: Not reported
Comments Date: Not reported

MARCH AIR RESERVE BASE (Continued) **S104241831**

Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: STE18
Proposed Budget: 0
AWP Completion Date: 04071999
Revised Due Date: Not reported
Comments Date: 04071999
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: GROUNDWATER LEVELS ARE DEPRESSED TO EXPOSE CONTAMINATED SATURATED SOIL FOR CLEANUP BY COMBINED SOIL VAPOR EXTRACTION, AND SOIL AERATION/BIO-VENTING. SVE = 137 SCFM
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: SITE8
Proposed Budget: 0
AWP Completion Date: 12312005
Revised Due Date: 06302007
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: STE39
Proposed Budget: 0
AWP Completion Date: 03121999
Revised Due Date: Not reported
Comments Date: 03121999
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 3000
Liquids Treated (Gals): 3000
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: A BIOVENTING (AIR INJECTION) WELL, TWO BIOVENTING MONITORING PROB CONVEYANCE PIPING, AN AIR BLOWER, AND MECHANICAL AND ELECTRICAL APPURTENANCES.
For Commercial Reuse: 1
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: STE39
Proposed Budget: 0
AWP Completion Date: 02231999
Revised Due Date: Not reported
Comments Date: 02231999
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: SITE8
Proposed Budget: 0
AWP Completion Date: 12312004
Revised Due Date: 12312006
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: OM
Activity Name: OPERATION & MAINTENANCE
AWP Code: STE36
Proposed Budget: 0
AWP Completion Date: 02072000
Revised Due Date: Not reported
Comments Date: 02072000
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: RA
Activity Name: REMOVAL ACTION
AWP Code: STE36
Proposed Budget: 0
AWP Completion Date: 05261999
Revised Due Date: Not reported

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 05261999
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: N
Activity Comments: INSTALLATION OF A GROUNDWATER EXTRACTION AND TREATMENT SYSTE
COMBINATION WITH A SYSTEM FOR SOIL VAPOR EXTRACTION(SVE).
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: DES
Activity Name: DESIGN
AWP Code: STE18
Proposed Budget: 0
AWP Completion Date: 07211998
Revised Due Date: Not reported
Comments Date: 07211998
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: STE33
Proposed Budget: 0
AWP Completion Date: 12312007
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: STE27
Proposed Budget: 0
AWP Completion Date: 12312006
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: SITE8
Proposed Budget: 0
AWP Completion Date: 12312006
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Facility ID: 33970004
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: SITE2
Proposed Budget: 0
AWP Completion Date: 12312006
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: B2307
Proposed Budget: 0
AWP Completion Date: 06302007
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0
Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Facility ID: 33970004
Activity: CERT
Activity Name: CERTIFICATION
AWP Code: STE18
Proposed Budget: 0
AWP Completion Date: 12312007
Revised Due Date: Not reported
Comments Date: Not reported
Est Person-Yrs to complete: 0

MARCH AIR RESERVE BASE (Continued) **S104241831**

Estimated Size: Not reported
Request to Delete Activity: Not reported
Activity Status: AWP
Definition of Status: ANNUAL WORKPLAN - ACTIVE SITE
Liquids Removed (Gals): 0
Liquids Treated (Gals): 0
Action Included Capping: Not reported
Well Decommissioned: Not reported
Action Included Fencing: Not reported
Removal Action Certification: Not reported
Activity Comments: Not reported
For Commercial Reuse: 0
For Industrial Reuse: 0
For Residential Reuse: 0
Unknown Type: 0
Alternate Address: 2374 ACRES; EAST OF RIVERSIDE
Alternate City,St,Zip: RIVERSIDE, CA 92518
Alternate Address: 2990 GRAEBER STREET
Alternate City,St,Zip: MORENO VALLEY, CA 92518
Alternate Address: 3,545 ACRES; EAST OF RIVERSIDE
Alternate City,St,Zip: RIVERSIDE, CA 92518
Background Info: This facility is an active U.S. Air Reserve Base part of the the
Air Mobility Command (AMC). The Base's mission is to maintain an
effective air to air refueling operation capability. Operations
at the Base include: maintenance and repair of air- craft, vehicl
es and equipment; operation of a photo lab and printing plant; an
d fuel management. March AFB has historically generated the follo
wing hazardous wastes: petroleum, oil and lubricants (POLs), chlo
rinated and nonclorinated solvents, corrosives, antifreeze, paint
and paint strippers, carbon removers and photographic chemicals.
Past activities which have resulted in contamination at the base
include burning waste in fire fighting training exercises and di
scharges to sanitary sewers and storm drains. Groundwater has bee
n contaminated with trichloroethylene (TCE). Groundwater is the p
rimary source of potable water in this area. There is a potential
for contamination of soils and surface water. This base was incl
uded on the NPL in 1989. A Federal Facilities Agreement (FFA) was
signed between EPA, DHS, the Santa Ana RWQCB and the Air Force i
n September 1990, to provide for the remediation of the Base. The
Base has been divided into three groups, or operable units, whic
h are similar to the State's removal actions, for remediation. Th
ese groups are: 1) ground- water and soil for areas along the eas
t boundary and off base plume, 2) groundwater and soil for areas
not included in units 1 & 3, and 3) groundwater and soil in area
33.
Comments Date: 02021996
Comments: the final OU#1 Record of Decision (ROD). Approximately 15 cubic y
Comments Date: 02021996
Comments: ards of sediment material will be removed from the concrete-lined
Comments Date: 02021996
Comments: channel and transported off-site to Candelaria Environmental for
Comments Date: 02021996
Comments: bioremediation. DES - SITE 15: This is also part of OU#1. The
Comments Date: 07241998
Comments: DES - SITE18: The remediation technology for Site 18 is based
Comments Date: 07241998
Comments: on depressing the groundwater levels to expose contaminated

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 07241998
Comments: saturated soils for cleanup by combined soil vapor extraction,
Comments Date: 05011996
Comments: (Fuel Pump Station Building 2202 and Building 2340. These fuel l
Comments Date: 05011996
Comments: ines transport fuels from the fuel storage tanks tot he flight li
Comments Date: 05011996
Comments: ne to enable refueling of aircraft. Leakage of the fuel line was
Comments Date: 06011999
Comments: five extraction wells, 2) Constructing a small concrete pad to
Comments Date: 06011999
Comments: support process equipment. 3) Installing groundwater and vapor
Comments Date: 06011999
Comments: conveyance piping and other necessary equipment to convey soil
Comments Date: 01311996
Comments: RIFS - SITE L: This EE/CA has been prepared to address a removal
Comments Date: 01311996
Comments: action proposed for Site L. The swimming pool was converted to a
Comments Date: 01311996
Comments: waste disposal area for various base wastes including wastes oils
Comments Date: 01311996
Comments: , solvents, asbestos-containing material, and polychlorinated
Comments Date: 01311996
Comments: biphenyls (PCBs). The primary sources of contamination are the
Comments Date: 01311996
Comments: drums, transformers, or other bulk containers which may have been
Comments Date: 01311996
Comments: disposed of into the former swimming pool, the secondary source
Comments Date: 01311996
Comments: of contamination is soil or debris saturated with or containing
Comments Date: 01311996
Comments: high concentrations of contaminants in the immediate areas
Comments Date: 01311996
Comments: surrounding the primary source, and the concrete containment of
Comments Date: 01311996
Comments: the swimming pool area is also considered as a possible secondary
Comments Date: 01311996
Comments: source. The actual type and quantity of wastes in the pool are
Comments Date: 01311996
Comments: unknown at this time. If the wastes are not currently adequately
Comments Date: 01311996
Comments: contained, there is a likelihood that both the subsurface soils
Comments Date: 01311996
Comments: and/or groundwater may continue to be impacted by the wastes. Due
Comments Date: 01311996
Comments: to the variety of wastes which may be encountered and the
Comments Date: 01311996
Comments: differences in treating or disposing of those wastes, a
Comments Date: 01311996
Comments: combination of alternatives is proposed.
Comments Date: 02021996
Comments: DES - SITE 10: This is part of OU#1. The drainage channel, which
Comments Date: 02021996
Comments: was installed prior to 1940, has reportedly received various oils
Comments Date: 02021996
Comments: , hydraulic fluids, diesel fuel, jet fuel, waste paints, paint s
Comments Date: 02021996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: trippers, paint thinners, battery acids and solvents. The draina
Comments Date: 02021996
Comments: ge channel is concretelined (since the 1960s) up to the eastern b
Comments Date: 02021996
Comments: oundary of the base where it discharges to the Perris Valley stor
Comments Date: 02021996
Comments: m drain. The objectives of this remediation of contaminated sedi
Comments Date: 02021996
Comments: ment from Site 10, pursuant to the cleanup criteria set forth in
Comments Date: 02021996
Comments: Fire Training Area (FTA), Site 15, was developed in 1978 and was
Comments Date: 02021996
Comments: reportedly constructed by placing an underdrain system and grave
Comments Date: 02021996
Comments: l over a clay liner. Firefighting water, solutions of Aqueous Fil
Comments Date: 02021996
Comments: m Forming Form (AFFF) and residual fuel used during training exer
Comments Date: 02021996
Comments: cises were drained to a formely unlined water holding pond locate
Comments Date: 02021996
Comments: d adjacent to the FTA. Approximately 6000 gallons per year of co
Comments Date: 02021996
Comments: ntaminated JP-4 have been burned in training exercises since the
Comments Date: 02021996
Comments: facility was constructed in 1978. The primary contaminants of co
Comments Date: 02021996
Comments: ncern are Benzene, Naphthalene, 2-Methylnaphthalene and Phenanthr
Comments Date: 02021996
Comments: ene. The remedial actions for Site 15 will require the handling
Comments Date: 02021996
Comments: of two streams; the evaporation pond water and soils contaminated
Comments Date: 02021996
Comments: with PAHs. Approximately 4,500 gallons of water, from the evapo
Comments Date: 02021996
Comments: ration pond, will be transferred to a base sewer inlet located on
Comments Date: 02021996
Comments: e-half mile from Site 15 using a 5,000-gallon vacuum truck suppli
Comments Date: 02021996
Comments: ed by Environmental Dynamic. Approximately 8,950 tons of contami
Comments Date: 02021996
Comments: nated soil will be transported off-site to Candelaria Environment
Comments Date: 02021996
Comments: al for bioremediation. The objectives of this remedial action we
Comments Date: 02021996
Comments: re set forth in the final OU# 1 Record of Decision (ROD).
Comments Date: 02072000
Comments: to be conducted at Site 36.
Comments Date: 02072000
Comments: Site 36 - OM: A dual phase extraction system, which combines soi
Comments Date: 02072000
Comments: l vapor extraction with groundwater extraction, is in operation a
Comments Date: 02072000
Comments: t site 36. This document contains the Operation and Maintenance
Comments Date: 02072000
Comments: (O&M) procedures relating to operation and maintenance activities
Comments Date: 02241999
Comments: DES - Site 39: The remedial design objective for Site 39 is to

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 02241999
Comments: reduce the contaminant concentrations in the subsurface soil and
Comments Date: 02241999
Comments: prevent further degradation of groundwater through contaminant
Comments Date: 02241999
Comments: migration. The remedial system will include the installation of
Comments Date: 02241999
Comments: a soil bioventing system. The system will be comprised of a
Comments Date: 02241999
Comments: bioventing (air injection) well, two bioventing monitoring
Comments Date: 02241999
Comments: proves, conveyance piping, an air blower, and mechanical and
Comments Date: 02241999
Comments: mechanical and electrical appurtenances. The estimated remedial
Comments Date: 02241999
Comments: time is 2 years and the volume of soil to be treated is approx.
Comments Date: 02241999
Comments: 3000 cubic yards.
Comments Date: 03251996
Comments: RIFS - SITE 9: The removal of the OW/S will eliminate a potential
Comments Date: 03251996
Comments: source area for groundwater contamination in the future. This S
Comments Date: 03251996
Comments: ite Specific Action Memorandum was prepared to evaluate and ident
Comments Date: 03251996
Comments: ify the most effective remedial alternative to remove the OW/S an
Comments Date: 03251996
Comments: d dispose of the expected 100 cubic yards of oil contaminated soi
Comments Date: 03251996
Comments: l. On-base consolidation with Site 6 lined waste cell provides t
Comments Date: 03251996
Comments: he maximum level of regulatory compliance within the lowest cost
Comments Date: 03251996
Comments: level and is compatible with land use. Site 9 is recommended for
Comments Date: 03251996
Comments: military reuse under the Joint Power Authority preferred alterna
Comments Date: 03251996
Comments: tive. Site 9 vicinity may potentially have Beechy's Squirrel and
Comments Date: 03251996
Comments: Burrowing Owl, but excavation activities will be focused on the
Comments Date: 03251996
Comments: OW/S. No potential wetlands are located in Site 9 vicinity. RIF
Comments Date: 03251996
Comments: S - SITE 1: Soil sampling at Site 1 detected polycyclic aromatic
Comments Date: 03251996
Comments: hydrocarfons (PAHs) as contaminant of concerns. Ground- water sam
Comments Date: 03251996
Comments: ples detected metals; however, only manganese was detected above
Comments Date: 03251996
Comments: US Environmental Protection Agency Preliminary remediation Goals
Comments Date: 03251996
Comments: (PRGs). Soil from Site 1 was excavated during construction of th
Comments Date: 03251996
Comments: e Air National Guard Alert Facility. Approximately, 3,100 cubic y
Comments Date: 03251996
Comments: ards of PAH contaminated soil has been stockpiled on-site under p
Comments Date: 03251996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: lastic sheeting pending disposal. The risk assessment for Site 1
Comments Date: 03251996
Comments: determined that no human health risk was present at the site beca
Comments Date: 03251996
Comments: use the exposure pathway was limited. Now that the soil has been
Comments Date: 03251996
Comments: disturbed, the soil stockpiled at Site 1 needs to be removed to p
Comments Date: 03251996
Comments: reclude further exposure. This Site Specific Action Memorandum w
Comments Date: 03251996
Comments: as prepared to evaluate and identify the most effective disposal
Comments Date: 03251996
Comments: alternative. The site is planned for Air National Guard use and w
Comments Date: 03251996
Comments: ill remain in military use. Site 1 is not a habitat for any enda
Comments Date: 03251996
Comments: ngered species and no perennial wetlands are located in its vicin
Comments Date: 03251996
Comments: ity.
Comments Date: 04081999
Comments: RA - SITE 18: The construction of the remedial action for Site 18
Comments Date: 04081999
Comments: was completed on February 23, 1999 and the system started on
Comments Date: 04081999
Comments: Friday 26, 1999. The remediation technology for Site 18 is based
Comments Date: 04081999
Comments: on depressing the groundwater levels to expose contaminated
Comments Date: 04081999
Comments: saturated soils for cleanup by combined soil vapor extraction,and
Comments Date: 04081999
Comments: soil aeration/bioventing, free product removal by vaporization
Comments Date: 04081999
Comments: and phase separation as necessary, and dissolved through the
Comments Date: 04081999
Comments: groundwater pump and treat and by natural attenuation/biochemical
Comments Date: 04081999
Comments: degradation mechanisms. The extracted groundwater is pre-treated
Comments Date: 04081999
Comments: to remove any free product before transfer by pipline to the Site
Comments Date: 04081999
Comments: 31 treatment facility for treatment by granular activated carbon.
Comments Date: 04081999
Comments: Any free product is collected via skimmer pump and contained for
Comments Date: 04081999
Comments: disposal. A soil vapor extraction and treatment system (thermal
Comments Date: 04081999
Comments: oxidizer) unit was installed at site 18 to treat the recovered
Comments Date: 04081999
Comments: hydrocarbon vapors locally, before discharging to the atmosphere.
Comments Date: 05011996
Comments: RA - SITE 11: Site 11 is part of OU#2. It includes an area design
Comments Date: 05011996
Comments: ated as the Liquid Fuels Management, Bulk Storage Facility. The l
Comments Date: 05011996
Comments: eaking fuel line section was between the tank car unloading dock
Comments Date: 06011999
Comments: vapor and groundwater to the treatment pad. 4)Installing process

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 06011999
Comments: equipment for treating contaminated soil vapor and groundwater.
Comments Date: 06011999
Comments: 5) Performing system startup including sampling of vapor and
Comments Date: 06011999
Comments: groundwater, and system optimization.
Comments Date: 06171996
Comments: O&M Site 33(PANERO): The Site 33 Pump and Treat System (PTS) cons
Comments Date: 06171996
Comments: ists of flow equalization tanks, an oil-water separator, air stri
Comments Date: 06171996
Comments: pping, thermal oxidation of air stripper off-gas, and granular ac
Comments Date: 06171996
Comments: tivated carbon polishing of the air stripper effluent. An interna
Comments Date: 06171996
Comments: l combustion engine is used to treat vapors recovered by vapor ex
Comments Date: 06171996
Comments: traction of the pumping wells. The PTS is designed to sustain co
Comments Date: 06171996
Comments: ntinuous operation without direct operator control. Periodic surv
Comments Date: 06171996
Comments: eillance and maintenance will be required to ensure reliable oper
Comments Date: 06171996
Comments: ation and compliance with regulatory requirements. Process perfor
Comments Date: 06171996
Comments: ming monitoring of the vapor and water treatment systems will be
Comments Date: 06171996
Comments: conducted. This includes on-site sampling and tests of the influ
Comments Date: 06171996
Comments: ent streams, intermittent treatment points and the effluent strea
Comments Date: 06171996
Comments: ms to verify satisfactory operation, and timely change-out of the
Comments Date: 06171996
Comments: GAC treatment units to maintain regulatory discharge limits and
Comments Date: 06171996
Comments: cost effectiveness. Preventive equipment maintenance tasks, in a
Comments Date: 06171996
Comments: ccordance with the manufacturers recommend -ations, will be perfo
Comments Date: 06171996
Comments: rmed along with routine maintenance and record keeping activities
Comments Date: 06171996
Comments: . Normally, one field technician will be required to perform the
Comments Date: 06171996
Comments: routine O&M tasks, including well inspections and maintenance, p
Comments Date: 06171996
Comments: ump overhauls, process instrument calibrations, equipment repairs
Comments Date: 06171996
Comments: and replacements. The manufacturer shall have local service rep
Comments Date: 06171996
Comments: resentatives capable of responding to equipment failures or probl
Comments Date: 06171996
Comments: ems within 3 hours of initial contact.
Comments Date: 07111996
Comments: O&M - SITE 34: An area near the oil/water separator, which was im
Comments Date: 07111996
Comments: properly installed and is adjacent to Site 34, has been identifie
Comments Date: 07111996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: d as a potential source of the mainly hydrocarbon contamination f
Comments Date: 07111996
Comments: urther to the northwest. In March 1994 the AF installed and bega
Comments Date: 07111996
Comments: n the operation of a bioventing treatability study project at Sit
Comments Date: 07111996
Comments: e 34 to determine the effectiveness of bioventing at this site.
Comments Date: 07111996
Comments: This study was completed in July 1996 and successfully demonstrat
Comments Date: 07111996
Comments: ed the effectiveness of bioventing for this site. The Operation a
Comments Date: 07111996
Comments: nd Maintenance (O&M) phase will consist of monthly checks of the
Comments Date: 07111996
Comments: bioventing system, completion of operation/maintenance/repair man
Comments Date: 07111996
Comments: uals and respiration tests every 6 months of operation. In addit
Comments Date: 07111996
Comments: ion, oxygen, carbon dioxide and hydrocarbon concentrations from t
Comments Date: 07111996
Comments: he vapor monitoring wells will be monitored on a monthly basis. T
Comments Date: 07111996
Comments: he O&M of the bioventing system will be performed for a duration
Comments Date: 07111996
Comments: of one year after installation and start-up. Data collected from
Comments Date: 07111996
Comments: the monthly monitoring is evaluated and used as the basis for ad
Comments Date: 07111996
Comments: justing the air flow into the subsurface. Preventive equipment m
Comments Date: 07111996
Comments: aintenance tasks, in accordance with the manufacturers recommenda
Comments Date: 07111996
Comments: tions, will be performed along with routing maintenance and recor
Comments Date: 07111996
Comments: d keeping activities. Status reports will be prepared and submit
Comments Date: 07111996
Comments: ted as required for satisfactory operating control and regulatory
Comments Date: 07111996
Comments: compliance requirements. Qualified supervisory personnel will o
Comments Date: 07111996
Comments: versee execution of the O&M tasks to minimize costs, and ensure t
Comments Date: 07111996
Comments: imely and accurate operating reports. DES -SITE 34: The design
Comments Date: 07111996
Comments: of the bioventing system was included in the treatability study d
Comments Date: 07111996
Comments: ocument. A Remedial Action Workplan was submitted in July 1996 t
Comments Date: 07111996
Comments: hat considered bioventing the final remedial alternative at Site
Comments Date: 07111996
Comments: 34. This is consistent with the Operable Unit #1 (OU#1) signed R
Comments Date: 07111996
Comments: ecord of Decision (ROD). The primary advantage in using bioventi
Comments Date: 07111996
Comments: ng is the low cost to install, operate, maintain and monitor the
Comments Date: 07111996
Comments: system as compared to other remediation technology. The treatabi

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 07111996
Comments: lity study has demonstrated that the bioventing at Site 34 of the
Comments Date: 07111996
Comments: hydrocarbon contamination is cost effective, has minimal environ
Comments Date: 07111996
Comments: mental impact and will achieve the cleanup standards set in the O
Comments Date: 07111996
Comments: U#1 ROD. Bioventing is the process of delivering oxygen by force
Comments Date: 07111996
Comments: d air into the soil to stimulate or enhance the natural biodegrad
Comments Date: 07111996
Comments: ation process of petroleum hydrocarbon contaminants within the so
Comments Date: 07111996
Comments: il. The existing bioventing system at Site 34 was designed with
Comments Date: 07111996
Comments: excess air injection capacity, therefore, it may be possible to t
Comments Date: 07111996
Comments: ap into this system for use at the adjacent sites. RA - SITE 34
Comments Date: 07111996
Comments: : Soil contaminants detected during the RI/FS conducted at Site 3
Comments Date: 07111996
Comments: 4 include VOCs, SVOCs, Pesticides/PCBs, Oil and Grease, JP-4 and
Comments Date: 07111996
Comments: Diesel Fuel. The Air Force (AF) will characterize the newly disc
Comments Date: 07111996
Comments: overed contamination at Site 34 using a soil gas survey which wil
Comments Date: 07111996
Comments: l provide potential locations for soil borings based on contamina
Comments Date: 07111996
Comments: nt concentrations. The AF installed and successfully demonstrated
Comments Date: 07111996
Comments: the effectiveness of a bioventing system at this Site. The obje
Comments Date: 07111996
Comments: ctives of this remedial action is to determine the extent of the
Comments Date: 07111996
Comments: new hydrocarbon contamination at the oil/water separator, to eval
Comments Date: 07111996
Comments: uate and select the best approach to biovent the site, and to mon
Comments Date: 07111996
Comments: itor that the bioremedial approach is achieving groundwater prote
Comments Date: 07111996
Comments: ction standards as established in the OU#1 Record of Decision (RO
Comments Date: 07111996
Comments: D).
Comments Date: 07241998
Comments: and soil aeration/bioventing, free product removal by vaporiza-
Comments Date: 07241998
Comments: tion and phase separation as necessary, and dissolved through the
Comments Date: 07241998
Comments: groundwater pump and treat and by natural attenuation/biochemical
Comments Date: 07241998
Comments: degradation mechanisms. The extracted groundwater would be pre-
Comments Date: 07241998
Comments: treated to remove any free product before transfer by pipeline to
Comments Date: 07241998
Comments: the Site 31 treatment facility for treatment by granular acti-
Comments Date: 07241998

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: vated carbon. Any free product would be collected via skimmer
Comments Date: 07241998
Comments: pump and contained for disposal. A soil vapor extraction and
Comments Date: 07241998
Comments: treatment system(thermal oxidizer) unit will be installed at site
Comments Date: 07241998
Comments: 18 to treat the recovered hydrocarbon vapors locally, before
Comments Date: 07241998
Comments: discharging to the atmosphere.
Comments Date: 09141995
Comments: RAP OU#3: This ROD/RAP presents the remedial alternative selected
Comments Date: 09141995
Comments: to remediate soil and groundwater that is contaminated with petr
Comments Date: 09141995
Comments: oleum hydrocarbons and solvent beneath Operable Unit #3 (OU#3). O
Comments Date: 09141995
Comments: U#3, which encompasses the former Panero Fueling facility, is loc
Comments Date: 09141995
Comments: ated on the aircraft apron, between the flightline shops and the
Comments Date: 09141995
Comments: taxiway. The major components of the selected alternative include
Comments Date: 09141995
Comments: : 1. Institutional control, including fencing, site use restri
Comments Date: 09141995
Comments: ction, and deed restriction of groundwater use. 2. Quarterly grou
Comments Date: 09141995
Comments: ndwater monitoring. 3. Continued free product recovery. 4. Soil r
Comments Date: 09141995
Comments: emediation using soil vapor extracion and bioventing. 5. Groundwa
Comments Date: 09141995
Comments: ter source remediation using surfactant and in-situ bioremediatio
Comments Date: 09141995
Comments: n. 6. Groundwater dissolved plume treatment using groundwater pum
Comments Date: 09141995
Comments: p and treat (Air Strippers) system. The remedy is estimated to ac
Comments Date: 09141995
Comments: hieve cleanup goals within 30 years. Approximate cost: $22,251
Comments Date: 09141995
Comments: ,655.00
Comments Date: 11131996
Comments: RAP - OU#3(SITE 33): This Decision Document (DD), which is equivi
Comments Date: 11131996
Comments: lant to a Remedial Action Plan (RAP), presents the selected Remov
Comments Date: 11131996
Comments: al Action upgrade for March Air Reserve Base (MARB) Operable Unit
Comments Date: 11131996
Comments: #3 pump and Treat System. This removal action upgrade is select
Comments Date: 11131996
Comments: ed to increase jet fuel (JP-4) free product recovery rates at OU#
Comments Date: 11131996
Comments: 3. The State of California, both DTSC and the Santa Ana Regional
Comments Date: 11131996
Comments: Water Quality Control Board (RWQCB), signed a Record of Decision
Comments Date: 11131996
Comments: (ROD) for OU#3 in September 1995. However, the US Environmental
Comments Date: 11131996
Comments: Protection Agency(USEPA) and the Air Force Reserves (AFRs) decli

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MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 11131996
Comments: ned to sign the ROD at the last minute; the USEPA invoking the pe
Comments Date: 11131996
Comments: troleum exclusion section of CERCLA and the AFRs stating that the
Comments Date: 11131996
Comments: preferred alternative in the ROD is too expensive. Therefore, a
Comments Date: 11131996
Comments: fter considerable efforts, all parties agreed to expand and upgra
Comments Date: 11131996
Comments: de the existing free product recovery system as an interim remedy
Comments Date: 11131996
Comments: for the JP-4 free product beneath OU#3. This action addresses o
Comments Date: 11131996
Comments: nly JP-4 free product and does not address all contamination rema
Comments Date: 11131996
Comments: ining at the site. the DD went through the RAP requirement of pu
Comments Date: 11131996
Comments: blic review and comment.
Comments Date: 05011996
Comments: discovered when March AFB personnel noticed a loss in line press
Comments Date: 05011996
Comments: ure during an integrity test of a section of the line between the
Comments Date: 05011996
Comments: fuel pump station and the flight line. Visual indications of a
Comments Date: 05011996
Comments: fuel leak were also observed in and around the concrete valult lo
Comments Date: 05011996
Comments: cated adjacent to the fuel pump station. The objective of the Imm
Comments Date: 05011996
Comments: ediate Response Action was to remove and replace the leaking sect
Comments Date: 05011996
Comments: ion of the sub-surface JP-8 fuel line. This was accomplished with
Comments Date: 05011996
Comments: in a very tight schedule (approx. seven days) to prevent the use
Comments Date: 05011996
Comments: of outside trucks for delivery of fuels to the aircrafts. The re
Comments Date: 05011996
Comments: moval action consisted of trenching to expose the sub-surface fue
Comments Date: 05011996
Comments: l lines and associated vault area including the demolishing and r
Comments Date: 05011996
Comments: emoval of overlaying asphalt and concrete, the removal of a 230 f
Comments Date: 05011996
Comments: oot of JP-8 fuel line and a 210 foot section of an inactive JP-8
Comments Date: 05011996
Comments: line was also removed, the placement of a new 8 inch steel JP-8 f
Comments Date: 05011996
Comments: uel line and a 12 inch steel road crossing sleeve and reconstruct
Comments Date: 05011996
Comments: ion of demolished concrete vault. Approximately, 380 cubic yards
Comments Date: 05011996
Comments: of contaminated soil was removed and stockpiled at Site 15 for r
Comments Date: 05011996
Comments: emediation. Upon getting the new pipe section on-line the general
Comments Date: 05011996
Comments: site area was landscaped and restored to the original condition
Comments Date: 05011996

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: to the extent possible. This included the backfilling maximum dr
Comments Date: 05011996
Comments: y density of the soil, and the replacement of the overlaying asph
Comments Date: 05011996
Comments: alt.
Comments Date: 05081996
Comments: DES - SITE 31: This is part of OU #1. The practice of dis- charg
Comments Date: 05081996
Comments: ing solvents on the ground reportedly occurred from about the mid
Comments Date: 05081996
Comments: -1950s to the mid-1970s. In addition, floor drains from maintenan
Comments Date: 05081996
Comments: ce shops may have leaked solvents to the subsurface. The primary
Comments Date: 05081996
Comments: contaminants of concern at Site 31 are Trichloro- ethylene (PCE),
Comments Date: 05081996
Comments: and traces of other chlorinated solvents. The contaminants are
Comments Date: 05081996
Comments: contained within the soils and the groundwater and will require r
Comments Date: 05081996
Comments: emediation to prevent further contamination of the OU#1 groundwat
Comments Date: 05081996
Comments: er. Extensive studies to identify source locations, determine si
Comments Date: 05081996
Comments: te characteristics and evaluate cost effective remedial alternati
Comments Date: 05081996
Comments: ves have been performed. A dual phase extraction technology coup
Comments Date: 05081996
Comments: led with granular activated carbon treatment of extracted groundw
Comments Date: 05081996
Comments: ater and soil vapor has been selected based on a pilot scale syst
Comments Date: 05081996
Comments: em shown to be a cost- effective method for remediation of this S
Comments Date: 05081996
Comments: ite. The treatment system shall discharge treated water that wi
Comments Date: 05081996
Comments: ll have a daily average concentration of 0.5 ppb TCE or less, and
Comments Date: 05081996
Comments: never will exceed a concentration of 5 ppb TCE. Treated groundw
Comments Date: 05081996
Comments: ater will be reinjected into the aquifer combined with discharge
Comments Date: 05081996
Comments: of excess water to the Heacock Storm drain and/or the base sanita
Comments Date: 05081996
Comments: ry sewer system, as required. Installation of process equipment,
Comments Date: 05081996
Comments: surface piping and electrical facilities is planned for the end
Comments Date: 05081996
Comments: of April, and startup of the system July 1996. This remedial act
Comments Date: 05081996
Comments: ion complies with the statutory preference for remedies as specif
Comments Date: 05081996
Comments: ied in the Record of Decision (ROD) for OU#1. O&M SITE 31: The
Comments Date: 05081996
Comments: Site 31 dual phase extraction and treatment system is designed to
Comments Date: 05081996
Comments: sustain continuous operation without direct operator control. P

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments Date: 05081996
Comments: eriodic surveillance and maintenance will be required to ensure r
Comments Date: 05081996
Comments: eliable operation and compliance with regulatory requirement. Pr
Comments Date: 05081996
Comments: ocess performing monitoring of the vapor and water treatment syst
Comments Date: 05081996
Comments: ems will be conducted. This includes on-site sampling and tests
Comments Date: 05081996
Comments: of the influent streams, intermittent treatment points and the ef
Comments Date: 05081996
Comments: fluent streams to verify satisfactory operation, and timely chang
Comments Date: 05081996
Comments: e-out of the GAC treat- ment units to maintain regulatory dischar
Comments Date: 05081996
Comments: ge limits and cost effectiveness. Preventive equipment maintenan
Comments Date: 05081996
Comments: ce tasks, in accordance with the manufacturers recommendations, w
Comments Date: 05081996
Comments: ill be performed along with routine maintenance and record keepin
Comments Date: 05081996
Comments: g activities. It is expected that the carbon change-out frequenc
Comments Date: 05081996
Comments: y will gradually decrease as the soil and groundwater contaminant
Comments Date: 05081996
Comments: levels decline with ongoing treatment. Initially the change-out
Comments Date: 05081996
Comments: s may occur once every 1-2 months and subsequently may decrease t
Comments Date: 05081996
Comments: o once or twice a year for the groundwater treatment system. Norm
Comments Date: 05081996
Comments: ally, one field technician will be required to perform the routin
Comments Date: 05081996
Comments: e O&M tasks, including wells inspections and maintenance, pump ov
Comments Date: 05081996
Comments: erhauls, process instrument calibrations, equipment repairs and r
Comments Date: 05081996
Comments: eplacements. Status reports along with analytical results and di
Comments Date: 05081996
Comments: scharge records will be prepared and submitted as reqired for sat
Comments Date: 05081996
Comments: isfactory operating control and regulatory compliance requirement
Comments Date: 05081996
Comments: s. Qualified supervisory personnel will oversee execution of the
Comments Date: 05081996
Comments: O&M tasks to minimize costs, and ensure timely and accurate oper
Comments Date: 05081996
Comments: ating reports.
Comments Date: 06011999
Comments: RA - SITE 36: The remedial action for Site 36 was completed on
Comments Date: 06011999
Comments: March 15, 1999. It included the installation of a groundwater
Comments Date: 06011999
Comments: extraction and treatment system in combination with a system for
Comments Date: 06011999
Comments: soil vapor extraction (SVE). A remedial design of this system
Comments Date: 06011999

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: was approved by DTSC on April 7, 1998. The Site 36 system
Comments Date: 06011999
Comments: includes conveyance piping, process vessels, and electrical and
Comments Date: 06011999
Comments: mechanical appurtenances. The remedial activities conducted at
Comments Date: 06011999
Comments: Site 36 included: 1) Installing a submersible pump into each of
ID Name: Not reported
ID Value: Not reported
Alternate Name: ALESSANDRO ARMY AIR FIELD|March Air Reserve Base
Special Programs Code: DSMOA
Special Programs Name: DEFENSE MEMORANDUM OF AGREEMENT

CORTESE:
Region: CORTESE
Envirostor Id: 33970004
Site/Facility Type: FEDERAL SUPERFUND - LISTED
Cleanup Status: ACTIVE
Status Date: 07/13/1998
Site Code: 400689
Latitude: 34.090000
Longitude: -117.26305
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: envirostor
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported

ENVIROSTOR:
Facility ID: 33970004
Status: Active
Status Date: 07/13/1998
Site Code: 400689
Site Type: Federal Superfund
Site Type Detailed: Open Base
Acres: 2500
NPL: YES
Regulatory Agencies: SMBRP, RWQCB 8 - Santa Ana, US EPA
Lead Agency: US EPA
Program Manager: Stephen Niou
Supervisor: Robert Senga
Division Branch: Cleanup Cypress
Assembly: 40
Senate: 23
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: DERA
Latitude: 34.09
Longitude: -117.2630

MARCH AIR RESERVE BASE (Continued) **S104241831**

APN: NONE SPECIFIED
Past Use: AIRCRAFT MAINTENANCE, AIRFIELD OPERATIONS, DEGREASING FACILITY, DRY CLEANING, ENGINE TESTING/REPAIR, FIRE TRAINING AREAS, FUEL - AIRCRAFT STORAGE/ REFUELING, FUEL - VEHICLE STORAGE/ REFUELING, LANDFILL - DOMESTIC, MACHINE SHOP, OFFICE BUILDING, OIL/WATER SEPARATORS, PAINT/DEPAINT FACILITY
Potential COC: Lead Polychlorinated biphenyls (PCBs Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel TPH-JET FUEL 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Carbon tetrachloride Chloroform
Confirmed COC: 30013-NO 30018-NO Polynuclear aromatic hydrocarbons (PAHs Tetrachloroethylene (PCE TPH-diesel 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Chloroform Carbon tetrachloride TPH-JET FUEL
Potential Description: OTH, SOIL
Alias Name: ALESSANDRO ARMY AIR FIELD
Alias Type: Alternate Name
Alias Name: |
Alias Type: Alternate Name
Alias Name: 110033608665
Alias Type: EPA (FRS #)
Alias Name: T10000005654
Alias Type: GeoTracker Global ID
Alias Name: T10000005916
Alias Type: GeoTracker Global ID
Alias Name: 16985
Alias Type: RB-PCA
Alias Name: 400689
Alias Type: Project Code (Site Code)
Alias Name: 33970004
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: Site 49
Completed Document Type: Monitoring Report
Completed Date: 08/21/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction Monitoring Report
Completed Date: 03/12/2014
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: SIT31
Completed Document Type: Operations and Maintenance Plan
Completed Date: 05/08/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: SIT31
Completed Document Type: * Remedial or Removal Design
Completed Date: 05/08/1996
Comments: DES - SITE 31: This is part of OU #1. The practice of dis- charging solvents on the ground reportedly occurred from about the mid-1950s to the mid-1970s. In addition, floor drains from maintenance shops may have leaked solvents to the subsurface. The primary contaminants

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MARCH AIR RESERVE BASE (Continued) **S104241831**

of concern at Site 31 are Trichloro- ethylene (PCE), and traces of other chlorinated solvents. The contaminants are contained within the soils and the groundwater and will require remediation to prevent further contamination of the OU#1 groundwater. Extensive studies to identify source locations, determine site characteristics and evaluate cost effective remedial alternatives have been performed. A dual phase extraction technology coupled with granular activated carbon treatment of extracted groundwater and soil vapor has been selected based on a pilot scale system shown to be a cost- effective method for remediation of this Site. The treatment system shall discharge treated water that will have a daily average concentration of 0.5 ppb TCE or less, and never will exceed a concentration of 5 ppb TCE. Treated groundwater will be reinjected into the aquifer combined with discharge of excess water to the Heacock Storm drain and/or the base sanitary sewer system, as required. Installation of process equipment, surface piping and electrical facilities is planned for the end of April, and startup of the system July 1996. This remedial action complies with the statutory preference for remedies as specified in the Record of Decision (ROD) for OU#1. ' O&M SITE 31: The Site 31 dual phase extraction and treatment system is designed to sustain continuous operation without direct operator control. Periodic surveillance and maintenance will be required to ensure reliable operation and compliance with regulatory requirement. Process performing monitoring of the vapor and water treatment systems will be conducted. This includes on-site sampling and tests of the influent streams, intermittent treatment points and the effluent streams to verify satisfactory operation, and timely change-out of the GAC treat- ment units to maintain regulatory discharge limits and cost effectiveness. Preventive equipment maintenance tasks, in accordance with the manufacturers recommendations, will be performed along with routine maintenance and record keeping activities. It is expected that the carbon change-out frequency will gradually decrease as the soil and groundwater contaminant levels decline with ongoing treatment. Initially the change-outs may occur once every 1-2 months and subsequently may decrease to once or twice a year for the groundwater treatment system. Normally, one field technician will be required to perform the routine O&M tasks, including wells inspections and maintenance, pump overhauls, process instrument calibrations, equipment repairs and replacements. Status reports along with analytical results and discharge records will be prepared and submitted as reqired for satisfactory operating control and regulatory compliance requirements. Qualified supervisory personnel will oversee execution of the O&M tasks to minimize costs, and ensure timely and accurate operating reports.

Completed Area Name: OU2
Completed Sub Area Name: SIT11
Completed Document Type: Removal Action Completion Report
Completed Date: 05/01/1996
Comments: RA - SITE 11: Site 11 is part of OU#2. It includes an area designated as the Liquid Fuels Management, Bulk Storage Facility. The leaking fuel line section was between the tank car unloading dock (Fuel Pump Station Building 2202 and Building 2340. These fuel lines transport fuels from the fuel storage tanks tot he flight line to enable refueling of aircraft. Leakage of the fuel line was discovered when March AFB personnel noticed a loss in line pressure during an

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MARCH AIR RESERVE BASE (Continued) **S104241831**

integrity test of a section of the line between the fuel pump station and the flight line. Visual indications of a fuel leak were also observed in and around the concrete valult located adjacent to the fuel pump station. The objective of the Immediate Response Action was to remove and replace the leaking section of the sub-surface JP-8 fuel line. This was accomplished within a very tight schedule (approx. seven days) to prevent the use of outside trucks for delivery of fuels to the aircrafts. The removal action consisted of trenching to expose the sub-surface fuel lines and associated vault area including the demolishing and removal of overlaying asphalt and concrete, the removal of a 230 foot of JP-8 fuel line and a 210 foot section of an inactive JP-8 line was also removed, the placement of a new 8 inch steel JP-8 fuel line and a 12 inch steel road crossing sleeve and reconstruction of demolished concrete vault. Approximately, 380 cubic yards of contaminated soil was removed and stockpiled at Site 15 for remediation. Upon getting the new pipe section on-line the general site area was landscaped and restored to the original condition to the extent possible. This included the backfilling maximum dry density of the soil, and the replacement of the overlaying asphalt.

Completed Area Name: OU2
Completed Sub Area Name: STE 1
Completed Document Type: Feasibility Study Report
Completed Date: 03/25/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE 9
Completed Document Type: Feasibility Study Report
Completed Date: 03/25/1996
Comments: RIFS - SITE 9: The removal of the OW/S will eliminate a potential source area for groundwater contamination in the future. This Site Specific Action Memorandum was prepared to evaluate and identify the most effective remedial alternative to remove the OW/S and dispose of the expected 100 cubic yards of oil contaminated soil. On-base consolidation with Site 6 lined waste cell provides the maximum level of regulatory compliance within the lowest cost level and is compatible with land use. Site 9 is recommended for military reuse under the Joint Power Authority preferred alternative. Site 9 vicinity may potentially have Beechy's Squirrel and Burrowing Owl, but excavation activities will be focused on the OW/S. No potential wetlands are located in Site 9 vicinity. ' RIFS - SITE 1: Soil sampling at Site 1 detected polycyclic aromatic hydrocarfons (PAHs) as contaminant of concerns. Ground- water samples detected metals; however, only manganese was detected above US Environmental Protection Agency Preliminary remediation Goals (PRGs). Soil from Site 1 was excavated during construction of the Air National Guard Alert Facility. Approximately, 3,100 cubic yards of PAH contaminated soil has been stockpiled on-site under plastic sheeting pending disposal. The risk assessment for Site 1 determined that no human health risk was present at the site because the exposure pathway was limited. Now that the soil has been disturbed, the soil stockpiled at Site 1 needs to be removed to preclude further exposure. This Site Specific Action Memorandum was prepared to evaluate and identify the most effective disposal alternative. The site is planned for Air National Guard use and will remain in military use. Site 1 is not a

MARCH AIR RESERVE BASE (Continued) **S104241831**

habitat for any endangered species and no perennial wetlands are located in its vicinity.

Completed Area Name: OU 1
Completed Sub Area Name: STE10
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/02/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE15
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/02/1996
Comments: DES - SITE 10: This is part of OU#1. The drainage channel, which was installed prior to 1940, has reportedly received various oils , hydraulic fluids, diesel fuel, jet fuel, waste paints, paint strippers, paint thinners, battery acids and solvents. The drainage channel is concretelined (since the 1960s) up to the eastern boundary of the base where it discharges to the Perris Valley storm drain. The objectives of this remediation of contaminated sediment from Site 10, pursuant to the cleanup criteria set forth in the final OU#1 Record of Decision (ROD). Approximately 15 cubic yards of sediment material will be removed from the concrete-lined channel and transported off-site to Candelaria Environmental for bioremediation. ‘ DES - SITE 15: This is also part of OU#1. The Fire Training Area (FTA), Site 15, was developed in 1978 and was reportedly constructed by placing an underdrain system and gravel over a clay liner. Firefighting water, solutions of Aqueous Film Forming Form (AFFF) and residual fuel used during training exercises were drained to a formely unlined water holding pond located adjacent to the FTA. Approximately 6000 gallons per year of contaminated JP-4 have been burned in training exercises since the facility was constructed in 1978. The primary contaminants of concern are Benzene, Naphthalene, 2-Methylnaphthalene and Phenanthrene. The remedial actions for Site 15 will require the handling of two streams; the evaporation pond water and soils contaminated with PAHs. Approximately 4,500 gallons of water, from the evaporation pond, will be transferred to a base sewer inlet located one-half mile from Site 15 using a 5,000-gallon vacuum truck supplied by Environmental Dynamic. Approximately 8,950 tons of contaminated soil will be transported off-site to Candelaria Environmental for bioremediation. The objectives of this remedial action were set forth in the final OU# 1 Record of Decision (ROD).

Completed Area Name: OU-3
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/14/1995
Comments: RAP OU#3: This ROD/RAP presents the remedial alternative selected to remediate soil and groundwater that is contaminated with petroleum hydrocarbons and solvent beneath Operable Unit #3 (OU#3). OU#3, which encompasses the former Panero Fueling facility, is located on the aircraft apron, between the flightline shops and the taxiway. The major components of the selected alternative include: 1. Institutional control, including fencing, site use restriction, and deed restriction of groundwater use. 2. Quarterly groundwater monitoring. 3. Continued free product recovery. 4. Soil remediation using soil vapor extracion and bioventing. 5. Groundwater source

MARCH AIR RESERVE BASE (Continued) **S104241831**

remediation using surfactant and in-situ bioremediation. 6. Groundwater dissolved plume treatment using groundwater pump and treat (Air Strippers) system. The remedy is estimated to achieve cleanup goals within 30 years. Approximate cost: $22,251,655.00

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: Removal Action Completion Report
Completed Date: 07/11/1996
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/11/1996
Comments: O&M - SITE 34: An area near the oil/water separator, which was improperly installed and is adjacent to Site 34, has been identified as a potential source of the mainly hydrocarbon contamination further to the northwest. In March 1994 the AF installed and began the operation of a bioventing treatability study project at Site 34 to determine the effectiveness of bioventing at this site. This study was completed in July 1996 and successfully demonstrated the effectiveness of bioventing for this site. The Operation and Maintenance (O&M) phase will consist of monthly checks of the bioventing system, completion of operation/maintenance/repair manuals and respiration tests every 6 months of operation. In addition, oxygen, carbon dioxide and hydrocarbon concentrations from the vapor monitoring wells will be monitored on a monthly basis. The O&M of the bioventing system will be performed for a duration of one year after installation and start-up. Data collected from the monthly monitoring is evaluated and used as the basis for adjusting the air flow into the subsurface. Preventive equipment maintenance tasks, in accordance with the manufacturers recommendations, will be performed along with routing maintenance and record keeping activities. Status reports will be prepared and submitted as required for satisfactory operating control and regulatory compliance requirements. Qualified supervisory personnel will oversee execution of the O&M tasks to minimize costs, and ensure timely and accurate operating reports. ‘ DES -SITE 34: The design of the bioventing system was included in the treatability study document. A Remedial Action Workplan was submitted in July 1996 that considered bioventing the final remedial alternative at Site 34. This is consistent with the Operable Unit #1 (OU#1) signed Record of Decision (ROD). The primary advantage in using bioventing is the low cost to install, operate, maintain and monitor the system as compared to other remediation technology. The treatability study has demonstrated that the bioventing at Site 34 of the hydrocarbon contamination is cost effective, has minimal environmental impact and will achieve the cleanup standards set in the OU#1 ROD. Bioventing is the process of delivering oxygen by forced air into the soil to stimulate or enhance the natural biodegradation process of petroleum hydrocarbon contaminants within the soil. The existing bioventing system at Site 34 was designed with excess air injection capacity, therefore, it may be possible to tap into this system for use at the adjacent sites. ‘ RA - SITE 34: Soil contaminants detected during the RI/FS conducted at Site 34 include VOCs, SVOCs, Pesticides/PCBs, Oil and Grease, JP-4 and Diesel Fuel. The Air Force (AF) will characterize the newly discovered

MARCH AIR RESERVE BASE (Continued) **S104241831**

contamination at Site 34 using a soil gas survey which will provide potential locations for soil borings based on contaminant concentrations. The AF installed and successfully demonstrated the effectiveness of a bioventing system at this Site. The objectives of this remedial action is to determine the extent of the new hydrocarbon contamination at the oil/water separator, to evaluate and select the best approach to biovent the site, and to monitor that the bioremedial approach is achieving groundwater protection standards as established in the OU#1 Record of Decision (ROD).

Completed Area Name: OU-3
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 11/13/1996
Comments: RAP - OU#3(SITE 33): This Decision Document (DD), which is equivilant to a Remedial Action Plan (RAP), presents the selected Removal Action upgrade for March Air Reserve Base (MARB) Operable Unit #3 pump and Treat System. This removal action upgrade is selected to increase jet fuel (JP-4) free product recovery rates at OU#3. The State of California, both DTSC and the Santa Ana Regional Water Quality Control Board (RWQCB), signed a Record of Decision (ROD) for OU#3 in September 1995. However, the US Environmental Protection Agency(USEPA) and the Air Force Reserves (AFRs) declined to sign the ROD at the last minute; the USEPA invoking the petroleum exclusion section of CERCLA and the AFRs stating that the preferred alternative in the ROD is too expensive. Therefore, after considerable efforts, all parties agreed to expand and upgrade the existing free product recovery system as an interim remedy for the JP-4 free product beneath OU#3. This action addresses only JP-4 free product and does not address all contamination remaining at the site. the DD went through the RAP requirement of public review and comment.

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: Removal Action Completion Report
Completed Date: 04/07/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 09/29/2005
Comments: DTSC has concurred with the OU2A ROD of March Air Reserve Base. The OU2A ROD addresses Sites 1, 11, 37, and 39. The key provisions of this ROD include institutional controls for Sites 1 and 11 where residual PAHs exist in the soil that are incompatible with unrestricted land use. The Air Force agreed to incorporate institutional control provisions into the base master plan. In case of base closure, the AF will require the purchasers to enter into State land Use Covenants with DTSC as a condition of land transfer. Sites 37 and 39 require no further actions.

Completed Area Name: OU 1
Completed Sub Area Name: STE34
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/11/1996
Comments: Not reported

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Area Name: PCAS
Completed Sub Area Name: STE33
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/08/1996
Comments: Not reported

Completed Area Name: Sites With No Operable Unit
Completed Sub Area Name: PANER
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/17/1996
Comments: O&M Site 33(PANERO): The Site 33 Pump and Treat System (PTS) consists of flow equalization tanks, an oil-water separator, air stripping, thermal oxidation of air stripper off-gas, and granular activated carbon polishing of the air stripper effluent. An internal combustion engine is used to treat vapors recovered by vapor extraction of the pumping wells. The PTS is designed to sustain continuous operation without direct operator control. Periodic surveillance and maintenance will be required to ensure reliable operation and compliance with regulatory requirements. Process performing monitoring of the vapor and water treatment systems will be conducted. This includes on-site sampling and tests of the influent streams, intermittent treatment points and the effluent streams to verify satisfactory operation, and timely change-out of the GAC treatment units to maintain regulatory discharge limits and cost effectiveness. Preventive equipment maintenance tasks, in accordance with the manufacturers recommend -ations, will be performed along with routine maintenance and record keeping activities. Normally, one field technician will be required to perform the routine O&M tasks, including well inspections and maintenance, pump overhauls, process instrument calibrations, equipment repairs and replacements. The manufacturer shall have local service representatives capable of responding to equipment failures or problems within 3 hours of initial contact.

Completed Area Name: OU2
Completed Sub Area Name: STE39
Completed Document Type: Removal Action Completion Report
Completed Date: 03/12/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE39
Completed Document Type: * Remedial or Removal Design
Completed Date: 02/23/1999
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: STE36
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/07/2000
Comments: Site 36 - OM: A dual phase extraction system, which combines soil vapor extraction with groundwater extraction, is in operation at site 36. This document contains the Operation and Maintenance (O&M) procedures relating to operation and maintenance activities to be conducted at Site 36.

Completed Area Name: OU2

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Sub Area Name: STE36
Completed Document Type: Removal Action Completion Report
Completed Date: 05/26/1999
Comments: Not reported

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: * Remedial or Removal Design
Completed Date: 07/21/1998
Comments: Not reported

Completed Area Name: OU2
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation Workplan
Completed Date: 08/26/2005
Comments: Although there are unresolved issues, DTSC agrees the finalization of the work plan and leaves comments on fate and transport of VOCs and on off-base migration of VOC plumes to be discussed/disputed when the RI report becomes available.

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/04/2006
Comments: The 1st Quarter 2006 OU1 Process Monitoring report is finalized

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/27/2007
Comments: As a secondary document, no comment letter is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/01/2003
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Record of Decision w/ESD
Completed Date: 01/29/2014
Comments: The remedy for site soil has been changed to excavation and disposal

Completed Area Name: OU 1
Completed Sub Area Name: FT29
Completed Document Type: Remedial Investigation Report
Completed Date: 08/20/2013
Comments: Not reported

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 08/19/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE

MARCH AIR RESERVE BASE (Continued) **S104241831**

Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 08/19/2013
Comments: Not reported

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Quality Assurance Workplan
Completed Date: 08/08/2013
Comments: Accepted on Aug 8, 2013

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/16/2013
Comments: Not reported

Completed Area Name: * BASEWIDE
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 12/18/2013
Comments: Not reported

Completed Area Name: PCAS
Completed Sub Area Name: SITE2
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE18
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE27
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: routine monitoring report

Completed Area Name: PCAS
Completed Sub Area Name: STE33
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/05/2007
Comments: Routine monitoring report reviewed by RWQCB

Completed Area Name: OU 1
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 10/30/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 09/02/2009

MARCH AIR RESERVE BASE (Continued) **S104241831**

Comments: 5 year review report accepted

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/08/2010
Comments: The report may be finalized

Completed Area Name: OU 1
Completed Sub Area Name: EGETS
Completed Document Type: Operations and Maintenance Plan Amendment
Completed Date: 01/06/2011
Comments: DTSC sent a no-comment letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Long Term Monitoring Report
Completed Date: 04/19/2011
Comments: Secondary document, no approval required.

Completed Area Name: OU2
Completed Sub Area Name: SITE8
Completed Document Type: Pilot/Treatability Study Report
Completed Date: 03/29/2012
Comments: Data to be used in Sites 8 & 36 FFS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/08/2014
Comments: secondary document for groundwater monitoring data

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/01/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/12/2006
Comments: Not reported

Future Area Name: OU 1
Future Sub Area Name: Not reported
Future Document Type: Record of Decision
Future Due Date: 2017
Future Area Name: OU2
Future Sub Area Name: STE 1
Future Document Type: Remedial Investigation Report
Future Due Date: 2016
Future Area Name: OU 1
Future Sub Area Name: FT29
Future Document Type: Proposed Plan
Future Due Date: 2015
Future Area Name: OU 1

MARCH AIR RESERVE BASE (Continued) **S104241831**

Future Sub Area Name: FT29
Future Document Type: Record of Decision - Amendment
Future Due Date: 2016
Future Area Name: Sites With No Operable Unit
Future Sub Area Name: Site 49
Future Document Type: Operations and Maintenance Report
Future Due Date: 2015
Future Area Name: OU2
Future Sub Area Name: STE36
Future Document Type: Design/Implementation Workplan
Future Due Date: 2015
Future Area Name: OU2
Future Sub Area Name: STE36
Future Document Type: Remedial Action Completion Report
Future Due Date: 2016
Future Area Name: Sites With No Operable Unit
Future Sub Area Name: Site 49
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: Sites With No Operable Unit
Future Sub Area Name: Site 49
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: OU2
Future Sub Area Name: SITE8
Future Document Type: Proposed Plan
Future Due Date: 2016
Future Area Name: OU2
Future Sub Area Name: SITE8
Future Document Type: Record of Decision
Future Due Date: 2016
Future Area Name: OU 1
Future Sub Area Name: STE34
Future Document Type: Removal Action Completion Report
Future Due Date: 2015
Future Area Name: OU2
Future Sub Area Name: STE 1
Future Document Type: Proposed Plan
Future Due Date: 2017
Future Area Name: OU2
Future Sub Area Name: STE 1
Future Document Type: Record of Decision - Amendment
Future Due Date: 2017
Future Area Name: OU 1
Future Sub Area Name: Site 5
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: OU 1
Future Sub Area Name: Site 5
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: Sites With No Operable Unit
Future Sub Area Name: Site 49
Future Document Type: Record of Decision
Future Due Date: 2015
Future Area Name: OU2
Future Sub Area Name: STE36

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

MARCH AIR RESERVE BASE (Continued) **S104241831**

Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	OU2
Future Sub Area Name:	STE36
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	Sites With No Operable Unit
Future Sub Area Name:	Site 49
Future Document Type:	Design/Implementation Workplan
Future Due Date:	2016
Future Area Name:	OU2
Future Sub Area Name:	SITE8
Future Document Type:	Remedial Investigation Report
Future Due Date:	2016
Schedule Area Name:	OU2
Schedule Sub Area Name:	SITE8
Schedule Document Type:	Remedial Investigation Report
Schedule Due Date:	03/27/2012
Schedule Revised Date:	02/14/2015
Schedule Area Name:	Sites With No Operable Unit
Schedule Sub Area Name:	Site 49
Schedule Document Type:	Remedial Investigation / Feasibility Study
Schedule Due Date:	04/21/2015
Schedule Revised Date:	Not reported

B12
SSW
1/2-1
0.749 mi.
3957 ft.

MARCH AIR FORCE BASE **CA BOND EXP. PLAN** **S105960470**
N/A
MORENO VALLEY, CA 92518

Site 5 of 6 in cluster B

Relative:
Lower

Actual:
1483 ft.

CA BOND EXP. PLAN:

Reponsible Party:	FEDERAL FACILITY SITE CLEANUP WORKPLAN
Project Revenue Source Company:	Not reported
Project Revenue Source Addr:	Not reported
Project Revenue Source City,St,Zip:	Not reported
Project Revenue Source Desc:	The Department will either enter into an interagency agreement with the Department of Defense of issue an order for oversight/monitoring of the Air Force's cleanup efforts. DHS has budgeted $100,000 for its oversight/monitoring costs. DHS will recover 100 percent of direct costs plus staff costs and overhead related to the project. The Department of Defense will pay all costs associated with remedial investigation and cleanup activities.
Site Description:	The site is a U.S. Air Force Base.
Hazardous Waste Desc:	The initial assessment at this site identified hazardous waste disposal on base in landfills, burning pits, dry wells, and ground disposal. Several types of wastes associated with aircraft and general maintenance were identified, including fuels, oils, polychlorinated biphenyls (PCBs), pesticides, low-level radiation, and the solvents trichloroethylene (TCE) and perchloroethylene (PCE).
Threat To Public Health & Env:	Past disposal practices at March Air Force Base pose a threat to surface and ground water. Work to date has identified ground water contamination on and off base, and recently, in private wells east of the base perimeter. There is no known exposure at this time.
Site Activity Status:	The installation restoration program has been initiated at this base. Currently the program is in the confirmation/quantification step of the mitigation process. DHS's oversight has increased due to contamination of drinking water supplies.

B13
SSW
1/2-1
0.749 mi.
3957 ft.

PANERO AIRCRAFT FUELING SYST. **CA Notify 65** **S100179101**
N/A
MARCH AFB
MORENO VALLEY, CA 90062

Site 6 of 6 in cluster B

Relative:
Lower

Actual:
1483 ft.

NOTIFY 65:

Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Incident Description:	90062

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

Count: 0 records.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List
National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143	EPA Region 6 Telephone: 214-655-6659
EPA Region 3 Telephone 215-814-5418	EPA Region 7 Telephone: 913-551-7247
EPA Region 4 Telephone 404-562-8033	EPA Region 8 Telephone: 303-312-6774
EPA Region 5 Telephone 312-886-6686	EPA Region 9 Telephone: 415-947-4246
EPA Region 10 Telephone 206-553-8665	

Proposed NPL: Proposed National Priority List Sites
A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens
Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/16/2014	Source: EPA
Date Data Arrived at EDR: 01/08/2015	Telephone: N/A
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/08/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 02/27/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/21/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/07/2014	Telephone: 703-603-8704
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 01/09/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 02/27/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/09/2014	Source: EPA
Date Data Arrived at EDR: 12/29/2014	Telephone: 800-424-9346
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/09/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/29/2014	Telephone: (415) 495-8895
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/29/2014	Telephone: (415) 495-8895
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/09/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/29/2014	Telephone: (415) 495-8895
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/09/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/29/2014	Telephone: (415) 495-8895
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 31	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/19/2014	Telephone: 703-603-0695
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 02/26/2015
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/15/2015
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/19/2014	Telephone: 703-603-0695
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 02/26/2015
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/15/2015
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/03/2014	Source: Department of the Navy
Date Data Arrived at EDR: 12/12/2014	Telephone: 843-820-7326
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 02/16/2015
Number of Days to Update: 48	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/29/2014	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 09/30/2014	Telephone: 202-267-2180
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 12/29/2014
Number of Days to Update: 37	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/02/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/03/2015	Telephone: 916-323-3400
Date Made Active in Reports: 02/27/2015	Last EDR Contact: 03/12/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 05/18/2015
	Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 02/02/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/03/2015	Telephone: 916-323-3400
Date Made Active in Reports: 02/27/2015	Last EDR Contact: 03/12/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 05/18/2015
	Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/16/2015	Source: Department of Resources Recycling and Recovery
Date Data Arrived at EDR: 02/17/2015	Telephone: 916-341-6320
Date Made Active in Reports: 03/03/2015	Last EDR Contact: 02/17/2015
Number of Days to Update: 14	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 09/26/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 01/09/2012
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 08/15/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 11/28/2011
	Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004	Source: California Regional Water Quality Control Board Colorado River Basin Re
Date Data Arrived at EDR: 02/26/2004	Telephone: 760-776-8943
Date Made Active in Reports: 03/24/2004	Last EDR Contact: 08/01/2011
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/14/2011
	Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15
Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22
Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 01/30/2015
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 32
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 10/06/2014
Date Data Arrived at EDR: 10/29/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 19
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 11/04/2014
Date Data Arrived at EDR: 11/07/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 10
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/08/2015	Telephone: 415-972-3372
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/08/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 11/10/2014	Source: EPA Region 10
Date Data Arrived at EDR: 11/14/2014	Telephone: 206-553-2857
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 87	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 01/20/2015	Source: SWRCB
Date Data Arrived at EDR: 01/21/2015	Telephone: 916-341-5851
Date Made Active in Reports: 01/27/2015	Last EDR Contact: 01/21/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-327-5092
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 12/23/2014
Number of Days to Update: 21	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 11/04/2014	Source: EPA Region 8
Date Data Arrived at EDR: 11/07/2014	Telephone: 303-312-6137
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013	Source: EPA, Region 1
Date Data Arrived at EDR: 05/01/2013	Telephone: 617-918-1313
Date Made Active in Reports: 01/27/2014	Last EDR Contact: 01/30/2015
Number of Days to Update: 271	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014	Source: EPA Region 4
Date Data Arrived at EDR: 08/12/2014	Telephone: 404-562-9424
Date Made Active in Reports: 08/22/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/03/2014	Source: EPA Region 5
Date Data Arrived at EDR: 11/05/2014	Telephone: 312-886-6136
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 11/10/2014	Source: EPA Region 10
Date Data Arrived at EDR: 11/14/2014	Telephone: 206-553-2857
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 87	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 11/13/2014	Source: EPA Region 9
Date Data Arrived at EDR: 11/18/2014	Telephone: 415-972-3368
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 83	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 65	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 10/06/2014	Source: EPA Region 6
Date Data Arrived at EDR: 10/29/2014	Telephone: 214-665-7591
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 01/26/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Semi-Annually

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 01/12/2015
Number of Days to Update: 55	Next Scheduled EDR Contact: 04/27/2015
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 02/02/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/03/2015	Telephone: 916-323-3400
Date Made Active in Reports: 02/27/2015	Last EDR Contact: 03/12/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 05/18/2015
	Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014	Source: EPA, Region 1
Date Data Arrived at EDR: 10/01/2014	Telephone: 617-918-1102
Date Made Active in Reports: 11/06/2014	Last EDR Contact: 12/31/2014
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/22/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/22/2014	Telephone: 202-566-2777
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 12/22/2014
Number of Days to Update: 38	Next Scheduled EDR Contact: 04/06/2015
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009	Source: EPA, Region 9
Date Data Arrived at EDR: 05/07/2009	Telephone: 415-947-4219
Date Made Active in Reports: 09/21/2009	Last EDR Contact: 01/26/2015
Number of Days to Update: 137	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/15/2014	Source: Department of Conservation
Date Data Arrived at EDR: 12/15/2014	Telephone: 916-323-3836
Date Made Active in Reports: 01/26/2015	Last EDR Contact: 12/15/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 12/01/2014	Source: Integrated Waste Management Board
Date Data Arrived at EDR: 12/01/2014	Telephone: 916-341-6422
Date Made Active in Reports: 01/23/2015	Last EDR Contact: 02/16/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 02/02/2015
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/18/2015
	Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/10/2000	Telephone: 916-227-4448
Date Made Active in Reports: 05/10/2000	Last EDR Contact: 02/09/2015
Number of Days to Update: 30	Next Scheduled EDR Contact: 05/25/2015
	Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 70

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/03/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 02/02/2015
Date Data Arrived at EDR: 02/03/2015
Date Made Active in Reports: 02/27/2015
Number of Days to Update: 24

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/12/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2014
Date Data Arrived at EDR: 09/02/2014
Date Made Active in Reports: 09/24/2014
Number of Days to Update: 22

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 11/10/2014
Date Data Arrived at EDR: 12/01/2014
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 70

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/03/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/30/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/15/2014
Date Data Arrived at EDR: 12/18/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/09/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 45

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/10/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/29/2014
Date Data Arrived at EDR: 12/30/2014
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 69

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/28/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 01/21/2015
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/03/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/12/2014
Next Scheduled EDR Contact: 03/23/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 24

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/24/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/10/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/27/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/06/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Ac

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Cont

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB’s who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/16/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 12/29/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 21

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 10/07/2014
Date Data Arrived at EDR: 10/08/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 12

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 02/27/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and ’pointers’ to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 08/16/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/24/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 45

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/15/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/16/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 02/17/2015	Telephone: 916-445-9379
Date Made Active in Reports: 03/04/2015	Last EDR Contact: 02/17/2015
Number of Days to Update: 15	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/29/2014	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 12/29/2014	Telephone: 916-323-3400
Date Made Active in Reports: 02/03/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 01/22/2009	Telephone: 916-323-3400
Date Made Active in Reports: 04/08/2009	Last EDR Contact: 01/22/2009
Number of Days to Update: 76	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/01/1993	Telephone: 916-445-3846
Date Made Active in Reports: 11/19/1993	Last EDR Contact: 12/18/2014
Number of Days to Update: 18	Next Scheduled EDR Contact: 04/06/2015
	Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 02/18/2015	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 02/20/2015	Telephone: 916-327-4498
Date Made Active in Reports: 03/12/2015	Last EDR Contact: 03/09/2015
Number of Days to Update: 20	Next Scheduled EDR Contact: 06/22/2015
	Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 12/23/2014
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/26/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 01/28/2015	Telephone: 916-445-9379
Date Made Active in Reports: 02/26/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2013	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 10/15/2014	Telephone: 916-255-1136
Date Made Active in Reports: 11/19/2014	Last EDR Contact: 01/16/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/27/2015
	Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012	Source: California Air Resources Board
Date Data Arrived at EDR: 03/25/2014	Telephone: 916-322-2990
Date Made Active in Reports: 04/28/2014	Last EDR Contact: 12/24/2014
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/06/2015
	Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations
This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/15/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/27/2015
	Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing
The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/09/2011	Telephone: 615-532-8599
Date Made Active in Reports: 05/02/2011	Last EDR Contact: 02/18/2015
Number of Days to Update: 54	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/17/2015	Source: California Integrated Waste Management Board
Date Data Arrived at EDR: 02/20/2015	Telephone: 916-341-6066
Date Made Active in Reports: 03/03/2015	Last EDR Contact: 02/16/2015
Number of Days to Update: 11	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 02/02/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/06/2015	Telephone: 916-255-3628
Date Made Active in Reports: 03/03/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 25	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 10/19/2011	Telephone: 202-566-0517
Date Made Active in Reports: 01/10/2012	Last EDR Contact: 01/30/2015
Number of Days to Update: 83	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/10/2014	Telephone: N/A
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 12/12/2014
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/23/2015
	Data Release Frequency: Varies

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)
The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014	Source: EPA
Date Data Arrived at EDR: 10/31/2014	Telephone: 202-564-2496
Date Made Active in Reports: 11/17/2014	Last EDR Contact: 02/06/2015
Number of Days to Update: 17	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Annually

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/15/2014	Source: Department of Conservation
Date Data Arrived at EDR: 12/15/2014	Telephone: 916-323-3836
Date Made Active in Reports: 01/26/2015	Last EDR Contact: 12/15/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST
EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/21/2014	Telephone: 617-520-3000
Date Made Active in Reports: 06/17/2014	Last EDR Contact: 02/09/2015
Number of Days to Update: 88	Next Scheduled EDR Contact: 05/25/2015
	Data Release Frequency: Quarterly

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 02/13/2015
Number of Days to Update: 3	Next Scheduled EDR Contact: 05/25/2015
	Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List
The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/03/2015	Telephone: 703-308-4044
Date Made Active in Reports: 03/09/2015	Last EDR Contact: 02/13/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 05/25/2015
	Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands
Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/15/2015
Number of Days to Update: 339	Next Scheduled EDR Contact: 04/27/2015
	Data Release Frequency: N/A

LEAD SMELTER 1: Lead Smelter Sites
A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/26/2014	Telephone: 703-603-8787
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 01/05/2015
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites
A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Quarterly

US FIN ASSUR: Financial Assurance Information
All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/16/2015
Next Scheduled EDR Contact: 06/01/2015
Data Release Frequency: Quarterly

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 02/06/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Annually

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 7

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/24/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/12/2015
Date Data Arrived at EDR: 01/13/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 21

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/13/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/13/2014
Date Data Arrived at EDR: 12/09/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 48

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/10/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/15/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List
The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank
The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites
A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Semi-Annually

Underground Tanks
Underground storage tank sites located in Alameda county.

Date of Government Version: 01/21/2015
Date Data Arrived at EDR: 01/28/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 29

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 12/29/2014
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/11/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 43

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/05/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 5

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/13/2015
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/11/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/07/2014
Number of Days to Update: 24

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/25/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 7

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/25/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 6

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 02/16/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/24/2015
Date Data Arrived at EDR: 02/25/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 6

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/02/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 01/16/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 20

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/11/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 39

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/10/2015
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 19

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/22/2014
Date Data Arrived at EDR: 11/12/2014
Date Made Active in Reports: 12/19/2014
Number of Days to Update: 37

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/21/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 12/30/2014
Number of Days to Update: 35

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/20/2015
Date Data Arrived at EDR: 01/21/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 15

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/18/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/19/2015
Date Data Arrived at EDR: 01/20/2015
Date Made Active in Reports: 02/05/2015
Number of Days to Update: 16

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/20/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/19/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 10/20/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 03/06/2015
Next Scheduled EDR Contact: 05/04/2015
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 01/29/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 13

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 12

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/12/2015
Next Scheduled EDR Contact: 04/27/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 10/02/2014
Date Data Arrived at EDR: 10/03/2014
Date Made Active in Reports: 11/20/2014
Number of Days to Update: 48

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 7

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/27/2015
Date Data Arrived at EDR: 03/06/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 4

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 12/18/2014
Date Data Arrived at EDR: 12/19/2014
Date Made Active in Reports: 01/23/2015
Number of Days to Update: 35

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 02/12/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 18

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 02/06/2015
Next Scheduled EDR Contact: 05/18/2015
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/01/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 18

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 18

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/01/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 13

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/08/2014
Date Data Arrived at EDR: 12/09/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 48

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/28/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 33

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/28/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 02/26/2015
Number of Days to Update: 28

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/22/2014
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 01/07/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 27

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/07/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/03/2014
Date Data Arrived at EDR: 01/09/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 25

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/20/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/02/2015
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 7

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/10/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/09/2015
Next Scheduled EDR Contact: 05/25/2015
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/12/2015
Date Made Active in Reports: 01/27/2015
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 01/05/2015
Next Scheduled EDR Contact: 04/06/2015
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 02/23/2015
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 03/03/2015
Number of Days to Update: 7

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 01/09/2015
Date Data Arrived at EDR: 01/12/2015
Date Made Active in Reports: 02/03/2015
Number of Days to Update: 22

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/15/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/15/2014
Date Data Arrived at EDR: 12/18/2014
Date Made Active in Reports: 01/26/2015
Number of Days to Update: 39

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/11/2014
Next Scheduled EDR Contact: 03/30/2015
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/23/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/23/2015	Source: Department of Environmental Health
Date Data Arrived at EDR: 02/25/2015	Telephone: 408-918-1973
Date Made Active in Reports: 03/03/2015	Last EDR Contact: 02/23/2015
Number of Days to Update: 6	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005	Source: Santa Clara Valley Water District
Date Data Arrived at EDR: 03/30/2005	Telephone: 408-265-2600
Date Made Active in Reports: 04/21/2005	Last EDR Contact: 03/23/2009
Number of Days to Update: 22	Next Scheduled EDR Contact: 06/22/2009
	Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014	Source: Department of Environmental Health
Date Data Arrived at EDR: 03/05/2014	Telephone: 408-918-3417
Date Made Active in Reports: 03/18/2014	Last EDR Contact: 02/26/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 06/15/2015
	Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/23/2015	Source: City of San Jose Fire Department
Date Data Arrived at EDR: 02/24/2015	Telephone: 408-535-7694
Date Made Active in Reports: 03/04/2015	Last EDR Contact: 02/23/2015
Number of Days to Update: 8	Next Scheduled EDR Contact: 05/25/2015
	Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 11/24/2014	Source: Santa Cruz County Environmental Health
Date Data Arrived at EDR: 11/25/2014	Telephone: 831-464-2761
Date Made Active in Reports: 12/31/2014	Last EDR Contact: 02/23/2015
Number of Days to Update: 36	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 12/09/2014	Source: Shasta County Department of Resource Management
Date Data Arrived at EDR: 12/11/2014	Telephone: 530-225-5789
Date Made Active in Reports: 01/23/2015	Last EDR Contact: 02/23/2015
Number of Days to Update: 43	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/17/2014	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 11/24/2014	Telephone: 707-784-6770
Date Made Active in Reports: 01/05/2015	Last EDR Contact: 12/11/2014
Number of Days to Update: 42	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 11/17/2014	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 12/01/2014	Telephone: 707-784-6770
Date Made Active in Reports: 01/27/2015	Last EDR Contact: 12/11/2014
Number of Days to Update: 57	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List

Cupa Facility list

Date of Government Version: 01/06/2015	Source: County of Sonoma Fire & Emergency Services Department
Date Data Arrived at EDR: 01/09/2015	Telephone: 707-565-1174
Date Made Active in Reports: 02/05/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 27	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/02/2015	Source: Department of Health Services
Date Data Arrived at EDR: 01/06/2015	Telephone: 707-565-6565
Date Made Active in Reports: 02/03/2015	Last EDR Contact: 12/29/2014
Number of Days to Update: 28	Next Scheduled EDR Contact: 04/13/2015
	Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/08/2014	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 12/08/2014	Telephone: 530-822-7500
Date Made Active in Reports: 01/27/2015	Last EDR Contact: 03/09/2015
Number of Days to Update: 50	Next Scheduled EDR Contact: 06/22/2015
	Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/30/2015	Source: Divison of Environmental Health
Date Data Arrived at EDR: 02/03/2015	Telephone: 209-533-5633
Date Made Active in Reports: 02/27/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 01/27/2015	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 02/19/2015	Telephone: 805-654-2813
Date Made Active in Reports: 03/03/2015	Last EDR Contact: 02/16/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011	Source: Environmental Health Division
Date Data Arrived at EDR: 12/01/2011	Telephone: 805-654-2813
Date Made Active in Reports: 01/19/2012	Last EDR Contact: 01/05/2015
Number of Days to Update: 49	Next Scheduled EDR Contact: 04/20/2015
	Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 02/16/2015
Number of Days to Update: 37	Next Scheduled EDR Contact: 06/01/2015
	Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/29/2014	Source: Ventura County Resource Management Agency
Date Data Arrived at EDR: 01/30/2015	Telephone: 805-654-2813
Date Made Active in Reports: 03/03/2015	Last EDR Contact: 01/26/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 05/11/2015
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/26/2014	Source: Environmental Health Division
Date Data Arrived at EDR: 12/15/2014	Telephone: 805-654-2813
Date Made Active in Reports: 02/02/2015	Last EDR Contact: 12/15/2014
Number of Days to Update: 49	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 12/18/2014	Source: Yolo County Department of Health
Date Data Arrived at EDR: 12/23/2014	Telephone: 530-666-8646
Date Made Active in Reports: 01/27/2015	Last EDR Contact: 12/18/2014
Number of Days to Update: 35	Next Scheduled EDR Contact: 04/06/2015
	Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 02/17/2015	Source: Yuba County Environmental Health Department
Date Data Arrived at EDR: 02/19/2015	Telephone: 530-749-7523
Date Made Active in Reports: 03/03/2015	Last EDR Contact: 02/16/2015
Number of Days to Update: 12	Next Scheduled EDR Contact: 05/18/2015
	Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013	Source: Department of Energy & Environmental Protection
Date Data Arrived at EDR: 08/19/2013	Telephone: 860-424-3375
Date Made Active in Reports: 10/03/2013	Last EDR Contact: 11/17/2014
Number of Days to Update: 45	Next Scheduled EDR Contact: 03/02/2015
	Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/19/2012	Telephone: N/A
Date Made Active in Reports: 08/28/2012	Last EDR Contact: 01/12/2015
Number of Days to Update: 40	Next Scheduled EDR Contact: 04/27/2015
	Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2015	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 02/04/2015	Telephone: 518-402-8651
Date Made Active in Reports: 02/27/2015	Last EDR Contact: 02/04/2015
Number of Days to Update: 23	Next Scheduled EDR Contact: 05/18/2015
	Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/21/2014	Telephone: 717-783-8990
Date Made Active in Reports: 08/25/2014	Last EDR Contact: 01/19/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/04/2015
	Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013	Source: Department of Environmental Management
Date Data Arrived at EDR: 07/15/2014	Telephone: 401-222-2797
Date Made Active in Reports: 08/13/2014	Last EDR Contact: 02/23/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 06/08/2015
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013	Source: Department of Natural Resources
Date Data Arrived at EDR: 06/20/2014	Telephone: N/A
Date Made Active in Reports: 08/07/2014	Last EDR Contact: 12/12/2014
Number of Days to Update: 48	Next Scheduled EDR Contact: 03/30/2015
	Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.
Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.
Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TR

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

INDIAN BUSINESS PARK
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CA 92551

TARGET PROPERTY COORDINATES

Latitude (North):	33.8782 - 33˚ 52' 41.52''
Longitude (West):	117.2391 - 117˚ 14' 20.76''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	477887.7
UTM Y (Meters):	3748482.8
Elevation:	1488 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	33117-H2 SUNNYMEAD, CA
Most Recent Revision:	1980
South Map:	33117-G2 PERRIS, CA
Most Recent Revision:	1979
Southwest Map:	33117-G3 STEELE PEAK, CA
Most Recent Revision:	1978
West Map:	33117-H3 RIVERSIDE EAST, CA
Most Recent Revision:	1980

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES

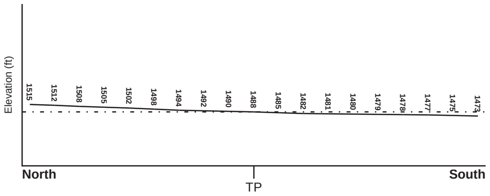

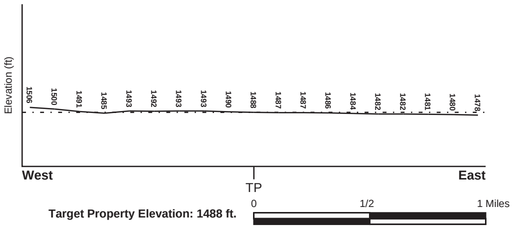

Target Property Elevation: 1488 ft.

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
RIVERSIDE, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06065C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

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* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT **GEOLOGIC AGE IDENTIFICATION**

Era: Mesozoic
System: Cretaceous
Series: Cretaceous granitic rocks
Code: Kg *(decoded above as Era, System & Series)*

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4233142.2s

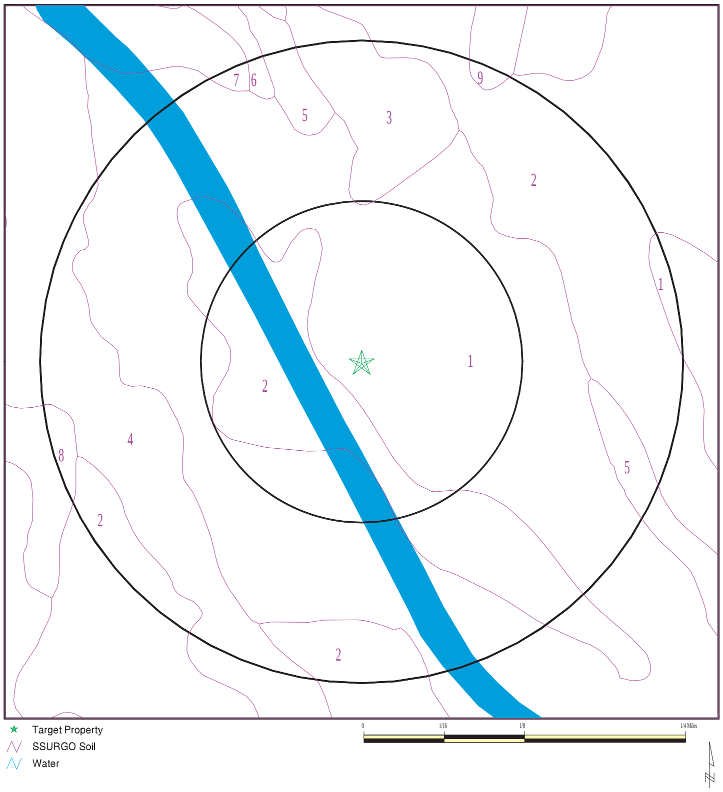

SITE NAME: Indian Business Park
ADDRESS: Indian Street and Krameria Avenue
Moreno Valley CA 92551
LAT/LONG: 33.8782 / 117.2391

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY #: 4233142.2s
DATE: March 13, 2015 1:07 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name:	EXETER
Soil Surface Texture:	sandy loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel:	High
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

Soil Layer Information

	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Saturated hydraulic conductivity micro m/sec	Soil Reactio (pH)
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Attachment: F - Phase I Environmental Site Assessment (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Soil Map ID: 2

Soil Component Name: EXETER

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Soil Map ID: 3

Soil Component Name: EXETER

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reactio (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.6
2	16 inches	37 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.8 Min: 6.6
3	37 inches	50 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	50 inches	59 inches	stratified sandy loam to silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

Soil Map ID: 4

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	42 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
4	59 inches	72 inches	stratified loamy sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

Soil Map ID: 5

Soil Component Name: HANFORD

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reactio (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Map ID: 6

Soil Component Name: PACHAPPA

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	**Upper**	**Lower**	**Soil Texture Class**	**AASHTO Group**	**Unified Soil**		
1	0 inches	20 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
2	20 inches	62 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.8 Min: 6.6

Soil Map ID: 7

Soil Component Name:	RAMONA
Soil Surface Texture:	sandy loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Moderate
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	**Upper**	**Lower**	**Soil Texture Class**	**AASHTO Group**	**Unified Soil**		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reactio (pH)
Layer	**Upper**	**Lower**	**Soil Texture Class**	**AASHTO Group**	**Unified Soil**		
2	14 inches	22 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 8

Soil Component Name:	MONSERATE
Soil Surface Texture:	sandy loam
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	**Upper**	**Lower**	**Soil Texture Class**	**AASHTO Group**	**Unified Soil**		
1	0 inches	9 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
2	9 inches	27 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
3	27 inches	44 inches	indurated	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
4	44 inches	57 inches	cemented	Not reported	Not reported	Max: 0.01 Min: 0	Max: Min:
5	57 inches	70 inches	loamy coarse sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

Soil Map ID: 9

Soil Component Name:	HANFORD
Soil Surface Texture:	fine sandy loam
Hydrologic Group:	Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Soil Drainage Class:	Well drained
Hydric Status: Not hydric	
Corrosion Potential - Uncoated Steel:	Low
Depth to Bedrock Min:	> 0 inches
Depth to Watertable Min:	> 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reactio (pH)
Layer	**Upper**	**Lower**	**Soil Texture Class**	**AASHTO Group**	**Unified Soil**		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000138695	1/2 - 1 Mile SE
2	USGS40000138759	1/2 - 1 Mile East

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

PHYSICAL SETTING SOURCE MAP - 4233142.2s

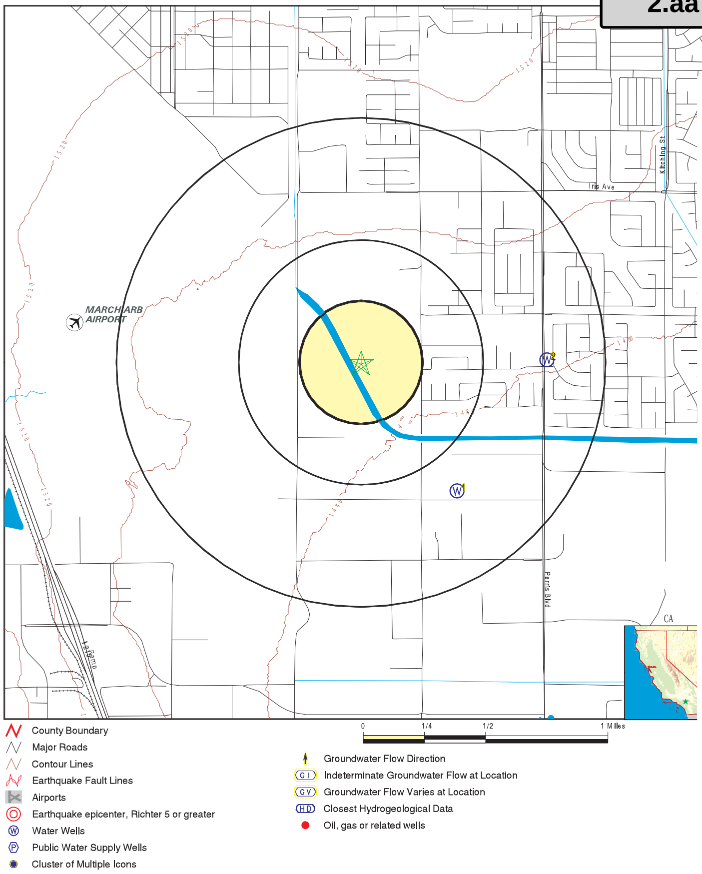

SITE NAME: Indian Business Park
ADDRESS: Indian Street and Krameria Avenue
Moreno Valley CA 92551
LAT/LONG: 33.8782 / 117.2391

CLIENT: Farallon Consulting, LLC
CONTACT: Scott Allin
INQUIRY #: 4233142.2s
DATE: March 13, 2015 1:07 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation	Database	EDR ID Number
1 **SE** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000138695**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335214117135301		
Monloc name:	003S003W31B001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8705736
Longitude:	-117.2322603	Sourcemap scale:	24000
Horiz Acc measure:	Unknown	Horiz Acc measure units:	Unknown
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	1475
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	350
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

2 **East** **1/2 - 1 Mile** **Lower**	**FED USGS**	**USGS40000138759**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-335242117133001		
Monloc name:	003S003W29M001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070202	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	33.8783512
Longitude:	-117.2258712	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	622
Welldepth units:	ft	Wellholedepth:	622
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92551	4	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

APPENDIX F
MARCH AIR FORCE BASE FIGURES

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
Indian Business Park
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-007 (Task 6)

FINAL
2011-2012 ANNUAL MONITORING REPORT
LONG-TERM GROUNDWATER MONITORING PROGRAM
MARCH AIR RESERVE BASE AND
FORMER MARCH AIR FORCE BASE, CALIFORNIA

Prepared for:

Air Force Civil Engineer Center (AFCEC)
2261 Hughes Avenue, Suite 155
Lackland Air Force Base, Texas 78236-9853

Contract No. FA8903-09-D-8547-0007
Project No. 60271680-0009AG

CDRL No. A001n

Prepared by:

AECOM Technical Services, Inc. (AECOM)
999 W. Town and Country Road
Orange, California 92868

December 09, 2013

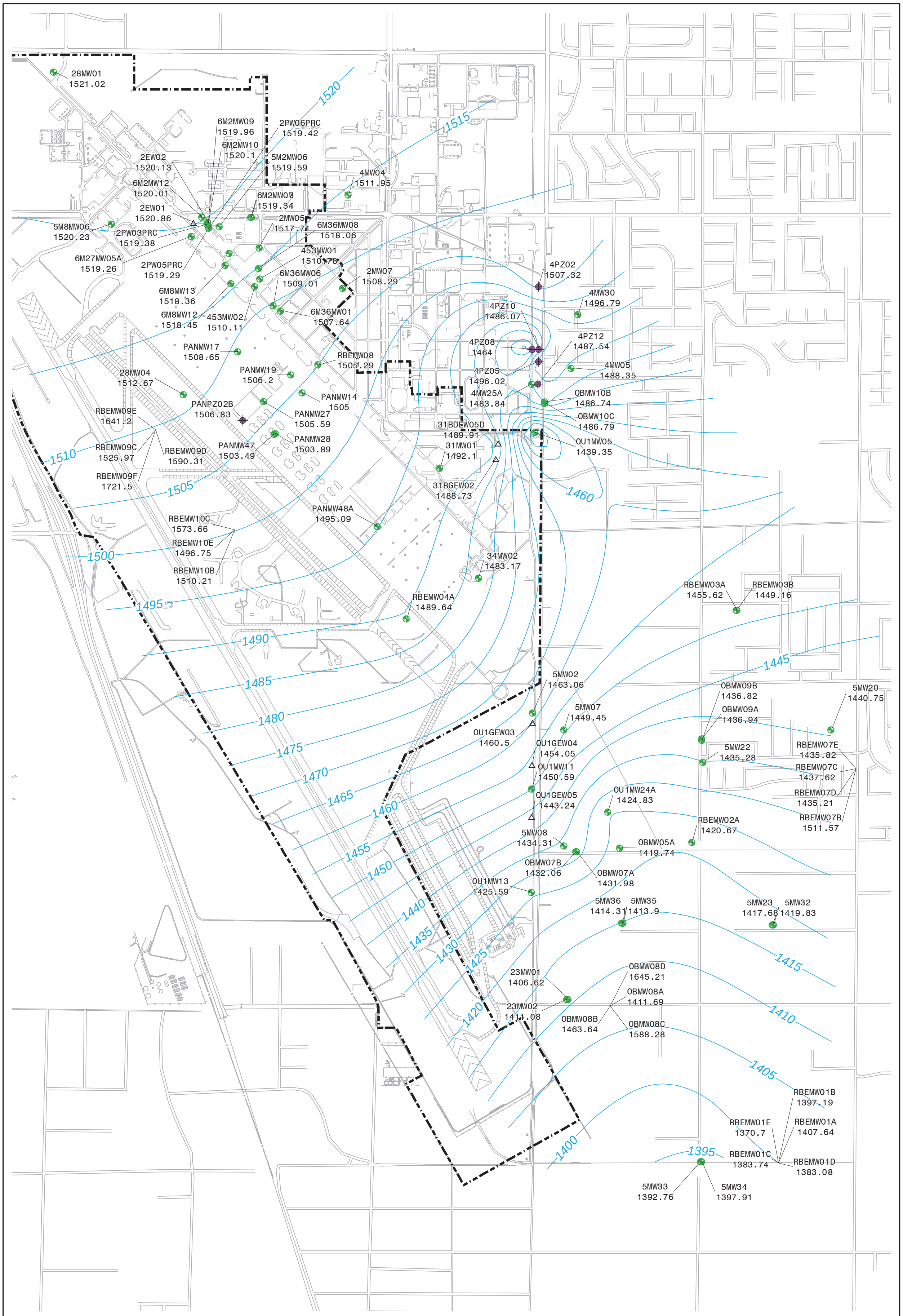

LEGEND

FOURTH QUARTER 2011 GROUNDWATER ELEVATION CONTOURS (FT MSL)

BASE PROPERTY LINE

GROUNDWATER WELLS

△ EXTRACTION WELL

● MONITORING WELL

⊕ PIEZOMETER

ABBREVIATIONS

AECOM	AECOM TECHNICAL SERVICES, INC.
AFB	AIR FORCE BASE
AGMR	ANNUAL GROUNDWATER MONITORING REPORT
ARB	AIR RESERVE BASE
CA	CALIFORNIA
FT MSL	FEET MEAN SEA LEVEL

2011-2012 AGMR

Lower Alluvial Basewide Potentiometric Surface Map Fourth Quarter 2011

Date 04-13

Project No. 60271680

AECOM

March ARB and Former March AFB, CA

Figure 2-2

File: Q:\March_AFB\Project\AGMR_2011_2012\B9780fga.mxd
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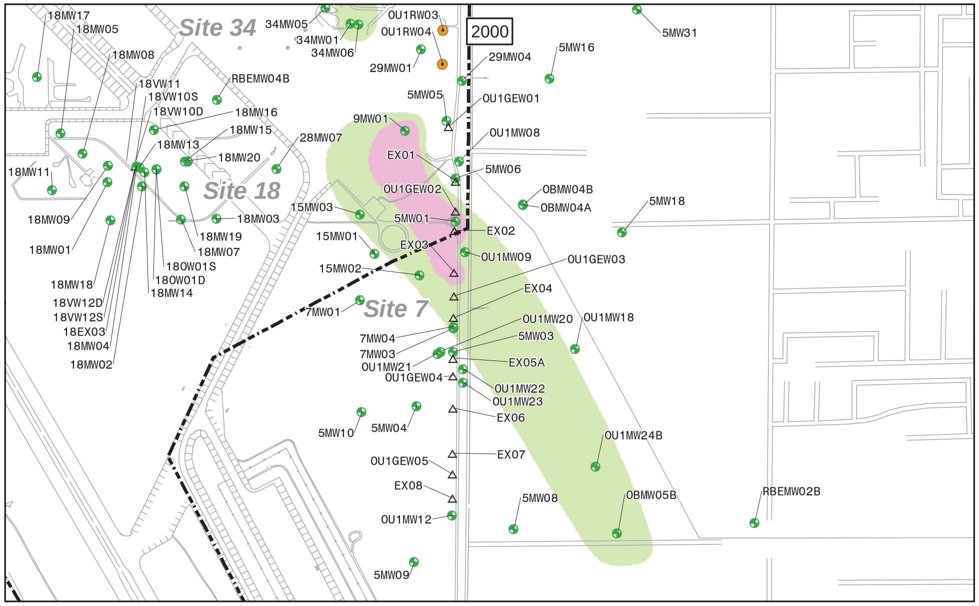

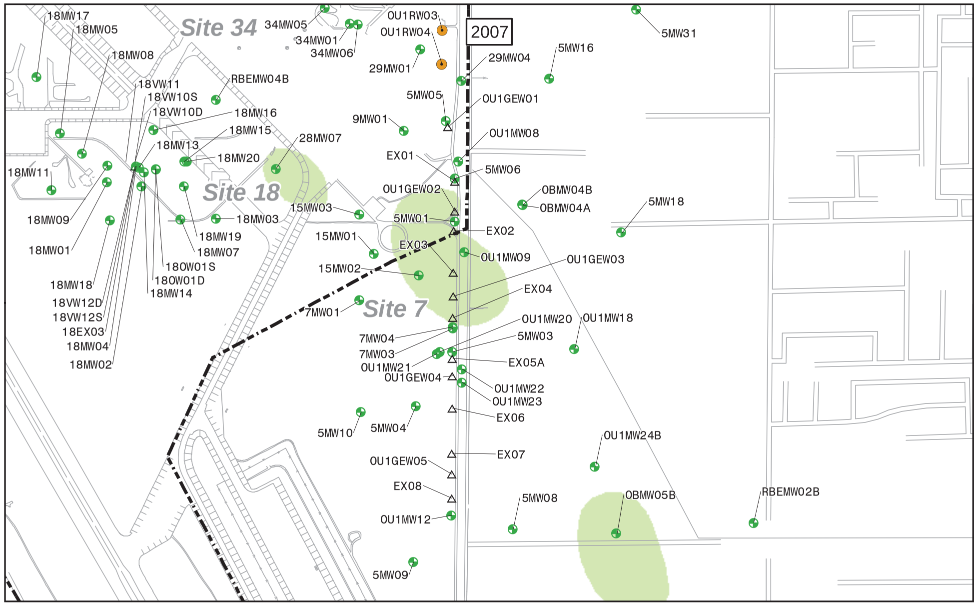

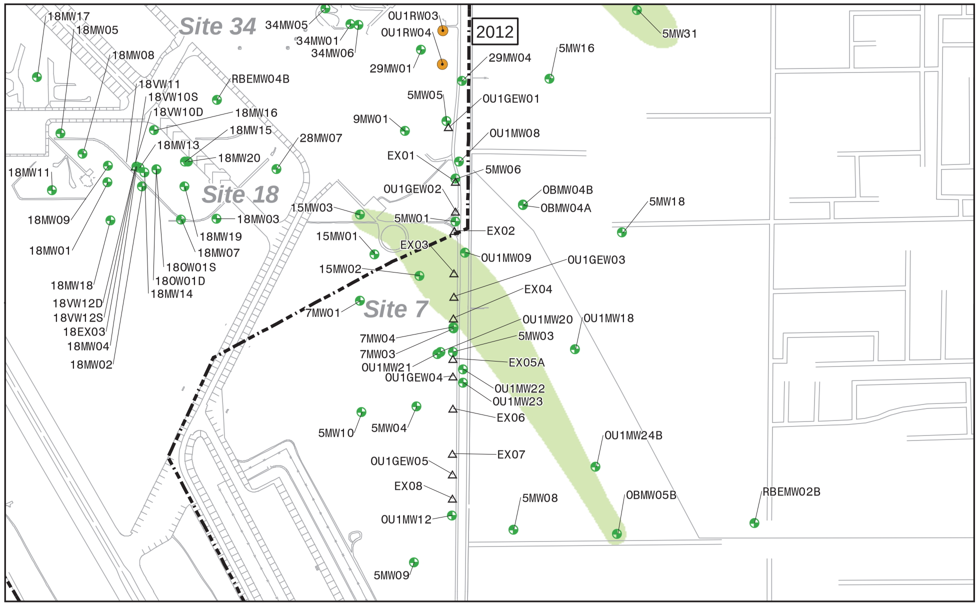

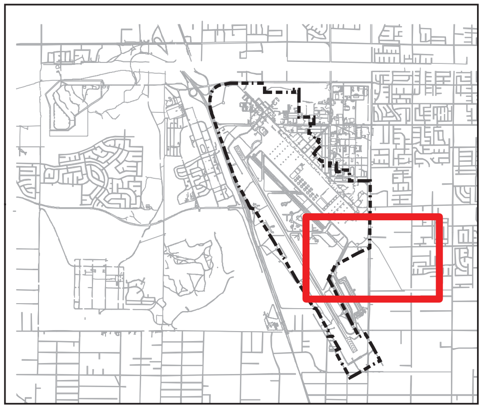

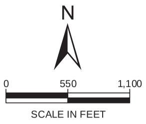

LEGEND

- 🟩 PCE PLUME OUTLINE >5 µg/L
- 🟥 PCE PLUME OUTLINE >10 µg/L
- ‑ · ‑ BASE PROPERTY LINE

GROUNDWATER WELLS

- △ EXTRACTION WELL
- ● INJECTION WELL
- ● MONITORING WELL

ABBREVIATIONS

>	GREATER THAN
µg/L	MICROGRAMS PER LITER
AECOM	AECOM TECHNICAL SERVICES, INC.
AFB	AIR FORCE BASE
AGMR	ANNUAL GROUNDWATER MONITORING REPORT
ARB	AIR RESERVE BASE
CA	CALIFORNIA
PCE	TETRACHLOROETHENE

2011-2012 AGMR

Upper Alluvial PCE Plume
OU 1 Plume South
Comparison of 2000, 2007, and 2012

Date 12-13

Project No. 60271680

AECOM

March ARB and Former March AFB, CA

Figure 4-16

File: Q:\March_AFB\Project\AGMR_2011_2012\B9808fga.mxd
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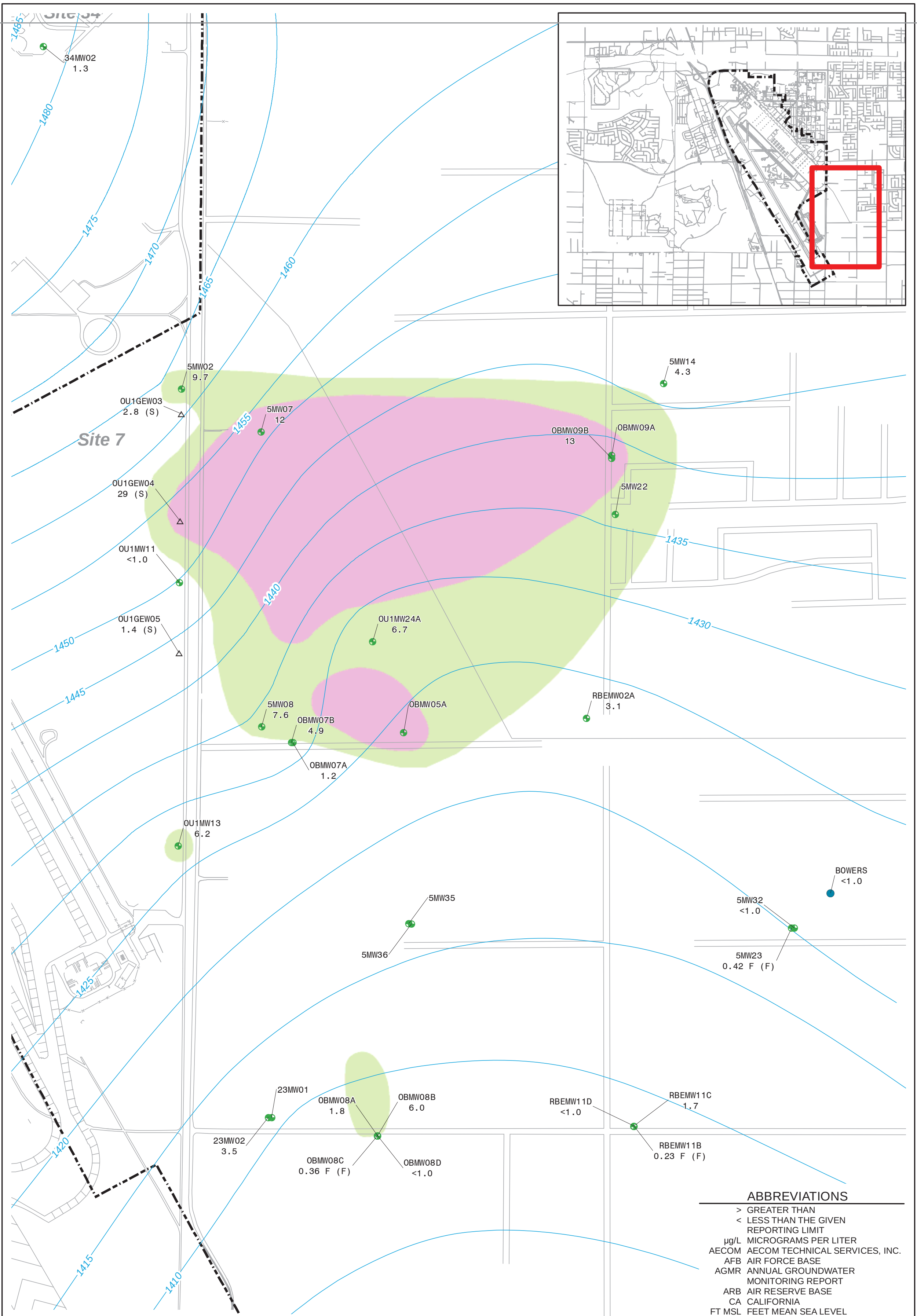

LEGEND

- 🟩 TCE PLUME OUTLINE >5 μg/L
- 🟪 TCE PLUME OUTLINE >10 μg/L
- — SECOND QUARTER 2012 GROUNDWATER ELEVATION CONTOURS (FT MSL)
- -·- BASE PROPERTY LINE

GROUNDWATER WELLS

- △ EXTRACTION WELL
- ● MONITORING WELL
- ● PRIVATE WELL

LABORATORY ASSIGNED QUALIFIERS

F	INDICATES THAT THE ANALYTE IS POSITIVELY IDENTIFIED AND THE RESULT IS LESS THAN THE REPORTING LIMIT BUT GREATER THAN METHOD DETECTION LIMIT
(F)	THE COMPOUND WAS POSITIVELY IDENTIFIED BUT THE ASSOCIATED NUMERICAL VALUE IS BELOW THE PRACTICAL QUANTITIATION LIMIT

DATA VALIDATION QUALIFIERS

(S)	SCREENING DATA (RESULT NOT VALIDATED)

N

0 300 600

SCALE IN FEET

ABBREVIATIONS

>	GREATER THAN
<	LESS THAN THE GIVEN REPORTING LIMIT
μg/L	MICROGRAMS PER LITER
AECOM	AECOM TECHNICAL SERVICES, INC.
AFB	AIR FORCE BASE
AGMR	ANNUAL GROUNDWATER MONITORING REPORT
ARB	AIR RESERVE BASE
CA	CALIFORNIA
FT MSL	FEET MEAN SEA LEVEL
OU	OPERABLE UNIT
TCE	TRICHLOROETHENE

2011-2012 AGMR

Lower Alluvial TCE Plume
OU 1 Plume
2nd Quarter 2012

Date 04-13

Project No. 60271680

AECOM

March ARB and Former March AFB, CA

Figure 4-17

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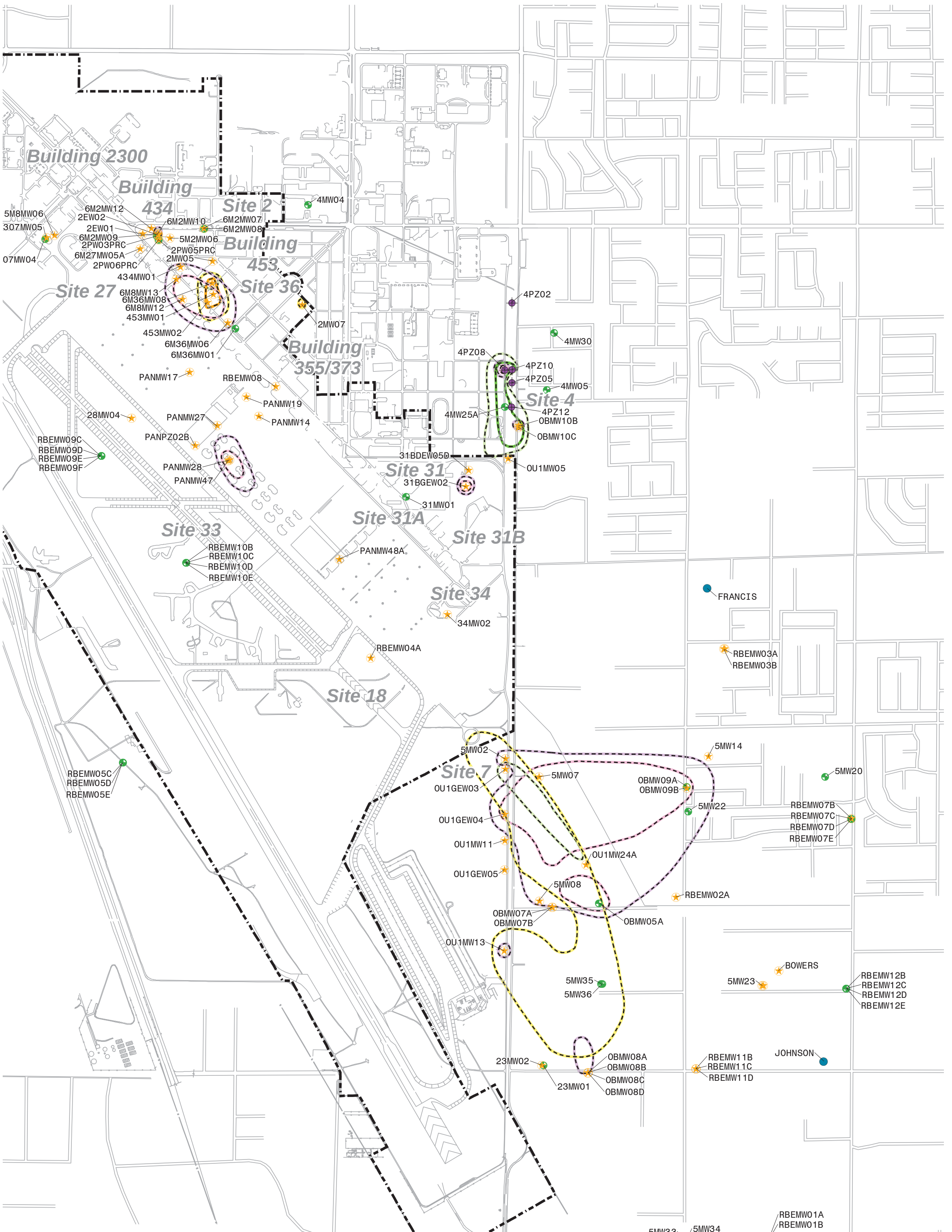

LEGEND

▢ PCE PLUME OUTLINE >5 µg/L
▢ PCE PLUME OUTLINE >10 µg/L
▢ TCE PLUME OUTLINE >5 µg/L
▢ TCE PLUME OUTLINE >10 µg/L
▢ TCE PLUME OUTLINE >100 µg/L
▢ CTCL PLUME OUTLINE >0.5 µg/L
▢ CTCL PLUME OUTLINE >2.0 µg/L
▢ CTCL PLUME OUTLINE >10.0 µg/L
-·-· BASE PROPERTY LINE

GROUNDWATER WELLS

△ EXTRACTION WELL
◉ INJECTION WELL
● MONITORING WELL
⊕ PIEZOMETER
● PRIVATE WELL
★ WELL SAMPLED IN 2Q 2012

ABBREVIATIONS

>	GREATER THAN
<	LESS THAN THE GIVEN REPORTING LIMIT
µg/L	MICROGRAMS PER LITER
2Q	SECOND QUARTER
AECOM	AECOM TECHNICAL SERVICES, INC.
AFB	AIR FORCE BASE
AGMR	ANNUAL GROUNDWATER MONITORING REPORT
ARB	AIR RESERVE BASE
CA	CALIFORNIA
CTCL	CARBON TETRACHLORIDE
FT MSL	FEET MEAN SEA LEVEL
PCE	TETRACHLOROETHENE
TCE	TRICHLOROETHENE

N

0 750 1,500
SCALE IN FEET

2011-2012 AGMR

Basewide Lower Alluvial Chlorinated Solvent Plumes 2nd Quarter 2012

Date 12-13

Project No. 60271680

AECOM

March ARB and Former March AFB, CA

Figure 3-4

File: Q:\March_AFB\Project\AGMR_2011_2012\B9787fga.mxd
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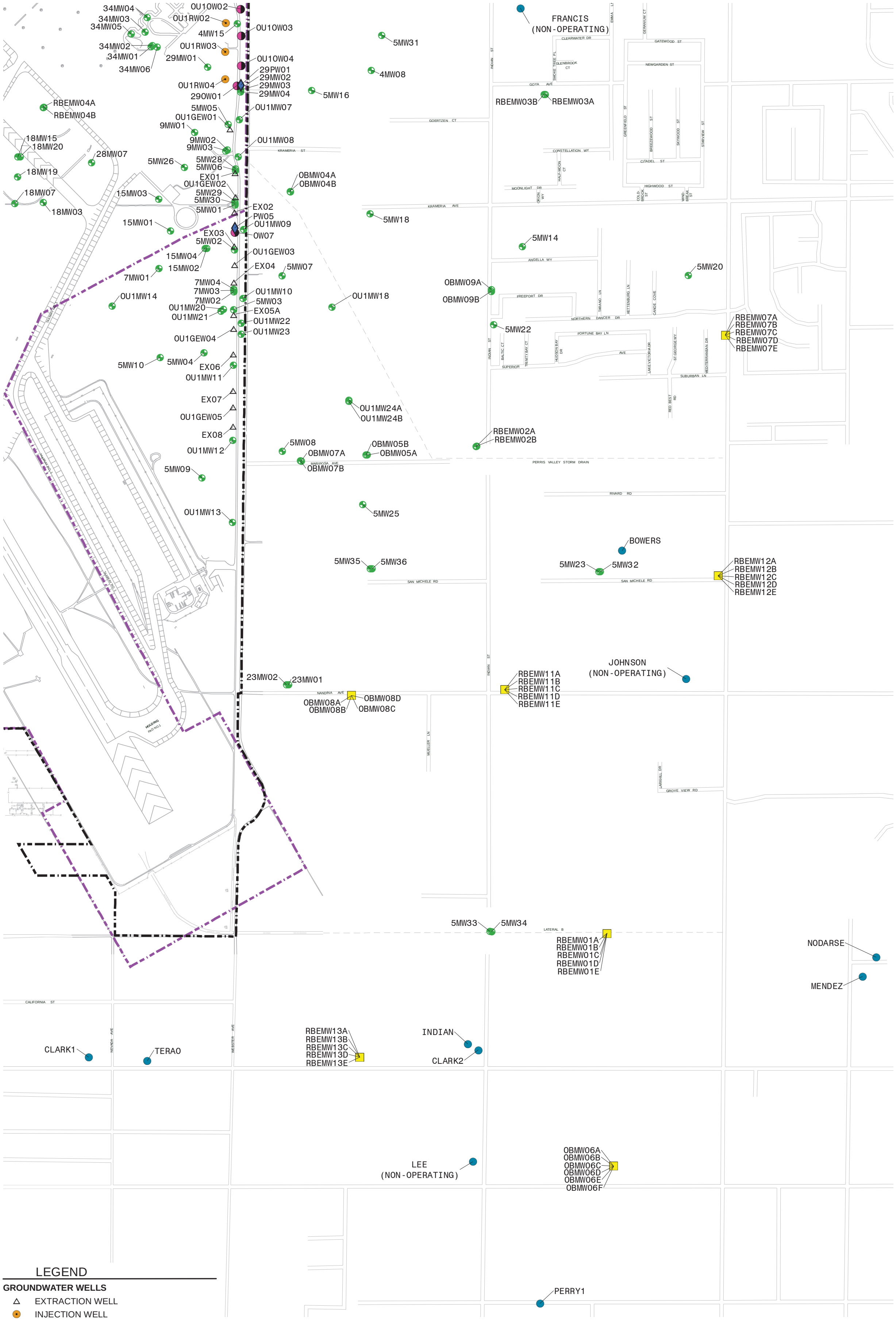

LEGEND

GROUNDWATER WELLS

- △ EXTRACTION WELL
- ● INJECTION WELL
- ⊕ MONITORING WELL
- ⊕ PIEZOMETER
- ● WATER SUPPLY WELL (NON-OPERATING WHERE NOTED)
- 🟨 WESTBAY WELL
- ◆ PUMPING WELL
- ◐ OBSERVATION WELL
- ‐ · ‐ FORMER MARCH AFB BASE BOUNDARY
- — — MARCH ARB BOUNDARY

ABBREVIATIONS

AECOM	AECOM TECHNICAL SERVICES, INC.
AFB	AIR FORCE BASE
AGMR	ANNUAL GROUNDWATER MONITORING REPORT
ARB	AIR RESERVE BASE
CA	CALIFORNIA

N

0 500 1,000

SCALE IN FEET

2011-2012 AGMR

Off-Base Water Supply Well Location Map

Date 04-13

Project No. 60271680

AECOM

March ARB and Former March AFB, CA

Figure 1-4

File: Q:\March_AFB\Project\AGMR_2011_2012\B9770fga.mxd
Date: Monday, December 09, 2013 3:53:57 PM

PRELIMINARY HYDROLOGY CALCULATIONS

FOR

MORENO VALLEY LOGISTICS CENTER
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CALIFORNIA 92551
APN's 316-100-028, -030, -048, -051, & -052

PREPARED FOR

PROLOGIS, INC.
17777 CENTER COURT DRIVE NORTH, SUITE 100
CERRITOS, CA 90703
PH. (562) 345-9200
FAX (562) 345-9201

OCTOBER 30, 2014
REVISED MARCH 10, 2016

JOB NO. 2890

PREPARED BY

THIENES ENGINEERING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
P. (714) 521-4811
FAX. (714) 521-4173

PRELIMINARY HYDROLOGY CALCULATIONS

FOR

MORENO VALLEY LOGISTICS CENTER

PREPARED BY BRIAN WEIL
UNDER THE SUPERVISION OF

REINHARD STENZEL DATE:
R.C.E. 56155
EXP. 12/31/16

INTRODUCTION

A: PROJECT LOCATION

The project site is located at the northwest corner of Indian Street and Krameria Avenue in the City of Moreno Valley, California. Please see next page for vicinity map.

B: STUDY PURPOSE

The purpose of this study is to determine the 100-year peak flow rates from the project site that will ultimately drain to the Perris Valley Storm Drain Channel.

C: PROJECT STAFF:

Thienes Engineering staff involved in this study include:

Reinhard Stenzel
Brian Weil
Ricky Hwa

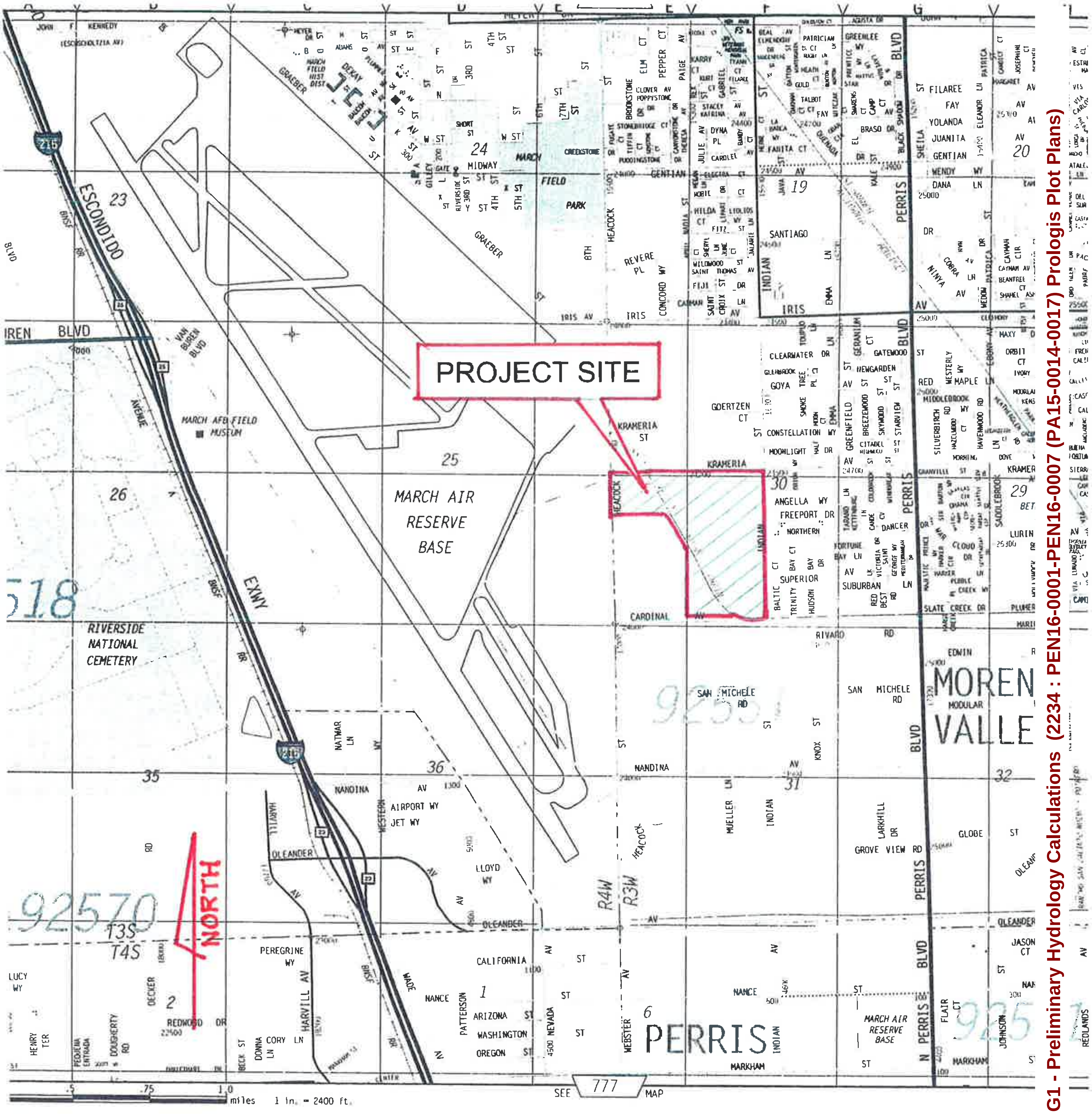

VICINITY MAP

NOT TO SCALE

DISCUSSION

The overall project property encompasses approximately 84.8 acres. Proposed improvements to the site consist of the construction of four commercial type buildings ranging from 94,000 to 1,334,000 square feet. There will be truck yards and vehicle parking lots adjacent to each building. There will be several water quality / detention basins: Basins 4 and 5 south of Building 1, Basin 3 west of Building 1, Basin 2 south of Building 2, Basin 6 east of Building 3 and Basin 1 east of Building 4. The existing Cosmos Street will be extended southerly between Buildings 1 and 2. The remainder of the project site will be reserved for landscaping.

Existing Conditions

The Perris Valley Channel, Lateral "A" traverses southeasterly between Buildings 3 & 4 on the westerly side and Buildings 1 & 2 on the easterly side. The channel is a graded earthen trapezoidal channel with a base width of 100', 2:1 sideslopes and 8' deep. The 100-year design capacity is 5,900 cfs. This is consistent with the Perris Valley Master Drainage Plan. The channel was "as built" in August, 1996. Additional improvements upstream of the project site at Heacock Avenue were recently constructed. Here, the culvert at Heacock Avenue was improved to also convey the design peak flow rate of 5,900 cfs.

The Building 1 and Building 2 sites are part of the Sunnymead Master Plan of Drainage while the Building 3 and Building 4 sites are part of the Perris Valley Master plan of Drainage. All sites are ultimately tabled to the Perris Valley Channel, Lateral "A".

See Appendix "A" for reference storm drain plans and Master Plan of Drainage maps.

Areas of the project site southwesterly of the Channel is located in located with flood Zone X (shaded). The portions of the project site northeasterly of the Channel is located within flood Zone AO (shaded) and Zone X (shaded), per FIRM numbers 06065C0765G and 06065C1430G, dated August 28, 2008 (included in Appendix "A"). A CLORM is in process upstream of the project site that will ultimately remove the southwesterly portion of the site entirely from any flood zones. Flood zones on the northeasterly portion of the site are slightly altered, but will remain. Future improvements to the Heacock Channel, expected to advertise 3rd quarter of 2016, would likely eliminate flood issues outside of the Channel.

A separate CLOMR for the project site would be necessary to determine current flood zones through the site with the proposed improvements.

The project site consists of several undeveloped dirt lots. Runoff generally surface drains south-easterly and into the Perris Valley Storm Drain Channel. The existing condition 100-year peak flow rate for the entire project site is approximately 76.5 cfs (9.6 at Node 101 + 60.8 cfs at Node 235 + 6.1 cfs at Node 302).

See Appendix "B" for existing condition hydrology calculations and Appendix "E" for existing condition hydrology map.

Proposed Condition

Building 1 Lot (62.60 acres):

Runoff from the east half of Building 1, the building's easterly truck yard, and the east half of the northerly parking lot (Nodes 100-106, 27.30 acres) drains to catch basins in the easterly truck yard. It is then conveyed southerly via a proposed storm drain to Basin4. The 100-year peak flow rate for this area is approximately 55.3 cfs.

Runoff from the west half of Building 1, the building's southerly and westerly truck yards, and the west half of the northerly parking lot (Nodes 110-117, 30.85 acres) drains to catch basins in the southerly truck yard. It is then conveyed southerly via a proposed storm drain to Basin 5. Basin 5 also accepts runoff from Basin 3 (0.75-acre water quality only basin for the northwest quarter of the Building 1 Lot) and the offsite dirt lot to the west (2.40 acres). The 100-year peak flow rate for this area is approximately 67.9 cfs.

The total 100-year peak flow rate tributary to Basins "A1" and "A2" (61.55 acres) is approximately 122.1 cfs. Basin 5 discharges to Basin 4, which discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 1 Lot's southeast corner.

The landscape areas fronting Indian Street, Krameria Avenue and the southern extension of Cosmos Street (3.70 acres total) surface drain to their respective streets.

Building 2 Lot (6.95 acres):

Runoff from Building 2, the building's westerly truck yard, easterly parking lot, and the southerly drive aisle (Nodes 200-202, 6.95 acres) drains to a catch basin in the southerly drive aisle. It is then conveyed southerly via a proposed storm drain to Basin 2. The total 100-year peak flow rate tributary to Basin 2 is approximately 15.8 cfs. Basin 2 discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 2 Lot's southwest corner.

Building 3 Lot (6.60 acres):

Runoff from Building 3, the building's northerly and easterly truck yards, and the building's southerly and westerly parking lots (Nodes 300-313, 6.25 acres) drains to catch basins in the truck yards and parking lots. It is then conveyed easterly via a proposed storm drain to Basin 6. The 100-year peak flow rate tributary to Basin 6 is approximately 15.8 cfs. Basin 6 discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 3 Lot's southeast corner.

The landscape area adjacent to the southerly property line and a portion of the driveway of the Building 3 Lot (0.35 acres) surface drains to Cardinal Avenue.

Building 4 Lot (8.65 acres):

Runoff from Building 4, the building's easterly truck yard, northerly and southerly parking lots (Nodes 400-402, 8.65 acres) drains to catch basins in the truck yard. It is then conveyed easterly to Basin 1. The 100-year peak flow rate tributary to Basin 1 is approximately 20.7 cfs. Basin 1 discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 4 Lot's southeast corner.

Please see Appendix "B" for proposed condition hydrology calculations and Appendix "E" for proposed condition hydrology map.

Detention

Detention basins are proposed for the project site for both water quality purposes as well as peak flow mitigation. Existing and proposed condition volumes were calculated for the 3-hour, 6-hour and 24-hour events for 2-, 5-, 10-, and 100-year storms. For preliminary sizing, the largest volume difference between existing and proposed condition for the listed events was used.

Hydrographs were set up for the proposed Buildings 1 through 4. For the existing condition, the same area was used for comparison purposes. In each case, the largest difference occurs with the 10-year 24-hour hydrograph. The following table summarizes required and provided volumes for detention basins:

	Building 1	Building 2	Building 3	Building 4
Required Volume (ac-ft)	7.28	0.82	0.74	1.03
Provided Volume (ac-ft)	14.53	1.11	0.92	1.63

The proposed water quality/detention basins have the capacity to store water quality volume and the difference between existing and proposed condition volumes for all considered storm events. Detention basin volumes are consistent with conceptual grading plan and Preliminary WQMP. Specific water quality features and designs are described and calculated separately in the WQMP.

Please see Appendix "D" for existing and proposed condition hydrographs and summary sheets for each building.

Methodology

Hydrology calculations are computed using Riverside County's Rational Method Program (by AES Software). The site is composed of soil type "C" per the Riverside County Hydrology Manual. Hydrographs were computed using the "short-cut" Method as described in the Riverside county Flood Control District's Hydrology Manual (Plates E-1.1 & E-2.1). Please see Appendix "A" for pertinent reference materials.

The following tables summarize the peak flow rates and volumes for all of the various hydrographs for each building.

HYDROLOGIC SUMMARY
HEACOCK STREET, INDIAN STREET AND CARDINAL AVENUE

RATIONAL METHOD - BUILDING 1				
	Existing - Node 235*	Proposed - Node 118	Difference (Increase)	
Peak Flow (cfs)	53.8	122.1	68.3	

FLOOD HYDROGRAPH - BUILDING 1													
	Existing				Proposed				Difference (Increase)				
	100-yr.	10-yr.	5-yr.	2 yr.	100-yr.	10-yr.	5-yr.	2-yr.	100-yr.	10-yr.	5-yr.	2-yr.	
Peak Flow (cfs)	26.1	6.9	1.8	1.3	31.4	17.7	12.4	7.4	5.3	10.8	10.6	6.1	24-hour
Peak Flow (cfs)	94.8	53.1	28.4	11.8	101.0	65.6	50.9	34.3	6.2	12.5	22.5	22.5	6-hour
Peak Flow (cfs)	106.5	61.5	37.1	18.9	112.6	74.1	59.6	41.4	6.1	12.6	22.5	22.5	3-hour
Total Runoff (ac-ft)	9.48	1.59	1.12	0.81	16.13	8.87	6.34	4.40	6.65	7.28	5.22	3.59	24-hour
Total Runoff (ac-ft)	8.50	2.72	1.10	0.56	11.49	6.38	4.01	3.14	2.99	3.66	2.91	2.58	6-hour
Total Runoff (ac-ft)	7.53	2.70	1.22	0.62	9.04	5.45	3.88	2.40	1.51	2.75	2.66	1.78	3-hour

RATIONAL METHOD - BUILDING 2				
	Existing - Node 232*	Proposed - Node 202	Difference (Increase)	
Peak Flow (cfs)	7.0	15.8	8.8	

FLOOD HYDROGRAPH - BUILDING 2													
	Existing				Proposed				Difference (Increase)				
	100-yr.	10-yr.	5-yr.	2 yr.	100-yr.	10-yr.	5-yr.	2-yr.	100-yr.	10-yr.	5-yr.	2-yr.	
Peak Flow (cfs)	2.9	0.8	0.2	0.2	3.5	2.0	1.4	0.8	0.6	1.2	1.2	0.6	24-hour
Peak Flow (cfs)	10.7	6.0	3.2	1.3	11.4	7.4	5.8	3.9	0.7	1.4	2.6	2.6	6-hour
Peak Flow (cfs)	12.0	6.9	4.2	2.1	12.7	8.4	6.7	4.7	0.7	1.5	2.5	2.6	3-hour
Total Runoff (ac-ft)	1.07	0.18	0.13	0.09	1.82	1.00	0.72	0.50	0.75	0.82	0.59	0.41	24-hour
Total Runoff (ac-ft)	0.96	0.31	0.12	0.06	1.30	0.72	0.45	0.35	0.34	0.41	0.33	0.29	6-hour
Total Runoff (ac-ft)	0.85	0.30	0.14	0.07	1.02	0.62	0.44	0.27	0.17	0.32	0.30	0.20	3-hour

*Prorated to match area of proposed condition

HYDROLOGIC SUMMARY
HEACOCK STREET, INDIAN STREET AND CARDINAL AVENUE

RATIONAL METHOD - BUILDING 3				
	Existing - Node 302	Proposed - Node 313	Difference (Increase)	
Peak Flow (cfs)	6.2	15.8	9.6	

FLOOD HYDROGRAPH - BUILDING 3													
	Existing				Proposed				Difference (Increase)				
	100-yr.	10-yr.	5-yr.	2 yr.	100-yr.	10-yr.	5-yr.	2-yr.	100-yr.	10-yr.	5-yr.	2-yr.	
Peak Flow (cfs)	2.7	0.7	0.2	0.1	3.2	1.8	1.3	0.8	0.6	1.1	1.1	0.7	24-hour
Peak Flow (cfs)	9.6	5.4	2.9	1.2	10.3	6.7	5.2	3.5	0.7	1.3	2.3	2.3	6-hour
Peak Flow (cfs)	10.8	6.3	3.8	1.9	11.4	7.5	6.1	4.2	0.6	1.2	2.3	2.3	3-hour
Total Runoff (ac-ft)	0.96	0.16	0.11	0.08	1.64	0.90	0.64	0.45	0.68	0.74	0.53	0.37	24-hour
Total Runoff (ac-ft)	0.86	0.28	0.11	0.06	1.17	0.65	0.41	0.32	0.31	0.37	0.30	0.26	6-hour
Total Runoff (ac-ft)	0.76	0.27	0.12	0.06	0.92	0.55	0.39	0.24	0.16	0.28	0.27	0.18	3-hour

RATIONAL METHOD - BUILDING 4				
	Existing - Node 101	Proposed - Node 402	Difference (Increase)	
Peak Flow (cfs)	9.2	20.7	11.5	

FLOOD HYDROGRAPH - BUILDING 4													
	Existing				Proposed				Difference (Increase)				
	100-yr.	10-yr.	5-yr.	2 yr.	100-yr.	10-yr.	5-yr.	2-yr.	100-yr.	10-yr.	5-yr.	2-yr.	
Peak Flow (cfs)	3.7	1.0	0.3	0.2	4.4	2.5	1.7	1.0	0.7	1.5	1.4	0.8	24-hour
Peak Flow (cfs)	13.3	7.5	4.0	1.7	14.2	9.2	7.2	4.8	0.9	1.7	3.2	3.1	6-hour
Peak Flow (cfs)	15.0	8.6	5.2	2.7	15.8	10.4	8.4	5.8	0.8	1.8	3.2	3.1	3-hour
Total Runoff (ac-ft)	1.33	0.22	0.16	0.11	2.27	1.25	0.89	0.62	0.94	1.03	0.73	0.51	24-hour
Total Runoff (ac-ft)	1.20	0.38	0.15	0.08	1.62	0.90	0.56	0.44	0.42	0.52	0.41	0.36	6-hour
Total Runoff (ac-ft)	1.06	0.38	0.17	0.09	1.27	0.77	0.55	0.34	0.21	0.39	0.38	0.25	3-hour

APPENDIX	DESCRIPTION
A	REFERENCE MATERIALS
B	EXISTING CONDTION HYDROLOGY CALCULATIONS
C	PROPOSED CONDITION HYDROLOGY CALCULATIONS
D	DETENTION ANALYSIS
E	HYDROLOGY MAPS

APPENDIX A

REFERENCE MATERIALS

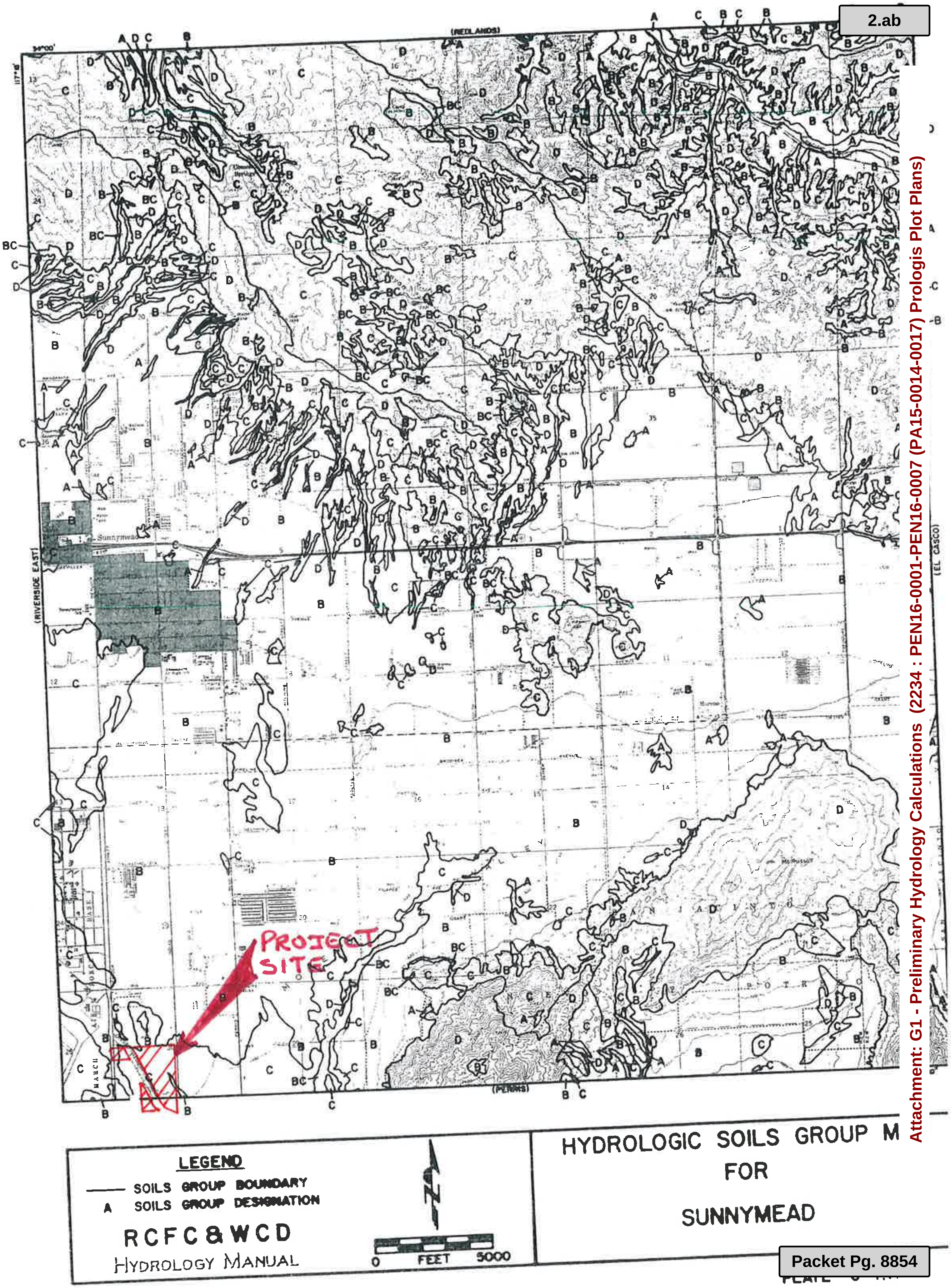

LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC & WCD

HYDROLOGY MANUAL

HYDROLOGIC SOILS GROUP M
FOR
SUNNYMEAD

RAINFALL INTENSITY—INCHES PER HOUR

SUNNYMEAD - MORENO			WOODCREST		
DURATION MINUTES	FREQUENCY 10 YEAR	FREQUENCY 100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	FREQUENCY 100 YEAR
5	2.84	4.16	5	3.37	5.30
6	2.59	3.79	6	3.05	4.79
7	2.40	3.51	7	2.80	4.40
8	2.25	3.29	8	2.60	4.09
9	2.12	3.10	9	2.44	3.83
10	2.01	2.94	10	2.30	3.62
11	1.92	2.80	11	2.19	3.43
12	1.83	2.68	12	2.08	3.27
13	1.76	2.58	13	1.99	3.13
14	1.70	2.48	14	1.91	3.01
15	1.64	2.40	15	1.84	2.89
16	1.59	2.32	16	1.78	2.79
17	1.54	2.25	17	1.72	2.70
18	1.50	2.19	18	1.67	2.62
19	1.46	2.13	19	1.62	2.54
20	1.42	2.08	20	1.57	2.47
22	1.35	1.98	22	1.49	2.34
24	1.30	1.90	24	1.42	2.23
26	1.25	1.82	26	1.36	2.14
28	1.20	1.76	28	1.31	2.05
30	1.16	1.70	30	1.26	1.98
32	1.12	1.64	32	1.22	1.91
34	1.09	1.59	34	1.19	1.85
36	1.06	1.55	36	1.14	1.79
38	1.03	1.51	38	1.11	1.74
40	1.00	1.47	40	1.07	1.69
45	.95	1.39	45	1.01	1.58
50	.90	1.31	50	.95	1.49
55	.86	1.25	55	.90	1.42
60	.82	1.20	60	.86	1.35
65	.79	1.15	65	.82	1.29
70	.76	1.11	70	.79	1.24
75	.73	1.07	75	.76	1.19
80	.71	1.04	80	.73	1.15
85	.69	1.01	85	.71	1.11
SLOPE = .500			SLOPE = .550		

RCFC & WCD
HYDROLOGY MANUAL

STANDARD
INTENSITY—DURATION
CURVES DATA

PLATE D-4.1 (6 of 6)

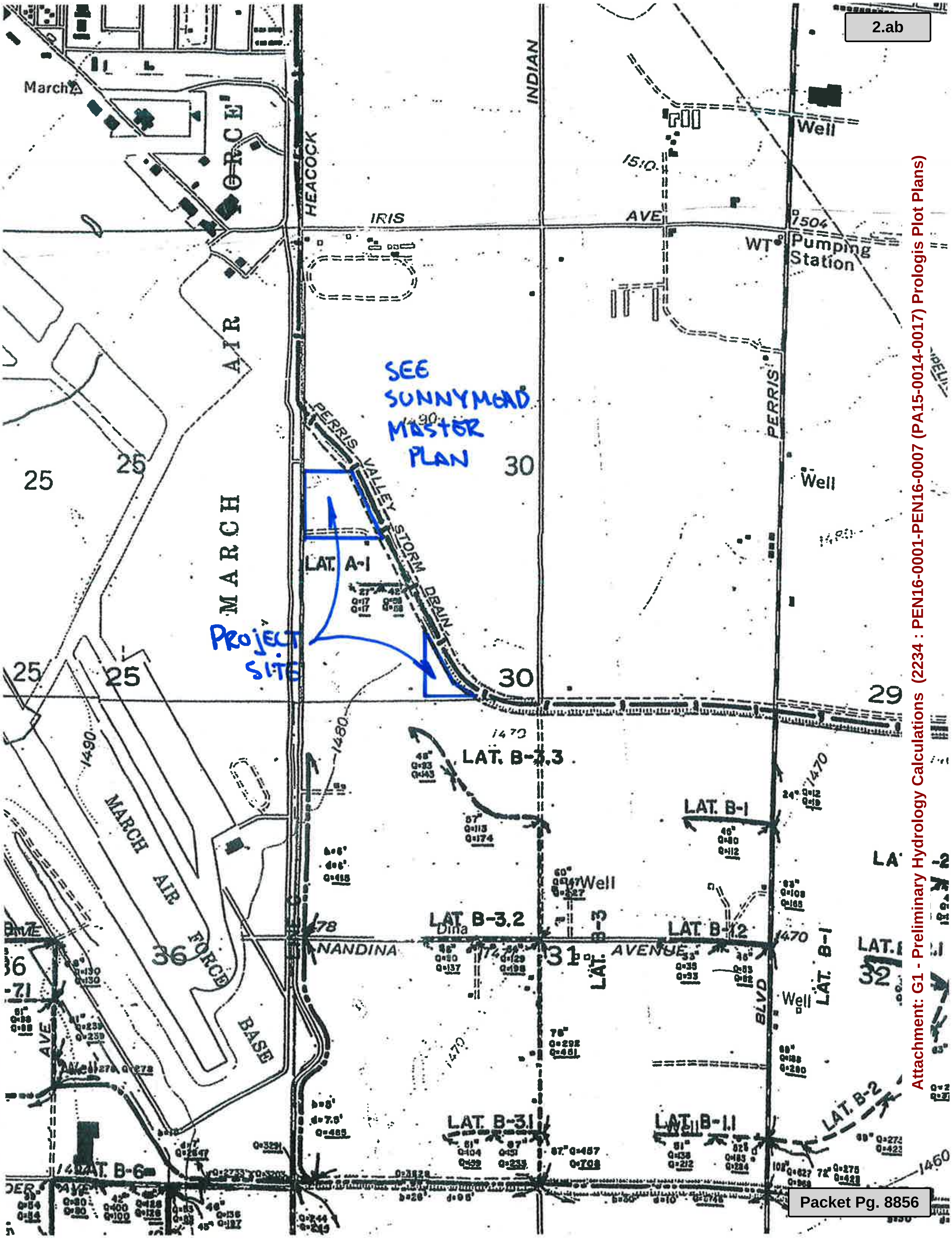
March
MARCH AIR FORCE
HEACOCK
INDIAN
IRIS AVE
1510
Well
1504
WT
Pumping Station
PERRIS
SEE SUNNYMEAD MASTER PLAN
1490
PERRIS VALLEY STORM DRAIN
25
30
Well
1480
LAT. A-1
PROJECT SITES
MARCH AIR FORCE BASE
29
1470
LAT. B-3.3
LAT. B-1
LAT. B-3.2
NANDINA AVENUE
LAT. B-3
LAT. B-1.2
31
32
36
BLVD
Well
LAT. B-3.1
LAT. B-1.1
LAT. B-2
LAT. B-6
1460

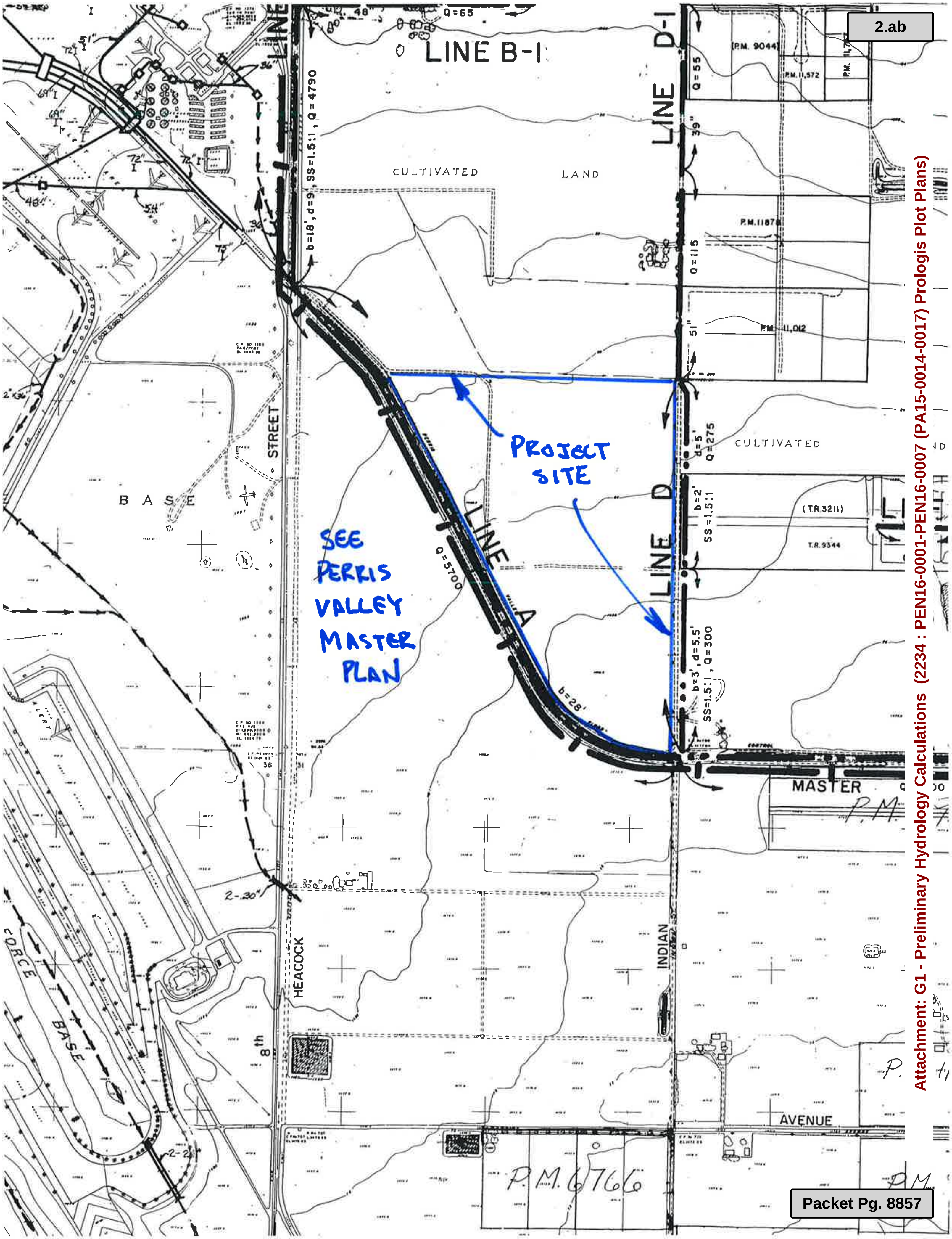
LINE B-1
Q=65
48"
LINE
b=18', d=9', SS=1.5:1, Q=4790
CULTIVATED LAND
LINE D-1
Q=55
39"
P.M. 9044
P.M. 11,572
P.M. 11,757
P.M. 11878
Q=115
P.M. 11,012
51"
72"
51"
69"
48"
54"
36"
75"
2"x36"
BASE
STREET
HEACOCK
8th
LINE A
Q=5700
b=28'
PROJECT SITE
SEE PERRIS VALLEY MASTER PLAN
LINE D
d=5'
Q=275
CULTIVATED
b=2'
SS=1.5:1
(T.R.3211)
T.R.9344
b=3', d=5.5'
SS=1.5:1, Q=300
MASTER
P.M.
INDIAN
AVENUE
P.M. 6766
P.M.
FORCE
BASE
2-30"
2-2

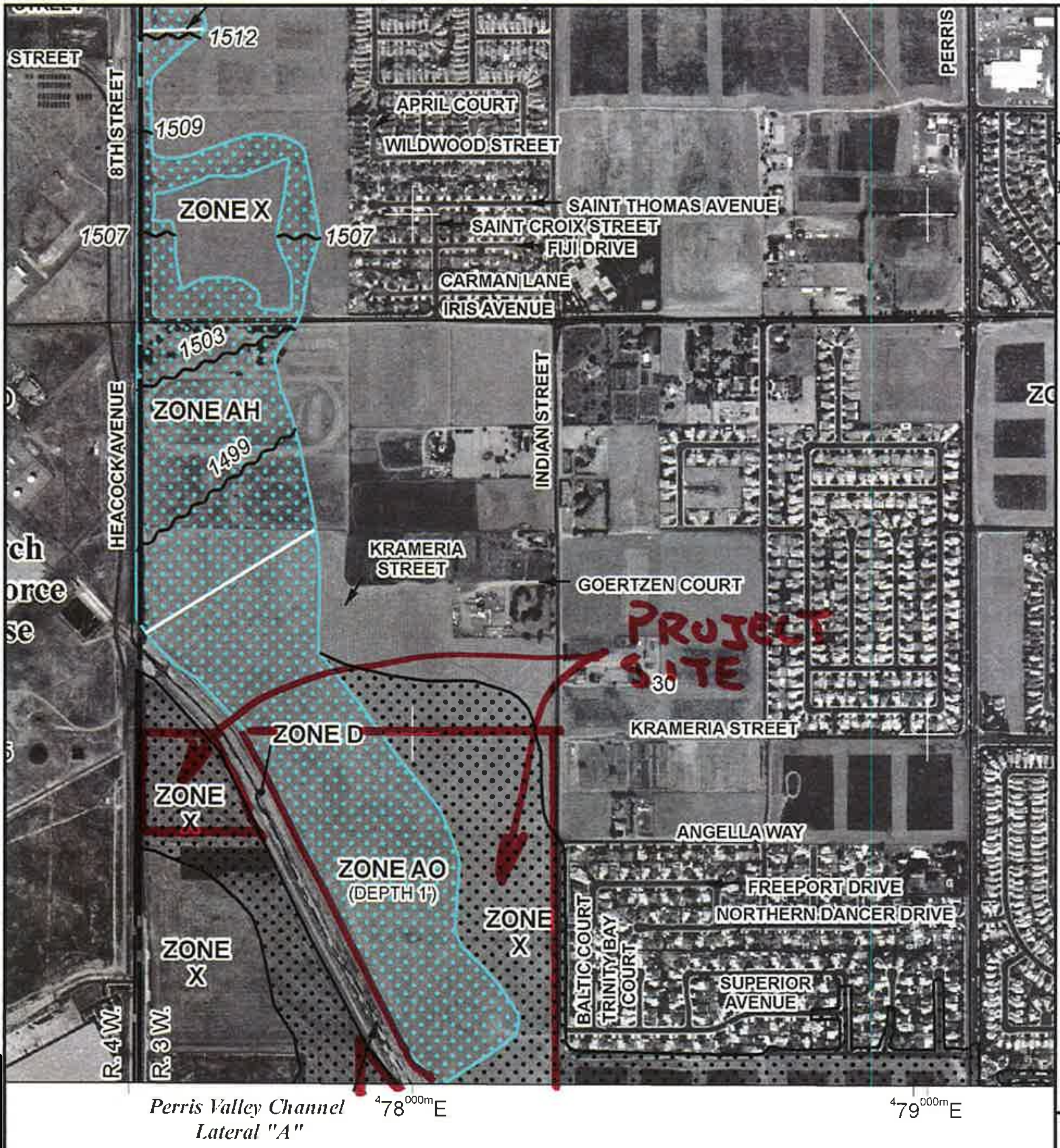

MAP SCALE 1" = 1000'

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0765G

FIRM
FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 765 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MORENO VALLEY, CITY OF	065074	0765	G
RIVERSIDE COUNTY	060245	0765	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C0765G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

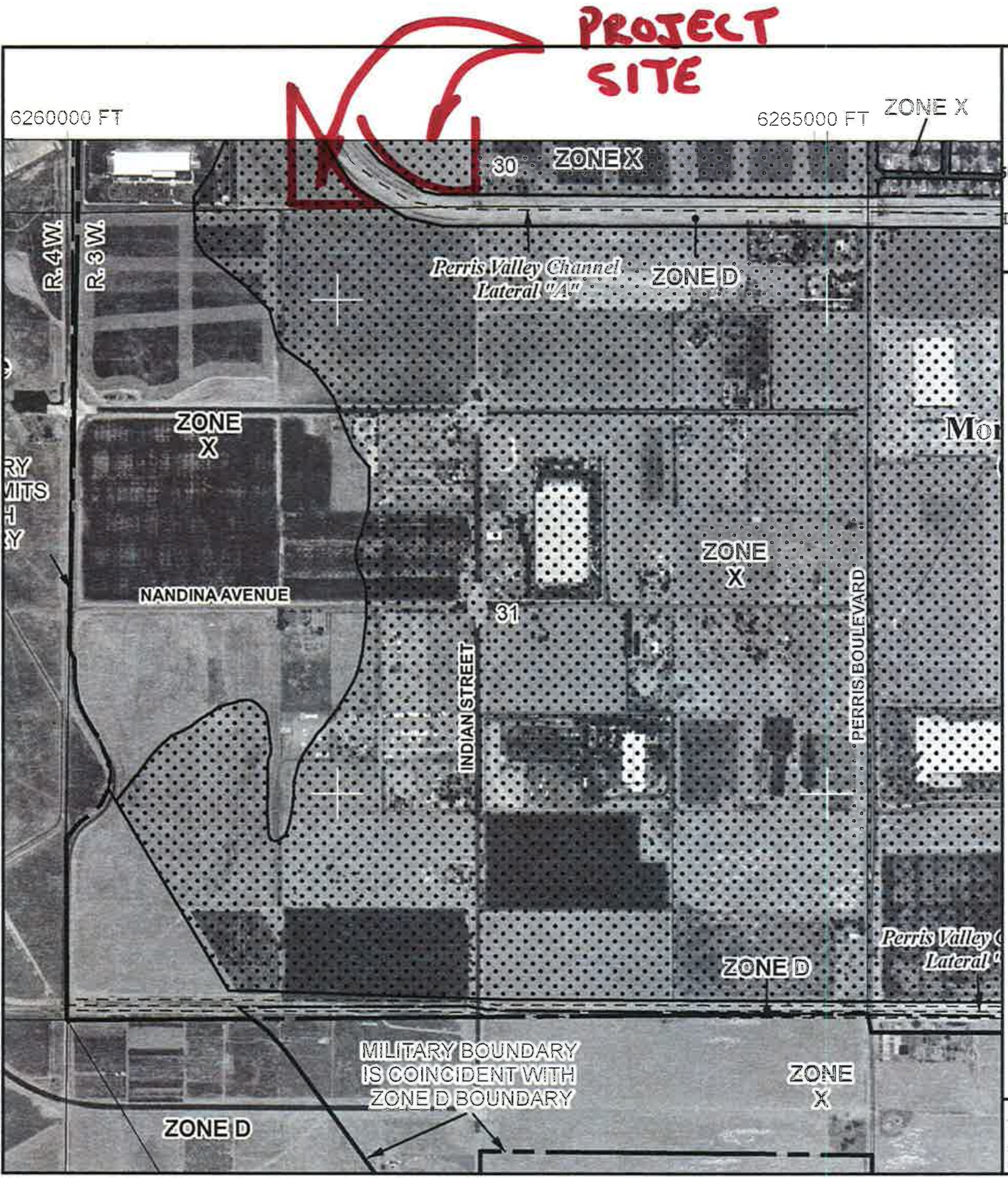

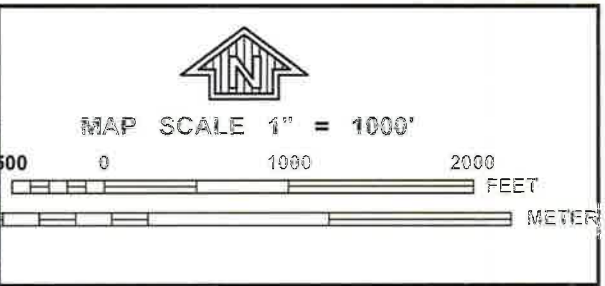

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1430G

FIRM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1430 OF 3805
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MORENO VALLEY, CITY OF	065074	1430	G
PERRIS, CITY OF	060258	1430	G
RIVERSIDE COUNTY	060245	1430	G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06065C1430G

EFFECTIVE DATE
AUGUST 28, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

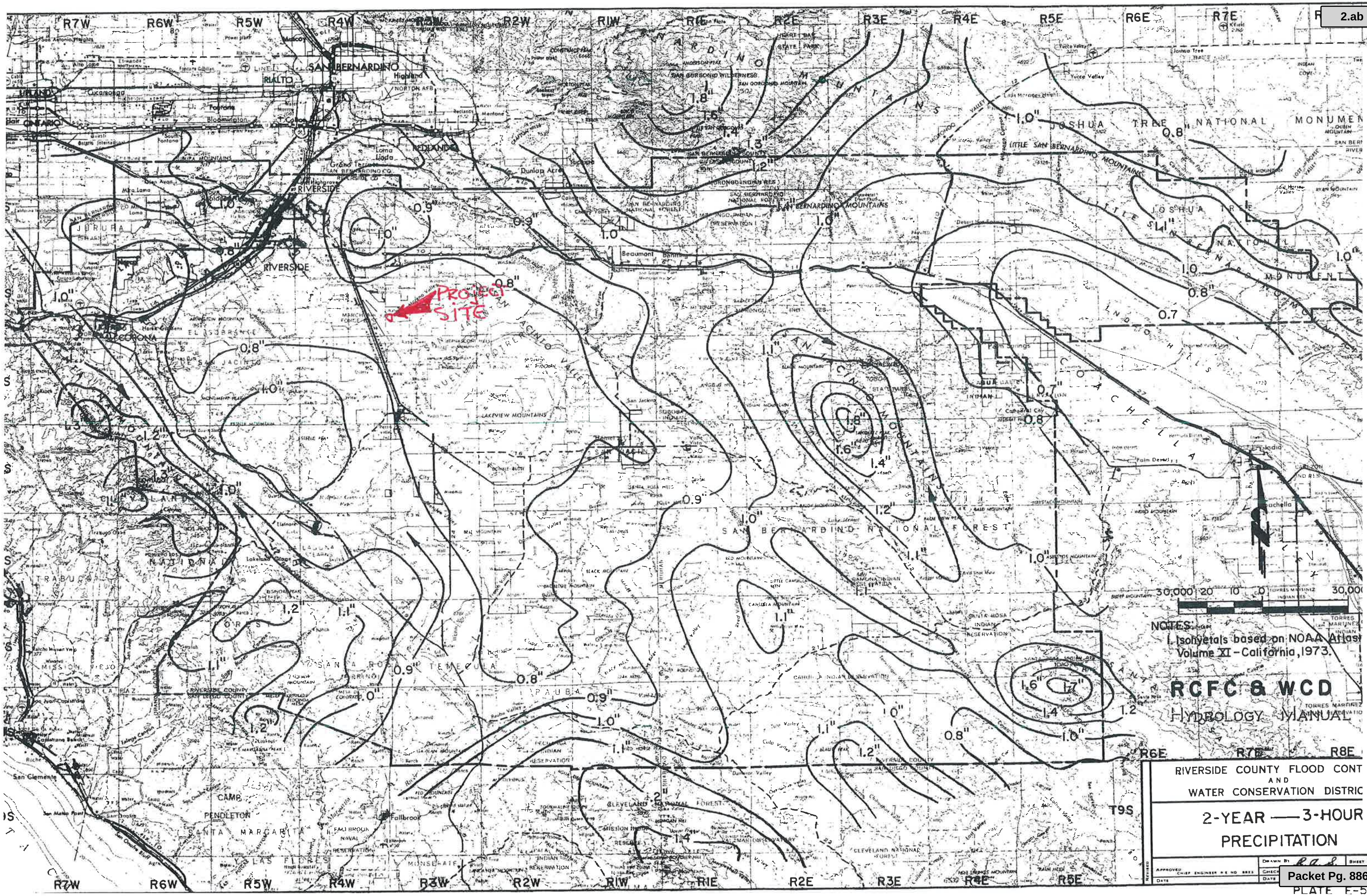

NOTES:
1. Isohyetals based on NOAA Atlas Volume XI – California, 1973.

RCFC & WCD
HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONT
AND
WATER CONSERVATION DISTRIC

2-YEAR — 3-HOUR
PRECIPITATION

DRAWN BY R.A.S.
APPROVED CHIEF ENGINEER
PLATE E-5.1

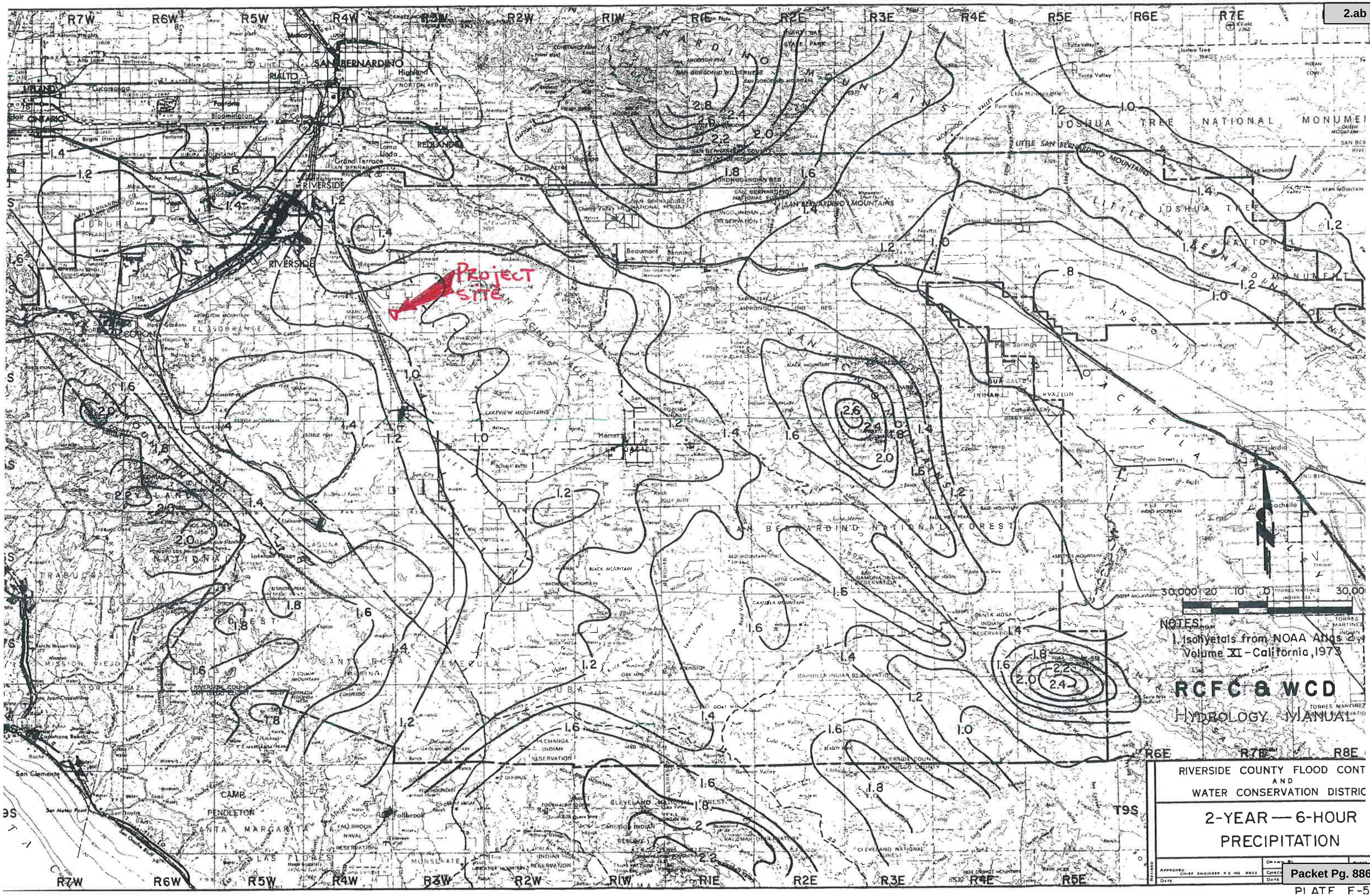

NOTES:
1. Isohyetals from NOAA Atlas 2 Volume XI - California, 1973

RCFC & WCD
HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONT
AND
WATER CONSERVATION DISTRIC

2-YEAR — 6-HOUR PRECIPITATION

APPROVED CHIEF ENGINEER R.E. NO. 8822
DATE
REVISED
DRAWN BY
CHECKED
DATE
SHEET NO.

PLATE E-5.3

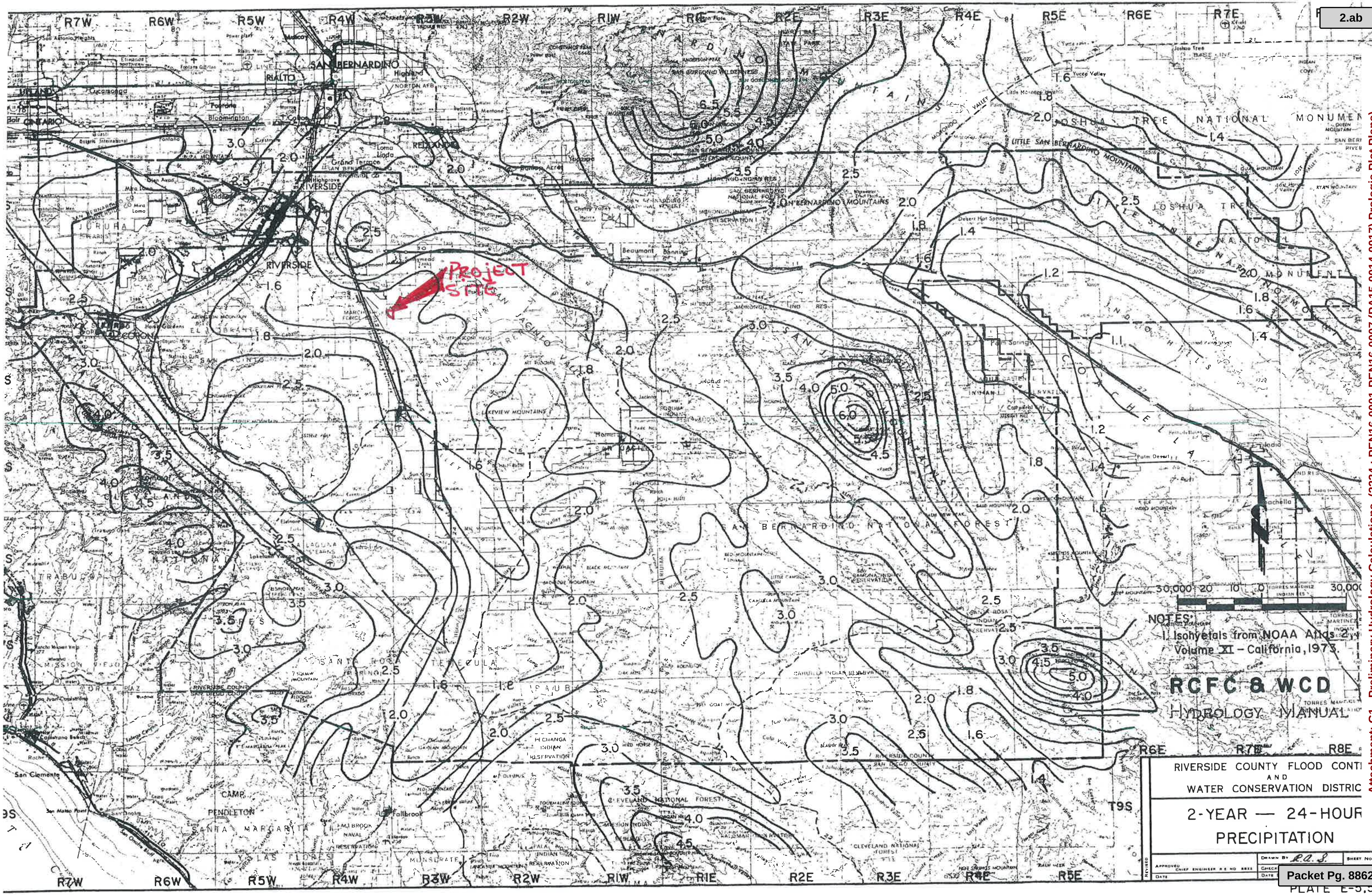

NOTES:
1. Isohyetals from NOAA Atlas 2,
Volume XI – California, 1973.

RCFC & WCD
HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONT
AND
WATER CONSERVATION DISTRIC

2-YEAR — 24-HOUR PRECIPITATION

REVISED
APPROVED CHIEF ENGINEER R.E. NO. 8833
DATE
DRAWN BY R.A.S.
CHECK
DATE
SHEET NO

PLATE E-5.5

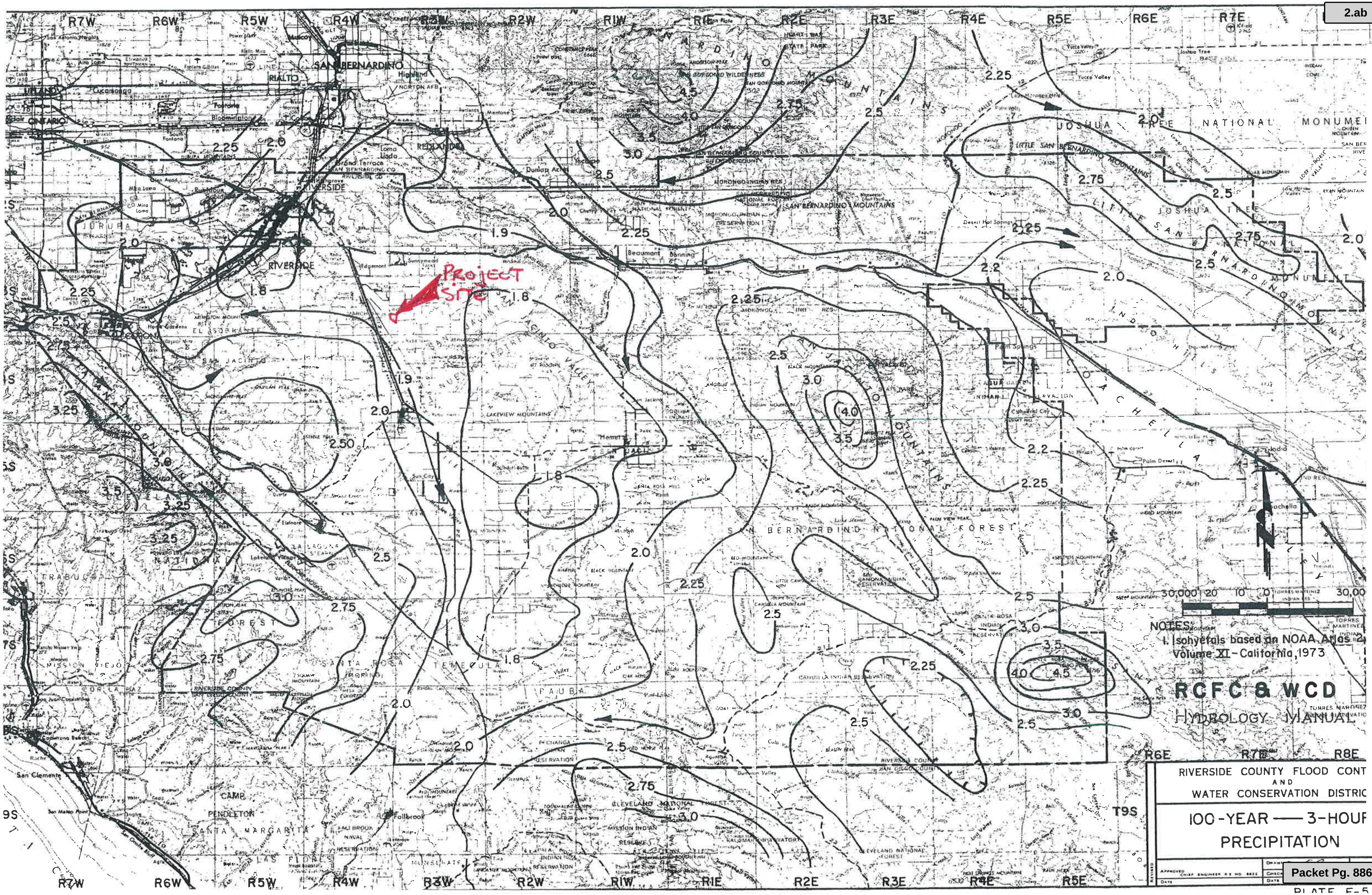

NOTES:
1. Isohyetals based on NOAA Atlas 2, Volume XI - California, 1973

RCFC & WCD
HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONT
AND
WATER CONSERVATION DISTRIC

100-YEAR —— 3-HOUR
PRECIPITATION

PLATE E-5.2

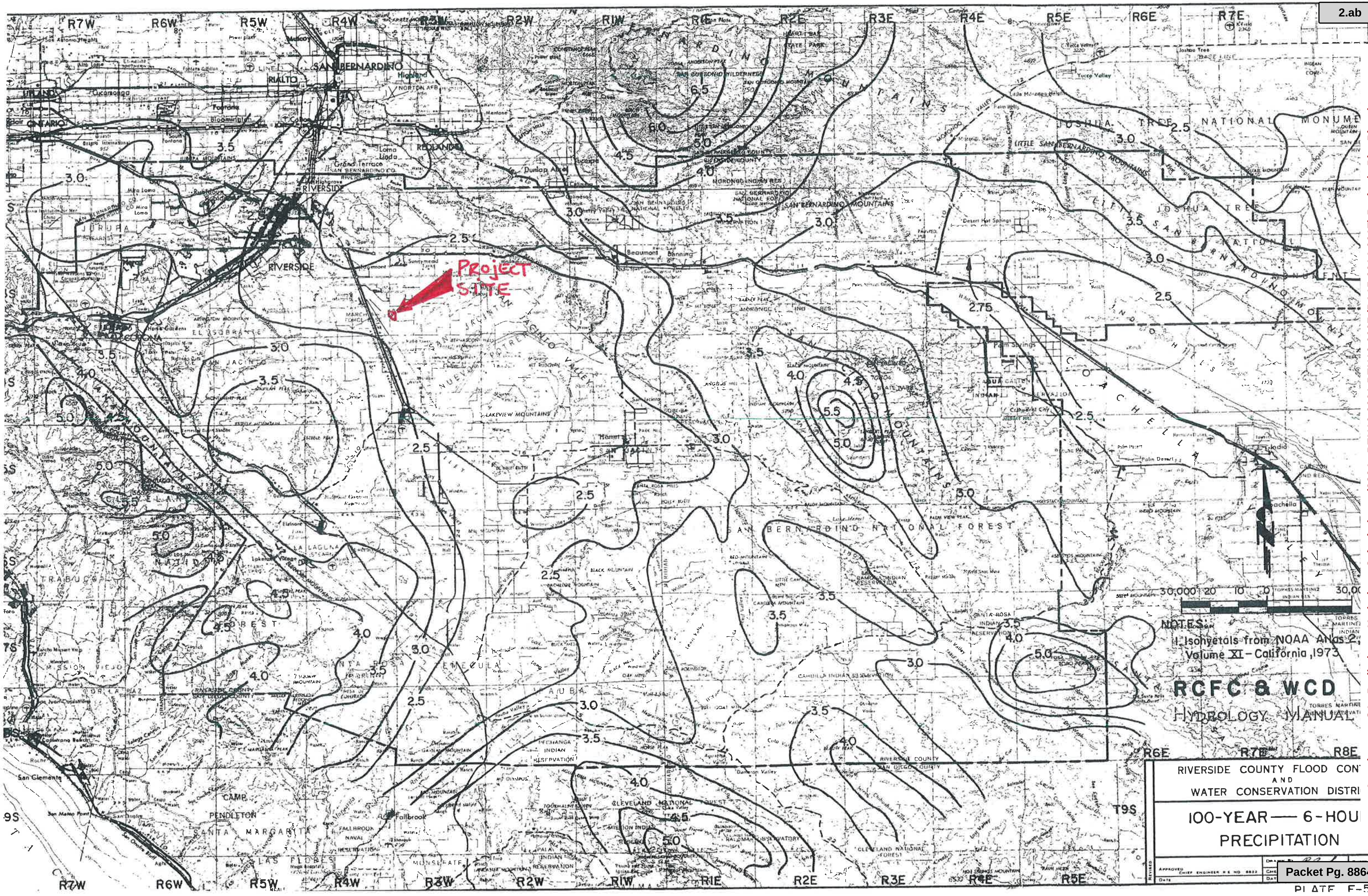

NOTES:
1. Isohyetals from NOAA Atlas 2, Volume XI - California, 1973

RCFC & WCD
HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CON
AND
WATER CONSERVATION DISTRI

100-YEAR — 6-HOU
PRECIPITATION

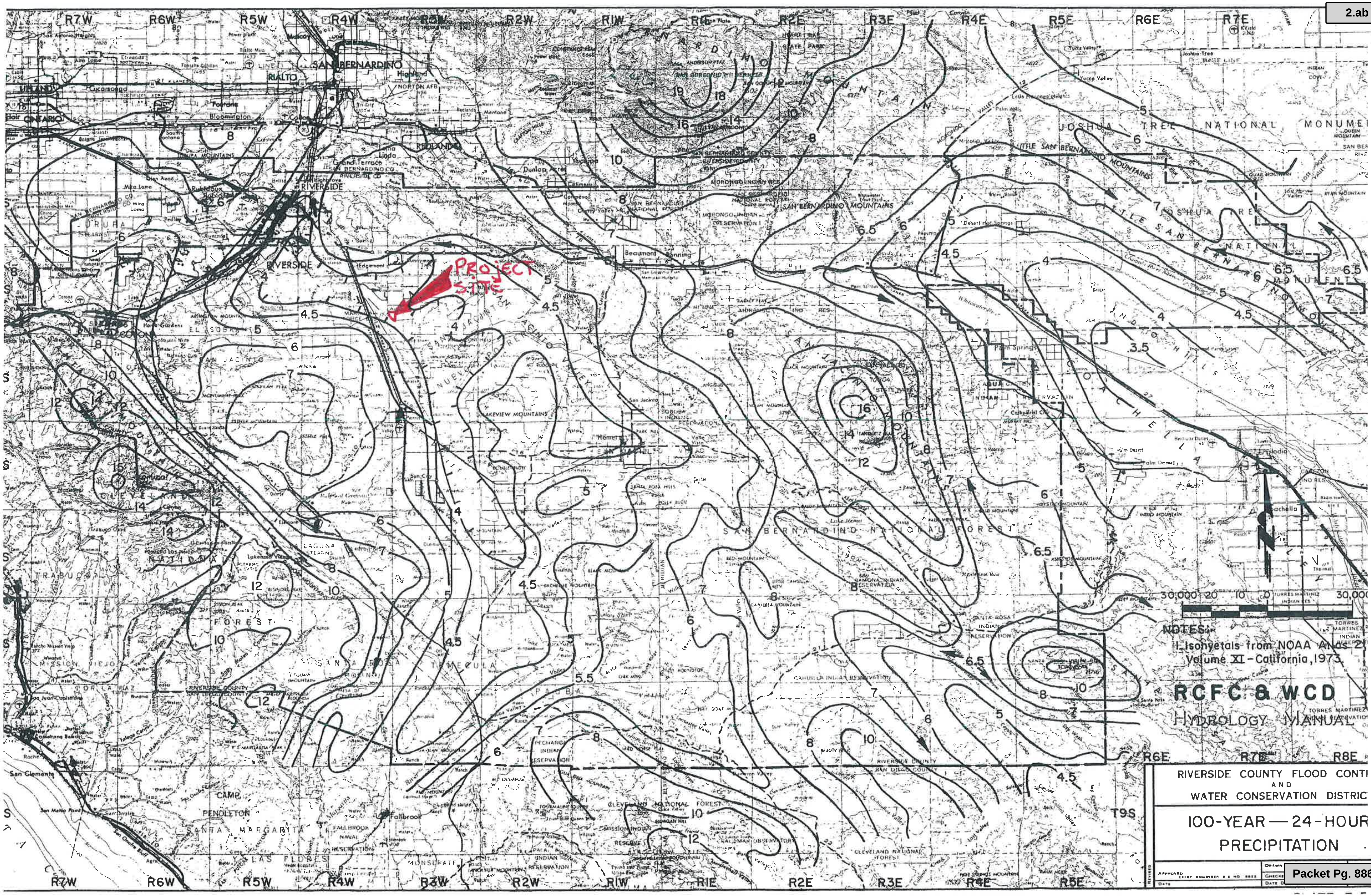

NOTES:

1. Isohyetals from NOAA Atlas 2, Volume XI - California, 1973.

RCFC & WCD

HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONTI
AND
WATER CONSERVATION DISTRIC

100-YEAR — 24-HOUR

PRECIPITATION

APPROVED CHIEF ENGINEER R.E. NO.

DRAWN

CHECKED

DATE

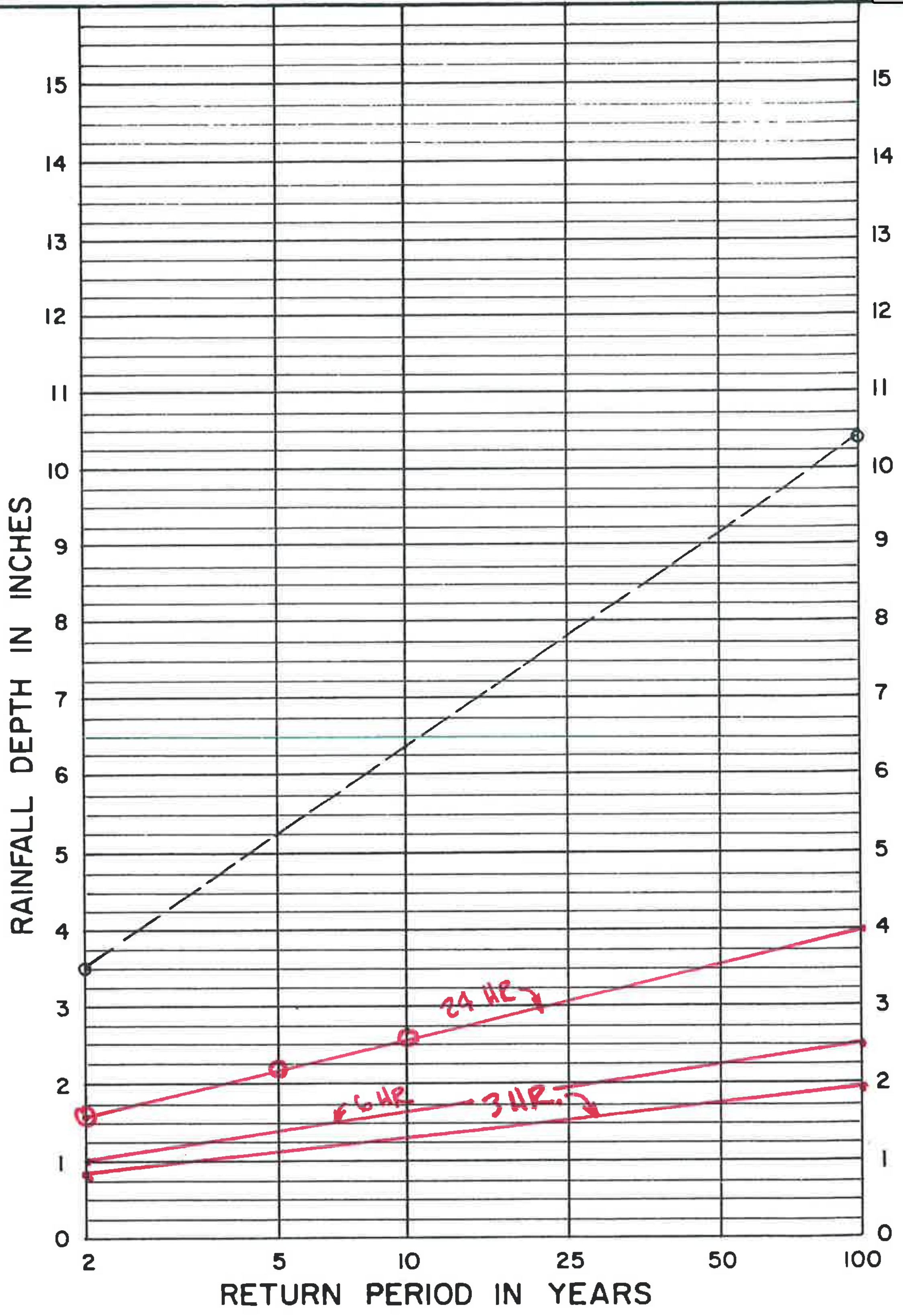

NOTE:

1. For intermediate return periods plot 2-year and 100-year values from maps for a specific duration, then connect points and read value for desired return period. For example given 2-year 24-hour = 3.50" and 100-year 24-hour = 10.40", 25-year 24-hour = 7.80"

Reference: NOAA Atlas 2, Volume XI - California, 1973.

RCFC & WCD

HYDROLOGY MANUAL

RAINFALL DEPTH VERSUS RETURN PERIOD FOR PARTIAL DURATION SERIES

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group			
		A	B	C	D
NATURAL COVERS -					
Barren (Rockland, eroded and graded land)		78	86	91	9
Chaparrel, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	8
	Fair	40	63	75	8
	Good	31	57	71	7
Chaparrel, Narrowleaf (Chamise and redshank)	Poor	71	82	88	9
	Fair	55	72	81	8
Grass, Annual or Perennial	Poor	67	78	86	8
	Fair	50	69	79	8
	Good	38	61	74	8
Meadows or Cienegas (Areas with seasonally high water table, principal vegetation is sod forming grass)	Poor	63	77	85	8
	Fair	51	70	80	8
	Good	30	58	72	7
Open Brush (Soft wood shrubs - buckwheat, sage, etc.)	Poor	62	76	84	8
	Fair	46	66	77	8
	Good	41	63	75	8
Woodland (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	8
	Fair	36	60	73	7
	Good	28	55	70	7
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	8
	Fair	44	65	77	8
	Good	33	58	72	7
URBAN COVERS -					
Residential or Commercial Landscaping (Lawn, shrubs, etc.)	Good	32	56	69	7
Turf (Irrigated and mowed grass)	Poor	58	74	83	8
	Fair	44	65	77	8
	Good	33	58	72	7
AGRICULTURAL COVERS -					
Fallow (Land plowed but not tilled or seeded)		76	85	90	9

RCFC & WCD
HYDROLOGY MANUAL

RUNOFF INDEX NUMBE
FOR
PERVIOUS AREAS

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group			
		A	B	C	D
AGRICULTURAL COVERS (cont.) -					
Legumes, Close Seeded (Alfalfa, sweetclover, timothy, etc.)	Poor Good	66 58	77 72	85 81	89 85
Orchards, Deciduous (Apples, apricots, pears, walnuts, etc.)		See Note 4			
Orchards, Evergreen (Citrus, avocados, etc.)	Poor Fair Good	57 44 33	73 65 58	82 77 72	86 82 79
Pasture, Dryland (Annual grasses)	Poor Fair Good	67 50 38	78 69 61	86 79 74	89 84 80
Pasture, Irrigated (Legumes and perennial grass)	Poor Fair Good	58 44 33	74 65 58	83 77 72	87 82 79
Row Crops (Field crops - tomatoes, sugar beets, etc.)	Poor Good	72 67	81 78	88 85	91 89
Small Grain (Wheat, oats, barley, etc.)	Poor Good	65 63	76 75	84 83	88 87
Vineyard		See Note 4			

Notes:

1. All runoff index (RI) numbers are for Antecedent Moisture Condition (AMC) II.

2. Quality of cover definitions:
   Poor-Heavily grazed or regularly burned areas. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.
   Fair-Moderate cover with 50 percent to 75 percent of the ground surface protected.
   Good-Heavy or dense cover with more than 75 percent of the ground surface protected.

3. See Plate C-2 for a detailed description of cover types.

4. Use runoff index numbers based on ground cover type. See discussion under "Cover Type Descriptions" on Plate C-2.

5. Reference Bibliography item 17.

RCFC & WCD
HYDROLOGY MANUAL

RUNOFF INDEX NUMBERS
FOR
PERVIOUS AREAS

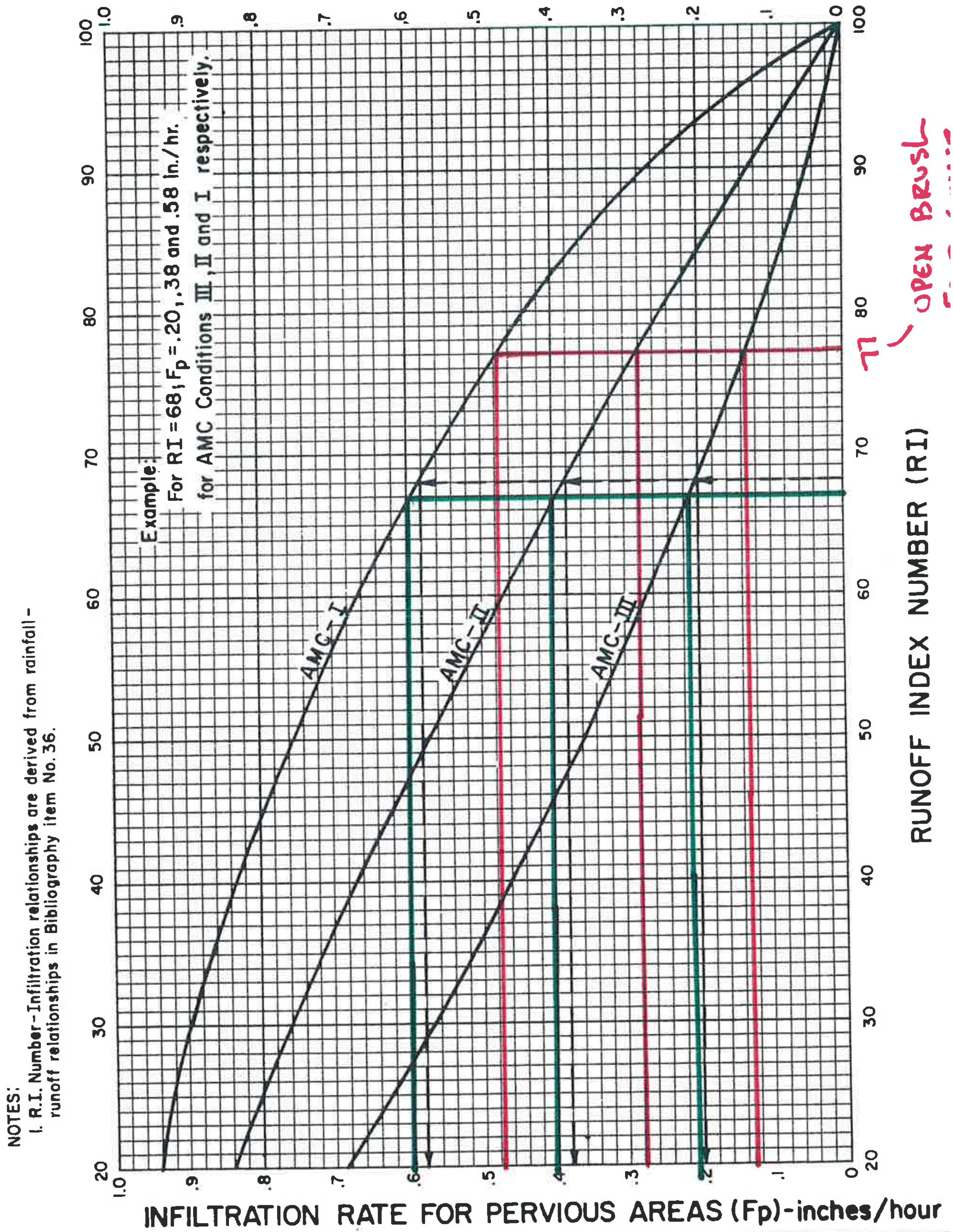

RCFC & WCD
HYDROLOGY MANUAL

INFILTRATION RATE FOR
PERVIOUS AREAS VERSU
RUNOFF INDEX NUMBERS

ACTUAL IMPERVIOUS COVER

Land Use (1)	Range-Percent	Recommended Value For Average Conditions-Percent
Natural or Agriculture	0 - 10	0
Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50
Multiple Family Residential:		
Condominiums	45 - 70	65
Apartments	65 - 90	80
Mobile Home Park	60 - 85	75
Commercial, Downtown Business or Industrial	80 -100	90

Notes:

1. Land use should be based on ultimate development of the watershed. Long range master plans for the County and incorporated cities should be reviewed to insure reasonable land use assumptions.

2. Recommended values are based on average conditions which may not apply to a particular study area. The percentage impervious may vary greatly even on comparable sized lots due to differences in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area should always be mad and a review of aerial photos, where available may assist in estima ing the percentage of impervious cover in developed areas.

3. For typical horse ranch subdivisions increase impervious area 5 per cent over the values recommended in the table above.

RCFC & WCD
HYDROLOGY MANUAL

IMPERVIOUS COVER
FOR
DEVELOPED AREAS

BLDG 1 ≈ 70+00

BLDG 3 ≈ 75+44

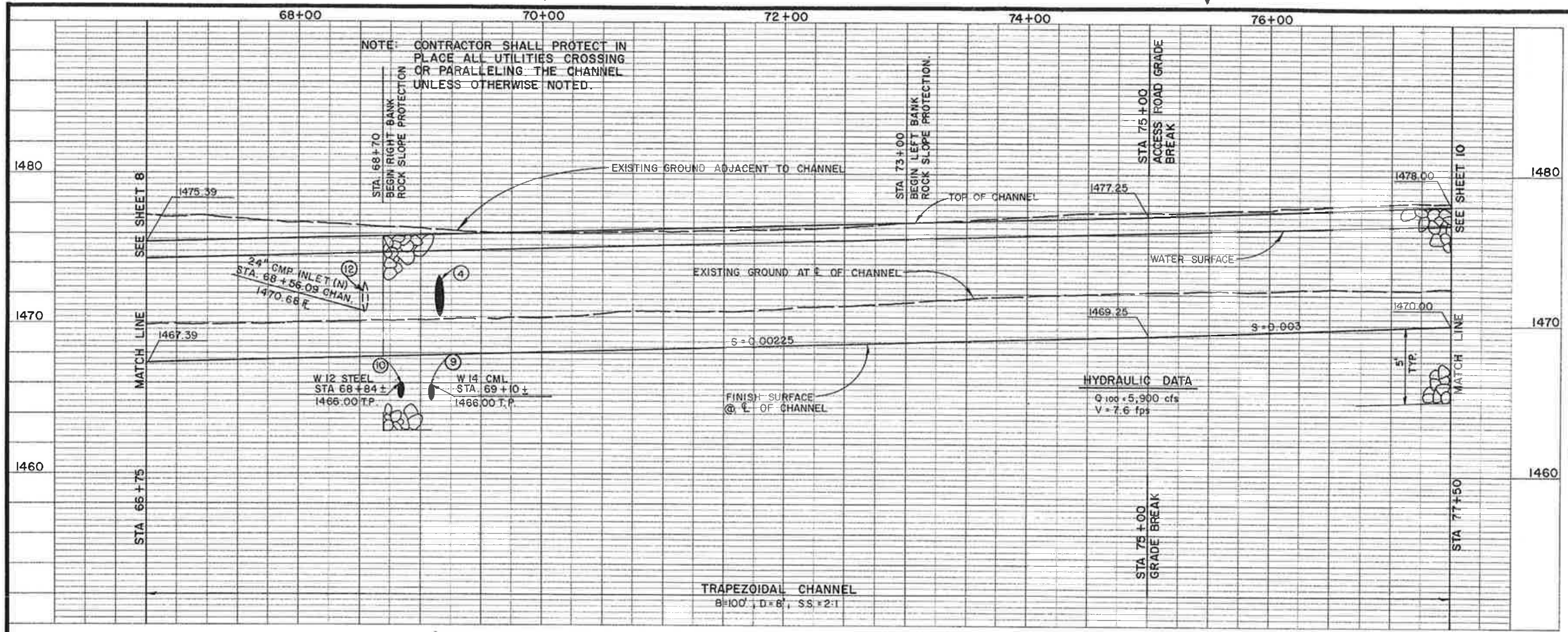

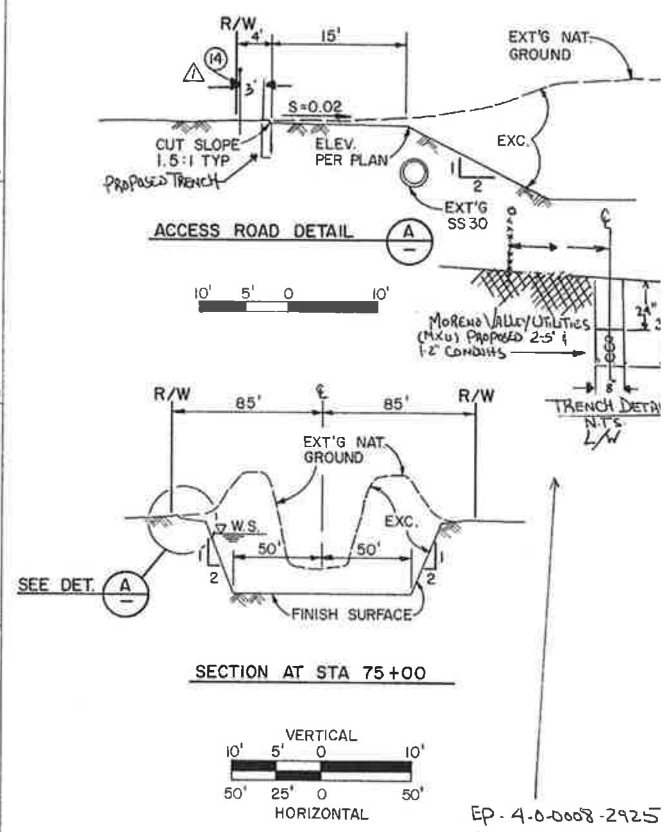

EP-4-0-0008-2925
October 19, 2005
City of Moreno Val

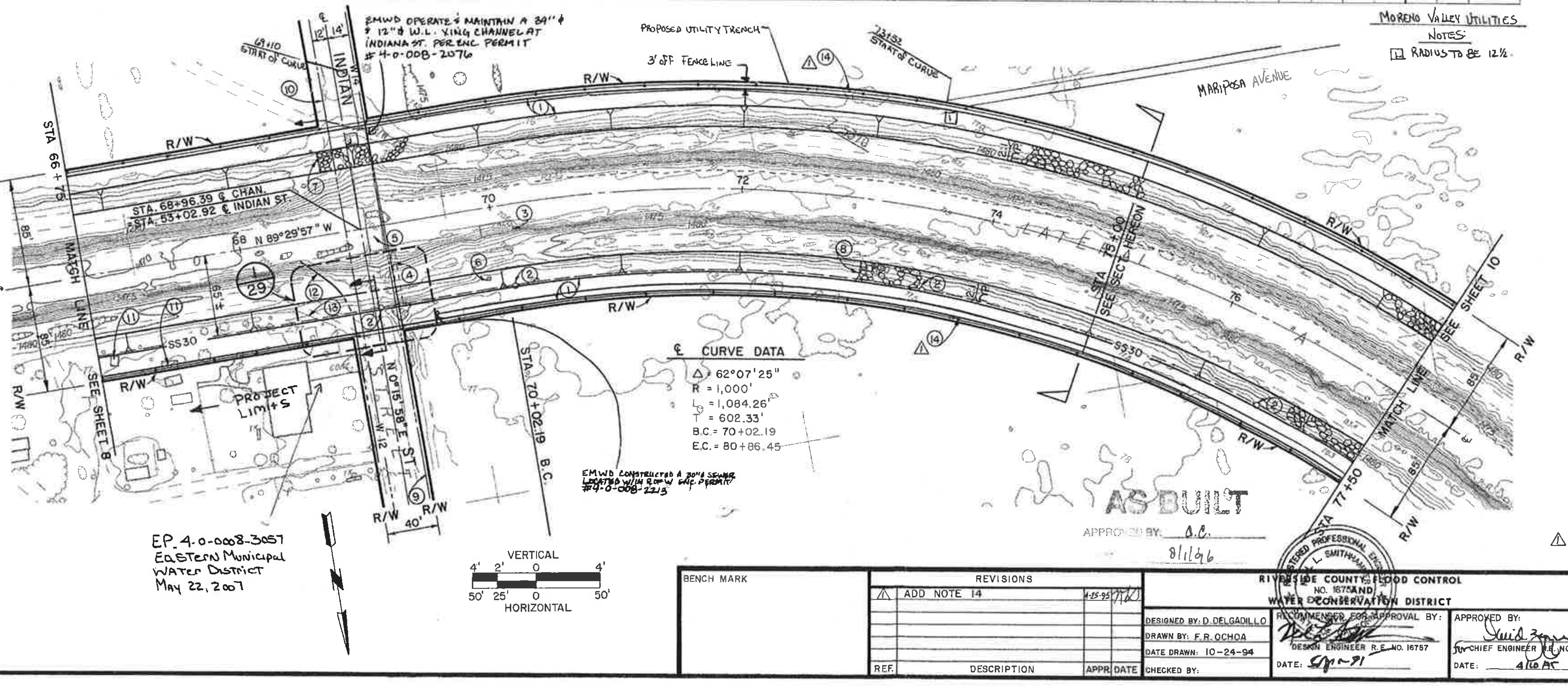

EP 4-0-0008-3057
Eastern Municipal Water District
May 22, 2007

AS BUILT

APPROVED BY: A.C.

8/1/96

NOTES

- ① CONSTRUCT 15' WIDE ACCESS ROAD PER DETAIL "A" HERON AND R.C.F.C. STD. DWG. CH326.
- ② EXISTING SANITARY SEWER MANHOLE TO BE REMODELED BY OTHERS. PROTECT IN PLACE.
- ③ REMOVE 18" RCP DRAIN INLET AND CONCRETE APRON.
- ④ REMOVE EXISTING 36" CMP. CONSTRUCT NEW 18" RCP PER DETAIL SHEET 29.
- ⑤ REMOVE EXISTING CONCRETE FARM CROSSING.
- ⑥ REMOVE & PLUG EX. MARCH AIR FORCE BASE WELL.
- ⑦ BEGIN RIPRAP SLOPE PROTECTION ON RIGHT BANK AT STA 68+70. SEE TYPICAL CROSS SECTION ON SHEET 30
- ⑧ BEGIN RIPRAP SLOPE PROTECTION ON LEFT BANK AT STA 73+00. SEE TYPICAL CROSS SECTION ON SHEET 30
- ⑨ EXISTING 14" WATER LINE TO BE RELOCATED BY CONTRACTOR. SEE SHEET 36 FOR DETAILS.
- ⑩ EXISTING 12" WATER LINE TO BE PROTECTED IN PLACE.
- ⑪ EXISTING STRUCTURES TO BE REMOVED BY OTHERS.
- ⑫ REMOVE ~~AND REPLACE~~ AS NECESSARY EXISTING 24" CMP. SEE SHEET 29 FOR DETAILS.
- ⑬ REMOVE AND REINSTALL EXISTING CHAIN LINK FENCE TO R/W LI
- △ ⑭ CONSTRUCT 6-FOOT CHAIN LINK FENCE PER RCFC STD. DWG. M801

BENCH MARK	REVISIONS			
	REF.	DESCRIPTION	APPR.	DATE
	△	ADD NOTE 14		4-25-95

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: D. DELGADILLO
DRAWN BY: F.R. OCHOA
DATE DRAWN: 10-24-94
CHECKED BY:

RECOMMENDED FOR APPROVAL BY:
DESIGN ENGINEER R.E. NO. 16757
DATE: 5/9/91

APPROVED BY:
for CHIEF ENGINEER R.E. NO. 12400
DATE: 4/10/95

PERRIS VALLEY CHANNEL
LATERAL "A"
PLAN AND PROFILE
STA. 66+75 TO STA. 77+50

PROJECT NO. 4-0-0
DRAWING NO. 4-6
SHEET NO. 9 OF 52

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

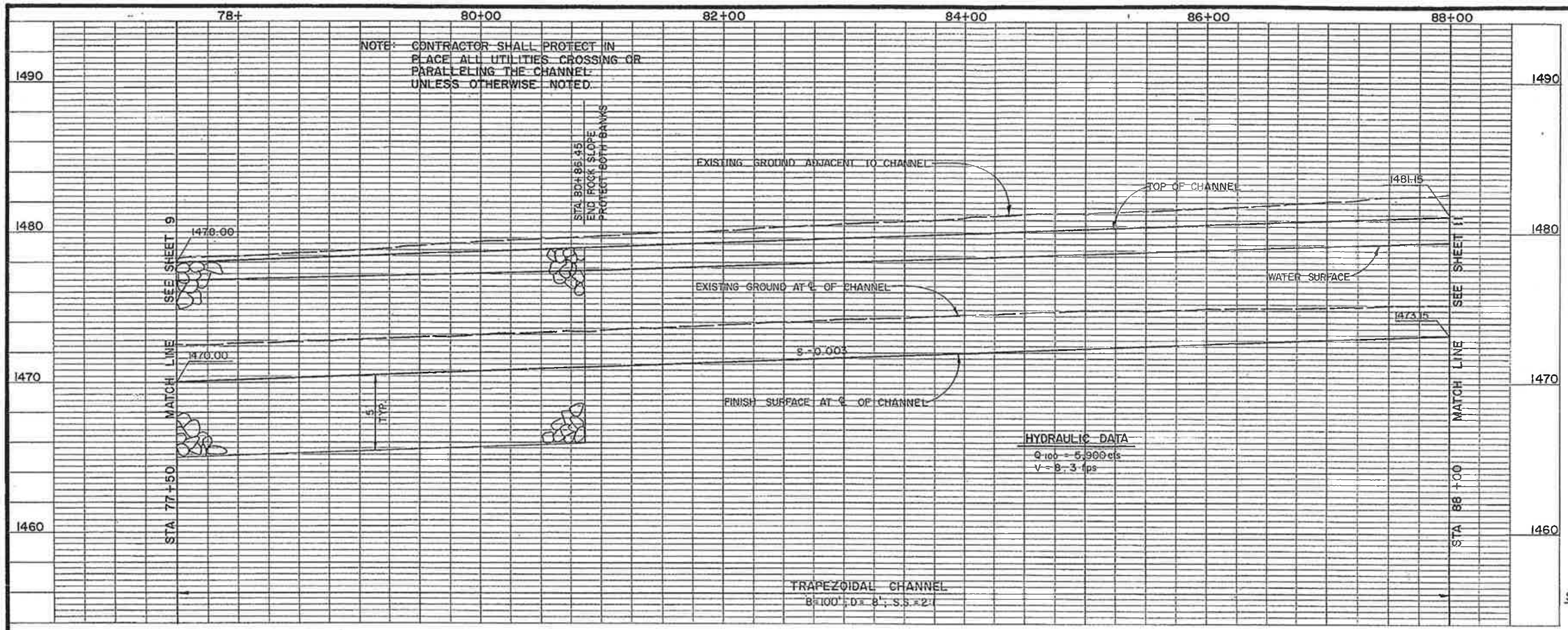

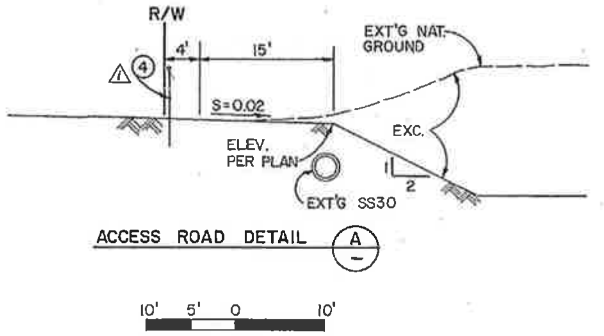

ACCESS ROAD DETAIL (A)

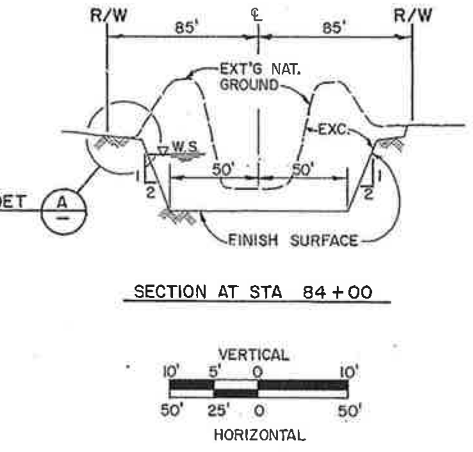

SECTION AT STA 84+00

VERTICAL
10' 5' 0 10'
50' 25' 0 50'
HORIZONTAL

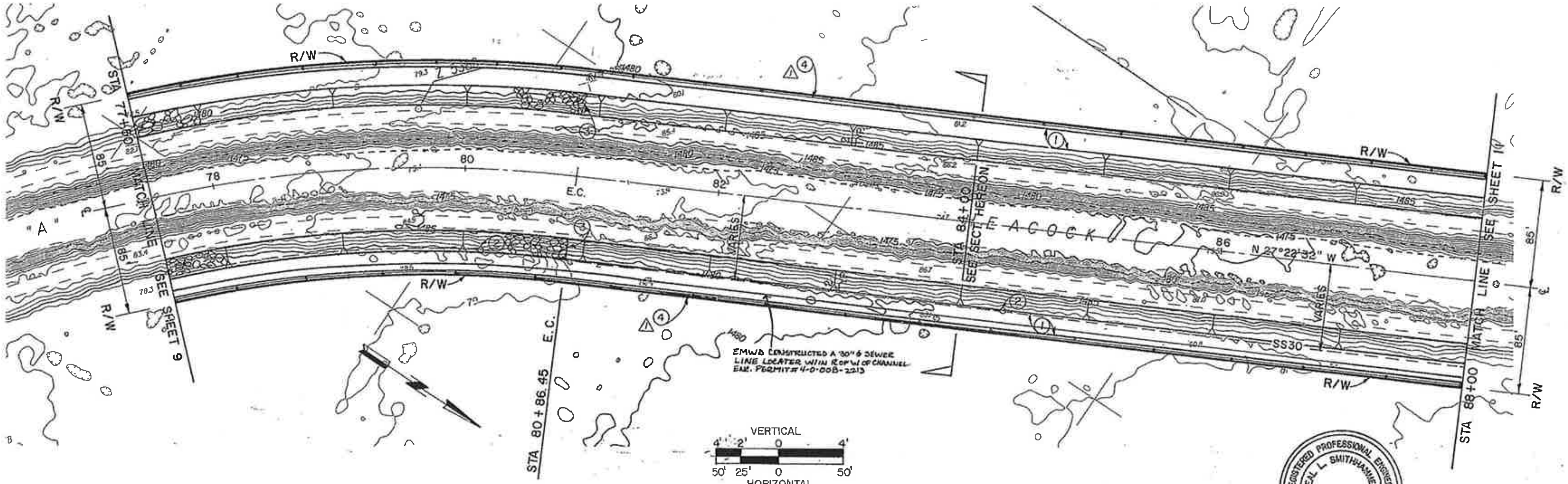

NOTES

① CONSTRUCT 15' WIDE ACCESS ROAD PER DETAIL "A" HEREON AND R.C.F.C. STD. DWG. CH326

② EXISTING SANITARY SEWER MANHOLE TO BE REMODELED BY OTHERS. PROTECT IN PLACE.

③ END OF RIPRAP SLOPE PROTECTION AT BOTH BANKS STA 80+86.45. SEE TYPICAL CROSS SECTION ON SHT. 30.

△1 ④ CONSTRUCT 6-FOOT CHAIN LINK FENCE PER RCFC STD.DWG. M 801

AS BUILT
APPROVED BY: C.C.
DATE 8/1/96

NEAL L. SMITHHAMMER
NO. 16757
EXP. 6-30-97

BENCH MARK

REVISIONS			
△1	ADD NOTE 4	1-15-95	NLS
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: D. DELGADILLO
DRAWN BY: F. R. OCHOA
DATE DRAWN: 10-31-94
CHECKED BY:

RECOMMENDED FOR APPROVAL BY: Neal L. Smithhammer
DESIGN ENGINEER R.E. NO. 16757
DATE: 6 Apr 95

APPROVED BY:
for CHIEF ENGINEER R.E. NO. 12400
DATE: 4/10/95

PERRIS VALLEY CHANNEL
LATERAL "A"
PLAN AND PROFILE
STA. 77+50 TO STA. 88+00

PROJECT NO. 4-0-008
DRAWING NO. 4-617
SHEET NO. 10 OF 52

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

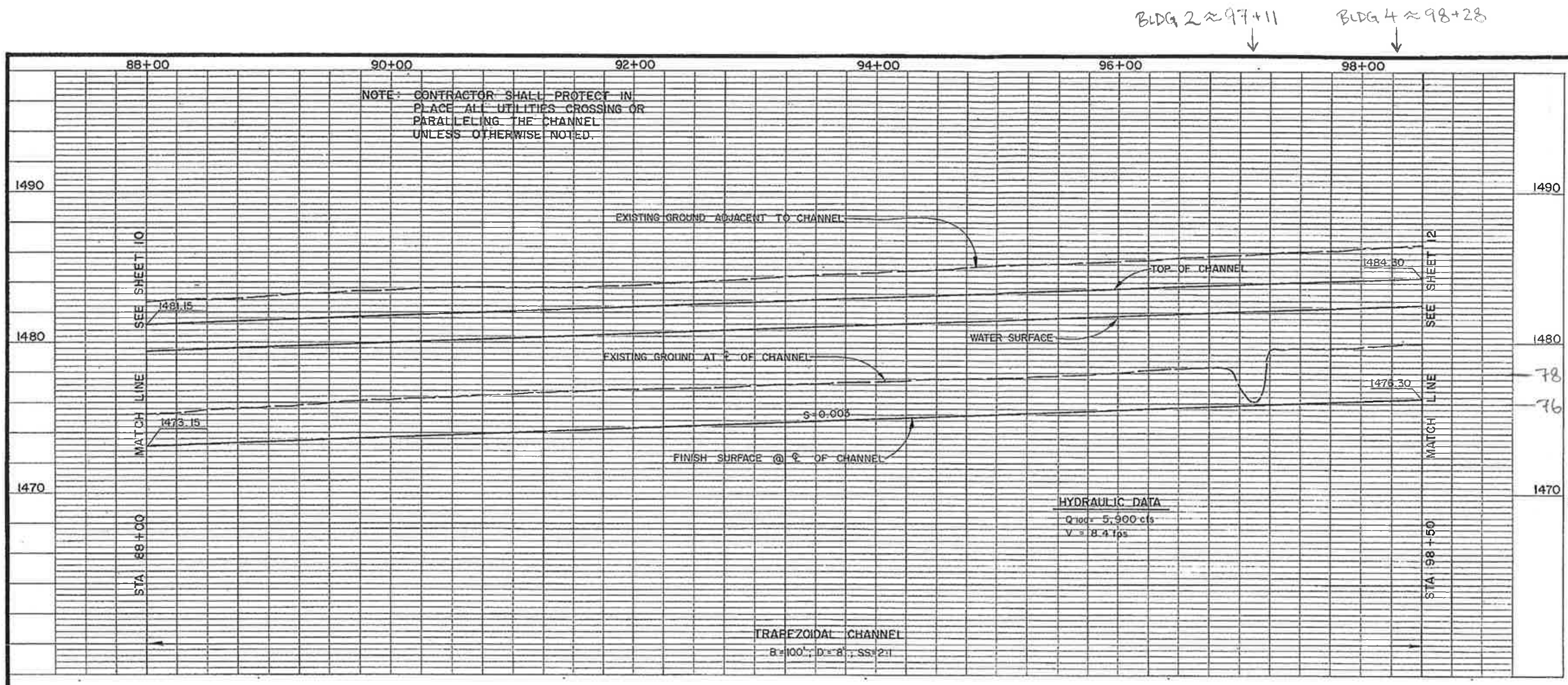

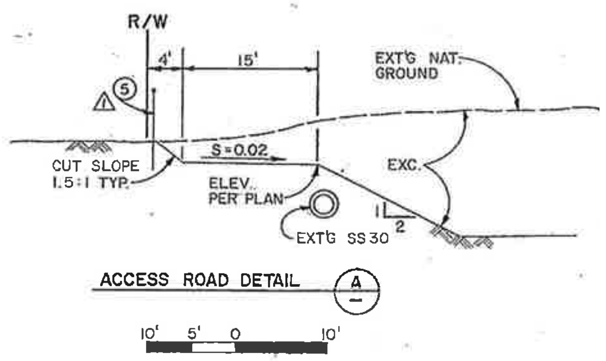

ACCESS ROAD DETAIL (A)

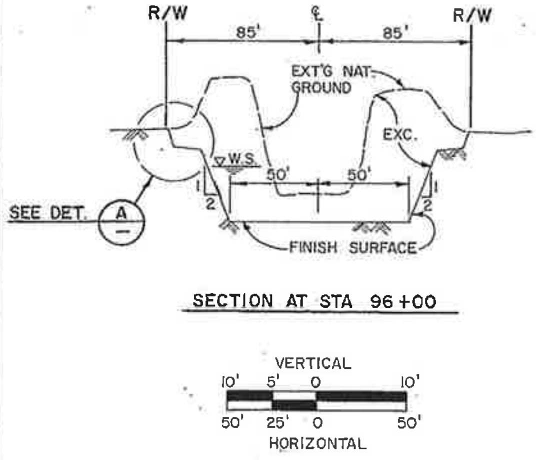

SECTION AT STA 96+00

NOTES

① CONSTRUCT 15' WIDE ACCESS ROAD PER DETAIL "A" HEREON AND R.C.F.C. STD. DWG. CH 326

② EXISTING SANITARY SEWER MANHOLE TO BE REMODELED BY OTHERS. PROTECT IN PLACE.

③ REMOVE EXISTING CONCRETE DROP STRUCTURE

④ REMOVE & PLUG EX. MARCH AIR FORCE BASE WATER WELL.

△⑤ CONSTRUCT 6-FOOT CHAIN LIKE FENCE PER RCFC STD. DWG. M801

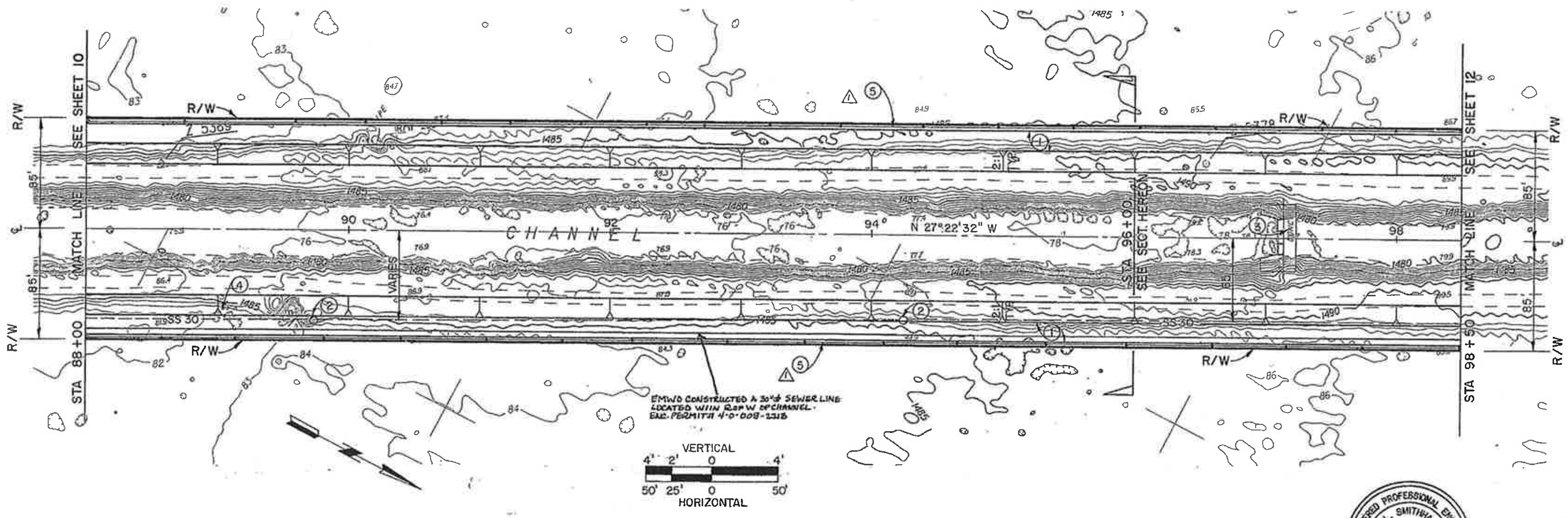

AS BUILT
APPROVED BY: C.C.
8/1/96

BENCH MARK	REVISIONS				
	△	ADD NOTE 5	4/5/95		
	REF.	DESCRIPTION	APPR.	DATE	

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

DESIGNED BY: D. DELGADILLO
DRAWN BY: F.R. OCHOA
DATE DRAWN: 10-31-94
CHECKED BY:

RECOMMENDED FOR APPROVAL BY:
DESIGN ENGINEER R.E. NO. 16757
DATE: 5Apr95

APPROVED BY:
for CHIEF ENGINEER R.E. NO. 12400
DATE: 4/10/95

PERRIS VALLEY CHANNEL
LATERAL "A"
PLAN AND PROFILE
STA. 88+00 TO STA. 98+50

PROJECT NO. 4-0-008
DRAWING NO. 4-617
SHEET NO. 11 OF 52

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX B

EXISTING CONDITION HYDROLOGY CALCULATIONS

```
****************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
       RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                  (RCFC&WCD)  1978 HYDROLOGY MANUAL
        (c) Copyright 1982-99 Advanced Engineering Software (aes)
           Ver. 1.5A Release Date: 01/01/99  License ID 1435

                         Analysis prepared by:

                          THIENES ENGINEERING
                        16800 VALLEY VIEW AVENUE
                           LA MIRADA CA 90638
                  PH: (714) 521-4811 FAX: (714) 521-4173

 ************************** DESCRIPTION OF STUDY **************************
 * MURANAKA SITE                                                          *
 * EXISTING CONDITION FOR AREA 1                                          *
 * 100-YEAR\                                                              *
 **************************************************************************

  FILE NAME: C:\XDRIVE\2890\EXHYD1.DAT
  TIME/DATE OF STUDY: 07:59 03/10/2016
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.010
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.820
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.940
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.200
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.5003939
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.5001161
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.5001
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)    (FT)     SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  =====  ======  =====  =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00  0.0313  0.167  0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
       ASSUMED INITIAL SUBAREA UNIFORM
       DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =  1000.00
  UPSTREAM ELEVATION =   1491.20
  DOWNSTREAM ELEVATION =   1486.50
  ELEVATION DIFFERENCE =      4.70
  TC = 0.709*[( 1000.00**3)/(     4.70)]**.2 =   32.845
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.622
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      9.22
  TOTAL AREA(ACRES) =      8.65   TOTAL RUNOFF(CFS) =      9.22
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)      =      8.65  TC(MIN.) =     32.85
  PEAK FLOW RATE(CFS)    =      9.22
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

```
****************************************************************************
         RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
     RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                (RCFC&WCD) 1978 HYDROLOGY MANUAL
        (c) Copyright 1982-99 Advanced Engineering Software (aes)
            Ver. 1.5A Release Date: 01/01/99  License ID 1435

                        Analysis prepared by:

                      THIENES ENGINEERING, INC.
                       16800 VALLEY VIEW AVENUE
                         LA MIRADA, CA 90638
                 PH: (714) 521-4811  FAX: (714) 521-4811

 ************************** DESCRIPTION OF STUDY **************************
 * LAMBAND KAWAKAMI LLC, MORENO VALLEY 89 ACRES                            *
 * EXISTING CONDITION (EAST) FOR AREA 2AND 3                               *
 * 100-YR HYDROLOGY                                                        *
 **************************************************************************

  FILE NAME: C:\HYDRO\2890\EXHYD2.DAT
  TIME/DATE OF STUDY: 09:49 10/08/2008
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.010
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.820
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.940
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.200
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.5003939
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.5001161
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.5001
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN- / OUT-/PARK-   HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.  (FT)     (FT)     SIDE / SIDE/ WAY    (FT)   (FT)  (FT)   (FT)    (n)
===  =====  =========  ================= ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67   2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

 ****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
```

```
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   670.00
  UPSTREAM ELEVATION =   1487.40
  DOWNSTREAM ELEVATION =   1485.50
  ELEVATION DIFFERENCE =      1.90
  TC = 0.709*[(  670.00**3)/(     1.90)]**.2 =   30.959
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.671
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      5.98
  TOTAL AREA(ACRES) =      5.40   TOTAL RUNOFF(CFS) =      5.98

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1485.50  DOWNSTREAM(FEET) =   1483.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   530.00   CHANNEL SLOPE =  0.0047
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      5.98
  FLOW VELOCITY(FEET/SEC) =   0.80   FLOW DEPTH(FEET) =   0.13
  TRAVEL TIME(MIN.) =  11.09   Tc(MIN.) =  42.05
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =  1200.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.433
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6347
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    6.40   SUBAREA RUNOFF(CFS) =    5.82
  TOTAL AREA(ACRES) =    11.80   TOTAL RUNOFF(CFS) =   11.80
  TC(MIN) =  42.05

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    213.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1483.00  DOWNSTREAM(FEET) =   1482.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   410.00   CHANNEL SLOPE =  0.0024
  CHANNEL BASE(FEET) =   30.00   "Z" FACTOR =   2.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =     11.80
  FLOW VELOCITY(FEET/SEC) =   1.16   FLOW DEPTH(FEET) =   0.33
  TRAVEL TIME(MIN.) =   5.91   Tc(MIN.) =  47.96
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    213.00 =  1610.00 FEET.
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    213.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.342
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6223
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =     0.80   SUBAREA RUNOFF(CFS) =     0.67
  TOTAL AREA(ACRES) =    12.60   TOTAL RUNOFF(CFS) =    12.47
  TC(MIN) =  47.96

****************************************************************************
  FLOW PROCESS FROM NODE    213.00 TO NODE    213.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =  47.96
  RAINFALL INTENSITY(INCH/HR) =   1.34
  TOTAL STREAM AREA(ACRES) =   12.60
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     12.47

****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    211.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   560.00
  UPSTREAM ELEVATION =   1488.30
  DOWNSTREAM ELEVATION =   1486.00
  ELEVATION DIFFERENCE =      2.30
  TC = 0.709*[(  560.00**3)/(     2.30)]**.2 =   26.758
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.797
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      3.88
  TOTAL AREA(ACRES) =      3.20   TOTAL RUNOFF(CFS) =      3.88

****************************************************************************
  FLOW PROCESS FROM NODE    211.00 TO NODE    212.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1486.00  DOWNSTREAM(FEET) =   1484.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   650.00   CHANNEL SLOPE =  0.0031
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      3.88
  FLOW VELOCITY(FEET/SEC) =   0.59   FLOW DEPTH(FEET) =   0.12
  TRAVEL TIME(MIN.) =  18.29   Tc(MIN.) =  45.05
  LONGEST FLOWPATH FROM NODE    210.00 TO NODE    212.00 =  1210.00 FEET.
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    211.00 TO NODE    212.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.385
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6283
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    5.10   SUBAREA RUNOFF(CFS) =    4.44
  TOTAL AREA(ACRES) =     8.30   TOTAL RUNOFF(CFS) =    8.32
  TC(MIN) =  45.05

****************************************************************************
  FLOW PROCESS FROM NODE    212.00 TO NODE    213.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1484.00  DOWNSTREAM(FEET) =   1482.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   675.00   CHANNEL SLOPE =  0.0030
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      8.32
  FLOW VELOCITY(FEET/SEC) =   0.78   FLOW DEPTH(FEET) =   0.18
  TRAVEL TIME(MIN.) =  14.38   Tc(MIN.) =  59.43
  LONGEST FLOWPATH FROM NODE    210.00 TO NODE    213.00 =  1885.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    212.00 TO NODE    213.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.206
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6013
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    4.20   SUBAREA RUNOFF(CFS) =    3.04
  TOTAL AREA(ACRES) =    12.50   TOTAL RUNOFF(CFS) =   11.36
  TC(MIN) =  59.43

****************************************************************************
  FLOW PROCESS FROM NODE    213.00 TO NODE    213.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =  59.43
  RAINFALL INTENSITY(INCH/HR) =   1.21
  TOTAL STREAM AREA(ACRES) =   12.50
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     11.36

  ** CONFLUENCE DATA **
  STREAM     RUNOFF     Tc      INTENSITY      AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)    (ACRE)
     1        12.47    47.96       1.342         12.60
```

```
    2       11.36    59.43        1.206         12.50

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM      RUNOFF       Tc       INTENSITY
  NUMBER       (CFS)     (MIN.)    (INCH/HOUR)
      1        21.64     47.96        1.342
      2        22.56     59.43        1.206

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS)  =     22.56    Tc(MIN.) =   59.43
  TOTAL AREA(ACRES)  =     25.10
  LONGEST FLOWPATH FROM NODE    210.00 TO NODE    213.00 =  1885.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    213.00 TO NODE    225.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1482.00  DOWNSTREAM(FEET) =   1478.50
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1000.00   CHANNEL SLOPE =  0.0035
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      22.56
  FLOW VELOCITY(FEET/SEC) =   1.15   FLOW DEPTH(FEET) =   0.30
  TRAVEL TIME(MIN.) =  14.54   Tc(MIN.) =  73.97
  LONGEST FLOWPATH FROM NODE    210.00 TO NODE    225.00 =  2885.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    213.00 TO NODE    225.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.081
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .5790
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    3.50   SUBAREA RUNOFF(CFS) =    2.19
  TOTAL AREA(ACRES) =    28.60   TOTAL RUNOFF(CFS) =   24.75
  TC(MIN) =  73.97

****************************************************************************
  FLOW PROCESS FROM NODE    225.00 TO NODE    225.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =  73.97
  RAINFALL INTENSITY(INCH/HR) =   1.08
  TOTAL STREAM AREA(ACRES) =   28.60
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     24.75

****************************************************************************
  FLOW PROCESS FROM NODE    220.00 TO NODE    221.00 IS CODE =  21
```

```
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =    650.00
  UPSTREAM ELEVATION =   1487.00
  DOWNSTREAM ELEVATION =   1484.00
  ELEVATION DIFFERENCE =      3.00
  TC = 0.709*[(  650.00**3)/(     3.00)]**.2 =   27.747
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.765
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      3.08
  TOTAL AREA(ACRES) =      2.60   TOTAL RUNOFF(CFS) =      3.08

****************************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    222.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1484.00  DOWNSTREAM(FEET) =   1482.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   420.00   CHANNEL SLOPE =  0.0048
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      3.08
  FLOW VELOCITY(FEET/SEC) =   0.64   FLOW DEPTH(FEET) =   0.09
  TRAVEL TIME(MIN.) =  10.96   Tc(MIN.) =  38.71
  LONGEST FLOWPATH FROM NODE    220.00 TO NODE    222.00 =  1070.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    222.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.494
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6424
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    6.40   SUBAREA RUNOFF(CFS) =    6.14
  TOTAL AREA(ACRES) =     9.00   TOTAL RUNOFF(CFS) =    9.23
  TC(MIN) =  38.71

****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    223.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1482.00  DOWNSTREAM(FEET) =   1480.50
  CHANNEL LENGTH THRU SUBAREA(FEET) =   410.00   CHANNEL SLOPE =  0.0037
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      9.23
  FLOW VELOCITY(FEET/SEC) =   0.87   FLOW DEPTH(FEET) =   0.18
  TRAVEL TIME(MIN.) =   7.88   Tc(MIN.) =  46.59
  LONGEST FLOWPATH FROM NODE    220.00 TO NODE    223.00 =  1480.00 FEET.
```

```
**************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    223.00 IS CODE =  81
--------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
==========================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.362
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6251
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    7.80   SUBAREA RUNOFF(CFS) =    6.64
  TOTAL AREA(ACRES) =    16.80   TOTAL RUNOFF(CFS) =   15.87
  TC(MIN) =  46.59

**************************************************************************
  FLOW PROCESS FROM NODE    223.00 TO NODE    224.00 IS CODE =  51
--------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
==========================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1480.50  DOWNSTREAM(FEET) =   1479.80
  CHANNEL LENGTH THRU SUBAREA(FEET) =   273.00   CHANNEL SLOPE =  0.0026
  CHANNEL BASE(FEET) =   50.00    "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =     15.87
  FLOW VELOCITY(FEET/SEC) =   0.93   FLOW DEPTH(FEET) =   0.27
  TRAVEL TIME(MIN.) =   4.91   Tc(MIN.) =  51.50
  LONGEST FLOWPATH FROM NODE    220.00 TO NODE    224.00 =  1753.00 FEET.

**************************************************************************
  FLOW PROCESS FROM NODE    223.00 TO NODE    224.00 IS CODE =  81
--------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
==========================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.295
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6154
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    5.70   SUBAREA RUNOFF(CFS) =    4.54
  TOTAL AREA(ACRES) =    22.50   TOTAL RUNOFF(CFS) =   20.41
  TC(MIN) =  51.50

**************************************************************************
  FLOW PROCESS FROM NODE    224.00 TO NODE    225.00 IS CODE =  51
--------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
==========================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1479.80  DOWNSTREAM(FEET) =   1478.50
  CHANNEL LENGTH THRU SUBAREA(FEET) =   316.00   CHANNEL SLOPE =  0.0041
  CHANNEL BASE(FEET) =   50.00    "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =     20.41
  FLOW VELOCITY(FEET/SEC) =   1.18   FLOW DEPTH(FEET) =   0.27
  TRAVEL TIME(MIN.) =   4.46   Tc(MIN.) =  55.96
  LONGEST FLOWPATH FROM NODE    220.00 TO NODE    225.00 =  2069.00 FEET.

**************************************************************************
  FLOW PROCESS FROM NODE    224.00 TO NODE    225.00 IS CODE =  81
```

```
 ----------------------------------------------------------------------------
   >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
 ============================================================================
    100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.243
   UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6072
   SOIL CLASSIFICATION IS "C"
   SUBAREA AREA(ACRES) =    2.60   SUBAREA RUNOFF(CFS) =    1.96
   TOTAL AREA(ACRES) =    25.10   TOTAL RUNOFF(CFS) =   22.37
   TC(MIN) =  55.96

 ****************************************************************************
   FLOW PROCESS FROM NODE    225.00 TO NODE    225.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
   >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
 ============================================================================
   TOTAL NUMBER OF STREAMS =  2
   CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
   TIME OF CONCENTRATION(MIN.) =  55.96
   RAINFALL INTENSITY(INCH/HR) =   1.24
   TOTAL STREAM AREA(ACRES) =   25.10
   PEAK FLOW RATE(CFS) AT CONFLUENCE =     22.37

   ** CONFLUENCE DATA **
   STREAM     RUNOFF      Tc      INTENSITY      AREA
   NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
       1       24.09    62.66        1.174         28.60
       1       24.75    73.97        1.081         28.60
       2       22.37    55.96        1.243         25.10

   RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
   CONFLUENCE FORMULA USED FOR  2 STREAMS.

   ** PEAK FLOW RATE TABLE **
   STREAM     RUNOFF      Tc      INTENSITY
   NUMBER      (CFS)     (MIN.)   (INCH/HOUR)
       1       43.89    55.96       1.243
       2       45.23    62.66       1.174
       3       44.21    73.97       1.081

   COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
   PEAK FLOW RATE(CFS) =     45.23   Tc(MIN.) =   62.66
   TOTAL AREA(ACRES) =     53.70
   LONGEST FLOWPATH FROM NODE    210.00 TO NODE    225.00 =  2885.00 FEET.

 ****************************************************************************
   FLOW PROCESS FROM NODE    225.00 TO NODE    235.00 IS CODE =  51
 ----------------------------------------------------------------------------
   >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
   >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
 ============================================================================
   ELEVATION DATA: UPSTREAM(FEET) =   1478.50  DOWNSTREAM(FEET) =   1476.30
   CHANNEL LENGTH THRU SUBAREA(FEET) =   500.00   CHANNEL SLOPE =  0.0044
   CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
   MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
   CHANNEL FLOW THRU SUBAREA(CFS) =     45.23
   FLOW VELOCITY(FEET/SEC) =   1.54   FLOW DEPTH(FEET) =   0.41
```

```
  TRAVEL TIME(MIN.) =   5.41    Tc(MIN.) =  68.06
  LONGEST FLOWPATH FROM NODE     210.00 TO NODE     235.00 =   3385.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    225.00 TO NODE    235.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.127
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .5876
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    2.60    SUBAREA RUNOFF(CFS) =    1.72
  TOTAL AREA(ACRES) =    56.30    TOTAL RUNOFF(CFS) =   46.95
  TC(MIN) =  68.06

****************************************************************************
  FLOW PROCESS FROM NODE    235.00 TO NODE    235.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =  68.06
  RAINFALL INTENSITY(INCH/HR) =   1.13
  TOTAL STREAM AREA(ACRES) =   56.30
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     46.95

****************************************************************************
  FLOW PROCESS FROM NODE    230.00 TO NODE    231.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
        ASSUMED INITIAL SUBAREA UNIFORM
        DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =    580.00
  UPSTREAM ELEVATION =   1488.20
  DOWNSTREAM ELEVATION =   1486.00
  ELEVATION DIFFERENCE =      2.20
  TC = 0.709*[(  580.00**3)/(     2.20)]**.2 =   27.572
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.770
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      6.07
  TOTAL AREA(ACRES) =      5.10   TOTAL RUNOFF(CFS) =      6.07

****************************************************************************
  FLOW PROCESS FROM NODE    231.00 TO NODE    232.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1486.00  DOWNSTREAM(FEET) =   1484.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =   645.00   CHANNEL SLOPE =  0.0031
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      6.07
  FLOW VELOCITY(FEET/SEC) =   0.72   FLOW DEPTH(FEET) =   0.15
```

```
  TRAVEL TIME(MIN.) =   15.02    Tc(MIN.) =   42.59
  LONGEST FLOWPATH FROM NODE     230.00 TO NODE     232.00 =   1225.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     231.00 TO NODE     232.00 IS CODE =   81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =   1.424
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6335
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =     5.10    SUBAREA RUNOFF(CFS) =     4.60
  TOTAL AREA(ACRES) =    10.20    TOTAL RUNOFF(CFS) =    10.67
  TC(MIN) =   42.59

****************************************************************************
  FLOW PROCESS FROM NODE     232.00 TO NODE     233.00 IS CODE =   51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    1484.00  DOWNSTREAM(FEET) =    1481.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =    721.00   CHANNEL SLOPE =  0.0042
  CHANNEL BASE(FEET) =    50.00    "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =    1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =       10.67
  FLOW VELOCITY(FEET/SEC) =    0.96    FLOW DEPTH(FEET) =    0.19
  TRAVEL TIME(MIN.) =  12.56    Tc(MIN.) =   55.15
  LONGEST FLOWPATH FROM NODE     230.00 TO NODE     233.00 =   1946.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE     232.00 TO NODE     233.00 IS CODE =   81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =   1.252
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6087
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =     1.30    SUBAREA RUNOFF(CFS) =     0.99
  TOTAL AREA(ACRES) =    11.50    TOTAL RUNOFF(CFS) =    11.66
  TC(MIN) =   55.15

****************************************************************************
  FLOW PROCESS FROM NODE     233.00 TO NODE     234.00 IS CODE =   51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =    1481.00  DOWNSTREAM(FEET) =    1478.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =    662.00   CHANNEL SLOPE =  0.0045
  CHANNEL BASE(FEET) =    50.00    "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =    1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =       11.66
  FLOW VELOCITY(FEET/SEC) =    1.01    FLOW DEPTH(FEET) =    0.19
  TRAVEL TIME(MIN.) =  10.93    Tc(MIN.) =   66.08
  LONGEST FLOWPATH FROM NODE     230.00 TO NODE     234.00 =   2608.00 FEET.
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    233.00 TO NODE    234.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.143
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .5906
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =     2.90   SUBAREA RUNOFF(CFS) =    1.96
  TOTAL AREA(ACRES) =    14.40   TOTAL RUNOFF(CFS) =   13.62
  TC(MIN) =  66.08

****************************************************************************
  FLOW PROCESS FROM NODE    234.00 TO NODE    235.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (NEW ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1478.00  DOWNSTREAM(FEET) =   1476.30
  CHANNEL LENGTH THRU SUBAREA(FEET) =   700.00   CHANNEL SLOPE =  0.0024
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =     13.62
  FLOW VELOCITY(FEET/SEC) =   0.85   FLOW DEPTH(FEET) =   0.25
  TRAVEL TIME(MIN.) =  13.68   Tc(MIN.) =  79.76
  LONGEST FLOWPATH FROM NODE    230.00 TO NODE    235.00 =  3308.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    234.00 TO NODE    235.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.041
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .5712
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =     2.50   SUBAREA RUNOFF(CFS) =    1.49
  TOTAL AREA(ACRES) =    16.90   TOTAL RUNOFF(CFS) =   15.11
  TC(MIN) =  79.76

****************************************************************************
  FLOW PROCESS FROM NODE    235.00 TO NODE    235.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =  79.76
  RAINFALL INTENSITY(INCH/HR) =   1.04
  TOTAL STREAM AREA(ACRES) =   16.90
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     15.11

  ** CONFLUENCE DATA **
  STREAM     RUNOFF     Tc       INTENSITY      AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)    (ACRE)
      1       45.73    61.43       1.186        56.30
      1       46.95    68.06       1.127        56.30
```

```
     1        45.76     79.40         1.043          56.30
     2        15.11     79.76         1.041          16.90

 RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
 CONFLUENCE FORMULA USED FOR  2 STREAMS.

 ** PEAK FLOW RATE TABLE **
 STREAM      RUNOFF       Tc       INTENSITY
 NUMBER       (CFS)     (MIN.)    (INCH/HOUR)
     1        57.37     61.43        1.186
     2        59.84     68.06        1.127
     3        60.80     79.40        1.043
     4        60.77     79.76        1.041

 COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
 PEAK FLOW RATE(CFS) =      60.80   Tc(MIN.) =    79.40
 TOTAL AREA(ACRES) =      73.20
 LONGEST FLOWPATH FROM NODE     210.00 TO NODE    235.00 =  3385.00 FEET.
============================================================================
 END OF STUDY SUMMARY:
 TOTAL AREA(ACRES)       =      73.20  TC(MIN.) =     79.40
 PEAK FLOW RATE(CFS)     =      60.80
 *** PEAK FLOW RATE TABLE ***
        Q(CFS)    Tc(MIN.)
 1       57.37      61.43
 2       59.84      68.06
 3       60.80      79.40
 4       60.77      79.76
============================================================================
============================================================================
 END OF RATIONAL METHOD ANALYSIS

1
```

```
****************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
      RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                  (RCFC&WCD) 1978 HYDROLOGY MANUAL
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                          Analysis prepared by:

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                         16800 VALLEY VIEW AVENUE
                            LA MIRADA CA 90638
                    PH: (714) 521-4811 FAX: (714) 521-4173

 ************************** DESCRIPTION OF STUDY **************************
* MURANAKA SITE                                                            *
* EXISTING CONDITION FOR AREA 4                                            *
* 100-YEAR                                                                 *
 **************************************************************************

  FILE NAME: C:\XDRIVE\2890\EXHYD3.DAT
  TIME/DATE OF STUDY: 08:02 03/10/2016
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.010
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.820
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.940
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.200
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.5003939
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.5001161
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.5001
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)    (FT)     SIDE / SIDE/ WAY    (FT)    (FT)  (FT)   (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE    300.00 TO NODE    301.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS: UNDEVELOPED WITH FAIR COVER
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   748.00
  UPSTREAM ELEVATION =   1482.10
  DOWNSTREAM ELEVATION =   1479.00
  ELEVATION DIFFERENCE =      3.10
  TC = 0.709*[(  748.00**3)/(     3.10)]**.2 =   29.989
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.698
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      2.48
  TOTAL AREA(ACRES) =      2.20   TOTAL RUNOFF(CFS) =      2.48

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1479.00  DOWNSTREAM(FEET) =   1477.70
```

```
  CHANNEL LENGTH THRU SUBAREA(FEET) =   482.00   CHANNEL SLOPE =  0.0027
  CHANNEL BASE(FEET) =   50.00   "Z" FACTOR =  50.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   1.00
  CHANNEL FLOW THRU SUBAREA(CFS) =      2.48
  FLOW VELOCITY(FEET/SEC) =   0.48   FLOW DEPTH(FEET) =   0.09
  TRAVEL TIME(MIN.) =  16.71   Tc(MIN.) =  46.69
  LONGEST FLOWPATH FROM NODE    300.00 TO NODE    302.00 =  1230.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  1.360
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6248
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    4.40   SUBAREA RUNOFF(CFS) =    3.74
  TOTAL AREA(ACRES) =     6.60   TOTAL RUNOFF(CFS) =    6.22
  TC(MIN) =  46.69
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)      =      6.60  TC(MIN.) =     46.69
  PEAK FLOW RATE(CFS)    =      6.22
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS

1
```

APPENDIX C

PROPOSED CONDITION HYDROLOGY CALCULATIONS

```
****************************************************************************
        RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
      RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                (RCFC&WCD)  1978 HYDROLOGY MANUAL
        (c) Copyright 1982-99 Advanced Engineering Software (aes)
            Ver. 1.5A Release Date: 01/01/99  License ID 1435

                       Analysis prepared by:

                        THIENES ENGINEERING
                      16800 VALLEY VIEW AVENUE
                         LA MIRADA CA 90638
                PH: (714) 521-4811 FAX: (714) 521-4173

 ************************** DESCRIPTION OF STUDY **************************
 * JOB #2890-D MURANAKA, INDIAN ST & KRAMERIA AVE, MORENO VALLEY           *
 * PROPOSED CONDITION 100-YEAR                                              *
 * BUILDING 1 NODES 100-118                                                 *
 **************************************************************************

  FILE NAME: C:\XDRIVE\2890\2890PR1.DAT
  TIME/DATE OF STUDY: 16:09 03/09/2016
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.010
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.820
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.940
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.200
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.5003939
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.5001161
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.5001
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:  CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT WIDTH  LIP   HIKE  FACTOR
 NO.  (FT)    (FT)     SIDE / SIDE/ WAY    (FT)   (FT)  (FT)  (FT)    (n)
 ===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
       ASSUMED INITIAL SUBAREA UNIFORM
       DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   615.00
  UPSTREAM ELEVATION =   1490.03
  DOWNSTREAM ELEVATION =   1484.31
  ELEVATION DIFFERENCE =      5.72
  TC = 0.303*[(  615.00**3)/(     5.72)]**.2 =   10.079
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.928
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8847
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      8.16
  TOTAL AREA(ACRES) =      3.15   TOTAL RUNOFF(CFS) =      8.16

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =   9
----------------------------------------------------------------------------
  >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
  UPSTREAM NODE ELEVATION(FEET) =   1484.31
```

```
  DOWNSTREAM NODE ELEVATION(FEET) =   1482.40
  CHANNEL LENGTH THRU SUBAREA(FEET) =   395.00
  "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
  PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
  PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
  MAXIMUM DEPTH(FEET) =   1.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.584
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8831
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     13.02
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.29
  AVERAGE FLOW DEPTH(FEET) =   0.48   FLOOD WIDTH(FEET) =   32.94
  "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.87   Tc(MIN.) =  12.95
  SUBAREA AREA(ACRES) =    4.25       SUBAREA RUNOFF(CFS) =    9.70
  * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
  * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
  TOTAL AREA(ACRES) =    7.40          PEAK FLOW RATE(CFS) =      17.86

  END OF SUBAREA "V" GUTTER HYDRAULICS:
  DEPTH(FEET) =  0.53   FLOOD WIDTH(FEET) =   37.41
  FLOW VELOCITY(FEET/SEC.) =   2.46   DEPTH*VELOCITY(FT*FT/SEC) =   1.30
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =  1010.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    103.00 IS CODE =   9
----------------------------------------------------------------------------
  >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
  UPSTREAM NODE ELEVATION(FEET) =   1482.40
  DOWNSTREAM NODE ELEVATION(FEET) =   1480.30
  CHANNEL LENGTH THRU SUBAREA(FEET) =   415.00
  "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
  PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
  PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
  MAXIMUM DEPTH(FEET) =   1.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.358
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8818
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     23.32
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.66
  AVERAGE FLOW DEPTH(FEET) =   0.56   FLOOD WIDTH(FEET) =   41.24
  "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.60   Tc(MIN.) =  15.54
  SUBAREA AREA(ACRES) =    5.25       SUBAREA RUNOFF(CFS) =   10.92
  * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
  * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
  TOTAL AREA(ACRES) =   12.65          PEAK FLOW RATE(CFS) =      28.77

  END OF SUBAREA "V" GUTTER HYDRAULICS:
  DEPTH(FEET) =  0.60   FLOOD WIDTH(FEET) =   44.91
  FLOW VELOCITY(FEET/SEC.) =   2.78   DEPTH*VELOCITY(FT*FT/SEC) =   1.68
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    103.00 =  1425.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    103.00 TO NODE    104.00 IS CODE =   9
----------------------------------------------------------------------------
  >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
  UPSTREAM NODE ELEVATION(FEET) =   1480.30
  DOWNSTREAM NODE ELEVATION(FEET) =   1478.24
  CHANNEL LENGTH THRU SUBAREA(FEET) =   415.00
  "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
  PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
  PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
  MAXIMUM DEPTH(FEET) =   1.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.194
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8807
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     33.85
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.86
  AVERAGE FLOW DEPTH(FEET) =   0.63   FLOOD WIDTH(FEET) =   48.11
  "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.42   Tc(MIN.) =  17.96
  SUBAREA AREA(ACRES) =    5.25       SUBAREA RUNOFF(CFS) =   10.14
  * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
  * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
  TOTAL AREA(ACRES) =   17.90          PEAK FLOW RATE(CFS) =      38.92

  END OF SUBAREA "V" GUTTER HYDRAULICS:
  DEPTH(FEET) =  0.66   FLOOD WIDTH(FEET) =   50.82
  FLOW VELOCITY(FEET/SEC.) =   2.96   DEPTH*VELOCITY(FT*FT/SEC) =   1.95
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    104.00 =  1840.00 FEET.
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    104.00 TO NODE    105.00 IS CODE =   9
----------------------------------------------------------------------------
  >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
  UPSTREAM NODE ELEVATION(FEET) =   1478.24
  DOWNSTREAM NODE ELEVATION(FEET) =   1476.09
  CHANNEL LENGTH THRU SUBAREA(FEET) =   400.00
  "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
  PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
  PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
  MAXIMUM DEPTH(FEET) =   1.00
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.075
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8798
  SOIL CLASSIFICATION IS "C"
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     45.54
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   3.16
  AVERAGE FLOW DEPTH(FEET) =   0.68   FLOOD WIDTH(FEET) =   53.22
  "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.11   Tc(MIN.) =  20.07
  SUBAREA AREA(ACRES) =    7.25      SUBAREA RUNOFF(CFS) =   13.24
  * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
  * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
  TOTAL AREA(ACRES) =   25.15         PEAK FLOW RATE(CFS) =     52.15

  END OF SUBAREA "V" GUTTER HYDRAULICS:
  DEPTH(FEET) =  0.71   FLOOD WIDTH(FEET) =   56.09
  FLOW VELOCITY(FEET/SEC.) =   3.26   DEPTH*VELOCITY(FT*FT/SEC) =   2.33
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    105.00 =  2240.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    105.00 TO NODE    106.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1470.09  DOWNSTREAM(FEET) =  1467.00
  FLOW LENGTH(FEET) =   385.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  36.0 INCH PIPE IS  25.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   9.97
  ESTIMATED PIPE DIAMETER(INCH) =  36.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =     52.15
  PIPE TRAVEL TIME(MIN.) =   0.64    Tc(MIN.) =  20.71
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    106.00 =  2625.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    106.00 TO NODE    118.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.043
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6959
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    2.20   SUBAREA RUNOFF(CFS) =    3.13
  TOTAL AREA(ACRES) =    27.35   TOTAL RUNOFF(CFS) =    55.28
  TC(MIN) =  20.71

****************************************************************************
  FLOW PROCESS FROM NODE    118.00 TO NODE    118.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =  20.71
  RAINFALL INTENSITY(INCH/HR) =   2.04
  TOTAL STREAM AREA(ACRES) =   27.35
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     55.28

****************************************************************************
  FLOW PROCESS FROM NODE    110.00 TO NODE    111.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
        ASSUMED INITIAL SUBAREA UNIFORM
        DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   570.00
  UPSTREAM ELEVATION =   1490.03
  DOWNSTREAM ELEVATION =   1484.30
```

```
 ELEVATION DIFFERENCE =      5.73
 TC = 0.303*[(  570.00**3)/(     5.73)]**.2 =    9.627
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.996
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8850
 SOIL CLASSIFICATION IS "C"
 SUBAREA RUNOFF(CFS) =      9.28
 TOTAL AREA(ACRES) =      3.50   TOTAL RUNOFF(CFS) =      9.28

****************************************************************************
 FLOW PROCESS FROM NODE    111.00 TO NODE    112.00 IS CODE =   9
----------------------------------------------------------------------------
 >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
 UPSTREAM NODE ELEVATION(FEET) =   1484.30
 DOWNSTREAM NODE ELEVATION(FEET) =   1482.40
 CHANNEL LENGTH THRU SUBAREA(FEET) =   395.00
 "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
 PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
 PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
 MAXIMUM DEPTH(FEET) =   1.00
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.639
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8834
 SOIL CLASSIFICATION IS "C"
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     14.71
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.37
 AVERAGE FLOW DEPTH(FEET) =   0.50   FLOOD WIDTH(FEET) =   34.53
 "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.78   Tc(MIN.) =  12.41
 SUBAREA AREA(ACRES) =    4.65      SUBAREA RUNOFF(CFS) =   10.84
 * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
 * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
 TOTAL AREA(ACRES) =    8.15        PEAK FLOW RATE(CFS) =      20.12

 END OF SUBAREA "V" GUTTER HYDRAULICS:
 DEPTH(FEET) =  0.55   FLOOD WIDTH(FEET) =   39.32
 FLOW VELOCITY(FEET/SEC.) =   2.52   DEPTH*VELOCITY(FT*FT/SEC) =   1.38
 LONGEST FLOWPATH FROM NODE    110.00 TO NODE    112.00 =   965.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    112.00 TO NODE    113.00 IS CODE =   9
----------------------------------------------------------------------------
 >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
 UPSTREAM NODE ELEVATION(FEET) =   1482.40
 DOWNSTREAM NODE ELEVATION(FEET) =   1480.30
 CHANNEL LENGTH THRU SUBAREA(FEET) =   415.00
 "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
 PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
 PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
 MAXIMUM DEPTH(FEET) =   1.00
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.406
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8821
 SOIL CLASSIFICATION IS "C"
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     26.76
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.74
 AVERAGE FLOW DEPTH(FEET) =   0.59   FLOOD WIDTH(FEET) =   43.64
 "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.52   Tc(MIN.) =  14.93
 SUBAREA AREA(ACRES) =    6.25      SUBAREA RUNOFF(CFS) =   13.26
 * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
 * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
 TOTAL AREA(ACRES) =   14.40        PEAK FLOW RATE(CFS) =      33.39

 END OF SUBAREA "V" GUTTER HYDRAULICS:
 DEPTH(FEET) =  0.63   FLOOD WIDTH(FEET) =   47.63
 FLOW VELOCITY(FEET/SEC.) =   2.88   DEPTH*VELOCITY(FT*FT/SEC) =   1.81
 LONGEST FLOWPATH FROM NODE    110.00 TO NODE    113.00 =  1380.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    113.00 TO NODE    114.00 IS CODE =   9
----------------------------------------------------------------------------
 >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
 UPSTREAM NODE ELEVATION(FEET) =   1480.30
 DOWNSTREAM NODE ELEVATION(FEET) =   1478.24
 CHANNEL LENGTH THRU SUBAREA(FEET) =   415.00
 "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
 PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
 PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
 MAXIMUM DEPTH(FEET) =   1.00
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.237
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8810
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 SOIL CLASSIFICATION IS "C"
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     38.91
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.96
 AVERAGE FLOW DEPTH(FEET) =   0.66   FLOOD WIDTH(FEET) =   50.82
 "V" GUTTER FLOW TRAVEL TIME(MIN.) =   2.34   Tc(MIN.) =  17.27
 SUBAREA AREA(ACRES) =    5.60       SUBAREA RUNOFF(CFS) =   11.04
 * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
 * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
 TOTAL AREA(ACRES) =   20.00          PEAK FLOW RATE(CFS) =      44.42

 END OF SUBAREA "V" GUTTER HYDRAULICS:
 DEPTH(FEET) =  0.69   FLOOD WIDTH(FEET) =   53.53
 FLOW VELOCITY(FEET/SEC.) =   3.05   DEPTH*VELOCITY(FT*FT/SEC) =   2.10
 LONGEST FLOWPATH FROM NODE    110.00 TO NODE    114.00 =  1795.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    114.00 TO NODE    115.00 IS CODE =   9
----------------------------------------------------------------------------
 >>>>>COMPUTE "V" GUTTER FLOW TRAVEL TIME THRU SUBAREA<<<<<
============================================================================
 UPSTREAM NODE ELEVATION(FEET) =   1478.24
 DOWNSTREAM NODE ELEVATION(FEET) =   1475.00
 CHANNEL LENGTH THRU SUBAREA(FEET) =   620.00
 "V" GUTTER WIDTH(FEET) =   3.00   GUTTER HIKE(FEET) =  0.170
 PAVEMENT LIP(FEET) =  0.013   MANNING'S N = .0150
 PAVEMENT CROSSFALL(DECIMAL NOTATION) = 0.02000
 MAXIMUM DEPTH(FEET) =   1.00
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.053
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8797
 SOIL CLASSIFICATION IS "C"
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =     49.53
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   3.19
 AVERAGE FLOW DEPTH(FEET) =   0.71   FLOOD WIDTH(FEET) =   55.29
 "V" GUTTER FLOW TRAVEL TIME(MIN.) =   3.24   Tc(MIN.) =  20.51
 SUBAREA AREA(ACRES) =    5.65       SUBAREA RUNOFF(CFS) =   10.20
 * RAINFALL INTENSITY IS LESS THAN AREA-AVERAGED Fp;
 * IMPERVIOUS AREA USED FOR RUNOFF ESTIMATES.
 TOTAL AREA(ACRES) =   25.65          PEAK FLOW RATE(CFS) =      54.62

 END OF SUBAREA "V" GUTTER HYDRAULICS:
 DEPTH(FEET) =  0.73   FLOOD WIDTH(FEET) =   57.37
 FLOW VELOCITY(FEET/SEC.) =   3.27   DEPTH*VELOCITY(FT*FT/SEC) =   2.37
 LONGEST FLOWPATH FROM NODE    110.00 TO NODE    115.00 =  2415.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    115.00 TO NODE    116.00 IS CODE =  61
----------------------------------------------------------------------------
 >>>>>COMPUTE STREET FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>(STANDARD CURB SECTION USED)<<<<<
============================================================================
 UPSTREAM ELEVATION(FEET) = 1475.00  DOWNSTREAM ELEVATION(FEET) = 1474.34
 STREET LENGTH(FEET) =   115.00   CURB HEIGHT(INCHES) =  8.0
 STREET HALFWIDTH(FEET) = 30.00

 DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK(FEET) =  20.00
 INSIDE STREET CROSSFALL(DECIMAL) =  0.018
 OUTSIDE STREET CROSSFALL(DECIMAL)  =  0.018

 SPECIFIED NUMBER OF HALFSTREETS CARRYING RUNOFF =  1
 STREET PARKWAY CROSSFALL(DECIMAL)  =  0.020
 Manning's FRICTION FACTOR for Streetflow Section(curb-to-curb) =   0.0149
 Manning's FRICTION FACTOR for Back-of-Walk Flow Section =   0.0200

   **TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      57.92
   ***STREET FLOWING FULL***
   STREETFLOW MODEL RESULTS USING ESTIMATED FLOW:
   STREET FLOW DEPTH(FEET) =  0.72
   HALFSTREET FLOOD WIDTH(FEET) =   32.91
   AVERAGE FLOW VELOCITY(FEET/SEC.) =   3.19
   PRODUCT OF DEPTH&VELOCITY(FT*FT/SEC.) =   2.31
 STREET FLOW TRAVEL TIME(MIN.) =   0.60   Tc(MIN.) =  21.11
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.023
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8794
 SOIL CLASSIFICATION IS "C"
 SUBAREA AREA(ACRES) =    3.70      SUBAREA RUNOFF(CFS) =    6.58
 TOTAL AREA(ACRES) =   29.35        PEAK FLOW RATE(CFS) =      61.21

 END OF SUBAREA STREET FLOW HYDRAULICS:
 DEPTH(FEET) = 0.73   HALFSTREET FLOOD WIDTH(FEET) =  33.39
 FLOW VELOCITY(FEET/SEC.) =  3.25   DEPTH*VELOCITY(FT*FT/SEC.) =   2.39
```

```
  LONGEST FLOWPATH FROM NODE    110.00 TO NODE    116.00 =  2530.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    116.00 TO NODE    117.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1468.89  DOWNSTREAM(FEET) =  1467.00
  FLOW LENGTH(FEET) =   284.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  39.0 INCH PIPE IS  27.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   9.64
  ESTIMATED PIPE DIAMETER(INCH) =  39.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =     61.21
  PIPE TRAVEL TIME(MIN.) =   0.49    Tc(MIN.) =  21.60
  LONGEST FLOWPATH FROM NODE    110.00 TO NODE    117.00 =  2814.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    117.00 TO NODE    118.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.000
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6926
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    1.70   SUBAREA RUNOFF(CFS) =    2.35
  TOTAL AREA(ACRES) =    31.05   TOTAL RUNOFF(CFS) =   63.56
  TC(MIN) =  21.60

****************************************************************************
  FLOW PROCESS FROM NODE    118.00 TO NODE    118.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.000
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6926
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    0.75   SUBAREA RUNOFF(CFS) =    1.04
  TOTAL AREA(ACRES) =    31.80   TOTAL RUNOFF(CFS) =   64.60
  TC(MIN) =  21.60

****************************************************************************
  FLOW PROCESS FROM NODE    118.00 TO NODE    118.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.000
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6926
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    2.40   SUBAREA RUNOFF(CFS) =    3.32
  TOTAL AREA(ACRES) =    34.20   TOTAL RUNOFF(CFS) =   67.93
  TC(MIN) =  21.60

****************************************************************************
  FLOW PROCESS FROM NODE    118.00 TO NODE    118.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =  21.60
  RAINFALL INTENSITY(INCH/HR) =   2.00
  TOTAL STREAM AREA(ACRES) =   34.20
  PEAK FLOW RATE(CFS) AT CONFLUENCE =     67.93

  ** CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY      AREA
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)    (ACRE)
      1       55.28    20.71       2.043         27.35
      2       67.93    21.60       2.000         34.20

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)    (MIN.)   (INCH/HOUR)
      1      120.40    20.71      2.043
      2      122.05    21.60      2.000
```

```
  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =     122.05    Tc(MIN.) =    21.60
  TOTAL AREA(ACRES) =      61.55
  LONGEST FLOWPATH FROM NODE     110.00 TO NODE     118.00 =  2814.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)      =      61.55  TC(MIN.) =      21.60
  PEAK FLOW RATE(CFS)    =     122.05
  *** PEAK FLOW RATE TABLE ***
         Q(CFS)    Tc(MIN.)
  1      120.40       20.71
  2      122.05       21.60
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS

1
```

```
****************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
      RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
           (c) Copyright 1982-99 Advanced Engineering Software (aes)
               Ver. 1.5A Release Date: 01/01/99  License ID 1435

                           Analysis prepared by:

                            THIENES ENGINEERING
                          16800 VALLEY VIEW AVENUE
                             LA MIRADA CA 90638
                   PH: (714) 521-4811 FAX: (714) 521-4173

 ************************** DESCRIPTION OF STUDY **************************
 * JOB #2890-D MURANAKA, INDIAN ST & KRAMERIA AVE, MORENO VALLEY            *
 * PROPOSED CONDITION 100-YEAR                                              *
 * BUILDING 2 NODES 200-202                                                 *
 **************************************************************************

  FILE NAME: C:\XDRIVE\2890\2890PR2.DAT
  TIME/DATE OF STUDY: 16:31 03/09/2016
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.010
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.820
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.940
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.200
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.5003939
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.5001161
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.5001
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:  CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT WIDTH  LIP   HIKE  FACTOR
NO.  (FT)     (FT)     SIDE / SIDE/ WAY    (FT)   (FT)  (FT)  (FT)   (n)
===  =====  =========  =================  ====== ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67   2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
        ASSUMED INITIAL SUBAREA UNIFORM
        DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   984.00
  UPSTREAM ELEVATION =   1490.00
  DOWNSTREAM ELEVATION =   1482.36
  ELEVATION DIFFERENCE =       7.64
  TC = 0.303*[(  984.00**3)/(     7.64)]**.2 =   12.611
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.618
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8832
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      14.45
  TOTAL AREA(ACRES) =      6.25   TOTAL RUNOFF(CFS) =     14.45

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
```

```
  ELEVATION DATA: UPSTREAM(FEET) =  1478.41  DOWNSTREAM(FEET) =  1475.00
  FLOW LENGTH(FEET) =    40.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  15.0 INCH PIPE IS   9.5 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  17.69
  ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =     14.45
  PIPE TRAVEL TIME(MIN.) =   0.04    Tc(MIN.) =  12.65
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =  1024.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.614
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .7322
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    0.70   SUBAREA RUNOFF(CFS) =    1.34
  TOTAL AREA(ACRES) =     6.95   TOTAL RUNOFF(CFS) =   15.79
  TC(MIN) =  12.65
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =      6.95  TC(MIN.) =     12.65
  PEAK FLOW RATE(CFS)   =     15.79
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS

1
```

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

```
****************************************************************************
         RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
      RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
           (c) Copyright 1982-99 Advanced Engineering Software (aes)
               Ver. 1.5A Release Date: 01/01/99  License ID 1435

                         Analysis prepared by:

                          THIENES ENGINEERING
                        16800 VALLEY VIEW AVENUE
                           LA MIRADA CA 90638
                  PH: (714) 521-4811 FAX: (714) 521-4173

 ************************** DESCRIPTION OF STUDY **************************
* JOB #2890-D MURANAKA, INDIAN ST & KRAMERIA AVE, MORENO VALLEY             *
* PROPOSED CONDITION 100-YEAR                                               *
* BUILDING 3 NODES 300-313                                                  *
 **************************************************************************

  FILE NAME: C:\XDRIVE\2890\2890PR3.DAT
  TIME/DATE OF STUDY: 16:33 03/09/2016
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.010
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.820
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.940
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.200
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.5003939
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.5001161
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.5001
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE    300.00 TO NODE    301.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
        ASSUMED INITIAL SUBAREA UNIFORM
        DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   380.00
  UPSTREAM ELEVATION =   1478.80
  DOWNSTREAM ELEVATION =   1476.12
  ELEVATION DIFFERENCE =      2.68
  TC = 0.303*[(  380.00**3)/(     2.68)]**.2 =    8.787
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.136
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8856
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =      4.03
  TOTAL AREA(ACRES) =      1.45   TOTAL RUNOFF(CFS) =      4.03

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
```

```
 ELEVATION DATA: UPSTREAM(FEET) =  1472.12  DOWNSTREAM(FEET) =  1471.22
 FLOW LENGTH(FEET) =   180.00   MANNING'S N =  0.012
 DEPTH OF FLOW IN  15.0 INCH PIPE IS  10.5 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =   4.40
 ESTIMATED PIPE DIAMETER(INCH) =  15.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =      4.03
 PIPE TRAVEL TIME(MIN.) =   0.68    Tc(MIN.) =   9.47
 LONGEST FLOWPATH FROM NODE    300.00 TO NODE    302.00 =   560.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    302.00 TO NODE    302.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.021
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8851
 SOIL CLASSIFICATION IS "C"
 SUBAREA AREA(ACRES) =    1.25   SUBAREA RUNOFF(CFS) =    3.34
 TOTAL AREA(ACRES) =     2.70   TOTAL RUNOFF(CFS) =    7.37
 TC(MIN) =   9.47

****************************************************************************
 FLOW PROCESS FROM NODE    302.00 TO NODE    302.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.021
 UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .6683
 SOIL CLASSIFICATION IS "B"
 SUBAREA AREA(ACRES) =    0.25   SUBAREA RUNOFF(CFS) =    0.50
 TOTAL AREA(ACRES) =     2.95   TOTAL RUNOFF(CFS) =    7.88
 TC(MIN) =   9.47

****************************************************************************
 FLOW PROCESS FROM NODE    302.00 TO NODE    312.00 IS CODE =  31
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =  1471.22  DOWNSTREAM(FEET) =  1468.52
 FLOW LENGTH(FEET) =   540.00   MANNING'S N =  0.012
 DEPTH OF FLOW IN  21.0 INCH PIPE IS  12.5 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =   5.26
 ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =      7.88
 PIPE TRAVEL TIME(MIN.) =   1.71    Tc(MIN.) =  11.18
 LONGEST FLOWPATH FROM NODE    300.00 TO NODE    312.00 =  1100.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    312.00 TO NODE    312.00 IS CODE =   1
----------------------------------------------------------------------------
 >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
 TOTAL NUMBER OF STREAMS =  2
 CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
 TIME OF CONCENTRATION(MIN.) =  11.18
 RAINFALL INTENSITY(INCH/HR) =   2.78
 TOTAL STREAM AREA(ACRES) =    2.95
 PEAK FLOW RATE(CFS) AT CONFLUENCE =      7.88

****************************************************************************
 FLOW PROCESS FROM NODE    310.00 TO NODE    311.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
       ASSUMED INITIAL SUBAREA UNIFORM
       DEVELOPMENT IS COMMERCIAL
 TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
 INITIAL SUBAREA FLOW-LENGTH =   450.00
 UPSTREAM ELEVATION =   1477.70
 DOWNSTREAM ELEVATION =   1475.38
 ELEVATION DIFFERENCE =      2.32
 TC = 0.303*[(  450.00**3)/(     2.32)]**.2 =   10.010
  100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.939
 COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8848
 SOIL CLASSIFICATION IS "C"
 SUBAREA RUNOFF(CFS) =      7.28
 TOTAL AREA(ACRES) =      2.80   TOTAL RUNOFF(CFS) =      7.28

****************************************************************************
```

```
  FLOW PROCESS FROM NODE    311.00 TO NODE    312.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1471.38  DOWNSTREAM(FEET) =  1468.52
  FLOW LENGTH(FEET) =    65.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  12.0 INCH PIPE IS   9.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  11.40
  ESTIMATED PIPE DIAMETER(INCH) =  12.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      7.28
  PIPE TRAVEL TIME(MIN.) =   0.09    Tc(MIN.) =  10.10
  LONGEST FLOWPATH FROM NODE    310.00 TO NODE    312.00 =   515.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    312.00 TO NODE    312.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =  10.10
  RAINFALL INTENSITY(INCH/HR) =   2.92
  TOTAL STREAM AREA(ACRES) =    2.80
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      7.28

  ** CONFLUENCE DATA **
  STREAM     RUNOFF      Tc      INTENSITY      AREA
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)    (ACRE)
     1         7.88     11.18       2.781          2.95
     2         7.28     10.10       2.925          2.80

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
  STREAM     RUNOFF      Tc      INTENSITY
  NUMBER      (CFS)     (MIN.)   (INCH/HOUR)
     1        14.40     10.10      2.925
     2        14.80     11.18      2.781

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =     14.80   Tc(MIN.) =    11.18
  TOTAL AREA(ACRES) =      5.75
  LONGEST FLOWPATH FROM NODE    300.00 TO NODE    312.00 =  1100.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    312.00 TO NODE    313.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1468.52  DOWNSTREAM(FEET) =  1467.50
  FLOW LENGTH(FEET) =    95.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  21.0 INCH PIPE IS  14.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   8.09
  ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =     14.80
  PIPE TRAVEL TIME(MIN.) =   0.20    Tc(MIN.) =  11.37
  LONGEST FLOWPATH FROM NODE    300.00 TO NODE    313.00 =  1195.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    313.00 TO NODE    313.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.757
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .7393
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =    0.50   SUBAREA RUNOFF(CFS) =    1.02
  TOTAL AREA(ACRES) =     6.25   TOTAL RUNOFF(CFS) =   15.82
  TC(MIN) =  11.37
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =      6.25  TC(MIN.) =     11.37
  PEAK FLOW RATE(CFS)   =     15.82
  *** PEAK FLOW RATE TABLE ***
         Q(CFS)    Tc(MIN.)
  1       15.48      10.30
```

```
  2        15.82      11.37
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS

1
```

```
****************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
       RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                  (RCFC&WCD)  1978 HYDROLOGY MANUAL
           (c) Copyright 1982-99 Advanced Engineering Software (aes)
              Ver. 1.5A Release Date: 01/01/99  License ID 1435

                         Analysis prepared by:

                          THIENES ENGINEERING
                        16800 VALLEY VIEW AVENUE
                           LA MIRADA CA 90638
                PH: (714) 521-4811 FAX: (714) 521-4173

 ************************** DESCRIPTION OF STUDY **************************
* JOB #2890-D MURANAKA, INDIAN ST & KRAMERIA AVE, MORENO VALLEY            *
* PROPOSED CONDITION 100-YEAR                                              *
* BUILDING 4 NODES 400-402                                                 *
 **************************************************************************

  FILE NAME: C:\XDRIVE\2890\2890PR4.DAT
  TIME/DATE OF STUDY: 16:33 03/09/2016
----------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
----------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  10-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.010
  10-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  0.820
  100-YEAR STORM 10-MINUTE INTENSITY(INCH/HOUR) =  2.940
  100-YEAR STORM 60-MINUTE INTENSITY(INCH/HOUR) =  1.200
  SLOPE OF 10-YEAR INTENSITY-DURATION CURVE =  0.5003939
  SLOPE OF 100-YEAR INTENSITY-DURATION CURVE =  0.5001161
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.200
  SLOPE OF INTENSITY DURATION CURVE = 0.5001
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: CONSIDER ALL CONFLUENCE STREAM COMBINATIONS
        FOR ALL DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.  (FT)     (FT)     SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    401.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
============================================================================
        ASSUMED INITIAL SUBAREA UNIFORM
        DEVELOPMENT IS COMMERCIAL
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH =   864.00
  UPSTREAM ELEVATION =   1492.30
  DOWNSTREAM ELEVATION =   1484.14
  ELEVATION DIFFERENCE =      8.16
  TC = 0.303*[(  864.00**3)/(     8.16)]**.2 =   11.512
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.740
  COMMERCIAL DEVELOPMENT RUNOFF COEFFICIENT = .8839
  SOIL CLASSIFICATION IS "C"
  SUBAREA RUNOFF(CFS) =     19.37
  TOTAL AREA(ACRES) =      8.00    TOTAL RUNOFF(CFS) =     19.37

****************************************************************************
  FLOW PROCESS FROM NODE    401.00 TO NODE    402.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
```

```
  ELEVATION DATA: UPSTREAM(FEET) =  1480.14  DOWNSTREAM(FEET) =  1476.50
  FLOW LENGTH(FEET) =   195.00   MANNING'S N =  0.012
  DEPTH OF FLOW IN  21.0 INCH PIPE IS  14.8 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  10.66
  ESTIMATED PIPE DIAMETER(INCH) =  21.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =     19.37
  PIPE TRAVEL TIME(MIN.) =   0.30    Tc(MIN.) =  11.82
  LONGEST FLOWPATH FROM NODE    400.00 TO NODE    402.00 =  1059.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    402.00 TO NODE    402.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.704
  UNDEVELOPED WATERSHED RUNOFF COEFFICIENT = .7368
  SOIL CLASSIFICATION IS "C"
  SUBAREA AREA(ACRES) =     0.65   SUBAREA RUNOFF(CFS) =     1.30
  TOTAL AREA(ACRES) =     8.65   TOTAL RUNOFF(CFS) =    20.67
  TC(MIN) =  11.82
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =      8.65  TC(MIN.) =     11.82
  PEAK FLOW RATE(CFS)   =     20.67
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS

1
```

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX D

DETENTION ANALYSIS

BUILDING 1

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #3

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1476.45	0.00	9470			
			3253	3253	0.075
1476.78	0.33	10245			
			3512	6765	0.155
1477.11	0.66	11040			
			3778	10543	0.242
1477.44	0.99	11855			
			4050	14593	0.335
1477.77	1.32	12690			
			4327	18920	0.434
1478.10	1.65	13535			
			4610	23530	0.540
1478.43	1.98	14405			
			4900	28429	0.653
1478.76	2.31	15290			
			5194	33624	0.772
1479.09	2.64	16190			
			5490	39114	0.898
1479.42	2.97	17085			
			2247	41361	0.950
1479.55	3.10	17480			
			3553	44914	1.031
1479.75	3.30	18050			
			6115	51029	1.171
1480.08	3.63	19010			
			6434	57463	1.319
1480.41	3.96	19985			
			6758	64221	1.474
1480.74	4.29	20975			
			7088	71310	1.637
1481.07	4.62	21985			
			5994	77304	1.775
1481.31	4.86	27965			

WATER QUALITY VOLUME

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #4

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1472.15	0.00	63905			
			21349	21349	0.490
1472.48	0.33	65485			
			22545	43895	1.008
1472.82	0.67	67135			
			8092	51986	1.193
1472.94	0.79	67725			
			4077	56063	1.287
1473.00	0.85	68165			
			10259	66322	1.523
1473.15	1.00	68615			
			59844	126166	2.896
1474.00	1.85	72195			
			74328	200493	4.603
1475.00	2.85	76460			
			78620	279113	6.408
1476.00	3.85	80780			
			82985	362098	8.313
1477.00	4.85	85190			

WATER QUALITY VOLUME

ADDITIONAL STORAGE

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #5

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)	
1472.15	0.00	45355				
			15219	15219	0.349	
1472.48	0.33	46880				
			15242	30461	0.699	WATER QUALITY VOLUME
1472.80	0.65	48385				
			969	31430	0.722	
1472.82	0.67	48480				
			1456	32886	0.755	
1472.85	0.70	48620				
			7344	40230	0.924	
1473.00	0.85	49300				
			51350	91580	2.102	ADDITIONAL STORAGE
1474.00	1.85	53400				
			55498	147078	3.376	
1475.00	2.85	57595				
			59738	206815	4.748	
1476.00	3.85	61880				
			64070	270885	6.219	
1477.00	4.85	66260				

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Hydrologic Summary

BUILDING 1
EXIST. CONDITION

Watershed Characteristics

Area	(acres)	61.55
Soil		C
Cover		open space

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		77	77	77	77	Plate E-6.1
Fp	(in/hr)	0.14	0.28	0.48	0.48	Plate E-6.2
Ai	(decimal)	0.00	0.00	0.00	0.00	Plate E-6.3
Low Loss	(decimal)	0.90	0.90	0.90	0.90	0.9-(0.8Ai)
F	(in/hr)	0.14	0.28	0.48	0.48	Fp(1-0.9Ai)
Fm	(in/hr)	0.07	0.14	0.24	0.24	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	26.06	6.93	1.84	1.34	24-hour
Peak Flow	(cfs)	94.79	53.08	28.36	11.82	6-hour
Peak Flow	(cfs)	106.46	61.50	37.08	18.91	3-hour
Total Runoff	(ac-ft)	9.48	1.59	1.12	0.81	24-hour
Total Runoff	(ac-ft)	8.50	2.72	1.10	0.56	6-hour
Total Runoff	(ac-ft)	7.53	2.70	1.22	0.62	3-hour

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	4.0
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14
Fm	(in/hr)	0.07
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.25	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.25	0.03	0.00	0.20	0.00
2	0:30	0.3	0.05	0.24	0.04	0.00	0.30	0.01
3	0:45	0.3	0.05	0.24	0.04	0.00	0.30	0.01
4	1:00	0.4	0.06	0.24	0.06	0.01	0.39	0.02
5	1:15	0.3	0.05	0.24	0.04	0.00	0.30	0.03
6	1:30	0.3	0.05	0.23	0.04	0.00	0.30	0.03
7	1:45	0.3	0.05	0.23	0.04	0.00	0.30	0.04
8	2:00	0.4	0.06	0.23	0.06	0.01	0.39	0.05
9	2:15	0.4	0.06	0.22	0.06	0.01	0.39	0.05
10	2:30	0.4	0.06	0.22	0.06	0.01	0.39	0.06
11	2:45	0.5	0.08	0.22	0.07	0.01	0.49	0.07
12	3:00	0.5	0.08	0.22	0.07	0.01	0.49	0.08
13	3:15	0.5	0.08	0.21	0.07	0.01	0.49	0.09
14	3:30	0.5	0.08	0.21	0.07	0.01	0.49	0.10
15	3:45	0.5	0.08	0.21	0.07	0.01	0.49	0.11
16	4:00	0.6	0.10	0.21	0.09	0.01	0.59	0.12
17	4:15	0.6	0.10	0.20	0.09	0.01	0.59	0.14
18	4:30	0.7	0.11	0.20	0.10	0.01	0.69	0.15
19	4:45	0.7	0.11	0.20	0.10	0.01	0.69	0.16
20	5:00	0.8	0.13	0.20	0.12	0.01	0.79	0.18
21	5:15	0.6	0.10	0.19	0.09	0.01	0.59	0.19
22	5:30	0.7	0.11	0.19	0.10	0.01	0.69	0.21
23	5:45	0.8	0.13	0.19	0.12	0.01	0.79	0.22
24	6:00	0.8	0.13	0.19	0.12	0.01	0.79	0.24
25	6:15	0.9	0.14	0.18	0.13	0.01	0.89	0.26
26	6:30	0.9	0.14	0.18	0.13	0.01	0.89	0.27
27	6:45	1.0	0.16	0.18	0.14	0.02	0.98	0.29
28	7:00	1.0	0.16	0.18	0.14	0.02	0.98	0.31
29	7:15	1.0	0.16	0.17	0.14	0.02	0.98	0.33
30	7:30	1.1	0.18	0.17	0.16	0.00	0.30	0.35
31	7:45	1.2	0.19	0.17	0.17	0.02	1.43	0.36
32	8:00	1.3	0.21	0.17	0.19	0.04	2.56	0.41
33	8:15	1.5	0.24	0.16	0.22	0.08	4.67	0.48
34	8:30	1.5	0.24	0.16	0.22	0.08	4.81	0.58
35	8:45	1.6	0.26	0.16	0.23	0.10	5.93	0.69
36	9:00	1.7	0.27	0.16	0.24	0.11	7.06	0.82
37	9:15	1.9	0.30	0.16	0.27	0.15	9.16	0.99
38	9:30	2.0	0.32	0.15	0.29	0.17	10.28	1.19
39	9:45	2.1	0.34	0.15	0.30	0.19	11.40	1.42
40	10:00	2.2	0.35	0.15	0.32	0.20	12.52	1.66
41	10:15	1.5	0.24	0.15	0.22	0.09	5.76	1.85
42	10:30	1.5	0.24	0.14	0.22	0.10	5.89	1.97
43	10:45	2.0	0.32	0.14	0.29	0.18	10.94	2.15
44	11:00	2.0	0.32	0.14	0.29	0.18	11.07	2.37
45	11:15	1.9	0.30	0.14	0.27	0.17	10.21	2.59
46	11:30	1.9	0.30	0.14	0.27	0.17	10.34	2.81
47	11:45	1.7	0.27	0.13	0.24	0.14	8.49	3.00
48	12:00	1.8	0.29	0.13	0.26	0.16	9.60	3.19
49	12:15	2.5	0.40	0.13	0.36	0.27	16.62	3.46
50	12:30	2.6	0.42	0.13	0.37	0.29	17.72	3.81
51	12:45	2.8	0.45	0.13	0.40	0.32	19.81	4.20
52	13:00	2.9	0.46	0.12	0.42	0.34	20.91	4.62
53	13:15	3.4	0.54	0.12	0.49	0.42	25.95	5.11
54	13:30	3.4	0.54	0.12	0.49	0.42	26.06	5.64
55	13:45	2.3	0.37	0.12	0.33	0.25	15.34	6.07
56	14:00	2.3	0.37	0.12	0.33	0.25	15.46	6.39
57	14:15	2.7	0.43	0.12	0.39	0.32	19.50	6.75
58	14:30	2.6	0.42	0.11	0.37	0.30	18.63	7.14
59	14:45	2.6	0.42	0.11	0.37	0.30	18.73	7.53
60	15:00	2.5	0.40	0.11	0.36	0.29	17.86	7.91
61	15:15	2.4	0.38	0.11	0.35	0.28	16.97	8.27
62	15:30	2.3	0.37	0.11	0.33	0.26	16.09	8.61
63	15:45	1.9	0.30	0.10	0.27	0.20	12.25	8.90
64	16:00	1.9	0.30	0.10	0.27	0.20	12.35	9.16
65	16:15	0.4	0.06	0.10	0.06	0.01	0.39	9.29
66	16:30	0.4	0.06	0.10	0.06	0.01	0.39	9.30
67	16:45	0.3	0.05	0.10	0.04	0.00	0.30	9.30
68	17:00	0.3	0.05	0.10	0.04	0.00	0.30	9.31
69	17:15	0.5	0.08	0.10	0.07	0.01	0.49	9.32
70	17:30	0.5	0.08	0.09	0.07	0.01	0.49	9.33
71	17:45	0.5	0.08	0.09	0.07	0.01	0.49	9.34
72	18:00	0.4	0.06	0.09	0.06	0.01	0.39	9.35
73	18:15	0.4	0.06	0.09	0.06	0.01	0.39	9.36
74	18:30	0.4	0.06	0.09	0.06	0.01	0.39	9.36
75	18:45	0.3	0.05	0.09	0.04	0.00	0.30	9.37
76	19:00	0.2	0.03	0.09	0.03	0.00	0.20	9.38
77	19:15	0.3	0.05	0.09	0.04	0.00	0.30	9.38
78	19:30	0.4	0.06	0.08	0.06	0.01	0.39	9.39
79	19:45	0.3	0.05	0.08	0.04	0.00	0.30	9.40
80	20:00	0.2	0.03	0.08	0.03	0.00	0.20	9.40
81	20:15	0.3	0.05	0.08	0.04	0.00	0.30	9.41
82	20:30	0.3	0.05	0.08	0.04	0.00	0.30	9.41
83	20:45	0.3	0.05	0.08	0.04	0.00	0.30	9.42
84	21:00	0.2	0.03	0.08	0.03	0.00	0.20	9.42
85	21:15	0.3	0.05	0.08	0.04	0.00	0.30	9.43
86	21:30	0.2	0.03	0.08	0.03	0.00	0.20	9.43
87	21:45	0.3	0.05	0.07	0.04	0.00	0.30	9.44
88	22:00	0.2	0.03	0.07	0.03	0.00	0.20	9.44
89	22:15	0.3	0.05	0.07	0.04	0.00	0.30	9.45
90	22:30	0.2	0.03	0.07	0.03	0.00	0.20	9.45
91	22:45	0.2	0.03	0.07	0.03	0.00	0.20	9.46
92	23:00	0.2	0.03	0.07	0.03	0.00	0.20	9.46
93	23:15	0.2	0.03	0.07	0.03	0.00	0.20	9.47
94	23:30	0.2	0.03	0.07	0.03	0.00	0.20	9.47
95	23:45	0.2	0.03	0.07	0.03	0.00	0.20	9.47
96	0:00	0.2	0.03	0.07	0.03	0.00	0.20	9.48

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	2.6
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28
Fm	(in/hr)	0.14
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.50	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.49	0.02	0.00	0.13	0.00
2	0:30	0.3	0.03	0.49	0.03	0.00	0.19	0.00
3	0:45	0.3	0.03	0.48	0.03	0.00	0.19	0.01
4	1:00	0.4	0.04	0.48	0.04	0.00	0.26	0.01
5	1:15	0.3	0.03	0.47	0.03	0.00	0.19	0.02
6	1:30	0.3	0.03	0.47	0.03	0.00	0.19	0.02
7	1:45	0.3	0.03	0.46	0.03	0.00	0.19	0.03
8	2:00	0.4	0.04	0.45	0.04	0.00	0.26	0.03
9	2:15	0.4	0.04	0.45	0.04	0.00	0.26	0.04
10	2:30	0.4	0.04	0.44	0.04	0.00	0.26	0.04
11	2:45	0.5	0.05	0.44	0.05	0.01	0.32	0.05
12	3:00	0.5	0.05	0.43	0.05	0.01	0.32	0.05
13	3:15	0.5	0.05	0.43	0.05	0.01	0.32	0.06
14	3:30	0.5	0.05	0.42	0.05	0.01	0.32	0.07
15	3:45	0.5	0.05	0.42	0.05	0.01	0.32	0.07
16	4:00	0.6	0.06	0.41	0.06	0.01	0.38	0.08
17	4:15	0.6	0.06	0.41	0.06	0.01	0.38	0.09
18	4:30	0.7	0.07	0.40	0.07	0.01	0.45	0.10
19	4:45	0.7	0.07	0.40	0.07	0.01	0.45	0.11
20	5:00	0.8	0.08	0.39	0.07	0.01	0.51	0.12
21	5:15	0.6	0.06	0.39	0.06	0.01	0.38	0.13
22	5:30	0.7	0.07	0.38	0.07	0.01	0.45	0.13
23	5:45	0.8	0.08	0.38	0.07	0.01	0.51	0.14
24	6:00	0.8	0.08	0.37	0.07	0.01	0.51	0.15
25	6:15	0.9	0.09	0.37	0.08	0.01	0.58	0.17
26	6:30	0.9	0.09	0.36	0.08	0.01	0.58	0.18
27	6:45	1.0	0.10	0.36	0.09	0.01	0.64	0.19
28	7:00	1.0	0.10	0.35	0.09	0.01	0.64	0.20
29	7:15	1.0	0.10	0.35	0.09	0.01	0.64	0.22
30	7:30	1.1	0.11	0.34	0.10	0.01	0.70	0.23
31	7:45	1.2	0.12	0.34	0.11	0.01	0.77	0.25
32	8:00	1.3	0.14	0.33	0.12	0.01	0.83	0.26
33	8:15	1.5	0.16	0.33	0.14	0.02	0.96	0.28
34	8:30	1.5	0.16	0.32	0.14	0.02	0.96	0.30
35	8:45	1.6	0.17	0.32	0.15	0.02	1.02	0.32
36	9:00	1.7	0.18	0.31	0.16	0.02	1.09	0.34
37	9:15	1.9	0.20	0.31	0.18	0.02	1.22	0.37
38	9:30	2.0	0.21	0.31	0.19	0.02	1.28	0.39
39	9:45	2.1	0.22	0.30	0.20	0.02	1.34	0.42
40	10:00	2.2	0.23	0.30	0.21	0.02	1.41	0.45
41	10:15	1.5	0.16	0.29	0.14	0.02	0.96	0.47
42	10:30	1.5	0.16	0.29	0.14	0.02	0.96	0.49
43	10:45	2.0	0.21	0.28	0.19	0.02	1.28	0.52
44	11:00	2.0	0.21	0.28	0.19	0.02	1.28	0.54
45	11:15	1.9	0.20	0.28	0.18	0.02	1.22	0.57
46	11:30	1.9	0.20	0.27	0.18	0.02	1.22	0.59
47	11:45	1.7	0.18	0.27	0.16	0.02	1.09	0.62
48	12:00	1.8	0.19	0.26	0.17	0.02	1.15	0.64
49	12:15	2.5	0.26	0.26	0.23	0.03	1.60	0.67
50	12:30	2.6	0.27	0.26	0.24	0.01	0.88	0.69
51	12:45	2.8	0.29	0.25	0.26	0.04	2.39	0.73
52	13:00	2.9	0.30	0.25	0.27	0.05	3.27	0.79
53	13:15	3.4	0.35	0.24	0.32	0.11	6.70	0.89
54	13:30	3.4	0.35	0.24	0.32	0.11	6.93	1.03
55	13:45	2.3	0.24	0.24	0.22	0.00	0.11	1.10
56	14:00	2.3	0.24	0.23	0.22	0.01	0.33	1.11
57	14:15	2.7	0.28	0.23	0.25	0.05	3.11	1.14
58	14:30	2.6	0.27	0.23	0.24	0.04	2.69	1.20
59	14:45	2.6	0.27	0.22	0.24	0.05	2.90	1.26
60	15:00	2.5	0.26	0.22	0.23	0.04	2.47	1.32
61	15:15	2.4	0.25	0.22	0.22	0.03	2.04	1.36
62	15:30	2.3	0.24	0.21	0.22	0.03	1.60	1.40
63	15:45	1.9	0.20	0.21	0.18	0.02	1.22	1.43
64	16:00	1.9	0.20	0.21	0.18	0.02	1.22	1.45
65	16:15	0.4	0.04	0.20	0.04	0.00	0.26	1.47
66	16:30	0.4	0.04	0.20	0.04	0.00	0.26	1.48
67	16:45	0.3	0.03	0.20	0.03	0.00	0.19	1.48
68	17:00	0.3	0.03	0.19	0.03	0.00	0.19	1.48
69	17:15	0.5	0.05	0.19	0.05	0.01	0.32	1.49
70	17:30	0.5	0.05	0.19	0.05	0.01	0.32	1.50
71	17:45	0.5	0.05	0.19	0.05	0.01	0.32	1.50
72	18:00	0.4	0.04	0.18	0.04	0.00	0.26	1.51
73	18:15	0.4	0.04	0.18	0.04	0.00	0.26	1.51
74	18:30	0.4	0.04	0.18	0.04	0.00	0.26	1.52
75	18:45	0.3	0.03	0.18	0.03	0.00	0.19	1.52
76	19:00	0.2	0.02	0.17	0.02	0.00	0.13	1.53
77	19:15	0.3	0.03	0.17	0.03	0.00	0.19	1.53
78	19:30	0.4	0.04	0.17	0.04	0.00	0.26	1.53
79	19:45	0.3	0.03	0.17	0.03	0.00	0.19	1.54
80	20:00	0.2	0.02	0.16	0.02	0.00	0.13	1.54
81	20:15	0.3	0.03	0.16	0.03	0.00	0.19	1.55
82	20:30	0.3	0.03	0.16	0.03	0.00	0.19	1.55
83	20:45	0.3	0.03	0.16	0.03	0.00	0.19	1.55
84	21:00	0.2	0.02	0.16	0.02	0.00	0.13	1.56
85	21:15	0.3	0.03	0.15	0.03	0.00	0.19	1.56
86	21:30	0.2	0.02	0.15	0.02	0.00	0.13	1.56
87	21:45	0.3	0.03	0.15	0.03	0.00	0.19	1.57
88	22:00	0.2	0.02	0.15	0.02	0.00	0.13	1.57
89	22:15	0.3	0.03	0.15	0.03	0.00	0.19	1.57
90	22:30	0.2	0.02	0.15	0.02	0.00	0.13	1.58
91	22:45	0.2	0.02	0.14	0.02	0.00	0.13	1.58
92	23:00	0.2	0.02	0.14	0.02	0.00	0.13	1.58
93	23:15	0.2	0.02	0.14	0.02	0.00	0.13	1.59
94	23:30	0.2	0.02	0.14	0.02	0.00	0.13	1.59
95	23:45	0.2	0.02	0.14	0.02	0.00	0.13	1.59
96	0:00	0.2	0.02	0.14	0.02	0.00	0.13	1.59

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	2.2
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.85	0.02	0.00	0.11	0.00
2	0:30	0.3	0.03	0.84	0.02	0.00	0.16	0.00
3	0:45	0.3	0.03	0.83	0.02	0.00	0.16	0.01
4	1:00	0.4	0.04	0.82	0.03	0.00	0.22	0.01
5	1:15	0.3	0.03	0.81	0.02	0.00	0.16	0.02
6	1:30	0.3	0.03	0.80	0.02	0.00	0.16	0.02
7	1:45	0.3	0.03	0.79	0.02	0.00	0.16	0.02
8	2:00	0.4	0.04	0.78	0.03	0.00	0.22	0.03
9	2:15	0.4	0.04	0.77	0.03	0.00	0.22	0.03
10	2:30	0.4	0.04	0.76	0.03	0.00	0.22	0.03
11	2:45	0.5	0.04	0.75	0.04	0.00	0.27	0.04
12	3:00	0.5	0.04	0.74	0.04	0.00	0.27	0.05
13	3:15	0.5	0.04	0.73	0.04	0.00	0.27	0.05
14	3:30	0.5	0.04	0.72	0.04	0.00	0.27	0.06
15	3:45	0.5	0.04	0.72	0.04	0.00	0.27	0.06
16	4:00	0.6	0.05	0.71	0.05	0.01	0.32	0.07
17	4:15	0.6	0.05	0.70	0.05	0.01	0.32	0.07
18	4:30	0.7	0.06	0.69	0.06	0.01	0.38	0.08
19	4:45	0.7	0.06	0.68	0.06	0.01	0.38	0.09
20	5:00	0.8	0.07	0.67	0.06	0.01	0.43	0.10
21	5:15	0.6	0.05	0.66	0.05	0.01	0.32	0.11
22	5:30	0.7	0.06	0.65	0.06	0.01	0.38	0.11
23	5:45	0.8	0.07	0.64	0.06	0.01	0.43	0.12
24	6:00	0.8	0.07	0.64	0.06	0.01	0.43	0.13
25	6:15	0.9	0.08	0.63	0.07	0.01	0.49	0.14
26	6:30	0.9	0.08	0.62	0.07	0.01	0.49	0.15
27	6:45	1.0	0.09	0.61	0.08	0.01	0.54	0.16
28	7:00	1.0	0.09	0.60	0.08	0.01	0.54	0.17
29	7:15	1.0	0.09	0.59	0.08	0.01	0.54	0.18
30	7:30	1.1	0.10	0.59	0.09	0.01	0.60	0.20
31	7:45	1.2	0.11	0.58	0.10	0.01	0.65	0.21
32	8:00	1.3	0.11	0.57	0.10	0.01	0.70	0.22
33	8:15	1.5	0.13	0.56	0.12	0.01	0.81	0.24
34	8:30	1.5	0.13	0.55	0.12	0.01	0.81	0.25
35	8:45	1.6	0.14	0.55	0.13	0.01	0.87	0.27
36	9:00	1.7	0.15	0.54	0.13	0.01	0.92	0.29
37	9:15	1.9	0.17	0.53	0.15	0.02	1.03	0.31
38	9:30	2.0	0.18	0.52	0.16	0.02	1.08	0.33
39	9:45	2.1	0.18	0.52	0.17	0.02	1.14	0.36
40	10:00	2.2	0.19	0.51	0.17	0.02	1.19	0.38
41	10:15	1.5	0.13	0.50	0.12	0.01	0.81	0.40
42	10:30	1.5	0.13	0.49	0.12	0.01	0.81	0.42
43	10:45	2.0	0.18	0.49	0.16	0.02	1.08	0.44
44	11:00	2.0	0.18	0.48	0.16	0.02	1.08	0.46
45	11:15	1.9	0.17	0.47	0.15	0.02	1.03	0.48
46	11:30	1.9	0.17	0.47	0.15	0.02	1.03	0.50
47	11:45	1.7	0.15	0.46	0.13	0.01	0.92	0.52
48	12:00	1.8	0.16	0.45	0.14	0.02	0.97	0.54
49	12:15	2.5	0.22	0.45	0.20	0.02	1.35	0.57
50	12:30	2.6	0.23	0.44	0.21	0.02	1.41	0.59
51	12:45	2.8	0.25	0.43	0.22	0.02	1.52	0.62
52	13:00	2.9	0.26	0.43	0.23	0.03	1.57	0.66
53	13:15	3.4	0.30	0.42	0.27	0.03	1.84	0.69
54	13:30	3.4	0.30	0.41	0.27	0.03	1.84	0.73
55	13:45	2.3	0.20	0.41	0.18	0.02	1.25	0.76
56	14:00	2.3	0.20	0.40	0.18	0.02	1.25	0.79
57	14:15	2.7	0.24	0.39	0.21	0.02	1.46	0.82
58	14:30	2.6	0.23	0.39	0.21	0.02	1.41	0.84
59	14:45	2.6	0.23	0.38	0.21	0.02	1.41	0.87
60	15:00	2.5	0.22	0.38	0.20	0.02	1.35	0.90
61	15:15	2.4	0.21	0.37	0.19	0.02	1.30	0.93
62	15:30	2.3	0.20	0.37	0.18	0.02	1.25	0.96
63	15:45	1.9	0.17	0.36	0.15	0.02	1.03	0.98
64	16:00	1.9	0.17	0.35	0.15	0.02	1.03	1.00
65	16:15	0.4	0.04	0.35	0.03	0.00	0.22	1.01
66	16:30	0.4	0.04	0.34	0.03	0.00	0.22	1.02
67	16:45	0.3	0.03	0.34	0.02	0.00	0.16	1.02
68	17:00	0.3	0.03	0.33	0.02	0.00	0.16	1.03
69	17:15	0.5	0.04	0.33	0.04	0.00	0.27	1.03
70	17:30	0.5	0.04	0.32	0.04	0.00	0.27	1.04
71	17:45	0.5	0.04	0.32	0.04	0.00	0.27	1.04
72	18:00	0.4	0.04	0.31	0.03	0.00	0.22	1.05
73	18:15	0.4	0.04	0.31	0.03	0.00	0.22	1.05
74	18:30	0.4	0.04	0.30	0.03	0.00	0.22	1.06
75	18:45	0.3	0.03	0.30	0.02	0.00	0.16	1.06
76	19:00	0.2	0.02	0.30	0.02	0.00	0.11	1.06
77	19:15	0.3	0.03	0.29	0.02	0.00	0.16	1.06
78	19:30	0.4	0.04	0.29	0.03	0.00	0.22	1.07
79	19:45	0.3	0.03	0.28	0.02	0.00	0.16	1.07
80	20:00	0.2	0.02	0.28	0.02	0.00	0.11	1.08
81	20:15	0.3	0.03	0.28	0.02	0.00	0.16	1.08
82	20:30	0.3	0.03	0.27	0.02	0.00	0.16	1.08
83	20:45	0.3	0.03	0.27	0.02	0.00	0.16	1.08
84	21:00	0.2	0.02	0.27	0.02	0.00	0.11	1.09
85	21:15	0.3	0.03	0.26	0.02	0.00	0.16	1.09
86	21:30	0.2	0.02	0.26	0.02	0.00	0.11	1.09
87	21:45	0.3	0.03	0.26	0.02	0.00	0.16	1.10
88	22:00	0.2	0.02	0.25	0.02	0.00	0.11	1.10
89	22:15	0.3	0.03	0.25	0.02	0.00	0.16	1.10
90	22:30	0.2	0.02	0.25	0.02	0.00	0.11	1.10
91	22:45	0.2	0.02	0.25	0.02	0.00	0.11	1.11
92	23:00	0.2	0.02	0.25	0.02	0.00	0.11	1.11
93	23:15	0.2	0.02	0.24	0.02	0.00	0.11	1.11
94	23:30	0.2	0.02	0.24	0.02	0.00	0.11	1.11
95	23:45	0.2	0.02	0.24	0.02	0.00	0.11	1.12
96	0:00	0.2	0.02	0.24	0.02	0.00	0.11	1.12

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	1.6
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.85	0.01	0.00	0.08	0.00
2	0:30	0.3	0.02	0.84	0.02	0.00	0.12	0.00
3	0:45	0.3	0.02	0.83	0.02	0.00	0.12	0.01
4	1:00	0.4	0.03	0.82	0.02	0.00	0.16	0.01
5	1:15	0.3	0.02	0.81	0.02	0.00	0.12	0.01
6	1:30	0.3	0.02	0.80	0.02	0.00	0.12	0.01
7	1:45	0.3	0.02	0.79	0.02	0.00	0.12	0.02
8	2:00	0.4	0.03	0.78	0.02	0.00	0.16	0.02
9	2:15	0.4	0.03	0.77	0.02	0.00	0.16	0.02
10	2:30	0.4	0.03	0.76	0.02	0.00	0.16	0.03
11	2:45	0.5	0.03	0.75	0.03	0.00	0.20	0.03
12	3:00	0.5	0.03	0.74	0.03	0.00	0.20	0.03
13	3:15	0.5	0.03	0.73	0.03	0.00	0.20	0.04
14	3:30	0.5	0.03	0.72	0.03	0.00	0.20	0.04
15	3:45	0.5	0.03	0.72	0.03	0.00	0.20	0.05
16	4:00	0.6	0.04	0.71	0.03	0.00	0.24	0.05
17	4:15	0.6	0.04	0.70	0.03	0.00	0.24	0.05
18	4:30	0.7	0.04	0.69	0.04	0.00	0.28	0.06
19	4:45	0.7	0.04	0.68	0.04	0.00	0.28	0.07
20	5:00	0.8	0.05	0.67	0.05	0.01	0.32	0.07
21	5:15	0.6	0.04	0.66	0.03	0.00	0.24	0.08
22	5:30	0.7	0.04	0.65	0.04	0.00	0.28	0.08
23	5:45	0.8	0.05	0.64	0.05	0.01	0.32	0.09
24	6:00	0.8	0.05	0.64	0.05	0.01	0.32	0.10
25	6:15	0.9	0.06	0.63	0.05	0.01	0.35	0.10
26	6:30	0.9	0.06	0.62	0.05	0.01	0.35	0.11
27	6:45	1.0	0.06	0.61	0.06	0.01	0.39	0.12
28	7:00	1.0	0.06	0.60	0.06	0.01	0.39	0.13
29	7:15	1.0	0.06	0.59	0.06	0.01	0.39	0.13
30	7:30	1.1	0.07	0.59	0.06	0.01	0.43	0.14
31	7:45	1.2	0.08	0.58	0.07	0.01	0.47	0.15
32	8:00	1.3	0.08	0.57	0.07	0.01	0.51	0.16
33	8:15	1.5	0.10	0.56	0.09	0.01	0.59	0.17
34	8:30	1.5	0.10	0.55	0.09	0.01	0.59	0.19
35	8:45	1.6	0.10	0.55	0.09	0.01	0.63	0.20
36	9:00	1.7	0.11	0.54	0.10	0.01	0.67	0.21
37	9:15	1.9	0.12	0.53	0.11	0.01	0.75	0.23
38	9:30	2.0	0.13	0.52	0.12	0.01	0.79	0.24
39	9:45	2.1	0.13	0.52	0.12	0.01	0.83	0.26
40	10:00	2.2	0.14	0.51	0.13	0.01	0.87	0.28
41	10:15	1.5	0.10	0.50	0.09	0.01	0.59	0.29
42	10:30	1.5	0.10	0.49	0.09	0.01	0.59	0.30
43	10:45	2.0	0.13	0.49	0.12	0.01	0.79	0.32
44	11:00	2.0	0.13	0.48	0.12	0.01	0.79	0.33
45	11:15	1.9	0.12	0.47	0.11	0.01	0.75	0.35
46	11:30	1.9	0.12	0.47	0.11	0.01	0.75	0.37
47	11:45	1.7	0.11	0.46	0.10	0.01	0.67	0.38
48	12:00	1.8	0.12	0.45	0.10	0.01	0.71	0.39
49	12:15	2.5	0.16	0.45	0.14	0.02	0.98	0.41
50	12:30	2.6	0.17	0.44	0.15	0.02	1.02	0.43
51	12:45	2.8	0.18	0.43	0.16	0.02	1.10	0.45
52	13:00	2.9	0.19	0.43	0.17	0.02	1.14	0.48
53	13:15	3.4	0.22	0.42	0.20	0.02	1.34	0.50
54	13:30	3.4	0.22	0.41	0.20	0.02	1.34	0.53
55	13:45	2.3	0.15	0.41	0.13	0.01	0.91	0.55
56	14:00	2.3	0.15	0.40	0.13	0.01	0.91	0.57
57	14:15	2.7	0.17	0.39	0.16	0.02	1.06	0.59
58	14:30	2.6	0.17	0.39	0.15	0.02	1.02	0.61
59	14:45	2.6	0.17	0.38	0.15	0.02	1.02	0.64
60	15:00	2.5	0.16	0.38	0.14	0.02	0.98	0.66
61	15:15	2.4	0.15	0.37	0.14	0.02	0.95	0.68
62	15:30	2.3	0.15	0.37	0.13	0.01	0.91	0.70
63	15:45	1.9	0.12	0.36	0.11	0.01	0.75	0.71
64	16:00	1.9	0.12	0.35	0.11	0.01	0.75	0.73
65	16:15	0.4	0.03	0.35	0.02	0.00	0.16	0.74
66	16:30	0.4	0.03	0.34	0.02	0.00	0.16	0.74
67	16:45	0.3	0.02	0.34	0.02	0.00	0.12	0.74
68	17:00	0.3	0.02	0.33	0.02	0.00	0.12	0.75
69	17:15	0.5	0.03	0.33	0.03	0.00	0.20	0.75
70	17:30	0.5	0.03	0.32	0.03	0.00	0.20	0.75
71	17:45	0.5	0.03	0.32	0.03	0.00	0.20	0.76
72	18:00	0.4	0.03	0.31	0.02	0.00	0.16	0.76
73	18:15	0.4	0.03	0.31	0.02	0.00	0.16	0.76
74	18:30	0.4	0.03	0.30	0.02	0.00	0.16	0.77
75	18:45	0.3	0.02	0.30	0.02	0.00	0.12	0.77
76	19:00	0.2	0.01	0.30	0.01	0.00	0.08	0.77
77	19:15	0.3	0.02	0.29	0.02	0.00	0.12	0.77
78	19:30	0.4	0.03	0.29	0.02	0.00	0.16	0.78
79	19:45	0.3	0.02	0.28	0.02	0.00	0.12	0.78
80	20:00	0.2	0.01	0.28	0.01	0.00	0.08	0.78
81	20:15	0.3	0.02	0.28	0.02	0.00	0.12	0.78
82	20:30	0.3	0.02	0.27	0.02	0.00	0.12	0.79
83	20:45	0.3	0.02	0.27	0.02	0.00	0.12	0.79
84	21:00	0.2	0.01	0.27	0.01	0.00	0.08	0.79
85	21:15	0.3	0.02	0.26	0.02	0.00	0.12	0.79
86	21:30	0.2	0.01	0.26	0.01	0.00	0.08	0.80
87	21:45	0.3	0.02	0.26	0.02	0.00	0.12	0.80
88	22:00	0.2	0.01	0.25	0.01	0.00	0.08	0.80
89	22:15	0.3	0.02	0.25	0.02	0.00	0.12	0.80
90	22:30	0.2	0.01	0.25	0.01	0.00	0.08	0.80
91	22:45	0.2	0.01	0.25	0.01	0.00	0.08	0.80
92	23:00	0.2	0.01	0.25	0.01	0.00	0.08	0.81
93	23:15	0.2	0.01	0.24	0.01	0.00	0.08	0.81
94	23:30	0.2	0.01	0.24	0.01	0.00	0.08	0.81
95	23:45	0.2	0.01	0.24	0.01	0.00	0.08	0.81
96	0:00	0.2	0.01	0.24	0.01	0.00	0.08	0.81

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	2.5
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.14	0.14	0.01	0.62	0.00
2	0:10	0.6	0.18	0.14	0.16	0.04	2.46	0.01
3	0:15	0.6	0.18	0.14	0.16	0.04	2.46	0.03
4	0:20	0.6	0.18	0.14	0.16	0.04	2.46	0.05
5	0:25	0.6	0.18	0.14	0.16	0.04	2.46	0.06
6	0:30	0.7	0.21	0.14	0.19	0.07	4.31	0.09
7	0:35	0.7	0.21	0.14	0.19	0.07	4.31	0.12
8	0:40	0.7	0.21	0.14	0.19	0.07	4.31	0.15
9	0:45	0.7	0.21	0.14	0.19	0.07	4.31	0.18
10	0:50	0.7	0.21	0.14	0.19	0.07	4.31	0.21
11	0:55	0.7	0.21	0.14	0.19	0.07	4.31	0.24
12	1:00	0.8	0.24	0.14	0.22	0.10	6.16	0.27
13	1:05	0.8	0.24	0.14	0.22	0.10	6.16	0.31
14	1:10	0.8	0.24	0.14	0.22	0.10	6.16	0.36
15	1:15	0.8	0.24	0.14	0.22	0.10	6.16	0.40
16	1:20	0.8	0.24	0.14	0.22	0.10	6.16	0.44
17	1:25	0.8	0.24	0.14	0.22	0.10	6.16	0.48
18	1:30	0.8	0.24	0.14	0.22	0.10	6.16	0.53
19	1:35	0.8	0.24	0.14	0.22	0.10	6.16	0.57
20	1:40	0.8	0.24	0.14	0.22	0.10	6.16	0.61
21	1:45	0.8	0.24	0.14	0.22	0.10	6.16	0.65
22	1:50	0.8	0.24	0.14	0.22	0.10	6.16	0.70
23	1:55	0.8	0.24	0.14	0.22	0.10	6.16	0.74
24	2:00	0.9	0.27	0.14	0.24	0.13	8.00	0.79
25	2:05	0.8	0.24	0.14	0.22	0.10	6.16	0.84
26	2:10	0.9	0.27	0.14	0.24	0.13	8.00	0.88
27	2:15	0.9	0.27	0.14	0.24	0.13	8.00	0.94
28	2:20	0.9	0.27	0.14	0.24	0.13	8.00	0.99
29	2:25	0.9	0.27	0.14	0.24	0.13	8.00	1.05
30	2:30	0.9	0.27	0.14	0.24	0.13	8.00	1.10
31	2:35	0.9	0.27	0.14	0.24	0.13	8.00	1.16
32	2:40	0.9	0.27	0.14	0.24	0.13	8.00	1.21
33	2:45	1.0	0.30	0.14	0.27	0.16	9.85	1.28
34	2:50	1.0	0.30	0.14	0.27	0.16	9.85	1.34
35	2:55	1.0	0.30	0.14	0.27	0.16	9.85	1.41
36	3:00	1.0	0.30	0.14	0.27	0.16	9.85	1.48
37	3:05	1.0	0.30	0.14	0.27	0.16	9.85	1.55
38	3:10	1.1	0.33	0.14	0.30	0.19	11.69	1.62
39	3:15	1.1	0.33	0.14	0.30	0.19	11.69	1.70
40	3:20	1.1	0.33	0.14	0.30	0.19	11.69	1.78
41	3:25	1.2	0.36	0.14	0.32	0.22	13.54	1.87
42	3:30	1.3	0.39	0.14	0.35	0.25	15.39	1.97
43	3:35	1.4	0.42	0.14	0.38	0.28	17.23	2.08
44	3:40	1.4	0.42	0.14	0.38	0.28	17.23	2.20
45	3:45	1.5	0.45	0.14	0.41	0.31	19.08	2.33
46	3:50	1.5	0.45	0.14	0.41	0.31	19.08	2.46
47	3:55	1.6	0.48	0.14	0.43	0.34	20.93	2.59
48	4:00	1.6	0.48	0.14	0.43	0.34	20.93	2.74
49	4:05	1.7	0.51	0.14	0.46	0.37	22.77	2.89
50	4:10	1.8	0.54	0.14	0.49	0.40	24.62	3.05
51	4:15	1.9	0.57	0.14	0.51	0.43	26.47	3.23
52	4:20	2.0	0.60	0.14	0.54	0.46	28.31	3.42
53	4:25	2.1	0.63	0.14	0.57	0.49	30.16	3.62
54	4:30	2.1	0.63	0.14	0.57	0.49	30.16	3.83
55	4:35	2.2	0.66	0.14	0.59	0.52	32.01	4.04
56	4:40	2.3	0.69	0.14	0.62	0.55	33.85	4.27
57	4:45	2.4	0.72	0.14	0.65	0.58	35.70	4.51
58	4:50	2.4	0.72	0.14	0.65	0.58	35.70	4.75
59	4:55	2.5	0.75	0.14	0.68	0.61	37.55	5.00
60	5:00	2.6	0.78	0.14	0.70	0.64	39.39	5.27
61	5:05	3.1	0.93	0.14	0.84	0.79	48.62	5.57
62	5:10	3.6	1.08	0.14	0.97	0.94	57.86	5.94
63	5:15	3.9	1.17	0.14	1.05	1.03	63.40	6.36
64	5:20	4.2	1.26	0.14	1.13	1.12	68.94	6.81
65	5:25	4.7	1.41	0.14	1.27	1.27	78.17	7.32
66	5:30	5.6	1.68	0.14	1.51	1.54	94.79	7.91
67	5:35	1.9	0.57	0.14	0.51	0.43	26.47	8.33
68	5:40	0.9	0.27	0.14	0.24	0.13	8.00	8.45
69	5:45	0.6	0.18	0.14	0.16	0.04	2.46	8.49
70	5:50	0.5	0.15	0.14	0.14	0.01	0.62	8.50
71	5:55	0.3	0.09	0.14	0.08	0.01	0.55	8.50
72	6:00	0.2	0.06	0.14	0.05	0.01	0.37	8.50

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	1.7
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.28	0.09	0.01	0.63	0.00
2	0:10	0.6	0.12	0.28	0.11	0.01	0.75	0.01
3	0:15	0.6	0.12	0.28	0.11	0.01	0.75	0.01
4	0:20	0.6	0.12	0.28	0.11	0.01	0.75	0.02
5	0:25	0.6	0.12	0.28	0.11	0.01	0.75	0.02
6	0:30	0.7	0.14	0.28	0.13	0.01	0.88	0.03
7	0:35	0.7	0.14	0.28	0.13	0.01	0.88	0.03
8	0:40	0.7	0.14	0.28	0.13	0.01	0.88	0.04
9	0:45	0.7	0.14	0.28	0.13	0.01	0.88	0.05
10	0:50	0.7	0.14	0.28	0.13	0.01	0.88	0.05
11	0:55	0.7	0.14	0.28	0.13	0.01	0.88	0.06
12	1:00	0.8	0.16	0.28	0.15	0.02	1.00	0.06
13	1:05	0.8	0.16	0.28	0.15	0.02	1.00	0.07
14	1:10	0.8	0.16	0.28	0.15	0.02	1.00	0.08
15	1:15	0.8	0.16	0.28	0.15	0.02	1.00	0.09
16	1:20	0.8	0.16	0.28	0.15	0.02	1.00	0.09
17	1:25	0.8	0.16	0.28	0.15	0.02	1.00	0.10
18	1:30	0.8	0.16	0.28	0.15	0.02	1.00	0.11
19	1:35	0.8	0.16	0.28	0.15	0.02	1.00	0.11
20	1:40	0.8	0.16	0.28	0.15	0.02	1.00	0.12
21	1:45	0.8	0.16	0.28	0.15	0.02	1.00	0.13
22	1:50	0.8	0.16	0.28	0.15	0.02	1.00	0.13
23	1:55	0.8	0.16	0.28	0.15	0.02	1.00	0.14
24	2:00	0.9	0.18	0.28	0.17	0.02	1.13	0.15
25	2:05	0.8	0.16	0.28	0.15	0.02	1.00	0.16
26	2:10	0.9	0.18	0.28	0.17	0.02	1.13	0.16
27	2:15	0.9	0.18	0.28	0.17	0.02	1.13	0.17
28	2:20	0.9	0.18	0.28	0.17	0.02	1.13	0.18
29	2:25	0.9	0.18	0.28	0.17	0.02	1.13	0.19
30	2:30	0.9	0.18	0.28	0.17	0.02	1.13	0.19
31	2:35	0.9	0.18	0.28	0.17	0.02	1.13	0.20
32	2:40	0.9	0.18	0.28	0.17	0.02	1.13	0.21
33	2:45	1.0	0.20	0.28	0.18	0.02	1.26	0.22
34	2:50	1.0	0.20	0.28	0.18	0.02	1.26	0.23
35	2:55	1.0	0.20	0.28	0.18	0.02	1.26	0.24
36	3:00	1.0	0.20	0.28	0.18	0.02	1.26	0.24
37	3:05	1.0	0.20	0.28	0.18	0.02	1.26	0.25
38	3:10	1.1	0.22	0.28	0.20	0.02	1.38	0.26
39	3:15	1.1	0.22	0.28	0.20	0.02	1.38	0.27
40	3:20	1.1	0.22	0.28	0.20	0.02	1.38	0.28
41	3:25	1.2	0.24	0.28	0.22	0.02	1.51	0.29
42	3:30	1.3	0.27	0.28	0.24	0.03	1.63	0.30
43	3:35	1.4	0.29	0.28	0.26	0.01	0.34	0.31
44	3:40	1.4	0.29	0.28	0.26	0.01	0.34	0.31
45	3:45	1.5	0.31	0.28	0.28	0.03	1.60	0.32
46	3:50	1.5	0.31	0.28	0.28	0.03	1.60	0.33
47	3:55	1.6	0.33	0.28	0.29	0.05	2.86	0.34
48	4:00	1.6	0.33	0.28	0.29	0.05	2.86	0.36
49	4:05	1.7	0.35	0.28	0.31	0.07	4.11	0.39
50	4:10	1.8	0.37	0.28	0.33	0.09	5.37	0.42
51	4:15	1.9	0.39	0.28	0.35	0.11	6.62	0.46
52	4:20	2.0	0.41	0.28	0.37	0.13	7.88	0.51
53	4:25	2.1	0.43	0.28	0.39	0.15	9.13	0.57
54	4:30	2.1	0.43	0.28	0.39	0.15	9.13	0.63
55	4:35	2.2	0.45	0.28	0.40	0.17	10.39	0.70
56	4:40	2.3	0.47	0.28	0.42	0.19	11.65	0.78
57	4:45	2.4	0.49	0.28	0.44	0.21	12.90	0.86
58	4:50	2.4	0.49	0.28	0.44	0.21	12.90	0.95
59	4:55	2.5	0.51	0.28	0.46	0.23	14.16	1.04
60	5:00	2.6	0.53	0.28	0.48	0.25	15.41	1.14
61	5:05	3.1	0.63	0.28	0.57	0.35	21.69	1.27
62	5:10	3.6	0.73	0.28	0.66	0.45	27.97	1.44
63	5:15	3.9	0.80	0.28	0.72	0.52	31.74	1.65
64	5:20	4.2	0.86	0.28	0.77	0.58	35.50	1.88
65	5:25	4.7	0.96	0.28	0.86	0.68	41.78	2.15
66	5:30	5.6	1.14	0.28	1.03	0.86	53.08	2.47
67	5:35	1.9	0.39	0.28	0.35	0.11	6.62	2.68
68	5:40	0.9	0.18	0.28	0.17	0.02	1.13	2.71
69	5:45	0.6	0.12	0.28	0.11	0.01	0.75	2.71
70	5:50	0.5	0.10	0.28	0.09	0.01	0.63	2.72
71	5:55	0.3	0.06	0.28	0.06	0.01	0.38	2.72
72	6:00	0.2	0.04	0.28	0.04	0.00	0.25	2.72

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	1.4
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.48	0.08	0.01	0.52	0.00
2	0:10	0.6	0.10	0.48	0.09	0.01	0.62	0.01
3	0:15	0.6	0.10	0.48	0.09	0.01	0.62	0.01
4	0:20	0.6	0.10	0.48	0.09	0.01	0.62	0.01
5	0:25	0.6	0.10	0.48	0.09	0.01	0.62	0.02
6	0:30	0.7	0.12	0.48	0.11	0.01	0.72	0.02
7	0:35	0.7	0.12	0.48	0.11	0.01	0.72	0.03
8	0:40	0.7	0.12	0.48	0.11	0.01	0.72	0.03
9	0:45	0.7	0.12	0.48	0.11	0.01	0.72	0.04
10	0:50	0.7	0.12	0.48	0.11	0.01	0.72	0.04
11	0:55	0.7	0.12	0.48	0.11	0.01	0.72	0.05
12	1:00	0.8	0.13	0.48	0.12	0.01	0.83	0.05
13	1:05	0.8	0.13	0.48	0.12	0.01	0.83	0.06
14	1:10	0.8	0.13	0.48	0.12	0.01	0.83	0.06
15	1:15	0.8	0.13	0.48	0.12	0.01	0.83	0.07
16	1:20	0.8	0.13	0.48	0.12	0.01	0.83	0.08
17	1:25	0.8	0.13	0.48	0.12	0.01	0.83	0.08
18	1:30	0.8	0.13	0.48	0.12	0.01	0.83	0.09
19	1:35	0.8	0.13	0.48	0.12	0.01	0.83	0.09
20	1:40	0.8	0.13	0.48	0.12	0.01	0.83	0.10
21	1:45	0.8	0.13	0.48	0.12	0.01	0.83	0.10
22	1:50	0.8	0.13	0.48	0.12	0.01	0.83	0.11
23	1:55	0.8	0.13	0.48	0.12	0.01	0.83	0.12
24	2:00	0.9	0.15	0.48	0.14	0.02	0.93	0.12
25	2:05	0.8	0.13	0.48	0.12	0.01	0.83	0.13
26	2:10	0.9	0.15	0.48	0.14	0.02	0.93	0.13
27	2:15	0.9	0.15	0.48	0.14	0.02	0.93	0.14
28	2:20	0.9	0.15	0.48	0.14	0.02	0.93	0.15
29	2:25	0.9	0.15	0.48	0.14	0.02	0.93	0.15
30	2:30	0.9	0.15	0.48	0.14	0.02	0.93	0.16
31	2:35	0.9	0.15	0.48	0.14	0.02	0.93	0.17
32	2:40	0.9	0.15	0.48	0.14	0.02	0.93	0.17
33	2:45	1.0	0.17	0.48	0.15	0.02	1.03	0.18
34	2:50	1.0	0.17	0.48	0.15	0.02	1.03	0.19
35	2:55	1.0	0.17	0.48	0.15	0.02	1.03	0.19
36	3:00	1.0	0.17	0.48	0.15	0.02	1.03	0.20
37	3:05	1.0	0.17	0.48	0.15	0.02	1.03	0.21
38	3:10	1.1	0.18	0.48	0.17	0.02	1.14	0.22
39	3:15	1.1	0.18	0.48	0.17	0.02	1.14	0.22
40	3:20	1.1	0.18	0.48	0.17	0.02	1.14	0.23
41	3:25	1.2	0.20	0.48	0.18	0.02	1.24	0.24
42	3:30	1.3	0.22	0.48	0.20	0.02	1.34	0.25
43	3:35	1.4	0.24	0.48	0.21	0.02	1.45	0.26
44	3:40	1.4	0.24	0.48	0.21	0.02	1.45	0.27
45	3:45	1.5	0.25	0.48	0.23	0.03	1.55	0.28
46	3:50	1.5	0.25	0.48	0.23	0.03	1.55	0.29
47	3:55	1.6	0.27	0.48	0.24	0.03	1.65	0.30
48	4:00	1.6	0.27	0.48	0.24	0.03	1.65	0.31
49	4:05	1.7	0.29	0.48	0.26	0.03	1.76	0.32
50	4:10	1.8	0.30	0.48	0.27	0.03	1.86	0.34
51	4:15	1.9	0.32	0.48	0.29	0.03	1.96	0.35
52	4:20	2.0	0.34	0.48	0.30	0.03	2.07	0.36
53	4:25	2.1	0.35	0.48	0.32	0.04	2.17	0.38
54	4:30	2.1	0.35	0.48	0.32	0.04	2.17	0.39
55	4:35	2.2	0.37	0.48	0.33	0.04	2.27	0.41
56	4:40	2.3	0.39	0.48	0.35	0.04	2.38	0.42
57	4:45	2.4	0.40	0.48	0.36	0.04	2.48	0.44
58	4:50	2.4	0.40	0.48	0.36	0.04	2.48	0.46
59	4:55	2.5	0.42	0.48	0.38	0.04	2.59	0.47
60	5:00	2.6	0.44	0.48	0.39	0.04	2.69	0.49
61	5:05	3.1	0.52	0.48	0.47	0.04	2.51	0.51
62	5:10	3.6	0.60	0.48	0.54	0.12	7.68	0.55
63	5:15	3.9	0.66	0.48	0.59	0.18	10.78	0.61
64	5:20	4.2	0.71	0.48	0.64	0.23	13.89	0.69
65	5:25	4.7	0.79	0.48	0.71	0.31	19.06	0.81
66	5:30	5.6	0.94	0.48	0.85	0.46	28.36	0.97
67	5:35	1.9	0.32	0.48	0.29	0.03	1.96	1.08
68	5:40	0.9	0.15	0.48	0.14	0.02	0.93	1.09
69	5:45	0.6	0.10	0.48	0.09	0.01	0.62	1.09
70	5:50	0.5	0.08	0.48	0.08	0.01	0.52	1.09
71	5:55	0.3	0.05	0.48	0.05	0.01	0.31	1.10
72	6:00	0.2	0.03	0.48	0.03	0.00	0.21	1.10

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	1.0
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.48	0.05	0.01	0.37	0.00
2	0:10	0.6	0.07	0.48	0.06	0.01	0.44	0.00
3	0:15	0.6	0.07	0.48	0.06	0.01	0.44	0.01
4	0:20	0.6	0.07	0.48	0.06	0.01	0.44	0.01
5	0:25	0.6	0.07	0.48	0.06	0.01	0.44	0.01
6	0:30	0.7	0.08	0.48	0.08	0.01	0.52	0.02
7	0:35	0.7	0.08	0.48	0.08	0.01	0.52	0.02
8	0:40	0.7	0.08	0.48	0.08	0.01	0.52	0.02
9	0:45	0.7	0.08	0.48	0.08	0.01	0.52	0.03
10	0:50	0.7	0.08	0.48	0.08	0.01	0.52	0.03
11	0:55	0.7	0.08	0.48	0.08	0.01	0.52	0.03
12	1:00	0.8	0.10	0.48	0.09	0.01	0.59	0.04
13	1:05	0.8	0.10	0.48	0.09	0.01	0.59	0.04
14	1:10	0.8	0.10	0.48	0.09	0.01	0.59	0.05
15	1:15	0.8	0.10	0.48	0.09	0.01	0.59	0.05
16	1:20	0.8	0.10	0.48	0.09	0.01	0.59	0.05
17	1:25	0.8	0.10	0.48	0.09	0.01	0.59	0.06
18	1:30	0.8	0.10	0.48	0.09	0.01	0.59	0.06
19	1:35	0.8	0.10	0.48	0.09	0.01	0.59	0.07
20	1:40	0.8	0.10	0.48	0.09	0.01	0.59	0.07
21	1:45	0.8	0.10	0.48	0.09	0.01	0.59	0.07
22	1:50	0.8	0.10	0.48	0.09	0.01	0.59	0.08
23	1:55	0.8	0.10	0.48	0.09	0.01	0.59	0.08
24	2:00	0.9	0.11	0.48	0.10	0.01	0.66	0.09
25	2:05	0.8	0.10	0.48	0.09	0.01	0.59	0.09
26	2:10	0.9	0.11	0.48	0.10	0.01	0.66	0.10
27	2:15	0.9	0.11	0.48	0.10	0.01	0.66	0.10
28	2:20	0.9	0.11	0.48	0.10	0.01	0.66	0.11
29	2:25	0.9	0.11	0.48	0.10	0.01	0.66	0.11
30	2:30	0.9	0.11	0.48	0.10	0.01	0.66	0.11
31	2:35	0.9	0.11	0.48	0.10	0.01	0.66	0.12
32	2:40	0.9	0.11	0.48	0.10	0.01	0.66	0.12
33	2:45	1.0	0.12	0.48	0.11	0.01	0.74	0.13
34	2:50	1.0	0.12	0.48	0.11	0.01	0.74	0.13
35	2:55	1.0	0.12	0.48	0.11	0.01	0.74	0.14
36	3:00	1.0	0.12	0.48	0.11	0.01	0.74	0.14
37	3:05	1.0	0.12	0.48	0.11	0.01	0.74	0.15
38	3:10	1.1	0.13	0.48	0.12	0.01	0.81	0.15
39	3:15	1.1	0.13	0.48	0.12	0.01	0.81	0.16
40	3:20	1.1	0.13	0.48	0.12	0.01	0.81	0.17
41	3:25	1.2	0.14	0.48	0.13	0.01	0.89	0.17
42	3:30	1.3	0.16	0.48	0.14	0.02	0.96	0.18
43	3:35	1.4	0.17	0.48	0.15	0.02	1.03	0.18
44	3:40	1.4	0.17	0.48	0.15	0.02	1.03	0.19
45	3:45	1.5	0.18	0.48	0.16	0.02	1.11	0.20
46	3:50	1.5	0.18	0.48	0.16	0.02	1.11	0.21
47	3:55	1.6	0.19	0.48	0.17	0.02	1.18	0.21
48	4:00	1.6	0.19	0.48	0.17	0.02	1.18	0.22
49	4:05	1.7	0.20	0.48	0.18	0.02	1.26	0.23
50	4:10	1.8	0.22	0.48	0.19	0.02	1.33	0.24
51	4:15	1.9	0.23	0.48	0.21	0.02	1.40	0.25
52	4:20	2.0	0.24	0.48	0.22	0.02	1.48	0.26
53	4:25	2.1	0.25	0.48	0.23	0.03	1.55	0.27
54	4:30	2.1	0.25	0.48	0.23	0.03	1.55	0.28
55	4:35	2.2	0.26	0.48	0.24	0.03	1.62	0.29
56	4:40	2.3	0.28	0.48	0.25	0.03	1.70	0.30
57	4:45	2.4	0.29	0.48	0.26	0.03	1.77	0.31
58	4:50	2.4	0.29	0.48	0.26	0.03	1.77	0.33
59	4:55	2.5	0.30	0.48	0.27	0.03	1.85	0.34
60	5:00	2.6	0.31	0.48	0.28	0.03	1.92	0.35
61	5:05	3.1	0.37	0.48	0.33	0.04	2.29	0.37
62	5:10	3.6	0.43	0.48	0.39	0.04	2.66	0.38
63	5:15	3.9	0.47	0.48	0.42	0.05	2.88	0.40
64	5:20	4.2	0.50	0.48	0.45	0.02	1.48	0.42
65	5:25	4.7	0.56	0.48	0.51	0.08	5.17	0.44
66	5:30	5.6	0.67	0.48	0.60	0.19	11.82	0.50
67	5:35	1.9	0.23	0.48	0.21	0.02	1.40	0.54
68	5:40	0.9	0.11	0.48	0.10	0.01	0.66	0.55
69	5:45	0.6	0.07	0.48	0.06	0.01	0.44	0.56
70	5:50	0.5	0.06	0.48	0.05	0.01	0.37	0.56
71	5:55	0.3	0.04	0.48	0.03	0.00	0.22	0.56
72	6:00	0.2	0.02	0.48	0.02	0.00	0.15	0.56

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	1.9
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.14	0.27	0.16	9.63	0.03
2	0:10	1.3	0.30	0.14	0.27	0.16	9.63	0.10
3	0:15	1.1	0.25	0.14	0.23	0.11	6.82	0.16
4	0:20	1.5	0.34	0.14	0.31	0.20	12.43	0.22
5	0:25	1.5	0.34	0.14	0.31	0.20	12.43	0.31
6	0:30	1.8	0.41	0.14	0.37	0.27	16.64	0.41
7	0:35	1.5	0.34	0.14	0.31	0.20	12.43	0.51
8	0:40	1.8	0.41	0.14	0.37	0.27	16.64	0.61
9	0:45	1.8	0.41	0.14	0.37	0.27	16.64	0.72
10	0:50	1.5	0.34	0.14	0.31	0.20	12.43	0.82
11	0:55	1.6	0.36	0.14	0.33	0.22	13.84	0.91
12	1:00	1.8	0.41	0.14	0.37	0.27	16.64	1.02
13	1:05	2.2	0.50	0.14	0.45	0.36	22.26	1.15
14	1:10	2.2	0.50	0.14	0.45	0.36	22.26	1.31
15	1:15	2.2	0.50	0.14	0.45	0.36	22.26	1.46
16	1:20	2.0	0.46	0.14	0.41	0.32	19.45	1.60
17	1:25	2.6	0.59	0.14	0.53	0.45	27.87	1.77
18	1:30	2.7	0.62	0.14	0.55	0.48	29.27	1.96
19	1:35	2.4	0.55	0.14	0.49	0.41	25.06	2.15
20	1:40	2.7	0.62	0.14	0.55	0.48	29.27	2.34
21	1:45	3.3	0.75	0.14	0.68	0.61	37.69	2.57
22	1:50	3.1	0.71	0.14	0.64	0.57	34.89	2.82
23	1:55	2.9	0.66	0.14	0.60	0.52	32.08	3.05
24	2:00	3.0	0.68	0.14	0.62	0.54	33.48	3.27
25	2:05	3.1	0.71	0.14	0.64	0.57	34.89	3.51
26	2:10	4.2	0.96	0.14	0.86	0.82	50.32	3.80
27	2:15	5.0	1.14	0.14	1.03	1.00	61.55	4.19
28	2:20	3.5	0.80	0.14	0.72	0.66	40.50	4.54
29	2:25	6.8	1.55	0.14	1.40	1.41	86.81	4.98
30	2:30	7.3	1.66	0.14	1.50	1.52	93.83	5.60
31	2:35	8.2	1.87	0.14	1.68	1.73	106.46	6.29
32	2:40	5.9	1.35	0.14	1.21	1.21	74.18	6.91
33	2:45	2.0	0.46	0.14	0.41	0.32	19.45	7.23
34	2:50	1.8	0.41	0.14	0.37	0.27	16.64	7.36
35	2:55	1.8	0.41	0.14	0.37	0.27	16.64	7.47
36	3:00	0.6	0.14	0.14	0.12	0.01	0.84	7.53

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	1.3
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.28	0.18	0.02	1.25	0.00
2	0:10	1.3	0.20	0.28	0.18	0.02	1.25	0.01
3	0:15	1.1	0.17	0.28	0.15	0.02	1.06	0.02
4	0:20	1.5	0.23	0.28	0.21	0.02	1.44	0.03
5	0:25	1.5	0.23	0.28	0.21	0.02	1.44	0.04
6	0:30	1.8	0.28	0.28	0.25	0.00	0.05	0.04
7	0:35	1.5	0.23	0.28	0.21	0.02	1.44	0.05
8	0:40	1.8	0.28	0.28	0.25	0.00	0.05	0.05
9	0:45	1.8	0.28	0.28	0.25	0.00	0.05	0.06
10	0:50	1.5	0.23	0.28	0.21	0.02	1.44	0.06
11	0:55	1.6	0.25	0.28	0.22	0.02	1.54	0.07
12	1:00	1.8	0.28	0.28	0.25	0.00	0.05	0.08
13	1:05	2.2	0.34	0.28	0.31	0.06	3.89	0.09
14	1:10	2.2	0.34	0.28	0.31	0.06	3.89	0.12
15	1:15	2.2	0.34	0.28	0.31	0.06	3.89	0.14
16	1:20	2.0	0.31	0.28	0.28	0.03	1.97	0.16
17	1:25	2.6	0.41	0.28	0.37	0.13	7.73	0.20
18	1:30	2.7	0.42	0.28	0.38	0.14	8.69	0.25
19	1:35	2.4	0.37	0.28	0.34	0.09	5.81	0.30
20	1:40	2.7	0.42	0.28	0.38	0.14	8.69	0.35
21	1:45	3.3	0.51	0.28	0.46	0.23	14.45	0.43
22	1:50	3.1	0.48	0.28	0.44	0.20	12.53	0.53
23	1:55	2.9	0.45	0.28	0.41	0.17	10.61	0.61
24	2:00	3.0	0.47	0.28	0.42	0.19	11.57	0.68
25	2:05	3.1	0.48	0.28	0.44	0.20	12.53	0.76
26	2:10	4.2	0.66	0.28	0.59	0.38	23.09	0.89
27	2:15	5.0	0.78	0.28	0.70	0.50	30.78	1.07
28	2:20	3.5	0.55	0.28	0.49	0.27	16.37	1.24
29	2:25	6.8	1.06	0.28	0.95	0.78	48.06	1.46
30	2:30	7.3	1.14	0.28	1.02	0.86	52.86	1.80
31	2:35	8.2	1.28	0.28	1.15	1.00	61.50	2.20
32	2:40	5.9	0.92	0.28	0.83	0.64	39.42	2.55
33	2:45	2.0	0.31	0.28	0.28	0.03	1.97	2.69
34	2:50	1.8	0.28	0.28	0.25	0.00	0.05	2.70
35	2:55	1.8	0.28	0.28	0.25	0.00	0.05	2.70
36	3:00	0.6	0.09	0.28	0.08	0.01	0.58	2.70

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	1.1
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.48	0.15	0.02	1.06	0.00
2	0:10	1.3	0.17	0.48	0.15	0.02	1.06	0.01
3	0:15	1.1	0.15	0.48	0.13	0.01	0.89	0.02
4	0:20	1.5	0.20	0.48	0.18	0.02	1.22	0.02
5	0:25	1.5	0.20	0.48	0.18	0.02	1.22	0.03
6	0:30	1.8	0.24	0.48	0.21	0.02	1.46	0.04
7	0:35	1.5	0.20	0.48	0.18	0.02	1.22	0.05
8	0:40	1.8	0.24	0.48	0.21	0.02	1.46	0.06
9	0:45	1.8	0.24	0.48	0.21	0.02	1.46	0.07
10	0:50	1.5	0.20	0.48	0.18	0.02	1.22	0.08
11	0:55	1.6	0.21	0.48	0.19	0.02	1.30	0.09
12	1:00	1.8	0.24	0.48	0.21	0.02	1.46	0.10
13	1:05	2.2	0.29	0.48	0.26	0.03	1.79	0.11
14	1:10	2.2	0.29	0.48	0.26	0.03	1.79	0.12
15	1:15	2.2	0.29	0.48	0.26	0.03	1.79	0.13
16	1:20	2.0	0.26	0.48	0.24	0.03	1.62	0.15
17	1:25	2.6	0.34	0.48	0.31	0.03	2.11	0.16
18	1:30	2.7	0.36	0.48	0.32	0.04	2.19	0.17
19	1:35	2.4	0.32	0.48	0.29	0.03	1.95	0.19
20	1:40	2.7	0.36	0.48	0.32	0.04	2.19	0.20
21	1:45	3.3	0.44	0.48	0.39	0.04	2.68	0.22
22	1:50	3.1	0.41	0.48	0.37	0.04	2.52	0.24
23	1:55	2.9	0.38	0.48	0.34	0.04	2.36	0.25
24	2:00	3.0	0.40	0.48	0.36	0.04	2.44	0.27
25	2:05	3.1	0.41	0.48	0.37	0.04	2.52	0.29
26	2:10	4.2	0.55	0.48	0.50	0.07	4.58	0.31
27	2:15	5.0	0.66	0.48	0.59	0.18	11.08	0.37
28	2:20	3.5	0.46	0.48	0.42	0.05	2.84	0.41
29	2:25	6.8	0.90	0.48	0.81	0.42	25.70	0.51
30	2:30	7.3	0.96	0.48	0.87	0.48	29.77	0.70
31	2:35	8.2	1.08	0.48	0.97	0.60	37.08	0.93
32	2:40	5.9	0.78	0.48	0.70	0.30	18.39	1.12
33	2:45	2.0	0.26	0.48	0.24	0.03	1.62	1.19
34	2:50	1.8	0.24	0.48	0.21	0.02	1.46	1.20
35	2:55	1.8	0.24	0.48	0.21	0.02	1.46	1.21
36	3:00	0.6	0.08	0.48	0.07	0.01	0.49	1.22

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		open space
Rainfall	(inches)	0.8
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.48	0.11	0.01	0.77	0.00
2	0:10	1.3	0.12	0.48	0.11	0.01	0.77	0.01
3	0:15	1.1	0.11	0.48	0.10	0.01	0.65	0.01
4	0:20	1.5	0.14	0.48	0.13	0.01	0.89	0.02
5	0:25	1.5	0.14	0.48	0.13	0.01	0.89	0.02
6	0:30	1.8	0.17	0.48	0.16	0.02	1.06	0.03
7	0:35	1.5	0.14	0.48	0.13	0.01	0.89	0.04
8	0:40	1.8	0.17	0.48	0.16	0.02	1.06	0.04
9	0:45	1.8	0.17	0.48	0.16	0.02	1.06	0.05
10	0:50	1.5	0.14	0.48	0.13	0.01	0.89	0.06
11	0:55	1.6	0.15	0.48	0.14	0.02	0.95	0.06
12	1:00	1.8	0.17	0.48	0.16	0.02	1.06	0.07
13	1:05	2.2	0.21	0.48	0.19	0.02	1.30	0.08
14	1:10	2.2	0.21	0.48	0.19	0.02	1.30	0.09
15	1:15	2.2	0.21	0.48	0.19	0.02	1.30	0.10
16	1:20	2.0	0.19	0.48	0.17	0.02	1.18	0.11
17	1:25	2.6	0.25	0.48	0.22	0.02	1.54	0.12
18	1:30	2.7	0.26	0.48	0.23	0.03	1.60	0.13
19	1:35	2.4	0.23	0.48	0.21	0.02	1.42	0.14
20	1:40	2.7	0.26	0.48	0.23	0.03	1.60	0.15
21	1:45	3.3	0.32	0.48	0.29	0.03	1.95	0.16
22	1:50	3.1	0.30	0.48	0.27	0.03	1.83	0.17
23	1:55	2.9	0.28	0.48	0.25	0.03	1.71	0.18
24	2:00	3.0	0.29	0.48	0.26	0.03	1.77	0.20
25	2:05	3.1	0.30	0.48	0.27	0.03	1.83	0.21
26	2:10	4.2	0.40	0.48	0.36	0.04	2.48	0.22
27	2:15	5.0	0.48	0.48	0.43	0.05	2.95	0.24
28	2:20	3.5	0.34	0.48	0.30	0.03	2.07	0.26
29	2:25	6.8	0.65	0.48	0.59	0.17	10.64	0.30
30	2:30	7.3	0.70	0.48	0.63	0.22	13.59	0.39
31	2:35	8.2	0.79	0.48	0.71	0.31	18.91	0.50
32	2:40	5.9	0.57	0.48	0.51	0.09	5.32	0.58
33	2:45	2.0	0.19	0.48	0.17	0.02	1.18	0.60
34	2:50	1.8	0.17	0.48	0.16	0.02	1.06	0.61
35	2:55	1.8	0.17	0.48	0.16	0.02	1.06	0.62
36	3:00	0.6	0.06	0.48	0.05	0.01	0.35	0.62

Hydrologic Summary

BUILDING 1
PROP. CONDITION

Watershed Characteristics

Area	(acres)	61.55
Soil		C
Cover		Commercial

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		69	69	69	69	Plate E-6.1
Fp	(in/hr)	0.21	0.40	0.60	0.60	Plate E-6.2
Ai	(decimal)	0.90	0.90	0.90	0.90	Plate E-6.3
Low Loss	(decimal)	0.18	0.18	0.18	0.18	0.9-(0.8Ai)
F	(in/hr)	0.04	0.08	0.11	0.11	Fp(1-0.9Ai)
Fm	(in/hr)	0.02	0.04	0.06	0.06	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	31.37	17.74	12.38	7.35	24-hour
Peak Flow	(cfs)	100.95	65.64	50.89	34.34	6-hour
Peak Flow	(cfs)	112.62	74.06	59.61	41.44	3-hour
Total Runoff	(ac-ft)	16.13	8.87	6.34	4.40	24-hour
Total Runoff	(ac-ft)	11.49	6.38	4.01	3.14	6-hour
Total Runoff	(ac-ft)	9.04	5.45	3.88	2.40	3-hour

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	4.0
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04
Fm	(in/hr)	0.02
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.07	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.07	0.01	0.03	1.62	0.02
2	0:30	0.3	0.05	0.07	0.01	0.04	2.42	0.06
3	0:45	0.3	0.05	0.07	0.01	0.04	2.42	0.11
4	1:00	0.4	0.06	0.07	0.01	0.05	3.23	0.17
5	1:15	0.3	0.05	0.07	0.01	0.04	2.42	0.23
6	1:30	0.3	0.05	0.07	0.01	0.04	2.42	0.28
7	1:45	0.3	0.05	0.07	0.01	0.04	2.42	0.33
8	2:00	0.4	0.06	0.06	0.01	0.05	3.23	0.38
9	2:15	0.4	0.06	0.06	0.01	0.05	3.23	0.45
10	2:30	0.4	0.06	0.06	0.01	0.00	0.04	0.48
11	2:45	0.5	0.08	0.06	0.01	0.02	1.08	0.50
12	3:00	0.5	0.08	0.06	0.01	0.02	1.12	0.52
13	3:15	0.5	0.08	0.06	0.01	0.02	1.17	0.54
14	3:30	0.5	0.08	0.06	0.01	0.02	1.22	0.57
15	3:45	0.5	0.08	0.06	0.01	0.02	1.26	0.59
16	4:00	0.6	0.10	0.06	0.02	0.04	2.30	0.63
17	4:15	0.6	0.10	0.06	0.02	0.04	2.34	0.68
18	4:30	0.7	0.11	0.06	0.02	0.05	3.37	0.74
19	4:45	0.7	0.11	0.06	0.02	0.06	3.42	0.81
20	5:00	0.8	0.13	0.06	0.02	0.07	4.45	0.89
21	5:15	0.6	0.10	0.06	0.02	0.04	2.52	0.96
22	5:30	0.7	0.11	0.05	0.02	0.06	3.55	1.02
23	5:45	0.8	0.13	0.05	0.02	0.07	4.58	1.11
24	6:00	0.8	0.13	0.05	0.02	0.08	4.62	1.20
25	6:15	0.9	0.14	0.05	0.03	0.09	5.65	1.31
26	6:30	0.9	0.14	0.05	0.03	0.09	5.69	1.42
27	6:45	1.0	0.16	0.05	0.03	0.11	6.72	1.55
28	7:00	1.0	0.16	0.05	0.03	0.11	6.76	1.69
29	7:15	1.0	0.16	0.05	0.03	0.11	6.80	1.83
30	7:30	1.1	0.18	0.05	0.03	0.13	7.83	1.98
31	7:45	1.2	0.19	0.05	0.03	0.14	8.86	2.16
32	8:00	1.3	0.21	0.05	0.04	0.16	9.88	2.35
33	8:15	1.5	0.24	0.05	0.04	0.19	11.89	2.57
34	8:30	1.5	0.24	0.05	0.04	0.19	11.93	2.82
35	8:45	1.6	0.26	0.05	0.05	0.21	12.96	3.08
36	9:00	1.7	0.27	0.04	0.05	0.23	13.98	3.36
37	9:15	1.9	0.30	0.04	0.05	0.26	15.99	3.67
38	9:30	2.0	0.32	0.04	0.06	0.28	17.01	4.01
39	9:45	2.1	0.34	0.04	0.06	0.29	18.04	4.37
40	10:00	2.2	0.35	0.04	0.06	0.31	19.06	4.75
41	10:15	1.5	0.24	0.04	0.04	0.20	12.20	5.07
42	10:30	1.5	0.24	0.04	0.04	0.20	12.24	5.33
43	10:45	2.0	0.32	0.04	0.06	0.28	17.20	5.63
44	11:00	2.0	0.32	0.04	0.06	0.28	17.24	5.99
45	11:15	1.9	0.30	0.04	0.05	0.26	16.29	6.33
46	11:30	1.9	0.30	0.04	0.05	0.27	16.33	6.67
47	11:45	1.7	0.27	0.04	0.05	0.23	14.39	6.99
48	12:00	1.8	0.29	0.04	0.05	0.25	15.41	7.30
49	12:15	2.5	0.40	0.04	0.07	0.36	22.34	7.69
50	12:30	2.6	0.42	0.04	0.07	0.38	23.36	8.16
51	12:45	2.8	0.45	0.04	0.08	0.41	25.36	8.66
52	13:00	2.9	0.46	0.04	0.08	0.43	26.38	9.20
53	13:15	3.4	0.54	0.03	0.10	0.51	31.34	9.79
54	13:30	3.4	0.54	0.03	0.10	0.51	31.37	10.44
55	13:45	2.3	0.37	0.03	0.07	0.33	20.57	10.98
56	14:00	2.3	0.37	0.03	0.07	0.33	20.60	11.40
57	14:15	2.7	0.43	0.03	0.08	0.40	24.57	11.87
58	14:30	2.6	0.42	0.03	0.07	0.38	23.62	12.37
59	14:45	2.6	0.42	0.03	0.07	0.38	23.65	12.85
60	15:00	2.5	0.40	0.03	0.07	0.37	22.69	13.33
61	15:15	2.4	0.38	0.03	0.07	0.35	21.74	13.79
62	15:30	2.3	0.37	0.03	0.07	0.34	20.78	14.23
63	15:45	1.9	0.30	0.03	0.05	0.27	16.87	14.62
64	16:00	1.9	0.30	0.03	0.05	0.27	16.90	14.97
65	16:15	0.4	0.06	0.03	0.01	0.03	2.15	15.17
66	16:30	0.4	0.06	0.03	0.01	0.04	2.18	15.21
67	16:45	0.3	0.05	0.03	0.01	0.02	1.22	15.25
68	17:00	0.3	0.05	0.03	0.01	0.02	1.25	15.27
69	17:15	0.5	0.08	0.03	0.01	0.05	3.24	15.32
70	17:30	0.5	0.08	0.03	0.01	0.05	3.27	15.39
71	17:45	0.5	0.08	0.03	0.01	0.05	3.29	15.45
72	18:00	0.4	0.06	0.03	0.01	0.04	2.33	15.51
73	18:15	0.4	0.06	0.03	0.01	0.04	2.36	15.56
74	18:30	0.4	0.06	0.03	0.01	0.04	2.38	15.61
75	18:45	0.3	0.05	0.02	0.01	0.02	1.42	15.65
76	19:00	0.2	0.03	0.02	0.01	0.01	0.46	15.67
77	19:15	0.3	0.05	0.02	0.01	0.02	1.46	15.69
78	19:30	0.4	0.06	0.02	0.01	0.04	2.47	15.73
79	19:45	0.3	0.05	0.02	0.01	0.02	1.50	15.77
80	20:00	0.2	0.03	0.02	0.01	0.01	0.54	15.79
81	20:15	0.3	0.05	0.02	0.01	0.03	1.54	15.81
82	20:30	0.3	0.05	0.02	0.01	0.03	1.56	15.84
83	20:45	0.3	0.05	0.02	0.01	0.03	1.58	15.88
84	21:00	0.2	0.03	0.02	0.01	0.01	0.61	15.90
85	21:15	0.3	0.05	0.02	0.01	0.03	1.61	15.92
86	21:30	0.2	0.03	0.02	0.01	0.01	0.64	15.94
87	21:45	0.3	0.05	0.02	0.01	0.03	1.64	15.97
88	22:00	0.2	0.03	0.02	0.01	0.01	0.67	15.99
89	22:15	0.3	0.05	0.02	0.01	0.03	1.67	16.02
90	22:30	0.2	0.03	0.02	0.01	0.01	0.69	16.04
91	22:45	0.2	0.03	0.02	0.01	0.01	0.70	16.05
92	23:00	0.2	0.03	0.02	0.01	0.01	0.71	16.07
93	23:15	0.2	0.03	0.02	0.01	0.01	0.72	16.08
94	23:30	0.2	0.03	0.02	0.01	0.01	0.73	16.10
95	23:45	0.2	0.03	0.02	0.01	0.01	0.74	16.11
96	0:00	0.2	0.03	0.02	0.01	0.01	0.74	16.13

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	2.6
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08
Fm	(in/hr)	0.04
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.13	0.00	0.02	1.05	0.01
2	0:30	0.3	0.03	0.13	0.01	0.03	1.57	0.04
3	0:45	0.3	0.03	0.13	0.01	0.03	1.57	0.07
4	1:00	0.4	0.04	0.13	0.01	0.03	2.10	0.11
5	1:15	0.3	0.03	0.13	0.01	0.03	1.57	0.15
6	1:30	0.3	0.03	0.13	0.01	0.03	1.57	0.18
7	1:45	0.3	0.03	0.13	0.01	0.03	1.57	0.21
8	2:00	0.4	0.04	0.12	0.01	0.03	2.10	0.25
9	2:15	0.4	0.04	0.12	0.01	0.03	2.10	0.29
10	2:30	0.4	0.04	0.12	0.01	0.03	2.10	0.34
11	2:45	0.5	0.05	0.12	0.01	0.04	2.62	0.38
12	3:00	0.5	0.05	0.12	0.01	0.04	2.62	0.44
13	3:15	0.5	0.05	0.12	0.01	0.04	2.62	0.49
14	3:30	0.5	0.05	0.11	0.01	0.04	2.62	0.55
15	3:45	0.5	0.05	0.11	0.01	0.04	2.62	0.60
16	4:00	0.6	0.06	0.11	0.01	0.05	3.15	0.66
17	4:15	0.6	0.06	0.11	0.01	0.05	3.15	0.73
18	4:30	0.7	0.07	0.11	0.01	0.06	3.67	0.80
19	4:45	0.7	0.07	0.11	0.01	0.06	3.67	0.87
20	5:00	0.8	0.08	0.11	0.01	0.07	4.20	0.95
21	5:15	0.6	0.06	0.10	0.01	0.05	3.15	1.03
22	5:30	0.7	0.07	0.10	0.01	0.06	3.67	1.10
23	5:45	0.8	0.08	0.10	0.01	0.07	4.20	1.18
24	6:00	0.8	0.08	0.10	0.01	0.07	4.20	1.27
25	6:15	0.9	0.09	0.10	0.02	0.08	4.72	1.36
26	6:30	0.9	0.09	0.10	0.02	0.08	4.72	1.46
27	6:45	1.0	0.10	0.10	0.02	0.01	0.44	1.51
28	7:00	1.0	0.10	0.10	0.02	0.01	0.52	1.52
29	7:15	1.0	0.10	0.09	0.02	0.01	0.60	1.53
30	7:30	1.1	0.11	0.09	0.02	0.02	1.32	1.55
31	7:45	1.2	0.12	0.09	0.02	0.03	2.04	1.59
32	8:00	1.3	0.14	0.09	0.02	0.04	2.76	1.64
33	8:15	1.5	0.16	0.09	0.03	0.07	4.12	1.71
34	8:30	1.5	0.16	0.09	0.03	0.07	4.19	1.79
35	8:45	1.6	0.17	0.09	0.03	0.08	4.91	1.89
36	9:00	1.7	0.18	0.09	0.03	0.09	5.62	2.00
37	9:15	1.9	0.20	0.08	0.04	0.11	6.98	2.13
38	9:30	2.0	0.21	0.08	0.04	0.12	7.69	2.28
39	9:45	2.1	0.22	0.08	0.04	0.14	8.41	2.45
40	10:00	2.2	0.23	0.08	0.04	0.15	9.12	2.63
41	10:15	1.5	0.16	0.08	0.03	0.08	4.71	2.77
42	10:30	1.5	0.16	0.08	0.03	0.08	4.78	2.87
43	10:45	2.0	0.21	0.08	0.04	0.13	8.05	3.00
44	11:00	2.0	0.21	0.08	0.04	0.13	8.12	3.17
45	11:15	1.9	0.20	0.07	0.04	0.12	7.55	3.33
46	11:30	1.9	0.20	0.07	0.04	0.12	7.62	3.49
47	11:45	1.7	0.18	0.07	0.03	0.10	6.40	3.63
48	12:00	1.8	0.19	0.07	0.03	0.12	7.11	3.77
49	12:15	2.5	0.26	0.07	0.05	0.19	11.66	3.96
50	12:30	2.6	0.27	0.07	0.05	0.20	12.36	4.21
51	12:45	2.8	0.29	0.07	0.05	0.22	13.71	4.48
52	13:00	2.9	0.30	0.07	0.05	0.23	14.41	4.77
53	13:15	3.4	0.35	0.07	0.06	0.29	17.67	5.10
54	13:30	3.4	0.35	0.07	0.06	0.29	17.74	5.47
55	13:45	2.3	0.24	0.06	0.04	0.17	10.76	5.76
56	14:00	2.3	0.24	0.06	0.04	0.18	10.82	5.99
57	14:15	2.7	0.28	0.06	0.05	0.22	13.44	6.24
58	14:30	2.6	0.27	0.06	0.05	0.21	12.86	6.51
59	14:45	2.6	0.27	0.06	0.05	0.21	12.91	6.78
60	15:00	2.5	0.26	0.06	0.05	0.20	12.33	7.04
61	15:15	2.4	0.25	0.06	0.04	0.19	11.75	7.28
62	15:30	2.3	0.24	0.06	0.04	0.18	11.16	7.52
63	15:45	1.9	0.20	0.06	0.04	0.14	8.66	7.73
64	16:00	1.9	0.20	0.06	0.04	0.14	8.71	7.91
65	16:15	0.4	0.04	0.06	0.01	0.03	2.10	8.02
66	16:30	0.4	0.04	0.05	0.01	0.03	2.10	8.06
67	16:45	0.3	0.03	0.05	0.01	0.03	1.57	8.10
68	17:00	0.3	0.03	0.05	0.01	0.03	1.57	8.13
69	17:15	0.5	0.05	0.05	0.01	0.00	0.00	8.15
70	17:30	0.5	0.05	0.05	0.01	0.00	0.05	8.15
71	17:45	0.5	0.05	0.05	0.01	0.00	0.10	8.15
72	18:00	0.4	0.04	0.05	0.01	0.03	2.10	8.17
73	18:15	0.4	0.04	0.05	0.01	0.03	2.10	8.22
74	18:30	0.4	0.04	0.05	0.01	0.03	2.10	8.26
75	18:45	0.3	0.03	0.05	0.01	0.03	1.57	8.30
76	19:00	0.2	0.02	0.05	0.00	0.02	1.05	8.32
77	19:15	0.3	0.03	0.05	0.01	0.03	1.57	8.35
78	19:30	0.4	0.04	0.05	0.01	0.03	2.10	8.39
79	19:45	0.3	0.03	0.04	0.01	0.03	1.57	8.43
80	20:00	0.2	0.02	0.04	0.00	0.02	1.05	8.45
81	20:15	0.3	0.03	0.04	0.01	0.03	1.57	8.48
82	20:30	0.3	0.03	0.04	0.01	0.03	1.57	8.51
83	20:45	0.3	0.03	0.04	0.01	0.03	1.57	8.55
84	21:00	0.2	0.02	0.04	0.00	0.02	1.05	8.57
85	21:15	0.3	0.03	0.04	0.01	0.03	1.57	8.60
86	21:30	0.2	0.02	0.04	0.00	0.02	1.05	8.63
87	21:45	0.3	0.03	0.04	0.01	0.03	1.57	8.65
88	22:00	0.2	0.02	0.04	0.00	0.02	1.05	8.68
89	22:15	0.3	0.03	0.04	0.01	0.03	1.57	8.71
90	22:30	0.2	0.02	0.04	0.00	0.02	1.05	8.74
91	22:45	0.2	0.02	0.04	0.00	0.02	1.05	8.76
92	23:00	0.2	0.02	0.04	0.00	0.02	1.05	8.78
93	23:15	0.2	0.02	0.04	0.00	0.02	1.05	8.80
94	23:30	0.2	0.02	0.04	0.00	0.02	1.05	8.82
95	23:45	0.2	0.02	0.04	0.00	0.02	1.05	8.84
96	0:00	0.2	0.02	0.04	0.00	0.02	1.05	8.87

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	2.2
AMC		I
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.20	0.00	0.01	0.89	0.01
2	0:30	0.3	0.03	0.20	0.00	0.02	1.33	0.03
3	0:45	0.3	0.03	0.20	0.00	0.02	1.33	0.06
4	1:00	0.4	0.04	0.19	0.01	0.03	1.78	0.09
5	1:15	0.3	0.03	0.19	0.00	0.02	1.33	0.12
6	1:30	0.3	0.03	0.19	0.00	0.02	1.33	0.15
7	1:45	0.3	0.03	0.19	0.00	0.02	1.33	0.18
8	2:00	0.4	0.04	0.19	0.01	0.03	1.78	0.21
9	2:15	0.4	0.04	0.18	0.01	0.03	1.78	0.25
10	2:30	0.4	0.04	0.18	0.01	0.03	1.78	0.28
11	2:45	0.5	0.04	0.18	0.01	0.04	2.22	0.33
12	3:00	0.5	0.04	0.18	0.01	0.04	2.22	0.37
13	3:15	0.5	0.04	0.17	0.01	0.04	2.22	0.42
14	3:30	0.5	0.04	0.17	0.01	0.04	2.22	0.46
15	3:45	0.5	0.04	0.17	0.01	0.04	2.22	0.51
16	4:00	0.6	0.05	0.17	0.01	0.04	2.66	0.56
17	4:15	0.6	0.05	0.17	0.01	0.04	2.66	0.61
18	4:30	0.7	0.06	0.16	0.01	0.05	3.11	0.67
19	4:45	0.7	0.06	0.16	0.01	0.05	3.11	0.74
20	5:00	0.8	0.07	0.16	0.01	0.06	3.55	0.81
21	5:15	0.6	0.05	0.16	0.01	0.04	2.66	0.87
22	5:30	0.7	0.06	0.16	0.01	0.05	3.11	0.93
23	5:45	0.8	0.07	0.15	0.01	0.06	3.55	1.00
24	6:00	0.8	0.07	0.15	0.01	0.06	3.55	1.07
25	6:15	0.9	0.08	0.15	0.01	0.06	4.00	1.15
26	6:30	0.9	0.08	0.15	0.01	0.06	4.00	1.23
27	6:45	1.0	0.09	0.15	0.02	0.07	4.44	1.32
28	7:00	1.0	0.09	0.14	0.02	0.07	4.44	1.41
29	7:15	1.0	0.09	0.14	0.02	0.07	4.44	1.50
30	7:30	1.1	0.10	0.14	0.02	0.08	4.89	1.60
31	7:45	1.2	0.11	0.14	0.02	0.09	5.33	1.71
32	8:00	1.3	0.11	0.14	0.02	0.09	5.77	1.82
33	8:15	1.5	0.13	0.13	0.02	0.11	6.66	1.95
34	8:30	1.5	0.13	0.13	0.02	0.00	0.01	2.02
35	8:45	1.6	0.14	0.13	0.03	0.01	0.67	2.03
36	9:00	1.7	0.15	0.13	0.03	0.02	1.32	2.05
37	9:15	1.9	0.17	0.13	0.03	0.04	2.52	2.09
38	9:30	2.0	0.18	0.12	0.03	0.05	3.17	2.14
39	9:45	2.1	0.18	0.12	0.03	0.06	3.82	2.22
40	10:00	2.2	0.19	0.12	0.03	0.07	4.47	2.30
41	10:15	1.5	0.13	0.12	0.02	0.01	0.79	2.36
42	10:30	1.5	0.13	0.12	0.02	0.01	0.89	2.37
43	10:45	2.0	0.18	0.12	0.03	0.06	3.71	2.42
44	11:00	2.0	0.18	0.11	0.03	0.06	3.81	2.50
45	11:15	1.9	0.17	0.11	0.03	0.05	3.37	2.57
46	11:30	1.9	0.17	0.11	0.03	0.06	3.47	2.64
47	11:45	1.7	0.15	0.11	0.03	0.04	2.49	2.71
48	12:00	1.8	0.16	0.11	0.03	0.05	3.13	2.76
49	12:15	2.5	0.22	0.11	0.04	0.11	7.02	2.87
50	12:30	2.6	0.23	0.10	0.04	0.12	7.66	3.02
51	12:45	2.8	0.25	0.10	0.04	0.14	8.84	3.19
52	13:00	2.9	0.26	0.10	0.05	0.15	9.48	3.38
53	13:15	3.4	0.30	0.10	0.05	0.20	12.28	3.61
54	13:30	3.4	0.30	0.10	0.05	0.20	12.38	3.86
55	13:45	2.3	0.20	0.10	0.04	0.11	6.51	4.06
56	14:00	2.3	0.20	0.10	0.04	0.11	6.60	4.19
57	14:15	2.7	0.24	0.09	0.04	0.14	8.86	4.35
58	14:30	2.6	0.23	0.09	0.04	0.14	8.40	4.53
59	14:45	2.6	0.23	0.09	0.04	0.14	8.49	4.70
60	15:00	2.5	0.22	0.09	0.04	0.13	8.03	4.87
61	15:15	2.4	0.21	0.09	0.04	0.12	7.58	5.04
62	15:30	2.3	0.20	0.09	0.04	0.12	7.12	5.19
63	15:45	1.9	0.17	0.09	0.03	0.08	5.03	5.31
64	16:00	1.9	0.17	0.08	0.03	0.08	5.11	5.42
65	16:15	0.4	0.04	0.08	0.01	0.03	1.78	5.49
66	16:30	0.4	0.04	0.08	0.01	0.03	1.78	5.53
67	16:45	0.3	0.03	0.08	0.00	0.02	1.33	5.56
68	17:00	0.3	0.03	0.08	0.00	0.02	1.33	5.58
69	17:15	0.5	0.04	0.08	0.01	0.04	2.22	5.62
70	17:30	0.5	0.04	0.08	0.01	0.04	2.22	5.67
71	17:45	0.5	0.04	0.08	0.01	0.04	2.22	5.71
72	18:00	0.4	0.04	0.07	0.01	0.03	1.78	5.75
73	18:15	0.4	0.04	0.07	0.01	0.03	1.78	5.79
74	18:30	0.4	0.04	0.07	0.01	0.03	1.78	5.83
75	18:45	0.3	0.03	0.07	0.00	0.02	1.33	5.86
76	19:00	0.2	0.02	0.07	0.00	0.01	0.89	5.88
77	19:15	0.3	0.03	0.07	0.00	0.02	1.33	5.91
78	19:30	0.4	0.04	0.07	0.01	0.03	1.78	5.94
79	19:45	0.3	0.03	0.07	0.00	0.02	1.33	5.97
80	20:00	0.2	0.02	0.07	0.00	0.01	0.89	5.99
81	20:15	0.3	0.03	0.07	0.00	0.02	1.33	6.02
82	20:30	0.3	0.03	0.06	0.00	0.02	1.33	6.04
83	20:45	0.3	0.03	0.06	0.00	0.02	1.33	6.07
84	21:00	0.2	0.02	0.06	0.00	0.01	0.89	6.09
85	21:15	0.3	0.03	0.06	0.00	0.02	1.33	6.12
86	21:30	0.2	0.02	0.06	0.00	0.01	0.89	6.14
87	21:45	0.3	0.03	0.06	0.00	0.02	1.33	6.16
88	22:00	0.2	0.02	0.06	0.00	0.01	0.89	6.19
89	22:15	0.3	0.03	0.06	0.00	0.02	1.33	6.21
90	22:30	0.2	0.02	0.06	0.00	0.01	0.89	6.23
91	22:45	0.2	0.02	0.06	0.00	0.01	0.89	6.25
92	23:00	0.2	0.02	0.06	0.00	0.01	0.89	6.27
93	23:15	0.2	0.02	0.06	0.00	0.01	0.89	6.29
94	23:30	0.2	0.02	0.06	0.00	0.01	0.89	6.31
95	23:45	0.2	0.02	0.06	0.00	0.01	0.89	6.32
96	0:00	0.2	0.02	0.06	0.00	0.01	0.89	6.34

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	1.6
AMC		I
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.20	0.00	0.01	0.65	0.01
2	0:30	0.3	0.02	0.20	0.00	0.02	0.97	0.02
3	0:45	0.3	0.02	0.20	0.00	0.02	0.97	0.04
4	1:00	0.4	0.03	0.19	0.00	0.02	1.29	0.07
5	1:15	0.3	0.02	0.19	0.00	0.02	0.97	0.09
6	1:30	0.3	0.02	0.19	0.00	0.02	0.97	0.11
7	1:45	0.3	0.02	0.19	0.00	0.02	0.97	0.13
8	2:00	0.4	0.03	0.19	0.00	0.02	1.29	0.15
9	2:15	0.4	0.03	0.18	0.00	0.02	1.29	0.18
10	2:30	0.4	0.03	0.18	0.00	0.02	1.29	0.21
11	2:45	0.5	0.03	0.18	0.01	0.03	1.62	0.24
12	3:00	0.5	0.03	0.18	0.01	0.03	1.62	0.27
13	3:15	0.5	0.03	0.17	0.01	0.03	1.62	0.30
14	3:30	0.5	0.03	0.17	0.01	0.03	1.62	0.34
15	3:45	0.5	0.03	0.17	0.01	0.03	1.62	0.37
16	4:00	0.6	0.04	0.17	0.01	0.03	1.94	0.41
17	4:15	0.6	0.04	0.17	0.01	0.03	1.94	0.45
18	4:30	0.7	0.04	0.16	0.01	0.04	2.26	0.49
19	4:45	0.7	0.04	0.16	0.01	0.04	2.26	0.54
20	5:00	0.8	0.05	0.16	0.01	0.04	2.58	0.59
21	5:15	0.6	0.04	0.16	0.01	0.03	1.94	0.63
22	5:30	0.7	0.04	0.16	0.01	0.04	2.26	0.68
23	5:45	0.8	0.05	0.15	0.01	0.04	2.58	0.73
24	6:00	0.8	0.05	0.15	0.01	0.04	2.58	0.78
25	6:15	0.9	0.06	0.15	0.01	0.05	2.91	0.84
26	6:30	0.9	0.06	0.15	0.01	0.05	2.91	0.90
27	6:45	1.0	0.06	0.15	0.01	0.05	3.23	0.96
28	7:00	1.0	0.06	0.14	0.01	0.05	3.23	1.03
29	7:15	1.0	0.06	0.14	0.01	0.05	3.23	1.09
30	7:30	1.1	0.07	0.14	0.01	0.06	3.55	1.16
31	7:45	1.2	0.08	0.14	0.01	0.06	3.88	1.24
32	8:00	1.3	0.08	0.14	0.01	0.07	4.20	1.32
33	8:15	1.5	0.10	0.13	0.02	0.08	4.85	1.42
34	8:30	1.5	0.10	0.13	0.02	0.08	4.85	1.52
35	8:45	1.6	0.10	0.13	0.02	0.08	5.17	1.62
36	9:00	1.7	0.11	0.13	0.02	0.09	5.49	1.73
37	9:15	1.9	0.12	0.13	0.02	0.10	6.14	1.85
38	9:30	2.0	0.13	0.12	0.02	0.00	0.21	1.92
39	9:45	2.1	0.13	0.12	0.02	0.01	0.72	1.93
40	10:00	2.2	0.14	0.12	0.03	0.02	1.22	1.95
41	10:15	1.5	0.10	0.12	0.02	0.08	4.85	2.01
42	10:30	1.5	0.10	0.12	0.02	0.08	4.85	2.11
43	10:45	2.0	0.13	0.12	0.02	0.01	0.75	2.17
44	11:00	2.0	0.13	0.11	0.02	0.01	0.86	2.18
45	11:15	1.9	0.12	0.11	0.02	0.01	0.57	2.20
46	11:30	1.9	0.12	0.11	0.02	0.01	0.67	2.21
47	11:45	1.7	0.11	0.11	0.02	0.09	5.49	2.28
48	12:00	1.8	0.12	0.11	0.02	0.01	0.47	2.34
49	12:15	2.5	0.16	0.11	0.03	0.05	3.33	2.38
50	12:30	2.6	0.17	0.10	0.03	0.06	3.82	2.45
51	12:45	2.8	0.18	0.10	0.03	0.08	4.71	2.54
52	13:00	2.9	0.19	0.10	0.03	0.08	5.20	2.64
53	13:15	3.4	0.22	0.10	0.04	0.12	7.26	2.77
54	13:30	3.4	0.22	0.10	0.04	0.12	7.35	2.92
55	13:45	2.3	0.15	0.10	0.03	0.05	3.11	3.03
56	14:00	2.3	0.15	0.10	0.03	0.05	3.20	3.09
57	14:15	2.7	0.17	0.09	0.03	0.08	4.87	3.18
58	14:30	2.6	0.17	0.09	0.03	0.07	4.56	3.27
59	14:45	2.6	0.17	0.09	0.03	0.08	4.65	3.37
60	15:00	2.5	0.16	0.09	0.03	0.07	4.34	3.46
61	15:15	2.4	0.15	0.09	0.03	0.07	4.03	3.55
62	15:30	2.3	0.15	0.09	0.03	0.06	3.72	3.63
63	15:45	1.9	0.12	0.09	0.02	0.04	2.22	3.69
64	16:00	1.9	0.12	0.08	0.02	0.04	2.31	3.74
65	16:15	0.4	0.03	0.08	0.00	0.02	1.29	3.77
66	16:30	0.4	0.03	0.08	0.00	0.02	1.29	3.80
67	16:45	0.3	0.02	0.08	0.00	0.02	0.97	3.82
68	17:00	0.3	0.02	0.08	0.00	0.02	0.97	3.84
69	17:15	0.5	0.03	0.08	0.01	0.03	1.62	3.87
70	17:30	0.5	0.03	0.08	0.01	0.03	1.62	3.90
71	17:45	0.5	0.03	0.08	0.01	0.03	1.62	3.94
72	18:00	0.4	0.03	0.07	0.00	0.02	1.29	3.97
73	18:15	0.4	0.03	0.07	0.00	0.02	1.29	3.99
74	18:30	0.4	0.03	0.07	0.00	0.02	1.29	4.02
75	18:45	0.3	0.02	0.07	0.00	0.02	0.97	4.04
76	19:00	0.2	0.01	0.07	0.00	0.01	0.65	4.06
77	19:15	0.3	0.02	0.07	0.00	0.02	0.97	4.08
78	19:30	0.4	0.03	0.07	0.00	0.02	1.29	4.10
79	19:45	0.3	0.02	0.07	0.00	0.02	0.97	4.12
80	20:00	0.2	0.01	0.07	0.00	0.01	0.65	4.14
81	20:15	0.3	0.02	0.07	0.00	0.02	0.97	4.16
82	20:30	0.3	0.02	0.06	0.00	0.02	0.97	4.18
83	20:45	0.3	0.02	0.06	0.00	0.02	0.97	4.20
84	21:00	0.2	0.01	0.06	0.00	0.01	0.65	4.21
85	21:15	0.3	0.02	0.06	0.00	0.02	0.97	4.23
86	21:30	0.2	0.01	0.06	0.00	0.01	0.65	4.25
87	21:45	0.3	0.02	0.06	0.00	0.02	0.97	4.26
88	22:00	0.2	0.01	0.06	0.00	0.01	0.65	4.28
89	22:15	0.3	0.02	0.06	0.00	0.02	0.97	4.30
90	22:30	0.2	0.01	0.06	0.00	0.01	0.65	4.31
91	22:45	0.2	0.01	0.06	0.00	0.01	0.65	4.33
92	23:00	0.2	0.01	0.06	0.00	0.01	0.65	4.34
93	23:15	0.2	0.01	0.06	0.00	0.01	0.65	4.35
94	23:30	0.2	0.01	0.06	0.00	0.01	0.65	4.37
95	23:45	0.2	0.01	0.06	0.00	0.01	0.65	4.38
96	0:00	0.2	0.01	0.06	0.00	0.01	0.65	4.40

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	2.5
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.04	0.03	0.11	6.78	0.02
2	0:10	0.6	0.18	0.04	0.03	0.14	8.62	0.08
3	0:15	0.6	0.18	0.04	0.03	0.14	8.62	0.14
4	0:20	0.6	0.18	0.04	0.03	0.14	8.62	0.20
5	0:25	0.6	0.18	0.04	0.03	0.14	8.62	0.25
6	0:30	0.7	0.21	0.04	0.04	0.17	10.47	0.32
7	0:35	0.7	0.21	0.04	0.04	0.17	10.47	0.39
8	0:40	0.7	0.21	0.04	0.04	0.17	10.47	0.46
9	0:45	0.7	0.21	0.04	0.04	0.17	10.47	0.54
10	0:50	0.7	0.21	0.04	0.04	0.17	10.47	0.61
11	0:55	0.7	0.21	0.04	0.04	0.17	10.47	0.68
12	1:00	0.8	0.24	0.04	0.04	0.20	12.32	0.76
13	1:05	0.8	0.24	0.04	0.04	0.20	12.32	0.84
14	1:10	0.8	0.24	0.04	0.04	0.20	12.32	0.93
15	1:15	0.8	0.24	0.04	0.04	0.20	12.32	1.01
16	1:20	0.8	0.24	0.04	0.04	0.20	12.32	1.10
17	1:25	0.8	0.24	0.04	0.04	0.20	12.32	1.18
18	1:30	0.8	0.24	0.04	0.04	0.20	12.32	1.27
19	1:35	0.8	0.24	0.04	0.04	0.20	12.32	1.35
20	1:40	0.8	0.24	0.04	0.04	0.20	12.32	1.44
21	1:45	0.8	0.24	0.04	0.04	0.20	12.32	1.52
22	1:50	0.8	0.24	0.04	0.04	0.20	12.32	1.61
23	1:55	0.8	0.24	0.04	0.04	0.20	12.32	1.69
24	2:00	0.9	0.27	0.04	0.05	0.23	14.16	1.78
25	2:05	0.8	0.24	0.04	0.04	0.20	12.32	1.87
26	2:10	0.9	0.27	0.04	0.05	0.23	14.16	1.97
27	2:15	0.9	0.27	0.04	0.05	0.23	14.16	2.06
28	2:20	0.9	0.27	0.04	0.05	0.23	14.16	2.16
29	2:25	0.9	0.27	0.04	0.05	0.23	14.16	2.26
30	2:30	0.9	0.27	0.04	0.05	0.23	14.16	2.36
31	2:35	0.9	0.27	0.04	0.05	0.23	14.16	2.45
32	2:40	0.9	0.27	0.04	0.05	0.23	14.16	2.55
33	2:45	1.0	0.30	0.04	0.05	0.26	16.01	2.65
34	2:50	1.0	0.30	0.04	0.05	0.26	16.01	2.77
35	2:55	1.0	0.30	0.04	0.05	0.26	16.01	2.88
36	3:00	1.0	0.30	0.04	0.05	0.26	16.01	2.99
37	3:05	1.0	0.30	0.04	0.05	0.26	16.01	3.10
38	3:10	1.1	0.33	0.04	0.06	0.29	17.86	3.21
39	3:15	1.1	0.33	0.04	0.06	0.29	17.86	3.34
40	3:20	1.1	0.33	0.04	0.06	0.29	17.86	3.46
41	3:25	1.2	0.36	0.04	0.06	0.32	19.70	3.59
42	3:30	1.3	0.39	0.04	0.07	0.35	21.55	3.73
43	3:35	1.4	0.42	0.04	0.08	0.38	23.40	3.88
44	3:40	1.4	0.42	0.04	0.08	0.38	23.40	4.05
45	3:45	1.5	0.45	0.04	0.08	0.41	25.24	4.21
46	3:50	1.5	0.45	0.04	0.08	0.41	25.24	4.39
47	3:55	1.6	0.48	0.04	0.09	0.44	27.09	4.57
48	4:00	1.6	0.48	0.04	0.09	0.44	27.09	4.75
49	4:05	1.7	0.51	0.04	0.09	0.47	28.93	4.95
50	4:10	1.8	0.54	0.04	0.10	0.50	30.78	5.15
51	4:15	1.9	0.57	0.04	0.10	0.53	32.63	5.37
52	4:20	2.0	0.60	0.04	0.11	0.56	34.47	5.60
53	4:25	2.1	0.63	0.04	0.11	0.59	36.32	5.85
54	4:30	2.1	0.63	0.04	0.11	0.59	36.32	6.10
55	4:35	2.2	0.66	0.04	0.12	0.62	38.17	6.35
56	4:40	2.3	0.69	0.04	0.12	0.65	40.01	6.62
57	4:45	2.4	0.72	0.04	0.13	0.68	41.86	6.90
58	4:50	2.4	0.72	0.04	0.13	0.68	41.86	7.19
59	4:55	2.5	0.75	0.04	0.14	0.71	43.71	7.49
60	5:00	2.6	0.78	0.04	0.14	0.74	45.55	7.79
61	5:05	3.1	0.93	0.04	0.17	0.89	54.79	8.14
62	5:10	3.6	1.08	0.04	0.19	1.04	64.02	8.55
63	5:15	3.9	1.17	0.04	0.21	1.13	69.56	9.01
64	5:20	4.2	1.26	0.04	0.23	1.22	75.10	9.51
65	5:25	4.7	1.41	0.04	0.25	1.37	84.33	10.06
66	5:30	5.6	1.68	0.04	0.30	1.64	100.95	10.69
67	5:35	1.9	0.57	0.04	0.10	0.53	32.63	11.15
68	5:40	0.9	0.27	0.04	0.05	0.23	14.16	11.31
69	5:45	0.6	0.18	0.04	0.03	0.14	8.62	11.39
70	5:50	0.5	0.15	0.04	0.03	0.11	6.78	11.45
71	5:55	0.3	0.09	0.04	0.02	0.05	3.08	11.48
72	6:00	0.2	0.06	0.04	0.01	0.02	1.24	11.49

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	1.7
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.08	0.02	0.03	1.60	0.01
2	0:10	0.6	0.12	0.08	0.02	0.05	2.86	0.02
3	0:15	0.6	0.12	0.08	0.02	0.05	2.86	0.04
4	0:20	0.6	0.12	0.08	0.02	0.05	2.86	0.06
5	0:25	0.6	0.12	0.08	0.02	0.05	2.86	0.08
6	0:30	0.7	0.14	0.08	0.03	0.07	4.11	0.10
7	0:35	0.7	0.14	0.08	0.03	0.07	4.11	0.13
8	0:40	0.7	0.14	0.08	0.03	0.07	4.11	0.16
9	0:45	0.7	0.14	0.08	0.03	0.07	4.11	0.19
10	0:50	0.7	0.14	0.08	0.03	0.07	4.11	0.22
11	0:55	0.7	0.14	0.08	0.03	0.07	4.11	0.25
12	1:00	0.8	0.16	0.08	0.03	0.09	5.37	0.28
13	1:05	0.8	0.16	0.08	0.03	0.09	5.37	0.32
14	1:10	0.8	0.16	0.08	0.03	0.09	5.37	0.35
15	1:15	0.8	0.16	0.08	0.03	0.09	5.37	0.39
16	1:20	0.8	0.16	0.08	0.03	0.09	5.37	0.43
17	1:25	0.8	0.16	0.08	0.03	0.09	5.37	0.46
18	1:30	0.8	0.16	0.08	0.03	0.09	5.37	0.50
19	1:35	0.8	0.16	0.08	0.03	0.09	5.37	0.54
20	1:40	0.8	0.16	0.08	0.03	0.09	5.37	0.57
21	1:45	0.8	0.16	0.08	0.03	0.09	5.37	0.61
22	1:50	0.8	0.16	0.08	0.03	0.09	5.37	0.65
23	1:55	0.8	0.16	0.08	0.03	0.09	5.37	0.68
24	2:00	0.9	0.18	0.08	0.03	0.11	6.62	0.73
25	2:05	0.8	0.16	0.08	0.03	0.09	5.37	0.77
26	2:10	0.9	0.18	0.08	0.03	0.11	6.62	0.81
27	2:15	0.9	0.18	0.08	0.03	0.11	6.62	0.85
28	2:20	0.9	0.18	0.08	0.03	0.11	6.62	0.90
29	2:25	0.9	0.18	0.08	0.03	0.11	6.62	0.95
30	2:30	0.9	0.18	0.08	0.03	0.11	6.62	0.99
31	2:35	0.9	0.18	0.08	0.03	0.11	6.62	1.04
32	2:40	0.9	0.18	0.08	0.03	0.11	6.62	1.08
33	2:45	1.0	0.20	0.08	0.04	0.13	7.88	1.13
34	2:50	1.0	0.20	0.08	0.04	0.13	7.88	1.19
35	2:55	1.0	0.20	0.08	0.04	0.13	7.88	1.24
36	3:00	1.0	0.20	0.08	0.04	0.13	7.88	1.29
37	3:05	1.0	0.20	0.08	0.04	0.13	7.88	1.35
38	3:10	1.1	0.22	0.08	0.04	0.15	9.13	1.41
39	3:15	1.1	0.22	0.08	0.04	0.15	9.13	1.47
40	3:20	1.1	0.22	0.08	0.04	0.15	9.13	1.53
41	3:25	1.2	0.24	0.08	0.04	0.17	10.39	1.60
42	3:30	1.3	0.27	0.08	0.05	0.19	11.65	1.68
43	3:35	1.4	0.29	0.08	0.05	0.21	12.90	1.76
44	3:40	1.4	0.29	0.08	0.05	0.21	12.90	1.85
45	3:45	1.5	0.31	0.08	0.06	0.23	14.16	1.94
46	3:50	1.5	0.31	0.08	0.06	0.23	14.16	2.04
47	3:55	1.6	0.33	0.08	0.06	0.25	15.41	2.14
48	4:00	1.6	0.33	0.08	0.06	0.25	15.41	2.25
49	4:05	1.7	0.35	0.08	0.06	0.27	16.67	2.36
50	4:10	1.8	0.37	0.08	0.07	0.29	17.92	2.48
51	4:15	1.9	0.39	0.08	0.07	0.31	19.18	2.61
52	4:20	2.0	0.41	0.08	0.07	0.33	20.43	2.74
53	4:25	2.1	0.43	0.08	0.08	0.35	21.69	2.89
54	4:30	2.1	0.43	0.08	0.08	0.35	21.69	3.04
55	4:35	2.2	0.45	0.08	0.08	0.37	22.95	3.19
56	4:40	2.3	0.47	0.08	0.08	0.39	24.20	3.35
57	4:45	2.4	0.49	0.08	0.09	0.41	25.46	3.52
58	4:50	2.4	0.49	0.08	0.09	0.41	25.46	3.70
59	4:55	2.5	0.51	0.08	0.09	0.43	26.71	3.88
60	5:00	2.6	0.53	0.08	0.10	0.45	27.97	4.07
61	5:05	3.1	0.63	0.08	0.11	0.56	34.25	4.28
62	5:10	3.6	0.73	0.08	0.13	0.66	40.52	4.54
63	5:15	3.9	0.80	0.08	0.14	0.72	44.29	4.83
64	5:20	4.2	0.86	0.08	0.15	0.78	48.06	5.15
65	5:25	4.7	0.96	0.08	0.17	0.88	54.34	5.50
66	5:30	5.6	1.14	0.08	0.21	1.07	65.64	5.91
67	5:35	1.9	0.39	0.08	0.07	0.31	19.18	6.21
68	5:40	0.9	0.18	0.08	0.03	0.11	6.62	6.30
69	5:45	0.6	0.12	0.08	0.02	0.05	2.86	6.33
70	5:50	0.5	0.10	0.08	0.02	0.03	1.60	6.34
71	5:55	0.3	0.06	0.08	0.01	0.05	3.09	6.36
72	6:00	0.2	0.04	0.08	0.01	0.03	2.06	6.38

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	1.4
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.11	0.02	0.07	4.24	0.01
2	0:10	0.6	0.10	0.11	0.02	0.08	5.09	0.05
3	0:15	0.6	0.10	0.11	0.02	0.08	5.09	0.08
4	0:20	0.6	0.10	0.11	0.02	0.08	5.09	0.12
5	0:25	0.6	0.10	0.11	0.02	0.08	5.09	0.15
6	0:30	0.7	0.12	0.11	0.02	0.00	0.22	0.17
7	0:35	0.7	0.12	0.11	0.02	0.00	0.22	0.17
8	0:40	0.7	0.12	0.11	0.02	0.00	0.22	0.17
9	0:45	0.7	0.12	0.11	0.02	0.00	0.22	0.17
10	0:50	0.7	0.12	0.11	0.02	0.00	0.22	0.18
11	0:55	0.7	0.12	0.11	0.02	0.00	0.22	0.18
12	1:00	0.8	0.13	0.11	0.02	0.02	1.26	0.18
13	1:05	0.8	0.13	0.11	0.02	0.02	1.26	0.19
14	1:10	0.8	0.13	0.11	0.02	0.02	1.26	0.20
15	1:15	0.8	0.13	0.11	0.02	0.02	1.26	0.21
16	1:20	0.8	0.13	0.11	0.02	0.02	1.26	0.22
17	1:25	0.8	0.13	0.11	0.02	0.02	1.26	0.23
18	1:30	0.8	0.13	0.11	0.02	0.02	1.26	0.23
19	1:35	0.8	0.13	0.11	0.02	0.02	1.26	0.24
20	1:40	0.8	0.13	0.11	0.02	0.02	1.26	0.25
21	1:45	0.8	0.13	0.11	0.02	0.02	1.26	0.26
22	1:50	0.8	0.13	0.11	0.02	0.02	1.26	0.27
23	1:55	0.8	0.13	0.11	0.02	0.02	1.26	0.28
24	2:00	0.9	0.15	0.11	0.03	0.04	2.29	0.29
25	2:05	0.8	0.13	0.11	0.02	0.02	1.26	0.30
26	2:10	0.9	0.15	0.11	0.03	0.04	2.29	0.31
27	2:15	0.9	0.15	0.11	0.03	0.04	2.29	0.33
28	2:20	0.9	0.15	0.11	0.03	0.04	2.29	0.35
29	2:25	0.9	0.15	0.11	0.03	0.04	2.29	0.36
30	2:30	0.9	0.15	0.11	0.03	0.04	2.29	0.38
31	2:35	0.9	0.15	0.11	0.03	0.04	2.29	0.39
32	2:40	0.9	0.15	0.11	0.03	0.04	2.29	0.41
33	2:45	1.0	0.17	0.11	0.03	0.05	3.32	0.43
34	2:50	1.0	0.17	0.11	0.03	0.05	3.32	0.45
35	2:55	1.0	0.17	0.11	0.03	0.05	3.32	0.47
36	3:00	1.0	0.17	0.11	0.03	0.05	3.32	0.50
37	3:05	1.0	0.17	0.11	0.03	0.05	3.32	0.52
38	3:10	1.1	0.18	0.11	0.03	0.07	4.36	0.55
39	3:15	1.1	0.18	0.11	0.03	0.07	4.36	0.58
40	3:20	1.1	0.18	0.11	0.03	0.07	4.36	0.61
41	3:25	1.2	0.20	0.11	0.04	0.09	5.39	0.64
42	3:30	1.3	0.22	0.11	0.04	0.10	6.43	0.68
43	3:35	1.4	0.24	0.11	0.04	0.12	7.46	0.73
44	3:40	1.4	0.24	0.11	0.04	0.12	7.46	0.78
45	3:45	1.5	0.25	0.11	0.05	0.14	8.49	0.83
46	3:50	1.5	0.25	0.11	0.05	0.14	8.49	0.89
47	3:55	1.6	0.27	0.11	0.05	0.15	9.53	0.96
48	4:00	1.6	0.27	0.11	0.05	0.15	9.53	1.02
49	4:05	1.7	0.29	0.11	0.05	0.17	10.56	1.09
50	4:10	1.8	0.30	0.11	0.05	0.19	11.60	1.17
51	4:15	1.9	0.32	0.11	0.06	0.21	12.63	1.25
52	4:20	2.0	0.34	0.11	0.06	0.22	13.66	1.34
53	4:25	2.1	0.35	0.11	0.06	0.24	14.70	1.44
54	4:30	2.1	0.35	0.11	0.06	0.24	14.70	1.54
55	4:35	2.2	0.37	0.11	0.07	0.26	15.73	1.64
56	4:40	2.3	0.39	0.11	0.07	0.27	16.77	1.76
57	4:45	2.4	0.40	0.11	0.07	0.29	17.80	1.88
58	4:50	2.4	0.40	0.11	0.07	0.29	17.80	2.00
59	4:55	2.5	0.42	0.11	0.08	0.31	18.83	2.12
60	5:00	2.6	0.44	0.11	0.08	0.32	19.87	2.26
61	5:05	3.1	0.52	0.11	0.09	0.41	25.04	2.41
62	5:10	3.6	0.60	0.11	0.11	0.49	30.21	2.60
63	5:15	3.9	0.66	0.11	0.12	0.54	33.31	2.82
64	5:20	4.2	0.71	0.11	0.13	0.59	36.41	3.06
65	5:25	4.7	0.79	0.11	0.14	0.68	41.58	3.33
66	5:30	5.6	0.94	0.11	0.17	0.83	50.89	3.65
67	5:35	1.9	0.32	0.11	0.06	0.21	12.63	3.87
68	5:40	0.9	0.15	0.11	0.03	0.04	2.29	3.92
69	5:45	0.6	0.10	0.11	0.02	0.08	5.09	3.94
70	5:50	0.5	0.08	0.11	0.02	0.07	4.24	3.98
71	5:55	0.3	0.05	0.11	0.01	0.04	2.54	4.00
72	6:00	0.2	0.03	0.11	0.01	0.03	1.70	4.01

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	1.0
AMC		I
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.11	0.01	0.05	3.03	0.01
2	0:10	0.6	0.07	0.11	0.01	0.06	3.63	0.03
3	0:15	0.6	0.07	0.11	0.01	0.06	3.63	0.06
4	0:20	0.6	0.07	0.11	0.01	0.06	3.63	0.08
5	0:25	0.6	0.07	0.11	0.01	0.06	3.63	0.11
6	0:30	0.7	0.08	0.11	0.02	0.07	4.24	0.14
7	0:35	0.7	0.08	0.11	0.02	0.07	4.24	0.16
8	0:40	0.7	0.08	0.11	0.02	0.07	4.24	0.19
9	0:45	0.7	0.08	0.11	0.02	0.07	4.24	0.22
10	0:50	0.7	0.08	0.11	0.02	0.07	4.24	0.25
11	0:55	0.7	0.08	0.11	0.02	0.07	4.24	0.28
12	1:00	0.8	0.10	0.11	0.02	0.08	4.85	0.31
13	1:05	0.8	0.10	0.11	0.02	0.08	4.85	0.35
14	1:10	0.8	0.10	0.11	0.02	0.08	4.85	0.38
15	1:15	0.8	0.10	0.11	0.02	0.08	4.85	0.41
16	1:20	0.8	0.10	0.11	0.02	0.08	4.85	0.45
17	1:25	0.8	0.10	0.11	0.02	0.08	4.85	0.48
18	1:30	0.8	0.10	0.11	0.02	0.08	4.85	0.51
19	1:35	0.8	0.10	0.11	0.02	0.08	4.85	0.55
20	1:40	0.8	0.10	0.11	0.02	0.08	4.85	0.58
21	1:45	0.8	0.10	0.11	0.02	0.08	4.85	0.61
22	1:50	0.8	0.10	0.11	0.02	0.08	4.85	0.65
23	1:55	0.8	0.10	0.11	0.02	0.08	4.85	0.68
24	2:00	0.9	0.11	0.11	0.02	0.09	5.45	0.72
25	2:05	0.8	0.10	0.11	0.02	0.08	4.85	0.75
26	2:10	0.9	0.11	0.11	0.02	0.09	5.45	0.79
27	2:15	0.9	0.11	0.11	0.02	0.09	5.45	0.82
28	2:20	0.9	0.11	0.11	0.02	0.09	5.45	0.86
29	2:25	0.9	0.11	0.11	0.02	0.09	5.45	0.90
30	2:30	0.9	0.11	0.11	0.02	0.09	5.45	0.94
31	2:35	0.9	0.11	0.11	0.02	0.09	5.45	0.97
32	2:40	0.9	0.11	0.11	0.02	0.09	5.45	1.01
33	2:45	1.0	0.12	0.11	0.02	0.01	0.37	1.03
34	2:50	1.0	0.12	0.11	0.02	0.01	0.37	1.03
35	2:55	1.0	0.12	0.11	0.02	0.01	0.37	1.04
36	3:00	1.0	0.12	0.11	0.02	0.01	0.37	1.04
37	3:05	1.0	0.12	0.11	0.02	0.01	0.37	1.04
38	3:10	1.1	0.13	0.11	0.02	0.02	1.11	1.05
39	3:15	1.1	0.13	0.11	0.02	0.02	1.11	1.05
40	3:20	1.1	0.13	0.11	0.02	0.02	1.11	1.06
41	3:25	1.2	0.14	0.11	0.03	0.03	1.85	1.07
42	3:30	1.3	0.16	0.11	0.03	0.04	2.59	1.09
43	3:35	1.4	0.17	0.11	0.03	0.05	3.32	1.11
44	3:40	1.4	0.17	0.11	0.03	0.05	3.32	1.13
45	3:45	1.5	0.18	0.11	0.03	0.07	4.06	1.16
46	3:50	1.5	0.18	0.11	0.03	0.07	4.06	1.18
47	3:55	1.6	0.19	0.11	0.03	0.08	4.80	1.21
48	4:00	1.6	0.19	0.11	0.03	0.08	4.80	1.25
49	4:05	1.7	0.20	0.11	0.04	0.09	5.54	1.28
50	4:10	1.8	0.22	0.11	0.04	0.10	6.28	1.32
51	4:15	1.9	0.23	0.11	0.04	0.11	7.02	1.37
52	4:20	2.0	0.24	0.11	0.04	0.13	7.76	1.42
53	4:25	2.1	0.25	0.11	0.05	0.14	8.49	1.48
54	4:30	2.1	0.25	0.11	0.05	0.14	8.49	1.54
55	4:35	2.2	0.26	0.11	0.05	0.15	9.23	1.60
56	4:40	2.3	0.28	0.11	0.05	0.16	9.97	1.66
57	4:45	2.4	0.29	0.11	0.05	0.17	10.71	1.73
58	4:50	2.4	0.29	0.11	0.05	0.17	10.71	1.81
59	4:55	2.5	0.30	0.11	0.05	0.19	11.45	1.88
60	5:00	2.6	0.31	0.11	0.06	0.20	12.19	1.96
61	5:05	3.1	0.37	0.11	0.07	0.26	15.88	2.06
62	5:10	3.6	0.43	0.11	0.08	0.32	19.57	2.18
63	5:15	3.9	0.47	0.11	0.08	0.35	21.79	2.33
64	5:20	4.2	0.50	0.11	0.09	0.39	24.00	2.48
65	5:25	4.7	0.56	0.11	0.10	0.45	27.70	2.66
66	5:30	5.6	0.67	0.11	0.12	0.56	34.34	2.88
67	5:35	1.9	0.23	0.11	0.04	0.11	7.02	3.02
68	5:40	0.9	0.11	0.11	0.02	0.09	5.45	3.06
69	5:45	0.6	0.07	0.11	0.01	0.06	3.63	3.09
70	5:50	0.5	0.06	0.11	0.01	0.05	3.03	3.12
71	5:55	0.3	0.04	0.11	0.01	0.03	1.82	3.13
72	6:00	0.2	0.02	0.11	0.00	0.02	1.21	3.14

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	1.9
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.04	0.05	0.26	15.79	0.05
2	0:10	1.3	0.30	0.04	0.05	0.26	15.79	0.16
3	0:15	1.1	0.25	0.04	0.05	0.21	12.98	0.26
4	0:20	1.5	0.34	0.04	0.06	0.30	18.59	0.37
5	0:25	1.5	0.34	0.04	0.06	0.30	18.59	0.50
6	0:30	1.8	0.41	0.04	0.07	0.37	22.80	0.64
7	0:35	1.5	0.34	0.04	0.06	0.30	18.59	0.78
8	0:40	1.8	0.41	0.04	0.07	0.37	22.80	0.93
9	0:45	1.8	0.41	0.04	0.07	0.37	22.80	1.08
10	0:50	1.5	0.34	0.04	0.06	0.30	18.59	1.23
11	0:55	1.6	0.36	0.04	0.07	0.32	20.00	1.36
12	1:00	1.8	0.41	0.04	0.07	0.37	22.80	1.51
13	1:05	2.2	0.50	0.04	0.09	0.46	28.42	1.68
14	1:10	2.2	0.50	0.04	0.09	0.46	28.42	1.88
15	1:15	2.2	0.50	0.04	0.09	0.46	28.42	2.07
16	1:20	2.0	0.46	0.04	0.08	0.42	25.61	2.26
17	1:25	2.6	0.59	0.04	0.11	0.55	34.03	2.47
18	1:30	2.7	0.62	0.04	0.11	0.58	35.43	2.70
19	1:35	2.4	0.55	0.04	0.10	0.51	31.22	2.93
20	1:40	2.7	0.62	0.04	0.11	0.58	35.43	3.16
21	1:45	3.3	0.75	0.04	0.14	0.71	43.85	3.44
22	1:50	3.1	0.71	0.04	0.13	0.67	41.05	3.73
23	1:55	2.9	0.66	0.04	0.12	0.62	38.24	4.00
24	2:00	3.0	0.68	0.04	0.12	0.64	39.64	4.27
25	2:05	3.1	0.71	0.04	0.13	0.67	41.05	4.55
26	2:10	4.2	0.96	0.04	0.17	0.92	56.48	4.88
27	2:15	5.0	1.14	0.04	0.21	1.10	67.71	5.31
28	2:20	3.5	0.80	0.04	0.14	0.76	46.66	5.71
29	2:25	6.8	1.55	0.04	0.28	1.51	92.97	6.19
30	2:30	7.3	1.66	0.04	0.30	1.62	99.99	6.85
31	2:35	8.2	1.87	0.04	0.34	1.83	112.62	7.58
32	2:40	5.9	1.35	0.04	0.24	1.31	80.34	8.25
33	2:45	2.0	0.46	0.04	0.08	0.42	25.61	8.61
34	2:50	1.8	0.41	0.04	0.07	0.37	22.80	8.78
35	2:55	1.8	0.41	0.04	0.07	0.37	22.80	8.94
36	3:00	0.6	0.14	0.04	0.02	0.10	5.96	9.04

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	1.3
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.08	0.04	0.13	7.80	0.03
2	0:10	1.3	0.20	0.08	0.04	0.13	7.80	0.08
3	0:15	1.1	0.17	0.08	0.03	0.10	5.88	0.13
4	0:20	1.5	0.23	0.08	0.04	0.16	9.72	0.18
5	0:25	1.5	0.23	0.08	0.04	0.16	9.72	0.25
6	0:30	1.8	0.28	0.08	0.05	0.20	12.61	0.33
7	0:35	1.5	0.23	0.08	0.04	0.16	9.72	0.40
8	0:40	1.8	0.28	0.08	0.05	0.20	12.61	0.48
9	0:45	1.8	0.28	0.08	0.05	0.20	12.61	0.57
10	0:50	1.5	0.23	0.08	0.04	0.16	9.72	0.64
11	0:55	1.6	0.25	0.08	0.04	0.17	10.69	0.71
12	1:00	1.8	0.28	0.08	0.05	0.20	12.61	0.79
13	1:05	2.2	0.34	0.08	0.06	0.27	16.45	0.89
14	1:10	2.2	0.34	0.08	0.06	0.27	16.45	1.01
15	1:15	2.2	0.34	0.08	0.06	0.27	16.45	1.12
16	1:20	2.0	0.31	0.08	0.06	0.24	14.53	1.23
17	1:25	2.6	0.41	0.08	0.07	0.33	20.29	1.35
18	1:30	2.7	0.42	0.08	0.08	0.35	21.25	1.49
19	1:35	2.4	0.37	0.08	0.07	0.30	18.37	1.63
20	1:40	2.7	0.42	0.08	0.08	0.35	21.25	1.76
21	1:45	3.3	0.51	0.08	0.09	0.44	27.01	1.93
22	1:50	3.1	0.48	0.08	0.09	0.41	25.09	2.11
23	1:55	2.9	0.45	0.08	0.08	0.38	23.17	2.27
24	2:00	3.0	0.47	0.08	0.08	0.39	24.13	2.44
25	2:05	3.1	0.48	0.08	0.09	0.41	25.09	2.61
26	2:10	4.2	0.66	0.08	0.12	0.58	35.65	2.82
27	2:15	5.0	0.78	0.08	0.14	0.70	43.33	3.09
28	2:20	3.5	0.55	0.08	0.10	0.47	28.93	3.34
29	2:25	6.8	1.06	0.08	0.19	0.98	60.61	3.64
30	2:30	7.3	1.14	0.08	0.20	1.06	65.42	4.08
31	2:35	8.2	1.28	0.08	0.23	1.20	74.06	4.56
32	2:40	5.9	0.92	0.08	0.17	0.84	51.97	4.99
33	2:45	2.0	0.31	0.08	0.06	0.24	14.53	5.22
34	2:50	1.8	0.28	0.08	0.05	0.20	12.61	5.32
35	2:55	1.8	0.28	0.08	0.05	0.20	12.61	5.40
36	3:00	0.6	0.09	0.08	0.02	0.02	1.08	5.45

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	1.1
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.11	0.03	0.06	3.55	0.01
2	0:10	1.3	0.17	0.11	0.03	0.06	3.55	0.04
3	0:15	1.1	0.15	0.11	0.03	0.03	1.92	0.06
4	0:20	1.5	0.20	0.11	0.04	0.08	5.17	0.08
5	0:25	1.5	0.20	0.11	0.04	0.08	5.17	0.12
6	0:30	1.8	0.24	0.11	0.04	0.12	7.61	0.16
7	0:35	1.5	0.20	0.11	0.04	0.08	5.17	0.20
8	0:40	1.8	0.24	0.11	0.04	0.12	7.61	0.25
9	0:45	1.8	0.24	0.11	0.04	0.12	7.61	0.30
10	0:50	1.5	0.20	0.11	0.04	0.08	5.17	0.34
11	0:55	1.6	0.21	0.11	0.04	0.10	5.98	0.38
12	1:00	1.8	0.24	0.11	0.04	0.12	7.61	0.43
13	1:05	2.2	0.29	0.11	0.05	0.18	10.86	0.49
14	1:10	2.2	0.29	0.11	0.05	0.18	10.86	0.57
15	1:15	2.2	0.29	0.11	0.05	0.18	10.86	0.64
16	1:20	2.0	0.26	0.11	0.05	0.15	9.23	0.71
17	1:25	2.6	0.34	0.11	0.06	0.23	14.11	0.79
18	1:30	2.7	0.36	0.11	0.06	0.24	14.92	0.89
19	1:35	2.4	0.32	0.11	0.06	0.20	12.48	0.99
20	1:40	2.7	0.36	0.11	0.06	0.24	14.92	1.08
21	1:45	3.3	0.44	0.11	0.08	0.32	19.79	1.20
22	1:50	3.1	0.41	0.11	0.07	0.30	18.17	1.33
23	1:55	2.9	0.38	0.11	0.07	0.27	16.54	1.45
24	2:00	3.0	0.40	0.11	0.07	0.28	17.36	1.57
25	2:05	3.1	0.41	0.11	0.07	0.30	18.17	1.69
26	2:10	4.2	0.55	0.11	0.10	0.44	27.11	1.85
27	2:15	5.0	0.66	0.11	0.12	0.55	33.61	2.05
28	2:20	3.5	0.46	0.11	0.08	0.35	21.42	2.24
29	2:25	6.8	0.90	0.11	0.16	0.78	48.23	2.48
30	2:30	7.3	0.96	0.11	0.17	0.85	52.29	2.83
31	2:35	8.2	1.08	0.11	0.19	0.97	59.61	3.22
32	2:40	5.9	0.78	0.11	0.14	0.66	40.92	3.56
33	2:45	2.0	0.26	0.11	0.05	0.15	9.23	3.73
34	2:50	1.8	0.24	0.11	0.04	0.12	7.61	3.79
35	2:55	1.8	0.24	0.11	0.04	0.12	7.61	3.84
36	3:00	0.6	0.08	0.11	0.01	0.06	4.00	3.88

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	61.6
Soil		C
Cover		Commercial
Rainfall	(inches)	0.8
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.11	0.02	0.01	0.66	0.00
2	0:10	1.3	0.12	0.11	0.02	0.01	0.66	0.01
3	0:15	1.1	0.11	0.11	0.02	0.09	5.33	0.03
4	0:20	1.5	0.14	0.11	0.03	0.03	1.85	0.05
5	0:25	1.5	0.14	0.11	0.03	0.03	1.85	0.06
6	0:30	1.8	0.17	0.11	0.03	0.06	3.62	0.08
7	0:35	1.5	0.14	0.11	0.03	0.03	1.85	0.10
8	0:40	1.8	0.17	0.11	0.03	0.06	3.62	0.12
9	0:45	1.8	0.17	0.11	0.03	0.06	3.62	0.15
10	0:50	1.5	0.14	0.11	0.03	0.03	1.85	0.17
11	0:55	1.6	0.15	0.11	0.03	0.04	2.44	0.18
12	1:00	1.8	0.17	0.11	0.03	0.06	3.62	0.20
13	1:05	2.2	0.21	0.11	0.04	0.10	5.98	0.23
14	1:10	2.2	0.21	0.11	0.04	0.10	5.98	0.28
15	1:15	2.2	0.21	0.11	0.04	0.10	5.98	0.32
16	1:20	2.0	0.19	0.11	0.03	0.08	4.80	0.35
17	1:25	2.6	0.25	0.11	0.04	0.14	8.35	0.40
18	1:30	2.7	0.26	0.11	0.05	0.15	8.94	0.46
19	1:35	2.4	0.23	0.11	0.04	0.12	7.16	0.51
20	1:40	2.7	0.26	0.11	0.05	0.15	8.94	0.57
21	1:45	3.3	0.32	0.11	0.06	0.20	12.48	0.64
22	1:50	3.1	0.30	0.11	0.05	0.18	11.30	0.72
23	1:55	2.9	0.28	0.11	0.05	0.16	10.12	0.80
24	2:00	3.0	0.29	0.11	0.05	0.17	10.71	0.87
25	2:05	3.1	0.30	0.11	0.05	0.18	11.30	0.95
26	2:10	4.2	0.40	0.11	0.07	0.29	17.80	1.05
27	2:15	5.0	0.48	0.11	0.09	0.37	22.53	1.19
28	2:20	3.5	0.34	0.11	0.06	0.22	13.66	1.31
29	2:25	6.8	0.65	0.11	0.12	0.54	33.16	1.47
30	2:30	7.3	0.70	0.11	0.13	0.59	36.12	1.71
31	2:35	8.2	0.79	0.11	0.14	0.67	41.44	1.98
32	2:40	5.9	0.57	0.11	0.10	0.45	27.85	2.22
33	2:45	2.0	0.19	0.11	0.03	0.08	4.80	2.33
34	2:50	1.8	0.17	0.11	0.03	0.06	3.62	2.36
35	2:55	1.8	0.17	0.11	0.03	0.06	3.62	2.38
36	3:00	0.6	0.06	0.11	0.01	0.05	2.91	2.40

BUILDING 2

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #2

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1479.95	0.00	12490			
			4257	4257	0.098
1480.28	0.33	13310			
			4671	8928	0.205
1480.62	0.67	14165			
			2884	11812	0.271
1480.82	0.87	14675			
			1182	12994	0.298
1480.90	0.95	14880			
			747	13741	0.315
1480.95	1.00	15010			
			3725	17466	0.401
1481.15	1.20	22235			
			2476	19942	0.458
1481.28	1.33	15865			
			12105	32047	0.736
1482.00	2.05	17760			
			16258	48305	1.109
1482.86	2.91	20050			

WATER QUALITY
VOLUME

ADDITIONAL
STORAGE

Hydrologic Summary

BUILDING 2
EXIST. CONDITION

Watershed Characteristics

Area	(acres)	6.95
Soil		C
Cover		open space

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		77	77	77	77	Plate E-6.1
Fp	(in/hr)	0.14	0.28	0.48	0.48	Plate E-6.2
Ai	(decimal)	0.00	0.00	0.00	0.00	Plate E-6.3
Low Loss	(decimal)	0.90	0.90	0.90	0.90	0.9-(0.8Ai)
F	(in/hr)	0.14	0.28	0.48	0.48	Fp(1-0.9Ai)
Fm	(in/hr)	0.07	0.14	0.24	0.24	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	2.94	0.78	0.21	0.15	24-hour
Peak Flow	(cfs)	10.70	5.99	3.20	1.33	6-hour
Peak Flow	(cfs)	12.02	6.94	4.19	2.14	3-hour
Total Runoff	(ac-ft)	1.07	0.18	0.13	0.09	24-hour
Total Runoff	(ac-ft)	0.96	0.31	0.12	0.06	6-hour
Total Runoff	(ac-ft)	0.85	0.30	0.14	0.07	3-hour

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	4.0
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14
Fm	(in/hr)	0.07
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.25	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.25	0.03	0.00	0.02	0.00
2	0:30	0.3	0.05	0.24	0.04	0.00	0.03	0.00
3	0:45	0.3	0.05	0.24	0.04	0.00	0.03	0.00
4	1:00	0.4	0.06	0.24	0.06	0.01	0.04	0.00
5	1:15	0.3	0.05	0.24	0.04	0.00	0.03	0.00
6	1:30	0.3	0.05	0.23	0.04	0.00	0.03	0.00
7	1:45	0.3	0.05	0.23	0.04	0.00	0.03	0.00
8	2:00	0.4	0.06	0.23	0.06	0.01	0.04	0.01
9	2:15	0.4	0.06	0.22	0.06	0.01	0.04	0.01
10	2:30	0.4	0.06	0.22	0.06	0.01	0.04	0.01
11	2:45	0.5	0.08	0.22	0.07	0.01	0.06	0.01
12	3:00	0.5	0.08	0.22	0.07	0.01	0.06	0.01
13	3:15	0.5	0.08	0.21	0.07	0.01	0.06	0.01
14	3:30	0.5	0.08	0.21	0.07	0.01	0.06	0.01
15	3:45	0.5	0.08	0.21	0.07	0.01	0.06	0.01
16	4:00	0.6	0.10	0.21	0.09	0.01	0.07	0.01
17	4:15	0.6	0.10	0.20	0.09	0.01	0.07	0.02
18	4:30	0.7	0.11	0.20	0.10	0.01	0.08	0.02
19	4:45	0.7	0.11	0.20	0.10	0.01	0.08	0.02
20	5:00	0.8	0.13	0.20	0.12	0.01	0.09	0.02
21	5:15	0.6	0.10	0.19	0.09	0.01	0.07	0.02
22	5:30	0.7	0.11	0.19	0.10	0.01	0.08	0.02
23	5:45	0.8	0.13	0.19	0.12	0.01	0.09	0.03
24	6:00	0.8	0.13	0.19	0.12	0.01	0.09	0.03
25	6:15	0.9	0.14	0.18	0.13	0.01	0.10	0.03
26	6:30	0.9	0.14	0.18	0.13	0.01	0.10	0.03
27	6:45	1.0	0.16	0.18	0.14	0.02	0.11	0.03
28	7:00	1.0	0.16	0.18	0.14	0.02	0.11	0.04
29	7:15	1.0	0.16	0.17	0.14	0.02	0.11	0.04
30	7:30	1.1	0.18	0.17	0.16	0.00	0.03	0.04
31	7:45	1.2	0.19	0.17	0.17	0.02	0.16	0.04
32	8:00	1.3	0.21	0.17	0.19	0.04	0.29	0.05
33	8:15	1.5	0.24	0.16	0.22	0.08	0.53	0.05
34	8:30	1.5	0.24	0.16	0.22	0.08	0.54	0.07
35	8:45	1.6	0.26	0.16	0.23	0.10	0.67	0.08
36	9:00	1.7	0.27	0.16	0.24	0.11	0.80	0.09
37	9:15	1.9	0.30	0.16	0.27	0.15	1.03	0.11
38	9:30	2.0	0.32	0.15	0.29	0.17	1.16	0.13
39	9:45	2.1	0.34	0.15	0.30	0.19	1.29	0.16
40	10:00	2.2	0.35	0.15	0.32	0.20	1.41	0.19
41	10:15	1.5	0.24	0.15	0.22	0.09	0.65	0.21
42	10:30	1.5	0.24	0.14	0.22	0.10	0.67	0.22
43	10:45	2.0	0.32	0.14	0.29	0.18	1.24	0.24
44	11:00	2.0	0.32	0.14	0.29	0.18	1.25	0.27
45	11:15	1.9	0.30	0.14	0.27	0.17	1.15	0.29
46	11:30	1.9	0.30	0.14	0.27	0.17	1.17	0.32
47	11:45	1.7	0.27	0.13	0.24	0.14	0.96	0.34
48	12:00	1.8	0.29	0.13	0.26	0.16	1.08	0.36
49	12:15	2.5	0.40	0.13	0.36	0.27	1.88	0.39
50	12:30	2.6	0.42	0.13	0.37	0.29	2.00	0.43
51	12:45	2.8	0.45	0.13	0.40	0.32	2.24	0.47
52	13:00	2.9	0.46	0.12	0.42	0.34	2.36	0.52
53	13:15	3.4	0.54	0.12	0.49	0.42	2.93	0.58
54	13:30	3.4	0.54	0.12	0.49	0.42	2.94	0.64
55	13:45	2.3	0.37	0.12	0.33	0.25	1.73	0.69
56	14:00	2.3	0.37	0.12	0.33	0.25	1.75	0.72
57	14:15	2.7	0.43	0.12	0.39	0.32	2.20	0.76
58	14:30	2.6	0.42	0.11	0.37	0.30	2.10	0.81
59	14:45	2.6	0.42	0.11	0.37	0.30	2.12	0.85
60	15:00	2.5	0.40	0.11	0.36	0.29	2.02	0.89
61	15:15	2.4	0.38	0.11	0.35	0.28	1.92	0.93
62	15:30	2.3	0.37	0.11	0.33	0.26	1.82	0.97
63	15:45	1.9	0.30	0.10	0.27	0.20	1.38	1.01
64	16:00	1.9	0.30	0.10	0.27	0.20	1.39	1.03
65	16:15	0.4	0.06	0.10	0.06	0.01	0.04	1.05
66	16:30	0.4	0.06	0.10	0.06	0.01	0.04	1.05
67	16:45	0.3	0.05	0.10	0.04	0.00	0.03	1.05
68	17:00	0.3	0.05	0.10	0.04	0.00	0.03	1.05
69	17:15	0.5	0.08	0.10	0.07	0.01	0.06	1.05
70	17:30	0.5	0.08	0.09	0.07	0.01	0.06	1.05
71	17:45	0.5	0.08	0.09	0.07	0.01	0.06	1.05
72	18:00	0.4	0.06	0.09	0.06	0.01	0.04	1.06
73	18:15	0.4	0.06	0.09	0.06	0.01	0.04	1.06
74	18:30	0.4	0.06	0.09	0.06	0.01	0.04	1.06
75	18:45	0.3	0.05	0.09	0.04	0.00	0.03	1.06
76	19:00	0.2	0.03	0.09	0.03	0.00	0.02	1.06
77	19:15	0.3	0.05	0.09	0.04	0.00	0.03	1.06
78	19:30	0.4	0.06	0.08	0.06	0.01	0.04	1.06
79	19:45	0.3	0.05	0.08	0.04	0.00	0.03	1.06
80	20:00	0.2	0.03	0.08	0.03	0.00	0.02	1.06
81	20:15	0.3	0.05	0.08	0.04	0.00	0.03	1.06
82	20:30	0.3	0.05	0.08	0.04	0.00	0.03	1.06
83	20:45	0.3	0.05	0.08	0.04	0.00	0.03	1.06
84	21:00	0.2	0.03	0.08	0.03	0.00	0.02	1.06
85	21:15	0.3	0.05	0.08	0.04	0.00	0.03	1.06
86	21:30	0.2	0.03	0.08	0.03	0.00	0.02	1.07
87	21:45	0.3	0.05	0.07	0.04	0.00	0.03	1.07
88	22:00	0.2	0.03	0.07	0.03	0.00	0.02	1.07
89	22:15	0.3	0.05	0.07	0.04	0.00	0.03	1.07
90	22:30	0.2	0.03	0.07	0.03	0.00	0.02	1.07
91	22:45	0.2	0.03	0.07	0.03	0.00	0.02	1.07
92	23:00	0.2	0.03	0.07	0.03	0.00	0.02	1.07
93	23:15	0.2	0.03	0.07	0.03	0.00	0.02	1.07
94	23:30	0.2	0.03	0.07	0.03	0.00	0.02	1.07
95	23:45	0.2	0.03	0.07	0.03	0.00	0.02	1.07
96	0:00	0.2	0.03	0.07	0.03	0.00	0.02	1.07

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	2.6
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28
Fm	(in/hr)	0.14
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.50	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.49	0.02	0.00	0.01	0.00
2	0:30	0.3	0.03	0.49	0.03	0.00	0.02	0.00
3	0:45	0.3	0.03	0.48	0.03	0.00	0.02	0.00
4	1:00	0.4	0.04	0.48	0.04	0.00	0.03	0.00
5	1:15	0.3	0.03	0.47	0.03	0.00	0.02	0.00
6	1:30	0.3	0.03	0.47	0.03	0.00	0.02	0.00
7	1:45	0.3	0.03	0.46	0.03	0.00	0.02	0.00
8	2:00	0.4	0.04	0.45	0.04	0.00	0.03	0.00
9	2:15	0.4	0.04	0.45	0.04	0.00	0.03	0.00
10	2:30	0.4	0.04	0.44	0.04	0.00	0.03	0.00
11	2:45	0.5	0.05	0.44	0.05	0.01	0.04	0.01
12	3:00	0.5	0.05	0.43	0.05	0.01	0.04	0.01
13	3:15	0.5	0.05	0.43	0.05	0.01	0.04	0.01
14	3:30	0.5	0.05	0.42	0.05	0.01	0.04	0.01
15	3:45	0.5	0.05	0.42	0.05	0.01	0.04	0.01
16	4:00	0.6	0.06	0.41	0.06	0.01	0.04	0.01
17	4:15	0.6	0.06	0.41	0.06	0.01	0.04	0.01
18	4:30	0.7	0.07	0.40	0.07	0.01	0.05	0.01
19	4:45	0.7	0.07	0.40	0.07	0.01	0.05	0.01
20	5:00	0.8	0.08	0.39	0.07	0.01	0.06	0.01
21	5:15	0.6	0.06	0.39	0.06	0.01	0.04	0.01
22	5:30	0.7	0.07	0.38	0.07	0.01	0.05	0.02
23	5:45	0.8	0.08	0.38	0.07	0.01	0.06	0.02
24	6:00	0.8	0.08	0.37	0.07	0.01	0.06	0.02
25	6:15	0.9	0.09	0.37	0.08	0.01	0.07	0.02
26	6:30	0.9	0.09	0.36	0.08	0.01	0.07	0.02
27	6:45	1.0	0.10	0.36	0.09	0.01	0.07	0.02
28	7:00	1.0	0.10	0.35	0.09	0.01	0.07	0.02
29	7:15	1.0	0.10	0.35	0.09	0.01	0.07	0.02
30	7:30	1.1	0.11	0.34	0.10	0.01	0.08	0.03
31	7:45	1.2	0.12	0.34	0.11	0.01	0.09	0.03
32	8:00	1.3	0.14	0.33	0.12	0.01	0.09	0.03
33	8:15	1.5	0.16	0.33	0.14	0.02	0.11	0.03
34	8:30	1.5	0.16	0.32	0.14	0.02	0.11	0.03
35	8:45	1.6	0.17	0.32	0.15	0.02	0.12	0.04
36	9:00	1.7	0.18	0.31	0.16	0.02	0.12	0.04
37	9:15	1.9	0.20	0.31	0.18	0.02	0.14	0.04
38	9:30	2.0	0.21	0.31	0.19	0.02	0.14	0.04
39	9:45	2.1	0.22	0.30	0.20	0.02	0.15	0.05
40	10:00	2.2	0.23	0.30	0.21	0.02	0.16	0.05
41	10:15	1.5	0.16	0.29	0.14	0.02	0.11	0.05
42	10:30	1.5	0.16	0.29	0.14	0.02	0.11	0.06
43	10:45	2.0	0.21	0.28	0.19	0.02	0.14	0.06
44	11:00	2.0	0.21	0.28	0.19	0.02	0.14	0.06
45	11:15	1.9	0.20	0.28	0.18	0.02	0.14	0.06
46	11:30	1.9	0.20	0.27	0.18	0.02	0.14	0.07
47	11:45	1.7	0.18	0.27	0.16	0.02	0.12	0.07
48	12:00	1.8	0.19	0.26	0.17	0.02	0.13	0.07
49	12:15	2.5	0.26	0.26	0.23	0.03	0.18	0.08
50	12:30	2.6	0.27	0.26	0.24	0.01	0.10	0.08
51	12:45	2.8	0.29	0.25	0.26	0.04	0.27	0.08
52	13:00	2.9	0.30	0.25	0.27	0.05	0.37	0.09
53	13:15	3.4	0.35	0.24	0.32	0.11	0.76	0.10
54	13:30	3.4	0.35	0.24	0.32	0.11	0.78	0.12
55	13:45	2.3	0.24	0.24	0.22	0.00	0.01	0.12
56	14:00	2.3	0.24	0.23	0.22	0.01	0.04	0.13
57	14:15	2.7	0.28	0.23	0.25	0.05	0.35	0.13
58	14:30	2.6	0.27	0.23	0.24	0.04	0.30	0.14
59	14:45	2.6	0.27	0.22	0.24	0.05	0.33	0.14
60	15:00	2.5	0.26	0.22	0.23	0.04	0.28	0.15
61	15:15	2.4	0.25	0.22	0.22	0.03	0.23	0.15
62	15:30	2.3	0.24	0.21	0.22	0.03	0.18	0.16
63	15:45	1.9	0.20	0.21	0.18	0.02	0.14	0.16
64	16:00	1.9	0.20	0.21	0.18	0.02	0.14	0.16
65	16:15	0.4	0.04	0.20	0.04	0.00	0.03	0.17
66	16:30	0.4	0.04	0.20	0.04	0.00	0.03	0.17
67	16:45	0.3	0.03	0.20	0.03	0.00	0.02	0.17
68	17:00	0.3	0.03	0.19	0.03	0.00	0.02	0.17
69	17:15	0.5	0.05	0.19	0.05	0.01	0.04	0.17
70	17:30	0.5	0.05	0.19	0.05	0.01	0.04	0.17
71	17:45	0.5	0.05	0.19	0.05	0.01	0.04	0.17
72	18:00	0.4	0.04	0.18	0.04	0.00	0.03	0.17
73	18:15	0.4	0.04	0.18	0.04	0.00	0.03	0.17
74	18:30	0.4	0.04	0.18	0.04	0.00	0.03	0.17
75	18:45	0.3	0.03	0.18	0.03	0.00	0.02	0.17
76	19:00	0.2	0.02	0.17	0.02	0.00	0.01	0.17
77	19:15	0.3	0.03	0.17	0.03	0.00	0.02	0.17
78	19:30	0.4	0.04	0.17	0.04	0.00	0.03	0.17
79	19:45	0.3	0.03	0.17	0.03	0.00	0.02	0.17
80	20:00	0.2	0.02	0.16	0.02	0.00	0.01	0.17
81	20:15	0.3	0.03	0.16	0.03	0.00	0.02	0.17
82	20:30	0.3	0.03	0.16	0.03	0.00	0.02	0.18
83	20:45	0.3	0.03	0.16	0.03	0.00	0.02	0.18
84	21:00	0.2	0.02	0.16	0.02	0.00	0.01	0.18
85	21:15	0.3	0.03	0.15	0.03	0.00	0.02	0.18
86	21:30	0.2	0.02	0.15	0.02	0.00	0.01	0.18
87	21:45	0.3	0.03	0.15	0.03	0.00	0.02	0.18
88	22:00	0.2	0.02	0.15	0.02	0.00	0.01	0.18
89	22:15	0.3	0.03	0.15	0.03	0.00	0.02	0.18
90	22:30	0.2	0.02	0.15	0.02	0.00	0.01	0.18
91	22:45	0.2	0.02	0.14	0.02	0.00	0.01	0.18
92	23:00	0.2	0.02	0.14	0.02	0.00	0.01	0.18
93	23:15	0.2	0.02	0.14	0.02	0.00	0.01	0.18
94	23:30	0.2	0.02	0.14	0.02	0.00	0.01	0.18
95	23:45	0.2	0.02	0.14	0.02	0.00	0.01	0.18
96	0:00	0.2	0.02	0.14	0.02	0.00	0.01	0.18

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	2.2
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.85	0.02	0.00	0.01	0.00
2	0:30	0.3	0.03	0.84	0.02	0.00	0.02	0.00
3	0:45	0.3	0.03	0.83	0.02	0.00	0.02	0.00
4	1:00	0.4	0.04	0.82	0.03	0.00	0.02	0.00
5	1:15	0.3	0.03	0.81	0.02	0.00	0.02	0.00
6	1:30	0.3	0.03	0.80	0.02	0.00	0.02	0.00
7	1:45	0.3	0.03	0.79	0.02	0.00	0.02	0.00
8	2:00	0.4	0.04	0.78	0.03	0.00	0.02	0.00
9	2:15	0.4	0.04	0.77	0.03	0.00	0.02	0.00
10	2:30	0.4	0.04	0.76	0.03	0.00	0.02	0.00
11	2:45	0.5	0.04	0.75	0.04	0.00	0.03	0.00
12	3:00	0.5	0.04	0.74	0.04	0.00	0.03	0.01
13	3:15	0.5	0.04	0.73	0.04	0.00	0.03	0.01
14	3:30	0.5	0.04	0.72	0.04	0.00	0.03	0.01
15	3:45	0.5	0.04	0.72	0.04	0.00	0.03	0.01
16	4:00	0.6	0.05	0.71	0.05	0.01	0.04	0.01
17	4:15	0.6	0.05	0.70	0.05	0.01	0.04	0.01
18	4:30	0.7	0.06	0.69	0.06	0.01	0.04	0.01
19	4:45	0.7	0.06	0.68	0.06	0.01	0.04	0.01
20	5:00	0.8	0.07	0.67	0.06	0.01	0.05	0.01
21	5:15	0.6	0.05	0.66	0.05	0.01	0.04	0.01
22	5:30	0.7	0.06	0.65	0.06	0.01	0.04	0.01
23	5:45	0.8	0.07	0.64	0.06	0.01	0.05	0.01
24	6:00	0.8	0.07	0.64	0.06	0.01	0.05	0.01
25	6:15	0.9	0.08	0.63	0.07	0.01	0.06	0.02
26	6:30	0.9	0.08	0.62	0.07	0.01	0.06	0.02
27	6:45	1.0	0.09	0.61	0.08	0.01	0.06	0.02
28	7:00	1.0	0.09	0.60	0.08	0.01	0.06	0.02
29	7:15	1.0	0.09	0.59	0.08	0.01	0.06	0.02
30	7:30	1.1	0.10	0.59	0.09	0.01	0.07	0.02
31	7:45	1.2	0.11	0.58	0.10	0.01	0.07	0.02
32	8:00	1.3	0.11	0.57	0.10	0.01	0.08	0.03
33	8:15	1.5	0.13	0.56	0.12	0.01	0.09	0.03
34	8:30	1.5	0.13	0.55	0.12	0.01	0.09	0.03
35	8:45	1.6	0.14	0.55	0.13	0.01	0.10	0.03
36	9:00	1.7	0.15	0.54	0.13	0.01	0.10	0.03
37	9:15	1.9	0.17	0.53	0.15	0.02	0.12	0.04
38	9:30	2.0	0.18	0.52	0.16	0.02	0.12	0.04
39	9:45	2.1	0.18	0.52	0.17	0.02	0.13	0.04
40	10:00	2.2	0.19	0.51	0.17	0.02	0.13	0.04
41	10:15	1.5	0.13	0.50	0.12	0.01	0.09	0.05
42	10:30	1.5	0.13	0.49	0.12	0.01	0.09	0.05
43	10:45	2.0	0.18	0.49	0.16	0.02	0.12	0.05
44	11:00	2.0	0.18	0.48	0.16	0.02	0.12	0.05
45	11:15	1.9	0.17	0.47	0.15	0.02	0.12	0.05
46	11:30	1.9	0.17	0.47	0.15	0.02	0.12	0.06
47	11:45	1.7	0.15	0.46	0.13	0.01	0.10	0.06
48	12:00	1.8	0.16	0.45	0.14	0.02	0.11	0.06
49	12:15	2.5	0.22	0.45	0.20	0.02	0.15	0.06
50	12:30	2.6	0.23	0.44	0.21	0.02	0.16	0.07
51	12:45	2.8	0.25	0.43	0.22	0.02	0.17	0.07
52	13:00	2.9	0.26	0.43	0.23	0.03	0.18	0.07
53	13:15	3.4	0.30	0.42	0.27	0.03	0.21	0.08
54	13:30	3.4	0.30	0.41	0.27	0.03	0.21	0.08
55	13:45	2.3	0.20	0.41	0.18	0.02	0.14	0.09
56	14:00	2.3	0.20	0.40	0.18	0.02	0.14	0.09
57	14:15	2.7	0.24	0.39	0.21	0.02	0.17	0.09
58	14:30	2.6	0.23	0.39	0.21	0.02	0.16	0.10
59	14:45	2.6	0.23	0.38	0.21	0.02	0.16	0.10
60	15:00	2.5	0.22	0.38	0.20	0.02	0.15	0.10
61	15:15	2.4	0.21	0.37	0.19	0.02	0.15	0.11
62	15:30	2.3	0.20	0.37	0.18	0.02	0.14	0.11
63	15:45	1.9	0.17	0.36	0.15	0.02	0.12	0.11
64	16:00	1.9	0.17	0.35	0.15	0.02	0.12	0.11
65	16:15	0.4	0.04	0.35	0.03	0.00	0.02	0.11
66	16:30	0.4	0.04	0.34	0.03	0.00	0.02	0.11
67	16:45	0.3	0.03	0.34	0.02	0.00	0.02	0.12
68	17:00	0.3	0.03	0.33	0.02	0.00	0.02	0.12
69	17:15	0.5	0.04	0.33	0.04	0.00	0.03	0.12
70	17:30	0.5	0.04	0.32	0.04	0.00	0.03	0.12
71	17:45	0.5	0.04	0.32	0.04	0.00	0.03	0.12
72	18:00	0.4	0.04	0.31	0.03	0.00	0.02	0.12
73	18:15	0.4	0.04	0.31	0.03	0.00	0.02	0.12
74	18:30	0.4	0.04	0.30	0.03	0.00	0.02	0.12
75	18:45	0.3	0.03	0.30	0.02	0.00	0.02	0.12
76	19:00	0.2	0.02	0.30	0.02	0.00	0.01	0.12
77	19:15	0.3	0.03	0.29	0.02	0.00	0.02	0.12
78	19:30	0.4	0.04	0.29	0.03	0.00	0.02	0.12
79	19:45	0.3	0.03	0.28	0.02	0.00	0.02	0.12
80	20:00	0.2	0.02	0.28	0.02	0.00	0.01	0.12
81	20:15	0.3	0.03	0.28	0.02	0.00	0.02	0.12
82	20:30	0.3	0.03	0.27	0.02	0.00	0.02	0.12
83	20:45	0.3	0.03	0.27	0.02	0.00	0.02	0.12
84	21:00	0.2	0.02	0.27	0.02	0.00	0.01	0.12
85	21:15	0.3	0.03	0.26	0.02	0.00	0.02	0.12
86	21:30	0.2	0.02	0.26	0.02	0.00	0.01	0.12
87	21:45	0.3	0.03	0.26	0.02	0.00	0.02	0.12
88	22:00	0.2	0.02	0.25	0.02	0.00	0.01	0.12
89	22:15	0.3	0.03	0.25	0.02	0.00	0.02	0.12
90	22:30	0.2	0.02	0.25	0.02	0.00	0.01	0.12
91	22:45	0.2	0.02	0.25	0.02	0.00	0.01	0.12
92	23:00	0.2	0.02	0.25	0.02	0.00	0.01	0.13
93	23:15	0.2	0.02	0.24	0.02	0.00	0.01	0.13
94	23:30	0.2	0.02	0.24	0.02	0.00	0.01	0.13
95	23:45	0.2	0.02	0.24	0.02	0.00	0.01	0.13
96	0:00	0.2	0.02	0.24	0.02	0.00	0.01	0.13

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	1.6
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.85	0.01	0.00	0.01	0.00
2	0:30	0.3	0.02	0.84	0.02	0.00	0.01	0.00
3	0:45	0.3	0.02	0.83	0.02	0.00	0.01	0.00
4	1:00	0.4	0.03	0.82	0.02	0.00	0.02	0.00
5	1:15	0.3	0.02	0.81	0.02	0.00	0.01	0.00
6	1:30	0.3	0.02	0.80	0.02	0.00	0.01	0.00
7	1:45	0.3	0.02	0.79	0.02	0.00	0.01	0.00
8	2:00	0.4	0.03	0.78	0.02	0.00	0.02	0.00
9	2:15	0.4	0.03	0.77	0.02	0.00	0.02	0.00
10	2:30	0.4	0.03	0.76	0.02	0.00	0.02	0.00
11	2:45	0.5	0.03	0.75	0.03	0.00	0.02	0.00
12	3:00	0.5	0.03	0.74	0.03	0.00	0.02	0.00
13	3:15	0.5	0.03	0.73	0.03	0.00	0.02	0.00
14	3:30	0.5	0.03	0.72	0.03	0.00	0.02	0.00
15	3:45	0.5	0.03	0.72	0.03	0.00	0.02	0.01
16	4:00	0.6	0.04	0.71	0.03	0.00	0.03	0.01
17	4:15	0.6	0.04	0.70	0.03	0.00	0.03	0.01
18	4:30	0.7	0.04	0.69	0.04	0.00	0.03	0.01
19	4:45	0.7	0.04	0.68	0.04	0.00	0.03	0.01
20	5:00	0.8	0.05	0.67	0.05	0.01	0.04	0.01
21	5:15	0.6	0.04	0.66	0.03	0.00	0.03	0.01
22	5:30	0.7	0.04	0.65	0.04	0.00	0.03	0.01
23	5:45	0.8	0.05	0.64	0.05	0.01	0.04	0.01
24	6:00	0.8	0.05	0.64	0.05	0.01	0.04	0.01
25	6:15	0.9	0.06	0.63	0.05	0.01	0.04	0.01
26	6:30	0.9	0.06	0.62	0.05	0.01	0.04	0.01
27	6:45	1.0	0.06	0.61	0.06	0.01	0.04	0.01
28	7:00	1.0	0.06	0.60	0.06	0.01	0.04	0.01
29	7:15	1.0	0.06	0.59	0.06	0.01	0.04	0.02
30	7:30	1.1	0.07	0.59	0.06	0.01	0.05	0.02
31	7:45	1.2	0.08	0.58	0.07	0.01	0.05	0.02
32	8:00	1.3	0.08	0.57	0.07	0.01	0.06	0.02
33	8:15	1.5	0.10	0.56	0.09	0.01	0.07	0.02
34	8:30	1.5	0.10	0.55	0.09	0.01	0.07	0.02
35	8:45	1.6	0.10	0.55	0.09	0.01	0.07	0.02
36	9:00	1.7	0.11	0.54	0.10	0.01	0.08	0.02
37	9:15	1.9	0.12	0.53	0.11	0.01	0.08	0.03
38	9:30	2.0	0.13	0.52	0.12	0.01	0.09	0.03
39	9:45	2.1	0.13	0.52	0.12	0.01	0.09	0.03
40	10:00	2.2	0.14	0.51	0.13	0.01	0.10	0.03
41	10:15	1.5	0.10	0.50	0.09	0.01	0.07	0.03
42	10:30	1.5	0.10	0.49	0.09	0.01	0.07	0.03
43	10:45	2.0	0.13	0.49	0.12	0.01	0.09	0.04
44	11:00	2.0	0.13	0.48	0.12	0.01	0.09	0.04
45	11:15	1.9	0.12	0.47	0.11	0.01	0.08	0.04
46	11:30	1.9	0.12	0.47	0.11	0.01	0.08	0.04
47	11:45	1.7	0.11	0.46	0.10	0.01	0.08	0.04
48	12:00	1.8	0.12	0.45	0.10	0.01	0.08	0.04
49	12:15	2.5	0.16	0.45	0.14	0.02	0.11	0.05
50	12:30	2.6	0.17	0.44	0.15	0.02	0.12	0.05
51	12:45	2.8	0.18	0.43	0.16	0.02	0.12	0.05
52	13:00	2.9	0.19	0.43	0.17	0.02	0.13	0.05
53	13:15	3.4	0.22	0.42	0.20	0.02	0.15	0.06
54	13:30	3.4	0.22	0.41	0.20	0.02	0.15	0.06
55	13:45	2.3	0.15	0.41	0.13	0.01	0.10	0.06
56	14:00	2.3	0.15	0.40	0.13	0.01	0.10	0.06
57	14:15	2.7	0.17	0.39	0.16	0.02	0.12	0.07
58	14:30	2.6	0.17	0.39	0.15	0.02	0.12	0.07
59	14:45	2.6	0.17	0.38	0.15	0.02	0.12	0.07
60	15:00	2.5	0.16	0.38	0.14	0.02	0.11	0.07
61	15:15	2.4	0.15	0.37	0.14	0.02	0.11	0.08
62	15:30	2.3	0.15	0.37	0.13	0.01	0.10	0.08
63	15:45	1.9	0.12	0.36	0.11	0.01	0.08	0.08
64	16:00	1.9	0.12	0.35	0.11	0.01	0.08	0.08
65	16:15	0.4	0.03	0.35	0.02	0.00	0.02	0.08
66	16:30	0.4	0.03	0.34	0.02	0.00	0.02	0.08
67	16:45	0.3	0.02	0.34	0.02	0.00	0.01	0.08
68	17:00	0.3	0.02	0.33	0.02	0.00	0.01	0.08
69	17:15	0.5	0.03	0.33	0.03	0.00	0.02	0.08
70	17:30	0.5	0.03	0.32	0.03	0.00	0.02	0.09
71	17:45	0.5	0.03	0.32	0.03	0.00	0.02	0.09
72	18:00	0.4	0.03	0.31	0.02	0.00	0.02	0.09
73	18:15	0.4	0.03	0.31	0.02	0.00	0.02	0.09
74	18:30	0.4	0.03	0.30	0.02	0.00	0.02	0.09
75	18:45	0.3	0.02	0.30	0.02	0.00	0.01	0.09
76	19:00	0.2	0.01	0.30	0.01	0.00	0.01	0.09
77	19:15	0.3	0.02	0.29	0.02	0.00	0.01	0.09
78	19:30	0.4	0.03	0.29	0.02	0.00	0.02	0.09
79	19:45	0.3	0.02	0.28	0.02	0.00	0.01	0.09
80	20:00	0.2	0.01	0.28	0.01	0.00	0.01	0.09
81	20:15	0.3	0.02	0.28	0.02	0.00	0.01	0.09
82	20:30	0.3	0.02	0.27	0.02	0.00	0.01	0.09
83	20:45	0.3	0.02	0.27	0.02	0.00	0.01	0.09
84	21:00	0.2	0.01	0.27	0.01	0.00	0.01	0.09
85	21:15	0.3	0.02	0.26	0.02	0.00	0.01	0.09
86	21:30	0.2	0.01	0.26	0.01	0.00	0.01	0.09
87	21:45	0.3	0.02	0.26	0.02	0.00	0.01	0.09
88	22:00	0.2	0.01	0.25	0.01	0.00	0.01	0.09
89	22:15	0.3	0.02	0.25	0.02	0.00	0.01	0.09
90	22:30	0.2	0.01	0.25	0.01	0.00	0.01	0.09
91	22:45	0.2	0.01	0.25	0.01	0.00	0.01	0.09
92	23:00	0.2	0.01	0.25	0.01	0.00	0.01	0.09
93	23:15	0.2	0.01	0.24	0.01	0.00	0.01	0.09
94	23:30	0.2	0.01	0.24	0.01	0.00	0.01	0.09
95	23:45	0.2	0.01	0.24	0.01	0.00	0.01	0.09
96	0:00	0.2	0.01	0.24	0.01	0.00	0.01	0.09

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	2.5
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.14	0.14	0.01	0.07	0.00
2	0:10	0.6	0.18	0.14	0.16	0.04	0.28	0.00
3	0:15	0.6	0.18	0.14	0.16	0.04	0.28	0.00
4	0:20	0.6	0.18	0.14	0.16	0.04	0.28	0.01
5	0:25	0.6	0.18	0.14	0.16	0.04	0.28	0.01
6	0:30	0.7	0.21	0.14	0.19	0.07	0.49	0.01
7	0:35	0.7	0.21	0.14	0.19	0.07	0.49	0.01
8	0:40	0.7	0.21	0.14	0.19	0.07	0.49	0.02
9	0:45	0.7	0.21	0.14	0.19	0.07	0.49	0.02
10	0:50	0.7	0.21	0.14	0.19	0.07	0.49	0.02
11	0:55	0.7	0.21	0.14	0.19	0.07	0.49	0.03
12	1:00	0.8	0.24	0.14	0.22	0.10	0.70	0.03
13	1:05	0.8	0.24	0.14	0.22	0.10	0.70	0.04
14	1:10	0.8	0.24	0.14	0.22	0.10	0.70	0.04
15	1:15	0.8	0.24	0.14	0.22	0.10	0.70	0.04
16	1:20	0.8	0.24	0.14	0.22	0.10	0.70	0.05
17	1:25	0.8	0.24	0.14	0.22	0.10	0.70	0.05
18	1:30	0.8	0.24	0.14	0.22	0.10	0.70	0.06
19	1:35	0.8	0.24	0.14	0.22	0.10	0.70	0.06
20	1:40	0.8	0.24	0.14	0.22	0.10	0.70	0.07
21	1:45	0.8	0.24	0.14	0.22	0.10	0.70	0.07
22	1:50	0.8	0.24	0.14	0.22	0.10	0.70	0.08
23	1:55	0.8	0.24	0.14	0.22	0.10	0.70	0.08
24	2:00	0.9	0.27	0.14	0.24	0.13	0.90	0.09
25	2:05	0.8	0.24	0.14	0.22	0.10	0.70	0.09
26	2:10	0.9	0.27	0.14	0.24	0.13	0.90	0.10
27	2:15	0.9	0.27	0.14	0.24	0.13	0.90	0.11
28	2:20	0.9	0.27	0.14	0.24	0.13	0.90	0.11
29	2:25	0.9	0.27	0.14	0.24	0.13	0.90	0.12
30	2:30	0.9	0.27	0.14	0.24	0.13	0.90	0.12
31	2:35	0.9	0.27	0.14	0.24	0.13	0.90	0.13
32	2:40	0.9	0.27	0.14	0.24	0.13	0.90	0.14
33	2:45	1.0	0.30	0.14	0.27	0.16	1.11	0.14
34	2:50	1.0	0.30	0.14	0.27	0.16	1.11	0.15
35	2:55	1.0	0.30	0.14	0.27	0.16	1.11	0.16
36	3:00	1.0	0.30	0.14	0.27	0.16	1.11	0.17
37	3:05	1.0	0.30	0.14	0.27	0.16	1.11	0.17
38	3:10	1.1	0.33	0.14	0.30	0.19	1.32	0.18
39	3:15	1.1	0.33	0.14	0.30	0.19	1.32	0.19
40	3:20	1.1	0.33	0.14	0.30	0.19	1.32	0.20
41	3:25	1.2	0.36	0.14	0.32	0.22	1.53	0.21
42	3:30	1.3	0.39	0.14	0.35	0.25	1.74	0.22
43	3:35	1.4	0.42	0.14	0.38	0.28	1.95	0.24
44	3:40	1.4	0.42	0.14	0.38	0.28	1.95	0.25
45	3:45	1.5	0.45	0.14	0.41	0.31	2.15	0.26
46	3:50	1.5	0.45	0.14	0.41	0.31	2.15	0.28
47	3:55	1.6	0.48	0.14	0.43	0.34	2.36	0.29
48	4:00	1.6	0.48	0.14	0.43	0.34	2.36	0.31
49	4:05	1.7	0.51	0.14	0.46	0.37	2.57	0.33
50	4:10	1.8	0.54	0.14	0.49	0.40	2.78	0.34
51	4:15	1.9	0.57	0.14	0.51	0.43	2.99	0.36
52	4:20	2.0	0.60	0.14	0.54	0.46	3.20	0.39
53	4:25	2.1	0.63	0.14	0.57	0.49	3.41	0.41
54	4:30	2.1	0.63	0.14	0.57	0.49	3.41	0.43
55	4:35	2.2	0.66	0.14	0.59	0.52	3.61	0.46
56	4:40	2.3	0.69	0.14	0.62	0.55	3.82	0.48
57	4:45	2.4	0.72	0.14	0.65	0.58	4.03	0.51
58	4:50	2.4	0.72	0.14	0.65	0.58	4.03	0.54
59	4:55	2.5	0.75	0.14	0.68	0.61	4.24	0.57
60	5:00	2.6	0.78	0.14	0.70	0.64	4.45	0.59
61	5:05	3.1	0.93	0.14	0.84	0.79	5.49	0.63
62	5:10	3.6	1.08	0.14	0.97	0.94	6.53	0.67
63	5:15	3.9	1.17	0.14	1.05	1.03	7.16	0.72
64	5:20	4.2	1.26	0.14	1.13	1.12	7.78	0.77
65	5:25	4.7	1.41	0.14	1.27	1.27	8.83	0.83
66	5:30	5.6	1.68	0.14	1.51	1.54	10.70	0.89
67	5:35	1.9	0.57	0.14	0.51	0.43	2.99	0.94
68	5:40	0.9	0.27	0.14	0.24	0.13	0.90	0.95
69	5:45	0.6	0.18	0.14	0.16	0.04	0.28	0.96
70	5:50	0.5	0.15	0.14	0.14	0.01	0.07	0.96
71	5:55	0.3	0.09	0.14	0.08	0.01	0.06	0.96
72	6:00	0.2	0.06	0.14	0.05	0.01	0.04	0.96

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	1.7
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.28	0.09	0.01	0.07	0.00
2	0:10	0.6	0.12	0.28	0.11	0.01	0.09	0.00
3	0:15	0.6	0.12	0.28	0.11	0.01	0.09	0.00
4	0:20	0.6	0.12	0.28	0.11	0.01	0.09	0.00
5	0:25	0.6	0.12	0.28	0.11	0.01	0.09	0.00
6	0:30	0.7	0.14	0.28	0.13	0.01	0.10	0.00
7	0:35	0.7	0.14	0.28	0.13	0.01	0.10	0.00
8	0:40	0.7	0.14	0.28	0.13	0.01	0.10	0.00
9	0:45	0.7	0.14	0.28	0.13	0.01	0.10	0.01
10	0:50	0.7	0.14	0.28	0.13	0.01	0.10	0.01
11	0:55	0.7	0.14	0.28	0.13	0.01	0.10	0.01
12	1:00	0.8	0.16	0.28	0.15	0.02	0.11	0.01
13	1:05	0.8	0.16	0.28	0.15	0.02	0.11	0.01
14	1:10	0.8	0.16	0.28	0.15	0.02	0.11	0.01
15	1:15	0.8	0.16	0.28	0.15	0.02	0.11	0.01
16	1:20	0.8	0.16	0.28	0.15	0.02	0.11	0.01
17	1:25	0.8	0.16	0.28	0.15	0.02	0.11	0.01
18	1:30	0.8	0.16	0.28	0.15	0.02	0.11	0.01
19	1:35	0.8	0.16	0.28	0.15	0.02	0.11	0.01
20	1:40	0.8	0.16	0.28	0.15	0.02	0.11	0.01
21	1:45	0.8	0.16	0.28	0.15	0.02	0.11	0.01
22	1:50	0.8	0.16	0.28	0.15	0.02	0.11	0.02
23	1:55	0.8	0.16	0.28	0.15	0.02	0.11	0.02
24	2:00	0.9	0.18	0.28	0.17	0.02	0.13	0.02
25	2:05	0.8	0.16	0.28	0.15	0.02	0.11	0.02
26	2:10	0.9	0.18	0.28	0.17	0.02	0.13	0.02
27	2:15	0.9	0.18	0.28	0.17	0.02	0.13	0.02
28	2:20	0.9	0.18	0.28	0.17	0.02	0.13	0.02
29	2:25	0.9	0.18	0.28	0.17	0.02	0.13	0.02
30	2:30	0.9	0.18	0.28	0.17	0.02	0.13	0.02
31	2:35	0.9	0.18	0.28	0.17	0.02	0.13	0.02
32	2:40	0.9	0.18	0.28	0.17	0.02	0.13	0.02
33	2:45	1.0	0.20	0.28	0.18	0.02	0.14	0.02
34	2:50	1.0	0.20	0.28	0.18	0.02	0.14	0.03
35	2:55	1.0	0.20	0.28	0.18	0.02	0.14	0.03
36	3:00	1.0	0.20	0.28	0.18	0.02	0.14	0.03
37	3:05	1.0	0.20	0.28	0.18	0.02	0.14	0.03
38	3:10	1.1	0.22	0.28	0.20	0.02	0.16	0.03
39	3:15	1.1	0.22	0.28	0.20	0.02	0.16	0.03
40	3:20	1.1	0.22	0.28	0.20	0.02	0.16	0.03
41	3:25	1.2	0.24	0.28	0.22	0.02	0.17	0.03
42	3:30	1.3	0.27	0.28	0.24	0.03	0.18	0.03
43	3:35	1.4	0.29	0.28	0.26	0.01	0.04	0.03
44	3:40	1.4	0.29	0.28	0.26	0.01	0.04	0.04
45	3:45	1.5	0.31	0.28	0.28	0.03	0.18	0.04
46	3:50	1.5	0.31	0.28	0.28	0.03	0.18	0.04
47	3:55	1.6	0.33	0.28	0.29	0.05	0.32	0.04
48	4:00	1.6	0.33	0.28	0.29	0.05	0.32	0.04
49	4:05	1.7	0.35	0.28	0.31	0.07	0.46	0.04
50	4:10	1.8	0.37	0.28	0.33	0.09	0.61	0.05
51	4:15	1.9	0.39	0.28	0.35	0.11	0.75	0.05
52	4:20	2.0	0.41	0.28	0.37	0.13	0.89	0.06
53	4:25	2.1	0.43	0.28	0.39	0.15	1.03	0.06
54	4:30	2.1	0.43	0.28	0.39	0.15	1.03	0.07
55	4:35	2.2	0.45	0.28	0.40	0.17	1.17	0.08
56	4:40	2.3	0.47	0.28	0.42	0.19	1.31	0.09
57	4:45	2.4	0.49	0.28	0.44	0.21	1.46	0.10
58	4:50	2.4	0.49	0.28	0.44	0.21	1.46	0.11
59	4:55	2.5	0.51	0.28	0.46	0.23	1.60	0.12
60	5:00	2.6	0.53	0.28	0.48	0.25	1.74	0.13
61	5:05	3.1	0.63	0.28	0.57	0.35	2.45	0.14
62	5:10	3.6	0.73	0.28	0.66	0.45	3.16	0.16
63	5:15	3.9	0.80	0.28	0.72	0.52	3.58	0.19
64	5:20	4.2	0.86	0.28	0.77	0.58	4.01	0.21
65	5:25	4.7	0.96	0.28	0.86	0.68	4.72	0.24
66	5:30	5.6	1.14	0.28	1.03	0.86	5.99	0.28
67	5:35	1.9	0.39	0.28	0.35	0.11	0.75	0.30
68	5:40	0.9	0.18	0.28	0.17	0.02	0.13	0.31
69	5:45	0.6	0.12	0.28	0.11	0.01	0.09	0.31
70	5:50	0.5	0.10	0.28	0.09	0.01	0.07	0.31
71	5:55	0.3	0.06	0.28	0.06	0.01	0.04	0.31
72	6:00	0.2	0.04	0.28	0.04	0.00	0.03	0.31

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	1.4
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.48	0.08	0.01	0.06	0.00
2	0:10	0.6	0.10	0.48	0.09	0.01	0.07	0.00
3	0:15	0.6	0.10	0.48	0.09	0.01	0.07	0.00
4	0:20	0.6	0.10	0.48	0.09	0.01	0.07	0.00
5	0:25	0.6	0.10	0.48	0.09	0.01	0.07	0.00
6	0:30	0.7	0.12	0.48	0.11	0.01	0.08	0.00
7	0:35	0.7	0.12	0.48	0.11	0.01	0.08	0.00
8	0:40	0.7	0.12	0.48	0.11	0.01	0.08	0.00
9	0:45	0.7	0.12	0.48	0.11	0.01	0.08	0.00
10	0:50	0.7	0.12	0.48	0.11	0.01	0.08	0.00
11	0:55	0.7	0.12	0.48	0.11	0.01	0.08	0.01
12	1:00	0.8	0.13	0.48	0.12	0.01	0.09	0.01
13	1:05	0.8	0.13	0.48	0.12	0.01	0.09	0.01
14	1:10	0.8	0.13	0.48	0.12	0.01	0.09	0.01
15	1:15	0.8	0.13	0.48	0.12	0.01	0.09	0.01
16	1:20	0.8	0.13	0.48	0.12	0.01	0.09	0.01
17	1:25	0.8	0.13	0.48	0.12	0.01	0.09	0.01
18	1:30	0.8	0.13	0.48	0.12	0.01	0.09	0.01
19	1:35	0.8	0.13	0.48	0.12	0.01	0.09	0.01
20	1:40	0.8	0.13	0.48	0.12	0.01	0.09	0.01
21	1:45	0.8	0.13	0.48	0.12	0.01	0.09	0.01
22	1:50	0.8	0.13	0.48	0.12	0.01	0.09	0.01
23	1:55	0.8	0.13	0.48	0.12	0.01	0.09	0.01
24	2:00	0.9	0.15	0.48	0.14	0.02	0.11	0.01
25	2:05	0.8	0.13	0.48	0.12	0.01	0.09	0.01
26	2:10	0.9	0.15	0.48	0.14	0.02	0.11	0.02
27	2:15	0.9	0.15	0.48	0.14	0.02	0.11	0.02
28	2:20	0.9	0.15	0.48	0.14	0.02	0.11	0.02
29	2:25	0.9	0.15	0.48	0.14	0.02	0.11	0.02
30	2:30	0.9	0.15	0.48	0.14	0.02	0.11	0.02
31	2:35	0.9	0.15	0.48	0.14	0.02	0.11	0.02
32	2:40	0.9	0.15	0.48	0.14	0.02	0.11	0.02
33	2:45	1.0	0.17	0.48	0.15	0.02	0.12	0.02
34	2:50	1.0	0.17	0.48	0.15	0.02	0.12	0.02
35	2:55	1.0	0.17	0.48	0.15	0.02	0.12	0.02
36	3:00	1.0	0.17	0.48	0.15	0.02	0.12	0.02
37	3:05	1.0	0.17	0.48	0.15	0.02	0.12	0.02
38	3:10	1.1	0.18	0.48	0.17	0.02	0.13	0.02
39	3:15	1.1	0.18	0.48	0.17	0.02	0.13	0.03
40	3:20	1.1	0.18	0.48	0.17	0.02	0.13	0.03
41	3:25	1.2	0.20	0.48	0.18	0.02	0.14	0.03
42	3:30	1.3	0.22	0.48	0.20	0.02	0.15	0.03
43	3:35	1.4	0.24	0.48	0.21	0.02	0.16	0.03
44	3:40	1.4	0.24	0.48	0.21	0.02	0.16	0.03
45	3:45	1.5	0.25	0.48	0.23	0.03	0.18	0.03
46	3:50	1.5	0.25	0.48	0.23	0.03	0.18	0.03
47	3:55	1.6	0.27	0.48	0.24	0.03	0.19	0.03
48	4:00	1.6	0.27	0.48	0.24	0.03	0.19	0.04
49	4:05	1.7	0.29	0.48	0.26	0.03	0.20	0.04
50	4:10	1.8	0.30	0.48	0.27	0.03	0.21	0.04
51	4:15	1.9	0.32	0.48	0.29	0.03	0.22	0.04
52	4:20	2.0	0.34	0.48	0.30	0.03	0.23	0.04
53	4:25	2.1	0.35	0.48	0.32	0.04	0.25	0.04
54	4:30	2.1	0.35	0.48	0.32	0.04	0.25	0.04
55	4:35	2.2	0.37	0.48	0.33	0.04	0.26	0.05
56	4:40	2.3	0.39	0.48	0.35	0.04	0.27	0.05
57	4:45	2.4	0.40	0.48	0.36	0.04	0.28	0.05
58	4:50	2.4	0.40	0.48	0.36	0.04	0.28	0.05
59	4:55	2.5	0.42	0.48	0.38	0.04	0.29	0.05
60	5:00	2.6	0.44	0.48	0.39	0.04	0.30	0.06
61	5:05	3.1	0.52	0.48	0.47	0.04	0.28	0.06
62	5:10	3.6	0.60	0.48	0.54	0.12	0.87	0.06
63	5:15	3.9	0.66	0.48	0.59	0.18	1.22	0.07
64	5:20	4.2	0.71	0.48	0.64	0.23	1.57	0.08
65	5:25	4.7	0.79	0.48	0.71	0.31	2.15	0.09
66	5:30	5.6	0.94	0.48	0.85	0.46	3.20	0.11
67	5:35	1.9	0.32	0.48	0.29	0.03	0.22	0.12
68	5:40	0.9	0.15	0.48	0.14	0.02	0.11	0.12
69	5:45	0.6	0.10	0.48	0.09	0.01	0.07	0.12
70	5:50	0.5	0.08	0.48	0.08	0.01	0.06	0.12
71	5:55	0.3	0.05	0.48	0.05	0.01	0.04	0.12
72	6:00	0.2	0.03	0.48	0.03	0.00	0.02	0.12

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	1.0
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.48	0.05	0.01	0.04	0.00
2	0:10	0.6	0.07	0.48	0.06	0.01	0.05	0.00
3	0:15	0.6	0.07	0.48	0.06	0.01	0.05	0.00
4	0:20	0.6	0.07	0.48	0.06	0.01	0.05	0.00
5	0:25	0.6	0.07	0.48	0.06	0.01	0.05	0.00
6	0:30	0.7	0.08	0.48	0.08	0.01	0.06	0.00
7	0:35	0.7	0.08	0.48	0.08	0.01	0.06	0.00
8	0:40	0.7	0.08	0.48	0.08	0.01	0.06	0.00
9	0:45	0.7	0.08	0.48	0.08	0.01	0.06	0.00
10	0:50	0.7	0.08	0.48	0.08	0.01	0.06	0.00
11	0:55	0.7	0.08	0.48	0.08	0.01	0.06	0.00
12	1:00	0.8	0.10	0.48	0.09	0.01	0.07	0.00
13	1:05	0.8	0.10	0.48	0.09	0.01	0.07	0.00
14	1:10	0.8	0.10	0.48	0.09	0.01	0.07	0.01
15	1:15	0.8	0.10	0.48	0.09	0.01	0.07	0.01
16	1:20	0.8	0.10	0.48	0.09	0.01	0.07	0.01
17	1:25	0.8	0.10	0.48	0.09	0.01	0.07	0.01
18	1:30	0.8	0.10	0.48	0.09	0.01	0.07	0.01
19	1:35	0.8	0.10	0.48	0.09	0.01	0.07	0.01
20	1:40	0.8	0.10	0.48	0.09	0.01	0.07	0.01
21	1:45	0.8	0.10	0.48	0.09	0.01	0.07	0.01
22	1:50	0.8	0.10	0.48	0.09	0.01	0.07	0.01
23	1:55	0.8	0.10	0.48	0.09	0.01	0.07	0.01
24	2:00	0.9	0.11	0.48	0.10	0.01	0.08	0.01
25	2:05	0.8	0.10	0.48	0.09	0.01	0.07	0.01
26	2:10	0.9	0.11	0.48	0.10	0.01	0.08	0.01
27	2:15	0.9	0.11	0.48	0.10	0.01	0.08	0.01
28	2:20	0.9	0.11	0.48	0.10	0.01	0.08	0.01
29	2:25	0.9	0.11	0.48	0.10	0.01	0.08	0.01
30	2:30	0.9	0.11	0.48	0.10	0.01	0.08	0.01
31	2:35	0.9	0.11	0.48	0.10	0.01	0.08	0.01
32	2:40	0.9	0.11	0.48	0.10	0.01	0.08	0.01
33	2:45	1.0	0.12	0.48	0.11	0.01	0.08	0.01
34	2:50	1.0	0.12	0.48	0.11	0.01	0.08	0.02
35	2:55	1.0	0.12	0.48	0.11	0.01	0.08	0.02
36	3:00	1.0	0.12	0.48	0.11	0.01	0.08	0.02
37	3:05	1.0	0.12	0.48	0.11	0.01	0.08	0.02
38	3:10	1.1	0.13	0.48	0.12	0.01	0.09	0.02
39	3:15	1.1	0.13	0.48	0.12	0.01	0.09	0.02
40	3:20	1.1	0.13	0.48	0.12	0.01	0.09	0.02
41	3:25	1.2	0.14	0.48	0.13	0.01	0.10	0.02
42	3:30	1.3	0.16	0.48	0.14	0.02	0.11	0.02
43	3:35	1.4	0.17	0.48	0.15	0.02	0.12	0.02
44	3:40	1.4	0.17	0.48	0.15	0.02	0.12	0.02
45	3:45	1.5	0.18	0.48	0.16	0.02	0.13	0.02
46	3:50	1.5	0.18	0.48	0.16	0.02	0.13	0.02
47	3:55	1.6	0.19	0.48	0.17	0.02	0.13	0.02
48	4:00	1.6	0.19	0.48	0.17	0.02	0.13	0.03
49	4:05	1.7	0.20	0.48	0.18	0.02	0.14	0.03
50	4:10	1.8	0.22	0.48	0.19	0.02	0.15	0.03
51	4:15	1.9	0.23	0.48	0.21	0.02	0.16	0.03
52	4:20	2.0	0.24	0.48	0.22	0.02	0.17	0.03
53	4:25	2.1	0.25	0.48	0.23	0.03	0.18	0.03
54	4:30	2.1	0.25	0.48	0.23	0.03	0.18	0.03
55	4:35	2.2	0.26	0.48	0.24	0.03	0.18	0.03
56	4:40	2.3	0.28	0.48	0.25	0.03	0.19	0.03
57	4:45	2.4	0.29	0.48	0.26	0.03	0.20	0.04
58	4:50	2.4	0.29	0.48	0.26	0.03	0.20	0.04
59	4:55	2.5	0.30	0.48	0.27	0.03	0.21	0.04
60	5:00	2.6	0.31	0.48	0.28	0.03	0.22	0.04
61	5:05	3.1	0.37	0.48	0.33	0.04	0.26	0.04
62	5:10	3.6	0.43	0.48	0.39	0.04	0.30	0.04
63	5:15	3.9	0.47	0.48	0.42	0.05	0.33	0.05
64	5:20	4.2	0.50	0.48	0.45	0.02	0.17	0.05
65	5:25	4.7	0.56	0.48	0.51	0.08	0.58	0.05
66	5:30	5.6	0.67	0.48	0.60	0.19	1.33	0.06
67	5:35	1.9	0.23	0.48	0.21	0.02	0.16	0.06
68	5:40	0.9	0.11	0.48	0.10	0.01	0.08	0.06
69	5:45	0.6	0.07	0.48	0.06	0.01	0.05	0.06
70	5:50	0.5	0.06	0.48	0.05	0.01	0.04	0.06
71	5:55	0.3	0.04	0.48	0.03	0.00	0.03	0.06
72	6:00	0.2	0.02	0.48	0.02	0.00	0.02	0.06

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	1.9
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.14	0.27	0.16	1.09	0.00
2	0:10	1.3	0.30	0.14	0.27	0.16	1.09	0.01
3	0:15	1.1	0.25	0.14	0.23	0.11	0.77	0.02
4	0:20	1.5	0.34	0.14	0.31	0.20	1.40	0.03
5	0:25	1.5	0.34	0.14	0.31	0.20	1.40	0.03
6	0:30	1.8	0.41	0.14	0.37	0.27	1.88	0.05
7	0:35	1.5	0.34	0.14	0.31	0.20	1.40	0.06
8	0:40	1.8	0.41	0.14	0.37	0.27	1.88	0.07
9	0:45	1.8	0.41	0.14	0.37	0.27	1.88	0.08
10	0:50	1.5	0.34	0.14	0.31	0.20	1.40	0.09
11	0:55	1.6	0.36	0.14	0.33	0.22	1.56	0.10
12	1:00	1.8	0.41	0.14	0.37	0.27	1.88	0.12
13	1:05	2.2	0.50	0.14	0.45	0.36	2.51	0.13
14	1:10	2.2	0.50	0.14	0.45	0.36	2.51	0.15
15	1:15	2.2	0.50	0.14	0.45	0.36	2.51	0.16
16	1:20	2.0	0.46	0.14	0.41	0.32	2.20	0.18
17	1:25	2.6	0.59	0.14	0.53	0.45	3.15	0.20
18	1:30	2.7	0.62	0.14	0.55	0.48	3.31	0.22
19	1:35	2.4	0.55	0.14	0.49	0.41	2.83	0.24
20	1:40	2.7	0.62	0.14	0.55	0.48	3.31	0.26
21	1:45	3.3	0.75	0.14	0.68	0.61	4.26	0.29
22	1:50	3.1	0.71	0.14	0.64	0.57	3.94	0.32
23	1:55	2.9	0.66	0.14	0.60	0.52	3.62	0.34
24	2:00	3.0	0.68	0.14	0.62	0.54	3.78	0.37
25	2:05	3.1	0.71	0.14	0.64	0.57	3.94	0.40
26	2:10	4.2	0.96	0.14	0.86	0.82	5.68	0.43
27	2:15	5.0	1.14	0.14	1.03	1.00	6.95	0.47
28	2:20	3.5	0.80	0.14	0.72	0.66	4.57	0.51
29	2:25	6.8	1.55	0.14	1.40	1.41	9.80	0.56
30	2:30	7.3	1.66	0.14	1.50	1.52	10.59	0.63
31	2:35	8.2	1.87	0.14	1.68	1.73	12.02	0.71
32	2:40	5.9	1.35	0.14	1.21	1.21	8.38	0.78
33	2:45	2.0	0.46	0.14	0.41	0.32	2.20	0.82
34	2:50	1.8	0.41	0.14	0.37	0.27	1.88	0.83
35	2:55	1.8	0.41	0.14	0.37	0.27	1.88	0.84
36	3:00	0.6	0.14	0.14	0.12	0.01	0.10	0.85

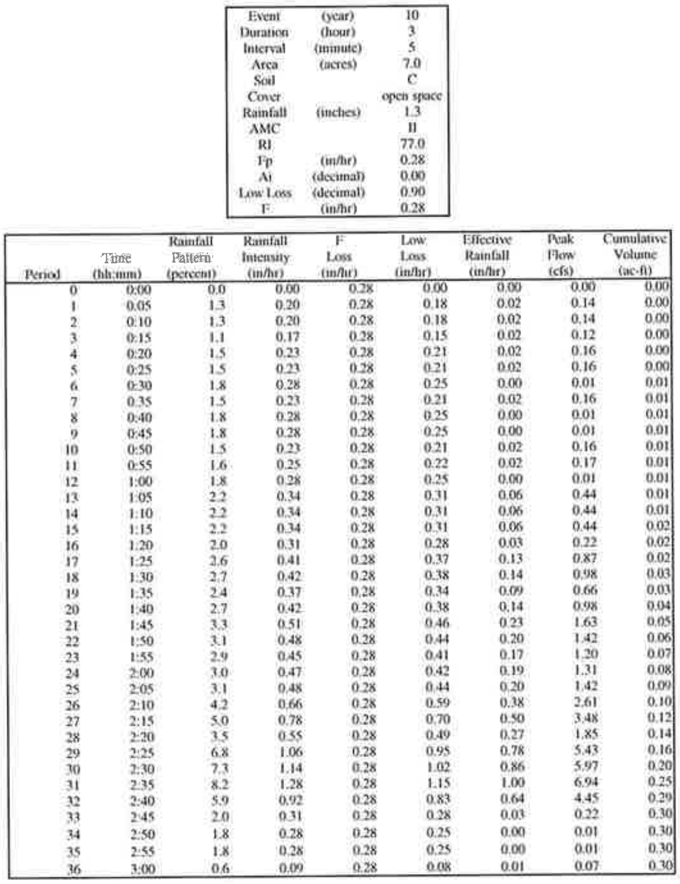

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	1.3
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.28	0.18	0.02	0.14	0.00
2	0:10	1.3	0.20	0.28	0.18	0.02	0.14	0.00
3	0:15	1.1	0.17	0.28	0.15	0.02	0.12	0.00
4	0:20	1.5	0.23	0.28	0.21	0.02	0.16	0.00
5	0:25	1.5	0.23	0.28	0.21	0.02	0.16	0.00
6	0:30	1.8	0.28	0.28	0.25	0.00	0.01	0.01
7	0:35	1.5	0.23	0.28	0.21	0.02	0.16	0.01
8	0:40	1.8	0.28	0.28	0.25	0.00	0.01	0.01
9	0:45	1.8	0.28	0.28	0.25	0.00	0.01	0.01
10	0:50	1.5	0.23	0.28	0.21	0.02	0.16	0.01
11	0:55	1.6	0.25	0.28	0.22	0.02	0.17	0.01
12	1:00	1.8	0.28	0.28	0.25	0.00	0.01	0.01
13	1:05	2.2	0.34	0.28	0.31	0.06	0.44	0.01
14	1:10	2.2	0.34	0.28	0.31	0.06	0.44	0.01
15	1:15	2.2	0.34	0.28	0.31	0.06	0.44	0.02
16	1:20	2.0	0.31	0.28	0.28	0.03	0.22	0.02
17	1:25	2.6	0.41	0.28	0.37	0.13	0.87	0.02
18	1:30	2.7	0.42	0.28	0.38	0.14	0.98	0.03
19	1:35	2.4	0.37	0.28	0.34	0.09	0.66	0.03
20	1:40	2.7	0.42	0.28	0.38	0.14	0.98	0.04
21	1:45	3.3	0.51	0.28	0.46	0.23	1.63	0.05
22	1:50	3.1	0.48	0.28	0.44	0.20	1.42	0.06
23	1:55	2.9	0.45	0.28	0.41	0.17	1.20	0.07
24	2:00	3.0	0.47	0.28	0.42	0.19	1.31	0.08
25	2:05	3.1	0.48	0.28	0.44	0.20	1.42	0.09
26	2:10	4.2	0.66	0.28	0.59	0.38	2.61	0.10
27	2:15	5.0	0.78	0.28	0.70	0.50	3.48	0.12
28	2:20	3.5	0.55	0.28	0.49	0.27	1.85	0.14
29	2:25	6.8	1.06	0.28	0.95	0.78	5.43	0.16
30	2:30	7.3	1.14	0.28	1.02	0.86	5.97	0.20
31	2:35	8.2	1.28	0.28	1.15	1.00	6.94	0.25
32	2:40	5.9	0.92	0.28	0.83	0.64	4.45	0.29
33	2:45	2.0	0.31	0.28	0.28	0.03	0.22	0.30
34	2:50	1.8	0.28	0.28	0.25	0.00	0.01	0.30
35	2:55	1.8	0.28	0.28	0.25	0.00	0.01	0.30
36	3:00	0.6	0.09	0.28	0.08	0.01	0.07	0.30

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	1.1
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.48	0.15	0.02	0.12	0.00
2	0:10	1.3	0.17	0.48	0.15	0.02	0.12	0.00
3	0:15	1.1	0.15	0.48	0.13	0.01	0.10	0.00
4	0:20	1.5	0.20	0.48	0.18	0.02	0.14	0.00
5	0:25	1.5	0.20	0.48	0.18	0.02	0.14	0.00
6	0:30	1.8	0.24	0.48	0.21	0.02	0.17	0.00
7	0:35	1.5	0.20	0.48	0.18	0.02	0.14	0.01
8	0:40	1.8	0.24	0.48	0.21	0.02	0.17	0.01
9	0:45	1.8	0.24	0.48	0.21	0.02	0.17	0.01
10	0:50	1.5	0.20	0.48	0.18	0.02	0.14	0.01
11	0:55	1.6	0.21	0.48	0.19	0.02	0.15	0.01
12	1:00	1.8	0.24	0.48	0.21	0.02	0.17	0.01
13	1:05	2.2	0.29	0.48	0.26	0.03	0.20	0.01
14	1:10	2.2	0.29	0.48	0.26	0.03	0.20	0.01
15	1:15	2.2	0.29	0.48	0.26	0.03	0.20	0.02
16	1:20	2.0	0.26	0.48	0.24	0.03	0.18	0.02
17	1:25	2.6	0.34	0.48	0.31	0.03	0.24	0.02
18	1:30	2.7	0.36	0.48	0.32	0.04	0.25	0.02
19	1:35	2.4	0.32	0.48	0.29	0.03	0.22	0.02
20	1:40	2.7	0.36	0.48	0.32	0.04	0.25	0.02
21	1:45	3.3	0.44	0.48	0.39	0.04	0.30	0.02
22	1:50	3.1	0.41	0.48	0.37	0.04	0.28	0.03
23	1:55	2.9	0.38	0.48	0.34	0.04	0.27	0.03
24	2:00	3.0	0.40	0.48	0.36	0.04	0.28	0.03
25	2:05	3.1	0.41	0.48	0.37	0.04	0.28	0.03
26	2:10	4.2	0.55	0.48	0.50	0.07	0.52	0.04
27	2:15	5.0	0.66	0.48	0.59	0.18	1.25	0.04
28	2:20	3.5	0.46	0.48	0.42	0.05	0.32	0.05
29	2:25	6.8	0.90	0.48	0.81	0.42	2.90	0.06
30	2:30	7.3	0.96	0.48	0.87	0.48	3.36	0.08
31	2:35	8.2	1.08	0.48	0.97	0.60	4.19	0.11
32	2:40	5.9	0.78	0.48	0.70	0.30	2.08	0.13
33	2:45	2.0	0.26	0.48	0.24	0.03	0.18	0.13
34	2:50	1.8	0.24	0.48	0.21	0.02	0.17	0.14
35	2:55	1.8	0.24	0.48	0.21	0.02	0.17	0.14
36	3:00	0.6	0.08	0.48	0.07	0.01	0.06	0.14

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		open space
Rainfall	(inches)	0.8
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.48	0.11	0.01	0.09	0.00
2	0:10	1.3	0.12	0.48	0.11	0.01	0.09	0.00
3	0:15	1.1	0.11	0.48	0.10	0.01	0.07	0.00
4	0:20	1.5	0.14	0.48	0.13	0.01	0.10	0.00
5	0:25	1.5	0.14	0.48	0.13	0.01	0.10	0.00
6	0:30	1.8	0.17	0.48	0.16	0.02	0.12	0.00
7	0:35	1.5	0.14	0.48	0.13	0.01	0.10	0.00
8	0:40	1.8	0.17	0.48	0.16	0.02	0.12	0.01
9	0:45	1.8	0.17	0.48	0.16	0.02	0.12	0.01
10	0:50	1.5	0.14	0.48	0.13	0.01	0.10	0.01
11	0:55	1.6	0.15	0.48	0.14	0.02	0.11	0.01
12	1:00	1.8	0.17	0.48	0.16	0.02	0.12	0.01
13	1:05	2.2	0.21	0.48	0.19	0.02	0.15	0.01
14	1:10	2.2	0.21	0.48	0.19	0.02	0.15	0.01
15	1:15	2.2	0.21	0.48	0.19	0.02	0.15	0.01
16	1:20	2.0	0.19	0.48	0.17	0.02	0.13	0.01
17	1:25	2.6	0.25	0.48	0.22	0.02	0.17	0.01
18	1:30	2.7	0.26	0.48	0.23	0.03	0.18	0.01
19	1:35	2.4	0.23	0.48	0.21	0.02	0.16	0.02
20	1:40	2.7	0.26	0.48	0.23	0.03	0.18	0.02
21	1:45	3.3	0.32	0.48	0.29	0.03	0.22	0.02
22	1:50	3.1	0.30	0.48	0.27	0.03	0.21	0.02
23	1:55	2.9	0.28	0.48	0.25	0.03	0.19	0.02
24	2:00	3.0	0.29	0.48	0.26	0.03	0.20	0.02
25	2:05	3.1	0.30	0.48	0.27	0.03	0.21	0.02
26	2:10	4.2	0.40	0.48	0.36	0.04	0.28	0.03
27	2:15	5.0	0.48	0.48	0.43	0.05	0.33	0.03
28	2:20	3.5	0.34	0.48	0.30	0.03	0.23	0.03
29	2:25	6.8	0.65	0.48	0.59	0.17	1.20	0.03
30	2:30	7.3	0.70	0.48	0.63	0.22	1.53	0.04
31	2:35	8.2	0.79	0.48	0.71	0.31	2.14	0.06
32	2:40	5.9	0.57	0.48	0.51	0.09	0.60	0.07
33	2:45	2.0	0.19	0.48	0.17	0.02	0.13	0.07
34	2:50	1.8	0.17	0.48	0.16	0.02	0.12	0.07
35	2:55	1.8	0.17	0.48	0.16	0.02	0.12	0.07
36	3:00	0.6	0.06	0.48	0.05	0.01	0.04	0.07

Hydrologic Summary

BUILDING 2
PROP. CONDITION

Watershed Characteristics

Area	(acres)	6.95
Soil		C
Cover		Commercial

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		69	69	69	69	Plate E-6.1
Fp	(in/hr)	0.21	0.40	0.60	0.60	Plate E-6.2
Ai	(decimal)	0.90	0.90	0.90	0.90	Plate E-6.3
Low Loss	(decimal)	0.18	0.18	0.18	0.18	0.9-(0.8Ai)
F	(in/hr)	0.04	0.08	0.11	0.11	Fp(1-0.9Ai)
Fm	(in/hr)	0.02	0.04	0.06	0.06	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	3.54	2.00	1.40	0.83	24-hour
Peak Flow	(cfs)	11.40	7.41	5.75	3.88	6-hour
Peak Flow	(cfs)	12.72	8.36	6.73	4.68	3-hour
Total Runoff	(ac-ft)	1.82	1.00	0.72	0.50	24-hour
Total Runoff	(ac-ft)	1.30	0.72	0.45	0.35	6-hour
Total Runoff	(ac-ft)	1.02	0.62	0.44	0.27	3-hour

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	4.0
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04
Fm	(in/hr)	0.02
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.07	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.07	0.01	0.03	0.18	0.00
2	0:30	0.3	0.05	0.07	0.01	0.04	0.27	0.01
3	0:45	0.3	0.05	0.07	0.01	0.04	0.27	0.01
4	1:00	0.4	0.06	0.07	0.01	0.05	0.36	0.02
5	1:15	0.3	0.05	0.07	0.01	0.04	0.27	0.03
6	1:30	0.3	0.05	0.07	0.01	0.04	0.27	0.03
7	1:45	0.3	0.05	0.07	0.01	0.04	0.27	0.04
8	2:00	0.4	0.06	0.06	0.01	0.05	0.36	0.04
9	2:15	0.4	0.06	0.06	0.01	0.05	0.36	0.05
10	2:30	0.4	0.06	0.06	0.01	0.00	0.01	0.05
11	2:45	0.5	0.08	0.06	0.01	0.02	0.12	0.06
12	3:00	0.5	0.08	0.06	0.01	0.02	0.13	0.06
13	3:15	0.5	0.08	0.06	0.01	0.02	0.13	0.06
14	3:30	0.5	0.08	0.06	0.01	0.02	0.14	0.06
15	3:45	0.5	0.08	0.06	0.01	0.02	0.14	0.07
16	4:00	0.6	0.10	0.06	0.02	0.04	0.26	0.07
17	4:15	0.6	0.10	0.06	0.02	0.04	0.26	0.08
18	4:30	0.7	0.11	0.06	0.02	0.05	0.38	0.08
19	4:45	0.7	0.11	0.06	0.02	0.06	0.39	0.09
20	5:00	0.8	0.13	0.06	0.02	0.07	0.50	0.10
21	5:15	0.6	0.10	0.06	0.02	0.04	0.28	0.11
22	5:30	0.7	0.11	0.05	0.02	0.06	0.40	0.12
23	5:45	0.8	0.13	0.05	0.02	0.07	0.52	0.12
24	6:00	0.8	0.13	0.05	0.02	0.08	0.52	0.14
25	6:15	0.9	0.14	0.05	0.03	0.09	0.64	0.15
26	6:30	0.9	0.14	0.05	0.03	0.09	0.64	0.16
27	6:45	1.0	0.16	0.05	0.03	0.11	0.76	0.18
28	7:00	1.0	0.16	0.05	0.03	0.11	0.76	0.19
29	7:15	1.0	0.16	0.05	0.03	0.11	0.77	0.21
30	7:30	1.1	0.18	0.05	0.03	0.13	0.88	0.22
31	7:45	1.2	0.19	0.05	0.03	0.14	1.00	0.24
32	8:00	1.3	0.21	0.05	0.04	0.16	1.12	0.27
33	8:15	1.5	0.24	0.05	0.04	0.19	1.34	0.29
34	8:30	1.5	0.24	0.05	0.04	0.19	1.35	0.32
35	8:45	1.6	0.26	0.05	0.05	0.21	1.46	0.35
36	9:00	1.7	0.27	0.04	0.05	0.23	1.58	0.38
37	9:15	1.9	0.30	0.04	0.05	0.26	1.81	0.41
38	9:30	2.0	0.32	0.04	0.06	0.28	1.92	0.45
39	9:45	2.1	0.34	0.04	0.06	0.29	2.04	0.49
40	10:00	2.2	0.35	0.04	0.06	0.31	2.15	0.54
41	10:15	1.5	0.24	0.04	0.04	0.20	1.38	0.57
42	10:30	1.5	0.24	0.04	0.04	0.20	1.38	0.60
43	10:45	2.0	0.32	0.04	0.06	0.28	1.94	0.64
44	11:00	2.0	0.32	0.04	0.06	0.28	1.95	0.68
45	11:15	1.9	0.30	0.04	0.05	0.26	1.84	0.72
46	11:30	1.9	0.30	0.04	0.05	0.27	1.84	0.75
47	11:45	1.7	0.27	0.04	0.05	0.23	1.62	0.79
48	12:00	1.8	0.29	0.04	0.05	0.25	1.74	0.82
49	12:15	2.5	0.40	0.04	0.07	0.36	2.52	0.87
50	12:30	2.6	0.42	0.04	0.07	0.38	2.64	0.92
51	12:45	2.8	0.45	0.04	0.08	0.41	2.86	0.98
52	13:00	2.9	0.46	0.04	0.08	0.43	2.98	1.04
53	13:15	3.4	0.54	0.03	0.10	0.51	3.54	1.11
54	13:30	3.4	0.54	0.03	0.10	0.51	3.54	1.18
55	13:45	2.3	0.37	0.03	0.07	0.33	2.32	1.24
56	14:00	2.3	0.37	0.03	0.07	0.33	2.33	1.29
57	14:15	2.7	0.43	0.03	0.08	0.40	2.77	1.34
58	14:30	2.6	0.42	0.03	0.07	0.38	2.67	1.40
59	14:45	2.6	0.42	0.03	0.07	0.38	2.67	1.45
60	15:00	2.5	0.40	0.03	0.07	0.37	2.56	1.51
61	15:15	2.4	0.38	0.03	0.07	0.35	2.45	1.56
62	15:30	2.3	0.37	0.03	0.07	0.34	2.35	1.61
63	15:45	1.9	0.30	0.03	0.05	0.27	1.90	1.65
64	16:00	1.9	0.30	0.03	0.05	0.27	1.91	1.69
65	16:15	0.4	0.06	0.03	0.01	0.03	0.24	1.71
66	16:30	0.4	0.06	0.03	0.01	0.04	0.25	1.72
67	16:45	0.3	0.05	0.03	0.01	0.02	0.14	1.72
68	17:00	0.3	0.05	0.03	0.01	0.02	0.14	1.72
69	17:15	0.5	0.08	0.03	0.01	0.05	0.37	1.73
70	17:30	0.5	0.08	0.03	0.01	0.05	0.37	1.74
71	17:45	0.5	0.08	0.03	0.01	0.05	0.37	1.74
72	18:00	0.4	0.06	0.03	0.01	0.04	0.26	1.75
73	18:15	0.4	0.06	0.03	0.01	0.04	0.27	1.76
74	18:30	0.4	0.06	0.03	0.01	0.04	0.27	1.76
75	18:45	0.3	0.05	0.02	0.01	0.02	0.16	1.77
76	19:00	0.2	0.03	0.02	0.01	0.01	0.05	1.77
77	19:15	0.3	0.05	0.02	0.01	0.02	0.17	1.77
78	19:30	0.4	0.06	0.02	0.01	0.04	0.28	1.78
79	19:45	0.3	0.05	0.02	0.01	0.02	0.17	1.78
80	20:00	0.2	0.03	0.02	0.01	0.01	0.06	1.78
81	20:15	0.3	0.05	0.02	0.01	0.03	0.17	1.79
82	20:30	0.3	0.05	0.02	0.01	0.03	0.18	1.79
83	20:45	0.3	0.05	0.02	0.01	0.03	0.18	1.79
84	21:00	0.2	0.03	0.02	0.01	0.01	0.07	1.80
85	21:15	0.3	0.05	0.02	0.01	0.03	0.18	1.80
86	21:30	0.2	0.03	0.02	0.01	0.01	0.07	1.80
87	21:45	0.3	0.05	0.02	0.01	0.03	0.19	1.80
88	22:00	0.2	0.03	0.02	0.01	0.01	0.08	1.81
89	22:15	0.3	0.05	0.02	0.01	0.03	0.19	1.81
90	22:30	0.2	0.03	0.02	0.01	0.01	0.08	1.81
91	22:45	0.2	0.03	0.02	0.01	0.01	0.08	1.81
92	23:00	0.2	0.03	0.02	0.01	0.01	0.08	1.81
93	23:15	0.2	0.03	0.02	0.01	0.01	0.08	1.82
94	23:30	0.2	0.03	0.02	0.01	0.01	0.08	1.82
95	23:45	0.2	0.03	0.02	0.01	0.01	0.08	1.82
96	0:00	0.2	0.03	0.02	0.01	0.01	0.08	1.82

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	2.6
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08
Fm	(in/hr)	0.04
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.13	0.00	0.02	0.12	0.00
2	0:30	0.3	0.03	0.13	0.01	0.03	0.18	0.00
3	0:45	0.3	0.03	0.13	0.01	0.03	0.18	0.01
4	1:00	0.4	0.04	0.13	0.01	0.03	0.24	0.01
5	1:15	0.3	0.03	0.13	0.01	0.03	0.18	0.02
6	1:30	0.3	0.03	0.13	0.01	0.03	0.18	0.02
7	1:45	0.3	0.03	0.13	0.01	0.03	0.18	0.02
8	2:00	0.4	0.04	0.12	0.01	0.03	0.24	0.03
9	2:15	0.4	0.04	0.12	0.01	0.03	0.24	0.03
10	2:30	0.4	0.04	0.12	0.01	0.03	0.24	0.04
11	2:45	0.5	0.05	0.12	0.01	0.04	0.30	0.04
12	3:00	0.5	0.05	0.12	0.01	0.04	0.30	0.05
13	3:15	0.5	0.05	0.12	0.01	0.04	0.30	0.06
14	3:30	0.5	0.05	0.11	0.01	0.04	0.30	0.06
15	3:45	0.5	0.05	0.11	0.01	0.04	0.30	0.07
16	4:00	0.6	0.06	0.11	0.01	0.05	0.36	0.07
17	4:15	0.6	0.06	0.11	0.01	0.05	0.36	0.08
18	4:30	0.7	0.07	0.11	0.01	0.06	0.41	0.09
19	4:45	0.7	0.07	0.11	0.01	0.06	0.41	0.10
20	5:00	0.8	0.08	0.11	0.01	0.07	0.47	0.11
21	5:15	0.6	0.06	0.10	0.01	0.05	0.36	0.12
22	5:30	0.7	0.07	0.10	0.01	0.06	0.41	0.12
23	5:45	0.8	0.08	0.10	0.01	0.07	0.47	0.13
24	6:00	0.8	0.08	0.10	0.01	0.07	0.47	0.14
25	6:15	0.9	0.09	0.10	0.02	0.08	0.53	0.15
26	6:30	0.9	0.09	0.10	0.02	0.08	0.53	0.16
27	6:45	1.0	0.10	0.10	0.02	0.01	0.05	0.17
28	7:00	1.0	0.10	0.10	0.02	0.01	0.06	0.17
29	7:15	1.0	0.10	0.09	0.02	0.01	0.07	0.17
30	7:30	1.1	0.11	0.09	0.02	0.02	0.15	0.18
31	7:45	1.2	0.12	0.09	0.02	0.03	0.23	0.18
32	8:00	1.3	0.14	0.09	0.02	0.04	0.31	0.18
33	8:15	1.5	0.16	0.09	0.03	0.07	0.46	0.19
34	8:30	1.5	0.16	0.09	0.03	0.07	0.47	0.20
35	8:45	1.6	0.17	0.09	0.03	0.08	0.55	0.21
36	9:00	1.7	0.18	0.09	0.03	0.09	0.64	0.23
37	9:15	1.9	0.20	0.08	0.04	0.11	0.79	0.24
38	9:30	2.0	0.21	0.08	0.04	0.12	0.87	0.26
39	9:45	2.1	0.22	0.08	0.04	0.14	0.95	0.28
40	10:00	2.2	0.23	0.08	0.04	0.15	1.03	0.30
41	10:15	1.5	0.16	0.08	0.03	0.08	0.53	0.31
42	10:30	1.5	0.16	0.08	0.03	0.08	0.54	0.32
43	10:45	2.0	0.21	0.08	0.04	0.13	0.91	0.34
44	11:00	2.0	0.21	0.08	0.04	0.13	0.92	0.36
45	11:15	1.9	0.20	0.07	0.04	0.12	0.85	0.38
46	11:30	1.9	0.20	0.07	0.04	0.12	0.86	0.39
47	11:45	1.7	0.18	0.07	0.03	0.10	0.72	0.41
48	12:00	1.8	0.19	0.07	0.03	0.12	0.80	0.43
49	12:15	2.5	0.26	0.07	0.05	0.19	1.32	0.45
50	12:30	2.6	0.27	0.07	0.05	0.20	1.40	0.48
51	12:45	2.8	0.29	0.07	0.05	0.22	1.55	0.51
52	13:00	2.9	0.30	0.07	0.05	0.23	1.63	0.54
53	13:15	3.4	0.35	0.07	0.06	0.29	2.00	0.58
54	13:30	3.4	0.35	0.07	0.06	0.29	2.00	0.62
55	13:45	2.3	0.24	0.06	0.04	0.17	1.21	0.65
56	14:00	2.3	0.24	0.06	0.04	0.18	1.22	0.68
57	14:15	2.7	0.28	0.06	0.05	0.22	1.52	0.70
58	14:30	2.6	0.27	0.06	0.05	0.21	1.45	0.73
59	14:45	2.6	0.27	0.06	0.05	0.21	1.46	0.77
60	15:00	2.5	0.26	0.06	0.05	0.20	1.39	0.79
61	15:15	2.4	0.25	0.06	0.04	0.19	1.33	0.82
62	15:30	2.3	0.24	0.06	0.04	0.18	1.26	0.85
63	15:45	1.9	0.20	0.06	0.04	0.14	0.98	0.87
64	16:00	1.9	0.20	0.06	0.04	0.14	0.98	0.89
65	16:15	0.4	0.04	0.06	0.01	0.03	0.24	0.91
66	16:30	0.4	0.04	0.05	0.01	0.03	0.24	0.91
67	16:45	0.3	0.03	0.05	0.01	0.03	0.18	0.91
68	17:00	0.3	0.03	0.05	0.01	0.03	0.18	0.92
69	17:15	0.5	0.05	0.05	0.01	0.00	0.00	0.92
70	17:30	0.5	0.05	0.05	0.01	0.00	0.01	0.92
71	17:45	0.5	0.05	0.05	0.01	0.00	0.01	0.92
72	18:00	0.4	0.04	0.05	0.01	0.03	0.24	0.92
73	18:15	0.4	0.04	0.05	0.01	0.03	0.24	0.93
74	18:30	0.4	0.04	0.05	0.01	0.03	0.24	0.93
75	18:45	0.3	0.03	0.05	0.01	0.03	0.18	0.94
76	19:00	0.2	0.02	0.05	0.00	0.02	0.12	0.94
77	19:15	0.3	0.03	0.05	0.01	0.03	0.18	0.94
78	19:30	0.4	0.04	0.05	0.01	0.03	0.24	0.95
79	19:45	0.3	0.03	0.04	0.01	0.03	0.18	0.95
80	20:00	0.2	0.02	0.04	0.00	0.02	0.12	0.95
81	20:15	0.3	0.03	0.04	0.01	0.03	0.18	0.96
82	20:30	0.3	0.03	0.04	0.01	0.03	0.18	0.96
83	20:45	0.3	0.03	0.04	0.01	0.03	0.18	0.97
84	21:00	0.2	0.02	0.04	0.00	0.02	0.12	0.97
85	21:15	0.3	0.03	0.04	0.01	0.03	0.18	0.97
86	21:30	0.2	0.02	0.04	0.00	0.02	0.12	0.97
87	21:45	0.3	0.03	0.04	0.01	0.03	0.18	0.98
88	22:00	0.2	0.02	0.04	0.00	0.02	0.12	0.98
89	22:15	0.3	0.03	0.04	0.01	0.03	0.18	0.98
90	22:30	0.2	0.02	0.04	0.00	0.02	0.12	0.99
91	22:45	0.2	0.02	0.04	0.00	0.02	0.12	0.99
92	23:00	0.2	0.02	0.04	0.00	0.02	0.12	0.99
93	23:15	0.2	0.02	0.04	0.00	0.02	0.12	0.99
94	23:30	0.2	0.02	0.04	0.00	0.02	0.12	1.00
95	23:45	0.2	0.02	0.04	0.00	0.02	0.12	1.00
96	0:00	0.2	0.02	0.04	0.00	0.02	0.12	1.00

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	2.2
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.20	0.00	0.01	0.10	0.00
2	0:30	0.3	0.03	0.20	0.00	0.02	0.15	0.00
3	0:45	0.3	0.03	0.20	0.00	0.02	0.15	0.01
4	1:00	0.4	0.04	0.19	0.01	0.03	0.20	0.01
5	1:15	0.3	0.03	0.19	0.00	0.02	0.15	0.01
6	1:30	0.3	0.03	0.19	0.00	0.02	0.15	0.02
7	1:45	0.3	0.03	0.19	0.00	0.02	0.15	0.02
8	2:00	0.4	0.04	0.19	0.01	0.03	0.20	0.02
9	2:15	0.4	0.04	0.18	0.01	0.03	0.20	0.03
10	2:30	0.4	0.04	0.18	0.01	0.03	0.20	0.03
11	2:45	0.5	0.04	0.18	0.01	0.04	0.25	0.04
12	3:00	0.5	0.04	0.18	0.01	0.04	0.25	0.04
13	3:15	0.5	0.04	0.17	0.01	0.04	0.25	0.05
14	3:30	0.5	0.04	0.17	0.01	0.04	0.25	0.05
15	3:45	0.5	0.04	0.17	0.01	0.04	0.25	0.06
16	4:00	0.6	0.05	0.17	0.01	0.04	0.30	0.06
17	4:15	0.6	0.05	0.17	0.01	0.04	0.30	0.07
18	4:30	0.7	0.06	0.16	0.01	0.05	0.35	0.08
19	4:45	0.7	0.06	0.16	0.01	0.05	0.35	0.08
20	5:00	0.8	0.07	0.16	0.01	0.06	0.40	0.09
21	5:15	0.6	0.05	0.16	0.01	0.04	0.30	0.10
22	5:30	0.7	0.06	0.16	0.01	0.05	0.35	0.11
23	5:45	0.8	0.07	0.15	0.01	0.06	0.40	0.11
24	6:00	0.8	0.07	0.15	0.01	0.06	0.40	0.12
25	6:15	0.9	0.08	0.15	0.01	0.06	0.45	0.13
26	6:30	0.9	0.08	0.15	0.01	0.06	0.45	0.14
27	6:45	1.0	0.09	0.15	0.02	0.07	0.50	0.15
28	7:00	1.0	0.09	0.14	0.02	0.07	0.50	0.16
29	7:15	1.0	0.09	0.14	0.02	0.07	0.50	0.17
30	7:30	1.1	0.10	0.14	0.02	0.08	0.55	0.18
31	7:45	1.2	0.11	0.14	0.02	0.09	0.60	0.19
32	8:00	1.3	0.11	0.14	0.02	0.09	0.65	0.21
33	8:15	1.5	0.13	0.13	0.02	0.11	0.75	0.22
34	8:30	1.5	0.13	0.13	0.02	0.00	0.00	0.23
35	8:45	1.6	0.14	0.13	0.03	0.01	0.08	0.23
36	9:00	1.7	0.15	0.13	0.03	0.02	0.15	0.23
37	9:15	1.9	0.17	0.13	0.03	0.04	0.28	0.24
38	9:30	2.0	0.18	0.12	0.03	0.05	0.36	0.24
39	9:45	2.1	0.18	0.12	0.03	0.06	0.43	0.25
40	10:00	2.2	0.19	0.12	0.03	0.07	0.50	0.26
41	10:15	1.5	0.13	0.12	0.02	0.01	0.09	0.27
42	10:30	1.5	0.13	0.12	0.02	0.01	0.10	0.27
43	10:45	2.0	0.18	0.12	0.03	0.06	0.42	0.27
44	11:00	2.0	0.18	0.11	0.03	0.06	0.43	0.28
45	11:15	1.9	0.17	0.11	0.03	0.05	0.38	0.29
46	11:30	1.9	0.17	0.11	0.03	0.06	0.39	0.30
47	11:45	1.7	0.15	0.11	0.03	0.04	0.28	0.31
48	12:00	1.8	0.16	0.11	0.03	0.05	0.35	0.31
49	12:15	2.5	0.22	0.11	0.04	0.11	0.79	0.32
50	12:30	2.6	0.23	0.10	0.04	0.12	0.87	0.34
51	12:45	2.8	0.25	0.10	0.04	0.14	1.00	0.36
52	13:00	2.9	0.26	0.10	0.05	0.15	1.07	0.38
53	13:15	3.4	0.30	0.10	0.05	0.20	1.39	0.41
54	13:30	3.4	0.30	0.10	0.05	0.20	1.40	0.44
55	13:45	2.3	0.20	0.10	0.04	0.11	0.73	0.46
56	14:00	2.3	0.20	0.10	0.04	0.11	0.75	0.47
57	14:15	2.7	0.24	0.09	0.04	0.14	1.00	0.49
58	14:30	2.6	0.23	0.09	0.04	0.14	0.95	0.51
59	14:45	2.6	0.23	0.09	0.04	0.14	0.96	0.53
60	15:00	2.5	0.22	0.09	0.04	0.13	0.91	0.55
61	15:15	2.4	0.21	0.09	0.04	0.12	0.86	0.57
62	15:30	2.3	0.20	0.09	0.04	0.12	0.80	0.59
63	15:45	1.9	0.17	0.09	0.03	0.08	0.57	0.60
64	16:00	1.9	0.17	0.08	0.03	0.08	0.58	0.61
65	16:15	0.4	0.04	0.08	0.01	0.03	0.20	0.62
66	16:30	0.4	0.04	0.08	0.01	0.03	0.20	0.62
67	16:45	0.3	0.03	0.08	0.00	0.02	0.15	0.63
68	17:00	0.3	0.03	0.08	0.00	0.02	0.15	0.63
69	17:15	0.5	0.04	0.08	0.01	0.04	0.25	0.63
70	17:30	0.5	0.04	0.08	0.01	0.04	0.25	0.64
71	17:45	0.5	0.04	0.08	0.01	0.04	0.25	0.65
72	18:00	0.4	0.04	0.07	0.01	0.03	0.20	0.65
73	18:15	0.4	0.04	0.07	0.01	0.03	0.20	0.65
74	18:30	0.4	0.04	0.07	0.01	0.03	0.20	0.66
75	18:45	0.3	0.03	0.07	0.00	0.02	0.15	0.66
76	19:00	0.2	0.02	0.07	0.00	0.01	0.10	0.66
77	19:15	0.3	0.03	0.07	0.00	0.02	0.15	0.67
78	19:30	0.4	0.04	0.07	0.01	0.03	0.20	0.67
79	19:45	0.3	0.03	0.07	0.00	0.02	0.15	0.67
80	20:00	0.2	0.02	0.07	0.00	0.01	0.10	0.68
81	20:15	0.3	0.03	0.07	0.00	0.02	0.15	0.68
82	20:30	0.3	0.03	0.06	0.00	0.02	0.15	0.68
83	20:45	0.3	0.03	0.06	0.00	0.02	0.15	0.69
84	21:00	0.2	0.02	0.06	0.00	0.01	0.10	0.69
85	21:15	0.3	0.03	0.06	0.00	0.02	0.15	0.69
86	21:30	0.2	0.02	0.06	0.00	0.01	0.10	0.69
87	21:45	0.3	0.03	0.06	0.00	0.02	0.15	0.70
88	22:00	0.2	0.02	0.06	0.00	0.01	0.10	0.70
89	22:15	0.3	0.03	0.06	0.00	0.02	0.15	0.70
90	22:30	0.2	0.02	0.06	0.00	0.01	0.10	0.70
91	22:45	0.2	0.02	0.06	0.00	0.01	0.10	0.71
92	23:00	0.2	0.02	0.06	0.00	0.01	0.10	0.71
93	23:15	0.2	0.02	0.06	0.00	0.01	0.10	0.71
94	23:30	0.2	0.02	0.06	0.00	0.01	0.10	0.71
95	23:45	0.2	0.02	0.06	0.00	0.01	0.10	0.71
96	0:00	0.2	0.02	0.06	0.00	0.01	0.10	0.72

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	1.6
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.20	0.00	0.01	0.07	0.00
2	0:30	0.3	0.02	0.20	0.00	0.02	0.11	0.00
3	0:45	0.3	0.02	0.20	0.00	0.02	0.11	0.00
4	1:00	0.4	0.03	0.19	0.00	0.02	0.15	0.01
5	1:15	0.3	0.02	0.19	0.00	0.02	0.11	0.01
6	1:30	0.3	0.02	0.19	0.00	0.02	0.11	0.01
7	1:45	0.3	0.02	0.19	0.00	0.02	0.11	0.01
8	2:00	0.4	0.03	0.19	0.00	0.02	0.15	0.02
9	2:15	0.4	0.03	0.18	0.00	0.02	0.15	0.02
10	2:30	0.4	0.03	0.18	0.00	0.02	0.15	0.02
11	2:45	0.5	0.03	0.18	0.01	0.03	0.18	0.03
12	3:00	0.5	0.03	0.18	0.01	0.03	0.18	0.03
13	3:15	0.5	0.03	0.17	0.01	0.03	0.18	0.03
14	3:30	0.5	0.03	0.17	0.01	0.03	0.18	0.04
15	3:45	0.5	0.03	0.17	0.01	0.03	0.18	0.04
16	4:00	0.6	0.04	0.17	0.01	0.03	0.22	0.05
17	4:15	0.6	0.04	0.17	0.01	0.03	0.22	0.05
18	4:30	0.7	0.04	0.16	0.01	0.04	0.26	0.06
19	4:45	0.7	0.04	0.16	0.01	0.04	0.26	0.06
20	5:00	0.8	0.05	0.16	0.01	0.04	0.29	0.07
21	5:15	0.6	0.04	0.16	0.01	0.03	0.22	0.07
22	5:30	0.7	0.04	0.16	0.01	0.04	0.26	0.08
23	5:45	0.8	0.05	0.15	0.01	0.04	0.29	0.08
24	6:00	0.8	0.05	0.15	0.01	0.04	0.29	0.09
25	6:15	0.9	0.06	0.15	0.01	0.05	0.33	0.09
26	6:30	0.9	0.06	0.15	0.01	0.05	0.33	0.10
27	6:45	1.0	0.06	0.15	0.01	0.05	0.36	0.11
28	7:00	1.0	0.06	0.14	0.01	0.05	0.36	0.12
29	7:15	1.0	0.06	0.14	0.01	0.05	0.36	0.12
30	7:30	1.1	0.07	0.14	0.01	0.06	0.40	0.13
31	7:45	1.2	0.08	0.14	0.01	0.06	0.44	0.14
32	8:00	1.3	0.08	0.14	0.01	0.07	0.47	0.15
33	8:15	1.5	0.10	0.13	0.02	0.08	0.55	0.16
34	8:30	1.5	0.10	0.13	0.02	0.08	0.55	0.17
35	8:45	1.6	0.10	0.13	0.02	0.08	0.58	0.18
36	9:00	1.7	0.11	0.13	0.02	0.09	0.62	0.20
37	9:15	1.9	0.12	0.13	0.02	0.10	0.69	0.21
38	9:30	2.0	0.13	0.12	0.02	0.00	0.02	0.22
39	9:45	2.1	0.13	0.12	0.02	0.01	0.08	0.22
40	10:00	2.2	0.14	0.12	0.03	0.02	0.14	0.22
41	10:15	1.5	0.10	0.12	0.02	0.08	0.55	0.23
42	10:30	1.5	0.10	0.12	0.02	0.08	0.55	0.24
43	10:45	2.0	0.13	0.12	0.02	0.01	0.08	0.24
44	11:00	2.0	0.13	0.11	0.02	0.01	0.10	0.25
45	11:15	1.9	0.12	0.11	0.02	0.01	0.06	0.25
46	11:30	1.9	0.12	0.11	0.02	0.01	0.08	0.25
47	11:45	1.7	0.11	0.11	0.02	0.09	0.62	0.26
48	12:00	1.8	0.12	0.11	0.02	0.01	0.05	0.26
49	12:15	2.5	0.16	0.11	0.03	0.05	0.38	0.27
50	12:30	2.6	0.17	0.10	0.03	0.06	0.43	0.28
51	12:45	2.8	0.18	0.10	0.03	0.08	0.53	0.29
52	13:00	2.9	0.19	0.10	0.03	0.08	0.59	0.30
53	13:15	3.4	0.22	0.10	0.04	0.12	0.82	0.31
54	13:30	3.4	0.22	0.10	0.04	0.12	0.83	0.33
55	13:45	2.3	0.15	0.10	0.03	0.05	0.35	0.34
56	14:00	2.3	0.15	0.10	0.03	0.05	0.36	0.35
57	14:15	2.7	0.17	0.09	0.03	0.08	0.55	0.36
58	14:30	2.6	0.17	0.09	0.03	0.07	0.52	0.37
59	14:45	2.6	0.17	0.09	0.03	0.08	0.52	0.38
60	15:00	2.5	0.16	0.09	0.03	0.07	0.49	0.39
61	15:15	2.4	0.15	0.09	0.03	0.07	0.46	0.40
62	15:30	2.3	0.15	0.09	0.03	0.06	0.42	0.41
63	15:45	1.9	0.12	0.09	0.02	0.04	0.25	0.42
64	16:00	1.9	0.12	0.08	0.02	0.04	0.26	0.42
65	16:15	0.4	0.03	0.08	0.00	0.02	0.15	0.43
66	16:30	0.4	0.03	0.08	0.00	0.02	0.15	0.43
67	16:45	0.3	0.02	0.08	0.00	0.02	0.11	0.43
68	17:00	0.3	0.02	0.08	0.00	0.02	0.11	0.43
69	17:15	0.5	0.03	0.08	0.01	0.03	0.18	0.44
70	17:30	0.5	0.03	0.08	0.01	0.03	0.18	0.44
71	17:45	0.5	0.03	0.08	0.01	0.03	0.18	0.44
72	18:00	0.4	0.03	0.07	0.00	0.02	0.15	0.45
73	18:15	0.4	0.03	0.07	0.00	0.02	0.15	0.45
74	18:30	0.4	0.03	0.07	0.00	0.02	0.15	0.45
75	18:45	0.3	0.02	0.07	0.00	0.02	0.11	0.46
76	19:00	0.2	0.01	0.07	0.00	0.01	0.07	0.46
77	19:15	0.3	0.02	0.07	0.00	0.02	0.11	0.46
78	19:30	0.4	0.03	0.07	0.00	0.02	0.15	0.46
79	19:45	0.3	0.02	0.07	0.00	0.02	0.11	0.47
80	20:00	0.2	0.01	0.07	0.00	0.01	0.07	0.47
81	20:15	0.3	0.02	0.07	0.00	0.02	0.11	0.47
82	20:30	0.3	0.02	0.06	0.00	0.02	0.11	0.47
83	20:45	0.3	0.02	0.06	0.00	0.02	0.11	0.47
84	21:00	0.2	0.01	0.06	0.00	0.01	0.07	0.48
85	21:15	0.3	0.02	0.06	0.00	0.02	0.11	0.48
86	21:30	0.2	0.01	0.06	0.00	0.01	0.07	0.48
87	21:45	0.3	0.02	0.06	0.00	0.02	0.11	0.48
88	22:00	0.2	0.01	0.06	0.00	0.01	0.07	0.48
89	22:15	0.3	0.02	0.06	0.00	0.02	0.11	0.49
90	22:30	0.2	0.01	0.06	0.00	0.01	0.07	0.49
91	22:45	0.2	0.01	0.06	0.00	0.01	0.07	0.49
92	23:00	0.2	0.01	0.06	0.00	0.01	0.07	0.49
93	23:15	0.2	0.01	0.06	0.00	0.01	0.07	0.49
94	23:30	0.2	0.01	0.06	0.00	0.01	0.07	0.49
95	23:45	0.2	0.01	0.06	0.00	0.01	0.07	0.49
96	0:00	0.2	0.01	0.06	0.00	0.01	0.07	0.50

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	2.5
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.04	0.03	0.11	0.77	0.00
2	0:10	0.6	0.18	0.04	0.03	0.14	0.97	0.01
3	0:15	0.6	0.18	0.04	0.03	0.14	0.97	0.02
4	0:20	0.6	0.18	0.04	0.03	0.14	0.97	0.02
5	0:25	0.6	0.18	0.04	0.03	0.14	0.97	0.03
6	0:30	0.7	0.21	0.04	0.04	0.17	1.18	0.04
7	0:35	0.7	0.21	0.04	0.04	0.17	1.18	0.04
8	0:40	0.7	0.21	0.04	0.04	0.17	1.18	0.05
9	0:45	0.7	0.21	0.04	0.04	0.17	1.18	0.06
10	0:50	0.7	0.21	0.04	0.04	0.17	1.18	0.07
11	0:55	0.7	0.21	0.04	0.04	0.17	1.18	0.08
12	1:00	0.8	0.24	0.04	0.04	0.20	1.39	0.09
13	1:05	0.8	0.24	0.04	0.04	0.20	1.39	0.10
14	1:10	0.8	0.24	0.04	0.04	0.20	1.39	0.10
15	1:15	0.8	0.24	0.04	0.04	0.20	1.39	0.11
16	1:20	0.8	0.24	0.04	0.04	0.20	1.39	0.12
17	1:25	0.8	0.24	0.04	0.04	0.20	1.39	0.13
18	1:30	0.8	0.24	0.04	0.04	0.20	1.39	0.14
19	1:35	0.8	0.24	0.04	0.04	0.20	1.39	0.15
20	1:40	0.8	0.24	0.04	0.04	0.20	1.39	0.16
21	1:45	0.8	0.24	0.04	0.04	0.20	1.39	0.17
22	1:50	0.8	0.24	0.04	0.04	0.20	1.39	0.18
23	1:55	0.8	0.24	0.04	0.04	0.20	1.39	0.19
24	2:00	0.9	0.27	0.04	0.05	0.23	1.60	0.20
25	2:05	0.8	0.24	0.04	0.04	0.20	1.39	0.21
26	2:10	0.9	0.27	0.04	0.05	0.23	1.60	0.22
27	2:15	0.9	0.27	0.04	0.05	0.23	1.60	0.23
28	2:20	0.9	0.27	0.04	0.05	0.23	1.60	0.24
29	2:25	0.9	0.27	0.04	0.05	0.23	1.60	0.26
30	2:30	0.9	0.27	0.04	0.05	0.23	1.60	0.27
31	2:35	0.9	0.27	0.04	0.05	0.23	1.60	0.28
32	2:40	0.9	0.27	0.04	0.05	0.23	1.60	0.29
33	2:45	1.0	0.30	0.04	0.05	0.26	1.81	0.30
34	2:50	1.0	0.30	0.04	0.05	0.26	1.81	0.31
35	2:55	1.0	0.30	0.04	0.05	0.26	1.81	0.32
36	3:00	1.0	0.30	0.04	0.05	0.26	1.81	0.34
37	3:05	1.0	0.30	0.04	0.05	0.26	1.81	0.35
38	3:10	1.1	0.33	0.04	0.06	0.29	2.02	0.36
39	3:15	1.1	0.33	0.04	0.06	0.29	2.02	0.38
40	3:20	1.1	0.33	0.04	0.06	0.29	2.02	0.39
41	3:25	1.2	0.36	0.04	0.06	0.32	2.22	0.41
42	3:30	1.3	0.39	0.04	0.07	0.35	2.43	0.42
43	3:35	1.4	0.42	0.04	0.08	0.38	2.64	0.44
44	3:40	1.4	0.42	0.04	0.08	0.38	2.64	0.46
45	3:45	1.5	0.45	0.04	0.08	0.41	2.85	0.48
46	3:50	1.5	0.45	0.04	0.08	0.41	2.85	0.50
47	3:55	1.6	0.48	0.04	0.09	0.44	3.06	0.52
48	4:00	1.6	0.48	0.04	0.09	0.44	3.06	0.54
49	4:05	1.7	0.51	0.04	0.09	0.47	3.27	0.56
50	4:10	1.8	0.54	0.04	0.10	0.50	3.48	0.58
51	4:15	1.9	0.57	0.04	0.10	0.53	3.68	0.61
52	4:20	2.0	0.60	0.04	0.11	0.56	3.89	0.63
53	4:25	2.1	0.63	0.04	0.11	0.59	4.10	0.66
54	4:30	2.1	0.63	0.04	0.11	0.59	4.10	0.69
55	4:35	2.2	0.66	0.04	0.12	0.62	4.31	0.72
56	4:40	2.3	0.69	0.04	0.12	0.65	4.52	0.75
57	4:45	2.4	0.72	0.04	0.13	0.68	4.73	0.78
58	4:50	2.4	0.72	0.04	0.13	0.68	4.73	0.81
59	4:55	2.5	0.75	0.04	0.14	0.71	4.94	0.85
60	5:00	2.6	0.78	0.04	0.14	0.74	5.14	0.88
61	5:05	3.1	0.93	0.04	0.17	0.89	6.19	0.92
62	5:10	3.6	1.08	0.04	0.19	1.04	7.23	0.97
63	5:15	3.9	1.17	0.04	0.21	1.13	7.85	1.02
64	5:20	4.2	1.26	0.04	0.23	1.22	8.48	1.07
65	5:25	4.7	1.41	0.04	0.25	1.37	9.52	1.14
66	5:30	5.6	1.68	0.04	0.30	1.64	11.40	1.21
67	5:35	1.9	0.57	0.04	0.10	0.53	3.68	1.26
68	5:40	0.9	0.27	0.04	0.05	0.23	1.60	1.28
69	5:45	0.6	0.18	0.04	0.03	0.14	0.97	1.29
70	5:50	0.5	0.15	0.04	0.03	0.11	0.77	1.29
71	5:55	0.3	0.09	0.04	0.02	0.05	0.35	1.30
72	6:00	0.2	0.06	0.04	0.01	0.02	0.14	1.30

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	1.7
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.08	0.02	0.03	0.18	0.00
2	0:10	0.6	0.12	0.08	0.02	0.05	0.32	0.00
3	0:15	0.6	0.12	0.08	0.02	0.05	0.32	0.00
4	0:20	0.6	0.12	0.08	0.02	0.05	0.32	0.01
5	0:25	0.6	0.12	0.08	0.02	0.05	0.32	0.01
6	0:30	0.7	0.14	0.08	0.03	0.07	0.46	0.01
7	0:35	0.7	0.14	0.08	0.03	0.07	0.46	0.01
8	0:40	0.7	0.14	0.08	0.03	0.07	0.46	0.02
9	0:45	0.7	0.14	0.08	0.03	0.07	0.46	0.02
10	0:50	0.7	0.14	0.08	0.03	0.07	0.46	0.02
11	0:55	0.7	0.14	0.08	0.03	0.07	0.46	0.03
12	1:00	0.8	0.16	0.08	0.03	0.09	0.61	0.03
13	1:05	0.8	0.16	0.08	0.03	0.09	0.61	0.04
14	1:10	0.8	0.16	0.08	0.03	0.09	0.61	0.04
15	1:15	0.8	0.16	0.08	0.03	0.09	0.61	0.04
16	1:20	0.8	0.16	0.08	0.03	0.09	0.61	0.05
17	1:25	0.8	0.16	0.08	0.03	0.09	0.61	0.05
18	1:30	0.8	0.16	0.08	0.03	0.09	0.61	0.06
19	1:35	0.8	0.16	0.08	0.03	0.09	0.61	0.06
20	1:40	0.8	0.16	0.08	0.03	0.09	0.61	0.06
21	1:45	0.8	0.16	0.08	0.03	0.09	0.61	0.07
22	1:50	0.8	0.16	0.08	0.03	0.09	0.61	0.07
23	1:55	0.8	0.16	0.08	0.03	0.09	0.61	0.08
24	2:00	0.9	0.18	0.08	0.03	0.11	0.75	0.08
25	2:05	0.8	0.16	0.08	0.03	0.09	0.61	0.09
26	2:10	0.9	0.18	0.08	0.03	0.11	0.75	0.09
27	2:15	0.9	0.18	0.08	0.03	0.11	0.75	0.10
28	2:20	0.9	0.18	0.08	0.03	0.11	0.75	0.10
29	2:25	0.9	0.18	0.08	0.03	0.11	0.75	0.11
30	2:30	0.9	0.18	0.08	0.03	0.11	0.75	0.11
31	2:35	0.9	0.18	0.08	0.03	0.11	0.75	0.12
32	2:40	0.9	0.18	0.08	0.03	0.11	0.75	0.12
33	2:45	1.0	0.20	0.08	0.04	0.13	0.89	0.13
34	2:50	1.0	0.20	0.08	0.04	0.13	0.89	0.13
35	2:55	1.0	0.20	0.08	0.04	0.13	0.89	0.14
36	3:00	1.0	0.20	0.08	0.04	0.13	0.89	0.15
37	3:05	1.0	0.20	0.08	0.04	0.13	0.89	0.15
38	3:10	1.1	0.22	0.08	0.04	0.15	1.03	0.16
39	3:15	1.1	0.22	0.08	0.04	0.15	1.03	0.17
40	3:20	1.1	0.22	0.08	0.04	0.15	1.03	0.17
41	3:25	1.2	0.24	0.08	0.04	0.17	1.17	0.18
42	3:30	1.3	0.27	0.08	0.05	0.19	1.31	0.19
43	3:35	1.4	0.29	0.08	0.05	0.21	1.46	0.20
44	3:40	1.4	0.29	0.08	0.05	0.21	1.46	0.21
45	3:45	1.5	0.31	0.08	0.06	0.23	1.60	0.22
46	3:50	1.5	0.31	0.08	0.06	0.23	1.60	0.23
47	3:55	1.6	0.33	0.08	0.06	0.25	1.74	0.24
48	4:00	1.6	0.33	0.08	0.06	0.25	1.74	0.25
49	4:05	1.7	0.35	0.08	0.06	0.27	1.88	0.27
50	4:10	1.8	0.37	0.08	0.07	0.29	2.02	0.28
51	4:15	1.9	0.39	0.08	0.07	0.31	2.17	0.29
52	4:20	2.0	0.41	0.08	0.07	0.33	2.31	0.31
53	4:25	2.1	0.43	0.08	0.08	0.35	2.45	0.33
54	4:30	2.1	0.43	0.08	0.08	0.35	2.45	0.34
55	4:35	2.2	0.45	0.08	0.08	0.37	2.59	0.36
56	4:40	2.3	0.47	0.08	0.08	0.39	2.73	0.38
57	4:45	2.4	0.49	0.08	0.09	0.41	2.87	0.40
58	4:50	2.4	0.49	0.08	0.09	0.41	2.87	0.42
59	4:55	2.5	0.51	0.08	0.09	0.43	3.02	0.44
60	5:00	2.6	0.53	0.08	0.10	0.45	3.16	0.46
61	5:05	3.1	0.63	0.08	0.11	0.56	3.87	0.48
62	5:10	3.6	0.73	0.08	0.13	0.66	4.58	0.51
63	5:15	3.9	0.80	0.08	0.14	0.72	5.00	0.55
64	5:20	4.2	0.86	0.08	0.15	0.78	5.43	0.58
65	5:25	4.7	0.96	0.08	0.17	0.88	6.14	0.62
66	5:30	5.6	1.14	0.08	0.21	1.07	7.41	0.67
67	5:35	1.9	0.39	0.08	0.07	0.31	2.17	0.70
68	5:40	0.9	0.18	0.08	0.03	0.11	0.75	0.71
69	5:45	0.6	0.12	0.08	0.02	0.05	0.32	0.71
70	5:50	0.5	0.10	0.08	0.02	0.03	0.18	0.72
71	5:55	0.3	0.06	0.08	0.01	0.05	0.35	0.72
72	6:00	0.2	0.04	0.08	0.01	0.03	0.23	0.72

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	1.4
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.11	0.02	0.07	0.48	0.00
2	0:10	0.6	0.10	0.11	0.02	0.08	0.57	0.01
3	0:15	0.6	0.10	0.11	0.02	0.08	0.57	0.01
4	0:20	0.6	0.10	0.11	0.02	0.08	0.57	0.01
5	0:25	0.6	0.10	0.11	0.02	0.08	0.57	0.02
6	0:30	0.7	0.12	0.11	0.02	0.00	0.03	0.02
7	0:35	0.7	0.12	0.11	0.02	0.00	0.03	0.02
8	0:40	0.7	0.12	0.11	0.02	0.00	0.03	0.02
9	0:45	0.7	0.12	0.11	0.02	0.00	0.03	0.02
10	0:50	0.7	0.12	0.11	0.02	0.00	0.03	0.02
11	0:55	0.7	0.12	0.11	0.02	0.00	0.03	0.02
12	1:00	0.8	0.13	0.11	0.02	0.02	0.14	0.02
13	1:05	0.8	0.13	0.11	0.02	0.02	0.14	0.02
14	1:10	0.8	0.13	0.11	0.02	0.02	0.14	0.02
15	1:15	0.8	0.13	0.11	0.02	0.02	0.14	0.02
16	1:20	0.8	0.13	0.11	0.02	0.02	0.14	0.02
17	1:25	0.8	0.13	0.11	0.02	0.02	0.14	0.03
18	1:30	0.8	0.13	0.11	0.02	0.02	0.14	0.03
19	1:35	0.8	0.13	0.11	0.02	0.02	0.14	0.03
20	1:40	0.8	0.13	0.11	0.02	0.02	0.14	0.03
21	1:45	0.8	0.13	0.11	0.02	0.02	0.14	0.03
22	1:50	0.8	0.13	0.11	0.02	0.02	0.14	0.03
23	1:55	0.8	0.13	0.11	0.02	0.02	0.14	0.03
24	2:00	0.9	0.15	0.11	0.03	0.04	0.26	0.03
25	2:05	0.8	0.13	0.11	0.02	0.02	0.14	0.03
26	2:10	0.9	0.15	0.11	0.03	0.04	0.26	0.04
27	2:15	0.9	0.15	0.11	0.03	0.04	0.26	0.04
28	2:20	0.9	0.15	0.11	0.03	0.04	0.26	0.04
29	2:25	0.9	0.15	0.11	0.03	0.04	0.26	0.04
30	2:30	0.9	0.15	0.11	0.03	0.04	0.26	0.04
31	2:35	0.9	0.15	0.11	0.03	0.04	0.26	0.04
32	2:40	0.9	0.15	0.11	0.03	0.04	0.26	0.05
33	2:45	1.0	0.17	0.11	0.03	0.05	0.38	0.05
34	2:50	1.0	0.17	0.11	0.03	0.05	0.38	0.05
35	2:55	1.0	0.17	0.11	0.03	0.05	0.38	0.05
36	3:00	1.0	0.17	0.11	0.03	0.05	0.38	0.06
37	3:05	1.0	0.17	0.11	0.03	0.05	0.38	0.06
38	3:10	1.1	0.18	0.11	0.03	0.07	0.49	0.06
39	3:15	1.1	0.18	0.11	0.03	0.07	0.49	0.07
40	3:20	1.1	0.18	0.11	0.03	0.07	0.49	0.07
41	3:25	1.2	0.20	0.11	0.04	0.09	0.61	0.07
42	3:30	1.3	0.22	0.11	0.04	0.10	0.73	0.08
43	3:35	1.4	0.24	0.11	0.04	0.12	0.84	0.08
44	3:40	1.4	0.24	0.11	0.04	0.12	0.84	0.09
45	3:45	1.5	0.25	0.11	0.05	0.14	0.96	0.09
46	3:50	1.5	0.25	0.11	0.05	0.14	0.96	0.10
47	3:55	1.6	0.27	0.11	0.05	0.15	1.08	0.11
48	4:00	1.6	0.27	0.11	0.05	0.15	1.08	0.12
49	4:05	1.7	0.29	0.11	0.05	0.17	1.19	0.12
50	4:10	1.8	0.30	0.11	0.05	0.19	1.31	0.13
51	4:15	1.9	0.32	0.11	0.06	0.21	1.43	0.14
52	4:20	2.0	0.34	0.11	0.06	0.22	1.54	0.15
53	4:25	2.1	0.35	0.11	0.06	0.24	1.66	0.16
54	4:30	2.1	0.35	0.11	0.06	0.24	1.66	0.17
55	4:35	2.2	0.37	0.11	0.07	0.26	1.78	0.19
56	4:40	2.3	0.39	0.11	0.07	0.27	1.89	0.20
57	4:45	2.4	0.40	0.11	0.07	0.29	2.01	0.21
58	4:50	2.4	0.40	0.11	0.07	0.29	2.01	0.23
59	4:55	2.5	0.42	0.11	0.08	0.31	2.13	0.24
60	5:00	2.6	0.44	0.11	0.08	0.32	2.24	0.25
61	5:05	3.1	0.52	0.11	0.09	0.41	2.83	0.27
62	5:10	3.6	0.60	0.11	0.11	0.49	3.41	0.29
63	5:15	3.9	0.66	0.11	0.12	0.54	3.76	0.32
64	5:20	4.2	0.71	0.11	0.13	0.59	4.11	0.35
65	5:25	4.7	0.79	0.11	0.14	0.68	4.70	0.38
66	5:30	5.6	0.94	0.11	0.17	0.83	5.75	0.41
67	5:35	1.9	0.32	0.11	0.06	0.21	1.43	0.44
68	5:40	0.9	0.15	0.11	0.03	0.04	0.26	0.44
69	5:45	0.6	0.10	0.11	0.02	0.08	0.57	0.45
70	5:50	0.5	0.08	0.11	0.02	0.07	0.48	0.45
71	5:55	0.3	0.05	0.11	0.01	0.04	0.29	0.45
72	6:00	0.2	0.03	0.11	0.01	0.03	0.19	0.45

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	1.0
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.11	0.01	0.05	0.34	0.00
2	0:10	0.6	0.07	0.11	0.01	0.06	0.41	0.00
3	0:15	0.6	0.07	0.11	0.01	0.06	0.41	0.01
4	0:20	0.6	0.07	0.11	0.01	0.06	0.41	0.01
5	0:25	0.6	0.07	0.11	0.01	0.06	0.41	0.01
6	0:30	0.7	0.08	0.11	0.02	0.07	0.48	0.02
7	0:35	0.7	0.08	0.11	0.02	0.07	0.48	0.02
8	0:40	0.7	0.08	0.11	0.02	0.07	0.48	0.02
9	0:45	0.7	0.08	0.11	0.02	0.07	0.48	0.03
10	0:50	0.7	0.08	0.11	0.02	0.07	0.48	0.03
11	0:55	0.7	0.08	0.11	0.02	0.07	0.48	0.03
12	1:00	0.8	0.10	0.11	0.02	0.08	0.55	0.04
13	1:05	0.8	0.10	0.11	0.02	0.08	0.55	0.04
14	1:10	0.8	0.10	0.11	0.02	0.08	0.55	0.04
15	1:15	0.8	0.10	0.11	0.02	0.08	0.55	0.05
16	1:20	0.8	0.10	0.11	0.02	0.08	0.55	0.05
17	1:25	0.8	0.10	0.11	0.02	0.08	0.55	0.05
18	1:30	0.8	0.10	0.11	0.02	0.08	0.55	0.06
19	1:35	0.8	0.10	0.11	0.02	0.08	0.55	0.06
20	1:40	0.8	0.10	0.11	0.02	0.08	0.55	0.07
21	1:45	0.8	0.10	0.11	0.02	0.08	0.55	0.07
22	1:50	0.8	0.10	0.11	0.02	0.08	0.55	0.07
23	1:55	0.8	0.10	0.11	0.02	0.08	0.55	0.08
24	2:00	0.9	0.11	0.11	0.02	0.09	0.62	0.08
25	2:05	0.8	0.10	0.11	0.02	0.08	0.55	0.08
26	2:10	0.9	0.11	0.11	0.02	0.09	0.62	0.09
27	2:15	0.9	0.11	0.11	0.02	0.09	0.62	0.09
28	2:20	0.9	0.11	0.11	0.02	0.09	0.62	0.10
29	2:25	0.9	0.11	0.11	0.02	0.09	0.62	0.10
30	2:30	0.9	0.11	0.11	0.02	0.09	0.62	0.11
31	2:35	0.9	0.11	0.11	0.02	0.09	0.62	0.11
32	2:40	0.9	0.11	0.11	0.02	0.09	0.62	0.11
33	2:45	1.0	0.12	0.11	0.02	0.01	0.04	0.12
34	2:50	1.0	0.12	0.11	0.02	0.01	0.04	0.12
35	2:55	1.0	0.12	0.11	0.02	0.01	0.04	0.12
36	3:00	1.0	0.12	0.11	0.02	0.01	0.04	0.12
37	3:05	1.0	0.12	0.11	0.02	0.01	0.04	0.12
38	3:10	1.1	0.13	0.11	0.02	0.02	0.13	0.12
39	3:15	1.1	0.13	0.11	0.02	0.02	0.13	0.12
40	3:20	1.1	0.13	0.11	0.02	0.02	0.13	0.12
41	3:25	1.2	0.14	0.11	0.03	0.03	0.21	0.12
42	3:30	1.3	0.16	0.11	0.03	0.04	0.29	0.12
43	3:35	1.4	0.17	0.11	0.03	0.05	0.38	0.13
44	3:40	1.4	0.17	0.11	0.03	0.05	0.38	0.13
45	3:45	1.5	0.18	0.11	0.03	0.07	0.46	0.13
46	3:50	1.5	0.18	0.11	0.03	0.07	0.46	0.13
47	3:55	1.6	0.19	0.11	0.03	0.08	0.54	0.14
48	4:00	1.6	0.19	0.11	0.03	0.08	0.54	0.14
49	4:05	1.7	0.20	0.11	0.04	0.09	0.63	0.14
50	4:10	1.8	0.22	0.11	0.04	0.10	0.71	0.15
51	4:15	1.9	0.23	0.11	0.04	0.11	0.79	0.15
52	4:20	2.0	0.24	0.11	0.04	0.13	0.88	0.16
53	4:25	2.1	0.25	0.11	0.05	0.14	0.96	0.17
54	4:30	2.1	0.25	0.11	0.05	0.14	0.96	0.17
55	4:35	2.2	0.26	0.11	0.05	0.15	1.04	0.18
56	4:40	2.3	0.28	0.11	0.05	0.16	1.13	0.19
57	4:45	2.4	0.29	0.11	0.05	0.17	1.21	0.20
58	4:50	2.4	0.29	0.11	0.05	0.17	1.21	0.20
59	4:55	2.5	0.30	0.11	0.05	0.19	1.29	0.21
60	5:00	2.6	0.31	0.11	0.06	0.20	1.38	0.22
61	5:05	3.1	0.37	0.11	0.07	0.26	1.79	0.23
62	5:10	3.6	0.43	0.11	0.08	0.32	2.21	0.25
63	5:15	3.9	0.47	0.11	0.08	0.35	2.46	0.26
64	5:20	4.2	0.50	0.11	0.09	0.39	2.71	0.28
65	5:25	4.7	0.56	0.11	0.10	0.45	3.13	0.30
66	5:30	5.6	0.67	0.11	0.12	0.56	3.88	0.32
67	5:35	1.9	0.23	0.11	0.04	0.11	0.79	0.34
68	5:40	0.9	0.11	0.11	0.02	0.09	0.62	0.35
69	5:45	0.6	0.07	0.11	0.01	0.06	0.41	0.35
70	5:50	0.5	0.06	0.11	0.01	0.05	0.34	0.35
71	5:55	0.3	0.04	0.11	0.01	0.03	0.21	0.35
72	6:00	0.2	0.02	0.11	0.00	0.02	0.14	0.35

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	1.9
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.04	0.05	0.26	1.78	0.01
2	0:10	1.3	0.30	0.04	0.05	0.26	1.78	0.02
3	0:15	1.1	0.25	0.04	0.05	0.21	1.47	0.03
4	0:20	1.5	0.34	0.04	0.06	0.30	2.10	0.04
5	0:25	1.5	0.34	0.04	0.06	0.30	2.10	0.06
6	0:30	1.8	0.41	0.04	0.07	0.37	2.57	0.07
7	0:35	1.5	0.34	0.04	0.06	0.30	2.10	0.09
8	0:40	1.8	0.41	0.04	0.07	0.37	2.57	0.10
9	0:45	1.8	0.41	0.04	0.07	0.37	2.57	0.12
10	0:50	1.5	0.34	0.04	0.06	0.30	2.10	0.14
11	0:55	1.6	0.36	0.04	0.07	0.32	2.26	0.15
12	1:00	1.8	0.41	0.04	0.07	0.37	2.57	0.17
13	1:05	2.2	0.50	0.04	0.09	0.46	3.21	0.19
14	1:10	2.2	0.50	0.04	0.09	0.46	3.21	0.21
15	1:15	2.2	0.50	0.04	0.09	0.46	3.21	0.23
16	1:20	2.0	0.46	0.04	0.08	0.42	2.89	0.26
17	1:25	2.6	0.59	0.04	0.11	0.55	3.84	0.28
18	1:30	2.7	0.62	0.04	0.11	0.58	4.00	0.31
19	1:35	2.4	0.55	0.04	0.10	0.51	3.53	0.33
20	1:40	2.7	0.62	0.04	0.11	0.58	4.00	0.36
21	1:45	3.3	0.75	0.04	0.14	0.71	4.95	0.39
22	1:50	3.1	0.71	0.04	0.13	0.67	4.63	0.42
23	1:55	2.9	0.66	0.04	0.12	0.62	4.32	0.45
24	2:00	3.0	0.68	0.04	0.12	0.64	4.48	0.48
25	2:05	3.1	0.71	0.04	0.13	0.67	4.63	0.51
26	2:10	4.2	0.96	0.04	0.17	0.92	6.38	0.55
27	2:15	5.0	1.14	0.04	0.21	1.10	7.65	0.60
28	2:20	3.5	0.80	0.04	0.14	0.76	5.27	0.64
29	2:25	6.8	1.55	0.04	0.28	1.51	10.50	0.70
30	2:30	7.3	1.66	0.04	0.30	1.62	11.29	0.77
31	2:35	8.2	1.87	0.04	0.34	1.83	12.72	0.86
32	2:40	5.9	1.35	0.04	0.24	1.31	9.07	0.93
33	2:45	2.0	0.46	0.04	0.08	0.42	2.89	0.97
34	2:50	1.8	0.41	0.04	0.07	0.37	2.57	0.99
35	2:55	1.8	0.41	0.04	0.07	0.37	2.57	1.01
36	3:00	0.6	0.14	0.04	0.02	0.10	0.67	1.02

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	1.3
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.08	0.04	0.13	0.88	0.00
2	0:10	1.3	0.20	0.08	0.04	0.13	0.88	0.01
3	0:15	1.1	0.17	0.08	0.03	0.10	0.66	0.01
4	0:20	1.5	0.23	0.08	0.04	0.16	1.10	0.02
5	0:25	1.5	0.23	0.08	0.04	0.16	1.10	0.03
6	0:30	1.8	0.28	0.08	0.05	0.20	1.42	0.04
7	0:35	1.5	0.23	0.08	0.04	0.16	1.10	0.05
8	0:40	1.8	0.28	0.08	0.05	0.20	1.42	0.05
9	0:45	1.8	0.28	0.08	0.05	0.20	1.42	0.06
10	0:50	1.5	0.23	0.08	0.04	0.16	1.10	0.07
11	0:55	1.6	0.25	0.08	0.04	0.17	1.21	0.08
12	1:00	1.8	0.28	0.08	0.05	0.20	1.42	0.09
13	1:05	2.2	0.34	0.08	0.06	0.27	1.86	0.10
14	1:10	2.2	0.34	0.08	0.06	0.27	1.86	0.11
15	1:15	2.2	0.34	0.08	0.06	0.27	1.86	0.13
16	1:20	2.0	0.31	0.08	0.06	0.24	1.64	0.14
17	1:25	2.6	0.41	0.08	0.07	0.33	2.29	0.15
18	1:30	2.7	0.42	0.08	0.08	0.35	2.40	0.17
19	1:35	2.4	0.37	0.08	0.07	0.30	2.07	0.18
20	1:40	2.7	0.42	0.08	0.08	0.35	2.40	0.20
21	1:45	3.3	0.51	0.08	0.09	0.44	3.05	0.22
22	1:50	3.1	0.48	0.08	0.09	0.41	2.83	0.24
23	1:55	2.9	0.45	0.08	0.08	0.38	2.62	0.26
24	2:00	3.0	0.47	0.08	0.08	0.39	2.72	0.28
25	2:05	3.1	0.48	0.08	0.09	0.41	2.83	0.29
26	2:10	4.2	0.66	0.08	0.12	0.58	4.03	0.32
27	2:15	5.0	0.78	0.08	0.14	0.70	4.89	0.35
28	2:20	3.5	0.55	0.08	0.10	0.47	3.27	0.38
29	2:25	6.8	1.06	0.08	0.19	0.98	6.84	0.41
30	2:30	7.3	1.14	0.08	0.20	1.06	7.39	0.46
31	2:35	8.2	1.28	0.08	0.23	1.20	8.36	0.51
32	2:40	5.9	0.92	0.08	0.17	0.84	5.87	0.56
33	2:45	2.0	0.31	0.08	0.06	0.24	1.64	0.59
34	2:50	1.8	0.28	0.08	0.05	0.20	1.42	0.60
35	2:55	1.8	0.28	0.08	0.05	0.20	1.42	0.61
36	3:00	0.6	0.09	0.08	0.02	0.02	0.12	0.62

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	1.1
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.11	0.03	0.06	0.40	0.00
2	0:10	1.3	0.17	0.11	0.03	0.06	0.40	0.00
3	0:15	1.1	0.15	0.11	0.03	0.03	0.22	0.01
4	0:20	1.5	0.20	0.11	0.04	0.08	0.58	0.01
5	0:25	1.5	0.20	0.11	0.04	0.08	0.58	0.01
6	0:30	1.8	0.24	0.11	0.04	0.12	0.86	0.02
7	0:35	1.5	0.20	0.11	0.04	0.08	0.58	0.02
8	0:40	1.8	0.24	0.11	0.04	0.12	0.86	0.03
9	0:45	1.8	0.24	0.11	0.04	0.12	0.86	0.03
10	0:50	1.5	0.20	0.11	0.04	0.08	0.58	0.04
11	0:55	1.6	0.21	0.11	0.04	0.10	0.68	0.04
12	1:00	1.8	0.24	0.11	0.04	0.12	0.86	0.05
13	1:05	2.2	0.29	0.11	0.05	0.18	1.23	0.06
14	1:10	2.2	0.29	0.11	0.05	0.18	1.23	0.06
15	1:15	2.2	0.29	0.11	0.05	0.18	1.23	0.07
16	1:20	2.0	0.26	0.11	0.05	0.15	1.04	0.08
17	1:25	2.6	0.34	0.11	0.06	0.23	1.59	0.09
18	1:30	2.7	0.36	0.11	0.06	0.24	1.68	0.10
19	1:35	2.4	0.32	0.11	0.06	0.20	1.41	0.11
20	1:40	2.7	0.36	0.11	0.06	0.24	1.68	0.12
21	1:45	3.3	0.44	0.11	0.08	0.32	2.24	0.14
22	1:50	3.1	0.41	0.11	0.07	0.30	2.05	0.15
23	1:55	2.9	0.38	0.11	0.07	0.27	1.87	0.16
24	2:00	3.0	0.40	0.11	0.07	0.28	1.96	0.18
25	2:05	3.1	0.41	0.11	0.07	0.30	2.05	0.19
26	2:10	4.2	0.55	0.11	0.10	0.44	3.06	0.21
27	2:15	5.0	0.66	0.11	0.12	0.55	3.79	0.23
28	2:20	3.5	0.46	0.11	0.08	0.35	2.42	0.25
29	2:25	6.8	0.90	0.11	0.16	0.78	5.45	0.28
30	2:30	7.3	0.96	0.11	0.17	0.85	5.90	0.32
31	2:35	8.2	1.08	0.11	0.19	0.97	6.73	0.36
32	2:40	5.9	0.78	0.11	0.14	0.66	4.62	0.40
33	2:45	2.0	0.26	0.11	0.05	0.15	1.04	0.42
34	2:50	1.8	0.24	0.11	0.04	0.12	0.86	0.43
35	2:55	1.8	0.24	0.11	0.04	0.12	0.86	0.43
36	3:00	0.6	0.08	0.11	0.01	0.06	0.45	0.44

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	7.0
Soil		C
Cover		Commercial
Rainfall	(inches)	0.8
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.11	0.02	0.01	0.08	0.00
2	0:10	1.3	0.12	0.11	0.02	0.01	0.08	0.00
3	0:15	1.1	0.11	0.11	0.02	0.09	0.60	0.00
4	0:20	1.5	0.14	0.11	0.03	0.03	0.21	0.01
5	0:25	1.5	0.14	0.11	0.03	0.03	0.21	0.01
6	0:30	1.8	0.17	0.11	0.03	0.06	0.41	0.01
7	0:35	1.5	0.14	0.11	0.03	0.03	0.21	0.01
8	0:40	1.8	0.17	0.11	0.03	0.06	0.41	0.01
9	0:45	1.8	0.17	0.11	0.03	0.06	0.41	0.02
10	0:50	1.5	0.14	0.11	0.03	0.03	0.21	0.02
11	0:55	1.6	0.15	0.11	0.03	0.04	0.28	0.02
12	1:00	1.8	0.17	0.11	0.03	0.06	0.41	0.02
13	1:05	2.2	0.21	0.11	0.04	0.10	0.68	0.03
14	1:10	2.2	0.21	0.11	0.04	0.10	0.68	0.03
15	1:15	2.2	0.21	0.11	0.04	0.10	0.68	0.04
16	1:20	2.0	0.19	0.11	0.03	0.08	0.54	0.04
17	1:25	2.6	0.25	0.11	0.04	0.14	0.94	0.05
18	1:30	2.7	0.26	0.11	0.05	0.15	1.01	0.05
19	1:35	2.4	0.23	0.11	0.04	0.12	0.81	0.06
20	1:40	2.7	0.26	0.11	0.05	0.15	1.01	0.06
21	1:45	3.3	0.32	0.11	0.06	0.20	1.41	0.07
22	1:50	3.1	0.30	0.11	0.05	0.18	1.28	0.08
23	1:55	2.9	0.28	0.11	0.05	0.16	1.14	0.09
24	2:00	3.0	0.29	0.11	0.05	0.17	1.21	0.10
25	2:05	3.1	0.30	0.11	0.05	0.18	1.28	0.11
26	2:10	4.2	0.40	0.11	0.07	0.29	2.01	0.12
27	2:15	5.0	0.48	0.11	0.09	0.37	2.54	0.13
28	2:20	3.5	0.34	0.11	0.06	0.22	1.54	0.15
29	2:25	6.8	0.65	0.11	0.12	0.54	3.74	0.17
30	2:30	7.3	0.70	0.11	0.13	0.59	4.08	0.19
31	2:35	8.2	0.79	0.11	0.14	0.67	4.68	0.22
32	2:40	5.9	0.57	0.11	0.10	0.45	3.14	0.25
33	2:45	2.0	0.19	0.11	0.03	0.08	0.54	0.26
34	2:50	1.8	0.17	0.11	0.03	0.06	0.41	0.27
35	2:55	1.8	0.17	0.11	0.03	0.06	0.41	0.27
36	3:00	0.6	0.06	0.11	0.01	0.05	0.33	0.27

BUILDING 3

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #6

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)	
1472.90	0.00	6575				
			2265	2265	0.052	
1473.23	0.33	7155				
			2461	4726	0.109	
1473.56	0.66	7760				
			2666	7392	0.170	WATER QUALITY VOLUME
1473.89	0.99	8395				
			2878	10270	0.236	
1474.22	1.32	9050				
			915	11186	0.257	
1474.32	1.42	9255				
			2184	13370	0.307	
1474.55	1.65	9740				
			490	13860	0.318	
1474.60	1.70	9845				
			2841	16701	0.383	
1474.88	1.98	10450				
			3571	20272	0.465	
1475.21	2.31	11190				
			3819	24091	0.553	ADDITIONAL STORAGE
1475.54	2.64	11955				
			4075	28166	0.647	
1475.87	2.97	12745				
			4341	32507	0.746	
1476.20	3.30	13565				
			4615	37122	0.852	
1476.53	3.63	14405				
			3042	40164	0.922	
1476.72	3.82	17615				

Hydrologic Summary

BUILDING 3
EXIST. CONDITION

Watershed Characteristics

Area	(acres)	6.25
Soil		C
Cover		open space

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		77	77	77	77	Plate E-6.1
Fp	(in/hr)	0.14	0.28	0.48	0.48	Plate E-6.2
Ai	(decimal)	0.00	0.00	0.00	0.00	Plate E-6.3
Low Loss	(decimal)	0.90	0.90	0.90	0.90	0.9-(0.8Ai)
F	(in/hr)	0.14	0.28	0.48	0.48	Fp(1-0.9Ai)
Fm	(in/hr)	0.07	0.14	0.24	0.24	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	2.65	0.70	0.19	0.14	24-hour
Peak Flow	(cfs)	9.63	5.39	2.88	1.20	6-hour
Peak Flow	(cfs)	10.81	6.25	3.77	1.92	3-hour
Total Runoff	(ac-ft)	0.96	0.16	0.11	0.08	24-hour
Total Runoff	(ac-ft)	0.86	0.28	0.11	0.06	6-hour
Total Runoff	(ac-ft)	0.76	0.27	0.12	0.06	3-hour

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	4.0
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14
Fm	(in/hr)	0.07
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.25	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.25	0.03	0.00	0.02	0.00
2	0:30	0.3	0.05	0.24	0.04	0.00	0.03	0.00
3	0:45	0.3	0.05	0.24	0.04	0.00	0.03	0.00
4	1:00	0.4	0.06	0.24	0.06	0.01	0.04	0.00
5	1:15	0.3	0.05	0.24	0.04	0.00	0.03	0.00
6	1:30	0.3	0.05	0.23	0.04	0.00	0.03	0.00
7	1:45	0.3	0.05	0.23	0.04	0.00	0.03	0.00
8	2:00	0.4	0.06	0.23	0.06	0.01	0.04	0.00
9	2:15	0.4	0.06	0.22	0.06	0.01	0.04	0.01
10	2:30	0.4	0.06	0.22	0.06	0.01	0.04	0.01
11	2:45	0.5	0.08	0.22	0.07	0.01	0.05	0.01
12	3:00	0.5	0.08	0.22	0.07	0.01	0.05	0.01
13	3:15	0.5	0.08	0.21	0.07	0.01	0.05	0.01
14	3:30	0.5	0.08	0.21	0.07	0.01	0.05	0.01
15	3:45	0.5	0.08	0.21	0.07	0.01	0.05	0.01
16	4:00	0.6	0.10	0.21	0.09	0.01	0.06	0.01
17	4:15	0.6	0.10	0.20	0.09	0.01	0.06	0.01
18	4:30	0.7	0.11	0.20	0.10	0.01	0.07	0.02
19	4:45	0.7	0.11	0.20	0.10	0.01	0.07	0.02
20	5:00	0.8	0.13	0.20	0.12	0.01	0.08	0.02
21	5:15	0.6	0.10	0.19	0.09	0.01	0.06	0.02
22	5:30	0.7	0.11	0.19	0.10	0.01	0.07	0.02
23	5:45	0.8	0.13	0.19	0.12	0.01	0.08	0.02
24	6:00	0.8	0.13	0.19	0.12	0.01	0.08	0.02
25	6:15	0.9	0.14	0.18	0.13	0.01	0.09	0.03
26	6:30	0.9	0.14	0.18	0.13	0.01	0.09	0.03
27	6:45	1.0	0.16	0.18	0.14	0.02	0.10	0.03
28	7:00	1.0	0.16	0.18	0.14	0.02	0.10	0.03
29	7:15	1.0	0.16	0.17	0.14	0.02	0.10	0.03
30	7:30	1.1	0.18	0.17	0.16	0.00	0.03	0.04
31	7:45	1.2	0.19	0.17	0.17	0.02	0.15	0.04
32	8:00	1.3	0.21	0.17	0.19	0.04	0.26	0.04
33	8:15	1.5	0.24	0.16	0.22	0.08	0.47	0.05
34	8:30	1.5	0.24	0.16	0.22	0.08	0.49	0.06
35	8:45	1.6	0.26	0.16	0.23	0.10	0.60	0.07
36	9:00	1.7	0.27	0.16	0.24	0.11	0.72	0.08
37	9:15	1.9	0.30	0.16	0.27	0.15	0.93	0.10
38	9:30	2.0	0.32	0.15	0.29	0.17	1.04	0.12
39	9:45	2.1	0.34	0.15	0.30	0.19	1.16	0.14
40	10:00	2.2	0.35	0.15	0.32	0.20	1.27	0.17
41	10:15	1.5	0.24	0.15	0.22	0.09	0.58	0.19
42	10:30	1.5	0.24	0.14	0.22	0.10	0.60	0.20
43	10:45	2.0	0.32	0.14	0.29	0.18	1.11	0.22
44	11:00	2.0	0.32	0.14	0.29	0.18	1.12	0.24
45	11:15	1.9	0.30	0.14	0.27	0.17	1.04	0.26
46	11:30	1.9	0.30	0.14	0.27	0.17	1.05	0.28
47	11:45	1.7	0.27	0.13	0.24	0.14	0.86	0.30
48	12:00	1.8	0.29	0.13	0.26	0.16	0.97	0.32
49	12:15	2.5	0.40	0.13	0.36	0.27	1.69	0.35
50	12:30	2.6	0.42	0.13	0.37	0.29	1.80	0.39
51	12:45	2.8	0.45	0.13	0.40	0.32	2.01	0.43
52	13:00	2.9	0.46	0.12	0.42	0.34	2.12	0.47
53	13:15	3.4	0.54	0.12	0.49	0.42	2.64	0.52
54	13:30	3.4	0.54	0.12	0.49	0.42	2.65	0.57
55	13:45	2.3	0.37	0.12	0.33	0.25	1.56	0.62
56	14:00	2.3	0.37	0.12	0.33	0.25	1.57	0.65
57	14:15	2.7	0.43	0.12	0.39	0.32	1.98	0.69
58	14:30	2.6	0.42	0.11	0.37	0.30	1.89	0.73
59	14:45	2.6	0.42	0.11	0.37	0.30	1.90	0.76
60	15:00	2.5	0.40	0.11	0.36	0.29	1.81	0.80
61	15:15	2.4	0.38	0.11	0.35	0.28	1.72	0.84
62	15:30	2.3	0.37	0.11	0.33	0.26	1.63	0.87
63	15:45	1.9	0.30	0.10	0.27	0.20	1.24	0.90
64	16:00	1.9	0.30	0.10	0.27	0.20	1.25	0.93
65	16:15	0.4	0.06	0.10	0.06	0.01	0.04	0.94
66	16:30	0.4	0.06	0.10	0.06	0.01	0.04	0.94
67	16:45	0.3	0.05	0.10	0.04	0.00	0.03	0.94
68	17:00	0.3	0.05	0.10	0.04	0.00	0.03	0.95
69	17:15	0.5	0.08	0.10	0.07	0.01	0.05	0.95
70	17:30	0.5	0.08	0.09	0.07	0.01	0.05	0.95
71	17:45	0.5	0.08	0.09	0.07	0.01	0.05	0.95
72	18:00	0.4	0.06	0.09	0.06	0.01	0.04	0.95
73	18:15	0.4	0.06	0.09	0.06	0.01	0.04	0.95
74	18:30	0.4	0.06	0.09	0.06	0.01	0.04	0.95
75	18:45	0.3	0.05	0.09	0.04	0.00	0.03	0.95
76	19:00	0.2	0.03	0.09	0.03	0.00	0.02	0.95
77	19:15	0.3	0.05	0.09	0.04	0.00	0.03	0.95
78	19:30	0.4	0.06	0.08	0.06	0.01	0.04	0.95
79	19:45	0.3	0.05	0.08	0.04	0.00	0.03	0.95
80	20:00	0.2	0.03	0.08	0.03	0.00	0.02	0.95
81	20:15	0.3	0.05	0.08	0.04	0.00	0.03	0.96
82	20:30	0.3	0.05	0.08	0.04	0.00	0.03	0.96
83	20:45	0.3	0.05	0.08	0.04	0.00	0.03	0.96
84	21:00	0.2	0.03	0.08	0.03	0.00	0.02	0.96
85	21:15	0.3	0.05	0.08	0.04	0.00	0.03	0.96
86	21:30	0.2	0.03	0.08	0.03	0.00	0.02	0.96
87	21:45	0.3	0.05	0.07	0.04	0.00	0.03	0.96
88	22:00	0.2	0.03	0.07	0.03	0.00	0.02	0.96
89	22:15	0.3	0.05	0.07	0.04	0.00	0.03	0.96
90	22:30	0.2	0.03	0.07	0.03	0.00	0.02	0.96
91	22:45	0.2	0.03	0.07	0.03	0.00	0.02	0.96
92	23:00	0.2	0.03	0.07	0.03	0.00	0.02	0.96
93	23:15	0.2	0.03	0.07	0.03	0.00	0.02	0.96
94	23:30	0.2	0.03	0.07	0.03	0.00	0.02	0.96
95	23:45	0.2	0.03	0.07	0.03	0.00	0.02	0.96
96	0:00	0.2	0.03	0.07	0.03	0.00	0.02	0.96

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	2.6
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28
Fm	(in/hr)	0.14
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.50	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.49	0.02	0.00	0.01	0.00
2	0:30	0.3	0.03	0.49	0.03	0.00	0.02	0.00
3	0:45	0.3	0.03	0.48	0.03	0.00	0.02	0.00
4	1:00	0.4	0.04	0.48	0.04	0.00	0.03	0.00
5	1:15	0.3	0.03	0.47	0.03	0.00	0.02	0.00
6	1:30	0.3	0.03	0.47	0.03	0.00	0.02	0.00
7	1:45	0.3	0.03	0.46	0.03	0.00	0.02	0.00
8	2:00	0.4	0.04	0.45	0.04	0.00	0.03	0.00
9	2:15	0.4	0.04	0.45	0.04	0.00	0.03	0.00
10	2:30	0.4	0.04	0.44	0.04	0.00	0.03	0.00
11	2:45	0.5	0.05	0.44	0.05	0.01	0.03	0.00
12	3:00	0.5	0.05	0.43	0.05	0.01	0.03	0.01
13	3:15	0.5	0.05	0.43	0.05	0.01	0.03	0.01
14	3:30	0.5	0.05	0.42	0.05	0.01	0.03	0.01
15	3:45	0.5	0.05	0.42	0.05	0.01	0.03	0.01
16	4:00	0.6	0.06	0.41	0.06	0.01	0.04	0.01
17	4:15	0.6	0.06	0.41	0.06	0.01	0.04	0.01
18	4:30	0.7	0.07	0.40	0.07	0.01	0.05	0.01
19	4:45	0.7	0.07	0.40	0.07	0.01	0.05	0.01
20	5:00	0.8	0.08	0.39	0.07	0.01	0.05	0.01
21	5:15	0.6	0.06	0.39	0.06	0.01	0.04	0.01
22	5:30	0.7	0.07	0.38	0.07	0.01	0.05	0.01
23	5:45	0.8	0.08	0.38	0.07	0.01	0.05	0.01
24	6:00	0.8	0.08	0.37	0.07	0.01	0.05	0.02
25	6:15	0.9	0.09	0.37	0.08	0.01	0.06	0.02
26	6:30	0.9	0.09	0.36	0.08	0.01	0.06	0.02
27	6:45	1.0	0.10	0.36	0.09	0.01	0.06	0.02
28	7:00	1.0	0.10	0.35	0.09	0.01	0.06	0.02
29	7:15	1.0	0.10	0.35	0.09	0.01	0.06	0.02
30	7:30	1.1	0.11	0.34	0.10	0.01	0.07	0.02
31	7:45	1.2	0.12	0.34	0.11	0.01	0.08	0.02
32	8:00	1.3	0.14	0.33	0.12	0.01	0.08	0.03
33	8:15	1.5	0.16	0.33	0.14	0.02	0.10	0.03
34	8:30	1.5	0.16	0.32	0.14	0.02	0.10	0.03
35	8:45	1.6	0.17	0.32	0.15	0.02	0.10	0.03
36	9:00	1.7	0.18	0.31	0.16	0.02	0.11	0.03
37	9:15	1.9	0.20	0.31	0.18	0.02	0.12	0.04
38	9:30	2.0	0.21	0.31	0.19	0.02	0.13	0.04
39	9:45	2.1	0.22	0.30	0.20	0.02	0.14	0.04
40	10:00	2.2	0.23	0.30	0.21	0.02	0.14	0.05
41	10:15	1.5	0.16	0.29	0.14	0.02	0.10	0.05
42	10:30	1.5	0.16	0.29	0.14	0.02	0.10	0.05
43	10:45	2.0	0.21	0.28	0.19	0.02	0.13	0.05
44	11:00	2.0	0.21	0.28	0.19	0.02	0.13	0.06
45	11:15	1.9	0.20	0.28	0.18	0.02	0.12	0.06
46	11:30	1.9	0.20	0.27	0.18	0.02	0.12	0.06
47	11:45	1.7	0.18	0.27	0.16	0.02	0.11	0.06
48	12:00	1.8	0.19	0.26	0.17	0.02	0.12	0.07
49	12:15	2.5	0.26	0.26	0.23	0.03	0.16	0.07
50	12:30	2.6	0.27	0.26	0.24	0.01	0.09	0.07
51	12:45	2.8	0.29	0.25	0.26	0.04	0.24	0.07
52	13:00	2.9	0.30	0.25	0.27	0.05	0.33	0.08
53	13:15	3.4	0.35	0.24	0.32	0.11	0.68	0.09
54	13:30	3.4	0.35	0.24	0.32	0.11	0.70	0.10
55	13:45	2.3	0.24	0.24	0.22	0.00	0.01	0.11
56	14:00	2.3	0.24	0.23	0.22	0.01	0.03	0.11
57	14:15	2.7	0.28	0.23	0.25	0.05	0.32	0.12
58	14:30	2.6	0.27	0.23	0.24	0.04	0.27	0.12
59	14:45	2.6	0.27	0.22	0.24	0.05	0.29	0.13
60	15:00	2.5	0.26	0.22	0.23	0.04	0.25	0.13
61	15:15	2.4	0.25	0.22	0.22	0.03	0.21	0.14
62	15:30	2.3	0.24	0.21	0.22	0.03	0.16	0.14
63	15:45	1.9	0.20	0.21	0.18	0.02	0.12	0.15
64	16:00	1.9	0.20	0.21	0.18	0.02	0.12	0.15
65	16:15	0.4	0.04	0.20	0.04	0.00	0.03	0.15
66	16:30	0.4	0.04	0.20	0.04	0.00	0.03	0.15
67	16:45	0.3	0.03	0.20	0.03	0.00	0.02	0.15
68	17:00	0.3	0.03	0.19	0.03	0.00	0.02	0.15
69	17:15	0.5	0.05	0.19	0.05	0.01	0.03	0.15
70	17:30	0.5	0.05	0.19	0.05	0.01	0.03	0.15
71	17:45	0.5	0.05	0.19	0.05	0.01	0.03	0.15
72	18:00	0.4	0.04	0.18	0.04	0.00	0.03	0.15
73	18:15	0.4	0.04	0.18	0.04	0.00	0.03	0.15
74	18:30	0.4	0.04	0.18	0.04	0.00	0.03	0.15
75	18:45	0.3	0.03	0.18	0.03	0.00	0.02	0.15
76	19:00	0.2	0.02	0.17	0.02	0.00	0.01	0.16
77	19:15	0.3	0.03	0.17	0.03	0.00	0.02	0.16
78	19:30	0.4	0.04	0.17	0.04	0.00	0.03	0.16
79	19:45	0.3	0.03	0.17	0.03	0.00	0.02	0.16
80	20:00	0.2	0.02	0.16	0.02	0.00	0.01	0.16
81	20:15	0.3	0.03	0.16	0.03	0.00	0.02	0.16
82	20:30	0.3	0.03	0.16	0.03	0.00	0.02	0.16
83	20:45	0.3	0.03	0.16	0.03	0.00	0.02	0.16
84	21:00	0.2	0.02	0.16	0.02	0.00	0.01	0.16
85	21:15	0.3	0.03	0.15	0.03	0.00	0.02	0.16
86	21:30	0.2	0.02	0.15	0.02	0.00	0.01	0.16
87	21:45	0.3	0.03	0.15	0.03	0.00	0.02	0.16
88	22:00	0.2	0.02	0.15	0.02	0.00	0.01	0.16
89	22:15	0.3	0.03	0.15	0.03	0.00	0.02	0.16
90	22:30	0.2	0.02	0.15	0.02	0.00	0.01	0.16
91	22:45	0.2	0.02	0.14	0.02	0.00	0.01	0.16
92	23:00	0.2	0.02	0.14	0.02	0.00	0.01	0.16
93	23:15	0.2	0.02	0.14	0.02	0.00	0.01	0.16
94	23:30	0.2	0.02	0.14	0.02	0.00	0.01	0.16
95	23:45	0.2	0.02	0.14	0.02	0.00	0.01	0.16
96	0:00	0.2	0.02	0.14	0.02	0.00	0.01	0.16

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	2.2
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.85	0.02	0.00	0.01	0.00
2	0:30	0.3	0.03	0.84	0.02	0.00	0.02	0.00
3	0:45	0.3	0.03	0.83	0.02	0.00	0.02	0.00
4	1:00	0.4	0.04	0.82	0.03	0.00	0.02	0.00
5	1:15	0.3	0.03	0.81	0.02	0.00	0.02	0.00
6	1:30	0.3	0.03	0.80	0.02	0.00	0.02	0.00
7	1:45	0.3	0.03	0.79	0.02	0.00	0.02	0.00
8	2:00	0.4	0.04	0.78	0.03	0.00	0.02	0.00
9	2:15	0.4	0.04	0.77	0.03	0.00	0.02	0.00
10	2:30	0.4	0.04	0.76	0.03	0.00	0.02	0.00
11	2:45	0.5	0.04	0.75	0.04	0.00	0.03	0.00
12	3:00	0.5	0.04	0.74	0.04	0.00	0.03	0.00
13	3:15	0.5	0.04	0.73	0.04	0.00	0.03	0.01
14	3:30	0.5	0.04	0.72	0.04	0.00	0.03	0.01
15	3:45	0.5	0.04	0.72	0.04	0.00	0.03	0.01
16	4:00	0.6	0.05	0.71	0.05	0.01	0.03	0.01
17	4:15	0.6	0.05	0.70	0.05	0.01	0.03	0.01
18	4:30	0.7	0.06	0.69	0.06	0.01	0.04	0.01
19	4:45	0.7	0.06	0.68	0.06	0.01	0.04	0.01
20	5:00	0.8	0.07	0.67	0.06	0.01	0.04	0.01
21	5:15	0.6	0.05	0.66	0.05	0.01	0.03	0.01
22	5:30	0.7	0.06	0.65	0.06	0.01	0.04	0.01
23	5:45	0.8	0.07	0.64	0.06	0.01	0.04	0.01
24	6:00	0.8	0.07	0.64	0.06	0.01	0.04	0.01
25	6:15	0.9	0.08	0.63	0.07	0.01	0.05	0.01
26	6:30	0.9	0.08	0.62	0.07	0.01	0.05	0.02
27	6:45	1.0	0.09	0.61	0.08	0.01	0.06	0.02
28	7:00	1.0	0.09	0.60	0.08	0.01	0.06	0.02
29	7:15	1.0	0.09	0.59	0.08	0.01	0.06	0.02
30	7:30	1.1	0.10	0.59	0.09	0.01	0.06	0.02
31	7:45	1.2	0.11	0.58	0.10	0.01	0.07	0.02
32	8:00	1.3	0.11	0.57	0.10	0.01	0.07	0.02
33	8:15	1.5	0.13	0.56	0.12	0.01	0.08	0.02
34	8:30	1.5	0.13	0.55	0.12	0.01	0.08	0.03
35	8:45	1.6	0.14	0.55	0.13	0.01	0.09	0.03
36	9:00	1.7	0.15	0.54	0.13	0.01	0.09	0.03
37	9:15	1.9	0.17	0.53	0.15	0.02	0.10	0.03
38	9:30	2.0	0.18	0.52	0.16	0.02	0.11	0.03
39	9:45	2.1	0.18	0.52	0.17	0.02	0.12	0.04
40	10:00	2.2	0.19	0.51	0.17	0.02	0.12	0.04
41	10:15	1.5	0.13	0.50	0.12	0.01	0.08	0.04
42	10:30	1.5	0.13	0.49	0.12	0.01	0.08	0.04
43	10:45	2.0	0.18	0.49	0.16	0.02	0.11	0.04
44	11:00	2.0	0.18	0.48	0.16	0.02	0.11	0.05
45	11:15	1.9	0.17	0.47	0.15	0.02	0.10	0.05
46	11:30	1.9	0.17	0.47	0.15	0.02	0.10	0.05
47	11:45	1.7	0.15	0.46	0.13	0.01	0.09	0.05
48	12:00	1.8	0.16	0.45	0.14	0.02	0.10	0.06
49	12:15	2.5	0.22	0.45	0.20	0.02	0.14	0.06
50	12:30	2.6	0.23	0.44	0.21	0.02	0.14	0.06
51	12:45	2.8	0.25	0.43	0.22	0.02	0.15	0.06
52	13:00	2.9	0.26	0.43	0.23	0.03	0.16	0.07
53	13:15	3.4	0.30	0.42	0.27	0.03	0.19	0.07
54	13:30	3.4	0.30	0.41	0.27	0.03	0.19	0.07
55	13:45	2.3	0.20	0.41	0.18	0.02	0.13	0.08
56	14:00	2.3	0.20	0.40	0.18	0.02	0.13	0.08
57	14:15	2.7	0.24	0.39	0.21	0.02	0.15	0.08
58	14:30	2.6	0.23	0.39	0.21	0.02	0.14	0.09
59	14:45	2.6	0.23	0.38	0.21	0.02	0.14	0.09
60	15:00	2.5	0.22	0.38	0.20	0.02	0.14	0.09
61	15:15	2.4	0.21	0.37	0.19	0.02	0.13	0.09
62	15:30	2.3	0.20	0.37	0.18	0.02	0.13	0.10
63	15:45	1.9	0.17	0.36	0.15	0.02	0.10	0.10
64	16:00	1.9	0.17	0.35	0.15	0.02	0.10	0.10
65	16:15	0.4	0.04	0.35	0.03	0.00	0.02	0.10
66	16:30	0.4	0.04	0.34	0.03	0.00	0.02	0.10
67	16:45	0.3	0.03	0.34	0.02	0.00	0.02	0.10
68	17:00	0.3	0.03	0.33	0.02	0.00	0.02	0.10
69	17:15	0.5	0.04	0.33	0.04	0.00	0.03	0.10
70	17:30	0.5	0.04	0.32	0.04	0.00	0.03	0.11
71	17:45	0.5	0.04	0.32	0.04	0.00	0.03	0.11
72	18:00	0.4	0.04	0.31	0.03	0.00	0.02	0.11
73	18:15	0.4	0.04	0.31	0.03	0.00	0.02	0.11
74	18:30	0.4	0.04	0.30	0.03	0.00	0.02	0.11
75	18:45	0.3	0.03	0.30	0.02	0.00	0.02	0.11
76	19:00	0.2	0.02	0.30	0.02	0.00	0.01	0.11
77	19:15	0.3	0.03	0.29	0.02	0.00	0.02	0.11
78	19:30	0.4	0.04	0.29	0.03	0.00	0.02	0.11
79	19:45	0.3	0.03	0.28	0.02	0.00	0.02	0.11
80	20:00	0.2	0.02	0.28	0.02	0.00	0.01	0.11
81	20:15	0.3	0.03	0.28	0.02	0.00	0.02	0.11
82	20:30	0.3	0.03	0.27	0.02	0.00	0.02	0.11
83	20:45	0.3	0.03	0.27	0.02	0.00	0.02	0.11
84	21:00	0.2	0.02	0.27	0.02	0.00	0.01	0.11
85	21:15	0.3	0.03	0.26	0.02	0.00	0.02	0.11
86	21:30	0.2	0.02	0.26	0.02	0.00	0.01	0.11
87	21:45	0.3	0.03	0.26	0.02	0.00	0.02	0.11
88	22:00	0.2	0.02	0.25	0.02	0.00	0.01	0.11
89	22:15	0.3	0.03	0.25	0.02	0.00	0.02	0.11
90	22:30	0.2	0.02	0.25	0.02	0.00	0.01	0.11
91	22:45	0.2	0.02	0.25	0.02	0.00	0.01	0.11
92	23:00	0.2	0.02	0.25	0.02	0.00	0.01	0.11
93	23:15	0.2	0.02	0.24	0.02	0.00	0.01	0.11
94	23:30	0.2	0.02	0.24	0.02	0.00	0.01	0.11
95	23:45	0.2	0.02	0.24	0.02	0.00	0.01	0.11
96	0:00	0.2	0.02	0.24	0.02	0.00	0.01	0.11

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	1.6
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.85	0.01	0.00	0.01	0.00
2	0:30	0.3	0.02	0.84	0.02	0.00	0.01	0.00
3	0:45	0.3	0.02	0.83	0.02	0.00	0.01	0.00
4	1:00	0.4	0.03	0.82	0.02	0.00	0.02	0.00
5	1:15	0.3	0.02	0.81	0.02	0.00	0.01	0.00
6	1:30	0.3	0.02	0.80	0.02	0.00	0.01	0.00
7	1:45	0.3	0.02	0.79	0.02	0.00	0.01	0.00
8	2:00	0.4	0.03	0.78	0.02	0.00	0.02	0.00
9	2:15	0.4	0.03	0.77	0.02	0.00	0.02	0.00
10	2:30	0.4	0.03	0.76	0.02	0.00	0.02	0.00
11	2:45	0.5	0.03	0.75	0.03	0.00	0.02	0.00
12	3:00	0.5	0.03	0.74	0.03	0.00	0.02	0.00
13	3:15	0.5	0.03	0.73	0.03	0.00	0.02	0.00
14	3:30	0.5	0.03	0.72	0.03	0.00	0.02	0.00
15	3:45	0.5	0.03	0.72	0.03	0.00	0.02	0.00
16	4:00	0.6	0.04	0.71	0.03	0.00	0.02	0.01
17	4:15	0.6	0.04	0.70	0.03	0.00	0.02	0.01
18	4:30	0.7	0.04	0.69	0.04	0.00	0.03	0.01
19	4:45	0.7	0.04	0.68	0.04	0.00	0.03	0.01
20	5:00	0.8	0.05	0.67	0.05	0.01	0.03	0.01
21	5:15	0.6	0.04	0.66	0.03	0.00	0.02	0.01
22	5:30	0.7	0.04	0.65	0.04	0.00	0.03	0.01
23	5:45	0.8	0.05	0.64	0.05	0.01	0.03	0.01
24	6:00	0.8	0.05	0.64	0.05	0.01	0.03	0.01
25	6:15	0.9	0.06	0.63	0.05	0.01	0.04	0.01
26	6:30	0.9	0.06	0.62	0.05	0.01	0.04	0.01
27	6:45	1.0	0.06	0.61	0.06	0.01	0.04	0.01
28	7:00	1.0	0.06	0.60	0.06	0.01	0.04	0.01
29	7:15	1.0	0.06	0.59	0.06	0.01	0.04	0.01
30	7:30	1.1	0.07	0.59	0.06	0.01	0.04	0.01
31	7:45	1.2	0.08	0.58	0.07	0.01	0.05	0.02
32	8:00	1.3	0.08	0.57	0.07	0.01	0.05	0.02
33	8:15	1.5	0.10	0.56	0.09	0.01	0.06	0.02
34	8:30	1.5	0.10	0.55	0.09	0.01	0.06	0.02
35	8:45	1.6	0.10	0.55	0.09	0.01	0.06	0.02
36	9:00	1.7	0.11	0.54	0.10	0.01	0.07	0.02
37	9:15	1.9	0.12	0.53	0.11	0.01	0.08	0.02
38	9:30	2.0	0.13	0.52	0.12	0.01	0.08	0.02
39	9:45	2.1	0.13	0.52	0.12	0.01	0.08	0.03
40	10:00	2.2	0.14	0.51	0.13	0.01	0.09	0.03
41	10:15	1.5	0.10	0.50	0.09	0.01	0.06	0.03
42	10:30	1.5	0.10	0.49	0.09	0.01	0.06	0.03
43	10:45	2.0	0.13	0.49	0.12	0.01	0.08	0.03
44	11:00	2.0	0.13	0.48	0.12	0.01	0.08	0.03
45	11:15	1.9	0.12	0.47	0.11	0.01	0.08	0.04
46	11:30	1.9	0.12	0.47	0.11	0.01	0.08	0.04
47	11:45	1.7	0.11	0.46	0.10	0.01	0.07	0.04
48	12:00	1.8	0.12	0.45	0.10	0.01	0.07	0.04
49	12:15	2.5	0.16	0.45	0.14	0.02	0.10	0.04
50	12:30	2.6	0.17	0.44	0.15	0.02	0.10	0.04
51	12:45	2.8	0.18	0.43	0.16	0.02	0.11	0.05
52	13:00	2.9	0.19	0.43	0.17	0.02	0.12	0.05
53	13:15	3.4	0.22	0.42	0.20	0.02	0.14	0.05
54	13:30	3.4	0.22	0.41	0.20	0.02	0.14	0.05
55	13:45	2.3	0.15	0.41	0.13	0.01	0.09	0.06
56	14:00	2.3	0.15	0.40	0.13	0.01	0.09	0.06
57	14:15	2.7	0.17	0.39	0.16	0.02	0.11	0.06
58	14:30	2.6	0.17	0.39	0.15	0.02	0.10	0.06
59	14:45	2.6	0.17	0.38	0.15	0.02	0.10	0.06
60	15:00	2.5	0.16	0.38	0.14	0.02	0.10	0.07
61	15:15	2.4	0.15	0.37	0.14	0.02	0.10	0.07
62	15:30	2.3	0.15	0.37	0.13	0.01	0.09	0.07
63	15:45	1.9	0.12	0.36	0.11	0.01	0.08	0.07
64	16:00	1.9	0.12	0.35	0.11	0.01	0.08	0.07
65	16:15	0.4	0.03	0.35	0.02	0.00	0.02	0.07
66	16:30	0.4	0.03	0.34	0.02	0.00	0.02	0.08
67	16:45	0.3	0.02	0.34	0.02	0.00	0.01	0.08
68	17:00	0.3	0.02	0.33	0.02	0.00	0.01	0.08
69	17:15	0.5	0.03	0.33	0.03	0.00	0.02	0.08
70	17:30	0.5	0.03	0.32	0.03	0.00	0.02	0.08
71	17:45	0.5	0.03	0.32	0.03	0.00	0.02	0.08
72	18:00	0.4	0.03	0.31	0.02	0.00	0.02	0.08
73	18:15	0.4	0.03	0.31	0.02	0.00	0.02	0.08
74	18:30	0.4	0.03	0.30	0.02	0.00	0.02	0.08
75	18:45	0.3	0.02	0.30	0.02	0.00	0.01	0.08
76	19:00	0.2	0.01	0.30	0.01	0.00	0.01	0.08
77	19:15	0.3	0.02	0.29	0.02	0.00	0.01	0.08
78	19:30	0.4	0.03	0.29	0.02	0.00	0.02	0.08
79	19:45	0.3	0.02	0.28	0.02	0.00	0.01	0.08
80	20:00	0.2	0.01	0.28	0.01	0.00	0.01	0.08
81	20:15	0.3	0.02	0.28	0.02	0.00	0.01	0.08
82	20:30	0.3	0.02	0.27	0.02	0.00	0.01	0.08
83	20:45	0.3	0.02	0.27	0.02	0.00	0.01	0.08
84	21:00	0.2	0.01	0.27	0.01	0.00	0.01	0.08
85	21:15	0.3	0.02	0.26	0.02	0.00	0.01	0.08
86	21:30	0.2	0.01	0.26	0.01	0.00	0.01	0.08
87	21:45	0.3	0.02	0.26	0.02	0.00	0.01	0.08
88	22:00	0.2	0.01	0.25	0.01	0.00	0.01	0.08
89	22:15	0.3	0.02	0.25	0.02	0.00	0.01	0.08
90	22:30	0.2	0.01	0.25	0.01	0.00	0.01	0.08
91	22:45	0.2	0.01	0.25	0.01	0.00	0.01	0.08
92	23:00	0.2	0.01	0.25	0.01	0.00	0.01	0.08
93	23:15	0.2	0.01	0.24	0.01	0.00	0.01	0.08
94	23:30	0.2	0.01	0.24	0.01	0.00	0.01	0.08
95	23:45	0.2	0.01	0.24	0.01	0.00	0.01	0.08
96	0:00	0.2	0.01	0.24	0.01	0.00	0.01	0.08

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	2.5
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.14	0.14	0.01	0.06	0.00
2	0:10	0.6	0.18	0.14	0.16	0.04	0.25	0.00
3	0:15	0.6	0.18	0.14	0.16	0.04	0.25	0.00
4	0:20	0.6	0.18	0.14	0.16	0.04	0.25	0.00
5	0:25	0.6	0.18	0.14	0.16	0.04	0.25	0.01
6	0:30	0.7	0.21	0.14	0.19	0.07	0.44	0.01
7	0:35	0.7	0.21	0.14	0.19	0.07	0.44	0.01
8	0:40	0.7	0.21	0.14	0.19	0.07	0.44	0.01
9	0:45	0.7	0.21	0.14	0.19	0.07	0.44	0.02
10	0:50	0.7	0.21	0.14	0.19	0.07	0.44	0.02
11	0:55	0.7	0.21	0.14	0.19	0.07	0.44	0.02
12	1:00	0.8	0.24	0.14	0.22	0.10	0.63	0.03
13	1:05	0.8	0.24	0.14	0.22	0.10	0.63	0.03
14	1:10	0.8	0.24	0.14	0.22	0.10	0.63	0.04
15	1:15	0.8	0.24	0.14	0.22	0.10	0.63	0.04
16	1:20	0.8	0.24	0.14	0.22	0.10	0.63	0.04
17	1:25	0.8	0.24	0.14	0.22	0.10	0.63	0.05
18	1:30	0.8	0.24	0.14	0.22	0.10	0.63	0.05
19	1:35	0.8	0.24	0.14	0.22	0.10	0.63	0.06
20	1:40	0.8	0.24	0.14	0.22	0.10	0.63	0.06
21	1:45	0.8	0.24	0.14	0.22	0.10	0.63	0.07
22	1:50	0.8	0.24	0.14	0.22	0.10	0.63	0.07
23	1:55	0.8	0.24	0.14	0.22	0.10	0.63	0.07
24	2:00	0.9	0.27	0.14	0.24	0.13	0.81	0.08
25	2:05	0.8	0.24	0.14	0.22	0.10	0.63	0.08
26	2:10	0.9	0.27	0.14	0.24	0.13	0.81	0.09
27	2:15	0.9	0.27	0.14	0.24	0.13	0.81	0.10
28	2:20	0.9	0.27	0.14	0.24	0.13	0.81	0.10
29	2:25	0.9	0.27	0.14	0.24	0.13	0.81	0.11
30	2:30	0.9	0.27	0.14	0.24	0.13	0.81	0.11
31	2:35	0.9	0.27	0.14	0.24	0.13	0.81	0.12
32	2:40	0.9	0.27	0.14	0.24	0.13	0.81	0.12
33	2:45	1.0	0.30	0.14	0.27	0.16	1.00	0.13
34	2:50	1.0	0.30	0.14	0.27	0.16	1.00	0.14
35	2:55	1.0	0.30	0.14	0.27	0.16	1.00	0.14
36	3:00	1.0	0.30	0.14	0.27	0.16	1.00	0.15
37	3:05	1.0	0.30	0.14	0.27	0.16	1.00	0.16
38	3:10	1.1	0.33	0.14	0.30	0.19	1.19	0.16
39	3:15	1.1	0.33	0.14	0.30	0.19	1.19	0.17
40	3:20	1.1	0.33	0.14	0.30	0.19	1.19	0.18
41	3:25	1.2	0.36	0.14	0.32	0.22	1.38	0.19
42	3:30	1.3	0.39	0.14	0.35	0.25	1.56	0.20
43	3:35	1.4	0.42	0.14	0.38	0.28	1.75	0.21
44	3:40	1.4	0.42	0.14	0.38	0.28	1.75	0.22
45	3:45	1.5	0.45	0.14	0.41	0.31	1.94	0.24
46	3:50	1.5	0.45	0.14	0.41	0.31	1.94	0.25
47	3:55	1.6	0.48	0.14	0.43	0.34	2.13	0.26
48	4:00	1.6	0.48	0.14	0.43	0.34	2.13	0.28
49	4:05	1.7	0.51	0.14	0.46	0.37	2.31	0.29
50	4:10	1.8	0.54	0.14	0.49	0.40	2.50	0.31
51	4:15	1.9	0.57	0.14	0.51	0.43	2.69	0.33
52	4:20	2.0	0.60	0.14	0.54	0.46	2.88	0.35
53	4:25	2.1	0.63	0.14	0.57	0.49	3.06	0.37
54	4:30	2.1	0.63	0.14	0.57	0.49	3.06	0.39
55	4:35	2.2	0.66	0.14	0.59	0.52	3.25	0.41
56	4:40	2.3	0.69	0.14	0.62	0.55	3.44	0.43
57	4:45	2.4	0.72	0.14	0.65	0.58	3.63	0.46
58	4:50	2.4	0.72	0.14	0.65	0.58	3.63	0.48
59	4:55	2.5	0.75	0.14	0.68	0.61	3.81	0.51
60	5:00	2.6	0.78	0.14	0.70	0.64	4.00	0.54
61	5:05	3.1	0.93	0.14	0.84	0.79	4.94	0.57
62	5:10	3.6	1.08	0.14	0.97	0.94	5.88	0.60
63	5:15	3.9	1.17	0.14	1.05	1.03	6.44	0.65
64	5:20	4.2	1.26	0.14	1.13	1.12	7.00	0.69
65	5:25	4.7	1.41	0.14	1.27	1.27	7.94	0.74
66	5:30	5.6	1.68	0.14	1.51	1.54	9.63	0.80
67	5:35	1.9	0.57	0.14	0.51	0.43	2.69	0.85
68	5:40	0.9	0.27	0.14	0.24	0.13	0.81	0.86
69	5:45	0.6	0.18	0.14	0.16	0.04	0.25	0.86
70	5:50	0.5	0.15	0.14	0.14	0.01	0.06	0.86
71	5:55	0.3	0.09	0.14	0.08	0.01	0.06	0.86
72	6:00	0.2	0.06	0.14	0.05	0.01	0.04	0.86

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	1.7
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.28	0.09	0.01	0.06	0.00
2	0:10	0.6	0.12	0.28	0.11	0.01	0.08	0.00
3	0:15	0.6	0.12	0.28	0.11	0.01	0.08	0.00
4	0:20	0.6	0.12	0.28	0.11	0.01	0.08	0.00
5	0:25	0.6	0.12	0.28	0.11	0.01	0.08	0.00
6	0:30	0.7	0.14	0.28	0.13	0.01	0.09	0.00
7	0:35	0.7	0.14	0.28	0.13	0.01	0.09	0.00
8	0:40	0.7	0.14	0.28	0.13	0.01	0.09	0.00
9	0:45	0.7	0.14	0.28	0.13	0.01	0.09	0.00
10	0:50	0.7	0.14	0.28	0.13	0.01	0.09	0.01
11	0:55	0.7	0.14	0.28	0.13	0.01	0.09	0.01
12	1:00	0.8	0.16	0.28	0.15	0.02	0.10	0.01
13	1:05	0.8	0.16	0.28	0.15	0.02	0.10	0.01
14	1:10	0.8	0.16	0.28	0.15	0.02	0.10	0.01
15	1:15	0.8	0.16	0.28	0.15	0.02	0.10	0.01
16	1:20	0.8	0.16	0.28	0.15	0.02	0.10	0.01
17	1:25	0.8	0.16	0.28	0.15	0.02	0.10	0.01
18	1:30	0.8	0.16	0.28	0.15	0.02	0.10	0.01
19	1:35	0.8	0.16	0.28	0.15	0.02	0.10	0.01
20	1:40	0.8	0.16	0.28	0.15	0.02	0.10	0.01
21	1:45	0.8	0.16	0.28	0.15	0.02	0.10	0.01
22	1:50	0.8	0.16	0.28	0.15	0.02	0.10	0.01
23	1:55	0.8	0.16	0.28	0.15	0.02	0.10	0.01
24	2:00	0.9	0.18	0.28	0.17	0.02	0.11	0.02
25	2:05	0.8	0.16	0.28	0.15	0.02	0.10	0.02
26	2:10	0.9	0.18	0.28	0.17	0.02	0.11	0.02
27	2:15	0.9	0.18	0.28	0.17	0.02	0.11	0.02
28	2:20	0.9	0.18	0.28	0.17	0.02	0.11	0.02
29	2:25	0.9	0.18	0.28	0.17	0.02	0.11	0.02
30	2:30	0.9	0.18	0.28	0.17	0.02	0.11	0.02
31	2:35	0.9	0.18	0.28	0.17	0.02	0.11	0.02
32	2:40	0.9	0.18	0.28	0.17	0.02	0.11	0.02
33	2:45	1.0	0.20	0.28	0.18	0.02	0.13	0.02
34	2:50	1.0	0.20	0.28	0.18	0.02	0.13	0.02
35	2:55	1.0	0.20	0.28	0.18	0.02	0.13	0.02
36	3:00	1.0	0.20	0.28	0.18	0.02	0.13	0.02
37	3:05	1.0	0.20	0.28	0.18	0.02	0.13	0.03
38	3:10	1.1	0.22	0.28	0.20	0.02	0.14	0.03
39	3:15	1.1	0.22	0.28	0.20	0.02	0.14	0.03
40	3:20	1.1	0.22	0.28	0.20	0.02	0.14	0.03
41	3:25	1.2	0.24	0.28	0.22	0.02	0.15	0.03
42	3:30	1.3	0.27	0.28	0.24	0.03	0.17	0.03
43	3:35	1.4	0.29	0.28	0.26	0.01	0.03	0.03
44	3:40	1.4	0.29	0.28	0.26	0.01	0.03	0.03
45	3:45	1.5	0.31	0.28	0.28	0.03	0.16	0.03
46	3:50	1.5	0.31	0.28	0.28	0.03	0.16	0.03
47	3:55	1.6	0.33	0.28	0.29	0.05	0.29	0.03
48	4:00	1.6	0.33	0.28	0.29	0.05	0.29	0.04
49	4:05	1.7	0.35	0.28	0.31	0.07	0.42	0.04
50	4:10	1.8	0.37	0.28	0.33	0.09	0.55	0.04
51	4:15	1.9	0.39	0.28	0.35	0.11	0.67	0.05
52	4:20	2.0	0.41	0.28	0.37	0.13	0.80	0.05
53	4:25	2.1	0.43	0.28	0.39	0.15	0.93	0.06
54	4:30	2.1	0.43	0.28	0.39	0.15	0.93	0.06
55	4:35	2.2	0.45	0.28	0.40	0.17	1.06	0.07
56	4:40	2.3	0.47	0.28	0.42	0.19	1.18	0.08
57	4:45	2.4	0.49	0.28	0.44	0.21	1.31	0.09
58	4:50	2.4	0.49	0.28	0.44	0.21	1.31	0.10
59	4:55	2.5	0.51	0.28	0.46	0.23	1.44	0.11
60	5:00	2.6	0.53	0.28	0.48	0.25	1.57	0.12
61	5:05	3.1	0.63	0.28	0.57	0.35	2.20	0.13
62	5:10	3.6	0.73	0.28	0.66	0.45	2.84	0.15
63	5:15	3.9	0.80	0.28	0.72	0.52	3.22	0.17
64	5:20	4.2	0.86	0.28	0.77	0.58	3.61	0.19
65	5:25	4.7	0.96	0.28	0.86	0.68	4.24	0.22
66	5:30	5.6	1.14	0.28	1.03	0.86	5.39	0.25
67	5:35	1.9	0.39	0.28	0.35	0.11	0.67	0.27
68	5:40	0.9	0.18	0.28	0.17	0.02	0.11	0.27
69	5:45	0.6	0.12	0.28	0.11	0.01	0.08	0.28
70	5:50	0.5	0.10	0.28	0.09	0.01	0.06	0.28
71	5:55	0.3	0.06	0.28	0.06	0.01	0.04	0.28
72	6:00	0.2	0.04	0.28	0.04	0.00	0.03	0.28

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	1.4
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.48	0.08	0.01	0.05	0.00
2	0:10	0.6	0.10	0.48	0.09	0.01	0.06	0.00
3	0:15	0.6	0.10	0.48	0.09	0.01	0.06	0.00
4	0:20	0.6	0.10	0.48	0.09	0.01	0.06	0.00
5	0:25	0.6	0.10	0.48	0.09	0.01	0.06	0.00
6	0:30	0.7	0.12	0.48	0.11	0.01	0.07	0.00
7	0:35	0.7	0.12	0.48	0.11	0.01	0.07	0.00
8	0:40	0.7	0.12	0.48	0.11	0.01	0.07	0.00
9	0:45	0.7	0.12	0.48	0.11	0.01	0.07	0.00
10	0:50	0.7	0.12	0.48	0.11	0.01	0.07	0.00
11	0:55	0.7	0.12	0.48	0.11	0.01	0.07	0.00
12	1:00	0.8	0.13	0.48	0.12	0.01	0.08	0.01
13	1:05	0.8	0.13	0.48	0.12	0.01	0.08	0.01
14	1:10	0.8	0.13	0.48	0.12	0.01	0.08	0.01
15	1:15	0.8	0.13	0.48	0.12	0.01	0.08	0.01
16	1:20	0.8	0.13	0.48	0.12	0.01	0.08	0.01
17	1:25	0.8	0.13	0.48	0.12	0.01	0.08	0.01
18	1:30	0.8	0.13	0.48	0.12	0.01	0.08	0.01
19	1:35	0.8	0.13	0.48	0.12	0.01	0.08	0.01
20	1:40	0.8	0.13	0.48	0.12	0.01	0.08	0.01
21	1:45	0.8	0.13	0.48	0.12	0.01	0.08	0.01
22	1:50	0.8	0.13	0.48	0.12	0.01	0.08	0.01
23	1:55	0.8	0.13	0.48	0.12	0.01	0.08	0.01
24	2:00	0.9	0.15	0.48	0.14	0.02	0.09	0.01
25	2:05	0.8	0.13	0.48	0.12	0.01	0.08	0.01
26	2:10	0.9	0.15	0.48	0.14	0.02	0.09	0.01
27	2:15	0.9	0.15	0.48	0.14	0.02	0.09	0.01
28	2:20	0.9	0.15	0.48	0.14	0.02	0.09	0.01
29	2:25	0.9	0.15	0.48	0.14	0.02	0.09	0.02
30	2:30	0.9	0.15	0.48	0.14	0.02	0.09	0.02
31	2:35	0.9	0.15	0.48	0.14	0.02	0.09	0.02
32	2:40	0.9	0.15	0.48	0.14	0.02	0.09	0.02
33	2:45	1.0	0.17	0.48	0.15	0.02	0.11	0.02
34	2:50	1.0	0.17	0.48	0.15	0.02	0.11	0.02
35	2:55	1.0	0.17	0.48	0.15	0.02	0.11	0.02
36	3:00	1.0	0.17	0.48	0.15	0.02	0.11	0.02
37	3:05	1.0	0.17	0.48	0.15	0.02	0.11	0.02
38	3:10	1.1	0.18	0.48	0.17	0.02	0.12	0.02
39	3:15	1.1	0.18	0.48	0.17	0.02	0.12	0.02
40	3:20	1.1	0.18	0.48	0.17	0.02	0.12	0.02
41	3:25	1.2	0.20	0.48	0.18	0.02	0.13	0.02
42	3:30	1.3	0.22	0.48	0.20	0.02	0.14	0.03
43	3:35	1.4	0.24	0.48	0.21	0.02	0.15	0.03
44	3:40	1.4	0.24	0.48	0.21	0.02	0.15	0.03
45	3:45	1.5	0.25	0.48	0.23	0.03	0.16	0.03
46	3:50	1.5	0.25	0.48	0.23	0.03	0.16	0.03
47	3:55	1.6	0.27	0.48	0.24	0.03	0.17	0.03
48	4:00	1.6	0.27	0.48	0.24	0.03	0.17	0.03
49	4:05	1.7	0.29	0.48	0.26	0.03	0.18	0.03
50	4:10	1.8	0.30	0.48	0.27	0.03	0.19	0.03
51	4:15	1.9	0.32	0.48	0.29	0.03	0.20	0.04
52	4:20	2.0	0.34	0.48	0.30	0.03	0.21	0.04
53	4:25	2.1	0.35	0.48	0.32	0.04	0.22	0.04
54	4:30	2.1	0.35	0.48	0.32	0.04	0.22	0.04
55	4:35	2.2	0.37	0.48	0.33	0.04	0.23	0.04
56	4:40	2.3	0.39	0.48	0.35	0.04	0.24	0.04
57	4:45	2.4	0.40	0.48	0.36	0.04	0.25	0.04
58	4:50	2.4	0.40	0.48	0.36	0.04	0.25	0.05
59	4:55	2.5	0.42	0.48	0.38	0.04	0.26	0.05
60	5:00	2.6	0.44	0.48	0.39	0.04	0.27	0.05
61	5:05	3.1	0.52	0.48	0.47	0.04	0.26	0.05
62	5:10	3.6	0.60	0.48	0.54	0.12	0.78	0.06
63	5:15	3.9	0.66	0.48	0.59	0.18	1.10	0.06
64	5:20	4.2	0.71	0.48	0.64	0.23	1.41	0.07
65	5:25	4.7	0.79	0.48	0.71	0.31	1.94	0.08
66	5:30	5.6	0.94	0.48	0.85	0.46	2.88	0.10
67	5:35	1.9	0.32	0.48	0.29	0.03	0.20	0.11
68	5:40	0.9	0.15	0.48	0.14	0.02	0.09	0.11
69	5:45	0.6	0.10	0.48	0.09	0.01	0.06	0.11
70	5:50	0.5	0.08	0.48	0.08	0.01	0.05	0.11
71	5:55	0.3	0.05	0.48	0.05	0.01	0.03	0.11
72	6:00	0.2	0.03	0.48	0.03	0.00	0.02	0.11

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	1.0
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.48	0.05	0.01	0.04	0.00
2	0:10	0.6	0.07	0.48	0.06	0.01	0.05	0.00
3	0:15	0.6	0.07	0.48	0.06	0.01	0.05	0.00
4	0:20	0.6	0.07	0.48	0.06	0.01	0.05	0.00
5	0:25	0.6	0.07	0.48	0.06	0.01	0.05	0.00
6	0:30	0.7	0.08	0.48	0.08	0.01	0.05	0.00
7	0:35	0.7	0.08	0.48	0.08	0.01	0.05	0.00
8	0:40	0.7	0.08	0.48	0.08	0.01	0.05	0.00
9	0:45	0.7	0.08	0.48	0.08	0.01	0.05	0.00
10	0:50	0.7	0.08	0.48	0.08	0.01	0.05	0.00
11	0:55	0.7	0.08	0.48	0.08	0.01	0.05	0.00
12	1:00	0.8	0.10	0.48	0.09	0.01	0.06	0.00
13	1:05	0.8	0.10	0.48	0.09	0.01	0.06	0.00
14	1:10	0.8	0.10	0.48	0.09	0.01	0.06	0.00
15	1:15	0.8	0.10	0.48	0.09	0.01	0.06	0.01
16	1:20	0.8	0.10	0.48	0.09	0.01	0.06	0.01
17	1:25	0.8	0.10	0.48	0.09	0.01	0.06	0.01
18	1:30	0.8	0.10	0.48	0.09	0.01	0.06	0.01
19	1:35	0.8	0.10	0.48	0.09	0.01	0.06	0.01
20	1:40	0.8	0.10	0.48	0.09	0.01	0.06	0.01
21	1:45	0.8	0.10	0.48	0.09	0.01	0.06	0.01
22	1:50	0.8	0.10	0.48	0.09	0.01	0.06	0.01
23	1:55	0.8	0.10	0.48	0.09	0.01	0.06	0.01
24	2:00	0.9	0.11	0.48	0.10	0.01	0.07	0.01
25	2:05	0.8	0.10	0.48	0.09	0.01	0.06	0.01
26	2:10	0.9	0.11	0.48	0.10	0.01	0.07	0.01
27	2:15	0.9	0.11	0.48	0.10	0.01	0.07	0.01
28	2:20	0.9	0.11	0.48	0.10	0.01	0.07	0.01
29	2:25	0.9	0.11	0.48	0.10	0.01	0.07	0.01
30	2:30	0.9	0.11	0.48	0.10	0.01	0.07	0.01
31	2:35	0.9	0.11	0.48	0.10	0.01	0.07	0.01
32	2:40	0.9	0.11	0.48	0.10	0.01	0.07	0.01
33	2:45	1.0	0.12	0.48	0.11	0.01	0.08	0.01
34	2:50	1.0	0.12	0.48	0.11	0.01	0.08	0.01
35	2:55	1.0	0.12	0.48	0.11	0.01	0.08	0.01
36	3:00	1.0	0.12	0.48	0.11	0.01	0.08	0.01
37	3:05	1.0	0.12	0.48	0.11	0.01	0.08	0.02
38	3:10	1.1	0.13	0.48	0.12	0.01	0.08	0.02
39	3:15	1.1	0.13	0.48	0.12	0.01	0.08	0.02
40	3:20	1.1	0.13	0.48	0.12	0.01	0.08	0.02
41	3:25	1.2	0.14	0.48	0.13	0.01	0.09	0.02
42	3:30	1.3	0.16	0.48	0.14	0.02	0.10	0.02
43	3:35	1.4	0.17	0.48	0.15	0.02	0.11	0.02
44	3:40	1.4	0.17	0.48	0.15	0.02	0.11	0.02
45	3:45	1.5	0.18	0.48	0.16	0.02	0.11	0.02
46	3:50	1.5	0.18	0.48	0.16	0.02	0.11	0.02
47	3:55	1.6	0.19	0.48	0.17	0.02	0.12	0.02
48	4:00	1.6	0.19	0.48	0.17	0.02	0.12	0.02
49	4:05	1.7	0.20	0.48	0.18	0.02	0.13	0.02
50	4:10	1.8	0.22	0.48	0.19	0.02	0.14	0.02
51	4:15	1.9	0.23	0.48	0.21	0.02	0.14	0.03
52	4:20	2.0	0.24	0.48	0.22	0.02	0.15	0.03
53	4:25	2.1	0.25	0.48	0.23	0.03	0.16	0.03
54	4:30	2.1	0.25	0.48	0.23	0.03	0.16	0.03
55	4:35	2.2	0.26	0.48	0.24	0.03	0.17	0.03
56	4:40	2.3	0.28	0.48	0.25	0.03	0.17	0.03
57	4:45	2.4	0.29	0.48	0.26	0.03	0.18	0.03
58	4:50	2.4	0.29	0.48	0.26	0.03	0.18	0.03
59	4:55	2.5	0.30	0.48	0.27	0.03	0.19	0.03
60	5:00	2.6	0.31	0.48	0.28	0.03	0.20	0.04
61	5:05	3.1	0.37	0.48	0.33	0.04	0.23	0.04
62	5:10	3.6	0.43	0.48	0.39	0.04	0.27	0.04
63	5:15	3.9	0.47	0.48	0.42	0.05	0.29	0.04
64	5:20	4.2	0.50	0.48	0.45	0.02	0.15	0.04
65	5:25	4.7	0.56	0.48	0.51	0.08	0.53	0.04
66	5:30	5.6	0.67	0.48	0.60	0.19	1.20	0.05
67	5:35	1.9	0.23	0.48	0.21	0.02	0.14	0.06
68	5:40	0.9	0.11	0.48	0.10	0.01	0.07	0.06
69	5:45	0.6	0.07	0.48	0.06	0.01	0.05	0.06
70	5:50	0.5	0.06	0.48	0.05	0.01	0.04	0.06
71	5:55	0.3	0.04	0.48	0.03	0.00	0.02	0.06
72	6:00	0.2	0.02	0.48	0.02	0.00	0.02	0.06

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	1.9
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.14	0.27	0.16	0.98	0.00
2	0:10	1.3	0.30	0.14	0.27	0.16	0.98	0.01
3	0:15	1.1	0.25	0.14	0.23	0.11	0.69	0.02
4	0:20	1.5	0.34	0.14	0.31	0.20	1.26	0.02
5	0:25	1.5	0.34	0.14	0.31	0.20	1.26	0.03
6	0:30	1.8	0.41	0.14	0.37	0.27	1.69	0.04
7	0:35	1.5	0.34	0.14	0.31	0.20	1.26	0.05
8	0:40	1.8	0.41	0.14	0.37	0.27	1.69	0.06
9	0:45	1.8	0.41	0.14	0.37	0.27	1.69	0.07
10	0:50	1.5	0.34	0.14	0.31	0.20	1.26	0.08
11	0:55	1.6	0.36	0.14	0.33	0.22	1.41	0.09
12	1:00	1.8	0.41	0.14	0.37	0.27	1.69	0.10
13	1:05	2.2	0.50	0.14	0.45	0.36	2.26	0.12
14	1:10	2.2	0.50	0.14	0.45	0.36	2.26	0.13
15	1:15	2.2	0.50	0.14	0.45	0.36	2.26	0.15
16	1:20	2.0	0.46	0.14	0.41	0.32	1.98	0.16
17	1:25	2.6	0.59	0.14	0.53	0.45	2.83	0.18
18	1:30	2.7	0.62	0.14	0.55	0.48	2.97	0.20
19	1:35	2.4	0.55	0.14	0.49	0.41	2.55	0.22
20	1:40	2.7	0.62	0.14	0.55	0.48	2.97	0.24
21	1:45	3.3	0.75	0.14	0.68	0.61	3.83	0.26
22	1:50	3.1	0.71	0.14	0.64	0.57	3.54	0.29
23	1:55	2.9	0.66	0.14	0.60	0.52	3.26	0.31
24	2:00	3.0	0.68	0.14	0.62	0.54	3.40	0.33
25	2:05	3.1	0.71	0.14	0.64	0.57	3.54	0.36
26	2:10	4.2	0.96	0.14	0.86	0.82	5.11	0.39
27	2:15	5.0	1.14	0.14	1.03	1.00	6.25	0.43
28	2:20	3.5	0.80	0.14	0.72	0.66	4.11	0.46
29	2:25	6.8	1.55	0.14	1.40	1.41	8.82	0.51
30	2:30	7.3	1.66	0.14	1.50	1.52	9.53	0.57
31	2:35	8.2	1.87	0.14	1.68	1.73	10.81	0.64
32	2:40	5.9	1.35	0.14	1.21	1.21	7.53	0.70
33	2:45	2.0	0.46	0.14	0.41	0.32	1.98	0.73
34	2:50	1.8	0.41	0.14	0.37	0.27	1.69	0.75
35	2:55	1.8	0.41	0.14	0.37	0.27	1.69	0.76
36	3:00	0.6	0.14	0.14	0.12	0.01	0.09	0.76

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	1.3
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.28	0.18	0.02	0.13	0.00
2	0:10	1.3	0.20	0.28	0.18	0.02	0.13	0.00
3	0:15	1.1	0.17	0.28	0.15	0.02	0.11	0.00
4	0:20	1.5	0.23	0.28	0.21	0.02	0.15	0.00
5	0:25	1.5	0.23	0.28	0.21	0.02	0.15	0.00
6	0:30	1.8	0.28	0.28	0.25	0.00	0.01	0.00
7	0:35	1.5	0.23	0.28	0.21	0.02	0.15	0.01
8	0:40	1.8	0.28	0.28	0.25	0.00	0.01	0.01
9	0:45	1.8	0.28	0.28	0.25	0.00	0.01	0.01
10	0:50	1.5	0.23	0.28	0.21	0.02	0.15	0.01
11	0:55	1.6	0.25	0.28	0.22	0.02	0.16	0.01
12	1:00	1.8	0.28	0.28	0.25	0.00	0.01	0.01
13	1:05	2.2	0.34	0.28	0.31	0.06	0.40	0.01
14	1:10	2.2	0.34	0.28	0.31	0.06	0.40	0.01
15	1:15	2.2	0.34	0.28	0.31	0.06	0.40	0.01
16	1:20	2.0	0.31	0.28	0.28	0.03	0.20	0.02
17	1:25	2.6	0.41	0.28	0.37	0.13	0.79	0.02
18	1:30	2.7	0.42	0.28	0.38	0.14	0.88	0.03
19	1:35	2.4	0.37	0.28	0.34	0.09	0.59	0.03
20	1:40	2.7	0.42	0.28	0.38	0.14	0.88	0.04
21	1:45	3.3	0.51	0.28	0.46	0.23	1.47	0.04
22	1:50	3.1	0.48	0.28	0.44	0.20	1.27	0.05
23	1:55	2.9	0.45	0.28	0.41	0.17	1.08	0.06
24	2:00	3.0	0.47	0.28	0.42	0.19	1.18	0.07
25	2:05	3.1	0.48	0.28	0.44	0.20	1.27	0.08
26	2:10	4.2	0.66	0.28	0.59	0.38	2.35	0.09
27	2:15	5.0	0.78	0.28	0.70	0.50	3.13	0.11
28	2:20	3.5	0.55	0.28	0.49	0.27	1.66	0.13
29	2:25	6.8	1.06	0.28	0.95	0.78	4.88	0.15
30	2:30	7.3	1.14	0.28	1.02	0.86	5.37	0.18
31	2:35	8.2	1.28	0.28	1.15	1.00	6.25	0.22
32	2:40	5.9	0.92	0.28	0.83	0.64	4.00	0.26
33	2:45	2.0	0.31	0.28	0.28	0.03	0.20	0.27
34	2:50	1.8	0.28	0.28	0.25	0.00	0.01	0.27
35	2:55	1.8	0.28	0.28	0.25	0.00	0.01	0.27
36	3:00	0.6	0.09	0.28	0.08	0.01	0.06	0.27

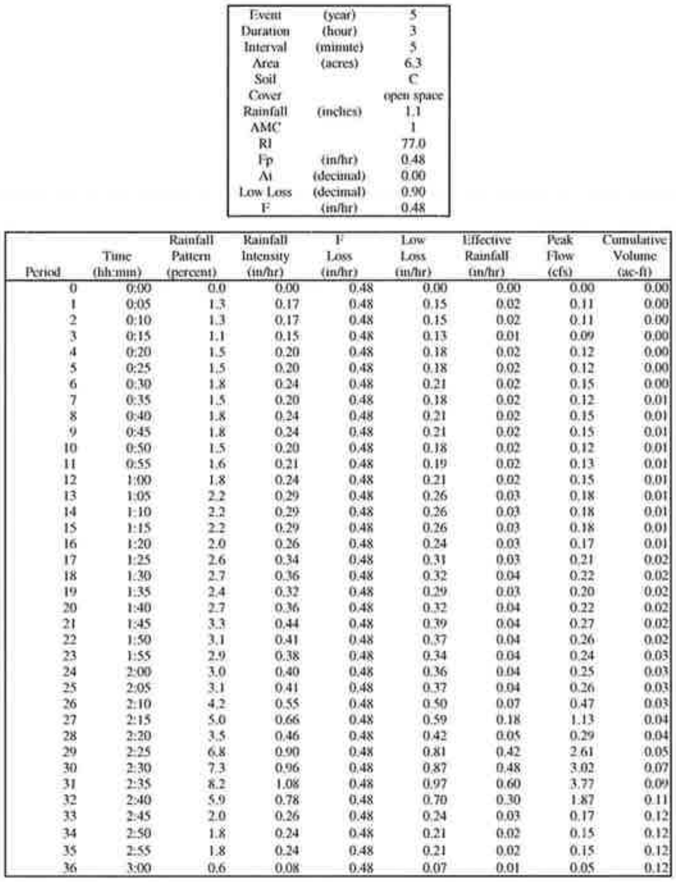

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	1.1
AMC		1
RI		77.0
Fp	(in/hr)	0.48
At	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.48	0.15	0.02	0.11	0.00
2	0:10	1.3	0.17	0.48	0.15	0.02	0.11	0.00
3	0:15	1.1	0.15	0.48	0.13	0.01	0.09	0.00
4	0:20	1.5	0.20	0.48	0.18	0.02	0.12	0.00
5	0:25	1.5	0.20	0.48	0.18	0.02	0.12	0.00
6	0:30	1.8	0.24	0.48	0.21	0.02	0.15	0.00
7	0:35	1.5	0.20	0.48	0.18	0.02	0.12	0.01
8	0:40	1.8	0.24	0.48	0.21	0.02	0.15	0.01
9	0:45	1.8	0.24	0.48	0.21	0.02	0.15	0.01
10	0:50	1.5	0.20	0.48	0.18	0.02	0.12	0.01
11	0:55	1.6	0.21	0.48	0.19	0.02	0.13	0.01
12	1:00	1.8	0.24	0.48	0.21	0.02	0.15	0.01
13	1:05	2.2	0.29	0.48	0.26	0.03	0.18	0.01
14	1:10	2.2	0.29	0.48	0.26	0.03	0.18	0.01
15	1:15	2.2	0.29	0.48	0.26	0.03	0.18	0.01
16	1:20	2.0	0.26	0.48	0.24	0.03	0.17	0.01
17	1:25	2.6	0.34	0.48	0.31	0.03	0.21	0.02
18	1:30	2.7	0.36	0.48	0.32	0.04	0.22	0.02
19	1:35	2.4	0.32	0.48	0.29	0.03	0.20	0.02
20	1:40	2.7	0.36	0.48	0.32	0.04	0.22	0.02
21	1:45	3.3	0.44	0.48	0.39	0.04	0.27	0.02
22	1:50	3.1	0.41	0.48	0.37	0.04	0.26	0.02
23	1:55	2.9	0.38	0.48	0.34	0.04	0.24	0.03
24	2:00	3.0	0.40	0.48	0.36	0.04	0.25	0.03
25	2:05	3.1	0.41	0.48	0.37	0.04	0.26	0.03
26	2:10	4.2	0.55	0.48	0.50	0.07	0.47	0.03
27	2:15	5.0	0.66	0.48	0.59	0.18	1.13	0.04
28	2:20	3.5	0.46	0.48	0.42	0.05	0.29	0.04
29	2:25	6.8	0.90	0.48	0.81	0.42	2.61	0.05
30	2:30	7.3	0.96	0.48	0.87	0.48	3.02	0.07
31	2:35	8.2	1.08	0.48	0.97	0.60	3.77	0.09
32	2:40	5.9	0.78	0.48	0.70	0.30	1.87	0.11
33	2:45	2.0	0.26	0.48	0.24	0.03	0.17	0.12
34	2:50	1.8	0.24	0.48	0.21	0.02	0.15	0.12
35	2:55	1.8	0.24	0.48	0.21	0.02	0.15	0.12
36	3:00	0.6	0.08	0.48	0.07	0.01	0.05	0.12

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		open space
Rainfall	(inches)	0.8
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.48	0.11	0.01	0.08	0.00
2	0:10	1.3	0.12	0.48	0.11	0.01	0.08	0.00
3	0:15	1.1	0.11	0.48	0.10	0.01	0.07	0.00
4	0:20	1.5	0.14	0.48	0.13	0.01	0.09	0.00
5	0:25	1.5	0.14	0.48	0.13	0.01	0.09	0.00
6	0:30	1.8	0.17	0.48	0.16	0.02	0.11	0.00
7	0:35	1.5	0.14	0.48	0.13	0.01	0.09	0.00
8	0:40	1.8	0.17	0.48	0.16	0.02	0.11	0.00
9	0:45	1.8	0.17	0.48	0.16	0.02	0.11	0.01
10	0:50	1.5	0.14	0.48	0.13	0.01	0.09	0.01
11	0:55	1.6	0.15	0.48	0.14	0.02	0.10	0.01
12	1:00	1.8	0.17	0.48	0.16	0.02	0.11	0.01
13	1:05	2.2	0.21	0.48	0.19	0.02	0.13	0.01
14	1:10	2.2	0.21	0.48	0.19	0.02	0.13	0.01
15	1:15	2.2	0.21	0.48	0.19	0.02	0.13	0.01
16	1:20	2.0	0.19	0.48	0.17	0.02	0.12	0.01
17	1:25	2.6	0.25	0.48	0.22	0.02	0.16	0.01
18	1:30	2.7	0.26	0.48	0.23	0.03	0.16	0.01
19	1:35	2.4	0.23	0.48	0.21	0.02	0.14	0.01
20	1:40	2.7	0.26	0.48	0.23	0.03	0.16	0.01
21	1:45	3.3	0.32	0.48	0.29	0.03	0.20	0.02
22	1:50	3.1	0.30	0.48	0.27	0.03	0.19	0.02
23	1:55	2.9	0.28	0.48	0.25	0.03	0.17	0.02
24	2:00	3.0	0.29	0.48	0.26	0.03	0.18	0.02
25	2:05	3.1	0.30	0.48	0.27	0.03	0.19	0.02
26	2:10	4.2	0.40	0.48	0.36	0.04	0.25	0.02
27	2:15	5.0	0.48	0.48	0.43	0.05	0.30	0.02
28	2:20	3.5	0.34	0.48	0.30	0.03	0.21	0.03
29	2:25	6.8	0.65	0.48	0.59	0.17	1.08	0.03
30	2:30	7.3	0.70	0.48	0.63	0.22	1.38	0.04
31	2:35	8.2	0.79	0.48	0.71	0.31	1.92	0.05
32	2:40	5.9	0.57	0.48	0.51	0.09	0.54	0.06
33	2:45	2.0	0.19	0.48	0.17	0.02	0.12	0.06
34	2:50	1.8	0.17	0.48	0.16	0.02	0.11	0.06
35	2:55	1.8	0.17	0.48	0.16	0.02	0.11	0.06
36	3:00	0.6	0.06	0.48	0.05	0.01	0.04	0.06

Hydrologic Summary

BUILDING 3
PROP. CONDITION

Watershed Characteristics

Area	(acres)	6.25
Soil		C
Cover		Commercial

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		69	69	69	69	Plate E-6.1
Fp	(in/hr)	0.21	0.40	0.60	0.60	Plate E-6.2
Ai	(decimal)	0.90	0.90	0.90	0.90	Plate E-6.3
Low Loss	(decimal)	0.18	0.18	0.18	0.18	0.9-(0.8Ai)
F	(in/hr)	0.04	0.08	0.11	0.11	Fp(1-0.9Ai)
Fm	(in/hr)	0.02	0.04	0.06	0.06	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	3.19	1.80	1.26	0.75	24-hour
Peak Flow	(cfs)	10.25	6.67	5.17	3.49	6-hour
Peak Flow	(cfs)	11.44	7.52	6.05	4.21	3-hour
Total Runoff	(ac-ft)	1.64	0.90	0.64	0.45	24-hour
Total Runoff	(ac-ft)	1.17	0.65	0.41	0.32	6-hour
Total Runoff	(ac-ft)	0.92	0.55	0.39	0.24	3-hour

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	4.0
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04
Fm	(in/hr)	0.02
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.07	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.07	0.01	0.03	0.16	0.00
2	0:30	0.3	0.05	0.07	0.01	0.04	0.25	0.01
3	0:45	0.3	0.05	0.07	0.01	0.04	0.25	0.01
4	1:00	0.4	0.06	0.07	0.01	0.05	0.33	0.02
5	1:15	0.3	0.05	0.07	0.01	0.04	0.25	0.02
6	1:30	0.3	0.05	0.07	0.01	0.04	0.25	0.03
7	1:45	0.3	0.05	0.07	0.01	0.04	0.25	0.03
8	2:00	0.4	0.06	0.06	0.01	0.05	0.33	0.04
9	2:15	0.4	0.06	0.06	0.01	0.05	0.33	0.05
10	2:30	0.4	0.06	0.06	0.01	0.00	0.00	0.05
11	2:45	0.5	0.08	0.06	0.01	0.02	0.11	0.05
12	3:00	0.5	0.08	0.06	0.01	0.02	0.11	0.05
13	3:15	0.5	0.08	0.06	0.01	0.02	0.12	0.06
14	3:30	0.5	0.08	0.06	0.01	0.02	0.12	0.06
15	3:45	0.5	0.08	0.06	0.01	0.02	0.13	0.06
16	4:00	0.6	0.10	0.06	0.02	0.04	0.23	0.06
17	4:15	0.6	0.10	0.06	0.02	0.04	0.24	0.07
18	4:30	0.7	0.11	0.06	0.02	0.05	0.34	0.07
19	4:45	0.7	0.11	0.06	0.02	0.06	0.35	0.08
20	5:00	0.8	0.13	0.06	0.02	0.07	0.45	0.09
21	5:15	0.6	0.10	0.06	0.02	0.04	0.26	0.10
22	5:30	0.7	0.11	0.05	0.02	0.06	0.36	0.10
23	5:45	0.8	0.13	0.05	0.02	0.07	0.46	0.11
24	6:00	0.8	0.13	0.05	0.02	0.08	0.47	0.12
25	6:15	0.9	0.14	0.05	0.03	0.09	0.57	0.13
26	6:30	0.9	0.14	0.05	0.03	0.09	0.58	0.14
27	6:45	1.0	0.16	0.05	0.03	0.11	0.68	0.16
28	7:00	1.0	0.16	0.05	0.03	0.11	0.69	0.17
29	7:15	1.0	0.16	0.05	0.03	0.11	0.69	0.19
30	7:30	1.1	0.18	0.05	0.03	0.13	0.80	0.20
31	7:45	1.2	0.19	0.05	0.03	0.14	0.90	0.22
32	8:00	1.3	0.21	0.05	0.04	0.16	1.00	0.24
33	8:15	1.5	0.24	0.05	0.04	0.19	1.21	0.26
34	8:30	1.5	0.24	0.05	0.04	0.19	1.21	0.29
35	8:45	1.6	0.26	0.05	0.05	0.21	1.32	0.31
36	9:00	1.7	0.27	0.04	0.05	0.23	1.42	0.34
37	9:15	1.9	0.30	0.04	0.05	0.26	1.62	0.37
38	9:30	2.0	0.32	0.04	0.06	0.28	1.73	0.41
39	9:45	2.1	0.34	0.04	0.06	0.29	1.83	0.44
40	10:00	2.2	0.35	0.04	0.06	0.31	1.94	0.48
41	10:15	1.5	0.24	0.04	0.04	0.20	1.24	0.52
42	10:30	1.5	0.24	0.04	0.04	0.20	1.24	0.54
43	10:45	2.0	0.32	0.04	0.06	0.28	1.75	0.57
44	11:00	2.0	0.32	0.04	0.06	0.28	1.75	0.61
45	11:15	1.9	0.30	0.04	0.05	0.26	1.65	0.64
46	11:30	1.9	0.30	0.04	0.05	0.27	1.66	0.68
47	11:45	1.7	0.27	0.04	0.05	0.23	1.46	0.71
48	12:00	1.8	0.29	0.04	0.05	0.25	1.56	0.74
49	12:15	2.5	0.40	0.04	0.07	0.36	2.27	0.78
50	12:30	2.6	0.42	0.04	0.07	0.38	2.37	0.83
51	12:45	2.8	0.45	0.04	0.08	0.41	2.58	0.88
52	13:00	2.9	0.46	0.04	0.08	0.43	2.68	0.93
53	13:15	3.4	0.54	0.03	0.10	0.51	3.18	0.99
54	13:30	3.4	0.54	0.03	0.10	0.51	3.19	1.06
55	13:45	2.3	0.37	0.03	0.07	0.33	2.09	1.11
56	14:00	2.3	0.37	0.03	0.07	0.33	2.09	1.16
57	14:15	2.7	0.43	0.03	0.08	0.40	2.49	1.21
58	14:30	2.6	0.42	0.03	0.07	0.38	2.40	1.26
59	14:45	2.6	0.42	0.03	0.07	0.38	2.40	1.31
60	15:00	2.5	0.40	0.03	0.07	0.37	2.30	1.35
61	15:15	2.4	0.38	0.03	0.07	0.35	2.21	1.40
62	15:30	2.3	0.37	0.03	0.07	0.34	2.11	1.45
63	15:45	1.9	0.30	0.03	0.05	0.27	1.71	1.48
64	16:00	1.9	0.30	0.03	0.05	0.27	1.72	1.52
65	16:15	0.4	0.06	0.03	0.01	0.03	0.22	1.54
66	16:30	0.4	0.06	0.03	0.01	0.04	0.22	1.54
67	16:45	0.3	0.05	0.03	0.01	0.02	0.12	1.55
68	17:00	0.3	0.05	0.03	0.01	0.02	0.13	1.55
69	17:15	0.5	0.08	0.03	0.01	0.05	0.33	1.56
70	17:30	0.5	0.08	0.03	0.01	0.05	0.33	1.56
71	17:45	0.5	0.08	0.03	0.01	0.05	0.33	1.57
72	18:00	0.4	0.06	0.03	0.01	0.04	0.24	1.58
73	18:15	0.4	0.06	0.03	0.01	0.04	0.24	1.58
74	18:30	0.4	0.06	0.03	0.01	0.04	0.24	1.58
75	18:45	0.3	0.05	0.02	0.01	0.02	0.14	1.59
76	19:00	0.2	0.03	0.02	0.01	0.01	0.05	1.59
77	19:15	0.3	0.05	0.02	0.01	0.02	0.15	1.59
78	19:30	0.4	0.06	0.02	0.01	0.04	0.25	1.60
79	19:45	0.3	0.05	0.02	0.01	0.02	0.15	1.60
80	20:00	0.2	0.03	0.02	0.01	0.01	0.05	1.60
81	20:15	0.3	0.05	0.02	0.01	0.03	0.16	1.61
82	20:30	0.3	0.05	0.02	0.01	0.03	0.16	1.61
83	20:45	0.3	0.05	0.02	0.01	0.03	0.16	1.61
84	21:00	0.2	0.03	0.02	0.01	0.01	0.06	1.61
85	21:15	0.3	0.05	0.02	0.01	0.03	0.16	1.62
86	21:30	0.2	0.03	0.02	0.01	0.01	0.07	1.62
87	21:45	0.3	0.05	0.02	0.01	0.03	0.17	1.62
88	22:00	0.2	0.03	0.02	0.01	0.01	0.07	1.62
89	22:15	0.3	0.05	0.02	0.01	0.03	0.17	1.63
90	22:30	0.2	0.03	0.02	0.01	0.01	0.07	1.63
91	22:45	0.2	0.03	0.02	0.01	0.01	0.07	1.63
92	23:00	0.2	0.03	0.02	0.01	0.01	0.07	1.63
93	23:15	0.2	0.03	0.02	0.01	0.01	0.07	1.63
94	23:30	0.2	0.03	0.02	0.01	0.01	0.07	1.63
95	23:45	0.2	0.03	0.02	0.01	0.01	0.07	1.64
96	0:00	0.2	0.03	0.02	0.01	0.01	0.08	1.64

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	2.6
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08
Fm	(in/hr)	0.04
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.13	0.00	0.02	0.11	0.00
2	0:30	0.3	0.03	0.13	0.01	0.03	0.16	0.00
3	0:45	0.3	0.03	0.13	0.01	0.03	0.16	0.01
4	1:00	0.4	0.04	0.13	0.01	0.03	0.21	0.01
5	1:15	0.3	0.03	0.13	0.01	0.03	0.16	0.01
6	1:30	0.3	0.03	0.13	0.01	0.03	0.16	0.02
7	1:45	0.3	0.03	0.13	0.01	0.03	0.16	0.02
8	2:00	0.4	0.04	0.12	0.01	0.03	0.21	0.03
9	2:15	0.4	0.04	0.12	0.01	0.03	0.21	0.03
10	2:30	0.4	0.04	0.12	0.01	0.03	0.21	0.03
11	2:45	0.5	0.05	0.12	0.01	0.04	0.27	0.04
12	3:00	0.5	0.05	0.12	0.01	0.04	0.27	0.04
13	3:15	0.5	0.05	0.12	0.01	0.04	0.27	0.05
14	3:30	0.5	0.05	0.11	0.01	0.04	0.27	0.06
15	3:45	0.5	0.05	0.11	0.01	0.04	0.27	0.06
16	4:00	0.6	0.06	0.11	0.01	0.05	0.32	0.07
17	4:15	0.6	0.06	0.11	0.01	0.05	0.32	0.07
18	4:30	0.7	0.07	0.11	0.01	0.06	0.37	0.08
19	4:45	0.7	0.07	0.11	0.01	0.06	0.37	0.09
20	5:00	0.8	0.08	0.11	0.01	0.07	0.43	0.10
21	5:15	0.6	0.06	0.10	0.01	0.05	0.32	0.10
22	5:30	0.7	0.07	0.10	0.01	0.06	0.37	0.11
23	5:45	0.8	0.08	0.10	0.01	0.07	0.43	0.12
24	6:00	0.8	0.08	0.10	0.01	0.07	0.43	0.13
25	6:15	0.9	0.09	0.10	0.02	0.08	0.48	0.14
26	6:30	0.9	0.09	0.10	0.02	0.08	0.48	0.15
27	6:45	1.0	0.10	0.10	0.02	0.01	0.05	0.15
28	7:00	1.0	0.10	0.10	0.02	0.01	0.05	0.15
29	7:15	1.0	0.10	0.09	0.02	0.01	0.06	0.16
30	7:30	1.1	0.11	0.09	0.02	0.02	0.13	0.16
31	7:45	1.2	0.12	0.09	0.02	0.03	0.21	0.16
32	8:00	1.3	0.14	0.09	0.02	0.04	0.28	0.17
33	8:15	1.5	0.16	0.09	0.03	0.07	0.42	0.17
34	8:30	1.5	0.16	0.09	0.03	0.07	0.43	0.18
35	8:45	1.6	0.17	0.09	0.03	0.08	0.50	0.19
36	9:00	1.7	0.18	0.09	0.03	0.09	0.57	0.20
37	9:15	1.9	0.20	0.08	0.04	0.11	0.71	0.22
38	9:30	2.0	0.21	0.08	0.04	0.12	0.78	0.23
39	9:45	2.1	0.22	0.08	0.04	0.14	0.85	0.25
40	10:00	2.2	0.23	0.08	0.04	0.15	0.93	0.27
41	10:15	1.5	0.16	0.08	0.03	0.08	0.48	0.28
42	10:30	1.5	0.16	0.08	0.03	0.08	0.49	0.29
43	10:45	2.0	0.21	0.08	0.04	0.13	0.82	0.30
44	11:00	2.0	0.21	0.08	0.04	0.13	0.82	0.32
45	11:15	1.9	0.20	0.07	0.04	0.12	0.77	0.34
46	11:30	1.9	0.20	0.07	0.04	0.12	0.77	0.35
47	11:45	1.7	0.18	0.07	0.03	0.10	0.65	0.37
48	12:00	1.8	0.19	0.07	0.03	0.12	0.72	0.38
49	12:15	2.5	0.26	0.07	0.05	0.19	1.18	0.40
50	12:30	2.6	0.27	0.07	0.05	0.20	1.26	0.43
51	12:45	2.8	0.29	0.07	0.05	0.22	1.39	0.46
52	13:00	2.9	0.30	0.07	0.05	0.23	1.46	0.48
53	13:15	3.4	0.35	0.07	0.06	0.29	1.79	0.52
54	13:30	3.4	0.35	0.07	0.06	0.29	1.80	0.56
55	13:45	2.3	0.24	0.06	0.04	0.17	1.09	0.59
56	14:00	2.3	0.24	0.06	0.04	0.18	1.10	0.61
57	14:15	2.7	0.28	0.06	0.05	0.22	1.36	0.63
58	14:30	2.6	0.27	0.06	0.05	0.21	1.31	0.66
59	14:45	2.6	0.27	0.06	0.05	0.21	1.31	0.69
60	15:00	2.5	0.26	0.06	0.05	0.20	1.25	0.71
61	15:15	2.4	0.25	0.06	0.04	0.19	1.19	0.74
62	15:30	2.3	0.24	0.06	0.04	0.18	1.13	0.76
63	15:45	1.9	0.20	0.06	0.04	0.14	0.88	0.78
64	16:00	1.9	0.20	0.06	0.04	0.14	0.88	0.80
65	16:15	0.4	0.04	0.06	0.01	0.03	0.21	0.81
66	16:30	0.4	0.04	0.05	0.01	0.03	0.21	0.82
67	16:45	0.3	0.03	0.05	0.01	0.03	0.16	0.82
68	17:00	0.3	0.03	0.05	0.01	0.03	0.16	0.83
69	17:15	0.5	0.05	0.05	0.01	0.00	0.00	0.83
70	17:30	0.5	0.05	0.05	0.01	0.00	0.01	0.83
71	17:45	0.5	0.05	0.05	0.01	0.00	0.01	0.83
72	18:00	0.4	0.04	0.05	0.01	0.03	0.21	0.83
73	18:15	0.4	0.04	0.05	0.01	0.03	0.21	0.83
74	18:30	0.4	0.04	0.05	0.01	0.03	0.21	0.84
75	18:45	0.3	0.03	0.05	0.01	0.03	0.16	0.84
76	19:00	0.2	0.02	0.05	0.00	0.02	0.11	0.85
77	19:15	0.3	0.03	0.05	0.01	0.03	0.16	0.85
78	19:30	0.4	0.04	0.05	0.01	0.03	0.21	0.85
79	19:45	0.3	0.03	0.04	0.01	0.03	0.16	0.86
80	20:00	0.2	0.02	0.04	0.00	0.02	0.11	0.86
81	20:15	0.3	0.03	0.04	0.01	0.03	0.16	0.86
82	20:30	0.3	0.03	0.04	0.01	0.03	0.16	0.86
83	20:45	0.3	0.03	0.04	0.01	0.03	0.16	0.87
84	21:00	0.2	0.02	0.04	0.00	0.02	0.11	0.87
85	21:15	0.3	0.03	0.04	0.01	0.03	0.16	0.87
86	21:30	0.2	0.02	0.04	0.00	0.02	0.11	0.88
87	21:45	0.3	0.03	0.04	0.01	0.03	0.16	0.88
88	22:00	0.2	0.02	0.04	0.00	0.02	0.11	0.88
89	22:15	0.3	0.03	0.04	0.01	0.03	0.16	0.88
90	22:30	0.2	0.02	0.04	0.00	0.02	0.11	0.89
91	22:45	0.2	0.02	0.04	0.00	0.02	0.11	0.89
92	23:00	0.2	0.02	0.04	0.00	0.02	0.11	0.89
93	23:15	0.2	0.02	0.04	0.00	0.02	0.11	0.89
94	23:30	0.2	0.02	0.04	0.00	0.02	0.11	0.90
95	23:45	0.2	0.02	0.04	0.00	0.02	0.11	0.90
96	0:00	0.2	0.02	0.04	0.00	0.02	0.11	0.90

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	2.2
AMC		I
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.20	0.00	0.01	0.09	0.00
2	0:30	0.3	0.03	0.20	0.00	0.02	0.14	0.00
3	0:45	0.3	0.03	0.20	0.00	0.02	0.14	0.01
4	1:00	0.4	0.04	0.19	0.01	0.03	0.18	0.01
5	1:15	0.3	0.03	0.19	0.00	0.02	0.14	0.01
6	1:30	0.3	0.03	0.19	0.00	0.02	0.14	0.02
7	1:45	0.3	0.03	0.19	0.00	0.02	0.14	0.02
8	2:00	0.4	0.04	0.19	0.01	0.03	0.18	0.02
9	2:15	0.4	0.04	0.18	0.01	0.03	0.18	0.03
10	2:30	0.4	0.04	0.18	0.01	0.03	0.18	0.03
11	2:45	0.5	0.04	0.18	0.01	0.04	0.23	0.03
12	3:00	0.5	0.04	0.18	0.01	0.04	0.23	0.04
13	3:15	0.5	0.04	0.17	0.01	0.04	0.23	0.04
14	3:30	0.5	0.04	0.17	0.01	0.04	0.23	0.05
15	3:45	0.5	0.04	0.17	0.01	0.04	0.23	0.05
16	4:00	0.6	0.05	0.17	0.01	0.04	0.27	0.06
17	4:15	0.6	0.05	0.17	0.01	0.04	0.27	0.06
18	4:30	0.7	0.06	0.16	0.01	0.05	0.32	0.07
19	4:45	0.7	0.06	0.16	0.01	0.05	0.32	0.08
20	5:00	0.8	0.07	0.16	0.01	0.06	0.36	0.08
21	5:15	0.6	0.05	0.16	0.01	0.04	0.27	0.09
22	5:30	0.7	0.06	0.16	0.01	0.05	0.32	0.09
23	5:45	0.8	0.07	0.15	0.01	0.06	0.36	0.10
24	6:00	0.8	0.07	0.15	0.01	0.06	0.36	0.11
25	6:15	0.9	0.08	0.15	0.01	0.06	0.41	0.12
26	6:30	0.9	0.08	0.15	0.01	0.06	0.41	0.13
27	6:45	1.0	0.09	0.15	0.02	0.07	0.45	0.13
28	7:00	1.0	0.09	0.14	0.02	0.07	0.45	0.14
29	7:15	1.0	0.09	0.14	0.02	0.07	0.45	0.15
30	7:30	1.1	0.10	0.14	0.02	0.08	0.50	0.16
31	7:45	1.2	0.11	0.14	0.02	0.09	0.54	0.17
32	8:00	1.3	0.11	0.14	0.02	0.09	0.59	0.18
33	8:15	1.5	0.13	0.13	0.02	0.11	0.68	0.20
34	8:30	1.5	0.13	0.13	0.02	0.00	0.00	0.21
35	8:45	1.6	0.14	0.13	0.03	0.01	0.07	0.21
36	9:00	1.7	0.15	0.13	0.03	0.02	0.13	0.21
37	9:15	1.9	0.17	0.13	0.03	0.04	0.26	0.21
38	9:30	2.0	0.18	0.12	0.03	0.05	0.32	0.22
39	9:45	2.1	0.18	0.12	0.03	0.06	0.39	0.23
40	10:00	2.2	0.19	0.12	0.03	0.07	0.45	0.23
41	10:15	1.5	0.13	0.12	0.02	0.01	0.08	0.24
42	10:30	1.5	0.13	0.12	0.02	0.01	0.09	0.24
43	10:45	2.0	0.18	0.12	0.03	0.06	0.38	0.25
44	11:00	2.0	0.18	0.11	0.03	0.06	0.39	0.25
45	11:15	1.9	0.17	0.11	0.03	0.05	0.34	0.26
46	11:30	1.9	0.17	0.11	0.03	0.06	0.35	0.27
47	11:45	1.7	0.15	0.11	0.03	0.04	0.25	0.27
48	12:00	1.8	0.16	0.11	0.03	0.05	0.32	0.28
49	12:15	2.5	0.22	0.11	0.04	0.11	0.71	0.29
50	12:30	2.6	0.23	0.10	0.04	0.12	0.78	0.31
51	12:45	2.8	0.25	0.10	0.04	0.14	0.90	0.32
52	13:00	2.9	0.26	0.10	0.05	0.15	0.96	0.34
53	13:15	3.4	0.30	0.10	0.05	0.20	1.25	0.37
54	13:30	3.4	0.30	0.10	0.05	0.20	1.26	0.39
55	13:45	2.3	0.20	0.10	0.04	0.11	0.66	0.41
56	14:00	2.3	0.20	0.10	0.04	0.11	0.67	0.43
57	14:15	2.7	0.24	0.09	0.04	0.14	0.90	0.44
58	14:30	2.6	0.23	0.09	0.04	0.14	0.85	0.46
59	14:45	2.6	0.23	0.09	0.04	0.14	0.86	0.48
60	15:00	2.5	0.22	0.09	0.04	0.13	0.82	0.49
61	15:15	2.4	0.21	0.09	0.04	0.12	0.77	0.51
62	15:30	2.3	0.20	0.09	0.04	0.12	0.72	0.53
63	15:45	1.9	0.17	0.09	0.03	0.08	0.51	0.54
64	16:00	1.9	0.17	0.08	0.03	0.08	0.52	0.55
65	16:15	0.4	0.04	0.08	0.01	0.03	0.18	0.56
66	16:30	0.4	0.04	0.08	0.01	0.03	0.18	0.56
67	16:45	0.3	0.03	0.08	0.00	0.02	0.14	0.56
68	17:00	0.3	0.03	0.08	0.00	0.02	0.14	0.57
69	17:15	0.5	0.04	0.08	0.01	0.04	0.23	0.57
70	17:30	0.5	0.04	0.08	0.01	0.04	0.23	0.58
71	17:45	0.5	0.04	0.08	0.01	0.04	0.23	0.58
72	18:00	0.4	0.04	0.07	0.01	0.03	0.18	0.58
73	18:15	0.4	0.04	0.07	0.01	0.03	0.18	0.59
74	18:30	0.4	0.04	0.07	0.01	0.03	0.18	0.59
75	18:45	0.3	0.03	0.07	0.00	0.02	0.14	0.60
76	19:00	0.2	0.02	0.07	0.00	0.01	0.09	0.60
77	19:15	0.3	0.03	0.07	0.00	0.02	0.14	0.60
78	19:30	0.4	0.04	0.07	0.01	0.03	0.18	0.60
79	19:45	0.3	0.03	0.07	0.00	0.02	0.14	0.61
80	20:00	0.2	0.02	0.07	0.00	0.01	0.09	0.61
81	20:15	0.3	0.03	0.07	0.00	0.02	0.14	0.61
82	20:30	0.3	0.03	0.06	0.00	0.02	0.14	0.61
83	20:45	0.3	0.03	0.06	0.00	0.02	0.14	0.62
84	21:00	0.2	0.02	0.06	0.00	0.01	0.09	0.62
85	21:15	0.3	0.03	0.06	0.00	0.02	0.14	0.62
86	21:30	0.2	0.02	0.06	0.00	0.01	0.09	0.62
87	21:45	0.3	0.03	0.06	0.00	0.02	0.14	0.63
88	22:00	0.2	0.02	0.06	0.00	0.01	0.09	0.63
89	22:15	0.3	0.03	0.06	0.00	0.02	0.14	0.63
90	22:30	0.2	0.02	0.06	0.00	0.01	0.09	0.63
91	22:45	0.2	0.02	0.06	0.00	0.01	0.09	0.63
92	23:00	0.2	0.02	0.06	0.00	0.01	0.09	0.64
93	23:15	0.2	0.02	0.06	0.00	0.01	0.09	0.64
94	23:30	0.2	0.02	0.06	0.00	0.01	0.09	0.64
95	23:45	0.2	0.02	0.06	0.00	0.01	0.09	0.64
96	0:00	0.2	0.02	0.06	0.00	0.01	0.09	0.64

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	1.6
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.20	0.00	0.01	0.07	0.00
2	0:30	0.3	0.02	0.20	0.00	0.02	0.10	0.00
3	0:45	0.3	0.02	0.20	0.00	0.02	0.10	0.00
4	1:00	0.4	0.03	0.19	0.00	0.02	0.13	0.01
5	1:15	0.3	0.02	0.19	0.00	0.02	0.10	0.01
6	1:30	0.3	0.02	0.19	0.00	0.02	0.10	0.01
7	1:45	0.3	0.02	0.19	0.00	0.02	0.10	0.01
8	2:00	0.4	0.03	0.19	0.00	0.02	0.13	0.02
9	2:15	0.4	0.03	0.18	0.00	0.02	0.13	0.02
10	2:30	0.4	0.03	0.18	0.00	0.02	0.13	0.02
11	2:45	0.5	0.03	0.18	0.01	0.03	0.16	0.02
12	3:00	0.5	0.03	0.18	0.01	0.03	0.16	0.03
13	3:15	0.5	0.03	0.17	0.01	0.03	0.16	0.03
14	3:30	0.5	0.03	0.17	0.01	0.03	0.16	0.03
15	3:45	0.5	0.03	0.17	0.01	0.03	0.16	0.04
16	4:00	0.6	0.04	0.17	0.01	0.03	0.20	0.04
17	4:15	0.6	0.04	0.17	0.01	0.03	0.20	0.05
18	4:30	0.7	0.04	0.16	0.01	0.04	0.23	0.05
19	4:45	0.7	0.04	0.16	0.01	0.04	0.23	0.05
20	5:00	0.8	0.05	0.16	0.01	0.04	0.26	0.06
21	5:15	0.6	0.04	0.16	0.01	0.03	0.20	0.06
22	5:30	0.7	0.04	0.16	0.01	0.04	0.23	0.07
23	5:45	0.8	0.05	0.15	0.01	0.04	0.26	0.07
24	6:00	0.8	0.05	0.15	0.01	0.04	0.26	0.08
25	6:15	0.9	0.06	0.15	0.01	0.05	0.30	0.09
26	6:30	0.9	0.06	0.15	0.01	0.05	0.30	0.09
27	6:45	1.0	0.06	0.15	0.01	0.05	0.33	0.10
28	7:00	1.0	0.06	0.14	0.01	0.05	0.33	0.10
29	7:15	1.0	0.06	0.14	0.01	0.05	0.33	0.11
30	7:30	1.1	0.07	0.14	0.01	0.06	0.36	0.12
31	7:45	1.2	0.08	0.14	0.01	0.06	0.39	0.13
32	8:00	1.3	0.08	0.14	0.01	0.07	0.43	0.13
33	8:15	1.5	0.10	0.13	0.02	0.08	0.49	0.14
34	8:30	1.5	0.10	0.13	0.02	0.08	0.49	0.15
35	8:45	1.6	0.10	0.13	0.02	0.08	0.52	0.16
36	9:00	1.7	0.11	0.13	0.02	0.09	0.56	0.18
37	9:15	1.9	0.12	0.13	0.02	0.10	0.62	0.19
38	9:30	2.0	0.13	0.12	0.02	0.00	0.02	0.19
39	9:45	2.1	0.13	0.12	0.02	0.01	0.07	0.20
40	10:00	2.2	0.14	0.12	0.03	0.02	0.12	0.20
41	10:15	1.5	0.10	0.12	0.02	0.08	0.49	0.20
42	10:30	1.5	0.10	0.12	0.02	0.08	0.49	0.21
43	10:45	2.0	0.13	0.12	0.02	0.01	0.08	0.22
44	11:00	2.0	0.13	0.11	0.02	0.01	0.09	0.22
45	11:15	1.9	0.12	0.11	0.02	0.01	0.06	0.22
46	11:30	1.9	0.12	0.11	0.02	0.01	0.07	0.22
47	11:45	1.7	0.11	0.11	0.02	0.09	0.56	0.23
48	12:00	1.8	0.12	0.11	0.02	0.01	0.05	0.24
49	12:15	2.5	0.16	0.11	0.03	0.05	0.34	0.24
50	12:30	2.6	0.17	0.10	0.03	0.06	0.39	0.25
51	12:45	2.8	0.18	0.10	0.03	0.08	0.48	0.26
52	13:00	2.9	0.19	0.10	0.03	0.08	0.53	0.27
53	13:15	3.4	0.22	0.10	0.04	0.12	0.74	0.28
54	13:30	3.4	0.22	0.10	0.04	0.12	0.75	0.30
55	13:45	2.3	0.15	0.10	0.03	0.05	0.32	0.31
56	14:00	2.3	0.15	0.10	0.03	0.05	0.33	0.31
57	14:15	2.7	0.17	0.09	0.03	0.08	0.49	0.32
58	14:30	2.6	0.17	0.09	0.03	0.07	0.46	0.33
59	14:45	2.6	0.17	0.09	0.03	0.08	0.47	0.34
60	15:00	2.5	0.16	0.09	0.03	0.07	0.44	0.35
61	15:15	2.4	0.15	0.09	0.03	0.07	0.41	0.36
62	15:30	2.3	0.15	0.09	0.03	0.06	0.38	0.37
63	15:45	1.9	0.12	0.09	0.02	0.04	0.23	0.37
64	16:00	1.9	0.12	0.08	0.02	0.04	0.23	0.38
65	16:15	0.4	0.03	0.08	0.00	0.02	0.13	0.38
66	16:30	0.4	0.03	0.08	0.00	0.02	0.13	0.39
67	16:45	0.3	0.02	0.08	0.00	0.02	0.10	0.39
68	17:00	0.3	0.02	0.08	0.00	0.02	0.10	0.39
69	17:15	0.5	0.03	0.08	0.01	0.03	0.16	0.39
70	17:30	0.5	0.03	0.08	0.01	0.03	0.16	0.40
71	17:45	0.5	0.03	0.08	0.01	0.03	0.16	0.40
72	18:00	0.4	0.03	0.07	0.00	0.02	0.13	0.40
73	18:15	0.4	0.03	0.07	0.00	0.02	0.13	0.41
74	18:30	0.4	0.03	0.07	0.00	0.02	0.13	0.41
75	18:45	0.3	0.02	0.07	0.00	0.02	0.10	0.41
76	19:00	0.2	0.01	0.07	0.00	0.01	0.07	0.41
77	19:15	0.3	0.02	0.07	0.00	0.02	0.10	0.41
78	19:30	0.4	0.03	0.07	0.00	0.02	0.13	0.42
79	19:45	0.3	0.02	0.07	0.00	0.02	0.10	0.42
80	20:00	0.2	0.01	0.07	0.00	0.01	0.07	0.42
81	20:15	0.3	0.02	0.07	0.00	0.02	0.10	0.42
82	20:30	0.3	0.02	0.06	0.00	0.02	0.10	0.42
83	20:45	0.3	0.02	0.06	0.00	0.02	0.10	0.43
84	21:00	0.2	0.01	0.06	0.00	0.01	0.07	0.43
85	21:15	0.3	0.02	0.06	0.00	0.02	0.10	0.43
86	21:30	0.2	0.01	0.06	0.00	0.01	0.07	0.43
87	21:45	0.3	0.02	0.06	0.00	0.02	0.10	0.43
88	22:00	0.2	0.01	0.06	0.00	0.01	0.07	0.43
89	22:15	0.3	0.02	0.06	0.00	0.02	0.10	0.44
90	22:30	0.2	0.01	0.06	0.00	0.01	0.07	0.44
91	22:45	0.2	0.01	0.06	0.00	0.01	0.07	0.44
92	23:00	0.2	0.01	0.06	0.00	0.01	0.07	0.44
93	23:15	0.2	0.01	0.06	0.00	0.01	0.07	0.44
94	23:30	0.2	0.01	0.06	0.00	0.01	0.07	0.44
95	23:45	0.2	0.01	0.06	0.00	0.01	0.07	0.44
96	0:00	0.2	0.01	0.06	0.00	0.01	0.07	0.45

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	2.5
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.04	0.03	0.11	0.69	0.00
2	0:10	0.6	0.18	0.04	0.03	0.14	0.88	0.01
3	0:15	0.6	0.18	0.04	0.03	0.14	0.88	0.01
4	0:20	0.6	0.18	0.04	0.03	0.14	0.88	0.02
5	0:25	0.6	0.18	0.04	0.03	0.14	0.88	0.03
6	0:30	0.7	0.21	0.04	0.04	0.17	1.06	0.03
7	0:35	0.7	0.21	0.04	0.04	0.17	1.06	0.04
8	0:40	0.7	0.21	0.04	0.04	0.17	1.06	0.05
9	0:45	0.7	0.21	0.04	0.04	0.17	1.06	0.05
10	0:50	0.7	0.21	0.04	0.04	0.17	1.06	0.06
11	0:55	0.7	0.21	0.04	0.04	0.17	1.06	0.07
12	1:00	0.8	0.24	0.04	0.04	0.20	1.25	0.08
13	1:05	0.8	0.24	0.04	0.04	0.20	1.25	0.09
14	1:10	0.8	0.24	0.04	0.04	0.20	1.25	0.09
15	1:15	0.8	0.24	0.04	0.04	0.20	1.25	0.10
16	1:20	0.8	0.24	0.04	0.04	0.20	1.25	0.11
17	1:25	0.8	0.24	0.04	0.04	0.20	1.25	0.12
18	1:30	0.8	0.24	0.04	0.04	0.20	1.25	0.13
19	1:35	0.8	0.24	0.04	0.04	0.20	1.25	0.14
20	1:40	0.8	0.24	0.04	0.04	0.20	1.25	0.15
21	1:45	0.8	0.24	0.04	0.04	0.20	1.25	0.15
22	1:50	0.8	0.24	0.04	0.04	0.20	1.25	0.16
23	1:55	0.8	0.24	0.04	0.04	0.20	1.25	0.17
24	2:00	0.9	0.27	0.04	0.05	0.23	1.44	0.18
25	2:05	0.8	0.24	0.04	0.04	0.20	1.25	0.19
26	2:10	0.9	0.27	0.04	0.05	0.23	1.44	0.20
27	2:15	0.9	0.27	0.04	0.05	0.23	1.44	0.21
28	2:20	0.9	0.27	0.04	0.05	0.23	1.44	0.22
29	2:25	0.9	0.27	0.04	0.05	0.23	1.44	0.23
30	2:30	0.9	0.27	0.04	0.05	0.23	1.44	0.24
31	2:35	0.9	0.27	0.04	0.05	0.23	1.44	0.25
32	2:40	0.9	0.27	0.04	0.05	0.23	1.44	0.26
33	2:45	1.0	0.30	0.04	0.05	0.26	1.63	0.27
34	2:50	1.0	0.30	0.04	0.05	0.26	1.63	0.28
35	2:55	1.0	0.30	0.04	0.05	0.26	1.63	0.29
36	3:00	1.0	0.30	0.04	0.05	0.26	1.63	0.30
37	3:05	1.0	0.30	0.04	0.05	0.26	1.63	0.31
38	3:10	1.1	0.33	0.04	0.06	0.29	1.81	0.33
39	3:15	1.1	0.33	0.04	0.06	0.29	1.81	0.34
40	3:20	1.1	0.33	0.04	0.06	0.29	1.81	0.35
41	3:25	1.2	0.36	0.04	0.06	0.32	2.00	0.36
42	3:30	1.3	0.39	0.04	0.07	0.35	2.19	0.38
43	3:35	1.4	0.42	0.04	0.08	0.38	2.38	0.39
44	3:40	1.4	0.42	0.04	0.08	0.38	2.38	0.41
45	3:45	1.5	0.45	0.04	0.08	0.41	2.56	0.43
46	3:50	1.5	0.45	0.04	0.08	0.41	2.56	0.45
47	3:55	1.6	0.48	0.04	0.09	0.44	2.75	0.46
48	4:00	1.6	0.48	0.04	0.09	0.44	2.75	0.48
49	4:05	1.7	0.51	0.04	0.09	0.47	2.94	0.50
50	4:10	1.8	0.54	0.04	0.10	0.50	3.13	0.52
51	4:15	1.9	0.57	0.04	0.10	0.53	3.31	0.55
52	4:20	2.0	0.60	0.04	0.11	0.56	3.50	0.57
53	4:25	2.1	0.63	0.04	0.11	0.59	3.69	0.59
54	4:30	2.1	0.63	0.04	0.11	0.59	3.69	0.62
55	4:35	2.2	0.66	0.04	0.12	0.62	3.88	0.65
56	4:40	2.3	0.69	0.04	0.12	0.65	4.06	0.67
57	4:45	2.4	0.72	0.04	0.13	0.68	4.25	0.70
58	4:50	2.4	0.72	0.04	0.13	0.68	4.25	0.73
59	4:55	2.5	0.75	0.04	0.14	0.71	4.44	0.76
60	5:00	2.6	0.78	0.04	0.14	0.74	4.63	0.79
61	5:05	3.1	0.93	0.04	0.17	0.89	5.56	0.83
62	5:10	3.6	1.08	0.04	0.19	1.04	6.50	0.87
63	5:15	3.9	1.17	0.04	0.21	1.13	7.06	0.91
64	5:20	4.2	1.26	0.04	0.23	1.22	7.63	0.97
65	5:25	4.7	1.41	0.04	0.25	1.37	8.56	1.02
66	5:30	5.6	1.68	0.04	0.30	1.64	10.25	1.09
67	5:35	1.9	0.57	0.04	0.10	0.53	3.31	1.13
68	5:40	0.9	0.27	0.04	0.05	0.23	1.44	1.15
69	5:45	0.6	0.18	0.04	0.03	0.14	0.88	1.16
70	5:50	0.5	0.15	0.04	0.03	0.11	0.69	1.16
71	5:55	0.3	0.09	0.04	0.02	0.05	0.31	1.17
72	6:00	0.2	0.06	0.04	0.01	0.02	0.13	1.17

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	1.7
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.08	0.02	0.03	0.16	0.00
2	0:10	0.6	0.12	0.08	0.02	0.05	0.29	0.00
3	0:15	0.6	0.12	0.08	0.02	0.05	0.29	0.00
4	0:20	0.6	0.12	0.08	0.02	0.05	0.29	0.01
5	0:25	0.6	0.12	0.08	0.02	0.05	0.29	0.01
6	0:30	0.7	0.14	0.08	0.03	0.07	0.42	0.01
7	0:35	0.7	0.14	0.08	0.03	0.07	0.42	0.01
8	0:40	0.7	0.14	0.08	0.03	0.07	0.42	0.02
9	0:45	0.7	0.14	0.08	0.03	0.07	0.42	0.02
10	0:50	0.7	0.14	0.08	0.03	0.07	0.42	0.02
11	0:55	0.7	0.14	0.08	0.03	0.07	0.42	0.02
12	1:00	0.8	0.16	0.08	0.03	0.09	0.55	0.03
13	1:05	0.8	0.16	0.08	0.03	0.09	0.55	0.03
14	1:10	0.8	0.16	0.08	0.03	0.09	0.55	0.04
15	1:15	0.8	0.16	0.08	0.03	0.09	0.55	0.04
16	1:20	0.8	0.16	0.08	0.03	0.09	0.55	0.04
17	1:25	0.8	0.16	0.08	0.03	0.09	0.55	0.05
18	1:30	0.8	0.16	0.08	0.03	0.09	0.55	0.05
19	1:35	0.8	0.16	0.08	0.03	0.09	0.55	0.05
20	1:40	0.8	0.16	0.08	0.03	0.09	0.55	0.06
21	1:45	0.8	0.16	0.08	0.03	0.09	0.55	0.06
22	1:50	0.8	0.16	0.08	0.03	0.09	0.55	0.07
23	1:55	0.8	0.16	0.08	0.03	0.09	0.55	0.07
24	2:00	0.9	0.18	0.08	0.03	0.11	0.67	0.07
25	2:05	0.8	0.16	0.08	0.03	0.09	0.55	0.08
26	2:10	0.9	0.18	0.08	0.03	0.11	0.67	0.08
27	2:15	0.9	0.18	0.08	0.03	0.11	0.67	0.09
28	2:20	0.9	0.18	0.08	0.03	0.11	0.67	0.09
29	2:25	0.9	0.18	0.08	0.03	0.11	0.67	0.10
30	2:30	0.9	0.18	0.08	0.03	0.11	0.67	0.10
31	2:35	0.9	0.18	0.08	0.03	0.11	0.67	0.11
32	2:40	0.9	0.18	0.08	0.03	0.11	0.67	0.11
33	2:45	1.0	0.20	0.08	0.04	0.13	0.80	0.11
34	2:50	1.0	0.20	0.08	0.04	0.13	0.80	0.12
35	2:55	1.0	0.20	0.08	0.04	0.13	0.80	0.13
36	3:00	1.0	0.20	0.08	0.04	0.13	0.80	0.13
37	3:05	1.0	0.20	0.08	0.04	0.13	0.80	0.14
38	3:10	1.1	0.22	0.08	0.04	0.15	0.93	0.14
39	3:15	1.1	0.22	0.08	0.04	0.15	0.93	0.15
40	3:20	1.1	0.22	0.08	0.04	0.15	0.93	0.16
41	3:25	1.2	0.24	0.08	0.04	0.17	1.06	0.16
42	3:30	1.3	0.27	0.08	0.05	0.19	1.18	0.17
43	3:35	1.4	0.29	0.08	0.05	0.21	1.31	0.18
44	3:40	1.4	0.29	0.08	0.05	0.21	1.31	0.19
45	3:45	1.5	0.31	0.08	0.06	0.23	1.44	0.20
46	3:50	1.5	0.31	0.08	0.06	0.23	1.44	0.21
47	3:55	1.6	0.33	0.08	0.06	0.25	1.57	0.22
48	4:00	1.6	0.33	0.08	0.06	0.25	1.57	0.23
49	4:05	1.7	0.35	0.08	0.06	0.27	1.69	0.24
50	4:10	1.8	0.37	0.08	0.07	0.29	1.82	0.25
51	4:15	1.9	0.39	0.08	0.07	0.31	1.95	0.26
52	4:20	2.0	0.41	0.08	0.07	0.33	2.08	0.28
53	4:25	2.1	0.43	0.08	0.08	0.35	2.20	0.29
54	4:30	2.1	0.43	0.08	0.08	0.35	2.20	0.31
55	4:35	2.2	0.45	0.08	0.08	0.37	2.33	0.32
56	4:40	2.3	0.47	0.08	0.08	0.39	2.46	0.34
57	4:45	2.4	0.49	0.08	0.09	0.41	2.59	0.36
58	4:50	2.4	0.49	0.08	0.09	0.41	2.59	0.38
59	4:55	2.5	0.51	0.08	0.09	0.43	2.71	0.39
60	5:00	2.6	0.53	0.08	0.10	0.45	2.84	0.41
61	5:05	3.1	0.63	0.08	0.11	0.56	3.48	0.43
62	5:10	3.6	0.73	0.08	0.13	0.66	4.12	0.46
63	5:15	3.9	0.80	0.08	0.14	0.72	4.50	0.49
64	5:20	4.2	0.86	0.08	0.15	0.78	4.88	0.52
65	5:25	4.7	0.96	0.08	0.17	0.88	5.52	0.56
66	5:30	5.6	1.14	0.08	0.21	1.07	6.67	0.60
67	5:35	1.9	0.39	0.08	0.07	0.31	1.95	0.63
68	5:40	0.9	0.18	0.08	0.03	0.11	0.67	0.64
69	5:45	0.6	0.12	0.08	0.02	0.05	0.29	0.64
70	5:50	0.5	0.10	0.08	0.02	0.03	0.16	0.64
71	5:55	0.3	0.06	0.08	0.01	0.05	0.31	0.65
72	6:00	0.2	0.04	0.08	0.01	0.03	0.21	0.65

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	1.4
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.11	0.02	0.07	0.43	0.00
2	0:10	0.6	0.10	0.11	0.02	0.08	0.52	0.00
3	0:15	0.6	0.10	0.11	0.02	0.08	0.52	0.01
4	0:20	0.6	0.10	0.11	0.02	0.08	0.52	0.01
5	0:25	0.6	0.10	0.11	0.02	0.08	0.52	0.02
6	0:30	0.7	0.12	0.11	0.02	0.00	0.02	0.02
7	0:35	0.7	0.12	0.11	0.02	0.00	0.02	0.02
8	0:40	0.7	0.12	0.11	0.02	0.00	0.02	0.02
9	0:45	0.7	0.12	0.11	0.02	0.00	0.02	0.02
10	0:50	0.7	0.12	0.11	0.02	0.00	0.02	0.02
11	0:55	0.7	0.12	0.11	0.02	0.00	0.02	0.02
12	1:00	0.8	0.13	0.11	0.02	0.02	0.13	0.02
13	1:05	0.8	0.13	0.11	0.02	0.02	0.13	0.02
14	1:10	0.8	0.13	0.11	0.02	0.02	0.13	0.02
15	1:15	0.8	0.13	0.11	0.02	0.02	0.13	0.02
16	1:20	0.8	0.13	0.11	0.02	0.02	0.13	0.02
17	1:25	0.8	0.13	0.11	0.02	0.02	0.13	0.02
18	1:30	0.8	0.13	0.11	0.02	0.02	0.13	0.02
19	1:35	0.8	0.13	0.11	0.02	0.02	0.13	0.02
20	1:40	0.8	0.13	0.11	0.02	0.02	0.13	0.03
21	1:45	0.8	0.13	0.11	0.02	0.02	0.13	0.03
22	1:50	0.8	0.13	0.11	0.02	0.02	0.13	0.03
23	1:55	0.8	0.13	0.11	0.02	0.02	0.13	0.03
24	2:00	0.9	0.15	0.11	0.03	0.04	0.23	0.03
25	2:05	0.8	0.13	0.11	0.02	0.02	0.13	0.03
26	2:10	0.9	0.15	0.11	0.03	0.04	0.23	0.03
27	2:15	0.9	0.15	0.11	0.03	0.04	0.23	0.03
28	2:20	0.9	0.15	0.11	0.03	0.04	0.23	0.04
29	2:25	0.9	0.15	0.11	0.03	0.04	0.23	0.04
30	2:30	0.9	0.15	0.11	0.03	0.04	0.23	0.04
31	2:35	0.9	0.15	0.11	0.03	0.04	0.23	0.04
32	2:40	0.9	0.15	0.11	0.03	0.04	0.23	0.04
33	2:45	1.0	0.17	0.11	0.03	0.05	0.34	0.04
34	2:50	1.0	0.17	0.11	0.03	0.05	0.34	0.05
35	2:55	1.0	0.17	0.11	0.03	0.05	0.34	0.05
36	3:00	1.0	0.17	0.11	0.03	0.05	0.34	0.05
37	3:05	1.0	0.17	0.11	0.03	0.05	0.34	0.05
38	3:10	1.1	0.18	0.11	0.03	0.07	0.44	0.06
39	3:15	1.1	0.18	0.11	0.03	0.07	0.44	0.06
40	3:20	1.1	0.18	0.11	0.03	0.07	0.44	0.06
41	3:25	1.2	0.20	0.11	0.04	0.09	0.55	0.07
42	3:30	1.3	0.22	0.11	0.04	0.10	0.65	0.07
43	3:35	1.4	0.24	0.11	0.04	0.12	0.76	0.07
44	3:40	1.4	0.24	0.11	0.04	0.12	0.76	0.08
45	3:45	1.5	0.25	0.11	0.05	0.14	0.86	0.08
46	3:50	1.5	0.25	0.11	0.05	0.14	0.86	0.09
47	3:55	1.6	0.27	0.11	0.05	0.15	0.97	0.10
48	4:00	1.6	0.27	0.11	0.05	0.15	0.97	0.10
49	4:05	1.7	0.29	0.11	0.05	0.17	1.07	0.11
50	4:10	1.8	0.30	0.11	0.05	0.19	1.18	0.12
51	4:15	1.9	0.32	0.11	0.06	0.21	1.28	0.13
52	4:20	2.0	0.34	0.11	0.06	0.22	1.39	0.14
53	4:25	2.1	0.35	0.11	0.06	0.24	1.49	0.15
54	4:30	2.1	0.35	0.11	0.06	0.24	1.49	0.16
55	4:35	2.2	0.37	0.11	0.07	0.26	1.60	0.17
56	4:40	2.3	0.39	0.11	0.07	0.27	1.70	0.18
57	4:45	2.4	0.40	0.11	0.07	0.29	1.81	0.19
58	4:50	2.4	0.40	0.11	0.07	0.29	1.81	0.20
59	4:55	2.5	0.42	0.11	0.08	0.31	1.91	0.22
60	5:00	2.6	0.44	0.11	0.08	0.32	2.02	0.23
61	5:05	3.1	0.52	0.11	0.09	0.41	2.54	0.24
62	5:10	3.6	0.60	0.11	0.11	0.49	3.07	0.26
63	5:15	3.9	0.66	0.11	0.12	0.54	3.38	0.29
64	5:20	4.2	0.71	0.11	0.13	0.59	3.70	0.31
65	5:25	4.7	0.79	0.11	0.14	0.68	4.22	0.34
66	5:30	5.6	0.94	0.11	0.17	0.83	5.17	0.37
67	5:35	1.9	0.32	0.11	0.06	0.21	1.28	0.39
68	5:40	0.9	0.15	0.11	0.03	0.04	0.23	0.40
69	5:45	0.6	0.10	0.11	0.02	0.08	0.52	0.40
70	5:50	0.5	0.08	0.11	0.02	0.07	0.43	0.40
71	5:55	0.3	0.05	0.11	0.01	0.04	0.26	0.41
72	6:00	0.2	0.03	0.11	0.01	0.03	0.17	0.41

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	1.0
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.11	0.01	0.05	0.31	0.00
2	0:10	0.6	0.07	0.11	0.01	0.06	0.37	0.00
3	0:15	0.6	0.07	0.11	0.01	0.06	0.37	0.01
4	0:20	0.6	0.07	0.11	0.01	0.06	0.37	0.01
5	0:25	0.6	0.07	0.11	0.01	0.06	0.37	0.01
6	0:30	0.7	0.08	0.11	0.02	0.07	0.43	0.01
7	0:35	0.7	0.08	0.11	0.02	0.07	0.43	0.02
8	0:40	0.7	0.08	0.11	0.02	0.07	0.43	0.02
9	0:45	0.7	0.08	0.11	0.02	0.07	0.43	0.02
10	0:50	0.7	0.08	0.11	0.02	0.07	0.43	0.03
11	0:55	0.7	0.08	0.11	0.02	0.07	0.43	0.03
12	1:00	0.8	0.10	0.11	0.02	0.08	0.49	0.03
13	1:05	0.8	0.10	0.11	0.02	0.08	0.49	0.04
14	1:10	0.8	0.10	0.11	0.02	0.08	0.49	0.04
15	1:15	0.8	0.10	0.11	0.02	0.08	0.49	0.04
16	1:20	0.8	0.10	0.11	0.02	0.08	0.49	0.05
17	1:25	0.8	0.10	0.11	0.02	0.08	0.49	0.05
18	1:30	0.8	0.10	0.11	0.02	0.08	0.49	0.05
19	1:35	0.8	0.10	0.11	0.02	0.08	0.49	0.06
20	1:40	0.8	0.10	0.11	0.02	0.08	0.49	0.06
21	1:45	0.8	0.10	0.11	0.02	0.08	0.49	0.06
22	1:50	0.8	0.10	0.11	0.02	0.08	0.49	0.07
23	1:55	0.8	0.10	0.11	0.02	0.08	0.49	0.07
24	2:00	0.9	0.11	0.11	0.02	0.09	0.55	0.07
25	2:05	0.8	0.10	0.11	0.02	0.08	0.49	0.08
26	2:10	0.9	0.11	0.11	0.02	0.09	0.55	0.08
27	2:15	0.9	0.11	0.11	0.02	0.09	0.55	0.08
28	2:20	0.9	0.11	0.11	0.02	0.09	0.55	0.09
29	2:25	0.9	0.11	0.11	0.02	0.09	0.55	0.09
30	2:30	0.9	0.11	0.11	0.02	0.09	0.55	0.10
31	2:35	0.9	0.11	0.11	0.02	0.09	0.55	0.10
32	2:40	0.9	0.11	0.11	0.02	0.09	0.55	0.10
33	2:45	1.0	0.12	0.11	0.02	0.01	0.04	0.10
34	2:50	1.0	0.12	0.11	0.02	0.01	0.04	0.11
35	2:55	1.0	0.12	0.11	0.02	0.01	0.04	0.11
36	3:00	1.0	0.12	0.11	0.02	0.01	0.04	0.11
37	3:05	1.0	0.12	0.11	0.02	0.01	0.04	0.11
38	3:10	1.1	0.13	0.11	0.02	0.02	0.11	0.11
39	3:15	1.1	0.13	0.11	0.02	0.02	0.11	0.11
40	3:20	1.1	0.13	0.11	0.02	0.02	0.11	0.11
41	3:25	1.2	0.14	0.11	0.03	0.03	0.19	0.11
42	3:30	1.3	0.16	0.11	0.03	0.04	0.26	0.11
43	3:35	1.4	0.17	0.11	0.03	0.05	0.34	0.11
44	3:40	1.4	0.17	0.11	0.03	0.05	0.34	0.11
45	3:45	1.5	0.18	0.11	0.03	0.07	0.41	0.12
46	3:50	1.5	0.18	0.11	0.03	0.07	0.41	0.12
47	3:55	1.6	0.19	0.11	0.03	0.08	0.49	0.12
48	4:00	1.6	0.19	0.11	0.03	0.08	0.49	0.13
49	4:05	1.7	0.20	0.11	0.04	0.09	0.56	0.13
50	4:10	1.8	0.22	0.11	0.04	0.10	0.64	0.13
51	4:15	1.9	0.23	0.11	0.04	0.11	0.71	0.14
52	4:20	2.0	0.24	0.11	0.04	0.13	0.79	0.14
53	4:25	2.1	0.25	0.11	0.05	0.14	0.86	0.15
54	4:30	2.1	0.25	0.11	0.05	0.14	0.86	0.16
55	4:35	2.2	0.26	0.11	0.05	0.15	0.94	0.16
56	4:40	2.3	0.28	0.11	0.05	0.16	1.01	0.17
57	4:45	2.4	0.29	0.11	0.05	0.17	1.09	0.18
58	4:50	2.4	0.29	0.11	0.05	0.17	1.09	0.18
59	4:55	2.5	0.30	0.11	0.05	0.19	1.16	0.19
60	5:00	2.6	0.31	0.11	0.06	0.20	1.24	0.20
61	5:05	3.1	0.37	0.11	0.07	0.26	1.61	0.21
62	5:10	3.6	0.43	0.11	0.08	0.32	1.99	0.22
63	5:15	3.9	0.47	0.11	0.08	0.35	2.21	0.24
64	5:20	4.2	0.50	0.11	0.09	0.39	2.44	0.25
65	5:25	4.7	0.56	0.11	0.10	0.45	2.81	0.27
66	5:30	5.6	0.67	0.11	0.12	0.56	3.49	0.29
67	5:35	1.9	0.23	0.11	0.04	0.11	0.71	0.31
68	5:40	0.9	0.11	0.11	0.02	0.09	0.55	0.31
69	5:45	0.6	0.07	0.11	0.01	0.06	0.37	0.31
70	5:50	0.5	0.06	0.11	0.01	0.05	0.31	0.32
71	5:55	0.3	0.04	0.11	0.01	0.03	0.18	0.32
72	6:00	0.2	0.02	0.11	0.00	0.02	0.12	0.32

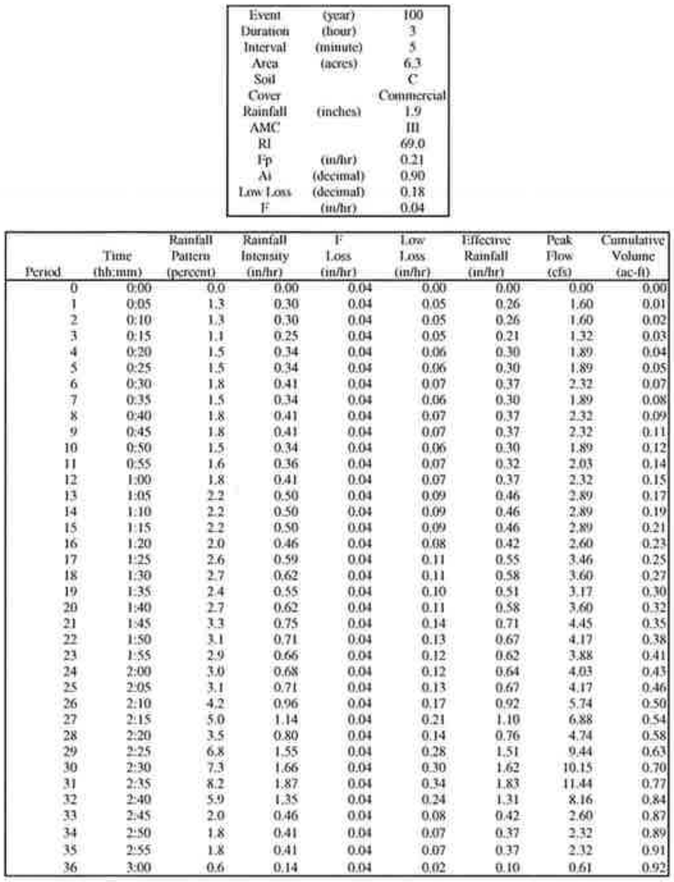

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	1.9
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.04	0.05	0.26	1.60	0.01
2	0:10	1.3	0.30	0.04	0.05	0.26	1.60	0.02
3	0:15	1.1	0.25	0.04	0.05	0.21	1.32	0.03
4	0:20	1.5	0.34	0.04	0.06	0.30	1.89	0.04
5	0:25	1.5	0.34	0.04	0.06	0.30	1.89	0.05
6	0:30	1.8	0.41	0.04	0.07	0.37	2.32	0.07
7	0:35	1.5	0.34	0.04	0.06	0.30	1.89	0.08
8	0:40	1.8	0.41	0.04	0.07	0.37	2.32	0.09
9	0:45	1.8	0.41	0.04	0.07	0.37	2.32	0.11
10	0:50	1.5	0.34	0.04	0.06	0.30	1.89	0.12
11	0:55	1.6	0.36	0.04	0.07	0.32	2.03	0.14
12	1:00	1.8	0.41	0.04	0.07	0.37	2.32	0.15
13	1:05	2.2	0.50	0.04	0.09	0.46	2.89	0.17
14	1:10	2.2	0.50	0.04	0.09	0.46	2.89	0.19
15	1:15	2.2	0.50	0.04	0.09	0.46	2.89	0.21
16	1:20	2.0	0.46	0.04	0.08	0.42	2.60	0.23
17	1:25	2.6	0.59	0.04	0.11	0.55	3.46	0.25
18	1:30	2.7	0.62	0.04	0.11	0.58	3.60	0.27
19	1:35	2.4	0.55	0.04	0.10	0.51	3.17	0.30
20	1:40	2.7	0.62	0.04	0.11	0.58	3.60	0.32
21	1:45	3.3	0.75	0.04	0.14	0.71	4.45	0.35
22	1:50	3.1	0.71	0.04	0.13	0.67	4.17	0.38
23	1:55	2.9	0.66	0.04	0.12	0.62	3.88	0.41
24	2:00	3.0	0.68	0.04	0.12	0.64	4.03	0.43
25	2:05	3.1	0.71	0.04	0.13	0.67	4.17	0.46
26	2:10	4.2	0.96	0.04	0.17	0.92	5.74	0.50
27	2:15	5.0	1.14	0.04	0.21	1.10	6.88	0.54
28	2:20	3.5	0.80	0.04	0.14	0.76	4.74	0.58
29	2:25	6.8	1.55	0.04	0.28	1.51	9.44	0.63
30	2:30	7.3	1.66	0.04	0.30	1.62	10.15	0.70
31	2:35	8.2	1.87	0.04	0.34	1.83	11.44	0.77
32	2:40	5.9	1.35	0.04	0.24	1.31	8.16	0.84
33	2:45	2.0	0.46	0.04	0.08	0.42	2.60	0.87
34	2:50	1.8	0.41	0.04	0.07	0.37	2.32	0.89
35	2:55	1.8	0.41	0.04	0.07	0.37	2.32	0.91
36	3:00	0.6	0.14	0.04	0.02	0.10	0.61	0.92

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	1.3
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.08	0.04	0.13	0.79	0.00
2	0:10	1.3	0.20	0.08	0.04	0.13	0.79	0.01
3	0:15	1.1	0.17	0.08	0.03	0.10	0.60	0.01
4	0:20	1.5	0.23	0.08	0.04	0.16	0.99	0.02
5	0:25	1.5	0.23	0.08	0.04	0.16	0.99	0.03
6	0:30	1.8	0.28	0.08	0.05	0.20	1.28	0.03
7	0:35	1.5	0.23	0.08	0.04	0.16	0.99	0.04
8	0:40	1.8	0.28	0.08	0.05	0.20	1.28	0.05
9	0:45	1.8	0.28	0.08	0.05	0.20	1.28	0.06
10	0:50	1.5	0.23	0.08	0.04	0.16	0.99	0.07
11	0:55	1.6	0.25	0.08	0.04	0.17	1.09	0.07
12	1:00	1.8	0.28	0.08	0.05	0.20	1.28	0.08
13	1:05	2.2	0.34	0.08	0.06	0.27	1.67	0.09
14	1:10	2.2	0.34	0.08	0.06	0.27	1.67	0.10
15	1:15	2.2	0.34	0.08	0.06	0.27	1.67	0.11
16	1:20	2.0	0.31	0.08	0.06	0.24	1.48	0.12
17	1:25	2.6	0.41	0.08	0.07	0.33	2.06	0.14
18	1:30	2.7	0.42	0.08	0.08	0.35	2.16	0.15
19	1:35	2.4	0.37	0.08	0.07	0.30	1.87	0.17
20	1:40	2.7	0.42	0.08	0.08	0.35	2.16	0.18
21	1:45	3.3	0.51	0.08	0.09	0.44	2.74	0.20
22	1:50	3.1	0.48	0.08	0.09	0.41	2.55	0.21
23	1:55	2.9	0.45	0.08	0.08	0.38	2.35	0.23
24	2:00	3.0	0.47	0.08	0.08	0.39	2.45	0.25
25	2:05	3.1	0.48	0.08	0.09	0.41	2.55	0.26
26	2:10	4.2	0.66	0.08	0.12	0.58	3.62	0.29
27	2:15	5.0	0.78	0.08	0.14	0.70	4.40	0.31
28	2:20	3.5	0.55	0.08	0.10	0.47	2.94	0.34
29	2:25	6.8	1.06	0.08	0.19	0.98	6.16	0.37
30	2:30	7.3	1.14	0.08	0.20	1.06	6.64	0.41
31	2:35	8.2	1.28	0.08	0.23	1.20	7.52	0.46
32	2:40	5.9	0.92	0.08	0.17	0.84	5.28	0.51
33	2:45	2.0	0.31	0.08	0.06	0.24	1.48	0.53
34	2:50	1.8	0.28	0.08	0.05	0.20	1.28	0.54
35	2:55	1.8	0.28	0.08	0.05	0.20	1.28	0.55
36	3:00	0.6	0.09	0.08	0.02	0.02	0.11	0.55

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	1.1
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.11	0.03	0.06	0.36	0.00
2	0:10	1.3	0.17	0.11	0.03	0.06	0.36	0.00
3	0:15	1.1	0.15	0.11	0.03	0.03	0.20	0.01
4	0:20	1.5	0.20	0.11	0.04	0.08	0.53	0.01
5	0:25	1.5	0.20	0.11	0.04	0.08	0.53	0.01
6	0:30	1.8	0.24	0.11	0.04	0.12	0.77	0.02
7	0:35	1.5	0.20	0.11	0.04	0.08	0.53	0.02
8	0:40	1.8	0.24	0.11	0.04	0.12	0.77	0.03
9	0:45	1.8	0.24	0.11	0.04	0.12	0.77	0.03
10	0:50	1.5	0.20	0.11	0.04	0.08	0.53	0.03
11	0:55	1.6	0.21	0.11	0.04	0.10	0.61	0.04
12	1:00	1.8	0.24	0.11	0.04	0.12	0.77	0.04
13	1:05	2.2	0.29	0.11	0.05	0.18	1.10	0.05
14	1:10	2.2	0.29	0.11	0.05	0.18	1.10	0.06
15	1:15	2.2	0.29	0.11	0.05	0.18	1.10	0.07
16	1:20	2.0	0.26	0.11	0.05	0.15	0.94	0.07
17	1:25	2.6	0.34	0.11	0.06	0.23	1.43	0.08
18	1:30	2.7	0.36	0.11	0.06	0.24	1.52	0.09
19	1:35	2.4	0.32	0.11	0.06	0.20	1.27	0.10
20	1:40	2.7	0.36	0.11	0.06	0.24	1.52	0.11
21	1:45	3.3	0.44	0.11	0.08	0.32	2.01	0.12
22	1:50	3.1	0.41	0.11	0.07	0.30	1.85	0.14
23	1:55	2.9	0.38	0.11	0.07	0.27	1.68	0.15
24	2:00	3.0	0.40	0.11	0.07	0.28	1.76	0.16
25	2:05	3.1	0.41	0.11	0.07	0.30	1.85	0.17
26	2:10	4.2	0.55	0.11	0.10	0.44	2.75	0.19
27	2:15	5.0	0.66	0.11	0.12	0.55	3.41	0.21
28	2:20	3.5	0.46	0.11	0.08	0.35	2.18	0.23
29	2:25	6.8	0.90	0.11	0.16	0.78	4.90	0.25
30	2:30	7.3	0.96	0.11	0.17	0.85	5.31	0.29
31	2:35	8.2	1.08	0.11	0.19	0.97	6.05	0.33
32	2:40	5.9	0.78	0.11	0.14	0.66	4.16	0.36
33	2:45	2.0	0.26	0.11	0.05	0.15	0.94	0.38
34	2:50	1.8	0.24	0.11	0.04	0.12	0.77	0.39
35	2:55	1.8	0.24	0.11	0.04	0.12	0.77	0.39
36	3:00	0.6	0.08	0.11	0.01	0.06	0.41	0.39

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	6.3
Soil		C
Cover		Commercial
Rainfall	(inches)	0.8
AMC		I
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.11	0.02	0.01	0.07	0.00
2	0:10	1.3	0.12	0.11	0.02	0.01	0.07	0.00
3	0:15	1.1	0.11	0.11	0.02	0.09	0.54	0.00
4	0:20	1.5	0.14	0.11	0.03	0.03	0.19	0.01
5	0:25	1.5	0.14	0.11	0.03	0.03	0.19	0.01
6	0:30	1.8	0.17	0.11	0.03	0.06	0.37	0.01
7	0:35	1.5	0.14	0.11	0.03	0.03	0.19	0.01
8	0:40	1.8	0.17	0.11	0.03	0.06	0.37	0.01
9	0:45	1.8	0.17	0.11	0.03	0.06	0.37	0.01
10	0:50	1.5	0.14	0.11	0.03	0.03	0.19	0.02
11	0:55	1.6	0.15	0.11	0.03	0.04	0.25	0.02
12	1:00	1.8	0.17	0.11	0.03	0.06	0.37	0.02
13	1:05	2.2	0.21	0.11	0.04	0.10	0.61	0.02
14	1:10	2.2	0.21	0.11	0.04	0.10	0.61	0.03
15	1:15	2.2	0.21	0.11	0.04	0.10	0.61	0.03
16	1:20	2.0	0.19	0.11	0.03	0.08	0.49	0.04
17	1:25	2.6	0.25	0.11	0.04	0.14	0.85	0.04
18	1:30	2.7	0.26	0.11	0.05	0.15	0.91	0.05
19	1:35	2.4	0.23	0.11	0.04	0.12	0.73	0.05
20	1:40	2.7	0.26	0.11	0.05	0.15	0.91	0.06
21	1:45	3.3	0.32	0.11	0.06	0.20	1.27	0.07
22	1:50	3.1	0.30	0.11	0.05	0.18	1.15	0.07
23	1:55	2.9	0.28	0.11	0.05	0.16	1.03	0.08
24	2:00	3.0	0.29	0.11	0.05	0.17	1.09	0.09
25	2:05	3.1	0.30	0.11	0.05	0.18	1.15	0.10
26	2:10	4.2	0.40	0.11	0.07	0.29	1.81	0.11
27	2:15	5.0	0.48	0.11	0.09	0.37	2.29	0.12
28	2:20	3.5	0.34	0.11	0.06	0.22	1.39	0.13
29	2:25	6.8	0.65	0.11	0.12	0.54	3.37	0.15
30	2:30	7.3	0.70	0.11	0.13	0.59	3.67	0.17
31	2:35	8.2	0.79	0.11	0.14	0.67	4.21	0.20
32	2:40	5.9	0.57	0.11	0.10	0.45	2.83	0.22
33	2:45	2.0	0.19	0.11	0.03	0.08	0.49	0.24
34	2:50	1.8	0.17	0.11	0.03	0.06	0.37	0.24
35	2:55	1.8	0.17	0.11	0.03	0.06	0.37	0.24
36	3:00	0.6	0.06	0.11	0.01	0.05	0.30	0.24

BUILDING 4

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #1

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1481.76	0.00	9600			
			3307	3307	0.076
1482.09	0.33	10445			
			3705	7013	0.161
1482.43	0.67	11350			
			3896	10908	0.250
1482.76	1.00	12260			
			4199	15107	0.347
1483.09	1.33	13190			
			3667	18774	0.431
1483.36	1.60	13970			
			9555	28329	0.650
1484.00	2.24	15890			
			17483	45812	1.052
1485.00	3.24	19075			
			20783	66594	1.529
1486.00	4.24	22490			
			4344	70939	1.629
1486.19	4.43	23240			

WATER QUALITY
Volume

ADDITIONAL
STORAGE

Hydrologic Summary

BUILDING 4.
EXIST. CONDITION

Watershed Characteristics

Area	(acres)	8.65
Soil		C
Cover		open space

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		77	77	77	77	Plate E-6.1
Fp	(in/hr)	0.14	0.28	0.48	0.48	Plate E-6.2
Ai	(decimal)	0.00	0.00	0.00	0.00	Plate E-6.3
Low Loss	(decimal)	0.90	0.90	0.90	0.90	0.9-(0.8Ai)
F	(in/hr)	0.14	0.28	0.48	0.48	Fp(1-0.9Ai)
Fm	(in/hr)	0.07	0.14	0.24	0.24	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	3.66	0.97	0.26	0.19	24-hour
Peak Flow	(cfs)	13.32	7.46	3.99	1.66	6-hour
Peak Flow	(cfs)	14.96	8.64	5.21	2.66	3-hour
Total Runoff	(ac-ft)	1.33	0.22	0.16	0.11	24-hour
Total Runoff	(ac-ft)	1.20	0.38	0.15	0.08	6-hour
Total Runoff	(ac-ft)	1.06	0.38	0.17	0.09	3-hour

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	4.0
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14
Fm	(in/hr)	0.07
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.25	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.25	0.03	0.00	0.03	0.00
2	0:30	0.3	0.05	0.24	0.04	0.00	0.04	0.00
3	0:45	0.3	0.05	0.24	0.04	0.00	0.04	0.00
4	1:00	0.4	0.06	0.24	0.06	0.01	0.06	0.00
5	1:15	0.3	0.05	0.24	0.04	0.00	0.04	0.00
6	1:30	0.3	0.05	0.23	0.04	0.00	0.04	0.00
7	1:45	0.3	0.05	0.23	0.04	0.00	0.04	0.01
8	2:00	0.4	0.06	0.23	0.06	0.01	0.06	0.01
9	2:15	0.4	0.06	0.22	0.06	0.01	0.06	0.01
10	2:30	0.4	0.06	0.22	0.06	0.01	0.06	0.01
11	2:45	0.5	0.08	0.22	0.07	0.01	0.07	0.01
12	3:00	0.5	0.08	0.22	0.07	0.01	0.07	0.01
13	3:15	0.5	0.08	0.21	0.07	0.01	0.07	0.01
14	3:30	0.5	0.08	0.21	0.07	0.01	0.07	0.01
15	3:45	0.5	0.08	0.21	0.07	0.01	0.07	0.02
16	4:00	0.6	0.10	0.21	0.09	0.01	0.08	0.02
17	4:15	0.6	0.10	0.20	0.09	0.01	0.08	0.02
18	4:30	0.7	0.11	0.20	0.10	0.01	0.10	0.02
19	4:45	0.7	0.11	0.20	0.10	0.01	0.10	0.02
20	5:00	0.8	0.13	0.20	0.12	0.01	0.11	0.03
21	5:15	0.6	0.10	0.19	0.09	0.01	0.08	0.03
22	5:30	0.7	0.11	0.19	0.10	0.01	0.10	0.03
23	5:45	0.8	0.13	0.19	0.12	0.01	0.11	0.03
24	6:00	0.8	0.13	0.19	0.12	0.01	0.11	0.03
25	6:15	0.9	0.14	0.18	0.13	0.01	0.12	0.04
26	6:30	0.9	0.14	0.18	0.13	0.01	0.12	0.04
27	6:45	1.0	0.16	0.18	0.14	0.02	0.14	0.04
28	7:00	1.0	0.16	0.18	0.14	0.02	0.14	0.04
29	7:15	1.0	0.16	0.17	0.14	0.02	0.14	0.05
30	7:30	1.1	0.18	0.17	0.16	0.00	0.04	0.05
31	7:45	1.2	0.19	0.17	0.17	0.02	0.20	0.05
32	8:00	1.3	0.21	0.17	0.19	0.04	0.36	0.06
33	8:15	1.5	0.24	0.16	0.22	0.08	0.66	0.07
34	8:30	1.5	0.24	0.16	0.22	0.08	0.68	0.08
35	8:45	1.6	0.26	0.16	0.23	0.10	0.83	0.10
36	9:00	1.7	0.27	0.16	0.24	0.11	0.99	0.12
37	9:15	1.9	0.30	0.16	0.27	0.15	1.29	0.14
38	9:30	2.0	0.32	0.15	0.29	0.17	1.45	0.17
39	9:45	2.1	0.34	0.15	0.30	0.19	1.60	0.20
40	10:00	2.2	0.35	0.15	0.32	0.20	1.76	0.23
41	10:15	1.5	0.24	0.15	0.22	0.09	0.81	0.26
42	10:30	1.5	0.24	0.14	0.22	0.10	0.83	0.28
43	10:45	2.0	0.32	0.14	0.29	0.18	1.54	0.30
44	11:00	2.0	0.32	0.14	0.29	0.18	1.56	0.33
45	11:15	1.9	0.30	0.14	0.27	0.17	1.44	0.36
46	11:30	1.9	0.30	0.14	0.27	0.17	1.45	0.39
47	11:45	1.7	0.27	0.13	0.24	0.14	1.19	0.42
48	12:00	1.8	0.29	0.13	0.26	0.16	1.35	0.45
49	12:15	2.5	0.40	0.13	0.36	0.27	2.34	0.49
50	12:30	2.6	0.42	0.13	0.37	0.29	2.49	0.54
51	12:45	2.8	0.45	0.13	0.40	0.32	2.78	0.59
52	13:00	2.9	0.46	0.12	0.42	0.34	2.94	0.65
53	13:15	3.4	0.54	0.12	0.49	0.42	3.65	0.72
54	13:30	3.4	0.54	0.12	0.49	0.42	3.66	0.79
55	13:45	2.3	0.37	0.12	0.33	0.25	2.16	0.85
56	14:00	2.3	0.37	0.12	0.33	0.25	2.17	0.90
57	14:15	2.7	0.43	0.12	0.39	0.32	2.74	0.95
58	14:30	2.6	0.42	0.11	0.37	0.30	2.62	1.00
59	14:45	2.6	0.42	0.11	0.37	0.30	2.63	1.06
60	15:00	2.5	0.40	0.11	0.36	0.29	2.51	1.11
61	15:15	2.4	0.38	0.11	0.35	0.28	2.39	1.16
62	15:30	2.3	0.37	0.11	0.33	0.26	2.26	1.21
63	15:45	1.9	0.30	0.10	0.27	0.20	1.72	1.25
64	16:00	1.9	0.30	0.10	0.27	0.20	1.74	1.29
65	16:15	0.4	0.06	0.10	0.06	0.01	0.06	1.31
66	16:30	0.4	0.06	0.10	0.06	0.01	0.06	1.31
67	16:45	0.3	0.05	0.10	0.04	0.00	0.04	1.31
68	17:00	0.3	0.05	0.10	0.04	0.00	0.04	1.31
69	17:15	0.5	0.08	0.10	0.07	0.01	0.07	1.31
70	17:30	0.5	0.08	0.09	0.07	0.01	0.07	1.31
71	17:45	0.5	0.08	0.09	0.07	0.01	0.07	1.31
72	18:00	0.4	0.06	0.09	0.06	0.01	0.06	1.31
73	18:15	0.4	0.06	0.09	0.06	0.01	0.06	1.31
74	18:30	0.4	0.06	0.09	0.06	0.01	0.06	1.32
75	18:45	0.3	0.05	0.09	0.04	0.00	0.04	1.32
76	19:00	0.2	0.03	0.09	0.03	0.00	0.03	1.32
77	19:15	0.3	0.05	0.09	0.04	0.00	0.04	1.32
78	19:30	0.4	0.06	0.08	0.06	0.01	0.06	1.32
79	19:45	0.3	0.05	0.08	0.04	0.00	0.04	1.32
80	20:00	0.2	0.03	0.08	0.03	0.00	0.03	1.32
81	20:15	0.3	0.05	0.08	0.04	0.00	0.04	1.32
82	20:30	0.3	0.05	0.08	0.04	0.00	0.04	1.32
83	20:45	0.3	0.05	0.08	0.04	0.00	0.04	1.32
84	21:00	0.2	0.03	0.08	0.03	0.00	0.03	1.32
85	21:15	0.3	0.05	0.08	0.04	0.00	0.04	1.32
86	21:30	0.2	0.03	0.08	0.03	0.00	0.03	1.33
87	21:45	0.3	0.05	0.07	0.04	0.00	0.04	1.33
88	22:00	0.2	0.03	0.07	0.03	0.00	0.03	1.33
89	22:15	0.3	0.05	0.07	0.04	0.00	0.04	1.33
90	22:30	0.2	0.03	0.07	0.03	0.00	0.03	1.33
91	22:45	0.2	0.03	0.07	0.03	0.00	0.03	1.33
92	23:00	0.2	0.03	0.07	0.03	0.00	0.03	1.33
93	23:15	0.2	0.03	0.07	0.03	0.00	0.03	1.33
94	23:30	0.2	0.03	0.07	0.03	0.00	0.03	1.33
95	23:45	0.2	0.03	0.07	0.03	0.00	0.03	1.33
96	0:00	0.2	0.03	0.07	0.03	0.00	0.03	1.33

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	2.6
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28
Fm	(in/hr)	0.14
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.50	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.49	0.02	0.00	0.02	0.00
2	0:30	0.3	0.03	0.49	0.03	0.00	0.03	0.00
3	0:45	0.3	0.03	0.48	0.03	0.00	0.03	0.00
4	1:00	0.4	0.04	0.48	0.04	0.00	0.04	0.00
5	1:15	0.3	0.03	0.47	0.03	0.00	0.03	0.00
6	1:30	0.3	0.03	0.47	0.03	0.00	0.03	0.00
7	1:45	0.3	0.03	0.46	0.03	0.00	0.03	0.00
8	2:00	0.4	0.04	0.45	0.04	0.00	0.04	0.00
9	2:15	0.4	0.04	0.45	0.04	0.00	0.04	0.01
10	2:30	0.4	0.04	0.44	0.04	0.00	0.04	0.01
11	2:45	0.5	0.05	0.44	0.05	0.01	0.04	0.01
12	3:00	0.5	0.05	0.43	0.05	0.01	0.04	0.01
13	3:15	0.5	0.05	0.43	0.05	0.01	0.04	0.01
14	3:30	0.5	0.05	0.42	0.05	0.01	0.04	0.01
15	3:45	0.5	0.05	0.42	0.05	0.01	0.04	0.01
16	4:00	0.6	0.06	0.41	0.06	0.01	0.05	0.01
17	4:15	0.6	0.06	0.41	0.06	0.01	0.05	0.01
18	4:30	0.7	0.07	0.40	0.07	0.01	0.06	0.01
19	4:45	0.7	0.07	0.40	0.07	0.01	0.06	0.01
20	5:00	0.8	0.08	0.39	0.07	0.01	0.07	0.02
21	5:15	0.6	0.06	0.39	0.06	0.01	0.05	0.02
22	5:30	0.7	0.07	0.38	0.07	0.01	0.06	0.02
23	5:45	0.8	0.08	0.38	0.07	0.01	0.07	0.02
24	6:00	0.8	0.08	0.37	0.07	0.01	0.07	0.02
25	6:15	0.9	0.09	0.37	0.08	0.01	0.08	0.02
26	6:30	0.9	0.09	0.36	0.08	0.01	0.08	0.02
27	6:45	1.0	0.10	0.36	0.09	0.01	0.09	0.03
28	7:00	1.0	0.10	0.35	0.09	0.01	0.09	0.03
29	7:15	1.0	0.10	0.35	0.09	0.01	0.09	0.03
30	7:30	1.1	0.11	0.34	0.10	0.01	0.10	0.03
31	7:45	1.2	0.12	0.34	0.11	0.01	0.11	0.03
32	8:00	1.3	0.14	0.33	0.12	0.01	0.12	0.04
33	8:15	1.5	0.16	0.33	0.14	0.02	0.13	0.04
34	8:30	1.5	0.16	0.32	0.14	0.02	0.13	0.04
35	8:45	1.6	0.17	0.32	0.15	0.02	0.14	0.05
36	9:00	1.7	0.18	0.31	0.16	0.02	0.15	0.05
37	9:15	1.9	0.20	0.31	0.18	0.02	0.17	0.05
38	9:30	2.0	0.21	0.31	0.19	0.02	0.18	0.06
39	9:45	2.1	0.22	0.30	0.20	0.02	0.19	0.06
40	10:00	2.2	0.23	0.30	0.21	0.02	0.20	0.06
41	10:15	1.5	0.16	0.29	0.14	0.02	0.13	0.07
42	10:30	1.5	0.16	0.29	0.14	0.02	0.13	0.07
43	10:45	2.0	0.21	0.28	0.19	0.02	0.18	0.07
44	11:00	2.0	0.21	0.28	0.19	0.02	0.18	0.08
45	11:15	1.9	0.20	0.28	0.18	0.02	0.17	0.08
46	11:30	1.9	0.20	0.27	0.18	0.02	0.17	0.08
47	11:45	1.7	0.18	0.27	0.16	0.02	0.15	0.09
48	12:00	1.8	0.19	0.26	0.17	0.02	0.16	0.09
49	12:15	2.5	0.26	0.26	0.23	0.03	0.22	0.09
50	12:30	2.6	0.27	0.26	0.24	0.01	0.12	0.10
51	12:45	2.8	0.29	0.25	0.26	0.04	0.34	0.10
52	13:00	2.9	0.30	0.25	0.27	0.05	0.46	0.11
53	13:15	3.4	0.35	0.24	0.32	0.11	0.94	0.12
54	13:30	3.4	0.35	0.24	0.32	0.11	0.97	0.14
55	13:45	2.3	0.24	0.24	0.22	0.00	0.02	0.15
56	14:00	2.3	0.24	0.23	0.22	0.01	0.05	0.16
57	14:15	2.7	0.28	0.23	0.25	0.05	0.44	0.16
58	14:30	2.6	0.27	0.23	0.24	0.04	0.38	0.17
59	14:45	2.6	0.27	0.22	0.24	0.05	0.41	0.18
60	15:00	2.5	0.26	0.22	0.23	0.04	0.35	0.18
61	15:15	2.4	0.25	0.22	0.22	0.03	0.29	0.19
62	15:30	2.3	0.24	0.21	0.22	0.03	0.23	0.20
63	15:45	1.9	0.20	0.21	0.18	0.02	0.17	0.20
64	16:00	1.9	0.20	0.21	0.18	0.02	0.17	0.20
65	16:15	0.4	0.04	0.20	0.04	0.00	0.04	0.21
66	16:30	0.4	0.04	0.20	0.04	0.00	0.04	0.21
67	16:45	0.3	0.03	0.20	0.03	0.00	0.03	0.21
68	17:00	0.3	0.03	0.19	0.03	0.00	0.03	0.21
69	17:15	0.5	0.05	0.19	0.05	0.01	0.04	0.21
70	17:30	0.5	0.05	0.19	0.05	0.01	0.04	0.21
71	17:45	0.5	0.05	0.19	0.05	0.01	0.04	0.21
72	18:00	0.4	0.04	0.18	0.04	0.00	0.04	0.21
73	18:15	0.4	0.04	0.18	0.04	0.00	0.04	0.21
74	18:30	0.4	0.04	0.18	0.04	0.00	0.04	0.21
75	18:45	0.3	0.03	0.18	0.03	0.00	0.03	0.21
76	19:00	0.2	0.02	0.17	0.02	0.00	0.02	0.21
77	19:15	0.3	0.03	0.17	0.03	0.00	0.03	0.22
78	19:30	0.4	0.04	0.17	0.04	0.00	0.04	0.22
79	19:45	0.3	0.03	0.17	0.03	0.00	0.03	0.22
80	20:00	0.2	0.02	0.16	0.02	0.00	0.02	0.22
81	20:15	0.3	0.03	0.16	0.03	0.00	0.03	0.22
82	20:30	0.3	0.03	0.16	0.03	0.00	0.03	0.22
83	20:45	0.3	0.03	0.16	0.03	0.00	0.03	0.22
84	21:00	0.2	0.02	0.16	0.02	0.00	0.02	0.22
85	21:15	0.3	0.03	0.15	0.03	0.00	0.03	0.22
86	21:30	0.2	0.02	0.15	0.02	0.00	0.02	0.22
87	21:45	0.3	0.03	0.15	0.03	0.00	0.03	0.22
88	22:00	0.2	0.02	0.15	0.02	0.00	0.02	0.22
89	22:15	0.3	0.03	0.15	0.03	0.00	0.03	0.22
90	22:30	0.2	0.02	0.15	0.02	0.00	0.02	0.22
91	22:45	0.2	0.02	0.14	0.02	0.00	0.02	0.22
92	23:00	0.2	0.02	0.14	0.02	0.00	0.02	0.22
93	23:15	0.2	0.02	0.14	0.02	0.00	0.02	0.22
94	23:30	0.2	0.02	0.14	0.02	0.00	0.02	0.22
95	23:45	0.2	0.02	0.14	0.02	0.00	0.02	0.22
96	0:00	0.2	0.02	0.14	0.02	0.00	0.02	0.22

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	2.2
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.85	0.02	0.00	0.02	0.00
2	0:30	0.3	0.03	0.84	0.02	0.00	0.02	0.00
3	0:45	0.3	0.03	0.83	0.02	0.00	0.02	0.00
4	1:00	0.4	0.04	0.82	0.03	0.00	0.03	0.00
5	1:15	0.3	0.03	0.81	0.02	0.00	0.02	0.00
6	1:30	0.3	0.03	0.80	0.02	0.00	0.02	0.00
7	1:45	0.3	0.03	0.79	0.02	0.00	0.02	0.00
8	2:00	0.4	0.04	0.78	0.03	0.00	0.03	0.00
9	2:15	0.4	0.04	0.77	0.03	0.00	0.03	0.00
10	2:30	0.4	0.04	0.76	0.03	0.00	0.03	0.00
11	2:45	0.5	0.04	0.75	0.04	0.00	0.04	0.01
12	3:00	0.5	0.04	0.74	0.04	0.00	0.04	0.01
13	3:15	0.5	0.04	0.73	0.04	0.00	0.04	0.01
14	3:30	0.5	0.04	0.72	0.04	0.00	0.04	0.01
15	3:45	0.5	0.04	0.72	0.04	0.00	0.04	0.01
16	4:00	0.6	0.05	0.71	0.05	0.01	0.05	0.01
17	4:15	0.6	0.05	0.70	0.05	0.01	0.05	0.01
18	4:30	0.7	0.06	0.69	0.06	0.01	0.05	0.01
19	4:45	0.7	0.06	0.68	0.06	0.01	0.05	0.01
20	5:00	0.8	0.07	0.67	0.06	0.01	0.06	0.01
21	5:15	0.6	0.05	0.66	0.05	0.01	0.05	0.01
22	5:30	0.7	0.06	0.65	0.06	0.01	0.05	0.02
23	5:45	0.8	0.07	0.64	0.06	0.01	0.06	0.02
24	6:00	0.8	0.07	0.64	0.06	0.01	0.06	0.02
25	6:15	0.9	0.08	0.63	0.07	0.01	0.07	0.02
26	6:30	0.9	0.08	0.62	0.07	0.01	0.07	0.02
27	6:45	1.0	0.09	0.61	0.08	0.01	0.08	0.02
28	7:00	1.0	0.09	0.60	0.08	0.01	0.08	0.02
29	7:15	1.0	0.09	0.59	0.08	0.01	0.08	0.03
30	7:30	1.1	0.10	0.59	0.09	0.01	0.08	0.03
31	7:45	1.2	0.11	0.58	0.10	0.01	0.09	0.03
32	8:00	1.3	0.11	0.57	0.10	0.01	0.10	0.03
33	8:15	1.5	0.13	0.56	0.12	0.01	0.11	0.03
34	8:30	1.5	0.13	0.55	0.12	0.01	0.11	0.04
35	8:45	1.6	0.14	0.55	0.13	0.01	0.12	0.04
36	9:00	1.7	0.15	0.54	0.13	0.01	0.13	0.04
37	9:15	1.9	0.17	0.53	0.15	0.02	0.14	0.04
38	9:30	2.0	0.18	0.52	0.16	0.02	0.15	0.05
39	9:45	2.1	0.18	0.52	0.17	0.02	0.16	0.05
40	10:00	2.2	0.19	0.51	0.17	0.02	0.17	0.05
41	10:15	1.5	0.13	0.50	0.12	0.01	0.11	0.06
42	10:30	1.5	0.13	0.49	0.12	0.01	0.11	0.06
43	10:45	2.0	0.18	0.49	0.16	0.02	0.15	0.06
44	11:00	2.0	0.18	0.48	0.16	0.02	0.15	0.06
45	11:15	1.9	0.17	0.47	0.15	0.02	0.14	0.07
46	11:30	1.9	0.17	0.47	0.15	0.02	0.14	0.07
47	11:45	1.7	0.15	0.46	0.13	0.01	0.13	0.07
48	12:00	1.8	0.16	0.45	0.14	0.02	0.14	0.08
49	12:15	2.5	0.22	0.45	0.20	0.02	0.19	0.08
50	12:30	2.6	0.23	0.44	0.21	0.02	0.20	0.08
51	12:45	2.8	0.25	0.43	0.22	0.02	0.21	0.09
52	13:00	2.9	0.26	0.43	0.23	0.03	0.22	0.09
53	13:15	3.4	0.30	0.42	0.27	0.03	0.26	0.10
54	13:30	3.4	0.30	0.41	0.27	0.03	0.26	0.10
55	13:45	2.3	0.20	0.41	0.18	0.02	0.18	0.11
56	14:00	2.3	0.20	0.40	0.18	0.02	0.18	0.11
57	14:15	2.7	0.24	0.39	0.21	0.02	0.21	0.11
58	14:30	2.6	0.23	0.39	0.21	0.02	0.20	0.12
59	14:45	2.6	0.23	0.38	0.21	0.02	0.20	0.12
60	15:00	2.5	0.22	0.38	0.20	0.02	0.19	0.13
61	15:15	2.4	0.21	0.37	0.19	0.02	0.18	0.13
62	15:30	2.3	0.20	0.37	0.18	0.02	0.18	0.13
63	15:45	1.9	0.17	0.36	0.15	0.02	0.14	0.14
64	16:00	1.9	0.17	0.35	0.15	0.02	0.14	0.14
65	16:15	0.4	0.04	0.35	0.03	0.00	0.03	0.14
66	16:30	0.4	0.04	0.34	0.03	0.00	0.03	0.14
67	16:45	0.3	0.03	0.34	0.02	0.00	0.02	0.14
68	17:00	0.3	0.03	0.33	0.02	0.00	0.02	0.14
69	17:15	0.5	0.04	0.33	0.04	0.00	0.04	0.14
70	17:30	0.5	0.04	0.32	0.04	0.00	0.04	0.15
71	17:45	0.5	0.04	0.32	0.04	0.00	0.04	0.15
72	18:00	0.4	0.04	0.31	0.03	0.00	0.03	0.15
73	18:15	0.4	0.04	0.31	0.03	0.00	0.03	0.15
74	18:30	0.4	0.04	0.30	0.03	0.00	0.03	0.15
75	18:45	0.3	0.03	0.30	0.02	0.00	0.02	0.15
76	19:00	0.2	0.02	0.30	0.02	0.00	0.02	0.15
77	19:15	0.3	0.03	0.29	0.02	0.00	0.02	0.15
78	19:30	0.4	0.04	0.29	0.03	0.00	0.03	0.15
79	19:45	0.3	0.03	0.28	0.02	0.00	0.02	0.15
80	20:00	0.2	0.02	0.28	0.02	0.00	0.02	0.15
81	20:15	0.3	0.03	0.28	0.02	0.00	0.02	0.15
82	20:30	0.3	0.03	0.27	0.02	0.00	0.02	0.15
83	20:45	0.3	0.03	0.27	0.02	0.00	0.02	0.15
84	21:00	0.2	0.02	0.27	0.02	0.00	0.02	0.15
85	21:15	0.3	0.03	0.26	0.02	0.00	0.02	0.15
86	21:30	0.2	0.02	0.26	0.02	0.00	0.02	0.15
87	21:45	0.3	0.03	0.26	0.02	0.00	0.02	0.15
88	22:00	0.2	0.02	0.25	0.02	0.00	0.02	0.15
89	22:15	0.3	0.03	0.25	0.02	0.00	0.02	0.15
90	22:30	0.2	0.02	0.25	0.02	0.00	0.02	0.16
91	22:45	0.2	0.02	0.25	0.02	0.00	0.02	0.16
92	23:00	0.2	0.02	0.25	0.02	0.00	0.02	0.16
93	23:15	0.2	0.02	0.24	0.02	0.00	0.02	0.16
94	23:30	0.2	0.02	0.24	0.02	0.00	0.02	0.16
95	23:45	0.2	0.02	0.24	0.02	0.00	0.02	0.16
96	0:00	0.2	0.02	0.24	0.02	0.00	0.02	0.16

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	1.6
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48
Fm	(in/hr)	0.24
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.86	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.85	0.01	0.00	0.01	0.00
2	0:30	0.3	0.02	0.84	0.02	0.00	0.02	0.00
3	0:45	0.3	0.02	0.83	0.02	0.00	0.02	0.00
4	1:00	0.4	0.03	0.82	0.02	0.00	0.02	0.00
5	1:15	0.3	0.02	0.81	0.02	0.00	0.02	0.00
6	1:30	0.3	0.02	0.80	0.02	0.00	0.02	0.00
7	1:45	0.3	0.02	0.79	0.02	0.00	0.02	0.00
8	2:00	0.4	0.03	0.78	0.02	0.00	0.02	0.00
9	2:15	0.4	0.03	0.77	0.02	0.00	0.02	0.00
10	2:30	0.4	0.03	0.76	0.02	0.00	0.02	0.00
11	2:45	0.5	0.03	0.75	0.03	0.00	0.03	0.00
12	3:00	0.5	0.03	0.74	0.03	0.00	0.03	0.00
13	3:15	0.5	0.03	0.73	0.03	0.00	0.03	0.01
14	3:30	0.5	0.03	0.72	0.03	0.00	0.03	0.01
15	3:45	0.5	0.03	0.72	0.03	0.00	0.03	0.01
16	4:00	0.6	0.04	0.71	0.03	0.00	0.03	0.01
17	4:15	0.6	0.04	0.70	0.03	0.00	0.03	0.01
18	4:30	0.7	0.04	0.69	0.04	0.00	0.04	0.01
19	4:45	0.7	0.04	0.68	0.04	0.00	0.04	0.01
20	5:00	0.8	0.05	0.67	0.05	0.01	0.04	0.01
21	5:15	0.6	0.04	0.66	0.03	0.00	0.03	0.01
22	5:30	0.7	0.04	0.65	0.04	0.00	0.04	0.01
23	5:45	0.8	0.05	0.64	0.05	0.01	0.04	0.01
24	6:00	0.8	0.05	0.64	0.05	0.01	0.04	0.01
25	6:15	0.9	0.06	0.63	0.05	0.01	0.05	0.01
26	6:30	0.9	0.06	0.62	0.05	0.01	0.05	0.02
27	6:45	1.0	0.06	0.61	0.06	0.01	0.06	0.02
28	7:00	1.0	0.06	0.60	0.06	0.01	0.06	0.02
29	7:15	1.0	0.06	0.59	0.06	0.01	0.06	0.02
30	7:30	1.1	0.07	0.59	0.06	0.01	0.06	0.02
31	7:45	1.2	0.08	0.58	0.07	0.01	0.07	0.02
32	8:00	1.3	0.08	0.57	0.07	0.01	0.07	0.02
33	8:15	1.5	0.10	0.56	0.09	0.01	0.08	0.02
34	8:30	1.5	0.10	0.55	0.09	0.01	0.08	0.03
35	8:45	1.6	0.10	0.55	0.09	0.01	0.09	0.03
36	9:00	1.7	0.11	0.54	0.10	0.01	0.09	0.03
37	9:15	1.9	0.12	0.53	0.11	0.01	0.11	0.03
38	9:30	2.0	0.13	0.52	0.12	0.01	0.11	0.03
39	9:45	2.1	0.13	0.52	0.12	0.01	0.12	0.04
40	10:00	2.2	0.14	0.51	0.13	0.01	0.12	0.04
41	10:15	1.5	0.10	0.50	0.09	0.01	0.08	0.04
42	10:30	1.5	0.10	0.49	0.09	0.01	0.08	0.04
43	10:45	2.0	0.13	0.49	0.12	0.01	0.11	0.04
44	11:00	2.0	0.13	0.48	0.12	0.01	0.11	0.05
45	11:15	1.9	0.12	0.47	0.11	0.01	0.11	0.05
46	11:30	1.9	0.12	0.47	0.11	0.01	0.11	0.05
47	11:45	1.7	0.11	0.46	0.10	0.01	0.09	0.05
48	12:00	1.8	0.12	0.45	0.10	0.01	0.10	0.06
49	12:15	2.5	0.16	0.45	0.14	0.02	0.14	0.06
50	12:30	2.6	0.17	0.44	0.15	0.02	0.14	0.06
51	12:45	2.8	0.18	0.43	0.16	0.02	0.16	0.06
52	13:00	2.9	0.19	0.43	0.17	0.02	0.16	0.07
53	13:15	3.4	0.22	0.42	0.20	0.02	0.19	0.07
54	13:30	3.4	0.22	0.41	0.20	0.02	0.19	0.07
55	13:45	2.3	0.15	0.41	0.13	0.01	0.13	0.08
56	14:00	2.3	0.15	0.40	0.13	0.01	0.13	0.08
57	14:15	2.7	0.17	0.39	0.16	0.02	0.15	0.08
58	14:30	2.6	0.17	0.39	0.15	0.02	0.14	0.09
59	14:45	2.6	0.17	0.38	0.15	0.02	0.14	0.09
60	15:00	2.5	0.16	0.38	0.14	0.02	0.14	0.09
61	15:15	2.4	0.15	0.37	0.14	0.02	0.13	0.10
62	15:30	2.3	0.15	0.37	0.13	0.01	0.13	0.10
63	15:45	1.9	0.12	0.36	0.11	0.01	0.11	0.10
64	16:00	1.9	0.12	0.35	0.11	0.01	0.11	0.10
65	16:15	0.4	0.03	0.35	0.02	0.00	0.02	0.10
66	16:30	0.4	0.03	0.34	0.02	0.00	0.02	0.10
67	16:45	0.3	0.02	0.34	0.02	0.00	0.02	0.10
68	17:00	0.3	0.02	0.33	0.02	0.00	0.02	0.10
69	17:15	0.5	0.03	0.33	0.03	0.00	0.03	0.11
70	17:30	0.5	0.03	0.32	0.03	0.00	0.03	0.11
71	17:45	0.5	0.03	0.32	0.03	0.00	0.03	0.11
72	18:00	0.4	0.03	0.31	0.02	0.00	0.02	0.11
73	18:15	0.4	0.03	0.31	0.02	0.00	0.02	0.11
74	18:30	0.4	0.03	0.30	0.02	0.00	0.02	0.11
75	18:45	0.3	0.02	0.30	0.02	0.00	0.02	0.11
76	19:00	0.2	0.01	0.30	0.01	0.00	0.01	0.11
77	19:15	0.3	0.02	0.29	0.02	0.00	0.02	0.11
78	19:30	0.4	0.03	0.29	0.02	0.00	0.02	0.11
79	19:45	0.3	0.02	0.28	0.02	0.00	0.02	0.11
80	20:00	0.2	0.01	0.28	0.01	0.00	0.01	0.11
81	20:15	0.3	0.02	0.28	0.02	0.00	0.02	0.11
82	20:30	0.3	0.02	0.27	0.02	0.00	0.02	0.11
83	20:45	0.3	0.02	0.27	0.02	0.00	0.02	0.11
84	21:00	0.2	0.01	0.27	0.01	0.00	0.01	0.11
85	21:15	0.3	0.02	0.26	0.02	0.00	0.02	0.11
86	21:30	0.2	0.01	0.26	0.01	0.00	0.01	0.11
87	21:45	0.3	0.02	0.26	0.02	0.00	0.02	0.11
88	22:00	0.2	0.01	0.25	0.01	0.00	0.01	0.11
89	22:15	0.3	0.02	0.25	0.02	0.00	0.02	0.11
90	22:30	0.2	0.01	0.25	0.01	0.00	0.01	0.11
91	22:45	0.2	0.01	0.25	0.01	0.00	0.01	0.11
92	23:00	0.2	0.01	0.25	0.01	0.00	0.01	0.11
93	23:15	0.2	0.01	0.24	0.01	0.00	0.01	0.11
94	23:30	0.2	0.01	0.24	0.01	0.00	0.01	0.11
95	23:45	0.2	0.01	0.24	0.01	0.00	0.01	0.11
96	0:00	0.2	0.01	0.24	0.01	0.00	0.01	0.11

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	2.5
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.14	0.14	0.01	0.09	0.00
2	0:10	0.6	0.18	0.14	0.16	0.04	0.35	0.00
3	0:15	0.6	0.18	0.14	0.16	0.04	0.35	0.00
4	0:20	0.6	0.18	0.14	0.16	0.04	0.35	0.01
5	0:25	0.6	0.18	0.14	0.16	0.04	0.35	0.01
6	0:30	0.7	0.21	0.14	0.19	0.07	0.61	0.01
7	0:35	0.7	0.21	0.14	0.19	0.07	0.61	0.02
8	0:40	0.7	0.21	0.14	0.19	0.07	0.61	0.02
9	0:45	0.7	0.21	0.14	0.19	0.07	0.61	0.02
10	0:50	0.7	0.21	0.14	0.19	0.07	0.61	0.03
11	0:55	0.7	0.21	0.14	0.19	0.07	0.61	0.03
12	1:00	0.8	0.24	0.14	0.22	0.10	0.87	0.04
13	1:05	0.8	0.24	0.14	0.22	0.10	0.87	0.04
14	1:10	0.8	0.24	0.14	0.22	0.10	0.87	0.05
15	1:15	0.8	0.24	0.14	0.22	0.10	0.87	0.06
16	1:20	0.8	0.24	0.14	0.22	0.10	0.87	0.06
17	1:25	0.8	0.24	0.14	0.22	0.10	0.87	0.07
18	1:30	0.8	0.24	0.14	0.22	0.10	0.87	0.07
19	1:35	0.8	0.24	0.14	0.22	0.10	0.87	0.08
20	1:40	0.8	0.24	0.14	0.22	0.10	0.87	0.09
21	1:45	0.8	0.24	0.14	0.22	0.10	0.87	0.09
22	1:50	0.8	0.24	0.14	0.22	0.10	0.87	0.10
23	1:55	0.8	0.24	0.14	0.22	0.10	0.87	0.10
24	2:00	0.9	0.27	0.14	0.24	0.13	1.12	0.11
25	2:05	0.8	0.24	0.14	0.22	0.10	0.87	0.12
26	2:10	0.9	0.27	0.14	0.24	0.13	1.12	0.12
27	2:15	0.9	0.27	0.14	0.24	0.13	1.12	0.13
28	2:20	0.9	0.27	0.14	0.24	0.13	1.12	0.14
29	2:25	0.9	0.27	0.14	0.24	0.13	1.12	0.15
30	2:30	0.9	0.27	0.14	0.24	0.13	1.12	0.16
31	2:35	0.9	0.27	0.14	0.24	0.13	1.12	0.16
32	2:40	0.9	0.27	0.14	0.24	0.13	1.12	0.17
33	2:45	1.0	0.30	0.14	0.27	0.16	1.38	0.18
34	2:50	1.0	0.30	0.14	0.27	0.16	1.38	0.19
35	2:55	1.0	0.30	0.14	0.27	0.16	1.38	0.20
36	3:00	1.0	0.30	0.14	0.27	0.16	1.38	0.21
37	3:05	1.0	0.30	0.14	0.27	0.16	1.38	0.22
38	3:10	1.1	0.33	0.14	0.30	0.19	1.64	0.23
39	3:15	1.1	0.33	0.14	0.30	0.19	1.64	0.24
40	3:20	1.1	0.33	0.14	0.30	0.19	1.64	0.25
41	3:25	1.2	0.36	0.14	0.32	0.22	1.90	0.26
42	3:30	1.3	0.39	0.14	0.35	0.25	2.16	0.28
43	3:35	1.4	0.42	0.14	0.38	0.28	2.42	0.29
44	3:40	1.4	0.42	0.14	0.38	0.28	2.42	0.31
45	3:45	1.5	0.45	0.14	0.41	0.31	2.68	0.33
46	3:50	1.5	0.45	0.14	0.41	0.31	2.68	0.35
47	3:55	1.6	0.48	0.14	0.43	0.34	2.94	0.36
48	4:00	1.6	0.48	0.14	0.43	0.34	2.94	0.38
49	4:05	1.7	0.51	0.14	0.46	0.37	3.20	0.41
50	4:10	1.8	0.54	0.14	0.49	0.40	3.46	0.43
51	4:15	1.9	0.57	0.14	0.51	0.43	3.72	0.45
52	4:20	2.0	0.60	0.14	0.54	0.46	3.98	0.48
53	4:25	2.1	0.63	0.14	0.57	0.49	4.24	0.51
54	4:30	2.1	0.63	0.14	0.57	0.49	4.24	0.54
55	4:35	2.2	0.66	0.14	0.59	0.52	4.50	0.57
56	4:40	2.3	0.69	0.14	0.62	0.55	4.76	0.60
57	4:45	2.4	0.72	0.14	0.65	0.58	5.02	0.63
58	4:50	2.4	0.72	0.14	0.65	0.58	5.02	0.67
59	4:55	2.5	0.75	0.14	0.68	0.61	5.28	0.70
60	5:00	2.6	0.78	0.14	0.70	0.64	5.54	0.74
61	5:05	3.1	0.93	0.14	0.84	0.79	6.83	0.78
62	5:10	3.6	1.08	0.14	0.97	0.94	8.13	0.83
63	5:15	3.9	1.17	0.14	1.05	1.03	8.91	0.89
64	5:20	4.2	1.26	0.14	1.13	1.12	9.69	0.96
65	5:25	4.7	1.41	0.14	1.27	1.27	10.99	1.03
66	5:30	5.6	1.68	0.14	1.51	1.54	13.32	1.11
67	5:35	1.9	0.57	0.14	0.51	0.43	3.72	1.17
68	5:40	0.9	0.27	0.14	0.24	0.13	1.12	1.19
69	5:45	0.6	0.18	0.14	0.16	0.04	0.35	1.19
70	5:50	0.5	0.15	0.14	0.14	0.01	0.09	1.19
71	5:55	0.3	0.09	0.14	0.08	0.01	0.08	1.19
72	6:00	0.2	0.06	0.14	0.05	0.01	0.05	1.20

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	1.7
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.28	0.09	0.01	0.09	0.00
2	0:10	0.6	0.12	0.28	0.11	0.01	0.11	0.00
3	0:15	0.6	0.12	0.28	0.11	0.01	0.11	0.00
4	0:20	0.6	0.12	0.28	0.11	0.01	0.11	0.00
5	0:25	0.6	0.12	0.28	0.11	0.01	0.11	0.00
6	0:30	0.7	0.14	0.28	0.13	0.01	0.12	0.00
7	0:35	0.7	0.14	0.28	0.13	0.01	0.12	0.00
8	0:40	0.7	0.14	0.28	0.13	0.01	0.12	0.01
9	0:45	0.7	0.14	0.28	0.13	0.01	0.12	0.01
10	0:50	0.7	0.14	0.28	0.13	0.01	0.12	0.01
11	0:55	0.7	0.14	0.28	0.13	0.01	0.12	0.01
12	1:00	0.8	0.16	0.28	0.15	0.02	0.14	0.01
13	1:05	0.8	0.16	0.28	0.15	0.02	0.14	0.01
14	1:10	0.8	0.16	0.28	0.15	0.02	0.14	0.01
15	1:15	0.8	0.16	0.28	0.15	0.02	0.14	0.01
16	1:20	0.8	0.16	0.28	0.15	0.02	0.14	0.01
17	1:25	0.8	0.16	0.28	0.15	0.02	0.14	0.01
18	1:30	0.8	0.16	0.28	0.15	0.02	0.14	0.01
19	1:35	0.8	0.16	0.28	0.15	0.02	0.14	0.02
20	1:40	0.8	0.16	0.28	0.15	0.02	0.14	0.02
21	1:45	0.8	0.16	0.28	0.15	0.02	0.14	0.02
22	1:50	0.8	0.16	0.28	0.15	0.02	0.14	0.02
23	1:55	0.8	0.16	0.28	0.15	0.02	0.14	0.02
24	2:00	0.9	0.18	0.28	0.17	0.02	0.16	0.02
25	2:05	0.8	0.16	0.28	0.15	0.02	0.14	0.02
26	2:10	0.9	0.18	0.28	0.17	0.02	0.16	0.02
27	2:15	0.9	0.18	0.28	0.17	0.02	0.16	0.02
28	2:20	0.9	0.18	0.28	0.17	0.02	0.16	0.03
29	2:25	0.9	0.18	0.28	0.17	0.02	0.16	0.03
30	2:30	0.9	0.18	0.28	0.17	0.02	0.16	0.03
31	2:35	0.9	0.18	0.28	0.17	0.02	0.16	0.03
32	2:40	0.9	0.18	0.28	0.17	0.02	0.16	0.03
33	2:45	1.0	0.20	0.28	0.18	0.02	0.18	0.03
34	2:50	1.0	0.20	0.28	0.18	0.02	0.18	0.03
35	2:55	1.0	0.20	0.28	0.18	0.02	0.18	0.03
36	3:00	1.0	0.20	0.28	0.18	0.02	0.18	0.03
37	3:05	1.0	0.20	0.28	0.18	0.02	0.18	0.04
38	3:10	1.1	0.22	0.28	0.20	0.02	0.19	0.04
39	3:15	1.1	0.22	0.28	0.20	0.02	0.19	0.04
40	3:20	1.1	0.22	0.28	0.20	0.02	0.19	0.04
41	3:25	1.2	0.24	0.28	0.22	0.02	0.21	0.04
42	3:30	1.3	0.27	0.28	0.24	0.03	0.23	0.04
43	3:35	1.4	0.29	0.28	0.26	0.01	0.05	0.04
44	3:40	1.4	0.29	0.28	0.26	0.01	0.05	0.04
45	3:45	1.5	0.31	0.28	0.28	0.03	0.22	0.04
46	3:50	1.5	0.31	0.28	0.28	0.03	0.22	0.05
47	3:55	1.6	0.33	0.28	0.29	0.05	0.40	0.05
48	4:00	1.6	0.33	0.28	0.29	0.05	0.40	0.05
49	4:05	1.7	0.35	0.28	0.31	0.07	0.58	0.05
50	4:10	1.8	0.37	0.28	0.33	0.09	0.75	0.06
51	4:15	1.9	0.39	0.28	0.35	0.11	0.93	0.06
52	4:20	2.0	0.41	0.28	0.37	0.13	1.11	0.07
53	4:25	2.1	0.43	0.28	0.39	0.15	1.28	0.08
54	4:30	2.1	0.43	0.28	0.39	0.15	1.28	0.09
55	4:35	2.2	0.45	0.28	0.40	0.17	1.46	0.10
56	4:40	2.3	0.47	0.28	0.42	0.19	1.64	0.11
57	4:45	2.4	0.49	0.28	0.44	0.21	1.81	0.12
58	4:50	2.4	0.49	0.28	0.44	0.21	1.81	0.13
59	4:55	2.5	0.51	0.28	0.46	0.23	1.99	0.15
60	5:00	2.6	0.53	0.28	0.48	0.25	2.17	0.16
61	5:05	3.1	0.63	0.28	0.57	0.35	3.05	0.18
62	5:10	3.6	0.73	0.28	0.66	0.45	3.93	0.20
63	5:15	3.9	0.80	0.28	0.72	0.52	4.46	0.23
64	5:20	4.2	0.86	0.28	0.77	0.58	4.99	0.26
65	5:25	4.7	0.96	0.28	0.86	0.68	5.87	0.30
66	5:30	5.6	1.14	0.28	1.03	0.86	7.46	0.35
67	5:35	1.9	0.39	0.28	0.35	0.11	0.93	0.38
68	5:40	0.9	0.18	0.28	0.17	0.02	0.16	0.38
69	5:45	0.6	0.12	0.28	0.11	0.01	0.11	0.38
70	5:50	0.5	0.10	0.28	0.09	0.01	0.09	0.38
71	5:55	0.3	0.06	0.28	0.06	0.01	0.05	0.38
72	6:00	0.2	0.04	0.28	0.04	0.00	0.04	0.38

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	1.4
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.48	0.08	0.01	0.07	0.00
2	0:10	0.6	0.10	0.48	0.09	0.01	0.09	0.00
3	0:15	0.6	0.10	0.48	0.09	0.01	0.09	0.00
4	0:20	0.6	0.10	0.48	0.09	0.01	0.09	0.00
5	0:25	0.6	0.10	0.48	0.09	0.01	0.09	0.00
6	0:30	0.7	0.12	0.48	0.11	0.01	0.10	0.00
7	0:35	0.7	0.12	0.48	0.11	0.01	0.10	0.00
8	0:40	0.7	0.12	0.48	0.11	0.01	0.10	0.00
9	0:45	0.7	0.12	0.48	0.11	0.01	0.10	0.01
10	0:50	0.7	0.12	0.48	0.11	0.01	0.10	0.01
11	0:55	0.7	0.12	0.48	0.11	0.01	0.10	0.01
12	1:00	0.8	0.13	0.48	0.12	0.01	0.12	0.01
13	1:05	0.8	0.13	0.48	0.12	0.01	0.12	0.01
14	1:10	0.8	0.13	0.48	0.12	0.01	0.12	0.01
15	1:15	0.8	0.13	0.48	0.12	0.01	0.12	0.01
16	1:20	0.8	0.13	0.48	0.12	0.01	0.12	0.01
17	1:25	0.8	0.13	0.48	0.12	0.01	0.12	0.01
18	1:30	0.8	0.13	0.48	0.12	0.01	0.12	0.01
19	1:35	0.8	0.13	0.48	0.12	0.01	0.12	0.01
20	1:40	0.8	0.13	0.48	0.12	0.01	0.12	0.01
21	1:45	0.8	0.13	0.48	0.12	0.01	0.12	0.01
22	1:50	0.8	0.13	0.48	0.12	0.01	0.12	0.02
23	1:55	0.8	0.13	0.48	0.12	0.01	0.12	0.02
24	2:00	0.9	0.15	0.48	0.14	0.02	0.13	0.02
25	2:05	0.8	0.13	0.48	0.12	0.01	0.12	0.02
26	2:10	0.9	0.15	0.48	0.14	0.02	0.13	0.02
27	2:15	0.9	0.15	0.48	0.14	0.02	0.13	0.02
28	2:20	0.9	0.15	0.48	0.14	0.02	0.13	0.02
29	2:25	0.9	0.15	0.48	0.14	0.02	0.13	0.02
30	2:30	0.9	0.15	0.48	0.14	0.02	0.13	0.02
31	2:35	0.9	0.15	0.48	0.14	0.02	0.13	0.02
32	2:40	0.9	0.15	0.48	0.14	0.02	0.13	0.02
33	2:45	1.0	0.17	0.48	0.15	0.02	0.15	0.03
34	2:50	1.0	0.17	0.48	0.15	0.02	0.15	0.03
35	2:55	1.0	0.17	0.48	0.15	0.02	0.15	0.03
36	3:00	1.0	0.17	0.48	0.15	0.02	0.15	0.03
37	3:05	1.0	0.17	0.48	0.15	0.02	0.15	0.03
38	3:10	1.1	0.18	0.48	0.17	0.02	0.16	0.03
39	3:15	1.1	0.18	0.48	0.17	0.02	0.16	0.03
40	3:20	1.1	0.18	0.48	0.17	0.02	0.16	0.03
41	3:25	1.2	0.20	0.48	0.18	0.02	0.17	0.03
42	3:30	1.3	0.22	0.48	0.20	0.02	0.19	0.03
43	3:35	1.4	0.24	0.48	0.21	0.02	0.20	0.04
44	3:40	1.4	0.24	0.48	0.21	0.02	0.20	0.04
45	3:45	1.5	0.25	0.48	0.23	0.03	0.22	0.04
46	3:50	1.5	0.25	0.48	0.23	0.03	0.22	0.04
47	3:55	1.6	0.27	0.48	0.24	0.03	0.23	0.04
48	4:00	1.6	0.27	0.48	0.24	0.03	0.23	0.04
49	4:05	1.7	0.29	0.48	0.26	0.03	0.25	0.05
50	4:10	1.8	0.30	0.48	0.27	0.03	0.26	0.05
51	4:15	1.9	0.32	0.48	0.29	0.03	0.28	0.05
52	4:20	2.0	0.34	0.48	0.30	0.03	0.29	0.05
53	4:25	2.1	0.35	0.48	0.32	0.04	0.31	0.05
54	4:30	2.1	0.35	0.48	0.32	0.04	0.31	0.06
55	4:35	2.2	0.37	0.48	0.33	0.04	0.32	0.06
56	4:40	2.3	0.39	0.48	0.35	0.04	0.33	0.06
57	4:45	2.4	0.40	0.48	0.36	0.04	0.35	0.06
58	4:50	2.4	0.40	0.48	0.36	0.04	0.35	0.06
59	4:55	2.5	0.42	0.48	0.38	0.04	0.36	0.07
60	5:00	2.6	0.44	0.48	0.39	0.04	0.38	0.07
61	5:05	3.1	0.52	0.48	0.47	0.04	0.35	0.07
62	5:10	3.6	0.60	0.48	0.54	0.12	1.08	0.08
63	5:15	3.9	0.66	0.48	0.59	0.18	1.52	0.09
64	5:20	4.2	0.71	0.48	0.64	0.23	1.95	0.10
65	5:25	4.7	0.79	0.48	0.71	0.31	2.68	0.11
66	5:30	5.6	0.94	0.48	0.85	0.46	3.99	0.14
67	5:35	1.9	0.32	0.48	0.29	0.03	0.28	0.15
68	5:40	0.9	0.15	0.48	0.14	0.02	0.13	0.15
69	5:45	0.6	0.10	0.48	0.09	0.01	0.09	0.15
70	5:50	0.5	0.08	0.48	0.08	0.01	0.07	0.15
71	5:55	0.3	0.05	0.48	0.05	0.01	0.04	0.15
72	6:00	0.2	0.03	0.48	0.03	0.00	0.03	0.15

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	1.0
AMC		1
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.48	0.05	0.01	0.05	0.00
2	0:10	0.6	0.07	0.48	0.06	0.01	0.06	0.00
3	0:15	0.6	0.07	0.48	0.06	0.01	0.06	0.00
4	0:20	0.6	0.07	0.48	0.06	0.01	0.06	0.00
5	0:25	0.6	0.07	0.48	0.06	0.01	0.06	0.00
6	0:30	0.7	0.08	0.48	0.08	0.01	0.07	0.00
7	0:35	0.7	0.08	0.48	0.08	0.01	0.07	0.00
8	0:40	0.7	0.08	0.48	0.08	0.01	0.07	0.00
9	0:45	0.7	0.08	0.48	0.08	0.01	0.07	0.00
10	0:50	0.7	0.08	0.48	0.08	0.01	0.07	0.00
11	0:55	0.7	0.08	0.48	0.08	0.01	0.07	0.00
12	1:00	0.8	0.10	0.48	0.09	0.01	0.08	0.01
13	1:05	0.8	0.10	0.48	0.09	0.01	0.08	0.01
14	1:10	0.8	0.10	0.48	0.09	0.01	0.08	0.01
15	1:15	0.8	0.10	0.48	0.09	0.01	0.08	0.01
16	1:20	0.8	0.10	0.48	0.09	0.01	0.08	0.01
17	1:25	0.8	0.10	0.48	0.09	0.01	0.08	0.01
18	1:30	0.8	0.10	0.48	0.09	0.01	0.08	0.01
19	1:35	0.8	0.10	0.48	0.09	0.01	0.08	0.01
20	1:40	0.8	0.10	0.48	0.09	0.01	0.08	0.01
21	1:45	0.8	0.10	0.48	0.09	0.01	0.08	0.01
22	1:50	0.8	0.10	0.48	0.09	0.01	0.08	0.01
23	1:55	0.8	0.10	0.48	0.09	0.01	0.08	0.01
24	2:00	0.9	0.11	0.48	0.10	0.01	0.09	0.01
25	2:05	0.8	0.10	0.48	0.09	0.01	0.08	0.01
26	2:10	0.9	0.11	0.48	0.10	0.01	0.09	0.01
27	2:15	0.9	0.11	0.48	0.10	0.01	0.09	0.01
28	2:20	0.9	0.11	0.48	0.10	0.01	0.09	0.01
29	2:25	0.9	0.11	0.48	0.10	0.01	0.09	0.02
30	2:30	0.9	0.11	0.48	0.10	0.01	0.09	0.02
31	2:35	0.9	0.11	0.48	0.10	0.01	0.09	0.02
32	2:40	0.9	0.11	0.48	0.10	0.01	0.09	0.02
33	2:45	1.0	0.12	0.48	0.11	0.01	0.10	0.02
34	2:50	1.0	0.12	0.48	0.11	0.01	0.10	0.02
35	2:55	1.0	0.12	0.48	0.11	0.01	0.10	0.02
36	3:00	1.0	0.12	0.48	0.11	0.01	0.10	0.02
37	3:05	1.0	0.12	0.48	0.11	0.01	0.10	0.02
38	3:10	1.1	0.13	0.48	0.12	0.01	0.11	0.02
39	3:15	1.1	0.13	0.48	0.12	0.01	0.11	0.02
40	3:20	1.1	0.13	0.48	0.12	0.01	0.11	0.02
41	3:25	1.2	0.14	0.48	0.13	0.01	0.12	0.02
42	3:30	1.3	0.16	0.48	0.14	0.02	0.13	0.02
43	3:35	1.4	0.17	0.48	0.15	0.02	0.15	0.03
44	3:40	1.4	0.17	0.48	0.15	0.02	0.15	0.03
45	3:45	1.5	0.18	0.48	0.16	0.02	0.16	0.03
46	3:50	1.5	0.18	0.48	0.16	0.02	0.16	0.03
47	3:55	1.6	0.19	0.48	0.17	0.02	0.17	0.03
48	4:00	1.6	0.19	0.48	0.17	0.02	0.17	0.03
49	4:05	1.7	0.20	0.48	0.18	0.02	0.18	0.03
50	4:10	1.8	0.22	0.48	0.19	0.02	0.19	0.03
51	4:15	1.9	0.23	0.48	0.21	0.02	0.20	0.03
52	4:20	2.0	0.24	0.48	0.22	0.02	0.21	0.04
53	4:25	2.1	0.25	0.48	0.23	0.03	0.22	0.04
54	4:30	2.1	0.25	0.48	0.23	0.03	0.22	0.04
55	4:35	2.2	0.26	0.48	0.24	0.03	0.23	0.04
56	4:40	2.3	0.28	0.48	0.25	0.03	0.24	0.04
57	4:45	2.4	0.29	0.48	0.26	0.03	0.25	0.04
58	4:50	2.4	0.29	0.48	0.26	0.03	0.25	0.05
59	4:55	2.5	0.30	0.48	0.27	0.03	0.26	0.05
60	5:00	2.6	0.31	0.48	0.28	0.03	0.27	0.05
61	5:05	3.1	0.37	0.48	0.33	0.04	0.32	0.05
62	5:10	3.6	0.43	0.48	0.39	0.04	0.37	0.05
63	5:15	3.9	0.47	0.48	0.42	0.05	0.40	0.06
64	5:20	4.2	0.50	0.48	0.45	0.02	0.21	0.06
65	5:25	4.7	0.56	0.48	0.51	0.08	0.73	0.06
66	5:30	5.6	0.67	0.48	0.60	0.19	1.66	0.07
67	5:35	1.9	0.23	0.48	0.21	0.02	0.20	0.08
68	5:40	0.9	0.11	0.48	0.10	0.01	0.09	0.08
69	5:45	0.6	0.07	0.48	0.06	0.01	0.06	0.08
70	5:50	0.5	0.06	0.48	0.05	0.01	0.05	0.08
71	5:55	0.3	0.04	0.48	0.03	0.00	0.03	0.08
72	6:00	0.2	0.02	0.48	0.02	0.00	0.02	0.08

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	1.9
AMC		III
RI		77.0
Fp	(in/hr)	0.14
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.14

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.14	0.27	0.16	1.35	0.00
2	0:10	1.3	0.30	0.14	0.27	0.16	1.35	0.01
3	0:15	1.1	0.25	0.14	0.23	0.11	0.96	0.02
4	0:20	1.5	0.34	0.14	0.31	0.20	1.75	0.03
5	0:25	1.5	0.34	0.14	0.31	0.20	1.75	0.04
6	0:30	1.8	0.41	0.14	0.37	0.27	2.34	0.06
7	0:35	1.5	0.34	0.14	0.31	0.20	1.75	0.07
8	0:40	1.8	0.41	0.14	0.37	0.27	2.34	0.09
9	0:45	1.8	0.41	0.14	0.37	0.27	2.34	0.10
10	0:50	1.5	0.34	0.14	0.31	0.20	1.75	0.12
11	0:55	1.6	0.36	0.14	0.33	0.22	1.94	0.13
12	1:00	1.8	0.41	0.14	0.37	0.27	2.34	0.14
13	1:05	2.2	0.50	0.14	0.45	0.36	3.13	0.16
14	1:10	2.2	0.50	0.14	0.45	0.36	3.13	0.18
15	1:15	2.2	0.50	0.14	0.45	0.36	3.13	0.21
16	1:20	2.0	0.46	0.14	0.41	0.32	2.73	0.23
17	1:25	2.6	0.59	0.14	0.53	0.45	3.92	0.25
18	1:30	2.7	0.62	0.14	0.55	0.48	4.11	0.28
19	1:35	2.4	0.55	0.14	0.49	0.41	3.52	0.30
20	1:40	2.7	0.62	0.14	0.55	0.48	4.11	0.33
21	1:45	3.3	0.75	0.14	0.68	0.61	5.30	0.36
22	1:50	3.1	0.71	0.14	0.64	0.57	4.90	0.40
23	1:55	2.9	0.66	0.14	0.60	0.52	4.51	0.43
24	2:00	3.0	0.68	0.14	0.62	0.54	4.71	0.46
25	2:05	3.1	0.71	0.14	0.64	0.57	4.90	0.49
26	2:10	4.2	0.96	0.14	0.86	0.82	7.07	0.53
27	2:15	5.0	1.14	0.14	1.03	1.00	8.65	0.59
28	2:20	3.5	0.80	0.14	0.72	0.66	5.69	0.64
29	2:25	6.8	1.55	0.14	1.40	1.41	12.20	0.70
30	2:30	7.3	1.66	0.14	1.50	1.52	13.19	0.79
31	2:35	8.2	1.87	0.14	1.68	1.73	14.96	0.88
32	2:40	5.9	1.35	0.14	1.21	1.21	10.42	0.97
33	2:45	2.0	0.46	0.14	0.41	0.32	2.73	1.02
34	2:50	1.8	0.41	0.14	0.37	0.27	2.34	1.03
35	2:55	1.8	0.41	0.14	0.37	0.27	2.34	1.05
36	3:00	0.6	0.14	0.14	0.12	0.01	0.12	1.06

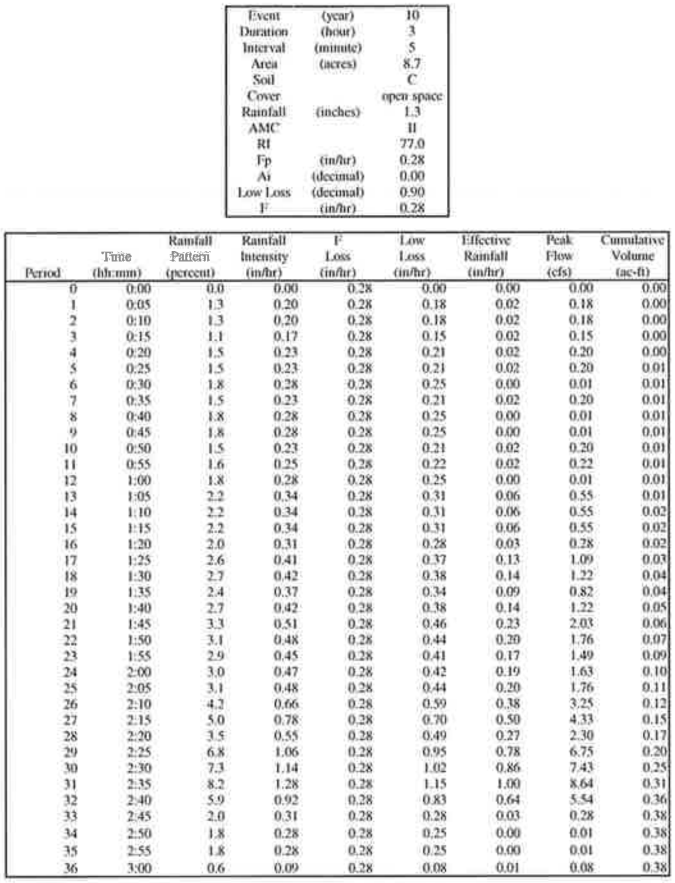

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	1.3
AMC		II
RI		77.0
Fp	(in/hr)	0.28
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.28

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.28	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.28	0.18	0.02	0.18	0.00
2	0:10	1.3	0.20	0.28	0.18	0.02	0.18	0.00
3	0:15	1.1	0.17	0.28	0.15	0.02	0.15	0.00
4	0:20	1.5	0.23	0.28	0.21	0.02	0.20	0.00
5	0:25	1.5	0.23	0.28	0.21	0.02	0.20	0.01
6	0:30	1.8	0.28	0.28	0.25	0.00	0.01	0.01
7	0:35	1.5	0.23	0.28	0.21	0.02	0.20	0.01
8	0:40	1.8	0.28	0.28	0.25	0.00	0.01	0.01
9	0:45	1.8	0.28	0.28	0.25	0.00	0.01	0.01
10	0:50	1.5	0.23	0.28	0.21	0.02	0.20	0.01
11	0:55	1.6	0.25	0.28	0.22	0.02	0.22	0.01
12	1:00	1.8	0.28	0.28	0.25	0.00	0.01	0.01
13	1:05	2.2	0.34	0.28	0.31	0.06	0.55	0.01
14	1:10	2.2	0.34	0.28	0.31	0.06	0.55	0.02
15	1:15	2.2	0.34	0.28	0.31	0.06	0.55	0.02
16	1:20	2.0	0.31	0.28	0.28	0.03	0.28	0.02
17	1:25	2.6	0.41	0.28	0.37	0.13	1.09	0.03
18	1:30	2.7	0.42	0.28	0.38	0.14	1.22	0.04
19	1:35	2.4	0.37	0.28	0.34	0.09	0.82	0.04
20	1:40	2.7	0.42	0.28	0.38	0.14	1.22	0.05
21	1:45	3.3	0.51	0.28	0.46	0.23	2.03	0.06
22	1:50	3.1	0.48	0.28	0.44	0.20	1.76	0.07
23	1:55	2.9	0.45	0.28	0.41	0.17	1.49	0.09
24	2:00	3.0	0.47	0.28	0.42	0.19	1.63	0.10
25	2:05	3.1	0.48	0.28	0.44	0.20	1.76	0.11
26	2:10	4.2	0.66	0.28	0.59	0.38	3.25	0.12
27	2:15	5.0	0.78	0.28	0.70	0.50	4.33	0.15
28	2:20	3.5	0.55	0.28	0.49	0.27	2.30	0.17
29	2:25	6.8	1.06	0.28	0.95	0.78	6.75	0.20
30	2:30	7.3	1.14	0.28	1.02	0.86	7.43	0.25
31	2:35	8.2	1.28	0.28	1.15	1.00	8.64	0.31
32	2:40	5.9	0.92	0.28	0.83	0.64	5.54	0.36
33	2:45	2.0	0.31	0.28	0.28	0.03	0.28	0.38
34	2:50	1.8	0.28	0.28	0.25	0.00	0.01	0.38
35	2:55	1.8	0.28	0.28	0.25	0.00	0.01	0.38
36	3:00	0.6	0.09	0.28	0.08	0.01	0.08	0.38

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	1.1
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.48	0.15	0.02	0.15	0.00
2	0:10	1.3	0.17	0.48	0.15	0.02	0.15	0.00
3	0:15	1.1	0.15	0.48	0.13	0.01	0.13	0.00
4	0:20	1.5	0.20	0.48	0.18	0.02	0.17	0.00
5	0:25	1.5	0.20	0.48	0.18	0.02	0.17	0.00
6	0:30	1.8	0.24	0.48	0.21	0.02	0.21	0.01
7	0:35	1.5	0.20	0.48	0.18	0.02	0.17	0.01
8	0:40	1.8	0.24	0.48	0.21	0.02	0.21	0.01
9	0:45	1.8	0.24	0.48	0.21	0.02	0.21	0.01
10	0:50	1.5	0.20	0.48	0.18	0.02	0.17	0.01
11	0:55	1.6	0.21	0.48	0.19	0.02	0.18	0.01
12	1:00	1.8	0.24	0.48	0.21	0.02	0.21	0.01
13	1:05	2.2	0.29	0.48	0.26	0.03	0.25	0.02
14	1:10	2.2	0.29	0.48	0.26	0.03	0.25	0.02
15	1:15	2.2	0.29	0.48	0.26	0.03	0.25	0.02
16	1:20	2.0	0.26	0.48	0.24	0.03	0.23	0.02
17	1:25	2.6	0.34	0.48	0.31	0.03	0.30	0.02
18	1:30	2.7	0.36	0.48	0.32	0.04	0.31	0.02
19	1:35	2.4	0.32	0.48	0.29	0.03	0.27	0.03
20	1:40	2.7	0.36	0.48	0.32	0.04	0.31	0.03
21	1:45	3.3	0.44	0.48	0.39	0.04	0.38	0.03
22	1:50	3.1	0.41	0.48	0.37	0.04	0.35	0.03
23	1:55	2.9	0.38	0.48	0.34	0.04	0.33	0.04
24	2:00	3.0	0.40	0.48	0.36	0.04	0.34	0.04
25	2:05	3.1	0.41	0.48	0.37	0.04	0.35	0.04
26	2:10	4.2	0.55	0.48	0.50	0.07	0.64	0.04
27	2:15	5.0	0.66	0.48	0.59	0.18	1.56	0.05
28	2:20	3.5	0.46	0.48	0.42	0.05	0.40	0.06
29	2:25	6.8	0.90	0.48	0.81	0.42	3.61	0.07
30	2:30	7.3	0.96	0.48	0.87	0.48	4.18	0.10
31	2:35	8.2	1.08	0.48	0.97	0.60	5.21	0.13
32	2:40	5.9	0.78	0.48	0.70	0.30	2.58	0.16
33	2:45	2.0	0.26	0.48	0.24	0.03	0.23	0.17
34	2:50	1.8	0.24	0.48	0.21	0.02	0.21	0.17
35	2:55	1.8	0.24	0.48	0.21	0.02	0.21	0.17
36	3:00	0.6	0.08	0.48	0.07	0.01	0.07	0.17

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		open space
Rainfall	(inches)	0.8
AMC		I
RI		77.0
Fp	(in/hr)	0.48
Ai	(decimal)	0.00
Low Loss	(decimal)	0.90
F	(in/hr)	0.48

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.48	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.48	0.11	0.01	0.11	0.00
2	0:10	1.3	0.12	0.48	0.11	0.01	0.11	0.00
3	0:15	1.1	0.11	0.48	0.10	0.01	0.09	0.00
4	0:20	1.5	0.14	0.48	0.13	0.01	0.12	0.00
5	0:25	1.5	0.14	0.48	0.13	0.01	0.12	0.00
6	0:30	1.8	0.17	0.48	0.16	0.02	0.15	0.00
7	0:35	1.5	0.14	0.48	0.13	0.01	0.12	0.01
8	0:40	1.8	0.17	0.48	0.16	0.02	0.15	0.01
9	0:45	1.8	0.17	0.48	0.16	0.02	0.15	0.01
10	0:50	1.5	0.14	0.48	0.13	0.01	0.12	0.01
11	0:55	1.6	0.15	0.48	0.14	0.02	0.13	0.01
12	1:00	1.8	0.17	0.48	0.16	0.02	0.15	0.01
13	1:05	2.2	0.21	0.48	0.19	0.02	0.18	0.01
14	1:10	2.2	0.21	0.48	0.19	0.02	0.18	0.01
15	1:15	2.2	0.21	0.48	0.19	0.02	0.18	0.01
16	1:20	2.0	0.19	0.48	0.17	0.02	0.17	0.01
17	1:25	2.6	0.25	0.48	0.22	0.02	0.22	0.02
18	1:30	2.7	0.26	0.48	0.23	0.03	0.22	0.02
19	1:35	2.4	0.23	0.48	0.21	0.02	0.20	0.02
20	1:40	2.7	0.26	0.48	0.23	0.03	0.22	0.02
21	1:45	3.3	0.32	0.48	0.29	0.03	0.27	0.02
22	1:50	3.1	0.30	0.48	0.27	0.03	0.26	0.02
23	1:55	2.9	0.28	0.48	0.25	0.03	0.24	0.03
24	2:00	3.0	0.29	0.48	0.26	0.03	0.25	0.03
25	2:05	3.1	0.30	0.48	0.27	0.03	0.26	0.03
26	2:10	4.2	0.40	0.48	0.36	0.04	0.35	0.03
27	2:15	5.0	0.48	0.48	0.43	0.05	0.42	0.03
28	2:20	3.5	0.34	0.48	0.30	0.03	0.29	0.04
29	2:25	6.8	0.65	0.48	0.59	0.17	1.49	0.04
30	2:30	7.3	0.70	0.48	0.63	0.22	1.91	0.05
31	2:35	8.2	0.79	0.48	0.71	0.31	2.66	0.07
32	2:40	5.9	0.57	0.48	0.51	0.09	0.75	0.08
33	2:45	2.0	0.19	0.48	0.17	0.02	0.17	0.08
34	2:50	1.8	0.17	0.48	0.16	0.02	0.15	0.09
35	2:55	1.8	0.17	0.48	0.16	0.02	0.15	0.09
36	3:00	0.6	0.06	0.48	0.05	0.01	0.05	0.09

Hydrologic Summary

BUILDING 4
PROPOSED CONDITION

Watershed Characteristics

Area	(acres)	8.65
Soil		C
Cover		Commercial

Hydrograph Parameters

		100-year	10-year	5-year	2-year	
Rainfall - 24-hr	(inches)	4.0	2.6	2.2	1.6	
Rainfall - 6-hr	(inches)	2.5	1.7	1.4	1.0	
Rainfall - 3-hr	(inches)	1.9	1.3	1.1	0.8	
AMC		III	II	I	I	
RI		69	69	69	69	Plate E-6.1
Fp	(in/hr)	0.21	0.40	0.60	0.60	Plate E-6.2
Ai	(decimal)	0.90	0.90	0.90	0.90	Plate E-6.3
Low Loss	(decimal)	0.18	0.18	0.18	0.18	0.9-(0.8Ai)
F	(in/hr)	0.04	0.08	0.11	0.11	Fp(1-0.9Ai)
Fm	(in/hr)	0.02	0.04	0.06	0.06	F/2
C		0.00	0.00	0.00	0.00	(F-Fm)/54

Hydrograph Results

		100-year	10-year	5-year	2-year	
Peak Flow	(cfs)	4.41	2.49	1.74	1.03	24-hour
Peak Flow	(cfs)	14.19	9.22	7.15	4.83	6-hour
Peak Flow	(cfs)	15.83	10.41	8.38	5.82	3-hour
Total Runoff	(ac-ft)	2.27	1.25	0.89	0.62	24-hour
Total Runoff	(ac-ft)	1.62	0.90	0.56	0.44	6-hour
Total Runoff	(ac-ft)	1.27	0.77	0.55	0.34	3-hour

Attachment: G1 - Preliminary Hydrology Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Event	(year)	100
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	4.0
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04
Fm	(in/hr)	0.02
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.07	0.00	0.00	0.00	0.00
1	0:15	0.2	0.03	0.07	0.01	0.03	0.23	0.00
2	0:30	0.3	0.05	0.07	0.01	0.04	0.34	0.01
3	0:45	0.3	0.05	0.07	0.01	0.04	0.34	0.02
4	1:00	0.4	0.06	0.07	0.01	0.05	0.45	0.02
5	1:15	0.3	0.05	0.07	0.01	0.04	0.34	0.03
6	1:30	0.3	0.05	0.07	0.01	0.04	0.34	0.04
7	1:45	0.3	0.05	0.07	0.01	0.04	0.34	0.05
8	2:00	0.4	0.06	0.06	0.01	0.05	0.45	0.05
9	2:15	0.4	0.06	0.06	0.01	0.05	0.45	0.06
10	2:30	0.4	0.06	0.06	0.01	0.00	0.01	0.07
11	2:45	0.5	0.08	0.06	0.01	0.02	0.15	0.07
12	3:00	0.5	0.08	0.06	0.01	0.02	0.16	0.07
13	3:15	0.5	0.08	0.06	0.01	0.02	0.16	0.08
14	3:30	0.5	0.08	0.06	0.01	0.02	0.17	0.08
15	3:45	0.5	0.08	0.06	0.01	0.02	0.18	0.08
16	4:00	0.6	0.10	0.06	0.02	0.04	0.32	0.09
17	4:15	0.6	0.10	0.06	0.02	0.04	0.33	0.10
18	4:30	0.7	0.11	0.06	0.02	0.05	0.47	0.10
19	4:45	0.7	0.11	0.06	0.02	0.06	0.48	0.11
20	5:00	0.8	0.13	0.06	0.02	0.07	0.62	0.12
21	5:15	0.6	0.10	0.06	0.02	0.04	0.35	0.13
22	5:30	0.7	0.11	0.05	0.02	0.06	0.50	0.14
23	5:45	0.8	0.13	0.05	0.02	0.07	0.64	0.16
24	6:00	0.8	0.13	0.05	0.02	0.08	0.65	0.17
25	6:15	0.9	0.14	0.05	0.03	0.09	0.79	0.18
26	6:30	0.9	0.14	0.05	0.03	0.09	0.80	0.20
27	6:45	1.0	0.16	0.05	0.03	0.11	0.94	0.22
28	7:00	1.0	0.16	0.05	0.03	0.11	0.95	0.24
29	7:15	1.0	0.16	0.05	0.03	0.11	0.96	0.26
30	7:30	1.1	0.18	0.05	0.03	0.13	1.10	0.28
31	7:45	1.2	0.19	0.05	0.03	0.14	1.24	0.30
32	8:00	1.3	0.21	0.05	0.04	0.16	1.39	0.33
33	8:15	1.5	0.24	0.05	0.04	0.19	1.67	0.36
34	8:30	1.5	0.24	0.05	0.04	0.19	1.68	0.40
35	8:45	1.6	0.26	0.05	0.05	0.21	1.82	0.43
36	9:00	1.7	0.27	0.04	0.05	0.23	1.96	0.47
37	9:15	1.9	0.30	0.04	0.05	0.26	2.25	0.52
38	9:30	2.0	0.32	0.04	0.06	0.28	2.39	0.56
39	9:45	2.1	0.34	0.04	0.06	0.29	2.53	0.61
40	10:00	2.2	0.35	0.04	0.06	0.31	2.68	0.67
41	10:15	1.5	0.24	0.04	0.04	0.20	1.72	0.71
42	10:30	1.5	0.24	0.04	0.04	0.20	1.72	0.75
43	10:45	2.0	0.32	0.04	0.06	0.28	2.42	0.79
44	11:00	2.0	0.32	0.04	0.06	0.28	2.42	0.84
45	11:15	1.9	0.30	0.04	0.05	0.26	2.29	0.89
46	11:30	1.9	0.30	0.04	0.05	0.27	2.29	0.94
47	11:45	1.7	0.27	0.04	0.05	0.23	2.02	0.98
48	12:00	1.8	0.29	0.04	0.05	0.25	2.17	1.03
49	12:15	2.5	0.40	0.04	0.07	0.36	3.14	1.08
50	12:30	2.6	0.42	0.04	0.07	0.38	3.28	1.15
51	12:45	2.8	0.45	0.04	0.08	0.41	3.56	1.22
52	13:00	2.9	0.46	0.04	0.08	0.43	3.71	1.29
53	13:15	3.4	0.54	0.03	0.10	0.51	4.40	1.38
54	13:30	3.4	0.54	0.03	0.10	0.51	4.41	1.47
55	13:45	2.3	0.37	0.03	0.07	0.33	2.89	1.54
56	14:00	2.3	0.37	0.03	0.07	0.33	2.90	1.60
57	14:15	2.7	0.43	0.03	0.08	0.40	3.45	1.67
58	14:30	2.6	0.42	0.03	0.07	0.38	3.32	1.74
59	14:45	2.6	0.42	0.03	0.07	0.38	3.32	1.81
60	15:00	2.5	0.40	0.03	0.07	0.37	3.19	1.87
61	15:15	2.4	0.38	0.03	0.07	0.35	3.05	1.94
62	15:30	2.3	0.37	0.03	0.07	0.34	2.92	2.00
63	15:45	1.9	0.30	0.03	0.05	0.27	2.37	2.05
64	16:00	1.9	0.30	0.03	0.05	0.27	2.37	2.10
65	16:15	0.4	0.06	0.03	0.01	0.03	0.30	2.13
66	16:30	0.4	0.06	0.03	0.01	0.04	0.31	2.14
67	16:45	0.3	0.05	0.03	0.01	0.02	0.17	2.14
68	17:00	0.3	0.05	0.03	0.01	0.02	0.18	2.15
69	17:15	0.5	0.08	0.03	0.01	0.05	0.46	2.15
70	17:30	0.5	0.08	0.03	0.01	0.05	0.46	2.16
71	17:45	0.5	0.08	0.03	0.01	0.05	0.46	2.17
72	18:00	0.4	0.06	0.03	0.01	0.04	0.33	2.18
73	18:15	0.4	0.06	0.03	0.01	0.04	0.33	2.19
74	18:30	0.4	0.06	0.03	0.01	0.04	0.33	2.19
75	18:45	0.3	0.05	0.02	0.01	0.02	0.20	2.20
76	19:00	0.2	0.03	0.02	0.01	0.01	0.06	2.20
77	19:15	0.3	0.05	0.02	0.01	0.02	0.21	2.20
78	19:30	0.4	0.06	0.02	0.01	0.04	0.35	2.21
79	19:45	0.3	0.05	0.02	0.01	0.02	0.21	2.22
80	20:00	0.2	0.03	0.02	0.01	0.01	0.08	2.22
81	20:15	0.3	0.05	0.02	0.01	0.03	0.22	2.22
82	20:30	0.3	0.05	0.02	0.01	0.03	0.22	2.23
83	20:45	0.3	0.05	0.02	0.01	0.03	0.22	2.23
84	21:00	0.2	0.03	0.02	0.01	0.01	0.09	2.23
85	21:15	0.3	0.05	0.02	0.01	0.03	0.23	2.24
86	21:30	0.2	0.03	0.02	0.01	0.01	0.09	2.24
87	21:45	0.3	0.05	0.02	0.01	0.03	0.23	2.24
88	22:00	0.2	0.03	0.02	0.01	0.01	0.09	2.25
89	22:15	0.3	0.05	0.02	0.01	0.03	0.23	2.25
90	22:30	0.2	0.03	0.02	0.01	0.01	0.10	2.25
91	22:45	0.2	0.03	0.02	0.01	0.01	0.10	2.26
92	23:00	0.2	0.03	0.02	0.01	0.01	0.10	2.26
93	23:15	0.2	0.03	0.02	0.01	0.01	0.10	2.26
94	23:30	0.2	0.03	0.02	0.01	0.01	0.10	2.26
95	23:45	0.2	0.03	0.02	0.01	0.01	0.10	2.26
96	0:00	0.2	0.03	0.02	0.01	0.01	0.10	2.27

Event	(year)	10
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	2.6
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08
Fm	(in/hr)	0.04
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.14	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.13	0.00	0.02	0.15	0.00
2	0:30	0.3	0.03	0.13	0.01	0.03	0.22	0.01
3	0:45	0.3	0.03	0.13	0.01	0.03	0.22	0.01
4	1:00	0.4	0.04	0.13	0.01	0.03	0.30	0.02
5	1:15	0.3	0.03	0.13	0.01	0.03	0.22	0.02
6	1:30	0.3	0.03	0.13	0.01	0.03	0.22	0.03
7	1:45	0.3	0.03	0.13	0.01	0.03	0.22	0.03
8	2:00	0.4	0.04	0.12	0.01	0.03	0.30	0.04
9	2:15	0.4	0.04	0.12	0.01	0.03	0.30	0.04
10	2:30	0.4	0.04	0.12	0.01	0.03	0.30	0.05
11	2:45	0.5	0.05	0.12	0.01	0.04	0.37	0.05
12	3:00	0.5	0.05	0.12	0.01	0.04	0.37	0.06
13	3:15	0.5	0.05	0.12	0.01	0.04	0.37	0.07
14	3:30	0.5	0.05	0.11	0.01	0.04	0.37	0.08
15	3:45	0.5	0.05	0.11	0.01	0.04	0.37	0.08
16	4:00	0.6	0.06	0.11	0.01	0.05	0.44	0.09
17	4:15	0.6	0.06	0.11	0.01	0.05	0.44	0.10
18	4:30	0.7	0.07	0.11	0.01	0.06	0.52	0.11
19	4:45	0.7	0.07	0.11	0.01	0.06	0.52	0.12
20	5:00	0.8	0.08	0.11	0.01	0.07	0.59	0.13
21	5:15	0.6	0.06	0.10	0.01	0.05	0.44	0.14
22	5:30	0.7	0.07	0.10	0.01	0.06	0.52	0.15
23	5:45	0.8	0.08	0.10	0.01	0.07	0.59	0.17
24	6:00	0.8	0.08	0.10	0.01	0.07	0.59	0.18
25	6:15	0.9	0.09	0.10	0.02	0.08	0.66	0.19
26	6:30	0.9	0.09	0.10	0.02	0.08	0.66	0.20
27	6:45	1.0	0.10	0.10	0.02	0.01	0.06	0.21
28	7:00	1.0	0.10	0.10	0.02	0.01	0.07	0.21
29	7:15	1.0	0.10	0.09	0.02	0.01	0.08	0.22
30	7:30	1.1	0.11	0.09	0.02	0.02	0.19	0.22
31	7:45	1.2	0.12	0.09	0.02	0.03	0.29	0.22
32	8:00	1.3	0.14	0.09	0.02	0.04	0.39	0.23
33	8:15	1.5	0.16	0.09	0.03	0.07	0.58	0.24
34	8:30	1.5	0.16	0.09	0.03	0.07	0.59	0.25
35	8:45	1.6	0.17	0.09	0.03	0.08	0.69	0.27
36	9:00	1.7	0.18	0.09	0.03	0.09	0.79	0.28
37	9:15	1.9	0.20	0.08	0.04	0.11	0.98	0.30
38	9:30	2.0	0.21	0.08	0.04	0.12	1.08	0.32
39	9:45	2.1	0.22	0.08	0.04	0.14	1.18	0.34
40	10:00	2.2	0.23	0.08	0.04	0.15	1.28	0.37
41	10:15	1.5	0.16	0.08	0.03	0.08	0.66	0.39
42	10:30	1.5	0.16	0.08	0.03	0.08	0.67	0.40
43	10:45	2.0	0.21	0.08	0.04	0.13	1.13	0.42
44	11:00	2.0	0.21	0.08	0.04	0.13	1.14	0.45
45	11:15	1.9	0.20	0.07	0.04	0.12	1.06	0.47
46	11:30	1.9	0.20	0.07	0.04	0.12	1.07	0.49
47	11:45	1.7	0.18	0.07	0.03	0.10	0.90	0.51
48	12:00	1.8	0.19	0.07	0.03	0.12	1.00	0.53
49	12:15	2.5	0.26	0.07	0.05	0.19	1.64	0.56
50	12:30	2.6	0.27	0.07	0.05	0.20	1.74	0.59
51	12:45	2.8	0.29	0.07	0.05	0.22	1.93	0.63
52	13:00	2.9	0.30	0.07	0.05	0.23	2.03	0.67
53	13:15	3.4	0.35	0.07	0.06	0.29	2.48	0.72
54	13:30	3.4	0.35	0.07	0.06	0.29	2.49	0.77
55	13:45	2.3	0.24	0.06	0.04	0.17	1.51	0.81
56	14:00	2.3	0.24	0.06	0.04	0.18	1.52	0.84
57	14:15	2.7	0.28	0.06	0.05	0.22	1.89	0.88
58	14:30	2.6	0.27	0.06	0.05	0.21	1.81	0.91
59	14:45	2.6	0.27	0.06	0.05	0.21	1.81	0.95
60	15:00	2.5	0.26	0.06	0.05	0.20	1.73	0.99
61	15:15	2.4	0.25	0.06	0.04	0.19	1.65	1.02
62	15:30	2.3	0.24	0.06	0.04	0.18	1.57	1.06
63	15:45	1.9	0.20	0.06	0.04	0.14	1.22	1.09
64	16:00	1.9	0.20	0.06	0.04	0.14	1.22	1.11
65	16:15	0.4	0.04	0.06	0.01	0.03	0.30	1.13
66	16:30	0.4	0.04	0.05	0.01	0.03	0.30	1.13
67	16:45	0.3	0.03	0.05	0.01	0.03	0.22	1.14
68	17:00	0.3	0.03	0.05	0.01	0.03	0.22	1.14
69	17:15	0.5	0.05	0.05	0.01	0.00	0.00	1.15
70	17:30	0.5	0.05	0.05	0.01	0.00	0.01	1.15
71	17:45	0.5	0.05	0.05	0.01	0.00	0.01	1.15
72	18:00	0.4	0.04	0.05	0.01	0.03	0.30	1.15
73	18:15	0.4	0.04	0.05	0.01	0.03	0.30	1.15
74	18:30	0.4	0.04	0.05	0.01	0.03	0.30	1.16
75	18:45	0.3	0.03	0.05	0.01	0.03	0.22	1.17
76	19:00	0.2	0.02	0.05	0.00	0.02	0.15	1.17
77	19:15	0.3	0.03	0.05	0.01	0.03	0.22	1.17
78	19:30	0.4	0.04	0.05	0.01	0.03	0.30	1.18
79	19:45	0.3	0.03	0.04	0.01	0.03	0.22	1.18
80	20:00	0.2	0.02	0.04	0.00	0.02	0.15	1.19
81	20:15	0.3	0.03	0.04	0.01	0.03	0.22	1.19
82	20:30	0.3	0.03	0.04	0.01	0.03	0.22	1.20
83	20:45	0.3	0.03	0.04	0.01	0.03	0.22	1.20
84	21:00	0.2	0.02	0.04	0.00	0.02	0.15	1.20
85	21:15	0.3	0.03	0.04	0.01	0.03	0.22	1.21
86	21:30	0.2	0.02	0.04	0.00	0.02	0.15	1.21
87	21:45	0.3	0.03	0.04	0.01	0.03	0.22	1.22
88	22:00	0.2	0.02	0.04	0.00	0.02	0.15	1.22
89	22:15	0.3	0.03	0.04	0.01	0.03	0.22	1.22
90	22:30	0.2	0.02	0.04	0.00	0.02	0.15	1.23
91	22:45	0.2	0.02	0.04	0.00	0.02	0.15	1.23
92	23:00	0.2	0.02	0.04	0.00	0.02	0.15	1.23
93	23:15	0.2	0.02	0.04	0.00	0.02	0.15	1.24
94	23:30	0.2	0.02	0.04	0.00	0.02	0.15	1.24
95	23:45	0.2	0.02	0.04	0.00	0.02	0.15	1.24
96	0:00	0.2	0.02	0.04	0.00	0.02	0.15	1.25

Event	(year)	5
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	2.2
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.02	0.20	0.00	0.01	0.12	0.00
2	0:30	0.3	0.03	0.20	0.00	0.02	0.19	0.00
3	0:45	0.3	0.03	0.20	0.00	0.02	0.19	0.01
4	1:00	0.4	0.04	0.19	0.01	0.03	0.25	0.01
5	1:15	0.3	0.03	0.19	0.00	0.02	0.19	0.02
6	1:30	0.3	0.03	0.19	0.00	0.02	0.19	0.02
7	1:45	0.3	0.03	0.19	0.00	0.02	0.19	0.03
8	2:00	0.4	0.04	0.19	0.01	0.03	0.25	0.03
9	2:15	0.4	0.04	0.18	0.01	0.03	0.25	0.03
10	2:30	0.4	0.04	0.18	0.01	0.03	0.25	0.04
11	2:45	0.5	0.04	0.18	0.01	0.04	0.31	0.05
12	3:00	0.5	0.04	0.18	0.01	0.04	0.31	0.05
13	3:15	0.5	0.04	0.17	0.01	0.04	0.31	0.06
14	3:30	0.5	0.04	0.17	0.01	0.04	0.31	0.07
15	3:45	0.5	0.04	0.17	0.01	0.04	0.31	0.07
16	4:00	0.6	0.05	0.17	0.01	0.04	0.37	0.08
17	4:15	0.6	0.05	0.17	0.01	0.04	0.37	0.09
18	4:30	0.7	0.06	0.16	0.01	0.05	0.44	0.09
19	4:45	0.7	0.06	0.16	0.01	0.05	0.44	0.10
20	5:00	0.8	0.07	0.16	0.01	0.06	0.50	0.11
21	5:15	0.6	0.05	0.16	0.01	0.04	0.37	0.12
22	5:30	0.7	0.06	0.16	0.01	0.05	0.44	0.13
23	5:45	0.8	0.07	0.15	0.01	0.06	0.50	0.14
24	6:00	0.8	0.07	0.15	0.01	0.06	0.50	0.15
25	6:15	0.9	0.08	0.15	0.01	0.06	0.56	0.16
26	6:30	0.9	0.08	0.15	0.01	0.06	0.56	0.17
27	6:45	1.0	0.09	0.15	0.02	0.07	0.62	0.19
28	7:00	1.0	0.09	0.14	0.02	0.07	0.62	0.20
29	7:15	1.0	0.09	0.14	0.02	0.07	0.62	0.21
30	7:30	1.1	0.10	0.14	0.02	0.08	0.69	0.23
31	7:45	1.2	0.11	0.14	0.02	0.09	0.75	0.24
32	8:00	1.3	0.11	0.14	0.02	0.09	0.81	0.26
33	8:15	1.5	0.13	0.13	0.02	0.11	0.94	0.27
34	8:30	1.5	0.13	0.13	0.02	0.00	0.00	0.28
35	8:45	1.6	0.14	0.13	0.03	0.01	0.09	0.28
36	9:00	1.7	0.15	0.13	0.03	0.02	0.19	0.29
37	9:15	1.9	0.17	0.13	0.03	0.04	0.35	0.29
38	9:30	2.0	0.18	0.12	0.03	0.05	0.45	0.30
39	9:45	2.1	0.18	0.12	0.03	0.06	0.54	0.31
40	10:00	2.2	0.19	0.12	0.03	0.07	0.63	0.32
41	10:15	1.5	0.13	0.12	0.02	0.01	0.11	0.33
42	10:30	1.5	0.13	0.12	0.02	0.01	0.13	0.33
43	10:45	2.0	0.18	0.12	0.03	0.06	0.52	0.34
44	11:00	2.0	0.18	0.11	0.03	0.06	0.54	0.35
45	11:15	1.9	0.17	0.11	0.03	0.05	0.47	0.36
46	11:30	1.9	0.17	0.11	0.03	0.06	0.49	0.37
47	11:45	1.7	0.15	0.11	0.03	0.04	0.35	0.38
48	12:00	1.8	0.16	0.11	0.03	0.05	0.44	0.39
49	12:15	2.5	0.22	0.11	0.04	0.11	0.99	0.40
50	12:30	2.6	0.23	0.10	0.04	0.12	1.08	0.42
51	12:45	2.8	0.25	0.10	0.04	0.14	1.24	0.45
52	13:00	2.9	0.26	0.10	0.05	0.15	1.33	0.48
53	13:15	3.4	0.30	0.10	0.05	0.20	1.73	0.51
54	13:30	3.4	0.30	0.10	0.05	0.20	1.74	0.54
55	13:45	2.3	0.20	0.10	0.04	0.11	0.91	0.57
56	14:00	2.3	0.20	0.10	0.04	0.11	0.93	0.59
57	14:15	2.7	0.24	0.09	0.04	0.14	1.24	0.61
58	14:30	2.6	0.23	0.09	0.04	0.14	1.18	0.64
59	14:45	2.6	0.23	0.09	0.04	0.14	1.19	0.66
60	15:00	2.5	0.22	0.09	0.04	0.13	1.13	0.68
61	15:15	2.4	0.21	0.09	0.04	0.12	1.06	0.71
62	15:30	2.3	0.20	0.09	0.04	0.12	1.00	0.73
63	15:45	1.9	0.17	0.09	0.03	0.08	0.71	0.75
64	16:00	1.9	0.17	0.08	0.03	0.08	0.72	0.76
65	16:15	0.4	0.04	0.08	0.01	0.03	0.25	0.77
66	16:30	0.4	0.04	0.08	0.01	0.03	0.25	0.78
67	16:45	0.3	0.03	0.08	0.00	0.02	0.19	0.78
68	17:00	0.3	0.03	0.08	0.00	0.02	0.19	0.78
69	17:15	0.5	0.04	0.08	0.01	0.04	0.31	0.79
70	17:30	0.5	0.04	0.08	0.01	0.04	0.31	0.80
71	17:45	0.5	0.04	0.08	0.01	0.04	0.31	0.80
72	18:00	0.4	0.04	0.07	0.01	0.03	0.25	0.81
73	18:15	0.4	0.04	0.07	0.01	0.03	0.25	0.81
74	18:30	0.4	0.04	0.07	0.01	0.03	0.25	0.82
75	18:45	0.3	0.03	0.07	0.00	0.02	0.19	0.82
76	19:00	0.2	0.02	0.07	0.00	0.01	0.12	0.83
77	19:15	0.3	0.03	0.07	0.00	0.02	0.19	0.83
78	19:30	0.4	0.04	0.07	0.01	0.03	0.25	0.83
79	19:45	0.3	0.03	0.07	0.00	0.02	0.19	0.84
80	20:00	0.2	0.02	0.07	0.00	0.01	0.12	0.84
81	20:15	0.3	0.03	0.07	0.00	0.02	0.19	0.85
82	20:30	0.3	0.03	0.06	0.00	0.02	0.19	0.85
83	20:45	0.3	0.03	0.06	0.00	0.02	0.19	0.85
84	21:00	0.2	0.02	0.06	0.00	0.01	0.12	0.86
85	21:15	0.3	0.03	0.06	0.00	0.02	0.19	0.86
86	21:30	0.2	0.02	0.06	0.00	0.01	0.12	0.86
87	21:45	0.3	0.03	0.06	0.00	0.02	0.19	0.87
88	22:00	0.2	0.02	0.06	0.00	0.01	0.12	0.87
89	22:15	0.3	0.03	0.06	0.00	0.02	0.19	0.87
90	22:30	0.2	0.02	0.06	0.00	0.01	0.12	0.88
91	22:45	0.2	0.02	0.06	0.00	0.01	0.12	0.88
92	23:00	0.2	0.02	0.06	0.00	0.01	0.12	0.88
93	23:15	0.2	0.02	0.06	0.00	0.01	0.12	0.88
94	23:30	0.2	0.02	0.06	0.00	0.01	0.12	0.89
95	23:45	0.2	0.02	0.06	0.00	0.01	0.12	0.89
96	0:00	0.2	0.02	0.06	0.00	0.01	0.12	0.89

Event	(year)	2
Duration	(hour)	24
Interval	(minute)	15
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	1.6
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11
Fm	(in/hr)	0.06
C		0.00

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	FT Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Total Runoff (ac-ft)
0	0:00	0.0	0.00	0.20	0.00	0.00	0.00	0.00
1	0:15	0.2	0.01	0.20	0.00	0.01	0.09	0.00
2	0:30	0.3	0.02	0.20	0.00	0.02	0.14	0.00
3	0:45	0.3	0.02	0.20	0.00	0.02	0.14	0.01
4	1:00	0.4	0.03	0.19	0.00	0.02	0.18	0.01
5	1:15	0.3	0.02	0.19	0.00	0.02	0.14	0.01
6	1:30	0.3	0.02	0.19	0.00	0.02	0.14	0.02
7	1:45	0.3	0.02	0.19	0.00	0.02	0.14	0.02
8	2:00	0.4	0.03	0.19	0.00	0.02	0.18	0.02
9	2:15	0.4	0.03	0.18	0.00	0.02	0.18	0.03
10	2:30	0.4	0.03	0.18	0.00	0.02	0.18	0.03
11	2:45	0.5	0.03	0.18	0.01	0.03	0.23	0.03
12	3:00	0.5	0.03	0.18	0.01	0.03	0.23	0.04
13	3:15	0.5	0.03	0.17	0.01	0.03	0.23	0.04
14	3:30	0.5	0.03	0.17	0.01	0.03	0.23	0.05
15	3:45	0.5	0.03	0.17	0.01	0.03	0.23	0.05
16	4:00	0.6	0.04	0.17	0.01	0.03	0.27	0.06
17	4:15	0.6	0.04	0.17	0.01	0.03	0.27	0.06
18	4:30	0.7	0.04	0.16	0.01	0.04	0.32	0.07
19	4:45	0.7	0.04	0.16	0.01	0.04	0.32	0.08
20	5:00	0.8	0.05	0.16	0.01	0.04	0.36	0.08
21	5:15	0.6	0.04	0.16	0.01	0.03	0.27	0.09
22	5:30	0.7	0.04	0.16	0.01	0.04	0.32	0.10
23	5:45	0.8	0.05	0.15	0.01	0.04	0.36	0.10
24	6:00	0.8	0.05	0.15	0.01	0.04	0.36	0.11
25	6:15	0.9	0.06	0.15	0.01	0.05	0.41	0.12
26	6:30	0.9	0.06	0.15	0.01	0.05	0.41	0.13
27	6:45	1.0	0.06	0.15	0.01	0.05	0.45	0.14
28	7:00	1.0	0.06	0.14	0.01	0.05	0.45	0.14
29	7:15	1.0	0.06	0.14	0.01	0.05	0.45	0.15
30	7:30	1.1	0.07	0.14	0.01	0.06	0.50	0.16
31	7:45	1.2	0.08	0.14	0.01	0.06	0.54	0.17
32	8:00	1.3	0.08	0.14	0.01	0.07	0.59	0.19
33	8:15	1.5	0.10	0.13	0.02	0.08	0.68	0.20
34	8:30	1.5	0.10	0.13	0.02	0.08	0.68	0.21
35	8:45	1.6	0.10	0.13	0.02	0.08	0.73	0.23
36	9:00	1.7	0.11	0.13	0.02	0.09	0.77	0.24
37	9:15	1.9	0.12	0.13	0.02	0.10	0.86	0.26
38	9:30	2.0	0.13	0.12	0.02	0.00	0.03	0.27
39	9:45	2.1	0.13	0.12	0.02	0.01	0.10	0.27
40	10:00	2.2	0.14	0.12	0.03	0.02	0.17	0.27
41	10:15	1.5	0.10	0.12	0.02	0.08	0.68	0.28
42	10:30	1.5	0.10	0.12	0.02	0.08	0.68	0.30
43	10:45	2.0	0.13	0.12	0.02	0.01	0.11	0.30
44	11:00	2.0	0.13	0.11	0.02	0.01	0.12	0.31
45	11:15	1.9	0.12	0.11	0.02	0.01	0.08	0.31
46	11:30	1.9	0.12	0.11	0.02	0.01	0.09	0.31
47	11:45	1.7	0.11	0.11	0.02	0.09	0.77	0.32
48	12:00	1.8	0.12	0.11	0.02	0.01	0.07	0.33
49	12:15	2.5	0.16	0.11	0.03	0.05	0.47	0.33
50	12:30	2.6	0.17	0.10	0.03	0.06	0.54	0.34
51	12:45	2.8	0.18	0.10	0.03	0.08	0.66	0.36
52	13:00	2.9	0.19	0.10	0.03	0.08	0.73	0.37
53	13:15	3.4	0.22	0.10	0.04	0.12	1.02	0.39
54	13:30	3.4	0.22	0.10	0.04	0.12	1.03	0.41
55	13:45	2.3	0.15	0.10	0.03	0.05	0.44	0.43
56	14:00	2.3	0.15	0.10	0.03	0.05	0.45	0.43
57	14:15	2.7	0.17	0.09	0.03	0.08	0.68	0.45
58	14:30	2.6	0.17	0.09	0.03	0.07	0.64	0.46
59	14:45	2.6	0.17	0.09	0.03	0.08	0.65	0.47
60	15:00	2.5	0.16	0.09	0.03	0.07	0.61	0.49
61	15:15	2.4	0.15	0.09	0.03	0.07	0.57	0.50
62	15:30	2.3	0.15	0.09	0.03	0.06	0.52	0.51
63	15:45	1.9	0.12	0.09	0.02	0.04	0.31	0.52
64	16:00	1.9	0.12	0.08	0.02	0.04	0.32	0.53
65	16:15	0.4	0.03	0.08	0.00	0.02	0.18	0.53
66	16:30	0.4	0.03	0.08	0.00	0.02	0.18	0.53
67	16:45	0.3	0.02	0.08	0.00	0.02	0.14	0.54
68	17:00	0.3	0.02	0.08	0.00	0.02	0.14	0.54
69	17:15	0.5	0.03	0.08	0.01	0.03	0.23	0.54
70	17:30	0.5	0.03	0.08	0.01	0.03	0.23	0.55
71	17:45	0.5	0.03	0.08	0.01	0.03	0.23	0.55
72	18:00	0.4	0.03	0.07	0.00	0.02	0.18	0.56
73	18:15	0.4	0.03	0.07	0.00	0.02	0.18	0.56
74	18:30	0.4	0.03	0.07	0.00	0.02	0.18	0.57
75	18:45	0.3	0.02	0.07	0.00	0.02	0.14	0.57
76	19:00	0.2	0.01	0.07	0.00	0.01	0.09	0.57
77	19:15	0.3	0.02	0.07	0.00	0.02	0.14	0.57
78	19:30	0.4	0.03	0.07	0.00	0.02	0.18	0.58
79	19:45	0.3	0.02	0.07	0.00	0.02	0.14	0.58
80	20:00	0.2	0.01	0.07	0.00	0.01	0.09	0.58
81	20:15	0.3	0.02	0.07	0.00	0.02	0.14	0.58
82	20:30	0.3	0.02	0.06	0.00	0.02	0.14	0.59
83	20:45	0.3	0.02	0.06	0.00	0.02	0.14	0.59
84	21:00	0.2	0.01	0.06	0.00	0.01	0.09	0.59
85	21:15	0.3	0.02	0.06	0.00	0.02	0.14	0.59
86	21:30	0.2	0.01	0.06	0.00	0.01	0.09	0.60
87	21:45	0.3	0.02	0.06	0.00	0.02	0.14	0.60
88	22:00	0.2	0.01	0.06	0.00	0.01	0.09	0.60
89	22:15	0.3	0.02	0.06	0.00	0.02	0.14	0.60
90	22:30	0.2	0.01	0.06	0.00	0.01	0.09	0.61
91	22:45	0.2	0.01	0.06	0.00	0.01	0.09	0.61
92	23:00	0.2	0.01	0.06	0.00	0.01	0.09	0.61
93	23:15	0.2	0.01	0.06	0.00	0.01	0.09	0.61
94	23:30	0.2	0.01	0.06	0.00	0.01	0.09	0.61
95	23:45	0.2	0.01	0.06	0.00	0.01	0.09	0.62
96	0:00	0.2	0.01	0.06	0.00	0.01	0.09	0.62

Event	(year)	100
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	2.5
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	0.5	0.15	0.04	0.03	0.11	0.95	0.00
2	0:10	0.6	0.18	0.04	0.03	0.14	1.21	0.01
3	0:15	0.6	0.18	0.04	0.03	0.14	1.21	0.02
4	0:20	0.6	0.18	0.04	0.03	0.14	1.21	0.03
5	0:25	0.6	0.18	0.04	0.03	0.14	1.21	0.04
6	0:30	0.7	0.21	0.04	0.04	0.17	1.47	0.05
7	0:35	0.7	0.21	0.04	0.04	0.17	1.47	0.06
8	0:40	0.7	0.21	0.04	0.04	0.17	1.47	0.07
9	0:45	0.7	0.21	0.04	0.04	0.17	1.47	0.08
10	0:50	0.7	0.21	0.04	0.04	0.17	1.47	0.09
11	0:55	0.7	0.21	0.04	0.04	0.17	1.47	0.10
12	1:00	0.8	0.24	0.04	0.04	0.20	1.73	0.11
13	1:05	0.8	0.24	0.04	0.04	0.20	1.73	0.12
14	1:10	0.8	0.24	0.04	0.04	0.20	1.73	0.13
15	1:15	0.8	0.24	0.04	0.04	0.20	1.73	0.14
16	1:20	0.8	0.24	0.04	0.04	0.20	1.73	0.15
17	1:25	0.8	0.24	0.04	0.04	0.20	1.73	0.17
18	1:30	0.8	0.24	0.04	0.04	0.20	1.73	0.18
19	1:35	0.8	0.24	0.04	0.04	0.20	1.73	0.19
20	1:40	0.8	0.24	0.04	0.04	0.20	1.73	0.20
21	1:45	0.8	0.24	0.04	0.04	0.20	1.73	0.21
22	1:50	0.8	0.24	0.04	0.04	0.20	1.73	0.23
23	1:55	0.8	0.24	0.04	0.04	0.20	1.73	0.24
24	2:00	0.9	0.27	0.04	0.05	0.23	1.99	0.25
25	2:05	0.8	0.24	0.04	0.04	0.20	1.73	0.26
26	2:10	0.9	0.27	0.04	0.05	0.23	1.99	0.28
27	2:15	0.9	0.27	0.04	0.05	0.23	1.99	0.29
28	2:20	0.9	0.27	0.04	0.05	0.23	1.99	0.30
29	2:25	0.9	0.27	0.04	0.05	0.23	1.99	0.32
30	2:30	0.9	0.27	0.04	0.05	0.23	1.99	0.33
31	2:35	0.9	0.27	0.04	0.05	0.23	1.99	0.34
32	2:40	0.9	0.27	0.04	0.05	0.23	1.99	0.36
33	2:45	1.0	0.30	0.04	0.05	0.26	2.25	0.37
34	2:50	1.0	0.30	0.04	0.05	0.26	2.25	0.39
35	2:55	1.0	0.30	0.04	0.05	0.26	2.25	0.40
36	3:00	1.0	0.30	0.04	0.05	0.26	2.25	0.42
37	3:05	1.0	0.30	0.04	0.05	0.26	2.25	0.44
38	3:10	1.1	0.33	0.04	0.06	0.29	2.51	0.45
39	3:15	1.1	0.33	0.04	0.06	0.29	2.51	0.47
40	3:20	1.1	0.33	0.04	0.06	0.29	2.51	0.49
41	3:25	1.2	0.36	0.04	0.06	0.32	2.77	0.50
42	3:30	1.3	0.39	0.04	0.07	0.35	3.03	0.52
43	3:35	1.4	0.42	0.04	0.08	0.38	3.29	0.55
44	3:40	1.4	0.42	0.04	0.08	0.38	3.29	0.57
45	3:45	1.5	0.45	0.04	0.08	0.41	3.55	0.59
46	3:50	1.5	0.45	0.04	0.08	0.41	3.55	0.62
47	3:55	1.6	0.48	0.04	0.09	0.44	3.81	0.64
48	4:00	1.6	0.48	0.04	0.09	0.44	3.81	0.67
49	4:05	1.7	0.51	0.04	0.09	0.47	4.07	0.70
50	4:10	1.8	0.54	0.04	0.10	0.50	4.33	0.72
51	4:15	1.9	0.57	0.04	0.10	0.53	4.59	0.75
52	4:20	2.0	0.60	0.04	0.11	0.56	4.84	0.79
53	4:25	2.1	0.63	0.04	0.11	0.59	5.10	0.82
54	4:30	2.1	0.63	0.04	0.11	0.59	5.10	0.86
55	4:35	2.2	0.66	0.04	0.12	0.62	5.36	0.89
56	4:40	2.3	0.69	0.04	0.12	0.65	5.62	0.93
57	4:45	2.4	0.72	0.04	0.13	0.68	5.88	0.97
58	4:50	2.4	0.72	0.04	0.13	0.68	5.88	1.01
59	4:55	2.5	0.75	0.04	0.14	0.71	6.14	1.05
60	5:00	2.6	0.78	0.04	0.14	0.74	6.40	1.10
61	5:05	3.1	0.93	0.04	0.17	0.89	7.70	1.14
62	5:10	3.6	1.08	0.04	0.19	1.04	9.00	1.20
63	5:15	3.9	1.17	0.04	0.21	1.13	9.78	1.27
64	5:20	4.2	1.26	0.04	0.23	1.22	10.55	1.34
65	5:25	4.7	1.41	0.04	0.25	1.37	11.85	1.41
66	5:30	5.6	1.68	0.04	0.30	1.64	14.19	1.50
67	5:35	1.9	0.57	0.04	0.10	0.53	4.59	1.57
68	5:40	0.9	0.27	0.04	0.05	0.23	1.99	1.59
69	5:45	0.6	0.18	0.04	0.03	0.14	1.21	1.60
70	5:50	0.5	0.15	0.04	0.03	0.11	0.95	1.61
71	5:55	0.3	0.09	0.04	0.02	0.05	0.43	1.61
72	6:00	0.2	0.06	0.04	0.01	0.02	0.17	1.62

Event	(year)	10
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	1.7
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	0.5	0.10	0.08	0.02	0.03	0.22	0.00
2	0:10	0.6	0.12	0.08	0.02	0.05	0.40	0.00
3	0:15	0.6	0.12	0.08	0.02	0.05	0.40	0.01
4	0:20	0.6	0.12	0.08	0.02	0.05	0.40	0.01
5	0:25	0.6	0.12	0.08	0.02	0.05	0.40	0.01
6	0:30	0.7	0.14	0.08	0.03	0.07	0.58	0.01
7	0:35	0.7	0.14	0.08	0.03	0.07	0.58	0.02
8	0:40	0.7	0.14	0.08	0.03	0.07	0.58	0.02
9	0:45	0.7	0.14	0.08	0.03	0.07	0.58	0.03
10	0:50	0.7	0.14	0.08	0.03	0.07	0.58	0.03
11	0:55	0.7	0.14	0.08	0.03	0.07	0.58	0.03
12	1:00	0.8	0.16	0.08	0.03	0.09	0.75	0.04
13	1:05	0.8	0.16	0.08	0.03	0.09	0.75	0.04
14	1:10	0.8	0.16	0.08	0.03	0.09	0.75	0.05
15	1:15	0.8	0.16	0.08	0.03	0.09	0.75	0.05
16	1:20	0.8	0.16	0.08	0.03	0.09	0.75	0.06
17	1:25	0.8	0.16	0.08	0.03	0.09	0.75	0.07
18	1:30	0.8	0.16	0.08	0.03	0.09	0.75	0.07
19	1:35	0.8	0.16	0.08	0.03	0.09	0.75	0.08
20	1:40	0.8	0.16	0.08	0.03	0.09	0.75	0.08
21	1:45	0.8	0.16	0.08	0.03	0.09	0.75	0.09
22	1:50	0.8	0.16	0.08	0.03	0.09	0.75	0.09
23	1:55	0.8	0.16	0.08	0.03	0.09	0.75	0.10
24	2:00	0.9	0.18	0.08	0.03	0.11	0.93	0.10
25	2:05	0.8	0.16	0.08	0.03	0.09	0.75	0.11
26	2:10	0.9	0.18	0.08	0.03	0.11	0.93	0.11
27	2:15	0.9	0.18	0.08	0.03	0.11	0.93	0.12
28	2:20	0.9	0.18	0.08	0.03	0.11	0.93	0.13
29	2:25	0.9	0.18	0.08	0.03	0.11	0.93	0.13
30	2:30	0.9	0.18	0.08	0.03	0.11	0.93	0.14
31	2:35	0.9	0.18	0.08	0.03	0.11	0.93	0.15
32	2:40	0.9	0.18	0.08	0.03	0.11	0.93	0.15
33	2:45	1.0	0.20	0.08	0.04	0.13	1.11	0.16
34	2:50	1.0	0.20	0.08	0.04	0.13	1.11	0.17
35	2:55	1.0	0.20	0.08	0.04	0.13	1.11	0.17
36	3:00	1.0	0.20	0.08	0.04	0.13	1.11	0.18
37	3:05	1.0	0.20	0.08	0.04	0.13	1.11	0.19
38	3:10	1.1	0.22	0.08	0.04	0.15	1.28	0.20
39	3:15	1.1	0.22	0.08	0.04	0.15	1.28	0.21
40	3:20	1.1	0.22	0.08	0.04	0.15	1.28	0.22
41	3:25	1.2	0.24	0.08	0.04	0.17	1.46	0.22
42	3:30	1.3	0.27	0.08	0.05	0.19	1.64	0.24
43	3:35	1.4	0.29	0.08	0.05	0.21	1.81	0.25
44	3:40	1.4	0.29	0.08	0.05	0.21	1.81	0.26
45	3:45	1.5	0.31	0.08	0.06	0.23	1.99	0.27
46	3:50	1.5	0.31	0.08	0.06	0.23	1.99	0.29
47	3:55	1.6	0.33	0.08	0.06	0.25	2.17	0.30
48	4:00	1.6	0.33	0.08	0.06	0.25	2.17	0.32
49	4:05	1.7	0.35	0.08	0.06	0.27	2.34	0.33
50	4:10	1.8	0.37	0.08	0.07	0.29	2.52	0.35
51	4:15	1.9	0.39	0.08	0.07	0.31	2.70	0.37
52	4:20	2.0	0.41	0.08	0.07	0.33	2.87	0.39
53	4:25	2.1	0.43	0.08	0.08	0.35	3.05	0.41
54	4:30	2.1	0.43	0.08	0.08	0.35	3.05	0.43
55	4:35	2.2	0.45	0.08	0.08	0.37	3.22	0.45
56	4:40	2.3	0.47	0.08	0.08	0.39	3.40	0.47
57	4:45	2.4	0.49	0.08	0.09	0.41	3.58	0.50
58	4:50	2.4	0.49	0.08	0.09	0.41	3.58	0.52
59	4:55	2.5	0.51	0.08	0.09	0.43	3.75	0.55
60	5:00	2.6	0.53	0.08	0.10	0.45	3.93	0.57
61	5:05	3.1	0.63	0.08	0.11	0.56	4.81	0.60
62	5:10	3.6	0.73	0.08	0.13	0.66	5.70	0.64
63	5:15	3.9	0.80	0.08	0.14	0.72	6.22	0.68
64	5:20	4.2	0.86	0.08	0.15	0.78	6.75	0.72
65	5:25	4.7	0.96	0.08	0.17	0.88	7.64	0.77
66	5:30	5.6	1.14	0.08	0.21	1.07	9.22	0.83
67	5:35	1.9	0.39	0.08	0.07	0.31	2.70	0.87
68	5:40	0.9	0.18	0.08	0.03	0.11	0.93	0.88
69	5:45	0.6	0.12	0.08	0.02	0.05	0.40	0.89
70	5:50	0.5	0.10	0.08	0.02	0.03	0.22	0.89
71	5:55	0.3	0.06	0.08	0.01	0.05	0.43	0.89
72	6:00	0.2	0.04	0.08	0.01	0.03	0.29	0.90

Event	(year)	5
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	1.4
AMC		I
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.08	0.11	0.02	0.07	0.60	0.00
2	0:10	0.6	0.10	0.11	0.02	0.08	0.71	0.01
3	0:15	0.6	0.10	0.11	0.02	0.08	0.71	0.01
4	0:20	0.6	0.10	0.11	0.02	0.08	0.71	0.02
5	0:25	0.6	0.10	0.11	0.02	0.08	0.71	0.02
6	0:30	0.7	0.12	0.11	0.02	0.00	0.03	0.02
7	0:35	0.7	0.12	0.11	0.02	0.00	0.03	0.02
8	0:40	0.7	0.12	0.11	0.02	0.00	0.03	0.02
9	0:45	0.7	0.12	0.11	0.02	0.00	0.03	0.02
10	0:50	0.7	0.12	0.11	0.02	0.00	0.03	0.02
11	0:55	0.7	0.12	0.11	0.02	0.00	0.03	0.02
12	1:00	0.8	0.13	0.11	0.02	0.02	0.18	0.03
13	1:05	0.8	0.13	0.11	0.02	0.02	0.18	0.03
14	1:10	0.8	0.13	0.11	0.02	0.02	0.18	0.03
15	1:15	0.8	0.13	0.11	0.02	0.02	0.18	0.03
16	1:20	0.8	0.13	0.11	0.02	0.02	0.18	0.03
17	1:25	0.8	0.13	0.11	0.02	0.02	0.18	0.03
18	1:30	0.8	0.13	0.11	0.02	0.02	0.18	0.03
19	1:35	0.8	0.13	0.11	0.02	0.02	0.18	0.03
20	1:40	0.8	0.13	0.11	0.02	0.02	0.18	0.04
21	1:45	0.8	0.13	0.11	0.02	0.02	0.18	0.04
22	1:50	0.8	0.13	0.11	0.02	0.02	0.18	0.04
23	1:55	0.8	0.13	0.11	0.02	0.02	0.18	0.04
24	2:00	0.9	0.15	0.11	0.03	0.04	0.32	0.04
25	2:05	0.8	0.13	0.11	0.02	0.02	0.18	0.04
26	2:10	0.9	0.15	0.11	0.03	0.04	0.32	0.04
27	2:15	0.9	0.15	0.11	0.03	0.04	0.32	0.05
28	2:20	0.9	0.15	0.11	0.03	0.04	0.32	0.05
29	2:25	0.9	0.15	0.11	0.03	0.04	0.32	0.05
30	2:30	0.9	0.15	0.11	0.03	0.04	0.32	0.05
31	2:35	0.9	0.15	0.11	0.03	0.04	0.32	0.06
32	2:40	0.9	0.15	0.11	0.03	0.04	0.32	0.06
33	2:45	1.0	0.17	0.11	0.03	0.05	0.47	0.06
34	2:50	1.0	0.17	0.11	0.03	0.05	0.47	0.06
35	2:55	1.0	0.17	0.11	0.03	0.05	0.47	0.07
36	3:00	1.0	0.17	0.11	0.03	0.05	0.47	0.07
37	3:05	1.0	0.17	0.11	0.03	0.05	0.47	0.07
38	3:10	1.1	0.18	0.11	0.03	0.07	0.61	0.08
39	3:15	1.1	0.18	0.11	0.03	0.07	0.61	0.08
40	3:20	1.1	0.18	0.11	0.03	0.07	0.61	0.09
41	3:25	1.2	0.20	0.11	0.04	0.09	0.76	0.09
42	3:30	1.3	0.22	0.11	0.04	0.10	0.90	0.10
43	3:35	1.4	0.24	0.11	0.04	0.12	1.05	0.10
44	3:40	1.4	0.24	0.11	0.04	0.12	1.05	0.11
45	3:45	1.5	0.25	0.11	0.05	0.14	1.19	0.12
46	3:50	1.5	0.25	0.11	0.05	0.14	1.19	0.13
47	3:55	1.6	0.27	0.11	0.05	0.15	1.34	0.13
48	4:00	1.6	0.27	0.11	0.05	0.15	1.34	0.14
49	4:05	1.7	0.29	0.11	0.05	0.17	1.48	0.15
50	4:10	1.8	0.30	0.11	0.05	0.19	1.63	0.16
51	4:15	1.9	0.32	0.11	0.06	0.21	1.77	0.18
52	4:20	2.0	0.34	0.11	0.06	0.22	1.92	0.19
53	4:25	2.1	0.35	0.11	0.06	0.24	2.07	0.20
54	4:30	2.1	0.35	0.11	0.06	0.24	2.07	0.22
55	4:35	2.2	0.37	0.11	0.07	0.26	2.21	0.23
56	4:40	2.3	0.39	0.11	0.07	0.27	2.36	0.25
57	4:45	2.4	0.40	0.11	0.07	0.29	2.50	0.26
58	4:50	2.4	0.40	0.11	0.07	0.29	2.50	0.28
59	4:55	2.5	0.42	0.11	0.08	0.31	2.65	0.30
60	5:00	2.6	0.44	0.11	0.08	0.32	2.79	0.32
61	5:05	3.1	0.52	0.11	0.09	0.41	3.52	0.34
62	5:10	3.6	0.60	0.11	0.11	0.49	4.25	0.37
63	5:15	3.9	0.66	0.11	0.12	0.54	4.68	0.40
64	5:20	4.2	0.71	0.11	0.13	0.59	5.12	0.43
65	5:25	4.7	0.79	0.11	0.14	0.68	5.84	0.47
66	5:30	5.6	0.94	0.11	0.17	0.83	7.15	0.51
67	5:35	1.9	0.32	0.11	0.06	0.21	1.77	0.54
68	5:40	0.9	0.15	0.11	0.03	0.04	0.32	0.55
69	5:45	0.6	0.10	0.11	0.02	0.08	0.71	0.55
70	5:50	0.5	0.08	0.11	0.02	0.07	0.60	0.56
71	5:55	0.3	0.05	0.11	0.01	0.04	0.36	0.56
72	6:00	0.2	0.03	0.11	0.01	0.03	0.24	0.56

Event	(year)	2
Duration	(hour)	6
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	1.0
AMC		I
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	0.5	0.06	0.11	0.01	0.05	0.43	0.00
2	0:10	0.6	0.07	0.11	0.01	0.06	0.51	0.00
3	0:15	0.6	0.07	0.11	0.01	0.06	0.51	0.01
4	0:20	0.6	0.07	0.11	0.01	0.06	0.51	0.01
5	0:25	0.6	0.07	0.11	0.01	0.06	0.51	0.02
6	0:30	0.7	0.08	0.11	0.02	0.07	0.60	0.02
7	0:35	0.7	0.08	0.11	0.02	0.07	0.60	0.02
8	0:40	0.7	0.08	0.11	0.02	0.07	0.60	0.03
9	0:45	0.7	0.08	0.11	0.02	0.07	0.60	0.03
10	0:50	0.7	0.08	0.11	0.02	0.07	0.60	0.04
11	0:55	0.7	0.08	0.11	0.02	0.07	0.60	0.04
12	1:00	0.8	0.10	0.11	0.02	0.08	0.68	0.04
13	1:05	0.8	0.10	0.11	0.02	0.08	0.68	0.05
14	1:10	0.8	0.10	0.11	0.02	0.08	0.68	0.05
15	1:15	0.8	0.10	0.11	0.02	0.08	0.68	0.06
16	1:20	0.8	0.10	0.11	0.02	0.08	0.68	0.06
17	1:25	0.8	0.10	0.11	0.02	0.08	0.68	0.07
18	1:30	0.8	0.10	0.11	0.02	0.08	0.68	0.07
19	1:35	0.8	0.10	0.11	0.02	0.08	0.68	0.08
20	1:40	0.8	0.10	0.11	0.02	0.08	0.68	0.08
21	1:45	0.8	0.10	0.11	0.02	0.08	0.68	0.09
22	1:50	0.8	0.10	0.11	0.02	0.08	0.68	0.09
23	1:55	0.8	0.10	0.11	0.02	0.08	0.68	0.10
24	2:00	0.9	0.11	0.11	0.02	0.09	0.77	0.10
25	2:05	0.8	0.10	0.11	0.02	0.08	0.68	0.11
26	2:10	0.9	0.11	0.11	0.02	0.09	0.77	0.11
27	2:15	0.9	0.11	0.11	0.02	0.09	0.77	0.12
28	2:20	0.9	0.11	0.11	0.02	0.09	0.77	0.12
29	2:25	0.9	0.11	0.11	0.02	0.09	0.77	0.13
30	2:30	0.9	0.11	0.11	0.02	0.09	0.77	0.13
31	2:35	0.9	0.11	0.11	0.02	0.09	0.77	0.14
32	2:40	0.9	0.11	0.11	0.02	0.09	0.77	0.14
33	2:45	1.0	0.12	0.11	0.02	0.01	0.05	0.14
34	2:50	1.0	0.12	0.11	0.02	0.01	0.05	0.15
35	2:55	1.0	0.12	0.11	0.02	0.01	0.05	0.15
36	3:00	1.0	0.12	0.11	0.02	0.01	0.05	0.15
37	3:05	1.0	0.12	0.11	0.02	0.01	0.05	0.15
38	3:10	1.1	0.13	0.11	0.02	0.02	0.16	0.15
39	3:15	1.1	0.13	0.11	0.02	0.02	0.16	0.15
40	3:20	1.1	0.13	0.11	0.02	0.02	0.16	0.15
41	3:25	1.2	0.14	0.11	0.03	0.03	0.26	0.15
42	3:30	1.3	0.16	0.11	0.03	0.04	0.36	0.15
43	3:35	1.4	0.17	0.11	0.03	0.05	0.47	0.16
44	3:40	1.4	0.17	0.11	0.03	0.05	0.47	0.16
45	3:45	1.5	0.18	0.11	0.03	0.07	0.57	0.16
46	3:50	1.5	0.18	0.11	0.03	0.07	0.57	0.17
47	3:55	1.6	0.19	0.11	0.03	0.08	0.67	0.17
48	4:00	1.6	0.19	0.11	0.03	0.08	0.67	0.18
49	4:05	1.7	0.20	0.11	0.04	0.09	0.78	0.18
50	4:10	1.8	0.22	0.11	0.04	0.10	0.88	0.19
51	4:15	1.9	0.23	0.11	0.04	0.11	0.99	0.19
52	4:20	2.0	0.24	0.11	0.04	0.13	1.09	0.20
53	4:25	2.1	0.25	0.11	0.05	0.14	1.19	0.21
54	4:30	2.1	0.25	0.11	0.05	0.14	1.19	0.22
55	4:35	2.2	0.26	0.11	0.05	0.15	1.30	0.22
56	4:40	2.3	0.28	0.11	0.05	0.16	1.40	0.23
57	4:45	2.4	0.29	0.11	0.05	0.17	1.51	0.24
58	4:50	2.4	0.29	0.11	0.05	0.17	1.51	0.25
59	4:55	2.5	0.30	0.11	0.05	0.19	1.61	0.26
60	5:00	2.6	0.31	0.11	0.06	0.20	1.71	0.28
61	5:05	3.1	0.37	0.11	0.07	0.26	2.23	0.29
62	5:10	3.6	0.43	0.11	0.08	0.32	2.75	0.31
63	5:15	3.9	0.47	0.11	0.08	0.35	3.06	0.33
64	5:20	4.2	0.50	0.11	0.09	0.39	3.37	0.35
65	5:25	4.7	0.56	0.11	0.10	0.45	3.89	0.37
66	5:30	5.6	0.67	0.11	0.12	0.56	4.83	0.40
67	5:35	1.9	0.23	0.11	0.04	0.11	0.99	0.42
68	5:40	0.9	0.11	0.11	0.02	0.09	0.77	0.43
69	5:45	0.6	0.07	0.11	0.01	0.06	0.51	0.43
70	5:50	0.5	0.06	0.11	0.01	0.05	0.43	0.44
71	5:55	0.3	0.04	0.11	0.01	0.03	0.26	0.44
72	6:00	0.2	0.02	0.11	0.00	0.02	0.17	0.44

Event	(year)	100
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	1.9
AMC		III
RI		69.0
Fp	(in/hr)	0.21
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.04

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.04	0.00	0.00	0.00	0.00
1	0:05	1.3	0.30	0.04	0.05	0.26	2.22	0.01
2	0:10	1.3	0.30	0.04	0.05	0.26	2.22	0.02
3	0:15	1.1	0.25	0.04	0.05	0.21	1.82	0.04
4	0:20	1.5	0.34	0.04	0.06	0.30	2.61	0.05
5	0:25	1.5	0.34	0.04	0.06	0.30	2.61	0.07
6	0:30	1.8	0.41	0.04	0.07	0.37	3.20	0.09
7	0:35	1.5	0.34	0.04	0.06	0.30	2.61	0.11
8	0:40	1.8	0.41	0.04	0.07	0.37	3.20	0.13
9	0:45	1.8	0.41	0.04	0.07	0.37	3.20	0.15
10	0:50	1.5	0.34	0.04	0.06	0.30	2.61	0.17
11	0:55	1.6	0.36	0.04	0.07	0.32	2.81	0.19
12	1:00	1.8	0.41	0.04	0.07	0.37	3.20	0.21
13	1:05	2.2	0.50	0.04	0.09	0.46	3.99	0.24
14	1:10	2.2	0.50	0.04	0.09	0.46	3.99	0.26
15	1:15	2.2	0.50	0.04	0.09	0.46	3.99	0.29
16	1:20	2.0	0.46	0.04	0.08	0.42	3.60	0.32
17	1:25	2.6	0.59	0.04	0.11	0.55	4.78	0.35
18	1:30	2.7	0.62	0.04	0.11	0.58	4.98	0.38
19	1:35	2.4	0.55	0.04	0.10	0.51	4.39	0.41
20	1:40	2.7	0.62	0.04	0.11	0.58	4.98	0.44
21	1:45	3.3	0.75	0.04	0.14	0.71	6.16	0.48
22	1:50	3.1	0.71	0.04	0.13	0.67	5.77	0.52
23	1:55	2.9	0.66	0.04	0.12	0.62	5.37	0.56
24	2:00	3.0	0.68	0.04	0.12	0.64	5.57	0.60
25	2:05	3.1	0.71	0.04	0.13	0.67	5.77	0.64
26	2:10	4.2	0.96	0.04	0.17	0.92	7.94	0.69
27	2:15	5.0	1.14	0.04	0.21	1.10	9.52	0.75
28	2:20	3.5	0.80	0.04	0.14	0.76	6.56	0.80
29	2:25	6.8	1.55	0.04	0.28	1.51	13.07	0.87
30	2:30	7.3	1.66	0.04	0.30	1.62	14.05	0.96
31	2:35	8.2	1.87	0.04	0.34	1.83	15.83	1.07
32	2:40	5.9	1.35	0.04	0.24	1.31	11.29	1.16
33	2:45	2.0	0.46	0.04	0.08	0.42	3.60	1.21
34	2:50	1.8	0.41	0.04	0.07	0.37	3.20	1.23
35	2:55	1.8	0.41	0.04	0.07	0.37	3.20	1.26
36	3:00	0.6	0.14	0.04	0.02	0.10	0.84	1.27

Event	(year)	10
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	1.3
AMC		II
RI		69.0
Fp	(in/hr)	0.40
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.08

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.08	0.00	0.00	0.00	0.00
1	0:05	1.3	0.20	0.08	0.04	0.13	1.10	0.00
2	0:10	1.3	0.20	0.08	0.04	0.13	1.10	0.01
3	0:15	1.1	0.17	0.08	0.03	0.10	0.83	0.02
4	0:20	1.5	0.23	0.08	0.04	0.16	1.37	0.03
5	0:25	1.5	0.23	0.08	0.04	0.16	1.37	0.03
6	0:30	1.8	0.28	0.08	0.05	0.20	1.77	0.05
7	0:35	1.5	0.23	0.08	0.04	0.16	1.37	0.06
8	0:40	1.8	0.28	0.08	0.05	0.20	1.77	0.07
9	0:45	1.8	0.28	0.08	0.05	0.20	1.77	0.08
10	0:50	1.5	0.23	0.08	0.04	0.16	1.37	0.09
11	0:55	1.6	0.25	0.08	0.04	0.17	1.50	0.10
12	1:00	1.8	0.28	0.08	0.05	0.20	1.77	0.11
13	1:05	2.2	0.34	0.08	0.06	0.27	2.31	0.13
14	1:10	2.2	0.34	0.08	0.06	0.27	2.31	0.14
15	1:15	2.2	0.34	0.08	0.06	0.27	2.31	0.16
16	1:20	2.0	0.31	0.08	0.06	0.24	2.04	0.17
17	1:25	2.6	0.41	0.08	0.07	0.33	2.85	0.19
18	1:30	2.7	0.42	0.08	0.08	0.35	2.99	0.21
19	1:35	2.4	0.37	0.08	0.07	0.30	2.58	0.23
20	1:40	2.7	0.42	0.08	0.08	0.35	2.99	0.25
21	1:45	3.3	0.51	0.08	0.09	0.44	3.80	0.27
22	1:50	3.1	0.48	0.08	0.09	0.41	3.53	0.30
23	1:55	2.9	0.45	0.08	0.08	0.38	3.26	0.32
24	2:00	3.0	0.47	0.08	0.08	0.39	3.39	0.34
25	2:05	3.1	0.48	0.08	0.09	0.41	3.53	0.37
26	2:10	4.2	0.66	0.08	0.12	0.58	5.01	0.40
27	2:15	5.0	0.78	0.08	0.14	0.70	6.09	0.43
28	2:20	3.5	0.55	0.08	0.10	0.47	4.07	0.47
29	2:25	6.8	1.06	0.08	0.19	0.98	8.52	0.51
30	2:30	7.3	1.14	0.08	0.20	1.06	9.19	0.57
31	2:35	8.2	1.28	0.08	0.23	1.20	10.41	0.64
32	2:40	5.9	0.92	0.08	0.17	0.84	7.30	0.70
33	2:45	2.0	0.31	0.08	0.06	0.24	2.04	0.73
34	2:50	1.8	0.28	0.08	0.05	0.20	1.77	0.75
35	2:55	1.8	0.28	0.08	0.05	0.20	1.77	0.76
36	3:00	0.6	0.09	0.08	0.02	0.02	0.15	0.77

Event	(year)	5
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	1.1
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.17	0.11	0.03	0.06	0.50	0.00
2	0:10	1.3	0.17	0.11	0.03	0.06	0.50	0.01
3	0:15	1.1	0.15	0.11	0.03	0.03	0.27	0.01
4	0:20	1.5	0.20	0.11	0.04	0.08	0.73	0.01
5	0:25	1.5	0.20	0.11	0.04	0.08	0.73	0.02
6	0:30	1.8	0.24	0.11	0.04	0.12	1.07	0.02
7	0:35	1.5	0.20	0.11	0.04	0.08	0.73	0.03
8	0:40	1.8	0.24	0.11	0.04	0.12	1.07	0.03
9	0:45	1.8	0.24	0.11	0.04	0.12	1.07	0.04
10	0:50	1.5	0.20	0.11	0.04	0.08	0.73	0.05
11	0:55	1.6	0.21	0.11	0.04	0.10	0.84	0.05
12	1:00	1.8	0.24	0.11	0.04	0.12	1.07	0.06
13	1:05	2.2	0.29	0.11	0.05	0.18	1.53	0.07
14	1:10	2.2	0.29	0.11	0.05	0.18	1.53	0.08
15	1:15	2.2	0.29	0.11	0.05	0.18	1.53	0.09
16	1:20	2.0	0.26	0.11	0.05	0.15	1.30	0.10
17	1:25	2.6	0.34	0.11	0.06	0.23	1.98	0.11
18	1:30	2.7	0.36	0.11	0.06	0.24	2.10	0.13
19	1:35	2.4	0.32	0.11	0.06	0.20	1.75	0.14
20	1:40	2.7	0.36	0.11	0.06	0.24	2.10	0.15
21	1:45	3.3	0.44	0.11	0.08	0.32	2.78	0.17
22	1:50	3.1	0.41	0.11	0.07	0.30	2.55	0.19
23	1:55	2.9	0.38	0.11	0.07	0.27	2.33	0.20
24	2:00	3.0	0.40	0.11	0.07	0.28	2.44	0.22
25	2:05	3.1	0.41	0.11	0.07	0.30	2.55	0.24
26	2:10	4.2	0.55	0.11	0.10	0.44	3.81	0.26
27	2:15	5.0	0.66	0.11	0.12	0.55	4.72	0.29
28	2:20	3.5	0.46	0.11	0.08	0.35	3.01	0.32
29	2:25	6.8	0.90	0.11	0.16	0.78	6.78	0.35
30	2:30	7.3	0.96	0.11	0.17	0.85	7.35	0.40
31	2:35	8.2	1.08	0.11	0.19	0.97	8.38	0.45
32	2:40	5.9	0.78	0.11	0.14	0.66	5.75	0.50
33	2:45	2.0	0.26	0.11	0.05	0.15	1.30	0.52
34	2:50	1.8	0.24	0.11	0.04	0.12	1.07	0.53
35	2:55	1.8	0.24	0.11	0.04	0.12	1.07	0.54
36	3:00	0.6	0.08	0.11	0.01	0.06	0.56	0.55

Event	(year)	2
Duration	(hour)	3
Interval	(minute)	5
Area	(acres)	8.7
Soil		C
Cover		Commercial
Rainfall	(inches)	0.8
AMC		1
RI		69.0
Fp	(in/hr)	0.60
Ai	(decimal)	0.90
Low Loss	(decimal)	0.18
F	(in/hr)	0.11

Period	Time (hh:mm)	Rainfall Pattern (percent)	Rainfall Intensity (in/hr)	F Loss (in/hr)	Low Loss (in/hr)	Effective Rainfall (in/hr)	Peak Flow (cfs)	Cumulative Volume (ac-ft)
0	0:00	0.0	0.00	0.11	0.00	0.00	0.00	0.00
1	0:05	1.3	0.12	0.11	0.02	0.01	0.09	0.00
2	0:10	1.3	0.12	0.11	0.02	0.01	0.09	0.00
3	0:15	1.1	0.11	0.11	0.02	0.09	0.75	0.00
4	0:20	1.5	0.14	0.11	0.03	0.03	0.26	0.01
5	0:25	1.5	0.14	0.11	0.03	0.03	0.26	0.01
6	0:30	1.8	0.17	0.11	0.03	0.06	0.51	0.01
7	0:35	1.5	0.14	0.11	0.03	0.03	0.26	0.01
8	0:40	1.8	0.17	0.11	0.03	0.06	0.51	0.02
9	0:45	1.8	0.17	0.11	0.03	0.06	0.51	0.02
10	0:50	1.5	0.14	0.11	0.03	0.03	0.26	0.02
11	0:55	1.6	0.15	0.11	0.03	0.04	0.34	0.03
12	1:00	1.8	0.17	0.11	0.03	0.06	0.51	0.03
13	1:05	2.2	0.21	0.11	0.04	0.10	0.84	0.03
14	1:10	2.2	0.21	0.11	0.04	0.10	0.84	0.04
15	1:15	2.2	0.21	0.11	0.04	0.10	0.84	0.04
16	1:20	2.0	0.19	0.11	0.03	0.08	0.67	0.05
17	1:25	2.6	0.25	0.11	0.04	0.14	1.17	0.06
18	1:30	2.7	0.26	0.11	0.05	0.15	1.26	0.06
19	1:35	2.4	0.23	0.11	0.04	0.12	1.01	0.07
20	1:40	2.7	0.26	0.11	0.05	0.15	1.26	0.08
21	1:45	3.3	0.32	0.11	0.06	0.20	1.75	0.09
22	1:50	3.1	0.30	0.11	0.05	0.18	1.59	0.10
23	1:55	2.9	0.28	0.11	0.05	0.16	1.42	0.11
24	2:00	3.0	0.29	0.11	0.05	0.17	1.51	0.12
25	2:05	3.1	0.30	0.11	0.05	0.18	1.59	0.13
26	2:10	4.2	0.40	0.11	0.07	0.29	2.50	0.15
27	2:15	5.0	0.48	0.11	0.09	0.37	3.17	0.17
28	2:20	3.5	0.34	0.11	0.06	0.22	1.92	0.18
29	2:25	6.8	0.65	0.11	0.12	0.54	4.66	0.21
30	2:30	7.3	0.70	0.11	0.13	0.59	5.08	0.24
31	2:35	8.2	0.79	0.11	0.14	0.67	5.82	0.28
32	2:40	5.9	0.57	0.11	0.10	0.45	3.91	0.31
33	2:45	2.0	0.19	0.11	0.03	0.08	0.67	0.33
34	2:50	1.8	0.17	0.11	0.03	0.06	0.51	0.33
35	2:55	1.8	0.17	0.11	0.03	0.06	0.51	0.33
36	3:00	0.6	0.06	0.11	0.01	0.05	0.41	0.34

APPENDIX E

HYDROLOGY MAPS

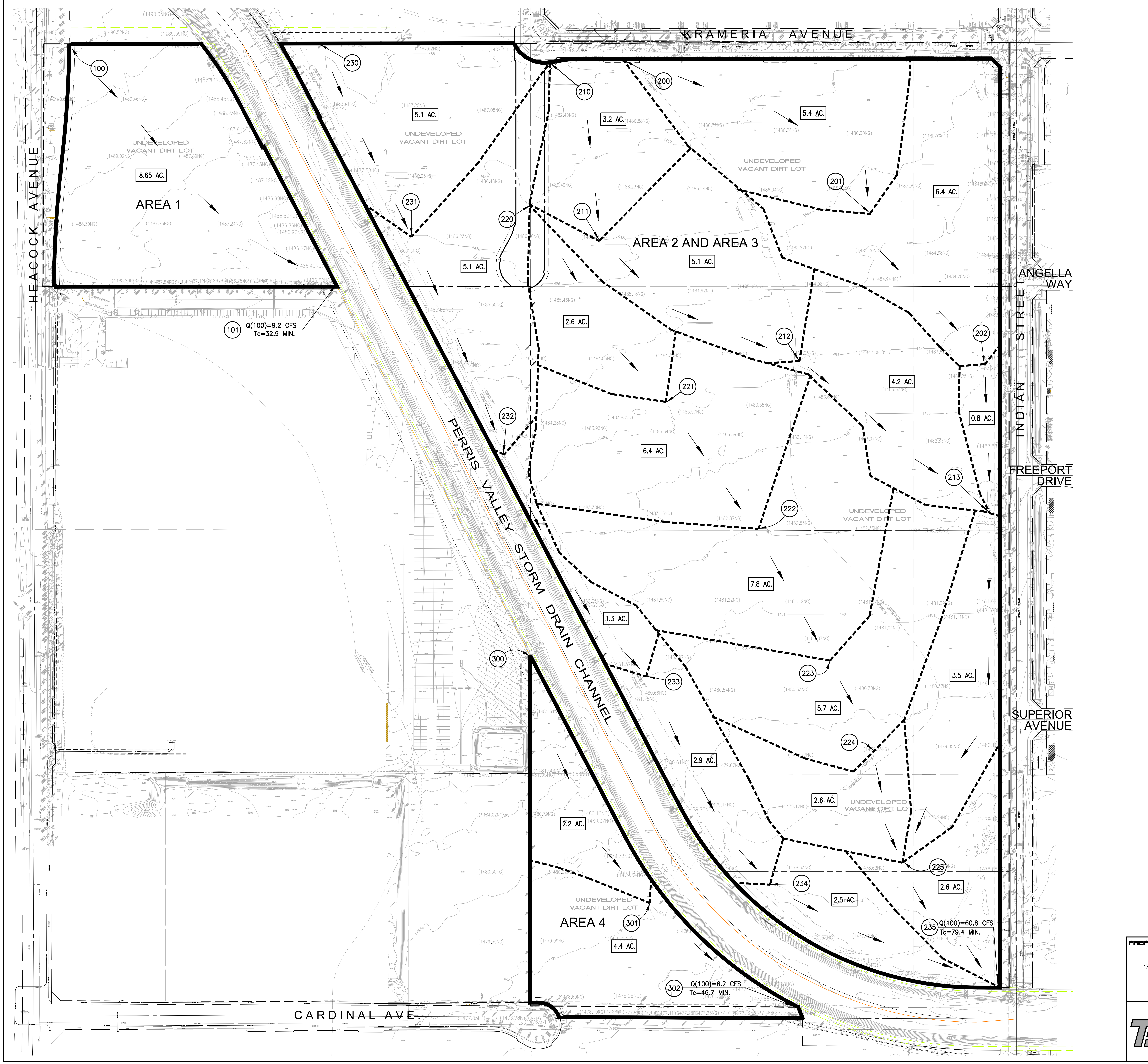

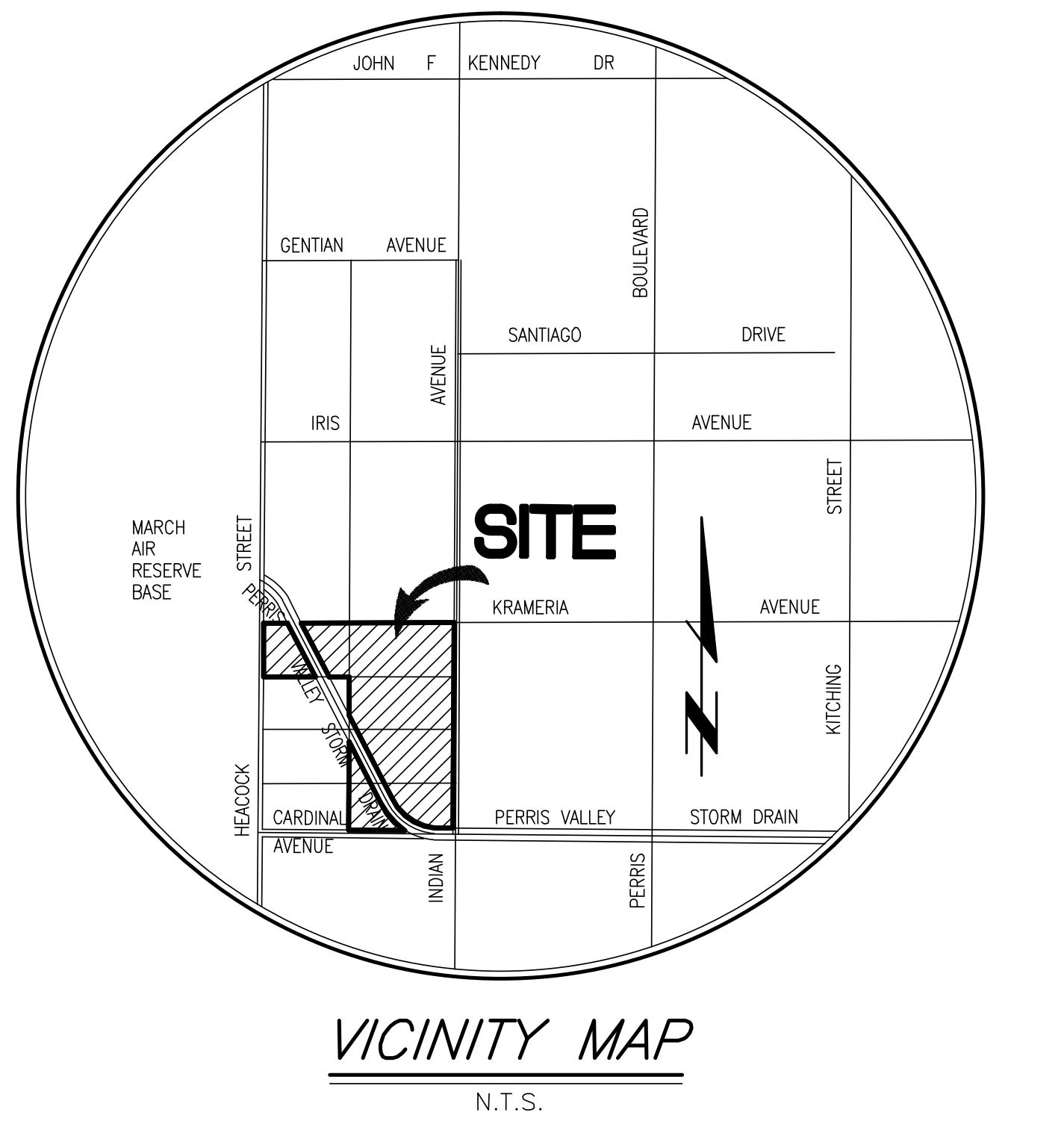

VICINITY MAP
N.T.S.

LEGEND

▬	PROJECT BOUNDARY
▬ ▬	SUBAREA BOUNDARY
1.00 AC.	SUBAREA AREA
(100)	NODE NUMBER
→	FLOW ARROW

0 50 100 200 300
SCALE:1"=100'

Last Update: 3/10/16
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

PREPARED FOR:

PROLOGIS, INC.
17777 CENTER COURT DRIVE NORTH, SUITE 100
CERRITOS, CA 90703
PHONE: (562) 345-9200
FAX: (562) 345-9201

EXISTING CONDITION HYDROLOGY MAP

MORENO VALLEY LOGISTICS CENTER
INDIAN STREET AND KRAMERIA AVENUE

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

Designed by ______
Date ______
Checked by ______
Date ______
Designed by ______
Date ______
Checked by ______
Date ______

Approved by Date ______

Public Works Director R.C.E. XXXXX

Sheet 1 of 1 Sheets

2890D/1 OF 1 SHEET

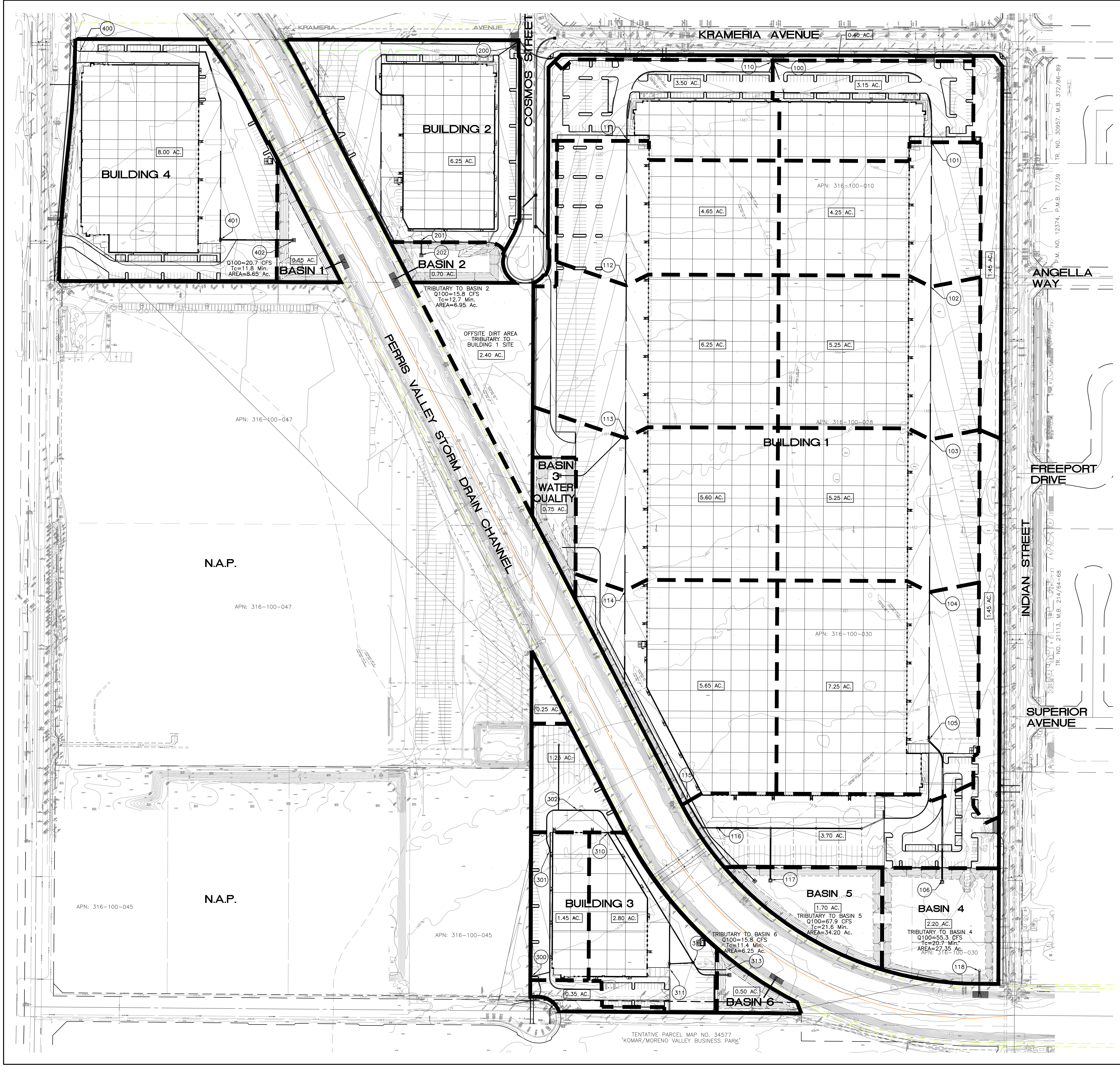

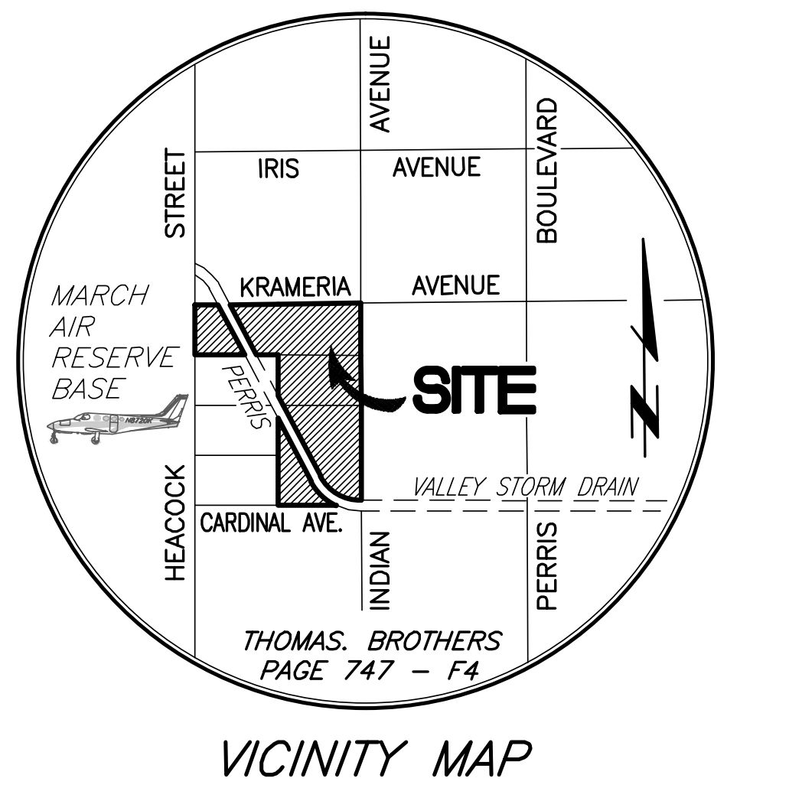

VICINITY MAP

NOT TO SCALE

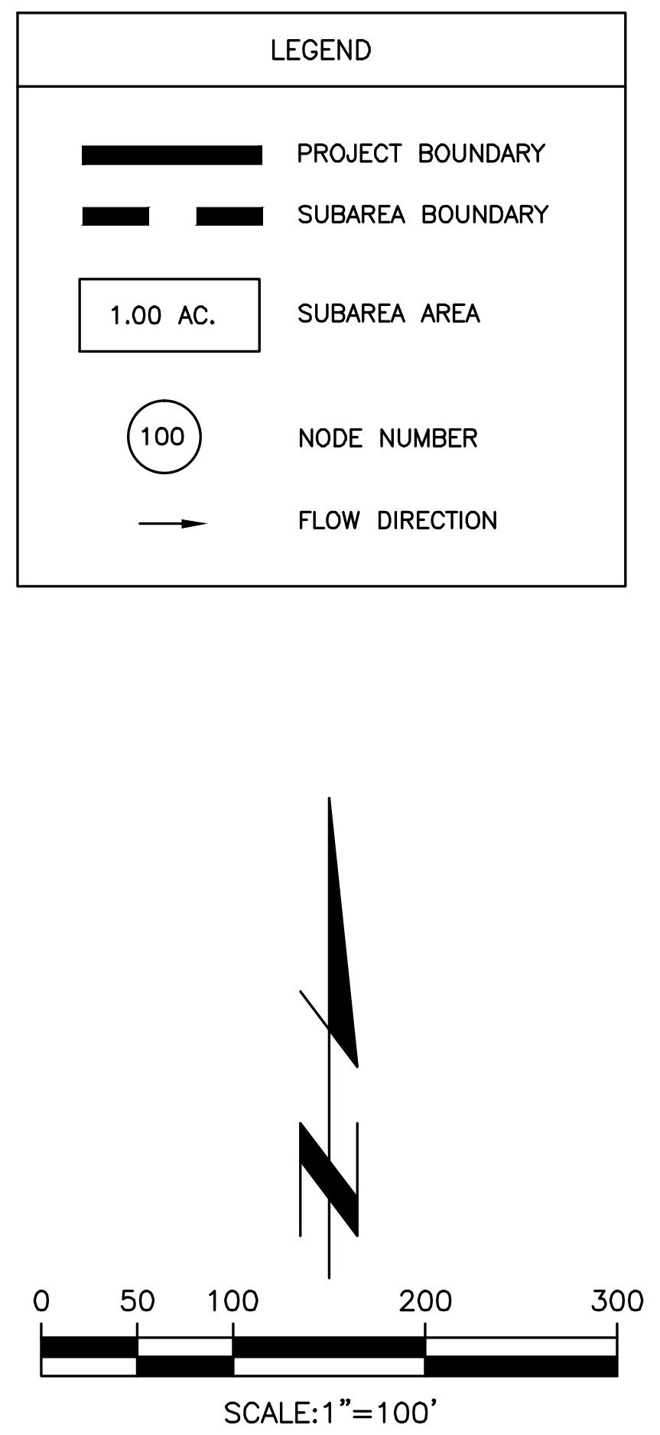

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CITY OF MORENO VALLEY

PUBLIC WORKS DEPARTMENT

PREPARED FOR:

PROLOGIS, INC.
17777 CENTER COURT DRIVE NORTH, SUITE 100
CERRITOS, CA 90703
PHONE: (562) 345-9200
FAX: (562) 345-9201

PROPOSED CONDITION HYDROLOGY MAP

MORENO VALLEY LOGISTICS CENTER
INDIAN STREET AND KRAMERIA AVENUE

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

Designed by ______
Date ______
Checked by ______
Date ______
Designed by ______
Date ______
Checked by ______
Date ______

Approved by Date ______

Public Works Director R.C.E. XXXXX

Sheet 1 of 1 Sheets

2890D/1 OF 1 SHEET

PROJECT SPECIFIC PRELIMINARY WATER QUALITY MANAGEMENT PLAN (WQMP)

FOR:
MORENO VALLEY LOGISTICS CENTER
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CA
APNs: 316-100-028, -030, -048, -051 and -052

PREPARED FOR:
PROLOGIS, INC.
2817 E. CEDAR STREET, SUITE #200
ONTARIO, CA 91761
PHONE: (909) 673-8700
CONTACT: SCOTT MULKAY

MOORPARK COUNTRY PROPERTIES & C-R COUSINS, INC.
18912 BLACKHAWK STREET
NORTHRIDGE, CA 91326
PHONE: (818) 491-0638
CONTACT: HARRY AND ROY MURANAKA

NOVEMBER 3, 2014 r1
OCTOBER 15, 2015 r2
NOVEMBER 9, 2015 r3
MARCH 10, 2016 r4

JOB NO. 2890D

PREPARED BY:
THIENES ENGINEERING
14349 FIRESTONE BLVD.
LA MIRADA, CALIFORNIA 90638
PHONE: (714) 521-4811
FAX: (714) 521-4173
CONTACT: LUIS PRADO (luisp@thieneseng.com)

PROJECT SPECIFIC PRELIMANARY WATER QUALITY MANAGEMENT PLAN (WQMP)

FOR

"MORENO VALLEY LOGISTICS CENTER"

PREPARED BY LUIS PRADO
UNDER THE SUPERVISION OF:

REINHARD STENZEL DATE
R.C.E. 56155
EXP. 12/31/16

Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: Moreno Valley Logistics Center

Development No: 316-100-028, -030, -048, -051 and -052

Design Review/Case No: PA15-0014, PA15-0015, PA15-0016, and PA15-0017

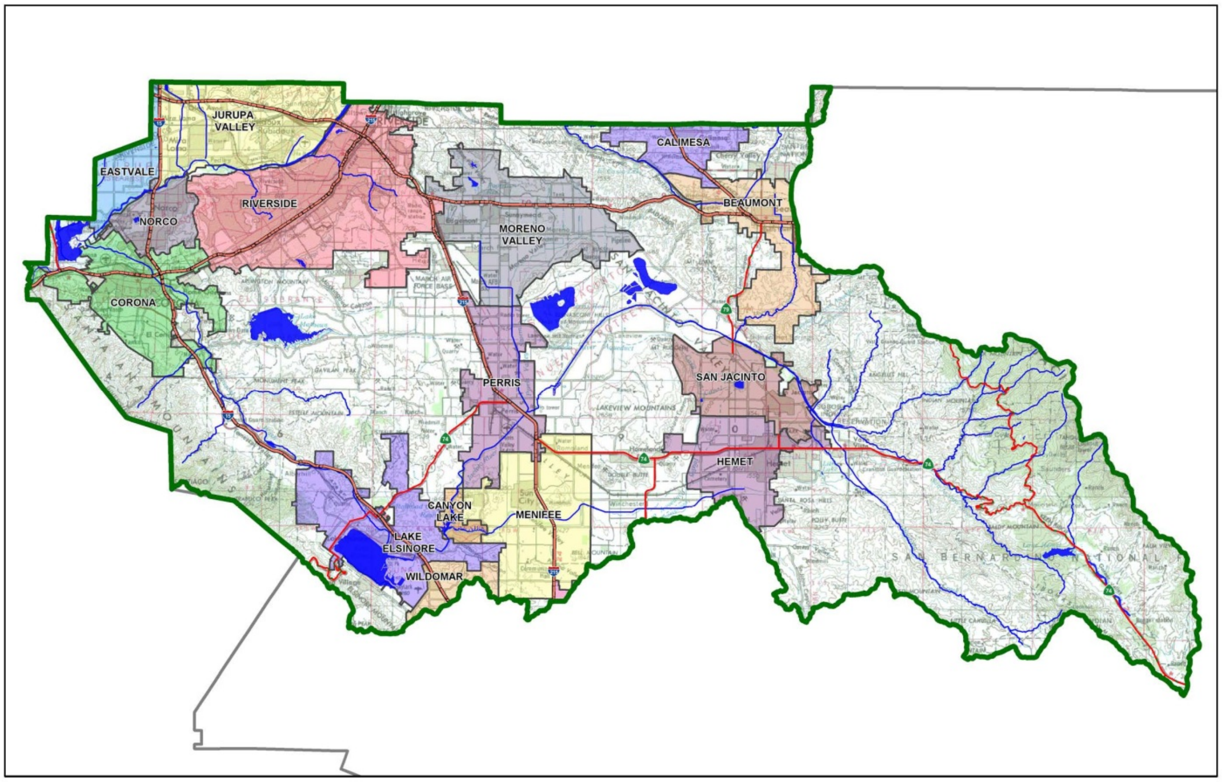

Contact Information:

☒ **Preliminary**
☐ **Final**

Original Date Prepared: November 3, 2014

Revision Date(s): October 15, 2015
November 9, 2015
March 10, 2016

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**

Prepared for:
Prologis, Inc.
2817 E. Cedar Street, Suite #200
Ontario, CA 91761
(909) 673-8700
Contact: Scott Mulkay

Prepared by:
Thienes Engineering, Inc.
14349 Firestone Boulevard
La Mirada, CA 90638
(714) 521-4811
Contact: Luis Prado (luisp@thieneseng.com)
Job No. 2890d

A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.

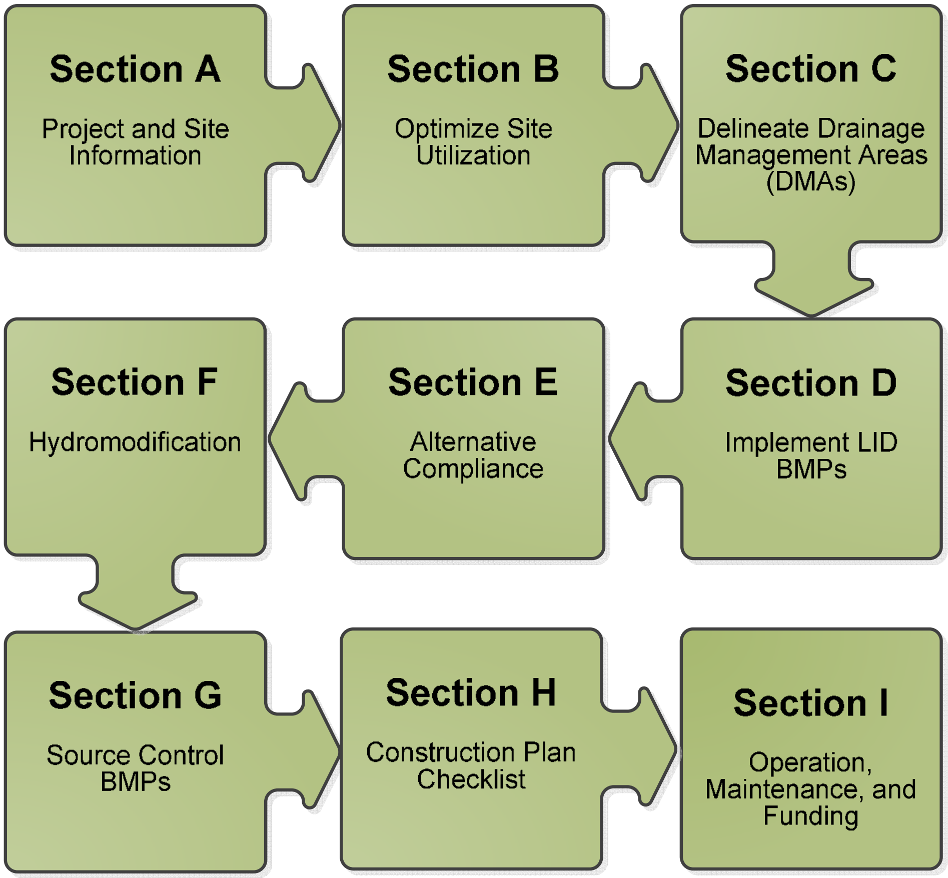

OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for **the Owner** by Thienes Engineering, Inc. for the **Moreno Valley Logistics Center** project.

This WQMP is intended to comply with the requirements of **Moreno Valley** for **PA15-0014 (BLDG 1), PA15-0015 (BLDG 2), PA15-0016 (BLDG 3), and PA15-0017 (BLDG 4)** which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under **Moreno Valley** Water Quality Ordinance (Municipal Code Section 8.10).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

OWNERS:
MOORPARK COUNTRY PROPERTIES, INC., A CALIFORNIA CORPORATION, AS TO AN UNDIVIDED 90% INTEREST; AND C-R COUSINS, INC., MONEY PURCHASE PENSION PLAN AS TO AN UNDIVIDED 10% INTEREST

Owner's Signature Moorpark Country Properties, Inc., a California Corporation	12-24-15 Date
Harry Muranaka Owner's Printed Name Moorpark Country Properties, Inc., a California Corporation	President Owner's Title/Position
Owner's Signature C-R Cousins, Inc. Money Purchase Pension Plan	12-24-15 Date
Harry Muranaka Owner's Printed Name C-R Cousins, Inc. Money Purchase Pension Plan	Trustee Owner's Title/Position

ACKNOWLEDGMENT

- Owners certification

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Los Angeles

On 12-24-15 before me, M. Kendrick,

A Notary Public personally appeared Harry Muranaka

who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature ______________________

M. KENDRICK
Commission # 2060948
Notary Public - California
Los Angeles County
My Comm. Expires Apr 9, 2018

(Seal)

12/23/15

Owner's Signature
C-R Cousins, Inc. Money Purchase Pension Plan

Date

Roy Muranaka
Owner's Printed Name
C-R Cousins, Inc. Money Purchase Pension Plan

Trustee
Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

12/28/15

Preparer's Printed Name

Date

Reinhard Stenzel
Preparer's Printed Name

Director of Engineering
Preparer's Title/Position

Preparer's Licensure:

ACKNOWLEDGMENT - owners certification

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Los Angeles

On 12-23-15 before me, M. Kendrick,

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I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature ______________________

M. KENDRICK
Commission # 2060948
Notary Public - California
Los Angeles County
My Comm. Expires Apr 9, 2018

(Seal)

Table of Contents

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

List of Tables

List of Appendices

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Section A: Project and Site Information

Project Information

Type of Project:	Light Industrial
Planning Area:	Industrial/Business Park
Community Name:	N/A
Development Name:	Moreno Valley Logistics Center

Project Location

Latitude & Longitude (DMS): 33.877577, - 117.238998
Project Watershed and Sub-Watershed: Santa Ana River & San Jacinto

APN(s): 316-100-028, -030, -048, -051 and -052

Map Book and Page No.: Assessor's Map BK.316 PG.10

Project Characteristics

Proposed or Potential Land Use(s)	Light Industrial
Proposed or Potential SIC Code(s)	1541
Area of Impervious Project Footprint (SF)	0
Total Area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement	3,698,244 (84.90 acres)
Does the project consist of offsite road improvements?	☒ Y ☐ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N

Existing Site Characteristics

Total area of existing Impervious Surfaces within the project limits (SF)	0
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	Geotech Report Available
What is the Water Quality Design Storm Depth for the project?	0.64

Project Description:
The overall project property encompasses approximately 84.9 acres (an additional 1.28 acres for Cosmo Street). Currently, the site consists of several undeveloped dirt lots. Runoff generally surface drains south-easterly and into the Perris Valley Storm Drain Channel. Proposed improvements to the site consist of the construction of four commercial type buildings ranging from 92,222 to 1,331,770 square feet. There will be truck yards and vehicle parking lots adjacent to each building. There will be several sand filter basins: Basins "4" and "5" south of Building 1, Basin "3" west of Building 1, Basin "2" south of Building 2, Basin "6" east of Building 3 and Basin "1" east of Building 4. The existing Cosmos Street will be extended southerly between Buildings 1 and 2. The remainder of the project site will be reserved for landscaping. Treatment for Cosmo Street will be taken to Sand Filter Basin "2."

BMP Hierarchy:

Infiltration - the project is bypassing all infiltration BMPs because the entire site sits over a groundwater plume as shown in Appendix 5.

Biofiltration - the project is bypassing biofiltration facilities, in the form of planters, because the project is required to detain stormwater for 100-year purposes. Planters are not practical for 100-year detention since the ponding depth and tributary area are maxed out at 6-inches and 10 acres, respectfully. Furthermore, the County of Riverside Airport Land Use Commission (ALUC) had a hearing on October 8, 2015 for jurisdiction case no. PA15-0014, PA15-0015, PA15-0016, and PA15-0017 (Moreno Valley Logistics Center) to provide their concerns and requirements. Condition #4 requires all basins to drawdown within 48 hours and to remain totally dry between rainfalls. In order to design an Extended

Detention Basin (EDB) to drawdown 100% of the volume within 48 hours, we are unable to hold 50% of the volume for 24+ hours. EDBs rely on holding stormwater for longer periods of time as their primary treatment mechanism. Not being able to do so would reduce treatment efficiency.

Treatment Control - the project proposes to use sand filter basins to avoid infiltration over a groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of ALUC.

See Appendix 5 for more detail.

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Perris Valley Storm Drain	None	None	Not classified as a RARE waterbody.
San Jacinto River, Reach 3	None	AGR, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Canyon Lake (aka San Jacinto River, Reach 2)	Nutrients, Pathogens	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
San Jacinto River, Reach 1	None	MUN, AGR, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Lake Elsinore	Nutrients, Organic Enrichment/Low Dissolved Oxygen, PCBs (polychlorinated biphenyls), Sediment Toxicity, Unknown Toxicity	REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Temescal Creek, Reach 6	Indicator Bacteria	GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Temescal Creek, Reach 5	None	AGR, GWR, REC1, REC2, WARM, WILD, RARE	23 miles
Temescal Creek, Reach 4	None	AGR, GWR, REC1, REC2, WARM, WILD, RARE	29 miles
Temescal Creek, Reach 3 (aka Lee Lake)	None	AGR, IND, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Temescal Creek, Reach 2	None	AGR, IND, GWR, REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Temescal Creek, Reach 1	pH	REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Santa Ana River, Reach 3	Pathogens, Copper, and Lead	AGR, GWR, REC1, REC2, WARM, WILD, RARE	46 miles
The Prado Basin Management Zone	Pathogens and Nitrate	REC1, REC2, WARM, WILD, RARE	46 miles
Santa Ana River, Reach 2	Indicator Bacteria	AGR, GWR, REC1, REC2, WARM, WILD, RARE	51 miles
Santa Ana River, Reach 1	None	REC1, REC2, WARM, WILD	Not classified as a RARE waterbody.
Tidal Prism of Santa Ana River and Newport Slough	Enterococcus, Fecal Coliform, Total Coliform	REC1, REC2, COMM, WILD, RARE, MAR	77 miles
Pacific Ocean Near shore Zone	None	IND, NAV, REC1, REC2, COMM, WILD, RARE, SPWN, MAR, SHEL	77 miles
Pacific Ocean Offshore Zone	None	IND, NAV, REC1, REC2, COMM, WILD, RARE, SPWN, MAR	78 miles

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☒ Y	☐ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☒ Y	☐ N
US Army Corps of Engineers, CWA Section 404 Permit	☒ Y	☐ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☒ Y	☐ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☒ Y	☐ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)* City of Moreno Valley Grading Permit	☒ Y	☐ N
Other *(please list in the space below as required)* City of Moreno Valley Building Permit	☒ Y	☐ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

- *There are no creeks, wetlands, or riparian habitats nearby.*
- *Existing drainage patterns flows southeasterly and into the Perris Valley Storm Drain Channel. Proposed condition drainage patterns mimic pre-development conditions.*

Did you identify and protect existing vegetation? If so, how? If not, why?

- *Not applicable, there are no sensitive areas.*
- *Not applicable, there are no existing trees or vegetation to preserve.*

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

- *Infiltration is not recommended because the project site is situated over a known groundwater plume.*

Did you identify and minimize impervious area? If so, how? If not, why?

- *Impervious area on the site has been minimized to County/City standards.*
- *Due to the nature of the project site (large trucks), substitution of pavement for landscaping is not feasible. The project does not propose overflow parking where substitution of pavement for landscaping would be optimal. Landscaping has been provided wherever applicable and to the maximum extent practicable.*
- *The entire Design Capture Volume (DCV) is handled by the proposed BMPs. Permeable pavement is not needed to meet the DCV.*

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

- *Roof runoff is directed to the proposed BMPs for treatment.*
- *The site is not on a hillside.*
- *All stormwater runoff will be piped or sheet flow towards their respective BMPs.*

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	Area (Acres)	DMA Type
1A	Roofs/Conc/Asphalt	307,098	7.05	Type D
1B	Ornamental Landscaping	69,696	1.60	Type D
2A	Roofs/Conc/Asphalt	297,515	6.83	Type D
2B	Ornamental Landscaping	50,094	1.15	Type D
3A	Roofs/Conc/Asphalt	609,840	14.00	Type D
3B	Ornamental Landscaping	50,094	1.15	Type D
4A	Roofs/Conc/Asphalt	1,078,110	24.75	Type D
4B	Ornamental Landscaping	113,256	2.60	Type D
5A	Roofs/Conc/Asphalt	609,840	14.00	Type D
5B	Ornamental Landscaping	115,434	2.65	Type D
6A	Roofs/Conc/Asphalt	226,512	5.20	Type D
6B	Ornamental Landscaping	45,738	1.05	Type D
7	Ornamental Landscaping	180,774	4.15	Type A

[1] *Reference Table 2-1 in the WQMP Guidance Document to populate this column*

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
7	180,774	California Native Vegetation	Timed Sprinklers

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				Type 'C' DMAs that are draining to the Self-Retaining Area		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]

$$[D] = [B] + \frac{[B]\cdot[C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					**Receiving Self-Retaining DMA**		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product	DMA name /ID	Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]		[D]	[C]/[D]

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
1A	Sand Filter Basin #1
1B	Sand Filter Basin #1
2A	Sand Filter Basin #2
2B	Sand Filter Basin #2
3A	Sand Filter Basin #3
3B	Sand Filter Basin #3
4A	Sand Filter Basin #4
4B	Sand Filter Basin #4
5A	Sand Filter Basin #5
5B	Sand Filter Basin #5
6A	Sand Filter Basin #6
6B	Sand Filter Basin #6

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream ‘Highest and Best Use’ for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site. If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream ‘Highest and Best Use’ feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs: DMAs 4 and 5 have a rate of 0.3 in/hr and DMA 2 has a rate of 2.5 in/hr. However, infiltration is infeasible due to the fact that the project site is located over a known groundwater plume.		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identifies other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		
…have areas of known soil or groundwater contamination (unless with written authorization from the Regional Board Executive Officer)	X	
If yes, list affected DMAs: The entire project site is located within the vicinity of a groundwater plume area.		

If you answered “Yes” to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐ Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐ The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If neither of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: 14.35 acres

Type of Landscaping (Conservation Design or Active Turf): Conservation design

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 70.55 acres

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: 1.05

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: 74.07 acres

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
74.07 acres	14.35 acres

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: 1,050 (# of parking stalls)

Project Type: Industrial

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: 70.55 acres

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: 185

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: 13,052

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	**Projected number of toilet users (Step 1)**
13,052	*1,050*

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

N/A

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: N/A

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: N/A

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-3 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-3: N/A

Step 4: Multiply the unit value obtained from Step 4 by the total of impervious areas from Step 3 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: N/A

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
N/A	N/A

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment, unless a site-specific analysis has been completed that demonstrates technical infeasibility as noted in D.3 below.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☐ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☒ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
1A	☐	☐	☐	☐	☒
1B	☐	☐	☐	☐	☒
2A	☐	☐	☐	☐	☒
2B	☐	☐	☐	☐	☒
3A	☐	☐	☐	☐	☒
3B	☐	☐	☐	☐	☒
4A	☐	☐	☐	☐	☒
4B	☐	☐	☐	☐	☒
5A	☐	☐	☐	☐	☒
5B	☐	☐	☐	☐	☒
6A	☐	☐	☐	☐	☒
6B	☐	☐	☐	☐	☒
7	☐	☐	☐	☐	☒

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

<u>BMP Hierarchy</u>:

Infiltration - the project is bypassing all infiltration BMPs because the entire site sits over a groundwater plume as shown in Appendix 5.

Biofiltration - the project is bypassing biofiltration facilities, in the form of planters, because the project is required to detain stormwater for 100-year purposes. Planters are not practical for 100-year detention since the ponding depth and tributary area are maxed out at 6-inches and 10 acres, respectfully. Furthermore, the County of Riverside Airport Land Use Commission (ALUC) had a hearing on October 8, 2015 for jurisdiction case no. PA15-0014, PA15-0015, PA15-0016, and PA15-0017 (Moreno Valley Logistics Center) to provide their concerns and requirements. Condition #4 requires all basins to drawdown within 48 hours and to remain totally dry between rainfalls. In order to design an Extended Detention Basin (EDB) to drawdown 100% of the volume within 48 hours, we are unable to hold 50% of the volume for 24+ hours. EDBs rely on holding stormwater for longer periods of time as their primary treatment mechanism. Not being able to do so would reduce treatment efficiency.

Treatment Control - the project proposes to use sand filter basins to avoid infiltration over a groundwater plume, to assist with 100-year detention, and to meet the drawdown requirements of ALUC.

See Appendix 5 for more detail.

DMA 7 is considered a self-treating area and will not be routed through the proposed sand filter basins due to a technical infeasibility. Due to the difference in elevation between the site and the public right-of-way, these landscaped areas could not drain onsite.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Areas x Runoff Factor**	***n/a***		
	[A]		[B]	[C]	[A] x [C]			
N/A	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*Design Storm Depth (in)*	*Design Capture Volume,* V_{BMP} *(cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	$A_T = \Sigma[A]$				$\Sigma = [D]$	[E]	$[F] = \frac{[D]x[E]}{12}$	[G]

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☐ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or-*

☒ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project’s receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☒ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☒ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern(7)	☒	☒	☐	☐	☒	☐	☒	☐

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

(7) Pollutants that are listed for the development type, and also are on the 303(d) list or have adopted TMDLs, are considered Pollutants of Concern.

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	
Total Credit Percentage[1]	

[1] Cannot Exceed 50%

[2] Obtain corresponding data from Table 3-8 in the WQMP Guidance Document

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume,* V_{BMP} *(cubic*	*Proposed Volume on Plans (cubic feet)*
	[A]		[B]	[C]	[A] x [C]			
1A	307,098	Roofs/Conc/Asphalt	*1.00*	*0.89*	*273,931.4*	*0.64*	*14609.7*	*18,774*
1B	69,696	Ornamental Landscaping	*0.10*	*0.11*	*7,698.5*	*0.64*	*410.6*	
2A	297,515	Roofs/Conc/Asphalt	*1.00*	*0.89*	*265,383.2*	*0.64*	*14153.8*	*17,466*
2B	50,094	Ornamental Landscaping	*0.10*	*0.11*	*5,533.3*	*0.64*	*295.1*	
3A	609,840	Roofs/Conc/Asphalt	*1.00*	*0.89*	*543,977.3*	*0.64*	*29012.1*	*41,361*
3B	50,094	Ornamental Landscaping	*0.10*	*0.11*	*5,533.3*	*0.64*	*295.1*	
4A	1,078,110	Roofs/Conc/Asphalt	*1.00*	*0.89*	*961,674.1*	*0.64*	*51289.3*	*56,063*
4B	113,256	Ornamental Landscaping	*0.10*	*0.11*	*12,510.0*	*0.64*	*667.2*	
5A	609,840	Roofs/Conc/Asphalt	*1.00*	*0.89*	*543,977.3*	*0.64*	*29012.1*	*32,886*
5B	115,434	Ornamental Landscaping	*0.10*	*0.11*	*12,750.6*	*0.64*	*680*	
6A	226,512	Roofs/Conc/Asphalt	*1.00*	*0.89*	*202,048.7*	*0.64*	*10775.9*	*13,860*
6B	45,738	Ornamental Landscaping	*0.10*	*0.11*	*5,052.1*	*0.64*	*269.4*	
	3,573,227				*2,840,070*	0.64	151,470.3	180,410

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
Sand Filter Basin	Bacterial Indicators	Medium / 65% [4]
Sand Filter Basin	Metals	Medium / 72-86% [4]
Sand Filter Basin	Trash and Debris	High / 89% [4]
Sand Filter Basin	Toxic Organic Compounds	High / 89% [4]

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.

[2] Cross Reference Table E.1 above to populate this column.

[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

[4] Medium/High removal effectiveness as documented in Appendix E of "Design Handbook for Low Impact Development Best Management Practices" by Riverside County Flood Control and Water Conservation District (rev. 9/11). Percentages as documented in TC-40 for Media Filter of "New Development and Redevelopment Handbook" by CASQA (January 2003).

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	N/A	N/A	N/A
Volume (Cubic Feet)	N/A	N/A	N/A

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

The adequate sumps that apply to the project site are Canyon Lake, Lake Elsinore, Prado Dam, and the Santa Ana River. Runoff from the project site will drain to Perris Valley Storm Drain, Canyon Lake, Lake Elsinore, Prado Dam and the Santa Ana River, which are engineered and regularly maintained. These waterbodies are not sensitive stream habitats. No stream habitat areas will be affected by the development.

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources***: Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit***: Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative***: Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
A. On-site storm drain inlets	• Mark all inlets with the words "Only Rain Down the Storm Drain" or similar.	• Maintain and periodically repaint or replace inlet markings annually. • Provide stormwater pollution prevention information to new site owners, lessees, or operators upon occupancy and annually thereafter. • See CASQA fact sheets SC-44 for "Drainage System Maintenance," and SD-13 for "Storm Drain Signage" included in Appendix of this document. • Include the following lease agreements: "Tenant shall not allow anyone to discharge anything to storm drain or to store or deposit materials so as to create a potential discharge to storm drains."

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
B. Interior floor drains and elevator shaft sump pumps	• Interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	• Inspect and maintain drains semi-annually to prevent blockages and overflow.
D2. Landscape / Outdoor Pesticide Use	• Landscape plans will minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. • Pest-resistant plants will be used adjacent to hardscape. • The landscape plans will consider plants appropriate to the site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	• Maintain landscaping only using minimum pesticides, when needed. • See Appendix 10 for “Landscape and Gardening” brochure by RCFlood. • Provide Integrated Pest Management (IPM) information to new owners, lessees and operators upon occupancy and annually thereafter. IPM is an effective and environmentally sensitive approach to pest management.
G. Refuse Areas	• Site refuse will be handled by contractor on a weekly basis. • Signs will be posted on or near dumpsters with the words “Do not dump hazardous materials here” or similar.	• A minimum of two receptacles will be provided and locate indoors. Receptacles are to be inspected daily and repairs or replacements to leaky receptacles will be completed immediately. Receptacles are to remain covered with not in use. Dumping of liquid or hazardous wastes is prohibited. A “no hazardous materials” sign will be posted. Spills will be cleaned immediately upon discovery. Spill control materials will be available onsite. See Appendix 10 for CASQA fact sheets SC-34 for “Waste Handling and Disposal” and SD-32 for “Trash Storage Areas”
H. Industrial processes	• All process activities to be performed indoors. No processes to drain to exterior or to storm drain system.	• See Appendix 10 for CASQA fact sheet SC-10 for “Non-Stormwater Discharges”
M. Loading Docks	• Spills will be cleaned up immediately and disposed of properly.	• Move loaded and unloaded items indoors as soon as possible. • See Appendix 10 for CASQA fact sheets SC-30 for “Outdoor Loading and Unloading” and SD-31 for “Maintenance Bays and Docks”
P. Plazas, sidewalks, and parking lots (only parking lots applicable)		• Sweep parking lots monthly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain. • See Appendix 10 for CASQA fact sheet SC-43 for “Parking/Storage Area Maintenance”

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
Q. Additional CASQA fact sheets (see Appendix 10)		• SC-10: Non-Stormwater Discharge • SC-11: Spill Prevention, Control & Cleanup • SC-32: Outdoor Equipment Operations • SC-35: Safer Alternative Products • SC-41: Building and Grounds Maintenance • SC-42: Building Repair and Construction • SD-12: Efficient Irrigation

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	Latitude	Longitude
A	On-site storm drain inlets	WQMP Site Map	---	---
B	Interior floor drains and elevator shaft sump pumps	N/A	---	---
D2	Landscape / Outdoor Pesticide Use	On-site Landscape Improvement Plans	---	---
G	Refuse Areas	WQMP Site Map	---	---
H	Industrial processes	WQMP Site Map (indoors, if any)	---	---
M	Loading Docks	WQMP Site Map	---	---
P	Plazas, sidewalks, and parking lots (only parking lots applicable)	WQMP Site Map	---	---
SFB #1	Sand Filter Basin #1	WQMP Site Map	33.879526	-117.241517
SFB #2	Sand Filter Basin #2	WQMP Site Map	33.879490	-117.239725
SFB #3	Sand Filter Basin #3	WQMP Site Map	33.877148	-117.238674
SFB #4	Sand Filter Basin #4	WQMP Site Map	33.874716	-117.235509
SFB #5	Sand Filter Basin #5	WQMP Site Map	33.874725	-117.236625
SFB #6	Sand Filter Basin #6	WQMP Site Map	33.873985	-117.237762

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: City of Moreno Valley:

Stormwater Treatment Device and Control Measure Access and Maintenance Covenant

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map

VICINITY MAP

FOR

MORENO VALLEY LOGISTICS CENTER

NOT TO SCALE

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
14349 FIRESTONE BOULEVARD
LA MIRADA, CALIFORNIA 90638
PH.(714)521-4811 FAX(714)521-4173

FLOW

RECEIVING WATERS MAP

FOR

MORENO VALLEY LOGISTICS CENTER

Thienes Engineering, Inc.
CIVIL ENGINEERING • LAND SURVEYING
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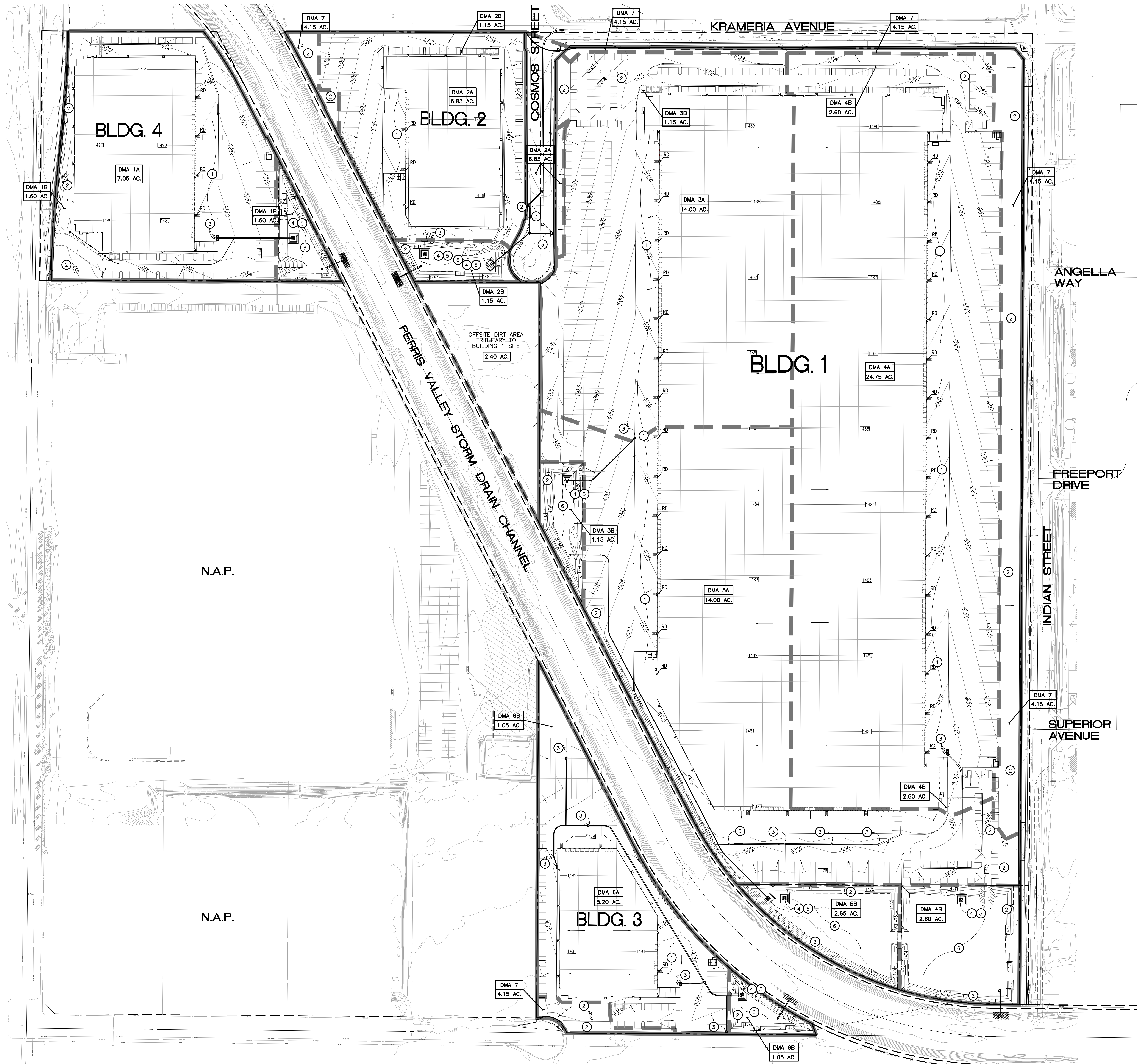

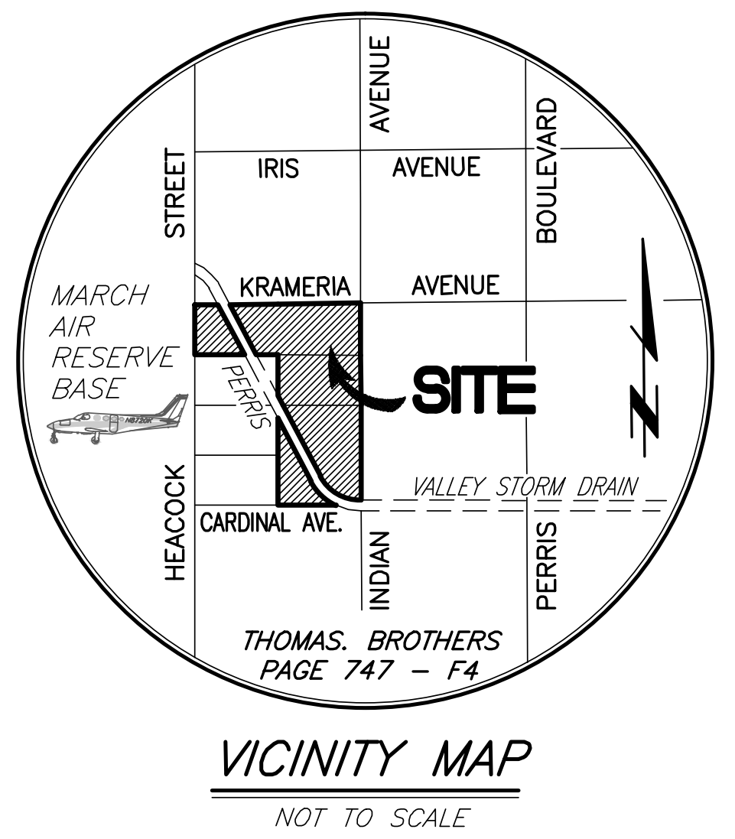

VICINITY MAP

NOT TO SCALE

LEGEND

① ABOVEGROUND TRUCK DOCK

② LANDSCAPE/EFFICIENT IRRIGATION

③ STORM DRAIN SYSTEM SIGNS
"ONLY RAIN DOWN THE STORM DRAIN"

④ FOREBAY

⑤ BUBBLER INLET WITH ENERGY DISSIPATOR

⑥ SAND FILTER BASIN

NOTE:

RD	ROOF DRAIN
▬▬▬	BOUNDARY
▬ ▬	DRAINAGE AREAS
←	FLOW LINE

BMP SD-13:

SAMPLE STENCIL TO BE USED NEAR GRATE AND CURB OPENING INLETS

SAMPLE CATCH BASIN STENCIL

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Last Update: 11/6/15
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CITY OF MORENO VALLEY
PUBLIC WORKS DEPARTMENT

PREPARED FOR:

PROLOGIS, INC.
17777 CENTER COURT DRIVE NORTH, SUITE 100
CERRITOS, CA 90703
PHONE: (562) 345-9200
FAX: (562) 345-9201

WQMP SITE MAP

MORENO VALLEY LOGISTICS CENTER

PREPARED BY:

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Designed by ____
Date ____
Checked by ____
Date ____
Designed by ____
Date ____
Checked by ____
Date ____

Approved by Date ____

Public Works Director R.C.E. XXXXX

Sheet 1 of 2 Sheets

2890D/1 OF 2 SHEETS

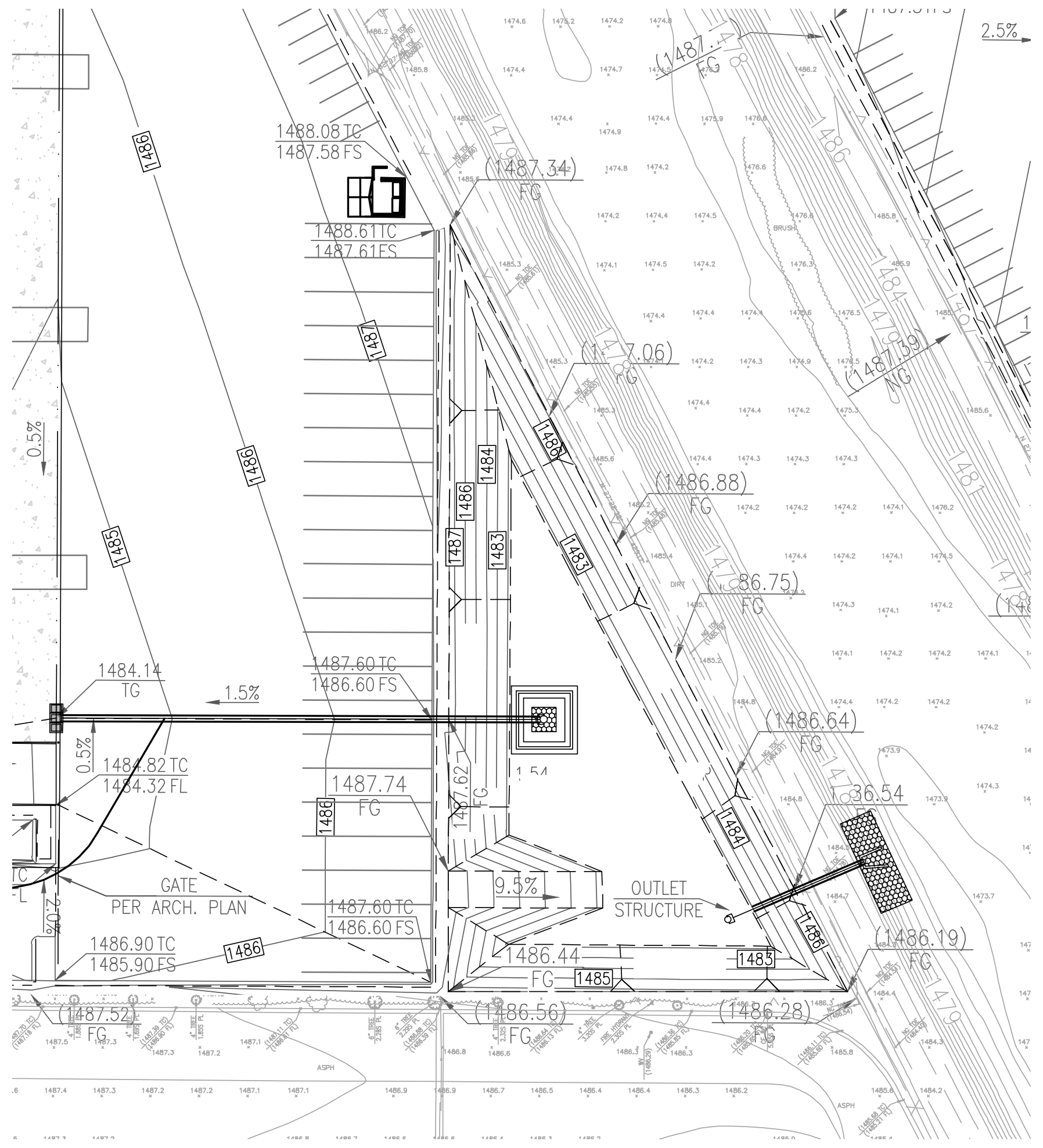

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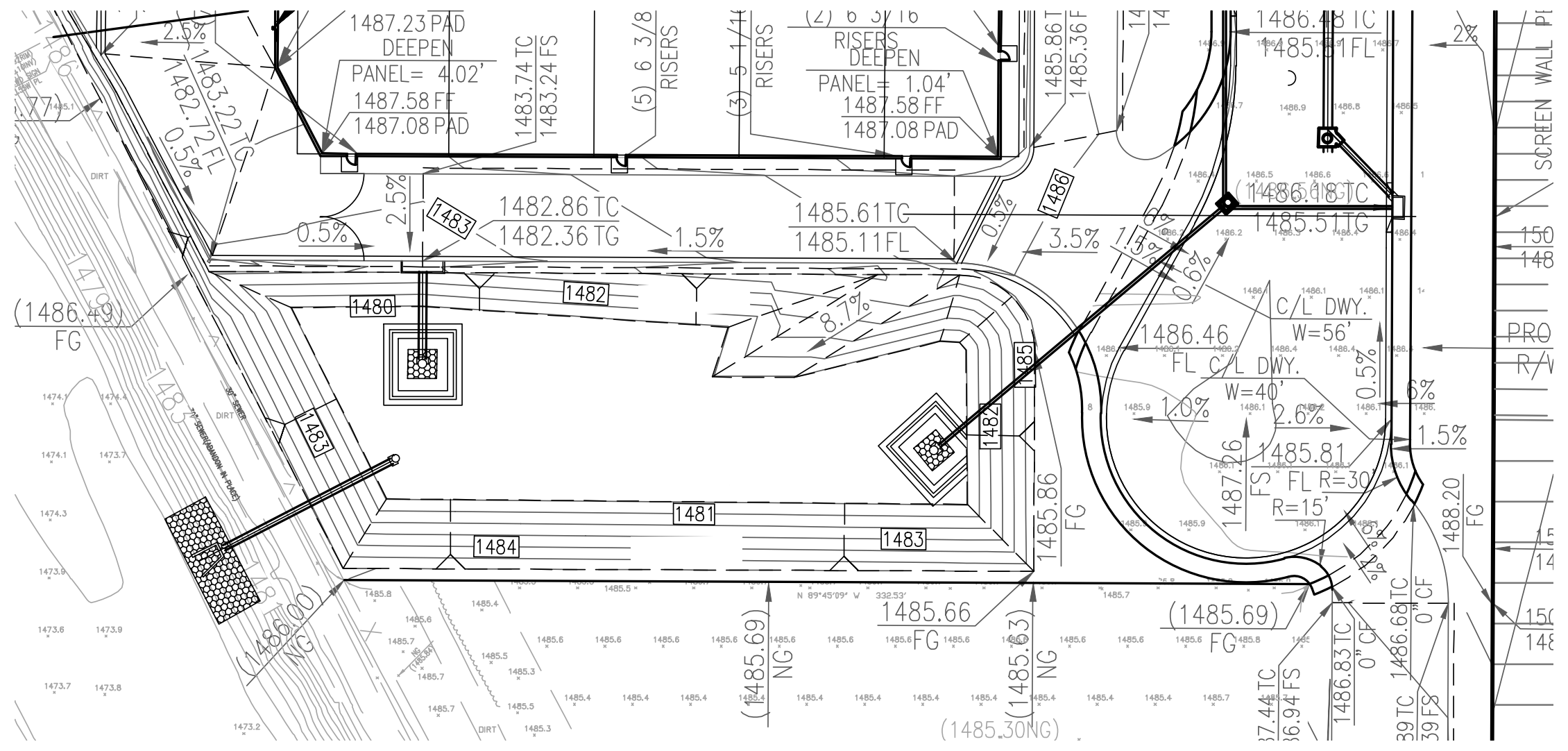

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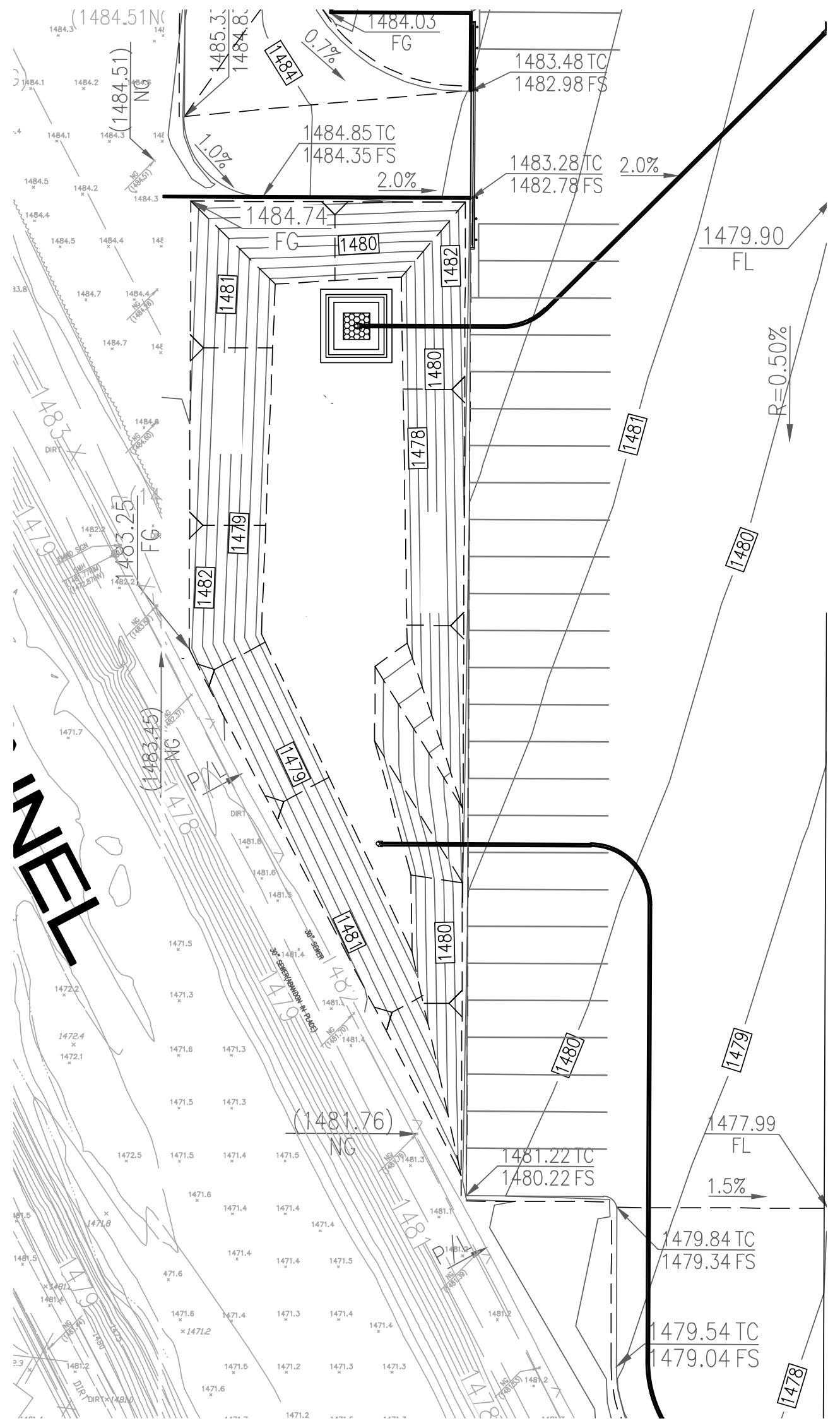

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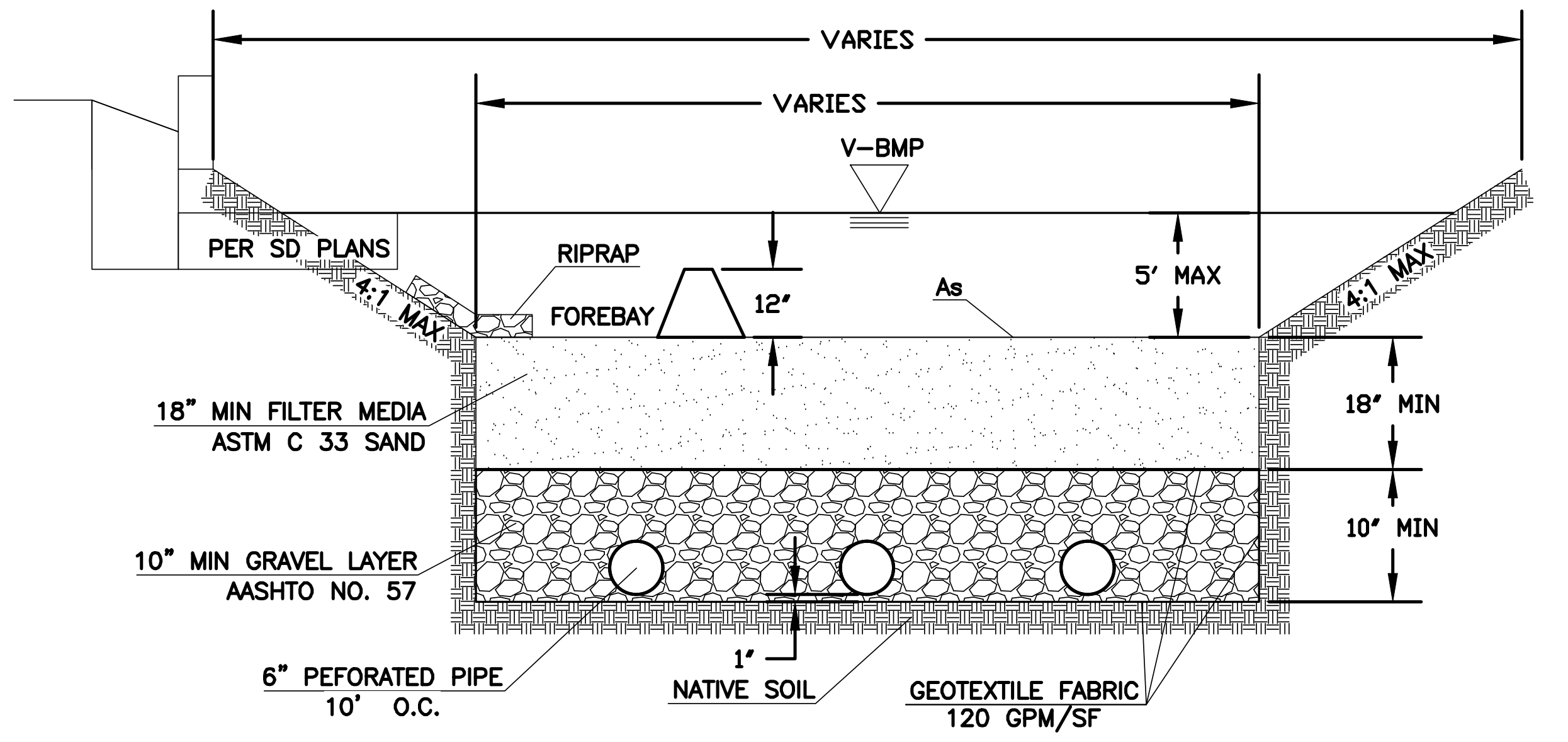

TYPICAL SECTION FOR SAND FILTER BASIN

NTS

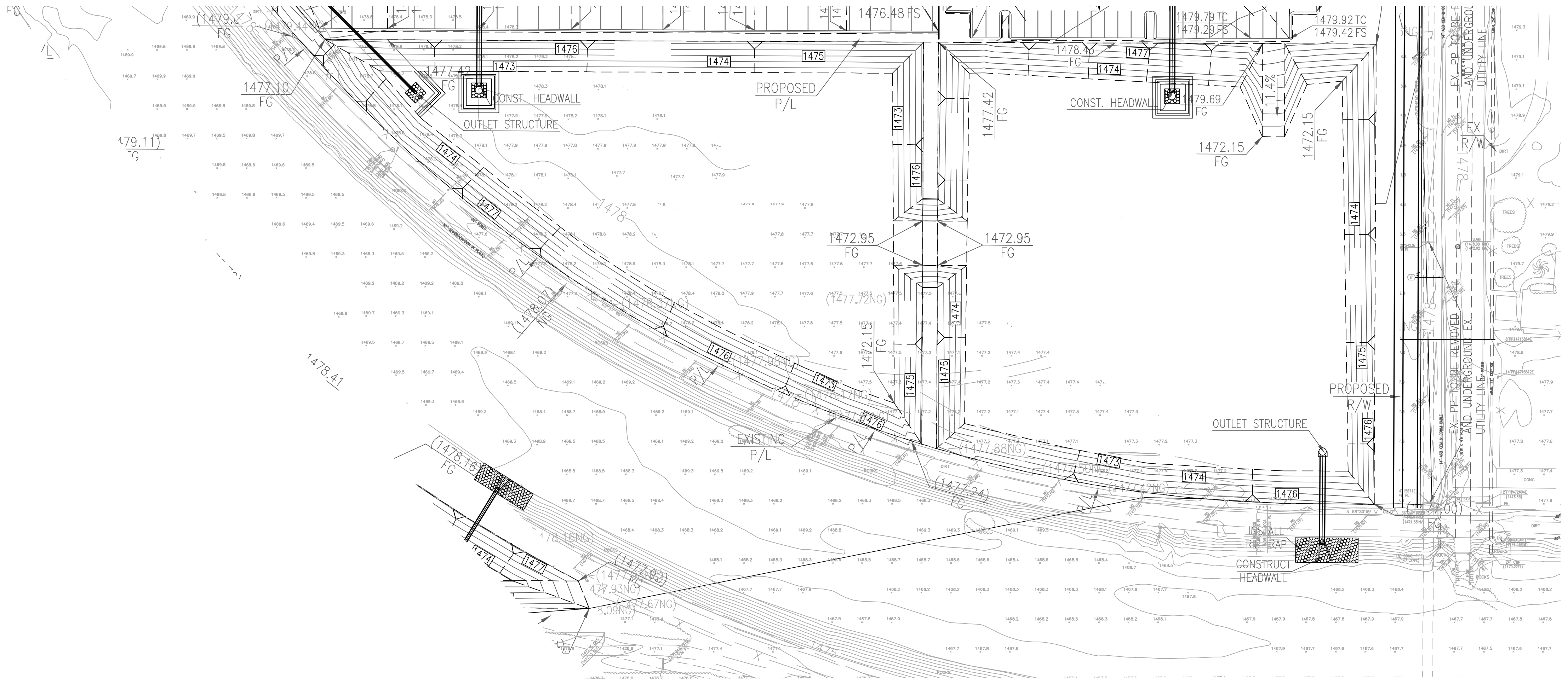

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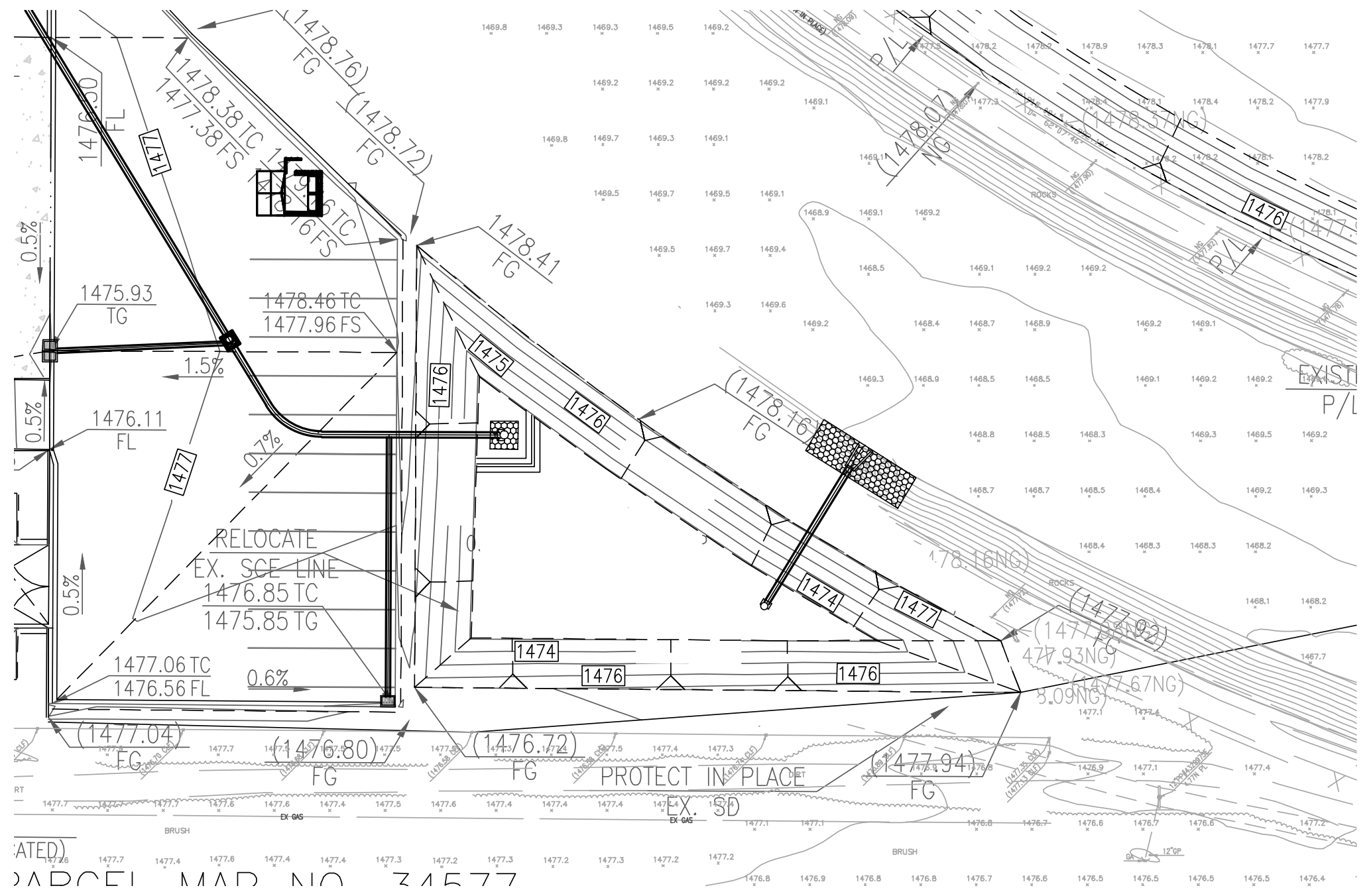

SFB #6

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CITY OF MORENO VALLEY
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WQMP SITE MAP

MORENO VALLEY LOGISTICS CENTER

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Designed by ______
Date ______
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Date ______
Checked by ______
Date ______

Approved by Date ______

Public Works Director R.C.E. XXXXX

Sheet 2 of 2 Sheets

2890D/2 OF 2 SHEETS

Appendix 2: Construction Plans

Grading and Drainage Plans (PROVIDED WITH F-WQMP)

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

July 15, 2014

ProLogis
2817 East Cedar Street, Suite 200
Ontario, California 91761

Attention: Mr. Scott Mulkay
Vice President – Regional Development Manager

Project No.: **14G160-2**

Subject: **Results of Infiltration Testing**
Proposed Moreno Valley Logistics Center
SWC Indian Street at Krameria Avenue
Moreno Valley, California

Gentlemen:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in Proposal No. 14P266, dated June 4, 2014. The scope of services included a surface reconnaissance, subsurface exploration, field testing, and geotechnical engineering analysis to determine the infiltration rate of the onsite soils. The infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Site and Project Description

The subject site is located on the west side of Indian Street, southwest of the intersection of Indian Street and Krameria Avenue in Moreno Valley, California. The site is bounded to the north by commercial/industrial buildings under construction, to the east by Indian Street, and to the south and west by the Perris Valley Storm Drain channel and a vacant lot. The Building 2 option is located west of the primary site and is bounded to the north by a vacant lot, to the east by the primary site, to the south by a vacant lot, and to the west by the Perris Valley Storm Drain channel.

The primary site is a roughly triangular-shaped parcel, 58.7 acres in size. The site is currently vacant and undeveloped. Ground surface cover consists of exposed soil with sparse to moderate amounts of native grass and weed growth. Based on the disturbed alluvial soils encountered at the ground surface, it appears that the ground surface has been previously tilled. The Building 2 option site is a trapezoidal-shaped parcel, 6.9± acres in size. This site is vacant and undeveloped. The ground surface cover consists of exposed soil with sparse to moderate amounts of native grass and weed growth and also appears to have been previously tilled.

Detailed topographic information including existing site grades were not available at the time of this report. Based on visual observations made at the time of the subsurface investigation, the overall site topography generally slopes downward to the southwest at an estimated gradient of less than 3± percent.

Proposed Development

Based on the conceptual site plan provided to our office by the client, the primary site will be developed with one (1) commercial/industrial building, 1,333,586± ft^2 in size. This building will be identified as Building 1. Loading docks will be located along the east, south, and west sides of the building. The building will be surrounded by asphaltic concrete pavements in the automobile parking and drive lanes and Portland cement concrete in the loading dock areas. Landscape planters will be located in limited areas throughout the parking lot.

The Building 2 site will be developed with one (1) commercial/industrial building, 117,660± ft^2 in size. Loading docks will be located along the west side of the building. The building will be surrounded by asphaltic concrete pavements in the parking and drive lanes and Portland cement concrete pavements in the loading dock area.

Based on the conceptual site plan, the site will utilize an on-site storm water disposal system. The storm water disposal system will consist of an infiltration basin located in the south corner of the primary site. The plan also indicates that an infiltration basin will be constructed in the south area of the Building 2 site. As discussed with the project civil engineer, it is our understanding that the bottom of the infiltration basins will be approximately 6 to 8 feet below the existing site grades. We performed infiltration testing as requested within the proposed infiltration basins for Buildings 1 and 2.

Concurrent Study

SCG is currently conducting a geotechnical feasibility study for the subject site. As a part of this study, a total of fifteen (15) borings were advanced to a depth 30± feet below existing site grades. The results of this study will be published in the geotechnical report, 14G160-1.

Subsurface Exploration

Scope of Exploration

The subsurface exploration for this phase of the project consisted of three (3) backhoe excavated trenches, extending to depths of 6 to 8± feet below existing site grades as requested by the civil engineer. The trenches were logged during excavation by a member of our staff. The approximate locations of the infiltration trenches (identified as I-1, I-2 and I-3) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Geotechnical Conditions

Disturbed alluvial soils were encountered at all of the infiltration test trench locations extending to depths of 1 to 1½± feet below existing site grades. These soils consist of loose sandy silts with trace amounts of artificial debris. Native alluvial soils were encountered beneath the disturbed alluvium at all of the infiltration trenches extending to the maximum explored depth of 8± feet below existing site grades. The native alluvial soils encountered generally consist of fine sandy silts, clayey silts, fine to coarse sands and fine sandy clays. Free water was not encountered during the excavation of any of the trenches. The Trench Logs, which illustrate the conditions encountered at the trench locations, are included with this report.

Infiltration Testing

We understand that the results of the testing will be used to prepare a preliminary design for the storm water infiltration systems that will be used to store and/or dispose of storm water at the subject site. The infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Two stainless steel infiltration rings were used for the infiltration testing. The outer infiltration ring is 2 feet in diameter and 20 inches in height. The inner infiltration ring is 1 foot in diameter and 20 inches in height. At each test location, the outer ring was driven 3± inches into the soil at the base of the trench. The inner ring was centered inside the outer ring and subsequently driven 3± inches into the soil at the base of the trench. The rings were driven into the soil using a ten pound sledge hammer. The soil surrounding the wall of the infiltration rings was only slightly disturbed during the driving process.

Infiltration Testing Procedure

The infiltration testing was performed at Infiltration Trench Nos. I-1, I-2 and I-3. The infiltration testing consisted of filling the inner ring and the annular space (the space between the inner and outer rings) with water, approximately 3 to 4± inches above the soil. To prevent the flow of water from one ring to the other, the water level in both the inner ring and the annular space between the rings were maintained using constant-head float valves. The volume of water that was added to maintain a constant head in the inner ring and the annular space during each time interval was determined and recorded. A cap was placed over the rings to minimize the evaporation of water during the test.

The schedule for readings was determined based on the observed soil type at the base of each backhoe excavated trench. Due to the varying silt and clay content of the exposed soils at each infiltration test location, the volumetric measurements were made at increments of 5 to 30 minutes. The water volume measurements are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on these spreadsheets.

The infiltration rates for all the tests are calculated in centimeters per hour and then converted to inches per hour. These rates are summarized below:

Infiltration Test No.	Approximate Elevation of Test (ft msl)	Soil Description	Infiltration Rate (inches/hr)
I-1	1471	Clayey fine to medium Sand	0.3
I-2	1473	fine to coarse Sand	14.9
I-3	1475	Silty fine to medium Sand/fine to medium Sandy Silt	2.5

Laboratory Testing

Grain Size Analysis

The grain size distribution of selected soils from the base of each infiltration test trench has been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented at the end of this report.

Design Recommendations

A total of three (3) infiltration tests were performed at the subject site. As noted above, the calculated infiltration rates at the infiltration locations range from 0.3 to 14.9 inches per hour. The primary reason that the infiltration rates vary is the amount of clay and silt content, which varies at different depths and locations within the native soils throughout the subject site. Higher clay and silt content was observed within the soils exposed at the bottom of Infiltration Trench No. I-1 and I-3, which exhibited slower infiltration rates.

Based on these considerations, the designer of the system may wish to apply a factor of safety to the recommended infiltration rate at his discretion. **Based on the infiltration test results from Infiltration Trench Nos. I-1 and I-2, we recommend a design infiltration rate of 0.3 inches per hour be used in the design of the proposed detention/infiltration basin located at the southeast corner of Building 1.** Please note that a fine to coarse sand stratum was encountered at the base of the Infiltration Test No. I-2. This fine to coarse sand stratum appears to be a localized condition and does not accurately reflect the subsurface conditions throughout the site. The below grade storm water detention/infiltration system should not be designed for a localized stratum that does not represent the on-site subsurface conditions. **Based on the infiltration test results from Infiltration Trench No. I-3, we recommend a design infiltration rate of 2.5 inches per hour be used in the possible proposed detention/infiltration basin located south of Building 2.**

The design of the storm water infiltration systems should be performed by the project civil engineer, in accordance with the city of Moreno Valley and/or Riverside county guidelines. However, it is recommended that the systems be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the systems. The presence of such materials would decrease the effective infiltration rates. It is recommended that the project civil engineer apply an appropriate factor of safety. **The infiltration rates recommended above are based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rates.** It should be noted that the recommended infiltration rates are based on infiltration testing at three (3) discrete locations and the overall infiltration rate of the storm water infiltration systems could vary considerably.

Infiltration versus Permeability

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. The infiltration rates presented herein were determined in accordance with the ASTM Test Method D-3385-03 standard, and are considered valid for the time and place of the actual test. Changes in soil moisture content will affect these infiltration rates. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Structures and pavements adjacent to the infiltration areas could potentially be damaged due to saturation of subgrade soils.

If possible, all of the proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls. Even with this provision of locating the infiltration systems at least 25 feet from any structures, it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed structures (if any). It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure (if any), depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration systems.

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rates contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between trench locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Robert G. Trazo, M.Sc., GE 2655
Principal Engineer

ROBERT TRAZO
No. 2655

Daryl Kas
Project Geologist

DARYL R. KAS
No. 2467

Distribution: (1) Addressee

Enclosures:
- Plate 1 Site Location Map
- Plate 2 Infiltration Test Location Plan
- Trench Logs (3 pages)
- Infiltration Test Results Spreadsheets (3 pages)
- Grain Size Analysis Graphs (3 pages)

SOURCE: RIVERSIDE COUNTY
THOMAS GUIDE, 2013

SITE LOCATION MAP

PROPOSED MORENO VALLEY LOGISTICS CENTER
MORENO VALLEY, CALIFORNIA

SCALE: 1" = 2400'

DRAWN: JSW
CHKD: RGT

SCG PROJECT
14G160-2

PLATE 1

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

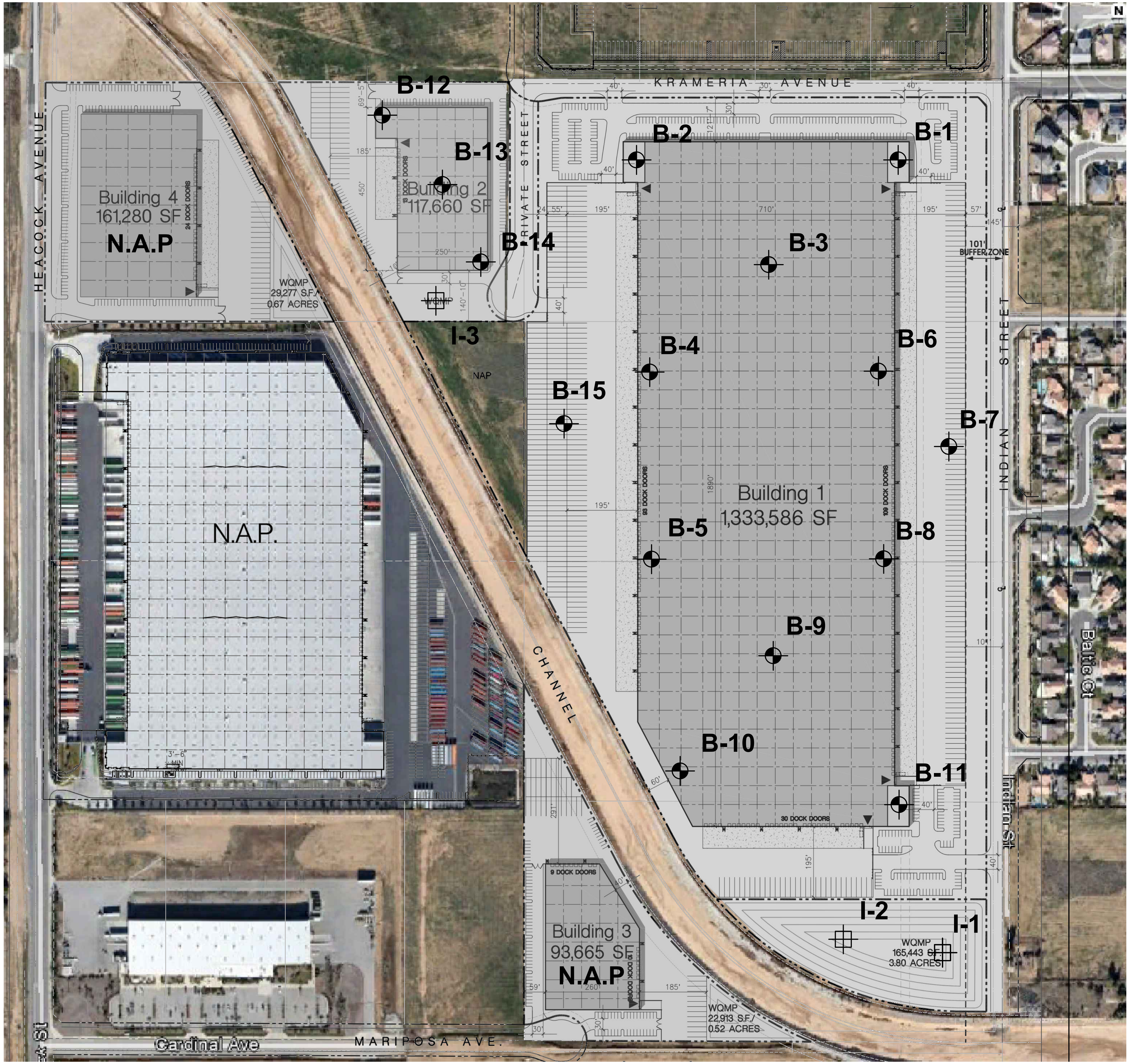

NORTH
SoCalGeo

GEOTECHNICAL LEGEND

⊞ APPROXIMATE INFILTRATION TEST LOCATION

⊕ APPROXIMATE BORING LOCATION (SCG PROJECT NO. 14G160-1)

INFILTRATION TEST LOCATION PLAN
PROPOSED MORENO VALLEY LOGISTICS CENTER
MORENO VALLEY, CALIFORNIA

SCALE: 1" = 300'
DRAWN: JSW
CHKD: JAS
SCG PROJECT
14G160-2
PLATE 2

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-3

JOB NO.: 14G160-2
PROJECT: Proposed MVLC
LOCATION: Moreno Valley, CA
DATE: 06-25-2014

EQUIPMENT USED: Backhoe
LOGGED BY: Jon White
ORIENTATION: N 75 W
TOP OF TRENCH ELEVATION: 1483.0 feet msl

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
5				A: DISTURBED ALLUVIUM: Light fine Sandy Silt, abundant fine root fibers,rope, loose - dry B: ALLUVIUM: Light Brown fine Sandy Silt, trace Clay, trace fine root fibers, slightly porous, dense - dry C: ALLUVIUM: Brown fine Sandy Silt, trace Clay, trace fine root fibers, moderately porous, dense - damp D: ALLUVIUM: Brown Silty fine to medium sand/ fine to medium sandy silt, trace coarse sand, loose to medium dense - moist
				Trench Terminated @ 8 feet
10				
15				

GRAPHIC REPRESENTATION

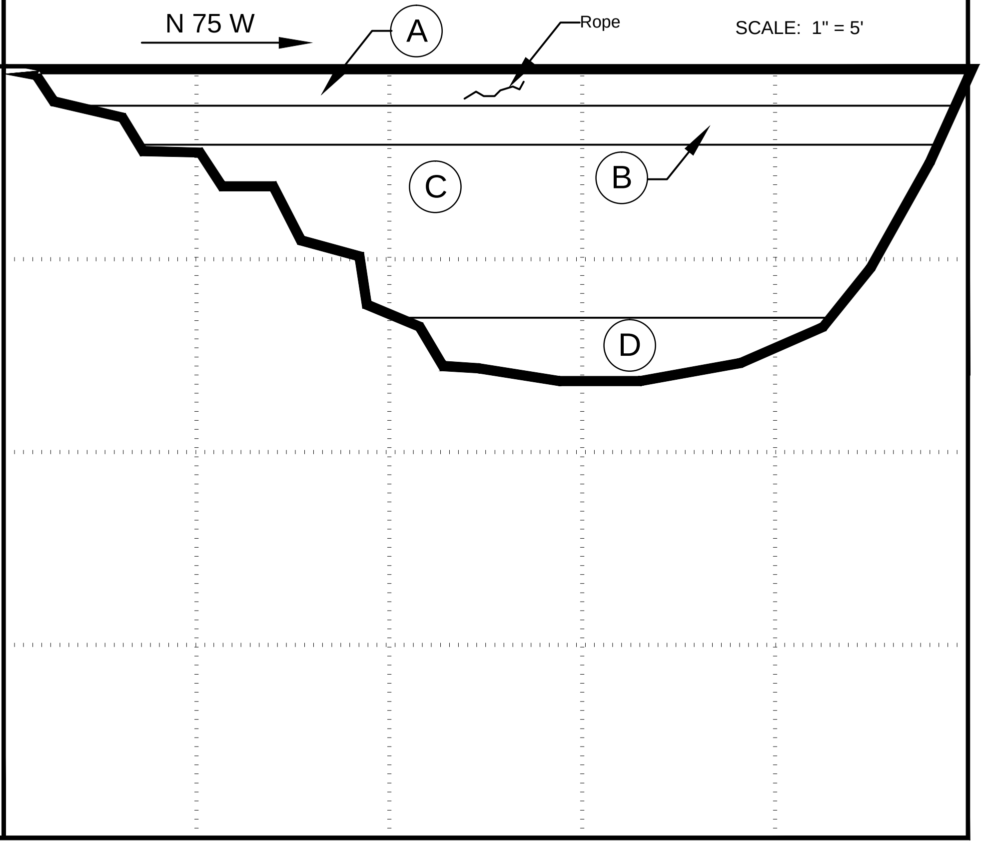

KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-2

JOB NO.: 14G160-2	EQUIPMENT USED: Backhoe	WATER DEPTH: Dry
PROJECT: Proposed MVLC	LOGGED BY: Jon White	SEEPAGE DEPTH: Dry
LOCATION: Moreno Valley, CA	ORIENTATION: N 8 W	READINGS TAKEN: At Completion
DATE: 06-25-2014	TOP OF TRENCH ELEVATION: 1479.0 feet msl	

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: DISTURBED ALLUVIUM: Light Brown fine Sandy Silt, trace medium sand, some fine root fibers, loose - very dry B: ALLUVIUM: Brown to Dark Brown, fine Sandy Clay, trace Silt, little to some fine root fibers, porous, stiff to very stiff - dry to damp C: ALLUVIUM: Brown, fine to coarse Sand, trace Silt, medium dense - dry to damp
5				
				Trench Terminated @ 6 feet
10				
15				

GRAPHIC REPRESENTATION

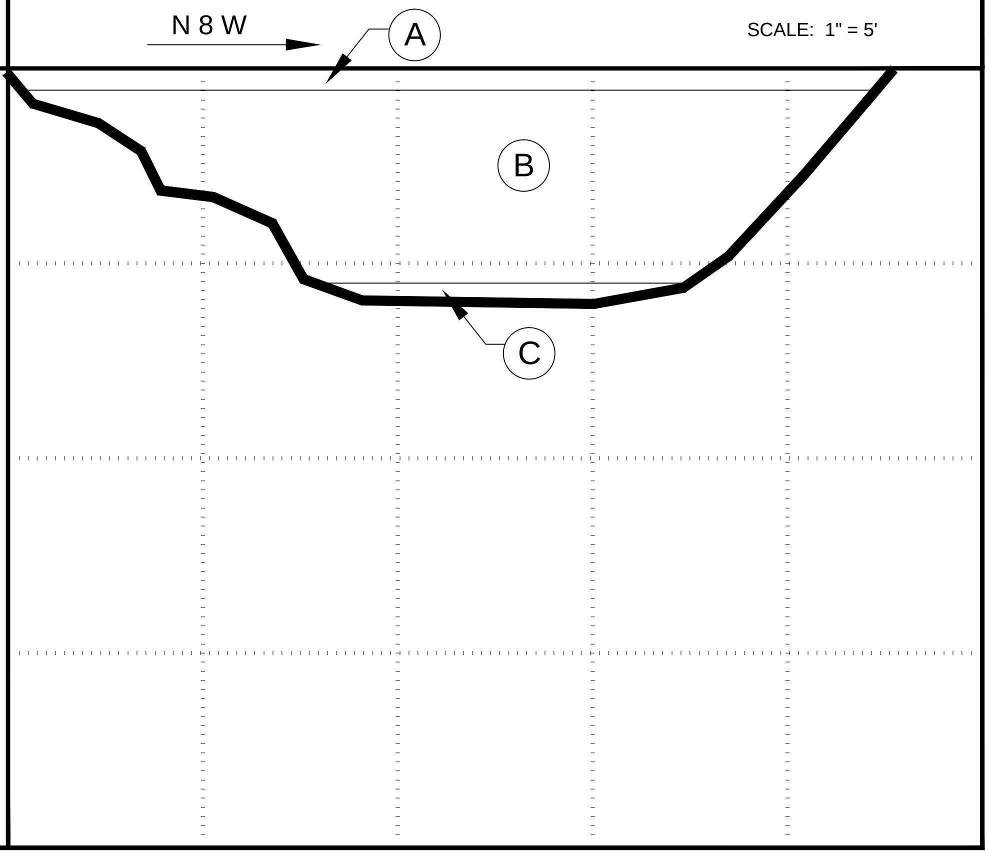

KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO.
I-1

JOB NO.: 14G160-2
PROJECT: Proposed MVLC
LOCATION: Moreno Valley, CA
DATE: 06-25-2014

EQUIPMENT USED: Backhoe
LOGGED BY: Jon White
ORIENTATION: N 5 W
TOP OF TRENCH ELEVATION: 1478.0 feet msl

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
5 10 15				A: DISTURBED ALLUVIUM: Light Brown fine Sandy Silt, trace medium to coarse Sand, trace fine to coarse gravel, abundant root fibers, plastic bag, loose - dry B: ALLUVIUM: Brown Clayey Silt, fine to medium sand lensing (2 inches), trace fine root fibers, porous, stiff - dry to damp C: ALLUVIUM: Brown Clayey fine Sand to fine Sandy Clay, trace Silt, trace fine root fibers, moderately porous, dense to stiff - dry to damp D: ALLUVIUM: Brown clayey fine to medium sand, trace coarse Sand, moderate Calcareous veining, mottled, porous, medium dense to dense - damp Trench Terminated @ 7 feet

GRAPHIC REPRESENTATION

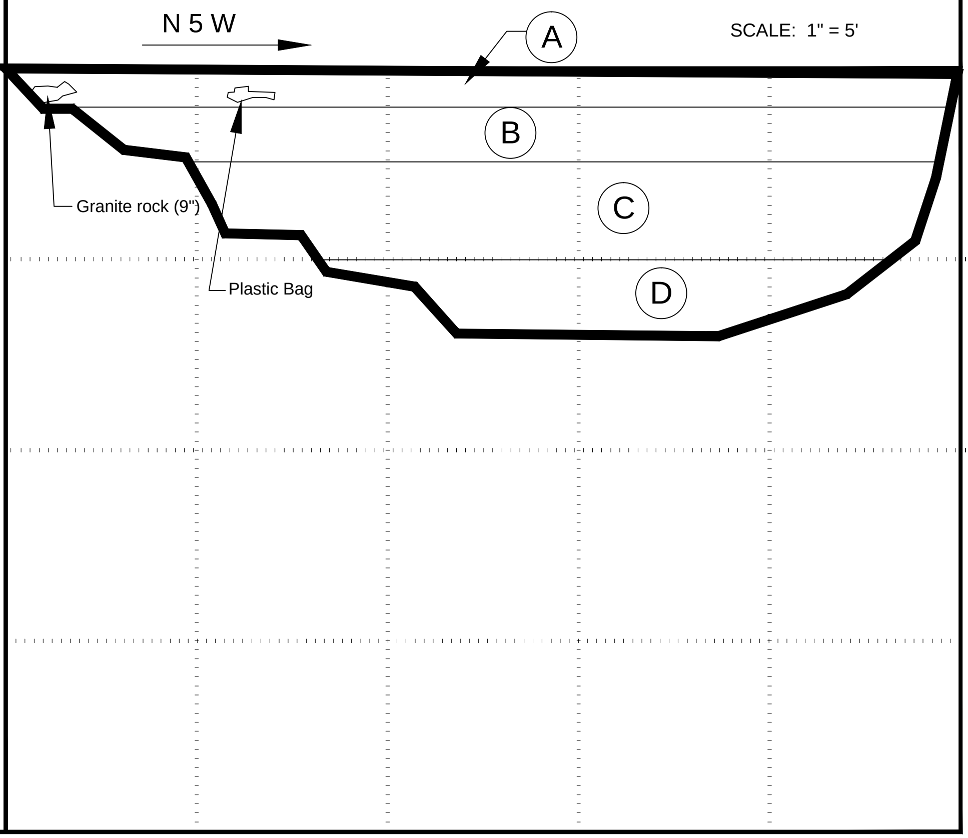

KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER
(RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-1

INFILTRATION CALCULATIONS

Project Name	Proposed Moreno Valley Logistics Center
Project Location	Moreno Valley, CA
Project Number	14G160-2
Engineer	Jon White

Infiltration Test No	I-1

Constants			
	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Annular	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Time Interval **Elapsed** (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm^3)	Annular Ring (ml)	Space Flow (cm^3)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	9:00 AM	30	700	1000	2000	3400	2.74	3.11	1.08	1.22
	Final	9:30 AM	**30**	1700		5400					
2	Initial	9:34 AM	30	650	500	1600	1900	1.37	1.74	0.54	0.68
	Final	10:04 AM	**64**	1150		3500					
3	Initial	10:05 AM	30	500	450	1500	1800	1.23	1.64	0.49	0.65
	Final	10:35 AM	**95**	950		3300					
4	Initial	10:40 AM	30	500	325	2100	1300	0.89	1.19	0.35	0.47
	Final	11:10 AM	**130**	825		3400					
5	Initial	11:11 AM	30	800	250	2100	1300	0.69	1.19	0.27	0.47
	Final	11:41 AM	**161**	1050		3400					

INFILTRATION CALCULATIONS

Project Name	Proposed Moreno Valley Logistics Center
Project Location	Moreno Valley, CA
Project Number	14G160-2
Engineer	Jon White

Infiltration Test No: I-2

Constants			
	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Annular	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Time Interval **Elapsed** (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm^3)	Annular Ring (ml)	Space Flow (cm^3)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	9:40 AM	5	800	2600	1600	8400	42.76	46.05	16.84	18.13
	Final	9:45 AM	**5**	3400		10000					
2	Initial	9:46 AM	5	850	2500	1900	7900	41.12	43.31	16.19	17.05
	Final	9:51 AM	**11**	3350		9800					
3	Initial	9:54 AM	5	1100	2450	1700	7400	40.29	40.57	15.86	15.97
	Final	9:59 AM	**19**	3550		9100					
4	Initial	10:01 AM	5	650	2350	2200	7400	38.65	40.57	15.22	15.97
	Final	10:06 AM	**26**	3000		9600					
5	Initial	10:07 AM	5	100	3350	1700	7300	55.10	40.02	21.69	15.76
	Final	10:12 AM	**32**	3450		9000					
6	Initial	10:15 AM	5	700	2350	1900	7100	38.65	38.92	15.22	15.32
	Final	10:20 AM	**40**	3050		9000					
7	Initial	10:21 AM	5	600	2300	2000	6900	37.83	37.83	14.89	14.89
	Final	10:26 AM	**46**	2900		8900					

INFILTRATION CALCULATIONS

Project Name	Proposed Moreno Valley Logistics Center
Project Location	Moreno Valley, CA
Project Number	14G160-2
Engineer	Jon White

Infiltration Test No: I-3

Constants			
	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Annular	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Time Interval **Elapsed** (min)	Flow Readings				Infiltration Rates			
				Inner Ring (ml)	Ring Flow (cm^3)	Annular Ring (ml)	Space Flow (cm^3)	Inner Ring* (cm/hr)	Annular Space* (cm/hr)	Inner Ring* (in/hr)	Annular Space* (in/hr)
1	Initial	12:28 PM	30	1150	3050	1700	11100	8.36	10.14	3.29	3.99
	Final	12:58 PM	**30**	4200		12800					
2	Initial	1:00 PM	20	850	1700	2000	5800	6.99	7.95	2.75	3.13
	Final	1:20 PM	**52**	2550		7800					
3	Initial	1:21 PM	20	850	1650	1800	5200	6.78	7.13	2.67	2.81
	Final	1:41 PM	**73**	2500		7000					
4	Initial	1:42 PM	20	950	1600	2150	5050	6.58	6.92	2.59	2.72
	Final	2:02 PM	**94**	2550		7200					
5	Initial	2:02 PM	20	1000	1550	1900	4700	6.37	6.44	2.51	2.54
	Final	2:22 PM	**114**	2550		6600					

Grain Size Distribution

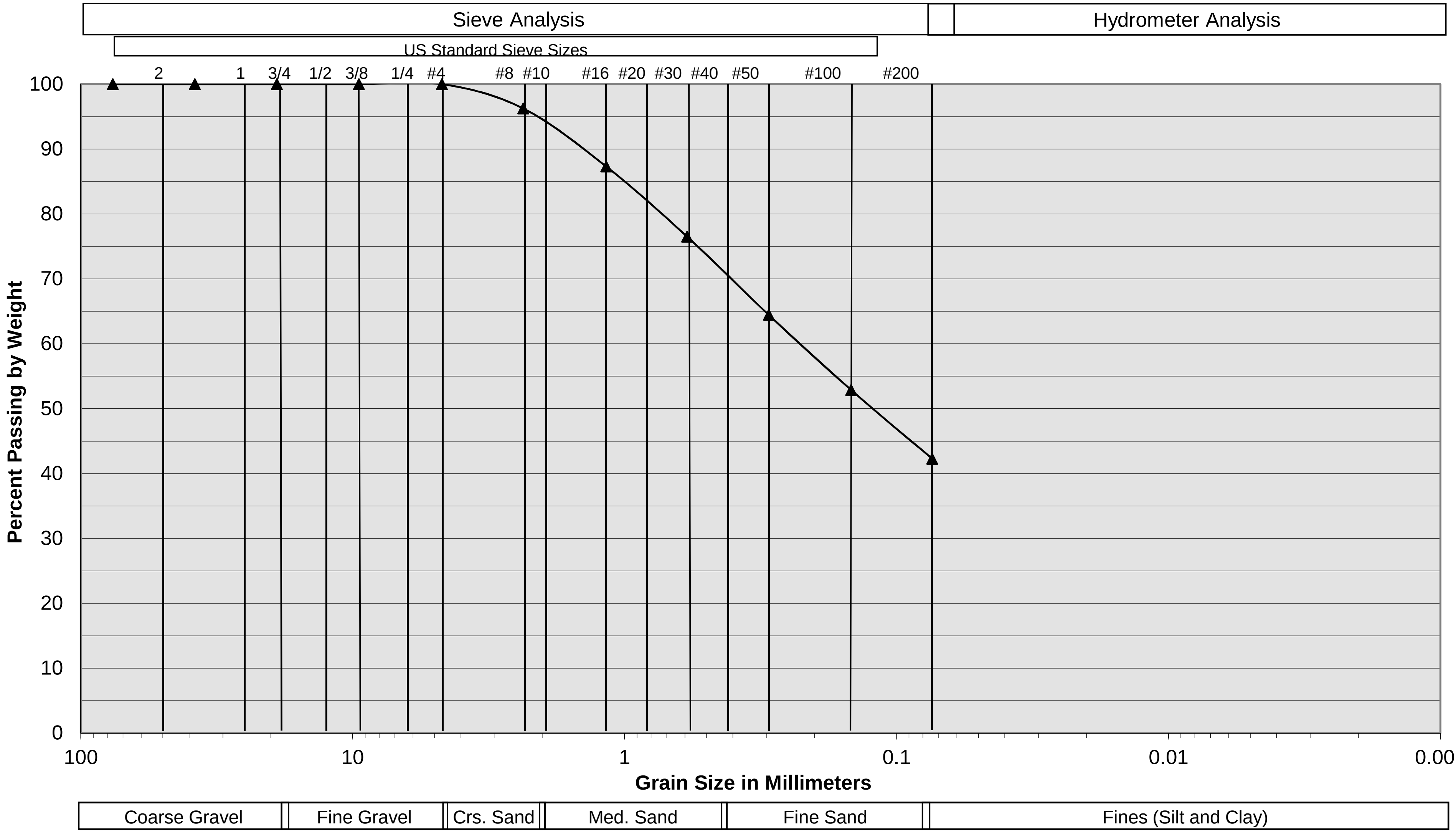

Sample Description	I-1 @ 7'
Soil Classification	Brown Clayey fine to medium Sand, trace coarse Sand

Proposed Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160-2
PLATE C-1

SOUTHERN CALIFORNIA GEOTECHNICAL

Grain Size Distribution

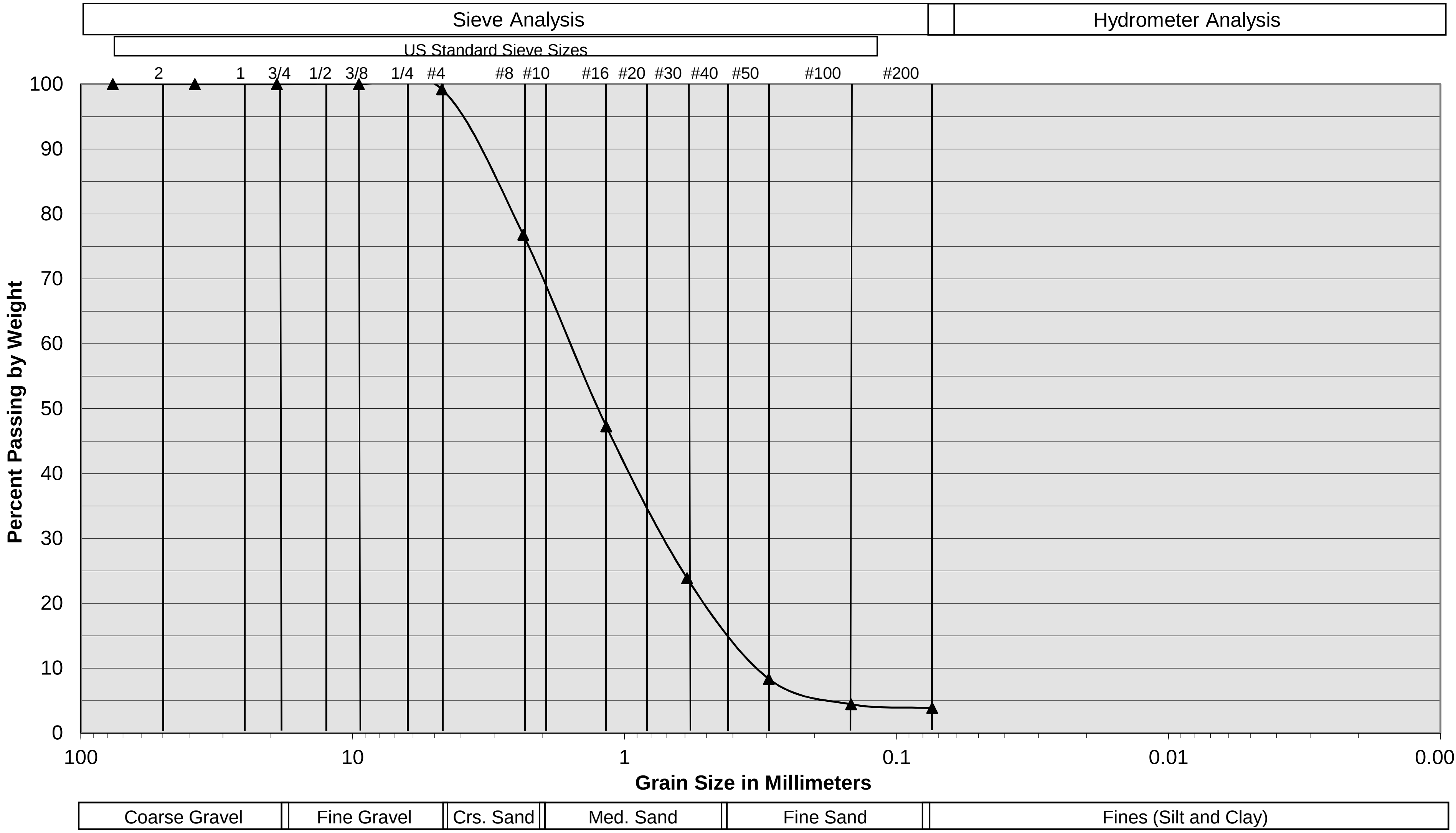

Sample Description	I-2 @ 6'
Soil Classification	Brown fine to coarse Sand, trace Silt

Prologis Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160-2
PLATE C-2

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL

Grain Size Distribution

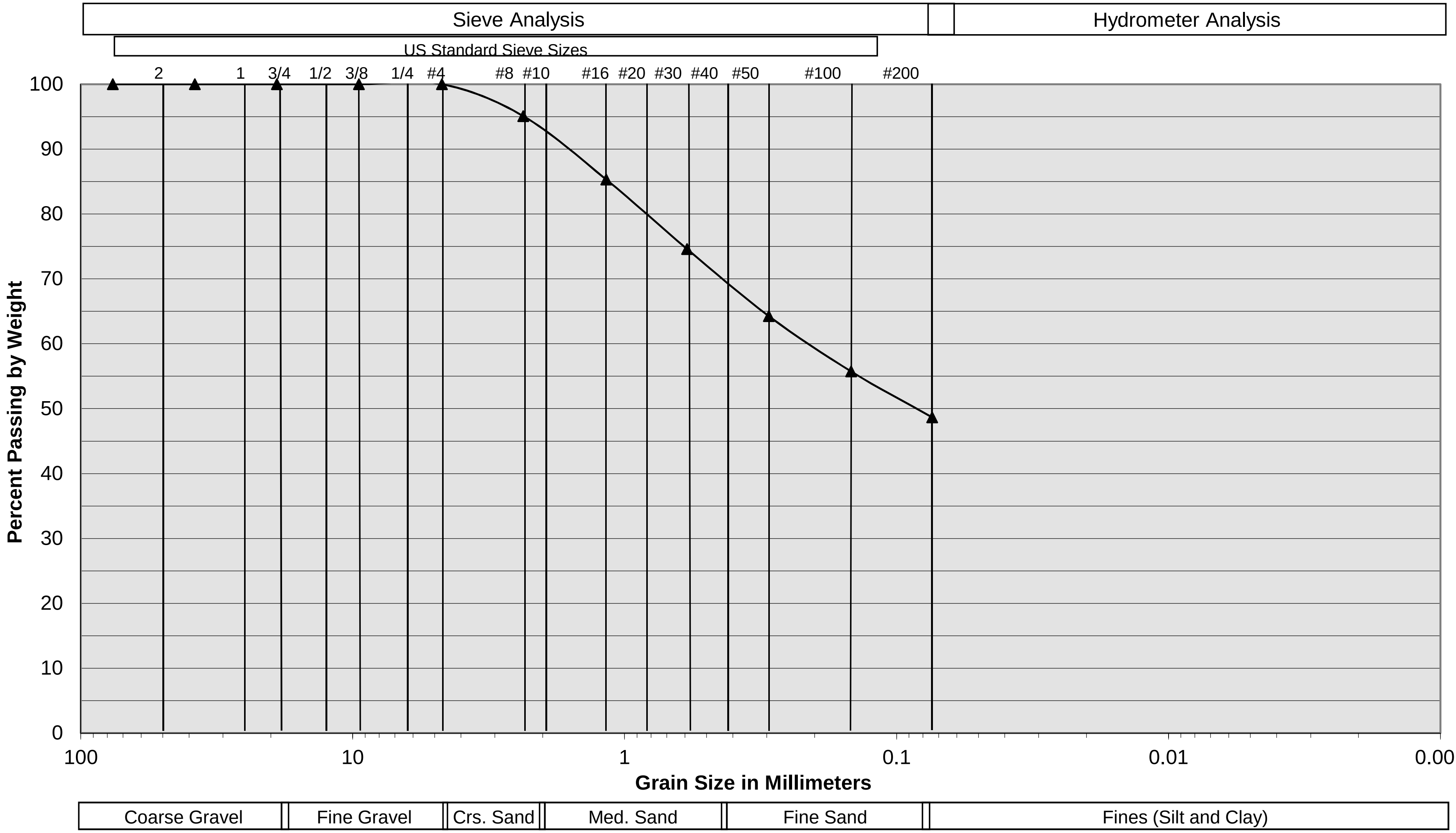

Sample Description	I-3 @ 8'
Soil Classification	Brown Silty fine to medium Sand, trace coarse Sand

Proposed Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160-2
PLATE C-3

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use (NOT APPLICABLE)

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

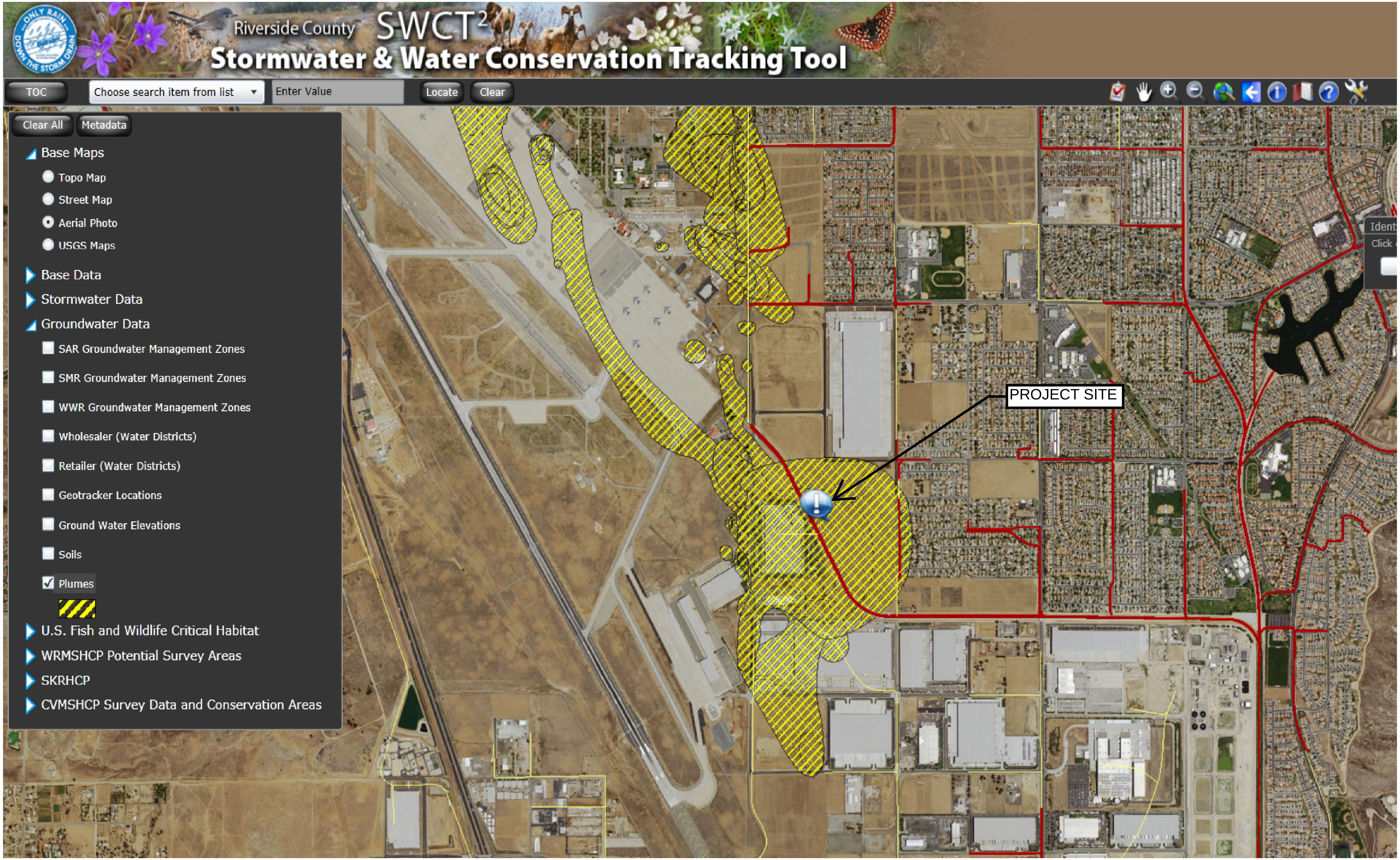

- Base Maps
  - ○ Topo Map
  - ○ Street Map
  - ● Aerial Photo
  - ○ USGS Maps
- Base Data
- Stormwater Data
- Groundwater Data
  - ☐ SAR Groundwater Management Zones
  - ☐ SMR Groundwater Management Zones
  - ☐ WWR Groundwater Management Zones
  - ☐ Wholesaler (Water Districts)
  - ☐ Retailer (Water Districts)
  - ☐ Geotracker Locations
  - ☐ Ground Water Elevations
  - ☐ Soils
  - ☑ Plumes
    - ▨
- U.S. Fish and Wildlife Critical Habitat
- WRMSHCP Potential Survey Areas
- SKRHCP
- CVMSHCP Survey Data and Conservation Areas

From: Hoang Nguyen [hoangn@moval.org]
Sent: Wednesday, October 07, 2015 8:31 AM
To: 'Vicky Li'
Subject: RE: PA15-0014 - Moreno Valley Logistics Center

Vicky,

Due to the requirements by the ALUC, the City will accept the use of the SF Basin.

Hoang Nguyen
Associate Engineer
Public Works
City of Moreno Valley
p: 951.413.3216 | e: hoangn@moval.org w: www.moval.org
14177 Frederick St., Moreno Valley, CA 92553

From: Vicky Li [mailto:vicky@thieneseng.com]
Sent: Tuesday, October 06, 2015 10:47 AM
To: Hoang Nguyen
Subject: PA15-0014 - Moreno Valley Logistics Center

Hi Hoang,

Per our conversation:

- The project site has six Extended Detention Basins (EDBs) proposed.
- County of Riverside Airport Land Use Commission (ALUC) is restricting water quality management basins to a maximum 48-hour detention period following the conclusion of the storm event. See item#4 on PDF page 4 of 51 of attachment.
- Melanie's redlines from the 1st review tells us that sand filters are treatment control BMPs and that we have bypassed part of the hierarchy.
- The email attached is from you, me, and Melanie about how we decided that EDBs are best for the site since it allows larger tributary areas and nobody is concerned with the small amount of infiltration from an EDB over a plume.
- In order to design an EDB to drawdown 100% of the volume within 48 hours, we are unable to hold 50% of the volume for 24+ hours.

We either need clearance for (1) to allow for these EDBs to drawdown 50% of the volume in less than 24 hours (preliminary numbers are around 10 hours) which kind of defeats the purpose of EDBs since they rely on holding stormwater for longer periods of time, or 2) the project is allowed to bypass this part of the hierarchy and revert to sand filter basins.

Please provide an answer today.. it'd be much appreciated, thank you!

Vicky Li
Design Engineer

THIENES ENGINEERING, INC.
14349 Firestone Blvd. | La Mirada, California | 90638
P: 714.521.4811 ext: 253 F: 714.521.4173
vicky@thieneseng.com

COUNTY OF RIVERSIDE
AIRPORT LAND USE COMMISSION

STAFF REPORT

AGENDA ITEM: 3.4

HEARING DATE: October 8, 2015

CASE NUMBER: ZAP1137MA15 – Prologis – Scott Mulkay (Representative: T&B Planning, Inc. – Grant Henninger)

APPROVING JURISDICTION: City of Moreno Valley

JURISDICTION CASE NO: PA 15-0014 (Plot Plan – Building 1), PA 15-0015 (Plot Plan – Building 2), PA 15-0016 (Plot Plan – Building 3), PA 15-0017 (Plot Plan – Building 4), PA 15-0018 (Tentative Parcel Map No. 36150), P 15-036 (Specific Plan Amendment)

MAJOR ISSUES: None.

RECOMMENDATION: Staff recommends a finding of CONSISTENCY for the Specific Plan Amendment, the Parcel Map, and the Plot Plans, subject to the conditions included herein.

PROJECT DESCRIPTION: The applicant proposes development of Moreno Valley Logistics Center, consisting of four industrial (predominantly warehouse) buildings, on 84.82 net acres:

- Building 1 (PA15-0014) --- 1,351,770 square feet gross floor area, including 30,000 square feet of office space;
- Building 2 (PA15-0015) --- 122,516 square feet gross floor area, including 10,000 square feet of office space;
- Building 3 (PA15-0016) --- 97,222 square feet gross floor area, including 10,000 square feet of office space;
- Building 4 (PA15-0017) --- 166,010 square feet of floor area, including 10,000 square feet of office space.

Tentative Parcel Map No. 36150 (PA15-0018) would divide the portion of the site easterly of the Perris Valley Storm Drain Channel (69.55 acres) into two lots, so that Buildings 1 and 2 would be on separate legal lots. The applicant also proposes to amend (PA15-036) the Moreno Valley Industrial Specific Plan (Specific Plan No. 208) so as to allow the buffer between industrial and residential uses along the portion of the west side of Indian Street southerly of Krameria Avenue and northerly of the Perris Valley Storm Drain Channel to be reduced from 250 feet to 100 feet. (This provision already applies to areas northerly of Krameria Avenue extending north to Iris Avenue.)

CONDITIONS:

1. Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.

2. The following uses shall be prohibited:

   (a) Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

   (b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

   (c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. (Such uses include landscaping utilizing water features, aquaculture, production of cereal grains, sunflower, and row crops, composting operations, trash transfer stations that are open on one or more sides, recycling centers containing putrescible wastes, construction and demolition debris facilities, fly ash disposal, and incinerators.)

   (d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

   (e) In Buildings 3 and 4: Children's schools, day care centers, libraries, hospitals, skilled nursing and care facilities, congregate care facilities, noise sensitive outdoor nonresidential uses and hazards to flight.

3. The attached notice shall be given to all prospective purchasers of the property and tenants of the buildings, and shall be recorded as a deed notice.

4. The proposed detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-hour detention period following the conclusion of the storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature. Landscaping in and around the detention

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Vicky Li

From: Hoang Nguyen [hoangn@moval.org]
Sent: Tuesday, August 27, 2013 3:45 PM
To: 'Vicky Li'
Cc: Kent Wegelin
Subject: RE: WQMP - Krameria Ave & Indian Street

Vicky,

The City does not have any objection to allow 30 ac that are tributary to each basin. As far as the separation, the City does not have a criteria. It is up to the engineer of work to determine what works for their situation, is safe and functions properly.

Hoang Nguyen
Associate Engineer, P.E.
City of Moreno Valley
14177 Frederick St.
Moreno Valley, Ca 92552-0805
T: 951.413.3216
F: 951.413.3158
E: hoangn@moval.org
W: www.moval.org

From: Vicky Li [mailto:vicky@thieneseng.com]
Sent: Monday, August 26, 2013 8:54 AM
To: Hoang Nguyen
Cc: Kent Wegelin
Subject: WQMP - Krameria Ave & Indian Street

Morning Hoang,

Hope you've been well. We have a ~63 acre project site along the S/W corner of Krameria Avenue and Indian Street intersection. It's the property immediately south of PA13-0022. Being under the same circumstances, nearby air force contamination and infiltration rates well below the 1.6 in/hr minimum, we are choosing to use sand filter basins (SFBs) again. The site's existing and proposed drainage flows from northerly to southerly.

We are proposing the use of two SFBs each taking in approximately 30 acres, however, the LID handbook states a maximum of 25 acres of tributary area per SFB. Will you allow an additional 5 acres of tributary area per basin? Also, these SFBs will be next to each other. What is the minimum separation you would like to see between the SFBs?

Your assistance is greatly appreciated.

Thank you,
Vicky Li, EIT, QSP
Design Engineer
Thienes Engineering, Inc.
14349 Firestone Blvd.
La Mirada, Ca 90638
Phone 714-521-4811 x253
Fax 714-521-4173
vicky@thieneseng.com

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: 🟦 Required Entries
▨ Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name Thienes Engineering, Inc.
Date 11/9/2015
Designed by Luis Prado
Case No
Company Project Number/Name Moreno Valley Logistics Center

BMP Identification

BMP NAME / ID Sand Filter Basin (DMA 1)

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth,
from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
1A	*307098*	*Roofs*	*1*	*0.89*	*273931.4*			
1B	*69696*	*Ornamental Landscaping*	*0.1*	*0.11*	*7698.5*			
	376794	***Total***			**281629.9**	**0.64**	***15020.3***	***18774***

Notes:

Sand Filter Basin (SFB) - Design Procedure	BMP ID DMA 1	Legend:	Required Entries Calculated Cells

Company Name: Thienes Engineering Inc.

Date: 11/9/2015

Designed by: Luis Prado

County/City Case No.:

Design Volume

Total Tributary area	A_{TRIB} =	8.65	ac
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	15,021	ft^3

Basin Geometry

Basin side slopes (no steeper than 4:1)	z =	4	:1
Proposed basin depth (see Figure 1)	d_B =	1.6	ft
Depth of freeboard (if used)	d_{fb} =	2.83	ft
Minimum bottom surface area of basin (As = V_{BMP}/d_B)	A_s =	9388.13	ft^2
Minimum total depth required (includes freeboard, filter media and subdrains)	d_{req} =	6.6	ft
Proposed Surface Area		9,600	ft^2

Forebay

Forebay volume (minimum 0.5% V_{BMP})	Volume =	75.105	ft^3
Forebay depth (height of berm/splashwall. 1 foot min.)	Depth =	1	ft
Forebay surface area (minimum)	Area =	75.105	ft^2
Full height notch-type weir	Width (W) =	1.50	in

Filter Media

Description of filter media

X Sand (ASTM C-33)

☐ Other (Clarify in "Notes" below)

Media depth, df = 18 inches

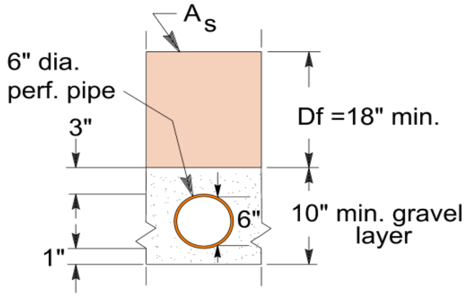

Underdrains

Diameter of perforated underdrain		6	in
Spacing of underdrains (maximum 20 feet on center)	OK	10	ft

Notes:

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #1

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1481.76	0.00	9600			
			3307	3307	0.076
1482.09	0.33	10445			
			3705	7013	0.161
1482.43	0.67	11350			
			3896	10908	0.250
1482.76	1.00	12260			
			4199	15107	0.347
1483.09	1.33	13190			
			3667	18774	0.431
1483.36	1.60	13970			
			9555	28329	0.650
1484.00	2.24	15890			
			17483	45812	1.052
1485.00	3.24	19075			
			20783	66594	1.529
1486.00	4.24	22490			
			4344	70939	1.629
1486.19	4.43	23240			

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: 🟦 Required Entries
▨ Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Thienes Engineering, Inc.	Date	11/9/2015
Designed by	Luis Prado	Case No	
Company Project Number/Name	Moreno Valley Logistics Center		

BMP Identification

BMP NAME / ID Sand Filter Basin (DMA 2)

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth,
from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
2A	*297515*	*Roofs*	*1*	*0.89*	*265383.4*			
2B	*50094*	*Ornamental Landscaping*	*0.1*	*0.11*	*5533.3*			
	347609		***Total***		**270916.7**	**0.64**	***14448.9***	***17466***

Notes:

Sand Filter Basin (SFB) - Design Procedure	BMP ID DMA 2	Legend:	Required Entries Calculated Cells

Company Name: Thienes Engineering Inc.
Date: 11/9/2015
Designed by: Luis Prado
County/City Case No.:

Design Volume

Total Tributary area	A_{TRIB} =	8.18	ac
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	14,500	ft^3

Basin Geometry

Basin side slopes (no steeper than 4:1)	z =	4	:1
Proposed basin depth (see Figure 1)	d_B =	1.2	ft
Depth of freeboard (if used)	d_{fb} =	1.71	ft
Minimum bottom surface area of basin ($As = V_{BMP}/d_B$)	A_s =	12083.3	ft^2
Minimum total depth required (includes freeboard, filter media and subdrains)	d_{req} =	5.08	ft
Proposed Surface Area		12,490	ft^2

Forebay

Forebay volume (minimum 0.5% V_{BMP})	Volume =	72.5	ft^3
Forebay depth (height of berm/splashwall. 1 foot min.)	Depth =	1	ft
Forebay surface area (minimum)	Area =	72.5	ft^2
Full height notch-type weir	Width (W) =	1.50	in

Filter Media

Description of filter media

X Sand (ASTM C-33)

☐ Other (Clarify in "Notes" below)

Media depth, df = 18 inches

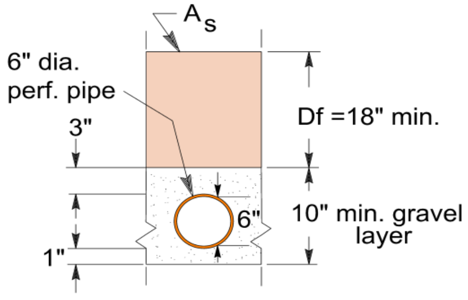

Underdrains

Diameter of perforated underdrain		6	in
Spacing of underdrains (maximum 20 feet on center)	OK	10	ft

Notes:

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #2

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1479.95	0.00	12490			
			4257	4257	0.098
1480.28	0.33	13310			
			4671	8928	0.205
1480.62	0.67	14165			
			2884	11812	0.271
1480.82	0.87	14675			
			1182	12994	0.298
1480.90	0.95	14880			
			747	13741	0.315
1480.95	1.00	15010			
			3725	17466	0.401
1481.15	1.20	22235			
			2476	19942	0.458
1481.28	1.33	15865			
			12105	32047	0.736
1482.00	2.05	17760			
			16258	48305	1.109
1482.86	2.91	20050			

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend:	
▭	Required Entries
▨	Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Thienes Engineering, Inc.	Date	11/9/2015
Designed by	Luis Prado	Case No	
Company Project Number/Name	Moreno Valley Logistics Center		

BMP Identification

BMP NAME / ID Sand Filter Basin (DMA 3)

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth,
from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
3A	*609840*	*Roofs*	*1*	*0.89*	*543977.3*			
3B	*50094*	*Ornamental Landscaping*	*0.1*	*0.11*	*5533.3*			
	659934	***Total***			**549510.6**	**0.64**	**29307.2**	**41361**

Notes:

Sand Filter Basin (SFB) - Design Procedure	BMP ID DMA 3	Legend:	Required Entries Calculated Cells

Company Name: Thienes Engineering Inc.
Date: 11/9/2015
Designed by: Luis Prado
County/City Case No.:

Design Volume

Total Tributary area	A_{TRIB} =	15.15	ac
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	29,307	ft^3

Basin Geometry

Basin side slopes (no steeper than 4:1)	z =	4	:1
Proposed basin depth (see Figure 1)	d_B =	3.1	ft
Depth of freeboard (if used)	d_{fb} =	1.76	ft
Minimum bottom surface area of basin (As = V_{BMP}/d_B)	A_s =	9453.87	ft^2
Minimum total depth required (includes freeboard, filter media and subdrains)	d_{req} =	7.03	ft
Proposed Surface Area		9,470	ft^2

Forebay

Forebay volume (minimum 0.5% V_{BMP})	Volume =	146.535	ft^3
Forebay depth (height of berm/splashwall. 1 foot min.)	Depth =	1	ft
Forebay surface area (minimum)	Area =	146.535	ft^2
Full height notch-type weir	Width (W) =	1.50	in

Filter Media

Description of filter media

X Sand (ASTM C-33)

☐ Other (Clarify in "Notes" below)

Media depth, df = 18 inches

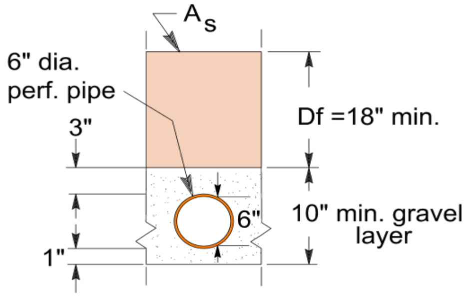

Underdrains

Diameter of perforated underdrain		6	in
Spacing of underdrains (maximum 20 feet on center)	OK	10	ft

Notes:

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #3

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1476.45	0.00	9470			
			3253	3253	0.075
1476.78	0.33	10245			
			3512	6765	0.155
1477.11	0.66	11040			
			3778	10543	0.242
1477.44	0.99	11855			
			4050	14593	0.335
1477.77	1.32	12690			
			4327	18920	0.434
1478.10	1.65	13535			
			4610	23530	0.540
1478.43	1.98	14405			
			4900	28429	0.653
1478.76	2.31	15290			
			5194	33624	0.772
1479.09	2.64	16190			
			5490	39114	0.898
1479.42	2.97	17085			
			2247	41361	0.950
1479.55	3.10	17480			
			3553	44914	1.031
1479.75	3.30	18050			
			6115	51029	1.171
1480.08	3.63	19010			
			6434	57463	1.319
1480.41	3.96	19985			
			6758	64221	1.474
1480.74	4.29	20975			
			7088	71310	1.637
1481.07	4.62	21985			
			5994	77304	1.775
1481.31	4.86	27965			

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: 🟦 Required Entries
▨ Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name Thienes Engineering, Inc.
Date 11/9/2015
Designed by Luis Prado
Case No
Company Project Number/Name Moreno Valley Logistics Center

BMP Identification

BMP NAME / ID Sand Filter Basin (DMA 4)

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth,
from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
4A	*1078110*	*Roofs*	*1*	*0.89*	*961674.1*			
4B	*113256*	*Ornamental Landscaping*	*0.1*	*0.11*	*12510*			
	1191366	***Total***			**974184.1**	**0.64**	***51956.5***	***56063***

Notes:

Sand Filter Basin (SFB) - Design Procedure	BMP ID DMA 4	Legend: Required Entries Calculated Cells

Company Name: Thienes Engineering Inc.
Date: 11/9/2015
Designed by: Luis Prado
County/City Case No.:

Design Volume

Total Tributary area	Tributary area may not exceed 25 acres	A_{TRIB} =	27.35	ac
Enter V_{BMP} determined from Section 2.1 of this Handbook		V_{BMP}=	51,957	ft^3

Basin Geometry

Basin side slopes (no steeper than 4:1)	z =	4	:1
Proposed basin depth (see Figure 1)	d_B =	0.85	ft
Depth of freeboard (if used)	d_{fb} =	4	ft
Minimum bottom surface area of basin (As = V_{BMP}/d_B)	A_s =	61125.9	ft^2
Minimum total depth required (includes freeboard, filter media and subdrains)	d_{req} =	7.02	ft
Proposed Surface Area		63,905	ft^2

Forebay

Forebay volume (minimum 0.5% V_{BMP})	Volume =	259.785	ft^3
Forebay depth (height of berm/splashwall. 1 foot min.)	Depth =	1	ft
Forebay surface area (minimum)	Area =	259.785	ft^2
Full height notch-type weir	Width (W) =	1.50	in

Filter Media

Description of filter media

☒ Sand (ASTM C-33)

☐ Other (Clarify in "Notes" below)

Media depth, df = 18 inches

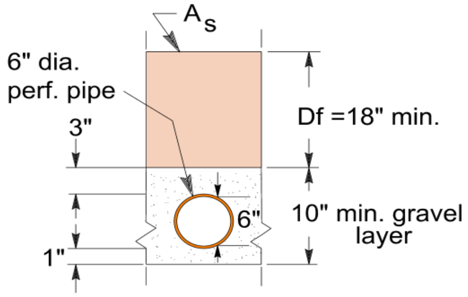

Underdrains

Diameter of perforated underdrain		6	in
Spacing of underdrains (maximum 20 feet on center)	OK	10	ft

Notes:

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #4

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1472.15	0.00	63905			
			21349	21349	0.490
1472.48	0.33	65485			
			22545	43895	1.008
1472.82	0.67	67135			
			8092	51986	1.193
1472.94	0.79	67725			
			4077	56063	1.287
1473.00	0.85	68165			
			10259	66322	1.523
1473.15	1.00	68615			
			59844	126166	2.896
1474.00	1.85	72195			
			74328	200493	4.603
1475.00	2.85	76460			
			78620	279113	6.408
1476.00	3.85	80780			
			82985	362098	8.313
1477.00	4.85	85190			

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: 🟦 Required Entries
▨ Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: Thienes Engineering, Inc.
Date: 11/9/2015
Designed by: Luis Prado
Case No:
Company Project Number/Name: Moreno Valley Logistics Center

BMP Identification

BMP NAME / ID: Sand Filter Basin (DMA 5)

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth,
from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
5A	*609840*	*Roofs*	*1*	*0.89*	*543977.3*			
5B	*115434*	*Ornamental Landscaping*	*0.1*	*0.11*	*12750.6*			
	725274		***Total***		**556727.9**	**0.64**	***29692.2***	***32886***

Notes:

Sand Filter Basin (SFB) - Design Procedure

BMP ID	Legend:	Required Entries
DMA 5		Calculated Cells

Company Name: Thienes Engineering Inc.

Date: 11/9/2015

Designed by: Luis Prado

County/City Case No.:

Design Volume

Total Tributary area A_{TRIB} = 16.65 ac

Enter V_{BMP} determined from Section 2.1 of this Handbook V_{BMP}= 29,692 ft^3

Basin Geometry

Basin side slopes (no steeper than 4:1) z = 4 :1

Proposed basin depth (see Figure 1) d_B = 0.7 ft

Depth of freeboard (if used) d_{fb} = 4.15 ft

Minimum bottom surface area of basin ($As = V_{BMP}/d_B$) A_s = 42417.1 ft^2

Minimum total depth required (includes freeboard, filter media and subdrains) d_{req} = 7.02 ft

Proposed Surface Area 45,355 ft^2

Forebay

Forebay volume (minimum 0.5% V_{BMP}) Volume = 148.46 ft^3

Forebay depth (height of berm/splashwall. 1 foot min.) Depth = 1 ft

Forebay surface area (minimum) Area = 148.46 ft^2

Full height notch-type weir Width (W) = 1.50 in

Filter Media

Description of filter media

X Sand (ASTM C-33)

Other (Clarify in "Notes" below)

Media depth, df = 18 inches

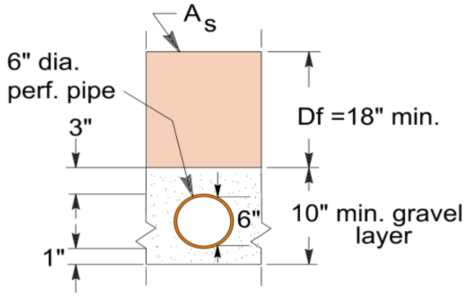

Underdrains

Diameter of perforated underdrain 6 in

Spacing of underdrains (maximum 20 feet on center) OK 10 ft

Notes:

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #5

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	Σ Volume (c.f.)	Σ Volume (ac-ft)
1472.15	0.00	45355			
			15219	15219	0.349
1472.48	0.33	46880			
			15242	30461	0.699
1472.80	0.65	48385			
			969	31430	0.722
1472.82	0.67	48480			
			1456	32886	0.755
1472.85	0.70	48620			
			7344	40230	0.924
1473.00	0.85	49300			
			51350	91580	2.102
1474.00	1.85	53400			
			55498	147078	3.376
1475.00	2.85	57595			
			59738	206815	4.748
1476.00	3.85	61880			
			64070	270885	6.219
1477.00	4.85	66260			

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: 🟦 Required Entries
▨ Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name Thienes Engineering, Inc.
Date 11/9/2015
Designed by Luis Prado
Case No
Company Project Number/Name Moreno Valley Logistics Center

BMP Identification

BMP NAME / ID Sand Filter Basin (DMA 6)

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth,
from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.64 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
6A	*226512*	*Roofs*	*1*	*0.89*	*202048.7*			
6B	*45738*	*Ornamental Landscaping*	*0.1*	*0.11*	*5052.1*			
	272250	***Total***			**207100.8**	**0.64**	***11045.4***	***13860***

Notes:

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Sand Filter Basin (SFB) - Design Procedure	BMP ID DMA 6	Legend: Required Entries Calculated Cells

Company Name:	Thienes Engineering Inc.	Date:	11/9/2015
Designed by:	Luis Prado	County/City Case No.:	

Design Volume

Total Tributary area	A_{TRIB} =	6.25	ac
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	11,045	ft^3

Basin Geometry

Basin side slopes (no steeper than 4:1)	z =	4	:1
Proposed basin depth (see Figure 1)	d_B =	1.7	ft
Depth of freeboard (if used)	d_{fb} =	2.12	ft
Minimum bottom surface area of basin ($As = V_{BMP}/d_B$)	A_s =	6497.06	ft^2
Minimum total depth required (includes freeboard, filter media and subdrains)	d_{req} =	5.99	ft
Proposed Surface Area		6,575	ft^2

Forebay

Forebay volume (minimum 0.5% V_{BMP})	Volume =	55.225	ft^3
Forebay depth (height of berm/splashwall. 1 foot min.)	Depth =	1	ft
Forebay surface area (minimum)	Area =	55.225	ft^2
Full height notch-type weir	Width (W) =	1.50	in

Filter Media

Description of filter media

X Sand (ASTM C-33)

☐ Other (Clarify in "Notes" below)

Media depth, df = 18 inches

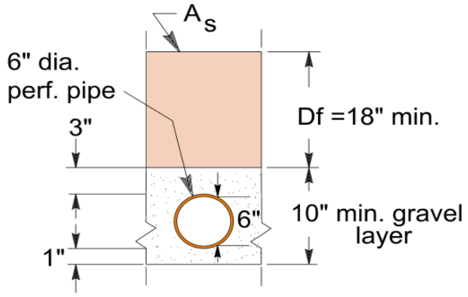

Underdrains

Diameter of perforated underdrain		6	in
Spacing of underdrains (maximum 20 feet on center)	OK	10	ft

Notes:

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

MORENO VALLEY LOGISTICS CENTER, INDIAN STREET, MORENO VALLEY
BASIN #6

Elevation	Depth (feet)	Area (s.f.)	Volume (c.f.)	∑ Volume (c.f.)	∑ Volume (ac-ft)
1472.90	0.00	6575			
			2265	2265	0.052
1473.23	0.33	7155			
			2461	4726	0.109
1473.56	0.66	7760			
			2666	7392	0.170
1473.89	0.99	8395			
			2878	10270	0.236
1474.22	1.32	9050			
			915	11186	0.257
1474.32	1.42	9255			
			2184	13370	0.307
1474.55	1.65	9740			
			490	13860	0.318
1474.60	1.70	9845			
			2841	16701	0.383
1474.88	1.98	10450			
			3571	20272	0.465
1475.21	2.31	11190			
			3819	24091	0.553
1475.54	2.64	11955			
			4075	28166	0.647
1475.87	2.97	12745			
			4341	32507	0.746
1476.20	3.30	13565			
			4615	37122	0.852
1476.53	3.63	14405			
			3042	40164	0.922
1476.72	3.82	17615			

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

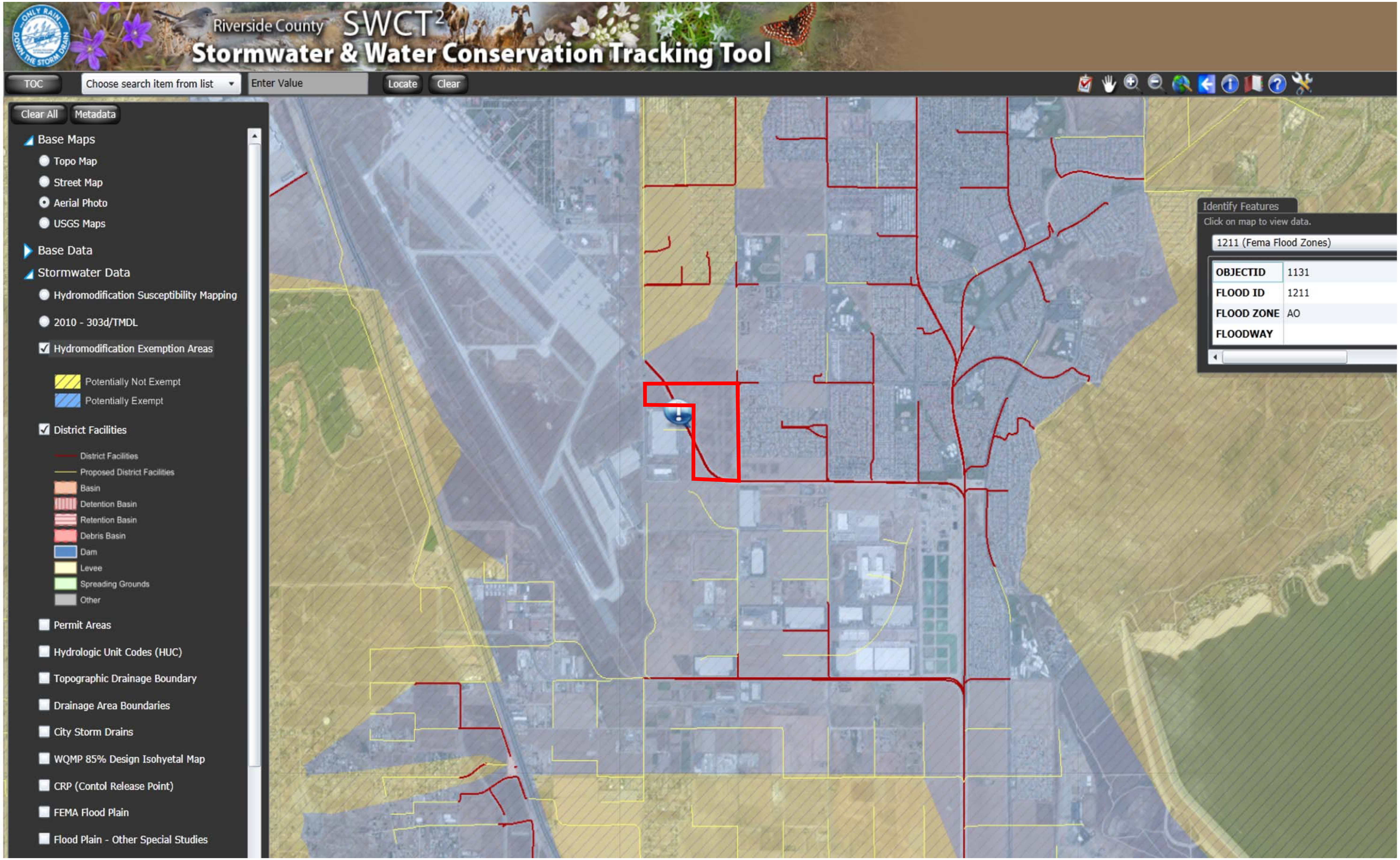

◢ Base Maps
- ○ Topo Map
- ○ Street Map
- ● Aerial Photo
- ○ USGS Maps

▶ Base Data

◢ Stormwater Data
- ○ Hydromodification Susceptibility Mapping
- ○ 2010 - 303d/TMDL
- ☑ Hydromodification Exemption Areas
  - ▨ Potentially Not Exempt
  - ▨ Potentially Exempt
- ☑ District Facilities
  - — District Facilities
  - — Proposed District Facilities
  - ■ Basin
  - ▥ Detention Basin
  - ▤ Retention Basin
  - ■ Debris Basin
  - ■ Dam
  - ■ Levee
  - ■ Spreading Grounds
  - ■ Other
- ☐ Permit Areas
- ☐ Hydrologic Unit Codes (HUC)
- ☐ Topographic Drainage Boundary
- ☐ Drainage Area Boundaries
- ☐ City Storm Drains
- ☐ WQMP 85% Design Isohyetal Map
- ☐ CRP (Contol Release Point)
- ☐ FEMA Flood Plain
- ☐ Flood Plain - Other Special Studies

Identify Features

Click on map to view data.

1211 (Fema Flood Zones)

OBJECTID	1131
FLOOD ID	1211
FLOOD ZONE	AO
FLOODWAY	

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ A. **On-site storm drain inlets**	☐ **Locations of inlets.**	☐ **Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.**	☐ **Maintain and periodically repaint or replace inlet markings.** ☐ **Provide stormwater pollution prevention information to new site owners, lessees, or operators.** ☐ **See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** ☐ **Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."**
☐ B. **Interior floor drains and elevator shaft sump pumps**		☐ **State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.**	☐ **Inspect and maintain drains to prevent blockages and overflow.**
☐ C. **Interior parking garages**		☐ **State that parking garage floor drains will be plumbed to the sanitary sewer.**	☐ **Inspect and maintain drains to prevent blockages and overflow.**

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ D1. **Need for future indoor & structural pest control**		☐ **Note building design features that discourage entry of pests.**	☐ **Provide Integrated Pest Management information to owners, lessees, and operators.**
☐ D2. **Landscape/ Outdoor Pesticide Use**	☐ **Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained.** ☐ **Show self-retaining landscape areas, if any.** ☐ **Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)**	**State that final landscape plans will accomplish all of the following.** ☐ **Preserve existing native trees, shrubs, and ground cover to the maximum extent possible.** ☐ **Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution.** ☐ **Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions.** ☐ **Consider using pest-resistant plants, especially adjacent to hardscape.** ☐ **To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.**	☐ **Maintain landscaping using minimum or no pesticides.** ☐ **See applicable operational BMPs in "What you should know for…..Landscape and Gardening"** at http://rcflood.org/stormwater/**Error! Hyperlink reference not valid.** ☐ **Provide IPM information to new owners, lessees and operators.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ E. **Pools, spas, ponds, decorative fountains, and other water features.**	☐ **Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)**	**If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.**	☐ **See applicable operational BMPs in** "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
☐ F. **Food service**	☐ **For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment.** ☐ **On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.**	☐ **Describe the location and features of the designated cleaning area.** ☐ **Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.**	☐ **See the brochure, "**The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ **Provide this brochure to new site owners, lessees, and operators.**
☐ G. **Refuse areas**	☐ **Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas.** ☐ **If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area.** ☐ **Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.**	☐ **State how site refuse will be handled and provide supporting detail to what is shown on plans.** ☐ **State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.**	☐ **State how the following will be implemented:** **Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at** www.cabmphandbooks.com

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ H. **Industrial processes.**	☐ **Show process area.**	☐ **If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."**	☐ **See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ I. Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	☐ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ☐ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ☐ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	☐ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ J. **Vehicle and Equipment Cleaning**	☐ **Show on drawings as appropriate:** **(1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses.** **(2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use).** **(3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer.** **(4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.**	☐ **If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.**	**Describe operational measures to implement the following (if applicable):** ☐ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system.** Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ☐**Car dealerships and similar may rinse cars with water only.**

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
☐ K. **Vehicle/Equipment Repair and Maintenance**	☐ **Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater.** ☐ **Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.** ☐ **Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.**	☐ **State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area.** ☐ **State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.** ☐ **State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.**	**In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:** ☐ **No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains.** ☐ **No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately.** ☐ **No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.** Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
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☐ L. **Fuel Dispensing Areas**	☐ **Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable.** ☐ **Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.**		☐ **The property owner shall dry sweep the fueling area routinely.** ☐ **See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

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[6] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☐ M. **Loading Docks**	☐ **Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer.** ☐ **Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation.** ☐ **Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.**		☐ **Move loaded and unloaded items indoors as soon as possible.** ☐ **See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☐ N. **Fire Sprinkler Test Water**		☐ **Provide a means to drain fire sprinkler test water to the sanitary sewer.**	☐ **See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com**
O. **Miscellaneous Drain or Wash Water or Other Sources** ☐ **Boiler drain lines** ☐ **Condensate drain lines** ☐ **Rooftop equipment** ☐ **Drainage sumps** ☐ **Roofing, gutters, and trim.** ☐ **Other sources**		☐ **Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system.** ☐ **Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system.** ☐ **Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.** ☐ **Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water.** ☐ **Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.** ☐ **Include controls for other sources as specified by local reviewer.**	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☐ P. **Plazas, sidewalks, and parking lots.**			☐ **Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.**

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Operation and Maintenance Plan

Project Title: Moreno Valley Logistics Center

Contact Information:

Prepared for:
Prologis, Inc.
17777 Center Court Drive North, Suite 100
Cerritos, CA 90703
(562) 345-9200
CONTACT: Scott Mulkay

Prepared by:
THIENES ENGINEERING, INC.
14349 FIRESTONE BLVD.
LA MIRADA, CALIFORNIA 90638
(714) 521-4811
CONTACT: Luis Prado (luisp@thieneseng.com)
JOB NO. 2890d

Original Date Prepared: November 9, 2015

Revision Date(s): ____________________

Revision Date(s): ____________________

Revision Date(s): ____________________

Revision Date(s): ____________________

Table of Contents

List of Appendices

I. Inspection and Maintenance Log

Date	Observations/Actions	Inspector

Additional inspection and maintenance logs to be included in Appendix 1 of this O&M Plan.

II. Updates, Revisions, and Errata

Revision Number	Date	Brief Description of Update/Revision/Errata, include section and page number	Prepared and Approved By

Additional updates, revisions, and errata to be include in Appendix 2 of this O&M Plan.

III. Introduction

Proposed improvements to the site consist of the construction of four commercial type buildings ranging from 94,000 to 1,334,000 square feet.

The overall project property encompasses approximately 84.9 acres (an additional 1.28 acres for Cosmo Street). There will be truck yards and vehicle parking lots adjacent to each building. There will be several water quality / detention basins. The existing Cosmos Street will be extended southerly between Buildings 2 and 3. The remainder of the project site will be reserved for landscaping.

Existing Conditions

The project site consists of several undeveloped dirt lots. Runoff generally surface drains south-easterly and into the Perris Valley Storm Drain Channel.

Proposed Conditions

Building 1 Lot:

Runoff from the east half of Building 1, the building's easterly truck yard, and the east half of the northerly parking lot drains to catch basins in the easterly truck yard. It is then conveyed southerly via a proposed storm drain to Basin #4.

Runoff from the west half of Building 1, the building's southerly and westerly truck yards, and the west half of the northerly parking lot drains to catch basins in the southerly truck yard. It is then conveyed southerly via a proposed storm drain to Basin #5. Basin #5 also accepts runoff from Basin #3 and the offsite dirt lot to the west.

Basin #5 discharges to Basin #4, which discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 1 Lot's southeast corner.

The landscape areas fronting Indian Street, Krameria Avenue and the southern extension of Cosmos Street surface drain to their respective streets.

Building 2 Lot:

Runoff from Building 2, the building's westerly truck yard, easterly parking lot, and the southerly drive aisle drains to a catch basin in the southerly drive aisle. It is then conveyed southerly via a proposed storm drain to Basin #2. Basin #2 discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 2 Lot's southwest corner.

The landscape area at the Building 2 Lot's northwest corner surface drains to the Perris Valley Storm Drain Channel.

Building 3 Lot:

Runoff from Building 3, the building's northerly and easterly truck yards, and the building's southerly and westerly parking lots drains to catch basins in the truck yards and parking lots. It is then conveyed easterly via a proposed storm drain to Basin #6. Basin #6 discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 3 Lot's southeast corner.

The landscape area at the north end of the Building 3 Lot surface drains to the Perris Valley Storm Drain Channel. The landscape area adjacent to the southerly property line of the Building 3 Lot surface drains to Cardinal Avenue.

Building 4 Lot:

Runoff from Building 4, the building's easterly truck yard, northerly and southerly parking lots drains to catch basins in the truck yard. It is then conveyed easterly to Basin #1. Basin #1 discharges into the Perris Valley Storm Drain Channel via a proposed storm drain at the Building 4 Lot's southeast corner.
The landscape area fronting Heacock Avenue surface drains to Heacock Avenue.

IV. Responsibility for Maintenance

IV.A General

Funding will be provided by the owner:

Moorpark Country Properties, a California Corporation
18912 Blackhawk Street
Northridge, CA 91326
(818) 491-0638
Contact: Harry Muranaka, President

C-R Cousins, Inc. Money Purchase Plan
18912 Blackhawk Street
Northridge, CA 91326
(818) 491-0638
Contact: Harry Muranaka, Trustee
Contact: Roy Muranaka, Trustee

Prologis, Inc.
17777 Center Court Drive North, Suite 100
Cerritos, CA 90703
(562) 345-9200
Contact: Scott Mulkay

A copy of the Covenant Agreement will be attached in Appendix 3 of this O&M Plan.

IV.B Staff Training Program

Staff training records and descriptions will be inserted in Appendix 4 of this O&M Plan.

IV.C Records

Maintenance records are to be inserted chronologically in Appendix 1 of this O&M Plan.

IV.D Safety

All maintenance procedures shall comply with the latest OSHA standards.

V. Summary of Drainage Management Areas and Stormwater BMPs

V.A Drainage Areas

See Appendix 5 of this O&M Plan for WQMP site map.

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	Area (Acres)	DMA Type
1A	Roofs/Conc/Asphalt	307,098	7.05	Type D
1B	Ornamental Landscaping	69,696	1.60	Type D
2A	Roofs/Conc/Asphalt	297,515	6.83	Type D
2B	Ornamental Landscaping	50,094	1.15	Type D
3A	Roofs/Conc/Asphalt	609,840	14.00	Type D
3B	Ornamental Landscaping	50,094	1.15	Type D
4A	Roofs/Conc/Asphalt	1,078,110	24.75	Type D
4B	Ornamental Landscaping	113,256	2.60	Type D
5A	Roofs/Conc/Asphalt	609,840	14.00	Type D
5B	Ornamental Landscaping	115,434	2.65	Type D
6A	Roofs/Conc/Asphalt	226,512	5.20	Type D
6B	Ornamental Landscaping	45,738	1.05	Type D
7	Ornamental Landscaping	180,774	4.15	Type A

Geo-location of the BMPs using latitude and longitude coordinates.

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	Latitude	Longitude
A	On-site storm drain inlets	WQMP Site Map	---	---
B	Interior floor drains and elevator shaft sump pumps	N/A	---	---
D2	Landscape / Outdoor Pesticide Use	On-site Landscape Improvement Plans	---	---
G	Refuse Areas	WQMP Site Map	---	---
H	Industrial processes	WQMP Site Map (indoors, if any)	---	---
M	Loading Docks	WQMP Site Map	---	---
P	Plazas, sidewalks, and parking lots (only parking lots applicable)	WQMP Site Map	---	---
SFB #1	Sand Filter Basin #1	WQMP Site Map	33.879526	-117.241517
SFB #2	Sand Filter Basin #2	WQMP Site Map	33.879490	-117.239725
SFB #3	Sand Filter Basin #3	WQMP Site Map	33.877148	-117.238674
SFB #4	Sand Filter Basin #4	WQMP Site Map	33.874716	-117.235509
SFB #5	Sand Filter Basin #5	WQMP Site Map	33.874725	-117.236625
SFB #6	Sand Filter Basin #6	WQMP Site Map	33.873985	-117.237762

V.B Structural Post-Construction BMPs

See Appendix 5 of this O&M Plan for WQMP site map.

Additional BMP details are available in Appendix 10 of the WQMP.

V.C Self-Retaining Areas or Other

DMA 7 is a self-treating area that flows off-site.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

VI. Stormwater BMP Design Documentation

VI.A "As-Built" Drawings of each Stormwater BMP

See Appendix 6 of this O&M Plan for "as-built" drawings.

VI.B Manufacturer's Data, Manuals, and Maintenance Requirements

Not applicable, there are no manufactured stormwater BMPs.

VI.C Specific Operation and Maintenance Concerns and Troubleshooting

Not applicable.

VII. Maintenance Schedule or Matrix

VII.A Maintenance Schedule

Schedule (Sand Filter Basin)	Inspection and Maintenance Activity (Sand Filter Basin)
Semi-monthly including just before the annual storm season and following rainfall events.	• Routine maintenance and inspection. • Remove debris and litter from the entire basin to minimize filter clogging and to improve aesthetics. • Check for obvious problems and repair as needed. Address odor, insects, and overgrowth issues associated with stagnant or standing water in the basin bottom. There should be no long-term ponding water. • Check for erosion and sediment laden areas in the basins. Repair as needed. Clean forebay of debris, litter, sediment, etc upon discovery. • Revegetate side slopes where needed.
Annually. Schedule these inspections within 72 hours after a significant rainfall and prior to the rainy season (October 1st). "Significant rainfall" is defined as 0.5 inches or greater of rainfall: http://www.wrh.noaa.gov/forecast/wxtables/	• Inspection of hydraulic and structural facilities. Examine the inlet for blockage, the embankment and spillway integrity, as well as damage to any structural element. • Check side slopes and embankments for erosion, slumping and overgrowth. • Inspect the sand media at the filter drain to verify it is allowing acceptable infiltration. **Scarify the top 3 inches by raking the filter drain's sand surface annually.** • Check the filter drain underdrains for damage or clogging. Repair as needed. • Repair basin inlets, outlets, forebays, and energy dissipaters whenever damage is discovered. • No water should be present 72 hours after an event. No long tern standing water should be present at all. No algae formation should be visible. Correct problem as needed.
Every 5 years or sooner depending on the observed drain times (no more than 72 hours to empty the basin).	• Remove the top 3 inches of sand from the filter drain and backfill with 3 inches of new sand to return the sand layer to its original depth. When scarification or removal of the top 3 inches of sand is no longer effective, remove and replace sand filter layer.

VII.B Service Agreement Information

See Appendix 8 of this O&M Plan for service agreement information with any contractors regarding the O&M of BMPs at the site, if any.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Appendix 1: Inspection and Maintenance Logs

Insert Additional Inspection or Maintenance Logs Here

Date	Observations/Actions	Inspector

Appendix 2: Updates, Revisions, and Errata

Insert Additional Updates, Revisions, and Errata Logs Here

Revision Number	Date	Brief Description of Update/Revision/Errata, include section and page number	Prepared and Approved By

Appendix 3: Maintenance Mechanism

Copy of Covenant Agreement
Establishing Notification Process And Responsibility
For Water Quality Management Plan Implementation And Maintenance

Notification Process and Responsibility

1. **Name:** ______________________________
   Title: ______________________________
   Phone No.: ______________________________

   WQMP Responsibilities:
   (1) Routine inspections to evaluate BMP effectiveness.
   (2) Identifying when BMPs require maintenance.
   (3) Working with qualified contractors to maintain the BMP.
   (4) Recordkeeping of inspections and maintenance activities.

2. **Name:** ______________________________
   Title: ______________________________
   Phone No.: ______________________________

   WQMP Responsibilities:
   (1) Cleaning, repairing, servicing, and maintenance of BMP.

3. **Name:** ______________________________
   Title: ______________________________
   Phone No.: ______________________________

   WQMP Responsibilities:
   (1) In event of failure, and with City Engineer’s authorization, modify or replace with an upgraded BMP to prevent future failure.
   (2) Notify successors of BMPs and maintenance requirements.

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

CITY CLERK
CITY OF MORENO VALLEY
PO BOX 88005
14177 FREDERICK STREET
MORENO VALLEY, CA 92552-0805

EXEMPT FROM FEE PER G.C. Section 6103

SPACE ABOVE THIS LINE FOR RECORDER'S USE

STORMWATER TREATMENT DEVICE AND CONTROL MEASURE ACCESS AND MAINTENANCE COVENANT

Assessor's Parcel Number(s) 316-100-028, -030, -048, -051 and 052

THIS INSTRUMENT is made and entered into this _______ day of _________ 2016, by and between MOORPARK COUNTRY PROPERTIES, A CALIFORNIA CORPORATION, AS TO AN UNDIVIDED 90% INTEREST; AND C-R COUSINS, INC., MONEY PURCHASE PLAN AS TO AN UNDIVIDED 10% INTEREST hereinafter referred to as "Owner," and the City of Moreno Valley, a municipal corporation, hereinafter referred to as "City."

RECITALS

WHEREAS, the Owner owns real property ("Property") in the City specifically described in Exhibit "A," which is attached hereto and incorporated herein by this reference; and

WHEREAS, at the time of approval of the development project known as MORENO VALLEY LOGISTICS CENTER (the "Project") for the Property, the City required the Project to employ on-site storm water and non-storm water control measures to mitigate the Project impacts to water quality and minimize pollutants in urban storm water runoff; and

WHEREAS, the City and Owner, its successors, and assigns, agree that the health, safety and welfare of the residents of the City, require that on-site storm water and non-storm water management control measures be constructed and implemented and adequately maintained on the Property; and

WHEREAS, the Owner has chosen to install SIX (6) SAND FILTER BASINS, hereinafter referred to as the "Device" and other control measures all as described in the Final Water Quality Management Plan (WQMP) to minimize pollutants in urban storm water and non-storm water runoff; and

WHEREAS, the Device and other control measures have been installed and/or implemented in accordance with the WQMP, project plans and specifications approved by the City; and

WHEREAS, the Device and other control measures, being installed on private property and draining only private property are private facilities with all maintenance or replacement therefore being the sole responsibility of the Owner; and

WHEREAS, the Owner is aware that periodic and continuous maintenance including, but not necessarily limited to, filter material replacement and sediment removal is required to assure discharges from the Device, other control measures and the Project are in compliance with the City's Municipal Code for storm water and non-storm water discharges and that such maintenance activity will require compliance with all Federal, State and local laws and regulations, including those pertaining to confined space and waste disposal methods in effect at the time such maintenance occurs;

NOW, THEREFORE, in consideration of City's approval of the Project and the foregoing premises, the mutual covenants contained herein, and the following terms and conditions, the City and Owner agree as follows:

1. The Owner hereby provides the City and its designees with full right of access to the Device and other control measures and the immediate vicinity of the property at any time, upon reasonable notice; or in the event of emergency, as determined by City's Public Works Director/City Engineer or designees, no advance notice; for the purpose of inspection, sampling and testing of the Device and other control measures, and in cases of emergency, where the public health, safety, or welfare is compromised, such emergency shall be declared a “nuisance” as defined in the Municipal Code. Such conditions that created the emergency shall be abated as provided for in the Municipal Code and at the Owner’s expense as provided for in Section 3, below.

2. The Owner shall diligently maintain the Device and other control measures in a manner assuring all discharges from the Device, other control measures and the Project are in compliance with the Municipal Code for storm water and non-storm water discharges at all times. All reasonable precautions shall be exercised by the Owner and the Owner’s representatives in the removal and extraction of materials from the Device and other control measures, and the ultimate disposal of the

materials in a manner consistent with all applicable laws. As may be requested from time to time by the City, the Owner shall provide the City with documentation identifying the materials removed, the quantity and the recycle of disposal destinations, as appropriate.

3. In the event the Owner fails to perform the necessary maintenance contemplated by this Instrument, within five (5) days of being given written notice by the City, the lack of maintenance shall be considered a public health and safety concern and declared a “nuisance”, the City shall take all necessary actions as provided in the Municipal Code, to abate the nuisance and charge the entire cost and expense to the Owner, including administrative costs, attorneys' fees and interest thereon at the maximum rate authorized by law from the date of the notice of expense until paid in full. Additionally, any discharge as a result from the lack of maintenance prescribed herein from the Device to the City’s maintained Municipal Separate Storm Sewer System shall be considered an illegal discharge and considered a violation of the Municipal Code and shall cease immediately. Such cessation may include a yellow or red tag issued to the Project.

4. This Instrument shall be recorded in the Official Records of the County of Riverside at the expense of the Owner and shall constitute notice to all successors and assigns to the title to the Property of the obligations herein set forth. This Instrument shall also constitute a lien against the Property in such amount as will fully reimburse the City, including interest as herein above set forth, subject to

foreclosure in event of default in payment.

5. It is the intent of the Owner that the burdens and benefits herein undertaken shall constitute covenants that run with the Property and shall constitute a lien against the Property.

6. This covenant imposes no liability of any kind whatsoever on the City and the Owner agrees to hold the City harmless from any liability in the event the Device and other control measures fail to operate in accordance with the plans and specification submitted to the City.

7. The obligations herein undertaken shall be binding upon the heirs, successors, executors, administrators and assigns of the Owner hereto. The term "Owner" shall include not only the Owner, but also its heirs, successors, executors, administrators, lessees and assigns. The Owner shall notify any successor to title of all or part of the Property about the existence of this Instrument. The Owner shall provide such notice prior to such successor obtaining an interest in all or part of the Property. The Owner shall provide a copy of such notice to the City at the same time such notice is provided to the successor.

8. Time is of the essence in the performance of this Instrument.

9. Any notice to a party required or called for in this Instrument shall be served in person, or by deposit in the U.S. Mail, first class postage prepaid, to the address set forth below. Notice(s) shall be deemed effective upon receipt, or seventy-two (72) hours after deposit in the U.S. Mail, whichever is earlier. A party may change notice address only by providing written notice thereof to the other party.

CITY:
Public Works Director/City Engineer
City of Moreno Valley

PO Box 88005
14177 Frederick Street
Moreno Valley, CA 92552-0805

OWNER:
Harry Muranaka, President
Moorpark Country Properties, a California Corporation
18912 Blackhawk Street
Northridge, CA 91326

OWNER:
Harry Muranaka, Trustee
C-R Cousins, Inc. Money Purchase Plan
18912 Blackhawk Street
Northridge, CA 91326

OWNER:
Roy Muranaka, Trustee
C-R Cousins, Inc. Money Purchase Plan
18912 Blackhawk Street
Northridge, CA 91326

10. This Instrument represents the entire Covenant of the parties hereto as to the matters contained herein and supersedes any and all prior written or verbal agreements between the parties as to the subject matter hereof.

11. This Instrument shall be governed by and construed in accordance with the laws of the State of California.

12. No amendment to this Instrument shall be made without prior written approval by the City.

APPROVED AS TO FORM:

Suzanne Bryant, City Attorney

CITY OF MORENO VALLEY

By:
Name: Michelle Dawson, City Manager

OWNER:

Harry Muranaka, President
Moorpark Country Properties, a California Corporation

OWNER:

Harry Muranaka, Trustee
C-R Cousins, Inc. Money Purchase Plan

OWNER:

Roy Muranaka, Trustee
C-R Cousins, Inc. Money Purchase Plan

Appendix 4: Training Records

Insert Training Records with Brief Discussion Here

Appendix 5: Site Plan and Details

WQMP Site Map and BMP Details

Appendix 6: “As-Built” Drawings

Insert “As-Builts” Here When Available

Appendix 7: Manufacturer Information

Brochures, Manuals, and Maintenance Requirements

Appendix 8: Service Agreement Information

Insert Contractor Information (if any)

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

3.7 Sand Filter Basin

Type of BMP	Treatment
Treatment Mechanisms	Filtration, Biofiltration
Maximum Tributary Area	25 acres
Other Names	Sand Filter, Media Filter, Pocket Filter

Description

The Sand Filter Basin (SFB) is a basin where the entire invert is constructed as a stormwater filter, using a sand bed above an underdrain system. Stormwater enters the SFB at its forebay where trash and sediment accumulate or through overland sheet flow. Overland sheet flow into the Sand Filter Basin is biofiltered through the vegetated side slopes or other pre-treatment. Flows pass into the sand filter surcharge zone and are gradually filtered through the underlying sand bed. The underdrain gradually dewaters the sand bed and discharges the filtered runoff to a nearby channel, swale, or storm drain.

The primary advantage of the SFB is its effectiveness in removing pollutants where infiltration into the underlying soil is not practical, and where site conditions preclude the use of a Bioretention Facility . The primary disadvantage is a potential for clogging if silts and clays are allowed to flow into the SFB. In addition, this BMP's performance relies heavily on its being regularly and properly maintained.

While this BMP is not currently considered an LID BMP, when designed in accordance with this manual, a Sand Filter Basin is considered to be a highly effective Treatment Control BMP.

Siting Considerations

SFBs should be avoided where onsite configurations include a base flow and/or where this BMP would be put into operation while construction, grading or major landscaping activities are taking place in the tributary catchment. **This BMP has a flat surface area**, so it may be challenging to incorporate into steeply sloping terrain. SFBs should be set away from areas that could discharge fine sediments into the basin such as at the bottom of a slope. **See Section 1 of Riverside County Flood Control and Water Conservation District's "Basin Guidelines" (Appendix C) for additional requirements** (i.e., fencing, maintenance access, etc.) or other guidelines issued by the Engineering Authority (EA)[1].

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[1] The Engineering Authority (EA) may choose to alter these guidelines and may have different/additional requirements. These entities, along with the District, will be referred to as the EA.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

SAND FILTER BASIN BMP FACT SHEET

Setbacks

The bottom of the sand filter should remain above the seasonal high groundwater level. Always consult your geotechnical engineer for additional site specific recommendations.

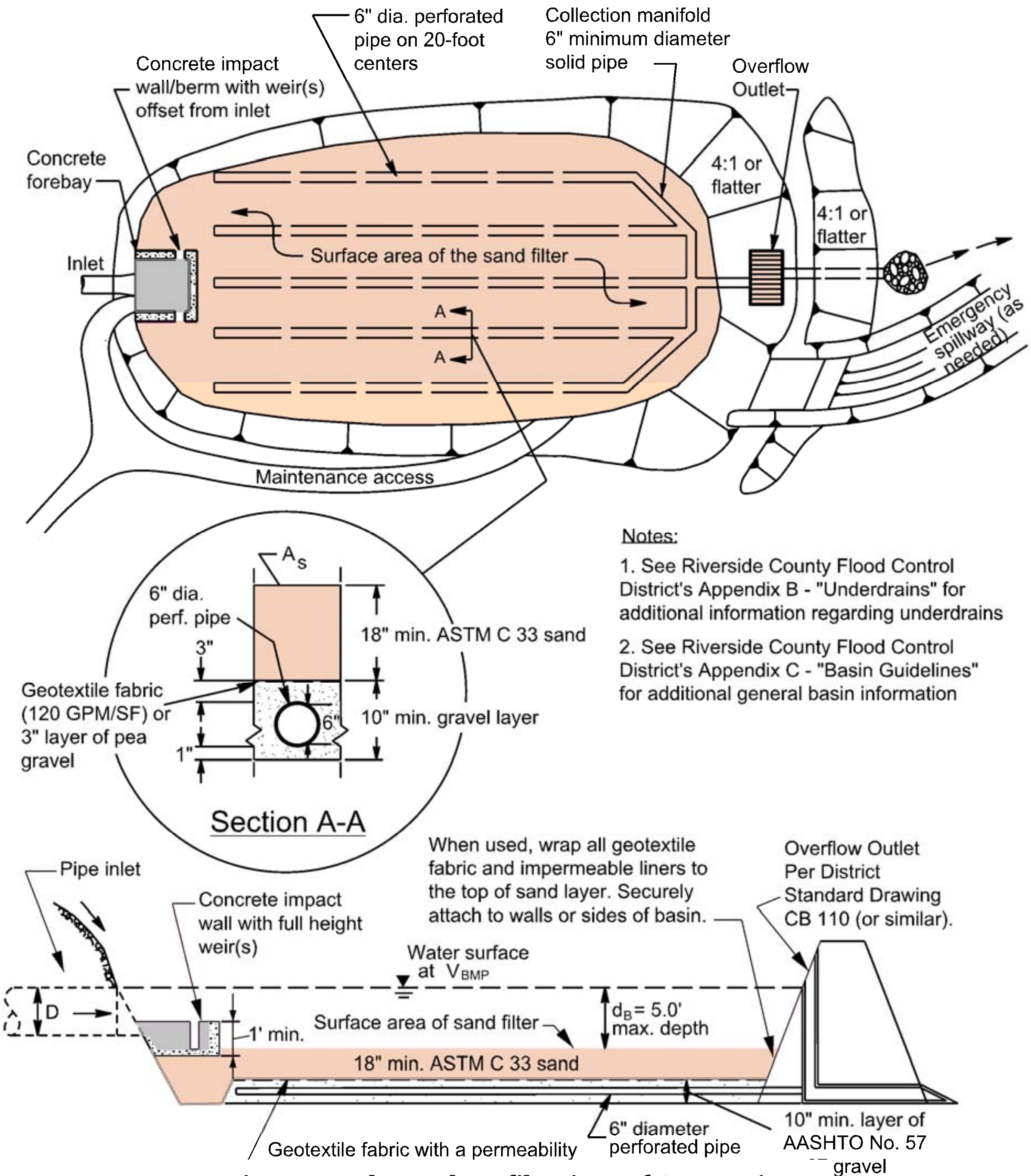

Figure 1 – Plan and Profile Views of SFB Basin

SAND FILTER BASIN BMP FACT SHEET

Forebay

A concrete forebay shall be provided to reduce sediment clogging and to reduce erosion. The forebay shall have a design volume of at least 0.5% V_{BMP} and a minimum 1 foot high concrete splashwall. Full height notch-type weir(s), offset from the line of flow from the basin inlet to prevent short circuiting shall be used to outlet the forebay. It is recommended that two weirs be used and that they be located on opposite sides of the forebay (see Figure 1).

Underdrains

Underdrain piping shall consist of a manifold (collector) pipe with perforated lateral branching. The lateral branching conveys the filtered water to the manifold where it is discharged into the outlet structure. See Appendix B for additional information.

Overflow Structure

An overflow must be provided to drain volume in excess of V_{BMP} or to help drain the system if clogging were to occur. Overflows shall flow to an acceptable discharge point such as a downstream conveyance system. Overflows must be placed above the water quality capture volume and near the outlet of the system. The overflow structure shall be similar to the District's Standard Drawing CB 110.

SAND FILTER BASIN BMP FACT SHEET

Recommended Maintenance

Table 1 - Recommended Inspection and Maintenance Activities for SFBs

Schedule	Inspection and Maintenance Activity
Semi-monthly including just before the annual storm season and following rainfall events.	• Routine maintenance and inspection. • Remove debris and litter from the entire basin to minimize filter clogging and to improve aesthetics. • Check for obvious problems especially filter clogging and signs of long term ponding. Repair as needed. Address odor, insects, and overgrowth issues associated with stagnant or standing water in the basin bottom. There should be no long-term ponding water. • Check for erosion and sediment laden areas in the basin. Repair as needed. Clean forebay if needed. • Revegetate side slopes where needed.
Annually. If possible, schedule these inspections within 72 hours after a significant rainfall.	• Inspection of hydraulic and structural facilities. Examine the overflow outlet for clogging, the embankment and spillway integrity, and damage to any structural element. • Check side slopes and embankments for erosion, slumping and overgrowth. • Inspect the sand media at the filter drain to verify it is allowing acceptable infiltration. **Scarify the top 3 inches by raking the filter drain's sand surface annually.** • Check the filter drain underdrains for damage or clogging. Repair as needed. • Repair basin inlets, outlets, forebays, and energy dissipaters whenever damage is discovered. • No water should be present 72 hours after an event. No long term standing water should be present at all. No algae formation should be visible. Correct problem as needed.
Every 5 years or sooner depending on the observed drain times (no more than 72 hours to empty the basin).	• Remove the top 3 inches of sand from the filter drain and backfill with 3 inches of new sand to return the sand layer to its original depth. When scarification or removal of the top 3 inches of sand is no longer effective, remove and replace sand filter layer.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 2 - Design and Sizing Criteria for SFBs

Design Parameter	Extended Detention Basin
Maximum tributary area	25 acres [2]
Basin design volume	100% of V_{BMP}
Maximum basin depth	5 feet
Forebay volume	0.5 % of V_{BMP}
Longitudinal Slope	0%
Transverse Slope (min.)	0%
Outlet erosion control	Energy dissipaters to reduce velocities[1]

1. **Ventura County's Technical Guidance Manual for Stormwater Quality Control Measures**
2. **CA Stormwater BMP Handbook for New Development and Significant Redevelopment**

Note: The information contained in this BMP Factsheet is intended to be a summary of design considerations and requirements. Additional information which applies to all detention basins may be found in the District's "Basin Guidelines" (Appendix C). In addition, information herein may be superseded by other guidelines issued by the EA.

Design Procedure

1. Enter the Tributary Area, A_{TRIB}
2. Enter the Design Capture Volume, V_{BMP}, determined from Section 2.1 of this Handbook
3. SFB Geometry

Determine the minimum sand filter area required. The filtration bed surface shall be flat with the maximum depth for the reservoir design volume no greater than 5 feet*. The reservoir design volume does not include the volume of the sand filter. No credit is given for voids in the sand layer toward the reservoir volume since the sand is part of the water quality filter and not a reservoir layer. The design storage volume shall equal 100 percent of V_{BMP}. The minimum sand filter area (As) of the basin's bottom shall be determined using the equation:

$$A_s = (V_{BMP} / d_B)$$

Where:

V_{BMP} = Design Volume, ft^3
d_B = proposed basin depth (5 feet maximum), ft

Once the basin side slopes, proposed basin depth and depth of freeboard are entered, the spreadsheet will calculate the minimum total depth required to use this BMP. This is the depth from the top of the basin (including freeboard) down to the bottom of the underdrain gravel layer. This depth can be used to determine if enough vertical separation is available between the BMP and its outlet destination.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

SAND FILTER BASIN BMP FACT SHEET

*Note: The 5 foot maximum depth equates to a minimum filter media infiltration rate of 0.83 inches per hour with a 72 hour drawdown time. Studies have shown that while initially most filter media will infiltrate at a much higher rate, it is not uncommon for that rate to decrease significantly over a very short period of time. (Urbonas, 1996)

4. Enter the proposed surface area of the basin.

5. Forebay

Provide a concrete forebay. Its volume shall be at least 0.5% V_{BMP} with a minimum 1 foot high concrete splashwall. Full-height notch-type weir(s) shall be used to outlet the forebay. The weir(s) must be offset from the line of flow from the basin inlet. It is recommended that two weirs be used and that they be located on opposite sides of the forebay (see Figure 1). Notches shall not be less than 1.5 inches in width.

Figure 1

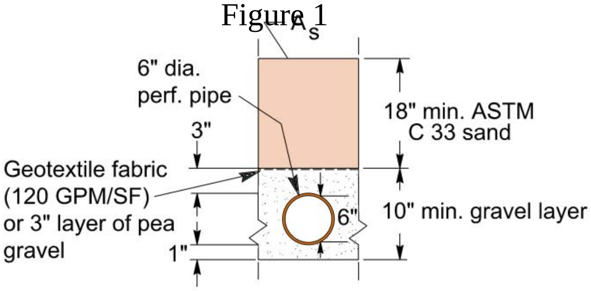

6. Filter Media

Provide, as a minimum, an 18-inch layer of filter media (ASTM C-33 sand). Other filter media may be considered with sufficient supporting documentation. Where a medium level of removal efficiency is desired for nutrients, the depth of the sand layer must be increased to 36 inches.

5. Underdrains

Underdrains shall be provided per the guidelines outlined in Appendix B.

Landscaping and garden maintenance activities can be major contributors to water pollution. Soils, yard wastes, over-watering and garden chemicals become part of the urban runoff mix that winds its way through streets, gutters and storm drains before entering lakes, rivers, streams, etc. Urban runoff pollution contamiates water and harms quatic life!

In Riverside County, report illegal discharges into the storm drain, call
1-800-506-2555
"Only Rain Down the Storm Drain"

Important Links:

Riverside County Household Hazardous Waste Collection Information
1-800-304-2226 or www.rivcowm.org

Riverside County Backyard Composting Program
1-800-366-SAVE

Integrated Pest Management (IPM) Solutions
www.ipm.ucdavis.edu

California Master Gardener Programs
www.mastergardeners.org
www.camastergardeners.ucdavis.edu

California Native Plant Society
www.cnps.org

The Riverside County "Only Rain Down the Storm Drain" Pollution Prevention Program gratefully acknowledges Orange County's Storm Water Program for their contribution to this brochure.

...Only Rain Down ...the Storm Drain

What you should know for... Landscape and Gardening

Best Management tips for:

- Professionals
- Novices
- Landscapers
- Gardeners
- Cultivators

Tips for Landscape & Gardening

This brochure will help you to get the most of your lawn and gardening efforts and keep our waterways clean. Clean waterways provide recreation, establish thriving fish habitats, secure safe sanctuaries for wildlife, and add beauty to our communities. NEVER allow gardening products or waste water to enter the street, gutter or storm drain.

General Landscaping Tips

- Protect stockpiles and materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Prevent erosion of slopes by planting fast-growing, dense ground covering plants. These will shield and bind the soil.
- Plant native vegetation to reduce the amount of water, fertilizers and pesticides applied to the landscape.

- Never apply pesticides or fertilizers when rain is predicted within the next 48 hours.

Garden & Lawn Maintenance

- Do not overwater. Use irrigation practices such as drip irrigation, soaker hoses or micro-spray systems. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of green waste by composting, hauling it to a permitted landfill, or recycling it through your city's program.

- Consider recycling your green waste and adding "nature's own fertilizer" to your lawn or garden.
- Read labels and use only as directed. Do not over-apply pesticides or fertilizers. Apply to spots as needed, rather than blanketing an entire area.
- Store pesticides, fertilizers and other chemicals in a dry covered area to prevent exposure that may result in the deterioration of containers and packaging.
- Rinse empty pesticide containers and re-use rinse water as you would use the product. Do not dump rinse water down storm drains or sewers. Dispose of empty containers in the trash.
- When available, use non-toxic alternatives to traditional pesticides, and use pesticides specifically designed to control the pest you are targeting.
- Try natural long-term common sense solutions first. Integrated Pest Management (IPM) can provide landscaping guidance and solutions, such as:
  - **Physical Controls** - Try hand picking, barriers, traps or caulking holes to control weeds and pests.
  - **Biological Controls** - Use predatory insects to control harmful pests.
  - **Chemical Controls** - Check out www.ipm.ucdavis.edu before using chemicals. Remember, all chemicals should be used cautiously and in moderation.
- If fertilizer is spilled, sweep up the spill before irrigating. If the spill is liquid, apply an absorbent material such as cat litter, and then sweep it up and dispose of it in the trash.
- Take unwanted pesticides to a Household Waste Collection Center to be recycled.
- *Dumping toxics into the street, gutter or storm drain is illegal!*

www.bewaterwise.com Great water conservation tips and drought tolerant garden designs.

www.ourwaterourworld.com Learn how to safely manage home and garden pests.

Additional information can also be found o the back of this brochure.

Non-Stormwater Discharges SC-10

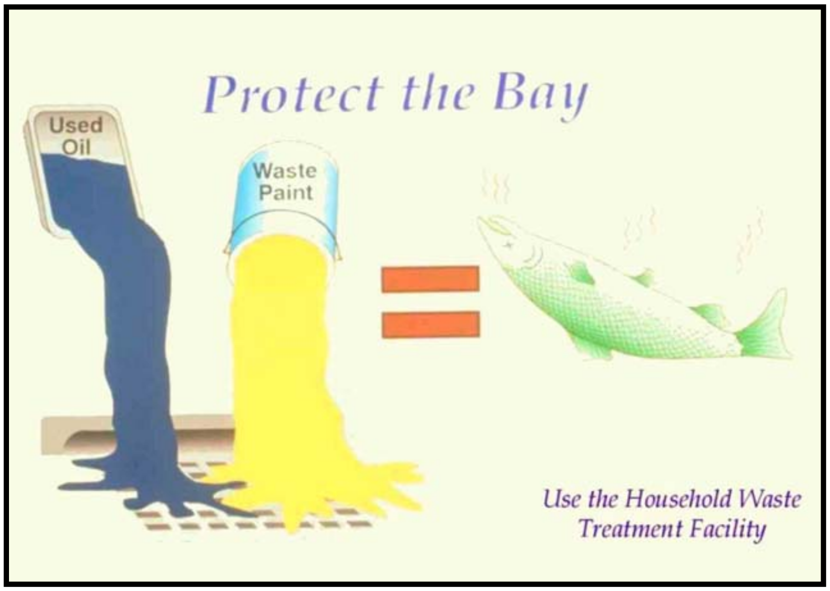

Art Credit: Margie Winter

Description

Non-stormwater discharges are those flows that do not consist entirely of stormwater. Some non-stormwater discharges do not include pollutants and may be discharged to the storm drain. These include uncontaminated groundwater and natural springs. There are also some non-stormwater discharges that typically do not contain pollutants and may be discharged to the storm drain with conditions. These include car washing, air conditioner condensate, etc. However there are certain non-stormwater discharges that pose environmental concern. These discharges may originate from illegal dumping or from internal floor drains, appliances, industrial processes, sinks, and toilets that are connected to the nearby storm drainage system. These discharges (which may include: process waste waters, cooling waters, wash waters, and sanitary wastewater) can carry substances such as paint, oil, fuel and other automotive fluids, chemicals and other pollutants into storm drains. They can generally be detected through a combination of detection and elimination. The ultimate goal is to effectively eliminate non-stormwater discharges to the stormwater drainage system through implementation of measures to detect, correct, and enforce against illicit connections and illegal discharges of pollutants on streets and into the storm drain system and creeks.

Approach

Initially the industry must make an assessment of non-stormwater discharges to determine which types must be eliminated or addressed through BMPs. The focus of the following approach is in the elimination of non-stormwater discharges.

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	✓
Organics	✓

CASQA
California Stormwater Quality Association

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Pollution Prevention

- Ensure that used oil, used antifreeze, and hazardous chemical recycling programs are being implemented. Encourage litter control.

Suggested Protocols

Recommended Complaint Investigation Equipment

- Field Screening Analysis
  - pH paper or meter
  - Commercial stormwater pollutant screening kit that can detect for reactive phosphorus, nitrate nitrogen, ammonium nitrogen, specific conductance, and turbidity
  - Sample jars
  - Sample collection pole
  - A tool to remove access hole covers
- Laboratory Analysis
  - Sample cooler
  - Ice
  - Sample jars and labels
  - Chain of custody forms
- Documentation
  - Camera
  - Notebook
  - Pens
  - Notice of Violation forms
  - Educational materials

General

- Develop clear protocols and lines of communication for effectively prohibiting non-stormwater discharges, especially those that are not classified as hazardous. These are often not responded to as effectively as they need to be.
- Stencil or demarcate storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as "Dump No Waste Drains to Stream" stenciled or demarcated next to them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.

- See SC44 Stormwater Drainage System Maintenance for additional information.

Illicit Connections

- Locate discharges from the industrial storm drainage system to the municipal storm drain system through review of "as-built" piping schematics.
- Isolate problem areas and plug illicit discharge points.
- Locate and evaluate all discharges to the industrial storm drain system.

Visual Inspection and Inventory

- Inventory and inspect each discharge point during dry weather.
- Keep in mind that drainage from a storm event can continue for a day or two following the end of a storm and groundwater may infiltrate the underground stormwater collection system. Also, non-stormwater discharges are often intermittent and may require periodic inspections.

Review Infield Piping

- A review of the "as-built" piping schematic is a way to determine if there are any connections to the stormwater collection system.
- Inspect the path of floor drains in older buildings.

Smoke Testing

- Smoke testing of wastewater and stormwater collection systems is used to detect connections between the two systems.
- During dry weather the stormwater collection system is filled with smoke and then traced to sources. The appearance of smoke at the base of a toilet indicates that there may be a connection between the sanitary and the stormwater system.

Dye Testing

- A dye test can be performed by simply releasing a dye into either your sanitary or process wastewater system and examining the discharge points from the stormwater collection system for discoloration.

TV Inspection of Drainage System

- TV Cameras can be employed to visually identify illicit connections to the industrial storm drainage system.

Illegal Dumping

- Regularly inspect and clean up hot spots and other storm drainage areas where illegal dumping and disposal occurs.
- On paved surfaces, clean up spills with as little water as possible. Use a rag for small spills, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to a certified laundry (rags) or disposed of as hazardous waste.

- Never hose down or bury dry material spills. Sweep up the material and dispose of properly.
- Use adsorbent materials on small spills rather than hosing down the spill. Remove the adsorbent materials promptly and dispose of properly.
- For larger spills, a private spill cleanup company or Hazmat team may be necessary.

Once a site has been cleaned:

- Post “No Dumping” signs with a phone number for reporting dumping and disposal.
- Landscaping and beautification efforts of hot spots may also discourage future dumping, as well as provide open space and increase property values.
- Lighting or barriers may also be needed to discourage future dumping.
- See fact sheet SC11 Spill Prevention, Control, and Cleanup.

Inspection

- Regularly inspect and clean up hot spots and other storm drainage areas where illegal dumping and disposal occurs.
- Conduct field investigations of the industrial storm drain system for potential sources of non-stormwater discharges.
- Pro-actively conduct investigations of high priority areas. Based on historical data, prioritize specific geographic areas and/or incident type for pro-active investigations.

Reporting

- A database is useful for defining and tracking the magnitude and location of the problem.
- Report prohibited non-stormwater discharges observed during the course of normal daily activities so they can be investigated, contained, and cleaned up or eliminated.
- Document that non-stormwater discharges have been eliminated by recording tests performed, methods used, dates of testing, and any on-site drainage points observed.
- Document and report annually the results of the program.
- Maintain documentation of illicit connection and illegal dumping incidents, including significant conditionally exempt discharges that are not properly managed.

Training

- Training of technical staff in identifying and documenting illegal dumping incidents is required.
- Consider posting the quick reference table near storm drains to reinforce training.
- Train employees to identify non-stormwater discharges and report discharges to the appropriate departments.

- Educate employees about spill prevention and cleanup.

- Well-trained employees can reduce human errors that lead to accidental releases or spills. The employee should have the tools and knowledge to immediately begin cleaning up a spill should one occur. Employees should be familiar with the Spill Prevention Control and Countermeasure Plan.

- Determine and implement appropriate outreach efforts to reduce non-permissible non-stormwater discharges.

- Conduct spill response drills annually (if no events occurred to evaluate your plan) in cooperation with other industries.

- When a responsible party is identified, educate the party on the impacts of his or her actions.

Spill Response and Prevention

- See SC11 Spill Prevention Control and Cleanup.

Other Considerations

- Many facilities do not have accurate, up-to-date schematic drawings.

Requirements

Costs (including capital and operation & maintenance)

- The primary cost is for staff time and depends on how aggressively a program is implemented.

- Cost for containment and disposal is borne by the discharger.

- Illicit connections can be difficult to locate especially if there is groundwater infiltration.

- Indoor floor drains may require re-plumbing if cross-connections to storm drains are detected.

Maintenance (including administrative and staffing)

- Illegal dumping and illicit connection violations requires technical staff to detect and investigate them.

Supplemental Information

Further Detail of the BMP

Illegal Dumping

- Substances illegally dumped on streets and into the storm drain systems and creeks include paints, used oil and other automotive fluids, construction debris, chemicals, fresh concrete, leaves, grass clippings, and pet wastes. All of these wastes cause stormwater and receiving water quality problems as well as clog the storm drain system itself.

- Establish a system for tracking incidents. The system should be designed to identify the following:

  - Illegal dumping hot spots

  - Types and quantities (in some cases) of wastes
  - Patterns in time of occurrence (time of day/night, month, or year)
  - Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)
  - Responsible parties

One of the keys to success of reducing or eliminating illegal dumping is increasing the number of people at the facility who are aware of the problem and who have the tools to at least identify the incident, if not correct it. Therefore, train field staff to recognize and report the incidents.

What constitutes a "non-stormwater" discharge?

- Non-stormwater discharges to the stormwater collection system may include any water used directly in the manufacturing process (process wastewater), air conditioning condensate and coolant, non-contact cooling water, cooling equipment condensate, outdoor secondary containment water, vehicle and equipment wash water, sink and drinking fountain wastewater, sanitary wastes, or other wastewaters.

Permit Requirements

- Facilities subject to stormwater permit requirements must include a certification that the stormwater collection system has been tested or evaluated for the presence of non-stormwater discharges. The State's General Industrial Stormwater Permit requires that non-stormwater discharges be eliminated prior to implementation of the facility's SWPPP.

Performance Evaluation

- Review annually internal investigation results; assess whether goals were met and what changes or improvements are necessary.
- Obtain feedback from personnel assigned to respond to, or inspect for, illicit connections and illegal dumping incidents.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Spill Prevention, Control & Cleanup SC-11

Photo Credit: Geoff Brosseau

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	
Nutrients	
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

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Description

Many activities that occur at an industrial or commercial site have the potential to cause accidental or illegal spills. Preparation for accidental or illegal spills, with proper training and reporting systems implemented, can minimize the discharge of pollutants to the environment.

Spills and leaks are one of the largest contributors of stormwater pollutants. Spill prevention and control plans are applicable to any site at which hazardous materials are stored or used. An effective plan should have spill prevention and response procedures that identify potential spill areas, specify material handling procedures, describe spill response procedures, and provide spill clean-up equipment. The plan should take steps to identify and characterize potential spills, eliminate and reduce spill potential, respond to spills when they occur in an effort to prevent pollutants from entering the stormwater drainage system, and train personnel to prevent and control future spills.

Approach

Pollution Prevention

- Develop procedures to prevent/mitigate spills to storm drain systems. Develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures.

- Develop a Spill Prevention Control and Countermeasure (SPCC) Plan. The plan should include:

  - Description of the facility, owner and address, activities and chemicals present
  - Facility map
  - Notification and evacuation procedures
  - Cleanup instructions
  - Identification of responsible departments
  - Identify key spill response personnel

- Recycle, reclaim, or reuse materials whenever possible. This will reduce the amount of process materials that are brought into the facility.

Suggested Protocols (including equipment needs)

Spill Prevention

- Develop procedures to prevent/mitigate spills to storm drain systems. Develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures.

- If consistent illegal dumping is observed at the facility:
  - Post “No Dumping” signs with a phone number for reporting illegal dumping and disposal. Signs should also indicate fines and penalties applicable for illegal dumping.
  - Landscaping and beautification efforts may also discourage illegal dumping.
  - Bright lighting and/or entrance barriers may also be needed to discourage illegal dumping.

- Store and contain liquid materials in such a manner that if the tank is ruptured, the contents will not discharge, flow, or be washed into the storm drainage system, surface waters, or groundwater.

- If the liquid is oil, gas, or other material that separates from and floats on water, install a spill control device (such as a tee section) in the catch basins that collects runoff from the storage tank area.

- Routine maintenance:
  - Place drip pans or absorbent materials beneath all mounted taps, and at all potential drip and spill locations during filling and unloading of tanks. Any collected liquids or soiled absorbent materials must be reused/recycled or properly disposed.
  - Store and maintain appropriate spill cleanup materials in a location known to all near the tank storage area; and ensure that employees are familiar with the site’s spill control plan and/or proper spill cleanup procedures.
  - Sweep and clean the storage area monthly if it is paved, *do not hose down the area to a storm drain.*

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

  - Check tanks (and any containment sumps) daily for leaks and spills. Replace tanks that are leaking, corroded, or otherwise deteriorating with tanks in good condition. Collect all spilled liquids and properly dispose of them.

- Label all containers according to their contents (e.g., solvent, gasoline).

- Label hazardous substances regarding the potential hazard (corrosive, radioactive, flammable, explosive, poisonous).

- Prominently display required labels on transported hazardous and toxic materials (per US DOT regulations).

- Identify key spill response personnel.

Spill Control and Cleanup Activities

- Follow the Spill Prevention Control and Countermeasure Plan.

- Clean up leaks and spills immediately.

- Place a stockpile of spill cleanup materials where it will be readily accessible (e.g., near storage and maintenance areas).

- On paved surfaces, clean up spills with as little water as possible. Use a rag for small spills, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to a certified laundry (rags) or disposed of as hazardous waste. Physical methods for the cleanup of dry chemicals include the use of brooms, shovels, sweepers, or plows.

- Never hose down or bury dry material spills. Sweep up the material and dispose of properly.

- Chemical cleanups of material can be achieved with the use of adsorbents, gels, and foams. Use adsorbent materials on small spills rather than hosing down the spill. Remove the adsorbent materials promptly and dispose of properly.

- For larger spills, a private spill cleanup company or Hazmat team may be necessary.

Reporting

- Report spills that pose an immediate threat to human health or the environment to the Regional Water Quality Control Board.

- Federal regulations require that any oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center (NRC) at 800-424-8802 (24 hour).

- Report spills to local agencies, such as the fire department; they can assist in cleanup.

- Establish a system for tracking incidents. The system should be designed to identify the following:

  - Types and quantities (in some cases) of wastes

  - Patterns in time of occurrence (time of day/night, month, or year)

  - Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)

  - Responsible parties

Training

- Educate employees about spill prevention and cleanup.

- Well-trained employees can reduce human errors that lead to accidental releases or spills:

  - The employee should have the tools and knowledge to immediately begin cleaning up a spill should one occur.

  - Employees should be familiar with the Spill Prevention Control and Countermeasure Plan.

- Employees should be educated about aboveground storage tank requirements. Employees responsible for aboveground storage tanks and liquid transfers should be thoroughly familiar with the Spill Prevention Control and Countermeasure Plan and the plan should be readily available.

- Train employees to recognize and report illegal dumping incidents.

Other Considerations (Limitations and Regulations)

- State regulations exist for facilities with a storage capacity of 10,000 gallons or more of petroleum to prepare a Spill Prevention Control and Countermeasure (SPCC) Plan (Health & Safety Code Chapter 6.67).

- State regulations also exist for storage of hazardous materials (Health & Safety Code Chapter 6.95), including the preparation of area and business plans for emergency response to the releases or threatened releases.

- Consider requiring smaller secondary containment areas (less than 200 sq. ft.) to be connected to the sanitary sewer, prohibiting any hard connections to the storm drain.

Requirements

Costs (including capital and operation & maintenance)

- Will vary depending on the size of the facility and the necessary controls.

- Prevention of leaks and spills is inexpensive. Treatment and/or disposal of contaminated soil or water can be quite expensive.

Maintenance (including administrative and staffing)

- This BMP has no major administrative or staffing requirements. However, extra time is needed to properly handle and dispose of spills, which results in increased labor costs.

Supplemental Information

Further Detail of the BMP

Reporting

Record keeping and internal reporting represent good operating practices because they can increase the efficiency of the facility and the effectiveness of BMPs. A good record keeping system helps the facility minimize incident recurrence, correctly respond with appropriate cleanup activities, and comply with legal requirements. A record keeping and reporting system should be set up for documenting spills, leaks, and other discharges, including discharges of hazardous substances in reportable quantities. Incident records describe the quality and quantity of non-stormwater discharges to the storm sewer. These records should contain the following information:

- Date and time of the incident
- Weather conditions
- Duration of the spill/leak/discharge
- Cause of the spill/leak/discharge
- Response procedures implemented
- Persons notified
- Environmental problems associated with the spill/leak/discharge

Separate record keeping systems should be established to document housekeeping and preventive maintenance inspections, and training activities. All housekeeping and preventive maintenance inspections should be documented. Inspection documentation should contain the following information:

- The date and time the inspection was performed
- Name of the inspector
- Items inspected
- Problems noted
- Corrective action required
- Date corrective action was taken

Other means to document and record inspection results are field notes, timed and dated photographs, videotapes, and drawings and maps.

Aboveground Tank Leak and Spill Control

Accidental releases of materials from aboveground liquid storage tanks present the potential for contaminating stormwater with many different pollutants. Materials spilled, leaked, or lost from tanks may accumulate in soils or on impervious surfaces and be carried away by stormwater runoff.

The most common causes of unintentional releases are:

- Installation problems
- Failure of piping systems (pipes, pumps, flanges, couplings, hoses, and valves)
- External corrosion and structural failure
- Spills and overfills due to operator error
- Leaks during pumping of liquids or gases from truck or rail car to a storage tank or vice versa

Storage of reactive, ignitable, or flammable liquids should comply with the Uniform Fire Code and the National Electric Code. Practices listed below should be employed to enhance the code requirements:

- Tanks should be placed in a designated area.
- Tanks located in areas where firearms are discharged should be encapsulated in concrete or the equivalent.
- Designated areas should be impervious and paved with Portland cement concrete, free of cracks and gaps, in order to contain leaks and spills.
- Liquid materials should be stored in UL approved double walled tanks or surrounded by a curb or dike to provide the volume to contain 10 percent of the volume of all of the containers or 110 percent of the volume of the largest container, whichever is greater. The area inside the curb should slope to a drain.
- For used oil or dangerous waste, a dead-end sump should be installed in the drain.
- All other liquids should be drained to the sanitary sewer if available. The drain must have a positive control such as a lock, valve, or plug to prevent release of contaminated liquids.
- Accumulated stormwater in petroleum storage areas should be passed through an oil/water separator.

Maintenance is critical to preventing leaks and spills. Conduct routine inspections and:

- Check for external corrosion and structural failure.
- Check for spills and overfills due to operator error.
- Check for failure of piping system (pipes, pumps, flanger, coupling, hoses, and valves).
- Check for leaks or spills during pumping of liquids or gases from truck or rail car to a storage facility or vice versa.

- Visually inspect new tank or container installation for loose fittings, poor welding, and improper or poorly fitted gaskets.

- Inspect tank foundations, connections, coatings, and tank walls and piping system. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the tank or container system.

- Frequently relocate accumulated stormwater during the wet season.

- Periodically conduct integrity testing by a qualified professional.

Vehicle Leak and Spill Control
Major spills on roadways and other public areas are generally handled by highly trained Hazmat teams from local fire departments or environmental health departments. The measures listed below pertain to leaks and smaller spills at vehicle maintenance shops.

In addition to implementing the spill prevention, control, and clean up practices above, use the following measures related to specific activities:

Vehicle and Equipment Maintenance

- Perform all vehicle fluid removal or changing inside or under cover to prevent the run-on of stormwater and the runoff of spills.

- Regularly inspect vehicles and equipment for leaks, and repair immediately.

- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

- Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

- Immediately drain all fluids from wrecked vehicles.

- Store wrecked vehicles or damaged equipment under cover.

- Place drip pans or absorbent materials under heavy equipment when not in use.

- Use adsorbent materials on small spills rather than hosing down the spill.

- Remove the adsorbent materials promptly and dispose of properly.

- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

- Oil filters disposed of in trashcans or dumpsters can leak oil and contaminate stormwater. Place the oil filter in a funnel over a waste oil recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask your oil supplier or recycler about recycling oil filters.

- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

- Design the fueling area to prevent the run-on of stormwater and the runoff of spills:
  - Cover fueling area if possible.
  - Use a perimeter drain or slope pavement inward with drainage to a sump.
  - Pave fueling area with concrete rather than asphalt.
- If dead-end sump is not used to collect spills, install an oil/water separator.
- Install vapor recovery nozzles to help control drips as well as air pollution.
- Discourage "topping-off' of fuel tanks.
- Use secondary containment when transferring fuel from the tank truck to the fuel tank.
- Use adsorbent materials on small spills and general cleaning rather than hosing down the area. Remove the adsorbent materials promptly.
- Carry out all Federal and State requirements regarding underground storage tanks, or install above ground tanks.
- Do not use mobile fueling of mobile industrial equipment around the facility; rather, transport the equipment to designated fueling areas.
- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Train employees in proper fueling and cleanup procedures.

Industrial Spill Prevention Response

For the purposes of developing a spill prevention and response program to meet the stormwater regulations, facility managers should use information provided in this fact sheet and the spill prevention/response portions of the fact sheets in this handbook, for specific activities. The program should:

- Integrate with existing emergency response/hazardous materials programs (e.g., Fire Department)
- Develop procedures to prevent/mitigate spills to storm drain systems
- Identify responsible departments
- Develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures
- Address spills at municipal facilities, as well as public areas

- Provide training concerning spill prevention, response and cleanup to all appropriate personnel

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

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The Stormwater Managers Resource Center http://www.stormwatercenter.net/

Outdoor Loading/Unloading SC-30

Photo Credit: Geoff Brosseau

Description

The loading/unloading of materials usually takes place outside on docks or terminals; therefore, materials spilled, leaked, or lost during loading/unloading may collect in the soil or on other surfaces and have the potential to be carried away by stormwater runoff or when the area is cleaned. Additionally, rainfall may wash pollutants from machinery used to unload or move materials. Implementation of the following protocols will prevent or reduce the discharge of pollutants to stormwater from outdoor loading/unloading of materials.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Keep accurate maintenance logs to evaluate materials removed and improvements made.
- Park tank trucks or delivery vehicles in designated areas so that spills or leaks can be contained.
- Limit exposure of material to rainfall whenever possible.
- Prevent stormwater run-on.
- Check equipment regularly for leaks.

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

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Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Suggested Protocols

Loading and Unloading – General Guidelines

- Develop an operations plan that describes procedures for loading and/or unloading.
- Conduct loading and unloading in dry weather if possible.
- Cover designated loading/unloading areas to reduce exposure of materials to rain.
- Consider placing a seal or door skirt between delivery vehicles and building to prevent exposure to rain.
- Design loading/unloading area to prevent stormwater run-on, which would include grading or berming the area, and position roof downspouts so they direct stormwater away from the loading/unloading areas.
- Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible.
- Load/unload only at designated loading areas.
- Use drip pans underneath hose and pipe connections and other leak-prone spots during liquid transfer operations, and when making and breaking connections. Several drip pans should be stored in a covered location near the liquid transfer area so that they are always available, yet protected from precipitation when not in use. Drip pans can be made specifically for railroad tracks. Drip pans must be cleaned periodically, and drip collected materials must be disposed of properly.
- Pave loading areas with concrete instead of asphalt.
- Avoid placing storm drains in the area.
- Grade and/or berm the loading/unloading area to a drain that is connected to a deadend.

Inspection

- Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- Look for dust or fumes during loading or unloading operations.

Training

- Train employees (e.g., fork lift operators) and contractors on proper spill containment and cleanup.
- Have employees trained in spill containment and cleanup present during loading/unloading.
- Train employees in proper handling techniques during liquid transfers to avoid spills.
- Make sure forklift operators are properly trained on loading and unloading procedures.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Contain leaks during transfer.
- Store and maintain appropriate spill cleanup materials in a location that is readily accessible and known to all and ensure that employees are familiar with the site's spill control plan and proper spill cleanup procedures.
- Have an emergency spill cleanup plan readily available.
- Use drip pans or comparable devices when transferring oils, solvents, and paints.

Other Considerations (Limitations and Regulations)

- Space and time limitations may preclude all transfers from being performed indoors or under cover.
- It may not be possible to conduct transfers only during dry weather.

Requirements

Costs

Costs should be low except when covering a large loading/unloading area.

Maintenance

- Conduct regular inspections and make repairs as necessary. The frequency of repairs will depend on the age of the facility.
- Check loading and unloading equipment regularly for leaks.
- Conduct regular broom dry-sweeping of area.

Supplemental Information

Further Detail of the BMP

Special Circumstances for Indoor Loading/Unloading of Materials

Loading or unloading of liquids should occur in the manufacturing building so that any spills that are not completely retained can be discharged to the sanitary sewer, treatment plant, or treated in a manner consistent with local sewer authorities and permit requirements.

- For loading and unloading tank trucks to above and below ground storage tanks, the following procedures should be used:
  - The area where the transfer takes place should be paved. If the liquid is reactive with the asphalt, Portland cement should be used to pave the area.
  - The transfer area should be designed to prevent run-on of stormwater from adjacent areas. Sloping the pad and using a curb, like a speed bump, around the uphill side of the transfer area should reduce run-on.

  - The transfer area should be designed to prevent runoff of spilled liquids from the area. Sloping the area to a drain should prevent runoff. The drain should be connected to a dead-end sump or to the sanitary sewer. A positive control valve should be installed on the drain.

- For transfer from rail cars to storage tanks that must occur outside, use the following procedures:

  - Drip pans should be placed at locations where spillage may occur, such as hose connections, hose reels, and filler nozzles. Use drip pans when making and breaking connections.

  - Drip pan systems should be installed between the rails to collect spillage from tank cars.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

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The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Outdoor Equipment Operations SC-32

Description

Outside process equipment operations and maintenance can contaminate stormwater runoff. Activities, such as grinding, painting, coating, sanding, degreasing or parts cleaning, landfills and waste piles, solid waste treatment and disposal, are examples of process operations that can lead to contamination of stormwater runoff. Source controls for outdoor process equipment operations and maintenance include reducing the amount of waste created, enclosing or covering all or some of the equipment, installing secondary containment, and training employees.

Approach

Pollution Prevention

- Perform the activity during dry periods.
- Use non-toxic chemicals for maintenance and minimize or eliminate the use of solvents.

Suggested Protocols

- Consider enclosing the activity in a building and connecting the floor drains to the sanitary sewer.
- Cover the work area with a permanent roof if possible.
- Minimize contact of stormwater with outside process equipment operations through berming and drainage routing (run-on prevention). If possible, connect process equipment area to public sewer or facility wastewater treatment system. Some municipalities require that secondary containment areas be connected to the sanitary sewer, prohibiting any hard connections to the storm drain.
- Dry clean the work area regularly.

Training

- Train employees to perform the activity during dry periods only or substituting benign materials for more toxic ones.
- Train employee and contractors in proper techniques for spill containment and cleanup. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize

Targeted Constituents

Sediment	✓
Nutrients	
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

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- Have employees trained in emergency spill cleanup procedures present when dangerous waste, liquid chemicals, or other wastes are delivered.

- Place a stockpile of spill cleanup materials where it will be readily accessible.

- Prevent operator errors by using engineering safe guards and thus reducing accidental releases of pollutant.

- Inspect storage areas regularly for leaks or spills. Also check for structural failure, spills and overfills due to operator error, and/or failure of piping system.

Other Considerations

- Providing cover may be expensive.

- Space limitations may preclude enclosing some equipment.

- Storage sheds often must meet building and fire code requirements.

Requirements

Costs

Costs vary depending on the complexity of the operation and the amount of control necessary for stormwater pollution control.

Maintenance

- Conduct routine preventive maintenance, including checking process equipment for leaks.

- Clean the storm drain system regularly.

Supplemental Information

Further Detail of the BMP

Hydraulic/Treatment Modifications

If stormwater becomes polluted, it should be captured and treated. If you do not have your own process wastewater treatment system, consider discharging to the public sewer system. Use of the public sewer might be allowed under the following conditions:

- If the activity area is very small (less than a few hundred square feet), the local sewer authority may be willing to allow the area to remain uncovered with the drain connected to the public sewer.

- It may be possible under unusual circumstances to connect a much larger area to the public sewer, as long as the rate of stormwater discharges does not exceed the capacity of the wastewater treatment plant. The stormwater could be stored during the storm and then transferred to the public sewer when the normal flow is low, such as at night.

Industries that generate large volumes of process wastewater typically have their own treatment system and corresponding permit. These industries have the discretion to use their wastewater treatment system to treat stormwater within the constraints of their permit requirements for process treatment. It may also be possible for the industry to discharge the stormwater directly to an effluent outfall without treatment as long as the total loading of the discharged process

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

water and stormwater does not exceed the loading had a stormwater treatment device been used. This could be achieved by reducing the loading from the process wastewater treatment system. Check with your Regional Water Quality Control Board or local sewering agency, as this option would be subject to permit constraints and potentially regular monitoring.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Stormwater Managers Resource Center http://www.stormwatercenter.net

Waste Handling & Disposal SC-34

Photo Credit: Geoff Brosseau

Description

Improper storage and handling of solid wastes can allow toxic compounds, oils and greases, heavy metals, nutrients, suspended solids, and other pollutants to enter stormwater runoff. The discharge of pollutants to stormwater from waste handling and disposal can be prevented and reduced by tracking waste generation, storage, and disposal; reducing waste generation and disposal through source reduction, reuse, and recycling; and preventing run-on and runoff.

Approach

Pollution Prevention

- Accomplish reduction in the amount of waste generated using the following source controls:
  - Production planning and sequencing
  - Process or equipment modification
  - Raw material substitution or elimination
  - Loss prevention and housekeeping
  - Waste segregation and separation
  - Close loop recycling
- Establish a material tracking system to increase awareness about material usage. This may reduce spills and minimize contamination, thus reducing the amount of waste produced.
- Recycle materials whenever possible.

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	
Nutrients	
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	✓
Organics	✓

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Suggested Protocols

General

- Cover storage containers with leak proof lids or some other means. If waste is not in containers, cover all waste piles (plastic tarps are acceptable coverage) and prevent stormwater run-on and runoff with a berm. The waste containers or piles must be covered except when in use.

- Use drip pans or absorbent materials whenever grease containers are emptied by vacuum trucks or other means. Grease cannot be left on the ground. Collected grease must be properly disposed of as garbage.

- Check storage containers weekly for leaks and to ensure that lids are on tightly. Replace any that are leaking, corroded, or otherwise deteriorating.

- Sweep and clean the storage area regularly. If it is paved, do not hose down the area to a storm drain.

- Dispose of rinse and wash water from cleaning waste containers into a sanitary sewer if allowed by the local sewer authority. Do not discharge wash water to the street or storm drain.

- Transfer waste from damaged containers into safe containers.

- Take special care when loading or unloading wastes to minimize losses. Loading systems can be used to minimize spills and fugitive emission losses such as dust or mist. Vacuum transfer systems can minimize waste loss.

Controlling Litter

- Post “No Littering” signs and enforce anti-litter laws.

- Provide a sufficient number of litter receptacles for the facility.

- Clean out and cover litter receptacles frequently to prevent spillage.

Waste Collection

- Keep waste collection areas clean.

- Inspect solid waste containers for structural damage regularly. Repair or replace damaged containers as necessary.

- Secure solid waste containers; containers must be closed tightly when not in use.

- Do not fill waste containers with washout water or any other liquid.

- Ensure that only appropriate solid wastes are added to the solid waste container. Certain wastes such as hazardous wastes, appliances, fluorescent lamps, pesticides, etc., may not be disposed of in solid waste containers (see chemical/ hazardous waste collection section below).

- Do not mix wastes; this can cause chemical reactions, make recycling impossible, and complicate disposal.

Good Housekeeping

- Use all of the product before disposing of the container.
- Keep the waste management area clean at all times by sweeping and cleaning up spills immediately.
- Use dry methods when possible (e.g., sweeping, use of absorbents) when cleaning around restaurant/food handling dumpster areas. If water must be used after sweeping/using absorbents, collect water and discharge through grease interceptor to the sewer.

Chemical/Hazardous Wastes

- Select designated hazardous waste collection areas on-site.
- Store hazardous materials and wastes in covered containers and protect them from vandalism.
- Place hazardous waste containers in secondary containment.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.
- Stencil or demarcate storm drains on the facility's property with prohibitive message regarding waste disposal.

Run-on/Runoff Prevention

- Prevent stormwater run-on from entering the waste management area by enclosing the area or building a berm around the area.
- Prevent waste materials from directly contacting rain.
- Cover waste piles with temporary covering material such as reinforced tarpaulin, polyethylene, polyurethane, polypropyleneor hypalon.
- Cover the area with a permanent roof if feasible.
- Cover dumpsters to prevent rain from washing waste out of holes or cracks in the bottom of the dumpster.
- Move the activity indoor after ensuring all safety concerns such as fire hazard and ventilation are addressed.

Inspection

- Inspect and replace faulty pumps or hoses regularly to minimize the potential of releases and spills.
- Check waste management areas for leaking containers or spills.

- Repair leaking equipment including valves, lines, seals, or pumps promptly.

Training

- Train staff in pollution prevention measures and proper disposal methods.
- Train employees and contractors in proper spill containment and cleanup. The employee should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
- Train employees and subcontractors in proper hazardous waste management.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Have an emergency plan, equipment and trained personnel ready at all times to deal immediately with major spills
- Collect all spilled liquids and properly dispose of them.
- Store and maintain appropriate spill cleanup materials in a location known to all near the designated wash area.
- Ensure that vehicles transporting waste have spill prevention equipment that can prevent spills during transport. Spill prevention equipment includes:
  - Vehicles equipped with baffles for liquid waste
  - Trucks with sealed gates and spill guards for solid waste

Other Considerations (Limitations and Regulations)

Hazardous waste cannot be reused or recycled; it must be disposed of by a licensed hazardous waste hauler.

Requirements

Costs

Capital and O&M costs for these programs will vary substantially depending on the size of the facility and the types of waste handled. Costs should be low if there is an inventory program in place.

Maintenance

- None except for maintaining equipment for material tracking program.

Supplemental Information

Further Detail of the BMP

Land Treatment System

Minimize runoff of polluted stormwater from land application by:

- Choosing a site where slopes are under 6%, the soil is permeable, there is a low water table, it is located away from wetlands or marshes, and there is a closed drainage system

- Avoiding application of waste to the site when it is raining or when the ground is saturated with water

- Growing vegetation on land disposal areas to stabilize soils and reduce the volume of surface water runoff from the site

- Maintaining adequate barriers between the land application site and the receiving waters (planted strips are particularly good)

- Using erosion control techniques such as mulching and matting, filter fences, straw bales, diversion terracing, and sediment basins

- Performing routine maintenance to ensure the erosion control or site stabilization measures are working

Examples

The port of Long Beach has a state-of-the-art database for identifying potential pollutant sources, documenting facility management practices, and tracking pollutants.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

Solid Waste Container Best Management Practices – Fact Sheet On-Line Resources – Environmental Health and Safety. Harvard University. 2002.

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Safer Alternative Products SC-35

Objectives

- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	
Nutrients	✓
Trash	
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

California Stormwater Quality Association

Description

Promote the use of less harmful products and products that contain little or no TMDL pollutants. Alternatives exist for most product classes including chemical fertilizers, pesticides, cleaning solutions, janitorial chemicals, automotive and paint products, and consumables (batteries, fluorescent lamps).

Approach

Pattern a new program after the many established programs around the state and country. Integrate this best management practice as much as possible with existing programs at your facility.

Develop a comprehensive program based on:

- The “Precautionary Principle,” which is an alternative to the "Risk Assessment" model that says it's acceptable to use a potentially harmful product until physical evidence of its harmful effects are established and deemed too costly from an environmental or public health perspective. For instance, a risk assessment approach might say it's acceptable to use a pesticide until there is direct proof of an environmental impact. The Precautionary Principle approach is used to evaluate whether a given product is safe, whether it is really necessary, and whether alternative products would perform just as well.
- Environmentally Preferable Purchasing Program to minimize the purchase of products containing hazardous ingredients used in the facility's custodial services, fleet maintenance, and facility maintenance in favor of using alternate products that pose less risk to employees and to the environment.
- Integrated Pest Management (IPM) or Less-Toxic Pesticide Program, which uses a pest management approach that minimizes the use of toxic chemicals and gets rid of pests by methods that pose a lower risk to employees, the public, and the environment.
- Energy Efficiency Program including no-cost and low-cost energy conservation and efficiency actions that can reduce both energy consumption and electricity bills, along with long-term energy efficiency investments.

Consider the following mechanisms for developing and implementing a comprehensive program:

- Policies

- Procedures
  - Standard operating procedures (SOPs)
  - Purchasing guidelines and procedures
  - Bid packages (services and supplies)
- Materials
  - Preferred or approved product and supplier lists
  - Product and supplier evaluation criteria
  - Training sessions and manuals
  - Fact sheets for employees

Implement this BMP in conjunction with the Vehicle and Equipment Management fact sheets (SC20 – SC22) and SC41, Building and Grounds Maintenance.

Training

- Employees who handle potentially harmful materials in the use of safer alternatives.
- Purchasing departments should be encouraged to procure less hazardous materials and products that contain little or no harmful substances or TMDL pollutants.

Regulations

This BMP has no regulatory requirements. Existing regulations already encourage facilities to reduce the use of hazardous materials through incentives such as reduced:

- Specialized equipment storage and handling requirements,
- Storm water runoff sampling requirements,
- Training and licensing requirements, and
- Record keeping and reporting requirements.

Equipment

- There are no major equipment requirements to this BMP.

Limitations

- Alternative products may not be available, suitable, or effective in every case.

Requirements

Cost Considerations

- The primary cost is for staff time to: 1) develop new policies and procedures and 2) educate purchasing departments and employees who handle potentially harmful materials about the availability, procurement, and use of safer alternatives.

- Some alternative products may be slightly more expensive than conventional products.

Supplemental Information

Employees and contractors / service providers can both be educated about safer alternatives by using information developed by a number of organizations including the references and resources listed below.

The following discussion provides some general information on safer alternatives. More specific information on particular hazardous materials and the available alternatives may be found in the references and resources listed below.

- Automotive products – Less toxic alternatives are not available for many automotive products, especially engine fluids. But there are alternatives to grease lubricants, car polishes, degreasers, and windshield washer solution. Rerefined motor oil is also available.
- Vehicle/Trailer lubrication – Fifth wheel bearings on trucks require routine lubrication. Adhesive lubricants are available to replace typical chassis grease.
- Cleaners – Vegetables-based or citrus-based soaps are available to replace petroleum-based soaps/detergents.
- Paint products – Water-based paints, wood preservatives, stains, and finishes are available.
- Pesticides – Specific alternative products or methods exist to control most insects, fungi, and weeds.
- Chemical Fertilizers – Compost and soil amendments are natural alternatives.
- Consumables – Manufacturers have either reduced or are in the process of reducing the amount of heavy metals in consumables such as batteries and fluorescent lamps. All fluorescent lamps contain mercury, however low-mercury containing lamps are now available from most hardware and lighting stores. Fluorescent lamps are also more energy efficient than the average incandescent lamp.
- Janitorial chemicals – Even biodegradable soap can harm fish and wildlife before it biodegrades. Biodegradable does not mean non-toxic. Safer products and procedures are available for floor stripping and cleaning, as well as carpet, glass, metal, and restroom cleaning and disinfecting.

Examples

There are a number of business and trade associations, and communities with effective programs. Some of the more prominent are listed below in the references and resources section.

References and Resources

Note: Many of these references provide alternative products for materials that typically are used inside and disposed to the sanitary sewer as well as alternatives to products that usually end up in the storm drain.

General Sustainable Practices and Pollution Prevention Including Pollutant-Specific Information

California Department of Toxic Substances Control (www.dtsc.ca.gov)

California Integrated Waste Management Board (www.ciwmb.ca.gov)

City of Santa Monica (www.santa-monica.org/environment)

City of Palo Alto (www.city.palo-alto.ca.us/cleanbay)

City and County of San Francisco, Department of the Environment (www.ci.sf.ca.us/sfenvironment)

Earth 911 (www.earth911.org/master.asp)

Environmental Finance Center Region IX (www.greenstart.org/efc9)

Flex Your Power (www.flexyourpower.ca.gov)

GreenBiz.com (www.greenbiz.com)

Green Business Program (www.abag.org/bayarea/enviro/gbus/gb.html)

Pacific Industrial and Business Association (www.piba.org)

Sacramento Clean Water Business Partners (www.sacstormwater.org)

USEPA BMP fact sheet – Alternative products (http://cfpub.epa.gov/npdes/stormwater/menuofbmps/poll_2.cfm)

USEPA Region IX Pollution Prevention Program (www.epa.gov/region09/p2)

Western Regional Pollution Prevention Network (www.westp2net.org)

Metals (mercury, copper)

National Electrical Manufacturers Association - Environment, Health and Safety (www.nema.org)

Sustainable Conservation (www.suscon.org)

  Auto Recycling Project

  Brake Pad Partnership

Pesticides and Chemical Fertilizers

Bio-Integral Resource Center (www.birc.org)

California Department of Pesticide Regulation (www.cdpr.ca.gov)

University of California Statewide IPM Program (www.ipm.ucdavis.edu/default.html)

Dioxins

Bay Area Dioxins Project (http://dioxin.abag.ca.gov/)

Building & Grounds Maintenance SC-41

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	
Organics	

California Stormwater Quality Association

Description

Stormwater runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to stormwater from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater collection system.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Switch to non-toxic chemicals for maintenance when possible.
- Choose cleaning agents that can be recycled.
- Encourage proper lawn management and landscaping, including use of native vegetation.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Encourage use of Integrated Pest Management techniques for pest control.

- Encourage proper onsite recycling of yard trimmings.

- Recycle residual paints, solvents, lumber, and other material as much as possible.

Suggested Protocols

Pressure Washing of Buildings, Rooftops, and Other Large Objects

- In situations where soaps or detergents are used and the surrounding area is paved, pressure washers must use a water collection device that enables collection of wash water and associated solids. A sump pump, wet vacuum or similarly effective device must be used to collect the runoff and loose materials. The collected runoff and solids must be disposed of properly.

- If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.

- If you are pressure washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement.

Landscaping Activities

- Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage systems.

- Use mulch or other erosion control measures on exposed soils.

Building Repair, Remodeling, and Construction

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.

- Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.

- Use a ground cloth or oversized tub for activities such as paint mixing and tool cleaning.

- Clean paintbrushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain. Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal.

- Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days. The containment device(s) must be in place at the beginning of the work day, and accumulated dirty runoff and solids must be collected and disposed of before removing the containment device(s) at the end of the work day.

- If you need to de-water an excavation site, you may need to filter the water before discharging to a catch basin or off-site. If directed off-site, you should direct the water through hay bales and filter fabric or use other sediment filters or traps.

- Store toxic material under cover during precipitation events and when not in use. A cover would include tarps or other temporary cover material.

Mowing, Trimming, and Planting

- Dispose of leaves, sticks, or other collected vegetation as garbage, by composting or at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.

- Use mulch or other erosion control measures when soils are exposed.

- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.

- Consider an alternative approach when bailing out muddy water: do not put it in the storm drain; pour over landscaped areas.

- Use hand weeding where practical.

Fertilizer and Pesticide Management

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.

- Use less toxic pesticides that will do the job when applicable. Avoid use of copper-based pesticides if possible.

- Do not use pesticides if rain is expected.

- Do not mix or prepare pesticides for application near storm drains.

- Use the minimum amount needed for the job.

- Calibrate fertilizer distributors to avoid excessive application.

- Employ techniques to minimize off-target application (e.g., spray drift) of pesticides, including consideration of alternative application techniques.

- Apply pesticides only when wind speeds are low.

- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.

- Irrigate slowly to prevent runoff and then only as much as is needed.

- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.

- Dispose of empty pesticide containers according to the instructions on the container label.

- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.

- Implement storage requirements for pesticide products with guidance from the local fire department and County Agricultural Commissioner. Provide secondary containment for pesticides.

Inspection
- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

Training
- Educate and train employees on pesticide use and in pesticide application techniques to prevent pollution.

- Train employees and contractors in proper techniques for spill containment and cleanup.

- Be sure the frequency of training takes into account the complexity of the operations and the nature of the staff.

Spill Response and Prevention
- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.

- Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers (if desired) near the storage area where it will be readily accessible.

- Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.

- Familiarize employees with the Spill Prevention Control and Countermeasure Plan.

- Clean up spills immediately.

Other Considerations
Alternative pest/weed controls may not be available, suitable, or effective in many cases.

Requirements
Costs
- Cost will vary depending on the type and size of facility.

- Overall costs should be low in comparison to other BMPs.

Maintenance
Sweep paved areas regularly to collect loose particles. Wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

Supplemental Information

Further Detail of the BMP

Fire Sprinkler Line Flushing

Building fire sprinkler line flushing may be a source of non-stormwater runoff pollution. The water entering the system is usually potable water, though in some areas it may be non-potable reclaimed wastewater. There are subsequent factors that may drastically reduce the quality of the water in such systems. Black iron pipe is usually used since it is cheaper than potable piping, but it is subject to rusting and results in lower quality water. Initially, the black iron pipe has an oil coating to protect it from rusting between manufacture and installation; this will contaminate the water from the first flush but not from subsequent flushes. Nitrates, polyphosphates and other corrosion inhibitors, as well as fire suppressants and antifreeze may be added to the sprinkler water system. Water generally remains in the sprinkler system a long time (typically a year) and between flushes may accumulate iron, manganese, lead, copper, nickel, and zinc. The water generally becomes anoxic and contains living and dead bacteria and breakdown products from chlorination. This may result in a significant BOD problem and the water often smells. Consequently dispose fire sprinkler line flush water into the sanitary sewer. Do not allow discharge to storm drain or infiltration due to potential high levels of pollutants in fire sprinkler line water.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Mobile Cleaners Pilot Program: Final Report. 1997. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Building Repair and Construction SC-42

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Recycle

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

CASQA
California Stormwater Quality Association

Description

Modifications are common particularly at large industrial sites. The activity may vary from minor and normal building repair to major remodeling, or the construction of new facilities. These activities can generate pollutants including solvents, paints, paint and varnish removers, finishing residues, spent thinners, soap cleaners, kerosene, asphalt and concrete materials, adhesive residues, and old asbestos installation. Protocols in this fact sheet are intended to prevent or reduce the discharge of pollutants to stormwater from building repair, remodeling, and construction by using soil erosion controls, enclosing or covering building material storage areas, using good housekeeping practices, using safer alternative products, and training employees.

Approach

Pollution Prevention

- Recycle residual paints, solvents, lumber, and other materials to the maximum extent practical.
- Buy recycled products to the maximum extent practical.
- Inform on-site contractors of company policy on these matters and include appropriate provisions in their contract to ensure certain proper housekeeping and disposal practices are implemented.

- Make sure that nearby storm drains are well marked to minimize the chance of inadvertent disposal of residual paints and other liquids.

Suggested Protocols

Repair & Remodeling

- Follow BMPs identified in Construction BMP Handbook.
- Maintain good housekeeping practices while work is underway.
- Keep the work site clean and orderly. Remove debris in a timely fashion. Sweep the area.
- Cover materials of particular concern that must be left outside, particularly during the rainy season.
- Do not dump waste liquids down the storm drain.
- Dispose of wash water, sweepings, and sediments properly.
- Store materials properly that are normally used in repair and remodeling such as paints and solvents.
- Sweep out the gutter or wash the gutter and trap the particles at the outlet of the downspout if when repairing roofs, small particles have accumulated in the gutter. A sock or geofabric placed over the outlet may effectively trap the materials. If the downspout is tight lined, place a temporary plug at the first convenient point in the storm drain and pump out the water with a vactor truck, and clean the catch basin sump where you placed the plug.
- Properly store and dispose waste materials generated from construction activities. See Construction BMP Handbook.
- Clean the storm drain system in the immediate vicinity of the construction activity after it is completed.

Painting

- Enclose painting operations consistent with local air quality regulations and OSHA.
- Local air pollution regulations may, in many areas of the state, specify painting procedures which if properly carried out are usually sufficient to protect water quality.
- Develop paint handling procedures for proper use, storage, and disposal of paints.
- Transport paint and materials to and from job sites in containers with secure lids and tied down to the transport vehicle.
- Test and inspect spray equipment prior to starting to paint. Tighten all hoses and connections and do not overfill paint containers.
- Mix paint indoors before using so that any spill will not be exposed to rain. Do so even during dry weather because cleanup of a spill will never be 100% effective.
- Transfer and load paint and hot thermoplastic away from storm drain inlets.

- Do not transfer or load paint near storm drain inlets.
- Plug nearby storm drain inlets prior to starting painting and remove plugs when job is complete when there is significant risk of a spill reaching storm drains.
- Cover nearby storm drain inlets prior to starting work if sand blasting is used to remove paint.
- Use a ground cloth to collect the chips if painting requires scraping or sand blasting of the existing surface. Dispose the residue properly.
- Cover or enclose painting operations properly to avoid drift.
- Clean the application equipment in a sink that is connected to the sanitary sewer if using water based paints.
- Capture all cleanup-water and dispose of properly.
- Dispose of paints containing lead or tributyl tin and considered a hazardous waste properly.
- Store leftover paints if they are to be kept for the next job properly, or dispose properly.
- Recycle paint when possible. Dispose of paint at an appropriate household hazardous waste facility.

Training

Proper education of off-site contractors is often overlooked. The conscientious efforts of well trained employees can be lost by unknowing off-site contractors, so make sure they are well informed about what they are expected to do.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Clean up spills immediately.
- Excavate and remove the contaminated (stained) soil if a spill occurs on dirt.

Limitations

- This BMP is for minor construction only. The State's General Construction Activity Stormwater Permit has more requirements for larger projects. The companion "Construction Best Management Practice Handbook" contains specific guidance and best management practices for larger-scale projects.
- Hazardous waste that cannot be reused or recycled must be disposed of by a licensed hazardous waste hauler.
- Be certain that actions to help stormwater quality are consistent with Cal- and Fed-OSHA and air quality regulations.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Requirements

Costs

These BMPs are generally low to modest in cost.

Maintenance

N/A

Supplemental Information

Further Detail of the BMP

Soil/Erosion Control

If the work involves exposing large areas of soil, employ the appropriate soil erosion and control techniques. See the Construction Best Management Practice Handbook. If old buildings are being torn down and not replaced in the near future, stabilize the site using measures described in SC-40 Contaminated or Erodible Areas.

If a building is to be placed over an open area with a storm drainage system, make sure the storm inlets within the building are covered or removed, or the storm line is connected to the sanitary sewer. If because of the remodeling a new drainage system is to be installed or the existing system is to be modified, consider installing catch basins as they serve as effective "in-line" treatment devices. See Treatment Control Fact Sheet TC-20 Wet Pond/Basin in Section 5 of the New Development and Redevelopment Handbook regarding design criteria. Include in the catch basin a "turn-down" elbow or similar device to trap floatables.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Parking/Storage Area Maintenance SC-43

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	✓
Bacteria	
Oil and Grease	✓
Organics	✓

CASQA California Stormwater Quality Association

Description

Parking lots and storage areas can contribute a number of substances, such as trash, suspended solids, hydrocarbons, oil and grease, and heavy metals that can enter receiving waters through stormwater runoff or non-stormwater discharges. The protocols in this fact sheet are intended to prevent or reduce the discharge of pollutants from parking/storage areas and include using good housekeeping practices, following appropriate cleaning BMPs, and training employees.

Approach

The goal of this program is to ensure stormwater pollution prevention practices are considered when conducting activities on or around parking areas and storage areas to reduce potential for pollutant discharge to receiving waters. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Encourage alternative designs and maintenance strategies for impervious parking lots. (See New Development and Redevelopment BMP Handbook)
- Keep accurate maintenance logs to evaluate BMP implementation.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

SC-43 Parking/Storage Area Maintenance

Suggested Protocols

General

- Keep the parking and storage areas clean and orderly. Remove debris in a timely fashion.
- Allow sheet runoff to flow into biofilters (vegetated strip and swale) and/or infiltration devices.
- Utilize sand filters or oleophilic collectors for oily waste in low quantities.
- Arrange rooftop drains to prevent drainage directly onto paved surfaces.
- Design lot to include semi-permeable hardscape.
- Discharge soapy water remaining in mop or wash buckets to the sanitary sewer through a sink, toilet, clean-out, or wash area with drain.

Controlling Litter

- Post "No Littering" signs and enforce anti-litter laws.
- Provide an adequate number of litter receptacles.
- Clean out and cover litter receptacles frequently to prevent spillage.
- Provide trash receptacles in parking lots to discourage litter.
- Routinely sweep, shovel, and dispose of litter in the trash.

Surface Cleaning

- Use dry cleaning methods (e.g., sweeping, vacuuming) to prevent the discharge of pollutants into the stormwater conveyance system if possible.
- Establish frequency of public parking lot sweeping based on usage and field observations of waste accumulation.
- Sweep all parking lots at least once before the onset of the wet season.
- Follow the procedures below if water is used to clean surfaces:
  - Block the storm drain or contain runoff.
  - Collect and pump wash water to the sanitary sewer or discharge to a pervious surface. Do not allow wash water to enter storm drains.
  - Dispose of parking lot sweeping debris and dirt at a landfill.
- Follow the procedures below when cleaning heavy oily deposits:
  - Clean oily spots with absorbent materials.
  - Use a screen or filter fabric over inlet, then wash surfaces.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

  - Do not allow discharges to the storm drain.
  - Vacuum/pump discharges to a tank or discharge to sanitary sewer.
  - Appropriately dispose of spilled materials and absorbents.

Surface Repair

- Preheat, transfer or load hot bituminous material away from storm drain inlets.
- Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting stormwater runoff.
- Cover and seal nearby storm drain inlets where applicable (with waterproof material or mesh) and manholes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and all water from emulsified oil sealants has drained or evaporated. Clean any debris from these covered manholes and drains for proper disposal.
- Use only as much water as necessary for dust control, to avoid runoff.
- Catch drips from paving equipment that is not in use with pans or absorbent material placed under the machines. Dispose of collected material and absorbents properly.

Inspection

- Have designated personnel conduct inspections of parking facilities and stormwater conveyance systems associated with parking facilities on a regular basis.
- Inspect cleaning equipment/sweepers for leaks on a regular basis.

Training

- Provide regular training to field employees and/or contractors regarding cleaning of paved areas and proper operation of equipment.
- Train employees and contractors in proper techniques for spill containment and cleanup.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials where it will be readily accessible or at a central location.
- Clean up fluid spills immediately with absorbent rags or material.
- Dispose of spilled material and absorbents properly.

Other Considerations

Limitations related to sweeping activities at large parking facilities may include high equipment costs, the need for sweeper operator training, and the inability of current sweeper technology to remove oil and grease.

SC-43 Parking/Storage Area Maintenance

Requirements

Costs

Cleaning/sweeping costs can be quite large. Construction and maintenance of stormwater structural controls can be quite expensive as well.

Maintenance

- Sweep parking lot regularly to minimize cleaning with water.
- Clean out oil/water/sand separators regularly, especially after heavy storms.
- Clean parking facilities regularly to prevent accumulated wastes and pollutants from being discharged into conveyance systems during rainy conditions.

Supplemental Information

Further Detail of the BMP

Surface Repair

Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting stormwater runoff. Where applicable, cover and seal nearby storm drain inlets (with waterproof material or mesh) and manholes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and all water from emulsified oil sealants has drained or evaporated. Clean any debris from these covered manholes and drains for proper disposal. Only use only as much water as is necessary for dust control to avoid runoff.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Drainage System Maintenance SC-44

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	✓
Oil and Grease	
Organics	

CASQA
California
Stormwater
Quality
Association

Description

As a consequence of its function, the stormwater conveyance system collects and transports urban runoff and stormwater that may contain certain pollutants. The protocols in this fact sheet are intended to reduce pollutants reaching receiving waters through proper conveyance system operation and maintenance.

Approach

Pollution Prevention

Maintain catch basins, stormwater inlets, and other stormwater conveyance structures on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, restore catch basins' sediment trapping capacity, and ensure the system functions properly hydraulically to avoid flooding.

Suggested Protocols

Catch Basins/Inlet Structures

- Staff should regularly inspect facilities to ensure compliance with the following:
  - Immediate repair of any deterioration threatening structural integrity.
  - Cleaning before the sump is 40% full. Catch basins should be cleaned as frequently as needed to meet this standard.
  - Stenciling of catch basins and inlets (see SC34 Waste Handling and Disposal).

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Clean catch basins, storm drain inlets, and other conveyance structures before the wet season to remove sediments and debris accumulated during the summer.

- Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed.

- Keep accurate logs of the number of catch basins cleaned.

- Store wastes collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain.

- Dewater the wastes if necessary with outflow into the sanitary sewer if permitted. Water should be treated with an appropriate filtering device prior to discharge to the sanitary sewer. If discharge to the sanitary sewer is not allowed, water should be pumped or vacuumed to a tank and properly disposed. Do not dewater near a storm drain or stream.

Storm Drain Conveyance System

- Locate reaches of storm drain with deposit problems and develop a flushing schedule that keeps the pipe clear of excessive buildup.

- Collect and pump flushed effluent to the sanitary sewer for treatment whenever possible.

Pump Stations

- Clean all storm drain pump stations prior to the wet season to remove silt and trash.

- Do not allow discharge to reach the storm drain system when cleaning a storm drain pump station or other facility.

- Conduct routine maintenance at each pump station.

- Inspect, clean, and repair as necessary all outlet structures prior to the wet season.

Open Channel

- Modify storm channel characteristics to improve channel hydraulics, increase pollutant removals, and enhance channel/creek aesthetic and habitat value.

- Conduct channel modification/improvement in accordance with existing laws. Any person, government agency, or public utility proposing an activity that will change the natural (emphasis added) state of any river, stream, or lake in California, must enter into a Steam or Lake Alteration Agreement with the Department of Fish and Game. The developer-applicant should also contact local governments (city, county, special districts), other state agencies (SWRCB, RWQCB, Department of Forestry, Department of Water Resources), and Federal Corps of Engineers and USFWS.

Illicit Connections and Discharges

- Look for evidence of illegal discharges or illicit connections during routine maintenance of conveyance system and drainage structures:
  - Is there evidence of spills such as paints, discoloring, etc?

  - Are there any odors associated with the drainage system?
  - Record locations of apparent illegal discharges/illicit connections?
  - Track flows back to potential dischargers and conduct aboveground inspections. This can be done through visual inspection of upgradient manholes or alternate techniques including zinc chloride smoke testing, fluorometric dye testing, physical inspection testing, or television camera inspection.
  - Eliminate the discharge once the origin of flow is established.

- Stencil or demarcate storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as "Dump No Waste Drains to Stream" stenciled next to them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.

- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Illegal Dumping

- Inspect and clean up hot spots and other storm drainage areas regularly where illegal dumping and disposal occurs.

- Establish a system for tracking incidents. The system should be designed to identify the following:
  - Illegal dumping hot spots
  - Types and quantities (in some cases) of wastes
  - Patterns in time of occurrence (time of day/night, month, or year)
  - Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)
  - Responsible parties

- Post "No Dumping" signs in problem areas with a phone number for reporting dumping and disposal. Signs should also indicate fines and penalties for illegal dumping.

- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Training

- Train crews in proper maintenance activities, including record keeping and disposal.

- Allow only properly trained individuals to handle hazardous materials/wastes.

- Have staff involved in detection and removal of illicit connections trained in the following:
  - OSHA-required Health and Safety Training (29 CFR 1910.120) plus annual refresher training (as needed).

  - OSHA Confined Space Entry training (Cal-OSHA Confined Space, Title 8 and Federal OSHA 29 CFR 1910.146).

  - Procedural training (field screening, sampling, smoke/dye testing, TV inspection).

Spill Response and Prevention

- Investigate all reports of spills, leaks, and/or illegal dumping promptly.

- Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags) or dig up, remove, and properly dispose of contaminated soil.

- Refer to fact sheet SC-11 Spill Prevention, Control, and Cleanup.

Other Considerations (Limitations and Regulations)

- Clean-up activities may create a slight disturbance for local aquatic species. Access to items and material on private property may be limited. Trade-offs may exist between channel hydraulics and water quality/riparian habitat. If storm channels or basins are recognized as wetlands, many activities, including maintenance, may be subject to regulation and permitting.

- Storm drain flushing is most effective in small diameter pipes (36-inch diameter pipe or less, depending on water supply and sediment collection capacity). Other considerations associated with storm drain flushing may include the availability of a water source, finding a downstream area to collect sediments, liquid/sediment disposal, and prohibition against disposal of flushed effluent to sanitary sewer in some areas.

- Regulations may include adoption of substantial penalties for illegal dumping and disposal.

- Local municipal codes may include sections prohibiting discharge of soil, debris, refuse, hazardous wastes, and other pollutants into the storm drain system.

Requirements

Costs

- An aggressive catch basin cleaning program could require a significant capital and O&M budget.

- The elimination of illegal dumping is dependent on the availability, convenience, and cost of alternative means of disposal. The primary cost is for staff time. Cost depends on how aggressively a program is implemented. Other cost considerations for an illegal dumping program include:

  - Purchase and installation of signs.

  - Rental of vehicle(s) to haul illegally-disposed items and material to landfills.

  - Rental of heavy equipment to remove larger items (e.g., car bodies) from channels.

  - Purchase of landfill space to dispose of illegally-dumped items and material.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Methods used for illicit connection detection (smoke testing, dye testing, visual inspection, and flow monitoring) can be costly and time-consuming. Site-specific factors, such as the level of impervious area, the density and ages of buildings, and type of land use will determine the level of investigation necessary.

Maintenance

- Two-person teams may be required to clean catch basins with vactor trucks.
- Teams of at least two people plus administrative personnel are required to identify illicit discharges, depending on the complexity of the storm sewer system.
- Arrangements must be made for proper disposal of collected wastes.
- Technical staff are required to detect and investigate illegal dumping violations.

Supplemental Information

Further Detail of the BMP

Storm Drain Flushing

Flushing is a common maintenance activity used to improve pipe hydraulics and to remove pollutants in storm drainage systems. Flushing may be designed to hydraulically convey accumulated material to strategic locations, such as an open channel, another point where flushing will be initiated, or the sanitary sewer and the treatment facilities, thus preventing resuspension and overflow of a portion of the solids during storm events. Flushing prevents "plug flow" discharges of concentrated pollutant loadings and sediments. Deposits can hinder the designed conveyance capacity of the storm drain system and potentially cause backwater conditions in severe cases of clogging.

Storm drain flushing usually takes place along segments of pipe with grades that are too flat to maintain adequate velocity to keep particles in suspension. An upstream manhole is selected to place an inflatable device that temporarily plugs the pipe. Further upstream, water is pumped into the line to create a flushing wave. When the upstream reach of pipe is sufficiently full to cause a flushing wave, the inflated device is rapidly deflated with the assistance of a vacuum pump, thereby releasing the backed up water and resulting in the cleaning of the storm drain segment.

To further reduce impacts of stormwater pollution, a second inflatable device placed well downstream may be used to recollect the water after the force of the flushing wave has dissipated. A pump may then be used to transfer the water and accumulated material to the sanitary sewer for treatment. In some cases, an interceptor structure may be more practical or required to recollect the flushed waters.

It has been found that cleansing efficiency of periodic flush waves is dependent upon flush volume, flush discharge rate, sewer slope, sewer length, sewer flow rate, sewer diameter, and population density. As a rule of thumb, the length of line to be flushed should not exceed 700 feet. At this maximum recommended length, the percent removal efficiency ranges between 65-75% for organics and 55-65% for dry weather grit/inorganic material. The percent removal efficiency drops rapidly beyond that. Water is commonly supplied by a water truck, but fire hydrants can also supply water. To make the best use of water, it is recommended that reclaimed water be used or that fire hydrant line flushing coincide with storm sewer flushing.

Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

Ferguson, B.K. 1991. Urban Stream Reclamation, p. 324-322, Journal of Soil and Water Conservation.

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net

United States Environmental Protection Agency (USEPA). 2002. Pollution Prevention/Good Housekeeping for Municipal Operations Storm Drain System Cleaning. On line:
http://www.epa.gov/npdes/menuofbmps/poll_16.htm

Efficient Irrigation SD-12

Design Objectives

☑ Maximize Infiltration

☑ Provide Retention

☑ Slow Runoff

Minimize Impervious Land Coverage

Prohibit Dumping of Improper Materials

Contain Pollutants

Collect and Convey

Description

Irrigation water provided to landscaped areas may result in excess irrigation water being conveyed into stormwater drainage systems.

Approach

Project plan designs for development and redevelopment should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Designing New Installations

The following methods to reduce excessive irrigation runoff should be considered, and incorporated and implemented where determined applicable and feasible by the Permittee:

- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Implement landscape plans consistent with County or City water conservation resolutions, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

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- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water drainage system.

- Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider design features such as:

    - Using mulches (such as wood chips or bar) in planter areas without ground cover to minimize sediment in runoff

    - Installing appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant materials where possible and/or as recommended by the landscape architect

    - Leaving a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible

    - Choosing plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth

- Employ other comparable, equally effective methods to reduce irrigation water runoff.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define “redevelopment” in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of “ redevelopment” must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under “designing new installations” above should be followed.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Storm Drain Signage SD-13

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters. Posting notices regarding discharge prohibitions at storm drain inlets can prevent waste dumping. Storm drain signs and stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets.

Approach

The stencil or affixed sign contains a brief statement that prohibits dumping of improper materials into the urban runoff conveyance system. Storm drain messages have become a popular method of alerting the public about the effects of and the prohibitions against waste disposal.

Suitable Applications

Stencils and signs alert the public to the destination of pollutants discharged to the storm drain. Signs are appropriate in residential, commercial, and industrial areas, as well as any other area where contributions or dumping to storm drains is likely.

Design Considerations

Storm drain message markers or placards are recommended at all storm drain inlets within the boundary of a development project. The marker should be placed in clear sight facing toward anyone approaching the inlet from either side. All storm drain inlet locations should be identified on the development site map.

Designing New Installations

The following methods should be considered for inclusion in the project design and show on project plans:

- Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language. Examples include "NO DUMPING

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– DRAINS TO OCEAN" and/or other graphical icons to discourage illegal dumping.

- Post signs with prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

Note - Some local agencies have approved specific signage and/or storm drain message placards for use. Consult local agency stormwater staff to determine specific requirements for placard types and methods of application.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. If the project meets the definition of "redevelopment", then the requirements stated under " designing new installations" above should be included in all project design plans.

Additional Information

Maintenance Considerations

- Legibility of markers and signs should be maintained. If required by the agency with jurisdiction over the project, the owner/operator or homeowner's association should enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards or signs.

Placement

- Signage on top of curbs tends to weather and fade.

- Signage on face of curbs tends to be worn by contact with vehicle tires and sweeper brooms.

Supplemental Information

Examples

- Most MS4 programs have storm drain signage programs. Some MS4 programs will provide stencils, or arrange for volunteers to stencil storm drains as part of their outreach program.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Maintenance Bays & Docks SD-31

Design Objectives

Maximize Infiltration

Provide Retention

Slow Runoff

Minimize Impervious Land Coverage

☑ Prohibit Dumping of Improper Materials

☑ Contain Pollutants

Collect and Convey

Description

Several measures can be taken to prevent operations at maintenance bays and loading docks from contributing a variety of toxic compounds, oil and grease, heavy metals, nutrients, suspended solids, and other pollutants to the stormwater conveyance system.

Approach

In designs for maintenance bays and loading docks, containment is encouraged. Preventative measures include overflow containment structures and dead-end sumps. However, in the case of loading docks from grocery stores and warehouse/distribution centers, engineered infiltration systems may be considered.

Suitable Applications

Appropriate applications include commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for vehicle maintenance and repair are governed by Building and Fire Codes, and by current local agency ordinances, and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code requirements.

Designing New Installations

Designs of maintenance bays should consider the following:

- Repair/maintenance bays and vehicle parts with fluids should be indoors; or designed to preclude urban run-on and runoff.
- Repair/maintenance floor areas should be paved with Portland cement concrete (or equivalent smooth impervious surface).

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- Repair/maintenance bays should be designed to capture all wash water leaks and spills. Provide impermeable berms, drop inlets, trench catch basins, or overflow containment structures around repair bays to prevent spilled materials and wash-down waters form entering the storm drain system. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.

- Other features may be comparable and equally effective.

The following designs of loading/unloading dock areas should be considered:

- Loading dock areas should be covered, or drainage should be designed to preclude urban run-on and runoff.

- Direct connections into storm drains from depressed loading docks (truck wells) are prohibited.

- Below-grade loading docks from grocery stores and warehouse/distribution centers of fresh food items should drain through water quality inlets, or to an engineered infiltration system, or an equally effective alternative. Pre-treatment may also be required.

- Other features may be comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Stormwater and non-stormwater will accumulate in containment areas and sumps with impervious surfaces. Contaminated accumulated water must be disposed of in accordance with applicable laws and cannot be discharged directly to the storm drain or sanitary sewer system without the appropriate permit.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Trash Storage Areas SD-32

Description

Trash storage areas are areas where a trash receptacle (s) are located for use as a repository for solid wastes. Stormwater runoff from areas where trash is stored or disposed of can be polluted. In addition, loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or creeks. Waste handling operations that may be sources of stormwater pollution include dumpsters, litter control, and waste piles.

Approach

This fact sheet contains details on the specific measures required to prevent or reduce pollutants in stormwater runoff associated with trash storage and handling. Preventative measures including enclosures, containment structures, and impervious pavements to mitigate spills, should be used to reduce the likelihood of contamination.

Design Objectives

☐ Maximize Infiltration
☐ Provide Retention
☐ Slow Runoff
☐ Minimize Impervious Land Coverage
☐ Prohibit Dumping of Improper Materials
☑ Contain Pollutants
☐ Collect and Convey

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Design requirements for waste handling areas are governed by Building and Fire Codes, and by current local agency ordinances and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code and ordinance requirements. Hazardous waste should be handled in accordance with legal requirements established in Title 22, California Code of Regulation.

Wastes from commercial and industrial sites are typically hauled by either public or commercial carriers that may have design or access requirements for waste storage areas. The design criteria in this fact sheet are recommendations and are not intended to be in conflict with requirements established by the waste hauler. The waste hauler should be contacted prior to the design of your site trash collection areas. Conflicts or issues should be discussed with the local agency.

Designing New Installations

Trash storage areas should be designed to consider the following structural or treatment control BMPs:

- Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash.

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Attachment: G2 - Preliminary Water Quality Management Plan (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Use lined bins or dumpsters to reduce leaking of liquid waste.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Pave trash storage areas with an impervious surface to mitigate spills.
- Do not locate storm drains in immediate vicinity of the trash storage area.
- Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define “redevelopment” in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of “ redevelopment” must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under “designing new installations” above should be followed.

Additional Information

Maintenance Considerations

The integrity of structural elements that are subject to damage (i.e., screens, covers, and signs) must be maintained by the owner/operator. Maintenance agreements between the local agency and the owner/operator may be required. Some agencies will require maintenance deed restrictions to be recorded of the property title. If required by the local agency, maintenance agreements or deed restrictions must be executed by the owner/operator before improvement plans are approved.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

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Moreno Valley Logistics Center

NOISE IMPACT ANALYSIS

CITY OF MORENO VALLEY

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APPENDICES

LIST OF EXHIBITS

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LIST OF TABLES

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
ARB	Air Reserve Base
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
I-215	Interstate 215
INCE	Institute of Noise Control Engineering
Leq	Equivalent continuous (average) sound level
Lmax	Maximum level measured over the time interval
Lmin	Minimum level measured over the time interval
MM	Mitigation measure
mph	Miles per hour
MVIAP	Moreno Valley Industrial Area Plan
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Moreno Valley Logistics Center
RCNM	Roadway Construction Noise Model
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
Sf	Square feet
STC	Sound Transmission Class
VdB	Vibration Decibels

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EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Moreno Valley Logistics Center development (“Project”). The Project site is located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley. The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1) and 385,748 square feet of general light industrial use. Building 2, located on the southwest corner of Cosmos Street and Krameria Avenue, is proposed to consist of 122,516 sf of general light industrial use; Building 3, located at the eastern terminus of Cardinal Avenue, is proposed to consist of 97,222 sf of general light industrial use; and Building 4, located on the east of Heacock Street and south of Krameria Avenue (North), is proposed to consist of 166,010 sf of general light industrial use. This study has been prepared to satisfy the City of Moreno Valley noise standards and to ensure that adequate noise abatement measures are incorporated into the Project’s development.

OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the off-site traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 24 roadway segments surrounding the Project site were estimated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in the *Moreno Valley Logistics Center Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (1) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing (without and with Indian Street Bridge), Opening Year (2020), and General Plan Buildout (2035) conditions. The off-site traffic noise analysis indicates that the Project’s contributions to roadway noise levels at adjacent land uses will be *less than significant* under Existing (without and with Indian Street Bridge), Opening Year (2020), and General Plan Buildout (2035) conditions.

The Project-related increases must be compared with the cumulative noise level increases without the Project to determine if the Project noise level increases represent a *cumulatively considerable* impact. The Project’s actual contribution to the cumulative noise level increases will approach 0.3 dBA CNEL, and will not exceed the significance thresholds for the adjacent land uses on the study area roadway segments. Therefore, since the Project-related off-site traffic noise level increases represent a *less than significant* contribution to the overall cumulative noise impacts at the adjacent land uses, the Project-related traffic noise level increases are *less than cumulatively considerable*.

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OPERATIONAL NOISE ANALYSIS

Using sample reference noise levels to represent the noise sources from the Moreno Valley Logistics Center site, this analysis estimates the Project-related operational stationary-source noise levels at nearby sensitive receiver locations. The normal activities associated with the proposed Moreno Valley Logistics Center are anticipated to include idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. The operational noise analysis shows that the stationary-source noise levels due to the idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods will not exceed the City of Moreno Valley Municipal Code noise level standards at a distance of 200 feet from the property line of the noise source (Project site). This analysis accounts for the noise associated with cold storage (refrigeration) as a worst-case scenario since it includes the additional noise from the refrigerated containers/reefers on trucks within the Project site, and may conservatively overstate the actual noise levels due to tenant operations at the Project site. Currently the proposed Project could not use more than 10% of the Project for cold storage. This noise analysis has assumed the possibility of more than 10% of cold storage only for the purposes of over-estimating as opposed to under-estimating potential noise impacts. As proposed, no more than 10% of the Project could be used for cold storage.

Although the Project-related operational noise levels are shown to be less than significant based on the City of Moreno Valley Municipal Code standards at 200 feet, some receiver locations are located within 200 feet from the Project site boundaries. Therefore, to determine the potential Project-related operational noise impacts at each receiver location, the Project-related noise level contribution is evaluated at each receiver location based on the magnitude of the Project-related increase on the ambient noise levels. This analysis demonstrates that the Project will not contribute an operational noise level impact to the existing ambient noise environment at any of the sensitive receiver locations. Therefore, the operational noise level impacts associated with the proposed 24-hour, seven days per week Project activities, such as the idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods, will be *less than significant*.

OPERATIONAL NOISE ABATEMENT MEASURES

The routine operation of the Project will not exceed the City of Moreno Valley standards for stationary noise impacts. To further reduce potential operational noise levels received at adjacent residential land uses, it is recommended that the Lead Agency require the following as Project Conditions of Approval:

- All on-site operating equipment under the control of the building user that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers. The City of Moreno Valley may conduct periodic inspection at its discretion.
- Maintain quality pavement conditions on the property that are free of vertical deflection (i.e. speed bumps) to minimize truck noise. The City of Moreno Valley may conduct periodic inspection at its discretion.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Consistent with Mitigation Measure AQ-6 of the *Moreno Valley Logistics Center Air Quality Impact Analysis*, and enforced by the California Air Resources Board (CARB), the truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:
    - Truck drivers shall turn off engines when not in use;
    - Diesel trucks servicing the Project shall not idle for more than five (5) minutes; and
    - Telephone numbers of the building facilities manager and the CARB to report violations.

OPERATIONAL VIBRATION IMPACTS

The operation of the Project site will include heavy trucks transiting on site to and from the loading dock areas. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. Typical vibration levels for heavy trucks at normal traffic speeds do not exceed 65 VdB, and therefore, will be below the FTA vibration threshold of 80 VdB at nearby sensitive receiver locations. Since truck deliveries transiting on site will be travelling at very low speeds it is expected that delivery truck vibration impacts at nearby homes will be *less than significant*.

CONSTRUCTION NOISE ANALYSIS

Construction noise represents a short-term increase on the ambient noise levels. Construction-related noise impacts are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site when certain activities occur at the Project site boundary. Using sample reference noise levels to represent the planned construction activities of the Moreno Valley Logistics Center site, including Phase 1 (Buildings 1 and 2) and Phase 2 (Buildings 3 and 4) activities, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations.

The construction noise analysis shows that the unmitigated daytime construction activities may exceed the City of Moreno Valley Municipal Code 65 dBA Leq noise level threshold at 200 feet during Phase 1 (Buildings 1 and 2) grading and paving activities at receiver location R8. The construction of a 6-foot high temporary noise barrier, as shown on Exhibit ES-A, is required within 280 feet of receiver location R8 to satisfy the 65 dBA Leq noise level threshold during the Phase 1 (Buildings 1 and 2) grading and paving activities. With the recommended construction noise mitigation measures identified in this report, the daytime construction noise level impacts at all noise-sensitive receiver locations will be *less than significant*.

In addition to the daytime construction activities, the Project may pursue a temporary use or special event permit to allow for nighttime concrete pour activities during the building construction and paving stages of Project construction. Nighttime concrete pours are typically conducted during the summer months due to the warmer daytime weather conditions. While Section 11.80.030 (7) of the City of Moreno Valley Municipal Code currently prohibits nighttime construction activities, Section 11.80.030 (E) (8) allows for a temporary use or special event permit (Section 11.80.040). (2) The temporary use or special event permit shall be submitted to the City of Moreno Valley Planning Department for approval and meet the provisions Municipal Code Section 11.80.040.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

To estimate the nighttime construction noise levels at the nearby receiver locations, sample reference noise level measurements were collected during nighttime concrete pour activities at a similar industrial development site. Based on the reference concrete pour noise measurements, the noise levels at the nearby sensitive receiver locations are expected to approach 59.3 dBA Leq during Phase 1 and 49.6 dBA Leq during Phase 2. If the Project pursues nighttime concrete pours during the building construction and paving stages of Project construction due to the weather conditions, this analysis demonstrates that these activities will not exceed the City of Moreno Valley 60 dBA Leq nighttime noise level standards. The construction noise analysis shows that nighttime concrete pour noise levels for Phases 1 and 2 of Project construction will satisfy the City of Moreno Valley 60 dBA Leq nighttime noise level standard at all receiver locations representing a *less than significant* noise impact.

CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. This analysis shows the construction vibration levels are expected to approach 68.8 VdB at the eight receiver locations. Based on the FTA vibration standards for annoyance and building damage of 80 VdB and 90 VdB, respectively, the proposed Project construction activities will not include or require equipment, facilities, or activities that would result in a *barely perceptible* human response (annoyance) or building damage at the nearby residential homes, and therefore, impacts due to vibration are considered *less than significant.*

CONSTRUCTION MITIGATION MEASURES

Though construction noise is temporary, intermittent and of short duration, and will not present any long-term impacts, the following practices would reduce any noise level increases produced by the construction equipment to the nearby noise-sensitive residential land uses:

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities that would create noise levels of greater than 60 dBA Leq at sensitive receivers shall only occur between the permitted hours of 7:00 a.m. to 8:00 p.m. on any day. Grading operations shall be limited to between the hours of 8:00 a.m. to 6:00 p.m. weekdays, and 8:00 a.m. to 4:00 p.m. on weekends and holidays, or as otherwise approved by the City Engineer. The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion.
- Install 6-foot high temporary noise control barrier for a length of approximately 400 feet as shown on Exhibit ES-A at the Project site boundaries when Phase 1 grading and paving construction activities occur within 280 feet of receiver location R8. Alternatively, with the approval of the homeowner at receiver location R8, the 6-foot high temporary noise barrier can be installed at the property line of the residential home. The noise control barrier must present a solid face from top to bottom. The noise control barrier must be a minimum height of 6-feet.
    - o The noise barrier may be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts.

  - The noise barriers must be maintained and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.
  - The noise control barriers and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.
- During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.
- The construction contractor shall locate equipment staging in the vicinity of the intersection of Cosmos Street and Krameria Avenue to create additional distance between construction-related noise sources and noise-sensitive receivers nearest the Project site during all stages of Building 1 construction.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 8:00 p.m. on any day). The contractor shall prepare a haul route exhibit for review and approval by the Public Works Department, Land Development Division, and shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise (City of Moreno Valley Municipal Code, Section 8.21.050 (H) (7)).
- Any nighttime construction activity requires an exemption from the City of Moreno Valley Municipal Code as indicated in Section 11.80.030 (E) (8) for a special event permit (Section 11.80.040). The special event permit application shall be submitted to the City of Moreno Valley Planning Department for approval and meet the requirements of Municipal Code Section 11.80.040.

ALTERNATE SITE PLAN COMPARISON

This noise study evaluates the Project's worst-case condition based on the four-building Project site plan which consists of: 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1) and 385,748 square feet of general light industrial use within Buildings 2 to 4. If the alternate site plan with a 166-space truck parking lot in lieu of Building 2 is implemented, the operational and construction noise levels would be reduced. The removal of Building 2 would reduce the total loading dock areas and potential operational noise sources within the Project site, in addition to reducing the amount of construction activity required on-site.

EXHIBIT ES-A: PHASE 1 GRADING AND PAVING TEMPORARY CONSTRUCTION NOISE BARRIER

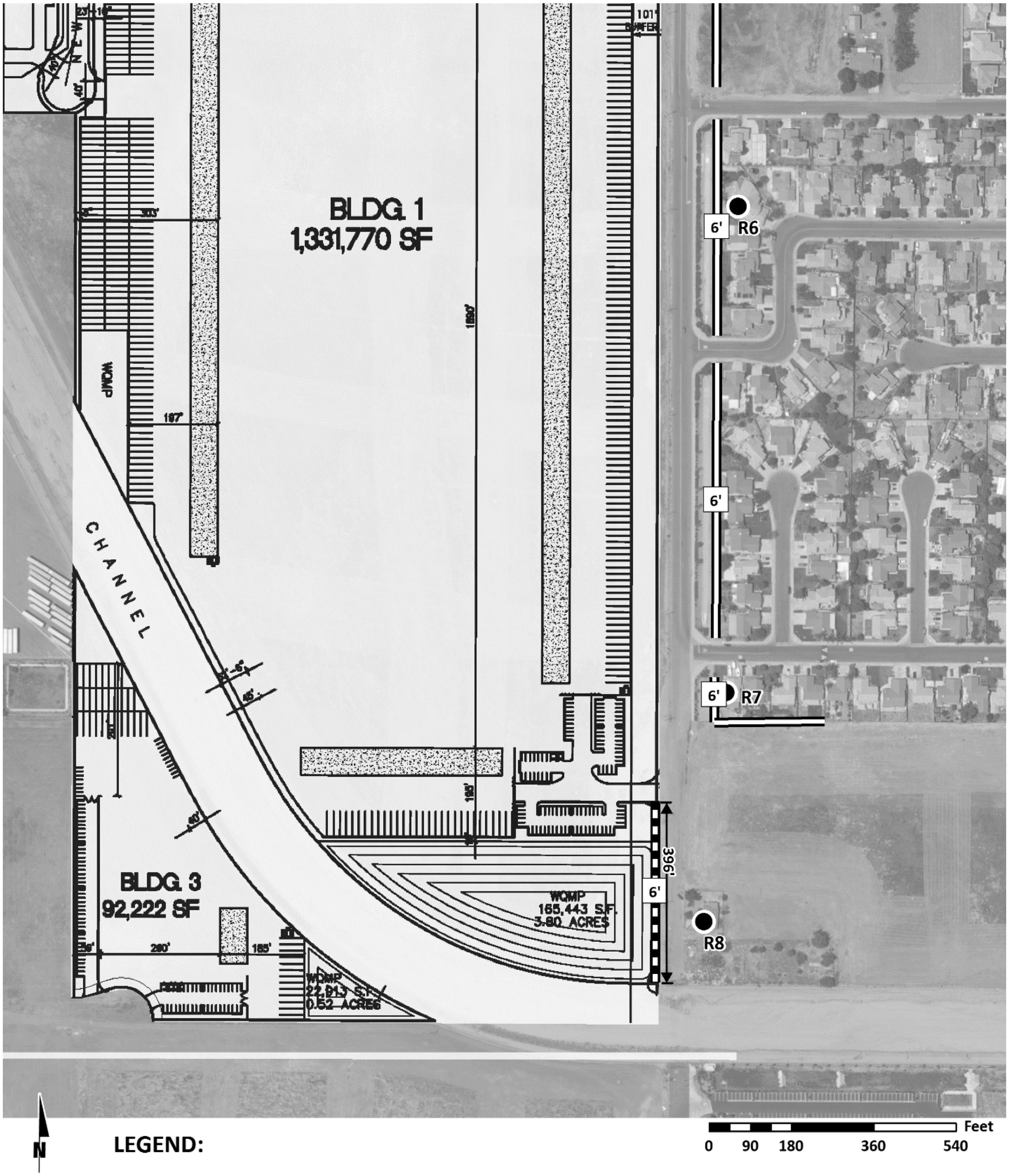

LEGEND:

● Receiver Locations

6' Barrier Height (in feet)

═ Existing Barrier

▪▪▪ Temporary noise barrier for Phase 1 grading and paving activities.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Moreno Valley Logistics Center ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, describes the local regulatory setting, provides the study methods and procedures for traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term operational and short-term construction noise impacts.

1.1 SITE LOCATION

The proposed Moreno Valley Logistics Center site is located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. The Project site is currently vacant. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are designated by the Moreno Valley Industrial Area Plan (MVIAP) for future industrial development; to the west by March Air Reserve Base, and to the east by a single-family residential neighborhood. The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel. (3) The Interstate 215 (I-215) Freeway is located approximately 1.3 miles west of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1) and 385,748 square feet of general light industrial use. Building 2, located on the southwest corner of Cosmos Street and Krameria Avenue, is proposed to consist of 122,516 sf of general light industrial use; Building 3, located at the eastern terminus of Cardinal Avenue, is proposed to consist of 97,222 sf of general light industrial use; and Building 4, located on the east of Heacock Street and south of Krameria Avenue (North), is proposed to consist of 166,010 sf of general light industrial use, as shown on Exhibit 1-B. For the purposes of this analysis, the Project is anticipated to have an Opening Year of 2020.

The Project also includes an Alternate Site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event the alternate site plan is implemented, the truck trailer parking lot will be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4.

To present the potential worst-case noise conditions, this analysis assumes all tenants within the Project building would be operational 24 hours per day, seven days per week. This analysis accounts for the noise associated with cold storage (refrigeration) as a worst-case scenario as it accounts for the additional noise from the refrigerated containers/reefers on trucks within the Project site, and may conservatively overstate the actual noise levels due to tenant operations at the Project site. Currently the proposed Project could not use more than 10% of the Project for cold storage. This noise analysis has assumed the possibility of more than 10% of cold storage only for the purposes of over-estimating as opposed to under-estimating noise impacts. As proposed, no more than 10% of the Project could be used for cold storage.

Business operations would primarily be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. This noise analysis is intended to describe noise level impacts associated with the expected typical warehouse and distribution storage activities at the Project site.

EXHIBIT 1-A: LOCATION MAP

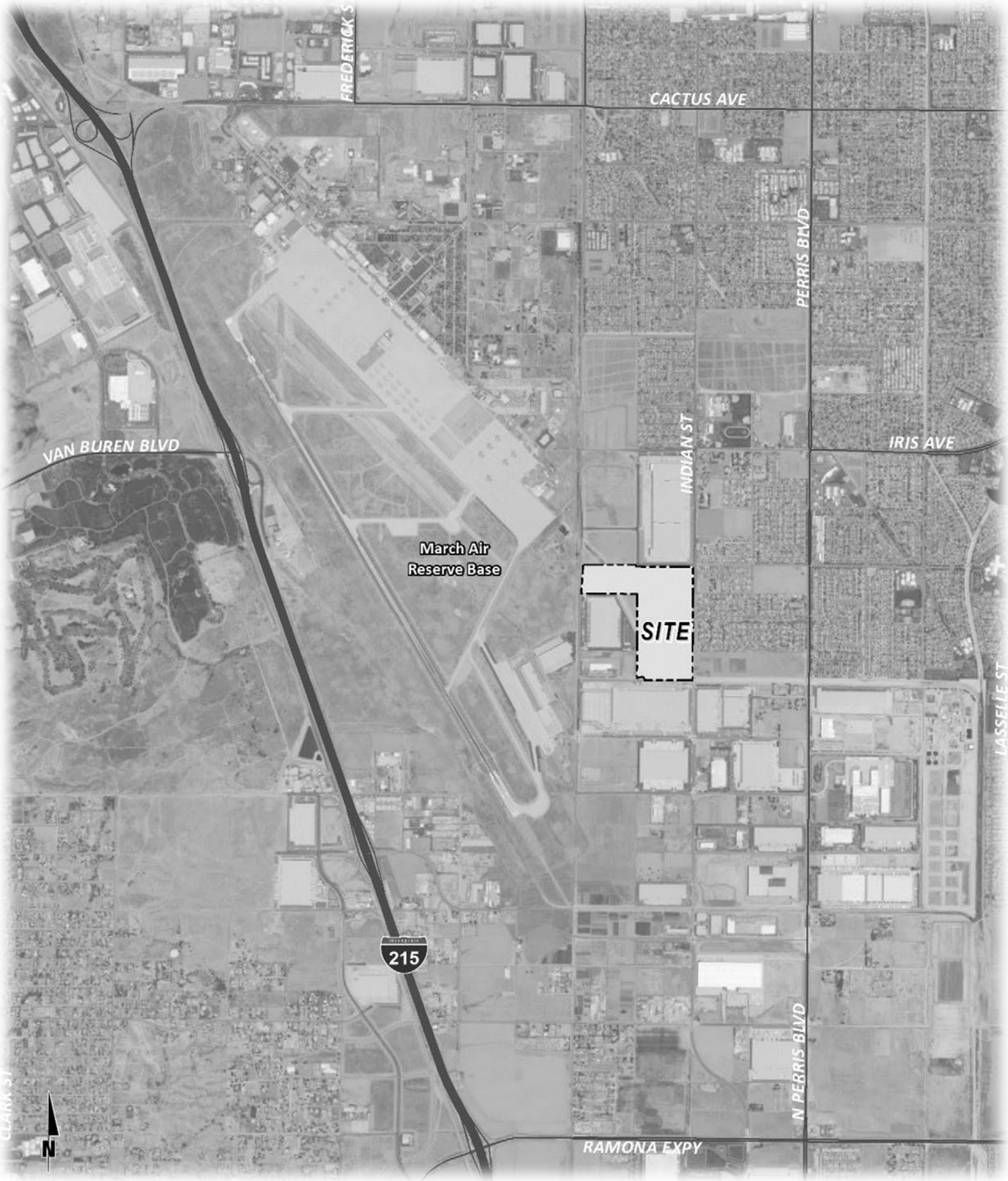

EXHIBIT 1-B: SITE PLAN

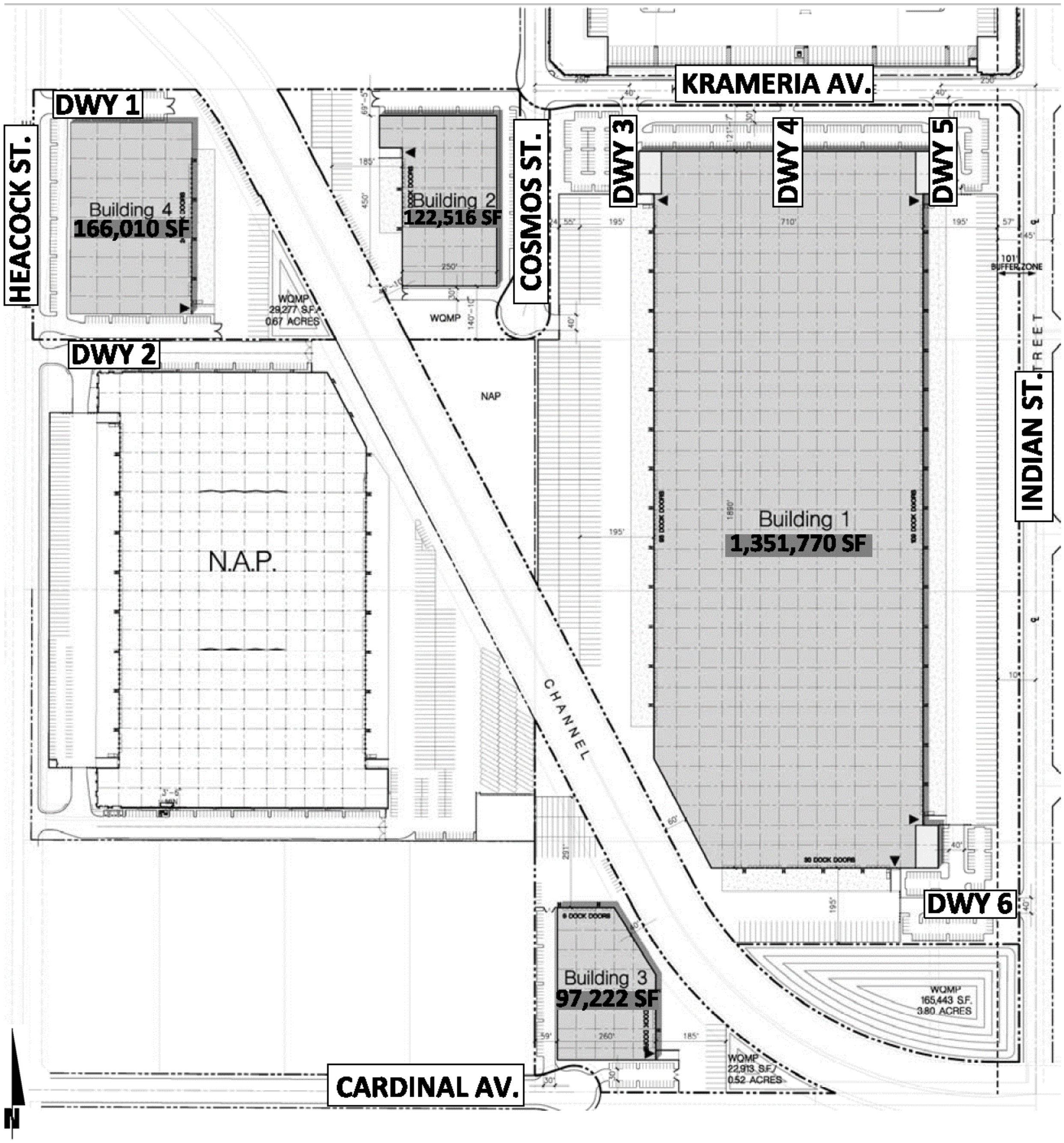

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2 FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		SLEEP DISTURBANCE
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (4) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. (5) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the “average” noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Day-Night Average Noise Level (LDN) and the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The LDN and CNEL are weighted averages of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The LDN time of day corrections include the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. The CNEL time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., in addition to the corrections for the LDN. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. LDN and CNEL do not represent the actual sound level heard at any particular time, but rather represent the total sound exposure. The City of Moreno Valley relies on the 24-hour CNEL level to apply the more conservative evening hour corrections to the 24-hour noise levels.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

2.3.3 ATMOSPHERIC EFFECTS

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents.

2.4 TRAFFIC NOISE PREDICTION

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. According to the *Highway Traffic Noise Analysis and Abatement Policy and Guidance,* provided by the Federal Highway Administration (FHWA), the level of traffic noise depends on three primary factors: the volume of the traffic, the speed of the traffic, and the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. (6) A doubling of the traffic volume, assuming that the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also have an effect on community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase.

2.5 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all

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three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements.

2.6 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (6)

2.7 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (7)

2.8 COMMUNITY RESPONSE TO NOISE

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (8) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (8)

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory

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experiments, a change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (6)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION

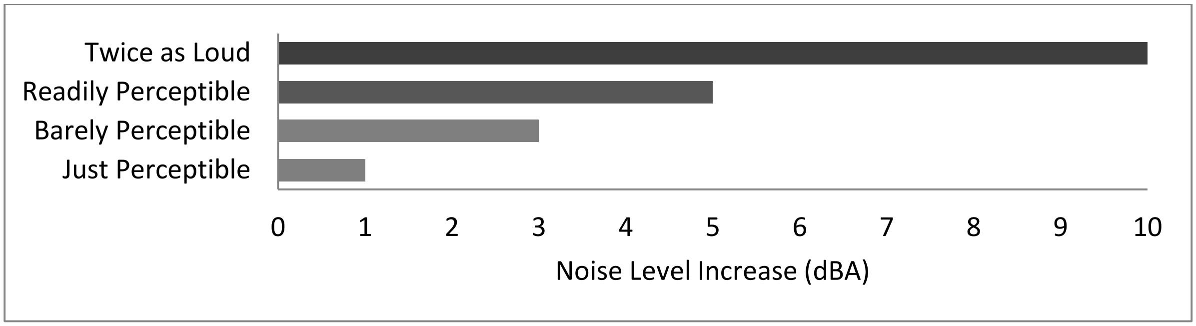

2.9 VIBRATION

According to the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (9), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

Vibration is usually expressed in peak particle velocity (PPV) in inches per second (in/sec) and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts are generally associated with activities such as train operations, construction and heavy truck movements. Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response (annoyance). It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude often described as the root-mean-square (RMS). The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to reduce the range of numbers used to describe human response to vibration.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION

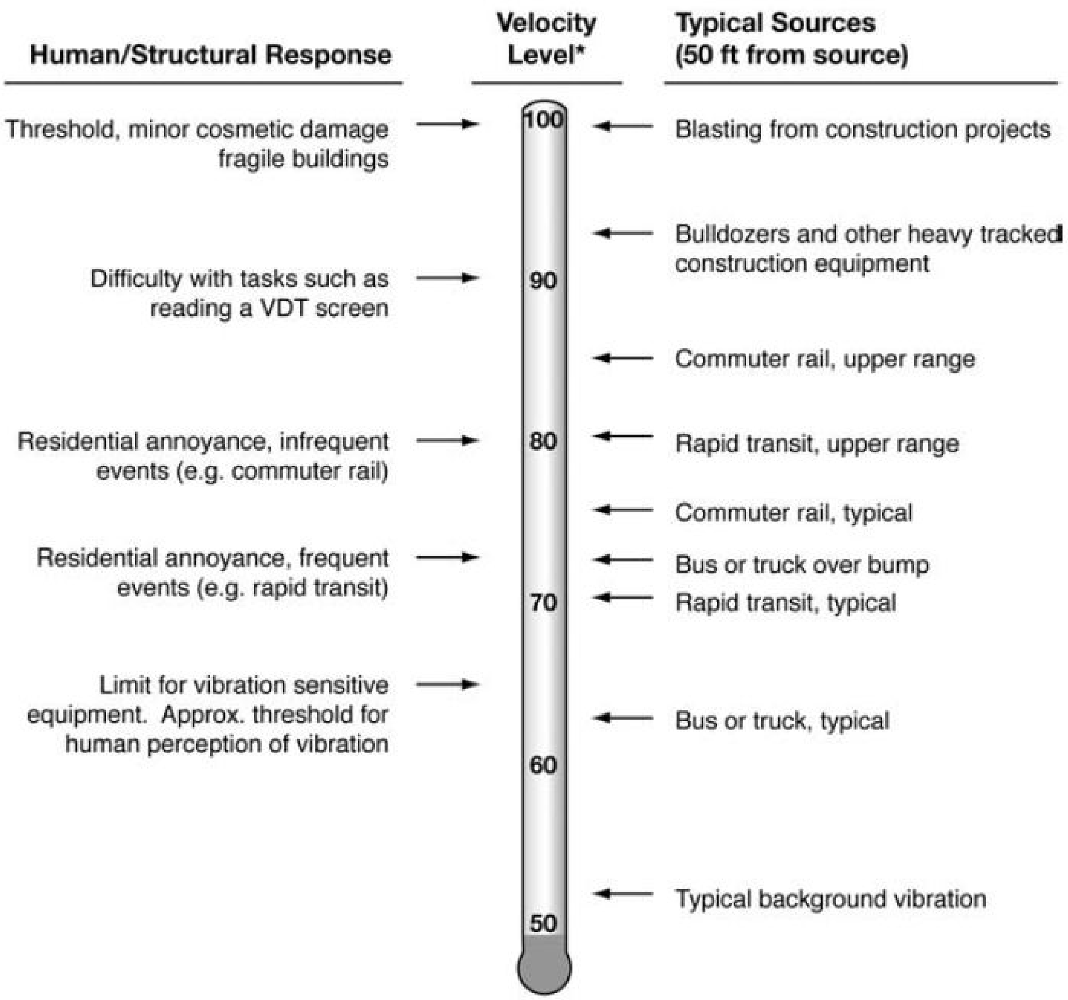

* *RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment.

3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains fairly constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. (10) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*.

3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The 2014 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.506 on Environmental Comfort. (11) These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA Leq for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

3.3 CITY OF MORENO VALLEY GENERAL PLAN NOISE ELEMENT

The City Noise Element typically provides the standards for land use compatibility for community noise exposure. However, the City of Moreno Valley General Plan does not include a noise element or specific transportation related noise standards. Rather, noise is considered in the Environmental Safety section of the General Plan Safety Element. (12) While the General Plan provides background and noise fundamentals, it does not identify criteria to assess the impacts associated with off-site transportation related noise impacts. Therefore, for the purpose of this analysis, the transportation noise criteria are derived from standards contained in the General Plan Guidelines, a publication of the California Office of Planning and Research (OPR). The OPR land use/noise compatibility standards are used by many California cities and counties and specify the maximum noise levels allowable for new developments impacted by transportation noise sources

The purpose of the transportation noise criteria is to protect, create, and maintain an environment free from noise and vibration that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life. City General Policies (City of Moreno Valley General Plan, pp.9-31, 9-32) act to ensure that when exterior noise levels exceed 65 dBA CNEL at sensitive receptors, mitigation is provided to ensure that interior noise levels of 45 dBA CNEL are maintained. General Plan Policies in this regard are consistent with, and support, the California Building Code interior noise standards.

3.4 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Moreno Valley Logistics Center Project, stationary-source (operational) noise such as the expected idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods are typically evaluated against standards established under a City's Municipal Code. Therefore, this analysis presents the City of Moreno Valley Municipal Code stationary-source noise standards, provided in Appendix 3.1.

The City of Moreno Valley Municipal Code, Chapter 11.80 *Noise Regulation*, provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary-source noise impacts from operations at private properties. The City of Moreno Valley Municipal Code defines *Maximum Sound Levels (in dB(A)) for Source Land Uses* in Table 11.80.030-2 for *Residential* and *Commercial* land uses. As defined by the Municipal Code, Section 11.80.020 *Definitions*, *Commercial* land use *means all uses of land not otherwise classified as residential,* and *Residential* land use *means all uses of land primarily for dwelling units, as well as hospitals, schools, colleges and universities, and places of religious assembly.* (2) For the purpose of this analysis, the Moreno Valley Logistics Center Project is considered *Commercial* land use since it is not classified as residential. Based on this standard, the operational noise level limits for commercial land use, from Table 11.80.030-2, of 65 dBA Leq during the daytime (8:00 a.m. to 10:00 p.m.) hours and 60 dBA Leq during the nighttime (10:01 p.m. to 7:59 a.m.) hours shall apply to the operational noise from the Project.

Further, Section 11.80.030 (C) *Prohibited Acts, Nonimpulsive Sound Decibel Limits*, states: *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on a privately owned property…* (2) Therefore, at a distance of 200 feet from the property line, the Project's operational noise levels shall not exceed the 65 dBA Leq daytime and 60 dBA Leq nighttime noise level standards for commercial land uses, as shown on Table 3-1.

TABLE 3-1: OPERATIONAL NOISE STANDARDS AT 200 FEET FROM THE SOURCE

Jurisdiction	Source Land Use	Time Period	Maximum Noise Level For Source Land Uses @ 200' (dBA Leq)[2]
City of Moreno Valley[1]	Commercial	Daytime (8:00 a.m. - 10:00 p.m.)	65
		Nighttime (10:01 p.m. - 7:59 a.m.)	60

[1] Source: City of Moreno Valley Municipal Code, Chapter 11.80 Noise Regulation, Table 11.80.030-2 Maximum Sound Levels (in dB(A)) for Source Land Uses when measured at a distance of 200 feet from the property line of the source land use (Appendix 3.1).

[2] Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

3.5 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Moreno Valley Logistics Center Project, noise from construction activities are typically limited to the hours of operation established under a City's Municipal Code. The Municipal Code noise standards for construction are described below for the City of Moreno Valley to determine the potential noise impacts at nearby sensitive receiver locations. As a subset of its stationary-source noise regulations, the City Municipal Code establishes additional restrictions on construction-source noise. More specifically, Municipal Code Section 11.80.030 (D) (7), *Construction and Demolition*, provides the following:

> *No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee.*

A *noise disturbance*, as defined by the City of Moreno Valley Municipal Code, means any sound which:

- *Disturbs a reasonable person of normal sensitivities;*
- *Exceeds the sound level limits set forth in this chapter [Table 11.80.030-2];*

- *Is plainly audible as defined in this section. Where no specific distance is set forth for the determination of audibility, references to noise disturbance shall be deemed to mean plainly audible at a distance of two hundred (200) feet from the real property line of the source of the sound, if the sound occurs on a privately owned property, or from the source of the sound, if the sound occurs on public right, public space or other publicly owned property.*

Therefore, based on the Section 11.80.030 (D) (7) construction regulations, a construction-related *noise disturbance* occurs when the noise levels exceed the *commercial* land use criteria of 65 dBA Leq during the daytime hours and 60 dBA Leq during the nighttime hours at a distance of 200 feet from the property line of the source (Project site). In addition, grading operations shall be limited to the hours identified in Section 8.21.050 (O) of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on weekends and holidays or as approved by the City Engineer. The City of Moreno Valley construction noise standards are shown on Table 3-2 and included in Appendix 3.1.

TABLE 3-2: CONSTRUCTION NOISE STANDARDS

Jurisdiction	Permitted Hours of Construction Activity	Construction Noise Level Standard at 200 Feet (dBA Leq)[2]	
		Daytime	Nighttime
City of Moreno Valley[1]	General Activity: 7:00 a.m. to 8:00 p.m. on any day. Grading is limited to 7:00 a.m. to 6:00 p.m. Monday to Friday; 8:00 a.m. to 4:00 p.m. on weekends and holidays.	65	60

[1] Source: City of Moreno Valley Municipal Code, Section 11.80.030 (D) (7) and Section 8.21.050 (O) (Appendix 3.1).

[2] Acceptable threshold for determining the relative significance of short-term Project construction noise levels, based on the City of Moreno Valley stationary noise standards shown on Table 3-1.

"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m.

3.6 VIBRATION STANDARDS

The City of Moreno Valley has not identified or adopted vibration standards. However, the United States Department of Transportation Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB as an annoyance threshold for residential uses and buildings where people normally sleep. (13) To assess the potential for building damage due to Project-related vibration sources, the FTA identifies a level of 90 VdB for *buildings extremely susceptible to vibration damage*, such as residential homes.

Operational and construction activities can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. While not enforceable regulations within the City of Moreno Valley, the FTA vibration threshold of 80 VdB for annoyance and 90 VdB for building damage at sensitive land uses provide the basis for determining the relative significance of potential Project-related vibration impacts due to on-site operational and construction activities.

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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. For the purposes of this report, impacts would be potentially significant if the Project is determined to result in or cause:

A. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

B. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.

C. A substantial permanent increase in ambient noise levels in the Project vicinity above existing levels without the proposed Project; or

D. A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above noise levels existing without the proposed Project.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.

F. For a project within the vicinity of a private airstrip, expose people residing or working in the Project area to excessive noise levels.

While the CEQA Guidelines and the City of Moreno Valley General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts under the first threshold, they do not define the levels at which increases are considered substantial for use under the second, third and fourth threshold. The fifth and sixth thresholds apply to nearby public and private airports, if any, and the Project's land use compatibility, as discussed below.

A CEQA Initial Study was prepared for the Moreno Valley Logistics Center which addresses the E and F thresholds of the noise-related CEQA Guidelines related to the Project site. (14) The Initial Study indicates that the Project site is located within two miles of a public airport, the March Air Reserve Base (ARB). Based on General Plan Figure 5.4-1, *March Air Reserve Base Noise Impact Area*, the Project site is located outside of the 60 dBA CNEL noise contour and would not be subjected to excessive noise levels due to operations at the March ARB. Further, since the Project site is not located within the March ARB noise contours, the Project would not expose people residing or working in the Project area to excessive noise levels due to its location within two miles of a public airport. Therefore, the Initial Study concludes that the Project site will experience a *less than significant* impact due to airport operations at the March ARB, and no further analysis is required. (14)

4.1 NOISE-SENSITIVE RECEIVERS

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels and the location of noise-sensitive receivers in order to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant.* (15)

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. With this in mind, the Federal Interagency Committee on Noise (FICON) (16) developed guidance to be used for the assessment of project-generated increases in noise levels that take into account the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (i.e., CNEL).

For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for the purpose of this analysis, FICON identifies a *readily perceptible* 5 dBA or greater project related noise level increase is considered a significant impact when the noise criteria for a given land use is exceeded. According to the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. Table 4-1 below provides a summary of the potential noise impact significance criteria, based on guidance from FICON.

TABLE 4-1: SIGNIFICANCE OF NOISE IMPACTS AT NOISE-SENSITIVE RECEIVERS

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Federal Interagency Committee on Noise (FICON), 1992.

4.2 NON-NOISE-SENSITIVE RECEIVERS

The City of Moreno Valley General Plan Safety Element does not identify specific exterior noise level standards for non-noise sensitive land uses such as the industrial use of the Project site. Therefore, the land use compatibility criteria for non-noise sensitive land uses is derived from standards contained in the *General Plan Guidelines*, a publication of the California Office of Planning and Research (OPR) prepared in October, 2003. (10) The OPR guideline for the *normally acceptable* exterior noise level for non-noise-sensitive land use, such as industrial use, is 70 dBA CNEL. Noise levels greater than 70 dBA CNEL are considered *conditionally acceptable*.

To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *readily perceptible* 5 dBA and *barely perceptible* 3 dBA criteria are used. When the without Project noise levels at the non-noise-sensitive land uses are below the *normally acceptable* 70 dBA CNEL compatibility criteria, a *readily perceptible* 5 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are greater than the *normally acceptable* 70 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the OPR *General Plan Guidelines* exterior noise level criteria.

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-2 shows the significance criteria summary matrix.

OFF-SITE TRAFFIC NOISE

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, etc.):
  - are less than 60 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project related noise level increase; or
  - range from 60 to 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project noise level increase; or
  - already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA (FICON, 1992).
- When the noise levels at existing and future non-noise-sensitive land uses (e.g. business park, industrial, etc.):
  - are less than the OPR General Plan Guidelines *normally acceptable* 70 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project related noise level increase; or
  - are greater than the OPR General Plan Guidelines *normally acceptable* 70 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project noise level increase.

OPERATIONAL NOISE

- If Project-related operational (stationary source) noise levels exceed the 65 dBA Leq daytime or 60 dBA Leq nighttime noise level standards at a distance of 200 feet from the property line of the noise source (City of Moreno Valley Municipal Code, Table 11.80.030-2).

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- If the existing ambient noise levels at the nearby noise-sensitive receivers near the Project site:
    - are less than 60 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project-related noise level increase; or
    - range from 60 to 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project-related noise level increase; or
    - already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA (FICON, 1992).
- If long-term Project generated operational source vibration levels could exceed the FTA maximum acceptable vibration standard of 80 vibration decibels (VdB) at sensitive receiver locations (Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006).

CONSTRUCTION NOISE AND VIBRATION

- If Project-related construction activities:
    - occur at any time other than between the permitted hours of 7:00 a.m. to 8:00 p.m. on any day. Grading operations shall be limited to between the hours of 8:00 a.m. to 6:00 p.m. weekdays, and 8:00 a.m. to 4:00 p.m. on weekends and holidays, or as otherwise approved by the City Engineer (City of Moreno Valley Municipal Code, Sections 11.80.030 (D) (7), and 8.21.050 (O)) and would create noise levels of greater than 60 dBA Leq at sensitive receivers; or
    - create noise levels at sensitive residential receivers in the City of Moreno Valley which exceed the short-term construction noise level limit of 65 dBA Leq during the daytime hours or 60 dBA Leq during the nighttime hours at 200 feet from the Project site (City of Moreno Valley Municipal Code, Section 11.80.030 (D) (7)).
- If short-term Project generated construction-source vibration levels could exceed the FTA maximum acceptable vibration standard for annoyance assessment of 80 vibration decibels (VdB) or for building damage of 90 VdB at sensitive receiver locations (Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006).

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TABLE 4-2: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site	Noise-Sensitive[1]	if ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		if ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive[2]	if ambient is < 70 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational[3]	Noise-Sensitive	At 200' from the property line of the source	65 dBA Leq	60 dBA Leq
Construction[4]	Noise-Sensitive	General Activity: 7:00 a.m. to 8:00 p.m. on any day. Grading is limited to 7:00 a.m. to 6:00 p.m. Monday to Friday; 8:00 a.m. to 4:00 p.m. on weekends and holidays.		
		At 200' from the property line of the source	65 dBA Leq	60 dBA Leq
Vibration[5]	Sensitive	Operational & Construction	80 VdB	80 VdB

[1] Source: FICON, 1992.
[2] Source: Office of Planning and Research, General Plan Guidelines, October 2003.
[3] Source: City of Moreno Valley Municipal Code, Table 11.80.030-2.
[4] Source: City of Moreno Valley Municipal Code, Section 11.80.030 (D) (7) and Section 8.21.050 (O).
[5] Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.
"Daytime" = 8:00 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:59 a.m.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, nine 24-hour noise level measurements were taken at sensitive receiver locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. from Monday, March 9th to Tuesday, March 10th, 2015. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (17)

5.2 NOISE MEASUREMENT LOCATIONS

The 24-hour noise level measurements were positioned at the nearest sensitive receiver locations to assess the existing ambient hourly noise levels surrounding the Project site. To describe the existing noise environment, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential cumulative noise impacts.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS

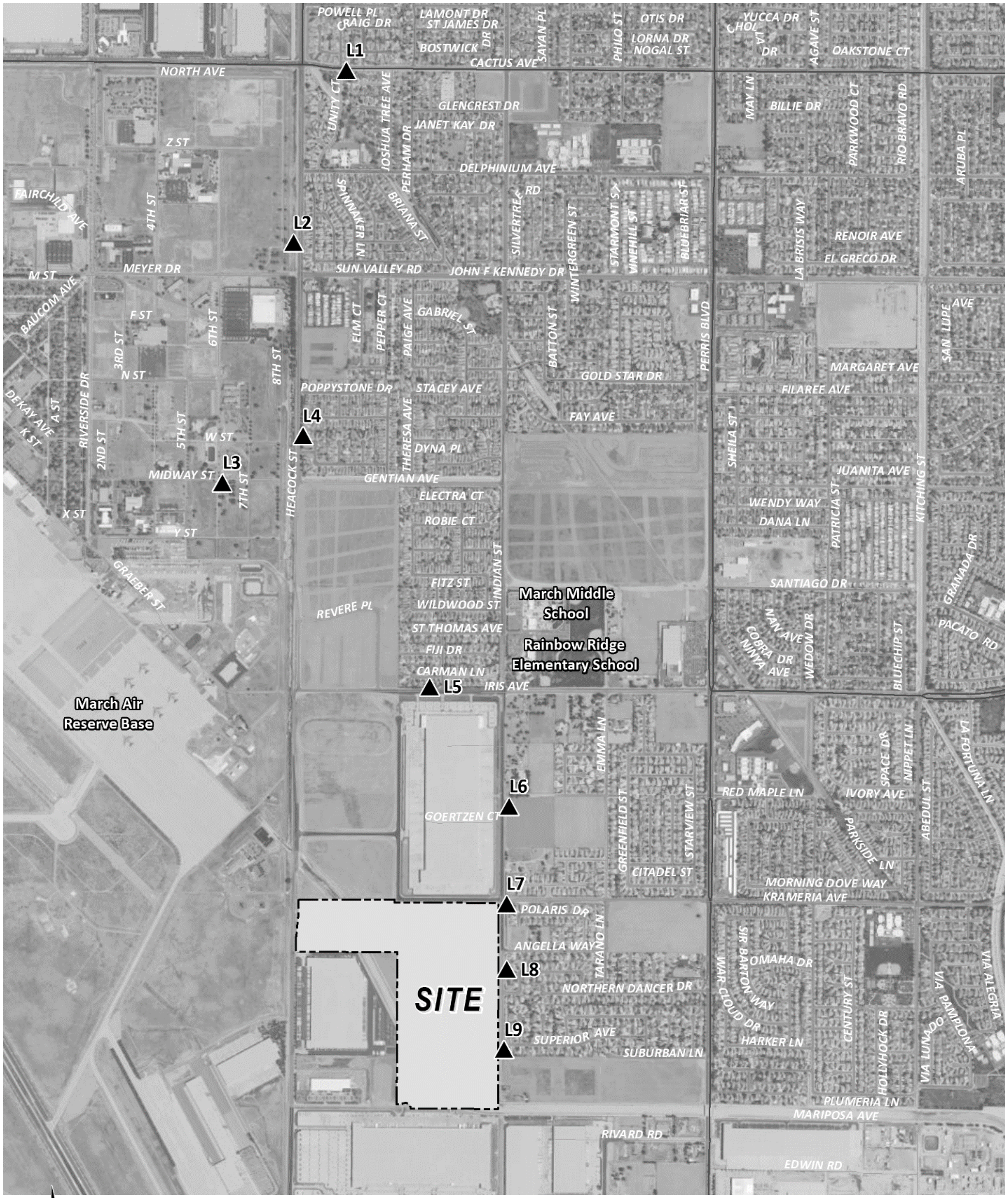

LEGEND:

▲ Noise Measurement Locations

09303_Measurements_v.MV

10/9/201

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (8:00 a.m. to 10:00 p.m.) and nighttime (10:01 p.m. to 7:59 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels described below:

- Location L1 represents the noise levels at the southeast corner of Cactus Avenue and Unity Court adjacent to existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 79.7 dBA CNEL. The hourly noise levels measured at location L1 ranged from 73.0 to 77.2 dBA Leq during the daytime hours and from 68.2 to 76.5 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 75.3 dBA Leq with an average nighttime noise level of 73.0 dBA Leq.
- Location L2 represents the existing noise levels on Heacock Street north of Meyer Drive near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 72.1 dBA CNEL. The hourly noise levels measured at location L2 ranged from 64.3 to 68.0 dBA Leq during the daytime hours and from 61.3 to 68.3 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 65.9 dBA Leq with an average nighttime noise level of 65.6 dBA Leq.
- Location L3 represents the noise levels at the southeast corner of 6th Street and Midway Street near an existing baseball diamond and park. The 24-hour CNEL indicates that the overall exterior noise level is 58.9 dBA CNEL. At location L3 the background ambient noise levels ranged from 44.8 to 53.4 dBA Leq during the daytime hours to levels of 46.7 to 56.7 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 50.2 dBA Leq with an average nighttime noise level of 52.9 dBA Leq.
- Location L4 represents the existing noise levels on Heacock Street north of Gentian Avenue adjacent to an existing residential community. The noise level measurements collected show an overall 24-hour exterior noise level of 74.7 dBA CNEL. The hourly noise levels measured at location L4 ranged from 65.9 to 70.6 dBA Leq during the daytime hours and from 62.0 to 72.2 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 68.8 dBA Leq with an average nighttime noise level of 68.1 dBA Leq.
- Location L5 represents the noise levels on Iris Avenue west of Indian Street and the Rainbow Ridge Elementary School. An existing logistics warehouse is located south of this location across Iris Avenue. The noise level measurements collected show an overall 24-hour exterior noise level of 73.1 dBA CNEL. The hourly noise levels measured at location L5 ranged from 62.6 to 68.0 dBA Leq during the daytime hours and from 55.6 to 72.8 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 66.2 dBA Leq with an average nighttime noise level of 67.0 dBA Leq.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Location L6 represents the existing noise levels north of the Project site on Indian Street near an existing residential home. The noise level measurements collected show an overall 24-hour exterior noise level of 68.8 dBA CNEL. The hourly noise levels measured at location L6 ranged from 56.5 to 67.1 dBA Leq during the daytime hours and from 51.8 to 67.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 61.5 dBA Leq with an average nighttime noise level of 62.5 dBA Leq.
- Location L7 represents the noise levels on Indian Street south of Krameria Avenue near existing residential homes located northeast of the Project site. The 24-hour CNEL indicates that the overall exterior noise level is 67.2 dBA CNEL. At location L7 the background ambient noise levels ranged from 59.6 to 67.9 dBA Leq during the daytime hours to levels of 50.8 to 66.0 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 64.1 dBA Leq with an average nighttime noise level of 60.6 dBA Leq.
- Located east of the Project site, location L8 represents the existing noise levels on Indian Street near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 66.4 dBA CNEL. The hourly noise levels measured at location L8 ranged from 57.8 to 62.9 dBA Leq during the daytime hours and from 50.7 to 65.0 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 60.8 dBA Leq with an average nighttime noise level of 60.2 dBA Leq.
- Location L9 represents the noise levels at east of the Project site on Indian Street, south of Superior Avenue near existing residential homes. The 24-hour CNEL indicates that the overall exterior noise level is 58.2 dBA CNEL. At location L9 the background ambient noise levels ranged from 47.7 to 56.5 dBA Leq during the daytime hours to levels of 45.1 to 55.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 53.1 dBA Leq with an average nighttime noise level of 51.7 dBA Leq.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. The energy average noise levels are used to describe the ambient noise levels during the daytime (8:00 a.m. to 10:00 p.m.) and nighttime (10:01 p.m. to 7:59 a.m.) hours, and to determine the potential Project impacts as they relate to the daytime and nighttime noise level standards of the City of Moreno Valley Municipal Code. In addition, the energy average noise levels provide an ambient baseline noise level for estimating the Project-related noise level increases at receiver locations. While the use of the highest ambient noise level during the daytime and nighttime periods may describe the worst-case ambient noise level conditions, their use for describing the potential Project-related noise level increases would diminish the Project noise level contributions to the ambient noise conditions. Therefore, the energy average noise levels are used to describe the existing ambient conditions during each timeframe, consistent with the daytime and nighttime noise level standards identified in the City of Moreno Valley Municipal Code.

Appendix 5.2 provides a summary of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime period. The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network. This includes the auto and heavy truck activities near the noise level measurement locations on Cactus Avenue, Heacock Street, Iris Avenue, and Indian Street. In addition, noise due to the March Air Reserve Base aircraft operations is included in the ambient noise level measurements due to aircraft flyovers. Secondary background ambient noise is also included in the noise level measurements from existing stationary noise sources in the Project study area such as existing truck loading activities north of the Project site, however, these impacts are generally overshadowed by vehicular traffic noise levels.

Since Project truck traffic is expected to travel north on Heacock Street near existing residential homes, noise level measurement locations L1 to L4 were chosen to present the existing ambient noise levels without any Project-related truck trips on the study area roadway segments. The 24-hour existing noise level measurements shown on Table 5-1 present the worst-case existing unmitigated ambient noise conditions.

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Distance To Project Boundary (Feet)	Description	Hourly Noise Level (dBA Leq)[2]		CNEL
			Daytime	Nighttime	
L1	10,500'	Located at the southeast corner of Cactus Avenue and Unity Court adjacent to existing residential homes.	75.3	73.0	79.7
L2	8,330'	Located on Heacock Street north of Meyer Drive near existing residential homes.	65.9	65.6	72.1
L3	5,360'	Located at the southeast corner of 6th Street and Midway Street near an existing baseball diamond and park.	50.2	52.9	58.9
L4	5,880'	Located on Heacock Street north of Gentian Avenue adjacent to an existing residential community.	68.8	68.1	74.7
L5	2,740'	Located on Iris Avenue west of Indian Street and the Rainbow Ridge Elementary School. An existing logistics warehouse is located south of Iris Avenue.	66.2	67.0	73.1
L6	1,250'	Located north of the Project site on Indian Street near an existing residential home.	61.5	62.5	68.8
L7	90'	Located on Indian Street south of Krameria Avenue near existing residential homes and northeast of the Project site.	64.1	60.6	67.2
L8	100'	Located east of the Project site on Indian Street near existing residential homes.	60.8	60.2	66.4
L9	75'	Located east of the Project site on Indian Street, south of Superior Avenue near existing residential homes.	53.1	51.7	58.2

[1] See Exhibit 5-A for the noise level measurement locations.

[2] Energy (logarithmic) average hourly levels. The long-term 24-hour measurement printouts are included in Appendix 5.2.

"Daytime" = 8:00 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:59 a.m.

6 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (18) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels, which are used in this analysis to describe the off-site transportation noise levels. (19) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project’s off-site transportation noise impacts. Table 6-1 identifies the 24 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications according to the City of Moreno Valley General Plan Circulation Element, and the posted vehicle speeds. For the purpose of the off-site analysis, soft site conditions were used to analyze the traffic noise impacts on each roadway segment in the Project study area. Soft site conditions are typically used to describe off-site traffic noise level impacts. In addition, Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis. (20)

The Existing (without and with Indian Street Bridge), Opening Year (2020), and General Plan Buildout (2035) conditions ADT volumes used for this study are presented on Table 6-2 and were provided by the *Moreno Valley Logistics Center Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (1) Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Adjacent Planned Land Use[1]	Distance from Centerline to Nearest Adjacent Land Use (Feet)[2]	Posted Vehicle Speed (mph)
1	Graham St.	n/o Cactus Av.	Light Industrial	44'	45
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	44'	45
3	Heacock St.	n/o Cactus Av.	Residential	50'	45
4	Heacock St.	s/o Cactus Av.	Residential	50'	45
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	50'	50
6	Heacock St.	s/o Gentian Av.	Business Park	50'	50
7	Heacock St.	s/o Iris Av.	Business Park	50'	50
8	Heacock St.	s/o Krameria Av. (North)	Business Park	50'	50
9	Heacock St.	n/o Cardinal Av.	Business Park	50'	40
10	Heacock St.	s/o Cardinal Av.	Business Park	50'	40
11	Heacock St.	s/o San Michele Rd.	Business Park	50'	50
12	Heacock St.	s/o Nandina Av.	Open Space	50'	25
13	Indian St.	n/o Krameria Av.	Residential	44'	50
14	Indian St.	s/o Krameria Av.	Residential	44'	50
15	Cactus Av.	w/o Elsworth St.	Business Park	44'	50
16	Cactus Av.	e/o Elsworth St.	Business Park	44'	50
17	Cactus Av.	e/o Frederick St.	Light Industrial	44'	50
18	Cactus Av.	e/o Graham St.	Light Industrial	44'	50
19	Cactus Av.	e/o Heacock St.	Residential	44'	45
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	50'	45
21	Krameria Av.	e/o Indian St.	Residential	44'	40
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	50'	45
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	50'	45
24	Harley Knox Bl.	e/o Webster Av.	Business Park	50'	45

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the General Plan Circulation Element.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]						
			Existing			Opening Year Cumulative (2020)		General Plan Buildout (2035)	
				With Project					
			Without Project	Without Indian Bridge	With Indian Bridge	Without Project	With Project	Without Project	With Project
1	Graham St.	n/o Cactus Av.	6,000	6,000	6,000	9,300	9,300	13,000	13,500
2	Graham St.	s/o Cactus Av.	7,300	7,300	7,300	12,600	12,600	20,000	22,900
3	Heacock St.	n/o Cactus Av.	14,600	15,110	15,110	15,600	16,110	18,600	19,110
4	Heacock St.	s/o Cactus Av.	24,800	28,560	27,750	26,700	30,460	28,100	31,050
5	Heacock St.	s/o John F. Kennedy Dr.	21,300	25,160	24,350	24,400	28,260	27,200	30,250
6	Heacock St.	s/o Gentian Av.	17,100	20,960	20,150	19,800	23,760	24,000	27,050
7	Heacock St.	s/o Iris Av.	9,100	12,960	12,150	17,300	21,260	23,300	26,350
8	Heacock St.	s/o Krameria Av. (North)	8,500	10,760	9,700	19,600	21,760	23,900	25,100
9	Heacock St.	n/o Cardinal Av.	8,900	11,000	10,800	20,000	22,100	23,900	25,700
10	Heacock St.	s/o Cardinal Av.	7,400	9,730	9,430	18,400	20,630	23,900	25,830
11	Heacock St.	s/o San Michele Rd.	3,400	3,400	3,400	4,300	4,300	12,500	14,430
12	Heacock St.	s/o Nandina Av.	200	200	200	200	200	8,100	10,030
13	Indian St.	n/o Krameria Av.	4,100	4,500	4,500	6,000	6,300	13,400	13,800
14	Indian St.	s/o Krameria Av.	1,900	2,100	2,100	2,000	2,200	18,900	19,100
15	Cactus Av.	w/o Elsworth St.	34,200	37,060	36,140	55,800	58,660	68,400	70,340
16	Cactus Av.	e/o Elsworth St.	32,600	35,460	34,540	56,800	59,560	60,600	62,540
17	Cactus Av.	e/o Frederick St.	36,000	38,860	37,940	57,900	60,060	59,600	61,540
18	Cactus Av.	e/o Graham St.	35,800	38,660	37,740	47,600	50,460	50,800	52,740
19	Cactus Av.	e/o Heacock St.	19,400	19,900	19,900	31,200	31,700	43,600	44,100
20	John F. Kennedy Dr.	e/o Heacock St.	8,800	8,900	8,900	10,600	10,700	15,500	15,600
21	Krameria Av.	e/o Indian St.	3,700	4,200	4,200	4,900	5,500	8,100	8,600
22	Harley Knox Bl.	w/o Patterson Av.	13,900	15,830	16,750	27,300	29,230	35,500	38,350
23	Harley Knox Bl.	w/o Webster Av.	9,100	11,230	12,150	22,000	24,130	39,300	42,350
24	Harley Knox Bl.	e/o Webster Av.	9,200	11,330	12,250	21,700	23,830	39,600	40,720

[1] Source: Moreno Valley Logistics Center Traffic Impact Analysis, Urban Crossroads, Inc., September 2015.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	67.67%	6.10%	26.23%	100.00%
Medium Trucks	86.87%	2.02%	11.11%	100.00%
Heavy Trucks	78.67%	10.43%	10.90%	100.00%

[1] Source: Based on existing 24-hour classification counts by vehicle type taken on 4/28/2015 on Heacock Street south of Cardinal Avenue (Moreno Valley Logistics Center Traffic Impact Analysis, Urban Crossroads, Inc., September 2015).
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

According to the *Moreno Valley Logistics Center Traffic Impact Analysis* prepared by Urban Crossroads, Inc., the Project is expected to generate a net total of approximately 4,960 trip-ends per day (actual vehicles) with 504 AM peak hour trips and 536 PM peak hour trips. (1) The net Project trip generation includes 1,441 truck trip-ends per day with 117 AM peak hour truck trips and 133 PM peak hour truck trips. To determine the off-site traffic noise impacts on the study area roadway segments, this analysis uses the net total of 1,411 trip-ends per day to evaluate the Project-related off-site noise level increases. While the traffic volumes presented in the *Moreno Valley Logistics Center Traffic Impact Analysis* are expressed as Passenger Car Equivalent (PCE) trips, the Moreno Valley Logistics Center Noise Impact Analysis relies on the net Project trips to accurately account for the effect of individual truck trips on the study area roadway network.

To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix.

The 1,411 daily Project truck trip-ends trucks were assigned to the 24 individual off-site study area roadway segments based on the estimated Project truck trip distribution percentages. Using the Project truck trips in combination with the Project trip distribution, it is possible to calculate the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Tables 6-4 to 6-7 describe the distribution of traffic flow by vehicle type (vehicle mix) by roadway segment for each of the off-site Project traffic conditions.

TABLE 6-4: EXISTING WITHOUT PROJECT CONDITIONS VEHICLE MIX

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	89.71%	3.29%	7.00%	100.00%

Based on existing 24-hour classification counts by vehicle type taken on 4/28/2015 on Heacock Street south of Cardinal Avenue (Moreno Valley Logistics Center Traffic Impact Analysis, Urban Crossroads, Inc., September 2015).

TABLE 6-5: EXISTING WITH PROJECT WITHOUT INDIAN STREET BRIDGE CONDITIONS VEHICLE MIX

ID	Roadway	Segment	With Project Without Indian Bridge[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Graham St.	n/o Cactus Av.	89.71%	3.29%	7.00%	100.00%
2	Graham St.	s/o Cactus Av.	89.71%	3.29%	7.00%	100.00%
3	Heacock St.	n/o Cactus Av.	89.99%	3.19%	6.81%	100.00%
4	Heacock St.	s/o Cactus Av.	90.86%	2.91%	6.23%	100.00%
5	Heacock St.	s/o John F. Kennedy Dr.	91.05%	2.85%	6.10%	100.00%
6	Heacock St.	s/o Gentian Av.	91.32%	2.76%	5.92%	100.00%
7	Heacock St.	s/o Iris Av.	92.31%	2.44%	5.25%	100.00%
8	Heacock St.	s/o Krameria Av. (North)	91.31%	2.75%	5.93%	100.00%
9	Heacock St.	n/o Cardinal Av.	91.68%	2.66%	5.67%	100.00%
10	Heacock St.	s/o Cardinal Av.	91.87%	2.58%	5.55%	100.00%
11	Heacock St.	s/o San Michele Rd.	89.71%	3.29%	7.00%	100.00%
12	Heacock St.	s/o Nandina Av.	89.71%	3.29%	7.00%	100.00%
13	Indian St.	n/o Krameria Av.	90.63%	2.99%	6.38%	100.00%
14	Indian St.	s/o Krameria Av.	90.69%	2.97%	6.34%	100.00%
15	Cactus Av.	w/o Elsworth St.	90.34%	3.08%	6.58%	100.00%
16	Cactus Av.	e/o Elsworth St.	90.37%	3.07%	6.56%	100.00%
17	Cactus Av.	e/o Frederick St.	90.31%	3.09%	6.60%	100.00%
18	Cactus Av.	e/o Graham St.	90.32%	3.09%	6.60%	100.00%
19	Cactus Av.	e/o Heacock St.	89.97%	3.20%	6.83%	100.00%
20	John F. Kennedy Dr.	e/o Heacock St.	89.83%	3.25%	6.92%	100.00%
21	Krameria Av.	e/o Indian St.	90.94%	2.89%	6.17%	100.00%
22	Harley Knox Bl.	w/o Patterson Av.	90.78%	2.94%	6.29%	100.00%
23	Harley Knox Bl.	w/o Webster Av.	91.40%	2.73%	5.87%	100.00%
24	Harley Knox Bl.	e/o Webster Av.	91.38%	2.74%	5.88%	100.00%

[1] Source: Moreno Valley Logistics Center Traffic Impact Analysis, Urban Crossroads, Inc., September 2015. Values are rounded to the nearest one-hundredth.

[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-6: EXISTING WITH PROJECT WITH INDIAN STREET BRIDGE CONDITIONS VEHICLE MIX

ID	Roadway	Segment	With Project With Indian Bridge[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Graham St.	n/o Cactus Av.	89.71%	3.29%	7.00%	100.00%
2	Graham St.	s/o Cactus Av.	89.71%	3.29%	7.00%	100.00%
3	Heacock St.	n/o Cactus Av.	89.99%	3.19%	6.81%	100.00%
4	Heacock St.	s/o Cactus Av.	90.62%	2.99%	6.39%	100.00%
5	Heacock St.	s/o John F. Kennedy Dr.	90.79%	2.93%	6.27%	100.00%
6	Heacock St.	s/o Gentian Av.	91.02%	2.86%	6.12%	100.00%
7	Heacock St.	s/o Iris Av.	91.88%	2.58%	5.54%	100.00%
8	Heacock St.	s/o Krameria Av. (North)	90.98%	2.88%	6.14%	100.00%
9	Heacock St.	n/o Cardinal Av.	91.52%	2.71%	5.77%	100.00%
10	Heacock St.	s/o Cardinal Av.	91.61%	2.66%	5.73%	100.00%
11	Heacock St.	s/o San Michele Rd.	89.71%	3.29%	7.00%	100.00%
12	Heacock St.	s/o Nandina Av.	89.71%	3.29%	7.00%	100.00%
13	Indian St.	n/o Krameria Av.	90.63%	2.99%	6.38%	100.00%
14	Indian St.	s/o Krameria Av.	90.69%	2.97%	6.34%	100.00%
15	Cactus Av.	w/o Elsworth St.	90.15%	3.14%	6.71%	100.00%
16	Cactus Av.	e/o Elsworth St.	90.17%	3.13%	6.69%	100.00%
17	Cactus Av.	e/o Frederick St.	90.13%	3.15%	6.72%	100.00%
18	Cactus Av.	e/o Graham St.	90.13%	3.15%	6.72%	100.00%
19	Cactus Av.	e/o Heacock St.	89.97%	3.20%	6.83%	100.00%
20	John F. Kennedy Dr.	e/o Heacock St.	89.83%	3.25%	6.92%	100.00%
21	Krameria Av.	e/o Indian St.	90.94%	2.89%	6.17%	100.00%
22	Harley Knox Bl.	w/o Patterson Av.	91.16%	2.81%	6.03%	100.00%
23	Harley Knox Bl.	w/o Webster Av.	91.88%	2.58%	5.54%	100.00%
24	Harley Knox Bl.	e/o Webster Av.	91.86%	2.58%	5.55%	100.00%

[1] Source: Moreno Valley Logistics Center Traffic Impact Analysis, Urban Crossroads, Inc., September 2015. Values are rounded to the nearest one-hundredth.

[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-7: OPENING YEAR 2020 CONDITIONS TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Graham St.	n/o Cactus Av.	89.71%	3.29%	7.00%	100.00%
2	Graham St.	s/o Cactus Av.	89.71%	3.29%	7.00%	100.00%
3	Heacock St.	n/o Cactus Av.	89.97%	3.20%	6.82%	100.00%
4	Heacock St.	s/o Cactus Av.	90.78%	2.94%	6.28%	100.00%
5	Heacock St.	s/o John F. Kennedy Dr.	90.90%	2.90%	6.20%	100.00%
6	Heacock St.	s/o Gentian Av.	91.17%	2.81%	6.02%	100.00%
7	Heacock St.	s/o Iris Av.	91.35%	2.75%	5.90%	100.00%
8	Heacock St.	s/o Krameria Av. (North)	90.46%	3.04%	6.51%	100.00%
9	Heacock St.	n/o Cardinal Av.	90.69%	2.97%	6.34%	100.00%
10	Heacock St.	s/o Cardinal Av.	90.68%	2.97%	6.35%	100.00%
11	Heacock St.	s/o San Michele Rd.	89.71%	3.29%	7.00%	100.00%
12	Heacock St.	s/o Nandina Av.	89.71%	3.29%	7.00%	100.00%
13	Indian St.	n/o Krameria Av.	90.20%	3.13%	6.67%	100.00%
14	Indian St.	s/o Krameria Av.	90.65%	2.99%	6.37%	100.00%
15	Cactus Av.	w/o Elsworth St.	90.11%	3.15%	6.73%	100.00%
16	Cactus Av.	e/o Elsworth St.	90.09%	3.16%	6.75%	100.00%
17	Cactus Av.	e/o Frederick St.	89.98%	3.20%	6.82%	100.00%
18	Cactus Av.	e/o Graham St.	90.18%	3.13%	6.69%	100.00%
19	Cactus Av.	e/o Heacock St.	89.87%	3.23%	6.89%	100.00%
20	John F. Kennedy Dr.	e/o Heacock St.	89.81%	3.26%	6.94%	100.00%
21	Krameria Av.	e/o Indian St.	90.83%	2.93%	6.24%	100.00%
22	Harley Knox Bl.	w/o Patterson Av.	90.29%	3.10%	6.62%	100.00%
23	Harley Knox Bl.	w/o Webster Av.	90.50%	3.03%	6.48%	100.00%
24	Harley Knox Bl.	e/o Webster Av.	90.51%	3.03%	6.47%	100.00%

[1] Source: Moreno Valley Logistics Center Traffic Impact Analysis, Urban Crossroads, Inc., September 2015. Values are rounded to the nearest one-hundredth.

[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-8: GENERAL PLAN BUILDOUT CONDITIONS TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Graham St.	n/o Cactus Av.	90.09%	3.16%	6.74%	100.00%
2	Graham St.	s/o Cactus Av.	91.01%	2.87%	6.12%	100.00%
3	Heacock St.	n/o Cactus Av.	89.93%	3.21%	6.85%	100.00%
4	Heacock St.	s/o Cactus Av.	90.53%	3.02%	6.45%	100.00%
5	Heacock St.	s/o John F. Kennedy Dr.	90.58%	3.00%	6.42%	100.00%
6	Heacock St.	s/o Gentian Av.	90.69%	2.97%	6.35%	100.00%
7	Heacock St.	s/o Iris Av.	90.71%	2.96%	6.33%	100.00%
8	Heacock St.	s/o Krameria Av. (North)	90.20%	3.13%	6.67%	100.00%
9	Heacock St.	n/o Cardinal Av.	90.43%	3.06%	6.51%	100.00%
10	Heacock St.	s/o Cardinal Av.	90.36%	3.07%	6.56%	100.00%
11	Heacock St.	s/o San Michele Rd.	90.88%	2.90%	6.22%	100.00%
12	Heacock St.	s/o Nandina Av.	91.39%	2.73%	5.87%	100.00%
13	Indian St.	n/o Krameria Av.	90.01%	3.19%	6.80%	100.00%
14	Indian St.	s/o Krameria Av.	89.82%	3.25%	6.93%	100.00%
15	Cactus Av.	w/o Elsworth St.	89.94%	3.21%	6.85%	100.00%
16	Cactus Av.	e/o Elsworth St.	89.97%	3.20%	6.83%	100.00%
17	Cactus Av.	e/o Frederick St.	89.97%	3.20%	6.83%	100.00%
18	Cactus Av.	e/o Graham St.	90.01%	3.19%	6.80%	100.00%
19	Cactus Av.	e/o Heacock St.	89.83%	3.25%	6.92%	100.00%
20	John F. Kennedy Dr.	e/o Heacock St.	89.78%	3.26%	6.96%	100.00%
21	Krameria Av.	e/o Indian St.	90.31%	3.09%	6.60%	100.00%
22	Harley Knox Bl.	w/o Patterson Av.	90.35%	3.08%	6.58%	100.00%
23	Harley Knox Bl.	w/o Webster Av.	90.33%	3.08%	6.58%	100.00%
24	Harley Knox Bl.	e/o Webster Av.	89.95%	3.21%	6.84%	100.00%

[1] Source: Moreno Valley Logistics Center Traffic Impact Analysis, Urban Crossroads, Inc., September 2015. Values are rounded to the nearest one-hundredth.

[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

6.3 VIBRATION ASSESSMENT

This analysis focuses on the potential ground-borne vibration associated with vehicular traffic and construction activities. Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity.

However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 6-9. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $L_{VdB}(D) = L_{VdB}(25\text{ ft}) - 30\log(D/25)$

TABLE 6-9: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Vibration Decibels (VdB) at 25 feet[1]
Small bulldozer	58
Jackhammer	79
Loaded Trucks	86
Large bulldozer	87

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

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7 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the *Moreno Valley Logistics Center Traffic Impact Analysis*. (1) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing Without Project: This scenario refers to the existing present-day noise conditions without the proposed Project.
- Existing With Project: This scenario refers to the existing present-day noise conditions with the proposed Project, under the following two conditions:
  - Without Indian Street Bridge: This scenario refers to the existing present-day noise conditions without the Indian Street Bridge over the Perris Valley Storm Drain.
  - With Indian Street Bridge: This scenario refers to the existing present-day noise conditions with the Indian Street Bridge over the Perris Valley Storm Drain.
- Opening Year (2020) Without / With Project: This scenario refers to the background noise conditions at future Year 2020 without and with the proposed Project. This scenario corresponds to 2020 conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.
- General Plan Building (2035) Without / With Project: This scenario refers to the background noise conditions at future Year 2035 without and with the proposed Project. This scenario corresponds to 2035 conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.

7.1 TRAFFIC NOISE CONTOURS

To quantify the Project's traffic noise impacts on the surrounding areas, the changes in traffic noise levels on 24 roadway segments surrounding the Project were calculated based on the changes in the average daily traffic volumes. Based on the noise impact significance criteria described in Section 4, a significant off-site traffic noise level impact occurs:

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, etc.):
  - are less than 60 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project related noise level increase; or
  - range from 60 to 65 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project noise level increase; or
  - already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA (FICON, 1992).
- When the noise levels at existing and future non-noise-sensitive land uses (e.g. business park, industrial, etc.):
  - are less than the OPR General Plan Guidelines *normally acceptable* 70 dBA and the Project creates a *readily perceptible* 5 dBA or greater Project related noise level increase; or
  - are greater than the OPR General Plan Guidelines *normally acceptable* 70 dBA and the Project creates a *barely perceptible* 3 dBA or greater Project noise level increase.

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels. In addition, since the noise contours reflect modeling of vehicular noise on study area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 through 7-7 present a summary of the unmitigated exterior traffic noise levels for the 24 study area roadway segments analyzed from the without Project to the with Project conditions in each of the three timeframes: Existing (without and with Indian Street Bridge), Opening Year (2020), and General Plan Buildout (2035) conditions. Appendix 7.1 includes a summary of the traffic noise level contours for each of the seven traffic scenarios.

TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Graham St.	n/o Cactus Av.	Light Industrial	64.8	45	97	209
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	65.7	51	111	239
3	Heacock St.	n/o Cactus Av.	Residential	68.8	83	178	384
4	Heacock St.	s/o Cactus Av.	Residential	71.1	118	254	547
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.3	122	264	568
6	Heacock St.	s/o Gentian Av.	Business Park	70.2	103	223	480
7	Heacock St.	s/o Iris Av.	Business Park	67.5	68	146	315
8	Heacock St.	s/o Krameria Av. (North)	Business Park	67.2	65	140	301
9	Heacock St.	n/o Cardinal Av.	Business Park	65.6	51	110	237
10	Heacock St.	s/o Cardinal Av.	Business Park	64.8	RW	97	209
11	Heacock St.	s/o San Michele Rd.	Business Park	63.2	RW	76	163
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	RW	RW	RW
13	Indian St.	n/o Krameria Av.	Residential	64.1	RW	87	187
14	Indian St.	s/o Krameria Av.	Residential	60.7	RW	52	112
15	Cactus Av.	w/o Elsworth St.	Business Park	73.3	166	357	769
16	Cactus Av.	e/o Elsworth St.	Business Park	73.1	160	346	744
17	Cactus Av.	e/o Frederick St.	Light Industrial	73.5	171	369	795
18	Cactus Av.	e/o Graham St.	Light Industrial	73.5	171	368	792
19	Cactus Av.	e/o Heacock St.	Residential	69.9	99	213	458
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	66.6	59	127	274
21	Krameria Av.	e/o Indian St.	Residential	61.6	RW	60	128
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	68.6	80	172	372
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	66.6	59	127	274
24	Harley Knox Bl.	e/o Webster Av.	Business Park	66.6	59	128	276

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH PROJECT WITHOUT INDIAN STREET BRIDGE NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Graham St.	n/o Cactus Av.	Light Industrial	64.8	45	97	209
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	65.7	51	111	239
3	Heacock St.	n/o Cactus Av.	Residential	68.8	84	180	388
4	Heacock St.	s/o Cactus Av.	Residential	71.4	123	265	572
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.7	129	279	601
6	Heacock St.	s/o Gentian Av.	Business Park	70.7	111	239	514
7	Heacock St.	s/o Iris Av.	Business Park	68.3	77	166	357
8	Heacock St.	s/o Krameria Av. (North)	Business Park	67.8	71	153	330
9	Heacock St.	n/o Cardinal Av.	Business Park	65.9	54	115	249
10	Heacock St.	s/o Cardinal Av.	Business Park	65.3	RW	105	227
11	Heacock St.	s/o San Michele Rd.	Business Park	63.2	RW	76	163
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	RW	RW	RW
13	Indian St.	n/o Krameria Av.	Residential	64.2	RW	89	192
14	Indian St.	s/o Krameria Av.	Residential	60.9	RW	53	115
15	Cactus Av.	w/o Elsworth St.	Business Park	73.5	170	367	791
16	Cactus Av.	e/o Elsworth St.	Business Park	73.3	165	356	767
17	Cactus Av.	e/o Frederick St.	Light Industrial	73.7	176	379	817
18	Cactus Av.	e/o Graham St.	Light Industrial	73.7	175	378	814
19	Cactus Av.	e/o Heacock St.	Residential	70.0	99	214	461
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	66.6	59	128	275
21	Krameria Av.	e/o Indian St.	Residential	61.8	RW	61	132
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	68.8	83	180	387
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	67.0	63	136	293
24	Harley Knox Bl.	e/o Webster Av.	Business Park	67.0	63	137	295

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 7-3: EXISTING WITH PROJECT WITH INDIAN STREET BRIDGE NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Graham St.	n/o Cactus Av.	Light Industrial	64.8	45	97	209
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	65.7	51	111	239
3	Heacock St.	n/o Cactus Av.	Residential	68.8	84	180	388
4	Heacock St.	s/o Cactus Av.	Residential	71.3	122	263	567
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.6	128	276	594
6	Heacock St.	s/o Gentian Av.	Business Park	70.6	109	235	507
7	Heacock St.	s/o Iris Av.	Business Park	68.1	75	162	349
8	Heacock St.	s/o Krameria Av. (North)	Business Park	67.4	67	145	312
9	Heacock St.	n/o Cardinal Av.	Business Park	65.9	53	115	248
10	Heacock St.	s/o Cardinal Av.	Business Park	65.3	RW	105	225
11	Heacock St.	s/o San Michele Rd.	Business Park	63.2	RW	76	163
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	RW	RW	RW
13	Indian St.	n/o Krameria Av.	Residential	64.2	RW	89	192
14	Indian St.	s/o Krameria Av.	Residential	60.9	RW	53	115
15	Cactus Av.	w/o Elsworth St.	Business Park	73.4	169	364	784
16	Cactus Av.	e/o Elsworth St.	Business Park	73.2	164	353	760
17	Cactus Av.	e/o Frederick St.	Light Industrial	73.6	175	376	810
18	Cactus Av.	e/o Graham St.	Light Industrial	73.6	174	375	807
19	Cactus Av.	e/o Heacock St.	Residential	70.0	99	214	461
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	66.6	59	128	275
21	Krameria Av.	e/o Indian St.	Residential	61.8	RW	61	132
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	68.9	85	183	395
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	67.2	65	140	302
24	Harley Knox Bl.	e/o Webster Av.	Business Park	67.2	65	141	303

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: OPENING YEAR (2020) WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Graham St.	n/o Cactus Av.	Light Industrial	66.7	60	130	281
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	68.0	74	159	343
3	Heacock St.	n/o Cactus Av.	Residential	69.1	86	186	401
4	Heacock St.	s/o Cactus Av.	Residential	71.4	124	267	574
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.9	134	289	622
6	Heacock St.	s/o Gentian Av.	Business Park	70.9	114	246	529
7	Heacock St.	s/o Iris Av.	Business Park	70.3	104	224	484
8	Heacock St.	s/o Krameria Av. (North)	Business Park	70.8	113	244	525
9	Heacock St.	n/o Cardinal Av.	Business Park	69.1	88	189	406
10	Heacock St.	s/o Cardinal Av.	Business Park	68.8	83	178	384
11	Heacock St.	s/o San Michele Rd.	Business Park	64.2	RW	89	191
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	RW	RW	RW
13	Indian St.	n/o Krameria Av.	Residential	65.7	52	112	241
14	Indian St.	s/o Krameria Av.	Residential	61.0	RW	54	116
15	Cactus Av.	w/o Elsworth St.	Business Park	75.4	230	494	1065
16	Cactus Av.	e/o Elsworth St.	Business Park	75.5	232	500	1078
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.6	235	507	1092
18	Cactus Av.	e/o Graham St.	Light Industrial	74.7	206	445	958
19	Cactus Av.	e/o Heacock St.	Residential	72.0	135	292	629
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	67.4	67	144	310
21	Krameria Av.	e/o Indian St.	Residential	62.8	RW	72	155
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	71.5	126	270	583
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	70.4	106	229	493
24	Harley Knox Bl.	e/o Webster Av.	Business Park	70.3	105	227	489

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 7-5: OPENING YEAR (2020) WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Graham St.	n/o Cactus Av.	Light Industrial	66.7	60	130	281
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	68.0	74	159	343
3	Heacock St.	n/o Cactus Av.	Residential	69.1	87	188	405
4	Heacock St.	s/o Cactus Av.	Residential	71.7	129	278	599
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	72.2	141	303	653
6	Heacock St.	s/o Gentian Av.	Business Park	71.3	121	261	562
7	Heacock St.	s/o Iris Av.	Business Park	70.7	112	241	518
8	Heacock St.	s/o Krameria Av. (North)	Business Park	71.1	118	254	547
9	Heacock St.	n/o Cardinal Av.	Business Park	69.3	90	193	416
10	Heacock St.	s/o Cardinal Av.	Business Park	69.0	86	184	397
11	Heacock St.	s/o San Michele Rd.	Business Park	64.2	RW	89	191
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	RW	RW	RW
13	Indian St.	n/o Krameria Av.	Residential	65.8	53	113	244
14	Indian St.	s/o Krameria Av.	Residential	61.1	RW	55	119
15	Cactus Av.	w/o Elsworth St.	Business Park	75.5	234	503	1084
16	Cactus Av.	e/o Elsworth St.	Business Park	75.6	236	509	1096
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.7	238	514	1107
18	Cactus Av.	e/o Graham St.	Light Industrial	74.9	211	454	978
19	Cactus Av.	e/o Heacock St.	Residential	72.0	136	293	631
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	67.4	67	144	311
21	Krameria Av.	e/o Indian St.	Residential	63.0	RW	74	159
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	71.6	128	276	595
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	70.6	109	236	508
24	Harley Knox Bl.	e/o Webster Av.	Business Park	70.5	108	234	503

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-6: GENERAL PLAN BUILDOUT (2035) WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Graham St.	n/o Cactus Av.	Light Industrial	68.2	76	163	351
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	70.0	101	217	467
3	Heacock St.	n/o Cactus Av.	Residential	69.8	97	209	451
4	Heacock St.	s/o Cactus Av.	Residential	71.6	128	276	594
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	72.4	144	310	669
6	Heacock St.	s/o Gentian Av.	Business Park	71.7	130	279	601
7	Heacock St.	s/o Iris Av.	Business Park	71.6	127	274	590
8	Heacock St.	s/o Krameria Av. (North)	Business Park	71.7	129	278	600
9	Heacock St.	n/o Cardinal Av.	Business Park	69.9	99	212	458
10	Heacock St.	s/o Cardinal Av.	Business Park	69.9	99	212	458
11	Heacock St.	s/o San Michele Rd.	Business Park	68.9	84	181	389
12	Heacock St.	s/o Nandina Av.	Open Space	61.3	RW	57	122
13	Indian St.	n/o Krameria Av.	Residential	69.2	89	191	412
14	Indian St.	s/o Krameria Av.	Residential	70.7	112	240	518
15	Cactus Av.	w/o Elsworth St.	Business Park	76.3	263	566	1220
16	Cactus Av.	e/o Elsworth St.	Business Park	75.8	242	522	1126
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.7	240	517	1113
18	Cactus Av.	e/o Graham St.	Light Industrial	75.0	216	464	1001
19	Cactus Av.	e/o Heacock St.	Residential	73.4	169	365	786
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	69.0	86	185	400
21	Krameria Av.	e/o Indian St.	Residential	65.0	47	100	216
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	72.6	150	322	694
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	72.9	157	337	727
24	Harley Knox Bl.	e/o Webster Av.	Business Park	73.0	157	339	730

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-7: GENERAL PLAN BUILDOUT (2035) WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Nearest Adjacent Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Graham St.	n/o Cactus Av.	Light Industrial	68.2	76	164	354
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	70.3	104	224	483
3	Heacock St.	n/o Cactus Av.	Residential	69.9	98	211	455
4	Heacock St.	s/o Cactus Av.	Residential	71.8	132	285	613
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	72.6	149	322	693
6	Heacock St.	s/o Gentian Av.	Business Park	71.9	135	291	626
7	Heacock St.	s/o Iris Av.	Business Park	71.8	132	285	615
8	Heacock St.	s/o Krameria Av. (North)	Business Park	71.8	131	282	607
9	Heacock St.	n/o Cardinal Av.	Business Park	70.0	100	216	465
10	Heacock St.	s/o Cardinal Av.	Business Park	70.1	101	217	468
11	Heacock St.	s/o San Michele Rd.	Business Park	69.2	88	190	408
12	Heacock St.	s/o Nandina Av.	Open Space	61.6	RW	60	129
13	Indian St.	n/o Krameria Av.	Residential	69.3	89	192	415
14	Indian St.	s/o Krameria Av.	Residential	70.7	112	241	519
15	Cactus Av.	w/o Elsworth St.	Business Park	76.4	265	572	1232
16	Cactus Av.	e/o Elsworth St.	Business Park	75.8	245	528	1138
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.8	242	522	1125
18	Cactus Av.	e/o Graham St.	Light Industrial	75.1	218	471	1014
19	Cactus Av.	e/o Heacock St.	Residential	73.4	170	366	788
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	69.0	86	186	400
21	Krameria Av.	e/o Indian St.	Residential	65.1	47	102	219
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	72.8	153	330	712
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	73.1	160	345	744
24	Harley Knox Bl.	e/o Webster Av.	Business Park	73.0	159	342	737

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

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7.2 EXISTING CONDITIONS PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-1 presents the Existing without Project conditions CNEL noise levels. From this we can see that the exterior noise levels are expected to range from 45.2 to 73.5 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project without Indian Street Bridge conditions will range from 45.2 to 73.7 dBA CNEL. As shown on Table 7-8 the Project will generate noise level increases approaching 0.8 dBA CNEL under the without Indian Street Bridge conditions. Based on the significance criteria outlined in Section 4, the Project-related increases at the adjacent land uses represent a *less than significant* impact under Existing with Project without Indian Street Bridge conditions.

Table 7-3 shows the Existing with Project with Indian Street Bridge conditions will range from 45.2 to 73.6 dBA CNEL. As shown on Table 7-9 the Project will generate noise level increases approaching 0.6 dBA CNEL under the with Indian Street Bridge conditions. Based on the significance criteria outlined in Section 4, the Project-related increases at the adjacent land uses represent a *less than significant* impact under Existing with Project with Indian Street Bridge conditions. Further, the Project-related noise level increases will be up to 0.2 dBA CNEL less than those under the without Indian Street Bridge conditions.

7.3 OPENING YEAR (2020) PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-10 presents a comparison of the Opening Year (2020) without and with Project conditions CNEL noise levels. Table 7-4 shows that the exterior noise levels without accounting for any noise attenuation features are expected to range from 45.2 to 75.6 dBA CNEL under Opening Year (2020) without Project conditions. Table 7-5 presents the Opening Year (2020) with Project conditions noise level contours that are expected to range from 45.2 to 75.7 dBA CNEL. As shown on Table 7-10 the Project will generate noise level increases approaching 0.4 dBA CNEL. Based on the significance criteria outlined in Section 4, the Project-related increases at the adjacent land uses represent a *less than significant* impact under Opening Year (2020) conditions.

7.4 GENERAL PLAN BUILDOUT (2035) PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-11 presents a comparison of the General Plan Buildout (2035) without and with Project conditions CNEL noise levels. Table 7-6 shows that the exterior noise levels without accounting for any noise attenuation features are expected to range from 61.3 to 76.3 dBA CNEL under General Plan Buildout (2035) without Project conditions. Table 7-7 presents the General Plan Buildout (2035) with Project conditions noise level contours that are expected to range from 61.6 to 76.4 dBA CNEL. As shown on Table 7-11 the Project will generate noise level increases approaching 0.3 dBA CNEL. Based on the significance criteria outlined in Section 4, the Project-related increases at the adjacent land uses represent a *less than significant* impact under General Plan Buildout (2035) conditions.

7.5 CUMULATIVE PROJECT TRAFFIC NOISE IMPACTS

According to the U.S. Environmental Protection Agency (EPA), cumulative impacts represent the combined incremental effects of human activities that accumulate over time. (21) While the incremental impacts may be insignificant by themselves, the combined effect may result in a significant impact. The level of significance attributed to a cumulative noise impact is based on a comparison of the Existing without Project noise levels with the future General Plan Buildout (2035) without Project noise levels. Table 7-12 shows that the cumulative increase from Existing to General Plan Buildout (2035) without Project conditions (column 6) will range from 0.5 to 16.1 dBA CNEL. Based on the significance criteria in Section 4, the cumulative increases represent a *potentially significant* cumulative impact on 10 of the study area roadway segments.

Since the cumulative increase is shown to be potentially significant for 10 of the study area roadway segments, it is necessary to determine the Project-related contribution to the cumulative noise level increase on the affected roadway segments. As shown on Table 7-12, the Project-related noise level contribution is calculated for each roadway segment. To determine if the Project-related contribution to the cumulative noise impact is potentially significant, the Existing without Project noise levels were subtracted from the General Plan Buildout (2035) with Project noise levels to determine the Project plus cumulative noise level increase. As shown on Table 7-12, the General Plan Buildout (2035) with Project plus cumulative noise level increases over Existing without Project conditions (column 10) will range from 0.7 to 16.4 dBA CNEL and represent *potentially significant* impacts under General Plan Buildout (2035) conditions. However, to determine if the Project's contribution to the cumulative impact is cumulatively considerable, the General Plan Buildout (2035) without Project noise level increases are subtracted from the General Plan Buildout (2035) with Project noise level increases.

Table 7-12 shows the actual Project-related contribution to the cumulative noise level increases (column 13) will approach 0.3 dBA CNEL and will not exceed the significance thresholds at the adjacent land uses. Therefore, since the Project-related off-site traffic noise level increases represent a *less than significant* contribution to the cumulative noise impacts, the Project-related traffic noise level increases are *less than cumulatively considerable*.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 7-8: EXISTING WITHOUT INDIAN STREET BRIDGE OFF-SITE TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	64.8	64.8	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	65.7	65.7	0.0	No	No
3	Heacock St.	n/o Cactus Av.	Residential	68.8	68.8	0.0	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.1	71.4	0.3	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.3	71.7	0.4	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	70.2	70.7	0.5	No	No
7	Heacock St.	s/o Iris Av.	Business Park	67.5	68.3	0.8	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	67.2	67.8	0.6	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	65.6	65.9	0.3	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	64.8	65.3	0.5	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	63.2	63.2	0.0	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	45.2	0.0	No	No
13	Indian St.	n/o Krameria Av.	Residential	64.1	64.2	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	60.7	60.9	0.2	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	73.3	73.5	0.2	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	73.1	73.3	0.2	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	73.5	73.7	0.2	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	73.5	73.7	0.2	No	No
19	Cactus Av.	e/o Heacock St.	Residential	69.9	70.0	0.1	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	66.6	66.6	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	61.6	61.8	0.2	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	68.6	68.8	0.2	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	66.6	67.0	0.4	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	66.6	67.0	0.4	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria (Section 4).

TABLE 7-9: EXISTING WITH INDIAN STREET BRIDGE OFF-SITE TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	64.8	64.8	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	65.7	65.7	0.0	No	No
3	Heacock St.	n/o Cactus Av.	Residential	68.8	68.8	0.0	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.1	71.3	0.2	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.3	71.6	0.3	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	70.2	70.6	0.4	No	No
7	Heacock St.	s/o Iris Av.	Business Park	67.5	68.1	0.6	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	67.2	67.4	0.2	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	65.6	65.9	0.3	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	64.8	65.3	0.5	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	63.2	63.2	0.0	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	45.2	0.0	No	No
13	Indian St.	n/o Krameria Av.	Residential	64.1	64.2	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	60.7	60.9	0.2	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	73.3	73.4	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	73.1	73.2	0.1	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	73.5	73.6	0.1	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	73.5	73.6	0.1	No	No
19	Cactus Av.	e/o Heacock St.	Residential	69.9	70.0	0.1	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	66.6	66.6	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	61.6	61.8	0.2	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	68.6	68.9	0.3	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	66.6	67.2	0.6	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	66.6	67.2	0.6	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria (Section 4).

TABLE 7-10: OPENING (2020) OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	66.7	66.7	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	68.0	68.0	0.0	No	No
3	Heacock St.	n/o Cactus Av.	Residential	69.1	69.1	0.0	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.4	71.7	0.3	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	71.9	72.2	0.3	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	70.9	71.3	0.4	No	No
7	Heacock St.	s/o Iris Av.	Business Park	70.3	70.7	0.4	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	70.8	71.1	0.3	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	69.1	69.3	0.2	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	68.8	69.0	0.2	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	64.2	64.2	0.0	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	45.2	45.2	0.0	No	No
13	Indian St.	n/o Krameria Av.	Residential	65.7	65.8	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	61.0	61.1	0.1	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	75.4	75.5	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	75.5	75.6	0.1	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.6	75.7	0.1	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	74.7	74.9	0.2	No	No
19	Cactus Av.	e/o Heacock St.	Residential	72.0	72.0	0.0	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	67.4	67.4	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	62.8	63.0	0.2	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	71.5	71.6	0.1	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	70.4	70.6	0.2	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	70.3	70.5	0.2	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria (Section 4).

TABLE 7-11: GENERAL PLAN BUILDOUT (2035) OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Threshold Exceeded?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Graham St.	n/o Cactus Av.	Light Industrial	68.2	68.2	0.0	No	No
2	Graham St.	s/o Cactus Av.	March Air Reserve Base	70.0	70.3	0.3	No	No
3	Heacock St.	n/o Cactus Av.	Residential	69.8	69.9	0.1	No	No
4	Heacock St.	s/o Cactus Av.	Residential	71.6	71.8	0.2	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	Residential	72.4	72.6	0.2	No	No
6	Heacock St.	s/o Gentian Av.	Business Park	71.7	71.9	0.2	No	No
7	Heacock St.	s/o Iris Av.	Business Park	71.6	71.8	0.2	No	No
8	Heacock St.	s/o Krameria Av. (North)	Business Park	71.7	71.8	0.1	No	No
9	Heacock St.	n/o Cardinal Av.	Business Park	69.9	70.0	0.1	No	No
10	Heacock St.	s/o Cardinal Av.	Business Park	69.9	70.1	0.2	No	No
11	Heacock St.	s/o San Michele Rd.	Business Park	68.9	69.2	0.3	No	No
12	Heacock St.	s/o Nandina Av.	Open Space	61.3	61.6	0.3	No	No
13	Indian St.	n/o Krameria Av.	Residential	69.2	69.3	0.1	No	No
14	Indian St.	s/o Krameria Av.	Residential	70.7	70.7	0.0	No	No
15	Cactus Av.	w/o Elsworth St.	Business Park	76.3	76.4	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	Business Park	75.8	75.8	0.0	No	No
17	Cactus Av.	e/o Frederick St.	Light Industrial	75.7	75.8	0.1	No	No
18	Cactus Av.	e/o Graham St.	Light Industrial	75.0	75.1	0.1	No	No
19	Cactus Av.	e/o Heacock St.	Residential	73.4	73.4	0.0	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	Residential	69.0	69.0	0.0	No	No
21	Krameria Av.	e/o Indian St.	Residential	65.0	65.1	0.1	No	No
22	Harley Knox Bl.	w/o Patterson Av.	March Air Reserve Base	72.6	72.8	0.2	No	No
23	Harley Knox Bl.	w/o Webster Av.	March Air Reserve Base	72.9	73.1	0.2	No	No
24	Harley Knox Bl.	e/o Webster Av.	Business Park	73.0	73.0	0.0	No	No

[1] Source: City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[3] Significance Criteria (Section 4).

TABLE 7-12: GENERAL PLAN BUILDOUT (2035) OFF-SITE CUMULATIVE TRAFFIC NOISE IMPACTS

ID [1]	Road [2]	Segment [3]	CNEL at Adj. Land Use[1]		Cumulative-Related			Project-Related				Project Contributions		
			Existing Without Project [4]	Year 2035 Without Project [5]	Cumulative Increase From Existing[2] [6]	Threshold Exceeded?[3]		Year 2035 With Project[1] [9]	Project Increase From Existing[4] [10]	Threshold Exceeded?3		Project Contr.[5] [13]	Cumulatively Considerable?[6]	
						Noise-Sensitive [7]	Non-Noise-Sensitive [8]			Noise-Sensitive [11]	Non-Noise-Sensitive [12]		Noise-Sensitive [14]	Non-Noise-Sensitive [15]
1	Graham St.	n/o Cactus Av.	64.8	68.2	3.4	No	No	68.2	3.4	No	No	0.0	No	No
2	Graham St.	s/o Cactus Av.	65.7	70.0	4.3	No	No	70.3	4.6	No	No	0.3	No	No
3	Heacock St.	n/o Cactus Av.	68.8	69.8	1.0	No	No	69.9	1.1	No	No	0.1	No	No
4	Heacock St.	s/o Cactus Av.	71.1	71.6	0.5	No	No	71.8	0.7	No	No	0.2	No	No
5	Heacock St.	s/o John F. Kennedy Dr.	71.3	72.4	1.1	No	No	72.6	1.3	No	No	0.2	No	No
6	Heacock St.	s/o Gentian Av.	70.2	71.7	1.5	No	No	71.9	1.7	No	No	0.2	No	No
7	Heacock St.	s/o Iris Av.	67.5	71.6	4.1	No	No	71.8	4.3	No	No	0.2	No	No
8	Heacock St.	s/o Krameria Av. (North)	67.2	71.7	4.5	No	No	71.8	4.6	No	No	0.1	No	No
9	Heacock St.	n/o Cardinal Av.	65.6	69.9	4.3	No	No	70.0	4.4	No	No	0.1	No	No
10	Heacock St.	s/o Cardinal Av.	64.8	69.9	5.1	No	Yes	70.1	5.3	No	Yes	0.2	No	No
11	Heacock St.	s/o San Michele Rd.	63.2	68.9	5.7	No	Yes	69.2	6.0	No	Yes	0.3	No	No
12	Heacock St.	s/o Nandina Av.	45.2	61.3	16.1	No	Yes	61.6	16.4	No	Yes	0.3	No	No
13	Indian St.	n/o Krameria Av.	64.1	69.2	5.1	Yes	No	69.3	5.2	Yes	No	0.1	No	No
14	Indian St.	s/o Krameria Av.	60.7	70.7	10.0	Yes	No	70.7	10.0	Yes	No	0.0	No	No
15	Cactus Av.	w/o Elsworth St.	73.3	76.3	3.0	No	Yes	76.4	3.1	No	Yes	0.1	No	No
16	Cactus Av.	e/o Elsworth St.	73.1	75.8	2.7	No	No	75.8	2.7	No	No	0.0	No	No
17	Cactus Av.	e/o Frederick St.	73.5	75.7	2.2	No	No	75.8	2.3	No	No	0.1	No	No
18	Cactus Av.	e/o Graham St.	73.5	75.0	1.5	No	No	75.1	1.6	No	No	0.1	No	No
19	Cactus Av.	e/o Heacock St.	69.9	73.4	3.5	Yes	No	73.4	3.5	Yes	No	0.0	No	No
20	John F. Kennedy Dr.	e/o Heacock St.	66.6	69.0	2.4	Yes	No	69.0	2.4	No	No	0.0	No	No
21	Krameria Av.	e/o Indian St.	61.6	65.0	3.4	Yes	No	65.1	3.5	Yes	No	0.1	No	No
22	Harley Knox Bl.	w/o Patterson Av.	68.6	72.6	4.0	No	No	72.8	4.2	No	No	0.2	No	No
23	Harley Knox Bl.	w/o Webster Av.	66.6	72.9	6.3	No	Yes	73.1	6.5	No	Yes	0.2	No	No
24	Harley Knox Bl.	e/o Webster Av.	66.6	73.0	6.4	No	Yes	73.0	6.4	No	Yes	0.0	No	No

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

[2] Cumulative noise level increase from Existing without Project (Table 7-1) to Year 2035 without Project conditions (Table 7-6).

[3] Does the increase exceed the significance criteria in Section 4? Land use sensitivity is based on the City of Moreno Valley General Plan Land Use Map, Figure 2-2.

[4] Project-related noise level increase from Existing without Project (Table 7-1) to Year 2035 with Project conditions (Table 7-7).

[5] Total Project contribution to the cumulative noise level increase.

[6] Does the Project-related contribution to the cumulative noise level increase exceed the significance criteria at the adjacent land uses?

8 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following eight receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Many of these receiver locations coincide with the existing noise level measurement locations outlined in Section 5 and previously shown on Exhibit 5-A. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

Representative sensitive receivers in the vicinity of the Project site include the single-family residential homes at locations R1, and R3 to R8. Receiver location R2 represents Rainbow Ridge Elementary School. The closest noise-sensitive receiver is represented by location R8 where an existing residential home is located approximately 101 feet east of the Project site boundary.

R1: Located approximately 2,744 feet north of the Project site on Iris Avenue, R1 represents existing single-family residential homes. A long-term noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

R2: Location R2 represents Rainbow Ridge Elementary School located roughly 2,853 feet northeast of the Project site.

R3: Location R3 represents the existing residential homes situated north of the Project site at a distance of approximately 1,544 feet on Indian Street. A long-term noise measurement was taken near this location, L6, to describe the existing ambient noise environment.

R4: Location R4 represents the existing residential homes situated approximately 471 feet northeast of the Project site. A long-term noise measurement was taken near this location, L7, to describe the existing ambient noise environment.

R5: At a distance of approximately 133 feet, location R5 represents single-family residential homes adjacent to Indian Street, east of the Project site. A long-term noise measurement was taken near this location, L7, to describe the existing ambient noise environment.

R6: Location R6 represents the existing residential homes situated east of the Project site at a distance of approximately 161 feet across Indian Street. A long-term noise measurement was taken near this location, L8, to describe the existing ambient noise environment.

R7: Location R7 represents the existing residential homes situated approximately 144 feet east of the Project site across Indian Street. A long-term noise measurement was taken near this location, L9, to describe the existing ambient noise environment.

R8: At a distance of approximately 101 feet, location R8 represents a single-family residential home southeast of the Project site.

EXHIBIT 8-A: RECEIVER LOCATIONS

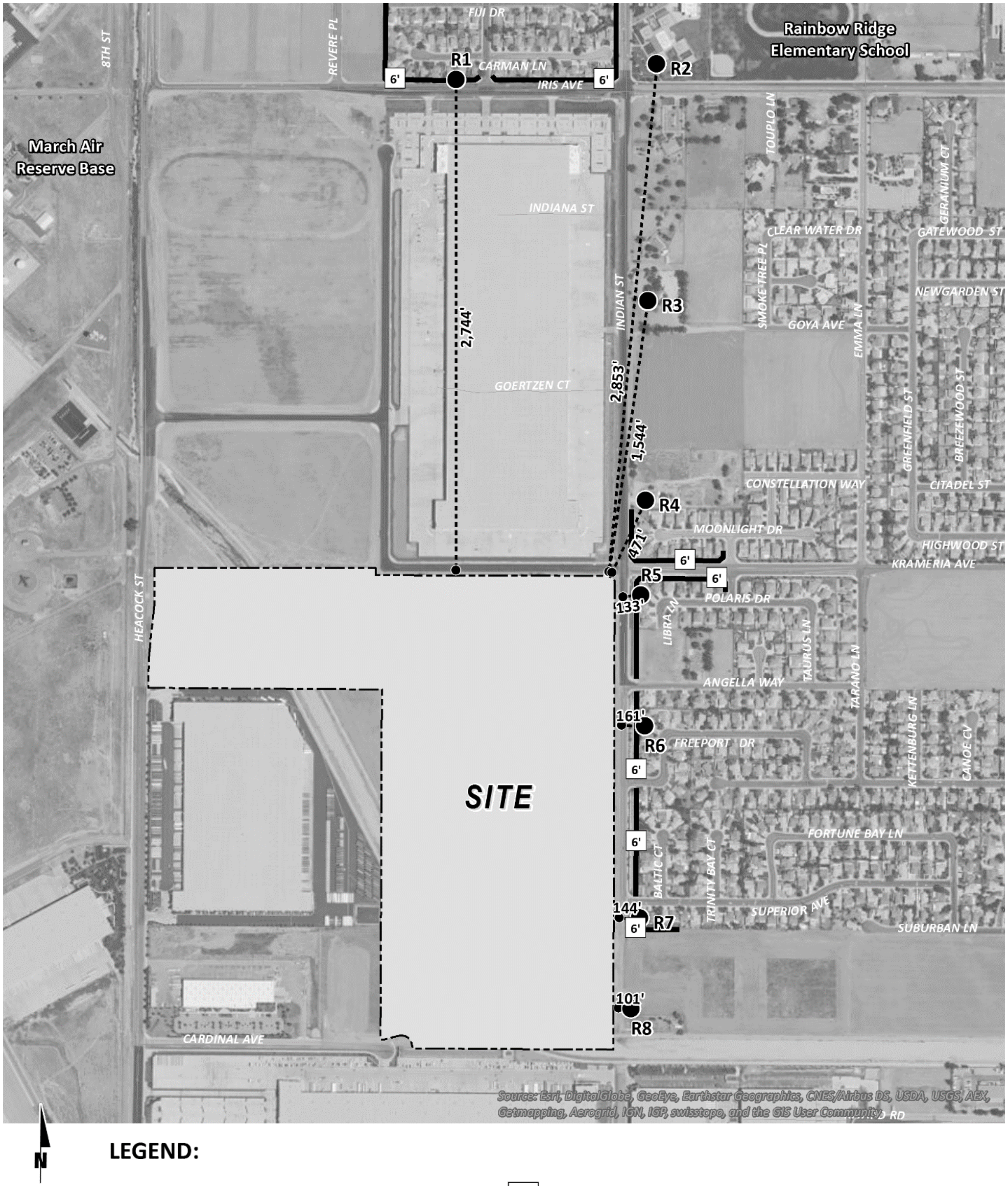

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND:

● Receiver Locations

6' Existing Barrier Height (in feet)

----● Distance from receiver to Project site boundary (in feet)

▬ Existing Barrier

9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at nearby receiver locations resulting from operation of the proposed Moreno Valley Logistics Center. Exhibit 9-A identifies the representative receiver locations and noise source locations used to assess the operational noise levels.

9.1 OPERATIONAL NOISE STANDARDS

The City of Moreno Valley Municipal Code, Chapter 11.80 *Noise Regulation*, provides performance standards and noise control guidelines for determining and mitigating non-transportation or stationary-source noise impacts from operations at private properties. The City of Moreno Valley Municipal Code defines *Maximum Sound Levels (in dB(A)) for Source Land Uses* in Table 11.80.030-2 for *Residential* and *Commercial* land uses. As defined by the Municipal Code, Section 11.80.020 *Definitions*, *Commercial* land use *means all uses of land not otherwise classified as residential,* and *Residential* land use *means all uses of land primarily for dwelling units, as well as hospitals, schools, colleges and universities, and places of religious assembly.* (2) For the purpose of this analysis, the Moreno Valley Logistics Center Project is considered *Commercial* land use since it is not classified as residential. Based on this standard, the operational noise level limits for commercial land use, from Table 11.80.030-2, of 65 dBA Leq during the daytime (8:00 a.m. to 10:00 p.m.) hours and 60 dBA Leq during the nighttime (10:01 p.m. to 7:59 a.m.) hours shall apply to the operational noise from the Project.

Further, Section 11.80.030 (C) *Prohibited Acts*, *Nonimpulsive Sound Decibel Limits*, states: *No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimpulsive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on a privately owned property…* (2) Therefore, at a distance of 200 feet from the property line, the Project's operational noise levels shall not exceed the 65 dBA Leq daytime and 60 dBA Leq nighttime noise level standards for commercial land use.

9.2 OPERATIONAL NOISE SOURCES

To present the potential worst-case noise conditions, this analysis assumes all tenants within the Project building would be operational 24 hours per day, seven days per week. This analysis accounts for the noise associated with cold storage (refrigeration) as a worst-case scenario since it includes the additional noise from the refrigerated containers/reefers on trucks within the Project site, and may conservatively overstate the actual noise levels due to tenant operations at the Project site. Currently the proposed Project could not use more than 10% of the Project for cold storage. This noise analysis has assumed the possibility of more than 10% of cold storage only for the purposes of over-estimating as opposed to under-estimating noise impacts. As proposed, no more than 10% of the Project could be used for cold storage.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Business operations would primarily be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays. Therefore, the on-site Project related noise sources are expected to include: idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. No additional on-site noise sources are included in the analysis based on observations made during the reference noise level measurements, provided in Appendix 9.1, at similar logistics warehouses. Additional on-site noise sources such as power generators, HVAC equipment, or material handling equipment will vary by tenant and do not represent the major noise sources for the Project land uses, and as such, are not included as specific references in this analysis. The proposed Project site plan does not identify the use of power generators, and the material handling noise levels are expected to occur within each building. Other operational noise levels associated with the activities expected at the proposed Moreno Valley Logistics Center such as background HVAC equipment are reflected in the reference noise level measurements. This noise analysis is intended to describe noise level impacts associated with the expected typical warehouse and distribution storage activities at the Project site.

9.3 REFERENCE NOISE LEVELS

Since the future tenants of the proposed Project are unknown, the Project's operational noise levels were estimated based on reference noise level measurements of similar operational activities. The reference noise levels are intended to describe the expected operational noise sources that may include idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. To estimate the Project off-site operational noise impacts associated with the Moreno Valley Logistics Center, the following reference noise level measurements were collected from existing logistics warehouse operations containing similar operational noise sources, as shown on Table 9-1. Appendix 9.1 includes reference noise source descriptions and photos for each location.

9.3.1 WORST-CASE REFERENCE NOISE LEVELS

To describe the worst-case Project-only operational noise levels associated with the Moreno Valley Logistics Center Project, this analysis relies on a reference noise level of 70.1 dBA Leq at a distance of 30 feet from the truck idling/reefer activity taken at the Nature's Best distribution facility, described in Appendix 9.1. This analysis assumes both tenants within the Project building would be operational 24 hours per day, seven days per week. In addition, this analysis accounts for the noise associated with cold storage (refrigeration) as a worst-case scenario as it accounts for the additional noise from the refrigerated containers/reefers on trucks within the Project site, and may conservatively overstate the actual noise levels due to tenant operations at the Project site. Currently the proposed Project could not use more than 10% of the Project for cold storage.

As shown on Table 9-1, the reference noise level of 70.1 dBA is measured at a distance of 30 feet at a height of 8 feet. While the specific noise levels at the Project site will depend on the actual tenant, the intensity and the daytime / nighttime hours of operation, a reference noise level of 70.1 dBA Leq at 30 feet is used to describe the peak Project operational noise activity since it represents similar operational characteristics. The reference noise levels are intended to describe noise level impacts associated with the expected typical warehouse and distribution storage operations at the Project site.

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source	Duration (hh:mm:ss)	Distance From Source (Feet)	Noise Source Height (Feet)	Hourly Activity (Minutes)[4]	Hourly (dBA Leq)
Truck Idle/Reefer Activity[1]	0:14:00	30'	8'	60	70.1
Entry Gate Activity[1]	0:10:00	20'	8'	60	69.2
Entry Gate Activity[2]	0:15:00	20'	8'	60	64.0
Unloading/Docking Activity[2]	0:15:00	30'	8'	60	67.2
Distribution/Warehouse Activity[3]	24:00:00	25'	8'	60	69.1

[1] Reference noise level measurements were collected from the existing operations of the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. The reference noise level measurements were collected on Wednesday, January 7, 2015.

[2] Reference noise level measurements were collected from the existing operations of the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino. The reference noise level measurements were collected on Wednesday, January 7, 2015.

[3] The reference noise level measurements include the daytime and nighttime noise levels associated with idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods. Reference noise level measurements were collected from the existing 24-hour operations of Veg Fresh Farms and FedEx distribution facility located at 500 East Orangethorpe Avenue in the City of Anaheim. The reference noise level measurements were collected on Tuesday, January 22, 2013.

[4] Duration (minutes within the hour) of noise activity during peak hourly conditions.

EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS

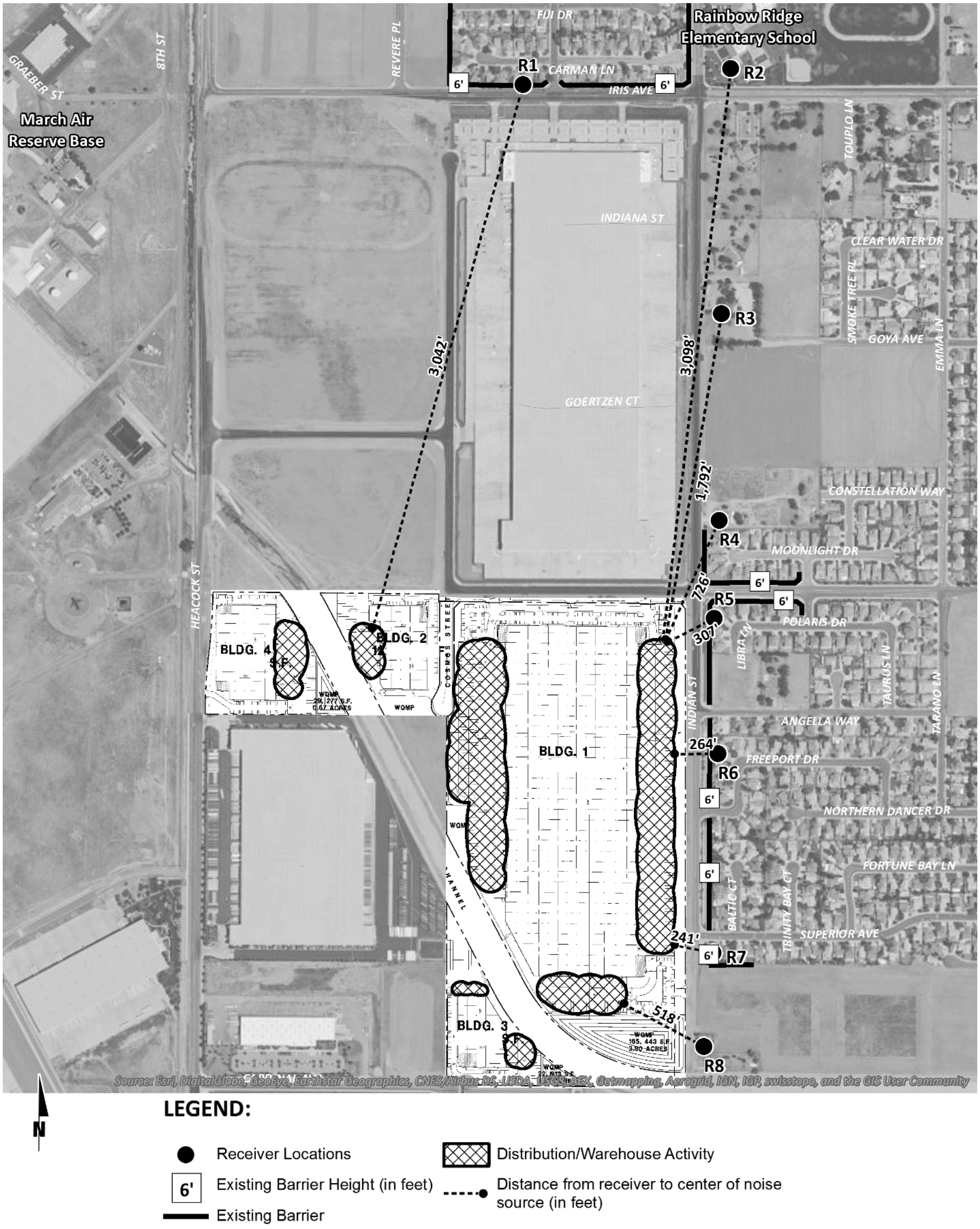

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

9.4 PROJECT OPERATIONAL NOISE LEVELS

Based upon the reference noise levels, it is possible to estimate the Project operational stationary-source noise levels at a distance of 200 feet, consistent with the City of Moreno Valley Municipal Code requirements, and at each of the eight noise receiver locations. The operational noise level calculations shown on Tables 9-2 and 9-3 account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. With geometric spreading, sound levels attenuate (or decrease) at a rate of 6 dB for each doubling of distance from a point source (idling trucks, delivery truck activities, parking, backup alarms, refrigerated containers or reefers, as well as loading and unloading of dry goods).

Table 9-2 presents the combined total operational noise level projections at a distance of 200 feet consistent with the City of Moreno Valley Municipal Code. The Project operational noise levels at a distance of 200 feet are estimated at 53.6 dBA Leq. Based on the results of this analysis, the Project operational noise levels associated with the Moreno Valley Logistics Center will satisfy the daytime and nighttime exterior noise level standards for commercial-source land uses of 65 dBA Leq and 60 dBA Leq, respectively, at a distance of 200 feet and, therefore, will be *less than significant*.

TABLE 9-2: OPERATIONAL NOISE LEVEL PROJECTIONS AT A DISTANCE OF 200 FEET

Noise Source	Reference Noise Level (dBA Leq)	Distance Attenuation at 200 feet (dBA Leq)[1]	Hourly Activity (Minutes)[2]	Hourly Activity Adjustment (dBA Leq)	Calculated Noise Level at 200 feet (dBA Leq)
Truck Idle/Reefer Activity	70.1	-16.5	60	0.0	53.6

[1] Drop off rate of 6 dBA per doubling of distance (point source).
[2] Duration (minutes within the hour) of noise activity during peak hourly conditions.

Table 9-3 presents the exterior noise levels including the barrier attenuation provided by the existing 6-foot barriers in the Project study area, as previously shown on Exhibit 9-A. Table 9-3 indicates that the hourly noise levels associated with the Moreno Valley Logistics Center Project at the eight sensitive receiver locations are expected to range from 24.4 to 46.6 dBA Leq. The noise levels experienced at the nearby sensitive receiver locations include attenuation due to the distance from each receiver to the noise source, and the existing barriers at residential homes. The operational noise level calculations are included in Appendix 9.2.

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TABLE 9-3: OPERATIONAL NOISE LEVEL PROJECTIONS AT RECEIVER LOCATIONS

Using the Project Reference Operational Noise Level of 70.1 dBA Leq at 30 feet.

Receiver Location[1]	Distance From Source To Receiver (Feet)[2]	Attenuation (dBA Leq)		Noise Level At Receiver Locations (dBA Leq)[5]
		Distance[3]	Existing Noise Barriers[4]	
R1	3,042'	-40.1	-5.6	24.4
R2	3,098'	-40.3	0.0	29.8
R3	1,792'	-35.5	0.0	34.6
R4	726'	-27.7	-5.5	36.9
R5	307'	-20.2	-5.4	44.5
R6	264'	-18.9	-5.4	45.8
R7	241'	-18.1	-5.4	46.6
R8	518'	-24.7	0.0	45.4

[1] See Exhibit 9-A for the noise receiver and noise source locations.
[2] Estimated distances to nearest loading dock activities.
[3] Noise levels diminish at a rate 6 dBA per doubling of distance and a reference distance of 30 feet.
[4] Calculated noise attenuation provided by the recommended barriers, as shown on Exhibit 9-A.
[5] Calculated Project stationary source noise levels (Appendix 9.2).

9.5 PROJECT OPERATIONAL NOISE LEVEL CONTRIBUTIONS

Although the Project-related operational noise levels are shown to be less than significant based on the City of Moreno Valley Municipal Code standards at 200 feet, some receiver locations are located within 200 feet from the Project site boundaries. Therefore, to determine the potential Project-related operational noise impacts at each receiver location, the Project-related noise level contribution is evaluated at each receiver location based on the magnitude of the Project-related increase on the ambient noise levels.

To describe the Project operational noise level contributions, the Project operational noise levels are combined with the existing ambient noise levels measurements for the five receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (4) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describe the Project noise level contributions to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to ambient daytime and nighttime conditions are presented on Tables 9-4 and 9-5, respectively. The noise levels presented on Tables 9-4 and 9-5 include the attenuation provided by the existing 6-foot high noise barriers in the Project study area, shown on Exhibit 9-A. The noise measurement and sensitive receiver locations are shown on Exhibit 9-B.

EXHIBIT 9-B: NOISE MEASUREMENT AND RECEIVER LOCATIONS

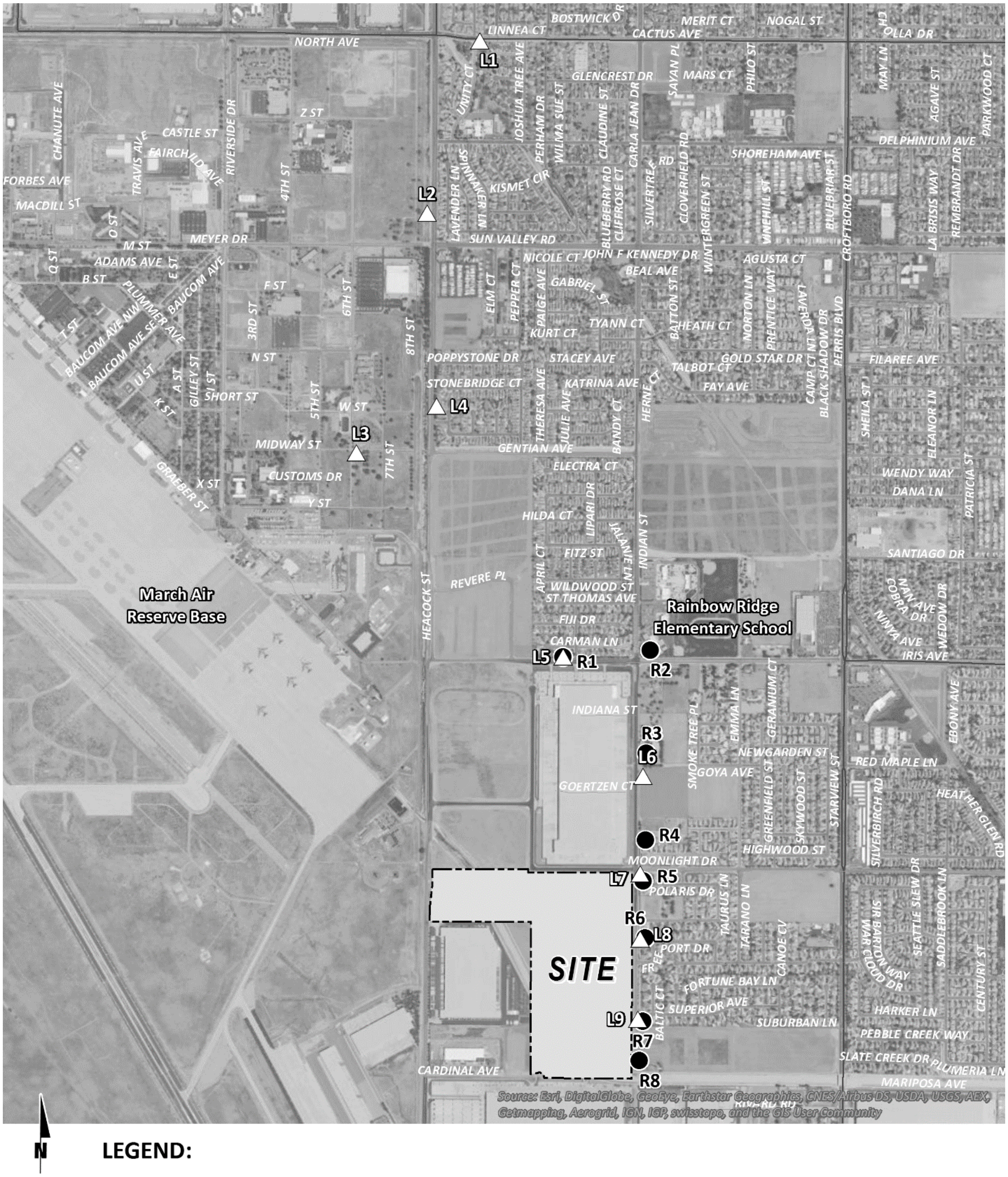

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND:

△ Noise Measurement Locations

● Receiver Locations

As indicated on Table 9-4, the Project is expected to generate a daytime operational noise level contribution of up to 0.9 dBA Leq at the nearby receiver locations. Based on the significance criteria described in Section 4, the Project-related operational noise level contributions to the daytime ambient noise levels at nearby sensitive receiver locations will be *less than significant*.

Table 9-5 shows the Project is expected to generate a nighttime operational noise level contribution of up to 1.2 dBA Leq at the nearby receiver locations. Based on the significance criteria described in Section 4, the Project-related operational noise level contributions to the nighttime ambient noise levels at nearby sensitive receiver locations will be *less than significant*. On this basis, Project operational stationary-source noise levels would not result in a substantial temporary/periodic, or permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project, and impacts in will be *less than significant*.

TABLE 9-4: DAYTIME OPERATIONAL NOISE LEVEL CONTRIBUTIONS

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Contribution[6]	Threshold Exceeded?[7]
R1	24.4	L5	66.2	66.2	0.0	No
R2	29.8	L5	66.2	66.2	0.0	No
R3	34.6	L6	61.5	61.5	0.0	No
R4	36.9	L7	64.1	64.1	0.0	No
R5	44.5	L7	64.1	64.1	0.0	No
R6	45.8	L8	60.8	60.9	0.1	No
R7	46.6	L9	53.1	54.0	0.9	No
R8	45.4	L9	53.1	53.8	0.7	No

[1] See Exhibit 9-A for the sensitive receiver locations.
[2] Total Project operational noise levels as shown on Table 9-2.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance Criteria as defined in Section 4.

TABLE 9-5: NIGHTTIME OPERATION NOISE LEVEL CONTRIBUTIONS

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Contribution[6]	Threshold Exceeded?[7]
R1	24.4	L5	67.0	67.0	0.0	No
R2	29.8	L5	67.0	67.0	0.0	No
R3	34.6	L6	62.5	62.5	0.0	No
R4	36.9	L7	60.6	60.6	0.0	No
R5	44.5	L7	60.6	60.7	0.1	No
R6	45.8	L8	60.2	60.4	0.2	No
R7	46.6	L9	51.7	52.9	1.2	No
R8	45.4	L9	51.7	52.6	0.9	No

[1] See Exhibit 9-A for the sensitive receiver locations.
[2] Total Project operational noise levels as shown on Table 9-2.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance Criteria as defined in Section 4.

9.6 OPERATIONAL NOISE ABATEMENT MEASURES

The routine operation of the Project will not exceed the City of Moreno Valley standards for stationary noise impacts. To further reduce potential operational noise levels received at adjacent residential land uses, it is recommended that the Lead Agency require the following as Project Conditions of Approval:

- All on-site operating equipment under the control of the building user that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers. The City of Moreno Valley may conduct periodic inspection at its discretion.
- Maintain quality pavement conditions on the property that are free of vertical deflection (i.e. speed bumps) to minimize truck noise. The City of Moreno Valley may conduct periodic inspection at its discretion.
- Consistent with Mitigation Measure AQ-6 of the *Moreno Valley Logistics Center Air Quality Impact Analysis*, and enforced by the California Air Resources Board (CARB), the truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:
    - Truck drivers shall turn off engines when not in use;
    - Diesel trucks servicing the Project shall not idle for more than five (5) minutes; and
    - Telephone numbers of the building facilities manager and the CARB to report violations.

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9.7 OPERATIONAL VIBRATION IMPACTS

Although the human threshold of perception for vibration is around 65 VdB, human response to vibration is not usually significant unless the vibration exceeds 70 VdB. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement condition. Typical vibration levels for heavy trucks at normal traffic speeds do not exceed 65 VdB, and therefore, will be below the FTA vibration threshold of 80 VdB at nearby sensitive receiver locations. Truck deliveries transiting on site will be travelling at very low speeds so it is expected that delivery truck vibration impacts at nearby homes will be *less than significant*.

9.8 ALTERNATE SITE PLAN COMPARISON

This noise study evaluates the Project's worst-case condition based on the four-building Project site plan. If the alternate site plan with a 166-space truck parking lot in lieu of Building 2 is implemented, the operational noise levels would be reduced. The removal of Building 2 would reduce the total loading dock areas and potential operational noise sources within the Project site, thereby reducing the total operational noise levels expected at the nearby receiver locations.

10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project.

10.1 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Moreno Valley Logistics Center Project, noise from construction activities are typically limited to the hours of operation established under a City's Municipal Code. The Municipal Code noise standards for construction are described below for the City of Moreno Valley to determine the potential noise impacts at nearby sensitive receiver locations. As a subset of its stationary-source noise regulations, the City Municipal Code establishes additional restrictions on construction-source noise. More specifically, Municipal Code Section 11.80.030 (D) (7), *Construction and Demolition*, provides the following:

> *No person shall operate or cause operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee.*

A *noise disturbance*, as defined by the City of Moreno Valley Municipal Code, means any sound which:

- *Disturbs a reasonable person of normal sensitivities;*
- *Exceeds the sound level limits set forth in this chapter [Table 11.80.030-2];*
- *Is plainly audible as defined in this section. Where no specific distance is set forth for the determination of audibility, references to noise disturbance shall be deemed to mean plainly audible at a distance of two hundred (200) feet from the real property line of the source of the sound, if the sound occurs on a privately owned property, or from the source of the sound, if the sound occurs on public right, public space or other publicly owned property.*

Therefore, based on the Section 11.80.030 (D) (7) construction regulations, a construction-related *noise disturbance* occurs when the noise levels exceed the *commercial* land use criteria of 65 dBA Leq during the daytime hours and 60 dBA Leq during the nighttime hours at a distance of 200 feet from the property line of the source (Project site). In addition, grading operations shall be limited to the hours identified in Section 8.21.050 (O) of 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 4:00 p.m. on weekends and holidays or as approved by the City Engineer.

10.2 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers and portable generators that when combined can reach high levels. Construction at the Project site is anticipated to occur in two overlapping phases:

- Phase 1: Construction of Buildings 1 and 2.
- Phase 2: Construction of Buildings 3 and 4.

The number and mix of construction equipment is expected to occur in each the following five stages, for each building within the Project site:

- Grading
- Trenching
- Building Construction
- Architectural Coating
- Paving

Construction is expected to commence in April 2016 and will last through May 2017. Phase 1 of Project construction is anticipated to occur from April 29th, 2016 to April 26th, 2017. Phase 2 of Project construction is expected to start on July 1st, 2016 and continue through March 2nd, 2017. This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements, provided in Appendix 10.1, represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 60 dBA to in excess of 72 dBA when measured at 200 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 72 dBA measured at 200 feet from the noise source to the receiver would be reduced to 66 dBA at 400 feet from the source to the receiver, and would be further reduced to 60 dBA at 800 feet from the source to the receiver. The types of equipment for each construction stage are generally consistent with the data used to support the construction emissions in the *Moreno Valley Logistics Center Air Quality Impact Analysis* prepared by Urban Crossroads Inc. (22)

10.3 CADNAA NOISE PREDICTION MODEL

The CadnaA (Computer Aided Noise Abatement) software is used to graphically represent the noise level contour boundaries for each stage of construction. CadnaA has the ability to analyze the noise level of multiple types of noise sources and calculates the noise levels at any location. The program has the ability to analyze the noise level of multiple types of noise sources and to calculate the effects of topography, buildings and multiple barriers. The noise level contour boundaries of each stage of Project construction are shown on Exhibits 10-A to 10-J based on the results of the construction noise analysis.

10.4 CONSTRUCTION REFERENCE NOISE LEVELS

To describe the Project construction noise levels, measurements were collected for similar activities at several construction sites. Table 10-1 provides a summary of the fifteen construction reference noise level measurements. Since the reference noise levels were collected at varying distances, all construction noise level measurements presented on Table 10-1 have been adjusted to describe a common reference distance of 50 feet.

For comparison with the City of Moreno Valley construction regulations Section 11.80.030 (D) (7), the construction noise levels are presented at a distance of 200 feet for each stage of construction. Appendix 10.1 includes a detailed construction reference noise level memo and reference noise source photos for each type of construction activity.

TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance		Reference Noise Levels @ 50 Feet[5]	
			dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	68.1	59.2	63.7
2	Dozer Activity[1]	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching[2]	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities[2]	30'	77.9	84.8	73.5	80.4
6	Water Truck Pass-By & Backup Alarm[3]	30'	76.3	82.3	71.9	77.9
7	Dozer Pass-By[3]	30'	84.0	89.9	79.6	85.5
8	Two Scrapers & Water Truck Pass-By[3]	30'	83.4	89.0	79.0	84.6
9	Two Scrapers Pass-By[3]	30'	83.7	86.9	79.3	82.5
10	Scraper, Water Truck, & Dozer Activity[3]	30'	79.7	87.7	75.3	83.3
11	Concrete Mixer Truck Movements[4]	50'	71.2	73.1	71.2	73.1
12	Concrete Paver Activities[4]	30'	70.0	75.7	65.6	71.3
13	Concrete Mixer Pour & Paving Activities[4]	30'	70.3	76.3	65.9	71.9
14	Concrete Mixer Backup Alarms & Air Brakes[4]	50'	71.6	78.8	71.6	78.8
15	Concrete Mixer Pour Activities[4]	50'	67.7	79.2	67.7	79.2

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.

[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.

[3] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.

[4] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.

[5] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

10.5 CONSTRUCTION NOISE ANALYSIS

Tables 10-2 to 10-5 show the daytime Project construction stages and the reference construction noise levels used for each stage. Table 10-6 shows the nighttime building construction and paving reference noise levels for the potential nighttime concrete pour activities during the building construction and paving stages in Phases 1 and 2. Table 10-7 provides a summary of the noise levels from each stage of construction by the time of day the activities will take place at a distance of 200 feet from the noise source. This approach is consistent with the City of Moreno Valley Municipal Code 65dBA Leq daytime and 60 dBA Leq nighttime noise level standards at 200 feet from the source land use. Based on the reference construction noise levels, the noise levels due to Project construction at a distance of 200 feet, when the peak reference noise level is operating at a single point nearest the sensitive receiver location, will range from 59.6 to 67.5 dBA Leq.

TABLE 10-2: GRADING EQUIPMENT NOISE LEVELS AT 200 FEET

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Two Scrapers Pass-By	79.3	67.2
Dozer Pass-By	79.6	67.5
Rough Grading Activities	73.5	61.4
Peak Reference Noise Level at 200 Feet (dBA Leq)		67.5
Distance to 65 dBA Leq Contour (Feet)		267'

[1] See Appendix 10.1 for the reference construction noise level measurements and photos taken by Urban Crossroads, Inc.

TABLE 10-3: TRENCHING EQUIPMENT NOISE LEVELS AT 200 FEET

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Foundation Trenching	68.2	56.1
Rough Grading Activities	73.5	61.4
Peak Reference Noise Level at 200 Feet (dBA Leq)		61.4
Distance to 65 dBA Leq Contour (Feet)		132'

[1] See Appendix 10.1 for the reference construction noise level measurements and photos taken by Urban Crossroads, Inc.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 10-4: BUILDING CONSTRUCTION & ARCHICTURAL COATING NOISE LEVELS AT 200 FEET

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Dozer Pass-By	79.6	67.5
Foundation Trenching	68.2	56.1
Peak Reference Noise Level at 200 Feet (dBA Leq)		67.5
Distance to 65 dBA Leq Contour (Feet)		267'

[1] See Appendix 10.1 for the reference construction noise level measurements and photos taken by Urban Crossroads, Inc.

TABLE 10-5: PAVING EQUIPMENT NOISE LEVELS AT 200 FEET

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Dozer Pass-By	79.6	67.5
Concrete Paver Activities	65.6	53.5
Foundation Trenching	68.2	56.1
Peak Reference Noise Level at 200 Feet (dBA Leq)		67.5
Distance to 65 dBA Leq Contour (Feet)		267'

[1] See Appendix 10.1 for the reference construction noise level measurements and photos taken by Urban Crossroads, Inc.

TABLE 10-6: NIGHTTIME BUILDING CONSTRUCTION & PAVING NOISE LEVELS AT 200 FEET

Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA Leq)	Noise Level @ 200 Feet (dBA Leq)
Concrete Mixer Truck Movements	71.2	59.2
Concrete Paver Activities	65.6	53.5
Concrete Mixer Pour & Paving Activities	65.9	53.8
Concrete Mixer Backup Alarms & Air Brakes	71.6	59.6
Concrete Mixer Pour Activities	67.7	55.7
Peak Reference Noise Level at 200 Feet (dBA Leq)		59.6
Distance to 65 dBA Leq Contour (Feet)		107'

[1] See Appendix 10.1 for the reference construction noise level measurements and photos taken by Urban Crossroads, Inc.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 10-7: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY AT 200 FEET

Time of Day	Construction Noise Levels by Phase at 200 Feet (dBA Leq)				
	Grading	Trenching	Building Construction & Arch. Coating	Paving	Peak
Daytime	67.5	61.4	67.5	67.5	67.5
Nighttime	n/a	n/a	59.6	59.6	59.6

"n/a" = Only building construction and paving concrete pour activities are expected during the nighttime hours.

Using the peak reference construction noise level for each stage of construction, shown on Table 10-7, the construction noise levels by stage, were calculated at the nearby receiver locations under Phase 1 and 2 conditions: Phase 1 includes Buildings 1 and 2; and Phase 2 includes Buildings 3 and 4. It is important to note that once Buildings 1 and 2 are constructed, the building structures themselves will provide substantial additional attenuation for nearby sensitive receiver locations during the construction stages for Buildings 3 and 4. As such, this analysis includes the additional attenuation provided by Buildings 1 and 2 during Phase 2 conditions. To describe the conservative worst-case conditions, all reference noise sources are located at the site boundaries for grading, trenching, and paving activities. During the building construction and architectural coating activities all noise sources were placed at the boundaries for each building structure. The construction noise levels at each receiver location include the additional attenuation provided by the existing barriers in the Project study area. The noise barrier attenuation calculations are provided in Appendix 10.2.

10.5.1 DAYTIME CONSTRUCTION NOISE LEVELS

Table 10-8 shows the highest Phase 1 construction noise levels will range from 39.2 to 67.2 dBA Leq at the nearby receiver locations. A review of the analysis shown on Table 10-8 indicates that the unmitigated daytime construction activities may exceed the City of Moreno Valley Municipal Code 65 dBA Leq noise level threshold at 200 feet during Phase 1 (Buildings 1 and 2) grading and paving activities at receiver location R8. To satisfy the 65 dBA Leq noise level threshold during the Phase 1 (Buildings 1 and 2) grading and paving activities, the construction of a 6-foot high temporary noise barrier is required near receiver location R8. With the recommended construction noise mitigation measures identified in this report, the daytime construction noise level impacts at all noise sensitive receiver locations will be *less than significant*. Exhibits 10-A to 10-C show the noise contours by stage for Phase 1 daytime construction.

The peak construction noise levels for Phase 2 of Project construction are shown on Table 10-9 and are expected to range from 35.8 to 57.6 dBA Leq. Based on the construction noise analysis results shown on Table 10-9, the construction noise levels for Phase 2 of Project construction will satisfy the City of Moreno Valley 65 dBA Leq daytime noise level standard at all receiver locations and represents a *less than significant* noise impact. Exhibits 10-D to 10-F present the noise contours by stage for Phase 2 daytime construction.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 10-8: PHASE 1 DAYTIME CONSTRUCTION NOISE LEVELS AT RECEIVER LOCATIONS

Receiver Location[1]	Type of Noise/ Attenuation	Daytime Construction Noise Levels (dBA Leq)						Threshold Exceeded?[3]
		Grading	Trenching	Building Const.	Arch. Coating	Paving	Peak	
R1	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	39.2	No
	Distance to Construction[3]	2,743'	2,743'	2,813'	2,813'	2,743'		
	Distance Attenuation4	-22.7	-22.7	-23.0	-23.0	-22.7		
	Existing Barrier Attenuation[5]	-5.6	-5.6	-5.6	-5.6	-5.6		
	Noise Level at Receiver:	39.2	33.1	39.0	39.0	39.2		
R2	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	44.5	No
	Distance to Construction[3]	2,844'	2,844'	2,987'	2,987'	2,844'		
	Distance Attenuation4	-23.1	-23.1	-23.5	-23.5	-23.1		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	44.5	38.4	44.0	44.0	44.5		
R3	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	49.8	No
	Distance to Construction[3]	1,543'	1,543'	1,696'	1,696'	1,543'		
	Distance Attenuation4	-17.7	-17.7	-18.6	-18.6	-17.7		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	49.8	43.7	49.0	49.0	49.8		
R4	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	54.6	No
	Distance to Construction[3]	471'	471'	678'	678'	471'		
	Distance Attenuation4	-7.4	-7.4	-10.6	-10.6	-7.4		
	Existing Barrier Attenuation[5]	-5.5	-5.5	-5.4	-5.4	-5.5		
	Noise Level at Receiver:	54.6	48.5	51.5	51.5	54.6		
R5	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	64.7	No
	Distance to Construction[3]	152'	152'	392'	392'	152'		
	Distance Attenuation4	2.4	2.4	-5.8	-5.8	2.4		
	Existing Barrier Attenuation[5]	-5.2	-5.2	-5.3	-5.3	-5.2		
	Noise Level at Receiver:	64.7	58.6	56.4	56.4	64.7		
R6	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	63.0	No
	Distance to Construction[3]	176'	176'	429'	429'	176'		
	Distance Attenuation4	1.1	1.1	-6.6	-6.6	1.1		
	Existing Barrier Attenuation[5]	-5.6	-5.6	-5.5	-5.5	-5.6		
	Noise Level at Receiver:	63.0	56.9	55.4	55.4	63.0		
R7	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	64.5	No
	Distance to Construction[3]	153'	153'	362'	362'	153'		
	Distance Attenuation4	2.3	2.3	-5.2	-5.2	2.3		
	Existing Barrier Attenuation[5]	-5.3	-5.3	-5.4	-5.4	-5.3		
	Noise Level at Receiver:	64.5	58.4	57.0	57.0	64.5		
R8	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	67.2	Yes
	Distance to Construction[3]	207'	207'	492'	492'	207'		
	Distance Attenuation4	-0.3	-0.3	-7.8	-7.8	-0.3		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	67.2	61.1	59.7	59.7	67.2		

[1] Noise receiver locations are shown on Exhibit 8-A.

[2] Noise level of the closest construction stage to each receiver, as provided on Table 10-7.

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2) provided by the existing barriers and buildings in the Project study area, as shown on Exhibit 8-A.

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

TABLE 10-9: PHASE 2 DAYTIME CONSTRUCTION NOISE LEVELS AT RECEIVER LOCATIONS

Receiver Location[1]	Type of Noise/ Attenuation	Daytime Construction Noise Levels (dBA Leq)						Threshold Exceeded?[3]
		Grading	Trenching	Building Const.	Arch. Coating	Paving	Peak	
R1	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	38.4	No
	Distance to Construction[3]	3,006'	3,006'	3,088'	3,088'	3,006'		
	Distance Attenuation4	-23.5	-23.5	-23.8	-23.8	-23.5		
	Existing Barrier Attenuation[5]	-5.6	-5.6	-5.5	-5.5	-5.6		
	Noise Level at Receiver:	38.4	32.3	38.2	38.2	38.4		
R2	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	35.8	No
	Distance to Construction[3]	3,692'	3,692'	3,773'	3,773'	3,692'		
	Distance Attenuation4	-25.3	-25.3	-25.5	-25.5	-25.3		
	Existing Barrier Attenuation[5]	-6.4	-6.4	-6.3	-6.3	-6.4		
	Noise Level at Receiver:	35.8	29.7	35.7	35.7	35.8		
R3	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	37.1	No
	Distance to Construction[3]	2,782'	2,782'	2,864'	2,864'	2,782'		
	Distance Attenuation4	-22.9	-22.9	-23.1	-23.1	-22.9		
	Existing Barrier Attenuation[5]	-7.6	-7.6	-7.5	-7.5	-7.6		
	Noise Level at Receiver:	37.1	31.0	36.9	36.9	37.1		
R4	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	41.0	No
	Distance to Construction[3]	2,245'	2,245'	2,422'	2,422'	2,245'		
	Distance Attenuation4	-21.0	-21.0	-21.7	-21.7	-21.0		
	Existing Barrier Attenuation[5]	-5.5	-5.5	-8.5	-8.5	-5.5		
	Noise Level at Receiver:	41.0	34.9	37.4	37.4	41.0		
R5	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	39.1	No
	Distance to Construction[3]	2,022'	2,022'	2,318'	2,318'	2,022'		
	Distance Attenuation4	-20.1	-20.1	-21.3	-21.3	-20.1		
	Existing Barrier Attenuation[5]	-8.3	-8.3	-7.9	-7.9	-8.3		
	Noise Level at Receiver:	39.1	33.0	38.3	38.3	39.1		
R6	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	38.6	No
	Distance to Construction[3]	1,654'	1,654'	1,792'	1,792'	1,654'		
	Distance Attenuation4	-18.4	-18.4	-19.0	-19.0	-18.4		
	Existing Barrier Attenuation[5]	-10.6	-10.6	-10.6	-10.6	-10.6		
	Noise Level at Receiver:	38.6	32.5	37.9	37.9	38.6		
R7	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	48.4	No
	Distance to Construction[3]	962'	962'	1,184'	1,184'	962'		
	Distance Attenuation4	-13.6	-13.6	-15.4	-15.4	-13.6		
	Existing Barrier Attenuation[5]	-5.5	-5.5	-5.5	-5.5	-5.5		
	Noise Level at Receiver:	48.4	42.3	46.6	46.6	48.4		
R8	Equipment Noise Level[2]	67.5	61.4	67.5	67.5	67.5	57.6	No
	Distance to Construction[3]	629'	629'	1,008'	1,008'	629'		
	Distance Attenuation4	-10.0	-10.0	-14.0	-14.0	-10.0		
	Existing Barrier Attenuation[5]	0.0	0.0	0.0	0.0	0.0		
	Noise Level at Receiver:	57.6	51.5	53.5	53.5	57.6		

[1] Noise receiver locations are shown on Exhibit 8-A.

[2] Noise level of the closest construction stage to each receiver, as provided on Table 10-7.

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2) provided by the existing barriers and buildings in the Project study area, as shown on Exhibit 8-A.

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

EXHIBIT 10-A: PHASE 1 GRADING & PAVING EQUIPMENT NOISE CONTOURS

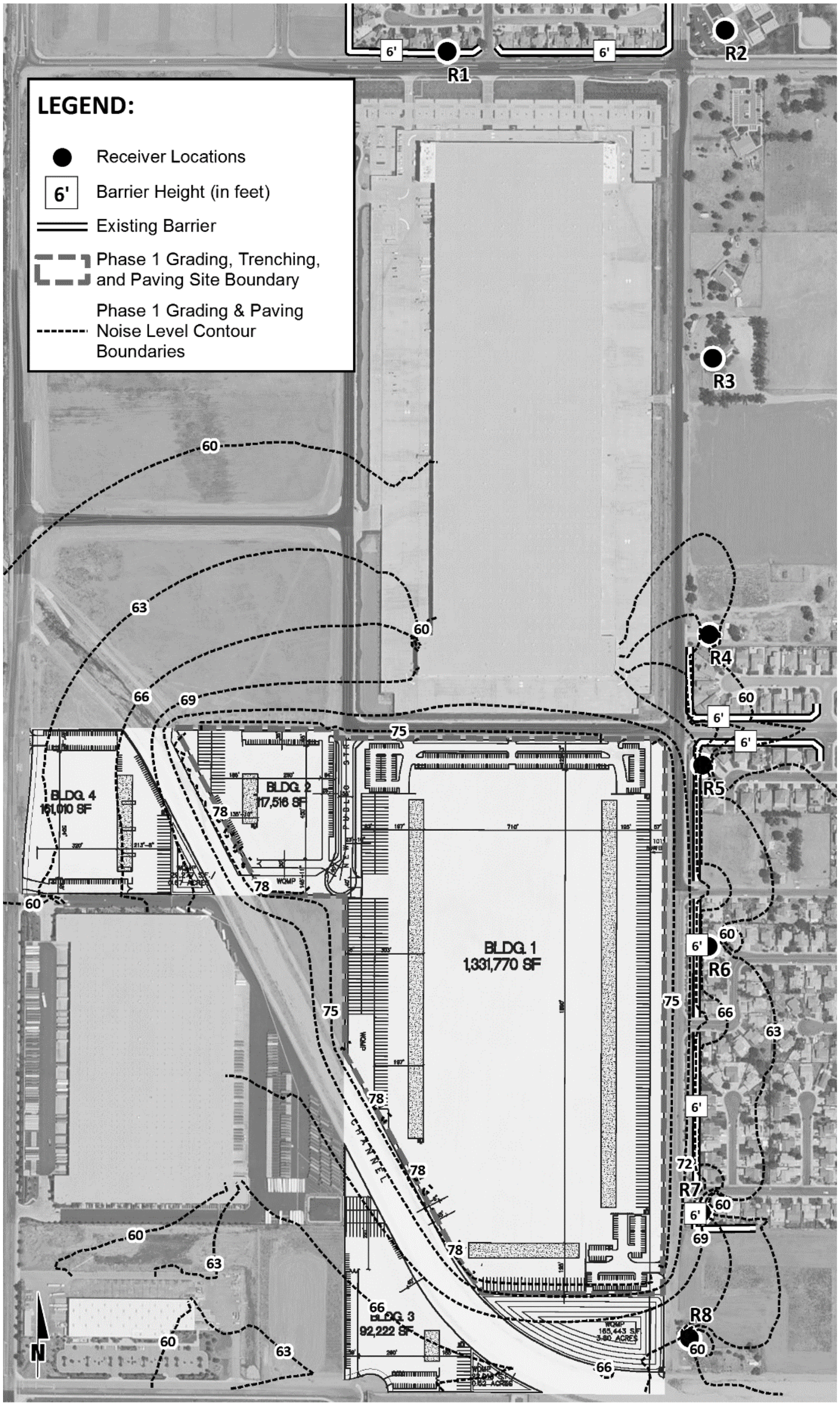

EXHIBIT 10-B: PHASE 1 TRENCHING EQUIPMENT NOISE CONTOURS

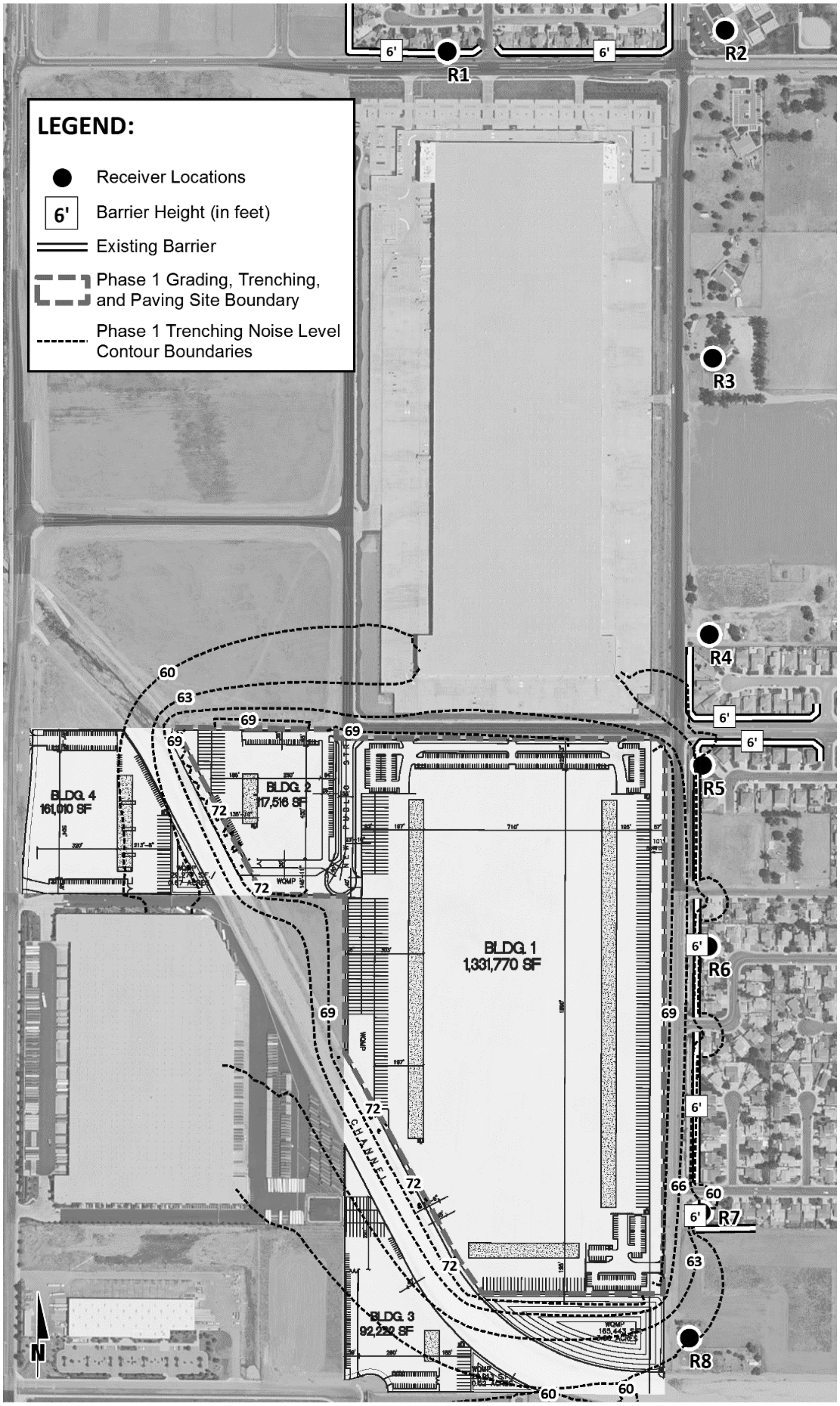

EXHIBIT 10-C: PHASE 1 BUILDING CONSTRUCTION & ARCHITECTURAL COATING NOISE CONTOURS

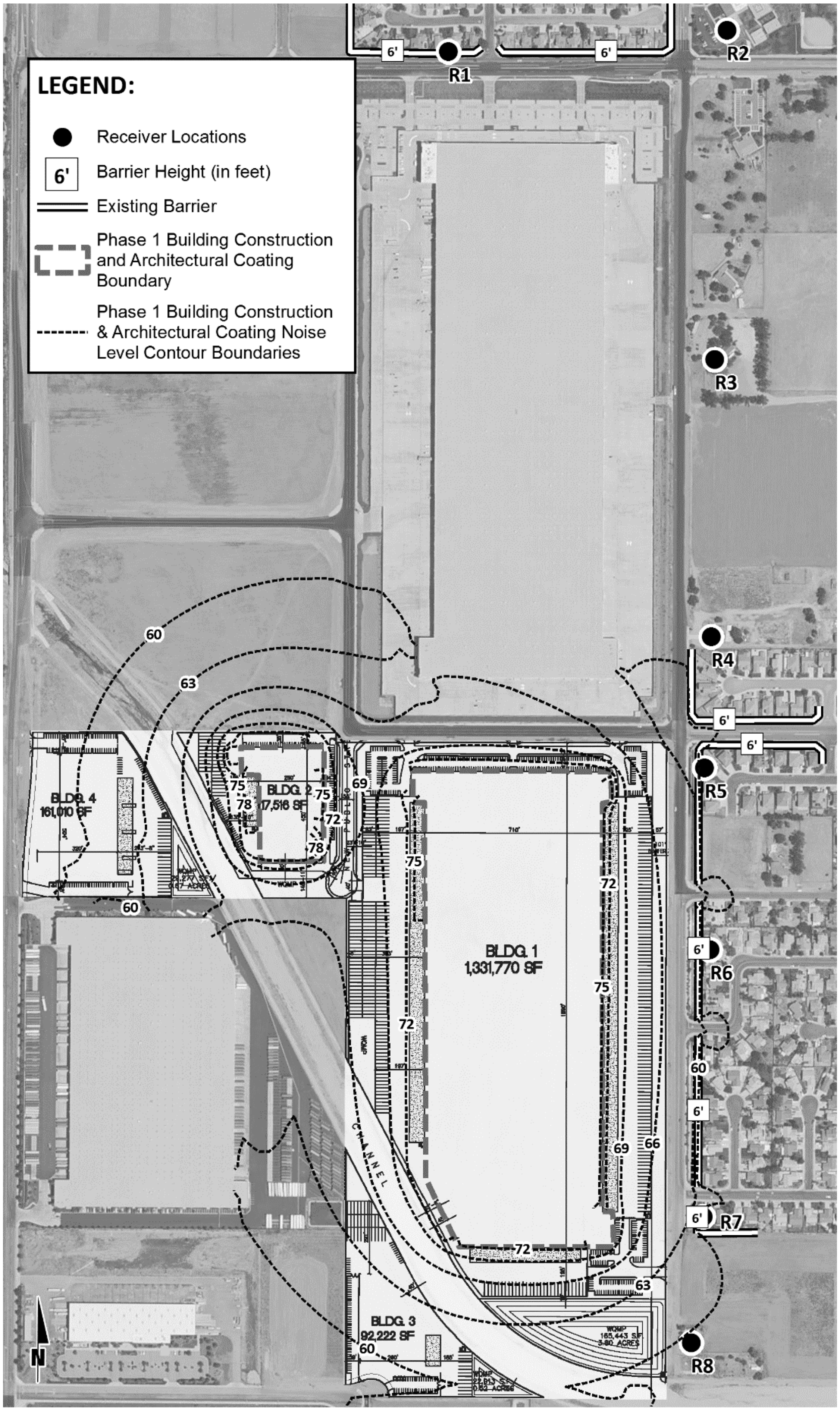

EXHIBIT 10-D: PHASE 2 GRADING & PAVING EQUIPMENT NOISE CONTOURS

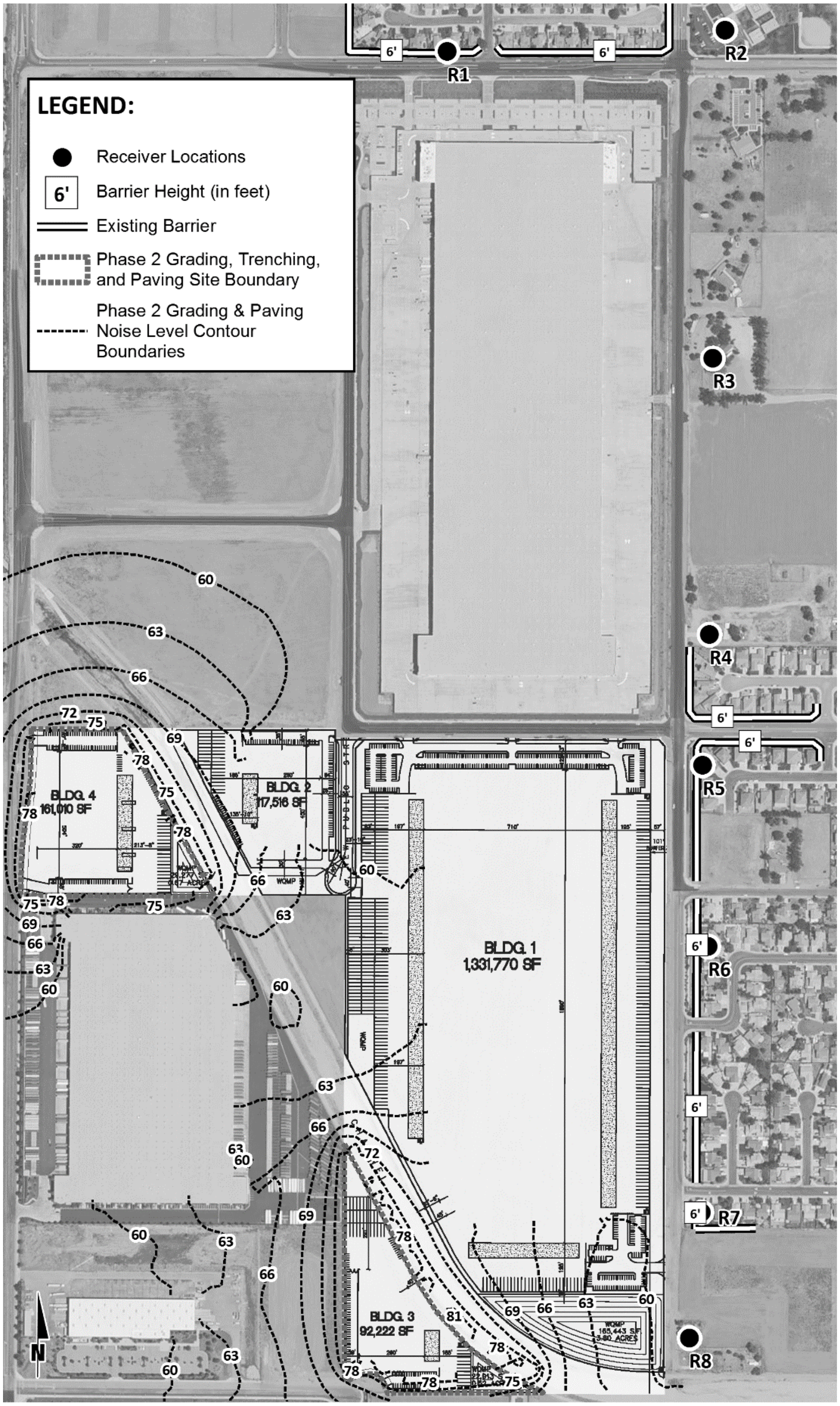

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 10-E: PHASE 2 TRENCHING EQUIPMENT NOISE CONTOURS

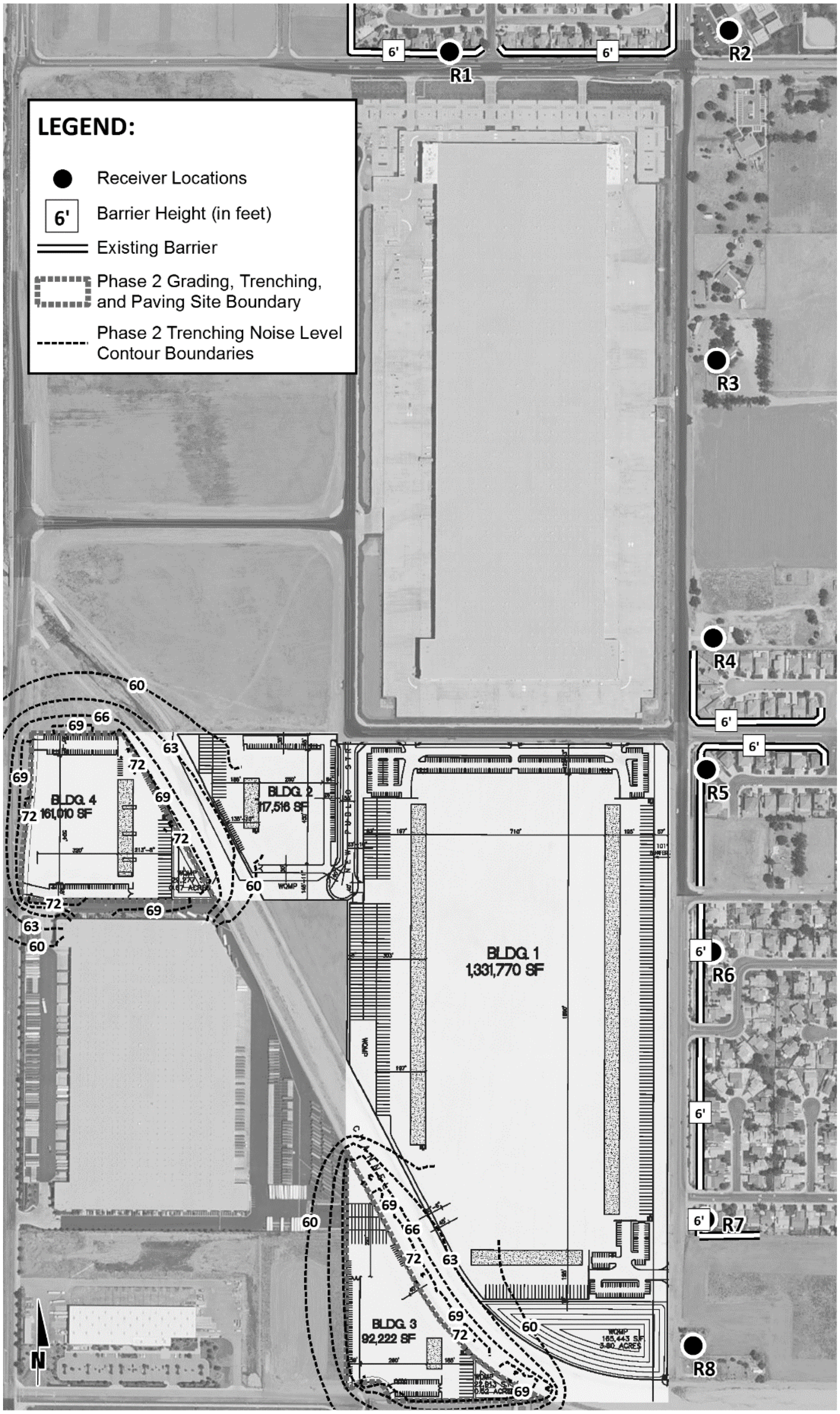

EXHIBIT 10-F: PHASE 2 BUILDING CONSTRUCTION & ARCHITECTURAL COATING NOISE CONTOURS

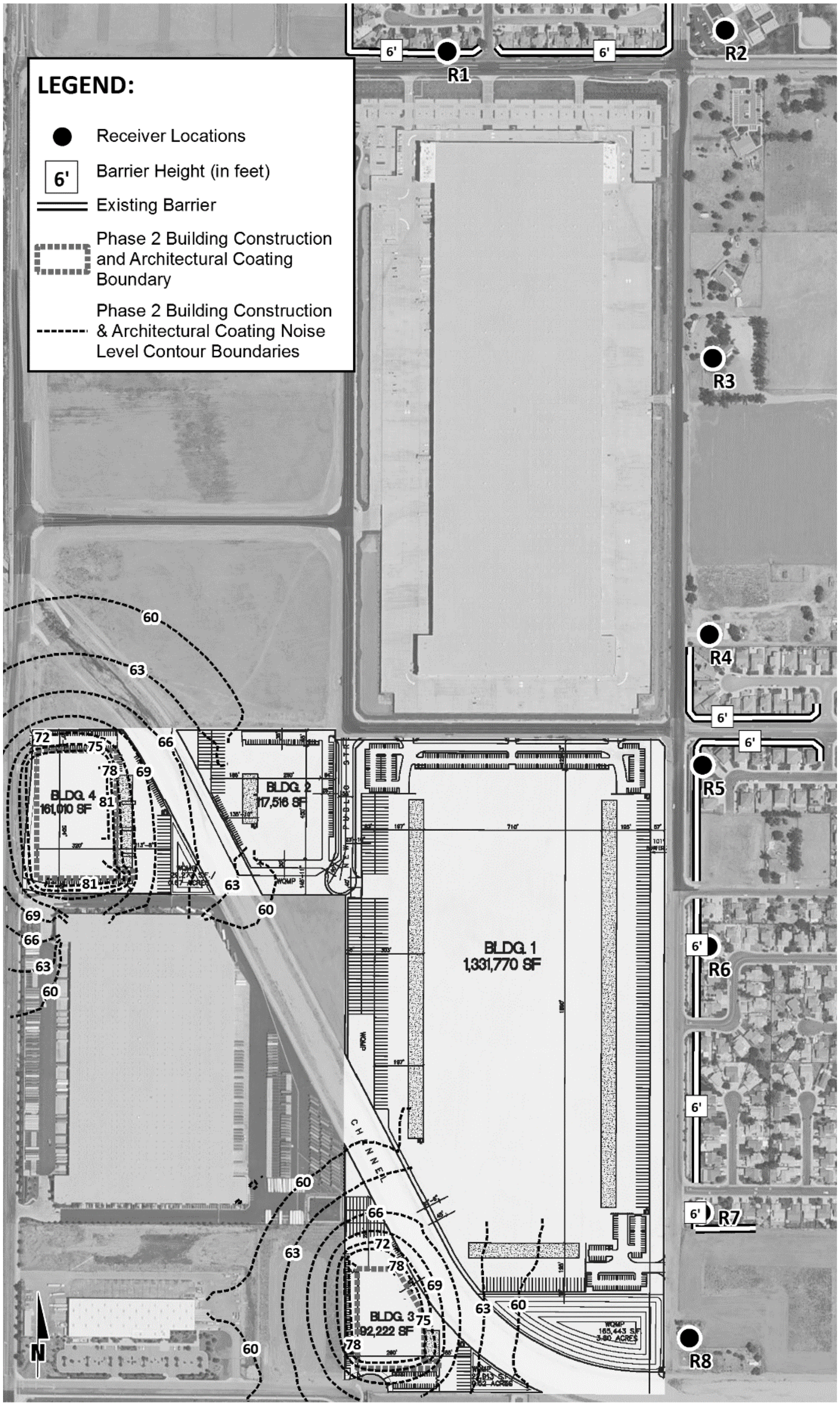

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

10.5.2 NIGHTTIME CONSTRUCTION NOISE LEVELS

In addition to the daytime construction activities, the Project may pursue a temporary use or special event permit to allow for nighttime concrete pour activities during the building construction and paving stages of Project construction. Nighttime concrete pours are typically conducted during the summer months due to the warmer daytime weather conditions. While Section 11.80.030 (7) of the City of Moreno Valley Municipal Code currently prohibits nighttime construction activities, Section 11.80.030 (E) (8) allows for a temporary use or special event permit (Section 11.80.040). (2) The temporary use or special event permit shall be submitted to the City of Moreno Valley Planning Department for approval and meet the provisions Municipal Code Section 11.80.040.

To estimate the nighttime construction noise levels at the nearby receiver locations, sample reference noise level measurements were collected during nighttime concrete pour activities at a similar industrial development site. Appendix 10.1 includes the reference noise level measurement data and photos for the nighttime construction activities.

Table 10-10 shows the highest Phase 1 nighttime concrete pour construction noise levels will range from 31.2 to 59.3 dBA Leq at the nearby receiver locations. The peak nighttime concrete pour construction noise levels for Phase 2 of Project construction are shown on Table 10-11 and are expected to range from 27.8 to 49.6 dBA Leq. Based on the analysis results shown on Tables 10-10 and 10-11, the nighttime construction noise levels for Phases 1 and 2 of Project construction will satisfy the City of Moreno Valley 60 dBA Leq nighttime noise level standard at all receiver locations and represent a *less than significant* noise impact. Exhibits 10-G and 10-H show the noise contours by stage for Phase 1 nighttime construction, and Exhibits 10-I and 10-J show the noise contours by stage for Phase 2 nighttime construction.

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 10-10: PHASE 1 NIGHTTIME CONSTRUCTION NOISE LEVELS AT RECEIVER LOCATIONS

Receiver Location[1]	Type of Noise/ Attenuation	Nighttime Construction Noise Levels (dBA Leq)			Threshold Exceeded?[3]
		Building Const.	Paving	Peak	
R1	Equipment Noise Level[2]	59.6	59.6	31.2	No
	Distance to Construction[3]	2,813'	2,743'		
	Distance Attenuation4	-23.0	-22.7		
	Existing Barrier Attenuation[5]	-5.6	-5.6		
	Noise Level at Receiver:	31.0	31.2		
R2	Equipment Noise Level[2]	59.6	59.6	36.5	No
	Distance to Construction[3]	2,987'	2,844'		
	Distance Attenuation4	-23.5	-23.1		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	36.1	36.5		
R3	Equipment Noise Level[2]	59.6	59.6	41.8	No
	Distance to Construction[3]	1,696'	1,543'		
	Distance Attenuation4	-18.6	-17.7		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	41.0	41.8		
R4	Equipment Noise Level[2]	59.6	59.6	46.6	No
	Distance to Construction[3]	678'	471'		
	Distance Attenuation4	-10.6	-7.4		
	Existing Barrier Attenuation[5]	-5.4	-5.5		
	Noise Level at Receiver:	43.6	46.6		
R5	Equipment Noise Level[2]	59.6	59.6	56.7	No
	Distance to Construction[3]	392'	152'		
	Distance Attenuation4	-5.8	2.4		
	Existing Barrier Attenuation[5]	-5.3	-5.2		
	Noise Level at Receiver:	48.4	56.7		
R6	Equipment Noise Level[2]	59.6	59.6	55.1	No
	Distance to Construction[3]	429'	176'		
	Distance Attenuation4	-6.6	1.1		
	Existing Barrier Attenuation[5]	-5.5	-5.6		
	Noise Level at Receiver:	47.4	55.1		
R7	Equipment Noise Level[2]	59.6	59.6	56.6	No
	Distance to Construction[3]	362'	153'		
	Distance Attenuation4	-5.2	2.3		
	Existing Barrier Attenuation[5]	-5.4	-5.3		
	Noise Level at Receiver:	49.0	56.6		
R8	Equipment Noise Level[2]	59.6	59.6	59.3	No
	Distance to Construction[3]	492'	207'		
	Distance Attenuation4	-7.8	-0.3		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	51.7	59.3		

[1] Noise receiver locations are shown on Exhibit 8-A.

[2] Noise level of the closest construction stage to each receiver, as provided on Table 10-7.

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2) provided by the existing barriers and buildings in the Project study area, as shown on Exhibit 8-A.

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

TABLE 10-11: PHASE 2 NIGHTTIME CONSTRUCTION NOISE LEVELS AT RECEIVER LOCATIONS

Receiver Location[1]	Type of Noise/ Attenuation	Nighttime Construction Noise Levels (dBA Leq)			Threshold Exceeded?[3]
		Building Const.	Paving	Peak	
R1	Equipment Noise Level[2]	59.6	59.6	30.4	No
	Distance to Construction[3]	3,088'	3,006'		
	Distance Attenuation4	-23.8	-23.5		
	Existing Barrier Attenuation[5]	-5.5	-5.6		
	Noise Level at Receiver:	30.3	30.4		
R2	Equipment Noise Level[2]	59.6	59.6	27.8	No
	Distance to Construction[3]	3,773'	3,692'		
	Distance Attenuation4	-25.5	-25.3		
	Existing Barrier Attenuation[5]	-6.3	-6.4		
	Noise Level at Receiver:	27.7	27.8		
R3	Equipment Noise Level[2]	59.6	59.6	29.1	No
	Distance to Construction[3]	2,864'	2,782'		
	Distance Attenuation4	-23.1	-22.9		
	Existing Barrier Attenuation[5]	-7.5	-7.6		
	Noise Level at Receiver:	28.9	29.1		
R4	Equipment Noise Level[2]	59.6	59.6	33.1	No
	Distance to Construction[3]	2,422'	2,245'		
	Distance Attenuation4	-21.7	-21.0		
	Existing Barrier Attenuation[5]	-8.5	-5.5		
	Noise Level at Receiver:	29.4	33.1		
R5	Equipment Noise Level[2]	59.6	59.6	31.2	No
	Distance to Construction[3]	2,318'	2,022'		
	Distance Attenuation4	-21.3	-20.1		
	Existing Barrier Attenuation[5]	-7.9	-8.3		
	Noise Level at Receiver:	30.4	31.2		
R6	Equipment Noise Level[2]	59.6	59.6	30.6	No
	Distance to Construction[3]	1,792'	1,654'		
	Distance Attenuation4	-19.0	-18.4		
	Existing Barrier Attenuation[5]	-10.6	-10.6		
	Noise Level at Receiver:	29.9	30.6		
R7	Equipment Noise Level[2]	59.6	59.6	40.4	No
	Distance to Construction[3]	1,184'	962'		
	Distance Attenuation4	-15.4	-13.6		
	Existing Barrier Attenuation[5]	-5.5	-5.5		
	Noise Level at Receiver:	38.6	40.4		
R8	Equipment Noise Level[2]	59.6	59.6	49.6	No
	Distance to Construction[3]	1,008'	629'		
	Distance Attenuation4	-14.0	-10.0		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Noise Level at Receiver:	45.5	49.6		

[1] Noise receiver locations are shown on Exhibit 8-A.

[2] Noise level of the closest construction stage to each receiver, as provided on Table 10-7.

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2) provided by the existing barriers and buildings in the Project study area, as shown on Exhibit 8-A.

[6] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

EXHIBIT 10-G: PHASE 1 NIGHTTIME BUILDING CONSTRUCTION EQUIPMENT NOISE CONTOURS

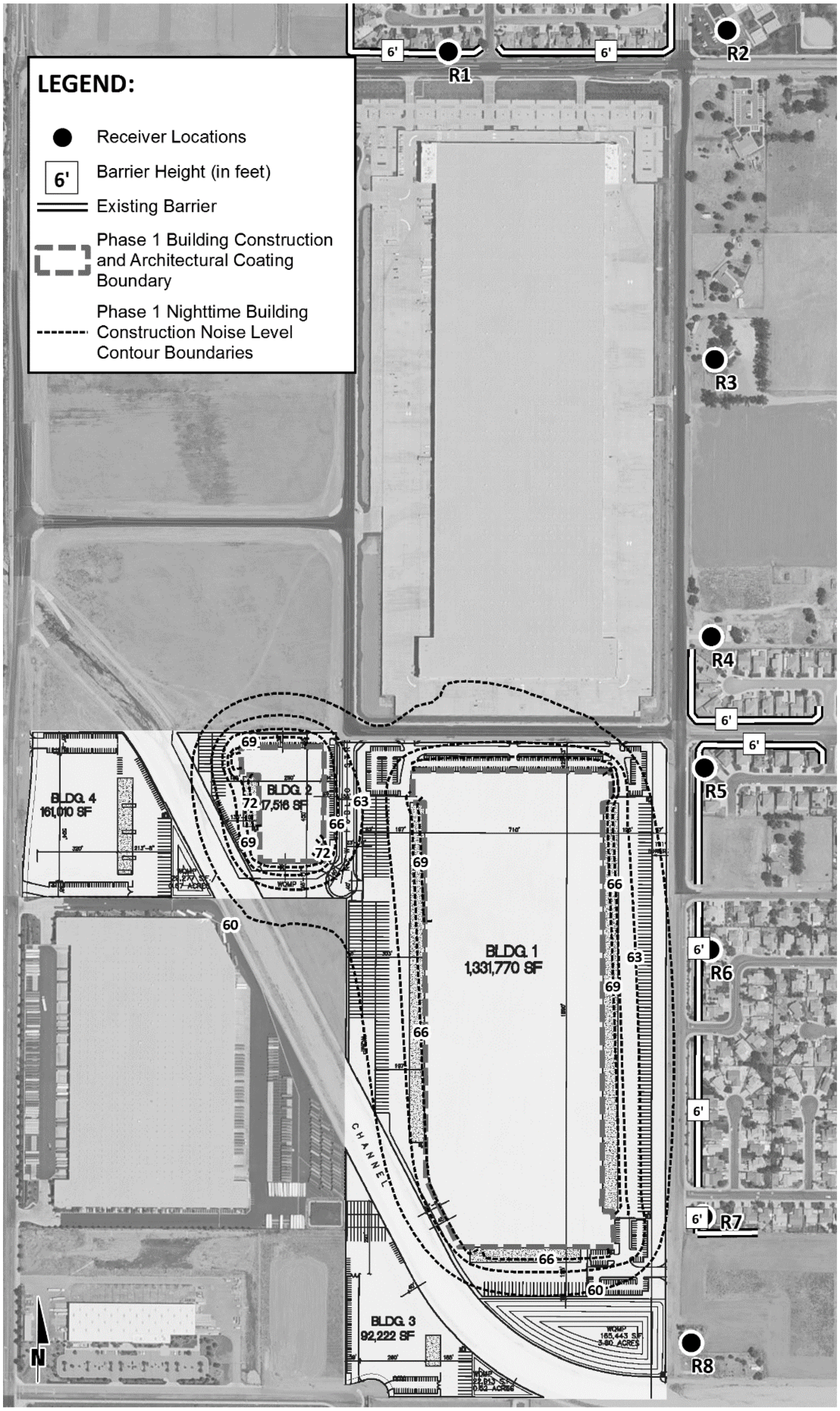

EXHIBIT 10-H: PHASE 1 NIGHTTIME PAVING EQUIPMENT NOISE CONTOURS

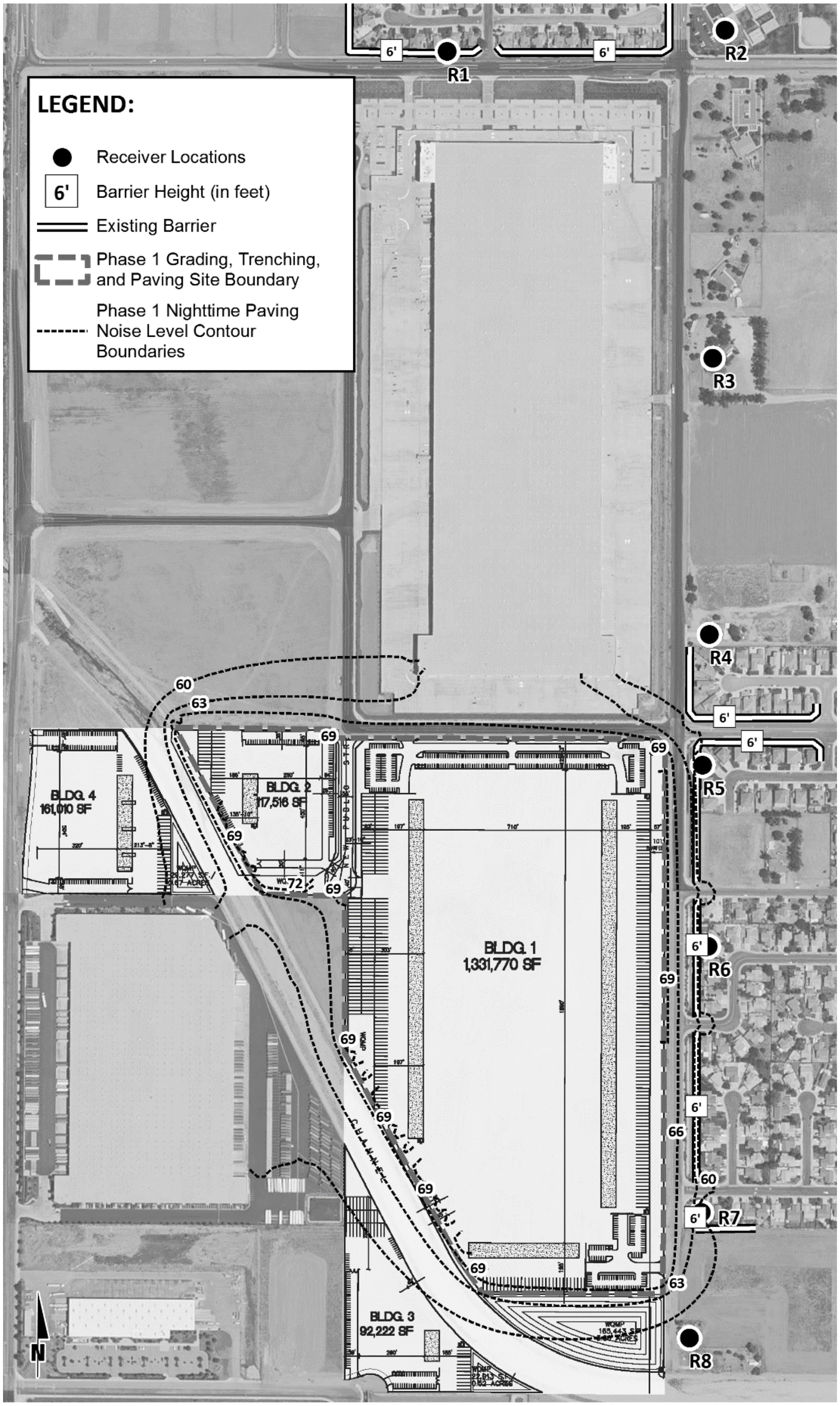

EXHIBIT 10-I: PHASE 2 NIGHTTIME BUILDING CONSTRUCTION EQUIPMENT NOISE CONTOURS

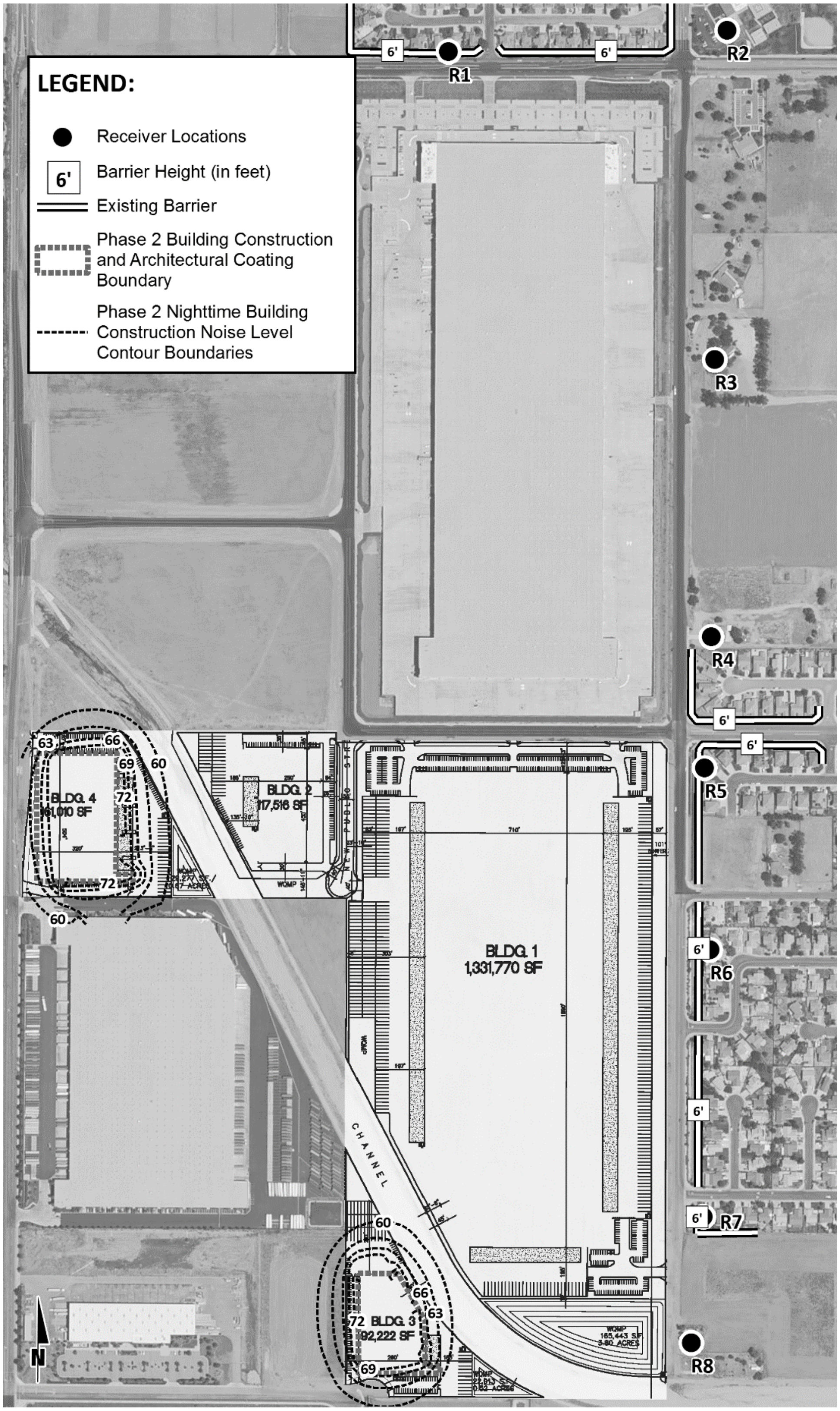

EXHIBIT 10-J: PHASE 2 NIGHTTIME PAVING EQUIPMENT NOISE CONTOURS

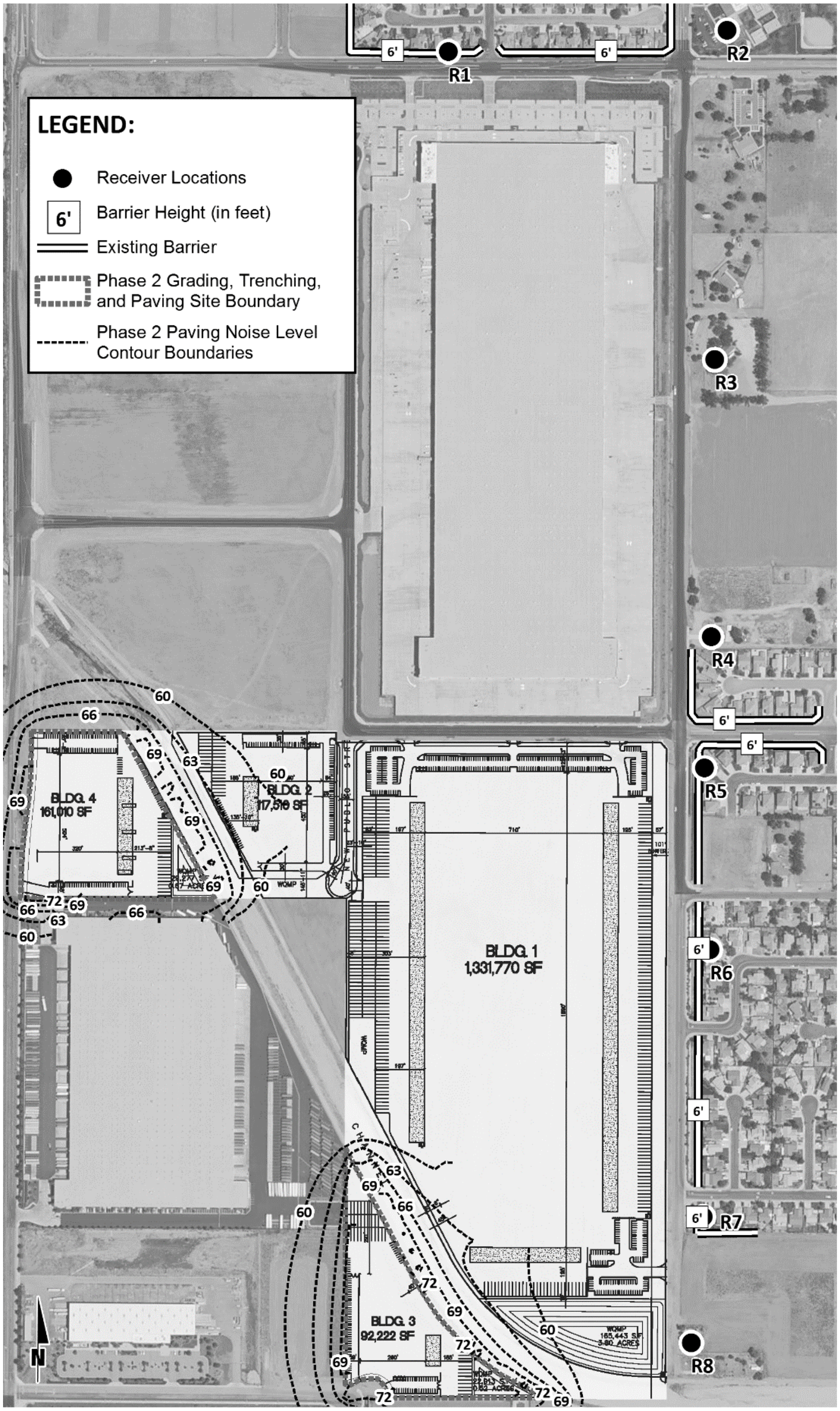

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

10.6 MITIGATED CONSTRUCTION NOISE LEVELS

As previously discussed in Section 10.5.1, the unmitigated daytime construction activities may exceed the City of Moreno Valley Municipal Code 65 dBA Leq noise level threshold at 200 feet during Phase 1 (Buildings 1 and 2) grading and paving activities at receiver location R8. To satisfy the 65 dBA Leq noise level threshold during the Phase 1 (Buildings 1 and 2) grading and paving activities, the construction of a 6-foot high temporary noise barrier is required when activities occur within 280 feet of receiver location R8, as shown on Exhibit ES-A.

Table 10-12 shows the construction noise levels at receiver location R8 will be reduced to 60.3 dBA Leq with the attenuation provided by the 6-foot high temporary construction noise barriers during the grading and paving stages of construction. With the recommended construction noise mitigation measures identified in this report, the daytime construction noise level impacts at all noise sensitive receiver locations will be *less than significant*.

TABLE 10-12: MITIGATED PHASE 1 CONSTRUCTION NOISE LEVELS

Receiver Location[1]	Type of Noise/ Attenuation	Construction Noise Levels at Receiver Locations (dBA Leq)			Threshold Exceeded?[7]
		Grading	Paving	Peak	
R8	Equipment Noise Level[2]	67.5	67.5	60.3	No
	Distance to Construction[3]	207'	207'		
	Distance Attenuation[4]	-0.3	-0.3		
	Existing Barrier Attenuation[5]	0.0	0.0		
	Temporary Barrier Atten.[6]	-6.9	-6.9		
	Noise Level at Receiver:	60.3	60.3		

[1] Noise receiver locations are shown on Exhibit 8-A.

[2] Noise level of the closest construction stage to each receiver, as provided on Table 10-7.

[3] Distance from the nearest point of construction activity to the nearest receiver.

[4] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

[5] Calculated barrier attenuation (Appendix 10.2) provided by the existing barriers and buildings in the Project study area, as shown on Exhibit 8-A.

[6] Additional barrier attenuation provided by the temporary noise barriers (Appendix 10.3).

[7] Do the peak construction noise levels exceed the 65 dBA Leq construction noise level threshold during the daytime hours?

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

10.7 CONSTRUCTION NOISE MITIGATION MEASURES

Though construction noise is temporary, intermittent and of short duration, and will not present any long-term impacts, the following practices would reduce any noise level increases produced by the construction equipment to the nearby noise-sensitive residential land uses:

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities that would create noise levels of greater than 60 dBA Leq at sensitive receivers shall only occur between the permitted hours of 7:00 a.m. to 8:00 p.m. on any day. Grading operations shall be limited to between the hours of 8:00 a.m. to 6:00 p.m. weekdays, and 8:00 a.m. to 4:00 p.m. on weekends and holidays, or as otherwise approved by the City Engineer. The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion.
- Install 6-foot high temporary noise control barrier for a length of approximately 400 feet as shown on Exhibit ES-A at the Project site boundaries when Phase 1 grading and paving construction activities occur within 280 feet of receiver location R8. Alternatively, with the approval of the homeowner at receiver location R8, the 6-foot high temporary noise barrier can be installed at the property line of the residential home. The noise control barrier must present a solid face from top to bottom. The noise control barrier must be a minimum height of 6-feet.
    - The noise barrier may be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts.
    - The noise barriers must be maintained and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.
    - The noise control barriers and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.
- During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.
- The construction contractor shall locate equipment staging in the vicinity of the intersection of Cosmos Street and Krameria Avenue to create additional distance between construction-related noise sources and noise-sensitive receivers nearest the Project site during all stages of Building 1 construction.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 8:00 p.m. on any day). The contractor shall prepare a haul route exhibit for review and approval by the Public Works Department, Land Development Division, and shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise (City of Moreno Valley Municipal Code, Section 8.21.050 (H) (7)).
- Any nighttime construction activity requires an exemption from the City of Moreno Valley Municipal Code as indicated in Section 11.80.030 (E) (8) for a special event permit (Section 11.80.040). The special event permit application shall be submitted to the City of Moreno Valley

Planning Department for approval and meet the requirements of Municipal Code Section 11.80.040.

10.8 CONSTRUCTION VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any residences or buildings to cause a vibration impact.
- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration. Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include demolition, grading, and paving. Using the vibration source levels of construction equipment provided on Table 6-9 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 10-13 presents the expected Project related vibration levels at the five receiver locations.

TABLE 10-13: CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver[1]	Distance To Construction Activity (Feet)	Receiver Vibration Levels (VdB)[2]					Threshold Exceeded?[3]
		Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer	Peak Vibration	
R1	2,744'	0.0	17.8	24.8	25.8	25.8	No
R2	2,853'	0.0	17.3	24.3	25.3	25.3	No
R3	1,544'	4.3	25.3	32.3	33.3	33.3	No
R4	471'	19.7	40.7	47.7	48.7	48.7	No
R5	133'	36.2	57.2	64.2	65.2	65.2	No
R6	161'	33.7	54.7	61.7	62.7	62.7	No
R7	144'	35.2	56.2	63.2	64.2	64.2	No
R8	101'	39.8	60.8	67.8	68.8	68.8	No

[1] Noise receiver locations are shown on Exhibit 8-A.
[2] Based on the Vibration Source Levels of Construction Equipment included on Table 6-9.
[3] Does the peak vibration exceed the FTA maximum acceptable vibration standard of 80 (VdB)?

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference level of 87 VdB at a distance of 25 feet. At distances ranging from 101 to 2,853 feet from the Project site, construction vibration levels are expected to range from 25.3 to 68.8 VdB. Using the construction vibration assessment methods provided by the FTA the proposed Project site will not include or require equipment, facilities, or activities that would result in a perceptible human response (annoyance). In addition, the 90 VdB threshold for building damage will also be satisfied and no building damage at the nearby receiver locations is expected due to Project construction.

The construction of the Project is not expected to generate vibration levels exceeding the FTA maximum acceptable vibration standard of 80 (VdB). Further, impacts at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. Therefore, the potential for the Project to result in exposure of persons to, or generation of, excessive ground-borne vibration is *less than significant*.

10.9 ALTERNATE SITE PLAN COMPARISON

This noise study evaluates the Project's worst-case condition based on the four-building Project site plan. If the alternate site plan with a 166-space truck parking lot in lieu of Building 2 is implemented, the construction noise levels would be reduced. The removal of Building 2 would reduce the duration of and equipment used in Project construction, thereby reducing the construction noise levels expected at the nearby receiver locations.

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11 REFERENCES

1. **Urban Crossroads, Inc.** *Moreno Valley Logistics Center Traffic Impact Analysis.* September 2015.
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5. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requsite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March, 1974. EPA/ONAC 550/9/74-004.
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15. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
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19. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
20. **California Department of Transportation.** *Traffic Noise Attenuation As a Function of Ground and Vegetation.* June 1995. FHWA/CA/TL-95/23.

21. **U.S. Environmental Protection Agency, Office of Federal Activities.** *Consideration of Cumultive Impacts.* May 1999. EPA 315-R-99-002.
22. **Urban Crossroads, Inc.** *Moreno Valley Logistics Center Air Quality Impact Analysis.* November 2015.

12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Moreno Valley Logistics Center Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 203.

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Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 3.1:

CITY OF MORENO VALLEY MUNICIPAL CODE

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Moreno Valley Municipal Code

Title 11 PEACE, MORALS AND SAFETY

Chapter 11.80 NOISE REGULATION

11.80.010 Legislative findings.

It is found and declared that:

A. Excessive sound within the limits of the city is a condition which has existed for some time, and the amount and intensity of such sound is increasing.

B. Such excessive sound is a detriment to the public health, safety, and welfare and quality of life of the residents of the city.

C. The necessity in the public interest for the provisions and prohibitions hereinafter contained and enacted is declared as a matter of legislative determination and public policy, and it is further declared that the provisions and prohibitions hereinafter contained and enacted are in pursuance of and for the purpose of securing and promoting the public health, safety, welfare and quality of life of the city and its inhabitants. (Ord. 740 § 1.2, 2007)

11.80.020 Definitions.

For purposes of this chapter, certain words and phrases used herein are defined as follows:

"A-weighted sound level" means the sound pressure level in decibels as measured with a sound level meter using the A-weighting network. The unit of measurement is the dB(A).

"Commercial" means all uses of land not otherwise classified as residential, as defined in this section.

"Construction" means any site preparation, and/or any assembly, erection, repair, or alteration, excluding demolition, of any structure, or improvements to real property.

"Continuous airborne sound" means sound that is measured by the slow-response setting of a meter manufactured to the specifications of ANSI Section 1.4-1983 (R2006) "Specification for Sound Level Meters," or its successor.

"Daytime" means eight a.m. to ten p.m. the same day.

"Decibel" (dB) means a unit for measuring the amplitude of sound, equal to twenty (20) times the logarithm to the base ten (10) of the ratio of the pressure of the sound measured to the reference pressure, which is twenty (20) microPascals (twenty (20) microNewtons per square meter.)

"Demolition" means any dismantling, intentional destruction or removal of structures or other improvements to real property.

"Disturb" means to interrupt, interfere with, or hinder the enjoyment of peace or quiet or the normal listening activities or the sleep, rest or mental concentration of the hearer.

"Emergency" means any occurrence or set of circumstances involving actual or imminent physical trauma or significant property damage which necessitates immediate action. Economic loss alone shall not constitute an emergency. It shall be the burden of an alleged violator to prove an "emergency."

"Emergency work" means any work made necessary to restore property to a safe condition following an emergency, or to protect persons or property threatened by an imminent emergency, to the extent such work is, in fact, necessary to protect persons or property from exposure to imminent danger or damage.

"Frequency" means the number of complete oscillation cycles per unit of time.

"Impulsive sound" means sound of short duration, usually less than one second, with an abrupt onset and rapid decay. Examples of sources of impulsive sound include explosions, drop forge impacts, and discharge of firearms.

"Nighttime" means 10:01 p.m. to 7:59 a.m. the following day.

"Noise disturbance" means any sound which:

1. Disturbs a reasonable person of normal sensitivities;

2. Exceeds the sound level limits set forth in this chapter; or

3. Is plainly audible as defined in this section. Where no specific distance is set forth for the determination of audibility, references to noise disturbance shall be deemed to mean plainly audible at a distance of two hundred (200) feet from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right of way, public space or other publicly owned property.

"Person" means any person, person's firm, association, copartnership, joint venture, corporation, or any entity public or private in nature.

"Plainly audible" means that the sound or noise produced or reproduced by any particular source, can be clearly distinguished from ambient noise by a person using his/her normal hearing faculties.

"Public right-of-way" means any street, avenue, boulevard, sidewalk, bike path or alley, or similar place normally accessible to the public which is owned or controlled by a governmental entity.

"Public space" means any park, recreational or community facility, or lot which contains at least one building that is open to the general public during its hours of operation.

"Residential" means all uses of land primarily for dwelling units, as well as hospitals, schools, colleges and universities, and places of religious assembly.

"Sound" means an oscillation in pressure, particle displacement, particle velocity or other physical parameter, in a medium with internal forces that causes compression and rarefaction of that medium capable of producing an auditory impression. The description of sound may include any characteristic of such sound, including duration, intensity and frequency.

"Sound level" means the weighted sound pressure level as measured in dB(A) by a sound level meter and as specified in American National Standards Institute (ANSI) specifications for sound-level meters (ANSI Section 1.4-1971 (R1976)). If the frequency weighting employed is not indicated, the A-weighting shall apply.

"Sound level meter" means an instrument, demonstrably capable of accurately measuring sound levels as defined above.

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All technical definitions not defined above shall be in accordance with applicable publications and standards of the American National Standards Institute (ANSI). (Ord. 740 § 1.2, 2007)

11.80.030 Prohibited acts.

A. General Prohibition. It is unlawful and a violation of this chapter to maintain, make, cause, or allow the making of any sound that causes a noise disturbance, as defined in Section 11.80.020.

B. Sound causing permanent hearing loss.

1. Sound level limits. Based on statistics from the Center for Disease Control and Prevention and the National Institute for Occupational Safety and Health, Table 1 and Table 1-A specify sound level limits which, if exceeded, will have a high probability of producing permanent hearing loss in anyone in the area where the sound levels are being exceeded. No sound shall be permitted within the city which exceeds the parameters set forth in Tables 11.80.030-1 and 11.80.030-1-A of this chapter:

Table 11.80.030-1

MAXIMUM CONTINUOUS SOUND LEVELS*

Duration per Day Continuous Hours	Sound level [db(A)]
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25	115

* When the daily sound exposure is composed of two or more periods of sound exposure at different levels, the combined effect of all such periods shall constitute a violation of this section if the sum of the percent of allowed period of sound exposure at each level exceeds 100 percent

Table 11.80.030-1A

MAXIMUM IMPULSIVE SOUND LEVELS

Number of Repetitions per 24-Hour Period	Sound level [dB(A)]

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1	145
10	135
100	125

2. Exemptions. No violation shall exist if the only persons exposed to sound levels in excess of those listed in Tables 11.80.030-1 and 11.80.030-1A are exposed as a result of:

a. Trespass;

b. Invitation upon private property by the person causing or permitting the sound; or

c. Employment by the person or a contractor of the person causing or permitting the sound.

C. Nonimpulsive Sound Decibel Limits. No person shall maintain, create, operate or cause to be operated on private property any source of sound in such a manner as to create any nonimplusive sound which exceeds the limits set forth for the source land use category (as defined in Section 11.80.020) in Table 11.80.030-2 when measured at a distance of two hundred (200) feet or more from the real property line of the source of the sound, if the sound occurs on privately owned property, or from the source of the sound, if the sound occurs on public right-of-way, public space or other publicly owned property. Any source of sound in violation of this subsection shall be deemed prima facie to be a noise disturbance.

Table 11.80.030-2

MAXIMUM SOUND LEVELS (IN dB(A)) FOR SOURCE LAND USES

Residential		Commercial	
Daytime	**Nighttime**	**Daytime**	**Nighttime**
60	55	65	60

D. Specific Prohibitions. In addition to the general prohibitions set out in subsection A of this section, and unless otherwise exempted by this chapter, the following specific acts, or the causing or permitting thereof, are regulated as follows:

1. Motor Vehicles. No person shall operate or cause to be operated a public or private motor vehicle, or combination of vehicles towed by a motor vehicle, that creates a sound exceeding the sound level limits in Table 11.80.030-2 when the vehicle(s) are not otherwise subject to noise regulations provided for by the California Vehicle Code.

2. Radios, Televisions, Electronic Audio Equipment, Musical Instruments or Similar Devices from a Stationary Source. No person shall operate, play or permit the operation or playing of any radio, tape player, television, electronic audio equipment, musical instrument, sound amplifier or other mechanical or electronic sound making device that produces, reproduces or amplifies sound in such a manner as to create a noise disturbance. However, this subsection shall not apply to any use or activity exempted in subsection E of this section and any use or activity for which a special permit has been issued pursuant to Section 11.80.040.

3. Radios, Electronic Audio Equipment, or Similar Devices from a Mobile Source Such as a Motor Vehicle. Sound amplification or reproduction equipment on or in a motor vehicle is subject to regulation in accordance with the California Vehicle Code when upon the public right-of-way. When upon public space or publicly owned property other than the public right-of-way or upon private property open to the public, sound amplification or reproduction equipment shall not be operated in such a manner that it is plainly audible at a distance of fifty (50) feet in any direction from the vehicle.

4. Portable, Hand-Held Music or Sound Amplification or Reproduction Equipment. Such equipment shall not be operated on a public right-of-way, public space or other publicly owned property in such a manner as to be plainly audible at a distance of fifty (50) feet in any direction from the operator.

5. Loudspeakers and Public Address Systems.

a. Except as permitted by Section 11.80.040, no person shall operate, or permit the operation of, any loudspeaker, public address system or similar device, for any commercial purpose:

1. Which produces, reproduces or amplifies sound in such a manner as to create a noise disturbance; or

2. During nighttime hours on a public right-of-way, public space or other publicly owned property.

b. No person shall operate, or permit the operation of, any loudspeaker, public address system or similar device, for any noncommercial purpose, during nighttime hours in such a manner as to create a noise disturbance.

6. Animals. No person shall own, possess or harbor an animal or bird that howls, barks, meows, squawks, or makes other sounds that:

a. Create a noise disturbance;

b. Are of frequent or continued duration for ten (10) or more consecutive minutes and are plainly audible at a distance of fifty (50) feet from the real property line of the source of the sound; or

c. Are intermittent for a period of thirty (30) or more minutes and are plainly audible at a distance of fifty (50) feet from the real property line of the source of the sound.

7. Construction and Demolition. No person shall operate or cause the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of eight p.m. and seven a.m. the following day such that the sound there from creates a noise disturbance, except for emergency work by public service utilities or for other work approved by the city manager or designee. This section shall not apply to the use of power tools as provided in subsection (D)(9) of this section.

8. Emergency Signaling Devices. No person shall intentionally sound or permit the sounding outdoors of any fire, burglar or civil defense alarm, siren or whistle, or similar stationary emergency signaling device, except for emergency purposes or for testing as follows:

a. Testing of a stationary emergency signaling device shall not occur between seven p.m. and seven a.m. the following day;

b. Testing of a stationary emergency signaling device shall use only the minimum cycle test time, in no case to exceed sixty (60) seconds;

c. Testing of a complete emergency signaling system, including the functioning of the signaling device and the personnel response to the signaling device, shall not occur more than once in each calendar month. Such testing shall only occur only on weekdays between seven a.m. and seven p.m.

and shall be exempt from the time limit specified in subsection (D)(8)(2) of this section.

9. Power Tools. No person shall operate or permit the operation of any mechanically, electrically or gasoline motor-driven tool during nighttime hours so as to cause a noise disturbance across a residential real property boundary.

10. Pumps, Air Conditioners, Air-Handling Equipment and Other Continuously Operating Equipment. Notwithstanding the general prohibitions of subsection a of this section, no person shall operate or permit the operation of any pump, air conditioning, air-handling or other continuously operating motorized equipment in a state of disrepair or in a manner which otherwise creates a noise disturbance distinguishable from normal operating sounds.

E. Exemptions. The following uses and activities shall be exempt from the sound level regulations except the maximum sound levels provided in Tables 11.80.030-1 and 11.80.030-1A:

1. Sounds resulting from any authorized emergency vehicle when responding to an emergency call or acting in time of an emergency.

2. Sounds resulting from emergency work as defined in Section 11.80.020

3. Any aircraft operated in conformity with, or pursuant to, federal law, federal air regulations and air traffic control instruction used pursuant to and within the duly adopted federal air regulations; and any aircraft operating under technical difficulties in any kind of distress, under emergency orders of air traffic control, or being operated pursuant to and subsequent to the declaration of an emergency under federal air regulations.

4. All sounds coming from the normal operations of interstate motor and rail carriers, to the extent that local regulation of sound levels of such vehicles has been preempted by the Noise Control Act of 1972 (42 U.S.C. § 4901 et seq.) or other applicable federal laws or regulations

5. Sounds from the operation of motor vehicles, to the extent they are regulated by the California Vehicle Code.

6. Any constitutionally protected noncommercial speech or expression conducted within or upon a any public right-of-way, public space or other publicly owned property constituting an open or a designated public forum in compliance with any applicable reasonable time, place and manner restrictions on such speech or expression or otherwise pursuant to legal authority.

7. Sounds produced at otherwise lawful and permitted city-sponsored events, organized sporting events, school assemblies, school playground activities, by permitted fireworks, and by permitted parades on public right-of-way, public space or other publicly owned property.

8. An event for which a temporary use permit or special event permit has been issued under other provisions of this code, where the provisions of Section 11.80.040 are met, the permit granted expressly grants an exemption from specific standards contained in this chapter, and the permittee and all persons under the permittee's reasonable control actually comply with all conditions of such permit. Violation of any condition of such a permit related to sound or sound equipment shall be a violation of this chapter and punishable as such.

F. Nothing in this chapter shall be construed to limit, modify or repeal any other regulation elsewhere in this code relating to the regulation of noise sources, nor shall any such other regulation be read to permit the emission of noise in violation of any provision of this chapter. (Ord. 740 § 1.2, 2007)

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

11.80.040 Special provisions for temporary use and special event permits.

The exemption by permit set forth in Section 11.80.030(E)(8) shall be subject to the following requirements and conditions:

A. The permit application shall include the name, address and telephone number of the permit applicant; the date, hours and location for which the permit is requested; and the nature of the event or activity. It shall also specify the types of sounds and/or sound equipment to be permitted, the proposed duration of such sound, the specific standards from which the sound is to be exempted, and the reasons for each requested exemption.

B. The permit shall be issued provided the proposed activity meets the requirements of this section and the issuing official determines that the sound to be emitted at the event as proposed would not be detrimental to the public health, safety or welfare, that the event cannot reasonably achieve its legitimate aims and purposes without the exemption and that the sound levels proposed will not unreasonably damage the peace and quiet enjoyment of the lawful users of surrounding properties, nor constitute a public nuisance.

C. The official issuing the permit may prescribe any reasonable conditions or requirements he/she deems necessary to minimize noise disturbances upon the community or the surrounding neighborhood, and/or to protect the health, safety or welfare of the public, including participants in the permitted event, including use of mufflers, screens or other sound-attenuating devices.

D. Any permit granted must be in writing and shall contain all conditions upon which the permit shall be effective.

E. No more than six events requiring a sound limit exemption may be held at any particular location upon privately owned or controlled property per calendar year, provided further that the number of events shall not exceed the number permitted under the regulations for the type of permit issued. For purposes of this subsection, “location” means a legal parcel of real property or a complete shopping or commercial center or mall sharing common parking and access even if comprised of multiple legal parcels.

F. The exemption from sound limits under such permit shall not exceed maximum period of four hours in one twenty-four (24) hour day.

G. The permit will only be granted for hours between nine a.m. and ten p.m. on all days other than Friday and Saturday; and, on Friday and Saturday, between the hours of nine a.m. and one a.m. of the following day, except in the following circumstances:

1. A permit may be granted for hours between nine a.m. on New Year’s Eve and one a.m. the following day (New Year’s Day).

2. A permit may be granted for hours between nine a.m. and two a.m. the following day if there are no residences, hospitals, or nursing homes within a 0.5 mile radius of the property where the function is taking place.

H. Functions for which the permits are issued shall be limited to a continuous airborne sound level not to exceed seventy (70) dB(A), as measured two hundred (200) feet from the real property boundary of the source property if on private property, or from the source if on public right of way, public space or other publicly owned property. (Ord. 740 § 1.2, 2007)

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

11.80.050 Measurement or assessment of sound.

A. Measurement With Sound Meter.

1. The measurement of sound shall be made with a sound level meter meeting the standards prescribed by ANSI Section 1.4-1983 (R2006). The instruments shall be maintained in calibration and good working order. A calibration check shall be made of the system at the time of any sound level measurement. Measurements recorded shall be taken so as to provide a proper representation of the source of the sound. The microphone during measurement shall be positioned so as not to create any unnatural enhancement or diminution of the measured sound. A windscreen for the microphone shall be used at all times. However, a violation of this chapter may occur without the occasion of the measurements being made as otherwise provided.

2. The slow meter response of the sound level meter shall be used in order to best determine the average amplitude.

3. The measurement shall be made at any point on the property into which the sound is being transmitted and shall be made at least three feet away from any ground, wall, floor, ceiling, roof and other plane surface.

4. In case of multiple occupancy of a property, the measurement may be made at any point inside the premises to which any complainant has right of legal private occupancy; provided that the measurement shall not be made within three feet of any ground, wall, floor, ceiling, roof or other plane surface.

5. All measurements of sound provided for in this chapter will be made by qualified officials of the city who are designated by the city manger or designee to operate the apparatus used to make the measurements.

B. Assessment Without Sound Level Meter. Any police officer, code enforcement officer, or other official designated by the city manager or designee who hears a noise or sound that is plainly audible, as defined in Section 11.80.020, in violation of this chapter, may enforce this chapter and shall assess the noise or sound according to the following standards:

1. The primary means of detection shall be by means of the official's normal hearing faculties, not artificially enhanced.

2. The official shall first attempt to have a direct line of sight and hearing to the vehicle or real property from which the sound or noise emanates so that the official can readily identify the offending source of the sound or noise and the distance involved. If the official is unable to have a direct line of sight and hearing to the vehicle or real property from which the sound or noise emanates, then the official shall confirm the source of the sound or noise by approaching the suspected vehicle or real property until the official is able to obtain a direct line of sight and hearing, and confirm the source of the sound or noise that was heard at the place of the original assessment of the sound or noise.

3. The official need not be required to identify song titles, artists, or lyrics in order to establish a violation. (Ord. 740 § 1.2, 2007)

11.80.060 Violation.

A. Violation of Sound Level Limits. Any person violating any of the provisions of this chapter shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punishable by a fine not to exceed one thousand dollars ($1,000.00) and/or six months in the county jail, or both.

Notwithstanding the foregoing, any violation of the provisions of this chapter may, in the discretion of the citing officer or the city attorney, be cited and/or prosecuted as an infraction or be subject to civil citation pursuant to Chapter 1.10.

B. Joint and Several Responsibility. In addition to the person causing the offending sound, the owner, tenant or lessee of property, or a manager, overseer or agent, or any other person lawfully entitled to possess the property from which the offending sound is emitted at the time the offending sound is emitted, shall be responsible for compliance with this chapter if the additionally responsible party knows or should have known of the offending noise disturbance. It shall not be a lawful defense to assert that some other person caused the sound. The lawful possessor or operator of the premises shall be responsible for operating or maintaining the premises in compliance with this chapter and may be cited regardless of whether or not the person actually causing the sound is also cited.

C. Violation May be Declared a Public Nuisance. The operation or maintenance of any device, equipment, instrument, vehicle or machinery in violation of any provisions of this chapter which endangers the public health, safety and quality of life of residents in the area is declared to be a public nuisance, and may be subject to abatement summarily or by a restraining order or injunction issued

by a court of competent jurisdiction. (Ord. 824 § 1.2, 2011; Ord. 740 § 1.2, 2007)

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APPENDIX 5.1:

STUDY AREA PHOTOS

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JN:09303 Moreno Valley Logistics

L1
33, 54' 35.765900", 117, 14' 29.677700"

L1_2
33, 54' 35.765900", 117, 14' 29.677700"

L1_E
33, 54' 35.765900", 117, 14' 29.677700"

L1_N
33, 54' 35.765900", 117, 14' 29.677700"

L1_SE
33, 54' 35.765900", 117, 14' 29.677700"

L1_W
33, 54' 35.765900", 117, 14' 29.677700"

JN:09303 Moreno Valley Logistics

L2
33, 54' 15.249000", 117, 14' 37.395600"

L2_2
33, 54' 15.249000", 117, 14' 37.395600"

L2_3
33, 54' 14.946900", 117, 14' 37.642800"

L2_E
33, 54' 15.249000", 117, 14' 37.395600"

L2_N
33, 54' 15.249000", 117, 14' 37.395600"

L2_NE
33, 54' 15.249000", 117, 14' 37.395600"

JN:09303 Moreno Valley Logistics

L2_NW
33, 54' 14.946900", 117, 14' 37.642800"

L2_S
33, 54' 15.249000", 117, 14' 37.395600"

L2_SW
33, 54' 15.249000", 117, 14' 37.395600"

L2_W
33, 54' 15.249000", 117, 14' 37.395600"

L3
33, 53' 43.306200", 117, 14' 48.766400"

L3_2
33, 53' 43.306200", 117, 14' 48.766400"

JN:09303 Moreno Valley Logistics

L3_E
33, 53' 43.306200", 117, 14' 48.766400"

L3_Intersection
33, 53' 43.443600", 117, 14' 49.178400"

L3_N
33, 53' 43.306200", 117, 14' 48.766400"

L3_N2
33, 53' 44.583400", 117, 14' 49.288300"

L3_NE
33, 53' 43.306200", 117, 14' 48.766400"

L3_NW
33, 53' 43.306200", 117, 14' 48.766400"

JN:09303 Moreno Valley Logistics

L3_S
33, 53' 43.306200", 117, 14' 48.766400"

L3_SE
33, 53' 43.306200", 117, 14' 48.766400"

L3_SW
33, 53' 43.306200", 117, 14' 48.766400"

L3_W
33, 53' 43.306200", 117, 14' 48.766400"

L4
33, 53' 50.612100", 117, 14' 36.379300"

L4_2
33, 53' 50.612100", 117, 14' 36.379300"

JN:09303 Moreno Valley Logistics

L4_Intersection
33, 53' 18.408500", 117, 14' 14.379200"

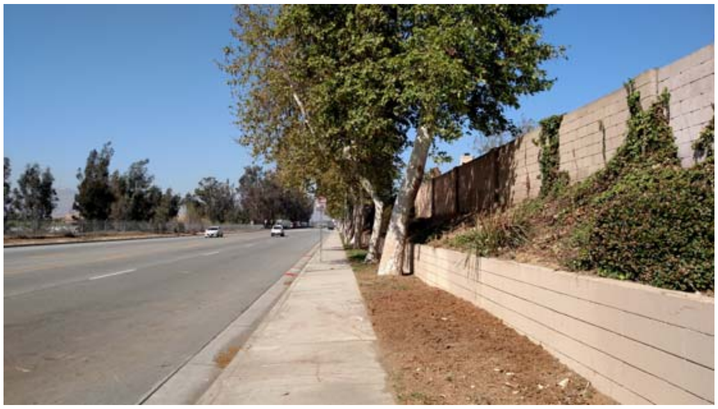

L4_N
33, 53' 50.612100", 117, 14' 36.379300"

L4_S
33, 53' 50.612100", 117, 14' 36.379300"

L4_W
33, 53' 50.612100", 117, 14' 36.379300"

L5
33, 53' 18.449700", 117, 14' 14.598900"

L5_2
33, 53' 18.394700", 117, 14' 15.313100"

JN:09303 Moreno Valley Logistics

L5_E
33, 53' 18.408500", 117, 14' 14.379200"

L5_E2
33, 53' 18.381000", 117, 14' 16.109600"

L5_S
33, 53' 18.381000", 117, 14' 16.109600"

L5_SW
33, 53' 18.408500", 117, 14' 14.379200"

L5_W
33, 53' 18.408500", 117, 14' 14.379200"

L5_W2
33, 53' 18.408500", 117, 14' 14.379200"

JN:09303 Moreno Valley Logistics

L5_W3
33, 53' 18.394700", 117, 14' 15.313100"

L5_W4
33, 53' 18.381000", 117, 14' 16.109600"

L6
33, 53' 3.329700", 117, 14' 5.150700"

L6_2
33, 53' 3.329700", 117, 14' 5.150700"

L6_E
33, 53' 3.329700", 117, 14' 5.150700"

L6_N
33, 53' 3.329700", 117, 14' 5.150700"

JN:09303 Moreno Valley Logistics

L6_NW
33, 53' 3.329700", 117, 14' 5.150700"

L6_S
33, 53' 3.329700", 117, 14' 5.150700"

L6_SE
33, 53' 3.329700", 117, 14' 5.150700"

L6_W
33, 53' 3.329700", 117, 14' 5.150700"

L7
33, 52' 51.272200", 117, 14' 4.766200"

L7_Intersection
33, 52' 51.272200", 117, 14' 4.766200"

JN:09303 Moreno Valley Logistics

L7_NE
33, 52' 51.272200", 117, 14' 4.766200"

L7_NW
33, 52' 51.217300", 117, 14' 5.150700"

L7_NW2
33, 52' 51.217300", 117, 14' 5.150700"

L7_S
33, 52' 51.272200", 117, 14' 4.766200"

L7_SE
33, 52' 51.272200", 117, 14' 4.766200"

L7_SW
33, 52' 51.272200", 117, 14' 4.766200"

JN:09303 Moreno Valley Logistics

L7_W
33, 52' 51.272200", 117, 14' 4.766200"

L8
33, 52' 41.604300", 117, 14' 5.150700"

L8_2
33, 52' 41.604300", 117, 14' 5.150700"

L8_E
33, 52' 41.604300", 117, 14' 5.150700"

L8_N
33, 52' 41.604300", 117, 14' 5.150700"

L8_NW
33, 52' 41.604300", 117, 14' 5.150700"

JN:09303 Moreno Valley Logistics

L8_S
33, 52' 41.604300", 117, 14' 5.150700"

L8_SW
33, 52' 41.604300", 117, 14' 5.150700"

L9
33, 52' 32.293300", 117, 14' 5.123200"

L9_2
33, 52' 32.293300", 117, 14' 5.123200"

L9_NE
33, 52' 32.293300", 117, 14' 5.123200"

L9_NW
33, 52' 32.293300", 117, 14' 5.123200"

JN:09303 Moreno Valley Logistics

L9_S
33, 52' 32.293300", 117, 14' 5.123200"

L9_SE
33, 52' 32.293300", 117, 14' 5.123200"

L9_SW
33, 52' 32.293300", 117, 14' 5.123200"

L9_W
33, 52' 32.293300", 117, 14' 5.123200"

Site_Indian St_Freeport Dr
33, 52' 39.530600", 117, 14' 5.150700"

Site_Indian St_FreeportDr_N
33, 52' 39.530600", 117, 14' 5.150700"

JN:09303 Moreno Valley Logistics

Site_Indian St_FreeportDr_NE
33, 52' 39.530600", 117, 14' 5.150700"

Site_Indian St_FreeportDr_NW
33, 52' 39.530600", 117, 14' 5.150700"

Site_Indian St_FreeportDr_S
33, 52' 39.530600", 117, 14' 5.150700"

Site_Indian St_FreeportDr_SW
33, 52' 39.530600", 117, 14' 5.150700"

Site_Indian St_FreeportDr_W
33, 52' 39.530600", 117, 14' 5.150700"

StudyArea_ExistingPark_W
33, 53' 51.971700", 117, 14' 49.233400"

JN:09303 Moreno Valley Logistics

StudyArea_ExistingWarehouse_Indian St_E
33, 52' 57.740400", 117, 14' 5.452800"

StudyArea_ExistingWarehouse_Indian St_N
33, 52' 57.740400", 117, 14' 5.452800"

StudyArea_ExistingWarehouse_Indian St_SW
33, 52' 57.740400", 117, 14' 5.452800"

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APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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24-Hour Noise Level Measurement Summary

Project Name: Moreno Valley Logistics

Location: L1 - Located at the southeast corner of Cactus Avenue and Unity Court adjacent to existing residential homes.

JN: 9303

Analyst: A. Wolfe

Date: 3/9-3/10/2015

Energy Average Leq		*24-Hour*
Day	*Night*	*CNEL*
75.3	73.0	79.7

Hourly Leq dBA Readings (unadjusted)

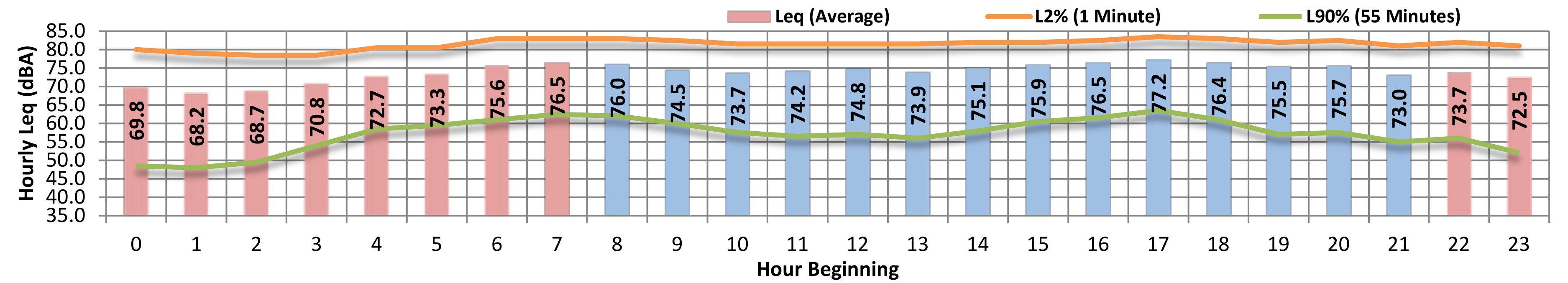

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	73.0	89.5	43.0	82.0	81.0	79.5	78.0	72.5	65.5	55.0	53.0	48.5
	Max	77.2	101.1	54.8	85.5	83.5	82.0	81.0	78.5	73.5	63.5	61.0	58.0
Energy Average		75.3	95.7	50.7	83.6	82.2	80.7	79.7	75.7	70.6	59.5	57.0	53.7
Night	Min	68.2	87.6	44.2	80.5	78.5	75.0	72.5	62.5	55.5	48.0	47.0	45.5
	Max	76.5	97.1	55.4	84.0	83.0	82.0	81.0	77.0	73.5	62.5	60.5	57.5
Energy Average		73.0	92.5	51.3	82.3	80.9	78.8	77.4	72.5	67.9	57.5	55.7	53.1
Hourly Summary													
Night	0	69.8	89.4	44.6	81.5	80.0	77.0	75.0	65.0	57.5	48.5	47.0	45.5
	1	68.2	87.6	44.8	80.5	79.0	75.5	72.5	62.5	55.5	48.0	47.0	46.0
	2	68.7	91.4	44.2	80.5	78.5	75.0	72.5	63.5	56.0	49.5	48.0	45.5
	3	70.8	93.0	47.9	80.5	78.5	76.5	75.0	70.0	63.0	54.0	52.0	49.0
	4	72.7	88.6	51.4	82.0	80.5	78.0	77.0	73.5	68.0	58.5	57.0	54.0
	5	73.3	90.7	53.9	82.0	80.5	78.5	77.5	74.0	69.5	59.5	58.0	56.0
	6	75.6	93.5	55.4	84.0	83.0	81.5	80.0	76.0	72.0	61.0	59.0	56.5
	7	76.5	90.4	55.0	84.0	83.0	82.0	81.0	77.0	73.5	62.5	60.5	57.5
Day	8	76.0	91.4	52.7	84.0	83.0	82.0	81.0	76.0	72.0	62.0	60.0	56.0
	9	74.5	90.9	50.4	84.0	82.5	80.5	79.5	74.0	70.0	60.0	57.0	54.5
	10	73.7	91.9	48.4	82.5	81.5	79.5	78.5	73.5	68.5	57.5	55.5	53.0
	11	74.2	93.6	48.3	83.0	81.5	80.0	79.0	74.0	69.5	56.5	54.0	51.0
	12	74.8	100.1	45.9	82.5	81.5	80.0	79.0	74.5	69.0	57.0	54.5	50.0
	13	73.9	89.5	45.5	82.5	81.5	80.0	79.0	74.0	69.0	56.0	53.0	48.5
	14	75.1	91.6	43.0	82.5	82.0	80.5	80.0	76.0	71.0	58.0	54.0	49.0
	15	75.9	94.4	53.1	83.5	82.0	81.0	80.0	77.0	71.5	60.5	58.0	55.0
	16	76.5	97.6	52.7	83.5	82.5	81.5	80.5	77.5	72.0	61.5	58.5	55.0
	17	77.2	94.3	54.8	85.5	83.5	81.5	81.0	78.5	73.5	63.5	61.0	58.0
	18	76.4	95.0	50.7	84.0	83.0	81.5	80.5	77.5	72.0	61.0	58.5	54.0
	19	75.5	101.1	49.9	83.5	82.0	80.5	79.5	75.5	69.5	57.0	55.0	52.5
	20	75.7	96.4	51.1	85.5	82.5	80.5	79.5	75.0	69.0	57.5	55.5	53.5
	21	73.0	91.5	49.4	82.0	81.0	79.5	78.0	72.5	65.5	55.0	53.5	51.5
Night	22	73.7	94.3	49.5	83.5	82.0	79.5	78.5	72.0	65.0	56.0	54.0	51.5
	23	72.5	97.1	47.1	82.0	81.0	78.5	76.5	69.5	61.5	52.0	50.5	48.0

24-Hour Noise Level Measurement Summary

Project Name: Moreno Valley Logistics

Location: L2 - Located along Heacock Street north of Meyer Drive near existing residential homes.

JN: 9303

Analyst: A. Wolfe

Date: 3/9-3/10/2015

Energy Average Leq		*24-Hour*
Day	*Night*	*CNEL*
65.9	65.6	72.1

Hourly Leq dBA Readings (unadjusted)

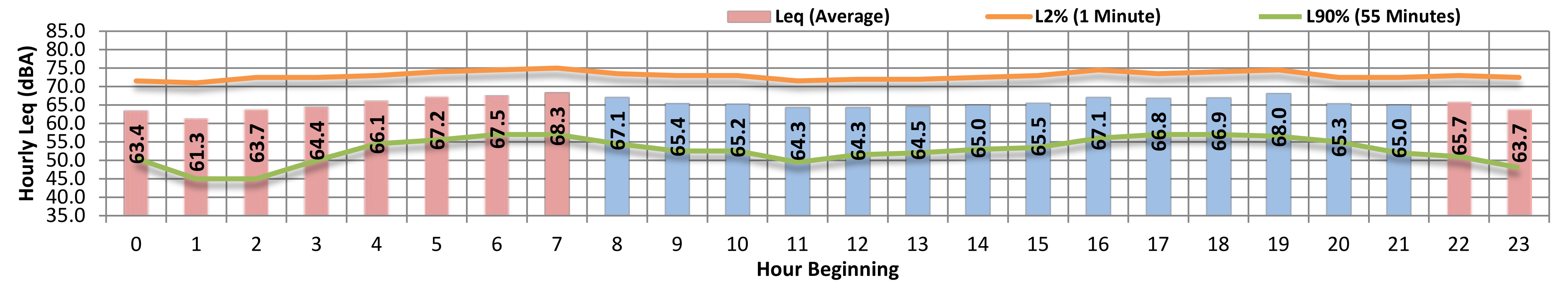

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	64.3	79.4	38.7	73.0	71.5	69.0	68.0	64.5	61.0	49.5	46.5	42.5
	Max	68.0	91.7	50.4	76.5	74.5	72.0	70.5	67.0	64.5	57.0	55.0	52.5
Energy Average		65.9	85.2	46.7	74.9	73.1	70.6	69.3	65.7	62.6	54.3	52.1	49.2
Night	Min	61.3	78.5	40.5	73.0	71.0	67.0	65.0	59.5	55.0	45.0	43.5	42.0
	Max	68.3	91.4	50.8	77.0	75.0	72.5	71.0	68.0	65.0	57.0	55.0	53.0
Energy Average		65.6	86.1	47.2	75.2	73.1	70.3	69.0	65.2	61.6	53.2	51.3	49.4

Hourly Summary

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Night	0	63.4	83.8	42.3	74.0	71.5	68.0	66.5	62.0	59.5	50.5	47.5	44.0
	1	61.3	78.5	40.5	73.0	71.0	67.0	65.0	59.5	55.0	45.0	44.0	42.5
	2	63.7	83.6	41.4	75.0	72.5	69.0	67.5	62.5	55.0	45.0	43.5	42.0
	3	64.4	83.7	45.4	74.0	72.5	70.0	68.5	64.0	59.0	50.0	48.5	47.0
	4	66.1	82.4	49.2	74.5	73.0	71.0	70.0	66.5	63.0	54.5	52.5	50.5
	5	67.2	86.7	50.0	76.0	74.0	71.5	70.5	67.0	64.0	55.5	54.0	52.0
	6	67.5	82.8	50.8	76.0	74.5	72.0	71.0	68.0	65.0	57.0	54.5	52.5
	7	68.3	89.7	48.8	77.0	75.0	72.5	71.0	68.0	65.0	57.0	55.0	53.0
Day	8	67.1	87.0	48.8	76.0	73.5	71.5	70.0	67.0	64.0	54.5	52.5	49.5
	9	65.4	80.9	44.4	74.5	73.0	70.5	69.5	65.5	62.0	52.5	50.5	47.0
	10	65.2	83.2	43.2	75.5	73.0	70.0	69.0	65.0	61.5	52.5	50.0	45.5
	11	64.3	81.8	39.6	73.0	71.5	69.0	68.0	64.5	61.0	49.5	46.5	42.5
	12	64.3	81.4	38.7	73.5	72.0	69.5	68.0	64.5	61.0	51.5	48.5	45.0
	13	64.5	79.4	40.8	73.0	72.0	70.0	68.5	65.0	61.5	52.0	49.0	45.5
	14	65.0	85.6	41.1	74.5	72.5	70.0	68.5	64.5	61.5	53.0	50.0	44.5
	15	65.5	82.1	45.3	74.5	73.0	70.5	69.0	65.5	62.5	53.5	51.0	48.5
	16	67.1	88.8	46.5	76.5	74.5	71.0	70.0	66.5	63.5	56.0	53.0	49.0
	17	66.8	83.9	47.7	75.5	73.5	71.0	70.0	67.0	64.0	57.0	55.0	52.0
	18	66.9	81.9	50.1	75.5	74.0	72.0	70.5	67.0	64.5	57.0	55.0	52.5
	19	68.0	91.7	50.4	76.5	74.5	71.5	70.5	66.5	63.5	56.5	55.0	52.5
	20	65.3	80.5	49.2	74.0	72.5	70.5	69.0	65.5	62.5	55.0	53.5	51.5
	21	65.0	80.4	47.0	74.5	72.5	70.0	69.0	65.0	61.5	52.0	50.5	48.5
Night	22	65.7	91.4	47.1	76.0	73.0	69.5	68.0	64.0	59.5	51.0	50.0	48.5
	23	63.7	82.8	43.7	74.5	72.5	69.0	67.5	62.0	56.0	48.0	47.0	45.5

URBAN

24-Hour Noise Level Measurement Summary

Project Name: Moreno Valley Logistics
Location: L3 - Located at the southeast corner of 6th Street and Midway Street near an existing baseball diamond and park.
JN: 9303
Analyst: A. Wolfe
Date: 3/9-3/10/2015

Energy Average Leq		*24-Hour*
Day	*Night*	*CNEL*
50.2	52.9	58.9

Hourly Leq dBA Readings (unadjusted)

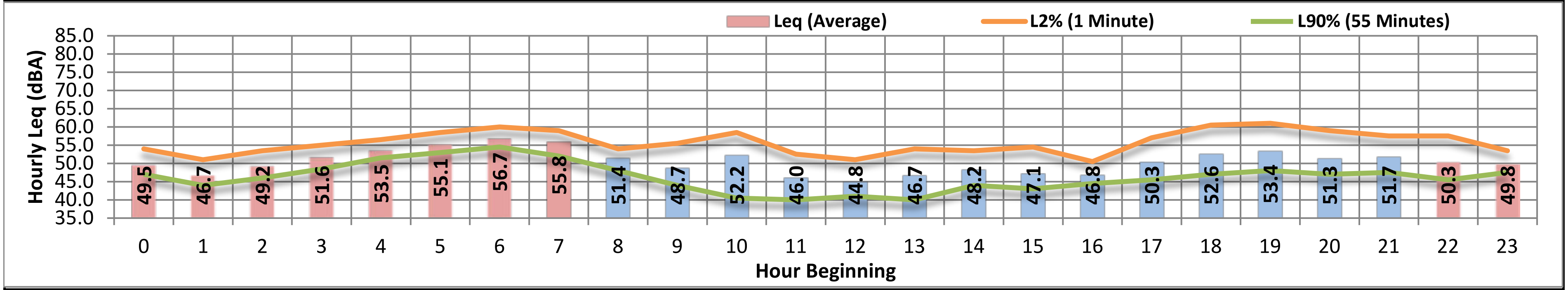

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	44.8	60.8	38.2	51.5	50.5	47.5	46.0	42.5	41.0	40.0	39.5	38.0
	Max	53.4	75.1	46.6	63.5	61.0	57.5	55.5	52.0	51.0	48.0	47.5	47.0
Energy Average		50.2	69.9	43.6	59.5	56.8	53.5	51.8	48.7	47.1	45.2	44.8	44.2
Night	Min	46.7	53.6	42.2	51.5	51.0	49.5	49.0	47.0	46.0	44.0	43.5	42.5
	Max	56.7	71.0	53.5	64.5	60.0	58.5	58.0	57.0	56.0	54.5	54.5	54.0
Energy Average		52.9	66.2	48.8	58.9	56.7	55.2	54.6	53.2	52.0	50.2	50.0	49.4
Hourly Summary													
Night	0	49.5	60.3	44.5	55.0	54.0	52.5	51.5	49.5	48.5	47.0	46.0	45.0
	1	46.7	53.6	42.2	51.5	51.0	49.5	49.0	47.0	46.0	44.0	43.5	42.5
	2	49.2	63.0	44.4	55.5	53.5	52.0	51.0	49.5	48.0	46.0	45.5	45.0
	3	51.6	59.2	46.7	56.0	55.0	54.0	54.0	52.0	51.0	48.5	48.0	47.5
	4	53.5	66.4	50.1	57.5	56.5	55.5	55.0	53.5	53.0	51.5	51.0	51.0
	5	55.1	64.5	51.1	59.0	58.5	57.0	56.5	55.5	54.5	53.0	53.0	52.0
	6	56.7	68.2	53.5	64.5	60.0	58.0	57.5	56.5	56.0	54.5	54.5	54.0
	7	55.8	71.0	50.7	60.0	59.0	58.5	58.0	57.0	54.5	52.0	51.5	51.0
Day	8	51.4	66.7	46.6	56.0	54.0	53.0	53.0	52.0	51.0	48.0	47.5	47.0
	9	48.7	72.3	42.9	59.5	55.5	50.5	49.0	46.0	45.0	44.0	44.0	43.5
	10	52.2	75.1	38.3	61.0	58.5	53.5	51.0	46.0	43.5	40.5	40.0	39.5
	11	46.0	69.0	38.2	57.0	52.5	47.5	46.0	42.5	41.0	40.0	39.5	38.0
	12	44.8	60.8	39.9	54.5	51.0	48.0	47.0	44.0	42.5	41.0	40.5	40.0
	13	46.7	67.8	39.9	56.0	54.0	52.0	50.5	45.5	43.5	40.0	40.0	40.0
	14	48.2	70.0	42.8	59.0	53.5	50.0	48.5	46.5	45.0	44.0	43.5	43.0
	15	47.1	67.7	42.1	57.0	54.5	49.5	48.0	45.5	44.5	43.0	43.0	42.5
	16	46.8	62.0	43.0	51.5	50.5	49.0	48.5	47.0	46.0	44.5	44.0	43.5
	17	50.3	69.7	43.7	59.5	57.0	53.0	51.5	49.0	47.5	45.5	45.5	44.5
	18	52.6	68.9	45.6	62.5	60.5	57.5	55.5	51.5	49.0	47.0	46.5	46.0
	19	53.4	73.2	45.9	63.5	61.0	57.0	54.5	51.0	49.5	48.0	47.5	46.5
	20	51.3	67.4	45.0	60.5	59.0	56.5	54.5	50.0	48.5	47.0	46.5	46.0
	21	51.7	67.1	45.9	61.0	57.5	55.0	54.0	51.5	49.5	47.5	47.0	46.5
Night	22	50.3	69.2	43.9	59.9	57.5	54.3	52.4	48.8	47.2	45.5	45.1	44.4
	23	49.8	64.5	46.3	55.0	53.5	52.0	51.5	50.0	49.0	47.5	47.5	47.0

URBAN

24-Hour Noise Level Measurement Summary

				Energy Average Leq		24-Hour
Project Name:	Moreno Valley Logistics	*JN:*	9303	*Day*	*Night*	*CNEL*
Location:	L4 - Located along Heacock Street north of Bentian Avenue adjacent to an existing residential community.	*Analyst:*	A. Wolfe	68.8	68.1	74.7
		Date:	3/9-3/10/2015			

Hourly Leq dBA Readings (unadjusted)

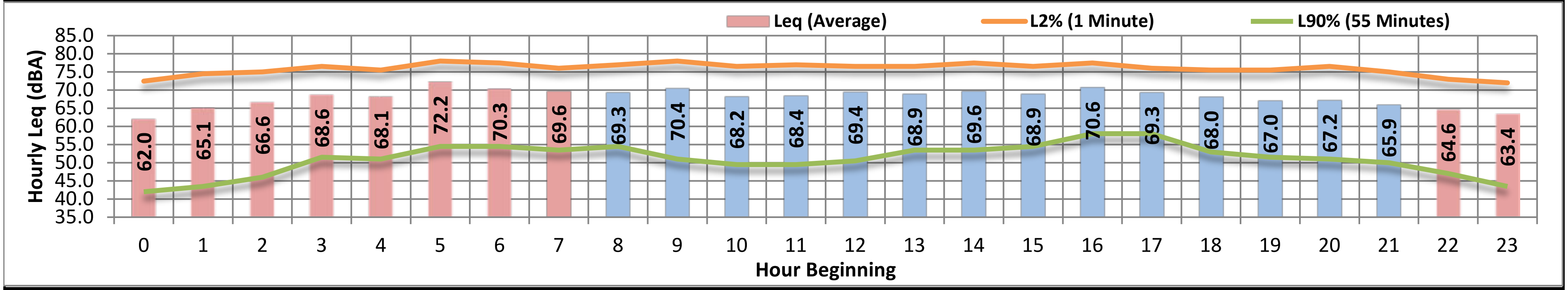

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	65.9	83.0	39.6	77.0	75.0	71.5	70.0	65.5	59.0	49.5	46.5	41.5
	Max	70.6	95.1	49.5	80.0	78.0	74.5	73.0	70.0	67.5	58.0	55.0	52.5
Energy Average		68.8	90.0	46.3	78.4	76.6	73.7	72.2	68.5	64.7	53.7	51.3	48.5
Night	Min	62.0	82.1	38.0	75.0	72.0	68.5	66.0	54.0	47.0	42.0	41.0	40.0
	Max	72.2	101.1	50.2	80.5	78.0	75.0	74.0	70.5	67.0	54.5	53.5	51.0
Energy Average		68.1	93.7	46.4	77.7	75.5	72.6	71.2	66.9	62.1	50.8	49.4	47.5
Hourly Summary													
Night	0	62.0	82.3	38.0	75.0	72.5	68.5	66.0	54.0	47.0	42.0	41.0	40.0
	1	65.1	91.3	40.0	77.0	74.5	70.5	68.5	59.0	50.0	43.5	42.5	41.0
	2	66.6	90.4	43.3	77.0	75.0	72.5	71.0	64.0	56.5	46.0	44.5	44.0
	3	68.6	94.5	47.0	78.5	76.5	73.0	71.5	67.5	61.5	51.5	50.0	48.0
	4	68.1	92.3	48.2	78.0	75.5	73.0	72.0	68.0	61.5	51.0	50.5	49.0
	5	72.2	101.1	50.0	80.5	78.0	74.5	73.0	69.5	64.5	54.5	53.0	51.0
	6	70.3	91.6	50.2	79.0	77.5	75.0	74.0	70.5	67.0	54.5	53.5	51.0
	7	69.6	91.7	46.5	78.0	76.0	74.5	73.0	70.0	66.0	53.5	51.0	48.5
Day	8	69.3	90.9	47.5	78.5	77.0	74.0	72.5	69.5	65.0	54.5	52.5	49.0
	9	70.4	95.1	43.9	80.0	78.0	74.5	73.0	68.5	63.5	51.0	49.5	47.0
	10	68.2	85.5	39.6	79.0	76.5	73.5	72.0	68.0	63.5	49.5	47.0	41.5
	11	68.4	84.6	39.6	78.5	77.0	74.0	72.5	68.5	64.0	49.5	46.5	43.0
	12	69.4	93.5	41.1	78.5	76.5	74.0	72.5	68.5	64.5	50.5	48.0	44.5
	13	68.9	86.9	44.6	78.0	76.5	74.0	72.5	69.0	65.5	53.5	51.0	47.0
	14	69.6	89.5	46.6	79.0	77.5	74.5	73.0	69.0	65.5	53.5	52.0	49.5
	15	68.9	90.4	46.4	78.0	76.5	74.0	72.5	69.0	66.0	54.5	51.5	49.0
	16	70.6	93.3	47.6	79.5	77.5	74.5	73.0	70.0	67.5	58.0	55.0	51.0
	17	69.3	86.7	49.5	77.5	76.0	74.0	73.0	69.5	67.0	58.0	55.0	52.5
	18	68.0	88.9	48.2	77.5	75.5	72.5	71.5	68.0	64.0	53.0	51.5	49.5
	19	67.0	83.0	47.6	77.0	75.5	72.5	71.0	67.0	63.0	51.5	50.0	48.5
	20	67.2	86.2	47.0	78.5	76.5	72.5	70.5	66.5	61.0	51.0	50.0	48.0
	21	65.9	83.4	46.2	77.0	75.0	71.5	70.0	65.5	59.0	50.0	48.5	47.0
Night	22	64.6	82.1	43.5	75.5	73.0	70.0	68.5	63.5	59.5	47.0	46.0	45.0
	23	63.4	87.5	41.0	75.0	72.0	69.0	67.5	58.5	49.5	43.5	42.5	42.0

24-Hour Noise Level Measurement Summary

Project Name: Moreno Valley Logistics

Location: L5 - Located along Iris Avenue west of Indian Street and the Rainbow Ridge Elementary School. An existing logisitics warehouse is located south of Iris Avenue.

JN: 9303

Analyst: A. Wolfe

Date: 3/9-3/10/2015

Energy Average Leq		*24-Hour*
Day	*Night*	*CNEL*
66.2	67.0	73.1

Hourly Leq dBA Readings (unadjusted)

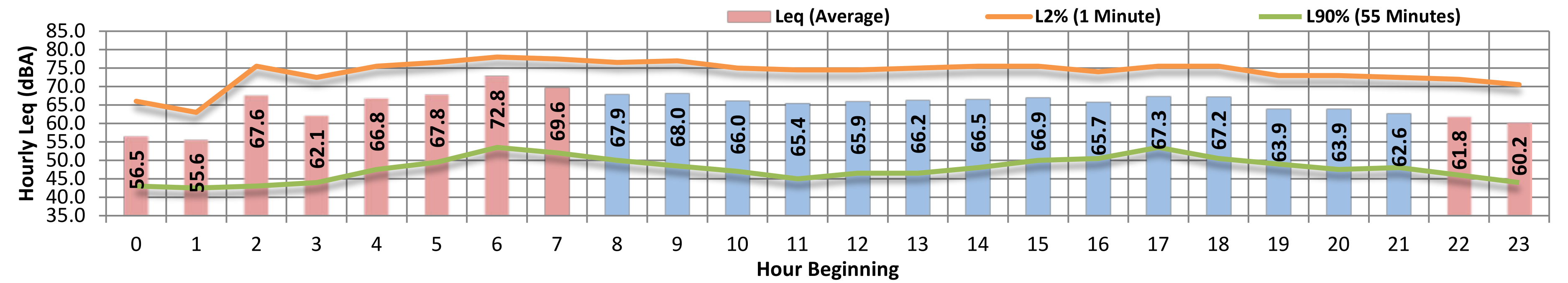

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	62.6	80.4	39.7	74.0	72.5	69.5	67.0	60.0	54.0	45.0	43.5	41.5
	Max	68.0	90.5	46.5	79.0	77.0	75.0	73.5	66.0	61.0	53.5	51.0	48.0
Energy Average		66.2	86.7	44.0	76.5	75.0	72.7	71.1	64.2	57.9	49.2	47.5	45.5
Night	Min	55.6	77.5	40.6	68.0	63.0	57.5	52.5	47.0	44.5	42.5	42.0	41.5
	Max	72.8	100.7	49.8	80.0	78.0	76.0	74.0	68.0	60.5	53.5	52.0	50.5
Energy Average		67.0	93.5	45.1	76.9	74.6	71.6	69.6	61.9	54.8	48.3	47.3	46.1

Hourly Summary

Night	0	56.5	77.5	40.6	69.0	66.0	62.0	59.0	49.5	46.0	43.0	42.5	42.0
	1	55.6	79.7	41.1	68.0	63.0	57.5	52.5	47.0	44.5	42.5	42.0	41.5
	2	67.6	95.5	40.9	80.0	75.5	69.0	64.5	51.5	47.0	43.0	42.5	41.5
	3	62.1	86.3	41.9	75.0	72.5	67.5	64.0	52.0	47.0	44.0	43.5	42.5
	4	66.8	95.2	43.9	77.0	75.5	73.0	71.0	60.5	52.0	47.5	46.5	45.0
	5	67.8	90.6	46.1	79.0	76.5	74.0	72.5	63.5	55.5	49.5	48.5	47.0
	6	72.8	100.7	49.2	79.5	78.0	76.0	74.0	66.5	60.0	53.5	52.0	50.5
	7	69.6	91.7	49.8	79.0	77.5	75.5	74.0	68.0	60.5	52.0	51.5	50.5
Day	8	67.9	88.8	45.3	77.5	76.5	75.0	73.5	66.0	57.0	50.0	49.0	47.0
	9	68.0	87.1	45.9	79.0	77.0	74.5	72.5	65.5	57.5	48.5	47.5	46.5
	10	66.0	86.8	41.3	76.0	75.0	72.5	71.0	63.5	56.0	47.0	45.5	44.0
	11	65.4	82.6	39.7	76.0	74.5	72.5	71.0	63.5	56.5	45.0	43.5	41.5
	12	65.9	90.5	41.5	76.0	74.5	71.5	70.0	63.5	55.5	46.5	45.0	43.5
	13	66.2	84.0	41.9	76.0	75.0	73.0	71.5	64.5	57.0	46.5	45.5	43.5
	14	66.5	85.4	42.8	77.0	75.5	73.0	71.5	64.5	58.0	48.0	46.5	44.0
	15	66.9	84.0	44.1	77.0	75.5	73.5	72.0	65.5	59.5	50.0	48.0	46.0
	16	65.7	83.8	44.6	75.5	74.0	72.0	70.5	64.5	59.5	50.5	49.0	47.0
	17	67.3	89.3	46.5	77.0	75.5	73.5	72.0	65.0	61.0	53.5	51.0	48.0
	18	67.2	89.5	45.1	77.5	75.5	73.0	71.5	65.0	60.0	50.5	48.5	46.5
	19	63.9	85.1	44.5	74.5	73.0	70.5	68.5	62.0	57.0	49.0	47.5	45.5
	20	63.9	84.8	43.8	75.0	73.0	71.0	68.5	61.5	55.5	47.5	46.5	45.0
	21	62.6	80.4	43.9	74.0	72.5	69.5	67.0	60.0	54.0	48.0	47.0	45.0
Night	22	61.8	85.3	42.1	74.5	72.0	67.5	64.5	58.0	51.5	46.0	45.0	43.5
	23	60.2	81.3	41.5	73.0	70.5	66.5	63.5	54.5	48.5	44.0	43.5	42.5

URBAN

24-Hour Noise Level Measurement Summary

Project Name: Moreno Valley Logistics
Location: L6 - Located north of the Project site along Indian Street near an existing residential home.
JN: 9303
Analyst: A. Wolfe
Date: 3/9-3/10/2015

Energy Average Leq		*24-Hour*
Day	*Night*	*CNEL*
61.5	62.5	68.8

Hourly Leq dBA Readings (unadjusted)

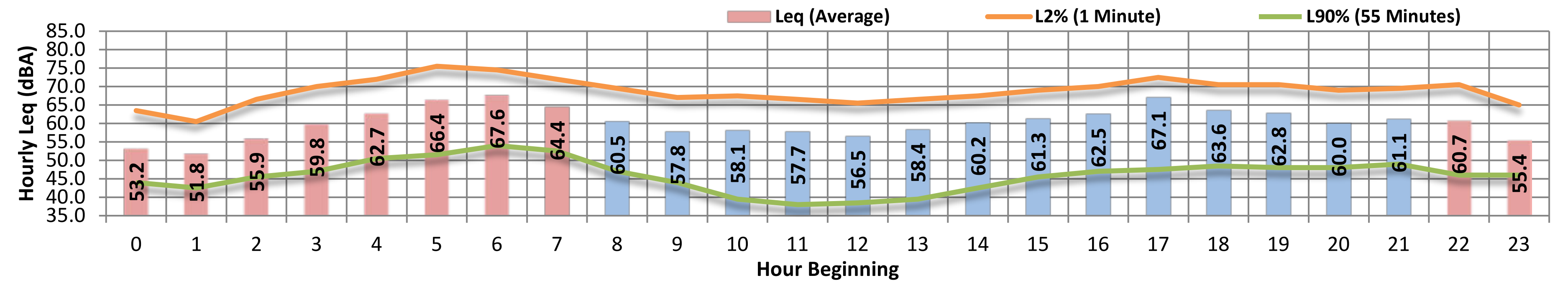

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	56.5	73.2	34.9	67.0	65.5	63.0	62.0	54.5	45.5	38.0	37.0	35.5
	Max	67.1	93.9	46.2	75.5	72.5	70.0	68.5	64.0	57.0	49.0	48.5	47.0
Energy Average		61.5	86.1	42.3	71.0	69.1	66.8	65.5	59.7	53.0	45.9	45.0	43.6
Night	Min	51.8	73.8	40.6	64.0	60.5	55.0	52.0	47.0	45.5	42.5	42.0	41.0
	Max	67.6	89.2	51.8	78.0	75.5	72.5	71.5	68.0	62.5	54.0	53.5	52.5
Energy Average		62.5	83.2	47.4	72.8	71.1	68.3	66.6	61.2	55.3	49.5	48.9	48.2
Hourly Summary													
Night	0	53.2	73.8	42.4	66.0	63.5	57.0	54.0	48.5	46.5	44.0	43.5	43.0
	1	51.8	74.5	40.6	64.0	60.5	55.0	52.0	47.0	45.5	42.5	42.0	41.0
	2	55.9	76.8	43.1	69.5	66.5	60.0	56.0	50.0	47.5	45.5	45.0	44.5
	3	59.8	80.5	45.3	71.5	70.0	66.5	64.5	55.0	51.5	47.0	46.5	46.0
	4	62.7	86.0	47.8	74.0	72.0	69.0	66.5	58.0	53.5	50.5	49.5	49.0
	5	66.4	89.2	49.9	78.0	75.5	72.0	70.0	63.0	56.5	51.5	51.0	50.5
	6	67.6	85.2	51.8	75.5	74.5	72.5	71.5	68.0	62.5	54.0	53.5	52.5
	7	64.4	82.4	50.2	73.0	72.0	70.5	69.5	65.0	57.0	52.5	52.0	51.0
Day	8	60.5	80.7	43.7	71.0	69.5	67.0	65.5	57.5	51.5	47.0	46.0	45.0
	9	57.8	78.4	40.5	68.0	67.0	65.0	63.0	54.5	47.5	44.0	43.5	42.5
	10	58.1	78.2	35.3	69.0	67.5	64.5	62.5	55.5	47.5	39.5	38.0	36.0
	11	57.7	82.3	34.9	68.0	66.5	64.0	62.5	55.0	45.5	38.0	37.0	35.5
	12	56.5	73.2	35.5	67.0	65.5	63.0	62.0	55.0	46.0	38.5	37.5	36.0
	13	58.4	74.0	35.0	68.0	66.5	64.5	63.5	59.0	51.5	39.5	37.5	35.5
	14	60.2	78.9	36.4	70.0	67.5	65.5	64.5	60.0	54.0	42.5	40.5	38.0
	15	61.3	81.8	42.3	71.0	69.0	67.0	65.5	60.5	53.5	45.5	44.5	43.0
	16	62.5	80.7	43.1	72.0	70.0	68.5	67.0	63.0	56.0	47.0	45.5	44.0
	17	67.1	93.9	43.7	75.5	72.5	70.0	68.5	64.0	57.0	47.5	46.5	45.0
	18	63.6	90.7	43.9	72.5	70.5	68.5	67.5	62.0	55.0	48.5	47.5	46.0
	19	62.8	90.7	44.7	72.0	70.5	68.0	66.5	59.5	53.5	48.0	47.0	46.0
	20	60.0	75.5	44.3	70.5	69.0	66.5	65.5	58.0	52.5	48.0	47.5	46.5
	21	61.1	76.4	46.2	71.0	69.5	67.5	66.5	59.0	54.0	49.0	48.5	47.0
Night	22	60.7	79.7	43.8	71.0	70.5	68.5	66.0	57.5	50.0	46.0	45.0	44.5
	23	55.4	77.1	43.5	67.5	65.0	60.5	57.0	51.0	48.5	46.0	45.5	45.0

24-Hour Noise Level Measurement Summary

				Energy Average Leq		24-Hour
Project Name:	Moreno Valley Logistics	*JN:*	9303	*Day*	*Night*	*CNEL*
Location:	L7 - Located along Indian Street south of Krameria Avenue near existing residential homes and northeast of the Project site.	*Analyst:*	A. Wolfe	64.1	60.6	67.2
		Date:	3/9-3/10/2015			

Hourly Leq dBA Readings (unadjusted)

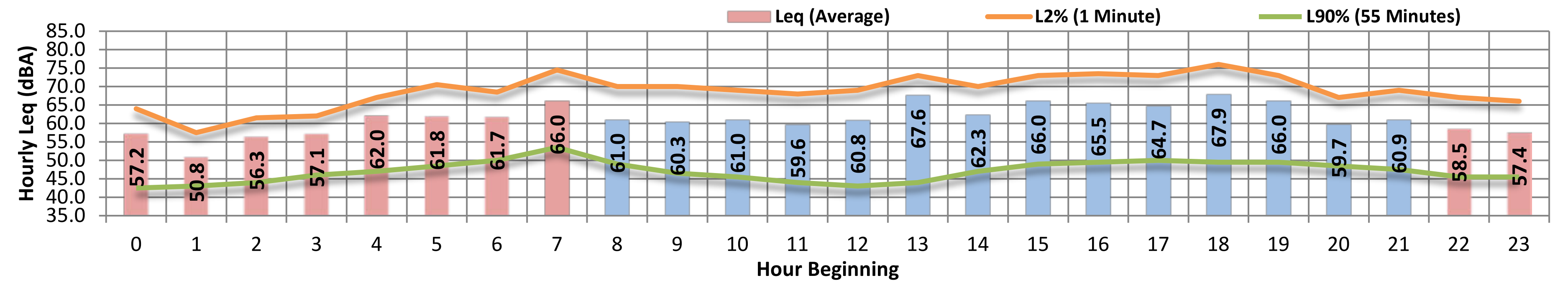

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	59.6	82.1	37.6	70.0	67.0	64.0	62.0	54.5	50.5	43.0	41.0	39.0
	Max	67.9	97.7	47.2	81.0	76.0	70.0	67.0	61.0	56.5	50.0	48.5	47.5
Energy Average		64.1	90.4	44.0	75.4	71.7	66.7	64.6	58.8	54.2	47.9	46.7	45.0
Night	Min	50.8	75.3	40.6	61.5	57.5	53.5	51.5	46.5	45.0	42.5	42.0	41.5
	Max	66.0	92.0	49.9	77.0	74.5	69.5	67.5	63.5	60.0	53.5	52.0	50.5
Energy Average		60.6	86.2	45.3	71.3	68.2	63.4	61.2	56.3	52.8	47.9	47.0	46.1
Hourly Summary													
Night	0	57.2	84.1	40.6	67.0	64.0	59.0	56.0	49.5	46.5	42.5	42.0	41.5
	1	50.8	75.3	41.5	61.5	57.5	53.5	51.5	46.5	45.0	43.0	42.5	42.0
	2	56.3	83.0	42.7	66.5	61.5	56.5	54.5	48.5	46.5	44.0	44.0	43.5
	3	57.1	85.7	44.4	65.0	62.0	57.5	55.5	51.5	49.5	46.0	45.5	45.0
	4	62.0	92.0	45.3	69.5	67.0	62.5	60.0	54.0	50.0	47.0	46.5	46.0
	5	61.8	85.2	45.3	74.0	70.5	65.0	62.0	56.0	52.5	48.5	47.5	46.0
	6	61.7	86.9	47.7	73.0	68.5	64.5	63.0	57.0	54.0	50.0	49.5	49.0
	7	66.0	87.5	49.9	77.0	74.5	69.5	67.5	63.5	60.0	53.5	52.0	50.5
Day	8	61.0	83.0	44.8	72.5	70.0	65.5	63.5	57.5	53.5	49.0	48.5	46.0
	9	60.3	82.8	43.6	73.0	70.0	64.5	62.0	54.5	50.5	46.5	45.5	44.5
	10	61.0	87.1	39.3	72.5	69.0	65.0	63.0	57.0	52.0	45.5	44.0	41.0
	11	59.6	82.4	39.4	70.0	68.0	64.5	63.0	58.0	52.5	44.0	42.5	40.5
	12	60.8	84.5	37.6	71.5	69.0	65.0	63.5	57.5	52.0	43.0	41.0	39.0
	13	67.6	97.7	40.5	77.0	73.0	66.5	64.0	58.0	52.5	44.0	43.0	41.5
	14	62.3	86.0	40.6	74.0	70.0	65.5	63.0	58.0	53.5	47.0	46.0	44.0
	15	66.0	93.1	44.0	76.5	73.0	68.0	65.5	60.0	55.5	49.0	47.5	45.5
	16	65.5	89.4	45.8	77.0	73.5	69.0	67.0	60.5	56.0	49.5	48.5	46.5
	17	64.7	86.5	45.4	76.5	73.0	68.5	66.5	61.0	56.5	50.0	48.5	46.5
	18	67.9	91.7	45.7	81.0	76.0	70.0	67.0	61.0	56.5	49.5	48.0	46.5
	19	66.0	93.8	47.2	76.0	73.0	67.5	65.5	60.5	56.0	49.5	48.5	47.5
	20	59.7	82.1	46.1	70.5	67.0	64.0	62.5	57.0	53.5	48.5	48.0	47.0
	21	60.9	83.2	44.1	72.5	69.0	65.0	63.0	56.5	52.0	47.5	46.5	45.0
Night	22	58.5	83.6	43.5	69.5	67.0	62.5	60.5	55.0	50.5	45.5	45.0	44.0
	23	57.4	80.9	43.2	69.0	66.0	61.5	59.0	53.0	48.5	45.5	45.0	44.5

URBAN

24-Hour Noise Level Measurement Summary

Project Name: Moreno Valley Logistics
Location: L8 - Located east of the Project site along Indian Street near existing residential homes.
JN: 9303
Analyst: A. Wolfe
Date: 3/9-3/10/2015

Energy Average Leq		*24-Hour*
Day	*Night*	*CNEL*
60.8	60.2	66.4

Hourly Leq dBA Readings (unadjusted)

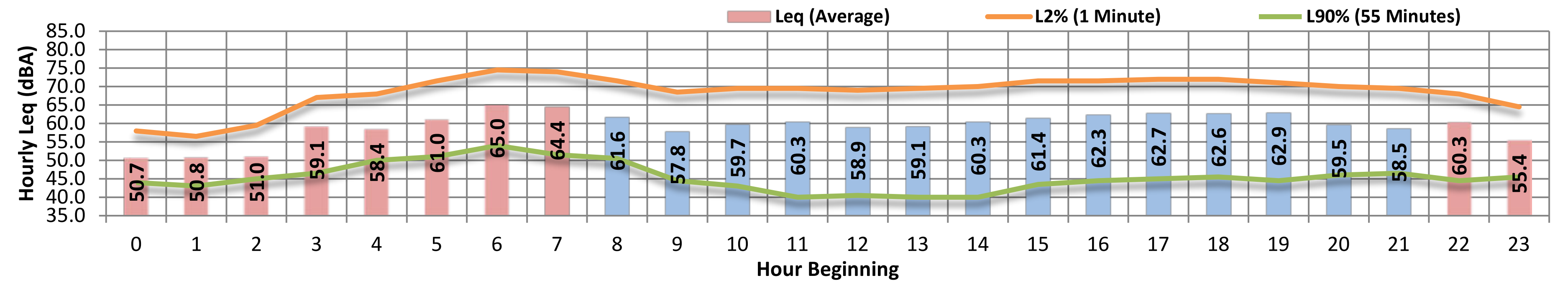

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	57.8	77.4	37.6	70.5	68.5	64.0	60.0	50.0	45.0	40.0	39.0	39.0
	Max	62.9	92.0	47.7	73.5	72.0	69.5	68.0	60.5	53.0	50.5	49.5	48.5
Energy Average		60.8	84.9	42.6	72.3	70.5	67.3	65.0	55.8	49.1	44.9	44.1	43.3
Night	Min	50.7	72.3	41.6	61.5	56.5	50.5	48.0	45.5	44.5	43.0	42.5	42.0
	Max	65.0	86.9	50.6	76.0	74.5	71.5	69.5	61.5	57.5	54.0	53.5	52.0
Energy Average		60.2	82.7	46.9	71.9	69.5	65.8	63.4	55.9	52.0	49.0	48.6	47.7
Hourly Summary													
Night	0	50.7	72.3	42.9	62.5	58.0	51.5	50.0	47.5	46.0	44.0	44.0	43.5
	1	50.8	76.2	41.6	62.5	56.5	50.5	48.0	45.5	44.5	43.0	42.5	42.0
	2	51.0	73.7	43.3	61.5	59.5	53.0	51.5	49.0	47.5	45.0	44.5	44.0
	3	59.1	86.6	44.6	71.0	67.0	59.5	55.0	50.5	49.0	46.5	46.0	45.0
	4	58.4	79.1	48.0	71.5	68.0	62.0	57.5	53.0	51.5	50.0	49.5	48.5
	5	61.0	79.9	49.4	74.0	71.5	67.5	63.0	55.0	53.0	51.0	50.5	50.0
	6	65.0	86.9	50.6	75.5	74.5	71.5	69.5	61.5	57.5	54.0	53.5	52.0
	7	64.4	82.2	50.0	76.0	74.0	71.0	69.0	61.5	55.5	51.5	51.0	50.5
Day	8	61.6	84.7	47.7	73.5	71.5	67.5	65.0	56.0	53.0	50.5	49.5	48.5
	9	57.8	78.8	42.9	71.0	68.5	64.0	60.0	50.0	47.0	44.5	44.5	43.5
	10	59.7	80.2	40.5	72.0	69.5	66.0	63.5	53.5	47.5	43.0	42.0	41.5
	11	60.3	86.2	38.5	71.0	69.5	66.5	63.5	52.0	45.0	40.0	39.0	39.0
	12	58.9	80.8	37.6	70.5	69.0	65.5	63.0	52.5	47.0	40.5	39.5	39.0
	13	59.1	77.4	37.8	71.0	69.5	66.5	64.0	53.5	46.0	40.0	39.5	39.0
	14	60.3	85.8	37.6	72.0	70.0	67.0	65.0	55.0	45.5	40.0	39.5	39.0
	15	61.4	81.8	41.1	73.0	71.5	68.5	66.5	56.5	48.0	43.5	43.0	42.0
	16	62.3	86.2	41.8	73.0	71.5	69.0	67.0	59.0	49.5	44.5	44.0	43.0
	17	62.7	86.6	42.8	73.5	72.0	69.5	67.5	59.0	50.5	45.0	44.0	43.0
	18	62.6	79.1	43.3	73.5	72.0	69.5	68.0	60.5	52.5	45.5	44.5	43.5
	19	62.9	92.0	42.4	73.0	71.0	67.5	64.5	54.5	48.0	44.5	44.0	43.0
	20	59.5	79.2	44.2	72.0	70.0	66.5	63.1	53.0	49.5	46.0	45.5	45.0
	21	58.5	77.7	44.1	71.5	69.5	65.0	61.0	51.5	49.0	46.5	45.5	45.0
Night	22	60.3	86.3	42.3	71.5	68.0	63.5	62.0	53.5	47.5	44.5	44.0	43.0
	23	55.4	77.7	44.5	69.0	64.5	54.0	52.0	48.5	47.0	45.5	45.5	45.0

URBAN

24-Hour Noise Level Measurement Summary

Project Name: Moreno Valley Logistics

Location: L9 - Located east of the Project site on Indian Street, south of Superior Avenue near existing residential homes.

JN: 9303

Analyst: A. Wolfe

Date: 3/9-3/10/2015

Energy Average Leq		24-Hour
Day	*Night*	*CNEL*
53.1	51.7	58.2

Hourly Leq dBA Readings (unadjusted)

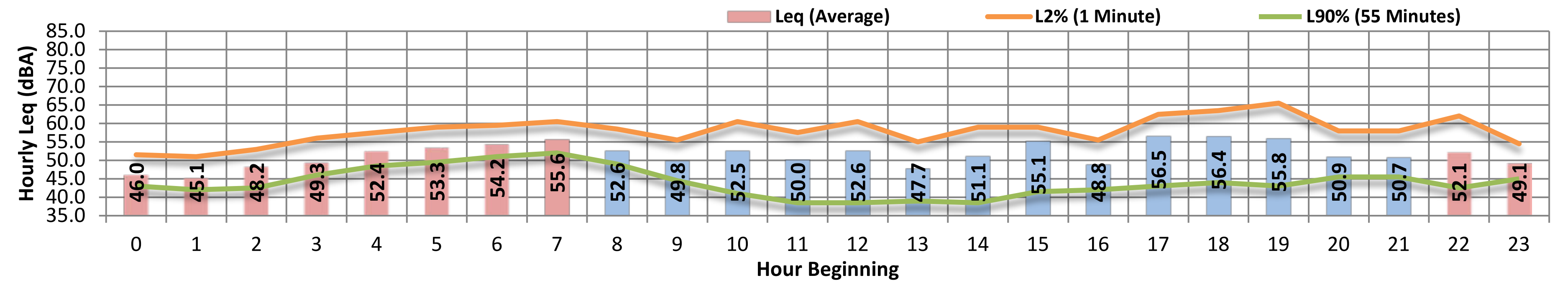

Time Period	*Hour*	*Leq*	*Lmax*	*Lmin*	*L1%*	*L2%*	*L5%*	*L8%*	*L25%*	*L50%*	*L90%*	*L95%*	*L99%*
Day	Min	47.7	65.9	36.9	58.0	55.0	50.0	48.0	44.0	41.0	38.5	38.5	37.5
	Max	56.5	84.2	47.6	69.5	65.5	59.5	57.5	53.0	51.0	49.0	48.5	48.0
Energy Average		53.1	77.8	41.7	63.9	60.3	55.7	54.1	49.6	46.5	43.5	42.9	42.2
Night	Min	45.1	58.6	40.8	53.0	51.0	47.5	46.5	44.5	43.5	42.0	42.0	41.5
	Max	55.6	75.3	49.5	62.5	62.0	60.0	57.5	55.5	54.0	52.0	51.0	50.0
Energy Average		51.7	69.8	45.8	59.5	57.9	55.7	54.2	51.1	49.5	47.7	47.1	46.4
Hourly Summary													
Night	0	46.0	58.6	41.5	53.0	51.5	48.5	47.5	46.0	45.0	43.0	43.0	42.0
	1	45.1	59.2	40.9	53.5	51.0	47.5	46.5	44.5	43.5	42.0	42.0	41.5
	2	48.2	66.2	40.9	55.0	53.0	51.5	50.5	48.5	46.5	42.5	42.0	41.5
	3	49.3	63.5	43.7	57.5	56.0	53.0	51.5	49.0	47.5	46.0	45.0	44.0
	4	52.4	70.7	46.9	60.0	57.5	55.0	54.0	52.0	50.5	48.5	48.0	47.5
	5	53.3	75.3	48.0	61.0	59.0	56.5	55.0	52.5	51.0	49.5	49.0	48.5
	6	54.2	64.3	49.5	61.0	59.5	58.0	57.0	54.0	52.5	51.0	50.5	50.0
	7	55.6	72.7	49.1	62.5	60.5	58.5	57.5	55.5	54.0	52.0	51.0	50.0
Day	8	52.6	65.9	47.6	60.0	58.5	56.0	55.0	52.5	51.0	49.0	48.5	48.0
	9	49.8	71.0	42.9	58.0	55.5	53.0	51.5	49.0	47.0	44.5	44.0	43.5
	10	52.5	77.0	39.8	64.0	60.5	55.5	53.0	46.5	44.0	41.0	40.5	40.0
	11	50.0	77.0	37.0	61.0	57.5	50.0	48.0	44.0	41.0	38.5	38.5	38.0
	12	52.6	76.8	38.1	65.5	60.5	55.0	54.0	44.0	41.0	38.5	38.5	38.5
	13	47.7	69.5	36.9	59.0	55.0	51.5	49.5	46.0	42.0	39.0	38.5	38.5
	14	51.1	72.0	36.9	60.5	59.0	57.0	55.5	49.5	44.5	38.5	38.5	37.5
	15	55.1	83.9	39.9	65.5	59.0	52.5	50.5	46.5	44.0	41.5	41.0	40.5
	16	48.8	68.1	39.9	58.0	55.5	53.0	51.5	47.5	45.0	42.0	41.5	41.0
	17	56.5	78.4	40.8	66.5	62.5	58.5	57.5	53.0	48.0	43.0	42.5	41.5
	18	56.4	84.2	41.6	66.5	63.5	59.5	57.5	53.0	48.5	44.0	43.0	42.0
	19	55.8	77.3	40.9	69.5	65.5	57.5	55.0	49.0	45.0	43.0	42.5	41.5
	20	50.9	66.5	43.8	59.5	58.0	55.5	54.0	50.5	48.0	45.5	45.0	44.0
	21	50.7	67.8	42.1	59.5	58.0	55.5	54.0	50.0	48.0	45.5	44.0	42.5
Night	22	52.1	65.9	40.8	62.5	62.0	60.0	57.5	49.0	45.0	42.5	42.0	41.5
	23	49.1	72.0	43.7	56.5	54.5	52.0	50.5	47.5	46.5	45.0	44.5	44.0

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APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Graham St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 6,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 600 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.53	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-18.89	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-15.60	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.2	55.7	51.3	52.9	59.7	59.8
Medium Trucks:	54.8	53.4	43.1	45.8	54.1	54.1
Heavy Trucks:	62.9	61.1	58.3	53.8	62.1	62.6
Vehicle Noise:	64.7	62.7	59.2	56.7	64.5	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	92	199	428
CNEL:	45	97	209	451

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Graham St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 7,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 730 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.68	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-18.04	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-14.75	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.1	56.6	52.2	53.7	60.5	60.7
Medium Trucks:	55.7	54.3	44.0	46.6	54.9	55.0
Heavy Trucks:	63.8	62.0	59.2	54.6	63.0	63.4
Vehicle Noise:	65.5	63.6	60.1	57.6	65.3	65.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	105	227	488
CNEL:	51	111	239	514

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 14,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,460 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.67	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-15.03	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.74	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.2	59.7	55.2	56.8	63.6	63.8
Medium Trucks:	58.8	57.4	47.1	49.7	58.0	58.1
Heavy Trucks:	66.9	65.0	62.3	57.7	66.0	66.5
Vehicle Noise:	68.6	66.7	63.2	60.7	68.4	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	79	169	365	785
CNEL:	83	178	384	827

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 24,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,480 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.64	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-12.73	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.44	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.5	62.0	57.5	59.1	65.9	66.1
Medium Trucks:	61.1	59.7	49.4	52.0	60.3	60.4
Heavy Trucks:	69.2	67.4	64.6	60.0	68.4	68.8
Vehicle Noise:	70.9	69.0	65.5	63.0	70.7	71.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	112	241	519	1,118
CNEL:	118	254	547	1,178

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o John F. Kennedy Dr.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 21,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,130 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.52	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.84	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.56	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	62.6	58.2	59.7	66.5	66.7
Medium Trucks:	61.5	60.1	49.8	52.4	60.7	60.8
Heavy Trucks:	69.2	67.4	64.6	60.0	68.4	68.8
Vehicle Noise:	71.1	69.2	65.6	63.3	71.0	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	116	251	540	1,164
CNEL:	122	264	568	1,224

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o Gentian Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 17,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,710 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.44	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.80	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.51	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.0	61.5	57.1	58.6	65.4	65.6
Medium Trucks:	60.4	59.0	48.7	51.3	59.6	59.7
Heavy Trucks:	68.1	66.3	63.5	58.9	67.3	67.7
Vehicle Noise:	70.0	68.1	64.5	62.2	69.9	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	98	212	456	983
CNEL:	103	223	480	1,034

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o Iris Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 9,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 910 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-3.18	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-17.54	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-14.25	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.2	58.8	54.3	55.9	62.7	62.9
Medium Trucks:	57.7	56.3	46.0	48.6	56.9	57.0
Heavy Trucks:	65.4	63.5	60.8	56.2	64.5	65.0
Vehicle Noise:	67.3	65.3	61.8	59.4	67.1	67.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	65	139	300	646
CNEL:	68	146	315	679

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o Krameria Av. (North)
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,500 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 850 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-3.47	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-17.83	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-14.55	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.0	58.5	54.0	55.6	62.4	62.6
Medium Trucks:	57.4	56.0	45.7	48.3	56.6	56.7
Heavy Trucks:	65.1	63.2	60.5	55.9	64.2	64.7
Vehicle Noise:	67.0	65.1	61.5	59.1	66.9	67.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	62	133	286	617
CNEL:	65	140	301	649

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: n/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 890 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.30	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-16.67	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-13.38	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	56.1	51.7	53.2	60.0	60.2
Medium Trucks:	55.4	54.0	43.7	46.3	54.6	54.7
Heavy Trucks:	64.0	62.2	59.4	54.8	63.2	63.6
Vehicle Noise:	65.5	63.6	60.2	57.5	65.3	65.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	48	104	225	484
CNEL:	51	110	237	510

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 7,400 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 740 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.11	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-17.47	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-14.18	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.8	55.3	50.9	52.4	59.2	59.4
Medium Trucks:	54.6	53.2	42.9	45.5	53.8	53.9
Heavy Trucks:	63.2	61.4	58.6	54.0	62.4	62.8
Vehicle Noise:	64.7	62.8	59.4	56.7	64.5	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	92	199	428
CNEL:	45	97	209	451

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o San Michele Rd.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 3,400 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 340 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-7.45	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-21.81	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-18.53	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.0	54.5	50.1	51.6	58.4	58.6
Medium Trucks:	53.4	52.0	41.7	44.3	52.6	52.7
Heavy Trucks:	61.1	59.2	56.5	51.9	60.2	60.7
Vehicle Noise:	63.0	61.1	57.5	55.2	62.9	63.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	72	155	335
CNEL:	35	76	163	352

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Heacock St.
Road Segment: s/o Nandina Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 20 vehicles
Vehicle Speed: 25 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-16.75	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	70.80	-31.11	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	77.97	-27.82	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	36.2	33.7	29.3	30.9	37.7	37.8
Medium Trucks:	33.9	32.5	22.2	24.8	33.1	33.2
Heavy Trucks:	44.4	42.5	39.8	35.2	43.5	44.0
Vehicle Noise:	45.3	43.4	40.2	36.8	44.8	45.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	2	5	10	21
CNEL:	2	5	10	22

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Indian St.
Road Segment: n/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 4,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 410 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.64	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-21.00	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-17.71	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.8	55.4	50.9	52.5	59.3	59.5
Medium Trucks:	54.3	52.9	42.6	45.2	53.5	53.6
Heavy Trucks:	61.9	60.1	57.4	52.8	61.1	61.6
Vehicle Noise:	63.9	61.9	58.4	56.0	63.7	64.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	38	82	178	383
CNEL:	40	87	187	403

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Indian St.
Road Segment: s/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 1,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 190 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-9.98	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-24.34	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.05	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	52.0	47.6	49.2	56.0	56.1
Medium Trucks:	50.9	49.5	39.2	41.9	50.2	50.2
Heavy Trucks:	58.6	56.8	54.0	49.4	57.8	58.2
Vehicle Noise:	60.5	58.6	55.0	52.7	60.4	60.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	23	49	106	229
CNEL:	24	52	112	241

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Cactus Av.
Road Segment: w/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 34,200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,420 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.57	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.79	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.50	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	64.6	60.1	61.7	68.5	68.7
Medium Trucks:	63.5	62.1	51.8	54.4	62.7	62.8
Heavy Trucks:	71.2	69.3	66.6	62.0	70.3	70.8
Vehicle Noise:	73.1	71.2	67.6	65.2	73.0	73.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	157	339	731	1,575
CNEL:	166	357	769	1,656

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Cactus Av.
Road Segment: e/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 32,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,260 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.37	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-12.00	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.71	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.4	59.9	61.5	68.3	68.5
Medium Trucks:	63.3	61.9	51.6	54.2	62.5	62.6
Heavy Trucks:	71.0	69.1	66.4	61.8	70.1	70.6
Vehicle Noise:	72.9	70.9	67.4	65.0	72.8	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	153	329	708	1,525
CNEL:	160	346	744	1,604

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Cactus Av.
Road Segment: e/o Frederick St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 36,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,600 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.80	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.57	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.28	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	64.8	60.4	61.9	68.7	68.9
Medium Trucks:	63.7	62.3	52.0	54.6	62.9	63.0
Heavy Trucks:	71.4	69.6	66.8	62.2	70.6	71.0
Vehicle Noise:	73.3	71.4	67.8	65.5	73.2	73.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	163	351	756	1,630
CNEL:	171	369	795	1,714

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Cactus Av.
Road Segment: e/o Graham St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 35,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,580 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.77	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.59	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.30	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	64.8	60.3	61.9	68.7	68.9
Medium Trucks:	63.7	62.3	52.0	54.6	62.9	63.0
Heavy Trucks:	71.4	69.5	66.8	62.2	70.5	71.0
Vehicle Noise:	73.3	71.4	67.8	65.4	73.2	73.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	162	350	754	1,624
CNEL:	171	368	792	1,707

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Cactus Av.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 19,400 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,940 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.57	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.79	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.51	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.3	60.8	56.4	58.0	64.8	64.9
Medium Trucks:	59.9	58.5	48.2	50.9	59.2	59.2
Heavy Trucks:	68.0	66.2	63.4	58.9	67.2	67.7
Vehicle Noise:	69.8	67.8	64.3	61.8	69.6	69.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	94	202	435	937
CNEL:	99	213	458	987

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: John F. Kennedy Dr.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 880 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.86	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-17.23	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-13.94	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	57.5	53.0	54.6	61.4	61.6
Medium Trucks:	56.6	55.2	44.9	47.5	55.8	55.9
Heavy Trucks:	64.7	62.9	60.1	55.5	63.9	64.3
Vehicle Noise:	66.4	64.5	61.0	58.5	66.2	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	121	260	560
CNEL:	59	127	274	590

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Krameria Av.
Road Segment: e/o Indian St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 3,700 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 370 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 12 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.945
Medium Trucks: 99.856
Heavy Trucks: 99.865

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.12	-4.62	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-20.48	-4.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-17.19	-4.61	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.6	52.1	47.7	49.2	56.0	56.2
Medium Trucks:	51.4	50.0	39.7	42.3	50.6	50.7
Heavy Trucks:	60.0	58.2	55.4	50.8	59.2	59.6
Vehicle Noise:	61.5	59.6	56.2	53.5	61.3	61.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	56	122	262
CNEL:	28	60	128	277

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 13,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,390 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.88	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-15.24	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.95	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.9	59.5	55.0	56.6	63.4	63.6
Medium Trucks:	58.6	57.2	46.9	49.5	57.8	57.9
Heavy Trucks:	66.7	64.8	62.1	57.5	65.8	66.3
Vehicle Noise:	68.4	66.5	63.0	60.4	68.2	68.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	76	164	353	760
CNEL:	80	172	372	801

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 9,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 910 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.72	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-17.08	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-13.79	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	57.5	53.0	54.6	61.4	61.6
Medium Trucks:	56.6	55.2	44.9	47.5	55.8	55.9
Heavy Trucks:	64.7	62.9	60.1	55.5	63.9	64.3
Vehicle Noise:	66.4	64.5	61.0	58.5	66.2	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	121	260	560
CNEL:	59	127	274	590

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Harley Knox Bl.
Road Segment: e/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 9,200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 920 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.67	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-17.03	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-13.75	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	57.5	53.1	54.7	61.5	61.6
Medium Trucks:	56.6	55.2	44.9	47.6	55.9	55.9
Heavy Trucks:	64.7	62.9	60.1	55.6	63.9	64.4
Vehicle Noise:	66.5	64.5	61.0	58.5	66.3	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	122	262	565
CNEL:	59	128	276	595

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Graham St.
Road Segment: n/o Cactus Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 6,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 600 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.53	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-18.89	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-15.60	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.2	55.7	51.3	52.9	59.7	59.8
Medium Trucks:	54.8	53.4	43.1	45.8	54.1	54.1
Heavy Trucks:	62.9	61.1	58.3	53.8	62.1	62.6
Vehicle Noise:	64.7	62.7	59.2	56.7	64.5	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	92	199	428
CNEL:	45	97	209	451

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Graham St.
Road Segment: s/o Cactus Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 7,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 730 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.68	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-18.04	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-14.75	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.1	56.6	52.2	53.7	60.5	60.7
Medium Trucks:	55.7	54.3	44.0	46.6	54.9	55.0
Heavy Trucks:	63.8	62.0	59.2	54.6	63.0	63.4
Vehicle Noise:	65.5	63.6	60.1	57.6	65.3	65.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	105	227	488
CNEL:	51	111	239	514

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Heacock St.
Road Segment: n/o Cactus Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 15,110 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,511 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.99%
Medium Trucks:	86.9%	2.0%	11.1%	3.19%
Heavy Trucks:	78.7%	10.4%	10.9%	6.81%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.50	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-15.00	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.71	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.3	59.8	55.4	57.0	63.8	64.0
Medium Trucks:	58.8	57.4	47.1	49.7	58.0	58.1
Heavy Trucks:	66.9	65.1	62.3	57.7	66.1	66.5
Vehicle Noise:	68.7	66.8	63.2	60.7	68.5	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	79	171	369	794
CNEL:	84	180	388	836

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Heacock St.
Road Segment: s/o Cactus Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 28,560 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,856 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.86%
Medium Trucks:	86.9%	2.0%	11.1%	2.91%
Heavy Trucks:	78.7%	10.4%	10.9%	6.23%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.30	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-12.64	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.33	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	62.6	58.2	59.8	66.6	66.8
Medium Trucks:	61.2	59.8	49.5	52.1	60.4	60.5
Heavy Trucks:	69.3	67.5	64.7	60.1	68.5	68.9
Vehicle Noise:	71.2	69.2	65.7	63.3	71.0	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	117	252	543	1,171
CNEL:	123	265	572	1,232

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Heacock St.
Road Segment: s/o John F. Kennedy Dr.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 25,160 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,516 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.05%
Medium Trucks:	86.9%	2.0%	11.1%	2.85%
Heavy Trucks:	78.7%	10.4%	10.9%	6.10%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.30	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.74	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.44	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	63.4	59.0	60.5	67.3	67.5
Medium Trucks:	61.6	60.2	49.9	52.5	60.8	60.9
Heavy Trucks:	69.3	67.5	64.7	60.1	68.5	68.9
Vehicle Noise:	71.4	69.5	65.9	63.7	71.4	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	123	265	572	1,232
CNEL:	129	279	601	1,294

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Heacock St.
Road Segment: s/o Gentian Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 20,960 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,096 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.32%
Medium Trucks:	86.9%	2.0%	11.1%	2.76%
Heavy Trucks:	78.7%	10.4%	10.9%	5.92%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.52	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.67	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.36	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.9	62.5	58.0	59.6	66.4	66.6
Medium Trucks:	60.6	59.2	48.8	51.5	59.8	59.9
Heavy Trucks:	68.2	66.4	63.7	59.1	67.4	67.9
Vehicle Noise:	70.4	68.4	64.8	62.7	70.3	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	105	227	490	1,055
CNEL:	111	239	514	1,107

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Heacock St.
Road Segment: s/o Iris Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 12,960 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,296 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	92.31%
Medium Trucks:	86.9%	2.0%	11.1%	2.44%
Heavy Trucks:	78.7%	10.4%	10.9%	5.25%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.52	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-17.30	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-13.97	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.9	60.4	56.0	57.6	64.4	64.5
Medium Trucks:	57.9	56.5	46.2	48.8	57.1	57.2
Heavy Trucks:	65.6	63.8	61.0	56.5	64.8	65.3
Vehicle Noise:	67.9	66.0	62.3	60.4	68.0	68.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	73	158	340	733
CNEL:	77	166	357	768

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Heacock St.
Road Segment: s/o Krameria Av. (North)
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 10,760 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,076 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.31%
Medium Trucks:	86.9%	2.0%	11.1%	2.75%
Heavy Trucks:	78.7%	10.4%	10.9%	5.93%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.37	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-17.58	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-14.25	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.1	59.6	55.1	56.7	63.5	63.7
Medium Trucks:	57.6	56.2	45.9	48.6	56.9	57.0
Heavy Trucks:	65.4	63.5	60.8	56.2	64.5	65.0
Vehicle Noise:	67.5	65.5	61.9	59.8	67.5	67.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	68	146	314	677
CNEL:	71	153	330	710

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario:	Existing + Project w/o Indian St Br	*Project Name:*	MV Logistics Center
Road Name:	Heacock St.	*Job Number:*	9303
Road Segment:	n/o Cardinal Av.		

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,100 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	91.68%
Medium Trucks:	86.9%	2.0%	11.1%	2.66%
Heavy Trucks:	78.7%	10.4%	10.9%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-1.29	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	77.72	-16.67	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-13.38	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	59.6	57.1	52.7	54.2	61.1	61.2
Medium Trucks:	55.4	54.0	43.7	46.3	54.6	54.7
Heavy Trucks:	64.0	62.2	59.4	54.8	63.2	63.6
Vehicle Noise:	65.8	63.8	60.3	57.9	65.6	65.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	51	110	236	509
CNEL:	54	115	249	536

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario:	Existing + Project w/o Indian St Br	*Project Name:*	MV Logistics Center
Road Name:	Heacock St.	*Job Number:*	9303
Road Segment:	s/o Cardinal Av.		

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,730 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	973 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	91.87%
Medium Trucks:	86.9%	2.0%	11.1%	2.58%
Heavy Trucks:	78.7%	10.4%	10.9%	5.55%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-1.81	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	77.72	-17.33	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-14.00	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	59.1	56.6	52.1	53.7	60.5	60.7
Medium Trucks:	54.8	53.4	43.0	45.7	54.0	54.1
Heavy Trucks:	63.4	61.5	58.8	54.2	62.5	63.0
Vehicle Noise:	65.2	63.2	59.7	57.3	65.0	65.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	46	100	216	465
CNEL:	49	105	227	489

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario:	Existing + Project w/o Indian St Br	*Project Name:*	MV Logistics Center
Road Name:	Heacock St.	*Job Number:*	9303
Road Segment:	s/o San Michele Rd.		

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	340 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-7.45	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-21.81	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-18.53	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	57.0	54.5	50.1	51.6	58.4	58.6
Medium Trucks:	53.4	52.0	41.7	44.3	52.6	52.7
Heavy Trucks:	61.1	59.2	56.5	51.9	60.2	60.7
Vehicle Noise:	63.0	61.1	57.5	55.2	62.9	63.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	33	72	155	335
CNEL:	35	76	163	352

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario:	Existing + Project w/o Indian St Br	*Project Name:*	MV Logistics Center
Road Name:	Heacock St.	*Job Number:*	9303
Road Segment:	s/o Nandina Av.		

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	20 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	58.73	-16.75	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	70.80	-31.11	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	77.97	-27.82	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	36.2	33.7	29.3	30.9	37.7	37.8
Medium Trucks:	33.9	32.5	22.2	24.8	33.1	33.2
Heavy Trucks:	44.4	42.5	39.8	35.2	43.5	44.0
Vehicle Noise:	45.3	43.4	40.2	36.8	44.8	45.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	2	5	10	21
CNEL:	2	5	10	22

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Indian St.
Road Segment: n/o Krameria Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 4,500 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 450 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.63%
Medium Trucks:	86.9%	2.0%	11.1%	2.99%
Heavy Trucks:	78.7%	10.4%	10.9%	6.38%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.19	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-21.00	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-17.71	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	55.8	51.4	52.9	59.8	59.9
Medium Trucks:	54.3	52.9	42.6	45.2	53.5	53.6
Heavy Trucks:	61.9	60.1	57.4	52.8	61.1	61.6
Vehicle Noise:	64.0	62.0	58.5	56.2	63.9	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	85	182	393
CNEL:	41	89	192	413

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Indian St.
Road Segment: s/o Krameria Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 2,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 210 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.69%
Medium Trucks:	86.9%	2.0%	11.1%	2.97%
Heavy Trucks:	78.7%	10.4%	10.9%	6.34%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-9.50	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-24.34	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.05	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.0	52.5	48.1	49.6	56.4	56.6
Medium Trucks:	50.9	49.5	39.2	41.9	50.2	50.2
Heavy Trucks:	58.6	56.8	54.0	49.4	57.8	58.2
Vehicle Noise:	60.7	58.7	55.1	52.9	60.6	60.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	51	109	236
CNEL:	25	53	115	248

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Cactus Av.
Road Segment: w/o Elsworth St.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 37,060 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,706 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.34%
Medium Trucks:	86.9%	2.0%	11.1%	3.08%
Heavy Trucks:	78.7%	10.4%	10.9%	6.58%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.95	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.72	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.42	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.4	64.9	60.5	62.1	68.9	69.1
Medium Trucks:	63.6	62.2	51.8	54.5	62.8	62.9
Heavy Trucks:	71.2	69.4	66.6	62.1	70.4	70.9
Vehicle Noise:	73.2	71.3	67.7	65.4	73.1	73.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	162	349	752	1,621
CNEL:	170	367	791	1,703

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Cactus Av.
Road Segment: e/o Elsworth St.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 35,460 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,546 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.37%
Medium Trucks:	86.9%	2.0%	11.1%	3.07%
Heavy Trucks:	78.7%	10.4%	10.9%	6.56%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.76	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.93	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.63	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.2	64.8	60.3	61.9	68.7	68.9
Medium Trucks:	63.4	62.0	51.6	54.3	62.6	62.7
Heavy Trucks:	71.0	69.2	66.4	61.9	70.2	70.7
Vehicle Noise:	73.0	71.1	67.5	65.3	72.9	73.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	157	339	730	1,572
CNEL:	165	356	767	1,652

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Cactus Av.
Road Segment: e/o Frederick St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 38,860 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,886 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.31%
Medium Trucks:	86.9%	2.0%	11.1%	3.09%
Heavy Trucks:	78.7%	10.4%	10.9%	6.60%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.16	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.50	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.21	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.2	60.7	62.3	69.1	69.3
Medium Trucks:	63.8	62.4	52.1	54.7	63.0	63.1
Heavy Trucks:	71.5	69.6	66.9	62.3	70.6	71.1
Vehicle Noise:	73.5	71.5	67.9	65.7	73.4	73.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	167	361	777	1,675
CNEL:	176	379	817	1,760

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Cactus Av.
Road Segment: e/o Graham St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 38,660 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,866 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.32%
Medium Trucks:	86.9%	2.0%	11.1%	3.09%
Heavy Trucks:	78.7%	10.4%	10.9%	6.60%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.14	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.53	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.23	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.6	65.1	60.7	62.3	69.1	69.2
Medium Trucks:	63.8	62.4	52.0	54.7	63.0	63.1
Heavy Trucks:	71.4	69.6	66.8	62.3	70.6	71.1
Vehicle Noise:	73.4	71.5	67.9	65.6	73.3	73.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	167	360	775	1,669
CNEL:	175	378	814	1,754

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Cactus Av.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 19,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,990 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.97%
Medium Trucks:	86.9%	2.0%	11.1%	3.20%
Heavy Trucks:	78.7%	10.4%	10.9%	6.83%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.69	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.79	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.51	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.4	60.9	56.5	58.1	64.9	65.1
Medium Trucks:	59.9	58.5	48.2	50.9	59.2	59.2
Heavy Trucks:	68.0	66.2	63.4	58.9	67.2	67.7
Vehicle Noise:	69.8	67.9	64.4	61.9	69.6	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	94	203	438	943
CNEL:	99	214	461	993

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: John F. Kennedy Dr.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 890 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.83%
Medium Trucks:	86.9%	2.0%	11.1%	3.25%
Heavy Trucks:	78.7%	10.4%	10.9%	6.92%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.81	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-17.23	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-13.94	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	57.5	53.1	54.7	61.5	61.6
Medium Trucks:	56.6	55.2	44.9	47.5	55.8	55.9
Heavy Trucks:	64.7	62.9	60.1	55.5	63.9	64.3
Vehicle Noise:	66.4	64.5	61.0	58.5	66.2	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	121	261	562
CNEL:	59	128	275	592

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Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Krameria Av.
Road Segment: e/o Indian St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	420 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.94%
Medium Trucks:	86.9%	2.0%	11.1%	2.89%
Heavy Trucks:	78.7%	10.4%	10.9%	6.17%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.945
Medium Trucks:	99.856
Heavy Trucks:	99.865

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.51	-4.62	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	77.72	-20.48	-4.61	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.19	-4.61	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.2	52.7	48.3	49.8	56.7	56.8
Medium Trucks:	51.4	50.0	39.7	42.3	50.6	50.7
Heavy Trucks:	60.0	58.2	55.4	50.8	59.2	59.6
Vehicle Noise:	61.7	59.7	56.3	53.7	61.5	61.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	58	125	270
CNEL:	28	61	132	284

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,830 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,583 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.78%
Medium Trucks:	86.9%	2.0%	11.1%	2.94%
Heavy Trucks:	78.7%	10.4%	10.9%	6.29%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.26	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-15.17	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-11.86	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.6	60.1	55.6	57.2	64.0	64.2
Medium Trucks:	58.7	57.3	46.9	49.6	57.9	58.0
Heavy Trucks:	66.8	64.9	62.2	57.6	65.9	66.4
Vehicle Noise:	68.6	66.7	63.2	60.8	68.5	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	79	171	368	793
CNEL:	83	180	387	834

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,230 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,123 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.40%
Medium Trucks:	86.9%	2.0%	11.1%	2.73%
Heavy Trucks:	78.7%	10.4%	10.9%	5.87%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.72	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-16.97	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-13.65	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.0	58.5	54.0	55.6	62.4	62.6
Medium Trucks:	56.7	55.3	45.0	47.6	55.9	56.0
Heavy Trucks:	64.8	63.0	60.2	55.7	64.0	64.5
Vehicle Noise:	66.8	64.8	61.3	59.0	66.7	67.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	60	129	278	600
CNEL:	63	136	293	631

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/o Indian St Br
Road Name: Harley Knox Bl.
Road Segment: e/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,330 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,133 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.38%
Medium Trucks:	86.9%	2.0%	11.1%	2.74%
Heavy Trucks:	78.7%	10.4%	10.9%	5.88%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.69	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-16.92	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-13.60	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.0	58.5	54.1	55.6	62.5	62.6
Medium Trucks:	56.8	55.4	45.0	47.7	56.0	56.1
Heavy Trucks:	64.9	63.0	60.3	55.7	64.0	64.5
Vehicle Noise:	66.8	64.9	61.3	59.0	66.7	67.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	60	130	280	604
CNEL:	63	137	295	635

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Graham St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 6,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 600 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.53	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-18.89	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-15.60	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.2	55.7	51.3	52.9	59.7	59.8
Medium Trucks:	54.8	53.4	43.1	45.8	54.1	54.1
Heavy Trucks:	62.9	61.1	58.3	53.8	62.1	62.6
Vehicle Noise:	64.7	62.7	59.2	56.7	64.5	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	43	92	199	428
CNEL:	45	97	209	451

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Graham St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 7,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 730 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-3.68	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-18.04	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-14.75	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.1	56.6	52.2	53.7	60.5	60.7
Medium Trucks:	55.7	54.3	44.0	46.6	54.9	55.0
Heavy Trucks:	63.8	62.0	59.2	54.6	63.0	63.4
Vehicle Noise:	65.5	63.6	60.1	57.6	65.3	65.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	105	227	488
CNEL:	51	111	239	514

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 15,110 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,511 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.99%
Medium Trucks:	86.9%	2.0%	11.1%	3.19%
Heavy Trucks:	78.7%	10.4%	10.9%	6.81%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.50	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-15.00	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.71	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.3	59.8	55.4	57.0	63.8	64.0
Medium Trucks:	58.8	57.4	47.1	49.7	58.0	58.1
Heavy Trucks:	66.9	65.1	62.3	57.7	66.1	66.5
Vehicle Noise:	68.7	66.8	63.2	60.7	68.5	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	79	171	369	794
CNEL:	84	180	388	836

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 27,750 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,775 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.62%
Medium Trucks:	86.9%	2.0%	11.1%	2.99%
Heavy Trucks:	78.7%	10.4%	10.9%	6.39%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.17	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-12.65	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.35	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.0	62.5	58.1	59.6	66.5	66.6
Medium Trucks:	61.2	59.8	49.5	52.1	60.4	60.5
Heavy Trucks:	69.3	67.4	64.7	60.1	68.4	68.9
Vehicle Noise:	71.1	69.2	65.6	63.2	71.0	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	116	250	538	1,160
CNEL:	122	263	567	1,221

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Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o John F. Kennedy Dr.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 24,350 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,435 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.79%
Medium Trucks:	86.9%	2.0%	11.1%	2.93%
Heavy Trucks:	78.7%	10.4%	10.9%	6.27%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.15	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.76	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.45	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.2	58.8	60.4	67.2	67.3
Medium Trucks:	61.6	60.2	49.9	52.5	60.8	60.9
Heavy Trucks:	69.3	67.5	64.7	60.1	68.5	68.9
Vehicle Noise:	71.4	69.4	65.8	63.6	71.3	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	122	263	566	1,219
CNEL:	128	276	594	1,280

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o Gentian Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 20,150 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,015 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.02%
Medium Trucks:	86.9%	2.0%	11.1%	2.86%
Heavy Trucks:	78.7%	10.4%	10.9%	6.12%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.34	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.69	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.38	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.8	62.3	57.8	59.4	66.2	66.4
Medium Trucks:	60.5	59.1	48.8	51.4	59.7	59.8
Heavy Trucks:	68.2	66.4	63.6	59.1	67.4	67.9
Vehicle Noise:	70.3	68.4	64.8	62.6	70.3	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	104	224	483	1,041
CNEL:	109	235	507	1,093

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o Iris Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 12,150 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,215 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.88%
Medium Trucks:	86.9%	2.0%	11.1%	2.58%
Heavy Trucks:	78.7%	10.4%	10.9%	5.54%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.82	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-17.34	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-14.01	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.6	60.1	55.7	57.3	64.1	64.2
Medium Trucks:	57.9	56.5	46.2	48.8	57.1	57.2
Heavy Trucks:	65.6	63.8	61.0	56.4	64.8	65.2
Vehicle Noise:	67.8	65.9	62.2	60.2	67.8	68.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	154	332	716
CNEL:	75	162	349	751

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o Krameria Av. (North)
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 9,700 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 970 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.98%
Medium Trucks:	86.9%	2.0%	11.1%	2.88%
Heavy Trucks:	78.7%	10.4%	10.9%	6.14%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.84	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-17.83	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-14.55	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.6	59.1	54.7	56.2	63.0	63.2
Medium Trucks:	57.4	56.0	45.7	48.3	56.6	56.7
Heavy Trucks:	65.1	63.2	60.5	55.9	64.2	64.7
Vehicle Noise:	67.2	65.2	61.6	59.4	67.1	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	64	138	297	640
CNEL:	67	145	312	672

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: n/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 10,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,080 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.52%
Medium Trucks:	86.9%	2.0%	11.1%	2.71%
Heavy Trucks:	78.7%	10.4%	10.9%	5.77%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.38	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-16.67	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-13.38	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.5	57.0	52.6	54.1	61.0	61.1
Medium Trucks:	55.4	54.0	43.7	46.3	54.6	54.7
Heavy Trucks:	64.0	62.2	59.4	54.8	63.2	63.6
Vehicle Noise:	65.7	63.8	60.3	57.8	65.6	65.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	109	235	507
CNEL:	53	115	248	533

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 9,430 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 943 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.61%
Medium Trucks:	86.9%	2.0%	11.1%	2.66%
Heavy Trucks:	78.7%	10.4%	10.9%	5.73%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.96	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-17.33	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-14.00	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.9	56.4	52.0	53.6	60.4	60.5
Medium Trucks:	54.8	53.4	43.0	45.7	54.0	54.1
Heavy Trucks:	63.4	61.5	58.8	54.2	62.5	63.0
Vehicle Noise:	65.1	63.2	59.7	57.2	65.0	65.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	99	214	461
CNEL:	49	105	225	486

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o San Michele Rd.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 3,400 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 340 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-7.45	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-21.81	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-18.53	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.0	54.5	50.1	51.6	58.4	58.6
Medium Trucks:	53.4	52.0	41.7	44.3	52.6	52.7
Heavy Trucks:	61.1	59.2	56.5	51.9	60.2	60.7
Vehicle Noise:	63.0	61.1	57.5	55.2	62.9	63.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	72	155	335
CNEL:	35	76	163	352

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Heacock St.
Road Segment: s/o Nandina Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 20 vehicles
Vehicle Speed: 25 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-16.75	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	70.80	-31.11	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	77.97	-27.82	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	36.2	33.7	29.3	30.9	37.7	37.8
Medium Trucks:	33.9	32.5	22.2	24.8	33.1	33.2
Heavy Trucks:	44.4	42.5	39.8	35.2	43.5	44.0
Vehicle Noise:	45.3	43.4	40.2	36.8	44.8	45.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	2	5	10	21
CNEL:	2	5	10	22

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Indian St.
Road Segment: n/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 4,500 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 450 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.63%
Medium Trucks:	86.9%	2.0%	11.1%	2.99%
Heavy Trucks:	78.7%	10.4%	10.9%	6.38%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.19	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-21.00	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-17.71	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	55.8	51.4	52.9	59.8	59.9
Medium Trucks:	54.3	52.9	42.6	45.2	53.5	53.6
Heavy Trucks:	61.9	60.1	57.4	52.8	61.1	61.6
Vehicle Noise:	64.0	62.0	58.5	56.2	63.9	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	85	182	393
CNEL:	41	89	192	413

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Indian St.
Road Segment: s/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 2,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 210 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.69%
Medium Trucks:	86.9%	2.0%	11.1%	2.97%
Heavy Trucks:	78.7%	10.4%	10.9%	6.34%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-9.50	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-24.34	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-21.05	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.0	52.5	48.1	49.6	56.4	56.6
Medium Trucks:	50.9	49.5	39.2	41.9	50.2	50.2
Heavy Trucks:	58.6	56.8	54.0	49.4	57.8	58.2
Vehicle Noise:	60.7	58.7	55.1	52.9	60.6	60.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	51	109	236
CNEL:	25	53	115	248

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Cactus Av.
Road Segment: w/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 36,140 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,614 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.15%
Medium Trucks:	86.9%	2.0%	11.1%	3.14%
Heavy Trucks:	78.7%	10.4%	10.9%	6.71%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.83	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.75	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.45	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	64.8	60.4	62.0	68.8	68.9
Medium Trucks:	63.5	62.1	51.8	54.5	62.7	62.8
Heavy Trucks:	71.2	69.4	66.6	62.0	70.4	70.8
Vehicle Noise:	73.2	71.3	67.7	65.4	73.1	73.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	161	346	745	1,606
CNEL:	169	364	784	1,688

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Cactus Av.
Road Segment: e/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 34,540 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,454 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.17%
Medium Trucks:	86.9%	2.0%	11.1%	3.13%
Heavy Trucks:	78.7%	10.4%	10.9%	6.69%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.64	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.95	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.66	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	64.6	60.2	61.8	68.6	68.8
Medium Trucks:	63.3	61.9	51.6	54.2	62.5	62.6
Heavy Trucks:	71.0	69.2	66.4	61.8	70.2	70.6
Vehicle Noise:	73.0	71.1	67.5	65.2	72.9	73.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	156	335	723	1,557
CNEL:	164	353	760	1,636

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Cactus Av.
Road Segment: e/o Frederick St.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 37,940 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,794 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.13%
Medium Trucks:	86.9%	2.0%	11.1%	3.15%
Heavy Trucks:	78.7%	10.4%	10.9%	6.72%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.04	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.53	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.23	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.5	65.0	60.6	62.2	69.0	69.2
Medium Trucks:	63.8	62.4	52.0	54.7	63.0	63.1
Heavy Trucks:	71.4	69.6	66.8	62.3	70.6	71.1
Vehicle Noise:	73.4	71.5	67.9	65.6	73.3	73.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	166	358	771	1,660
CNEL:	175	376	810	1,745

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Cactus Av.
Road Segment: e/o Graham St.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 37,740 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,774 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.13%
Medium Trucks:	86.9%	2.0%	11.1%	3.15%
Heavy Trucks:	78.7%	10.4%	10.9%	6.72%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.02	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-11.55	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-8.25	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.5	65.0	60.6	62.2	69.0	69.1
Medium Trucks:	63.7	62.3	52.0	54.7	62.9	63.0
Heavy Trucks:	71.4	69.6	66.8	62.2	70.6	71.0
Vehicle Noise:	73.4	71.4	67.9	65.6	73.3	73.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	165	356	768	1,654
CNEL:	174	375	807	1,739

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Cactus Av.
Road Segment: e/o Heacock St.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 19,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,990 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.97%
Medium Trucks:	86.9%	2.0%	11.1%	3.20%
Heavy Trucks:	78.7%	10.4%	10.9%	6.83%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.69	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.79	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.51	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.4	60.9	56.5	58.1	64.9	65.1
Medium Trucks:	59.9	58.5	48.2	50.9	59.2	59.2
Heavy Trucks:	68.0	66.2	63.4	58.9	67.2	67.7
Vehicle Noise:	69.8	67.9	64.4	61.9	69.6	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	94	203	438	943
CNEL:	99	214	461	993

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: John F. Kennedy Dr.
Road Segment: e/o Heacock St.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 890 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.83%
Medium Trucks:	86.9%	2.0%	11.1%	3.25%
Heavy Trucks:	78.7%	10.4%	10.9%	6.92%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.81	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-17.23	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-13.94	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	57.5	53.1	54.7	61.5	61.6
Medium Trucks:	56.6	55.2	44.9	47.5	55.8	55.9
Heavy Trucks:	64.7	62.9	60.1	55.5	63.9	64.3
Vehicle Noise:	66.4	64.5	61.0	58.5	66.2	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	121	261	562
CNEL:	59	128	275	592

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Krameria Av.
Road Segment: e/o Indian St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 4,200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 420 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 12 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	90.94%
Medium Trucks:	86.9%	2.0%	11.1%	2.89%
Heavy Trucks:	78.7%	10.4%	10.9%	6.17%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.945
Medium Trucks: 99.856
Heavy Trucks: 99.865

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-5.51	-4.62	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	77.72	-20.48	-4.61	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.19	-4.61	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	55.2	52.7	48.3	49.8	56.7	56.8
Medium Trucks:	51.4	50.0	39.7	42.3	50.6	50.7
Heavy Trucks:	60.0	58.2	55.4	50.8	59.2	59.6
Vehicle Noise:	61.7	59.7	56.3	53.7	61.5	61.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	27	58	125	270
CNEL:	28	61	132	284

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 16,750 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,675 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	91.16%
Medium Trucks:	86.9%	2.0%	11.1%	2.81%
Heavy Trucks:	78.7%	10.4%	10.9%	6.03%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.00	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-15.11	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-11.80	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.8	60.3	55.9	57.5	64.3	64.5
Medium Trucks:	58.7	57.3	47.0	49.6	57.9	58.0
Heavy Trucks:	66.8	65.0	62.2	57.7	66.0	66.5
Vehicle Noise:	68.7	66.8	63.3	60.9	68.6	68.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	81	174	376	809
CNEL:	85	183	395	851

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 12,150 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,215 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	91.88%
Medium Trucks:	86.9%	2.0%	11.1%	2.58%
Heavy Trucks:	78.7%	10.4%	10.9%	5.54%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.36	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-16.88	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-13.56	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	61.3	58.8	54.4	56.0	62.8	63.0
Medium Trucks:	56.8	55.4	45.1	47.7	56.0	56.1
Heavy Trucks:	64.9	63.1	60.3	55.8	64.1	64.6
Vehicle Noise:	66.9	65.0	61.4	59.2	66.9	67.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	62	133	287	618
CNEL:	65	140	302	650

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project w/ Indian St Bri
Road Name: Harley Knox Bl.
Road Segment: e/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 12,250 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,225 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	91.86%
Medium Trucks:	86.9%	2.0%	11.1%	2.58%
Heavy Trucks:	78.7%	10.4%	10.9%	5.55%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.32	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-16.84	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-13.51	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	61.4	58.9	54.4	56.0	62.8	63.0
Medium Trucks:	56.8	55.4	45.1	47.8	56.0	56.1
Heavy Trucks:	65.0	63.1	60.4	55.8	64.1	64.6
Vehicle Noise:	67.0	65.0	61.5	59.2	66.9	67.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	62	134	289	622
CNEL:	65	141	303	654

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Graham St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 9,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 930 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004
Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.62	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-16.99	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-13.70	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.1	57.6	53.2	54.8	61.6	61.7
Medium Trucks:	56.7	55.3	45.0	47.7	56.0	56.1
Heavy Trucks:	64.8	63.0	60.2	55.7	64.0	64.5
Vehicle Noise:	66.6	64.7	61.1	58.6	66.4	66.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	124	266	574
CNEL:	60	130	281	604

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Graham St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 12,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,260 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004
Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.31	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-15.67	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-12.38	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.4	58.9	54.5	56.1	62.9	63.1
Medium Trucks:	58.1	56.7	46.4	49.0	57.3	57.4
Heavy Trucks:	66.2	64.3	61.6	57.0	65.3	65.8
Vehicle Noise:	67.9	66.0	62.5	59.9	67.7	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	70	151	326	703
CNEL:	74	159	343	740

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 15,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,560 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004
Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.38	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-14.74	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.45	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.4	60.0	55.5	57.1	63.9	64.1
Medium Trucks:	59.1	57.7	47.4	50.0	58.3	58.4
Heavy Trucks:	67.2	65.3	62.6	58.0	66.3	66.8
Vehicle Noise:	68.9	67.0	63.5	60.9	68.7	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	82	177	381	821
CNEL:	86	186	401	865

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 26,700 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,670 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004
Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.96	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-12.41	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.12	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.8	62.3	57.9	59.4	66.2	66.4
Medium Trucks:	61.4	60.0	49.7	52.3	60.6	60.7
Heavy Trucks:	69.5	67.7	64.9	60.3	68.7	69.1
Vehicle Noise:	71.2	69.3	65.8	63.3	71.0	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	117	253	545	1,175
CNEL:	124	267	574	1,237

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o John F. Kennedy Dr.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 24,400 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,440 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	1.11	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-13.25	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-9.97	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.7	63.2	58.8	60.3	67.1	67.3
Medium Trucks:	62.1	60.7	50.4	53.0	61.3	61.4
Heavy Trucks:	69.8	67.9	65.2	60.6	68.9	69.4
Vehicle Noise:	71.7	69.8	66.2	63.9	71.6	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	127	274	591	1,274
CNEL:	134	289	622	1,340

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o Gentian Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 19,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,980 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	0.20	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-14.16	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-10.88	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.6	62.1	57.7	59.3	66.1	66.3
Medium Trucks:	61.1	59.7	49.3	52.0	60.3	60.4
Heavy Trucks:	68.7	66.9	64.1	59.6	67.9	68.4
Vehicle Noise:	70.7	68.7	65.1	62.8	70.5	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	108	234	503	1,084
CNEL:	114	246	529	1,140

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o Iris Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 17,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,730 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-0.39	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-14.75	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-11.46	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.0	61.5	57.1	58.7	65.5	65.7
Medium Trucks:	60.5	59.1	48.8	51.4	59.7	59.8
Heavy Trucks:	68.1	66.3	63.6	59.0	67.3	67.8
Vehicle Noise:	70.1	68.1	64.6	62.2	69.9	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	99	213	460	991
CNEL:	104	224	484	1,042

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o Krameria Av. (North)
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 19,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,960 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	0.16	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-14.21	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-10.92	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.6	62.1	57.7	59.2	66.0	66.2
Medium Trucks:	61.0	59.6	49.3	51.9	60.2	60.3
Heavy Trucks:	68.7	66.9	64.1	59.5	67.9	68.3
Vehicle Noise:	70.6	68.7	65.1	62.8	70.5	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	108	232	500	1,077
CNEL:	113	244	525	1,132

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: n/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,000 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,000 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	1.21	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	77.72	-13.15	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-9.86	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.1	59.6	55.2	56.7	63.6	63.7
Medium Trucks:	58.9	57.5	47.2	49.9	58.1	58.2
Heavy Trucks:	67.5	65.7	62.9	58.3	66.7	67.1
Vehicle Noise:	69.0	67.1	63.7	61.0	68.8	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	83	179	385	830
CNEL:	88	189	406	876

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,400 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,840 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	0.85	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	77.72	-13.51	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-10.22	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	61.7	59.2	54.8	56.4	63.2	63.4
Medium Trucks:	58.6	57.2	46.9	49.5	57.8	57.9
Heavy Trucks:	67.1	65.3	62.6	58.0	66.3	66.8
Vehicle Noise:	68.7	66.8	63.3	60.6	68.4	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	79	169	364	785
CNEL:	83	178	384	828

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o San Michele Rd.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	430 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-6.43	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-20.79	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-17.51	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	58.0	55.5	51.1	52.6	59.5	59.6
Medium Trucks:	54.4	53.0	42.7	45.3	53.6	53.7
Heavy Trucks:	62.1	60.3	57.5	52.9	61.3	61.7
Vehicle Noise:	64.0	62.1	58.5	56.2	63.9	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	84	182	392
CNEL:	41	89	191	412

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Heacock St.
Road Segment: s/o Nandina Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	200 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	20 vehicles
Vehicle Speed:	25 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	58.73	-16.75	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	70.80	-31.11	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	77.97	-27.82	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	36.2	33.7	29.3	30.9	37.7	37.8
Medium Trucks:	33.9	32.5	22.2	24.8	33.1	33.2
Heavy Trucks:	44.4	42.5	39.8	35.2	43.5	44.0
Vehicle Noise:	45.3	43.4	40.2	36.8	44.8	45.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	2	5	10	21
CNEL:	2	5	10	22

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Indian St.
Road Segment: n/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 6,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 600 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.99	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-19.35	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-16.06	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.5	57.0	52.6	54.1	61.0	61.1
Medium Trucks:	55.9	54.5	44.2	46.9	55.1	55.2
Heavy Trucks:	63.6	61.8	59.0	54.4	62.8	63.2
Vehicle Noise:	65.5	63.6	60.0	57.7	65.4	65.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	106	229	494
CNEL:	52	112	241	519

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Indian St.
Road Segment: s/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 2,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 200 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-9.76	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-24.12	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-20.83	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.7	52.2	47.8	49.4	56.2	56.4
Medium Trucks:	51.2	49.8	39.5	42.1	50.4	50.5
Heavy Trucks:	58.8	57.0	54.2	49.7	58.0	58.5
Vehicle Noise:	60.8	58.8	55.2	52.9	60.6	61.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	51	110	237
CNEL:	25	54	116	249

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Cactus Av.
Road Segment: w/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 55,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,580 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.70	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.66	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.38	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.2	66.7	62.3	63.8	70.6	70.8
Medium Trucks:	65.6	64.2	53.9	56.5	64.8	64.9
Heavy Trucks:	73.3	71.5	68.7	64.1	72.5	72.9
Vehicle Noise:	75.2	73.3	69.7	67.4	75.1	75.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	218	470	1,013	2,183
CNEL:	230	494	1,065	2,295

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Cactus Av.
Road Segment: e/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 56,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,680 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.78	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.59	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.30	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.3	66.8	62.3	63.9	70.7	70.9
Medium Trucks:	65.7	64.3	54.0	56.6	64.9	65.0
Heavy Trucks:	73.4	71.5	68.8	64.2	72.5	73.0
Vehicle Noise:	75.3	73.4	69.8	67.4	75.2	75.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	221	476	1,025	2,209
CNEL:	232	500	1,078	2,322

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Cactus Av.
Road Segment: e/o Frederick St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 57,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,790 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.86	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.50	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.22	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.3	66.9	62.4	64.0	70.8	71.0
Medium Trucks:	65.8	64.4	54.1	56.7	65.0	65.1
Heavy Trucks:	73.4	71.6	68.9	64.3	72.6	73.1
Vehicle Noise:	75.4	73.4	69.9	67.5	75.2	75.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	224	482	1,038	2,237
CNEL:	235	507	1,092	2,352

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Cactus Av.
Road Segment: e/o Graham St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 47,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 4,760 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.01	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-10.35	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-7.07	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.5	66.0	61.6	63.1	70.0	70.1
Medium Trucks:	64.9	63.5	53.2	55.8	64.1	64.2
Heavy Trucks:	72.6	70.8	68.0	63.4	71.8	72.2
Vehicle Noise:	74.5	72.6	69.0	66.7	74.4	74.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	196	423	911	1,963
CNEL:	206	445	958	2,064

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Cactus Av.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 31,200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,120 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.63	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-11.73	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-8.44	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	62.9	58.5	60.0	66.8	67.0
Medium Trucks:	62.0	60.6	50.3	52.9	61.2	61.3
Heavy Trucks:	70.1	68.3	65.5	60.9	69.3	69.7
Vehicle Noise:	71.8	69.9	66.4	63.9	71.6	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	129	277	597	1,286
CNEL:	135	292	629	1,354

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: John F. Kennedy Dr.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 10,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,060 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-2.06	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-16.42	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-13.13	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.8	58.3	53.9	55.4	62.2	62.4
Medium Trucks:	57.4	56.0	45.7	48.3	56.6	56.7
Heavy Trucks:	65.5	63.7	60.9	56.3	64.7	65.1
Vehicle Noise:	67.2	65.3	61.8	59.3	67.0	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	63	137	295	634
CNEL:	67	144	310	668

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Krameria Av.
Road Segment: e/o Indian St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 4,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 490 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 12 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.945
Medium Trucks: 99.856
Heavy Trucks: 99.865

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.90	-4.62	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-19.26	-4.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-15.97	-4.61	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.8	53.3	48.9	50.4	57.3	57.4
Medium Trucks:	52.6	51.2	40.9	43.6	51.9	52.0
Heavy Trucks:	61.2	59.4	56.6	52.0	60.4	60.8
Vehicle Noise:	62.8	60.8	57.4	54.7	62.5	62.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	68	147	316
CNEL:	33	72	155	333

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 27,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,730 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.05	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-12.31	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.02	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.9	62.4	58.0	59.5	66.3	66.5
Medium Trucks:	61.5	60.1	49.8	52.4	60.7	60.8
Heavy Trucks:	69.6	67.8	65.0	60.4	68.8	69.2
Vehicle Noise:	71.3	69.4	65.9	63.4	71.1	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	119	257	553	1,192
CNEL:	126	270	583	1,256

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 22,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,200 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.12	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.25	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.96	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.8	61.3	56.9	58.4	65.3	65.4
Medium Trucks:	60.4	59.0	48.7	51.3	59.6	59.7
Heavy Trucks:	68.5	66.7	63.9	59.3	67.7	68.2
Vehicle Noise:	70.3	68.3	64.8	62.3	70.1	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	101	217	469	1,010
CNEL:	106	229	493	1,063

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/o Pro
Road Name: Harley Knox Bl.
Road Segment: e/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 21,700 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,170 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.06	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.31	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.02	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.7	61.2	56.8	58.4	65.2	65.4
Medium Trucks:	60.4	59.0	48.7	51.3	59.6	59.7
Heavy Trucks:	68.5	66.6	63.9	59.3	67.6	68.1
Vehicle Noise:	70.2	68.3	64.8	62.2	70.0	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	100	216	464	1,000
CNEL:	105	227	489	1,054

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj — *Project Name:* MV Logistics Center
Road Name: Graham St. — *Job Number:* 9303
Road Segment: n/o Cactus Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,300 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	930 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	98.494
Medium Trucks:	98.404
Heavy Trucks:	98.413

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.62	-4.52	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-16.99	-4.51	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-13.70	-4.51	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	60.1	57.6	53.2	54.8	61.6	61.7
Medium Trucks:	56.7	55.3	45.0	47.7	56.0	56.1
Heavy Trucks:	64.8	63.0	60.2	55.7	64.0	64.5
Vehicle Noise:	66.6	64.7	61.1	58.6	66.4	66.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	57	124	266	574
CNEL:	60	130	281	604

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj — *Project Name:* MV Logistics Center
Road Name: Graham St. — *Job Number:* 9303
Road Segment: s/o Cactus Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,600 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,260 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	98.494
Medium Trucks:	98.404
Heavy Trucks:	98.413

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.31	-4.52	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-15.67	-4.51	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-12.38	-4.51	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	61.4	58.9	54.5	56.1	62.9	63.1
Medium Trucks:	58.1	56.7	46.4	49.0	57.3	57.4
Heavy Trucks:	66.2	64.3	61.6	57.0	65.3	65.8
Vehicle Noise:	67.9	66.0	62.5	59.9	67.7	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	70	151	326	703
CNEL:	74	159	343	740

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj — *Project Name:* MV Logistics Center
Road Name: Heacock St. — *Job Number:* 9303
Road Segment: n/o Cactus Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,110 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,611 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.97%
Medium Trucks:	86.9%	2.0%	11.1%	3.20%
Heavy Trucks:	78.7%	10.4%	10.9%	6.82%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.23	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-14.71	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-11.43	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.6	60.1	55.7	57.2	64.1	64.2
Medium Trucks:	59.1	57.7	47.4	50.0	58.3	58.4
Heavy Trucks:	67.2	65.4	62.6	58.0	66.4	66.8
Vehicle Noise:	69.0	67.0	63.5	61.0	68.8	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	83	179	385	830
CNEL:	87	188	405	874

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj — *Project Name:* MV Logistics Center
Road Name: Heacock St. — *Job Number:* 9303
Road Segment: s/o Cactus Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	30,460 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,046 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	90.78%
Medium Trucks:	86.9%	2.0%	11.1%	2.94%
Heavy Trucks:	78.7%	10.4%	10.9%	6.28%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	2.58	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-12.32	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-9.02	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.4	62.9	58.5	60.1	66.9	67.0
Medium Trucks:	61.5	60.1	49.8	52.4	60.7	60.8
Heavy Trucks:	69.6	67.8	65.0	60.4	68.8	69.2
Vehicle Noise:	71.5	69.5	66.0	63.6	71.3	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	123	264	569	1,226
CNEL:	129	278	599	1,290

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: s/o John F. Kennedy Dr.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 28,260 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,826 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.90%
Medium Trucks:	86.9%	2.0%	11.1%	2.90%
Heavy Trucks:	78.7%	10.4%	10.9%	6.20%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.80	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.16	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-9.86	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.4	63.9	59.5	61.0	67.8	68.0
Medium Trucks:	62.2	60.8	50.5	53.1	61.4	61.5
Heavy Trucks:	69.9	68.1	65.3	60.7	69.1	69.5
Vehicle Noise:	72.0	70.0	66.4	64.2	71.9	72.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	134	289	622	1,340
CNEL:	141	303	653	1,407

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: s/o Gentian Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 23,760 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,376 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.17%
Medium Trucks:	86.9%	2.0%	11.1%	2.81%
Heavy Trucks:	78.7%	10.4%	10.9%	6.02%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.06	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.05	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.74	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	63.0	58.6	60.1	66.9	67.1
Medium Trucks:	61.2	59.8	49.5	52.1	60.4	60.5
Heavy Trucks:	68.9	67.0	64.3	59.7	68.0	68.5
Vehicle Noise:	71.0	69.0	65.4	63.3	70.9	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	115	249	536	1,154
CNEL:	121	261	562	1,212

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: s/o Iris Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 21,260 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,126 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.35%
Medium Trucks:	86.9%	2.0%	11.1%	2.75%
Heavy Trucks:	78.7%	10.4%	10.9%	5.90%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.59	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.62	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.31	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.0	62.5	58.1	59.7	66.5	66.6
Medium Trucks:	60.6	59.2	48.9	51.5	59.8	59.9
Heavy Trucks:	68.3	66.5	63.7	59.1	67.5	67.9
Vehicle Noise:	70.4	68.5	64.9	62.7	70.4	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	106	229	494	1,064
CNEL:	112	241	518	1,117

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: s/o Krameria Av. (North)

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 21,760 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,176 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.46%
Medium Trucks:	86.9%	2.0%	11.1%	3.04%
Heavy Trucks:	78.7%	10.4%	10.9%	6.51%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.65	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.09	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.79	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	62.6	58.2	59.7	66.5	66.7
Medium Trucks:	61.1	59.7	49.4	52.0	60.3	60.4
Heavy Trucks:	68.8	67.0	64.2	59.6	68.0	68.5
Vehicle Noise:	70.8	68.9	65.3	63.1	70.7	71.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	112	242	520	1,121
CNEL:	118	254	547	1,178

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: n/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 22,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,210 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.69%
Medium Trucks:	86.9%	2.0%	11.1%	2.97%
Heavy Trucks:	78.7%	10.4%	10.9%	6.34%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.69	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-13.15	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-9.86	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.6	60.1	55.7	57.2	64.0	64.2
Medium Trucks:	58.9	57.5	47.2	49.9	58.1	58.2
Heavy Trucks:	67.5	65.7	62.9	58.3	66.7	67.1
Vehicle Noise:	69.1	67.2	63.8	61.2	68.9	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	85	183	394	849
CNEL:	90	193	416	895

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: s/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 20,630 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,063 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.68%
Medium Trucks:	86.9%	2.0%	11.1%	2.97%
Heavy Trucks:	78.7%	10.4%	10.9%	6.35%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.39	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-13.45	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-10.15	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.3	59.8	55.4	56.9	63.7	63.9
Medium Trucks:	58.6	57.2	46.9	49.5	57.8	57.9
Heavy Trucks:	67.2	65.4	62.6	58.0	66.4	66.8
Vehicle Noise:	68.9	66.9	63.5	60.9	68.6	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	81	175	377	812
CNEL:	86	184	397	856

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: s/o San Michele Rd.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 4,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 430 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.43	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-20.79	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-17.51	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.0	55.5	51.1	52.6	59.5	59.6
Medium Trucks:	54.4	53.0	42.7	45.3	53.6	53.7
Heavy Trucks:	62.1	60.3	57.5	52.9	61.3	61.7
Vehicle Noise:	64.0	62.1	58.5	56.2	63.9	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	84	182	392
CNEL:	41	89	191	412

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Heacock St.
Road Segment: s/o Nandina Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 20 vehicles
Vehicle Speed: 25 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-16.75	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	70.80	-31.11	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	77.97	-27.82	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	36.2	33.7	29.3	30.9	37.7	37.8
Medium Trucks:	33.9	32.5	22.2	24.8	33.1	33.2
Heavy Trucks:	44.4	42.5	39.8	35.2	43.5	44.0
Vehicle Noise:	45.3	43.4	40.2	36.8	44.8	45.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	2	5	10	21
CNEL:	2	5	10	22

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Indian St.
Road Segment: n/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 6,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 630 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.20%
Medium Trucks:	86.9%	2.0%	11.1%	3.13%
Heavy Trucks:	78.7%	10.4%	10.9%	6.67%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.75	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-19.35	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-16.06	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	57.2	52.8	54.4	61.2	61.4
Medium Trucks:	55.9	54.5	44.2	46.9	55.1	55.2
Heavy Trucks:	63.6	61.8	59.0	54.4	62.8	63.2
Vehicle Noise:	65.6	63.7	60.1	57.8	65.5	65.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	50	108	232	500
CNEL:	53	113	244	526

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Indian St.
Road Segment: s/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 2,200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 220 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.65%
Medium Trucks:	86.9%	2.0%	11.1%	2.99%
Heavy Trucks:	78.7%	10.4%	10.9%	6.37%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-9.30	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-24.12	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-20.83	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.2	52.7	48.3	49.8	56.6	56.8
Medium Trucks:	51.2	49.8	39.5	42.1	50.4	50.5
Heavy Trucks:	58.8	57.0	54.2	49.7	58.0	58.5
Vehicle Noise:	60.9	58.9	55.3	53.1	60.8	61.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	52	113	244
CNEL:	26	55	119	256

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Cactus Av.
Road Segment: w/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 58,660 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,866 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.11%
Medium Trucks:	86.9%	2.0%	11.1%	3.15%
Heavy Trucks:	78.7%	10.4%	10.9%	6.73%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.94	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.62	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.33	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.4	66.9	62.5	64.1	70.9	71.0
Medium Trucks:	65.7	64.3	53.9	56.6	64.9	65.0
Heavy Trucks:	73.3	71.5	68.7	64.2	72.5	73.0
Vehicle Noise:	75.3	73.4	69.8	67.5	75.2	75.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	222	479	1,031	2,222
CNEL:	234	503	1,084	2,335

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Cactus Av.
Road Segment: e/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 59,560 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,956 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.09%
Medium Trucks:	86.9%	2.0%	11.1%	3.16%
Heavy Trucks:	78.7%	10.4%	10.9%	6.75%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.00	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.55	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.25	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	67.0	62.6	64.1	70.9	71.1
Medium Trucks:	65.7	64.3	54.0	56.7	64.9	65.0
Heavy Trucks:	73.4	71.6	68.8	64.2	72.6	73.0
Vehicle Noise:	75.4	73.4	69.9	67.6	75.3	75.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	225	484	1,043	2,246
CNEL:	236	509	1,096	2,361

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Cactus Av.
Road Segment: e/o Frederick St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	60,060 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	6,006 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.98%
Medium Trucks:	86.9%	2.0%	11.1%	3.20%
Heavy Trucks:	78.7%	10.4%	10.9%	6.82%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	98.494
Medium Trucks:	98.404
Heavy Trucks:	98.413

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	5.03	-4.52	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-9.46	-4.51	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-6.17	-4.51	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.5	67.0	62.6	64.2	71.0	71.1
Medium Trucks:	65.8	64.4	54.1	56.7	65.0	65.1
Heavy Trucks:	73.5	71.7	68.9	64.3	72.7	73.1
Vehicle Noise:	75.5	73.5	69.9	67.6	75.3	75.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	227	489	1,053	2,268
CNEL:	238	514	1,107	2,385

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Cactus Av.
Road Segment: e/o Graham St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	50,460 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	5,046 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	90.18%
Medium Trucks:	86.9%	2.0%	11.1%	3.13%
Heavy Trucks:	78.7%	10.4%	10.9%	6.69%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	98.494
Medium Trucks:	98.404
Heavy Trucks:	98.413

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	4.29	-4.52	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	81.00	-10.31	-4.51	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-7.01	-4.51	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.8	66.3	61.9	63.4	70.2	70.4
Medium Trucks:	65.0	63.6	53.3	55.9	64.2	64.3
Heavy Trucks:	72.7	70.8	68.1	63.5	71.8	72.3
Vehicle Noise:	74.6	72.7	69.1	66.8	74.5	74.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	200	432	930	2,004
CNEL:	211	454	978	2,107

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Cactus Av.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	31,700 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	3,170 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.87%
Medium Trucks:	86.9%	2.0%	11.1%	3.23%
Heavy Trucks:	78.7%	10.4%	10.9%	6.89%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	98.494
Medium Trucks:	98.404
Heavy Trucks:	98.413

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	2.71	-4.52	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-11.73	-4.51	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-8.44	-4.51	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.5	63.0	58.5	60.1	66.9	67.1
Medium Trucks:	62.0	60.6	50.3	52.9	61.2	61.3
Heavy Trucks:	70.1	68.3	65.5	60.9	69.3	69.7
Vehicle Noise:	71.9	69.9	66.4	63.9	71.7	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	129	278	599	1,291
CNEL:	136	293	631	1,360

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: John F. Kennedy Dr.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,700 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,070 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	89.81%
Medium Trucks:	86.9%	2.0%	11.1%	3.26%
Heavy Trucks:	78.7%	10.4%	10.9%	6.94%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.01	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-16.42	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-13.13	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	60.8	58.3	53.9	55.5	62.3	62.4
Medium Trucks:	57.4	56.0	45.7	48.3	56.6	56.7
Heavy Trucks:	65.5	63.7	60.9	56.3	64.7	65.1
Vehicle Noise:	67.2	65.3	61.8	59.3	67.1	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	64	137	295	636
CNEL:	67	144	311	670

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Krameria Av.
Road Segment: e/o Indian St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,500 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	550 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	90.83%
Medium Trucks:	86.9%	2.0%	11.1%	2.93%
Heavy Trucks:	78.7%	10.4%	10.9%	6.24%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.945
Medium Trucks:	99.856
Heavy Trucks:	99.865

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-4.34	-4.62	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	77.72	-19.26	-4.61	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-15.97	-4.61	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	56.4	53.9	49.4	51.0	57.8	58.0
Medium Trucks:	52.6	51.2	40.9	43.6	51.9	52.0
Heavy Trucks:	61.2	59.4	56.6	52.0	60.4	60.8
Vehicle Noise:	62.9	60.9	57.5	54.9	62.7	63.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	32	70	151	325
CNEL:	34	74	159	342

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,230 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,923 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	90.29%
Medium Trucks:	86.9%	2.0%	11.1%	3.10%
Heavy Trucks:	78.7%	10.4%	10.9%	6.62%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	97.206
Medium Trucks:	97.115
Heavy Trucks:	97.124

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	2.38	-4.43	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-12.27	-4.43	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-8.97	-4.43	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.2	62.7	58.3	59.8	66.7	66.8
Medium Trucks:	61.6	60.1	49.8	52.5	60.8	60.9
Heavy Trucks:	69.7	67.8	65.1	60.5	68.8	69.3
Vehicle Noise:	71.5	69.5	66.0	63.5	71.3	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	122	262	565	1,218
CNEL:	128	276	595	1,282

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	24,130 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,413 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	90.50%
Medium Trucks:	86.9%	2.0%	11.1%	3.03%
Heavy Trucks:	78.7%	10.4%	10.9%	6.48%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	1.55	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-13.20	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-9.90	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.2	61.7	57.3	58.9	65.7	65.9
Medium Trucks:	60.5	59.1	48.8	51.4	59.7	59.8
Heavy Trucks:	68.6	66.7	64.0	59.4	67.7	68.2
Vehicle Noise:	70.4	68.5	64.9	62.5	70.3	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	104	224	482	1,039
CNEL:	109	236	508	1,094

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Opening Year Cumulative w/ Proj
Road Name: Harley Knox Bl.
Road Segment: e/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,830 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	2,383 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	100.0 feet
Centerline Dist. to Observer:	100.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	67.7%	6.1%	26.2%	90.51%
Medium Trucks:	86.9%	2.0%	11.1%	3.03%
Heavy Trucks:	78.7%	10.4%	10.9%	6.47%

Noise Source Elevations (in feet)

Autos:	0.000
Medium Trucks:	2.297
Heavy Trucks:	8.004

Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos:	99.403
Medium Trucks:	99.314
Heavy Trucks:	99.323

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	1.50	-4.58	-1.20	*-4.77*	0.000	0.000
Medium Trucks:	79.45	-13.26	-4.57	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-9.96	-4.57	-1.20	*-5.16*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.2	61.7	57.3	58.8	65.6	65.8
Medium Trucks:	60.4	59.0	48.7	51.3	59.6	59.7
Heavy Trucks:	68.5	66.7	63.9	59.4	67.7	68.2
Vehicle Noise:	70.3	68.4	64.9	62.5	70.2	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	103	222	478	1,030
CNEL:	108	234	503	1,084

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Graham St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 13,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,300 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-1.17	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-15.53	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-12.25	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.6	59.1	54.7	56.2	63.0	63.2
Medium Trucks:	58.2	56.8	46.5	49.1	57.4	57.5
Heavy Trucks:	66.3	64.5	61.7	57.1	65.5	65.9
Vehicle Noise:	68.0	66.1	62.6	60.1	67.8	68.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	155	333	717
CNEL:	76	163	351	756

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Graham St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 20,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,000 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.70	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.66	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.37	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.4	61.0	56.5	58.1	64.9	65.1
Medium Trucks:	60.1	58.7	48.4	51.0	59.3	59.4
Heavy Trucks:	68.2	66.3	63.6	59.0	67.3	67.8
Vehicle Noise:	69.9	68.0	64.5	61.9	69.7	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	96	206	444	956
CNEL:	101	217	467	1,007

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Heacock St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 18,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,860 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.39	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.98	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.69	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.2	60.7	56.3	57.9	64.7	64.8
Medium Trucks:	59.8	58.4	48.1	50.8	59.1	59.1
Heavy Trucks:	67.9	66.1	63.3	58.8	67.1	67.6
Vehicle Noise:	69.7	67.7	64.2	61.7	69.5	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	92	199	428	923
CNEL:	97	209	451	972

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Heacock St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 28,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,810 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.18	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-12.18	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-8.90	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.0	62.5	58.1	59.7	66.5	66.6
Medium Trucks:	61.6	60.2	49.9	52.6	60.8	60.9
Heavy Trucks:	69.7	67.9	65.1	60.6	68.9	69.4
Vehicle Noise:	71.5	69.5	66.0	63.5	71.3	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	122	262	564	1,215
CNEL:	128	276	594	1,280

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Heacock St.
Road Segment: s/o John F. Kennedy Dr.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 27,200 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,720 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.58	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-12.78	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-9.50	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.1	63.7	59.2	60.8	67.6	67.8
Medium Trucks:	62.6	61.2	50.9	53.5	61.8	61.9
Heavy Trucks:	70.3	68.4	65.7	61.1	69.4	69.9
Vehicle Noise:	72.2	70.2	66.7	64.3	72.0	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	137	295	636	1,370
CNEL:	144	310	669	1,440

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Heacock St.
Road Segment: s/o Gentian Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 24,000 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,400 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.04	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.33	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.04	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	63.0	58.5	60.1	66.9	67.1
Medium Trucks:	61.9	60.5	50.2	52.8	61.1	61.2
Heavy Trucks:	69.6	67.7	65.0	60.4	68.7	69.2
Vehicle Noise:	71.5	69.6	66.0	63.6	71.4	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	123	265	572	1,232
CNEL:	130	279	601	1,296

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Heacock St.
Road Segment: s/o Iris Av.

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 23,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,330 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.91	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.46	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.17	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.3	62.8	58.4	60.0	66.8	67.0
Medium Trucks:	61.8	60.4	50.1	52.7	61.0	61.1
Heavy Trucks:	69.4	67.6	64.8	60.3	68.6	69.1
Vehicle Noise:	71.4	69.4	65.9	63.5	71.2	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	121	260	561	1,208
CNEL:	127	274	590	1,270

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Heacock St.
Road Segment: s/o Krameria Av. (North)

Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 23,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,390 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.02	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.34	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.06	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.0	58.5	60.1	66.9	67.1
Medium Trucks:	61.9	60.5	50.2	52.8	61.1	61.2
Heavy Trucks:	69.5	67.7	65.0	60.4	68.7	69.2
Vehicle Noise:	71.5	69.5	66.0	63.6	71.3	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	123	265	570	1,229
CNEL:	129	278	600	1,292

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project *Project Name:* MV Logistics Center
Road Name: Heacock St. *Job Number:* 9303
Road Segment: n/o Cardinal Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 23,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,390 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.99	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-12.38	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-9.09	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.9	60.4	55.9	57.5	64.3	64.5
Medium Trucks:	59.7	58.3	48.0	50.6	58.9	59.0
Heavy Trucks:	68.3	66.4	63.7	59.1	67.4	67.9
Vehicle Noise:	69.8	67.9	64.5	61.7	69.6	69.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	93	201	434	935
CNEL:	99	212	458	986

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project *Project Name:* MV Logistics Center
Road Name: Heacock St. *Job Number:* 9303
Road Segment: s/o Cardinal Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 23,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,390 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.99	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-12.38	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-9.09	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.9	60.4	55.9	57.5	64.3	64.5
Medium Trucks:	59.7	58.3	48.0	50.6	58.9	59.0
Heavy Trucks:	68.3	66.4	63.7	59.1	67.4	67.9
Vehicle Noise:	69.8	67.9	64.5	61.7	69.6	69.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	93	201	434	935
CNEL:	99	212	458	986

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project *Project Name:* MV Logistics Center
Road Name: Heacock St. *Job Number:* 9303
Road Segment: s/o San Michele Rd.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 12,500 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,250 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.80	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-16.16	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-12.87	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.6	60.1	55.7	57.3	64.1	64.3
Medium Trucks:	59.1	57.7	47.3	50.0	58.3	58.4
Heavy Trucks:	66.7	64.9	62.1	57.6	65.9	66.4
Vehicle Noise:	68.7	66.7	63.1	60.8	68.5	68.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	80	172	370	798
CNEL:	84	181	389	839

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project *Project Name:* MV Logistics Center
Road Name: Heacock St. *Job Number:* 9303
Road Segment: s/o Nandina Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 810 vehicles
Vehicle Speed: 25 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-0.67	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	70.80	-15.03	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	77.97	-11.75	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.3	49.8	45.4	46.9	53.7	53.9
Medium Trucks:	50.0	48.6	38.3	40.9	49.2	49.3
Heavy Trucks:	60.5	58.6	55.9	51.3	59.6	60.1
Vehicle Noise:	61.4	59.5	56.3	52.9	60.9	61.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	53	115	248
CNEL:	26	57	122	263

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Indian St.
Road Segment: n/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 13,400 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,340 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.50	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-15.86	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-12.57	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.0	60.5	56.1	57.6	64.5	64.6
Medium Trucks:	59.4	58.0	47.7	50.3	58.6	58.7
Heavy Trucks:	67.1	65.3	62.5	57.9	66.3	66.7
Vehicle Noise:	69.0	67.1	63.5	61.2	68.9	69.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	84	182	391	843
CNEL:	89	191	412	887

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Indian St.
Road Segment: s/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 18,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,890 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.00	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.36	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.08	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.5	62.0	57.6	59.1	65.9	66.1
Medium Trucks:	60.9	59.5	49.2	51.8	60.1	60.2
Heavy Trucks:	68.6	66.8	64.0	59.4	67.8	68.2
Vehicle Noise:	70.5	68.6	65.0	62.7	70.4	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	106	228	492	1,061
CNEL:	112	240	518	1,115

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Cactus Av.
Road Segment: w/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 68,400 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 6,840 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.58	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-8.78	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-5.49	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.1	67.6	63.2	64.7	71.5	71.7
Medium Trucks:	66.5	65.1	54.8	57.4	65.7	65.8
Heavy Trucks:	74.2	72.3	69.6	65.0	73.3	73.8
Vehicle Noise:	76.1	74.2	70.6	68.2	76.0	76.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	250	539	1,160	2,500
CNEL:	263	566	1,220	2,629

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Cactus Av.
Road Segment: e/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 60,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 6,060 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.06	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.30	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.02	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	67.1	62.6	64.2	71.0	71.2
Medium Trucks:	66.0	64.6	54.3	56.9	65.2	65.3
Heavy Trucks:	73.6	71.8	69.1	64.5	72.8	73.3
Vehicle Noise:	75.6	73.6	70.1	67.7	75.4	75.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	231	497	1,070	2,306
CNEL:	242	522	1,126	2,425

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Cactus Av.
Road Segment: e/o Frederick St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 59,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,960 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.99	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.38	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.09	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.5	67.0	62.6	64.1	70.9	71.1
Medium Trucks:	65.9	64.5	54.2	56.8	65.1	65.2
Heavy Trucks:	73.6	71.7	69.0	64.4	72.7	73.2
Vehicle Noise:	75.5	73.6	70.0	67.6	75.4	75.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	228	491	1,059	2,281
CNEL:	240	517	1,113	2,398

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Cactus Av.
Road Segment: e/o Graham St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 50,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,080 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.29	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-10.07	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.78	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.8	66.3	61.9	63.4	70.2	70.4
Medium Trucks:	65.2	63.8	53.5	56.1	64.4	64.5
Heavy Trucks:	72.9	71.0	68.3	63.7	72.0	72.5
Vehicle Noise:	74.8	72.9	69.3	67.0	74.7	75.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	205	442	952	2,050
CNEL:	216	464	1,001	2,156

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Cactus Av.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 43,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 4,360 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.09	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-10.28	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-6.99	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.3	59.9	61.5	68.3	68.5
Medium Trucks:	63.5	62.1	51.7	54.4	62.7	62.8
Heavy Trucks:	71.5	69.7	67.0	62.4	70.7	71.2
Vehicle Noise:	73.3	71.4	67.8	65.3	73.1	73.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	161	346	746	1,608
CNEL:	169	365	786	1,693

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: John F. Kennedy Dr.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 15,500 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,550 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.41	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-14.77	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.48	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.4	59.9	55.5	57.1	63.9	64.1
Medium Trucks:	59.1	57.7	47.3	50.0	58.3	58.4
Heavy Trucks:	67.1	65.3	62.6	58.0	66.3	66.8
Vehicle Noise:	68.9	67.0	63.4	60.9	68.7	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	82	176	379	817
CNEL:	86	185	400	861

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Krameria Av.
Road Segment: e/o Indian St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 810 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 12 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.945
Medium Trucks: 99.856
Heavy Trucks: 99.865

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.71	-4.62	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-17.07	-4.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-13.79	-4.61	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.0	55.5	51.1	52.6	59.4	59.6
Medium Trucks:	54.8	53.4	43.1	45.7	54.0	54.1
Heavy Trucks:	63.4	61.6	58.8	54.2	62.6	63.0
Vehicle Noise:	64.9	63.0	59.6	56.9	64.7	65.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	44	95	205	442
CNEL:	47	100	216	466

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 35,500 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,550 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.19	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-11.17	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-7.88	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.0	63.5	59.1	60.7	67.5	67.6
Medium Trucks:	62.7	61.2	50.9	53.6	61.9	62.0
Heavy Trucks:	70.7	68.9	66.2	61.6	69.9	70.4
Vehicle Noise:	72.5	70.6	67.0	64.5	72.3	72.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	142	306	659	1,420
CNEL:	150	322	694	1,496

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 39,300 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,930 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.63	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-10.73	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-7.44	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	63.8	59.4	61.0	67.8	67.9
Medium Trucks:	62.9	61.5	51.2	53.9	62.2	62.3
Heavy Trucks:	71.0	69.2	66.4	61.9	70.2	70.7
Vehicle Noise:	72.8	70.9	67.3	64.8	72.6	72.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	149	320	690	1,486
CNEL:	157	337	727	1,565

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/o Project
Road Name: Harley Knox Bl.
Road Segment: e/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 39,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,960 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.71%
Medium Trucks:	86.9%	2.0%	11.1%	3.29%
Heavy Trucks:	78.7%	10.4%	10.9%	7.00%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 Grade Adjustment: 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.67	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-10.69	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-7.41	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.3	63.9	59.4	61.0	67.8	68.0
Medium Trucks:	63.0	61.6	51.3	53.9	62.2	62.3
Heavy Trucks:	71.1	69.2	66.5	61.9	70.2	70.7
Vehicle Noise:	72.8	70.9	67.4	64.8	72.6	73.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	149	322	693	1,494
CNEL:	157	339	730	1,573

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Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Graham St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 13,500 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,350 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.09%
Medium Trucks:	86.9%	2.0%	11.1%	3.16%
Heavy Trucks:	78.7%	10.4%	10.9%	6.74%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.99	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-15.53	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-12.25	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.8	59.3	54.8	56.4	63.2	63.4
Medium Trucks:	58.2	56.8	46.5	49.1	57.4	57.5
Heavy Trucks:	66.3	64.5	61.7	57.1	65.5	65.9
Vehicle Noise:	68.1	66.1	62.6	60.1	67.9	68.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	72	156	336	724
CNEL:	76	164	354	762

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Graham St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 22,900 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,290 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.01%
Medium Trucks:	86.9%	2.0%	11.1%	2.87%
Heavy Trucks:	78.7%	10.4%	10.9%	6.12%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	1.35	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.66	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.37	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.1	61.6	57.2	58.7	65.6	65.7
Medium Trucks:	60.1	58.7	48.4	51.0	59.3	59.4
Heavy Trucks:	68.2	66.3	63.6	59.0	67.3	67.8
Vehicle Noise:	70.1	68.1	64.6	62.2	69.9	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	99	213	459	990
CNEL:	104	224	483	1,041

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: n/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 19,110 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,911 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.93%
Medium Trucks:	86.9%	2.0%	11.1%	3.21%
Heavy Trucks:	78.7%	10.4%	10.9%	6.85%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.51	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-13.95	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-10.67	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.3	60.9	56.4	58.0	64.8	65.0
Medium Trucks:	59.9	58.5	48.1	50.8	59.1	59.2
Heavy Trucks:	68.0	66.1	63.4	58.8	67.1	67.6
Vehicle Noise:	69.7	67.8	64.3	61.8	69.5	69.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	93	201	432	931
CNEL:	98	211	455	981

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o Cactus Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 31,050 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,105 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.53%
Medium Trucks:	86.9%	2.0%	11.1%	3.02%
Heavy Trucks:	78.7%	10.4%	10.9%	6.45%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	2.65	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-12.12	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-8.82	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	63.0	58.6	60.1	66.9	67.1
Medium Trucks:	61.7	60.3	50.0	52.6	60.9	61.0
Heavy Trucks:	69.8	68.0	65.2	60.6	69.0	69.4
Vehicle Noise:	71.6	69.7	66.2	63.7	71.5	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	126	270	583	1,256
CNEL:	132	285	613	1,321

Tuesday, November 17, 2015

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o John F. Kennedy Dr.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 30,250 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,025 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.58%
Medium Trucks:	86.9%	2.0%	11.1%	3.00%
Heavy Trucks:	78.7%	10.4%	10.9%	6.42%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	2.08	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-12.72	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-9.42	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.7	64.2	59.7	61.3	68.1	68.3
Medium Trucks:	62.7	61.3	50.9	53.6	61.9	62.0
Heavy Trucks:	70.3	68.5	65.7	61.2	69.5	70.0
Vehicle Noise:	72.4	70.4	66.8	64.6	72.3	72.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	142	306	659	1,420
CNEL:	149	322	693	1,492

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o Gentian Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 27,050 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,705 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.69%
Medium Trucks:	86.9%	2.0%	11.1%	2.97%
Heavy Trucks:	78.7%	10.4%	10.9%	6.35%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.60	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.25	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-9.95	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.0	63.5	59.1	60.7	67.5	67.7
Medium Trucks:	62.0	60.6	50.3	52.9	61.2	61.3
Heavy Trucks:	69.7	67.8	65.1	60.5	68.8	69.3
Vehicle Noise:	71.7	69.8	66.2	63.9	71.6	71.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	128	277	596	1,284
CNEL:	135	291	626	1,349

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o Iris Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 26,350 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,635 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.71%
Medium Trucks:	86.9%	2.0%	11.1%	2.96%
Heavy Trucks:	78.7%	10.4%	10.9%	6.33%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.49	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.38	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.07	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	63.4	59.0	60.6	67.4	67.5
Medium Trucks:	61.9	60.4	50.1	52.8	61.1	61.2
Heavy Trucks:	69.5	67.7	64.9	60.4	68.7	69.2
Vehicle Noise:	71.6	69.6	66.0	63.8	71.5	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	126	272	585	1,260
CNEL:	132	285	615	1,324

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o Krameria Av. (North)
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 25,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,510 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.20%
Medium Trucks:	86.9%	2.0%	11.1%	3.13%
Heavy Trucks:	78.7%	10.4%	10.9%	6.67%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	1.25	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-13.34	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-10.06	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.2	58.8	60.3	67.1	67.3
Medium Trucks:	61.9	60.5	50.2	52.8	61.1	61.2
Heavy Trucks:	69.5	67.7	65.0	60.4	68.7	69.2
Vehicle Noise:	71.5	69.6	66.0	63.7	71.4	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	125	268	578	1,245
CNEL:	131	282	607	1,309

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: n/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 25,700 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,570 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.43%
Medium Trucks:	86.9%	2.0%	11.1%	3.06%
Heavy Trucks:	78.7%	10.4%	10.9%	6.51%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	2.34	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-12.38	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-9.09	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.2	60.7	56.3	57.9	64.7	64.8
Medium Trucks:	59.7	58.3	48.0	50.6	58.9	59.0
Heavy Trucks:	68.3	66.4	63.7	59.1	67.4	67.9
Vehicle Noise:	69.9	68.0	64.5	61.9	69.7	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	95	205	441	950
CNEL:	100	216	465	1,002

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o Cardinal Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 25,830 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 2,583 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.36%
Medium Trucks:	86.9%	2.0%	11.1%	3.07%
Heavy Trucks:	78.7%	10.4%	10.9%	6.56%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	2.36	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-12.33	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-9.03	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.2	60.7	56.3	57.9	64.7	64.9
Medium Trucks:	59.8	58.4	48.0	50.7	59.0	59.1
Heavy Trucks:	68.3	66.5	63.7	59.2	67.5	68.0
Vehicle Noise:	69.9	68.0	64.6	61.9	69.7	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	96	206	444	957
CNEL:	101	217	468	1,009

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o San Michele Rd.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 14,430 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,443 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.88%
Medium Trucks:	86.9%	2.0%	11.1%	2.90%
Heavy Trucks:	78.7%	10.4%	10.9%	6.22%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.12	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-16.08	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-12.77	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.3	60.8	56.4	58.0	64.8	64.9
Medium Trucks:	59.2	57.7	47.4	50.1	58.4	58.5
Heavy Trucks:	66.8	65.0	62.2	57.7	66.0	66.5
Vehicle Noise:	68.9	67.0	63.4	61.2	68.8	69.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	84	181	389	838
CNEL:	88	190	408	880

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Heacock St.
Road Segment: s/o Nandina Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 10,030 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,003 vehicles
Vehicle Speed: 25 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	91.39%
Medium Trucks:	86.9%	2.0%	11.1%	2.73%
Heavy Trucks:	78.7%	10.4%	10.9%	5.87%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	0.34	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	70.80	-14.90	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	77.97	-11.58	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.3	50.8	46.4	47.9	54.8	54.9
Medium Trucks:	50.1	48.7	38.4	41.0	49.3	49.4
Heavy Trucks:	60.6	58.8	56.0	51.4	59.8	60.3
Vehicle Noise:	61.7	59.8	56.5	53.3	61.3	61.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	26	56	121	261
CNEL:	28	60	129	277

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Indian St.
Road Segment: n/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 13,800 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,380 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.01%
Medium Trucks:	86.9%	2.0%	11.1%	3.19%
Heavy Trucks:	78.7%	10.4%	10.9%	6.80%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.35	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-15.86	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-12.57	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.1	60.6	56.2	57.8	64.6	64.8
Medium Trucks:	59.4	58.0	47.7	50.3	58.6	58.7
Heavy Trucks:	67.1	65.3	62.5	57.9	66.3	66.7
Vehicle Noise:	69.1	67.1	63.5	61.2	68.9	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	85	183	395	850
CNEL:	89	192	415	894

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Indian St.
Road Segment: s/o Krameria Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 19,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,910 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.82%
Medium Trucks:	86.9%	2.0%	11.1%	3.25%
Heavy Trucks:	78.7%	10.4%	10.9%	6.93%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	0.05	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-14.36	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-11.08	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.5	62.0	57.6	59.2	66.0	66.2
Medium Trucks:	60.9	59.5	49.2	51.8	60.1	60.2
Heavy Trucks:	68.6	66.8	64.0	59.4	67.8	68.2
Vehicle Noise:	70.5	68.6	65.0	62.7	70.4	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	106	229	494	1,064
CNEL:	112	241	519	1,118

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Cactus Av.
Road Segment: w/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 70,340 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 7,034 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.94%
Medium Trucks:	86.9%	2.0%	11.1%	3.21%
Heavy Trucks:	78.7%	10.4%	10.9%	6.85%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.72	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-8.76	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-5.47	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	70.2	67.7	63.3	64.8	71.7	71.8
Medium Trucks:	66.5	65.1	54.8	57.4	65.7	65.8
Heavy Trucks:	74.2	72.4	69.6	65.0	73.4	73.8
Vehicle Noise:	76.2	74.2	70.6	68.3	76.0	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	252	544	1,172	2,525
CNEL:	265	572	1,232	2,654

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Cactus Av.
Road Segment: e/o Elsworth St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 62,540 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 6,254 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.97%
Medium Trucks:	86.9%	2.0%	11.1%	3.20%
Heavy Trucks:	78.7%	10.4%	10.9%	6.83%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.21	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.28	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-5.99	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.7	67.2	62.8	64.3	71.2	71.3
Medium Trucks:	66.0	64.6	54.3	56.9	65.2	65.3
Heavy Trucks:	73.7	71.8	69.1	64.5	72.8	73.3
Vehicle Noise:	75.6	73.7	70.1	67.8	75.5	75.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	233	502	1,082	2,332
CNEL:	245	528	1,138	2,451

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Cactus Av.
Road Segment: e/o Frederick St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 61,540 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 6,154 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.97%
Medium Trucks:	86.9%	2.0%	11.1%	3.20%
Heavy Trucks:	78.7%	10.4%	10.9%	6.83%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	5.14	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-9.35	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.06	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.6	67.1	62.7	64.3	71.1	71.3
Medium Trucks:	65.9	64.5	54.2	56.8	65.1	65.2
Heavy Trucks:	73.6	71.8	69.0	64.4	72.8	73.2
Vehicle Noise:	75.6	73.6	70.0	67.7	75.4	75.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	231	497	1,071	2,306
CNEL:	242	522	1,125	2,425

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Cactus Av.
Road Segment: e/o Graham St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 52,740 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 5,274 vehicles
Vehicle Speed: 50 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.01%
Medium Trucks:	86.9%	2.0%	11.1%	3.19%
Heavy Trucks:	78.7%	10.4%	10.9%	6.80%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	4.47	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-10.04	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-6.75	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	66.5	62.0	63.6	70.4	70.6
Medium Trucks:	65.2	63.8	53.5	56.2	64.5	64.5
Heavy Trucks:	72.9	71.1	68.3	63.7	72.1	72.6
Vehicle Noise:	74.9	72.9	69.4	67.1	74.8	75.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	208	448	964	2,077
CNEL:	218	471	1,014	2,184

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Cactus Av.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 44,100 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 4,410 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 36 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.83%
Medium Trucks:	86.9%	2.0%	11.1%	3.25%
Heavy Trucks:	78.7%	10.4%	10.9%	6.92%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 98.494
Medium Trucks: 98.404
Heavy Trucks: 98.413

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	4.14	-4.52	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-10.28	-4.51	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-6.99	-4.51	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	64.4	60.0	61.5	68.3	68.5
Medium Trucks:	63.5	62.1	51.7	54.4	62.7	62.8
Heavy Trucks:	71.5	69.7	67.0	62.4	70.7	71.2
Vehicle Noise:	73.3	71.4	67.9	65.3	73.1	73.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	161	347	748	1,612
CNEL:	170	366	788	1,698

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: John F. Kennedy Dr.
Road Segment: e/o Heacock St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 15,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 1,560 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: **0.0 feet**
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.78%
Medium Trucks:	86.9%	2.0%	11.1%	3.26%
Heavy Trucks:	78.7%	10.4%	10.9%	6.96%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-0.37	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-14.77	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-11.48	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.5	60.0	55.5	57.1	63.9	64.1
Medium Trucks:	59.1	57.7	47.3	50.0	58.3	58.4
Heavy Trucks:	67.1	65.3	62.6	58.0	66.3	66.8
Vehicle Noise:	68.9	67.0	63.4	60.9	68.7	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	82	176	380	819
CNEL:	86	186	400	862

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Krameria Av.
Road Segment: e/o Indian St.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 8,600 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 860 vehicles
Vehicle Speed: 40 mph
Near/Far Lane Distance: 12 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.31%
Medium Trucks:	86.9%	2.0%	11.1%	3.09%
Heavy Trucks:	78.7%	10.4%	10.9%	6.60%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.945
Medium Trucks: 99.856
Heavy Trucks: 99.865

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.42	-4.62	-1.20	-4.77	0.000	0.000
Medium Trucks:	77.72	-17.07	-4.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-13.79	-4.61	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	55.8	51.4	52.9	59.7	59.9
Medium Trucks:	54.8	53.4	43.1	45.7	54.0	54.1
Heavy Trucks:	63.4	61.6	58.8	54.2	62.6	63.0
Vehicle Noise:	65.0	63.1	59.6	57.0	64.8	65.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	45	97	208	448
CNEL:	47	102	219	472

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Harley Knox Bl.
Road Segment: w/o Patterson Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 38,350 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 3,835 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 48 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.35%
Medium Trucks:	86.9%	2.0%	11.1%	3.08%
Heavy Trucks:	78.7%	10.4%	10.9%	6.58%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 97.206
Medium Trucks: 97.115
Heavy Trucks: 97.124

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.56	-4.43	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-11.12	-4.43	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-7.82	-4.43	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.4	63.9	59.5	61.0	67.8	68.0
Medium Trucks:	62.7	61.3	51.0	53.6	61.9	62.0
Heavy Trucks:	70.8	69.0	66.2	61.6	70.0	70.4
Vehicle Noise:	72.6	70.7	67.2	64.7	72.4	72.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	146	314	676	1,457
CNEL:	153	330	712	1,533

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Harley Knox Bl.
Road Segment: w/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 42,350 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 4,235 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	90.33%
Medium Trucks:	86.9%	2.0%	11.1%	3.08%
Heavy Trucks:	78.7%	10.4%	10.9%	6.58%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.99	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-10.68	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-7.38	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.7	64.2	59.8	61.3	68.1	68.3
Medium Trucks:	63.0	61.6	51.3	53.9	62.2	62.3
Heavy Trucks:	71.1	69.3	66.5	61.9	70.3	70.7
Vehicle Noise:	72.9	71.0	67.4	65.0	72.7	73.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	152	328	707	1,522
CNEL:	160	345	744	1,602

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GP Building (2035) w/ Project
Road Name: Harley Knox Bl.
Road Segment: e/o Webster Av.
Project Name: MV Logistics Center
Job Number: 9303

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt): 40,720 vehicles
Peak Hour Percentage: 10%
Peak Hour Volume: 4,072 vehicles
Vehicle Speed: 45 mph
Near/Far Lane Distance: 24 feet

Site Data

Barrier Height: 0.0 feet
Barrier Type (0-Wall, 1-Berm): 0.0
Centerline Dist. to Barrier: 100.0 feet
Centerline Dist. to Observer: 100.0 feet
Barrier Distance to Observer: 0.0 feet
Observer Height (Above Pad): 5.0 feet
Pad Elevation: 0.0 feet
Road Elevation: 0.0 feet
Road Grade: 0.0%
Left View: -90.0 degrees
Right View: 90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos: 15
Medium Trucks (2 Axles): 15
Heavy Trucks (3+ Axles): 15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	67.7%	6.1%	26.2%	89.95%
Medium Trucks:	86.9%	2.0%	11.1%	3.21%
Heavy Trucks:	78.7%	10.4%	10.9%	6.84%

Noise Source Elevations (in feet)

Autos: 0.000
Medium Trucks: 2.297
Heavy Trucks: 8.004 *Grade Adjustment:* 0.0

Lane Equivalent Distance (in feet)

Autos: 99.403
Medium Trucks: 99.314
Heavy Trucks: 99.323

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.80	-4.58	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-10.67	-4.57	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-7.39	-4.57	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.5	64.0	59.6	61.1	67.9	68.1
Medium Trucks:	63.0	61.6	51.3	53.9	62.2	62.3
Heavy Trucks:	71.1	69.3	66.5	61.9	70.3	70.7
Vehicle Noise:	72.9	70.9	67.4	64.9	72.7	73.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	151	325	700	1,507
CNEL:	159	342	737	1,587

APPENDIX 9.1:

REFERENCE NOISE SOURCE PHOTOS

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URBAN CROSSROADS
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SUBJECT: OPERATIONAL REFERENCE NOISE LEVEL MEASUREMENTS MEMO

The following reference noise level measurements were collected to represent the operational noise sources within the Project site. This appendix includes reference noise source descriptions and photos for each location.

NATURE'S BEST DISTRIBUTION FACILITY (COLD STORAGE)

On Wednesday, January 7th, 2015, Urban Crossroads, Inc. collected short-term operational noise level measurements at the Nature's Best distribution facility located at 16081 Fern Avenue in the City of Chino. Operations at the Nature's Best distribution facility measurements represent the typical weekday logistics warehouse activities with both dry goods and cold storage from a single building with loading dock areas located on both sides of the building. To describe the loading dock activities, a reference noise level measurement was collected to represent the truck idling/reefer activity. A second reference noise level measurement at this location was collected to assess the entry gate noise source activity.

TRUCK IDLING/REEFER ACTIVITY

During the fourteen minute truck idling/reefer activity reference noise level measurement, approximately twenty delivery trucks were docked, idling, or parked in the northern loading dock area. The truck idling/reefer activity reference noise level measurement was taken in the center of the loading dock activity area, and represents multiple concurrent noise sources resulting in a combined noise level of 70.1 dBA Leq.

Specifically, the truck idling/reefer activity reference noise level measurement represents one truck located approximately thirty feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

ENTRY GATE ACTIVITY

The entry gate activity reference noise level measurement was taken over a ten minute period and represents the multiple noise sources associated with the eastern entry gate to the loading dock area of the Nature's Best distribution center producing a reference noise level of 69.2 dBA Leq. The entry gate activity noise sources included in this measurement account for the sound of the gates rattling and squeaking during normal opening and closing operations, the gate closure equipment, as well as the associated noise as trucks approach and stop at the gate.

MOTIVATIONAL FULFILLMENT & LOGISTICS SERVICES DISTRIBUTION FACILITY (DRY GOODS)

Additional short-term reference noise level measurements were collected on Wednesday, January 7th, 2015, by Urban Crossroads, Inc. at the Motivational Fulfillment & Logistics Services distribution facility

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

located at 6810 Bickmore Avenue in the City of Chino. The noise level measurements represent the typical weekday dry goods logistics warehouse operation in a single building with a loading dock area on the western side of the building façade. Two reference noise level measurements were taken at this location, including entry gate activity and unloading/docking activity noise sources. Up to ten trucks were observed in the loading dock area including a combination of track trailer semi-trucks, two-axle delivery trucks, and background forklift operations.

ENTRY GATE ACTIVITY

The entry gate activity noise level measurement was taken at the southern entry gate over a fifteen minute period and represents multiple noise sources producing a reference noise level of 64.0 dBA Leq. The noise sources included at this measurement location account for the rattling and squeaking during normal opening and closing operations, the gate closure equipment, truck engines idling outside the entry gate, and background forklift backup alarm noise.

UNLOADING/DOCKING ACTIVITY

The unloading/docking activity noise level measurement was taken over a fifteen minute period and represents multiple noise sources taken from the center of loading dock activities generating a reference noise level of 67.2 dBA Leq. At this measurement location, the noise sources associated with employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm. In addition, during the noise level measurement a truck entered the loading dock area and proceeded to reverse and dock in a nearby loading bay, adding truck engine and air brakes noise.

VEGFRESH FARMS / FEDEX DISTRIBUTION FACILITY

A fifth noise level measurement, taken on Tuesday, January 22, 2013, by Urban Crossroads, Inc. included 24-hour operational noise level measurements at the Veg Fresh Farms and FedEx distribution facility located at 500 East Orangethorpe Avenue in the City of Anaheim. The Veg Fresh Farms that includes cold storage and FedEx distribution center noise level measurement represent the typical weekday logistics warehouse operation over a 24-hour period consisting of buildings with over 150 loading bays (docks). The reference noise level measurement collected at this location was 69.1 dBA Leq.

While the specific noise levels at the Project site will depend on the actual tenant, the intensity and the daytime / nighttime hours of operation, the worst-case reference noise level is used to describe the peak Project operational noise activity since it represents similar operational characteristics. The reference noise levels are intended to describe noise level impacts associated with the expected typical warehouse and distribution storage operations at the Project site.

Prepared by:

URBAN CROSSROADS, INC.

Bill Lawson, P.E., INCE
Principal

Alex Wolfe
Assistant Analyst

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Reference Measurement: Nature's Best
16081 Fern Avenue, Chino

Nature's Best_01

Nature's Best_02

Nature's Best_03

Nature's Best_04

Nature's Best_05

Nature's Best_06

Reference Measurement: Nature's Best
16081 Fern Avenue, Chino

Nature's Best_07

Nature's Best_08

Nature's Best_09

Nature's Best_10

Source_1-1

Source_1-2

Reference Measurement: Nature's Best
16081 Fern Avenue, Chino

Source_1-3

Source_1-4

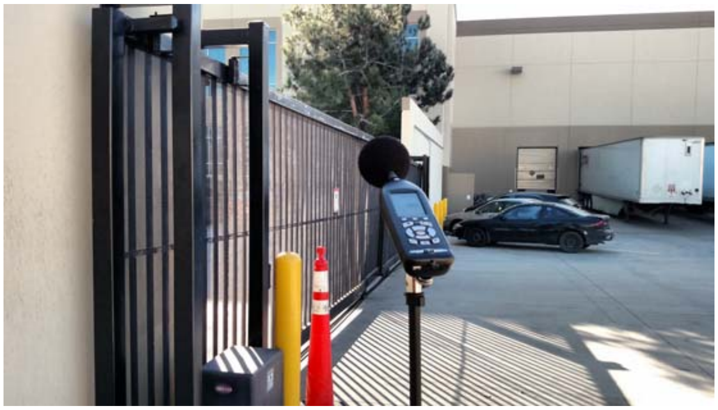

Source_2-1

Source_2-2

Source_2-3

Source_2-4

Reference Measurement: Nature's Best
16081 Fern Avenue, Chino

Source_2-5

Source_2-6

Source_2-7

Source_2-8

Reference Measurement: Motivational Fulfillment
6810 Bickmore Avenue, Chino

Motivational Fulfillment_01

Motivational Fulfillment_02

Motivational Fulfillment_03

Source_1-1

Source_1-2

Source_1-3

Reference Measurement: Motivational Fulfillment
6810 Bickmore Avenue, Chino

Source_1-4

Source_2-1

Source_2-2

Source_2-3

Source_2-4

Source_2-5

Reference Measurement: Motivational Fulfillment
6810 Bickmore Avenue, Chino

Source_2-6

Source_2-7

Source_2-8

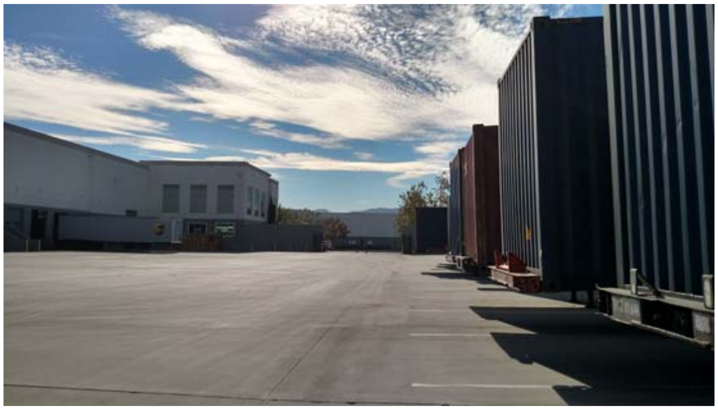

Source_2-9

Reference **Measurement: Veg Fresh Farms / FedEx**

IMG_0857
33, 51' 31.200000", 117, 54' 48.000000"

IMG_0862
33, 51' 30.600000", 117, 54' 48.600000"

IMG_0863
33, 51' 30.600000", 117, 54' 48.000000"

IMG_0872
33, 51' 33.000000", 117, 54' 42.600000"

APPENDIX 9.2:

STATIONARY-SOURCE NOISE CALCULATIONS

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STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location: **R1**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,042.0 feet
Noise Distance to Barrier: 3,032.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,510.0 feet
Noise Source Elevation: 1,485.0 feet
Barrier Elevation: 1,510.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	3,042.0	-40.1	-40.1	-40.1	-40.1	-40.1	-40.1
Shielding (Barrier Attenuation)	3,032.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		24.4	23.9	25.2	26.2	28.0	34.9
60 Minute Hourly Adjustment		**24.4**	**23.9**	**25.2**	**26.2**	**28.0**	**34.9**

STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location: **R2**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,098.0 feet
Noise Distance to Barrier: 3,098.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,504.0 feet
Noise Source Elevation: 1,487.0 feet
Barrier Elevation: 1,504.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	3,098.0	-40.3	-40.3	-40.3	-40.3	-40.3	-40.3
Shielding (Barrier Attenuation)	3,098.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		29.8	29.3	30.6	31.6	33.4	40.3
60 Minute Hourly Adjustment		**29.8**	**29.3**	**30.6**	**31.6**	**33.4**	**40.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location: **R3**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 1,792.0 feet
Noise Distance to Barrier: 1,792.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,487.0 feet
Barrier Elevation: 1,495.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0
20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	1,792.0	-35.5	-35.5	-35.5	-35.5	-35.5	-35.5
Shielding (Barrier Attenuation)	1,792.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		34.6	34.1	35.4	36.4	38.2	45.1
60 Minute Hourly Adjustment		**34.6**	**34.1**	**35.4**	**36.4**	**38.2**	**45.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location: **R4**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 726.0 feet
Noise Distance to Barrier: 716.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,489.0 feet
Noise Source Elevation: 1,487.0 feet
Barrier Elevation: 1,489.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0
20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	726.0	-27.7	-27.7	-27.7	-27.7	-27.7	-27.7
Shielding (Barrier Attenuation)	716.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		36.9	36.4	37.7	38.7	40.5	47.4
60 Minute Hourly Adjustment		**36.9**	**36.4**	**37.7**	**38.7**	**40.5**	**47.4**

STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location: **R5**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 307.0 feet
Noise Distance to Barrier: 297.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,487.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	307.0	-20.2	-20.2	-20.2	-20.2	-20.2	-20.2
Shielding (Barrier Attenuation)	297.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		44.5	44.0	45.3	46.3	48.1	55.0
60 Minute Hourly Adjustment		**44.5**	**44.0**	**45.3**	**46.3**	**48.1**	**55.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location: **R6**
Source: Truck Idle/Reefer Activity
Condition: Operational

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 264.0 feet
Noise Distance to Barrier: 254.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,485.0 feet
Barrier Elevation: 1,484.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	264.0	-18.9	-18.9	-18.9	-18.9	-18.9	-18.9
Shielding (Barrier Attenuation)	254.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		45.8	45.3	46.6	47.6	49.4	56.3
60 Minute Hourly Adjustment		**45.8**	**45.3**	**46.6**	**47.6**	**49.4**	**56.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location:	**R7**	*Project Name:*	MV Logistics
Source:	Truck Idle/Reefer Activity	*Job Number:*	9303
Condition:	Operational	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	241.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	231.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,480.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,480.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	241.0	-18.1	-18.1	-18.1	-18.1	-18.1	-18.1
Shielding (Barrier Attenuation)	231.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		46.6	46.1	47.4	48.4	50.2	57.1
60 Minute Hourly Adjustment		**46.6**	**46.1**	**47.4**	**48.4**	**50.2**	**57.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

10/8/2015

Observer Location:	**R8**	*Project Name:*	MV Logistics
Source:	Truck Idle/Reefer Activity	*Job Number:*	9303
Condition:	Operational	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	518.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	518.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,476.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	30.0	70.1	69.6	70.9	71.9	73.7	80.6
Distance Attenuation	518.0	-24.7	-24.7	-24.7	-24.7	-24.7	-24.7
Shielding (Barrier Attenuation)	518.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		45.4	44.9	46.2	47.2	49.0	55.9
60 Minute Hourly Adjustment		**45.4**	**44.9**	**46.2**	**47.2**	**49.0**	**55.9**

APPENDIX 10.1:

CONSTRUCTION REFERENCE NOISE LEVEL MEASUREMENTS MEMO

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URBAN CROSSROADS

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SUBJECT: CONSTRUCTION REFERENCE NOISE LEVEL MEASUREMENTS MEMO

This Construction Reference Noise Level Measurements Memo has been prepared to summarize the sample reference noise level measurements collected by Urban Crossroads, Inc. To describe peak construction noise activities, we have historically relied on reference noise level measurements provided in the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). However, our experience demonstrates that the RCNM significantly overstates the predicted construction noise levels. This is largely due the fact that RCNM is based on construction equipment data collected from the Central Artery/Tunnel project in Boston, Massachusetts in the early 1990's. Due to substantial changes in the air quality emission requirements in the State of California Air Resources Board (ARB), the RCNM reference noise level measurements do not adequately describe modern construction equipment noise levels. In addition, the RCNM methodology places all construction equipment at a single point near the property line. This scenario simply does not occur in the real world as typical construction activity represents a variety of equipment operating at different locations throughout the project site.

REFERENCE NOISE LEVEL MEASUREMENTS

To estimate a project's construction-related noise levels, sample reference noise level measurements of similar construction activities were collected by Urban Crossroads, Inc. to describe the different stages of construction. The reference noise levels are intended to represent typical construction noise levels when multiple pieces of equipment are operating simultaneously at a construction site. The following reference noise level measurements were collected from existing construction operations with similar equipment as those expected with future construction of comparable land uses. Appendix A includes the data collected from each of the reference noise level measurements adjusted to present noise levels at a uniform reference distance of 50 feet. Appendix B includes the reference noise source photos by identification number ("ID"). Table 1 summarizes the reference noise level measurements. The reference noise level measurements are identified by land use type and location below.

BUSINESS PARK CONSTRUCTION SITE, CITY OF IRVINE

On Wednesday, October 14th, 2015, Urban Crossroads, Inc. collected short-term construction noise level measurements at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine. The reference noise level measurements include the following noise source activities: a truck pass-by and background dozer activity (ID 1) and dozer activity (ID 2). Both measurements were taken at a distance of approximately 30 feet from the source and represent typical construction activities during the grading stage of construction.

RESIDENTIAL CONSTRUCTION SITE, CITY OF RANCHO MISSION VIEJO

On Tuesday, October 20th, 2015, Urban Crossroads, Inc. collected short-term construction noise level measurements at a residential construction site located in the unincorporated area within the County of Orange known as Rancho Mission Viejo. The reference noise level measurements include the following noise source activities: construction vehicle maintenance (ID 3), foundation trenching (ID 4), rough grading activities (ID 5), and residential building framing (ID 6). All reference measurements were taken at this location at a distance of approximately 30 feet from the noise source.

INDUSTRIAL SITE, CITY OF ONTARIO

Additional short-term reference noise level measurements were collected on Friday, October 30th, 2015, by Urban Crossroads, Inc. at an active industrial construction site in the City of Ontario. The reference noise level measurements represent the grading activities associated with industrial/warehousing construction. Five reference noise level measurements were taken at this location to describe: a water truck pass-by and backup alarm (ID 7), a dozer pass-by (ID 8), two scrapers and a water truck pass-by (ID 9), two scrapers pass-by (ID 10), and scraper, water truck and dozer activities over a 30-minute period (ID 11). All reference measurements taken at this location were at a distance of approximately 30 feet from the source.

INDUSTRIAL SITE, CITY OF REDLANDS

On July 1st, 2015, Urban Crossroads, Inc. collected short-term construction noise level measurements of a nighttime concrete pour at an industrial construction site located at 27334 San Bernardino Avenue in the City of Redlands. The reference noise level measurements include the following nighttime building construction and paving-related noise source activities: concrete mixer truck movements (ID 12), concrete paver activities (ID 13), concrete mixer pour & paving activities (ID 14), concrete mixer backup alarms and air brakes (ID 15), and a one-hour measurement over the duration of all reference measurements at this location of concrete mixer pour activities (ID 16).

TABLE 1: CONSTRUCTION REFERENCE NOISE LEVEL MEASUREMENTS SUMMARY

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance		Reference Noise Levels @ 50 Feet[6]	
			dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	68.1	59.2	63.7
2	Dozer Activity[1]	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching[2]	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities[2]	30'	77.9	84.8	73.5	80.4
6	Residential Framing[3]	30'	66.7	76.7	62.3	72.3
7	Water Truck Pass-By & Backup Alarm[4]	30'	76.3	82.3	71.9	77.9
8	Dozer Pass-By[4]	30'	84.0	89.9	79.6	85.5
9	Two Scrapers & Water Truck Pass-By[4]	30'	83.4	89.0	79.0	84.6
10	Two Scrapers Pass-By[4]	30'	83.7	86.9	79.3	82.5
11	Scraper, Water Truck, & Dozer Activity[4]	30'	79.7	87.7	75.3	83.3
12	Concrete Mixer Truck Movements[5]	50'	71.2	73.1	71.2	73.1
13	Concrete Paver Activities[5]	30'	70.0	75.7	65.6	71.3
14	Concrete Mixer Pour & Paving Activities[5]	30'	70.3	76.3	65.9	71.9
15	Concrete Mixer Backup Alarms & Air Brakes[5]	50'	71.6	78.8	71.6	78.8
16	Concrete Mixer Pour Activities[5]	50'	67.7	79.2	67.7	79.2

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.

[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.

[3] As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.

[4] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.

[5] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.

[6] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

MODELED AND MEASURED CONSTRUCTION NOISE LEVELS

A RCNM construction noise analysis was prepared by Urban Crossroads, Inc. on October 17th, 2014 for an industrial project site in the City of Ontario. The noise levels due to construction in the industrial portion of the project site (Planning Area 1) were estimated at up to thirteen receiver locations to determine the potential noise impacts at adjacent sensitive land uses. Returning to the same industrial project site over a year later, in October 2015, Urban Crossroads, Inc. collected noise level measurements at the same receiver locations to validate the modeled RCNM construction noise levels with actual construction noise level measurements collected in the field. The grading stage of construction was chosen for this comparison since grading activities typically represent the worst-case construction activities due to the number and size of the mobile equipment used in the grading process.

MODELED CONSTRUCTION NOISE LEVELS

As shown on Table 2, the modeled RCNM noise levels during the grading stage of construction were estimated to produce a noise level approaching 92.6 dBA Leq at a distance of 50 feet from the project site boundary. The RCNM noise levels reflect the combined construction noise level impacts of excavators, graders, tractors, loaders, backhoes, rubber tired dozers, and scrapers producing a noise level of 92.6 dBA Leq. At nearby receiver locations, this results in a short-term construction noise level approaching 88.2 dBA Leq.

TABLE 2: RCNM MODELED CONSTRUCTION NOISE LEVELS

Equipment Type[1]	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (dBA Leq)	Combined Level @ 50 Feet (dBA Leq)
Excavator	2	40%	3.2	81.0	80.0
Grader	8	40%	3.2	85.0	90.1
Tractor/Loader/Backhoe	5	40%	3.2	78.0	81.0
Rubber Tired Dozer	2	40%	3.2	79.0	78.0
Scraper	5	40%	3.2	84.0	87.0
Combined Hourly Noise Levels 50 Feet (Leq dBA)					92.6

Receiver Location	Distance To Property Line (Feet)[4]	Distance Attenuation (dBA Leq)[5]	Estimated Noise Barrier Attenuation (dBA Leq)	Construction Noise Level (dBA Leq)
R2	83'	-4.4	0.0	88.2
R3	78'	-3.9	-5.6	83.1

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.
[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
[4] Distance from the nearest point of construction activity to the nearest receiver.
[5] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

MEASURED CONSTRUCTION NOISE LEVELS

To describe the actual construction noise levels based on typical conditions, short-term construction noise level measurements were collected in the field during grading activities at receiver locations R2 and R3. Appendix C includes study area photos of the measurement locations and the construction activities observed from each location at the project site. To validate the construction noise levels, measurements were collected during continuous on-site grading activities on Friday, October 30th, and again on Friday, November 6th, 2015.

Grading activities observed on the site during the short-term noise level measurements include water trucks queuing and refilling at a stationary tank, trencher activity, up to three scrapers operating simultaneously, and dozer activity. The water truck queuing activity was the closest equipment observed near the project site boundaries due to the stationary location of the water refill tank, at a distance of approximately 100 feet from the receiver locations. The trencher was observed at a distance of roughly 600 feet from the receiver locations, and the scrapers and dozer activities were at approximately 900 feet from the receiver locations. Additional stationary scrapers were located at a distance of approximately 700 feet from the receiver locations. Additional background construction noise sources include forklifts, cranes, and man lifts used in the building construction stage of a portion of the site located roughly 900 feet southeast of the receiver locations. The construction activities observed during the short-term measurements represent typical grading activities within an industrial construction site, with multiple pieces of equipment operating at varying distances from the project site boundaries.

Table 3 shows the modeled RCNM noise levels using the actual distances from each receiver location to the nearest equipment activity observed during the short-term noise level measurements. Based on the RCNM model, the peak grading construction noise levels would range from 80.9 to 86.5 dBA Leq when equipment is located at 100 feet from each receiver location. By calculating the modeled RCNM noise level at each location, a comparison can be made between the modeled and measured grading construction noise levels to calibrate the construction noise model.

TABLE 3: MODELED CONSTRUCTION NOISE LEVELS BASED ON ACTUAL EQUIPMENT DISTANCES

Equipment Type[1]	Quantity	Usage Factor[2]	Hours Of Operation[3]	Reference Noise Level @ 50 Feet (dBA Leq)	Combined Level @ 50 Feet (dBA Leq)
Excavator	2	40%	3.2	81.0	80.0
Grader	8	40%	3.2	85.0	90.1
Tractor/Loader/Backhoe	5	40%	3.2	78.0	81.0
Rubber Tired Dozer	2	40%	3.2	79.0	78.0
Scraper	5	40%	3.2	84.0	87.0
Combined Hourly Noise Levels 50 Feet (Leq dBA)					92.6

Receiver Location	Distance To Closest Equipment Activity (Feet)[4]	Distance Attenuation (dBA Leq)[5]	Estimated Noise Barrier Attenuation (dBA Leq)	Construction Noise Level (dBA Leq)
R2	100'	-6.0	0.0	86.5
R3	100'	-6.0	-5.6	80.9

[1] Source: FHWA's Roadway Construction Noise Model, January 2006.
[2] Estimates the fraction of time each piece of equipment is operating at full power during a construction operation.
[3] Represents the actual hours of peak construction equipment activity out of a typical 8 hour workday.
[4] Distance from the nearest point of construction activity to the nearest receiver.
[5] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

To determine the project-only construction noise levels at each receiver location during the grading activities observed at the project site, the ambient without project noise level measurements are compared to the short-term with project noise level measurements. The ambient noise level measurements from the original noise study are shown on Table 4 in addition to the new short-term noise level measurements collected during typical grading activity at the receiver locations on Day 1, Friday, October 30th 2015. By subtracting the previous ambient noise level from the new combined (project construction plus ambient) noise level measurements at each receiver, the project-only construction noise levels can be logarithmically calculated. Table 4 shows the project-only construction noise levels ranged from 61.4 to 63.4 dBA Leq, and are significantly lower than those modeled with the RCNM at the same receiver locations.

Based on the Day 1 analysis, the differences between the peak RCNM model and typical measured construction noise levels range from 19.6 to 23.2 dBA Leq. This analysis demonstrates how the RCNM overstates the potential construction noise level impacts by placing all equipment at a single point at the project site boundary. In reality, the grading equipment within the project site was observed to operate in different locations throughout the project site. . In addition, the typical construction noise levels measured at the receiver locations reflect modern construction equipment noise level emissions that are largely overstated using the older RCNM reference noise levels.

TABLE 4: DAY 1 CONSTRUCTION NOISE LEVEL COMPARISON

Original Noise Study			Calibration			
Receiver Location[1]	Measured Daytime Ambient Noise Levels (dBA Leq)[2]	Peak Modeled RCNM Grading Construction Noise Levels (dBA Leq)[3]	Calculated RCNM Noise Levels to Closest Observed Equipment (dBA Leq)[4]	Measured Typical Grading Construction Noise Levels at Receivers (dBA Leq)[5]	Calculated Project-Only Construction Noise Levels (dBA Leq)[6]	Difference Between Modeled & Measured Noise Levels (dBA Leq)[7]
R2	70.3	88.2	86.5	71.1	63.4	23.2
R3	68.3	83.1	80.9	69.1	61.4	19.6

[1] Receiver locations from the construction noise analysis which are closest to the Planning Area 1 construction activities.
[2] Ambient noise level measurements taken on 3/13/14 at the receiver locations during the Ontario industrial project noise study.
[3] Estimated construction noise levels based on the RCNM peak construction noise analysis methodology. These conditions are not likely to occur as the RCNM assumes all equipment is operating simultaneously at a single point at the project site boundary.
[4] Modeled RCNM construction noise levels at each receiver location based on the observed distance to the nearest construction equipment activity during the noise level measurements, shown on Table 3.
[5] Measured noise levels at the receiver locations during one hour of typical grading activities in the center of the construction site.
[6] Project only construction noise levels calculated based on the logarithmic noise level difference between the measured noise levels during grading activity and the ambient without project noise levels measured at each receiver location.
[7] Difference between the peak RCNM modeled noise levels and the typical noise levels measured at the receiver locations during typical grading activities.

Similarly, the Day 2 short-term construction noise level measurements are shown on Table 5 in relation to the RCNM modeled noise levels. Table 5 shows the project-only construction noise levels ranged from 64.1 to 65.3 dBA Leq, and are significantly lower than those modeled with the RCNM at the same receiver locations. Based on the Day 2 analysis, the differences between the peak RCNM model and typical measured construction noise levels range from 16.8 to 21.2 dBA Leq. This Day 2 analysis is consistent with the Day 1 typical grading construction noise level measurements taken a week later at the same receiver locations.

TABLE 5: DAY 2 CONSTRUCTION NOISE LEVEL COMPARISON

Original Noise Study			Calibration			
Receiver Location[1]	Measured Daytime Ambient Noise Levels (dBA Leq)[2]	Peak Modeled RCNM Grading Construction Noise Levels (dBA Leq)[3]	Calculated RCNM Noise Levels to Closest Observed Equipment (dBA Leq)[4]	Measured Typical Grading Construction Noise Levels at Receivers (dBA Leq)[5]	Calculated Project-Only Construction Noise Levels (dBA Leq)[6]	Difference Between Modeled & Measured Noise Levels (dBA Leq)[7]
R2	70.3	88.2	86.5	71.5	65.3	21.2
R3	68.3	83.1	80.9	69.7	64.1	16.8

[1] Receiver locations from the construction noise analysis which are closest to the Planning Area 1 construction activities.
[2] Ambient noise level measurements taken on 3/13/14 at the receiver locations during the Ontario industrial project noise study.
[3] Estimated construction noise levels based on the RCNM peak construction noise analysis methodology. These conditions are not likely to occur as the RCNM assumes all equipment is operating simultaneously at a single point at the project site boundary.
[4] Modeled RCNM construction noise levels at each receiver location based on the observed distance to the nearest construction equipment activity during the noise level measurements, shown on Table 3.
[5] Measured noise levels at the receiver locations during one hour of typical grading activities in the center of the construction site.
[6] Project only construction noise levels calculated based on the logarithmic noise level difference between the measured noise levels during grading activity and the ambient without project noise levels measured at each receiver location.
[7] Difference between the peak RCNM modeled noise levels and the typical noise levels measured at the receiver locations during typical grading activities.

CONCLUSIONS

The sample reference noise level measurements were taken by Urban Crossroads, Inc. in order to better describe the noise levels from various typical construction activities at different land use types. To quantify the difference between the modeled RCNM and measured construction noise levels in the field, Urban Crossroads, Inc. compared the modeled results of a RCNM construction noise level analysis with the actual measured noise levels observed in the field during typical grading activities at the same project site. While the RCNM equipment database and methodology provides conservative, worst-case, construction noise levels for specific pieces of equipment, our field measurements show how the RCNM methodology overstates the noise levels experienced at the nearby receiver locations during actual construction activities.

This analysis demonstrates how the RCNM overstates the potential construction noise level impacts by placing all equipment at a single point at the project site boundary. In reality based on our observations in the field, the grading equipment within the project site was observed to operate at different locations throughout the project site. In addition, the typical construction noise levels measured at the receiver locations reflect modern construction equipment noise level emissions that are largely overstated using the older RCNM reference noise levels. The reference noise level measurements presented in this memo are, therefore, representative of typical construction noise levels to accurately describe potential construction noise impacts at nearby receiver locations for a given project. This memo presents typical construction activity reference noise levels. Detailed site specific analysis is needed to assess potential construction noise level impacts at nearby sensitive receiver locations on a project by project basis and to identify the appropriate mitigation measures as needed at future construction sites.

Prepared by:

URBAN CROSSROADS, INC.

Bill Lawson, P.E., INCE
Principal

Alex Wolfe
Assistant Analyst

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APPENDIX A

REFERENCE NOISE LEVEL MEASUREMENTS SUMMARY TABLE

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Appendix A

Construction Equipment Reference Noise Levels

ID	Reference Source	Type of Project (Land Use)	Typical Construction Stage(s)	Reference Measurement Duration (h:mm:ss)	Reference Distance From Source (Feet)	Reference Noise Levels		Reference Noise Levels @ 50 Feet	
						dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity	Business Park	Grading	0:01:15	30'	63.6	68.1	59.2	63.7
2	Dozer Activity	Business Park	Grading	0:01:00	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities	Residential	Grading	0:01:00	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching	Residential	Trenching, Building Const.	0:01:01	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities	Residential	Grading	0:05:00	30'	77.9	84.8	73.5	80.4
6	Residential Framing	Residential	Building Const.	0:02:00	30'	66.7	76.7	62.3	72.3
7	Water Truck Pass-By & Backup Alarm	Industrial	Grading	0:00:45	30'	76.3	82.3	71.9	77.9
8	Dozer Pass-By	Industrial	Grading	0:00:32	30'	84.0	89.9	79.6	85.5
9	Two Scrapers & Water Truck Pass-By	Industrial	Grading	0:00:32	30'	83.4	89.0	79.0	84.6
10	Two Scrapers Pass-By	Industrial	Grading	0:00:30	30'	83.7	86.9	79.3	82.5
11	Scraper, Water Truck, & Dozer Activity	Industrial	Grading	0:30:00	30'	79.7	87.7	75.3	83.3
12	Concrete Mixer Truck Movements	Industrial	Building Const., Paving	0:01:00	50'	71.2	*73.1*	71.2	73.1
13	Concrete Paver Activities	Industrial	Building Const., Paving	0:01:00	30'	70.0	*75.7*	65.6	71.3
14	Concrete Mixer Pour & Paving Activities	Industrial	Building Const., Paving	0:01:00	30'	70.3	*76.3*	65.9	71.9
15	Concrete Mixer Backup Alarms & Air Brakes	Industrial	Building Const., Paving	0:00:20	50'	71.6	*78.8*	71.6	78.8
16	Concrete Mixer Pour Activities	Industrial	Building Const., Paving	1:00:00	50'	67.7	79.2	67.7	79.2

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APPENDIX B

REFERENCE NOISE SOURCE PHOTOS

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Construction Reference Noise Source Photos

1.1_TruckPass-By&DozerActivity
33, 39' 0.101600", 117, 43' 56.773600"

2.1_DozerActivity
33, 39' 0.101600", 117, 43' 56.773600"

3.1_ConstructionVehicleMaintenance
33, 31' 16.600000", 117, 36' 58.060000"

4.1_FoundationTrenching
33, 32' 8.530000", 117, 35' 55.490000"

4.2_FoundationTrenching
33, 32' 8.540000", 117, 35' 55.710000"

5.1_RoughGradingActivities
33, 31' 16.710000", 117, 37' 0.530000"

Construction Reference Noise Source Photos

5.2_RoughGradingActivities
33, 31' 16.600000", 117, 37' 0.450000"

5.3_RoughGradingActivities
33, 31' 16.570000", 117, 37' 0.450000"

5.4_RoughGradingActivities
33, 31' 16.660000", 117, 37' 0.310000"

6.1_ResidentialFraming
33, 32' 15.610000", 117, 36' 2.740000"

7.1_WaterTruckPassBy&BackupAlarm
34, 4' 19.318500", 117, 36' 25.015800"

8.1_DozerPass-By
34, 4' 19.373400", 117, 36' 24.988400"

Construction Reference Noise Source Photos

9.1_TwoScrapers&WaterTruckPass-By
34, 4' 19.332200", 117, 36' 24.988400"

10.1_TwoScrapersPass-By
34, 4' 19.373400", 117, 36' 25.070800"

10.2_TwoScrapersPass-By
34, 4' 19.373400", 117, 36' 25.070800"

11.1_Scraper,WaterTruck,&DozerActivity
34, 4' 19.373400", 117, 36' 25.070800"

11.2_Scraper,WaterTruck,&DozerActivity
34, 4' 19.318500", 117, 36' 25.125700"

11.3_Scraper,WaterTruck,&DozerActivity
34, 4' 19.346000", 117, 36' 25.043300"

Construction Reference Noise Source Photos

11.4_Scraper,WaterTruck,&DozerActivity
34, 4' 19.291000", 117, 36' 25.070800"

12.1_ConcreteMixerTruckMovements
34, 4' 43.200000", 117, 12' 25.779400"

13.1_ConcretePaverActivities
34, 4' 43.625700", 117, 12' 25.312500"

14.1_ConcreteMixerPour&PavingActivities
34, 4' 42.746800", 117, 12' 24.955400"

15.1_ConcreteMixerBackupAlarms&AirBrakes
34, 4' 43.666900", 117, 12' 24.763100"

16.1_ConcreteMixerPourActivities
34, 4' 43.158800", 117, 12' 25.944200"

APPENDIX C

SHORT-TERM MEASUREMENTS & CONSTRUCTION ACTIVITY PHOTOS

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Short-Term Measurements & Construction Activities

ConstructionSite_1
34, 4' 39.808000", 117, 36' 22.955900"

ConstructionSite_2
34, 4' 39.808000", 117, 36' 22.955900"

ConstructionSite_3
34, 4' 39.533300", 117, 36' 23.312900"

ConstructionSite_4
34, 4' 39.533300", 117, 36' 23.312900"

ConstructionSite_5
34, 4' 39.341100", 117, 36' 28.064500"

ConstructionSite_6
34, 4' 39.684400", 117, 36' 23.477700"

Short-Term Measurements & Construction Activities

ConstructionSite_7
34, 4' 39.684400", 117, 36' 23.477700"

R2
34, 4' 39.341100", 117, 36' 28.064500"

R2_South
34, 4' 39.217500", 117, 36' 29.108200"

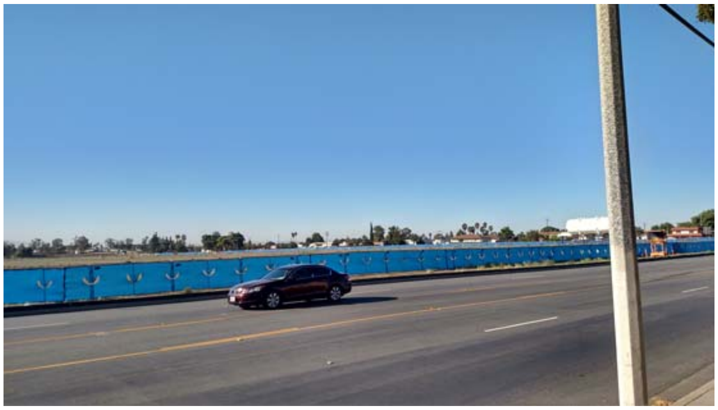

R2_Southwest
34, 4' 39.217500", 117, 36' 29.108200"

R2_Southwest2
34, 4' 39.505900", 117, 36' 28.970900"

R2_West
34, 4' 39.217500", 117, 36' 29.108200"

Short-Term Measurements & Construction Activities

R3
34, 4' 39.972800", 117, 36' 16.803500"

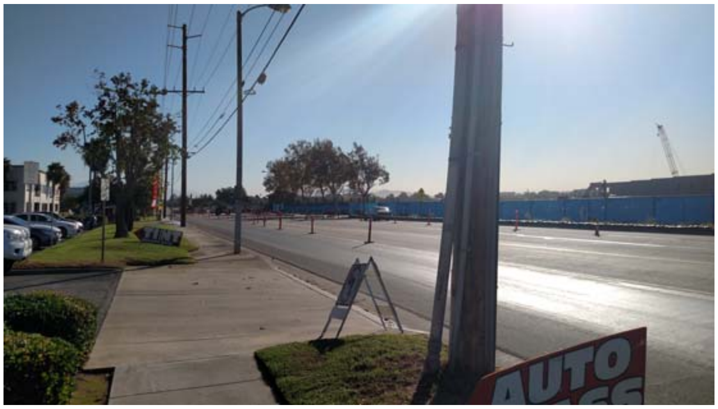

R3_E
34, 4' 39.972800", 117, 36' 16.803500"

R3_South
34, 4' 39.972800", 117, 36' 16.803500"

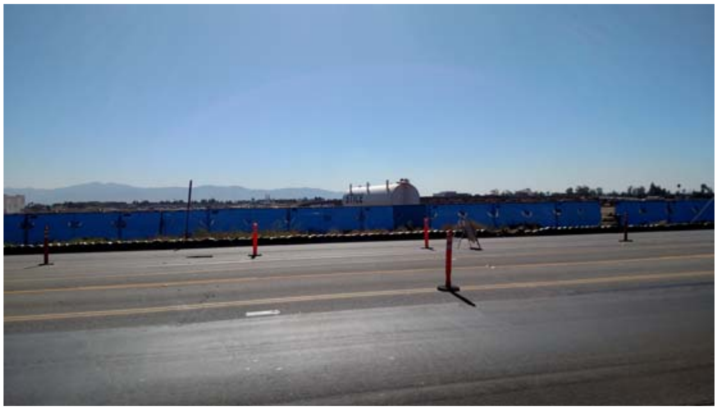

R3_South2
34, 4' 39.519600", 117, 36' 17.050700"

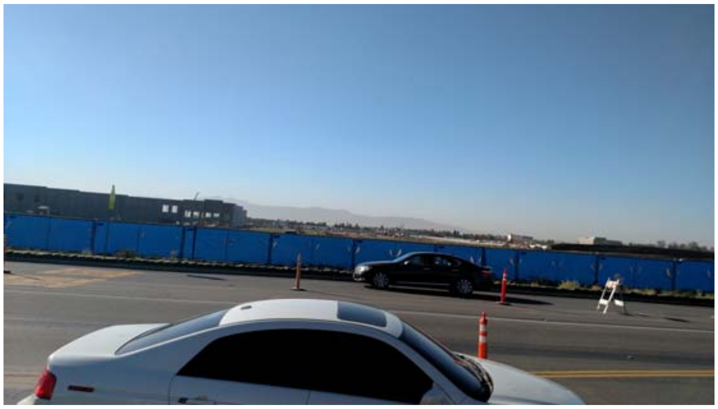

R3_South3
34, 4' 39.698100", 117, 36' 14.221800"

R3_Southeast
34, 4' 39.698100", 117, 36' 14.221800"

Short-Term Measurements & Construction Activities

R3_Southwest
34, 4' 39.972800", 117, 36' 16.803500"

APPENDIX 10.2:

CONSTRUCTION EXISTING BARRIER ATTENUATION CALCULATIONS

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STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R1**
Source: Grading
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,743.0 feet
Noise Distance to Barrier: 2,733.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,510.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,510.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,743.0	-22.7	-22.7	-22.7	-22.7	-22.7	-22.7
Shielding (Barrier Attenuation)	2,733.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		39.2	-28.3	-28.3	-28.3	-28.3	-28.3
60 Minute Hourly Adjustment		**39.2**	**-28.3**	**-28.3**	**-28.3**	**-28.3**	**-28.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R1**
Source: Trenching
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,743.0 feet
Noise Distance to Barrier: 2,733.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,510.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,510.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,743.0	-22.7	-22.7	-22.7	-22.7	-22.7	-22.7
Shielding (Barrier Attenuation)	2,733.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		33.1	-28.3	-28.3	-28.3	-28.3	-28.3
60 Minute Hourly Adjustment		**33.1**	**-28.3**	**-28.3**	**-28.3**	**-28.3**	**-28.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R1**	*Project Name:*	MV Logistics
Source:	Building Construction	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,813.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	2,803.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,510.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,510.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,813.0	-23.0	-23.0	-23.0	-23.0	-23.0	-23.0
Shielding (Barrier Attenuation)	2,803.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		38.9	-28.6	-28.6	-28.6	-28.6	-28.6
60 Minute Hourly Adjustment		**38.9**	**-28.6**	**-28.6**	**-28.6**	**-28.6**	**-28.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R1**	*Project Name:*	MV Logistics
Source:	Architectural Coating	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,813.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	2,803.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,510.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,510.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,813.0	-23.0	-23.0	-23.0	-23.0	-23.0	-23.0
Shielding (Barrier Attenuation)	2,803.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		38.9	-28.6	-28.6	-28.6	-28.6	-28.6
60 Minute Hourly Adjustment		**38.9**	**-28.6**	**-28.6**	**-28.6**	**-28.6**	**-28.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R1**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,743.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	2,733.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,510.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,510.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,743.0	-22.7	-22.7	-22.7	-22.7	-22.7	-22.7
Shielding (Barrier Attenuation)	2,733.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		39.2	-28.3	-28.3	-28.3	-28.3	-28.3
60 Minute Hourly Adjustment		**39.2**	**-28.3**	**-28.3**	**-28.3**	**-28.3**	**-28.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R2**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,844.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	2,844.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,504.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,504.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,844.0	-23.1	-23.1	-23.1	-23.1	-23.1	-23.1
Shielding (Barrier Attenuation)	2,844.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		44.4	-23.1	-23.1	-23.1	-23.1	-23.1
60 Minute Hourly Adjustment		**44.4**	**-23.1**	**-23.1**	**-23.1**	**-23.1**	**-23.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R2**
Source: Trenching
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,844.0 feet		***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	2,844.0 feet		*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet		*Observer Height:*	5.0 feet
Observer Elevation:	1,504.0 feet		*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0 feet		*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,504.0 feet			

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,844.0	-23.1	-23.1	-23.1	-23.1	-23.1	-23.1
Shielding (Barrier Attenuation)	2,844.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		38.3	-23.1	-23.1	-23.1	-23.1	-23.1
60 Minute Hourly Adjustment		**38.3**	**-23.1**	**-23.1**	**-23.1**	**-23.1**	**-23.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R2**
Source: Building Construction
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,987.0 feet		***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	2,987.0 feet		*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet		*Observer Height:*	5.0 feet
Observer Elevation:	1,504.0 feet		*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet		*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,504.0 feet			

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,987.0	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5
Shielding (Barrier Attenuation)	2,987.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		44.0	-23.5	-23.5	-23.5	-23.5	-23.5
60 Minute Hourly Adjustment		**44.0**	**-23.5**	**-23.5**	**-23.5**	**-23.5**	**-23.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R2**	*Project Name:*	MV Logistics
Source:	Architectural Coating	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,987.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	2,987.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,504.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,504.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,987.0	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5
Shielding (Barrier Attenuation)	2,987.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		44.0	-23.5	-23.5	-23.5	-23.5	-23.5
60 Minute Hourly Adjustment		**44.0**	**-23.5**	**-23.5**	**-23.5**	**-23.5**	**-23.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R2**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,844.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	2,844.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,504.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,504.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,844.0	-23.1	-23.1	-23.1	-23.1	-23.1	-23.1
Shielding (Barrier Attenuation)	2,844.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		44.4	-23.1	-23.1	-23.1	-23.1	-23.1
60 Minute Hourly Adjustment		**44.4**	**-23.1**	**-23.1**	**-23.1**	**-23.1**	**-23.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R3**
Source: Grading
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 1,543.0 feet
Noise Distance to Barrier: 1,543.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,488.0 feet
Barrier Elevation: 1,495.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,543.0	-17.7	-17.7	-17.7	-17.7	-17.7	-17.7
Shielding (Barrier Attenuation)	1,543.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		49.8	-17.7	-17.7	-17.7	-17.7	-17.7
60 Minute Hourly Adjustment		**49.8**	**-17.7**	**-17.7**	**-17.7**	**-17.7**	**-17.7**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R3**
Source: Trenching
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 1,543.0 feet
Noise Distance to Barrier: 1,543.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,488.0 feet
Barrier Elevation: 1,495.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,543.0	-17.7	-17.7	-17.7	-17.7	-17.7	-17.7
Shielding (Barrier Attenuation)	1,543.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		43.7	-17.7	-17.7	-17.7	-17.7	-17.7
60 Minute Hourly Adjustment		**43.7**	**-17.7**	**-17.7**	**-17.7**	**-17.7**	**-17.7**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

***Observer Location:* R3**
Source: Building Construction
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 1,696.0 feet
Noise Distance to Barrier: 1,696.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,495.0 feet

***Barrier Height:* 0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,696.0	-18.6	-18.6	-18.6	-18.6	-18.6	-18.6
Shielding (Barrier Attenuation)	1,696.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		48.9	-18.6	-18.6	-18.6	-18.6	-18.6
60 Minute Hourly Adjustment		**48.9**	**-18.6**	**-18.6**	**-18.6**	**-18.6**	**-18.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

***Observer Location:* R3**
Source: Architectural Coating
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 1,696.0 feet
Noise Distance to Barrier: 1,696.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,495.0 feet

***Barrier Height:* 0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,696.0	-18.6	-18.6	-18.6	-18.6	-18.6	-18.6
Shielding (Barrier Attenuation)	1,696.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		48.9	-18.6	-18.6	-18.6	-18.6	-18.6
60 Minute Hourly Adjustment		**48.9**	**-18.6**	**-18.6**	**-18.6**	**-18.6**	**-18.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R3**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 1,543.0 feet
Noise Distance to Barrier: 1,543.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,488.0 feet
Barrier Elevation: 1,495.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,543.0	-17.7	-17.7	-17.7	-17.7	-17.7	-17.7
Shielding (Barrier Attenuation)	1,543.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		49.8	-17.7	-17.7	-17.7	-17.7	-17.7
60 Minute Hourly Adjustment		**49.8**	**-17.7**	**-17.7**	**-17.7**	**-17.7**	**-17.7**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 471.0 feet
Noise Distance to Barrier: 461.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,489.0 feet
Noise Source Elevation: 1,488.0 feet
Barrier Elevation: 1,489.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	471.0	-7.4	-7.4	-7.4	-7.4	-7.4	-7.4
Shielding (Barrier Attenuation)	461.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		54.6	-12.9	-12.9	-12.9	-12.9	-12.9
60 Minute Hourly Adjustment		**54.6**	**-12.9**	**-12.9**	**-12.9**	**-12.9**	**-12.9**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R4**
Source: Trenching
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	471.0 feet
Noise Distance to Barrier:	461.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Elevation:	1,489.0 feet
Noise Source Elevation:	1,488.0 feet
Barrier Elevation:	1,489.0 feet
Barrier Height:	**6.0 feet**
Noise Source Height:	8.0 feet
Observer Height:	5.0 feet
Barrier Type (0-Wall, 1-Berm):	0
Drop Off Coefficient:	20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	471.0	-7.4	-7.4	-7.4	-7.4	-7.4	-7.4
Shielding (Barrier Attenuation)	461.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		48.5	-12.9	-12.9	-12.9	-12.9	-12.9
60 Minute Hourly Adjustment		**48.5**	**-12.9**	**-12.9**	**-12.9**	**-12.9**	**-12.9**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R4**
Source: Building Construction
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	678.0 feet
Noise Distance to Barrier:	668.0 feet
Barrier Distance to Observer:	10.0 feet
Observer Elevation:	1,489.0 feet
Noise Source Elevation:	1,490.0 feet
Barrier Elevation:	1,489.0 feet
Barrier Height:	**6.0 feet**
Noise Source Height:	8.0 feet
Observer Height:	5.0 feet
Barrier Type (0-Wall, 1-Berm):	0
Drop Off Coefficient:	20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	678.0	-10.6	-10.6	-10.6	-10.6	-10.6	-10.6
Shielding (Barrier Attenuation)	668.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		51.5	-16.0	-16.0	-16.0	-16.0	-16.0
60 Minute Hourly Adjustment		**51.5**	**-16.0**	**-16.0**	**-16.0**	**-16.0**	**-16.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Architectural Coating	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	678.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	668.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	678.0	-10.6	-10.6	-10.6	-10.6	-10.6	-10.6
Shielding (Barrier Attenuation)	668.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		51.5	-16.0	-16.0	-16.0	-16.0	-16.0
60 Minute Hourly Adjustment		**51.5**	**-16.0**	**-16.0**	**-16.0**	**-16.0**	**-16.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	471.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	461.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	471.0	-7.4	-7.4	-7.4	-7.4	-7.4	-7.4
Shielding (Barrier Attenuation)	461.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		54.6	-12.9	-12.9	-12.9	-12.9	-12.9
60 Minute Hourly Adjustment		**54.6**	**-12.9**	**-12.9**	**-12.9**	**-12.9**	**-12.9**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R5**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	152.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	142.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,486.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,486.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	152.0	2.4	2.4	2.4	2.4	2.4	2.4
Shielding (Barrier Attenuation)	142.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Raw (Distance + Barrier)		64.7	-2.8	-2.8	-2.8	-2.8	-2.8
60 Minute Hourly Adjustment		**64.7**	**-2.8**	**-2.8**	**-2.8**	**-2.8**	**-2.8**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R5**	*Project Name:*	MV Logistics
Source:	Trenching	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	152.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	142.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,486.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,488.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,486.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	152.0	2.4	2.4	2.4	2.4	2.4	2.4
Shielding (Barrier Attenuation)	142.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Raw (Distance + Barrier)		58.6	-2.8	-2.8	-2.8	-2.8	-2.8
60 Minute Hourly Adjustment		**58.6**	**-2.8**	**-2.8**	**-2.8**	**-2.8**	**-2.8**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R5**
Source: Building Construction
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 392.0 feet
Noise Distance to Barrier: 382.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	392.0	-5.8	-5.8	-5.8	-5.8	-5.8	-5.8
Shielding (Barrier Attenuation)	382.0	-5.3	-5.3	-5.3	-5.3	-5.3	-5.3
Raw (Distance + Barrier)		56.4	-11.1	-11.1	-11.1	-11.1	-11.1
60 Minute Hourly Adjustment		**56.4**	**-11.1**	**-11.1**	**-11.1**	**-11.1**	**-11.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R5**
Source: Architectural Coating
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 392.0 feet
Noise Distance to Barrier: 382.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	392.0	-5.8	-5.8	-5.8	-5.8	-5.8	-5.8
Shielding (Barrier Attenuation)	382.0	-5.3	-5.3	-5.3	-5.3	-5.3	-5.3
Raw (Distance + Barrier)		56.4	-11.1	-11.1	-11.1	-11.1	-11.1
60 Minute Hourly Adjustment		**56.4**	**-11.1**	**-11.1**	**-11.1**	**-11.1**	**-11.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R5**
Source: Paving
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 152.0 feet
Noise Distance to Barrier: 142.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,488.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	152.0	2.4	2.4	2.4	2.4	2.4	2.4
Shielding (Barrier Attenuation)	142.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Raw (Distance + Barrier)		64.7	-2.8	-2.8	-2.8	-2.8	-2.8
60 Minute Hourly Adjustment		**64.7**	**-2.8**	**-2.8**	**-2.8**	**-2.8**	**-2.8**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R6**
Source: Grading
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 176.0 feet
Noise Distance to Barrier: 166.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,484.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	176.0	1.1	1.1	1.1	1.1	1.1	1.1
Shielding (Barrier Attenuation)	166.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		63.0	-4.5	-4.5	-4.5	-4.5	-4.5
60 Minute Hourly Adjustment		**63.0**	**-4.5**	**-4.5**	**-4.5**	**-4.5**	**-4.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

***Observer Location:* R6**
Source: Trenching
Condition: Construction Phase 1
Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 176.0 feet
Noise Distance to Barrier: 166.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,484.0 feet

***Barrier Height:* 6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	176.0	1.1	1.1	1.1	1.1	1.1	1.1
Shielding (Barrier Attenuation)	166.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		56.9	-4.5	-4.5	-4.5	-4.5	-4.5
60 Minute Hourly Adjustment		**56.9**	**-4.5**	**-4.5**	**-4.5**	**-4.5**	**-4.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

***Observer Location:* R6**
Source: Building Construction
Condition: Construction Phase 1
Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 429.0 feet
Noise Distance to Barrier: 419.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,481.0 feet
Barrier Elevation: 1,484.0 feet

***Barrier Height:* 6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	429.0	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6
Shielding (Barrier Attenuation)	419.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		55.4	-12.1	-12.1	-12.1	-12.1	-12.1
60 Minute Hourly Adjustment		**55.4**	**-12.1**	**-12.1**	**-12.1**	**-12.1**	**-12.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

***Observer Location:* R6**
Source: Architectural Coating
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 429.0 feet
Noise Distance to Barrier: 419.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,481.0 feet
Barrier Elevation: 1,484.0 feet

***Barrier Height:* 6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	429.0	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6
Shielding (Barrier Attenuation)	419.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		55.4	-12.1	-12.1	-12.1	-12.1	-12.1
60 Minute Hourly Adjustment		**55.4**	**-12.1**	**-12.1**	**-12.1**	**-12.1**	**-12.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

***Observer Location:* R6**
Source: Paving
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 176.0 feet
Noise Distance to Barrier: 166.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,484.0 feet

***Barrier Height:* 6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	176.0	1.1	1.1	1.1	1.1	1.1	1.1
Shielding (Barrier Attenuation)	166.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		63.0	-4.5	-4.5	-4.5	-4.5	-4.5
60 Minute Hourly Adjustment		**63.0**	**-4.5**	**-4.5**	**-4.5**	**-4.5**	**-4.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Grading
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 153.0 feet
Noise Distance to Barrier: 143.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,480.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	153.0	2.3	2.3	2.3	2.3	2.3	2.3
Shielding (Barrier Attenuation)	143.0	-5.3	-5.3	-5.3	-5.3	-5.3	-5.3
Raw (Distance + Barrier)		64.5	-3.0	-3.0	-3.0	-3.0	-3.0
60 Minute Hourly Adjustment		**64.5**	**-3.0**	**-3.0**	**-3.0**	**-3.0**	**-3.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Trenching
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 153.0 feet
Noise Distance to Barrier: 143.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,480.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	153.0	2.3	2.3	2.3	2.3	2.3	2.3
Shielding (Barrier Attenuation)	143.0	-5.3	-5.3	-5.3	-5.3	-5.3	-5.3
Raw (Distance + Barrier)		58.4	-3.0	-3.0	-3.0	-3.0	-3.0
60 Minute Hourly Adjustment		**58.4**	**-3.0**	**-3.0**	**-3.0**	**-3.0**	**-3.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Building Construction
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 362.0 feet
Noise Distance to Barrier: 352.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,480.0 feet
Noise Source Elevation: 1,481.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	362.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Shielding (Barrier Attenuation)	352.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		56.9	-10.6	-10.6	-10.6	-10.6	-10.6
60 Minute Hourly Adjustment		**56.9**	**-10.6**	**-10.6**	**-10.6**	**-10.6**	**-10.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Architectural Coating
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 362.0 feet
Noise Distance to Barrier: 352.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,480.0 feet
Noise Source Elevation: 1,481.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	362.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Shielding (Barrier Attenuation)	352.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		56.9	-10.6	-10.6	-10.6	-10.6	-10.6
60 Minute Hourly Adjustment		**56.9**	**-10.6**	**-10.6**	**-10.6**	**-10.6**	**-10.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R7**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	153.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	143.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,480.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,480.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	153.0	2.3	2.3	2.3	2.3	2.3	2.3
Shielding (Barrier Attenuation)	143.0	-5.3	-5.3	-5.3	-5.3	-5.3	-5.3
Raw (Distance + Barrier)		64.5	-3.0	-3.0	-3.0	-3.0	-3.0
60 Minute Hourly Adjustment		**64.5**	**-3.0**	**-3.0**	**-3.0**	**-3.0**	**-3.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R8**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	207.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	207.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	207.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Shielding (Barrier Attenuation)	207.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		67.2	-0.3	-0.3	-0.3	-0.3	-0.3
60 Minute Hourly Adjustment		**67.2**	**-0.3**	**-0.3**	**-0.3**	**-0.3**	**-0.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R8**	*Project Name:*	MV Logistics
Source:	Trenching	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	207.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	207.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	207.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Shielding (Barrier Attenuation)	207.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		61.1	-0.3	-0.3	-0.3	-0.3	-0.3
60 Minute Hourly Adjustment		**61.1**	**-0.3**	**-0.3**	**-0.3**	**-0.3**	**-0.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R8**	*Project Name:*	MV Logistics
Source:	Building Construction	*Job Number:*	9303
Condition:	Construction Phase 1	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	492.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	492.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	0.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,481.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	492.0	-7.8	-7.8	-7.8	-7.8	-7.8	-7.8
Shielding (Barrier Attenuation)	492.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		59.7	-7.8	-7.8	-7.8	-7.8	-7.8
60 Minute Hourly Adjustment		**59.7**	**-7.8**	**-7.8**	**-7.8**	**-7.8**	**-7.8**

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R8**
Source: Architectural Coating
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 492.0 feet
Noise Distance to Barrier: 492.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,481.0 feet
Barrier Elevation: 1,484.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	492.0	-7.8	-7.8	-7.8	-7.8	-7.8	-7.8
Shielding (Barrier Attenuation)	492.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		59.7	-7.8	-7.8	-7.8	-7.8	-7.8
60 Minute Hourly Adjustment		**59.7**	**-7.8**	**-7.8**	**-7.8**	**-7.8**	**-7.8**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R8**
Source: Paving
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 207.0 feet
Noise Distance to Barrier: 207.0 feet
Barrier Distance to Observer: 0.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,484.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	207.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Shielding (Barrier Attenuation)	207.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		67.2	-0.3	-0.3	-0.3	-0.3	-0.3
60 Minute Hourly Adjustment		**67.2**	**-0.3**	**-0.3**	**-0.3**	**-0.3**	**-0.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R1**
Source: Grading
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,006.0 feet
Noise Distance to Barrier: 2,996.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,510.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,510.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,006.0	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5
Shielding (Barrier Attenuation)	2,996.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		38.4	-29.1	-29.1	-29.1	-29.1	-29.1
60 Minute Hourly Adjustment		**38.4**	**-29.1**	**-29.1**	**-29.1**	**-29.1**	**-29.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R1**
Source: Trenching
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,006.0 feet
Noise Distance to Barrier: 2,996.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,510.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,510.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,006.0	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5
Shielding (Barrier Attenuation)	2,996.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		32.3	-29.1	-29.1	-29.1	-29.1	-29.1
60 Minute Hourly Adjustment		**32.3**	**-29.1**	**-29.1**	**-29.1**	**-29.1**	**-29.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R1**	*Project Name:*	MV Logistics
Source:	Building Construction	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,088.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	3,078.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,510.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,510.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,088.0	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8
Shielding (Barrier Attenuation)	3,078.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		38.2	-29.3	-29.3	-29.3	-29.3	-29.3
60 Minute Hourly Adjustment		**38.2**	**-29.3**	**-29.3**	**-29.3**	**-29.3**	**-29.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R1**	*Project Name:*	MV Logistics
Source:	Architectural Coating	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,088.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	3,078.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,510.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,510.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,088.0	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8
Shielding (Barrier Attenuation)	3,078.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		38.2	-29.3	-29.3	-29.3	-29.3	-29.3
60 Minute Hourly Adjustment		**38.2**	**-29.3**	**-29.3**	**-29.3**	**-29.3**	**-29.3**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R1**
Source: Paving
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,006.0 feet
Noise Distance to Barrier: 2,996.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,510.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,510.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,006.0	-23.5	-23.5	-23.5	-23.5	-23.5	-23.5
Shielding (Barrier Attenuation)	2,996.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		38.4	-29.1	-29.1	-29.1	-29.1	-29.1
60 Minute Hourly Adjustment		**38.4**	**-29.1**	**-29.1**	**-29.1**	**-29.1**	**-29.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R2**
Source: Grading
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,692.0 feet
Noise Distance to Barrier: 1,907.0 feet
Barrier Distance to Observer: 1,785.0 feet

Observer Elevation: 1,504.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,490.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,692.0	-25.3	-25.3	-25.3	-25.3	-25.3	-25.3
Shielding (Barrier Attenuation)	1,907.0	-6.4	-6.4	-6.4	-6.4	-6.4	-6.4
Raw (Distance + Barrier)		35.8	-31.7	-31.7	-31.7	-31.7	-31.7
60 Minute Hourly Adjustment		**35.8**	**-31.7**	**-31.7**	**-31.7**	**-31.7**	**-31.7**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R2**
Source: Trenching
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,692.0 feet
Noise Distance to Barrier: 1,907.0 feet
Barrier Distance to Observer: 1,785.0 feet

Observer Elevation: 1,504.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,490.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,692.0	-25.3	-25.3	-25.3	-25.3	-25.3	-25.3
Shielding (Barrier Attenuation)	1,907.0	-6.4	-6.4	-6.4	-6.4	-6.4	-6.4
Raw (Distance + Barrier)		29.7	-31.7	-31.7	-31.7	-31.7	-31.7
60 Minute Hourly Adjustment		**29.7**	**-31.7**	**-31.7**	**-31.7**	**-31.7**	**-31.7**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R2**
Source: Building Construction
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,773.0 feet
Noise Distance to Barrier: 1,950.0 feet
Barrier Distance to Observer: 1,823.0 feet

Observer Elevation: 1,504.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,490.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,773.0	-25.5	-25.5	-25.5	-25.5	-25.5	-25.5
Shielding (Barrier Attenuation)	1,950.0	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3
Raw (Distance + Barrier)		35.7	-31.8	-31.8	-31.8	-31.8	-31.8
60 Minute Hourly Adjustment		**35.7**	**-31.8**	**-31.8**	**-31.8**	**-31.8**	**-31.8**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R2**
Source: Architectural Coating
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,773.0 feet
Noise Distance to Barrier: 1,950.0 feet
Barrier Distance to Observer: 1,823.0 feet

Observer Elevation: 1,504.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,490.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,773.0	-25.5	-25.5	-25.5	-25.5	-25.5	-25.5
Shielding (Barrier Attenuation)	1,950.0	-6.3	-6.3	-6.3	-6.3	-6.3	-6.3
Raw (Distance + Barrier)		35.7	-31.8	-31.8	-31.8	-31.8	-31.8
60 Minute Hourly Adjustment		**35.7**	**-31.8**	**-31.8**	**-31.8**	**-31.8**	**-31.8**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R2**
Source: Paving
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 3,692.0 feet
Noise Distance to Barrier: 1,907.0 feet
Barrier Distance to Observer: 1,785.0 feet

Observer Elevation: 1,504.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,490.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,692.0	-25.3	-25.3	-25.3	-25.3	-25.3	-25.3
Shielding (Barrier Attenuation)	1,907.0	-6.4	-6.4	-6.4	-6.4	-6.4	-6.4
Raw (Distance + Barrier)		35.8	-31.7	-31.7	-31.7	-31.7	-31.7
60 Minute Hourly Adjustment		**35.8**	**-31.7**	**-31.7**	**-31.7**	**-31.7**	**-31.7**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R3**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,782.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	1,459.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	1,323.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,495.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,490.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,782.0	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9
Shielding (Barrier Attenuation)	1,459.0	-7.6	-7.6	-7.6	-7.6	-7.6	-7.6
Raw (Distance + Barrier)		37.0	-30.5	-30.5	-30.5	-30.5	-30.5
60 Minute Hourly Adjustment		**37.0**	**-30.5**	**-30.5**	**-30.5**	**-30.5**	**-30.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R3**	*Project Name:*	MV Logistics
Source:	Trenching	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,782.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	1,459.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	1,323.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,495.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,490.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,782.0	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9
Shielding (Barrier Attenuation)	1,459.0	-7.6	-7.6	-7.6	-7.6	-7.6	-7.6
Raw (Distance + Barrier)		30.9	-30.5	-30.5	-30.5	-30.5	-30.5
60 Minute Hourly Adjustment		**30.9**	**-30.5**	**-30.5**	**-30.5**	**-30.5**	**-30.5**

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R3**
Source: Building Construction
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,864.0 feet
Noise Distance to Barrier: 1,482.0 feet
Barrier Distance to Observer: 1,382.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,490.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,864.0	-23.1	-23.1	-23.1	-23.1	-23.1	-23.1
Shielding (Barrier Attenuation)	1,482.0	-7.5	-7.5	-7.5	-7.5	-7.5	-7.5
Raw (Distance + Barrier)		36.9	-30.6	-30.6	-30.6	-30.6	-30.6
60 Minute Hourly Adjustment		**36.9**	**-30.6**	**-30.6**	**-30.6**	**-30.6**	**-30.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R3**
Source: Architectural Coating
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,864.0 feet
Noise Distance to Barrier: 1,482.0 feet
Barrier Distance to Observer: 1,382.0 feet

Observer Elevation: 1,495.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,490.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,864.0	-23.1	-23.1	-23.1	-23.1	-23.1	-23.1
Shielding (Barrier Attenuation)	1,482.0	-7.5	-7.5	-7.5	-7.5	-7.5	-7.5
Raw (Distance + Barrier)		36.9	-30.6	-30.6	-30.6	-30.6	-30.6
60 Minute Hourly Adjustment		**36.9**	**-30.6**	**-30.6**	**-30.6**	**-30.6**	**-30.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R3**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,782.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	1,459.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	1,323.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,495.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,490.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,782.0	-22.9	-22.9	-22.9	-22.9	-22.9	-22.9
Shielding (Barrier Attenuation)	1,459.0	-7.6	-7.6	-7.6	-7.6	-7.6	-7.6
Raw (Distance + Barrier)		37.0	-30.5	-30.5	-30.5	-30.5	-30.5
60 Minute Hourly Adjustment		**37.0**	**-30.5**	**-30.5**	**-30.5**	**-30.5**	**-30.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,245.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	2,235.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,245.0	-21.0	-21.0	-21.0	-21.0	-21.0	-21.0
Shielding (Barrier Attenuation)	2,235.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		41.0	-26.5	-26.5	-26.5	-26.5	-26.5
60 Minute Hourly Adjustment		**41.0**	**-26.5**	**-26.5**	**-26.5**	**-26.5**	**-26.5**

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Trenching	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,245.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	2,235.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,245.0	-21.0	-21.0	-21.0	-21.0	-21.0	-21.0
Shielding (Barrier Attenuation)	2,235.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		34.9	-26.5	-26.5	-26.5	-26.5	-26.5
60 Minute Hourly Adjustment		**34.9**	**-26.5**	**-26.5**	**-26.5**	**-26.5**	**-26.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Building Construction	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,422.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	1,619.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	803.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,422.0	-21.7	-21.7	-21.7	-21.7	-21.7	-21.7
Shielding (Barrier Attenuation)	1,619.0	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5
Raw (Distance + Barrier)		37.3	-30.2	-30.2	-30.2	-30.2	-30.2
60 Minute Hourly Adjustment		**37.3**	**-30.2**	**-30.2**	**-30.2**	**-30.2**	**-30.2**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Architectural Coating	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,422.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	1,619.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	803.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,490.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,422.0	-21.7	-21.7	-21.7	-21.7	-21.7	-21.7
Shielding (Barrier Attenuation)	1,619.0	-8.5	-8.5	-8.5	-8.5	-8.5	-8.5
Raw (Distance + Barrier)		37.3	-30.2	-30.2	-30.2	-30.2	-30.2
60 Minute Hourly Adjustment		**37.3**	**-30.2**	**-30.2**	**-30.2**	**-30.2**	**-30.2**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R4**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,245.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	2,235.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,489.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,489.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,245.0	-21.0	-21.0	-21.0	-21.0	-21.0	-21.0
Shielding (Barrier Attenuation)	2,235.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		41.0	-26.5	-26.5	-26.5	-26.5	-26.5
60 Minute Hourly Adjustment		**41.0**	**-26.5**	**-26.5**	**-26.5**	**-26.5**	**-26.5**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R5**
Source: Grading
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,022.0 feet
Noise Distance to Barrier: 879.0 feet
Barrier Distance to Observer: 1,143.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,022.0	-20.1	-20.1	-20.1	-20.1	-20.1	-20.1
Shielding (Barrier Attenuation)	879.0	-8.3	-8.3	-8.3	-8.3	-8.3	-8.3
Raw (Distance + Barrier)		39.1	-28.4	-28.4	-28.4	-28.4	-28.4
60 Minute Hourly Adjustment		**39.1**	**-28.4**	**-28.4**	**-28.4**	**-28.4**	**-28.4**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R5**
Source: Trenching
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,022.0 feet
Noise Distance to Barrier: 879.0 feet
Barrier Distance to Observer: 1,143.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,489.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,022.0	-20.1	-20.1	-20.1	-20.1	-20.1	-20.1
Shielding (Barrier Attenuation)	879.0	-8.3	-8.3	-8.3	-8.3	-8.3	-8.3
Raw (Distance + Barrier)		33.0	-28.4	-28.4	-28.4	-28.4	-28.4
60 Minute Hourly Adjustment		**33.0**	**-28.4**	**-28.4**	**-28.4**	**-28.4**	**-28.4**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R5**
Source: Building Construction
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,318.0 feet
Noise Distance to Barrier: 1,195.0 feet
Barrier Distance to Observer: 1,123.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,318.0	-21.3	-21.3	-21.3	-21.3	-21.3	-21.3
Shielding (Barrier Attenuation)	1,195.0	-7.9	-7.9	-7.9	-7.9	-7.9	-7.9
Raw (Distance + Barrier)		38.3	-29.2	-29.2	-29.2	-29.2	-29.2
60 Minute Hourly Adjustment		**38.3**	**-29.2**	**-29.2**	**-29.2**	**-29.2**	**-29.2**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R5**
Source: Architectural Coating
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 2,318.0 feet
Noise Distance to Barrier: 1,195.0 feet
Barrier Distance to Observer: 1,123.0 feet

Observer Elevation: 1,486.0 feet
Noise Source Elevation: 1,490.0 feet
Barrier Elevation: 1,486.0 feet

Barrier Height: **30.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,318.0	-21.3	-21.3	-21.3	-21.3	-21.3	-21.3
Shielding (Barrier Attenuation)	1,195.0	-7.9	-7.9	-7.9	-7.9	-7.9	-7.9
Raw (Distance + Barrier)		38.3	-29.2	-29.2	-29.2	-29.2	-29.2
60 Minute Hourly Adjustment		**38.3**	**-29.2**	**-29.2**	**-29.2**	**-29.2**	**-29.2**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R5**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,022.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	879.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	1,143.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,486.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,489.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,486.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,022.0	-20.1	-20.1	-20.1	-20.1	-20.1	-20.1
Shielding (Barrier Attenuation)	879.0	-8.3	-8.3	-8.3	-8.3	-8.3	-8.3
Raw (Distance + Barrier)		39.1	-28.4	-28.4	-28.4	-28.4	-28.4
60 Minute Hourly Adjustment		**39.1**	**-28.4**	**-28.4**	**-28.4**	**-28.4**	**-28.4**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R6**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,654.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	361.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	1,293.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,654.0	-18.4	-18.4	-18.4	-18.4	-18.4	-18.4
Shielding (Barrier Attenuation)	361.0	-10.6	-10.6	-10.6	-10.6	-10.6	-10.6
Raw (Distance + Barrier)		38.5	-29.0	-29.0	-29.0	-29.0	-29.0
60 Minute Hourly Adjustment		**38.5**	**-29.0**	**-29.0**	**-29.0**	**-29.0**	**-29.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R6**
Source: Trenching
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,654.0	feet
Noise Distance to Barrier:	361.0	feet
Barrier Distance to Observer:	1,293.0	feet
Observer Elevation:	1,484.0	feet
Noise Source Elevation:	1,480.0	feet
Barrier Elevation:	1,484.0	feet

Barrier Height:	**30.0**	**feet**
Noise Source Height:	8.0	feet
Observer Height:	5.0	feet
Barrier Type (0-Wall, 1-Berm):	0	
Drop Off Coefficient:	20.0	

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,654.0	-18.4	-18.4	-18.4	-18.4	-18.4	-18.4
Shielding (Barrier Attenuation)	361.0	-10.6	-10.6	-10.6	-10.6	-10.6	-10.6
Raw (Distance + Barrier)		32.4	-29.0	-29.0	-29.0	-29.0	-29.0
60 Minute Hourly Adjustment		**32.4**	**-29.0**	**-29.0**	**-29.0**	**-29.0**	**-29.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R6**
Source: Building Construction
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,792.0	feet
Noise Distance to Barrier:	323.0	feet
Barrier Distance to Observer:	1,469.0	feet
Observer Elevation:	1,484.0	feet
Noise Source Elevation:	1,481.0	feet
Barrier Elevation:	1,484.0	feet

Barrier Height:	**30.0**	**feet**
Noise Source Height:	8.0	feet
Observer Height:	5.0	feet
Barrier Type (0-Wall, 1-Berm):	0	
Drop Off Coefficient:	20.0	

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,792.0	-19.0	-19.0	-19.0	-19.0	-19.0	-19.0
Shielding (Barrier Attenuation)	323.0	-10.6	-10.6	-10.6	-10.6	-10.6	-10.6
Raw (Distance + Barrier)		37.9	-29.6	-29.6	-29.6	-29.6	-29.6
60 Minute Hourly Adjustment		**37.9**	**-29.6**	**-29.6**	**-29.6**	**-29.6**	**-29.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R6**	*Project Name:*	MV Logistics
Source:	Architectural Coating	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,792.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	323.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	1,469.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,481.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,792.0	-19.0	-19.0	-19.0	-19.0	-19.0	-19.0
Shielding (Barrier Attenuation)	323.0	-10.6	-10.6	-10.6	-10.6	-10.6	-10.6
Raw (Distance + Barrier)		37.9	-29.6	-29.6	-29.6	-29.6	-29.6
60 Minute Hourly Adjustment		**37.9**	**-29.6**	**-29.6**	**-29.6**	**-29.6**	**-29.6**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R6**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,654.0 feet	***Barrier Height:***	**30.0 feet**
Noise Distance to Barrier:	361.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	1,293.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,654.0	-18.4	-18.4	-18.4	-18.4	-18.4	-18.4
Shielding (Barrier Attenuation)	361.0	-10.6	-10.6	-10.6	-10.6	-10.6	-10.6
Raw (Distance + Barrier)		38.5	-29.0	-29.0	-29.0	-29.0	-29.0
60 Minute Hourly Adjustment		**38.5**	**-29.0**	**-29.0**	**-29.0**	**-29.0**	**-29.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Grading
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 962.0 feet
Noise Distance to Barrier: 952.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,480.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	962.0	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6
Shielding (Barrier Attenuation)	952.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		48.4	-19.1	-19.1	-19.1	-19.1	-19.1
60 Minute Hourly Adjustment		**48.4**	**-19.1**	**-19.1**	**-19.1**	**-19.1**	**-19.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Trenching
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 962.0 feet
Noise Distance to Barrier: 952.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,480.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	962.0	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6
Shielding (Barrier Attenuation)	952.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		42.3	-19.1	-19.1	-19.1	-19.1	-19.1
60 Minute Hourly Adjustment		**42.3**	**-19.1**	**-19.1**	**-19.1**	**-19.1**	**-19.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Building Construction
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,184.0	feet
Noise Distance to Barrier:	1,174.0	feet
Barrier Distance to Observer:	10.0	feet
Observer Elevation:	1,480.0	feet
Noise Source Elevation:	1,481.0	feet
Barrier Elevation:	1,480.0	feet
Barrier Height:	**6.0**	**feet**
Noise Source Height:	8.0	feet
Observer Height:	5.0	feet
Barrier Type (0-Wall, 1-Berm):	0	
Drop Off Coefficient:	20.0	

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,184.0	-15.4	-15.4	-15.4	-15.4	-15.4	-15.4
Shielding (Barrier Attenuation)	1,174.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		46.6	-20.9	-20.9	-20.9	-20.9	-20.9
60 Minute Hourly Adjustment		**46.6**	**-20.9**	**-20.9**	**-20.9**	**-20.9**	**-20.9**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R7**
Source: Architectural Coating
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,184.0	feet
Noise Distance to Barrier:	1,174.0	feet
Barrier Distance to Observer:	10.0	feet
Observer Elevation:	1,480.0	feet
Noise Source Elevation:	1,481.0	feet
Barrier Elevation:	1,480.0	feet
Barrier Height:	**6.0**	**feet**
Noise Source Height:	8.0	feet
Observer Height:	5.0	feet
Barrier Type (0-Wall, 1-Berm):	0	
Drop Off Coefficient:	20.0	

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,184.0	-15.4	-15.4	-15.4	-15.4	-15.4	-15.4
Shielding (Barrier Attenuation)	1,174.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		46.6	-20.9	-20.9	-20.9	-20.9	-20.9
60 Minute Hourly Adjustment		**46.6**	**-20.9**	**-20.9**	**-20.9**	**-20.9**	**-20.9**

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R7**	*Project Name:*	MV Logistics
Source:	Paving	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	962.0 feet	***Barrier Height:***	**6.0 feet**
Noise Distance to Barrier:	952.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,480.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,480.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	962.0	-13.6	-13.6	-13.6	-13.6	-13.6	-13.6
Shielding (Barrier Attenuation)	952.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		48.4	-19.1	-19.1	-19.1	-19.1	-19.1
60 Minute Hourly Adjustment		**48.4**	**-19.1**	**-19.1**	**-19.1**	**-19.1**	**-19.1**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R8**	*Project Name:*	MV Logistics
Source:	Grading	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	629.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	619.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	629.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0
Shielding (Barrier Attenuation)	619.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		57.5	-10.0	-10.0	-10.0	-10.0	-10.0
60 Minute Hourly Adjustment		**57.5**	**-10.0**	**-10.0**	**-10.0**	**-10.0**	**-10.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R8**	*Project Name:*	MV Logistics
Source:	Trenching	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	629.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	619.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,480.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	61.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	629.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0
Shielding (Barrier Attenuation)	619.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		51.4	-10.0	-10.0	-10.0	-10.0	-10.0
60 Minute Hourly Adjustment		**51.4**	**-10.0**	**-10.0**	**-10.0**	**-10.0**	**-10.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location:	**R8**	*Project Name:*	MV Logistics
Source:	Building Construction	*Job Number:*	9303
Condition:	Construction Phase 2	*Analyst:*	A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,008.0 feet	***Barrier Height:***	**0.0 feet**
Noise Distance to Barrier:	998.0 feet	*Noise Source Height:*	8.0 feet
Barrier Distance to Observer:	10.0 feet	*Observer Height:*	5.0 feet
Observer Elevation:	1,484.0 feet	*Barrier Type (0-Wall, 1-Berm):*	0
Noise Source Elevation:	1,481.0 feet	*Drop Off Coefficient:*	20.0
Barrier Elevation:	1,484.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,008.0	-14.0	-14.0	-14.0	-14.0	-14.0	-14.0
Shielding (Barrier Attenuation)	998.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		53.5	-14.0	-14.0	-14.0	-14.0	-14.0
60 Minute Hourly Adjustment		**53.5**	**-14.0**	**-14.0**	**-14.0**	**-14.0**	**-14.0**

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R8**
Source: Architectural Coating
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 1,008.0 feet
Noise Distance to Barrier: 998.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,481.0 feet
Barrier Elevation: 1,484.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,008.0	-14.0	-14.0	-14.0	-14.0	-14.0	-14.0
Shielding (Barrier Attenuation)	998.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		53.5	-14.0	-14.0	-14.0	-14.0	-14.0
60 Minute Hourly Adjustment		**53.5**	**-14.0**	**-14.0**	**-14.0**	**-14.0**	**-14.0**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R8**
Source: Paving
Condition: Construction Phase 2

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 629.0 feet
Noise Distance to Barrier: 619.0 feet
Barrier Distance to Observer: 10.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,484.0 feet

Barrier Height: **0.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	629.0	-10.0	-10.0	-10.0	-10.0	-10.0	-10.0
Shielding (Barrier Attenuation)	619.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		57.5	-10.0	-10.0	-10.0	-10.0	-10.0
60 Minute Hourly Adjustment		**57.5**	**-10.0**	**-10.0**	**-10.0**	**-10.0**	**-10.0**

APPENDIX 10.3:

CONSTRUCTION TEMPORARY BARRIER ATTENUATION CALCULATIONS

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STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R8**
Source: Grading
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 207.0 feet
Noise Distance to Barrier: 10.0 feet
Barrier Distance to Observer: 197.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	207.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Shielding (Barrier Attenuation)	10.0	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9
Raw (Distance + Barrier)		60.3	-7.2	-7.2	-7.2	-7.2	-7.2
60 Minute Hourly Adjustment		**60.3**	**-7.2**	**-7.2**	**-7.2**	**-7.2**	**-7.2**

STATIONARY SOURCE NOISE PREDICTION MODEL

11/6/2015

Observer Location: **R8**
Source: Paving
Condition: Construction Phase 1

Project Name: MV Logistics
Job Number: 9303
Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer 207.0 feet
Noise Distance to Barrier: 10.0 feet
Barrier Distance to Observer: 197.0 feet

Observer Elevation: 1,484.0 feet
Noise Source Elevation: 1,480.0 feet
Barrier Elevation: 1,480.0 feet

Barrier Height: **6.0 feet**
Noise Source Height: 8.0 feet
Observer Height: 5.0 feet

Barrier Type (0-Wall, 1-Berm): 0
Drop Off Coefficient: 20.0

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	*Distance (feet)*	*Leq*	*L50*	*L25*	*L8*	*L2*	*Lmax*
Reference (Sample)	200.0	67.5	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	207.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Shielding (Barrier Attenuation)	10.0	-6.9	-6.9	-6.9	-6.9	-6.9	-6.9
Raw (Distance + Barrier)		60.3	-7.2	-7.2	-7.2	-7.2	-7.2
60 Minute Hourly Adjustment		**60.3**	**-7.2**	**-7.2**	**-7.2**	**-7.2**	**-7.2**

Attachment: H - Noise Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Moreno Valley Logistics Center

TRAFFIC IMPACT ANALYSIS

CITY OF MORENO VALLEY

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JUNE 17, 2016

09301-08 TIA Report

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LIST OF EXHIBITS

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Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
FHWA	Federal Highway Administration
FTIP	Federal Transportation Improvement Program
HCM	Highway Capacity Manual
HOV	High Occupancy Vehicle
ITE	Institute of Transportation Engineers
JPA	Joint Powers Authority
LOS	Level of Service
MUTCD	Manual on Uniform Traffic Control Devices
NCHRP	National Cooperative Highway Research Program
NP	No Project (or Without Project)
PCE	Passenger Car Equivalents
PeMS	Caltrans Performance Measurement System
PHF	Peak Hour Factor
Project	Moreno Valley Logistics Center
RCTC	Riverside County Transportation Commission
RivTAM	Riverside County Transportation Analysis Model
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SHS	State Highway System
sf	Square Feet
TIA	Traffic Impact Analysis
TOD	Transit Oriented Development
TUMF	Transportation Uniform Mitigation Fee
WP	With Project
WRCOG	Western Riverside Council of Governments

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Moreno Valley Logistics Center ("Project") located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley as shown on Exhibit 1-1.

The purpose of this traffic impact analysis is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to achieve acceptable circulation system operational conditions. This traffic study has been prepared in accordance with the City of Moreno Valley Transportation Engineering Division's *Traffic Impact Analysis Preparation Guide* (August 2007), the California Department of Transportation (Caltrans) *Guide for the Preparation of Traffic Impact Studies* (December 2002), and consultation with City of Moreno Valley staff during the scoping process. (1) (2) The approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TIA.

1.1 PROJECT OVERVIEW

The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1) and 385,748 square feet of general light industrial use. Building 2 located on the southwest corner of Cosmos Street and Krameria Avenue is proposed to consist of 122,516 sf of general light industrial use, Building 3 located at the eastern terminus of Cardinal Avenue is proposed to consist of 97,222 sf of general light industrial use, and Building 4 located on the east of Heacock Street and south of Krameria Avenue (North) is proposed to consist of 166,010 sf of general light industrial use. Per the City's traffic study guidelines, the Opening Year will have a 5 year minimum horizon from baseline conditions. As such, the Opening Year analysis will assess 2020 traffic conditions.

Vehicular and truck traffic access will be provided via the following driveways (see Exhibit 1-1):

- Heacock Street / Driveway 1 – Full access driveway providing access to passenger cars and heavy trucks for Building 4.
- Heacock Street / Driveway 2 – Full access driveway providing access to both passenger cars and heavy trucks for Building 4.
- Heacock Street / Cardinal Avenue – Full access intersection providing access to both passenger cars and heavy trucks for Building 3.
- Cosmos Street / Krameria Avenue – Full access intersection providing access to both passenger cars and heavy trucks for Buildings 1 and 2. Although the intersection would allow for full access, heavy trucks will be prohibited from utilizing Krameria Avenue to the east through signage and additional design features (e.g., reductions to the curb radius on the southeast corner).
- Driveway 3 / Krameria Avenue – Full access driveway providing access to both passenger cars and heavy trucks for Building 1. Although the driveway would allow for full access, heavy trucks will be prohibited from utilizing Krameria Avenue to the east through signage and additional design features (e.g., reductions to the curb radius on the southeast corner).

EXHIBIT 1-1: PRELIMINARY SITE PLAN

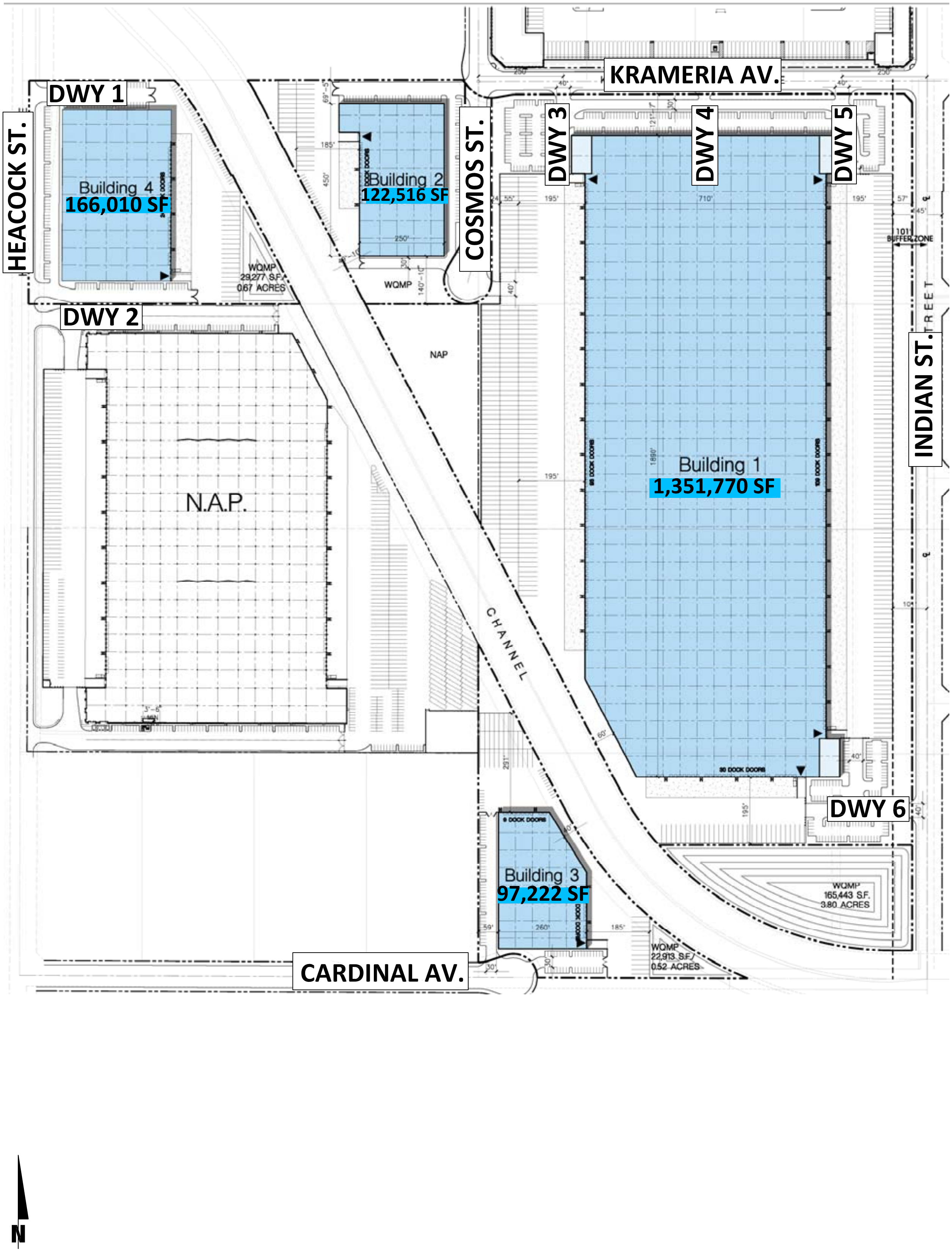

09301 - site plan.dwg

- Driveway 4 / Krameria Avenue – Full access driveway providing access to passenger cars only for Building 1.
- Driveway 5 / Krameria Avenue – Full access driveway providing access to both passenger cars and heavy trucks for Building 1. Although the driveway would allow for full access for passenger cars, heavy trucks will be prohibited from utilizing Krameria Avenue to the east through signage and design features for the intersection. The northbound right turn lane from Driveway 5 would include a small turning radius on the southeast corner and signage to prohibit use by heavy trucks.
- Indian Street / Driveway 6 – Full access driveway providing access to passenger cars only to Building 1. The layout of and geometry of the parking prohibits heavy trucks from entering or existing the driveway. However, if in the future Indian Street is extended over the Perris Valley Storm Drain Channel and the City's truck route is modified to the north to Driveway 6 from its current terminus, then heavy truck access could be accommodated to and from the south on Indian Street via Driveway 6 with modifications to the parking layout.

Regional access to the project site is provided via the I-215 Freeway at Cactus Avenue and Harley Knox Boulevard interchanges.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition, 2012. (3) The Project is estimated to generate a net total of 6,975 passenger-car-equivalent (PCE) trip-ends per day on a typical weekday with approximately 660 net AM PCE peak hour trips and 718 net PM PCE peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been assessed for each of the following conditions:

- Existing (2015) (1 scenario)
- Existing plus Project (E+P), Without and With Indian Street Bridge (2 scenarios)
- Opening Year Cumulative (2020), Without and With Project (2 scenarios)
- General Plan Buildout (Post 2035), Without and With Project (2 scenarios)

1.2.1 EXISTING (2015) CONDITIONS

Information for Existing (2015) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.2.2 EXISTING PLUS PROJECT CONDITIONS

The Existing plus Project (E+P) analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions. Pursuant to the request of City staff, the E+P analysis has been prepared for both Without and With the future Indian Street bridge over the Perris Valley Storm Drain Channel.

1.2.3 OPENING YEAR CUMULATIVE (2020) CONDITIONS

To account for background traffic, other known cumulative development projects in the study area were included in addition to 10.41% of ambient growth for Opening Year Cumulative traffic conditions in conjunction with traffic associated with the proposed Project. Although it is unlikely that these cumulative projects would be fully built and occupied by Year 2020, they have been included in an effort to conduct a conservative analysis and overstate and opposed to understate potential cumulative traffic impacts.

The currently adopted Southern California Association of Governments (SCAG) 2012 Regional Transportation Plan (RTP) (April 2012) growth forecasts for the unincorporated areas of the City of Moreno Valley identifies projected growth in population of 187,400 in 2008 to 255,200 in 2035, or a 36.2 percent increase over the 27 year period. (5) The change in population equates to roughly a 1.15 percent growth rate compounded annually. Similarly, growth over the same 27 year period in households is projected to increase by 42.5 percent, or 1.32 percent annual growth rate. Finally, growth in employment over the same 27 year period is projected to increase by 99.4 percent, or a 2.59 percent annual growth rate.

Based on a comparison of Existing traffic volumes to the General Plan Buildout (Post 2035) forecasts, the average growth rate is estimated at approximately 5.68 percent per year, compounded annually between Existing and General Plan Buildout (Post 2035) traffic conditions. The annual growth rate at each individual intersection is not lower than 2.49 percent per year, compounded annually to as high as 10.64 percent per year, compounded annually over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis (2.0 percent per year) would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Moreno Valley for both Opening Year Cumulative and General Plan Buildout (Post 2035) traffic conditions, especially when considered along with the addition of project-related traffic. As such, the growth in traffic volumes assumed in this traffic impact analysis would tend to overstate as opposed to understate the potential impacts to traffic and circulation.

1.2.4 GENERAL PLAN BUILDOUT (POST 2035) CONDITIONS

The General Plan Buildout (Post 2035) Without Project traffic conditions were derived from the Riverside County Transportation Analysis Model (RivTAM) modified to represent General Plan Buildout conditions for the City of Moreno Valley using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing conditions and General Plan Buildout conditions. The General Plan Buildout With Project traffic forecasts were determined by adding the Project traffic to the General Plan Buildout Without Project traffic forecasts from the RivTAM model. The General Plan Buildout traffic forecasts used in the traffic analysis were refined with existing peak hour traffic count data collected at intersection analysis locations. The initial estimate of the future peak hour turning movements has, therefore, been reviewed for reasonableness. The reasonableness checks performed include a review of traffic flow conservation in addition to a comparison with the Existing and Opening Year Cumulative traffic volumes. As such, the General Plan Buildout Without and With Project traffic forecasts also include the traffic generated by the cumulative

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

development projects considered for the Opening Year Cumulative analysis. Where necessary, the General Plan Buildout volumes have been adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes.

The General Plan Buildout Without and With Project traffic conditions analyses will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the TUMF and DIF programs, or other approved funding mechanism can accommodate the long-range cumulative traffic at the target LOS identified in the City of Moreno Valley General Plan. (4) If the "funded" improvements can provide the target LOS, then the Project's payment into TUMF and/or DIF will be considered as long-range cumulative mitigation through the conditions of approval. Other improvements needed beyond the "funded" improvements (such as localized improvements to non-TUMF facilities) are identified as such.

1.3 STUDY AREA

To ensure that this TIA satisfies the City of Moreno Valley's traffic study requirements, Urban Crossroads, Inc. prepared a project traffic study scoping package for review by City of Moreno Valley staff prior to the preparation of this report. The scoping agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology and is included in Appendix 1.1.

1.3.1 INTERSECTIONS

The following 32 study area intersections listed in Table 1-1 and shown on Exhibit 1-2 were selected for this TIA based on the City of Moreno Valley's traffic study guidelines and consultation with City of Moreno Valley staff. The study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the City of Moreno Valley's traffic study guidelines. (1)

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	I-215 Southbound Ramps / Cactus Avenue	Caltrans, March JPA	Yes
2	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans, Riverside Co.	Yes
3	I-215 Northbound Ramps / Cactus Avenue	Caltrans, March JPA, Moreno Valley	Yes
4	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans, Perris	Yes
5	Elsworth Street / Cactus Avenue	Moreno Valley, March JPA	No
6	Frederick Street / Cactus Avenue	Moreno Valley, March JPA	No
7	Western Way / Harley Knox Boulevard	Perris	No
8	Graham Street / Cactus Avenue	Moreno Valley, March JPA	No
9	Patterson Avenue / Harley Knox Boulevard	Perris	No
10	Heacock Street / Cactus Avenue	Moreno Valley, March JPA	No
11	Heacock Street / Meyer Drive/John F. Kennedy Drive	Moreno Valley, March JPA	No
12	Heacock Street / Gentian Avenue	Moreno Valley, March JPA	No

ID	Intersection Location	Jurisdiction	CMP?
13	Heacock Street / Iris Avenue	Moreno Valley, March JPA	No
14	Heacock Street / Krameria Avenue (North)	Moreno Valley, March JPA	No
15	Heacock Street / Driveway 1 – Future Intersection	Moreno Valley, March JPA	No
16	Heacock Street / Driveway 2 – Future Intersection	Moreno Valley, March JPA	No
17	Heacock Street / Cardinal Avenue	Moreno Valley, March JPA	No
18	Heacock Street / San Michele Road	Moreno Valley, March JPA	No
19	Heacock Street / Nandina Avenue	Moreno Valley, March JPA	No
20	Heacock Street/Webster Avenue / Harley Knox Boulevard	Perris	No
21	Cosmos Street / Krameria Avenue (North)	Moreno Valley	No
22	Cosmos Street / Krameria Avenue	Moreno Valley	No
23	Driveway 3 / Krameria Avenue – Future Intersection	Moreno Valley	No
24	Driveway 4 / Krameria Avenue – Future Intersection	Moreno Valley	No
25	Driveway 5 / Krameria Avenue – Future Intersection	Moreno Valley	No
26	Indian Street / Krameria Avenue	Moreno Valley	No
27	Indian Street / Driveway 6 – Future Intersection	Moreno Valley	No
28	Indian Street / San Michele Road	Moreno Valley	No
29	Indian Street / Nandina Avenue	Moreno Valley	No
30	Indian Street / Harley Knox Boulevard	Perris	No
31	Perris Boulevard / Cactus Avenue	Moreno Valley	No
32	Perris Boulevard / Krameria Avenue	Moreno Valley	No

It should also be noted that the 50 peak hour trip threshold is used by numerous other agencies throughout Southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange. The 50 peak hour trip threshold represents approximately 3 percent of the theoretical capacity of an intersection, estimated based on the Highway Capacity Manual (HCM) at approximately 1700 vehicles per hour. In effect, acting as the lead agency, these jurisdictions have established 50 project trips as the threshold for when to analyze signalized intersections. Therefore, a project trip contribution of less than 50 peak hour trips is generally considered less than significant and is typically not evaluated.

The intent of a CMP is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Counties within California have developed CMPs with varying methods and strategies to meet the intent of the CMP legislation. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and updated most recently updated in 2011. The Riverside County Transportation Commission (RCTC) adopted the 2011 CMP for the County of Riverside in December 2011. (6) There are 4 study area intersections that are ramp-to-arterial intersections with the I-215 Freeway, which are identified as CMP facilities.

EXHIBIT 1-2: LOCATION MAP

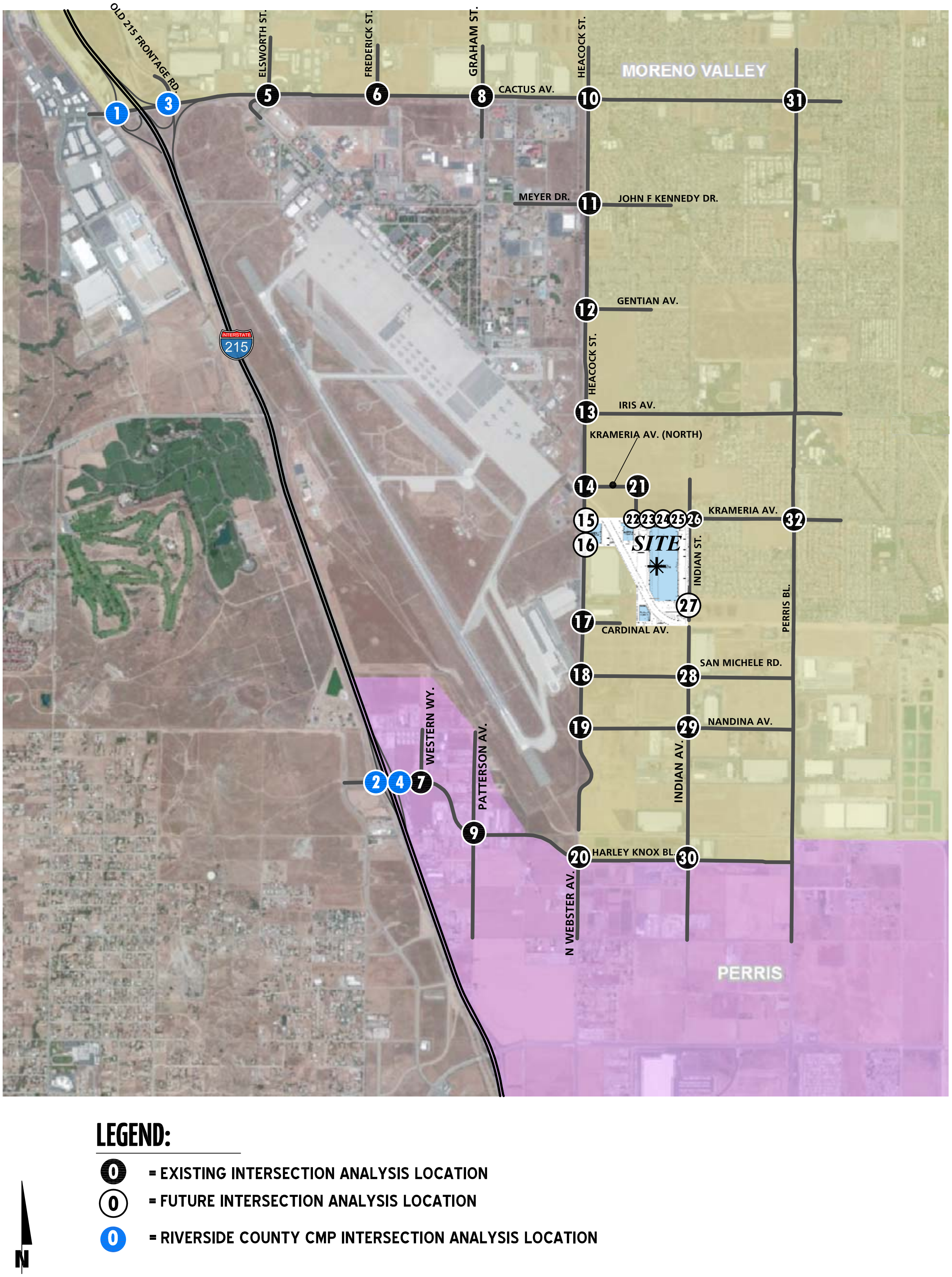

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1.3.2 ROADWAY SEGMENTS

The roadway segment study area utilized for this analysis is based on a review of the key roadway segments in which the Project is anticipated to contribute 50 or more peak hour trips. The study area identifies a total of 48 existing/future roadway segments. The roadway segments include the segments on either side of the study area intersections and are listed in Table 1-2.

TABLE 1-2: ROADWAY SEGMENT ANALYSIS LOCATIONS

ID	Street	Segment	Jurisdiction
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	Moreno Valley
2		East of I-215 NB Ramps	Moreno Valley
3		West of Elsworth Street	Moreno Valley
4		East of Elsworth Street	Moreno Valley
5		West of Frederick Street	Moreno Valley
6		East of Frederick Street	Moreno Valley
7		West of Graham Street	Moreno Valley
8		East of Graham Street	Moreno Valley
9		West of Heacock Street	Moreno Valley
10		East of Heacock Street	Moreno Valley
11		West of Perris Boulevard	Moreno Valley
12	Krameria Avenue	Heacock Street to Cosmos Street	Moreno Valley
13		Cosmos Street to Driveway 3	Moreno Valley
14		Driveway 3 to Driveway 4	Moreno Valley
15		Driveway 4 to Driveway 5	Moreno Valley
16		Driveway 5 to Indian Street	Moreno Valley
17		East of Indian Street	Moreno Valley
18		West of Perris Boulevard	Moreno Valley
19	Cardinal Avenue	East of Heacock Street	Moreno Valley
20	San Michele Road	East of Heacock Street	Moreno Valley
21		West of Indian Street	Moreno Valley
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	Perris
23		I-215 NB Ramps to Western Way	Perris
24		East of Western Way	Perris
25		West of Patterson Avenue	Perris
26		East of Patterson Avenue	Perris
27		West of Webster Avenue	Perris
28		East of Webster Avenue	Perris
29		West of Indian Street	Perris

ID	Street	Segment	Jurisdiction
30	Heacock Street	South of Cactus Avenue	Moreno Valley
31		North of John F. Kennedy Drive	Moreno Valley
32		South of John F. Kennedy Drive	Moreno Valley
33		North of Gentian Avenue	Moreno Valley
34		South of Gentian Avenue	Moreno Valley
35		North of Iris Avenue	Moreno Valley
36		Iris Avenue to Krameria Avenue (N)	Moreno Valley
37		Krameria Avenue (N) to Driveway 1	Moreno Valley
38		Driveway 1 to Driveway 2	Moreno Valley
39		Driveway 2 to Cardinal Avenue	Moreno Valley
40		Cardinal Avenue to San Michele Road	Moreno Valley
41		San Michele Road to Nandina Avenue	Moreno Valley
42		South of Nandina Avenue	Moreno Valley
43		North of Harley Knox Boulevard	Perris
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	Moreno Valley
45	Indian Street	Driveway 6 to San Michele Road	Moreno Valley
46		San Michele Road to Nandina Avenue	Moreno Valley
47		South of Nandina Avenue	Moreno Valley
48		North of Harley Knox Boulevard	Perris

1.3.3 FREEWAY MAINLINE SEGMENTS

Study area freeway mainline analysis locations were selected based on Caltrans traffic study guidelines, which may require the analysis of State highway facilities. (2) This study evaluates the following freeway segments adjacent to the point of entry to the State Highway System (SHS), where the Project is anticipated to contribute 50 or more peak hour trips (see Table 1-3):

TABLE 1-3: FREEWAY MAINLINE SEGMENT ANALYSIS LOCATIONS

ID	Freeway Mainline Segments
1	I-215 Freeway – Southbound, North of Cactus Avenue
2	I-215 Freeway – Southbound, South of Cactus Avenue
3	I-215 Freeway – Southbound, North of Harley Knox Boulevard
4	I-215 Freeway – Southbound, South of Harley Knox Boulevard
5	I-215 Freeway – Northbound, North of Cactus Avenue
6	I-215 Freeway – Northbound, South of Cactus Avenue
7	I-215 Freeway – Northbound, North of Harley Knox Boulevard
8	I-215 Freeway – Northbound, South of Harley Knox Boulevard

1.3.4 FREEWAY MERGE/DIVERGE RAMP JUNCTIONS

The study area freeway merge/diverge ramp junction analysis locations include the following freeway ramp junctions for each direction of flow as shown on Table 1-4, where the Project is anticipated to contribute 50 or more peak hour trips:

TABLE 1-4: FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS LOCATIONS

ID	Freeway Merge/Diverge Ramp Junctions
1	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue(Diverge) – Upstream
2	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue(Diverge) – Downstream
3	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard (Diverge)
4	I-215 Freeway – Southbound, On-Ramp at Harley Knox Boulevard (Merge)
5	I-215 Freeway – Northbound, On-Ramp at Cactus Avenue (Merge)
6	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard (Merge)
7	I-215 Freeway – Northbound, Off-Ramp at Harley Knox Boulevard (Diverge)

1.4 SUMMARY OF INTERSECTION ANALYSIS

A summary of the peak hour intersection LOS are provided on Table 1-5 for each of the analysis scenarios and on Table 1-6 for the study area roadway segments. The I-215 Freeway mainline segments are anticipated to operate at acceptable LOS for each of the analysis scenarios until General Plan Buildout (Post 2035) traffic conditions (see Table 1-7). Similarly, the -215 Freeway merge/diverge ramp junctions are also anticipated to operate at acceptable LOS for each of the analysis scenarios until Opening Year Cumulative (2020) traffic conditions (see Table 1-8).

1.5 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements throughout the City of Moreno Valley are funded through a combination of project mitigation, fair share contributions or development impact fee programs, such as Transportation Uniform Mitigation Fee (TUMF) program or the County's Development Impact Fee (DIF) program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

1.5.1 TRANSPORTATION UNIFORM MITIGATION FEE (TUMF) PROGRAM

The Western Riverside Council of Governments (WRCOG) is responsible for establishing and updating TUMF rates. The County may grant to developers a credit against the specific components of fees for the dedication of land or the construction of facilities identified in the list of improvements funded by each of these fee programs. Fees are based upon projected land uses and a related transportation needs to address growth based upon a 2009 Nexus study.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 1-5

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Summary of Intersection Level of Service

#	Intersection	Traffic Control [1]	Existing (2015) LOS		E+P w/o Indian LOS		E+P w/ Indian LOS		2020 w/o Project LOS		2020 w/ Project LOS		P2035 w/o Project LOS		P2035 w/ Project LOS	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	B	D	B	D	B	D	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
2	I-215 SB Ramps / Harley Knox Bl	TS	C	C	C	D	D	D	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
3	I-215 NB Ramps / Cactus Av	TS	B	B	B	B	B	B	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
4	I-215 NB Ramps / Harley Knox Bl	TS	B	B	B	B	B	B	B	**F**	C	**F**	**E**	**F**	**F**	**F**
5	Elsworth St / Cactus Av	TS	D	C	D	C	D	C	**F**	D	**F**	D	**F**	**E**	**F**	**F**
6	Frederick St / Cactus Av	TS	C	C	C	C	C	C	C	D	C	D	C	D	C	D
7	Western Wy / Harley Knox Bl	CSS	B	B	B	B	B	B	C	**F**	C	**F**	**E**	**F**	**F**	**F**
8	Graham St / Cactus Av	TS	C	C	C	C	C	C	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
9	Patterson Av / Harley Knox Bl	TS	C	C	C	D	C	C	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
10	Heacock St / Cactus Av	TS	C	B	D	D	D	C	**E**	D	**E**	**F**	**F**	**F**	**F**	**F**
11	Heacock St / John F. Kennedy Dr	TS	C	C	C	C	C	C	C	C	C	D	D	D	D	D
12	Heacock St / Gentian Av	CSS	C	**F**	**E**	**F**	D	**F**	D	**F**	**F**	**F**	**F**	**F**	**F**	**F**
13	Heacock St / Iris Av	AWS	C	**E**	**E**	**F**	D	**F**	**E**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
14	Heacock St / Krameria Av (North)	TS	B	A	B	C	B	C	B	D	C	D	C	D	C	D
15	Heacock St / Driveway 1	**CSS**	--	--	B	B	B	B	--	--	B	C	--	--	C	C
16	Heacock St / Driveway 2	**CSS**	--	--	B	B	B	B	--	--	C	C	--	--	C	C
17	Heacock St / Cardinal Av	CSS	A	B	B	C	B	C	B	D	C	D	B	C	C	D
18	Heacock St / San Michele Rd	TS	C	D	D	**E**	D	**E**	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
19	Heacock St / Nandina Av	CSS	A	A	A	A	A	A	A	A	A	A	B	C	B	C
20	Webster Av / Harley Knox Bl	CSS	B	B	B	B	B	B	A	C	A	C	C	**F**	C	**F**
21	Cosmos St / Krameria Av (North)	CSS	A	A	B	B	A	B	B	C	C	D	B	C	C	C
22	Cosmos St / Krameria Av	**AWS**	--	--	A	A	A	A	--	--	B	B	--	--	A	A
23	Driveway 3 / Krameria Av	**CSS**	--	--	A	A	A	A	--	--	B	B	--	--	A	B
24	Driveway 4 / Krameria Av	**CSS**	--	--	A	A	A	A	--	--	A	A	--	--	A	A
25	Driveway 5 / Krameria Av	**CSS**	--	--	A	A	A	A	--	--	A	B	--	--	A	B
26	Indian St / Krameria Av	AWS	B	A	B	A	B	A	B	B	B	B	**F**	**F**	**F**	**F**
27	Indian St / Driveway 6	**CSS**	--	--	A	A	A	A	--	--	A	A	--	--	B	C
28	Indian St / San Michele Rd	TS	C	D	C	D	C	D	**F**	**F**	**F**	**F**	**E**	**F**	**F**	**F**
29	Indian St / Nandina Av	TS	B	B	B	C	C	C	**F**	**F**	**F**	**F**	**F**	**F**	**F**	**F**
30	Indian St / Harley Knox Bl	TS	B	C	B	D	C	**E**	B	**F**	B	**F**	**F**	**F**	**F**	**F**
31	Perris Bl / Cactus Av	TS	C	C	C	C	C	C	**E**	**F**	**E**	**F**	**F**	**F**	**F**	**F**
32	Perris Bl / Krameria Av	TS	C	C	C	C	C	C	D	**E**	D	**E**	**F**	**F**	**F**	**F**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS). -- = Not Applicable/Future Intersection

[1] CSS = Cross-street Stop; TS = Traffic Signal: AWS= All-way stop; **CSS** = Improvement

Table 1-6

Page 1 of 2

Summary of Roadway Segment Level of Service

#	Roadway	Segment Limits	Roadway Section	Existing LOS	E+P w/o Indian LOS	E+P w/ Indian LOS	2020 w/o Project LOS	2020 w/ Project LOS	P2035 w/o Project LOS	P2035 w/ Project LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	B	C	B	**F**	**F**	**F**	**F**
2		East of I-215 NB Ramps	4D	D	D	D	**F**	**F**	**F**	**F**
3		West of Elsworth Street	6D	B	B	B	**F**	**F**	**F**	**F**
4		East of Elsworth Street	6D	A	A	A	**E**	**F**	**F**	**F**
5		West of Frederick Street	5D	B	C	C	**F**	**F**	**F**	**F**
6		East of Frederick Street	5D	C	D	D	**F**	**F**	**F**	**F**
7		West of Graham Street	5D	C	D	D	**F**	**F**	**F**	**F**
8		East of Graham Street	5D	B	C	B	**F**	**F**	**F**	**F**
9		West of Heacock Street	5D	C	D	C	**F**	**F**	**F**	**F**
10		East of Heacock Street	4D	A	A	A	D	D	**F**	**F**
11		West of Perris Boulevard	4D	A	A	A	B	B	**E**	**E**
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	A	A	A	A	D	D	**F**
13		Cosmos Street to Driveway 3	2U	A	A	A	A	A	C	D
14		Driveway 3 to Driveway 4	2U	A	A	A	A	A	C	D
15		Driveway 4 to Driveway 5	2U	A	A	A	A	A	C	D
16		Driveway 5 to Indian Street	2D	A	A	A	A	A	A	A
17		East of Indian Street	2D	A	A	A	A	A	A	A
18		West of Perris Boulevard	2U	A	A	A	A	A	**F**	**F**
19	Cardinal Avenue	East of Heacock Street	2U	A	A	A	A	A	A	A
20	San Michele Road	East of Heacock Street	2D	A	A	A	**E**	**F**	**F**	**F**
21		West of Indian Street	2D	A	B	B	**F**	**F**	**F**	**F**
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	A	A	A	A	B	D	D
23		I-215 NB Ramps to Western Way	4D	A	A	A	**E**	**E**	**F**	**F**
24		East of Western Way	4U	A	B	B	**F**	**F**	**F**	**F**
25		West of Patterson Avenue	4U	A	A	A	**E**	**F**	**F**	**F**
26		East of Patterson Avenue	2D	A	B	C	**F**	**F**	**F**	**F**
27		West of Webster Avenue	2D	A	B	B	**F**	**F**	**F**	**F**
28		East of Webster Avenue	2D	A	B	B	**F**	**F**	**F**	**F**
29		West of Indian Street	3D	A	A	A	**E**	**F**	**F**	**F**

Table 1-6

Page 2 of 2

Summary of Roadway Segment Level of Service

#	Roadway	Segment Limits	Roadway Section	Existing LOS	E+P w/o Indian LOS	E+P w/ Indian LOS	2020 w/o Project LOS	2020 w/ Project LOS	P2035 w/o Project LOS	P2035 w/ Project LOS
30	Heacock Street	South of Cactus Avenue	4D	B	C	C	C	D	C	D
31		North of John F. Kennedy Drive	4D	B	C	B	C	D	C	C
32		South of John F. Kennedy Drive	4D	A	B	B	B	C	C	C
33		North of Gentian Avenue	3D	B	D	C	D	**E**	D	**E**
34		South of Gentian Avenue	2U	**F**	**F**	**F**	**F**	**F**	**F**	**F**
35		North of Iris Avenue	2D	D	**F**	**F**	**F**	**F**	**F**	**F**
36		Iris Avenue to Krameria Avenue (N)	2U	C	**F**	**E**	**F**	**F**	**F**	**F**
37		Krameria Avenue (N) to Driveway 1	3D	B	A	A	C	C	D	D
38		Driveway 1 to Driveway 2	3D	B	A	A	C	C	D	D
39		Driveway 2 to Cardinal Avenue	4D	A	A	A	A	A	B	B
40		Cardinal Avenue to San Michele Road	3D	A	A	A	B	C	D	**E**
41		San Michele Road to Nandina Avenue	2D	A	A	A	A	A	B	C
42		South of Nandina Avenue	2U	A	A	A	A	A	B	C
43		North of Harley Knox Boulevard	2U	A	A	A	A	A	A	A
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	A	A	A	A	A	C	D
45	Indian Street	Driveway 6 to San Michele Road	4D	A	A	A	A	A	B	B
46		San Michele Road to Nandina Avenue	4D	A	A	A	C	D	**E**	**F**
47		South of Nandina Avenue	2D	B	C	D	**F**	**F**	**F**	**F**
48		North of Harley Knox Boulevard	4D	A	A	A	B	B	**F**	**F**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

Table 1-7

Summary of Basic Freeway Segment Level of Service

Freeway	Direction	Mainline Segment	Lanes[1]	Existing		E+P w/o Indian		E+P w/ Indian		2020 w/o Project		2020 w/ Project		P2035 w/o Project		P2035 w/ Project	
				LOS		LOS		LOS		LOS		LOS		LOS		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	SB	North of Cactus Avenue	4	C	C	C	C	C	C	D	D	D	D	**E**	**E**	**E**	**E**
		South of Cactus Avenue	4	C	C	C	C	C	C	D	D	D	D	D	**E**	D	**E**
		North of Harley Knox Boulevard	3	B	C	B	C	B	C	C	D	C	D	**F**	**F**	**F**	**F**
		South of Harley Knox Boulevard	3	B	C	B	C	B	C	B	D	B	D	D	**E**	D	**E**
	NB	North of Cactus Avenue	4	A	A	B	A	B	A	B	B	B	C	D	D	D	D
		South of Cactus Avenue	4	B	A	B	A	B	A	C	B	C	B	D	C	D	C
		North of Harley Knox Boulevard	3	C	B	C	B	C	B	D	D	D	D	**F**	**F**	**F**	**F**
		South of Harley Knox Boulevard	3	C	B	C	B	C	B	D	C	D	C	**E**	D	**E**	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 1-8

Summary of Freeway Ramp Junction Merge/Diverge Level of Service

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing		E+P w/o Indian		E+P w/ Indian		2020 w/o Project		2020 w/ Project		P2035 w/o Project		P2035 w/ Project	
				LOS		LOS		LOS		LOS		LOS		LOS		LOS	
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	C	D	D	D	D	D	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**
		Loop Off-Ramp at Cactus Avenue - Downstream	4	C	D	D	D	D	D	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**
		Off-Ramp at Harley Knox Boulevard	3	C	C	C	C	C	C	D	**E**	D	**E**	**F**	**F**	**F**	**F**
		On-Ramp at Harley Knox Boulevard	3	B	C	B	C	B	C	B	D	B	D	D	**E**	D	**E**
	NB	On-Ramp at Cactus Avenue	3	C	B	C	C	C	C	C	D	C	D	**E**	**E**	**E**	**F**
		On-Ramp at Harley Knox Boulevard	3	C	C	C	C	C	C	D	D	D	D	D	**F**	**F**	**F**
		Off-Ramp at Harley Knox Boulevard	3	C	B	C	C	C	C	D	C	D	C	**E**	D	**E**	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

TUMF is an ambitious regional program created to address cumulative impacts of growth throughout western Riverside County. Program guidelines are being handled on an iterative basis. Exemptions, credits, reimbursements and local administration are being deferred to primary agencies. The County of Riverside serves this function for the proposed Project. Fees submitted to the County are passed on to the WRCOG as the ultimate program administrator.

TUMF guidelines empower a local zone committee to prioritize and arbitrate certain projects. The Project is located in the Central Zone. The zone has developed a 5-year capital improvement program to prioritize public construction of certain roads. TUMF is focused on improvements necessitated by regional growth. The I-215/Cactus Avenue interchange, I-215/Harley Knox Boulevard interchange, Cactus Avenue, Harley Knox Boulevard, Heacock Street, Indian Street, and Perris Boulevard are designated TUMF roadways/facilities within the Project's traffic study area.

1.5.2 CITY OF MORENO VALLEY DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The City of Moreno Valley has created its own local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The City's DIF program includes facilities that are not part of, or which may exceed improvements identified and covered by the TUMF program. As a result, the pairing of the regional and local fee programs provides a more comprehensive funding and implementation plan to ensure an adequate and interconnected transportation system. Under the City's DIF program, the City may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of implementing the improvements listed in its facilities list.

As shown in Table 1-9, a few of the facilities forecasted to be impacted by the Project are planned for improvements through the City's DIF Program. The Project applicant will be subject to the City's DIF fee program, and will pay the requisite City DIF fees at the rates then in effect pursuant to the City's ordinance. The project applicant's payment of the requisite DIF fees at the rates then in effect pursuant to the DIF Program will mitigate its impacts to DIF-funded facilities.

Table 1-9

Page 1 of 4

Summary of Recommended Improvements and Rough Order of Magnitude Costs

#	Intersection Location	Existing	E+P (w/o Indian)	E+P (w/ Indian)	2020 Without Project	2020 With Project	Post 2035 Without Project	Post 2035 With Project	Improvements in DIF, TUMF, etc.[1]	Total Cost[2]	Fair Share[3]	Fair Share Cost[3]	Significant Imapct?[10]
1	I-215 SB Ramps / Cactus Av	None	None	None	2nd SB right turn lane	Same	Same	Same	Yes (TUMF)[4]		NA[5]		Yes
					2nd WB left turn lane	Same	Same	Same	Yes (TUMF)[4]				
									TOTAL	**$0**		**$0**	
2	I-215 SB Ramps / Harley Knox Bl	None	None	None	Restripe SB approach w/ 2 left turn lanes and shared through-right turn lane	Same	Same	Same	Yes (TUMF)[4]		NA[5]		Yes
					2nd WB left turn lane	Same	Same	Same	Yes (TUMF)[4]				
									TOTAL	**$0**		**$0**	
3	I-215 NB Ramps / Cactus Av	None	None	None	Protected NB/SB left turn phasing	Same	Same	Same	Yes (TUMF)[4]		NA[5]		Yes
					2nd NB left turn lane	Same	Same	Same	Yes (TUMF)[4]				
					3rd EB through lane	Same	Same	Same	Yes (TUMF)[4]				
					3rd WB through lane	Same	Same	Same	Yes (TUMF)[4]				
							Protected EB left turn phasing	Same	Yes (TUMF)[4]				
							2nd NB through lane	Same	Yes (TUMF)[4]				
							2nd SB left turn lane	Same	Yes (TUMF)[4]				
							2 SB right turn lanes w/ overlap phasing	Same	Yes (TUMF)[4]				
							2nd EB left turn lane	Same	Yes (TUMF)[4]				
							EB free-right turn lane	Same	Yes (TUMF)[4]				
							4th WB through lane	Same	Yes (TUMF)[4]				
							WB right turn lane	Same	Yes (TUMF)[4]				
									TOTAL	**$0**		**$0**	
4	I-215 NB Ramps / Harley Knox Bl	None	None	None	2nd EB left turn lane	Same	Same	Same	Yes (TUMF)[4]		NA[5]		Yes
					WB free-right turn lane	Same	Same	Same	Yes (TUMF)[4]				
									TOTAL	**$0**		**$0**	
5	Elsworth St / Cactus Av	None	None	None	Protected NB/SB left turn phasing (Restripe NB approach)	Same	Same	Same	No	$131,198	6.2%	$8,100	Yes
							2nd NB left turn lane	Same	No	$87,465		$5,400	
							4th EB through lane	Same	No	$314,874		$19,440	
							4th WB through lane	Same	No	$314,874		$19,440	
									TOTAL	**$848,411**		**$52,379**	
7	Western Wy / Harley Knox Bl	None	None	None	Traffic signal	Same	Same	Same	No	$250,000	10.7%	$26,846	Yes
					EB left turn lane	Same	Same	Same	No	$87,465		$9,392	
							3rd EB through lane	Same	Yes (TUMF)[4]				
							3rd WB through lane	Same	Yes (TUMF)[4]				
									TOTAL	**$337,465**		**$36,239**	

Table 1-9

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Summary of Recommended Improvements and Rough Order of Magnitude Costs

#	Intersection Location	Existing	E+P (w/o Indian)	E+P (w/ Indian)	2020 Without Project	2020 With Project	Post 2035 Without Project	Post 2035 With Project	Improvements in DIF, TUMF, etc.[1]	Total Cost[2]	Fair Share[3]	Fair Share Cost[3]	Significant Imapct?[10]
8	Graham St / Cactus Av	None	None	None	3rd EB through lane	Same	Same	Same	Yes (DIF)		5.7%		Yes
							2nd EB left turn lane	Same	No	$87,465		$5,004	
									TOTAL	**$87,465**		**$5,004**	
9	Patterson Av / Harley Knox Bl	None	None	None	2nd EB through lane[6]	Same	Same	Same	--[6]				Yes
					2nd WB through lane[6]	Same	Same	Same	--[6]				
					WB right turn lane[6]	Same	Same	Same	No	$87,465	11.5%	$10,059	
							3rd EB through lane	Same	Yes (TUMF)[4]				
							3rd WB through lane	Same	Yes (TUMF)[4]				
									TOTAL	**$87,465**		**$10,059**	
10	Heacock St / Cactus Av	None	Extend NB left turn lane storage to 315-feet	Same	Same	Same	Same	Same	No[11]	$0		$0	Yes
					Modify the traffic signal to remove the SB crosswalk	Same	Same	Same	No	$43,733	10.0%	$4,390	
							3rd EB through lane	Same	No	$314,874		$31,609	
							3rd WB through lane	Same	No	$314,874		$31,609	
									TOTAL	**$673,481**		**$67,607**	
12	Heacock St / Gentian Av	Traffic signal	Same	Same	Same	Same	Same	Same	Yes (DIF)				No
							2nd NB through lane	Same	Yes (DIF)		NA[5]		
							2nd SB through lane	Same	Yes (DIF)				
									TOTAL	**$0**		**$0**	
13	Heacock St / Iris Av	Traffic signal	Same	Same	Same	Same	Same	Same	Yes (DIF)				Yes
			WB right turn lane w/ overlap phasing	Same	Same	Same	Same	Same	No	$131,198		$12,859	
					2nd NB through lane	Same	Same	Same	Yes (DIF)		9.8%		
					2nd SB left turn lane	Same	Same	Same	No	$87,465		$8,573	
					2nd SB through lane	Same	Same	Same	Yes (DIF)				
									TOTAL	**$218,663**		**$21,431**	
18	Heacock St / San Michele Rd	None	Implement overlap phasing on WB right turn lane	Same	Same	Same	Same	Same	No	$131,198		$11,514	Yes
					2nd SB left turn lane	Same	Same	Same	No	$87,465	8.8%	$7,676	
							2nd NB through lane	Same	Yes (DIF)				
							2nd SB through lane	Same	Yes (DIF)				
									TOTAL	**$218,663**		**$19,190**	
20	Webster Av / Harley Knox Bl	None	None	None	None	None	Traffic signal	Same	No	$250,000		$33,448	Yes
							SB shared left-through-right turn lane	Same	No	$314,874		$42,128	
							EB left turn lane	Same	No	$87,465	13.4%	$11,702	
							3rd EB through lane	Same	Yes (TUMF)[6]				
							WB left turn lane	Same	No	$87,465		$11,702	
							3rd WB through lane	Same	Yes (TUMF)[6]				
									TOTAL	**$739,804**		**$98,980**	

Table 1-9
Page 3 of 4

Summary of Recommended Improvements and Rough Order of Magnitude Costs

#	Intersection Location	Existing	E+P (w/o Indian)	E+P (w/ Indian)	2020 Without Project	2020 With Project	Post 2035 Without Project	Post 2035 With Project	Improvements in DIF, TUMF, etc.[1]	Total Cost[2]	Fair Share[3]	Fair Share Cost[3]	Significant Imapct?[10]
26	Indian St / Krameria Av	None	None	None	None	None	Traffic signal	Same	Yes (DIF)		6.2%		Yes
							2nd NB through lane	Same	Yes (DIF)				
							2nd SB through lane	Same	Yes (DIF)				
							EB right turn lane w/ overlap phasing	Same	No	$218,663		$13,557	
									TOTAL	$218,663		$13,557	
28	Indian St / San Michele Rd	None	None	None	2nd EB through lane	Same	Same	Same	Yes (DIF, TUMF)		2.9%		Yes
							2nd NB through lane	Same	Yes (DIF)				
							2nd EB right turn lane w/ overlap phasing	Same	No	$87,465		$2,516	
							2nd WB left turn lane	Same	No	$87,465		$2,516	
							NB right turn overlap phasing	Same	No	$131,198		$3,774	
							2nd SB left turn lane	Same	No	$87,465		$2,516	
							WB right turn lane w/ overlap phasing	Same	No	$87,465		$2,516	
									TOTAL	$481,058		$13,838	
29	Indian St / Nandina Av	None	None	None	Implement overlap phasing on the EB right turn lane	Same	Same	Same	No	$131,198	3.1%	$4,110	Yes
							2nd NB left turn lane	Same	No	$87,465		$2,740	
							NB right turn lane w/ overlap phasing	Same	No	$87,465		$2,740	
							3rd SB through lane	Same	No	$314,874		$9,864	
							2nd EB right turn lane w/ overlap phasing	Same	No	$87,465		$2,740	
							2nd WB left turn lane	Same	No	$87,465		$2,740	
									TOTAL	$795,932		$24,934	
30	Indian St / Harley Knox Bl	None	SB right turn lane w/ overlap phasing	Same	Same	Same	Same	Same	No	$218,663	2.2%	$4,913	Yes
			2 EB through lanes[6]	Same	Same	Same	Same	Same	--[6]				
			2 WB through lanes[6]	Same	Same	Same	Same	Same	--[6]				
					Restripe EB right turn lane as 3rd through lane[6]	Same	Same	Same	--[6]				
					3rd WB through lane[6]	Same	Same	Same	--[6]				
							2nd SB left turn lane	Same	No	$87,465		$1,965	
							2nd EB left turn lane	Same	No	$87,465		$1,965	
							EB right turn lane w/ overlap phasing	Same	No	$87,465		$1,965	
							2nd WB left turn lane	Same	No	$87,465		$1,965	
							WB right turn lane w/ overlap phasing	Same	No	$87,465		$1,965	
									TOTAL	$655,988		$14,740	

Table 1-9

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Summary of Recommended Improvements and Rough Order of Magnitude Costs

#	Intersection Location	Existing	E+P (w/o Indian)	E+P (w/ Indian)	2020 Without Project	2020 With Project	Post 2035 Without Project	Post 2035 With Project	Improvements in DIF, TUMF, etc.[1]	Total Cost[2]	Fair Share[3]	Fair Share Cost[3]	Significant Imapct?[10]
31	Perris Bl / Cactus Av	None	None	None	EB right turn lane w/ overlap	Same	Same	Same	No	$218,663	1.4%	$3,109	Yes
							2nd EB left turn lane	Same	No	$87,465		$1,243	
							2nd NB left turn lane	Same	No	$87,465		$1,243	
							NB right turn lane	Same	No	$87,465		$1,243	
							3rd SB through lane	Same	Yes (DIF)	$314,874		$4,476	
							3rd EB through lane	Same	No	$314,874		$4,476	
									TOTAL	**$1,110,806**		**$15,792**	
32	Perris Bl / Krameria Av	None	None	None	Protected EB/WB left turn phasing	Same	Same	Same	No	$131,198	2.1%	$2,727	Yes
					Restripe EB approach w/ 1 left turn lane and shared through-right turn lane	Same	Same	Same	No	$43,733		$909	
					WB left turn lane	Same	Same	Same	No	$87,465		$1,818	
							2nd NB left turn lane	Same	No	$87,465		$1,818	
							NB right turn lane	Same	No	$87,465		$1,818	
							2nd SB left turn lane	Same	No	$87,465		$1,818	
							2nd EB through lane	Same	Yes (DIF)				
							2nd WB through lane	Same	Yes (DIF)				
									TOTAL	**$524,790**		**$10,910**	
Total Project Fair Share Contribution to the City of Moreno Valley (non-DIF/TUMF)[7]										**$4,513,194**		**$198,550**	
Total Project Fair Share Contribution to the City of Perris[8]										**$1,820,722**		**$160,018**	
Total Project Fair Share Contribution to the March Joint Powers Authority[9]										**$664,734**		**$46,092**	

[1] Improvements included in TUMF Nexus or City of Moreno Valley DIF programs.

[2] Costs have been estimated using the data provided in Appendix G of the San Bernardino County CMP (2003 Update) for preliminary construction costs. Appendix G costs escalated by a factor of 1.7493 to reflect 2020 conditions, except for Traffic Signals.

[3] Program improvements constructed by project may be eligible for fee credit. In lieu fee payment is at discretion of City. Represents the fair share percentage for the Project during the most impacted peak hour.

[4] Although the interchange is identified as a TUMF interchange, the interchange is not currently identified on the Central Zone 5-Year Transportation Improvement Program Amendment (adopted January 6, 2014).

[5] Fair share percentage is not shown as the recommended improvements at this location are included in a pre-existing fee program.

[6] The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussions with City staff, the improvements are anticipated to be completed by Fall 2015.

[7] Total project fair share contribution consists of the improvements which are not already included in the City-wide DIF/County TUMF for those intersections wholly or partially within the City of Moreno Valley.

[8] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within the City of Perris.

[9] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within the March Joint Powers Authority (JPA).

[10] If improvements are not fully covered by an applicable pre-existing fee program, then the intersection has been identified to have a significant impact even after mitigation measures are implements. However, if the improvements in a pre-existing fee program are fully funded by the pre-existing fee program, then the intersection is found to have no significant impact after the implementation of the mitigation measures.

[11] Project to implement improvement due to additional storage needed to accommodate 95th percentile queues.

1.5.3 FAIR SHARE CONTRIBUTION

Project mitigation may include a combination of fee payments to established programs (e.g., TUMF and/or DIF), construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City of Moreno Valley's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, has been provided on Table 1-10 for the applicable deficient intersections shown previously on Table 1-9. Improvements included in a defined program and constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate.

1.6 PROJECT IMPACTS AND MITIGATION MEASURES

This section provides a summary of recommended mitigation measures necessary to address Project impacts for E+P traffic conditions, by development phase. Section 2.0 *Methodologies* provides information on the methodologies used in the analysis and Section 5.0 *E+P Traffic Conditions* includes the detailed analysis. The recommended mitigation measures necessary to reduce Project impacts to less-than-significant are discussed in Section 1.6.2. The construction of facilities by the Project applicant would be eligible for DIF credit and reimbursement if the construction exceeds the Project's fair share, as identified in Table 1-9. The City shall review the proposed mitigation measures to determine if the Project shall construct certain improvements, including traffic signals or contribute fair share.

1.6.1 PROJECT IMPACTS

Potential Impact 1.1 – Heacock Street / Cactus Avenue (#10) – Although this intersection was found to operate at an acceptable LOS for the overall intersection (LOS D or better) during the peak hours under E+P traffic conditions, the addition of Project traffic is anticipated to worsen the northbound left turn lane's individual LOS from acceptable to unacceptable LOS, for both without and with the Indian Street extension. The addition of Project traffic is anticipated to also worsen the northbound left turn 95th percentile queue, which would likely exceed the existing available storage. As such, the impact is considered significant (Impact 1.1).

Potential Impact 2.1 – Heacock Street / Gentian Avenue (#12) – Although this intersection was found to operate at an unacceptable LOS (LOS F) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both without and with the Indian Street extension. As such, the impact is considered cumulatively significant (Impact 2.1).

Table 1-10

Project Fair Share Calculations

#	Intersection	Existing	Project	Post 2035 WP	Total New Traffic	Project Fair Share[1]
5	Elsworth St / Cactus Av					
	AM:	3,909	167	6,614	2,705	**6.2%**
	PM:	3,495	186	6,767	3,272	5.7%
7	Western Wy / Harley Knox Bl					
	AM:	1,339	253	3,695	2,356	**10.7%**
	PM:	1,312	279	4,358	3,046	9.2%
8	Graham St / Cactus Av					
	AM:	3,249	167	6,168	2,919	**5.7%**
	PM:	3,535	186	7,437	3,902	4.8%
9	Patterson Av / Harley Knox Bl					
	AM:	1,264	272	3,629	2,365	**11.5%**
	PM:	1,035	300	4,281	3,246	9.2%
10	Heacock St / Cactus Av					
	AM:	3,509	261	6,109	2,600	**10.0%**
	PM:	3,974	285	7,021	3,047	9.4%
13	Heacock St / Iris Av					
	AM:	1,076	271	2,765	1,689	**9.8%**
	PM:	1,506	297	3,580	2,074	8.3%
18	Heacock St / San Michele Rd					
	AM:	373	178	2,495	2,122	8.4%
	PM:	675	195	2,897	2,222	**8.8%**
20	Webster Av / Harley Knox Bl					
	AM:	747	272	2,780	2,033	**13.4%**
	PM:	808	299	3,285	2,477	12.1%
26	Indian St / Krameria Av					
	AM:	630	116	2,501	1,871	**6.2%**
	PM:	416	122	3,144	2,728	4.5%
28	Indian St / San Michele Rd					
	AM:	714	114	4,677	3,963	**2.9%**
	PM:	1,508	124	6,370	4,862	2.6%
29	Indian St / Nandina Av					
	AM:	740	114	4,379	3,639	**3.1%**
	PM:	1,273	124	5,600	4,327	2.9%
30	Indian St / Harley Knox Bl					
	AM:	1,378	113	6,407	5,029	**2.2%**
	PM:	1,666	125	8,124	6,458	1.9%
31	Perris Bl / Cactus Av					
	AM:	3,182	50	6,699	3,517	**1.4%**
	PM:	3,379	54	7,570	4,191	1.3%
32	Perris Bl / Krameria Av					
	AM:	2,553	58	5,343	2,790	**2.1%**
	PM:	2,430	61	5,794	3,364	1.8%

BOLD = Fair share percentage for the Project based on the highest peak hour.

[1] For intersections that are currently operating at acceptable LOS under Existing traffic conditions, Project fair share percentage based on net new traffic between Existing (2015) and General Plan Buildout (Post 2035) traffic conditions.

For intersections that are currently operating at an unacceptable LOS under Existing traffic conditions, Project fair share percentage based on total traffic for General Plan Buildout (Post 2035) traffic conditions.

Potential Impact 3.1 – Heacock Street / Iris Avenue (#13) – Although this intersection was found to operate at an unacceptable LOS (LOS E) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both without and with the Indian Street extension. As such, the impact is considered cumulatively significant (Impact 3.1).

Potential Impact 4.1 – Heacock Street / San Michele Road (#18) – This intersection was found to operate at acceptable LOS (LOS D or better) during the peak hours under Existing traffic conditions, however, the addition of Project traffic is anticipated to result in deficient peak hour operations during the PM peak hour only, for both without and with the Indian Street extension. As such, the impact is considered significant (Impact 4.1).

Potential Impact 5.1 – Indian Street / Harley Knox Boulevard (#30) – This intersection was found to operate at acceptable LOS (LOS C or better) during the peak hours under Existing traffic conditions, however, the addition of Project traffic (with Indian Street extension alternative only) is anticipated to result in deficient peak hour operations during the PM peak hour only. The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussions with City staff, the improvements are anticipated to be completed by Fall 2015. With the implementation of the planned improvements, there are no LOS deficiencies anticipated with the addition of Project traffic. As such, the impact is considered less-than-significant.

1.6.2 MITIGATION MEASURES

Mitigation Measure 1.1 – ***Heacock Street / Cactus Avenue (#10)*** – The following improvement is necessary to reduce the Project's proportionate increase in queues, thus reducing the Project's impact to less-than-significant:

- Restripe the northbound left turn lane to provide 315-feet of storage from the existing 215-feet in order to accommodate the anticipated 95th percentile queues.

Mitigation Measure 2.1 – ***Heacock Street / Gentian Avenue (#12)*** – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.

Mitigation Measure 3.1 – ***Heacock Street / Iris Avenue (#13)*** – The following improvements are necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.
- Mitigation measure also consists of a westbound right turn lane with overlap phasing. The Project would pay its fair share to the City of Moreno Valley towards the addition of a westbound right turn lane with overlap phasing.

Mitigation Measure 4.1 – Heacock Street / San Michele Road (#18) – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's impact to less-than-significant:

- Modify the existing traffic signal to implement overlap phasing on the westbound right turn lane.

The potential off-site impacts to the study area intersections are anticipated to be relatively the same for the proposed Project, without or with the bridge. As such, the development of the proposed Project is not anticipated to drive the need for the Indian Street bridge over the Perris Valley Storm Drain Channel.

1.7 CUMULATIVE IMPACTS AND RECOMMENDED IMPROVEMENTS

1.7.1 INTERSECTIONS AND ROADWAY SEGMENTS

This section provides a summary of recommended mitigation measures necessary to address the cumulative traffic impacts. A summary of the operationally deficient study area intersections and recommended improvements required to achieve acceptable circulation system operational conditions are described in detail within Section 6.0 *Opening Year Cumulative (2020) Traffic Conditions,* and Section 7.0 *General Plan Buildout (Post 2035) Traffic Conditions* of this report. Cumulative impacts are deficiencies that would not be directly caused by the Project. The Project would, however, contribute traffic to these deficient facilities along with other cumulative development projects, resulting in a cumulatively considerable impact.

The recommended mitigation measures necessary to reduce Project impacts to less-than-significant are discussed below. The construction of facilities by the Project applicant would be eligible for fee credit and reimbursement if the construction exceeds the Project's fair share, as identified in Table 1-10. The City shall review the proposed mitigation measures to determine if the Project shall construct certain improvements, including traffic signals, or contribute fair share.

Table 1-9 lists the recommended improvements necessary to reduce the identified intersection LOS deficiencies, by analysis scenario. Street and intersection improvements that may be funded though the TUMF and/or DIF programs are noted. If a particular facility tentatively listed in Table 1-9 is ultimately excluded from the TUMF and/or DIF programs, the Project would be responsible for, and would be required to pay, fair share fees for improvement of affected facilities. These fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases. Alternatively, minor fair share responsibilities may be waived when collection is infeasible or where other mitigation assignments substantially exceed the Project's demonstrated impacts.

Improvements included in a defined program and constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate. A rough order of magnitude cost has been prepared to determine the appropriate contribution value based upon the project's fair share of traffic as part of the project approval process. Table 1-9 also summarizes the applicable cost associated with each of the recommended improvements based on the preliminary construction cost estimates found in Appendix “G” of the San Bernardino County CMP in conjunction with a cost escalation factor of 1.749 to reflect 2020 costs. These estimates are a rough order of magnitude only as they are intended only for discussion purposes and do not imply any legal responsibility or formula for contributions or mitigation.

Mitigation Measure 5.1 – Prior to the issuance of building permits, the Project applicant shall participate in the City’s DIF and County TUMF fee programs by paying the requisite fees at the time of building permit, and in addition pay the Project’s fair share amount of $198,550 for the improvements identified in Table 1-9 that are consistent with the improvements shown on Table 5-6, Table 6-6, and Table 7-6, or as agreed to by the City and applicant. This fair share payment should only be collected if the City creates a fee program that includes the improvements in which this fair share contribution is intended to construct. The City shall ensure that the improvements will be constructed pursuant to the fee program at that point in time necessary to avoid identified significant impacts.

Mitigation Measure 6.1 – Table 1-9 includes 4 intersections that either shares a mutual border with the City of Perris or are wholly located within the City of Perris’ jurisdiction and have recommended improvements which are not covered by payment of fees. The City of Moreno Valley shall participate in a multi-jurisdictional effort with the City of Perris to develop a study to identify fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary to implement the improvements identified in Table 1-9, that are located in the City of Perris’ jurisdiction. The Developer’s fair-share amount for the 4 intersections that either shares a mutual border with the City of Perris or are wholly located within the City of Perris’ jurisdiction that have recommended improvements which are not covered by payment of fees equals $160,018. Developer shall be required to pay this $160,018 amount to the City of Moreno Valley prior to the issuance of the Project's final certificate of occupancy.

Mitigation Measure 7.1 – Table 1-9 includes 5 intersections that either shares a mutual border with the March Joint Powers Authority (March JPA) or are wholly located within the March JPA’s jurisdiction and have recommended improvements which are not covered by payment of fees. The City of Moreno Valley shall participate in a multi-jurisdictional effort with the March JPA to develop a study to identify fair share contribution funding sources attributable to and paid from private and public development to supplement other regional and State funding sources necessary to implement the improvements identified in Table 1-9, that are located in the March JPA’s jurisdiction. The Developer’s fair-share amount for the 5 intersections that either shares a mutual border with the March JPA or are wholly located within the March JPA’s jurisdiction that have recommended improvements which are not covered by payment of fees equals $46,092. Developer shall be required to pay this $46,092 amount to the City of Moreno Valley prior to the issuance of the Project's final certificate of occupancy.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1.7.2 MITIGATION MEASURES TO ADDRESS CUMULATIVE DEFICIENCIES ON FREEWAY FACILITIES

The SCAG RTP includes a list of projects in the Federal Transportation Improvement Program (FTIP). The following is an applicable FTIP project within the study area: interchange improvements at I-215/Cactus Avenue, which includes the extension of the northbound auxiliary lane between Cactus Avenue and Alessandro Boulevard to the north (to be completed by 2018). In addition, the I-215 North Project, includes the construction of a high-occupancy vehicle lane in each direction of the I-215 Freeway between Nuevo Road and Box Springs Road within the existing median. Based on information provided on the Project website, these improvements are longer range as priority has been given to the I-215 South and I-215 Central projects.

The planned SCAG RTP and I-215 North projects will provide capacity enhancements to the cumulatively impacted freeway segments and ramp junctions, however, peak hour LOS is still anticipated to LOS E or F for certain freeway facilities under both Opening Year Cumulative (2020) and General Plan Buildout (Post 2035) traffic conditions.

Neither Caltrans or the State have adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation is within the jurisdiction of Caltrans. As such, the City of Moreno Valley may decide whether specific overriding economic, legal, social, technological, or other benefits of the Project outweigh the unavoidable adverse cumulative traffic impacts associated with the Project.

1.8 SITE ADJACENT ROADWAY AND SITE ACCESS IMPROVEMENTS

This section summarizes Project site access and on-site circulation recommendations. Vehicular and truck traffic access will be provided via the following driveways (see Exhibit 1-1):

- Heacock Street / Driveway 1 – Full access driveway providing access to passenger cars and heavy trucks for Building 4.
- Heacock Street / Driveway 2 – Full access driveway providing access to both passenger cars and heavy trucks for Building 4.
- Heacock Street / Cardinal Avenue – Full access intersection providing access to both passenger cars and heavy trucks for Building 3.
- Cosmos Street / Krameria Avenue – Full access intersection providing access to both passenger cars and heavy trucks for Buildings 1 and 2. Although the intersection would allow for full access, heavy trucks will be prohibited from utilizing Krameria Avenue to the east through signage and additional design features (e.g., reductions to the curb radius on the southeast corner).
- Driveway 3 / Krameria Avenue – Full access driveway providing access to both passenger cars and heavy trucks for Building 1. Although the driveway would allow for full access, heavy trucks will be prohibited from utilizing Krameria Avenue to the east through signage and additional design features (e.g., reductions to the curb radius on the southeast corner).

- Driveway 4 / Krameria Avenue – Full access driveway providing access to passenger cars only for Building 1.
- Driveway 5 / Krameria Avenue – Full access driveway providing access to both passenger cars and heavy trucks for Building 1. Although the driveway would allow for full access for passenger cars, heavy trucks will be prohibited from utilizing Krameria Avenue to the east through signage and design features for the intersection. The northbound right turn lane from Driveway 5 would include a small turning radius on the southeast corner and signage to prohibit use by heavy trucks.
- Indian Street / Driveway 6 – Full access driveway providing access to passenger cars only to Building 1. The layout of and geometry of the parking prohibits heavy trucks from entering or existing the driveway. However, if in the future Indian Street is extended over the Perris Valley Storm Drain Channel and the City's truck route is modified to the north to Driveway 6 from its current terminus, then heavy truck access could be accommodated to and from the south on Indian Street via Driveway 6 with modifications to the parking layout.

Regional access to the project site is provided via the I-215 Freeway at Cactus Avenue and Harley Knox Boulevard interchanges.

Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements are required to be in place prior to occupancy. Exhibit 1-3 illustrates the site-adjacent roadway improvement recommendations and site access improvements. Construction of on-site and site adjacent improvements are recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

Heacock Street – Heacock Street is a north-south oriented roadway along the western Project boundary. Construct Heacock Street along the Project's frontage at its ultimate half-section width as an Arterial Highway (110-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

Krameria Avenue – Krameria Avenue is an east-west oriented roadway located along the Project's northern boundary. Construct Krameria Avenue from Cosmos Street to Indian Street at its ultimate half-section width as a Minor Arterial Highway (88-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

Cosmos Street – Cosmos Street is a north-south oriented roadway between Buildings 1 and 2, and is an extension of the existing Cosmos Street north of Krameria Avenue. Construct Cosmos Street from Krameria Avenue to the proposed southern terminus at its ultimate full-section width as a Collector (66-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

Indian Street – Indian Street is a north-south oriented roadway along the eastern Project boundary. Construct Indian Street from Krameria Avenue to the southern Project boundary at its ultimate half-section width as a Minor Arterial Highway (88-foot right-of-way), in compliance with applicable City of Moreno Valley standards.

EXHIBIT 1-3: SITE ACCESS AND SITE ADJACENT ROADWAY RECOMMENDATIONS

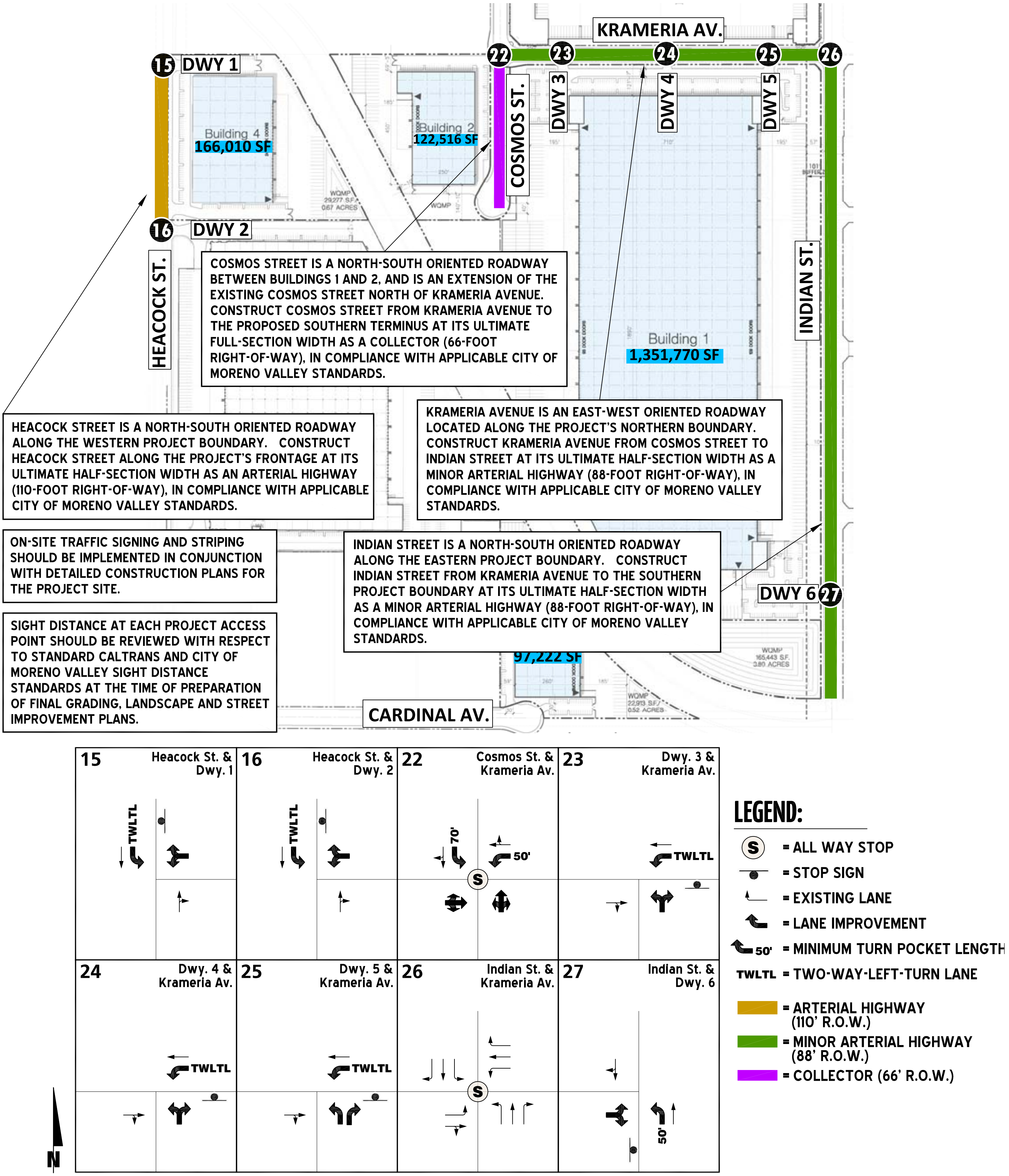

COSMOS STREET IS A NORTH-SOUTH ORIENTED ROADWAY BETWEEN BUILDINGS 1 AND 2, AND IS AN EXTENSION OF THE EXISTING COSMOS STREET NORTH OF KRAMERIA AVENUE. CONSTRUCT COSMOS STREET FROM KRAMERIA AVENUE TO THE PROPOSED SOUTHERN TERMINUS AT ITS ULTIMATE FULL-SECTION WIDTH AS A COLLECTOR (66-FOOT RIGHT-OF-WAY), IN COMPLIANCE WITH APPLICABLE CITY OF MORENO VALLEY STANDARDS.

HEACOCK STREET IS A NORTH-SOUTH ORIENTED ROADWAY ALONG THE WESTERN PROJECT BOUNDARY. CONSTRUCT HEACOCK STREET ALONG THE PROJECT'S FRONTAGE AT ITS ULTIMATE HALF-SECTION WIDTH AS AN ARTERIAL HIGHWAY (110-FOOT RIGHT-OF-WAY), IN COMPLIANCE WITH APPLICABLE CITY OF MORENO VALLEY STANDARDS.

KRAMERIA AVENUE IS AN EAST-WEST ORIENTED ROADWAY LOCATED ALONG THE PROJECT'S NORTHERN BOUNDARY. CONSTRUCT KRAMERIA AVENUE FROM COSMOS STREET TO INDIAN STREET AT ITS ULTIMATE HALF-SECTION WIDTH AS A MINOR ARTERIAL HIGHWAY (88-FOOT RIGHT-OF-WAY), IN COMPLIANCE WITH APPLICABLE CITY OF MORENO VALLEY STANDARDS.

ON-SITE TRAFFIC SIGNING AND STRIPING SHOULD BE IMPLEMENTED IN CONJUNCTION WITH DETAILED CONSTRUCTION PLANS FOR THE PROJECT SITE.

INDIAN STREET IS A NORTH-SOUTH ORIENTED ROADWAY ALONG THE EASTERN PROJECT BOUNDARY. CONSTRUCT INDIAN STREET FROM KRAMERIA AVENUE TO THE SOUTHERN PROJECT BOUNDARY AT ITS ULTIMATE HALF-SECTION WIDTH AS A MINOR ARTERIAL HIGHWAY (88-FOOT RIGHT-OF-WAY), IN COMPLIANCE WITH APPLICABLE CITY OF MORENO VALLEY STANDARDS.

SIGHT DISTANCE AT EACH PROJECT ACCESS POINT SHOULD BE REVIEWED WITH RESPECT TO STANDARD CALTRANS AND CITY OF MORENO VALLEY SIGHT DISTANCE STANDARDS AT THE TIME OF PREPARATION OF FINAL GRADING, LANDSCAPE AND STREET IMPROVEMENT PLANS.

LEGEND:

- Ⓢ = ALL WAY STOP
- ● = STOP SIGN
- ↰ = EXISTING LANE
- ↰ = LANE IMPROVEMENT
- ↰ 50' = MINIMUM TURN POCKET LENGTH
- TWLTL = TWO-WAY-LEFT-TURN LANE
- 🟧 = ARTERIAL HIGHWAY (110' R.O.W.)
- 🟩 = MINOR ARTERIAL HIGHWAY (88' R.O.W.)
- 🟪 = COLLECTOR (66' R.O.W.)

Wherever necessary, roadways adjacent to the Project, site access points and site-adjacent intersections will be constructed to be consistent with or within the recommended roadway classifications and respective cross-sections in the City of Moreno Valley General Plan Circulation Element.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Moreno Valley sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

1.9 TRUCK ACCESS AND CIRCULATION

Due to the typical wide turning radius of large trucks, a truck turning template has been overlaid on the site plan at each applicable Project driveway anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers. For the purposes of this evaluation, the WB-67 class truck template has been utilized. WB-67 class trucks are approximately 73.5 feet in length.

Exhibit 1-4 illustrates the proposed truck access for the site and circulation for each of the applicable Project driveways. As shown on Exhibit 1-4, the Project driveways will need to provide a minimum 50-foot curb radius on the southeast corner of each Project driveway in order to accommodate the ingress and egress of WB-67 trucks (or smaller). A truck turning template has not been overlaid on Driveways 4 and 6 as they are anticipated to be utilized by heavy trucks.

1.10 QUEUING ANALYSIS AT THE PROJECT DRIVEWAYS

A queuing analysis was conducted along the site adjacent roadways of Heacock Street, Krameria Avenue and Indian Street for Horizon Year (2035) traffic conditions to determine the turn pocket lengths necessary to accommodate near term 95th percentile queues. The analysis was conducted for the weekday AM and weekday PM peak hours.

The traffic modeling and signal timing optimization software package Synchro (Version 8 Build 801) has been utilized to assess queues at the Project access points. Synchro is a macroscopic traffic software program that is based on the signalized and unsignalized intersection capacity analyses as specified in the HCM. SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine tuning signal operations. SimTraffic uses the input parameters from Synchro to generate random simulations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). However, the average queue is the average of all the two-minute maximum queues observed by SimTraffic. The maximum back of queue observed for every two-minute period is recorded by SimTraffic.

SimTraffic has been utilized to assess peak hour queuing at the site access driveways for Horizon Year With Project traffic conditions. The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 15-minute periods with 60-minute recording intervals.

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. Although only the 95th percentile queue has been utilized for purposes of determining the necessary turn pocket storage lengths, the 50th percentile queues are also reported. The 50th percentile queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. In other words, if traffic were observed for 100 cycles, the 95th percentile queue would be the queue experienced with the 95th busiest cycle (or 5% of the time). The 50th percentile, or average, queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations. However, many jurisdictions utilize the 95th percentile queues for design purposes.

The storage length recommendations for the turning movements at the Project were shown previously on Exhibit 1-3 for Horizon Year traffic conditions. Although not indicated, it should be noted that the two-way-left-turn lanes shown on Exhibit 1-3 all require less than 50 feet of storage. Queuing results are provided in Appendix 1.2.

EXHIBIT 1-4: TRUCK ACCESS

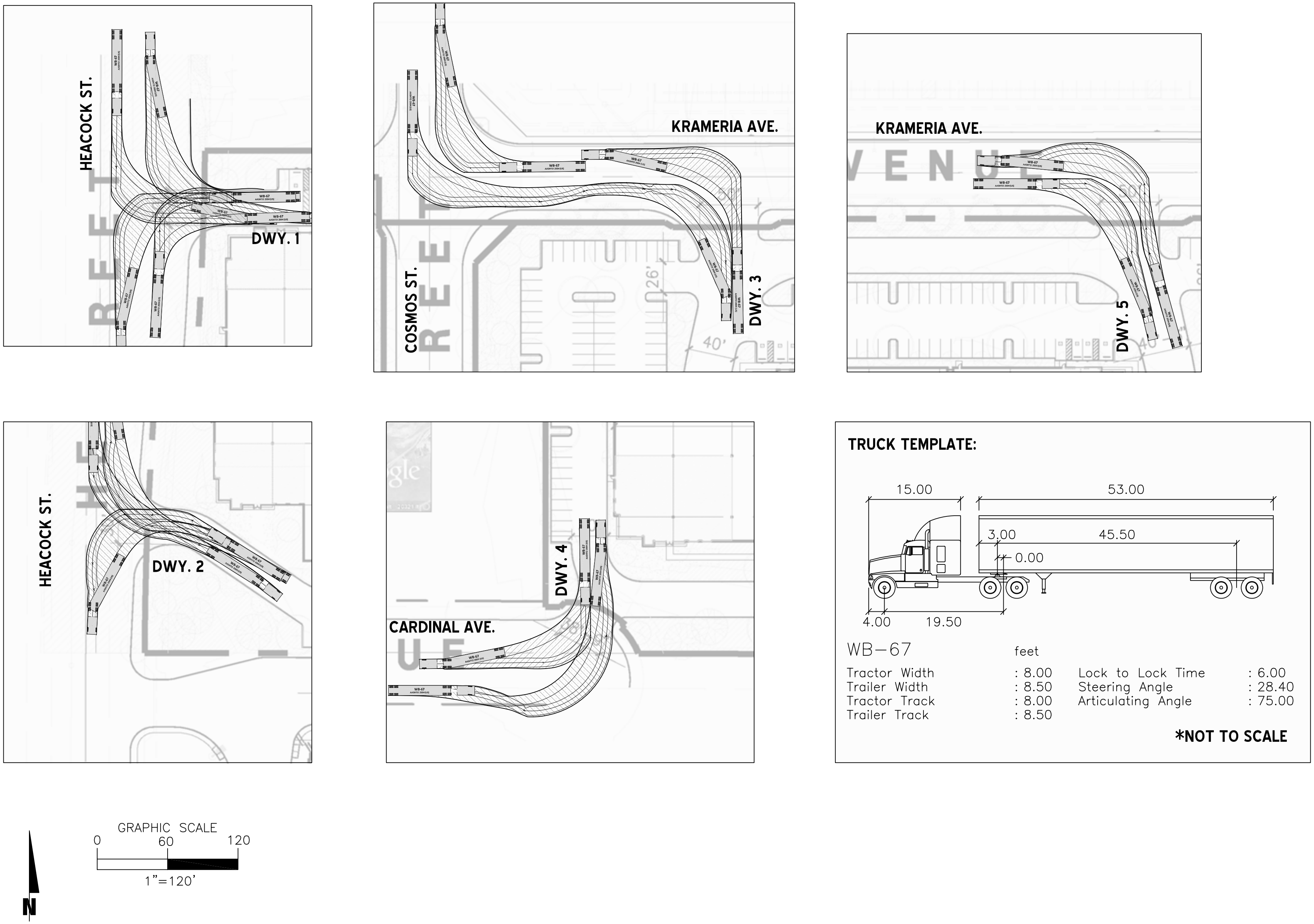

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2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with City of Moreno Valley and Caltrans traffic study guidelines. (1) (2)

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (7) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

City of Moreno Valley, City of Perris, County of Riverside, March Joint Powers Authority

The City of Moreno Valley, City of Perris, County of Riverside, and March Joint Powers Authority (JPA) require signalized intersection operations analysis based on the methodology described in the HCM. (7) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. Study area intersections have been evaluated using the Synchro (Version 8 Build 806) analysis software package.

Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (7)

California Department of Transportation (Caltrans)

Per the Caltrans *Guide for the Preparation of Traffic Impact Studies*, the traffic modeling and signal timing optimization software package Synchro (Version 8 Build 806) has also been utilized to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. I-215 Freeway ramps at Harley Knox Boulevard). (2) Signal timing for the freeway arterial-to-ramp intersections have been obtained from Caltrans District 8 and were utilized for the purposes of this analysis.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Moreno Valley, City of Perris, County of Riverside, and March JPA requires the operations of unsignalized intersections be evaluated using the methodology described the HCM. (7) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 ROADWAY SEGMENT CAPACITY ANALYSIS

Roadway segment operations have been evaluated using the City of Moreno Valley Daily Roadway Capacity Values provided in the *City of Moreno Valley Transportation Engineering Division Traffic Impact Analysis (TIA) Preparation Guide* and the City of Perris Daily Roadway Capacity Values provided in the City of Perris General Plan Circulation Element. (1) (8) Per the City of Moreno Valley TIA guidelines, roadway segments within the study area should maintain the LOS capacities illustrated on Exhibit 2-1. The City of Perris requires LOS D capacities to be maintained on City roadways. The daily roadway segment capacities for each type of roadway are summarized in Table 2-3. As noted in both the City of Moreno Valley's traffic study guidelines and City of Perris' General Plan Circulation Element, these roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. In other words, while using average daily traffic (ADT) for planning purposes is suitable with regards to evaluating potential volume to capacity with future forecasts, it is not suitable for operational analysis because it does not account for the factors listed previously. As such, where the ADT based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis are undertaken. The more detailed peak hour

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

TABLE 2-3: ROADWAY SEGMENT CAPACITY LOS THRESHOLDS[1]

City of Moreno Valley:

Facility Type	Level of Service Capacity[1]				
	A	B	C	D	E
Six Lane Divided Arterial	33,900	39,400	45,000	50,600	56,300
Four Lane Divided Arterial	22,500	26,300	30,000	33,800	37,500
Four Lane Undivided Arterial	15,000	17,500	20,000	22,500	25,000
Two Lane Industrial Collector	7,500	8,800	10,000	11,300	12,500
Two Lane Undivided Residential	N/A	N/A	N/A	N/A	2,000

[1] These maximum roadway capacities have been extracted from the City of Moreno Valley's Transportation Division's TIA Preparation Guidelines (August 2007). These roadway capacities are "rule of thumb" estimates for planning purposes. The LOS "E" service volumes are estimated maximum daily capacity for respective roadway classifications. Capacity is affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian and bicycle traffic.

City of Perris:

Facility Type	Level of Service Capacity[1]				
	A	B	C	D	E
Six Lane Urban Arterial	32,340	37,730	43,100	48,500	53,900
Four Lane Urban Arterial	21,540	25,130	28,700	32,300	35,900
Two Lane Arterial	10,800	12,600	14,400	16,200	18,000
Four Lane Secondary Arterial	15,540	18,130	20,700	23,300	25,900
Two Lane Collector	7,800	9,100	10,400	11,700	13,000

[1] Source: Table CE-9 of the City of Perris General Plan Circulation Element and Figure C-2 of the County of Riverside General Plan Circulation Element.

All capacity exhibits are based on optimum conditions and are intended as guidelines for planning purposes only.

2.4 FREEWAY OFF-RAMP QUEUING ANALYSIS

The study area for this TIA includes the freeway-to-arterial interchange of the I-215 Freeway at Cactus Avenue and Harley Knox Boulevard off-ramps. Consistent with Caltrans requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing impacts at the freeway ramp intersections on both Cactus Avenue and Harley Knox Boulevard. Specifically, the queuing analysis is utilized to identify any potential queuing and “spill back” onto the I-215 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential impacts/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The queue length reported is for the lane with the highest queue in the lane group.

There are two footnotes which appear on the Synchro outputs. One footnote indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The other footnote indicates whether or not the volume for the 95th percentile queue is metered by an upstream signal. In many cases, the 95th percentile queue will not be experienced and may potentially be less than the 50th percentile queue due to upstream metering. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced.

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. Although only the 95th percentile queue has been reported in the tables, the 50th percentile queue can be found in the appendix alongside the 95th percentile queue for each ramp location. The 50th percentile maximum queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. In other words, if traffic were observed for 100 cycles, the 95th percentile queue would be the queue experienced with the 95th busiest cycle (or 5% of the time). The 50th percentile or average queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations.

2.5 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, as amended by *the MUTCD 2014 California Supplement*, for all study area intersections. (9)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (9) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 criteria are basically identical for both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement*. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

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Future unsignalized intersections, that currently do not exist, have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

As shown on Table 2-4, traffic signal warrant analyses were performed for the following unsignalized study area intersections during the peak weekday conditions wherein the Project is anticipated to contribute the highest trips:

TABLE 2-4: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
7	Western Way / Harley Knox Boulevard	Perris
12	Heacock Street / Gentian Avenue	Moreno Valley, March JPA
13	Heacock Street / Iris Avenue	Moreno Valley, March JPA
15	Heacock Street / Driveway 1 – Future Intersection	Moreno Valley, March JPA
16	Heacock Street / Driveway 2 – Future Intersection	Moreno Valley, March JPA
17	Heacock Street / Cardinal Avenue	Moreno Valley, March JPA
19	Heacock Street / Nandina Avenue	Moreno Valley, March JPA
20	Heacock Street/Webster Avenue / Harley Knox Boulevard	Perris
21	Cosmos Street / Krameria Avenue (North)	Moreno Valley
22	Cosmos Street / Krameria Avenue	Moreno Valley
23	Driveway 3 / Krameria Avenue – Future Intersection	Moreno Valley
24	Driveway 4 / Krameria Avenue – Future Intersection	Moreno Valley
25	Driveway 5 / Krameria Avenue – Future Intersection	Moreno Valley
26	Indian Street / Krameria Avenue	Moreno Valley
27	Indian Street / Driveway 6	Moreno Valley

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Analysis,* Section 6 *Opening Year Cumulative (2020) Traffic Analysis,* and Section 7 *General Plan Buildout (Post 2035) Traffic Analysis* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.6 FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY

Consistent with recent Caltrans guidance and because impacts to freeway segments dissipate with distance from the point of State Highway System (SHS) entry, quantitative study of freeway segments beyond those immediately adjacent to the point of entry is not required. As such, the traffic study has evaluated the freeway segments along the I-215 Freeway where the Project is anticipated to contribute 50 or more peak hour trips. Because impacts to freeway segments dissipate with distance from the point of SHS entry, quantitative evaluation of freeway segments with less than 50 peak hour trips is not necessary.

The freeway system in the study area has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments have been evaluated in this TIA based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in the HCM and performed using HCS2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2-5 illustrates the freeway segment LOS descriptions for each density range utilized for this analysis.

TABLE 2-5: DESCRIPTION OF FREEWAY MAINLINE LOS

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads in April 2015. These existing freeway geometrics have been utilized for Existing, E+P, Opening Year Cumulative, and General Plan Buildout Without and With Project conditions.

The I-215 Freeway mainline volume data were obtained from the Caltrans Performance Measurement System (PeMS) website for the segments of the I-215 Freeway interchange, south of Cactus Avenue and north of Harley Knox Boulevard. The data was obtained from April 2015. In an effort to conduct a conservative analysis, the maximum value observed within the three day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and peak hour deficiencies. As such, actual vehicles (as opposed to PCE volumes) have been utilized for the purposes of the basic freeway segment analysis. (10)

2.7 FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS

The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations resulting in 6 existing on and off ramp locations where the Project is anticipated to contribute 50 or more peak hour trips. Although the HCM indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented in this traffic study has been performed at all ramp locations with respect to the nearest on or off ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects Urban Crossroads has worked on in the region.

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS2010 software. The measure of effectiveness (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on and off ramps both at the analysis junction and at upstream and downstream locations (if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table 2-6 presents the merge/diverge area level of service descriptions for each density range utilized for this analysis.

TABLE 2-6: DESCRIPTION OF FREEWAY MERGE AND DIVERGE LOS

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM

Similar to the basic freeway segment analysis, the I-215 Freeway mainline volume data were obtained from the Caltrans maintained PeMS website for the segments of the I-215 Freeway interchange, south of Cactus Avenue and north of Harley Knox Boulevard. The ramp data (per the count data presented in Appendix 3.1) were then utilized to flow conserve the mainline volumes to determine the remaining I-215 Freeway mainline segment volumes. Flow conservation checks ensure that traffic flows from north to south (and vice versa) of the interchange area with no unexplained loss of vehicles. The data was obtained from April 2015. In an effort to conduct a conservative analysis, the maximum value observed within the three

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day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and peak hour deficiencies. (10) As such, actual vehicles (as opposed to PCE volumes) have been utilized for the purposes of the freeway ramp junction (merge/diverge) analysis.

2.8 THRESHOLDS OF SIGNIFICANCE

The definition of an intersection/roadway segment deficiency has been obtained from each of the applicable surrounding jurisdictions. The following thresholds of significance will be utilized to determine if the addition of project-related traffic will result in significant impacts, and whether the implementation of the recommended feasible improvements would result in exceeding the LOS thresholds for each applicable jurisdiction.

2.8.1 CITY OF MORENO VALLEY

The definition of an intersection deficiency in the City of Moreno Valley is based on the City of Moreno Valley General Plan Circulation Element. The City of Moreno Valley General Plan states that target LOS C or LOS D be maintained along City roads (including intersections) wherever possible. An exhibit depicting the level of service standards within the City is provided on Exhibit 2-1.

2.8.2 CITY OF PERRIS

LOS D is considered to be the limit of acceptable traffic operations during the peak hour in the City of Perris for both intersections and roadway segments.

2.8.3 COUNTY OF RIVERSIDE

The County of Riverside General Plan Policy C 2.1 states that the County will maintain the following County-wide target level of service (LOS): LOS C on all County-maintained roads and conventional State Highways (including intersections). As an exception, LOS D may be allowed in Community Development areas at intersections of any combination of Secondary Highways, Major Highways, Arterial Highways, Urban Arterial Highways, Expressways or conventional State Highways. LOS E may be allowed in designated Community Centers to the extent that it would support transit-oriented development and pedestrian communities. As the Project is located within a Community Development area, LOS D has been considered acceptable at any intersection or study area roadway segment within the County of Riverside because all of the study area intersections are classified as Secondary Highways or a higher classification.

2.8.4 MARCH JOINT POWERS AUTHORITY

Based on the March JPA Traffic Impact Study Preparation Guide (August 3, 2011), all intersections and roadway segments within the March JPA Planning Area shall operate at LOS D or better with limiting circumstances of LOS E to occur. LOS E may also be allowed to the

EXHIBIT 2-1: CITY OF MORENO VALLEY LEVEL OF SERVICE (LOS) STANDARDS

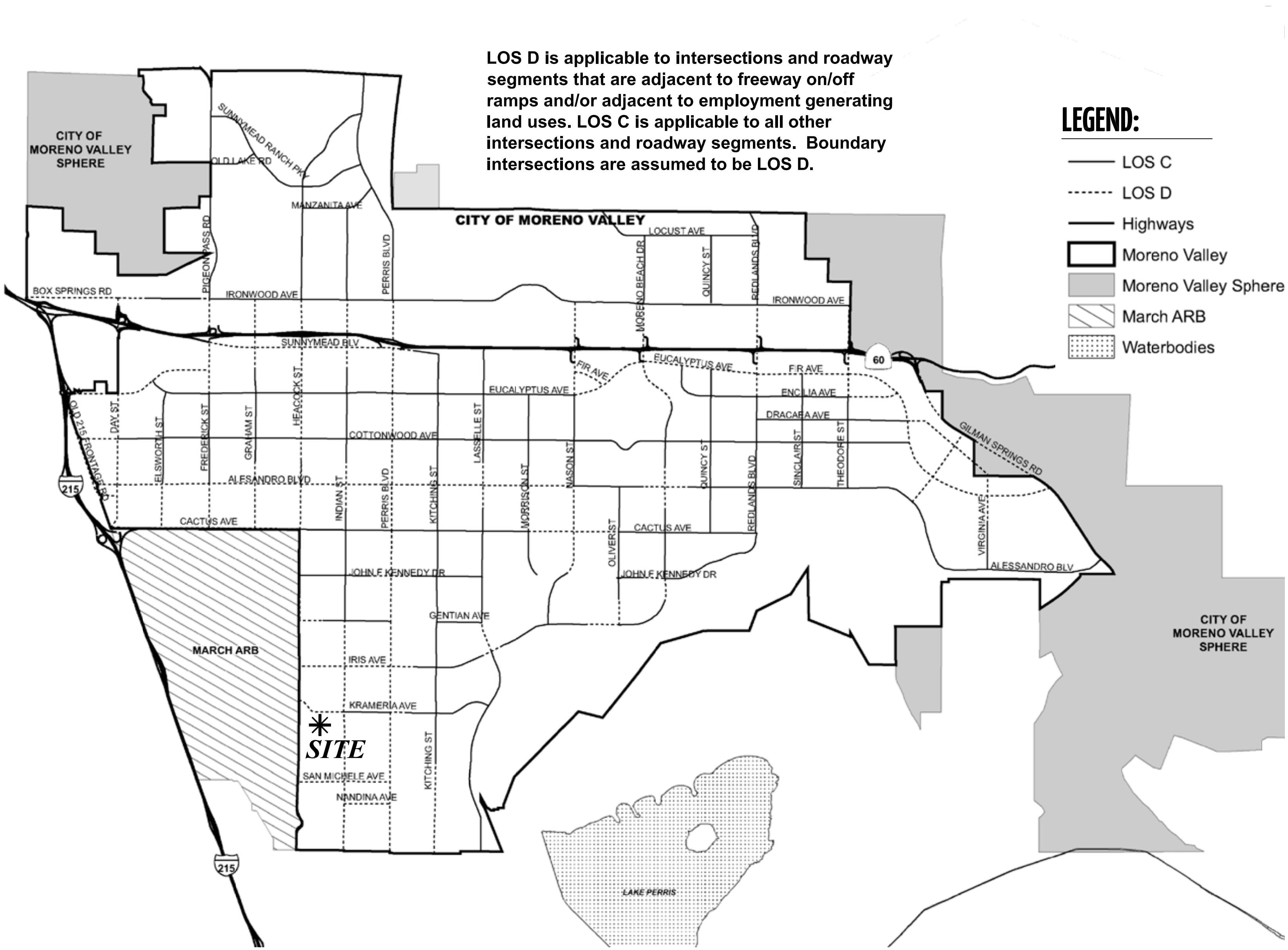

LOS D is applicable to intersections and roadway segments that are adjacent to freeway on/off ramps and/or adjacent to employment generating land uses. LOS C is applicable to all other intersections and roadway segments. Boundary intersections are assumed to be LOS D.

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extent that would support transit-oriented development (TOD) and walkable communities. LOS E is also acceptable during peak hours at interchange ramp intersections where ramp metering occurs. The Project is not proposed to be a TOD and the Cactus Avenue on-ramps are currently metered, as such, the minimum LOS utilized for the purposes of this analysis is LOS D for both intersections and roadway segments.

2.8.5 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on SHS facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. Caltrans acknowledges that the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D. Consistent with the City of Moreno Valley LOS threshold of LOS D and in excess of the CMP stated LOS threshold of LOS E, LOS D will be used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions.

2.8.7 CMP

In an effort to more directly link land use, transportation and air quality and promote reasonable growth, the County of Riverside adopted a Congestion Management Plan (CMP) (December 2011). The Riverside County Transportation Commission (RCTC) monitors the CMP roadway network system to minimize LOS deficiencies. Within the project study area, the I-215 Freeway is recognized as a key transportation facility within the CMP system. Although Caltrans utilizes LOS D as their stated threshold, RCTC has adopted LOS E as the minimum standard for intersections and segments along the CMP System of Highways and Roadways. However, for the purposes of this traffic impact analysis, LOS D has been considered to be the limit of acceptable traffic operations for the I-215 Freeway mainline segments and ramp junctions in an effort to be conservative.

2.9 CEQA COMPLIANCE AND DOCUMENTATION

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

2.9.1 INTERSECTIONS/ROADWAY SEGMENTS

The following types of traffic deficiencies are considered to be significant under the California Environmental Quality Act (CEQA):

- When project traffic, added to existing traffic, will deteriorate the LOS to below the target LOS.
- When cumulative traffic exceeds the target LOS.

2.9.2 CALTRANS FACILITIES

To determine whether the addition of project traffic to the SHS freeway segments would result in a deficiency, the following will be utilized:

- The traffic study finds that the LOS of a segment will degrade from D or better to E or F.
- The traffic study finds that the project will exacerbate an already deficient condition by contributing 50 or more peak hour trips. A segment that is operating at or near capacity is deemed to be deficient.

2.10 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the City of Moreno Valley's DIF program and WRCOG TUMF, will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share financial contribution based on the Project's fair share impact may be imposed in order to mitigate the Project's share of impacts in lieu of construction.

If the intersection is currently operating at deficient LOS under Existing traffic conditions, the Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to total traffic:

Project Fair Share % = Project Traffic / General Plan Buildout Total Traffic

If the intersection is currently operating at acceptable LOS under Existing traffic conditions, the Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (General Plan Buildout Total Traffic – Existing Traffic)

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Moreno Valley General Plan Circulation Network, and a review of existing peak hour intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Moreno Valley staff (Appendix 1.1), the study area includes a total of 32 existing and future intersections as shown previously on Exhibit 1-2 where the Project is anticipated to contribute 50 or more peak hour trips. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF MORENO VALLEY GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Moreno Valley. However, the study area includes intersections within the neighboring jurisdiction of Perris and March Joint Powers Authority (JPA) (e.g., study area intersections along Harley Knox Boulevard, etc.).

3.2.1 CITY OF MORENO VALLEY

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Moreno Valley General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Moreno Valley General Plan Circulation Element, and Exhibit 3-3 illustrates the City of Moreno Valley General Plan roadway cross-sections.

3.2.2 CITY OF PERRIS

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the City of Perris as identified in the City of Perris General Plan Circulation Element are described subsequently. The circulation plan and proposed roadway cross-sections defined within the City of Perris are shown on Exhibits 3-4 and 3-5.

3.2.3 COUNTY OF RIVERSIDE / MARCH JOINT POWERS AUTHORITY

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the Riverside County General Plan Circulation Element, are described subsequently. Exhibit 3-6 shows the Riverside County General Plan Circulation Element, and Exhibit 3-7 illustrates the Riverside County General Plan roadway cross-sections.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 3-1 (1 OF 2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

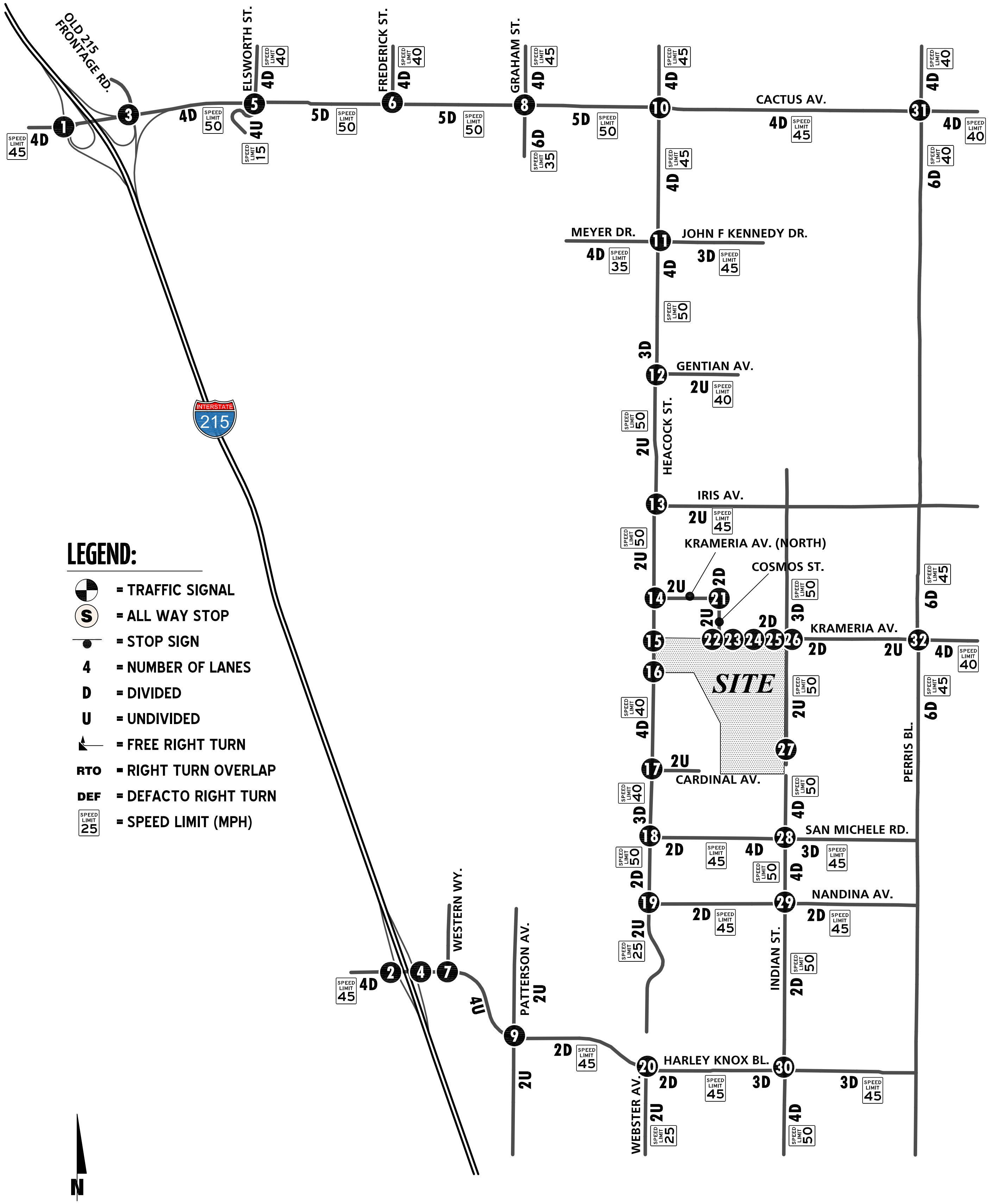

EXHIBIT 3-1 (2 OF 2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

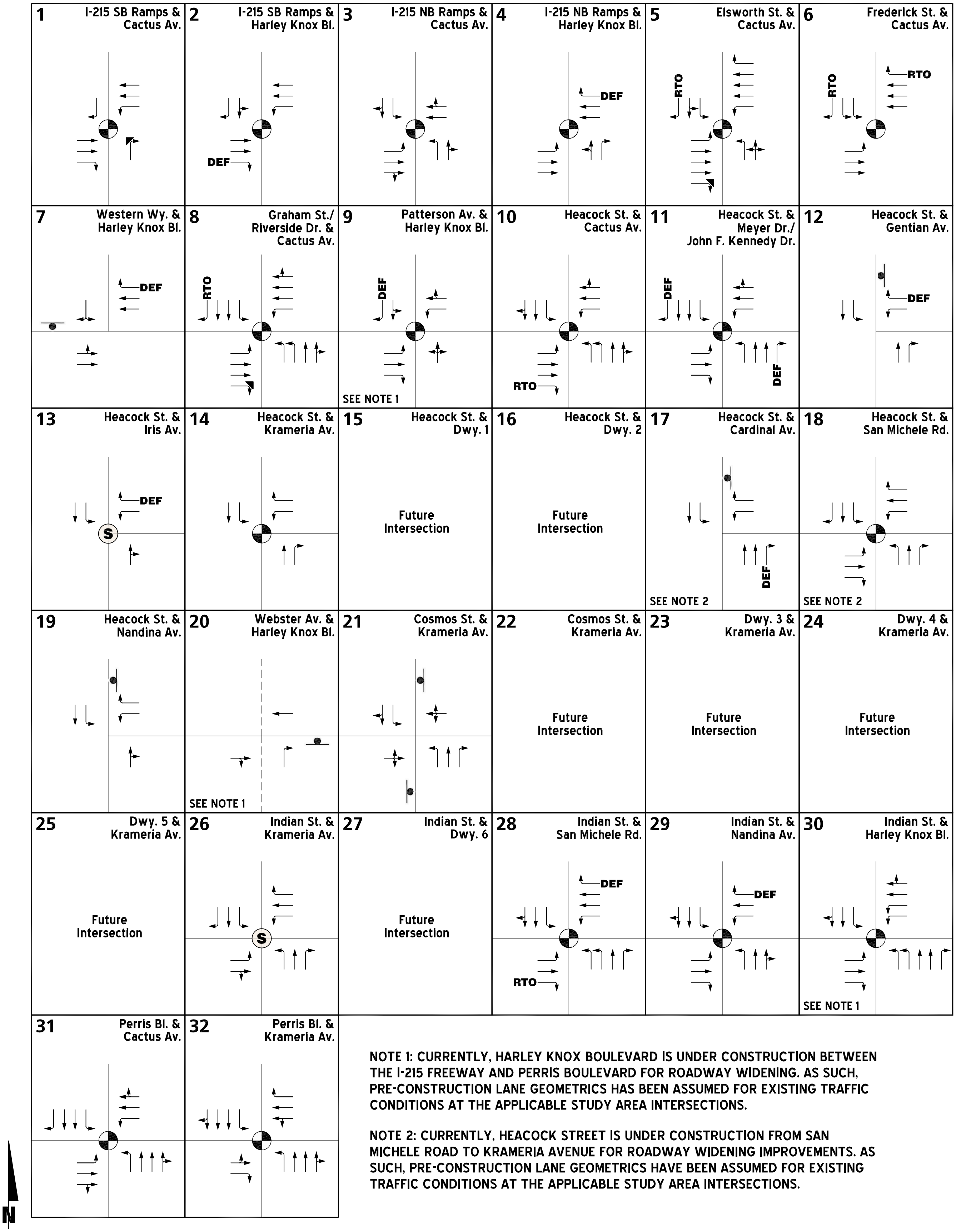

NOTE 1: CURRENTLY, HARLEY KNOX BOULEVARD IS UNDER CONSTRUCTION BETWEEN THE I-215 FREEWAY AND PERRIS BOULEVARD FOR ROADWAY WIDENING. AS SUCH, PRE-CONSTRUCTION LANE GEOMETRICS HAS BEEN ASSUMED FOR EXISTING TRAFFIC CONDITIONS AT THE APPLICABLE STUDY AREA INTERSECTIONS.

NOTE 2: CURRENTLY, HEACOCK STREET IS UNDER CONSTRUCTION FROM SAN MICHELE ROAD TO KRAMERIA AVENUE FOR ROADWAY WIDENING IMPROVEMENTS. AS SUCH, PRE-CONSTRUCTION LANE GEOMETRICS HAVE BEEN ASSUMED FOR EXISTING TRAFFIC CONDITIONS AT THE APPLICABLE STUDY AREA INTERSECTIONS.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 3-2: CITY OF MORENO VALLEY GENERAL PLAN CIRCULATION ELEMENT

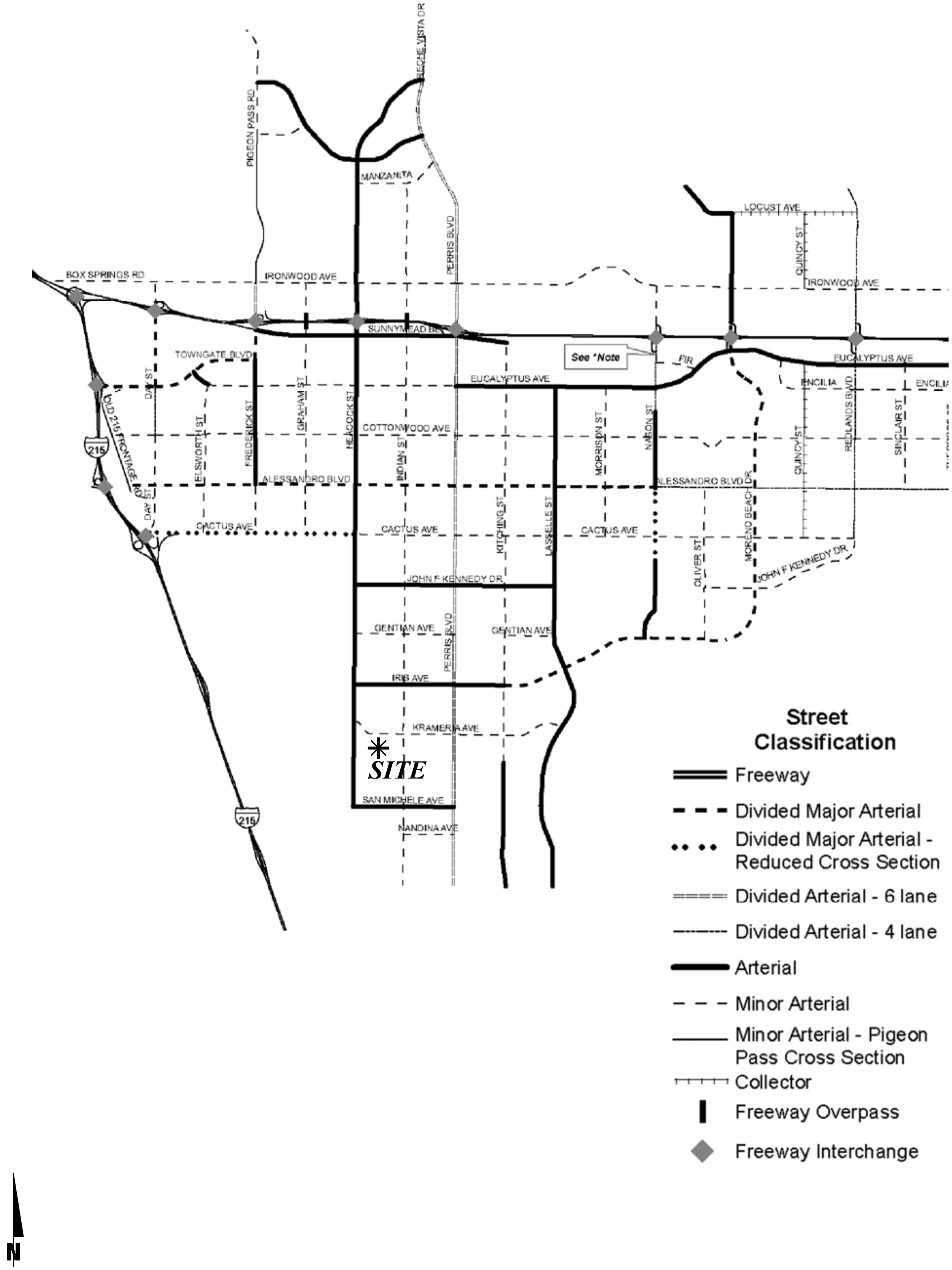

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Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 3-3: CITY OF MORENO VALLEY GENERAL PLAN ROADWAY CROSS-SECTIONS

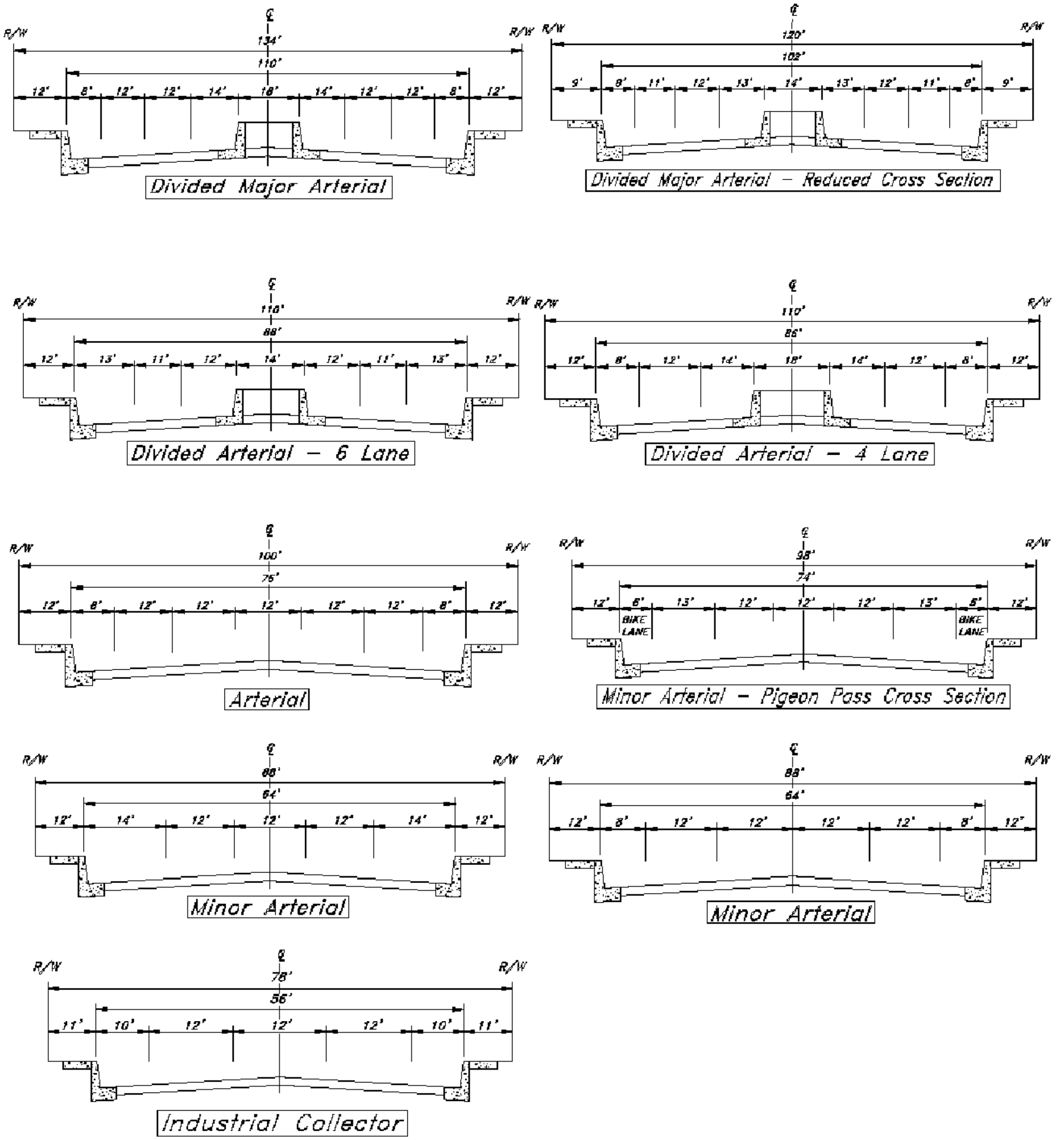

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EXHIBIT 3-4: CITY OF PERRIS GENERAL PLAN CIRCULATION ELEMENT

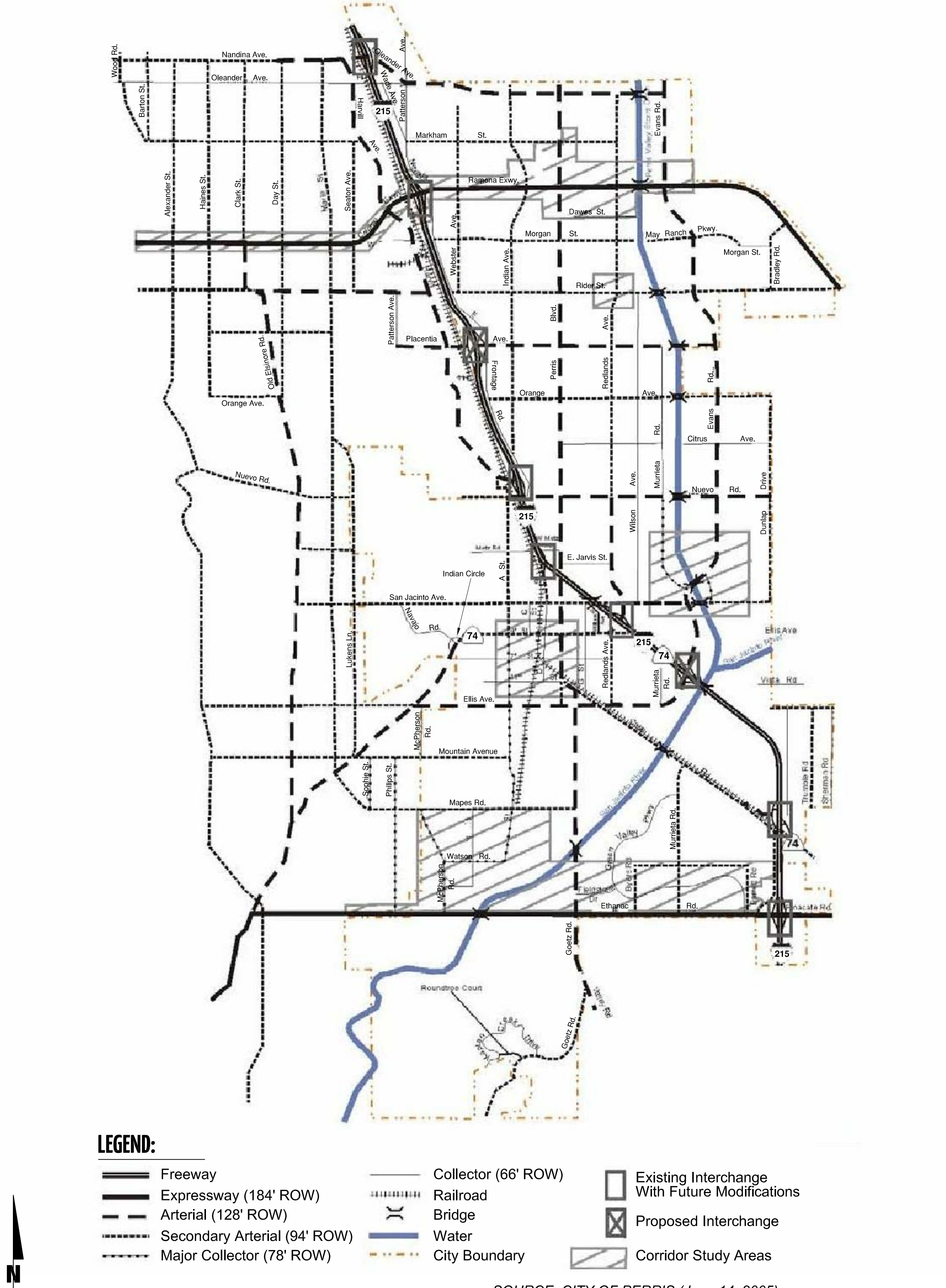

SOURCE: CITY OF PERRIS (June 14, 2005)

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Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 3-5: CITY OF PERRIS GENERAL PLAN ROADWAY CROSS-SECTIONS

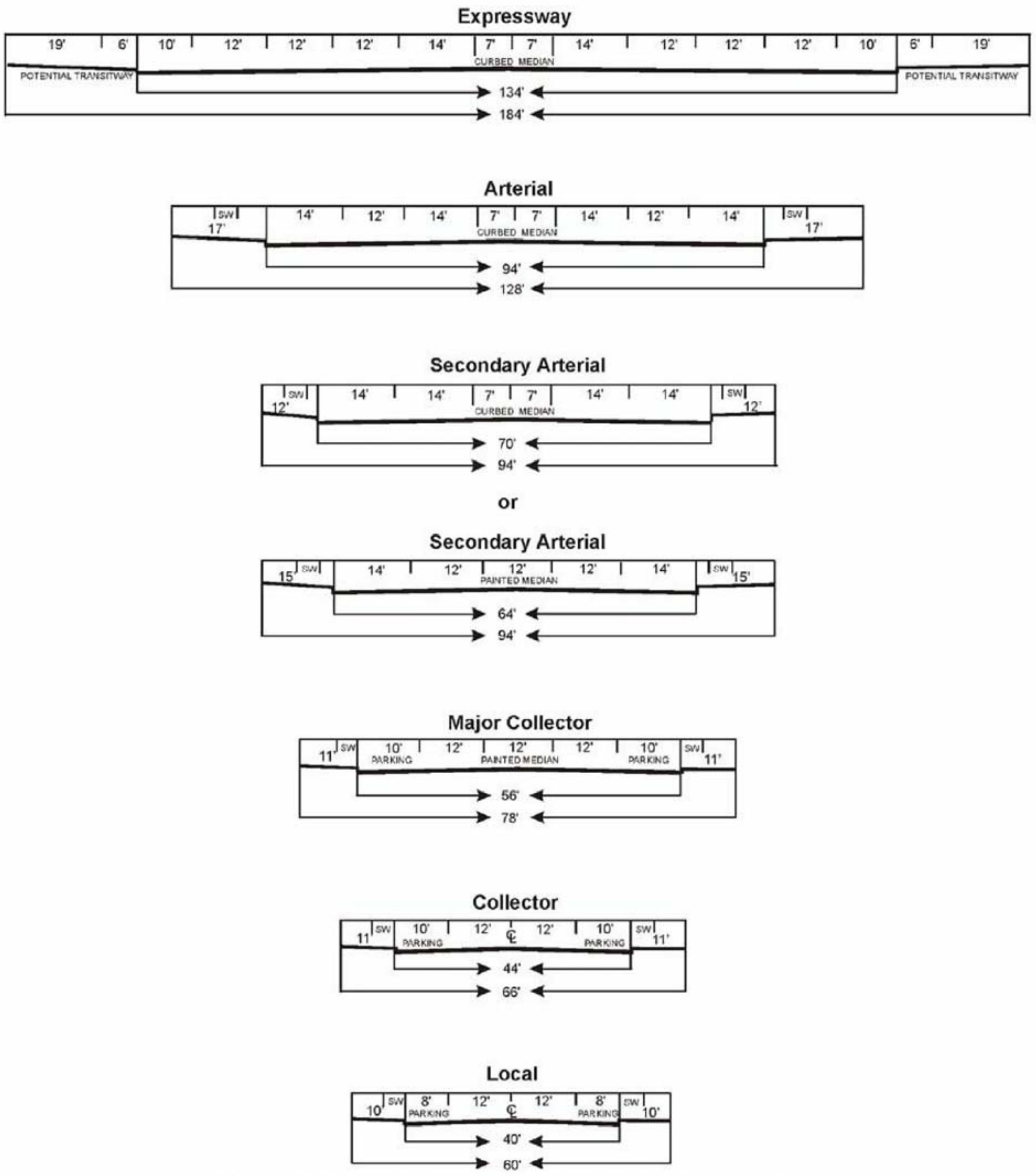

Specific details for each cross-section follow in Figures 4.1 A - 4.1 F

Legend

SW	Sidewalk or Trail (at least 4 feet)	CURBED MEDIAN	Landscaped Center Median
PARKING	Parking or Bike Lane		
PAINTED MEDIAN	Center Median and/or Continuous Left Turning Lane		

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URBAN CROSSROADS

EXHIBIT 3-6: RIVERSIDE COUNTY GENERAL PLAN CIRCULATION ELEMENT

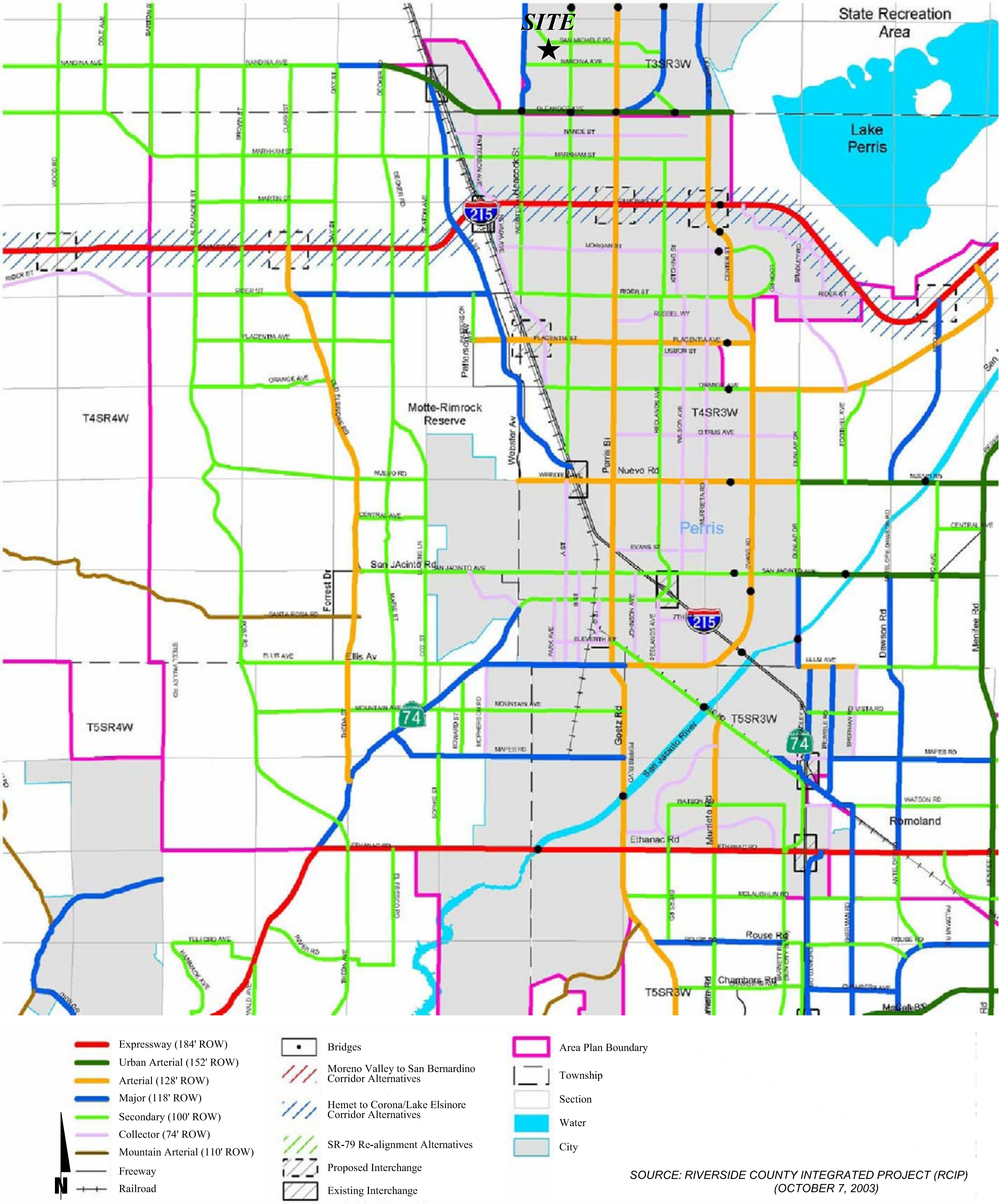

SOURCE: RIVERSIDE COUNTY INTEGRATED PROJECT (RCIP) (OCTOBER 7, 2003)

EXHIBIT 3-7: RIVERSIDE COUNTY GENERAL PLAN ROADWAY CROSS-SECTIONS

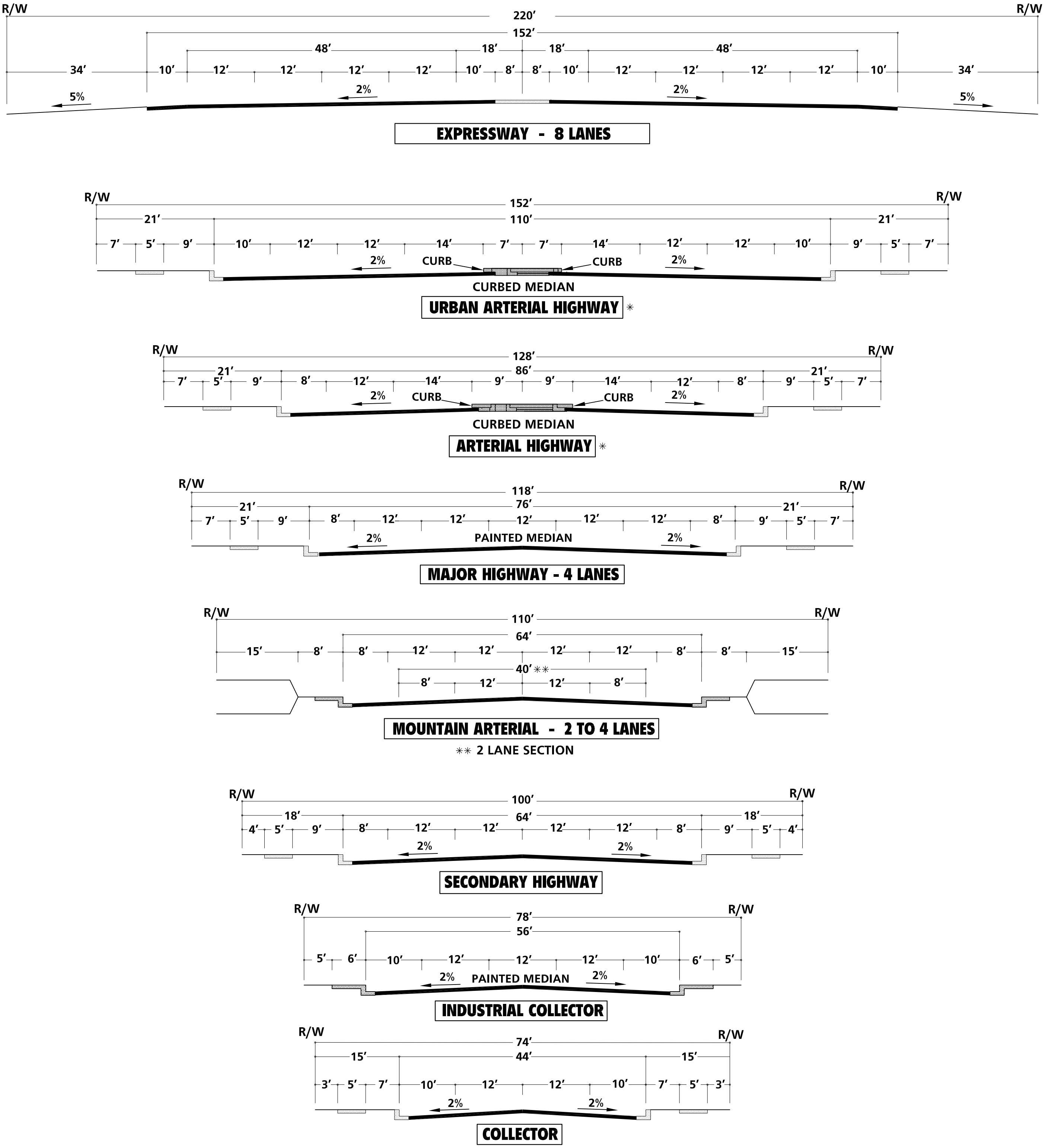

∗ *IMPROVEMENTS MAY BE RECONFIGURED TO ACCOMMODATE EXCLUSIVE TRANSIT LANES OR ALTERNATIVE LANE ARRANGEMENTS ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AT INTERSECTIONS TO ACCOMMODATE ULTIMATE IMPROVEMENTS FOR STATE HIGHWAYS SHALL CONFORM TO CALTRANS DESIGN STANDARDS.*

NOT TO SCALE

SOURCE: COUNTY OF RIVERSIDE

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3.3 TRUCK ROUTES

While the City of Moreno Valley's General Plan recognizes the trucking industry and the importance of the region's role in the movement of goods, there are no truck routes defined within the County. Exhibit 3-8 shows the existing truck routes throughout the City of Moreno Valley. Based on the exhibit, the following roadways within the study area are identified as truck routes: Cactus Avenue, Elsworth Street, Frederick Street, Graham Street, Heacock Street, Perris Boulevard, Indian Street, San Michele Road, and Nandina Avenue. The City of Perris also has a designated truck route map in their General Plan, which is shown on Exhibit 3-9. As shown, Harley Knox Boulevard, east of the I-215 Freeway, Perris Boulevard, and Indian Street, are identified as designated City of Perris truck routes within the study area.

The development of the proposed Project would require a modification to the Existing Truck Routes, as shown on Exhibit 3-8 to extend the existing truck route along Indian Street from San Michele to Driveway 6 to the north. The proposed modification is only necessary if and when the Indian Street bridge is constructed over the Perris Valley Storm Drain Channel to provide access to trucks serving Building 1.

3.4 TRANSIT SERVICE

The study area is currently served by the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region. As shown on Exhibit 3-10, there are currently 2 existing bus routes that serve the roadways within the study area in close proximity to the proposed Project. RTA Route 19 serves Perris Boulevard north of Iris Avenue, Iris Avenue east of Perris Boulevard, Perris Boulevard south of Krameria Avenue, and Krameria Avenue east of Perris Boulevard. RTA Route 20 runs along Indian Street between Iris Avenue and Krameria Avenue and along both Krameria Avenue and Iris Avenue east of Indian Street. However, RTA Route 20 only runs along this route when schools are in session.

Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. As such, it is recommended that the applicant work in conjunction with RTA to potentially provide bus service to the site.

3.5 BICYCLE & PEDESTRIAN FACILITIES

In an effort to promote alternative modes of transportation, the City of Moreno Valley also includes a trails and bikeway system. The City of Moreno Valley trails and bikeway system are shown on Exhibit 3-11 and Exhibit 3-12. There is a Class I bike path/multi-purpose trail planned near the vicinity of the proposed Project along the Perris Valley Storm Drain Channel. Class I bikeways are separated from the road. There are Class II bike lanes proposed along Heacock Street, Iris Street, Indian Street, and Krameria Avenue near the vicinity of the Project. Class II bike lanes are striped on the road. Indian Street is proposed to have Class III bike lanes south of the Perris Valley Storm Drain Channel. Class III bike lanes are bike lanes to be shared with vehicles, but are typically signed although not striped.

EXHIBIT 3-8: EXISTING TRUCK ROUTES

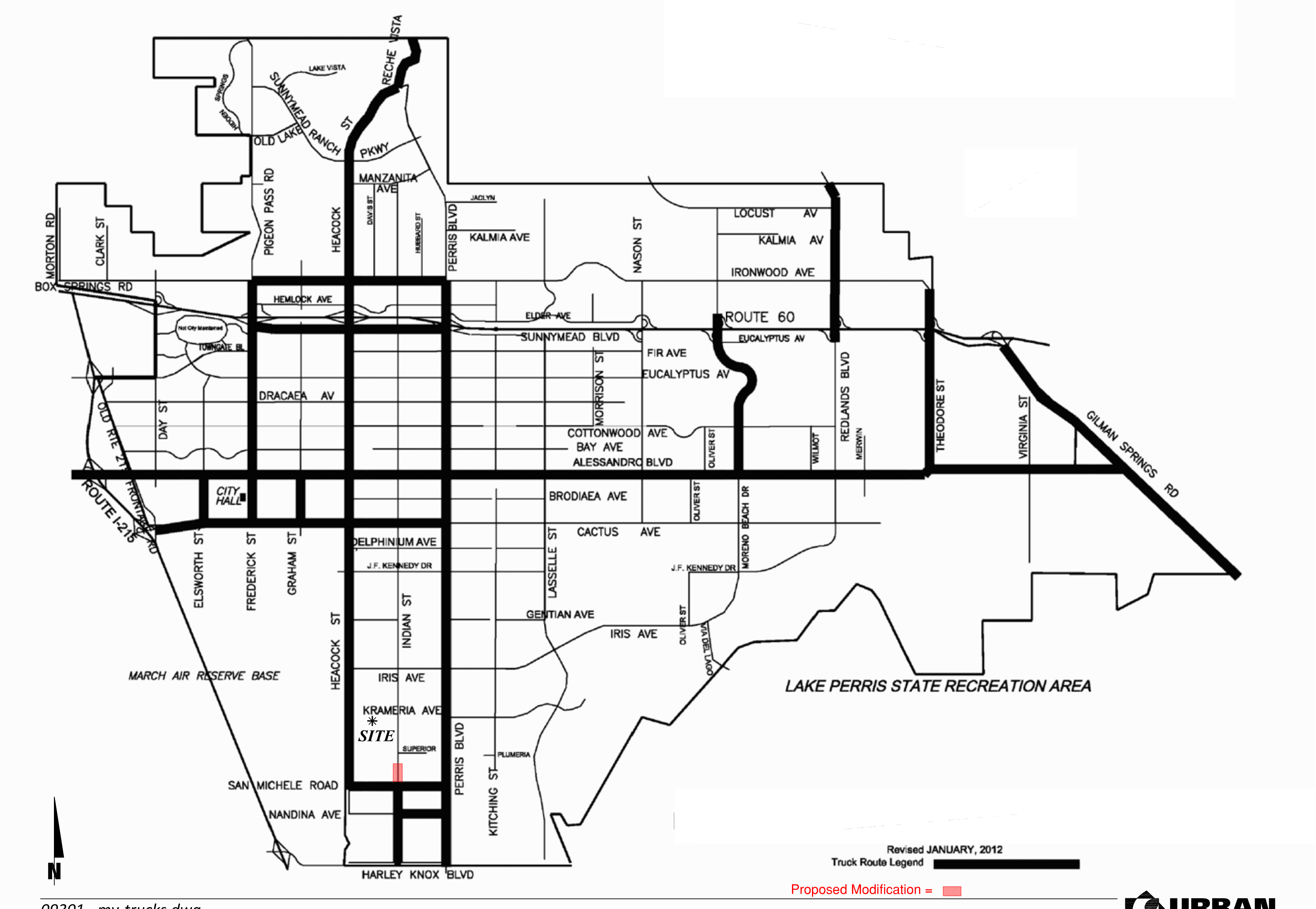

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EXHIBIT 3-9: CITY OF PERRIS TRUCK ROUTES

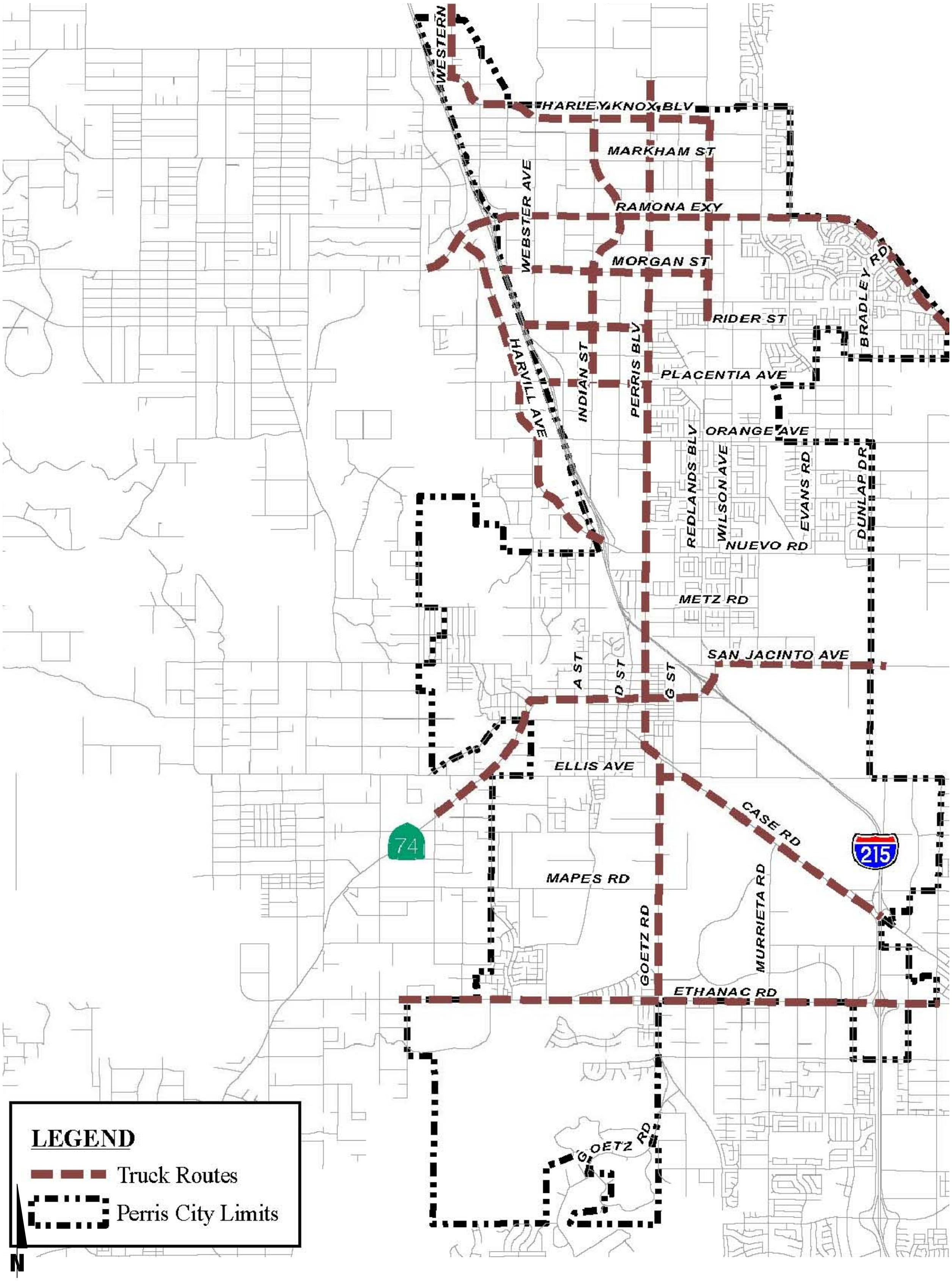

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URBAN CROSSROADS

EXHIBIT 3-10: EXISTING TRANSIT

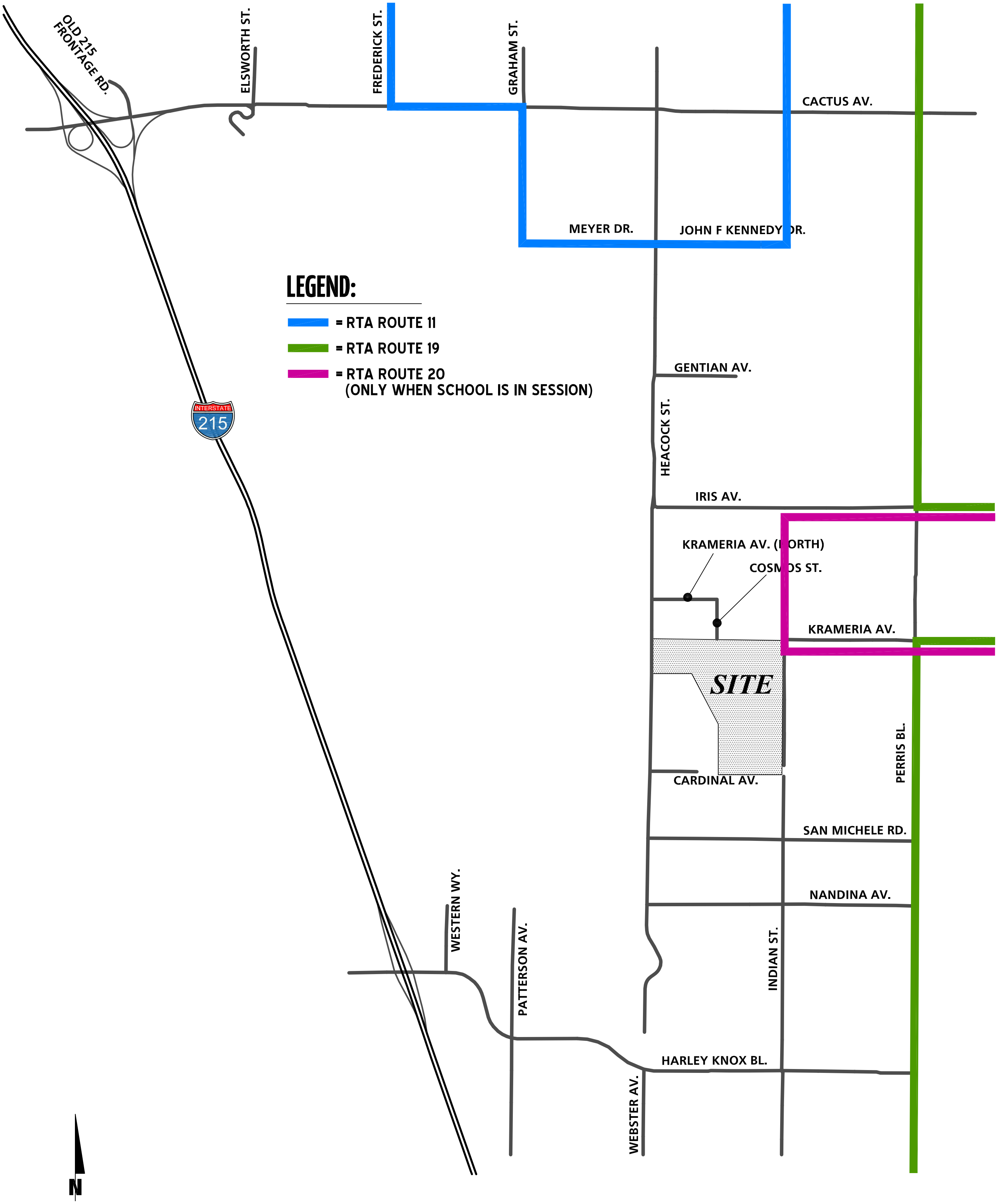

EXHIBIT 3-11: CITY OF MORENO VALLEY MASTER PLAN OF TRAILS

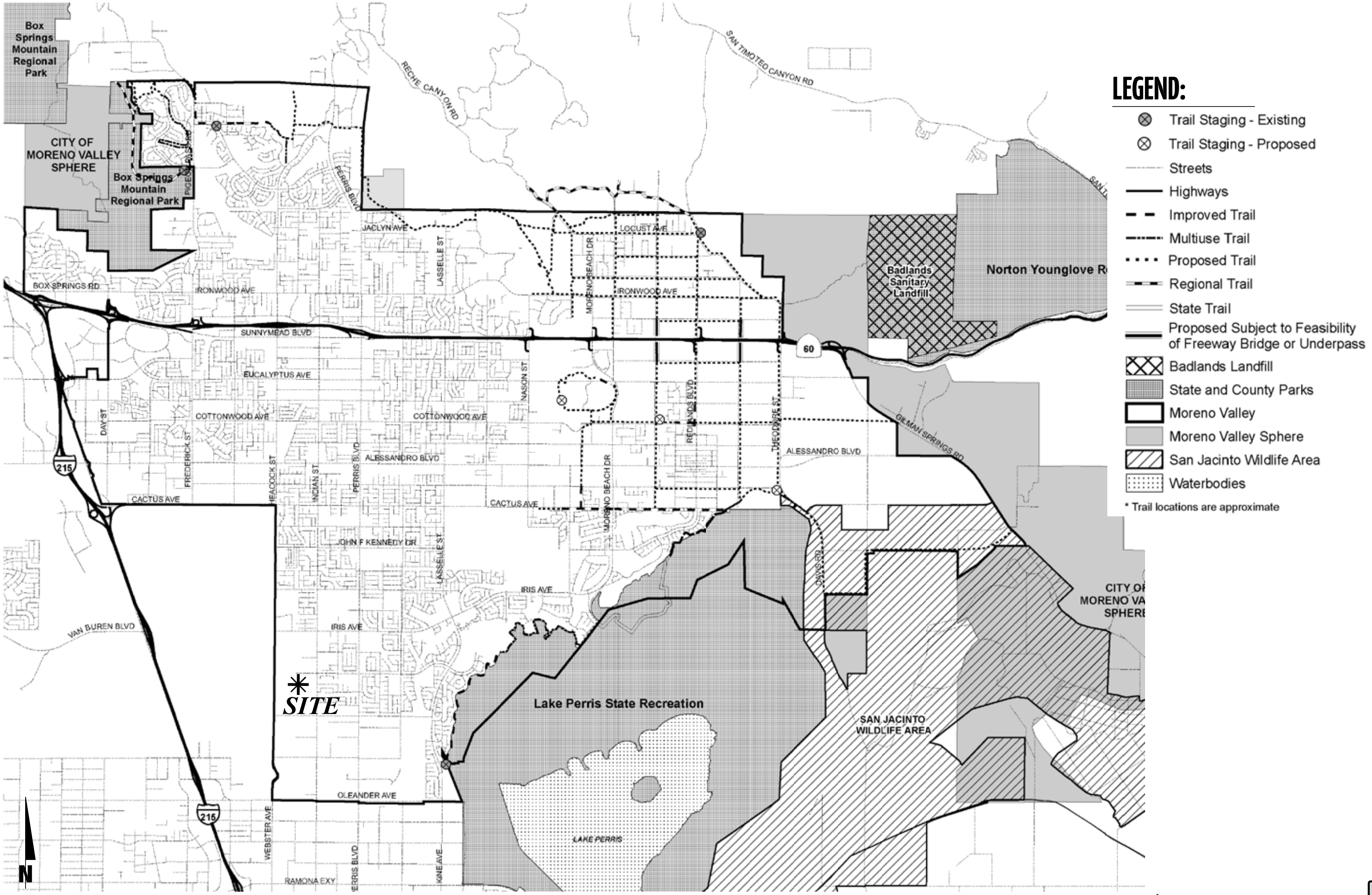

09301 - trails.dwg

URBAN CROSSROADS

EXHIBIT 3-12: CITY OF MORENO VALLEY BIKE PLAN

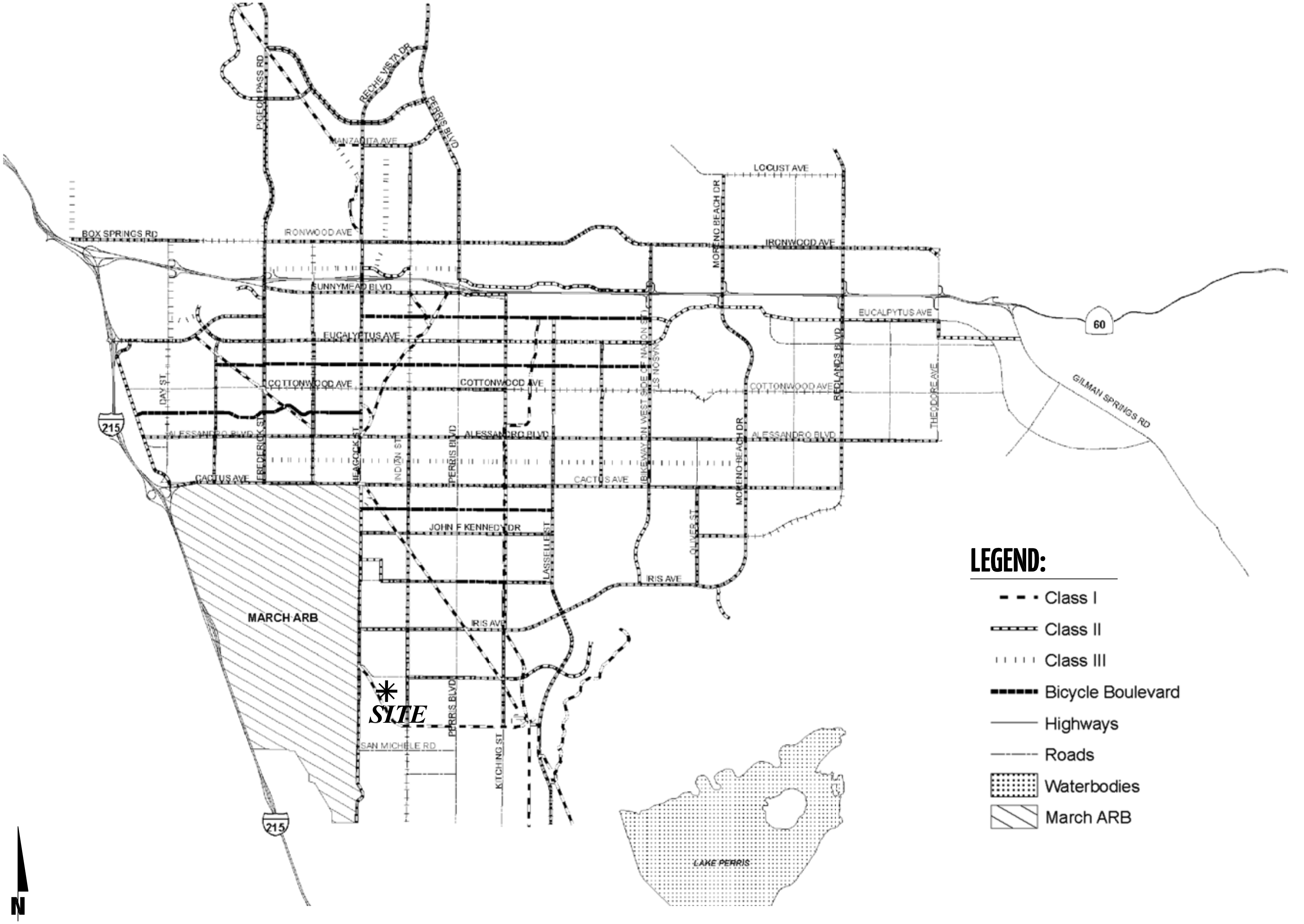

URBAN CROSSROADS

Field observations conducted in April 2015 indicate nominal pedestrian and bicycle activity within the study area. Exhibit 3-13 illustrates the existing pedestrian facilities, including sidewalks and crosswalk locations.

3.6 EXISTING (2015) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in April 2015. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. The City of Perris is currently widening Harley Knox Boulevard from east of Western Way to Perris Boulevard. As such, older historical counts have been utilized for any intersections that were closed or operating under unusual circumstances. A growth factor of 2 percent per year has been applied to these intersections to represent 2015 traffic conditions. This methodology was reviewed and approved by City staff.

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic (e.g., between ramp-to-arterial intersections, etc.). The traffic counts collected in April 2015 include the vehicle classifications as shown below:

- Passenger Cars
- 2-Axle Trucks
- 3-Axle Trucks
- 4 or More Axle Trucks

To represent the impact large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into PCEs. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is also much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the San Bernardino County CMP and are in excess of the factor recommended for use in the County of Riverside traffic study guidelines. (11) Although the County of Riverside has a recommended PCE factor of 2.0, the San Bernardino County CMP PCE factors have been utilized in an effort to conduct a more conservative analysis.

EXHIBIT 3-13: EXISTING PEDESTRIAN FACILITIES

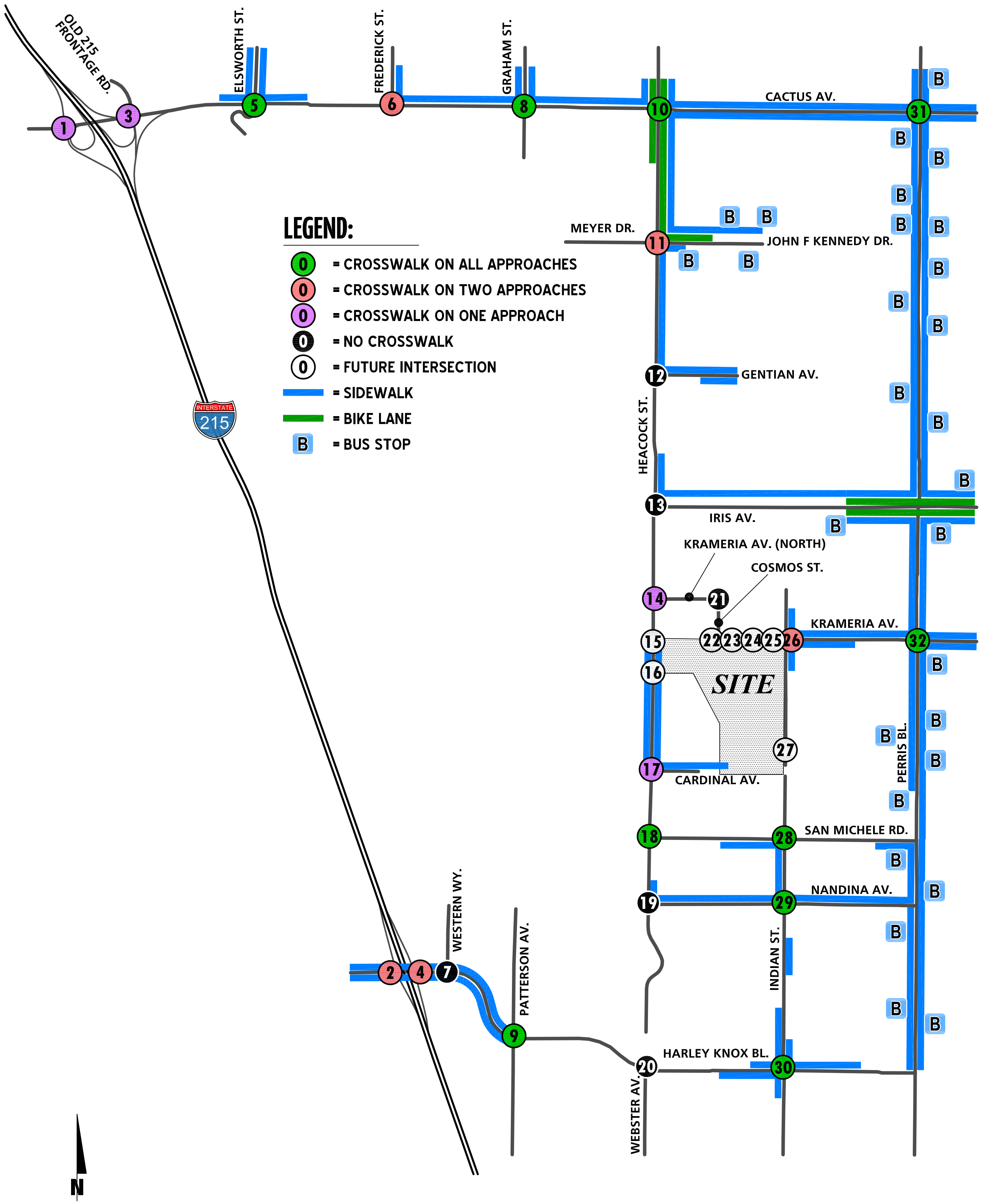

Existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-14. Where actual 24-hour tube count data was not available, Existing ADT volumeswere based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 11.3847 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.78 percent. As such, the above equation utilizing a factor of 11.3847 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.78 percent (i.e., 1/0.0878 = 11.3847) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes (in PCE) are also shown on Exhibit 3-14.

3.7 INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 Intersection Capacity Analysis of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that the existing study area intersections are currently operating at an acceptable LOS during the peak hours (i.e., LOS D or better), with the exception of the following:

ID	Intersection Location
12	Heacock Street / Gentian Avenue – LOS F PM peak hour only
13	Heacock Street / Iris Avenue – LOS E PM peak hour only

Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions are shown on Exhibit 3-15. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.8 EXISTING CONDITIONS ROADWAY SEGMENT CAPACITY ANALYSIS

The City of Moreno Valley General Plan Circulation Element provides roadway volume capacity values presented previously on Table 2-3. The roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 3-2 provides a summary of the Existing (2015) conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/ (LOS) Thresholds identified previously on Table 2-3. As shown on Table 3-2, all but 1 of the study area roadway segments currently operate at an acceptable LOS based on the City's planning level daily roadway capacity thresholds.

EXHIBIT 3-14 (1 OF 2): EXISTING (2015) TRAFFIC VOLUMES (IN PCE)

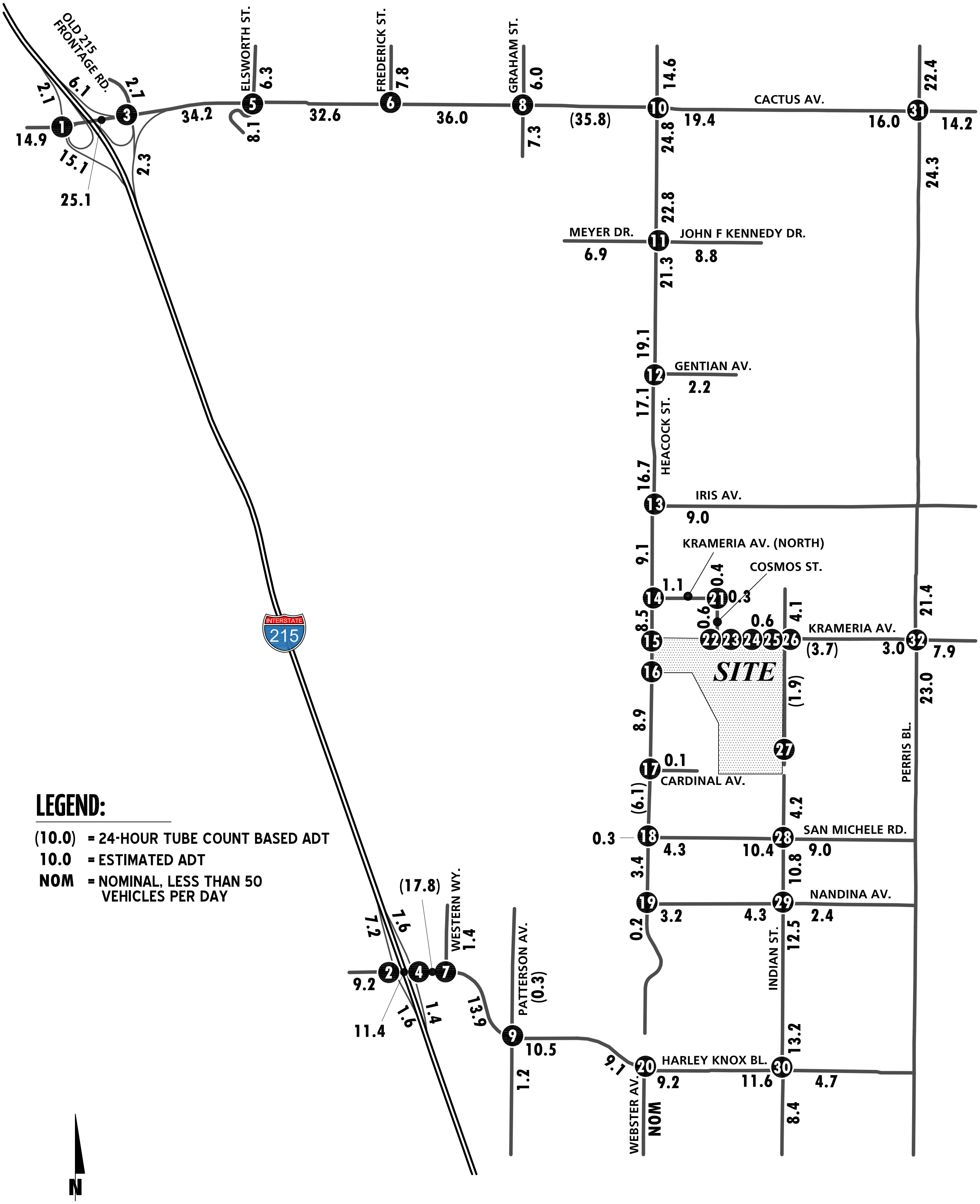

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EXHIBIT 3-14 (2 OF 2): EXISTING (2015) TRAFFIC VOLUMES (IN PCE)

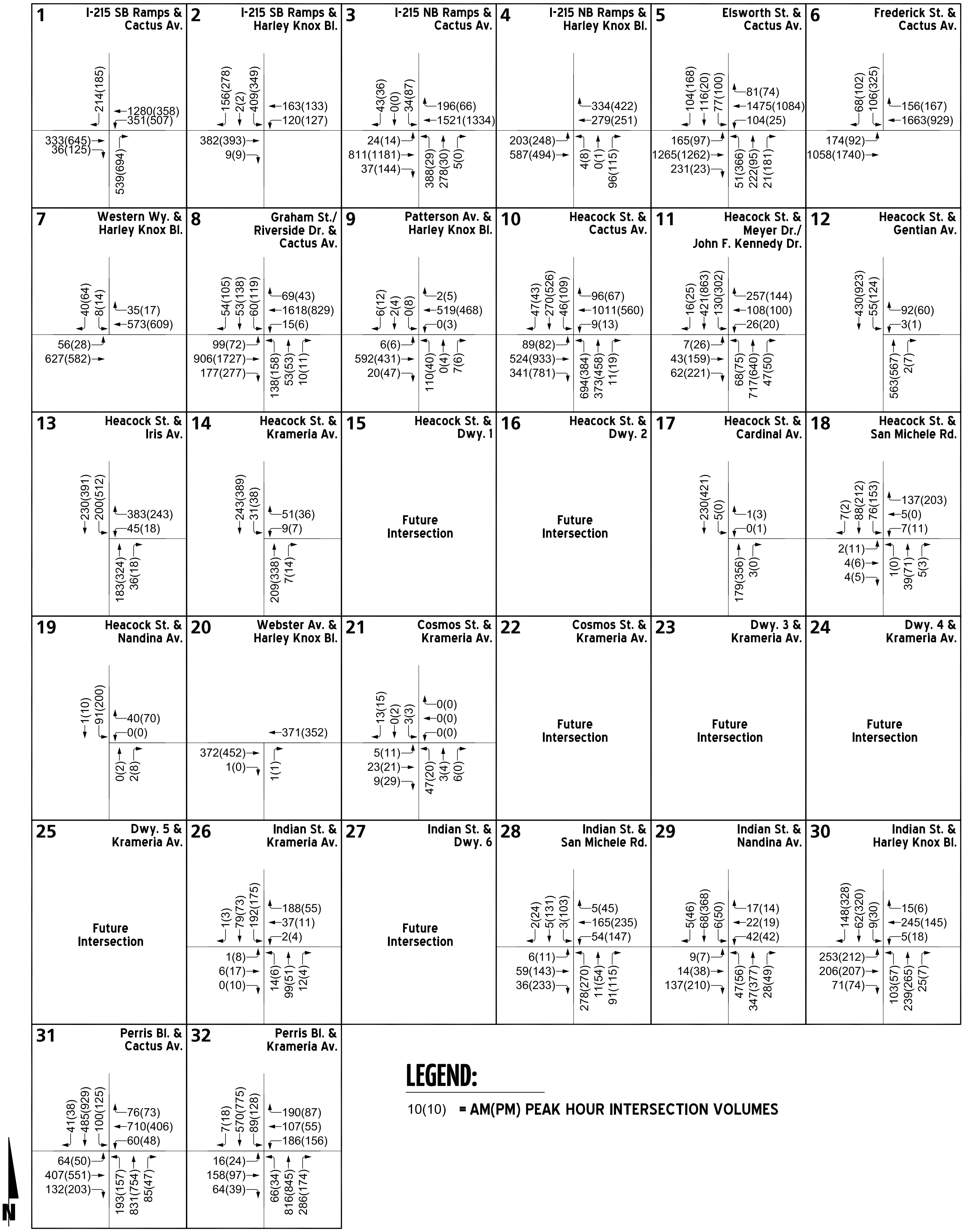

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 3-15: SUMMARY OF PEAK HOUR INTERSECTION LOS
FOR EXISTING (2015) CONDITIONS

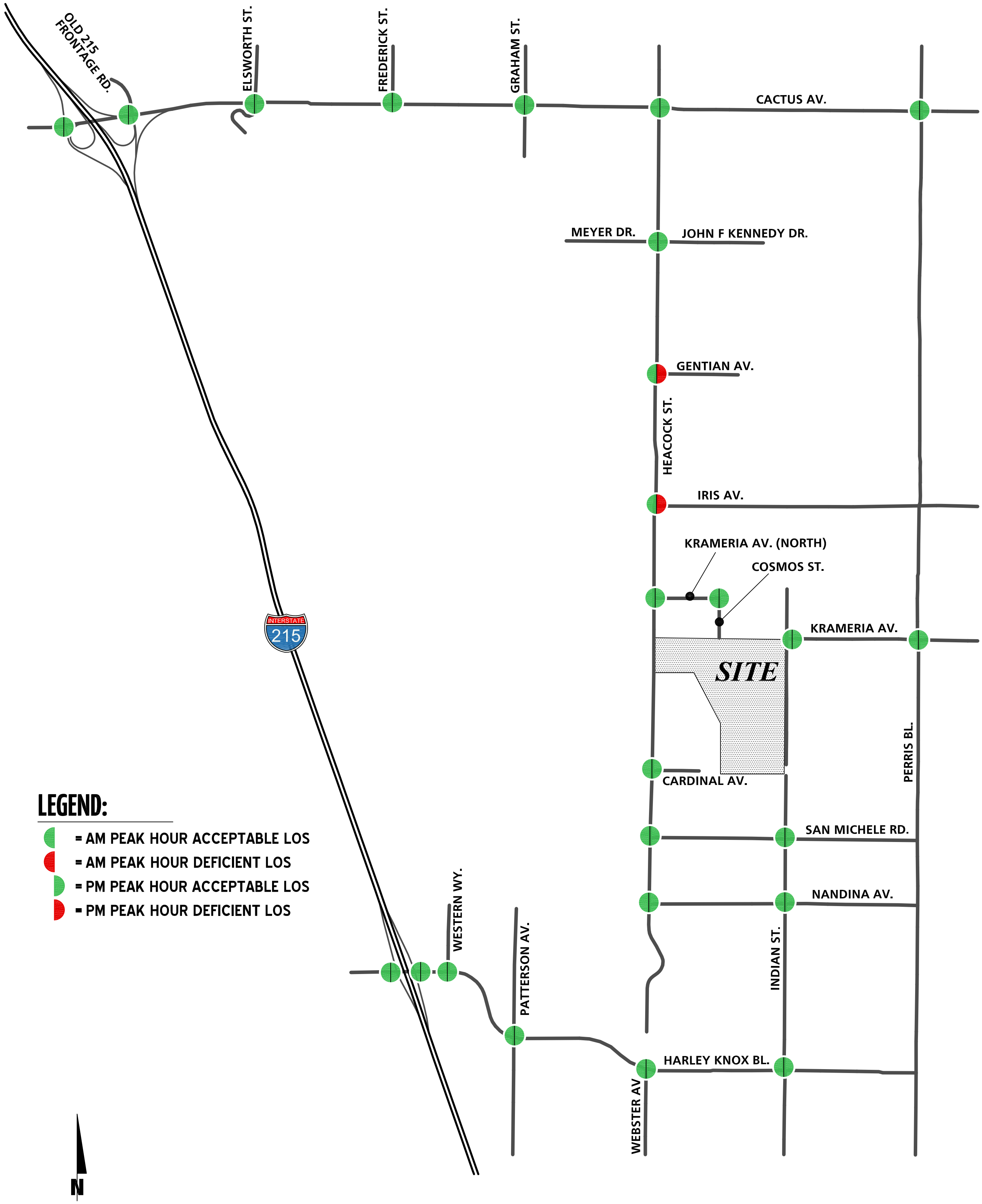

Table 3-1

Intersection Analysis for Existing (2015) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	0	0	1>>	0	0	1	0	2	1	1	2	0	14.4	39.0	B	D
2	I-215 SB Ramps / Harley Knox Bl	TS	0	0	0	0	1	1	0	2	d	1	2	0	33.8	31.2	C	C
3	I-215 NB Ramps / Cactus Av	TS	1	1	0	1	1	0	1	2	0	0	2	0	19.1	13.7	B	B
4	I-215 NB Ramps / Harley Knox Bl	TS	0	1	1	0	0	0	1	2	0	0	2	d	13.6	17.0	B	B
5	Elsworth St / Cactus Av	TS	1	1	0	1	1	1>	1	3	1>>	1	3	1	38.9	30.2	D	C
6	Frederick St / Cactus Av	TS	0	0	0	2	0	1>	1	2	0	0	3	1>	24.9	21.9	C	C
7	Western Wy / Harley Knox Bl	CSS	0	0	0	0	1	0	0	2	0	0	2	d	12.0	12.1	B	B
8	Graham St / Cactus Av	TS	2	2	0	1	2	1>	1	2	1>>	1	3	0	21.3	24.5	C	C
9	Patterson Av / Harley Knox Bl	TS	0	1	0	0	1	d	1	1	1	1	1	0	27.6	26.3	C	C
10	Heacock St / Cactus Av	TS	2	2	0	1	2	0	1	2	1>	1	2	0	34.3	18.6	C	B
11	Heacock St / John F. Kennedy Dr	TS	1	2	d	1	2	d	1	1	1	1	2	0	23.3	21.8	C	C
12	Heacock St / Gentian Av	CSS	0	1	1	1	1	0	0	0	0	0	1	d	22.8	**58.0**	C	**F**
13	Heacock St / Iris Av	AWS	0	1	0	1	1	0	0	0	0	1	0	d	15.2	**37.5**	C	**E**
14	Heacock St / Krameria Av (North)	TS	0	1	1	1	1	0	0	0	0	1	0	1	11.1	9.0	B	A
15	Heacock St / Driveway 1		Future Intersection															
16	Heacock St / Driveway 2		Future Intersection															
17	Heacock St / Cardinal Av	CSS	0	2	d	1	1	0	0	0	0	1	0	1	9.0	13.4	A	B
18	Heacock St / San Michele Rd	TS	1	1	1	1	1	1	1	1	1	1	1	1	25.6	39.5	C	D
19	Heacock St / Nandina Av	CSS	0	1	0	1	1	0	0	0	0	1	0	1	8.4	8.6	A	A
20	Webster Av / Harley Knox Bl	CSS	0	0	1	0	0	0	0	1	0	0	1	0	10.0	10.1	B	B
21	Cosmos St / Krameria Av (North)	CSS	1	1	d	1	1	0	0	1	0	0	1	0	9.8	9.3	A	A
22	Cosmos St / Krameria Av		Future Intersection															
23	Driveway 3 / Krameria Av		Future Intersection															
24	Driveway 4 / Krameria Av		Future Intersection															
25	Driveway 5 / Krameria Av		Future Intersection															
26	Indian St / Krameria Av	AWS	1	1	1	1	1	1	1	1	0	1	1	1	10.7	9.2	B	A
27	Indian St / Driveway 6		Future Intersection															
28	Indian St / San Michele Rd	TS	2	1	1	1	2	0	1	1	1>	1	2	d	29.3	35.8	C	D
29	Indian St / Nandina Av	TS	1	2	0	1	2	0	1	1	1	1	1	d	18.4	19.9	B	B
30	Indian St / Harley Knox Bl	TS	2	2	1	1	2	0	1	1	1	2	2	0	17.0	24.2	B	C
31	Perris Bl / Cactus Av	TS	1	3	0	1	2	1	1	2	0	1	2	0	24.8	32.4	C	C
32	Perris Bl / Krameria Av	TS	1	3	0	1	3	0	0	1	1	0	2	1	31.2	22.9	C	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal; AWS= All ways stop

Table 3-2

Page 1 of 2

Roadway Volume/Capacity Analysis for Existing (2015) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	25,080	0.67	B	D
2		East of I-215 NB Ramps	4D	37,500	31,154	0.83	D	D
3		West of Elsworth Street	6D	56,300	34,154	0.61	B	D
4		East of Elsworth Street	6D	56,300	31,029	0.55	A	D
5		West of Frederick Street	5D	46,900	32,583	0.69	B	D
6		East of Frederick Street	5D	46,900	35,981	0.77	C	D
7		West of Graham Street	5D	46,900	36,044	0.77	C	D
8		East of Graham Street	5D	46,900	31,120	0.66	B	D
9		West of Heacock Street	5D	46,900	35,778	0.76	C	D
10		East of Heacock Street	4D	37,500	19,360	0.52	A	C
11		West of Perris Boulevard	4D	37,500	15,973	0.43	A	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	1,076	0.09	A	D
13		Cosmos Street to Driveway 3	2U	12,500	620	0.05	A	D
14		Driveway 3 to Driveway 4	2U	12,500	620	0.05	A	D
15		Driveway 4 to Driveway 5	2U	12,500	620	0.05	A	D
16		Driveway 5 to Indian Street	2D	18,750	620	0.03	A	D
17		East of Indian Street	2D	18,750	3,716	0.20	A	D
18		West of Perris Boulevard	2U	12,500	3,040	0.24	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	46	0.00	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	4,269	0.23	A	D
21		West of Indian Street	2D	18,750	10,411	0.56	A	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	11,390	0.32	A	D
23		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	D
24		East of Western Way	4U	25,900	13,901	0.54	A	D
25		West of Patterson Avenue	4U	25,900	11,444	0.44	A	D
26		East of Patterson Avenue	2D	18,000	10,492	0.58	A	D
27		West of Webster Avenue	2D	18,000	9,144	0.51	A	D
28		East of Webster Avenue	2D	18,000	9,156	0.51	A	D
29		West of Indian Street	3D	26,925	11,624	0.43	A	D
30	Heacock Street	South of Cactus Avenue	4D	37,500	24,824	0.66	B	D
31		North of John F. Kennedy Drive	4D	37,500	22,764	0.61	B	D
32		South of John F. Kennedy Drive	4D	37,500	21,272	0.57	A	D
33		North of Gentian Avenue	3D	28,150	19,047	0.68	B	D
34		South of Gentian Avenue	2U	12,500	**17,054**	**1.36**	**F**	D
35		North of Iris Avenue	2D	18,750	16,730	0.89	D	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	9,113	0.73	C	D
37		Krameria Avenue (N) to Driveway 1	2U	12,500	8,516	0.68	B	D
38		Driveway 1 to Driveway 2	2U	12,500	8,516	0.68	B	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	8,874	0.24	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	7,400	0.26	A	D
41		San Michele Road to Nandina Avenue	2D	18,750	3,427	0.18	A	D
42		South of Nandina Avenue	2U	12,500	228	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	D

Table 3-2

Page 2 of 2

Roadway Volume/Capacity Analysis for Existing (2015) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015	V/C[2]	LOS[3]	Acceptable LOS
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	620	0.05	A	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	0	0.00	A	D
46		San Michele Road to Nandina Avenue	4D	37,500	10,793	0.29	A	D
47		South of Nandina Avenue	2D	18,750	12,523	0.67	B	D
48		North of Harley Knox Boulevard	4D	35,900	13,201	0.37	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

As shown below, the following roadway segment is currently operating at an unacceptable LOS based on daily roadway segment capacities:

ID	Street	Segment
34	Heacock Street	South of Gentian Avenue – LOS F

3.9 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the I-215 Freeway Cactus Avenue and Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 3-3. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 3-3, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing traffic conditions off-ramp queuing analysis are provided in Appendix 3.3.

3.10 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following study area intersections currently warrant a traffic signal for Existing traffic conditions:

ID	Intersection Location	Jurisdiction	CMP?
7	Western Way / Harley Knox Boulevard	Perris	No
12	Heacock Street / Gentian Avenue	Moreno Valley, March JPA	No
13	Heacock Street / Iris Avenue	Moreno Valley, March JPA	No

Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.4.

3.11 BASIC FREEWAY SEGMENT ANALYSIS

Existing mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 3-16. As shown on Table 3-4, the basic freeway segments evaluated for the purposes of this TIA were found to operate at an acceptable LOS (i.e., LOS C or better) during the peak hours. Existing basic freeway segment analysis worksheets are provided in Appendix 3.5.

3.12 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Existing conditions and the results of this analysis are presented in Table 3-5. As shown in Table 3-5, the freeway ramp merge and diverge areas currently operate at acceptable LOS (i.e., LOS D or better). Existing freeway ramp junction operations analysis worksheets are provided in Appendix 3.6.

Table 3-3

Peak Hour Off-Ramp Queuing Analysis for Existing (2015) Conditions

Intersection	Movement	Stacking Distance (Feet)	95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.						
	NBR	1,850	51	285 [2]	Yes	Yes
	SBR	1,115	87	0	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.						
	SBL/T	1,330	382	336	Yes	Yes
	SBR	270	44	59	Yes	Yes
I-215 NB Ramps / Cactus Av.						
	NBL	145	321 [2]	26	Yes[3]	Yes
	NBT	1,650	164	26	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.						
	NBL/T	1,120	13	22	Yes	Yes
	NBR	265	47	51	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound left turn lane without spilling back and affecting the I-215 Freeway mainline.

Table 3-4

Basic Freeway Segment Analysis for Existing (2015) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Volume		Truck %	Truck %	Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	SB	North of Cactus Avenue	4	4,985	5,540	5%	5%	19.9	22.5	C	C
		South of Cactus Avenue	4	4,693	5,354	4%	4%	18.6	21.5	C	C
		North of Harley Knox Boulevard	3	2,544	3,855	4%	4%	13.4	20.5	B	C
		South of Harley Knox Boulevard	3	2,186	3,445	2%	3%	11.4	18.1	B	C
	NB	North of Cactus Avenue	4	2,724	2,523	7%	5%	10.9	10.0	A	A
		South of Cactus Avenue	4	3,679	2,678	5%	4%	14.6	10.6	B	A
		North of Harley Knox Boulevard	3	4,092	3,247	4%	4%	22.0	17.1	C	B
		South of Harley Knox Boulevard	3	3,721	2,779	3%	3%	19.6	14.6	C	B

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 3-5

Freeway Ramp Junction Merge/Diverge Analysis for Existing (2015) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	26.9	C	30.2	D
		Loop Off-Ramp at Cactus Avenue - Downstream	4	26.9	C	30.2	D
		Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.6	C
	NB	On-Ramp at Cactus Avenue	3	20.2	C	19.8	B
		On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 3-16: EXISTING (2015) FREEWAY MAINLINE VOLUMES

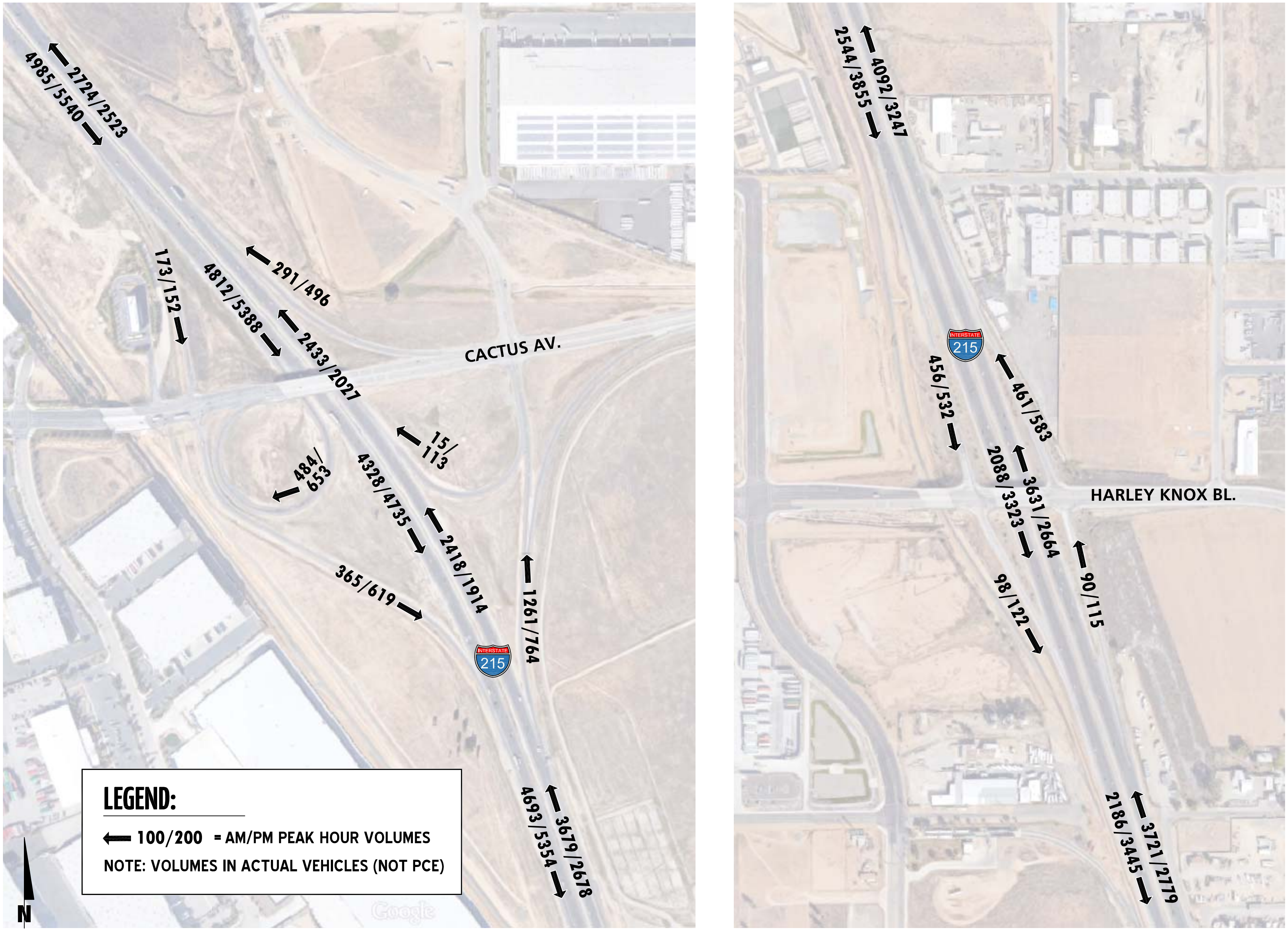

09301 - freeway.dwg

3.13 RECOMMENDED IMPROVEMENTS

3.13.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative traffic deficiencies is presented in Table 3-6.

Worksheets for Existing (2015) conditions, with improvements, HCM calculation worksheets are provided in Appendix 3.7.

3.13.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

As noted in Section 2.3 *Roadway Segment Capacity Analysis*, daily roadway capacities are "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic. Where the ADT-based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis have been undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

As shown on Table 3-6, the Existing (2015) peak hour analysis indicates that the adjacent study area intersections on either side of the deficient roadway segment of Heacock Street between Gentian Avenue and Iris Avenue are anticipated to operate at acceptable LOS with the recommended intersection improvements. As such, roadway segment widening does not appear necessary to address the deficiencies at the identified roadway segment.

3.13.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously on Table 3-3, there are no peak hour queuing issues at the I-215 Freeway at Cactus Avenue or Harley Knox Boulevard interchanges. As such, no improvements have been recommended.

3.13.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously on Table 3-4 and Table 3-5, there are no deficient freeway mainline segments or merge/diverge ramp junctions. As such, no improvements have been recommended.

Table 3-6

Intersection Analysis for Existing (2015) Conditions With Improvements

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
12	Heacock St / Gentian Av																	
	- Without Improvements	CSS	0	1	1	1	1	0	0	0	0	0	1	d	22.8	**58.0**	C	**F**
	- With Improvements	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	12.4	14.7	B	B
13	Heacock St / Iris Av																	
	- Without Improvements	AWS	0	1	0	1	1	0	0	0	0	1	0	d	15.2	**37.5**	C	**E**
	- With Improvements	**TS**	0	1	0	1	1	0	0	0	0	1	0	d	26.7	38.5	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for rig turning vehicles to travel outside the through lanes
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal c all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1) and 385,748 square feet of general light industrial use. Building 2 located on the southwest corner of Cosmos Street and Krameria Avenue is proposed to consist of 122,516 sf of general light industrial use, Building 3 located at the eastern terminus of Cardinal Avenue is proposed to consist of 97,222 sf of general light industrial use, and Building 4 located on the east of Heacock Street and south of Krameria Avenue (North) is proposed to consist of 166,010 sf of general light industrial use. Per the City's traffic study guidelines, the Opening Year will have a 5 year minimum horizon. As such, the Opening Year analysis will assess 2020 traffic conditions.

The Project is proposed to have access on Heacock Street via Driveways 1 and 2, Cardinal Avenue, Krameria Avenue via a future southern extension of Cosmos Street and Driveways 3 through 5, and Indian Street via Driveway 6. All Project access points are assumed to allow full-access. Driveways 2, 3, and 5 are proposed to allow for truck access, while passenger cars would access all proposed driveways. Regional access to the project site is provided via the I-215 Freeway at Cactus Avenue and Harley Knox Boulevard interchanges.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. The ITE Trip Generation manual is a nationally recognized source for estimating site specific trip generation. ITE's most current version of the Trip Generation manual is based on more than 4,800 trip generation studies submitted to ITE by public agencies, consulting firms, universities/colleges, developers, associations and local sections/districts/student chapters of ITE. (3)

4.1.1 HIGH-CUBE WAREHOUSE/DISTRIBUTION CENTER LAND USE

High-cube warehouse/distribution centers (ITE Land Use Code 152) are a unique land use type within the larger, more generalized industrial land use category. ITE's most recent edition of the *Trip Generation* manual (ITE 9th Edition), published in 2012, defines "high-cube warehouses" as *"…used for storage of materials, goods and merchandise prior to their distribution to retail outlets, distribution centers or other warehouses. These facilities are typically characterized by ceiling heights of at least 24 feet with small employment counts due to a high level of mechanization."* The average square footage for the sites surveyed for high-cube warehouse/distribution center (Land Use 152) use is above 500,000 square feet. The number of sites observed in the compilation of this data ranges from 57-70 sites of which more than 20 sites exceed 1,000,000 square feet in gross floor area. The weighted average daily trip generation rate for high-cube warehouse (Land Use 152) use is 1.68 trips per thousand square feet (TSF).

The ITE *Trip Generation* manual includes data regarding the types of vehicles that are generated (passenger cars and trucks), but provides no guidance on vehicle mix (different sizes of trucks). While trucks, as a percentage of total traffic, has been based on the ITE *Trip Generation* manual, data regarding the vehicle mix has been obtained from a separate report; the South Coast Air Quality Management District's (SCAQMD) recent Warehouse Truck Trip Study. (12) (13) The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure has been utilized for the purposes of this analysis in effort to be consistent with other technical studies prepared for the Project.

As noted on Table 4-1, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. The percentage of trucks has been determined from the table shown on page 267 of the ITE *Trip Generation* manual. As shown on page 267, the truck trip generation rate for weekday daily traffic is 0.64 or 38.1% of the total traffic. Similarly, the truck trip generation rate for the weekday AM peak hour is 0.03 (27.3% of the total traffic) and 0.04 (or 33.3% of the total traffic) for the weekday PM peak hour.

Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. For the purposes of this analysis, the percentage of trucks, by axle type, were obtained from the SCAQMD interim recommended truck mix. The SCAQMD has recently performed surveys of existing facilities and compiled the data to provide interim guidance on the mix of heavy trucks for these types of high-cube warehousing/distribution facilities. Based on this interim guidance from the SCAQMD, the following truck fleet mix was utilized for the purposes of estimating the truck trip generation for the site: 22.0% of the total trucks as 2-axle trucks, 17.7% of the total trucks as 3-axle trucks, and 60.3% of the total trucks as 4+-axle trucks. Lastly, PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles).

4.1.2 GENERAL LIGHT INDUSTRIAL LAND USE

General light industrial (ITE Land Use Code 110) has been used to derive site specific trip generation estimates for Buildings 2 through 4. ITE's most recent edition of the *Trip Generation* manual (ITE 9th Edition), published in 2012, defines "light industrial facilities" as "*…free-standing facilities devoted to a single use. The facilities have an emphasis on activities other than manufacturing and typically have minimal office space. Typical light industrial activities include printing, material testing, and assembly of data processing equipment.*" The average square footage for the sites surveyed for general light industrial (Land Use 110) use is above 200,000 square feet. The number of sites observed in the compilation of this data ranges from 18-29 sites of which the majority are less than 500,000 square feet in gross floor area. The weighted average daily trip generation rate for general light industrial (Land Use 110) use is 6.97 trips per thousand square feet (TSF).

Table 4-1

Project Trip Generation Rates (in PCE)

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
General Light Industrial[3]	TSF	110	0.810	0.110	0.920	0.120	0.850	0.970	6.970
Passenger Cars			0.637	0.086	0.723	0.094	0.668	0.762	5.478
2-Axle Trucks (PCE = 1.5)			0.097	0.013	0.110	0.014	0.102	0.116	0.836
3-Axle Trucks (PCE = 2.0)			0.063	0.009	0.072	0.009	0.066	0.076	0.544
4-Axle+ Trucks (PCE = 3.0)			0.231	0.031	0.262	0.034	0.242	0.276	1.986
High-Cube Warehouse/Distribution Center[4]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks (PCE = 1.5)			0.007	0.003	0.010	0.004	0.009	0.013	0.211
3-Axle Trucks (PCE = 2.0)			0.007	0.003	0.011	0.004	0.010	0.014	0.226
4-Axle+ Trucks (PCE = 3.0)			0.037	0.017	0.054	0.022	0.050	0.072	1.158

Project Trip Generation Rates (in Actual Vehicles)

Land Use[1]	Units[3]	ITE LU Code	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
General Light Industrial[3]	TSF	110	0.810	0.110	0.920	0.120	0.850	0.970	6.970
Passenger Cars			0.637	0.086	0.723	0.094	0.668	0.762	5.478
2-Axle Trucks (PCE = 1.5)			0.065	0.009	0.074	0.010	0.068	0.078	0.558
3-Axle Trucks (PCE = 2.0)			0.032	0.004	0.036	0.005	0.033	0.038	0.272
4-Axle+ Trucks (PCE = 3.0)			0.077	0.010	0.087	0.011	0.081	0.092	0.662
High-Cube Warehouse/Distribution Center[4]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks (PCE = 1.5)			0.005	0.002	0.007	0.003	0.006	0.009	0.141
3-Axle Trucks (PCE = 2.0)			0.004	0.002	0.005	0.002	0.005	0.007	0.113
4-Axle+ Trucks (PCE = 3.0)			0.012	0.006	0.018	0.007	0.017	0.024	0.386

[1] Trip Generation Source: Institute of Transportation Engineers (ITE),Trip Generation Manual, Ninth Edition (2012).

[2] TSF = thousand square feet

[3] Light Industrial Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 150, August 2003. PCE rates are per SANBAG.

[4] High Cube Warehouse Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual.
Truck mix (by axle type) source from SCAQMD. PCE rates are per SANBAG.
AM peak hour = 72.7% passenger cars, 6.01% 2-Axle trucks, 4.83% 3-Axle trucks, 16.46% 4-Axle trucks
PM peak hour = 66.7% passenger cars, 7.33% 2-Axle trucks, 5.89% 3-Axle trucks, 20.08% 4-Axle trucks
ADT = 61.9% passenger cars, 8.38% 2-Axle trucks, 6.74% 3-Axle trucks, 22.98% 4-Axle trucks

The ITE *Trip Generation* manual includes very limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix has been obtained from a separate report; the City of Fontana *Truck Trip Generation Study* (August 2003) for the general light industrial uses proposed as part of the Project. (14) Buildings 2 through 4 have been identified as light industrial. The "Light Industrial" vehicle mix data has been utilized for all 3 buildings.

Trip generation rates used to estimate Project traffic are shown in Table 4-1 in both PCE and actual vehicles. A summary of the Project's trip generation based on PCE is shown in Table 4-2 while the trip generation based on actual vehicles is shown on Table 4-3 (for comparative purposes). For purposes of this analysis, ITE land use code 152 (High-Cube Warehousing) and land use code 110 (General Light Industrial) have been used to derive site specific trip generation estimates. In order to accurately reflect the impact that heavy trucks would have on the street system, Project trips have been further broken down between passenger cars and trucks for each of the peak hours and weekday daily trip generation

As directed by the City of Moreno Valley and consistent with standard traffic engineering practice in Southern California, PCE factors have been utilized due to the expected heavy truck component for the proposed Project uses. PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. These PCE factors are consistent with the values recommended by the San Bernardino County CMP and are accepted factors in the City of Moreno Valley. (11) Although the County of Riverside has a recommended PCE factor of 2.0, the San Bernardino County CMP PCE factors have been utilized in an effort to conduct a more conservative analysis.

As shown on Table 4-2, the proposed Project is anticipated to generate a net total of 6,975 PCE trip-ends per day with 660 net PCE AM peak hour trips and 718 net PCE PM peak hour trips.

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute.

The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The truck trip distribution patterns have been developed based on the anticipated travel patterns for the high-cube warehousing and light industrial trucks. The Project trip distribution patterns for both passenger cars and trucks were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, and the site's proximity to the regional arterial and state highway system.

Table 4-2

Project Trip Generation Summary (in PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Building 1 (High-Cube Warehouse)	1,351.770	TSF							
Passenger Cars:			75	34	108	34	75	108	1,406
Truck Trips:									
2-axle:			*9*	*4*	*13*	*6*	*12*	*18*	*285*
3-axle:			*10*	*4*	*14*	*6*	*13*	*19*	*306*
4+-axle:			*51*	*23*	*73*	*30*	*67*	*98*	*1,566*
- Net Truck Trips (PCE) [2]			*70*	*31*	*101*	*42*	*93*	*135*	*2,157*
BUILDING 1 TOTAL NET TRIPS (PCE) [3]			***144***	***65***	***209***	***75***	***168***	***243***	***3,563***
Building 2 (Light Industrial)	122.516	TSF							
Passenger Cars:			78	11	89	12	82	93	671
Truck Trips:									
2-axle:			*12*	*2*	*14*	*2*	*12*	*14*	*102*
3-axle:			*8*	*1*	*9*	*1*	*8*	*9*	*67*
4+-axle:			*28*	*4*	*32*	*4*	*30*	*34*	*243*
- Net Truck Trips (PCE) [2]			*48*	*7*	*54*	*7*	*50*	*57*	*412*
BUILDING 2 TOTAL NET TRIPS (PCE) [3]			***126***	***17***	***143***	***19***	***132***	***151***	***1,084***
Building 3 (Light Industrial)	97.222	TSF							
Passenger Cars:			62	8	70	9	65	74	533
Truck Trips:									
2-axle:			*9*	*1*	*11*	*1*	*10*	*11*	*81*
3-axle:			*6*	*1*	*7*	*1*	*6*	*7*	*53*
4+-axle:			*22*	*3*	*25*	*3*	*24*	*27*	*193*
- Net Truck Trips (PCE) [2]			*38*	*5*	*43*	*6*	*40*	*46*	*327*
BUILDING 3 TOTAL NET TRIPS (PCE) [3]			***100***	***14***	***114***	***15***	***105***	***120***	***860***
Building 4 (Light Industrial)	166.010	TSF							
Passenger Cars:			106	14	120	16	111	127	909
Truck Trips:									
2-axle:			*16*	*2*	*18*	*2*	*17*	*19*	*139*
3-axle:			*10*	*1*	*12*	*2*	*11*	*13*	*90*
4+-axle:			*38*	*5*	*44*	*6*	*40*	*46*	*330*
- Net Truck Trips (PCE) [2]			*65*	*9*	*74*	*10*	*68*	*78*	*559*
BUILDING 4 TOTAL NET TRIPS (PCE) [3]			***171***	***23***	***194***	***25***	***179***	***204***	***1,468***
TOTAL (PCE)			**541**	**119**	**660**	**134**	**584**	**718**	**6,975**

[1] TSF = thousand square feet

[2] Light Industrial Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 110, August 2003. PCE rates are per SANBAG.
High Cube Warehouse Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual.
Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

Table 4-3

Project Trip Generation Summary (Without PCE)[4]

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Building 1 (High-Cube Warehouse)	1,351.770	TSF							
Passenger Cars:			75	34	108	34	75	108	1,406
Truck Trips:									
2-axle:			*6*	*3*	*9*	*4*	*8*	*12*	*190*
3-axle:			*5*	*2*	*7*	*3*	*7*	*10*	*153*
4+-axle:			*17*	*8*	*24*	*10*	*22*	*33*	*522*
- Net Truck Trips (Actual Vehicles) [2]			*28*	*13*	*41*	*17*	*37*	*54*	*865*
BUILDING 1 TOTAL NET TRIPS (Actual Vehicles) [3]			***103***	***46***	***149***	***50***	***112***	***162***	***2,271***
Building 2 (Light Industrial)	122.516	TSF							
Passenger Cars:			78	11	89	12	82	93	671
Truck Trips:									
2-axle:			*8*	*1*	*9*	*1*	*8*	*10*	*68*
3-axle:			*4*	*1*	*4*	*1*	*4*	*5*	*33*
4+-axle:			*9*	*1*	*11*	*1*	*10*	*11*	*81*
- Net Truck Trips (Actual Vehicles) [2]			*21*	*3*	*24*	*3*	*22*	*25*	*183*
BUILDING 2 TOTAL NET TRIPS (Actual Vehicles) [3]			***99***	***13***	***113***	***15***	***104***	***119***	***854***
Building 3 (Light Industrial)	97.222	TSF							
Passenger Cars:			62	8	70	9	65	74	533
Truck Trips:									
2-axle:			*6*	*1*	*7*	*1*	*7*	*8*	*54*
3-axle:			*3*	*0*	*3*	*0*	*3*	*4*	*26*
4+-axle:			*7*	*1*	*8*	*1*	*8*	*9*	*64*
- Net Truck Trips (Actual Vehicles) [2]			*17*	*2*	*19*	*2*	*18*	*20*	*145*
BUILDING 3 TOTAL NET TRIPS (Actual Vehicles) [3]			***79***	***11***	***89***	***12***	***83***	***94***	***678***
Building 4 (Light Industrial)	166.010	TSF							
Passenger Cars:			106	14	120	16	111	127	909
Truck Trips:									
2-axle:			*11*	*1*	*12*	*2*	*11*	*13*	*93*
3-axle:			*5*	*1*	*6*	*1*	*6*	*6*	*45*
4+-axle:			*13*	*2*	*15*	*2*	*13*	*15*	*110*
- Net Truck Trips (Actual Vehicles) [2]			*29*	*4*	*33*	*4*	*30*	*34*	*248*
BUILDING 4 TOTAL NET TRIPS (Actual Vehicles) [3]			***134***	***18***	***153***	***20***	***141***	***161***	***1,157***
TOTAL (Actual Vehicles)			**415**	**89**	**504**	**97**	**440**	**536**	**4,960**

[1] TSF = thousand square feet

[2] Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 110, August 2003. PCE rates are per SANBAG.

Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Vehicles).

[4] The trip generation in this table has been provided for informational purposes only. The trip generation shown in Table 4-2 has been utilized for the purposes of this analysis.

The passenger car and truck trip distributions utilized for the purposes of this analysis are shown on the following exhibits:

- **Exhibit 4-1:** Project (Without Indian Street Bridge) Passenger Car Trip Distribution (to be utilized for E+P Without Indian Street Bridge and Opening Year Cumulative traffic conditions). This trip distribution pattern assumes the currently existing roadway network.
- **Exhibit 4-2:** Project (Without Indian Street Bridge) Truck Trip Distribution (to be utilized for E+P Without Indian Street Bridge and Opening Year Cumulative traffic conditions). This trip distribution pattern assumes the currently existing roadway network.
- **Exhibit 4-3:** Project (With Indian Street Bridge) Passenger Car Trip Distribution (to be utilized for E+P With Indian Street). This trip distribution pattern assumes the Indian Street Bridge over the Perris Valley Storm Drain Channel.
- **Exhibit 4-4:** Project (With Indian Street Bridge) Truck Trip Distribution (to be utilized for E+P With Indian Street). This trip distribution pattern assumes the Indian Street Bridge over the Perris Valley Storm Drain Channel. As shown on Exhibit 4-4, the distribution of trucks with the proposed extension of Indian Street would require the City's truck routes to be extended to the north from its current terminus on Indian Street to Driveway 6.
- **Exhibit 4-5:** General Plan Buildout Project (Passenger Car) Trip Distribution (to be utilized for General Plan Buildout traffic conditions). This distribution pattern assumes both the Indian Street Bridge over the Perris Valley Storm Drain Channel and the Heacock Street extension at Harley Knox Boulevard are both in place.
- **Exhibit 4-6:** General Plan Buildout Project (Truck) Trip Distribution (to be utilized for General Plan Buildout traffic conditions). This distribution pattern assumes both the Indian Street Bridge over the Perris Valley Storm Drain Channel and the Heacock Street extension at Harley Knox Boulevard are both in place. As shown on Exhibit 4-6, the distribution of trucks with the proposed extension of Indian Street would require the City's truck routes to be extended to the north from its current terminus on Indian Street to Driveway 6.

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking or bicycling have not been considered in this TIA. Essentially, the traffic projections are "conservative" in that these alternative travel modes might be able to reduce the forecasted traffic volumes (employee trips only).

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT and peak hour intersection turning movement volumes are shown on the following Exhibits:

- Exhibit 4-7: Project Only (Without Indian Street Bridge) Traffic Volumes (in PCE)
- Exhibit 4-8: Project Only (With Indian Street Bridge) Traffic Volumes (in PCE)
- Exhibit 4-9: Project Only (General Plan Buildout) Traffic Volumes (in PCE)

EXHIBIT 4-1 (1 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

NOTE: TO BE UTILIZED FOR E+P
(WITHOUT INDIAN STREET BRIDGE)
AND OPENING YEAR CUMULATIVE CONDITIONS

N

LEGEND:

10 = PERCENT TO/FROM PROJECT

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EXHIBIT 4-1 (2 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

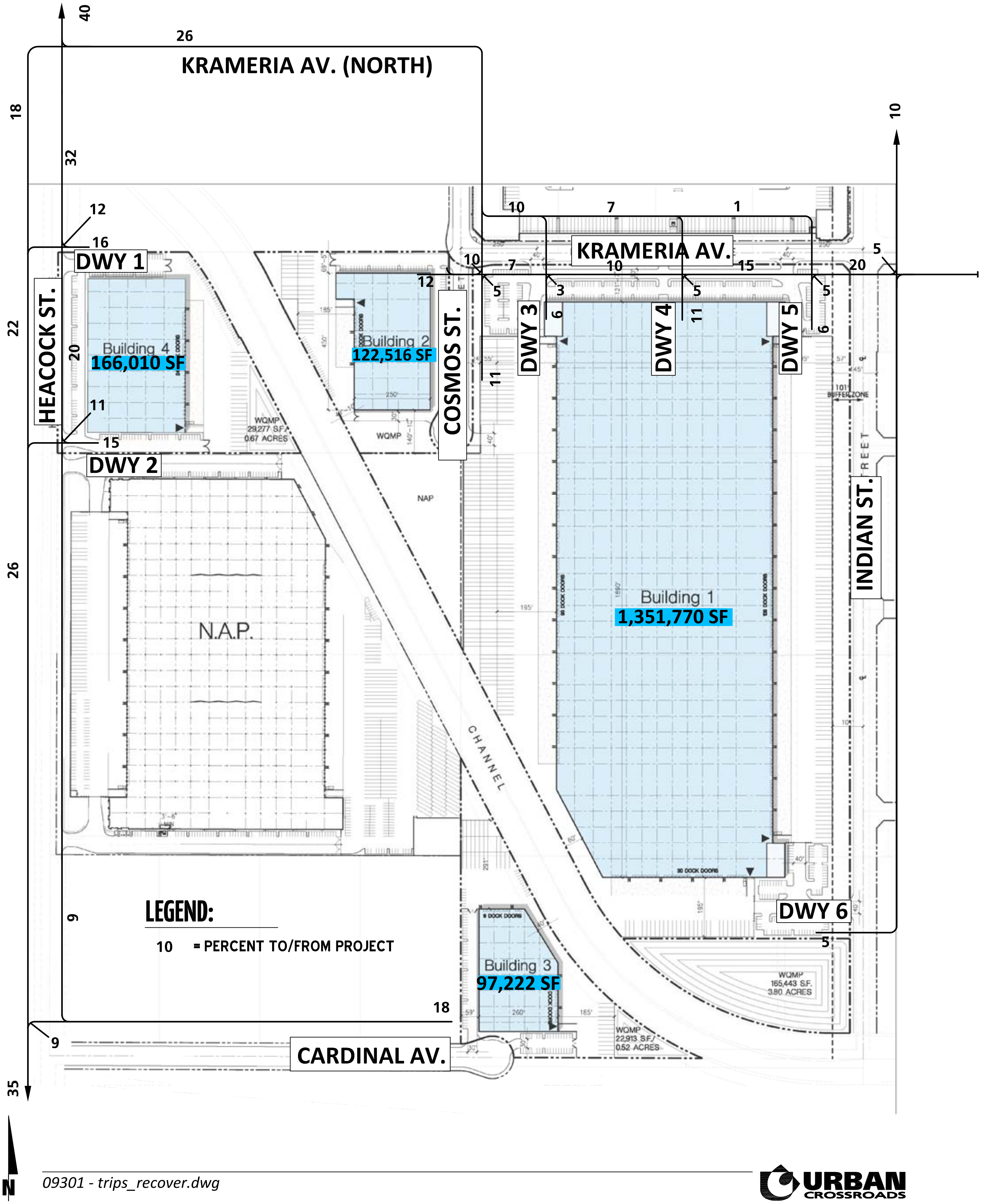

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Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 4-2 (1 OF 2): PROJECT TRUCK TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

NOTE: TO BE UTILIZED FOR E+P
(WITHOUT INDIAN STREET BRIDGE)
AND OPENING YEAR CUMULATIVE CONDITIONS

LEGEND:

10 = PERCENT TO/FROM PROJECT
◄— = OUTBOUND

N

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 4-2 (2 OF 2): PROJECT TRUCK TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

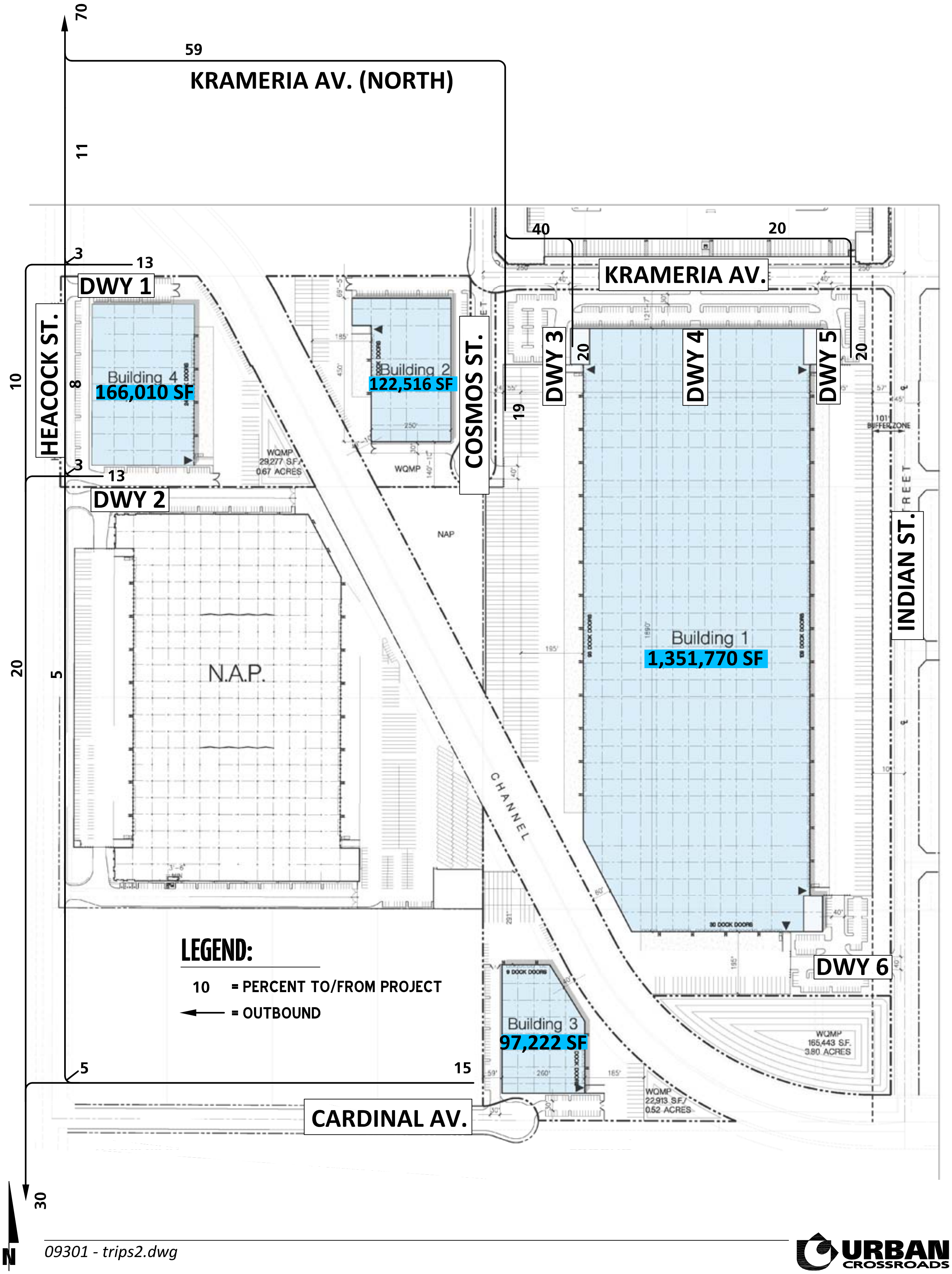

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EXHIBIT 4-3 (1 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITH INDIAN STREET BRIDGE)

NOTE: TO BE UTILIZED FOR E+P (WITH INDIAN STREET BRIDGE) CONDITIONS

LEGEND:

10 = PERCENT TO/FROM PROJECT

N

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EXHIBIT 4-3 (2 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITH INDIAN STREET BRIDGE)

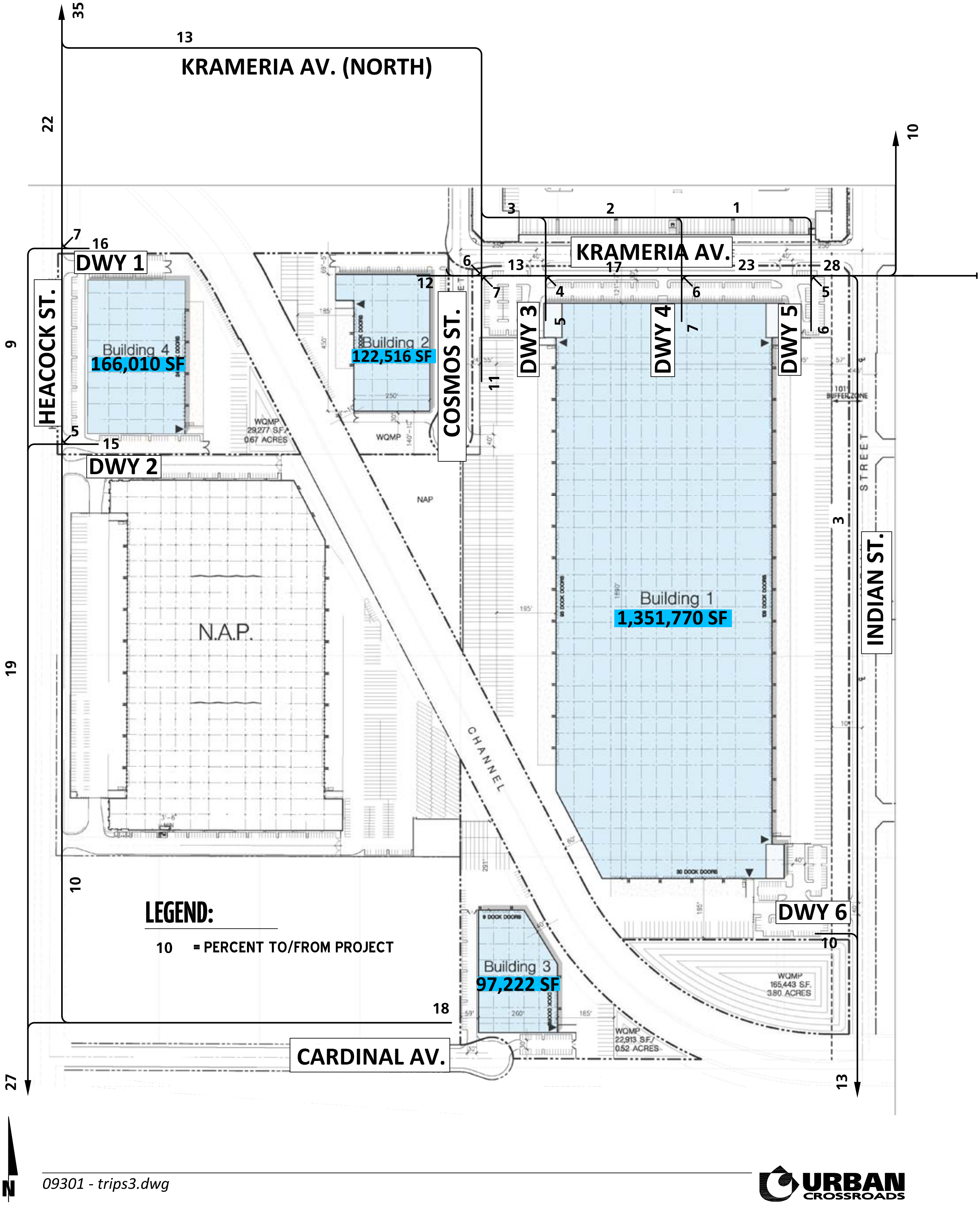

EXHIBIT 4-4 (1 OF 2): PROJECT TRUCK TRIP DISTRIBUTION (WITH INDIAN STREET BRIDGE)

NOTE: TO BE UTILIZED FOR E+P
(WITH INDIAN STREET BRIDGE)
CONDITIONS

EXHIBIT 4-4 (2 OF 2): PROJECT TRUCK TRIP DISTRIBUTION (WITH INDIAN STREET BRIDGE)

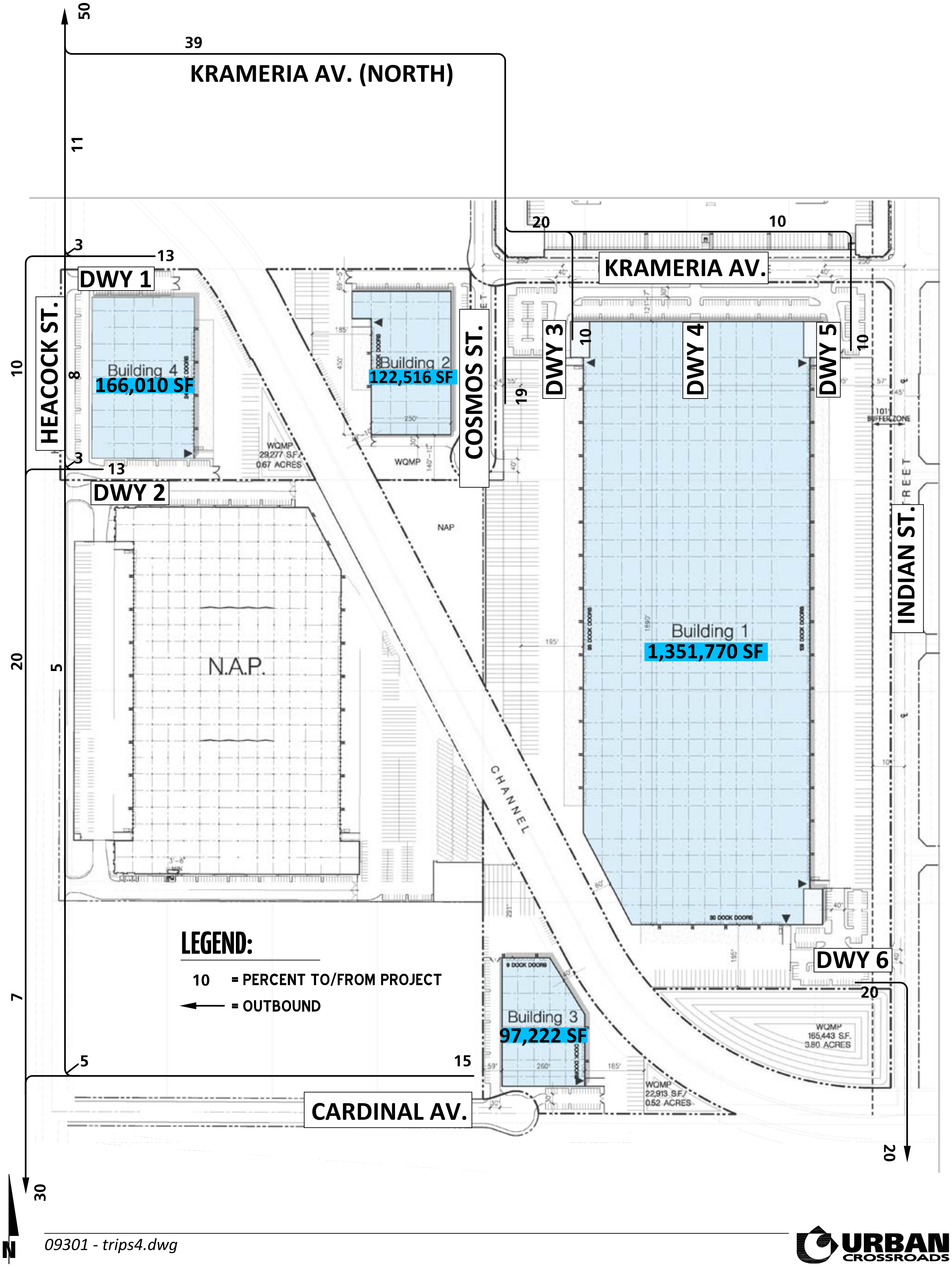

EXHIBIT 4-5 (1 OF 2): GENERAL PLAN BUILDOUT PROJECT PASSENGER CAR TRIP DISTRIBUTION

**NOTE: ASSUMES BOTH HEACOCK STREET
EXTENSION AT HARLEY KNOX BOULEVARD
AND INDIAN STREET BRIDGE ARE BOTH IN PLACE**

LEGEND:

10 = PERCENT TO/FROM PROJECT

N

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EXHIBIT 4-5 (2 OF 2): GENERAL PLAN BUILDOUT PROJECT PASSENGER CAR TRIP DISTRIBUTION

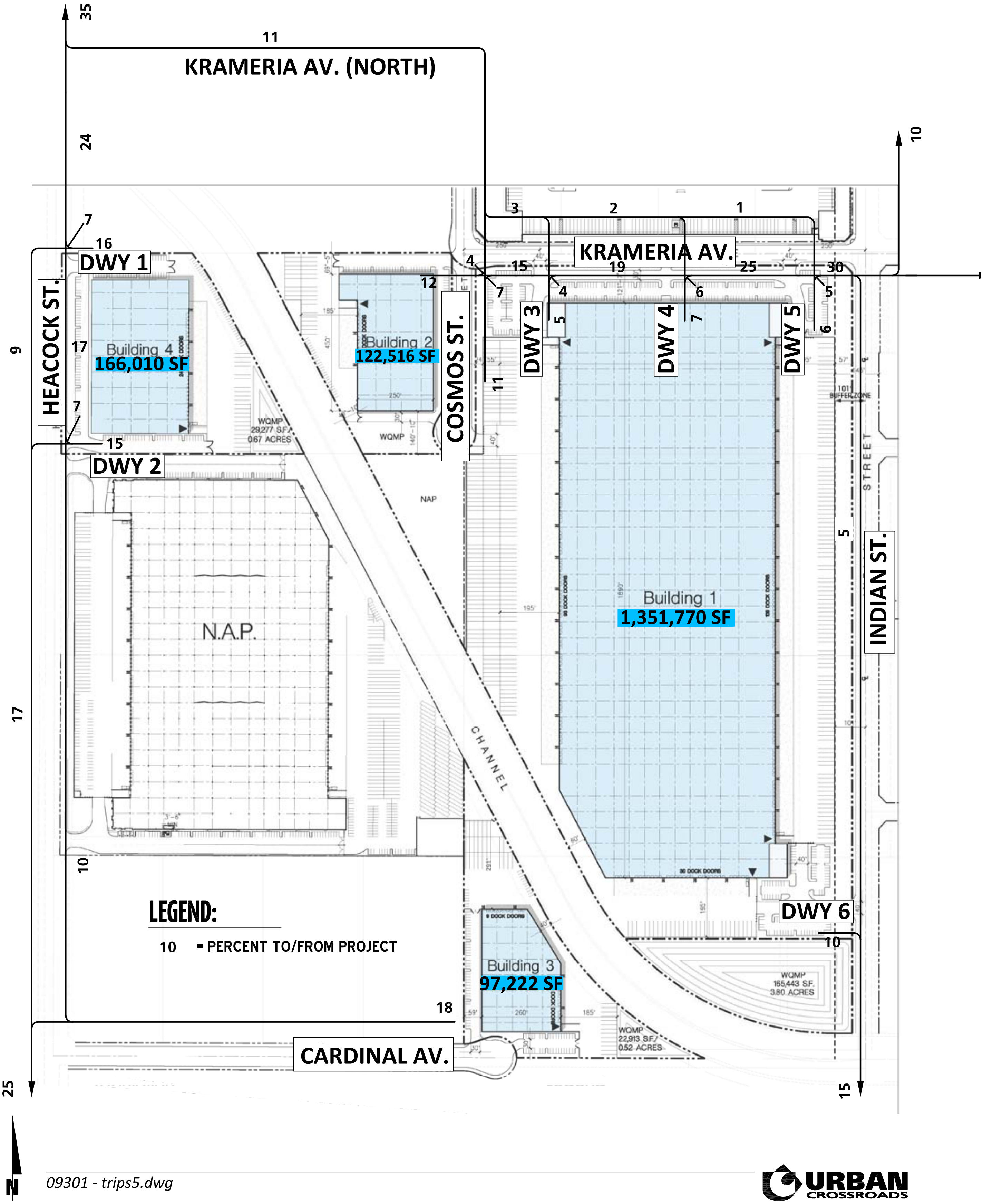

EXHIBIT 4-6 (1 OF 2): GENERAL PLAN BUILDOUT PROJECT TRUCK TRIP DISTRIBUTION

NOTE: ASSUMES BOTH HEACOCK STREET EXTENSION AT HARLEY KNOX BOULEVARD AND INDIAN STREET BRIDGE ARE BOTH IN PLACE

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 4-6 (2 OF 2): GENERAL PLAN BUILDOUT PROJECT TRUCK TRIP DISTRIBUTION

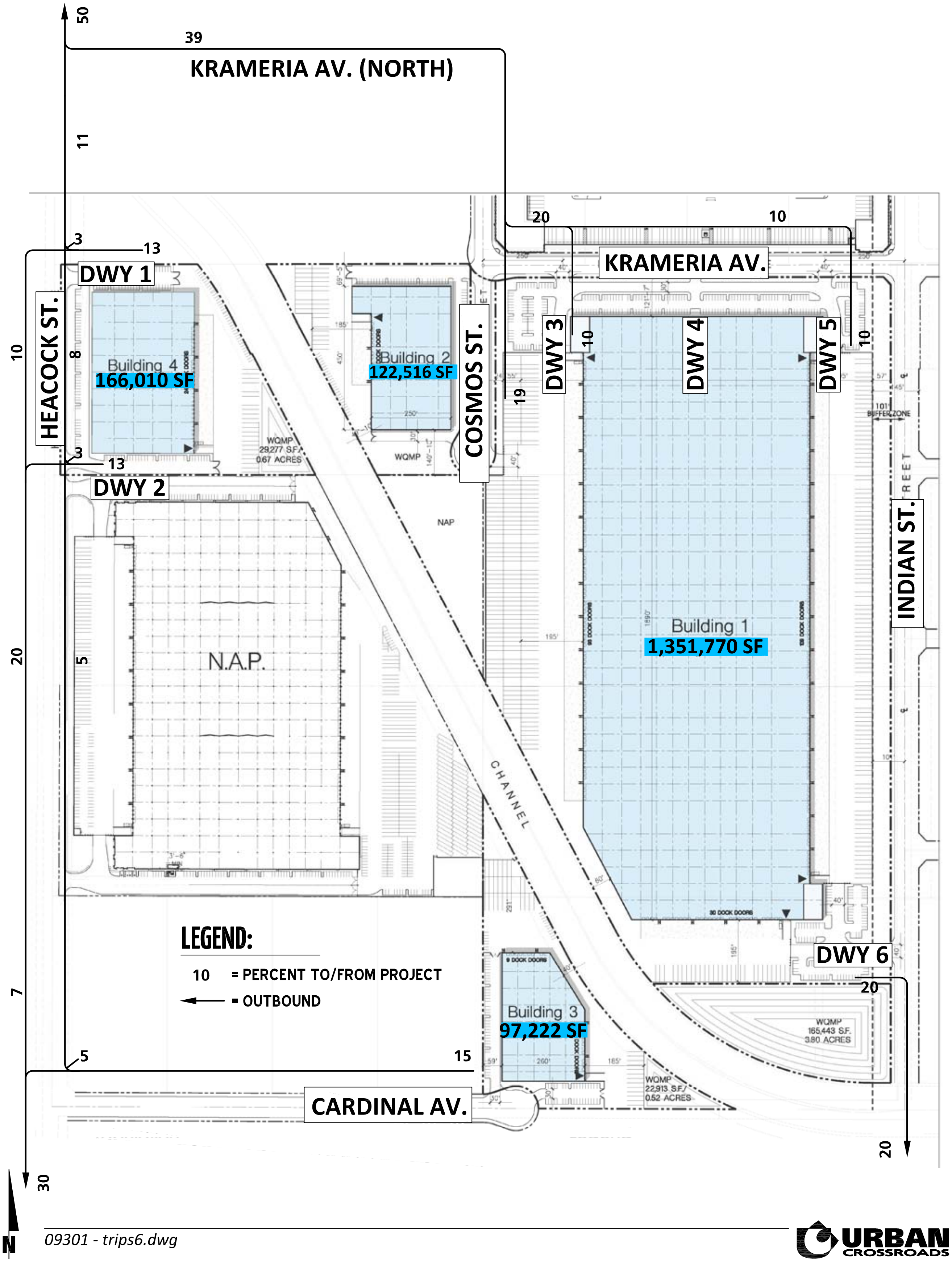

EXHIBIT 4-7 (1 OF 2): PROJECT ONLY (WITHOUT INDIAN STREET BRIDGE) TRAFFIC VOLUMES (IN PCE)

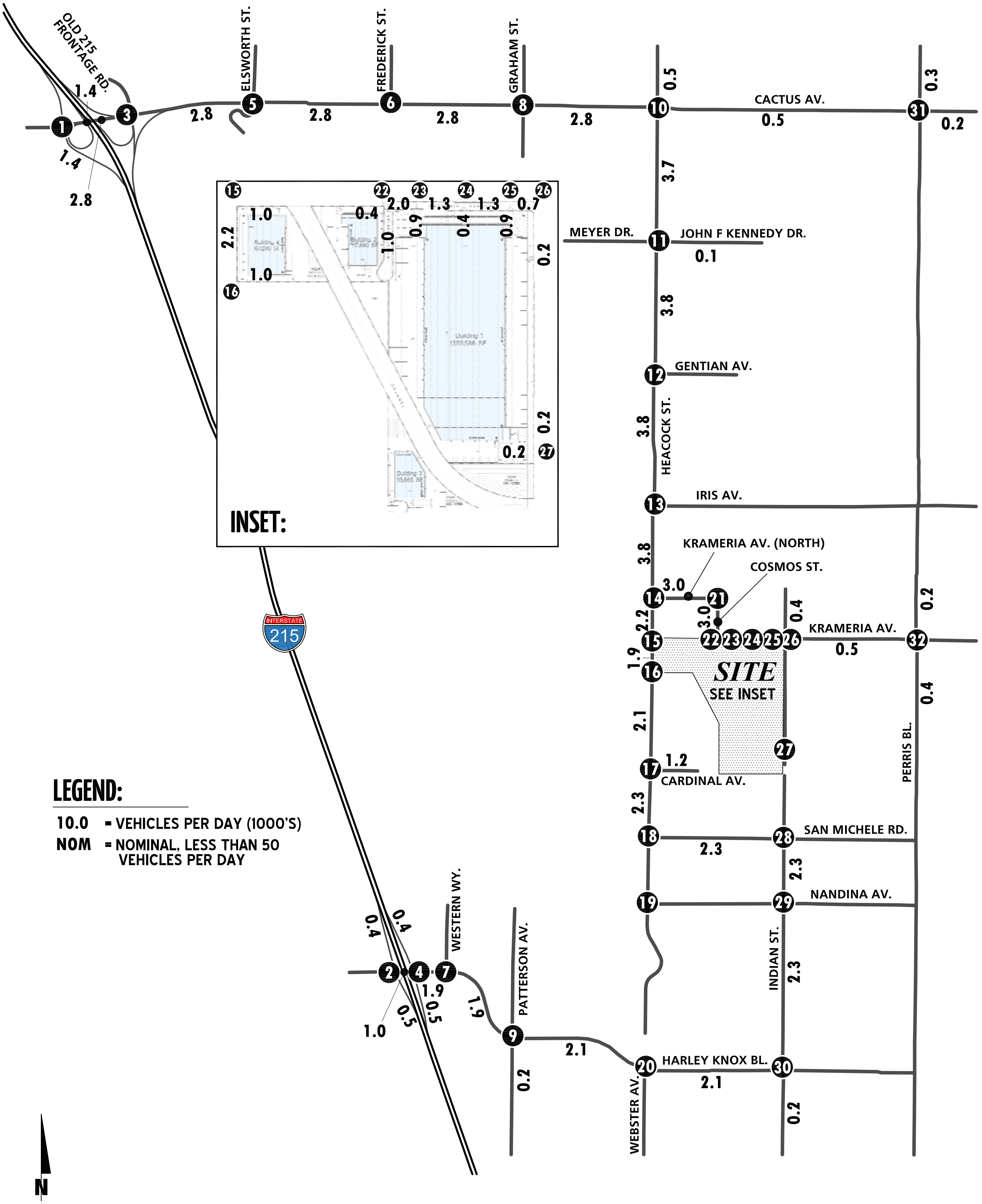

EXHIBIT 4-7 (2 OF 2): PROJECT ONLY (WITHOUT INDIAN STREET BRIDGE) TRAFFIC VOLUMES (IN PCE)

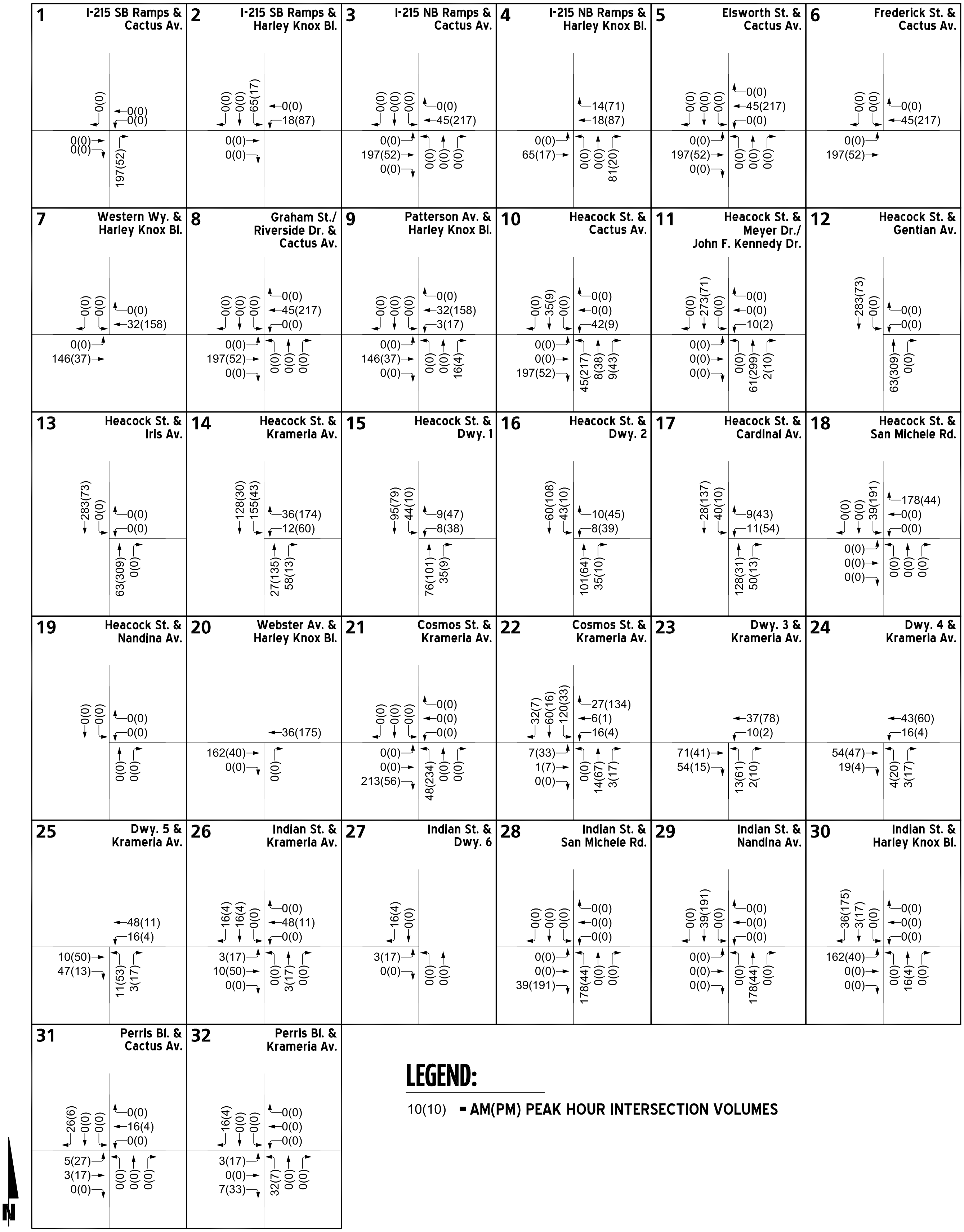

EXHIBIT 4-8 (1 OF 2): PROJECT ONLY (WITH INDIAN STREET BRIDGE) TRAFFIC VOLUMES (IN PCE)

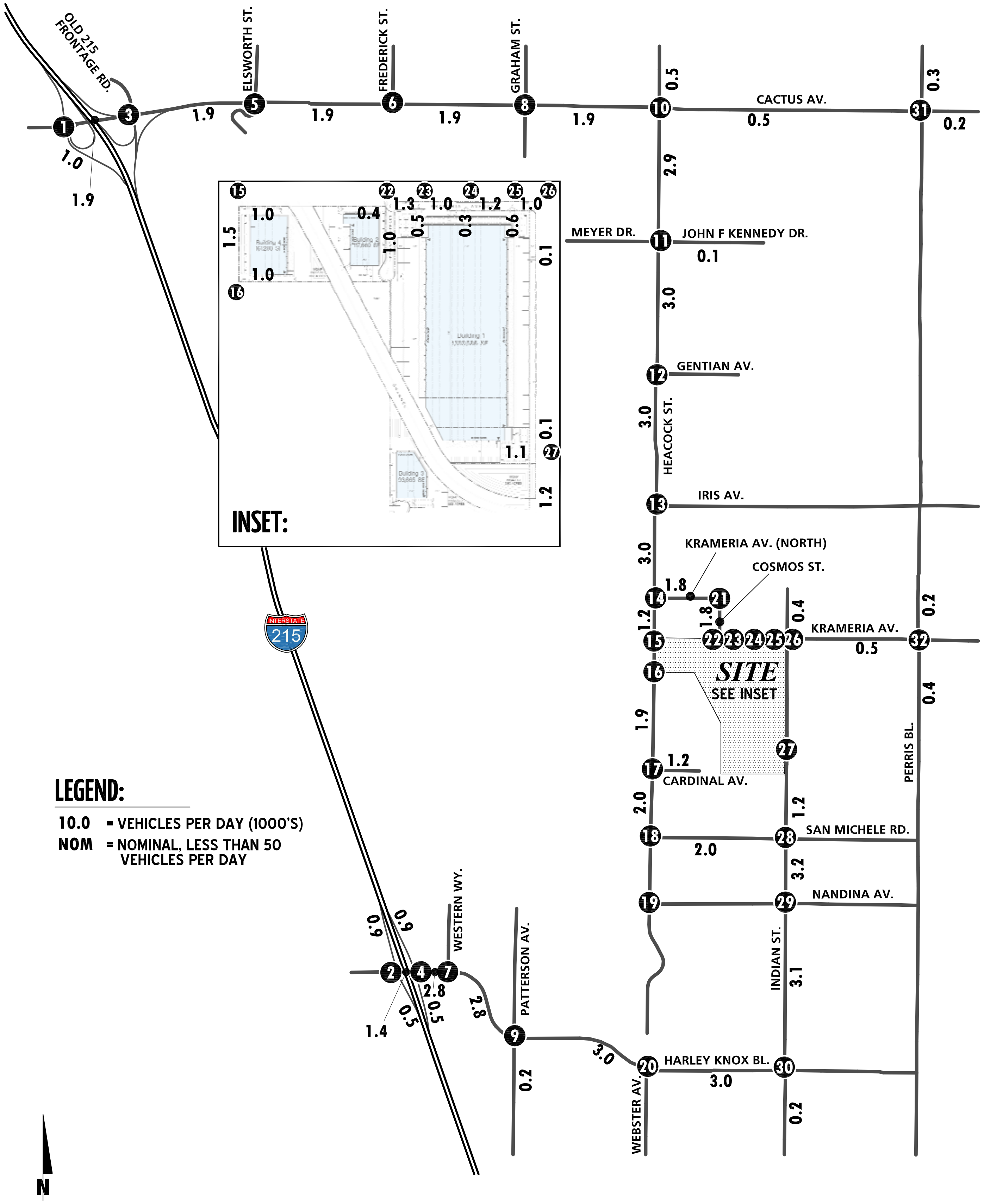

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Exhibit 4-8 (2 of 2): Project Only (With Indian Street Bridge) Traffic Volumes (In PCE)

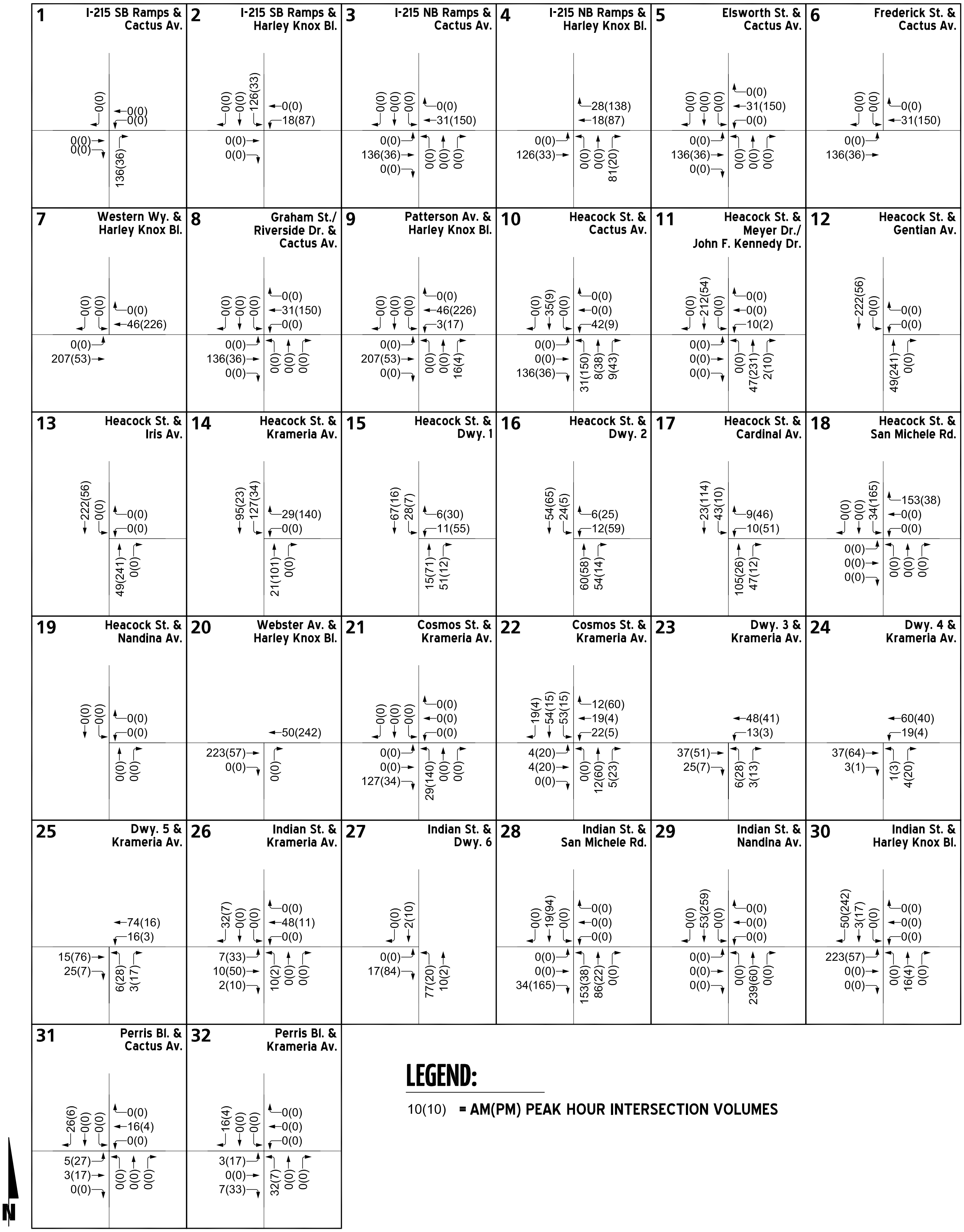

LEGEND:

10(10) **= AM(PM) PEAK HOUR INTERSECTION VOLUMES**

EXHIBIT 4-9 (1 OF 2): PROJECT ONLY (GENERAL PLAN BUILDOUT) TRAFFIC VOLUMES (IN PCE)

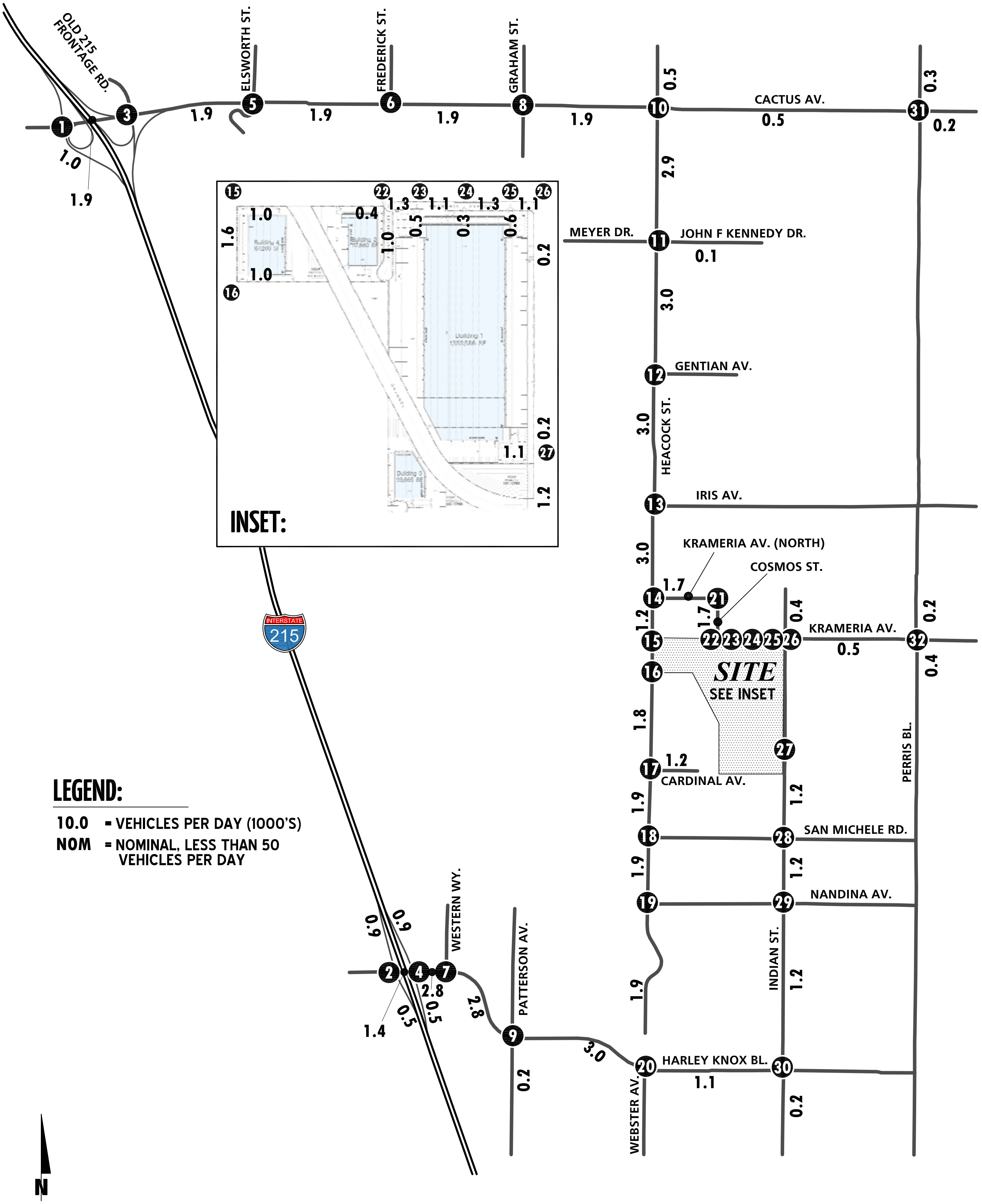

EXHIBIT 4-9 (2 OF 2): PROJECT ONLY (GENERAL PLAN BUILDOUT) TRAFFIC VOLUMES (IN PCE)

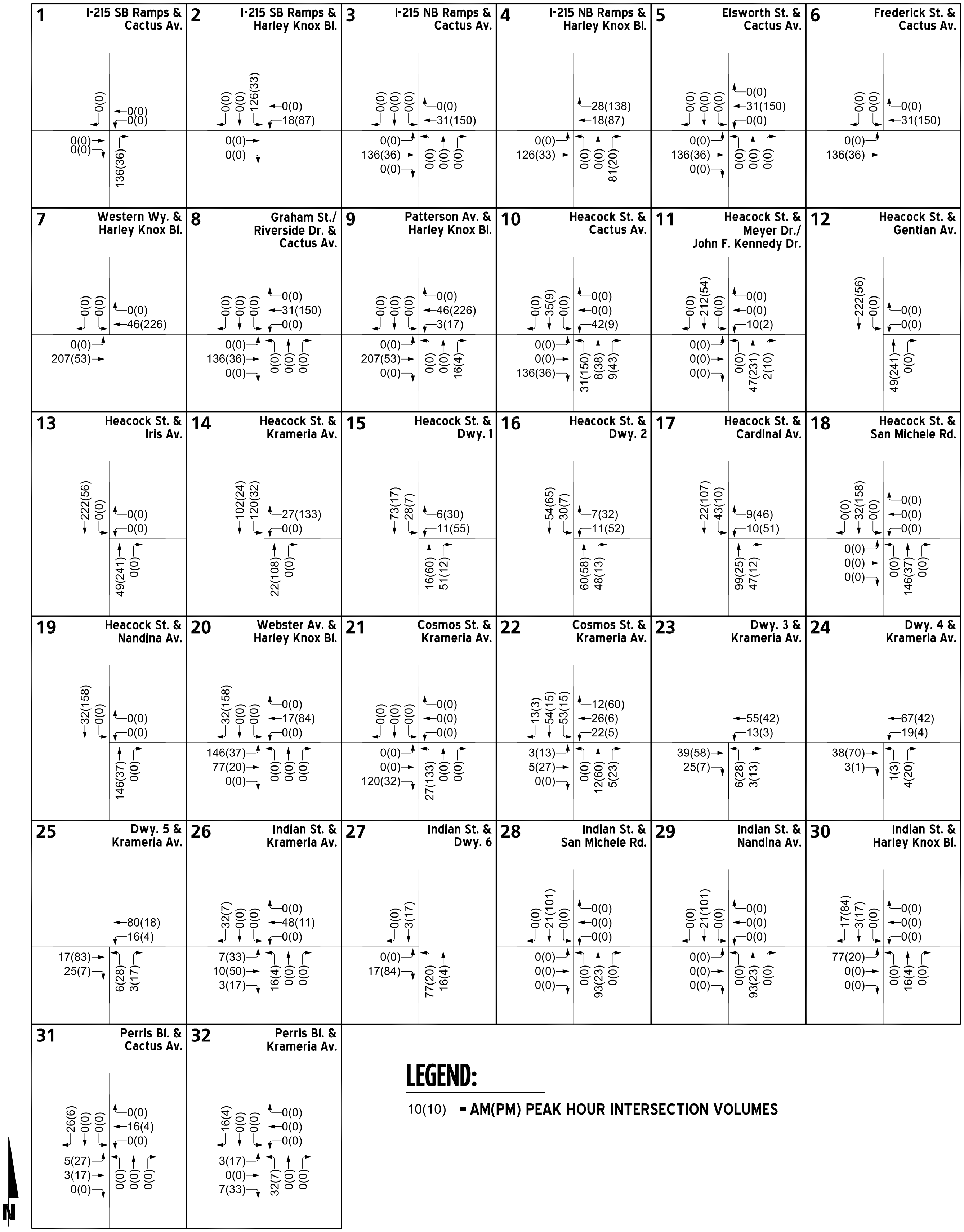

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4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon background (ambient) growth at 2% per year for 2020 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

The currently adopted SCAG 2012 RTP (April 2012) growth forecasts for the unincorporated areas of the City of Moreno Valley identifies projected growth in population of 187,400 in 2008 to 255,200 in 2035, or a 36.2 percent increase over the 27 year period. (5) The change in population equates to roughly a 1.15 percent growth rate compounded annually. Similarly, growth over the same 27 year period in households is projected to increase by 42.5 percent, or 1.32 percent annual growth rate. Finally, growth in employment over the same 27 year period is projected to increase by 99.4 percent, or a 2.59 percent annual growth rate.

Based on a comparison of Existing traffic volumes to the General Plan Buildout (Post 2035) forecasts, the average growth rate is estimated at approximately 5.68 percent compounded annually between Existing and General Plan Buildout (Post 2035) traffic conditions. The annual growth rate at each individual intersection is not lower than 2.49 percent compounded annually to as high as 10.64 percent compounded annually over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Moreno Valley for both Opening Year Cumulative and General Plan Buildout (Post 2035) traffic conditions, especially when considered along with the addition of project-related traffic. As such, the growth in traffic volumes assumed in this traffic impact analysis would tend to overstate as opposed to understate the potential impacts to traffic and circulation.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

CEQA guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Moreno Valley, the cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections. Adjacent jurisdictions of the County of Riverside, March JPA, City of Riverside, and the City of Perris have also been contacted to obtain the most current list of cumulative projects from their respective jurisdictions. The correspondence and cumulative projects provided by each of the applicable jurisdictions are provided in Appendix 4.1.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Opening Year Cumulative forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-10 and listed on Table 4-4 have been considered for inclusion.

Although it is unlikely that the majority of these cumulative projects would be fully built and occupied by Year 2020, these have been considered in an effort to conduct a conservative analysis and overstate and opposed to understate potential traffic impacts. Any other cumulative projects that are not expected to contribute measurable traffic to study area intersections since the traffic would dissipate due to the distance from the Project site and study area intersections, have not been accounted for. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative development project ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-11.

4.7 NEAR-TERM TRAFFIC FORECASTS

To provide a comprehensive assessment of potential transportation network deficiencies, two types of analyses, “buildup” and “buildout”, were performed in support of this work effort. The “buildup” method was used to approximate the Opening Year Cumulative traffic forecasts, and is intended to identify the cumulative impacts on both the existing and planned near-term circulation system. The Opening Year Cumulative traffic forecasts include background traffic, traffic generated by other cumulative development projects within the study area, and the traffic generated by the proposed Project. The “buildout” approach is used to forecast the General Plan Buildout Without and With Project conditions of the study area.

The “buildup” approach combines existing traffic counts with a background ambient growth factor to forecast the near-term 2020 traffic conditions. An ambient growth factor of 10.41% (2020) accounts for background (area-wide) traffic increases that occur over time, up to the year 2020 from the year 2015 (compounded two percent per year growth over a five year period). Traffic volumes generated by the Project are then added to assess the EAP and Opening Year Cumulative traffic conditions. The 2020 roadway network is similar to the existing conditions roadway network with the exception of future roadways and intersections proposed to be developed by the Project.

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EXHIBIT 4-10: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP

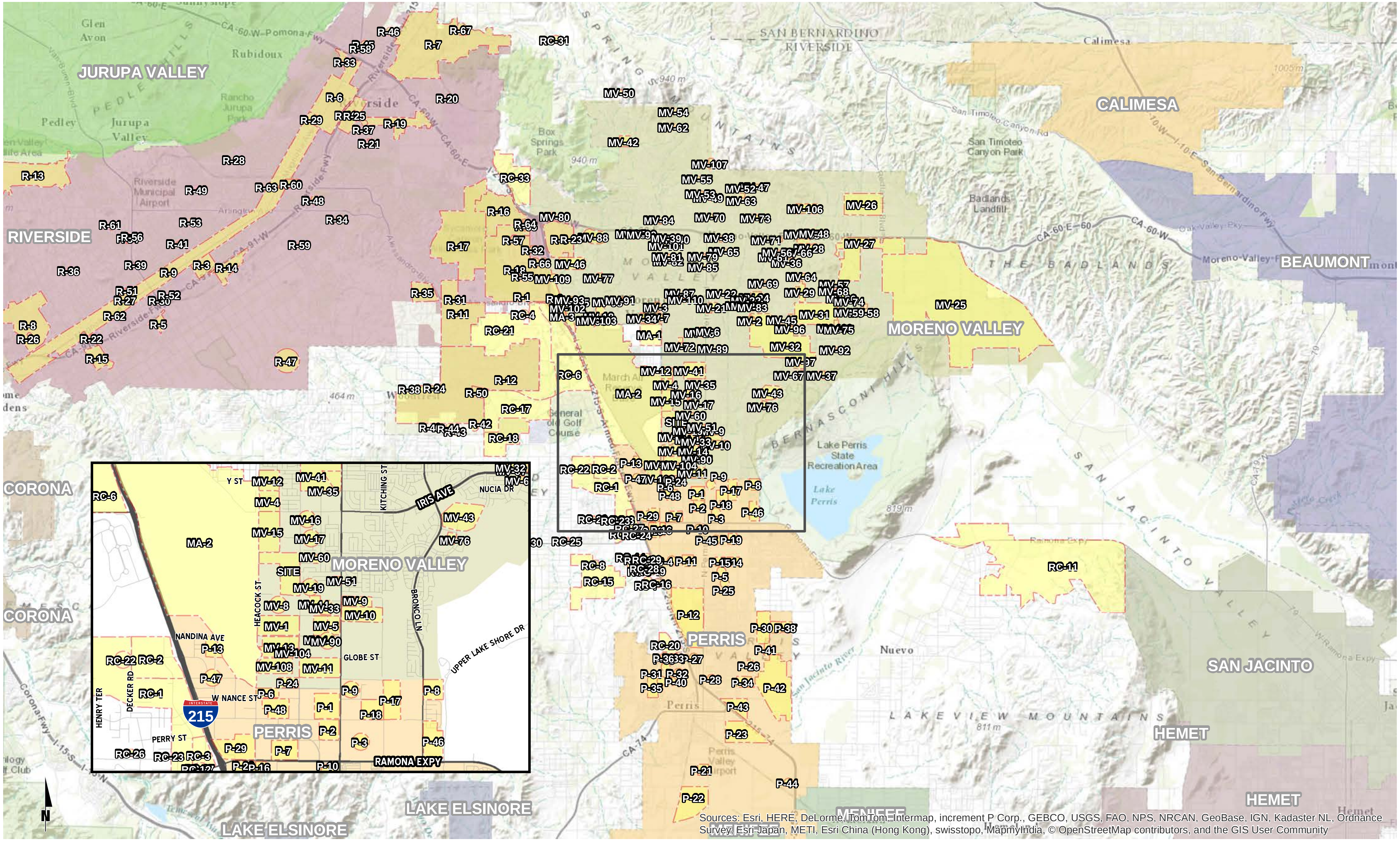

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EXHIBIT 4-11 (1 OF 2): CUMULATIVE DEVELOPMENT ONLY TRAFFIC VOLUMES (IN PCE)

EXHIBIT 4-11 (2 OF 2): CUMULATIVE DEVELOPMENT ONLY TRAFFIC VOLUMES (IN PCE)

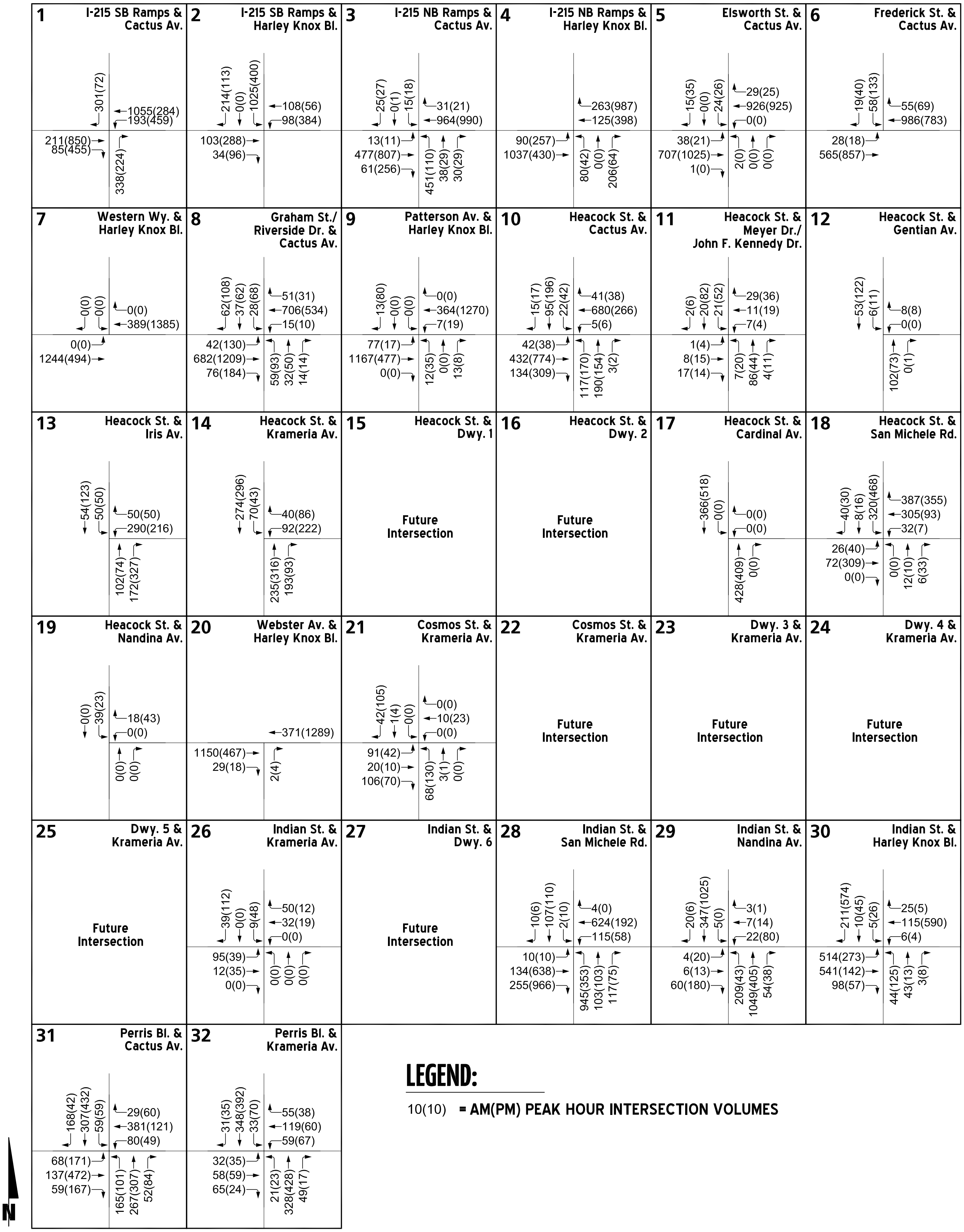

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URBAN CROSSROADS

Table 4-4
Page 1 of 7

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
	CITY OF MORENO VALLEY			
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	483.767	TSF
MV-2	Bella Vista Apartments	Apartments	220.00	DU
MV-3	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
MV-4	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
MV-5	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
MV-6	TM 33607	Condo/Townhomes	52	DU
MV-7	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
MV-8	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	287.100	TSF
MV-9	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
MV-10	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF
MV-11	PA 09-0004 (Vogel)	High-Cube Warehouse	800.000	TSF
	Sares Regis	High-Cube Warehouse	1600.000	TSF
MV-12	TM 34748	SFDR	135	DU
MV-13	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF
MV-14	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
MV-15	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1380.246	TSF
MV-16	TM 33810	SFDR	16	DU
MV-17	TM 34151	SFDR	37	DU
MV-18	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
MV-19	TM 32716	SFDR	57	DU
MV-20	TM 33417	Condo/Townhomes	60	DU
MV-21	TM 34988	Condo/Townhomes	271	DU
MV-22	TM 34216	Condo/Townhomes	39	DU
MV-23	TM 34681	Condo/Townhomes	49	DU
MV-24	PA 08-0079-0081 (Winco Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
MV-25	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU
MV-26	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU
	e TR 30998 (Pacific Communities)	SFDR	47	DU
MV-27	a P06-158 (Gascon)	Commercial Retail	116.360	TSF
	b Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	c ProLogis	SFDR	126	DU
		High-Cube Warehouse	1529.498	TSF
	d TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-28	TR 36340	SFDR	275	DU
MV-29	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
MV-30	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-31	a Senior Assisted Living	Assisted Living Units	139	DU
	b TR 31590 (Winchester Associates)	SFDR	96	DU
	c TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	d TR 32218 (Whitney)	SFDR	63	DU
	e Medical Plaza	Medical Offices	311.633	TSF

Table 4-4
Page 2 of 7

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-32	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF
MV-33	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-34	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-35	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-36	TR 31305 / Richmond American	Residential	87	DU
MV-37	TR 34329 / Granite Capitol	Residential	90	DU
MV-38	TR 31814 / Moreno Valley Investors	Residential	60	DU
MV-39	TR 33771 / Creative Design Associates	Residential	12	DU
MV-40	TR 35663 / Kha	Residential	12	DU
MV-41	TR 22180 / Young Homes	Residential	140	DU
MV-42	TR 32515	Residential	161	DU
MV-43	TR 32142	Residential	81	DU
MV-44	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-45	Commercial Medical Plaza	Medical Offices	311.633	TSF
MV-46	Edgemont Street, South of Eucalyptus Av. (PA14-0042)	Apartments	112	DU
MV-47	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
MV-48	20636 Pacific Communities	SFDR	67	DU
MV-49	31297 Randy McFarland	SFDR	7	DU
MV-50	31394 Pigeon Pass, Ltd.	SFDR	78	DU
MV-51	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
MV-52	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU
MV-53	31621 Peter Sanchez	SFDR	25	DU
MV-54	32005 Red Hill Village, LLC	SFDR	214	DU
MV-55	32126 Salvador Torres	SFDR	35	DU
MV-56	32194 Arman Pezeshkifar	SFDR	32	DU
MV-57	32408 Sanstone Inc.	SFDR	80	DU
MV-58	32844 Winchester Associates	SFDR	17	DU
MV-59	32978 Focus Estates	SFDR	19	DU
MV-60	33024 Adam Wislar	SFDR	8	DU
MV-61	33275 Jose Guzman	SFDR	4	DU
MV-62	33388 SCH Development, LLC	SFDR	16	DU
MV-63	33436 Winchester Associates	SFDR	105	DU
MV-64	33963 Rance Garrett	SFDR	31	DU
MV-65	34043 RM3 Building and Development	SFDR	12	DU
MV-66	31621 Beazer Homes	SFDR	274	DU
MV-67	30268 Pacific Communities	SFDR	83	DU
MV-68	31414 GRF - Majestic Hills	SFDR	31	DU
	Tract 31618	SFDR	55	DU
MV-69	31494 Winchester Associates	SFDR	12	DU
MV-70	32715 GFR - Trinity	SFDR	30	DU
MV-71	33256 Granite Homes	SFDR	79	DU
MV-72	32711 Isaac Genah	SFDR	9	DU
MV-73	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR	1,105	DU
MV-74	35534 Leedco Engineers	SFDR	12	DU
MV-75	36436 CV Communities	SFDR	159	DU
MV-76	36401 Continental East Fund III, LLC	SFDR	92	DU
MV-77	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
MV-78	32756 Jimmy Lee	MFDR	24	DU
MV-79	35369 Tason Myers Property	MFDR	12	DU
MV-80	35414 Lincoln Property Co. Southwest	MFDR	266	DU
MV-81	35769 Michael Chen	MFDR	16	DU
MV-82	PA09-0006 Jim Nydam	MFDR	15	DU
MV-83	35861 Frederick Homes	MFDR	24	DU
MV-84	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
MV-85	35304 Jimmy Lee	MFDR	12	DU
MV-86	Alessandro & Lasselle	Shopping Center	140.000	TSF
MV-87	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
MV-88	El Paso (food court)	Fast Food no Drive Thru	--	TSF
MV-89	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
	PA15-004	Retail/Restaurant/Fast Food	2.973	TSF
MV-90	Moval Assemblage	High-Cube Warehouse	456.337	TSF

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-91	Restaurant	Restaurant	9.000	TSF
MV-92	Rancho Belago Plaza - Retail	Retail	14.000	TSF
MV-93	Yum Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.351	TSF
MV-94	Hawthorn Inn & Suites	Hotel	79	RMS
MV-95	Sleep Inn Suites	Hotel	66	RMS
MV-96	Integrated Care Communities	Nursing Home	44.000	TSF
MV-97	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF
MV-98	Moreno Valley Professional Center	General Office	84.000	TSF
MV-99	Olivewood Plaza - Office Building	General Office	23.000	TSF
MV-100	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	44	DU
MV-101	Riverside County Office Building	General Office	52.000	TSF
MV-102	Gateway Business Park	Residential Condo/Townhouse	34	DU
MV-103	Shaw Development	High-Cube Warehouse	367.000	TSF
MV-104	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697.000	TSF
MV-105	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5700.000	TSF
MV-106	Ironwood Residential	SFDR	144	DU
MV-107	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU
MV-108	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-109	P06-1408	Retail	75.300	TSF
MV-110	PA13-009	Gas Station	16	VFP
MARCH JOINT POWERS AUTHORITY				
MA-1	March Lifecare Campus Specific Plan[4]	Medical Offices	190.000	TSF
		Commercial Retail	210.000	TSF
		Research & Education	200.000	TSF
		Hospital	50	Beds
		Institutional Residential	660	Beds
MA-2	Airport Master Plan	Airport Use	559.000	TSF
MA-3	Freeway Business Center (March JPA)	High-Cube Warehouse	710.083	TSF
COUNTY OF RIVERSIDE				
RC-1	SP 341; PP 21552 (Majestic Freeway Business Center)	High-Cube Warehouse	6100.715	TSF
RC-2	PP 20699 (Oleander Business Park)	Warehousing	1206.710	TSF
RC-3	Ramona Metrolink Station	Light Rail Transit Station	300	SP
RC-4	PP 22925 (Amstar/Kaliber Development)	Office (258.102 TSF)	258.102	TSF
		Warehousing	409.312	TSF
		General Light Industrial	42.222	TSF
		Retail	10.000	TSF
RC-5	Alessandro Metrolink Station	Light Rail Transit Station	300	SP
RC-6	Meridian Business Park North	Industrial Park	5985.000	TSF
RC-7	PP 18908	General Light Industrial	133.000	TSF
RC-8	Tract 33869	SFDR	39.000	DU
RC-9	PP 16976	General Light Industrial	85.000	TSF
RC-10	PP 21144	Industrial Park	190.802	TSF
RC-11	a Villages of Lakeview	SFDR	860	DU
		Condo/Townhomes	1,920	DU
		Elementary School	1,200	STU
		Commercial Retail	100.000	TSF
		Soccer Complex	12	Fields
		City Park	8.9	AC
		County Park	8.1	AC
		Regional Park	107.1	AC
	b Motte Lakeview Ranch	SFDR	847	DU
		Condo/Townhomes	686	DU
		Apartments	467	DU
		Elementary School	650	STU
		Middle School	300	STU
		Commercial Retail	120.000	TSF
		Regional Park	177.0	AC
RC-12	CUP03315	Gas Station w/ Market	17	VFP
		Fast Food w/o Drive Thru	5.600	TSF
		High-Turnover Restaurant	6.500	TSF
RC-13	PP23342	Industrial Park	180.600	TSF
RC-14	TR30592	SFDR	131	DU
RC-15	Rider Street Quarry	Quarry	2500.0	AC
RC-16	PP 20711	Manufacturing	20.0	AC
	Yocum Baldwin	Warehousing	46.8	AC

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
RC-17	March Business Center - South Campus	Shopping Center	108.900	TSF
		Industrial Park	1336.700	TSF
		Large Industrial Park	3269.000	TSF
		General Office Building	140.600	TSF
		Manufacturing	215.600	TSF
		Warehousing	1379.200	TSF
		Park	50.0	AC
		R&D	1611.800	TSF
RC-18	Ben Clark Training Facility	Students	5,045	STU
		Employees	354	EMP
RC-19	PP 20103	Gen. Light Industrial	290.985	TSF
RC-20	Nuevo Business Park	Gen. Light Industrial	357.156	TSF
		Warehousing	1767.618	TSF
RC-21	Meridian (March Business Park SP)	Business Park	41917.000	TSF
RC-22	Blanding Assemblage	High-Cube Warehouse	707.880	TSF
RC-23	CUP 03527	Warehousing	8.000	TSF
RC-24	CUP 03599	Hotel	52.798	TSF
RC-25	PP 24608	Retail	9.280	TSF
RC-26	PM 32699	SFDR	2.00	DU
RC-27	PP 25699	Fast-Food w/Drive Thru	2.800	TSF
		Retail	19.000	TSF
RC-28	TR 30592	SFDR	131.00	DU
RC-29	PP 25768	Manufacturing	52.450	TSF
RC-30	CUP 03620R1	Gas Station w/ Market	8.00	VFP
RC-31	TTM 33410 Box Springs	SFDR	142	DU
RC-32	Knox Logistics	High-Cube Warehouse	1,259.050	TSF
RC-33	University Highlands	SFDR	405	DU
		Condo/Townhomes	320	DU
		Apartments	1,475	DU
		Shopping Center	50.0	TSF
		Parks	42.4	AC
CITY OF RIVERSIDE				
R-1	P07-1028 (Alessandro Business Park)	General Light Industrial	662.018	TSF
	Alessandro and Gorgonio	Fast Food w/Drive Thru	4.050	TSF
R-2	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to 0848)	Commercial and Industrial Complex	101.580	TSF
R-3	California Baptist University Specific Plan	University	157.0	AC
R-4	Canyon Springs Specific Plan	Hospital	280	BEDS
		Medical-Dental Office	370.000	TSF
		Senior Adult Housing-Attached	234	DU
		Assisted Living	267	BEDS
R-5	Citrus Business Park Specific Plan	Industrial Business Park	49.0	AC
R-6	Downtown Specific Plan	Residential	5,000	DU
R-7	Hunter Business Park	Industrial	1300.0	AC
R-8	La Sierra University Specific Plan	Mixed-Use		
R-9	Magnolia Avenue Specific Plan	Mixed-Use/Very High Residential	1473.0	AC
R-10	Marketplace Specific Plan	Commercial Retail/Office	200.0	AC
R-11	Mission Grove Specific Plan	Business/Office Park	56.8	AC
		Commercial Retail	68.1	AC
		High Density Residential	53.8	AC
		Low Density Residential	78.4	AC
		Medium Density Residential	155.3	AC
R-12	Orangecrest Specific Plan	Rural Residential	2.1	AC
		Business/Office Park	2.7	AC
		Commercial Retail	139.0	AC
		High Density Residential	13.7	AC
		Low Density Residential	540.8	AC
		Medium Density Residential	1217.8	AC
		Public Facilities/Institutions	121.6	AC
		Public Park	59.5	AC
R-13	Rancho La Sierra Specific Plan	SFDR	598	DU
R-14	Riverside Auto Center Specific Plan	Auto Center		
R-15	Riverwalk Vista Specific Plan	Residential	402	DU

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-16	Sycamore Canyon Specific Plan	Hillside Residential	41.8	AC
		Low Density Residential	97.3	AC
		Medium Density Residential	14.8	AC
		Very Low Density Residential	884.2	AC
		Public Park	27.9	AC
R-17	Sycamore Canyon Business Park Specific Plan	Business/Office Park	847.2	AC
		Commercial Retail	10.3	AC
R-18	Sycamore-Highlands Specific Plan	Commercial Retail	14.6	AC
		High Density Residential	52.2	AC
		Medium Density Residential	99.1	AC
		Public Facilities	1.6	AC
			144.2	AC
		Very Low Density Residential	49.1	AC
R-19	University Avenue Specific Plan	Mixed-Use	Varies	
R-20	807 Blaine Street (P09-0717; P09-0718)	Apartments	55	DU
R-21	2340 Fourteenth Street (P09-0808; P08-0809)	Senior Housing	134	BEDS
R-22	Park Sierra Avenue (P14-0026; P14-0027)	Fast Food w/Drive Thru	3.500	TSF
R-23	6287 Day Street (P10-0090; P10-0091)	Gas Station	2	VFP
	2570 Canyon Springs Parkway (P08-0274; P08-0275)	Bank w/ Drive Thru	2.746	TSF
	6211 Valley Springs Parkway (Steak 'N Shake Restaurant; P14-0536)	Fast Food w/Drive Thru	3.750	TSF
R-24	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	Fast Food w/Drive Thru	2.361	TSF
R-25	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-0046; P14-0047; P14-0048; P14-0049)	Apartments	208	DU
R-26	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	Convenience Store	2.400	TSF
		Coffee Shop	3.946	TSF
R-27	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	Condo/Townhomes	62	DU
R-28	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	Senior Housing	37	DU
R-29	4445 Magnolia Avenue (P13-0207; P13-0208; P13-0209; P13-0210; P13-0211)	Hospital Expansion	Varies	
R-30	SR-91/Van Buren Commercial	Commercial Retail	23.565	TSF
R-31	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	Bank	3.858	TSF
R-32	6465 Sycamore Canyon Boulevard	Health Club	4.000	TSF
R-33	2450 Market Street (P13-0087; P13-0262)	Apartments	77	DU
R-34	6091 Victoria Avenue (P13-0432)	Day Care	1.831	TSF
R-35	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	SFDR	10	DU
	TM 32180 (P07-1073)	SFDR	9	DU
	18875 Moss Road	SFDR	8	DU
	South of Clarke St., west of Crystal View Terrace (PM 34583' {09-0141; P09-173)	SFDR	3	DU
R-36	4824 Jones Avenue (P13-0181; P13-0182)	Church	23.124	TSF
R-37	2586 University avenue (P13-0650; P13-0651)	Bed and Breakfast	3.618	TSF
R-38	18580 Van Buren Boulevard (P08-0402; P13-0822)	Auto Repair Shop	8.142	TSF
R-39	4247 Van Buren Boulevard (P13-0785; P13-0787)	Church Expansion	12.166	TSF
R-40	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM 32301)	SFDR	20	DU
R-41	8616 California Avenue (P08-0084; PM 35852)	Condo/Townhomes	21	DU
R-42	19811 Lurin Avenue (P06-1355; TM 33480)	SFDR	32	DU
R-43	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	SFDR	25	DU
R-44	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	SFDR	29	DU
R-45	3719 Strong Street (P05-0269; P08-0416; TM 33550)	SFDR	9	DU
R-46	1006 & 1008 Clark Street (P06-0782; TM 34908)	SFDR	15	DU
R-47	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087; TM 34509)	SFDR	50	DU
R-48	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398; P08-0399; TM 35620)	Condo/Townhomes	36	DU
R-49	6639 Hillside Avenue (P08-0727; PM 35901)	Industrial	5	LOTS
R-50	19985 Van Buren Boulevard (P10-0118; Gless Ranch)	Commercial Retail	425.447	TSF
R-51	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	Condo/Townhomes	102	DU
R-52	NEC of Martha Way & Everest Avenue (P13-0389; TM 36579)	SFDR	5	DU
R-53	4325, 4335, 4345, 4355, 4375 Adams Street (P13-0723; P13-0724; P13-0725; TM 36654)	SFDR	62	DU
R-54	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	Free Standing Discount Store	22.272	TSF
R-55	P06-0160	Gen. Light Industrial	316.224	TSF
	P06-1281	Warehousing	107.732	TSF

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
R-56	9241 & 9265 Audrey Avenue (P12-0184; P12-0185; P12-0187; Azar Plaza)	Commercial Retail	6.150	TSF
R-57	Office, Magnon & Panattoni	Office	131.000	TSF
		Warehousing	1400.000	TSF
		Warehousing	300.000	TSF
		Warehousing	216.000	TSF
R-58	1710 Main Street (P12-0717)	Family Dollar Store	8.039	TSF
R-59	2861 Mary Street (P12-0442; P12-0443; P12-0444)	Shopping Center	56.101	TSF
R-60	3545 Central Avenue (P12-0741; P12-0743)	Riverside Plaza Renovations	35.0	AC
R-61	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13-0201)	Apartments	30	DU
R-62	3705 Tyler Street (P13-0501; P13-0502)	Restaurant	6.000	TSF
R-63	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	Fast Food w/Drive Thru	3.795	TSF
R-64	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-0065)	Apartments	275	DU
R-65	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608; P0609; P13-0854)	General Light Industrial	171.616	TSF
R-66	P06-0591	Office	37.939	TSF
		Warehousing	782.188	TSF
		Manufacturing	168.294	TSF
R-67	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964; P13-0965; P13-0966)	High-Cube Warehouse	1461.449	TSF
	CITY OF PERRIS			
P-1	P 05-0113 (IDI)	High-Cube Warehouse	1750.000	TSF
P-2	P 05-0192 (Oakmont I)	High-Cube Warehouse	697.600	TSF
P-3	P 05-0477	High-Cube Warehouse	462.692	TSF
P-4	Rados Distribution Center	High-Cube Warehouse	1200.000	TSF
P-5	Investment Development Services (IDS) II	High-Cube Warehouse	350.000	TSF
P-6	P 07-09-0018	Warehousing	170.000	TSF
P-7	P 07-07-0029 (Oakmont II)	High-Cube Warehouse	1600.000	TSF
P-8	TR 32707	SFDR	137	DU
P-9	TR 34716	SFDR	318	DU
P-10	P 05-0493 (Ridge I)	High-Cube Warehouse	700.000	TSF
P-11	Ridge II	High-Cube Warehouse	2000.000	TSF
P-12	Harvest Landing Specific Plan	SFDR	717	DU
		Condo/Townhomes	1,139	DU
		Sports Park	16.7	AC
		Business Park	1233.401	TSF
		Shopping Center	73.181	TSF
	Perris Marketplace	Shopping Center	450.000	TSF
P-13	P 06-0411 (Concrete Batch Plant)	Manufacturing	2.000	TSF
P-14	Jordan Distribution	High-Cube Warehouse	378.000	TSF
P-15	Aiere	High-Cube Warehouse	642.000	TSF
P-16	P 08-11-0005; P 08-11-0006 (Starcrest)	High-Cube Warehouse	454.088	TSF
P-17	Stratford Ranch Specific Plan	High-Cube Warehouse	1725.411	TSF
P-18	Stratford Ranch Specific Plan	High-Cube Warehouse	480.000	TSF
		General Light Industrial	120.000	TSF
P-19	P05-0493	Logistics	597.370	TSF
P-20	Starcrest, P011-0005; 08-11-0006	General Light Industrial	454.088	TSF
P-21	South Perris Industrial Phase 1	Logistics	787.700	TSF
P-22	South Perris Industrial Phase 2	Logistics	3448.734	TSF
P-23	South Perris Industrial Phase 3	Logistics	3166.857	TSF
P-24	P 04-0343	Warehousing	41.650	TSF
P-25	P 06-0228	General Light Industrial	149.738	TSF
P-26	P 06-0378	Senior Housing	429	DU
P-27	P 11-09-0011	Retail	80.000	TSF
P-28	P 12-05-0013	Apartments	75	DU
P-29	P 12-10-0005	High-Cube Warehouse	1463.887	TSF
P-30	TR 30850	Residential	496	DU
P-31	TR 30973	Residential	35	DU
P-32	TR 31225	Residential	57	DU
P-33	TR 31226	Residential	82	DU
P-34	TR 31240	Residential	114	DU
P-35	TR 31407	Residential	243	DU

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
P-36	TR 31650	SFDR	61	DU
P-37	TR 31659	SFDR	161	DU
P-38	TR 32041	Residential	122	DU
P-39	TR 32406	SFDR	15	DU
P-40	TR 33193	Townhomes	94	DU
P-41	TR 33338	Residential	75	DU
P-42	Park West Specific Plan	SFDR	521	DU
		Elementary School	750	STU
		Neighborhood Park	5.0	AC
P-43	The Venue	Commercial Retail	642.627	TSF
	Retail on San Jacinto	Commercial Retail	217.800	TSF
	Retail on Redlands	Fast Food w/ Drive Thru	4.500	TSF
		Pharmacy w/ Drive Thru	14.000	TSF
		Specialty Retail	31.500	TSF
P-44	South Perris Metrolink Station	Light Rail Transit Station	680	SP
P-45	IDS 04-0464	High-Cube Warehouse	1686.760	TSF
P-46	TTM 32708 (50% Complete)	SFDR	238	DU
P-47	PM 34199	Gen. Light Industrial	46.500	TSF
	DPR 05-0387	Gen. Light Industrial	9.854	TSF
	DPR 05-0452	Warehousing	31.200	TSF
	TPM 34697	Gen. Light Industrial	47.400	TSF
	DPR 06-0396	Warehousing	159.823	TSF
P-48	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF

[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

As noted previously, an analysis of the proposed Project at various development tiers has been assessed for the purposes of this traffic study. The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Opening Year Cumulative (2020)
  - Existing 2015 counts
  - Ambient growth traffic (10.41%)
  - Cumulative Development Project traffic
  - Project traffic

4.8 GENERAL PLAN BUILDOUT (POST 2035) VOLUME DEVELOPMENT

The General Plan Buildout (Post 2035) With Project traffic conditions were derived from the Riverside County Transportation Analysis Model (RivTAM) modified to represent General Plan Buildout conditions for the City of Moreno Valley using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing conditions and General Plan Buildout conditions.

In most instances the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the General Plan Buildout With Project peak hour forecasts were refined using the model derived long-range forecasts, along with existing peak hour traffic count data collected at each analysis location in April 2015. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the General Plan Buildout With Project peak hour forecasts.

The refined future peak hour approach and departure volumes obtained from the model output data are then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP Report 255), along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Long Range traffic conditions. However, review of the resulting model growth indicates negative growth for several study area intersections. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing or Opening Year Cumulative traffic conditions were not assumed as part of this analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable General Plan Buildout forecasts. General Plan Buildout turning volumes were compared to Opening Year Cumulative volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between Opening Year Cumulative and General Plan Buildout traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2015) and Opening Year Cumulative traffic conditions. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the General Plan Buildout peak hour forecasts.

The future General Plan Buildout without Project peak hour turning movements were then reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two freeway ramp locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there are no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis.

The truck competent of RivTAM has data that is unusually low. As such, in an effort to conduct a conservative analysis, the presence of trucks has been accounted for based on the manual volume adjustments made to demonstrate growth above Opening Year Cumulative traffic forecasts, which are presented and evaluated in PCE (see *Section 3.6 Existing (2015) Traffic Counts* for discussion on PCE). As such, the General Plan Buildout forecasts are also assumed to be in PCE for the purposes of this analysis.

Post-processing worksheets for General Plan Buildout Without Project traffic conditions are provided in Appendix 4.2.

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (E+P) conditions and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 E+P (WITHOUT INDIAN STREET BRIDGE) TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic and assumes the existing roadway network without the Indian Street Bridge over the Perris Valley Storm Drain. Exhibit 5-1 shows the ADT and peak hour intersection turning movement volumes, which can be expected for E+P (Without Indian Street Bridge) traffic conditions.

5.3 E+P (WITH INDIAN STREET BRIDGE) TRAFFIC VOLUME FORECASTS

Pursuant to the request of City staff, the E+P analysis scenario has also been evaluated assuming the Indian Street Bridge over the Perris Valley Storm Drain. This scenario includes Existing traffic volumes plus Project traffic and assumes the Indian Street Bridge over the Perris Valley Storm Drain is in place. Exhibit 5-2 shows the ADT and peak hour intersection turning movement volumes, which can be expected for E+P (With Indian Street Bridge) traffic conditions.

5.4 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated, for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA.

5.4.1 E+P (WITHOUT INDIAN STREET BRIDGE)

The intersection analysis results are summarized in Table 5-1, the addition of Project traffic for E+P (Without Indian Street Bridge) is anticipated to result in the following additional intersection deficiency, in addition to those previously identified for Existing traffic conditions:

ID	Intersection Location
18	Heacock Street / San Michele Road – LOS E PM peak hour only

EXHIBIT 5-1 (1 OF 2): E+P (WITHOUT INDIAN STREET BRIDGE) TRAFFIC VOLUMES (IN PCE)

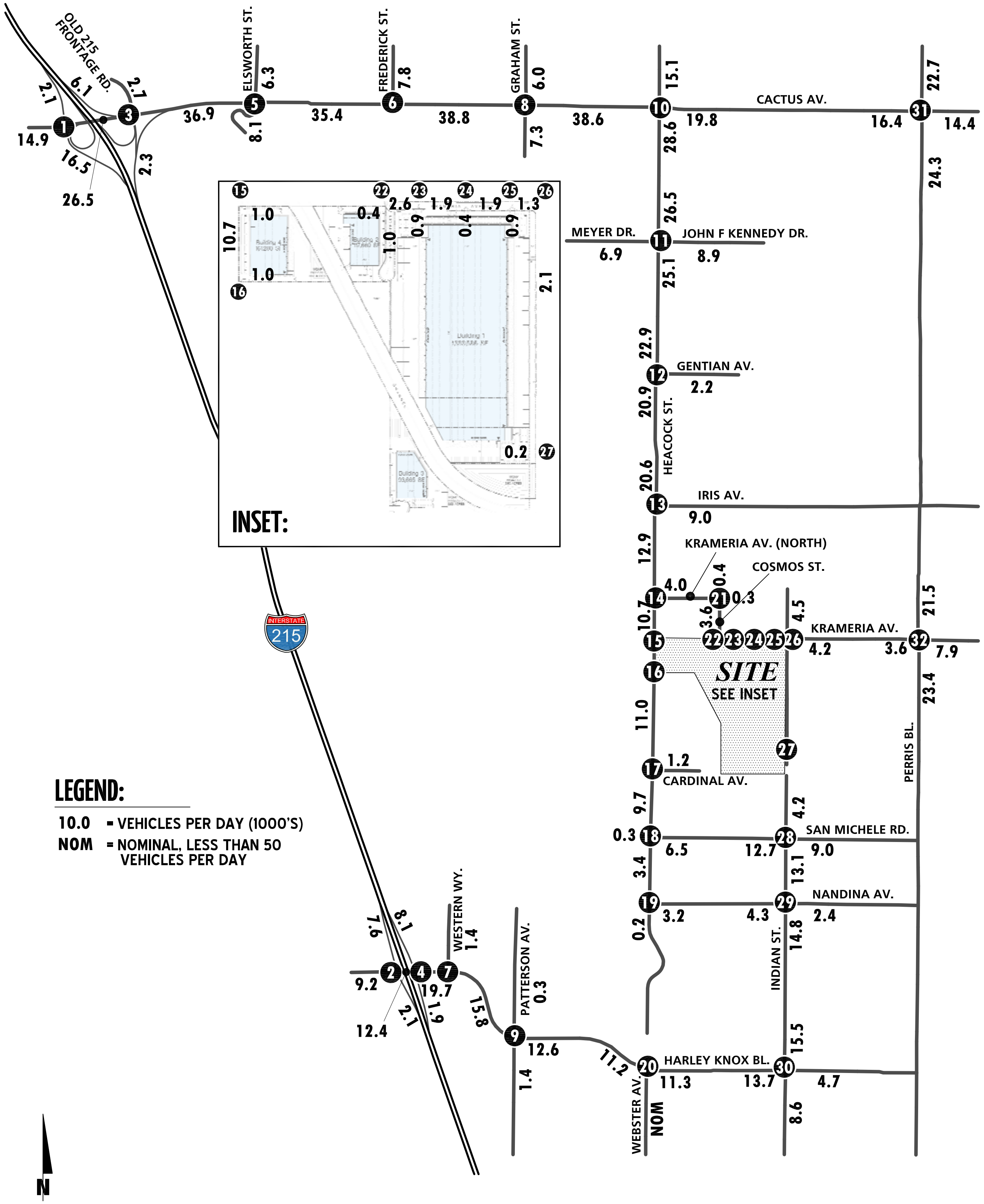

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 5-1 (2 OF 2): E+P (WITHOUT INDIAN STREET BRIDGE) TRAFFIC VOLUMES (IN PCE)

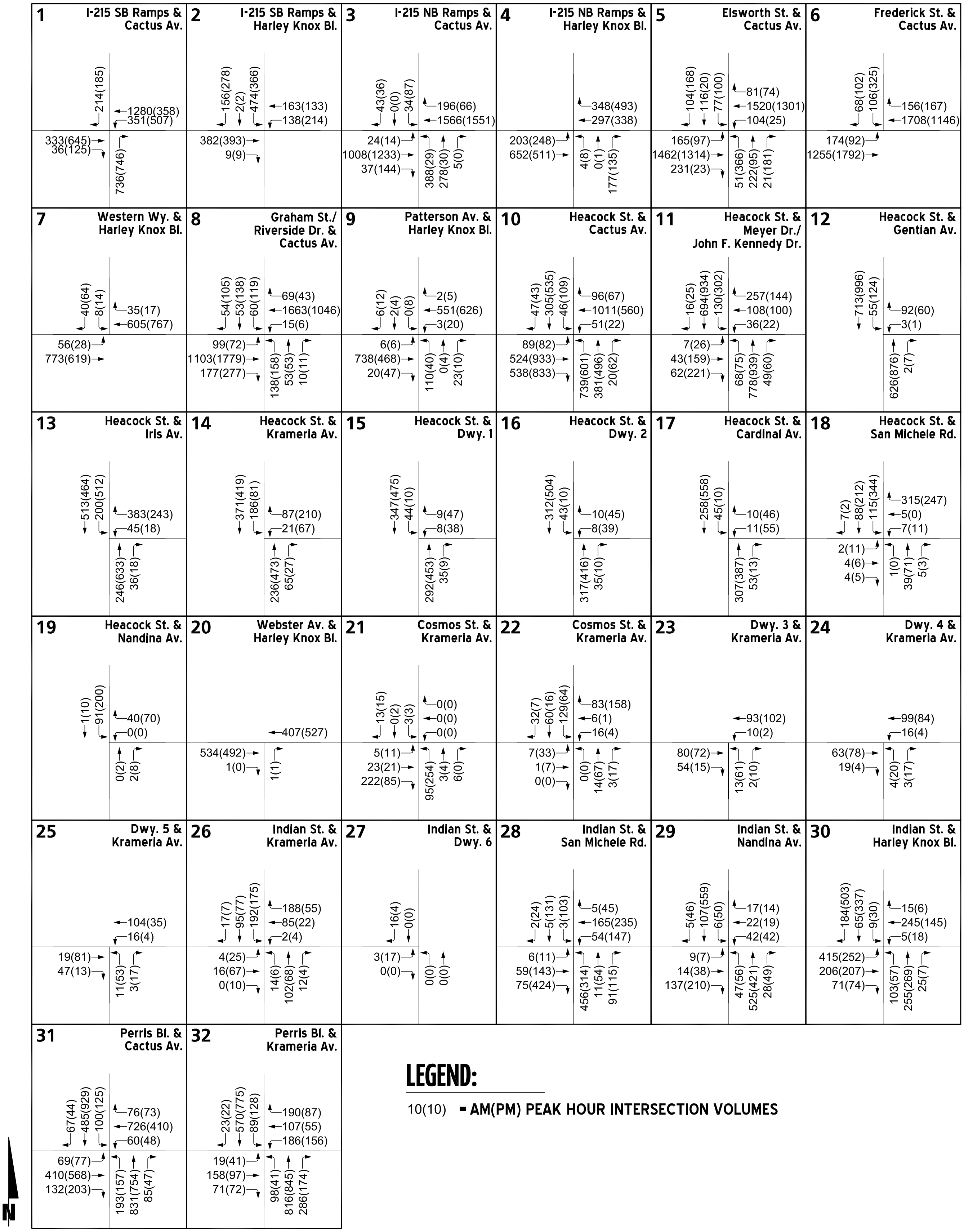

EXHIBIT 5-2 (1 OF 2): E+P (WITH INDIAN STREET BRIDGE) TRAFFIC VOLUMES (IN PCE)

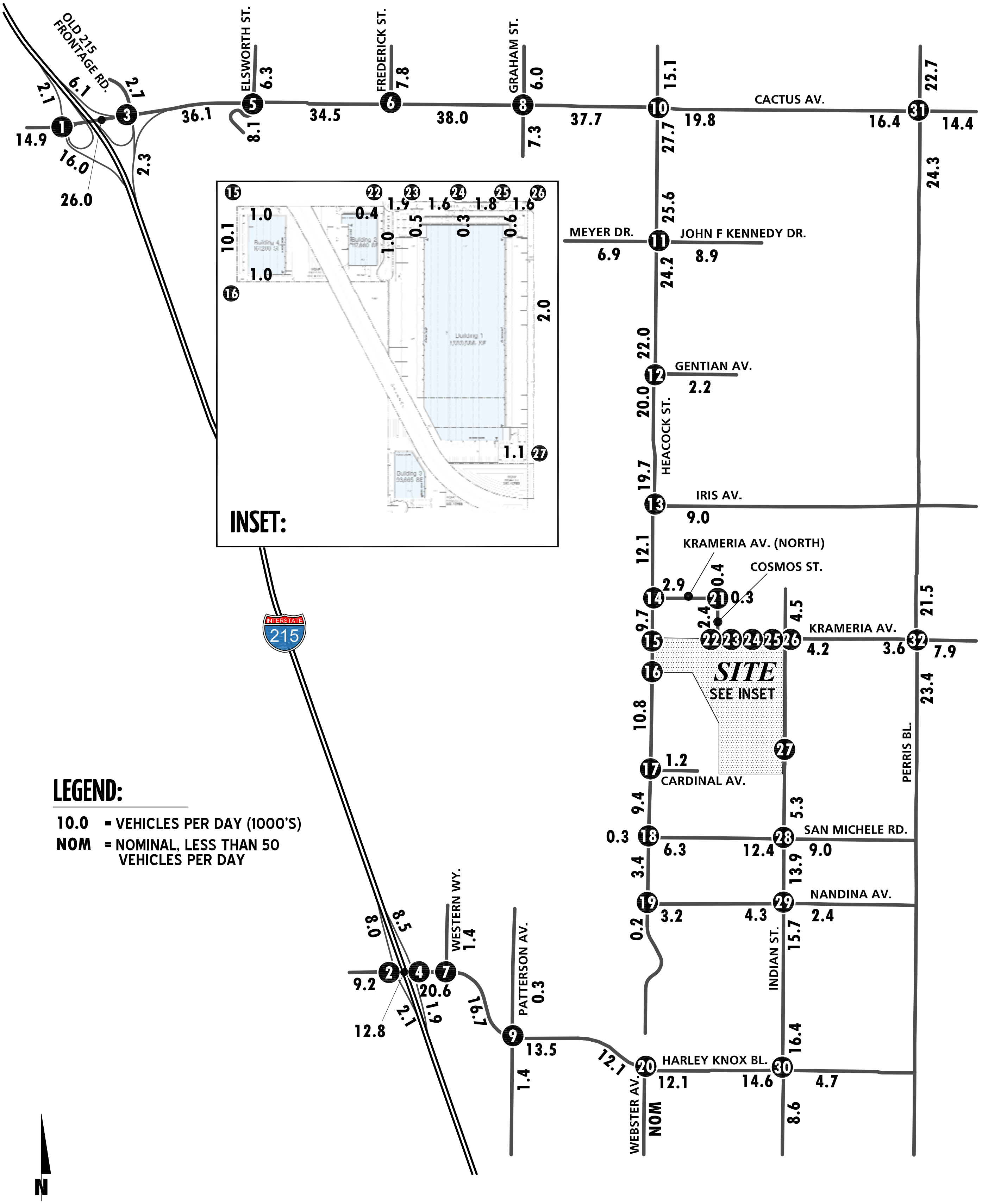

EXHIBIT 5-2 (2 OF 2): E+P (WITH INDIAN STREET BRIDGE) TRAFFIC VOLUMES (IN PCE)

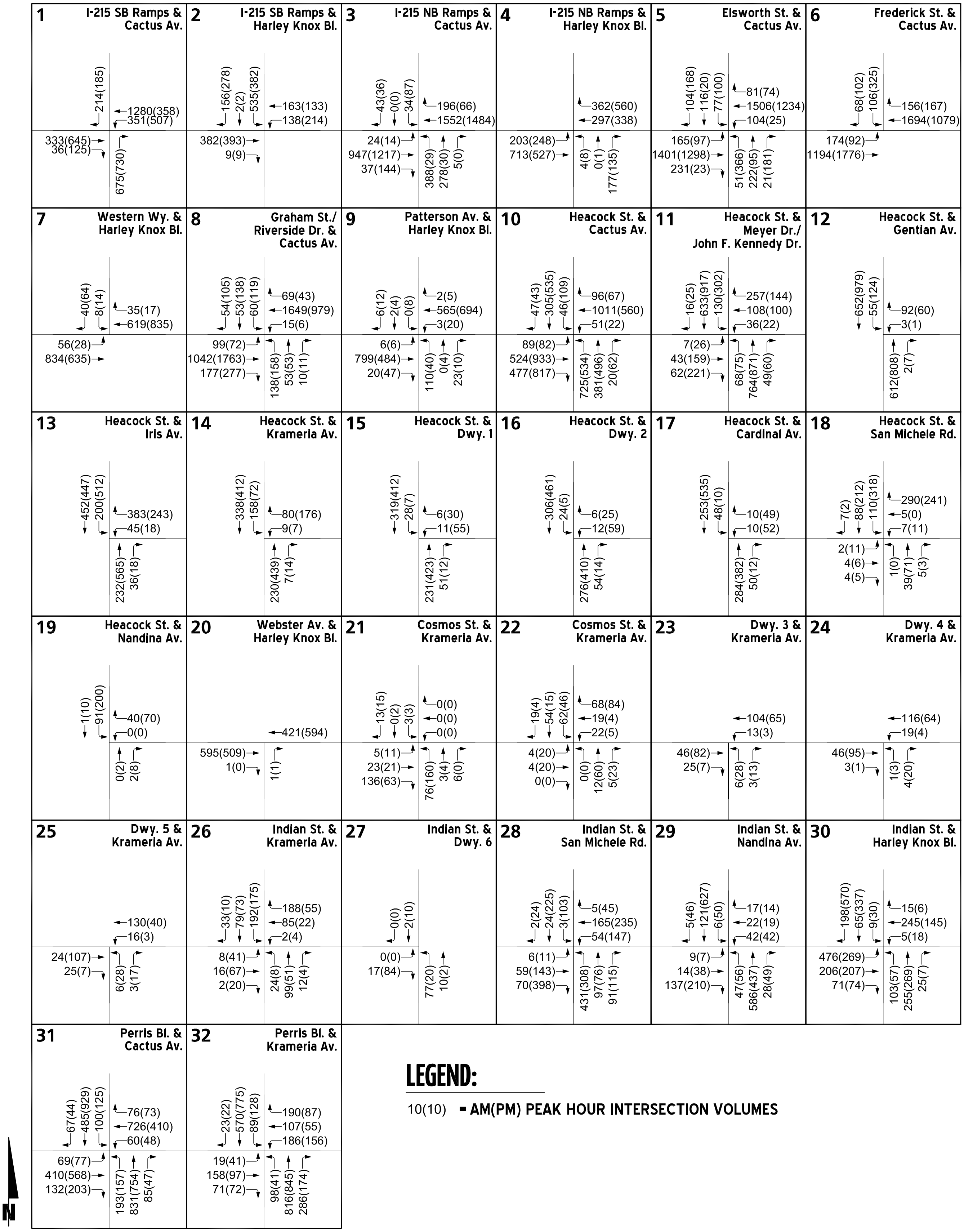

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2015)				E+P w/o Indian				E+P With Indian			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	14.4	39.0	B	D	19.4	39.0	B	D	16.4	39.0	B	D
2	I-215 SB Ramps / Harley Knox Bl	TS	33.8	31.2	C	C	34.5	36.0	C	D	35.5	36.0	D	D
3	I-215 NB Ramps / Cactus Av	TS	19.1	13.7	B	B	19.5	15.7	B	B	19.3	14.9	B	B
4	I-215 NB Ramps / Harley Knox Bl	TS	13.6	17.0	B	B	14.8	18.0	B	B	14.3	19.0	B	B
5	Elsworth St / Cactus Av	TS	38.9	30.2	D	C	38.9	30.2	D	C	38.9	30.2	D	C
6	Frederick St / Cactus Av	TS	24.9	21.9	C	C	25.5	23.2	C	C	25.3	22.7	C	C
7	Western Wy / Harley Knox Bl	CSS	12.0	12.1	B	B	12.1	14.1	B	B	12.3	14.8	B	B
8	Graham St / Cactus Av	TS	21.3	24.5	C	C	21.9	25.1	C	C	22.1	25.3	C	C
9	Patterson Av / Harley Knox Bl	TS	27.6	26.3	C	C	32.2	45.7	C	D	28.7	28.7	C	C
10	Heacock St / Cactus Av	TS	34.3	18.6	C	B	39.9	44.5	D	D	38.3	33.7	D	C
11	Heacock St / John F. Kennedy Dr	TS	23.3	21.8	C	C	24.4	27.9	C	C	27.8	25.3	C	C
12	Heacock St / Gentian Av	CSS	22.8	**58.0**	C	**F**	**35.0**	**>100.0**	**E**	**F**	31.7	**93.0**	D	**F**
13	Heacock St / Iris Av	AWS	15.2	**37.5**	C	**E**	**36.1**	**56.1**	**E**	**F**	25.7	**53.9**	D	**F**
14	Heacock St / Krameria Av (North)	TS	11.1	9.0	B	A	14.3	30.6	B	C	13.7	21.7	B	C
15	Heacock St / Driveway 1	CSS	Future Intersection				10.9	12.4	B	B	10.8	12.8	B	B
16	Heacock St / Driveway 2	CSS	Future Intersection				10.7	12.4	B	B	10.9	13.1	B	B
17	Heacock St / Cardinal Av	CSS	9.0	13.4	A	B	12.9	18.1	B	C	12.8	17.5	B	C
18	Heacock St / San Michele Rd	TS	25.6	39.5	C	D	37.0	**70.9**	D	**E**	35.7	**59.9**	D	**E**
19	Heacock St / Nandina Av	CSS	8.4	8.6	A	A	8.4	8.6	A	A	8.4	8.6	A	A
20	Webster Av / Harley Knox Bl	CSS	10.0	10.1	B	B	11.4	10.2	B	B	12.1	10.4	B	B
21	Cosmos St / Krameria Av (North)	CSS	9.8	9.3	A	A	10.2	11.5	B	B	9.6	10.4	A	B
22	Cosmos St / Krameria Av	AWS	Future Intersection				8.5	8.5	A	A	8.0	8.1	A	A
23	Driveway 3 / Krameria Av	CSS	Future Intersection				9.5	9.6	A	A	9.2	9.3	A	A
24	Driveway 4 / Krameria Av	CSS	Future Intersection				9.1	9.2	A	A	8.7	8.9	A	A
25	Driveway 5 / Krameria Av	CSS	Future Intersection				9.3	9.4	A	A	9.2	9.3	A	A
26	Indian St / Krameria Av	AWS	10.7	9.2	B	A	11.1	9.9	B	A	11.2	9.9	B	A
27	Indian St / Driveway 6	CSS	Future Intersection				8.7	8.8	A	A	8.4	8.7	A	A
28	Indian St / San Michele Rd	TS	29.3	35.8	C	D	31.0	36.4	C	D	29.9	36.6	C	D
29	Indian St / Nandina Av	TS	18.4	19.9	B	B	18.5	20.0	B	C	23.2	20.1	C	C
30	Indian St / Harley Knox Bl	TS	17.0	24.2	B	C	17.7	50.8	B	D	22.4	**72.3**	C	**E**
31	Perris Bl / Cactus Av	TS	24.8	32.4	C	C	25.1	32.9	C	C	25.1	32.9	C	C
32	Perris Bl / Krameria Av	TS	31.2	22.9	C	C	32.3	30.1	C	C	32.3	30.1	C	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal: AWS= All-way stop

5.4.2 E+P (WITH INDIAN STREET BRIDGE)

The intersection analysis results are summarized in Table 5-1, the addition of Project traffic (With Indian Street Bridge) is anticipated to result in the following additional intersection deficiencies, in addition to those previously identified for E+P (Without Indian Street Bridge) traffic conditions:

ID	Intersection Location
30	Indian Street / Harley Knox Boulevard – LOS E PM peak hour only

A summary of the peak hour intersection LOS for E+P (Without Indian Street Bridge) conditions are shown on Exhibit 5-3 and on Exhibit 5-4 for E+P (With Indian Street Bridge) traffic conditions. The intersection operations analysis worksheets for E+P, without and with Indian Street bridge, traffic conditions are included in Appendix 5.1 and Appendix 5.2 of this TIA, respectively.

5.5 ROADWAY SEGMENT CAPACITY ANALYSIS

As noted previously, the City of Moreno Valley stated roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future traffic demand.

5.5.1 E+P (WITHOUT INDIAN STREET BRIDGE)

Table 5-2 provides a summary of the E+P (Without Indian Street Bridge) conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/(LOS) Thresholds identified previously on Table 2-3. As shown on Table 5-2, the following additional roadway segments are anticipated to operate at an unacceptable LOS under E+P (Without Indian Street Bridge) traffic conditions, in addition to those previously identified under Existing (2015) traffic conditions:

ID	Street	Segment
35	Heacock Street	North of Iris Avenue – LOS F
36		Iris Avenue to Krameria Avenue (N) – LOS F

5.5.2 E+P (WITH INDIAN STREET BRIDGE)

As shown on Table 5-2, there are no additional roadway segments anticipated to operate at unacceptable LOS under (E+P (With Indian Street Bridge), in addition to those previously identified for E+P (Without Indian Street Bridge) traffic conditions.

EXHIBIT 5-3: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR E+P (WITHOUT INDIAN STREET BRIDGE) CONDITIONS

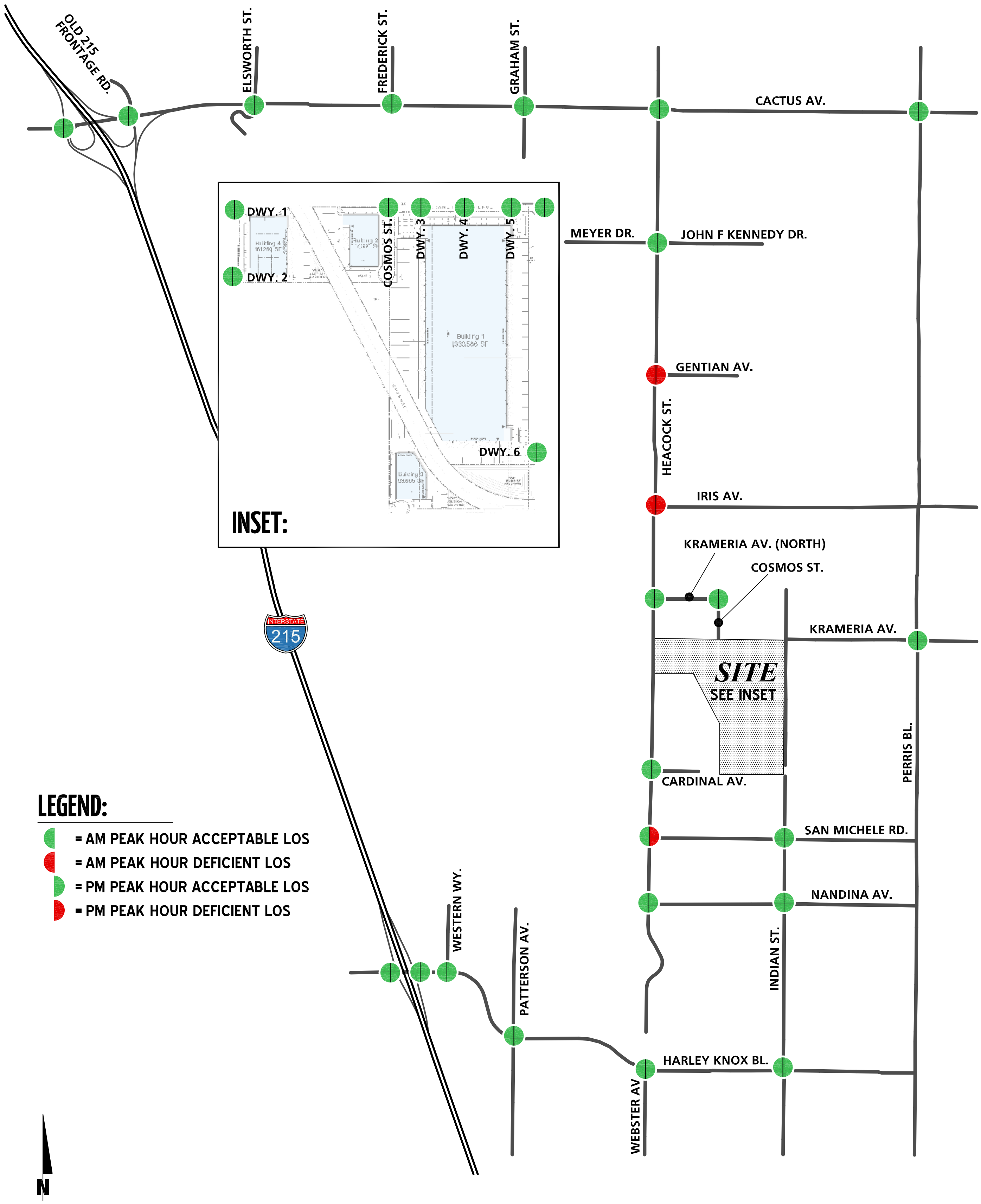

EXHIBIT 5-4: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR E+P (WITH INDIAN STREET BRIDGE) CONDITIONS

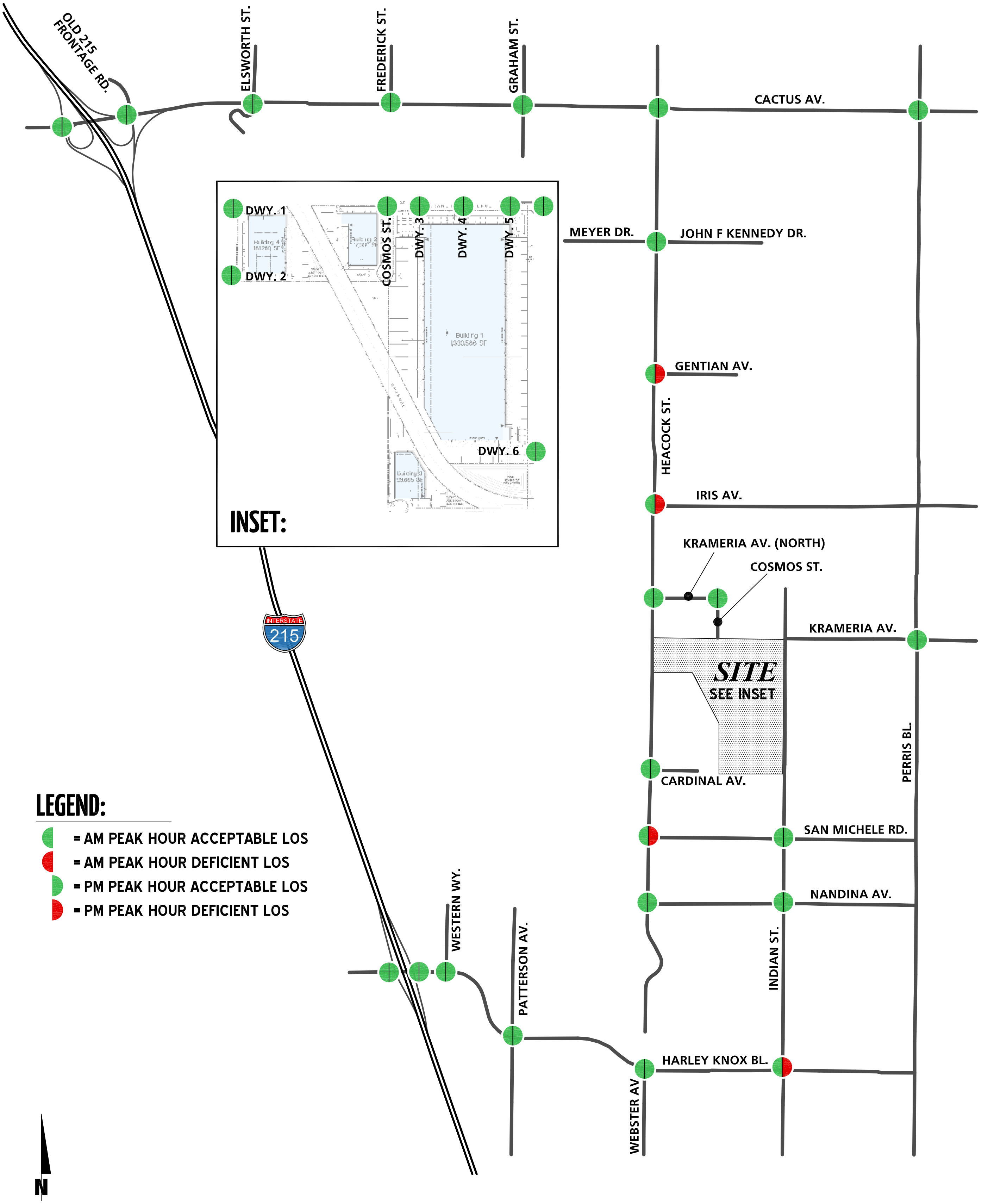

Table 5-2
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Roadway Volume/Capacity Analysis for E+P Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015	V/C[2]	LOS[3]	E+P w/o Indian	V/C[2]	LOS[3]	E+P w/ Indian	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	25,080	0.67	B	26,470	0.71	C	26,031	0.69	B	D
2		East of I-215 NB Ramps	4D	37,500	31,154	0.83	D	33,935	0.90	D	33,056	0.88	D	D
3		West of Elsworth Street	6D	56,300	34,154	0.61	B	36,935	0.66	B	36,056	0.64	B	D
4		East of Elsworth Street	6D	56,300	31,029	0.55	A	33,810	0.60	A	32,931	0.58	A	D
5		West of Frederick Street	5D	46,900	32,583	0.69	B	35,364	0.75	C	34,485	0.74	C	D
6		East of Frederick Street	5D	46,900	35,981	0.77	C	38,762	0.83	D	37,883	0.81	D	D
7		West of Graham Street	5D	46,900	36,044	0.77	C	38,825	0.83	D	37,946	0.81	D	D
8		East of Graham Street	5D	46,900	31,120	0.66	B	33,901	0.72	C	33,022	0.70	B	D
9		West of Heacock Street	5D	46,900	35,778	0.76	C	38,559	0.82	D	37,680	0.80	C	D
10		East of Heacock Street	4D	37,500	19,360	0.52	A	19,818	0.53	A	19,818	0.53	A	C
11		West of Perris Boulevard	4D	37,500	15,973	0.43	A	16,431	0.44	A	16,431	0.44	A	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	1,076	0.09	A	4,022	0.32	A	2,864	0.23	A	D
13		Cosmos Street to Driveway 3	2U	12,500	620	0.05	A	2,602	0.21	A	1,866	0.15	A	D
14		Driveway 3 to Driveway 4	2U	12,500	620	0.05	A	1,902	0.15	A	1,634	0.13	A	D
15		Driveway 4 to Driveway 5	2U	12,500	620	0.05	A	1,866	0.15	A	1,811	0.14	A	D
16		Driveway 5 to Indian Street	2D	18,750	620	0.03	A	1,324	0.07	A	1,606	0.09	A	D
17		East of Indian Street	2D	18,750	3,716	0.20	A	4,244	0.23	A	4,244	0.23	A	D
18		West of Perris Boulevard	2U	12,500	3,040	0.24	A	3,568	0.29	A	3,568	0.29	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	46	0.00	A	1,198	0.10	A	1,198	0.10	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	4,269	0.23	A	6,534	0.35	A	6,256	0.33	A	D
21		West of Indian Street	2D	18,750	10,411	0.56	A	12,676	0.68	B	12,398	0.66	B	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	11,390	0.32	A	12,346	0.34	A	12,786	0.36	A	D
23		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	19,727	0.55	A	20,607	0.57	A	D
24		East of Western Way	4U	25,900	13,901	0.54	A	15,814	0.61	B	16,693	0.64	B	D
25		West of Patterson Avenue	4U	25,900	11,444	0.44	A	13,357	0.52	A	14,236	0.55	A	D
26		East of Patterson Avenue	2D	18,000	10,492	0.58	A	12,581	0.70	B	13,460	0.75	C	D
27		West of Webster Avenue	2D	18,000	9,144	0.51	A	11,233	0.62	B	12,112	0.67	B	D
28		East of Webster Avenue	2D	18,000	9,156	0.51	A	11,245	0.62	B	12,124	0.67	B	D
29		West of Indian Street	3D	26,925	11,624	0.43	A	13,713	0.51	A	14,592	0.54	A	D

Table 5-2
Page 2 of 2

Roadway Volume/Capacity Analysis for E+P Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015	V/C[2]	LOS[3]	E+P w/o Indian	V/C[2]	LOS[3]	E+P w/ Indian	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	24,824	0.66	B	28,549	0.76	C	27,670	0.74	C	D
31		North of John F. Kennedy Drive	4D	37,500	22,764	0.61	B	26,489	0.71	C	25,610	0.68	B	D
32		South of John F. Kennedy Drive	4D	37,500	21,272	0.57	A	25,103	0.67	B	24,224	0.65	B	D
33		North of Gentian Avenue	3D	28,150	19,047	0.68	B	22,877	0.81	D	21,998	0.78	C	D
34		South of Gentian Avenue	2U	12,500	**17,054**	**1.36**	**F**	**20,884**	**1.67**	**F**	**20,005**	**1.60**	**F**	D
35		North of Iris Avenue	2D	18,750	16,730	0.89	D	**20,560**	**1.10**	**F**	**19,681**	**1.05**	**F**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	9,113	0.73	C	**12,943**	**1.04**	**F**	**12,064**	**0.97**	**E**	D
37		Krameria Avenue (N) to Driveway 1	3D	28,150	8,516	0.30	A	10,668	0.38	A	9,679	0.34	A	D
38		Driveway 1 to Driveway 2	3D	28,150	8,516	0.30	A	10,386	0.37	A	9,748	0.35	A	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	8,874	0.24	A	10,984	0.29	A	10,768	0.29	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	7,400	0.26	A	9,666	0.34	A	9,387	0.33	A	D
41		San Michele Road to Nandina Avenue	2D	18,750	3,427	0.18	A	3,427	0.18	A	3,427	0.18	A	D
42		South of Nandina Avenue	2U	12,500	228	0.02	A	228	0.02	A	228	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	0	0.00	A	0	0.00	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	620	0.05	A	3,566	0.29	A	2,408	0.19	A	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	0	0.00	A	0	0.00	A	1,158	0.03	A	D
46		San Michele Road to Nandina Avenue	4D	37,500	10,793	0.29	A	13,058	0.35	A	13,938	0.37	A	D
47		South of Nandina Avenue	2D	18,750	12,523	0.67	B	14,788	0.79	C	15,667	0.84	D	D
48		North of Harley Knox Boulevard	4D	35,900	13,201	0.37	A	15,466	0.43	A	16,345	0.46	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

5.6 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the I-215 Freeway and Cactus Avenue and Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 5-3 for E+P traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline.

5.6.1 E+P (WITHOUT INDIAN STREET BRIDGE)

As shown on Table 5-3, consistent with Existing traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for E+P (Without Indian Street Bridge) traffic conditions. Worksheets for E+P (Without Indian Street Bridge) traffic conditions off-ramp queuing analysis are provided in Appendix 5.3.

5.6.2 E+P (WITH INDIAN STREET BRIDGE)

As shown on Table 5-3, consistent with Existing traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for E+P (With Indian Street Bridge) traffic conditions. Worksheets for E+P (With Indian Street Bridge) traffic conditions off-ramp queuing analysis are provided in Appendix 5.4.

5.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

5.7.1 E+P (WITHOUT INDIAN STREET BRIDGE)

The following additional study area intersections are anticipated to meet peak hour volume based traffic signal warrants under E+P (Without Indian Street Bridge) traffic conditions, in addition to those previously warranted under Existing traffic conditions (see Appendix 5.5):

ID	Intersection Location	Jurisdiction	CMP?
17	Heacock Street / Cardinal Avenue	Moreno Valley, March JPA	No
26	Indian Street / Krameria Avenue	Moreno Valley	No

5.7.2 E+P (WITH INDIAN STREET BRIDGE)

The following additional study area intersection is anticipated to meet peak hour volume based traffic signal warrant under E+P (With Indian Street Bridge) traffic conditions, in addition to those previously warranted under E+P (Without Indian Street Bridge) traffic conditions (see Appendix 5.6):

ID	Intersection Location	Jurisdiction	CMP?
19	Heacock Street / Nandina Avenue	Moreno Valley, March JPA	No

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 5-3

Peak Hour Off-Ramp Queuing Analysis for E+P Conditions

Intersection	Movement	Stacking Distance (Feet)	E+P Without Indian Street Bridge				E+P With Indian Street Bridge			
			95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]		95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	249 [2]	334 [2]	Yes	Yes	192 [2]	318 [2]	Yes	Yes
	SBR	1,115	87	0	Yes	Yes	87	0	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	427	348	Yes	Yes	472	360	Yes	Yes
	SBR	270	41	58	Yes	Yes	39	57	Yes	Yes
I-215 NB Ramps / Cactus Av.	NBL	145	321 [2]	26	Yes[3]	Yes	321 [2]	26	Yes[3]	Yes
	NBT	1,650	164	26	Yes	Yes	164	26	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	13	22	Yes	Yes	13	22	Yes	Yes
	NBR	265	62	54	Yes	Yes	62	54	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound left turn lane without spilling back and affecting the I-215 Freeway mainline.

5.8 BASIC FREEWAY SEGMENT ANALYSIS

5.8.1 E+P (WITHOUT INDIAN STREET BRIDGE)

E+P (Without Indian Street Bridge) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 5-5. As shown on Table 5-4, the basic freeway segments analyzed for this study are anticipated to operate at an acceptable LOS (i.e., LOS C or better) during the peak hours, with the addition of Project traffic. E+P (Without Indian Street Bridge) basic freeway segment analysis worksheets are provided in Appendix 5.7.

5.8.2 E+P (WITH INDIAN STREET BRIDGE)

E+P (With Indian Street Bridge) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 5-6. As shown on Table 5-4, the basic freeway segments analyzed for this study are anticipated to operate at an acceptable LOS (i.e., LOS C or better) during the peak hours, with the addition of Project traffic. E+P (With Indian Street Bridge) basic freeway segment analysis worksheets are provided in Appendix 5.8.

5.9 FREEWAY MERGE/DIVERGE ANALYSIS

5.9.1 E+P (WITHOUT INDIAN STREET BRIDGE)

Ramp merge and diverge operations were also evaluated for E+P (Without Indian Street Bridge) traffic conditions and the results of this analysis are presented in Table 5-5. As shown in Table 5-5, the freeway ramp merge and diverge areas are anticipated to operate at acceptable LOS (i.e., LOS D or better). E+P (Without Indian Street Bridge) freeway ramp junction operations analysis worksheets are provided in Appendix 5.9.

5.9.2 E+P (WITH INDIAN STREET BRIDGE)

Ramp merge and diverge operations were also evaluated for E+P (With Indian Street Bridge) traffic conditions and the results of this analysis are presented in Table 5-5. As shown in Table 5-5, the freeway ramp merge and diverge areas are anticipated to operate at acceptable LOS (i.e., LOS D or better). E+P (With Indian Street Bridge) freeway ramp junction operations analysis worksheets are provided in Appendix 5.10.

5.10 PROJECT IMPACTS AND MITIGATION MEASURES

5.10.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvements necessary to reduce project-related traffic impacts to less-than-significant are also discussed below. The effectiveness of the proposed recommended mitigation measures are presented in Table 5-6 for E+P traffic conditions. As shown on Table 5-6, the recommended improvements for each of the impacted intersections are the same for each Project alternative (without and with the Indian Street extension), with the exception of the intersection of Indian Street and Harley Knox Boulevard. With the implementation of the intersection mitigation measures discussed below, there are no project-related impacts anticipated to the study area intersections.

EXHIBIT 5-5: E+P (WITHOUT INDIAN STREET BRIDGE) FREEWAY MAINLINE VOLUMES

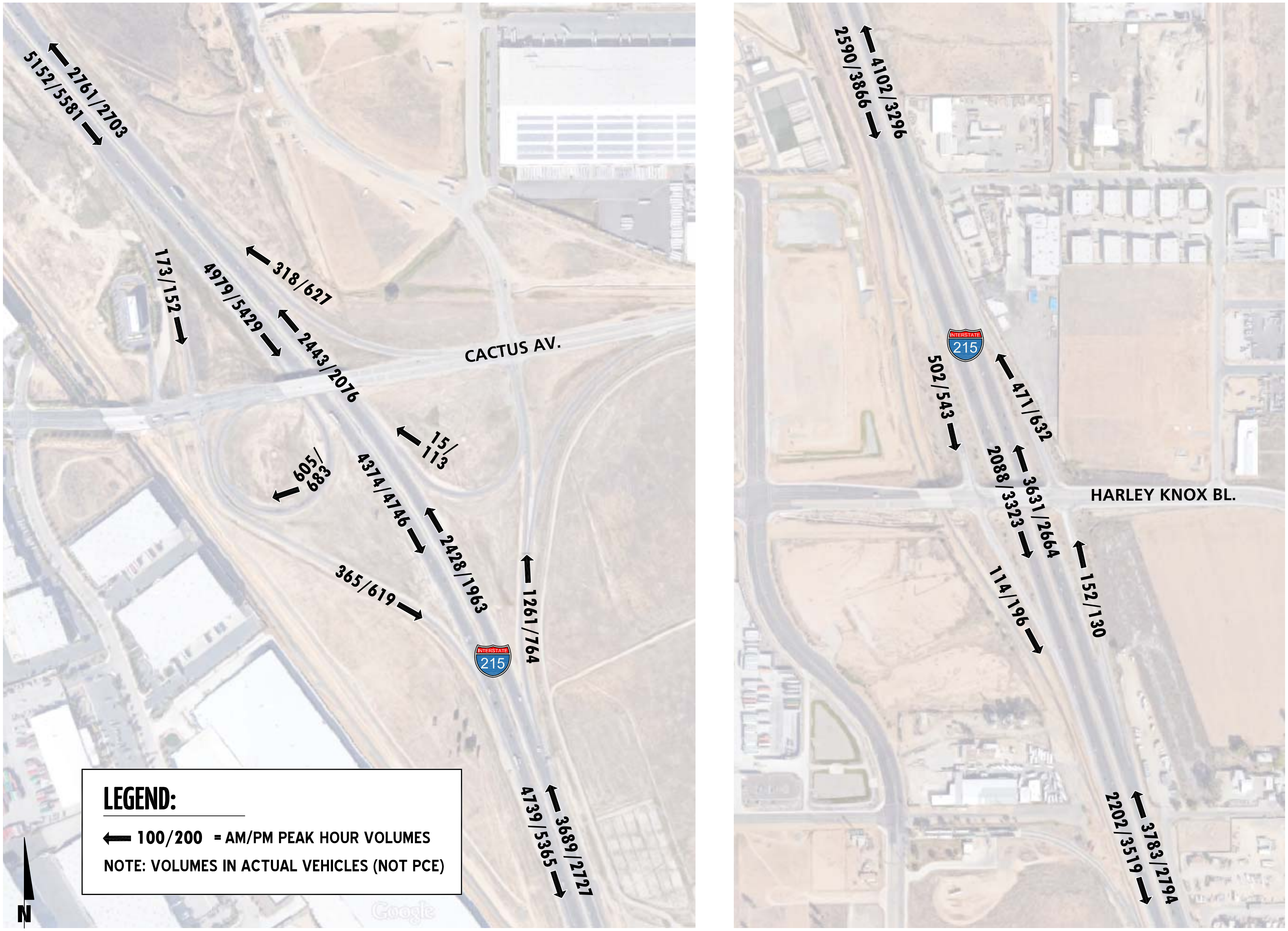

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URBAN CROSSROADS

EXHIBIT 5-6: E+P (WITH INDIAN STREET BRIDGE) FREEWAY MAINLINE VOLUMES

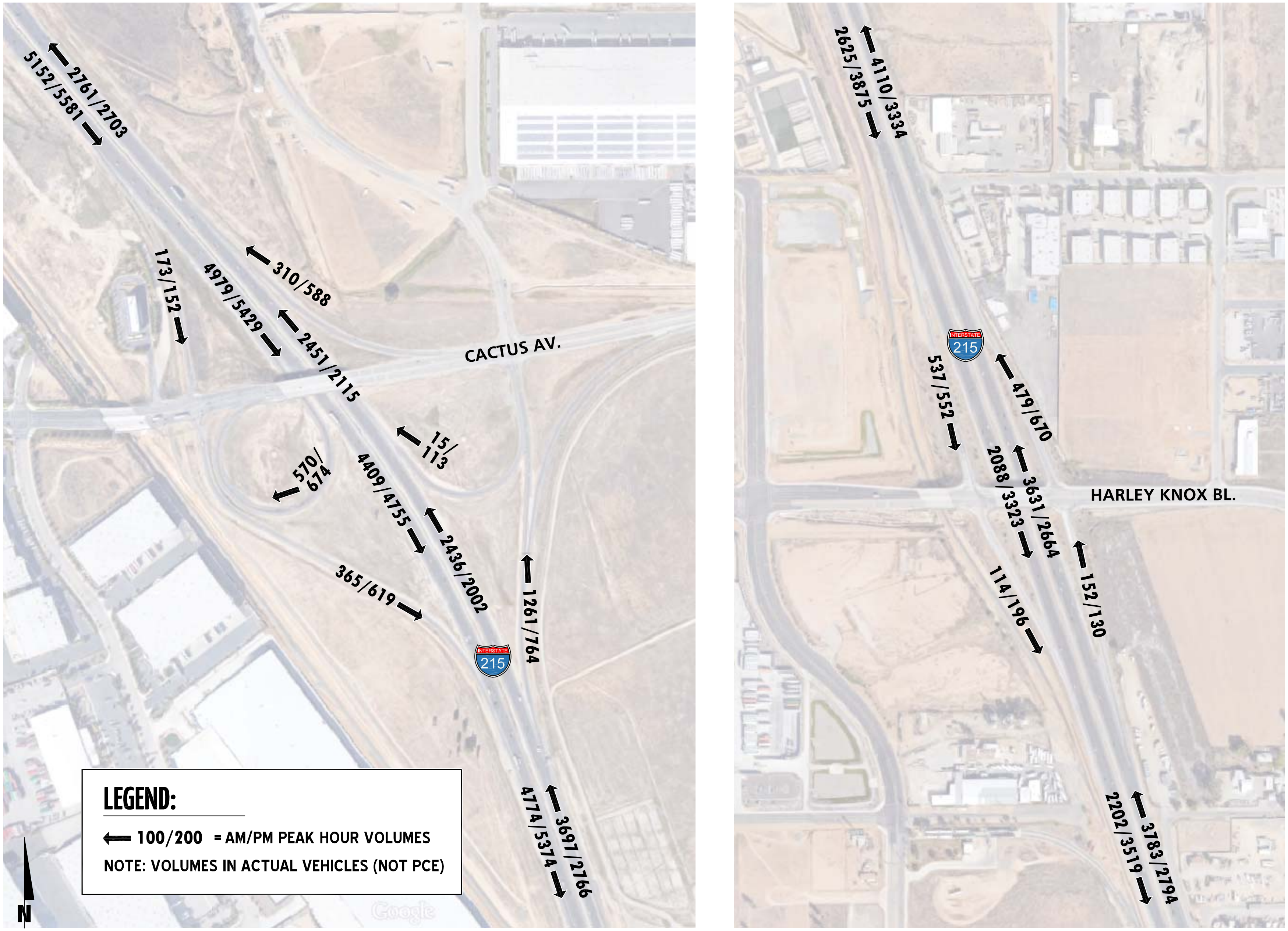

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Table 5-4

Basic Freeway Segment Analysis for E+P Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Existing (2015)				E+P w/o Indian				E+P w/ Indian			
				Density[2]		LOS		Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	SB	North of Cactus Avenue	4	19.9	22.5	C	C	20.8	22.7	C	C	20.8	22.7	C	C
		South of Cactus Avenue	4	18.6	21.5	C	C	18.8	21.5	C	C	19.1	21.6	C	C
		North of Harley Knox Boulevard	3	13.4	20.5	B	C	13.7	20.7	B	C	13.9	20.8	B	C
		South of Harley Knox Boulevard	3	11.4	18.1	B	C	11.6	18.6	B	C	11.6	18.6	B	C
	NB	North of Cactus Avenue	4	10.9	10.0	A	A	11.1	10.9	B	A	11.1	10.9	B	A
		South of Cactus Avenue	4	14.6	10.6	B	A	14.7	10.8	B	A	14.7	11.0	B	A
		North of Harley Knox Boulevard	3	22.0	17.1	C	B	22.0	17.4	C	B	22.1	17.7	C	B
		South of Harley Knox Boulevard	3	19.6	14.6	C	B	20.1	14.7	C	B	20.1	14.7	C	B

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 5-5

Freeway Ramp Junction Merge/Diverge Analysis for E+P Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				E+P w/o Indian				E+P w/ Indian			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	26.9	C	30.2	D	28.6	D	30.6	D	28.4	D	30.6	D
		Loop Off-Ramp at Cactus Avenue - Downstream	4	26.9	C	30.2	D	28.6	D	30.6	D	28.4	D	30.6	D
		Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C	20.6	C	27.6	C	20.9	C	27.7	C
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.6	C	15.3	B	22.3	C	15.3	B	22.3	C
	NB	On-Ramp at Cactus Avenue	3	20.2	C	19.8	B	20.5	C	21.3	C	20.5	C	21.2	C
		On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C	25.9	C	22.3	C	26.0	C	22.7	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B	25.6	C	20.1	C	25.6	C	20.1	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 5-6

Intersection Analysis for E+P Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
12	Heacock St / Gentian Av																	
	- Existing (2015)	CSS	0	1	1	1	1	0	0	0	0	0	1	d	22.8	**58.0**	C	**F**
	- Without Improvements																	
	Without Indian St Bridge	CSS	0	1	1	1	1	0	0	0	0	0	1	d	**35.0**	**>100.0**	**E**	**F**
	With Indian St Bridge	CSS	0	1	1	1	1	0	0	0	0	0	1	d	31.7	**93.0**	D	**F**
	- With Improvements																	
	Existing (2015)	TS	0	1	1	1	1	0	0	0	0	0	1	d	12.4	14.7	B	B
	Without Indian St Bridge	TS	0	1	1	1	1	0	0	0	0	0	1	d	20.0	26.1	C	C
	With Indian St Bridge	TS	0	1	1	1	1	0	0	0	0	0	1	d	19.5	27.1	B	C
13	Heacock St / Iris Av																	
	- Existing (2015)	AWS	0	1	0	1	1	0	0	0	0	1	0	d	15.2	**37.5**	C	**E**
	- Without Improvements																	
	Without Indian St Bridge	AWS	0	1	0	1	1	0	0	0	0	1	0	d	**36.1**	**56.1**	**E**	**F**
	With Indian St Bridge	AWS	0	1	0	1	1	0	0	0	0	1	0	d	25.7	**53.9**	D	**F**
	- With Improvements																	
	Existing (2015)	TS	0	1	0	1	1	0	0	0	0	1	0	d	26.7	38.5	C	D
	Without Indian St Bridge	TS	0	1	0	1	1	0	0	0	0	1	0	1>	25.5	48.9	C	D
	With Indian St Bridge	TS	0	1	0	1	1	0	0	0	0	1	0	1>	21.7	43.0	C	D
18	Heacock St / San Michele Rd																	
	- Existing (2015)	TS	1	1	1	1	1	1	1	1	1	1	1	1	25.6	39.5	C	D
	- Without Improvements																	
	Without Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	1	37.0	**70.9**	D	**E**
	With Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	1	35.7	**59.9**	D	**E**
	- With Improvements																	
	Existing (2015)		Improvements Not Necessary															
	Without Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	1>	17.9	20.9	B	C
	With Indian St Bridge	TS	1	1	1	1	1	1	1	1	1	1	1	1>	17.7	20.5	B	C
30	Indian St / Harley Knox Bl																	
	- Existing (2015)	TS	2	2	1	1	2	0	1	1	1	2	2	0	17.0	24.2	B	C
	- Without Improvements																	
	Without Indian St Bridge	TS	2	2	1	1	2	0	1	1	1	2	2	0	17.7	50.8	B	D
	With Indian St Bridge	TS	2	2	1	1	2	0	1	1	1	2	2	0	22.4	**72.3**	C	**E**
	- With Improvements																	
	Existing (2015)		Improvements Not Necessary															
	Without Indian St Bridge		Improvements Not Necessary															
	With Indian St Bridge[4]	TS	2	2	1	1	2	1>	1	3	0	1	3	0	20.8	17.8	C	B

---

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for rig turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal c all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussion with City staff, the improvements are anticipated to be completed by Fall 2015

Potential Impact 1.1 – Heacock Street / Cactus Avenue (#10) – Although this intersection was found to operate at an acceptable LOS for the overall intersection (LOS D or better) during the peak hours under E+P traffic conditions, the addition of Project traffic is anticipated to worsen the northbound left turn lane's individual LOS from acceptable to unacceptable LOS, for both without and with the Indian Street extension. The addition of Project traffic is anticipated to also worsen the northbound left turn 95th percentile queue, which would likely exceed the existing available storage. As such, the impact is considered significant (Impact 1.1).

Mitigation Measure 1.1 – ***Heacock Street / Cactus Avenue (#10)*** – The following improvement is necessary to reduce the Project's proportionate increase in queues, thus reducing the Project's impact to less-than-significant:

- Restripe the northbound left turn lane to provide 315-feet of storage from the existing 215-feet in order to accommodate the anticipated 95th percentile queues.

Potential Impact 2.1 – Heacock Street / Gentian Avenue (#12) – Although this intersection was found to operate at an unacceptable LOS (LOS F) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both without and with the Indian Street extension. As such, the impact is considered cumulatively significant (Impact 2.1).

Mitigation Measure 2.1 – ***Heacock Street / Gentian Avenue (#12)*** – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.

Potential Impact 3.1 – Heacock Street / Iris Avenue (#13) – Although this intersection was found to operate at an unacceptable LOS (LOS E) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of Project traffic, for both without and with the Indian Street extension. As such, the impact is considered cumulatively significant (Impact 3.1).

Mitigation Measure 3.1 – ***Heacock Street / Iris Avenue (#13)*** – The following improvements are necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.
- Mitigation measure also consists of a westbound right turn lane with overlap phasing. The Project would pay its fair share to the City of Moreno Valley towards the addition of a westbound right turn lane with overlap phasing.

Potential Impact 4.1 – Heacock Street / San Michele Road (#18) – This intersection was found to operate at acceptable LOS (LOS D or better) during the peak hours under Existing traffic

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

conditions, however, the addition of Project traffic is anticipated to result in deficient peak hour operations during the PM peak hour only, for both without and with the Indian Street extension. As such, the impact is considered significant (Impact 4.1).

Mitigation Measure 4.1 – Heacock Street / San Michele Road (#18) – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's impact to less-than-significant:

- Modify the existing traffic signal to implement overlap phasing on the westbound right turn lane.

Potential Impact 5.1 – Indian Street / Harley Knox Boulevard (#30) – This intersection was found to operate at acceptable LOS (LOS C or better) during the peak hours under Existing traffic conditions, however, the addition of Project traffic (with Indian Street extension alternative only) is anticipated to result in deficient peak hour operations during the PM peak hour only. The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussions with City staff, the improvements are anticipated to be completed by Fall 2015. With the implementation of the planned improvements, there are no LOS deficiencies anticipated with the addition of Project traffic. As such, the impact is considered less-than-significant.

The potential off-site impacts to the study area intersections are anticipated to be relatively the same for the proposed Project, without or with the bridge. As such, the development of the proposed Project is not anticipated to drive the need for the Indian Street bridge over the Perris Valley Storm Drain Channel.

Worksheets for E+P without and with Indian Street Bridge traffic conditions, with improvements, HCM calculation worksheets are provided in Appendix 5.11 and Appendix 5.12, respectively.

5.10.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

As shown on Table 5-6, the E+P peak hour analysis indicates that the adjacent study area intersections on either side of the deficient roadway segments are anticipated to operate at acceptable LOS with the recommended intersection improvements shown. As such, roadway segment widening does not appear necessary to address the deficiencies at the identified roadway segments.

5.10.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously on Table 5-3, there are no peak hour queuing issues at the I-215 Freeway at Cactus Avenue or Harley Knox Boulevard interchanges for E+P traffic conditions. As such, no improvements have been recommended.

5.10.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously on Table 5-4 and Table 5-5, there are no deficient freeway mainline segments or merge/diverge ramp junctions anticipated for E+P traffic conditions. As such, no improvements have been recommended.

6 OPENING YEAR CUMULATIVE (2020) TRAFFIC CONDITIONS

This section discusses the methods used to develop Existing plus Ambient Growth plus Project plus Cumulative (Opening Year Cumulative) (2020) traffic forecasts, and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2020) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

6.2 OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

To account for background traffic, other known cumulative development projects in the study area were included in addition to 10.41% of ambient growth for Opening Year Cumulative traffic conditions. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2020) Without Project traffic conditions are shown on Exhibit 6-1.

6.3 OPENING YEAR CUMULATIVE (2020) WITH PROJECT TRAFFIC VOLUME FORECASTS

To account for background traffic, other known cumulative development projects in the study area were included in addition to 10.41% of ambient growth for Opening Year Cumulative traffic conditions in conjunction with traffic associated with the proposed Project. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2020) With Project traffic conditions are shown on Exhibit 6-2.

EXHIBIT 6-1 (1 OF 2): OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)

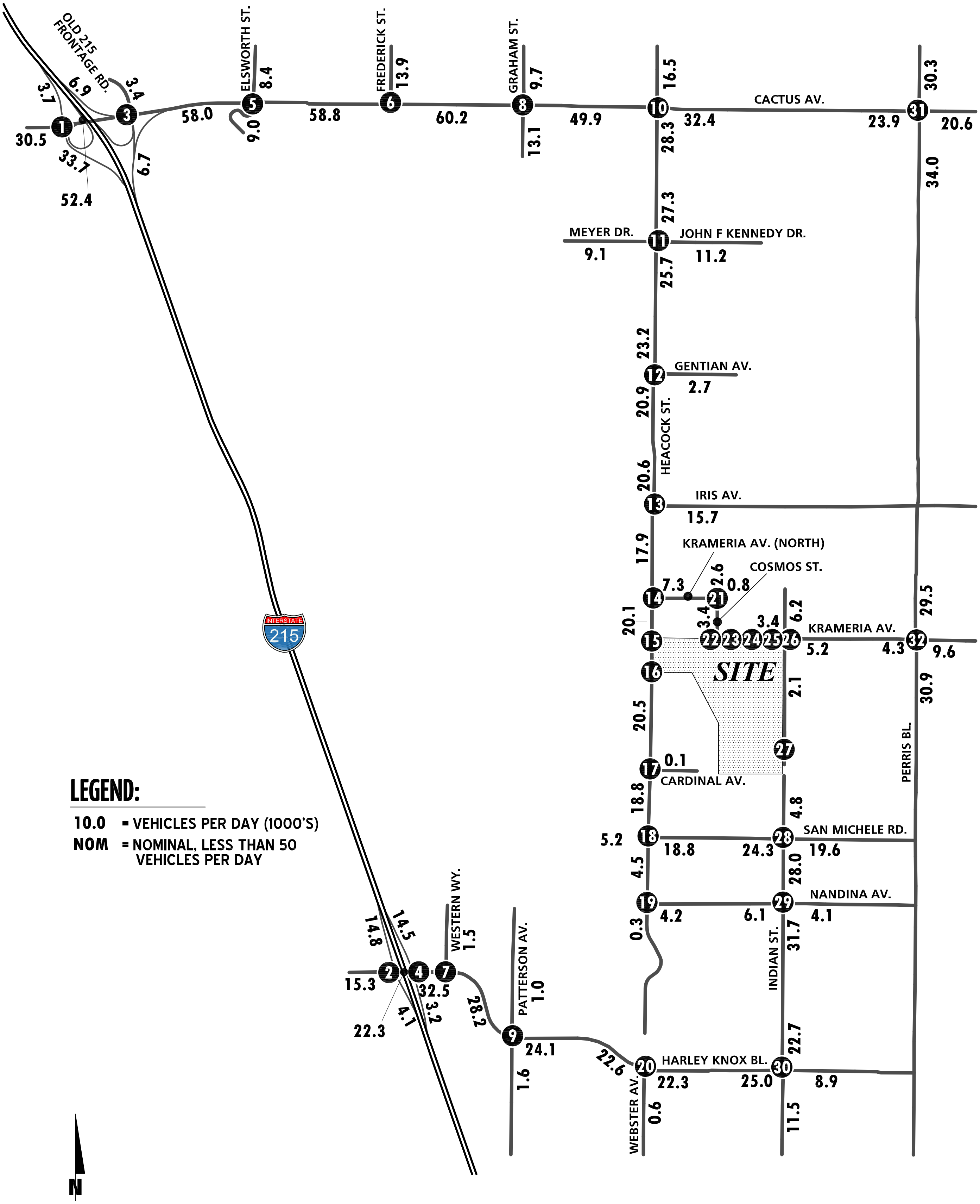

EXHIBIT 6-1 (2 OF 2): OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)

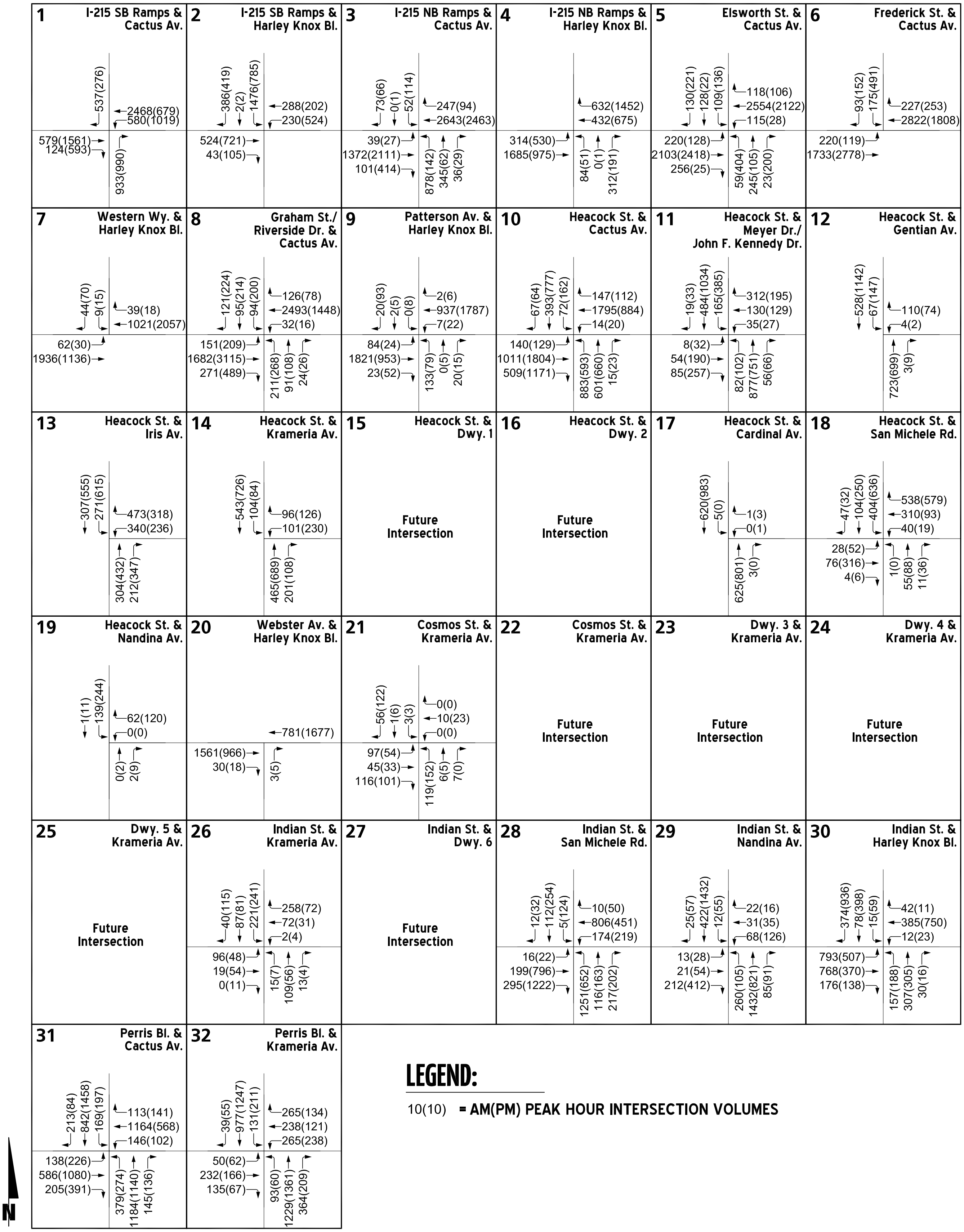

LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 6-2 (1 OF 2): OPENING YEAR CUMULATIVE (2020) WITH PROJECT TRAFFIC VOLUMES (IN PCE)

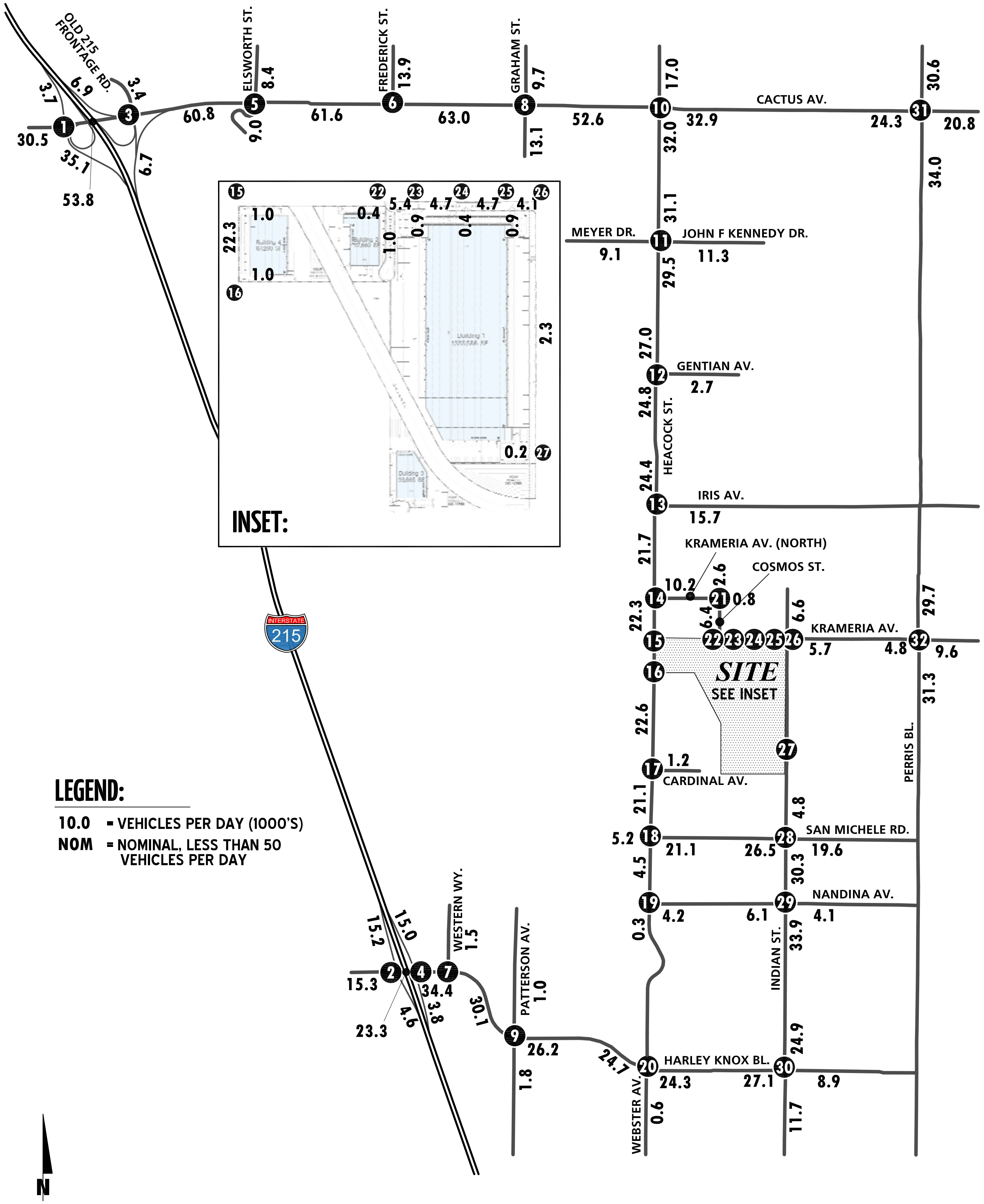

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 6-2 (2 OF 2): OPENING YEAR CUMULATIVE (2020) WITH PROJECT TRAFFIC VOLUMES (IN PCE)

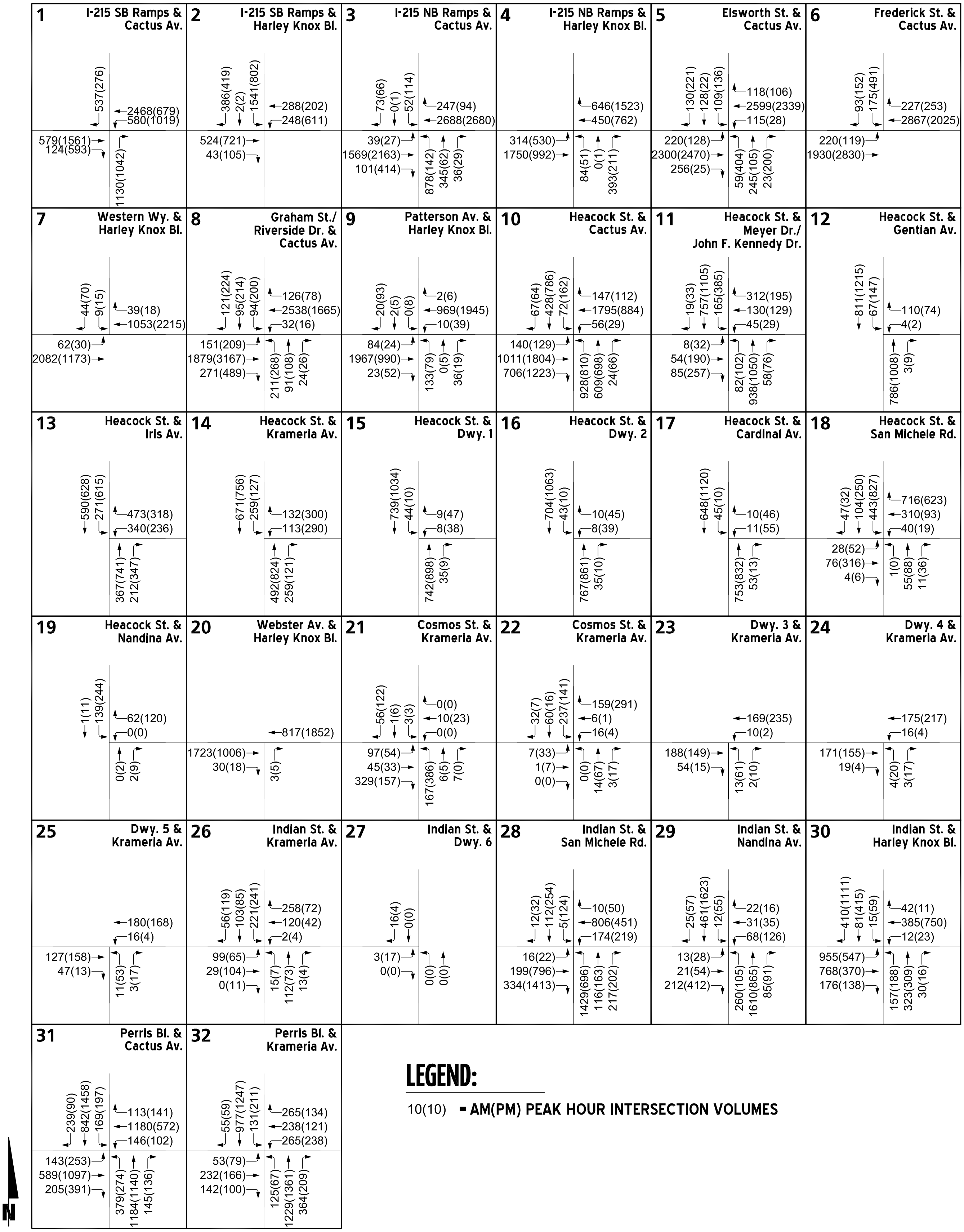

LEGEND:

10(10) **= AM(PM) PEAK HOUR INTERSECTION VOLUMES**

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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6.4 INTERSECTION OPERATIONS ANALYSIS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown in Table 6-1, the following additional study area intersections are anticipated to operate at unacceptable LOS during the peak hours under Opening Year Cumulative (2020) traffic conditions, in addition to those previously identified for Existing traffic conditions:

ID	Intersection Location
1	I-215 Southbound Ramps / Cactus Avenue – LOS F AM and PM peak hours
2	I-215 Southbound Ramps / Harley Knox Boulevard – LOS F AM and PM peak hours
3	I-215 Northbound Ramps / Cactus Avenue – LOS F AM and PM peak hours
4	I-215 Northbound Ramps / Harley Knox Boulevard – LOS F PM peak hour only
5	Elsworth Street / Cactus Avenue – LOS F AM peak hour only
7	Western Way / Harley Knox Boulevard – LOS F PM peak hour only
8	Graham Street / Cactus Avenue – LOS F AM and PM peak hours
9	Patterson Avenue / Harley Knox Boulevard – LOS F AM and PM peak hours
10	Heacock Street / Cactus Avenue – LOS E AM peak hour only
18	Heacock Street / San Michele Road – LOS F AM and PM peak hours
28	Indian Street / San Michele Road 0 LOS F AM and PM peak hours
29	Indian Street / Nandina Avenue – LOS F AM and PM peak hours
30	Indian Street / Harley Knox Boulevard – LOS F PM peak hour only
31	Perris Boulevard / Cactus Avenue – LOS E AM peak hour; LOS F PM peak hour
32	Perris Boulevard / Krameria Avenue – LOS E PM peak hour only

There are no additional intersections anticipated to operate at unacceptable LOS with the addition of Project traffic, in addition to those previously identified for Opening Year Cumulative Without Project traffic conditions. A summary of the peak hour intersection LOS for Opening Year Cumulative (2020) Without Project conditions are shown on Exhibit 6-3 and on Exhibit 6-4 for Opening Year Cumulative (2020) With Project traffic conditions. The intersection operations analysis worksheets for Opening Year Cumulative (2020) Without and With Project traffic conditions are included in Appendix 6.1 and Appendix 6.2 of this TIA, respectively. Measures to address near-term cumulative deficiencies for Opening Year Cumulative traffic conditions are discussed in Section 7.10 *Recommended Improvements.*

6.5 ROADWAY SEGMENT CAPACITY ANALYSIS

As noted previously, the roadway segment capacities are approximate figures only, and are typically used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future forecasted traffic demand.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 6-1

Intersection Analysis for Opening Year Cumulative (2020) Conditions

			2020 Without Project				2020 With Project			
		Traffic Control [2]	Delay [1] (secs.)		Level of Service		Delay [1] (secs.)		Level of Service	
#	Intersection		AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	**117.6**	**172.3**	**F**	**F**	**183.6**	**172.3**	**F**	**F**
2	I-215 SB Ramps / Harley Knox Bl	TS	**>200.0**	**118.6**	**F**	**F**	**>200.0**	**158.4**	**F**	**F**
3	I-215 NB Ramps / Cactus Av	TS	**174.3**	**126.7**	**F**	**F**	**174.7**	**153.7**	**F**	**F**
4	I-215 NB Ramps / Harley Knox Bl	TS	19.2	**>200.0**	B	**F**	25.9	**>200.0**	C	**F**
5	Elsworth St / Cactus Av	TS	**88.7**	43.5	**F**	D	**97.0**	53.6	**F**	D
6	Frederick St / Cactus Av	TS	30.0	47.9	C	D	33.0	51.1	C	D
7	Western Wy / Harley Knox Bl	CSS	18.6	**>100.0**	C	**F**	18.1	**>100.0**	C	**F**
8	Graham St / Cactus Av	TS	**123.8**	**117.6**	**F**	**F**	**125.3**	**117.8**	**F**	**F**
9	Patterson Av / Harley Knox Bl	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
10	Heacock St / Cactus Av	TS	**59.3**	48.9	**E**	D	**64.6**	**85.6**	**E**	**F**
11	Heacock St / John F. Kennedy Dr	TS	25.9	24.1	C	C	26.9	36.7	C	D
12	Heacock St / Gentian Av	CSS	33.2	**>100.0**	D	**F**	**53.8**	**>100.0**	**F**	**F**
13	Heacock St / Iris Av	AWS	**46.2**	**58.5**	**E**	**F**	**57.2**	**59.6**	**F**	**F**
14	Heacock St / Krameria Av (North)	TS	17.1	36.4	B	D	21.2	52.0	C	D
15	Heacock St / Driveway 1	**CSS**	Future Intersection				15.0	20.8	C	C
16	Heacock St / Driveway 2	**CSS**	Future Intersection				14.9	20.9	B	C
17	Heacock St / Cardinal Av	CSS	11.3	26.6	B	D	23.8	28.4	C	D
18	Heacock St / San Michele Rd	TS	**198.9**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
19	Heacock St / Nandina Av	CSS	8.5	8.9	A	A	8.5	8.9	A	A
20	Webster Av / Harley Knox Bl	CSS	0.0	18.4	A	C	0.0	18.4	A	C
21	Cosmos St / Krameria Av (North)	CSS	13.6	15.3	B	C	21.6	25.7	C	D
22	Cosmos St / Krameria Av	**AWS**	Future Intersection				10.1	10.2	B	B
23	Driveway 3 / Krameria Av	**CSS**	Future Intersection				10.2	10.6	B	B
24	Driveway 4 / Krameria Av	**CSS**	Future Intersection				9.8	9.9	A	A
25	Driveway 5 / Krameria Av	**CSS**	Future Intersection				9.9	10.2	A	B
26	Indian St / Krameria Av	AWS	14.0	10.7	B	B	14.9	12.0	B	B
27	Indian St / Driveway 6	**CSS**	Future Intersection				8.7	8.8	A	A
28	Indian St / San Michele Rd	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
29	Indian St / Nandina Av	TS	**125.5**	**135.1**	**F**	**F**	**137.9**	**169.4**	**F**	**F**
30	Indian St / Harley Knox Bl	TS	19.1	**181.4**	B	**F**	19.5	**>200.0**	B	**F**
31	Perris Bl / Cactus Av	TS	**77.5**	**155.6**	**E**	**F**	**79.6**	**165.4**	**E**	**F**
32	Perris Bl / Krameria Av	TS	46.8	**60.4**	D	**E**	48.4	**74.8**	D	**E**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal: AWS= All-way stop

EXHIBIT 6-3: SUMMARY OF PEAK HOUR INTERSECTION LOS
FOR OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS

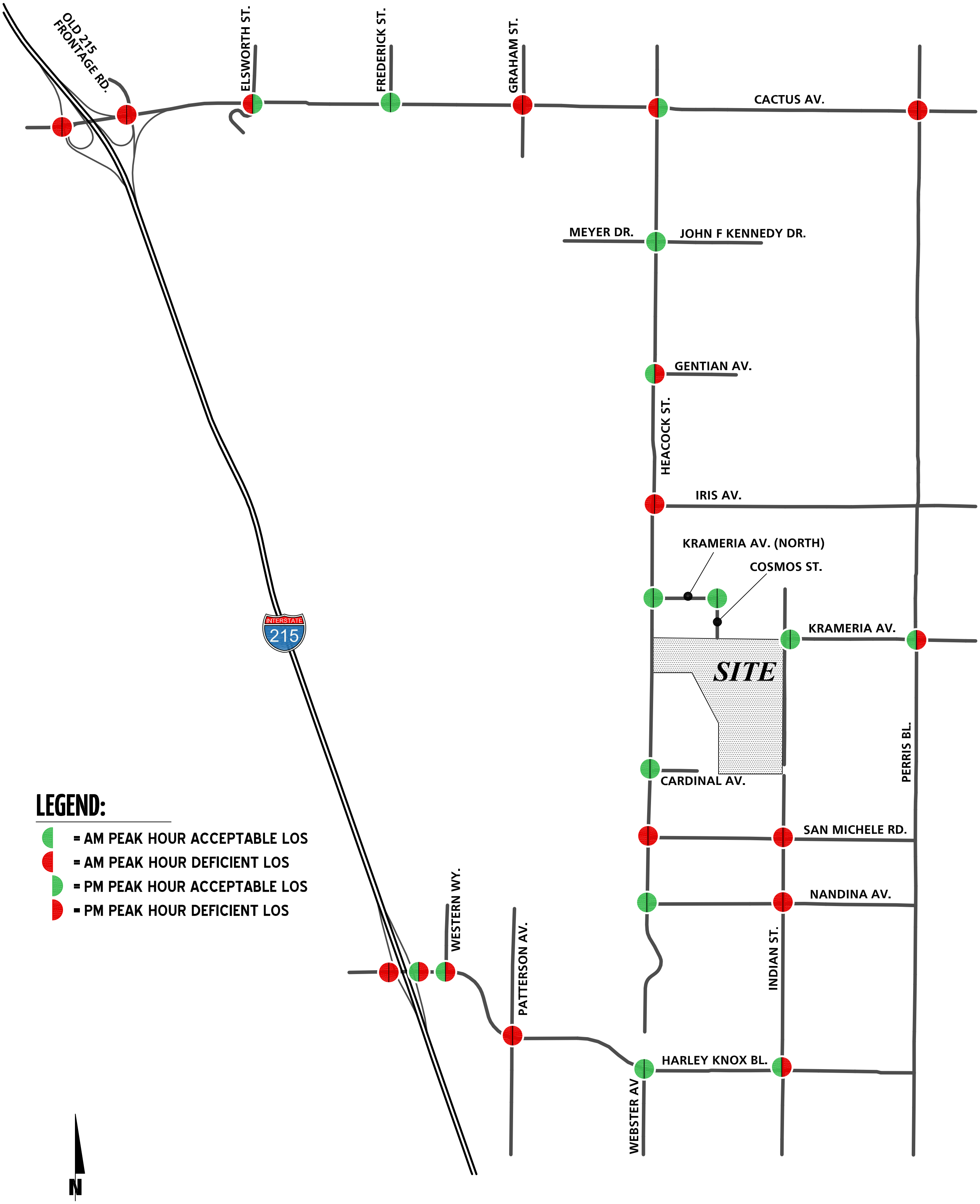

EXHIBIT 6-4: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS

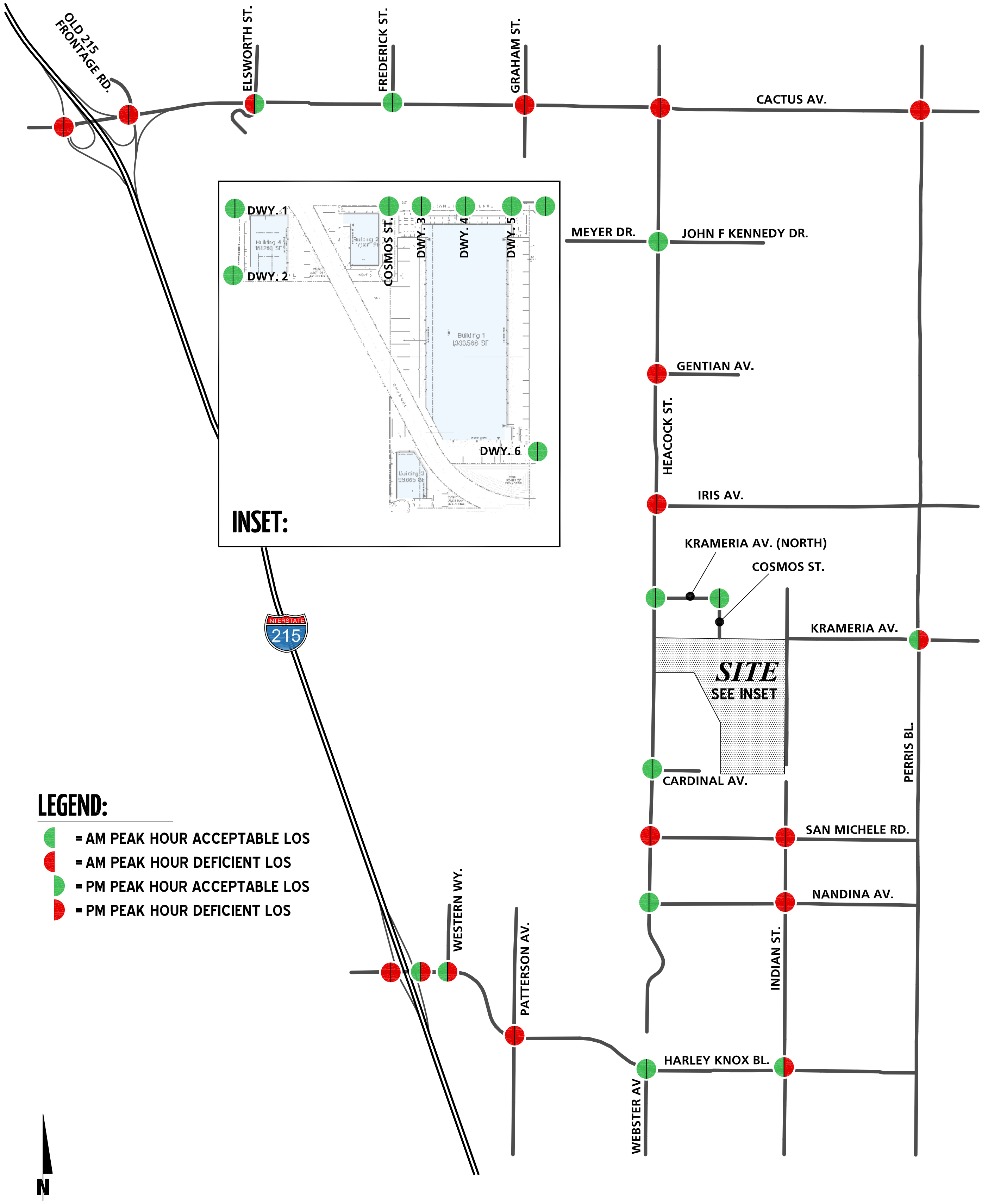

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 6-2 provides a summary of the Opening Year Cumulative (2020) conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/(LOS) Thresholds identified previously on Table 2-3. As shown on Table 6-2, the following roadway segments are anticipated to operate at unacceptable LOS (based on daily roadway segment capacities) under Opening Year Cumulative (2020) Without Project traffic conditions:

ID	Street	Segment
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps – LOS F
2		East of I-215 NB Ramps – LOS F
3		West of Elsworth Street – LOS F
4		East of Elsworth Street – LOS E
5		West of Frederick Street – LOS F
6		East of Frederick Street – LOS F
7		West of Graham Street – LOS F
8		East of Graham Street – LOS F
9		West of Heacock Street – LOS F
20	San Michele Road	East of Heacock Street – LOS E
21		West of Indian Street – LOS F
23	Harley Knox Boulevard	I-215 NB Ramps to Western Way – LOS E
24		East of Western Way – LOS F
25		West of Patterson Avenue – LOS E
26		East of Patterson Avenue – LOS F
27		West of Webster Avenue – LOS F
28		East of Webster Avenue – LOS F
29		West of Indian Street – LOS E
34	Heacock Street	South of Gentian Avenue – LOS F
35		North of Iris Avenue – LOS F
36		Iris Avenue to Krameria Avenue (N) – LOS F
47	Indian Street	South of Nandina Avenue – LOS F

The following roadway segment is anticipated to operate at a deficient LOS with the addition of Project traffic, in addition to those previously identified for Opening Year Cumulative Without Project traffic conditions.

ID	Street	Segment
33	Heacock Street	North of Gentian Avenue – LOS E

Table 6-2

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Roadway Volume/Capacity Analysis for Opening Year Cumulative (2020) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2020 w/o Project	V/C[2]	LOS[3]	2020 w/ Project	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	**52,440**	**1.40**	**F**	**53,830**	**1.44**	**F**	D
2		East of I-215 NB Ramps	4D	37,500	**52,541**	**1.40**	**F**	**55,322**	**1.48**	**F**	D
3		West of Elsworth Street	6D	56,300	**57,997**	**1.03**	**F**	**60,778**	**1.08**	**F**	D
4		East of Elsworth Street	6D	56,300	**54,501**	**0.97**	**E**	**57,282**	**1.02**	**F**	D
5		West of Frederick Street	5D	46,900	**58,823**	**1.25**	**F**	**61,604**	**1.31**	**F**	D
6		East of Frederick Street	5D	46,900	**60,223**	**1.28**	**F**	**63,004**	**1.34**	**F**	D
7		West of Graham Street	5D	46,900	**59,505**	**1.27**	**F**	**62,286**	**1.33**	**F**	D
8		East of Graham Street	5D	46,900	**48,625**	**1.04**	**F**	**51,406**	**1.10**	**F**	D
9		West of Heacock Street	5D	46,900	**49,854**	**1.06**	**F**	**52,635**	**1.12**	**F**	D
10		East of Heacock Street	4D	37,500	32,432	0.86	D	32,890	0.88	D	C
11		West of Perris Boulevard	4D	37,500	23,845	0.64	B	24,303	0.65	B	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	7,254	0.58	A	10,200	0.82	D	D
13		Cosmos Street to Driveway 3	2U	12,500	3,420	0.27	A	5,402	0.43	A	D
14		Driveway 3 to Driveway 4	2U	12,500	3,420	0.27	A	4,702	0.38	A	D
15		Driveway 4 to Driveway 5	2U	12,500	3,420	0.27	A	4,666	0.37	A	D
16		Driveway 5 to Indian Street	2D	18,750	3,420	0.18	A	4,124	0.22	A	D
17		East of Indian Street	2D	18,750	5,173	0.28	A	5,701	0.30	A	D
18		West of Perris Boulevard	2U	12,500	4,290	0.34	A	4,818	0.39	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	51	0.00	A	1,203	0.10	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	**18,781**	**1.00**	**E**	**21,046**	**1.12**	**F**	D
21		West of Indian Street	2D	18,750	**24,254**	**1.29**	**F**	**26,519**	**1.41**	**F**	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	22,314	0.62	A	23,270	0.65	B	D
23		I-215 NB Ramps to Western Way	4D	35,900	**32,527**	**0.91**	**E**	**34,439**	**0.96**	**E**	D
24		East of Western Way	4U	25,900	**28,206**	**1.09**	**F**	**30,119**	**1.16**	**F**	D
25		West of Patterson Avenue	4U	25,900	**25,493**	**0.98**	**E**	**27,406**	**1.06**	**F**	D
26		East of Patterson Avenue	2D	18,000	**24,066**	**1.34**	**F**	**26,155**	**1.45**	**F**	D
27		West of Webster Avenue	2D	18,000	**22,578**	**1.25**	**F**	**24,667**	**1.37**	**F**	D
28		East of Webster Avenue	2D	18,000	**22,247**	**1.24**	**F**	**24,336**	**1.35**	**F**	D
29		West of Indian Street	3D	26,925	**24,971**	**0.93**	**E**	**27,060**	**1.01**	**F**	D

Table 6-2

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Roadway Volume/Capacity Analysis for Opening Year Cumulative (2020) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2020 w/o Project	V/C[2]	LOS[3]	2020 w/ Project	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	28,260	0.75	C	31,985	0.85	D	D
31		North of John F. Kennedy Drive	4D	37,500	27,327	0.73	C	31,052	0.83	D	D
32		South of John F. Kennedy Drive	4D	37,500	25,704	0.69	B	29,535	0.79	C	D
33		North of Gentian Avenue	3D	28,150	23,211	0.82	D	**27,041**	**0.96**	**E**	D
34		South of Gentian Avenue	2U	12,500	**20,916**	**1.67**	**F**	**24,746**	**1.98**	**F**	D
35		North of Iris Avenue	2D	18,750	**20,558**	**1.10**	**F**	**24,388**	**1.30**	**F**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	**17,912**	**1.43**	**F**	**21,742**	**1.74**	**F**	D
37		Krameria Avenue (N) to Driveway 1	3D	28,150	20,115	0.71	C	22,267	0.79	C	D
38		Driveway 1 to Driveway 2	3D	28,150	20,115	0.71	C	21,985	0.78	C	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	20,511	0.55	A	22,621	0.60	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	18,883	0.67	B	21,149	0.75	C	D
41		San Michele Road to Nandina Avenue	2D	18,750	4,465	0.24	A	4,465	0.24	A	D
42		South of Nandina Avenue	2U	12,500	252	0.02	A	252	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	0	0.00	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	3,420	0.27	A	6,366	0.51	A	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	174	0.00	A	174	0.00	A	D
46		San Michele Road to Nandina Avenue	4D	37,500	28,062	0.75	C	30,327	0.81	D	D
47		South of Nandina Avenue	2D	18,750	**31,663**	**1.69**	**F**	**33,928**	**1.81**	**F**	D
48		North of Harley Knox Boulevard	4D	35,900	22,657	0.63	B	24,922	0.69	B	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

As previously discussed in Section 3.8 *Existing Conditions Roadway Segment Capacity Analysis*, a peak hour assessment of intersections located on either side of a deficient roadway segment has been conducted to determine if peak hour traffic flows can be accommodated by the potentially deficient roadway segment. If it is determined that peak traffic flows can be accommodated at the City's stated LOS thresholds, then roadway segment widening is typically not recommended.

The traffic study is conservative in that the Opening Year (2020) Cumulative peak hour intersection operations and roadway segment analysis does not assume the planned future roadway extension of Heacock Street to Harley Knox Boulevard or Indian Street over the Perris Valley Storm Drain. With the future extension of Heacock Street and Indian Street in place, future year traffic on Heacock Street, Indian Street, and Perris Boulevard in the near-term cumulative scenario would have multiple alternatives in accessing Harley Knox Boulevard. It is assumed that as a result of a reduction in traffic volumes along Indian Street and Perris Boulevard due to the Heacock Street and Indian Street extensions and potentially deficiencies to intersections and roadway segments along Perris Boulevard and Indian Street towards Harley Knox Boulevard would also potentially be reduced.

6.6 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the I-215 Freeway and Cactus Avenue and Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 6-3 for Opening Year Cumulative traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline.

As shown on Table 6-3, the following movement may potentially experience queuing issues during the weekday AM peak 95th percentile traffic flows for Opening Year Cumulative traffic conditions:

ID	Intersection Location
2	I-215 SB Ramps / Harley Knox Boulevard – Southbound shared left-through lane (AM peak hour only)

The 95th percentile queues for Opening Year Cumulative traffic conditions indicates potential queuing for the movement and peak hour identified above. As shown, the analysis indicates that potential queues would exceed the length of the off-ramp and could potentially spillback into the adjacent through lanes on the freeway mainline during the AM peak hour only.

The addition of Project traffic is not anticipated to result in any additional queuing issues. However, the addition of Project traffic to the deficient turning movement is cumulatively considerable.

Worksheets for Opening Year Cumulative (2020 Without and With project traffic conditions off-ramp queuing analysis are provided in Appendix 6.3 and Appendix 6.4, respectively.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 6-3

Peak Hour Off-Ramp Queuing Analysis for Opening Year Cumulative (2020) Conditions

Intersection	Movement	Stacking Distance (Feet)	2020 Without Project				2020 With Project			
			95^{th} Percentile Stacking Distance Required (Feet)		Acceptable?[1]		95^{th} Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	498[2]	584[2]	Yes	Yes	677[2]	631[2]	Yes	Yes
	SBR	1,115	392[2]	66	Yes	Yes	392[2]	66	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	**2,096**[2]	891[2]	**No**	Yes	**2,208**[2]	920[2]	**No**	Yes
	SBR	270	198	111	Yes	Yes	202	115	Yes	Yes
I-215 NB Ramps / Cactus Av.	NBL	145	800[2]	93	Yes[3]	Yes	800[2]	93	Yes[3]	Yes
	NBT	1,650	235[2]	58	Yes	Yes	235[2]	59	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	110	76	Yes	Yes	110	76	Yes	Yes
	NBR	265	375[2]	113	Yes[3]	Yes	534[2]	139	Yes[3]	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound turn lane without spilling back and affecting the I-215 Freeway mainline.

6.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

There are no additional study area intersections that are anticipated to meet either peak hour or planning level (ADT) volume based traffic signal warrants for Opening Year Cumulative traffic conditions (see Appendix 6.5 and Appendix 6.6).

6.8 BASIC FREEWAY SEGMENT ANALYSIS

Opening Year Cumulative (2020) Without Project mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 6-5 and on Exhibit 6-6 for Opening Year Cumulative (2020) With Project traffic conditions. As shown on Table 6-4, the freeway segments analyzed for this study are anticipated to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for both without and with Project traffic conditions. Opening Year Cumulative (2020) Without and With Project basic freeway segment analysis worksheets are provided in Appendix 6.7 and Appendix 6.8, respectively.

6.9 FREEWAY MERGE/DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for Opening Year Cumulative conditions and the results of this analysis are presented in Table 6-5. As shown in Table 6-5, the freeway ramp merge and diverge areas are anticipated to operate at acceptable LOS (i.e., LOS D or better), with the exception of the following ramp junctions:

ID	Freeway Merge/Diverge Ramp Junctions
1	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue – LOS E AM and PM peak hours
2	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue – LOS E AM and PM peak hours
3	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard – LOS E PM peak hour only

Although the addition of Project traffic is not anticipated to result in any new deficiencies, the Project would contribute cumulatively to the impact at the aforementioned ramp junctions. Opening Year Cumulative (2020) Without and With Project freeway ramp junction operations analysis worksheets are provided in Appendix 6.9 and Appendix 6.10, respectively.

6.10 OPENING YEAR CUMULATIVE DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

6.10.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the recommended improvement strategies discussed below to address Opening Year Cumulative traffic deficiencies is presented in Table 6-6.

Worksheets for Opening Year Cumulative (2020) Without and With Project traffic conditions, with improvements, HCM calculation worksheets are provided in Appendix 6.11 and Appendix 6.12, respectively.

EXHIBIT 6-5: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES

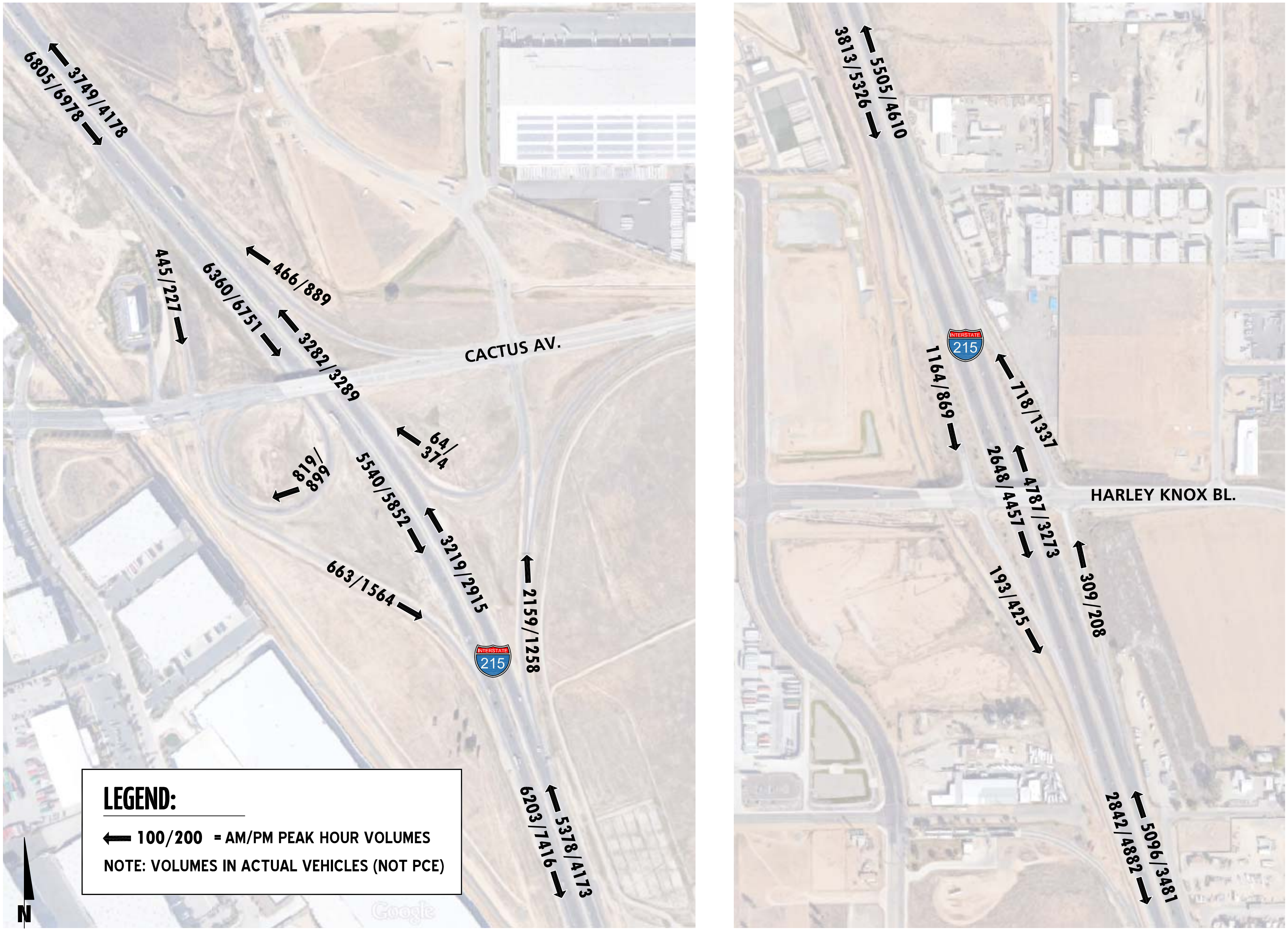

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URBAN CROSSROADS

EXHIBIT 6-6: OPENING YEAR CUMULATIVE (2020) WITH PROJECT FREEWAY MAINLINE VOLUMES

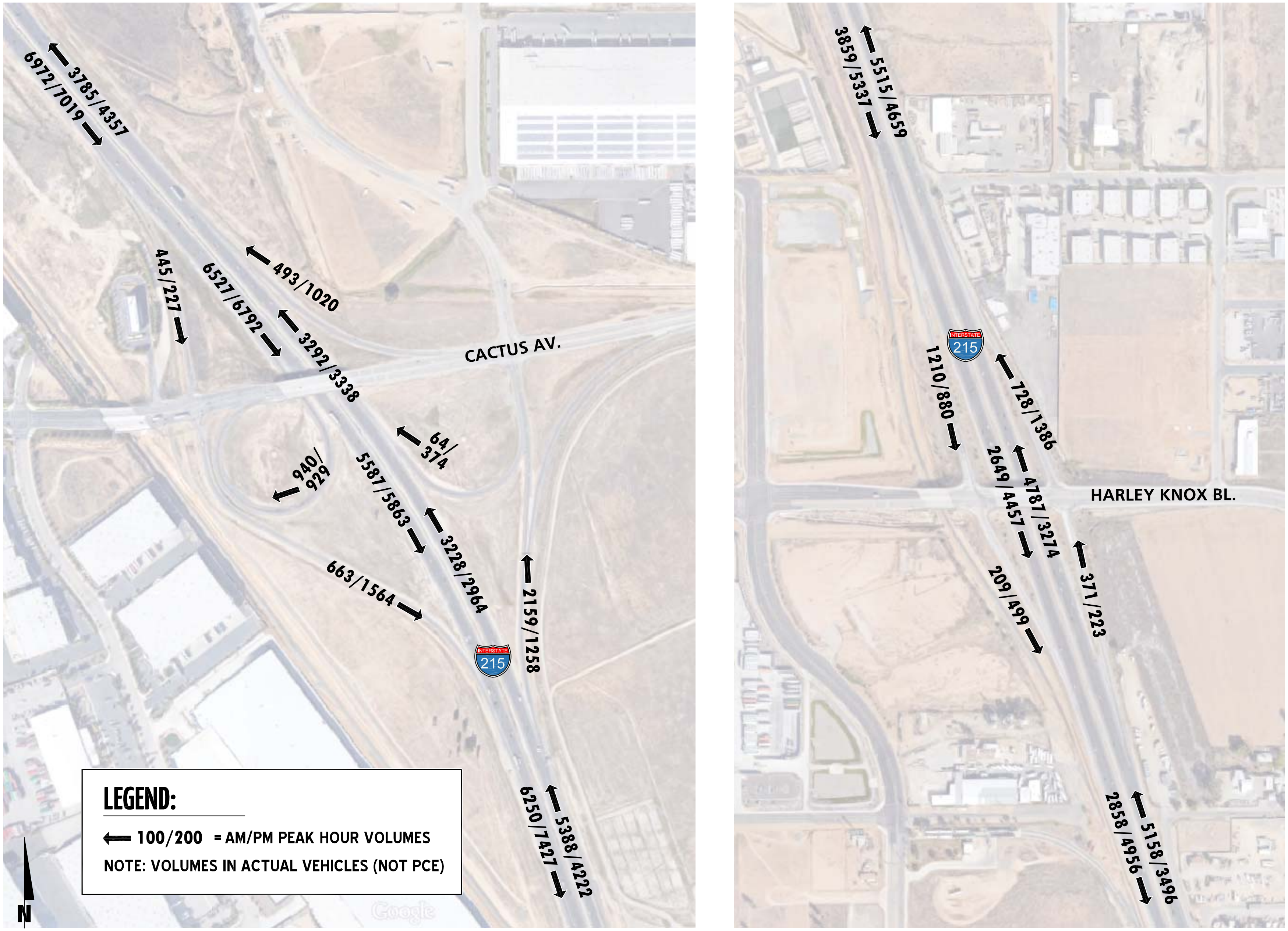

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URBAN CROSSROADS

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 6-4

Basic Freeway Segment Analysis for Opening Year Cumulative (2020) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	2020 Without Project				2020 With Project			
				Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	SB	North of Cactus Avenue	4	30.1	30.8	D	D	31.5	31.1	D	D
		South of Cactus Avenue	4	26.0	33.7	D	D	26.3	33.8	D	D
		North of Harley Knox Boulevard	3	21.2	32.6	C	D	21.5	32.7	C	D
		South of Harley Knox Boulevard	3	15.2	28.4	B	D	15.3	29.0	B	D
	NB	North of Cactus Avenue	4	15.2	17.1	B	B	15.4	18.0	B	C
		South of Cactus Avenue	4	21.8	16.7	C	B	21.9	16.9	C	B
		North of Harley Knox Boulevard	3	34.2	26.4	D	D	34.3	26.8	D	D
		South of Harley Knox Boulevard	3	30.0	18.6	D	C	30.6	18.7	D	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 6-5

Freeway Ramp Junction Merge/Diverge Analysis for Opening Year Cumulative (2020) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	2020 Without Project				2020 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	**36.0**	**E**	**37.6**	**E**	**37.7**	**E**	**38.0**	**E**
		Loop Off-Ramp at Cactus Avenue - Downstream	4	**36.0**	**E**	**37.6**	**E**	**37.7**	**E**	**38.0**	**E**
		Off-Ramp at Harley Knox Boulevard	3	29.7	D	**35.7**	**E**	30.1	D	**35.8**	**E**
		On-Ramp at Harley Knox Boulevard	3	19.0	B	30.5	D	19.2	B	31.2	D
	NB	On-Ramp at Cactus Avenue	3	26.3	C	30.1	D	26.6	C	31.8	D
		On-Ramp at Harley Knox Boulevard	3	34.4	D	32.1	D	34.5	D	32.6	D
		Off-Ramp at Harley Knox Boulevard	3	32.7	D	34.3	C	33.1	D	24.4	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 6-6

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Intersection Analysis for Opening Year Cumulative (2020) Conditions With Improvements*

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av																	
	- Without Project	TS	0	0	0	0	0	**2**	0	2	1	**2**	2	0	30.0	27.9	C	C
	- With Project	TS	0	0	0	0	0	**2**	0	2	1	**2**	2	0	30.1	27.9	C	C
2	I-215 SB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	2	0	27.6	30.3	C	C
	- With Project	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	2	0	28.1	30.9	C	C
3	I-215 NB Ramps / Cactus Av																	
	- Without Project[4]	TS	**2**	1	0	1	1	0	1	**3**	0	0	**3**	0	37.2	20.3	D	C
	- With Project[4]	TS	**2**	1	0	1	1	0	1	**3**	0	0	**3**	0	37.6	27.2	D	C
4	I-215 NB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	22.4	27.1	C	C
	- With Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	23.8	42.1	C	D
5	Elsworth St / Cactus Av																	
	- Without Project[4]	TS	1	1	0	1	1	1>	1	3	1>>	1	3	1	35.0	44.0	C	D
	- With Project[4]	TS	1	1	0	1	1	1>	1	3	1>>	1	3	1	37.2	52.9	D	D
7	Western Wy / Harley Knox Bl																	
	- Without Project	**TS**	0	0	0	0	1	0	**1**	2	0	0	2	d	25.9	23.2	C	C
	- With Project	**TS**	0	0	0	0	1	0	**1**	2	0	0	2	d	39.1	34.9	D	C
8	Graham St / Cactus Av																	
	- Without Project	TS	2	2	0	1	2	1>	1	**3**	1>>	1	3	0	26.7	24.6	C	C
	- With Project	TS	2	2	0	1	2	1>	1	**3**	1>>	1	3	0	26.7	24.8	C	C
9	Patterson Av / Harley Knox Bl																	
	- Without Project[5]	TS	0	1	0	0	1	d	1	**2**	1	1	**2**	**1**	25.6	24.0	C	C
	- With Project[5]	TS	0	1	0	0	1	d	1	**2**	1	1	**2**	**1**	34.3	30.0	C	C
10	Heacock St / Cactus Av																	
	- Without Project[6]	TS	2	2	0	1	2	0	1	2	1>	1	2	0	50.7	44.8	D	D
	- With Project[6]	TS	2	2	0	1	2	0	1	2	1>	1	2	0	54.6	52.0	D	D
12	Heacock St / Gentian Av																	
	- Without Project	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	12.5	17.8	B	B
	- With Project	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	19.2	19.6	B	B
13	Heacock St / Iris Av																	
	- Without Project	**TS**	0	**2**	0	**2**	**2**	0	0	0	0	1	0	**1>**	20.9	31.1	C	C
	- With Project	**TS**	0	**2**	0	**2**	**2**	0	0	0	0	1	0	**1>**	21.0	33.4	B	C
18	Heacock St / San Michele Rd																	
	- Without Project	TS	1	1	1	**2**	1	1	1	1	1	1	1	**1>**	29.1	49.6	C	D
	- With Project	TS	1	1	1	**2**	1	1	1	1	1	1	1	**1>**	38.7	49.8	D	D

Table 6-6

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Intersection Analysis for Opening Year Cumulative (2020) Conditions With Improvements*

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
28	Indian St / San Michele Rd																	
	- Without Project	TS	2	1	1	1	2	0	1	**2**	1>	1	2	d	35.4	52.4	D	D
	- With Project	TS	2	1	1	1	2	0	1	**2**	1>	1	2	d	54.0	53.6	D	D
29	Indian St / Nandina Av																	
	- Without Project	TS	1	2	0	1	2	0	1	1	**1>**	1	1	d	21.1	32.2	C	C
	- With Project	TS	1	2	0	1	2	0	1	1	**1>**	1	1	d	22.3	53.8	C	D
30	Indian St / Harley Knox Bl																	
	- Without Project	TS	2	2	1	1	2	**1>**	1	**3**	**0**	**1**	**3**	0	15.0	29.8	B	C
	- With Project	TS	2	2	1	1	2	**1>**	1	**3**	**0**	**1**	**3**	0	22.2	32.2	C	C
31	Perris Bl / Cactus Av																	
	- Without Project	TS	1	3	0	1	2	1	**1**	2	**1>**	1	2	0	52.0	52.9	D	D
	- With Project	TS	1	3	0	1	2	1	**1**	2	**1>**	1	2	0	54.1	54.5	D	D
32	Perris Bl / Krameria Av																	
	- Without Project[7]	TS	1	3	0	1	3	0	**1**	1	0	**1**	1	1	52.4	49.3	D	D
	- With Project[7]	TS	1	3	0	1	3	0	**1**	1	0	**1**	1	1	54.7	52.0	D	D

* Note: The recommended improvements shown in this table are based on conservative traffic forecasts for Opening Year Cumulative traffic conditions and are driven by the amount of cumulative developments as opposed to the Project. These improvements may not be necessary, depending on the amount of growth that actually occurs over the next 5 years.

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] Improvements also include implementing protected left-turn phasing for the northbound and southbound approaches.

[5] The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussions with City staff, the improvements are anticipated to be completed by Fall 2015.

[6] Improvement includes removing the southbound crosswalk (on the west leg) to accommodate additional green time along Cactus Avenue.

[7] Improvements also include implementing protected left-turn phasing for the eastbound and westbound approaches.

6.10.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

As shown on Table 6-6, the Opening Year Cumulative peak hour analysis indicates that the adjacent study area intersections on either side of the deficient roadway segments are anticipated to operate at acceptable LOS with the recommended intersection improvements shown. These intersection improvements consist of installation of traffic signals, additional turn lanes, additional through lanes, and traffic signal modifications to accommodate right turn overlap phasing. Table 6-7 shows the LOS for each of the applicable roadway segments with improvements consistent with those shown on Table 6-6 for the adjacent study area intersections, where roadway widening through additional through lanes has been recommended. In other words, only the roadway segments adjacent to study area intersections where additional through lanes have been recommended on Table 6-6 are shown on Table 6-7. As shown on Table 6-7, although most roadway segments shown are anticipated to improve in LOS to acceptable levels, there are a few deficient roadway segments with the recommended intersection improvements, however, roadway segment widening does not appear necessary to address the deficiencies at the identified roadway segments based on the peak hour intersection operations analysis shown on Table 6-6. There are also other deficient roadway segments (see Table 6-2), where additional roadway widening has not been recommended as the adjacent study area intersections (see Table 6-1) are anticipated to operate at acceptable LOS during the peak hours.

6.10.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

With the implementation of the recommended intersection improvements shown on Table 6-6, which are necessary to reduce near-term cumulative impacts to less than significant levels, there are no potential queuing issues anticipated for Opening Year Cumulative traffic conditions (see Table 6-8). As such, no spill-back onto the I-215 Freeway Southbound mainline is anticipated. Worksheets for Opening Year Cumulative (2020) Without and With Project traffic conditions, with improvements, queuing analysis are provided in Appendix 6.13 and Appendix 6.14, respectively.

6.10.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

The SCAG RTP includes a list of projects in the Federal Transportation Improvement Program (FTIP). The following is an applicable FTIP project within the study area: interchange improvements at I-215/Cactus Avenue, which includes the extension of the northbound auxiliary lane between Cactus Avenue and Alessandro Boulevard to the north (to be completed by 2018). However, this improvement is not anticipated to improve the LOS deficiencies at the deficient freeway merge/diverge ramp junctions.

Table 6-7

Roadway Volume/Capacity Analysis for Opening Year Cumulative (2020) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section[1]	LOS Capacity[2]	2020 w/o Project	V/C[3]	LOS[4]	2020 w/ Project	V/C[3]	LOS[4]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	6D	56,300	**52,440**	**0.93**	**E**	**53,830**	**0.96**	**E**	D
2		East of I-215 NB Ramps	6D	56,300	**52,541**	**0.93**	**E**	**55,322**	**0.98**	**E**	D
3		West of Elsworth Street[5]	6D	56,300	**57,997**	**1.03**	**F**	**60,778**	**1.08**	**F**	D
4		East of Elsworth Street[5]	6D	56,300	**54,501**	**0.97**	**E**	**57,282**	**1.02**	**F**	D
5		West of Frederick Street[5]	5D	46,900	**58,823**	**1.25**	**F**	**61,604**	**1.31**	**F**	D
6		East of Frederick Street[5]	5D	46,900	**60,223**	**1.28**	**F**	**63,004**	**1.34**	**F**	D
7		West of Graham Street	6D	56,300	**59,505**	**1.06**	**F**	**62,286**	**1.11**	**F**	D
8		East of Graham Street	6D	56,300	48,625	0.86	D	**51,406**	**0.91**	**E**	D
9		West of Heacock Street	6D	56,300	49,854	0.89	D	**52,635**	**0.93**	**E**	D
10		East of Heacock Street	6D	56,300	32,432	0.58	A	32,890	0.58	A	C
20	San Michele Road	East of Heacock Street	4D	35,900	18,781	0.52	A	21,046	0.59	A	D
21		West of Indian Street	4D	35,900	24,254	0.68	B	26,519	0.74	C	D
23	Harley Knox Boulevard	I-215 NB Ramps to Western Way[5]	4D	35,900	**32,527**	**0.91**	**E**	**34,439**	**0.96**	**E**	D
24		East of Western Way[5]	4U	25,900	**28,206**	**1.09**	**F**	**30,119**	**1.16**	**F**	D
25		West of Patterson Avenue	4D	35,900	25,493	0.71	C	27,406	0.76	C	D
26		East of Patterson Avenue	4D	35,900	24,066	0.67	B	26,155	0.73	C	D
27		West of Webster Avenue	6D	53,900	22,578	0.42	A	24,667	0.46	A	D
28		East of Webster Avenue	6D	53,900	22,247	0.41	A	24,336	0.45	A	D
29		West of Indian Street	6D	53,900	24,971	0.46	A	27,060	0.50	A	D
33	Heacock Street	North of Gentian Avenue[5]	3D	28,150	23,211	0.82	D	**27,041**	**0.96**	**E**	D
34		South of Gentian Avenue[5]	2U	12,500	**20,916**	**1.67**	**F**	**24,746**	**1.98**	**F**	D
35		North of Iris Avenue	4D	37,500	20,558	0.55	A	24,388	0.65	B	D
36		Iris Avenue to Krameria Avenue (N)	4D	37,500	17,912	0.48	A	21,742	0.58	A	D
47	Indian Street	South of Nandina Avenue[5]	2D	18,750	**31,663**	**1.69**	**F**	**33,928**	**1.81**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Roadway section improvements are consistent with the through lanes recommended as part of the intersection improvements shown on Table 6-6.

[2] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[3] V/C = Volume to Capacity Ratio

[4] LOS = Level of Service

[5] Additional roadway widening has not been recommended for these deficient roadway segments as the adjacent study area intersections (see Table 6-1 and Table 6-6) are anticipated to operate at acceptable LOS during the peak hours.

Table 6-8

Peak Hour Off-Ramp Queuing Analysis for Opening Year Cumulative (2020) Conditions With Improvements

Intersection	Movement	Stacking Distance (Feet)	2020 Without Project				2020 With Project			
			95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]		95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	0	0	Yes	Yes	0	0	Yes	Yes
	SBR	1,115	253	0	Yes	Yes	253	0	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	431[2]	255[2]	Yes	Yes	514	264[2]	Yes	Yes
	SBR	270	46	63	Yes	Yes	46	63	Yes	Yes
I-215 NB Ramps / Cactus Av.	NBL	145	511[2]	94[2]	Yes[3]	Yes	511[2]	94[2]	Yes[3]	Yes
	NBT	1,650	363	105	Yes	Yes	363	105	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	95	83	Yes	Yes	95	83	Yes	Yes
	NBR	265	279	100	Yes[3]	Yes	374	127	Yes[3]	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound turn lane without spilling back and affecting the I-215 Freeway mainline.

Table 6-9 shows the basic freeway segment analysis LOS for the segment of the I-215 Freeway Northbound, north of Cactus Avenue. At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Moreno Valley (or other neighboring jurisdictions) on SHS roadway segments. Worksheets for Opening Year Cumulative (2020) Without and With project traffic conditions, with improvements, basic freeway segment analysis are provided in Appendix 6.15 and 6.16, respectively.

Table 6-9

Basic Freeway Segment Analysis for Opening Year Cumulative (2020) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	2020 Without Project				2020 With Project			
				Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	NB	North of Cactus Avenue	5	12.2	13.7	B	B	12.3	14.4	B	B

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on proposed improvements.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

7 GENERAL PLAN BUILDOUT (POST 2035) TRAFFIC CONDITIONS

This section discusses the methods used to develop General Plan Buildout (Post 2035) Without and With Project traffic forecasts, and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for General Plan Buildout conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for General Plan Buildout conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for General Plan Buildout conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).
- The extension of Heacock Street to the north of Harley Knox Boulevard.
- The extension of Indian Street over the Perris Valley Storm Drain Channel. As traffic in the area increases and the roadway network begins to build out, the implementation of the Indian Street bridge over the Perris Valley Storm Drain Channel would only help with relieving potential heavy traffic flows along other parallel facilities, such as Heacock Street and Perris Boulevard
- Other parallel facilities, that although not evaluated for the purposes of this analysis, are anticipated to be in place for General Plan Buildout traffic conditions and would affect the travel patterns within the study area (e.g., Nandina Avenue, Markham Street, etc.).

7.2 GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM. For additional information on the development of the General Plan Buildout Without Project traffic forecasts, see Section 4.8 *General Plan Buildout (Post 2035) Volume Development* of this TIA. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for General Plan Buildout Without Project traffic conditions are shown on Exhibit 7-1.

7.3 GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM, plus Project traffic. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for General Plan Buildout With Project traffic conditions are shown on Exhibit 7-2.

EXHIBIT 7-1 (1 OF 2): GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)

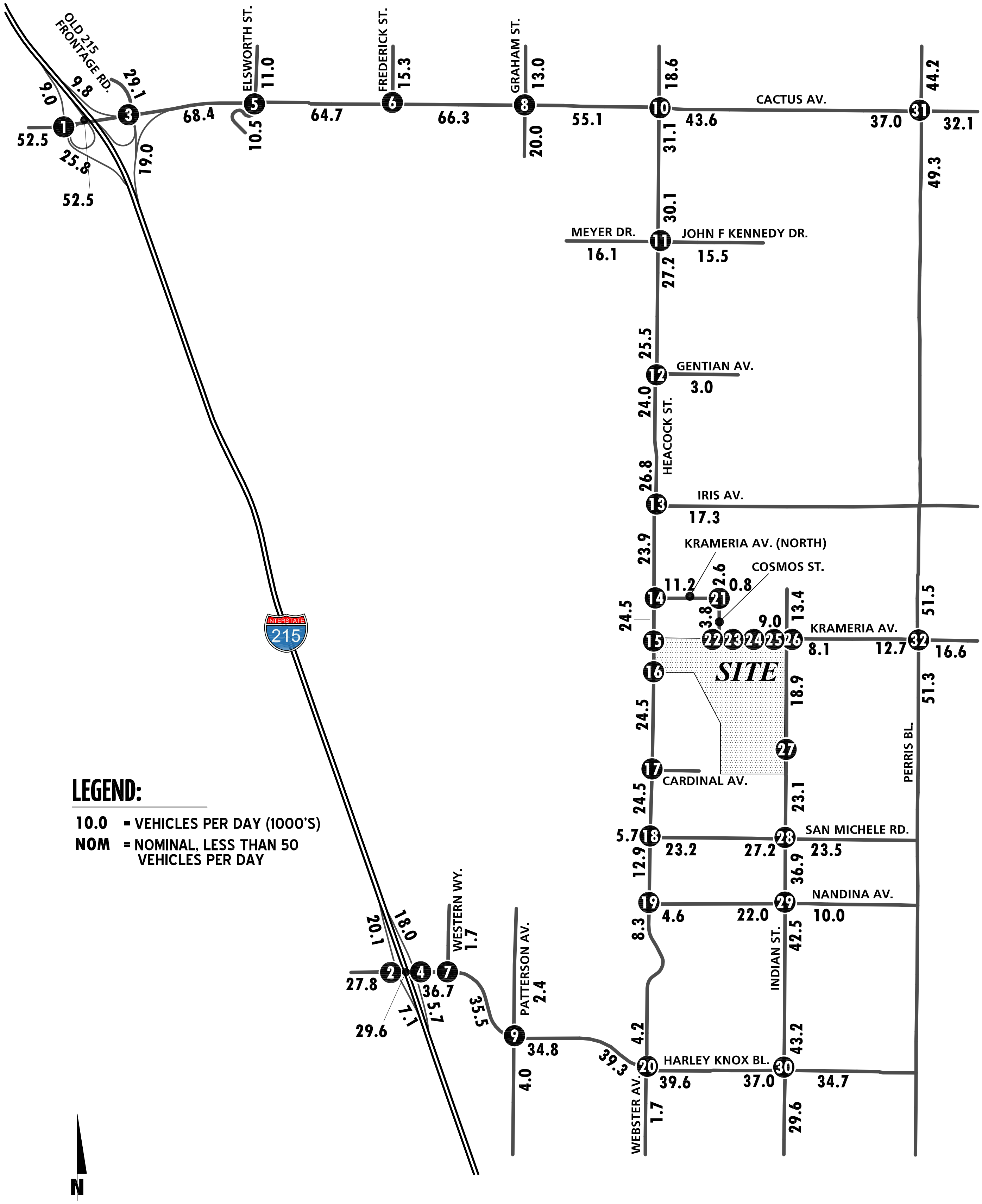

EXHIBIT 7-1 (2 OF 2): GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)

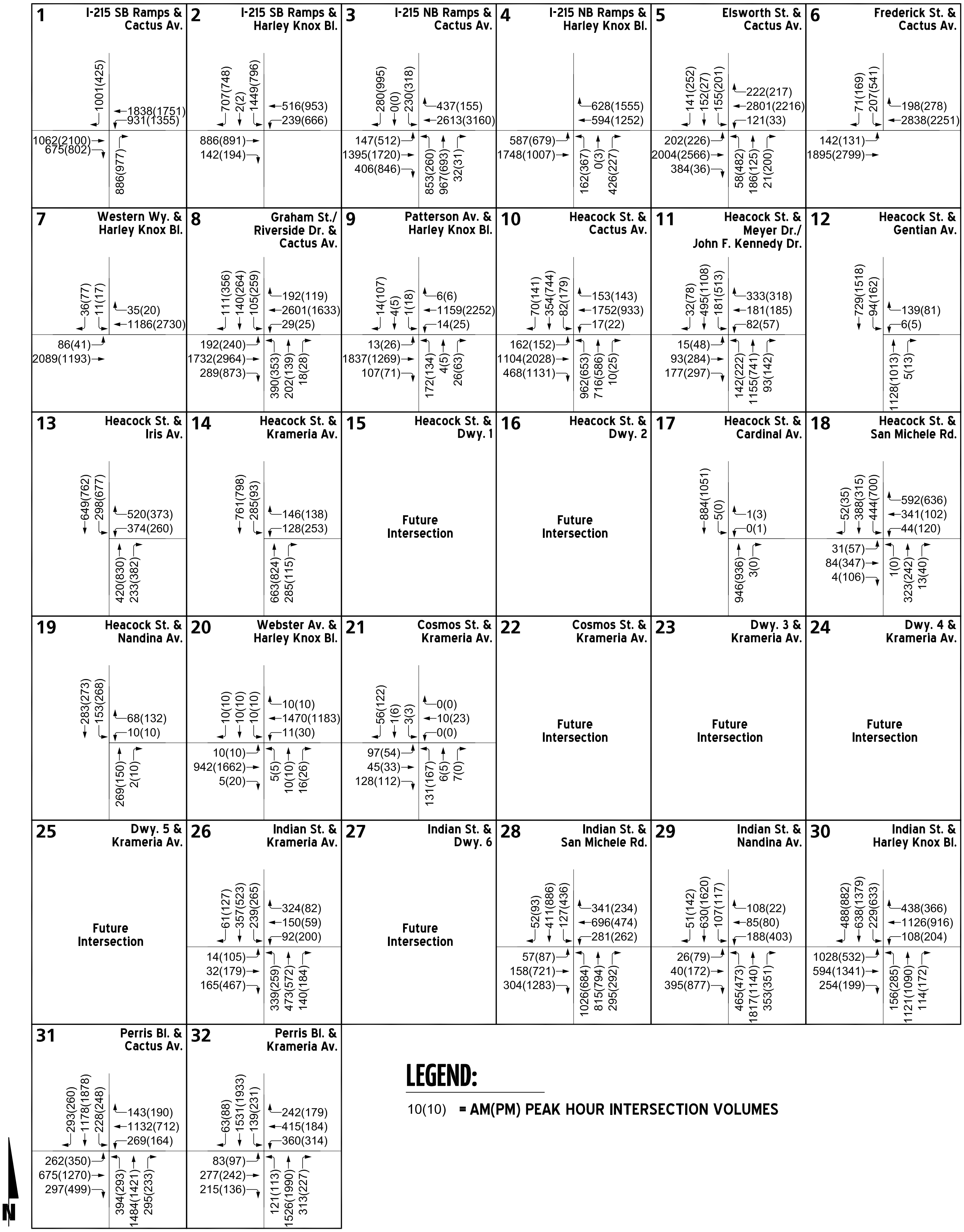

LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

EXHIBIT 7-2 (1 OF 2): GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT TRAFFIC VOLUMES (IN PCE)

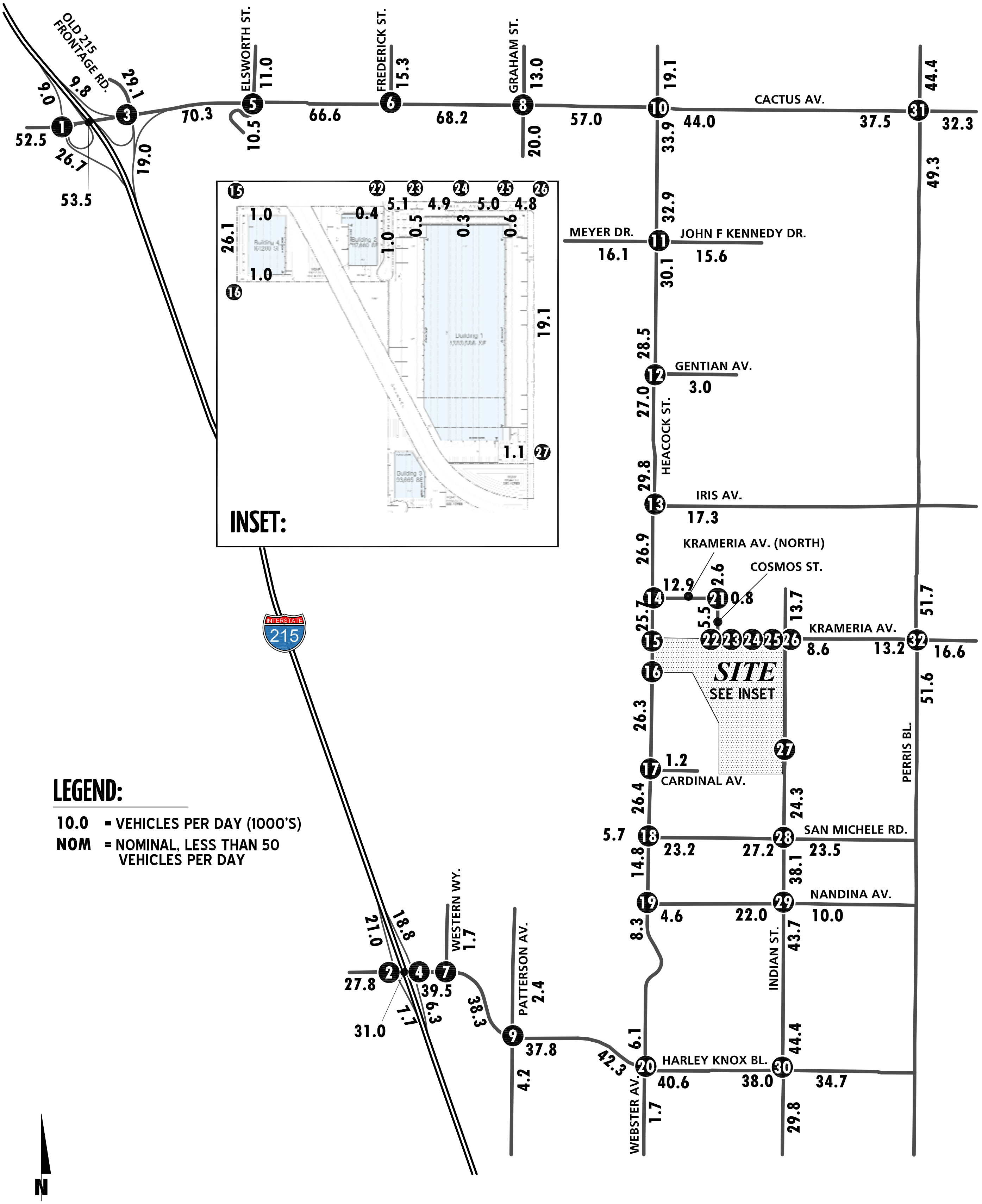

URBAN CROSSROADS

EXHIBIT 7-2 (2 OF 2): GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT TRAFFIC VOLUMES (IN PCE)

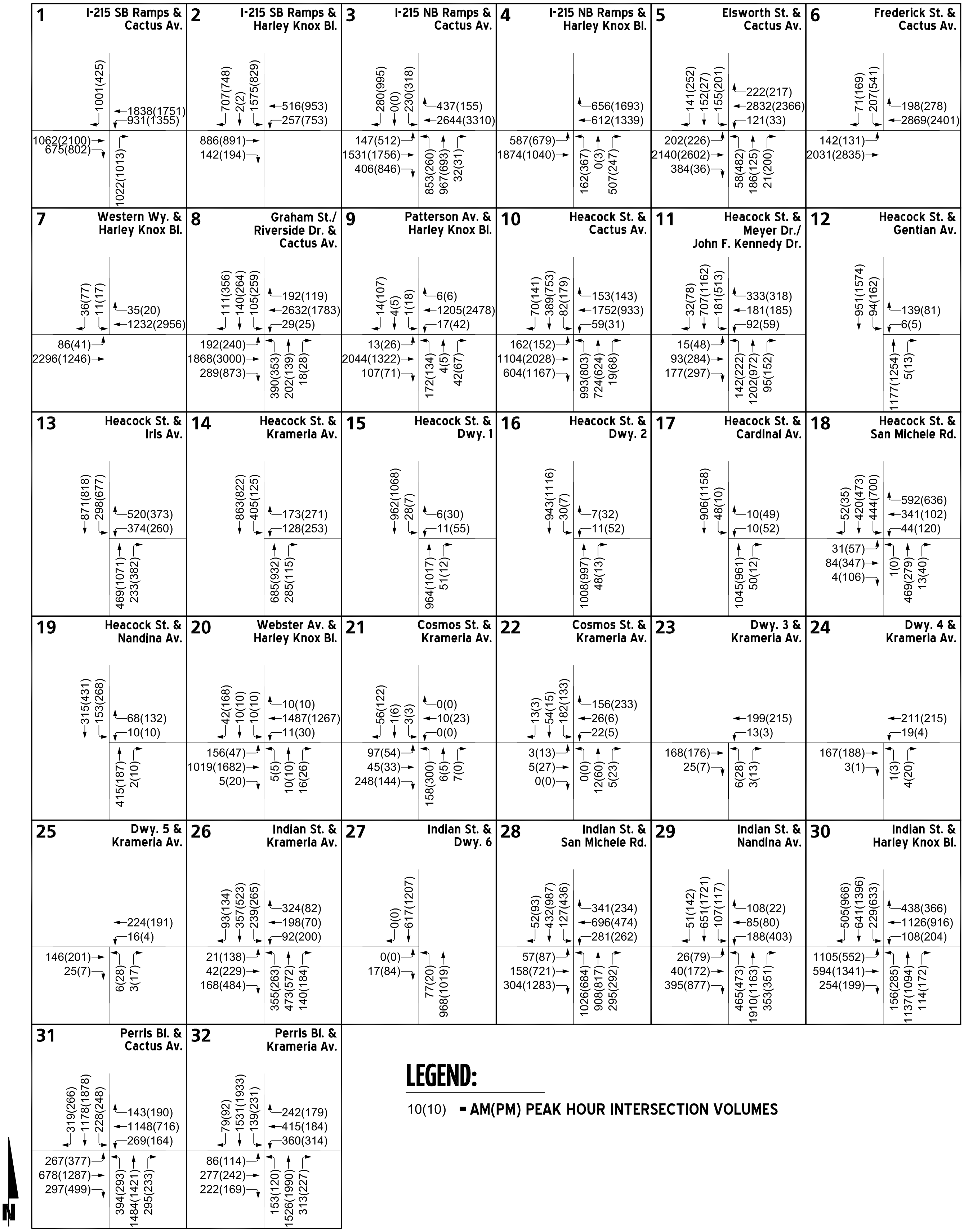

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

7.4 INTERSECTION OPERATIONS ANALYSIS

7.4.1 GENERAL PLAN BUILDOUT WITHOUT PROJECT TRAFFIC CONDITIONS

LOS calculations were conducted for the study intersections to evaluate their operations under General Plan Buildout Without Project conditions with roadway and intersection geometrics consistent with Section 7.1 *Roadway Improvements*. As shown in Table 7-1, the following additional study area intersections are anticipated to operate at unacceptable LOS during the peak hours under General Plan Buildout traffic conditions, in addition to those previously identified for Opening Year Cumulative traffic conditions:

ID	Intersection Location
20	Heacock Street/Webster Avenue / Harley Knox Boulevard – LOS F PM peak hour only
26	Indian Street / Krameria Avenue – LOS F AM and PM peak hours

A summary of the peak hour intersection LOS for General Plan Buildout Without Project conditions are shown on Exhibit 7-3. The intersection operations analysis worksheets for General Plan Buildout Without Project traffic conditions are included in Appendix 7.1 of this TIA.

7.4.2 GENERAL PLAN BUILDOUT WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 7-1 and illustrated on Exhibit 7-4, there are no additional study area intersections anticipated to experience unacceptable LOS (LOS E or worse) with the addition of Project traffic during one or more peak hours in addition to those previously identified under General Plan Buildout Without Project conditions. However, the Project's contribution to the deficient intersections identified above are significant cumulative impacts as the Project is anticipated to contribute 50 or more peak hour trips. The intersection operations analysis worksheets for Horizon Year With Project traffic conditions are included in Appendix 7.2 of this TIA. Measures to address long range deficiencies for Long Range traffic conditions are discussed in Section 7.10 *Recommended Improvements.*

7.5 ROADWAY SEGMENT CAPACITY ANALYSIS

As noted previously, the roadway segment capacities are approximate figures only, and are typically used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future forecasted traffic demand. Table 7-2 provides a summary of the General Plan Buildout conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/(LOS) Thresholds identified previously on Table 2-3.

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 7-1

Intersection Analysis for General Plan Buildout (Post-2035) Conditions

#	Intersection	Traffic Control [2]	Post-2035 Without Project				Post-2035 With Project			
			Delay [1] (secs.)		Level of Service		Delay [1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	**144.4**	**148.0**	**F**	**F**	**166.4**	**148.0**	**F**	**F**
2	I-215 SB Ramps / Harley Knox Bl	TS	**136.9**	**122.0**	**F**	**F**	**175.6**	**141.6**	**F**	**F**
3	I-215 NB Ramps / Cactus Av	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
4	I-215 NB Ramps / Harley Knox Bl	TS	**67.5**	**>200.0**	**E**	**F**	**85.9**	**>200.0**	**F**	**F**
5	Elsworth St / Cactus Av	TS	**116.3**	**72.9**	**F**	**E**	**133.8**	**81.9**	**F**	**F**
6	Frederick St / Cactus Av	TS	32.7	49.0	C	D	34.3	51.5	C	D
7	Western Wy / Harley Knox Bl	CSS	**47.1**	**>100.0**	**E**	**F**	**70.3**	**>100.0**	**F**	**F**
8	Graham St / Cactus Av	TS	**94.3**	**82.2**	**F**	**F**	**95.5**	**82.9**	**F**	**F**
9	Patterson Av / Harley Knox Bl	TS	**169.3**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
10	Heacock St / Cactus Av	TS	**94.7**	**148.0**	**F**	**F**	**98.0**	**166.3**	**F**	**F**
11	Heacock St / John F. Kennedy Dr	TS	38.5	38.3	D	D	40.5	46.8	D	D
12	Heacock St / Gentian Av	CSS	**97.6**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
13	Heacock St / Iris Av	AWS	**60.8**	**60.6**	**F**	**F**	**61.7**	**61.2**	**F**	**F**
14	Heacock St / Krameria Av (North)	TS	22.6	41.4	C	D	32.5	53.0	C	D
15	Heacock St / Driveway 1	**CSS**	Future Intersection				20.3	24.9	C	C
16	Heacock St / Driveway 2	**CSS**	Future Intersection				18.1	20.3	C	C
17	Heacock St / Cardinal Av	CSS	12.1	22.2	B	C	24.9	32.2	C	D
18	Heacock St / San Michele Rd	TS	**102.8**	**198.5**	**F**	**F**	**103.1**	**199.6**	**F**	**F**
19	Heacock St / Nandina Av	CSS	13.7	17.9	B	C	14.7	22.6	B	C
20	Webster Av / Harley Knox Bl	CSS	17.1	**>100.0**	C	**F**	21.4	**>100.0**	C	**F**
21	Cosmos St / Krameria Av (North)	CSS	14.2	16.3	B	C	17.7	21.5	C	C
22	Cosmos St / Krameria Av	**AWS**	Future Intersection				9.5	9.6	A	A
23	Driveway 3 / Krameria Av	**CSS**	Future Intersection				9.9	10.1	A	B
24	Driveway 4 / Krameria Av	**CSS**	Future Intersection				9.4	9.5	A	A
25	Driveway 5 / Krameria Av	**CSS**	Future Intersection				9.9	10.2	A	B
26	Indian St / Krameria Av	AWS	**67.8**	**72.4**	**F**	**F**	**69.7**	**74.9**	**F**	**F**
27	Indian St / Driveway 6	**CSS**	Future Intersection				10.6	16.2	B	C
28	Indian St / San Michele Rd	TS	**73.1**	**>200.0**	**E**	**F**	**105.4**	**>200.0**	**F**	**F**
29	Indian St / Nandina Av	TS	**136.5**	**>200.0**	**F**	**F**	**146.3**	**>200.0**	**F**	**F**
30	Indian St / Harley Knox Bl	TS	**120.5**	**>200.0**	**F**	**F**	**125.9**	**>200.0**	**F**	**F**
31	Perris Bl / Cactus Av	TS	**112.6**	**185.1**	**F**	**F**	**115.4**	**188.7**	**F**	**F**
32	Perris Bl / Krameria Av	TS	**111.7**	**148.8**	**F**	**F**	**119.6**	**157.8**	**F**	**F**

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with
all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual move
movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal: AWS= All-way stop

Table 7-2
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Roadway Volume/Capacity Analysis for General Plan Buildout (Post 2035) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Post-2035 w/o Project	V/C[2]	LOS[3]	Post-2035 w/ Project	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	**52,522**	**1.40**	**F**	**53,473**	**1.43**	**F**	D
2		East of I-215 NB Ramps	4D	37,500	**68,405**	**1.82**	**F**	**70,307**	**1.87**	**F**	D
3		West of Elsworth Street	6D	56,300	**63,400**	**1.13**	**F**	**65,302**	**1.16**	**F**	D
4		East of Elsworth Street	6D	56,300	**58,900**	**1.05**	**F**	**60,802**	**1.08**	**F**	D
5		West of Frederick Street	5D	46,900	**60,581**	**1.29**	**F**	**62,483**	**1.33**	**F**	D
6		East of Frederick Street	5D	46,900	**62,838**	**1.34**	**F**	**64,740**	**1.38**	**F**	D
7		West of Graham Street	5D	46,900	**59,572**	**1.27**	**F**	**61,474**	**1.31**	**F**	D
8		East of Graham Street	5D	46,900	**55,142**	**1.18**	**F**	**57,044**	**1.22**	**F**	D
9		West of Heacock Street	5D	46,900	**50,768**	**1.08**	**F**	**52,670**	**1.12**	**F**	D
10		East of Heacock Street	4D	37,500	**43,555**	**1.16**	**F**	**44,013**	**1.17**	**F**	C
11		West of Perris Boulevard	4D	37,500	**37,000**	**0.99**	**E**	**37,458**	**1.00**	**E**	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	11,144	0.89	D	**12,862**	**1.03**	**F**	D
13		Cosmos Street to Driveway 3	2U	12,500	9,000	0.72	C	10,318	0.83	D	D
14		Driveway 3 to Driveway 4	2U	12,500	9,000	0.72	C	10,084	0.81	D	D
15		Driveway 4 to Driveway 5	2U	12,500	9,000	0.72	C	10,262	0.82	D	D
16		Driveway 5 to Indian Street	2D	18,750	9,000	0.48	A	10,056	0.54	A	D
17		East of Indian Street	2D	18,750	8,096	0.43	A	8,624	0.46	A	D
18		West of Perris Boulevard	2U	12,500	**12,689**	**1.02**	**F**	**13,217**	**1.06**	**F**	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	51	0.00	A	1,197	0.10	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	**22,852**	**1.22**	**F**	**22,852**	**1.22**	**F**	D
21		West of Indian Street	2D	18,750	**27,208**	**1.45**	**F**	**27,208**	**1.45**	**F**	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	29,627	0.83	D	31,023	0.86	D	D
23		I-215 NB Ramps to Western Way	4D	35,900	**36,697**	**1.02**	**F**	**39,489**	**1.10**	**F**	D
24		East of Western Way	4U	25,900	**35,500**	**1.37**	**F**	**38,292**	**1.48**	**F**	D
25		West of Patterson Avenue	4U	25,900	**35,500**	**1.37**	**F**	**38,292**	**1.48**	**F**	D
26		East of Patterson Avenue	2D	18,000	**34,800**	**1.93**	**F**	**37,768**	**2.10**	**F**	D
27		West of Webster Avenue	2D	18,000	**39,288**	**2.18**	**F**	**42,257**	**2.35**	**F**	D
28		East of Webster Avenue	2D	18,000	**39,576**	**2.20**	**F**	**40,630**	**2.26**	**F**	D
29		West of Indian Street	3D	26,925	**36,988**	**1.37**	**F**	**38,042**	**1.41**	**F**	D

Table 7-2

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Roadway Volume/Capacity Analysis for General Plan Buildout (Post 2035) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Post-2035 w/o Project	V/C[2]	LOS[3]	Post-2035 w/ Project	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	28,080	0.75	C	30,926	0.82	D	D
31		North of John F. Kennedy Drive	4D	37,500	26,995	0.72	C	29,841	0.80	C	D
32		South of John F. Kennedy Drive	4D	37,500	27,192	0.73	C	30,144	0.80	C	D
33		North of Gentian Avenue	3D	28,150	25,192	0.89	D	**28,143**	**1.00**	**E**	D
34		South of Gentian Avenue	2U	12,500	**24,000**	**1.92**	**F**	**26,951**	**2.16**	**F**	D
35		North of Iris Avenue	2D	18,750	**25,655**	**1.37**	**F**	**28,606**	**1.53**	**F**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	**22,634**	**1.81**	**F**	**25,585**	**2.05**	**F**	D
37		Krameria Avenue (N) to Driveway 1	3D	28,150	23,898	0.85	D	25,132	0.89	D	D
38		Driveway 1 to Driveway 2	3D	28,150	23,898	0.85	D	25,201	0.90	D	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	23,898	0.64	B	25,726	0.69	B	D
40		Cardinal Avenue to San Michele Road	3D	28,150	23,898	0.85	D	**25,813**	**0.92**	**E**	D
41		San Michele Road to Nandina Avenue	2D	18,750	12,472	0.67	B	14,387	0.77	C	D
42		South of Nandina Avenue	2U	12,500	8,101	0.65	B	10,016	0.80	C	D
43		North of Harley Knox Boulevard	2U	13,000	4,051	0.31	A	5,966	0.46	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	9,000	0.72	C	10,718	0.86	D	D
45	Indian Street	Driveway 6 to San Michele Road	4D	37,500	23,076	0.62	B	24,306	0.65	B	D
46		San Michele Road to Nandina Avenue	4D	37,500	**36,880**	**0.98**	**E**	**38,110**	**1.02**	**F**	D
47		South of Nandina Avenue	2D	18,750	**42,480**	**2.27**	**F**	**43,710**	**2.33**	**F**	D
48		North of Harley Knox Boulevard	4D	35,900	**43,160**	**1.20**	**F**	**44,390**	**1.24**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

EXHIBIT 7-3: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS

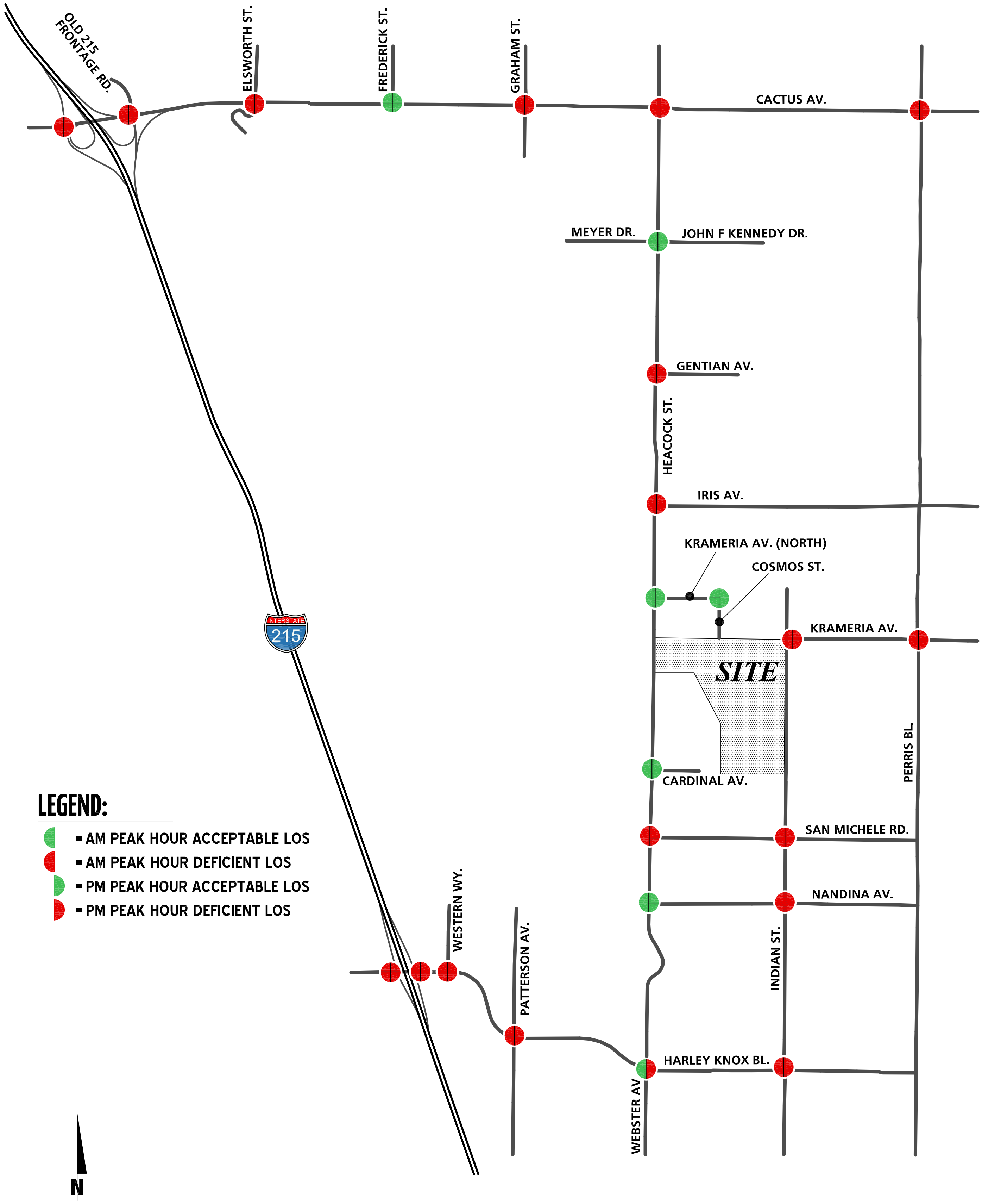

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EXHIBIT 7-4: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS

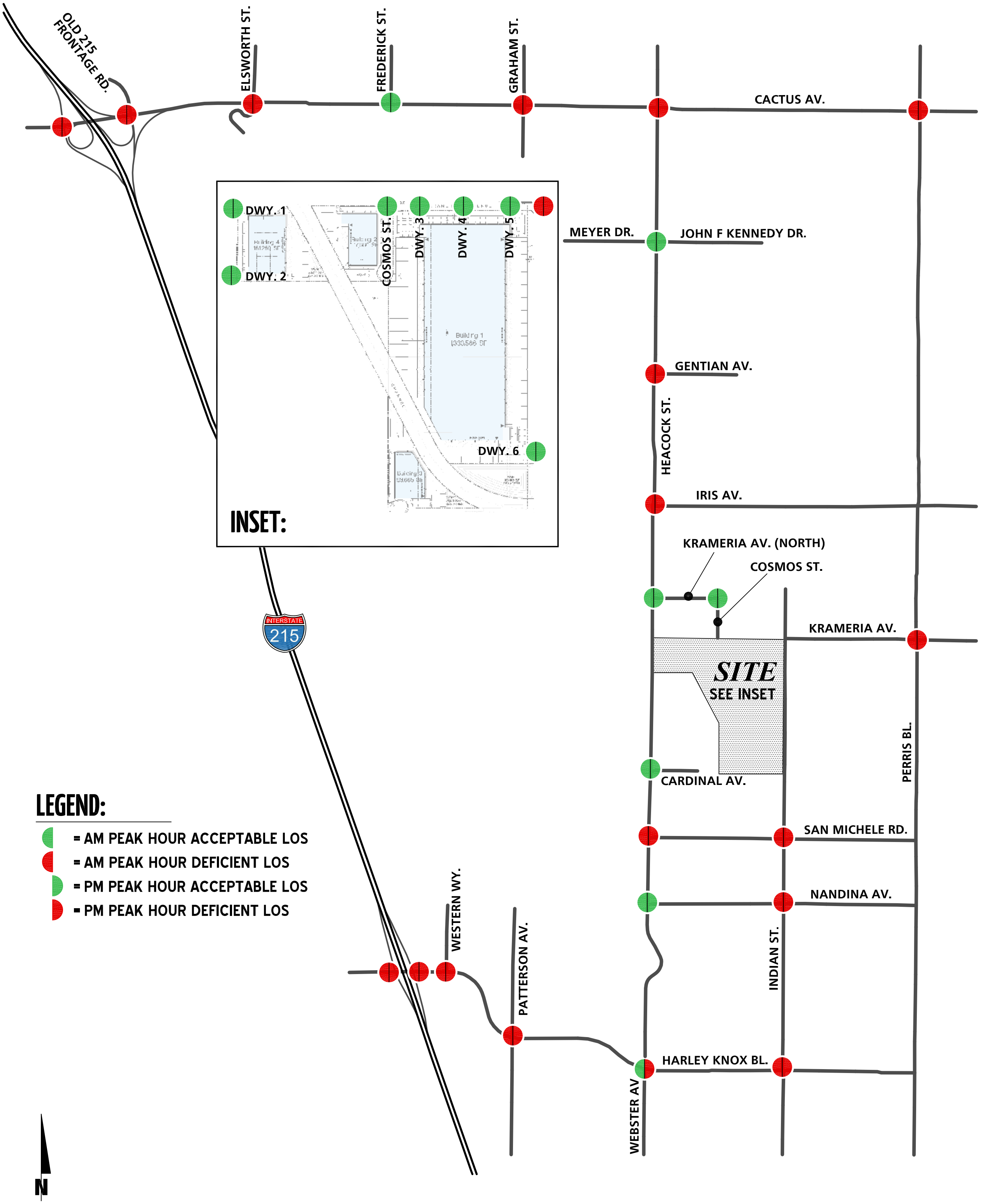

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

7.5.1 GENERAL PLAN BUILDOUT WITHOUT PROJECT TRAFFIC CONDITIONS

As shown on Table 7-2, the following roadway segments are anticipated to operate at unacceptable LOS (based on daily roadway segment capacities) under General Plan Buildout Without Project traffic conditions:

ID	Street	Segment
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps – LOS F
2		East of I-215 NB Ramps – LOS F
3		West of Elsworth Street – LOS F
4		East of Elsworth Street – LOS F
5		West of Frederick Street – LOS F
6		East of Frederick Street – LOS F
7		West of Graham Street – LOS F
8		East of Graham Street – LOS F
9		West of Heacock Street – LOS F
10		East of Heacock Street – LOS F
11		West of Perris Boulevard – LOS E
18	Krameria Avenue	West of Perris Boulevard – LOS F
20	San Michele Road	East of Heacock Street- LOS F
21		West of Indian Street – LOS F
23	Harley Knox Boulevard	I-215 NB Ramps to Western Way – LOS F
24		East of Western Way – LOS F
25		West of Patterson Avenue – LOS F
26		East of Patterson Avenue – LOS F
27		West of Webster Avenue – LOS F
28		East of Webster Avenue – LOS F
29		West of Indian Street – LOS F
34	Heacock Street	South of Gentian Avenue
35		North of Iris Avenue
36		Iris Avenue to Krameria Avenue (N)
46	Indian Street	San Michele Road to Nandina Avenue
47		South of Nandina Avenue
48		North of Harley Knox Boulevard

7.5.2 GENERAL PLAN BUILDOUT WITH PROJECT TRAFFIC CONDITIONS

The following roadway segments are anticipated to operate at a deficient LOS with the addition of Project traffic, in addition to those previously identified for General Plan Buildout Without Project traffic conditions:

ID	Street	Segment
12	Krameria Avenue	Heacock Street to Cosmos Street – LOS F
33	Heacock Street	North of Gentian Avenue – LOS E
40		Cardinal Avenue to San Michele Road – LOS E

As previously discussed in Section 3.8 *Existing Conditions Roadway Segment Capacity Analysis*, a peak hour assessment of intersections located on either side of a deficient roadway segment has been conducted to determine if peak hour traffic flows can be accommodated by the potentially deficient roadway segment. If it is determined that peak traffic flows can be accommodated at the City's stated LOS thresholds, then roadway segment widening is typically not recommended.

7.6 OFF-RAMP QUEUING ANALYSIS

7.6.1 GENERAL PLAN BUILDOUT WITHOUT PROJECT TRAFFIC CONDITIONS

A queuing analysis was performed for the off-ramps at the I-215 Freeway and Cactus Avenue and Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 7-3 for General Plan Buildout traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline.

As shown on Table 7-3, the following movement may potentially experience queuing issues during the weekday AM peak 95th percentile traffic flows for General Plan Buildout traffic conditions:

ID	Intersection Location
1	I-215 SB Ramps / Cactus Avenue – Southbound right turn lane (AM peak hour only)
2	I-215 SB Ramps / Harley Knox Boulevard – Southbound shared left-through lane (AM peak hour only); Southbound right turn lane (AM and PM peak hours)
3	I-215 NB Ramps / Cactus Avenue – Northbound left turn lane (AM peak hour only)

The 95th percentile queues for General Plan Buildout Without Project traffic conditions indicates potential queuing for the movements and peak hours identified above. As shown, the analysis indicates that potential queues would exceed the length of the off-ramp and could potentially spillback into the adjacent through lanes on the freeway mainline during the AM and PM peak hours. Worksheets for General Plan Buildout Without Project conditions off-ramp queuing analysis are provided in Appendix 7.3.

Table 7-3

Peak Hour Off-Ramp Queuing Analysis for General Plan Buildout (Post-2035) Conditions

Intersection	Movement	Stacking Distance (Feet)	Post-2035 Without Project				Post-2035 With Project			
			95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]		95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	579 [2]	937 [2]	Yes	Yes	879 [2]	1,015 [2]	Yes	Yes
	SBR	1,115	**1,418 [2]**	655 [2]	**No**	Yes	**1,476 [2]**	668 [2]	**No**	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	**1,909 [2]**	1,078 [2]	**No**	Yes	**2,172 [2]**	1,136 [2]	**No**	Yes
	SBR	270	**460**	**884 [2]**	**No**	**No**	**479**	**884 [2]**	**No**	**No**
I-215 NB Ramps / Cactus Av.	NBL	145	**1,047 [2]**	274 [2]	**No**	Yes[3]	**957 [2]**	274 [2]	**No**	Yes[3]
	NBT	1,650	1,025 [2]	598 [2]	Yes	Yes	1,109 [2]	598 [2]	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	146	591 [2]	Yes	Yes	128	591 [2]	Yes	Yes
	NBR	265	414 [2]	144	Yes[3]	Yes	464 [2]	174	Yes[3]	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound turn lane without spilling back and affecting the I-215 Freeway mainline.

7.6.2 GENERAL PLAN BUILDOUT WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 7-3, there are no additional off-ramps anticipated to experience queues that exceed the 95th percentile with the addition of Project traffic, in addition to those previously identified under General Plan Buildout Without Project conditions. However, the addition of Project traffic to the deficient turning movements is cumulatively considerable. Worksheets for Horizon Year With Project conditions off-ramp queuing analysis are provided in Appendix 7.4.

7.7 TRAFFIC SIGNAL WARRANTS ANALYSIS

The following study area intersection is anticipated to warrant a traffic signal for General Plan Buildout Without Project traffic conditions (see Appendix 7.5):

ID	Intersection Location
20	Heacock Street/Webster Avenue / Harley Knox Boulevard

There are no additional intersections anticipated to warrant a traffic signal under General Plan Buildout With Project traffic conditions, in addition to those identified under General Plan Buildout Without Project conditions (see Appendix 7.6).

7.8 BASIC FREEWAY SEGMENT ANALYSIS

7.8.1 GENERAL PLAN BUILDOUT WITHOUT PROJECT TRAFFIC CONDITIONS

General Plan Buildout Without Project mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 7-5. As shown on Table 7-4, all of the freeway segments analyzed for this study are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours, with the exception of the following freeway segments:

ID	Freeway Mainline Segments
5	I-215 Freeway – Northbound, North of Cactus Avenue
6	I-215 Freeway – Northbound, South of Cactus Avenue

General Plan Buildout Without Project basic freeway segment analysis worksheets are provided in Appendix 7.7.

7.8.2 GENERAL PLAN BUILDOUT WITH PROJECT TRAFFIC CONDITIONS

General Plan Buildout With Project mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 7-6. As shown on Table 7-4, there are no additional freeway segments anticipated to operate at an unacceptable LOS with the addition of Project traffic, in addition to those previously identified under General Plan Buildout Without Project conditions. Although the addition of Project traffic is not anticipated to result in any new deficiencies, the Project would contribute cumulatively to the impact at the aforementioned freeway mainline segments. Worksheets for General Plan Buildout With Project conditions basic freeway segment analysis worksheets are provided in Appendix 7.8.

EXHIBIT 7-5: GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES

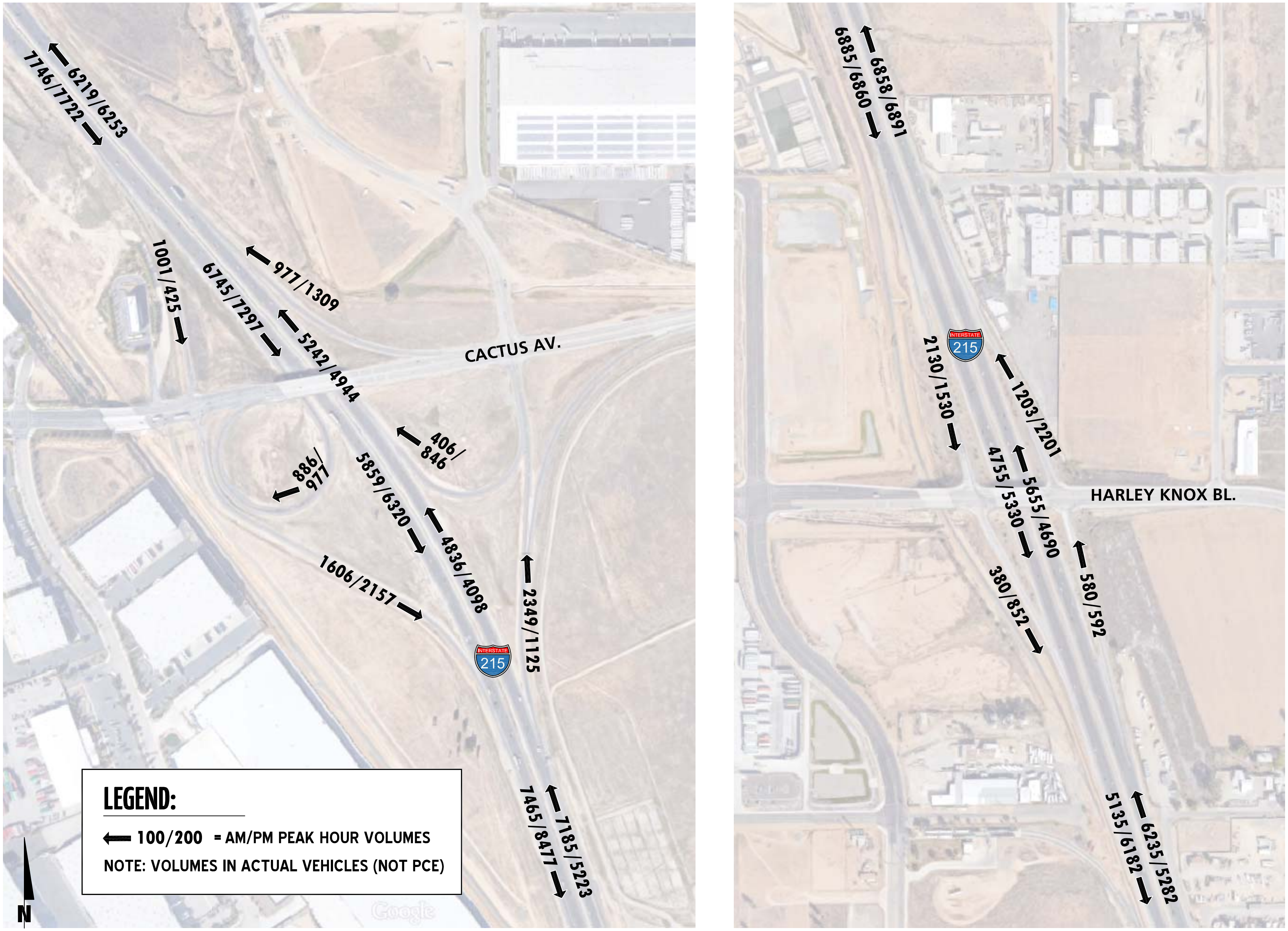

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URBAN CROSSROADS

EXHIBIT 7-6: GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT FREEWAY MAINLINE VOLUMES

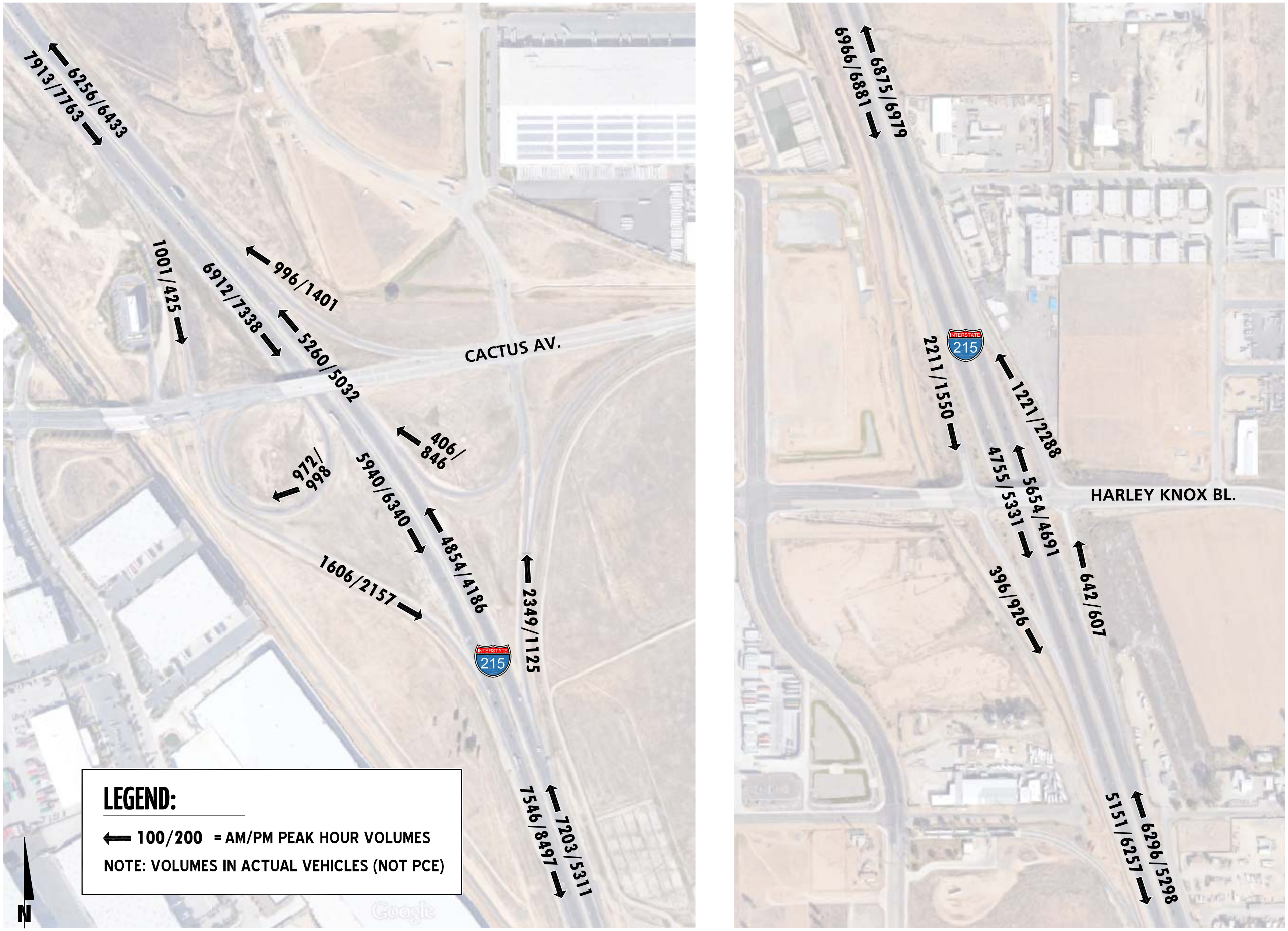

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Table 7-4

Basic Freeway Segment Analysis for General Plan Buildout (Post-2035) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Post-2035 Without Project				Post-2035 With Project			
				Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	SB	North of Cactus Avenue	4	**37.0**	**36.8**	**E**	**E**	**38.9**	**37.1**	**E**	**E**
		South of Cactus Avenue	4	33.8	**43.9**	D	**E**	34.7	**44.1**	D	**E**
		North of Harley Knox Boulevard	3	**51.9**	**51.4**	**F**	**F**	**54.3**	**51.8**	**F**	**F**
		South of Harley Knox Boulevard	3	29.7	**40.6**	D	**E**	30.1	**41.5**	D	**E**
	NB	North of Cactus Avenue	4	26.6	26.8	D	D	26.8	28.1	D	D
		South of Cactus Avenue	4	32.2	20.9	D	C	32.6	21.4	D	C
		North of Harley Knox Boulevard	3	**51.3**	**52.0**	**F**	**F**	**51.7**	**54.5**	**F**	**F**
		South of Harley Knox Boulevard	3	**40.8**	30.8	**E**	D	**42.1**	31.2	**E**	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

7.9 FREEWAY MERGE/DIVERGE ANALYSIS

7.9.1 GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT TRAFFIC CONDITIONS

Ramp merge and diverge operations were also evaluated for General Plan Buildout Without Project conditions and the results of this analysis are presented in Table 7-5. As shown in Table 7-5, all of the study area freeway merge and diverge ramp junctions are anticipated to operate at deficient LOS (i.e., LOS E or worse). General Plan Buildout Without Project freeway ramp junction operations analysis worksheets are provided in Appendix 7.9.

7.9.2 GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 7-5, there are no additional freeway merge/diverge ramp junctions anticipated to operate at an unacceptable LOS with the addition of Project traffic, in addition to those previously identified under General Plan Buildout Without Project conditions. Although the addition of Project traffic is not anticipated to result in any new deficiencies, the Project would contribute cumulatively to the impact at the aforementioned ramp junctions. Worksheets for General Plan Buildout With Project conditions freeway ramp junction operations analysis worksheets are provided in Appendix 7.10.

7.10 RECOMMENDED IMPROVEMENTS

7.10.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvement strategies have been recommended at intersections that have been identified as deficient in an effort to reduce each location's peak hour delay and improve the associated LOS grade to an acceptable LOS (LOS D or better). The effectiveness of the recommended improvement strategies discussed below to address General Plan Buildout traffic deficiencies is presented in Table 7-6.

The applicant shall participate in the funding of off-site improvements, including traffic signals that are needed to serve cumulative traffic conditions through the payment of TUMF and City of Moreno Valley DIF fees (if the improvements are included in the TUMF or DIF programs) or on a fair share basis (if the improvements are not included in the TUMF or DIF programs). These fees shall be collected by the City of Moreno Valley, with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases. There are no other applicable pre-existing funding programs for the study area aside from TUMF and DIF.

Worksheets for General Plan Buildout Without and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendix 7.11 and Appendix 7.12.

Table 7-5

Freeway Ramp Junction Merge/Diverge Analysis for General Plan Buildout (Post-2035) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Post-2035 Without Project				Post-2035 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	**38.0**	**E**	**40.5**	**E**	**39.4**	**E**	**40.9**	**E**
		Loop Off-Ramp at Cactus Avenue - Downstream	4	**38.0**	**E**	**40.5**	**E**	**39.4**	**E**	**40.9**	**E**
		Off-Ramp at Harley Knox Boulevard	3	**44.9**	**F**	**44.7**	**F**	**46.0**	**F**	**44.9**	**F**
		On-Ramp at Harley Knox Boulevard	3	31.3	D	**37.6**	**E**	31.5	D	**38.3**	**E**
	NB	On-Ramp at Cactus Avenue	3	**40.4**	**E**	**41.9**	**E**	**40.7**	**E**	**43.4**	**F**
		On-Ramp at Harley Knox Boulevard	3	41.6	D	**44.9**	**F**	41.8	F	**45.8**	**F**
		Off-Ramp at Harley Knox Boulevard	3	**37.7**	**E**	33.5	D	**38.5**	**E**	33.7	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 7-6

Page 1 of 2

Intersection Analysis for General Plan Buildout (Post-2035) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av																	
	- Without Project	TS	0	0	0	0	0	**2**	0	2	1	**2**	2	0	40.2	54.1	D	D
	- With Project	TS	0	0	0	0	0	**2**	0	2	1	**2**	2	0	40.2	54.1	D	D
2	I-215 SB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	2	0	34.5	52.2	C	D
	- With Project	TS	0	0	0	**2**	1	**0**	0	2	d	**2**	2	0	35.6	52.5	D	D
3	I-215 NB Ramps / Cactus Av																	
	- Without Project[4]	TS	**2**	**2**	0	**2**	1	**2>**	**2**	**3**	**1>>**	0	**3**	0	40.4	42.3	D	D
	- With Project[4]	TS	**2**	**2**	0	**2**	1	**2>**	**2**	**3**	**1>>**	0	**3**	0	40.6	47.1	D	D
4	I-215 NB Ramps / Harley Knox Bl																	
	- Without Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	51.4	53.6	D	D
	- With Project	TS	0	1	1	0	0	0	**2**	2	0	0	2	**1>>**	53.9	54.0	D	D
5	Elsworth St / Cactus Av																	
	- Without Project[4]	TS	**2**	1	0	1	1	1>	1	**4**	1>>	1	**4**	1	33.1	50.2	C	D
	- With Project[4]	TS	**2**	1	0	1	1	1>	1	**4**	1>>	1	**4**	1	33.1	50.3	C	D
7	Western Wy / Harley Knox Bl																	
	- Without Project	**TS**	0	0	0	0	1	0	**1**	**3**	0	0	**3**	d	16.3	16.3	B	B
	- With Project	**TS**	0	0	0	0	1	0	**1**	**3**	0	0	**3**	d	16.9	19.3	B	B
8	Graham St / Cactus Av																	
	- Without Project	TS	2	2	0	1	2	1>	**2**	**3**	1>>	1	3	0	48.5	48.1	D	D
	- With Project	TS	2	2	0	1	2	1>	**2**	**3**	1>>	1	3	0	54.2	52.4	D	D
9	Patterson Av / Harley Knox Bl																	
	- Without Project	TS	0	1	0	0	1	d	1	**3**	1	1	**3**	**1**	19.5	20.1	B	C
	- With Project	TS	0	1	0	0	1	d	1	**3**	1	1	**3**	**1**	22.5	21.4	C	C
10	Heacock St / Cactus Av																	
	- Without Project	TS	2	2	0	1	2	0	1	**3**	1>	1	**3**	0	51.6	29.3	D	C
	- With Project	TS	2	2	0	1	2	0	1	**3**	1>	1	**3**	0	54.7	37.6	D	D
12	Heacock St / Gentian Av																	
	- Without Project	**TS**	0	**2**	1	1	**2**	0	0	0	0	0	1	d	15.2	12.7	B	B
	- With Project	**TS**	0	**2**	1	1	**2**	0	0	0	0	0	1	d	16.2	14.8	B	B
13	Heacock St / Iris Av																	
	- Without Project	**TS**	0	**2**	0	**2**	**2**	0	0	0	0	1	0	**1>**	23.6	40.5	C	D
	- With Project	**TS**	0	**2**	0	**2**	**2**	0	0	0	0	1	0	**1>**	26.9	54.2	C	D

Table 7-6

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Intersection Analysis for General Plan Buildout (Post-2035) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
18	Heacock St / San Michele Rd																	
	- Without Project	TS	1	**2**	1	**2**	**2**	1	1	1	1	1	1	**1>**	31.1	38.7	C	D
	- With Project	TS	1	**2**	1	**2**	**2**	1	1	1	1	1	1	**1>**	31.3	39.8	C	D
20	Webster Av / Harley Knox Bl																	
	- Without Project	**TS**	0	**1**	0	0	**1**	0	**1**	**3**	0	**1**	**3**	0	27.8	26.0	C	C
	- With Project	**TS**	0	**1**	0	0	**1**	0	**1**	**3**	0	**1**	**3**	0	32.4	26.8	C	C
26	Indian St / Krameria Av																	
	- Without Project	**TS**	1	**2**	1	1	**2**	1	1	1	**1>**	1	1	1	35.7	41.9	D	D
	- With Project	**TS**	1	**2**	1	1	**2**	1	1	1	**1>**	1	1	1	37.9	42.2	D	D
28	Indian St / San Michele Rd																	
	- Without Project	TS	2	**2**	**1>**	1	2	0	**2**	**2**	**2>**	**2**	2	**1>**	24.8	26.7	C	C
	- With Project	TS	2	**2**	**1>**	1	2	0	**2**	**2**	**2>**	**2**	2	**1>**	25.4	26.8	C	C
29	Indian St / Nandina Av																	
	- Without Project	TS	**2**	2	**1>**	1	**3**	0	1	1	**1>**	1	1	d	34.5	28.3	C	C
	- With Project	TS	**2**	2	**1>**	1	**3**	0	1	1	**1>**	1	1	d	35.6	32.7	D	C
30	Indian St / Harley Knox Bl																	
	- Without Project	TS	2	2	1	**2**	2	**1>**	**2**	**3**	**1>**	**2**	**3**	**1>**	40.4	44.7	D	D
	- With Project	TS	2	2	1	**2**	2	**1>**	**2**	**3**	**1>**	**2**	**3**	**1>**	40.2	50.5	D	D
31	Perris Bl / Cactus Av																	
	- Without Project	TS	**2**	3	**1**	1	**3**	1	**2**	**3**	**1>**	1	2	0	53.8	43.1	D	D
	- With Project	TS	**2**	3	**1**	1	**3**	1	**2**	**3**	**1>**	1	2	0	54.4	43.4	D	D
32	Perris Bl / Krameria Av																	
	- Without Project[6]	TS	**2**	3	**1**	**2**	3	0	**1**	**2**	0	**1**	**2**	1	44.0	49.2	D	D
	- With Project[6]	TS	**2**	3	**1**	**2**	3	0	**1**	**2**	0	**1**	**2**	1	45.7	51.2	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for righ turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal c all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] Improvements also include implementing protected left-turn phasing for the northbound and southbound approaches

[5] The City of Perris is currently improving Harley Knox Boulevard between the I-215 Freeway and Perris Boulevard. Based on discussion with City staff, the improvements are anticipated to be completed by Fall 2015

[6] Improvements also include implementing protected left-turn phasing for the eastbound and westbound approaches

7.10.2 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

As shown on Table 7-6, the General Plan Buildout peak hour analysis indicates that the adjacent study area intersections on either side of the deficient roadway segments are anticipated to operate at acceptable LOS with the recommended intersection improvements shown. These intersection improvements consist of installation of traffic signals, additional turn lanes, additional through lanes, and traffic signal modifications to accommodate right turn overlap phasing. Table 7-7 shows the LOS for each of the applicable roadway segments with improvements consistent with those shown on Table 7-6 for the adjacent study area intersections, where roadway widening through additional through lanes has been recommended. In other words, only the roadway segments adjacent to study area intersections where additional through lanes have been recommended on Table 7-6 are shown on Table 7-7. As shown on Table 7-7, although most roadway segments shown are anticipated to improve in LOS to acceptable levels, there are a few deficient roadway segments with the recommended intersection improvements, however, roadway segment widening does not appear necessary to address the deficiencies at the identified roadway segments based on the peak hour intersection operations analysis shown on Table 7-6. There are also other deficient roadway segments (see Table 7-2), where additional roadway widening has not been recommended as the adjacent study area intersections (see Table 7-1) are anticipated to operate at acceptable LOS during the peak hours.

7.10.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

The 95th percentile queues for General Plan Buildout Without and With Project traffic conditions, with improvements, are shown on Table 7-8. Table 7-8 indicates there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for General Plan Buildout traffic conditions, with the improvements identified previously in Table 7-6. Worksheets for General Plan Buildout Without and With Project conditions off-ramp queuing analysis, with improvements, are provided in Appendix 7.13 and Appendix 7.14.

7.10.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

The SCAG RTP includes a list of projects in the Federal Transportation Improvement Program (FTIP). The following is an applicable FTIP project within the study area: interchange improvements at I-215/Cactus Avenue, which includes the extension of the northbound auxiliary lane between Cactus Avenue and Alessandro Boulevard to the north (to be completed by 2018). However, this improvement is not anticipated to improve the LOS deficiencies at the deficient freeway merge/diverge ramp junctions.

Table 7-7

Page 1 of 2

Roadway Volume/Capacity Analysis for General Plan Buildout (Post 2035) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section[1]	LOS Capacity[2]	Post-2035 w/o Project	V/C[3]	LOS[4]	Post-2035 w/ Project	V/C[3]	LOS[4]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	6D	56,300	**52,522**	**0.93**	**E**	**53,473**	**0.95**	**E**	D
2		East of I-215 NB Ramps	6D	56,300	**68,405**	**1.22**	**F**	**70,307**	**1.25**	**F**	D
3		West of Elsworth Street	8D	75,100	63,400	0.84	D	65,302	0.87	D	D
4		East of Elsworth Street	8D	75,100	58,900	0.78	C	60,802	0.81	D	D
5		West of Frederick Street	6D	56,300	**60,581**	**1.08**	**F**	**62,483**	**1.11**	**F**	D
6		East of Frederick Street	6D	56,300	**62,838**	**1.12**	**F**	**64,740**	**1.15**	**F**	D
7		West of Graham Street	6D	56,300	**59,572**	**1.06**	**F**	**61,474**	**1.09**	**F**	D
8		East of Graham Street	6D	56,300	**55,142**	**0.98**	**E**	**57,044**	**1.01**	**F**	D
9		West of Heacock Street	6D	56,300	**50,768**	**0.90**	**E**	**52,670**	**0.94**	**E**	D
10		East of Heacock Street	6D	56,300	43,555	0.77	C	44,013	0.78	C	C
11		West of Perris Boulevard	6D	56,300	37,000	0.66	B	37,458	0.67	B	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2D	18,750	11,144	0.59	A	12,862	0.69	B	D
18		West of Perris Boulevard	4D	37,500	12,689	0.34	A	13,217	0.35	A	D
20	San Michele Road	East of Heacock Street	4D	37,500	22,852	0.61	B	22,852	0.61	B	D
21		West of Indian Street	4D	37,500	27,208	0.73	C	27,208	0.73	C	D
23	Harley Knox Boulevard	I-215 NB Ramps to Western Way	6D	53,900	36,697	0.68	B	39,489	0.73	C	D
24		East of Western Way	6D	53,900	35,500	0.66	B	38,292	0.71	C	D
25		West of Patterson Avenue	6D	53,900	35,500	0.66	B	38,292	0.71	C	D
26		East of Patterson Avenue	6D	53,900	34,800	0.65	B	37,768	0.70	B	D
27		West of Webster Avenue	6D	53,900	39,288	0.73	C	42,257	0.78	C	D
28		East of Webster Avenue	6D	53,900	39,576	0.73	C	40,630	0.75	C	D
29		West of Indian Street	6D	53,900	36,988	0.69	B	38,042	0.71	C	D
33	Heacock Street	North of Gentian Avenue	4D	37,500	25,192	0.67	B	28,143	0.75	C	D
34		South of Gentian Avenue	4D	37,500	24,000	0.64	B	26,951	0.72	C	D
35		North of Iris Avenue	4D	37,500	25,655	0.68	B	28,606	0.76	C	D
36		Iris Avenue to Krameria Avenue (N)	4D	37,500	22,634	0.60	A	25,585	0.68	C	D
37		Krameria Avenue (N) to Driveway 1	4D	37,500	23,898	0.64	B	25,132	0.67	B	D
38		Driveway 1 to Driveway 2	4D	37,500	23,898	0.64	B	25,201	0.67	B	D
39		Driveway 2 to Cardinal Avenue	4D	37,500	23,898	0.64	B	25,726	0.69	B	D
40		Cardinal Avenue to San Michele Road	4D	37,500	23,898	0.64	B	25,813	0.69	B	D
41		San Michele Road to Nandina Avenue	4D	37,500	12,472	0.33	A	14,387	0.38	C	D

Table 7-7

Page 2 of 2

Roadway Volume/Capacity Analysis for General Plan Buildout (Post 2035) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section[1]	LOS Capacity[2]	Post-2035 w/o Project	V/C[3]	LOS[4]	Post-2035 w/ Project	V/C[3]	LOS[4]	Acceptable LOS
46	Indian Street	San Michele Road to Nandina Avenue	**5D**	46,900	36,880	0.79	C	38,110	0.81	D	D
47		South of Nandina Avenue	**5D**	46,900	**42,480**	**0.91**	**E**	**43,710**	**0.93**	**E**	D
48		North of Harley Knox Boulevard[5]	4D	37,500	**43,160**	**1.15**	**F**	**44,390**	**1.18**	**F**	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Roadway section improvements are consistent with the through lanes recommended as part of the intersection improvements shown on Table 7-6.

[2] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[3] V/C = Volume to Capacity Ratio

[4] LOS = Level of Service

[5] Additional roadway widening has not been recommended for these deficient roadway segments as the adjacent study area intersections (see Table 7-1 and Table 7-6) are anticipated to operate at acceptable LOS during the peak hours.

Table 7-8

Peak Hour Off-Ramp Queuing Analysis for General Plan Buildout (Post-2035) Conditions With Improvements

Intersection	Movement	Stacking Distance (Feet)	Post-2035 Without Project				Post-2035 With Project			
			95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]		95th Percentile Stacking Distance Required (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.	NBR	1,850	0[2]	0	Yes	Yes	0	0	Yes	Yes
	SBR	1,115	417[2]	279[2]	Yes	Yes	417[2]	279[2]	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.	SBL/T	1,330	475	257	Yes	Yes	601[2]	269	Yes	Yes
	SBR	270	407	710[2]	Yes[3]	Yes[3]	407	710[2]	Yes[3]	Yes[3]
I-215 NB Ramps / Cactus Av.	NBL	145	437[2]	168[2]	Yes[3]	Yes[3]	437[2]	168[2]	Yes[3]	Yes[3]
	NBT	1,650	453[2]	424[2]	Yes	Yes	453[2]	424[2]	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.	NBL/T	1,120	170	415[2]	Yes	Yes	170	427[2]	Yes	Yes
	NBR	265	430[2]	138	Yes[3]	Yes	604[2]	160	Yes[3]	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound turn lane without spilling back and affecting the I-215 Freeway mainline.

In addition, the Project Study Report/Project Development Support in Riverside County on I-215 and SR-60 between Nuevo Road (I-215) & I-215/SR-60 Junction and Box Springs Road (I-215) & Day Street (SR-60) (prepared by Caltrans in April 2008), also known as the I-215 North Project, includes the construction of an high-occupancy vehicle lane in each direction of the I-215 Freeway between Nuevo Road and Box Springs Road within the existing median. Based on information provided on the Project website, these improvements are longer range as priority has been given to the I-215 South and I-215 Central projects. (15)

Caltrans typically assumes a reduction of 14 percent to the I-215 Freeway mainline through volumes in this region to account for vehicles utilizing the carpool (high-occupancy vehicle) lanes. Although the reduction to I-215 Freeway mainline volumes has been applied to account for the proposed carpool lanes, the analysis is performed assuming the same number of mixed-flow lanes and on and off-ramp configurations as existing baseline conditions.

As shown on Table 7-9, all of the freeway mainline segments are anticipated to operate at an acceptable LOS with the construction of a carpool lane in both directions of travel (i.e., LOS D or better), with the exception of the following:

ID	Freeway Mainline Segments
3	I-215 Freeway – Southbound, North of Harley Knox Boulevard – LOS E AM and PM peak hours
7	I-215 Freeway – Northbound, North of Harley Knox Boulevard – LOS E AM and PM peak hours

Similarly, Table 7-10 shows that the I-215 Freeway ramp junctions are anticipated to operate at an acceptable LOS with the improvements discussed above (i.e., LOS D or better), with the exception of the following freeway ramp junctions:

ID	Freeway Merge/Diverge Ramp Junctions
1	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue – LOS E PM peak hour only
2	I-215 Freeway – Southbound, Loop Off-Ramp at Cactus Avenue – LOS E PM peak hour only
3	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard – LOS F AM peak hour; LOS E PM peak hour
5	I-215 Freeway – Northbound, On-Ramp at Cactus Avenue – LOS E AM and PM peak hours
6	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard – LOS E AM and PM peak hours

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Moreno Valley (or other neighboring jurisdictions) on SHS roadway segments. Worksheets for General Plan Buildout Without and With Project conditions freeway mainline level of service analysis, with improvements, are provided in Appendix 7.15 and Appendix 7.16. General Plan Buildout Without and With Project freeway ramp junction level of service analysis worksheets, with improvements, are provided in Appendix 7.17 and Appendix 7.18.

Table 7-9

Basic Freeway Segment Analysis for General Plan Buildout (Post-2035) Conditions With Improvements

Freeway	Direction	Mainline Segment	Lanes[1]	Post-2035 Without Project				Post-2035 With Project			
				Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	SB	North of Cactus Avenue	4	29.2	29.0	D	D	30.5	29.2	D	D
		South of Cactus Avenue	4	26.9	34.1	D	D	27.4	34.2	D	D
		North of Harley Knox Boulevard	3	**37.6**	**37.4**	**E**	**E**	**38.9**	**37.6**	**E**	**E**
		South of Harley Knox Boulevard	3	22.8	30.2	C	D	22.9	31.1	C	D
	NB	North of Cactus Avenue	**5**	17.4	17.5	B	B	17.5	18.2	B	C
		South of Cactus Avenue	4	26.8	17.3	D	B	21.8	17.6	C	B
		North of Harley Knox Boulevard	3	**37.4**	**37.7**	**E**	**E**	**37.5**	**39.0**	**E**	**E**
		South of Harley Knox Boulevard	3	30.7	23.5	D	C	31.5	23.7	D	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on proposed improvements.

Improvements include: One HOV lane in each direction on the I-215 Freeway (I-215 North Project) and one northbound auxiliary lane between Alessandro Boulevard and Cactus Avenue (CAG RTP FTIP Project).

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Attachment: I1 - Traffic Impact Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 7-10

Freeway Ramp Junction Merge/Diverge Analysis for General Plan Buildout (Post-2035) Conditions With Improvements

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Post-2035 Without Project				Post-2035 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	33.6	D	**36.1**	**E**	34.9	D	**36.4**	**E**
		Loop Off-Ramp at Cactus Avenue - Downstream	4	33.6	D	**36.1**	**E**	34.9	D	**36.4**	**E**
		Off-Ramp at Harley Knox Boulevard	3	**40.6**	**F**	**39.0**	**E**	**41.3**	**F**	**39.1**	**E**
		On-Ramp at Harley Knox Boulevard	3	26.5	C	33.1	D	26.7	C	33.9	D
	NB	On-Ramp at Cactus Avenue	3	**36.2**	**E**	**37.7**	**E**	**36.4**	**E**	**39.0**	**E**
		On-Ramp at Harley Knox Boulevard	3	**37.3**	**E**	**40.4**	**E**	**37.4**	**E**	**41.2**	**E**
		Off-Ramp at Harley Knox Boulevard	3	33.5	D	29.2	D	34.0	D	29.3	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on proposed improvements.

Improvements include: One HOV lane in each direction on the I-215 Freeway (I-215 North Project) and one northbound auxiliary lane between Alessandro

Boulevard and Cactus Avenue (CAG RTP FTIP Project).

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

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8 REFERENCES

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APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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URBAN CROSSROADS
41 Corporate Park | Suite 300 | Irvine, CA 92606 | (949) 660-1994
www.urbanXroads.com

Date: April 14, 2015 (Revised May 28, 2015)

This letter acknowledges the City of Moreno Valley Transportation Engineering Division requirements for the traffic impact analysis of the following project:

Case No.	PA15-0014, PA15-0015, PA15-0016, PA15-0017, PA15-0018, P15-036, and P15-037
Project Name:	Moreno Valley Logistics Center
Project Address:	South of Krameria Avenue, between Heacock Avenue and Indian Street
Project Description:	1,737,518 High-Cube Warehouse/Distribution Center and General Light Industrial Use
Related Cases:	

	Consultant	Developer Representative
Name:	URBAN CROSSROADS, INC. Attn: Aric Evatt	Prologis Attn: Scott Mulkay
Address:	41 Corporate Park, Suite 300 Irvine, CA 92606	2817 E. Cedar St., Suite 200 Ontario, CA 91761
Telephone:	949-336-5978	909-673-8730

I. Background

The proposed Moreno Valley Logistics Center development (referred to as "Project") is located south of Krameria Avenue, between Heacock Avenue and Indian Street. The Project is proposed to consist of 1,737,518 square feet of High-Cube Warehouse / General Light Industrial use with four independent buildings consisting of the following square footage:

- Building 1 (1,351,770 square feet of High-Cube Warehouse/Distribution Center)
- Building 2 (122,516 square feet of General Light Industrial use)
- Building 3 (97,222 square feet of General Light Industrial use)
- Building 4 (166,010 square feet of General Light Industrial use)

The Project is anticipated to be built in a single phase and the opening year of 2020 will be evaluated for the purposes of this analysis (minimum five-year opening year per Moreno Valley traffic study guidelines). See preliminary site plan on **Exhibit 1**. **Exhibit 2** illustrates the study area and proposed existing and opening year intersection analysis locations.

The Project proposes to follow a new alignment for Krameria Avenue to provide a 90 degree intersection with Heacock Street and Krameria Avenue (North) (See **Exhibit 2**).

II. Trip Geographic Distribution and Assignment

The project trip distribution patterns were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, the site's proximity to the local arterial and regional state highway system, along with the proposed change in alignment of Krameria Avenue to facilitate site access to Heacock Street:

- **Exhibit 3:** Project (Without Indian Street Bridge) Passenger Car Trip Distribution (to be utilized for Scenarios C. and F. under Section VI. of this scoping agreement). This trip distribution pattern assumes the currently existing roadway network.
- **Exhibit 4:** Project (Without Indian Street Bridge) Trucks Trip Distribution (to be utilized for Scenarios C. and F. under Section VI. of this scoping agreement). This trip distribution pattern assumes the currently existing roadway network.
- **Exhibit 5:** Project (With Indian Street Bridge) Passenger Car Trip Distribution (to be utilized for Scenario D. in Section VI. of this scoping agreement). This trip distribution pattern assumes the Indian Street Bridge over the Perris Valley Storm Drain Channel.
- **Exhibit 6:** Project (With Indian Street Bridge) Trucks Trip Distribution (to be utilized for Scenario D. in Section VI. of this scoping agreement). This trip distribution pattern assumes the Indian Street Bridge over the Perris Valley Storm Drain Channel.
- **Exhibit 7:** General Plan Buildout Project (Passenger Car) Trip Distribution (to be utilized for Scenario H. in Section VI. of this scoping agreement). This distribution pattern assumes both the Indian Street Bridge over the Perris Valley Storm Drain Channel and the Heacock Street extension at Harley Knox Boulevard are both in place.
- **Exhibit 8:** General Plan Buildout Project (Trucks) Trip Distribution (to be utilized for Scenario H. in Section VI. of this scoping agreement). This distribution pattern assumes both the Indian Street Bridge over the Perris Valley Storm Drain Channel and the Heacock Street extension at Harley Knox Boulevard are both in place.

III. Site Trip Generation Forecast

A. Source for trip generation rates: Institute of Transportation Engineers (ITE) Trip Generation Manual 9th Edition (2012) for ITE Land Use Codes 110 (General Light Industrial) and 152 (High-Cube Warehousing).

B. Weekday AM Peak: 7:00-9:00 AM

C. Weekday PM Peak: 4:00-6:00 PM

D. Intersection and link acceptable Level of Service "D" for some intersections and links and Level of Service "C" for others based upon the current City policy. (Use Highway Capacity Manual 2010 operations procedures; parameters per County of Riverside Traffic Impact Analysis Guidelines)

Proposed Use Rates (1) (See attached **Table 1**)

Daily: 6.970 AM: 0.920 PM: 0.970

General Light Industrial (per TSF) _________ _________ _________

High-Cube Warehouse (per TSF) Daily: 1.680 AM: 0.110 PM: 0.120

Internal Trip Allowance: Yes: _________ No: X Percentage: _________

Pass-by Trip Allowance: Yes: _________ No: X Percentage: _________

(1) Institute of Transportation Engineers 9th Edition Trip Generation Manual (2012).

E. As noted on **Table 1**, refinements to raw trip generation estimates have been made to provide a more detailed breakdown of trips by vehicle type. Total vehicle mix percentages were obtained from the City of Fontana Truck Trip Generation Study for General Light Industrial (LU 110), August 2003, and the ITE Trip Generation manual in conjunction with the South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type for High Cube Warehouse/Distribution Center use. PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCE factors are consistent with the recommended PCE factors in Appendix "C" of the San Bernardino County Congestion Management Program (CMP), 2005 Update.

F. As shown on **Table 2**, the proposed Project is anticipated to generate a net total of 6,975 PCE trip-ends per day with 660 PCE AM peak hour trips and 718 PCE PM peak hour trips.

IV. Specific Project Issues to be Analyzed

A. The traffic study will address the adequacy of site access and identify specific near-term circulation improvements required at study area intersections and roadways to maintain acceptable peak hour and daily levels of service (LOS).

B. The traffic study shall address the project traffic impacts at all study intersections listed in Section VI and provide appropriate mitigation measures if applicable. Peak-hour traffic signal warrants shall be evaluated for all intersections that are not currently signalized.

C. Qualitative assessment of existing and planned non-motorized facilities (e.g., pedestrians, bike routes, trails, etc.) within the study area.

D. The turn pocket lengths will be determined through peak hour traffic simulations developed using SimTraffic software in an effort to identify the required storage capacity for turn lanes at each Project driveway.

E. Study shall address need/timing of Indian Street bridge over Perris Valley Storm Drain Channel.

F. Study shall assess existing truck routes and make recommendations for any revisions.

V. Study Horizon Year

A. Existing (2015)
B. Existing (2015) Plus Project Construction Traffic (Trip Generation TBD)
C. Existing (2015) Plus Project (Without Indian Street Bridge)
D. Existing (2015) Plus Project (With Indian Street Bridge)
E. Opening Year Cumulative (2020) Without Project (existing to opening year-2020, assuming a growth rate of 2% per year and includes the traffic from other cumulative development projects in the vicinity)
F. Opening Year Cumulative (2020) With Project
G. General Plan Buildout (Post-2035) Without Project
H. General Plan Buildout (Post-2035) With Project

Although not required based on the City's traffic study guidelines, the General Plan Buildout (Post-2035) analysis scenario has been included to conduct a conservative analysis.

VI. Facilities to be Studied

A. Analysis Locations: (See **Exhibit 2**)
1. Interstate 215 Southbound Ramps / Cactus Avenue
2. Interstate 215 Southbound Ramps / Harley Knox Boulevard
3. Interstate 215 Northbound Ramps / Cactus Avenue
4. Interstate 215 Northbound Ramps / Harley Knox Boulevard
5. Elsworth Street / Cactus Avenue
6. Frederick Street / Cactus Avenue
7. Western Way / Harley Knox Boulevard
8. Graham Street / Cactus Avenue
9. Patterson Avenue / Harley Knox Boulevard
10. Heacock Street / Cactus Avenue
11. Heacock Street / John F. Kennedy Drive
12. Heacock Street / Gentian Avenue
13. Heacock Street / Iris Avenue
14. Heacock Street / Krameria Avenue (North)
15. Heacock Street / Driveway 1 – Future Intersection
16. Heacock Street / Driveway 2 – Future Intersection
17. Heacock Street / Cardinal Avenue
18. Heacock Street / San Michele Road
19. Heacock Street / Nandina Avenue
20. N. Webster Avenue / Harley Knox Boulevard
21. New Public Street / Krameria Avenue (North) – Future Intersection
22. New Public Street / Krameria Avenue – Future Intersection
23. Driveway 3 / Krameria Avenue – Future Intersection
24. Driveway 4 / Krameria Avenue – Future Intersection
25. Driveway 5 / Krameria Avenue – Future Intersection
26. Indian Street / Krameria Avenue
27. Indian Street / Driveway 6 – Future Intersection
28. Indian Street / San Michele Road
29. Indian Street / Nandina Avenue

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

30. Indian Street / Harley Knox Boulevard
31. Perris Boulevard / Cactus Avenue
32. Perris Boulevard / Krameria Avenue

B. Roadway Segments:
All roadway segments adjacent to intersection analysis locations will be analyzed (e.g. all legs of intersections listed above).

VII. Open Items

A. **Cumulative Development Projects:** There is a list of cumulative projects provided on **Table 3** (also shown graphically on **Exhibit 9**) and is consistent with the cumulative lists on other recent projects. It is requested that the list of cumulative development projects be reviewed by the City and projects be removed/added, where applicable.

VIII. Deliverables

a. Draft traffic impact studies (2 copies each)
b. Final traffic impact studies (4 copies each)

All draft and final traffic impact studies shall be delivered with the appropriate review fee to the Permit Technician, Land Development Division - Moreno Valley City Hall, 14177 Frederick Street, Moreno Valley, CA 92552. Please contact the Land Development Division at 951-413-3110 prior to the delivery of the traffic study.

A review fee will be required upon submittal of the traffic study. **A signed copy of this *Scoping Agreement* must be included in the submitted draft and final traffic impact studies.**

If you have any questions regarding this *Scoping Agreement*, please contact Eric Lewis at 951-413-3140.

Recommended By:

Aric Evatt, PTP
President
Urban Crossroads, Inc.

Approved By:

Eric Lewis, City of Moreno Valley

MICHAEL LLOYD FOR

Attachments

EXHIBIT 1: PRELIMINARY SITE PLAN

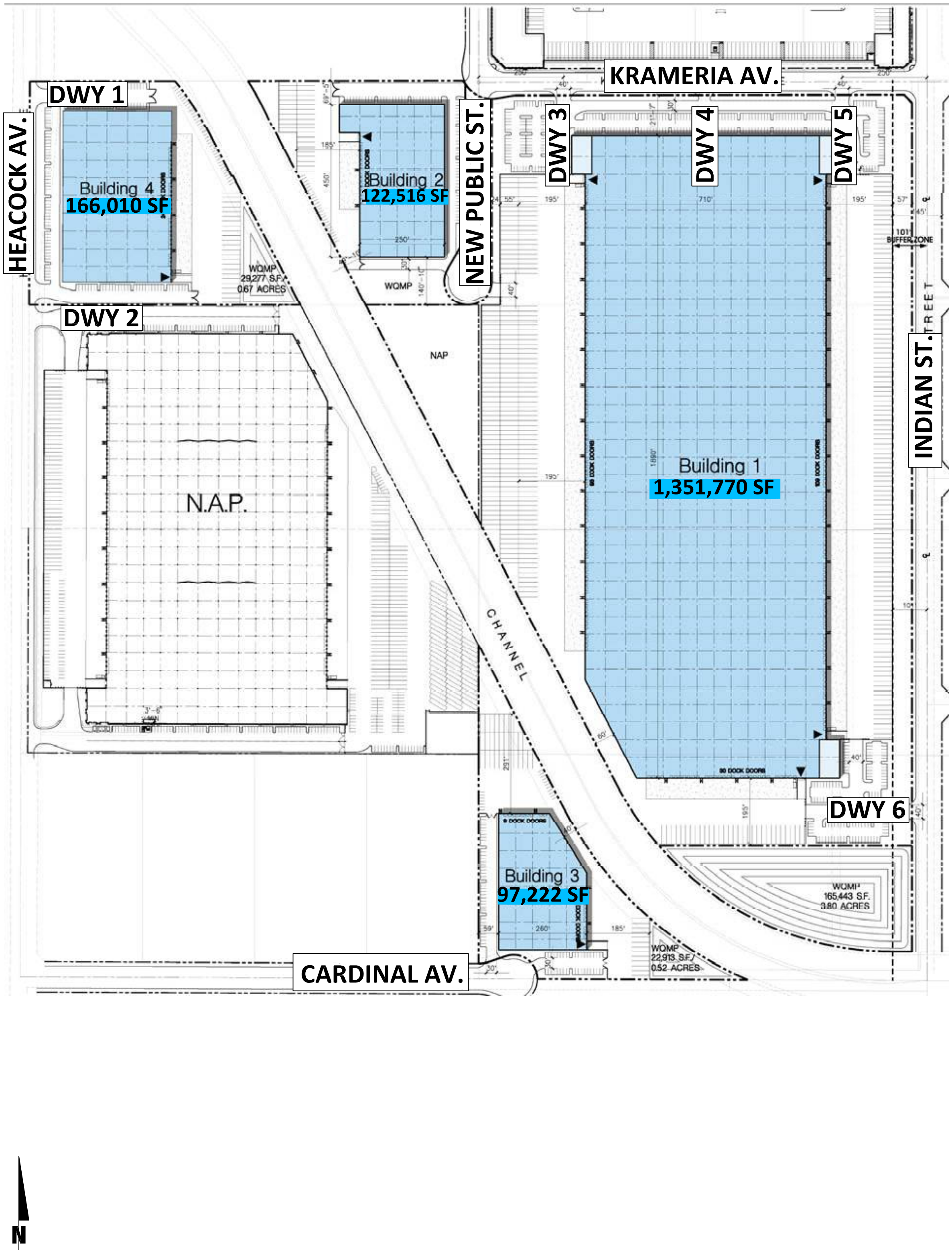

EXHIBIT 2: LOCATION MAP

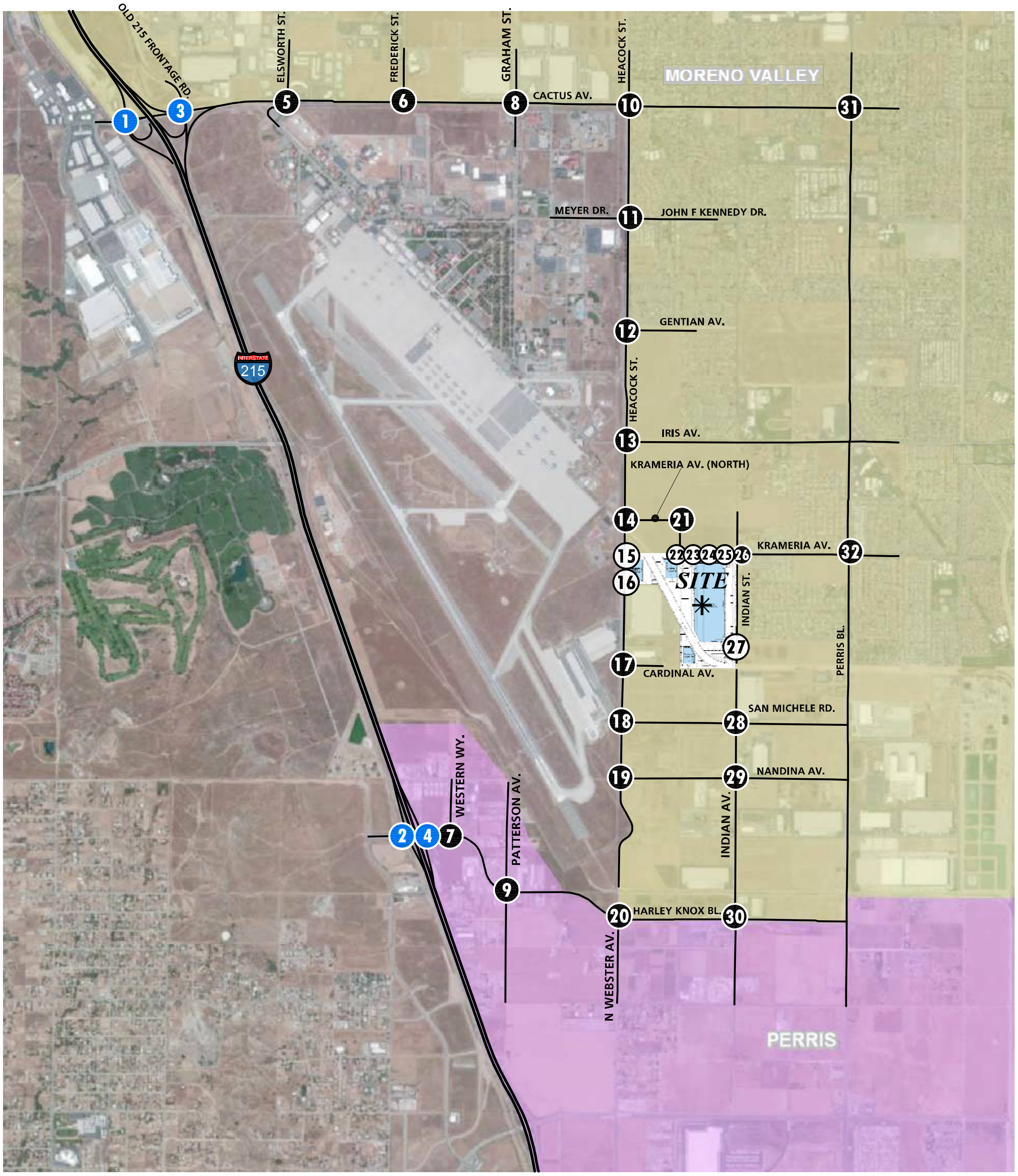

LEGEND:

⓿ = EXISTING INTERSECTION ANALYSIS LOCATION

⓪ = FUTURE INTERSECTION ANALYSIS LOCATION

🔵 = RIVERSIDE COUNTY CMP INTERSECTION ANALYSIS LOCATION

N

09301 - locmap.dwg

URBAN CROSSROADS

EXHIBIT 3 (1 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

NOTE: TO BE UTILIZED FOR E+P
(WITHOUT INDIAN STREET BRIDGE)
AND OPENING YEAR CUMULATIVE CONDITIONS

N

LEGEND:

10 ▪ PERCENT TO/FROM PROJECT

EXHIBIT 3 (2 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

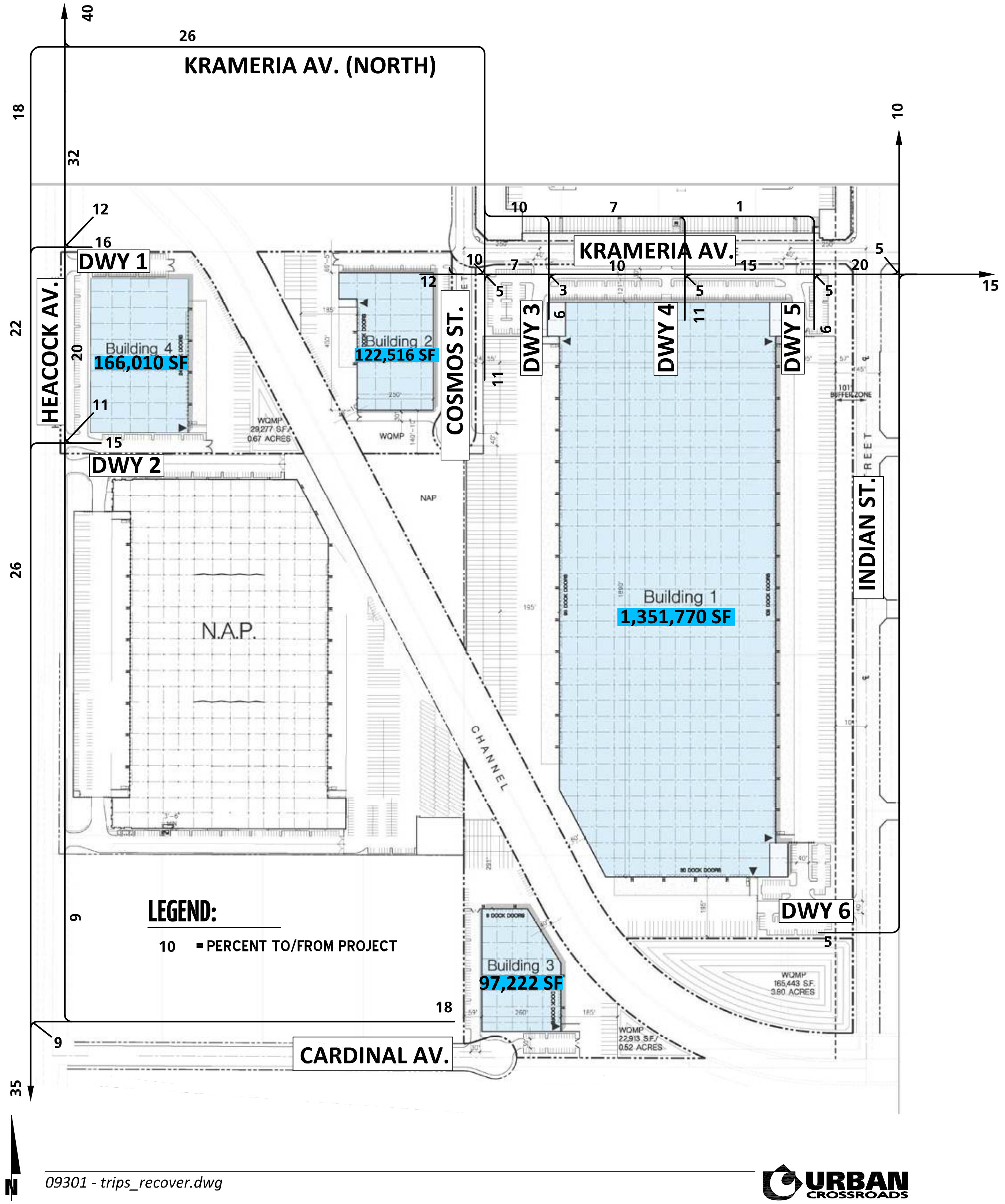

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 4 (1 OF 2): PROJECT TRUCK TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

NOTE: TO BE UTILIZED FOR E+P
(WITHOUT INDIAN STREET BRIDGE)
AND OPENING YEAR CUMULATIVE CONDITIONS

LEGEND:

10 = PERCENT TO/FROM PROJECT

← = OUTBOUND

EXHIBIT 4 (2 OF 2): PROJECT TRUCK TRIP DISTRIBUTION (WITHOUT INDIAN STREET BRIDGE)

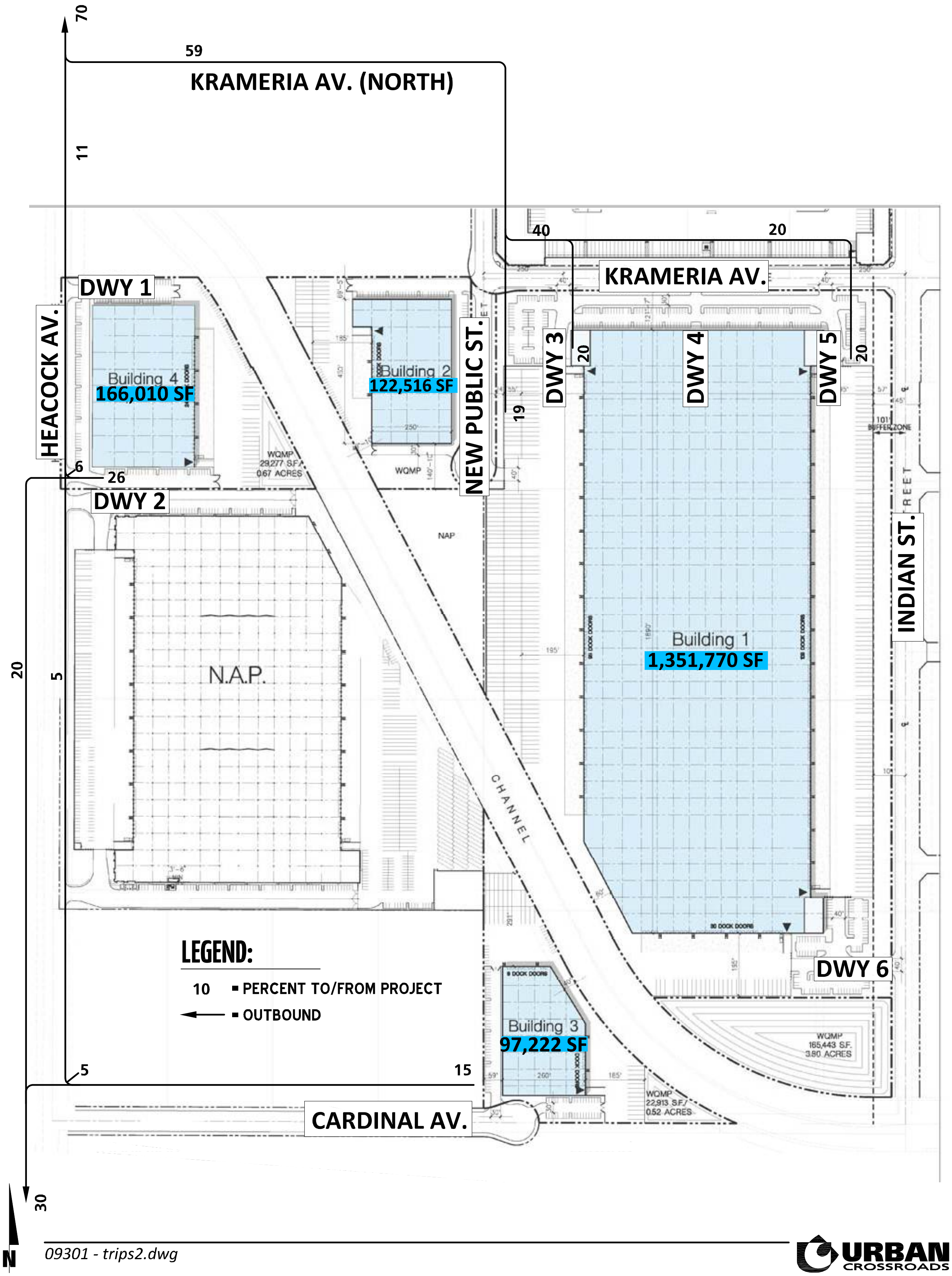

09301 - trips2.dwg

EXHIBIT 5 (1 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION
(WITH INDIAN STREET BRIDGE)

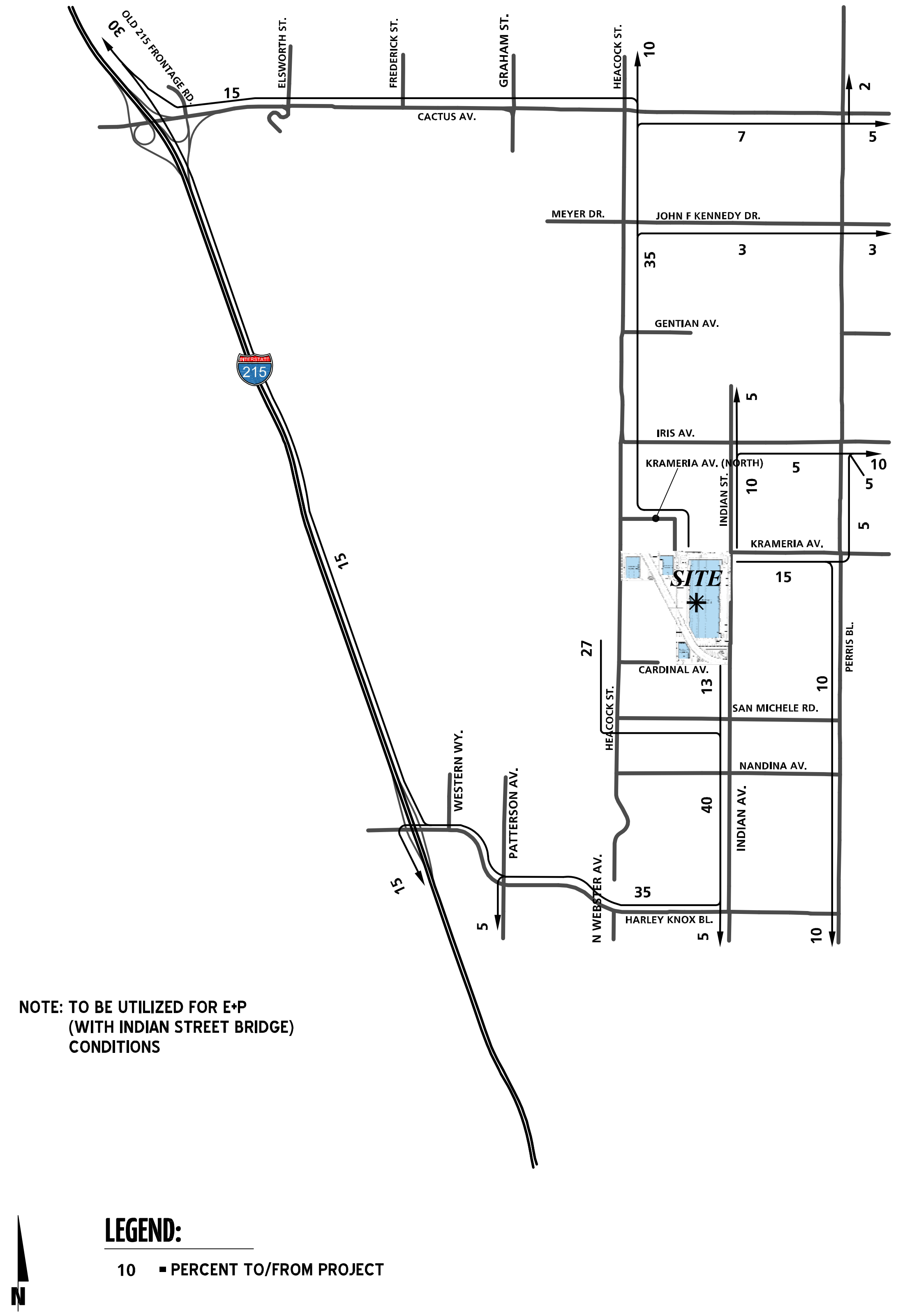

NOTE: TO BE UTILIZED FOR E+P
(WITH INDIAN STREET BRIDGE)
CONDITIONS

09301 - trips3.dwg

URBAN CROSSROADS

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 5 (2 OF 2): PROJECT PASSENGER CAR TRIP DISTRIBUTION (WITH INDIAN STREET BRIDGE)

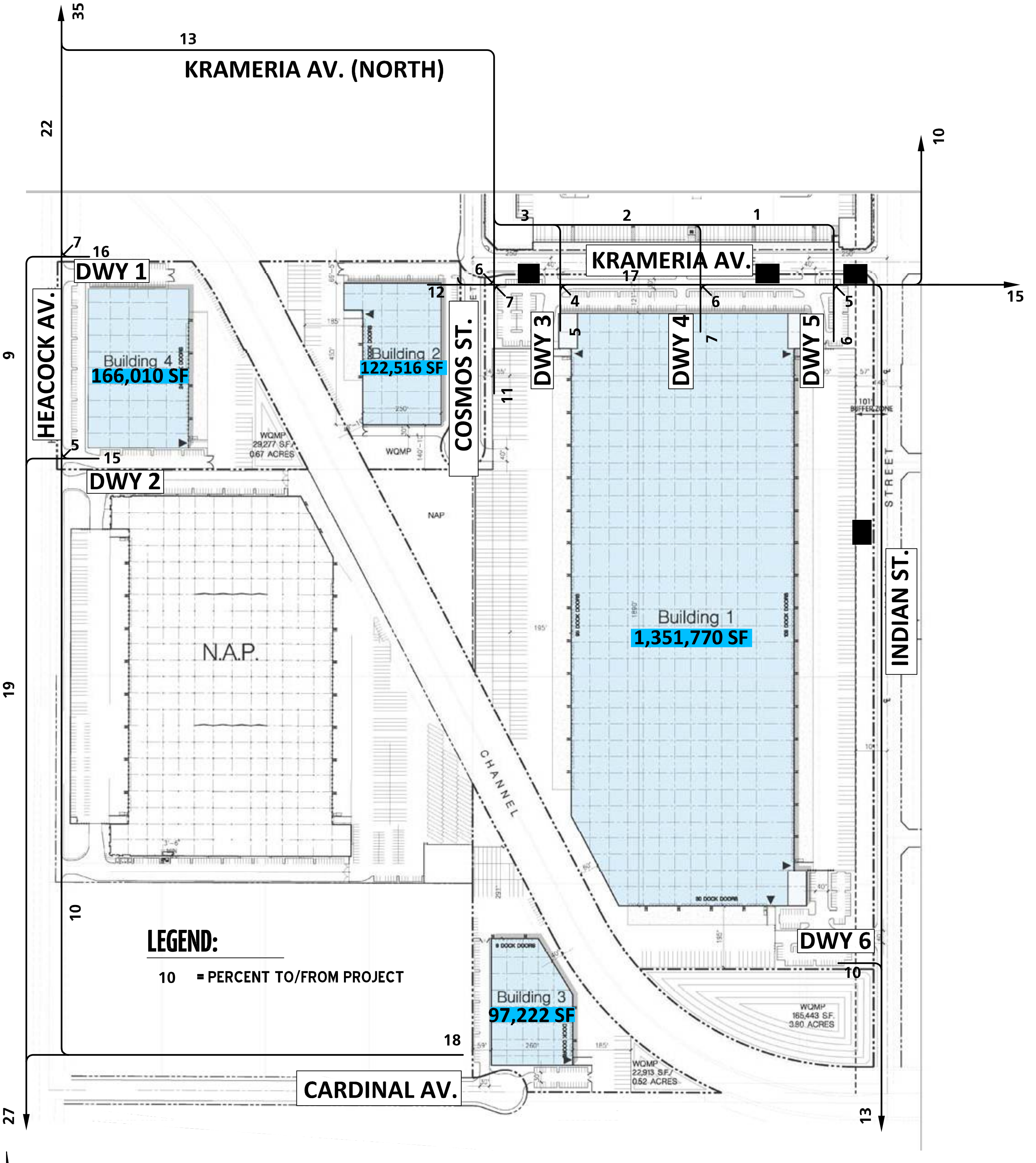

URBAN CROSSROADS

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 6 (1 OF 2): PROJECT TRUCK TRIP DISTRIBUTION (WITH INDIAN STREET BRIDGE)

NOTE: TO BE UTILIZED FOR E+P
(WITH INDIAN STREET BRIDGE)
CONDITIONS

09301 - trips4.dwg

EXHIBIT 6 (2 OF 2): PROJECT TRUCK TRIP DISTRIBUTION
(WITH INDIAN STREET BRIDGE)

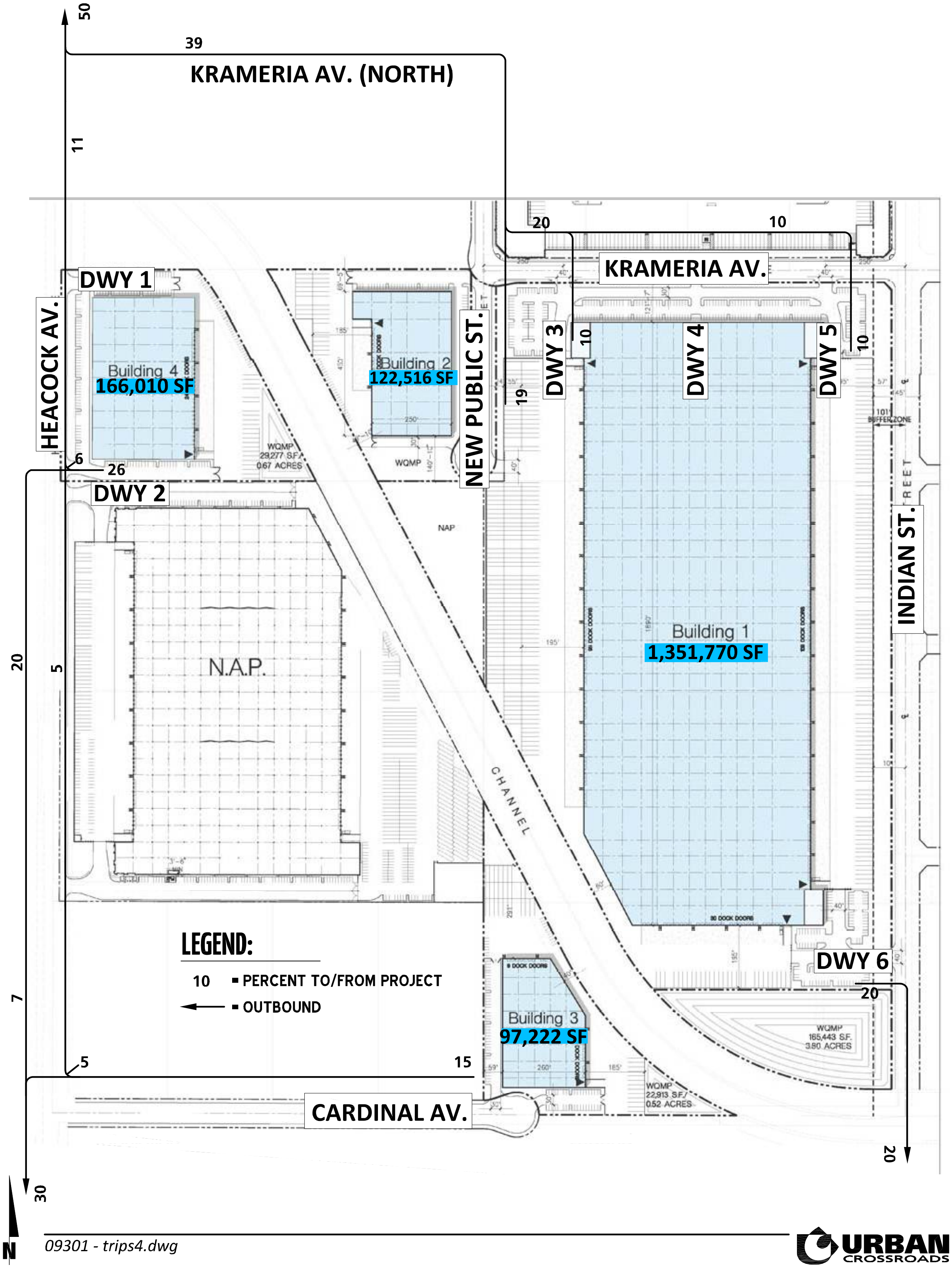

EXHIBIT 7 (1 OF 2): GENERAL PLAN BUILDOUT PROJECT PASSENGER CAR TRIP DISTRIBUTION

NOTE: ASSUMES BOTH HEACOCK STREET EXTENSION AT HARLEY KNOX BOULEVARD AND INDIAN STREET BRIDGE ARE BOTH IN PLACE

LEGEND:

10 ▪ PERCENT TO/FROM PROJECT

N

09301 - trips5.dwg

URBAN CROSSROADS

EXHIBIT 7 (2 OF 2): GENERAL PLAN BUILDOUT PROJECT PASSENGER CAR TRIP DISTRIBUTION

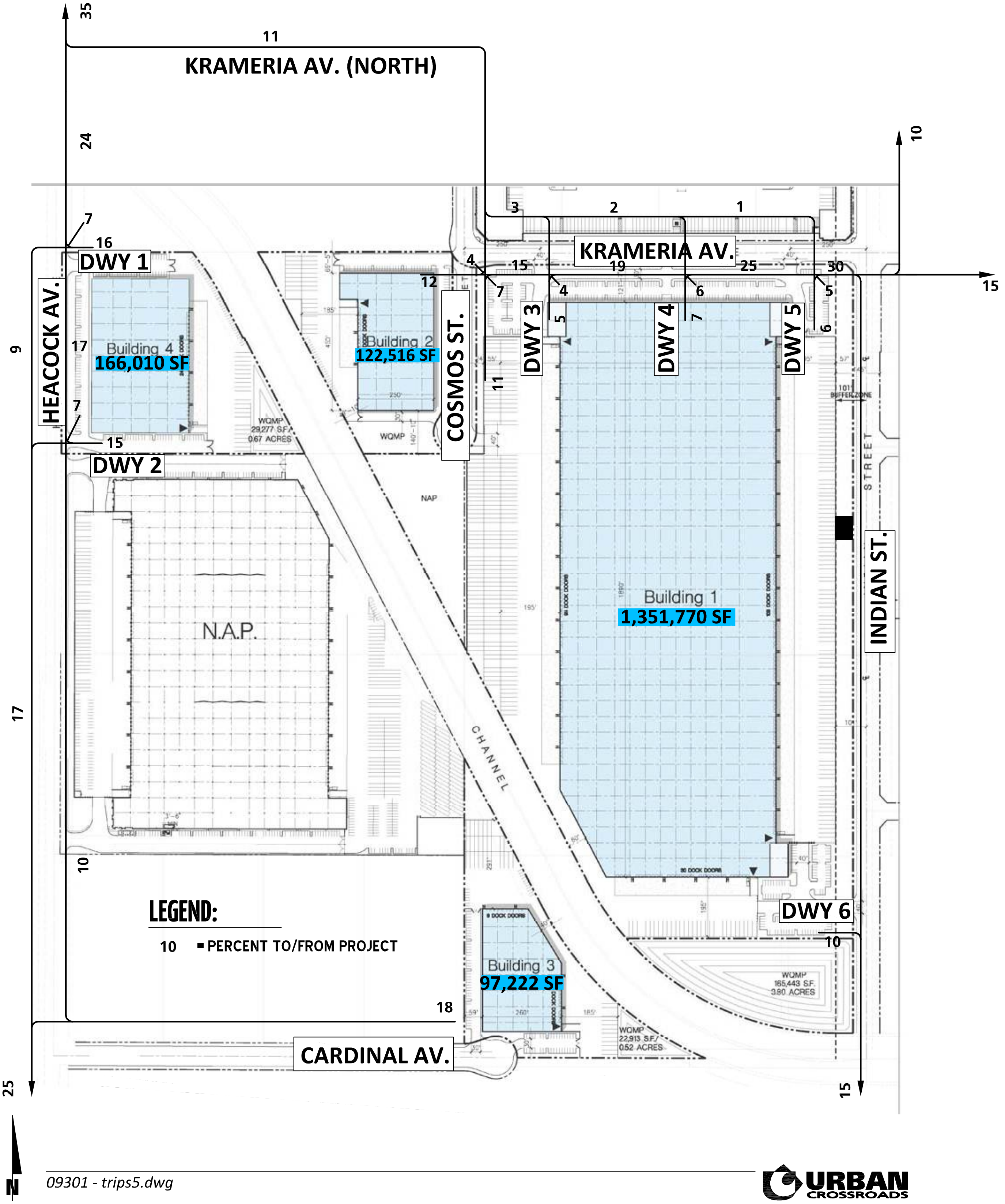

09301 - trips5.dwg

EXHIBIT 8 (1 OF 2): GENERAL PLAN BUILDOUT PROJECT TRUCK TRIP DISTRIBUTION

NOTE: ASSUMES BOTH HEACOCK STREET EXTENSION AT HARLEY KNOX BOULEVARD AND INDIAN STREET BRIDGE ARE BOTH IN PLACE

09301 - trips6.dwg

URBAN CROSSROADS

EXHIBIT 8 (2 OF 2): GENERAL PLAN BUILDOUT PROJECT TRUCK TRIP DISTRIBUTION

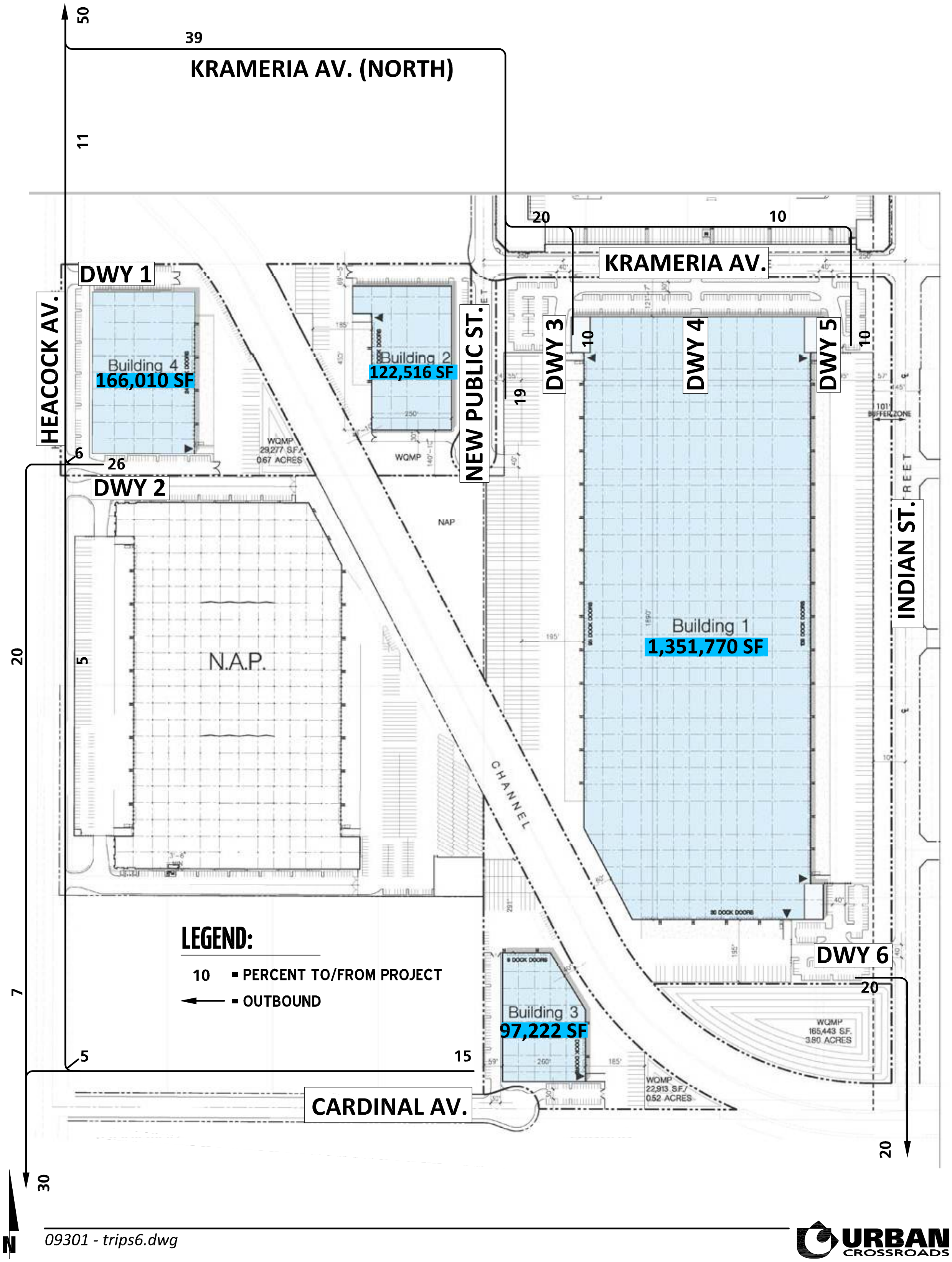

09301 - trips6.dwg

URBAN CROSSROADS

EXHIBIT 9: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP

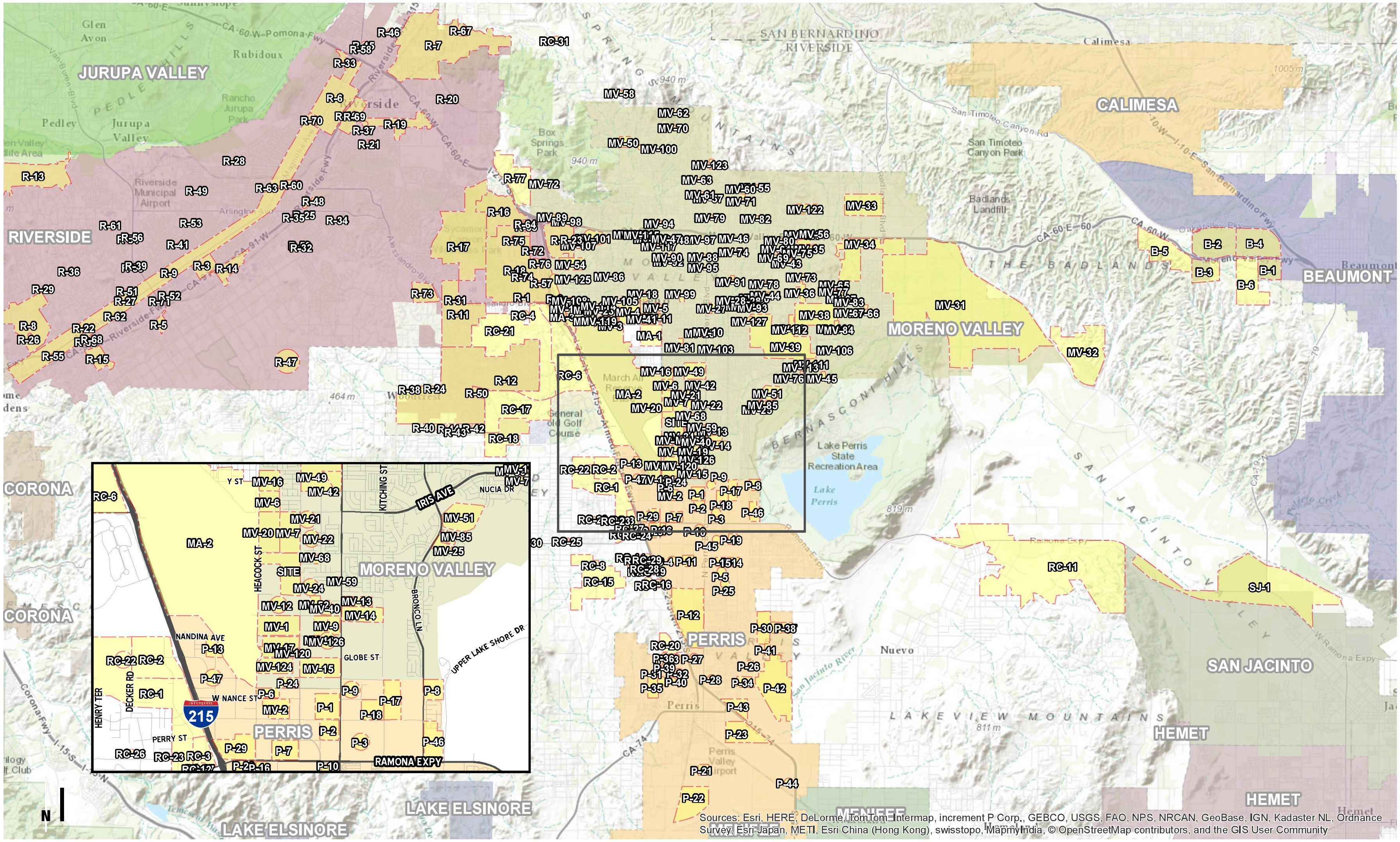

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Table 1

Project Trip Generation Rates (PCE)

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial[3]	TSF	110	0.810	0.110	0.920	0.120	0.850	0.970	6.970
Passenger Cars			0.637	0.086	0.723	0.094	0.668	0.762	5.478
2-Axle Trucks (PCE = 1.5)			0.097	0.013	0.110	0.014	0.102	0.116	0.836
3-Axle Trucks (PCE = 2.0)			0.063	0.009	0.072	0.009	0.066	0.076	0.544
4-Axle+ Trucks (PCE = 3.0)			0.231	0.031	0.262	0.034	0.242	0.276	1.986
High-Cube Warehouse/Distribution Center[4]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks (PCE = 1.5)			0.007	0.003	0.010	0.004	0.009	0.013	0.211
3-Axle Trucks (PCE = 2.0)			0.007	0.003	0.011	0.004	0.010	0.014	0.226
4-Axle+ Trucks (PCE = 3.0)			0.037	0.017	0.054	0.022	0.050	0.072	1.158

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Ninth Edition (2012).

[2] TSF = thousand square feet

[3] Light Industrial Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 150, August 2003. PCE rates are per SANBAG.

[4] High Cube Warehouse Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual.
Truck mix (by axle type) source from SCAQMD. PCE rates are per SANBAG.
AM peak hour = 72.7% passenger cars, 6.01% 2-Axle trucks, 4.83% 3-Axle trucks, 16.46% 4-Axle trucks
PM peak hour = 66.7% passenger cars, 7.33% 2-Axle trucks, 5.89% 3-Axle trucks, 20.08% 4-Axle trucks
ADT = 61.9% passenger cars, 8.38% 2-Axle trucks, 6.74% 3-Axle trucks, 22.98% 4-Axle trucks

Table 2

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Building 1 (High-Cube Warehouse)	1,351.770	TSF							
Passenger Cars:			75	34	108	34	75	108	1,406
Truck Trips:									
2-axle:			9	4	13	6	12	18	285
3-axle:			10	4	14	6	13	19	306
4+-axle:			51	23	73	30	67	98	1,566
- Net Truck Trips (PCE) [2]			70	31	101	42	93	135	2,157
BUILDING 1 TOTAL NET TRIPS (PCE) [3]			**144**	**65**	**209**	**75**	**168**	**243**	**3,563**
Building 2 (Light Industrial)	122.516	TSF							
Passenger Cars:			78	11	89	12	82	93	671
Truck Trips:									
2-axle:			12	2	14	2	12	14	102
3-axle:			8	1	9	1	8	9	67
4+-axle:			28	4	32	4	30	34	243
- Net Truck Trips (PCE) [2]			48	7	54	7	50	57	412
BUILDING 2 TOTAL NET TRIPS (PCE) [3]			**126**	**17**	**143**	**19**	**132**	**151**	**1,084**
Building 3 (Light Industrial)	97.222	TSF							
Passenger Cars:			62	8	70	9	65	74	533
Truck Trips:									
2-axle:			9	1	11	1	10	11	81
3-axle:			6	1	7	1	6	7	53
4+-axle:			22	3	25	3	24	27	193
- Net Truck Trips (PCE) [2]			38	5	43	6	40	46	327
BUILDING 3 TOTAL NET TRIPS (PCE) [3]			**100**	**14**	**114**	**15**	**105**	**120**	**860**
Building 4 (Light Industrial)	166.010	TSF							
Passenger Cars:			106	14	120	16	111	127	909
Truck Trips:									
2-axle:			16	2	18	2	17	19	139
3-axle:			10	1	12	2	11	13	90
4+-axle:			38	5	44	6	40	46	330
- Net Truck Trips (PCE) [2]			65	9	74	10	68	78	559
BUILDING 4 TOTAL NET TRIPS (PCE) [3]			**171**	**23**	**194**	**25**	**179**	**204**	**1,468**
TOTAL (PCE)			**541**	**119**	**660**	**134**	**584**	**718**	**6,975**

[1] TSF = thousand square feet

[2] Light Industrial Vehicle Mix Source: City of Fontana Truck Trip Generation Study for LU 110, August 2003. PCE rates are per SANBAG.
High Cube Warehouse Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual.
Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

Table 3
Page 1 of 9

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	1,182.918	TSF
2	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF
3A	PA 08-0072 (Overton Moore Properties)	High-Cube Warehouse	520.000	TSF
3B	Harbor Freight Expansion	High-Cube Warehouse	1,279.910	TSF
4	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
5	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
6	PA 07-0079 (Indian Business Park)	High-Cube Warehouse	1,560.046	TSF
7	PA 08-0047-0052 (Komar Cactus Plaza)[3]	Hotel	110	RMS
		Fast Food w/Drive Thru	8.000	TSF
		Commercial	42.400	TSF
8	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
9	TM 33607	Condo/Townhomes	52	DU
10	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
11	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	2,057.400	TSF
12A	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
12B	Modular Logistics (Dorado Property)	High-Cube Warehouse	1,109.378	TSF
13	PA 09-0004 (Vogel)	High-Cube Warehouse	1,616.133	TSF
14	TM 34748	SFDR	135	DU
15	First Nandina Logistics Center	High-Cube Warehouse	1,450.000	TSF
16	PA 09-0031	Gas Station	12	VFP
17	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
18	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1,380.246	TSF
19A	TM 33810	SFDR	16	DU
19B	TM 34151	SFDR	37	DU
20	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
21	TM 32716	SFDR	57	DU
22	TM 32917	Condo/Townhomes	227	DU
23	TM 33417	Condo/Townhomes	60	DU
24	TM 34988	Condo/Townhomes	271	DU
25A	TM 34216	Condo/Townhomes	39	DU
25B	TM 34681	Condo/Townhomes	49	DU
25C	PA 08-0079-0081 (Winco Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
26	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1,916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41,400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU

Table 3
Page 2 of 9

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
27	March Lifecare Campus Specific Plan[4]	Medical Offices	190.000	TSF
		Commercial Retail	210.000	TSF
		Research & Education	200.000	TSF
		Hospital	50	Beds
		Institutional Residential	660	Beds
28	Alessandro Metrolink Station	Light Rail Transit Station	300	SP
29	Airport Master Plan	Airport Use	559.000	TSF
30	Meridian Business Park North	Industrial Park	5,985.000	TSF
31	SP 341; PP 21552 (Majestic Freeway Business Center)	High-Cube Warehouse	6,200.000	TSF
32	PP 20699 (Oleander Business Park)	Warehousing	1,206.710	TSF
33	Ramona Metrolink Station	Light Rail Transit Station	300	SP
34	PP 22925 (Amstar/Kaliber Development)	Office (258.102 TSF)	258.102	TSF
		Warehousing	409.312	TSF
		General Light Industrial	42.222	TSF
		Retail	10.000	TSF
35	P07-1028 (Alessandro Business Park)	General Light Industrial	662.018	TSF
	Alessandro and Gorgonio	Fast Food w/Drive Thru	4.050	TSF
	2100 Alessandro Boulevard	Vocational School	11.505	TSF
36	P 05-0113 (IDI)	High-Cube Warehouse	1,750.000	TSF
37	P 05-0192 (Oakmont I)	High-Cube Warehouse	697.600	TSF
38	P 05-0477	High-Cube Warehouse	462.692	TSF
39	Rados Distribution Center	High-Cube Warehouse	1,200.000	TSF
40	Investment Development Services (IDS) II	High-Cube Warehouse	350.000	TSF
41	P 07-09-0018	Warehousing	170.000	TSF
42	P 07-07-0029 (Oakmont II)	High-Cube Warehouse	1,600.000	TSF
43	TR 32707	SFDR	137	DU
44	TR 34716	SFDR	318	DU
45	P 05-0493 (Ridge I)	High-Cube Warehouse	700.000	TSF
46	Ridge II	High-Cube Warehouse	2,000.000	TSF
47	Harvest Landing Specific Plan	SFDR	717	DU
		Condo/Townhomes	1,139	DU
		Sports Park	16.700	AC
		Business Park	1,233.401	TSF
		Shopping Center	73.181	TSF
	Perris Marketplace	Shopping Center	450.000	TSF
48	P 06-0411 (Concrete Batch Plant)	Manufacturing	2.000	TSF
49	Jordan Distribution	High-Cube Warehouse	378.000	TSF
50	Aiere	High-Cube Warehouse	642.000	TSF
51	P 08-11-0005; P 08-11-0006 (Starcrest)	High-Cube Warehouse	454.088	TSF
52A	Stratford Ranch Specific Plan	High-Cube Warehouse	1,725.411	TSF
52B	Stratford Ranch Specific Plan	High-Cube Warehouse	480.000	TSF
		General Light Industrial	120.000	TSF
53	PP 18908	General Light Industrial	133.000	TSF
54	Tract 33869	SFDR	39.000	DU
55	PP 16976	General Light Industrial	85.000	TSF
56	PP 21144	Industrial Park	190.802	TSF

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
57	Quail Ranch Specific Plan	Private School (K-12)	300	STU
		Golf Course	18	Holes
		Hotel	500	ROOMS
		Specialty Retail	66.667	TSF
		General office	66.667	TSF
		Assisted Living	500	Beds
		Senior Living (Detached)	200	DU
		SFDR	600	DU
58	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU
	e TR 30998 (Pacific Communities)	SFDR	47	DU
59	a Westridge Commerce Center	High-Cube Warehouse	937.260	TSF
	b P06-158 (Gascon)	Commercial Retail	116.360	TSF
	c Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	d ProLogis	Warehousing	367.000	TSF
		High-Cube Warehouse	1,901.000	TSF
	e TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
60	TR 36340	SFDR	275	DU
61	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
62	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
63	a Convenience Store/ Fueling Station	Gas Station w/ Market	30.750	TSF
	b Senior Assisted Living	Assisted Living Units	139	DU
	c TR 31590 (Winchester Associates)	SFDR	96	DU
	d TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	e 26th Corp. & Granite Capitol	SFDR	32	DU
	f TR 32218 (Whitney)	SFDR	63	DU
	g Moreno Marketplace	Commercial Retail	93.788	TSF
	h Medical Plaza	Medical Offices	311.633	TSF
64	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use^1	Quantity	Units^2
65	a Villages of Lakeview	SFDR	860	DU
		Condo/Townhomes	1,920	DU
		Elementary School	1,200	STU
		Commercial Retail	100.000	TSF
		Soccer Complex	12	Fields
		City Park	8.900	AC
		County Park	8.100	AC
		Regional Park	107.100	AC
	b Motte Lakeview Ranch	SFDR	847	DU
		Condo/Townhomes	686	DU
		Apartments	467	DU
		Elementary School	650	STU
		Middle School	300	STU
		Commercial Retail	120.000	TSF
		Regional Park	177.000	AC
66	Gateway Area Specific Plan	Commercial Retail	255.000	AC
		General Office	510.000	AC
		Business Park	595.000	AC
		Residential	340.000	AC
67	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
68	Centerpointe Business Park	General Light Industrial	356.000	TSF
69	ProLogis/Rolling Hills Ranch Industrial	Heavy Industrial	2,565.684	TSF
70	P05-0493	Logistics	597.370	TSF
71	P07-0102; and P09-0416, -0418, -0419	General Light Industrial	652.018	TSF
	Alessandro Bl. (APN 263-091-008; 263-100-019; 263-100-005; P14-0841 to	Commercial and Industrial Complex	101.580	TSF
72	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
73	TR 31305 / Richmond American	Residential	87	DU
74	TR 32505 / DR Horton	Residential	72	DU
75	TR 34329 / Granite Capitol	Residential	90	DU
76	TR 31814 / Moreno Valley Investors	Residential	60	DU
77	TR 33771 / Creative Design Associates	Residential	12	DU
78	TR 35663 / Kha	Residential	12	DU
79	TR 22180 / Young Homes	Residential	140	DU
80	TR 32515	Residential	161	DU
81	TR 32142	Residential	81	DU
82	Heartland	Residential	922	DU
83	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
84	Hidden Canyon	General Light Industrial	2,890.000	TSF
85	Starcrest, P011-0005; 08-11-0006	General Light Industrial	454.088	TSF
86	Commercial Medical Plaza	Medical Offices	311.633	TSF
87	Mountain Bridge Regional Commercial Community	Commercial	1,853.251	TSF
88	Jack Rabbit Trail	Residential	2,000	DU
89	The Preserve / Legacy Highlands SP	Commercial	595.901	TSF
		Residential	3,412	DU
90	South Perris Industrial Phase 1	Logistics	787.700	TSF
91	South Perris Industrial Phase 2	Logistics	3,448.734	TSF
92	South Perris Industrial Phase 3	Logistics	3,166.857	TSF

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
93	P 04-0343	Warehousing	41.650	TSF
94	P 06-0228	General Light Industrial	149.738	TSF
95	P 06-0378	Senior Housing	429	DU
96	P 11-09-0011	Retail	80.000	TSF
97	P 12-05-0013	Apartments	75	DU
98	P 12-10-0005	High-Cube Warehouse	1,463.887	TSF
99	TR 30850	Residential	496	DU
100	TR 30973	Residential	35	DU
101	TR 31225	Residential	57	DU
102	TR 31226	Residential	82	DU
103	TR 31240	Residential	114	DU
104	TR 31407	Residential	243	DU
105	TR 31650	SFDR	61	DU
106	TR 31659	SFDR	161	DU
107	TR 32041	Residential	122	DU
108	TR 32406	SFDR	15	DU
109	TR 33193	Townhomes	94	DU
110	TR 33338	Residential	75	DU
111	California Baptist University Specific Plan	University	157	AC
112	Canyon Springs Specific Plan	Hospital	280	BEDS
		Medical-Dental Office	370	TSF
		Senior Adult Housing-Attached	234	DU
		Assisted Living	267	BEDS
113	Citrus Business Park Specific Plan	Industrial Business Park	49	AC
114	Downtown Specific Plan	Residential	5,000	DU
115	Hunter Business Park	Industrial	1,300	AC
116	La Sierra University Specific Plan	Mixed-Use		
117	Magnolia Avenue Specific Plan	Mixed-Use/Very High Residential	1,473	AC
118	Marketplace Specific Plan	Commercial Retail/Office	200	AC
119	Mission Grove Specific Plan	Business/Office Park	56.79	AC
		Commercial Retail	68.12	AC
		High Density Residential	53.77	AC
		Low Density Residential	78.38	AC
		Medium Density Residential	155.31	AC
120	Orangecrest Specific Plan	Rural Residential	2.13	AC
		Business/Office Park	2.70	AC
		Commercial Retail	138.96	AC
		High Density Residential	13.70	AC
		Low Density Residential	540.76	AC
		Medium Density Residential	1,217.80	AC
		Public Facilities/Institutions	121.59	AC
		Public Park	59.51	AC
121	Rancho La Sierra Specific Plan	SFDR	598	DU
122	Riverside Auto Center Specific Plan	Auto Center		
123	Riverwalk Vista Specific Plan	Residential	402	DU

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
124	Sycamore Canyon Specific Plan	Hillside Residential	41.83	AC
		Low Density Residential	97.28	AC
		Medium Density Residential	14.84	AC
		Very Low Density Residential	884.22	AC
		Public Park	27.85	AC
125	Sycamore Canyon Business Park Specific Plan	Business/Office Park	847.15	AC
		Commercial Retail	10.32	AC
126	Sycamore-Highlands Specific Plan	Commercial Retail	14.63	AC
		High Density Residential	52.18	AC
		Medium Density Residential	99.11	AC
		Public Facilities	1.56	AC
		Public Park	144.17	AC
		Very Low Density Residential	49.09	AC
127	University Avenue Specific Plan	Mixed-Use	Varies	
128	807 Blaine Street (P09-0717; P09-0718)	Apartments	55	DU
129	2340 Fourteenth Street (P09-0808; P08-0809)	Senior Housing	134	BEDS
130	10938 Magnolia Avenue (P10-0083)	Pharmacy	14.064	TSF
131	6287 Day Street (P10-0090; P10-0091)	Gas Station	2	VFP
	2570 Canyon Springs Parkway (P08-0274; P08-0275)	Bank w/ Drive Thru	2.746	TSF
	6211 Valley Springs Parkway (Steak 'N Shake Restaurant; P14-0536)	Fast Food w/Drive Thru	3.750	TSF
132	N. of Van Buren Boulevard; W. of Wood Street (P10-0808; P10-0708)	Fast Food w/Drive Thru	2.361	TSF
133	3439 Arlington Avenue (P12-0234)	Fitness Club	9.600	TSF
134	NWC of Riverwalk Parkway and Flat Rock Drive (P12-0019; P12-0156; P12-0158)	Convenience Store	2.400	TSF
		Coffee Shop	3.946	TSF
135	3875 Dawes Street (P10-0438; Magnolia Garden Condominiums)	Condo/Townhomes	62	DU
136	5938-5944 Grand Avenue (P12-0266; P12-0267; P12-0268)	Senior Housing	37	DU
137	4901 La Sierra Avenue (P11-0627; P11-0628; P11-0777; P11-0778)	Gas Station	4.100	TSF
138	4250 Van Buren Boulevard (P12-0605; P12-0606)	Gas Station	1.776	TSF
139	360 Alessandro Boulevard (P12-0419; P12-0557; P12-0558; P12-0559)	Bank	3.858	TSF
140	2831 Mary Street (P12-0761; P12-0442 P12-0443; P12-0444)	Pharmacy	56.101	TSF
141	2450 Market Street (P13-0087; P13-0262)	Apartments	77	DU
142	6091 Victoria Avenue (P13-0432)	Day Care	1.831	TSF
143	6692 Indiana Avenue (P13-0159; P13-0160)	Gas Station	2.958	TSF
144	4824 Jones Avenue (P13-0181; P13-0182)	Church	23.124	TSF
145	2586 University avenue (P13-0650; P13-0651)	Bed and Breakfast	3.618	TSF
146	18580 Van Buren Boulevard (P08-0402; P13-0822)	Auto Repair Shop	8.142	TSF
147	4247 Van Buren Boulevard (P13-0785; P13-0787)	Church Expansion	12.166	TSF
148	SWC of Lurin Avenue and Wood Road (P06-0900; P08-0269; P08-0270; TTM	SFDR	20	DU
149	8616 California Avenue (P08-0084; PM 35852)	Condo/Townhomes	21	DU
150	19811 Lurin Avenue (P06-1355; TM 33480)	SFDR	32	DU
151	APN:266140029, 030 (P06-1396; Mariposa Avenue; TM 33481)	SFDR	25	DU
152	APN:266140002, 021, 022 (P06-1404; Lurin Avenue; TM 33482)	SFDR	29	DU
153	3719 Strong Street (P05-0269; P08-0416; TM 33550)	SFDR	9	DU
154	1006 & 1008 Clark Street (P06-0782; TM 34908)	SFDR	15	DU
155	E. of Gratton St., W. of Corsica Av., N. of Van Buren Bl. (P05-1528; P09-0087;	SFDR	50	DU
156	NWC of Dominion Avenue and Division Street (P08-0396; P08-0397; P08-0398;	Condo/Townhomes	36	DU
157	6639 Hillside Avenue (P08-0727; PM 35901)	Industrial	5	LOTS
158	19985 Van Buren Boulevard (P10-0118; Gless Ranch)	Commercial Retail	425.447	TSF

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
159	3990 Reynolds Road (P12-0021; P12-0022; P12-0074; PM 36442)	Condo/Townhomes	102	DU
160	NEC of Martha Way & Everest Avenue (P13-0389; TM 36579)	SFDR	5	DU
161	4325, 4335, 4345, 4355, 4375 Adams Street (P13-0723; P13-0724; P13-0725;	SFDR	62	DU
162	5200 Van Buren Boulevard (P09-0600; P09-0601; Walmart Expansion)	Free Standing Discount Store	22.272	TSF
163	11500 Magnolia Avenue (P10-0406; P10-0407; P10-0408)	Apartments	168	DU
164	9241 & 9265 Audrey Avenue (P12-0184; P12-0185; P12-0187; Azar Plaza)	Commercial Retail	6.150	TSF
165	2325 Cottonwood Avenue (P12-0507; P12-0508; P12-0509; P12-0510)	High-Cube Warehouse	235.741	TSF
166	1710 Main Street (P12-0717)	Family Dollar Store	8.039	TSF
167	2861 Mary Street (P12-0442; P12-0443; P12-0444)	Shopping Center	56.101	TSF
168	3545 Central Avenue (P12-0741; P12-0743)	Riverside Plaza Renovations	35	AC
169	5731, 5741, 5761 & 5797 Pickler Street (P13-0198; P13-0199; P13-0200; P13-	Apartments	30	DU
170	3705 Tyler Street (P13-0501; P13-0502)	Restaurant	6.000	TSF
171	6570 Magnolia Avenue; 3739 & 3747 Central Avenue (P13-0196; P13-0197)	Fast Food w/Drive Thru	3.795	TSF
172	5940-5980 Sycamore Canyon Boulevard (P13-0553; P13-0554; P13-0583; P14-	Apartments	275	DU
173	SEC Sycamore Canyon Boulevard & Box Springs Road (P13-0607; P13-0608;	General Light Industrial	171.616	TSF
174	3742 Park Sierra Avenue (P13-0912; P13-0913)	Fitness Club	45.000	TSF
175	474 Palmyrita Avenue (P13-0956; P13-0959; P13-0960; P13-0963; P13-0964;	High-Cube Warehouse	1,461.449	TSF
176	Park Sierra Avenue (P14-0026; P14-0027)	Fast Food w/Drive Thru	3.500	TSF
177	E. of Commerce St., between Mission Inn Av. and Ninth St. (P14-0045; P14-	Apartments	208	DU
178	4445 Magnolia Avenue (P13-0207; P13-0208; P13-0209; P13-0210; P13-0211)	Hospital Expansion	Varies	
179	SR-91/Van Buren Commercial	Commercial Retail	23.565	TSF
180	6465 Sycamore Canyon Boulevard	Health Club	4.000	TSF
181	Edgemont Street, South of Eucalyptus Av.	Apartments	112	DU
182	14601 Dauchy Av. - TM 36370 (P12-0601; P12-0697; P12-0698)	SFDR	10	DU
	TM 32180 (P07-1073)	SFDR	9	DU
	18875 Moss Road	SFDR	8	DU
	South of Clarke St., west of Crystal View Terrace (PM 34583' {09-0141; P09-	SFDR	3	DU
183	Freeway Business Center (March JPA)	High-Cube Warehouse	710	TSF
184	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
185	20636 Pacific Communities	SFDR	67	DU
186	31297 Randy McFarland	SFDR	7	DU
187	31394 Pigeon Pass, Ltd.	SFDR	78	DU
188	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
189	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU
190	31621 Peter Sanchez	SFDR	25	DU
191	32005 Red Hill Village, LLC	SFDR	214	DU
192	32126 Salvador Torres	SFDR	35	DU
193	32194 Arman Pezeshkifar	SFDR	32	DU
194	32408 Sanstone Inc.	SFDR	80	DU
195	32844 Winchester Associates	SFDR	17	DU
196	32978 Focus Estates	SFDR	19	DU
197	33024 Adam Wislar	SFDR	8	DU
198	33275 Jose Guzman	SFDR	4	DU
199	33388 SCH Development, LLC	SFDR	16	DU
200	33436 Winchester Associates	SFDR	105	DU
201	33626 Kincaid Development, Inc.	SFDR	23	DU
202	33963 Rance Garrett	SFDR	31	DU
203	34043 RM3 Building and Development	SFDR	12	DU

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
204	31621 Beazer Homes	SFDR	274	DU
205	30268 Pacific Communities	SFDR	83	DU
206	31414 GRF - Majestic Hills	SFDR	31	DU
207	31494 Winchester Associates	SFDR	12	DU
208	32715 GFR - Trinity	SFDR	30	DU
209	33256 Granite Homes	SFDR	79	DU
210	32711 Isaac Genah	SFDR	9	DU
211	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR	1,105	DU
212	35534 Leedco Engineers	SFDR	12	DU
213	36436 CV Communities	SFDR	159	DU
214	36401 Continental East Fund III, LLC	SFDR	92	DU
215	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
216	32756 Jimmy Lee	MFDR	24	DU
217	35369 Tason Myers Property	MFDR	12	DU
218	35414 Lincoln Property Co. Southwest	MFDR	240	DU
219	35769 Michael Chen	MFDR	16	DU
220	PA08-0013 Palm Desert Development "Rancho Dorado North"	MFDR	80	DU
221	PA09-0006 Jim Nydam	MFDR	15	DU
222	35861 Frederick Homes	MFDR	24	DU
223	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
224	35304 Jimmy Lee	MFDR	12	DU
225	Alessandro & Lasselle	Shopping Center	140	TSF
226	Burger King - Fast-Food - 24800 Sunnymead	Fast Food w/Drive Thru	--	TSF
227	Nightclub	Retail	11	TSF
	Aerosports Trampoline Park	Recreation Community Center	34.5	TSF
228	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
229	Lakeshore Village Marketplace	Shopping Center	140	TSF
230	El Paso (food court)	Fast Food no Drive Thru	--	TSF
231	Potato Corner	Fast Food no Drive Thru	--	TSF
232	O'Reilly Automotive	Automobile Parts Sale	7.5	TSF
233	O'Reilly Automotive	Automobile Parts Sale	7.5	TSF
234	Restaurant	Restaurant	9	TSF
235	Rancho Belago Plaza - Retail	Retail	14	TSF
236	24-Hour Fitness	Fitness Club	--	TSF
	Rivals Sports Bar & Grill	Restaurant	--	TSF
237	Walmart	Free Standing Discount Store	193	TSF
238	Yum Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.35	TSF
239	Hawthorn Inn & Suites	Hotel	79	RMS
240	Sleep Inn Suites	Hotel	66	RMS
241	Fresenius Medical Care Center	Medical Offices	12	TSF
242	Integrated Care Communities	Nursing Home	44	TSF
243	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF
244	Moreno Valley Professional Center	General Office	84	TSF
245	Olivewood Plaza - Office Building	General Office	23	TSF
246	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	140	DU
247	Riverside County Office Building	General Office	52	TSF
248	Gateway Business Park	Residential Condo/Townhouse	34	DU
249	Shaw Development	High-Cube Warehouse	367	TSF

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
250	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697	TSF
251	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5,700	TSF
252	Ironwood Residential	SFDR	144	DU
253	The Gateway Center	SFDR	1,342	DU
		Condo/Townhomes	402	DU
		Apartments	307	Du
		Shopping Center	5.7	AC
		Mixed-Use/Metrolink Station	15.2	AC
		Parks	15.9	AC
254	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU

[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

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APPENDIX 1.2:

SITE ADJACENT QUEUING ANALYSIS WORKSHEETS

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Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - AM Peak Hour WITH IMPROVEMENTS

11/2/2016

Intersection: 14: Heacock Street & Krameria Avenue-North

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	136	105	800	815	245	182
Average Queue (ft)	67	47	779	757	142	96
95th Queue (ft)	116	83	792	845	217	167
Link Distance (ft)		1201	763	763		1797
Upstream Blk Time (%)			63	18		
Queuing Penalty (veh)			304	87		
Storage Bay Dist (ft)	200				250	
Storage Blk Time (%)					0	
Queuing Penalty (veh)					2	

Intersection: 15: Heacock Street & Driveway 1

Movement	WB	NB	NB	SB
Directions Served	LR	T	TR	L
Maximum Queue (ft)	58	573	594	46
Average Queue (ft)	20	544	547	14
95th Queue (ft)	52	598	640	40
Link Distance (ft)	331	533	533	
Upstream Blk Time (%)		63	50	
Queuing Penalty (veh)		319	255	
Storage Bay Dist (ft)				100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Heacock Street & Driveway 2

Movement	WB	NB	NB	SB
Directions Served	LR	T	TR	L
Maximum Queue (ft)	129	2043	2046	37
Average Queue (ft)	48	1226	1223	7
95th Queue (ft)	157	2406	2411	28
Link Distance (ft)	465	2030	2030	
Upstream Blk Time (%)		10	10	
Queuing Penalty (veh)		52	51	
Storage Bay Dist (ft)				100
Storage Blk Time (%)				
Queuing Penalty (veh)				

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - AM Peak Hour WITH IMPROVEMENTS

11/2/2016

Intersection: 17: Heacock Street & Cardinal Avenue

Movement	WB	WB	NB	NB	NB	SB
Directions Served	L	R	T	T	R	L
Maximum Queue (ft)	42	40	731	708	4	53
Average Queue (ft)	9	8	149	141	0	20
95th Queue (ft)	31	28	639	609	3	46
Link Distance (ft)	1313	1313	1287	1287	1287	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						140
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 21: Cosmos Street & Krameria Avenue-North/Driveway

Movement	EB	WB	NB
Directions Served	LTR	LTR	L
Maximum Queue (ft)	152	22	50
Average Queue (ft)	73	7	10
95th Queue (ft)	116	23	37
Link Distance (ft)	1201	190	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 22: Cosmos Street & Driveway/Krameria Avenue

Movement	EB	WB	WB	NB	SB	SB
Directions Served	LTR	L	TR	LTR	L	TR
Maximum Queue (ft)	29	56	128	23	89	42
Average Queue (ft)	4	13	62	2	26	7
95th Queue (ft)	19	40	110	14	70	29
Link Distance (ft)	182		146	546	754	754
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		100				
Storage Blk Time (%)			2			
Queuing Penalty (veh)			0			

Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - AM Peak Hour WITH IMPROVEMENTS 11/2/2016

Intersection: 23: Driveway 3 & Krameria Avenue

Movement	WB	WB	NB
Directions Served	L	T	LR
Maximum Queue (ft)	31	10	30
Average Queue (ft)	2	0	8
95th Queue (ft)	15	7	29
Link Distance (ft)		356	138
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	100		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 24: Driveway 4 & Krameria Avenue

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	31	35
Average Queue (ft)	3	4
95th Queue (ft)	18	20
Link Distance (ft)		45
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: Driveway 5 & Krameria Avenue

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	25	30
Average Queue (ft)	2	7
95th Queue (ft)	13	27
Link Distance (ft)		153
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - AM Peak Hour WITH IMPROVEMENTS

11/2/2015

Intersection: 26: Indian Street & Krameria Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	60	78	89	166	243	216	280	1116	1070	65	149	295
Average Queue (ft)	16	21	32	60	106	95	275	682	608	33	123	118
95th Queue (ft)	43	54	71	130	194	174	307	1245	1203	56	165	243
Link Distance (ft)		168	168		2497	2497		2026	2026			2578
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100			100			200			200	100	
Storage Blk Time (%)	0	0		2	12		78	0	0		25	4
Queuing Penalty (veh)	0	0		5	11		185	0	0		44	10

Intersection: 26: Indian Street & Krameria Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	237	67
Average Queue (ft)	90	23
95th Queue (ft)	189	51
Link Distance (ft)	2578	2578
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 27: Indian Street & Driveway 6

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	35	49
Average Queue (ft)	13	20
95th Queue (ft)	39	47
Link Distance (ft)	222	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 1326

Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - PM Peak Hour WITH IMPROVEMENTS 11/2/2016

Intersection: 14: Heacock Street & Krameria Avenue-North

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	R	L	T
Maximum Queue (ft)	204	158	795	820	125	250
Average Queue (ft)	115	67	778	708	55	118
95th Queue (ft)	187	117	790	1001	102	211
Link Distance (ft)		1201	763	763		1797
Upstream Blk Time (%)			64	16		
Queuing Penalty (veh)			334	83		
Storage Bay Dist (ft)	200				250	
Storage Blk Time (%)	1	0				1
Queuing Penalty (veh)	2	0				1

Intersection: 15: Heacock Street & Driveway 1

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	L	T
Maximum Queue (ft)	267	571	596	29	39
Average Queue (ft)	132	549	558	4	1
95th Queue (ft)	286	562	597	19	28
Link Distance (ft)	331	533	533		763
Upstream Blk Time (%)	4	78	52		
Queuing Penalty (veh)	0	404	266		
Storage Bay Dist (ft)				100	
Storage Blk Time (%)					0
Queuing Penalty (veh)					0

Intersection: 16: Heacock Street & Driveway 2

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	L	T
Maximum Queue (ft)	376	2060	2070	32	78
Average Queue (ft)	215	1854	1851	2	5
95th Queue (ft)	464	2488	2499	13	70
Link Distance (ft)	465	2030	2030		533
Upstream Blk Time (%)	11	46	41		
Queuing Penalty (veh)	0	232	207		
Storage Bay Dist (ft)				100	
Storage Blk Time (%)					0
Queuing Penalty (veh)					0

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - PM Peak Hour WITH IMPROVEMENTS

11/2/2016

Intersection: 17: Heacock Street & Cardinal Avenue

Movement	WB	WB	NB	NB	NB	SB
Directions Served	L	R	T	T	R	L
Maximum Queue (ft)	259	661	1302	1302	1302	22
Average Queue (ft)	44	228	805	794	624	3
95th Queue (ft)	151	577	1745	1736	1696	17
Link Distance (ft)	1313	1313	1287	1287	1287	
Upstream Blk Time (%)			48	47	38	
Queuing Penalty (veh)			0	0	0	
Storage Bay Dist (ft)						140
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 21: Cosmos Street & Krameria Avenue-North/Driveway

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	140	40	79	6	22
Average Queue (ft)	60	11	32	0	2
95th Queue (ft)	106	33	68	4	13
Link Distance (ft)	1201	190			1420
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			150	200	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 22: Cosmos Street & Driveway/Krameria Avenue

Movement	EB	WB	WB	NB	SB	SB
Directions Served	LTR	L	TR	LTR	L	TR
Maximum Queue (ft)	60	26	120	56	74	37
Average Queue (ft)	21	3	56	14	27	3
95th Queue (ft)	49	16	93	42	65	18
Link Distance (ft)	182		146	546	754	754
Upstream Blk Time (%)			0			
Queuing Penalty (veh)			0			
Storage Bay Dist (ft)		100				
Storage Blk Time (%)			1			
Queuing Penalty (veh)			0			

Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - PM Peak Hour WITH IMPROVEMENTS

11/2/2016

Intersection: 23: Driveway 3 & Krameria Avenue

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	12	50
Average Queue (ft)	1	23
95th Queue (ft)	8	48
Link Distance (ft)		138
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Driveway 4 & Krameria Avenue

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	25	45
Average Queue (ft)	1	15
95th Queue (ft)	9	42
Link Distance (ft)		45
Upstream Blk Time (%)		0
Queuing Penalty (veh)		0
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 25: Driveway 5 & Krameria Avenue

Movement	EB	WB	NB
Directions Served	TR	L	LR
Maximum Queue (ft)	6	6	44
Average Queue (ft)	0	1	23
95th Queue (ft)	4	8	45
Link Distance (ft)	354		153
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
General Plan Buildout (Post 2035) With Project Conditions - PM Peak Hour WITH IMPROVEMENTS 11/2/2016

Intersection: 26: Indian Street & Krameria Avenue

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	123	141	162	190	579	78	280	729	699	69	150	1105
Average Queue (ft)	61	89	114	177	289	30	259	468	428	38	149	725
95th Queue (ft)	111	133	159	222	565	62	335	878	831	61	160	1232
Link Distance (ft)		168	168		2497	2497		2026	2026			2578
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	1									
Storage Bay Dist (ft)	100			100			200			200	100	
Storage Blk Time (%)	3	10		82	3		75	0	0		89	15
Queuing Penalty (veh)	6	13		57	5		215	0	0		231	41

Intersection: 26: Indian Street & Krameria Avenue

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	1072	64
Average Queue (ft)	684	26
95th Queue (ft)	1184	54
Link Distance (ft)	2578	2578
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 27: Indian Street & Driveway 6

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (ft)	142	48	428
Average Queue (ft)	47	13	29
95th Queue (ft)	96	38	433
Link Distance (ft)	222		2026
Upstream Blk Time (%)	0		0
Queuing Penalty (veh)	0		1
Storage Bay Dist (ft)		100	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 2099

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – APRIL 2015

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92787
(951) 268-6268

City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On Ramp Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	24	3	24	88	330	0	0	418	0	0	129	0	129	0	74	11	2	85	5	656	661
07:15 AM	0	0	42	29	42	87	346	0	0	433	0	0	113	0	113	0	79	8	0	87	29	675	704
07:30 AM	0	0	41	21	41	86	288	0	0	374	0	0	119	0	119	0	67	4	1	71	22	605	627
07:45 AM	0	0	66	25	66	76	295	0	0	371	0	0	123	0	123	0	76	5	1	81	26	641	667
Total	0	0	173	78	173	337	1259	0	0	1596	0	0	484	0	484	0	296	28	4	324	82	2577	2659
08:00 AM	0	0	44	30	44	54	203	0	0	257	0	0	93	0	93	0	67	10	0	77	30	471	501
08:15 AM	0	0	21	13	21	66	175	0	0	241	0	0	92	0	92	0	73	4	1	77	14	431	445
08:30 AM	0	0	45	16	45	50	155	0	0	205	0	0	92	0	92	0	44	7	1	51	17	393	410
08:45 AM	0	0	40	29	40	55	127	0	0	182	0	0	66	0	66	0	48	5	0	53	29	341	370
Total	0	0	150	88	150	225	660	0	0	885	0	0	343	0	343	0	232	26	2	258	90	1636	1726
Grand Total	0	0	323	166	323	562	1919	0	0	2481	0	0	827	0	827	0	528	54	6	582	172	4213	4385
Apprch %	0	0	100			22.7	77.3	0			0	0	100			0	90.7	9.3					
Total %	0	0	7.7		7.7	13.3	45.5	0		58.9	0	0	19.6		19.6	0	12.5	1.3		13.8	3.9	96.1	
Passenger Vehicles	0	0	262		401	536	1892	0		2428	0	0	756		756	0	489	31		523	0	0	4108
% Passenger Vehicles	0	0	81.1	83.7	82	95.4	98.6	0	0	97.9	0	0	91.4	0	91.4	0	92.6	57.4	50	88.9	0	0	93.7
Large 2 Axle Vehicles	0	0	16		25	11	9	0		20	0	0	20		20	0	10	7		19	0	0	84
% Large 2 Axle Vehicles	0	0	5	5.4	5.1	2	0.5	0	0	0.8	0	0	2.4	0	2.4	0	1.9	13	33.3	3.2	0	0	1.9
3 Axle Vehicles	0	0	1		2	9	1	0		10	0	0	8		8	0	0	6		6	0	0	26
% 3 Axle Vehicles	0	0	0.3	0.6	0.4	1.6	0.1	0	0	0.4	0	0	1	0	1	0	0	11.1	0	1	0	0	0.6
4+ Axle Trucks	0	0	44		61	6	17	0		23	0	0	43		43	0	29	10		40	0	0	167
% 4+ Axle Trucks	0	0	13.6	10.2	12.5	1.1	0.9	0	0	0.9	0	0	5.2	0	5.2	0	5.5	18.5	16.7	6.8	0	0	3.8

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On Ramp Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	24	24	**88**	330	0	418	0	0	**129**	**129**	0	74	**11**	85	656
07:15 AM	0	0	42	42	87	**346**	0	**433**	0	0	113	113	0	**79**	8	**87**	**675**
07:30 AM	0	0	41	41	86	288	0	374	0	0	119	119	0	67	4	71	605
07:45 AM	0	0	**66**	**66**	76	295	0	371	0	0	123	123	0	76	5	81	641
Total Volume	0	0	173	173	337	1259	0	1596	0	0	484	484	0	296	28	324	2577
% App. Total	0	0	100		21.1	78.9	0		0	0	100		0	91.4	8.6		
PHF	.000	.000	.655	.655	.957	.910	.000	.921	.000	.000	.938	.938	.000	.937	.636	.931	.954

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Weather: Clear

File Name : MRV215SCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

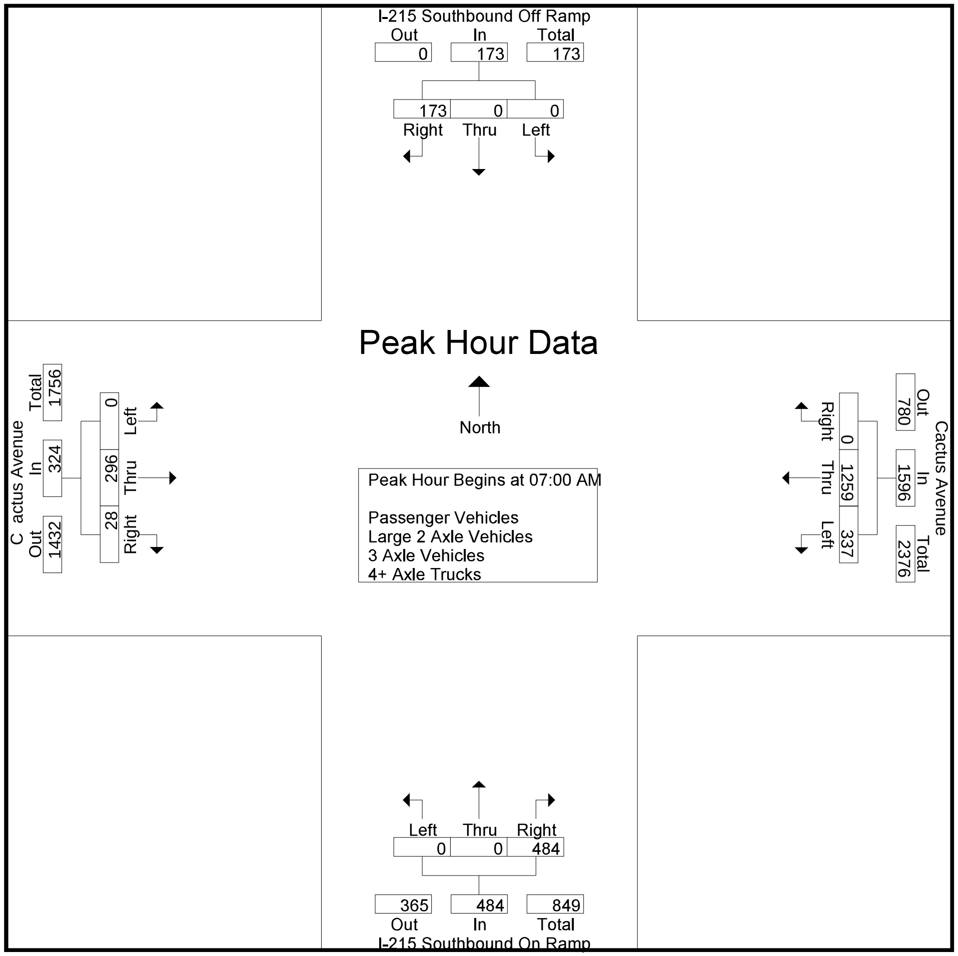

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Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On Ramp Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	3	0	3	2	2	0	0	4	0	0	4	0	4	0	2	0	0	2	0	13	13
07:15 AM	0	0	2	2	2	3	2	0	0	5	0	0	1	0	1	0	0	3	0	3	2	11	13
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	3	0	3	0	0	1	1	1	1	5	6
07:45 AM	0	0	1	1	1	2	2	0	0	4	0	0	3	0	3	0	2	1	0	3	1	11	12
Total	0	0	6	3	6	7	7	0	0	14	0	0	11	0	11	0	4	5	1	9	4	40	44
08:00 AM	0	0	0	0	0	1	1	0	0	2	0	0	2	0	2	0	1	0	0	1	0	5	5
08:15 AM	0	0	2	0	2	3	0	0	0	3	0	0	1	0	1	0	2	1	0	3	0	9	9
08:30 AM	0	0	3	1	3	0	1	0	0	1	0	0	3	0	3	0	0	1	1	1	2	8	10
08:45 AM	0	0	5	5	5	0	0	0	0	0	0	0	3	0	3	0	3	0	0	3	5	11	16
Total	0	0	10	6	10	4	2	0	0	6	0	0	9	0	9	0	6	2	1	8	7	33	40
Grand Total	0	0	16	9	16	11	9	0	0	20	0	0	20	0	20	0	10	7	2	17	11	73	84
Apprch %	0	0	100			55	45	0			0	0	100			0	58.8	41.2					
Total %	0	0	21.9		21.9	15.1	12.3	0		27.4	0	0	27.4		27.4	0	13.7	9.6		23.3	13.1	86.9	

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On Ramp Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**3**	**3**	2	**2**	0	4	0	0	**4**	**4**	0	**2**	0	2	**13**
07:15 AM	0	0	2	2	**3**	2	0	**5**	0	0	1	1	0	0	**3**	**3**	11
07:30 AM	0	0	0	0	0	1	0	1	0	0	3	3	0	0	1	1	5
07:45 AM	0	0	1	1	2	2	0	4	0	0	3	3	0	2	1	3	11
Total Volume	0	0	6	6	7	7	0	14	0	0	11	11	0	4	5	9	40
% App. Total	0	0	100		50	50	0		0	0	100		0	44.4	55.6		
PHF	.000	.000	.500	.500	.583	.875	.000	.700	.000	.000	.688	.688	.000	.500	.417	.750	.769

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Page No : 2

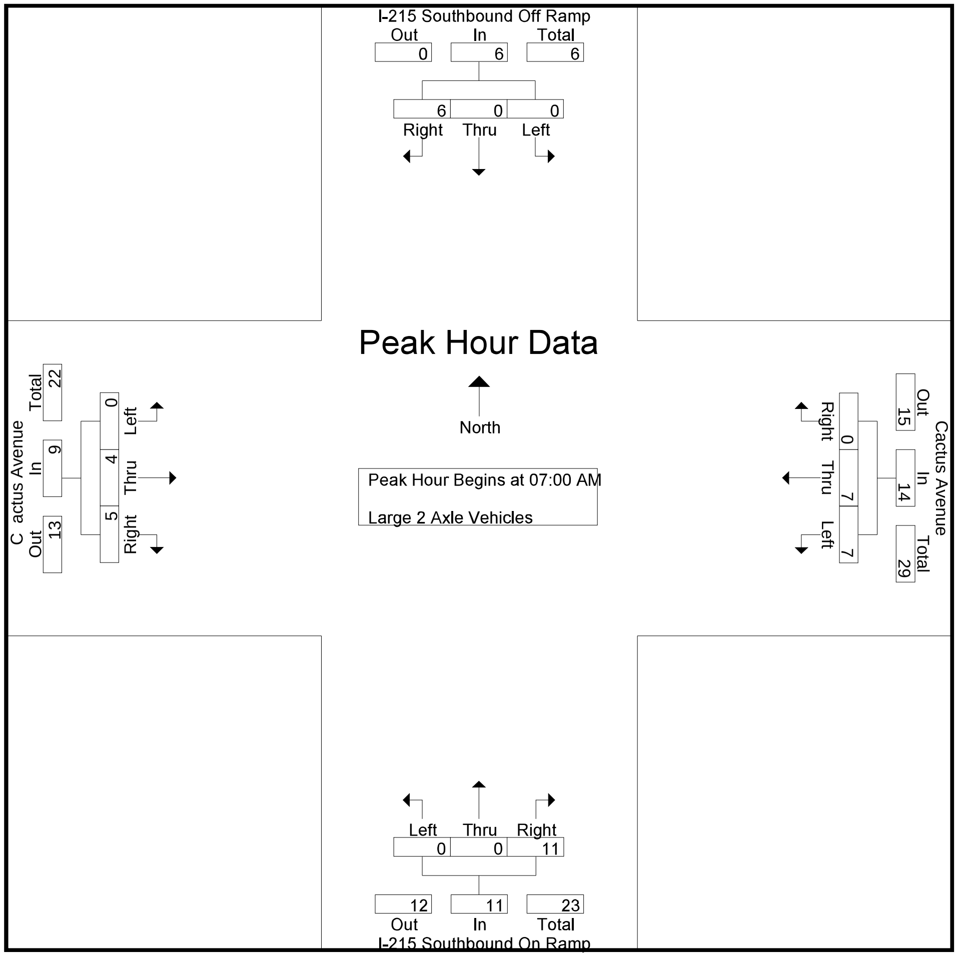

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City of Moreno Valley
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E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On Ramp Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	1	0	1	0	4	4
07:15 AM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	3	3
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	2
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	4	0	0	0	4	0	0	3	0	3	0	0	3	0	3	0	10	10
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	1	0	1	0	4	4
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0	3	3
08:45 AM	0	0	1	1	1	2	1	0	0	3	0	0	0	0	0	0	0	2	0	2	1	6	7
Total	0	0	1	1	1	5	1	0	0	6	0	0	5	0	5	0	0	3	0	3	1	15	16
Grand Total	0	0	1	1	1	9	1	0	0	10	0	0	8	0	8	0	0	6	0	6	1	25	26
Apprch %	0	0	100			90	10	0			0	0	100			0	0	100					
Total %	0	0	4		4	36	4	0		40	0	0	32		32	0	0	24		24	3.8	96.2	

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On Ramp Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	**3**	**3**	0	0	**1**	**1**	**4**
07:15 AM	0	0	0	0	**2**	0	0	**2**	0	0	0	0	0	0	1	1	3
07:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	2
07:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	4	0	0	4	0	0	3	3	0	0	3	3	10
% App. Total	0	0	0		100	0	0		0	0	100		0	0	100		
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.250	.250	.000	.000	.750	.750	.625

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City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

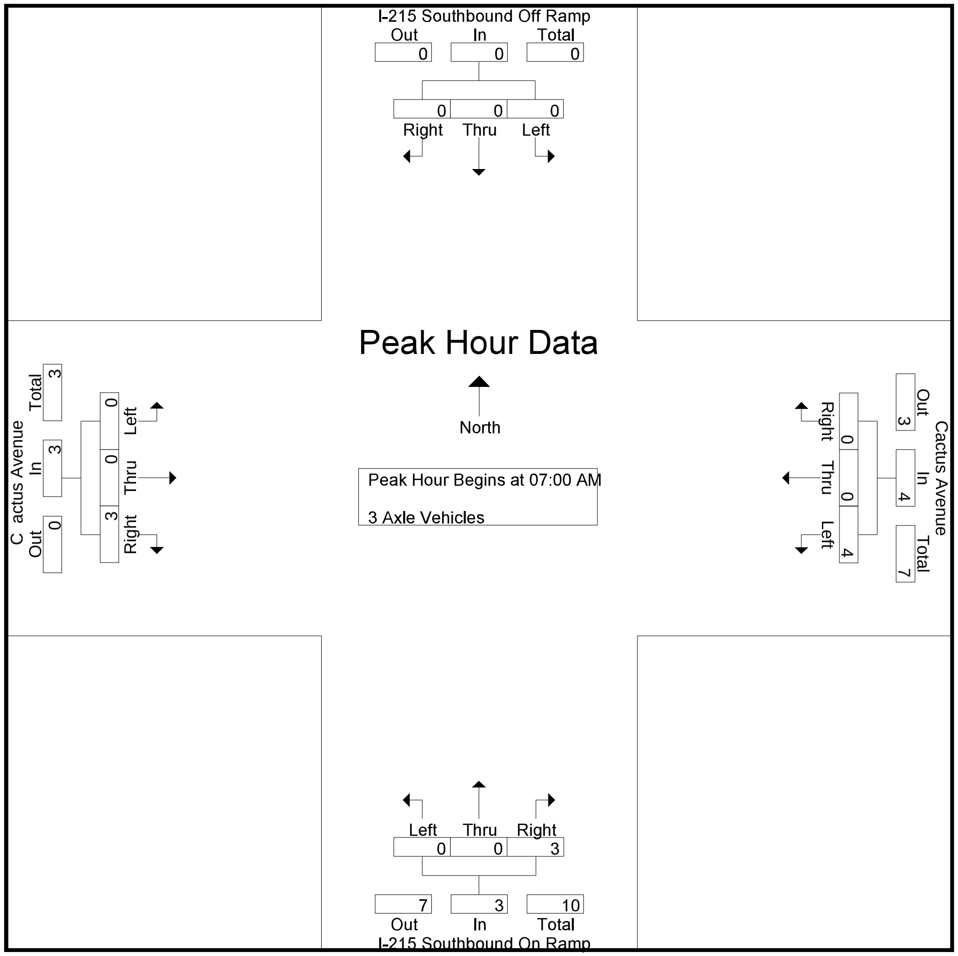

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City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On Ramp Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	5	0	5	1	0	0	0	1	0	0	8	0	8	0	5	0	0	5	0	19	19
07:15 AM	0	0	4	3	4	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	3	9	12
07:30 AM	0	0	4	0	4	1	4	0	0	5	0	0	5	0	5	0	5	0	0	5	0	19	19
07:45 AM	0	0	6	2	6	1	2	0	0	3	0	0	9	0	9	0	2	1	0	3	2	21	23
Total	0	0	19	5	19	3	7	0	0	10	0	0	23	0	23	0	15	1	0	16	5	68	73
08:00 AM	0	0	5	2	5	0	2	0	0	2	0	0	2	0	2	0	3	3	0	6	2	15	17
08:15 AM	0	0	3	1	3	0	3	0	0	3	0	0	10	0	10	0	1	2	1	3	2	19	21
08:30 AM	0	0	13	5	13	1	2	0	0	3	0	0	4	0	4	0	5	2	0	7	5	27	32
08:45 AM	0	0	4	4	4	2	3	0	0	5	0	0	4	0	4	0	5	2	0	7	4	20	24
Total	0	0	25	12	25	3	10	0	0	13	0	0	20	0	20	0	14	9	1	23	13	81	94
Grand Total	0	0	44	17	44	6	17	0	0	23	0	0	43	0	43	0	29	10	1	39	18	149	167
Apprch %	0	0	100			26.1	73.9	0			0	0	100			0	74.4	25.6					
Total %	0	0	29.5		29.5	4	11.4	0		15.4	0	0	28.9		28.9	0	19.5	6.7		26.2	10.8	89.2	

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On Ramp Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	5	5	**1**	0	0	1	0	0	8	8	0	**5**	0	**5**	19
07:15 AM	0	0	4	4	0	1	0	1	0	0	1	1	0	3	0	3	9
07:30 AM	0	0	4	4	1	**4**	0	**5**	0	0	5	5	0	5	0	5	19
07:45 AM	0	0	**6**	**6**	1	2	0	3	0	0	**9**	**9**	0	2	**1**	3	**21**
Total Volume	0	0	19	19	3	7	0	10	0	0	23	23	0	15	1	16	68
% App. Total	0	0	100		30	70	0		0	0	100		0	93.8	6.2		
PHF	.000	.000	.792	.792	.750	.438	.000	.500	.000	.000	.639	.639	.000	.750	.250	.800	.810

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City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

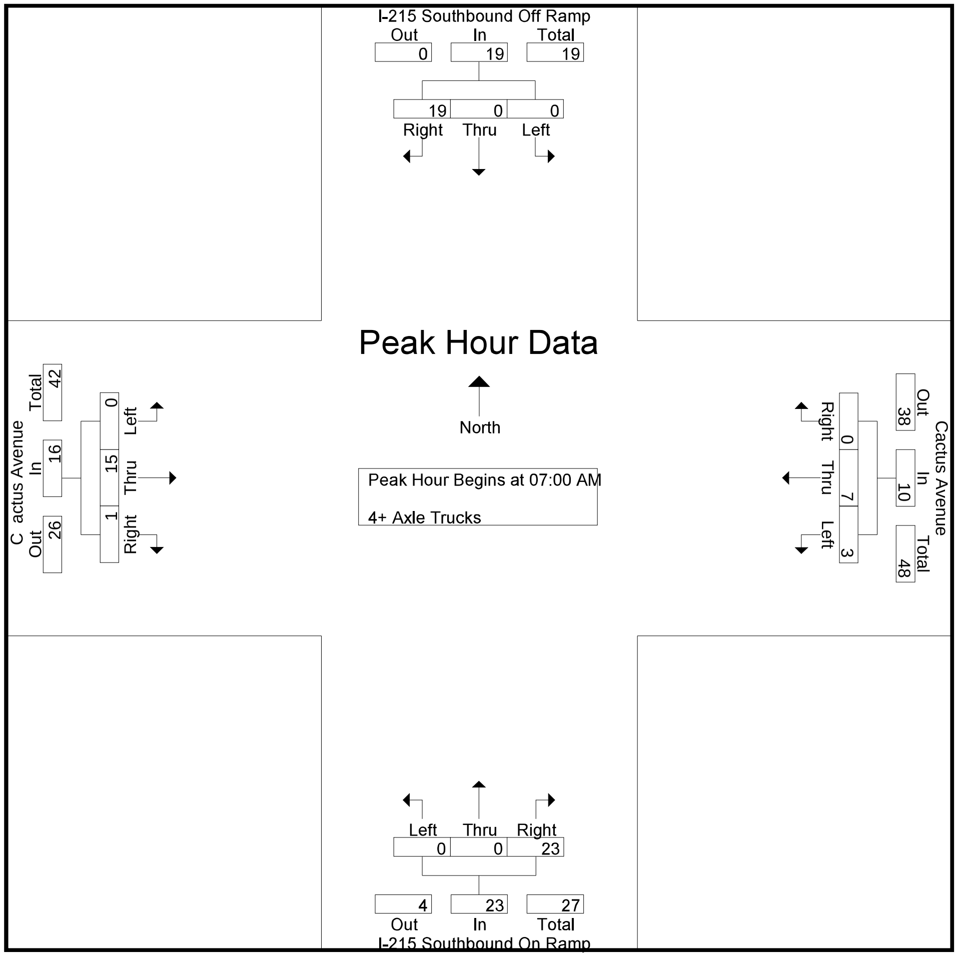

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City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On / Off Ramps Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	14	13	14	130	92	0	0	222	0	0	136	0	136	0	102	21	2	123	15	495	510
04:15 PM	0	0	17	13	17	136	99	0	0	235	0	0	124	0	124	0	104	17	3	121	16	497	513
04:30 PM	0	0	27	19	27	153	63	0	0	216	0	0	141	0	141	0	145	24	0	169	19	553	572
04:45 PM	0	0	40	33	40	126	104	0	0	230	0	0	143	0	143	0	107	21	0	128	33	541	574
Total	0	0	98	78	98	545	358	0	0	903	0	0	544	0	544	0	458	83	5	541	83	2086	2169
05:00 PM	0	0	39	27	39	118	77	0	0	195	0	0	154	0	154	0	167	46	6	213	33	601	634
05:15 PM	0	0	46	37	46	100	104	0	0	204	0	0	185	0	185	0	123	31	2	154	39	589	628
05:30 PM	0	0	49	37	49	92	77	0	0	169	0	0	160	0	160	0	131	27	0	158	37	536	573
05:45 PM	0	0	59	29	59	83	96	0	0	179	0	0	182	0	182	0	123	15	1	138	30	558	588
Total	0	0	193	130	193	393	354	0	0	747	0	0	681	0	681	0	544	119	9	663	139	2284	2423
Grand Total	0	0	291	208	291	938	712	0	0	1650	0	0	1225	0	1225	0	1002	202	14	1204	222	4370	4592
Apprch %	0	0	100			56.8	43.2	0			0	0	100			0	83.2	16.8					
Total %	0	0	6.7		6.7	21.5	16.3	0		37.8	0	0	28		28	0	22.9	4.6		27.6	4.8	95.2	
Passenger Vehicles	0	0	252		434	924	692	0		1616	0	0	1180		1180	0	949	194		1157	0	0	4387
% Passenger Vehicles	0	0	86.6	87.5	87	98.5	97.2	0	0	97.9	0	0	96.3	0	96.3	0	94.7	96	100	95	0	0	95.5
Large 2 Axle Vehicles	0	0	7		11	9	4	0		13	0	0	8		8	0	17	3		20	0	0	52
% Large 2 Axle Vehicles	0	0	2.4	1.9	2.2	1	0.6	0	0	0.8	0	0	0.7	0	0.7	0	1.7	1.5	0	1.6	0	0	1.1
3 Axle Vehicles	0	0	5		10	3	10	0		13	0	0	0		0	0	2	3		5	0	0	28
% 3 Axle Vehicles	0	0	1.7	2.4	2	0.3	1.4	0	0	0.8	0	0	0	0	0	0	0.2	1.5	0	0.4	0	0	0.6
4+ Axle Trucks	0	0	27		44	2	6	0		8	0	0	37		37	0	34	2		36	0	0	125
% 4+ Axle Trucks	0	0	9.3	8.2	8.8	0.2	0.8	0	0	0.5	0	0	3	0	3	0	3.4	1	0	3	0	0	2.7

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On / Off Ramps Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	27	27	**153**	63	0	216	0	0	141	141	0	145	24	169	553
04:45 PM	0	0	40	40	126	**104**	0	**230**	0	0	143	143	0	107	21	128	541
05:00 PM	0	0	39	39	118	77	0	195	0	0	154	154	0	**167**	**46**	**213**	**601**
05:15 PM	0	0	**46**	**46**	100	104	0	204	0	0	**185**	**185**	0	123	31	154	589
Total Volume	0	0	152	152	497	348	0	845	0	0	623	623	0	542	122	664	2284
% App. Total	0	0	100		58.8	41.2	0		0	0	100		0	81.6	18.4		
PHF	.000	.000	.826	.826	.812	.837	.000	.918	.000	.000	.842	.842	.000	.811	.663	.779	.950

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City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

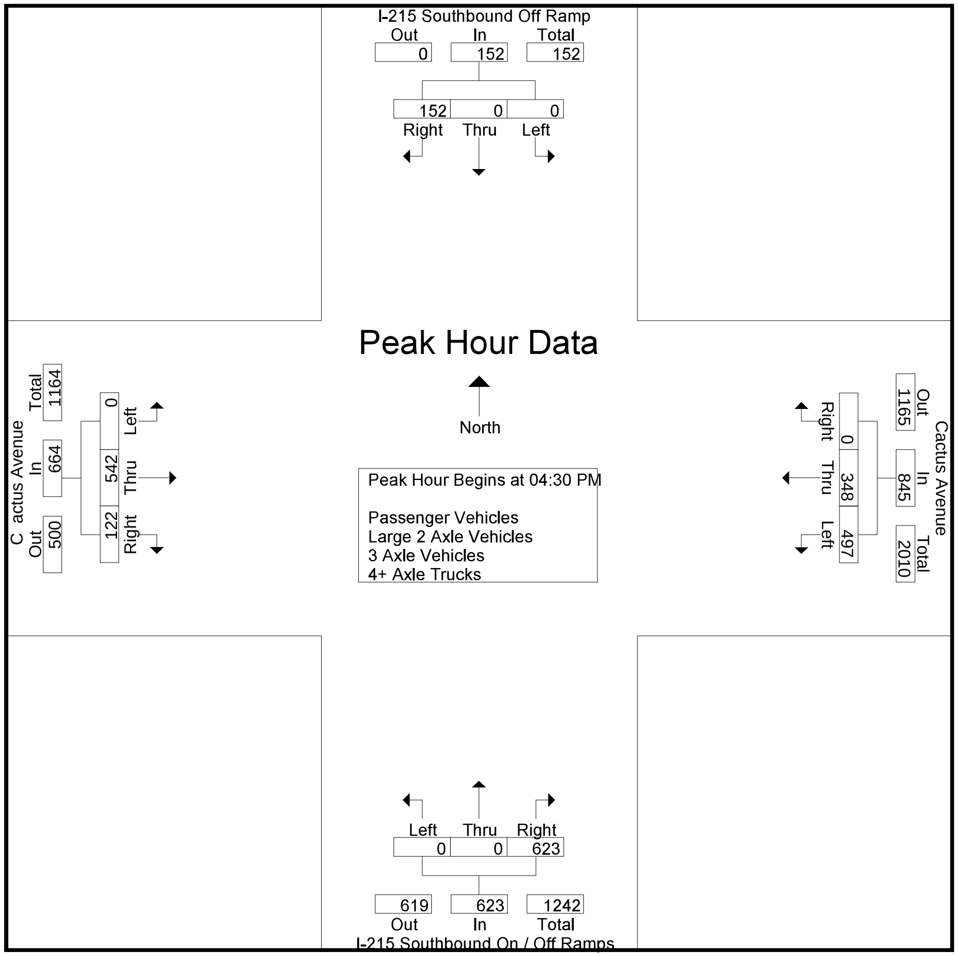

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City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On / Off Ramps Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	1	1	1	0	0	0	1	0	0	1	0	1	0	4	0	0	4	1	7	8
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	0	4	4
04:30 PM	0	0	2	0	2	1	1	0	0	2	0	0	1	0	1	0	1	0	0	1	0	6	6
04:45 PM	0	0	0	0	0	2	2	0	0	4	0	0	1	0	1	0	1	1	0	2	0	7	7
Total	0	0	3	1	3	4	3	0	0	7	0	0	4	0	4	0	9	1	0	10	1	24	25
05:00 PM	0	0	1	1	1	2	1	0	0	3	0	0	1	0	1	0	3	1	0	4	1	9	10
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	0	2	0	0	2	0	5	5
05:30 PM	0	0	1	1	1	2	0	0	0	2	0	0	0	0	0	0	2	1	0	3	1	6	7
05:45 PM	0	0	2	1	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	1	4	5
Total	0	0	4	3	4	5	1	0	0	6	0	0	4	0	4	0	8	2	0	10	3	24	27
Grand Total	0	0	7	4	7	9	4	0	0	13	0	0	8	0	8	0	17	3	0	20	4	48	52
Apprch %	0	0	100			69.2	30.8	0			0	0	100			0	85	15					
Total %	0	0	14.6		14.6	18.8	8.3	0		27.1	0	0	16.7		16.7	0	35.4	6.2		41.7	7.7	92.3	

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On / Off Ramps Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**2**	**2**	1	1	0	2	0	0	1	1	0	1	0	1	6
04:45 PM	0	0	0	0	**2**	**2**	0	**4**	0	0	1	1	0	1	**1**	2	7
05:00 PM	0	0	1	1	2	1	0	3	0	0	1	1	0	**3**	1	**4**	**9**
05:15 PM	0	0	0	0	1	0	0	1	0	0	**2**	**2**	0	2	0	2	5
Total Volume	0	0	3	3	6	4	0	10	0	0	5	5	0	7	2	9	27
% App. Total	0	0	100		60	40	0		0	0	100		0	77.8	22.2		
PHF	.000	.000	.375	.375	.750	.500	.000	.625	.000	.000	.625	.625	.000	.583	.500	.563	.750

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N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAPM
Site Code : 05115223
Start Date : 4/28/2015
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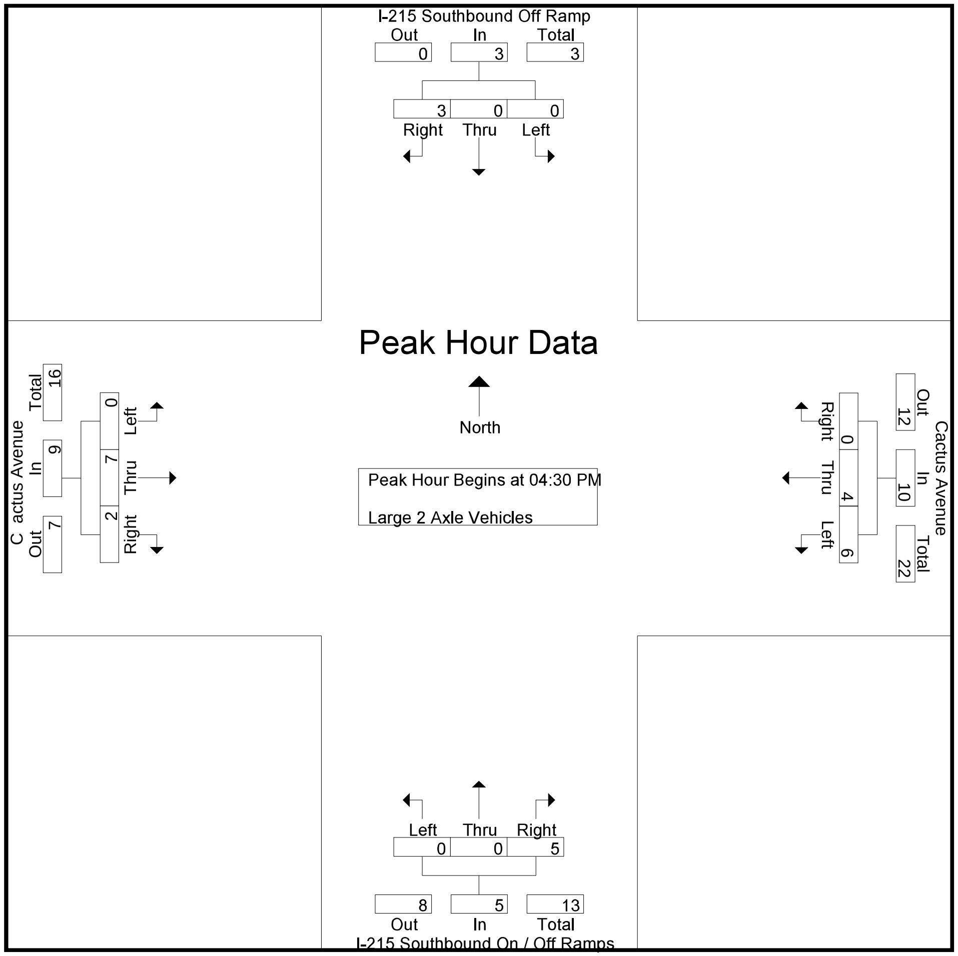

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File Name : MRV215SCAPM
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Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On / Off Ramps Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	1	0	1	0	5	5
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
04:30 PM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3
04:45 PM	0	0	2	2	2	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	5	7
Total	0	0	3	3	3	3	6	0	0	9	0	0	0	0	0	0	1	1	0	2	3	14	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	2
05:45 PM	0	0	2	2	2	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	2	5	7
Total	0	0	2	2	2	0	4	0	0	4	0	0	0	0	0	0	1	2	0	3	2	9	11
Grand Total	0	0	5	5	5	3	10	0	0	13	0	0	0	0	0	0	2	3	0	5	5	23	28
Apprch %	0	0	100			23.1	76.9	0			0	0	0			0	40	60					
Total %	0	0	21.7		21.7	13	43.5	0		56.5	0	0	0		0	0	8.7	13		21.7	17.9	82.1	

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On / Off Ramps Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	0	**1**	0	1	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	**2**	**2**	**3**	0	0	**3**	0	0	0	0	0	0	0	0	**5**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	**1**	0	**1**	2
Total Volume	0	0	3	3	3	2	0	5	0	0	0	0	0	1	0	1	9
% App. Total	0	0	100		60	40	0		0	0	0		0	100	0		
PHF	.000	.000	.375	.375	.250	.500	.000	.417	.000	.000	.000	.000	.000	.250	.000	.250	.450

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File Name : MRV215SCAPM
Site Code : 05115223
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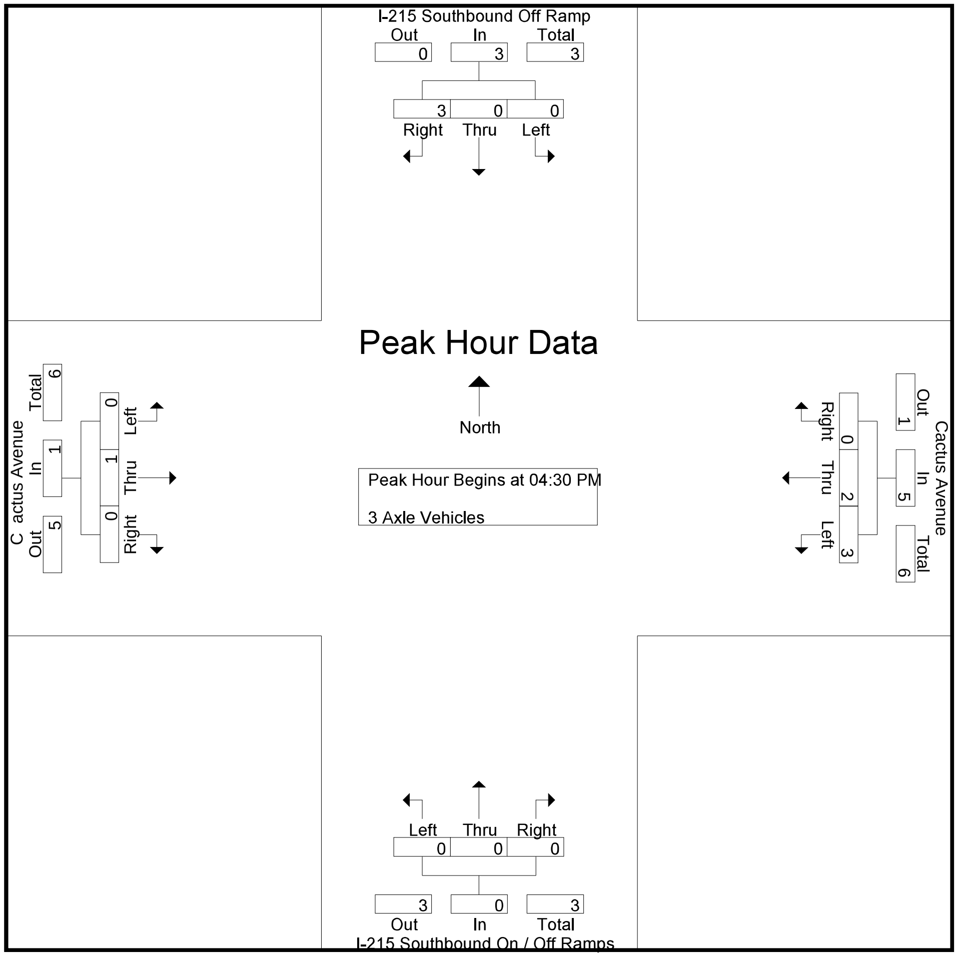

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File Name : MRV215SCAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Cactus Avenue Westbound					I-215 Southbound On / Off Ramps Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	2	1	2	0	1	0	0	1	0	0	4	0	4	0	6	0	0	6	1	13	14
04:15 PM	0	0	3	2	3	0	0	0	0	0	0	0	6	0	6	0	2	0	0	2	2	11	13
04:30 PM	0	0	4	4	4	0	1	0	0	1	0	0	7	0	7	0	5	0	0	5	4	17	21
04:45 PM	0	0	3	2	3	0	1	0	0	1	0	0	2	0	2	0	2	0	0	2	2	8	10
Total	0	0	12	9	12	0	3	0	0	3	0	0	19	0	19	0	15	0	0	15	9	49	58
05:00 PM	0	0	5	3	5	2	1	0	0	3	0	0	4	0	4	0	9	1	0	10	3	22	25
05:15 PM	0	0	2	2	2	0	0	0	0	0	0	0	6	0	6	0	1	0	0	1	2	9	11
05:30 PM	0	0	2	1	2	0	1	0	0	1	0	0	4	0	4	0	7	0	0	7	1	14	15
05:45 PM	0	0	6	2	6	0	1	0	0	1	0	0	4	0	4	0	2	1	0	3	2	14	16
Total	0	0	15	8	15	2	3	0	0	5	0	0	18	0	18	0	19	2	0	21	8	59	67
Grand Total	0	0	27	17	27	2	6	0	0	8	0	0	37	0	37	0	34	2	0	36	17	108	125
Apprch %	0	0	100			25	75	0			0	0	100			0	94.4	5.6					
Total %	0	0	25		25	1.9	5.6	0		7.4	0	0	34.3		34.3	0	31.5	1.9		33.3	13.6	86.4	

	I-215 Southbound Off Ramp Southbound				Cactus Avenue Westbound				I-215 Southbound On / Off Ramps Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	4	4	0	**1**	0	1	0	0	**7**	**7**	0	5	0	5	17
04:45 PM	0	0	3	3	0	1	0	1	0	0	2	2	0	2	0	2	8
05:00 PM	0	0	**5**	**5**	**2**	1	0	**3**	0	0	4	4	0	**9**	**1**	**10**	**22**
05:15 PM	0	0	2	2	0	0	0	0	0	0	6	6	0	1	0	1	9
Total Volume	0	0	14	14	2	3	0	5	0	0	19	19	0	17	1	18	56
% App. Total	0	0	100		40	60	0		0	0	100		0	94.4	5.6		
PHF	.000	.000	.700	.700	.250	.750	.000	.417	.000	.000	.679	.679	.000	.472	.250	.450	.636

City of Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215SCAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

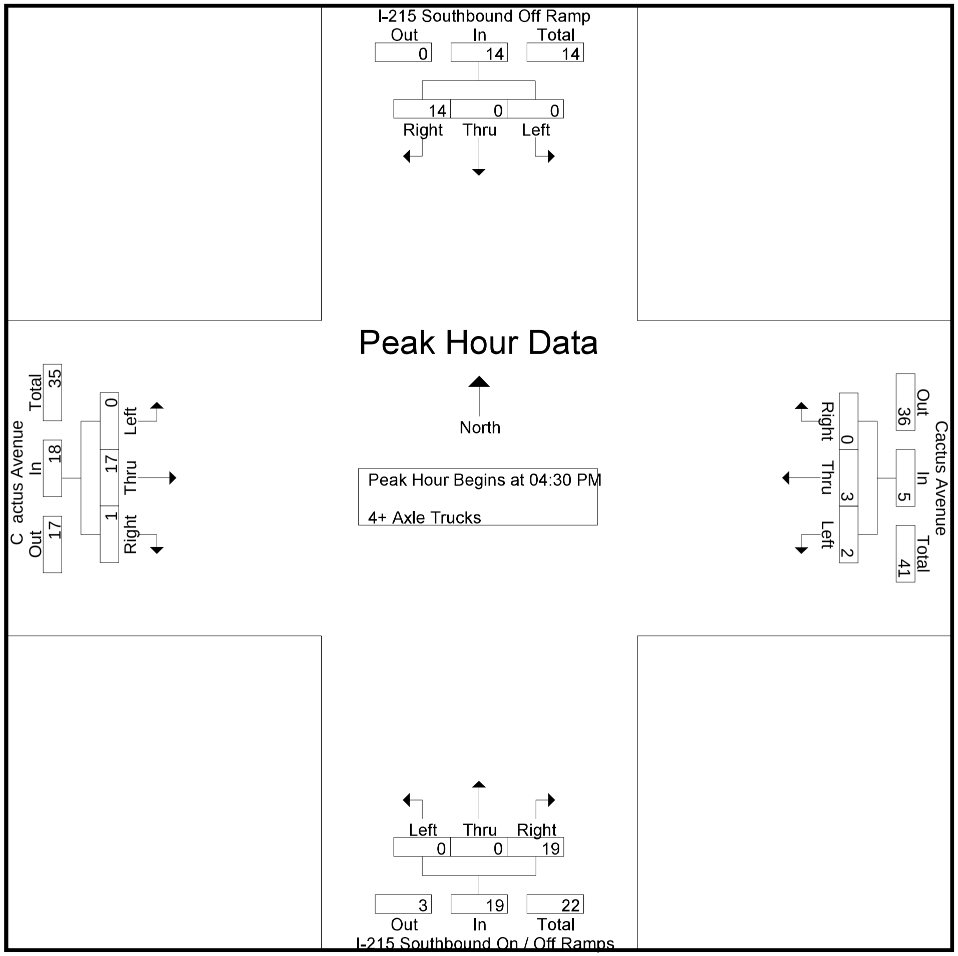

Location: Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg I-215 Southbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Southbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Southbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Southbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Moreno Valley
N/S: I-215 Southbound On / Off Ramps
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg I-215 Southbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Southbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
7:00 AM	1	0	2	0	3
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	0	2	0	4

	North Leg I-215 Southbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Southbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	1	0	2	0	3

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	73	0	23	9	96	21	83	0	0	104	0	0	0	0	0	0	84	1	1	85	10	285
07:15 AM	79	0	35	18	114	23	44	0	0	67	0	0	0	0	0	0	80	0	0	80	18	261
07:30 AM	72	2	39	20	113	26	18	0	0	44	0	0	0	0	0	0	110	2	1	112	21	269
07:45 AM	96	0	33	13	129	18	14	0	0	32	0	0	0	0	0	0	86	5	3	91	16	252
Total	320	2	130	60	452	88	159	0	0	247	0	0	0	0	0	0	360	8	5	368	65	1067
08:00 AM	47	0	16	8	63	19	10	0	0	29	0	0	0	0	0	0	45	3	1	48	9	140
08:15 AM	56	0	26	7	82	17	17	0	0	34	0	0	0	0	0	0	40	1	0	41	7	157
08:30 AM	62	0	23	10	85	19	10	0	0	29	0	0	0	0	0	0	54	2	2	56	12	170
08:45 AM	61	0	11	3	72	20	10	0	0	30	0	0	0	0	0	0	43	3	1	46	4	148
Total	226	0	76	28	302	75	47	0	0	122	0	0	0	0	0	0	182	9	4	191	32	615
Grand Total	546	2	206	88	754	163	206	0	0	369	0	0	0	0	0	0	542	17	9	559	97	1682
Apprch %	72.4	0.3	27.3			44.2	55.8	0			0	0	0			0	97	3				
Total %	32.5	0.1	12.2		44.8	9.7	12.2	0		21.9	0	0	0		0	0	32.2	1		33.2	5.5	94.5
Passenger Vehicles	422	2	179		682	117	198	0		315	0	0	0		0	0	510	13		531	0	0
% Passenger Vehicles	77.3	100	86.9	89.8	81	71.8	96.1	0	0	85.4	0	0	0	0	0	0	94.1	76.5	88.9	93.5	0	0
Large 2 Axle Vehicles	34	0	4		40	16	4	0		20	0	0	0		0	0	12	1		14	0	0
% Large 2 Axle Vehicles	6.2	0	1.9	2.3	4.8	9.8	1.9	0	0	5.4	0	0	0	0	0	0	2.2	5.9	11.1	2.5	0	0
3 Axle Vehicles	32	0	3		37	11	1	0		12	0	0	0		0	0	4	0		4	0	0
% 3 Axle Vehicles	5.9	0	1.5	2.3	4.4	6.7	0.5	0	0	3.3	0	0	0	0	0	0	0.7	0	0	0.7	0	0
4+ Axle Trucks	58	0	20		83	19	3	0		22	0	0	0		0	0	16	3		19	0	0
% 4+ Axle Trucks	10.6	0	9.7	5.7	9.9	11.7	1.5	0	0	6	0	0	0	0	0	0	3	17.6	0	3.3	0	0

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	73	0	23	96	21	83	0	104	0	0	0	0	0	84	1	85	285
07:15 AM	79	0	35	114	23	44	0	67	0	0	0	0	0	80	0	80	261
07:30 AM	72	2	39	113	26	18	0	44	0	0	0	0	0	110	2	112	269
07:45 AM	96	0	33	129	18	14	0	32	0	0	0	0	0	86	5	91	252
Total Volume	320	2	130	452	88	159	0	247	0	0	0	0	0	360	8	368	1067
% App. Total	70.8	0.4	28.8		35.6	64.4	0		0	0	0		0	97.8	2.2		
PHF	.833	.250	.833	.876	.846	.479	.000	.594	.000	.000	.000	.000	.000	.818	.400	.821	.936

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

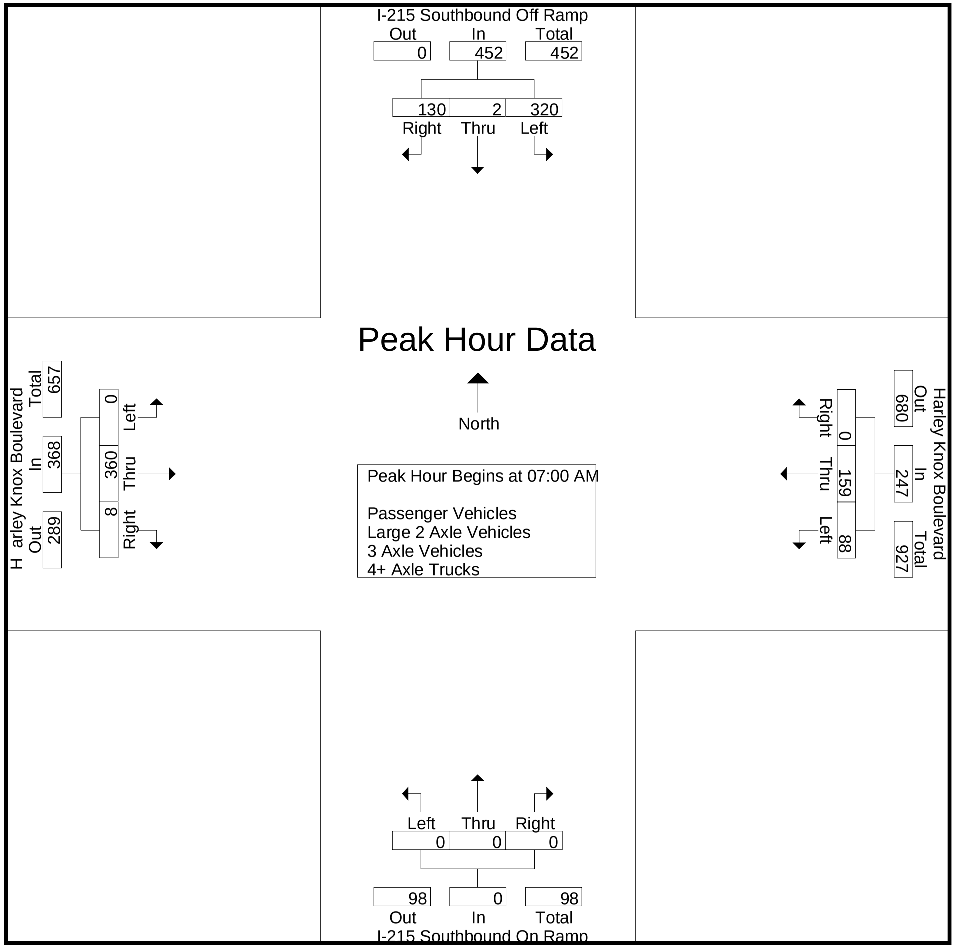

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	4	0	0	0	4	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	0	8
07:15 AM	4	0	0	0	4	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	7
07:30 AM	4	0	1	1	5	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	1	8
07:45 AM	2	0	0	0	2	4	1	0	0	5	0	0	0	0	0	0	1	1	1	2	1	9
Total	14	0	1	1	15	8	3	0	0	11	0	0	0	0	0	0	5	1	1	6	2	32
08:00 AM	5	0	1	0	6	4	0	0	0	4	0	0	0	0	0	0	3	0	0	3	0	13
08:15 AM	4	0	0	0	4	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	6
08:30 AM	4	0	0	0	4	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	0	7
08:45 AM	7	0	2	1	9	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	1	13
Total	20	0	3	1	23	8	1	0	0	9	0	0	0	0	0	0	7	0	0	7	1	39
Grand Total	34	0	4	2	38	16	4	0	0	20	0	0	0	0	0	0	12	1	1	13	3	71
Apprch %	89.5	0	10.5			80	20	0			0	0	0			0	92.3	7.7				
Total %	47.9	0	5.6		53.5	22.5	5.6	0		28.2	0	0	0		0	0	16.9	1.4		18.3	4.1	95.9

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	4	0	0	4	1	2	0	3	0	0	0	0	0	1	0	1	8
07:15 AM	4	0	0	4	1	0	0	1	0	0	0	0	0	2	0	2	7
07:30 AM	4	0	1	5	2	0	0	2	0	0	0	0	0	1	0	1	8
07:45 AM	2	0	0	2	4	1	0	5	0	0	0	0	0	1	1	2	9
Total Volume	14	0	1	15	8	3	0	11	0	0	0	0	0	5	1	6	32
% App. Total	93.3	0	6.7		72.7	27.3	0		0	0	0		0	83.3	16.7		
PHF	.875	.000	.250	.750	.500	.375	.000	.550	.000	.000	.000	.000	.000	.625	.250	.750	.889

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

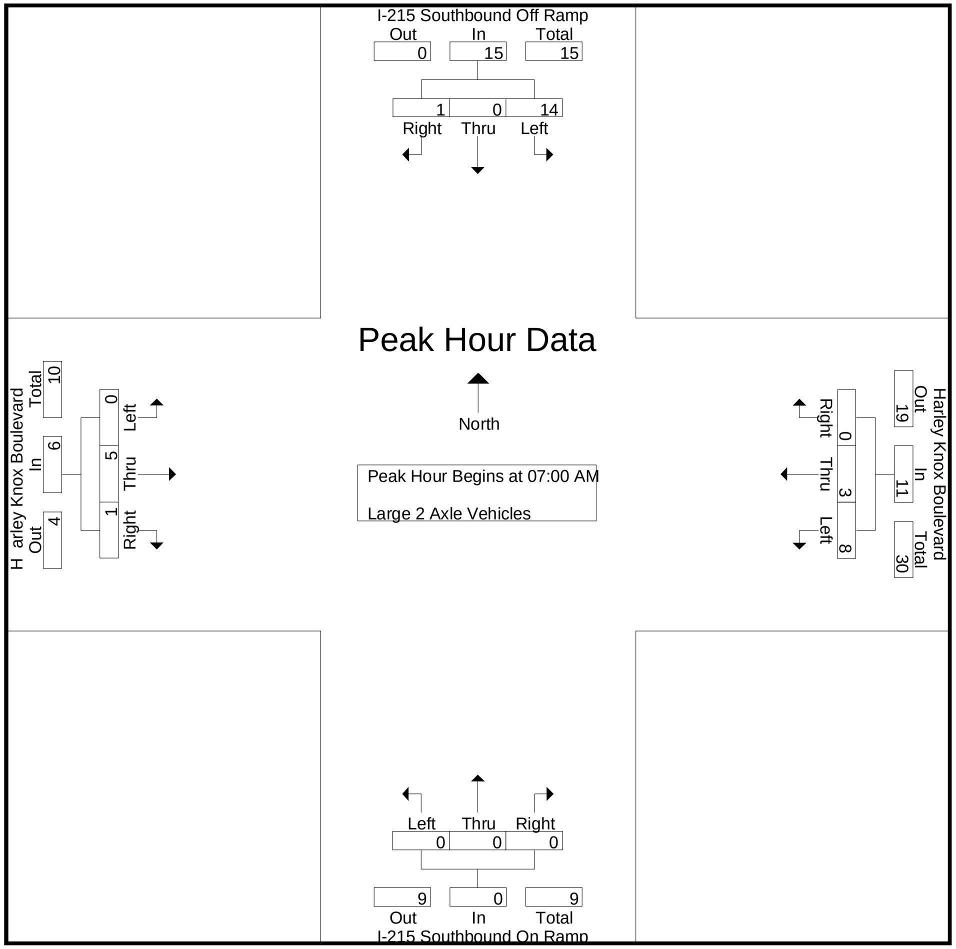

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	7	0	1	1	8	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	11
07:15 AM	6	0	0	0	6	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	0	9
07:30 AM	2	0	1	1	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4
07:45 AM	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Total	16	0	3	2	19	7	0	0	0	7	0	0	0	0	0	0	1	0	0	1	2	27
08:00 AM	1	0	0	0	1	2	1	0	0	3	0	0	0	0	0	0	1	0	0	1	0	5
08:15 AM	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	4
08:30 AM	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
08:45 AM	10	0	0	0	10	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	12
Total	16	0	0	0	16	4	1	0	0	5	0	0	0	0	0	0	3	0	0	3	0	24
Grand Total	32	0	3	2	35	11	1	0	0	12	0	0	0	0	0	0	4	0	0	4	2	51
Apprch %	91.4	0	8.6			91.7	8.3	0			0	0	0			0	100	0				
Total %	62.7	0	5.9		68.6	21.6	2	0		23.5	0	0	0		0	0	7.8	0		7.8	3.8	96.2

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	7	0	1	8	3	0	0	3	0	0	0	0	0	0	0	0	11
07:15 AM	6	0	0	6	2	0	0	2	0	0	0	0	0	1	0	1	9
07:30 AM	2	0	1	3	1	0	0	1	0	0	0	0	0	0	0	0	4
07:45 AM	1	0	1	2	1	0	0	1	0	0	0	0	0	0	0	0	3
Total Volume	16	0	3	19	7	0	0	7	0	0	0	0	0	1	0	1	27
% App. Total	84.2	0	15.8		100	0	0		0	0	0		0	100	0		
PHF	.571	.000	.750	.594	.583	.000	.000	.583	.000	.000	.000	.000	.000	.250	.000	.250	.614

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

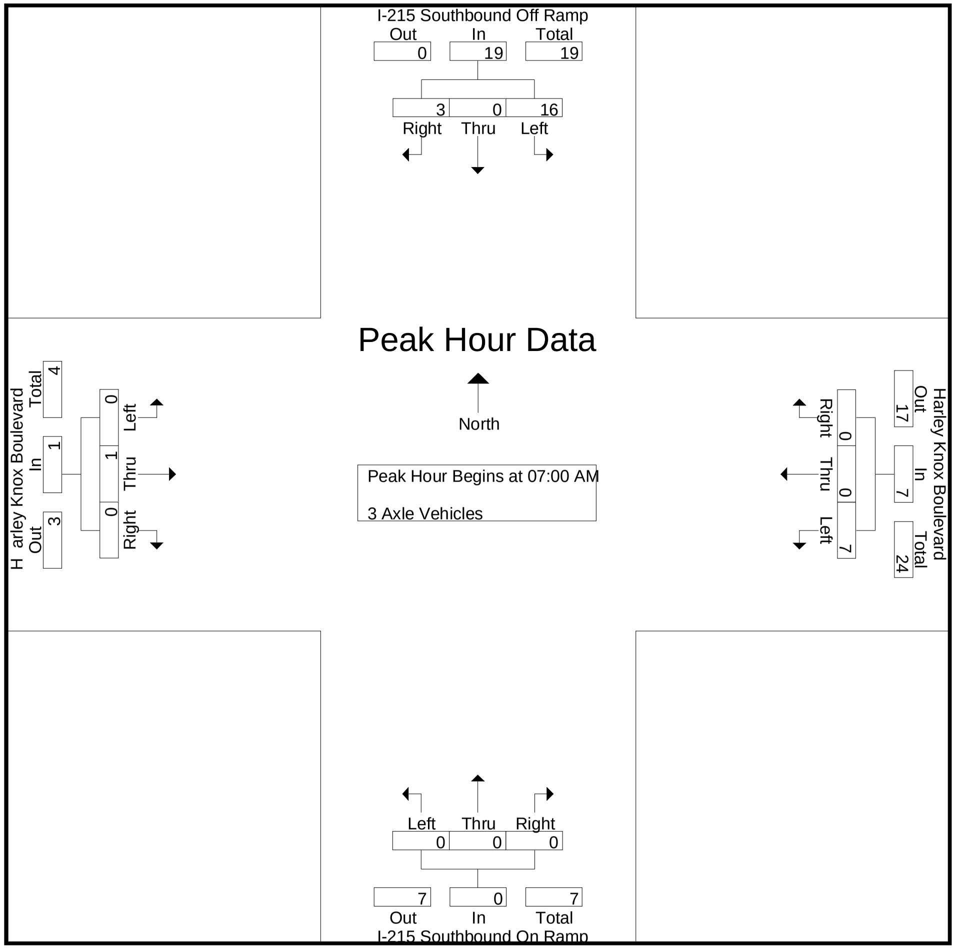

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	8	0	2	0	10	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	11
07:15 AM	10	0	4	0	14	2	0	0	0	2	0	0	0	0	0	0	3	0	0	3	0	19
07:30 AM	5	0	1	0	6	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	8
07:45 AM	8	0	2	1	10	2	1	0	0	3	0	0	0	0	0	0	6	0	0	6	1	19
Total	31	0	9	1	40	7	1	0	0	8	0	0	0	0	0	0	9	0	0	9	1	57
08:00 AM	4	0	2	1	6	3	0	0	0	3	0	0	0	0	0	0	0	1	0	1	1	10
08:15 AM	8	0	6	1	14	4	1	0	0	5	0	0	0	0	0	0	1	1	0	2	1	21
08:30 AM	8	0	2	2	10	3	1	0	0	4	0	0	0	0	0	0	6	0	0	6	2	20
08:45 AM	7	0	1	0	8	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	11
Total	27	0	11	4	38	12	2	0	0	14	0	0	0	0	0	0	7	3	0	10	4	62
Grand Total	58	0	20	5	78	19	3	0	0	22	0	0	0	0	0	0	16	3	0	19	5	119
Apprch %	74.4	0	25.6			86.4	13.6	0			0	0	0			0	84.2	15.8				
Total %	48.7	0	16.8		65.5	16	2.5	0		18.5	0	0	0		0	0	13.4	2.5		16	4	96

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	0	2	10	1	0	0	1	0	0	0	0	0	0	0	0	11
07:15 AM	10	0	4	14	2	0	0	2	0	0	0	0	0	3	0	3	19
07:30 AM	5	0	1	6	2	0	0	2	0	0	0	0	0	0	0	0	8
07:45 AM	8	0	2	10	2	1	0	3	0	0	0	0	0	6	0	6	19
Total Volume	31	0	9	40	7	1	0	8	0	0	0	0	0	9	0	9	57
% App. Total	77.5	0	22.5		87.5	12.5	0		0	0	0		0	100	0		
PHF	.775	.000	.563	.714	.875	.250	.000	.667	.000	.000	.000	.000	.000	.375	.000	.375	.750

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

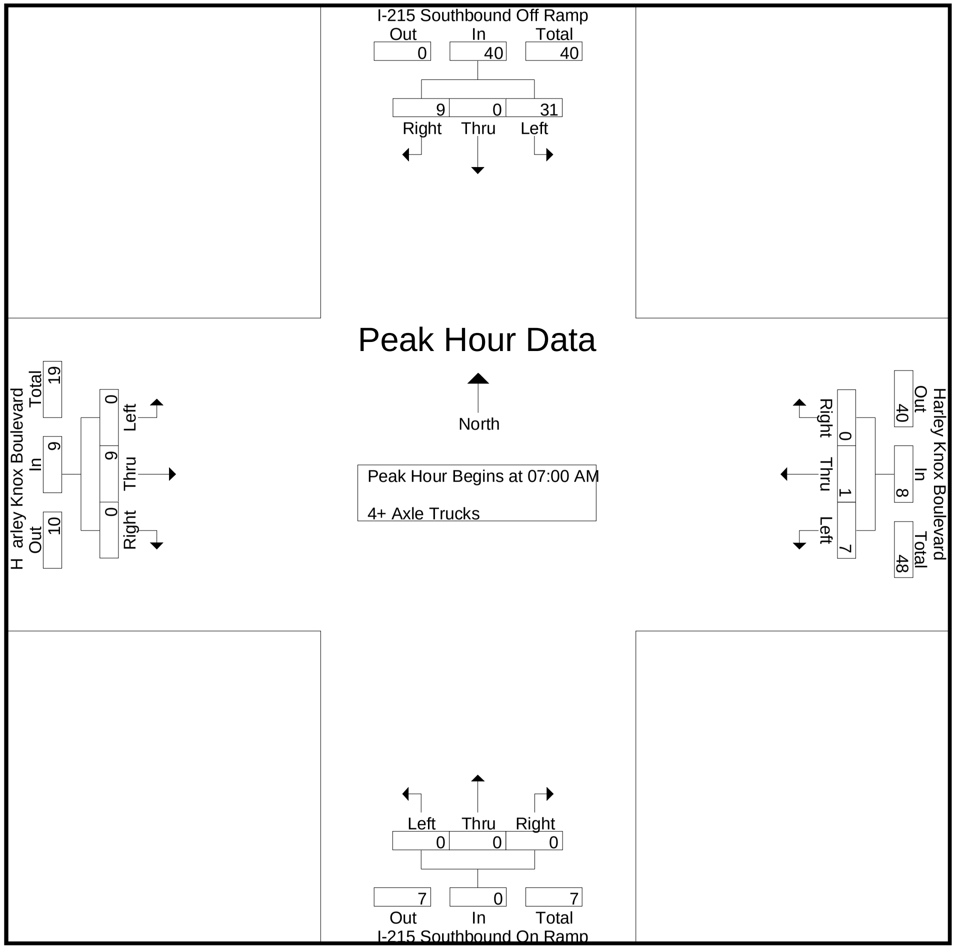

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(951) 268-6268

County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	65	1	57	12	123	24	22	0	0	46	0	0	0	0	0	0	89	0	0	89	12	258
04:15 PM	79	0	53	17	132	31	21	0	0	52	0	0	0	0	0	0	86	3	0	89	17	273
04:30 PM	73	0	66	21	139	26	34	0	0	60	0	0	0	0	0	0	94	2	0	96	21	295
04:45 PM	65	1	55	22	121	31	40	0	0	71	0	0	0	0	0	0	88	3	0	91	22	283
Total	282	2	231	72	515	112	117	0	0	229	0	0	0	0	0	0	357	8	0	365	72	1109
05:00 PM	51	3	59	26	113	21	33	0	0	54	0	0	0	0	0	0	76	0	0	76	26	243
05:15 PM	53	0	72	18	125	18	28	0	0	46	0	0	0	0	0	0	75	1	0	76	18	247
05:30 PM	65	0	42	16	107	22	25	0	0	47	0	0	0	0	0	0	86	1	0	87	16	241
05:45 PM	63	2	54	14	119	9	27	0	0	36	0	0	0	0	0	0	60	1	0	61	14	216
Total	232	5	227	74	464	70	113	0	0	183	0	0	0	0	0	0	297	3	0	300	74	947
Grand Total	514	7	458	146	979	182	230	0	0	412	0	0	0	0	0	0	654	11	0	665	146	2056
Apprch %	52.5	0.7	46.8			44.2	55.8	0			0	0	0			0	98.3	1.7				
Total %	25	0.3	22.3		47.6	8.9	11.2	0		20	0	0	0		0	0	31.8	0.5		32.3	6.6	93.4
Passenger Vehicles	431	7	415		982	168	212	0		380	0	0	0		0	0	607	8		615	0	0
% Passenger Vehicles	83.9	100	90.6	88.4	87.3	92.3	92.2	0	0	92.2	0	0	0	0	0	0	92.8	72.7	0	92.5	0	0
Large 2 Axle Vehicles	20	0	16		42	3	5	0		8	0	0	0		0	0	10	2		12	0	0
% Large 2 Axle Vehicles	3.9	0	3.5	4.1	3.7	1.6	2.2	0	0	1.9	0	0	0	0	0	0	1.5	18.2	0	1.8	0	0
3 Axle Vehicles	12	0	2		16	4	6	0		10	0	0	0		0	0	15	0		15	0	0
% 3 Axle Vehicles	2.3	0	0.4	1.4	1.4	2.2	2.6	0	0	2.4	0	0	0	0	0	0	2.3	0	0	2.3	0	0
4+ Axle Trucks	51	0	25		85	7	7	0		14	0	0	0		0	0	22	1		23	0	0
% 4+ Axle Trucks	9.9	0	5.5	6.2	7.6	3.8	3	0	0	3.4	0	0	0	0	0	0	3.4	9.1	0	3.5	0	0

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	65	1	57	123	24	22	0	46	0	0	0	0	0	89	0	89	258
04:15 PM	79	0	53	132	31	21	0	52	0	0	0	0	0	86	3	89	273
04:30 PM	73	0	66	139	26	34	0	60	0	0	0	0	0	94	2	96	295
04:45 PM	65	1	55	121	31	40	0	71	0	0	0	0	0	88	3	91	283
Total Volume	282	2	231	515	112	117	0	229	0	0	0	0	0	357	8	365	1109
% App. Total	54.8	0.4	44.9		48.9	51.1	0		0	0	0		0	97.8	2.2		
PHF	.892	.500	.875	.926	.903	.731	.000	.806	.000	.000	.000	.000	.000	.949	.667	.951	.940

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

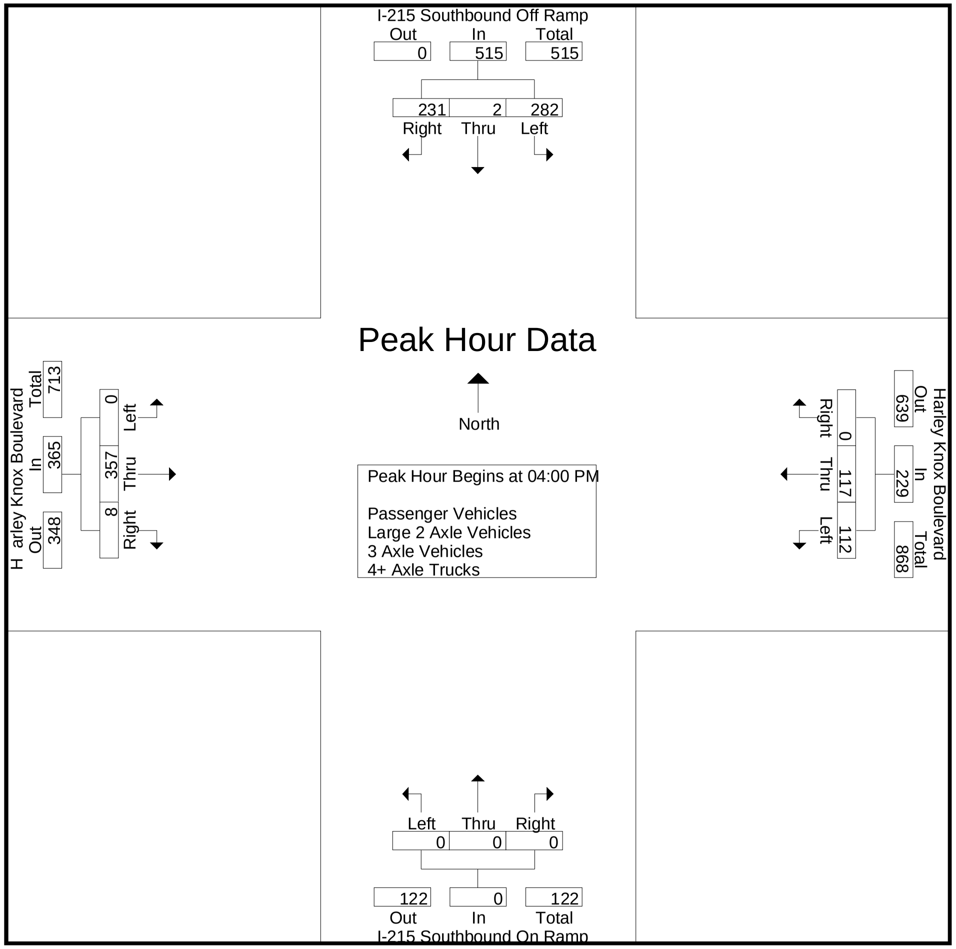

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	6	0	3	1	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	11
04:15 PM	3	0	1	1	4	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	5
04:30 PM	2	0	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
04:45 PM	1	0	3	1	4	1	1	0	0	2	0	0	0	0	0	0	3	1	0	4	1	10
Total	12	0	9	4	21	2	1	0	0	3	0	0	0	0	0	0	5	1	0	6	4	30
05:00 PM	2	0	2	0	4	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	0	8
05:15 PM	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6
05:30 PM	3	0	2	1	5	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	8
05:45 PM	1	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	4
Total	8	0	7	2	15	1	4	0	0	5	0	0	0	0	0	0	5	1	0	6	2	26
Grand Total	20	0	16	6	36	3	5	0	0	8	0	0	0	0	0	0	10	2	0	12	6	56
Apprch %	55.6	0	44.4			37.5	62.5	0			0	0	0			0	83.3	16.7				
Total %	35.7	0	28.6		64.3	5.4	8.9	0		14.3	0	0	0		0	0	17.9	3.6		21.4	9.7	90.3

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	6	0	3	9	0	0	0	0	0	0	0	0	0	2	0	2	11
04:15 PM	3	0	1	4	1	0	0	1	0	0	0	0	0	0	0	0	5
04:30 PM	2	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	4
04:45 PM	1	0	3	4	1	1	0	2	0	0	0	0	0	3	1	4	10
Total Volume	12	0	9	21	2	1	0	3	0	0	0	0	0	5	1	6	30
% App. Total	57.1	0	42.9		66.7	33.3	0		0	0	0		0	83.3	16.7		
PHF	.500	.000	.750	.583	.500	.250	.000	.375	.000	.000	.000	.000	.000	.417	.250	.375	.682

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

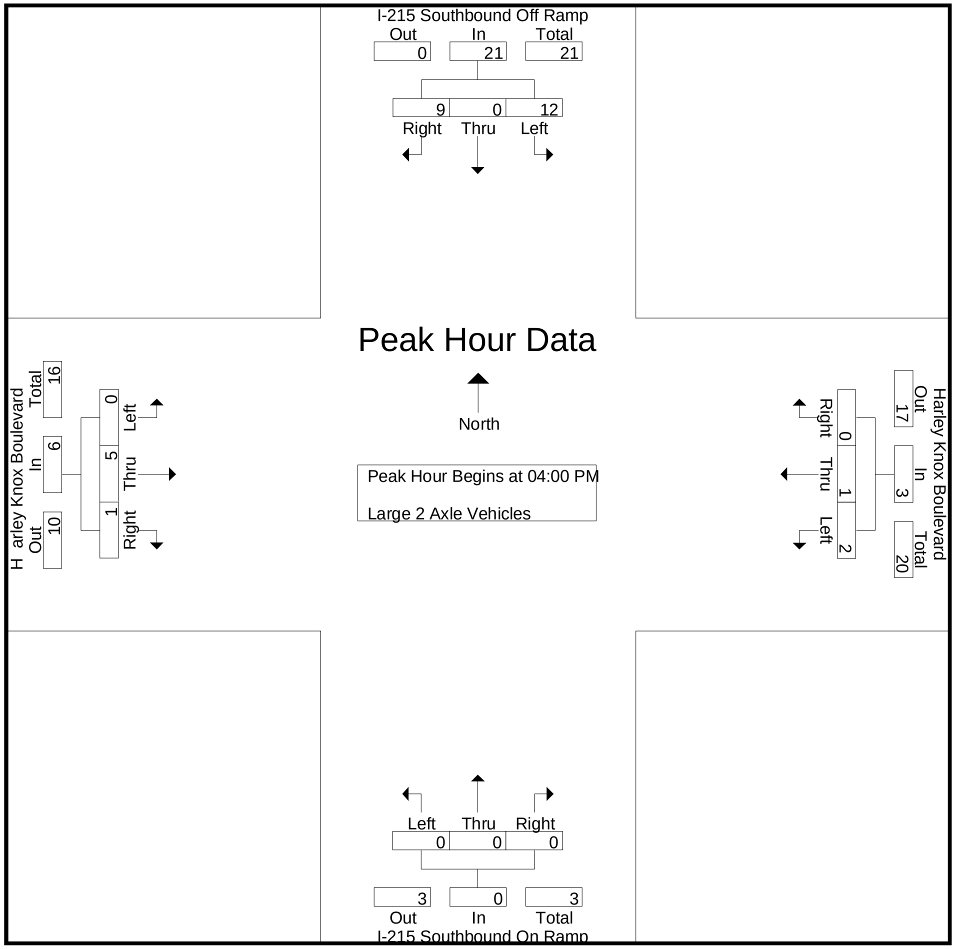

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	0	1	0	0	1	0	7
04:15 PM	3	0	0	0	3	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	5
04:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	7
04:45 PM	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2
Total	5	0	1	1	6	3	5	0	0	8	0	0	0	0	0	0	7	0	0	7	1	21
05:00 PM	1	0	1	1	2	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	1	6
05:15 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	5
05:30 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4
05:45 PM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3
Total	7	0	1	1	8	1	1	0	0	2	0	0	0	0	0	0	8	0	0	8	1	18
Grand Total	12	0	2	2	14	4	6	0	0	10	0	0	0	0	0	0	15	0	0	15	2	39
Apprch %	85.7	0	14.3			40	60	0			0	0	0			0	100	0				
Total %	30.8	0	5.1		35.9	10.3	15.4	0		25.6	0	0	0		0	0	38.5	0		38.5	4.9	95.1

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	0	0	1	2	3	0	5	0	0	0	0	0	1	0	1	7
04:15 PM	3	0	0	3	1	0	0	1	0	0	0	0	0	1	0	1	5
04:30 PM	1	0	0	1	0	2	0	2	0	0	0	0	0	4	0	4	7
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Volume	5	0	1	6	3	5	0	8	0	0	0	0	0	7	0	7	21
% App. Total	83.3	0	16.7		37.5	62.5	0		0	0	0		0	100	0		
PHF	.417	.000	.250	.500	.375	.417	.000	.400	.000	.000	.000	.000	.000	.438	.000	.438	.750

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

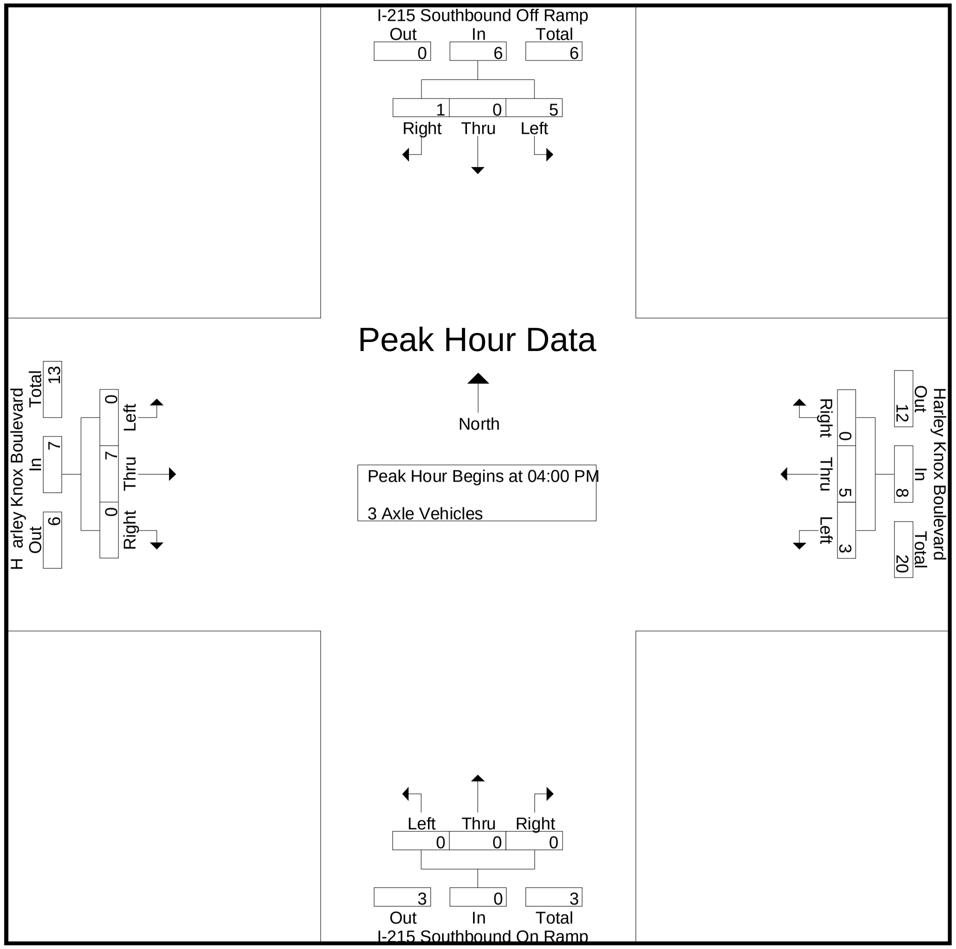

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-215 Southbound Off Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Southbound On Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	6	0	2	0	8	4	1	0	0	5	0	0	0	0	0	0	5	0	0	5	0	18
04:15 PM	7	0	2	2	9	1	2	0	0	3	0	0	0	0	0	0	3	0	0	3	2	15
04:30 PM	7	0	4	1	11	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	1	17
04:45 PM	8	0	2	1	10	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	11
Total	28	0	10	4	38	5	5	0	0	10	0	0	0	0	0	0	13	0	0	13	4	61
05:00 PM	6	0	4	0	10	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	14
05:15 PM	6	0	6	3	12	1	1	0	0	2	0	0	0	0	0	0	1	1	0	2	3	16
05:30 PM	6	0	2	1	8	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	1	11
05:45 PM	5	0	3	1	8	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	11
Total	23	0	15	5	38	2	2	0	0	4	0	0	0	0	0	0	9	1	0	10	5	52
Grand Total	51	0	25	9	76	7	7	0	0	14	0	0	0	0	0	0	22	1	0	23	9	113
Apprch %	67.1	0	32.9			50	50	0			0	0	0			0	95.7	4.3				
Total %	45.1	0	22.1		67.3	6.2	6.2	0		12.4	0	0	0		0	0	19.5	0.9		20.4	7.4	92.6

	I-215 Southbound Off Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Southbound On Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	6	0	2	8	4	1	0	5	0	0	0	0	0	5	0	5	18
04:15 PM	7	0	2	9	1	2	0	3	0	0	0	0	0	3	0	3	15
04:30 PM	7	0	4	11	0	1	0	1	0	0	0	0	0	5	0	5	17
04:45 PM	8	0	2	10	0	1	0	1	0	0	0	0	0	0	0	0	11
Total Volume	28	0	10	38	5	5	0	10	0	0	0	0	0	13	0	13	61
% App. Total	73.7	0	26.3		50	50	0		0	0	0		0	100	0		
PHF	.875	.000	.625	.864	.313	.625	.000	.500	.000	.000	.000	.000	.000	.650	.000	.650	.847

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County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : CRV215SHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

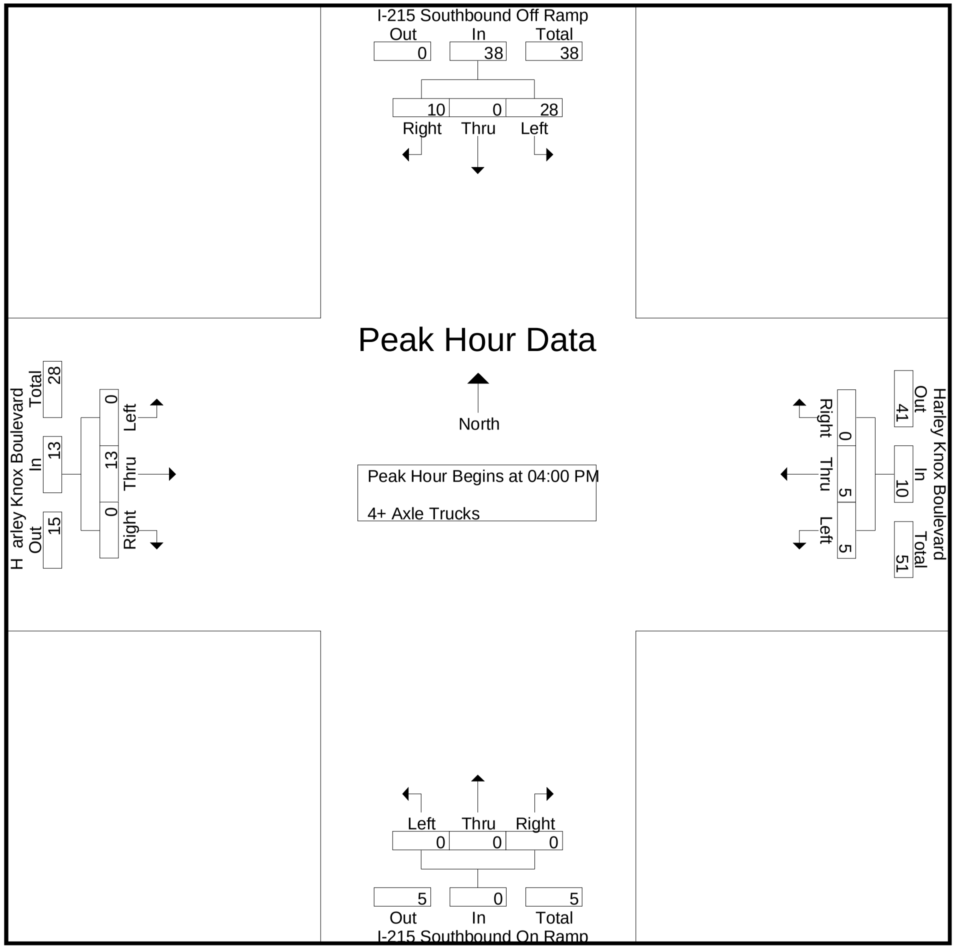

Location: County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard

Date: 4/14/2015
Weather: Clear

PEDESTRIANS

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Location: County of Riverside
N/S: I-215 Southbound Ramps
E/W: Harley Knox Boulevard

Date: 4/14/2015
Weather: Clear

BICYCLES

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Southbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Southbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
07:00 AM	5	0	3	1	1	9	0	308	61	32	13	401	101	0	55	0	143	299	0	3	192	5	3	200	0	0	0	0	0	17	909
07:15 AM	4	0	8	1	3	13	0	315	66	47	8	428	106	0	70	0	154	330	0	6	174	3	0	183	0	0	0	0	0	11	954
07:30 AM	7	0	7	0	1	14	0	273	81	60	10	414	102	0	73	1	147	323	0	5	182	5	3	192	0	0	0	0	0	14	943
07:45 AM	12	0	3	0	0	15	0	273	81	51	12	405	74	0	66	4	165	309	0	3	191	2	0	196	0	0	0	0	0	12	925
Total	28	0	21	2	5	51	0	1169	289	190	43	1648	383	0	264	5	609	1261	0	17	739	15	6	771	0	0	0	0	0	54	3731
08:00 AM	8	0	4	0	2	12	0	206	94	43	7	343	68	0	36	3	132	239	0	7	161	4	0	172	0	0	0	0	0	9	766
08:15 AM	5	0	5	1	2	11	0	164	113	33	8	310	78	0	37	0	117	232	0	4	147	4	1	155	0	0	0	0	0	11	708
08:30 AM	8	1	7	0	3	16	0	157	91	8	2	256	49	0	18	2	138	207	0	3	130	5	2	138	0	0	0	0	0	7	617
08:45 AM	6	0	10	1	3	17	0	147	96	19	5	262	32	0	8	0	122	162	0	5	113	4	0	122	0	0	0	0	0	8	563
Total	27	1	26	2	10	56	0	674	394	103	22	1171	227	0	99	5	509	840	0	19	551	17	3	587	0	0	0	0	0	35	2654
Grand Total	55	1	47	4	15	107	0	1843	683	293	65	2819	610	0	363	10	1118	2101	0	36	1290	32	9	1358	0	0	0	0	0	89	6385
Apprch %	51.4	0.9	43.9	3.7			0	65.4	24.2	10.4			29	0	17.3	0.5	53.2		0	2.7	95	2.4			0	0	0	0			
Total %	0.9	0	0.7	0.1		1.7	0	28.9	10.7	4.6		44.2	9.6	0	5.7	0.2	17.5	32.9	0	0.6	20.2	0.5		21.3	0	0	0	0	0	1.4	98.6
Passenger Vehicles	47	1	27	0		88	0	1819	630	284		2795	600	0	344	10	1090	2044	0	26	1216	7		1251	0	0	0	0	0	0	0
% Passenger Vehicles	85.5	100	57.4	0	86.7	72.1	0	98.7	92.2	96.9	95.4	96.9	98.4	0	94.8	100	97.5	97.3	0	72.2	94.3	21.9	22.2	91.5	0	0	0	0	0	0	0
Large 2 Axle Vehicles	0	0	3	0		4	0	13	18	2		33	3	0	3	0	10	16	0	4	19	5		29	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	6.4	0	6.7	3.3	0	0.7	2.6	0.7	0	1.1	0.5	0	0.8	0	0.9	0.8	0	11.1	1.5	15.6	11.1	2.1	0	0	0	0	0	0	0
3 Axle Vehicles	5	0	6	0		12	0	5	8	5		21	0	0	2	0	6	8	0	1	8	0		9	0	0	0	0	0	0	0
% 3 Axle Vehicles	9.1	0	12.8	0	6.7	9.8	0	0.3	1.2	1.7	4.6	0.7	0	0	0.6	0	0.5	0.4	0	2.8	0.6	0	0	0.7	0	0	0	0	0	0	0
4+ Axle Trucks	3	0	11	4		18	0	6	27	2		35	7	0	14	0	12	33	0	5	47	20		78	0	0	0	0	0	0	0
% 4+ Axle Trucks	5.5	0	23.4	100	0	14.8	0	0.3	4	0.7	0	1.2	1.1	0	3.9	0	1.1	1.6	0	13.9	3.6	62.5	66.7	5.7	0	0	0	0	0	0	0

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 07:00 AM																											
07:00 AM	5	0	3	1	9	0	308	61	32	401	101	0	55	0	143	299	0	3	192	5	200	0	0	0	0	0	909
07:15 AM	4	0	8	1	13	0	315	66	47	428	106	0	70	0	154	330	0	6	174	3	183	0	0	0	0	0	954
07:30 AM	7	0	7	0	14	0	273	81	60	414	102	0	73	1	147	323	0	5	182	5	192	0	0	0	0	0	943
07:45 AM	12	0	3	0	15	0	273	81	51	405	74	0	66	4	165	309	0	3	191	2	196	0	0	0	0	0	925
Total Volume	28	0	21	2	51	0	1169	289	190	1648	383	0	264	5	609	1261	0	17	739	15	771	0	0	0	0	0	3731
% App. Total	54.9	0	41.2	3.9		0	70.9	17.5	11.5		30.4	0	20.9	0.4	48.3		0	2.2	95.8	1.9		0	0	0	0		
PHF	.583	.000	.656	.500	.850	.000	.928	.892	.792	.963	.903	.000	.904	.313	.923	.955	.000	.708	.962	.750	.964	.000	.000	.000	.000	.000	.978

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

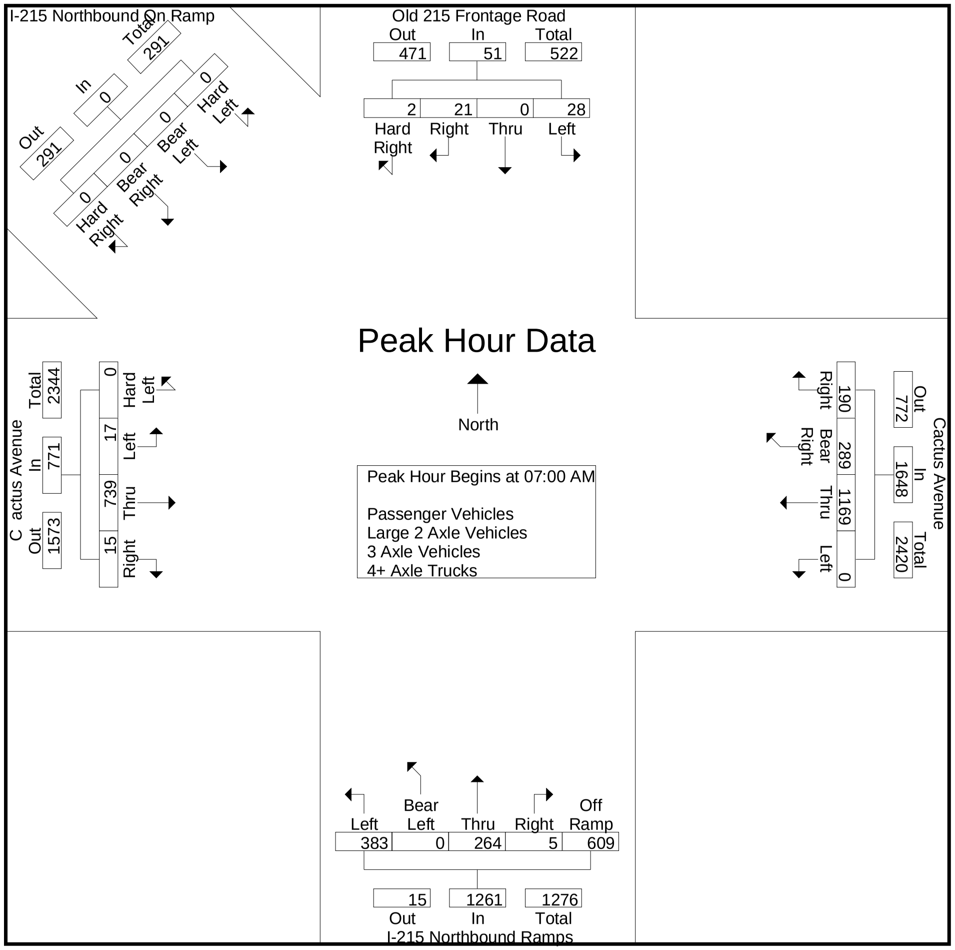

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	3	0	0	0	3	1	0	0	0	2	3	0	0	3	1	1	4	0	0	0	0	0	1	10
07:15 AM	0	0	0	0	0	0	0	2	3	0	0	5	2	0	0	0	1	3	0	1	0	0	0	1	0	0	0	0	0	0	9
07:30 AM	0	0	1	0	0	1	0	0	2	0	0	2	0	0	1	0	1	2	0	1	3	1	0	5	0	0	0	0	0	0	10
07:45 AM	0	0	1	0	0	1	0	3	0	0	0	3	0	0	1	0	2	3	0	0	3	1	0	4	0	0	0	0	0	0	11
Total	0	0	2	0	0	2	0	8	5	0	0	13	3	0	2	0	6	11	0	2	9	3	1	14	0	0	0	0	0	1	40
08:00 AM	0	0	1	0	1	1	0	1	3	1	0	5	0	0	1	0	1	2	0	0	3	1	0	4	0	0	0	0	0	1	12
08:15 AM	0	0	0	0	0	0	0	2	4	0	0	6	0	0	0	0	2	2	0	1	0	1	0	2	0	0	0	0	0	0	10
08:30 AM	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	7
08:45 AM	0	0	0	0	0	0	0	1	3	1	0	5	0	0	0	0	1	1	0	0	5	0	0	5	0	0	0	0	0	0	11
Total	0	0	1	0	1	1	0	5	13	2	0	20	0	0	1	0	4	5	0	2	10	2	0	14	0	0	0	0	0	1	40
Grand Total	0	0	3	0	1	3	0	13	18	2	0	33	3	0	3	0	10	16	0	4	19	5	1	28	0	0	0	0	0	2	80
Apprch %	0	0	100	0			0	39.4	54.5	6.1			18.8	0	18.8	0	62.5		0	14.3	67.9	17.9			0	0	0	0			
Total %	0	0	3.8	0		3.8	0	16.2	22.5	2.5		41.2	3.8	0	3.8	0	12.5	20	0	5	23.8	6.2		35	0	0	0	0	0	2.4	97.6

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 07:00 AM																											
07:00 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	2	3	0	0	3	1	4	0	0	0	0	0	10
07:15 AM	0	0	0	0	0	0	2	3	0	5	2	0	0	0	1	3	0	1	0	0	1	0	0	0	0	0	9
07:30 AM	0	0	1	0	1	0	0	2	0	2	0	0	1	0	1	2	0	1	3	1	5	0	0	0	0	0	10
07:45 AM	0	0	1	0	1	0	3	0	0	3	0	0	1	0	2	3	0	0	3	1	4	0	0	0	0	0	11
Total Volume	0	0	2	0	2	0	8	5	0	13	3	0	2	0	6	11	0	2	9	3	14	0	0	0	0	0	40
% App. Total	0	0	100	0		0	61.5	38.5	0		27.3	0	18.2	0	54.5		0	14.3	64.3	21.4		0	0	0	0		
PHF	.000	.000	.500	.000	.500	.000	.667	.417	.000	.650	.375	.000	.500	.000	.750	.917	.000	.500	.750	.750	.700	.000	.000	.000	.000	.000	.909

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

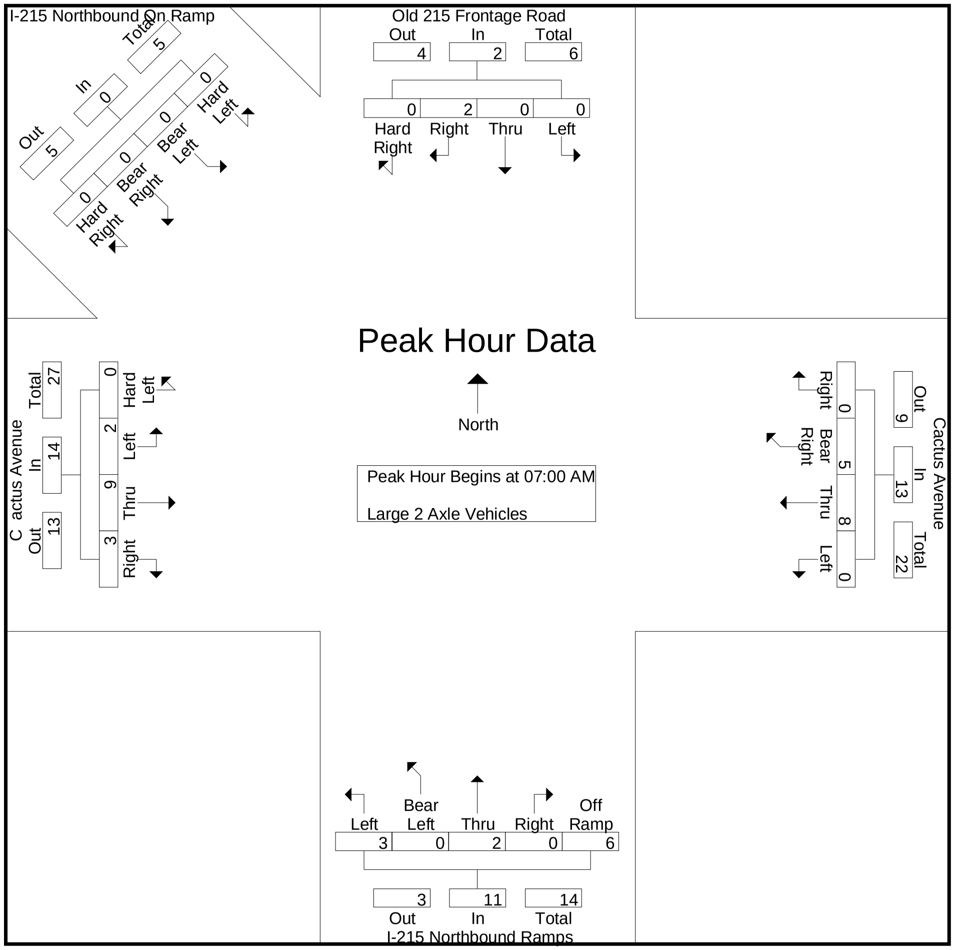

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	3	0	0	3	0	0	0	0	0	0	5
07:15 AM	0	0	1	0	0	1	0	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	3
07:30 AM	1	0	0	0	0	1	0	1	3	2	1	6	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	8
07:45 AM	1	0	0	0	0	1	0	1	1	1	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
Total	2	0	1	0	0	3	0	3	4	4	2	11	0	0	1	0	2	3	0	0	4	0	0	4	0	0	0	0	0	2	21
08:00 AM	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	0	3	0	0	0	0	0	0	6
08:15 AM	0	0	1	0	1	1	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	4
08:30 AM	0	0	1	0	0	1	0	2	1	0	0	3	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	6
08:45 AM	1	0	3	0	0	4	0	0	1	1	1	2	0	0	0	0	2	2	0	0	1	0	0	1	0	0	0	0	0	1	9
Total	3	0	5	0	1	8	0	2	4	1	1	7	0	0	1	0	4	5	0	1	4	0	0	5	0	0	0	0	0	2	25
Grand Total	5	0	6	0	1	11	0	5	8	5	3	18	0	0	2	0	6	8	0	1	8	0	0	9	0	0	0	0	0	4	46
Apprch %	45.5	0	54.5	0			0	27.8	44.4	27.8			0	0	25	0	75		0	11.1	88.9	0			0	0	0	0			
Total %	10.9	0	13	0		23.9	0	10.9	17.4	10.9		39.1	0	0	4.3	0	13	17.4	0	2.2	17.4	0		19.6	0	0	0	0	0	8	92

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 07:00 AM																											
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	3	0	3	0	0	0	0	0	5
07:15 AM	0	0	1	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
07:30 AM	1	0	0	0	1	0	1	3	2	6	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	8
07:45 AM	1	0	0	0	1	0	1	1	1	3	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	5
Total Volume	2	0	1	0	3	0	3	4	4	11	0	0	1	0	2	3	0	0	4	0	4	0	0	0	0	0	21
% App. Total	66.7	0	33.3	0		0	27.3	36.4	36.4		0	0	33.3	0	66.7		0	0	100	0		0	0	0	0		
PHF	.500	.000	.250	.000	.750	.000	.750	.333	.500	.458	.000	.000	.250	.000	.500	.750	.000	.000	.333	.000	.333	.000	.000	.000	.000	.000	.656

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

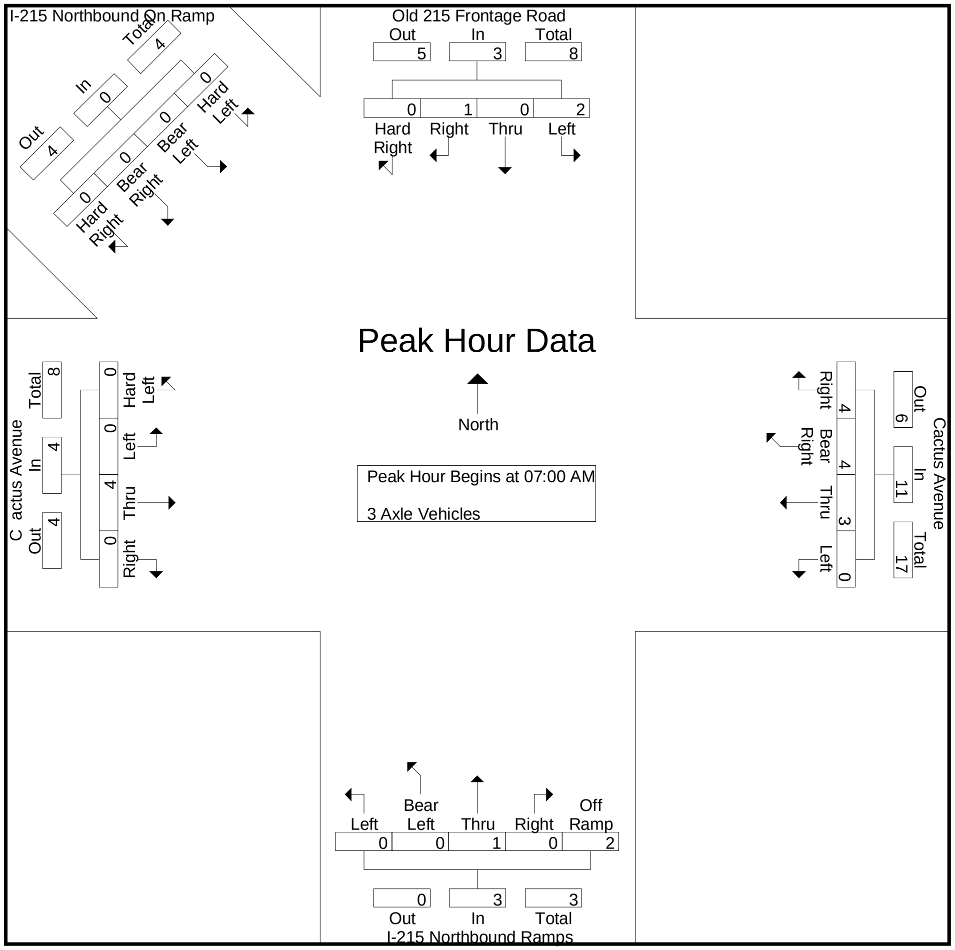

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City of Moreno Valley
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E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	2	1	0	3	0	0	1	0	0	1	0	0	2	0	3	5	0	1	8	3	2	12	0	0	0	0	0	2	21
07:15 AM	0	0	1	1	0	2	0	0	1	0	0	1	1	0	0	0	1	2	0	0	1	3	0	4	0	0	0	0	0	0	9
07:30 AM	1	0	4	0	0	5	0	1	3	0	0	4	0	0	2	0	1	3	0	1	6	4	3	11	0	0	0	0	0	3	23
07:45 AM	1	0	0	0	0	1	0	2	5	1	0	8	0	0	2	0	1	3	0	1	12	0	0	13	0	0	0	0	0	0	25
Total	2	0	7	2	0	11	0	3	10	1	0	14	1	0	6	0	6	13	0	3	27	10	5	40	0	0	0	0	0	5	78
08:00 AM	0	0	1	0	0	1	0	0	7	0	0	7	2	0	2	0	1	5	0	1	1	2	0	4	0	0	0	0	0	0	17
08:15 AM	0	0	1	1	0	2	0	1	2	0	0	3	1	0	4	0	2	7	0	0	10	1	0	11	0	0	0	0	0	0	23
08:30 AM	0	0	0	0	0	0	0	1	4	0	0	5	2	0	0	0	2	4	0	0	5	4	1	9	0	0	0	0	0	1	18
08:45 AM	1	0	2	1	0	4	0	1	4	1	0	6	1	0	2	0	1	4	0	1	4	3	0	8	0	0	0	0	0	0	22
Total	1	0	4	2	0	7	0	3	17	1	0	21	6	0	8	0	6	20	0	2	20	10	1	32	0	0	0	0	0	1	80
Grand Total	3	0	11	4	0	18	0	6	27	2	0	35	7	0	14	0	12	33	0	5	47	20	6	72	0	0	0	0	0	6	158
Apprch %	16.7	0	61.1	22.2			0	17.1	77.1	5.7			21.2	0	42.4	0	36.4		0	6.9	65.3	27.8			0	0	0	0			
Total %	1.9	0	7	2.5		11.4	0	3.8	17.1	1.3		22.2	4.4	0	8.9	0	7.6	20.9	0	3.2	29.7	12.7		45.6	0	0	0	0	0	3.7	96.3

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 07:00 AM																											
07:00 AM	0	0	2	1	3	0	0	1	0	1	0	0	2	0	3	5	0	1	8	3	12	0	0	0	0	0	21
07:15 AM	0	0	1	1	2	0	0	1	0	1	1	0	0	0	1	2	0	0	1	3	4	0	0	0	0	0	9
07:30 AM	1	0	4	0	5	0	1	3	0	4	0	0	2	0	1	3	0	1	6	4	11	0	0	0	0	0	23
07:45 AM	1	0	0	0	1	0	2	5	1	8	0	0	2	0	1	3	0	1	12	0	13	0	0	0	0	0	25
Total Volume	2	0	7	2	11	0	3	10	1	14	1	0	6	0	6	13	0	3	27	10	40	0	0	0	0	0	78
% App. Total	18.2	0	63.6	18.2		0	21.4	71.4	7.1		7.7	0	46.2	0	46.2		0	7.5	67.5	25		0	0	0	0		
PHF	.500	.000	.438	.500	.550	.000	.375	.500	.250	.438	.250	.000	.750	.000	.500	.650	.000	.750	.563	.625	.769	.000	.000	.000	.000	.000	.780

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAAM
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

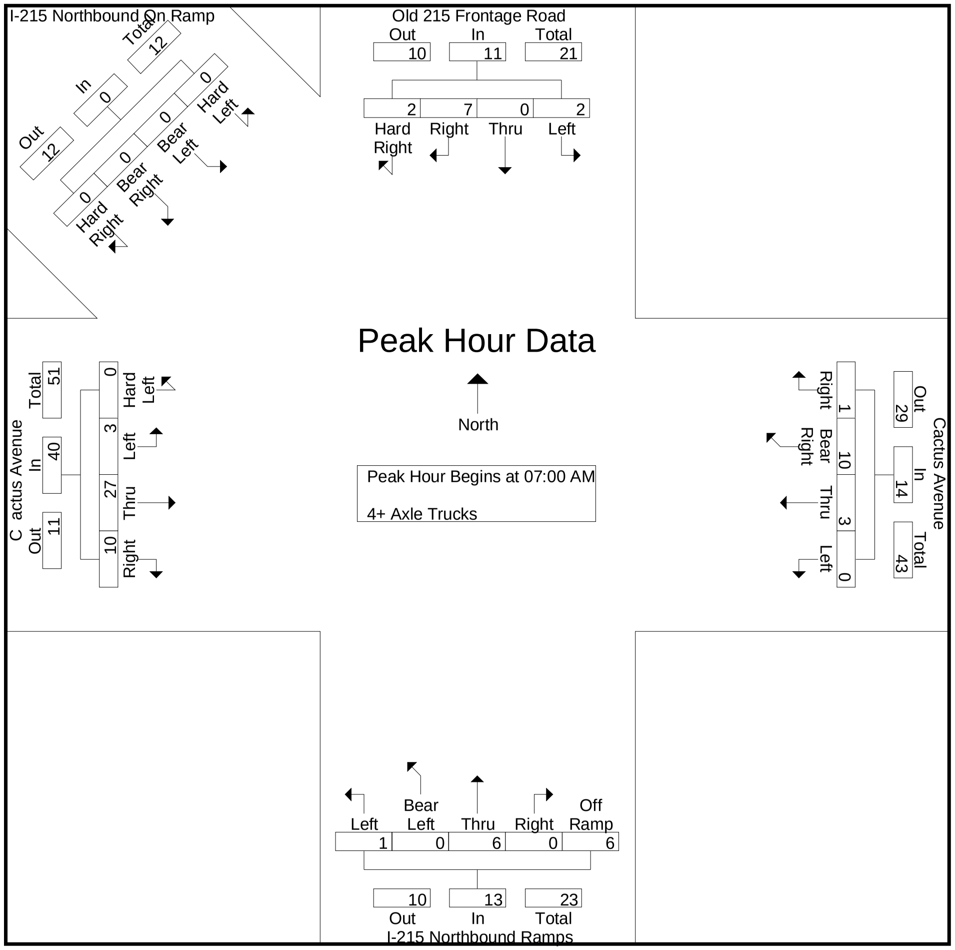

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
04:00 PM	23	0	7	0	4	30	0	215	169	20	3	404	8	0	13	0	89	110	0	2	211	23	0	236	0	0	0	0	0	7	780
04:15 PM	21	0	6	0	4	27	0	214	171	22	2	407	7	0	5	2	116	130	0	4	210	20	0	234	0	0	0	0	0	6	798
04:30 PM	18	0	5	0	2	23	0	223	163	17	1	403	5	0	5	0	126	136	0	3	246	41	6	290	0	0	0	0	0	9	852
04:45 PM	18	0	5	0	3	23	0	209	167	25	5	401	10	0	10	0	120	140	0	4	220	26	2	250	0	0	0	0	0	10	814
Total	80	0	23	0	13	103	0	861	670	84	11	1615	30	0	33	2	451	516	0	13	887	110	8	1010	0	0	0	0	0	32	3244
05:00 PM	22	0	12	0	7	34	0	197	134	15	1	346	7	0	6	0	146	159	0	3	280	54	0	337	0	0	0	0	0	8	876
05:15 PM	21	0	7	0	2	28	0	162	120	19	3	301	6	0	9	0	179	194	0	2	290	23	1	315	0	0	0	0	0	6	838
05:30 PM	18	0	5	0	2	23	0	167	131	21	3	319	3	0	10	0	196	209	0	4	279	21	2	304	0	0	0	0	0	7	855
05:45 PM	25	0	6	0	4	31	0	162	111	11	2	284	6	0	4	0	192	202	0	3	284	15	1	302	0	0	0	0	0	7	819
Total	86	0	30	0	15	116	0	688	496	66	9	1250	22	0	29	0	713	764	0	12	1133	113	4	1258	0	0	0	0	0	28	3388
Grand Total	166	0	53	0	28	219	0	1549	1166	150	20	2865	52	0	62	2	1164	1280	0	25	2020	223	12	2268	0	0	0	0	0	60	6632
Apprch %	75.8	0	24.2	0			0	54.1	40.7	5.2			4.1	0	4.8	0.2	90.9		0	1.1	89.1	9.8			0	0	0	0			
Total %	2.5	0	0.8	0		3.3	0	23.4	17.6	2.3		43.2	0.8	0	0.9	0	17.6	19.3	0	0.4	30.5	3.4		34.2	0	0	0	0	0	0.9	99.1
Passenger Vehicles	163	0	46	0		232	0	1533	1118	148		2818	37	0	57	1	1155	1250	0	21	1971	189		2190	0	0	0	0	0	0	0
% Passenger Vehicles	98.2	0	86.8	0	82.1	93.9	0	99	95.9	98.7	95	97.7	71.2	0	91.9	50	99.2	97.7	0	84	97.6	84.8	75	96.1	0	0	0	0	0	0	0
Large 2 Axle Vehicles	2	0	0	0		2	0	14	16	0		30	1	0	3	0	9	13	0	0	10	6		16	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	1.2	0	0	0	0	0.8	0	0.9	1.4	0	0	1	1.9	0	4.8	0	0.8	1	0	0	0.5	2.7	0	0.7	0	0	0	0	0	0	0
3 Axle Vehicles	1	0	3	0		7	0	1	5	1		8	10	0	0	0	0	10	0	0	1	2		3	0	0	0	0	0	0	0
% 3 Axle Vehicles	0.6	0	5.7	0	10.7	2.8	0	0.1	0.4	0.7	5	0.3	19.2	0	0	0	0	0.8	0	0	0	0.9	0	0.1	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	4	0		6	0	1	27	1		29	4	0	2	1	0	7	0	4	38	26		71	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	7.5	0	7.1	2.4	0	0.1	2.3	0.7	0	1	7.7	0	3.2	50	0	0.5	0	16	1.9	11.7	25	3.1	0	0	0	0	0	0	0

3.1-45

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 05:00 PM																											
05:00 PM	22	0	12	0	34	0	197	134	15	346	7	0	6	0	146	159	0	3	280	54	337	0	0	0	0	0	876
05:15 PM	21	0	7	0	28	0	162	120	19	301	6	0	9	0	179	194	0	2	290	23	315	0	0	0	0	0	838
05:30 PM	18	0	5	0	23	0	167	131	21	319	3	0	10	0	196	209	0	4	279	21	304	0	0	0	0	0	855
05:45 PM	25	0	6	0	31	0	162	111	11	284	6	0	4	0	192	202	0	3	284	15	302	0	0	0	0	0	819
Total Volume	86	0	30	0	116	0	688	496	66	1250	22	0	29	0	713	764	0	12	1133	113	1258	0	0	0	0	0	3388
% App. Total	74.1	0	25.9	0		0	55	39.7	5.3		2.9	0	3.8	0	93.3		0	1	90.1	9		0	0	0	0		
PHF	.860	.000	.625	.000	.853	.000	.873	.925	.786	.903	.786	.000	.725	.000	.909	.914	.000	.750	.977	.523	.933	.000	.000	.000	.000	.000	.967

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

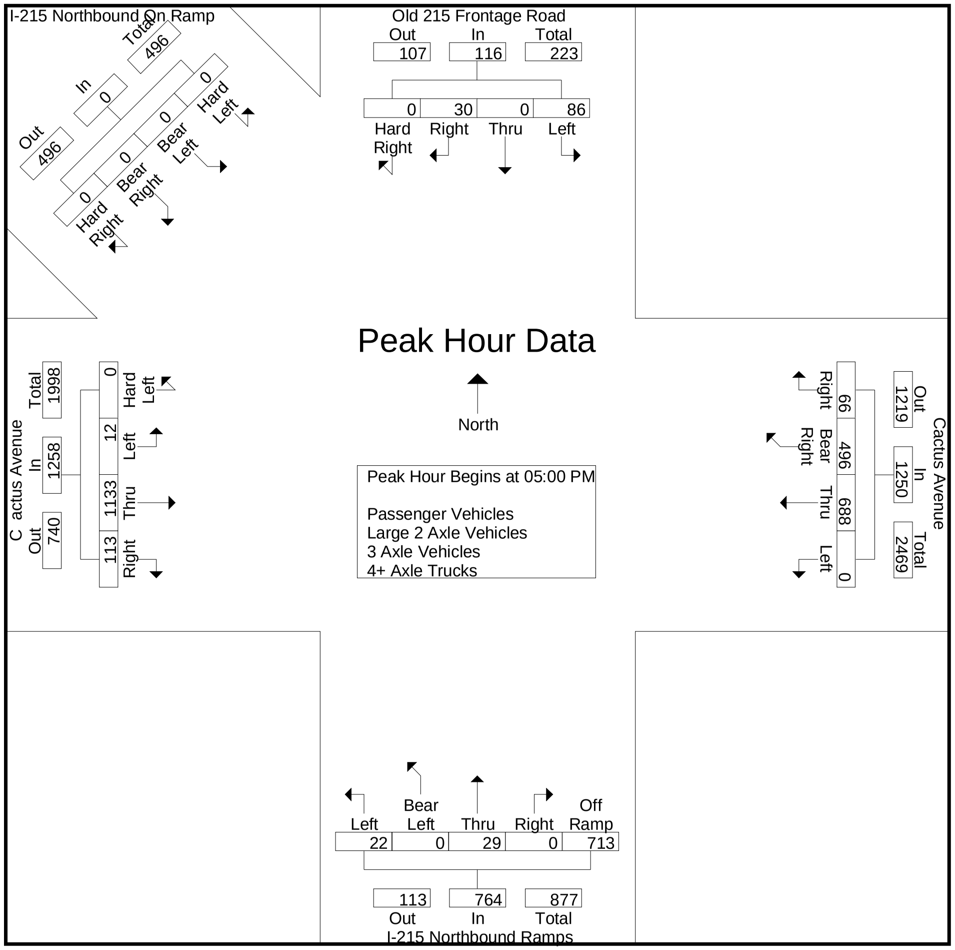

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
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File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
04:00 PM	1	0	0	0	0	1	0	2	6	0	0	8	0	0	1	0	1	2	0	0	4	1	0	5	0	0	0	0	0	0	16
04:15 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	4
04:30 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	2	2	0	0	1	1	0	2	0	0	0	0	0	0	6
04:45 PM	0	0	0	0	0	0	0	3	1	0	0	4	1	0	0	0	1	2	0	0	0	1	0	1	0	0	0	0	0	0	7
Total	1	0	0	0	0	1	0	7	9	0	0	16	1	0	1	0	5	7	0	0	6	3	0	9	0	0	0	0	0	0	33
05:00 PM	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	6
05:15 PM	1	0	0	0	0	1	0	1	1	0	0	2	0	0	2	0	1	3	0	0	2	1	0	3	0	0	0	0	0	0	9
05:30 PM	0	0	0	0	0	0	0	2	3	0	0	5	0	0	0	0	2	2	0	0	0	1	0	1	0	0	0	0	0	0	8
05:45 PM	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	1	0	0	0	0	1	0	7	7	0	0	14	0	0	2	0	4	6	0	0	4	3	0	7	0	0	0	0	0	0	28
Grand Total	2	0	0	0	0	2	0	14	16	0	0	30	1	0	3	0	9	13	0	0	10	6	0	16	0	0	0	0	0	0	61
Apprch %	100	0	0	0			0	46.7	53.3	0			7.7	0	23.1	0	69.2		0	0	62.5	37.5			0	0	0	0			
Total %	3.3	0	0	0		3.3	0	23	26.2	0		49.2	1.6	0	4.9	0	14.8	21.3	0	0	16.4	9.8		26.2	0	0	0	0	0	0	100

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 05:00 PM

05:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	6
05:15 PM	1	0	0	0	1	0	1	1	0	2	0	0	2	0	1	3	0	0	2	1	3	0	0	0	0	0	9
05:30 PM	0	0	0	0	0	0	2	3	0	5	0	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	8
05:45 PM	0	0	0	0	0	0	1	3	0	4	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	5
Total Volume	1	0	0	0	1	0	7	7	0	14	0	0	2	0	4	6	0	0	4	3	7	0	0	0	0	0	28
% App. Total	100	0	0	0		0	50	50	0		0	0	33.3	0	66.7		0	0	57.1	42.9		0	0	0	0		
PHF	.250	.000	.000	.000	.250	.000	.583	.583	.000	.700	.000	.000	.250	.000	.500	.500	.000	.000	.500	.750	.583	.000	.000	.000	.000	.000	.778

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

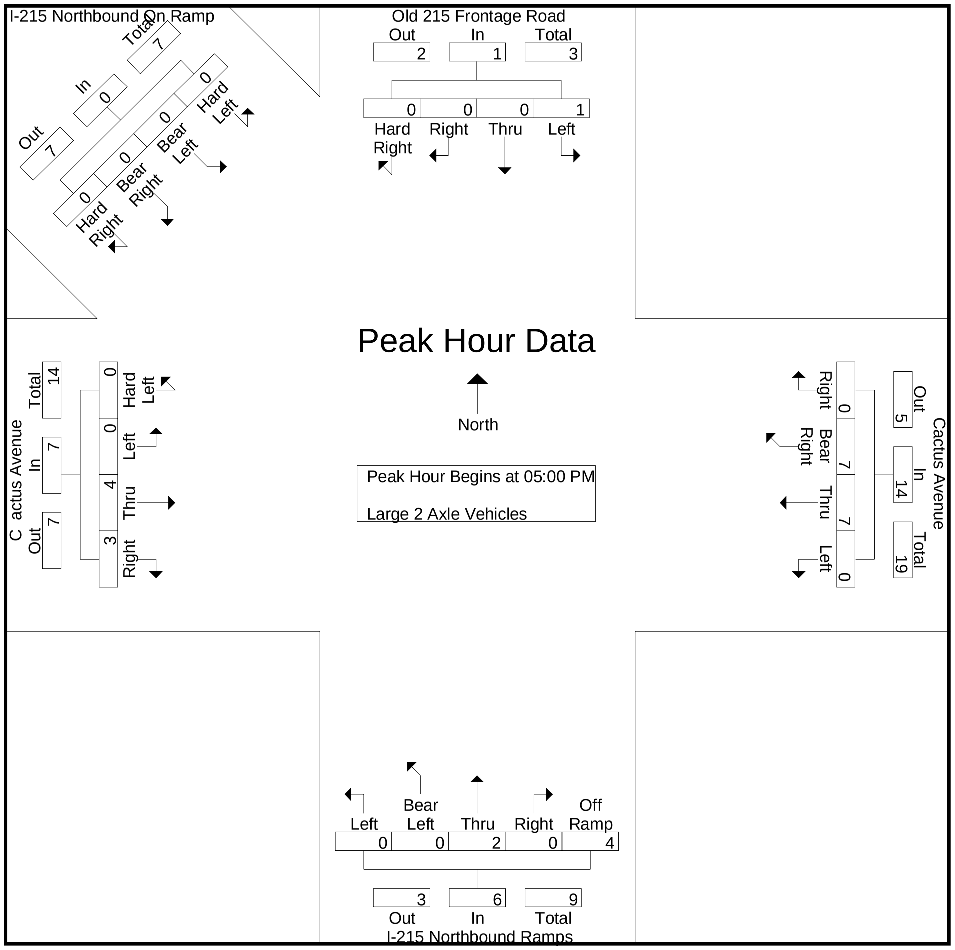

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
04:00 PM	1	0	0	0	0	1	0	0	1	0	0	1	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	6
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	3
04:30 PM	0	0	1	0	1	1	0	0	1	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3
04:45 PM	0	0	0	0	0	0	0	1	0	1	1	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3
Total	1	0	1	0	1	2	0	1	3	1	1	5	7	0	0	0	0	7	0	0	0	1	0	1	0	0	0	0	0	2	15
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	2	0	2	2	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	3
Total	0	0	2	0	2	2	0	0	2	0	0	2	3	0	0	0	0	3	0	0	1	1	0	2	0	0	0	0	0	2	9
Grand Total	1	0	3	0	3	4	0	1	5	1	1	7	10	0	0	0	0	10	0	0	1	2	0	3	0	0	0	0	0	4	24
Apprch %	25	0	75	0			0	14.3	71.4	14.3			100	0	0	0	0		0	0	33.3	66.7			0	0	0	0			
Total %	4.2	0	12.5	0		16.7	0	4.2	20.8	4.2		29.2	41.7	0	0	0	0	41.7	0	0	4.2	8.3		12.5	0	0	0	0	0	14.3	85.7

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 05:00 PM																											
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	1	0	1	0	0	0	0	0	3
Total Volume	0	0	2	0	2	0	0	2	0	2	3	0	0	0	0	3	0	0	1	1	2	0	0	0	0	0	9
% App. Total	0	0	100	0		0	0	100	0		100	0	0	0	0		0	0	50	50		0	0	0	0		
PHF	.000	.000	.250	.000	.250	.000	.000	.250	.000	.250	.375	.000	.000	.000	.000	.375	.000	.000	.250	.250	.500	.000	.000	.000	.000	.000	.450

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
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Weather: Clear

File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

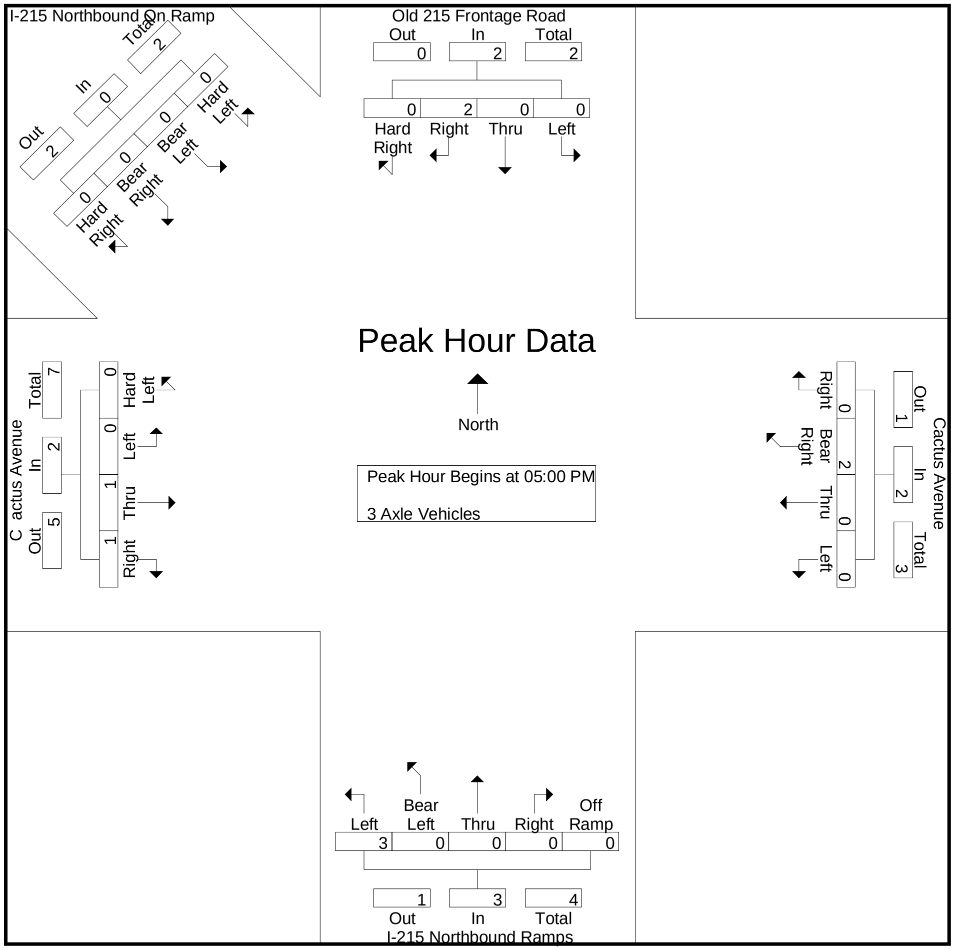

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City of Moreno Valley
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Weather: Clear

File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Old 215 Frontage Road Southbound						Cactus Avenue Westbound						I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound						I-215 Northbound On Ramp Southeastbound						
Start Time	Left	Thru	Right	Hard Right	RTOR	App. Total	Left	Thru	Bear Right	Right	RTOR	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	RTOR	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	2	0	1	2	0	0	1	1	0	2	0	0	1	0	0	1	0	0	5	5	0	10	0	0	0	0	0	1	15
04:15 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	1	0	1	0	2	4	1	0	7	0	0	0	0	0	0	13
04:30 PM	0	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	0	1	0	1	6	4	1	11	0	0	0	0	0	1	15
04:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	1	0	1	0	0	2	0	0	2	2	1	4	0	0	0	0	0	1	8
Total	0	0	2	0	1	2	0	0	11	1	0	12	2	0	2	1	0	5	0	3	17	12	2	32	0	0	0	0	0	3	51
05:00 PM	0	0	1	0	0	1	0	1	3	0	0	4	1	0	0	0	0	1	0	1	7	5	0	13	0	0	0	0	0	0	19
05:15 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	9
05:30 PM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	4	6	1	10	0	0	0	0	0	1	14
05:45 PM	0	0	1	0	1	1	0	0	7	0	0	7	1	0	0	0	0	1	0	0	4	2	0	6	0	0	0	0	0	1	15
Total	0	0	2	0	1	2	0	1	16	0	0	17	2	0	0	0	0	2	0	1	21	14	1	36	0	0	0	0	0	2	57
Grand Total	0	0	4	0	2	4	0	1	27	1	0	29	4	0	2	1	0	7	0	4	38	26	3	68	0	0	0	0	0	5	108
Apprch %	0	0	100	0			0	3.4	93.1	3.4			57.1	0	28.6	14.3	0		0	5.9	55.9	38.2			0	0	0	0			
Total %	0	0	3.7	0		3.7	0	0.9	25	0.9		26.9	3.7	0	1.9	0.9	0	6.5	0	3.7	35.2	24.1		63	0	0	0	0	0	4.4	95.6

	Old 215 Frontage Road Southbound					Cactus Avenue Westbound					I-215 Northbound Ramps Northbound						Cactus Avenue Eastbound					I-215 Northbound On Ramp Southeastbound					
Start Time	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Left	Bear Left	Thru	Right	Off Ramp	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																											
Peak Hour for Entire Intersection Begins at 05:00 PM																											
05:00 PM	0	0	1	0	1	0	1	3	0	4	1	0	0	0	0	1	0	1	7	5	13	0	0	0	0	0	19
05:15 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	6	1	7	0	0	0	0	0	9
05:30 PM	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	4	6	10	0	0	0	0	0	14
05:45 PM	0	0	1	0	1	0	0	7	0	7	1	0	0	0	0	1	0	0	4	2	6	0	0	0	0	0	15
Total Volume	0	0	2	0	2	0	1	16	0	17	2	0	0	0	0	2	0	1	21	14	36	0	0	0	0	0	57
% App. Total	0	0	100	0		0	5.9	94.1	0		100	0	0	0	0		0	2.8	58.3	38.9		0	0	0	0		
PHF	.000	.000	.500	.000	.500	.000	.250	.571	.000	.607	.500	.000	.000	.000	.000	.500	.000	.250	.750	.583	.692	.000	.000	.000	.000	.000	.750

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City of Moreno Valley
N/S: I-215 Northbound Ramps / Old 215
E/W: Cactus Avenue
Weather: Clear

File Name : MRV215NCAPM2
Site Code : 13414472
Start Date : 4/28/2015
Page No : 2

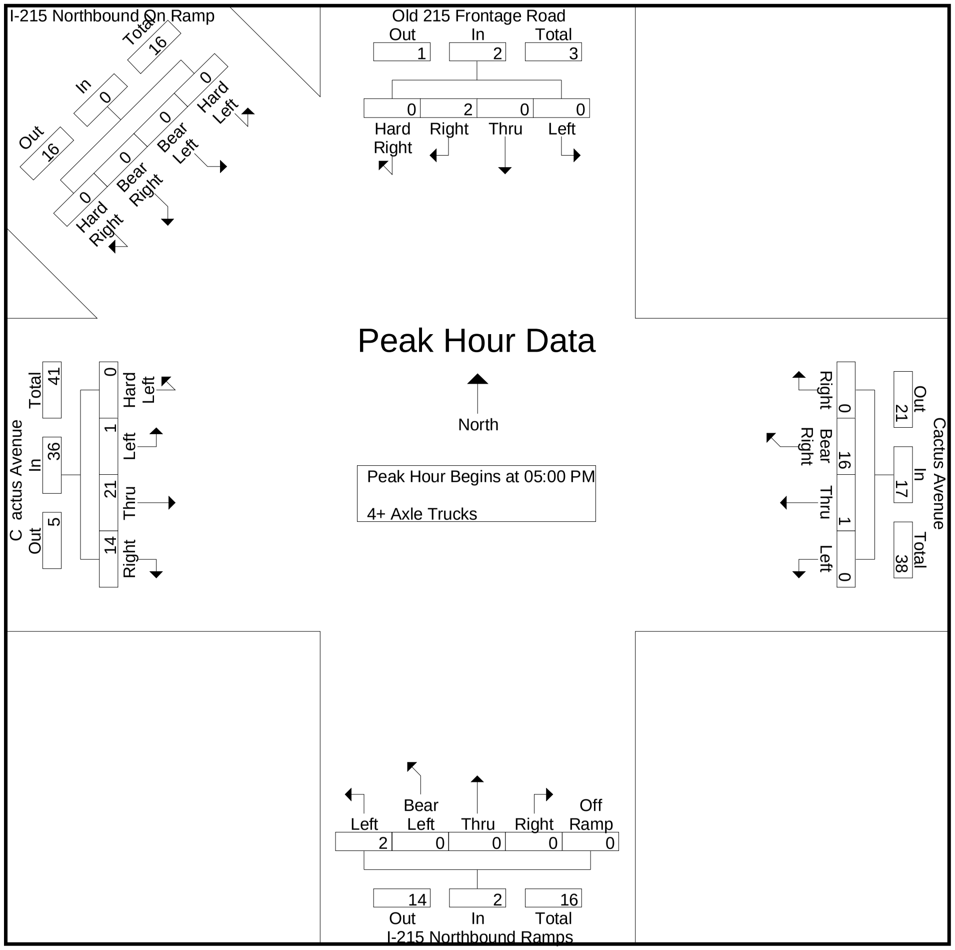

Location: Moreno Valley
N/S: I-215 Northbound On / Off Ramps
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg I-215 Northbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Northbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Northbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Northbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Moreno Valley
N/S: I-215 Northbound On / Off Ramps
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg I-215 Northbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Northbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
7:00 AM	1	0	2	0	3
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	0	2	0	4

	North Leg I-215 Northbound On / Off Ramps	East Leg Cactus Avenue	South Leg I-215 Northbound On / Off Ramps	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	0	2	0	2

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	98	71	6	169	0	0	24	22	24	41	112	0	0	153	28	346
07:15 AM	0	0	0	0	0	0	67	71	7	138	0	0	14	14	14	39	119	0	0	158	21	310
07:30 AM	0	0	0	0	0	0	42	73	7	115	3	0	14	14	17	50	131	0	0	181	21	313
07:45 AM	0	0	0	0	0	0	32	60	12	92	1	0	34	29	35	56	126	0	0	182	41	309
Total	0	0	0	0	0	0	239	275	32	514	4	0	86	79	90	186	488	0	0	674	111	1278
08:00 AM	0	0	0	0	0	0	26	54	4	80	4	1	15	12	20	27	65	0	0	92	16	192
08:15 AM	0	0	0	0	0	0	30	49	6	79	4	0	10	10	14	31	62	0	0	93	16	186
08:30 AM	0	0	0	0	0	0	29	44	4	73	1	1	19	18	21	49	68	0	0	117	22	211
08:45 AM	0	0	0	0	0	0	25	37	2	62	4	3	22	20	29	29	73	0	0	102	22	193
Total	0	0	0	0	0	0	110	184	16	294	13	5	66	60	84	136	268	0	0	404	76	782
Grand Total	0	0	0	0	0	0	349	459	48	808	17	5	152	139	174	322	756	0	0	1078	187	2060
Apprch %	0	0	0			0	43.2	56.8			9.8	2.9	87.4			29.9	70.1	0				
Total %	0	0	0		0	0	16.9	22.3		39.2	0.8	0.2	7.4		8.4	15.6	36.7	0		52.3	8.3	91.7
Passenger Vehicles	0	0	0		0	0	294	352		682	14	5	133		273	298	621	0		919	0	0
% Passenger Vehicles	0	0	0	0	0	0	84.2	76.7	75	79.7	82.4	100	87.5	87.1	87.2	92.5	82.1	0	0	85.3	0	0
Large 2 Axle Vehicles	0	0	0		0	0	23	39		69	0	0	6		12	8	42	0		50	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	6.6	8.5	14.6	8.1	0	0	3.9	4.3	3.8	2.5	5.6	0	0	4.6	0	0
3 Axle Vehicles	0	0	0		0	0	9	16		26	1	0	4		8	2	31	0		33	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	2.6	3.5	2.1	3	5.9	0	2.6	2.2	2.6	0.6	4.1	0	0	3.1	0	0
4+ Axle Trucks	0	0	0		0	0	23	52		79	2	0	9		20	14	62	0		76	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	6.6	11.3	8.3	9.2	11.8	0	5.9	6.5	6.4	4.3	8.2	0	0	7.1	0	0

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	98	71	169	0	0	24	24	41	112	0	153	346
07:15 AM	0	0	0	0	0	67	71	138	0	0	14	14	39	119	0	158	310
07:30 AM	0	0	0	0	0	42	73	115	3	0	14	17	50	131	0	181	313
07:45 AM	0	0	0	0	0	32	60	92	1	0	34	35	56	126	0	182	309
Total Volume	0	0	0	0	0	239	275	514	4	0	86	90	186	488	0	674	1278
% App. Total	0	0	0		0	46.5	53.5		4.4	0	95.6		27.6	72.4	0		
PHF	.000	.000	.000	.000	.000	.610	.942	.760	.333	.000	.632	.643	.830	.931	.000	.926	.923

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

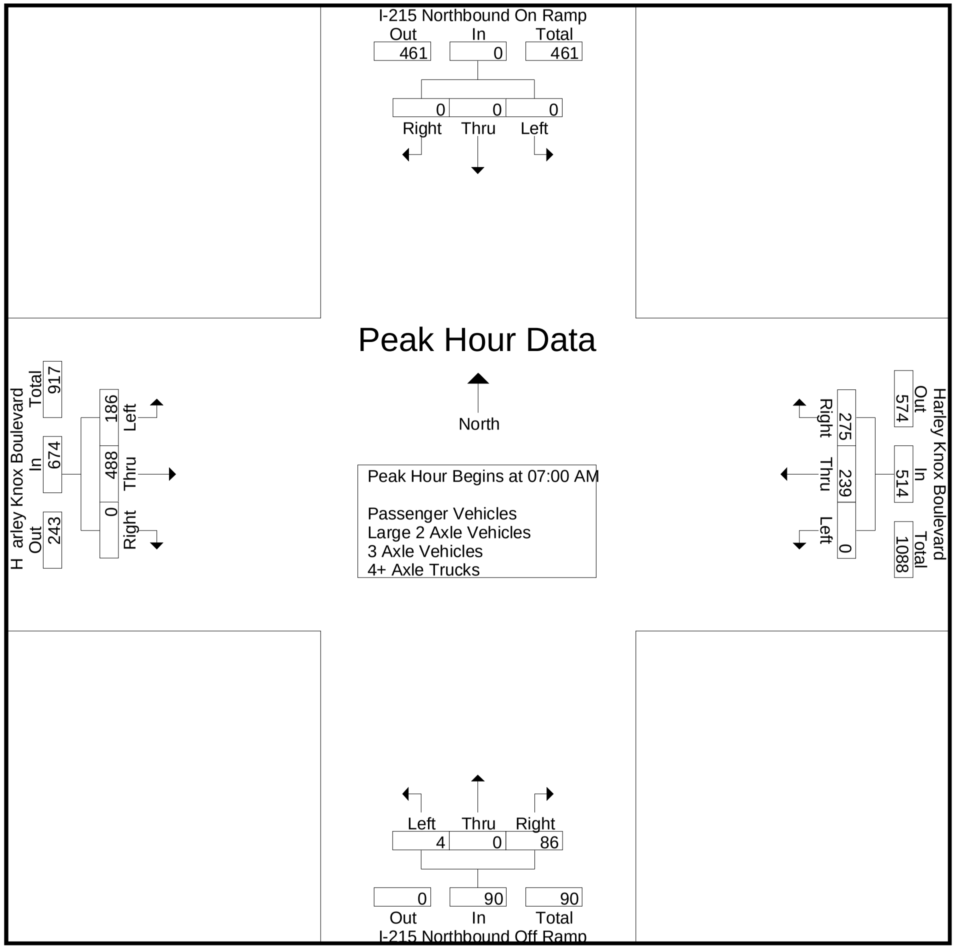

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	2	7	1	9	0	0	2	2	2	2	4	0	0	6	3	17
07:15 AM	0	0	0	0	0	0	2	2	1	4	0	0	2	2	2	2	3	0	0	5	3	11
07:30 AM	0	0	0	0	0	0	3	3	0	6	0	0	0	0	0	0	7	0	0	7	0	13
07:45 AM	0	0	0	0	0	0	6	6	2	12	0	0	0	0	0	0	4	0	0	4	2	16
Total	0	0	0	0	0	0	13	18	4	31	0	0	4	4	4	4	18	0	0	22	8	57
08:00 AM	0	0	0	0	0	0	6	3	0	9	0	0	1	1	1	2	5	0	0	7	1	17
08:15 AM	0	0	0	0	0	0	1	6	1	7	0	0	0	0	0	0	6	0	0	6	1	13
08:30 AM	0	0	0	0	0	0	2	4	1	6	0	0	0	0	0	1	4	0	0	5	1	11
08:45 AM	0	0	0	0	0	0	1	8	1	9	0	0	1	1	1	1	9	0	0	10	2	20
Total	0	0	0	0	0	0	10	21	3	31	0	0	2	2	2	4	24	0	0	28	5	61
Grand Total	0	0	0	0	0	0	23	39	7	62	0	0	6	6	6	8	42	0	0	50	13	118
Apprch %	0	0	0			0	37.1	62.9			0	0	100			16	84	0				
Total %	0	0	0		0	0	19.5	33.1		52.5	0	0	5.1		5.1	6.8	35.6	0		42.4	9.9	90.1

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	7	9	0	0	2	2	2	4	0	6	17
07:15 AM	0	0	0	0	0	2	2	4	0	0	2	2	2	3	0	5	11
07:30 AM	0	0	0	0	0	3	3	6	0	0	0	0	0	7	0	7	13
07:45 AM	0	0	0	0	0	6	6	12	0	0	0	0	0	4	0	4	16
Total Volume	0	0	0	0	0	13	18	31	0	0	4	4	4	18	0	22	57
% App. Total	0	0	0		0	41.9	58.1		0	0	100		18.2	81.8	0		
PHF	.000	.000	.000	.000	.000	.542	.643	.646	.000	.000	.500	.500	.500	.643	.000	.786	.838

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

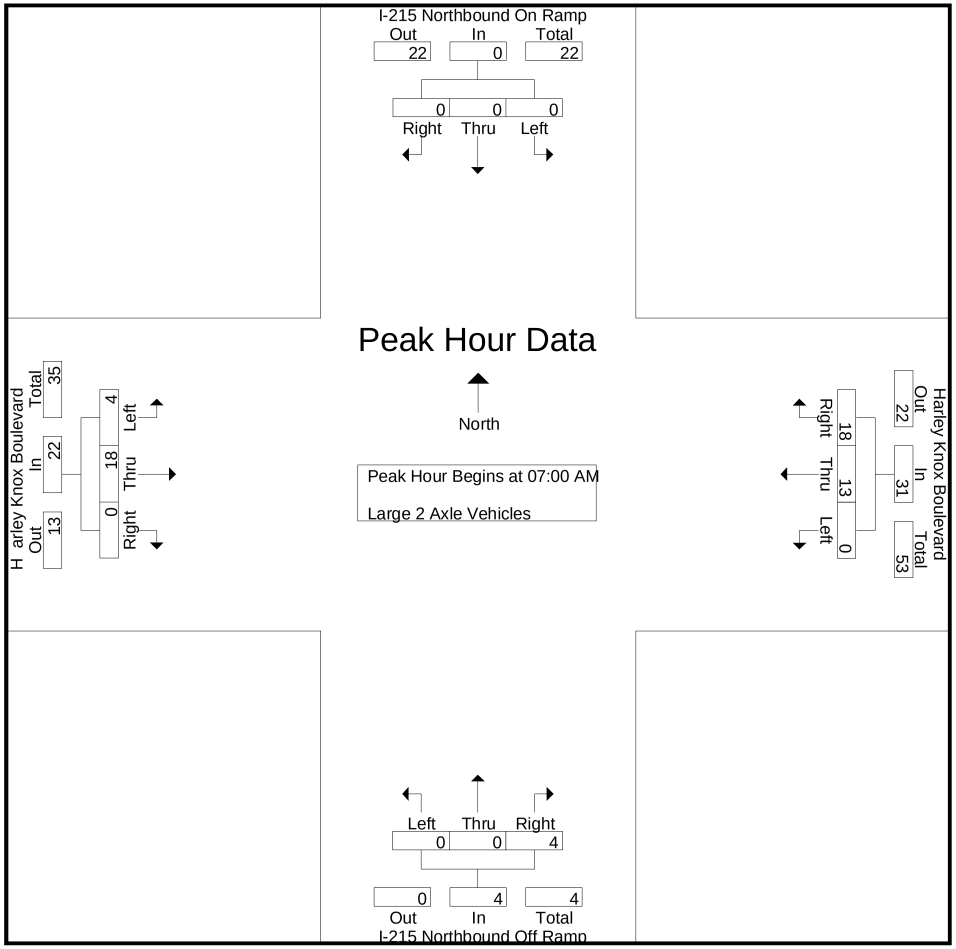

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	2	1	0	3	0	0	1	1	1	0	7	0	0	7	1	11
07:15 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	1	5	0	0	6	0	8
07:30 AM	0	0	0	0	0	0	1	4	0	5	0	0	0	0	0	0	2	0	0	2	0	7
07:45 AM	0	0	0	0	0	0	1	2	0	3	0	0	1	0	1	0	1	0	0	1	0	5
Total	0	0	0	0	0	0	5	8	0	13	0	0	2	1	2	1	15	0	0	16	1	31
08:00 AM	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	1	1	0	0	2	0	6
08:15 AM	0	0	0	0	0	0	0	1	1	1	1	0	1	1	2	0	4	0	0	4	2	7
08:30 AM	0	0	0	0	0	0	1	4	0	5	0	0	0	0	0	0	1	0	0	1	0	6
08:45 AM	0	0	0	0	0	0	1	1	0	2	0	0	1	1	1	0	10	0	0	10	1	13
Total	0	0	0	0	0	0	4	8	1	12	1	0	2	2	3	1	16	0	0	17	3	32
Grand Total	0	0	0	0	0	0	9	16	1	25	1	0	4	3	5	2	31	0	0	33	4	63
Apprch %	0	0	0			0	36	64			20	0	80			6.1	93.9	0				
Total %	0	0	0		0	0	14.3	25.4		39.7	1.6	0	6.3		7.9	3.2	49.2	0		52.4	6	94

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	1	3	0	0	1	1	0	7	0	7	11
07:15 AM	0	0	0	0	0	1	1	2	0	0	0	0	1	5	0	6	8
07:30 AM	0	0	0	0	0	1	4	5	0	0	0	0	0	2	0	2	7
07:45 AM	0	0	0	0	0	1	2	3	0	0	1	1	0	1	0	1	5
Total Volume	0	0	0	0	0	5	8	13	0	0	2	2	1	15	0	16	31
% App. Total	0	0	0		0	38.5	61.5		0	0	100		6.2	93.8	0		
PHF	.000	.000	.000	.000	.000	.625	.500	.650	.000	.000	.500	.500	.250	.536	.000	.571	.705

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

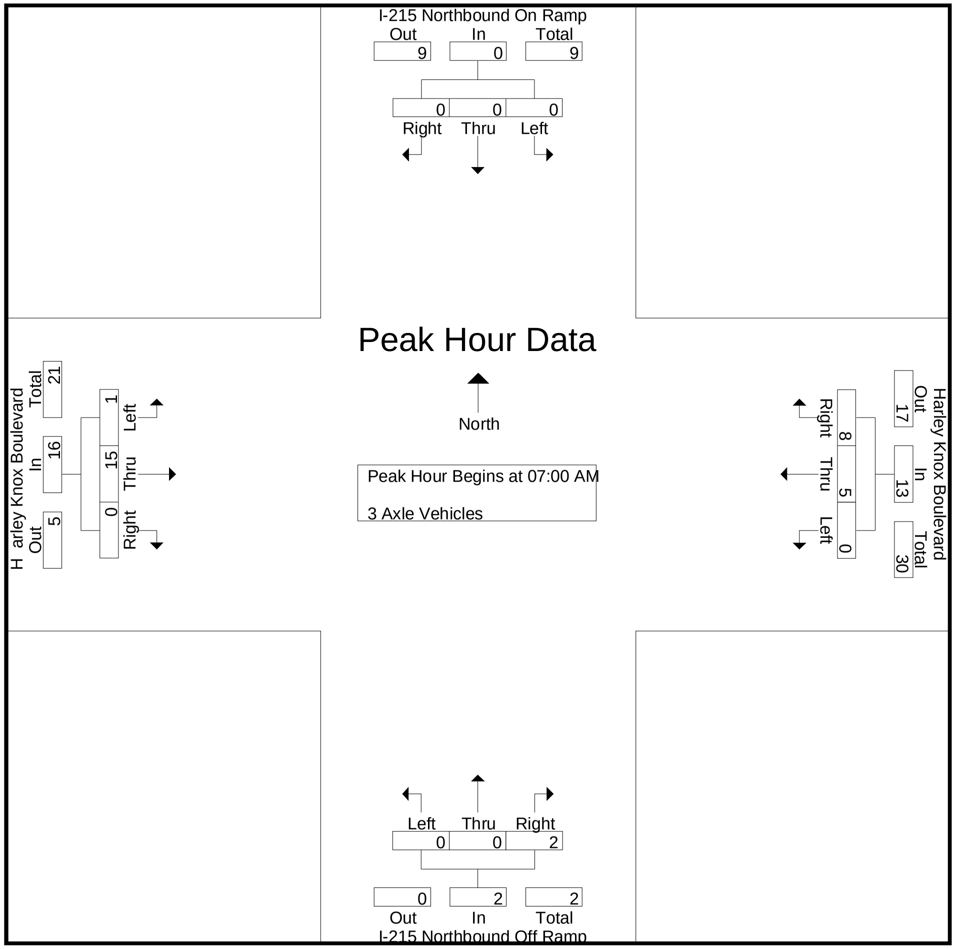

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	2	6	0	8	0	0	0	0	0	0	9	0	0	9	0	17
07:15 AM	0	0	0	0	0	0	2	2	0	4	0	0	2	2	2	1	12	0	0	13	2	19
07:30 AM	0	0	0	0	0	0	3	7	1	10	0	0	0	0	0	0	5	0	0	5	1	15
07:45 AM	0	0	0	0	0	0	4	6	1	10	0	0	1	1	1	6	8	0	0	14	2	25
Total	0	0	0	0	0	0	11	21	2	32	0	0	3	3	3	7	34	0	0	41	5	76
08:00 AM	0	0	0	0	0	0	3	7	2	10	0	0	1	1	1	0	5	0	0	5	3	16
08:15 AM	0	0	0	0	0	0	4	6	0	10	1	0	0	0	1	1	8	0	0	9	0	20
08:30 AM	0	0	0	0	0	0	3	10	0	13	1	0	2	2	3	5	8	0	0	13	2	29
08:45 AM	0	0	0	0	0	0	2	8	0	10	0	0	3	3	3	1	7	0	0	8	3	21
Total	0	0	0	0	0	0	12	31	2	43	2	0	6	6	8	7	28	0	0	35	8	86
Grand Total	0	0	0	0	0	0	23	52	4	75	2	0	9	9	11	14	62	0	0	76	13	162
Apprch %	0	0	0			0	30.7	69.3			18.2	0	81.8			18.4	81.6	0				
Total %	0	0	0		0	0	14.2	32.1		46.3	1.2	0	5.6		6.8	8.6	38.3	0		46.9	7.4	92.6

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	6	8	0	0	0	0	0	9	0	9	17
07:15 AM	0	0	0	0	0	2	2	4	0	0	2	2	1	12	0	13	19
07:30 AM	0	0	0	0	0	3	7	10	0	0	0	0	0	5	0	5	15
07:45 AM	0	0	0	0	0	4	6	10	0	0	1	1	6	8	0	14	25
Total Volume	0	0	0	0	0	11	21	32	0	0	3	3	7	34	0	41	76
% App. Total	0	0	0		0	34.4	65.6		0	0	100		17.1	82.9	0		
PHF	.000	.000	.000	.000	.000	.688	.750	.800	.000	.000	.375	.375	.292	.708	.000	.732	.760

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKAM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

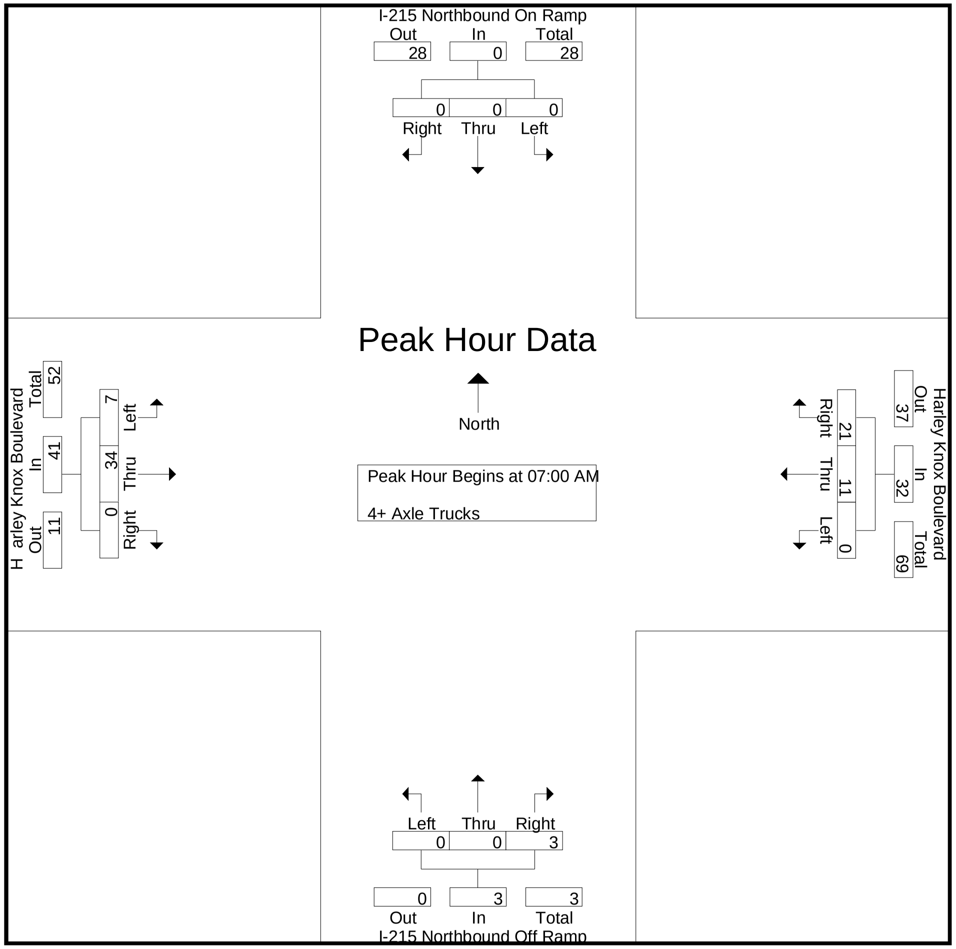

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	45	60	4	105	1	1	22	19	24	54	102	0	0	156	23	285
04:15 PM	0	0	0	0	0	0	49	81	5	130	4	0	18	18	22	53	114	0	0	167	23	319
04:30 PM	0	0	0	0	0	0	61	111	7	172	2	0	44	39	46	59	100	0	0	159	46	377
04:45 PM	0	0	0	0	0	0	67	115	6	182	0	0	23	21	23	49	103	0	0	152	27	357
Total	0	0	0	0	0	0	222	367	22	589	7	1	107	97	115	215	419	0	0	634	119	1338
05:00 PM	0	0	0	0	0	0	54	68	9	122	3	1	21	19	25	53	73	0	0	126	28	273
05:15 PM	0	0	0	0	0	0	41	51	7	92	2	0	16	15	18	47	84	0	0	131	22	241
05:30 PM	0	0	0	0	0	0	45	74	14	119	3	0	25	20	28	55	95	0	0	150	34	297
05:45 PM	0	0	0	0	0	0	34	52	4	86	1	1	21	21	23	43	79	0	0	122	25	231
Total	0	0	0	0	0	0	174	245	34	419	9	2	83	75	94	198	331	0	0	529	109	1042
Grand Total	0	0	0	0	0	0	396	612	56	1008	16	3	190	172	209	413	750	0	0	1163	228	2380
Apprch %	0	0	0			0	39.3	60.7			7.7	1.4	90.9			35.5	64.5	0				
Total %	0	0	0		0	0	16.6	25.7		42.4	0.7	0.1	8		8.8	17.4	31.5	0		48.9	8.7	91.3
Passenger Vehicles	0	0	0		0	0	368	539		959	13	2	174		349	387	660	0		1047	0	0
% Passenger Vehicles	0	0	0	0	0	0	92.9	88.1	92.9	90.1	81.2	66.7	91.6	93	91.6	93.7	88	0	0	90	0	0
Large 2 Axle Vehicles	0	0	0		0	0	5	19		25	1	0	4		9	5	13	0		18	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	1.3	3.1	1.8	2.3	6.2	0	2.1	2.3	2.4	1.2	1.7	0	0	1.5	0	0
3 Axle Vehicles	0	0	0		0	0	10	11		23	1	0	10		18	5	22	0		27	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	2.5	1.8	3.6	2.2	6.2	0	5.3	4.1	4.7	1.2	2.9	0	0	2.3	0	0
4+ Axle Trucks	0	0	0		0	0	13	43		57	1	1	2		5	16	55	0		71	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	3.3	7	1.8	5.4	6.2	33.3	1.1	0.6	1.3	3.9	7.3	0	0	6.1	0	0

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	45	60	105	1	1	22	24	54	102	0	156	285
04:15 PM	0	0	0	0	0	49	81	130	4	0	18	22	53	114	0	167	319
04:30 PM	0	0	0	0	0	61	111	172	2	0	44	46	59	100	0	159	377
04:45 PM	0	0	0	0	0	67	115	182	0	0	23	23	49	103	0	152	357
Total Volume	0	0	0	0	0	222	367	589	7	1	107	115	215	419	0	634	1338
% App. Total	0	0	0		0	37.7	62.3		6.1	0.9	93		33.9	66.1	0		
PHF	.000	.000	.000	.000	.000	.828	.798	.809	.438	.250	.608	.625	.911	.919	.000	.949	.887

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 2

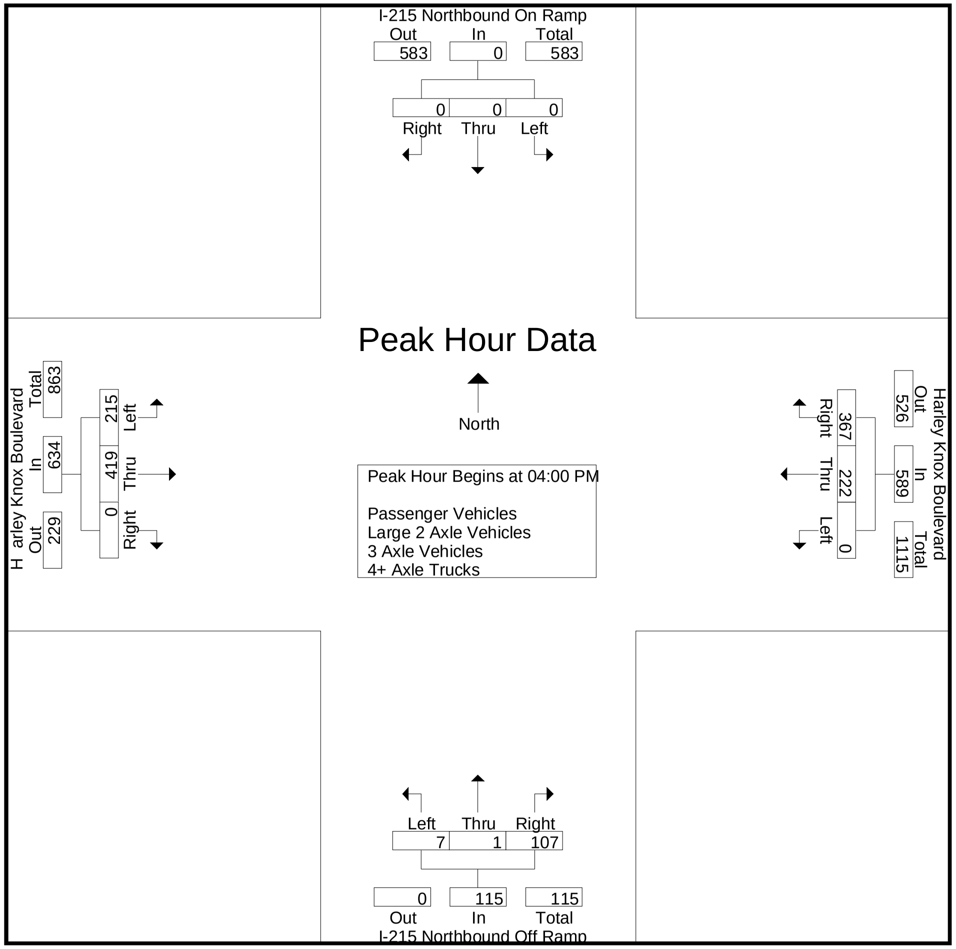

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City of Perris
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File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	I-215 Northbound On Ramp					Harley Knox Boulevard					I-215 Northbound Off Ramp					Harley Knox Boulevard						
	Southbound					Westbound					Northbound					Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	1	3	0	0	4	0	7
04:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	1	3	0	0	4	0	6
04:30 PM	0	0	0	0	0	0	1	2	1	3	0	0	3	3	3	0	0	0	0	0	4	6
04:45 PM	0	0	0	0	0	0	2	5	0	7	0	0	1	1	1	1	2	0	0	3	1	11
Total	0	0	0	0	0	0	4	11	1	15	0	0	4	4	4	3	8	0	0	11	5	30
05:00 PM	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	1	0	0	1	0	4
05:15 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	3	0	0	5	0	7
05:30 PM	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	0	0	1	0	3
Total	0	0	0	0	0	0	1	8	0	9	1	0	0	0	1	2	5	0	0	7	0	17
Grand Total	0	0	0	0	0	0	5	19	1	24	1	0	4	4	5	5	13	0	0	18	5	47
Apprch %	0	0	0			0	20.8	79.2			20	0	80			27.8	72.2	0				
Total %	0	0	0		0	0	10.6	40.4		51.1	2.1	0	8.5		10.6	10.6	27.7	0		38.3	9.6	90.4

	I-215 Northbound On Ramp				Harley Knox Boulevard				I-215 Northbound Off Ramp				Harley Knox Boulevard				
	Southbound				Westbound				Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	3	3	0	0	0	0	1	3	0	4	7
04:15 PM	0	0	0	0	0	1	1	2	0	0	0	0	1	3	0	4	6
04:30 PM	0	0	0	0	0	1	2	3	0	0	3	3	0	0	0	0	6
04:45 PM	0	0	0	0	0	2	5	7	0	0	1	1	1	2	0	3	11
Total Volume	0	0	0	0	0	4	11	15	0	0	4	4	3	8	0	11	30
% App. Total	0	0	0		0	26.7	73.3		0	0	100		27.3	72.7	0		
PHF	.000	.000	.000	.000	.000	.500	.550	.536	.000	.000	.333	.333	.750	.667	.000	.688	.682

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
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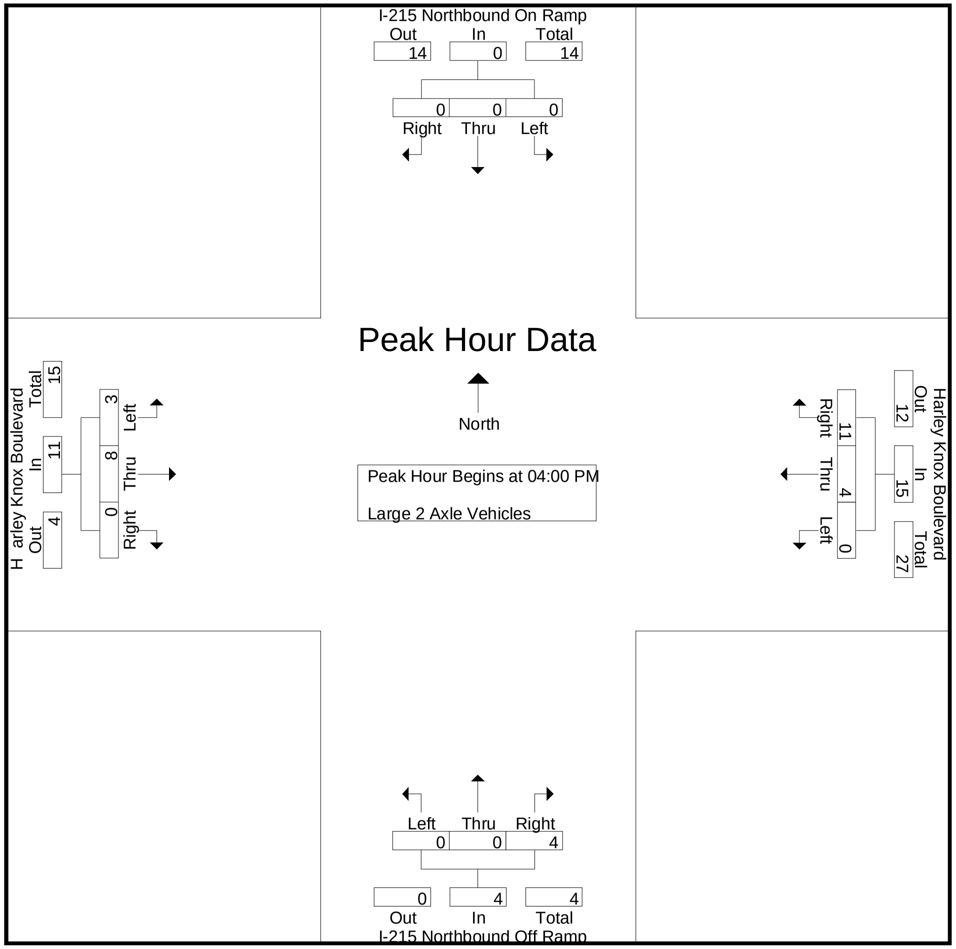

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
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File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	5	0	0	5	0	0	2	2	2	0	2	0	0	2	2	9
04:15 PM	0	0	0	0	0	0	1	2	1	3	0	0	0	0	0	1	3	0	0	4	1	7
04:30 PM	0	0	0	0	0	0	1	1	0	2	1	0	1	1	2	3	2	0	0	5	1	9
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	2
Total	0	0	0	0	0	0	7	3	1	10	1	0	4	3	5	4	8	0	0	12	4	27
05:00 PM	0	0	0	0	0	0	3	3	0	6	0	0	2	2	2	1	2	0	0	3	2	11
05:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	1	1	1	0	5	0	0	5	1	7
05:30 PM	0	0	0	0	0	0	0	3	1	3	0	0	3	1	3	0	4	0	0	4	2	10
05:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	3	0	0	3	0	4
Total	0	0	0	0	0	0	3	8	1	11	0	0	6	4	6	1	14	0	0	15	5	32
Grand Total	0	0	0	0	0	0	10	11	2	21	1	0	10	7	11	5	22	0	0	27	9	59
Apprch %	0	0	0			0	47.6	52.4			9.1	0	90.9			18.5	81.5	0				
Total %	0	0	0		0	0	16.9	18.6		35.6	1.7	0	16.9		18.6	8.5	37.3	0		45.8	13.2	86.8

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	5	0	5	0	0	2	2	0	2	0	2	9
04:15 PM	0	0	0	0	0	1	2	3	0	0	0	0	1	3	0	4	7
04:30 PM	0	0	0	0	0	1	1	2	1	0	1	2	3	2	0	5	9
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	2
Total Volume	0	0	0	0	0	7	3	10	1	0	4	5	4	8	0	12	27
% App. Total	0	0	0		0	70	30		20	0	80		33.3	66.7	0		
PHF	.000	.000	.000	.000	.000	.350	.375	.500	.250	.000	.500	.625	.333	.667	.000	.600	.750

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
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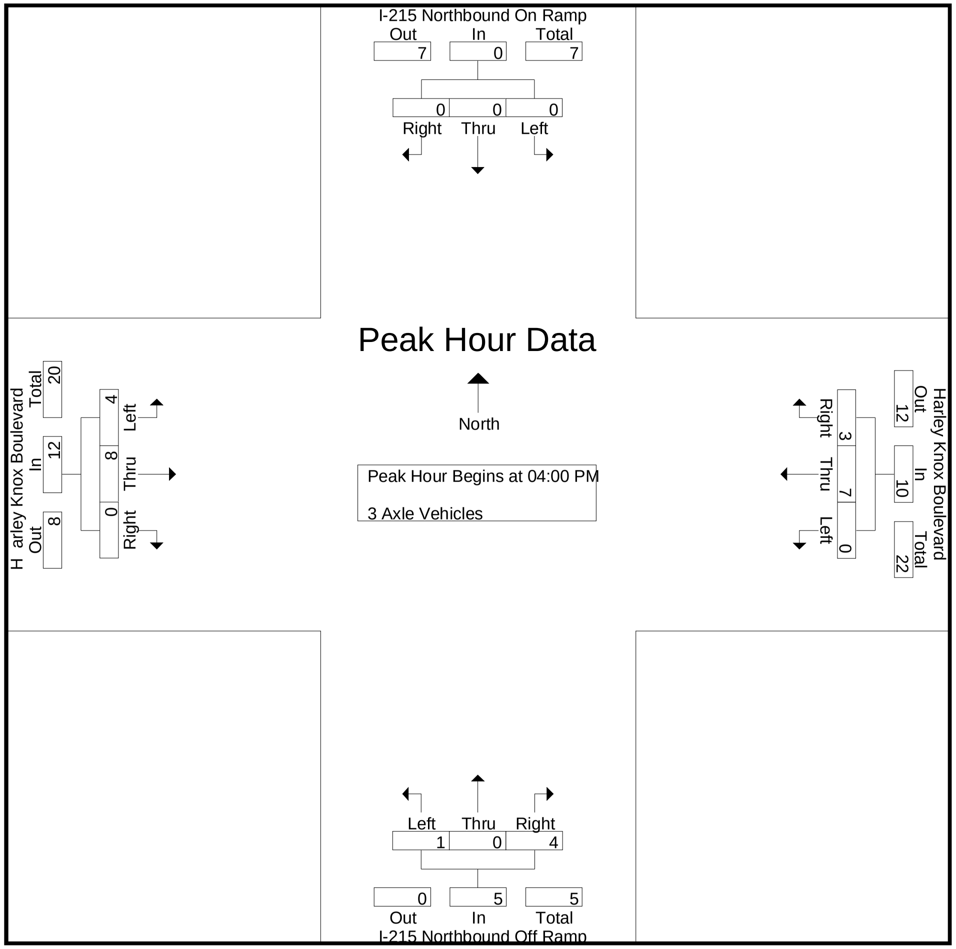

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City of Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Road
Weather: Clear

File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
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Groups Printed- 4+ Axle Trucks

	I-215 Northbound On Ramp Southbound					Harley Knox Boulevard Westbound					I-215 Northbound Off Ramp Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	5	4	0	9	0	0	1	0	1	3	7	0	0	10	0	20
04:15 PM	0	0	0	0	0	0	3	8	1	11	0	0	0	0	0	3	7	0	0	10	1	21
04:30 PM	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	4	8	0	0	12	0	15
04:45 PM	0	0	0	0	0	0	1	9	0	10	0	0	0	0	0	0	7	0	0	7	0	17
Total	0	0	0	0	0	0	10	23	1	33	0	0	1	0	1	10	29	0	0	39	1	73
05:00 PM	0	0	0	0	0	0	1	5	0	6	1	1	0	0	2	1	8	0	0	9	0	17
05:15 PM	0	0	0	0	0	0	1	6	0	7	0	0	1	1	1	0	7	0	0	7	1	15
05:30 PM	0	0	0	0	0	0	1	4	0	5	0	0	0	0	0	2	6	0	0	8	0	13
05:45 PM	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	3	5	0	0	8	0	13
Total	0	0	0	0	0	0	3	20	0	23	1	1	1	1	3	6	26	0	0	32	1	58
Grand Total	0	0	0	0	0	0	13	43	1	56	1	1	2	1	4	16	55	0	0	71	2	131
Apprch %	0	0	0			0	23.2	76.8			25	25	50			22.5	77.5	0				
Total %	0	0	0		0	0	9.9	32.8		42.7	0.8	0.8	1.5		3.1	12.2	42	0		54.2	1.5	98.5

	I-215 Northbound On Ramp Southbound				Harley Knox Boulevard Westbound				I-215 Northbound Off Ramp Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	5	4	9	0	0	1	1	3	7	0	10	20
04:15 PM	0	0	0	0	0	3	8	11	0	0	0	0	3	7	0	10	21
04:30 PM	0	0	0	0	0	1	2	3	0	0	0	0	4	8	0	12	15
04:45 PM	0	0	0	0	0	1	9	10	0	0	0	0	0	7	0	7	17
Total Volume	0	0	0	0	0	10	23	33	0	0	1	1	10	29	0	39	73
% App. Total	0	0	0		0	30.3	69.7		0	0	100		25.6	74.4	0		
PHF	.000	.000	.000	.000	.000	.500	.639	.750	.000	.000	.250	.250	.625	.906	.000	.813	.869

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City of Perris
N/S: I-215 Northbound Ramps
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File Name : PER215NHKPM
Site Code : 05115195
Start Date : 4/14/2015
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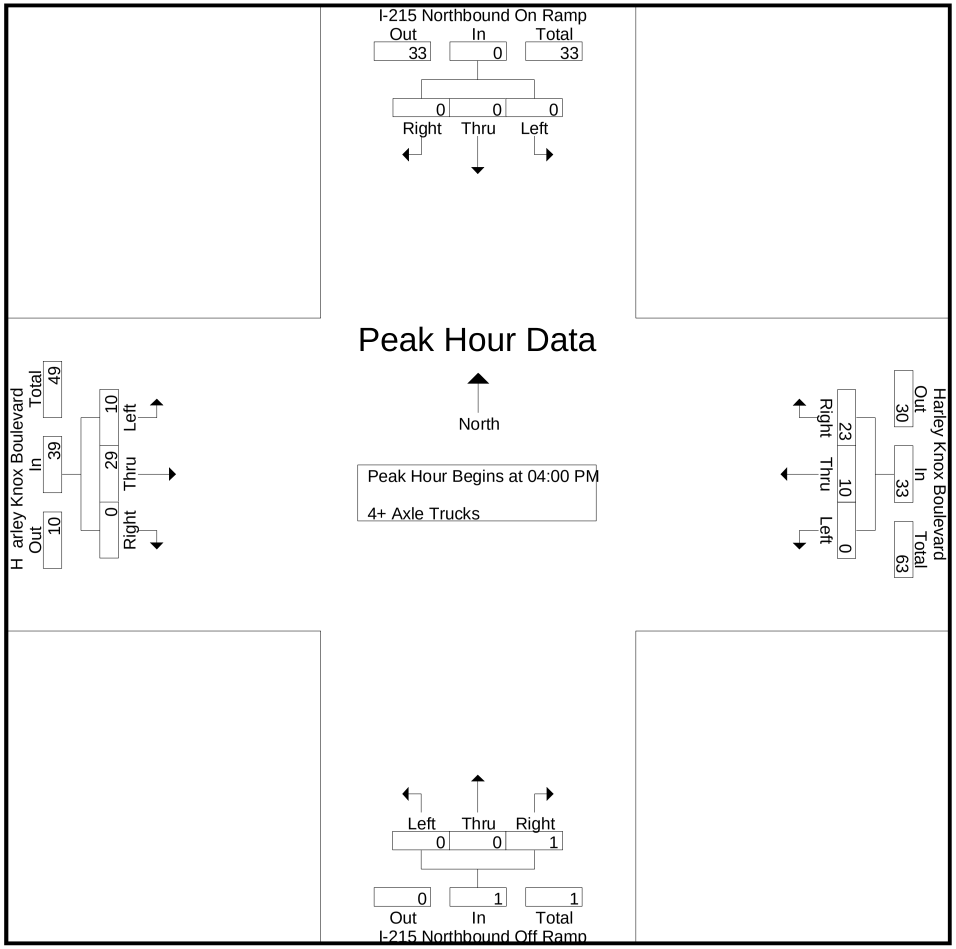

Location: Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard

Date: 4/14/2015
Weather: Clear

PEDESTRIANS

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Location: Perris
N/S: I-215 Northbound Ramps
E/W: Harley Knox Boulevard

Date: 4/14/2015
Weather: Clear

BICYCLES

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Northbound Ramps	East Leg Harley Knox Boulevard	South Leg I-215 Northbound Ramps	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Moreno Valley
N/S: Elsworth Street
E/W: Cactus Avenue
Weather: Clear

File Name : MRVELCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	15	28	23	16	66	27	356	14	2	397	10	3	2	2	15	30	240	62	26	332	46	810	856
07:15 AM	18	29	28	10	75	30	374	20	1	424	9	3	8	8	20	50	297	61	21	408	40	927	967
07:30 AM	22	24	20	8	66	28	360	27	2	415	14	7	9	9	30	39	340	52	29	431	48	942	990
07:45 AM	18	33	29	16	80	19	344	18	3	381	18	9	2	1	29	41	314	55	12	410	32	900	932
Total	73	114	100	50	287	104	1434	79	8	1617	51	22	21	20	94	160	1191	230	88	1581	166	3579	3745
08:00 AM	7	14	17	10	38	13	256	20	1	289	10	3	5	5	18	41	239	37	5	317	21	662	683
08:15 AM	13	15	27	17	55	17	228	25	3	270	18	2	4	4	24	50	244	36	7	330	31	679	710
08:30 AM	30	5	19	17	54	6	191	31	3	228	11	4	13	12	28	27	198	24	13	249	45	559	604
08:45 AM	10	6	21	14	37	10	192	21	5	223	7	10	10	5	27	23	150	16	5	189	29	476	505
Total	60	40	84	58	184	46	867	97	12	1010	46	19	32	26	97	141	831	113	30	1085	126	2376	2502
Grand Total	133	154	184	108	471	150	2301	176	20	2627	97	41	53	46	191	301	2022	343	118	2666	292	5955	6247
Apprch %	28.2	32.7	39.1			5.7	87.6	6.7			50.8	21.5	27.7			11.3	75.8	12.9					
Total %	2.2	2.6	3.1		7.9	2.5	38.6	3		44.1	1.6	0.7	0.9		3.2	5.1	34	5.8		44.8	4.7	95.3	
Passenger Vehicles	125	151	175		556	150	2233	170		2572	96	41	53		236	292	1917	339		2665	0	0	6029
% Passenger Vehicles	94	98.1	95.1	97.2	96	100	97	96.6	95	97.2	99	100	100	100	99.6	97	94.8	98.8	99.2	95.7	0	0	96.5
Large 2 Axle Vehicles	6	2	7		17	0	22	4		27	1	0	0		1	7	33	4		45	0	0	90
% Large 2 Axle Vehicles	4.5	1.3	3.8	1.9	2.9	0	1	2.3	5	1	1	0	0	0	0.4	2.3	1.6	1.2	0.8	1.6	0	0	1.4
3 Axle Vehicles	1	1	2		5	0	11	1		12	0	0	0		0	1	9	0		10	0	0	27
% 3 Axle Vehicles	0.8	0.6	1.1	0.9	0.9	0	0.5	0.6	0	0.5	0	0	0	0	0	0.3	0.4	0	0	0.4	0	0	0.4
4+ Axle Trucks	1	0	0		1	0	35	1		36	0	0	0		0	1	63	0		64	0	0	101
% 4+ Axle Trucks	0.8	0	0	0	0.2	0	1.5	0.6	0	1.4	0	0	0	0	0	0.3	3.1	0	0	2.3	0	0	1.6

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	15	28	23	66	27	356	14	397	10	3	2	15	30	240	**62**	332	810
07:15 AM	18	29	28	75	**30**	**374**	20	**424**	9	3	8	20	**50**	297	61	408	927
07:30 AM	**22**	24	20	66	28	360	**27**	415	14	7	**9**	**30**	39	**340**	52	**431**	**942**
07:45 AM	18	**33**	**29**	**80**	19	344	18	381	**18**	**9**	2	29	41	314	55	410	900
Total Volume	73	114	100	287	104	1434	79	1617	51	22	21	94	160	1191	230	1581	3579
% App. Total	25.4	39.7	34.8		6.4	88.7	4.9		54.3	23.4	22.3		10.1	75.3	14.5		
PHF	.830	.864	.862	.897	.867	.959	.731	.953	.708	.611	.583	.783	.800	.876	.927	.917	.950

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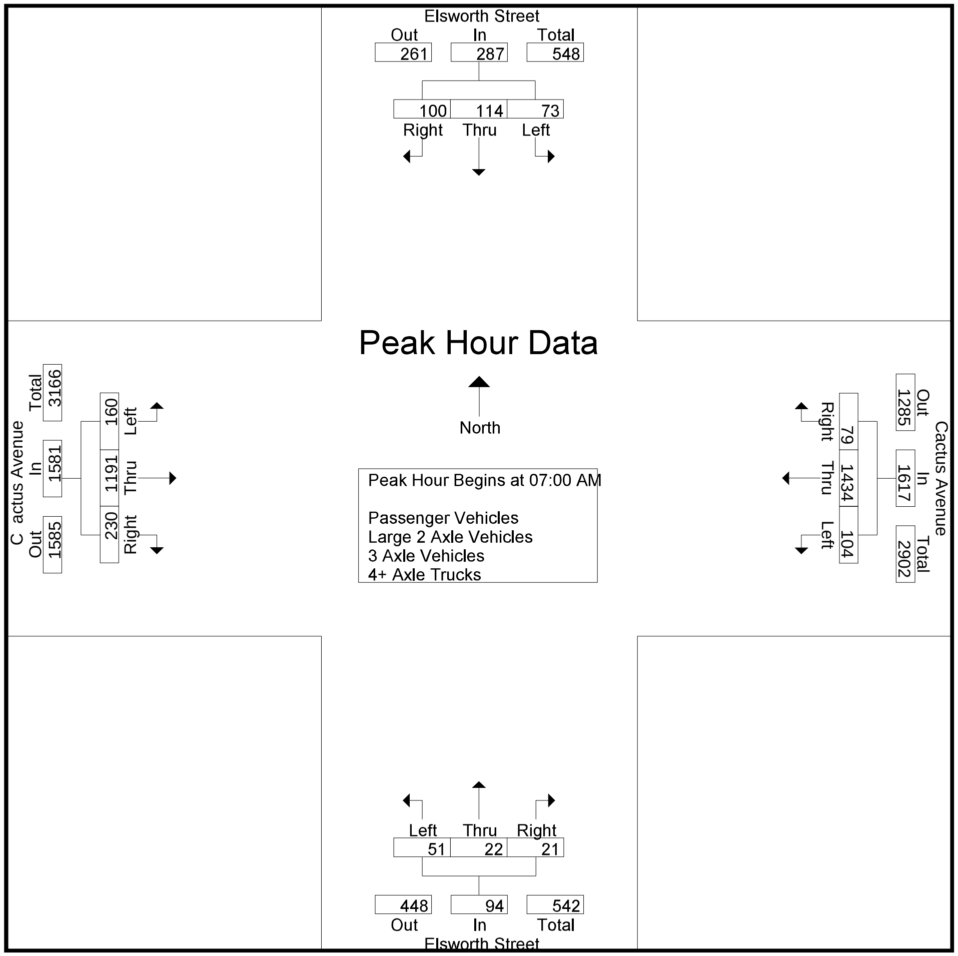

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Groups Printed- Large 2 Axle Vehicles

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	6	0	0	7	0	8	8
07:15 AM	0	0	2	0	2	0	2	1	1	3	0	0	0	0	0	1	3	0	0	4	1	9	10
07:30 AM	2	2	0	0	4	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	0	12	12
07:45 AM	1	0	1	0	2	0	4	0	0	4	0	0	0	0	0	1	1	1	1	3	1	9	10
Total	3	2	3	0	8	0	9	1	1	10	0	0	0	0	0	3	16	1	1	20	2	38	40
08:00 AM	1	0	3	1	4	0	3	1	0	4	0	0	0	0	0	0	3	3	0	6	1	14	15
08:15 AM	1	0	0	0	1	0	5	1	0	6	1	0	0	0	1	1	3	0	0	4	0	12	12
08:30 AM	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	1	6	0	0	7	0	11	11
08:45 AM	0	0	1	1	1	0	3	0	0	3	0	0	0	0	0	2	5	0	0	7	1	11	12
Total	3	0	4	2	7	0	13	3	0	16	1	0	0	0	1	4	17	3	0	24	2	48	50
Grand Total	6	2	7	2	15	0	22	4	1	26	1	0	0	0	1	7	33	4	1	44	4	86	90
Apprch %	40	13.3	46.7			0	84.6	15.4			100	0	0			15.9	75	9.1					
Total %	7	2.3	8.1		17.4	0	25.6	4.7		30.2	1.2	0	0		1.2	8.1	38.4	4.7		51.2	4.4	95.6	

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	**1**	**6**	0	**7**	8
07:15 AM	0	0	**2**	2	0	2	**1**	3	0	0	0	0	1	3	0	4	9
07:30 AM	**2**	**2**	0	**4**	0	2	0	2	0	0	0	0	0	6	0	6	**12**
07:45 AM	1	0	1	2	0	**4**	0	**4**	0	0	0	0	1	1	**1**	3	9
Total Volume	3	2	3	8	0	9	1	10	0	0	0	0	3	16	1	20	38
% App. Total	37.5	25	37.5		0	90	10		0	0	0		15	80	5		
PHF	.375	.250	.375	.500	.000	.563	.250	.625	.000	.000	.000	.000	.750	.667	.250	.714	.792

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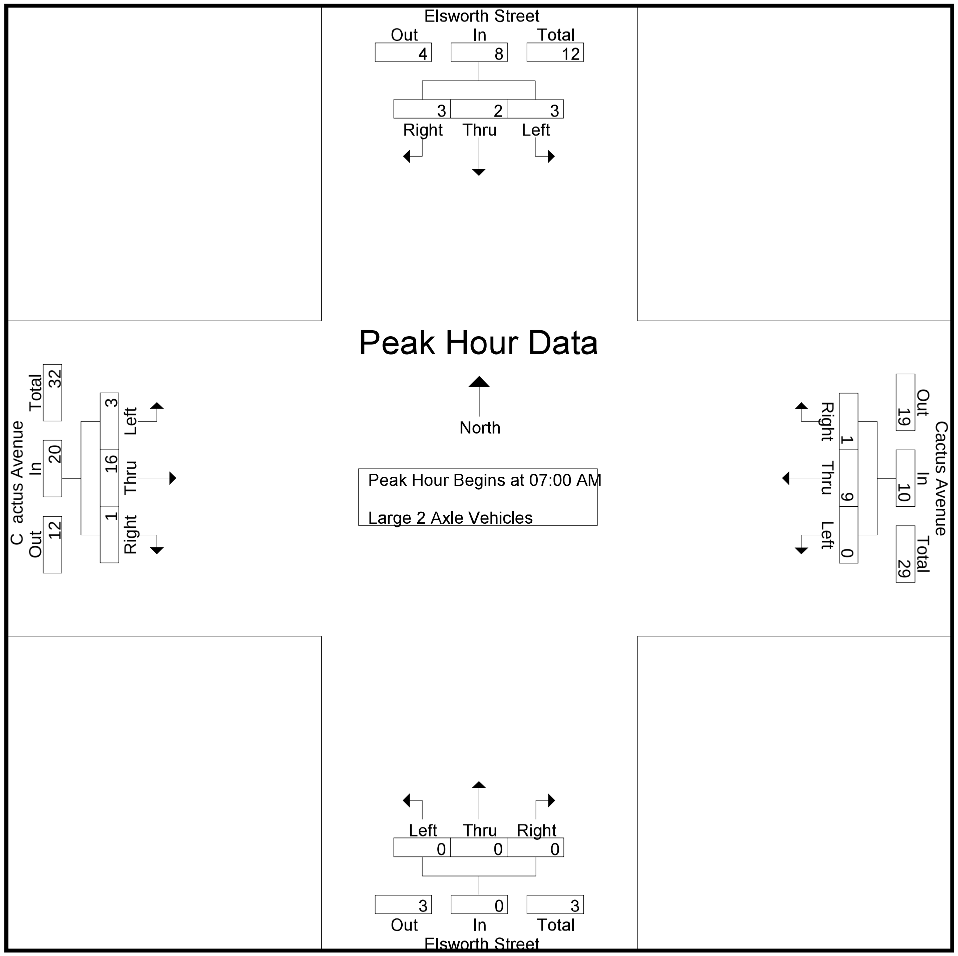

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Groups Printed- 3 Axle Vehicles

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	3	3
07:15 AM	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	3
07:30 AM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	1	0	0	1	0	6	6
07:45 AM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	3	4
Total	0	1	2	1	3	0	6	1	0	7	0	0	0	0	0	1	4	0	0	5	1	15	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	3
08:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
08:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:45 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	1	0	0	0	1	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	0	11	11
Grand Total	1	1	2	1	4	0	11	1	0	12	0	0	0	0	0	1	9	0	0	10	1	26	27
Apprch %	25	25	50			0	91.7	8.3			0	0	0			10	90	0					
Total %	3.8	3.8	7.7		15.4	0	42.3	3.8		46.2	0	0	0		0	3.8	34.6	0		38.5	3.7	96.3	

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	**1**	**1**	0	**2**	3
07:15 AM	0	**1**	**1**	**2**	0	0	0	0	0	0	0	0	0	1	0	1	3
07:30 AM	0	0	0	0	0	**4**	**1**	**5**	0	0	0	0	0	1	0	1	**6**
07:45 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
Total Volume	0	1	2	3	0	6	1	7	0	0	0	0	1	4	0	5	15
% App. Total	0	33.3	66.7		0	85.7	14.3		0	0	0		20	80	0		
PHF	.000	.250	.500	.375	.000	.375	.250	.350	.000	.000	.000	.000	.250	1.00	.000	.625	.625

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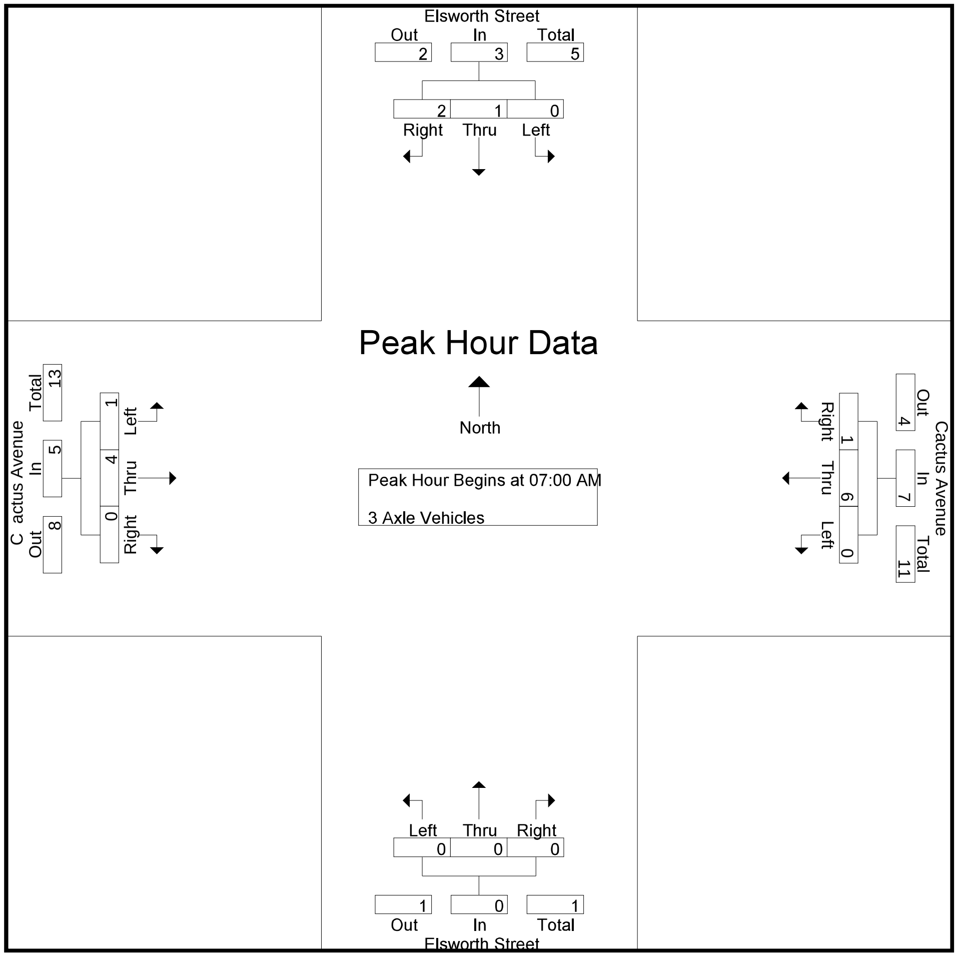

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City of Moreno Valley
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File Name : MRVELCAAM
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Groups Printed- 4+ Axle Trucks

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	10	0	0	10	0	11	11
07:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
07:30 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	0	16	16
07:45 AM	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	1	9	0	0	10	0	17	17
Total	1	0	0	0	1	0	15	0	0	15	0	0	0	0	0	1	31	0	0	32	0	48	48
08:00 AM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	6	0	0	6	0	14	14
08:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	12	0	0	12	0	15	15
08:30 AM	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	8	0	0	8	0	14	14
08:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	0	10	10
Total	0	0	0	0	0	0	20	1	0	21	0	0	0	0	0	0	32	0	0	32	0	53	53
Grand Total	1	0	0	0	1	0	35	1	0	36	0	0	0	0	0	1	63	0	0	64	0	101	101
Apprch %	100	0	0			0	97.2	2.8			0	0	0			1.6	98.4	0					
Total %	1	0	0		1	0	34.7	1		35.6	0	0	0		0	1	62.4	0		63.4	0	100	

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**10**	0	**10**	11
07:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
07:30 AM	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	10	0	10	16
07:45 AM	**1**	0	0	**1**	0	6	0	6	0	0	0	0	**1**	9	0	10	**17**
Total Volume	1	0	0	1	0	15	0	15	0	0	0	0	1	31	0	32	48
% App. Total	100	0	0		0	100	0		0	0	0		3.1	96.9	0		
PHF	.250	.000	.000	.250	.000	.625	.000	.625	.000	.000	.000	.000	.250	.775	.000	.800	.706

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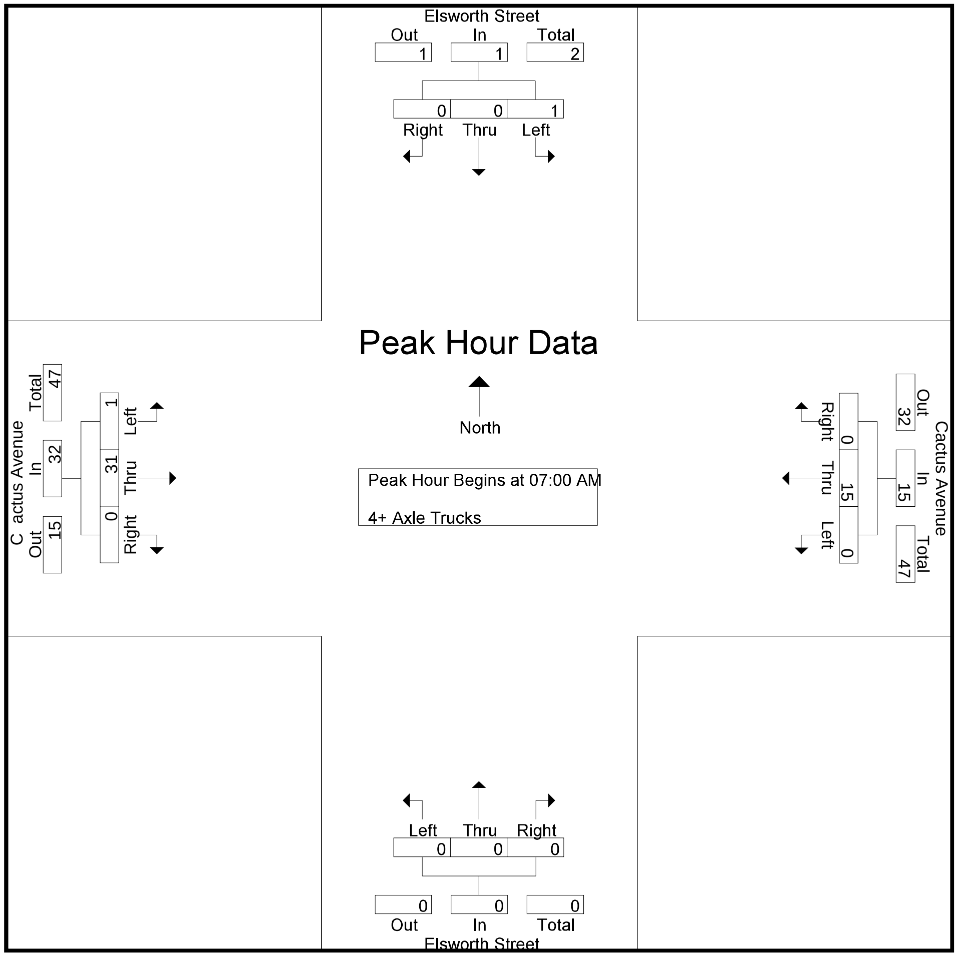

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	22	4	52	35	78	8	232	20	11	260	124	26	70	24	220	26	291	9	5	326	75	884	959
04:15 PM	33	7	38	19	78	9	253	20	12	282	110	24	30	6	164	35	313	5	3	353	40	877	917
04:30 PM	20	4	50	32	74	0	276	16	1	292	70	21	40	15	131	16	332	6	3	354	51	851	902
04:45 PM	24	5	25	18	54	7	292	18	6	317	62	24	41	7	127	18	287	3	2	308	33	806	839
Total	99	20	165	104	284	24	1053	74	30	1151	366	95	181	52	642	95	1223	23	13	1341	199	3418	3617
05:00 PM	44	6	41	30	91	5	250	21	6	276	39	17	30	15	86	32	369	0	0	401	51	854	905
05:15 PM	33	5	33	27	71	5	236	14	4	255	26	17	11	8	54	26	384	4	1	414	40	794	834
05:30 PM	40	4	37	26	81	5	251	13	4	269	28	7	22	14	57	29	401	4	2	434	46	841	887
05:45 PM	38	4	25	11	67	10	233	19	2	262	20	8	4	4	32	28	395	5	1	428	18	789	807
Total	155	19	136	94	310	25	970	67	16	1062	113	49	67	41	229	115	1549	13	4	1677	155	3278	3433
Grand Total	254	39	301	198	594	49	2023	141	46	2213	479	144	248	93	871	210	2772	36	17	3018	354	6696	7050
Apprch %	42.8	6.6	50.7			2.2	91.4	6.4			55	16.5	28.5			7	91.8	1.2					
Total %	3.8	0.6	4.5		8.9	0.7	30.2	2.1		33	7.2	2.2	3.7		13	3.1	41.4	0.5		45.1	5	95	
Passenger Vehicles	251	38	294		777	46	1971	140		2202	479	143	247		961	206	2719	36		2978	0	0	6918
% Passenger Vehicles	98.8	97.4	97.7	98	98.1	93.9	97.4	99.3	97.8	97.5	100	99.3	99.6	98.9	99.7	98.1	98.1	100	100	98.1	0	0	98.1
Large 2 Axle Vehicles	2	0	7		13	3	18	1		23	0	1	1		3	1	16	0		17	0	0	56
% Large 2 Axle Vehicles	0.8	0	2.3	2	1.6	6.1	0.9	0.7	2.2	1	0	0.7	0.4	1.1	0.3	0.5	0.6	0	0	0.6	0	0	0.8
3 Axle Vehicles	0	0	0		0	0	5	0		5	0	0	0		0	0	1	0		1	0	0	6
% 3 Axle Vehicles	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0.1
4+ Axle Trucks	1	1	0		2	0	29	0		29	0	0	0		0	3	36	0		39	0	0	70
% 4+ Axle Trucks	0.4	2.6	0	0	0.3	0	1.4	0	0	1.3	0	0	0	0	0	1.4	1.3	0	0	1.3	0	0	1

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	22	4	**52**	**78**	8	232	**20**	260	**124**	**26**	**70**	**220**	26	291	**9**	326	**884**
04:15 PM	**33**	**7**	38	78	**9**	253	20	282	110	24	30	164	**35**	313	5	353	877
04:30 PM	20	4	50	74	0	276	16	292	70	21	40	131	16	**332**	6	**354**	851
04:45 PM	24	5	25	54	7	**292**	18	**317**	62	24	41	127	18	287	3	308	806
Total Volume	99	20	165	284	24	1053	74	1151	366	95	181	642	95	1223	23	1341	3418
% App. Total	34.9	7	58.1		2.1	91.5	6.4		57	14.8	28.2		7.1	91.2	1.7		
PHF	.750	.714	.793	.910	.667	.902	.925	.908	.738	.913	.646	.730	.679	.921	.639	.947	.967

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City of Moreno Valley
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E/W: Cactus Avenue
Weather: Clear

File Name : MRVELCAPM
Site Code : 05115223
Start Date : 4/28/2015
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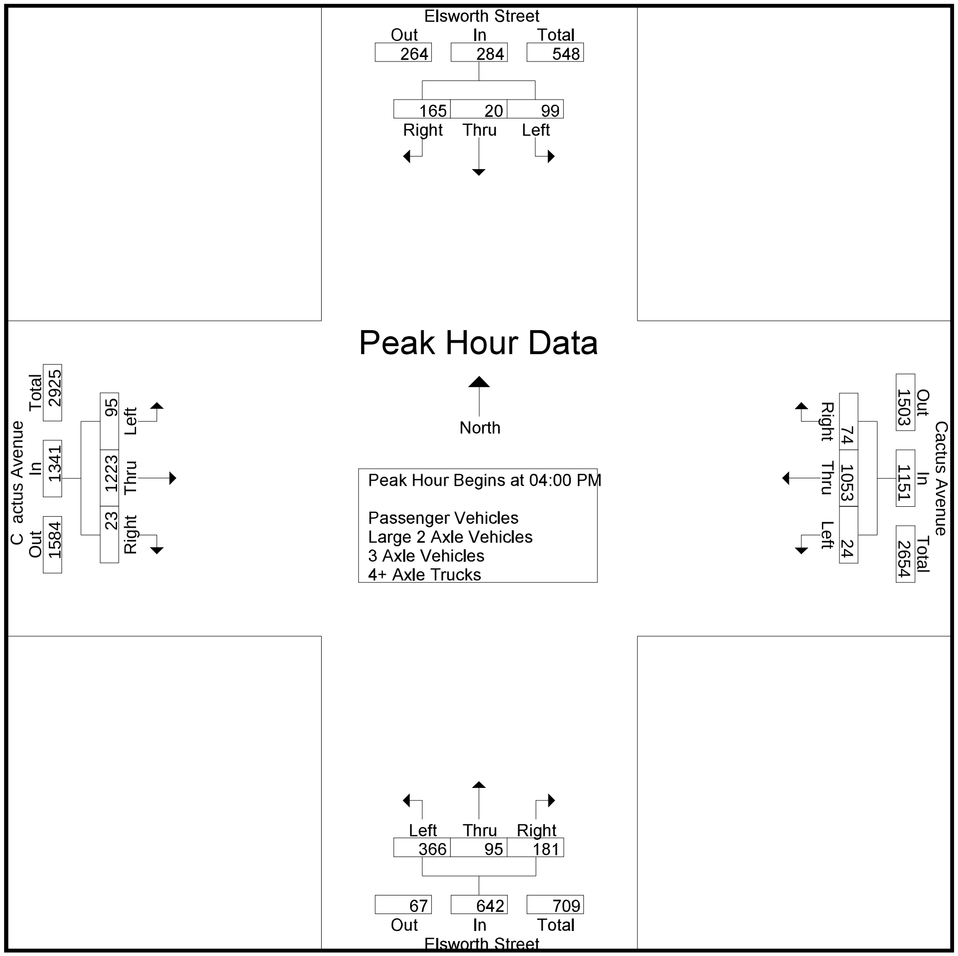

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Groups Printed- Large 2 Axle Vehicles

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	0	1	2	4	0	0	6	0	0	0	0	0	0	4	0	0	4	0	11	11
04:15 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	3	3
04:30 PM	1	0	3	3	4	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	3	8	11
04:45 PM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	3	4
Total	1	0	6	4	7	2	8	0	0	10	0	0	0	0	0	0	8	0	0	8	4	25	29
05:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	5	5
05:15 PM	0	0	0	0	0	0	1	1	1	2	0	1	0	0	1	0	5	0	0	5	1	8	9
05:30 PM	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	1	0	0	1	0	6	6
05:45 PM	1	0	1	0	2	0	1	0	0	1	0	0	1	1	1	1	1	0	0	2	1	6	7
Total	1	0	1	0	2	1	10	1	1	12	0	1	1	1	2	1	8	0	0	9	2	25	27
Grand Total	2	0	7	4	9	3	18	1	1	22	0	1	1	1	2	1	16	0	0	17	6	50	56
Apprch %	22.2	0	77.8			13.6	81.8	4.5			0	50	50			5.9	94.1	0					
Total %	4	0	14		18	6	36	2		44	0	2	2		4	2	32	0		34	10.7	89.3	

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	1	1	**2**	**4**	0	**6**	0	0	0	0	0	**4**	0	**4**	**11**
04:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
04:30 PM	**1**	0	**3**	**4**	0	2	0	2	0	0	0	0	0	2	0	2	8
04:45 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
Total Volume	1	0	6	7	2	8	0	10	0	0	0	0	0	8	0	8	25
% App. Total	14.3	0	85.7		20	80	0		0	0	0		0	100	0		
PHF	.250	.000	.500	.438	.250	.500	.000	.417	.000	.000	.000	.000	.000	.500	.000	.500	.568

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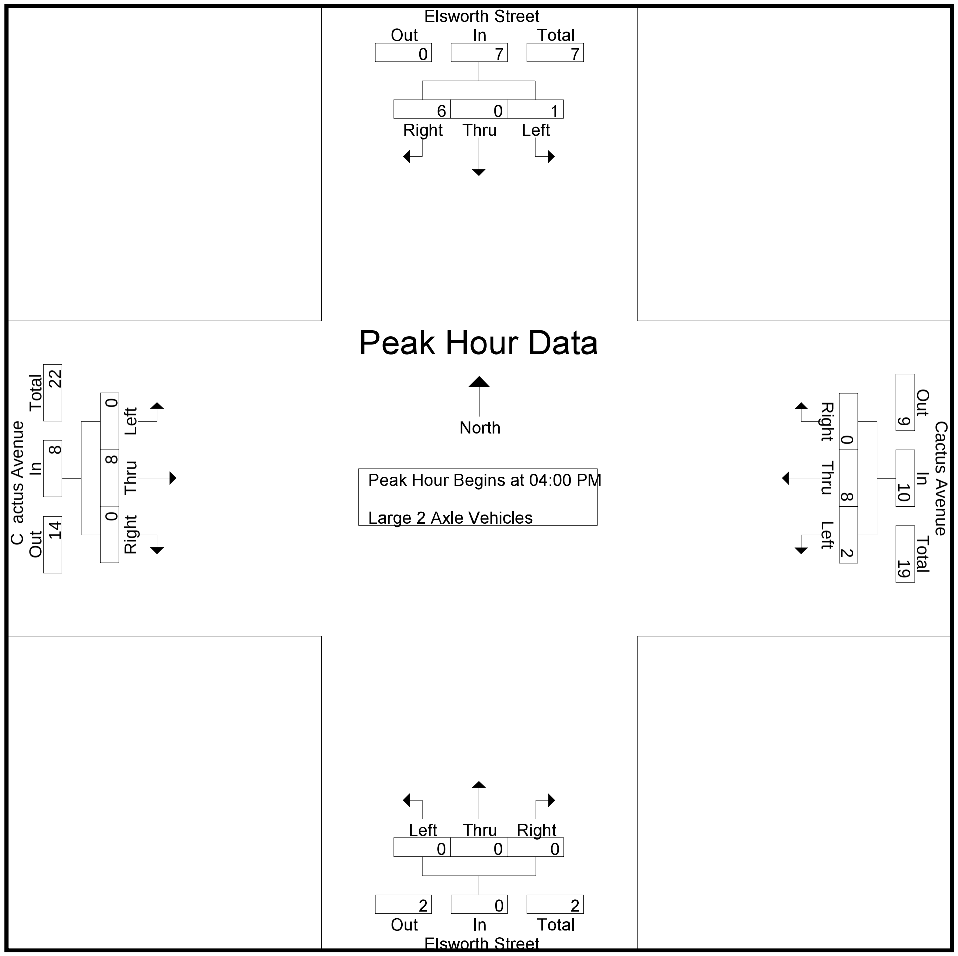

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Groups Printed- 3 Axle Vehicles

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	4	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Grand Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	6	6
Apprch %	0	0	0			0	100	0			0	0	0			0	100	0					
Total %	0	0	0		0	0	83.3	0		83.3	0	0	0		0	0	16.7	0		16.7	0	100	

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	**1**	0	**1**	**2**
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.250	.000	.250	.500

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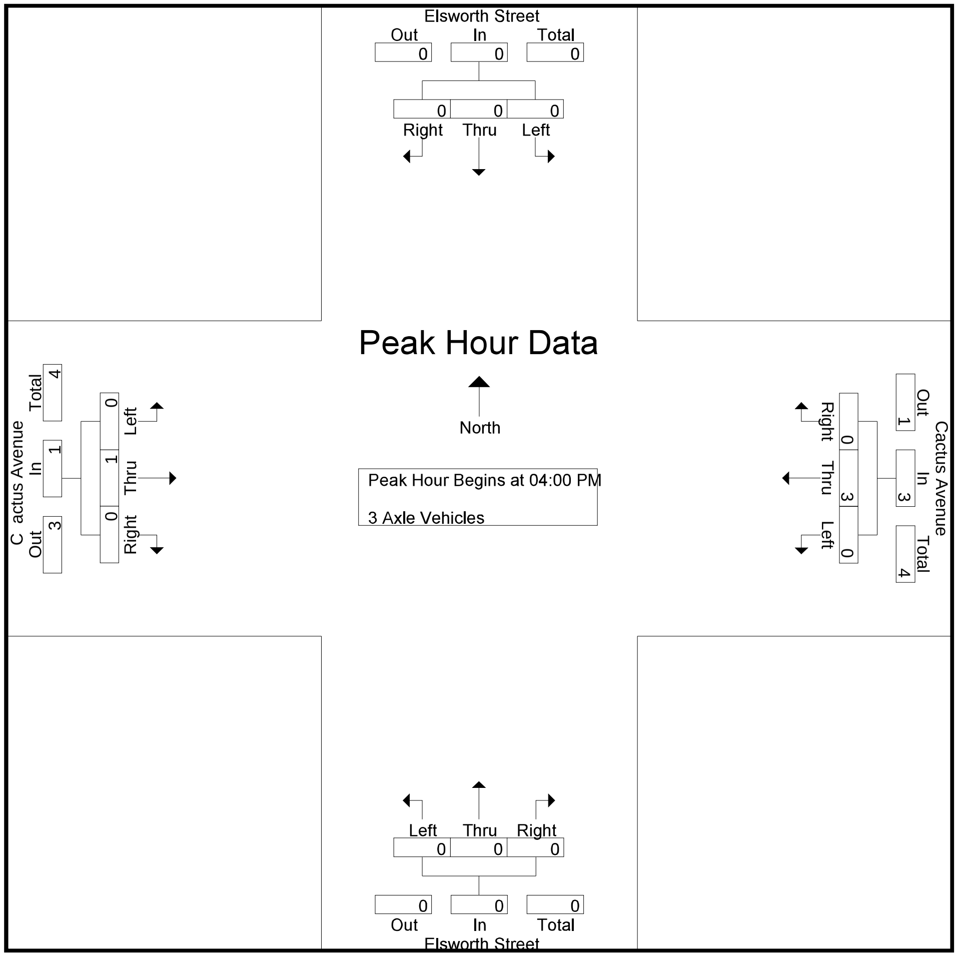

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File Name : MRVELCAPM
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Groups Printed- 4+ Axle Trucks

	Elsworth Street Southbound					Cactus Avenue Westbound					Elsworth Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	6	6
04:15 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	1	5	0	0	6	0	10	10
04:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	9	9
04:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	5	5
Total	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	1	17	0	0	18	0	30	30
05:00 PM	0	1	0	0	1	0	5	0	0	5	0	0	0	0	0	2	4	0	0	6	0	12	12
05:15 PM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	0	9	9
05:30 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	9	9
05:45 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	10	10
Total	1	1	0	0	2	0	17	0	0	17	0	0	0	0	0	2	19	0	0	21	0	40	40
Grand Total	1	1	0	0	2	0	29	0	0	29	0	0	0	0	0	3	36	0	0	39	0	70	70
Apprch %	50	50	0			0	100	0			0	0	0			7.7	92.3	0					
Total %	1.4	1.4	0		2.9	0	41.4	0		41.4	0	0	0		0	4.3	51.4	0		55.7	0	100	

	Elsworth Street Southbound				Cactus Avenue Westbound				Elsworth Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	4	0	4	6
04:15 PM	0	0	0	0	0	**4**	0	**4**	0	0	0	0	**1**	5	0	**6**	**10**
04:30 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	**6**	0	6	9
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
Total Volume	0	0	0	0	0	12	0	12	0	0	0	0	1	17	0	18	30
% App. Total	0	0	0		0	100	0		0	0	0		5.6	94.4	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.250	.708	.000	.750	.750

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N/S: Elsworth Street
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File Name : MRVELCAPM
Site Code : 05115223
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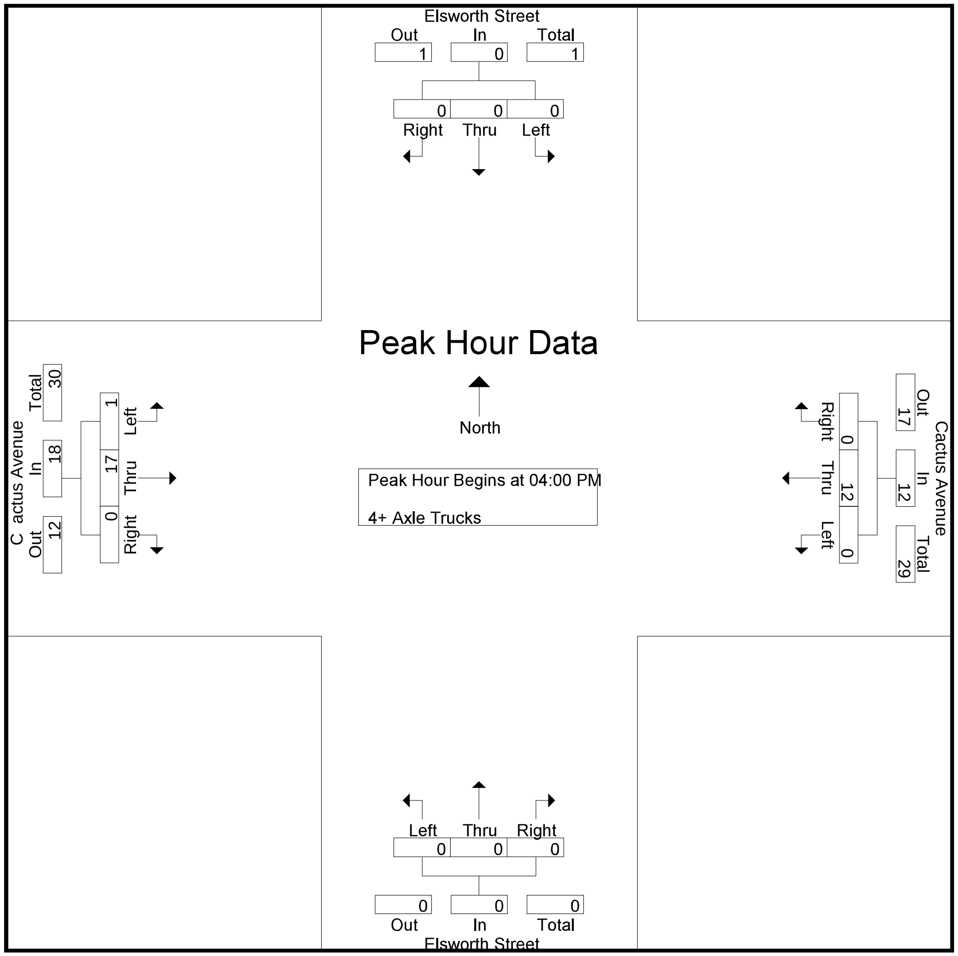

Location: Moreno Valley
N/S: Elsworth Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Elsworth Street	East Leg Cactus Avenue	South Leg Elsworth Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	1	1	0	2
8:15 AM	0	0	0	0	0
8:30 AM	1	0	0	1	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	1	1	1	4

	North Leg Elsworth Street	East Leg Cactus Avenue	South Leg Elsworth Street	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

Location: Moreno Valley
N/S: Elsworth Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Elsworth Street	East Leg Cactus Avenue	South Leg Elsworth Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	2	0	2
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	2	0	3

	North Leg Elsworth Street	East Leg Cactus Avenue	South Leg Elsworth Street	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	1	0	1
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	1	0	2

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City of Moreno Valley
N/S: Frederick Street
E/W: Cactus Avenue
Weather: Clear

File Name : MRVFRCAAM
Site Code : 05115223
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	28	5	2	33	401	17	0	418	38	216	0	254	2	705	707
07:15 AM	26	15	13	41	428	38	5	466	43	245	0	288	18	795	813
07:30 AM	36	21	16	57	426	46	2	472	44	280	0	324	18	853	871
07:45 AM	13	22	20	35	376	48	2	424	35	262	0	297	22	756	778
Total	103	63	51	166	1631	149	9	1780	160	1003	0	1163	60	3109	3169
08:00 AM	31	9	8	40	295	37	5	332	27	185	0	212	13	584	597
08:15 AM	32	17	15	49	267	30	2	297	32	216	0	248	17	594	611
08:30 AM	30	10	7	40	239	33	3	272	27	188	0	215	10	527	537
08:45 AM	21	10	10	31	219	38	0	257	19	156	0	175	10	463	473
Total	114	46	40	160	1020	138	10	1158	105	745	0	850	50	2168	2218
Grand Total	217	109	91	326	2651	287	19	2938	265	1748	0	2013	110	5277	5387
Apprch %	66.6	33.4			90.2	9.8			13.2	86.8					
Total %	4.1	2.1		6.2	50.2	5.4		55.7	5	33.1		38.1	2	98	
Passenger Vehicles	206	102		394	2597	277		2893	251	1669		1920	0	0	5207
% Passenger Vehicles	94.9	93.6	94.5	94.5	98	96.5	100	97.8	94.7	95.5	0	95.4	0	0	96.7
Large 2 Axle Vehicles	8	2		10	18	5		23	4	22		26	0	0	59
% Large 2 Axle Vehicles	3.7	1.8	0	2.4	0.7	1.7	0	0.8	1.5	1.3	0	1.3	0	0	1.1
3 Axle Vehicles	2	1		4	7	1		8	1	8		9	0	0	21
% 3 Axle Vehicles	0.9	0.9	1.1	1	0.3	0.3	0	0.3	0.4	0.5	0	0.4	0	0	0.4
4+ Axle Trucks	1	4		9	29	4		33	9	49		58	0	0	100
% 4+ Axle Trucks	0.5	3.7	4.4	2.2	1.1	1.4	0	1.1	3.4	2.8	0	2.9	0	0	1.9

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	28	5	33	401	17	418	38	216	254	705
07:15 AM	26	15	41	**428**	38	466	43	245	288	795
07:30 AM	**36**	21	**57**	426	46	**472**	**44**	**280**	**324**	**853**
07:45 AM	13	**22**	35	376	**48**	424	35	262	297	756
Total Volume	103	63	166	1631	149	1780	160	1003	1163	3109
% App. Total	62	38		91.6	8.4		13.8	86.2		
PHF	.715	.716	.728	.953	.776	.943	.909	.896	.897	.911

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File Name : MRVFRCAAM
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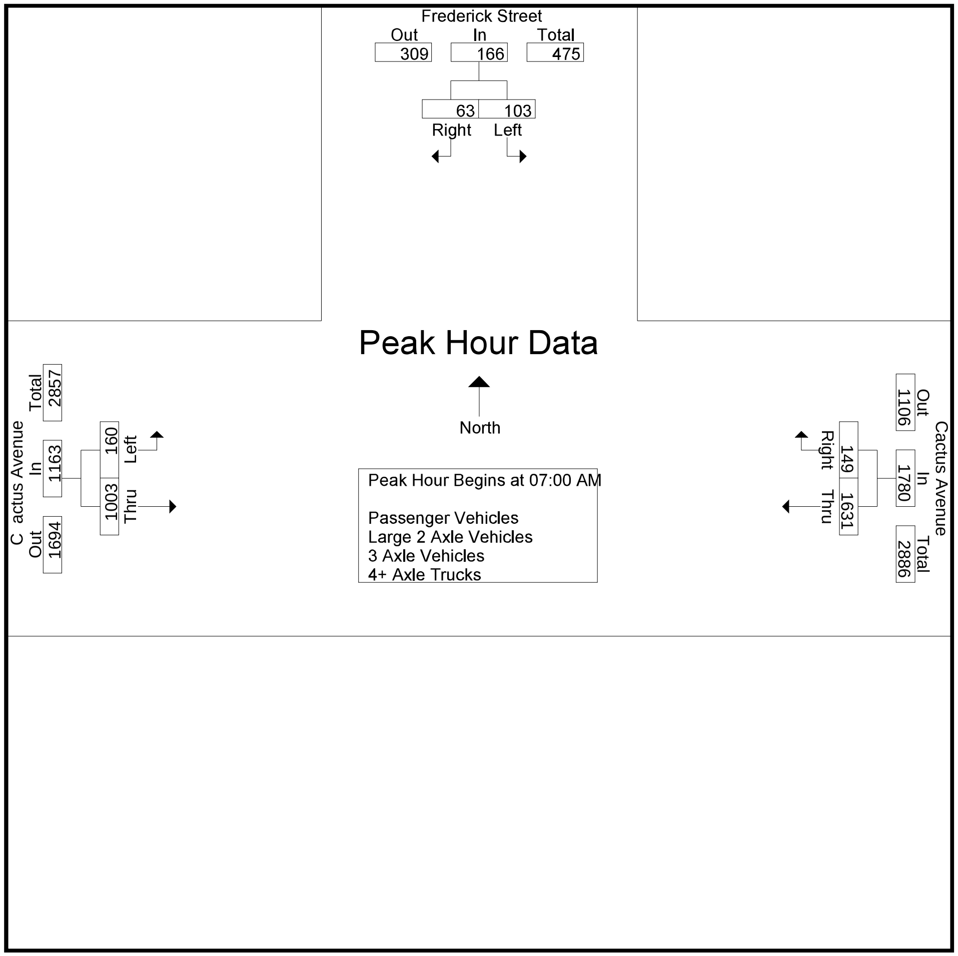

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Groups Printed- Large 2 Axle Vehicles

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	1	0	2	2	1	0	3	2	3	0	5	0	10	10
07:15 AM	3	0	0	3	1	1	0	2	0	1	0	1	0	6	6
07:30 AM	0	0	0	0	1	1	0	2	0	4	0	4	0	6	6
07:45 AM	0	0	0	0	3	1	0	4	0	1	0	1	0	5	5
Total	4	1	0	5	7	4	0	11	2	9	0	11	0	27	27
08:00 AM	2	0	0	2	3	0	0	3	0	2	0	2	0	7	7
08:15 AM	1	1	0	2	2	1	0	3	0	3	0	3	0	8	8
08:30 AM	1	0	0	1	3	0	0	3	1	3	0	4	0	8	8
08:45 AM	0	0	0	0	3	0	0	3	1	5	0	6	0	9	9
Total	4	1	0	5	11	1	0	12	2	13	0	15	0	32	32
Grand Total	8	2	0	10	18	5	0	23	4	22	0	26	0	59	59
Apprch %	80	20			78.3	21.7			15.4	84.6					
Total %	13.6	3.4		16.9	30.5	8.5		39	6.8	37.3		44.1	0	100	

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	**1**	2	2	**1**	3	**2**	3	**5**	**10**
07:15 AM	**3**	0	**3**	1	1	2	0	1	1	6
07:30 AM	0	0	0	1	1	2	0	**4**	4	6
07:45 AM	0	0	0	**3**	1	**4**	0	1	1	5
Total Volume	4	1	5	7	4	11	2	9	11	27
% App. Total	80	20		63.6	36.4		18.2	81.8		
PHF	.333	.250	.417	.583	1.00	.688	.250	.563	.550	.675

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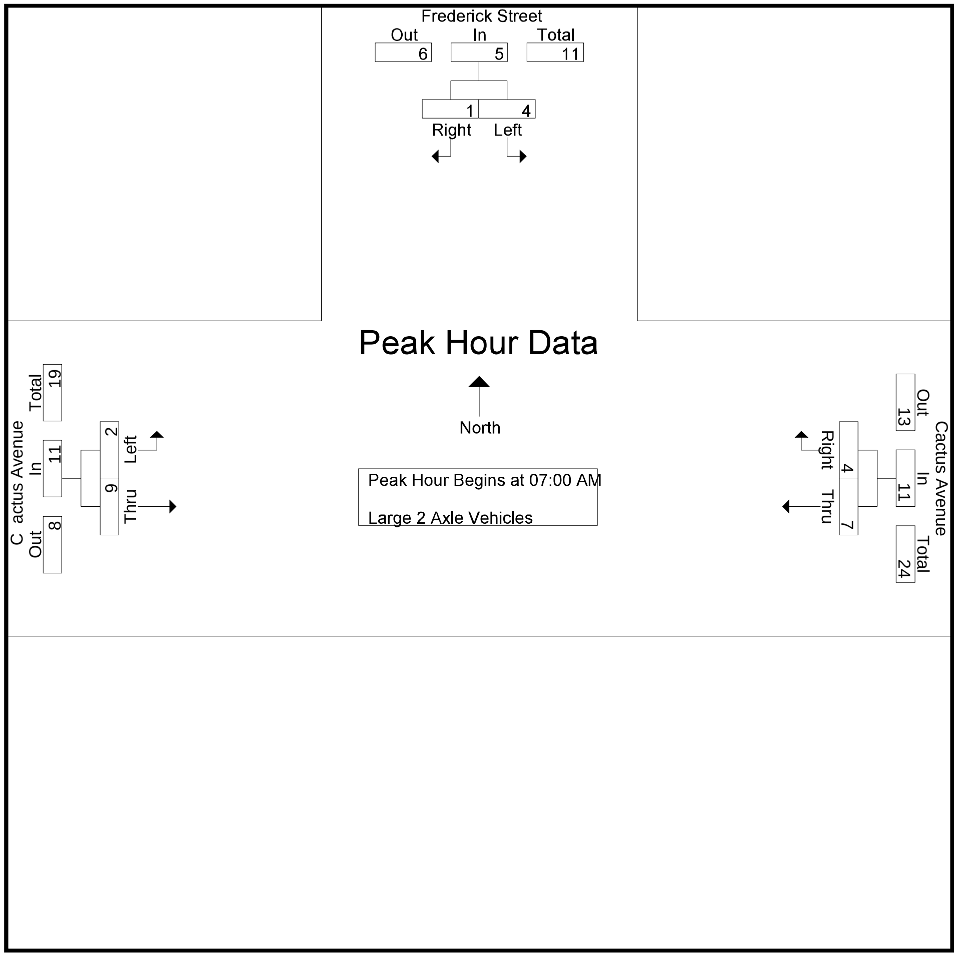

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Groups Printed- 3 Axle Vehicles

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	0	1	1	0	0	1	1	0	0	1	0	3	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	2	1	0	3	0	1	0	1	0	4	4
07:45 AM	0	0	0	0	1	0	0	1	0	1	0	1	0	2	2
Total	1	0	0	1	4	1	0	5	1	2	0	3	0	9	9
08:00 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	3	3
08:15 AM	0	1	1	1	1	0	0	1	0	1	0	1	1	3	4
08:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
08:45 AM	1	0	0	1	1	0	0	1	0	2	0	2	0	4	4
Total	1	1	1	2	3	0	0	3	0	6	0	6	1	11	12
Grand Total	2	1	1	3	7	1	0	8	1	8	0	9	1	20	21
Apprch %	66.7	33.3			87.5	12.5			11.1	88.9					
Total %	10	5		15	35	5		40	5	40		45	4.8	95.2	

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	0	**1**	1	0	1	**1**	0	**1**	3
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	**2**	**1**	**3**	0	**1**	1	**4**
07:45 AM	0	0	0	1	0	1	0	1	1	2
Total Volume	1	0	1	4	1	5	1	2	3	9
% App. Total	100	0		80	20		33.3	66.7		
PHF	.250	.000	.250	.500	.250	.417	.250	.500	.750	.563

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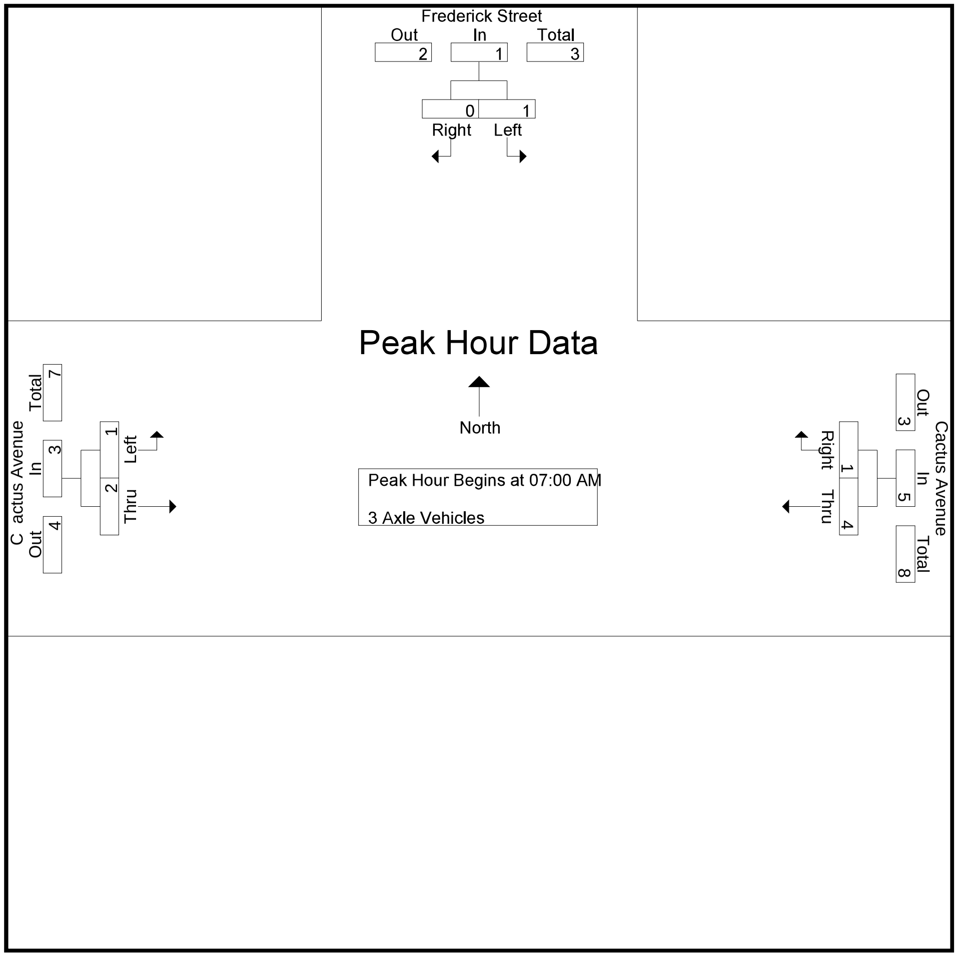

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Groups Printed- 4+ Axle Trucks

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	1	0	0	1	3	5	0	8	0	9	9
07:15 AM	0	1	1	1	2	1	0	3	0	3	0	3	1	7	8
07:30 AM	0	0	0	0	5	1	0	6	2	8	0	10	0	16	16
07:45 AM	0	1	1	1	4	0	0	4	1	8	0	9	1	14	15
Total	0	2	2	2	12	2	0	14	6	24	0	30	2	46	48
08:00 AM	0	0	0	0	8	1	0	9	0	5	0	5	0	14	14
08:15 AM	0	1	1	1	1	1	0	2	2	10	0	12	1	15	16
08:30 AM	1	1	1	2	4	0	0	4	1	6	0	7	1	13	14
08:45 AM	0	0	0	0	4	0	0	4	0	4	0	4	0	8	8
Total	1	2	2	3	17	2	0	19	3	25	0	28	2	50	52
Grand Total	1	4	4	5	29	4	0	33	9	49	0	58	4	96	100
Apprch %	20	80			87.9	12.1			15.5	84.5					
Total %	1	4.2		5.2	30.2	4.2		34.4	9.4	51		60.4	4	96	

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	1	0	1	**3**	5	8	9
07:15 AM	0	**1**	**1**	2	**1**	3	0	3	3	7
07:30 AM	0	0	0	**5**	1	**6**	2	**8**	**10**	**16**
07:45 AM	0	1	1	4	0	4	1	8	9	14
Total Volume	0	2	2	12	2	14	6	24	30	46
% App. Total	0	100		85.7	14.3		20	80		
PHF	.000	.500	.500	.600	.500	.583	.500	.750	.750	.719

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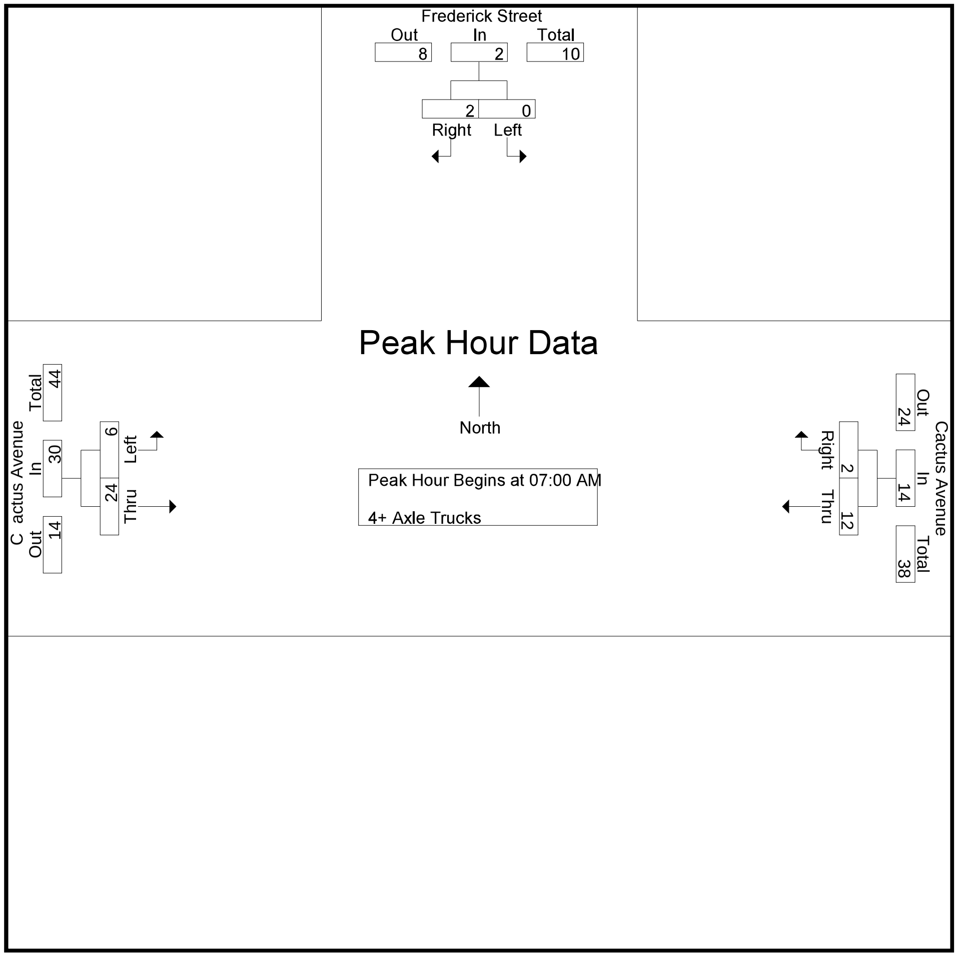

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	60	14	7	74	248	40	4	288	11	367	0	378	11	740	751
04:15 PM	56	17	13	73	245	35	2	280	14	358	0	372	15	725	740
04:30 PM	79	34	27	113	226	34	1	260	17	354	0	371	28	744	772
04:45 PM	59	18	10	77	285	30	1	315	20	374	0	394	11	786	797
Total	254	83	57	337	1004	139	8	1143	62	1453	0	1515	65	2995	3060
05:00 PM	88	36	23	124	229	55	6	284	14	410	0	424	29	832	861
05:15 PM	73	17	12	90	227	31	1	258	19	426	0	445	13	793	806
05:30 PM	85	16	11	101	218	40	1	258	22	418	0	440	12	799	811
05:45 PM	75	24	20	99	222	35	0	257	26	455	0	481	20	837	857
Total	321	93	66	414	896	161	8	1057	81	1709	0	1790	74	3261	3335
Grand Total	575	176	123	751	1900	300	16	2200	143	3162	0	3305	139	6256	6395
Apprch %	76.6	23.4			86.4	13.6			4.3	95.7					
Total %	9.2	2.8		12	30.4	4.8		35.2	2.3	50.5		52.8	2.2	97.8	
Passenger Vehicles	561	164		845	1858	291		2165	132	3124		3256	0	0	6266
% Passenger Vehicles	97.6	93.2	97.6	96.7	97.8	97	100	97.7	92.3	98.8	0	98.5	0	0	98
Large 2 Axle Vehicles	6	4		11	16	6		22	2	10		12	0	0	45
% Large 2 Axle Vehicles	1	2.3	0.8	1.3	0.8	2	0	1	1.4	0.3	0	0.4	0	0	0.7
3 Axle Vehicles	2	2		5	4	0		4	0	1		1	0	0	10
% 3 Axle Vehicles	0.3	1.1	0.8	0.6	0.2	0	0	0.2	0	0	0	0	0	0	0.2
4+ Axle Trucks	6	6		13	22	3		25	9	27		36	0	0	74
% 4+ Axle Trucks	1	3.4	0.8	1.5	1.2	1	0	1.1	6.3	0.9	0	1.1	0	0	1.2

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**88**	**36**	**124**	**229**	**55**	**284**	14	410	424	832
05:15 PM	73	17	90	227	31	258	19	426	445	793
05:30 PM	85	16	101	218	40	258	22	418	440	799
05:45 PM	75	24	99	222	35	257	**26**	**455**	**481**	**837**
Total Volume	321	93	414	896	161	1057	81	1709	1790	3261
% App. Total	77.5	22.5		84.8	15.2		4.5	95.5		
PHF	.912	.646	.835	.978	.732	.930	.779	.939	.930	.974

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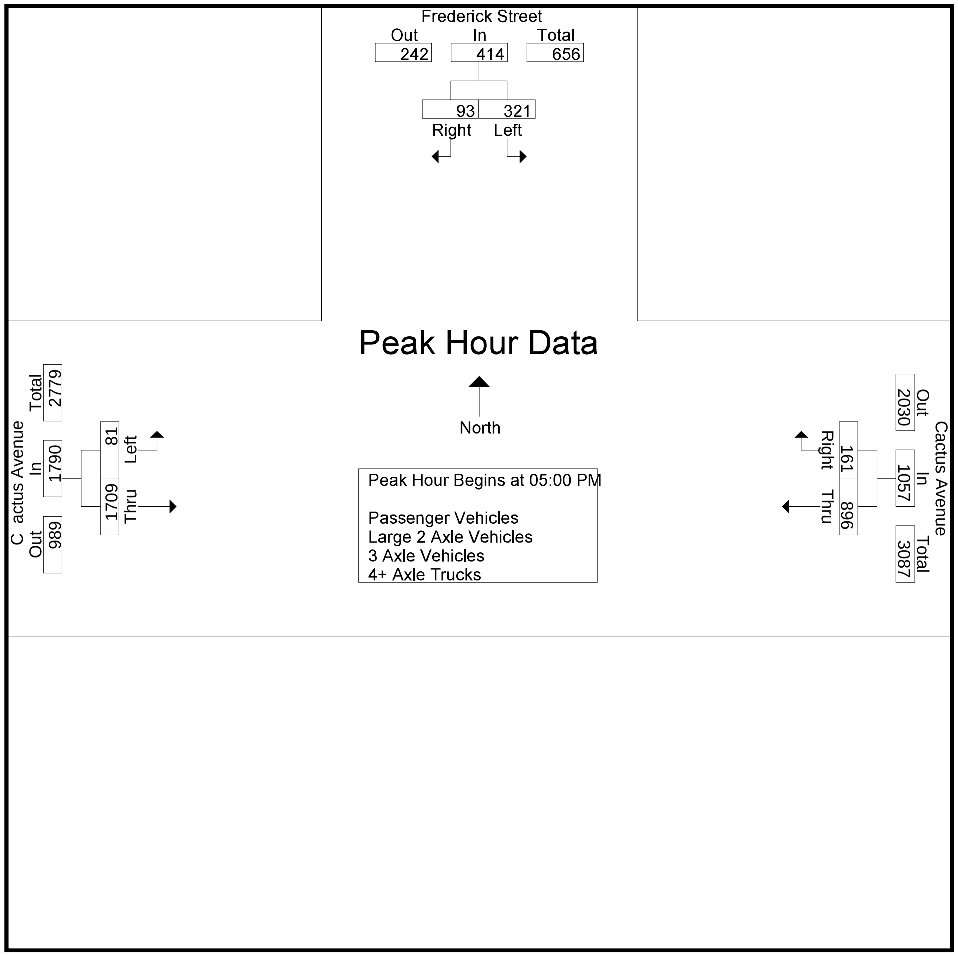

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Groups Printed- Large 2 Axle Vehicles

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	1	0	2	5	2	0	7	0	2	0	2	0	11	11
04:15 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	2	2
04:30 PM	1	0	0	1	0	0	0	0	1	2	0	3	0	4	4
04:45 PM	0	1	1	1	3	0	0	3	0	0	0	0	1	4	5
Total	2	3	1	5	8	3	0	11	1	4	0	5	1	21	22
05:00 PM	1	0	0	1	2	3	0	5	1	0	0	1	0	7	7
05:15 PM	2	1	0	3	1	0	0	1	0	4	0	4	0	8	8
05:30 PM	0	0	0	0	4	0	0	4	0	1	0	1	0	5	5
05:45 PM	1	0	0	1	1	0	0	1	0	1	0	1	0	3	3
Total	4	1	0	5	8	3	0	11	1	6	0	7	0	23	23
Grand Total	6	4	1	10	16	6	0	22	2	10	0	12	1	44	45
Apprch %	60	40			72.7	27.3			16.7	83.3					
Total %	13.6	9.1		22.7	36.4	13.6		50	4.5	22.7		27.3	2.2	97.8	

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	1	0	1	2	**3**	**5**	**1**	0	1	7
05:15 PM	**2**	**1**	**3**	1	0	1	0	**4**	**4**	**8**
05:30 PM	0	0	0	**4**	0	4	0	1	1	5
05:45 PM	1	0	1	1	0	1	0	1	1	3
Total Volume	4	1	5	8	3	11	1	6	7	23
% App. Total	80	20		72.7	27.3		14.3	85.7		
PHF	.500	.250	.417	.500	.250	.550	.250	.375	.438	.719

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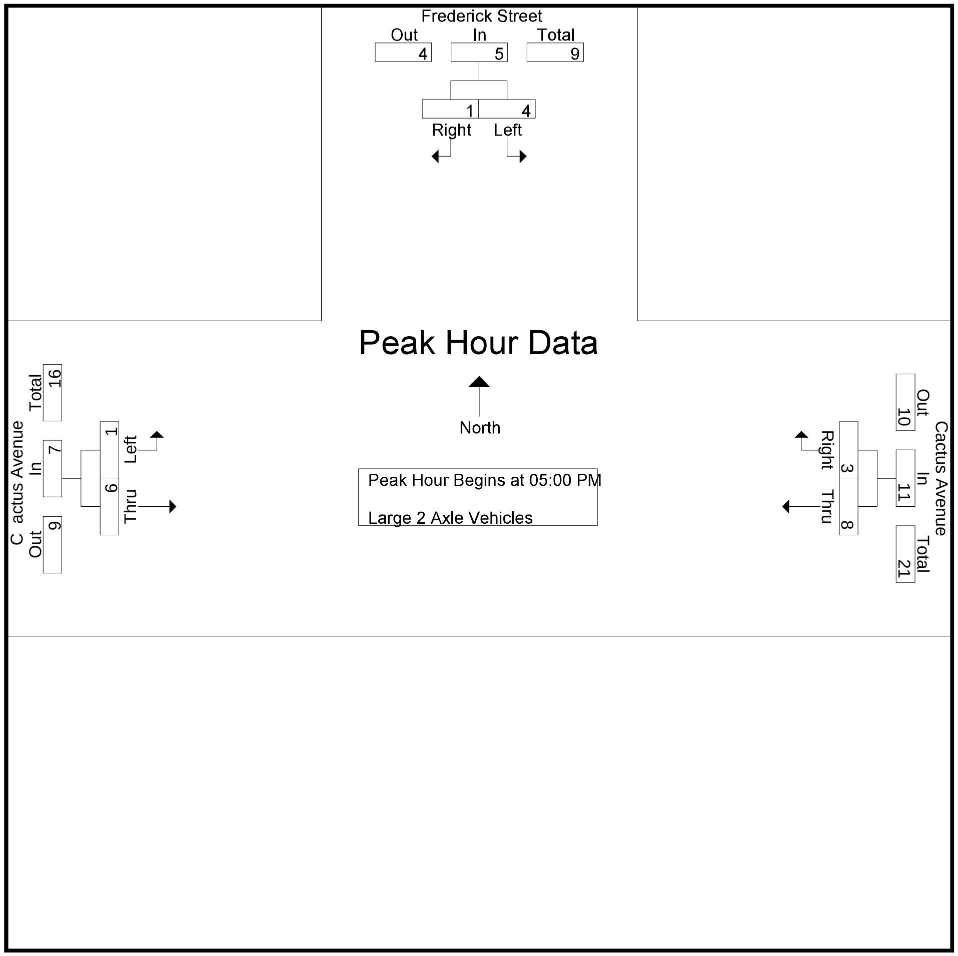

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Groups Printed- 3 Axle Vehicles

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	1	1	2	0	0	0	0	0	0	0	0	1	2	3
04:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	2	2
Total	2	2	1	4	1	0	0	1	0	1	0	1	1	6	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	0	0	3	0	0	0	0	0	3	3
Grand Total	2	2	1	4	4	0	0	4	0	1	0	1	1	9	10
Apprch %	50	50			100	0			0	100					
Total %	22.2	22.2		44.4	44.4	0		44.4	0	11.1		11.1	10	90	

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	1	0	1	0	0	0	1
05:30 PM	0	0	0	**2**	0	**2**	0	0	0	**2**
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	3	0	3	0	0	0	3
% App. Total	0	0		100	0		0	0		
PHF	.000	.000	.000	.375	.000	.375	.000	.000	.000	.375

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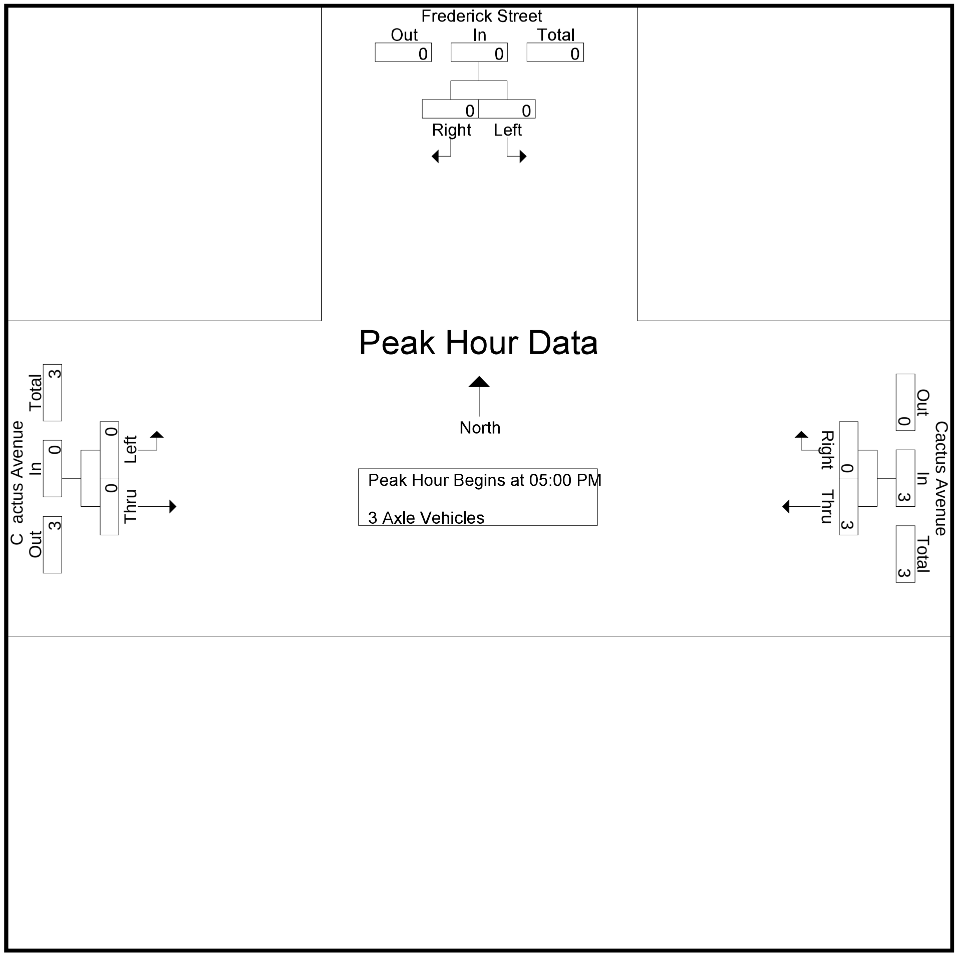

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Groups Printed- 4+ Axle Trucks

	Frederick Street Southbound				Cactus Avenue Westbound				Cactus Avenue Eastbound						
Start Time	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Left	Thru	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	1	3	0	0	3	1	3	0	4	0	8	8
04:15 PM	2	1	1	3	2	0	0	2	1	3	0	4	1	9	10
04:30 PM	0	0	0	0	3	1	0	4	1	5	0	6	0	10	10
04:45 PM	2	1	0	3	1	0	0	1	1	2	0	3	0	7	7
Total	5	2	1	7	9	1	0	10	4	13	0	17	1	34	35
05:00 PM	0	1	0	1	4	0	0	4	0	3	0	3	0	8	8
05:15 PM	0	1	0	1	2	0	0	2	4	4	0	8	0	11	11
05:30 PM	0	1	0	1	3	1	0	4	1	4	0	5	0	10	10
05:45 PM	1	1	0	2	4	1	0	5	0	3	0	3	0	10	10
Total	1	4	0	5	13	2	0	15	5	14	0	19	0	39	39
Grand Total	6	6	1	12	22	3	0	25	9	27	0	36	1	73	74
Apprch %	50	50			88	12			25	75					
Total %	8.2	8.2		16.4	30.1	4.1		34.2	12.3	37		49.3	1.4	98.6	

	Frederick Street Southbound			Cactus Avenue Westbound			Cactus Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	0	**1**	1	**4**	0	4	0	3	3	8
05:15 PM	0	1	1	2	0	2	**4**	**4**	**8**	**11**
05:30 PM	0	1	1	3	**1**	4	1	4	5	10
05:45 PM	**1**	1	**2**	4	1	**5**	0	3	3	10
Total Volume	1	4	5	13	2	15	5	14	19	39
% App. Total	20	80		86.7	13.3		26.3	73.7		
PHF	.250	1.00	.625	.813	.500	.750	.313	.875	.594	.886

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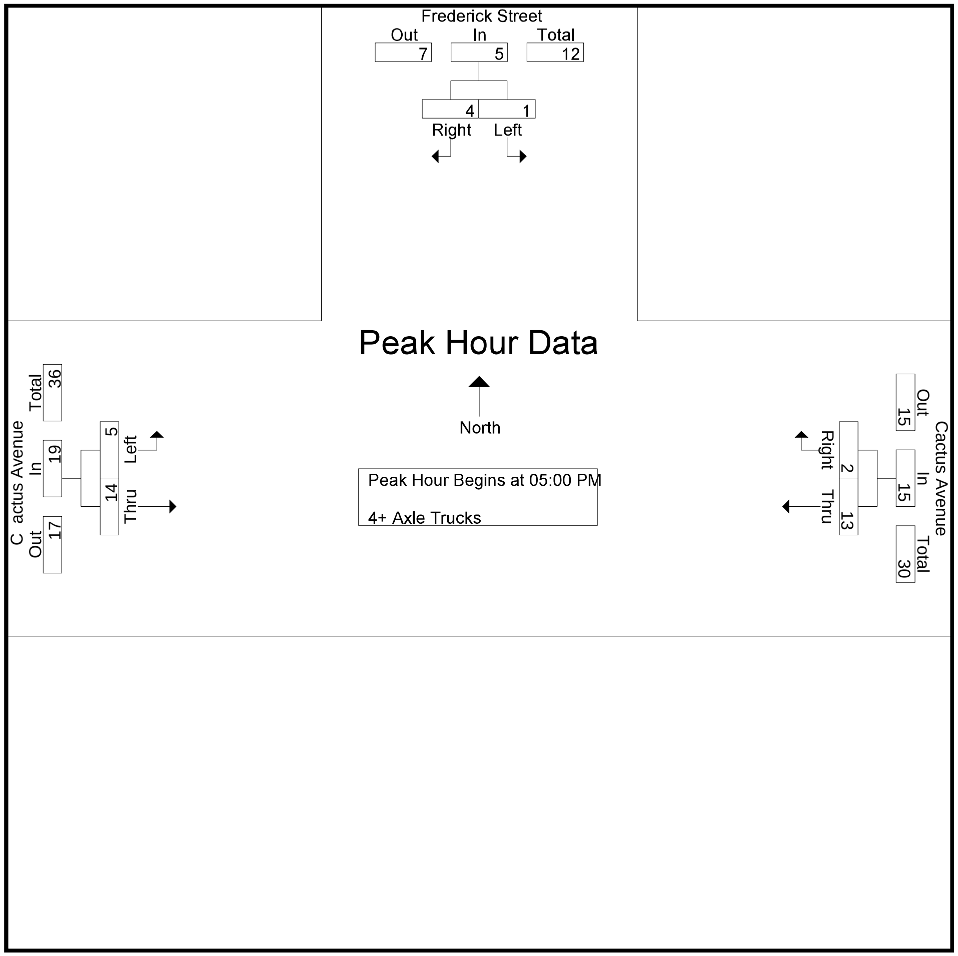

Location: Moreno Valley
N/S: Frederick Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Frederick Street	East Leg Cactus Avenue	South Leg Frederick Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Frederick Street	East Leg Cactus Avenue	South Leg Frederick Street	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	1	0	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	0	0	0	2

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Location: Moreno Valley
N/S: Frederick Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Frederick Street	East Leg Cactus Avenue	South Leg Frederick Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	2	0	2
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

	North Leg Frederick Street	East Leg Cactus Avenue	South Leg Frederick Street	West Leg Cactus Avenue	TOTAL
4:00 PM	2	0	0	0	2
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	3	0	0	0	3

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	5	5	138	2	140	5	95	100	245
07:15 AM	1	8	9	117	5	122	7	131	138	269
07:30 AM	3	6	9	103	5	108	14	101	115	232
07:45 AM	2	8	10	75	20	95	25	94	119	224
Total	6	27	33	433	32	465	51	421	472	970
08:00 AM	4	14	18	72	9	81	19	69	88	187
08:15 AM	4	7	11	50	7	57	12	39	51	119
08:30 AM	2	11	13	66	10	76	17	38	55	144
08:45 AM	4	25	29	28	10	38	28	51	79	146
Total	14	57	71	216	36	252	76	197	273	596
Grand Total	20	84	104	649	68	717	127	618	745	1566
Apprch %	19.2	80.8		90.5	9.5		17	83		
Total %	1.3	5.4	6.6	41.4	4.3	45.8	8.1	39.5	47.6	
Passenger Vehicles	18	64	82	508	58	566	110	511	621	1269
% Passenger Vehicles	90	76.2	78.8	78.3	85.3	78.9	86.6	82.7	83.4	81
Large 2 Axle Vehicles	1	9	10	57	7	64	12	35	47	121
% Large 2 Axle Vehicles	5	10.7	9.6	8.8	10.3	8.9	9.4	5.7	6.3	7.7
3 Axle Vehicles	0	3	3	23	0	23	0	18	18	44
% 3 Axle Vehicles	0	3.6	2.9	3.5	0	3.2	0	2.9	2.4	2.8
4+ Axle Trucks	1	8	9	61	3	64	5	54	59	132
% 4+ Axle Trucks	5	9.5	8.7	9.4	4.4	8.9	3.9	8.7	7.9	8.4

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	5	5	138	2	140	5	95	100	245
07:15 AM	1	8	9	117	5	122	7	131	138	269
07:30 AM	3	6	9	103	5	108	14	101	115	232
07:45 AM	2	8	10	75	20	95	25	94	119	224
Total Volume	6	27	33	433	32	465	51	421	472	970
% App. Total	18.2	81.8		93.1	6.9		10.8	89.2		
PHF	.500	.844	.825	.784	.400	.830	.510	.803	.855	.901

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKAM
Site Code : 05115223
Start Date : 4/28/2015
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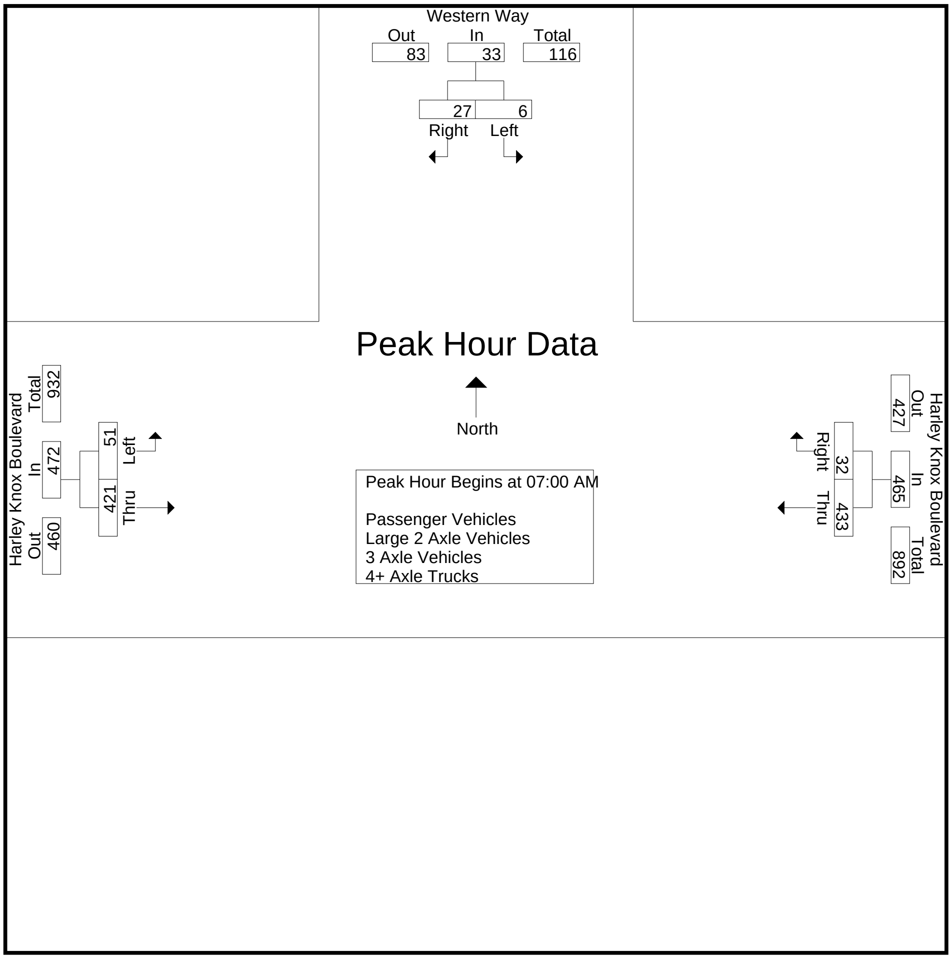

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	4	14	18	138	2	140	5	95	100
+15 mins.	4	7	11	117	5	122	7	131	138
+30 mins.	2	11	13	103	5	108	14	101	115
+45 mins.	4	25	29	75	20	95	25	94	119
Total Volume	14	57	71	433	32	465	51	421	472
% App. Total	19.7	80.3		93.1	6.9		10.8	89.2	
PHF	.875	.570	.612	.784	.400	.830	.510	.803	.855

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	1	1	4	0	4	0	7	7	12
07:15 AM	0	1	1	9	1	10	0	9	9	20
07:30 AM	0	1	1	10	0	10	1	2	3	14
07:45 AM	0	1	1	6	1	7	1	6	7	15
Total	0	4	4	29	2	31	2	24	26	61
08:00 AM	0	2	2	9	1	10	3	4	7	19
08:15 AM	1	0	1	6	1	7	1	2	3	11
08:30 AM	0	1	1	9	1	10	1	1	2	13
08:45 AM	0	2	2	4	2	6	5	4	9	17
Total	1	5	6	28	5	33	10	11	21	60
Grand Total	1	9	10	57	7	64	12	35	47	121
Apprch %	10	90		89.1	10.9		25.5	74.5		
Total %	0.8	7.4	8.3	47.1	5.8	52.9	9.9	28.9	38.8	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	4	0	4	0	7	7	12
07:15 AM	0	1	1	9	1	10	0	9	9	20
07:30 AM	0	1	1	10	0	10	1	2	3	14
07:45 AM	0	1	1	6	1	7	1	6	7	15
Total Volume	0	4	4	29	2	31	2	24	26	61
% App. Total	0	100		93.5	6.5		7.7	92.3		
PHF	.000	1.00	1.00	.725	.500	.775	.500	.667	.722	.763

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKAM
Site Code : 05115223
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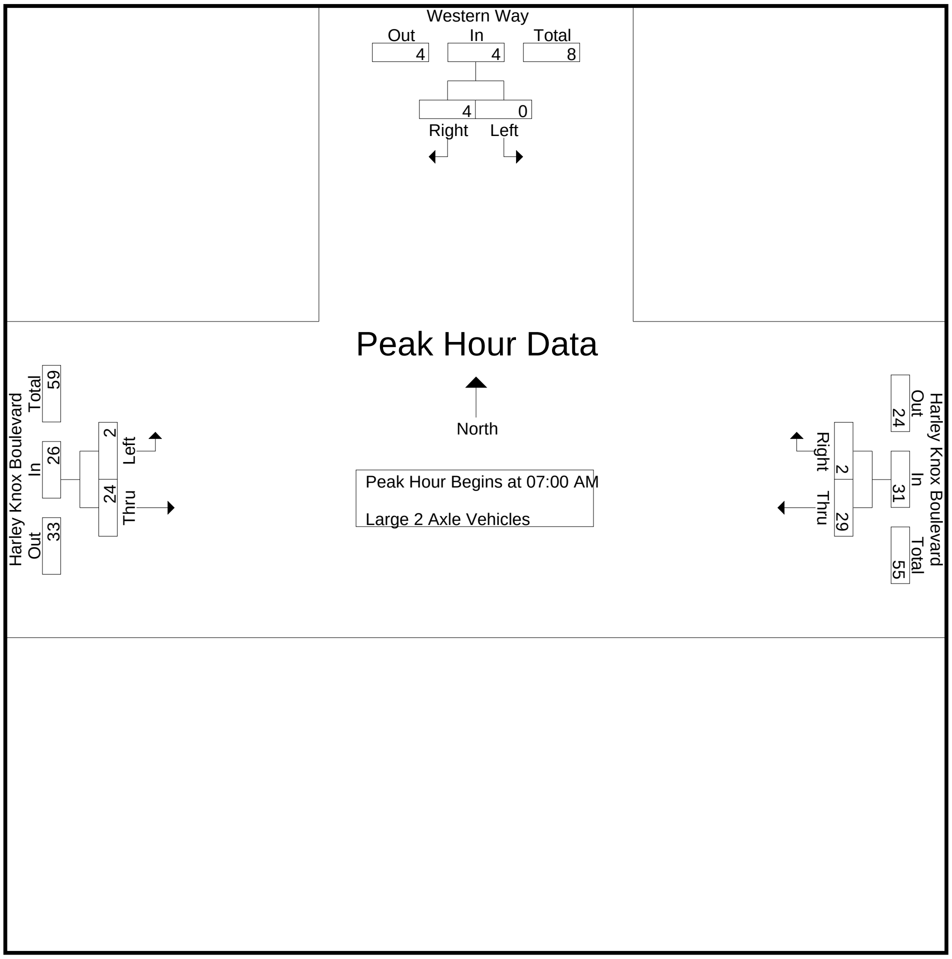

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	4	0	4	0	7	7
+15 mins.	0	1	1	9	1	10	0	9	9
+30 mins.	0	1	1	10	0	10	1	2	3
+45 mins.	0	1	1	6	1	7	1	6	7
Total Volume	0	4	4	29	2	31	2	24	26
% App. Total	0	100		93.5	6.5		7.7	92.3	
PHF	.000	1.000	1.000	.725	.500	.775	.500	.667	.722

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
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File Name : MRVWEHKAM
Site Code : 05115223
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Groups Printed- 3 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	4	0	4	0	4	4	8
07:15 AM	0	2	2	2	0	2	0	1	1	5
07:30 AM	0	0	0	2	0	2	0	0	0	2
07:45 AM	0	1	1	2	0	2	0	0	0	3
Total	0	3	3	10	0	10	0	5	5	18
08:00 AM	0	0	0	1	0	1	0	3	3	4
08:15 AM	0	0	0	2	0	2	0	2	2	4
08:30 AM	0	0	0	7	0	7	0	3	3	10
08:45 AM	0	0	0	3	0	3	0	5	5	8
Total	0	0	0	13	0	13	0	13	13	26
Grand Total	0	3	3	23	0	23	0	18	18	44
Apprch %	0	100		100	0		0	100		
Total %	0	6.8	6.8	52.3	0	52.3	0	40.9	40.9	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	4	0	4	0	4	4	8
07:15 AM	0	2	2	2	0	2	0	1	1	5
07:30 AM	0	0	0	2	0	2	0	0	0	2
07:45 AM	0	1	1	2	0	2	0	0	0	3
Total Volume	0	3	3	10	0	10	0	5	5	18
% App. Total	0	100		100	0		0	100		
PHF	.000	.375	.375	.625	.000	.625	.000	.313	.313	.563

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City of Moreno Valley
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File Name : MRVWEHKAM
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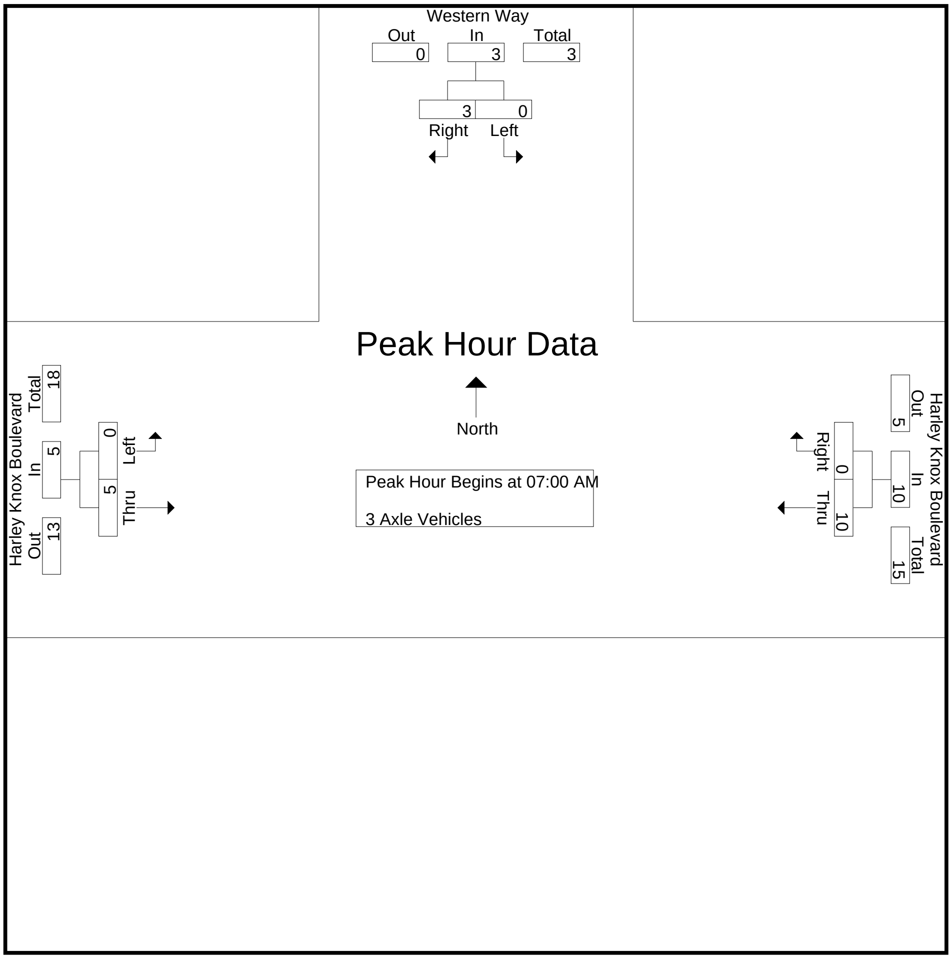

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	4	0	4	0	4	4
+15 mins.	0	2	2	2	0	2	0	1	1
+30 mins.	0	0	0	2	0	2	0	0	0
+45 mins.	0	1	1	2	0	2	0	0	0
Total Volume	0	3	3	10	0	10	0	5	5
% App. Total	0	100		100	0		0	100	
PHF	.000	.375	.375	.625	.000	.625	.000	.313	.313

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKAM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	1	1	7	0	7	0	4	4	12
07:15 AM	0	2	2	7	0	7	0	6	6	15
07:30 AM	0	1	1	6	0	6	1	5	6	13
07:45 AM	1	0	1	9	1	10	1	6	7	18
Total	1	4	5	29	1	30	2	21	23	58
08:00 AM	0	2	2	6	1	7	0	12	12	21
08:15 AM	0	1	1	9	0	9	0	10	10	20
08:30 AM	0	1	1	10	1	11	1	4	5	17
08:45 AM	0	0	0	7	0	7	2	7	9	16
Total	0	4	4	32	2	34	3	33	36	74
Grand Total	1	8	9	61	3	64	5	54	59	132
Apprch %	11.1	88.9		95.3	4.7		8.5	91.5		
Total %	0.8	6.1	6.8	46.2	2.3	48.5	3.8	40.9	44.7	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	7	0	7	0	4	4	12
07:15 AM	0	2	2	7	0	7	0	6	6	15
07:30 AM	0	1	1	6	0	6	1	5	6	13
07:45 AM	1	0	1	9	1	10	1	6	7	18
Total Volume	1	4	5	29	1	30	2	21	23	58
% App. Total	20	80		96.7	3.3		8.7	91.3		
PHF	.250	.500	.625	.806	.250	.750	.500	.875	.821	.806

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City of Moreno Valley
N/S: Western Way
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File Name : MRVWEHKAM
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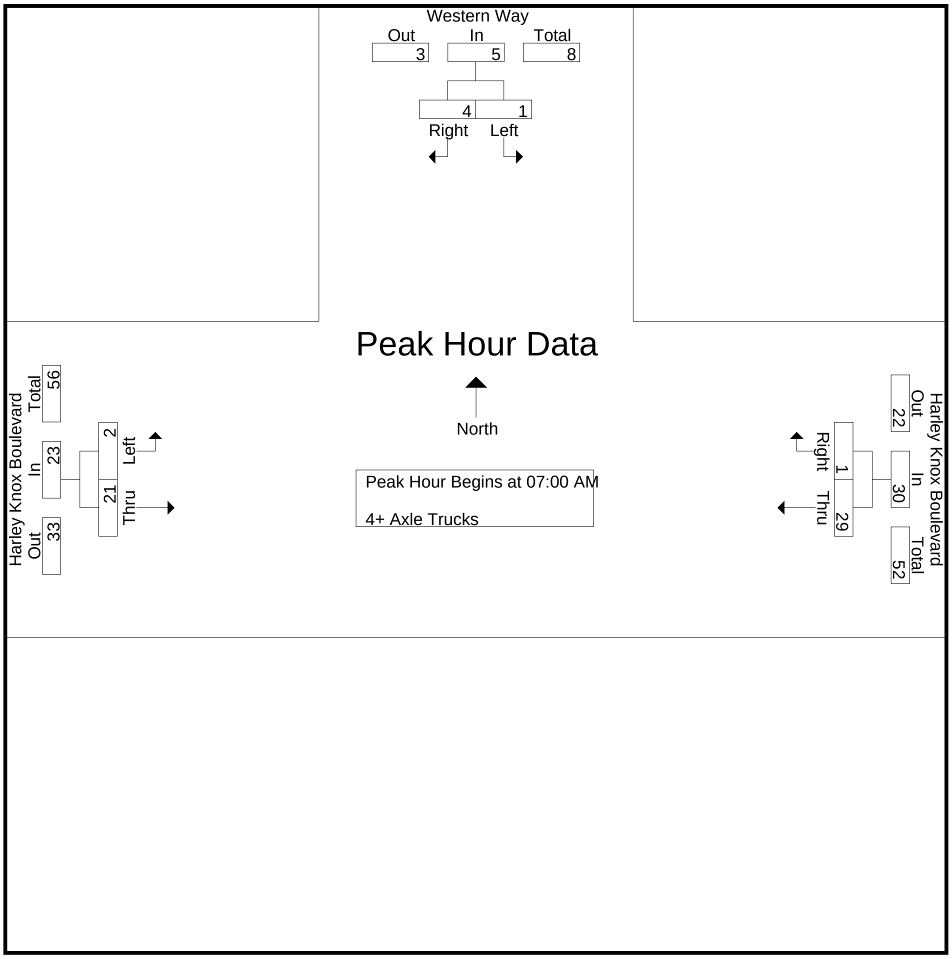

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	7	0	7	0	4	4
+15 mins.	0	2	2	7	0	7	0	6	6
+30 mins.	0	1	1	6	0	6	1	5	6
+45 mins.	1	0	1	9	1	10	1	6	7
Total Volume	1	4	5	29	1	30	2	21	23
% App. Total	20	80		96.7	3.3		8.7	91.3	
PHF	.250	.500	.625	.806	.250	.750	.500	.875	.821

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKPM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	3	16	19	103	4	107	6	66	72	198
04:15 PM	8	13	21	95	3	98	4	83	87	206
04:30 PM	0	5	5	110	1	111	3	82	85	201
04:45 PM	3	29	32	113	5	118	5	72	77	227
Total	14	63	77	421	13	434	18	303	321	832
05:00 PM	4	12	16	91	0	91	4	72	76	183
05:15 PM	4	11	15	70	2	72	0	58	58	145
05:30 PM	5	17	22	79	2	81	0	75	75	178
05:45 PM	2	4	6	77	1	78	5	79	84	168
Total	15	44	59	317	5	322	9	284	293	674
Grand Total	29	107	136	738	18	756	27	587	614	1506
Apprch %	21.3	78.7		97.6	2.4		4.4	95.6		
Total %	1.9	7.1	9	49	1.2	50.2	1.8	39	40.8	
Passenger Vehicles	28	100	128	648	15	663	15	503	518	1309
% Passenger Vehicles	96.6	93.5	94.1	87.8	83.3	87.7	55.6	85.7	84.4	86.9
Large 2 Axle Vehicles	0	1	1	25	1	26	7	26	33	60
% Large 2 Axle Vehicles	0	0.9	0.7	3.4	5.6	3.4	25.9	4.4	5.4	4
3 Axle Vehicles	0	0	0	14	1	15	3	19	22	37
% 3 Axle Vehicles	0	0	0	1.9	5.6	2	11.1	3.2	3.6	2.5
4+ Axle Trucks	1	6	7	51	1	52	2	39	41	100
% 4+ Axle Trucks	3.4	5.6	5.1	6.9	5.6	6.9	7.4	6.6	6.7	6.6

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	3	16	19	103	4	107	6	66	72	198
04:15 PM	8	13	21	95	3	98	4	83	87	206
04:30 PM	0	5	5	110	1	111	3	82	85	201
04:45 PM	3	29	32	113	5	118	5	72	77	227
Total Volume	14	63	77	421	13	434	18	303	321	832
% App. Total	18.2	81.8		97	3		5.6	94.4		
PHF	.438	.543	.602	.931	.650	.919	.750	.913	.922	.916

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City of Moreno Valley
N/S: Western Way
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Weather: Clear

File Name : MRVWEHKPM
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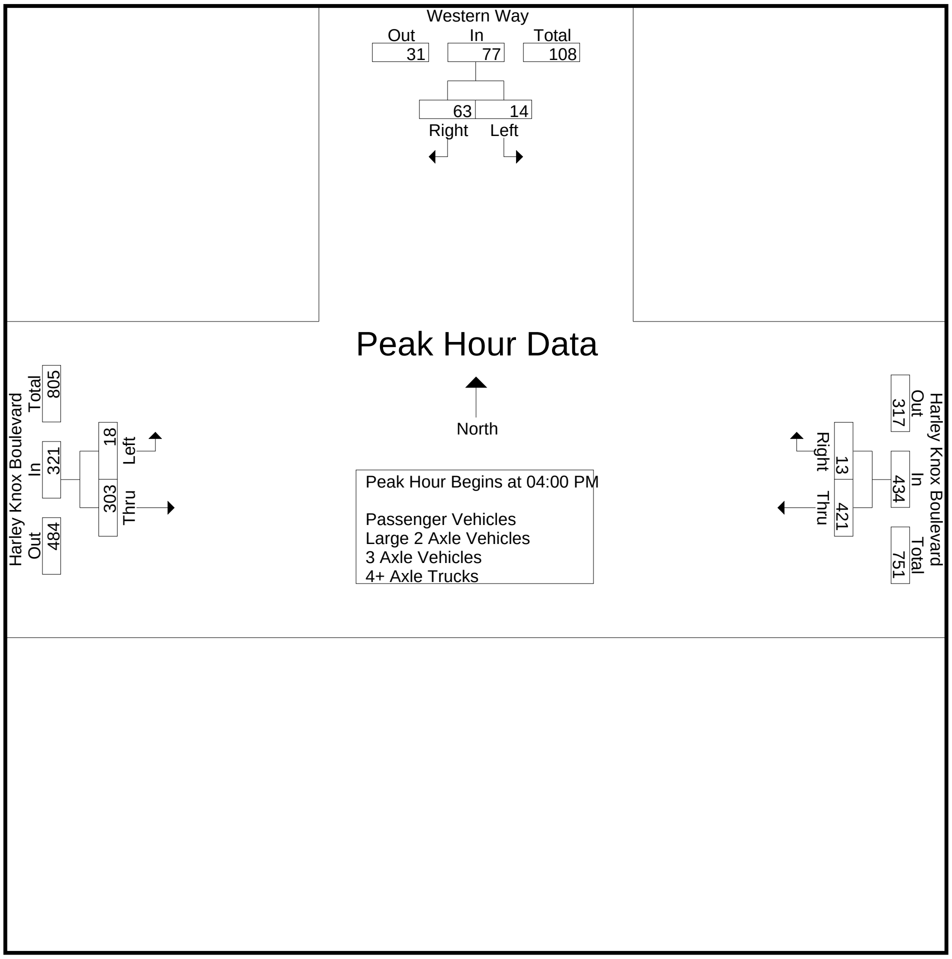

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:00 PM			04:15 PM		
+0 mins.	3	29	32	103	4	107	4	83	87
+15 mins.	4	12	16	95	3	98	3	82	85
+30 mins.	4	11	15	110	1	111	5	72	77
+45 mins.	5	17	22	113	5	118	4	72	76
Total Volume	16	69	85	421	13	434	16	309	325
% App. Total	18.8	81.2		97	3		4.9	95.1	
PHF	.800	.595	.664	.931	.650	.919	.800	.931	.934

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City of Moreno Valley
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E/W: Harley Knox Boulevard
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File Name : MRVWEHKPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	6	1	7	2	4	6	13
04:15 PM	0	1	1	0	0	0	0	5	5	6
04:30 PM	0	0	0	4	0	4	0	4	4	8
04:45 PM	0	0	0	5	0	5	3	8	11	16
Total	0	1	1	15	1	16	5	21	26	43
05:00 PM	0	0	0	4	0	4	1	4	5	9
05:15 PM	0	0	0	6	0	6	0	1	1	7
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	10	0	10	2	5	7	17
Grand Total	0	1	1	25	1	26	7	26	33	60
Apprch %	0	100		96.2	3.8		21.2	78.8		
Total %	0	1.7	1.7	41.7	1.7	43.3	11.7	43.3	55	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	6	1	7	2	4	6	13
04:15 PM	0	1	1	0	0	0	0	5	5	6
04:30 PM	0	0	0	4	0	4	0	4	4	8
04:45 PM	0	0	0	5	0	5	3	8	11	16
Total Volume	0	1	1	15	1	16	5	21	26	43
% App. Total	0	100		93.8	6.2		19.2	80.8		
PHF	.000	.250	.250	.625	.250	.571	.417	.656	.591	.672

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

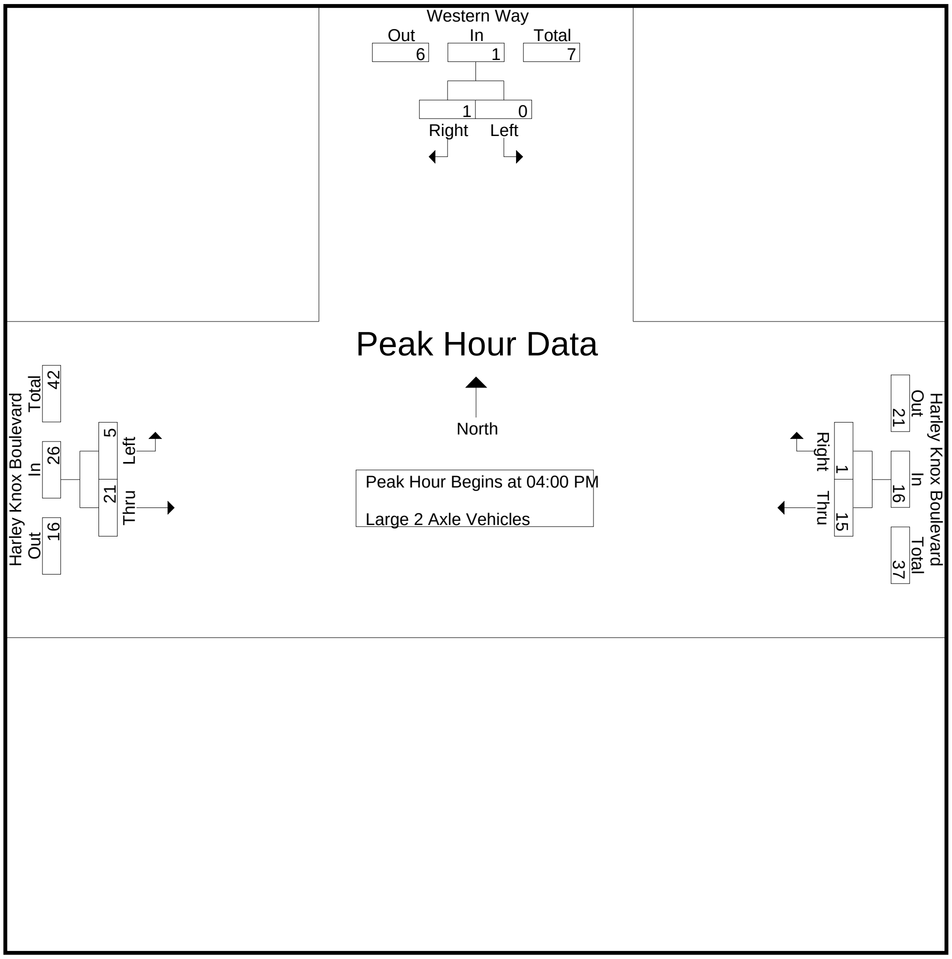

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	6	1	7	2	4	6
+15 mins.	0	1	1	0	0	0	0	5	5
+30 mins.	0	0	0	4	0	4	0	4	4
+45 mins.	0	0	0	5	0	5	3	8	11
Total Volume	0	1	1	15	1	16	5	21	26
% App. Total	0	100		93.8	6.2		19.2	80.8	
PHF	.000	.250	.250	.625	.250	.571	.417	.656	.591

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVWEHKPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	4	1	5	0	1	1	6
04:15 PM	0	0	0	2	0	2	1	0	1	3
04:30 PM	0	0	0	4	0	4	2	1	3	7
04:45 PM	0	0	0	1	0	1	0	6	6	7
Total	0	0	0	11	1	12	3	8	11	23
05:00 PM	0	0	0	1	0	1	0	6	6	7
05:15 PM	0	0	0	0	0	0	0	3	3	3
05:30 PM	0	0	0	1	0	1	0	1	1	2
05:45 PM	0	0	0	1	0	1	0	1	1	2
Total	0	0	0	3	0	3	0	11	11	14
Grand Total	0	0	0	14	1	15	3	19	22	37
Apprch %	0	0		93.3	6.7		13.6	86.4		
Total %	0	0	0	37.8	2.7	40.5	8.1	51.4	59.5	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	4	1	5	0	1	1	6
04:15 PM	0	0	0	2	0	2	1	0	1	3
04:30 PM	0	0	0	4	0	4	2	1	3	7
04:45 PM	0	0	0	1	0	1	0	6	6	7
Total Volume	0	0	0	11	1	12	3	8	11	23
% App. Total	0	0		91.7	8.3		27.3	72.7		
PHF	.000	.000	.000	.688	.250	.600	.375	.333	.458	.821

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard
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File Name : MRVWEHKPM
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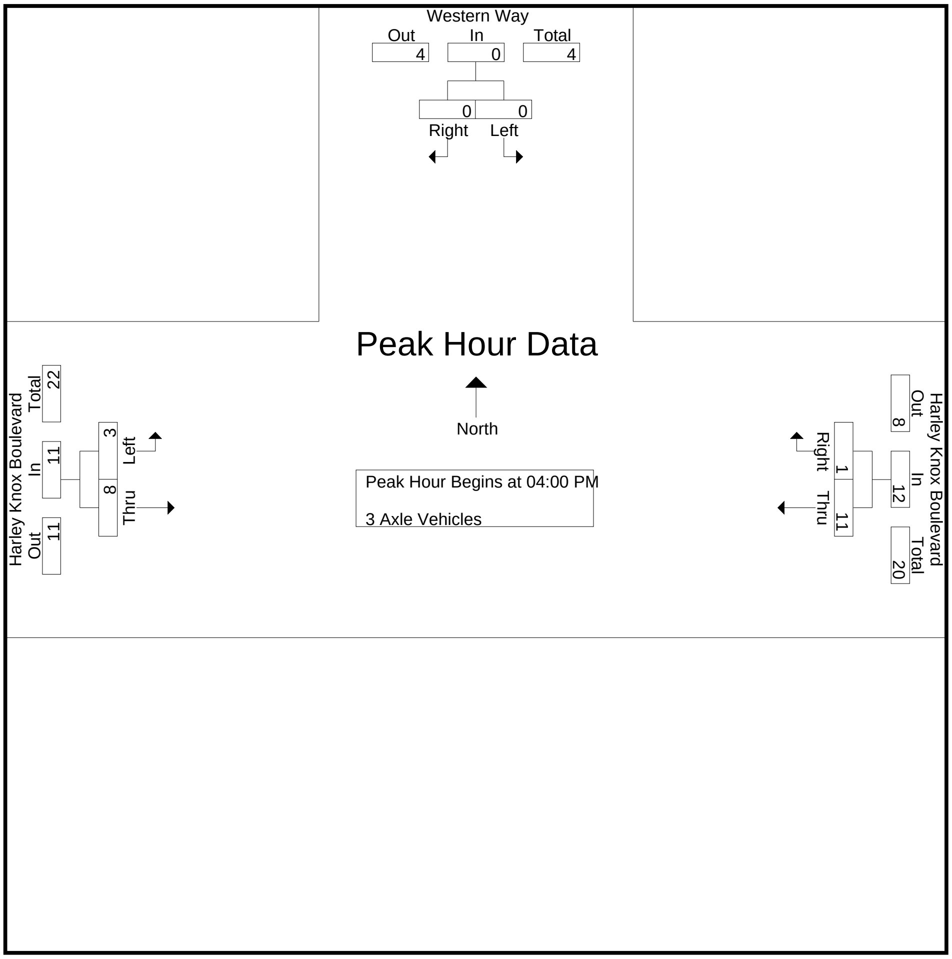

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	4	1	5	0	1	1
+15 mins.	0	0	0	2	0	2	1	0	1
+30 mins.	0	0	0	4	0	4	2	1	3
+45 mins.	0	0	0	1	0	1	0	6	6
Total Volume	0	0	0	11	1	12	3	8	11
% App. Total	0	0		91.7	8.3		27.3	72.7	
PHF	.000	.000	.000	.688	.250	.600	.375	.333	.458

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File Name : MRVWEHKPM
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Groups Printed- 4+ Axle Trucks

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	9	0	9	1	5	6	15
04:15 PM	0	0	0	4	0	4	0	4	4	8
04:30 PM	0	0	0	7	1	8	0	5	5	13
04:45 PM	0	0	0	9	0	9	1	4	5	14
Total	0	0	0	29	1	30	2	18	20	50
05:00 PM	0	0	0	4	0	4	0	3	3	7
05:15 PM	1	3	4	6	0	6	0	5	5	15
05:30 PM	0	3	3	5	0	5	0	3	3	11
05:45 PM	0	0	0	7	0	7	0	10	10	17
Total	1	6	7	22	0	22	0	21	21	50
Grand Total	1	6	7	51	1	52	2	39	41	100
Apprch %	14.3	85.7		98.1	1.9		4.9	95.1		
Total %	1	6	7	51	1	52	2	39	41	

	Western Way Southbound			Harley Knox Boulevard Westbound			Harley Knox Boulevard Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	9	0	9	1	5	6	15
04:15 PM	0	0	0	4	0	4	0	4	4	8
04:30 PM	0	0	0	7	1	8	0	5	5	13
04:45 PM	0	0	0	9	0	9	1	4	5	14
Total Volume	0	0	0	29	1	30	2	18	20	50
% App. Total	0	0		96.7	3.3		10	90		
PHF	.000	.000	.000	.806	.250	.833	.500	.900	.833	.833

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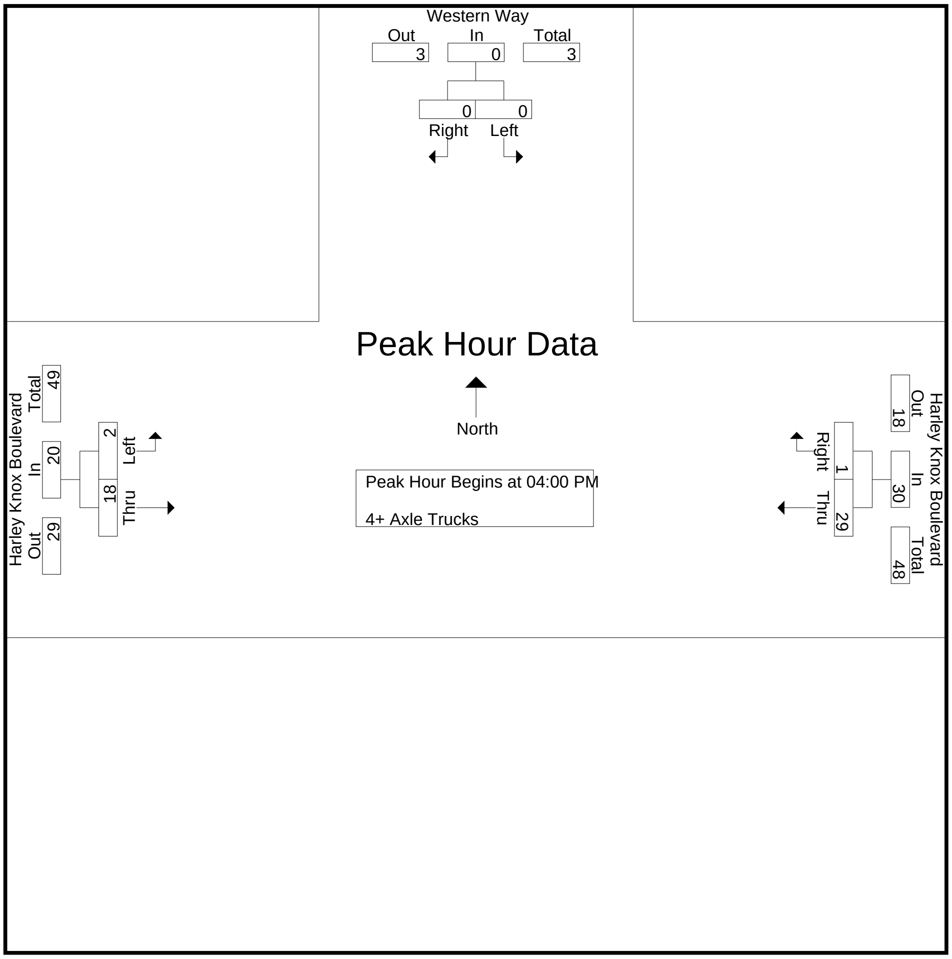

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	9	0	9	1	5	6
+15 mins.	0	0	0	4	0	4	0	4	4
+30 mins.	0	0	0	7	1	8	0	5	5
+45 mins.	0	0	0	9	0	9	1	4	5
Total Volume	0	0	0	29	1	30	2	18	20
% App. Total	0	0		96.7	3.3		10	90	
PHF	.000	.000	.000	.806	.250	.833	.500	.900	.833

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Location: Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	3	0		0	3
7:15 AM	6	0		0	6
7:30 AM	0	0		0	0
7:45 AM	0	0		0	0
8:00 AM	1	0		0	1
8:15 AM	3	0		0	3
8:30 AM	0	0		0	0
8:45 AM	0	0		0	0
TOTAL VOLUMES:	13	0	0	0	13

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0		0	0
4:15 PM	0	0		0	0
4:30 PM	0	0		0	0
4:45 PM	0	0		0	0
5:00 PM	0	0		0	0
5:15 PM	0	0		0	0
5:30 PM	0	0		0	0
5:45 PM	0	0		0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Moreno Valley
N/S: Western Way
E/W: Harley Knox Boulevard

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
7:00 AM	0	0		0	0
7:15 AM	0	0		0	0
7:30 AM	0	0		0	0
7:45 AM	0	0		0	0
8:00 AM	1	0		0	1
8:15 AM	0	0		0	0
8:30 AM	0	0		0	0
8:45 AM	0	0		0	0
TOTAL VOLUMES:	1	0	0	0	1

	North Leg Western Way	East Leg Harley Knox Boulevard	South Leg Western Way	West Leg Harley Knox Boulevard	TOTAL
4:00 PM	0	0		0	0
4:15 PM	0	0		0	0
4:30 PM	0	0		0	0
4:45 PM	0	0		0	0
5:00 PM	0	0		0	0
5:15 PM	0	0		0	0
5:30 PM	0	0		0	0
5:45 PM	0	0		0	0
TOTAL VOLUMES:	0	0	0	0	0

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Graham Street
E/W: Cactus Avenue
Weather: Clear

File Name : MRVGRCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	13	13	11	34	1	409	5	0	415	35	9	2	2	46	15	200	39	2	254	15	749	764
07:15 AM	10	12	10	6	32	6	423	22	1	451	22	13	2	0	37	19	215	51	0	285	7	805	812
07:30 AM	21	21	15	10	57	5	391	14	1	410	45	20	3	1	68	23	233	48	9	304	21	839	860
07:45 AM	19	7	9	6	35	3	360	27	0	390	31	10	1	0	42	33	201	36	1	270	7	737	744
Total	58	53	47	33	158	15	1583	68	2	1666	133	52	8	3	193	90	849	174	12	1113	50	3130	3180
08:00 AM	30	10	12	7	52	4	263	18	1	285	30	12	1	1	43	28	147	35	2	210	11	590	601
08:15 AM	14	6	14	10	34	2	265	28	3	295	31	5	0	0	36	24	203	36	1	263	14	628	642
08:30 AM	29	8	12	8	49	2	222	22	2	246	17	10	1	0	28	18	151	42	2	211	12	534	546
08:45 AM	8	12	17	13	37	2	218	20	3	240	29	8	0	0	37	11	118	36	4	165	20	479	499
Total	81	36	55	38	172	10	968	88	9	1066	107	35	2	1	144	81	619	149	9	849	57	2231	2288
Grand Total	139	89	102	71	330	25	2551	156	11	2732	240	87	10	4	337	171	1468	323	21	1962	107	5361	5468
Apprch %	42.1	27	30.9			0.9	93.4	5.7			71.2	25.8	3			8.7	74.8	16.5					
Total %	2.6	1.7	1.9		6.2	0.5	47.6	2.9		51	4.5	1.6	0.2		6.3	3.2	27.4	6		36.6	2	98	
Passenger Vehicles	135	89	97		390	25	2480	152		2668	235	86	8		333	160	1371	312		1863	0	0	5254
% Passenger Vehicles	97.1	100	95.1	97.2	97.3	100	97.2	97.4	100	97.3	97.9	98.9	80	100	97.7	93.6	93.4	96.6	95.2	93.9	0	0	96.1
Large 2 Axle Vehicles	4	0	2		7	0	34	4		38	3	0	1		4	3	43	11		58	0	0	107
% Large 2 Axle Vehicles	2.9	0	2	1.4	1.7	0	1.3	2.6	0	1.4	1.2	0	10	0	1.2	1.8	2.9	3.4	4.8	2.9	0	0	2
3 Axle Vehicles	0	0	0		0	0	8	0		8	0	1	1		2	0	10	0		10	0	0	20
% 3 Axle Vehicles	0	0	0	0	0	0	0.3	0	0	0.3	0	1.1	10	0	0.6	0	0.7	0	0	0.5	0	0	0.4
4+ Axle Trucks	0	0	3		4	0	29	0		29	2	0	0		2	8	44	0		52	0	0	87
% 4+ Axle Trucks	0	0	2.9	1.4	1	0	1.1	0	0	1.1	0.8	0	0	0	0.6	4.7	3	0	0	2.6	0	0	1.6

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	13	13	34	1	409	5	415	35	9	2	46	15	200	39	254	749
07:15 AM	10	12	10	32	**6**	**423**	22	**451**	22	13	2	37	19	215	**51**	285	805
07:30 AM	**21**	**21**	**15**	**57**	5	391	14	410	**45**	**20**	**3**	**68**	23	**233**	48	**304**	**839**
07:45 AM	19	7	9	35	3	360	**27**	390	31	10	1	42	**33**	201	36	270	737
Total Volume	58	53	47	158	15	1583	68	1666	133	52	8	193	90	849	174	1113	3130
% App. Total	36.7	33.5	29.7		0.9	95	4.1		68.9	26.9	4.1		8.1	76.3	15.6		
PHF	.690	.631	.783	.693	.625	.936	.630	.924	.739	.650	.667	.710	.682	.911	.853	.915	.933

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File Name : MRVGRCAAM
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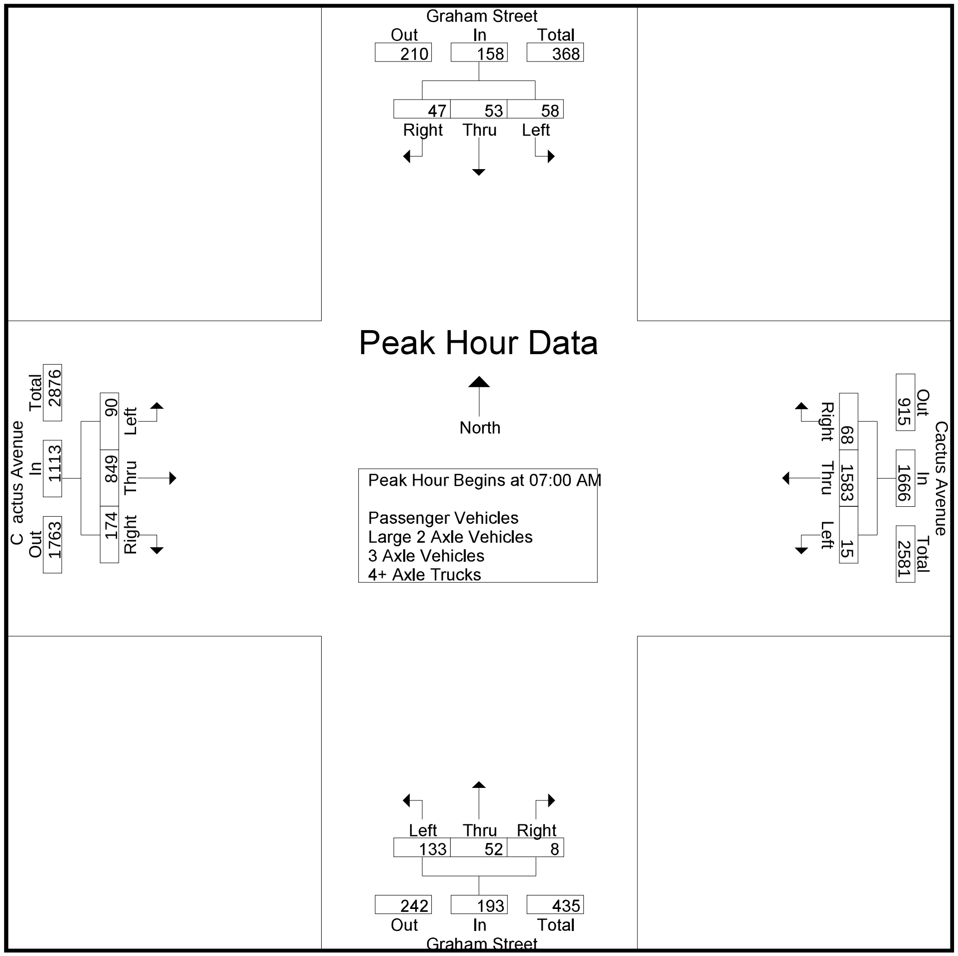

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Groups Printed- Large 2 Axle Vehicles

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	3	3	1	6	1	8	9
07:15 AM	2	0	0	0	2	0	8	1	0	9	0	0	1	0	1	0	7	1	0	8	0	20	20
07:30 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	0	15	15
07:45 AM	0	0	1	1	1	0	1	0	0	1	1	0	0	0	1	2	3	1	0	6	1	9	10
Total	3	0	1	1	4	0	16	1	0	17	1	0	1	0	2	2	22	5	1	29	2	52	54
08:00 AM	1	0	0	0	1	0	7	3	0	10	2	0	0	0	2	0	5	0	0	5	0	18	18
08:15 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	1	5	1	0	7	0	12	12
08:30 AM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	6	3	0	9	0	13	13
08:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	2	0	7	0	10	10
Total	1	0	1	0	2	0	18	3	0	21	2	0	0	0	2	1	21	6	0	28	0	53	53
Grand Total	4	0	2	1	6	0	34	4	0	38	3	0	1	0	4	3	43	11	1	57	2	105	107
Apprch %	66.7	0	33.3			0	89.5	10.5			75	0	25			5.3	75.4	19.3					
Total %	3.8	0	1.9		5.7	0	32.4	3.8		36.2	2.9	0	1		3.8	2.9	41	10.5		54.3	1.9	98.1	

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	3	**3**	6	8
07:15 AM	**2**	0	0	**2**	0	**8**	**1**	**9**	0	0	**1**	**1**	0	7	1	8	**20**
07:30 AM	0	0	0	0	0	6	0	6	0	0	0	0	0	**9**	0	**9**	15
07:45 AM	0	0	**1**	1	0	1	0	1	**1**	0	0	1	**2**	3	1	6	9
Total Volume	3	0	1	4	0	16	1	17	1	0	1	2	2	22	5	29	52
% App. Total	75	0	25		0	94.1	5.9		50	0	50		6.9	75.9	17.2		
PHF	.375	.000	.250	.500	.000	.500	.250	.472	.250	.000	.250	.500	.250	.611	.417	.806	.650

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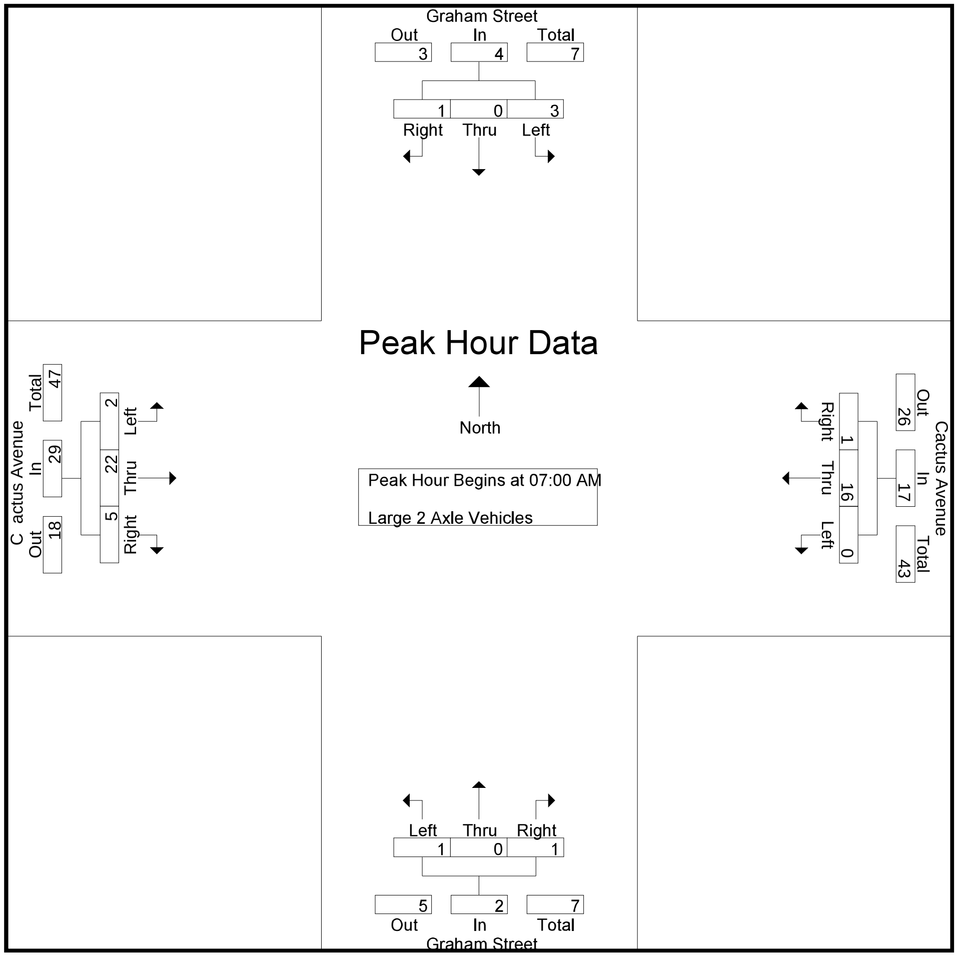

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Page No : 1

Groups Printed- 3 Axle Vehicles

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	4	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	0	0	3	0	1	1	0	2	0	2	0	0	2	0	7	7
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	4	4
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	5	5
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8	0	13	13
Grand Total	0	0	0	0	0	0	8	0	0	8	0	1	1	0	2	0	10	0	0	10	0	20	20
Apprch %	0	0	0			0	100	0			0	50	50			0	100	0					
Total %	0	0	0		0	0	40	0		40	0	5	5		10	0	50	0		50	0	100	

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	**1**	0	**1**	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	**1**	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	1	0	1	**4**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	0	3	0	1	1	2	0	2	0	2	7
% App. Total	0	0	0		0	100	0		0	50	50		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.250	.250	.500	.000	.500	.000	.500	.438

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City of Moreno Valley
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Weather: Clear

File Name : MRVGRCAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

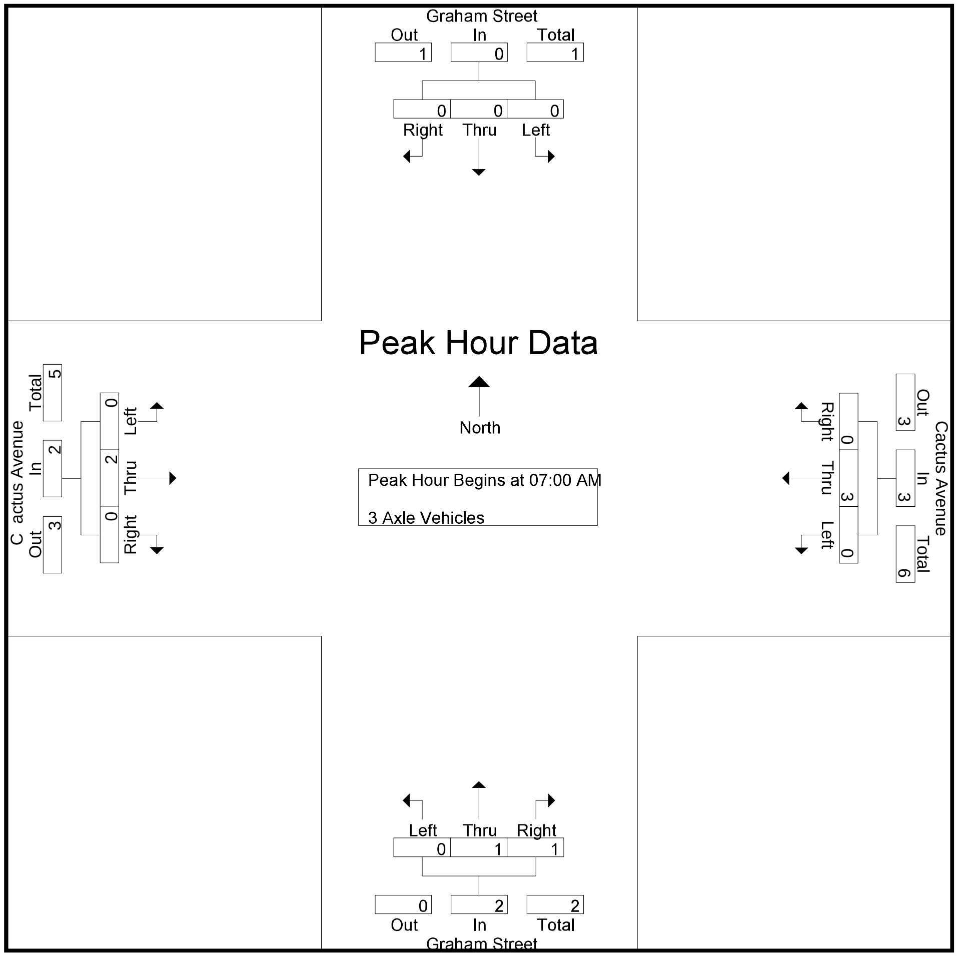

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Groups Printed- 4+ Axle Trucks

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	5	0	0	7	0	9	9
07:15 AM	0	0	1	1	1	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	1	6	7
07:30 AM	0	0	2	0	2	0	3	0	0	3	1	0	0	0	1	2	4	0	0	6	0	12	12
07:45 AM	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	11	0	0	11	0	16	16
Total	0	0	3	1	3	0	12	0	0	12	2	0	0	0	2	4	22	0	0	26	1	43	44
08:00 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	0	11	11
08:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	9	0	0	10	0	12	12
08:30 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	2	4	0	0	6	0	12	12
08:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	1	3	0	0	4	0	8	8
Total	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	4	22	0	0	26	0	43	43
Grand Total	0	0	3	1	3	0	29	0	0	29	2	0	0	0	2	8	44	0	0	52	1	86	87
Apprch %	0	0	100			0	100	0			100	0	0			15.4	84.6	0					
Total %	0	0	3.5		3.5	0	33.7	0		33.7	2.3	0	0		2.3	9.3	51.2	0		60.5	1.1	98.9	

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	**2**	5	0	7	9
07:15 AM	0	0	1	1	0	3	0	3	0	0	0	0	0	2	0	2	6
07:30 AM	0	0	**2**	**2**	0	3	0	3	**1**	0	0	**1**	2	4	0	6	12
07:45 AM	0	0	0	0	0	**4**	0	**4**	1	0	0	1	0	**11**	0	**11**	**16**
Total Volume	0	0	3	3	0	12	0	12	2	0	0	2	4	22	0	26	43
% App. Total	0	0	100		0	100	0		100	0	0		15.4	84.6	0		
PHF	.000	.000	.375	.375	.000	.750	.000	.750	.500	.000	.000	.500	.500	.500	.000	.591	.672

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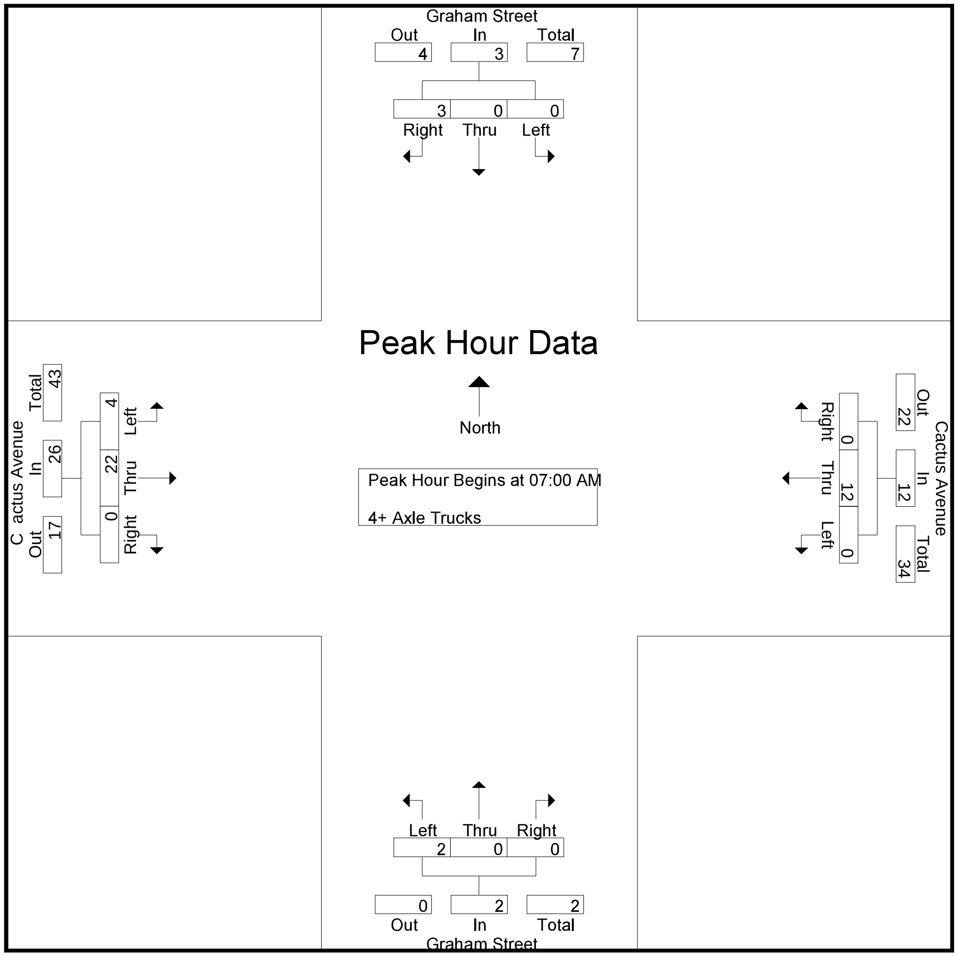

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	32	23	8	8	63	4	201	14	1	219	55	17	5	2	77	17	346	77	11	440	22	799	821
04:15 PM	32	25	20	16	77	2	194	12	2	208	67	13	10	5	90	12	338	64	7	414	30	789	819
04:30 PM	32	23	26	13	81	6	222	16	1	244	49	28	8	3	85	17	347	61	3	425	20	835	855
04:45 PM	23	25	17	13	65	3	227	17	1	247	45	17	3	2	65	13	337	65	5	415	21	792	813
Total	119	96	71	50	286	15	844	59	5	918	216	75	26	12	317	59	1368	267	26	1694	93	3215	3308
05:00 PM	30	39	31	23	100	1	228	15	1	244	47	18	4	2	69	19	428	76	0	523	26	936	962
05:15 PM	28	38	22	18	88	2	183	12	1	197	30	12	1	0	43	12	428	54	4	494	23	822	845
05:30 PM	27	34	31	22	92	1	200	11	0	212	40	11	3	2	54	17	425	79	2	521	26	879	905
05:45 PM	34	25	15	9	74	2	187	4	2	193	39	12	3	1	54	21	404	65	2	490	14	811	825
Total	119	136	99	72	354	6	798	42	4	846	156	53	11	5	220	69	1685	274	8	2028	89	3448	3537
Grand Total	238	232	170	122	640	21	1642	101	9	1764	372	128	37	17	537	128	3053	541	34	3722	182	6663	6845
Apprch %	37.2	36.2	26.6			1.2	93.1	5.7			69.3	23.8	6.9			3.4	82	14.5					
Total %	3.6	3.5	2.6		9.6	0.3	24.6	1.5		26.5	5.6	1.9	0.6		8.1	1.9	45.8	8.1		55.9	2.7	97.3	
Passenger Vehicles	238	230	163		746	21	1596	100		1726	367	128	37		549	122	2987	531		3672	0	0	6693
% Passenger Vehicles	100	99.1	95.9	94.3	97.9	100	97.2	99	100	97.3	98.7	100	100	100	99.1	95.3	97.8	98.2	94.1	97.8	0	0	97.8
Large 2 Axle Vehicles	0	1	3		7	0	22	1		23	4	0	0		4	2	35	10		49	0	0	83
% Large 2 Axle Vehicles	0	0.4	1.8	2.5	0.9	0	1.3	1	0	1.3	1.1	0	0	0	0.7	1.6	1.1	1.8	5.9	1.3	0	0	1.2
3 Axle Vehicles	0	1	1		3	0	3	0		3	1	0	0		1	0	5	0		5	0	0	12
% 3 Axle Vehicles	0	0.4	0.6	0.8	0.4	0	0.2	0	0	0.2	0.3	0	0	0	0.2	0	0.2	0	0	0.1	0	0	0.2
4+ Axle Trucks	0	0	3		6	0	21	0		21	0	0	0		0	4	26	0		30	0	0	57
% 4+ Axle Trucks	0	0	1.8	2.5	0.8	0	1.3	0	0	1.2	0	0	0	0	0	3.1	0.9	0	0	0.8	0	0	0.8

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	30	**39**	**31**	**100**	1	**228**	**15**	**244**	**47**	**18**	**4**	**69**	19	**428**	76	**523**	**936**
05:15 PM	28	38	22	88	**2**	183	12	197	30	12	1	43	12	428	54	494	822
05:30 PM	27	34	31	92	1	200	11	212	40	11	3	54	17	425	**79**	521	879
05:45 PM	**34**	25	15	74	2	187	4	193	39	12	3	54	**21**	404	65	490	811
Total Volume	119	136	99	354	6	798	42	846	156	53	11	220	69	1685	274	2028	3448
% App. Total	33.6	38.4	28		0.7	94.3	5		70.9	24.1	5		3.4	83.1	13.5		
PHF	.875	.872	.798	.885	.750	.875	.700	.867	.830	.736	.688	.797	.821	.984	.867	.969	.921

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File Name : MRVGRCAPM
Site Code : 05115223
Start Date : 4/28/2015
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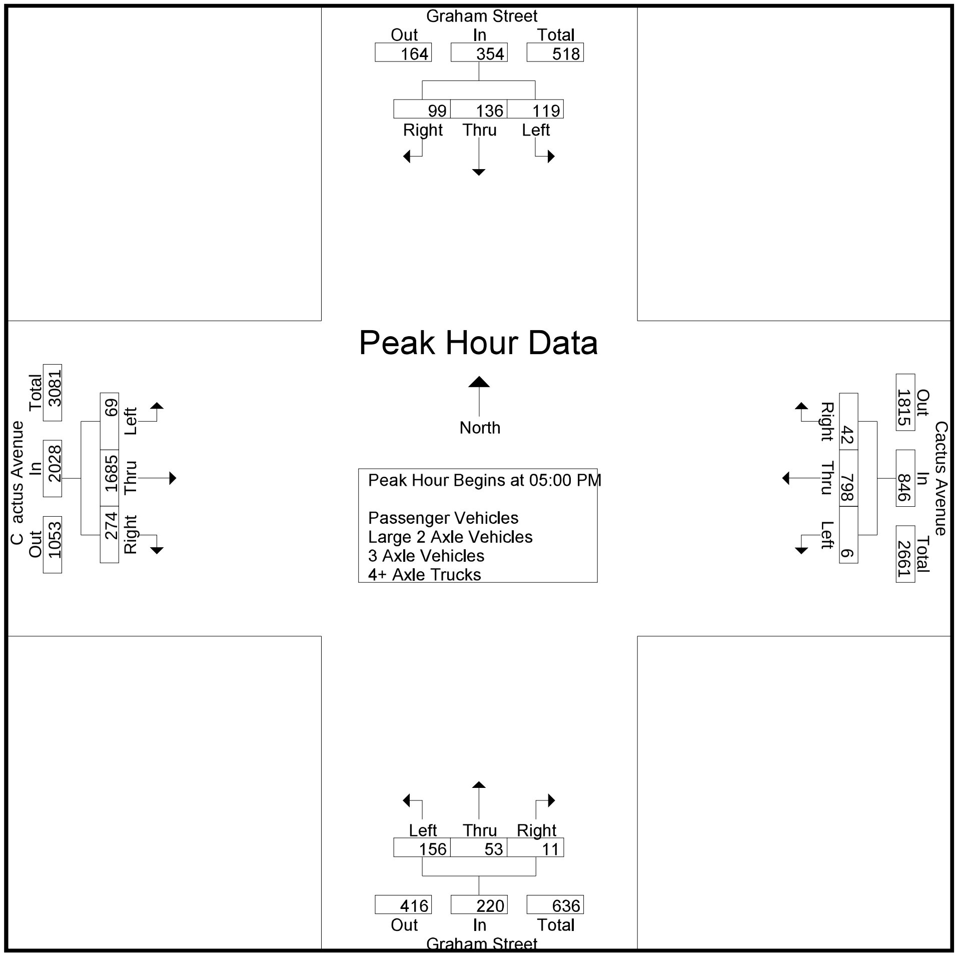

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Groups Printed- Large 2 Axle Vehicles

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	9	0	0	9	2	0	0	0	2	0	7	3	1	10	1	21	22
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	0	4	4
04:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	5	5
04:45 PM	0	0	2	2	2	0	3	0	0	3	0	0	0	0	0	0	4	1	1	5	3	10	13
Total	0	0	2	2	2	0	15	0	0	15	2	0	0	0	2	0	16	5	2	21	4	40	44
05:00 PM	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	0	3	1	0	4	0	8	8
05:15 PM	0	1	1	1	2	0	1	0	0	1	1	0	0	0	1	0	6	3	0	9	1	13	14
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	3	0	0	5	0	7	7
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7	1	0	8	0	10	10
Total	0	1	1	1	2	0	7	1	0	8	2	0	0	0	2	2	19	5	0	26	1	38	39
Grand Total	0	1	3	3	4	0	22	1	0	23	4	0	0	0	4	2	35	10	2	47	5	78	83
Apprch %	0	25	75			0	95.7	4.3			100	0	0			4.3	74.5	21.3					
Total %	0	1.3	3.8		5.1	0	28.2	1.3		29.5	5.1	0	0		5.1	2.6	44.9	12.8		60.3	6	94	

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	**2**	**1**	**3**	**1**	0	0	**1**	0	3	1	4	8
05:15 PM	0	**1**	**1**	**2**	0	1	0	1	1	0	0	1	0	6	**3**	**9**	**13**
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	**2**	3	0	5	7
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	**7**	1	8	10
Total Volume	0	1	1	2	0	7	1	8	2	0	0	2	2	19	5	26	38
% App. Total	0	50	50		0	87.5	12.5		100	0	0		7.7	73.1	19.2		
PHF	.000	.250	.250	.250	.000	.875	.250	.667	.500	.000	.000	.500	.250	.679	.417	.722	.731

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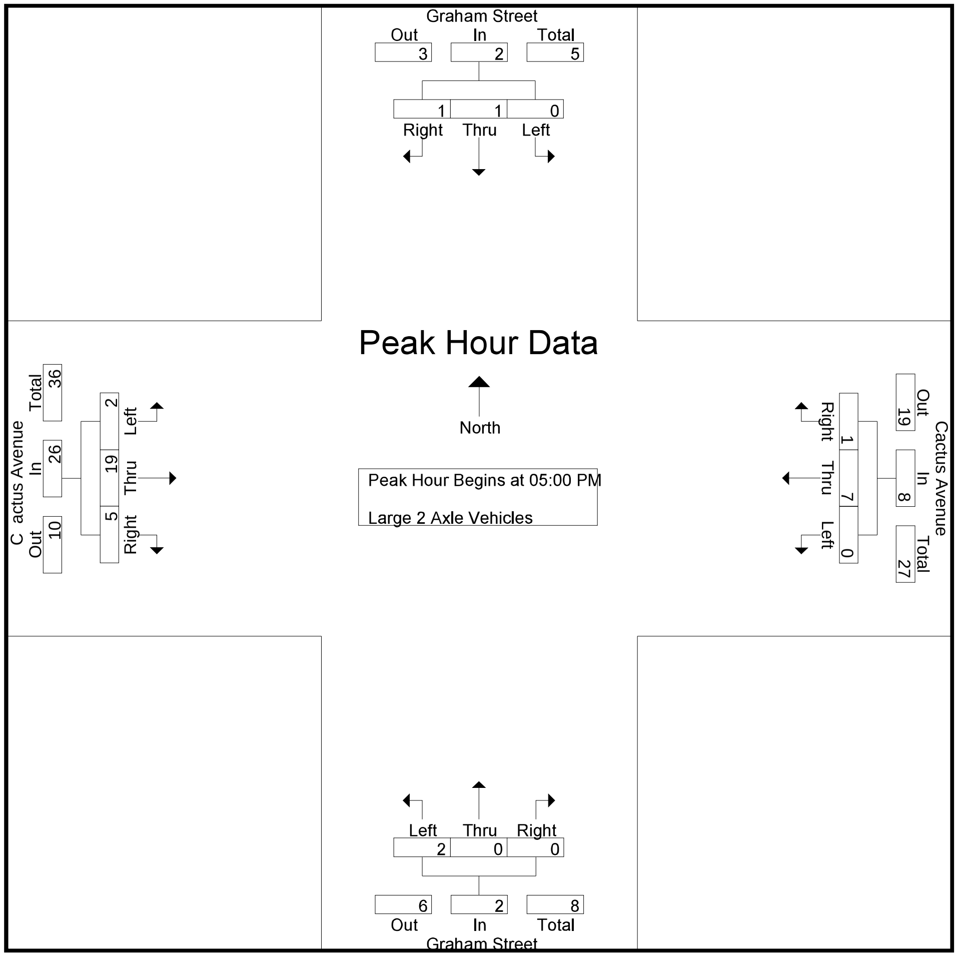

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Groups Printed- 3 Axle Vehicles

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	4	4
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	7	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
05:15 PM	0	1	1	1	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	1	2	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	1	4	5
Grand Total	0	1	1	1	2	0	3	0	0	3	1	0	0	0	1	0	5	0	0	5	1	11	12
Apprch %	0	50	50			0	100	0			100	0	0			0	100	0					
Total %	0	9.1	9.1		18.2	0	27.3	0		27.3	9.1	0	0		9.1	0	45.5	0		45.5	8.3	91.7	

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
05:15 PM	0	**1**	**1**	**2**	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**3**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	2	0	1	0	1	1	0	0	1	0	0	0	0	4
% App. Total	0	50	50		0	100	0		100	0	0		0	0	0		
PHF	.000	.250	.250	.250	.000	.250	.000	.250	.250	.000	.000	.250	.000	.000	.000	.000	.333

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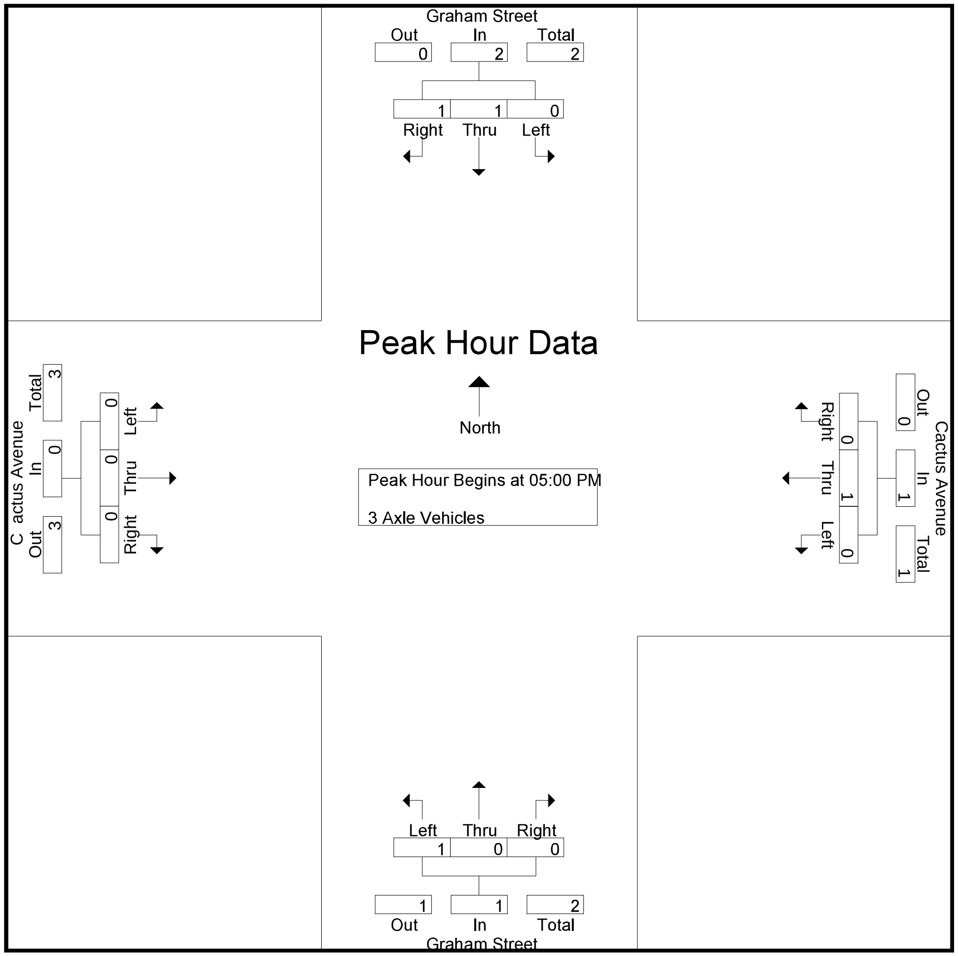

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92787
(951) 268-6268

City of Moreno Valley
N/S: Graham Street
E/W: Cactus Avenue
Weather: Clear

File Name : MRVGRCAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Graham Street Southbound					Cactus Avenue Westbound					Graham Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	5	5
04:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	2	0	0	4	0	7	7
04:30 PM	0	0	1	1	1	0	2	0	0	2	0	0	0	0	0	1	3	0	0	4	1	7	8
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
Total	0	0	1	1	1	0	8	0	0	8	0	0	0	0	0	3	10	0	0	13	1	22	23
05:00 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	10	10
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	5	5
05:30 PM	0	0	1	1	1	0	3	0	0	3	0	0	0	0	0	1	3	0	0	4	1	8	9
05:45 PM	0	0	1	1	1	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	1	9	10
Total	0	0	2	2	2	0	13	0	0	13	0	0	0	0	0	1	16	0	0	17	2	32	34
Grand Total	0	0	3	3	3	0	21	0	0	21	0	0	0	0	0	4	26	0	0	30	3	54	57
Apprch %	0	0	100			0	100	0			0	0	0			13.3	86.7	0					
Total %	0	0	5.6		5.6	0	38.9	0		38.9	0	0	0		0	7.4	48.1	0		55.6	5.3	94.7	

	Graham Street Southbound				Cactus Avenue Westbound				Graham Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	4	0	4	**10**
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
05:30 PM	0	0	**1**	**1**	0	3	0	3	0	0	0	0	**1**	3	0	4	8
05:45 PM	0	0	1	1	0	3	0	3	0	0	0	0	0	**5**	0	**5**	9
Total Volume	0	0	2	2	0	13	0	13	0	0	0	0	1	16	0	17	32
% App. Total	0	0	100		0	100	0		0	0	0		5.9	94.1	0		
PHF	.000	.000	.500	.500	.000	.542	.000	.542	.000	.000	.000	.000	.250	.800	.000	.850	.800

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File Name : MRVGRCAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

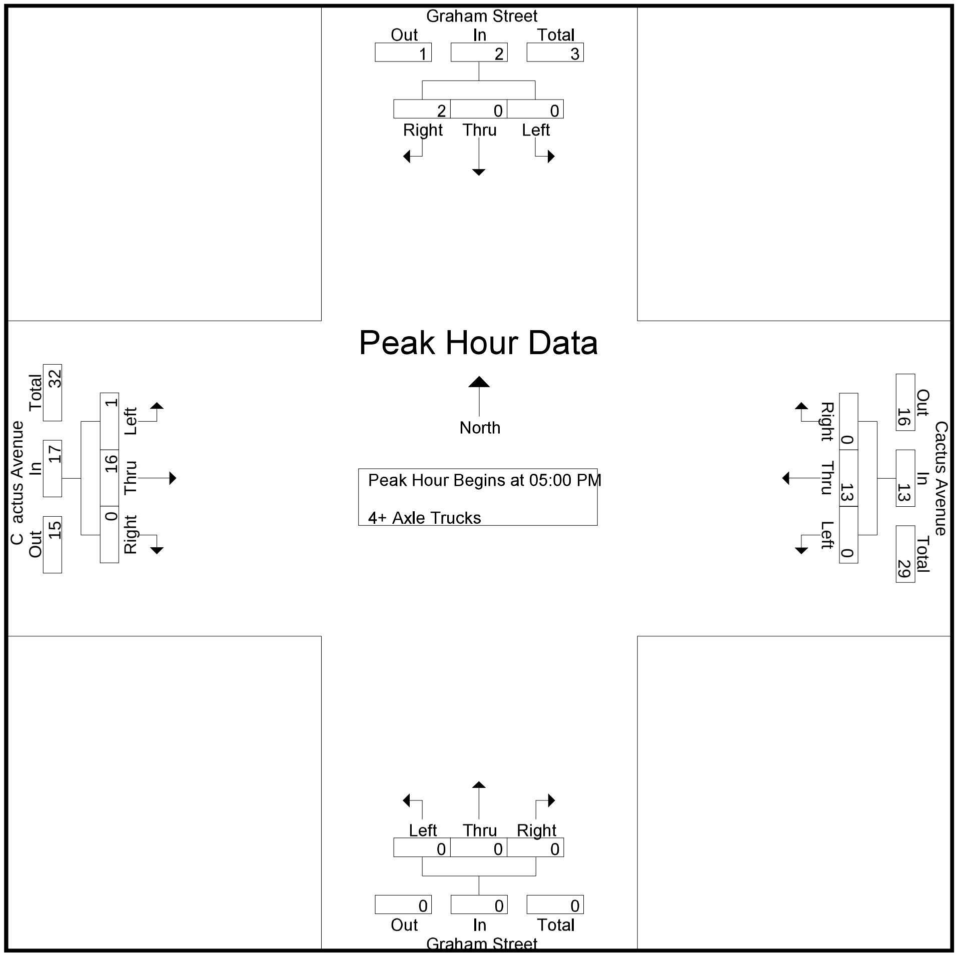

Location: Moreno Valley
N/S: Graham Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Graham Street	East Leg Cactus Avenue	South Leg Graham Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	0	3	0	1	4

	North Leg Graham Street	East Leg Cactus Avenue	South Leg Graham Street	West Leg Cactus Avenue	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	1	0	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	4	0	0	0	4

Location: Moreno Valley
N/S: Graham Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Graham Street	East Leg Cactus Avenue	South Leg Graham Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	2	2
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	2	2

	North Leg Graham Street	East Leg Cactus Avenue	South Leg Graham Street	West Leg Cactus Avenue	TOTAL
4:00 PM	1	0	1	0	2
4:15 PM	0	0	0	1	1
4:30 PM	0	1	0	0	1
4:45 PM	0	1	0	1	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	1	2
TOTAL VOLUMES:	2	2	1	3	8

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC tel: 951 249 3226 pacific@aimtd.com

DATE: Tue, Feb 4, 14	LOCATION:	Perris	PROJECT #:	SC0297
	NORTH & SOUTH:	Patterson	LOCATION #:	10
	EAST & WEST:	Harley Knox	CONTROL:	SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Patterson			Patterson			Harley Knox			Harley Knox								
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TT
	LANES:	0	1	0	0	1	0	1	1	1	1	1	0						
AM	7:00 AM	12	0	0	0	1	3	1	88	6	0	114	0	225	0	0	0	0	0
	7:15 AM	32	0	3	0	0	0	0	115	3	0	105	0	258	0	0	0	0	0
	7:30 AM	19	0	1	0	0	1	1	126	5	0	91	1	245	0	0	0	0	0
	7:45 AM	33	0	1	0	0	1	2	114	2	0	97	0	250	0	0	0	0	0
	8:00 AM	15	0	3	1	0	2	3	119	4	0	120	1	268	0	0	0	0	0
	8:15 AM	9	0	0	0	0	0	1	90	8	2	73	3	186	0	0	0	0	0
	8:30 AM	6	1	1	0	0	0	3	88	5	0	68	0	172	0	0	0	0	0
	8:45 AM	3	1	1	0	0	3	1	79	4	0	52	0	144	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	129	2	10	1	1	10	12	819	37	2	720	5	1,748	0	0	0	0	0
	APPROACH %	91%	1%	7%	8%	8%	83%	1%	94%	4%	0%	99%	1%						
	APP/DEPART	141	/	19	12	/	40	868	/	830	727	/	859	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	96	0	5	0	1	5	4	443	16	0	407	1	978					
	APPROACH %	95%	0%	5%	0%	17%	83%	1%	96%	3%	0%	100%	0%						
	PEAK HR FACTOR		0.721			0.375			0.877			0.895		0.948					
	APP/DEPART	101	/	5	6	/	17	463	/	448	408	/	508	0					
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	10	0	1	2	2	1	2	118	17	0	121	0	274	0	0	0	0	0
	4:15 PM	7	1	1	2	1	3	0	113	5	1	98	3	235	0	0	0	0	0
	4:30 PM	10	1	1	0	0	6	1	99	10	1	134	1	264	0	0	0	0	0
	4:45 PM	7	2	2	3	1	0	2	65	10	1	98	0	191	0	0	0	0	0
	5:00 PM	9	0	1	1	0	4	1	85	9	0	81	0	191	0	0	1	0	1
	5:15 PM	6	0	3	1	0	2	1	95	6	1	63	1	179	0	0	0	0	0
	5:30 PM	6	0	1	0	0	2	1	78	11	0	65	0	164	0	0	0	0	0
	5:45 PM	0	0	2	0	0	2	0	73	10	0	53	1	141	0	0	0	0	0
	VOLUMES	55	4	12	9	4	20	8	726	78	4	713	6	1,639	0	0	1	0	1
	APPROACH %	77%	6%	17%	27%	12%	61%	1%	89%	10%	1%	99%	1%						
	APP/DEPART	71	/	18	33	/	86	812	/	747	723	/	788	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	34	4	5	7	4	10	5	395	42	3	451	4	964					
	APPROACH %	79%	9%	12%	33%	19%	48%	1%	89%	10%	1%	98%	1%						
	PEAK HR FACTOR		0.896			0.875			0.807			0.842		0.880					
	APP/DEPART	43	/	13	21	/	49	442	/	407	458	/	495	0					

Patterson

NORTH SIDE

Harley Knox WEST SIDE

EAST SIDE **Harley Knox**

SOUTH SIDE

Patterson

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE: 2/4/14 TUESDAY	LOCATION:	Perris		PROJECT #:	SC0297
	NORTH & SOUTH:	Patterson		LOCATION #:	10
	EAST & WEST:	Harley Knox		CONTROL:	SIGNAL

CLASS 2:
2-AXLE
WORK
VEHICLES/
TRUCKS

NOTES:

AM
PM
MD
OTHER
OTHER

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		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
			Patterson			Patterson			Harley Knox			Harley Knox							
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TT
	LANES:	0	1	0	0	1	0	1	1	1	1	1	0						
AM	7:00 AM	1	0	0	0	0	2	0	9	0	0	7	0	19					0
	7:15 AM	4	0	0	0	0	0	0	5	0	0	1	0	10					0
	7:30 AM	0	0	0	0	0	0	0	9	2	0	6	1	18					0
	7:45 AM	6	0	1	0	0	0	0	6	0	0	0	0	13					0
	8:00 AM	2	0	0	0	0	0	0	4	2	0	1	0	9					0
	8:15 AM	2	0	0	0	0	0	0	0	0	0	0	1	3					0
	8:30 AM	1	0	0	0	0	0	0	2	1	0	1	0	5					0
	8:45 AM	0	0	0	0	0	2	0	2	1	0	1	0	6					0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	16	0	1	0	0	4	0	37	6	0	17	2	83	0	0	0	0	0
	APPROACH %	94%	0%	6%	0%	0%	100%	0%	86%	14%	0%	89%	11%						
	APP/DEPART	17	/	2	4	/	6	43	/	38	19	/	37	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	11	0	1	0	0	2	0	29	2	0	14	1	60					
	APPROACH %	92%	0%	8%	0%	0%	100%	0%	94%	6%	0%	93%	7%						
	PEAK HR FACTOR		0.429			0.250			0.705			0.536		0.789					
	APP/DEPART	12	/	1	2	/	2	31	/	30	15	/	27	0					
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:00 PM	0	0	0	1	0	1	0	2	2	0	1	0	7					0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1					0
	4:30 PM	1	0	0	0	0	0	0	1	1	0	1	0	4					0
	4:45 PM	0	0	1	0	0	0	0	1	1	0	0	0	3					0
	5:00 PM	1	0	1	1	0	0	0	4	1	0	0	0	8					0
	5:15 PM	3	0	1	0	0	0	0	0	0	0	2	0	6					0
	5:30 PM	1	0	0	0	0	0	0	3	0	0	3	0	7					0
	5:45 PM	0	0	0	0	0	1	0	3	0	0	1	0	5					0
	VOLUMES	6	0	3	2	0	2	0	14	5	0	8	1	41	0	0	0	0	0
	APPROACH %	67%	0%	33%	50%	0%	50%	0%	74%	26%	0%	89%	11%						
	APP/DEPART	9	/	1	4	/	5	19	/	19	9	/	16	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	5	0	2	1	0	1	0	10	1	0	6	0	26					
	APPROACH %	71%	0%	29%	50%	0%	50%	0%	91%	9%	0%	100%	0%						
	PEAK HR FACTOR		0.438			0.500			0.550			0.500		0.813					
	APP/DEPART	7	/	0	2	/	1	11	/	13	6	/	12	0					

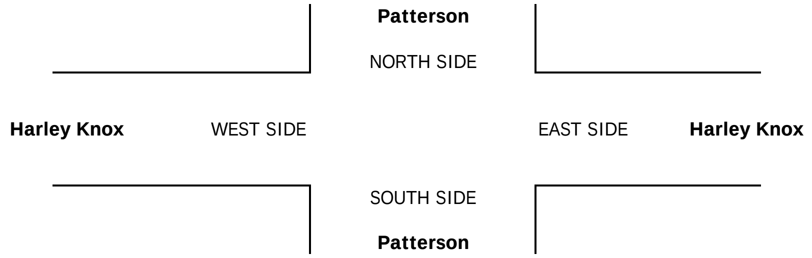

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE: 2/4/14 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	Perris Patterson Harley Knox	PROJECT #: SC0297 LOCATION #: 10 CONTROL: SIGNAL

CLASS 3:
3-AXLE
TRUCKS

NOTES:

AM
PM
MD
OTHER
OTHER

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		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Patterson			Patterson			Harley Knox			Harley Knox								
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	0	1	0	0	1	0	1	1	1	1	1	0						
AM	7:00 AM	0	0	0	0	1	0	0	2	1	0	2	0	6					0
	7:15 AM	2	0	1	0	0	0	0	3	0	0	0	0	6					0
	7:30 AM	0	0	0	0	0	0	0	9	0	0	1	0	10					0
	7:45 AM	2	0	0	0	0	0	0	5	0	0	0	0	7					0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:15 AM	1	0	0	0	0	0	0	2	1	1	1	1	7					0
	8:30 AM	1	0	0	0	0	0	0	0	0	0	2	0	3					0
	8:45 AM	1	0	0	0	0	1	0	0	0	0	1	0	3					0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	7	0	1	0	1	1	0	21	2	1	7	1	42	0	0	0	0	0
	APPROACH %	88%	0%	13%	0%	50%	50%	0%	91%	9%	11%	78%	11%						
	APP/DEPART	8	/	1	2	/	4	23	/	22	9	/	15	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	4	0	1	0	1	0	0	19	1	0	3	0	29					
	APPROACH %	80%	0%	20%	0%	100%	0%	0%	95%	5%	0%	100%	0%						
	PEAK HR FACTOR		0.417			0.250			0.556			0.375		0.725					
	APP/DEPART	5	/	0	1	/	2	20	/	20	3	/	7	0					
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:00 PM	0	0	0	0	1	0	0	3	3	0	0	0	7					0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:30 PM	1	0	0	0	0	0	0	0	0	0	1	0	2					0
	4:45 PM	0	0	0	0	0	0	0	4	0	0	1	0	5					0
	5:00 PM	1	0	0	0	0	1	1	1	0	0	1	0	5					0
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2					0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1					0
	5:45 PM	0	0	0	0	0	0	0	1	4	0	0	1	6					0
	VOLUMES	2	0	0	0	1	1	1	12	7	0	3	1	28	0	0	0	0	0
	APPROACH %	100%	0%	0%	0%	50%	50%	5%	60%	35%	0%	75%	25%						
	APP/DEPART	2	/	2	2	/	8	20	/	12	4	/	6	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	1	0	0	0	0	1	1	5	4	0	1	1	14					
	APPROACH %	100%	0%	0%	0%	0%	100%	10%	50%	40%	0%	50%	50%						
	PEAK HR FACTOR		0.250			0.250			0.500			0.500		0.583					
	APP/DEPART	1	/	2	1	/	4	10	/	5	2	/	3	0					

Patterson

NORTH SIDE

Harley Knox WEST SIDE

EAST SIDE **Harley Knox**

SOUTH SIDE

Patterson

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE: 2/4/14 TUESDAY	LOCATION:	Perris		PROJECT #:	SC0297
	NORTH & SOUTH:	Patterson		LOCATION #:	11
	EAST & WEST:	Harley Knox		CONTROL:	SIGNAL

CLASS 4:
4 OR MORE
AXLE
TRUCKS

NOTES:

AM
PM
MD
OTHER
OTHER

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		NORTHBOUND Patterson			SOUTHBOUND Patterson			EASTBOUND Harley Knox			WESTBOUND Harley Knox				U-TURNS				
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	0	1	0	0	1	0	1	1	1	1	1	0						
AM	7:00 AM	0	0	0	0	0	0	1	11	0	0	14	0	26					0
	7:15 AM	1	0	0	0	0	0	0	13	1	0	11	0	26					0
	7:30 AM	0	0	0	0	0	0	0	13	0	0	9	0	22					0
	7:45 AM	0	0	0	0	0	0	0	12	0	0	10	0	22					0
	8:00 AM	1	0	0	0	0	1	0	0	0	0	2	0	4					0
	8:15 AM	1	0	0	0	0	0	0	0	2	0	1	0	4					0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:45 AM	1	0	0	0	0	0	0	1	1	0	0	0	3					0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	4	0	0	0	0	1	1	50	4	0	47	0	107	0	0	0	0	0
	APPROACH %	100%	0%	0%	0%	0%	100%	2%	91%	7%	0%	100%	0%						
	APP/DEPART	4	/	1	1	/	4	55	/	50	47	/	52	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	1	0	0	0	0	0	1	49	1	0	44	0	96					
	APPROACH %	100%	0%	0%	0%	0%	0%	2%	96%	2%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.000			0.911			0.786		0.923					
	APP/DEPART	1	/	1	0	/	1	51	/	49	44	/	45	0					
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:00 PM	1	0	0	0	0	0	0	2	2	0	1	0	6					0
	4:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	2					0
	4:30 PM	1	0	0	0	0	0	0	0	0	0	1	0	2					0
	4:45 PM	0	0	0	0	0	0	0	4	0	0	1	0	5					0
	5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2					0
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2					0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1					0
	5:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	3					0
	VOLUMES	2	0	0	0	0	0	0	14	3	1	3	0	23	0	0	0	0	0
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	82%	18%	25%	75%	0%						
	APP/DEPART	2	/	0	0	/	4	17	/	14	4	/	5	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	1	0	0	0	0	0	0	8	0	0	2	0	11					
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.250			0.000			0.500			0.500		0.550					
	APP/DEPART	1	/	0	0	/	0	8	/	8	2	/	3	0					

Patterson

NORTH SIDE

Harley Knox WEST SIDE

EAST SIDE **Harley Knox**

SOUTH SIDE

Patterson

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0017) Prologis Plot Plans)

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE: 2/4/14 TUESDAY	LOCATION:	Perris	PROJECT #:	SC0297	
	NORTH & SOUTH:	Patterson	LOCATION #:	10	
	EAST & WEST:	Harley Knox	CONTROL:	SIGNAL	

CLASS 5:
RECREATIONAL
VEHICLES

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Patterson			Patterson			Harley Knox			Harley Knox								
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	0	1	0	0	1	0	1	1	1	1	1	0						
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		9:45 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		5:45 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Patterson

NORTH SIDE

Harley Knox WEST SIDE

EAST SIDE **Harley Knox**

SOUTH SIDE

Patterson

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TRAFFIC DATA SERVICES

DATE: 2/4/14 TUESDAY	LOCATION:	Perris	PROJECT #:	SC0297
	NORTH & SOUTH:	Patterson	LOCATION #:	10
	EAST & WEST:	Harley Knox	CONTROL:	SIGNAL

CLASS 6: BUSSES

NOTES:

AM PM MD OTHER OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				U-TURNS				
		Patterson			Patterson			Harley Knox			Harley Knox								
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB	TTL
	LANES:	0	1	0	0	1	0	1	1	1	1	1	0						
AM	7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2					0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	7:30 AM	0	0	0	0	0	0	0	1	0	0	1	0	2					0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1					0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	0	/	0	3	/	3	2	/	2	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	0	0	0	0	0	0	0	3	0	0	2	0	5					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.000			0.375			0.500		0.625					
	APP/DEPART	0	/	0	0	/	0	3	/	3	2	/	2	0					
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1					0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0					
	BEGIN PEAK HR		5:30 PM																
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	0	1					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.250			0.000		0.250					
	APP/DEPART	0	/	0	0	/	0	1	/	1	0	/	0	0					

Patterson

NORTH SIDE

Harley Knox WEST SIDE

EAST SIDE **Harley Knox**

SOUTH SIDE

Patterson

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92787
(951) 268-6268

City of Moreno Valley
N/S: Heacock Street
E/W: Cactus Avenue
Weather: Clear

File Name : MRVHECAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	46	9	4	58	2	225	26	6	253	154	70	2	0	226	17	93	72	35	182	45	719	764
07:15 AM	8	72	9	2	89	3	284	20	0	307	169	87	2	2	258	18	139	77	11	234	15	888	903
07:30 AM	17	80	13	6	110	2	254	25	0	281	173	93	5	0	271	30	146	81	16	257	22	919	941
07:45 AM	15	55	14	3	84	2	234	21	2	257	174	109	0	0	283	23	134	80	9	237	14	861	875
Total	43	253	45	15	341	9	997	92	8	1098	670	359	9	2	1038	88	512	310	71	910	96	3387	3483
08:00 AM	14	43	7	2	64	3	197	23	5	223	124	91	1	0	216	28	123	61	13	212	20	715	735
08:15 AM	10	52	11	3	73	1	189	18	1	208	106	88	1	0	195	18	120	62	4	200	8	676	684
08:30 AM	20	44	8	2	72	2	143	17	1	162	113	83	1	0	197	13	112	66	2	191	5	622	627
08:45 AM	10	51	7	1	68	2	158	34	7	194	78	58	1	0	137	19	84	46	8	149	16	548	564
Total	54	190	33	8	277	8	687	92	14	787	421	320	4	0	745	78	439	235	27	752	49	2561	2610
Grand Total	97	443	78	23	618	17	1684	184	22	1885	1091	679	13	2	1783	166	951	545	98	1662	145	5948	6093
Apprch %	15.7	71.7	12.6			0.9	89.3	9.8			61.2	38.1	0.7			10	57.2	32.8					
Total %	1.6	7.4	1.3		10.4	0.3	28.3	3.1		31.7	18.3	11.4	0.2		30	2.8	16	9.2		27.9	2.4	97.6	
Passenger Vehicles	92	419	77		610	16	1646	176		1859	1043	659	12		1715	160	916	488		1650	0	0	5834
% Passenger Vehicles	94.8	94.6	98.7	95.7	95.2	94.1	97.7	95.7	95.5	97.5	95.6	97.1	92.3	50	96.1	96.4	96.3	89.5	87.8	93.8	0	0	95.7
Large 2 Axle Vehicles	4	9	0		13	1	27	6		35	27	13	0		40	4	26	22		55	0	0	143
% Large 2 Axle Vehicles	4.1	2	0	0	2	5.9	1.6	3.3	4.5	1.8	2.5	1.9	0	0	2.2	2.4	2.7	4	3.1	3.1	0	0	2.3
3 Axle Vehicles	0	2	0		2	0	5	0		5	2	1	0		3	0	4	5		11	0	0	21
% 3 Axle Vehicles	0	0.5	0	0	0.3	0	0.3	0	0	0.3	0.2	0.1	0	0	0.2	0	0.4	0.9	2	0.6	0	0	0.3
4+ Axle Trucks	1	13	1		16	0	6	2		8	19	6	1		27	2	5	30		44	0	0	95
% 4+ Axle Trucks	1	2.9	1.3	4.3	2.5	0	0.4	1.1	0	0.4	1.7	0.9	7.7	50	1.5	1.2	0.5	5.5	7.1	2.5	0	0	1.6

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	46	9	58	2	225	**26**	253	154	70	2	226	17	93	72	182	719
07:15 AM	8	72	9	89	**3**	**284**	20	**307**	169	87	2	258	18	139	77	234	888
07:30 AM	**17**	**80**	13	**110**	2	254	25	281	173	93	**5**	271	**30**	**146**	**81**	**257**	**919**
07:45 AM	15	55	**14**	84	2	234	21	257	**174**	**109**	0	**283**	23	134	80	237	861
Total Volume	43	253	45	341	9	997	92	1098	670	359	9	1038	88	512	310	910	3387
% App. Total	12.6	74.2	13.2		0.8	90.8	8.4		64.5	34.6	0.9		9.7	56.3	34.1		
PHF	.632	.791	.804	.775	.750	.878	.885	.894	.963	.823	.450	.917	.733	.877	.957	.885	.921

Counts Unlimited, Inc.
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City of Moreno Valley
N/S: Heacock Street
E/W: Cactus Avenue
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File Name : MRVHECAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

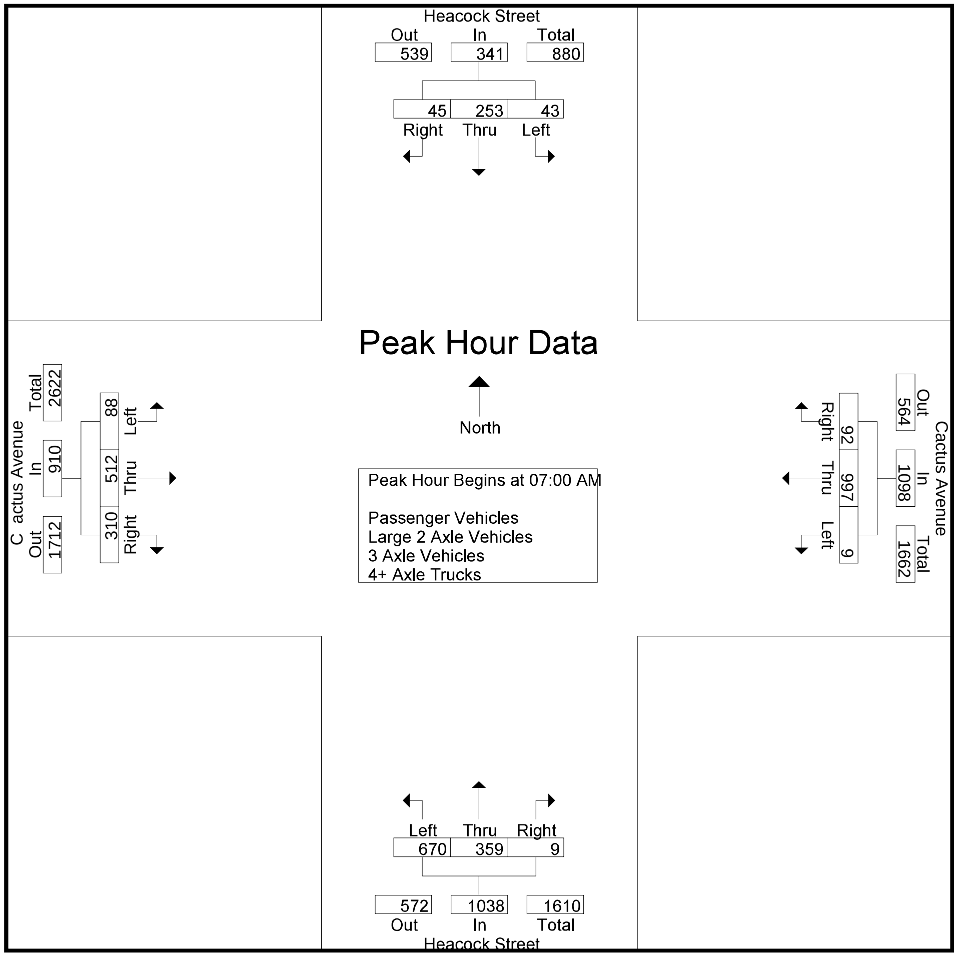

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City of Moreno Valley
N/S: Heacock Street
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Weather: Clear

File Name : MRVHECAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	0	1	0	2	2	1	4	1	1	0	0	2	0	2	1	0	3	1	10	11
07:15 AM	1	1	0	0	2	0	5	1	0	6	4	2	0	0	6	2	2	4	1	8	1	22	23
07:30 AM	0	1	0	0	1	0	0	1	0	1	4	0	0	0	4	0	6	6	2	12	2	18	20
07:45 AM	0	1	0	0	1	0	2	0	0	2	3	4	0	0	7	0	2	2	0	4	0	14	14
Total	1	4	0	0	5	0	9	4	1	13	12	7	0	0	19	2	12	13	3	27	4	64	68
08:00 AM	0	1	0	0	1	1	6	0	0	7	6	1	0	0	7	2	4	3	0	9	0	24	24
08:15 AM	0	2	0	0	2	0	4	1	0	5	4	2	0	0	6	0	1	1	0	2	0	15	15
08:30 AM	3	1	0	0	4	0	4	0	0	4	2	2	0	0	4	0	7	2	0	9	0	21	21
08:45 AM	0	1	0	0	1	0	4	1	0	5	3	1	0	0	4	0	2	3	0	5	0	15	15
Total	3	5	0	0	8	1	18	2	0	21	15	6	0	0	21	2	14	9	0	25	0	75	75
Grand Total	4	9	0	0	13	1	27	6	1	34	27	13	0	0	40	4	26	22	3	52	4	139	143
Apprch %	30.8	69.2	0			2.9	79.4	17.6			67.5	32.5	0			7.7	50	42.3					
Total %	2.9	6.5	0		9.4	0.7	19.4	4.3		24.5	19.4	9.4	0		28.8	2.9	18.7	15.8		37.4	2.8	97.2	

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**1**	0	1	0	2	**2**	4	1	1	0	2	0	2	1	3	10
07:15 AM	**1**	1	0	**2**	0	**5**	1	**6**	**4**	2	0	6	**2**	2	4	8	**22**
07:30 AM	0	1	0	1	0	0	1	1	4	0	0	4	0	**6**	**6**	**12**	18
07:45 AM	0	1	0	1	0	2	0	2	3	**4**	0	**7**	0	2	2	4	14
Total Volume	1	4	0	5	0	9	4	13	12	7	0	19	2	12	13	27	64
% App. Total	20	80	0		0	69.2	30.8		63.2	36.8	0		7.4	44.4	48.1		
PHF	.250	1.00	.000	.625	.000	.450	.500	.542	.750	.438	.000	.679	.250	.500	.542	.563	.727

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Weather: Clear

File Name : MRVHECAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

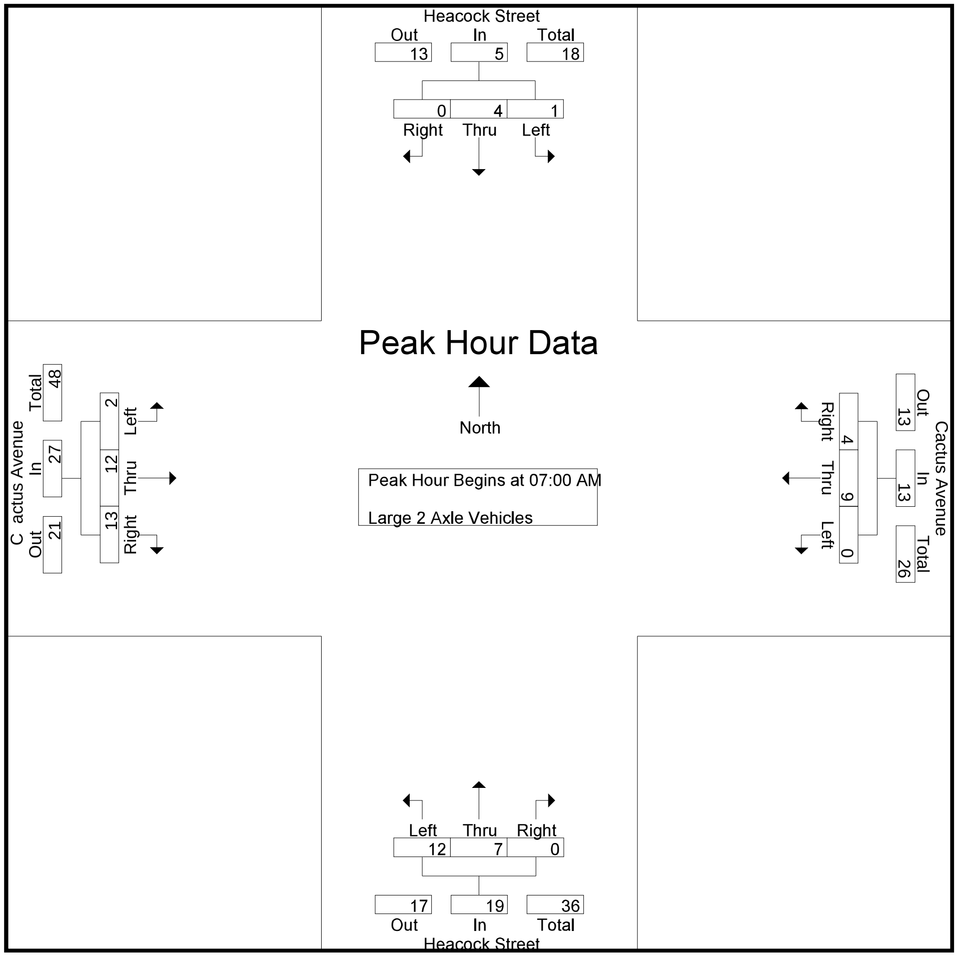

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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	1	0	2	0	5	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	2	2	1	4	1	8	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	3	3
08:15 AM	0	1	0	0	1	0	1	0	0	1	1	0	0	0	1	0	0	1	1	1	1	4	5
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2	2
08:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	2
Total	0	1	0	0	1	0	2	0	0	2	2	1	0	0	3	0	2	3	1	5	1	11	12
Grand Total	0	2	0	0	2	0	5	0	0	5	2	1	0	0	3	0	4	5	2	9	2	19	21
Apprch %	0	100	0			0	100	0			66.7	33.3	0			0	44.4	55.6					
Total %	0	10.5	0		10.5	0	26.3	0		26.3	10.5	5.3	0		15.8	0	21.1	26.3		47.4	9.5	90.5	

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	1	1
07:15 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	0	**1**	1	**2**	**5**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	1	0	1	0	3	0	3	0	0	0	0	0	2	2	4	8
% App. Total	0	100	0		0	100	0		0	0	0		0	50	50		
PHF	.000	.250	.000	.250	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.500	.500	.400

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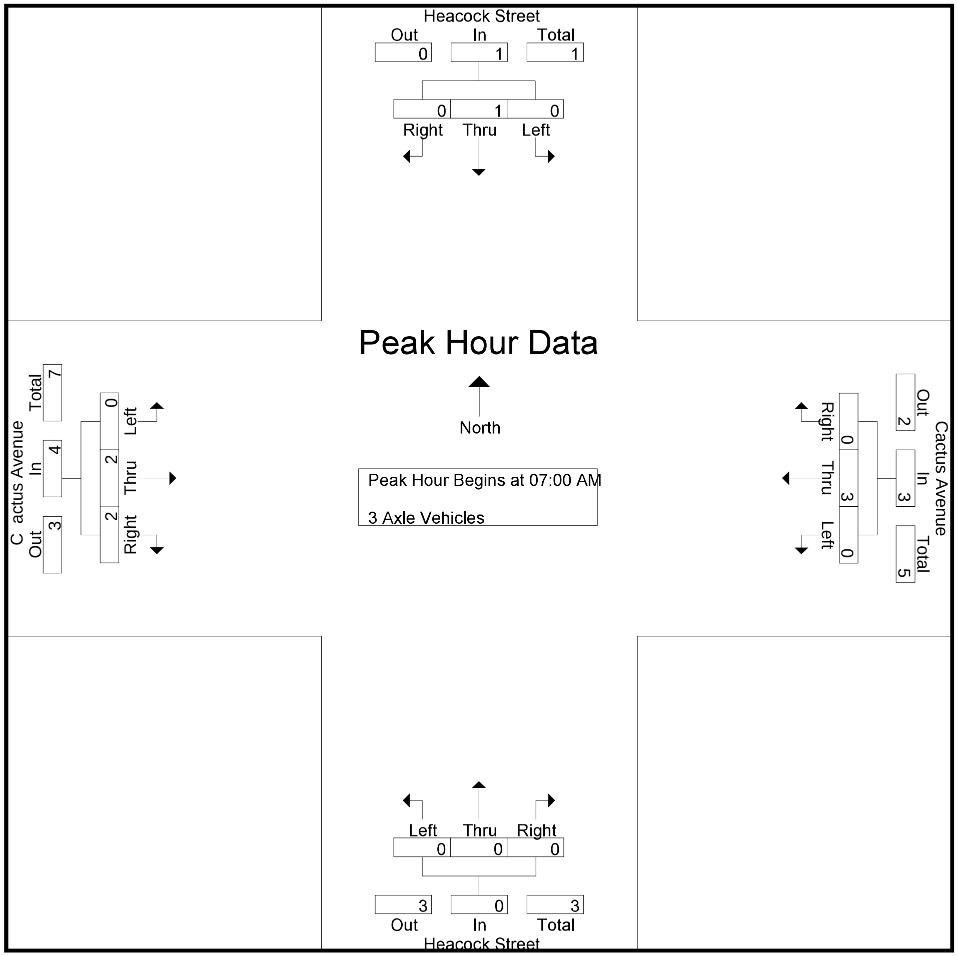

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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	0	0	2	0	0	0	0	0	2	1	0	0	3	0	1	1	0	2	0	7	7
07:15 AM	1	1	0	0	2	0	0	0	0	0	1	0	1	1	2	0	1	1	0	2	1	6	7
07:30 AM	0	2	0	0	2	0	3	1	0	4	3	2	0	0	5	0	0	3	0	3	0	14	14
07:45 AM	0	2	1	1	3	0	0	0	0	0	3	2	0	0	5	0	0	6	4	6	5	14	19
Total	1	7	1	1	9	0	3	1	0	4	9	5	1	1	15	0	2	11	4	13	6	41	47
08:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	1	1	6	3	8	3	14	17
08:15 AM	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	2	5	0	7	0	11	11
08:30 AM	0	2	0	0	2	0	2	0	0	2	2	0	0	0	2	0	0	6	0	6	0	12	12
08:45 AM	0	2	0	0	2	0	1	1	0	2	1	0	0	0	1	1	0	2	0	3	0	8	8
Total	0	6	0	0	6	0	3	1	0	4	10	1	0	0	11	2	3	19	3	24	3	45	48
Grand Total	1	13	1	1	15	0	6	2	0	8	19	6	1	1	26	2	5	30	7	37	9	86	95
Apprch %	6.7	86.7	6.7			0	75	25			73.1	23.1	3.8			5.4	13.5	81.1					
Total %	1.2	15.1	1.2		17.4	0	7	2.3		9.3	22.1	7	1.2		30.2	2.3	5.8	34.9		43	9.5	90.5	

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**2**	0	2	0	0	0	0	2	1	0	3	0	**1**	1	2	7
07:15 AM	**1**	1	0	2	0	0	0	0	1	0	**1**	2	0	1	1	2	6
07:30 AM	0	2	0	2	0	**3**	**1**	**4**	**3**	**2**	0	**5**	0	0	3	3	**14**
07:45 AM	0	2	**1**	**3**	0	0	0	0	3	2	0	5	0	0	**6**	**6**	14
Total Volume	1	7	1	9	0	3	1	4	9	5	1	15	0	2	11	13	41
% App. Total	11.1	77.8	11.1		0	75	25		60	33.3	6.7		0	15.4	84.6		
PHF	.250	.875	.250	.750	.000	.250	.250	.250	.750	.625	.250	.750	.000	.500	.458	.542	.732

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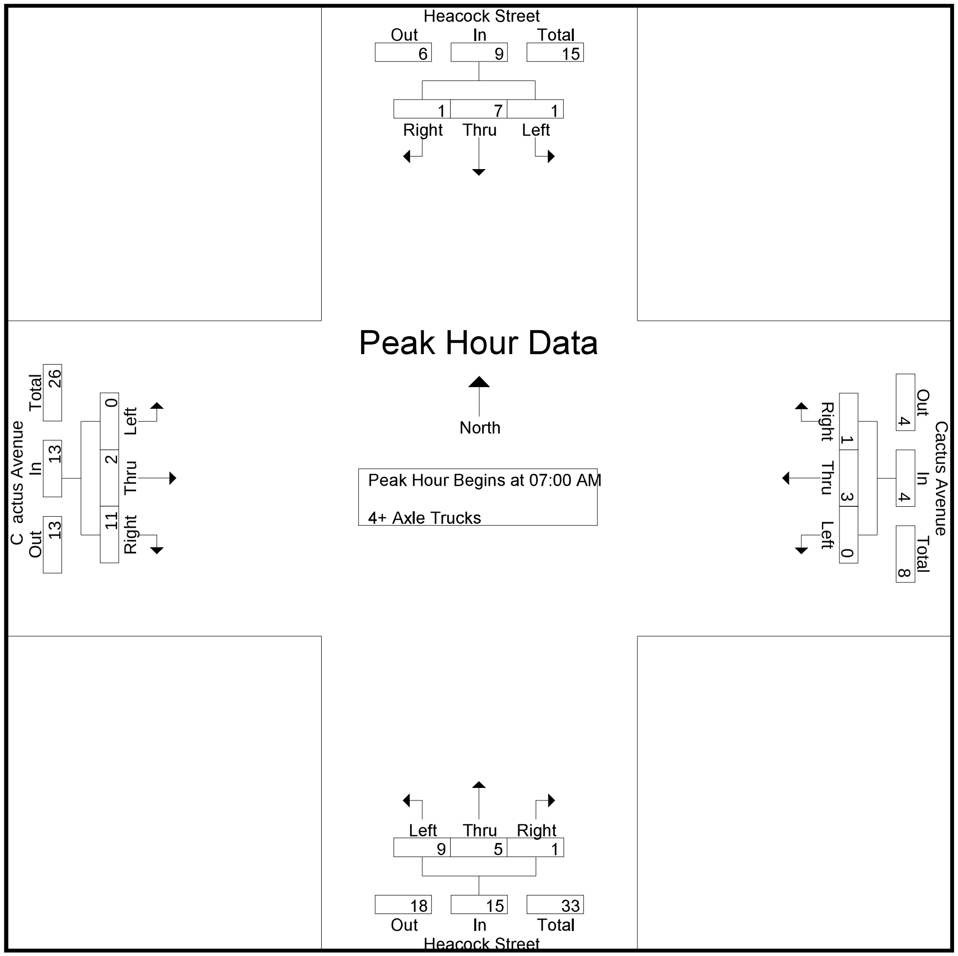

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	29	102	15	1	146	0	141	14	1	155	95	74	4	0	173	26	207	151	5	384	7	858	865
04:15 PM	17	126	13	4	156	2	145	18	2	165	97	89	3	0	189	22	194	156	13	372	19	882	901
04:30 PM	16	127	11	3	154	6	159	24	0	189	87	130	1	0	218	19	202	168	6	389	9	950	959
04:45 PM	17	134	10	1	161	2	182	10	2	194	102	153	3	0	258	20	229	171	5	420	8	1033	1041
Total	79	489	49	9	617	10	627	66	5	703	381	446	11	0	838	87	832	646	29	1565	43	3723	3766
05:00 PM	34	110	7	4	151	2	132	15	0	149	101	89	7	3	197	22	220	184	1	426	8	923	931
05:15 PM	32	122	5	1	159	4	127	20	3	151	75	98	6	0	179	22	249	201	3	472	7	961	968
05:30 PM	25	145	17	1	187	5	114	22	1	141	85	115	3	1	203	18	226	194	5	438	8	969	977
05:45 PM	20	140	20	3	180	2	123	22	5	147	93	89	4	0	186	16	258	200	3	474	11	987	998
Total	111	517	49	9	677	13	496	79	9	588	354	391	20	4	765	78	953	779	12	1810	34	3840	3874
Grand Total	190	1006	98	18	1294	23	1123	145	14	1291	735	837	31	4	1603	165	1785	1425	41	3375	77	7563	7640
Apprch %	14.7	77.7	7.6			1.8	87	11.2			45.9	52.2	1.9			4.9	52.9	42.2					
Total %	2.5	13.3	1.3		17.1	0.3	14.8	1.9		17.1	9.7	11.1	0.4		21.2	2.2	23.6	18.8		44.6	1	99	
Passenger Vehicles	185	976	93		1271	22	1100	144		1280	704	819	30		1557	163	1757	1378		3339	0	0	7447
% Passenger Vehicles	97.4	97	94.9	94.4	96.9	95.7	98	99.3	100	98.1	95.8	97.8	96.8	100	96.9	98.8	98.4	96.7	100	97.7	0	0	97.5
Large 2 Axle Vehicles	5	15	1		22	1	20	1		22	13	14	1		28	2	23	16		41	0	0	113
% Large 2 Axle Vehicles	2.6	1.5	1	5.6	1.7	4.3	1.8	0.7	0	1.7	1.8	1.7	3.2	0	1.7	1.2	1.3	1.1	0	1.2	0	0	1.5
3 Axle Vehicles	0	13	2		15	0	1	0		1	2	2	0		4	0	3	5		8	0	0	28
% 3 Axle Vehicles	0	1.3	2	0	1.1	0	0.1	0	0	0.1	0.3	0.2	0	0	0.2	0	0.2	0.4	0	0.2	0	0	0.4
4+ Axle Trucks	0	2	2		4	0	2	0		2	16	2	0		18	0	2	26		28	0	0	52
% 4+ Axle Trucks	0	0.2	2	0	0.3	0	0.2	0	0	0.2	2.2	0.2	0	0	1.1	0	0.1	1.8	0	0.8	0	0	0.7

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	17	134	10	161	2	**182**	10	**194**	**102**	**153**	3	**258**	20	229	171	420	**1033**
05:00 PM	**34**	110	7	151	2	132	15	149	101	89	**7**	197	**22**	220	184	426	923
05:15 PM	32	122	5	159	4	127	20	151	75	98	6	179	22	**249**	**201**	**472**	961
05:30 PM	25	**145**	**17**	**187**	**5**	114	**22**	141	85	115	3	203	18	226	194	438	969
Total Volume	108	511	39	658	13	555	67	635	363	455	19	837	82	924	750	1756	3886
% App. Total	16.4	77.7	5.9		2	87.4	10.6		43.4	54.4	2.3		4.7	52.6	42.7		
PHF	.794	.881	.574	.880	.650	.762	.761	.818	.890	.743	.679	.811	.932	.928	.933	.930	.940

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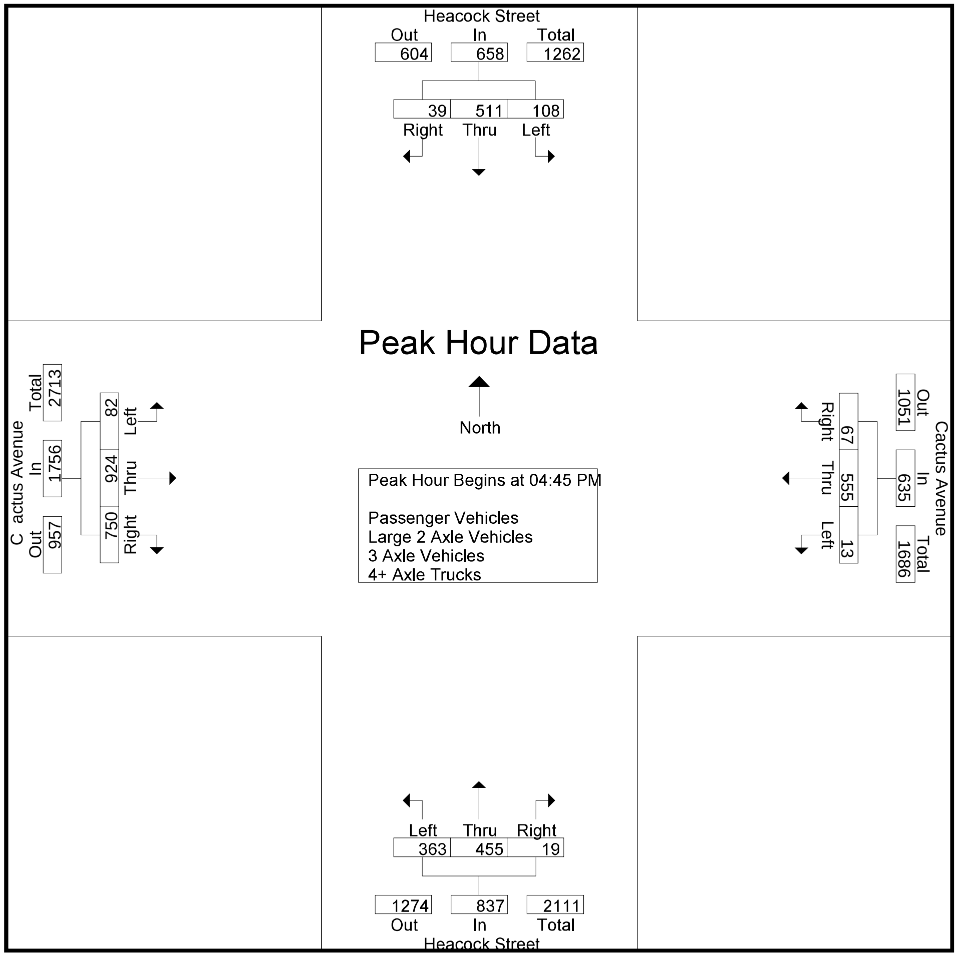

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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	3	0	0	4	0	7	0	0	7	1	2	1	0	4	0	5	3	0	8	0	23	23
04:15 PM	2	3	0	0	5	1	2	1	0	4	0	0	0	0	0	1	4	3	0	8	0	17	17
04:30 PM	1	2	1	1	4	0	2	0	0	2	1	6	0	0	7	1	0	2	0	3	1	16	17
04:45 PM	0	1	0	0	1	0	2	0	0	2	2	3	0	0	5	0	4	3	0	7	0	15	15
Total	4	9	1	1	14	1	13	1	0	15	4	11	1	0	16	2	13	11	0	26	1	71	72
05:00 PM	1	4	0	0	5	0	1	0	0	1	6	3	0	0	9	0	1	0	0	1	0	16	16
05:15 PM	0	1	0	0	1	0	1	0	0	1	2	0	0	0	2	0	5	3	0	8	0	12	12
05:30 PM	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	7	7
05:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	2	0	4	0	6	6
Total	1	6	0	0	7	0	7	0	0	7	9	3	0	0	12	0	10	5	0	15	0	41	41
Grand Total	5	15	1	1	21	1	20	1	0	22	13	14	1	0	28	2	23	16	0	41	1	112	113
Apprch %	23.8	71.4	4.8			4.5	90.9	4.5			46.4	50	3.6			4.9	56.1	39					
Total %	4.5	13.4	0.9		18.8	0.9	17.9	0.9		19.6	11.6	12.5	0.9		25	1.8	20.5	14.3		36.6	0.9	99.1	

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	1	0	1	0	2	0	2	2	**3**	0	5	0	4	**3**	7	15
05:00 PM	**1**	**4**	0	**5**	0	1	0	1	**6**	3	0	**9**	0	1	0	1	**16**
05:15 PM	0	1	0	1	0	1	0	1	2	0	0	2	0	**5**	3	**8**	12
05:30 PM	0	1	0	1	0	**4**	0	**4**	0	0	0	0	0	2	0	2	7
Total Volume	1	7	0	8	0	8	0	8	10	6	0	16	0	12	6	18	50
% App. Total	12.5	87.5	0		0	100	0		62.5	37.5	0		0	66.7	33.3		
PHF	.250	.438	.000	.400	.000	.500	.000	.500	.417	.500	.000	.444	.000	.600	.500	.563	.781

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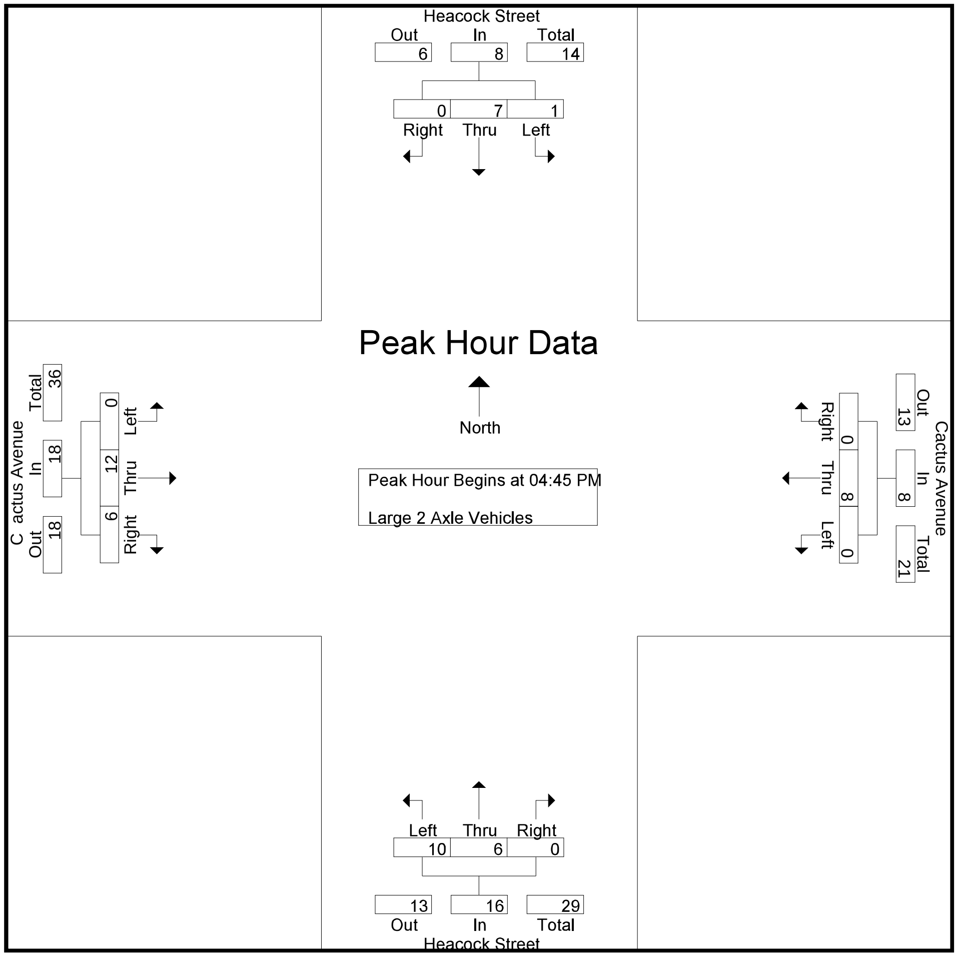

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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2	0	4	0	6	6
04:45 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	6	6
Total	0	3	1	0	4	0	0	0	0	0	1	2	0	0	3	0	3	4	0	7	0	14	14
05:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
05:15 PM	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	5	5
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	4	0	0	4	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	5	5
Total	0	10	1	0	11	0	1	0	0	1	1	0	0	0	1	0	0	1	0	1	0	14	14
Grand Total	0	13	2	0	15	0	1	0	0	1	2	2	0	0	4	0	3	5	0	8	0	28	28
Apprch %	0	86.7	13.3			0	100	0			50	50	0			0	37.5	62.5					
Total %	0	46.4	7.1		53.6	0	3.6	0		3.6	7.1	7.1	0		14.3	0	10.7	17.9		28.6	0	100	

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**3**	**1**	**4**	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	**6**
05:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	3	1	4	0	0	0	0	0	0	0	0	0	0	1	1	5
05:30 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
Total Volume	0	9	2	11	0	1	0	1	0	0	0	0	0	1	2	3	15
% App. Total	0	81.8	18.2		0	100	0		0	0	0		0	33.3	66.7		
PHF	.000	.750	.500	.688	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.500	.375	.625

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City of Moreno Valley
N/S: Heacock Street
E/W: Cactus Avenue
Weather: Clear

File Name : MRVHECAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

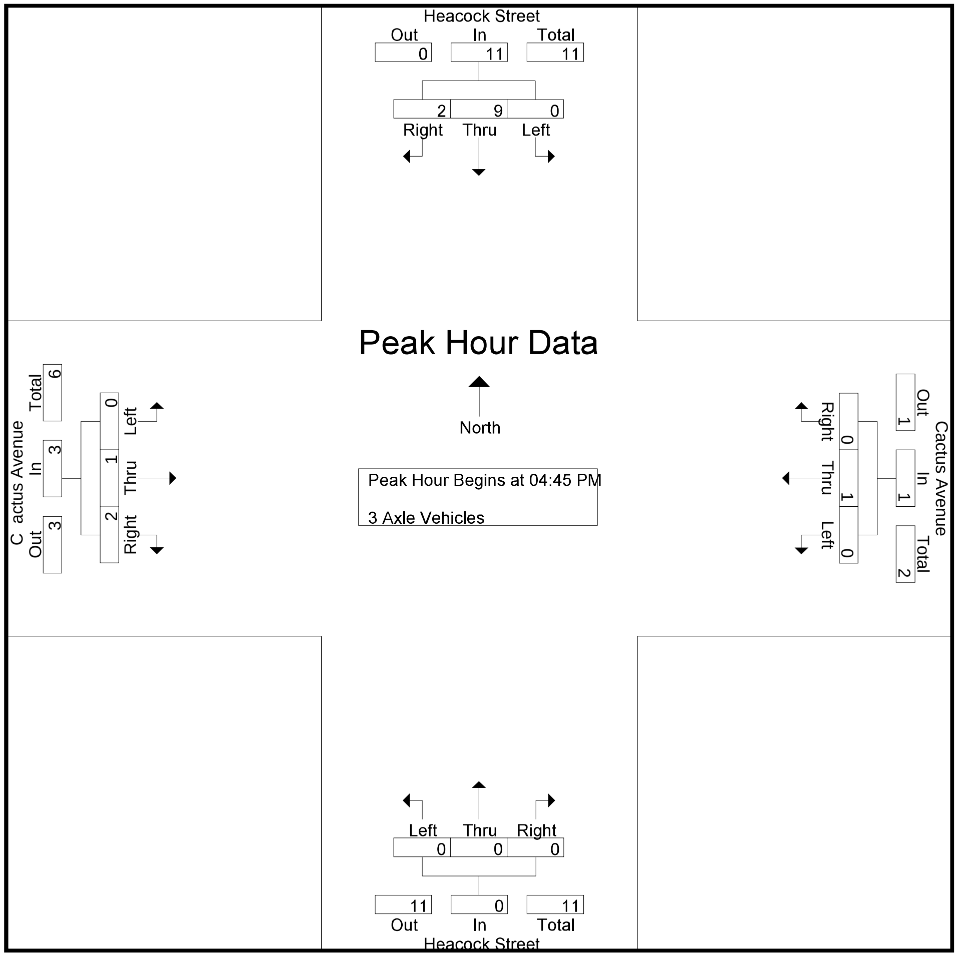

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City of Moreno Valley
N/S: Heacock Street
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Weather: Clear

File Name : MRVHECAPM
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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound					Cactus Avenue Westbound					Heacock Street Northbound					Cactus Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	1	2	0	0	3	0	0	3	0	3	0	7	7
04:15 PM	0	0	0	0	0	0	1	0	0	1	3	0	0	0	3	0	0	2	0	2	0	6	6
04:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	4	0	5	0	7	7
04:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	5	5
Total	0	0	1	0	1	0	2	0	0	2	6	2	0	0	8	0	1	13	0	14	0	25	25
05:00 PM	0	1	0	0	1	0	0	0	0	0	5	0	0	0	5	0	0	3	0	3	0	9	9
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	0	3	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	1	4	0	5	0	7	7
05:45 PM	0	1	1	0	2	0	0	0	0	0	2	0	0	0	2	0	0	4	0	4	0	8	8
Total	0	2	1	0	3	0	0	0	0	0	10	0	0	0	10	0	1	13	0	14	0	27	27
Grand Total	0	2	2	0	4	0	2	0	0	2	16	2	0	0	18	0	2	26	0	28	0	52	52
Apprch %	0	50	50			0	100	0			88.9	11.1	0			0	7.1	92.9					
Total %	0	3.8	3.8		7.7	0	3.8	0		3.8	30.8	3.8	0		34.6	0	3.8	50		53.8	0	100	

	Heacock Street Southbound				Cactus Avenue Westbound				Heacock Street Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	**4**	4	5
05:00 PM	0	**1**	0	1	0	0	0	0	**5**	0	0	**5**	0	0	3	3	**9**
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	2	3
05:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	**1**	4	**5**	7
Total Volume	0	1	1	2	0	0	0	0	8	0	0	8	0	1	13	14	24
% App. Total	0	50	50		0	0	0		100	0	0		0	7.1	92.9		
PHF	.000	.250	.250	.500	.000	.000	.000	.000	.400	.000	.000	.400	.000	.250	.813	.700	.667

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City of Moreno Valley
N/S: Heacock Street
E/W: Cactus Avenue
Weather: Clear

File Name : MRVHECAPM
Site Code : 05115223
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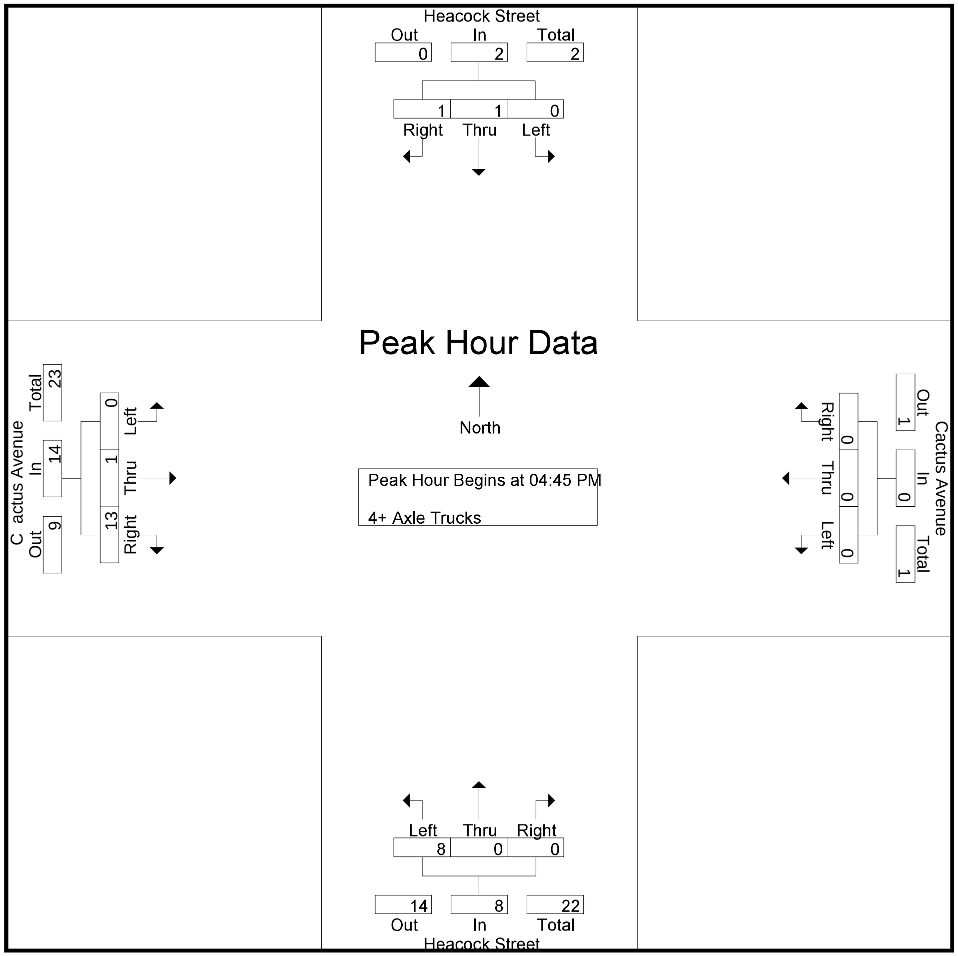

Location: Moreno Valley
N/S: Heacock Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg Cactus Avenue	South Leg Heacock Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	0	1	3	0	4
7:30 AM	0	2	0	0	2
7:45 AM	0	2	0	1	3
8:00 AM	0	0	0	2	2
8:15 AM	1	1	0	0	2
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	1	7	3	4	15

	North Leg Heacock Street	East Leg Cactus Avenue	South Leg Heacock Street	West Leg Cactus Avenue	TOTAL
4:00 PM	1	4	0	1	6
4:15 PM	0	1	0	0	1
4:30 PM	0	3	0	0	3
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	1	2	0	0	3
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	2	10	0	1	13

Location: Moreno Valley
N/S: Heacock Street
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg Cactus Avenue	South Leg Heacock Street	West Leg Cactus Avenue	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	1	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	0	1
8:00 AM	0	1	0	0	1
8:15 AM	1	0	0	1	2
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	1	4	0	2	7

	North Leg Heacock Street	East Leg Cactus Avenue	South Leg Heacock Street	West Leg Cactus Avenue	TOTAL
4:00 PM	1	0	0	0	1
4:15 PM	0	0	1	0	1
4:30 PM	0	0	0	1	1
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	3	0	0	3
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	4	1	1	7

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City of Moreno Valley
N/S: Heacock Street
E/W: Meyer Drive / John F Kennedy Drive
Weather: Clear

File Name : MRVHEMEAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	19	99	0	0	118	5	26	42	28	73	20	172	4	1	196	2	5	12	10	19	39	406
07:15 AM	30	106	8	3	144	6	31	72	47	109	7	154	11	1	172	1	8	18	12	27	63	452
07:30 AM	43	91	4	3	138	7	29	65	24	101	23	186	13	6	222	2	15	17	12	34	45	495
07:45 AM	34	80	3	0	117	7	21	76	49	104	18	179	18	6	215	1	14	15	7	30	62	466
Total	126	376	15	6	517	25	107	255	148	387	68	691	46	14	805	6	42	62	41	110	209	1819
08:00 AM	24	63	6	2	93	10	27	54	38	91	15	125	4	1	144	2	10	7	6	19	47	347
08:15 AM	30	48	6	1	84	2	21	55	26	78	11	123	15	7	149	3	8	8	6	19	40	330
08:30 AM	15	55	10	2	80	4	19	34	25	57	13	109	13	2	135	3	11	8	3	22	32	294
08:45 AM	25	51	8	2	84	2	23	34	22	59	16	81	9	1	106	2	4	10	6	16	31	265
Total	94	217	30	7	341	18	90	177	111	285	55	438	41	11	534	10	33	33	21	76	150	1236
Grand Total	220	593	45	13	858	43	197	432	259	672	123	1129	87	25	1339	16	75	95	62	186	359	3055
Apprch %	25.6	69.1	5.2			6.4	29.3	64.3			9.2	84.3	6.5			8.6	40.3	51.1				
Total %	7.2	19.4	1.5		28.1	1.4	6.4	14.1		22	4	37	2.8		43.8	0.5	2.5	3.1		6.1	10.5	89.5
Passenger Vehicles	212	537	43		805	42	194	426		921	120	1093	83		1321	11	73	93		239	0	0
% Passenger Vehicles	96.4	90.6	95.6	100	92.4	97.7	98.5	98.6	100	98.9	97.6	96.8	95.4	100	96.8	68.8	97.3	97.9	100	96.4	0	0
Large 2 Axle Vehicles	6	7	2		15	1	3	5		9	3	9	3		15	5	2	2		9	0	0
% Large 2 Axle Vehicles	2.7	1.2	4.4	0	1.7	2.3	1.5	1.2	0	1	2.4	0.8	3.4	0	1.1	31.2	2.7	2.1	0	3.6	0	0
3 Axle Vehicles	1	4	0		5	0	0	0		0	0	4	0		4	0	0	0		0	0	0
% 3 Axle Vehicles	0.5	0.7	0	0	0.6	0	0	0	0	0	0	0.4	0	0	0.3	0	0	0	0	0	0	0
4+ Axle Trucks	1	45	0		46	0	0	1		1	0	23	1		24	0	0	0		0	0	0
% 4+ Axle Trucks	0.5	7.6	0	0	5.3	0	0	0.2	0	0.1	0	2	1.1	0	1.8	0	0	0	0	0	0	0

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	19	99	0	118	5	26	42	73	20	172	4	196	**2**	5	12	19	406
07:15 AM	30	**106**	**8**	**144**	6	**31**	72	**109**	7	154	11	172	1	8	**18**	27	452
07:30 AM	**43**	91	4	138	**7**	29	65	101	**23**	**186**	13	**222**	2	**15**	17	**34**	**495**
07:45 AM	34	80	3	117	7	21	**76**	104	18	179	**18**	215	1	14	15	30	466
Total Volume	126	376	15	517	25	107	255	387	68	691	46	805	6	42	62	110	1819
% App. Total	24.4	72.7	2.9		6.5	27.6	65.9		8.4	85.8	5.7		5.5	38.2	56.4		
PHF	.733	.887	.469	.898	.893	.863	.839	.888	.739	.929	.639	.907	.750	.700	.861	.809	.919

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File Name : MRVHEMEAM
Site Code : 05115223
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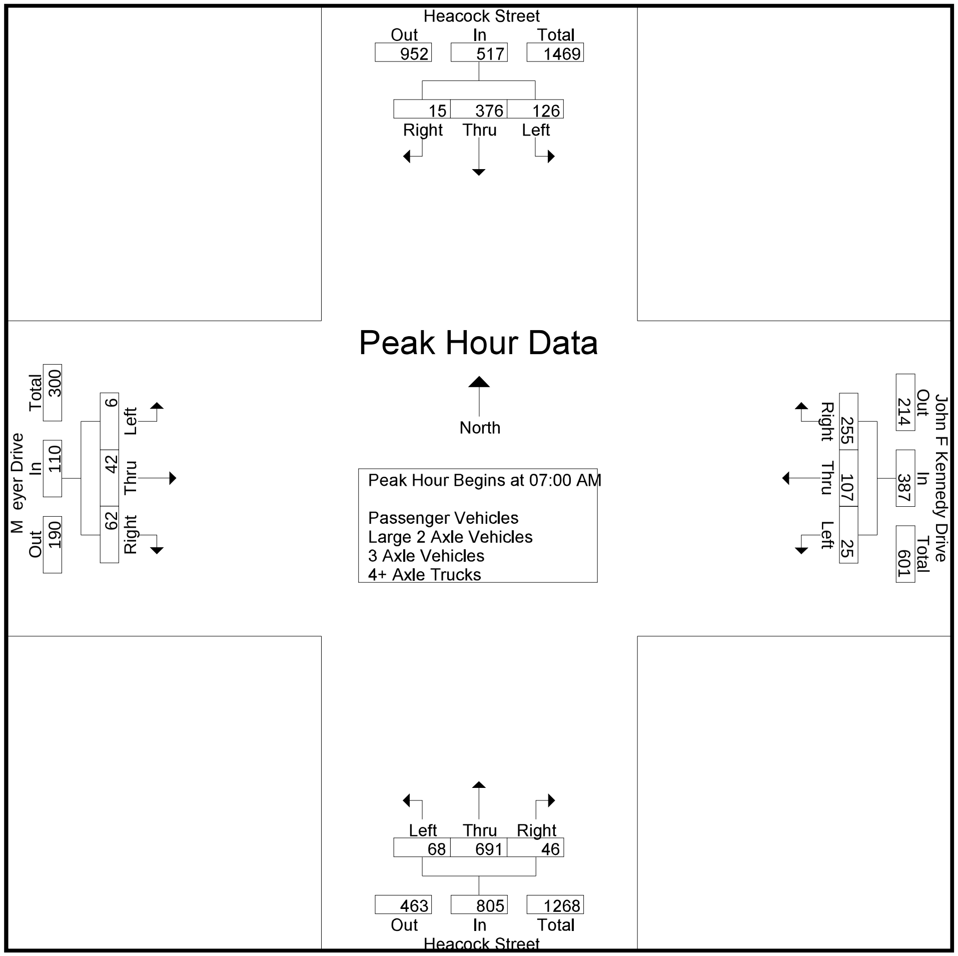

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City of Moreno Valley
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File Name : MRVHEMEAM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	1	0	1	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	4
07:30 AM	2	2	0	0	4	1	0	2	0	3	0	3	0	0	3	1	0	0	0	1	0	11
07:45 AM	1	0	0	0	1	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	4
Total	4	3	1	0	8	1	1	4	0	6	0	4	1	0	5	1	1	0	0	2	0	21
08:00 AM	1	1	0	0	2	0	2	0	0	2	1	4	0	0	5	0	0	0	0	0	0	9
08:15 AM	0	1	1	0	2	0	0	0	0	0	1	0	1	0	2	1	0	0	0	1	0	5
08:30 AM	1	1	0	0	2	0	0	0	0	0	1	0	1	0	2	2	1	1	0	4	0	8
08:45 AM	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	1	0	1	0	2	0	5
Total	2	4	1	0	7	0	2	1	0	3	3	5	2	0	10	4	1	2	0	7	0	27
Grand Total	6	7	2	0	15	1	3	5	0	9	3	9	3	0	15	5	2	2	0	9	0	48
Apprch %	40	46.7	13.3			11.1	33.3	55.6			20	60	20			55.6	22.2	22.2				
Total %	12.5	14.6	4.2		31.2	2.1	6.2	10.4		18.8	6.2	18.8	6.2		31.2	10.4	4.2	4.2		18.8	0	100

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	1	1	0	0	0	0	0	1	1	2	0	1	0	1	4
07:30 AM	2	2	0	4	1	0	2	3	0	3	0	3	1	0	0	1	11
07:45 AM	1	0	0	1	0	1	2	3	0	0	0	0	0	0	0	0	4
Total Volume	4	3	1	8	1	1	4	6	0	4	1	5	1	1	0	2	21
% App. Total	50	37.5	12.5		16.7	16.7	66.7		0	80	20		50	50	0		
PHF	.500	.375	.250	.500	.250	.250	.500	.500	.000	.333	.250	.417	.250	.250	.000	.500	.477

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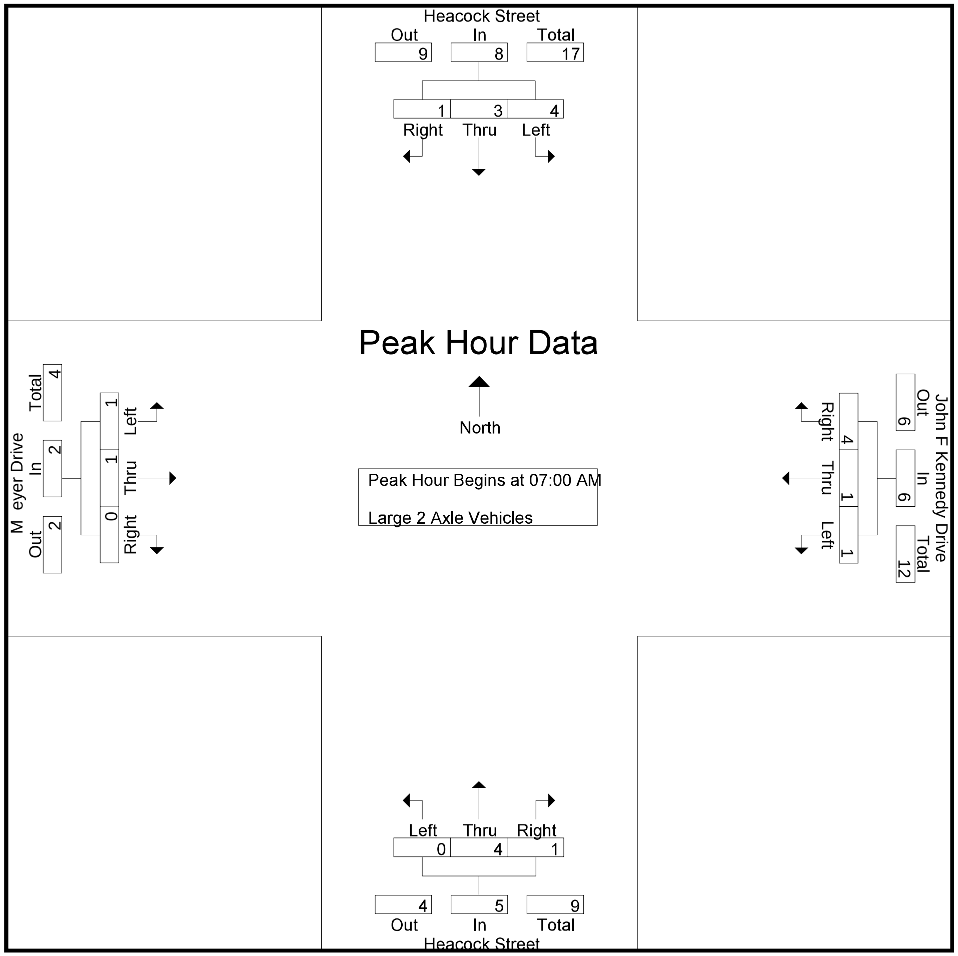

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City of Moreno Valley
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File Name : MRVHEMEAM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
08:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	3	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	8
Grand Total	1	4	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	9
Apprch %	20	80	0			0	0	0			0	100	0			0	0	0				
Total %	11.1	44.4	0		55.6	0	0	0		0	0	44.4	0		44.4	0	0	0		0	0	100

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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City of Moreno Valley
N/S: Heacock Street
E/W: Meyer Drive / John F Kennedy Drive
Weather: Clear

File Name : MRVHEMEAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

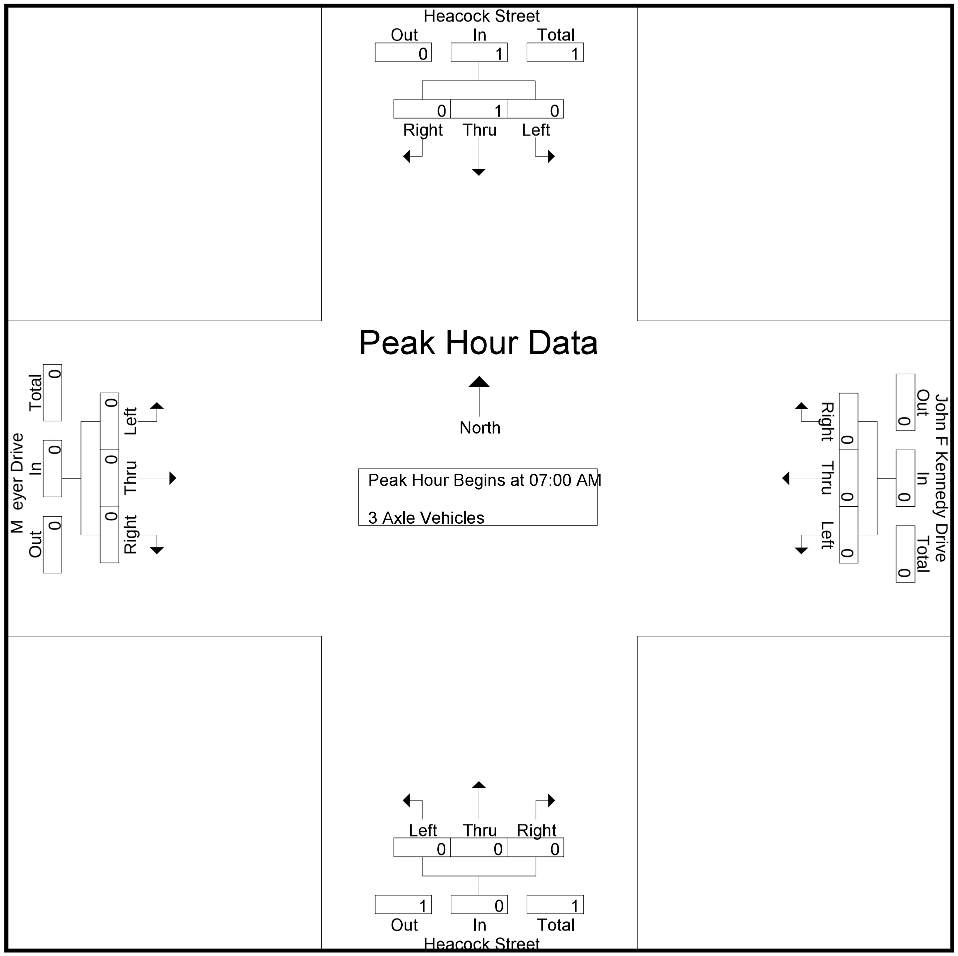

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Page No : 1

Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5
07:15 AM	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6
07:30 AM	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	9
07:45 AM	0	9	0	0	9	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	14
Total	1	21	0	0	22	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	34
08:00 AM	0	5	0	0	5	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	11
08:15 AM	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7
08:30 AM	0	10	0	0	10	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	13
08:45 AM	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6
Total	0	24	0	0	24	0	0	1	0	1	0	11	1	0	12	0	0	0	0	0	0	37
Grand Total	1	45	0	0	46	0	0	1	0	1	0	23	1	0	24	0	0	0	0	0	0	71
Apprch %	2.2	97.8	0			0	0	100			0	95.8	4.2			0	0	0				
Total %	1.4	63.4	0		64.8	0	0	1.4		1.4	0	32.4	1.4		33.8	0	0	0		0	0	100

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
07:15 AM	**1**	3	0	4	0	0	0	0	0	2	0	2	0	0	0	0	6
07:30 AM	0	6	0	6	0	0	0	0	0	3	0	3	0	0	0	0	9
07:45 AM	0	**9**	0	**9**	0	0	0	0	0	**5**	0	**5**	0	0	0	0	**14**
Total Volume	1	21	0	22	0	0	0	0	0	12	0	12	0	0	0	0	34
% App. Total	4.5	95.5	0		0	0	0		0	100	0		0	0	0		
PHF	.250	.583	.000	.611	.000	.000	.000	.000	.000	.600	.000	.600	.000	.000	.000	.000	.607

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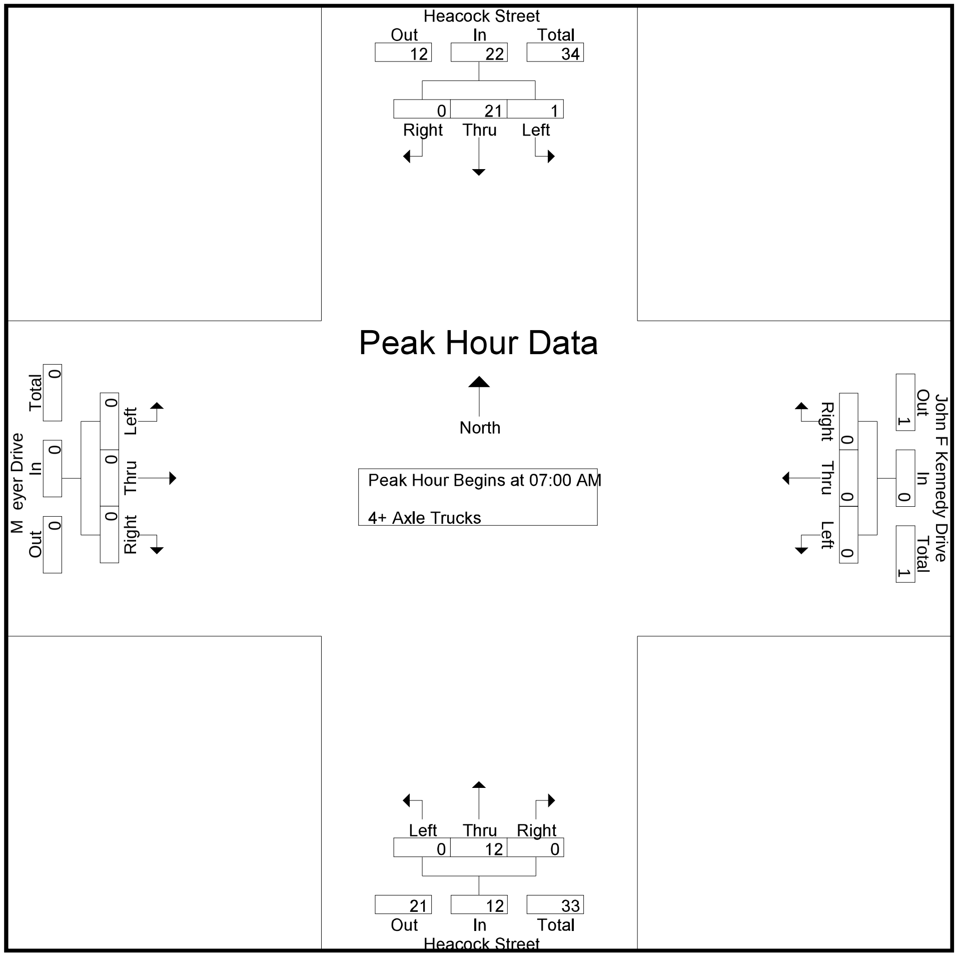

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File Name : MRVHEMEPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	69	135	6	0	210	4	25	51	36	80	17	105	12	1	134	10	45	29	16	84	53	508
04:15 PM	89	157	11	0	257	7	27	48	20	82	16	99	5	1	120	7	41	36	22	84	43	543
04:30 PM	63	187	10	2	260	6	21	35	20	62	18	159	10	3	187	5	42	37	23	84	48	593
04:45 PM	69	213	3	2	285	4	25	46	27	75	21	203	20	6	244	9	39	30	17	78	52	682
Total	290	692	30	4	1012	21	98	180	103	299	72	566	47	11	685	31	167	132	78	330	196	2326
05:00 PM	70	182	7	2	259	4	25	35	25	64	15	158	12	5	185	9	44	65	24	118	56	626
05:15 PM	85	203	9	5	297	5	22	32	22	59	15	110	8	4	133	3	34	62	40	99	71	588
05:30 PM	76	224	6	2	306	7	27	31	17	65	24	146	10	2	180	5	40	62	26	107	47	658
05:45 PM	82	207	7	6	296	4	25	35	22	64	19	102	13	6	134	7	51	48	22	106	56	600
Total	313	816	29	15	1158	20	99	133	86	252	73	516	43	17	632	24	169	237	112	430	230	2472
Grand Total	603	1508	59	19	2170	41	197	313	189	551	145	1082	90	28	1317	55	336	369	190	760	426	4798
Apprch %	27.8	69.5	2.7			7.4	35.8	56.8			11	82.2	6.8			7.2	44.2	48.6				
Total %	12.6	31.4	1.2		45.2	0.9	4.1	6.5		11.5	3	22.6	1.9		27.4	1.1	7	7.7		15.8	8.2	91.8
Passenger Vehicles	597	1449	59		2124	41	195	311		736	145	1054	89		1316	55	332	365		941	0	0
% Passenger Vehicles	99	96.1	100	100	97	100	99	99.4	100	99.5	100	97.4	98.9	100	97.8	100	98.8	98.9	99.5	99.1	0	0
Large 2 Axle Vehicles	5	19	0		24	0	2	0		2	0	9	1		10	0	4	3		8	0	0
% Large 2 Axle Vehicles	0.8	1.3	0	0	1.1	0	1	0	0	0.3	0	0.8	1.1	0	0.7	0	1.2	0.8	0.5	0.8	0	0
3 Axle Vehicles	1	14	0		15	0	0	1		1	0	3	0		3	0	0	1		1	0	0
% 3 Axle Vehicles	0.2	0.9	0	0	0.7	0	0	0.3	0	0.1	0	0.3	0	0	0.2	0	0	0.3	0	0.1	0	0
4+ Axle Trucks	0	26	0		26	0	0	1		1	0	16	0		16	0	0	0		0	0	0
% 4+ Axle Trucks	0	1.7	0	0	1.2	0	0	0.3	0	0.1	0	1.5	0	0	1.2	0	0	0	0	0	0	0

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	69	213	3	285	4	25	**46**	**75**	21	**203**	**20**	**244**	**9**	39	30	78	**682**
05:00 PM	70	182	7	259	4	25	35	64	15	158	12	185	9	**44**	**65**	**118**	626
05:15 PM	**85**	203	**9**	297	5	22	32	59	15	110	8	133	3	34	62	99	588
05:30 PM	76	**224**	6	**306**	**7**	**27**	31	65	**24**	146	10	180	5	40	62	107	658
Total Volume	300	822	25	1147	20	99	144	263	75	617	50	742	26	157	219	402	2554
% App. Total	26.2	71.7	2.2		7.6	37.6	54.8		10.1	83.2	6.7		6.5	39.1	54.5		
PHF	.882	.917	.694	.937	.714	.917	.783	.877	.781	.760	.625	.760	.722	.892	.842	.852	.936

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File Name : MRVHEMEPM
Site Code : 05115223
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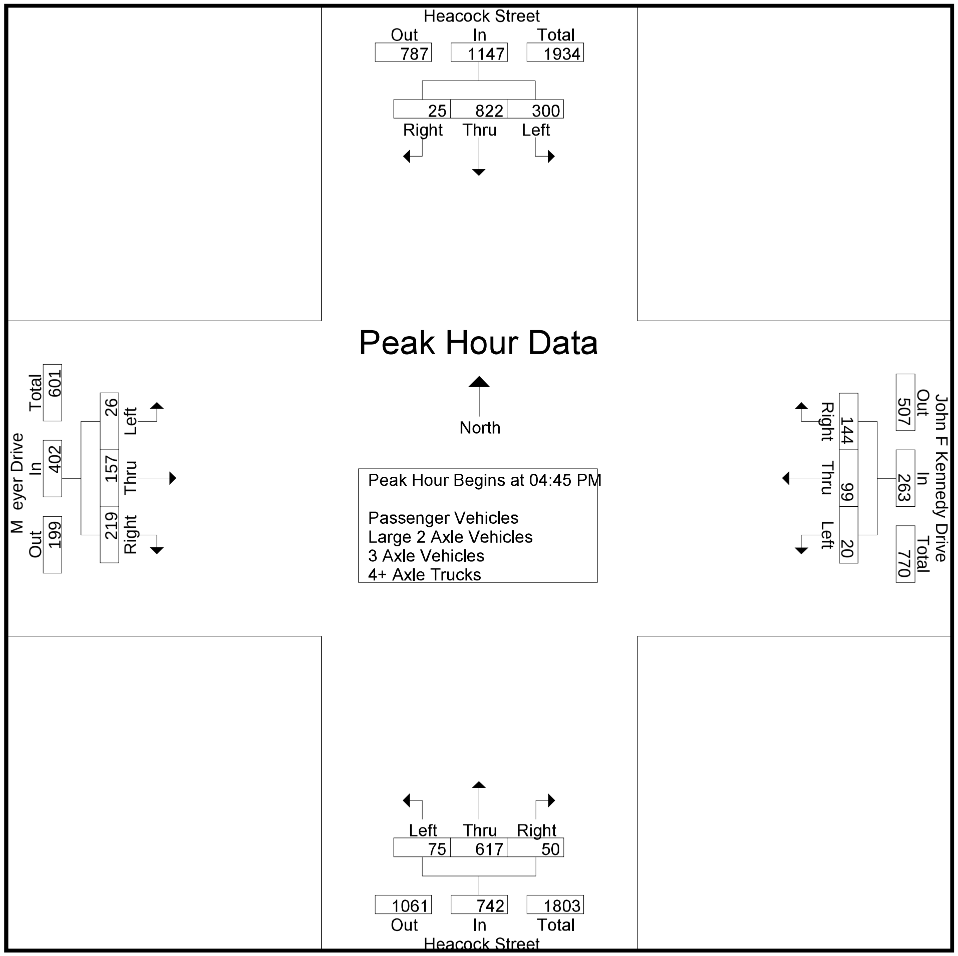

Peak Hour Begins at 04:45 PM

Passenger Vehicles
Large 2 Axle Vehicles
3 Axle Vehicles
4+ Axle Trucks

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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	0	1	1	1	2	1	6
04:15 PM	1	3	0	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	5
04:30 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
04:45 PM	1	4	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	8
Total	3	13	0	0	16	0	0	0	0	0	0	5	1	0	6	0	1	1	1	2	1	24
05:00 PM	1	1	0	0	2	0	2	0	0	2	0	3	0	0	3	0	1	0	0	1	0	8
05:15 PM	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	6
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	2
Total	2	6	0	0	8	0	2	0	0	2	0	4	0	0	4	0	3	2	0	5	0	19
Grand Total	5	19	0	0	24	0	2	0	0	2	0	9	1	0	10	0	4	3	1	7	1	43
Apprch %	20.8	79.2	0			0	100	0			0	90	10			0	57.1	42.9				
Total %	11.6	44.2	0		55.8	0	4.7	0		4.7	0	20.9	2.3		23.3	0	9.3	7		16.3	2.3	97.7

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	**4**	0	**5**	0	0	0	0	0	**3**	0	**3**	0	0	0	0	**8**
05:00 PM	1	1	0	2	0	**2**	0	**2**	0	3	0	3	0	**1**	0	1	8
05:15 PM	1	4	0	5	0	0	0	0	0	0	0	0	0	1	0	1	6
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	**1**	**2**	3
Total Volume	3	10	0	13	0	2	0	2	0	6	0	6	0	3	1	4	25
% App. Total	23.1	76.9	0		0	100	0		0	100	0		0	75	25		
PHF	.750	.625	.000	.650	.000	.250	.000	.250	.000	.500	.000	.500	.000	.750	.250	.500	.781

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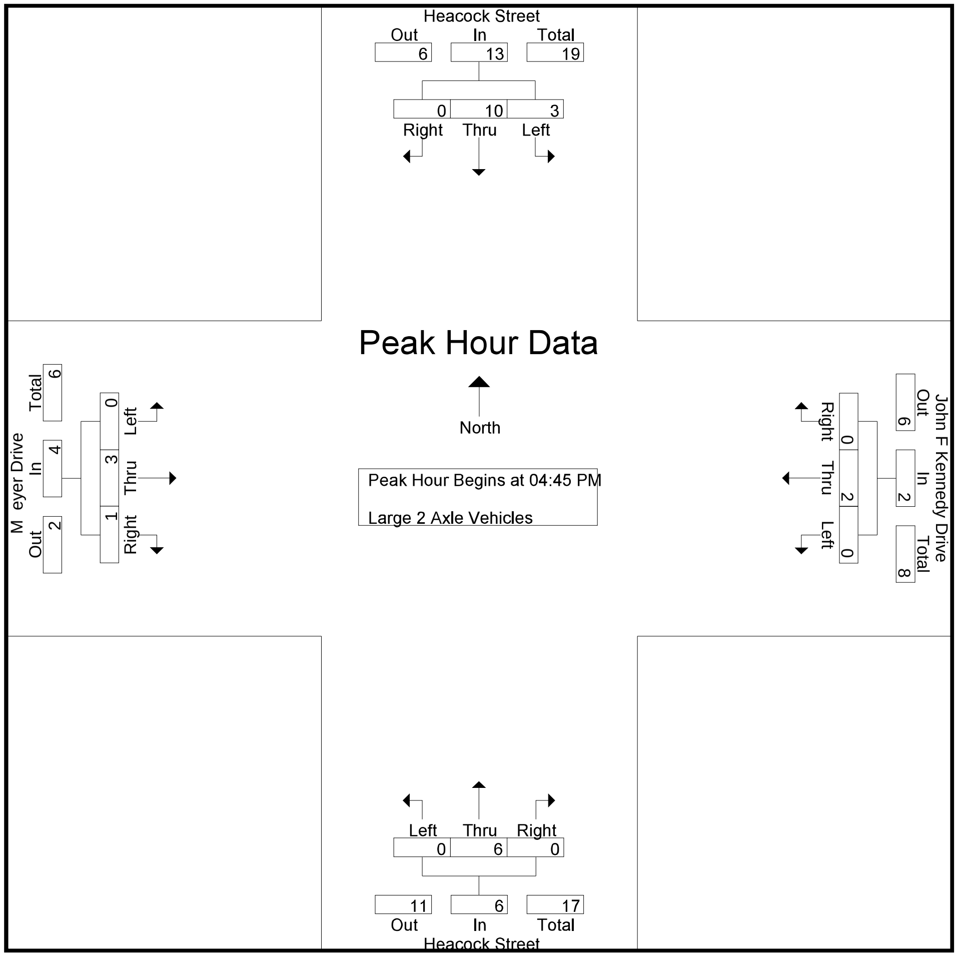

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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
04:15 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
04:30 PM	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
04:45 PM	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	1	8	0	0	9	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	12
05:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
05:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Total	0	6	0	0	6	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	8
Grand Total	1	14	0	0	15	0	0	1	0	1	0	3	0	0	3	0	0	1	0	1	0	20
Apprch %	6.7	93.3	0			0	0	100			0	100	0			0	0	100				
Total %	5	70	0		75	0	0	5		5	0	15	0		15	0	0	5		5	0	100

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**5**	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	**5**
05:00 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
Total Volume	0	10	0	10	0	0	0	0	0	0	0	0	0	0	1	1	11
% App. Total	0	100	0		0	0	0		0	0	0		0	0	100		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.550

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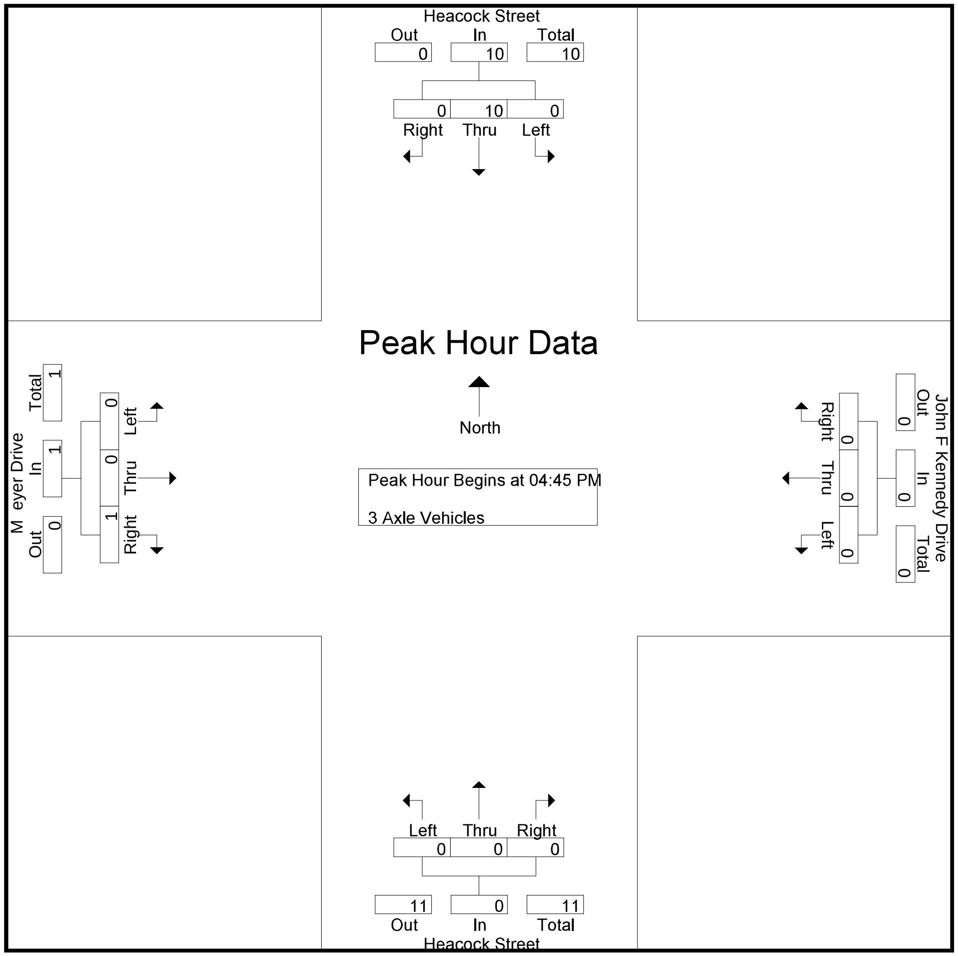

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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound					John F Kennedy Drive Westbound					Heacock Street Northbound					Meyer Drive Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	3	0	0	3	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	7
04:15 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
04:30 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
04:45 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	12	0	0	12	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0	0	19
05:00 PM	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9
05:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	8
05:45 PM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	14	0	0	14	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	24
Grand Total	0	26	0	0	26	0	0	1	0	1	0	16	0	0	16	0	0	0	0	0	0	43
Apprch %	0	100	0			0	0	100			0	100	0			0	0	0				
Total %	0	60.5	0		60.5	0	0	2.3		2.3	0	37.2	0		37.2	0	0	0		0	0	100

	Heacock Street Southbound				John F Kennedy Drive Westbound				Heacock Street Northbound				Meyer Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:00 PM	0	3	0	3	0	0	0	0	0	**6**	0	**6**	0	0	0	0	**9**
05:15 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	**4**	0	**4**	0	0	0	0	0	4	0	4	0	0	0	0	8
Total Volume	0	13	0	13	0	0	0	0	0	10	0	10	0	0	0	0	23
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.813	.000	.813	.000	.000	.000	.000	.000	.417	.000	.417	.000	.000	.000	.000	.639

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City of Moreno Valley
N/S: Heacock Street
E/W: Meyer Drive / John F Kennedy Drive
Weather: Clear

File Name : MRVHEMEPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

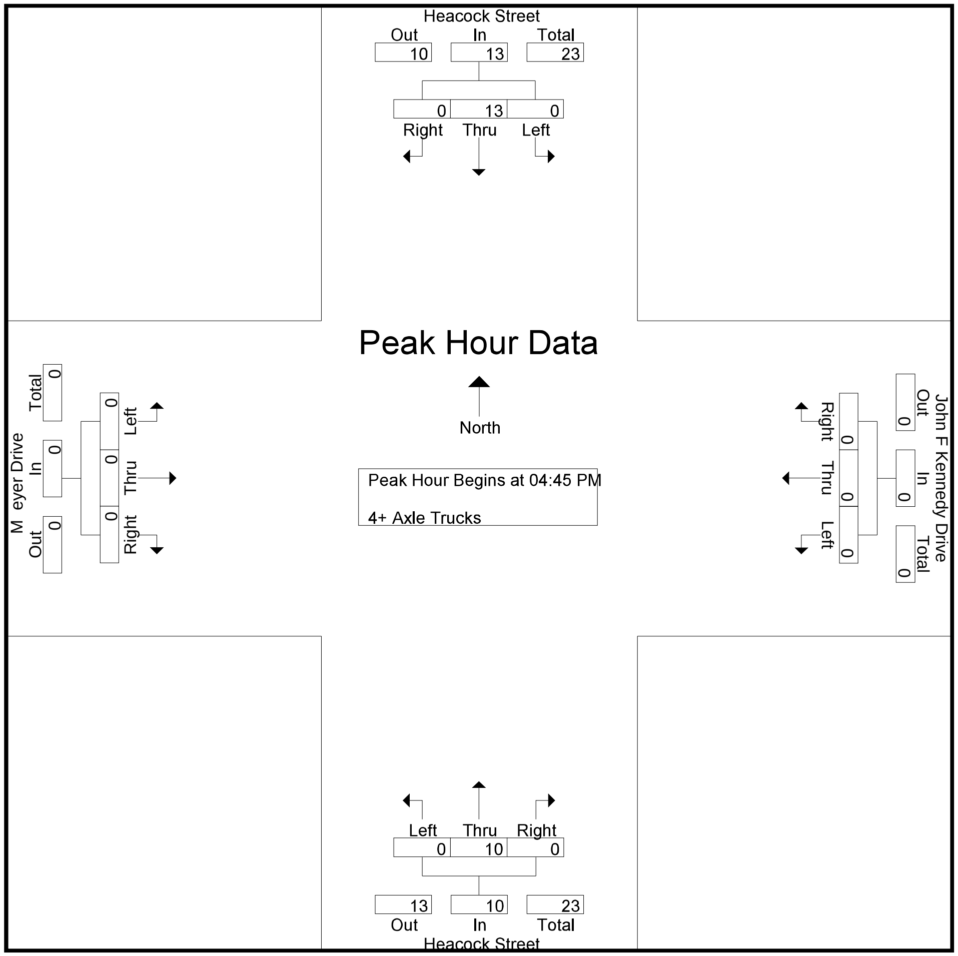

Location: Moreno Valley
N/S: Heacock Street
E/W: Meyer Drive / John F Kennedy Drive

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg Meyer Drive / John F Kennedy Driv	South Leg Heacock Street	West Leg Meyer Drive / John F Kennedy Driv	TOTAL
7:00 AM	3	5	0	0	8
7:15 AM	2	9	0	0	11
7:30 AM	0	6	0	0	6
7:45 AM	0	0	0	0	0
8:00 AM	8	12	0	0	20
8:15 AM	5	1	1	1	8
8:30 AM	0	3	0	0	3
8:45 AM	2	1	0	0	3
TOTAL VOLUMES:	20	37	1	1	59

	North Leg Heacock Street	East Leg Meyer Drive / John F Kennedy Driv	South Leg Heacock Street	West Leg Meyer Drive / John F Kennedy Driv	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	2	2	0	1	5
4:30 PM	0	1	0	0	1
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	1	0	0	0	1
5:30 PM	4	8	0	0	12
5:45 PM	1	5	0	0	6
TOTAL VOLUMES:	8	17	0	1	26

Location: Moreno Valley
N/S: Heacock Street
E/W: Meyer Drive / John F Kennedy Drive

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg Meyer Drive / John F Kennedy Driv	South Leg Heacock Street	West Leg Meyer Drive / John F Kennedy Driv	TOTAL
7:00 AM	0	0	0	2	2
7:15 AM	0	2	0	0	2
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	2	4

	North Leg Heacock Street	East Leg Meyer Drive / John F Kennedy Driv	South Leg Heacock Street	West Leg Meyer Drive / John F Kennedy Driv	TOTAL
4:00 PM	2	0	0	1	3
4:15 PM	1	0	1	0	2
4:30 PM	0	1	0	1	2
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	1	0	0	1
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	4	2	1	2	9

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	10	92	102	2	24	26	130	0	130	258
07:15 AM	18	108	126	1	23	24	120	1	121	271
07:30 AM	17	89	106	0	20	20	157	0	157	283
07:45 AM	10	99	109	0	25	25	131	1	132	266
Total	55	388	443	3	92	95	538	2	540	1078
08:00 AM	4	60	64	0	12	12	118	0	118	194
08:15 AM	5	57	62	0	11	11	109	0	109	182
08:30 AM	4	64	68	3	11	14	83	2	85	167
08:45 AM	3	55	58	1	11	12	70	0	70	140
Total	16	236	252	4	45	49	380	2	382	683
Grand Total	71	624	695	7	137	144	918	4	922	1761
Apprch %	10.2	89.8		4.9	95.1		99.6	0.4		
Total %	4	35.4	39.5	0.4	7.8	8.2	52.1	0.2	52.4	
Passenger Vehicles	71	562	633	6	136	142	880	3	883	1658
% Passenger Vehicles	100	90.1	91.1	85.7	99.3	98.6	95.9	75	95.8	94.2
Large 2 Axle Vehicles	0	13	13	1	1	2	12	1	13	28
% Large 2 Axle Vehicles	0	2.1	1.9	14.3	0.7	1.4	1.3	25	1.4	1.6
3 Axle Vehicles	0	6	6	0	0	0	3	0	3	9
% 3 Axle Vehicles	0	1	0.9	0	0	0	0.3	0	0.3	0.5
4+ Axle Trucks	0	43	43	0	0	0	23	0	23	66
% 4+ Axle Trucks	0	6.9	6.2	0	0	0	2.5	0	2.5	3.7

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	10	92	102	**2**	24	**26**	130	0	130	258
07:15 AM	**18**	**108**	**126**	1	23	24	120	**1**	121	271
07:30 AM	17	89	106	0	20	20	**157**	0	**157**	**283**
07:45 AM	10	99	109	0	**25**	25	131	1	132	266
Total Volume	55	388	443	3	92	95	538	2	540	1078
% App. Total	12.4	87.6		3.2	96.8		99.6	0.4		
PHF	.764	.898	.879	.375	.920	.913	.857	.500	.860	.952

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

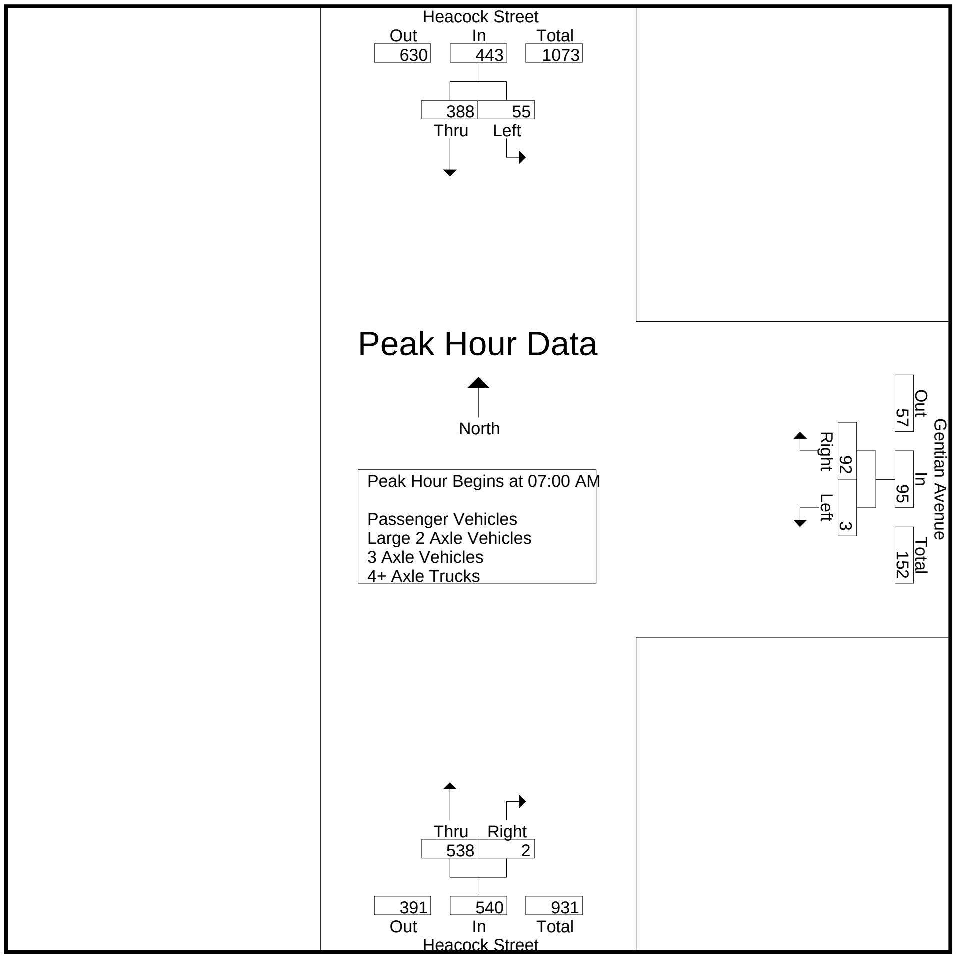

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	10	92	102	**2**	24	**26**	130	0	130
+15 mins.	**18**	**108**	**126**	1	23	24	120	**1**	121
+30 mins.	17	89	106	0	20	20	**157**	0	**157**
+45 mins.	10	99	109	0	**25**	25	131	1	132
Total Volume	55	388	443	3	92	95	538	2	540
% App. Total	12.4	87.6		3.2	96.8		99.6	0.4	
PHF	.764	.898	.879	.375	.920	.913	.857	.500	.860

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	2	0	0	0	0	0	0	2
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	2	0	0	0	1	0	1	3
Total	0	5	5	0	0	0	1	0	1	6
08:00 AM	0	2	2	0	0	0	6	0	6	8
08:15 AM	0	1	1	0	1	1	1	0	1	3
08:30 AM	0	3	3	0	0	0	2	1	3	6
08:45 AM	0	2	2	1	0	1	2	0	2	5
Total	0	8	8	1	1	2	11	1	12	22
Grand Total	0	13	13	1	1	2	12	1	13	28
Apprch %	0	100		50	50		92.3	7.7		
Total %	0	46.4	46.4	3.6	3.6	7.1	42.9	3.6	46.4	

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**2**	**2**	0	0	0	0	0	0	2
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	2	0	0	0	**1**	0	**1**	**3**
Total Volume	0	5	5	0	0	0	1	0	1	6
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.250	.000	.250	.500

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEAM
Site Code : 05115223
Start Date : 4/28/2015
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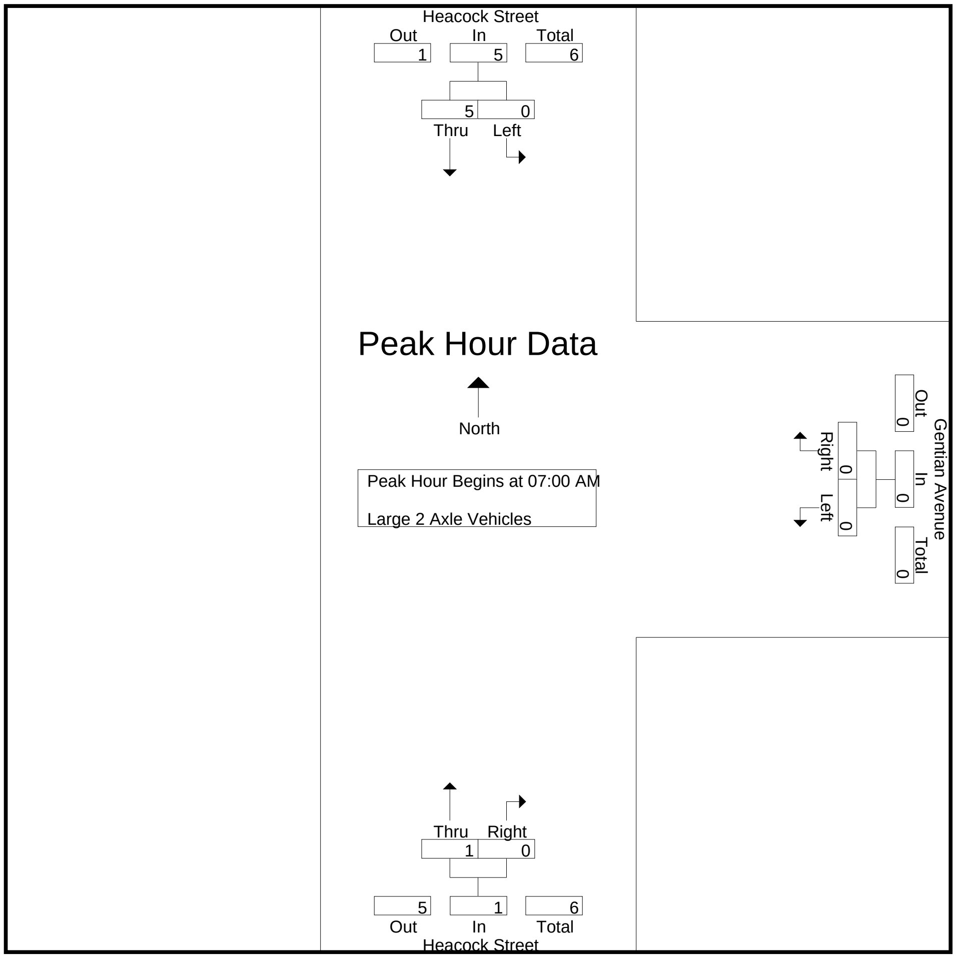

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**2**	**2**	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	**1**	0	**1**
Total Volume	0	5	5	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.250	.000	.250

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	1	1	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	3	3	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	3	3	0	0	0	1	0	1	4
08:30 AM	0	0	0	0	0	0	2	0	2	2
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	3	3	0	0	0	3	0	3	6
Grand Total	0	6	6	0	0	0	3	0	3	9
Apprch %	0	100		0	0		100	0		
Total %	0	66.7	66.7	0	0	0	33.3	0	33.3	

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	0	0	0	0	0	0	**1**
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	1	1	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	3	0	0	0	0	0	0	3
% App. Total	0	100		0	0		0	0		
PHF	.000	.750	.750	.000	.000	.000	.000	.000	.000	.750

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEAM
Site Code : 05115223
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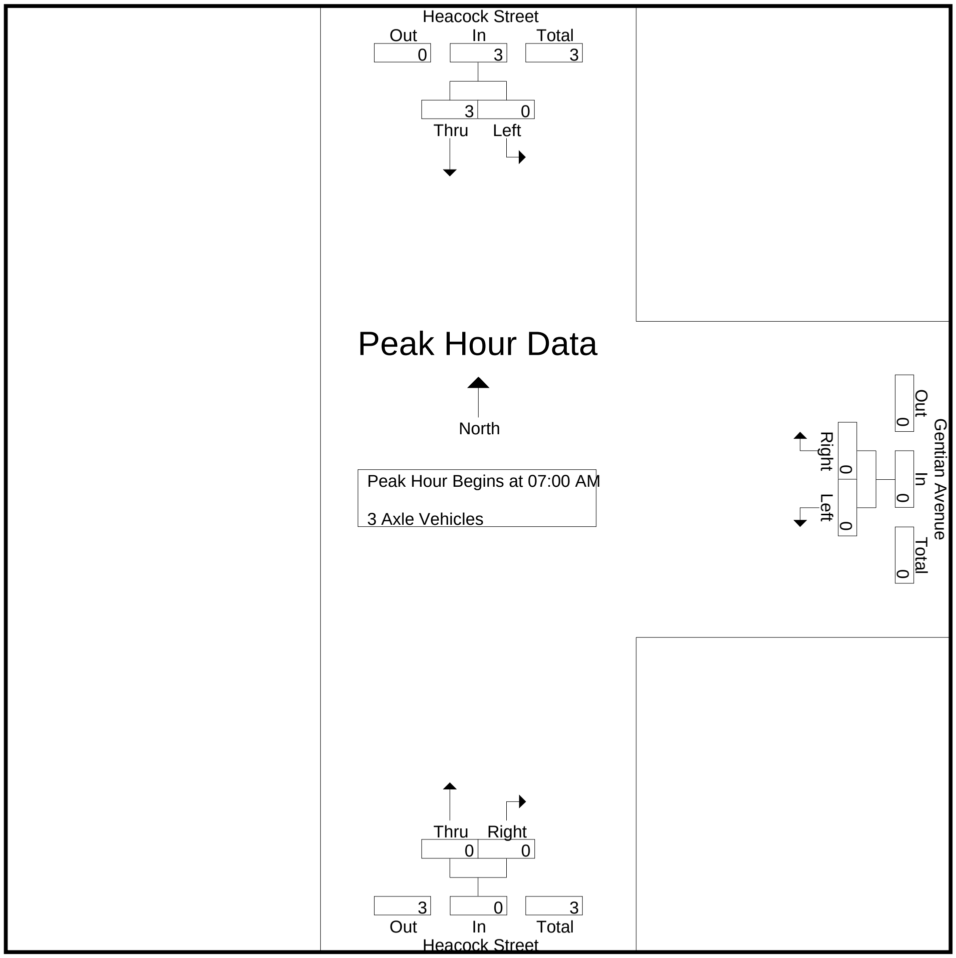

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	**1**	0	0	0	0	0	0
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	3	3	0	0	0	0	0	0
% App. Total	0	100		0	0		0	0	
PHF	.000	.750	.750	.000	.000	.000	.000	.000	.000

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEAM
Site Code : 05115223
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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	3	0	0	0	2	0	2	5
07:15 AM	0	2	2	0	0	0	2	0	2	4
07:30 AM	0	3	3	0	0	0	3	0	3	6
07:45 AM	0	10	10	0	0	0	5	0	5	15
Total	0	18	18	0	0	0	12	0	12	30
08:00 AM	0	6	6	0	0	0	6	0	6	12
08:15 AM	0	5	5	0	0	0	2	0	2	7
08:30 AM	0	9	9	0	0	0	1	0	1	10
08:45 AM	0	5	5	0	0	0	2	0	2	7
Total	0	25	25	0	0	0	11	0	11	36
Grand Total	0	43	43	0	0	0	23	0	23	66
Apprch %	0	100		0	0		100	0		
Total %	0	65.2	65.2	0	0	0	34.8	0	34.8	

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	3	3	0	0	0	2	0	2	5
07:15 AM	0	2	2	0	0	0	2	0	2	4
07:30 AM	0	3	3	0	0	0	3	0	3	6
07:45 AM	0	**10**	**10**	0	0	0	**5**	0	**5**	**15**
Total Volume	0	18	18	0	0	0	12	0	12	30
% App. Total	0	100		0	0		100	0		
PHF	.000	.450	.450	.000	.000	.000	.600	.000	.600	.500

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City of Moreno Valley
N/S: Heacock Street
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File Name : MRVHEGEAM
Site Code : 05115223
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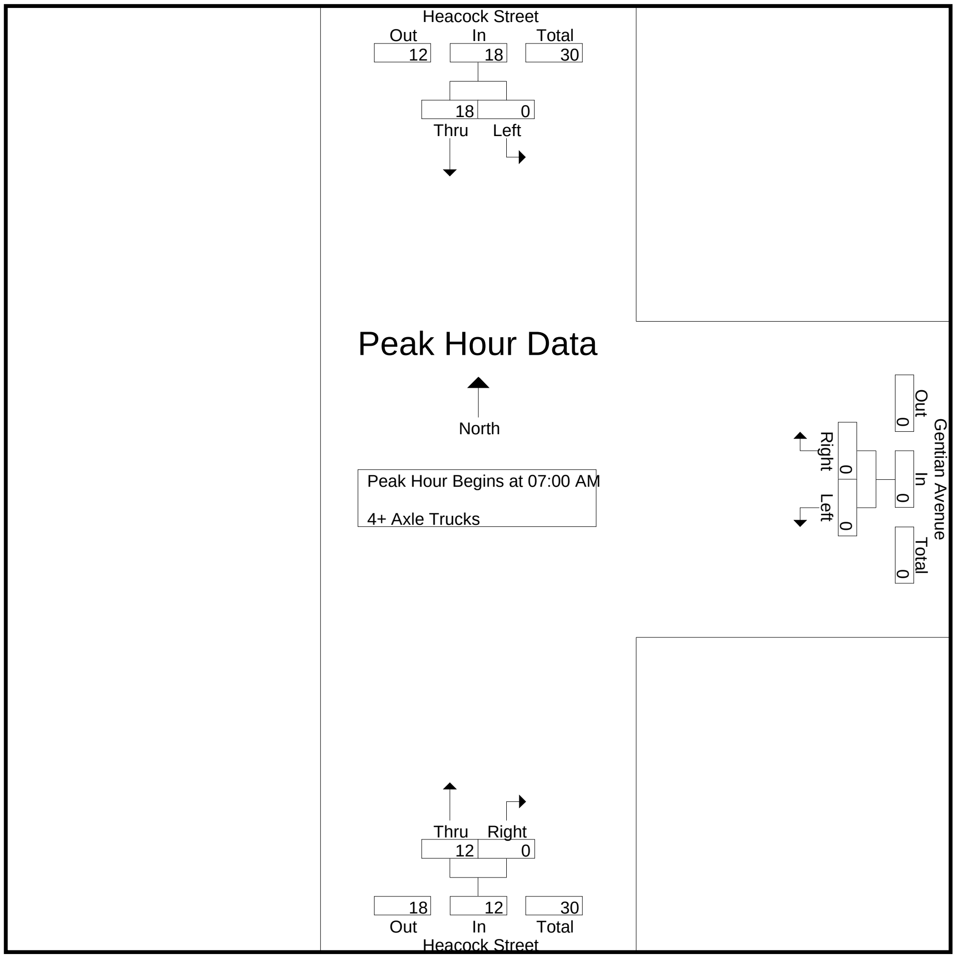

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	3	3	0	0	0	2	0	2
+15 mins.	0	2	2	0	0	0	2	0	2
+30 mins.	0	3	3	0	0	0	3	0	3
+45 mins.	0	**10**	**10**	0	0	0	**5**	0	**5**
Total Volume	0	18	18	0	0	0	12	0	12
% App. Total	0	100		0	0		100	0	
PHF	.000	.450	.450	.000	.000	.000	.600	.000	.600

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	16	131	147	0	18	18	87	1	88	253
04:15 PM	18	170	188	0	11	11	94	2	96	295
04:30 PM	20	191	211	1	14	15	155	0	155	381
04:45 PM	23	206	229	0	13	13	186	1	187	429
Total	77	698	775	1	56	57	522	4	526	1358
05:00 PM	35	205	240	1	14	15	130	5	135	390
05:15 PM	29	230	259	0	16	16	84	0	84	359
05:30 PM	34	239	273	0	13	13	147	1	148	434
05:45 PM	32	226	258	0	12	12	91	0	91	361
Total	130	900	1030	1	55	56	452	6	458	1544
Grand Total	207	1598	1805	2	111	113	974	10	984	2902
Apprch %	11.5	88.5		1.8	98.2		99	1		
Total %	7.1	55.1	62.2	0.1	3.8	3.9	33.6	0.3	33.9	
Passenger Vehicles	205	1536	1741	2	107	109	946	10	956	2806
% Passenger Vehicles	99	96.1	96.5	100	96.4	96.5	97.1	100	97.2	96.7
Large 2 Axle Vehicles	1	21	22	0	2	2	8	0	8	32
% Large 2 Axle Vehicles	0.5	1.3	1.2	0	1.8	1.8	0.8	0	0.8	1.1
3 Axle Vehicles	0	16	16	0	1	1	3	0	3	20
% 3 Axle Vehicles	0	1	0.9	0	0.9	0.9	0.3	0	0.3	0.7
4+ Axle Trucks	1	25	26	0	1	1	17	0	17	44
% 4+ Axle Trucks	0.5	1.6	1.4	0	0.9	0.9	1.7	0	1.7	1.5

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	23	206	229	0	13	13	**186**	1	**187**	429
05:00 PM	**35**	205	240	**1**	14	15	130	**5**	135	390
05:15 PM	29	230	259	0	**16**	**16**	84	0	84	359
05:30 PM	34	**239**	**273**	0	13	13	147	1	148	**434**
Total Volume	121	880	1001	1	56	57	547	7	554	1612
% App. Total	12.1	87.9		1.8	98.2		98.7	1.3		
PHF	.864	.921	.917	.250	.875	.891	.735	.350	.741	.929

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File Name : MRVHEGEPM
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Start Date : 4/28/2015
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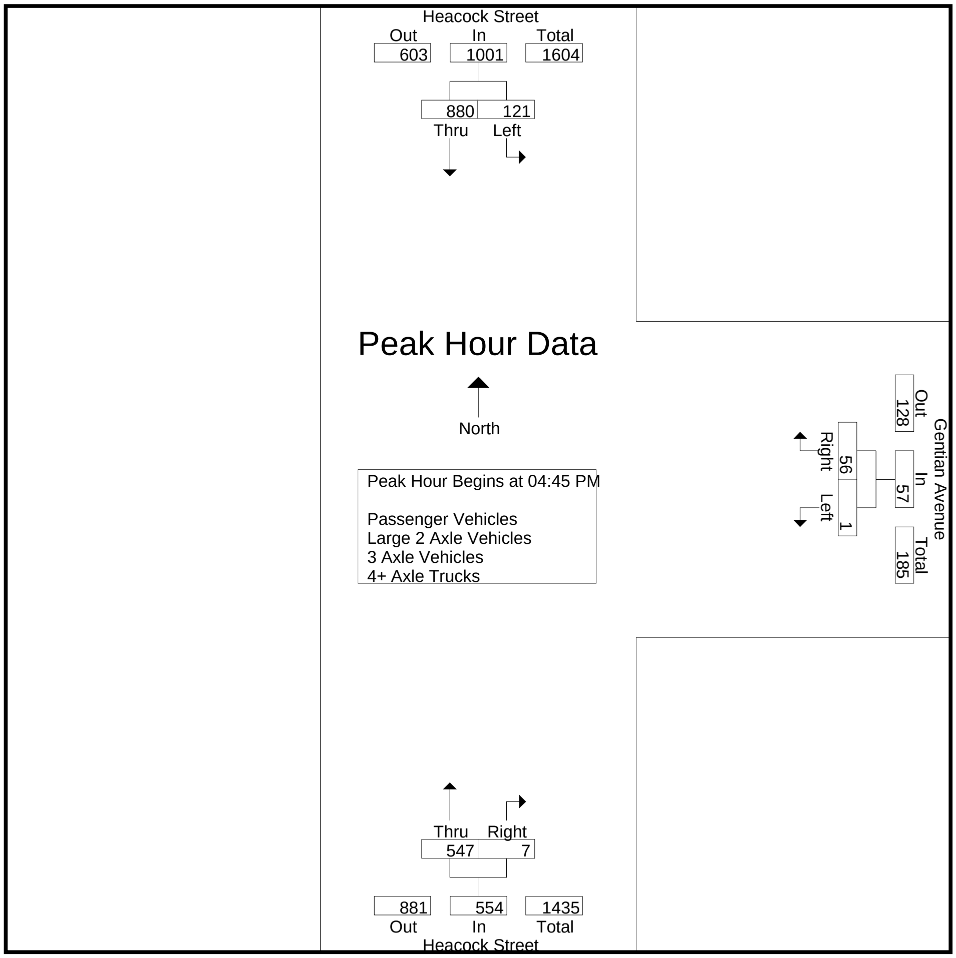

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:30 PM			04:15 PM		
+0 mins.	**35**	205	240	**1**	14	15	94	2	96
+15 mins.	29	230	259	0	13	13	155	0	155
+30 mins.	34	**239**	**273**	1	14	15	**186**	1	**187**
+45 mins.	32	226	258	0	**16**	**16**	130	**5**	135
Total Volume	130	900	1030	2	57	59	565	8	573
% App. Total	12.6	87.4		3.4	96.6		98.6	1.4	
PHF	.929	.941	.943	.500	.891	.922	.759	.400	.766

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92787
(951) 268-6268

City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	0	0	2	0	2	4
04:15 PM	0	3	3	0	0	0	0	0	0	3
04:30 PM	0	5	5	0	1	1	1	0	1	7
04:45 PM	0	3	3	0	1	1	2	0	2	6
Total	0	13	13	0	2	2	5	0	5	20
05:00 PM	1	1	2	0	0	0	2	0	2	4
05:15 PM	0	4	4	0	0	0	0	0	0	4
05:30 PM	0	2	2	0	0	0	0	0	0	2
05:45 PM	0	1	1	0	0	0	1	0	1	2
Total	1	8	9	0	0	0	3	0	3	12
Grand Total	1	21	22	0	2	2	8	0	8	32
Apprch %	4.5	95.5		0	100		100	0		
Total %	3.1	65.6	68.8	0	6.2	6.2	25	0	25	

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	3	3	0	**1**	**1**	**2**	0	**2**	**6**
05:00 PM	**1**	1	2	0	0	0	2	0	2	4
05:15 PM	0	**4**	**4**	0	0	0	0	0	0	4
05:30 PM	0	2	2	0	0	0	0	0	0	2
Total Volume	1	10	11	0	1	1	4	0	4	16
% App. Total	9.1	90.9		0	100		100	0		
PHF	.250	.625	.688	.000	.250	.250	.500	.000	.500	.667

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEPM
Site Code : 05115223
Start Date : 4/28/2015
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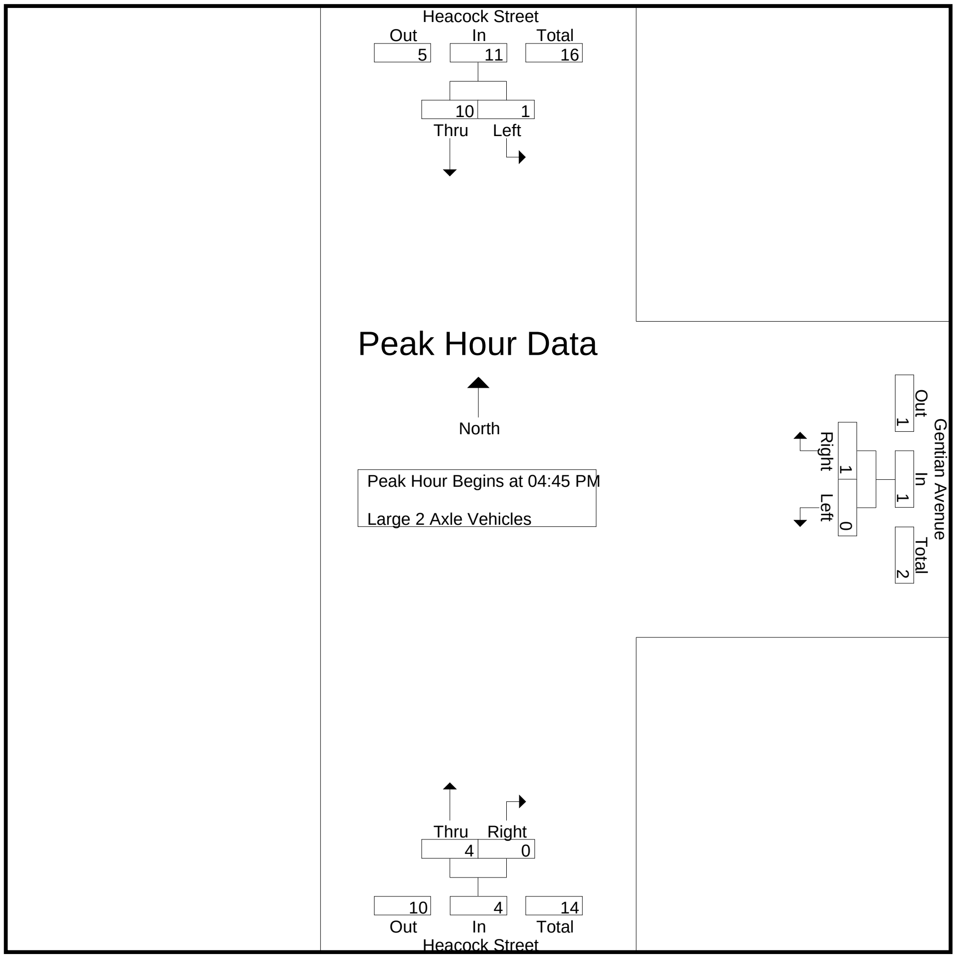

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	3	3	0	**1**	**1**	**2**	0	**2**
+15 mins.	**1**	1	2	0	0	0	2	0	2
+30 mins.	0	**4**	**4**	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	0	0	0
Total Volume	1	10	11	0	1	1	4	0	4
% App. Total	9.1	90.9		0	100		100	0	
PHF	.250	.625	.688	.000	.250	.250	.500	.000	.500

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	0	0	0	0	0	1	0	1	1
04:30 PM	0	2	2	0	0	0	0	0	0	2
04:45 PM	0	4	4	0	0	0	0	0	0	4
Total	0	7	7	0	0	0	2	0	2	9
05:00 PM	0	5	5	0	1	1	0	0	0	6
05:15 PM	0	2	2	0	0	0	0	0	0	2
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	9	9	0	1	1	1	0	1	11
Grand Total	0	16	16	0	1	1	3	0	3	20
Apprch %	0	100		0	100		100	0		
Total %	0	80	80	0	5	5	15	0	15	

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	4	4	0	0	0	0	0	0	4
05:00 PM	0	**5**	**5**	0	**1**	**1**	0	0	0	**6**
05:15 PM	0	2	2	0	0	0	0	0	0	2
05:30 PM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	12	12	0	1	1	0	0	0	13
% App. Total	0	100		0	100		0	0		
PHF	.000	.600	.600	.000	.250	.250	.000	.000	.000	.542

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City of Moreno Valley
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File Name : MRVHEGEPM
Site Code : 05115223
Start Date : 4/28/2015
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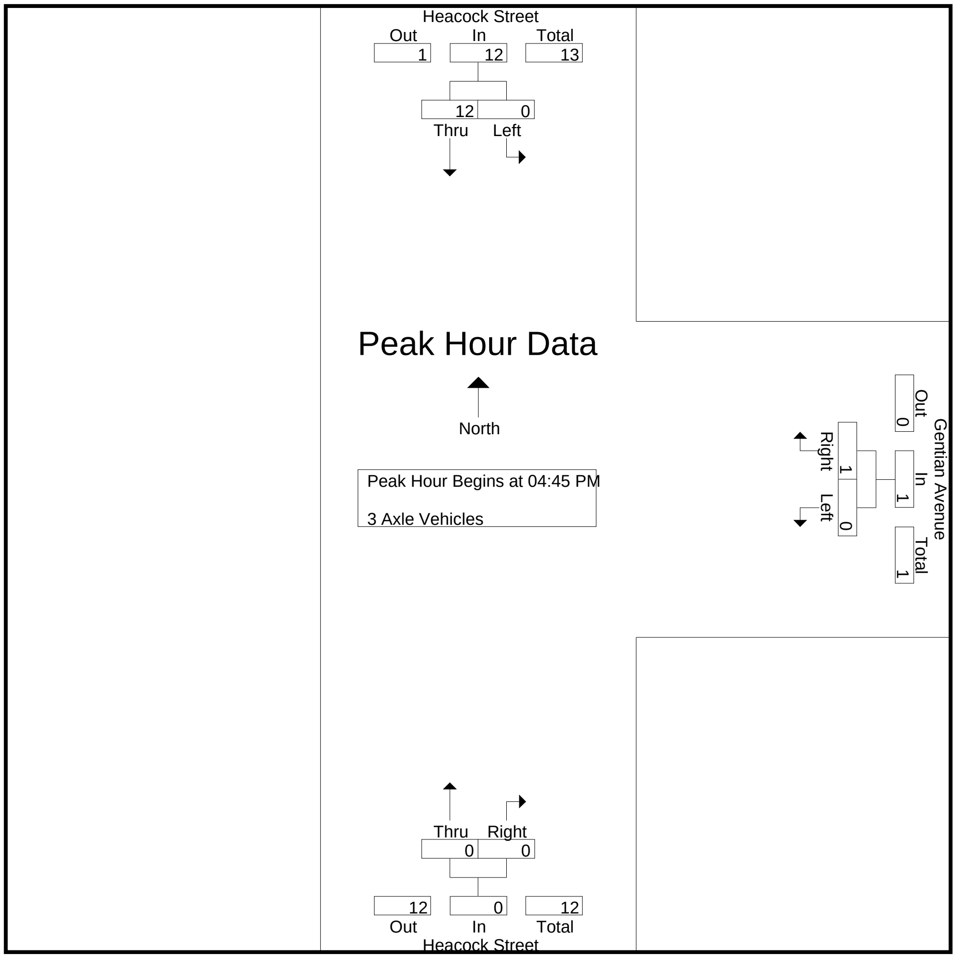

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	4	4	0	0	0	0	0	0
+15 mins.	0	**5**	**5**	0	**1**	**1**	0	0	0
+30 mins.	0	2	2	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	12	12	0	1	1	0	0	0
% App. Total	0	100		0	100		0	0	
PHF	.000	.600	.600	.000	.250	.250	.000	.000	.000

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City of Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue
Weather: Clear

File Name : MRVHEGEPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	0	0	4	0	4	6
04:15 PM	0	3	3	0	0	0	3	0	3	6
04:30 PM	0	3	3	0	0	0	1	0	1	4
04:45 PM	0	3	3	0	0	0	1	0	1	4
Total	0	11	11	0	0	0	9	0	9	20
05:00 PM	0	3	3	0	0	0	5	0	5	8
05:15 PM	1	3	4	0	1	1	0	0	0	5
05:30 PM	0	4	4	0	0	0	3	0	3	7
05:45 PM	0	4	4	0	0	0	0	0	0	4
Total	1	14	15	0	1	1	8	0	8	24
Grand Total	1	25	26	0	1	1	17	0	17	44
Apprch %	3.8	96.2		0	100		100	0		
Total %	2.3	56.8	59.1	0	2.3	2.3	38.6	0	38.6	

	Heacock Street Southbound			Gentian Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	3	3	0	0	0	1	0	1	4
05:00 PM	0	3	3	0	0	0	**5**	0	**5**	**8**
05:15 PM	**1**	3	**4**	0	**1**	**1**	0	0	0	5
05:30 PM	0	**4**	4	0	0	0	3	0	3	7
Total Volume	1	13	14	0	1	1	9	0	9	24
% App. Total	7.1	92.9		0	100		100	0		
PHF	.250	.813	.875	.000	.250	.250	.450	.000	.450	.750

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City of Moreno Valley
N/S: Heacock Street
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File Name : MRVHEGEPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

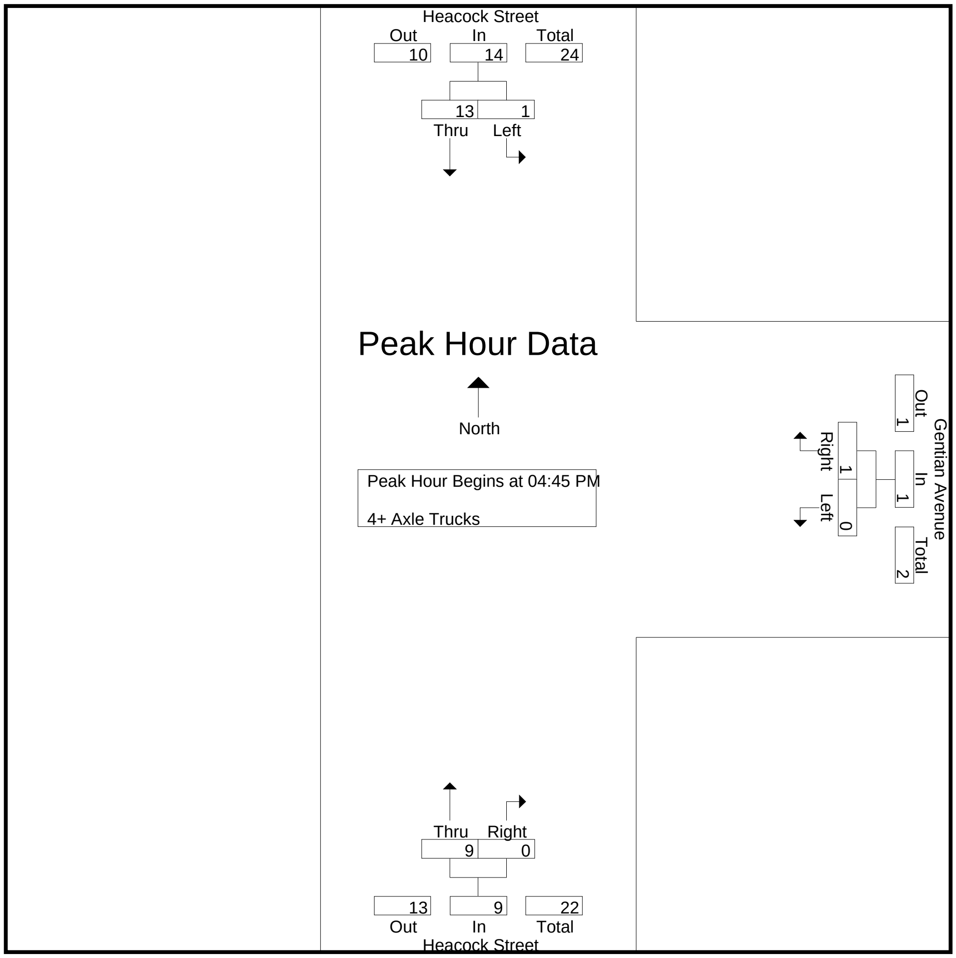

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	3	3	0	0	0	1	0	1
+15 mins.	0	3	3	0	0	0	**5**	0	**5**
+30 mins.	**1**	3	**4**	0	**1**	**1**	0	0	0
+45 mins.	0	**4**	4	0	0	0	3	0	3
Total Volume	1	13	14	0	1	1	9	0	9
% App. Total	7.1	92.9		0	100		100	0	
PHF	.250	.813	.875	.000	.250	.250	.450	.000	.450

Location: Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg Gentian Avenue	South Leg Heacock Street	West Leg Gentian Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Gentian Avenue	South Leg Heacock Street	West Leg Gentian Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Location: Moreno Valley
N/S: Heacock Street
E/W: Gentian Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg Gentian Avenue	South Leg Heacock Street	West Leg Gentian Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Gentian Avenue	South Leg Heacock Street	West Leg Gentian Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue
Weather: Clear

File Name : MRVHEIRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	46	40	86	8	104	112	34	6	40	238
07:15 AM	50	73	123	14	82	96	40	10	50	269
07:30 AM	48	37	85	12	107	119	43	8	51	255
07:45 AM	56	41	97	8	90	98	41	11	52	247
Total	200	191	391	42	383	425	158	35	193	1009
08:00 AM	44	25	69	1	84	85	36	2	38	192
08:15 AM	34	25	59	3	80	83	25	3	28	170
08:30 AM	40	27	67	2	64	66	20	2	22	155
08:45 AM	42	17	59	1	54	55	16	3	19	133
Total	160	94	254	7	282	289	97	10	107	650
Grand Total	360	285	645	49	665	714	255	45	300	1659
Apprch %	55.8	44.2		6.9	93.1		85	15		
Total %	21.7	17.2	38.9	3	40.1	43	15.4	2.7	18.1	
Passenger Vehicles	354	235	589	44	660	704	227	42	269	1562
% Passenger Vehicles	98.3	82.5	91.3	89.8	99.2	98.6	89	93.3	89.7	94.2
Large 2 Axle Vehicles	2	8	10	4	1	5	2	3	5	20
% Large 2 Axle Vehicles	0.6	2.8	1.6	8.2	0.2	0.7	0.8	6.7	1.7	1.2
3 Axle Vehicles	1	3	4	0	1	1	2	0	2	7
% 3 Axle Vehicles	0.3	1.1	0.6	0	0.2	0.1	0.8	0	0.7	0.4
4+ Axle Trucks	3	39	42	1	3	4	24	0	24	70
% 4+ Axle Trucks	0.8	13.7	6.5	2	0.5	0.6	9.4	0	8	4.2

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	46	40	86	8	104	112	34	6	40	238
07:15 AM	50	**73**	**123**	**14**	82	96	40	10	50	**269**
07:30 AM	48	37	85	12	**107**	**119**	**43**	8	51	255
07:45 AM	**56**	41	97	8	90	98	41	**11**	**52**	247
Total Volume	200	191	391	42	383	425	158	35	193	1009
% App. Total	51.2	48.8		9.9	90.1		81.9	18.1		
PHF	.893	.654	.795	.750	.895	.893	.919	.795	.928	.938

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City of Moreno Valley
N/S: Heacock Street
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File Name : MRVHEIRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

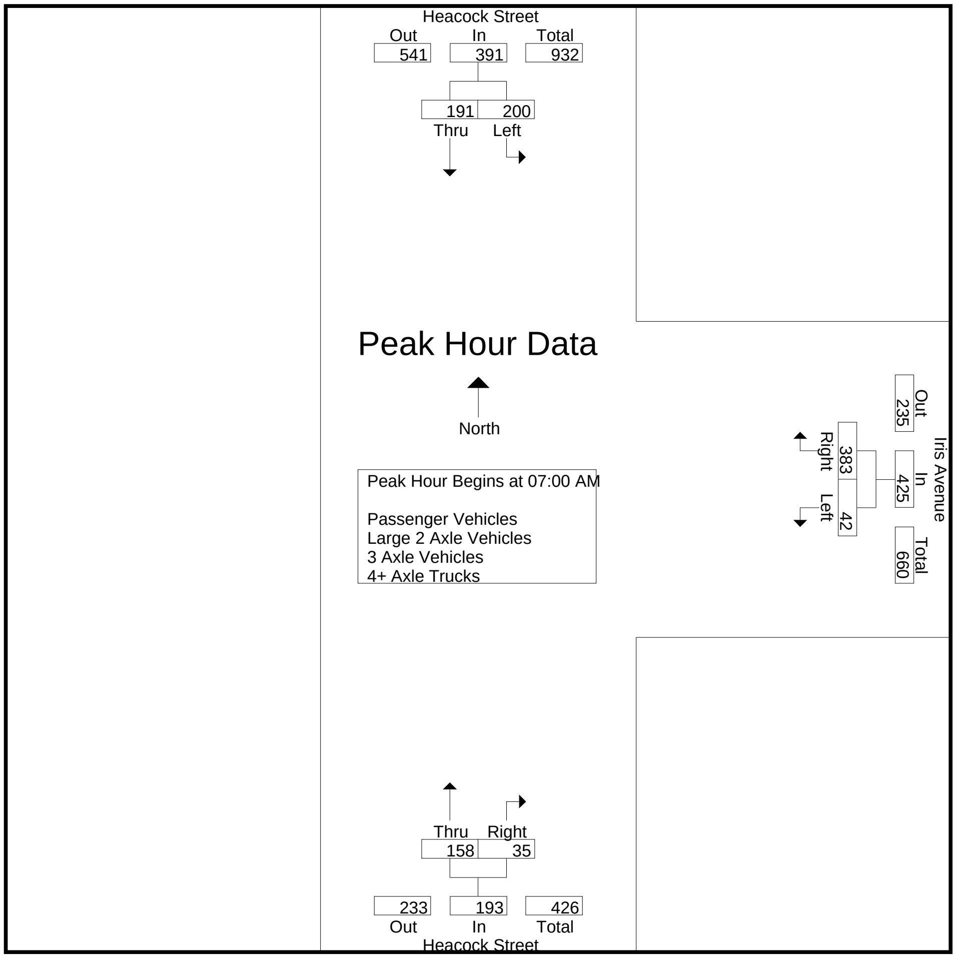

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	46	40	86	8	104	112	34	6	40
+15 mins.	50	**73**	**123**	**14**	82	96	40	10	50
+30 mins.	48	37	85	12	**107**	**119**	**43**	8	51
+45 mins.	**56**	41	97	8	90	98	41	**11**	**52**
Total Volume	200	191	391	42	383	425	158	35	193
% App. Total	51.2	48.8		9.9	90.1		81.9	18.1	
PHF	.893	.654	.795	.750	.895	.893	.919	.795	.928

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City of Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue
Weather: Clear

File Name : MRVHEIRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	2	2	2	0	2	0	1	1	5
Total	0	3	3	2	0	2	0	1	1	6
08:00 AM	0	3	3	0	1	1	1	0	1	5
08:15 AM	0	1	1	2	0	2	0	2	2	5
08:30 AM	1	0	1	0	0	0	1	0	1	2
08:45 AM	1	1	2	0	0	0	0	0	0	2
Total	2	5	7	2	1	3	2	2	4	14
Grand Total	2	8	10	4	1	5	2	3	5	20
Apprch %	20	80		80	20		40	60		
Total %	10	40	50	20	5	25	10	15	25	

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	**2**	**2**	**2**	0	**2**	0	**1**	**1**	**5**
Total Volume	0	3	3	2	0	2	0	1	1	6
% App. Total	0	100		100	0		0	100		
PHF	.000	.375	.375	.250	.000	.250	.000	.250	.250	.300

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
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File Name : MRVHEIRAM
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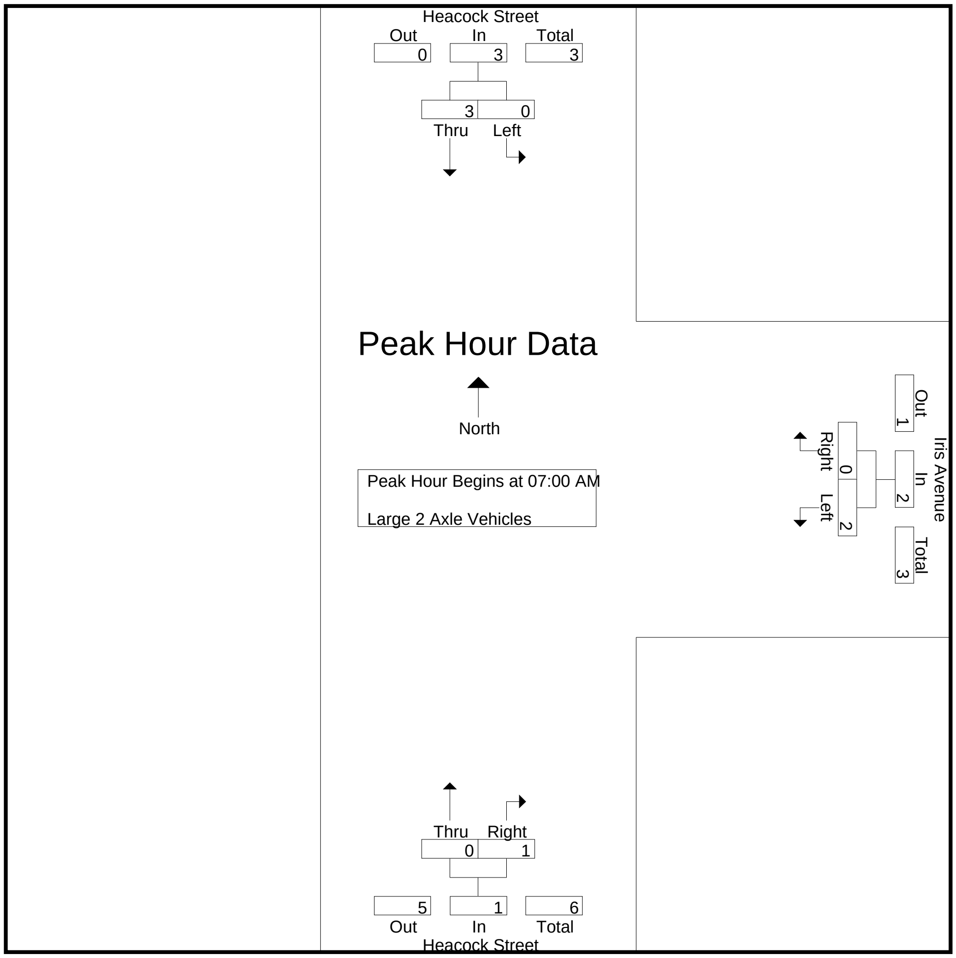

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	**2**	**2**	**2**	0	**2**	0	**1**	**1**
Total Volume	0	3	3	2	0	2	0	1	1
% App. Total	0	100		100	0		0	100	
PHF	.000	.375	.375	.250	.000	.250	.000	.250	.250

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City of Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue
Weather: Clear

File Name : MRVHEIRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	1	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	1	0	1	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	2	3	0	1	1	0	0	0	4
08:30 AM	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	2	3	0	1	1	1	0	1	5
Grand Total	1	3	4	0	1	1	2	0	2	7
Apprch %	25	75		0	100		100	0		
Total %	14.3	42.9	57.1	0	14.3	14.3	28.6	0	28.6	

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	**1**	0	**1**	**1**
07:15 AM	0	**1**	**1**	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	1	0	1	2
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250	.500

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City of Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue
Weather: Clear

File Name : MRVHEIRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

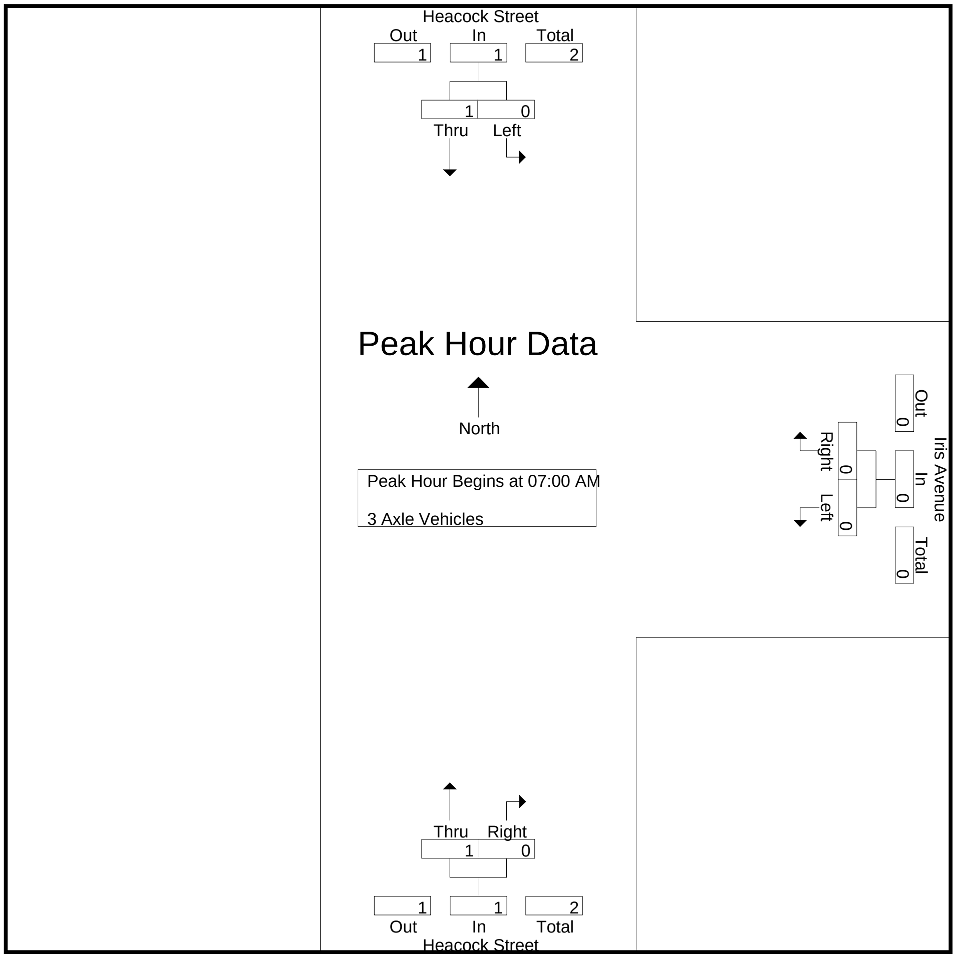

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	**1**	0	**1**
+15 mins.	0	**1**	**1**	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	1	0	1
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.250	.000	.250

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City of Moreno Valley
N/S: Heacock Street
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File Name : MRVHEIRAM
Site Code : 05115223
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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	0	0	0	2	0	2	6
07:15 AM	0	1	1	0	0	0	2	0	2	3
07:30 AM	0	4	4	1	0	1	3	0	3	8
07:45 AM	0	9	9	0	0	0	5	0	5	14
Total	0	18	18	1	0	1	12	0	12	31
08:00 AM	0	5	5	0	3	3	8	0	8	16
08:15 AM	1	4	5	0	0	0	1	0	1	6
08:30 AM	1	9	10	0	0	0	1	0	1	11
08:45 AM	1	3	4	0	0	0	2	0	2	6
Total	3	21	24	0	3	3	12	0	12	39
Grand Total	3	39	42	1	3	4	24	0	24	70
Apprch %	7.1	92.9		25	75		100	0		
Total %	4.3	55.7	60	1.4	4.3	5.7	34.3	0	34.3	

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	0	0	0	2	0	2	6
07:15 AM	0	1	1	0	0	0	2	0	2	3
07:30 AM	0	4	4	**1**	0	**1**	3	0	3	8
07:45 AM	0	**9**	**9**	0	0	0	**5**	0	**5**	**14**
Total Volume	0	18	18	1	0	1	12	0	12	31
% App. Total	0	100		100	0		100	0		
PHF	.000	.500	.500	.250	.000	.250	.600	.000	.600	.554

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City of Moreno Valley
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File Name : MRVHEIRAM
Site Code : 05115223
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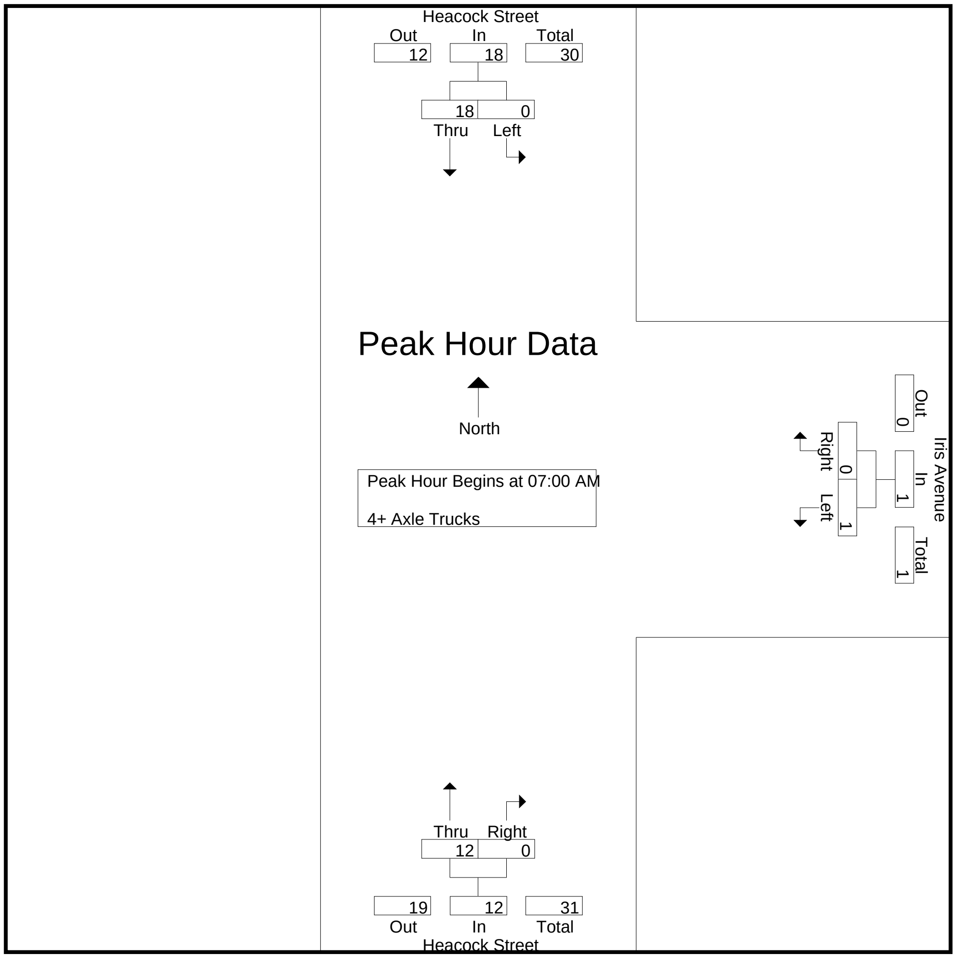

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	0	0	0	2	0	2
+15 mins.	0	1	1	0	0	0	2	0	2
+30 mins.	0	4	4	**1**	0	**1**	3	0	3
+45 mins.	0	**9**	**9**	0	0	0	**5**	0	**5**
Total Volume	0	18	18	1	0	1	12	0	12
% App. Total	0	100		100	0		100	0	
PHF	.000	.500	.500	.250	.000	.250	.600	.000	.600

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue
Weather: Clear

File Name : MRVHEIRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	89	45	134	6	59	65	29	4	33	232
04:15 PM	86	68	154	6	57	63	42	3	45	262
04:30 PM	86	104	190	12	57	69	95	8	103	362
04:45 PM	118	103	221	8	54	62	130	8	138	421
Total	379	320	699	32	227	259	296	23	319	1277
05:00 PM	111	78	189	0	62	62	73	3	76	327
05:15 PM	148	76	224	2	52	54	31	2	33	311
05:30 PM	130	94	224	7	74	81	71	5	76	381
05:45 PM	134	98	232	4	57	61	37	6	43	336
Total	523	346	869	13	245	258	212	16	228	1355
Grand Total	902	666	1568	45	472	517	508	39	547	2632
Apprch %	57.5	42.5		8.7	91.3		92.9	7.1		
Total %	34.3	25.3	59.6	1.7	17.9	19.6	19.3	1.5	20.8	
Passenger Vehicles	894	620	1514	44	471	515	483	38	521	2550
% Passenger Vehicles	99.1	93.1	96.6	97.8	99.8	99.6	95.1	97.4	95.2	96.9
Large 2 Axle Vehicles	7	10	17	0	1	1	5	1	6	24
% Large 2 Axle Vehicles	0.8	1.5	1.1	0	0.2	0.2	1	2.6	1.1	0.9
3 Axle Vehicles	0	16	16	1	0	1	3	0	3	20
% 3 Axle Vehicles	0	2.4	1	2.2	0	0.2	0.6	0	0.5	0.8
4+ Axle Trucks	1	20	21	0	0	0	17	0	17	38
% 4+ Axle Trucks	0.1	3	1.3	0	0	0	3.3	0	3.1	1.4

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	118	**103**	221	**8**	54	62	**130**	**8**	**138**	**421**
05:00 PM	111	78	189	0	62	62	73	3	76	327
05:15 PM	**148**	76	**224**	2	52	54	31	2	33	311
05:30 PM	130	94	224	7	**74**	**81**	71	5	76	381
Total Volume	507	351	858	17	242	259	305	18	323	1440
% App. Total	59.1	40.9		6.6	93.4		94.4	5.6		
PHF	.856	.852	.958	.531	.818	.799	.587	.563	.585	.855

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File Name : MRVHEIRPM
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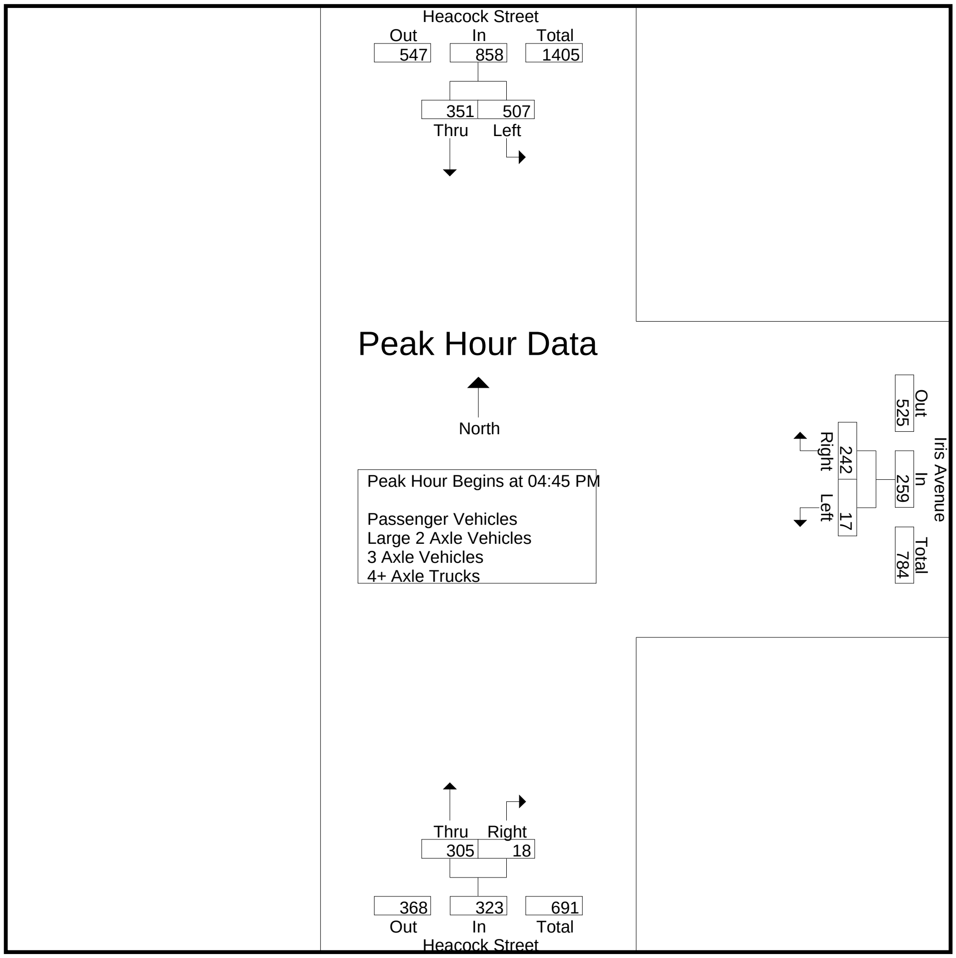

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:15 PM		
+0 mins.	111	78	189	6	**59**	65	42	3	45
+15 mins.	**148**	76	224	6	57	63	95	**8**	103
+30 mins.	130	94	224	**12**	57	**69**	**130**	8	**138**
+45 mins.	134	**98**	**232**	8	54	62	73	3	76
Total Volume	523	346	869	32	227	259	340	22	362
% App. Total	60.2	39.8		12.4	87.6		93.9	6.1	
PHF	.883	.883	.936	.667	.962	.938	.654	.688	.656

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City of Moreno Valley
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File Name : MRVHEIRPM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	1	1	0	0	0	0	1	1	2
04:30 PM	1	3	4	0	0	0	1	0	1	5
04:45 PM	2	1	3	0	0	0	1	0	1	4
Total	3	6	9	0	0	0	3	1	4	13
05:00 PM	1	0	1	0	1	1	1	0	1	3
05:15 PM	2	2	4	0	0	0	0	0	0	4
05:30 PM	1	1	2	0	0	0	0	0	0	2
05:45 PM	0	1	1	0	0	0	1	0	1	2
Total	4	4	8	0	1	1	2	0	2	11
Grand Total	7	10	17	0	1	1	5	1	6	24
Apprch %	41.2	58.8		0	100		83.3	16.7		
Total %	29.2	41.7	70.8	0	4.2	4.2	20.8	4.2	25	

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	**2**	1	3	0	0	0	**1**	0	**1**	**4**
05:00 PM	1	0	1	0	**1**	**1**	1	0	1	3
05:15 PM	2	**2**	**4**	0	0	0	0	0	0	4
05:30 PM	1	1	2	0	0	0	0	0	0	2
Total Volume	6	4	10	0	1	1	2	0	2	13
% App. Total	60	40		0	100		100	0		
PHF	.750	.500	.625	.000	.250	.250	.500	.000	.500	.813

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City of Moreno Valley
N/S: Heacock Street
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Weather: Clear

File Name : MRVHEIRPM
Site Code : 05115223
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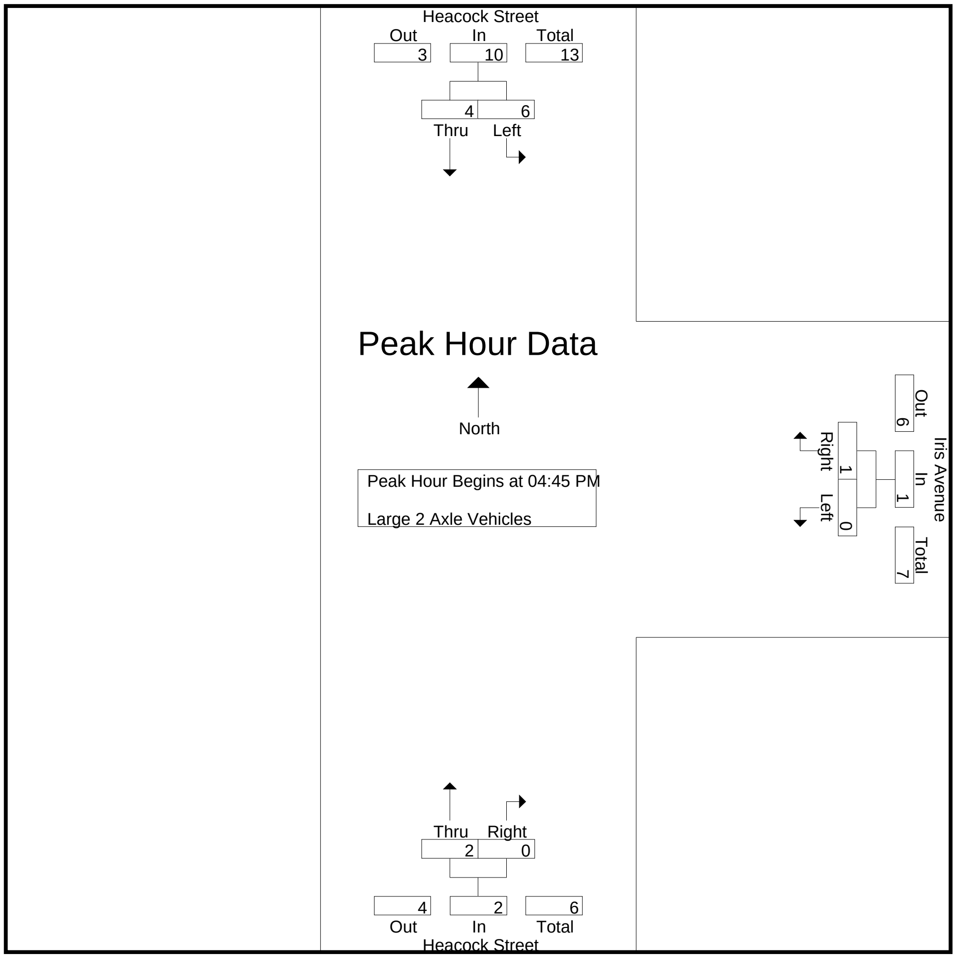

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	**2**	1	3	0	0	0	**1**	0	**1**
+15 mins.	1	0	1	0	**1**	**1**	1	0	1
+30 mins.	2	**2**	**4**	0	0	0	0	0	0
+45 mins.	1	1	2	0	0	0	0	0	0
Total Volume	6	4	10	0	1	1	2	0	2
% App. Total	60	40		0	100		100	0	
PHF	.750	.500	.625	.000	.250	.250	.500	.000	.500

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City of Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue
Weather: Clear

File Name : MRVHEIRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	0	0	0	1	0	1	2
04:15 PM	0	0	0	0	0	0	1	0	1	1
04:30 PM	0	2	2	0	0	0	0	0	0	2
04:45 PM	0	4	4	0	0	0	0	0	0	4
Total	0	7	7	0	0	0	2	0	2	9
05:00 PM	0	5	5	0	0	0	0	0	0	5
05:15 PM	0	2	2	1	0	1	0	0	0	3
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	9	9	1	0	1	1	0	1	11
Grand Total	0	16	16	1	0	1	3	0	3	20
Apprch %	0	100		100	0		100	0		
Total %	0	80	80	5	0	5	15	0	15	

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	4	4	0	0	0	0	0	0	4
05:00 PM	0	**5**	**5**	0	0	0	0	0	0	**5**
05:15 PM	0	2	2	**1**	0	**1**	0	0	0	3
05:30 PM	0	1	1	0	0	0	0	0	0	1
Total Volume	0	12	12	1	0	1	0	0	0	13
% App. Total	0	100		100	0		0	0		
PHF	.000	.600	.600	.250	.000	.250	.000	.000	.000	.650

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File Name : MRVHEIRPM
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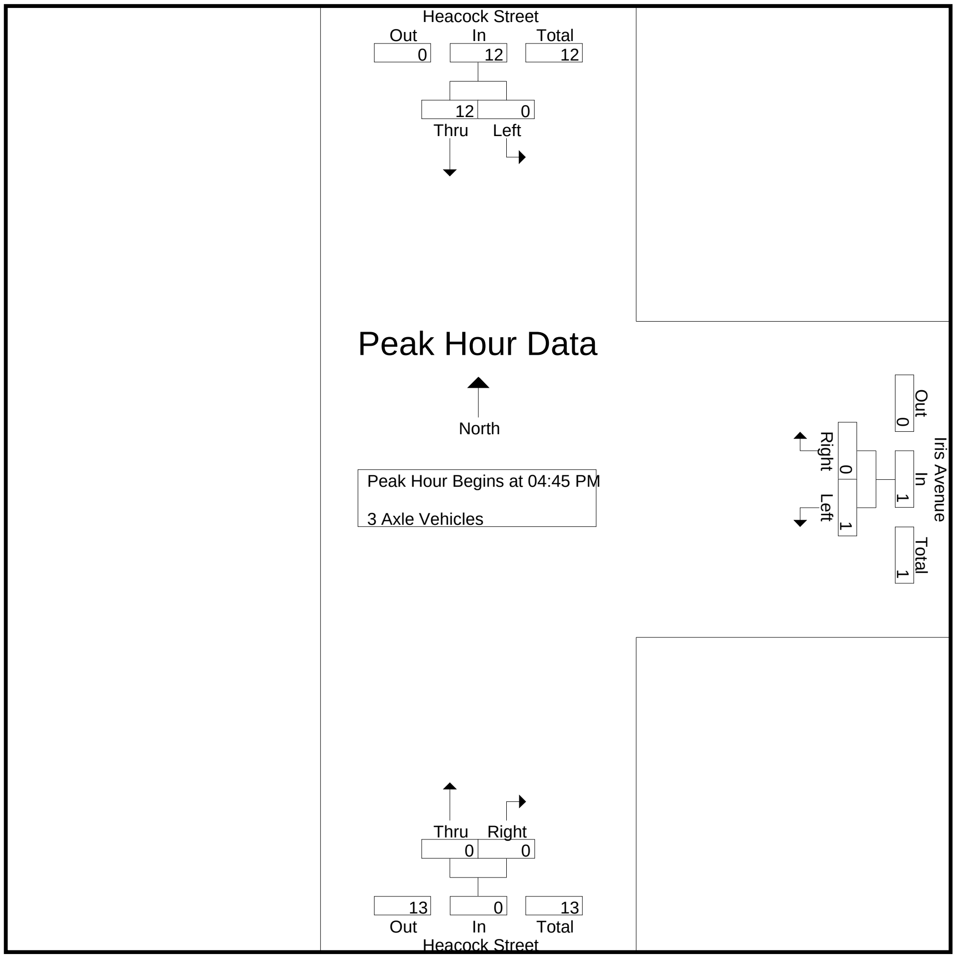

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	4	4	0	0	0	0	0	0
+15 mins.	0	**5**	**5**	0	0	0	0	0	0
+30 mins.	0	2	2	**1**	0	**1**	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	0	12	12	1	0	1	0	0	0
% App. Total	0	100		100	0		0	0	
PHF	.000	.600	.600	.250	.000	.250	.000	.000	.000

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
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File Name : MRVHEIRPM
Site Code : 05115223
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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	4	0	4	4
04:15 PM	0	3	3	0	0	0	3	0	3	6
04:30 PM	0	1	1	0	0	0	1	0	1	2
04:45 PM	0	4	4	0	0	0	1	0	1	5
Total	0	8	8	0	0	0	9	0	9	17
05:00 PM	0	4	4	0	0	0	5	0	5	9
05:15 PM	1	1	2	0	0	0	0	0	0	2
05:30 PM	0	4	4	0	0	0	3	0	3	7
05:45 PM	0	3	3	0	0	0	0	0	0	3
Total	1	12	13	0	0	0	8	0	8	21
Grand Total	1	20	21	0	0	0	17	0	17	38
Apprch %	4.8	95.2		0	0		100	0		
Total %	2.6	52.6	55.3	0	0	0	44.7	0	44.7	

	Heacock Street Southbound			Iris Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	**4**	**4**	0	0	0	1	0	1	5
05:00 PM	0	4	4	0	0	0	**5**	0	**5**	**9**
05:15 PM	**1**	1	2	0	0	0	0	0	0	2
05:30 PM	0	4	4	0	0	0	3	0	3	7
Total Volume	1	13	14	0	0	0	9	0	9	23
% App. Total	7.1	92.9		0	0		100	0		
PHF	.250	.813	.875	.000	.000	.000	.450	.000	.450	.639

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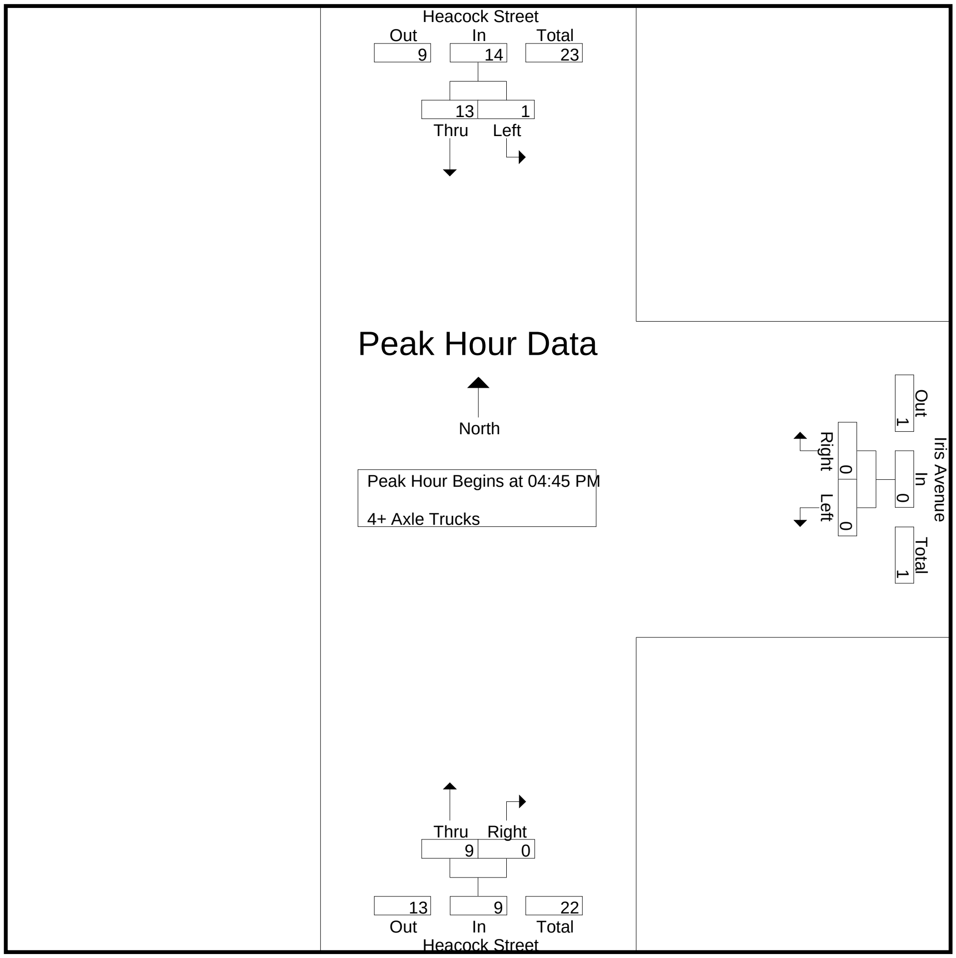

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	**4**	**4**	0	0	0	1	0	1
+15 mins.	0	4	4	0	0	0	**5**	0	**5**
+30 mins.	**1**	1	2	0	0	0	0	0	0
+45 mins.	0	4	4	0	0	0	3	0	3
Total Volume	1	13	14	0	0	0	9	0	9
% App. Total	7.1	92.9		0	0		100	0	
PHF	.250	.813	.875	.000	.000	.000	.450	.000	.450

Location: Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg Iris Avenue	South Leg Heacock Street	West Leg Iris Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Iris Avenue	South Leg Heacock Street	West Leg Iris Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Moreno Valley
N/S: Heacock Street
E/W: Iris Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg Iris Avenue	South Leg Heacock Street	West Leg Iris Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Iris Avenue	South Leg Heacock Street	West Leg Iris Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Moreno Valley
N/S: Heacock Street
E/W: Krameria Avenue
Weather: Clear

File Name : MRVHEKRAM
Site Code : 05115223
Start Date : 5/5/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	5	50	0	55	1	18	18	19	31	1	0	32	18	106
07:15 AM	5	78	0	83	0	12	11	12	53	0	0	53	11	148
07:30 AM	1	39	0	40	1	12	10	13	57	1	0	58	10	111
07:45 AM	5	48	0	53	4	5	0	9	47	3	0	50	0	112
Total	16	215	0	231	6	47	39	53	188	5	0	193	39	477
08:00 AM	1	13	0	14	2	6	4	8	44	1	0	45	4	67
08:15 AM	2	23	0	25	1	3	3	4	30	0	0	30	3	59
08:30 AM	3	25	0	28	1	6	4	7	21	0	0	21	4	56
08:45 AM	3	21	0	24	0	6	4	6	18	0	0	18	4	48
Total	9	82	0	91	4	21	15	25	113	1	0	114	15	230
Grand Total	25	297	0	322	10	68	54	78	301	6	0	307	54	707
Apprch %	7.8	92.2			12.8	87.2			98	2				
Total %	3.5	42		45.5	1.4	9.6		11	42.6	0.8		43.4	7.1	92.9
Passenger Vehicles	12	257		269	5	60		117	265	4		269	0	0
% Passenger Vehicles	48	86.5	0	83.5	50	88.2	96.3	88.6	88	66.7	0	87.6	0	0
Large 2 Axle Vehicles	1	15		16	2	0		2	14	0		14	0	0
% Large 2 Axle Vehicles	4	5.1	0	5	20	0	0	1.5	4.7	0	0	4.6	0	0
3 Axle Vehicles	2	4		6	1	0		1	3	0		3	0	0
% 3 Axle Vehicles	8	1.3	0	1.9	10	0	0	0.8	1	0	0	1	0	0
4+ Axle Trucks	10	21		31	2	8		12	19	2		21	0	0
% 4+ Axle Trucks	40	7.1	0	9.6	20	11.8	3.7	9.1	6.3	33.3	0	6.8	0	0

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	5	50	55	1	18	19	31	1	32	106
07:15 AM	5	78	83	0	12	12	53	0	53	148
07:30 AM	1	39	40	1	12	13	57	1	58	111
07:45 AM	5	48	53	4	5	9	47	3	50	112
Total Volume	16	215	231	6	47	53	188	5	193	477
% App. Total	6.9	93.1		11.3	88.7		97.4	2.6		
PHF	.800	.689	.696	.375	.653	.697	.825	.417	.832	.806

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File Name : MRVHEKRAM
Site Code : 05115223
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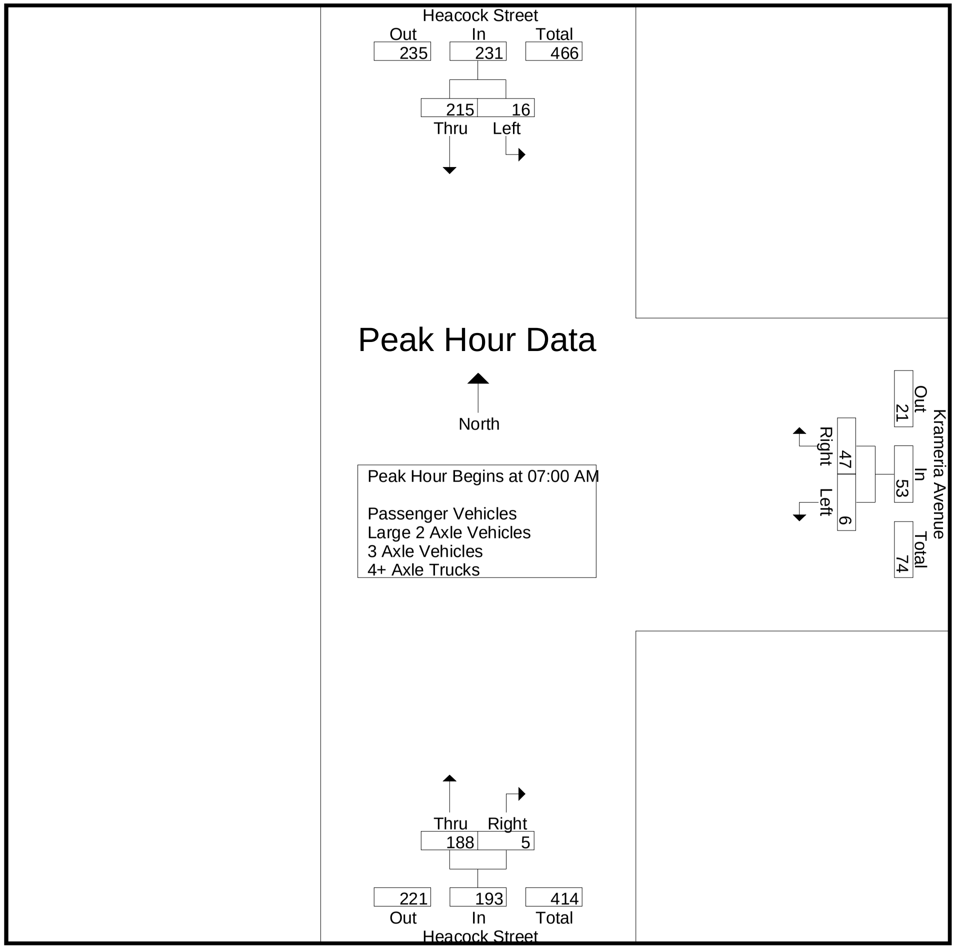

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City of Moreno Valley
N/S: Heacock Street
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Weather: Clear

File Name : MRVHEKRAM
Site Code : 05115223
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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	2	0	2	0	0	0	0	2	0	0	2	0	4
07:30 AM	0	3	0	3	0	0	0	0	1	0	0	1	0	4
07:45 AM	0	3	0	3	1	0	0	1	1	0	0	1	0	5
Total	0	10	0	10	1	0	0	1	4	0	0	4	0	15
08:00 AM	0	1	0	1	1	0	0	1	2	0	0	2	0	4
08:15 AM	0	3	0	3	0	0	0	0	6	0	0	6	0	9
08:30 AM	1	0	0	1	0	0	0	0	2	0	0	2	0	3
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total	1	5	0	6	1	0	0	1	10	0	0	10	0	17
Grand Total	1	15	0	16	2	0	0	2	14	0	0	14	0	32
Apprch %	6.2	93.8			100	0			100	0				
Total %	3.1	46.9		50	6.2	0		6.2	43.8	0		43.8	0	100

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	2	2	0	0	0	0	0	0	2
07:15 AM	0	2	2	0	0	0	2	0	2	4
07:30 AM	0	3	3	0	0	0	1	0	1	4
07:45 AM	0	3	3	1	0	1	1	0	1	5
Total Volume	0	10	10	1	0	1	4	0	4	15
% App. Total	0	100		100	0		100	0		
PHF	.000	.833	.833	.250	.000	.250	.500	.000	.500	.750

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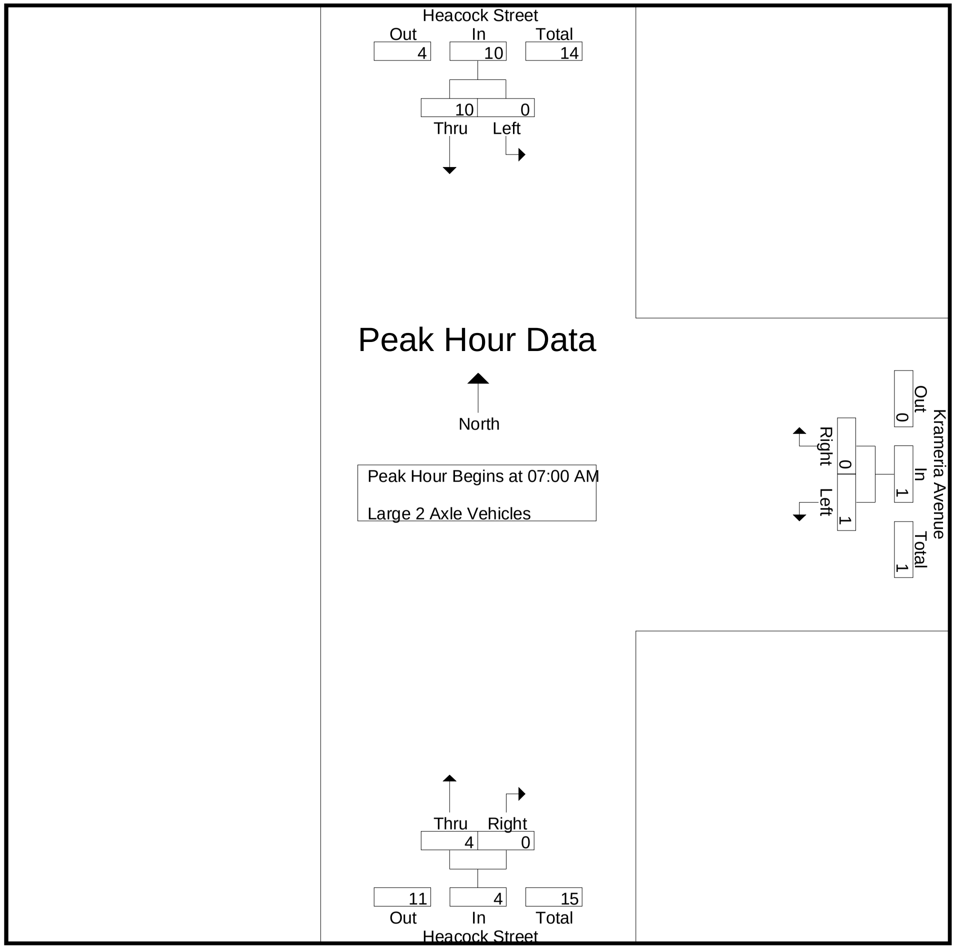

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City of Moreno Valley
N/S: Heacock Street
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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total	1	1	0	2	0	0	0	0	1	0	0	1	0	3
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1
08:30 AM	0	2	0	2	1	0	0	1	0	0	0	0	0	3
08:45 AM	0	1	0	1	0	0	0	0	1	0	0	1	0	2
Total	1	3	0	4	1	0	0	1	2	0	0	2	0	7
Grand Total	2	4	0	6	1	0	0	1	3	0	0	3	0	10
Apprch %	33.3	66.7			100	0			100	0				
Total %	20	40		60	10	0		10	30	0		30	0	100

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	1	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	1	0	1	1
07:45 AM	0	1	1	0	0	0	0	0	0	1
Total Volume	1	1	2	0	0	0	1	0	1	3
% App. Total	50	50		0	0		100	0		
PHF	.250	.250	.500	.000	.000	.000	.250	.000	.250	.750

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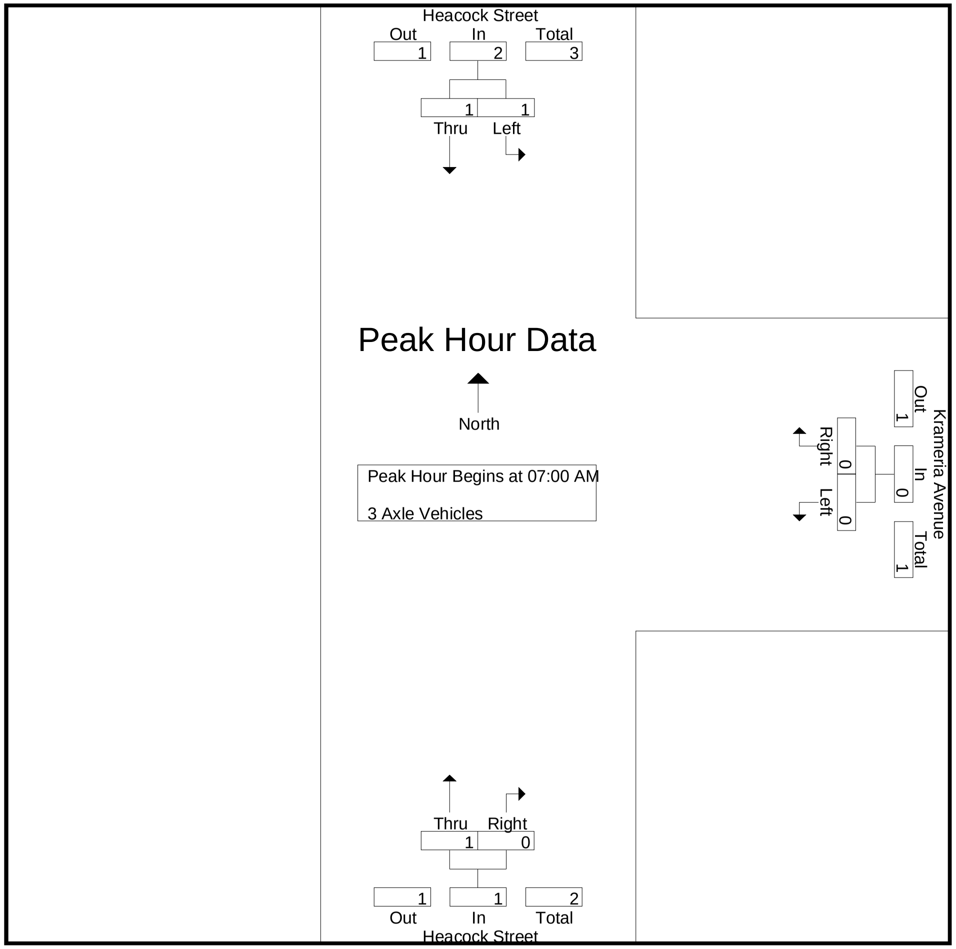

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City of Moreno Valley
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Weather: Clear

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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	2	3	0	5	0	1	1	1	2	0	0	2	1	8
07:15 AM	2	2	0	4	0	0	0	0	1	0	0	1	0	5
07:30 AM	0	2	0	2	0	0	0	0	3	0	0	3	0	5
07:45 AM	3	4	0	7	1	1	0	2	3	1	0	4	0	13
Total	7	11	0	18	1	2	1	3	9	1	0	10	1	31
08:00 AM	0	1	0	1	1	2	1	3	3	1	0	4	1	8
08:15 AM	1	5	0	6	0	0	0	0	1	0	0	1	0	7
08:30 AM	0	2	0	2	0	2	0	2	3	0	0	3	0	7
08:45 AM	2	2	0	4	0	2	0	2	3	0	0	3	0	9
Total	3	10	0	13	1	6	1	7	10	1	0	11	1	31
Grand Total	10	21	0	31	2	8	2	10	19	2	0	21	2	62
Apprch %	32.3	67.7			20	80			90.5	9.5				
Total %	16.1	33.9		50	3.2	12.9		16.1	30.6	3.2		33.9	3.1	96.9

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	3	5	0	1	1	2	0	2	8
07:15 AM	2	2	4	0	0	0	1	0	1	5
07:30 AM	0	2	2	0	0	0	3	0	3	5
07:45 AM	3	4	7	1	1	2	3	1	4	13
Total Volume	7	11	18	1	2	3	9	1	10	31
% App. Total	38.9	61.1		33.3	66.7		90	10		
PHF	.583	.688	.643	.250	.500	.375	.750	.250	.625	.596

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File Name : MRVHEKRAM
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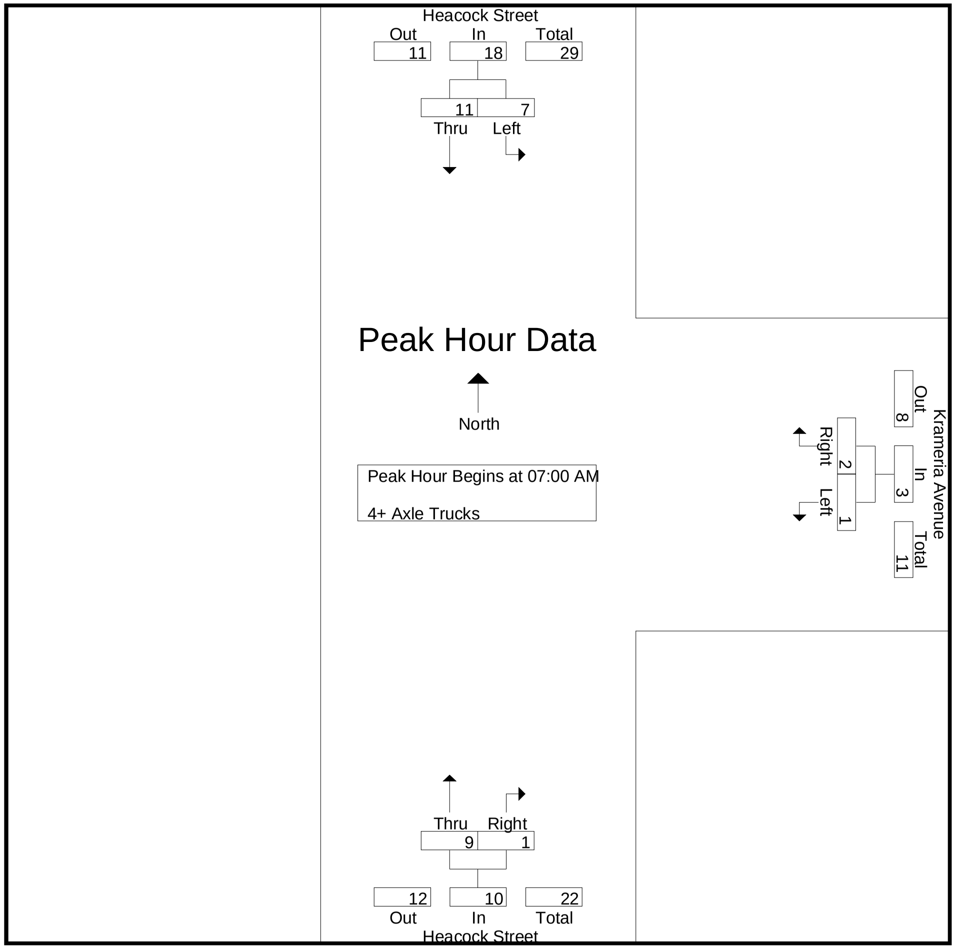

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City of Moreno Valley
N/S: Heacock Street
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File Name : MRVHEKRPM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	11	48	0	59	2	5	4	7	27	0	0	27	4	93
04:15 PM	5	84	0	89	1	6	4	7	35	0	0	35	4	131
04:30 PM	6	100	0	106	2	6	5	8	113	3	0	116	5	230
04:45 PM	9	99	0	108	0	2	2	2	108	11	0	119	2	229
Total	31	331	0	362	5	19	15	24	283	14	0	297	15	683
05:00 PM	10	80	0	90	0	6	6	6	59	0	0	59	6	155
05:15 PM	6	73	0	79	1	7	6	8	34	0	0	34	6	121
05:30 PM	8	119	0	127	2	2	0	4	72	1	0	73	0	204
05:45 PM	3	109	0	112	1	3	3	4	47	0	0	47	3	163
Total	27	381	0	408	4	18	15	22	212	1	0	213	15	643
Grand Total	58	712	0	770	9	37	30	46	495	15	0	510	30	1326
Apprch %	7.5	92.5			19.6	80.4			97.1	2.9				
Total %	4.4	53.7		58.1	0.7	2.8		3.5	37.3	1.1		38.5	2.2	97.8
Passenger Vehicles	41	663		704	7	22		49	464	15		479	0	0
% Passenger Vehicles	70.7	93.1	0	91.4	77.8	59.5	66.7	64.5	93.7	100	0	93.9	0	0
Large 2 Axle Vehicles	1	13		14	0	0		0	7	0		7	0	0
% Large 2 Axle Vehicles	1.7	1.8	0	1.8	0	0	0	0	1.4	0	0	1.4	0	0
3 Axle Vehicles	3	24		27	0	1		2	5	0		5	0	0
% 3 Axle Vehicles	5.2	3.4	0	3.5	0	2.7	3.3	2.6	1	0	0	1	0	0
4+ Axle Trucks	13	12		25	2	14		25	19	0		19	0	0
% 4+ Axle Trucks	22.4	1.7	0	3.2	22.2	37.8	30	32.9	3.8	0	0	3.7	0	0

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	5	84	89	1	6	7	35	0	35	131
04:30 PM	6	100	106	2	6	8	113	3	116	230
04:45 PM	9	99	108	0	2	2	108	11	119	229
05:00 PM	10	80	90	0	6	6	59	0	59	155
Total Volume	30	363	393	3	20	23	315	14	329	745
% App. Total	7.6	92.4		13	87		95.7	4.3		
PHF	.750	.908	.910	.375	.833	.719	.697	.318	.691	.810

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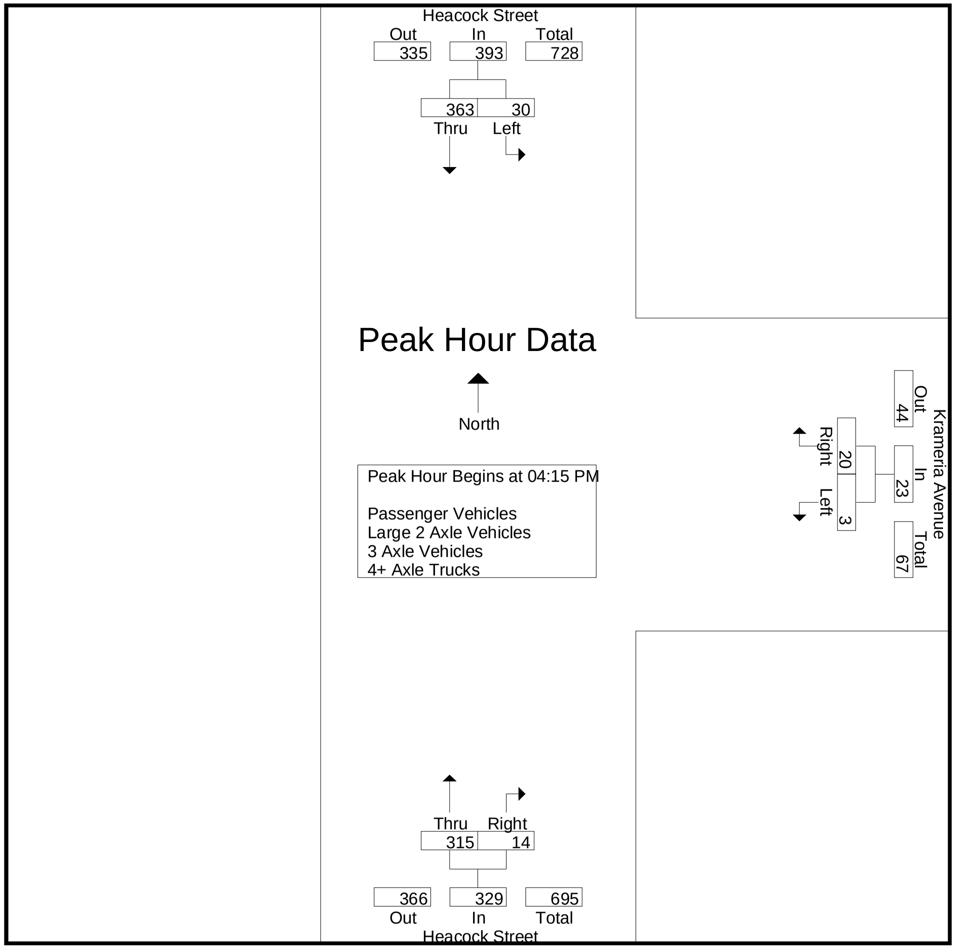

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File Name : MRVHEKRPM
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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	3	0	3	0	0	0	0	1	0	0	1	0	4
04:15 PM	0	2	0	2	0	0	0	0	1	0	0	1	0	3
04:30 PM	0	2	0	2	0	0	0	0	2	0	0	2	0	4
04:45 PM	0	3	0	3	0	0	0	0	1	0	0	1	0	4
Total	0	10	0	10	0	0	0	0	5	0	0	5	0	15
05:00 PM	1	1	0	2	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1
05:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	2
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
Total	1	3	0	4	0	0	0	0	2	0	0	2	0	6
Grand Total	1	13	0	14	0	0	0	0	7	0	0	7	0	21
Apprch %	7.1	92.9			0	0			100	0				
Total %	4.8	61.9		66.7	0	0		0	33.3	0		33.3	0	100

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	2	2	0	0	0	1	0	1	3
04:30 PM	0	2	2	0	0	0	2	0	2	4
04:45 PM	0	3	3	0	0	0	1	0	1	4
05:00 PM	1	1	2	0	0	0	0	0	0	2
Total Volume	1	8	9	0	0	0	4	0	4	13
% App. Total	11.1	88.9		0	0		100	0		
PHF	.250	.667	.750	.000	.000	.000	.500	.000	.500	.813

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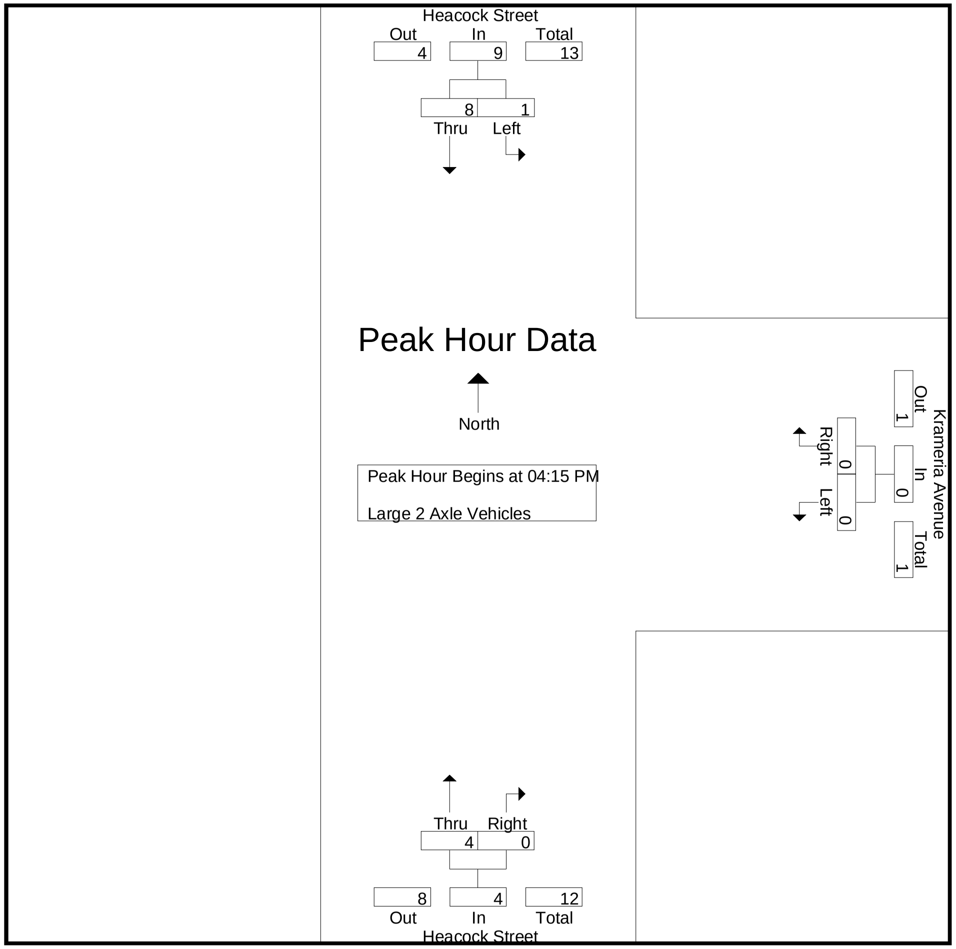

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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	4	0	4	0	1	1	1	3	0	0	3	1	8
04:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	2
04:45 PM	1	2	0	3	0	0	0	0	1	0	0	1	0	4
Total	1	9	0	10	0	1	1	1	4	0	0	4	1	15
05:00 PM	0	5	0	5	0	0	0	0	0	0	0	0	0	5
05:15 PM	1	3	0	4	0	0	0	0	1	0	0	1	0	5
05:30 PM	1	4	0	5	0	0	0	0	0	0	0	0	0	5
05:45 PM	0	3	0	3	0	0	0	0	0	0	0	0	0	3
Total	2	15	0	17	0	0	0	0	1	0	0	1	0	18
Grand Total	3	24	0	27	0	1	1	1	5	0	0	5	1	33
Apprch %	11.1	88.9			0	100			100	0				
Total %	9.1	72.7		81.8	0	3		3	15.2	0		15.2	2.9	97.1

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	1	1	0	0	0	0	0	0	1
04:30 PM	0	2	2	0	0	0	0	0	0	2
04:45 PM	1	2	3	0	0	0	1	0	1	4
05:00 PM	0	5	5	0	0	0	0	0	0	5
Total Volume	1	10	11	0	0	0	1	0	1	12
% App. Total	9.1	90.9		0	0		100	0		
PHF	.250	.500	.550	.000	.000	.000	.250	.000	.250	.600

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City of Moreno Valley
N/S: Heacock Street
E/W: Krameria Avenue
Weather: Clear

File Name : MRVHEKRPM
Site Code : 05115223
Start Date : 5/5/2015
Page No : 2

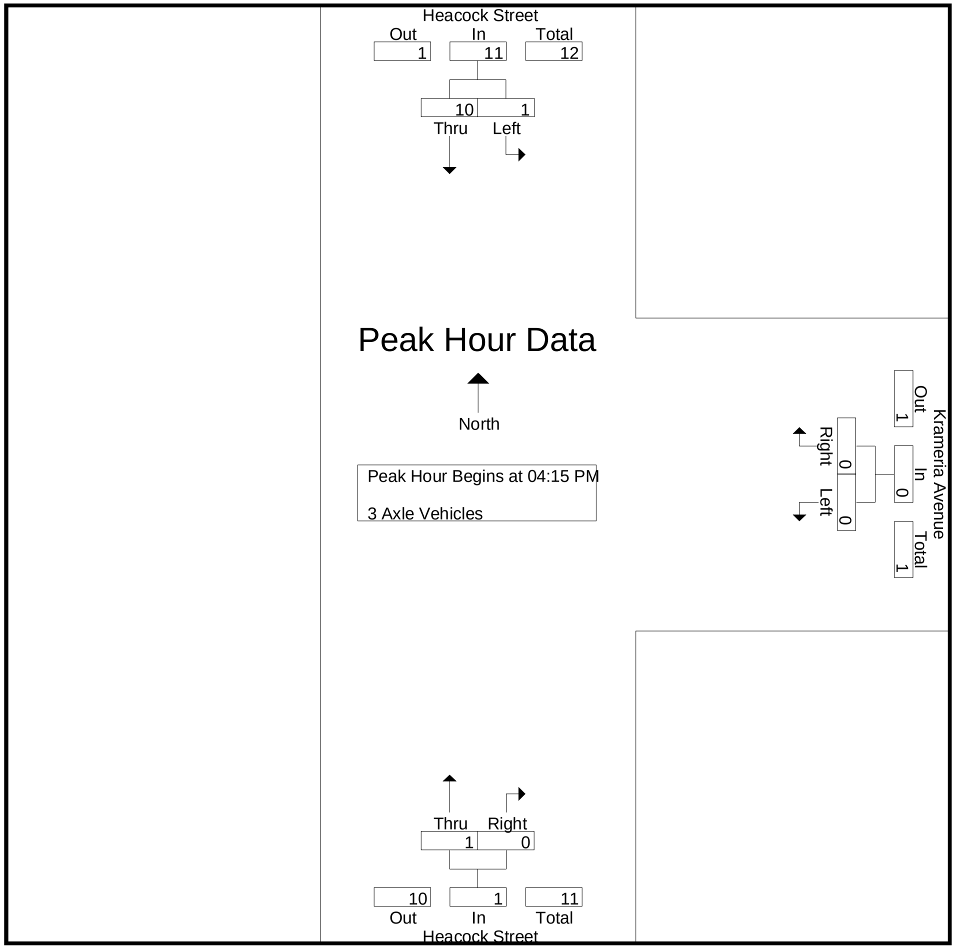

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City of Moreno Valley
N/S: Heacock Street
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Weather: Clear

File Name : MRVHEKRPM
Site Code : 05115223
Start Date : 5/5/2015
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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound				Krameria Avenue Westbound				Heacock Street Northbound					
Start Time	Left	Thru	RTOR	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	3	1	0	4	0	2	2	2	2	0	0	2	2	8
04:15 PM	0	3	0	3	1	5	3	6	0	0	0	0	3	9
04:30 PM	1	0	0	1	1	2	1	3	5	0	0	5	1	9
04:45 PM	1	1	0	2	0	0	0	0	1	0	0	1	0	3
Total	5	5	0	10	2	9	6	11	8	0	0	8	6	29
05:00 PM	1	2	0	3	0	1	1	1	4	0	0	4	1	8
05:15 PM	3	3	0	6	0	2	2	2	2	0	0	2	2	10
05:30 PM	2	1	0	3	0	2	0	2	3	0	0	3	0	8
05:45 PM	2	1	0	3	0	0	0	0	2	0	0	2	0	5
Total	8	7	0	15	0	5	3	5	11	0	0	11	3	31
Grand Total	13	12	0	25	2	14	9	16	19	0	0	19	9	60
Apprch %	52	48			12.5	87.5			100	0				
Total %	21.7	20		41.7	3.3	23.3		26.7	31.7	0		31.7	13	87

	Heacock Street Southbound			Krameria Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	3	3	1	5	6	0	0	0	9
04:30 PM	1	0	1	1	2	3	5	0	5	9
04:45 PM	1	1	2	0	0	0	1	0	1	3
05:00 PM	1	2	3	0	1	1	4	0	4	8
Total Volume	3	6	9	2	8	10	10	0	10	29
% App. Total	33.3	66.7		20	80		100	0		
PHF	.750	.500	.750	.500	.400	.417	.500	.000	.500	.806

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City of Moreno Valley
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File Name : MRVHEKRPM
Site Code : 05115223
Start Date : 5/5/2015
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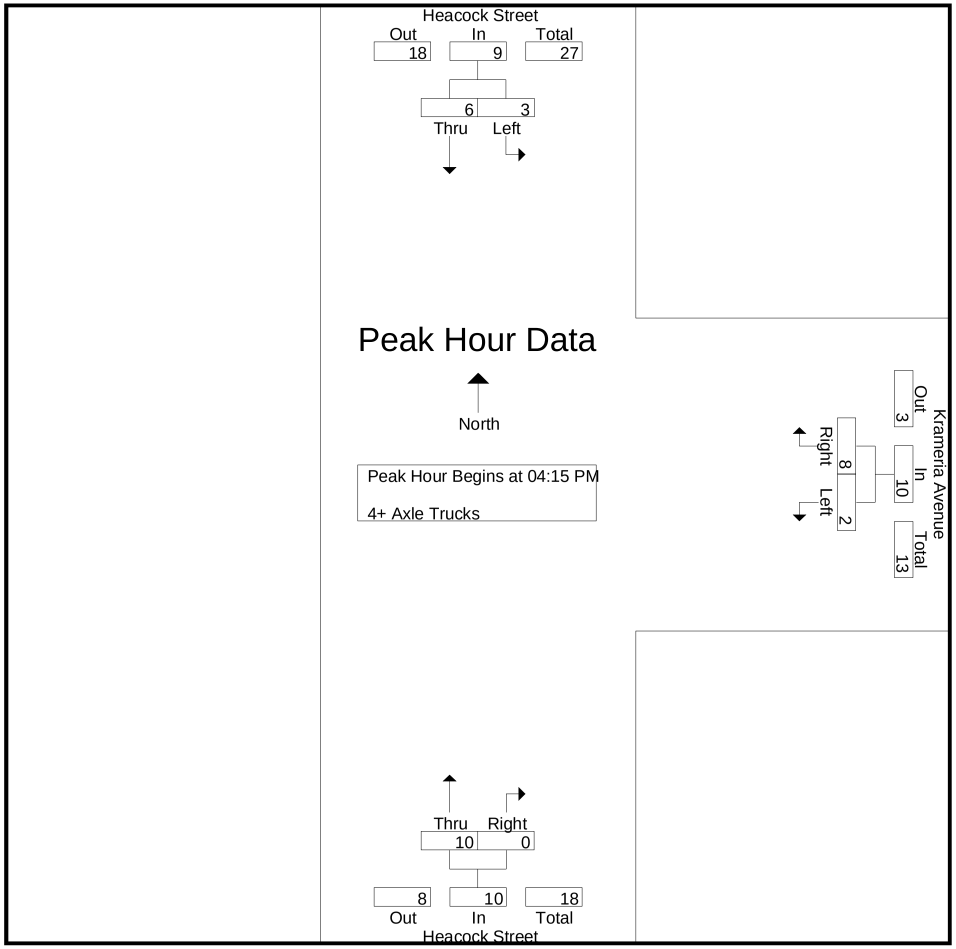

Location: Moreno Valley
N/S: Heacock Street
E/W: Krameria Avenue

Date: 5/5/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg Krameria Avenue	South Leg Heacock Street	West Leg Krameria Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Krameria Avenue	South Leg Heacock Street	West Leg Krameria Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	1	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	1	2

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Location: Moreno Valley
N/S: Heacock Street
E/W: Krameria Avenue

Date: 5/5/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg Krameria Avenue	South Leg Heacock Street	West Leg Krameria Avenue	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg Heacock Street	East Leg Krameria Avenue	South Leg Heacock Street	West Leg Krameria Avenue	TOTAL
4:00 PM	0	0	0	1	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
E/W: Cardinal Avenue
Weather: Clear

File Name : MRVHECDAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	45	45	0	0	0	29	0	29	74
07:15 AM	1	80	81	0	1	1	50	0	50	132
07:30 AM	2	44	46	0	0	0	35	1	36	82
07:45 AM	1	39	40	0	0	0	45	1	46	86
Total	4	208	212	0	1	1	159	2	161	374
08:00 AM	0	18	18	2	0	2	28	0	28	48
08:15 AM	1	21	22	0	0	0	22	1	23	45
08:30 AM	0	21	21	0	0	0	12	0	12	33
08:45 AM	1	17	18	0	0	0	14	0	14	32
Total	2	77	79	2	0	2	76	1	77	158
Grand Total	6	285	291	2	1	3	235	3	238	532
Apprch %	2.1	97.9		66.7	33.3		98.7	1.3		
Total %	1.1	53.6	54.7	0.4	0.2	0.6	44.2	0.6	44.7	
Passenger Vehicles	5	251	256	2	1	3	213	2	215	474
% Passenger Vehicles	83.3	88.1	88	100	100	100	90.6	66.7	90.3	89.1
Large 2 Axle Vehicles	1	5	6	0	0	0	8	0	8	14
% Large 2 Axle Vehicles	16.7	1.8	2.1	0	0	0	3.4	0	3.4	2.6
3 Axle Vehicles	0	11	11	0	0	0	2	1	3	14
% 3 Axle Vehicles	0	3.9	3.8	0	0	0	0.9	33.3	1.3	2.6
4+ Axle Trucks	0	18	18	0	0	0	12	0	12	30
% 4+ Axle Trucks	0	6.3	6.2	0	0	0	5.1	0	5	5.6

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	45	45	0	0	0	29	0	29	74
07:15 AM	1	80	81	0	1	1	50	0	50	132
07:30 AM	2	44	46	0	0	0	35	1	36	82
07:45 AM	1	39	40	0	0	0	45	1	46	86
Total Volume	4	208	212	0	1	1	159	2	161	374
% App. Total	1.9	98.1		0	100		98.8	1.2		
PHF	.500	.650	.654	.000	.250	.250	.795	.500	.805	.708

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City of Moreno Valley
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File Name : MRVHECDAM
Site Code : 05115223
Start Date : 4/28/2015
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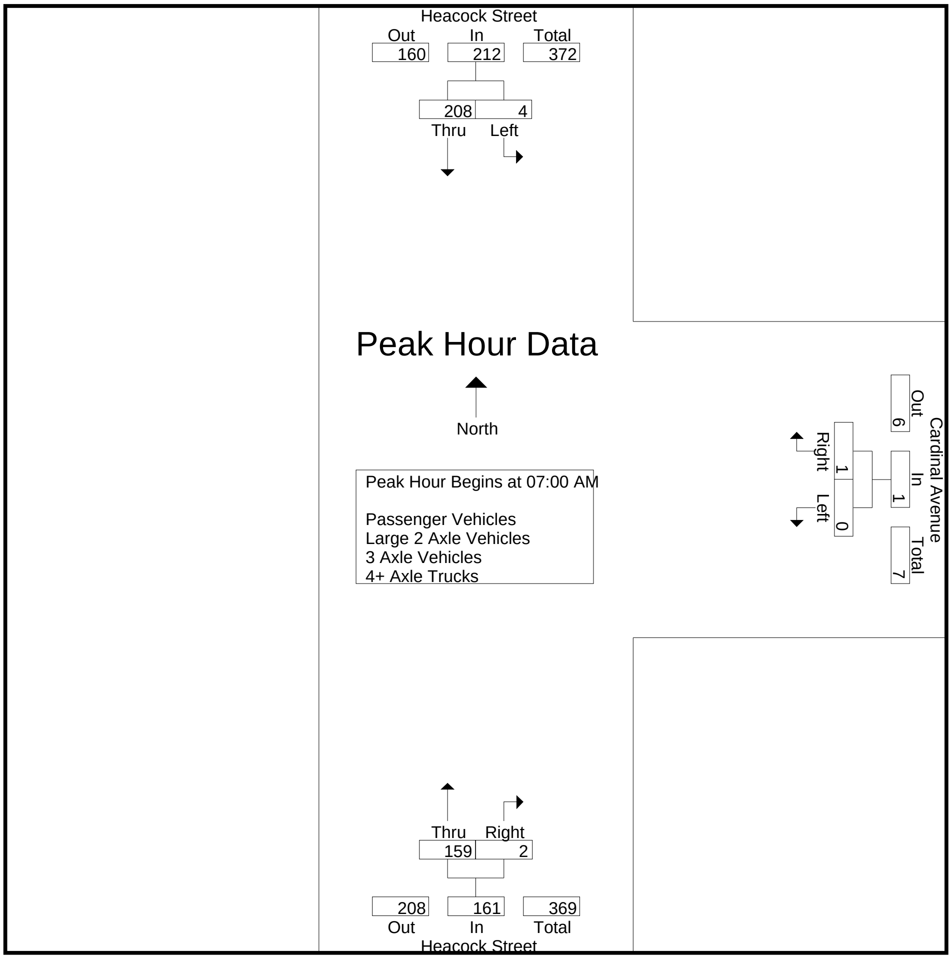

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:15 AM			07:00 AM		
+0 mins.	0	45	45	0	1	1	29	0	29
+15 mins.	1	80	81	0	0	0	50	0	50
+30 mins.	2	44	46	0	0	0	35	1	36
+45 mins.	1	39	40	2	0	2	45	1	46
Total Volume	4	208	212	2	1	3	159	2	161
% App. Total	1.9	98.1		66.7	33.3		98.8	1.2	
PHF	.500	.650	.654	.250	.250	.375	.795	.500	.805

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
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Weather: Clear

File Name : MRVHECDAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Heacock Street			Cardinal Avenue			Heacock Street			
	Southbound			Westbound			Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	0	3	3	0	0	0	1	0	1	4
Total	1	3	4	0	0	0	2	0	2	6
08:00 AM	0	0	0	0	0	0	3	0	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	1	1	0	0	0	2	0	2	3
08:45 AM	0	1	1	0	0	0	1	0	1	2
Total	0	2	2	0	0	0	6	0	6	8
Grand Total	1	5	6	0	0	0	8	0	8	14
Apprch %	16.7	83.3		0	0		100	0		
Total %	7.1	35.7	42.9	0	0	0	57.1	0	57.1	

	Heacock Street			Cardinal Avenue			Heacock Street			
	Southbound			Westbound			Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	1	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	0	3	3	0	0	0	1	0	1	4
Total Volume	1	3	4	0	0	0	2	0	2	6
% App. Total	25	75		0	0		100	0		
PHF	.250	.250	.333	.000	.000	.000	.500	.000	.500	.375

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City of Moreno Valley
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Weather: Clear

File Name : MRVHECDAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

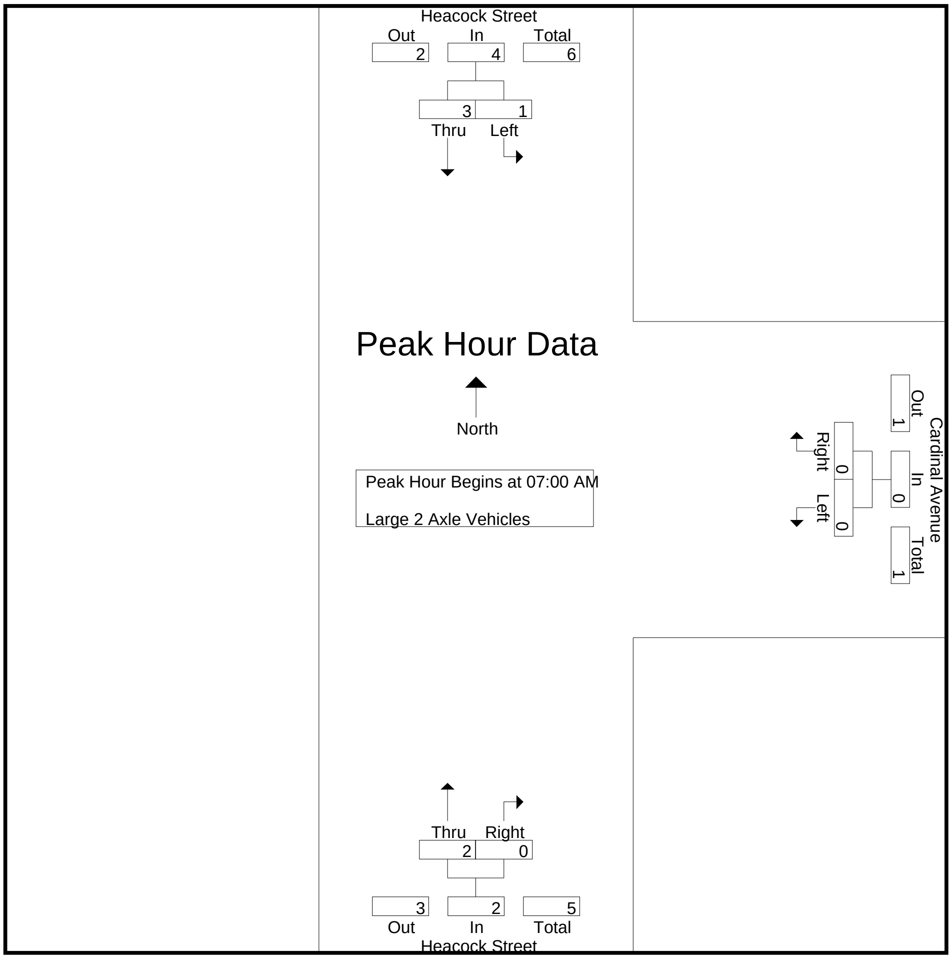

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	3	3	0	0	0	1	0	1
Total Volume	1	3	4	0	0	0	2	0	2
% App. Total	25	75		0	0		100	0	
PHF	.250	.250	.333	.000	.000	.000	.500	.000	.500

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Weather: Clear

File Name : MRVHECDAM
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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	0	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	2	2	0	0	0	1	1	2	4
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	6	6	0	0	0	1	1	2	8
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	3	3	0	0	0	0	0	0	3
08:30 AM	0	1	1	0	0	0	0	0	0	1
08:45 AM	0	1	1	0	0	0	1	0	1	2
Total	0	5	5	0	0	0	1	0	1	6
Grand Total	0	11	11	0	0	0	2	1	3	14
Apprch %	0	100		0	0		66.7	33.3		
Total %	0	78.6	78.6	0	0	0	14.3	7.1	21.4	

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	0	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	2	2	0	0	0	1	1	2	4
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	6	6	0	0	0	1	1	2	8
% App. Total	0	100		0	0		50	50		
PHF	.000	.375	.375	.000	.000	.000	.250	.250	.250	.500

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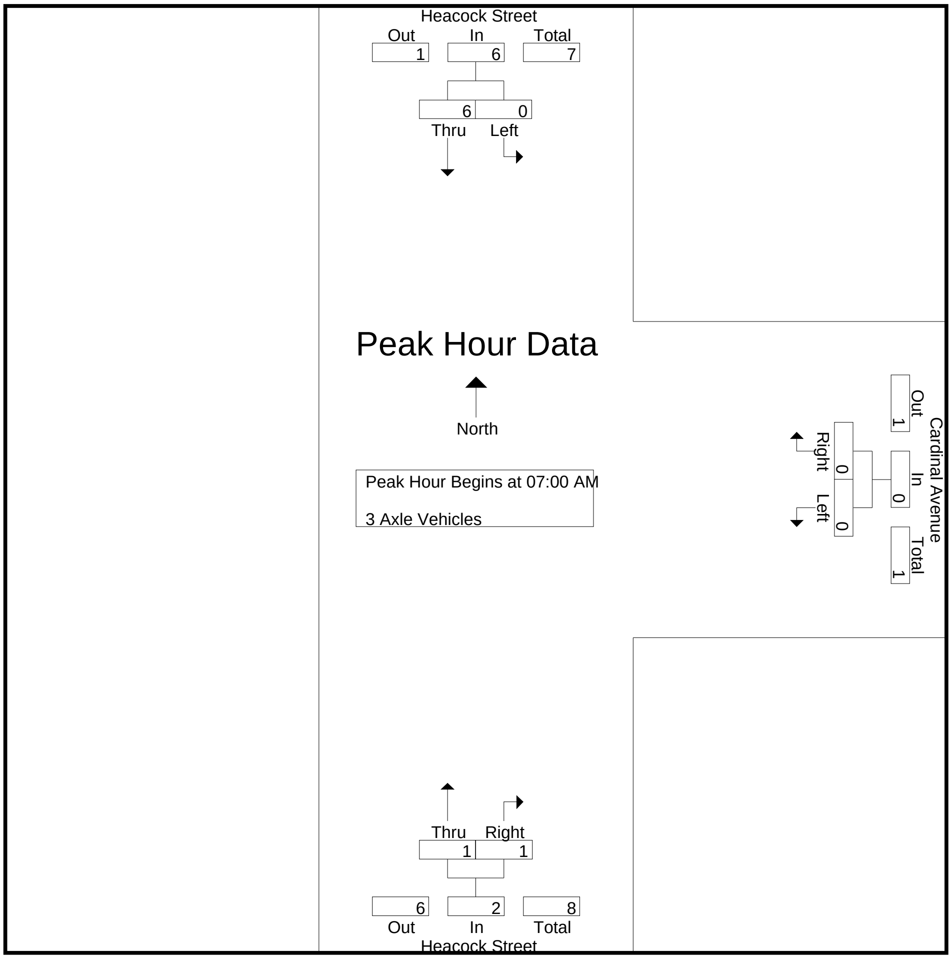

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	2	2	0	0	0	1	1	2
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	6	6	0	0	0	1	1	2
% App. Total	0	100		0	0		50	50	
PHF	.000	.375	.375	.000	.000	.000	.250	.250	.250

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City of Moreno Valley
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File Name : MRVHECDAM
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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	3	3	0	0	0	1	0	1	4
07:15 AM	0	0	0	0	0	0	4	0	4	4
07:30 AM	0	3	3	0	0	0	0	0	0	3
07:45 AM	0	1	1	0	0	0	4	0	4	5
Total	0	7	7	0	0	0	9	0	9	16
08:00 AM	0	5	5	0	0	0	0	0	0	5
08:15 AM	0	1	1	0	0	0	2	0	2	3
08:30 AM	0	2	2	0	0	0	0	0	0	2
08:45 AM	0	3	3	0	0	0	1	0	1	4
Total	0	11	11	0	0	0	3	0	3	14
Grand Total	0	18	18	0	0	0	12	0	12	30
Apprch %	0	100		0	0		100	0		
Total %	0	60	60	0	0	0	40	0	40	

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	3	3	0	0	0	1	0	1	4
07:15 AM	0	0	0	0	0	0	4	0	4	4
07:30 AM	0	3	3	0	0	0	0	0	0	3
07:45 AM	0	1	1	0	0	0	4	0	4	5
Total Volume	0	7	7	0	0	0	9	0	9	16
% App. Total	0	100		0	0		100	0		
PHF	.000	.583	.583	.000	.000	.000	.563	.000	.563	.800

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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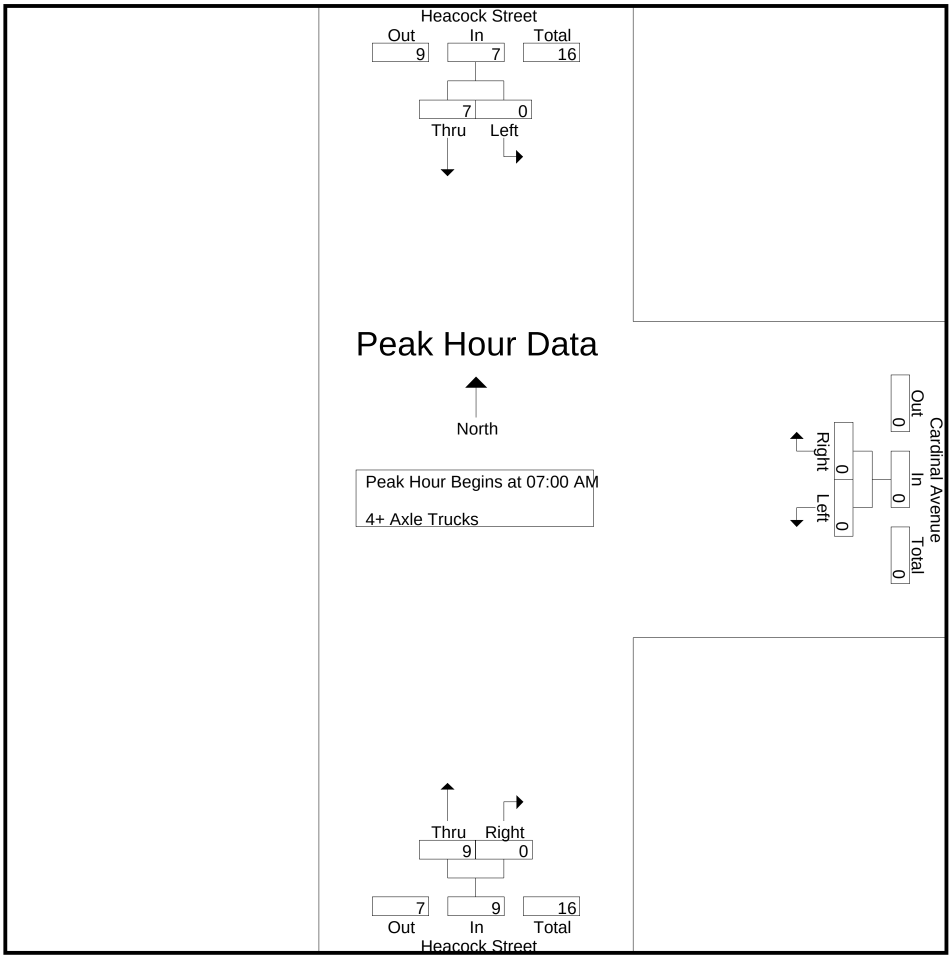

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	3	3	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	4	0	4
+30 mins.	0	3	3	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	4	0	4
Total Volume	0	7	7	0	0	0	9	0	9
% App. Total	0	100		0	0		100	0	
PHF	.000	.583	.583	.000	.000	.000	.563	.000	.563

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Weather: Clear

File Name : MRVHECDPM
Site Code : 05115223
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	48	48	1	2	3	28	0	28	79
04:15 PM	0	70	70	0	1	1	36	0	36	107
04:30 PM	0	118	118	0	1	1	134	0	134	253
04:45 PM	0	103	103	0	0	0	130	0	130	233
Total	0	339	339	1	4	5	328	0	328	672
05:00 PM	0	74	74	1	2	3	48	0	48	125
05:15 PM	0	84	84	0	0	0	28	0	28	112
05:30 PM	3	90	93	0	0	0	81	1	82	175
05:45 PM	4	90	94	0	0	0	43	3	46	140
Total	7	338	345	1	2	3	200	4	204	552
Grand Total	7	677	684	2	6	8	528	4	532	1224
Apprch %	1	99		25	75		99.2	0.8		
Total %	0.6	55.3	55.9	0.2	0.5	0.7	43.1	0.3	43.5	
Passenger Vehicles	7	629	636	2	5	7	504	4	508	1151
% Passenger Vehicles	100	92.9	93	100	83.3	87.5	95.5	100	95.5	94
Large 2 Axle Vehicles	0	11	11	0	1	1	6	0	6	18
% Large 2 Axle Vehicles	0	1.6	1.6	0	16.7	12.5	1.1	0	1.1	1.5
3 Axle Vehicles	0	17	17	0	0	0	12	0	12	29
% 3 Axle Vehicles	0	2.5	2.5	0	0	0	2.3	0	2.3	2.4
4+ Axle Trucks	0	20	20	0	0	0	6	0	6	26
% 4+ Axle Trucks	0	3	2.9	0	0	0	1.1	0	1.1	2.1

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	118	118	0	1	1	134	0	134	253
04:45 PM	0	103	103	0	0	0	130	0	130	233
05:00 PM	0	74	74	1	2	3	48	0	48	125
05:15 PM	0	84	84	0	0	0	28	0	28	112
Total Volume	0	379	379	1	3	4	340	0	340	723
% App. Total	0	100		25	75		100	0		
PHF	.000	.803	.803	.250	.375	.333	.634	.000	.634	.714

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City of Moreno Valley
N/S: Heacock Street
E/W: Cardinal Avenue
Weather: Clear

File Name : MRVHECDPM
Site Code : 05115223
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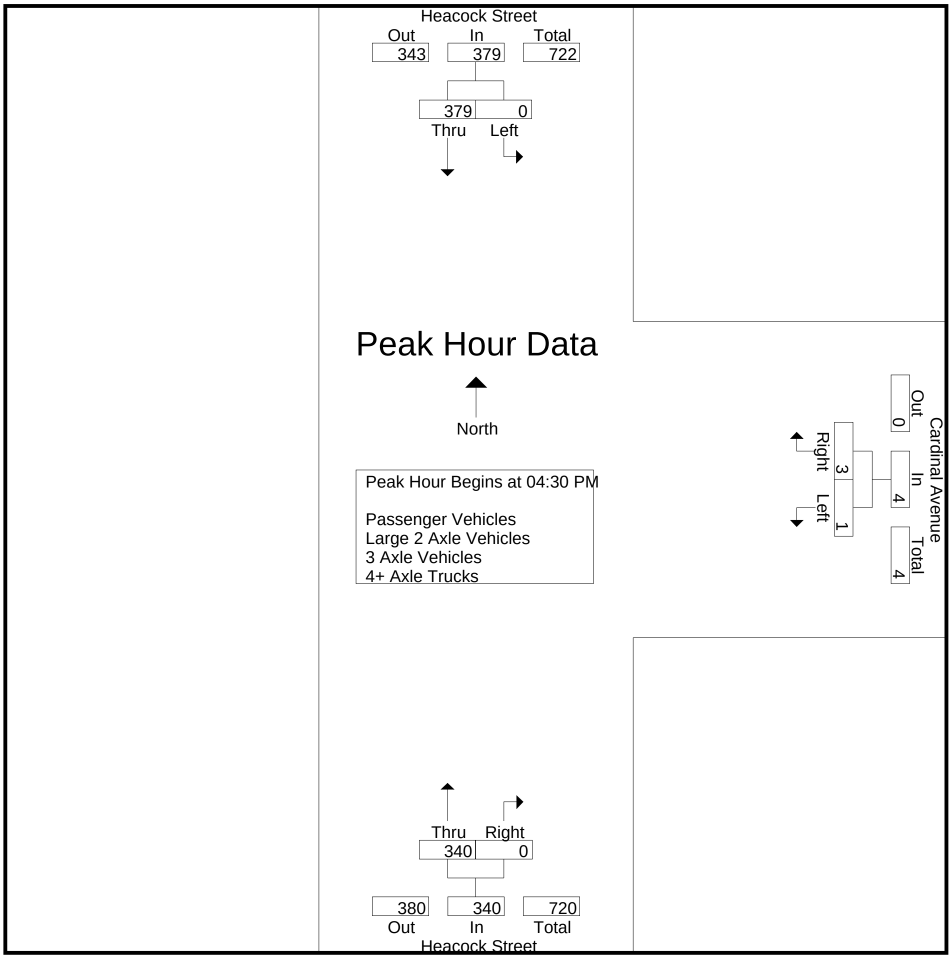

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:15 PM		
+0 mins.	0	118	118	1	2	3	36	0	36
+15 mins.	0	103	103	0	1	1	134	0	134
+30 mins.	0	74	74	0	1	1	130	0	130
+45 mins.	0	84	84	0	0	0	48	0	48
Total Volume	0	379	379	1	4	5	348	0	348
% App. Total	0	100		20	80		100	0	
PHF	.000	.803	.803	.250	.500	.417	.649	.000	.649

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City of Moreno Valley
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File Name : MRVHECDPM
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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	1	1	2	0	2	5
04:15 PM	0	1	1	0	0	0	0	0	0	1
04:30 PM	0	3	3	0	0	0	1	0	1	4
04:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	7	7	0	1	1	4	0	4	12
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	2	2	0	0	0	0	0	0	2
05:30 PM	0	1	1	0	0	0	0	0	0	1
05:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	4	4	0	0	0	2	0	2	6
Grand Total	0	11	11	0	1	1	6	0	6	18
Apprch %	0	100		0	100		100	0		
Total %	0	61.1	61.1	0	5.6	5.6	33.3	0	33.3	

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	3	3	0	0	0	1	0	1	4
04:45 PM	0	1	1	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	2	2	0	0	0	0	0	0	2
Total Volume	0	6	6	0	0	0	3	0	3	9
% App. Total	0	100		0	0		100	0		
PHF	.000	.500	.500	.000	.000	.000	.750	.000	.750	.563

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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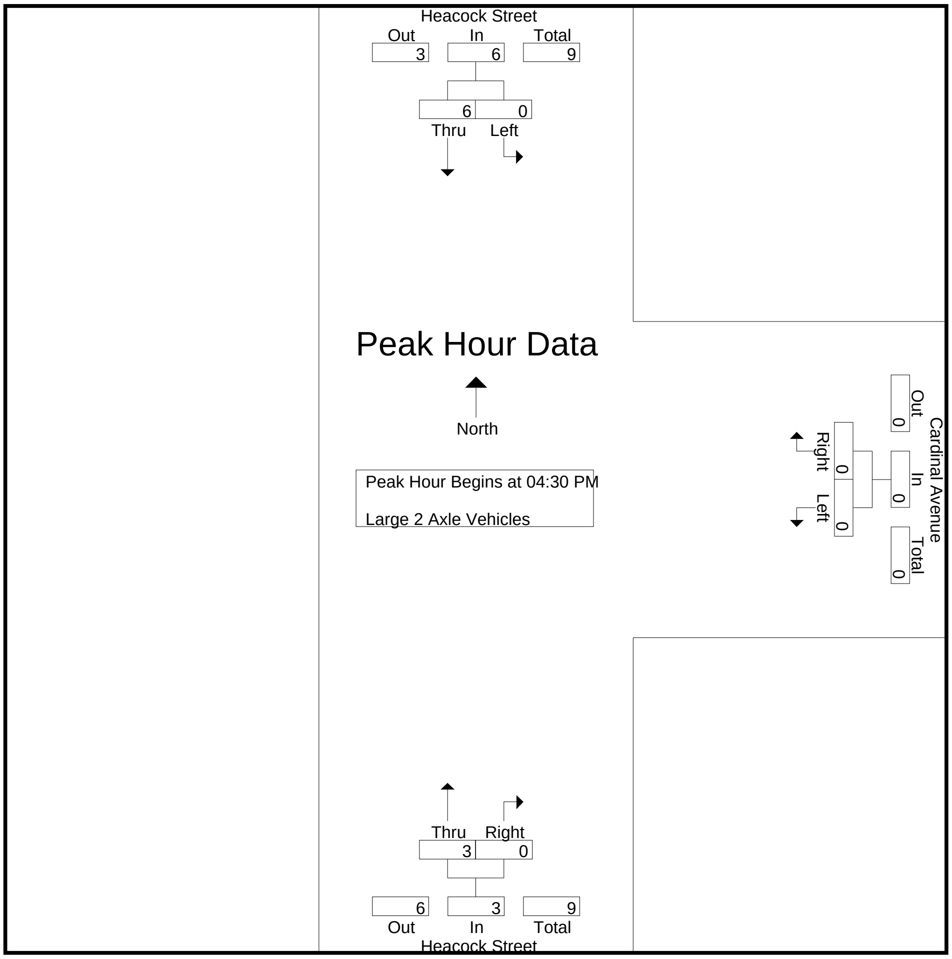

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	3	3	0	0	0	1	0	1
+15 mins.	0	1	1	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	1	0	1
+45 mins.	0	2	2	0	0	0	0	0	0
Total Volume	0	6	6	0	0	0	3	0	3
% App. Total	0	100		0	0		100	0	
PHF	.000	.500	.500	.000	.000	.000	.750	.000	.750

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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	2	2	0	0	0	1	0	1	3
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	2	2	0	0	0	3	0	3	5
Total	0	4	4	0	0	0	5	0	5	9
05:00 PM	0	4	4	0	0	0	1	0	1	5
05:15 PM	0	5	5	0	0	0	3	0	3	8
05:30 PM	0	3	3	0	0	0	2	0	2	5
05:45 PM	0	1	1	0	0	0	1	0	1	2
Total	0	13	13	0	0	0	7	0	7	20
Grand Total	0	17	17	0	0	0	12	0	12	29
Apprch %	0	100		0	0		100	0		
Total %	0	58.6	58.6	0	0	0	41.4	0	41.4	

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	2	2	0	0	0	3	0	3	5
05:00 PM	0	4	4	0	0	0	1	0	1	5
05:15 PM	0	5	5	0	0	0	3	0	3	8
Total Volume	0	11	11	0	0	0	8	0	8	19
% App. Total	0	100		0	0		100	0		
PHF	.000	.550	.550	.000	.000	.000	.667	.000	.667	.594

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File Name : MRVHECDPM
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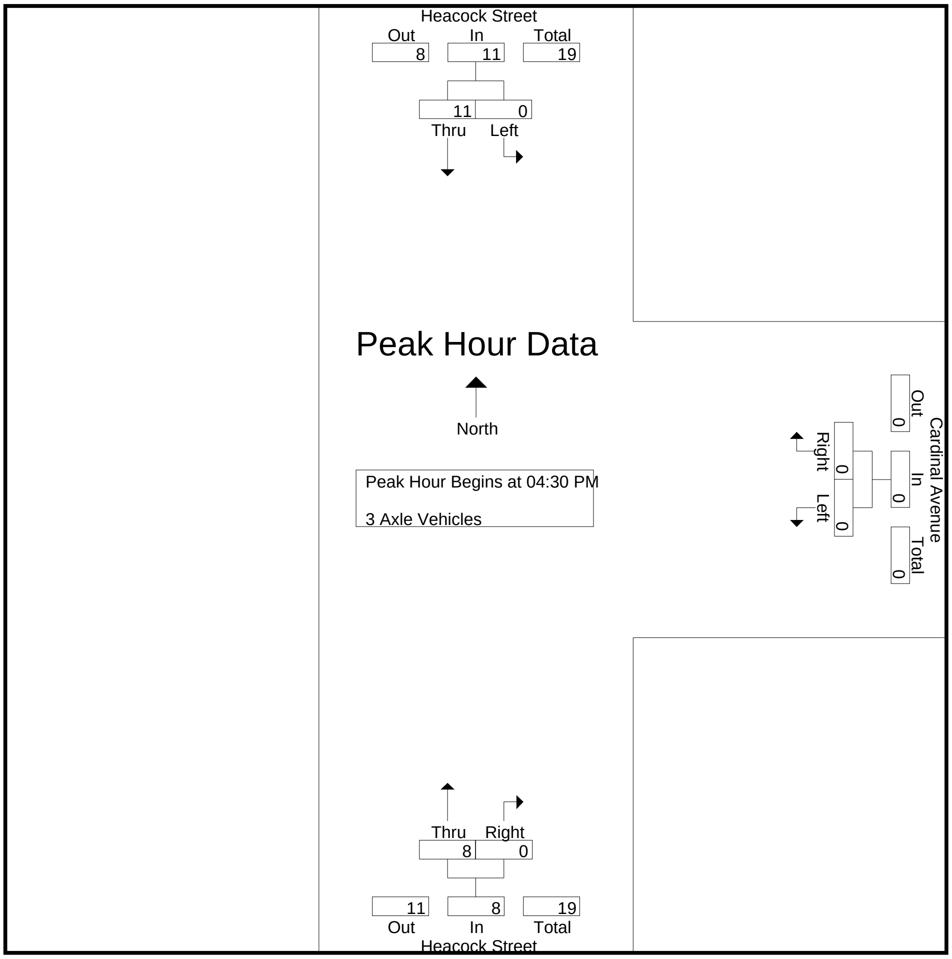

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	1	0	1
+15 mins.	0	2	2	0	0	0	3	0	3
+30 mins.	0	4	4	0	0	0	1	0	1
+45 mins.	0	5	5	0	0	0	3	0	3
Total Volume	0	11	11	0	0	0	8	0	8
% App. Total	0	100		0	0		100	0	
PHF	.000	.550	.550	.000	.000	.000	.667	.000	.667

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City of Moreno Valley
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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	2	0	0	0	1	0	1	3
04:15 PM	0	2	2	0	0	0	0	0	0	2
04:30 PM	0	6	6	0	0	0	0	0	0	6
04:45 PM	0	2	2	0	0	0	3	0	3	5
Total	0	12	12	0	0	0	4	0	4	16
05:00 PM	0	2	2	0	0	0	0	0	0	2
05:15 PM	0	4	4	0	0	0	0	0	0	4
05:30 PM	0	2	2	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	8	8	0	0	0	2	0	2	10
Grand Total	0	20	20	0	0	0	6	0	6	26
Apprch %	0	100		0	0		100	0		
Total %	0	76.9	76.9	0	0	0	23.1	0	23.1	

	Heacock Street Southbound			Cardinal Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	6	6	0	0	0	0	0	0	6
04:45 PM	0	2	2	0	0	0	3	0	3	5
05:00 PM	0	2	2	0	0	0	0	0	0	2
05:15 PM	0	4	4	0	0	0	0	0	0	4
Total Volume	0	14	14	0	0	0	3	0	3	17
% App. Total	0	100		0	0		100	0		
PHF	.000	.583	.583	.000	.000	.000	.250	.000	.250	.708

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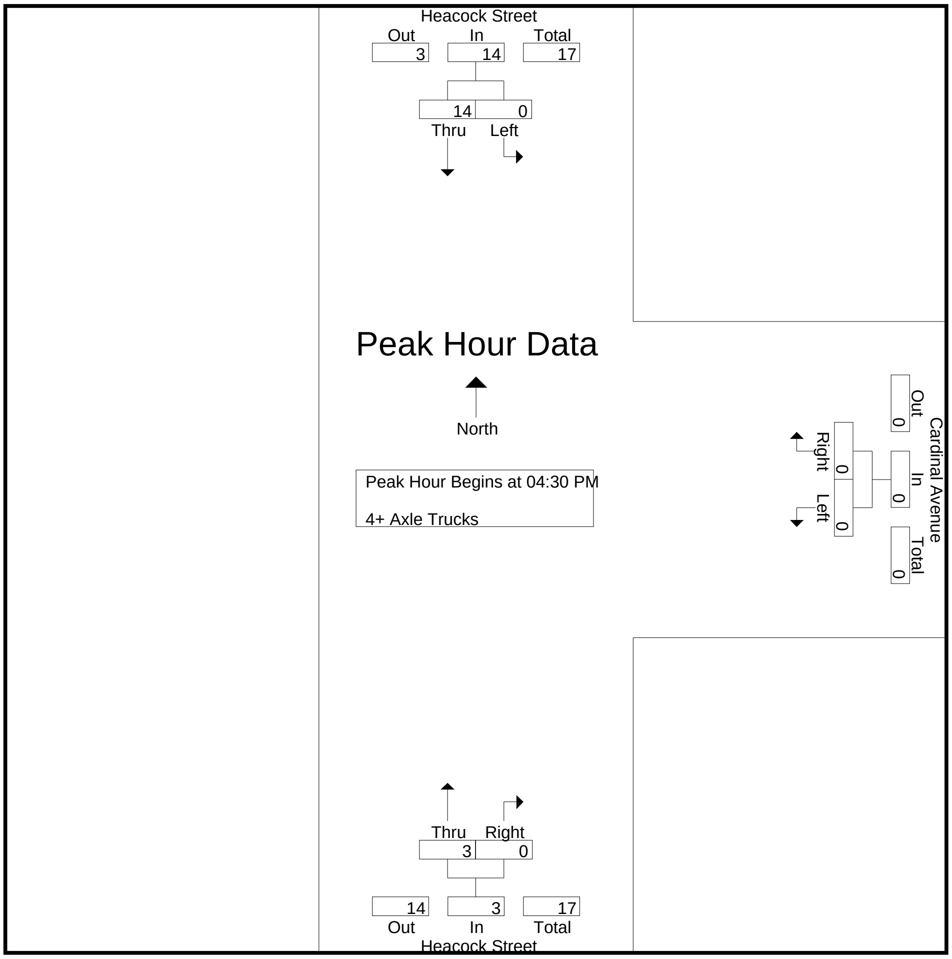

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	6	6	0	0	0	0	0	0
+15 mins.	0	2	2	0	0	0	3	0	3
+30 mins.	0	2	2	0	0	0	0	0	0
+45 mins.	0	4	4	0	0	0	0	0	0
Total Volume	0	14	14	0	0	0	3	0	3
% App. Total	0	100		0	0		100	0	
PHF	.000	.583	.583	.000	.000	.000	.250	.000	.250

Location: Moreno Valley
N/S: Heacock Street
E/W: Cardinal Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg Cardinal Avenue	South Leg Heacock Street	West Leg Cardinal Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Cardinal Avenue	South Leg Heacock Street	West Leg Cardinal Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1
5:00 PM	0	1	0	0	1
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	3	0	0	3

Location: Moreno Valley
N/S: Heacock Street
E/W: Cardinal Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg Cardinal Avenue	South Leg Heacock Street	West Leg Cardinal Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Cardinal Avenue	South Leg Heacock Street	West Leg Cardinal Avenue	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
E/W: San Michele Road
Weather: Clear

File Name : MRVHESMAM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	7	17	2	0	26	1	2	20	6	23	1	8	2	0	11	0	2	1	1	3	7	63
07:15 AM	30	24	2	1	56	1	0	41	21	42	0	7	0	0	7	2	0	1	0	3	22	108
07:30 AM	14	17	2	0	33	1	1	31	11	33	0	6	0	0	6	0	0	1	1	1	12	73
07:45 AM	18	18	0	0	36	0	1	31	12	32	0	11	1	0	12	0	0	0	0	0	12	80
Total	69	76	6	1	151	3	4	123	50	130	1	32	3	0	36	2	2	3	2	7	53	324
08:00 AM	12	8	0	0	20	0	0	23	3	23	0	5	1	0	6	0	0	0	0	0	3	49
08:15 AM	9	9	1	1	19	1	1	16	7	18	0	6	0	0	6	0	0	1	0	1	8	44
08:30 AM	11	7	2	1	20	0	1	10	2	11	0	1	0	0	1	0	0	0	0	0	3	32
08:45 AM	6	10	1	0	17	1	1	11	5	13	0	4	1	0	5	0	0	1	0	1	5	36
Total	38	34	4	2	76	2	3	60	17	65	0	16	2	0	18	0	0	2	0	2	19	161
Grand Total	107	110	10	3	227	5	7	183	67	195	1	48	5	0	54	2	2	5	2	9	72	485
Apprch %	47.1	48.5	4.4			2.6	3.6	93.8			1.9	88.9	9.3			22.2	22.2	55.6				
Total %	22.1	22.7	2.1		46.8	1	1.4	37.7		40.2	0.2	9.9	1		11.1	0.4	0.4	1		1.9	12.9	87.1
Passenger Vehicles	96	93	8		200	2	5	170		237	1	39	3		43	2	0	4		8	0	0
% Passenger Vehicles	89.7	84.5	80	100	87	40	71.4	92.9	89.6	90.5	100	81.2	60	0	79.6	100	0	80	100	72.7	0	0
Large 2 Axle Vehicles	1	5	2		8	1	2	3		8	0	5	1		6	0	0	1		1	0	0
% Large 2 Axle Vehicles	0.9	4.5	20	0	3.5	20	28.6	1.6	3	3.1	0	10.4	20	0	11.1	0	0	20	0	9.1	0	0
3 Axle Vehicles	2	4	0		6	0	0	1		1	0	0	0		0	0	2	0		2	0	0
% 3 Axle Vehicles	1.9	3.6	0	0	2.6	0	0	0.5	0	0.4	0	0	0	0	0	0	100	0	0	18.2	0	0
4+ Axle Trucks	8	8	0		16	2	0	9		16	0	4	1		5	0	0	0		0	0	0
% 4+ Axle Trucks	7.5	7.3	0	0	7	40	0	4.9	7.5	6.1	0	8.3	20	0	9.3	0	0	0	0	0	0	0

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	7	17	**2**	26	**1**	**2**	20	23	**1**	8	**2**	11	0	**2**	**1**	**3**	63
07:15 AM	**30**	**24**	2	**56**	1	0	**41**	**42**	0	7	0	7	**2**	0	1	3	**108**
07:30 AM	14	17	2	33	1	1	31	33	0	6	0	6	0	0	1	1	73
07:45 AM	18	18	0	36	0	1	31	32	0	**11**	1	**12**	0	0	0	0	80
Total Volume	69	76	6	151	3	4	123	130	1	32	3	36	2	2	3	7	324
% App. Total	45.7	50.3	4		2.3	3.1	94.6		2.8	88.9	8.3		28.6	28.6	42.9		
PHF	.575	.792	.750	.674	.750	.500	.750	.774	.250	.727	.375	.750	.250	.250	.750	.583	.750

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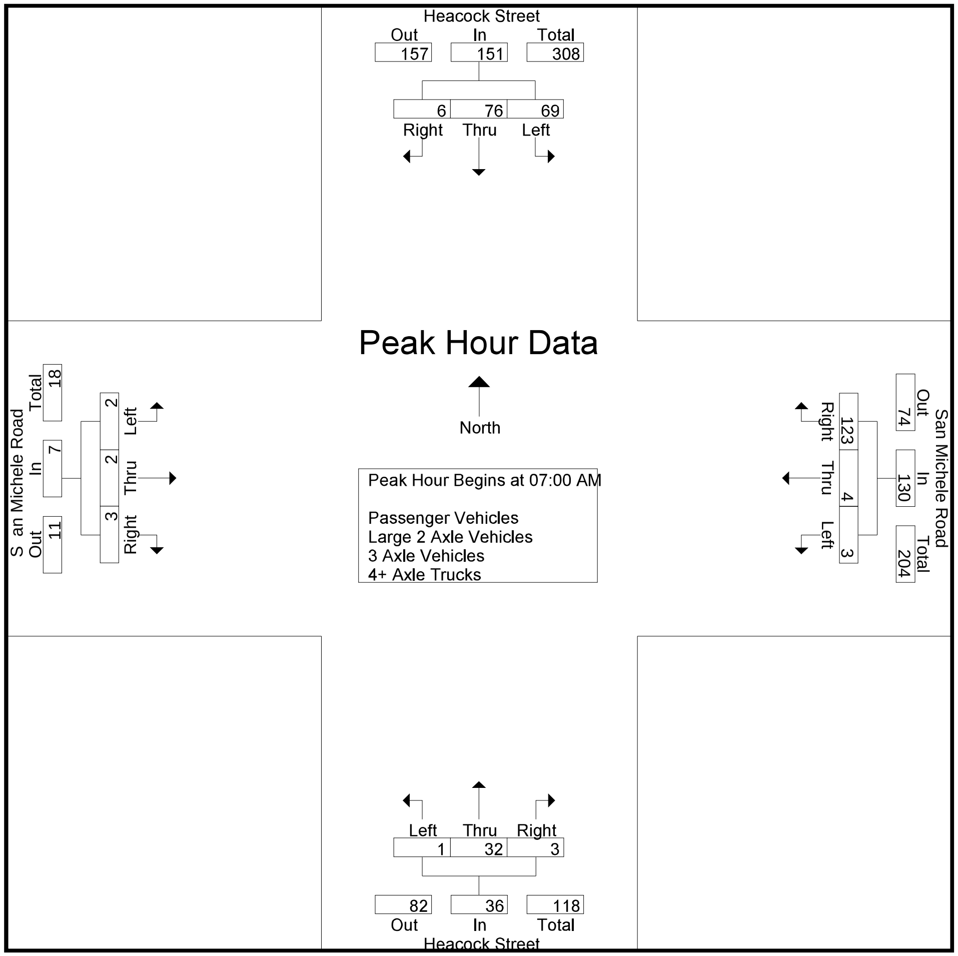

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City of Moreno Valley
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File Name : MRVHESMAM
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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
07:45 AM	0	3	0	0	3	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	5
Total	0	3	1	0	4	0	1	0	1	1	0	2	0	0	2	0	0	1	0	1	1	8
08:00 AM	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	3
08:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	2	1	0	3	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	6
08:45 AM	0	0	0	0	0	1	0	0	1	1	0	1	1	0	2	0	0	0	0	0	1	3
Total	1	2	1	0	4	1	1	3	1	5	0	3	1	0	4	0	0	0	0	0	1	13
Grand Total	1	5	2	0	8	1	2	3	2	6	0	5	1	0	6	0	0	1	0	1	2	21
Apprch %	12.5	62.5	25			16.7	33.3	50			0	83.3	16.7			0	0	100				
Total %	4.8	23.8	9.5		38.1	4.8	9.5	14.3		28.6	0	23.8	4.8		28.6	0	0	4.8		4.8	8.7	91.3

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**1**	1	0	0	0	0	0	**1**	0	**1**	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	**3**	0	**3**	0	**1**	0	**1**	0	1	0	1	0	0	0	0	**5**
Total Volume	0	3	1	4	0	1	0	1	0	2	0	2	0	0	1	1	8
% App. Total	0	75	25		0	100	0		0	100	0		0	0	100		
PHF	.000	.250	.250	.333	.000	.250	.000	.250	.000	.500	.000	.500	.000	.000	.250	.250	.400

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E/W: San Michele Road
Weather: Clear

File Name : MRVHESMAM
Site Code : 05115223
Start Date : 4/28/2015
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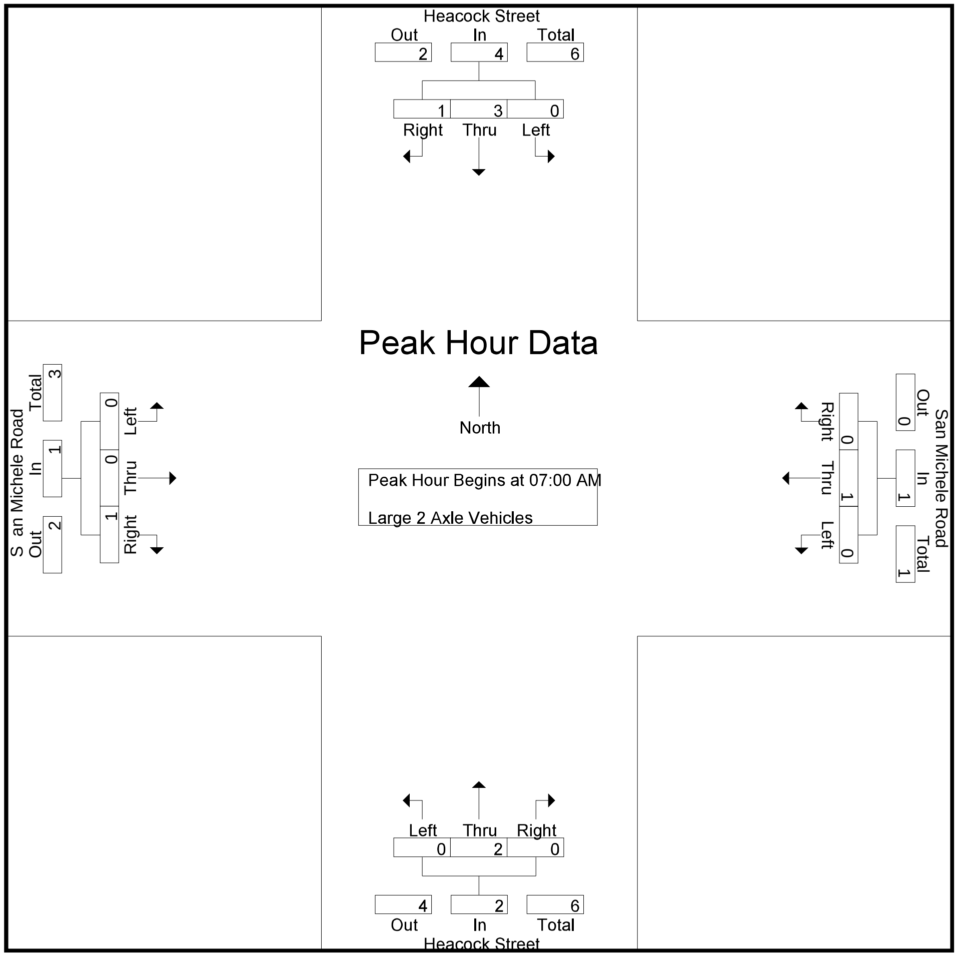

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Site Code : 05115223
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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	3
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Total	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	4
Grand Total	2	4	0	0	6	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	0	9
Apprch %	33.3	66.7	0			0	0	100			0	0	0			0	100	0				
Total %	22.2	44.4	0		66.7	0	0	11.1		11.1	0	0	0		0	0	22.2	0		22.2	0	100

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	**2**	0	**2**	**3**
07:15 AM	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	2	0	3	0	0	0	0	0	0	0	0	0	2	0	2	5
% App. Total	33.3	66.7	0		0	0	0		0	0	0		0	100	0		
PHF	.250	.500	.000	.750	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.417

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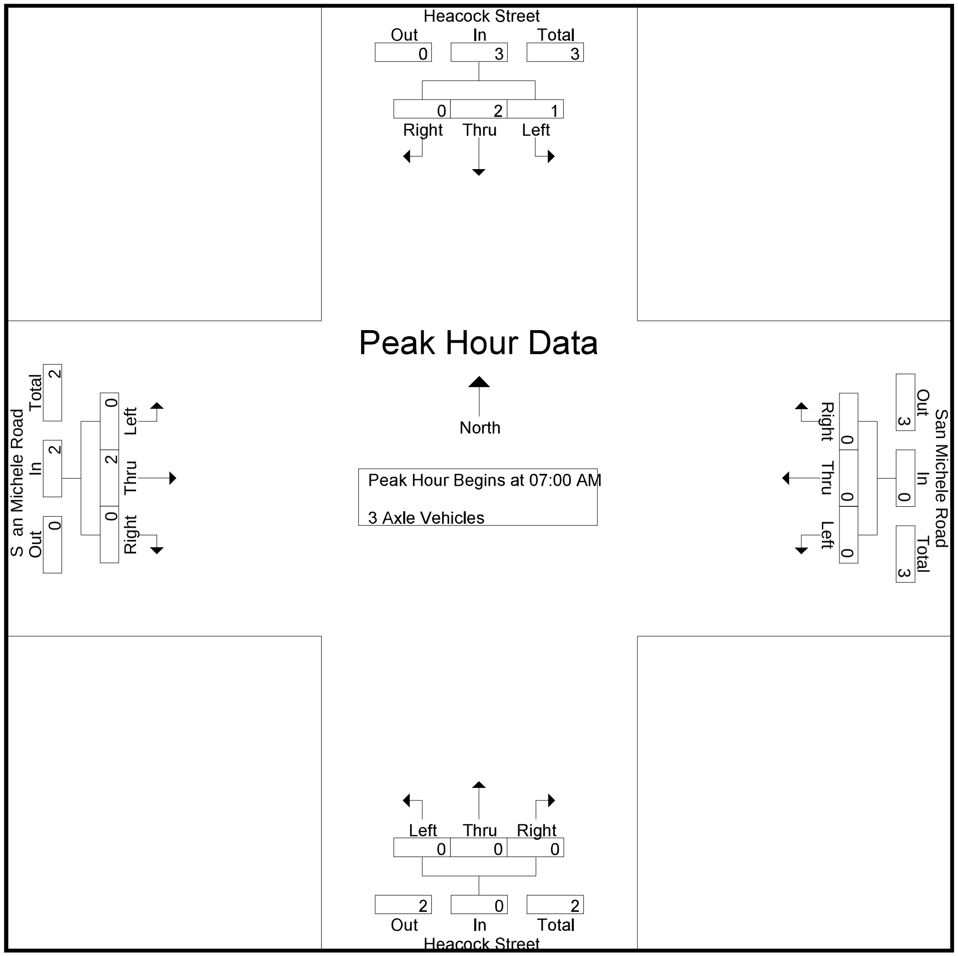

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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	1	2	0	0	3	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	5
07:15 AM	0	0	0	0	0	1	0	3	1	4	0	1	0	0	1	0	0	0	0	0	1	5
07:30 AM	1	2	0	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4
07:45 AM	1	0	0	0	1	0	0	4	3	4	0	1	0	0	1	0	0	0	0	0	3	6
Total	3	4	0	0	7	2	0	7	4	9	0	3	1	0	4	0	0	0	0	0	4	20
08:00 AM	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
08:15 AM	2	0	0	0	2	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	1	4
08:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45 AM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
Total	5	4	0	0	9	0	0	2	1	2	0	1	0	0	1	0	0	0	0	0	1	12
Grand Total	8	8	0	0	16	2	0	9	5	11	0	4	1	0	5	0	0	0	0	0	5	32
Apprch %	50	50	0			18.2	0	81.8			0	80	20			0	0	0				
Total %	25	25	0		50	6.2	0	28.1		34.4	0	12.5	3.1		15.6	0	0	0		0	13.5	86.5

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	**2**	0	**3**	0	0	0	0	0	**1**	**1**	**2**	0	0	0	0	5
07:15 AM	0	0	0	0	**1**	0	3	**4**	0	1	0	1	0	0	0	0	5
07:30 AM	1	2	0	3	1	0	0	1	0	0	0	0	0	0	0	0	4
07:45 AM	1	0	0	1	0	0	**4**	4	0	1	0	1	0	0	0	0	**6**
Total Volume	3	4	0	7	2	0	7	9	0	3	1	4	0	0	0	0	20
% App. Total	42.9	57.1	0		22.2	0	77.8		0	75	25		0	0	0		
PHF	.750	.500	.000	.583	.500	.000	.438	.563	.000	.750	.250	.500	.000	.000	.000	.000	.833

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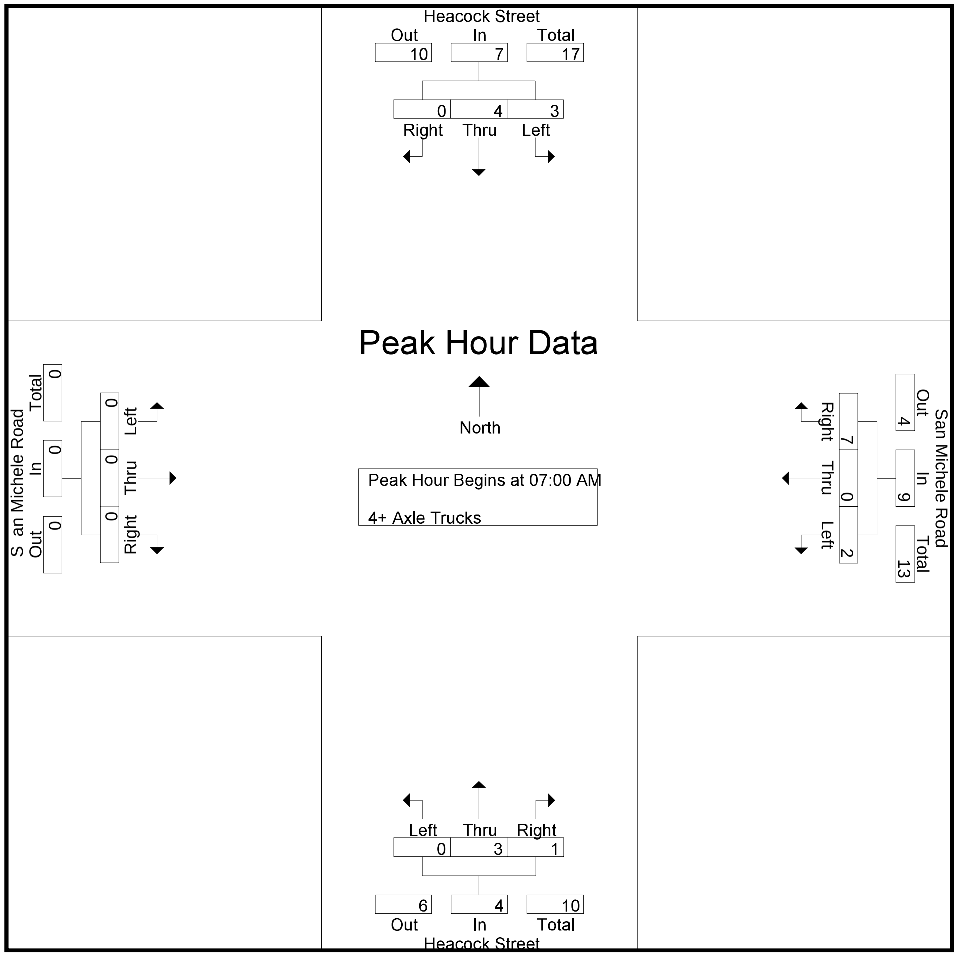

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	19	24	0	0	43	1	0	24	0	25	0	3	2	0	5	1	2	1	0	4	0	77
04:15 PM	26	20	1	0	47	0	0	24	0	24	0	12	0	0	12	0	0	2	0	2	0	85
04:30 PM	50	45	1	0	96	7	0	81	0	88	0	33	1	2	34	9	2	2	0	13	2	231
04:45 PM	46	55	1	0	102	4	0	56	0	60	0	26	1	0	27	1	3	2	0	6	0	195
Total	141	144	3	0	288	12	0	185	0	197	0	74	4	2	78	11	7	7	0	25	2	588
05:00 PM	25	51	0	0	76	0	0	33	0	33	0	9	0	0	9	0	0	0	0	0	0	118
05:15 PM	29	43	0	0	72	0	0	24	0	24	0	2	1	1	3	1	1	1	0	3	1	102
05:30 PM	28	51	0	0	79	3	0	53	0	56	0	11	0	1	11	0	0	0	0	0	1	146
05:45 PM	28	39	0	0	67	0	0	31	2	31	0	8	0	0	8	0	0	1	0	1	2	107
Total	110	184	0	0	294	3	0	141	2	144	0	30	1	2	31	1	1	2	0	4	4	473
Grand Total	251	328	3	0	582	15	0	326	2	341	0	104	5	4	109	12	8	9	0	29	6	1061
Apprch %	43.1	56.4	0.5			4.4	0	95.6			0	95.4	4.6			41.4	27.6	31				
Total %	23.7	30.9	0.3		54.9	1.4	0	30.7		32.1	0	9.8	0.5		10.3	1.1	0.8	0.8		2.7	0.6	99.4
Passenger Vehicles	248	309	3		560	15	0	309		326	0	100	5		109	12	8	9		29	0	0
% Passenger Vehicles	98.8	94.2	100	0	96.2	100	0	94.8	100	95	0	96.2	100	100	96.5	100	100	100	0	100	0	0
Large 2 Axle Vehicles	1	5	0		6	0	0	6		6	0	3	0		3	0	0	0		0	0	0
% Large 2 Axle Vehicles	0.4	1.5	0	0	1	0	0	1.8	0	1.7	0	2.9	0	0	2.7	0	0	0	0	0	0	0
3 Axle Vehicles	0	6	0		6	0	0	7		7	0	1	0		1	0	0	0		0	0	0
% 3 Axle Vehicles	0	1.8	0	0	1	0	0	2.1	0	2	0	1	0	0	0.9	0	0	0	0	0	0	0
4+ Axle Trucks	2	8	0		10	0	0	4		4	0	0	0		0	0	0	0		0	0	0
% 4+ Axle Trucks	0.8	2.4	0	0	1.7	0	0	1.2	0	1.2	0	0	0	0	0	0	0	0	0	0	0	0

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**50**	45	**1**	96	**7**	0	**81**	**88**	0	**33**	**1**	**34**	**9**	2	**2**	**13**	**231**
04:45 PM	46	**55**	1	**102**	4	0	56	60	0	26	1	27	1	**3**	2	6	195
05:00 PM	25	51	0	76	0	0	33	33	0	9	0	9	0	0	0	0	118
05:15 PM	29	43	0	72	0	0	24	24	0	2	1	3	1	1	1	3	102
Total Volume	150	194	2	346	11	0	194	205	0	70	3	73	11	6	5	22	646
% App. Total	43.4	56.1	0.6		5.4	0	94.6		0	95.9	4.1		50	27.3	22.7		
PHF	.750	.882	.500	.848	.393	.000	.599	.582	.000	.530	.750	.537	.306	.500	.625	.423	.699

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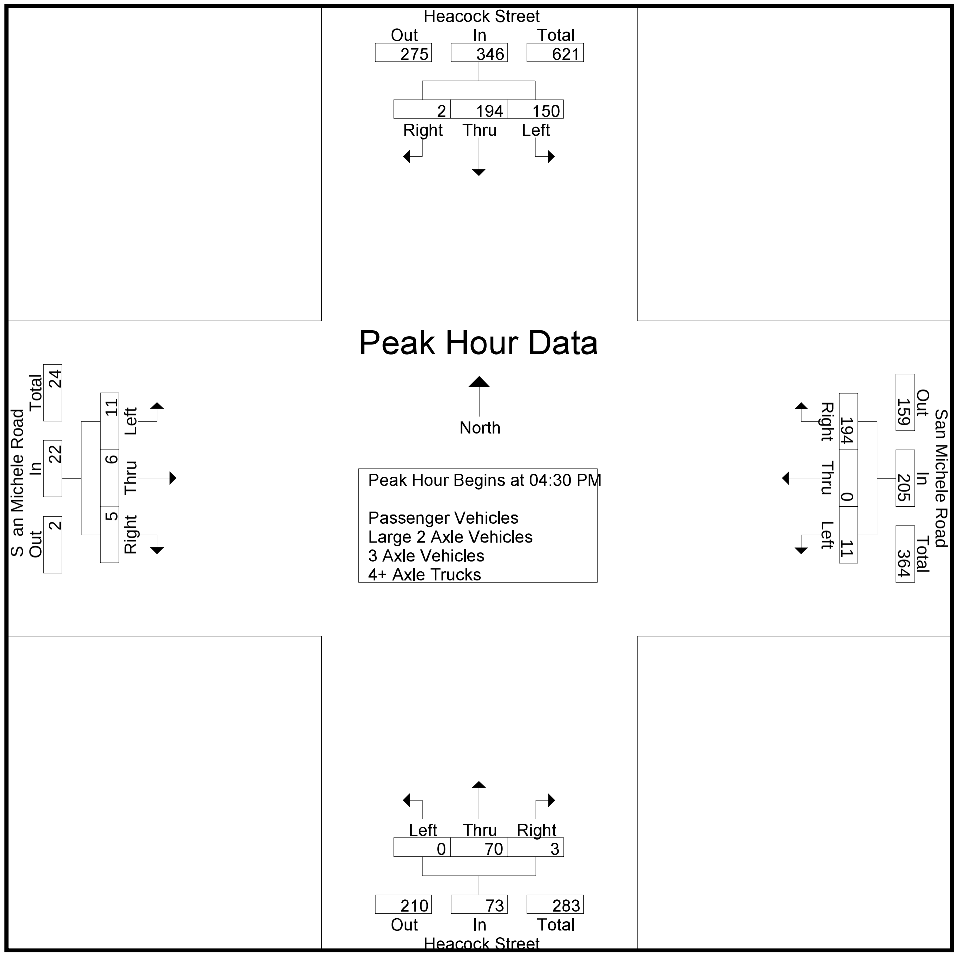

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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	1	1	0	0	2	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	4
04:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	2	0	0	3	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
05:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Total	0	3	0	0	3	0	0	3	0	3	0	2	0	0	2	0	0	0	0	0	0	8
Grand Total	1	5	0	0	6	0	0	6	0	6	0	3	0	0	3	0	0	0	0	0	0	15
Apprch %	16.7	83.3	0			0	0	100			0	100	0			0	0	0				
Total %	6.7	33.3	0		40	0	0	40		40	0	20	0		20	0	0	0		0	0	100

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	**1**	0	**2**	0	0	1	1	0	**1**	0	**1**	0	0	0	0	**4**
04:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	2
Total Volume	1	1	0	2	0	0	5	5	0	1	0	1	0	0	0	0	8
% App. Total	50	50	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.250	.000	.250	.000	.000	.625	.625	.000	.250	.000	.250	.000	.000	.000	.000	.500

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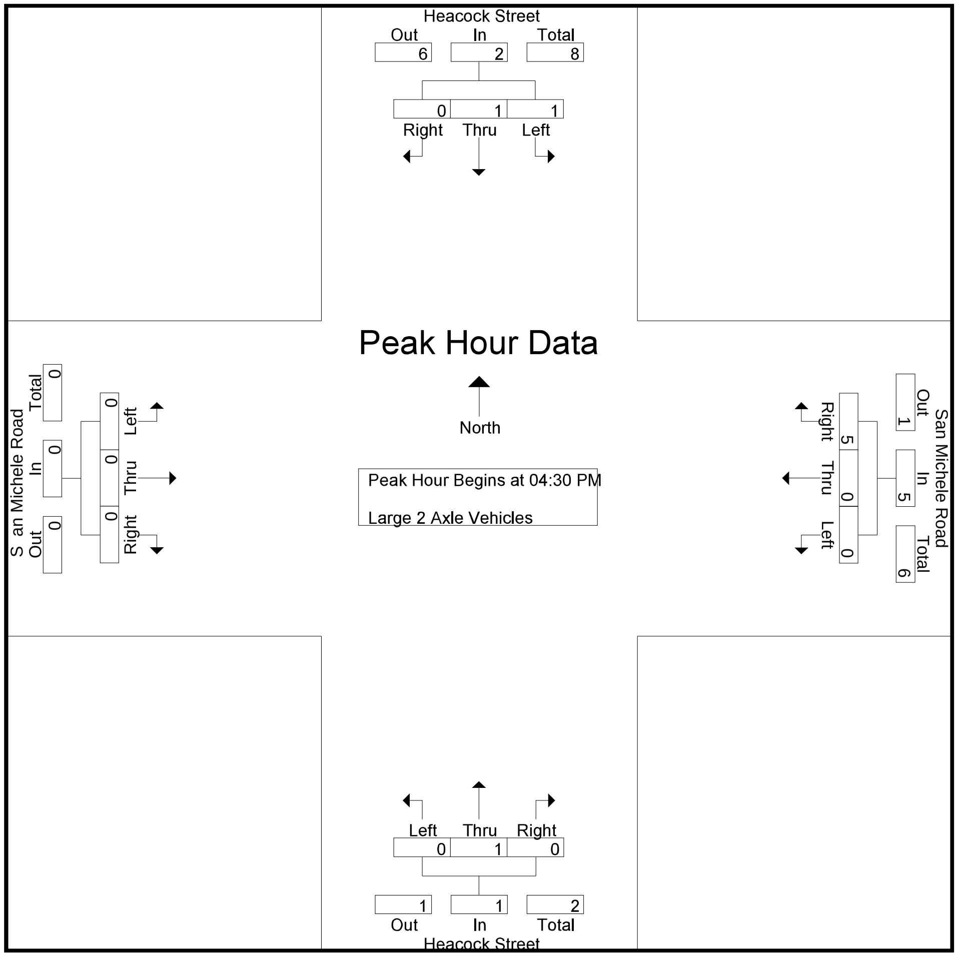

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	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	2	0	0	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	4
05:00 PM	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	1	0	0	1	0	0	3	0	3	0	1	0	0	1	0	0	0	0	0	0	5
Total	0	4	0	0	4	0	0	5	0	5	0	1	0	0	1	0	0	0	0	0	0	10
Grand Total	0	6	0	0	6	0	0	7	0	7	0	1	0	0	1	0	0	0	0	0	0	14
Apprch %	0	100	0			0	0	100			0	100	0			0	0	0				
Total %	0	42.9	0		42.9	0	0	50		50	0	7.1	0		7.1	0	0	0		0	0	100

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1
04:45 PM	0	**2**	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	**3**
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	5	0	5	0	0	2	2	0	0	0	0	0	0	0	0	7
% App. Total	0	100	0		0	0	100		0	0	0		0	0	0		
PHF	.000	.625	.000	.625	.000	.000	.500	.500	.000	.000	.000	.000	.000	.000	.000	.000	.583

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Weather: Clear

File Name : MRVHESMPM
Site Code : 05115223
Start Date : 4/28/2015
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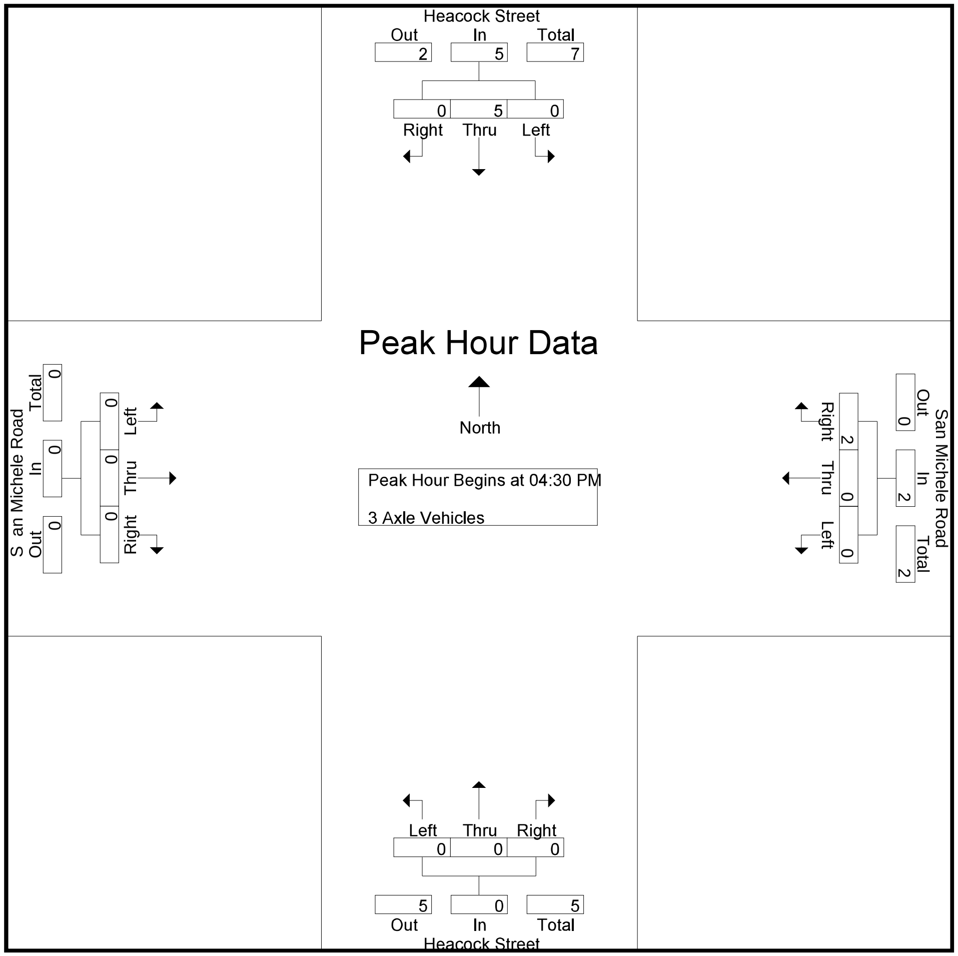

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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound					San Michele Road Westbound					Heacock Street Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total	2	3	0	0	5	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	7
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:30 PM	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	5	0	0	5	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	7
Grand Total	2	8	0	0	10	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	14
Apprch %	20	80	0			0	0	100			0	0	0			0	0	0				
Total %	14.3	57.1	0		71.4	0	0	28.6		28.6	0	0	0		0	0	0	0		0	0	100

	Heacock Street Southbound				San Michele Road Westbound				Heacock Street Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**1**	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
04:45 PM	0	0	0	0	0	0	**2**	**2**	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	**4**	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	**4**
Total Volume	1	6	0	7	0	0	2	2	0	0	0	0	0	0	0	0	9
% App. Total	14.3	85.7	0		0	0	100		0	0	0		0	0	0		
PHF	.250	.375	.000	.438	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.563

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File Name : MRVHESMPM
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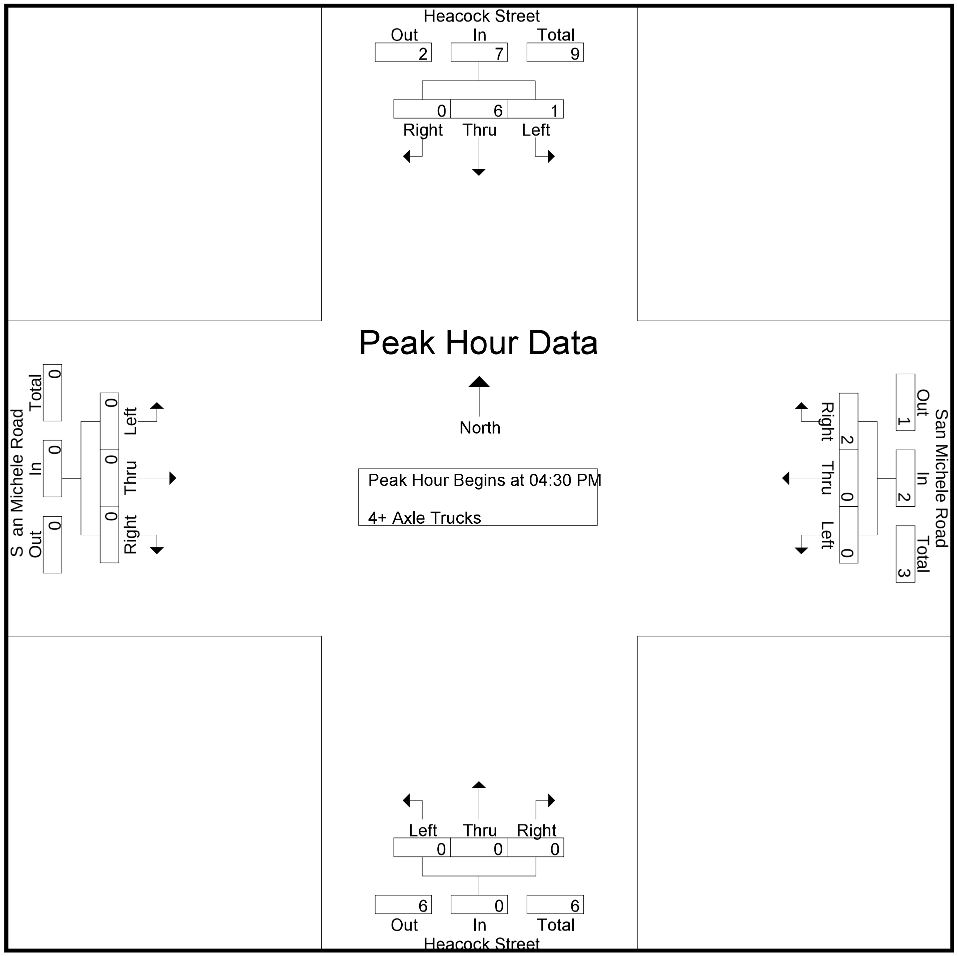

Location: Moreno Valley
N/S: Heacock Street
E/W: San Michele Road

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg San Michele Road	South Leg Heacock Street	West Leg San Michele Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg San Michele Road	South Leg Heacock Street	West Leg San Michele Road	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	1	0	1
TOTAL VOLUMES:	0	1	2	0	3

Location: Moreno Valley
N/S: Heacock Street
E/W: San Michele Road

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg San Michele Road	South Leg Heacock Street	West Leg San Michele Road	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg San Michele Road	South Leg Heacock Street	West Leg San Michele Road	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	3	0	0	3

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City of Moreno Valley
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E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAAM
Site Code : 05115223
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	17	0	17	0	9	9	0	1	1	27
07:15 AM	23	0	23	0	8	8	0	0	0	31
07:30 AM	20	1	21	0	6	6	0	1	1	28
07:45 AM	18	0	18	0	12	12	0	0	0	30
Total	78	1	79	0	35	35	0	2	2	116
08:00 AM	8	0	8	0	5	5	0	0	0	13
08:15 AM	9	2	11	1	6	7	0	2	2	20
08:30 AM	7	2	9	0	1	1	0	2	2	12
08:45 AM	10	0	10	1	7	8	0	1	1	19
Total	34	4	38	2	19	21	0	5	5	64
Grand Total	112	5	117	2	54	56	0	7	7	180
Apprch %	95.7	4.3		3.6	96.4		0	100		
Total %	62.2	2.8	65	1.1	30	31.1	0	3.9	3.9	
Passenger Vehicles	99	4	103	1	48	49	0	5	5	157
% Passenger Vehicles	88.4	80	88	50	88.9	87.5	0	71.4	71.4	87.2
Large 2 Axle Vehicles	2	1	3	1	3	4	0	1	1	8
% Large 2 Axle Vehicles	1.8	20	2.6	50	5.6	7.1	0	14.3	14.3	4.4
3 Axle Vehicles	4	0	4	0	0	0	0	0	0	4
% 3 Axle Vehicles	3.6	0	3.4	0	0	0	0	0	0	2.2
4+ Axle Trucks	7	0	7	0	3	3	0	1	1	11
% 4+ Axle Trucks	6.2	0	6	0	5.6	5.4	0	14.3	14.3	6.1

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	17	0	17	0	9	9	0	1	1	27
07:15 AM	23	0	23	0	8	8	0	0	0	31
07:30 AM	20	1	21	0	6	6	0	1	1	28
07:45 AM	18	0	18	0	12	12	0	0	0	30
Total Volume	78	1	79	0	35	35	0	2	2	116
% App. Total	98.7	1.3		0	100		0	100		
PHF	.848	.250	.859	.000	.729	.729	.000	.500	.500	.935

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File Name : MRVHENAAM
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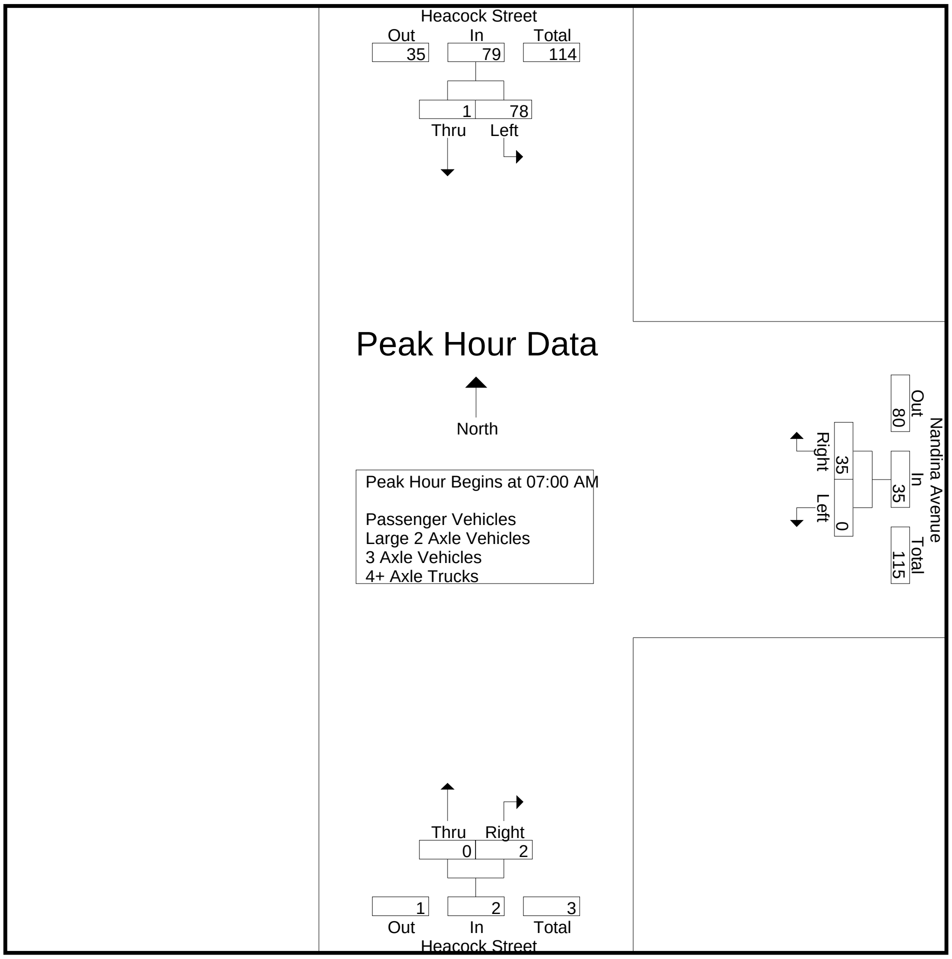

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	17	0	17	0	9	9	0	0	0
+15 mins.	23	0	23	0	8	8	0	2	2
+30 mins.	20	1	21	0	6	6	0	2	2
+45 mins.	18	0	18	0	12	12	0	1	1
Total Volume	78	1	79	0	35	35	0	5	5
% App. Total	98.7	1.3		0	100		0	100	
PHF	.848	.250	.859	.000	.729	.729	.000	.625	.625

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Weather: Clear

File Name : MRVHENAAM
Site Code : 05115223
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Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	2	0	2	0	1	1	0	0	0	3
Total	2	0	2	0	1	1	0	0	0	3
08:00 AM	0	0	0	0	1	1	0	0	0	1
08:15 AM	0	0	0	1	0	1	0	1	1	2
08:30 AM	0	1	1	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	1	1	1	2	3	0	1	1	5
Grand Total	2	1	3	1	3	4	0	1	1	8
Apprch %	66.7	33.3		25	75		0	100		
Total %	25	12.5	37.5	12.5	37.5	50	0	12.5	12.5	

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	2	0	2	0	1	1	0	0	0	3
Total Volume	2	0	2	0	1	1	0	0	0	3
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.250

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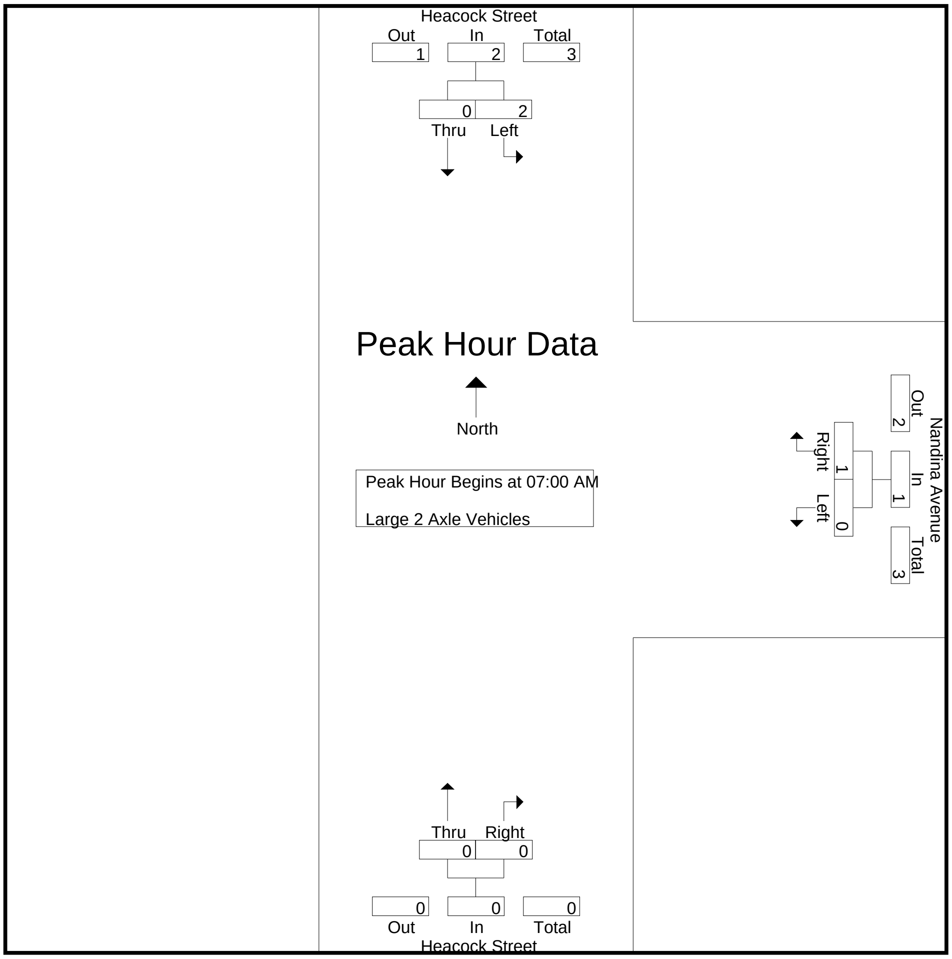

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	2	0	2	0	1	1	0	0	0
Total Volume	2	0	2	0	1	1	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

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Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	1	0	0	0	0	0	0	1
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	2	0	2	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	1	0	0	0	0	0	0	1
Total	2	0	2	0	0	0	0	0	0	2
Grand Total	4	0	4	0	0	0	0	0	0	4
Apprch %	100	0		0	0		0	0		
Total %	100	0	100	0	0	0	0	0	0	

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	0	1	0	0	0	0	0	0	1
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	2	0	0	0	0	0	0	2
% App. Total	100	0		0	0		0	0		
PHF	.500	.000	.500	.000	.000	.000	.000	.000	.000	.500

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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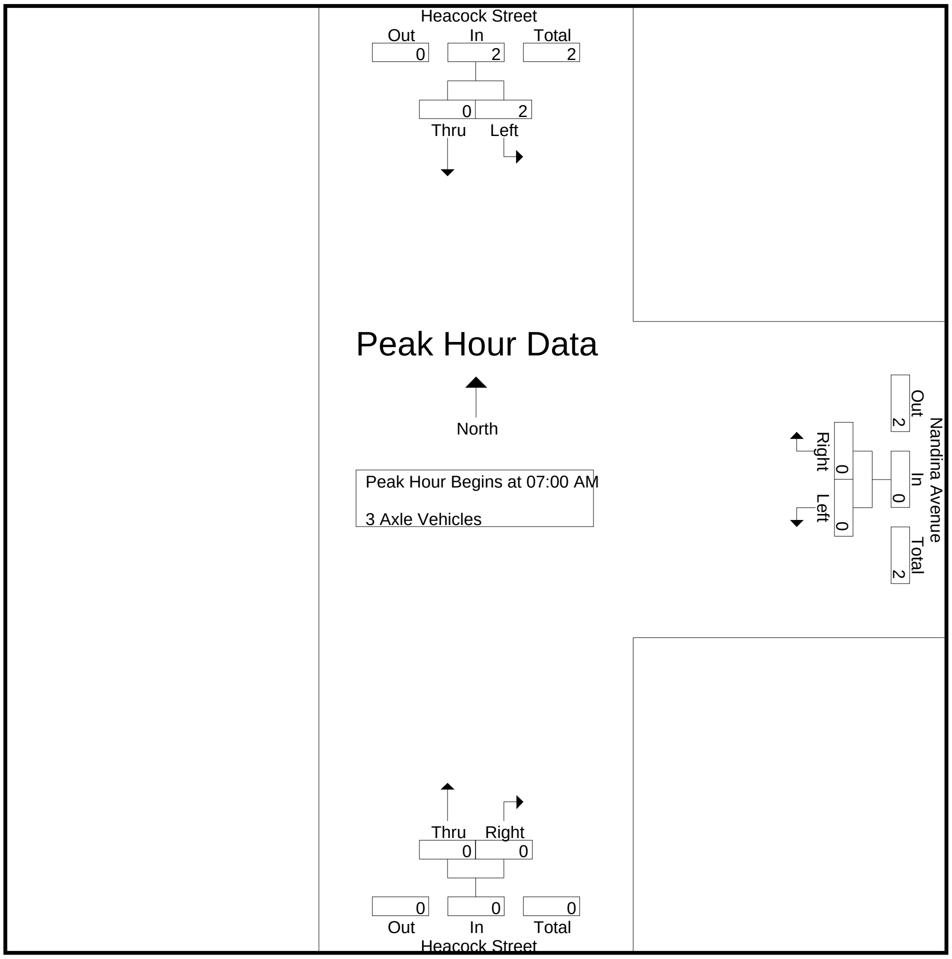

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	2	0	2	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.500	.000	.500	.000	.000	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	1	0	1	1	0	0	0	2
07:15 AM	1	0	1	0	1	1	0	0	0	2
07:30 AM	3	0	3	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	5	0	5	0	2	2	0	0	0	7
08:00 AM	1	0	1	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	1	0	1	1	0	1	1	3
Total	2	0	2	0	1	1	0	1	1	4
Grand Total	7	0	7	0	3	3	0	1	1	11
Apprch %	100	0		0	100		0	100		
Total %	63.6	0	63.6	0	27.3	27.3	0	9.1	9.1	

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	0	1	0	1	1	0	0	0	2
07:15 AM	1	0	1	0	1	1	0	0	0	2
07:30 AM	3	0	3	0	0	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	5	0	5	0	2	2	0	0	0	7
% App. Total	100	0		0	100		0	0		
PHF	.417	.000	.417	.000	.500	.500	.000	.000	.000	.583

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City of Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

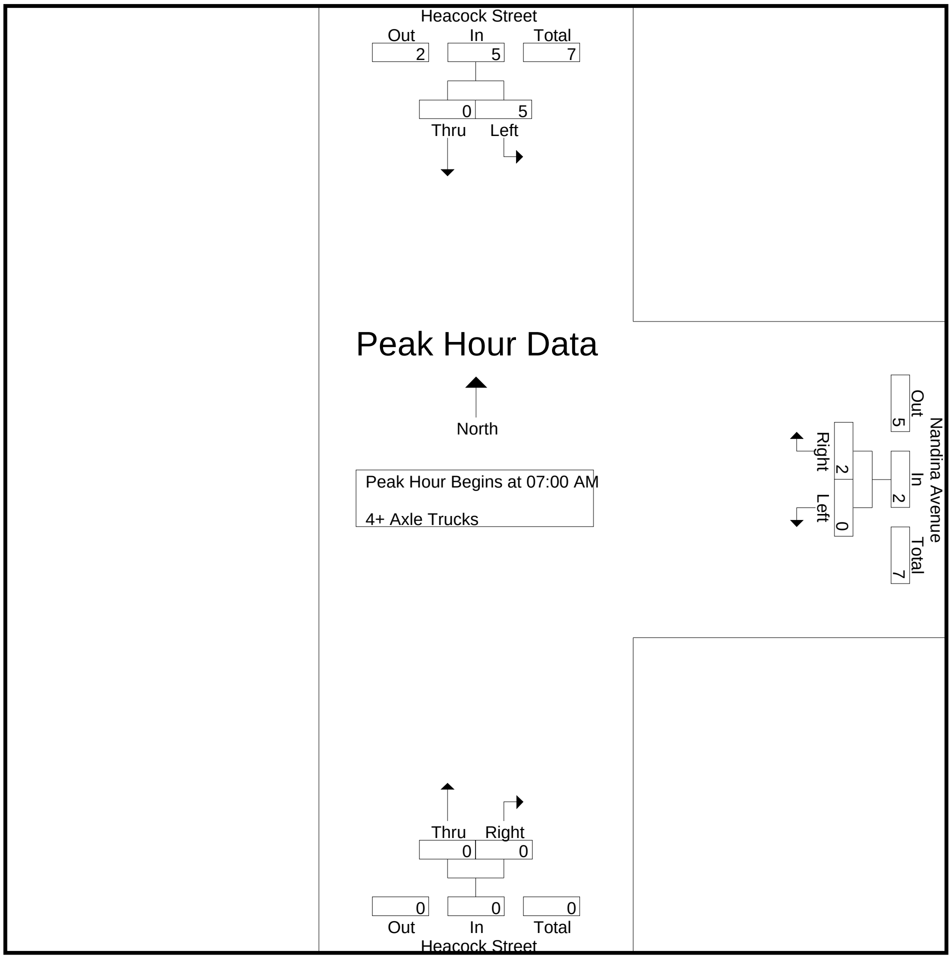

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	0	1	0	1	1	0	0	0
+15 mins.	1	0	1	0	1	1	0	0	0
+30 mins.	3	0	3	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	5	0	5	0	2	2	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.417	.000	.417	.000	.500	.500	.000	.000	.000

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City of Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	17	2	19	0	2	2	1	1	2	23
04:15 PM	21	1	22	0	12	12	0	1	1	35
04:30 PM	39	4	43	0	34	34	0	4	4	81
04:45 PM	60	4	64	0	23	23	2	2	4	91
Total	137	11	148	0	71	71	3	8	11	230
05:00 PM	44	2	46	0	9	9	0	1	1	56
05:15 PM	41	0	41	0	4	4	0	1	1	46
05:30 PM	47	4	51	1	9	10	2	1	3	64
05:45 PM	43	1	44	0	9	9	0	2	2	55
Total	175	7	182	1	31	32	2	5	7	221
Grand Total	312	18	330	1	102	103	5	13	18	451
Apprch %	94.5	5.5		1	99		27.8	72.2		
Total %	69.2	4	73.2	0.2	22.6	22.8	1.1	2.9	4	
Passenger Vehicles	294	18	312	1	101	102	5	13	18	432
% Passenger Vehicles	94.2	100	94.5	100	99	99	100	100	100	95.8
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	18	0	18	0	1	1	0	0	0	19
% 3 Axle Vehicles	5.8	0	5.5	0	1	1	0	0	0	4.2
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	39	4	43	0	34	34	0	4	4	81
04:45 PM	60	4	64	0	23	23	2	2	4	91
05:00 PM	44	2	46	0	9	9	0	1	1	56
05:15 PM	41	0	41	0	4	4	0	1	1	46
Total Volume	184	10	194	0	70	70	2	8	10	274
% App. Total	94.8	5.2		0	100		20	80		
PHF	.767	.625	.758	.000	.515	.515	.250	.500	.625	.753

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City of Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

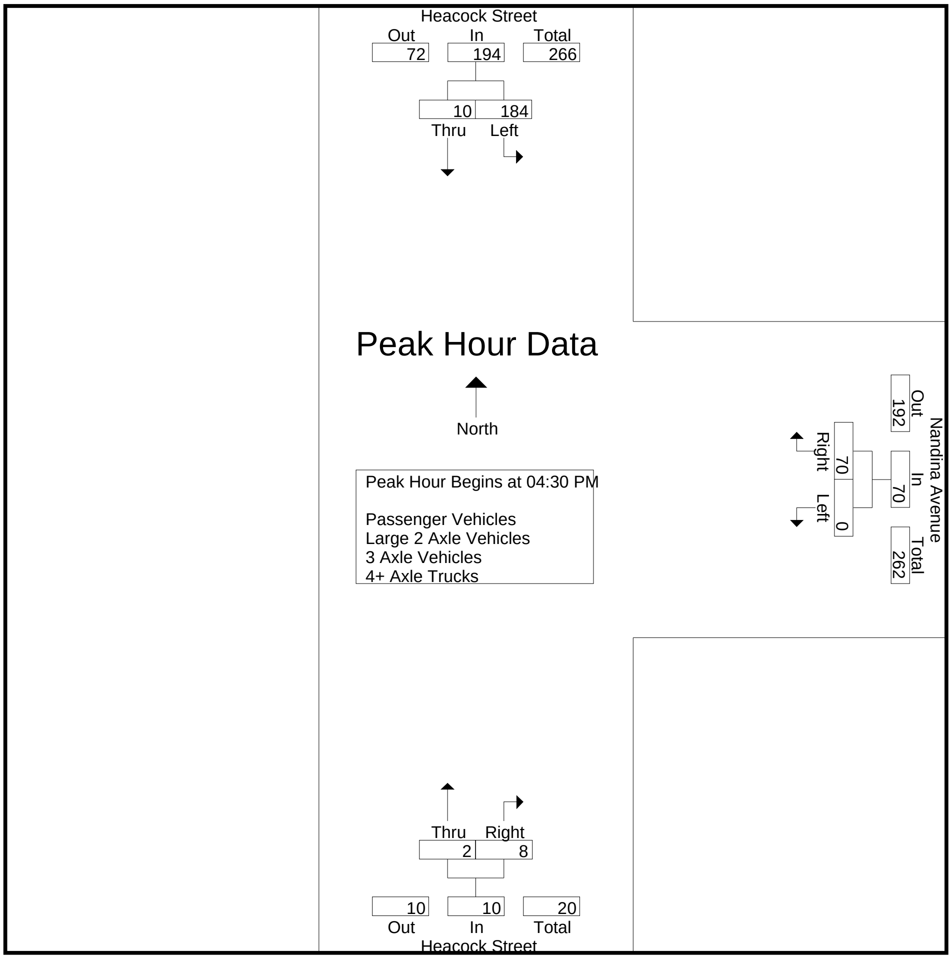

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:15 PM			04:00 PM		
+0 mins.	60	4	64	0	12	12	1	1	2
+15 mins.	44	2	46	0	34	34	0	1	1
+30 mins.	41	0	41	0	23	23	0	4	4
+45 mins.	47	4	51	0	9	9	2	2	4
Total Volume	192	10	202	0	78	78	3	8	11
% App. Total	95	5		0	100		27.3	72.7	
PHF	.800	.625	.789	.000	.574	.574	.375	.500	.688

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City of Moreno Valley
N/S: Heacock Street
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Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Moreno Valley
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E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

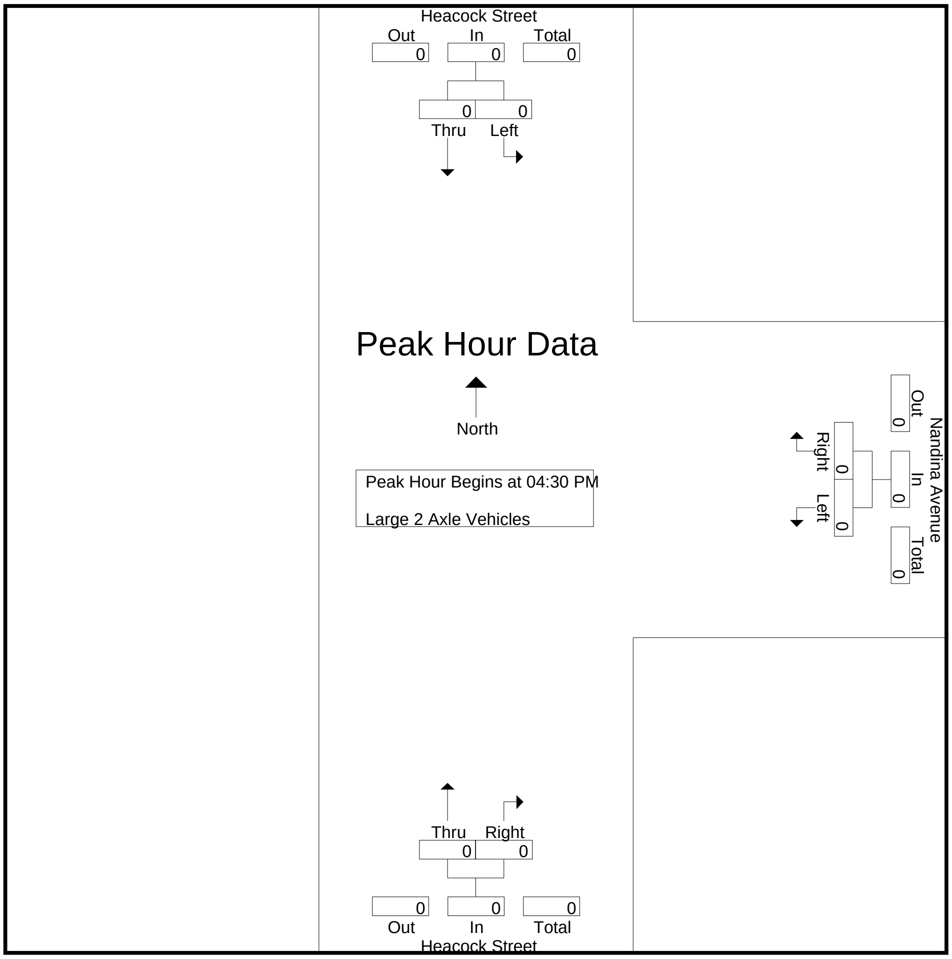

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	2	0	2	0	0	0	0	0	0	2
04:45 PM	4	0	4	0	0	0	0	0	0	4
Total	7	0	7	0	0	0	0	0	0	7
05:00 PM	5	0	5	0	0	0	0	0	0	5
05:15 PM	5	0	5	0	0	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	1	0	1	1	0	0	0	2
Total	11	0	11	0	1	1	0	0	0	12
Grand Total	18	0	18	0	1	1	0	0	0	19
Apprch %	100	0		0	100		0	0		
Total %	94.7	0	94.7	0	5.3	5.3	0	0	0	

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	2	0	2	0	0	0	0	0	0	2
04:45 PM	4	0	4	0	0	0	0	0	0	4
05:00 PM	5	0	5	0	0	0	0	0	0	5
05:15 PM	5	0	5	0	0	0	0	0	0	5
Total Volume	16	0	16	0	0	0	0	0	0	16
% App. Total	100	0		0	0		0	0		
PHF	.800	.000	.800	.000	.000	.000	.000	.000	.000	.800

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City of Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

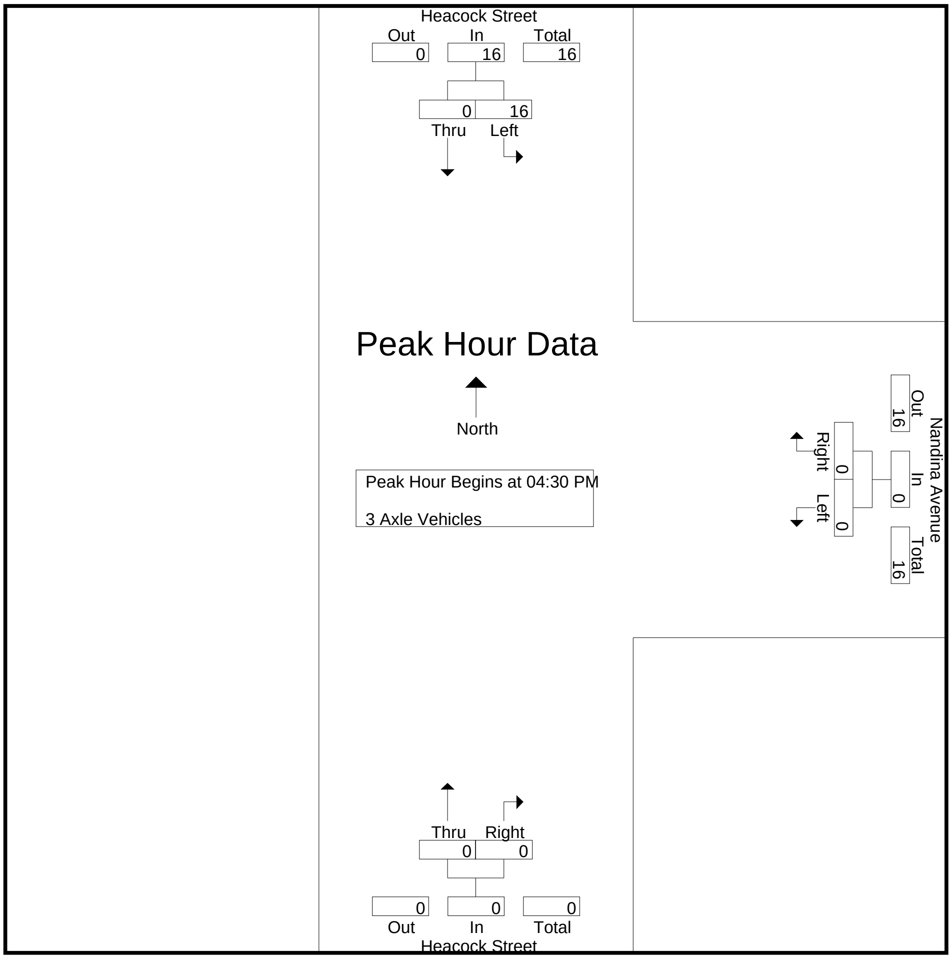

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	2	0	2	0	0	0	0	0	0
+15 mins.	4	0	4	0	0	0	0	0	0
+30 mins.	5	0	5	0	0	0	0	0	0
+45 mins.	5	0	5	0	0	0	0	0	0
Total Volume	16	0	16	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.800	.000	.800	.000	.000	.000	.000	.000	.000

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E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Heacock Street Southbound			Nandina Avenue Westbound			Heacock Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue
Weather: Clear

File Name : MRVHENAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

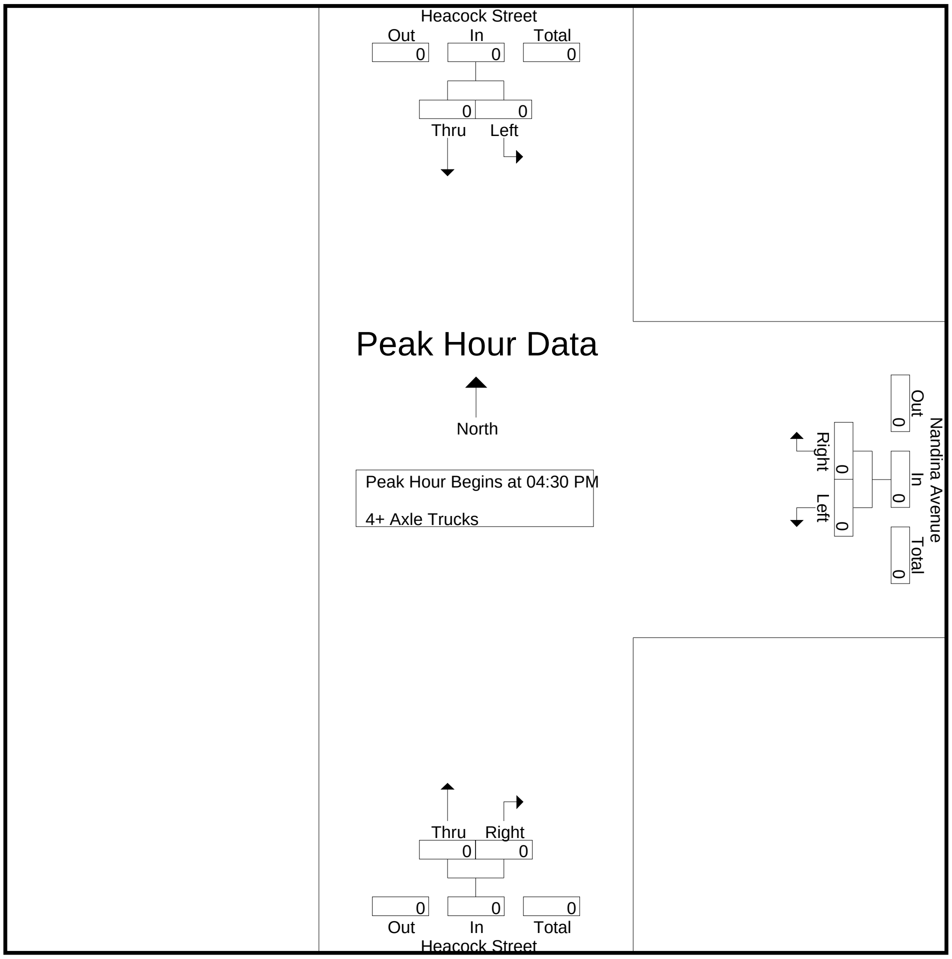

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Heacock Street	East Leg Nandina Avenue	South Leg Heacock Street	West Leg Nandina Avenue	TOTAL
7:00 AM	0	0	0		0
7:15 AM	0	0	0		0
7:30 AM	0	0	0		0
7:45 AM	0	0	0		0
8:00 AM	0	0	0		0
8:15 AM	0	0	0		0
8:30 AM	0	0	0		0
8:45 AM	0	0	0		0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Nandina Avenue	South Leg Heacock Street	West Leg Nandina Avenue	TOTAL
4:00 PM	0	0	0		0
4:15 PM	0	0	0		0
4:30 PM	0	0	0		0
4:45 PM	0	0	0		0
5:00 PM	0	0	0		0
5:15 PM	0	0	0		0
5:30 PM	0	0	0		0
5:45 PM	0	0	0		0
TOTAL VOLUMES:	0	0	0	0	0

Location: Moreno Valley
N/S: Heacock Street
E/W: Nandina Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Heacock Street	East Leg Nandina Avenue	South Leg Heacock Street	West Leg Nandina Avenue	TOTAL
7:00 AM	0	0	0		0
7:15 AM	0	0	0		0
7:30 AM	0	0	0		0
7:45 AM	0	0	0		0
8:00 AM	0	0	0		0
8:15 AM	0	0	0		0
8:30 AM	0	0	0		0
8:45 AM	0	0	0		0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Heacock Street	East Leg Nandina Avenue	South Leg Heacock Street	West Leg Nandina Avenue	TOTAL
4:00 PM	0	0	0		0
4:15 PM	0	0	0		0
4:30 PM	0	0	0		0
4:45 PM	0	0	0		0
5:00 PM	0	0	0		0
5:15 PM	0	0	0		0
5:30 PM	0	0	0		0
5:45 PM	0	0	0		0
TOTAL VOLUMES:	0	0	0	0	0

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City of Moreno Valley
N/S: Heacok Street
E/W: Harley Knox Boulevard
Weather: Sunny

File Name : MRVHEHKAM
Site Code : 00000097
Start Date : 5/16/2013
Page No : 1

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Counts Unlimited Inc.
PO Box 1178
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City of Moreno Valley
N/S: Heacok Street
E/W: Harley Knox Boulevard
Weather: Sunny

File Name : MRVHEHKAM
Site Code : 00000097
Start Date : 5/16/2013
Page No : 2

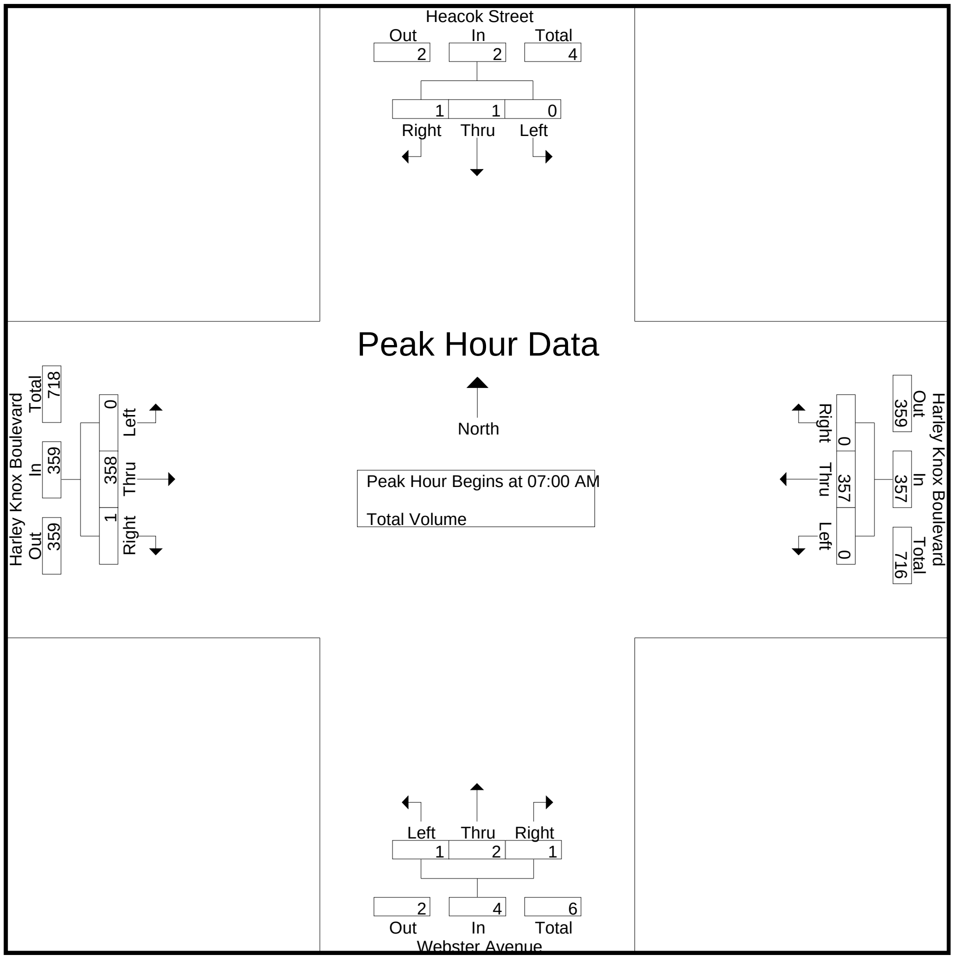

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
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City of Moreno Valley
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File Name : MRVHEHKPM
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Í¬¿®¬ Ì·³»	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	×²¬ò Ì±¬¿´
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	Ø»¿½±µ Í¬®»»¬ Í±«¬¸¾±«²¼				Ø¿®´»§ Õ²±¨ Þ±«´»ª¿®¼ É»-¬¾±«²¼				É»¾-¬»® ßª»²«» Ò±®¬¸¾±«²¼				Ø¿®´»§ Õ²±¨ Þ±«´»ª¿®¼ Û¿-¬¾±«²¼				
Í¬¿®¬ Ì·³»	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	Ô»º¬	Ì¸®«	Î·¹¸¬	ß°°ò Ì±¬¿´	×²¬ò Ì±¬¿´
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Ð»¿µ Ø±«® º±® Û²¬·®» ×²¬»®-»½¬·±² Þ»¹·²- ¿¬ ðìæðð ÐÓ																	
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City of Moreno Valley
N/S: Heacok Street
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Weather: Sunny

File Name : MRVHEHKPM
Site Code : 00000097
Start Date : 5/16/2013
Page No : 2

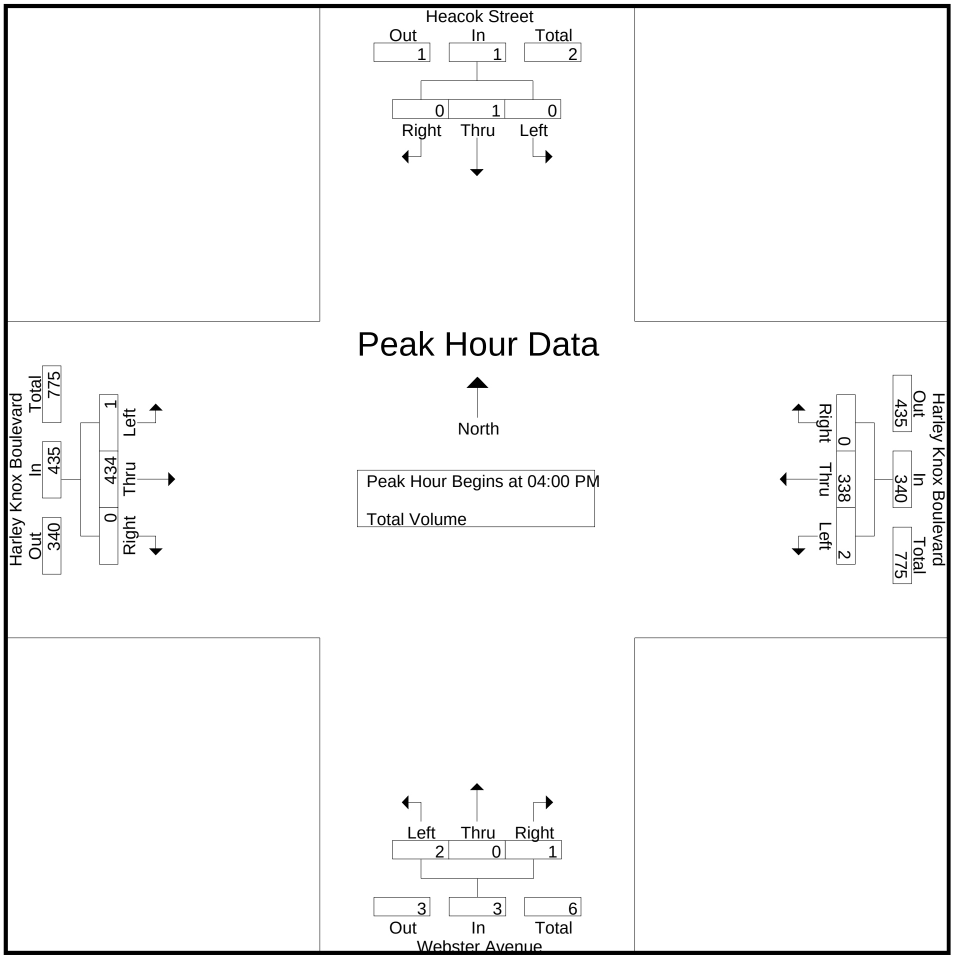

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

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3.1-298

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Cosmos Street
E/W: Krameria Avenue
Weather: Clear

File Name : MRVUNKRAM
Site Code : 05115223
Start Date : 5/5/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	2	2	0	0	0	0	16	1	0	17	1	2	2	5	24
07:15 AM	0	0	1	1	0	0	0	0	12	2	0	14	0	3	3	6	21
07:30 AM	1	0	1	2	0	0	0	0	12	0	2	14	1	0	1	2	18
07:45 AM	0	0	3	3	0	0	0	0	6	0	0	6	1	3	3	7	16
Total	1	0	7	8	0	0	0	0	46	3	2	51	3	8	9	20	79
08:00 AM	0	0	3	3	0	0	0	0	5	0	0	5	0	1	1	2	10
08:15 AM	0	0	1	1	0	0	0	0	3	0	0	3	0	1	1	2	6
08:30 AM	0	0	2	2	0	0	0	0	4	1	0	5	1	0	2	3	10
08:45 AM	0	0	2	2	0	0	0	0	4	0	0	4	0	0	2	2	8
Total	0	0	8	8	0	0	0	0	16	1	0	17	1	2	6	9	34
Grand Total	1	0	15	16	0	0	0	0	62	4	2	68	4	10	15	29	113
Apprch %	6.2	0	93.8		0	0	0		91.2	5.9	2.9		13.8	34.5	51.7		
Total %	0.9	0	13.3	14.2	0	0	0	0	54.9	3.5	1.8	60.2	3.5	8.8	13.3	25.7	
Passenger Vehicles	0	0	5	5	0	0	0	0	60	4	0	64	3	0	13	16	85
% Passenger Vehicles	0	0	33.3	31.2	0	0	0	0	96.8	100	0	94.1	75	0	86.7	55.2	75.2
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	1	3
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	3.2	0	0	2.9	0	0	6.7	3.4	2.7
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	3.4	0.9
4+ Axle Trucks	1	0	10	11	0	0	0	0	0	0	2	2	1	9	1	11	24
% 4+ Axle Trucks	100	0	66.7	68.8	0	0	0	0	0	0	100	2.9	25	90	6.7	37.9	21.2

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	2	2	0	0	0	0	16	1	0	17	1	2	2	5	24
07:15 AM	0	0	1	1	0	0	0	0	12	2	0	14	0	3	3	6	21
07:30 AM	1	0	1	2	0	0	0	0	12	0	2	14	1	0	1	2	18
07:45 AM	0	0	3	3	0	0	0	0	6	0	0	6	1	3	3	7	16
Total Volume	1	0	7	8	0	0	0	0	46	3	2	51	3	8	9	20	79
% App. Total	12.5	0	87.5		0	0	0		90.2	5.9	3.9		15	40	45		
PHF	.250	.000	.583	.667	.000	.000	.000	.000	.719	.375	.250	.750	.750	.667	.750	.714	.823

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City of Moreno Valley
N/S: Cosmos Street
E/W: Krameria Avenue
Weather: Clear

File Name : MRVUNKRAM
Site Code : 05115223
Start Date : 5/5/2015
Page No : 2

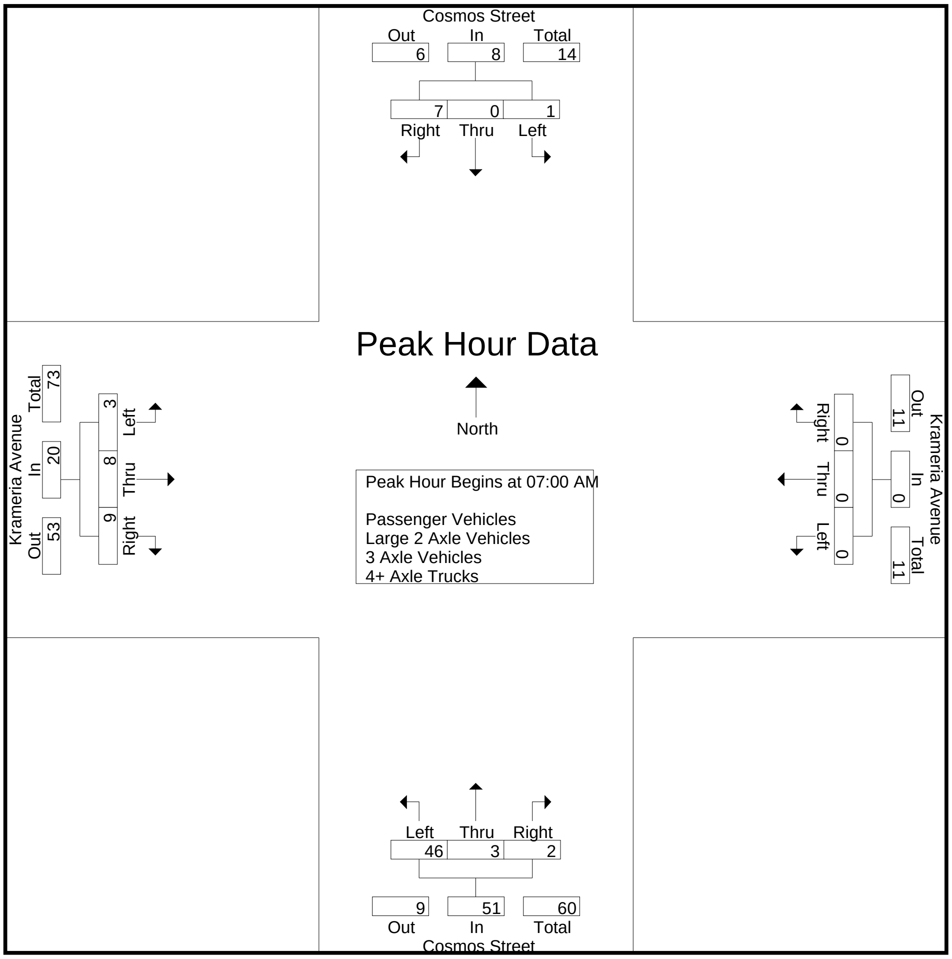

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	1	1	0	0	0	0	16	1	0	17	1	2	2	5
+15 mins.	1	0	1	2	0	0	0	0	12	2	0	14	0	3	3	6
+30 mins.	0	0	3	3	0	0	0	0	12	0	2	14	1	0	1	2
+45 mins.	0	0	3	3	0	0	0	0	6	0	0	6	1	3	3	7
Total Volume	1	0	8	9	0	0	0	0	46	3	2	51	3	8	9	20
% App. Total	11.1	0	88.9		0	0	0		90.2	5.9	3.9		15	40	45	
PHF	.250	.000	.667	.750	.000	.000	.000	.000	.719	.375	.250	.750	.750	.667	.750	.714

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
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File Name : MRVUNKRAM
Site Code : 05115223
Start Date : 5/5/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
Grand Total	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	1	3
Apprch %	0	0	0		0	0	0		100	0	0		0	0	100		
Total %	0	0	0	0	0	0	0	0	66.7	0	0	66.7	0	0	33.3	33.3	

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		100	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.250

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Page No : 2

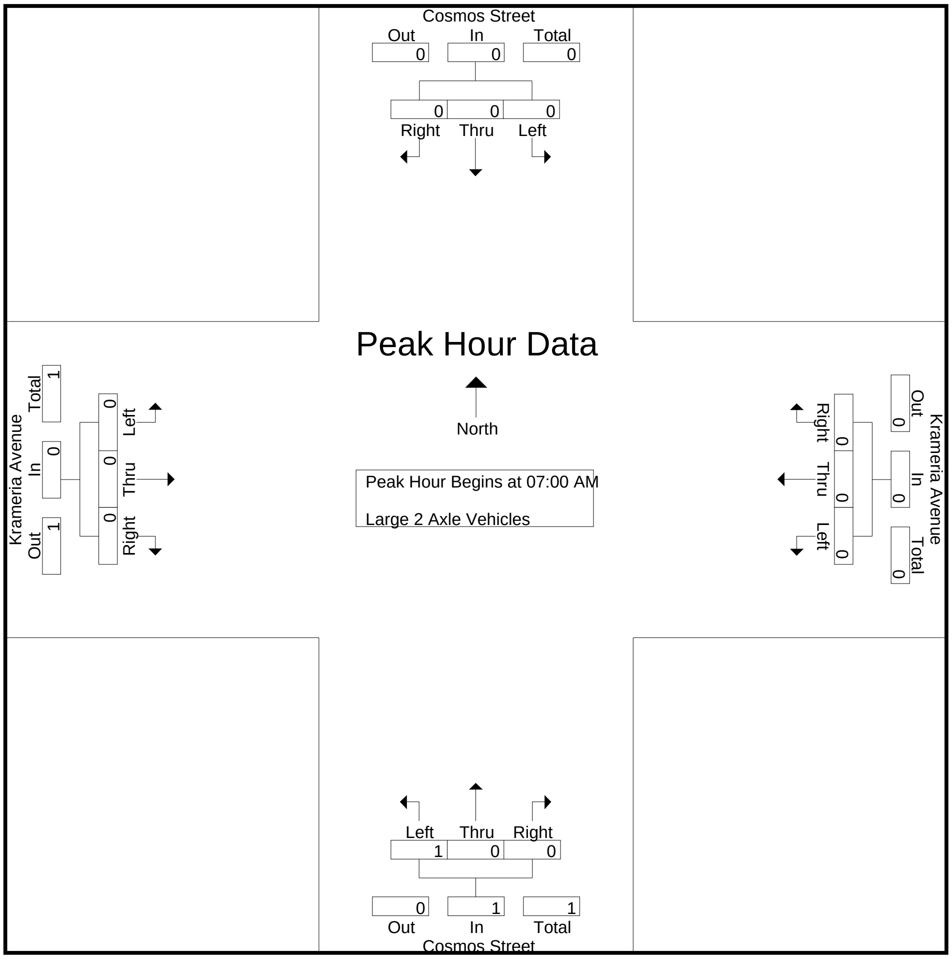

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
% App. Total	0	0	0		0	0	0		100	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000

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Start Date : 5/5/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

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Weather: Clear

File Name : MRVUNKRAM
Site Code : 05115223
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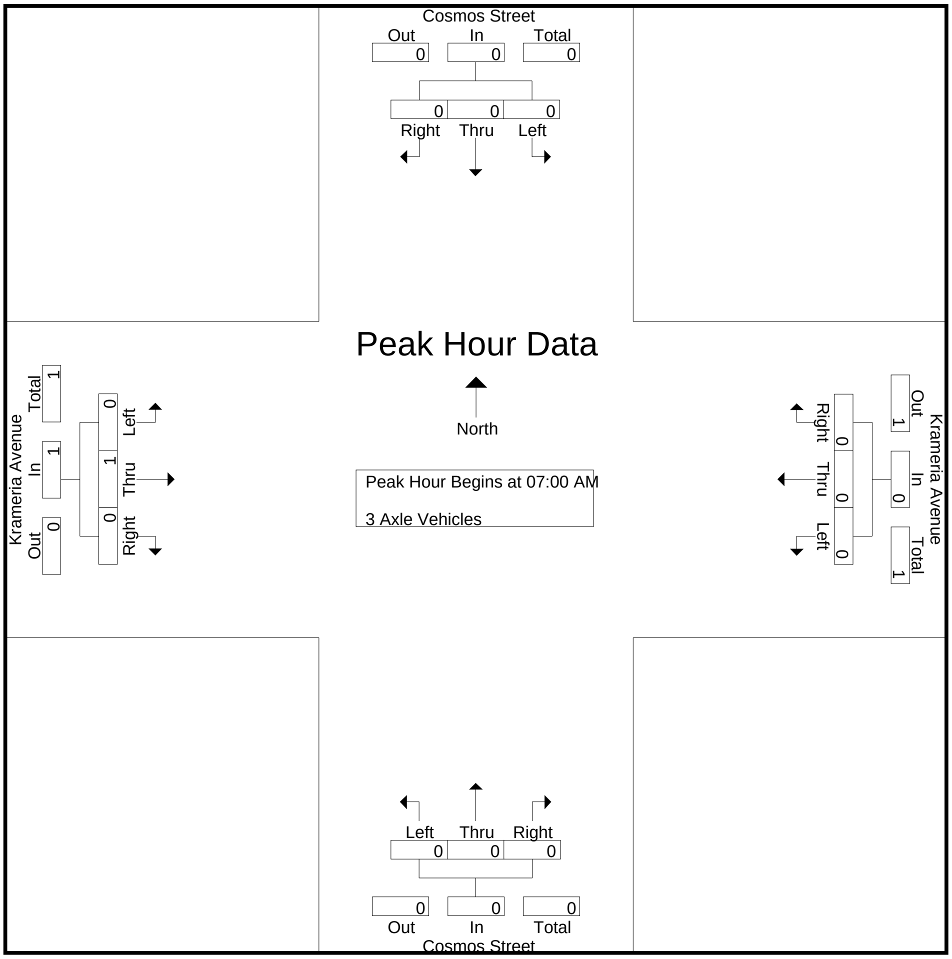

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

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Groups Printed- 4+ Axle Trucks

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:30 AM	1	0	0	1	0	0	0	0	0	0	2	2	0	0	0	0	3
07:45 AM	0	0	2	2	0	0	0	0	0	0	0	0	1	3	0	4	6
Total	1	0	3	4	0	0	0	0	0	0	2	2	1	7	0	8	14
08:00 AM	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	4
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	1	1	3
Total	0	0	7	7	0	0	0	0	0	0	0	0	0	2	1	3	10
Grand Total	1	0	10	11	0	0	0	0	0	0	2	2	1	9	1	11	24
Apprch %	9.1	0	90.9		0	0	0		0	0	100		9.1	81.8	9.1		
Total %	4.2	0	41.7	45.8	0	0	0	0	0	0	8.3	8.3	4.2	37.5	4.2	45.8	

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:30 AM	1	0	0	1	0	0	0	0	0	0	2	2	0	0	0	0	3
07:45 AM	0	0	2	2	0	0	0	0	0	0	0	0	1	3	0	4	6
Total Volume	1	0	3	4	0	0	0	0	0	0	2	2	1	7	0	8	14
% App. Total	25	0	75		0	0	0		0	0	100		12.5	87.5	0		
PHF	.250	.000	.375	.500	.000	.000	.000	.000	.000	.000	.250	.250	.250	.583	.000	.500	.583

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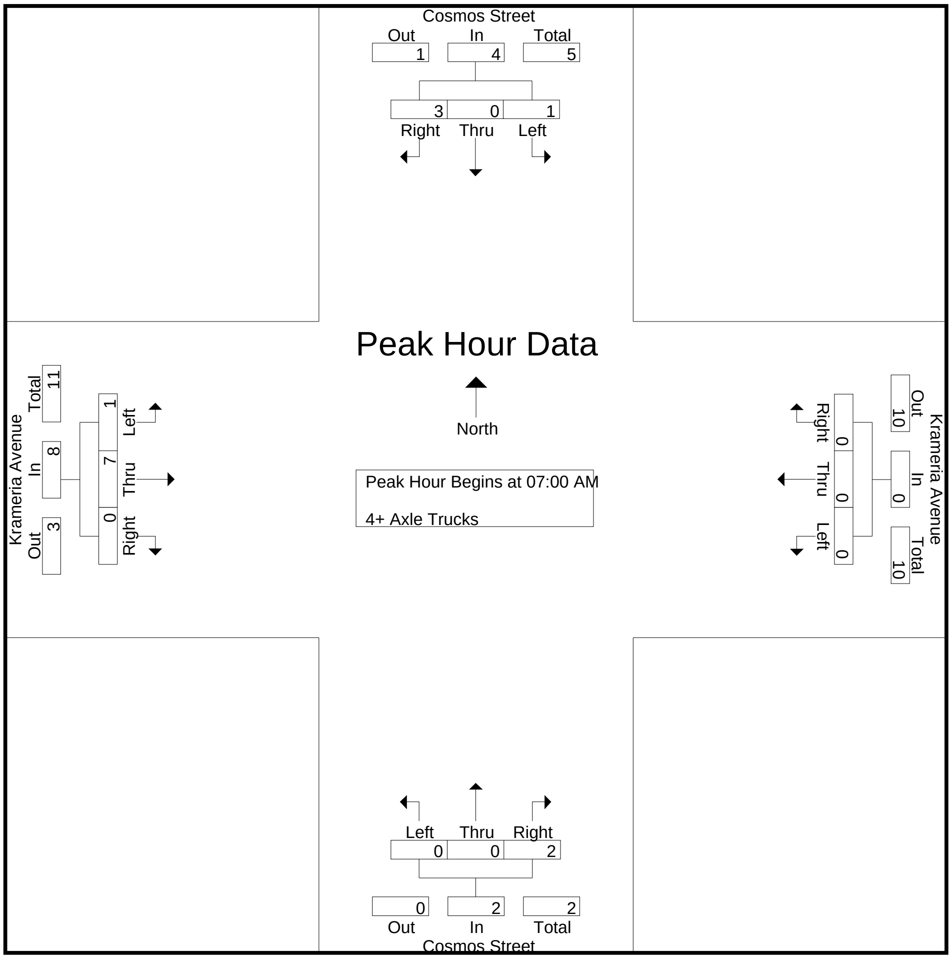

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+30 mins.	1	0	0	1	0	0	0	0	0	0	2	2	0	0	0	0
+45 mins.	0	0	2	2	0	0	0	0	0	0	0	0	1	3	0	4
Total Volume	1	0	3	4	0	0	0	0	0	0	2	2	1	7	0	8
% App. Total	25	0	75		0	0	0		0	0	100		12.5	87.5	0	
PHF	.250	.000	.375	.500	.000	.000	.000	.000	.000	.000	.250	.250	.250	.583	.000	.500

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	2	2	0	0	0	0	3	0	0	3	3	1	7	11	16
04:15 PM	0	0	2	2	0	0	0	0	5	0	0	5	0	0	6	6	13
04:30 PM	0	0	2	2	0	0	0	0	6	0	0	6	2	1	5	8	16
04:45 PM	1	0	1	2	0	0	0	0	2	1	0	3	6	4	11	21	26
Total	1	0	7	8	0	0	0	0	16	1	0	17	11	6	29	46	71
05:00 PM	0	0	2	2	0	0	0	0	4	0	0	4	1	1	7	9	15
05:15 PM	0	1	3	4	0	0	0	0	4	1	0	5	1	2	3	6	15
05:30 PM	0	0	1	1	0	0	0	0	3	0	0	3	2	2	3	7	11
05:45 PM	0	2	0	2	0	0	0	0	6	1	0	7	1	1	1	3	12
Total	0	3	6	9	0	0	0	0	17	2	0	19	5	6	14	25	53
Grand Total	1	3	13	17	0	0	0	0	33	3	0	36	16	12	43	71	124
Apprch %	5.9	17.6	76.5		0	0	0		91.7	8.3	0		22.5	16.9	60.6		
Total %	0.8	2.4	10.5	13.7	0	0	0	0	26.6	2.4	0	29	12.9	9.7	34.7	57.3	
Passenger Vehicles	0	0	5	5	0	0	0	0	25	2	0	27	15	1	39	55	87
% Passenger Vehicles	0	0	38.5	29.4	0	0	0	0	75.8	66.7	0	75	93.8	8.3	90.7	77.5	70.2
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.3	1.4	0.8
3 Axle Vehicles	0	1	1	2	0	0	0	0	0	0	0	0	1	1	0	2	4
% 3 Axle Vehicles	0	33.3	7.7	11.8	0	0	0	0	0	0	0	0	6.2	8.3	0	2.8	3.2
4+ Axle Trucks	1	2	7	10	0	0	0	0	8	1	0	9	0	10	3	13	32
% 4+ Axle Trucks	100	66.7	53.8	58.8	0	0	0	0	24.2	33.3	0	25	0	83.3	7	18.3	25.8

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	2	2	0	0	0	0	6	0	0	6	2	1	5	8	16
04:45 PM	1	0	1	2	0	0	0	0	2	1	0	3	6	4	11	21	26
05:00 PM	0	0	2	2	0	0	0	0	4	0	0	4	1	1	7	9	15
05:15 PM	0	1	3	4	0	0	0	0	4	1	0	5	1	2	3	6	15
Total Volume	1	1	8	10	0	0	0	0	16	2	0	18	10	8	26	44	72
% App. Total	10	10	80		0	0	0		88.9	11.1	0		22.7	18.2	59.1		
PHF	.250	.250	.667	.625	.000	.000	.000	.000	.667	.500	.000	.750	.417	.500	.591	.524	.692

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File Name : MRVUNKRPM
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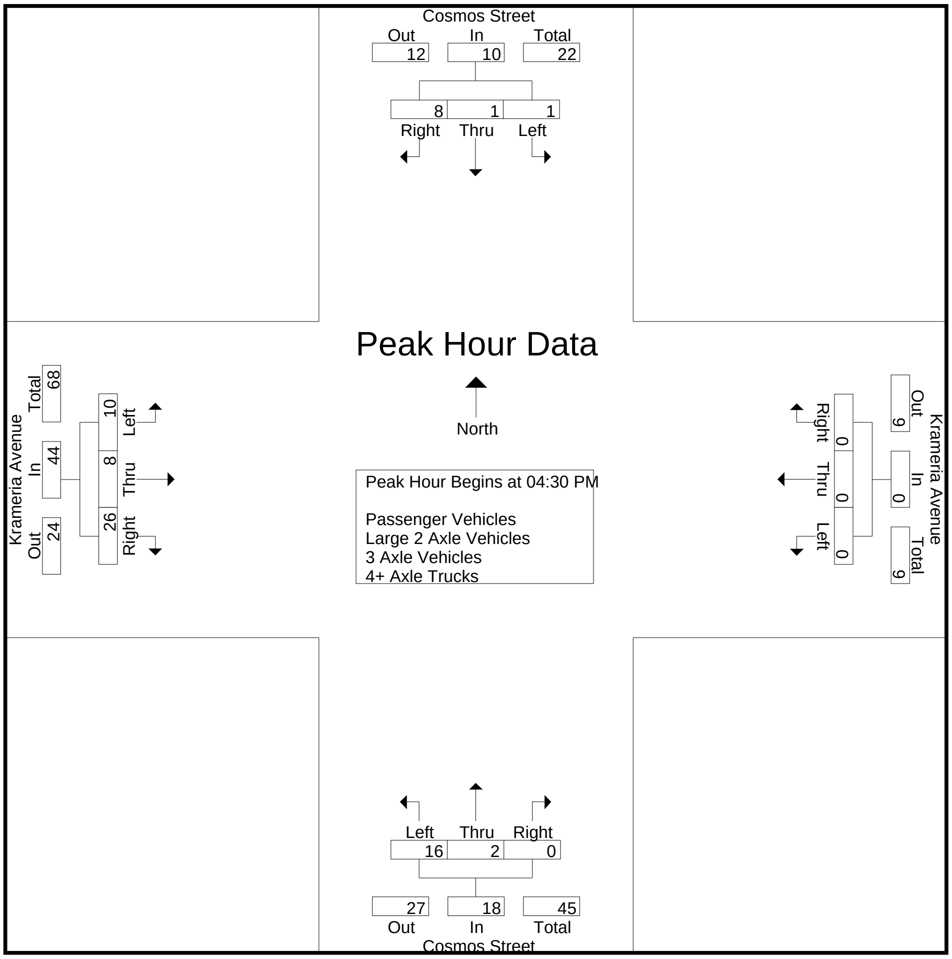

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	0	0	2	2	0	0	0	0	4	0	0	4	3	1	7	11
+15 mins.	1	0	1	2	0	0	0	0	4	1	0	5	0	0	6	6
+30 mins.	0	0	2	2	0	0	0	0	3	0	0	3	2	1	5	8
+45 mins.	0	1	3	4	0	0	0	0	6	1	0	7	6	4	11	21
Total Volume	1	1	8	10	0	0	0	0	17	2	0	19	11	6	29	46
% App. Total	10	10	80		0	0	0		89.5	10.5	0		23.9	13	63	
PHF	.250	.250	.667	.625	.000	.000	.000	.000	.708	.500	.000	.679	.458	.375	.659	.548

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File Name : MRVUNKRPM
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Groups Printed- Large 2 Axle Vehicles

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	0	100		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.250

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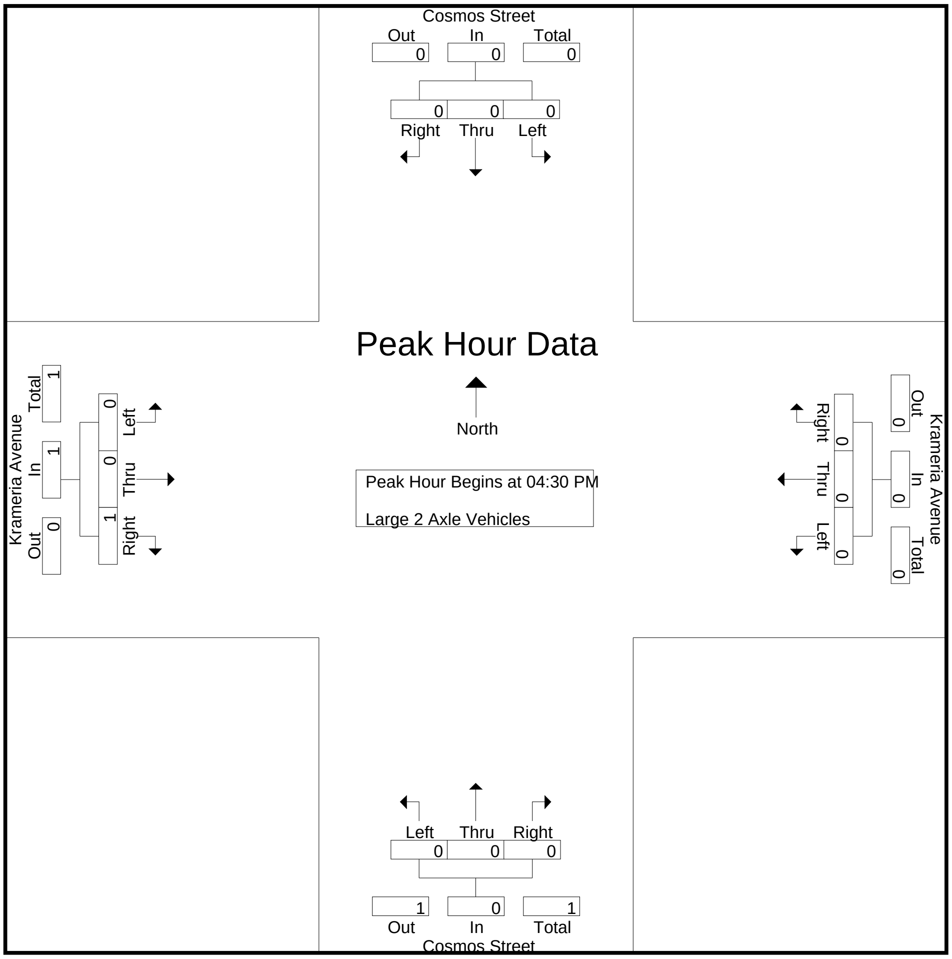

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	0	100	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250

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Groups Printed- 3 Axle Vehicles

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Grand Total	0	1	1	2	0	0	0	0	0	0	0	0	1	1	0	2	4
Apprch %	0	50	50		0	0	0		0	0	0		50	50	0		
Total %	0	25	25	50	0	0	0	0	0	0	0	0	25	25	0	50	

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	1	1	2	0	0	0	0	0	0	0	0	1	1	0	2	4
% App. Total	0	50	50		0	0	0		0	0	0		50	50	0		
PHF	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.500	.500

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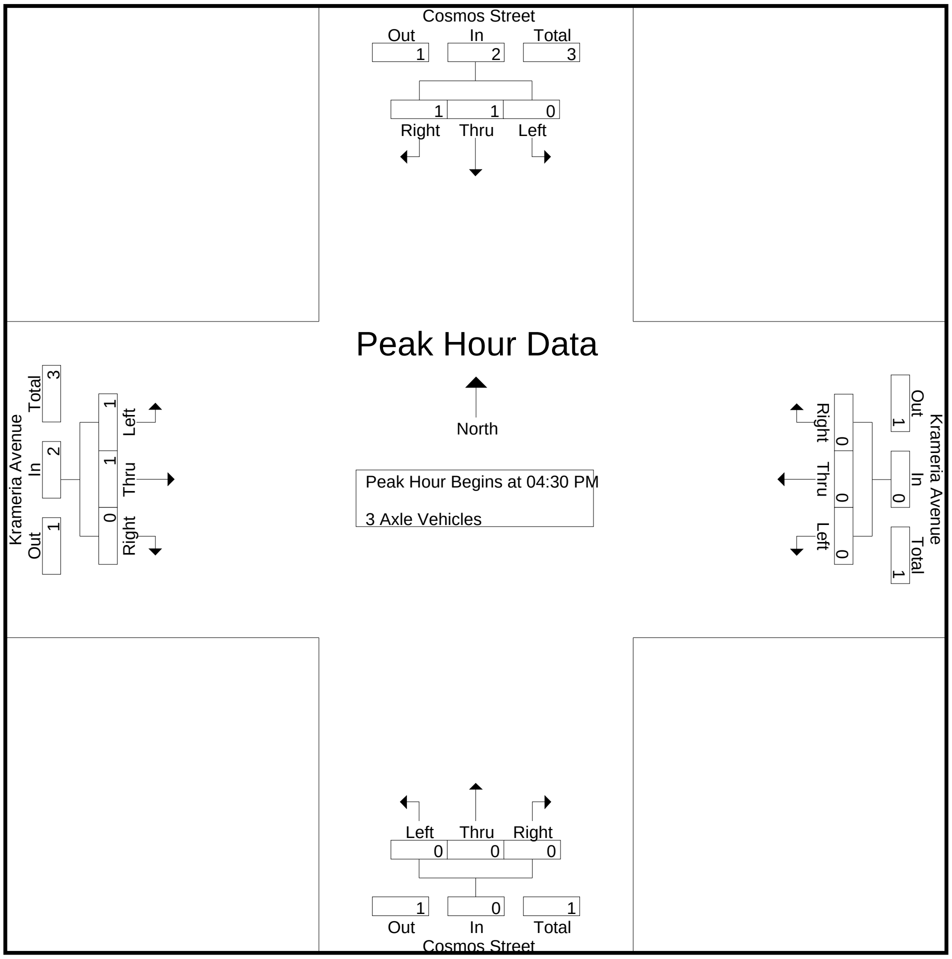

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	1	1	2	0	0	0	0	0	0	0	0	1	1	0	2
% App. Total	0	50	50		0	0	0		0	0	0		50	50	0	
PHF	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.000	.500

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City of Moreno Valley
N/S: Cosmos Street
E/W: Krameria Avenue
Weather: Clear

File Name : MRVUNKRPM
Site Code : 05115223
Start Date : 5/5/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	2	3	4
04:15 PM	0	0	2	2	0	0	0	0	4	0	0	4	0	0	0	0	6
04:30 PM	0	0	1	1	0	0	0	0	2	0	0	2	0	1	0	1	4
04:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	2	0	2	4
Total	1	0	4	5	0	0	0	0	6	1	0	7	0	4	2	6	18
05:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
05:30 PM	0	0	1	1	0	0	0	0	1	0	0	1	0	2	0	2	4
05:45 PM	0	2	0	2	0	0	0	0	1	0	0	1	0	1	0	1	4
Total	0	2	3	5	0	0	0	0	2	0	0	2	0	6	1	7	14
Grand Total	1	2	7	10	0	0	0	0	8	1	0	9	0	10	3	13	32
Apprch %	10	20	70		0	0	0		88.9	11.1	0		0	76.9	23.1		
Total %	3.1	6.2	21.9	31.2	0	0	0	0	25	3.1	0	28.1	0	31.2	9.4	40.6	

	Cosmos Street Southbound				Krameria Avenue Westbound				Cosmos Street Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	0	0	0	0	2	0	0	2	0	1	0	1	4
04:45 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	2	0	2	4
05:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3	4
Total Volume	1	0	3	4	0	0	0	0	2	1	0	3	0	6	1	7	14
% App. Total	25	0	75		0	0	0		66.7	33.3	0		0	85.7	14.3		
PHF	.250	.000	.750	1.00	.000	.000	.000	.000	.250	.250	.000	.375	.000	.750	.250	.583	.875

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City of Moreno Valley
N/S: Cosmos Street
E/W: Krameria Avenue
Weather: Clear

File Name : MRVUNKRPM
Site Code : 05115223
Start Date : 5/5/2015
Page No : 2

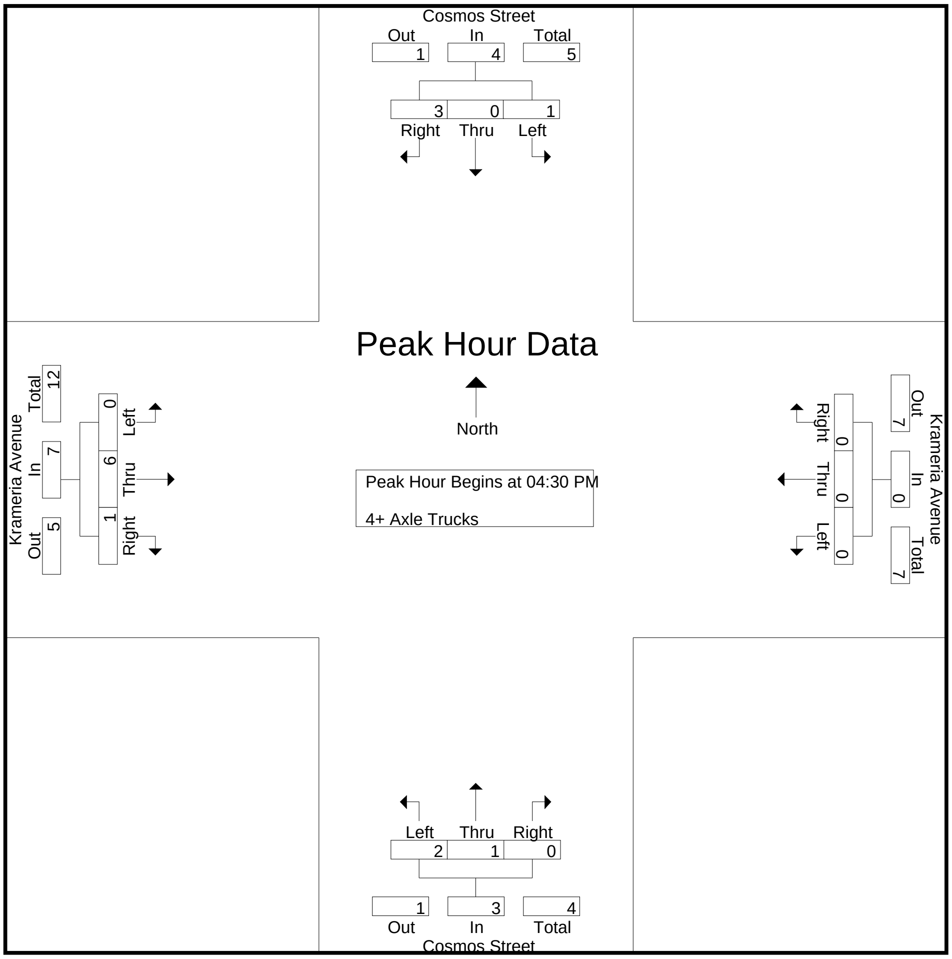

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	1	1	0	0	0	0	2	0	0	2	0	1	0	1
+15 mins.	1	0	0	1	0	0	0	0	0	1	0	1	0	2	0	2
+30 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	2	1	3
Total Volume	1	0	3	4	0	0	0	0	2	1	0	3	0	6	1	7
% App. Total	25	0	75		0	0	0		66.7	33.3	0		0	85.7	14.3	
PHF	.250	.000	.750	1.000	.000	.000	.000	.000	.250	.250	.000	.375	.000	.750	.250	.583

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Location: Moreno Valley
N/S: Cosmos Street
E/W: Krameria Avenue

Date: 5/5/2015
Weather: Clear

PEDESTRIANS

	North Leg Cosmos Street	East Leg Krameria Avenue	South Leg Cosmos Street	West Leg Krameria Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Cosmos Street	East Leg Krameria Avenue	South Leg Cosmos Street	West Leg Krameria Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Moreno Valley
N/S: Cosmos Street
E/W: Krameria Avenue

Date: 5/5/2015
Weather: Clear

BICYCLES

	North Leg Cosmos Street	East Leg Krameria Avenue	South Leg Cosmos Street	West Leg Krameria Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Cosmos Street	East Leg Krameria Avenue	South Leg Cosmos Street	West Leg Krameria Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	22	6	2	30	0	10	21	31	4	27	0	31	0	2	0	2	94
07:15 AM	46	18	0	64	0	10	61	71	5	33	3	41	0	2	0	2	178
07:30 AM	45	28	0	73	1	8	55	64	5	36	2	43	1	1	0	2	182
07:45 AM	68	18	1	87	0	8	43	51	1	15	3	19	0	2	0	2	159
Total	181	70	3	254	1	36	180	217	15	111	8	134	1	7	0	8	613
08:00 AM	31	13	0	44	1	10	27	38	3	14	3	20	0	1	0	1	103
08:15 AM	10	6	0	16	1	2	14	17	0	12	1	13	0	1	0	1	47
08:30 AM	7	7	0	14	1	6	17	24	0	5	1	6	0	2	0	2	46
08:45 AM	14	8	0	22	0	0	13	13	0	6	1	7	0	1	2	3	45
Total	62	34	0	96	3	18	71	92	3	37	6	46	0	5	2	7	241
Grand Total	243	104	3	350	4	54	251	309	18	148	14	180	1	12	2	15	854
Apprch %	69.4	29.7	0.9		1.3	17.5	81.2		10	82.2	7.8		6.7	80	13.3		
Total %	28.5	12.2	0.4	41	0.5	6.3	29.4	36.2	2.1	17.3	1.6	21.1	0.1	1.4	0.2	1.8	
Passenger Vehicles	239	101	1	341	4	53	247	304	18	143	13	174	1	11	2	14	833
% Passenger Vehicles	98.4	97.1	33.3	97.4	100	98.1	98.4	98.4	100	96.6	92.9	96.7	100	91.7	100	93.3	97.5
Large 2 Axle Vehicles	4	3	0	7	0	1	4	5	0	5	1	6	0	1	0	1	19
% Large 2 Axle Vehicles	1.6	2.9	0	2	0	1.9	1.6	1.6	0	3.4	7.1	3.3	0	8.3	0	6.7	2.2
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% 4+ Axle Trucks	0	0	66.7	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0.2

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	46	18	0	64	0	10	61	71	5	33	3	41	0	2	0	2	178
07:30 AM	45	28	0	73	1	8	55	64	5	36	2	43	1	1	0	2	182
07:45 AM	68	18	1	87	0	8	43	51	1	15	3	19	0	2	0	2	159
08:00 AM	31	13	0	44	1	10	27	38	3	14	3	20	0	1	0	1	103
Total Volume	190	77	1	268	2	36	186	224	14	98	11	123	1	6	0	7	622
% App. Total	70.9	28.7	0.4		0.9	16.1	83		11.4	79.7	8.9		14.3	85.7	0		
PHF	.699	.688	.250	.770	.500	.900	.762	.789	.700	.681	.917	.715	.250	.750	.000	.875	.854

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City of Moreno Valley	File Name : MRVINKRAM
N/S: Indian Avenue	Site Code : 05115223
E/W: Krameria Avenue	Start Date : 4/28/2015
Weather: Clear	Page No : 2

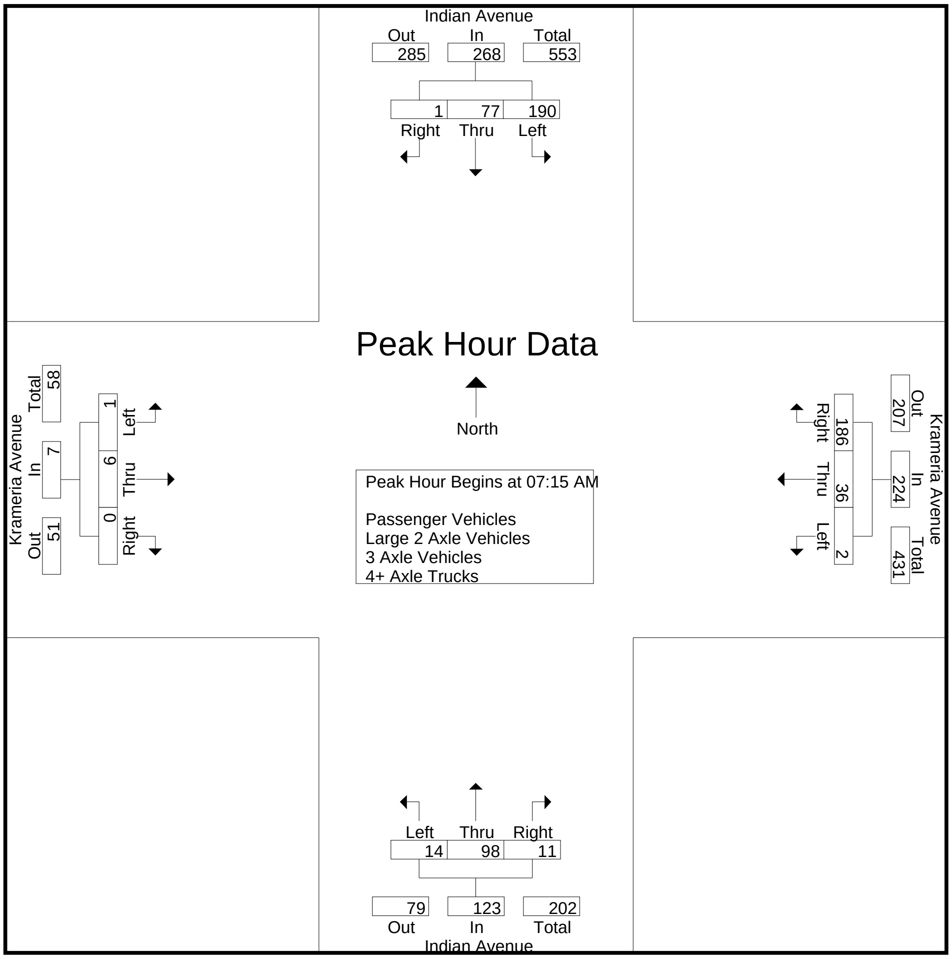

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:00 AM				07:00 AM			
+0 mins.	46	18	0	64	0	10	61	71	4	27	0	31	0	2	0	2
+15 mins.	45	28	0	73	1	8	55	64	5	33	3	41	0	2	0	2
+30 mins.	68	18	1	87	0	8	43	51	5	36	2	43	1	1	0	2
+45 mins.	31	13	0	44	1	10	27	38	1	15	3	19	0	2	0	2
Total Volume	190	77	1	268	2	36	186	224	15	111	8	134	1	7	0	8
% App. Total	70.9	28.7	0.4		0.9	16.1	83		11.2	82.8	6		12.5	87.5	0	
PHF	.699	.688	.250	.770	.500	.900	.762	.789	.750	.771	.667	.779	.250	.875	.000	1.000

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	1	1	0	2	0	0	3	3	0	1	0	1	0	0	0	0	6
07:45 AM	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	2	3	0	5	0	0	4	4	0	3	0	3	0	0	0	0	12
08:00 AM	2	0	0	2	0	1	0	1	0	1	1	2	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	2	0	0	2	0	1	0	1	0	2	1	3	0	1	0	1	7
Grand Total	4	3	0	7	0	1	4	5	0	5	1	6	0	1	0	1	19
Apprch %	57.1	42.9	0		0	20	80		0	83.3	16.7		0	100	0		
Total %	21.1	15.8	0	36.8	0	5.3	21.1	26.3	0	26.3	5.3	31.6	0	5.3	0	5.3	

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	1	1	0	2	0	0	3	3	0	1	0	1	0	0	0	0	6
07:45 AM	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
08:00 AM	2	0	0	2	0	1	0	1	0	1	1	2	0	0	0	0	5
Total Volume	4	3	0	7	0	1	4	5	0	2	1	3	0	0	0	0	15
% App. Total	57.1	42.9	0		0	20	80		0	66.7	33.3		0	0	0		
PHF	.500	.375	.000	.583	.000	.250	.333	.417	.000	.500	.250	.375	.000	.000	.000	.000	.625

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City of Moreno Valley
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File Name : MRVINKRAM
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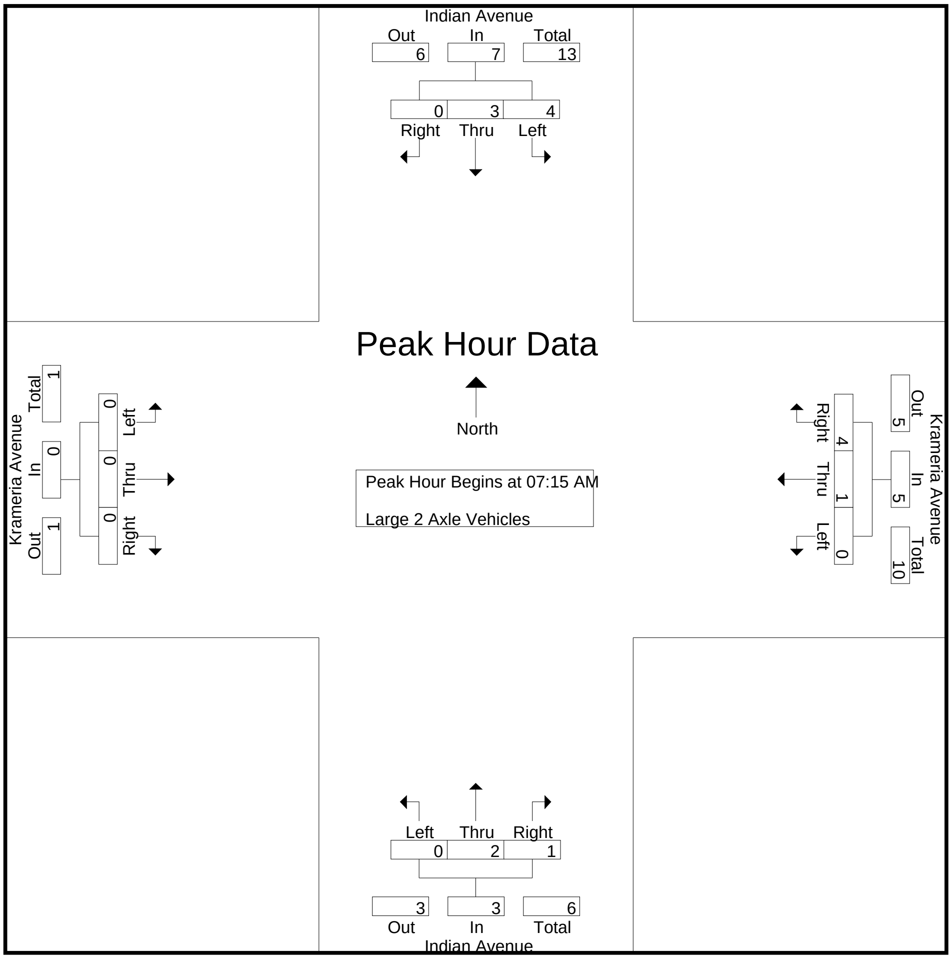

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	1	1	0	2	0	0	3	3	0	1	0	1	0	0	0	0
+30 mins.	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	2	0	0	2	0	1	0	1	0	1	1	2	0	0	0	0
Total Volume	4	3	0	7	0	1	4	5	0	2	1	3	0	0	0	0
% App. Total	57.1	42.9	0		0	20	80		0	66.7	33.3		0	0	0	
PHF	.500	.375	.000	.583	.000	.250	.333	.417	.000	.500	.250	.375	.000	.000	.000	.000

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRAM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Moreno Valley
N/S: Indian Avenue
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File Name : MRVINKRAM
Site Code : 05115223
Start Date : 4/28/2015
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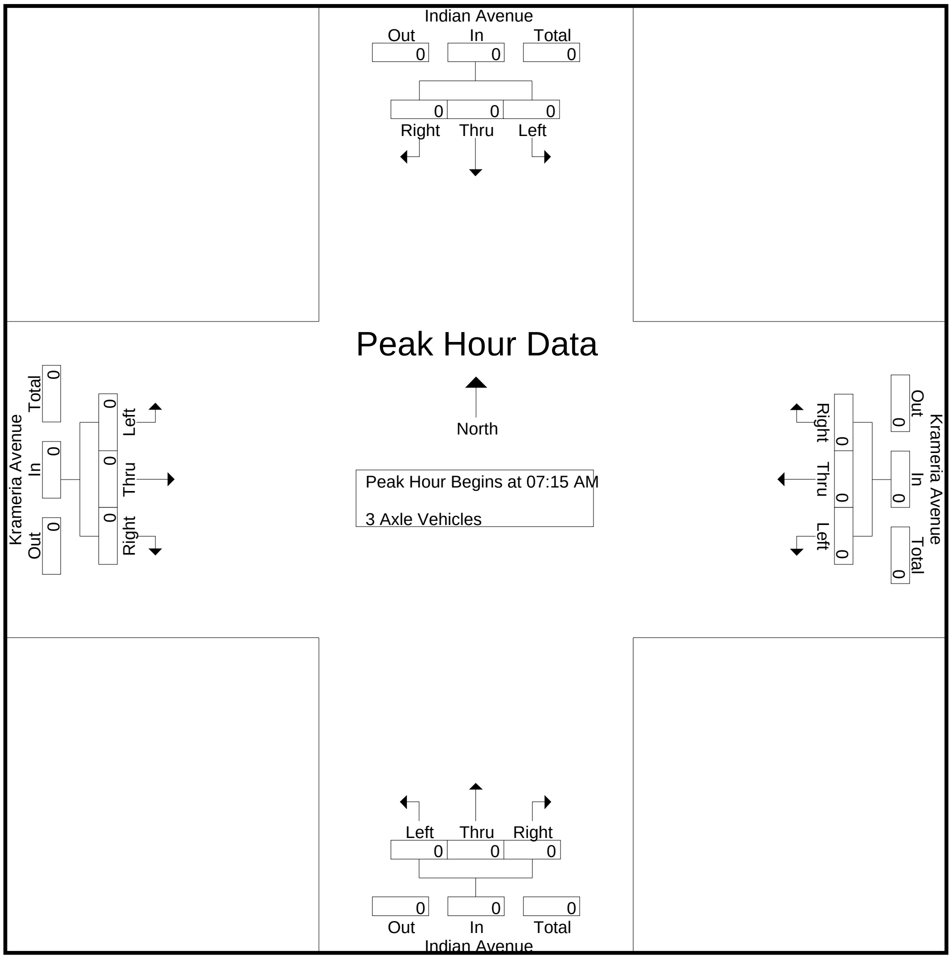

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Apprch %	0	0	100		0	0	0		0	0	0		0	0	0		
Total %	0	0	100	100	0	0	0	0	0	0	0	0	0	0	0	0	

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

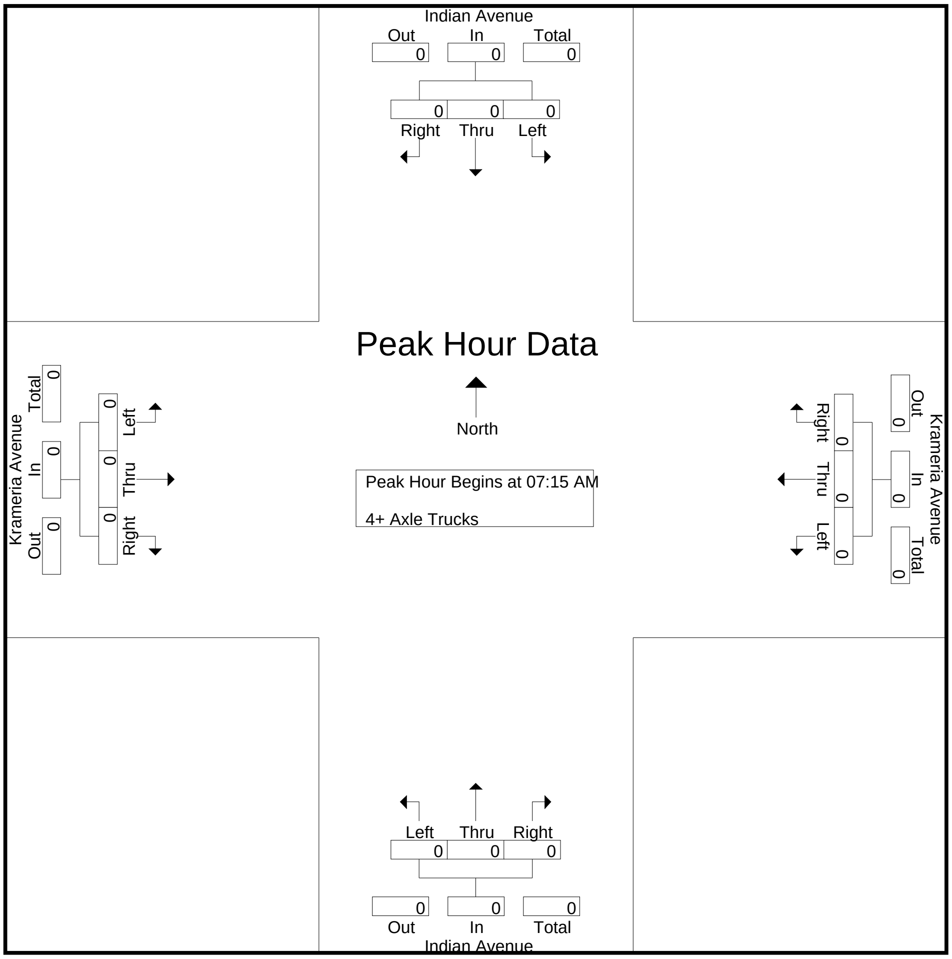

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	30	12	0	42	3	4	17	24	0	7	1	8	1	4	1	6	80
04:15 PM	42	21	0	63	1	4	14	19	0	14	2	16	1	3	1	5	103
04:30 PM	42	22	2	66	1	4	22	27	4	10	1	15	0	4	3	7	115
04:45 PM	41	15	1	57	0	2	10	12	1	13	1	15	2	7	4	13	97
Total	155	70	3	228	5	14	63	82	5	44	5	54	4	18	9	31	395
05:00 PM	48	15	0	63	2	1	8	11	1	14	0	15	1	3	2	6	95
05:15 PM	35	22	1	58	1	3	14	18	0	8	1	9	0	2	0	2	87
05:30 PM	35	19	0	54	1	4	16	21	0	6	1	7	0	6	0	6	88
05:45 PM	42	21	1	64	1	2	20	23	0	9	1	10	0	6	0	6	103
Total	160	77	2	239	5	10	58	73	1	37	3	41	1	17	2	20	373
Grand Total	315	147	5	467	10	24	121	155	6	81	8	95	5	35	11	51	768
Apprch %	67.5	31.5	1.1		6.5	15.5	78.1		6.3	85.3	8.4		9.8	68.6	21.6		
Total %	41	19.1	0.7	60.8	1.3	3.1	15.8	20.2	0.8	10.5	1	12.4	0.7	4.6	1.4	6.6	
Passenger Vehicles	310	146	5	461	10	24	119	153	6	80	8	94	3	35	11	49	757
% Passenger Vehicles	98.4	99.3	100	98.7	100	100	98.3	98.7	100	98.8	100	98.9	60	100	100	96.1	98.6
Large 2 Axle Vehicles	5	1	0	6	0	0	2	2	0	1	0	1	0	0	0	0	9
% Large 2 Axle Vehicles	1.6	0.7	0	1.3	0	0	1.7	1.3	0	1.2	0	1.1	0	0	0	0	1.2
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	40	0	0	3.9	0.3

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	42	21	0	63	1	4	14	19	0	14	2	16	1	3	1	5	103
04:30 PM	42	22	2	66	1	4	22	27	4	10	1	15	0	4	3	7	115
04:45 PM	41	15	1	57	0	2	10	12	1	13	1	15	2	7	4	13	97
05:00 PM	48	15	0	63	2	1	8	11	1	14	0	15	1	3	2	6	95
Total Volume	173	73	3	249	4	11	54	69	6	51	4	61	4	17	10	31	410
% App. Total	69.5	29.3	1.2		5.8	15.9	78.3		9.8	83.6	6.6		12.9	54.8	32.3		
PHF	.901	.830	.375	.943	.500	.688	.614	.639	.375	.911	.500	.953	.500	.607	.625	.596	.891

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

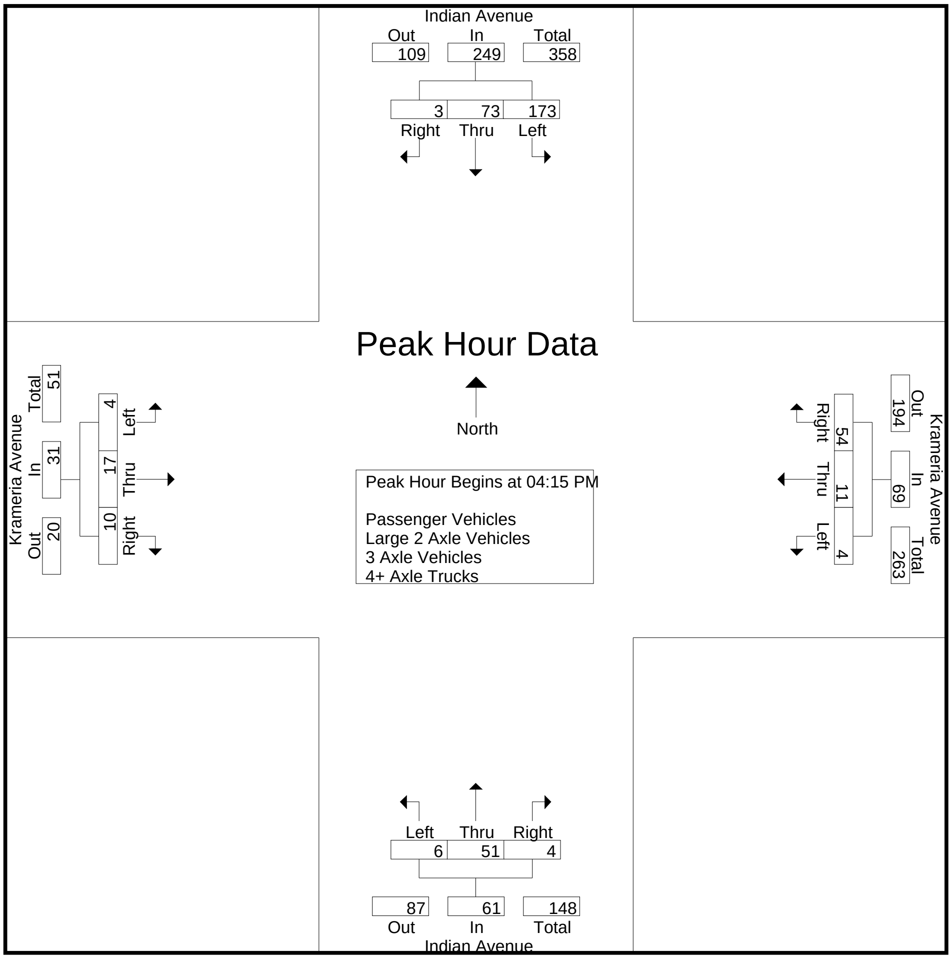

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	42	21	0	63	3	4	17	24	0	14	2	16	1	4	1	6
+15 mins.	42	22	2	66	1	4	14	19	4	10	1	15	1	3	1	5
+30 mins.	41	15	1	57	1	4	22	27	1	13	1	15	0	4	3	7
+45 mins.	48	15	0	63	0	2	10	12	1	14	0	15	2	7	4	13
Total Volume	173	73	3	249	5	14	63	82	6	51	4	61	4	18	9	31
% App. Total	69.5	29.3	1.2		6.1	17.1	76.8		9.8	83.6	6.6		12.9	58.1	29	
PHF	.901	.830	.375	.943	.417	.875	.716	.759	.375	.911	.500	.953	.500	.643	.563	.596

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City of Moreno Valley
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E/W: Krameria Avenue
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File Name : MRVINKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	2	2	0	0	0	0	0	0	0	0	3
05:00 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	1	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
05:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	4	1	0	5	0	0	0	0	0	1	0	1	0	0	0	0	6
Grand Total	5	1	0	6	0	0	2	2	0	1	0	1	0	0	0	0	9
Apprch %	83.3	16.7	0		0	0	100		0	100	0		0	0	0		
Total %	55.6	11.1	0	66.7	0	0	22.2	22.2	0	11.1	0	11.1	0	0	0	0	

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:30 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	3	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	4
% App. Total	100	0	0		0	0	100		0	0	0		0	0	0		
PHF	.375	.000	.000	.375	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.500

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City of Moreno Valley
N/S: Indian Avenue
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File Name : MRVINKRPM
Site Code : 05115223
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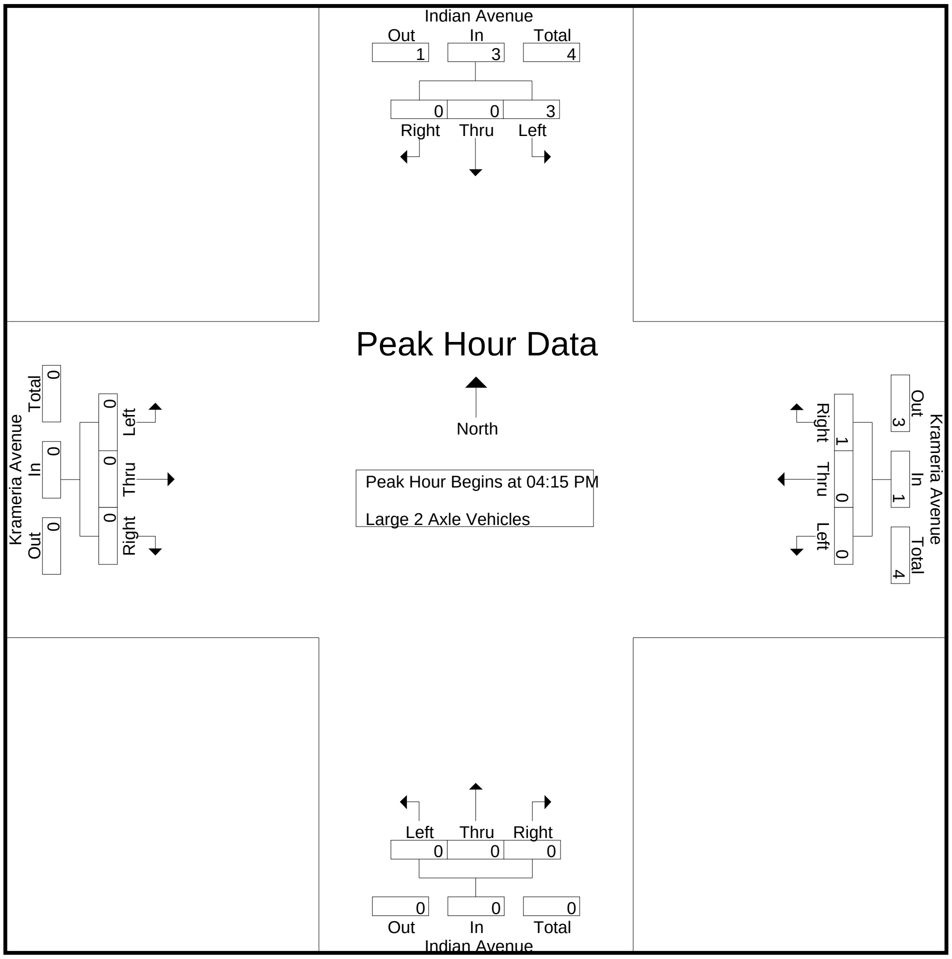

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	3	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	0	100		0	0	0		0	0	0	
PHF	.375	.000	.000	.375	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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City of Moreno Valley
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File Name : MRVINKRPM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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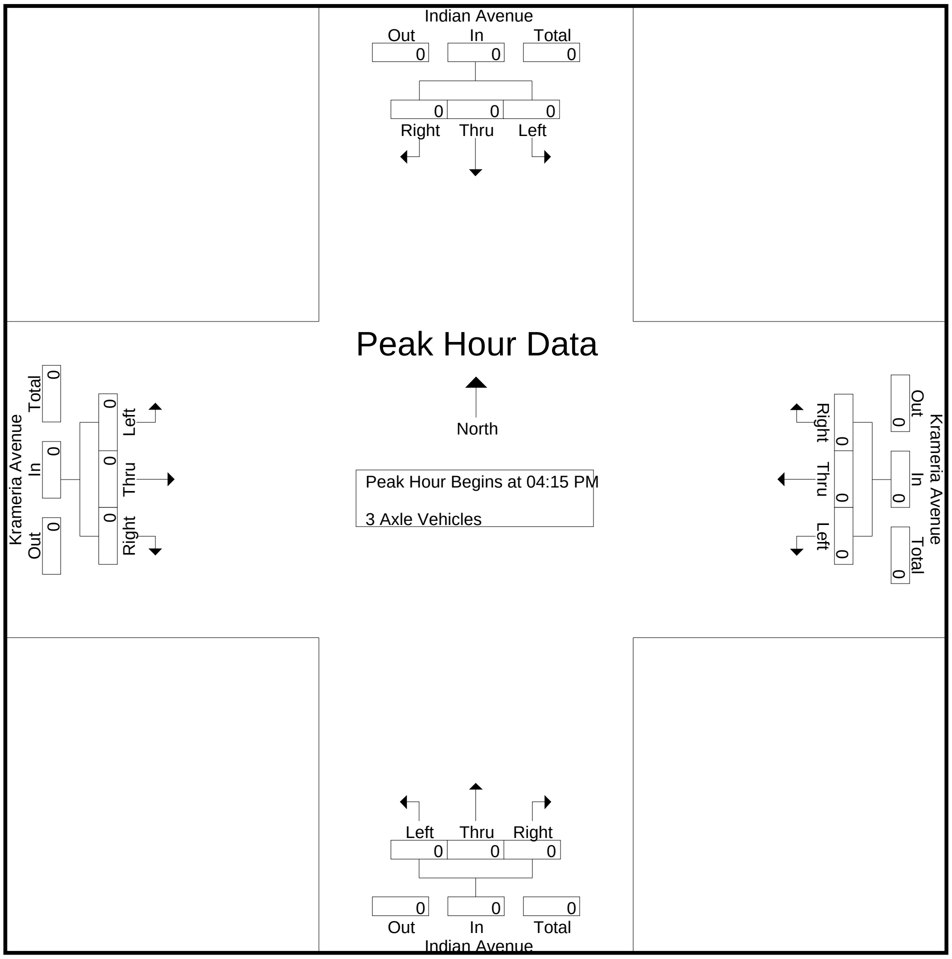

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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File Name : MRVINKRPM
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Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Indian Avenue Southbound				Krameria Avenue Westbound				Indian Avenue Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500	.500

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City of Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue
Weather: Clear

File Name : MRVINKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

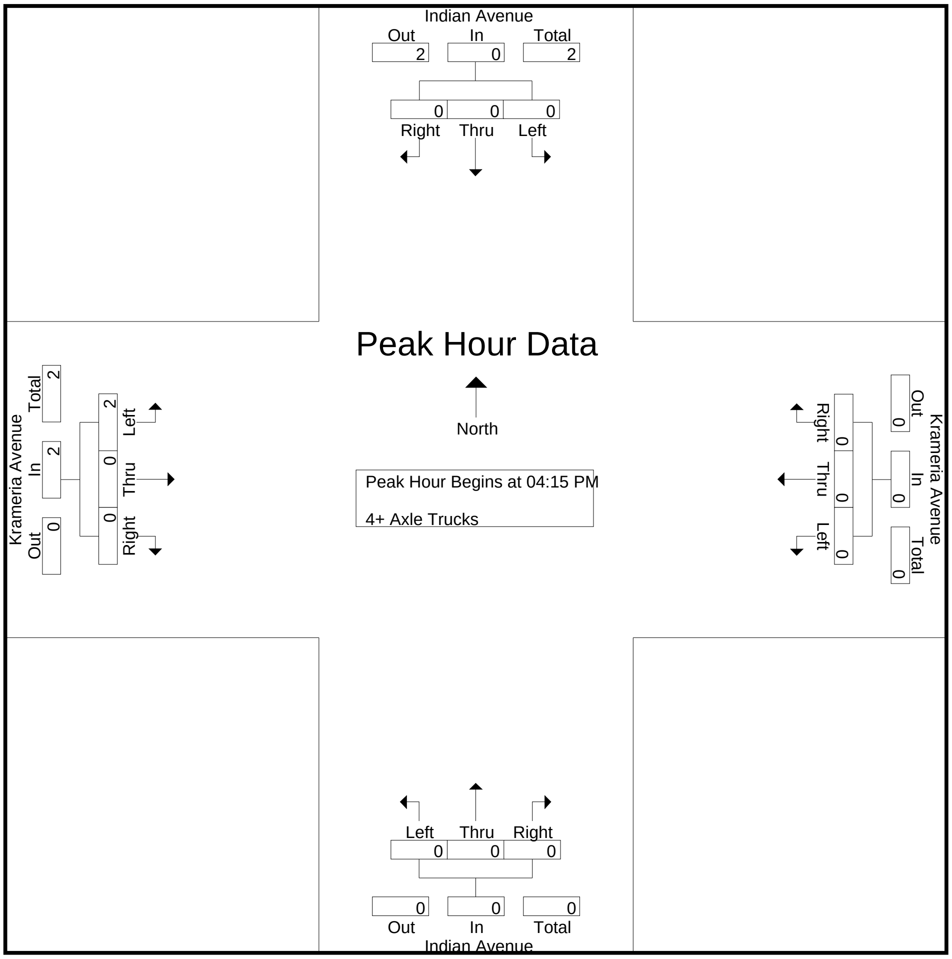

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.500

Location: Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Indian Avenue	East Leg Krameria Avenue	South Leg Indian Avenue	West Leg Krameria Avenue	TOTAL
7:00 AM	1	0	3	3	7
7:15 AM	0	0	0	0	0
7:30 AM	1	2	0	0	3
7:45 AM	2	0	0	0	2
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	4	2	3	3	12

	North Leg Indian Avenue	East Leg Krameria Avenue	South Leg Indian Avenue	West Leg Krameria Avenue	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	1	1	0	1	3
4:30 PM	0	0	1	1	2
4:45 PM	1	0	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	1	0	0	1
TOTAL VOLUMES:	2	3	1	2	8

Location: Moreno Valley
N/S: Indian Avenue
E/W: Krameria Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Indian Avenue	East Leg Krameria Avenue	South Leg Indian Avenue	West Leg Krameria Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Indian Avenue	East Leg Krameria Avenue	South Leg Indian Avenue	West Leg Krameria Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	1	1	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	1	2

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	1	0	0	0	1	12	40	0	0	52	88	1	17	3	106	0	10	11	0	21	3	180
07:15 AM	1	0	0	0	1	10	84	3	1	97	90	2	16	6	108	0	9	10	5	19	12	225
07:30 AM	1	0	1	1	2	12	18	2	1	32	48	2	24	5	74	1	17	6	3	24	10	132
07:45 AM	0	2	1	1	3	12	19	0	0	31	36	2	26	9	64	2	9	8	1	19	11	117
Total	3	2	2	2	7	46	161	5	2	212	262	7	83	23	352	3	45	35	9	83	36	654
08:00 AM	2	1	2	2	5	6	10	0	0	16	26	7	14	2	47	0	8	9	3	17	7	85
08:15 AM	5	2	1	1	8	9	9	3	0	21	15	2	15	5	32	0	6	4	2	10	8	71
08:30 AM	2	0	1	0	3	5	4	3	0	12	24	1	9	1	34	0	5	13	0	18	1	67
08:45 AM	1	0	0	0	1	4	7	2	0	13	9	1	15	1	25	0	4	7	2	11	3	50
Total	10	3	4	3	17	24	30	8	0	62	74	11	53	9	138	0	23	33	7	56	19	273
Grand Total	13	5	6	5	24	70	191	13	2	274	336	18	136	32	490	3	68	68	16	139	55	927
Apprch %	54.2	20.8	25			25.5	69.7	4.7			68.6	3.7	27.8			2.2	48.9	48.9				
Total %	1.4	0.5	0.6		2.6	7.6	20.6	1.4		29.6	36.2	1.9	14.7		52.9	0.3	7.3	7.3		15	5.6	94.4
Passenger Vehicles	10	1	4		19	61	188	12		263	308	14	125		479	1	56	56		127	0	0
% Passenger Vehicles	76.9	20	66.7	80	65.5	87.1	98.4	92.3	100	95.3	91.7	77.8	91.9	100	91.8	33.3	82.4	82.4	87.5	81.9	0	0
Large 2 Axle Vehicles	0	1	1		2	4	0	0		4	19	1	7		27	1	0	10		13	0	0
% Large 2 Axle Vehicles	0	20	16.7	0	6.9	5.7	0	0	0	1.4	5.7	5.6	5.1	0	5.2	33.3	0	14.7	12.5	8.4	0	0
3 Axle Vehicles	0	2	0		2	0	0	0		0	1	1	0		2	0	3	0		3	0	0
% 3 Axle Vehicles	0	40	0	0	6.9	0	0	0	0	0	0.3	5.6	0	0	0.4	0	4.4	0	0	1.9	0	0
4+ Axle Trucks	3	1	1		6	5	3	1		9	8	2	4		14	1	9	2		12	0	0
% 4+ Axle Trucks	23.1	20	16.7	20	20.7	7.1	1.6	7.7	0	3.3	2.4	11.1	2.9	0	2.7	33.3	13.2	2.9	0	7.7	0	0

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	0	1	12	40	0	52	88	1	17	106	0	10	11	21	180
07:15 AM	1	0	0	1	10	84	3	97	90	2	16	108	0	9	10	19	225
07:30 AM	1	0	1	2	12	18	2	32	48	2	24	74	1	17	6	24	132
07:45 AM	0	2	1	3	12	19	0	31	36	2	26	64	2	9	8	19	117
Total Volume	3	2	2	7	46	161	5	212	262	7	83	352	3	45	35	83	654
% App. Total	42.9	28.6	28.6		21.7	75.9	2.4		74.4	2	23.6		3.6	54.2	42.2		
PHF	.750	.250	.500	.583	.958	.479	.417	.546	.728	.875	.798	.815	.375	.662	.795	.865	.727

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

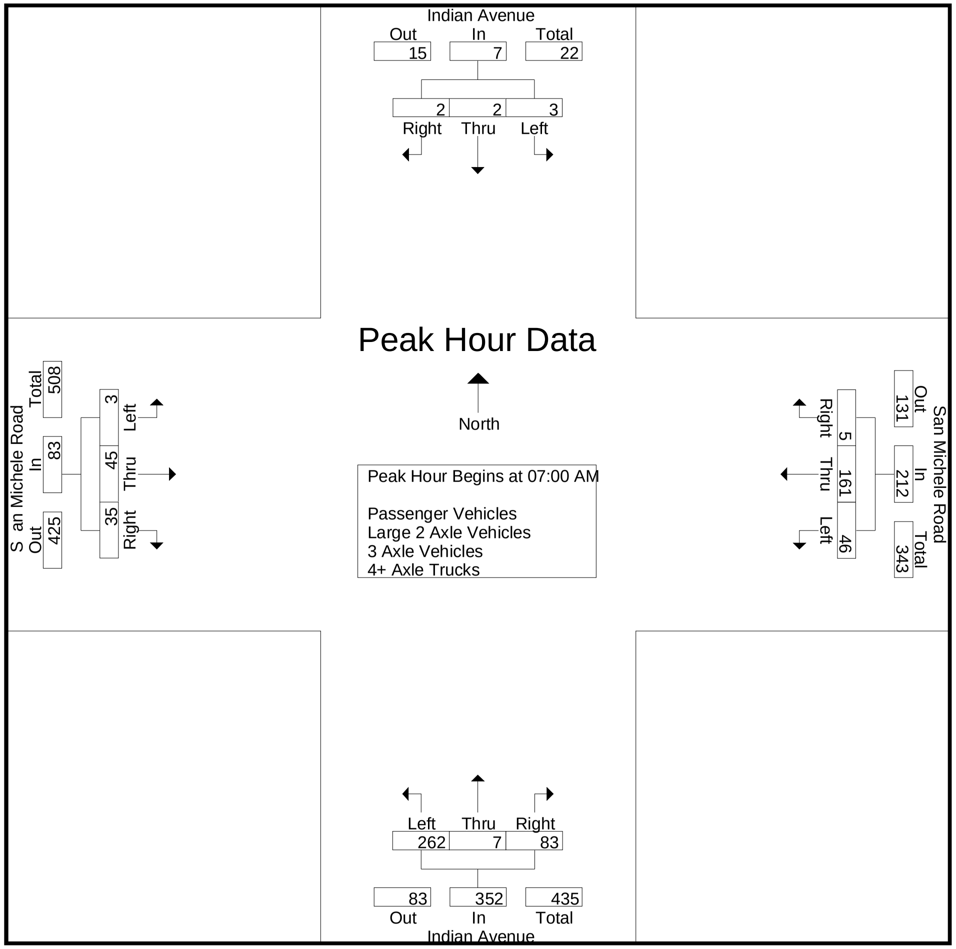

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	2	0	5	1	0	1	1	2	1	7
07:45 AM	0	1	0	0	1	0	0	0	0	0	2	0	1	0	3	0	0	0	0	0	0	4
Total	0	1	0	0	1	0	0	0	0	0	7	0	4	0	11	1	0	2	1	3	1	15
08:00 AM	0	0	0	0	0	1	0	0	0	1	4	1	1	0	6	0	0	3	1	3	1	10
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	0	1	0	3
08:30 AM	0	0	1	0	1	0	0	0	0	0	7	0	1	0	8	0	0	3	0	3	0	12
08:45 AM	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	0	0	1	0	1	0	4
Total	0	0	1	0	1	4	0	0	0	4	12	1	3	0	16	0	0	8	1	8	1	29
Grand Total	0	1	1	0	2	4	0	0	0	4	19	1	7	0	27	1	0	10	2	11	2	44
Apprch %	0	50	50			100	0	0			70.4	3.7	25.9			9.1	0	90.9				
Total %	0	2.3	2.3		4.5	9.1	0	0		9.1	43.2	2.3	15.9		61.4	2.3	0	22.7		25	4.3	95.7

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2
07:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	3	0	2	5	1	0	1	2	7
07:45 AM	0	1	0	1	0	0	0	0	2	0	1	3	0	0	0	0	4
Total Volume	0	1	0	1	0	0	0	0	7	0	4	11	1	0	2	3	15
% App. Total	0	100	0		0	0	0		63.6	0	36.4		33.3	0	66.7		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.583	.000	.500	.550	.250	.000	.500	.375	.536

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMAM
Site Code : 05115223
Start Date : 4/28/2015
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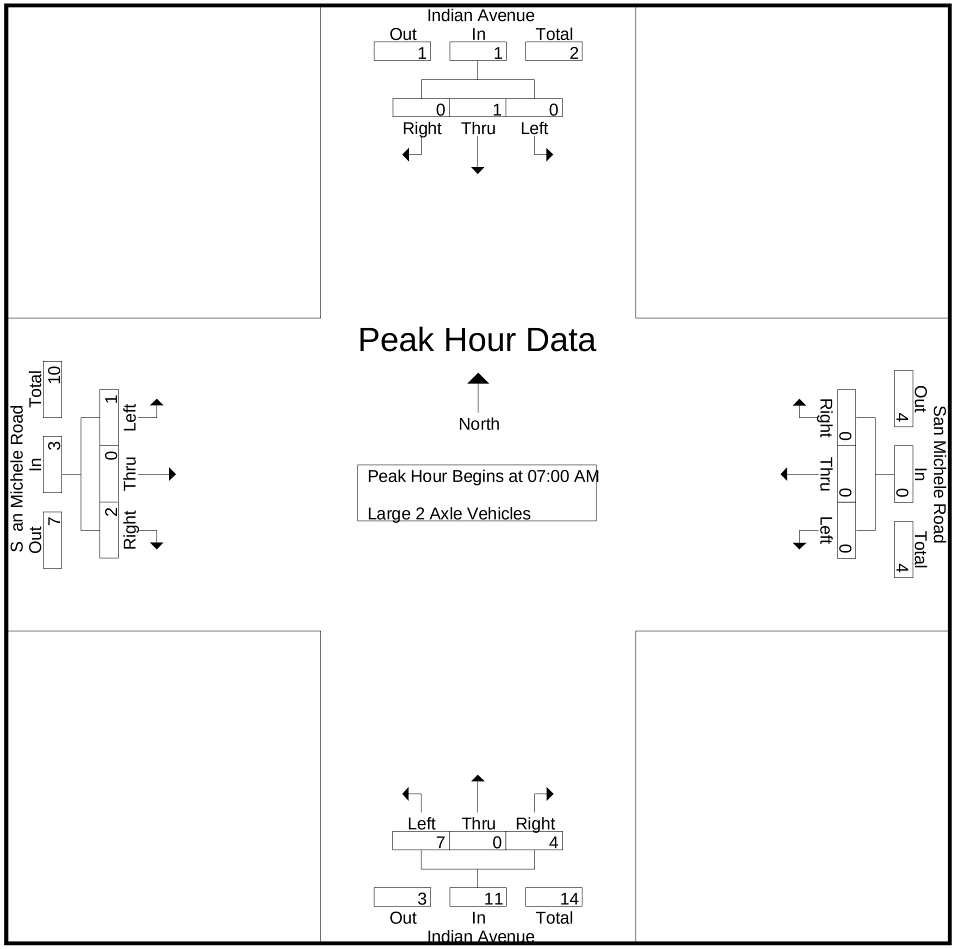

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
08:15 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	0	5
Grand Total	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	3	0	0	3	0	7
Apprch %	0	100	0			0	0	0			50	50	0			0	100	0				
Total %	0	28.6	0		28.6	0	0	0		0	14.3	14.3	0		28.6	0	42.9	0		42.9	0	100

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMAM
Site Code : 05115223
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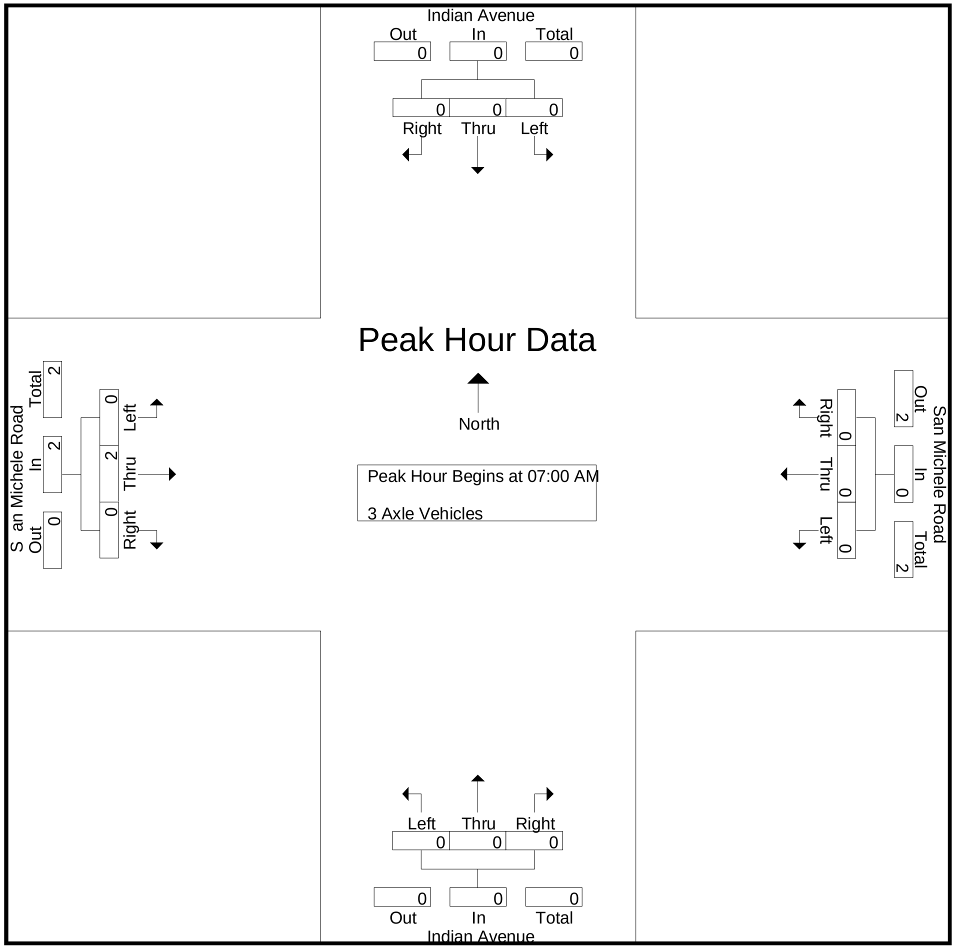

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City of Moreno Valley
N/S: Indian Avenue
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File Name : MRVINSMAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	1	0	0	1	0	4
07:15 AM	0	0	0	0	0	1	1	0	0	2	3	2	0	0	5	0	1	0	0	1	0	8
07:30 AM	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	0	2	0	0	2	0	5
07:45 AM	0	1	0	0	1	1	1	0	0	2	1	0	1	0	2	1	2	0	0	3	0	8
Total	0	1	0	0	1	4	2	0	0	6	6	2	3	0	11	1	6	0	0	7	0	25
08:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1	2	0	3	0	5
08:15 AM	1	0	1	1	2	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	1	6
08:30 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
08:45 AM	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Total	3	0	1	1	4	1	1	1	0	3	2	0	1	0	3	0	3	2	0	5	1	15
Grand Total	3	1	1	1	5	5	3	1	0	9	8	2	4	0	14	1	9	2	0	12	1	40
Apprch %	60	20	20			55.6	33.3	11.1			57.1	14.3	28.6			8.3	75	16.7				
Total %	7.5	2.5	2.5		12.5	12.5	7.5	2.5		22.5	20	5	10		35	2.5	22.5	5		30	2.4	97.6

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	1	0	2	3	0	1	0	1	4
07:15 AM	0	0	0	0	1	1	0	2	3	2	0	5	0	1	0	1	8
07:30 AM	0	0	0	0	2	0	0	2	1	0	0	1	0	2	0	2	5
07:45 AM	0	1	0	1	1	1	0	2	1	0	1	2	1	2	0	3	8
Total Volume	0	1	0	1	4	2	0	6	6	2	3	11	1	6	0	7	25
% App. Total	0	100	0		66.7	33.3	0		54.5	18.2	27.3		14.3	85.7	0		
PHF	.000	.250	.000	.250	.500	.500	.000	.750	.500	.250	.375	.550	.250	.750	.000	.583	.781

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City of Moreno Valley
N/S: Indian Avenue
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File Name : MRVINSMAM
Site Code : 05115223
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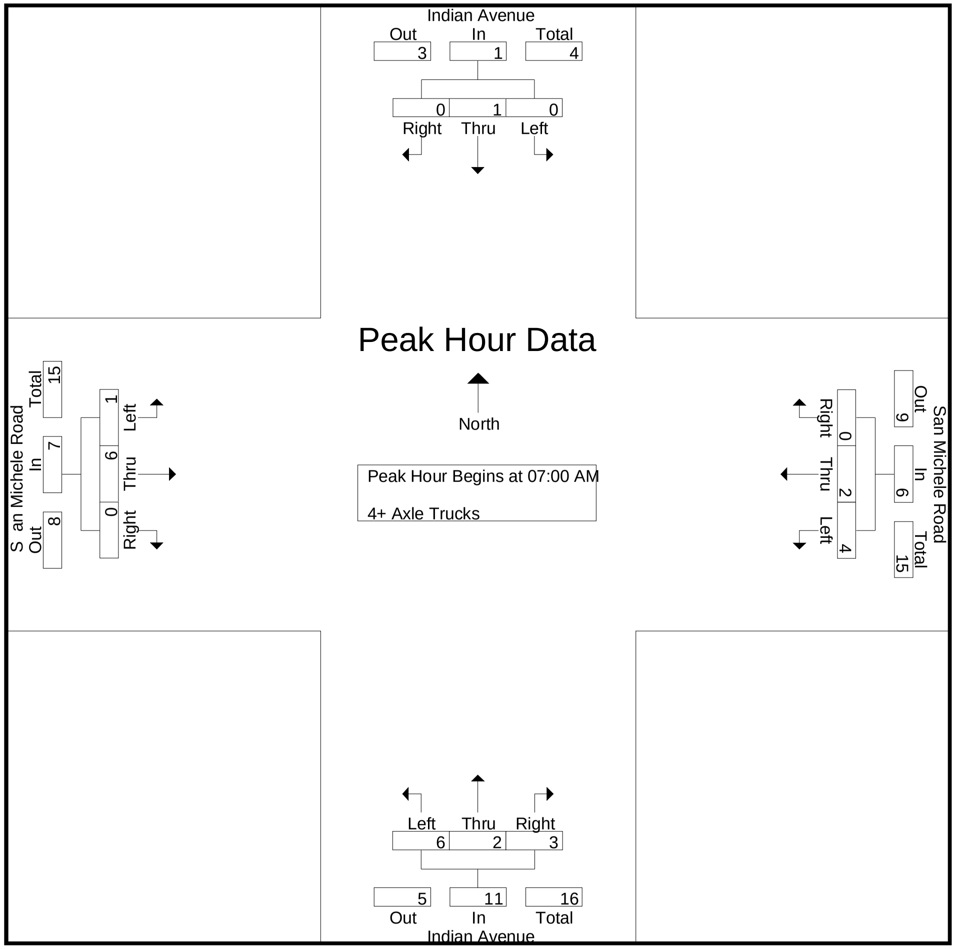

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	5	7	1	1	13	8	21	1	1	30	40	1	25	6	66	0	14	30	14	44	22	153
04:15 PM	4	4	3	1	11	27	39	3	1	69	46	5	14	4	65	4	11	20	7	35	13	180
04:30 PM	51	55	8	3	114	51	90	15	8	156	84	15	40	30	139	1	52	51	2	104	43	513
04:45 PM	37	54	4	2	95	51	77	25	5	153	77	17	37	13	131	3	54	107	19	164	39	543
Total	97	120	16	7	233	137	227	44	15	408	247	38	116	53	401	8	131	208	42	347	117	1389
05:00 PM	9	8	5	2	22	14	22	2	1	38	50	8	18	9	76	1	18	41	18	60	30	196
05:15 PM	1	6	2	0	9	9	23	1	0	33	29	6	14	5	49	0	10	28	15	38	20	129
05:30 PM	5	3	0	0	8	5	44	0	0	49	44	1	14	8	59	3	56	84	30	143	38	259
05:45 PM	4	9	0	0	13	9	67	7	2	83	55	2	20	11	77	0	32	38	10	70	23	243
Total	19	26	7	2	52	37	156	10	3	203	178	17	66	33	261	4	116	191	73	311	111	827
Grand Total	116	146	23	9	285	174	383	54	18	611	425	55	182	86	662	12	247	399	115	658	228	2216
Apprch %	40.7	51.2	8.1			28.5	62.7	8.8			64.2	8.3	27.5			1.8	37.5	60.6				
Total %	5.2	6.6	1		12.9	7.9	17.3	2.4		27.6	19.2	2.5	8.2		29.9	0.5	11.1	18		29.7	9.3	90.7
Passenger Vehicles	115	135	21		279	168	369	54		609	385	45	178		693	11	239	361		722	0	0
% Passenger Vehicles	99.1	92.5	91.3	88.9	94.9	96.6	96.3	100	100	96.8	90.6	81.8	97.8	98.8	92.6	91.7	96.8	90.5	96.5	93.4	0	0
Large 2 Axle Vehicles	0	4	0		4	2	4	0		6	35	2	1		38	0	3	38		45	0	0
% Large 2 Axle Vehicles	0	2.7	0	0	1.4	1.1	1	0	0	1	8.2	3.6	0.5	0	5.1	0	1.2	9.5	3.5	5.8	0	0
3 Axle Vehicles	0	1	0		1	1	7	0		8	4	4	0		8	0	0	0		0	0	0
% 3 Axle Vehicles	0	0.7	0	0	0.3	0.6	1.8	0	0	1.3	0.9	7.3	0	0	1.1	0	0	0	0	0	0	0
4+ Axle Trucks	1	6	2		10	3	3	0		6	1	4	3		9	1	5	0		6	0	0
% 4+ Axle Trucks	0.9	4.1	8.7	11.1	3.4	1.7	0.8	0	0	1	0.2	7.3	1.6	1.2	1.2	8.3	2	0	0	0.8	0	0

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	4	3	11	27	39	3	69	46	5	14	65	4	11	20	35	180
04:30 PM	51	55	8	114	51	90	15	156	84	15	40	139	1	52	51	104	513
04:45 PM	37	54	4	95	51	77	25	153	77	17	37	131	3	54	107	164	543
05:00 PM	9	8	5	22	14	22	2	38	50	8	18	76	1	18	41	60	196
Total Volume	101	121	20	242	143	228	45	416	257	45	109	411	9	135	219	363	1432
% App. Total	41.7	50	8.3		34.4	54.8	10.8		62.5	10.9	26.5		2.5	37.2	60.3		
PHF	.495	.550	.625	.531	.701	.633	.450	.667	.765	.662	.681	.739	.563	.625	.512	.553	.659

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City of Moreno Valley
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E/W: San Michele Road
Weather: Clear

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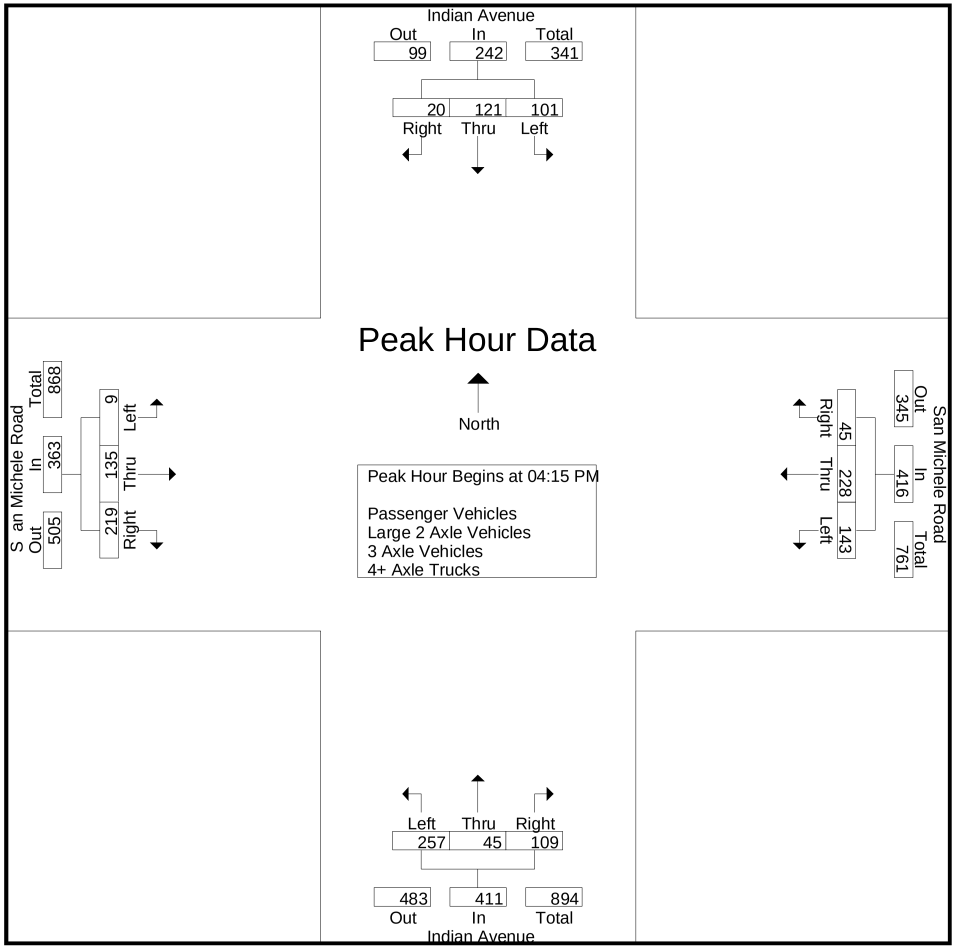

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Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	1	0	0	1	1	0	0	0	1	9	0	0	0	9	0	0	5	2	5	2	16
04:15 PM	0	1	0	0	1	1	2	0	0	3	4	0	0	0	4	0	0	7	1	7	1	15
04:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	1	4	0	5	0	10
04:45 PM	0	0	0	0	0	0	1	0	0	1	5	0	0	0	5	0	1	12	1	13	1	19
Total	0	2	0	0	2	2	3	0	0	5	23	0	0	0	23	0	2	28	4	30	4	60
05:00 PM	0	0	0	0	0	0	0	0	0	0	8	1	0	0	9	0	1	4	0	5	0	14
05:15 PM	0	0	0	0	0	0	1	0	0	1	3	1	0	0	4	0	0	1	0	1	0	6
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	2	0	2	0	4
05:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	5
Total	0	2	0	0	2	0	1	0	0	1	12	2	1	0	15	0	1	10	0	11	0	29
Grand Total	0	4	0	0	4	2	4	0	0	6	35	2	1	0	38	0	3	38	4	41	4	89
Apprch %	0	100	0			33.3	66.7	0			92.1	5.3	2.6			0	7.3	92.7				
Total %	0	4.5	0		4.5	2.2	4.5	0		6.7	39.3	2.2	1.1		42.7	0	3.4	42.7		46.1	4.3	95.7

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	1	0	1	1	2	0	3	4	0	0	4	0	0	7	7	15
04:30 PM	0	0	0	0	0	0	0	0	5	0	0	5	0	1	4	5	10
04:45 PM	0	0	0	0	0	1	0	1	5	0	0	5	0	1	12	13	19
05:00 PM	0	0	0	0	0	0	0	0	8	1	0	9	0	1	4	5	14
Total Volume	0	1	0	1	1	3	0	4	22	1	0	23	0	3	27	30	58
% App. Total	0	100	0		25	75	0		95.7	4.3	0		0	10	90		
PHF	.000	.250	.000	.250	.250	.375	.000	.333	.688	.250	.000	.639	.000	.750	.563	.577	.763

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File Name : MRVINSMPM
Site Code : 05115223
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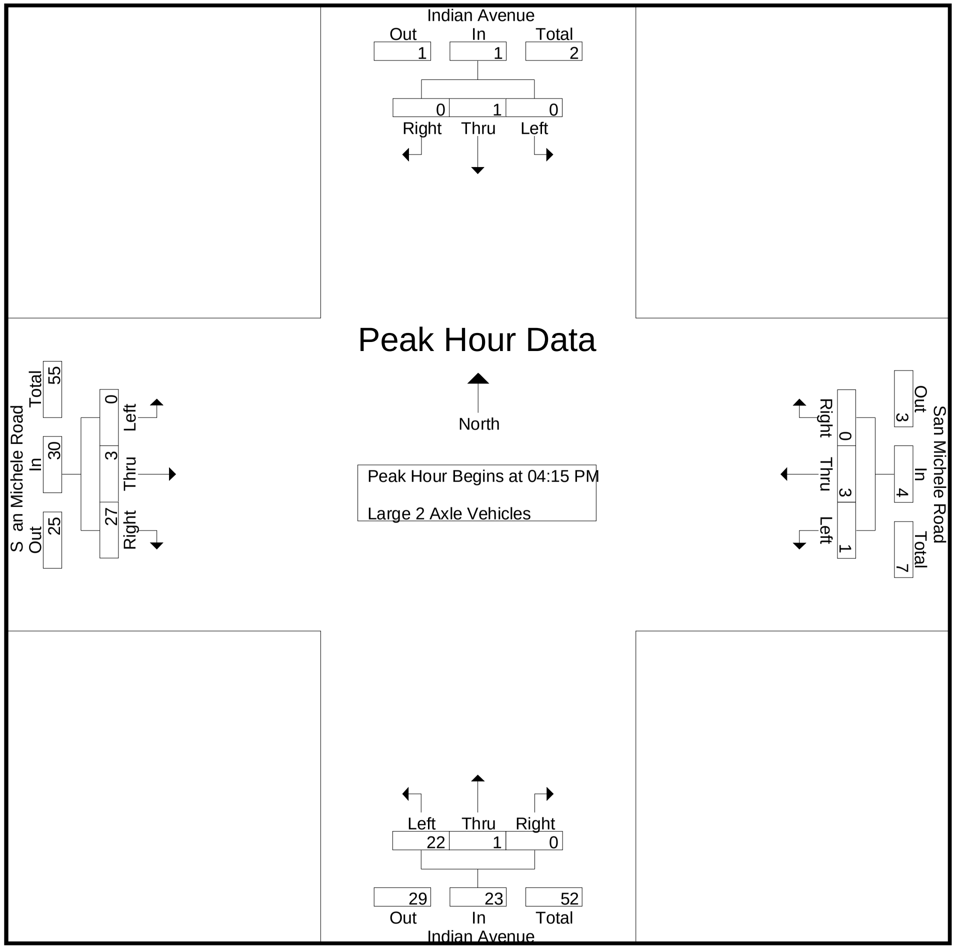

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City of Moreno Valley
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Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	4
04:45 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2
Total	0	1	0	0	1	1	2	0	0	3	1	3	0	0	4	0	0	0	0	0	0	8
05:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	5	0	0	5	3	1	0	0	4	0	0	0	0	0	0	9
Grand Total	0	1	0	0	1	1	7	0	0	8	4	4	0	0	8	0	0	0	0	0	0	17
Apprch %	0	100	0			12.5	87.5	0			50	50	0			0	0	0				
Total %	0	5.9	0		5.9	5.9	41.2	0		47.1	23.5	23.5	0		47.1	0	0	0		0	0	100

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	2	0	2	0	1	0	1	0	0	0	0	4
04:45 PM	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	3
Total Volume	0	1	0	1	1	5	0	6	0	2	0	2	0	0	0	0	9
% App. Total	0	100	0		16.7	83.3	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.250	.417	.000	.500	.000	.500	.000	.500	.000	.000	.000	.000	.563

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City of Moreno Valley
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E/W: San Michele Road
Weather: Clear

File Name : MRVINSMPM
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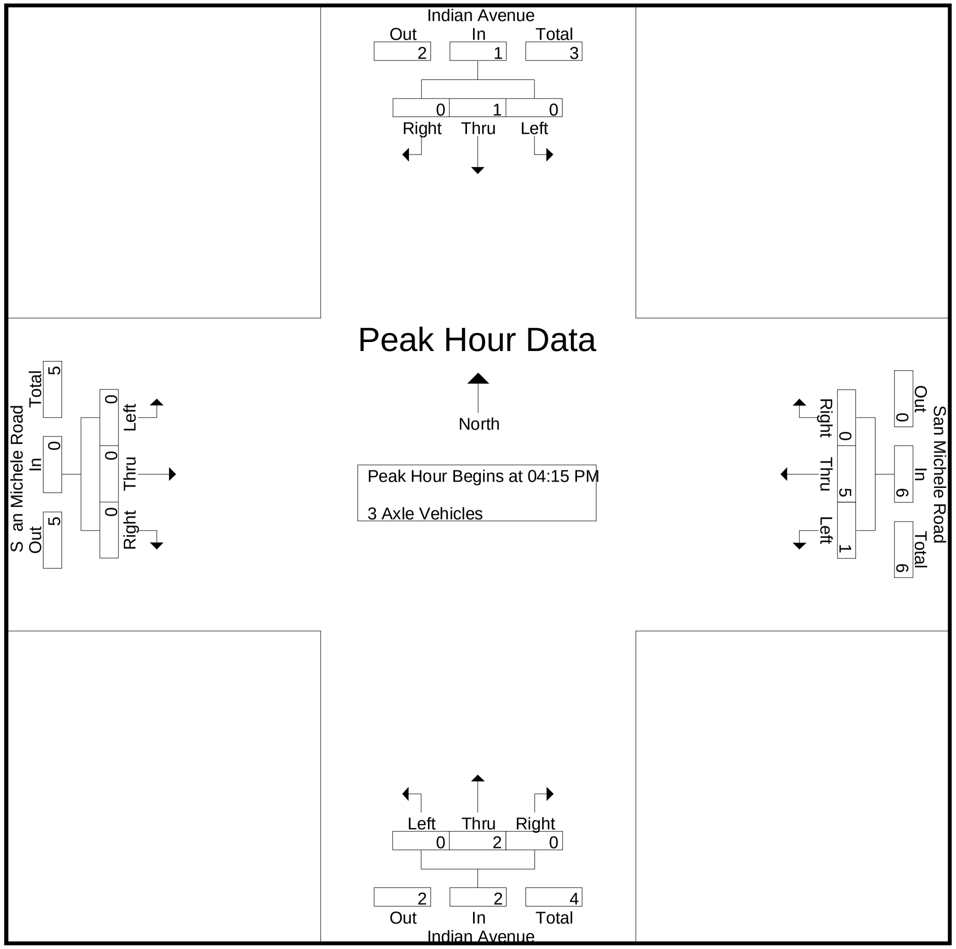

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City of Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road
Weather: Clear

File Name : MRVINSMPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound					San Michele Road Westbound					Indian Avenue Northbound					San Michele Road Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2
04:15 PM	0	0	1	0	1	0	0	0	0	0	0	1	2	0	3	1	0	0	0	1	0	5
04:30 PM	0	1	0	0	1	1	0	0	0	1	0	0	1	1	1	0	2	0	0	2	1	5
04:45 PM	0	2	1	1	3	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	1	6
Total	0	3	2	1	5	1	1	0	0	2	1	2	3	1	6	1	4	0	0	5	2	18
05:00 PM	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
05:15 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3
05:45 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	3
Total	1	3	0	0	4	2	2	0	0	4	0	2	0	0	2	0	1	0	0	1	0	11
Grand Total	1	6	2	1	9	3	3	0	0	6	1	4	3	1	8	1	5	0	0	6	2	29
Apprch %	11.1	66.7	22.2			50	50	0			12.5	50	37.5			16.7	83.3	0				
Total %	3.4	20.7	6.9		31	10.3	10.3	0		20.7	3.4	13.8	10.3		27.6	3.4	17.2	0		20.7	6.5	93.5

	Indian Avenue Southbound				San Michele Road Westbound				Indian Avenue Northbound				San Michele Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	1	1	0	0	0	0	0	1	2	3	1	0	0	1	5
04:30 PM	0	1	0	1	1	0	0	1	0	0	1	1	0	2	0	2	5
04:45 PM	0	2	1	3	0	0	0	0	1	1	0	2	0	1	0	1	6
05:00 PM	1	1	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
Total Volume	1	4	2	7	1	0	0	1	1	3	3	7	1	3	0	4	19
% App. Total	14.3	57.1	28.6		100	0	0		14.3	42.9	42.9		25	75	0		
PHF	.250	.500	.500	.583	.250	.000	.000	.250	.250	.750	.375	.583	.250	.375	.000	.500	.792

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City of Moreno Valley
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File Name : MRVINSMPM
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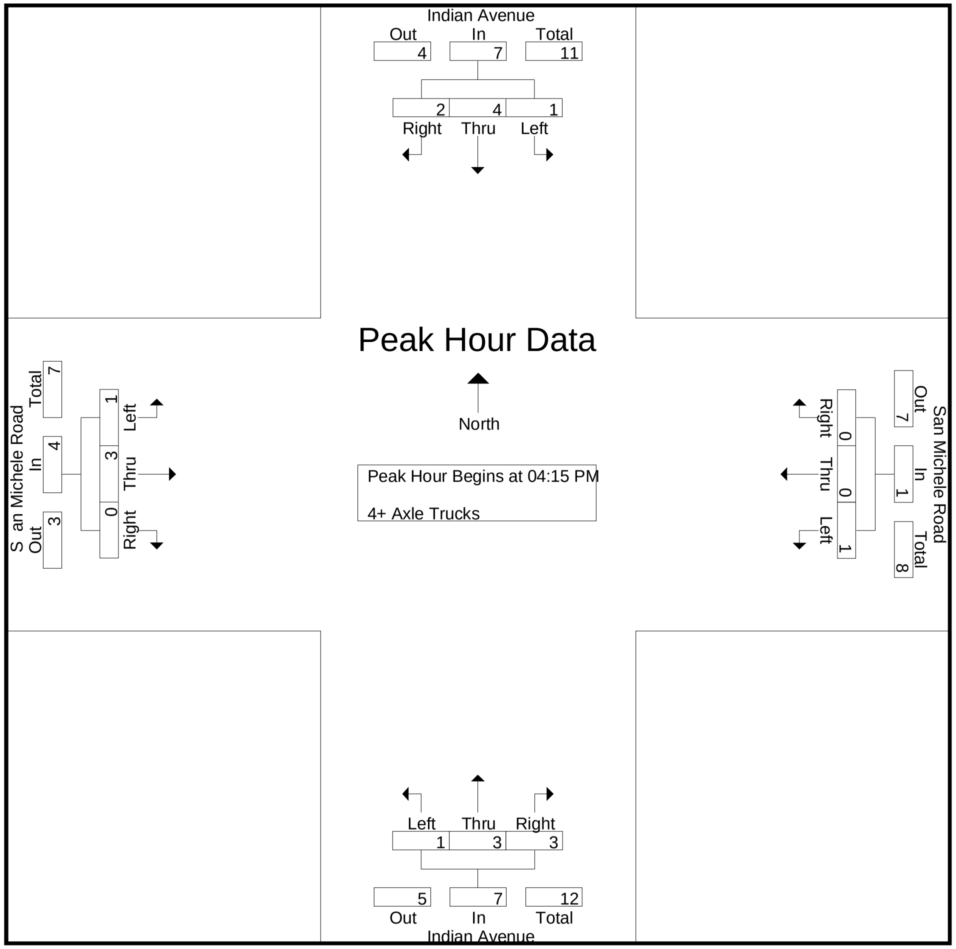

Location: Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Indian Avenue	East Leg San Michele Road	South Leg Indian Avenue	West Leg San Michele Road	TOTAL
7:00 AM	2	0	0	2	4
7:15 AM	7	0	0	3	10
7:30 AM	0	0	0	4	4
7:45 AM	0	0	0	21	21
8:00 AM	0	0	0	4	4
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	1	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	9	0	0	35	44

	North Leg Indian Avenue	East Leg San Michele Road	South Leg Indian Avenue	West Leg San Michele Road	TOTAL
4:00 PM	0	0	0	11	11
4:15 PM	0	0	3	15	18
4:30 PM	0	0	15	164	179
4:45 PM	3	0	2	123	128
5:00 PM	1	1	0	22	24
5:15 PM	2	0	1	7	10
5:30 PM	0	0	0	9	9
5:45 PM	4	2	3	9	18
TOTAL VOLUMES:	10	3	24	360	397

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Location: Moreno Valley
N/S: Indian Avenue
E/W: San Michele Road

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Indian Avenue	East Leg San Michele Road	South Leg Indian Avenue	West Leg San Michele Road	TOTAL
7:00 AM	1	0	0	0	1
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	0	0	0	2

	North Leg Indian Avenue	East Leg San Michele Road	South Leg Indian Avenue	West Leg San Michele Road	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	1	2
4:30 PM	0	0	0	0	0
4:45 PM	0	0	2	0	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	3	1	4

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City of Moreno Valley
N/S: Indian Avenue
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	1	18	1	1	20	8	6	3	0	17	5	87	8	0	100	1	1	26	10	28	11	165
07:15 AM	1	19	0	0	20	11	3	1	0	15	5	109	5	0	119	0	3	38	15	41	15	195
07:30 AM	2	10	1	1	13	8	1	7	1	16	8	70	2	0	80	2	4	25	12	31	14	140
07:45 AM	0	10	2	2	12	9	4	2	1	15	15	58	7	2	80	4	2	30	11	36	16	143
Total	4	57	4	4	65	36	14	13	2	63	33	324	22	2	379	7	10	119	48	136	56	643
08:00 AM	0	7	3	1	10	3	2	1	0	6	7	40	1	0	48	1	2	12	6	15	7	79
08:15 AM	0	15	1	0	16	6	4	5	2	15	4	31	2	0	37	0	3	18	7	21	9	89
08:30 AM	0	14	1	1	15	9	0	5	2	14	1	28	2	0	31	1	2	14	5	17	8	77
08:45 AM	0	10	0	0	10	8	3	0	0	11	6	29	3	0	38	0	5	13	5	18	5	77
Total	0	46	5	2	51	26	9	11	4	46	18	128	8	0	154	2	12	57	23	71	29	322
Grand Total	4	103	9	6	116	62	23	24	6	109	51	452	30	2	533	9	22	176	71	207	85	965
Apprch %	3.4	88.8	7.8			56.9	21.1	22			9.6	84.8	5.6			4.3	10.6	85				
Total %	0.4	10.7	0.9		12	6.4	2.4	2.5		11.3	5.3	46.8	3.1		55.2	0.9	2.3	18.2		21.5	8.1	91.9
Passenger Vehicles	3	87	2		92	56	15	15		90	35	424	21		481	4	15	144		224	0	0
% Passenger Vehicles	75	84.5	22.2	0	75.4	90.3	65.2	62.5	66.7	78.3	68.6	93.8	70	50	89.9	44.4	68.2	81.8	85.9	80.6	0	0
Large 2 Axle Vehicles	0	7	5		13	0	0	5		6	5	13	7		26	3	1	9		15	0	0
% Large 2 Axle Vehicles	0	6.8	55.6	16.7	10.7	0	0	20.8	16.7	5.2	9.8	2.9	23.3	50	4.9	33.3	4.5	5.1	2.8	5.4	0	0
3 Axle Vehicles	0	3	0		3	2	0	2		5	1	1	0		2	1	1	5		9	0	0
% 3 Axle Vehicles	0	2.9	0	0	2.5	3.2	0	8.3	16.7	4.3	2	0.2	0	0	0.4	11.1	4.5	2.8	2.8	3.2	0	0
4+ Axle Trucks	1	6	2		14	4	8	2		14	10	14	2		26	1	5	18		30	0	0
% 4+ Axle Trucks	25	5.8	22.2	83.3	11.5	6.5	34.8	8.3	0	12.2	19.6	3.1	6.7	0	4.9	11.1	22.7	10.2	8.5	10.8	0	0

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	18	1	20	8	6	3	17	5	87	8	100	1	1	26	28	165
07:15 AM	1	19	0	20	11	3	1	15	5	109	5	119	0	3	38	41	195
07:30 AM	2	10	1	13	8	1	7	16	8	70	2	80	2	4	25	31	140
07:45 AM	0	10	2	12	9	4	2	15	15	58	7	80	4	2	30	36	143
Total Volume	4	57	4	65	36	14	13	63	33	324	22	379	7	10	119	136	643
% App. Total	6.2	87.7	6.2		57.1	22.2	20.6		8.7	85.5	5.8		5.1	7.4	87.5		
PHF	.500	.750	.500	.813	.818	.583	.464	.926	.550	.743	.688	.796	.438	.625	.783	.829	.824

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City of Moreno Valley
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Weather: Clear

File Name : MRVINNAAM
Site Code : 05115223
Start Date : 4/28/2015
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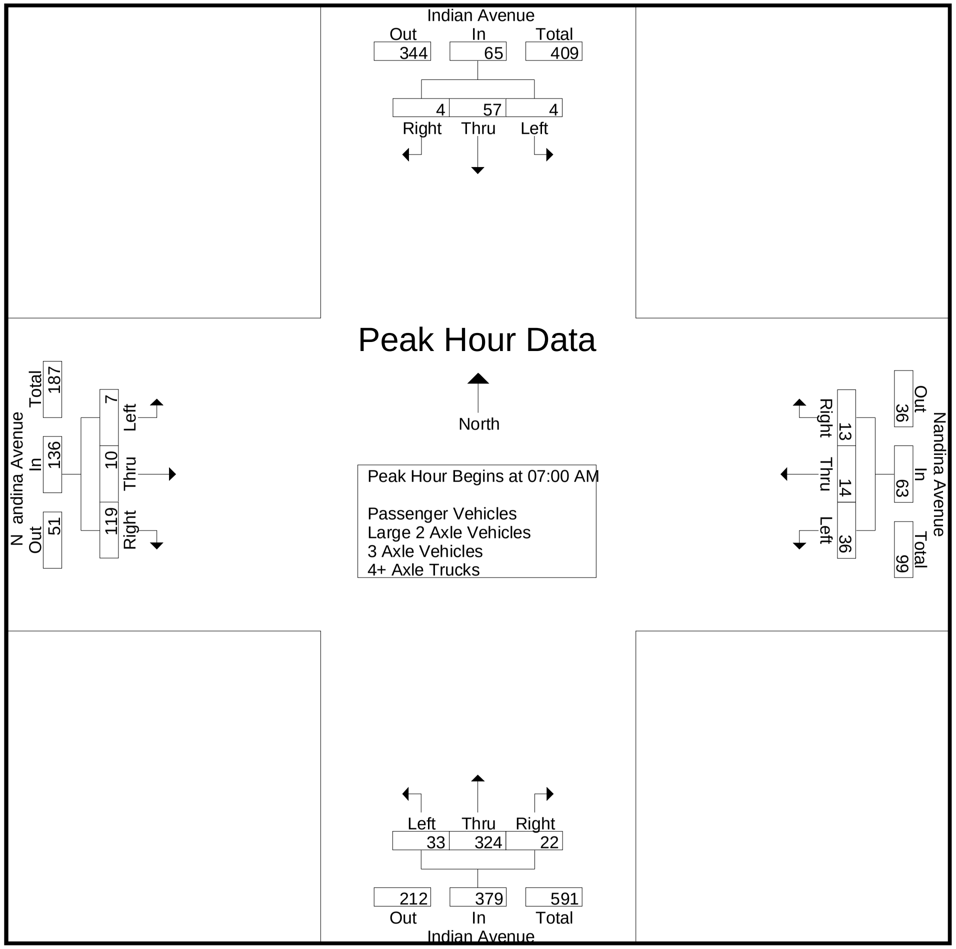

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File Name : MRVINNAAM
Site Code : 05115223
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Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	1	0	0	1	0	0	0	0	0	0	3	2	0	5	0	0	0	0	0	0	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	0	3
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4
07:45 AM	0	0	2	1	2	0	0	0	0	0	1	0	4	1	5	3	1	2	0	6	2	13
Total	0	2	2	1	4	0	0	0	0	0	1	6	7	1	14	3	1	4	0	8	2	26
08:00 AM	0	1	1	0	2	0	0	1	0	1	2	2	0	0	4	0	0	0	0	0	0	7
08:15 AM	0	1	1	0	2	0	0	3	1	3	1	1	0	0	2	0	0	2	1	2	2	9
08:30 AM	0	1	1	0	2	0	0	1	0	1	0	3	0	0	3	0	0	3	1	3	1	9
08:45 AM	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	4
Total	0	5	3	0	8	0	0	5	1	5	4	7	0	0	11	0	0	5	2	5	3	29
Grand Total	0	7	5	1	12	0	0	5	1	5	5	13	7	1	25	3	1	9	2	13	5	55
Apprch %	0	58.3	41.7			0	0	100			20	52	28			23.1	7.7	69.2				
Total %	0	12.7	9.1		21.8	0	0	9.1		9.1	9.1	23.6	12.7		45.5	5.5	1.8	16.4		23.6	8.3	91.7

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	0	1	0	0	0	0	0	3	2	5	0	0	0	0	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2	3
07:30 AM	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
07:45 AM	0	0	2	2	0	0	0	0	1	0	4	5	3	1	2	6	13
Total Volume	0	2	2	4	0	0	0	0	1	6	7	14	3	1	4	8	26
% App. Total	0	50	50		0	0	0		7.1	42.9	50		37.5	12.5	50		
PHF	.000	.500	.250	.500	.000	.000	.000	.000	.250	.500	.438	.700	.250	.250	.500	.333	.500

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Site Code : 05115223
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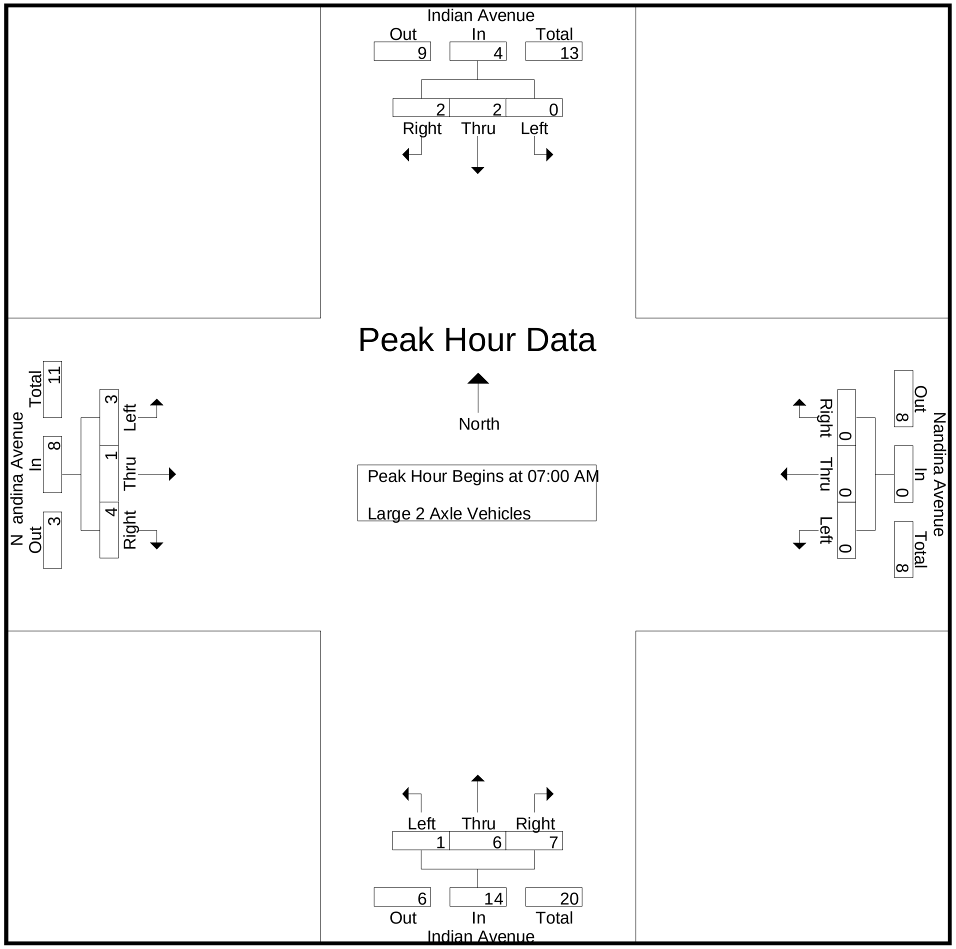

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Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	2	1	3	1	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
08:15 AM	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	4
08:30 AM	0	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	1	2
08:45 AM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	2	1	2	1	5
Total	0	3	0	0	3	2	0	2	1	4	0	1	0	0	1	1	0	3	1	4	2	12
Grand Total	0	3	0	0	3	2	0	2	1	4	1	1	0	0	2	1	1	5	2	7	3	16
Apprch %	0	100	0			50	0	50			50	50	0			14.3	14.3	71.4				
Total %	0	18.8	0		18.8	12.5	0	12.5		25	6.2	6.2	0		12.5	6.2	6.2	31.2		43.8	15.8	84.2

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	1	2	3	4
% App. Total	0	0	0		0	0	0		100	0	0		0	33.3	66.7		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.250	.250	.375	.500

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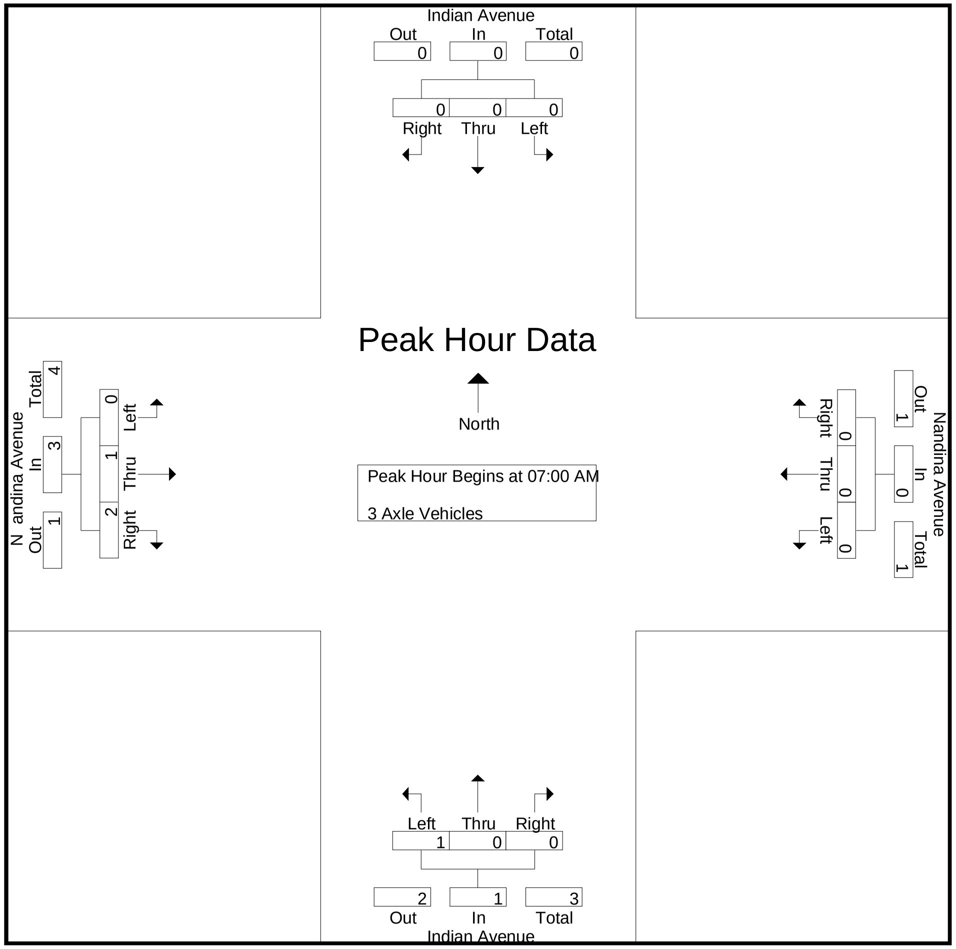

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Site Code : 05115223
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Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	1	0	1	2	1	0	4	0	2	1	0	3	0	0	1	0	1	1	8
07:15 AM	0	1	0	0	1	0	1	1	0	2	1	4	0	0	5	0	0	4	2	4	2	12
07:30 AM	1	1	0	1	2	1	0	0	0	1	1	2	0	0	3	0	1	1	1	2	2	8
07:45 AM	0	3	0	1	3	1	1	0	0	2	4	2	0	0	6	0	0	1	0	1	1	12
Total	1	5	0	3	6	3	4	2	0	9	6	10	1	0	17	0	1	7	3	8	6	40
08:00 AM	0	0	2	1	2	0	1	0	0	1	3	3	0	0	6	0	1	0	0	1	1	10
08:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	2	0	2	0	4
08:30 AM	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	1	2	4	1	7	2	9
08:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	0	1	5	2	6	2	10
Total	0	1	2	2	3	1	4	0	0	5	4	4	1	0	9	1	4	11	3	16	5	33
Grand Total	1	6	2	5	9	4	8	2	0	14	10	14	2	0	26	1	5	18	6	24	11	73
Apprch %	11.1	66.7	22.2			28.6	57.1	14.3			38.5	53.8	7.7			4.2	20.8	75				
Total %	1.4	8.2	2.7		12.3	5.5	11	2.7		19.2	13.7	19.2	2.7		35.6	1.4	6.8	24.7		32.9	13.1	86.9

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	1	2	1	4	0	2	1	3	0	0	1	1	8
07:15 AM	0	1	0	1	0	1	1	2	1	4	0	5	0	0	4	4	12
07:30 AM	1	1	0	2	1	0	0	1	1	2	0	3	0	1	1	2	8
07:45 AM	0	3	0	3	1	1	0	2	4	2	0	6	0	0	1	1	12
Total Volume	1	5	0	6	3	4	2	9	6	10	1	17	0	1	7	8	40
% App. Total	16.7	83.3	0		33.3	44.4	22.2		35.3	58.8	5.9		0	12.5	87.5		
PHF	.250	.417	.000	.500	.750	.500	.500	.563	.375	.625	.250	.708	.000	.250	.438	.500	.833

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File Name : MRVINNAAM
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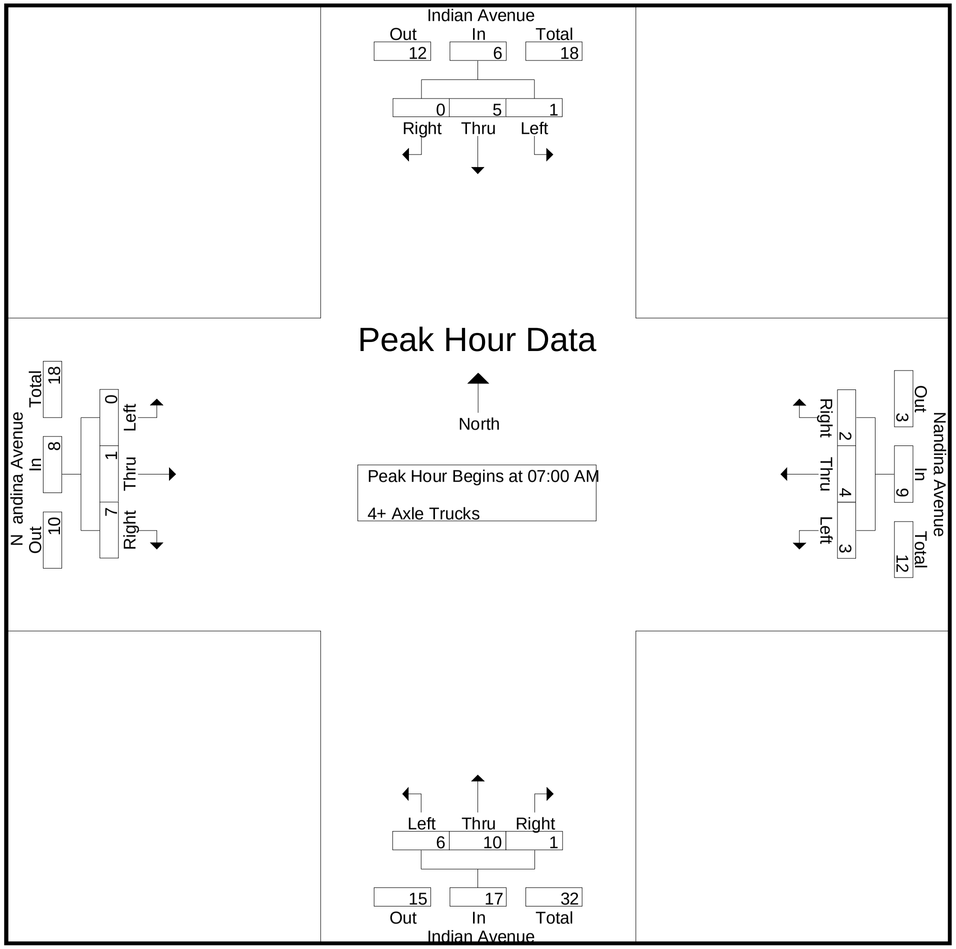

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File Name : MRVINNAPM
Site Code : 05115223
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	31	0	0	31	10	2	2	2	14	1	53	3	1	57	2	7	15	11	24	14	126
04:15 PM	4	16	1	1	21	17	6	6	5	29	9	79	6	0	94	0	3	23	22	26	28	170
04:30 PM	14	133	18	1	165	7	1	3	3	11	22	117	8	1	147	2	9	46	20	57	25	380
04:45 PM	25	158	19	2	202	8	6	5	5	19	13	101	15	0	129	2	10	58	24	70	31	420
Total	43	338	38	4	419	42	15	16	15	73	45	350	32	2	427	6	29	142	77	177	98	1096
05:00 PM	5	50	3	0	58	5	4	0	0	9	7	60	11	2	78	3	14	50	19	67	21	212
05:15 PM	2	41	1	0	44	7	1	1	1	9	5	43	5	0	53	2	14	42	17	58	18	164
05:30 PM	2	74	4	0	80	3	3	7	6	13	7	55	6	1	68	4	6	44	20	54	27	215
05:45 PM	1	55	2	1	58	14	4	3	3	21	11	77	7	0	95	1	11	37	11	49	15	223
Total	10	220	10	1	240	29	12	11	10	52	30	235	29	3	294	10	45	173	67	228	81	814
Grand Total	53	558	48	5	659	71	27	27	25	125	75	585	61	5	721	16	74	315	144	405	179	1910
Apprch %	8	84.7	7.3			56.8	21.6	21.6			10.4	81.1	8.5			4	18.3	77.8				
Total %	2.8	29.2	2.5		34.5	3.7	1.4	1.4		6.5	3.9	30.6	3.2		37.7	0.8	3.9	16.5		21.2	8.6	91.4
Passenger Vehicles	51	544	38		638	62	24	27		138	68	562	53		688	15	71	275		493	0	0
% Passenger Vehicles	96.2	97.5	79.2	100	96.1	87.3	88.9	100	100	92	90.7	96.1	86.9	100	94.8	93.8	95.9	87.3	91.7	89.8	0	0
Large 2 Axle Vehicles	1	5	9		15	1	0	0		1	2	7	1		10	1	2	8		17	0	0
% Large 2 Axle Vehicles	1.9	0.9	18.8	0	2.3	1.4	0	0	0	0.7	2.7	1.2	1.6	0	1.4	6.2	2.7	2.5	4.2	3.1	0	0
3 Axle Vehicles	1	0	0		1	2	1	0		3	0	6	4		10	0	1	16		19	0	0
% 3 Axle Vehicles	1.9	0	0	0	0.2	2.8	3.7	0	0	2	0	1	6.6	0	1.4	0	1.4	5.1	1.4	3.5	0	0
4+ Axle Trucks	0	9	1		10	6	2	0		8	5	10	3		18	0	0	16		20	0	0
% 4+ Axle Trucks	0	1.6	2.1	0	1.5	8.5	7.4	0	0	5.3	6.7	1.7	4.9	0	2.5	0	0	5.1	2.8	3.6	0	0

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	4	16	1	21	17	6	6	29	9	79	6	94	0	3	23	26	170
04:30 PM	14	133	18	165	7	1	3	11	22	117	8	147	2	9	46	57	380
04:45 PM	25	158	19	202	8	6	5	19	13	101	15	129	2	10	58	70	420
05:00 PM	5	50	3	58	5	4	0	9	7	60	11	78	3	14	50	67	212
Total Volume	48	357	41	446	37	17	14	68	51	357	40	448	7	36	177	220	1182
% App. Total	10.8	80	9.2		54.4	25	20.6		11.4	79.7	8.9		3.2	16.4	80.5		
PHF	.480	.565	.539	.552	.544	.708	.583	.586	.580	.763	.667	.762	.583	.643	.763	.786	.704

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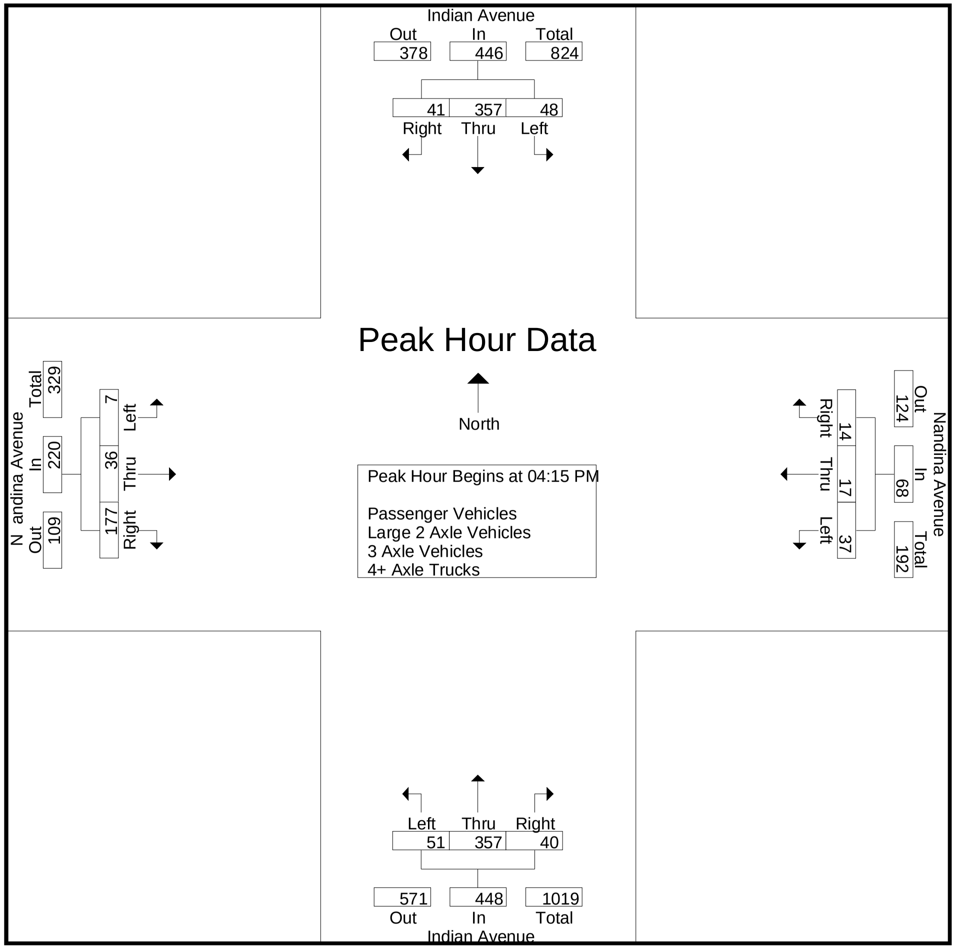

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Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	5
04:30 PM	0	1	2	0	3	0	0	0	0	0	1	1	0	0	2	0	0	2	2	2	2	7
04:45 PM	0	0	4	0	4	0	0	0	0	0	1	2	1	0	4	0	0	1	1	1	1	9
Total	1	2	6	0	9	1	0	0	0	1	2	4	1	0	7	0	1	3	3	4	3	21
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	2	2	2	3
05:15 PM	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	0	1	1	1	2	1	6
05:30 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	4
05:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3
Total	0	3	3	0	6	0	0	0	0	0	0	3	0	0	3	1	1	5	3	7	3	16
Grand Total	1	5	9	0	15	1	0	0	0	1	2	7	1	0	10	1	2	8	6	11	6	37
Apprch %	6.7	33.3	60			100	0	0			20	70	10			9.1	18.2	72.7				
Total %	2.7	13.5	24.3		40.5	2.7	0	0		2.7	5.4	18.9	2.7		27	2.7	5.4	21.6		29.7	14	86

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	1	0	2	1	0	0	1	0	1	0	1	0	1	0	1	5
04:30 PM	0	1	2	3	0	0	0	0	1	1	0	2	0	0	2	2	7
04:45 PM	0	0	4	4	0	0	0	0	1	2	1	4	0	0	1	1	9
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2	3
Total Volume	1	2	6	9	1	0	0	1	2	5	1	8	0	1	5	6	24
% App. Total	11.1	22.2	66.7		100	0	0		25	62.5	12.5		0	16.7	83.3		
PHF	.250	.500	.375	.563	.250	.000	.000	.250	.500	.625	.250	.500	.000	.250	.625	.750	.667

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City of Moreno Valley
N/S: Indian Avenue
E/W: Nandina Avenue
Weather: Clear

File Name : MRVINNAPM
Site Code : 05115223
Start Date : 4/28/2015
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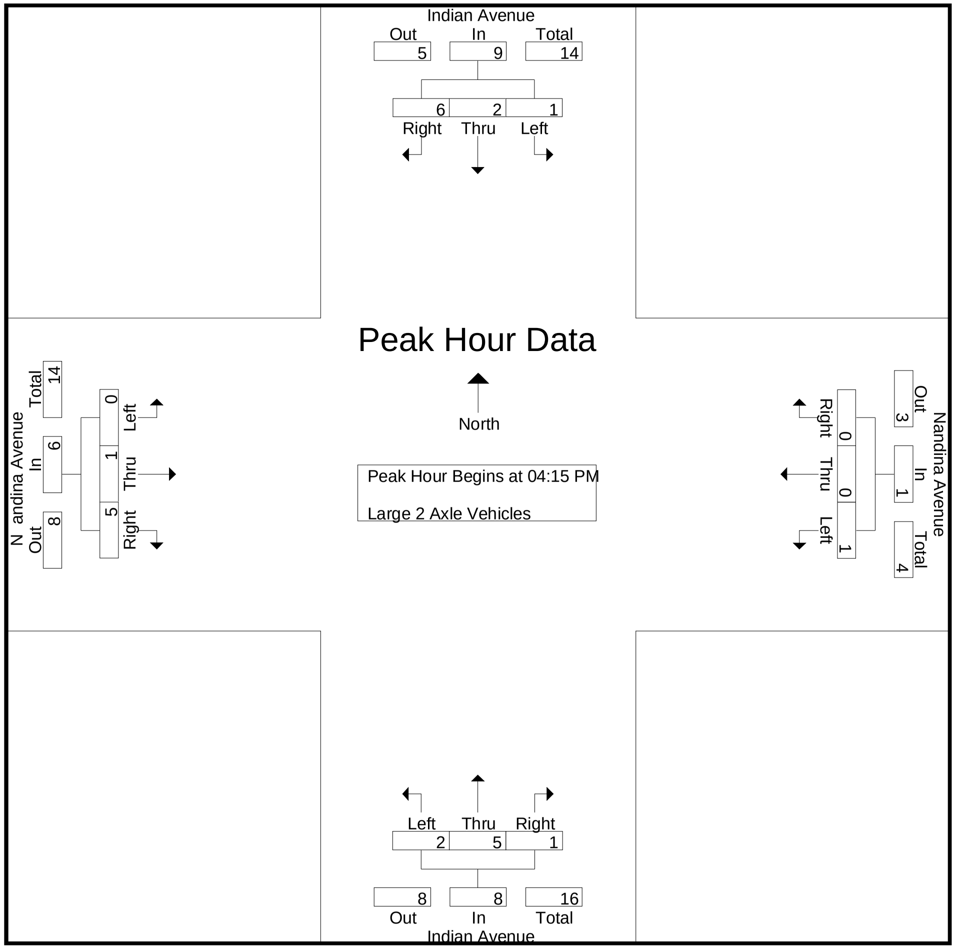

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Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	1	2	1	3
04:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	4	1	4	1	6
Total	1	0	0	0	1	0	0	0	0	0	0	1	2	0	3	0	1	5	2	6	2	10
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	5	0	5	0	7
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	4	0	4	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
05:45 PM	0	0	0	0	0	2	1	0	0	3	0	4	0	0	4	0	0	1	0	1	0	8
Total	0	0	0	0	0	2	1	0	0	3	0	5	2	0	7	0	0	11	0	11	0	21
Grand Total	1	0	0	0	1	2	1	0	0	3	0	6	4	0	10	0	1	16	2	17	2	31
Apprch %	100	0	0			66.7	33.3	0			0	60	40			0	5.9	94.1				
Total %	3.2	0	0		3.2	6.5	3.2	0		9.7	0	19.4	12.9		32.3	0	3.2	51.6		54.8	6.1	93.9

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	2	3
04:45 PM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	4	4	6
05:00 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	5	5	7
Total Volume	1	0	0	1	0	0	0	0	0	1	4	5	0	1	10	11	17
% App. Total	100	0	0		0	0	0		0	20	80		0	9.1	90.9		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250	.500	.625	.000	.250	.500	.550	.607

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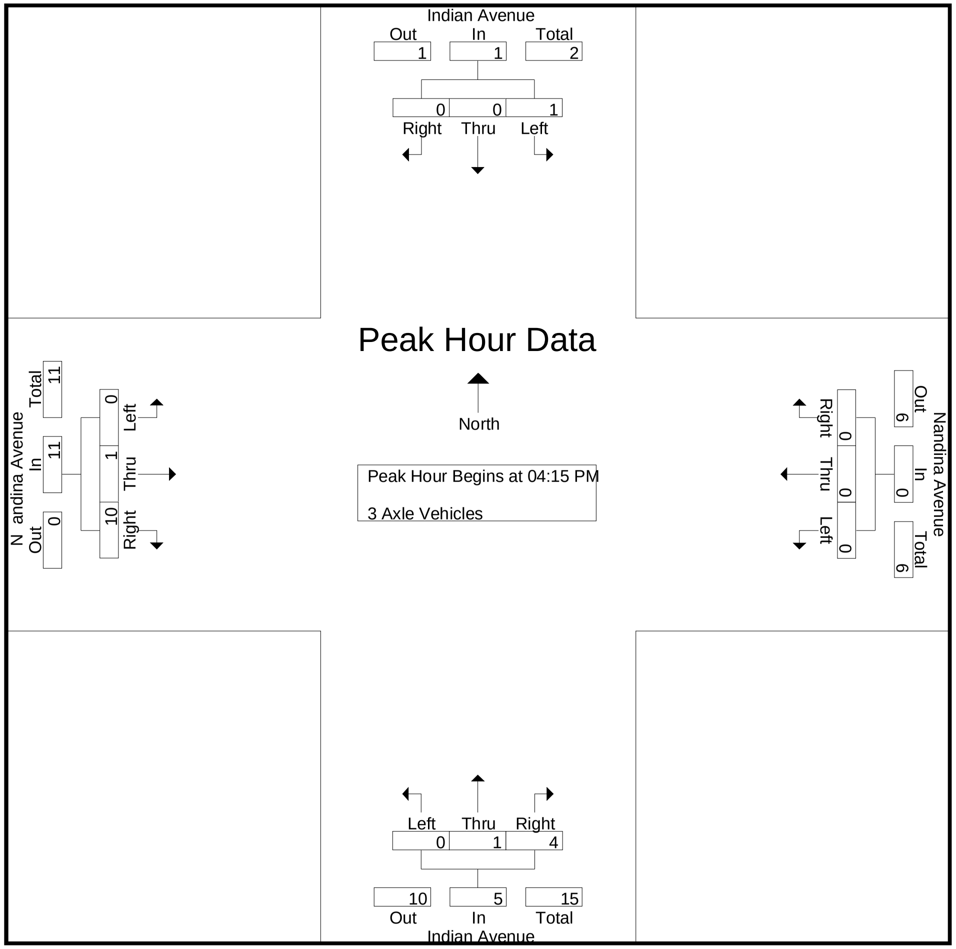

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Weather: Clear

File Name : MRVINNAPM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound					Nandina Avenue Westbound					Indian Avenue Northbound					Nandina Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	3
04:15 PM	0	0	0	0	0	1	0	0	0	1	1	4	0	0	5	0	0	1	1	1	1	7
04:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	4	0	4	0	7
04:45 PM	0	3	0	0	3	0	0	0	0	0	1	2	2	0	5	0	0	2	0	2	0	10
Total	0	4	0	0	4	3	0	0	0	3	2	8	2	0	12	0	0	8	1	8	1	27
05:00 PM	0	1	1	0	2	0	1	0	0	1	0	1	0	0	1	0	0	3	1	3	1	7
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	1	4	1	5
05:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	1	0	2	0	0	1	1	1	1	4
05:45 PM	0	2	0	0	2	3	1	0	0	4	2	1	0	0	3	0	0	0	0	0	0	9
Total	0	5	1	0	6	3	2	0	0	5	3	2	1	0	6	0	0	8	3	8	3	25
Grand Total	0	9	1	0	10	6	2	0	0	8	5	10	3	0	18	0	0	16	4	16	4	52
Apprch %	0	90	10			75	25	0			27.8	55.6	16.7			0	0	100				
Total %	0	17.3	1.9		19.2	11.5	3.8	0		15.4	9.6	19.2	5.8		34.6	0	0	30.8		30.8	7.1	92.9

	Indian Avenue Southbound				Nandina Avenue Westbound				Indian Avenue Northbound				Nandina Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	1	0	0	1	1	4	0	5	0	0	1	1	7
04:30 PM	0	1	0	1	1	0	0	1	0	1	0	1	0	0	4	4	7
04:45 PM	0	3	0	3	0	0	0	0	1	2	2	5	0	0	2	2	10
05:00 PM	0	1	1	2	0	1	0	1	0	1	0	1	0	0	3	3	7
Total Volume	0	5	1	6	2	1	0	3	2	8	2	12	0	0	10	10	31
% App. Total	0	83.3	16.7		66.7	33.3	0		16.7	66.7	16.7		0	0	100		
PHF	.000	.417	.250	.500	.500	.250	.000	.750	.500	.500	.250	.600	.000	.000	.625	.625	.775

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City of Moreno Valley
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Weather: Clear

File Name : MRVINNAPM
Site Code : 05115223
Start Date : 4/28/2015
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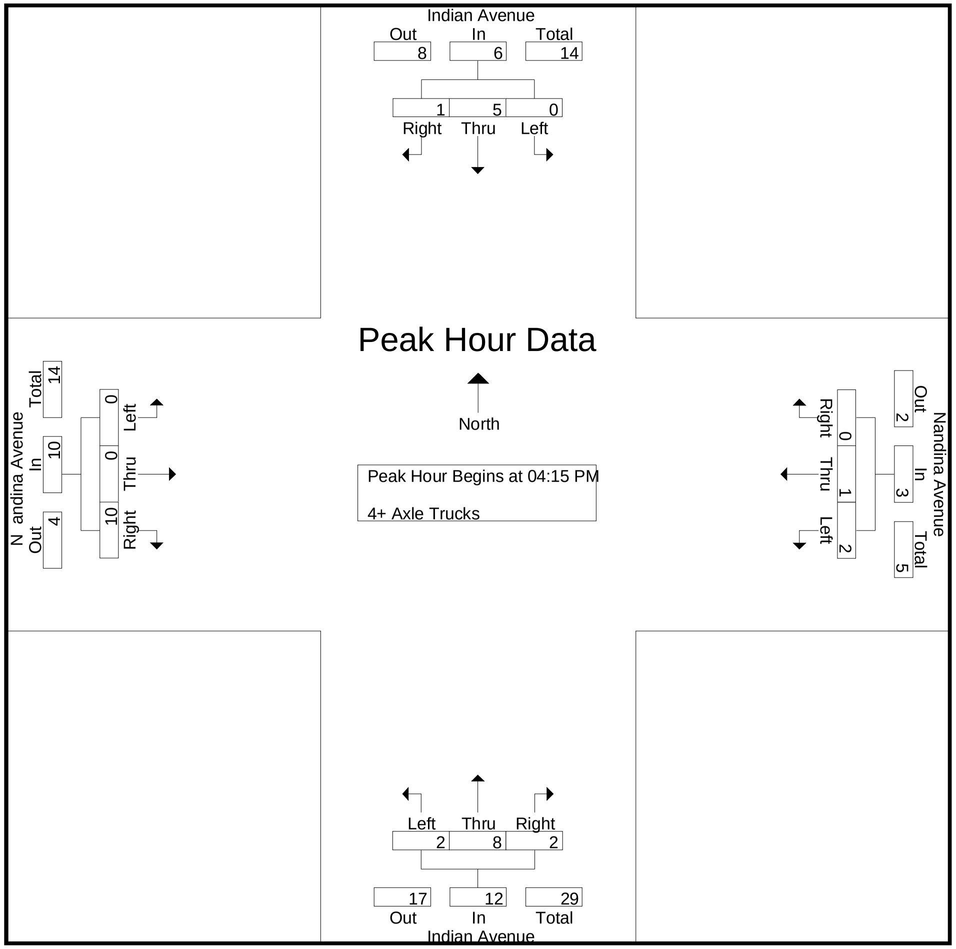

Location: Moreno Valley
N/S: Indian Avenue
E/W: Nandina Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Indian Avenue	East Leg Nandina Avenue	South Leg Indian Avenue	West Leg Nandina Avenue	TOTAL
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg Indian Avenue	East Leg Nandina Avenue	South Leg Indian Avenue	West Leg Nandina Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1
4:30 PM	0	1	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	2	0	0	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	4	0	0	4

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Location: Moreno Valley
N/S: Indian Avenue
E/W: Nandina Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Indian Avenue	East Leg Nandina Avenue	South Leg Indian Avenue	West Leg Nandina Avenue	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Indian Avenue	East Leg Nandina Avenue	South Leg Indian Avenue	West Leg Nandina Avenue	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVINHKAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	13	36	21	49	1	69	4	1	74	25	56	4	0	85	58	34	15	8	107	30	315
07:15 AM	4	18	36	22	58	1	55	1	0	57	17	63	5	2	85	60	46	10	3	116	27	316
07:30 AM	2	12	20	10	34	1	44	1	1	46	27	54	4	0	85	45	58	16	4	119	15	284
07:45 AM	1	12	22	10	35	2	58	5	0	65	16	42	6	2	64	53	52	9	1	114	13	278
Total	7	55	114	63	176	5	226	11	2	242	85	215	19	4	319	216	190	50	16	456	85	1193
08:00 AM	2	6	12	9	20	1	36	2	1	39	11	30	1	0	42	42	31	14	1	87	11	188
08:15 AM	0	10	25	14	35	1	27	3	0	31	14	18	1	0	33	19	21	10	3	50	17	149
08:30 AM	0	6	23	9	29	2	23	3	0	28	12	14	0	0	26	33	20	9	4	62	13	145
08:45 AM	1	12	18	12	31	0	21	0	0	21	6	19	0	0	25	32	21	10	3	63	15	140
Total	3	34	78	44	115	4	107	8	1	119	43	81	2	0	126	126	93	43	11	262	56	622
Grand Total	10	89	192	107	291	9	333	19	3	361	128	296	21	4	445	342	283	93	27	718	141	1815
Apprch %	3.4	30.6	66			2.5	92.2	5.3			28.8	66.5	4.7			47.6	39.4	13				
Total %	0.6	4.9	10.6		16	0.5	18.3	1		19.9	7.1	16.3	1.2		24.5	18.8	15.6	5.1		39.6	7.2	92.8
Passenger Vehicles	7	76	143		305	8	311	16		338	98	270	15		384	301	261	52		627	0	0
% Passenger Vehicles	70	85.4	74.5	73.8	76.6	88.9	93.4	84.2	100	92.9	76.6	91.2	71.4	25	85.5	88	92.2	55.9	48.1	84.2	0	0
Large 2 Axle Vehicles	2	7	10		28	0	6	0		6	5	12	1		19	10	4	11		33	0	0
% Large 2 Axle Vehicles	20	7.9	5.2	8.4	7	0	1.8	0	0	1.6	3.9	4.1	4.8	25	4.2	2.9	1.4	11.8	29.6	4.4	0	0
3 Axle Vehicles	0	4	8		16	1	3	0		4	13	2	4		21	1	5	16		25	0	0
% 3 Axle Vehicles	0	4.5	4.2	3.7	4	11.1	0.9	0	0	1.1	10.2	0.7	19	50	4.7	0.3	1.8	17.2	11.1	3.4	0	0
4+ Axle Trucks	1	2	31		49	0	13	3		16	12	12	1		25	30	13	14		60	0	0
% 4+ Axle Trucks	10	2.2	16.1	14	12.3	0	3.9	15.8	0	4.4	9.4	4.1	4.8	0	5.6	8.8	4.6	15.1	11.1	8.1	0	0

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	13	36	49	1	69	4	74	25	56	4	85	58	34	15	107	315
07:15 AM	4	18	36	58	1	55	1	57	17	63	5	85	60	46	10	116	316
07:30 AM	2	12	20	34	1	44	1	46	27	54	4	85	45	58	16	119	284
07:45 AM	1	12	22	35	2	58	5	65	16	42	6	64	53	52	9	114	278
Total Volume	7	55	114	176	5	226	11	242	85	215	19	319	216	190	50	456	1193
% App. Total	4	31.2	64.8		2.1	93.4	4.5		26.6	67.4	6		47.4	41.7	11		
PHF	.438	.764	.792	.759	.625	.819	.550	.818	.787	.853	.792	.938	.900	.819	.781	.958	.944

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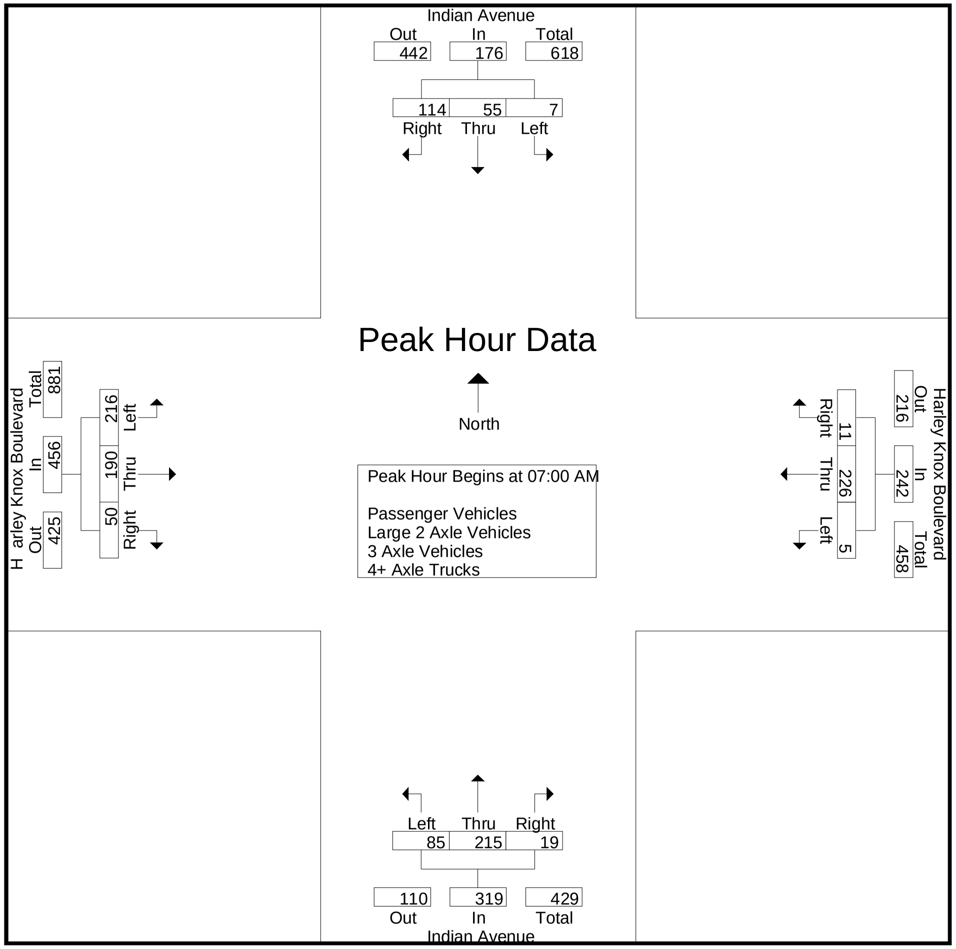

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Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	3	4	3	5
07:15 AM	0	0	2	2	2	0	2	0	0	2	0	1	0	0	1	1	0	2	2	3	4	8
07:30 AM	0	0	1	1	1	0	2	0	0	2	0	3	0	0	3	1	0	2	2	3	3	9
07:45 AM	0	1	1	1	2	0	0	0	0	0	1	1	1	1	3	2	1	0	0	3	2	8
Total	0	1	4	4	5	0	4	0	0	4	1	6	1	1	8	5	1	7	7	13	12	30
08:00 AM	1	1	1	0	3	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	0	8
08:15 AM	0	3	3	3	6	0	1	0	0	1	3	1	0	0	4	0	1	1	0	2	3	13
08:30 AM	0	0	1	1	1	0	0	0	0	0	0	2	0	0	2	1	2	0	0	3	1	6
08:45 AM	1	2	1	1	4	0	1	0	0	1	0	1	0	0	1	2	0	3	1	5	2	11
Total	2	6	6	5	14	0	2	0	0	2	4	6	0	0	10	5	3	4	1	12	6	38
Grand Total	2	7	10	9	19	0	6	0	0	6	5	12	1	1	18	10	4	11	8	25	18	68
Apprch %	10.5	36.8	52.6			0	100	0			27.8	66.7	5.6			40	16	44				
Total %	2.9	10.3	14.7		27.9	0	8.8	0		8.8	7.4	17.6	1.5		26.5	14.7	5.9	16.2		36.8	20.9	79.1

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	3	4	5
07:15 AM	0	0	2	2	0	2	0	2	0	1	0	1	1	0	2	3	8
07:30 AM	0	0	1	1	0	2	0	2	0	3	0	3	1	0	2	3	9
07:45 AM	0	1	1	2	0	0	0	0	1	1	1	3	2	1	0	3	8
Total Volume	0	1	4	5	0	4	0	4	1	6	1	8	5	1	7	13	30
% App. Total	0	20	80		0	100	0		12.5	75	12.5		38.5	7.7	53.8		
PHF	.000	.250	.500	.625	.000	.500	.000	.500	.250	.500	.250	.667	.625	.250	.583	.813	.833

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City of Moreno Valley
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E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVINHKAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

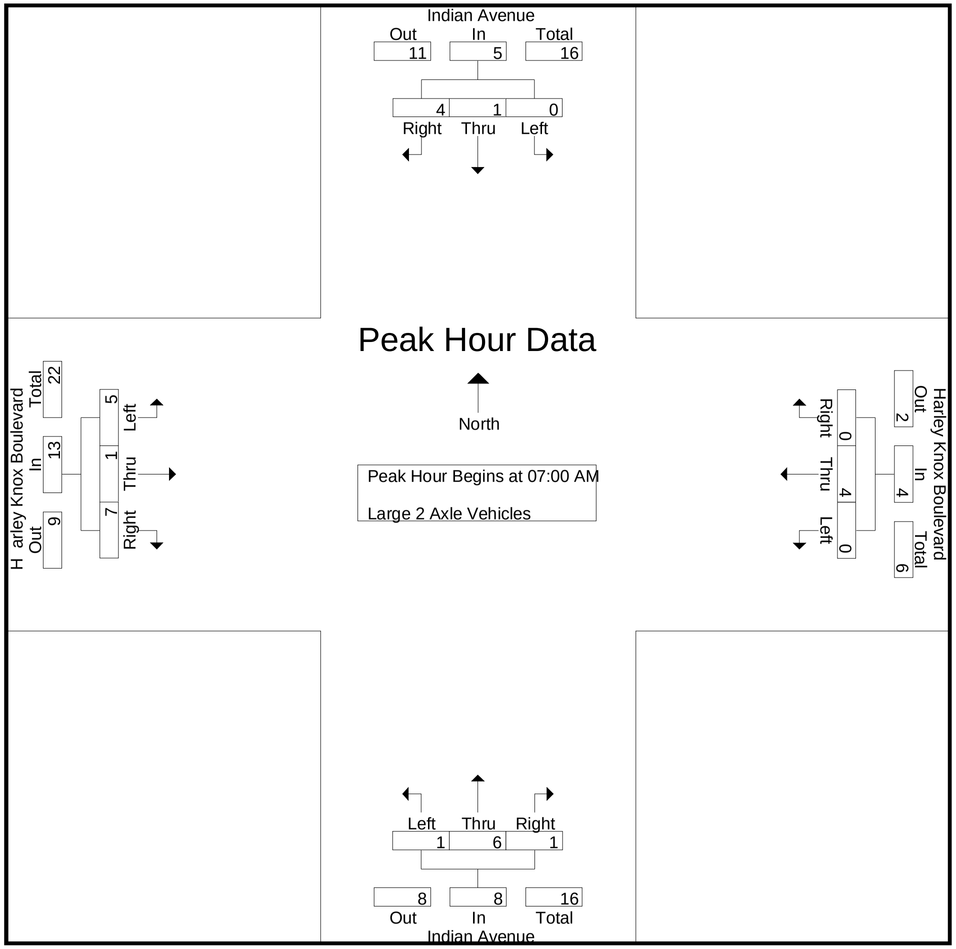

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Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	1	1	0	2	0	2	0	0	2	1	0	0	0	1	0	0	4	1	4	1	9
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	3	3	0	6	1	8
07:30 AM	0	0	0	0	0	0	1	0	0	1	2	1	1	0	4	0	0	2	0	2	0	7
07:45 AM	0	1	1	0	2	0	0	0	0	0	3	0	1	1	4	0	0	0	0	0	1	6
Total	0	2	2	0	4	0	3	0	0	3	7	1	3	2	11	0	3	9	1	12	3	30
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	3
08:15 AM	0	0	2	2	2	0	0	0	0	0	1	0	1	0	2	0	1	2	1	3	3	7
08:30 AM	0	0	2	0	2	1	0	0	0	1	4	0	0	0	4	1	0	2	0	3	0	10
08:45 AM	0	2	2	2	4	0	0	0	0	0	1	1	0	0	2	0	0	1	1	1	3	7
Total	0	2	6	4	8	1	0	0	0	1	6	1	1	0	8	1	2	7	2	10	6	27
Grand Total	0	4	8	4	12	1	3	0	0	4	13	2	4	2	19	1	5	16	3	22	9	57
Apprch %	0	33.3	66.7			25	75	0			68.4	10.5	21.1			4.5	22.7	72.7				
Total %	0	7	14		21.1	1.8	5.3	0		7	22.8	3.5	7		33.3	1.8	8.8	28.1		38.6	13.6	86.4

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	1	2	0	2	0	2	1	0	0	1	0	0	4	4	9
07:15 AM	0	0	0	0	0	0	0	0	1	0	1	2	0	3	3	6	8
07:30 AM	0	0	0	0	0	1	0	1	2	1	1	4	0	0	2	2	7
07:45 AM	0	1	1	2	0	0	0	0	3	0	1	4	0	0	0	0	6
Total Volume	0	2	2	4	0	3	0	3	7	1	3	11	0	3	9	12	30
% App. Total	0	50	50		0	100	0		63.6	9.1	27.3		0	25	75		
PHF	.000	.500	.500	.500	.000	.375	.000	.375	.583	.250	.750	.688	.000	.250	.563	.500	.833

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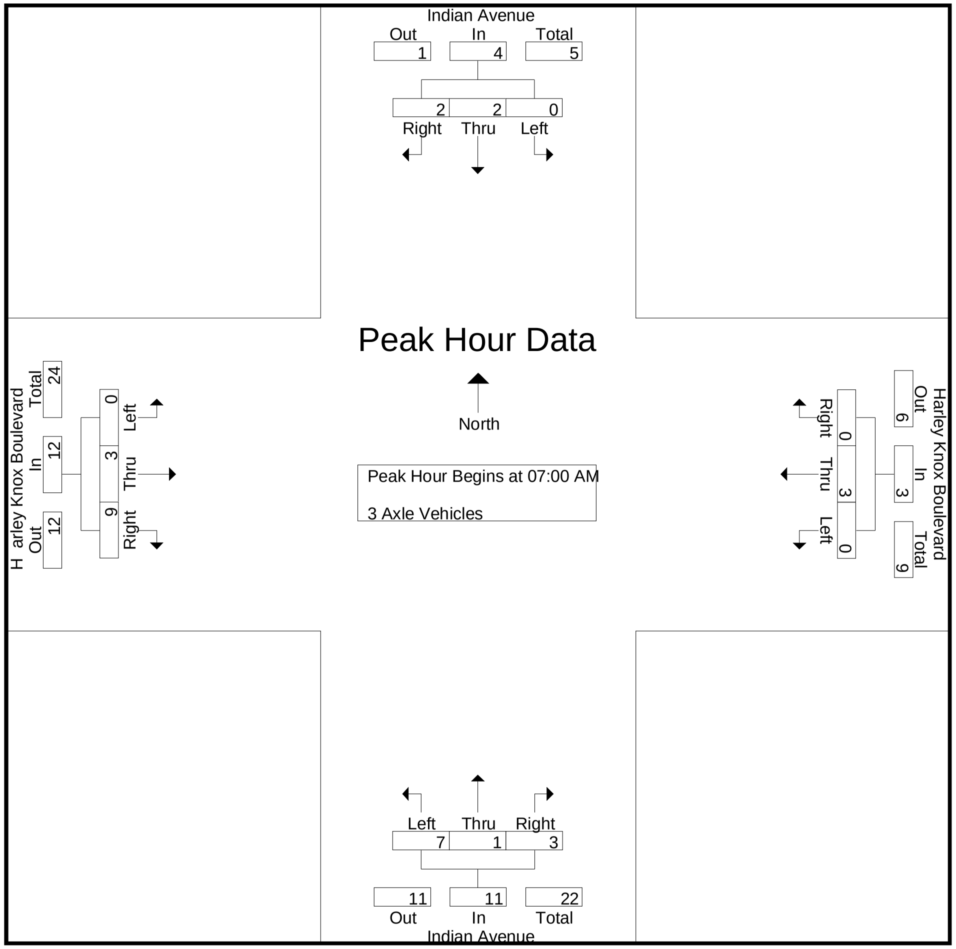

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Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	2	1	2	0	2	1	0	3	0	3	0	0	3	6	2	0	0	8	1	16
07:15 AM	0	0	4	2	4	0	2	1	0	3	1	0	0	0	1	2	1	2	0	5	2	13
07:30 AM	1	1	3	2	5	0	1	0	0	1	3	4	0	0	7	4	3	1	0	8	2	21
07:45 AM	0	1	6	4	7	0	2	0	0	2	1	3	1	0	5	5	0	1	0	6	4	20
Total	1	2	15	9	18	0	7	2	0	9	5	10	1	0	16	17	6	4	0	27	9	70
08:00 AM	0	0	1	1	1	0	1	0	0	1	2	2	0	0	4	8	1	2	0	11	1	17
08:15 AM	0	0	6	2	6	0	2	1	0	3	1	0	0	0	1	2	2	3	1	7	3	17
08:30 AM	0	0	5	1	5	0	3	0	0	3	2	0	0	0	2	1	1	3	2	5	3	15
08:45 AM	0	0	4	2	4	0	0	0	0	0	2	0	0	0	2	2	3	2	0	7	2	13
Total	0	0	16	6	16	0	6	1	0	7	7	2	0	0	9	13	7	10	3	30	9	62
Grand Total	1	2	31	15	34	0	13	3	0	16	12	12	1	0	25	30	13	14	3	57	18	132
Apprch %	2.9	5.9	91.2			0	81.2	18.8			48	48	4			52.6	22.8	24.6				
Total %	0.8	1.5	23.5		25.8	0	9.8	2.3		12.1	9.1	9.1	0.8		18.9	22.7	9.8	10.6		43.2	12	88

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	2	2	0	2	1	3	0	3	0	3	6	2	0	8	16
07:15 AM	0	0	4	4	0	2	1	3	1	0	0	1	2	1	2	5	13
07:30 AM	1	1	3	5	0	1	0	1	3	4	0	7	4	3	1	8	21
07:45 AM	0	1	6	7	0	2	0	2	1	3	1	5	5	0	1	6	20
Total Volume	1	2	15	18	0	7	2	9	5	10	1	16	17	6	4	27	70
% App. Total	5.6	11.1	83.3		0	77.8	22.2		31.2	62.5	6.2		63	22.2	14.8		
PHF	.250	.500	.625	.643	.000	.875	.500	.750	.417	.625	.250	.571	.708	.500	.500	.844	.833

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File Name : MRVINHKAM
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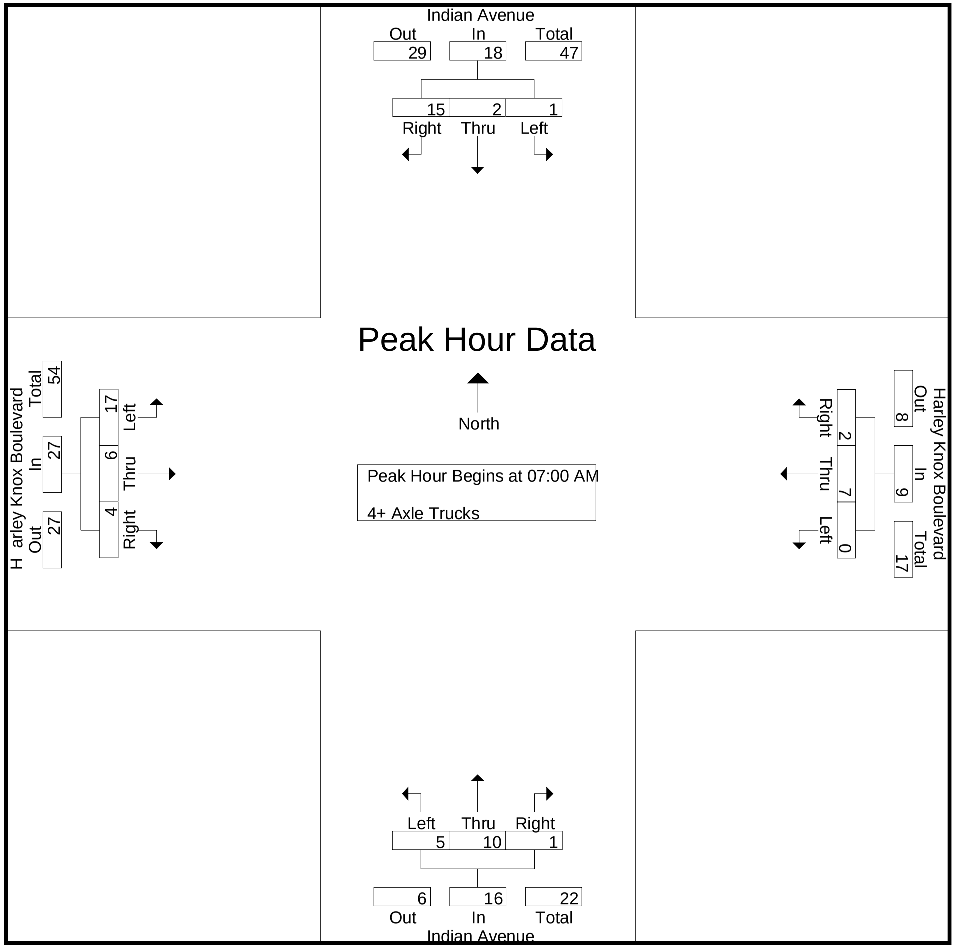

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	4	23	46	1	73	1	29	8	0	38	7	29	4	0	40	38	42	9	0	89	1	240
04:15 PM	3	19	21	0	43	1	25	7	0	33	6	64	1	0	71	52	43	13	0	108	0	255
04:30 PM	5	68	89	3	162	4	48	1	0	53	14	87	5	0	106	61	47	13	0	121	3	442
04:45 PM	12	132	111	0	255	2	26	4	0	32	12	65	0	0	77	46	48	17	0	111	0	475
Total	24	242	267	4	533	8	128	20	0	156	39	245	10	0	294	197	180	52	0	429	4	1412
05:00 PM	3	52	48	0	103	5	26	0	0	31	10	40	1	0	51	38	50	12	0	100	0	285
05:15 PM	7	51	41	1	99	2	29	0	0	31	7	28	1	0	36	33	49	18	0	100	1	266
05:30 PM	5	87	60	0	152	0	21	1	0	22	8	44	1	0	53	29	46	11	0	86	0	313
05:45 PM	4	65	55	0	124	3	12	0	0	15	7	38	5	0	50	48	63	9	1	120	1	309
Total	19	255	204	1	478	10	88	1	0	99	32	150	8	0	190	148	208	50	1	406	2	1173
Grand Total	43	497	471	5	1011	18	216	21	0	255	71	395	18	0	484	345	388	102	1	835	6	2585
Apprch %	4.3	49.2	46.6			7.1	84.7	8.2			14.7	81.6	3.7			41.3	46.5	12.2				
Total %	1.7	19.2	18.2		39.1	0.7	8.4	0.8		9.9	2.7	15.3	0.7		18.7	13.3	15	3.9		32.3	0.2	99.8
Passenger Vehicles	40	478	425		943	14	198	20		232	52	340	16		408	292	363	85		741	0	0
% Passenger Vehicles	93	96.2	90.2	0	92.8	77.8	91.7	95.2	0	91	73.2	86.1	88.9	0	84.3	84.6	93.6	83.3	100	88.6	0	0
Large 2 Axle Vehicles	0	4	6		10	2	6	1		9	5	3	0		8	11	8	2		21	0	0
% Large 2 Axle Vehicles	0	0.8	1.3	0	1	11.1	2.8	4.8	0	3.5	7	0.8	0	0	1.7	3.2	2.1	2	0	2.5	0	0
3 Axle Vehicles	1	4	4		13	0	5	0		5	0	26	2		28	19	7	3		29	0	0
% 3 Axle Vehicles	2.3	0.8	0.8	80	1.3	0	2.3	0	0	2	0	6.6	11.1	0	5.8	5.5	1.8	2.9	0	3.5	0	0
4+ Axle Trucks	2	11	36		50	2	7	0		9	14	26	0		40	23	10	12		45	0	0
% 4+ Axle Trucks	4.7	2.2	7.6	20	4.9	11.1	3.2	0	0	3.5	19.7	6.6	0	0	8.3	6.7	2.6	11.8	0	5.4	0	0

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	68	89	162	4	48	1	53	14	87	5	106	61	47	13	121	442
04:45 PM	12	132	111	255	2	26	4	32	12	65	0	77	46	48	17	111	475
05:00 PM	3	52	48	103	5	26	0	31	10	40	1	51	38	50	12	100	285
05:15 PM	7	51	41	99	2	29	0	31	7	28	1	36	33	49	18	100	266
Total Volume	27	303	289	619	13	129	5	147	43	220	7	270	178	194	60	432	1468
% App. Total	4.4	48.9	46.7		8.8	87.8	3.4		15.9	81.5	2.6		41.2	44.9	13.9		
PHF	.563	.574	.651	.607	.650	.672	.313	.693	.768	.632	.350	.637	.730	.970	.833	.893	.773

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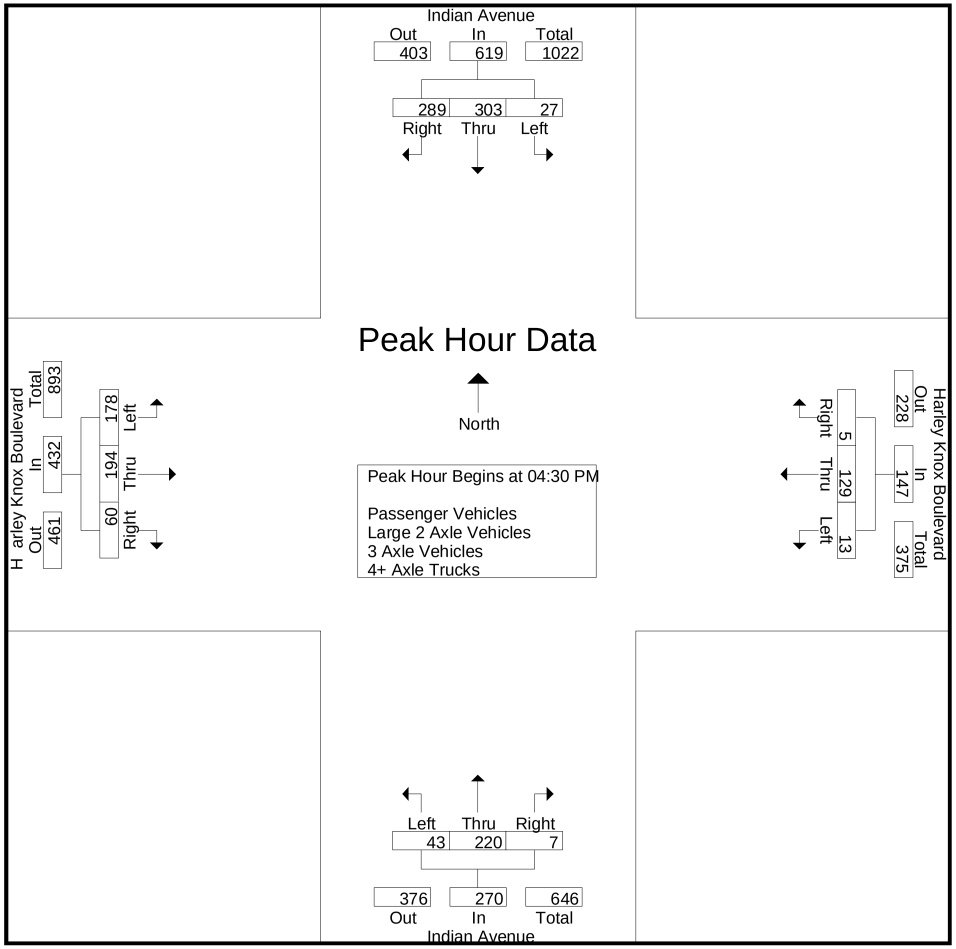

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Groups Printed- Large 2 Axle Vehicles

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	2	0	0	2	0	4
04:15 PM	0	0	0	0	0	1	1	0	0	2	1	1	0	0	2	3	2	1	0	6	0	10
04:30 PM	0	2	0	0	2	1	1	1	0	3	2	1	0	0	3	0	0	1	0	1	0	9
04:45 PM	0	1	1	0	2	0	1	0	0	1	2	0	0	0	2	2	0	0	0	2	0	7
Total	0	3	1	0	4	2	4	1	0	7	5	3	0	0	8	5	4	2	0	11	0	30
05:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	5
05:15 PM	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	4
05:30 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	4
05:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	5
Total	0	1	5	0	6	0	2	0	0	2	0	0	0	0	0	6	4	0	0	10	0	18
Grand Total	0	4	6	0	10	2	6	1	0	9	5	3	0	0	8	11	8	2	0	21	0	48
Apprch %	0	40	60			22.2	66.7	11.1			62.5	37.5	0			52.4	38.1	9.5				
Total %	0	8.3	12.5		20.8	4.2	12.5	2.1		18.8	10.4	6.2	0		16.7	22.9	16.7	4.2		43.8	0	100

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	2	0	2	1	1	1	3	2	1	0	3	0	0	1	1	9
04:45 PM	0	1	1	2	0	1	0	1	2	0	0	2	2	0	0	2	7
05:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	3	0	4	5
05:15 PM	0	1	1	2	0	1	0	1	0	0	0	0	1	0	0	1	4
Total Volume	0	4	3	7	1	3	1	5	4	1	0	5	4	3	1	8	25
% App. Total	0	57.1	42.9		20	60	20		80	20	0		50	37.5	12.5		
PHF	.000	.500	.750	.875	.250	.750	.250	.417	.500	.250	.000	.417	.500	.250	.250	.500	.694

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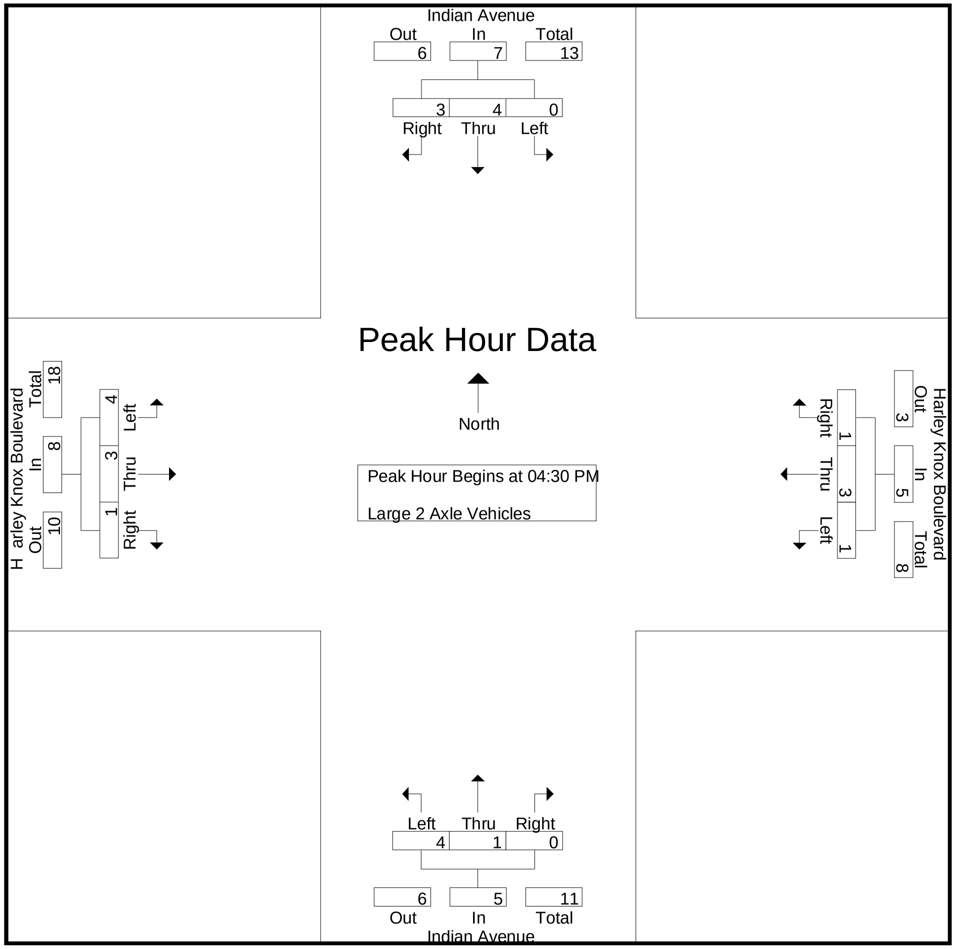

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Groups Printed- 3 Axle Vehicles

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	1	1	1	0	0	0	0	0	0	2	2	0	4	1	0	0	0	1	1	6
04:15 PM	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	1	1	0	0	2	0	7
04:30 PM	0	1	2	2	3	0	2	0	0	2	0	5	0	0	5	3	1	0	0	4	2	14
04:45 PM	1	1	0	0	2	0	0	0	0	0	0	4	0	0	4	0	3	1	0	4	0	10
Total	1	2	3	3	6	0	4	0	0	4	0	14	2	0	16	5	5	1	0	11	3	37
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4	1	0	0	5	0	9
05:15 PM	0	1	1	1	2	0	0	0	0	0	0	3	0	0	3	5	0	0	0	5	1	10
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	3	1	0	0	4	0	8
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	2	0	2	0	4	0	7
Total	0	2	1	1	3	0	1	0	0	1	0	12	0	0	12	14	2	2	0	18	1	34
Grand Total	1	4	4	4	9	0	5	0	0	5	0	26	2	0	28	19	7	3	0	29	4	71
Apprch %	11.1	44.4	44.4			0	100	0			0	92.9	7.1			65.5	24.1	10.3				
Total %	1.4	5.6	5.6		12.7	0	7	0		7	0	36.6	2.8		39.4	26.8	9.9	4.2		40.8	5.3	94.7

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	1	2	3	0	2	0	2	0	5	0	5	3	1	0	4	14
04:45 PM	1	1	0	2	0	0	0	0	0	4	0	4	0	3	1	4	10
05:00 PM	0	0	0	0	0	0	0	0	0	4	0	4	4	1	0	5	9
05:15 PM	0	1	1	2	0	0	0	0	0	3	0	3	5	0	0	5	10
Total Volume	1	3	3	7	0	2	0	2	0	16	0	16	12	5	1	18	43
% App. Total	14.3	42.9	42.9		0	100	0		0	100	0		66.7	27.8	5.6		
PHF	.250	.750	.375	.583	.000	.250	.000	.250	.000	.800	.000	.800	.600	.417	.250	.900	.768

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City of Moreno Valley
N/S: Indian Avenue
E/W: Harley Knox Boulevard
Weather: Clear

File Name : MRVINHKPM
Site Code : 05115223
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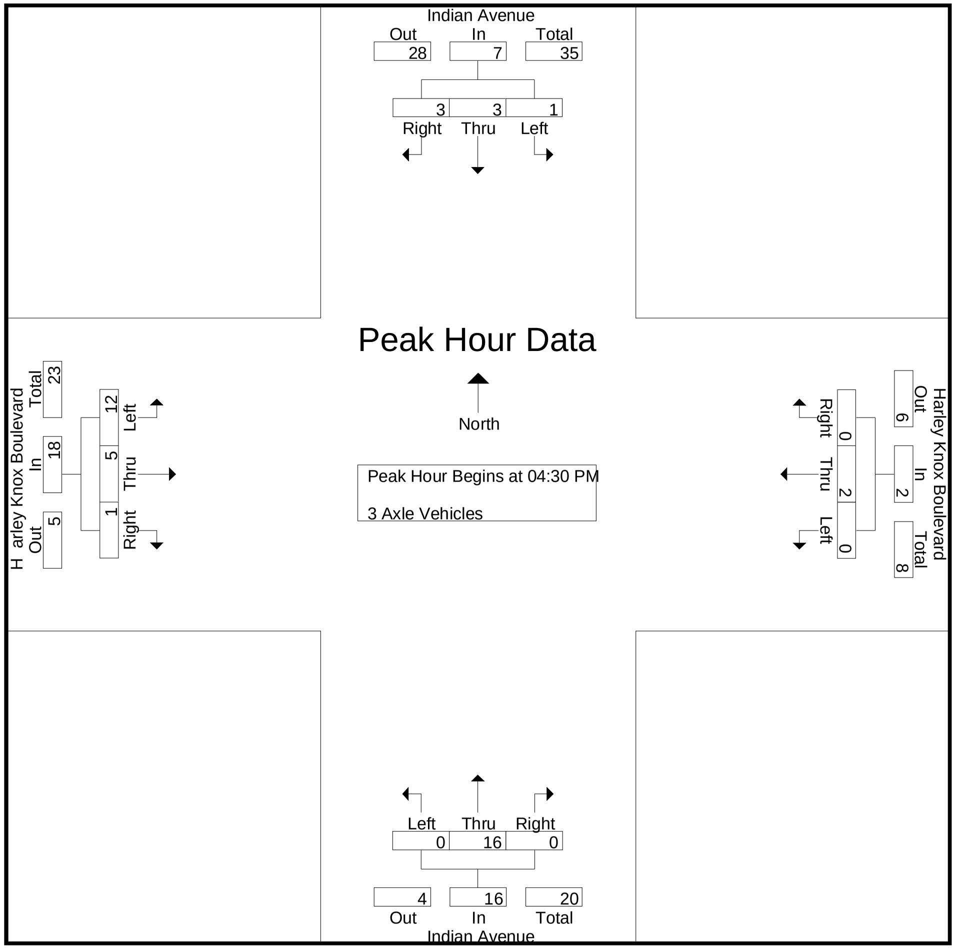

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N/S: Indian Avenue
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Groups Printed- 4+ Axle Trucks

	Indian Avenue Southbound					Harley Knox Boulevard Westbound					Indian Avenue Northbound					Harley Knox Boulevard Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	1	5	0	6	0	1	0	0	1	1	2	0	0	3	4	2	3	0	9	0	19
04:15 PM	0	1	5	0	6	0	0	0	0	0	2	2	0	0	4	3	2	1	0	6	0	16
04:30 PM	0	0	4	1	4	0	2	0	0	2	2	5	0	0	7	1	0	1	0	2	1	15
04:45 PM	1	2	8	0	11	0	1	0	0	1	1	4	0	0	5	6	0	0	0	6	0	23
Total	1	4	22	1	27	0	4	0	0	4	6	13	0	0	19	14	4	5	0	23	1	73
05:00 PM	0	3	2	0	5	1	1	0	0	2	1	2	0	0	3	2	0	2	0	4	0	14
05:15 PM	0	1	3	0	4	1	2	0	0	3	2	3	0	0	5	1	3	3	0	7	0	19
05:30 PM	0	1	3	0	4	0	0	0	0	0	3	3	0	0	6	0	0	1	0	1	0	11
05:45 PM	1	2	6	0	9	0	0	0	0	0	2	5	0	0	7	6	3	1	0	10	0	26
Total	1	7	14	0	22	2	3	0	0	5	8	13	0	0	21	9	6	7	0	22	0	70
Grand Total	2	11	36	1	49	2	7	0	0	9	14	26	0	0	40	23	10	12	0	45	1	143
Apprch %	4.1	22.4	73.5			22.2	77.8	0			35	65	0			51.1	22.2	26.7				
Total %	1.4	7.7	25.2		34.3	1.4	4.9	0		6.3	9.8	18.2	0		28	16.1	7	8.4		31.5	0.7	99.3

	Indian Avenue Southbound				Harley Knox Boulevard Westbound				Indian Avenue Northbound				Harley Knox Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	4	4	0	2	0	2	2	5	0	7	1	0	1	2	15
04:45 PM	1	2	8	11	0	1	0	1	1	4	0	5	6	0	0	6	23
05:00 PM	0	3	2	5	1	1	0	2	1	2	0	3	2	0	2	4	14
05:15 PM	0	1	3	4	1	2	0	3	2	3	0	5	1	3	3	7	19
Total Volume	1	6	17	24	2	6	0	8	6	14	0	20	10	3	6	19	71
% App. Total	4.2	25	70.8		25	75	0		30	70	0		52.6	15.8	31.6		
PHF	.250	.500	.531	.545	.500	.750	.000	.667	.750	.700	.000	.714	.417	.250	.500	.679	.772

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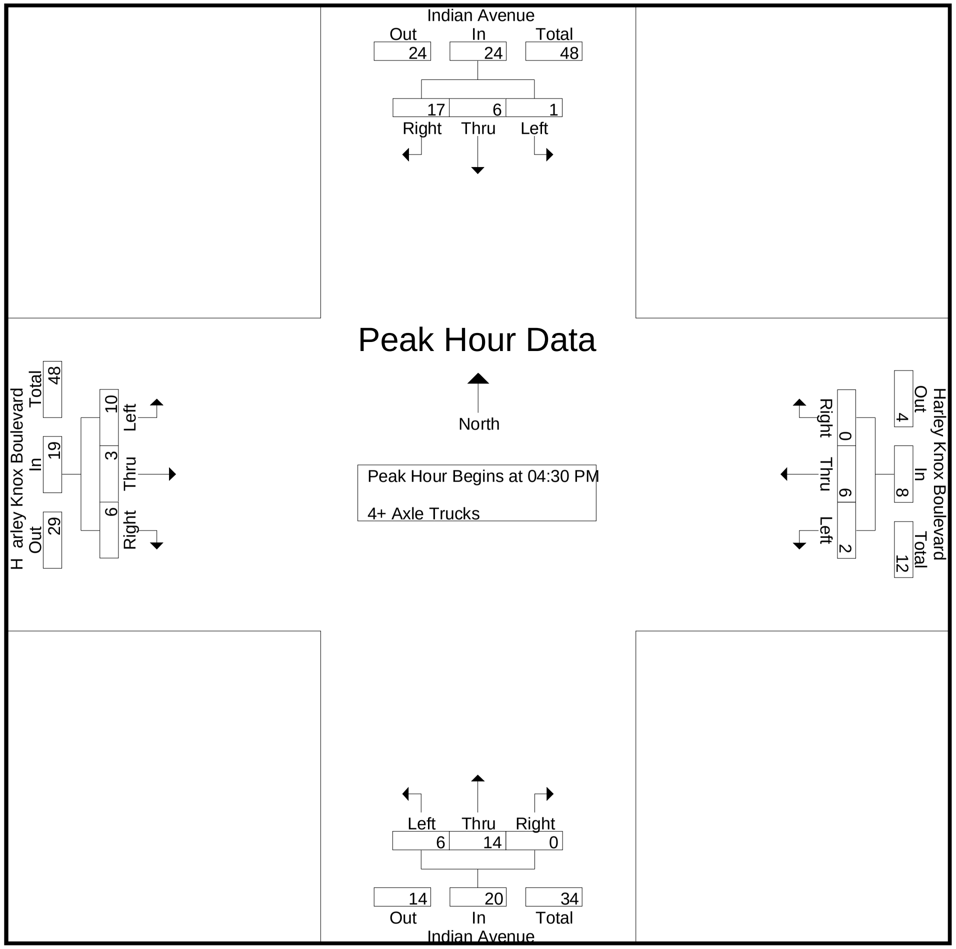

Location: Moreno Valley
N/S: Indian Avenue
E/W: Harley Knox Bouelvard

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Indian Avenue	East Leg Harley Knox Bouelvard	South Leg Indian Avenue	West Leg Harley Knox Bouelvard	TOTAL
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg Indian Avenue	East Leg Harley Knox Bouelvard	South Leg Indian Avenue	West Leg Harley Knox Bouelvard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Moreno Valley
N/S: Indian Avenue
E/W: Harley Knox Bouelvard

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Indian Avenue	East Leg Harley Knox Bouelvard	South Leg Indian Avenue	West Leg Harley Knox Bouelvard	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

	North Leg Indian Avenue	East Leg Harley Knox Bouelvard	South Leg Indian Avenue	West Leg Harley Knox Bouelvard	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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E/W: Cactus Avenue
Weather: Clear

File Name : MRVPECAAM
Site Code : 05115223
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	4	93	6	2	103	13	142	12	3	167	50	146	19	1	215	12	65	18	6	95	12	580
07:15 AM	16	119	3	1	138	8	199	12	1	219	46	171	12	4	229	16	82	27	4	125	10	711
07:30 AM	30	125	9	2	164	17	189	19	3	225	36	210	22	1	268	15	111	37	4	163	10	820
07:45 AM	36	132	15	4	183	18	168	25	1	211	53	217	24	4	294	13	129	35	6	177	15	865
Total	86	469	33	9	588	56	698	68	8	822	185	744	77	10	1006	56	387	117	20	560	47	2976
08:00 AM	17	90	12	2	119	16	146	19	3	181	53	211	24	2	288	19	80	25	1	124	8	712
08:15 AM	13	123	5	2	141	14	114	12	2	140	35	182	16	0	233	9	75	22	4	106	8	620
08:30 AM	15	100	13	2	128	11	94	20	9	125	23	122	17	3	162	10	58	19	4	87	18	502
08:45 AM	16	104	10	2	130	14	108	19	1	141	53	146	4	0	203	11	86	26	3	123	6	597
Total	61	417	40	8	518	55	462	70	15	587	164	661	61	5	886	49	299	92	12	440	40	2431
Grand Total	147	886	73	17	1106	111	1160	138	23	1409	349	1405	138	15	1892	105	686	209	32	1000	87	5407
Apprch %	13.3	80.1	6.6			7.9	82.3	9.8			18.4	74.3	7.3			10.5	68.6	20.9				
Total %	2.7	16.4	1.4		20.5	2.1	21.5	2.6		26.1	6.5	26	2.6		35	1.9	12.7	3.9		18.5	1.6	98.4
Passenger Vehicles	144	840	69		1070	106	1144	135		1407	340	1349	128		1832	103	668	195		998	0	0
% Passenger Vehicles	98	94.8	94.5	100	95.3	95.5	98.6	97.8	95.7	98.3	97.4	96	92.8	100	96.1	98.1	97.4	93.3	100	96.7	0	0
Large 2 Axle Vehicles	3	33	3		39	3	14	3		21	6	39	7		52	2	15	9		26	0	0
% Large 2 Axle Vehicles	2	3.7	4.1	0	3.5	2.7	1.2	2.2	4.3	1.5	1.7	2.8	5.1	0	2.7	1.9	2.2	4.3	0	2.5	0	0
3 Axle Vehicles	0	2	0		2	1	1	0		2	1	2	3		6	0	1	2		3	0	0
% 3 Axle Vehicles	0	0.2	0	0	0.2	0.9	0.1	0	0	0.1	0.3	0.1	2.2	0	0.3	0	0.1	1	0	0.3	0	0
4+ Axle Trucks	0	11	1		12	1	1	0		2	2	15	0		17	0	2	3		5	0	0
% 4+ Axle Trucks	0	1.2	1.4	0	1.1	0.9	0.1	0	0	0.1	0.6	1.1	0	0	0.9	0	0.3	1.4	0	0.5	0	0

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	16	119	3	138	8	199	12	219	46	171	12	229	16	82	27	125	711
07:30 AM	30	125	9	164	17	189	19	225	36	210	22	268	15	111	37	163	820
07:45 AM	36	132	15	183	18	168	25	211	53	217	24	294	13	129	35	177	865
08:00 AM	17	90	12	119	16	146	19	181	53	211	24	288	19	80	25	124	712
Total Volume	99	466	39	604	59	702	75	836	188	809	82	1079	63	402	124	589	3108
% App. Total	16.4	77.2	6.5		7.1	84	9		17.4	75	7.6		10.7	68.3	21.1		
PHF	.688	.883	.650	.825	.819	.882	.750	.929	.887	.932	.854	.918	.829	.779	.838	.832	.898

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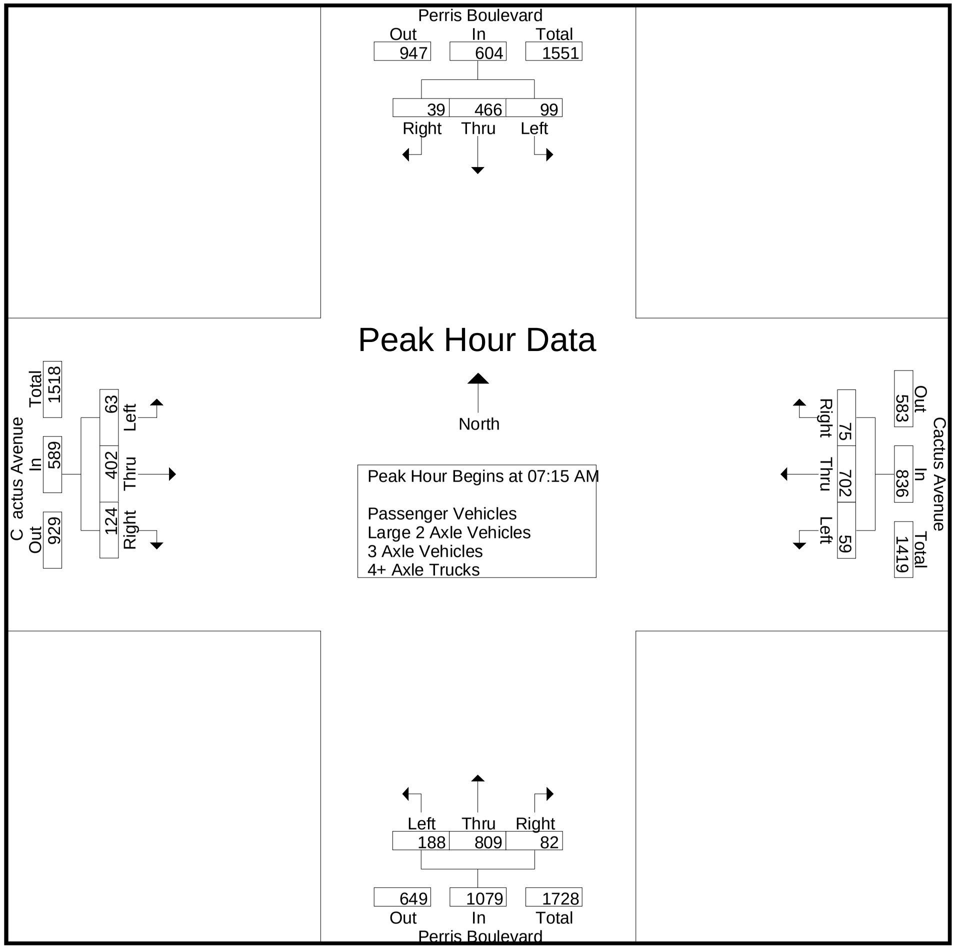

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File Name : MRVPECAAM
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Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	3	0	0	3	0	3	0	0	3	3	3	1	0	7	1	1	3	0	5	0	18
07:15 AM	0	5	0	0	5	0	3	1	0	4	0	4	1	0	5	0	1	1	0	2	0	16
07:30 AM	0	5	1	0	6	2	2	0	0	4	0	5	0	0	5	0	2	0	0	2	0	17
07:45 AM	0	2	1	0	3	0	1	0	0	1	0	3	2	0	5	0	4	0	0	4	0	13
Total	0	15	2	0	17	2	9	1	0	12	3	15	4	0	22	1	8	4	0	13	0	64
08:00 AM	1	2	1	0	4	0	3	1	0	4	2	8	0	0	10	1	3	3	0	7	0	25
08:15 AM	2	5	0	0	7	0	0	0	0	0	0	8	0	0	8	0	1	0	0	1	0	16
08:30 AM	0	7	0	0	7	1	2	1	1	4	0	3	3	0	6	0	0	2	0	2	1	19
08:45 AM	0	4	0	0	4	0	0	0	0	0	1	5	0	0	6	0	3	0	0	3	0	13
Total	3	18	1	0	22	1	5	2	1	8	3	24	3	0	30	1	7	5	0	13	1	73
Grand Total	3	33	3	0	39	3	14	3	1	20	6	39	7	0	52	2	15	9	0	26	1	137
Apprch %	7.7	84.6	7.7			15	70	15			11.5	75	13.5			7.7	57.7	34.6				
Total %	2.2	24.1	2.2		28.5	2.2	10.2	2.2		14.6	4.4	28.5	5.1		38	1.5	10.9	6.6		19	0.7	99.3

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	5	0	5	0	3	1	4	0	4	1	5	0	1	1	2	16
07:30 AM	0	5	1	6	2	2	0	4	0	5	0	5	0	2	0	2	17
07:45 AM	0	2	1	3	0	1	0	1	0	3	2	5	0	4	0	4	13
08:00 AM	1	2	1	4	0	3	1	4	2	8	0	10	1	3	3	7	25
Total Volume	1	14	3	18	2	9	2	13	2	20	3	25	1	10	4	15	71
% App. Total	5.6	77.8	16.7		15.4	69.2	15.4		8	80	12		6.7	66.7	26.7		
PHF	.250	.700	.750	.750	.250	.750	.500	.813	.250	.625	.375	.625	.250	.625	.333	.536	.710

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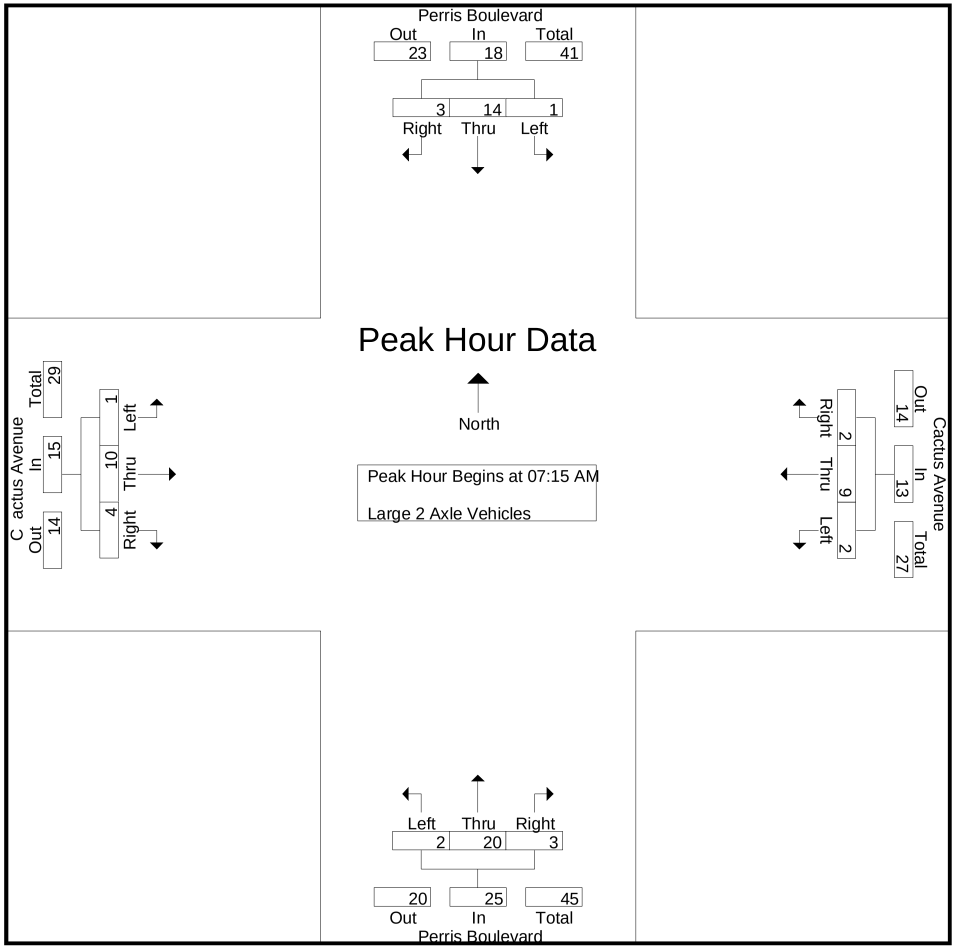

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Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
Total	0	1	0	0	1	0	1	0	0	1	0	0	2	0	2	0	0	2	0	2	0	6
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	1	0	0	1	0	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2
Total	0	1	0	0	1	1	0	0	0	1	1	2	1	0	4	0	1	0	0	1	0	7
Grand Total	0	2	0	0	2	1	1	0	0	2	1	2	3	0	6	0	1	2	0	3	0	13
Apprch %	0	100	0			50	50	0			16.7	33.3	50			0	33.3	66.7				
Total %	0	15.4	0		15.4	7.7	7.7	0		15.4	7.7	15.4	23.1		46.2	0	7.7	15.4		23.1	0	100

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
08:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	1	0	1	0	0	1	1	0	0	2	2	6
% App. Total	0	100	0		0	100	0		0	0	100		0	0	100		
PHF	.000	.500	.000	.500	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.500	.500	.750

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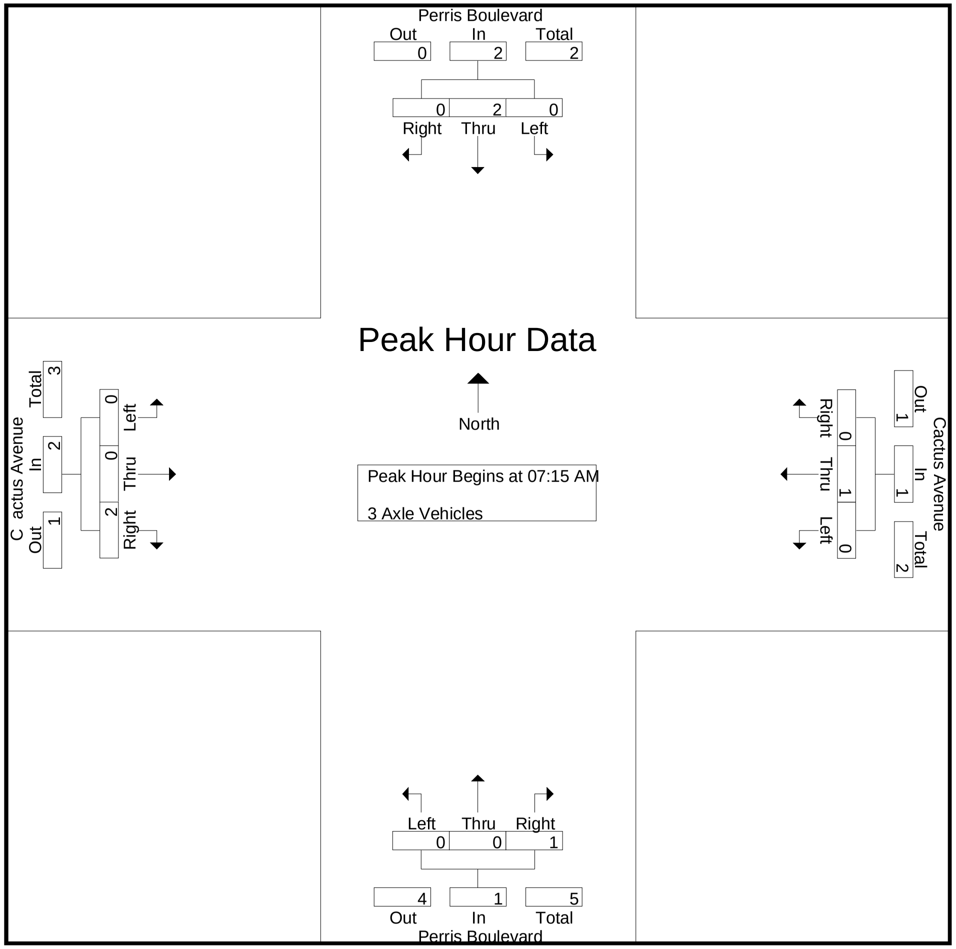

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Cactus Avenue
Weather: Clear

File Name : MRVPECAAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	3
07:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	4
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
07:45 AM	0	1	0	0	1	0	1	0	0	1	0	3	0	0	3	0	0	1	0	1	0	6
Total	0	6	0	0	6	0	1	0	0	1	0	5	0	0	5	0	1	2	0	3	0	15
08:00 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	0	4
08:15 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
08:30 AM	0	2	0	0	2	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	5
08:45 AM	0	1	1	0	2	0	0	0	0	0	0	6	0	0	6	0	1	0	0	1	0	9
Total	0	5	1	0	6	1	0	0	0	1	2	10	0	0	12	0	1	1	0	2	0	21
Grand Total	0	11	1	0	12	1	1	0	0	2	2	15	0	0	17	0	2	3	0	5	0	36
Apprch %	0	91.7	8.3			50	50	0			11.8	88.2	0			0	40	60				
Total %	0	30.6	2.8		33.3	2.8	2.8	0		5.6	5.6	41.7	0		47.2	0	5.6	8.3		13.9	0	100

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1	1	4
07:30 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:45 AM	0	1	0	1	0	1	0	1	0	3	0	3	0	0	1	1	6
08:00 AM	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	4
Total Volume	0	5	0	5	0	1	0	1	2	6	0	8	0	0	2	2	16
% App. Total	0	100	0		0	100	0		25	75	0		0	0	100		
PHF	.000	.417	.000	.417	.000	.250	.000	.250	.250	.500	.000	.500	.000	.000	.500	.500	.667

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File Name : MRVPECAAM
Site Code : 05115223
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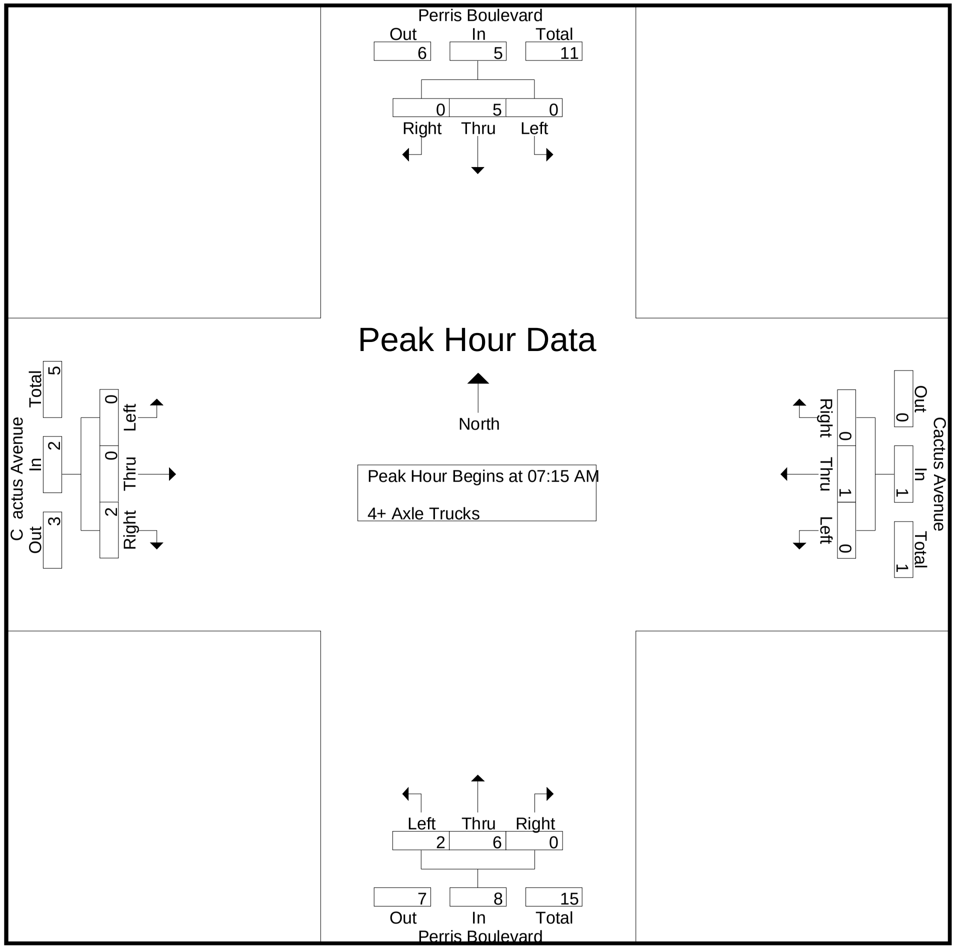

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City of Moreno Valley
N/S: Perris Boulevard
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File Name : MRVPECAPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	24	183	15	0	222	14	105	13	3	132	35	173	16	2	224	10	125	41	6	176	11	754
04:15 PM	25	199	9	2	233	10	93	23	4	126	35	187	12	3	234	13	130	57	10	200	19	793
04:30 PM	29	213	17	5	259	16	123	9	1	148	46	146	15	0	207	15	129	42	9	186	15	800
04:45 PM	31	230	10	2	271	9	106	20	2	135	42	206	18	7	266	9	119	50	8	178	19	850
Total	109	825	51	9	985	49	427	65	10	541	158	712	61	12	931	47	503	190	33	740	64	3197
05:00 PM	27	224	10	4	261	9	97	21	2	127	37	200	9	1	246	8	145	47	5	200	12	834
05:15 PM	32	239	8	3	279	17	103	15	2	135	32	163	11	1	206	17	137	46	2	200	8	820
05:30 PM	35	220	10	2	265	13	99	17	3	129	43	174	9	2	226	15	145	58	6	218	13	838
05:45 PM	29	247	14	2	290	17	84	18	2	119	36	164	8	0	208	12	142	62	11	216	15	833
Total	123	930	42	11	1095	56	383	71	9	510	148	701	37	4	886	52	569	213	24	834	48	3325
Grand Total	232	1755	93	20	2080	105	810	136	19	1051	306	1413	98	16	1817	99	1072	403	57	1574	112	6522
Apprch %	11.2	84.4	4.5			10	77.1	12.9			16.8	77.8	5.4			6.3	68.1	25.6				
Total %	3.6	26.9	1.4		31.9	1.6	12.4	2.1		16.1	4.7	21.7	1.5		27.9	1.5	16.4	6.2		24.1	1.7	98.3
Passenger Vehicles	232	1719	91		2062	103	800	135		1057	297	1384	97		1794	98	1059	399		1613	0	0
% Passenger Vehicles	100	97.9	97.8	100	98.2	98.1	98.8	99.3	100	98.8	97.1	97.9	99	100	97.9	99	98.8	99	100	98.9	0	0
Large 2 Axle Vehicles	0	23	2		25	2	8	1		11	4	20	0		24	1	13	3		17	0	0
% Large 2 Axle Vehicles	0	1.3	2.2	0	1.2	1.9	1	0.7	0	1	1.3	1.4	0	0	1.3	1	1.2	0.7	0	1	0	0
3 Axle Vehicles	0	3	0		3	0	0	0		0	5	1	1		7	0	0	1		1	0	0
% 3 Axle Vehicles	0	0.2	0	0	0.1	0	0	0	0	0	1.6	0.1	1	0	0.4	0	0	0.2	0	0.1	0	0
4+ Axle Trucks	0	10	0		10	0	2	0		2	0	8	0		8	0	0	0		0	0	0
% 4+ Axle Trucks	0	0.6	0	0	0.5	0	0.2	0	0	0.2	0	0.6	0	0	0.4	0	0	0	0	0	0	0

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	31	230	10	271	9	106	20	135	42	206	18	266	9	119	50	178	850
05:00 PM	27	224	10	261	9	97	21	127	37	200	9	246	8	145	47	200	834
05:15 PM	32	239	8	279	17	103	15	135	32	163	11	206	17	137	46	200	820
05:30 PM	35	220	10	265	13	99	17	129	43	174	9	226	15	145	58	218	838
Total Volume	125	913	38	1076	48	405	73	526	154	743	47	944	49	546	201	796	3342
% App. Total	11.6	84.9	3.5		9.1	77	13.9		16.3	78.7	5		6.2	68.6	25.3		
PHF	.893	.955	.950	.964	.706	.955	.869	.974	.895	.902	.653	.887	.721	.941	.866	.913	.983

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File Name : MRVPECAPM
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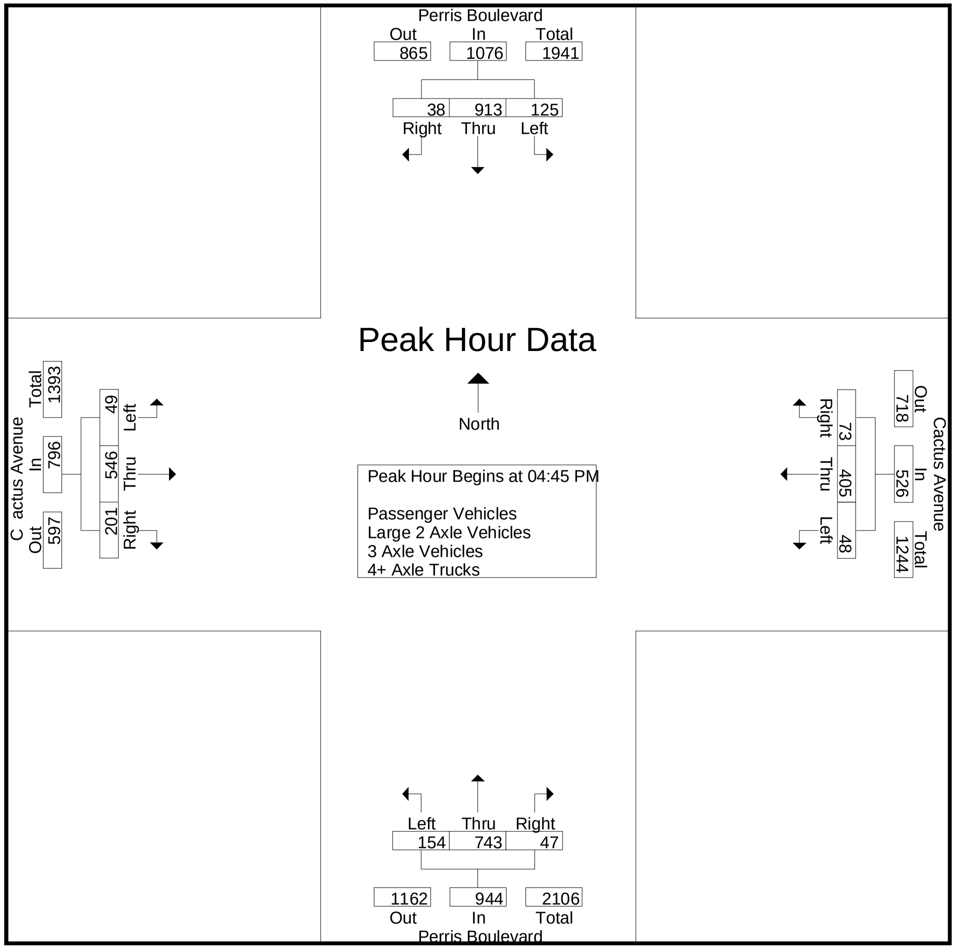

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Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	3	0	0	3	2	2	0	0	4	0	4	0	0	4	0	1	0	0	1	0	12
04:15 PM	0	1	0	0	1	0	1	0	0	1	2	4	0	0	6	0	1	1	0	2	0	10
04:30 PM	0	5	2	0	7	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	0	10
04:45 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	1	4	0	0	5	0	9
Total	0	12	2	0	14	2	4	1	0	7	2	10	0	0	12	1	6	1	0	8	0	41
05:00 PM	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	1	1	0	2	0	5
05:15 PM	0	1	0	0	1	0	1	0	0	1	1	4	0	0	5	0	1	0	0	1	0	8
05:30 PM	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	0	3	0	0	3	0	9
05:45 PM	0	5	0	0	5	0	3	0	0	3	0	3	0	0	3	0	2	1	0	3	0	14
Total	0	11	0	0	11	0	4	0	0	4	2	10	0	0	12	0	7	2	0	9	0	36
Grand Total	0	23	2	0	25	2	8	1	0	11	4	20	0	0	24	1	13	3	0	17	0	77
Apprch %	0	92	8			18.2	72.7	9.1			16.7	83.3	0			5.9	76.5	17.6				
Total %	0	29.9	2.6		32.5	2.6	10.4	1.3		14.3	5.2	26	0		31.2	1.3	16.9	3.9		22.1	0	100

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	3	0	3	0	0	0	0	0	1	0	1	1	4	0	5	9
05:00 PM	0	1	0	1	0	0	0	0	1	1	0	2	0	1	1	2	5
05:15 PM	0	1	0	1	0	1	0	1	1	4	0	5	0	1	0	1	8
05:30 PM	0	4	0	4	0	0	0	0	0	2	0	2	0	3	0	3	9
Total Volume	0	9	0	9	0	1	0	1	2	8	0	10	1	9	1	11	31
% App. Total	0	100	0		0	100	0		20	80	0		9.1	81.8	9.1		
PHF	.000	.563	.000	.563	.000	.250	.000	.250	.500	.500	.000	.500	.250	.563	.250	.550	.861

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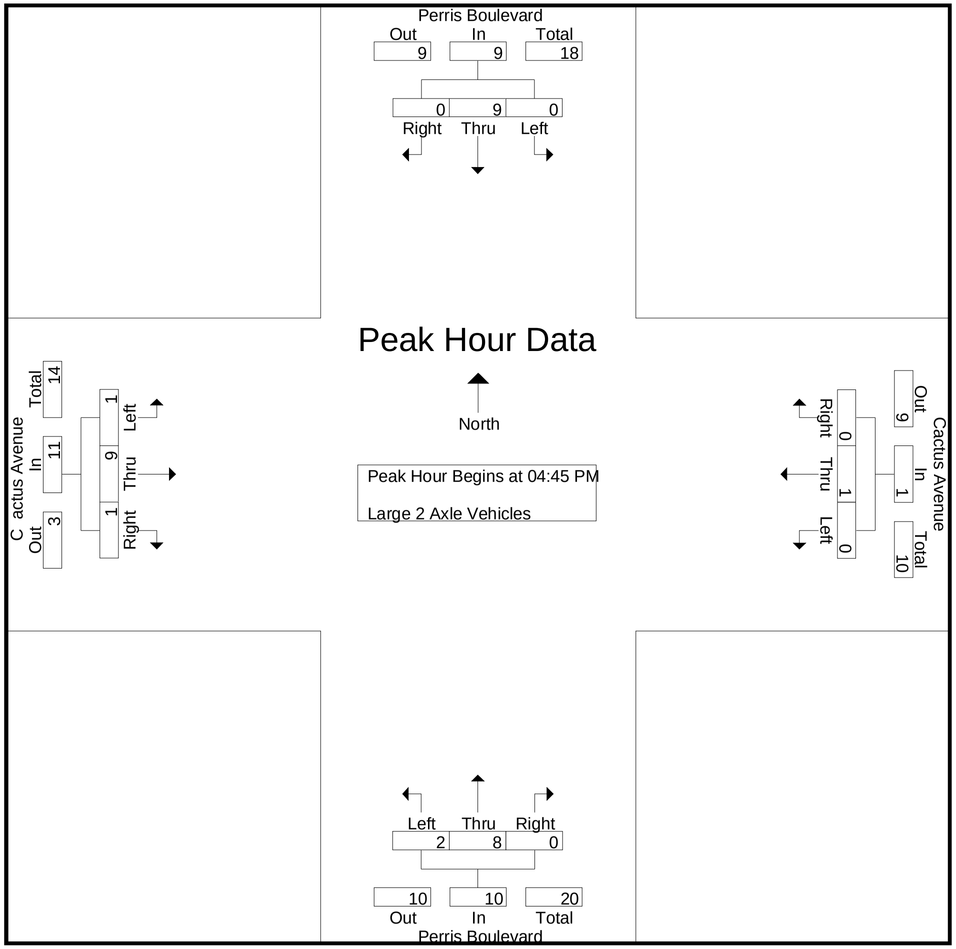

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Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1
Total	0	0	0	0	0	0	0	0	0	0	3	0	1	0	4	0	0	1	0	1	0	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2
05:15 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	0	3	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	6
Grand Total	0	3	0	0	3	0	0	0	0	0	5	1	1	0	7	0	0	1	0	1	0	11
Apprch %	0	100	0			0	0	0			71.4	14.3	14.3			0	0	100				
Total %	0	27.3	0		27.3	0	0	0		0	45.5	9.1	9.1		63.6	0	0	9.1		9.1	0	100

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:00 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
05:15 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
Total Volume	0	3	0	3	0	0	0	0	2	1	0	3	0	0	1	1	7
% App. Total	0	100	0		0	0	0		66.7	33.3	0		0	0	100		
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.500	.250	.000	.375	.000	.000	.250	.250	.875

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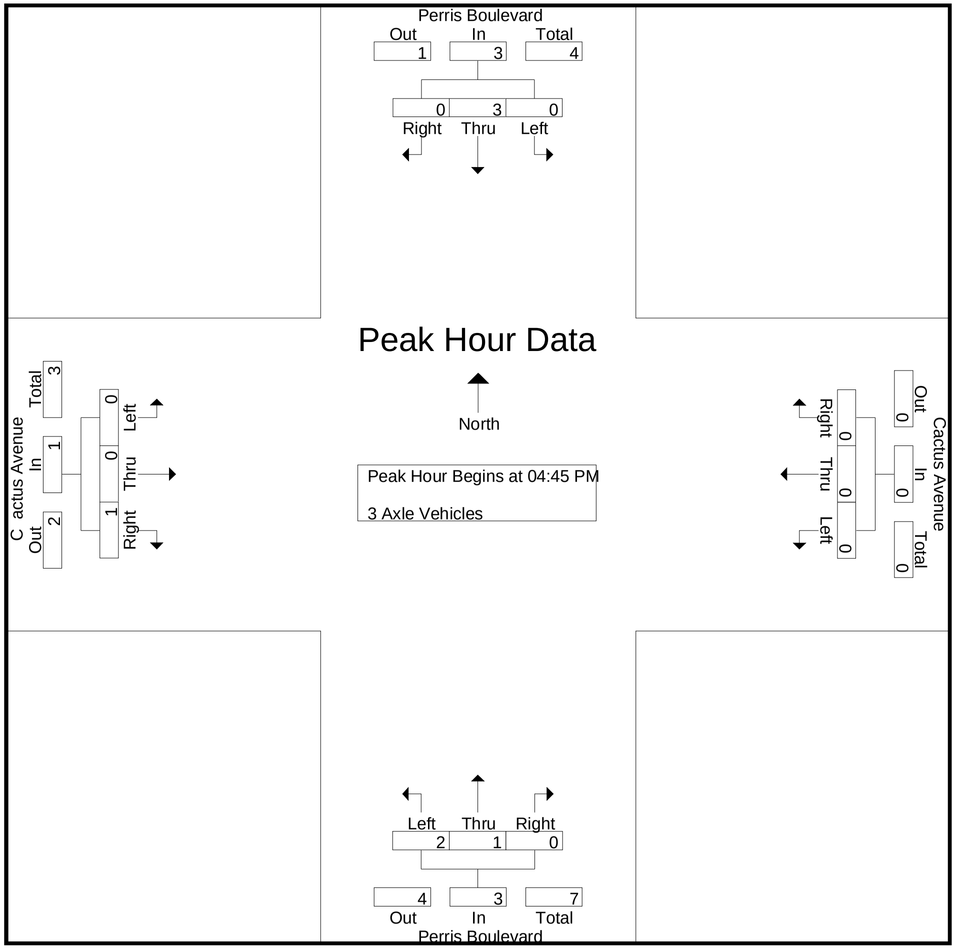

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File Name : MRVPECAPM
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Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound					Cactus Avenue Westbound					Perris Boulevard Northbound					Cactus Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	1	0	0	1	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	4
04:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
04:30 PM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	4
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Total	0	5	0	0	5	0	2	0	0	2	0	5	0	0	5	0	0	0	0	0	0	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
Total	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	8
Grand Total	0	10	0	0	10	0	2	0	0	2	0	8	0	0	8	0	0	0	0	0	0	20
Apprch %	0	100	0			0	100	0			0	100	0			0	0	0				
Total %	0	50	0		50	0	10	0		10	0	40	0		40	0	0	0		0	0	100

	Perris Boulevard Southbound				Cactus Avenue Westbound				Perris Boulevard Northbound				Cactus Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	4	0	4	0	0	0	0	0	3	0	3	0	0	0	0	7
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.875

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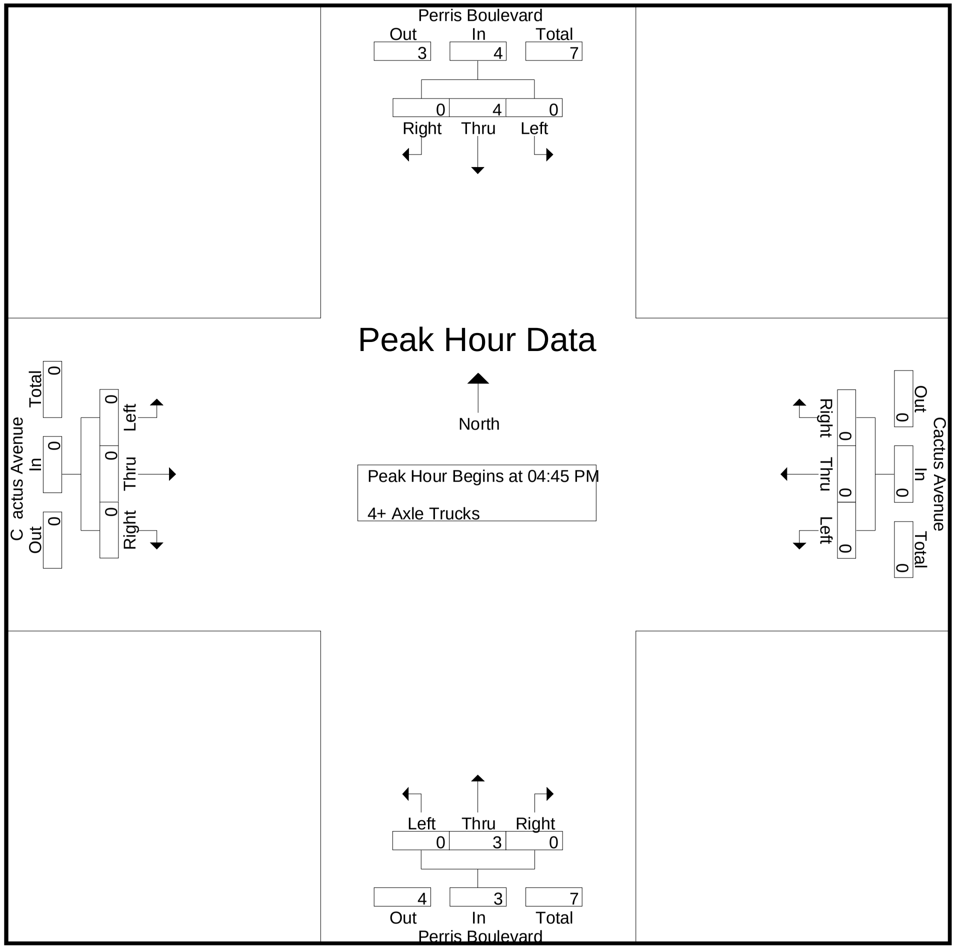

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Perris Boulevard	East Leg Cactus Avenue	South Leg Perris Boulevard	West Leg Cactus Avenue	TOTAL
7:00 AM	0	2	1	0	3
7:15 AM	0	0	0	0	0
7:30 AM	0	3	3	0	6
7:45 AM	1	0	4	1	6
8:00 AM	1	3	0	1	5
8:15 AM	1	1	4	0	6
8:30 AM	0	0	4	1	5
8:45 AM	2	1	0	0	3
TOTAL VOLUMES:	5	10	16	3	34

	North Leg Perris Boulevard	East Leg Cactus Avenue	South Leg Perris Boulevard	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	0	1	1
4:15 PM	1	0	0	0	1
4:30 PM	0	3	3	4	10
4:45 PM	2	0	0	0	2
5:00 PM	0	1	0	0	1
5:15 PM	1	0	0	0	1
5:30 PM	0	0	3	0	3
5:45 PM	0	0	1	1	2
TOTAL VOLUMES:	4	4	7	6	21

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Cactus Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Perris Boulevard	East Leg Cactus Avenue	South Leg Perris Boulevard	West Leg Cactus Avenue	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	1	0	0	0	1
8:00 AM	1	0	0	1	2
8:15 AM	2	0	0	1	3
8:30 AM	1	0	0	0	1
8:45 AM	0	2	0	0	2
TOTAL VOLUMES:	5	2	0	2	9

	North Leg Perris Boulevard	East Leg Cactus Avenue	South Leg Perris Boulevard	West Leg Cactus Avenue	TOTAL
4:00 PM	0	0	1	1	2
4:15 PM	0	0	1	0	1
4:30 PM	0	1	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	1	0	0	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	1	2	1	5

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	18	118	1	1	137	37	18	36	28	91	11	176	61	7	248	4	30	4	2	38	38	514
07:15 AM	27	136	1	0	164	62	21	44	19	127	16	190	83	9	289	6	34	17	7	57	35	637
07:30 AM	18	139	2	1	159	40	38	56	18	134	25	239	85	2	349	4	33	13	2	50	23	692
07:45 AM	26	165	3	0	194	45	30	54	26	129	12	188	54	5	254	2	59	28	4	89	35	666
Total	89	558	7	2	654	184	107	190	91	481	64	793	283	23	1140	16	156	62	15	234	131	2509
08:00 AM	25	102	3	0	130	25	20	53	35	98	7	179	30	3	216	8	27	11	3	46	41	490
08:15 AM	11	110	2	0	123	29	10	39	31	78	0	170	19	2	189	3	8	4	2	15	35	405
08:30 AM	14	70	1	0	85	28	20	20	13	68	5	120	19	1	144	4	3	5	5	12	19	309
08:45 AM	9	88	3	1	100	13	11	19	14	43	3	112	15	3	130	0	6	15	10	21	28	294
Total	59	370	9	1	438	95	61	131	93	287	15	581	83	9	679	15	44	35	20	94	123	1498
Grand Total	148	928	16	3	1092	279	168	321	184	768	79	1374	366	32	1819	31	200	97	35	328	254	4007
Apprch %	13.6	85	1.5			36.3	21.9	41.8			4.3	75.5	20.1			9.5	61	29.6				
Total %	3.7	23.2	0.4		27.3	7	4.2	8		19.2	2	34.3	9.1		45.4	0.8	5	2.4		8.2	6	94
Passenger Vehicles	145	898	16		1062	269	168	319		940	75	1308	355		1770	30	197	93		355	0	0
% Passenger Vehicles	98	96.8	100	100	97	96.4	100	99.4	100	98.7	94.9	95.2	97	100	95.6	96.8	98.5	95.9	100	97.8	0	0
Large 2 Axle Vehicles	2	23	0		25	10	0	2		12	4	43	11		58	1	3	4		8	0	0
% Large 2 Axle Vehicles	1.4	2.5	0	0	2.3	3.6	0	0.6	0	1.3	5.1	3.1	3	0	3.1	3.2	1.5	4.1	0	2.2	0	0
3 Axle Vehicles	0	1	0		1	0	0	0		0	0	8	0		8	0	0	0		0	0	0
% 3 Axle Vehicles	0	0.1	0	0	0.1	0	0	0	0	0	0	0.6	0	0	0.4	0	0	0	0	0	0	0
4+ Axle Trucks	1	6	0		7	0	0	0		0	0	15	0		15	0	0	0		0	0	0
% 4+ Axle Trucks	0.7	0.6	0	0	0.6	0	0	0	0	0	0	1.1	0	0	0.8	0	0	0	0	0	0	0

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	18	118	1	137	37	18	36	91	11	176	61	248	4	30	4	38	514
07:15 AM	27	136	1	164	62	21	44	127	16	190	83	289	6	34	17	57	637
07:30 AM	18	139	2	159	40	38	56	134	25	239	85	349	4	33	13	50	692
07:45 AM	26	165	3	194	45	30	54	129	12	188	54	254	2	59	28	89	666
Total Volume	89	558	7	654	184	107	190	481	64	793	283	1140	16	156	62	234	2509
% App. Total	13.6	85.3	1.1		38.3	22.2	39.5		5.6	69.6	24.8		6.8	66.7	26.5		
PHF	.824	.845	.583	.843	.742	.704	.848	.897	.640	.829	.832	.817	.667	.661	.554	.657	.906

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRAM
Site Code : 05115223
Start Date : 4/28/2015
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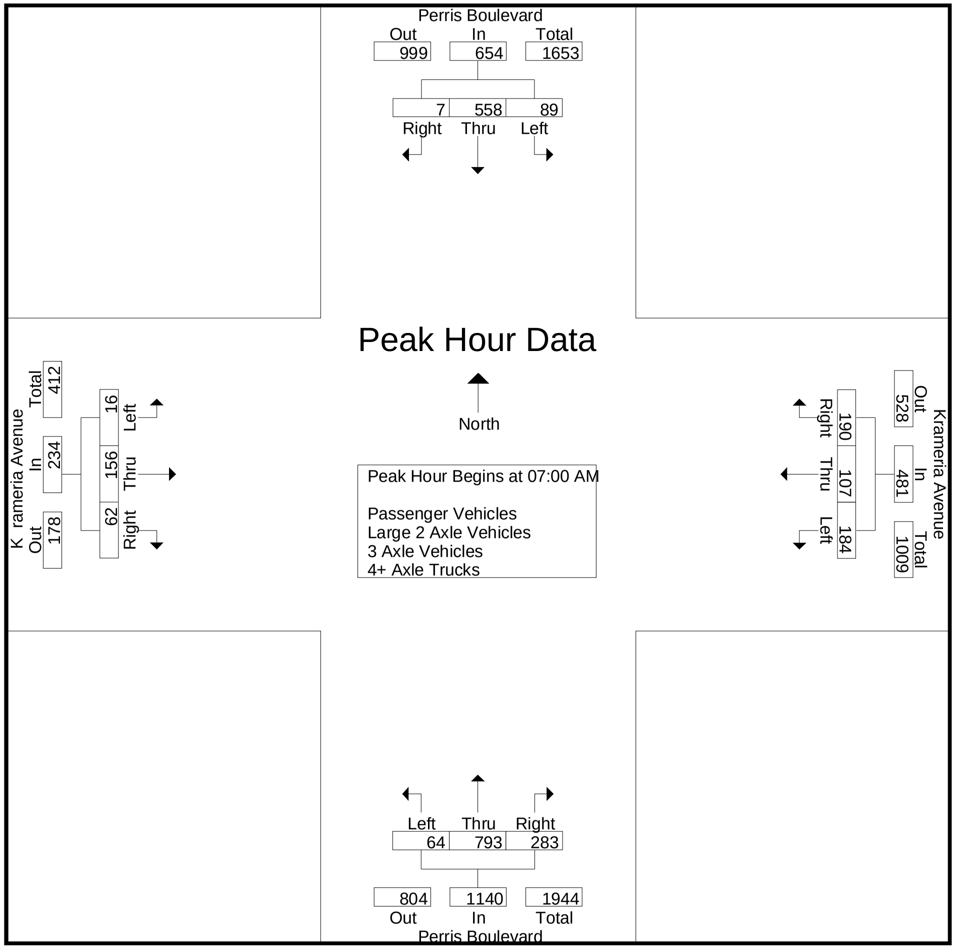

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City of Moreno Valley
N/S: Perris Boulevard
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File Name : MRVPEKRAM
Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	3	0	0	3	1	0	0	0	1	0	7	2	0	9	0	0	0	0	0	0	13
07:15 AM	0	3	0	0	3	1	0	0	0	1	1	5	1	0	7	0	1	0	0	1	0	12
07:30 AM	0	5	0	0	5	1	0	0	0	1	2	4	1	0	7	0	2	0	0	2	0	15
07:45 AM	0	4	0	0	4	1	0	0	0	1	0	2	1	0	3	0	0	3	0	3	0	11
Total	0	15	0	0	15	4	0	0	0	4	3	18	5	0	26	0	3	3	0	6	0	51
08:00 AM	1	3	0	0	4	1	0	1	0	2	1	3	2	0	6	1	0	1	0	2	0	14
08:15 AM	0	0	0	0	0	4	0	1	0	5	0	9	0	0	9	0	0	0	0	0	0	14
08:30 AM	0	3	0	0	3	1	0	0	0	1	0	8	3	0	11	0	0	0	0	0	0	15
08:45 AM	1	2	0	0	3	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	9
Total	2	8	0	0	10	6	0	2	0	8	1	25	6	0	32	1	0	1	0	2	0	52
Grand Total	2	23	0	0	25	10	0	2	0	12	4	43	11	0	58	1	3	4	0	8	0	103
Apprch %	8	92	0			83.3	0	16.7			6.9	74.1	19			12.5	37.5	50				
Total %	1.9	22.3	0		24.3	9.7	0	1.9		11.7	3.9	41.7	10.7		56.3	1	2.9	3.9		7.8	0	100

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	3	0	3	1	0	0	1	0	7	2	9	0	0	0	0	13
07:15 AM	0	3	0	3	1	0	0	1	1	5	1	7	0	1	0	1	12
07:30 AM	0	5	0	5	1	0	0	1	2	4	1	7	0	2	0	2	15
07:45 AM	0	4	0	4	1	0	0	1	0	2	1	3	0	0	3	3	11
Total Volume	0	15	0	15	4	0	0	4	3	18	5	26	0	3	3	6	51
% App. Total	0	100	0		100	0	0		11.5	69.2	19.2		0	50	50		
PHF	.000	.750	.000	.750	1.00	.000	.000	1.00	.375	.643	.625	.722	.000	.375	.250	.500	.850

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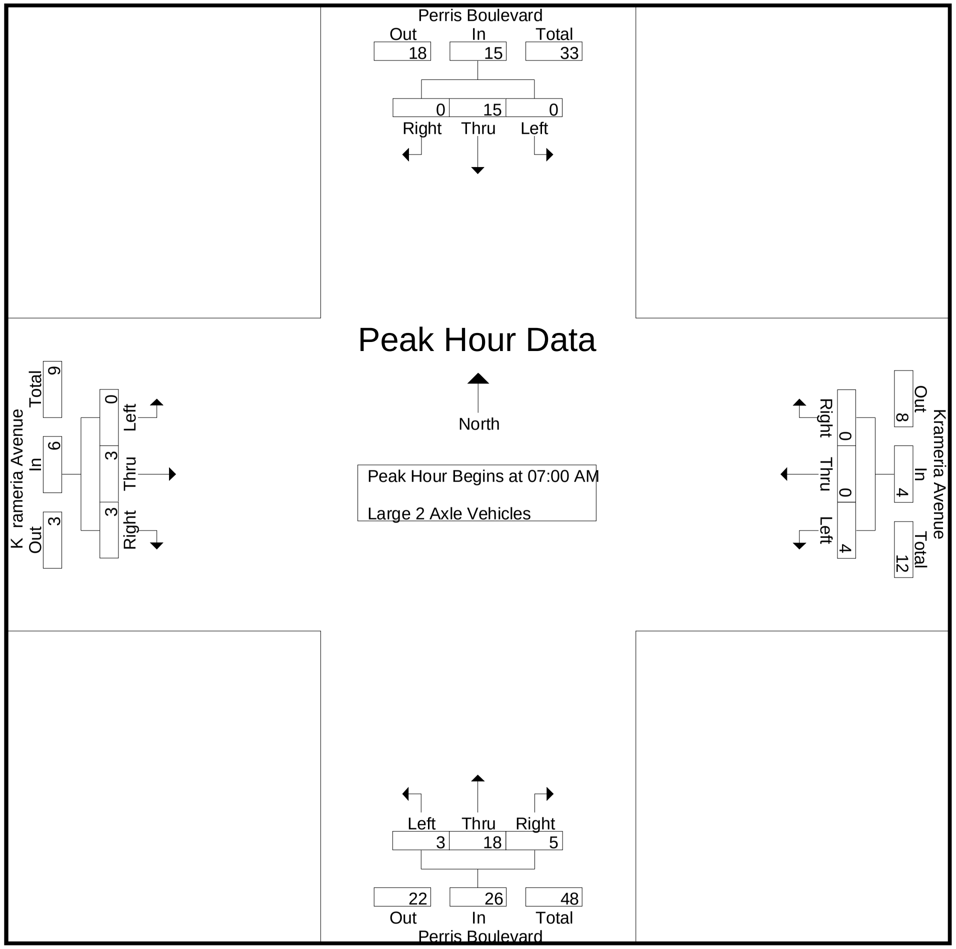

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City of Moreno Valley
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Site Code : 05115223
Start Date : 4/28/2015
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Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5
Grand Total	0	1	0	0	1	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	9
Apprch %	0	100	0			0	0	0			0	100	0			0	0	0				
Total %	0	11.1	0		11.1	0	0	0		0	0	88.9	0		88.9	0	0	0		0	0	100

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	4
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.333	.000	.333	.000	.000	.000	.000	.333

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File Name : MRVPEKRAM
Site Code : 05115223
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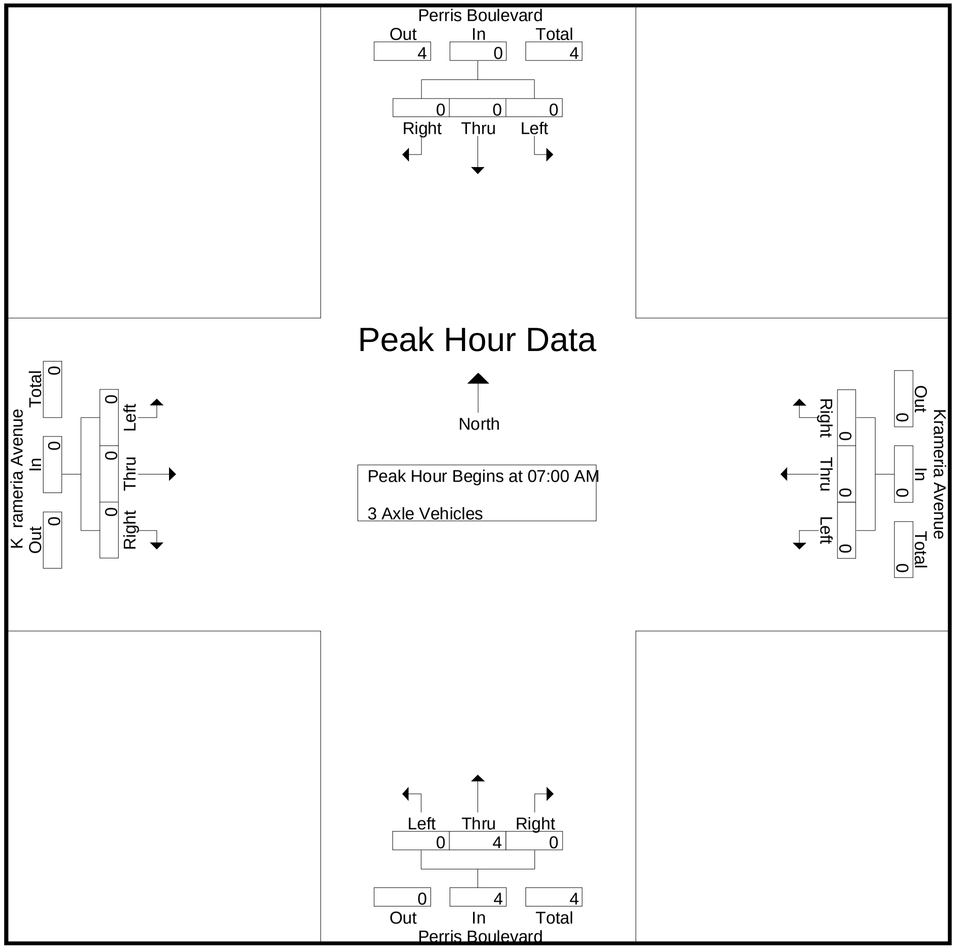

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRAM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
07:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
Total	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	7
08:00 AM	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5
08:15 AM	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
08:45 AM	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3
Total	1	4	0	0	5	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	15
Grand Total	1	6	0	0	7	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	22
Apprch %	14.3	85.7	0			0	0	0			0	100	0			0	0	0				
Total %	4.5	27.3	0		31.8	0	0	0		0	0	68.2	0		68.2	0	0	0		0	0	100

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
Total Volume	0	2	0	2	0	0	0	0	0	5	0	5	0	0	0	0	7
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.417	.000	.417	.000	.000	.000	.000	.583

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File Name : MRVPEKRAM
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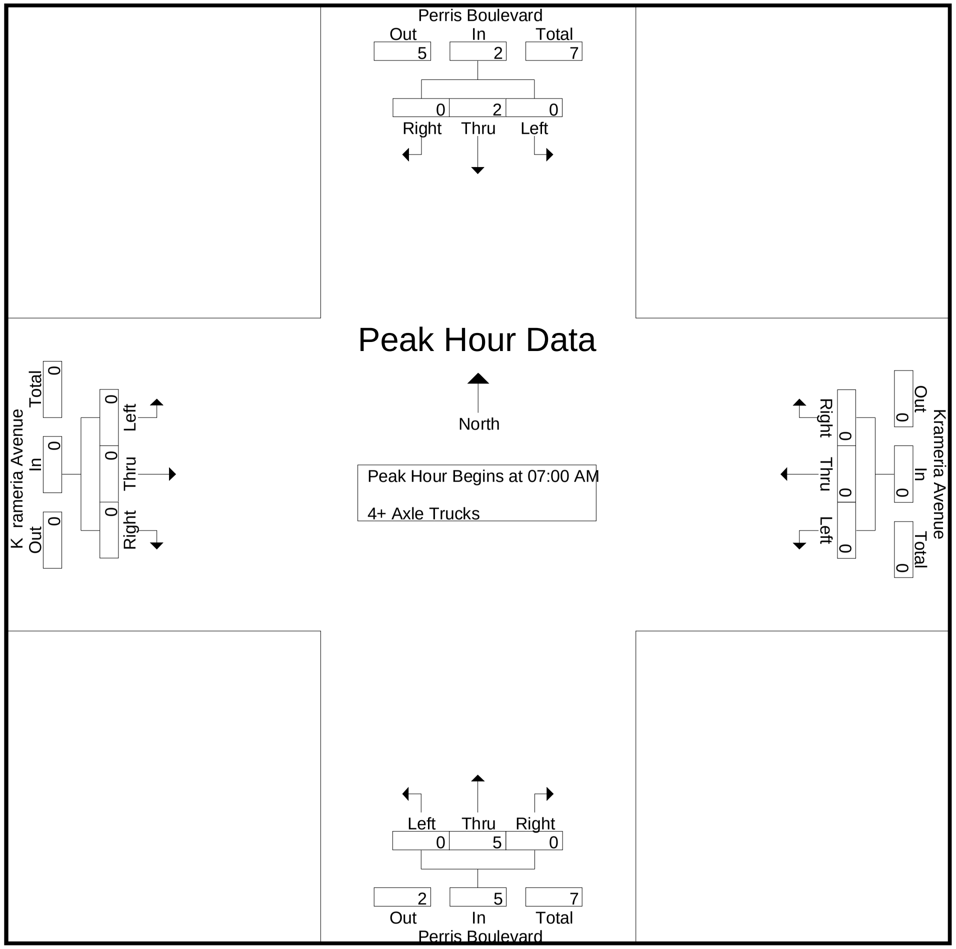

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	21	165	4	2	190	38	25	25	19	88	7	142	33	0	182	2	21	10	4	33	25	493
04:15 PM	25	166	7	0	198	39	16	28	11	83	4	145	25	5	174	5	23	19	9	47	25	502
04:30 PM	34	222	5	0	261	45	14	23	18	82	11	220	47	5	278	5	15	9	8	29	31	650
04:45 PM	27	204	5	0	236	43	13	23	10	79	13	291	52	2	356	7	20	7	4	34	16	705
Total	107	757	21	2	885	165	68	99	58	332	35	798	157	12	990	19	79	45	25	143	97	2350
05:00 PM	32	163	4	0	199	34	16	21	11	71	7	165	32	1	204	5	31	9	6	45	18	519
05:15 PM	33	168	4	0	205	32	12	20	11	64	3	158	41	4	202	7	31	13	7	51	22	522
05:30 PM	36	172	5	0	213	46	17	20	11	83	4	167	38	4	209	7	25	12	5	44	20	549
05:45 PM	43	200	3	0	246	27	12	32	21	71	14	190	48	3	252	7	39	8	0	54	24	623
Total	144	703	16	0	863	139	57	93	54	289	28	680	159	12	867	26	126	42	18	194	84	2213
Grand Total	251	1460	37	2	1748	304	125	192	112	621	63	1478	316	24	1857	45	205	87	43	337	181	4563
Apprch %	14.4	83.5	2.1			49	20.1	30.9			3.4	79.6	17			13.4	60.8	25.8				
Total %	5.5	32	0.8		38.3	6.7	2.7	4.2		13.6	1.4	32.4	6.9		40.7	1	4.5	1.9		7.4	3.8	96.2
Passenger Vehicles	250	1419	37		1708	297	125	191		725	63	1455	309		1851	45	203	84		374	0	0
% Passenger Vehicles	99.6	97.2	100	100	97.6	97.7	100	99.5	100	98.9	100	98.4	97.8	100	98.4	100	99	96.6	97.7	98.4	0	0
Large 2 Axle Vehicles	0	27	0		27	7	0	1		8	0	15	7		22	0	2	3		6	0	0
% Large 2 Axle Vehicles	0	1.8	0	0	1.5	2.3	0	0.5	0	1.1	0	1	2.2	0	1.2	0	1	3.4	2.3	1.6	0	0
3 Axle Vehicles	0	5	0		5	0	0	0		0	0	4	0		4	0	0	0		0	0	0
% 3 Axle Vehicles	0	0.3	0	0	0.3	0	0	0	0	0	0	0.3	0	0	0.2	0	0	0	0	0	0	0
4+ Axle Trucks	1	9	0		10	0	0	0		0	0	4	0		4	0	0	0		0	0	0
% 4+ Axle Trucks	0.4	0.6	0	0	0.6	0	0	0	0	0	0	0.3	0	0	0.2	0	0	0	0	0	0	0

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	34	222	5	261	45	14	23	82	11	220	47	278	5	15	9	29	650
04:45 PM	27	204	5	236	43	13	23	79	13	291	52	356	7	20	7	34	705
05:00 PM	32	163	4	199	34	16	21	71	7	165	32	204	5	31	9	45	519
05:15 PM	33	168	4	205	32	12	20	64	3	158	41	202	7	31	13	51	522
Total Volume	126	757	18	901	154	55	87	296	34	834	172	1040	24	97	38	159	2396
% App. Total	14	84	2		52	18.6	29.4		3.3	80.2	16.5		15.1	61	23.9		
PHF	.926	.852	.900	.863	.856	.859	.946	.902	.654	.716	.827	.730	.857	.782	.731	.779	.850

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Corona, CA 92878
(951) 268-6268

City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

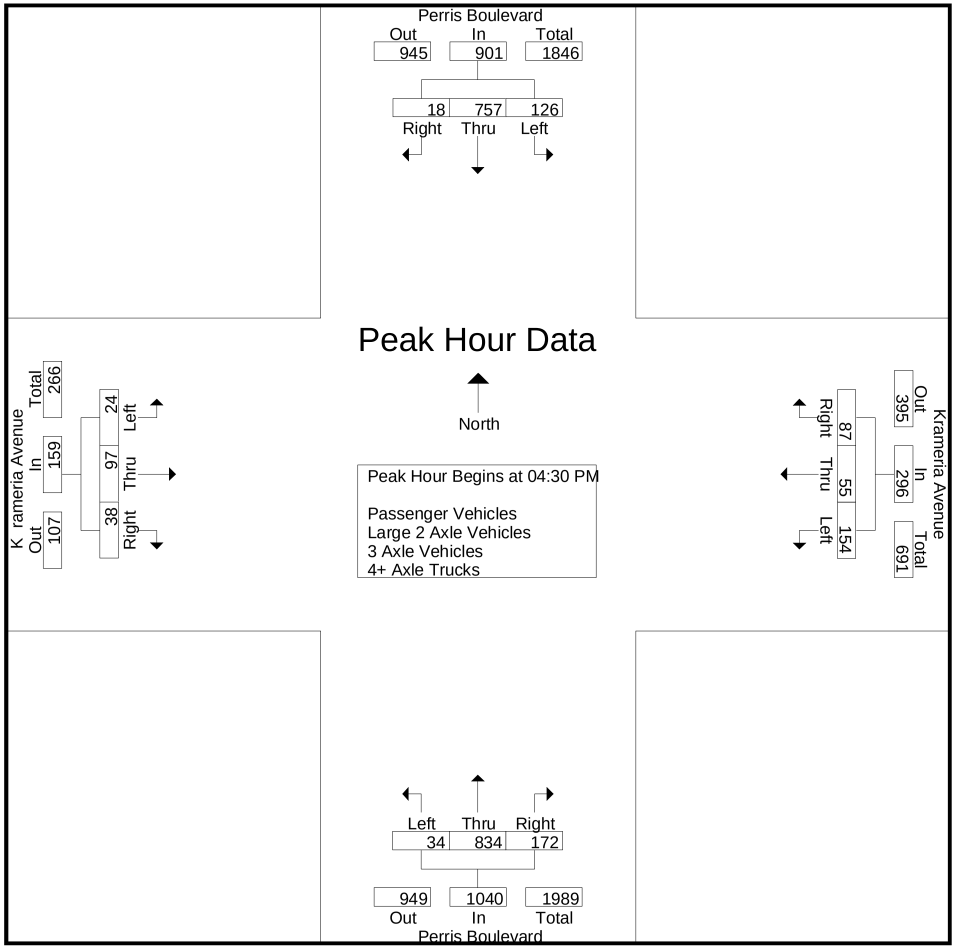

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	4	0	0	4	2	0	0	0	2	0	1	2	0	3	0	0	1	0	1	0	10
04:15 PM	0	6	0	0	6	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	9
04:30 PM	0	5	0	0	5	1	0	0	0	1	0	3	2	0	5	0	0	1	0	1	0	12
04:45 PM	0	2	0	0	2	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	7
Total	0	17	0	0	17	5	0	0	0	5	0	9	4	0	13	0	1	2	0	3	0	38
05:00 PM	0	3	0	0	3	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	0	6
05:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	1	0	1	0	0	1	1	1	1	5
05:30 PM	0	1	0	0	1	1	0	0	0	1	0	3	1	0	4	0	1	0	0	1	0	7
05:45 PM	0	3	0	0	3	0	0	1	0	1	0	1	1	0	2	0	0	0	0	0	0	6
Total	0	10	0	0	10	2	0	1	0	3	0	6	3	0	9	0	1	1	1	2	1	24
Grand Total	0	27	0	0	27	7	0	1	0	8	0	15	7	0	22	0	2	3	1	5	1	62
Apprch %	0	100	0			87.5	0	12.5			0	68.2	31.8			0	40	60				
Total %	0	43.5	0		43.5	11.3	0	1.6		12.9	0	24.2	11.3		35.5	0	3.2	4.8		8.1	1.6	98.4

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	5	0	5	1	0	0	1	0	3	2	5	0	0	1	1	12
04:45 PM	0	2	0	2	1	0	0	1	0	4	0	4	0	0	0	0	7
05:00 PM	0	3	0	3	1	0	0	1	0	2	0	2	0	0	0	0	6
05:15 PM	0	3	0	3	0	0	0	0	0	0	1	1	0	0	1	1	5
Total Volume	0	13	0	13	3	0	0	3	0	9	3	12	0	0	2	2	30
% App. Total	0	100	0		100	0	0		0	75	25		0	0	100		
PHF	.000	.650	.000	.650	.750	.000	.000	.750	.000	.563	.375	.600	.000	.000	.500	.500	.625

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City of Moreno Valley
N/S: Perris Boulevard
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File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

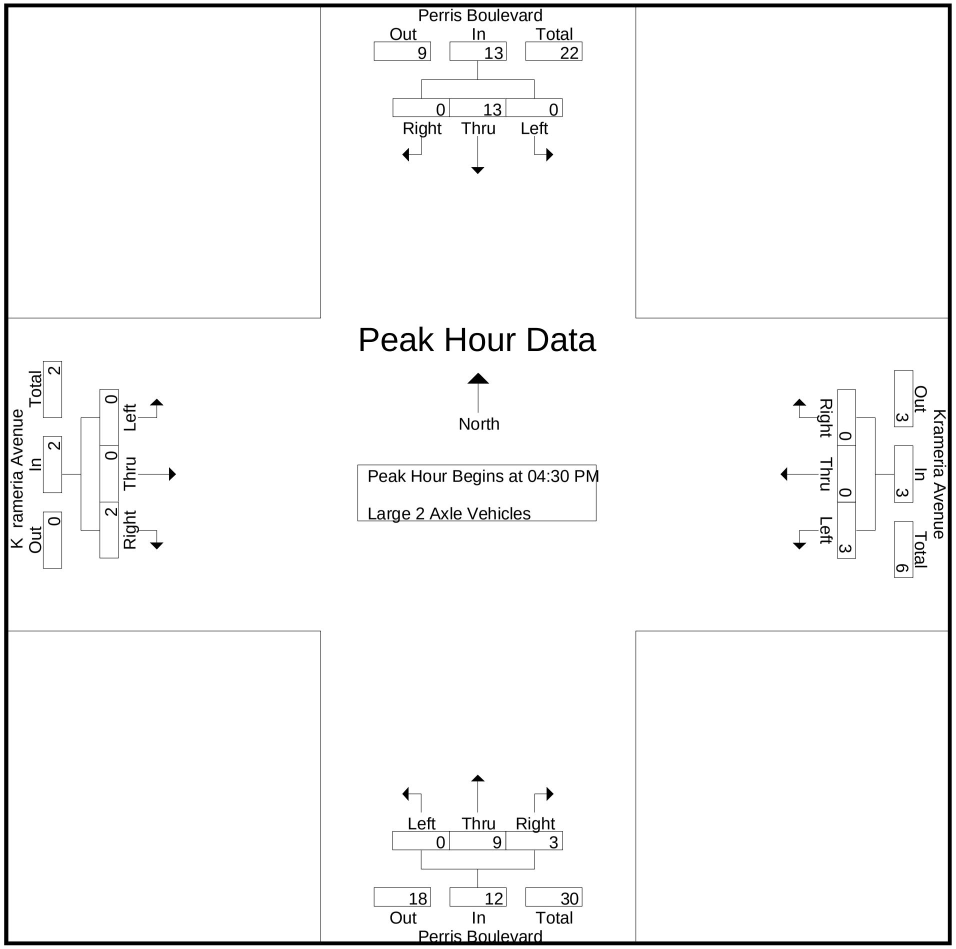

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City of Moreno Valley
N/S: Perris Boulevard
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File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 3 Axle Vehicles

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
04:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Total	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
Total	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5
Grand Total	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	9
Apprch %	0	100	0			0	0	0			0	100	0			0	0	0				
Total %	0	55.6	0		55.6	0	0	0		0	0	44.4	0		44.4	0	0	0		0	0	100

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.750

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City of Moreno Valley
N/S: Perris Boulevard
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File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

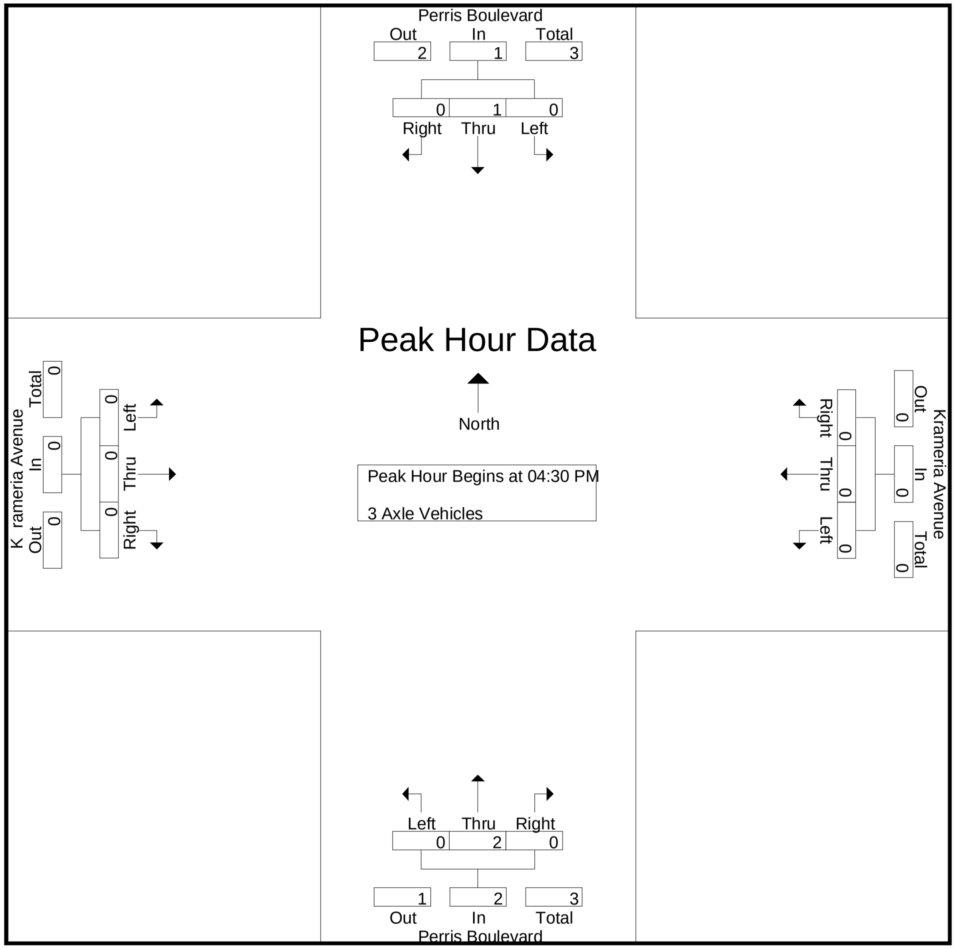

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 1

Groups Printed- 4+ Axle Trucks

	Perris Boulevard Southbound					Krameria Avenue Westbound					Perris Boulevard Northbound					Krameria Avenue Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
04:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
05:00 PM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
05:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
05:45 PM	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
Total	1	6	0	0	7	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	10
Grand Total	1	9	0	0	10	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	14
Apprch %	10	90	0			0	0	0			0	100	0			0	0	0				
Total %	7.1	64.3	0		71.4	0	0	0		0	0	28.6	0		28.6	0	0	0		0	0	100

	Perris Boulevard Southbound				Krameria Avenue Westbound				Perris Boulevard Northbound				Krameria Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	3
05:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	5	0	6	0	0	0	0	0	2	0	2	0	0	0	0	8
% App. Total	16.7	83.3	0		0	0	0		0	100	0		0	0	0		
PHF	.250	.625	.000	.750	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.667

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City of Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue
Weather: Clear

File Name : MRVPEKRPM
Site Code : 05115223
Start Date : 4/28/2015
Page No : 2

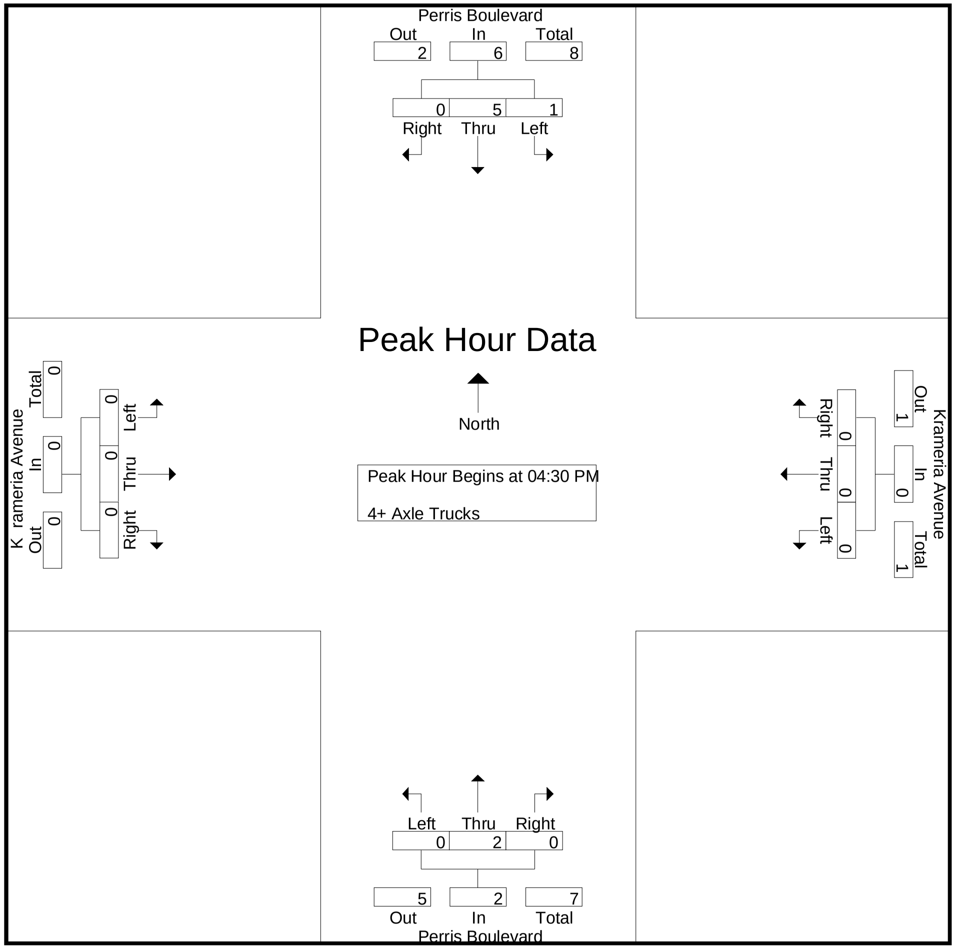

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue

Date: 4/28/2015
Weather: Clear

PEDESTRIANS

	North Leg Perris Boulevard	East Leg Krameria Avenue	South Leg Perris Boulevard	West Leg Krameria Avenue	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	3	0	0	3
7:30 AM	2	0	0	0	2
7:45 AM	1	0	1	0	2
8:00 AM	2	1	0	0	3
8:15 AM	0	1	0	0	1
8:30 AM	1	1	0	1	3
8:45 AM	4	5	0	0	9
TOTAL VOLUMES:	10	12	1	1	24

	North Leg Perris Boulevard	East Leg Krameria Avenue	South Leg Perris Boulevard	West Leg Krameria Avenue	TOTAL
4:00 PM	2	2	0	1	5
4:15 PM	2	1	0	1	4
4:30 PM	0	1	0	0	1
4:45 PM	3	0	1	1	5
5:00 PM	2	0	0	1	3
5:15 PM	0	0	0	0	0
5:30 PM	0	1	0	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	9	5	1	4	19

Location: Moreno Valley
N/S: Perris Boulevard
E/W: Krameria Avenue

Date: 4/28/2015
Weather: Clear

BICYCLES

	North Leg Perris Boulevard	East Leg Krameria Avenue	South Leg Perris Boulevard	West Leg Krameria Avenue	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	1	0	0	1	2
7:30 AM	1	0	0	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	1	0	0	1
8:15 AM	1	1	0	0	2
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	3	4	0	1	8

	North Leg Perris Boulevard	East Leg Krameria Avenue	South Leg Perris Boulevard	West Leg Krameria Avenue	TOTAL
4:00 PM	0	1	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	1	2
4:45 PM	1	0	0	0	1
5:00 PM	1	0	0	0	1
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	2	0	0	2
TOTAL VOLUMES:	2	5	0	1	8

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City of Moreno Valley
Harley Knox Boulevard
W/ Westetrn Way
24 Hour Directional Classification Count

MRV004
Site Code: 051-15223

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	0	29	2	1	0	2	2	0	7	0	0	0	0	43
01:00	1	24	3	3	0	5	0	0	9	0	0	0	0	45
02:00	0	10	4	0	0	4	0	0	17	0	0	0	0	35
03:00	0	58	11	0	4	0	0	1	8	0	0	0	0	82
04:00	1	202	51	0	5	1	0	0	6	0	0	0	**1**	267
05:00	4	356	**115**	1	20	1	0	2	12	0	0	0	0	511
06:00	4	277	72	2	21	8	0	7	21	0	**3**	0	0	415
07:00	6	**368**	81	3	31	6	0	7	19	0	3	0	0	**524**
08:00	7	198	71	4	19	10	1	11	21	0	2	0	0	344
09:00	**11**	127	55	8	31	23	**8**	12	29	**1**	1	0	0	306
10:00	7	140	53	7	**33**	**31**	8	11	34	0	3	0	0	327
11:00	6	147	54	**15**	30	24	4	**23**	**40**	0	3	0	0	346
12 PM	11	132	50	**13**	30	18	4	**24**	**31**	0	**4**	0	0	317
13:00	8	224	72	13	**43**	17	5	15	30	0	1	**1**	0	429
14:00	11	173	76	6	34	17	5	11	30	0	1	0	0	364
15:00	**13**	266	**88**	4	30	**19**	2	12	27	0	0	0	0	461
16:00	9	**317**	78	5	26	11	1	16	12	0	0	0	0	**475**
17:00	6	271	68	2	15	12	**17**	9	10	0	1	0	**1**	412
18:00	9	226	62	3	13	6	6	14	16	0	1	0	0	356
19:00	7	144	43	4	10	7	0	9	10	0	1	0	0	235
20:00	4	156	29	2	9	6	0	4	5	**1**	0	0	0	216
21:00	2	86	13	2	6	5	0	2	13	0	1	0	0	130
22:00	2	93	14	0	4	3	0	4	3	0	0	1	0	124
23:00	2	46	14	0	4	4	0	1	9	0	0	0	0	80
Total	131	4070	1179	98	418	240	63	195	419	2	25	2	2	6844
Percent	1.9%	59.5%	17.2%	1.4%	6.1%	3.5%	0.9%	2.8%	6.1%	0.0%	0.4%	0.0%	0.0%	
AM Peak	09:00	07:00	05:00	11:00	10:00	10:00	09:00	11:00	11:00	09:00	06:00		04:00	07:00
Vol.	11	368	115	15	33	31	8	23	40	1	3		1	524
PM Peak	15:00	16:00	15:00	12:00	13:00	15:00	17:00	12:00	12:00	20:00	12:00	13:00	17:00	16:00
Vol.	13	317	88	13	43	19	17	24	31	1	4	1	1	475
Grand Total	131	4070	1179	98	418	240	63	195	419	2	25	2	2	6844
Percent	1.9%	59.5%	17.2%	1.4%	6.1%	3.5%	0.9%	2.8%	6.1%	0.0%	0.4%	0.0%	0.0%	

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City of Moreno Valley
Harley Knox Boulevard
W/ Westetrn Way
24 Hour Directional Classification Count

MRV004
Site Code: 051-15223

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	3	49	11	0	4	5	0	2	6	0	0	0	0	80
01:00	4	28	1	3	4	5	0	1	5	0	0	0	0	51
02:00	3	20	3	2	3	6	0	1	7	0	0	0	0	45
03:00	1	73	21	0	3	2	0	0	11	0	0	0	0	111
04:00	11	132	38	8	8	6	0	1	5	**2**	2	0	0	213
05:00	13	160	50	4	32	20	0	2	11	0	1	0	0	293
06:00	4	234	76	6	41	**36**	0	7	23	0	0	0	0	427
07:00	**17**	**323**	**102**	6	**47**	23	0	14	21	0	2	0	0	**555**
08:00	10	166	71	7	36	12	0	15	22	0	2	0	0	341
09:00	11	91	53	12	31	13	0	17	31	2	2	0	0	263
10:00	6	177	76	**15**	28	25	0	20	**49**	0	**3**	0	0	399
11:00	16	113	56	10	32	27	0	**23**	36	0	3	**2**	0	318
12 PM	6	176	56	11	**46**	19	0	18	**57**	0	**3**	**2**	0	394
13:00	**18**	216	74	8	40	**37**	0	**27**	42	0	0	0	0	462
14:00	9	342	107	**12**	45	21	0	22	40	0	1	0	**1**	**600**
15:00	10	335	**134**	7	32	25	0	13	34	0	0	0	1	591
16:00	5	**394**	98	1	29	14	0	11	24	0	1	0	0	577
17:00	14	296	100	2	27	9	0	9	19	0	1	0	0	477
18:00	7	204	53	4	24	5	0	11	14	0	0	1	0	323
19:00	4	121	43	2	12	3	0	10	32	0	1	0	0	228
20:00	12	88	23	1	8	9	0	8	13	0	0	0	0	162
21:00	4	60	9	0	2	5	0	3	12	0	0	0	0	95
22:00	3	80	14	3	4	3	0	1	7	0	0	0	0	115
23:00	9	58	15	0	4	7	0	2	9	0	1	0	0	105
Total	200	3936	1284	124	542	337	0	238	530	4	23	5	2	7225
Percent	2.8%	54.5%	17.8%	1.7%	7.5%	4.7%	0.0%	3.3%	7.3%	0.1%	0.3%	0.1%	0.0%	
AM Peak	07:00	07:00	07:00	10:00	07:00	06:00		11:00	10:00	04:00	10:00	11:00		07:00
Vol.	17	323	102	15	47	36		23	49	2	3	2		555
PM Peak	13:00	16:00	15:00	14:00	12:00	13:00		13:00	12:00		12:00	12:00	14:00	14:00
Vol.	18	394	134	12	46	37		27	57		3	2	1	600
Grand Total	200	3936	1284	124	542	337	0	238	530	4	23	5	2	7225
Percent	2.8%	54.5%	17.8%	1.7%	7.5%	4.7%	0.0%	3.3%	7.3%	0.1%	0.3%	0.1%	0.0%	

Counts Unlimited, Inc

PO Box 1178
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Phone: 951-268-6268
email: counts@countsunlimited.com

City of Moreno Valley
Harley Knox Boulevard
W/ Westetrn Way
24 Hour Directional Classification Count

MRV004
Site Code: 051-15223

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	3	78	13	1	4	7	2	2	13	0	0	0	0	123
01:00	5	52	4	6	4	10	0	1	14	0	0	0	0	96
02:00	3	30	7	2	3	10	0	1	24	0	0	0	0	80
03:00	1	131	32	0	7	2	0	1	19	0	0	0	0	193
04:00	12	334	89	8	13	7	0	1	11	2	2	0	**1**	480
05:00	17	516	165	5	52	21	0	4	23	0	1	0	0	804
06:00	8	511	148	8	62	44	0	14	44	0	3	0	0	842
07:00	**23**	**691**	**183**	9	**78**	29	0	21	40	0	5	0	0	**1079**
08:00	17	364	142	11	55	22	1	26	43	0	4	0	0	685
09:00	22	218	108	20	62	36	**8**	29	60	**3**	3	0	0	569
10:00	13	317	129	22	61	**56**	8	31	**83**	0	**6**	0	0	726
11:00	22	260	110	**25**	62	51	4	**46**	76	0	6	**2**	0	664
12 PM	17	308	106	**24**	76	37	4	**42**	**88**	0	**7**	**2**	0	711
13:00	**26**	440	146	21	**83**	**54**	5	42	72	0	1	1	0	891
14:00	20	515	183	18	79	38	5	33	70	0	2	0	**1**	964
15:00	23	601	**222**	11	62	44	2	25	61	0	0	0	1	**1052**
16:00	14	**711**	176	6	55	25	1	27	36	0	1	0	0	1052
17:00	20	567	168	4	42	21	**17**	18	29	0	2	0	1	889
18:00	16	430	115	7	37	11	6	25	30	0	1	1	0	679
19:00	11	265	86	6	22	10	0	19	42	0	2	0	0	463
20:00	16	244	52	3	17	15	0	12	18	**1**	0	0	0	378
21:00	6	146	22	2	8	10	0	5	25	0	1	0	0	225
22:00	5	173	28	3	8	6	0	5	10	0	0	1	0	239
23:00	11	104	29	0	8	11	0	3	18	0	1	0	0	185
Total	331	8006	2463	222	960	577	63	433	949	6	48	7	4	14069
Percent	2.4%	56.9%	17.5%	1.6%	6.8%	4.1%	0.4%	3.1%	6.7%	0.0%	0.3%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	11:00	07:00	10:00	09:00	11:00	10:00	09:00	10:00	11:00	04:00	07:00
Vol.	23	691	183	25	78	56	8	46	83	3	6	2	1	1079
PM Peak	13:00	16:00	15:00	12:00	13:00	13:00	17:00	12:00	12:00	20:00	12:00	12:00	14:00	15:00
Vol.	26	711	222	24	83	54	17	42	88	1	7	2	1	1052
Grand Total	331	8006	2463	222	960	577	63	433	949	6	48	7	4	14069
Percent	2.4%	56.9%	17.5%	1.6%	6.8%	4.1%	0.4%	3.1%	6.7%	0.0%	0.3%	0.0%	0.0%	

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
Patterson Avenue
N/ Harley Knox Boulevard
24 Hour Directional Classification Count
Northbound

PERPANHKCL
Site Code: 051-14099
Date Start: 13-Mar-14
Date End: 13-Mar-14

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/13/14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
06:00	0	**9**	2	0	1	0	0	0	0	0	0	0	0	**12**
07:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
08:00	0	1	**3**	0	**2**	0	0	0	0	0	0	0	0	6
09:00	0	1	2	0	0	0	0	**1**	0	0	0	0	0	4
10:00	**1**	2	1	0	1	**1**	0	0	**1**	0	0	0	0	7
11:00	0	6	3	0	2	0	0	1	0	0	0	0	0	12
12 PM	0	5	3	0	1	0	0	0	0	0	0	0	0	9
13:00	0	2	**4**	**1**	1	**1**	0	0	0	0	0	0	0	9
14:00	0	**6**	3	0	**3**	0	0	**1**	0	0	0	0	0	**13**
15:00	0	5	2	1	3	1	0	0	0	0	0	0	0	12
16:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
17:00	0	0	2	0	2	0	0	0	0	0	0	0	0	4
18:00	0	3	1	1	2	0	0	0	0	0	0	0	0	7
19:00	0	2	1	0	1	0	0	0	0	0	0	0	0	4
20:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
21:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	1	56	33	3	21	3	0	3	1	0	0	0	0	121
Percent	0.8%	46.3%	27.3%	2.5%	17.4%	2.5%	0.0%	2.5%	0.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	06:00	08:00		08:00	10:00		09:00	10:00					06:00
Vol.	1	9	3		2	1		1	1					12
PM Peak		14:00	13:00	13:00	14:00	13:00		14:00						14:00
Vol.		6	4	1	3	1		1						13
Grand Total	1	56	33	3	21	3	0	3	1	0	0	0	0	121
Percent	0.8%	46.3%	27.3%	2.5%	17.4%	2.5%	0.0%	2.5%	0.8%	0.0%	0.0%	0.0%	0.0%	

City of Perris
Patterson Avenue
N/ Harley Knox Boulevard
24 Hour Directional Classification Count
Southbound

PERPANHKCL
Site Code: 051-14099
Date Start: 13-Mar-14
Date End: 13-Mar-14

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/13/14	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
06:00	0	2	0	0	**2**	0	0	0	0	0	0	0	0	4
07:00	0	**4**	**1**	0	1	0	0	0	0	0	0	0	0	6
08:00	0	2	0	0	2	0	0	0	0	0	0	0	0	4
09:00	0	1	0	0	0	0	0	**1**	0	0	0	0	0	2
10:00	0	3	1	0	1	0	0	0	0	0	0	0	**1**	6
11:00	0	4	1	**1**	0	0	0	1	0	0	0	0	0	**7**
12 PM	0	6	2	0	1	0	0	0	0	0	0	0	0	9
13:00	0	1	4	0	0	**1**	0	0	0	0	0	0	0	6
14:00	0	5	3	0	**2**	1	0	**1**	0	0	0	0	0	12
15:00	0	**10**	**6**	0	2	1	0	0	0	0	0	0	0	**19**
16:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
17:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
18:00	0	7	3	**1**	0	0	0	0	0	0	0	0	0	11
19:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
20:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	66	23	2	14	3	0	3	0	0	0	0	1	112
Percent	0.0%	58.9%	20.5%	1.8%	12.5%	2.7%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.9%	
AM Peak		07:00	07:00	11:00	06:00			09:00					10:00	11:00
Vol.		4	1	1	2			1					1	7
PM Peak		15:00	15:00	18:00	14:00	13:00		14:00						15:00
Vol.		10	6	1	2	1		1						19
Grand Total	0	66	23	2	14	3	0	3	0	0	0	0	1	112
Percent	0.0%	58.9%	20.5%	1.8%	12.5%	2.7%	0.0%	2.7%	0.0%	0.0%	0.0%	0.0%	0.9%	

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
Patterson Avenue
N/ Harley Knox Boulevard
24 Hour Directional Classification Count
Northbound, Southbound

PERPANHKCL
Site Code: 051-14099
Date Start: 13-Mar-14
Date End: 13-Mar-14

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
03/13/14	0	1	0	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
05:00	0	4	2	0	1	0	0	0	0	0	0	0	0	7
06:00	0	**11**	2	0	3	0	0	0	0	0	0	0	0	16
07:00	0	6	1	0	1	0	0	0	0	0	0	0	0	8
08:00	0	3	3	0	**4**	0	0	0	0	0	0	0	0	10
09:00	0	2	2	0	0	0	0	**2**	0	0	0	0	0	6
10:00	**1**	5	2	0	2	**1**	0	0	**1**	0	0	0	**1**	13
11:00	0	10	**4**	**1**	2	0	0	2	0	0	0	0	0	**19**
12 PM	0	11	5	0	2	0	0	0	0	0	0	0	0	18
13:00	0	3	**8**	1	1	**2**	0	0	0	0	0	0	0	15
14:00	0	11	6	0	**5**	1	0	**2**	0	0	0	0	0	25
15:00	0	**15**	8	1	5	2	0	0	0	0	0	0	0	**31**
16:00	0	5	1	0	2	0	0	0	0	0	0	0	0	8
17:00	0	3	2	0	2	0	0	0	0	0	0	0	0	7
18:00	0	10	4	**2**	2	0	0	0	0	0	0	0	0	18
19:00	0	9	2	0	1	0	0	0	0	0	0	0	0	12
20:00	0	6	0	0	2	0	0	0	0	0	0	0	0	8
21:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
22:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	1	122	56	5	35	6	0	6	1	0	0	0	1	233
Percent	0.4%	52.4%	24.0%	2.1%	15.0%	2.6%	0.0%	2.6%	0.4%	0.0%	0.0%	0.0%	0.4%	
AM Peak	10:00	06:00	11:00	11:00	08:00	10:00		09:00	10:00				10:00	11:00
Vol.	1	11	4	1	4	1		2	1				1	19
PM Peak		15:00	13:00	18:00	14:00	13:00		14:00						15:00
Vol.		15	8	2	5	2		2						31
Grand Total	1	122	56	5	35	6	0	6	1	0	0	0	1	233
Percent	0.4%	52.4%	24.0%	2.1%	15.0%	2.6%	0.0%	2.6%	0.4%	0.0%	0.0%	0.0%	0.4%	

Counts Unlimited, Inc

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City of Moreno Valley
Cactus Avenue
W/ Heacock Street
24 Hour Directional Classification Count

MRV002
Site Code: 051-15223

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	2	202	31	0	1	1	0	0	10	0	0	0	0	247
01:00	2	115	10	0	0	2	0	0	10	0	0	0	0	139
02:00	4	83	10	0	2	2	0	1	6	0	0	0	0	108
03:00	3	104	10	0	2	3	0	1	3	0	0	0	0	126
04:00	2	132	25	0	2	2	0	1	3	0	0	0	0	167
05:00	1	241	48	2	9	0	0	1	8	0	0	0	0	310
06:00	3	398	69	6	21	4	0	1	9	0	0	0	0	511
07:00	6	**698**	**132**	4	24	4	0	8	7	**1**	0	0	**1**	**885**
08:00	**16**	589	128	2	**26**	**10**	**1**	9	12	0	0	0	0	793
09:00	5	376	109	**7**	18	3	1	**12**	9	0	0	0	0	540
10:00	6	498	112	1	22	4	0	7	7	1	0	0	0	658
11:00	2	504	113	4	20	5	0	7	**18**	0	0	0	0	673
12 PM	**15**	538	140	2	22	7	0	7	**15**	**1**	0	0	0	747
13:00	8	674	148	1	25	**10**	0	**12**	9	1	**1**	0	0	889
14:00	14	700	193	**4**	32	8	0	8	4	0	0	0	0	963
15:00	10	884	264	2	48	7	0	6	3	0	0	0	0	1224
16:00	6	1069	306	1	**67**	3	**3**	7	10	0	0	0	0	1472
17:00	7	**1255**	**330**	2	62	3	0	8	9	0	0	0	0	**1676**
18:00	5	1132	266	4	55	4	0	5	12	0	0	0	0	1483
19:00	3	771	198	1	41	3	0	3	8	0	0	0	0	1028
20:00	11	687	156	0	23	5	0	9	10	0	0	0	0	901
21:00	8	550	103	1	15	5	1	1	10	0	0	0	0	694
22:00	4	441	100	1	23	3	0	1	8	0	0	0	0	581
23:00	3	305	50	0	6	4	0	1	5	0	0	**1**	0	375
Total	146	12946	3051	45	566	102	6	116	205	4	1	1	1	17190
Percent	0.8%	75.3%	17.7%	0.3%	3.3%	0.6%	0.0%	0.7%	1.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	09:00	08:00	08:00	08:00	09:00	11:00	07:00			07:00	07:00
Vol.	16	698	132	7	26	10	1	12	18	1			1	885
PM Peak	12:00	17:00	17:00	14:00	16:00	13:00	16:00	13:00	12:00	12:00	13:00	23:00		17:00
Vol.	15	1255	330	4	67	10	3	12	15	1	1	1		1676
Grand Total	146	12946	3051	45	566	102	6	116	205	4	1	1	1	17190
Percent	0.8%	75.3%	17.7%	0.3%	3.3%	0.6%	0.0%	0.7%	1.2%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Cactus Avenue
W/ Heacock Street
24 Hour Directional Classification Count

MRV002
Site Code: 051-15223

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	8	68	21	1	4	8	0	1	4	0	0	0	0	115
01:00	6	57	20	0	2	9	0	1	2	0	0	0	0	97
02:00	10	84	34	3	9	8	0	1	3	0	0	0	0	152
03:00	9	232	95	0	29	7	0	0	4	0	0	0	0	376
04:00	11	533	213	3	59	4	0	2	3	0	0	0	0	828
05:00	11	630	274	7	**90**	0	0	**14**	5	0	**1**	0	0	1032
06:00	10	821	332	4	63	6	0	8	5	0	0	0	0	1249
07:00	11	**1125**	**379**	**8**	60	7	0	8	1	0	0	0	0	**1599**
08:00	11	773	257	4	49	9	0	6	5	0	0	0	0	1114
09:00	14	570	184	4	50	**13**	0	3	**7**	0	0	0	0	845
10:00	**15**	467	190	6	42	11	0	4	6	0	0	0	0	741
11:00	10	477	168	6	39	9	0	9	4	0	0	0	0	722
12 PM	7	488	188	4	38	6	0	6	6	0	0	0	0	743
13:00	12	550	178	**5**	42	**13**	0	6	6	0	0	0	0	812
14:00	7	565	206	3	51	10	0	4	6	0	0	0	0	852
15:00	9	**673**	**242**	2	**61**	6	0	5	4	0	1	0	0	**1003**
16:00	7	618	215	5	41	5	0	4	3	0	0	0	0	898
17:00	9	568	204	1	33	7	0	**7**	3	0	**2**	0	0	834
18:00	9	508	167	1	29	9	0	5	5	0	0	0	0	733
19:00	9	442	136	0	24	8	0	4	5	0	0	0	0	628
20:00	9	400	108	0	22	8	0	2	2	0	0	0	0	551
21:00	6	312	84	0	7	9	0	1	5	0	0	0	0	424
22:00	**13**	223	52	1	12	10	**1**	5	**7**	0	0	0	0	324
23:00	5	133	36	0	3	6	0	0	4	0	0	0	0	187
Total	228	11317	3983	68	859	188	1	106	105	0	4	0	0	16859
Percent	1.4%	67.1%	23.6%	0.4%	5.1%	1.1%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	07:00	05:00	09:00		05:00	09:00		05:00			07:00
Vol.	15	1125	379	8	90	13		14	7		1			1599
PM Peak	22:00	15:00	15:00	13:00	15:00	13:00	22:00	17:00	22:00		17:00			15:00
Vol.	13	673	242	5	61	13	1	7	7		2			1003
Grand Total	228	11317	3983	68	859	188	1	106	105	0	4	0	0	16859
Percent	1.4%	67.1%	23.6%	0.4%	5.1%	1.1%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

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City of Moreno Valley
Cactus Avenue
W/ Heacock Street
24 Hour Directional Classification Count

MRV002
Site Code: 051-15223

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	10	270	52	1	5	9	0	1	14	0	0	0	0	362
01:00	8	172	30	0	2	11	0	1	12	0	0	0	0	236
02:00	14	167	44	3	11	10	0	2	9	0	0	0	0	260
03:00	12	336	105	0	31	10	0	1	7	0	0	0	0	502
04:00	13	665	238	3	61	6	0	3	6	0	0	0	0	995
05:00	12	871	322	9	**99**	0	0	15	13	0	**1**	0	0	1342
06:00	13	1219	401	10	84	10	0	9	14	0	0	0	0	1760
07:00	17	**1823**	**511**	**12**	84	11	0	**16**	8	**1**	0	0	**1**	**2484**
08:00	**27**	1362	385	6	75	**19**	**1**	15	17	0	0	0	0	1907
09:00	19	946	293	11	68	16	1	15	16	0	0	0	0	1385
10:00	21	965	302	7	64	15	0	11	13	1	0	0	0	1399
11:00	12	981	281	10	59	14	0	16	**22**	0	0	0	0	1395
12 PM	**22**	1026	328	6	60	13	0	13	**21**	**1**	0	0	0	1490
13:00	20	1224	326	6	67	**23**	0	**18**	15	1	1	0	0	1701
14:00	21	1265	399	**7**	83	18	0	12	10	0	0	0	0	1815
15:00	19	1557	506	4	**109**	13	0	11	7	0	1	0	0	2227
16:00	13	1687	521	6	108	8	**3**	11	13	0	0	0	0	2370
17:00	16	**1823**	**534**	3	95	10	0	15	12	0	**2**	0	0	**2510**
18:00	14	1640	433	5	84	13	0	10	17	0	0	0	0	2216
19:00	12	1213	334	1	65	11	0	7	13	0	0	0	0	1656
20:00	20	1087	264	0	45	13	0	11	12	0	0	0	0	1452
21:00	14	862	187	1	22	14	1	2	15	0	0	0	0	1118
22:00	17	664	152	2	35	13	1	6	15	0	0	0	0	905
23:00	8	438	86	0	9	10	0	1	9	0	0	**1**	0	562
Total	374	24263	7034	113	1425	290	7	222	310	4	5	1	1	34049
Percent	1.1%	71.3%	20.7%	0.3%	4.2%	0.9%	0.0%	0.7%	0.9%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	07:00	05:00	08:00	08:00	07:00	11:00	07:00	05:00		07:00	07:00
Vol.	27	1823	511	12	99	19	1	16	22	1	1		1	2484
PM Peak	12:00	17:00	17:00	14:00	15:00	13:00	16:00	13:00	12:00	12:00	17:00	23:00		17:00
Vol.	22	1823	534	7	109	23	3	18	21	1	2	1		2510
Grand Total	374	24263	7034	113	1425	290	7	222	310	4	5	1	1	34049
Percent	1.1%	71.3%	20.7%	0.3%	4.2%	0.9%	0.0%	0.7%	0.9%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Heacock Street
S/ Cardinal Avenue
24 Hour Directional Classification Count

MRV005
Site Code: 051-15223

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	1	18	4	0	1	2	0	0	2	0	0	0	0	28
01:00	1	8	1	0	0	3	0	0	1	0	0	0	0	14
02:00	3	12	1	0	0	2	0	1	1	0	0	0	0	20
03:00	1	59	4	0	0	0	0	0	1	0	0	0	0	65
04:00	2	108	11	0	3	0	0	0	0	0	0	0	0	124
05:00	0	117	14	0	3	1	0	0	0	0	0	0	0	135
06:00	1	67	10	0	3	12	0	0	2	0	0	0	0	95
07:00	**5**	**128**	**18**	0	5	3	**1**	0	4	0	0	0	0	**164**
08:00	3	64	11	0	**7**	3	0	0	2	0	0	0	0	90
09:00	3	51	14	0	2	3	0	0	5	0	0	0	0	78
10:00	4	39	14	**1**	4	6	0	1	**7**	0	0	0	0	76
11:00	3	43	13	1	3	**13**	0	**3**	6	0	0	0	0	85
12 PM	5	69	19	**1**	7	15	0	**3**	**4**	0	0	0	0	123
13:00	**6**	135	26	1	8	**18**	0	3	4	0	0	0	0	201
14:00	3	122	29	1	6	8	0	1	2	0	0	0	0	172
15:00	3	101	26	0	5	7	0	2	2	0	0	0	0	146
16:00	2	**213**	**39**	0	**11**	4	0	0	1	0	0	0	0	**270**
17:00	3	153	29	1	8	4	0	0	1	0	0	0	0	199
18:00	1	115	17	0	3	4	0	0	3	0	0	0	0	143
19:00	3	43	5	1	0	3	0	2	3	0	0	0	0	60
20:00	3	30	8	0	2	6	0	0	1	0	0	0	0	50
21:00	2	30	5	0	1	3	0	0	1	0	0	0	0	42
22:00	2	56	5	0	1	0	0	0	4	0	0	0	0	68
23:00	3	40	5	0	0	2	0	0	2	0	0	0	0	52
Total	63	1821	328	7	83	122	1	16	59	0	0	0	0	2500
Percent	2.5%	72.8%	13.1%	0.3%	3.3%	4.9%	0.0%	0.6%	2.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	10:00	08:00	11:00	07:00	11:00	10:00					07:00
Vol.	5	128	18	1	7	13	1	3	7					164
PM Peak	13:00	16:00	16:00	12:00	16:00	13:00		12:00	12:00					16:00
Vol.	6	213	39	1	11	18		3	4					270
Grand Total	63	1821	328	7	83	122	1	16	59	0	0	0	0	2500
Percent	2.5%	72.8%	13.1%	0.3%	3.3%	4.9%	0.0%	0.6%	2.4%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Heacock Street
S/ Cardinal Avenue
24 Hour Directional Classification Count

MRV005
Site Code: 051-15223

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	2	10	1	0	0	2	0	0	1	0	0	0	0	16
01:00	1	6	0	0	0	0	0	0	3	0	0	0	0	10
02:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
03:00	0	44	5	0	1	0	0	0	1	0	0	0	0	51
04:00	1	142	29	0	0	1	0	0	0	0	0	0	0	173
05:00	2	148	30	0	4	1	0	0	3	0	0	0	0	188
06:00	2	158	**41**	1	5	3	0	1	1	0	0	0	0	212
07:00	**8**	**166**	28	**2**	4	7	1	2	7	0	0	0	0	**225**
08:00	0	58	12	2	2	1	0	1	**11**	0	0	0	0	87
09:00	2	46	10	0	7	4	**2**	**5**	6	0	0	0	0	82
10:00	3	74	20	1	7	**8**	0	3	11	0	0	0	0	127
11:00	3	51	18	1	**9**	5	1	2	3	0	0	0	0	93
12 PM	4	79	26	2	6	3	0	4	6	0	0	0	0	130
13:00	3	112	27	1	8	2	1	**5**	1	0	**1**	0	0	161
14:00	2	74	24	0	1	2	0	3	1	0	0	0	0	107
15:00	3	121	21	**3**	7	1	**2**	1	6	0	0	0	0	165
16:00	**6**	239	34	1	**10**	**9**	0	4	**8**	0	0	0	0	311
17:00	6	**297**	**42**	0	6	2	0	3	6	0	0	0	0	**362**
18:00	4	184	22	0	6	3	2	5	5	0	0	0	0	231
19:00	3	46	12	1	1	1	0	2	6	0	0	0	0	72
20:00	2	56	7	0	0	3	0	2	5	0	0	0	0	75
21:00	2	35	2	0	0	2	0	0	1	0	0	0	0	42
22:00	1	54	5	0	0	0	0	0	2	0	0	0	0	62
23:00	1	18	1	0	0	1	0	0	3	0	0	0	0	24
Total	61	2223	419	15	84	61	9	43	97	0	1	0	0	3013
Percent	2.0%	73.8%	13.9%	0.5%	2.8%	2.0%	0.3%	1.4%	3.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	07:00	11:00	10:00	09:00	09:00	08:00					07:00
Vol.	8	166	41	2	9	8	2	5	11					225
PM Peak	16:00	17:00	17:00	15:00	16:00	16:00	15:00	13:00	16:00		13:00			17:00
Vol.	6	297	42	3	10	9	2	5	8		1			362
Grand Total	61	2223	419	15	84	61	9	43	97	0	1	0	0	3013
Percent	2.0%	73.8%	13.9%	0.5%	2.8%	2.0%	0.3%	1.4%	3.2%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Heacock Street
S/ Cardinal Avenue
24 Hour Directional Classification Count

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

MRV005
Site Code: 051-15223

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	3	28	5	0	1	4	0	0	3	0	0	0	0	44
01:00	2	14	1	0	0	3	0	0	4	0	0	0	0	24
02:00	3	17	3	0	0	2	0	1	1	0	0	0	0	27
03:00	1	103	9	0	1	0	0	0	2	0	0	0	0	116
04:00	3	250	40	0	3	1	0	0	0	0	0	0	0	297
05:00	2	265	44	0	7	2	0	0	3	0	0	0	0	323
06:00	3	225	**51**	1	8	15	0	1	3	0	0	0	0	307
07:00	**13**	**294**	46	**2**	9	10	**2**	2	11	0	0	0	0	**389**
08:00	3	122	23	2	9	4	0	1	13	0	0	0	0	177
09:00	5	97	24	0	9	7	2	**5**	11	0	0	0	0	160
10:00	7	113	34	2	11	14	0	4	**18**	0	0	0	0	203
11:00	6	94	31	2	**12**	**18**	1	5	9	0	0	0	0	178
12 PM	**9**	148	45	**3**	13	18	0	7	**10**	0	0	0	0	253
13:00	9	247	53	2	16	**20**	1	**8**	5	0	**1**	0	0	362
14:00	5	196	53	1	7	10	0	4	3	0	0	0	0	279
15:00	6	222	47	3	12	8	**2**	3	8	0	0	0	0	311
16:00	8	**452**	**73**	1	**21**	13	0	4	9	0	0	0	0	**581**
17:00	9	450	71	1	14	6	0	3	7	0	0	0	0	561
18:00	5	299	39	0	9	7	2	5	8	0	0	0	0	374
19:00	6	89	17	2	1	4	0	4	9	0	0	0	0	132
20:00	5	86	15	0	2	9	0	2	6	0	0	0	0	125
21:00	4	65	7	0	1	5	0	0	2	0	0	0	0	84
22:00	3	110	10	0	1	0	0	0	6	0	0	0	0	130
23:00	4	58	6	0	0	3	0	0	5	0	0	0	0	76
Total	124	4044	747	22	167	183	10	59	156	0	1	0	0	5513
Percent	2.2%	73.4%	13.5%	0.4%	3.0%	3.3%	0.2%	1.1%	2.8%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	06:00	07:00	11:00	11:00	07:00	09:00	10:00					07:00
Vol.	13	294	51	2	12	18	2	5	18					389
PM Peak	12:00	16:00	16:00	12:00	16:00	13:00	15:00	13:00	12:00		13:00			16:00
Vol.	9	452	73	3	21	20	2	8	10		1			581
Grand Total	124	4044	747	22	167	183	10	59	156	0	1	0	0	5513
Percent	2.2%	73.4%	13.5%	0.4%	3.0%	3.3%	0.2%	1.1%	2.8%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Indian Street
S/ Krameria Avenue
24 Hour Directional Classification Count

MRV001
Site Code: 051-15223

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
02:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	5	0	0	1	0	0	0	0	0	0	0	0	6
04:00	0	14	2	0	1	0	0	0	0	0	0	0	0	17
05:00	**1**	19	11	0	3	0	0	0	0	0	0	0	0	34
06:00	0	34	15	0	2	0	0	**1**	0	0	0	0	0	52
07:00	1	**91**	**37**	0	**5**	0	0	0	0	0	0	0	0	**134**
08:00	0	42	10	0	4	0	0	0	0	0	0	0	0	56
09:00	1	28	9	0	2	**1**	0	0	0	0	0	0	0	41
10:00	0	32	9	0	0	0	0	1	0	0	0	0	0	42
11:00	0	19	7	0	0	0	0	0	0	0	0	0	0	26
12 PM	0	26	10	0	0	0	0	0	0	0	0	0	0	36
13:00	0	33	10	0	1	0	0	0	0	0	0	0	0	44
14:00	0	**53**	**20**	0	**2**	0	0	0	0	0	0	0	0	**75**
15:00	0	28	17	0	2	0	0	**1**	0	0	0	0	0	48
16:00	0	30	11	0	1	0	0	0	0	0	0	0	0	42
17:00	0	44	8	0	0	0	0	0	0	0	0	0	0	52
18:00	0	28	2	0	1	0	0	0	0	0	0	0	0	31
19:00	0	46	3	0	0	0	0	0	0	0	0	0	0	49
20:00	0	23	5	0	0	0	0	0	0	0	0	0	0	28
21:00	0	19	7	0	0	0	0	0	0	0	0	0	0	26
22:00	0	15	0	0	1	0	0	0	0	0	0	0	0	16
23:00	0	6	2	0	0	0	0	0	0	0	0	0	0	8
Total	3	643	196	0	26	1	0	3	0	0	0	0	0	872
Percent	0.3%	73.7%	22.5%	0.0%	3.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00		07:00	09:00		06:00						07:00
Vol.	1	91	37		5	1		1						134
PM Peak		14:00	14:00		14:00			15:00						14:00
Vol.		53	20		2			1						75
Grand Total	3	643	196	0	26	1	0	3	0	0	0	0	0	872
Percent	0.3%	73.7%	22.5%	0.0%	3.0%	0.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Indian Street
S/ Krameria Avenue
24 Hour Directional Classification Count

MRV001
Site Code: 051-15223

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	0	12	2	0	0	0	0	0	0	0	0	0	0	14
01:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
05:00	**1**	11	2	0	0	**1**	0	0	0	0	0	0	0	15
06:00	0	7	7	0	0	0	0	0	0	0	0	0	0	14
07:00	0	**47**	**24**	0	**4**	0	0	0	0	0	0	0	0	**75**
08:00	0	27	10	0	0	0	0	0	0	0	0	0	0	37
09:00	1	23	7	0	1	1	0	0	0	0	0	0	0	33
10:00	0	18	3	0	0	0	0	**1**	0	0	0	0	0	22
11:00	1	19	17	0	0	1	0	0	0	0	0	0	0	38
12 PM	0	35	14	0	2	0	0	**1**	0	0	0	0	0	52
13:00	0	33	9	0	0	0	0	0	0	0	0	0	0	42
14:00	**1**	51	**26**	0	3	0	0	1	0	0	0	0	0	82
15:00	0	54	14	0	3	0	0	0	0	0	0	0	0	71
16:00	0	61	25	0	0	0	0	1	0	0	0	0	0	87
17:00	0	**72**	20	**1**	2	0	0	0	0	0	0	0	0	**95**
18:00	0	54	17	0	**4**	0	0	0	0	0	0	0	0	75
19:00	0	43	13	0	1	0	0	0	0	0	0	0	0	57
20:00	0	43	14	0	1	0	0	0	0	0	0	0	0	58
21:00	0	45	3	0	0	0	0	0	0	0	0	0	0	48
22:00	0	29	5	0	1	0	0	0	0	0	0	0	0	35
23:00	0	19	1	0	0	0	0	0	0	0	0	0	0	20
Total	4	719	237	1	22	3	0	4	0	0	0	0	0	990
Percent	0.4%	72.6%	23.9%	0.1%	2.2%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00		07:00	05:00		10:00						07:00
Vol.	1	47	24		4	1		1						75
PM Peak	14:00	17:00	14:00	17:00	18:00			12:00						17:00
Vol.	1	72	26	1	4			1						95
Grand Total	4	719	237	1	22	3	0	4	0	0	0	0	0	990
Percent	0.4%	72.6%	23.9%	0.1%	2.2%	0.3%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

City of Moreno Valley
Indian Street
S/ Krameria Avenue
24 Hour Directional Classification Count

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

MRV001
Site Code: 051-15223

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	0	14	2	0	0	0	0	0	0	0	0	0	0	16
01:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
02:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
03:00	0	9	0	0	1	0	0	0	0	0	0	0	0	10
04:00	0	19	4	0	1	0	0	0	0	0	0	0	0	24
05:00	**2**	30	13	0	3	1	0	0	0	0	0	0	0	49
06:00	0	41	22	0	2	0	0	1	0	0	0	0	0	66
07:00	1	**138**	**61**	0	**9**	0	0	0	0	0	0	0	0	**209**
08:00	0	69	20	0	4	0	0	0	0	0	0	0	0	93
09:00	2	51	16	0	3	**2**	0	0	0	0	0	0	0	74
10:00	0	50	12	0	0	0	0	**2**	0	0	0	0	0	64
11:00	1	38	24	0	0	1	0	0	0	0	0	0	0	64
12 PM	0	61	24	0	2	0	0	**1**	0	0	0	0	0	88
13:00	0	66	19	0	1	0	0	0	0	0	0	0	0	86
14:00	**1**	104	**46**	0	**5**	0	0	1	0	0	0	0	0	**157**
15:00	0	82	31	0	5	0	0	1	0	0	0	0	0	119
16:00	0	91	36	0	1	0	0	1	0	0	0	0	0	129
17:00	0	**116**	28	**1**	2	0	0	0	0	0	0	0	0	147
18:00	0	82	19	0	5	0	0	0	0	0	0	0	0	106
19:00	0	89	16	0	1	0	0	0	0	0	0	0	0	106
20:00	0	66	19	0	1	0	0	0	0	0	0	0	0	86
21:00	0	64	10	0	0	0	0	0	0	0	0	0	0	74
22:00	0	44	5	0	2	0	0	0	0	0	0	0	0	51
23:00	0	25	3	0	0	0	0	0	0	0	0	0	0	28
Total	7	1362	433	1	48	4	0	7	0	0	0	0	0	1862
Percent	0.4%	73.1%	23.3%	0.1%	2.6%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	07:00	07:00		07:00	09:00		10:00						07:00
Vol.	2	138	61		9	2		2						209
PM Peak	14:00	17:00	14:00	17:00	14:00			12:00						14:00
Vol.	1	116	46	1	5			1						157
Grand Total	7	1362	433	1	48	4	0	7	0	0	0	0	0	1862
Percent	0.4%	73.1%	23.3%	0.1%	2.6%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Krameria Avenue
E/ Indian Street
24 Hour Directional Classification Count

MRV006
Site Code: 051-15223

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	**2**	17	5	0	0	0	0	0	0	0	0	0	0	24
01:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
02:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
03:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
04:00	0	22	8	0	1	0	0	0	0	0	0	0	0	31
05:00	1	30	12	0	0	0	0	0	0	0	0	0	0	43
06:00	1	39	12	0	1	0	0	0	0	0	0	0	0	53
07:00	0	**140**	**52**	0	**5**	0	0	0	0	0	0	0	0	**197**
08:00	1	64	12	0	3	0	0	0	0	0	0	0	0	80
09:00	0	41	11	0	1	0	0	0	0	0	0	0	0	53
10:00	0	52	15	0	2	0	0	**1**	0	0	0	0	0	70
11:00	1	59	15	0	1	0	0	0	0	0	0	0	0	76
12 PM	1	73	28	0	2	0	0	0	0	0	0	0	0	104
13:00	2	106	29	0	1	**1**	0	0	0	0	0	0	0	139
14:00	1	140	**59**	0	**6**	0	0	**1**	**1**	0	0	0	0	**208**
15:00	**4**	108	42	0	4	1	0	0	0	0	0	0	0	159
16:00	0	102	29	0	4	0	0	1	0	0	0	0	0	136
17:00	3	**145**	38	0	3	0	0	1	0	0	0	0	0	190
18:00	0	141	31	0	3	0	0	0	0	0	0	0	0	175
19:00	0	108	20	0	1	0	0	0	0	0	0	0	0	129
20:00	0	84	28	0	0	0	0	0	0	0	0	0	0	112
21:00	0	77	13	0	0	0	0	0	0	0	0	0	0	90
22:00	0	52	6	0	2	0	0	0	0	0	0	0	0	60
23:00	0	26	3	0	1	0	0	0	0	0	0	0	0	30
Total	17	1645	476	0	41	2	0	4	1	0	0	0	0	2186
Percent	0.8%	75.3%	21.8%	0.0%	1.9%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	00:00	07:00	07:00		07:00			10:00						07:00
Vol.	2	140	52		5			1						197
PM Peak	15:00	17:00	14:00		14:00	13:00		14:00	14:00					14:00
Vol.	4	145	59		6	1		1	1					208
Grand Total	17	1645	476	0	41	2	0	4	1	0	0	0	0	2186
Percent	0.8%	75.3%	21.8%	0.0%	1.9%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	

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City of Moreno Valley
Krameria Avenue
E/ Indian Street
24 Hour Directional Classification Count

MRV006
Site Code: 051-15223

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	0	9	1	0	2	0	0	0	0	0	0	0	0	12
01:00	1	2	1	0	0	1	0	0	**1**	0	0	0	0	6
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
03:00	0	11	5	0	1	0	0	0	0	0	0	0	0	17
04:00	0	31	9	0	3	0	0	0	0	0	0	0	0	43
05:00	0	44	13	0	3	0	0	0	0	0	0	0	0	60
06:00	**3**	57	18	**2**	3	0	0	0	0	0	0	0	0	83
07:00	1	**157**	**47**	0	**12**	0	0	0	0	0	0	0	0	**217**
08:00	0	72	18	0	2	0	0	0	0	0	0	0	0	92
09:00	0	58	19	0	2	0	0	0	0	0	0	0	0	79
10:00	0	27	17	0	2	0	0	0	0	0	0	0	0	46
11:00	1	45	19	0	2	**2**	0	0	0	0	0	0	0	69
12 PM	0	40	18	0	1	0	0	0	1	0	0	0	0	60
13:00	0	38	19	0	2	0	0	**1**	0	0	0	0	0	60
14:00	0	**94**	**29**	0	2	0	0	0	0	0	0	0	0	**125**
15:00	0	69	20	**2**	2	0	0	0	0	0	0	0	0	93
16:00	0	66	25	0	**4**	0	0	0	0	0	0	0	0	95
17:00	0	52	19	0	3	0	0	0	0	0	0	0	0	74
18:00	**1**	43	15	0	1	0	0	0	0	0	0	0	0	60
19:00	0	47	12	0	1	0	0	0	0	0	0	0	0	60
20:00	1	33	16	0	0	0	0	0	**2**	0	0	0	0	52
21:00	1	26	4	0	2	0	0	0	0	0	0	0	0	33
22:00	0	17	1	0	0	0	0	0	0	0	0	0	0	18
23:00	0	23	1	0	1	**1**	0	0	0	0	0	0	0	26
Total	9	1064	347	4	51	4	0	1	4	0	0	0	0	1484
Percent	0.6%	71.7%	23.4%	0.3%	3.4%	0.3%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	06:00	07:00	11:00			01:00					07:00
Vol.	3	157	47	2	12	2			1					217
PM Peak	18:00	14:00	14:00	15:00	16:00	23:00		13:00	20:00					14:00
Vol.	1	94	29	2	4	1		1	2					125
Grand Total	9	1064	347	4	51	4	0	1	4	0	0	0	0	1484
Percent	0.6%	71.7%	23.4%	0.3%	3.4%	0.3%	0.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	

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Krameria Avenue
E/ Indian Street
24 Hour Directional Classification Count

MRV006
Site Code: 051-15223

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
04/28/15	2	26	6	0	2	0	0	0	0	0	0	0	0	36
01:00	1	9	4	0	0	1	0	0	**1**	0	0	0	0	16
02:00	0	10	4	0	0	0	0	0	0	0	0	0	0	14
03:00	0	16	7	0	1	0	0	0	0	0	0	0	0	24
04:00	0	53	17	0	4	0	0	0	0	0	0	0	0	74
05:00	1	74	25	0	3	0	0	0	0	0	0	0	0	103
06:00	**4**	96	30	**2**	4	0	0	0	0	0	0	0	0	136
07:00	1	**297**	**99**	0	**17**	0	0	0	0	0	0	0	0	**414**
08:00	1	136	30	0	5	0	0	0	0	0	0	0	0	172
09:00	0	99	30	0	3	0	0	0	0	0	0	0	0	132
10:00	0	79	32	0	4	0	0	**1**	0	0	0	0	0	116
11:00	2	104	34	0	3	**2**	0	0	0	0	0	0	0	145
12 PM	1	113	46	0	3	0	0	0	1	0	0	0	0	164
13:00	2	144	48	0	3	**1**	0	**1**	0	0	0	0	0	199
14:00	1	**234**	**88**	0	**8**	0	0	1	1	0	0	0	0	**333**
15:00	**4**	177	62	**2**	6	1	0	0	0	0	0	0	0	252
16:00	0	168	54	0	8	0	0	1	0	0	0	0	0	231
17:00	3	197	57	0	6	0	0	1	0	0	0	0	0	264
18:00	1	184	46	0	4	0	0	0	0	0	0	0	0	235
19:00	0	155	32	0	2	0	0	0	0	0	0	0	0	189
20:00	1	117	44	0	0	0	0	0	**2**	0	0	0	0	164
21:00	1	103	17	0	2	0	0	0	0	0	0	0	0	123
22:00	0	69	7	0	2	0	0	0	0	0	0	0	0	78
23:00	0	49	4	0	2	1	0	0	0	0	0	0	0	56
Total	26	2709	823	4	92	6	0	5	5	0	0	0	0	3670
Percent	0.7%	73.8%	22.4%	0.1%	2.5%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	06:00	07:00	11:00		10:00	01:00					07:00
Vol.	4	297	99	2	17	2		1	1					414
PM Peak	15:00	14:00	14:00	15:00	14:00	13:00		13:00	20:00					14:00
Vol.	4	234	88	2	8	1		1	2					333
Grand Total	26	2709	823	4	92	6	0	5	5	0	0	0	0	3670
Percent	0.7%	73.8%	22.4%	0.1%	2.5%	0.2%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	

APPENDIX 3.2:

EXISTING (2015) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/1/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (vph)	0	333	36	351	1280	0	0	0	539	0	0	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	351	38	369	1347	0	0	0	567	0	0	225
RTOR Reduction (vph)	0	0	23	0	0	0	0	0	501	0	0	101
Lane Group Flow (vph)	0	351	15	369	1347	0	0	0	66	0	0	124
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		23.2	23.2	14.7	41.9				7.0			8.6
Effective Green, g (s)		23.2	23.2	14.7	41.9				7.0			8.6
Actuated g/C Ratio		0.39	0.39	0.24	0.70				0.12			0.14
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		1469	734	465	2653				221			272
v/s Ratio Prot		0.09		c0.19	c0.35				0.03			c0.07
v/s Ratio Perm			0.01									
v/c Ratio		0.24	0.02	0.79	0.51				0.30			0.46
Uniform Delay, d1		12.4	11.4	21.2	4.2				24.3			23.6
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		0.4	0.1	8.5	0.7				0.3			0.4
Delay (s)		12.8	11.4	29.7	4.9				24.5			24.0
Level of Service		B	B	C	A				C			C
Approach Delay (s)		12.7			10.3			24.5			24.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/1/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	382	9	120	163	0	0	0	0	409	2	156
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	406	5	128	173	0				435	2	102
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	638	2448	0				491	2	440
Arrive On Green	0.00	0.25	0.25	0.71	1.00	0.00				0.27	0.27	0.27
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1802	8	1615
Grp Volume(v), veh/h	0	406	5	128	173	0				437	0	102
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	10.8	0.3	2.9	0.0	0.0				27.8	0.0	5.9
Cycle Q Clear(g_c), s	0.0	10.8	0.3	2.9	0.0	0.0				27.8	0.0	5.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	950	404	638	2448	0				493	0	440
V/C Ratio(X)	0.00	0.43	0.01	0.20	0.07	0.00				0.89	0.00	0.23
Avail Cap(c_a), veh/h	0	950	404	638	2448	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.8	33.9	11.9	0.0	0.0				41.9	0.0	33.9
Incr Delay (d2), s/veh	0.0	1.4	0.1	0.1	0.1	0.0				6.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.1	1.4	0.0	0.0				14.7	0.0	2.7
LnGrp Delay(d),s/veh	0.0	39.2	33.9	11.9	0.1	0.0				48.4	0.0	34.2
LnGrp LOS		D	C	B	A					D		C
Approach Vol, veh/h		411			301						539	
Approach Delay, s/veh		39.1			5.1						45.7	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	47.3	35.0		37.7		82.3		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	20.5	* 30		55.0		55.0		
Max Q Clear Time (g_c+I1), s	4.9	12.8		29.8		2.0		
Green Ext Time (p_c), s	0.7	1.4		2.9		0.8		

Intersection Summary	
HCM 2010 Ctrl Delay	33.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary   Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.   7/1/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	24	811	37	0	1521	196	388	278	5	34	0	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	828	32	0	1552	156	396	284	5	35	0	39
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	2035	79	0	1905	190	484	533	9	285	0	456
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	291	3635	140	0	3402	339	1390	1861	33	1107	0	1593
Grp Volume(v), veh/h	24	433	427	0	860	848	396	0	289	35	0	39
Grp Sat Flow(s),veh/h/ln	291	1900	1875	0	1900	1840	1390	0	1894	1107	0	1593
Q Serve(g_s), s	4.8	8.4	8.4	0.0	23.6	24.4	17.4	0.0	8.4	1.8	0.0	1.2
Cycle Q Clear(g_c), s	29.2	8.4	8.4	0.0	23.6	24.4	18.6	0.0	8.4	10.1	0.0	1.2
Prop In Lane	1.00		0.07	0.00		0.18	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	164	1064	1050	0	1064	1031	484	0	542	285	0	456
V/C Ratio(X)	0.15	0.41	0.41	0.00	0.81	0.82	0.82	0.00	0.53	0.12	0.00	0.09
Avail Cap(c_a), veh/h	164	1064	1050	0	1064	1031	484	0	542	285	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	8.1	8.1	0.0	11.5	11.7	24.3	0.0	19.5	23.8	0.0	17.0
Incr Delay (d2), s/veh	1.9	1.2	1.2	0.0	6.6	7.4	14.3	0.0	3.7	0.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.7	4.6	0.0	14.1	14.4	9.0	0.0	4.9	0.6	0.0	0.6
LnGrp Delay(d),s/veh	25.5	9.3	9.3	0.0	18.1	19.1	38.6	0.0	23.3	24.7	0.0	17.3
LnGrp LOS	C	A	A		B	B	D		C	C		B
Approach Vol, veh/h		884			1708			685			74	
Approach Delay, s/veh		9.7			18.6			32.1			20.8	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		31.2		12.1		26.4		20.6
Green Ext Time (p_c), s		4.2		1.1		7.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	203	587	0	0	279	334	4	0	96	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	221	638	0	0	303	328	4	0	18			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	247	2755	0	0	2126	904	347	0	310			
Arrive On Green	0.27	1.00	0.00	0.00	0.56	0.56	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1809	0	1615			
Grp Volume(v), veh/h	221	638	0	0	303	328	4	0	18			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	14.1	0.0	0.0	0.0	4.6	13.5	0.2	0.0	1.1			
Cycle Q Clear(g_c), s	14.1	0.0	0.0	0.0	4.6	13.5	0.2	0.0	1.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	247	2755	0	0	2126	904	347	0	310			
V/C Ratio(X)	0.90	0.23	0.00	0.00	0.14	0.36	0.01	0.00	0.06			
Avail Cap(c_a), veh/h	550	2755	0	0	2126	904	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.8	0.0	0.0	0.0	12.7	14.6	39.3	0.0	39.6			
Incr Delay (d2), s/veh	4.5	0.2	0.0	0.0	0.1	1.1	0.1	0.0	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.3	0.1	0.0	0.0	2.4	6.3	0.1	0.0	0.5			
LnGrp Delay(d),s/veh	47.3	0.2	0.0	0.0	12.8	15.7	39.4	0.0	40.0			
LnGrp LOS	D	A			B	B	D		D			
Approach Vol, veh/h		859			631			22				
Approach Delay, s/veh		12.3			14.3			39.9				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			19.9	72.1		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			16.1	15.5		3.1
Green Ext Time (p_c), s		4.7			0.3	4.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		13.6
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue 7/1/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Volume (veh/h)	165	1265	231	104	1475	81	51	222	21	77	116	104
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	1332	0	109	1553	77	54	234	1	81	122	56
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2448	694	119	2324	659	445	465	2	152	159	275
Arrive On Green	0.09	0.43	0.00	0.07	0.41	0.41	0.25	0.25	0.25	0.08	0.08	0.08
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1890	8	1810	1900	1591
Grp Volume(v), veh/h	174	1332	0	109	1553	77	54	0	235	81	122	56
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1591
Q Serve(g_s), s	10.5	20.9	0.0	7.2	26.6	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Cycle Q Clear(g_c), s	10.5	20.9	0.0	7.2	26.6	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	2448	694	119	2324	659	445	0	467	152	159	275
V/C Ratio(X)	1.10	0.54	0.00	0.91	0.67	0.12	0.12	0.00	0.50	0.53	0.77	0.20
Avail Cap(c_a), veh/h	158	2448	694	119	2324	659	445	0	467	445	467	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	25.5	0.0	55.7	28.9	22.1	35.2	0.0	38.9	52.7	53.8	42.7
Incr Delay (d2), s/veh	100.5	0.9	0.0	55.8	0.6	0.0	0.6	0.0	3.8	1.1	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	11.2	0.0	5.4	14.1	1.6	1.5	0.0	7.2	2.6	4.1	1.6
LnGrp Delay(d),s/veh	155.2	26.4	0.0	111.5	29.5	22.1	35.7	0.0	42.8	53.8	56.7	42.8
LnGrp LOS	F	C		F	C	C	D		D	D	E	D
Approach Vol, veh/h		1506			1739			289			259	
Approach Delay, s/veh		41.2			34.3			41.5			52.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	57.0		15.6	15.0	54.4		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	9.2	22.9		9.5	12.5	28.6		14.8
Green Ext Time (p_c), s	0.0	7.4		0.5	0.0	0.8		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.9
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
6: Cactus Avenue & Frederick Street

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	174	1058	1663	156	106	68
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	191	1163	1827	161	116	19
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	215	1995	1995	553	1221	737
Arrive On Green	0.12	0.52	0.35	0.35	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1579	3619	1615
Grp Volume(v), veh/h	191	1163	1827	161	116	19
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1579	1810	1615
Q Serve(g_s), s	8.3	16.8	24.5	5.9	1.8	0.5
Cycle Q Clear(g_c), s	8.3	16.8	24.5	5.9	1.8	0.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	215	1995	1995	553	1221	737
V/C Ratio(X)	0.89	0.58	0.92	0.29	0.09	0.03
Avail Cap(c_a), veh/h	215	1995	1995	553	1221	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.37	0.37	1.00	1.00
Uniform Delay (d), s/veh	34.7	13.0	24.9	18.8	18.1	12.0
Incr Delay (d2), s/veh	32.4	1.3	3.4	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	9.1	13.5	2.6	0.9	0.7
LnGrp Delay(d),s/veh	67.1	14.3	28.2	19.3	18.3	12.0
LnGrp LOS	E	B	C	B	B	B
Approach Vol, veh/h		1354	1988		135	
Approach Delay, s/veh		21.7	27.5		17.4	
Approach LOS		C	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	14.0	33.5		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		18.8		3.8	10.3	26.5		
Green Ext Time (p_c), s		16.0		0.2	0.0	1.4		

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

7: Harley Knox Blvd. & Western Way

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	56	627	573	35	8	40
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	62	697	637	39	9	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	637	0	-	0	1110	318
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	473	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	956	-	-	-	*349	684
Stage 1	-	-	-	-	*494	-
Stage 2	-	-	-	-	*804	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	956	-	-	-	*312	684
Mov Cap-2 Maneuver	-	-	-	-	*312	-
Stage 1	-	-	-	-	*494	-
Stage 2	-	-	-	-	*719	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	956	-	-	-	571
HCM Lane V/C Ratio	0.065	-	-	-	0.093
HCM Control Delay (s)	9	0.4	-	-	12
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

8: Graham Street & Cactus Avenue

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	99	906	177	15	1618	69	138	53	10	60	53	54
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	974	0	16	1740	72	148	57	8	65	57	23
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1362	4190	1781	27	1918	79	170	1039	143	84	1249	1739
Arrive On Green	0.75	1.00	0.00	0.01	0.35	0.35	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5436	225	3619	3271	449	1810	3800	1593
Grp Volume(v), veh/h	106	974	0	16	1216	596	148	33	32	65	57	23
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1860	1810	1900	1820	1810	1900	1593
Q Serve(g_s), s	1.3	0.0	0.0	0.7	25.9	25.9	3.5	1.0	1.1	3.0	0.9	0.1
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.7	25.9	25.9	3.5	1.0	1.1	3.0	0.9	0.1
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	1362	4190	1781	27	1341	657	170	604	578	84	1249	1739
V/C Ratio(X)	0.08	0.23	0.00	0.60	0.91	0.91	0.87	0.05	0.06	0.78	0.05	0.01
Avail Cap(c_a), veh/h	1362	4190	1781	85	1341	657	170	604	578	85	1249	1739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.83	0.83	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	2.8	0.0	0.0	41.6	26.2	26.2	40.2	20.1	20.1	40.1	19.4	7.1
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.7	1.1	2.3	33.8	0.2	0.2	31.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.0	0.4	13.7	13.7	2.5	0.6	0.6	2.3	0.5	0.2
LnGrp Delay(d),s/veh	2.8	0.1	0.0	42.3	27.3	28.5	74.1	20.3	20.3	71.9	19.5	7.1
LnGrp LOS	A	A		D	C	C	E	C	C	E	B	A
Approach Vol, veh/h		1080			1828			213			145	
Approach Delay, s/veh		0.4			27.8			57.7			41.0	
Approach LOS		A			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	100.5	8.5	33.4	70.8	35.5	9.4	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	* 27
Max Q Clear Time (g_c+I1), s	2.7	2.0	5.5	2.9	3.3	27.9	5.0	3.1
Green Ext Time (p_c), s	0.0	4.3	0.0	0.3	0.0	1.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard 7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			✥			↰↑	↱
Volume (veh/h)	6	592	20	0	519	2	110	0	7	0	2	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	623	21	0	546	2	116	0	7	0	2	6
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	750	637	3	604	2	697	3	36	0	829	704
Arrive On Green	0.01	0.39	0.39	0.00	0.32	0.32	0.44	0.00	0.44	0.00	0.44	0.44
Sat Flow, veh/h	1810	1900	1615	1810	1892	7	1351	8	82	0	1900	1615
Grp Volume(v), veh/h	6	623	21	0	0	548	123	0	0	0	2	6
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1441	0	0	0	1900	1615
Q Serve(g_s), s	0.2	19.2	0.5	0.0	0.0	18.0	3.3	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.2	19.2	0.5	0.0	0.0	18.0	3.4	0.0	0.0	0.0	0.0	0.1
Prop In Lane	1.00		1.00	1.00		0.00	0.94		0.06	0.00		1.00
Lane Grp Cap(c), veh/h	11	750	637	3	0	606	736	0	0	0	829	704
V/C Ratio(X)	0.52	0.83	0.03	0.00	0.00	0.90	0.17	0.00	0.00	0.00	0.00	0.01
Avail Cap(c_a), veh/h	111	750	637	111	0	686	736	0	0	0	829	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	17.7	12.1	0.0	0.0	21.2	11.3	0.0	0.0	0.0	10.3	10.4
Incr Delay (d2), s/veh	13.1	7.4	0.0	0.0	0.0	13.5	0.5	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	11.6	0.2	0.0	0.0	11.6	1.5	0.0	0.0	0.0	0.0	0.1
LnGrp Delay(d),s/veh	45.3	25.1	12.1	0.0	0.0	34.7	11.8	0.0	0.0	0.0	10.3	10.4
LnGrp LOS	D	C	B			C	B				B	B
Approach Vol, veh/h		650			548			123			8	
Approach Delay, s/veh		24.9			34.7			11.8			10.4	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		33.9	0.0	31.1		33.9	4.9	26.2
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		5.4	0.0	21.2		2.1	2.2	20.0
Green Ext Time (p_c), s		0.4	0.0	1.2		0.4	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	89	524	341	9	1011	96	694	373	11	46	270	47
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	570	294	10	1099	95	754	405	10	50	293	35
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	2578	1094	18	2177	188	695	1537	38	64	834	99
Arrive On Green	0.06	0.68	0.68	0.01	0.63	0.63	0.19	0.42	0.42	0.04	0.25	0.25
Sat Flow, veh/h	1810	3800	1613	1810	3449	298	3619	3691	91	1810	3335	395
Grp Volume(v), veh/h	97	570	294	10	605	589	754	208	207	50	166	162
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1847	1810	1900	1882	1810	1900	1829
Q Serve(g_s), s	5.3	5.7	8.0	0.6	17.2	17.3	19.2	7.2	7.2	2.7	7.2	7.3
Cycle Q Clear(g_c), s	5.3	5.7	8.0	0.6	17.2	17.3	19.2	7.2	7.2	2.7	7.2	7.3
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.05	1.00		0.22
Lane Grp Cap(c), veh/h	103	2578	1094	18	1199	1166	695	791	784	64	475	457
V/C Ratio(X)	0.94	0.22	0.27	0.57	0.50	0.51	1.09	0.26	0.26	0.78	0.35	0.35
Avail Cap(c_a), veh/h	103	2578	1094	72	1199	1166	695	791	784	121	475	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	6.1	7.9	49.3	10.0	10.0	40.4	19.1	19.1	47.8	30.8	30.9
Incr Delay (d2), s/veh	58.9	0.2	0.5	10.3	1.5	1.6	58.7	0.8	0.8	7.2	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.0	3.7	0.3	9.4	9.2	15.2	3.9	3.9	1.5	4.0	4.0
LnGrp Delay(d),s/veh	105.9	6.2	8.4	59.6	11.5	11.6	99.1	19.9	19.9	55.0	32.8	33.0
LnGrp LOS	F	A	A	E	B	B	F	B	B	E	C	C
Approach Vol, veh/h		961			1204			1169			378	
Approach Delay, s/veh		17.0			11.9			71.0			35.8	
Approach LOS		B			B			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	74.3	24.7	30.5	10.2	69.6	8.1	47.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	31.8	19.2	* 25	5.7	30.1	6.7	37.5
Max Q Clear Time (g_c+I1), s	2.6	10.0	21.2	9.3	7.3	19.3	4.7	9.2
Green Ext Time (p_c), s	0.0	8.1	0.0	0.9	0.0	5.7	0.0	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	7	43	62	26	108	257	68	717	47	130	421	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.95	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	47	22	28	117	118	74	779	36	141	458	10
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	197	167	42	225	189	96	1211	487	528	2167	909
Arrive On Green	0.01	0.10	0.10	0.02	0.12	0.12	0.05	0.32	0.32	0.29	0.57	0.57
Sat Flow, veh/h	1810	1900	1615	1810	1900	1595	1810	3800	1529	1810	3800	1594
Grp Volume(v), veh/h	8	47	22	28	117	118	74	779	36	141	458	10
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1595	1810	1900	1529	1810	1900	1594
Q Serve(g_s), s	0.4	1.8	1.0	1.2	4.6	5.6	3.2	14.1	1.0	4.8	4.7	0.2
Cycle Q Clear(g_c), s	0.4	1.8	1.0	1.2	4.6	5.6	3.2	14.1	1.0	4.8	4.7	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	15	197	167	42	225	189	96	1211	487	528	2167	909
V/C Ratio(X)	0.54	0.24	0.13	0.67	0.52	0.62	0.77	0.64	0.07	0.27	0.21	0.01
Avail Cap(c_a), veh/h	90	589	501	118	618	518	190	1211	487	528	2167	909
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	39.5	33.0	32.6	38.8	33.1	33.6	37.4	23.4	11.6	21.7	8.4	7.4
Incr Delay (d2), s/veh	11.0	0.2	0.1	6.6	0.7	1.3	4.9	2.6	0.3	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	0.4	0.7	2.5	2.6	1.7	7.8	0.5	2.4	2.5	0.1
LnGrp Delay(d),s/veh	50.6	33.2	32.7	45.4	33.8	34.8	42.3	26.0	11.9	21.8	8.6	7.5
LnGrp LOS	D	C	C	D	C	C	D	C	B	C	A	A
Approach Vol, veh/h		77			263			889			609	
Approach Delay, s/veh		34.9			35.5			26.8			11.6	
Approach LOS		C			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.9	31.0	6.4	13.8	8.7	51.1	5.2	15.0
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	* 26	5.2	24.8	8.4	21.6	4.0	26.0
Max Q Clear Time (g_c+I1), s	16.8	16.1	3.2	3.8	5.2	6.7	2.4	7.6
Green Ext Time (p_c), s	0.0	2.3	0.0	0.9	0.0	1.7	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

12: Heacock Street & Gentian Avenue

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	92	563	2	55	430
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	97	593	2	58	453

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1161	593	0	0	593	0
Stage 1	593	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	218	509	-	-	993	-
Stage 1	556	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	205	509	-	-	993	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	538	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	205	509	993	-
HCM Lane V/C Ratio	-	-	0.015	0.19	0.058	-
HCM Control Delay (s)	-	-	22.8	13.7	8.8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0.7	0.2	-

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	45	383	0	183	36	0	200	230
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	48	407	0	195	38	0	213	245
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	17.6	13.5	13.7
HCM LOS	C	B	B

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	84%	0%	0%	0%	100%
Vol Right, %	16%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	45	383	200	230
LT Vol	0	45	0	200	0
Through Vol	183	0	0	0	230
RT Vol	36	0	383	0	0
Lane Flow Rate	233	48	407	213	245
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.403	0.092	0.646	0.398	0.423
Departure Headway (Hd)	6.222	6.926	5.709	6.738	6.23
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	578	517	632	534	577
Service Time	4.279	4.678	3.461	4.493	3.984
HCM Lane V/C Ratio	0.403	0.093	0.644	0.399	0.425
HCM Control Delay	13.5	10.4	18.4	13.9	13.5
HCM Lane LOS	B	B	C	B	B
HCM 95th-tile Q	1.9	0.3	4.7	1.9	2.1

HCM 2010 Signalized Intersection Summary
14: Heacock Street & Krameria Avenue-North

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	9	51	209	7	31	243
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	63	258	9	38	300
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	94	84	865	735	491	1503
Arrive On Green	0.05	0.05	0.46	0.46	0.27	0.79
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	11	63	258	9	38	300
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.4	2.7	6.0	0.2	1.1	2.7
Cycle Q Clear(g_c), s	0.4	2.7	6.0	0.2	1.1	2.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	94	84	865	735	491	1503
V/C Ratio(X)	0.12	0.75	0.30	0.01	0.08	0.20
Avail Cap(c_a), veh/h	439	392	865	735	491	1503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.7	32.7	12.0	10.4	19.0	1.8
Incr Delay (d2), s/veh	0.2	5.0	0.9	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.3	3.4	0.1	0.6	1.5
LnGrp Delay(d),s/veh	31.9	37.7	12.9	10.5	19.3	2.1
LnGrp LOS	C	D	B	B	B	A
Approach Vol, veh/h	74		267			338
Approach Delay, s/veh	36.9		12.8			4.0
Approach LOS	D		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	37.4				60.9		9.1
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	3.1	8.0				4.7		4.7
Green Ext Time (p_c), s	0.0	1.4				1.8		0.1

Intersection Summary			
HCM 2010 Ctrl Delay			11.1
HCM 2010 LOS			B

17: Heacock Street & Cardinal Avenue

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	1	179	3	5	230
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	252	4	7	324

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	590	126	0	0	252	0
Stage 1	252	-	-	-	-	-
Stage 2	338	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	458	907	-	-	1325	-
Stage 1	773	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	456	907	-	-	1325	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	723	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	907	1325	-
HCM Lane V/C Ratio	-	-	-	0.002	0.005	-
HCM Control Delay (s)	-	-	0	9	7.7	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	0	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	2	4	4	7	5	137	1	39	5	76	88	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	5	2	9	7	116	1	52	7	101	117	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	6	93	79	81	171	145	2	618	525	673	1341	1140
Arrive On Green	0.00	0.05	0.05	0.04	0.09	0.09	0.00	0.32	0.32	0.37	0.71	0.71
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	3	5	2	9	7	116	1	52	7	101	117	8
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.2	0.3	0.1	0.5	0.3	7.0	0.1	1.9	0.3	3.7	1.9	0.1
Cycle Q Clear(g_c), s	0.2	0.3	0.1	0.5	0.3	7.0	0.1	1.9	0.3	3.7	1.9	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	93	79	81	171	145	2	618	525	673	1341	1140
V/C Ratio(X)	0.52	0.05	0.03	0.11	0.04	0.80	0.50	0.08	0.01	0.15	0.09	0.01
Avail Cap(c_a), veh/h	100	551	468	81	523	444	81	618	525	673	1341	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	45.4	36.2	45.9	41.6	44.6	49.9	23.4	22.9	20.9	4.6	1.8
Incr Delay (d2), s/veh	24.3	0.1	0.0	0.2	0.0	3.3	58.7	0.3	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.2	0.2	3.3	0.1	1.0	0.1	1.9	1.1	0.0
LnGrp Delay(d),s/veh	74.1	45.5	36.2	46.1	41.6	47.9	108.6	23.7	22.9	20.9	4.7	1.8
LnGrp LOS	E	D	D	D	D	D	F	C	C	C	A	A
Approach Vol, veh/h		10			132			60			226	
Approach Delay, s/veh		52.2			47.4			25.0			11.9	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	38.0	9.0	10.4	4.6	76.1	4.8	14.5
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	5.7	3.9	2.5	2.3	2.1	3.9	2.2	9.0
Green Ext Time (p_c), s	0.3	0.1	0.0	0.0	0.0	0.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	40	0	2	91	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	43	0	2	97	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	196	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	195	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	797	1090	-	-	1634	-
Stage 1	1028	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	1090	-	-	1634	-
Mov Cap-2 Maneuver	752	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1090	1634	-
HCM Lane V/C Ratio	-	-	-	0.039	0.059	-
HCM Control Delay (s)	-	-	0	8.4	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	372	1	0	371	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	465	1	0	464	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	466	0	930	466
Stage 1	-	-	-	-	466	-
Stage 2	-	-	-	-	464	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1114	-	299	716
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	693	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1114	-	299	716
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	693	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	716	-	-	1114	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	23	9	0	0	0	47	3	6	3	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	28	11	0	0	0	57	4	7	4	0	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	133	133	8	153	141	4	16	0	0	4	0	0
Stage 1	15	15	-	118	118	-	-	-	-	-	-	-
Stage 2	118	118	-	35	23	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	844	761	1080	819	754	1085	1615	-	-	1631	-	-
Stage 1	1010	887	-	891	802	-	-	-	-	-	-	-
Stage 2	891	802	-	986	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	820	732	1080	764	726	1085	1615	-	-	1631	-	-
Mov Cap-2 Maneuver	811	729	-	793	728	-	-	-	-	-	-	-
Stage 1	974	885	-	860	774	-	-	-	-	-	-	-
Stage 2	860	774	-	943	878	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	0	6.1	1.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	803	-	1631	-	-
HCM Lane V/C Ratio	0.035	-	-	0.056	-	0.002	-	-
HCM Control Delay (s)	7.3	-	-	9.8	0	7.2	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0	-	-

HCM 2010 AWSC
26: Indian Street & Krameria Avenue

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	1	6	0	0	2	37	188	0	14	99	12
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	7	0	0	2	44	221	0	16	116	14
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	9.3	10.1	9.9
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	99	12	1	6	2	37	188	192	79	1
LT Vol	14	0	0	1	0	2	0	0	192	0	0
Through Vol	0	99	0	0	6	0	37	0	0	79	0
RT Vol	0	0	12	0	0	0	0	188	0	0	1
Lane Flow Rate	16	116	14	1	7	2	44	221	226	93	1
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.03	0.196	0.021	0.002	0.013	0.004	0.07	0.315	0.387	0.146	0.002
Departure Headway (Hd)	6.549	6.046	5.343	6.934	6.434	6.445	5.945	5.246	6.163	5.661	4.958
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	549	595	672	517	557	559	606	690	587	637	725
Service Time	4.264	3.761	3.058	4.66	4.16	4.145	3.645	2.946	3.873	3.371	2.668
HCM Lane V/C Ratio	0.029	0.195	0.021	0.002	0.013	0.004	0.073	0.32	0.385	0.146	0.001
HCM Control Delay	9.5	10.2	8.2	9.7	9.2	9.2	9.1	10.3	12.7	9.3	7.7
HCM Lane LOS	A	B	A	A	A	A	A	B	B	A	A
HCM 95th-tile Q	0.1	0.7	0.1	0	0	0	0.2	1.3	1.8	0.5	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	192	79	1
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	226	93	1
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.7
HCM LOS	B

Lane

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
28: Indian Street & San Michele Road
7/2/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	6	59	36	54	165	5	278	11	91	3	5	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	81	37	74	226	4	381	15	93	4	7	0
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	14	180	738	96	531	213	1311	1231	1047	8	1064	0
Arrive On Green	0.00	0.03	0.03	0.05	0.14	0.14	0.36	0.65	0.65	0.00	0.28	0.00
Sat Flow, veh/h	1810	1900	1615	1810	3800	1523	3619	1900	1615	1810	3800	0
Grp Volume(v), veh/h	8	81	37	74	226	4	381	15	93	4	7	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1523	1810	1900	1615	1810	1900	0
Q Serve(g_s), s	0.4	4.2	0.2	4.0	5.4	0.2	7.5	0.3	2.2	0.2	0.1	0.0
Cycle Q Clear(g_c), s	0.4	4.2	0.2	4.0	5.4	0.2	7.5	0.3	2.2	0.2	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	14	180	738	96	531	213	1311	1231	1047	8	1064	0
V/C Ratio(X)	0.55	0.45	0.05	0.77	0.43	0.02	0.29	0.01	0.09	0.53	0.01	0.00
Avail Cap(c_a), veh/h	72	494	1005	172	1197	480	1311	1231	1047	72	1064	0
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.93	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	45.9	6.7	46.8	39.3	37.1	22.7	6.2	6.6	49.7	26.0	0.0
Incr Delay (d2), s/veh	11.0	0.6	0.0	4.9	0.2	0.0	0.0	0.0	0.2	19.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.2	0.4	2.1	2.9	0.1	3.8	0.2	1.0	0.2	0.1	0.0
LnGrp Delay(d),s/veh	60.7	46.5	6.7	51.7	39.5	37.1	22.8	6.3	6.7	69.0	26.0	0.0
LnGrp LOS	E	D	A	D	D	D	C	A	A	E	C	
Approach Vol, veh/h		126			304			489			11	
Approach Delay, s/veh		35.7			42.5			19.2			41.6	
Approach LOS		D			D			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	70.3	9.8	15.0	41.7	33.5	5.3	19.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	40.5	9.5	26.0	16.5	* 28	4.0	31.5
Max Q Clear Time (g_c+I1), s	2.2	4.2	6.0	6.2	9.5	2.1	2.4	7.4
Green Ext Time (p_c), s	0.0	0.8	0.0	1.1	0.6	0.0	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	9	14	137	42	22	17	47	347	28	6	68	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	17	108	51	27	19	57	423	32	7	83	1
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	20	177	150	65	224	190	73	2081	157	13	2114	25
Arrive On Green	0.01	0.09	0.09	0.04	0.12	0.12	0.04	0.60	0.60	0.01	0.56	0.56
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3485	262	1810	3747	45
Grp Volume(v), veh/h	11	17	108	51	27	19	57	230	225	7	42	42
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1847	1810	1900	1892
Q Serve(g_s), s	0.5	0.6	4.9	2.1	1.0	0.8	2.3	4.2	4.2	0.3	0.7	0.7
Cycle Q Clear(g_c), s	0.5	0.6	4.9	2.1	1.0	0.8	2.3	4.2	4.2	0.3	0.7	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.02
Lane Grp Cap(c), veh/h	20	177	150	65	224	190	73	1135	1103	13	1072	1068
V/C Ratio(X)	0.56	0.10	0.72	0.79	0.12	0.10	0.78	0.20	0.20	0.53	0.04	0.04
Avail Cap(c_a), veh/h	97	608	517	109	621	528	109	1135	1103	97	1072	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	36.9	31.1	33.1	35.9	29.6	29.5	35.7	6.9	6.9	37.1	7.3	7.3
Incr Delay (d2), s/veh	8.8	0.1	2.4	7.7	0.1	0.1	10.2	0.4	0.4	11.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	2.3	1.2	0.5	0.4	1.4	2.3	2.3	0.2	0.4	0.4
LnGrp Delay(d),s/veh	45.7	31.2	35.5	43.6	29.7	29.6	45.9	7.3	7.3	48.7	7.3	7.3
LnGrp LOS	D	C	D	D	C	C	D	A	A	D	A	A
Approach Vol, veh/h		136			97			512			91	
Approach Delay, s/veh		35.8			37.0			11.6			10.5	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	50.3	7.2	12.5	7.5	47.8	5.3	14.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	22.5	4.5	24.0	4.5	22.0	4.0	24.5
Max Q Clear Time (g_c+I1), s	2.3	6.2	4.1	6.9	4.3	2.7	2.5	3.0
Green Ext Time (p_c), s	0.0	1.5	0.0	0.3	0.0	1.6	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	253	206	71	5	245	15	103	239	25	9	62	148
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	269	219	59	5	261	14	110	254	23	10	66	90
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1377	2106	1790	9	1222	65	152	1443	613	35	640	544
Arrive On Green	0.76	1.00	1.00	0.01	0.34	0.34	0.04	0.38	0.38	0.01	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3573	191	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	269	219	59	5	138	137	110	254	23	10	66	90
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1863	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	4.0	0.0	0.0	0.3	4.9	5.0	2.9	4.2	0.9	0.3	2.3	3.7
Cycle Q Clear(g_c), s	4.0	0.0	0.0	0.3	4.9	5.0	2.9	4.2	0.9	0.3	2.3	3.7
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1377	2106	1790	9	650	638	152	1443	613	35	640	544
V/C Ratio(X)	0.20	0.10	0.03	0.53	0.21	0.21	0.72	0.18	0.04	0.28	0.10	0.17
Avail Cap(c_a), veh/h	1377	2106	1790	76	650	638	152	1443	613	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.2	0.0	0.0	47.1	22.2	22.2	45.0	19.6	18.5	46.7	21.6	22.1
Incr Delay (d2), s/veh	0.0	0.1	0.0	16.1	0.7	0.8	13.5	0.3	0.1	1.6	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.1	0.0	0.2	2.7	2.7	1.7	2.3	0.4	0.1	1.2	1.7
LnGrp Delay(d),s/veh	3.2	0.1	0.0	63.3	22.9	23.0	58.5	19.9	18.7	48.3	22.0	22.8
LnGrp LOS	A	A	A	E	C	C	E	B	B	D	C	C
Approach Vol, veh/h		547			280			387			166	
Approach Delay, s/veh		1.6			23.7			30.8			24.0	
Approach LOS		A			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	112.3	9.5	37.5	79.3	38.0	5.4	41.6
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	35.0	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.3	2.0	4.9	5.7	6.0	7.0	2.3	6.2
Green Ext Time (p_c), s	0.0	1.1	0.0	0.5	0.0	0.8	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Volume (veh/h)	64	407	132	60	710	76	193	831	85	100	485	41
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	452	130	67	789	75	214	923	82	111	539	36
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	977	279	992	2914	277	238	1499	133	141	855	358
Arrive On Green	0.05	0.34	0.34	0.55	0.85	0.85	0.13	0.29	0.29	0.08	0.22	0.22
Sat Flow, veh/h	1810	2841	810	1810	3413	324	1810	5159	457	1810	3800	1590
Grp Volume(v), veh/h	71	301	281	67	439	425	214	679	326	111	539	36
Grp Sat Flow(s),veh/h/ln	1810	1900	1751	1810	1900	1838	1810	1900	1816	1810	1900	1590
Q Serve(g_s), s	3.1	9.9	10.0	1.4	3.5	3.5	9.3	12.3	12.4	4.8	10.2	2.1
Cycle Q Clear(g_c), s	3.1	9.9	10.0	1.4	3.5	3.5	9.3	12.3	12.4	4.8	10.2	2.1
Prop In Lane	1.00		0.46	1.00		0.18	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	92	653	602	992	1622	1569	238	1104	528	141	855	358
V/C Ratio(X)	0.78	0.46	0.47	0.07	0.27	0.27	0.90	0.61	0.62	0.79	0.63	0.10
Avail Cap(c_a), veh/h	102	653	602	992	1622	1569	238	1104	528	170	855	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	20.5	20.5	8.5	1.1	1.1	34.2	24.5	24.5	36.2	28.0	51.6
Incr Delay (d2), s/veh	24.3	2.3	2.6	0.0	0.4	0.4	32.6	2.6	5.3	14.7	3.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.6	5.3	0.7	2.0	2.0	6.8	6.8	7.0	3.0	5.8	1.0
LnGrp Delay(d),s/veh	61.8	22.8	23.1	8.5	1.5	1.5	66.8	27.1	29.9	50.9	31.5	52.1
LnGrp LOS	E	C	C	A	A	A	E	C	C	D	C	D
Approach Vol, veh/h		653			931			1219			686	
Approach Delay, s/veh		27.2			2.0			34.8			35.7	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	50.2	33.0	16.0	23.5	8.5	74.6	10.7	28.8
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 28	10.5	* 18	4.5	27.0	7.5	21.0
Max Q Clear Time (g_c+I1), s	3.4	12.0	11.3	12.2	5.1	5.5	6.8	14.4
Green Ext Time (p_c), s	0.0	1.8	0.0	1.2	0.0	3.3	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

32: Perris Boulevard & Krameria Avenue

7/2/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	16	158	64	186	107	190	66	816	286	89	570	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	174	54	204	118	109	73	897	289	98	626	6
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	22	212	199	255	268	223	148	2031	652	122	2698	26
Arrive On Green	0.12	0.12	0.12	0.14	0.14	0.14	0.08	0.49	0.49	0.07	0.48	0.48
Sat Flow, veh/h	177	1714	1611	1810	1900	1580	1810	4121	1322	1810	5636	54
Grp Volume(v), veh/h	192	0	54	204	118	109	73	827	359	98	422	210
Grp Sat Flow(s),veh/h/ln	1891	0	1611	1810	1900	1580	1810	1900	1643	1810	1900	1890
Q Serve(g_s), s	11.9	0.0	3.6	13.1	6.8	7.6	4.6	16.9	17.0	6.4	7.8	7.8
Cycle Q Clear(g_c), s	11.9	0.0	3.6	13.1	6.8	7.6	4.6	16.9	17.0	6.4	7.8	7.8
Prop In Lane	0.09		1.00	1.00		1.00	1.00		0.80	1.00		0.03
Lane Grp Cap(c), veh/h	234	0	199	255	268	223	148	1873	810	122	1819	905
V/C Ratio(X)	0.82	0.00	0.27	0.80	0.44	0.49	0.49	0.44	0.44	0.80	0.23	0.23
Avail Cap(c_a), veh/h	473	0	403	452	475	395	148	1873	810	143	1819	905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	47.7	49.9	47.2	47.6	52.7	19.7	19.7	55.2	18.3	18.3
Incr Delay (d2), s/veh	2.7	0.0	0.3	2.2	0.4	0.6	11.3	0.8	1.8	20.4	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	1.6	6.7	3.6	3.4	2.8	9.0	8.1	3.9	4.2	4.2
LnGrp Delay(d),s/veh	54.0	0.0	47.9	52.1	47.6	48.2	64.1	20.5	21.5	75.6	18.6	18.9
LnGrp LOS	D		D	D	D	D	E	C	C	E	B	B
Approach Vol, veh/h		246			431			1259			730	
Approach Delay, s/veh		52.7			49.9			23.3			26.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.6	64.6		20.4	14.3	62.9		22.4
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	8.4	19.0		13.9	6.6	9.8		15.1
Green Ext Time (p_c), s	0.0	5.5		0.7	0.0	7.7		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (veh/h)	0	645	125	507	358	0	0	0	694	0	0	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	679	124	534	377	0	0	0	0	0	0	73
Adj No. of Lanes	0	2	1	1	2	0	0	0	1	0	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2229	947	461	3452	0	0	0	0	0	0	0
Arrive On Green	0.00	0.59	0.59	0.25	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	1810	3800	0		0			0	
Grp Volume(v), veh/h	0	679	124	534	377	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	5.4	2.1	15.3	0.6	0.0						
Cycle Q Clear(g_c), s	0.0	5.4	2.1	15.3	0.6	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2229	947	461	3452	0						
V/C Ratio(X)	0.00	0.30	0.13	1.16	0.11	0.00						
Avail Cap(c_a), veh/h	0	2229	947	461	3452	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	6.2	5.6	22.3	0.3	0.0						
Incr Delay (d2), s/veh	0.0	0.4	0.3	92.7	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.0	19.4	0.3	0.0						
LnGrp Delay(d),s/veh	0.0	6.6	5.8	115.0	0.3	0.0						
LnGrp LOS		A	A	F	A							
Approach Vol, veh/h		803			911							
Approach Delay, s/veh		6.5			67.6							
Approach LOS		A			E							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	19.3	40.7				60.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	15.3	19.2				38.5		
Max Q Clear Time (g_c+I1), s	17.3	7.4				2.6		
Green Ext Time (p_c), s	0.0	3.7				4.8		

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/2/2015

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	393	9	127	133	0	0	0	0	349	2	278
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	418	10	135	141	0				371	2	219
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2097	891	160	2576	0				430	2	385
Arrive On Green	0.00	0.55	0.55	0.18	1.00	0.00				0.24	0.24	0.24
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1800	10	1615
Grp Volume(v), veh/h	0	418	10	135	141	0				373	0	219
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	6.6	0.3	8.7	0.0	0.0				23.7	0.0	14.3
Cycle Q Clear(g_c), s	0.0	6.6	0.3	8.7	0.0	0.0				23.7	0.0	14.3
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	2097	891	160	2576	0				432	0	385
V/C Ratio(X)	0.00	0.20	0.01	0.84	0.05	0.00				0.86	0.00	0.57
Avail Cap(c_a), veh/h	0	2097	891	309	2576	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	12.1	48.5	0.0	0.0				43.8	0.0	40.2
Incr Delay (d2), s/veh	0.0	0.2	0.0	4.5	0.0	0.0				5.2	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	0.2	4.5	0.0	0.0				12.4	0.0	6.5
LnGrp Delay(d),s/veh	0.0	13.8	12.1	53.0	0.0	0.0				49.1	0.0	41.6
LnGrp LOS		B	B	D	A					D		D
Approach Vol, veh/h		428			276						592	
Approach Delay, s/veh		13.7			26.0						46.3	
Approach LOS		B			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	15.1	71.2		33.6		86.4		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	20.5	30.0		55.0		55.0		
Max Q Clear Time (g_c+I1), s	10.7	8.6		25.7		2.0		
Green Ext Time (p_c), s	0.1	2.1		2.9		2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	14	1181	144	0	1334	66	29	30	0	87	0	36
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	1218	144	0	1375	59	30	31	0	90	0	22
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	220	1864	220	0	2026	87	501	544	0	495	0	462
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.00	0.29	0.00	0.29
Sat Flow, veh/h	379	3329	392	0	3618	155	1412	1900	0	1400	0	1615
Grp Volume(v), veh/h	14	693	669	0	721	713	30	31	0	90	0	22
Grp Sat Flow(s),veh/h/ln	379	1900	1821	0	1900	1873	1412	1900	0	1400	0	1615
Q Serve(g_s), s	1.8	16.4	16.6	0.0	17.5	17.6	1.0	0.8	0.0	3.2	0.0	0.6
Cycle Q Clear(g_c), s	19.4	16.4	16.6	0.0	17.5	17.6	1.7	0.8	0.0	4.0	0.0	0.6
Prop In Lane	1.00		0.22	0.00		0.08	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	220	1064	1020	0	1064	1049	501	544	0	495	0	462
V/C Ratio(X)	0.06	0.65	0.66	0.00	0.68	0.68	0.06	0.06	0.00	0.18	0.00	0.05
Avail Cap(c_a), veh/h	220	1064	1020	0	1064	1049	501	544	0	495	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.0	9.9	9.9	0.0	10.1	10.2	17.4	16.8	0.0	18.3	0.0	16.8
Incr Delay (d2), s/veh	0.6	3.1	3.3	0.0	3.5	3.6	0.2	0.2	0.0	0.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	9.4	9.1	0.0	10.0	9.9	0.4	0.4	0.0	1.4	0.0	0.3
LnGrp Delay(d),s/veh	17.6	13.0	13.2	0.0	13.6	13.7	17.6	17.0	0.0	19.1	0.0	17.0
LnGrp LOS	B	B	B		B	B	B	B		B		B
Approach Vol, veh/h		1376			1434			61			112	
Approach Delay, s/veh		13.2			13.7			17.3			18.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		21.4		6.0		19.6		3.7
Green Ext Time (p_c), s		10.3		0.2		11.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	248	494	0	0	251	422	8	1	115	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	279	555	0	0	282	449	9	1	20			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	303	2755	0	0	2007	853	314	35	310			
Arrive On Green	0.34	1.00	0.00	0.00	0.53	0.53	0.19	0.19	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1636	182	1615			
Grp Volume(v), veh/h	279	555	0	0	282	449	10	0	20			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1818	0	1615			
Q Serve(g_s), s	17.8	0.0	0.0	0.0	4.5	21.8	0.5	0.0	1.2			
Cycle Q Clear(g_c), s	17.8	0.0	0.0	0.0	4.5	21.8	0.5	0.0	1.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.90		1.00			
Lane Grp Cap(c), veh/h	303	2755	0	0	2007	853	348	0	310			
V/C Ratio(X)	0.92	0.20	0.00	0.00	0.14	0.53	0.03	0.00	0.06			
Avail Cap(c_a), veh/h	550	2755	0	0	2007	853	348	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.1	0.0	0.0	0.0	14.4	18.5	39.4	0.0	39.7			
Incr Delay (d2), s/veh	5.4	0.2	0.0	0.0	0.1	2.3	0.2	0.0	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.3	0.1	0.0	0.0	2.4	10.3	0.3	0.0	0.6			
LnGrp Delay(d),s/veh	44.5	0.2	0.0	0.0	14.6	20.8	39.6	0.0	40.1			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		834			731			30				
Approach Delay, s/veh		15.0			18.4			39.9				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			23.6	68.4		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			19.8	23.8		3.2
Green Ext Time (p_c), s		4.4			0.3	4.2		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			17.0
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Volume (veh/h)	97	1262	23	25	1084	74	366	95	181	100	20	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	1301	0	26	1118	45	304	200	133	118	0	66
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	2878	816	33	2589	718	445	262	174	203	0	202
Arrive On Green	0.07	0.50	0.00	0.02	0.45	0.45	0.25	0.25	0.25	0.06	0.00	0.06
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1065	709	3619	0	1615
Grp Volume(v), veh/h	100	1301	0	26	1118	45	304	0	333	118	0	66
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1774	1810	0	1615
Q Serve(g_s), s	6.5	17.6	0.0	1.7	16.0	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Cycle Q Clear(g_c), s	6.5	17.6	0.0	1.7	16.0	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	124	2878	816	33	2589	718	445	0	436	203	0	202
V/C Ratio(X)	0.80	0.45	0.00	0.80	0.43	0.06	0.68	0.00	0.76	0.58	0.00	0.33
Avail Cap(c_a), veh/h	158	2878	816	119	2589	718	445	0	436	890	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	19.0	0.0	58.7	22.2	18.4	41.0	0.0	42.0	55.2	0.0	47.9
Incr Delay (d2), s/veh	16.2	0.5	0.0	15.1	0.0	0.0	8.3	0.0	12.0	1.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	9.3	0.0	1.0	8.4	0.8	10.1	0.0	11.7	1.9	0.0	2.0
LnGrp Delay(d),s/veh	71.2	19.6	0.0	73.8	22.3	18.4	49.3	0.0	54.0	56.2	0.0	48.2
LnGrp LOS	E	B		E	C	B	D		D	E		D
Approach Vol, veh/h		1401			1189			637			184	
Approach Delay, s/veh		23.3			23.3			51.7			53.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	66.1		12.2	12.7	60.0		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	3.7	19.6		6.5	8.5	18.0		22.9
Green Ext Time (p_c), s	0.0	8.3		0.3	0.0	7.8		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

6: Cactus Avenue & Frederick Street

7/2/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	92	1740	929	167	325	102
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	1794	958	164	335	46
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	1995	2286	648	1221	654
Arrive On Green	0.07	0.52	0.40	0.40	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	95	1794	958	164	335	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	4.1	34.0	9.7	5.4	5.4	1.4
Cycle Q Clear(g_c), s	4.1	34.0	9.7	5.4	5.4	1.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	122	1995	2286	648	1221	654
V/C Ratio(X)	0.78	0.90	0.42	0.25	0.27	0.07
Avail Cap(c_a), veh/h	215	1995	2286	648	1221	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	36.7	17.1	17.2	16.0	19.3	14.6
Incr Delay (d2), s/veh	3.9	7.0	0.5	0.8	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	19.6	5.2	2.6	2.8	1.7
LnGrp Delay(d),s/veh	40.6	24.1	17.7	16.8	19.9	14.8
LnGrp LOS	D	C	B	B	B	B
Approach Vol, veh/h		1889	1122		381	
Approach Delay, s/veh		24.9	17.6		19.3	
Approach LOS		C	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	9.9	37.6		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		36.0		7.4	6.1	11.7		
Green Ext Time (p_c), s		5.1		0.6	0.0	11.7		

Intersection Summary		
HCM 2010 Ctrl Delay		21.9
HCM 2010 LOS		C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	28	582	609	17	14	64
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	633	662	18	15	70

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	662	0	-	0	1039	331
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	377	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	936	-	-	-	*398	671
Stage 1	-	-	-	-	*480	-
Stage 2	-	-	-	-	*804	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	936	-	-	-	*378	671
Mov Cap-2 Maneuver	-	-	-	-	*378	-
Stage 1	-	-	-	-	*480	-
Stage 2	-	-	-	-	*765	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	936	-	-	-	589
HCM Lane V/C Ratio	0.033	-	-	-	0.144
HCM Control Delay (s)	9	0.2	-	-	12.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	72	1727	277	6	829	43	158	53	11	119	138	105
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	1877	0	7	901	43	172	58	7	129	150	36
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	2968	1261	13	3998	190	170	1059	126	85	1252	601
Arrive On Green	0.05	0.78	0.00	0.01	0.74	0.74	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5394	257	3619	3335	395	1810	3800	1595
Grp Volume(v), veh/h	78	1877	0	7	634	310	172	33	32	129	150	36
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1851	1810	1900	1830	1810	1900	1595
Q Serve(g_s), s	3.6	18.2	0.0	0.3	4.4	4.4	4.0	1.0	1.0	4.0	2.3	1.2
Cycle Q Clear(g_c), s	3.6	18.2	0.0	0.3	4.4	4.4	4.0	1.0	1.0	4.0	2.3	1.2
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	85	2968	1261	13	2816	1372	170	604	581	85	1252	601
V/C Ratio(X)	0.92	0.63	0.00	0.54	0.23	0.23	1.01	0.05	0.06	1.51	0.12	0.06
Avail Cap(c_a), veh/h	85	2968	1261	85	2816	1372	170	604	581	85	1252	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.00	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	4.0	0.0	42.1	3.4	3.4	40.5	20.1	20.1	40.5	19.9	16.9
Incr Delay (d2), s/veh	44.7	0.5	0.0	9.0	0.1	0.3	71.6	0.2	0.2	282.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	9.3	0.0	0.2	2.3	2.3	3.7	0.6	0.6	8.7	1.3	0.6
LnGrp Delay(d),s/veh	85.1	4.5	0.0	51.1	3.6	3.7	112.1	20.3	20.3	323.2	20.1	17.1
LnGrp LOS	F	A		D	A	A	F	C	C	F	C	B
Approach Vol, veh/h		1955			951			237			315	
Approach Delay, s/veh		7.8			3.9			86.9			143.9	
Approach LOS		A			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	72.9	8.5	33.5	8.5	69.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	30.0	4.0	* 27
Max Q Clear Time (g_c+I1), s	2.3	20.2	6.0	4.3	5.6	6.4	6.0	3.0
Green Ext Time (p_c), s	0.0	7.8	0.0	0.7	0.0	15.0	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	24.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard — 7/2/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			✣			↰↑	↱
Volume (veh/h)	6	431	47	3	468	5	40	4	6	8	4	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	490	53	3	532	6	45	5	7	9	5	14
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	13	624	531	6	608	7	589	68	78	507	263	694
Arrive On Green	0.01	0.33	0.33	0.00	0.32	0.32	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	1810	1900	1615	1810	1875	21	1139	158	182	967	613	1615
Grp Volume(v), veh/h	7	490	53	3	0	538	57	0	0	14	0	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1896	1478	0	0	1580	0	1615
Q Serve(g_s), s	0.3	15.2	1.5	0.1	0.0	17.4	0.8	0.0	0.0	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.3	15.2	1.5	0.1	0.0	17.4	1.3	0.0	0.0	0.3	0.0	0.3
Prop In Lane	1.00		1.00	1.00		0.01	0.79		0.12	0.64		1.00
Lane Grp Cap(c), veh/h	13	624	531	6	0	615	734	0	0	770	0	694
V/C Ratio(X)	0.53	0.78	0.10	0.51	0.00	0.87	0.08	0.00	0.00	0.02	0.00	0.02
Avail Cap(c_a), veh/h	111	687	584	111	0	686	734	0	0	770	0	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.2	19.7	15.1	32.3	0.0	20.7	10.9	0.0	0.0	10.6	0.0	10.7
Incr Delay (d2), s/veh	11.7	4.7	0.0	23.2	0.0	10.4	0.2	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	8.7	0.7	0.1	0.0	10.9	0.6	0.0	0.0	0.2	0.0	0.2
LnGrp Delay(d),s/veh	43.8	24.5	15.2	55.6	0.0	31.1	11.1	0.0	0.0	10.7	0.0	10.7
LnGrp LOS	D	C	B	E		C	B			B		B
Approach Vol, veh/h		550			541			57			28	
Approach Delay, s/veh		23.8			31.2			11.1			10.7	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		33.4	4.7	26.9		33.4	5.0	26.6
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		3.3	2.1	17.2		2.3	2.3	19.4
Green Ext Time (p_c), s		0.2	0.0	2.3		0.2	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
10: Heacock Street & Cactus Avenue

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	82	933	781	13	560	67	384	458	19	109	526	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	993	816	14	596	65	409	487	16	116	560	39
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2758	1172	24	2283	248	462	1229	40	146	976	68
Arrive On Green	0.06	0.73	0.73	0.01	0.68	0.68	0.26	0.67	0.67	0.08	0.28	0.28
Sat Flow, veh/h	1810	3800	1615	1810	3368	367	3619	3657	120	1810	3513	244
Grp Volume(v), veh/h	87	993	816	14	336	325	409	253	250	116	302	297
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1876	1810	1900	1857
Q Serve(g_s), s	4.3	8.7	37.0	0.7	6.2	6.2	9.8	5.3	5.4	5.7	12.3	12.4
Cycle Q Clear(g_c), s	4.3	8.7	37.0	0.7	6.2	6.2	9.8	5.3	5.4	5.7	12.3	12.4
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.06	1.00		0.13
Lane Grp Cap(c), veh/h	111	2758	1172	24	1288	1244	462	638	631	146	528	516
V/C Ratio(X)	0.79	0.36	0.70	0.59	0.26	0.26	0.88	0.40	0.40	0.79	0.57	0.57
Avail Cap(c_a), veh/h	111	2758	1172	80	1288	1244	462	638	631	175	528	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	4.6	14.7	44.2	5.7	5.7	32.9	10.7	10.7	40.6	27.9	27.9
Incr Delay (d2), s/veh	3.2	0.0	0.3	8.4	0.5	0.5	16.6	1.7	1.7	15.6	4.5	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	16.2	0.4	3.4	3.3	5.8	3.0	2.9	3.5	7.1	7.0
LnGrp Delay(d),s/veh	44.9	4.6	15.0	52.5	6.2	6.2	49.4	12.4	12.4	56.2	32.4	32.5
LnGrp LOS	D	A	B	D	A	A	D	B	B	E	C	C
Approach Vol, veh/h		1896			675			912			715	
Approach Delay, s/veh		10.9			7.1			29.0			36.3	
Approach LOS		B			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	71.8	17.0	30.5	10.0	67.5	11.8	35.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	29.5	11.5	* 25	5.5	28.0	8.7	27.8
Max Q Clear Time (g_c+I1), s	2.7	39.0	11.8	14.4	6.3	8.2	7.7	7.4
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	8.9	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	18.6
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	26	159	221	20	100	144	75	640	50	302	863	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	169	121	21	106	56	80	681	35	321	918	15
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	220	187	33	206	101	103	1068	437	636	2229	948
Arrive On Green	0.05	0.12	0.12	0.02	0.09	0.09	0.06	0.28	0.28	0.47	0.78	0.78
Sat Flow, veh/h	1810	1900	1615	1810	2390	1177	1810	3800	1555	1810	3800	1615
Grp Volume(v), veh/h	28	169	121	21	83	79	80	681	35	321	918	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1668	1810	1900	1555	1810	1900	1615
Q Serve(g_s), s	1.3	7.8	5.2	1.0	3.7	4.1	3.9	14.1	1.5	11.1	7.0	0.1
Cycle Q Clear(g_c), s	1.3	7.8	5.2	1.0	3.7	4.1	3.9	14.1	1.5	11.1	7.0	0.1
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	220	187	33	164	144	103	1068	437	636	2229	948
V/C Ratio(X)	0.32	0.77	0.65	0.64	0.51	0.55	0.77	0.64	0.08	0.50	0.41	0.02
Avail Cap(c_a), veh/h	87	528	449	101	549	482	183	1068	437	636	2229	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.65	0.65	0.65
Uniform Delay (d), s/veh	41.4	38.6	24.9	43.9	39.3	39.5	41.9	28.3	23.8	18.5	4.9	1.6
Incr Delay (d2), s/veh	0.8	2.1	1.4	7.5	0.9	1.2	4.6	2.9	0.4	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.2	2.4	0.6	2.0	1.9	2.1	7.8	0.7	5.6	3.6	0.1
LnGrp Delay(d),s/veh	42.2	40.7	26.3	51.4	40.2	40.7	46.4	31.2	24.1	18.7	5.2	1.6
LnGrp LOS	D	D	C	D	D	D	D	C	C	B	A	A
Approach Vol, veh/h		318			183			796			1254	
Approach Delay, s/veh		35.4			41.7			32.5			8.6	
Approach LOS		D			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.1	30.8	6.1	15.9	9.6	58.3	8.8	13.3
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.7	* 25	5.0	25.0	9.1	30.9	4.0	26.0
Max Q Clear Time (g_c+I1), s	13.1	16.1	3.0	9.8	5.9	9.0	3.3	6.1
Green Ext Time (p_c), s	0.2	2.0	0.0	0.7	0.0	4.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	60	567	7	124	923
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	65	610	8	133	992

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1869	610	0	0	610	0
Stage 1	610	-	-	-	-	-
Stage 2	1259	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	80	498	-	-	979	-
Stage 1	546	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	69	498	-	-	979	-
Mov Cap-2 Maneuver	69	-	-	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	233	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	1.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	69	498	979	-
HCM Lane V/C Ratio	-	-	0.016	0.13	0.136	-
HCM Control Delay (s)	-	-	58	13.3	9.3	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0.4	0.5	-

Intersection	
Intersection Delay, s/veh	37.3
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	18	243	0	324	18	0	512	391
Peak Hour Factor	0.92	0.86	0.86	0.92	0.86	0.86	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	21	283	0	377	21	0	595	455
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	16.6	22.3	48.9
HCM LOS	C	C	E

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	95%	0%	0%	0%	100%
Vol Right, %	5%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	342	18	243	512	391
LT Vol	0	18	0	512	0
Through Vol	324	0	0	0	391
RT Vol	18	0	243	0	0
Lane Flow Rate	398	21	283	595	455
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.69	0.046	0.531	1	0.789
Departure Headway (Hd)	6.245	7.994	6.766	6.76	6.251
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	573	449	531	542	582
Service Time	4.339	5.725	4.527	4.46	3.951
HCM Lane V/C Ratio	0.695	0.047	0.533	1.098	0.782
HCM Control Delay	22.3	11.1	17	64.6	28.4
HCM Lane LOS	C	B	C	F	D
HCM 95th-tile Q	5.4	0.1	3.1	14.1	7.5

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
14: Heacock Street & Krameria Avenue-North

7/2/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	7	36	338	14	38	389
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	23	417	17	47	480
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	48	43	913	776	491	1551
Arrive On Green	0.03	0.03	0.48	0.48	0.27	0.82
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	9	23	417	17	47	480
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.3	1.0	10.2	0.4	1.4	4.3
Cycle Q Clear(g_c), s	0.3	1.0	10.2	0.4	1.4	4.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	48	43	913	776	491	1551
V/C Ratio(X)	0.19	0.54	0.46	0.02	0.10	0.31
Avail Cap(c_a), veh/h	439	392	913	776	491	1551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	33.7	12.1	9.5	19.1	1.6
Incr Delay (d2), s/veh	0.7	3.9	1.6	0.1	0.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	5.7	0.2	0.7	2.4
LnGrp Delay(d),s/veh	34.0	37.5	13.7	9.6	19.5	2.1
LnGrp LOS	C	D	B	A	B	A
Approach Vol, veh/h	32		434			527
Approach Delay, s/veh	36.5		13.6			3.6
Approach LOS	D		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	39.1				62.6		7.4
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	3.4	12.2				6.3		3.0
Green Ext Time (p_c), s	0.0	1.8				3.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	3	356	0	0	421
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	4	501	0	0	593

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1094	251	0	0	501	0
Stage 1	501	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	225	755	-	-	1074	-
Stage 1	580	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	224	755	-	-	1074	-
Mov Cap-2 Maneuver	430	-	-	-	-	-
Stage 1	580	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	430	755	1074	-
HCM Lane V/C Ratio	-	-	0.003	0.006	-	-
HCM Control Delay (s)	-	-	13.4	9.8	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
18: Heacock Street & San Michele Road

7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	11	6	5	11	0	203	0	71	3	153	212	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	9	7	16	0	290	0	101	0	219	303	3
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	371	315	25	371	316	2	925	786	248	1257	1068
Arrive On Green	0.01	0.20	0.20	0.01	0.00	0.20	0.00	0.49	0.00	0.14	0.66	0.66
Sat Flow, veh/h	1810	1900	1611	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	16	9	7	16	0	290	0	101	0	219	303	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	1.1	0.5	0.4	1.1	0.0	21.1	0.0	3.5	0.0	14.3	7.7	0.1
Cycle Q Clear(g_c), s	1.1	0.5	0.4	1.1	0.0	21.1	0.0	3.5	0.0	14.3	7.7	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	25	371	315	25	371	316	2	925	786	248	1257	1068
V/C Ratio(X)	0.64	0.02	0.02	0.64	0.00	0.92	0.00	0.11	0.00	0.88	0.24	0.00
Avail Cap(c_a), veh/h	113	467	396	113	467	397	60	925	786	445	1257	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.00	0.82	0.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	39.0	39.0	58.9	0.0	47.3	0.0	16.7	0.0	50.8	8.2	6.9
Incr Delay (d2), s/veh	9.8	0.0	0.0	8.1	0.0	17.8	0.0	0.2	0.0	4.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.2	0.6	0.0	11.0	0.0	1.9	0.0	7.4	4.2	0.0
LnGrp Delay(d),s/veh	68.7	39.0	39.0	67.0	0.0	65.2	0.0	16.9	0.0	54.9	8.6	6.9
LnGrp LOS	E	D	D	E		E		B		D	A	A
Approach Vol, veh/h		32			306			101			525	
Approach Delay, s/veh		53.8			65.3			16.9			27.9	
Approach LOS		D			E			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	63.9	6.2	29.0	0.0	84.9	6.2	29.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	29.5	33.5	7.5	29.5	4.0	59.0	7.5	29.5
Max Q Clear Time (g_c+I1), s	16.3	5.5	3.1	2.5	0.0	9.7	3.1	23.1
Green Ext Time (p_c), s	0.2	1.2	0.0	0.5	0.0	1.3	0.0	0.3

Intersection Summary			
HCM 2010 Ctrl Delay			39.5
HCM 2010 LOS			D

Intersection	
Int Delay, s/veh	7.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	70	2	8	200	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	93	3	11	267	13

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	555	8	0	0	13	0
Stage 1	8	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	496	1080	-	-	1619	-
Stage 1	1020	-	-	-	-	-
Stage 2	584	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	414	1080	-	-	1619	-
Mov Cap-2 Maneuver	462	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1080	1619	-
HCM Lane V/C Ratio	-	-	-	0.086	0.165	-
HCM Control Delay (s)	-	-	0	8.6	7.7	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.3	0.6	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	452	0	0	352	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	497	0	0	387	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	497	0	884	497
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	387	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1087	-	318	713
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1087	-	318	713
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	756	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	713	-	-	1087	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	21	29	0	0	0	20	4	0	3	2	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	30	42	0	0	0	29	6	0	4	3	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	86	86	14	123	97	6	25	0	0	6	0	0
Stage 1	22	22	-	64	64	-	-	-	-	-	-	-
Stage 2	64	64	-	59	33	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	905	808	1072	856	797	1083	1603	-	-	1628	-	-
Stage 1	1002	881	-	952	846	-	-	-	-	-	-	-
Stage 2	952	846	-	958	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	891	791	1072	786	781	1083	1603	-	-	1628	-	-
Mov Cap-2 Maneuver	879	781	-	804	776	-	-	-	-	-	-	-
Stage 1	984	879	-	935	831	-	-	-	-	-	-	-
Stage 2	935	831	-	886	870	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	0	6.1	1.1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1603	-	-	918	-	1628	-	-
HCM Lane V/C Ratio	0.018	-	-	0.096	-	0.003	-	-
HCM Control Delay (s)	7.3	-	-	9.3	0	7.2	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-	0	-	-

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	8	17	10	0	4	11	55	0	6	51	4
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	9	19	11	0	4	12	62	0	7	57	4
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	8.4	8.1	8.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	63%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	37%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	51	4	8	27	4	11	55	175	73	3
LT Vol	6	0	0	8	0	4	0	0	175	0	0
Through Vol	0	51	0	0	17	0	11	0	0	73	0
RT Vol	0	0	4	0	10	0	0	55	0	0	3
Lane Flow Rate	7	57	4	9	30	4	12	62	197	82	3
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.086	0.006	0.015	0.045	0.008	0.019	0.083	0.298	0.113	0.004
Departure Headway (Hd)	5.899	5.398	4.697	6.092	5.333	6.024	5.525	4.826	5.465	4.965	4.264
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	606	663	760	587	670	594	647	741	657	721	837
Service Time	3.64	3.139	2.438	3.836	3.077	3.762	3.263	2.563	3.202	2.701	2
HCM Lane V/C Ratio	0.012	0.086	0.005	0.015	0.045	0.007	0.019	0.084	0.3	0.114	0.004
HCM Control Delay	8.7	8.7	7.5	8.9	8.3	8.8	8.4	8	10.5	8.3	7
HCM Lane LOS	A	A	A	A	A	A	A	A	B	A	A
HCM 95th-tile Q	0	0.3	0	0	0.1	0	0.1	0.3	1.2	0.4	0

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	175	73	3
Peak Hour Factor	0.92	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	197	82	3
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.8
HCM LOS	A

Lane

28: Indian Street & San Michele Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	11	143	233	147	235	45	270	54	115	103	131	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		1.00	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	217	283	223	356	45	409	82	89	156	198	24
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	324	710	252	1121	473	1007	515	437	458	739	81
Arrive On Green	0.00	0.06	0.06	0.14	0.29	0.29	0.28	0.27	0.27	0.25	0.25	0.25
Sat Flow, veh/h	1810	1900	1534	1810	3800	1604	3619	1900	1612	1810	3007	331
Grp Volume(v), veh/h	17	217	283	223	356	45	409	82	89	156	118	104
Grp Sat Flow(s),veh/h/ln	1810	1900	1534	1810	1900	1604	1810	1900	1612	1810	1900	1438
Q Serve(g_s), s	1.1	13.4	4.7	14.5	8.7	1.3	11.0	3.9	3.6	8.5	6.0	7.1
Cycle Q Clear(g_c), s	1.1	13.4	4.7	14.5	8.7	1.3	11.0	3.9	3.6	8.5	6.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	26	324	710	252	1121	473	1007	515	437	458	467	354
V/C Ratio(X)	0.65	0.67	0.40	0.89	0.32	0.10	0.41	0.16	0.20	0.34	0.25	0.29
Avail Cap(c_a), veh/h	83	420	788	354	1409	595	1007	515	437	458	467	354
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	53.3	9.9	50.7	32.9	8.4	35.2	33.3	16.3	36.6	36.4	36.8
Incr Delay (d2), s/veh	6.2	0.8	0.1	14.0	0.1	0.0	0.1	0.6	1.0	0.2	1.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.2	3.8	8.2	4.6	0.6	5.5	2.2	1.7	4.3	3.3	3.0
LnGrp Delay(d),s/veh	65.6	54.1	9.9	64.7	33.0	8.4	35.3	34.0	17.3	36.8	37.7	38.9
LnGrp LOS	E	D	A	E	C	A	D	C	B	D	D	D
Approach Vol, veh/h		517			624			580			378	
Approach Delay, s/veh		30.3			42.5			32.4			37.6	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.9	38.0	21.2	25.9	37.9	35.0	6.2	40.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	17.5	32.5	23.5	26.5	20.5	29.5	5.5	44.5
Max Q Clear Time (g_c+I1), s	10.5	5.9	16.5	15.4	13.0	9.1	3.1	10.7
Green Ext Time (p_c), s	0.6	0.3	0.2	2.2	0.7	0.7	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	7	38	210	42	19	14	56	377	49	50	368	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	54	179	60	27	1	80	539	66	71	526	60
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	169	223	190	77	127	108	103	1737	212	91	1731	197
Arrive On Green	0.09	0.12	0.12	0.04	0.07	0.07	0.06	0.52	0.52	0.05	0.52	0.52
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3322	406	1810	3352	381
Grp Volume(v), veh/h	10	54	179	60	27	1	80	308	297	71	297	289
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1828	1810	1900	1833
Q Serve(g_s), s	0.4	1.9	6.5	2.5	1.0	0.0	3.3	6.9	7.0	2.9	6.7	6.8
Cycle Q Clear(g_c), s	0.4	1.9	6.5	2.5	1.0	0.0	3.3	6.9	7.0	2.9	6.7	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.21
Lane Grp Cap(c), veh/h	169	223	190	77	127	108	103	993	956	91	981	946
V/C Ratio(X)	0.06	0.24	0.94	0.78	0.21	0.01	0.78	0.31	0.31	0.78	0.30	0.30
Avail Cap(c_a), veh/h	169	608	517	97	608	517	109	993	956	109	981	946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	31.0	30.1	20.2	35.6	33.1	21.1	34.9	10.2	10.2	35.2	10.4	10.4
Incr Delay (d2), s/veh	0.1	0.2	9.3	21.0	0.3	0.0	24.9	0.8	0.8	18.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	3.4	1.7	0.5	0.0	2.4	3.8	3.7	1.9	3.7	3.6
LnGrp Delay(d),s/veh	31.1	30.3	29.5	56.5	33.5	21.1	59.8	11.0	11.0	53.2	11.1	11.1
LnGrp LOS	C	C	C	E	C	C	E	B	B	D	B	B
Approach Vol, veh/h		243			88			685			657	
Approach Delay, s/veh		29.7			49.0			16.7			15.6	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	44.7	7.7	14.3	8.8	44.2	11.5	10.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	22.5	4.0	24.0	4.5	22.5	4.0	24.0
Max Q Clear Time (g_c+I1), s	4.9	9.0	4.5	8.5	5.3	8.8	2.4	3.0
Green Ext Time (p_c), s	0.0	3.5	0.0	0.4	0.0	3.5	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			19.9
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary | Moreno Valley Logistics Center TIA (JN 09301)
30: Indian Street & Harley Knox Boulevard | 7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	212	207	74	18	145	6	57	265	7	30	320	328
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	275	269	96	23	188	8	74	344	9	39	416	421
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1016	1700	1445	35	1238	52	130	1354	575	98	640	544
Arrive On Green	0.56	0.89	0.89	0.02	0.34	0.34	0.04	0.36	0.36	0.03	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3618	153	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	275	269	96	23	98	98	74	344	9	39	416	421
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1871	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	7.5	1.6	2.8	1.2	3.4	3.4	1.9	6.1	0.3	1.0	17.7	22.2
Cycle Q Clear(g_c), s	7.5	1.6	2.8	1.2	3.4	3.4	1.9	6.1	0.3	1.0	17.7	22.2
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1016	1700	1445	35	650	640	130	1354	575	98	640	544
V/C Ratio(X)	0.27	0.16	0.07	0.66	0.15	0.15	0.57	0.25	0.02	0.40	0.65	0.77
Avail Cap(c_a), veh/h	1016	1700	1445	99	650	640	152	1354	575	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	0.6	10.7	46.3	21.7	21.7	45.1	21.6	19.8	45.5	26.7	28.3
Incr Delay (d2), s/veh	0.1	0.2	0.1	7.8	0.5	0.5	1.4	0.5	0.0	1.0	5.1	10.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.9	1.3	0.7	1.9	1.9	1.0	3.3	0.2	0.5	10.1	11.4
LnGrp Delay(d),s/veh	10.8	0.8	10.8	54.1	22.2	22.2	46.5	22.1	19.8	46.4	31.8	38.5
LnGrp LOS	B	A	B	D	C	C	D	C	B	D	C	D
Approach Vol, veh/h		640			219			427			876	
Approach Delay, s/veh		6.6			25.5			26.3			35.7	
Approach LOS		A			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	91.9	8.9	37.5	60.3	38.0	7.1	39.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	3.2	4.8	3.9	24.2	9.5	5.4	3.0	8.1
Green Ext Time (p_c), s	0.0	1.3	0.0	2.0	0.0	0.6	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	24.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Volume (veh/h)	50	551	203	48	406	73	157	754	47	125	929	38
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	562	186	49	414	65	160	769	37	128	948	28
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	916	302	533	1943	303	174	1557	75	161	1021	434
Arrive On Green	0.04	0.33	0.33	0.29	0.61	0.61	0.10	0.29	0.29	0.09	0.27	0.27
Sat Flow, veh/h	1810	2735	902	1810	3204	499	1810	5395	259	1810	3800	1615
Grp Volume(v), veh/h	51	390	358	49	244	235	160	541	265	128	948	28
Grp Sat Flow(s),veh/h/ln	1810	1900	1738	1810	1900	1804	1810	1900	1854	1810	1900	1615
Q Serve(g_s), s	2.2	13.7	13.8	1.6	4.6	4.7	7.0	9.4	9.5	5.5	19.4	1.2
Cycle Q Clear(g_c), s	2.2	13.7	13.8	1.6	4.6	4.7	7.0	9.4	9.5	5.5	19.4	1.2
Prop In Lane	1.00		0.52	1.00		0.28	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	65	637	582	533	1152	1093	174	1096	535	161	1021	434
V/C Ratio(X)	0.78	0.61	0.62	0.09	0.21	0.21	0.92	0.49	0.50	0.79	0.93	0.06
Avail Cap(c_a), veh/h	90	637	582	533	1152	1093	174	1096	535	188	1021	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	22.3	22.3	20.5	7.1	7.1	35.8	23.6	23.6	35.7	28.5	28.7
Incr Delay (d2), s/veh	17.0	4.4	4.8	0.0	0.4	0.4	44.7	1.6	3.3	15.4	15.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	7.9	7.3	0.8	2.6	2.5	5.7	5.2	5.3	3.5	12.3	0.6
LnGrp Delay(d),s/veh	55.2	26.6	27.1	20.5	7.5	7.6	80.5	25.2	26.9	51.1	43.9	29.0
LnGrp LOS	E	C	C	C	A	A	F	C	C	D	D	C
Approach Vol, veh/h		799			528			966			1104	
Approach Delay, s/veh		28.7			8.8			34.8			44.4	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.6	32.3	13.2	27.0	7.4	54.6	11.6	28.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 27	7.7	* 22	4.0	26.8	8.3	20.9
Max Q Clear Time (g_c+I1), s	3.6	15.8	9.0	21.4	4.2	6.7	7.5	11.5
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.0	1.6	0.0	2.5

Intersection Summary		
HCM 2010 Ctrl Delay		32.4
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰↑	↱		↰↑↑	↱	↰	↑↑↑↱		↰	↑↑↑↱	
Volume (veh/h)	24	97	39	156	55	87	34	845	174	18	775	18
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	114	17	184	65	43	40	994	191	21	912	21
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	36	146	156	239	251	207	148	2689	515	30	2856	66
Arrive On Green	0.10	0.10	0.10	0.13	0.13	0.13	0.08	0.58	0.58	0.02	0.51	0.51
Sat Flow, veh/h	371	1510	1610	1810	1900	1572	1810	4640	889	1810	5548	128
Grp Volume(v), veh/h	142	0	17	184	65	43	40	814	371	21	624	309
Grp Sat Flow(s),veh/h/ln	1881	0	1610	1810	1900	1572	1810	1900	1729	1810	1900	1875
Q Serve(g_s), s	8.8	0.0	1.2	11.8	3.7	2.9	2.5	13.7	13.8	1.4	11.4	11.5
Cycle Q Clear(g_c), s	8.8	0.0	1.2	11.8	3.7	2.9	2.5	13.7	13.8	1.4	11.4	11.5
Prop In Lane	0.20		1.00	1.00		1.00	1.00		0.51	1.00		0.07
Lane Grp Cap(c), veh/h	182	0	156	239	251	207	148	2203	1002	30	1956	965
V/C Ratio(X)	0.78	0.00	0.11	0.77	0.26	0.21	0.27	0.37	0.37	0.69	0.32	0.32
Avail Cap(c_a), veh/h	470	0	402	452	475	393	148	2203	1002	143	1956	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	0.0	49.5	50.3	46.8	46.5	51.7	13.5	13.5	58.7	16.9	16.9
Incr Delay (d2), s/veh	2.8	0.0	0.1	2.0	0.2	0.2	4.5	0.5	1.1	10.0	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.0	0.5	6.0	1.9	1.3	1.4	7.3	6.9	0.8	6.1	6.2
LnGrp Delay(d),s/veh	55.7	0.0	49.6	52.3	47.0	46.7	56.2	14.0	14.6	68.6	17.3	17.8
LnGrp LOS	E		D	D	D	D	E	B	B	E	B	B
Approach Vol, veh/h		159			292			1225			954	
Approach Delay, s/veh		55.1			50.3			15.5			18.6	
Approach LOS		E			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.5	75.1		17.1	14.3	67.3		21.3
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	3.4	15.8		10.8	4.5	13.5		13.8
Green Ext Time (p_c), s	0.0	7.5		0.5	0.0	8.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 3.3:

EXISTING (2015) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues
1: I-215 SB Ramps & Cactus Av.

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	351	38	369	1347	567	225
v/c Ratio	0.24	0.05	0.79	0.51	0.73	0.60
Control Delay	14.1	0.1	35.5	5.4	7.7	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	0.1	35.5	5.4	7.7	18.8
Queue Length 50th (ft)	42	0	120	83	0	36
Queue Length 95th (ft)	74	0	#242	154	51	87
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1468	807	504	2652	849	474
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.05	0.73	0.51	0.67	0.47

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	406	10	128	173	437	166
v/c Ratio	0.26	0.01	0.40	0.07	0.79	0.25
Control Delay	24.8	0.0	34.2	9.9	49.6	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	0.0	34.2	9.9	49.6	4.8
Queue Length 50th (ft)	101	0	40	24	311	0
Queue Length 95th (ft)	158	0	64	42	382	44
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1589	831	324	2381	870	960
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.01	0.40	0.07	0.50	0.17

Intersection Summary

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	866	1752	396	289	35	44
v/c Ratio	0.21	0.41	0.82	1.00	0.53	0.14	0.08
Control Delay	12.5	8.7	15.4	73.4	23.7	19.1	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	8.7	15.4	73.4	23.7	19.1	8.8
Queue Length 50th (ft)	4	87	249	~156	95	10	3
Queue Length 95th (ft)	19	120	338	#321	164	30	23
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2133	2144	395	544	250	560
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.41	0.82	1.00	0.53	0.14	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.
7/1/2015

	↗	→	←	↖	↑	↱
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	221	638	303	363	4	104
v/c Ratio	0.76	0.23	0.15	0.30	0.01	0.23
Control Delay	40.5	6.1	14.7	2.4	39.5	9.1
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	40.5	6.7	14.7	2.4	39.5	9.1
Queue Length 50th (ft)	157	71	56	0	3	0
Queue Length 95th (ft)	212	119	90	49	13	47
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	2059	1195	364	448
Starvation Cap Reductn	10	1623	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.56	0.15	0.30	0.01	0.23

Intersection Summary

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/2/2015

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	679	132	534	377	731	195
v/c Ratio	0.56	0.19	1.10	0.15	0.96	0.25
Control Delay	19.0	4.2	98.0	4.5	35.6	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.2	98.0	4.5	35.6	0.7
Queue Length 50th (ft)	100	0	~227	22	72	0
Queue Length 95th (ft)	144	30	#391	35	#285	0
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	697	484	2438	758	790
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.19	1.10	0.15	0.96	0.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	418	10	135	141	373	296
v/c Ratio	0.21	0.01	0.66	0.06	0.76	0.42
Control Delay	18.4	0.0	62.5	8.1	50.7	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	0.0	62.5	8.1	50.7	5.1
Queue Length 50th (ft)	85	0	108	16	268	0
Queue Length 95th (ft)	148	0	175	33	336	59
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1950	1004	324	2501	870	1031
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	10	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.01	0.42	0.06	0.43	0.29

Intersection Summary

Queues
Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.
7/2/2015

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	1366	1443	30	31	90	37
v/c Ratio	0.11	0.64	0.68	0.08	0.06	0.23	0.06
Control Delay	9.3	11.2	12.0	17.7	17.3	19.6	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	11.2	12.0	17.7	17.3	19.6	6.5
Queue Length 50th (ft)	2	162	181	9	9	27	0
Queue Length 95th (ft)	11	220	243	26	26	60	17
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	128	2138	2133	398	543	400	572
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.64	0.68	0.08	0.06	0.23	0.06

Intersection Summary

Queues

Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/2/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	279	555	282	474	10	129
v/c Ratio	0.79	0.20	0.15	0.40	0.03	0.28
Control Delay	45.7	2.2	16.7	2.8	39.8	8.6
Queue Delay	0.2	0.3	0.0	0.0	0.0	0.0
Total Delay	45.9	2.5	16.7	2.8	39.8	8.6
Queue Length 50th (ft)	185	38	56	0	6	0
Queue Length 95th (ft)	65	18	89	55	22	51
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1941	1189	364	468
Starvation Cap Reductn	37	1503	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.44	0.15	0.40	0.03	0.28

Intersection Summary

APPENDIX 3.4:

EXISTING (2015) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday PM Peak Hour**

Major Street Name = **Harley Knox Boulevard**

Total of Both Approaches (VPH) = **1236**

Number of Approach Lanes Major Street = **2**

Minor Street Name = **Western Way**

High Volume Approach (VPH) = **78**

Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL

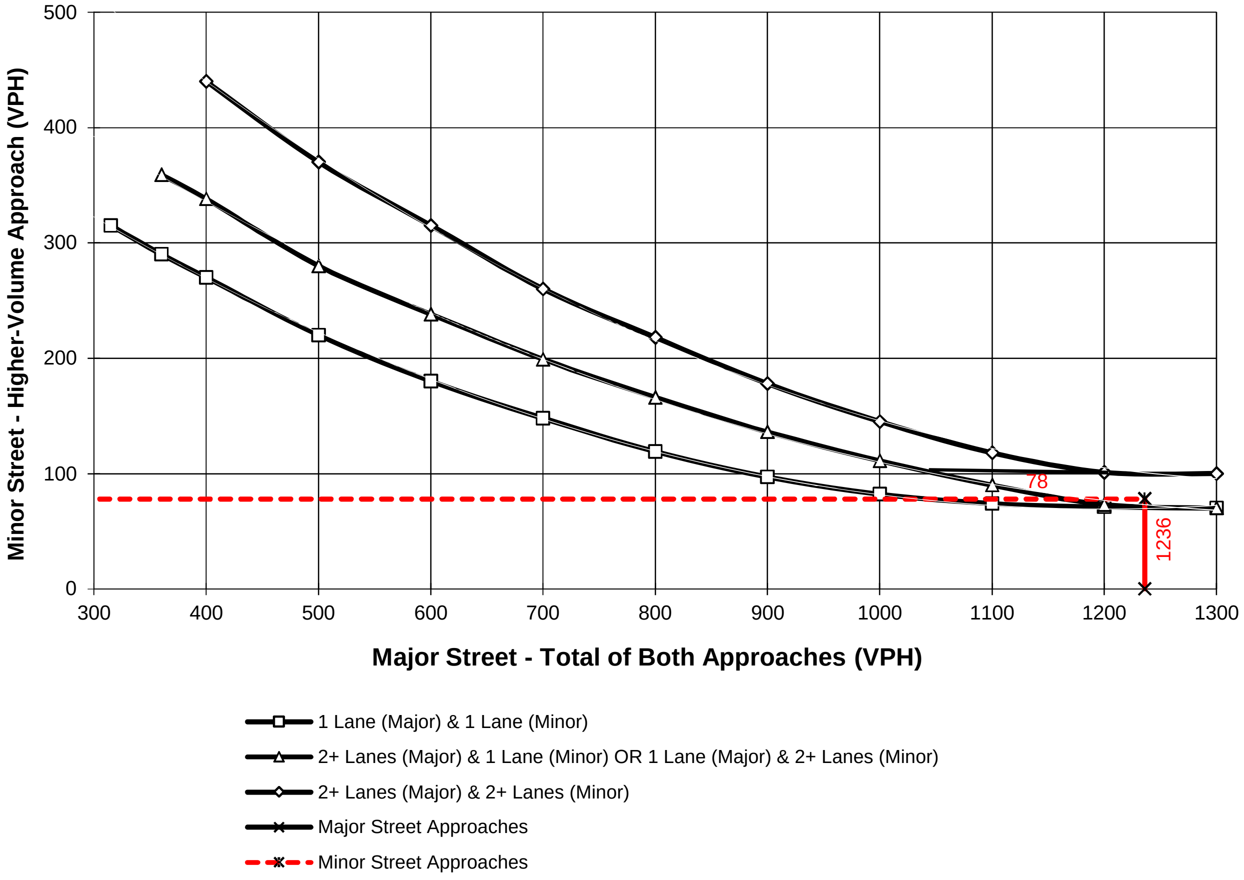

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

California MUTCD 2014 Edition
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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday AM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **1050**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Gentian Avenue**

High Volume Approach (VPH) = **95**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL

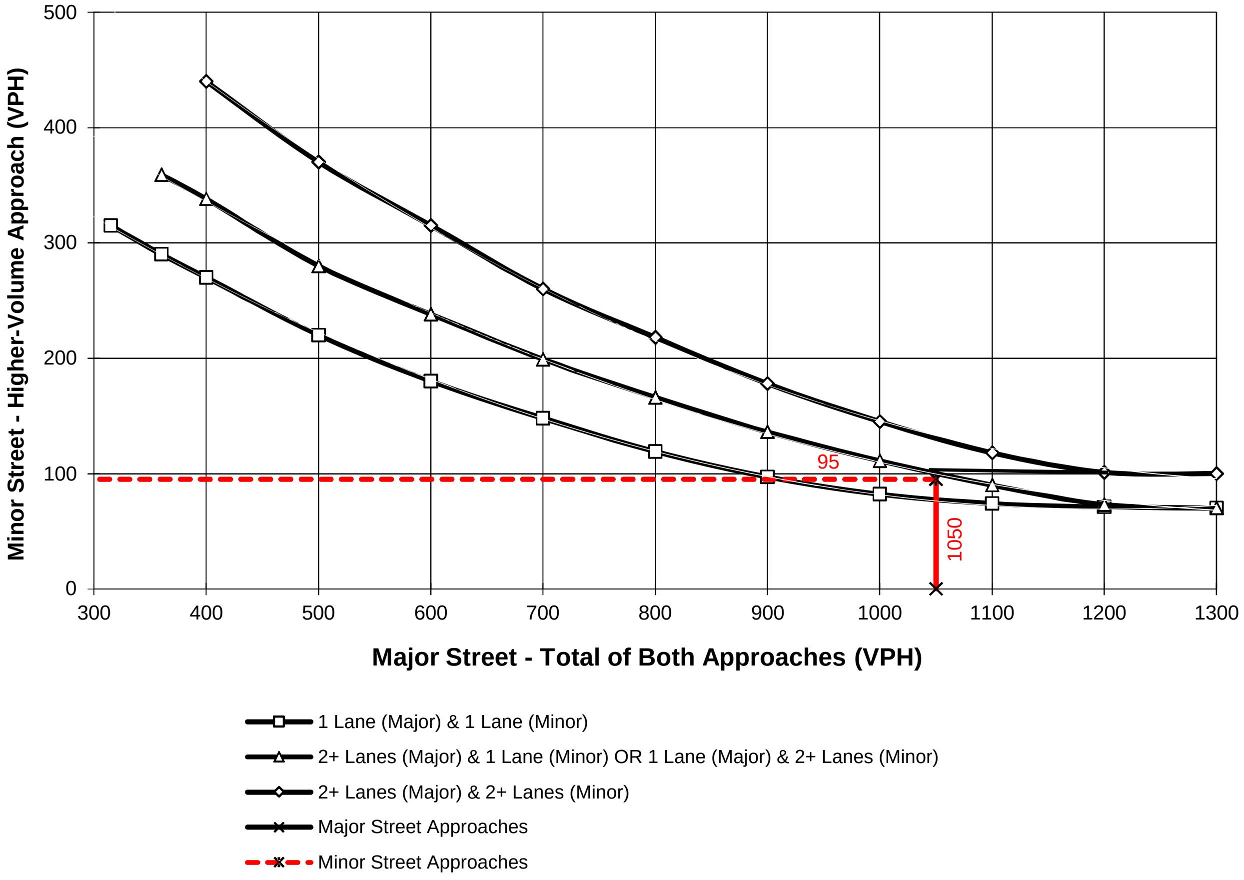

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday AM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **649**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Iris Avenue**

High Volume Approach (VPH) = **428**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL

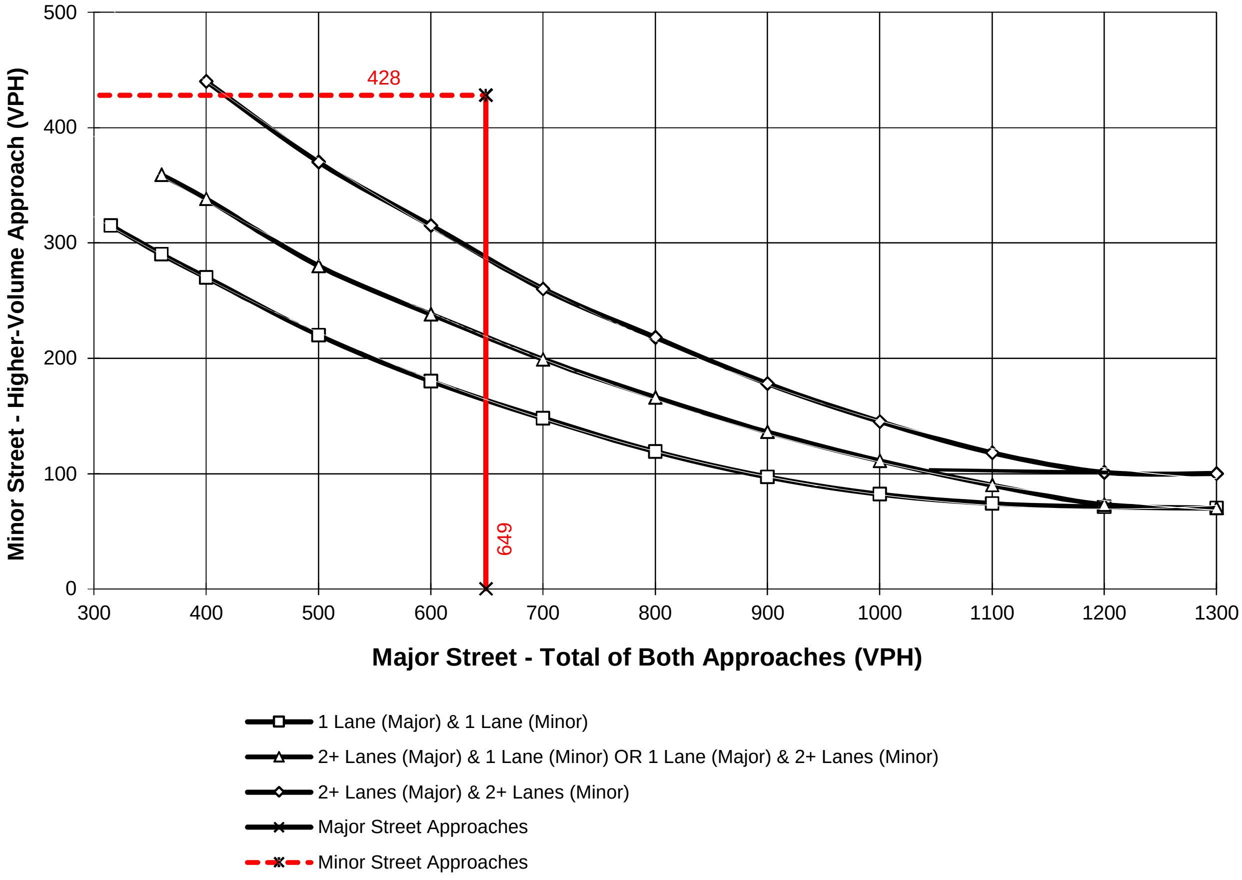

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday PM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **777**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Cardinal Avenue**

High Volume Approach (VPH) = **4**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

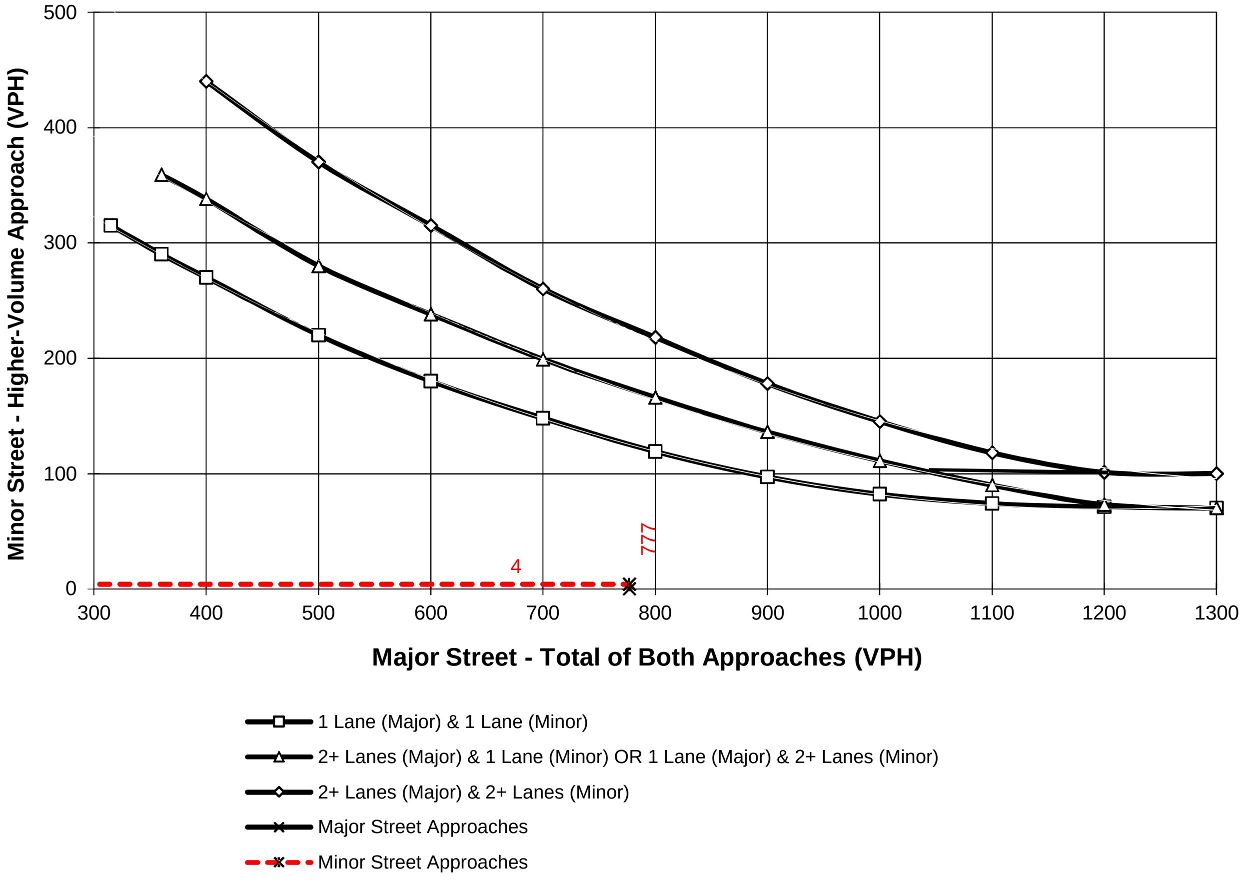

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday PM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **220**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Nandina Avenue**

High Volume Approach (VPH) = **70**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

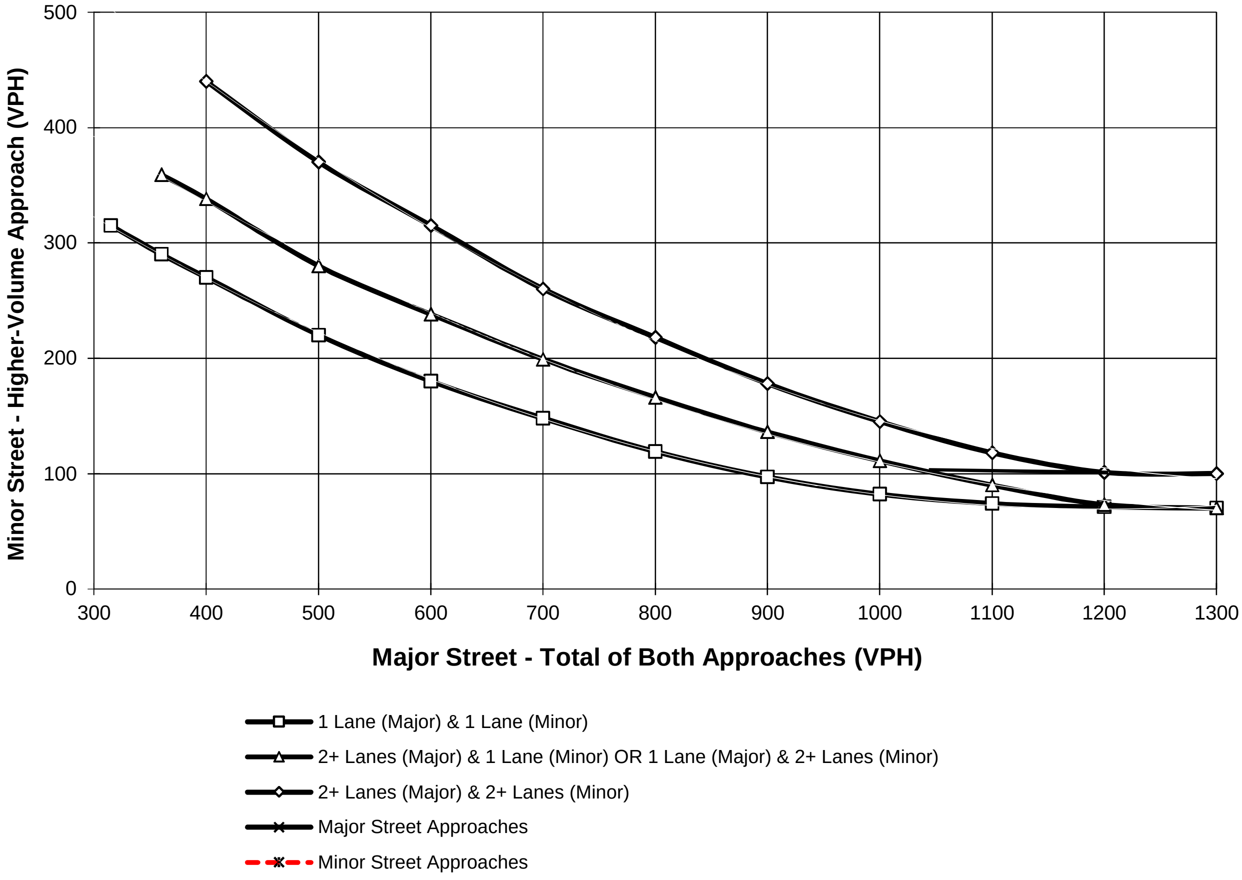

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2015) Conditions - Weekday AM Peak Hour**

Major Street Name = **Cosmos Street**

Total of Both Approaches (VPH) = **72**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Krameria Avenue (North)**

High Volume Approach (VPH) = **37**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

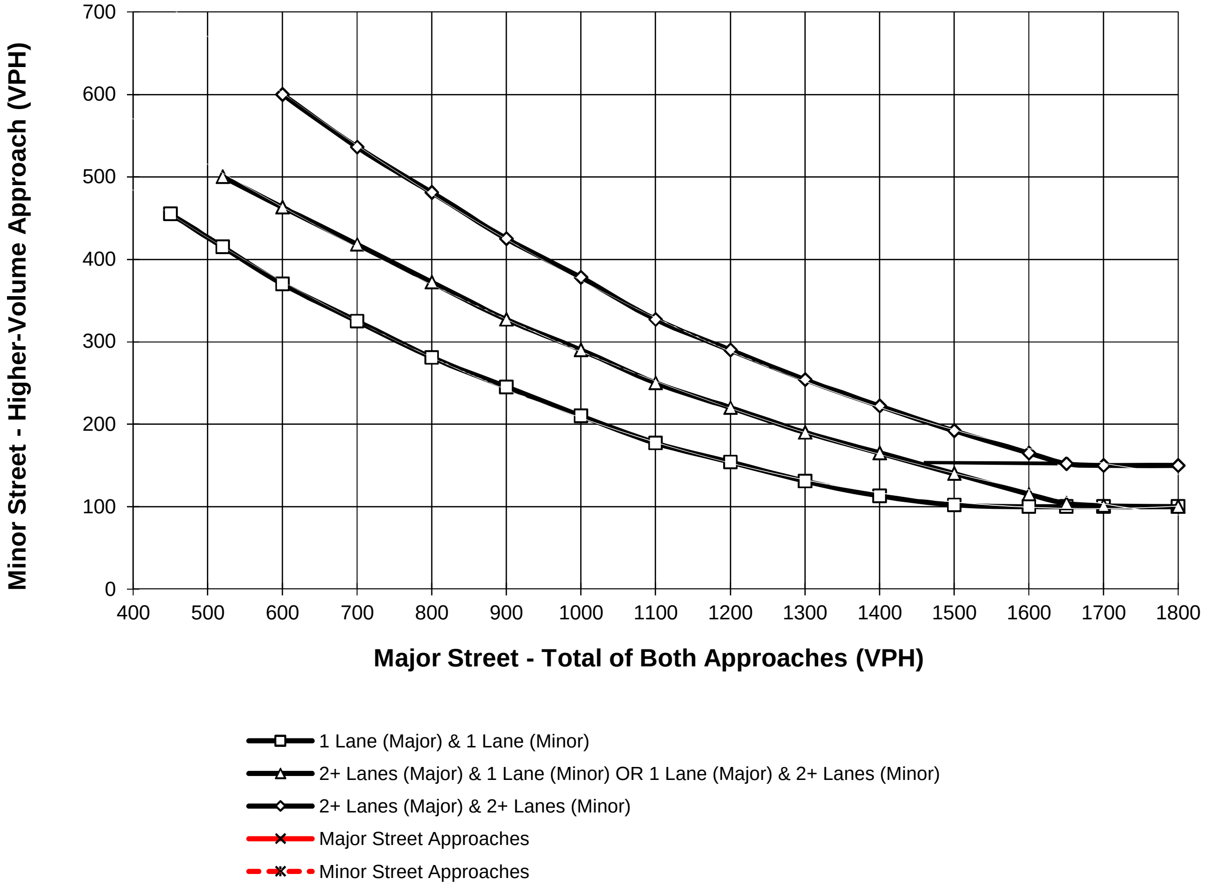

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2015) Conditions - Weekday AM Peak Hour**

Major Street Name = **Indian Avenue**

Total of Both Approaches (VPH) = **397**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Krameria Avenue**

High Volume Approach (VPH) = **227**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

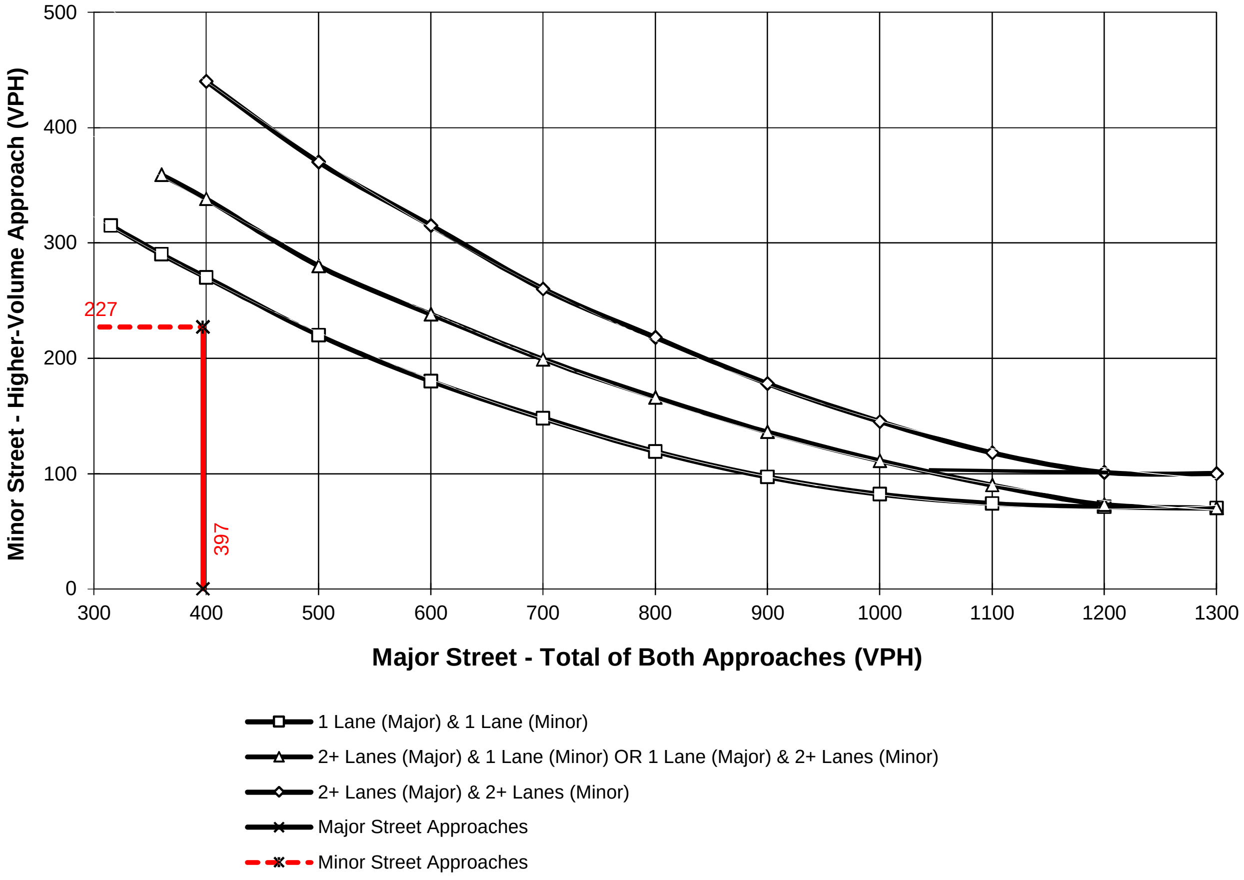

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.5:

EXISTING (2015) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4985	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1388	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	69.6	mph	S		mph
D = v_p / S	19.9	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4693	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1301	pc/h/ln
S	69.9	mph
D = v_p / S	18.6	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2544	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	940	pc/h/ln
S	70.0	mph
D = v_p / S	13.4	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2186	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	2
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.990

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	800	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	11.4	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	B		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2724	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	766	pc/h/ln
S	70.0	mph
D = v_p / S	10.9	pc/mi/ln
LOS	A	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3679	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1025	pc/h/ln
S	70.0	mph
D = v_p / S	14.6	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4092	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1512	pc/h/ln
S	68.9	mph
D = v_p / S	22.0	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3721	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1368	pc/h/ln
S	69.7	mph
D = v_p / S	19.6	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5540	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1543	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	68.6	mph	S		mph
D = v_p / S	22.5	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5354	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1484	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	69.1	mph	S		mph
D = v_p / S	21.5	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3855	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1425	pc/h/ln
S	69.4	mph
D = v_p / S	20.5	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3445	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1267	pc/h/ln
S	69.9	mph
D = v_p / S	18.1	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2523	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	703	pc/h/ln
S	70.0	mph
D = v_p / S	10.0	pc/mi/ln
LOS	A	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2678	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	742	pc/h/ln
S	70.0	mph
D = v_p / S	10.6	pc/mi/ln
LOS	A	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3247	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1200	pc/h/ln
S	70.0	mph
D = v_p / S	17.1	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/9/2015
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2779	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1022	pc/h/ln
S	70.0	mph
D = v_p / S	14.6	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 3.6:

EXISTING (2015) CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 173 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4812
Ramp Volume, V_R	484
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4812	0.92	Level	4	0	0.980	1.00	5335
Ramp	484	0.92	Level	8	0	0.962	1.00	547
UpStream	173	0.92	Level	14	0	0.935	1.00	201
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2635 pc/h

V_3 or V_{av34} 1350 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5335	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4788	Exhibit 13-8	9600	No
V_R	547	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2635	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$$

D_R = 26.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.737 (Exhibit 13-12)

S_R= 49.4 mph (Exhibit 13-12)

S_0= 75.4 mph (Exhibit 13-12)

S = 59.8 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4812
Ramp Volume, V_R	484
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 365 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4812	0.92	Level	4	0	0.980	1.00	5335
Ramp	484	0.92	Level	8	0	0.962	1.00	547
UpStream								
DownStream	365	0.92	Level	6	0	0.971	1.00	409

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2635 pc/h

V_3 or V_{av34} 1350 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5335	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4788	Exhibit 13-8	9600	No
V_R	547	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2635	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 26.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.737 (Exhibit 13-12)

S_R= 49.4 mph (Exhibit 13-12)

S_0= 75.4 mph (Exhibit 13-12)

S = 59.8 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	2544
Ramp Volume, V_R	456
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 98 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2544	0.92	Level	4	0	0.980	1.00	2821
Ramp	456	0.92	Level	17	0	0.922	1.00	538
UpStream								
DownStream	98	0.92	Level	28	0	0.877	1.00	121

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.665 using Equation (Exhibit 13-7)

V_{12} = 2056 pc/h

V_3 or V_{av34} 765 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2821	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2283	Exhibit 13-8	7200	No
V_R	538	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2056	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 20.2 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.346 (Exhibit 13-12)

S_R= 60.3 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 64.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 456 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	2088
Ramp Volume, V_R	98
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2088	0.92	Level	1	0	0.995	1.00	2281
Ramp	98	0.92	Level	28	0	0.877	1.00	121
UpStream	456	0.92	Level	17	0	0.922	1.00	538
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 580.87 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 1334 pc/h

V_3 or V_{av34} 947 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1334 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2402	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1455	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 15.1 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

M_S = 0.314 (Exibit 13-11)

S_R= 61.2 mph (Exhibit 13-11)

S_0= 68.4 mph (Exhibit 13-11)

S = 63.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 15 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	2433
Ramp Volume, V_R	291
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2433	0.92	Level	7	0	0.966	1.00	2737
Ramp	291	0.92	Level	7	0	0.966	1.00	327
UpStream	15	0.92	Level	87	0	0.697	1.00	23
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 1581 pc/h

V_3 or V_{av34} 1156 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1581 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3064	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1908	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 20.2 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.347 (Exibit 13-11)

S_R= 60.3 mph (Exhibit 13-11)

S_0= 67.6 mph (Exhibit 13-11)

S = 62.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 90 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	3631
Ramp Volume, V_R	461
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3631	0.92	Level	3	0	0.985	1.00	4006
Ramp	461	0.92	Level	13	0	0.939	1.00	534
UpStream	90	0.92	Level	10	0	0.952	1.00	103
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 1056.16 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 2347 pc/h

V_3 or V_{av34} 1659 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2347 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4540	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2881	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 25.8 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.364 (Exibit 13-11)

S_R= 59.8 mph (Exhibit 13-11)

S_0= 65.8 mph (Exhibit 13-11)

S = 61.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	3721
Ramp Volume, V_R	90
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 461 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3721	0.92	Level	3	0	0.985	1.00	4105
Ramp	90	0.92	Level	10	0	0.952	1.00	103
UpStream								
DownStream	461	0.92	Level	13	0	0.939	1.00	534

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.653 using Equation (Exhibit 13-7)

V_{12} = 2715 pc/h

V_3 or V_{av34} 1390 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4105	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4002	Exhibit 13-8	7200	No
V_R	103	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2715	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = 25.1 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.307 (Exhibit 13-12)

S_R= 61.4 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 65.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 152 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5388
Ramp Volume, V_R	653
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5388	0.92	Level	4	0	0.980	1.00	5974
Ramp	653	0.92	Level	4	0	0.980	1.00	724
UpStream	152	0.92	Level	13	0	0.939	1.00	176
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3013 pc/h

V_3 or V_{av34} 1480 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5974	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5250	Exhibit 13-8	9600	No
V_R	724	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3013	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$$

D_R = 30.2 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.753 (Exhibit 13-12)

S_R= 48.9 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 59.1 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5388
Ramp Volume, V_R	653
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 619 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5388	0.92	Level	4	0	0.980	1.00	5974
Ramp	653	0.92	Level	4	0	0.980	1.00	724
UpStream								
DownStream	619	0.92	Level	2	0	0.990	1.00	680

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3013 pc/h

V_3 or V_{av34} 1480 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5974	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5250	Exhibit 13-8	9600	No
V_R	724	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3013	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 30.2 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.753 (Exhibit 13-12)

S_R= 48.9 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 59.1 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	3855
Ramp Volume, V_R	532
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 122 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3855	0.92	Level	4	0	0.980	1.00	4274
Ramp	532	0.92	Level	13	0	0.939	1.00	616
UpStream								
DownStream	122	0.92	Level	10	0	0.952	1.00	139

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.625 using Equation (Exhibit 13-7)

V_{12} = 2902 pc/h

V_3 or V_{av34} 1372 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4274	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	3658	Exhibit 13-8	7200	No
V_R	616	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2902	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = 27.5 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.353 (Exhibit 13-12)

S_R= 60.1 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 64.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 532 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	3323
Ramp Volume, V_R	122
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3323	0.92	Level	3	0	0.985	1.00	3666
Ramp	122	0.92	Level	10	0	0.952	1.00	139
UpStream	532	0.92	Level	13	0	0.939	1.00	616
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 881.11 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2144 pc/h

V_3 or V_{av34} 1522 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2144 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3805	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2283	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 21.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.336 (Exibit 13-11)

S_R= 60.6 mph (Exhibit 13-11)

S_0= 66.3 mph (Exhibit 13-11)

S = 62.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 113 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	2027
Ramp Volume, V_R	496
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2027	0.92	Level	6	0	0.971	1.00	2269
Ramp	496	0.92	Level	5	0	0.976	1.00	553
UpStream	113	0.92	Level	16	0	0.926	1.00	133
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 1310 pc/h

V_3 or V_{av34} 959 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1310 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2822	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1863	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 19.8 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

M_S = 0.346 (Exibit 13-11)

S_R= 60.3 mph (Exhibit 13-11)

S_0= 68.3 mph (Exhibit 13-11)

S = 62.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 115 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	2664
Ramp Volume, V_R	583
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2664	0.92	Level	2	0	0.990	1.00	2925
Ramp	583	0.92	Level	11	0	0.948	1.00	669
UpStream	115	0.92	Level	9	0	0.957	1.00	131
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 853.72 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 1714 pc/h

V_3 or V_{av34} 1211 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1714 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3594	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2383	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 21.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.336 (Exibit 13-11)

S_R= 60.6 mph (Exhibit 13-11)

S_0= 67.4 mph (Exhibit 13-11)

S = 62.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/9/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A

Deceleration Lane Length L_D 280

Freeway Volume, V_F 2779

Ramp Volume, V_R 115

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 583 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2779	0.92	Level	3	0	0.985	1.00	3066
Ramp	115	0.92	Level	9	0	0.957	1.00	131
UpStream								
DownStream	583	0.92	Level	11	0	0.948	1.00	669

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.677 using Equation (Exhibit 13-7)

V_{12} = 2119 pc/h

V_3 or V_{av34} 947 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3066	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2935	Exhibit 13-8	7200	No
V_R	131	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2119	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 20.0 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

D_s = 0.310 (Exhibit 13-12)

S_R= 61.3 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 65.4 mph (Exhibit 13-13)

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APPENDIX 3.7:

EXISTING (2015) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

12: Heacock Street & Gentian Avenue

7/14/2015

	↙	↖	↑	↗	↘	↓		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	↰	↱	↑	↱	↰	↑		
Volume (veh/h)	3	92	563	2	55	430		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	3	97	593	2	58	453		
Adj No. of Lanes	1	1	1	1	1	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	138	123	735	624	573	1476		
Arrive On Green	0.08	0.08	0.77	0.77	0.32	0.78		
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900		
Grp Volume(v), veh/h	3	97	593	2	58	453		
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900		
Q Serve(g_s), s	0.1	4.4	14.1	0.0	1.7	5.2		
Cycle Q Clear(g_c), s	0.1	4.4	14.1	0.0	1.7	5.2		
Prop In Lane	1.00	1.00		1.00	1.00			
Lane Grp Cap(c), veh/h	138	123	735	624	573	1476		
V/C Ratio(X)	0.02	0.79	0.81	0.00	0.10	0.31		
Avail Cap(c_a), veh/h	627	560	735	624	573	1476		
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00		
Uniform Delay (d), s/veh	32.0	34.0	6.8	5.2	18.1	2.5		
Incr Delay (d2), s/veh	0.0	4.1	8.0	0.0	0.0	0.5		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	2.1	8.4	0.0	0.8	2.9		
LnGrp Delay(d),s/veh	32.1	38.1	14.8	5.2	18.1	3.0		
LnGrp LOS	C	D	B	A	B	A		
Approach Vol, veh/h	100		595			511		
Approach Delay, s/veh	38.0		14.8			4.7		
Approach LOS	D		B			A		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.3	34.5				63.8		11.2
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	4.5	* 29				38.0		26.0
Max Q Clear Time (g_c+I1), s	3.7	16.1				7.2		6.4
Green Ext Time (p_c), s	0.2	1.8				1.5		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
13: Heacock Street & Iris Avenue

7/14/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰	↑
Volume (veh/h)	45	383	183	36	200	230
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	48	407	195	38	213	245
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	500	447	515	100	308	1096
Arrive On Green	0.28	0.28	0.33	0.33	0.23	0.77
Sat Flow, veh/h	1810	1615	1546	301	1810	1900
Grp Volume(v), veh/h	48	407	0	233	213	245
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1847	1810	1900
Q Serve(g_s), s	1.5	18.3	0.0	7.2	8.1	2.7
Cycle Q Clear(g_c), s	1.5	18.3	0.0	7.2	8.1	2.7
Prop In Lane	1.00	1.00		0.16	1.00	
Lane Grp Cap(c), veh/h	500	447	0	616	308	1096
V/C Ratio(X)	0.10	0.91	0.00	0.38	0.69	0.22
Avail Cap(c_a), veh/h	627	560	0	616	308	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.96	0.96
Uniform Delay (d), s/veh	20.2	26.2	0.0	19.1	27.2	4.0
Incr Delay (d2), s/veh	0.0	15.0	0.0	1.8	5.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.9	0.0	4.0	4.5	1.5
LnGrp Delay(d),s/veh	20.2	41.2	0.0	20.8	32.5	4.5
LnGrp LOS	C	D		C	C	A
Approach Vol, veh/h	455		233			458
Approach Delay, s/veh	39.0		20.8			17.5
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.3	30.5				48.8		26.2
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	8.5	* 25				38.0		26.0
Max Q Clear Time (g_c+I1), s	10.1	9.2				4.7		20.3
Green Ext Time (p_c), s	0.0	0.6				1.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
12: Heacock Street & Gentian Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	1	60	567	7	124	923
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	65	610	8	133	992
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	92	82	830	705	596	1571
Arrive On Green	0.05	0.05	0.44	0.44	0.33	0.83
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	1	65	610	8	133	992
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.0	3.6	24.0	0.3	4.8	17.0
Cycle Q Clear(g_c), s	0.0	3.6	24.0	0.3	4.8	17.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	92	82	830	705	596	1571
V/C Ratio(X)	0.01	0.79	0.74	0.01	0.22	0.63
Avail Cap(c_a), veh/h	523	467	830	705	596	1571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.79	0.79	1.00	1.00
Uniform Delay (d), s/veh	40.6	42.2	21.0	14.4	21.9	2.8
Incr Delay (d2), s/veh	0.0	6.3	4.6	0.0	0.1	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.7	13.6	0.1	2.4	9.4
LnGrp Delay(d),s/veh	40.6	48.6	25.6	14.4	21.9	4.8
LnGrp LOS	D	D	C	B	C	A
Approach Vol, veh/h	66		618			1125
Approach Delay, s/veh	48.4		25.5			6.8
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	35.1	44.8				79.9		10.1
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	9.2	* 39				53.0		26.0
Max Q Clear Time (g_c+I1), s	6.8	26.0				19.0		5.6
Green Ext Time (p_c), s	1.2	1.8				4.8		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
13: Heacock Street & Iris Avenue 7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰	↑
Volume (veh/h)	18	243	324	18	512	391
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	283	377	21	595	455
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	344	307	490	27	719	1364
Arrive On Green	0.19	0.19	0.28	0.28	0.40	0.72
Sat Flow, veh/h	1810	1615	1783	99	1810	1900
Grp Volume(v), veh/h	21	283	0	398	595	455
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1882	1810	1900
Q Serve(g_s), s	1.1	20.6	0.0	23.3	35.4	10.7
Cycle Q Clear(g_c), s	1.1	20.6	0.0	23.3	35.4	10.7
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	344	307	0	518	719	1364
V/C Ratio(X)	0.06	0.92	0.00	0.77	0.83	0.33
Avail Cap(c_a), veh/h	392	350	0	518	719	1364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.72	0.72
Uniform Delay (d), s/veh	39.8	47.7	0.0	40.0	32.5	6.3
Incr Delay (d2), s/veh	0.0	25.7	0.0	10.5	5.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.4	0.0	13.7	18.8	5.7
LnGrp Delay(d),s/veh	39.8	73.4	0.0	50.5	38.0	6.7
LnGrp LOS	D	E		D	D	A
Approach Vol, veh/h	304		398			1050
Approach Delay, s/veh	71.1		50.5			24.5
Approach LOS	E		D			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	53.2	38.5				91.7		28.3
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	45.5	* 33				83.0		26.0
Max Q Clear Time (g_c+I1), s	37.4	25.3				12.7		22.6
Green Ext Time (p_c), s	1.8	0.8				2.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 4.1:

CUMULATIVE DEVELOPMENT PROJECTS

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Charlene Hwang So

From: Julia Descoteaux <juliad@moval.org>
Sent: Monday, June 08, 2015 2:59 PM
To: Charlene Hwang So
Cc: CMS Administrator; 'David Ornelas (dornelas@tbplanning.com)'
Subject: RE: 09301: Cumulative Project Review

Hi Charlene,

Is this list intended to include both entitled (but not built) and existing/built uses?

Please include the following on your list:

Tract 31618 Moreno Beach and Bay Avenue 55 SFD
PA15-0004 Perris south of JFK Retail Restaurant/Fast Food 2973sqft
PA14-0042 Edgemont/Eucalyptus MFDR 112 units

MV-8 Refers to a project never approved.
MC-18 is a Car Wash and Retail Convenience store.
PA13-0009 a Fueling Station on Alessandro at Indian (NEC)

Thank you,
Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St.0̂ Moreno Valley0̂ CA 92553

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Wednesday, June 03, 2015 4:09 PM
To: Julia Descoteaux
Cc: CMS Administrator
Subject: 09301: Cumulative Project Review
Importance: High

Hi Julia,

Could you please review the attached map and list of cumulative developments in the City of Moreno Valley, and provide any updates that you may have? We are trying to get a list of cumulative projects for inclusion in the traffic study for the Moreno Valley Logistics Center (Prologis) project. Please feel free to contact me with any questions or if you require any additional information. We have already reached out the adjacent jurisdictions as well: City of

Riverside, City of Perris, and County of Riverside. All but the City of Perris have already responded. Thank you in advance!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

URBAN
CROSSROADS

41 Corporate Park, Suite 300
Irvine, CA 92606
(949) 336-5982 Direct
(949) 861-0177 Cell
(949) 660-1994 Main
urbanxroads.com

Charlene Hwang So

From:	Julia Descoteaux <juliad@moval.org>
Sent:	Tuesday, June 09, 2015 4:31 PM
To:	David Ornelas; Charlene Hwang So
Cc:	CMS Administrator
Subject:	RE: 09301: Cumulative Project Review
Attachments:	Cum deveop list.pdf

Attached please find the list with redlines. Please contact me with any questions.

Regards,
Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St.Ô Moreno ValleyÔ CA 92553

From: David Ornelas [mailto:dornelas@tbplanning.com]
Sent: Monday, June 08, 2015 3:30 PM
To: Julia Descoteaux; Charlene Hwang So
Cc: CMS Administrator
Subject: RE: 09301: Cumulative Project Review

Thank you for your help, Julia. The only projects that need to be removed from the list are projects that are completely built and operational. Projects that are under construction can remain on the list.

Regards,

David Ornelas
Project Manager

T&B PLANNING, INC.
Phone: (619) 501-6041
dornelas@tbplanning.com

From: Julia Descoteaux [mailto:juliad@moval.org]
Sent: Monday, June 08, 2015 3:21 PM
To: David Ornelas; Charlene Hwang So
Cc: CMS Administrator
Subject: RE: 09301: Cumulative Project Review

Hi David,

The list has projects that are built. I will need to go back and review the list to make changes.

Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St.0̂ Moreno Valley0̂ CA 92553

From: David Ornelas [mailto:dornelas@tbplanning.com]
Sent: Monday, June 08, 2015 3:19 PM
To: Charlene Hwang So; Julia Descoteaux
Cc: CMS Administrator
Subject: RE: 09301: Cumulative Project Review

Hi, Julia:

Just to close the loop, with the addition of the projects listed below, is the cumulative project list approved for use in the CEQA analysis for Moreno Valley Logistics Center? The purpose of the list is to include proposed and approved (unbuilt) projects.

Regards,

David Ornelas
Project Manager

T&B PLANNING, INC.
Phone: (619) 501-6041
dornelas@tbplanning.com

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Monday, June 08, 2015 3:08 PM
To: Julia Descoteaux
Cc: CMS Administrator; David Ornelas
Subject: RE: 09301: Cumulative Project Review

Thanks Julia!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

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Irvine, CA 92606
(949) 336-5982 Direct
(949) 861-0177 Cell
(949) 660-1994 Main
urbanxroads.com

From: Julia Descoteaux [mailto:juliad@moval.org]
Sent: Monday, June 08, 2015 2:59 PM
To: Charlene Hwang So
Cc: CMS Administrator; 'David Ornelas (dornelas@tbplanning.com)'
Subject: RE: 09301: Cumulative Project Review

Hi Charlene,

Is this list intended to include both entitled (but not built) and existing/built uses?

Please include the following on your list:

Tract 31618 Moreno Beach and Bay Avenue 55 SFD
PA15-0004 Perris south of JFK Retail Restaurant/Fast Food 2973sqft
PA14-0042 Edgemont/Eucalyptus MFDR 112 units

MV-8 Refers to a project never approved.
MC-18 is a Car Wash and Retail Convenience store.
PA13-0009 a Fueling Station on Alessandro at Indian (NEC)

Thank you,
Julia

Julia Descoteaux
Associate Planner
Community & Economic Development
City of Moreno Valley
p: 951.413.3209 | e: juliad@moval.org w: www.moval.org
14177 Frederick St.ô Moreno Valleyô CA 92553

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Wednesday, June 03, 2015 4:09 PM
To: Julia Descoteaux
Cc: CMS Administrator
Subject: 09301: Cumulative Project Review
Importance: High

Hi Julia,

Could you please review the attached map and list of cumulative developments in the City of Moreno Valley, and provide any updates that you may have? We are trying to get a list of cumulative projects for inclusion in the traffic study for the Moreno Valley Logistics Center (Prologis) project. Please feel free to contact me with any questions or if you require any additional information. We have already reached out the adjacent jurisdictions as well: City of Riverside, City of Perris, and County of Riverside. All but the City of Perris have already responded. Thank you in advance!

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

URBAN CROSSROADS

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 4-4
Page 1 of 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]	
		CITY OF MORENO VALLEY			
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	~~1182.918~~	TSF	-483,767
MV-2	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF	
~~MV-3~~	~~PA 08-0072 (Overton Moore Properties)~~	~~High-Cube Warehouse~~	~~520.000~~	~~TSF~~	
~~MV-4~~	~~Harbor Freight Expansion~~	~~High-Cube Warehouse~~	~~1279.910~~	~~TSF~~	
MV-5	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF	
MV-6	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF	
		High-Cube Warehouse	409.920	TSF	
~~MV-7~~	~~PA 07-0079 (Indian Business Park)~~	~~High-Cube Warehouse~~	~~1560.046~~	TSF	
~~MV-8~~	~~PA 08-0047-0052 (Komar Cactus~~ Plaza)[3]	Hotel	~~110~~	~~RMS~~	
		Fast Food w/Drive Thru	~~8.000~~	~~TSF~~	
		Commercial	~~42.400~~	~~TSF~~	
MV-9	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF	
MV-10	TM 33607	Condo/Townhomes	52	DU	
MV-11	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF	
MV-12	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	~~2857.400~~	TSF	-287,100
MV-13	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF	
MV-14	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF	
MV-15	PA 09-0004 (Vogel)	High-Cube Warehouse	~~1616.133~~	TSF	800,000
MV-16	TM 34748	SFDR	135	DU	
MV-17	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF	
~~MV-18~~	~~PA 09-0031~~	~~Gas Station~~	~~12~~	~~VFP~~	
MV-19	First Park Nandina III	High-Cube Warehouse	691.960	TSF	
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF	
MV-20	March Business Center	General Light Industrial	16.732	TSF	
		Warehousing	87.429	TSF	
		High-Cube Warehouse	1380.246	TSF	
MV-21	TM 33810	SFDR	16	DU	
MV-22	TM 34151	SFDR	37	DU	
MV-23	373K Industrial Facility	High-Cube Warehouse	373.030	TSF	
MV-24	TM 32716	SFDR	57	DU	
~~MV-25~~	~~TM 32917~~	~~Condo/Townhomes~~	~~227~~	~~DU~~	
MV-26	TM 33417	Condo/Townhomes	60	DU	
MV-27	TM 34988	Condo/Townhomes	271	DU	
MV-28	TM 34216	Condo/Townhomes	39	DU	
MV-29	TM 34681	Condo/Townhomes	49	DU	
MV-30	PA 08-0079-0081 (Winco Foods)	Discount Supermarket	95.440	TSF	
		Specialty Retail	14.800	TSF	
MV-31	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF	
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF	
	Westridge	High-Cube Warehouse	937.260	TSF	
	ProLogis	High-Cube Warehouse	1916.190	TSF	
		Warehousing	328.448	TSF	
	World Logistics Center	High-Cube Warehouse	41400.000	TSF	
		Warehousing	200.000	TSF	
		Gas Station w/ Market	12	VFP	
		Existing SFDR	7	DU	

Table 4-4
Page 2 of 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
~~MV-32~~	~~Quail Ranch~~ Specific Plan	Private School (K-12)	300	STU
		Golf Course	18	Holes
		Hotel	500	RMS
		Specialty Retail	66.667	TSF
		General office	66.667	TSF
		Assisted Living	500	Beds
		Senior Living (Detached)	200	DU
		SFDR	600	DU
MV-33	a TR 32460 (Sussex Capital)	SFDR	57	DU
	b TR 32459 (Sussex Capital)	SFDR	11	DU
	c TR 30411 (Pacific Communities)	SFDR	24	DU
	d TR 33962 (Pacific Scene Homes)	SFDR	31	DU
	e TR 30998 (Pacific Communities)	SFDR	47	DU
MV-34	~~a Westridge Commerce Center~~	~~High-Cube Warehouse~~	~~937.260~~	~~TSF~~
	b P06-158 (Gascon)	Commercial Retail	116.360	TSF
	c Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	d ProLogis	Warehousing	367.000	TSF
		High-Cube Warehouse	1901.000	TSF
	e TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-35	TR 36340	SFDR	275	DU
MV-36	a TR 31771 (Sanchez)	SFDR	25	DU
	b TR 34397 (Winchester Associates)	SFDR	52	DU
	c TR 32645 (Winchester Associates)	SFDR	53	DU
MV-37	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-38	~~a Convenience Store/ Fueling Station~~	~~Gas Station w/ Market~~	~~30.750~~	~~TSF~~
	b Senior Assisted Living	Assisted Living Units	139	DU
	c TR 31590 (Winchester Associates)	SFDR	96	DU
	d TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	~~e 20th Corp. & Granite Capitol~~	~~SFDR~~	~~92~~	~~DU~~
	f TR 32218 (Whitney)	SFDR	63	DU
	~~g Moreno Marketplace~~	~~Commercial Retail~~	~~93.780~~	~~TSF~~
	h Medical Plaza	Medical Offices	311.633	TSF
MV-39	a Moreno Medical Campus	Medical Offices	80.000	TSF
	b Aqua Bella Specific Plan	SFDR	2,922	DU
	c TR 34329 (Granite Capitol)	SFDR	90	DU
	d Cresta Bella	General Office	30.000	TSF
MV-40	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-41	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-42	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-43	TR 31305 / Richmond American	Residential	87	DU
MV-44	~~TR 32505 / DR Horton~~	~~Residential~~	~~72~~	~~DU~~
MV-45	TR 34329 / Granite Capitol	Residential	90	DU
MV-46	TR 31814 / Moreno Valley Investors	Residential	60	DU
MV-47	TR 33771 / Creative Design Associates	Residential	12	DU
MV-48	TR 35663 / Kha	Residential	12	DU
MV-49	TR 22180 / Young Homes	Residential	140	DU
MV-50	TR 32515	Residential	161	DU
MV-51	TR 32142	Residential	81	DU
MV-52	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-53	Commercial Medical Plaza	Medical Offices	311.633	TSF
MV-54	Edgemont Street, South of Eucalyptus Av.	Apartments	112	DU
MV-55	28860 Professor's Fun IV, LLC/Winchester Associates, Inc.	SFDR	9	DU
MV-56	20636 Pacific Communities	SFDR	67	DU
MV-57	31297 Randy McFarland	SFDR	7	DU
MV-58	31394 Pigeon Pass, Ltd.	SFDR	78	DU
MV-59	31442 SKG Pacific Enterprises Inc.	SFDR	63	DU
MV-60	31517 Professors Prop Six/Winchester Assoc.	SFDR	83	DU

Table 4-4
Page 3 of 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-61	31621 Peter Sanchez	SFDR	25	DU
MV-62	32005 Red Hill Village, LLC	SFDR	214	DU
MV-63	32126 Salvador Torres	SFDR	35	DU
MV-64	32194 Arman Pezeshkifar	SFDR	32	DU
MV-65	32408 Sanstone Inc.	SFDR	80	DU
MV-66	32844 Winchester Associates	SFDR	17	DU
MV-67	32978 Focus Estates	SFDR	19	DU
MV-68	33024 Adam Wislar	SFDR	8	DU
MV-69	33275 Jose Guzman	SFDR	4	DU
MV-70	33388 SCH Development, LLC	SFDR	16	DU
MV-71	33436 Winchester Associates	SFDR	105	DU
~~MV-72~~	~~33820 Kincaid Development, Inc.~~	~~SFDR~~	~~23~~	~~DU~~
MV-73	33963 Rance Garrett	SFDR	31	DU
MV-74	34043 RM3 Building and Development	SFDR	12	DU
MV-75	31621 Beazer Homes	SFDR	274	DU
MV-76	30268 Pacific Communities	SFDR	83	DU
MV-77	31414 GRF - Majestic Hills	SFDR	31	DU
MV-78	31494 Winchester Associates	SFDR	12	DU
MV-79	32715 GFR - Trinity	SFDR	30	DU
MV-80	33256 Granite Homes	SFDR	79	DU
MV-81	32711 Isaac Genah	SFDR	9	DU
MV-82	35530 Moreno Gilman 650, LLC-Quail Ranch	SFDR inactive	1,105	DU
MV-83	35534 Leedco Engineers	SFDR	12	DU
MV-84	36436 CV Communities	SFDR	159	DU
MV-85	36401 Continental East Fund III, LLC	SFDR	92	DU
MV-86	32215 Winchester Associates "Scottish Village"	MFDR	194	DU
MV-87	32756 Jimmy Lee	MFDR	24	DU
MV-88	35369 Tason Myers Property	MFDR	12	DU
MV-89	35414 Lincoln Property Co. Southwest	MFDR	266 ~~240~~	DU
MV-90	35769 Michael Chen	MFDR	16	DU
~~MV-91~~	~~PA08-0013 Palm Desert Development "Rancho Dorado North"~~	~~MFDR~~	~~80~~	~~DU~~
MV-92	PA09-0006 Jim Nydam	MFDR	15	DU
MV-93	35861 Frederick Homes	MFDR	24	DU
MV-94	36038 Alessandro Village Plaza, LLC	MFDR	96	DU
MV-95	35304 Jimmy Lee	MFDR	12	DU
MV-96	Alessandro & Lasselle	Shopping Center	140.000	TSF
~~MV-97~~	~~Burger King - Fast Food - 24800 Sunnymead~~	~~Fast Food w/Drive Thru~~	~~--~~	~~TSF~~
MV-98	~~Nightclub~~	~~Retail~~	~~11.000~~	~~TSF~~
	~~Aerosports Trampoline Park~~	~~Recreation Community Center~~	~~34.500~~	~~TSF~~
MV-99	Food 4 Less - Fueling Station	Gas Station with Convenience Market	16	VFP
~~MV-100~~	~~Lakeshore Village Marketplace~~	~~Shopping Center~~	~~140.000~~	~~TSF~~
MV-101	El Paso (food court)	Fast Food no Drive Thru	--	TSF
~~MV-102~~	~~Potato Corner~~	~~Fast Food no Drive Thru~~	~~--~~	~~TSF~~
MV-103	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
MV-104	O'Reilly Automotive	Automobile Parts Sale	7.500	TSF
MV-105	Restaurant	Restaurant	9.000	TSF
MV-106	Rancho Belago Plaza - Retail	Retail	14.000	TSF
MV-107	~~24-Hour Fitness~~	~~Fitness Club~~	~~--~~	~~TSF~~
	~~Rivals Sports Bar & Grill~~	~~Restaurant~~	~~--~~	~~TSF~~
MV-108	Yum Yum Donut Shop	Coffee/Donut Shop w/o Drive-Thru	4.351	TSF – Not entitled
MV-109	Hawthorn Inn & Suites	Hotel	79	RMS
MV-110	Sleep Inn Suites	Hotel	66	RMS
~~MV-111~~	~~Fresenius Medical Care Center~~	~~Medical Offices~~	~~12.000~~	~~TSF~~
MV-112	Integrated Care Communities	Nursing Home	44.000	TSF
MV-113	Kaiser Permanente - Emergency Room Expansion	Medical Offices	--	TSF
MV-114	Moreno Valley Professional Center	General Office	84.000	TSF
MV-115	Olivewood Plaza - Office Building	General Office	23.000	TSF
MV-116	Renaissance Village of Moreno Valley	Senior Adult Housing-Attached	44 ~~140~~	~~DU~~
MV-117	Riverside County Office Building	General Office	52.000	TSF

Table 4-4
Page 4 of 4

Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-118	Gateway Business Park	Residential Condo/Townhouse	34	DU
MV-119	Shaw Development	High-Cube Warehouse	367.000	TSF
MV-120	IDS/Real Estate Group - Nandina Distribution Center	High-Cube Warehouse	697.000	TSF
MV-121	Stoneridge Town Centre - Vacant Restaurant	Restaurant	5700.000	TSF
MV-122	Ironwood Residential	SFDR	144	DU
MV-123	TTM 31592 (P 13-078) Covey Ranch	SFDR	115	DU
MV-124	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-125	P06-1408	Retail	75.300	TSF
MV-126	Moval Assemblage	High-Cube Warehouse	456.337	TSF
MV-127	Bella Vista Apartments	Apartments	220	DU
MV-128	Moreno Valley Logistics Center	High-Cube Warehouse	1351.770	TSF
		General Light Industrial	385.748	TSF

— Not Entitled

[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

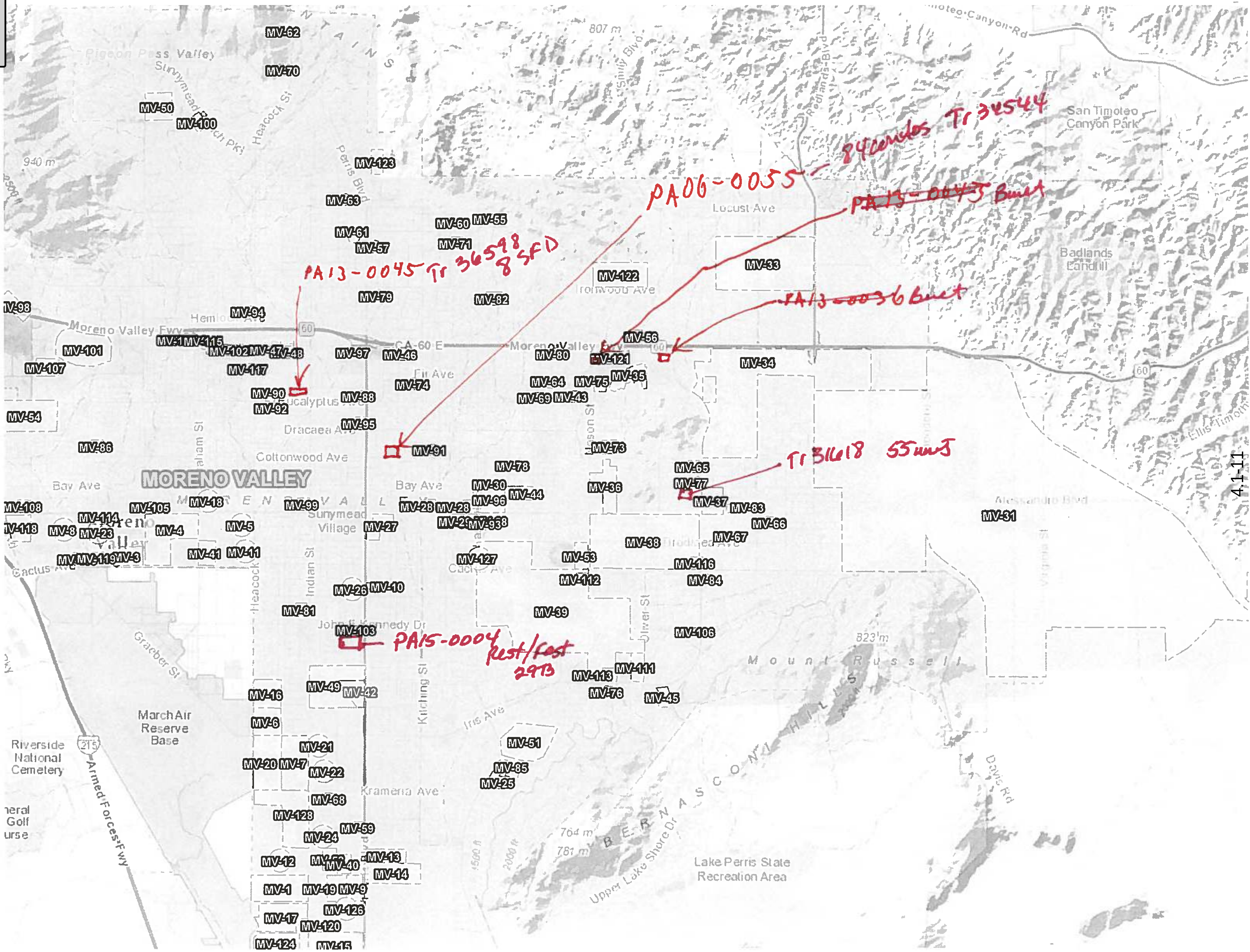

PA13-0045 Tr 36598
8 SFD

PA06-0055 - 84 condos Tr 34544

PA13-0043 Built

PA13-0036 Built

Tr 31618 55 units

PA15-0004 Rest/Fast
2973

Cecilia So

From: David Ornelas [dornelas@tbplanning.com]
Sent: Thursday, May 28, 2015 10:56 AM
To: Charlene Hwang So; Tracy Zinn
Cc: Aric Evatt; CMS Administrator; Cecilia So
Subject: RE: 09301: Moreno Valley Logistics Cumulative Projects

Thanks, Charlene. I have three comments:

- The Gateway Center project (R-77) is included on the City of Riverside list, but the site is actually located in unincorporated Riverside County (but is within the City of Riverside's sphere of influence). Also, the name of the project has changed to "University Highlands" and the land use plan has changed. The updated land use abstract is below.

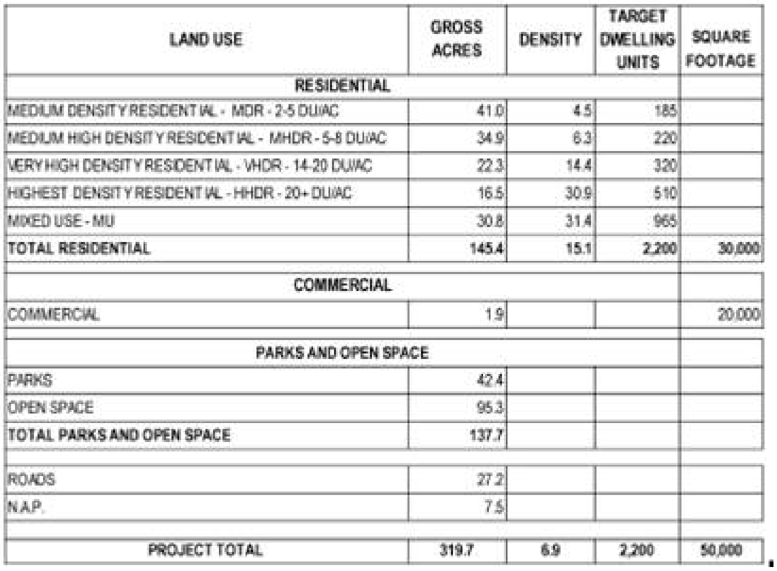

LAND USE	GROSS ACRES	DENSITY	TARGET DWELLING UNITS	SQUARE FOOTAGE
RESIDENTIAL				
MEDIUM DENSITY RESIDENTIAL - MDR - 2-5 DU/AC	41.0	4.5	185	
MEDIUM HIGH DENSITY RESIDENTIAL - MHDR - 5-8 DU/AC	34.9	6.3	220	
VERY HIGH DENSITY RESIDENTIAL - VHDR - 14-20 DU/AC	22.3	14.4	320	
HIGHEST DENSITY RESIDENTIAL - HHDR - 20+ DU/AC	16.5	30.9	510	
MIXED USE - MU	30.8	31.4	965	
TOTAL RESIDENTIAL	**145.4**	**15.1**	**2,200**	**30,000**
COMMERCIAL				
COMMERCIAL	1.9			20,000
PARKS AND OPEN SPACE				
PARKS	42.4			
OPEN SPACE	95.3			
TOTAL PARKS AND OPEN SPACE	**137.7**			
ROADS	27.2			
N.A.P.	7.5			
PROJECT TOTAL	**319.7**	**6.9**	**2,200**	**50,000**

- Indian Business Park (MV-7): This project has been constructed (north of and adjacent to the Moreno Valley Logistics Center site). If Michael Lloyd does not comment on this project, please confirm with him if he would like it to be included on the list as the traffic from the project should have been captured in your traffic counts.

- Prologis (MV-31): It is my understanding this project was revised at the City Council hearing to include approximately 1.5 million s.f. and 126 homes (I am quoting these numbers from a news article – the City Council meeting minutes are not on the City's website – so they should not be considered 100% accurate). Michael Lloyd should have the specific numbers, but if he does not we can always ask Prologis.

David Ornelas
Project Manager

T&B PLANNING, INC.
Phone: (619) 501-6041
dornelas@tbplanning.com

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Wednesday, May 27, 2015 5:56 PM
To: Tracy Zinn; David Ornelas
Cc: Aric Evatt; CMS Administrator; Cecilia So
Subject: 09301: Moreno Valley Logistics Cumulative Projects
Importance: High

Hi Tracy and David,

We have compiled a list of cumulative projects over the past few years for this region (used for First Nandina and Modular) and have that list attached along with a corresponding map. We've modified the list from what we've included in past TIAs to be sorted by jurisdiction in order to improve the efficiency in adding and removing projects over time. We have sent the list to the City of Riverside, City of Moreno Valley and City of Perris to obtain updates. I have attached each of the e-mails we sent requesting review of our current list. I have not yet received any response/updated information from any of the jurisdictions.

We did not contact the County of Riverside as I have already received an updated list of cumulative projects for the area from the County on another project we recently worked on.

Let me know if there are other jurisdictions you would like us to reach out to.

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

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urbanxroads.com

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Charlene Hwang So

From: Tsang, Kevin <KTSANG@rctlma.org>
Sent: Thursday, April 30, 2015 3:06 PM
To: Charlene Hwang So
Cc: CMS Administrator; Isidro Abreo
Subject: RE: 09347: Cumulative List

Please see below.

Thanks

From: Charlene Hwang So [mailto:cso@urbanxroads.com]
Sent: Thursday, April 23, 2015 1:43 PM
To: Tsang, Kevin
Cc: CMS Administrator; Isidro Abreo
Subject: 09347: Cumulative List
Importance: High

Hi Kevin,

Just trying to sort through the cumulative projects from the County that need to be added to our list. Could you please review and provide us with needed info or if projects should be removed? Thanks in advance!

Below is a list of projects we will be including because there was no expiration date, please let us know if there are projects that should be removed:

1. CUP03527 – 8,000 sf Warehouse: Keep
2. CUP03599 – 52,798 sf hotel: Keep
3. PP09997R2 – 12,800 sf maintenance building: You may remove, existing.
4. PP16932 – 12,000 sf manufacturing building: You may remove, existing.
5. PP24608 – 9,280 sf feed and grain sales: Keep
6. PP25252 – 399,150 sf warehouse: You may remove, existing.

The cumulative projects listed below did not have an expiration date and are missing information or we need to confirm information in order to be added:

1. CUP03632 – Auction/Sales yard (need sf/acreage): You may remove, existing.
2. PM32699 – Need land use and quantity: 2 SFDU
3. PM23532 – Gas Station/Convenience Store (need # of pumps or sf): You may remove, no activity for 5+ years.
4. PP24002 – Feed Store (need sf) : You may remove, no activity for 5+ years.
5. PP25001 – Feed and Grain Sales (need sf) : You may remove, no activity for 3+ years.
6. PP25699 – 2 drive-thru restaurants (need total sf): (2) 2,800 SF fast food w/ DT, 19,000 SF retail
7. PUP00892 – Adult Residential Care (need # of DUs or Beds and type of adult care facility) : You may remove, no activity for 5+ years.
8. PP14485R1 – Heavy Equipment Auction Yard (need sf or acreage): : You may remove, no activity for 5+ years.
9. PP18961 – National Archives Warehouse (need sf): You may remove, existing.
10. PUP00325 – need land use and quantity: You may remove, no activity for 5+ years.
11. PUP00856 – Day Care Center (need # of students): You may remove, existing.
12. TR30592 – 131 single family DUs: Keep

The following cumulative projects will not be included as they are low traffic generators (less than 50 peak hours trips):

1. PM35634 – 2 single family DUs: OK
2. PM36034 – 16 single family DUs: OK
3. PM36078 – 2 single family DUs: OK
4. PP24818 – Home conversion to 1,860 sf Church: OK
5. PP25019: You may remove, no activity for 4+ years.
6. PP25768: Keep, 52,450 SF manufacturing
7. TR33869 – 39 single family DUs: OK
8. CUP01634: You may remove, existing.
9. CUP03620R1: Keep, 8 VFP gas station w/ Conv. Store
10. CUP03642: You may remove, existing.
11. PM33357 – 2 single family DUs: OK
12. PM34971 – 2 single family DUs: OK
13. PM35780 – 2 single family DUs: OK
14. PP15189R1: You may remove, cell tower.

On a separate note, I wanted to follow up on your review of the scoping agreement for TTM No. 35570 (near Washington and Benton). Let me know if you have any questions.

Regards,

CHARLENE SO, P.E.
Senior Transportation Engineer

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N

COUNTY LIST

□ Cities (Outline)
🟥 ACTIVE CASES
🟦 APPROVED CASES

0 1,000 2,000 4,000 Feet

Printed by ktsang on 6/16/10

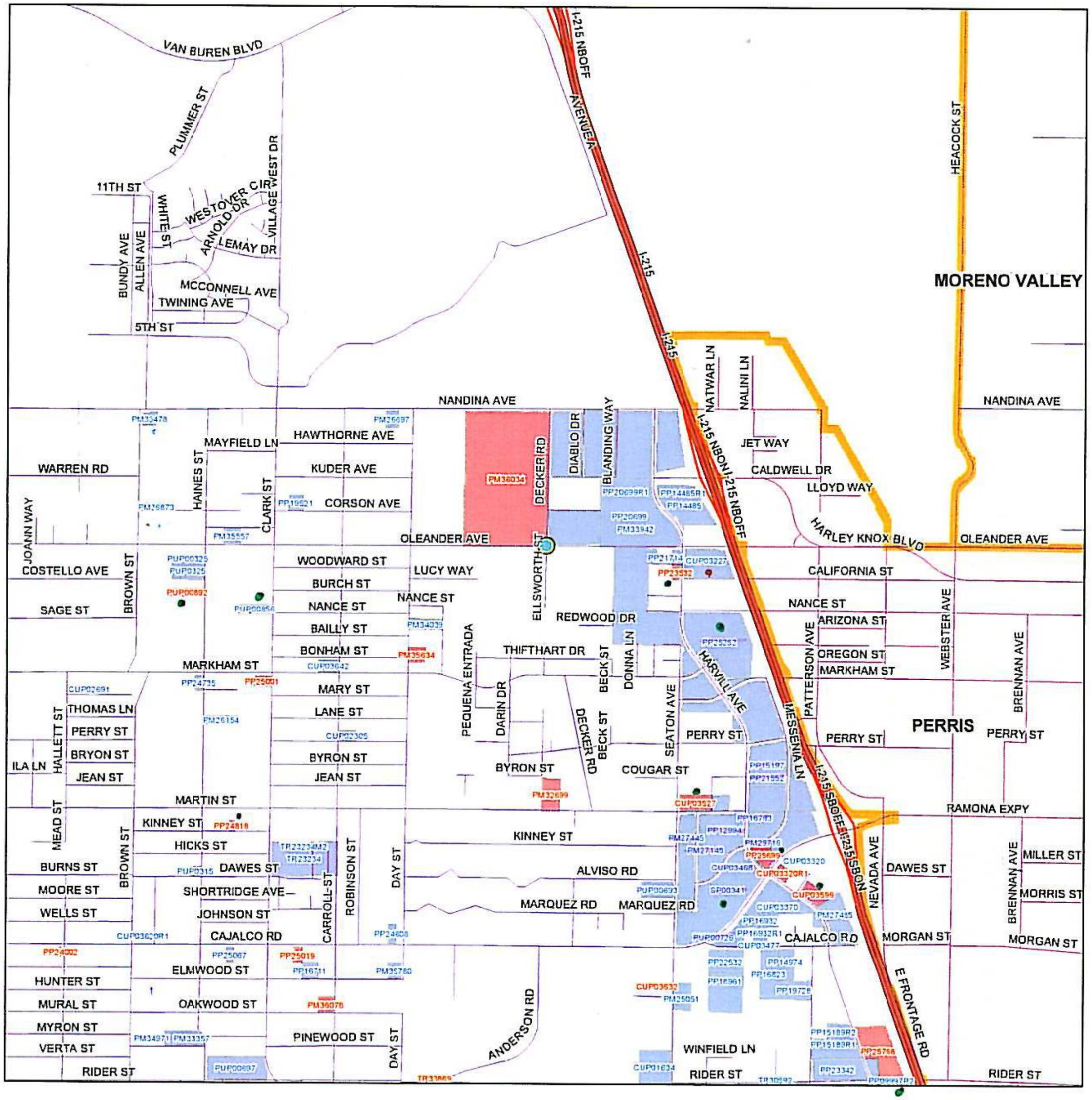

4-11-16

Active Cases as of 4/9/2015

	CASE NAME CASE DESCRIPTION	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
	CUP03320R1 ALLOW LIQUOR SALES USE WITHIN EXISTING GAS STATION	DRT	20051221	0 Existing	20000000
+	CUP03527 8000 SF WAREHOUSE/OFFICE/CONCRETE MIXING SILO&STOR	DRT	20060915	0	20000000
+	CUP03599 TO CONSTRUCT A THREE-STORY 52,798 SQ.FT. HOTEL WI	DRT	20080625	0	20000000
	CUP03632 COMMUNITY AUCTION AND SALES YARD	DRT	20090915	0	20000000
	PM32699 SCHED H DIVISION OF 5 ACRES INTO (2) PARCELS	DRT	20060223	0	20000000
	PM35634 DIVIDE 1.89 ACRES INTO 2 LOTS	DRT	20071221	0	0
	PM36034 SCHEDULE "E" DIVISION OF 100 ACRES INTO 16 LOTS	DRT	20080612	0	20000000
	PM36078 SUBDIVIDE 2.9 ACRES INTO TWO LOTS	DRT	20090521	0	20000000
+	PP23532 GAS STATION AND MINI MARKET & RETAIL STORES	DRT	20080617	0	20000000
	PP24002 PROPOSED FEED STORE	DRT	20090225	0	20000000
+	PP24818 1,860 SQ FT HOUSE CONVERT TO CHURCH	DRT	20101227	0	20000000
	PP25001 FEED AND GRAIN SALES	DRT	20110818	0	20000000
	PP25019 ADD SMOKE SHOP/RECYCL COLL FAC/PROPANE TANK TO EXI	APPLIED	20110921	0	0
+	PP25699 PLOT PLAN TO CONSTRUCT TWO (2) DRIVE THRU RESTAURA	DRT	20141107	0	20000000
	PP25768 PP TO REMOVE AN EXISTING GRAIN STORAGE BINS AND TO	DRT	20150226	0	0
4	PUP00892 ADULT RESIDENTIAL CARE FACILITY	BOS	20070713	0	20000000
	TR33869 SUBDIVIDE 50.2 AC (3 PARCELS) INTO 39 SFR LOTS	APPLIED	20051005	0	0

Approved Cases as of 04/09/2015

CASE NAME	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE	CASE DESCRIPTION
CUP01634	APPROVED	02/01/2008	0	NA	PROPOSAL TO REPLACE RESIN PROCESSING SYSTEM
? ~~CUP02305~~	APPROVED	01/28/2008	0	NA	
~~CUP02691~~	EXPIRED	12/22/2000	19840904	09/04/1984	AUTOMOBILE DISMANTLER FACILITY
~~CUP03227~~	APPROVED	04/01/1996	19960604	06/04/1998 *	RESINS MANUFACTURING FACILITY
CUP03315	APPROVED	05/18/2000	20000725	NA	GAS STATN/CONV STORE/2 FAST FOOD/1 DINE IN RESTRNT
~~CUP03320~~	APPROVED	08/15/2000	20010206 Existing	06/01/2030 JITB/Circ.K/76G w/Cw	CONVENIENCE STORE/FAST FOOD RESTAURANT/CAR WASH/
~~CUP03370~~	APPROVED	04/03/2002	20030701	07/01/2006	TRUCK/GASSTATION COMM CTR SEVERAL BLDGS @ 32,000SF
~~CUP03425~~	APPROVED	02/19/2004	20071114	11/14/2009	(4)CONCRETE TILT-UP BUILDINGS(TRUCKING OPERATIONS)
~~CUP03468~~	APPROVED	09/15/2005	20080311	03/11/2010	PROPOSED GAS STATION,FASTFOOD,CARWASH, STORE
~~CUP03477~~	APPROVED	11/14/2005	20080402	04/02/2010	CUP FOR EXISTING STRUCT FOR OFFICE SP/VEHICLE STOR
~~CUP03620~~	APPROVED	03/30/2009	20120118	01/18/2014	GAS STATION/CONV STORE/RETAIL BUILDING
CUP03620R1	APPROVED	10/23/2013	20141106	NA	ALLOW BEER&WINE SALES WITHIN GAS STATION/MARKET
CUP03642	APPROVED	04/19/2010	20140128	NA	EXISTING USE AS CONVENIENT STORE W/PROPANE &ALCOHO
~~PM25051~~	APPROVED	01/25/1990	19910514	05/14/1996	DIVIDE APPROX 4 ACRES INTO 4 PARCELS
~~PM26154~~	APPROVED	07/17/1990	19920225	02/25/1998	SUBDIVIDE INTO 4 LOTS
~~PM26697~~	APPROVED	05/02/1991	19970211	02/11/2000	SUBDIVIDE 2.12 ACRES INTO TWO PARCELS.
~~PM26873~~	APPROVED	04/12/1991	19920707	07/07/1998	DIVIDE 2.50 ACRES INTO 4 PARCELS
~~PM27140~~	APPROVED	09/25/1991	19920526	05/26/1998	3.99AC INTO TEN INDUSTRIAL PARCELS
~~PM27445~~	APPROVED	03/25/1992	19930316	03/16/1999	DIVIDE APPROX 14 ACRES INTO 10 LOTS
~~PM27485~~	APPROVED	04/21/1992	19930126	01/26/1999	SUBDIVIDE 26.73 ACRES INTO 10 INDUSTRIAL LOTS
~~PM29716~~	APPROVED	05/18/2000	20000725	07/25/2004	SUBDIVIDE 4.45 ACRES INTO 4 COMMERCIAL PARCELS
PM33357	APPROVED	10/18/2005	20080421	04/21/2015	SCHED H DIVISION OF 3 AC INTO 3 ONE AC PARCELS.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Approved Cases as of 04/09/2015

CASE NAME CASE DESCRIPTION	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
~~PM33478~~ ~~SCHED H~~ DIVISION OF 2.35AC INTO TWO 1-AC PARCELS.	APPROVED	03/21/2006	20070730	07/30/2013
PM33942 PM33942 PROPOSES A SCHEDULE E SUBDIVISION OF 68.85	APPROVED	07/28/2005	20080625	06/25/2017
~~PM34039~~ SCHED H DIVISION OF 3 AC INTO 3 1-AC. MIN PARCELS	APPROVED	10/03/2005	20061113	11/13/2014
PM34971 SCHED H DIVISION OF 2.29 AC INTO 2 SFR PARCELS.	APPROVED	05/31/2007	20080616	06/16/2015
PM35557 Schedule H subdivision of 2.5ac into two parcels	APPROVED	08/13/2007	20080722	07/22/2015
PM35780 SCHED H DIVISION OF 2.02 ACRES INTO TWO PARCELS.	APPROVED	09/20/2007	20080630	06/30/2015
PP09997R1 +o REV.PP ADD 10,000 SQFT MAINT BLD. 2400 SQFT OFFICE	APPROVED	02/19/1997	19970424	NA
PP09997R2 +o RVP FOR 12,800 SQ FT MAINT BLDG W/OUTDOOR STORAGE	APPROVED	08/10/2000	20010502	NA
~~PP12994~~ PLOT PLAN FOR PLANNED INDUSTRIAL DEVELOPMENT FOR 8	APPROVED	09/25/1991	19920309	03/09/1994
~~PP14485~~ CONSTRUCTION EQUIP AUCTION	APPROVED	12/19/1995	19960122	01/22/1999
PP14485R1 HEAVY EQUIPMENT AUCTION YARD	APPROVED	08/20/2001	20021104	NA
~~PP14974~~ STEEL BUILDING FABRICATION	APPROVED	04/25/1997	19970630	06/30/1999
PP15189R1 CO-LOCATE ANT'S/EXPAND LEASE AREA-SEE DESCRIPTION	APPROVED	02/28/2002	20020812	NA
~~PP15189R2~~ INSTALL 30KW EMERGENCY GENERATOR W/IN FACILITY Non-traffic	APPROVED	07/03/2007	20070809	NA
~~PP15197~~ 3 INDUSTRIAL BUILDINGS	APPROVED	10/30/1997	19971201	12/01/1999
~~PP16711~~ 150' UNMANNED TELECOMMUNICATION MONOPOLE Non-traffic	APPROVED	09/01/2000	20011217	NA
~~PP16763~~ 19500 SQ FT IND BUILDING (18,570 WAREHOUSE 930 OFF	APPROVED	10/11/2000	20001212	12/12/2002
~~PP16823~~ TO CONSTRUCT A 22,000 SQ FT MANUFACTURING FACILITY	APPROVED	11/17/2000	20010208	02/08/2006
PP16932 +o SHEET METAL MANUFACTURING, 12,000 SQ FT STEEL BLDG	APPROVED	02/02/2001	20010423	NA
~~PP16932R1~~ ADD RECYCLING COLLECTION CENTER TO A 12,000 S.F. P	APPROVED	10/17/2008	20110711	07/12/2013
PP18961 NATIONAL ARCHIVES & RECORDS ADMIN. WAREHOUSE FAC.	APPROVED	10/28/2003	20041215	NA
~~PP19521~~ HAY AND FEED STORE	APPROVED	06/11/2004	20061113	11/13/2008

Approved Cases as of 04/09/2015

	CASE NAME CASE DESCRIPTION	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
	PP19728 CONTRACTORS STORAGE YARD, VEHICLE MAINT AND ADMIN	APPROVED	09/01/2004	20070227	02/27/2009
	PP20699 PP20699 PROPOSES TO DEVELOP FIVE (5) INDUSTRIAL /	APPROVED	07/28/2005	20080625	06/25/2012
	PP20699R1 REDUCE FROM 5 INDUS BLDG TO 3/MODIFY DRAINAGE AND	APPROVED	06/16/2011	20110816	08/16/2013
	PP21552 PROSPD 6 LIGHT INDUS BLDGS; TOTAL OF 14 PARCELS.	APPROVED	03/21/2006	20061218	12/18/2008
	PP21714 UNMNND WRLSS COMM 65' MONOTREE BROADLEAF/OUTDOOR E	APPROVED	05/04/2006	20070921	09/21/2009
	PP22532 OFFICE AND MANUFACTURING FACILITY	APPROVED	02/09/2007	20080107	01/07/2010
	PP23342 MULTI USE INDUSTRIAL PARK WAREHOUSE BUILDINGS	APPROVED	03/20/2008	20080820	10/28/2013
	PP24608 FEED & GRAIN SALES W/6400 SF HAY BARN, 2880 SF STO	APPROVED	06/17/2010	20140908	09/08/2016
	PP24735 50' MONOPINE/12 PANNL ANTS/1 MICRO/6 EQUIP CABINTS	APPROVED	09/30/2010	20120326	03/26/2014
	PP25067 VERIZON 65 FT MONOEUCALYPTUS WIRELESS FACILITY/12	APPROVED	12/22/2011	20130603 non-traffic	06/03/2015
+	PP25252 399,150 SF WAREHOUSE/OFFICE BLDG FOR DISCOUNT TIRE	APPROVED	12/20/2012	20130205	NA
?	PUP00325	APPROVED	12/26/2000	0	NA
	PUP00693 BUILD A CHURCH	APPROVED	11/17/1989	19910108	01/08/1993
	PUP00697 CHURCH FACILITY	APPROVED	12/22/1989	19940816	08/15/1996
	PUP00726 OFFICES AND DAY CARE CENTER	APPROVED	07/26/1991	19911015	10/15/1993
	PUP00765 PUBLIC USE PERMIT FOR 32-BED RESIDENTIAL CARE FACI	APPROVED	03/31/1995	19950905	09/05/1997
+	PUP00856 DAY CARE CENTER	APPROVED	07/19/2002	20030415	NA
	PUP00856R1 RENEWTIME&EXPANSION OF EXISTING DAY CARE FACILITY	APPROVED	06/11/2008	20090624	06/24/2011
	PUP00856R2 ADD 2,596 SQ FT CARE TAKERS QUARTER,ADD 2,400SQ FT	APPROVED	01/09/2012	20121219	12/29/2014
	PUP0315 EXPANSION OF FAMILY CARE HOME	APPROVED	08/07/2000	19751031	11/01/1985
?	PUP0325	APPROVED	08/07/2000	0	NA
+	SP00341 FOR 6.2 MILLION SQ FT BUS PARK & LGT IND.	APPROVED	04/21/2004	20051012	NA

Page 3 of 4

Approved Cases as of 04/09/2015

CASE NAME CASE DESCRIPTION	STATUS	APPLIED DATE	APPROVAL DATE	EXPIRED DATE
~~TR23234~~	APPROVED	12/14/1987	19880607	06/07/2001
~~DIVIDE~~ 44.55 ACRES INTO 170 SINGLE FAMILY RESIDENC				
~~TR23234M2~~	APPROVED	08/27/1996	19970429	06/07/2001
MC TO TR23234 TO RECONFIGURE STREETS AND LOTS				
TR30592	APPROVED	01/08/2003	20040225	02/25/2016
TO SUBDIVIDE 34 ACRES INTO 131 SFR LOTS				
~~TR30592M1~~	APPROVED	09/01/2005	20060208	02/25/2016
REMOVE TRANS COND. 50.TRANS.22 FOR ROW IMPROVEMNT	non-traffic			

Charlene Hwang So

From:	Cecilia So
Sent:	Thursday, June 18, 2015 5:50 PM
To:	Charlene Hwang So
Cc:	CMS Administrator
Subject:	FW: 09301: City of Perris Cumulative Developments
Attachments:	Site Plan.pdf; Case Map Final.pdf

From: Diane Sbardellati [mailto:dsbardellati@cityofperris.org]
Sent: Monday, June 08, 2015 4:56 PM
To: Cecilia So
Subject: RE: 09301: City of Perris Cumulative Developments

Cecelia,

Sorry for the delay. There's been no updates to this map, unfortunately. I can tell you one of Urban Crossroads projects should be on it – the Integra Distribution Center. I've attached a site plan.

Diane Sbardellati, LEED AP
Associate Planner
City of Perris

(951) 943-5003

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Wednesday, June 03, 2015 4:47 PM
To: Cecilia So; Diane Sbardellati
Cc: Charlene Hwang So; CMS Administrator; Ilene Paik
Subject: RE: 09301: City of Perris Cumulative Developments

Hi Diane,

I wanted to make sure you were in receipt of my request for cumulative developments in the City of Perris. Could you please provide me with any updates that you may have at this time?

Thank you,

CECILIA SO
Assistant Analyst

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From: Cecilia So
Sent: Monday, May 18, 2015 9:55 AM
To: 'dsbardellati@cityofperris.org'
Cc: Charlene Hwang So; CMS Administrator; 'ipaik@cityofperris.org'
Subject: 09301: City of Perris Cumulative Developments

Hi Diane,

Could you please review the attached map and list of cumulative developments in the City of Perris, and provide any updates that you may have? We have an upcoming project in the City of Moreno Valley that we will be starting soon and wanted to get an updated list of projects for inclusion in the traffic study. Thank you in advance.

CECILIA SO
Assistant Analyst

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Charlene Hwang So

From: Cecilia So
Sent: Wednesday, June 03, 2015 4:23 PM
To: Bawany, Suhaim
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Thank you Suhaim, you have been very helpful. Have a great day!

CECILIA SO
Assistant Analyst

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From: Bawany, Suhaim [mailto:SBawany@riversideca.gov]
Sent: Tuesday, June 02, 2015 5:21 PM
To: Cecilia So
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Cecilia

The list we have is a comprehensive list of all projects and you can feel free to modify the excel sheet to fit your needs. In terms of projects without an approval date, it usually means they are still in the planning stages and have not been approved by either the Planning Commission or City Council.
And the projects highlighted in yellow, those are fairly new projects in the pipeline that have been presented to the Planning Commission or City Council from February until May 2015. Sorry for not clarifying earlier.

Hope this helps and have a nice day.

Thank you!

Suhaim M. Bawany
Planning Technician
City of Riverside | Planning Division
3900 Main Street | Third Floor | Riverside, CA
tel: (951) 826-5371 | fax: (951) 826-5981

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Tuesday, June 02, 2015 2:00 PM
To: Bawany, Suhaim
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Suhaim,

Would it be appropriate to remove projects with an approval date beyond 2 years (2013)? If so, what should we assume for projects without an approval date? Additionally, I was wondering if there was any significance for the items highlighted in yellow?

Thank you again for your help!

CECILIA SO
Assistant Analyst

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From: Bawany, Suhaim [mailto:SBawany@riversideca.gov]
Sent: Monday, June 01, 2015 5:08 PM
To: Cecilia So
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Cecilia

All cases have been filtered into one tab labeled "**ALL?**.
Unfortunately we haven't updated the Map associated with this list at this time. I will coordinate with Dave to update the Map.

Sorry for the inconvenience.

Suhaim M. Bawany
Planning Technician
City of Riverside | Planning Division
3900 Main Street | Third Floor | Riverside, CA
tel: (951) 826-5371 | fax: (951) 826-5981

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, June 01, 2015 1:33 PM
To: Bawany, Suhaim
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hi Suhaim,

Thank you for the quick turnaround and your assistance. I was wondering if you could provide me with any guidance in regards to filtering through this comprehensive list (i.e., if there is a specific tab we should focus on, or if we can eliminate projects that were approved older than X amount of years). Additionally, I noticed that there is a column titled "Map ID #," could you send me the accompanying map to this list?

Thank you for your help!

CECILIA SO
Assistant Analyst

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From: Bawany, Suhaim [mailto:SBawany@riversideca.gov]
Sent: Monday, June 01, 2015 1:25 PM
To: Cecilia So
Cc: Charlene Hwang So; CMS Administrator; Randel, Travis; Mustafa, Nathan; Eastman, Jay; Murray, David
Subject: RE: City of Riverside Cumulative Developments

Hello Cecilia

Here is the most updated Cumulative Projects List as of May 2015.

Thank you!

Suhaim M. Bawany
Planning Technician
City of Riverside | Planning Division
3900 Main Street | Third Floor | Riverside, CA
tel: (951) 826-5371 | fax: (951) 826-5981

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, June 01, 2015 11:44 AM
To: Eastman, Jay; Murray, David
Cc: Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis; Mustafa, Nathan
Subject: RE: City of Riverside Cumulative Developments

Hi Jay,

That's no problem. Thank you for the information!

CECILIA SO
Assistant Analyst

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urbanxroads.com

From: Eastman, Jay [mailto:JEastman@riversideca.gov]
Sent: Monday, June 01, 2015 11:40 AM
To: Cecilia So; Murray, David
Cc: Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis; Mustafa, Nathan
Subject: RE: City of Riverside Cumulative Developments

Cecila,

To provide a bit of clarification, a cumulative list was created last week, and was reviewed late Friday by the Principal Planner who leads the Current Planning Projects Team. Dave will get you the list as soon as possible.

Jay S. Eastman, AICP
Interim City Planner
Planning Division
Community & Economic Development Department
City of Riverside
E: jeastman@riversideca.gov
O: (951) 826-5264
F: (951) 826-5981

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, June 01, 2015 11:27 AM
To: Murray, David
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis
Subject: RE: City of Riverside Cumulative Developments

Hi Dave,

I wanted to follow up regarding the status of obtaining an updated cumulative list. Could you please provide me with any updates you may have?

Thank you for your help!

CECILIA SO
Assistant Analyst

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From: Cecilia So
Sent: Wednesday, May 20, 2015 12:28 PM
To: 'Murray, David'
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis
Subject: RE: City of Riverside Cumulative Developments

Hi Dave,

Thanks for your prompt response. We're estimating that we will need the cumulative development information by the end of next week (05/29), at the latest in order to meet our deadlines. Please let me know if this date is possible for you. Thank you for your help.

CECILIA SO
Assistant Analyst

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From: Murray, David [mailto:DMurray@riversideca.gov]
Sent: Wednesday, May 20, 2015 12:21 PM
To: Cecilia So
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator; Bawany, Suhaim; Randel, Travis
Subject: RE: City of Riverside Cumulative Developments

Cecilia,
We will take a look at any projects that may have been entitled since we last provided a cumulative list in February. I am copying our Planning Technician, Suhaim Bawany. He compiled the previous list for you and will likely provide assistance on this request. Do you have a target date you would like this data?

Thanks,
Dave

David Murray, Senior Planner
City of Riverside | Community Development Department | Planning Division
3900 Main Street, Third Floor | Riverside, CA 92522
(951) 826-5773
dmurray@riversideca.gov
Riverside
RECONNECTS
STREETCAR STUDY

From: Cecilia So [mailto:ckso@urbanxroads.com]
Sent: Monday, May 18, 2015 9:41 AM
To: Murray, David
Cc: Eastman, Jay; Charlene Hwang So; CMS Administrator
Subject: City of Riverside Cumulative Developments

Hi Dave,

Could you please review the attached map and list of cumulative developments in the City of Riverside, and provide any updates that you may have? We have an upcoming project in the City of Moreno Valley that we will be starting soon and wanted to get an updated list of projects for inclusion in the traffic study. Thank you in advance.

CECILIA SO
Assistant Analyst

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Conditional Use Permits

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
C1	P07-1161	2111 Iowa St	Conditional use permit to establish an indoor rock climbing facility in an existing industrial building	2.80	5,580	-	CC 1/15/08
C2	P07-1181 P07-0593	381 Alessandro Blvd	Revised Conditional Use Permit, Design Review for Auto Parts Store	1.17	1,500	-	CC 5/6/08
C3	P06-0028 P06-0029 P06-0031	3520 Market St	CUP/DR/TM34945; Fox Plaza Mixed Use Development, Up to 205 Condos, restaurant, retail space, 125 unit Hyatt Place Hotel	1.90	31,600	205	CC 6/10/08
C4	P08-0201 P08-0202	1054 N. Orange St	Conditional use permit and design review of plot plan for Senior Apartment Complex	0.77	-	23	CC 6/17/08
C5	P08-0274 P08-0275	2570 Canyon Springs Pkwy	Conditional Use Permit, Design Review for Commercial Bank w/Drive-thru	0.14	2,746	-	CC 9/9/08
C6	P08-0407	19743 Luren Ave	Conditional use permit to allow the construction of a children's daycare center	3.85	10,000	-	CC 11/4/08
C7	P08-0491 P08-0948	1690 Spruce St	Conditional Use Permit to allow entertainment within an existing 7,004 square foot building located in the Business Manufacturing Park in the Hunter Business Park Specific Plan	-	7,004 (existing bldg)	-	CC 2/17/09
C8	P08-0980 P09-0095	3549 Iowa Ave	Revised Conditional Use Permit to allow double-bedroom occupancy and to increase the number of student beds from 760 up to 874 at an existing student housing establishment	11.70	-	-	CC 4/28/09
C9	P08-0960 P09-0025	1360 University Ave	Revised Conditional Use Permit, Design Review to convert existing ground floor retail space into 8 new student housing units (24 bedrooms), allow double-bedroom occupancy, and increase the number of overall student beds from 528 up to 635 beds	5.00	11,459	8	CC 5/12/09
C10	P09-0147	7840 Indiana Ave	Conditional use permit; Car & tire sales, auto body repair & painting	0.86	12,510 (existing bldg)	-	CC 6/9/09
C11	P09-0142	NE corner of Jurupa and Payton Aves	Conditional Use Permit to allow for the development of a surface vehicular storage lot	4.22	-	-	CC 6/23/09
C12	P09-0125	3500 Iowa Ave	Revised Conditional Use Permit to allow double-bedroom occupancy and to increase the number of student beds from 525 to 548 in existing student housing	1.70	-	-	CC 7/28/09
C13	P09-0185	7590-94 Indiana Ave	Conditional use permit; Drive-thru restaurant	0.90	280 (existing bldg)	-	CC 8/11/09
C14	P09-0207 P09-0209 P09-0210	2624 E. Alessandro Blvd	CUP, PM36205, DR Arco Car Wash	1.88	42 ft. long wash tunnel with 100 ft stacking lane	-	CC 10/20/09
C15	P09-0612	1737 Atlanta Ave	Conditional Use Permit to establish an adult day care/work skills learning facility for up to 39 developmentally disabled adults	7.60	3,900 (lease space in existing 41,000 sq.ft. building)	-	CC 12/15/09
C16	P08-0301	6115 Arlington Ave	Conditional use permit; Harvest Christian Fellowship; 450-stall parking Lot	5.38	-	-	ZA 1/27/10
C17	P09-0530 P09-0531	1821 – 1855 Third St	Conditional Use Permit, Design Review for the temporary storage of buses for RTA	2.60	-	-	CC 2/2/10
C18	P09-0582 P09-0583	150 Palmyrita Ave	Conditional Use Permit, Design Review for the establishment of a Sandals Church within an existing building	7.50	95,654 (existing bldg)	-	CC 1/5/10

R23

R7

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
R-20	C19	P09-0717 P09-0718	807 Blaine St	Site Plan Review; Apartment complex	2.00	5,490	55	CC 4/6/10
R-21	C20	P09-0808 P08-0809	2340 Fourteenth St	Conditional Use Permit to allow the development of a 4-story, 134 bed senior housing complex	2.87	101,974 (existing bldg)	121	CC 6/14/11
	C21	P09-0811	7170-72 Indiana Ave	Conditional use permit; Veterinary clinic	0.45	4,402	-	CC 5/4/10
R-6	C22	P09-0835 P10-0002	3372 University Av	Conditional Use Permit and Certificate of Appropriateness to allow the establishment of an approximately 94-foot tall, 6-story office building with a four-story subterranean parking structure containing 453 parking spaces in the Downtown Specific Plan-Raincross District	0.82	132,136	-	CC 4/27/10
R-22	C23	P10-0083	10938 Magnolia Ave	Conditional Use Permit, Initial Study; Walgreens	2.92	14,064	-	CC 7/13/10
R-23	C24	P10-0090 P10-0091	6287 Day St	Conditional Use Permit, Design Review; Arco, new Gas Canopy and repainting of building fueling station and add 2 additional multi-product fuel pumps	0.91	2,700	-	CC 6/8/10
	C25	P10-0095 P10-0168 P10-0171	3050 Chicago Ave	Conditional Use Permit, Rezoning, Design Review for charter school for approximately 250 students from grades K-8; Rezone from BMP to O	1.85	15,685	-	CC 7/27/10
	C26	P12-0248	7500 Jurupa Ave	Time extension of conditional use permit (P10-0128) to establish a building materials supply store with wholesale ancillary retail sales within a previously approved 36,822 square foot industrial building	6.59	36,822	-	ZA 5/25/12
	C27	P10-0366 P10-0368	3501 Adams St	Rezoning property from Office to Commercial Retail; Conditional Use Permit to allow Check Cashing facility	0.50	3,176 (lease space in existing bldg)	-	CC 7/13/10
	C28	P10-0219	4183 Fairgrounds St	Conditional use permit; establish a church with 180 fixed seats within an existing 10,312 square foot industrial building	0.81	10,312 (existing bldg)	-	CC 7/13/10
	C29	P10-0259 P10-0270	6686 Indiana Ave	Conditional Use Permit, Design Review; Baker's drive-thru restaurant	0.65	2,234	-	CC 7/27/10
	C30	P10-0380	1820 - 1860 University Ave	Conditional Use Permit allow the establishment of a vocational school for approximately 150 students within an existing 29,870 square foot building in the University Avenue Specific Plan	3.31	29,870	-	CC 10/12/10
R-8	C31	P10-0511	4500 Riverwalk Pkwy	Conditional Use Permit; La Sierra University School of Business building	30.44	68,573	-	ZA 11/1/10
	C32	P10-0557 P10-0559	6365 Valley Springs Pkwy	Conditional Use Permit, Design Review for construction of Navy Federal Credit Union	1.68	3,500	-	CC 1/11/11
	C33	P09-0731 P10-0567 P10-0568	1715 – 1745 University Ave	Amendment to the University Avenue Specific Plan to allow drive-thrus in conjunction with retail pharmacies in Subarea 1; CUP/DR for a Walgreens.	0.8	15,004	-	CC 2/8/11
	C34	P10-0506 P10-0507 P10-0508 P10-0509	3020 Iowa Ave; northeast corner of Iowa Ave and Blaine St	Conditional Use Permit, Rezoning, Lot Line Consolidation, Variance; student housing project with 216 one, two and four bedroom units with a total of 614 beds within three four-story buildings; Rezone from R-1-7000 to R-3-1500	8.10	-	216	CC 2/22/11
	C35	P10-0733	2059 Atlanta Ave	Conditional Use Permit to establish a church with 598 fixed seats within an existing building	3.52	52,000 (existing bldg)	-	CC 3/8/11

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
	C36	P09-0419 P10-0476	2278 Main St	Conditional Use Permit, Design Review; Redesign of site with a Gas Station & Car Wash; Request includes off sale of beer & wine	0.77	3,100	-	CC 3/8/11
	C37	P10-0715	7701 Indiana Ave	Conditional use permit; Vehicle repair facility	0.70	4,085	-	CC 4/5/11
R-3	C38	P11-0014 P11-0015	8432 Magnolia Ave	Conditional use permit and design review for California Baptist University to facilitate the construction of a 42 1/2 foot tall, 2-story building (School of Business) in the Magnolia Ave Specific Plan	1.24	56,717	-	CC 4/26/11
	C39	P10-0685 P10-0794	1855 Columbia Ave	Conditional Use Permit, Design Review for an automated vehicle wash facility, new fuel pump, overhead canopy structure and façade improvements to an existing convenience store	0.63	1,014	-	CC 5/24/11
R-24	C40	P10-0707 P10-0708	North side Van Buren Blvd, 200 ft West of Wood St	Conditional Use Permit, Design Review for construction of Baker's Drive-Thru	1.17	2,361	-	CC 5/24/11
R-9	C41	P11-0018	8537 Magnolia Ave	Conditional Use Permit to convert an existing independent senior housing complex to an assisted living facility for seniors within Magnolia Avenue Specific Plan	2.36	-	98	CC 6/14/11
R-3	C42	P11-0087 P11-0088	3520 Adams St	Conditional Use Permit and Design Review for California Baptist University to facilitate the first phase renovation of the existing Adams (Lancer) Plaza for the construction of 2-story, 48 foot tall Student Recreation Center toward the rear (west) portion of the complex in the Magnolia Avenue Specific Plan	7.24	62,463	-	CC 6/14/11
R-3	C43	P11-0131 P11-0132	8432 Magnolia Ave	Conditional use permit and Certificate of Appropriateness for California Baptist University to construct a single-story building for expansion of the existing Central Energy Plant and relocation of the CBU Ceramics and Sculpture Studio in the Magnolia Avenue Specific Plan; project is in close proximity to historic James Complex and Harden Square	-	5,745	-	CC 7/12/11
R-3	C44	P11-0192 P11-0196	3747 Monroe Ave	Conditional use permit and Certificate of Appropriateness for California Baptist University to construct a new 317-space parking lot and associated improvements. In addition, design improvement to the Hawthorne House and the surrounding landscape. Project site is located in the Magnolia Avenue Specific Plan Overlay Zones	4.02	-	-	CC 8/9/11
	C45	P11-0082	711 N. Main St	Conditional Use Permit to legalize an existing vehicle impound yard and offices on a site developed with two single-story office buildings and a predominantly unpaved surface parking lot	0.99	7,737 (existing bldgs)	-	CC 10/18/11
	C46	P11-0545	1540 Linden St	Conditional use permit to allow the establishment of a church with 80 fixed seats within an existing building	0.64	11,346 (existing bldg)	-	CC 11/1/11

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
	C47	P11-0460	1044 East La Cadena Dr	Conditional use permit to legalize and expand an adult day care/work skills learning facility for up to 90 developmentally disable adults and 30 staff members within an existing building	1.20	8,562 (existing bldg)	-	CC 12/6/11
R-9	C48	P11-0623 P11-0713	10121 Hole Ave	Conditional use permit to convert existing retail space into new fitness facility in the Magnolia Avenue Specific Plan	1.45	15,362	-	CC 2/7/12
R-25	C49	P12-0234	3439 Arlington Ave	Design Review; LA Fitness ~9,600 square foot expansion to an existing ~42,000 square foot health and fitness club	5.50	~51,6000	-	ZA 05/31/12
R-8	C50	P12-0019 P12-0156 P12-0158	NW cor Riverwalk Parkway and Flat Rock Dr	Conditional Use Permit, Specific Plan Amendment, and Design Review of plot plan and building elevations to facilitate the construction of a vehicle fuel station and wash facility as a 2,400 square foot convenience store and a 3,946 square foot coffee shop in the Commercial Retail La Sierra University Specific Plan Overlay Zone	1.17	6,346	-	CC 9/4/12
R-27	C51	P10-0438	3875 Dawes St	DR; Magnolia Garden Condominiums	3.61	-	62	ZA 9/21/12
R-28	C52	P12-0266 P12-0267 P12-0268	5938 - 5944 Grand Ave	Conditional Use Permit and Design Review for a 2-story senior housing facility with associated parking, on two vacant parcels approximately 1.4 acres	1.40	-	37	CC 10/9/12
R-10	C53	P12-0351	3550 Vine St	Conditional Use Permit to allow the establishment of a vocational/technical school for a maximum of 252 students at any one time within an existing 40,060 square foot 3-story office building in the Marketplace Specific Plan	2.60	10,000 of 2nd floor of existing bldg	-	CC 10/9/12
R-29	C54	P11-0627 P11-0628 P11-0777 P11-0778	4901 La Sierra Ave	CUP, DR, LL, RZ; Service Station and Convenience Store at 5-Points	1.01	4,100	-	CC 10/9/12
R-1	C55	P12-0360	2100 Alessandro Blvd	Conditional Use Permit to establish a vocational school on a site currently developed with an approximately 11,505 square foot single-story retail building in the Sycamore Canyon Business Park Specific Plan	2.15	11,505 (existing bldg)	-	CPC 12/6/12
R-6	C56	P11-0329 P11-0330 P11-0332	1101-1163 Marlborough Ave and 3960 11th St	Conditional use permit, variance and design review for a new passenger train station platform and parking lot for Metrolink Service expansion along with existing SBJL right of way. This is within the Business Manufacturing Park (1101-1163 Marlborough Ave) and Downtown Specific Plan Almond Street District (3960 11th St)	9.56	-	-	CC 12/11/12
R-3	C57	P12-0520 P12-0524	3580 Adams St	Conditional use permit; California Baptist University student services complex; rehabilitate existing retail space		36,266	-	CC 1/8/13
R-30	C58	P12-0605 P12-0606	4250 Van Buren Blvd	Conditional Use Permit and Design Review, to allow the expansion of a vehicle fuel station consisting of construction of second set of pumps and 1,776 sq.ft. canopy at existing "Food 4 Less" supermarket	7.45	-	-	CC 4/9/13

Conditional Use Permits

	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
R-31	C59	P12-0419 P12-0557 P12-0558 P12-0559	360 Alessandro Blvd	Conditional Use Permit and Design Review to allow the establishment of a stand-alone financial institution; General Plan Amendment to change property from MDR to C; Rezoning from Residential Estate to Office	0.84	3,858	-	CC 5/7/13
R-32	C60	P12-0761 P12-0442 P12-0443 P12-0444	2831 Mary St	Conditional Use Permit to allow the development of a CVS drug store that coincides with Stater Bros redevelopment project (Conditional Use Permit, Rezoning, and Design Review)	6.30	56,101	-	CC 5/14/13
	C61	P12-0742	6825 - 6900 Jurupa Ave	Conditional Use Permit; Riverside Auto Auction; Vehicle Storage Yard, Minor Vehicle repair and inspections within an existing office/industrial building where the outdoor storage of wholesale vehicles has been previously approved (P10-0282, CC Approved 10/19/10)	27.71	56,000 (existing bldg)	-	CC 6/11/13
	C62	P13-0060	5160 Arlington Ave	Conditional Use Permit request on behalf of Chase Bank to allow an existing one drive-thru lane on an existing 4576.87 square foot building to be demolished and reconstructed to include a two lane 36-foot drive thru lane for business purposes	6.26	4,576.87 (existing bldg)	-	CC 6/25/13
R-6	C63	P13-0087 P13-0262	2450 Market St	CUP/DR; Conditional Use Permit to allow the reuse of a Senior assisted living facility to allow it to become a low-income single family apartment complex in the Downtown Specific Plan-Market Street Gateway District	1.42	Existing 16,730 sq.ft.complex	77	CPC 8/8/13
R-34	C64	P13-0432	6091 Victoria Ave	Conditional Use Permit to construct and operate a day care center at a church facility in a residential & cultural resources zone	3.40	1,831 (existing bldg)	-	CC 9/24/13
	C65	P13-0470	8223 California Ave	Conditional Use Permit to re-establish a church and private school; originally approved in 1950s and revised in 1981	5.20	-	-	CC 11/5/13
R-35	C66	P13-0159 P13-0160	6692 Indiana Ave	CUP, DR; Proposal to construct new 7-Eleven vehicle fuel station to operate 24 hours within a commercial retail zone	0.75	2,958	-	CC 12/3/13
R-36	C67	P13-0181 P13-0182	4824 Jones Ave	CUP, DR; Requesting the expansion of an existing building with 23,124 square foot building for an assembly of people within the Rural Residential zone.	6.14	Existing 33,542 square feet, proposed expansion 23,124 square feet	-	CC 12/17/13
	C68	P10-0212 P10-0213	2069 Massachusetts Ave	CUP, DR; Proposal to legalize a bus storage yard for 180 school buses	4.38	-	-	CC 12/17/13
R-37	C69	P13-0650 P13-0651	2586 University Ave	MCUP and Certificate of Appropriateness; Proposal to convert an existing 2500 sqft 2-story residence to a bed and breakfast with an 1118 sqft addition	0.23	3,650	-	ZA 12/19/13; CHB 12/18/13
R-38	C70	P08-0402 P13-0822	18580 Van Buren Blvd	Conditional use permit to allow the construction of a one-story minor automobile repair shop; Modification of conditions to extend hours	0.93	8,142	-	Original CUP - CC 11/4/08; Modifications of conditions - CC 1/7/14
R-39	C71	P13-0785 P13-0787	4247 Van Buren Blvd	CUP, DR; Expansion of existing church	3.43	12,166	-	CC 2/25/14
	C72	P13-0989	1200 Columbia Ave	CUP; Assemblies of People church and conference center within existing 64,910 sqft bldg		Existing 64,910		CC 3/11/14
	C73	P13-0364 P13-0365	3399 Adams St	CUP, DR; Gas station, convenience store, car wash	0.51	2,941		CC 4/22/14

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
	C74	P14-0435	5005 Canyon Crest Dr	MCUP; Temporary use of 2 modular buildings for offices; Saint Andrew's Orthodox Church				ZA 5/22/14
R-66	C75	P13-0912 P13-0913	3742 Park Sierra Av	CUP, DR; LA Fitness Sports Club facility		45,000	-	CC 6/17/14
	C76	P14-0220	4035 Trail Creek Rd	CUP; Allow occupancy of an existing 4,400 sqft industrial building for use as Sunday school classrooms and offices	-	Existing 4,400 sqft bldg	-	CC 6/17/14
	C77	P13-0903 P13-0904	3865 Jackson St	CUP, DR; 18,650 sqft expansion of existing medical emergency department and construction of a 2,005 sqft utility building; Parkview Hospital Medical Center		20,655		6/19/2014
R-72	C78	P14-0457	6465 Sycamore Canyon Blvd	MCUP; Health & fitness club/studio under 4,000 sqft within existing 92,410 sqft 2-story office bldg	8.02			ZA 6/30/14
	C79	P14-0132	7665 Vine St	CUP; Allow a materials (metal) processing facility to operate	2.25	2 existing bldgs, 30,324 sqft total	-	CC 7/8/14
	C80	P14-0188 P14-0403	3390 Orange St	MCUP, COA; Use residential building as offices	0.21			ZA 7/21/14
	C81	P14-0315 P14-0437	4334 Vine St	Revised CUP, DR; Security operations building for the adjacent Downtown Metrolink station		3,150 sqft		CPC 7/17/14
R-3	C82	P14-0450	2900 Adams St	Revised CUP; to establish classrooms and laboratories within 5 office and warehouse lease spaces; California Baptist University	9.78	9085 sqft		CPC 7/17/14
	C83	P13-0967 P13-0968	NE cor Indiana & La Sierra Aves	CUP, DR; Gas station, car wash, detail center		7065 sqft		CPC 8/7/14
	C84	P13-0165 P13-0166 P13-0167 P13-0168	Westerly side of La Sierra Ave, southerly of Indiana Ave, northerly of Liverpool Ln	CUP, DR, GPA, RZ; Request to construct a new gas station and car wash; GPA from Office to Commercial; Rezone from Single Family Residential to Commercial	6.83	-	-	CC 8/12/14
R-3	C85	P14-0525	3622 Adams St	MCUP; Convert apartments into student housing for California Baptist University				CC 10/09/14
	C86	P14-0501 P14-0529 P14-0530	northwest corner of intersection of La Sierra Ave and Pierce Street	CUP, DR; Drive-thru fast food restaurant, Pharmacy Drive-thru, Commercial shopping center	5.21			CC 1/13/15
	C87	P14-0673 P14-0675 P14-0928	northeast corner of Van Buren and Magnolia	CUP, LC, PC or N; Walgreens with Drive Thru pharmacy	0.73	10,776		CC 2/03/15
	C88	P14-0812 P14-0813 P14-0979 P14-0980 P14-0981 P14-0982 P14-0983 P14-1076	9505 Magnolia	CUP, VA, DR; Sonic Dine in and Drive-Thru; VA for landscaping, Interior side landscape planter, minimum lot size, reduce drive-thru width, increase number of signs allowed, corner blade sign, reduce parking spaces.		3,275		CC 2/03/15

Conditional Use Permits

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
R-23 C91	P14-0536 P14-0537	Valley Springs & Corporate Centre	CUP, DR; construct an approximately 3,750-square-foot drive-thru business ("Steak and Shake"), located at the northwesterly corner of Valley Springs Parkway and Corporate Centre Place, APN 291-460-017		3,750		CC 5/5/15
R-33 C92	P13-0087 P13-0262	2450 Market Street	CUP, DR; establish a 67-unit senior housing facility within an existing three-story, approximately 51,321-square-foot building, on an approximately 1.7-acre site, located at 2450 Market Street situated on the easterly side of Market Street between Ogden Way and Northbend Street, across from Fairmount Park	1.7	51,321		CC 5/5/15
C97	P15-0247 P15-0248 P15-0250 P15-0251 P15-0252 P15-0363	3744, 3768 and 3776 Main Street	CUP, TM, VR; construction of a mixed-use project, consisting of 91 residential units, approximately 8,841 square feet of commercial space and a 115-stall parking garage, on three parcels totaling 0.62 acres, partially developed with an existing commercial building (Imperial Hardware) and a surface parking lot	1.49			
C98	P15-0155	4135 Chicago Avenue	CUP; Open a charter high school in a 10,000 square foot square site				
M1	P05-1055 P05-1056 P05-1057 P05-1058 P05-1059	5202 La Sierra Ave	Tract Map 33403, PRD, GPA, RZ, DR; Sierra Park, 62 unit	7.50	-	62	CC 7/11/06
M2	P06-0501 P06-0554 P06-0555 P06-0056 P06-0557	4710 Riverwalk Pkwy	Parcel Map 34774, SP, RZ, DR, PP; Griffin Riverwalk Apartments	25.50	-	664	CC 10/3/06
M3	P06-1031	1562 Orange St	Tract Map 31825 time extension; Single Family Residences	2.08	-	7	CPC 10/5/06
R-40 M4	P06-0900 P08-0269 P08-0270	southwest corner of Lurin Av and Wood Rd	Tract Map 32301; Single Family Residences	10.50	-	20	CPC 4/19/07
M5	P07-0279	north of California Av, west of Bolton Av	TM35455 (RC Zone), Single family residential lots; Lionhead , RC Map	25.94	-	6	CC 5/27/08
R-73 M6	P07-1073	APN: 276060003, 012	Tract Map 32180; Subdivide 2 parcels into 9 Single Family Residences in the RE-RL Zone	9.62	-	9	CPC 6/5/08
R-41 M7	P08-0084	8616 California Ave	Parcel Map 35852; California Square Redevelopment (Condos)	6.00	-	21	CC 6/17/08
R-42 M8	P06-1355	APN: 266160006, 008, 017, 018	Tract Map 33480; Single Family Residences	21.14	-	32	CPC 7/3/08
R-43 M9	P06-1396	APN: 266140029, 030	Tract Map 33481; Single Family Residences	18.78	-	25	CPC 7/3/08
R-44 M10	P06-1404	APN: 266140002, 021, 022	Tract Map 33482; Single Family Residences	15.13	-	29	CPC 7/3/08

Conditional Use Permits

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	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
R-45	M11	P05-0269 P08-0416	3719 Strong St	Tract Map 33550 and Rezoning of vacant parcels to establish 9 single family residential lots and rezone the property from Multiple Family Residential to Single Family Residential Zone	2.01	-	9	CC 9/16/08
R-46	M12	P06-0782	1006 and 1008 Clark St, north side of Paschels Way, east of Clark St, at the north terminus of Cozumel Ct	Tract Map 34908; single family residences	3.38	-	15	CC 1/6/09
R-47	M13	P05-1528 P09-0087	East of Gratton St, West of Corsica Ave, North of Van Buren Blvd	Tract Map 34509; 50 Single family lots; Phase I - Develop approx 60 acres to 11 subdivision lots	254.34	-	50	CC 11/06/07; CPC 4/23/09 (Phase I)
R-73	M14	P09-0141 P09-0173	South of Clarke St, west of Crystal View Terrace	Parcel Map 34583 to subdivide 2 vacant parcels into 3 single family residential lots; Rezoning 0.47 acres from R-1-1/2 to Residential Conservation Zone	5.72	-	3	CC 9/1/09
R-48	M15	P08-0396 P08-0397 P08-0398 P08-0399	NW corner of Dominion Av and Division St	Tract Map 35620; Design Review, General Plan Amendment, and Rezoning to establish a condominium complex	3.75	-	36	CC 11/10/09
R-1	M16	P07-1028 P06-0416 P06-0418 P06-0419 P06-0421 P07-0102	NW cor Alessandro Blvd & San Gorgonio Dr	TM 34707/EIR/ DR Alessandro Business Park 4 Industrial/Manufacturing Bldgs	36.63/80.07	662,018	-	CC 3/9/10; Final map approval CC 5/20/14
R-49	M17	P08-0727	6639 Hillside Ave	Parcel Map 35901; 5 lots for future industrial development	9.00	-	5	CPC 11/18/10
	M18	P10-0577 P10-0671 P10-0672 P10-0798	La Sierra and Indiana Av	Riverwalk Vista Specific Plan - Village 4 (cross streets La Sierra and Indiana Avenue); Amend the Riverwalk Vista Specific Plan to allow two additional complexes (villages) to be developed. Tract Map 35932 to subdivide 21.89 acres of vacant land into 111 lots; additional Tract Map 36323 to subdivide 11.72 acres of vacant land into 52 lots located with the Single Family Residential Zone and Specific Plan (Riverwalk Vista) Overlay Zones	33.61	-	163	CC 2/22/11; Final map approvals CC 3/25/14
R-50	M19	P10-0113 P10-0118 P10-0449	19985 Van Buren Blvd; SW corner of Van Buren Blvd and Barton St	Parcel Map 36434 Scoping Session, EIR, DR; Gless Ranch - commercial retail shopping	40.00	425,447	-	CC 2/21/12
R-51	M20	P12-0021 P12-0022 P12-0074	3990 Reynolds Rd	Parcel Map 36442; General Plan Amendment to change property from C to MHDR; Rezoning from CR-SP and O-S-R-SP to R-3-3000-SP to consider the establishment of a 4-story multi-family residential development	9.7	-	102	CC 6/5/12

Conditional Use Permits

R-52

R-53

R-33

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
M21	P11-0675 P11-0676	South of Arlington; between Royale Pl and Sunset Ranch Dr	Tract Map 36377 and PRD; 10 lot subdivision	13.9	-	10	CC 6/11/13
M22	P13-0389	NE cor Martha Way & Everest Ave	Tract Map 36579; subdivide 2 parcels to accommodate 5 single family dwellings	1.36	-	5	CPC 1/9/14
M23	P13-0723 P13-0724 P13-0725	4325, 4335, 4345, 4355, 4375 Adams St	Tract Map 36654, PRD, DR; subdivide 7.76 acres into 62 single family planned residential development	7.76	-	62	CC 2/25/14
M24	P12-0799 P12-0800	west side of Palm Av between Beechwood & Highland Pl	Tract Map 36516 and Design Review; subdivide 1.26 ac vacant parcel into 7 single family residential lots ranging in size from 7,002 to 8,011 sq.ft.	1.26	-	7	CPC 4/3/14
M25	TM 31147	North of intersection of Wycliffe & Buchanan Streets	Final approval of Tract Map 31147; 59 lot single family subdivision	27.09	-	59	CC 4/15/14
M26	P13-0665	18875 Moss Rd	Tract Map 36641; 8 lot subdivision for future development of single family residences	5.03	-	8	CPC 4/17/14
M27	P12-0601 P12-0697 P12-0698	14601 Dauchy Ave	Tract Map 36370; GPA from VLDR to HR; RZ from R-1-1/2 acre to RC; 10 lot subdivision	9		10	4/17/2014
M28	TM32997	SE cor Alta Crest Ave & Krameria St	Final approval of Tract Map 32997 (P06-0715), a 90 lot single family subdivision	38.6		94	CC 5/20/14
M29	P03-0041 P03-0042 P03-0086	both sides of Jurupa Ave bet. Crest & Rutland Aves	Tract Map 28987, GPA, RZ; Final approval of tract map; 113 lot single family subdivision	47.54		113	CC 6/17/14
M30	P14-0593	APN 135280041	Tract Map 34236, DR; 7 lot subdivision for residential			7	11/12/2014
M31	P14-0176	southwest corner of La Sierra and Victoria Avenues	Tract Map 36713, GPA, RZ; Final approval of tract map; 14 lot single family subdivision	8.8		14	CPC 12/18/14
M32	P13-0905 P13-0906	Northerly side of Arlington Avenue, between Royale Place and Hawarden Drive	Tract Map 36604, PRD; subdivide an existing 12.41 acre parcel having an average natural slope of 26.4% into seven lots for the future construction of single family residences, as well as the establishment of an approximately 5.20 acre open space area, four lettered lots, and a public cul-de-sac street; resulting in a density of 0.56 dwellings per acre in the RC – Residential Conversation zone	12.41		.56/acre	
M33	P12-0393 P12-0394	Easterly side of Hawarden Drive, mid-block between Horace Street and Rolling Ridge Road	Parcel Map; subdivide an approximately 14.63 acre, two-parcel site into three parcels ranging in size from 1.02 to 11.61 acres; a variance for a flag lot, parcel 2, and to allow the existing parcel, located at 6260 Hawarden Drive, to increase from 0.63 acres to 1.02 acres in size, where the Hawarden Drive Special Design Area requires a minimum of 2.0 acres, located at 6240 and 6260 Hawarden Drive, in the RC – Residential Conservation Zone	14.63			

Conditional Use Permits

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
M34	P14-1053 P14-1054	Northerly side of Dan Kipper Drive, westerly of the intersection of Dan Kipper Drive and Sycamore Canyon Boulevard	Parcel Map;subdivide three existing parcels, totaling 13.08 acres into 5 lots to facilitate the development of 5 warehouse buildings ranging in size from 36,424 to 53,006 square feet in size.	13.08			
M35	P14-0472 P14-0473 P15-0322 P15-0321	Northerly side of Grove Community Drive, between Trautwein Road and Worchester Lane	TM DR, VR; Tentative Tract Map (TM-39534); a related Planned Residential Development to subdivide an approximately 13.5 acre two-parcel vacant site, into 85 single family residential lots with common open space and shared amenities; the Design Review of the plot plan and building elevations for the proposed residential planned residential development; and variances related to building setback measurements in the R-1-8500-SP – Single Family Residential and Specific Plan (Orangecrest) Overlay Zones.	13.5			

G1	P08-0300	7179 Magnolia Ave	Rezoning property from R-1-7000 to Office	0.41			CC 7/22/08
G2	P07-0425 P09-0196	Magnolia Ave bet Tyler and Buchanan Sts	Magnolia Avenue Specific Plan; General Plan Amendment involving a text change to the Circulation Element of the general plan increasing Magnolia Avenue from a four lane arterial to a six lane arterial between Tyler Street and Buchanan Street				CC 11/10/09
G3	P08-0125 P07-0790	5372-5392 and 5360 Tyler St	General Plan Amendment from Semi-Rural Residential to Public Facilities Institutional; Rezoning from R-3-1500 to Public Facilities; Elementary School Expansion	2.14	Contact School District		CC 1/27/09
G4	P08-0215 P08-0216	10035-10266 Gould St	General Plan Amendment to change approx 54 parcels from HDR to MDR; Rezoning of approximately 54 parcels developed with single and multiple family residences and two vacant parcels from R-3-1500 to R-1-7000-AP-D	21.40			CC 1/27/09
G5	P08-0823	3345 Madison	Rezoning from Single Family Residential to Commercial Retail	0.50			CC 2/24/09
G6	P09-0749	NW Alamo and Main Sts	Rezoning 41 parcels from Business Manufacturing Park to Industrial	54.22			CC 3/9/10
G7	P07-0682 P07-0683	1919 Atlas Dr; 4500 - 4590 Allstate Dr., 1950 and 2000 Market St and 4300 - 4371 Latham St	General Plan Amendment to O; Rezoning from CR to O; 13 parcels	14.09			CC 3/24/09
G8	P09-0002	2255 Chicago Avenue and 1725 – 1735 Spruce St	Rezone a commercial center from the I-SP to the I-BSR-SP Zone	1.70			CC 3/24/09
G9	P09-0551	3524 Central Ave	Rezoning property from the R-1-7000 to Commercial Retail in the Magnolia Avenue Specific Plan	0.44			CC 4/13/10
G10	P09-0112 P09-0113	APN: 234231045	Rezoning from R-1-7000 to Business Manufacturing Park; General Plan Amendment from MDR to B/OP	3.27			CC 5/26/09

R-9

R-9

Conditional Use Permits

R-15

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
G11	P09-0424	7797 and 7779 Indiana Ave	Rezoning approximately .51 acres of vacant property on the northwesterly side of Indiana Avenue between Jefferson Street and Winstrom Street, from R-1-7000 to CG in the Riverside Auto Center Specific Plan	0.51			CC 10/13/09
G12	P10-0080	1989 Massachusetts and 2800 – 2880 Hulen Pl	Rezoning from the I zone to the I-ES zone	1.80			CC 6/8/10
G13	P10-0454	4825 Tequesquite Ave	General Plan Amendment to change the Tequesquite Park site from Private Recreational Use to Public Park	43.64			CC 5/17/11
G14	P10-0377	6458 Van Buren Blvd	Rezoning property from Business Manufacturing Park to Commercial Retail	4.04			CC 6/28/11
G15	P11-0595 P11-0596	3375 Arlington Ave	General Plan Amendment to change portion of property from Office to Public Facilites; Rezoning portion of property from Commercial General to Residential Commercial Zone	0.8			CC 7/24/12
G16	P12-0334	NE cor Tequesquite & San Andreas Aves	City initiated General Plan Amendment for compliance with the new Housing Element (2006-2014); From MHDR to HDR for consistency with R-3-1500 multi-family residential zone	2.8			CC 10/22/13
G17	P12-0336	West side of Chicago Ave bet University Ave & 12th St	City initiated Rezoning for compliance with the new Housing Element (2006-2014); From Commercial to Mixed Use Urban (MU-U-SP) in the University Avenue Specific Plan	17.8			CC 10/22/13
G18	P12-0336	9 parcels at SE cor of Duncan Ave & Van Buren Blvd	City initiated Rezoning for compliance with the new Housing Element (2006-2014); From Single Family Residential to Multiple Family Residential & Airport Protection Compatibility Zone E Overlay (R-3-1500-AP-E)	5.6			CC 10/22/13
G19	P13-0263 P13-0264	18171 Van Buren Blvd	GPA from VLDR to C; RZ from R-1-1/2 Acre-SP to CR-SP; to facilitate the development of a retail commercial center on 2 contiguous parcels	7.17			4/21/2014
G20	P13-0553 P13-0554 P13-0583 P14-0065	5940 and 5980 Sycamore Canyon	GP, SP, RZ, DR; 275-unit multiple-family residential development, including common and private amenities and covered and uncovered surface parking, on two contiguous parcels	10.26			CC 03/17/2015
G21	P14-0600, P14-0601, P14-0602 P15-0044	Southeasterly corner of Mt. Baldy Drive and San Gorgonio Drive	RZ, DR, VR, VC; consideration of 1) an Amendment to the Municipal Code (Title 19) to rezone approximately 6.2 acres from the CR-S-2-SP – Commercial Retail, Height of Building (two stories), and Specific Plan (Sycamore Canyon Business Park) Overlay Zones to the BMP-S-2-SP – Business and Manufacturing Park, Height of Building (two stories), and Specific Plan (Sycamore Canyon Business Park) Overlay Zones; 2) for Design Review of the plot plan and building elevations related to the construction of an approximately 121,390 square foot multiple tenant industrial building as associated surface parking and landscaping; 3) for a variance to permit a building to encroach into the required 40-foot front yard setback; 4) vacation of excess right-of-way beyond the terminus of the existing cul-de-sac on Mt. Baldy Drive	6.2			

R-64

R-67

R-54

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
G22	P13-0956 P13-0959 P13-0960 P13-0963 P13-0964 P13-0965 P13-0966	Southeast corner of Palmyrita Avenue and Michigan Avenue, and north of Sugarloaf Mountain	GP, SP, VC, TM, DR, MCUP, VR; Consideration of a phased development consisting of three (3) industrial buildings totaling approximately 1,461,449 square feet of Industrial Warehouse Distribution space	72.5			
E1	P06-1237	Fourteenth St and Brockton Av	EIR and Design Review; Jacobs Medical Office (Formerly Chinatown Site)	4.6	65,281		CC 10/7/08
E2	P09-0600 P09-0601	5200 Van Buren Blvd	Environmental Impact Report (EIR) certifying that the adopted resolution for the Wal-Mart Expansion is pursuant of the County of Riverside Land Use Compatability Plan	13.73	125,857 (existing bldg) 22,272 (addition)		CC 1/24/12
V1	P08-0175	along easterly side of Sycamore Canyon Blvd, bet. Cottonwood Av and Alessandro Blvd	Vacation of approximately 5,822 square feet of unused right-of-way	5,822.00			CC 6/3/08
V2	P08-0329	Commerce St bet. Mission Inn and University Aves	Summary vacation of a portion of Commerce Street for future development	17,424.00			CC 7/22/08
V3	P08-0144	portion of Chicago Av and Ferrari Dr	Vacation of Street from La Fayette and Ferrari Drive	94,525.20			CC 9/23/08
V4	P08-0474 P08-0475	Intersection at Bushness Av, La Sierra Av, Hole Av, Pierce St	Traffic Pattern Modification at Five Points Intersection; Designation of Five Points as City Historic Landmark	N/A			CC 10/7/08
V5	P08-0549	Intersection at Antioch and Hillside Aves	Traffic Pattern Modification at Antioch at Hillside	43,560.00			CC 10/28/08
V6	P08-0303 P08-0304 P08-0306	Santa Ana Ave between Jack B. Clarke Way and Ninth St; Jack B. Clarke Way between Santa Fe Avenue and the Railroad; Ninth St between Vine St and the Railroad; and 3141 Ninth St (packinghouse)	Street vacation of approximately 11,000 square feet of Santa Ana Ave between Jack B. Clarke Way and Ninth St; approximately 2,760 square feet of Jack B. Clarke Way between Santa Fe Avenue and the Railroad; and approximately 20,000 square feet of Ninth St between Vine St and the Railroad; Variance for parking; Certificate of Appropriateness to rehabilitate and adaptively re-use existing 2-story 20,212 sq.ft. historic packing house as an office; demolition of existing 6,637 sq.ft. rear addition constructed in 1939, in conjunction with proposed 3-story, 19,625 sq.ft. office addition	33,760.00			CC 11/18/2008; CHB 7/16/08

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
V7	P09-0130	ROW adjacent to 5236 Olivewood Av bet. Panorama and Boxwood Roads	Summary Vacation of portion of Olivewood Ave	18,982.51			CC 5/5/09
V8	P08-0749	ROW adjacent to 6692 Indiana Ave; ROW adacent to 3355 Jane St bet. Indiana Av and BNSF Railroad	Summary Vacation of portion of Indiana Ave and Jane St	12,465.00			CC 5/26/09
V9	P09-0205 P09-0206	Dufferin Av from Stewart St to McAllister Pkwy	Street Vacation and Traffic Pattern Modification to construct knuckle at Dufferin Ave and Steward St and to prohibit vehicle access at Dufferin Ave from McAllister Parkway	23,846.06			CC 7/14/09
V10	P09-0378	Monroe St southwest of California Ave	Summary vaction of approximately 0.213 acres of unimproved right of way along Monroe Street, southwesterly of California	9,278.28			CC 7/28/09
V11	P09-0217	alley between 4290, 4310 Oakwood Pl and 4291, 4319 Rosewood Pl	Vacation of an alley	4,440.00			CC 8/25/09
V12	P09-0505	portion of cul-de-sac bulb adjacent to 5696-5698 Peggy Ln, westerly of Chadbourne Ave	Summary vacation of approximately 4,425 square feet of unused right-of-way located at the westerly terminus of Peggy Lane	4,425.00			CC 10/6/09
V13	P09-0199	south side of Ninth street, between Orange and Lemon Streets	Vacate an existing alleyway to become a part of an alley port entry in conjunction with a 10-story Office Bldg at 3940-3998 Orange St	2,752.00			CC 1/5/10
V14	P10-0001	Stub portion of Ninth St bet. Lime St and 91 Freeway	Vacate a portion of Ninth St; located between Lime Street and Highway 91	6,600.00			CC 5/25/10
V15	P09-0135	Tenth and Eleventh Streets bet. Lime St and	Close remaining portion of Tenth and Eleventh Streets				CC 10/5/10
V16	P10-0667	alley bet. Sixth St, Mission Inn Ave, Main St, and Market St	Summary vacation of approximately 1,605 square feet of excess right-of-way	1,605.00			CC 1/18/11
V17	P10-0799	end of Payton Ave	Summary vacation of the remaining of unused public Right of Way for 5894 Payton Ave	53,654.43			CC 3/22/11
V18	P09-0810	Eucalyptus St, south of Vasquez St	Vacate a portion of Eucalyptus, southerly of Vasquez Street	4,286.74			CPC 5/5/11
V19	P11-0011	21 ft. of ROW along Palm Ave at Rubidoux Ave	Summary vacation of approximately 2,722 square feet of excess right-of-way located at the intersection of Palm Ave and Rubdioux Ave	8,968.00			CC 6/14/11

Conditional Use Permits

City of Riverside Cumulative Projects List (2/13/14)

	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
	V20	P11-0199	Fairmount Blvd bet. Whittier Pl and University Ave	3892 University Ave, 3902 University Ave, 3892 University Ave, 3907 University Ave, 3907 Whittier Pl; Vacation summary of a portion of Fairmount Blvd. between Whittier Pl. anc University Ave. to construct the Riverside Community College Culinary Institute with an underground parking structure	15,566.00			CC 7/26/11
R-9	V21	P11-0502	Magnolia Ave adjacent to Palm Shadows Apartments (3697 Monroe St) bet. Adams and Monroe Streets	Summary vacation to vacate an excess right-of-way along Magnolia Ave in the Magnolia Avenue Specific Plan	679,543.00			CC 11/8/11
R-9	V22	P11-0599	alley south of the western terminus at 3716 Elizabeth St and north of the Union Pacific Railroad ROW	Summary Vacation of an approximately 25-foot wide by 149-foot long segment of public alley in the Magnolia Avenue Specific Plan	7,043.00			CC 12/6/11
	V23	P09-0794	alley in block surrounded by Mission Inn Ave, Sixth St, Market St, and Fairmount Blvd	Summary vacation of a 15 foot wide alley	5,400.00			CC 1/17/12
	V24	P11-0601	alley bet. Seventh St and University Ave, easterly Mesa St	1764 Seventh St; Summary vacation approximately 120-foot by five-foot wide portion of public alley, located between Seventh Street and University Avenue, easterly of Mesa Street, adjacent to the southerly property lines of 1764 and 1774 Seventh Street. The approximately 600 square-foot area to be vacated can be considered excess right-of-way and is no longer needed for street purposes	600.00			CC 2/7/12
R-6	V25	P12-0127	3649 Mission Inn Ave	Summary Vacation of approximately 116-foot by 19-foot segment of excess right-of-way siutated on the easterly side of Main Street and Southerly of Sixth Street with the Downtown Specific Plan Raincross District Commercial Retail Zone	2,204.00			CC 5/1/12
	V26	P12-0136	6900 Jurupa Ave	Summary Vacation of approximately 6,937 square feet of unused public right-of-way and authorize the preparation of a Certificate of Compliance to incorporate the vacated area into the property of 6900 Jurupa Avenue within the Business Manufacturing Park Zone	6,937.00			CC 5/15/12
R-9	V27	P11-0543 P10-0762 P10-0763	Magnolia Ave adjacent to 7431 and 7451 Magnolia Ave	Summary vacation of a segment of public right-of-way along the frontage of 7431 and 7451 Magnolia Ave, which is developed with an apartment complex and related parking areas in the Magnolia Avenue Specific Plan	51,179.00			CC 5/22/12

Conditional Use Permits

Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
V28	P12-0066	4900 Golden Ave	Summary Vacation of approximately 11-foot wide by 822-foot long segment of excess public right-of-way on the westerly side of Golden Ave and an approximately 12-foot wide by 766-foot long segment of public right-of-way on the northerly side of Pierce Street located within the Residential Estate Zone	18,234.00			CC 9/11/12
V29	P13-0657	NW cor Van Buren Blvd & Magnolia Ave	Summary Vacation of excess right of way				CC 10/22/13
V30	P13-0728	Stacy Ct bet. Paige Dr & Columbia Ave	Summary Vacation				CC 10/22/13
V31	P12-0309	Monte Vista & Pollard	Vacation of approximately .5-acre of public right-of-way, consisting of portions of Monte Vista Drive and Pollard Way, adjacent to the properties at 739 and 778 Monte Vista Drive for a proposed 88-unit apartment project				CPC 03/19/15
V32	P14-0149	Diana Avenue between Adams and Monroe Streets	Vacation of Diana Avenue between Adams and Monroe Streets, including Wilma Court and Emily Court in their entirety, the area to be vacated is approximately 3.4 acres, in Ward 5	3.40			

	D1	P08-0701 P08-0702	4393 Tyler St	DR, Rezoning from R-1-7000 to Office; Remodel and reuse of multi-family buildings as offices	0.49	4,950	-	CC 4/21/09
R-55	D2	P10-0406 P10-0407 P10-0408	11500 Magnolia Ave	Site Plan Review, Design Review, Variance; Apartment Complex	7.60	-	168	CC 1/11/11
R-56	D3	P12-0184 P12-0185 P12-0187	9241 and 9265 Audrey Ave	General Plan Amendment to change property from MDR to C; Rezoning from R-1-7000 to C; and Design review to facilitate the construction of a multiple tenant retail building on a two parcel site, known as the Azar Plaza	0.6	6,150	-	CC 11/13/12
R-57	D4	P12-0507 P12-0508 P12-0509 P12-0510	2325 Cottonwood Av	DR, VR LLA, LS/I; 235,741 sqft addition to an existing 400,580 sqft warehouse/ industrial building	9.5 project site	636,321	-	ZA 12/7/12
R-58	D5	P12-0717	1710 Main Street	Family Dollar store	1.01	8,039	-	ZA 3/11/13
R-60	D6	P12-0741 P12-0743 P14-0238	3545 Central Ave	Riverside Plaza renovations; Pad 3 renovations to consist of 7 tenant spaces with outdoor dining	35.00	-	-	ZA 6/7/13; ZA 7/9/14
R-9	D7	P13-0038 P13-0441	3683 Adams St	Rezoning property from Single Family Residential to Mixed Use Neighborhood Zone in the Magnolia Avenue Specific Plan; Design Review for conversion of an existing single family residence into a live/work unit	0.32	1237 (existing residence)	1	CC 8/27/13
	D8	P12-0729 P12-0727	4015 Madison St	RZ/DR; Rezoning from R-1-7000 to O-S-1 to accommodate the expansion of parking lot for existing medical office	0.26	-	-	CC 9/24/13
R-61	D9	P13-0198 P13-0199 P13-0200 P13-0201	5731, 5741, 5761, & 5797 Pickler St	GP, RZ, COA, PPE; Proposal for rehabilitation of Camp Anza Officer's Club and development of affordable housing with on-site support services for disabled veterans and their families; Rezoning from single family to multi-family (apartment units)	2.14	-	30	CC 11/19/13

Conditional Use Permits

	Map ID #	Case Number	Location	Project Description	Acres	Buildings Total Square Feet	Dwelling Units	Approval Date
R-62	D10	P13-0501 P13-0502	3705 Tyler St	PPE, DR; Demolish existing tire building and construct new 2-Tenant Restaurant building within existing shopping center	10.80	6,000	-	CC 12/3/13
	D11	P13-0916 P13-0917 P13-0918 P13-0919	10403-10485 Magnolia Ave	DR, RZ, SitePlan Review, VR; Time extension for P05-1521, P08-0706, P08-0740, P08-0794; Magnolia Square mixed use development, Parcel map 36112	16.6	71,211 commercial/retail	315 multi-family; 3 live/work	12/16/2013
R-5	D12	P13-0247 P13-0248 P13-0249 P13-0251 P13-0252	9565 Rudicill St	Apartment complex on 4 lots (to be consolidated); Site Plan Review, DR, GPA from B/OP to HDR, Rezone from BMP-SP to R-4-SP, SPA (Citrus Business Park Specific Plan)	4.05	-	102	CC 8/12/14???
R-17	D13	P13-0607 P13-0608 P13-0609 P13-0854	SE cor Sycamore Canyon Blvd & Box Springs Rd	Multi-tenant industrial building; GPA, RZ, DR, SPA to remove site from Sycamore Highlands SP and add it to Sycamore Canyon Business Park SP		171,616	-	CC 5/13/14
R-70	D14	P13-0207 P13-0208 P13-0209 P13-0210 P13-0211	4445 Magnolia Ave	EIR, GPA, RZ, DR, SP; Riverside Community Hospital proposed expansion				CC 5/20/14
	D15	P13-0324 P13-0325 P13-0326 P13-0327	Northerly side of Indiana Ave, Easterly of La Sierra Ave, adjacent to La Sierra Metrolink station	Transit-oriented residential development; Site Plan Review, DR, Rezone from R-1-7000-SP to MU-U-SP, SPA (Riverwalk Vista Specific Plan)	3.7	-	187	CPC 5/8/14
	D16	P13-0563 P13-0564	8069 Indiana Ave	DR,VAC; construction of 7,373 sqft addition to facilitate vehicle service and parts sales; Singh Subaru; vacation of Susan Street between Indiana Ave & SR91		7,373		CC 6/3/14
	D17	P14-0318	3502 through 3520 Tyler St	PPE, DR; Construct a 10,000 sqft restaurant building; add façade improvements to an existing retail building		10,000		ZA 7/11/14
	D18	P14-0183	3105 Market St	DR; Centerpointe Apartments	2.51		146	1/26/2015

A1	P14-0246	NW cor of Sycamore Canyon Blvd & Central Ave	Annexation of a vacant site to facilitate development of retail commercial shopping center	9.4			CC 7/8/14

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APPENDIX 4.2:

POST PROCESSING WORKSHEETS

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INPUT DATA

Project: ======================>	Moreno Valley Logistics Center	<===	Job #: 9301
Scenario: ======================>	GP Buildout Post 2035 Without Project	<===	Analyst: CKS
Existing Conditions Model Run ID: ==>	RivTAM for MV-Existing Base Model	<===	Date: 7/6/2015
Future Conditions Model Run ID: ==>	RivTAM-Moreno Valley GP	<===	

LOCATION: **I-215 Southbound Ramps / Cactus Avenue**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015			**173**	**0**	**0**		
			<	v	>		
	0	^				^	**0**
	296	>	Total =		2,577	<	**1259**
	28	v				v	**337**
			<	^	>		
			0	**0**	**484**		

EXISTING MODEL YEAR:

2008				**530**	**0**		
				v	^		
	143	<		IN =	946	<	**374**
	30	>		OUT =	946	>	**558**
				v	^		
				245	**12**		

FUTURE MODEL YEAR:

2035				**696**	**0**		
				v	^		
	1840	<		IN =	3130	<	**1329**
	768	>		OUT =	3130	>	**773**
				v	^		
				517	**337**		

EXISTING (COUNTED) ADTs BY LEG:

2015			**1,700**		
			N		
	13,400	W	**LEG**	E	**23,500**
			S		
			13,900		

REFINED FUTURE ADT'S BY LEG:

2035			**9,000**		
			N		
	42,000	W	**LEG**	E	**42,000**
			S		
			12,000		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015			**152**	**0**	**0**		
			<	v	>		
	0	^				^	**0**
	605	>	Total =		2,377	<	**348**
	122	v				v	**497**
			<	^	>		
			0	**0**	**653**		

EXISTING MODEL YEAR:

2008				**510**	**0**		
				v	^		
	418	<		IN =	1206	<	**626**
	70	>		OUT =	1206	>	**567**
				v	^		
				221	**0**		

FUTURE MODEL YEAR:

2035				**349**	**0**		
				v	^		
	1172	<		IN =	3931	<	**1723**
	1836	>		OUT =	3931	>	**1769**
				v	^		
				990	**23**		

EXISTING (COUNTED) ADTs BY LEG:

2015			1,700		
			N		
	13,400	W	+	E	23,500
			S		
			13,900		

REFINED FUTURE ADT'S BY LEG:

2035			9,000		
			N		
	42,000	W	+	E	42,000
			S		
			12,000		

U:\UcJobs_09100-09500_09300\09301\Post Process\[01 I-215 SB Ramps_Cactus.xls]Input (1)

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: I-215 Southbound Ramps / Cactus Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                                   AM                                                  PM
EXISTING COUNT YEAR:                                  EXISTING COUNT YEAR:
 2015                         173     0                2015                         152     0
                               v      ^                                              v      ^
                    1432 <  IN  =  2577 <  1596                          500 <  IN  =  2377 <   845
                     324 >  OUT =  2577 >   780                          727 >  OUT =  2377 >  1258
                               v      ^                                              v      ^
                              365   484                                             619   653

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                   MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  MUL  MUL   ADD = Additive (Growth Increment) Approach  MIN  MUL
MUL = Multiplicative (Ratio) Approach        v    ^    MUL = Multiplicative (Ratio) Approach        v    ^
                          ADD  <                <  ADD                          ADD  <                <  ADD
                          ADD  >                >  ADD                          ADD  >                >  ADD
                                             v    ^                                                 v    ^
                                           ADD  ADD                                               ADD  ADD

MINIMUM GROWTH %s     2008  TO   2035
                               0%    0%                                              0%    0%
                               v     ^                                               v     ^
                     0% <                <   0%                            0% <                <   0%
                     0% >                >   0%                            0% >                >   0%
                               v     ^                                               v     ^
                             -14%  -14%                                            -14%  -14%

REFINED GROWTH:       2008  TO   2035                 ADJUSTED GROWTH:      2008  TO   2035
                               57     0                                              0      0
                               v      ^                                              v      ^
                    1700 <                <   960                        750 <                <  1100
                     740 >                >   220                       1770 >                >  1200
                               v      ^                                              v      ^
                              270   330                                             770    20

PRORATED GROWTH:      2015  TO   2035                 PRORATED GROWTH:      2015  TO   2035
     20 YEARS                  40     0                    20 YEARS                  0      0
                               v      ^                                              v      ^
                    1260 <                <   710                        560 <                <   810
                     550 >                >   160                       1310 >                >   890
                               v      ^                                              v      ^
                              200   240                                             570    10

NEW PROJECTED VOLUMES:    2035                        NEW PROJECTED VOLUMES:    2035
                              210     0                                             150     0
                               v      ^                                              v      ^
                    2690 <  IN  =  4110 <  2310                         1087 <  IN  =  4510 <  1660
                     870 >  OUT =  4200 >   940                         2040 >  OUT =  4510 >  2204
                               v      ^   *                                          v      ^   *
                              570   720                                            1220   660
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[01 I-215 SB Ramps_Cactus.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: I-215 Southbound Ramps / Cactus Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	484	582	98	20%	653	648	-5	-1%
	NB Total	484	582	98	20%	653	648	-5	-1%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	173	241	68	39%	152	154	2	1%
	SB Total	173	241	68	39%	152	154	2	1%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	296	358	62	21%	605	1,556	951	157%
	Right	28	401	373	1332%	122	459	337	276%
	EB Total	324	759	435	134%	727	2,015	1,288	177%
WEST BOUND	Left	337	169	-168	-50%	497	761	264	53%
	Through	1,259	2,449	1,190	95%	348	932	584	168%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	1,596	2,618	1,022	64%	845	1,693	848	100%
TOTAL ENTERING VOLUME		2,577	4,200	1623	63%	2,377	4,510	2133	90%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	241	154			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**241**	**154**	**3%**	**2%**	**9,000**
South Leg	Inbound	582	648			
South Leg	Outbound	570	1,220			
South Leg	**TOTAL**	**1,152**	**1,868**	**10%**	**16%**	**12,000**
East Leg	Inbound	2,618	1,693			
East Leg	Outbound	940	2,204			
East Leg	**TOTAL**	**3,558**	**3,897**	**8%**	**9%**	**42,000**
West Leg	Inbound	759	2,015			
West Leg	Outbound	2,690	1,086			
West Leg	**TOTAL**	**3,449**	**3,101**	**8%**	**7%**	**42,000**
OVERALL TOTAL		***8,400***	***9,020***	**8%**	***9%***	***105,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[01 I-215 SB Ramps_Cactus.xls]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: =======================> Horizon Year Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> Existing RivTAM <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM <===

LOCATION: **I-215 Southbound Ramps / Harley Knox Boulevard**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:							
2015			134	2	320		
			<	v	>		
	0	^				^	0
	360	>				<	159
	8	v				v	88
			<	^	>		
			0	0	0		
FUTURE MODEL YEAR:							
2035				598	0		
				v	^		
	1094	<	IN =		2158 <		496
	1064	>	OUT =		2158 >		878
				v	^		
				186	0		
EXISTING (COUNTED) ADTs BY LEG:							
2015				6,180			
				N			
	8,556		W	LEG	E		10,416
				S			
				1,464			
REFINED FUTURE ADT'S BY LEG:							
2035				8,700			
				N			
	24,800		W	LEG	E		13,900
				S			
				2,300			

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:							
2015			248	2	282		
			<	v	>		
	0	^				^	0
	357	>				<	117
	8	v				v	112
			<	^	>		
			0	0	0		
FUTURE MODEL YEAR:							
2035				717	0		
				v	^		
	1597	<	IN =		2744 <		880
	1147	>	OUT =		2444 >		645
				v	^		
				202	0		
EXISTING (COUNTED) ADTs BY LEG:							
2015				6,180			
				N			
	8,556		W	+	E		10,416
				S			
				1,464			
REFINED FUTURE ADT'S BY LEG:							
2035				8,700			
				N			
	24,800		W	+	E		13,900
				S			
				2,300			

U:\UcJobs_09100-09500_09300\09301\Post Process\[02 I-215 SB_Harley Knox.xlsx]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: Horizon Year Without Project

Job #: ##
Analyst: CKS
Date: 7/6/2015

LOCATION: I-215 Southbound Ramps / Harley Knox Boulevard

EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION

				AM									**PM**		
EXISTING COUNT YEAR:								EXISTING COUNT YEAR:							
2015				456	0			2015				532	0		
				v	^							v	^		
	293	<	IN	=	1071	<	247		365	<	IN	=	1126	<	229
	368	>	OUT =		1071	>	680		365	>	OUT =		1126	>	639
				v	^							v	^		
				98	0							122	0		

GROWTH CALCULATION DECISION RULE															
MIN = Minimum Count Growth Approach								MIN = Minimum Count Growth Approach							
ADD = Additive (Growth Increment) Approach				MUL	MUL			ADD = Additive (Growth Increment) Approach				MUL	MUL		
MUL = Multiplicative (Ratio) Approach				v	^			MUL = Multiplicative (Ratio) Approach				v	^		
	MUL	<				<	MUL		MUL	<				<	MUL
	MUL	>				>	MUL		MUL	>				>	MUL
				v	^							v	^		
				MUL	MUL							MUL	MUL		

MINIMUM GROWTH %s 2015 TO 2035															
				0%	0%							0%	0%		
				v	^							v	^		
	0%	<				<	0%		0%	<				<	0%
	0%	>				>	0%		0%	>				>	0%
				v	^							v	^		
				0%	0%							0%	0%		

REFINED GROWTH: 2015 TO 2035								ADJUSTED GROWTH: 2015 TO 2035							
				144	0							188	0		
				v	^							v	^		
	797	<				<	253		1235	<				<	651
	692	>				>	200		785	>				>	11
				v	^							v	^		
				92	0							78	0		

PRORATED GROWTH: 2015 TO 2035								PRORATED GROWTH: 2015 TO 2035							
20 YEARS				140	0			20 YEARS				190	0		
				v	^							v	^		
	800	<				<	250		1240	<				<	650
	690	>				>	200		790	>				>	10
				v	^							v	^		
				90	0							80	0		

NEW PROJECTED VOLUMES: 2035								NEW PROJECTED VOLUMES: 2035							
				600	0							720	0		
				v	^							v	^		
	1090	<	IN	=	2160	<	500		1806	<	IN	=	2760	<	880
	1060	>	OUT =		2160	>	880		1160	>	OUT =		2760	>	729
				v	^	*						v	^	*	
				190	0							224	0		

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.

U:\UcJobs_09100-09500_09300\09301\Post Process\[02 I-215 SB_Harley Knox.xlsx] Growth Summary (2)

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	Horizon Year Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: I-215 Southbound Ramps / Harley Knox Boulevard
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	320	41	-279	-87%	282	5	-277	-98%
	Through	2	2	0	0%	2	0	-2	-100%
	Right	134	605	471	351%	248	840	592	239%
	SB Total	456	648	192	42%	532	845	313	59%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	360	839	479	133%	357	724	367	103%
	Right	8	133	125	1563%	8	174	166	2075%
	EB Total	368	972	604	164%	365	898	533	146%
WEST BOUND	Left	88	55	-33	-38%	112	50	-62	-55%
	Through	159	485	326	205%	117	967	850	726%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	247	540	293	119%	229	1,017	788	344%
TOTAL ENTERING VOLUME		1,071	2,160	1089	102%	1,126	2,760	1634	145%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	648	845			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**648**	**845**	**7%**	**10%**	**8,700**
South Leg	Inbound	0	0			
South Leg	Outbound	190	224			
South Leg	**TOTAL**	**190**	**224**	**8%**	**10%**	**2,300**
East Leg	Inbound	540	1,017			
East Leg	Outbound	880	729			
East Leg	**TOTAL**	**1,420**	**1,746**	**10%**	**13%**	**13,900**
West Leg	Inbound	972	898			
West Leg	Outbound	1,090	1,807			
West Leg	**TOTAL**	**2,062**	**2,705**	**8%**	**11%**	**24,800**
OVERALL TOTAL		**4,320**	**5,520**	**9%**	**11%**	**49,700**

U:\UcJobs_09100-09500_09300\09301\Post Process\[02 I-215 SB_Harley Knox.xlsx]Output (3)

INPUT DATA

Project: =======================>	Moreno Valley Logistics Center	<===	Job #: 9301
Scenario: =======================>	GP Buildout Post 2035 Without Project	<===	Analyst: CKS
Existing Conditions Model Run ID: ==>	RivTAM for MV-Existing Base Model	<===	Date: 7/6/2015
Future Conditions Model Run ID: ==>	RivTAM-Moreno Valley GP	<===	

LOCATION: **I-215 Northbound Ramps / Cactus Avenue**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2013		**23**	**0**	**28**		
		<	v	>		
	17 ^				^	**190**
	748 >		Total =	3,154	<	**1481**
	15 v				v	**0**
		<	^	>		
		383	**264**	**5**		

EXISTING MODEL YEAR:

2008			**118**	**292**	
			v	^	
	374	<	IN =	1704 <	**774**
	558	>	OUT =	1703 >	**783**
			v	^	
			254	**254**	

FUTURE MODEL YEAR:

2035			**1100**	**1685**	
			v	^	
	1329	<	IN =	4306 <	**1850**
	773	>	OUT =	4306 >	**988**
			v	^	
			304	**583**	

EXISTING (COUNTED) ADTs BY LEG:

2013			**2,800**		
			N		
	23,500	W	**LEG**	E	**30,200**
			S		
			2,200		

REFINED FUTURE ADT'S BY LEG:

2035			**39,000**		
			N		
	42,000	W	**LEG**	E	**38,000**
			S		
			14,000		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2013		**30**	**0**	**86**		
		<	v	>		
	12 ^				^	**66**
	1133 >		Total =	2,780	<	**1289**
	113 v				v	**0**
		<	^	>		
		22	**29**	**0**		

EXISTING MODEL YEAR:

2008			**347**	**66**	
			v	^	
	626	<	IN =	2004 <	**935**
	567	>	OUT =	2005 >	**879**
			v	^	
			434	**155**	

FUTURE MODEL YEAR:

2035			**1619**	**1245**	
			v	^	
	1723	<	IN =	5492 <	**1738**
	1769	>	OUT =	5492 >	**2194**
			v	^	
			330	**366**	

EXISTING (COUNTED) ADTs BY LEG:

2013			2,800		
			N		
	23,500	W	+	E	30,200
			S		
			2,200		

REFINED FUTURE ADT'S BY LEG:

2035			39,000		
			N		
	42,000	W	+	E	38,000
			S		
			14,000		

U:\UcJobs_09100-09500_09300\09301\Post Process\[03 I-215 NB Ramps_Cactus.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: I-215 Northbound Ramps / Cactus Avenue

EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION

```
                              AM                                                        PM
EXISTING COUNT YEAR:                                    EXISTING COUNT YEAR:
 2013                        51    471                   2013                        116    107
                              v     ^                                                  v     ^
                    1887 <  IN  =  3154 <   1671                              1341 <  IN  =  2780 <   1355
                     780 >  OUT =  3154 >    781                              1258 >  OUT =  2780 >   1219
                              v     ^                                                  v     ^
                             15    652                                               113     51
```

```
GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                     MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  MUL  ADD    ADD = Additive (Growth Increment) Approach  MUL  ADD
MUL = Multiplicative (Ratio) Approach        v    ^     MUL = Multiplicative (Ratio) Approach        v    ^
                    ADD  <                 <  ADD                            ADD  <                 <  ADD
                    ADD  >                 >  MUL                            ADD  >                 >  ADD
                             v    ^                                                  v    ^
                            MUL  ADD                                                MIN  MUL
```

```
MINIMUM GROWTH %s      2008   TO   2035
                             0%    0%                                                0%    0%
                              v     ^                                                 v     ^
                      0% <               <    0%                              0% <               <    0%
                      0% >               >    0%                              0% >               >    0%
                              v     ^                                                 v     ^
                             0%    0%                                                0%    0%
```

```
REFINED GROWTH:        2008   TO   2035                 ADJUSTED GROWTH:       2008   TO   2035
                            429   1390                                              424   1180
                              v     ^                                                 v     ^
                     960 <               <  1080                             1100 <               <   800
                     220 >               >   209                             1200 >               >  1320
                              v     ^                                                 v     ^
                              5    330                                                0     69
```

```
PRORATED GROWTH:       2013   TO   2035                 PRORATED GROWTH:       2013   TO   2035
    22  YEARS               350   1130                      22  YEARS               350    960
                              v     ^                                                 v     ^
                     780 <               <   880                              900 <               <   650
                     180 >               >   170                              980 >               >  1080
                              v     ^                                                 v     ^
                              0    270                                                0     60
```

```
NEW PROJECTED VOLUMES:     2035                         NEW PROJECTED VOLUMES:     2035
                            400   1600                                              470   1070
                              v     ^                                                 v     ^
                    2670 <  IN  =  4830 <   2550                             2240 <  IN  =  4830 <   2010
                     960 >  OUT =  5240 >    950                             2240 >  OUT =  5720 >   2300
                              v     ^  *                                              v     ^  *
                             20    920                                              110    110
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[03 I-215 NB Ramps_Cactus.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: I-215 Northbound Ramps / Cactus Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	383	333	-50	-13%	22	16	-6	-27%
	Through	264	676	412	156%	29	116	87	300%
	Right	5	2	-3	-60%	0	0	0	#DIV/0!
	NB Total	652	1,011	359	55%	51	132	81	159%
SOUTH BOUND	Left	28	130	102	364%	86	255	169	197%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	23	300	277	1204%	30	303	273	910%
	SB Total	51	430	379	743%	116	558	442	381%
EAST BOUND	Left	17	154	137	806%	12	409	397	3308%
	Through	748	818	70	9%	1,133	2,045	912	80%
	Right	15	20	5	33%	113	110	-3	-3%
	EB Total	780	992	212	27%	1,258	2,564	1,306	104%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,481	2,037	556	38%	1,289	1,921	632	49%
	Right	190	770	580	305%	66	545	479	726%
	WB Total	1,671	2,807	1,136	68%	1,355	2,466	1,111	82%
TOTAL ENTERING VOLUME		3,154	5,240	2086	66%	2,780	5,720	2940	106%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	430	558			
North Leg	Outbound	1,600	1,070			
North Leg	**TOTAL**	**2,030**	**1,628**	**5%**	**4%**	**39,000**
South Leg	Inbound	1,011	132			
South Leg	Outbound	20	110			
South Leg	**TOTAL**	**1,031**	**242**	**7%**	**2%**	**14,000**
East Leg	Inbound	2,807	2,466			
East Leg	Outbound	950	2,300			
East Leg	**TOTAL**	**3,757**	**4,766**	**10%**	**13%**	**38,000**
West Leg	Inbound	992	2,564			
West Leg	Outbound	2,670	2,240			
West Leg	**TOTAL**	**3,662**	**4,804**	**9%**	**11%**	**42,000**
OVERALL TOTAL		***10,480***	***11,440***	**8%**	***9%***	***133,000***

U: \ UcJobs \ _09100-09500 \ _09300 \ 09301 \ Post Process \ [03 I-215 NB Ramps_Cactus.xls]Output (3)

INPUT DATA

Project:	=======================>	Moreno Valley Logistics Center	<===	Job #: 9301
Scenario:	=======================>	Horizon Year Without Project	<===	Analyst: CKS
Existing Conditions Model Run ID:	==>	Existing RivTAM	<===	Date: 7/6/2015
Future Conditions Model Run ID:	==>	RivTAM	<===	

LOCATION: **I-215 Northbound Ramps / Harley Knox Boulevard**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		**0**	**0**	**0**		
		<	v	>		
	186 ^				^	**275**
	494 >				<	**243**
	0 v				v	**0**
		<	^	>		
		4	**0**	**86**		

FUTURE MODEL YEAR:

2035			**0**	**667**	
			v	^	
	496	<	IN =	1822 <	**621**
	878	>	OUT =	1822 >	**659**
			v	^	
			0	**323**	

EXISTING (COUNTED) ADTs BY LEG:

2015			**6,996**		
			N		
	10,356	W	**LEG**	E	**13,380**
			S		
			1,380		

REFINED FUTURE ADT'S BY LEG:

2035			**7,400**		
			N		
	13,900	W	**LEG**	E	**16,200**
			S		
			3,400		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		**0**	**0**	**0**		
		<	v	>		
	215 ^				^	**367**
	424 >				<	**222**
	0 v				v	**0**
		<	^	>		
		7	**1**	**107**		

FUTURE MODEL YEAR:

2035			**0**	**636**	
			v	^	
	880	<	IN =	2233 <	**931**
	945	>	OUT =	2233 >	**717**
			v	^	
			0	**357**	

EXISTING (COUNTED) ADTs BY LEG:

2015			6,996		
			N		
	10,356	W	+	E	13,380
			S		
			1,380		

REFINED FUTURE ADT'S BY LEG:

2035			7,400		
			N		
	13,900	W	+	E	16,200
			S		
			3,400		

U:\UcJobs_09100-09500_09300\09301\Post Process\[04 I-215 NB_Harley Knox.xlsx]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: Horizon Year Without Project

Job #: ##
Analyst: CKS
Date: 7/6/2015

LOCATION: I-215 Northbound Ramps / Harley Knox Boulevard

EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION

			AM								**PM**				
EXISTING COUNT YEAR:								EXISTING COUNT YEAR:							
2015			0		461			2015			0		583		
			v		^						v		^		
	247	<	IN	=	1288	<	518		229	<	IN	=	1343	<	589
	680	>	OUT	=	1288	>	580		639	>	OUT	=	1343	>	531
			v		^						v		^		
			0		90						0		115		
GROWTH CALCULATION DECISION RULE															
MIN = Minimum Count Growth Approach								MIN = Minimum Count Growth Approach							
ADD = Additive (Growth Increment) Approach			MUL		MUL			ADD = Additive (Growth Increment) Approach			MUL		MUL		
MUL = Multiplicative (Ratio) Approach			v		^			MUL = Multiplicative (Ratio) Approach			v		^		
	MUL	<				<	MUL		MUL	<				<	MUL
	MUL	>				>	MUL		MUL	>				>	MUL
			v		^						v		^		
			MUL		MUL						MUL		MUL		
MINIMUM GROWTH %s 2015 TO 2035															
			0%		0%						0%		0%		
			v		^						v		^		
	0%	<				<	0%		0%	<				<	0%
	0%	>				>	0%		0%	>				>	0%
			v		^						v		^		
			0%		0%						0%		0%		
REFINED GROWTH: 2015 TO 2035								ADJUSTED GROWTH: 2015 TO 2035							
			0		209						0		57		
			v		^						v		^		
	253	<				<	102		651	<				<	341
	200	>				>	80		311	>				>	189
			v		^						v		^		
			0		230						0		245		
PRORATED GROWTH: 2015 TO 2035								PRORATED GROWTH: 2015 TO 2035							
20 YEARS			0		210			20 YEARS			0		60		
			v		^						v		^		
	250	<				<	100		650	<				<	340
	200	>				>	80		310	>				>	190
			v		^						v		^		
			0		230						0		250		
NEW PROJECTED VOLUMES: 2035								NEW PROJECTED VOLUMES: 2035							
			0		670						0		643		
			v		^						v		^		
	500	<	IN	=	1820	<	620		884	<	IN	=	2250	<	930
	880	>	OUT	=	1830	>	660		950	>	OUT	=	2250	>	723
			v		^	*					v		^	*	
			0		320						0		370		

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.

U:\UcJobs_09100-09500_09300\09301\Post Process\[04 I-215 NB_Harley Knox.xlsx] Growth Summary (2)

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	Horizon Year Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: I-215 Northbound Ramps / Harley Knox Boulevard
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	4	78	74	1850%	7	147	140	2000%
	Through	0	0	0	#DIV/0!	1	3	2	200%
	Right	86	243	157	183%	107	219	112	105%
	NB Total	90	321	231	257%	115	369	254	221%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	186	464	278	149%	215	437	222	103%
	Through	494	417	-77	-16%	424	504	80	19%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	680	881	201	30%	639	941	302	47%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	243	422	179	74%	222	737	515	232%
	Right	275	206	-69	-25%	367	203	-164	-45%
	WB Total	518	628	110	21%	589	940	351	60%
TOTAL ENTERING VOLUME		1,288	1,830	542	42%	1,343	2,250	907	68%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	670	643			
North Leg	**TOTAL**	**670**	**643**	**9%**	**9%**	**7,400**
South Leg	Inbound	321	369			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**321**	**369**	**9%**	**11%**	**3,400**
East Leg	Inbound	628	940			
East Leg	Outbound	660	723			
East Leg	**TOTAL**	**1,288**	**1,663**	**8%**	**10%**	**16,200**
West Leg	Inbound	881	941			
West Leg	Outbound	500	884			
West Leg	**TOTAL**	**1,381**	**1,825**	**10%**	**13%**	**13,900**
OVERALL TOTAL		**3,660**	**4,500**	**9%**	**11%**	**40,900**

U:\UcJobs_09100-09500_09300\09301\Post Process\[04 I-215 NB_Harley Knox.xlsx]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: =======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION:							**Elsworth Street / Cactus Avenue**						
AM PEAK HOUR							**PM PEAK HOUR**						
EXISTING TURNING MOVEMENT VOLUMES:							EXISTING TURNING MOVEMENT VOLUMES:						
2015		**100**	**114**	**73**			2015		**165**	**20**	**99**		
		<	v	>					<	v	>		
	160 ^				^	**79**		**95** ^				^	**74**
	1191 >		Total =	3,779	<	**1434**		**1223** >		Total =	3,418	<	**1053**
	230 v				v	**104**		**23** v				v	**24**
		<	^	>					<	^	>		
		51	**222**	**21**					**366**	**95**	**181**		
EXISTING MODEL YEAR:							EXISTING MODEL YEAR:						
2008			**132**	**296**			2008			**272**	**246**		
			v	^						v	^		
	774	<	IN =	2172	<	**548**		**935**	<	IN =	2537	<	**383**
	1255	>	OUT =	2172	>	**596**		**1358**	>	OUT =	2537	>	**904**
			v	^						v	^		
			506	**237**						**452**	**524**		
FUTURE MODEL YEAR:							FUTURE MODEL YEAR:						
2035			**256**	**493**			2035			**507**	**620**		
			v	^						v	^		
	1813	<	IN =	3481	<	**1766**		**1731**	<	IN =	4902	<	**1345**
	1359	>	OUT =	3481	>	**953**		**2706**	>	OUT =	4904	>	**2285**
			v	^						v	^		
			222	**100**						**268**	**344**		
EXISTING (COUNTED) ADTs BY LEG:							EXISTING (COUNTED) ADTs BY LEG:						
2015			**6,600**				2015			6,600			
			N							N			
	34,800	W	**LEG**	E		**31,100**		34,800	W	+	E		31,100
			S							S			
			8,600							8,600			
REFINED FUTURE ADT'S BY LEG:							REFINED FUTURE ADT'S BY LEG:						
2035			**11,000**				2035			11,000			
			N							N			
	44,000	W	**LEG**	E		**36,000**		44,000	W	+	E		36,000
			S							S			
			6,000							6,000			

U:\UcJobs_09100-09500_09300\09301\Post Process\[05 Elsworth_Cactus.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Elsworth Street / Cactus Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                                   AM                                                                  PM
EXISTING COUNT YEAR:                                                | EXISTING COUNT YEAR:
 2015                             287    461                        |  2015                             284    264
                                   v      ^                         |                                    v      ^
                       1585 <    IN  =  3779 <    1617              |                        1584 <    IN  =  3418 <    1151
                       1581 >    OUT =  3779 >    1285              |                        1341 >    OUT =  3418 >    1503
                                   v      ^                         |                                    v      ^
                                  448    294                        |                                   67    642
GROWTH CALCULATION DECISION RULE                                    |
MIN = Minimum Count Growth Approach                                 | MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach    ADD    ADD            | ADD = Additive (Growth Increment) Approach    ADD    ADD
MUL = Multiplicative (Ratio) Approach          v      ^             | MUL = Multiplicative (Ratio) Approach          v      ^
                        ADD  <                     <  ADD           |                         ADD  <                     <  ADD
                        ADD  >                     >  ADD           |                         MUL  >                     >  ADD
                                   v      ^                         |                                    v      ^
                                  MIN    MIN                        |                                   MIN    ADD
MINIMUM GROWTH %s      2008   TO    2035                            |
                                   0%     0%                        |                                    0%     0%
                                   v      ^                         |                                    v      ^
                         0% <                  <      0%            |                          0% <                  <      0%
                         0% >                  >      0%            |                          0% >                  >      0%
                                   v      ^                         |                                    v      ^
                                 -30%   -30%                        |                                  -30%   -30%
REFINED GROWTH:        2008   TO    2035                            | ADJUSTED GROWTH:       2008   TO    2035
                                  120    200                        |                                   240    370
                                   v      ^                         |                                    v      ^
                       1040 <                  <    1220            |                         800 <                  <     960
                        100 >                  >     360            |                        1329 >                  >    1380
                                   v      ^                         |                                    v      ^
                                 -130    -90                        |                                   -20   -180
PRORATED GROWTH:       2015   TO    2035                            | PRORATED GROWTH:       2015   TO    2035
     20  YEARS                     90    150                        |      20  YEARS                     180    270
                                   v      ^                         |                                    v      ^
                        770 <                  <     900            |                         590 <                  <     710
                         70 >                  >     270            |                         980 >                  >    1020
                                   v      ^                         |                                    v      ^
                                 -100    -70                        |                                   -10   -130
NEW PROJECTED VOLUMES:     2035                                     | NEW PROJECTED VOLUMES:     2035
                                  380    610                        |                                   460    530
                                   v      ^                         |                                    v      ^
                       2360 <    IN  =  4770 <    2520              |                        2170 <    IN  =  5150 <    1860
                       1650 >    OUT =  4880 >    1560              |                        2320 >    OUT =  5280 >    2520
                                   v      ^   *                     |                                    v      ^   *
                                  350    220                        |                                    60    510
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[05 Elsworth_Cactus.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Elsworth Street / Cactus Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	51	23	-28	-55%	366	248	-118	-32%
	Through	222	186	-36	-16%	95	111	16	17%
	Right	21	16	-5	-24%	181	163	-18	-10%
	NB Total	294	225	-69	-23%	642	522	-120	-19%
SOUTH BOUND	Left	73	155	82	112%	99	201	102	103%
	Through	114	109	-5	-4%	20	18	-2	-10%
	Right	100	126	26	26%	165	252	87	53%
	SB Total	287	390	103	36%	284	471	187	66%
EAST BOUND	Left	160	202	42	26%	95	217	122	128%
	Through	1,191	1,389	198	17%	1,223	2,156	933	76%
	Right	230	120	-110	-48%	23	18	-5	-22%
	EB Total	1,581	1,711	130	8%	1,341	2,391	1,050	78%
WEST BOUND	Left	104	121	17	16%	24	23	-1	-4%
	Through	1,434	2,210	776	54%	1,053	1,670	617	59%
	Right	79	222	143	181%	74	202	128	173%
	WB Total	1,617	2,553	936	58%	1,151	1,895	744	65%
TOTAL ENTERING VOLUME		3,779	4,879	1100	29%	3,418	5,279	1861	54%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	390	471			
North Leg	Outbound	610	530			
North Leg	**TOTAL**	**1,000**	**1,001**	**9%**	**9%**	**11,000**
South Leg	Inbound	225	522			
South Leg	Outbound	350	59			
South Leg	**TOTAL**	**575**	**581**	**10%**	**10%**	**6,000**
East Leg	Inbound	2,553	1,895			
East Leg	Outbound	1,560	2,520			
East Leg	**TOTAL**	**4,113**	**4,415**	**11%**	**12%**	**36,000**
West Leg	Inbound	1,711	2,391			
West Leg	Outbound	2,359	2,170			
West Leg	**TOTAL**	**4,070**	**4,561**	**9%**	**10%**	**44,000**
OVERALL TOTAL		***9,758***	***10,558***	**10%**	***11%***	***97,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[05 Elsworth_Cactus.xls]Output (3)

INPUT DATA

Project: ======================> Moreno Valley Logisitics Center <=== Job #: 9301
Scenario: ======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Frederick Street / Cactus Avenue**

AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES: **2015** **63** **0** **103** < v > **160** ^ ^ **149** **1003** > Total = 3,109 < **1631** **0** v v **0** < ^ > **0** **0** **0**	EXISTING TURNING MOVEMENT VOLUMES: 2015 **93** **0** **321** < v > **81** ^ ^ **161** **1709** > Total = 3,261 < **896** **0** v v **0** < ^ > **0** **0** **0**
EXISTING MODEL YEAR: **2008** **395** **242** v ^ **548** < IN = 1630 < **639** **596** > OUT = 1629 > **839** v ^ **0** **0**	EXISTING MODEL YEAR: 2008 **211** **713** v ^ **383** < IN = 2073 < **958** **904** > OUT = 2073 > **977** v ^ **0** **0**
FUTURE MODEL YEAR: **2035** **70** **76** v ^ **1766** < IN = 2784 < **1761** **953** > OUT = 2784 > **942** v ^ **0** **0**	FUTURE MODEL YEAR: 2035 **236** **306** v ^ **1345** < IN = 4044 < **1523** **2285** > OUT = 4043 > **2392** v ^ **0** **0**
EXISTING (COUNTED) ADTs BY LEG: 2015 **5,722** N **29,508** W **LEG** E **32,544** S **0**	EXISTING (COUNTED) ADTs BY LEG: 2015 5,722 N 29,508 W + E 32,544 S 0
REFINED FUTURE ADT'S BY LEG: 2035 **3,000** N **36,000** W **LEG** E **37,000** S **0**	REFINED FUTURE ADT'S BY LEG: 2035 3,000 N 36,000 W + E 37,000 S 0

U:\UcJobs_09100-09500_09300\09301\Post Process\[06 Frederick_Cactus.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logisitics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Frederick Street / Cactus Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                                   AM                 |                                  PM
EXISTING COUNT YEAR:                                  |EXISTING COUNT YEAR:
 2015                        166    309               | 2015                        414    242
                               v      ^               |                               v      ^
                   1694 <  IN   =  3109 <   1780      |                   989 <  IN   =  3261 <   1057
                   1163 >  OUT =   3109 >   1106      |                  1790 >  OUT =   3261 >   2030
                               v      ^               |                               v      ^
                               0      0               |                               0      0
------------------------------------------------------+------------------------------------------------------
GROWTH CALCULATION DECISION RULE                      |
MIN = Minimum Count Growth Approach                   |MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  MIN  MIN  |ADD = Additive (Growth Increment) Approach  ADD  MIN
MUL = Multiplicative (Ratio) Approach         v    ^  |MUL = Multiplicative (Ratio) Approach         v    ^
                   ADD  <               <  ADD        |                   ADD  <               <  ADD
                   ADD  >               >  ADD        |                   ADD  >               >  ADD
                               v      ^               |                               v      ^
                             MUL    MUL               |                             MUL    MUL
------------------------------------------------------+------------------------------------------------------
MINIMUM GROWTH %s      2008  TO   2035                |
                            -48%   -48%               |                            -48%   -48%
                               v      ^               |                               v      ^
                     0% <               <     0%      |                     0% <               <     0%
                     0% >               >     0%      |                     0% >               >     0%
                               v      ^               |                               v      ^
                              0%     0%               |                              0%     0%
------------------------------------------------------+------------------------------------------------------
REFINED GROWTH:        2008  TO   2035                |ADJUSTED GROWTH:       2008  TO   2035
                             -80   -150               |                              30   -120
                               v      ^               |                               v      ^
                   1220 <               <   1120      |                    960 <               <    570
                    360 >               >    100      |                   1380 >               >   1420
                               v      ^               |                               v      ^
                               0      0               |                               0      0
------------------------------------------------------+------------------------------------------------------
PRORATED GROWTH:       2015  TO   2035                |PRORATED GROWTH:       2015  TO   2035
   20 YEARS                  -60   -110               |   20 YEARS                   20    -90
                               v      ^               |                               v      ^
                    900 <               <    830      |                    710 <               <    420
                    270 >               >     70      |                   1020 >               >   1050
                               v      ^               |                               v      ^
                               0      0               |                               0      0
------------------------------------------------------+------------------------------------------------------
NEW PROJECTED VOLUMES:    2035                        |NEW PROJECTED VOLUMES:    2035
                             110    209               |                             430    150
                               v      ^               |                               v      ^
                   2707 <  IN   =  4150 <   2610      |                   1700 <  IN   =  4720 <   1480
                   1430 >  OUT =   4150 >   1234      |                   2810 >  OUT =   4930 >   3080
                               v      ^   *           |                               v      ^   *
                               0      0               |                               0      0
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[06 Frederick_Cactus.xls] Growth Summary (2)

Project:	Moreno Valley Logisitics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Frederick Street / Cactus Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	103	41	-62	-60%	321	281	-40	-12%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	63	68	5	8%	93	169	76	82%
	SB Total	166	109	-57	-34%	414	450	36	9%
EAST BOUND	Left	160	142	-18	-11%	81	75	-6	-7%
	Through	1,003	1,192	189	19%	1,709	2,799	1,090	64%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	1,163	1,334	171	15%	1,790	2,874	1,084	61%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,631	2,639	1,008	62%	896	1,531	635	71%
	Right	149	67	-82	-55%	161	75	-86	-53%
	WB Total	1,780	2,706	926	52%	1,057	1,606	549	52%
TOTAL ENTERING VOLUME		3,109	4,149	1040	33%	3,261	4,930	1669	51%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	109	450			
North Leg	Outbound	209	150			
North Leg	**TOTAL**	**318**	**600**	**11%**	**20%**	**3,000**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	2,706	1,606			
East Leg	Outbound	1,233	3,080			
East Leg	**TOTAL**	**3,939**	**4,686**	**11%**	**13%**	**37,000**
West Leg	Inbound	1,334	2,874			
West Leg	Outbound	2,707	1,700			
West Leg	**TOTAL**	**4,041**	**4,574**	**11%**	**13%**	**36,000**
OVERALL TOTAL		***8,298***	***9,860***	**11%**	***13%***	***76,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[06 Frederick_Cactus.xls]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: =======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Graham Street / Cactus Avenue**

AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES: **2015** **47** **53** **85** < v > **90** ^ ^ **68** **849** > Total = 3,157 < **1583** **174** v v **15** < ^ > **133** **52** **8**	EXISTING TURNING MOVEMENT VOLUMES: 2015 **47** **53** **58** < v > **90** ^ ^ **68** **849** > Total = 3,130 < **1583** **174** v v **15** < ^ > **133** **52** **8**
EXISTING MODEL YEAR: **2008** **562** **40** v ^ **648** < IN = 2489 < **850** **838** > OUT = 2489 > **84** v ^ **1717** **239**	EXISTING MODEL YEAR: 2008 **171** **669** v ^ **961** < IN = 3113 < **126** **969** > OUT = 3113 > **1038** v ^ **445** **1847**
FUTURE MODEL YEAR: **2035** **507** **379** v ^ **1870** < IN = 3195 < **1111** **878** > OUT = 3195 > **295** v ^ **651** **699**	FUTURE MODEL YEAR: 2035 **648** **671** v ^ **1516** < IN = 4666 < **628** **2504** > OUT = 4665 > **1450** v ^ **1028** **886**
EXISTING (COUNTED) ADTs BY LEG: 2015 **6,036** N **31,536** W **LEG** E **26,232** S **9,132**	EXISTING (COUNTED) ADTs BY LEG: 2015 6,036 N 31,536 W + E 26,232 S 9,132
REFINED FUTURE ADT'S BY LEG: 2035 **13,000** N **38,000** W **LEG** E **18,000** S **20,000**	REFINED FUTURE ADT'S BY LEG: 2035 13,000 N 38,000 W + E 18,000 S 20,000

U:\UcJobs_09100-09500_09300\09301\Post Process\[08 Graham_Cactus.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Graham Street / Cactus Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                              AM                                                           PM
EXISTING COUNT YEAR:                                          EXISTING COUNT YEAR:
 2015                        185   210                         2015                        158   210
                              v     ^                                                       v     ^
                 1763 <  IN  =  3157 <  1666                                   1763 <  IN  =  3130 <  1666
                 1113 >  OUT =  3157 >   942                                   1113 >  OUT =  3130 >   915
                              v     ^                                                       v     ^
                             242   193                                                     242   193

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                           MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach   MIN   ADD        ADD = Additive (Growth Increment) Approach   MUL   MUL
MUL = Multiplicative (Ratio) Approach         v     ^         MUL = Multiplicative (Ratio) Approach         v     ^
                 ADD  <                  <  ADD                                ADD  <                  <  ADD
                 ADD  >                  >  ADD                                ADD  >                  >  MUL
                              v     ^                                                       v     ^
                             MIN   MUL                                                     MUL   MIN

MINIMUM GROWTH %s     2008  TO   2035
                              0%    0%                                                      0%    0%
                              v     ^                                                       v     ^
                   0% <                  <  -31%                                 0% <                  <  -31%
                   0% >                  >  -31%                                 0% >                  >  -31%
                              v     ^                                                       v     ^
                              0%    0%                                                      0%    0%

REFINED GROWTH:       2008  TO   2035                         ADJUSTED GROWTH:      2008  TO   2035
                               0   340                                                     442     0
                              v     ^                                                       v     ^
                 1220 <                  <   260                                  560 <                  <   500
                   40 >                  >   210                                 1540 >                  >   365
                              v     ^                                                       v     ^
                               0   367                                                     318     0

PRORATED GROWTH:      2015  TO   2035                         PRORATED GROWTH:      2015  TO   2035
   20 YEARS                    0   250                           20 YEARS                  330     0
                              v     ^                                                       v     ^
                  900 <                  <   190                                  410 <                  <   370
                   30 >                  >   160                                 1140 >                  >   270
                              v     ^                                                       v     ^
                               0   270                                                     240     0

NEW PROJECTED VOLUMES:   2035                                 NEW PROJECTED VOLUMES:   2035
                             190   460                                                     490   258
                              v     ^                                                       v     ^
                 2660 <  IN  =  3650 <  1860                                   2663 <  IN  =  4970 <  2040
                 1140 >  OUT =  4460 >  1100                                   2250 >  OUT =  4970 >  1460
                              v     ^  *                                                    v     ^  *
                             240   460                                                     589   190
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.

U:\UcJobs_09100-09500_09300\09301\Post Process\[08 Graham_Cactus.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Graham Street / Cactus Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	133	387	254	191%	133	182	49	37%
	Through	52	165	113	217%	52	17	-35	-67%
	Right	8	14	6	75%	8	2	-6	-75%
	NB Total	193	566	373	193%	193	201	8	4%
SOUTH BOUND	Left	85	93	8	9%	58	67	9	16%
	Through	53	51	-2	-4%	53	103	50	94%
	Right	47	86	39	83%	47	329	282	600%
	SB Total	185	230	45	24%	158	499	341	216%
EAST BOUND	Left	90	192	102	113%	90	218	128	142%
	Through	849	993	144	17%	849	1,391	542	64%
	Right	174	178	4	2%	174	480	306	176%
	EB Total	1,113	1,363	250	22%	1,113	2,089	976	88%
WEST BOUND	Left	15	11	-4	-27%	15	6	-9	-60%
	Through	1,583	2,188	605	38%	1,583	2,152	569	36%
	Right	68	103	35	51%	68	23	-45	-66%
	WB Total	1,666	2,302	636	38%	1,666	2,181	515	31%
TOTAL ENTERING VOLUME		3,157	4,461	1304	41%	3,130	4,970	1840	59%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	230	499			
North Leg	Outbound	460	258			
North Leg	**TOTAL**	**690**	**757**	**5%**	**6%**	**13,000**
South Leg	Inbound	566	201			
South Leg	Outbound	240	589			
South Leg	**TOTAL**	**806**	**790**	**4%**	**4%**	**20,000**
East Leg	Inbound	2,302	2,181			
East Leg	Outbound	1,100	1,460			
East Leg	**TOTAL**	**3,402**	**3,641**	**19%**	**20%**	**18,000**
West Leg	Inbound	1,363	2,089			
West Leg	Outbound	2,661	2,663			
West Leg	**TOTAL**	**4,024**	**4,752**	**11%**	**13%**	**38,000**
OVERALL TOTAL		***8,922***	***9,940***	**10%**	***11%***	***89,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[08 Graham_Cactus.xls]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: =======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Patterson Avenue / Harley Knox Boulevard**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		5	1	0	
		<	v	>	
	4 ^			^	1
	452 >		Total =	997 <	415
	16 v			v	0
		<	^	>	
		98	0	5	

EXISTING MODEL YEAR:

2008			0	0	
			v	^	
	250	<	IN =	470 <	196
	220	>	OUT =	470 >	140
			v	^	
			80	54	

FUTURE MODEL YEAR:

2035			0	0	
			v	^	
	1486	<	IN =	2354 <	1482
	701	>	OUT =	2354 >	722
			v	^	
			146	171	

EXISTING (COUNTED) ADTs BY LEG:

2015			277		
			N		
	12,273	W	LEG	E	11,252
			S		
			1,283		

REFINED FUTURE ADT'S BY LEG:

2035			0		
			N		
	26,000	W	LEG	E	26,000
			S		
			4,000		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		10	4	7	
		<	v	>	
	5 ^			^	4
	403 >		Total =	983 <	460
	43 v			v	3
		<	^	>	
		35	4	5	

EXISTING MODEL YEAR:

2008			0	0	
			v	^	
	266	<	IN =	766 <	180
	500	>	OUT =	766 >	232
			v	^	
			268	86	

FUTURE MODEL YEAR:

2035			0	0	
			v	^	
	1115	<	IN =	2912 <	1195
	1458	>	OUT =	2912 >	1493
			v	^	
			304	259	

EXISTING (COUNTED) ADTs BY LEG:

2015			277		
			N		
	12,273	W	+	E	11,252
			S		
			1,283		

REFINED FUTURE ADT'S BY LEG:

2035			0		
			N		
	26,000	W	+	E	26,000
			S		
			4,000		

U:\UcJobs_09100-09500_09300\09301\Post Process\[09 Patterson_Harley Knox.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Patterson Avenue / Harley Knox Boulevard

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                              AM                                                      PM
EXISTING COUNT YEAR:                                      EXISTING COUNT YEAR:
 2015                        6     5                       2015                        21    13
                             v     ^                                                   v     ^
                  518 <  IN  =  997 <   416                                 505 <  IN  =  983 <   467
                  472 >  OUT =  997 >   457                                 451 >  OUT =  983 >   415
                             v     ^                                                   v     ^
                            17   103                                                  50    44

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                       MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  ADD  ADD       ADD = Additive (Growth Increment) Approach  ADD  ADD
MUL = Multiplicative (Ratio) Approach        v    ^       MUL = Multiplicative (Ratio) Approach        v    ^
                 ADD  <                 <  ADD                            ADD  <                 <  ADD
                 ADD  >                 >  ADD                            MUL  >                 >  ADD
                             v     ^                                                   v     ^
                            MUL   ADD                                                 MUL   MUL

MINIMUM GROWTH %s      2008  TO   2035
                          ##### #####                                              ##### #####
                             v     ^                                                   v     ^
                   0% <                 <    0%                              0% <                 <    0%
                   0% >                 >    0%                              0% >                 >    0%
                             v     ^                                                   v     ^
                            0%    0%                                                  0%    0%

REFINED GROWTH:        2008  TO   2035                    ADJUSTED GROWTH:       2008  TO   2035
                             0     0                                                   0     0
                             v     ^                                                   v     ^
                 1240 <                 <  1290                             850 <                 <  1020
                  480 >                 >   580                             869 >                 >  1260
                             v     ^                                                   v     ^
                            13   120                                                  10    86

PRORATED GROWTH:       2015  TO   2035                    PRORATED GROWTH:       2015  TO   2035
   20 YEARS                  0     0                         20 YEARS                  0     0
                             v     ^                                                   v     ^
                  920 <                 <   960                             630 <                 <   760
                  360 >                 >   430                             640 >                 >   930
                             v     ^                                                   v     ^
                            10    90                                                  10    60

NEW PROJECTED VOLUMES:     2035                           NEW PROJECTED VOLUMES:     2035
                            10    10                                                  20    10
                             v     ^                                                   v     ^
                 1464 <  IN  = 2410 <  1380                            1140 <  IN  = 2440 <  1230
                  830 >  OUT = 2410 >   905                            1090 >  OUT = 2560 >  1350
                             v     ^   *                                               v     ^   *
                            31   190                                                  60   100
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[09 Patterson_Harley Knox.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Patterson Avenue / Harley Knox Boulevard
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	PM PEAK HOUR INPUT DATA EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	98	157	59	60%	35	41	6	17%
	Through	0	0	0	#DIV/0!	4	3	-1	-25%
	Right	5	26	21	420%	5	63	58	1160%
	NB Total	103	183	80	78%	44	107	63	143%
SOUTH BOUND	Left	0	0	0	#DIV/0!	7	18	11	157%
	Through	1	4	3	300%	4	3	-1	-25%
	Right	5	6	1	20%	10	2	-8	-80%
	SB Total	6	10	4	67%	21	23	2	10%
EAST BOUND	Left	4	4	0	0%	5	1	-4	-80%
	Through	452	879	427	94%	403	1,269	866	215%
	Right	16	27	11	69%	43	36	-7	-16%
	EB Total	472	910	438	93%	451	1,306	855	190%
WEST BOUND	Left	0	0	0	#DIV/0!	3	21	18	600%
	Through	415	1,300	885	213%	460	1,097	637	138%
	Right	1	6	5	500%	4	6	2	50%
	WB Total	416	1,306	890	214%	467	1,124	657	141%
TOTAL ENTERING VOLUME		997	2,409	1412	142%	983	2,560	1577	160%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES AM	VOLUMES PM	PERCENT OF ADT AM	PERCENT OF ADT PM	ADT
North Leg	Inbound	10	23			
North Leg	Outbound	10	10			
North Leg	**TOTAL**	**20**	**33**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	183	107			
South Leg	Outbound	31	60			
South Leg	**TOTAL**	**214**	**167**	**5%**	**4%**	**4,000**
East Leg	Inbound	1,306	1,124			
East Leg	Outbound	905	1,350			
East Leg	**TOTAL**	**2,211**	**2,474**	**9%**	**10%**	**26,000**
West Leg	Inbound	910	1,306			
West Leg	Outbound	1,463	1,140			
West Leg	**TOTAL**	**2,373**	**2,446**	**9%**	**9%**	**26,000**
OVERALL TOTAL		***4,818***	***5,120***	**9%**	***9%***	***56,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[09 Patterson_Harley Knox.xls]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: =======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Heacock Street / Cactus Avenue**

AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES:	EXISTING TURNING MOVEMENT VOLUMES:
2015 **45 253 43**	2015 **39 511 108**
< v >	< v >
88 ^ ^ **92**	**82** ^ ^ **67**
512 > Total = 3,387 < **997**	**924** > Total = 3,886 < **555**
310 v v **9**	**750** v v **13**
< ^ >	< ^ >
670 359 9	**363 455 19**
EXISTING MODEL YEAR:	EXISTING MODEL YEAR:
2008 **637 520**	2008 **651 769**
v ^	v ^
850 < IN = 2154 < **542**	**139** < IN = 2742 < **177**
93 > OUT = 2154 > **108**	**1038** > OUT = 2741 > **694**
v ^	v ^
676 882	**1139 876**
FUTURE MODEL YEAR:	FUTURE MODEL YEAR:
2035 **531 648**	2035 **995 655**
v ^	v ^
1120 < IN = 2544 < **495**	**662** < IN = 3695 < **219**
286 > OUT = 2544 > **85**	**1456** > OUT = 3695 > **963**
v ^	v ^
691 1232	**1415 1025**
EXISTING (COUNTED) ADTs BY LEG:	EXISTING (COUNTED) ADTs BY LEG:
2015 **11,196**	2015 11,196
N	N
26,112 W **LEG** E **15,936**	26,112 W + E 15,936
S	S
19,140	19,140
REFINED FUTURE ADT'S BY LEG:	REFINED FUTURE ADT'S BY LEG:
2035 **15,000**	2035 15,000
N	N
19,000 W **LEG** E **8,000**	19,000 W + E 8,000
S	S
23,000	23,000

U:\UcJobs_09100-09500_09300\09301\Post Process\[10 Heacock_Cactus.xls]Input (1)

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Heacock Street / Cactus Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                              AM                                                      PM
EXISTING COUNT YEAR:                                        EXISTING COUNT YEAR:
 2015                     341   539                          2015                       658   604
                           v     ^                                                       v     ^
                  1712 <  IN  =  3387 <  1098                                  957 <  IN  =  3886 <   635
                   910 >  OUT =  3387 >   564                                 1756 >  OUT =  3886 >  1051
                           v     ^                                                       v     ^
                          572  1038                                                    1274   837

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                         MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach   MIN  ADD       ADD = Additive (Growth Increment) Approach   ADD   MIN
MUL = Multiplicative (Ratio) Approach         v    ^        MUL = Multiplicative (Ratio) Approach         v     ^
                      ADD  <                 <  ADD                              ADD  <                <  ADD
                      ADD  >                 >  ADD                              ADD  >                >  ADD
                              v    ^                                                      v     ^
                             MUL  ADD                                                    ADD   MUL

MINIMUM GROWTH %s     2008  TO   2035
                              0%    0%                                                   0%    0%
                              v     ^                                                    v     ^
                    -27% <             <  -50%                             -27% <               <  -50%
                    -27% >             >  -50%                             -27% >               >  -50%
                              v     ^                                                    v     ^
                              0%    0%                                                   0%    0%

REFINED GROWTH:       2008  TO   2035                      ADJUSTED GROWTH:     2008  TO   2035
                              0   130                                                  340     0
                              v     ^                                                    v     ^
                     270 <             <   -50                              520 <               <    40
                     190 >             >   -20                              420 >               >   270
                              v     ^                                                    v     ^
                              8   350                                                  280   143

PRORATED GROWTH:      2015  TO   2035                      PRORATED GROWTH:     2015  TO   2035
   20 YEARS                   0   100                         20 YEARS                 250     0
                              v     ^                                                    v     ^
                     200 <             <   -40                              390 <               <    30
                     140 >             >   -10                              310 >               >   200
                              v     ^                                                    v     ^
                             10   260                                                  210   110

NEW PROJECTED VOLUMES:   2035                              NEW PROJECTED VOLUMES:   2035
                            340   652                                                  910   600
                              v     ^                                                    v     ^
                  1946 <  IN  =  3750 <  1060                                 1350 <  IN  =  4600 <   670
                  1050 >  OUT =  3750 >   560                                 2070 >  OUT =  4680 >  1250
                              v     ^    *                                               v     ^    *
                            591  1300                                                 1480   950
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[10 Heacock_Cactus.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Heacock Street / Cactus Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	670	888	218	33%	363	569	206	57%
	Through	359	420	61	17%	455	415	-40	-9%
	Right	9	6	-3	-33%	19	12	-7	-37%
	NB Total	1,038	1,314	276	27%	837	996	159	19%
SOUTH BOUND	Left	43	35	-8	-19%	108	144	36	33%
	Through	253	230	-23	-9%	511	641	130	25%
	Right	45	70	25	56%	39	128	89	228%
	SB Total	341	335	-6	-2%	658	913	255	39%
EAST BOUND	Left	88	152	64	73%	82	139	57	70%
	Through	512	520	8	2%	924	1,094	170	18%
	Right	310	356	46	15%	750	833	83	11%
	EB Total	910	1,028	118	13%	1,756	2,066	310	18%
WEST BOUND	Left	9	5	-4	-44%	13	6	-7	-54%
	Through	997	988	-9	-1%	555	653	98	18%
	Right	92	80	-12	-13%	67	46	-21	-31%
	WB Total	1,098	1,073	-25	-2%	635	705	70	11%
TOTAL ENTERING VOLUME		3,387	3,750	363	11%	3,886	4,680	794	20%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	335	913			
North Leg	Outbound	652	600			
North Leg	**TOTAL**	**987**	**1,513**	**7%**	**10%**	**15,000**
South Leg	Inbound	1,314	996			
South Leg	Outbound	591	1,480			
South Leg	**TOTAL**	**1,905**	**2,476**	**8%**	**11%**	**23,000**
East Leg	Inbound	1,073	705			
East Leg	Outbound	561	1,250			
East Leg	**TOTAL**	**1,634**	**1,955**	**20%**	**24%**	**8,000**
West Leg	Inbound	1,028	2,066			
West Leg	Outbound	1,946	1,350			
West Leg	**TOTAL**	**2,974**	**3,416**	**16%**	**18%**	**19,000**
OVERALL TOTAL		***7,500***	***9,360***	**12%**	***14%***	***65,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[10 Heacock_Cactus.xls]Output (3)

INPUT DATA

Project:	=======================>	Moreno Valley Logistics Center	<===	Job #: 9301
Scenario:	=======================>	GP Buildout Post 2035 Without Project	<===	Analyst: CKS
Existing Conditions Model Run ID:	==>	RivTAM for MV-Existing Base Model	<===	Date: 7/6/2015
Future Conditions Model Run ID:	==>	RivTAM-Moreno Valley GP	<===	

LOCATION: **Heacock Street / John F. Kennedy Drive**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015			15	376	126		
			<	v	>		
	6	^				^	255
	42	>		Total =	1,819	<	107
	62	v				v	25
			<	^	>		
			68	691	46		

EXISTING MODEL YEAR:

2008				676	882		
				v	^		
	972	<	IN	=	2487	<	687
	183	>	OUT	=	2486	>	146
				v	^		
				486	941		

FUTURE MODEL YEAR:

2035				645	1086		
				v	^		
	737	<	IN	=	2883	<	582
	399	>	OUT	=	2883	>	160
				v	^		
				900	1257		

EXISTING (COUNTED) ADTs BY LEG:

2015			17,676		
			N		
	8,040	W	LEG	E	10,044
			S		
			15,096		

REFINED FUTURE ADT'S BY LEG:

2035			21,000		
			N		
	16,000	W	LEG	E	10,000
			S		
			27,000		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015			25	822	300		
			<	v	>		
	26	^				^	144
	157	>		Total =	2,554	<	99
	219	v				v	20
			<	^	>		
			75	617	50		

EXISTING MODEL YEAR:

2008				1139	876		
				v	^		
	212	<	IN	=	3076	<	229
	1112	>	OUT	=	3076	>	864
				v	^		
				1124	596		

FUTURE MODEL YEAR:

2035				1407	952		
				v	^		
	537	<	IN	=	3944	<	356
	1042	>	OUT	=	3944	>	831
				v	^		
				1624	1139		

EXISTING (COUNTED) ADTs BY LEG:

2015			17,676		
			N		
	8,040	W	+	E	10,044
			S		
			15,096		

REFINED FUTURE ADT'S BY LEG:

2035			21,000		
			N		
	16,000	W	+	E	10,000
			S		
		27,000			

U:\UcJobs_09100-09500_09300\09301\Post Process\[11 Heacock_John F. Kennedy.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Heacock Street / John F. Kennedy Drive

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                          AM                                                  PM
EXISTING COUNT YEAR:                              EXISTING COUNT YEAR:
 2015                     517    952               2015                     1147    787
                           v      ^                                          v       ^
               190 <  IN   =  1819 <   387                       199 <  IN   =  2554 <   263
               110 >  OUT  =  1819 >   214                       402 >  OUT  =  2554 >   507
                           v      ^                                          v       ^
                          463    805                                        1061    742

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach               MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  MIN  ADD   ADD = Additive (Growth Increment) Approach  ADD  MUL
MUL = Multiplicative (Ratio) Approach        v    ^    MUL = Multiplicative (Ratio) Approach        v    ^
            MIN  <                <  MIN                        MUL  <                <  ADD
            MUL  >                >  ADD                        MIN  >                >  MIN
                           v      ^                                          v       ^
                          MUL    MUL                                        MUL     ADD

MINIMUM GROWTH %s   2008  TO  2035
                          0%     0%                                          0%      0%
                           v      ^                                          v       ^
                0% <              <     0%                        0% <               <     0%
                0% >              >     0%                        0% >               >     0%
                           v      ^                                          v       ^
                          0%     0%                                          0%      0%

REFINED GROWTH:     2008  TO  2035                ADJUSTED GROWTH:    2008  TO  2035
                           0    200                                         270      63
                           v      ^                                          v       ^
                 0 <              <      0                       301 <               <   130
               130 >              >     10                         0 >               >     0
                           v      ^                                          v       ^
                          397    265                                        469     540

PRORATED GROWTH:    2015  TO  2035                PRORATED GROWTH:    2015  TO  2035
   20 YEARS                0    150                  20 YEARS               200      50
                           v      ^                                          v       ^
                 0 <              <      0                       220 <               <   100
               100 >              >     10                         0 >               >     0
                           v      ^                                          v       ^
                          290    200                                        350     400

NEW PROJECTED VOLUMES:   2035                     NEW PROJECTED VOLUMES:   2035
                          520   1100                                        1350     858
                           v      ^                                          v       ^
               190 <  IN   =  2130 <   390                       429 <  IN   =  3250 <   360
               210 >  OUT  =  2260 >   220                       400 >  OUT  =  3250 >   521
                           v      ^   *                                      v       ^   *
                          750   1010                                        1441    1140
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[11 Heacock_John F. Kennedy.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Heacock Street / John F. Kennedy Drive
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	68	87	19	28%	75	222	147	196%
	Through	691	866	175	25%	617	741	124	20%
	Right	46	93	47	102%	50	142	92	184%
	NB Total	805	1,046	241	30%	742	1,105	363	49%
SOUTH BOUND	Left	126	74	-52	-41%	300	255	-45	-15%
	Through	376	495	119	32%	822	1,108	286	35%
	Right	15	6	-9	-60%	25	22	-3	-12%
	SB Total	517	575	58	11%	1,147	1,385	238	21%
EAST BOUND	Left	6	5	-1	-17%	26	9	-17	-65%
	Through	42	53	11	26%	157	125	-32	-20%
	Right	62	174	112	181%	219	276	57	26%
	EB Total	110	232	122	111%	402	410	8	2%
WEST BOUND	Left	25	82	57	228%	20	57	37	185%
	Through	107	98	-9	-8%	99	185	86	87%
	Right	255	229	-26	-10%	144	109	-35	-24%
	WB Total	387	409	22	6%	263	351	88	33%
TOTAL ENTERING VOLUME		1,819	2,262	443	24%	2,554	3,251	697	27%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	575	1,385			
North Leg	Outbound	1,100	859			
North Leg	**TOTAL**	**1,675**	**2,244**	**8%**	**11%**	**21,000**
South Leg	Inbound	1,046	1,105			
South Leg	Outbound	751	1,441			
South Leg	**TOTAL**	**1,797**	**2,546**	**7%**	**9%**	**27,000**
East Leg	Inbound	409	351			
East Leg	Outbound	220	522			
East Leg	**TOTAL**	**629**	**873**	**6%**	**9%**	**10,000**
West Leg	Inbound	232	410			
West Leg	Outbound	191	429			
West Leg	**TOTAL**	**423**	**839**	**3%**	**5%**	**16,000**
OVERALL TOTAL		***4,524***	***6,502***	**6%**	***9%***	***74,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[11 Heacock_John F. Kennedy.xls]Output (3)

INPUT DATA

Project: ======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: ======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Heacock Street / Gentian Avenue**

AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES:	EXISTING TURNING MOVEMENT VOLUMES:
2015 **0** **388** **55**	2015 **0** **880** **121**
< v >	< v >
0 ^ ^ **92**	**0** ^ ^ **56**
0 > Total = 1,078 < **0**	**0** > Total = 1,612 < **0**
0 v v **3**	**0** v v **1**
< ^ >	< ^ >
0 **538** **2**	**0** **547** **7**
EXISTING MODEL YEAR:	EXISTING MODEL YEAR:
2008 **441** **664**	2008 **845** **509**
v ^	v ^
0 < IN = 1110 < **132**	**0** < IN = 1360 < **55**
0 > OUT = 1110 > **36**	**0** > OUT = 1361 > **221**
v ^	v ^
410 **537**	**631** **460**
FUTURE MODEL YEAR:	FUTURE MODEL YEAR:
2035 **860** **1121**	2035 **1614** **1136**
v ^	v ^
0 < IN = 1989 < **25**	**0** < IN = 2759 < **10**
0 > OUT = 1989 > **28**	**0** > OUT = 2759 > **123**
v ^	v ^
840 **1104**	**1500** **1135**
EXISTING (COUNTED) ADTs BY LEG:	EXISTING (COUNTED) ADTs BY LEG:
2015 **13,572**	2015 13,572
N	N
0 W **LEG** E **1,728**	0 W + E 1,728
S	S
12,192	12,192
REFINED FUTURE ADT'S BY LEG:	REFINED FUTURE ADT'S BY LEG:
2035 **25,000**	2035 25,000
N	N
0 W **LEG** E **2,000**	0 W + E 2,000
S	S
24,000	24,000

U:\UcJobs_09100-09500_09300\09301\Post Process\[12 Heacock_Gentian.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Heacock Street / Gentian Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                          AM                                             PM
EXISTING COUNT YEAR:                                  | EXISTING COUNT YEAR:
 2015                          443    630             |  2015                           1001    603
                                v      ^              |                                   v      ^
                       0 <  IN   =  1078 <     95     |                        0 <  IN   =  1612 <     57
                       0 >  OUT =   1078 >     57     |                        0 >  OUT =   1612 >    128
                                v      ^              |                                   v      ^
                               391    540             |                                  881    554
------------------------------------------------------+------------------------------------------------------
GROWTH CALCULATION DECISION RULE                      |
MIN = Minimum Count Growth Approach                   | MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  ADD  MUL  | ADD = Additive (Growth Increment) Approach  ADD  ADD
MUL = Multiplicative (Ratio) Approach        v    ^   | MUL = Multiplicative (Ratio) Approach        v    ^
                          MUL  <                < MIN |                          MUL  <                < MIN
                          MUL  >                > MIN |                          MUL  >                > MIN
                                             v    ^   |                                              v    ^
                                           MUL  ADD   |                                            ADD  ADD
------------------------------------------------------+------------------------------------------------------
MINIMUM GROWTH %s      2008   TO    2035              |
                                0%     0%             |                                   0%     0%
                                v      ^              |                                   v      ^
                       0% <                <     0%   |                        0% <                <     0%
                       0% >                >     0%   |                        0% >                >     0%
                                v      ^              |                                   v      ^
                                0%     0%             |                                   0%     0%
------------------------------------------------------+------------------------------------------------------
REFINED GROWTH:        2008   TO    2035              | ADJUSTED GROWTH:       2008   TO    2035
                               420    430             |                                  770    630
                                v      ^              |                                   v      ^
                       0 <                 <      0   |                        0 <                 <      0
                       0 >                 >      0   |                        0 >                 >      0
                                v      ^              |                                   v      ^
                               409    570             |                                  870    680
------------------------------------------------------+------------------------------------------------------
PRORATED GROWTH:       2015   TO    2035              | PRORATED GROWTH:       2015   TO    2035
    20 YEARS                   310    320             |     20 YEARS                     570    470
                                v      ^              |                                   v      ^
                       0 <                 <      0   |                        0 <                 <      0
                       0 >                 >      0   |                        0 >                 >      0
                                v      ^              |                                   v      ^
                               300    420             |                                  640    500
------------------------------------------------------+------------------------------------------------------
NEW PROJECTED VOLUMES:    2035                        | NEW PROJECTED VOLUMES:    2035
                               750   1011             |                                 1570   1070
                                v      ^              |                                   v      ^
                       0 <  IN   =  1810 <    100     |                        0 <  IN   =  2680 <     60
                       0 >  OUT =   1810 >     64     |                        0 >  OUT =   2720 >    130
                                v      ^   *          |                                   v      ^   *
                               735    960             |                                 1520   1050
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[12 Heacock_Gentian.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Heacock Street / Gentian Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	538	921	383	71%	547	1,013	466	85%
	Right	2	4	2	100%	7	12	5	71%
	NB Total	540	925	385	71%	554	1,025	471	85%
SOUTH BOUND	Left	55	60	5	9%	121	118	-3	-2%
	Through	388	729	341	88%	880	1,518	638	73%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	443	789	346	78%	1,001	1,636	635	63%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	3	6	3	100%	1	2	1	100%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	92	91	-1	-1%	56	57	1	2%
	WB Total	95	97	2	2%	57	59	2	4%
TOTAL ENTERING VOLUME		1,078	1,811	733	68%	1,612	2,720	1108	69%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	789	1,636			
North Leg	Outbound	1,012	1,070			
North Leg	**TOTAL**	**1,801**	**2,706**	**7%**	**11%**	**25,000**
South Leg	Inbound	925	1,025			
South Leg	Outbound	735	1,520			
South Leg	**TOTAL**	**1,660**	**2,545**	**7%**	**11%**	**24,000**
East Leg	Inbound	97	59			
East Leg	Outbound	64	130			
East Leg	**TOTAL**	**161**	**189**	**8%**	**9%**	**2,000**
West Leg	Inbound	0	0			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
OVERALL TOTAL		***3,622***	***5,440***	***7%***	***11%***	***51,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[12 Heacock_Gentian.xls]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: =======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Heacock Street / Iris Avenue**

AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES:	EXISTING TURNING MOVEMENT VOLUMES:

```
AM PEAK HOUR                                    PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:              EXISTING TURNING MOVEMENT VOLUMES:
 2015              0   191   200                 2015              0   351   507
                 <      v      >                                 <      v      >
         0 ^                   ^   383                   0 ^                   ^   242
         0 >     Total =  1,009 <    0                   0 >     Total =  1,440 <    0
         0 v                   v    42                   0 v                   v    17
                 <      ^      >                                 <      ^      >
                   0   158    35                                   0   305    18

EXISTING MODEL YEAR:                            EXISTING MODEL YEAR:
 2008                  410   537                 2008                  631   460
                        v     ^                                         v     ^
       729   <     IN   =  1832 <   608                194   <     IN   =  2109 <   146
       127   >     OUT =  1831 >   128                 820   >     OUT =  2109 >   652
                        v     ^                                         v     ^
                       437   687                                       803   512

FUTURE MODEL YEAR:                              FUTURE MODEL YEAR:
 2035                  801  1005                 2035                 1495  1082
                        v     ^                                         v     ^
       196   <     IN   =  2114 <   265                120   <     IN   =  3037 <   160
        47   >     OUT =  2113 >    72                 269   >     OUT =  3037 >   242
                        v     ^                                         v     ^
                       840  1001                                      1593  1113

EXISTING (COUNTED) ADTs BY LEG:                 EXISTING (COUNTED) ADTs BY LEG:
 2015                 17,942                     2015                 17,942
                         N                                               N
         0       W      LEG     E     9,652              0       W       +      E     9,652
                         S                                               S
                       9,169                                           9,169

REFINED FUTURE ADT'S BY LEG:                    REFINED FUTURE ADT'S BY LEG:
 2035                 22,000                     2035                 22,000
                         N                                               N
     4,000       W      LEG     E     5,000          4,000       W       +      E     5,000
                         S                                               S
                      22,000                                          22,000
```

U:\UcJobs_09100-09500_09300\09301\Post Process\[13 Heacock_Iris.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Heacock Street / Iris Avenue

Heacock Street / Iris Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                              AM                                                          PM
EXISTING COUNT YEAR:                                        EXISTING COUNT YEAR:
 2015                           391    541                   2015                           858    547
                                 v      ^                                                    v      ^
                     0 <  IN  =  1009 <     425                                 0 <  IN  =  1440 <     259
                     0 >  OUT =  1009 >     235                                 0 >  OUT =  1440 >     525
                                 v      ^                                                    v      ^
                                233    193                                                 368    323

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                         MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach   MUL   ADD      ADD = Additive (Growth Increment) Approach   ADD   ADD
MUL = Multiplicative (Ratio) Approach         v     ^       MUL = Multiplicative (Ratio) Approach         v     ^
                         MUL  <                   <  MIN                             MUL  <                   <  ADD
                         MUL  >                   >  ADD                             MUL  >                   >  MIN
                                 v      ^                                                    v      ^
                                MUL    MUL                                                 MUL    MUL

MINIMUM GROWTH %s     2008  TO   2035
                                 0%     0%                                                   0%     0%
                                 v      ^                                                    v      ^
                        0% <                  <  -48%                          0% <                  <  -48%
                        0% >                  >  -48%                          0% >                  >  -48%
                                 v      ^                                                    v      ^
                                 0%     0%                                                   0%     0%

REFINED GROWTH:       2008  TO   2035                       ADJUSTED GROWTH:      2008  TO   2035
                                369    470                                                 860    620
                                 v      ^                                                    v      ^
                     0 <                      <  -200                           0 <                      <    10
                     0 >                      >   -60                           0 >                      >  -250
                                 v      ^                                                    v      ^
                                217     87                                                 362    377

PRORATED GROWTH:      2015  TO   2035                       PRORATED GROWTH:      2015  TO   2035
    20  YEARS                   270    350                      20  YEARS                  640    460
                                 v      ^                                                    v      ^
                     0 <                      <  -150                           0 <                      <    10
                     0 >                      >   -40                           0 >                      >  -190
                                 v      ^                                                    v      ^
                                160     60                                                 270    280

NEW PROJECTED VOLUMES:     2035                             NEW PROJECTED VOLUMES:     2035
                                660    890                                                1500   1203
                                 v      ^                                                    v      ^
                     0 <  IN  =  1190 <     280                                 0 <  IN  =  2370 <     270
                     0 >  OUT =  1480 >     200                                 0 >  OUT =  2370 >     405
                                 v      ^   *                                                v      ^   *
                                390    250                                                 762    600
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[13 Heacock_Iris.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Heacock Street / Iris Avenue
FORECAST YEAR: 2035

Heacock Street / Iris Avenue

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	158	420	262	166%	305	830	525	172%
	Right	35	0	-35	-100%	18	0	-18	-100%
	NB Total	193	420	227	118%	323	830	507	157%
SOUTH BOUND	Left	200	200	0	0%	507	405	-102	-20%
	Through	191	389	198	104%	351	762	411	117%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	391	589	198	51%	858	1,167	309	36%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	42	1	-41	-98%	17	1	-16	-94%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	383	470	87	23%	242	373	131	54%
	WB Total	425	471	46	11%	259	374	115	44%
TOTAL ENTERING VOLUME		1,009	1,480	471	47%	1,440	2,371	931	65%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	589	1,167			
North Leg	Outbound	890	1,203			
North Leg	**TOTAL**	**1,479**	**2,370**	**7%**	**11%**	**22,000**
South Leg	Inbound	420	830			
South Leg	Outbound	390	763			
South Leg	**TOTAL**	**810**	**1,593**	**4%**	**7%**	**22,000**
East Leg	Inbound	471	374			
East Leg	Outbound	200	405			
East Leg	**TOTAL**	**671**	**779**	**13%**	**16%**	**5,000**
West Leg	Inbound	0	0			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**0**	**0**	**0%**	**0%**	**4,000**
OVERALL TOTAL		***2,960***	***4,742***	**6%**	***9%***	***53,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[13 Heacock_Iris.xls]Output (3)

INPUT DATA

Project:	=======================>	Moreno Valley Logistics Center	<===	Job #: 9301
Scenario:	=======================>	GP Buildout Post 2035 Without Project	<===	Analyst: CKS
Existing Conditions Model Run ID:	==>	RivTAM for MV-Existing Base Model	<===	Date: 7/6/2015
Future Conditions Model Run ID:	==>	RivTAM-Moreno Valley GP	<===	

LOCATION: **Webster Avenue / Harley Knox Boulevard**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		**0**	**0**	**0**	
		<	v	>	
0 ^				^	**0**
372 >		Total =		745 <	**371**
1 v				v	**0**
		<	^	>	
		0	**0**	**1**	

EXISTING MODEL YEAR:

2008			**573**	**729**	
			v	^	
196	<	IN =		1362 <	**0**
140	>	OUT =		1361 >	**59**
			v	^	
			377	**649**	

FUTURE MODEL YEAR:

2035			**0**	**0**	
			v	^	
1482	<	IN =		2204 <	**1482**
722	>	OUT =		2204 >	**722**
			v	^	
			0	**0**	

EXISTING (COUNTED) ADTs BY LEG:

2015			**24**		
			N		
	9,300	W	**LEG**	E	**9,300**
			S		
			72		

REFINED FUTURE ADT'S BY LEG:

2035			**0**		
			N		
	26,000	W	**LEG**	E	**26,000**
			S		
			0		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		**0**	**0**	**0**	
		<	v	>	
0 ^				^	**0**
452 >		Total =		805 <	**352**
0 v				v	**0**
		<	^	>	
		0	**0**	**1**	

EXISTING MODEL YEAR:

2008			**816**	**674**	
			v	^	
180	<	IN =		1580 <	**88**
232	>	OUT =		1580 >	**2**
			v	^	
			724	**444**	

FUTURE MODEL YEAR:

2035			**0**	**0**	
			v	^	
1195	<	IN =		2688 <	**1195**
1493	>	OUT =		2688 >	**1493**
			v	^	
			0	**0**	

EXISTING (COUNTED) ADTs BY LEG:

2015			24		
			N		
	9,300	W	+	E	9,300
			S		
			72		

REFINED FUTURE ADT'S BY LEG:

2035			0		
			N		
	26,000	W	+	E	26,000
			S		
			0		

U:\UcJobs_09100-09500_09300\09301\Post Process\[20 Webster_Harley Knox.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Webster Avenue / Harley Knox Boulevard

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                              AM                                                              PM
EXISTING COUNT YEAR:                                            EXISTING COUNT YEAR:
 2015                          0      0                          2015                           0      0
                               v      ^                                                         v      ^
                 371 <  IN  =  745 <   371                                        352 <  IN  =  805 <   352
                 373 >  OUT =  745 >   373                                        452 >  OUT =  805 >   453
                               v      ^                                                         v      ^
                               1      1                                                         0      1
GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                             MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach   MUL   MUL          ADD = Additive (Growth Increment) Approach   MUL   MUL
MUL = Multiplicative (Ratio) Approach         v     ^           MUL = Multiplicative (Ratio) Approach         v     ^
                 ADD  <                 <  ADD                                    ADD  <                 <  ADD
                 ADD  >                 >  ADD                                    ADD  >                 >  ADD
                               v      ^                                                         v      ^
                              MIN    MIN                                                       MUL    MIN
MINIMUM GROWTH %s      2008  TO   2035
                           ##### #####                                                     ##### #####
                               v      ^                                                         v      ^
                  0% <                  <    0%                                    0% <                  <    0%
                  0% >                  >    0%                                    0% >                  >    0%
                               v      ^                                                         v      ^
                           ##### #####                                                     ##### #####
REFINED GROWTH:        2008  TO   2035                          ADJUSTED GROWTH:      2008  TO   2035
                               0      0                                                         0      0
                               v      ^                                                         v      ^
                1290 <                  <  1480                                  1020 <                  <  1110
                 580 >                  >   660                                  1260 >                  >  1490
                               v      ^                                                         v      ^
                               0      0                                                         0      0
PRORATED GROWTH:       2015  TO   2035                          PRORATED GROWTH:      2015  TO   2035
     20  YEARS                 0      0                              20  YEARS                  0      0
                               v      ^                                                         v      ^
                 960 <                  <  1100                                   760 <                  <   820
                 430 >                  >   490                                   930 >                  >  1100
                               v      ^                                                         v      ^
                               0      0                                                         0      0
NEW PROJECTED VOLUMES:    2035                                  NEW PROJECTED VOLUMES:    2035
                               0      0                                                         0      0
                               v      ^                                                         v      ^
                1379 <  IN  = 2270 <  1470                                       1110 <  IN  = 2550 <  1170
                 800 >  OUT = 2270 >   891                                       1380 >  OUT = 2660 >  1550
                               v      ^   *                                                     v      ^   *
                               0      0                                                         0      0
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[20 Webster_Harley Knox.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Webster Avenue / Harley Knox Boulevard
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	0	-1	-100%	1	0	-1	-100%
	NB Total	1	0	-1	-100%	1	0	-1	-100%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	372	891	519	140%	452	1,550	1,098	243%
	Right	1	0	-1	-100%	0	0	0	#DIV/0!
	EB Total	373	891	518	139%	452	1,550	1,098	243%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	371	1,379	1,008	272%	352	1,110	758	215%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	371	1,379	1,008	272%	352	1,110	758	215%
TOTAL ENTERING VOLUME		745	2,270	1525	205%	805	2,660	1855	230%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	1,379	1,110			
East Leg	Outbound	891	1,550			
East Leg	**TOTAL**	**2,270**	**2,660**	**9%**	**10%**	**26,000**
West Leg	Inbound	891	1,550			
West Leg	Outbound	1,379	1,110			
West Leg	**TOTAL**	**2,270**	**2,660**	**9%**	**10%**	**26,000**
OVERALL TOTAL		***4,540***	***5,320***	**9%**	***10%***	***52,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[20 Webster_Harley Knox.xls]Output (3)

INPUT DATA

Project: ======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: ======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Indian Street / Krameria Avenue**	
AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES: **2015** **1** **77** **190** < v > **1** ^ ^ **186** **6** > Total = 622 < **36** **0** v v **2** < ^ > **14** **98** **11**	EXISTING TURNING MOVEMENT VOLUMES: 2015 **3** **73** **173** < v > **4** ^ ^ **54** **17** > Total = 410 < **11** **10** v v **4** < ^ > **6** **51** **4**
EXISTING MODEL YEAR: **2008** **143** **468** v ^ **160** < IN = 763 < **108** **279** > OUT = 763 > **47** v ^ **88** **233**	EXISTING MODEL YEAR: 2008 **624** **241** v ^ **293** < IN = 1161 < **53** **238** > OUT = 1161 > **211** v ^ **416** **246**
FUTURE MODEL YEAR: **2035** **401** **183** v ^ **549** < IN = 1393 < **245** **208** > OUT = 1393 > **75** v ^ **586** **539**	FUTURE MODEL YEAR: 2035 **463** **560** v ^ **368** < IN = 2121 < **124** **749** > OUT = 2121 > **282** v ^ **911** **785**
EXISTING (COUNTED) ADTs BY LEG: 2015 **4,392** N **0** W **LEG** E **2,640** S **2,040**	EXISTING (COUNTED) ADTs BY LEG: 2015 4,392 N 0 W + E 2,640 S 2,040
REFINED FUTURE ADT'S BY LEG: 2035 **7,000** N **9,000** W **LEG** E **4,000** S **13,000**	REFINED FUTURE ADT'S BY LEG: 2035 7,000 N 9,000 W + E 4,000 S 13,000

U:\UcJobs_09100-09500_09300\09301\Post Process\[26 Indian_Krameria.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Indian Street / Krameria Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                              AM                                                       PM
EXISTING COUNT YEAR:                                       EXISTING COUNT YEAR:
 2015                        268   285                      2015                         249   109
                              v     ^                                                     v     ^
                      51 <   IN  =  622 <   224                                   20 <   IN  =  410 <    69
                       7 >   OUT =  622 >   207                                   31 >   OUT =  410 >   194
                              v     ^                                                     v     ^
                              79   123                                                    87    61
GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                        MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  ADD   MIN      ADD = Additive (Growth Increment) Approach   MIN   MUL
MUL = Multiplicative (Ratio) Approach        v     ^       MUL = Multiplicative (Ratio) Approach         v     ^
                     MUL  <                     <  ADD                         MUL  <                      <  ADD
                     MUL  >                     >  ADD                         MUL  >                      >  MUL
                              v     ^                                                     v     ^
                             MUL   MUL                                                   MUL   MUL
MINIMUM GROWTH %s      2008  TO   2035
                              0%    0%                                                    0%    0%
                              v     ^                                                     v     ^
                       0% <              <    0%                                  0% <              <    0%
                       0% >              >    0%                                  0% >              >    0%
                              v     ^                                                     v     ^
                              0%    0%                                                    0%    0%
REFINED GROWTH:        2008  TO   2035                     ADJUSTED GROWTH:      2008  TO   2035
                             260     0                                                     0   141
                              v     ^                                                     v     ^
                     129 <              <   140                                   10 <              <    70
                       3 >              >    30                                   69 >              >    66
                              v     ^                                                     v     ^
                             451   157                                                   103   129
PRORATED GROWTH:       2015  TO   2035                     PRORATED GROWTH:      2015  TO   2035
   20 YEARS                  190     0                        20 YEARS                     0   100
                              v     ^                                                     v     ^
                     100 <              <   100                                   10 <              <    50
                       0 >              >    20                                   50 >              >    50
                              v     ^                                                     v     ^
                             330   120                                                    80   100
NEW PROJECTED VOLUMES:    2035                             NEW PROJECTED VOLUMES:    2035
                             460   290                                                   250   210
                              v     ^                                                     v     ^
                     150 <   IN  = 1030 <   320                                   30 <   IN  =  610 <   120
                      10 >   OUT = 1080 >   230                                   80 >   OUT =  650 >   240
                              v     ^   *                                                 v     ^   *
                             410   240                                                   170   160
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[26 Indian_Krameria.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Indian Street / Krameria Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	14	52	38	271%	6	14	8	133%
	Through	98	121	23	23%	51	124	73	143%
	Right	11	68	57	518%	4	29	25	625%
	NB Total	123	241	118	96%	61	167	106	174%
SOUTH BOUND	Left	190	151	-39	-21%	173	167	-6	-3%
	Through	77	357	280	364%	73	104	31	42%
	Right	1	0	-1	-100%	3	1	-2	-67%
	SB Total	268	508	240	90%	249	272	23	9%
EAST BOUND	Left	1	0	-1	-100%	4	4	0	0%
	Through	6	10	4	67%	17	44	27	159%
	Right	0	0	0	#DIV/0!	10	39	29	290%
	EB Total	7	10	3	43%	31	87	56	181%
WEST BOUND	Left	2	53	51	2550%	4	27	23	575%
	Through	36	98	62	172%	11	16	5	45%
	Right	186	168	-18	-10%	54	83	29	54%
	WB Total	224	319	95	42%	69	126	57	83%
TOTAL ENTERING VOLUME		622	1,078	456	73%	410	652	242	59%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	508	272			
North Leg	Outbound	289	211			
North Leg	**TOTAL**	**797**	**483**	**11%**	**7%**	**7,000**
South Leg	Inbound	241	167			
South Leg	Outbound	410	170			
South Leg	**TOTAL**	**651**	**337**	**5%**	**3%**	**13,000**
East Leg	Inbound	319	126			
East Leg	Outbound	229	240			
East Leg	**TOTAL**	**548**	**366**	**14%**	**9%**	**4,000**
West Leg	Inbound	10	87			
West Leg	Outbound	150	31			
West Leg	**TOTAL**	**160**	**118**	**2%**	**1%**	**9,000**
OVERALL TOTAL		***2,156***	***1,304***	***7%***	***4%***	***33,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[26 Indian_Krameria.xls]Output (3)

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

INPUT DATA

Project: ======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: ======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Indian Street / San Michele Avenue**

AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES: **2015** **2** **2** **3** < v > **3** ^ ^ **5** **45** > Total = 654 < **161** **35** v v **46** < ^ > **262** **7** **83**	EXISTING TURNING MOVEMENT VOLUMES: 2015 **20** **121** **101** < v > **9** ^ ^ **45** **135** > Total = 1,432 < **228** **219** v v **143** < ^ > **257** **45** **109**
EXISTING MODEL YEAR: **2008** **88** **233** v ^ **0** < IN = 321 < **0** **0** > OUT = 321 > **0** v ^ **88** **233**	EXISTING MODEL YEAR: 2008 **416** **246** v ^ **0** < IN = 669 < **0** **0** > OUT = 669 > **10** v ^ **413** **253**
FUTURE MODEL YEAR: **2035** **579** **700** v ^ **180** < IN = 1590 < **554** **121** > OUT = 1591 > **196** v ^ **515** **336**	FUTURE MODEL YEAR: 2035 **1091** **891** v ^ **208** < IN = 2459 < **383** **274** > OUT = 2460 > **709** v ^ **652** **711**
EXISTING (COUNTED) ADTs BY LEG: 2015 **24** N **852** W **LEG** E **1,824** S **1,932**	EXISTING (COUNTED) ADTs BY LEG: 2015 24 N 852 W + E 1,824 S 1,932
REFINED FUTURE ADT'S BY LEG: 2035 **15,000** N **6,000** W **LEG** E **9,000** S **11,000**	REFINED FUTURE ADT'S BY LEG: 2035 15,000 N 6,000 W + E 9,000 S 11,000

U:\UcJobs_09100-09500_09300\09301\Post Process\[28 Indian_San Michele.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Indian Street / San Michele Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                                AM                                                    PM
EXISTING COUNT YEAR:                                   EXISTING COUNT YEAR:
 2015                          7     15                 2015                          242    99
                               v      ^                                              v      ^
                   425 <  IN  =   654 <   212                            505 <  IN  =  1432 <   416
                    83 >  OUT =   654 >   131                            363 >  OUT =  1432 >   345
                               v      ^                                              v      ^
                              83    352                                             483    411

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                    MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  MUL  MUL   ADD = Additive (Growth Increment) Approach  MUL  MUL
MUL = Multiplicative (Ratio) Approach        v    ^    MUL = Multiplicative (Ratio) Approach        v    ^
                          ADD  <                < ADD                            ADD  <                <  ADD
                          ADD  >                > ADD                            ADD  >                >  ADD
                                             v    ^                                                 v    ^
                                           MUL  ADD                                               ADD  ADD

MINIMUM GROWTH %s      2008  TO   2035
                              0%     0%                                             0%     0%
                               v      ^                                              v      ^
                    0% <                  <    0%                         0% <                  <    0%
                    0% >                  >    0%                         0% >                  >    0%
                               v      ^                                              v      ^
                              0%     0%                                             0%     0%

REFINED GROWTH:        2008  TO   2035                 ADJUSTED GROWTH:      2008  TO   2035
                              43     25                                            388    261
                               v      ^                                              v      ^
                   180 <                  <   550                        210 <                  <   380
                   120 >                  >   200                        270 >                  >   700
                               v      ^                                              v      ^
                             407    100                                            240    460

PRORATED GROWTH:       2015  TO   2035                 PRORATED GROWTH:      2015  TO   2035
   20 YEARS                   30     20                   20 YEARS                 290    190
                               v      ^                                              v      ^
                   130 <                  <   410                        160 <                  <   280
                    90 >                  >   150                        200 >                  >   520
                               v      ^                                              v      ^
                             300     70                                            180    340

NEW PROJECTED VOLUMES:    2035                         NEW PROJECTED VOLUMES:    2035
                              40     40                                            530    296
                               v      ^                                              v      ^
                   560 <  IN  =  1250 <   620                            683 <  IN  =  2540 <   700
                   170 >  OUT =  1260 >   280                            560 >  OUT =  2540 >   887
                               v      ^  *                                           v      ^  *
                             380    420                                            673    750
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[28 Indian_San Michele.xls] Growth Summary (2)

Project:	Moreno Valley Logistics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Indian Street / San Michele Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF- ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF- ERENCE	% CHANGE
NORTH BOUND	Left	262	233	-29	-11%	257	328	71	28%
	Through	7	13	6	86%	45	130	85	189%
	Right	83	177	94	113%	109	292	183	168%
	NB Total	352	423	71	20%	411	750	339	82%
SOUTH BOUND	Left	3	19	16	533%	101	306	205	203%
	Through	2	16	14	700%	121	195	74	61%
	Right	2	5	3	150%	20	29	9	45%
	SB Total	7	40	33	471%	242	530	288	119%
EAST BOUND	Left	3	5	2	67%	9	21	12	133%
	Through	45	84	39	87%	135	289	154	114%
	Right	35	83	48	137%	219	250	31	14%
	EB Total	83	172	89	107%	363	560	197	54%
WEST BOUND	Left	46	281	235	511%	143	228	85	59%
	Through	161	322	161	100%	228	326	98	43%
	Right	5	22	17	340%	45	145	100	222%
	WB Total	212	625	413	195%	416	699	283	68%
TOTAL ENTERING VOLUME		654	1,260	606	93%	1,432	2,539	1107	77%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	40	530			
North Leg	Outbound	40	296			
North Leg	**TOTAL**	**80**	**826**	**1%**	**6%**	**15,000**
South Leg	Inbound	423	750			
South Leg	Outbound	380	673			
South Leg	**TOTAL**	**803**	**1,423**	**7%**	**13%**	**11,000**
East Leg	Inbound	625	699			
East Leg	Outbound	280	887			
East Leg	**TOTAL**	**905**	**1,586**	**10%**	**18%**	**9,000**
West Leg	Inbound	172	560			
West Leg	Outbound	560	683			
West Leg	**TOTAL**	**732**	**1,243**	**12%**	**21%**	**6,000**
OVERALL TOTAL		***2,520***	***5,078***	***6%***	***12%***	***41,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[28 Indian_San Michele.xls]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logistics Center <=== Job #: 9301
Scenario: =======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Indian Street / Nandina Avenue**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015			**4**	**57**	**4**		
			<	v	>		
	7	^				^	**13**
	10	>	Total =		643	<	**14**
	119	v				v	**36**
			<	^	>		
			33	**324**	**22**		

EXISTING MODEL YEAR:

2008				**88**	**233**		
				v	^		
	0	<	IN	=	345	<	**19**
	0	>	OUT	=	345	>	**10**
				v	^		
				102	**238**		

FUTURE MODEL YEAR:

2035				**515**	**336**		
				v	^		
	496	<	IN	=	1777	<	**175**
	354	>	OUT	=	1776	>	**99**
				v	^		
				845	**733**		

EXISTING (COUNTED) ADTs BY LEG:

2015			**1,860**		
			N		
	2,508	W	**LEG**	E	**1,296**
			S		
			4,512		

REFINED FUTURE ADT'S BY LEG:

2035			**11,000**		
			N		
	11,000	W	**LEG**	E	**5,000**
			S		
			21,000		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015			**41**	**357**	**48**		
			<	v	>		
	7	^				^	**14**
	36	>	Total =		1,182	<	**17**
	177	v				v	**37**
			<	^	>		
			51	**357**	**40**		

EXISTING MODEL YEAR:

2008				**413**	**253**		
				v	^		
	0	<	IN	=	721	<	**25**
	0	>	OUT	=	720	>	**33**
				v	^		
				434	**283**		

FUTURE MODEL YEAR:

2035				**652**	**711**		
				v	^		
	484	<	IN	=	2906	<	**181**
	918	>	OUT	=	2906	>	**335**
				v	^		
				1376	**1155**		

EXISTING (COUNTED) ADTs BY LEG:

2015			1,860		
			N		
	2,508	W	+	E	1,296
			S		
			4,512		

REFINED FUTURE ADT'S BY LEG:

2035			11,000		
			N		
	11,000	W	+	E	5,000
			S		
			21,000		

U:\UcJobs_09100-09500_09300\09301\Post Process\[29 Indian_Nandina.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Indian Street / Nandina Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                                  AM                                                      PM
EXISTING COUNT YEAR:                                          EXISTING COUNT YEAR:
 2015                           65   344                       2015                           446   378
                                 v    ^                                                         v    ^
                       51 <  IN   =  643 <   63                                    109 <  IN   =  1182 <    68
                      136 >  OUT  =  643 >   36                                    220 >  OUT  =  1182 >   124
                                 v    ^                                                         v    ^
                               212   379                                                      571   448

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                           MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach   MUL  ADD         ADD = Additive (Growth Increment) Approach   ADD  ADD
MUL = Multiplicative (Ratio) Approach         v    ^          MUL = Multiplicative (Ratio) Approach         v    ^
                          ADD  <                 <  ADD                                  ADD  <                 <  ADD
                          ADD  >                 >  ADD                                  ADD  >                 >  ADD
                                  v    ^                                                          v    ^
                                ADD  ADD                                                        ADD  ADD

MINIMUM GROWTH %s      2008  TO   2035
                                0%    0%                                                        0%    0%
                                 v    ^                                                          v    ^
                        0% <              <    0%                                       0% <              <    0%
                        0% >              >    0%                                       0% >              >    0%
                                 v    ^                                                          v    ^
                                0%    0%                                                        0%    0%

REFINED GROWTH:        2008  TO   2035                        ADJUSTED GROWTH:       2008  TO   2035
                               315   100                                                      240   460
                                 v    ^                                                          v    ^
                       500 <              <   160                                      480 <              <   160
                       350 >              >    90                                      920 >              >   300
                                 v    ^                                                          v    ^
                               740   500                                                      940   870

PRORATED GROWTH:       2015  TO   2035                        PRORATED GROWTH:       2015  TO   2035
    20 YEARS                   230    70                          20 YEARS                    180   340
                                 v    ^                                                          v    ^
                       370 <              <   120                                      360 <              <   120
                       260 >              >    70                                      680 >              >   220
                                 v    ^                                                          v    ^
                               550   370                                                      700   640

NEW PROJECTED VOLUMES:    2035                                NEW PROJECTED VOLUMES:    2035
                               300   410                                                      630   723
                                 v    ^                                                          v    ^
                       420 <  IN   = 1630 <   180                                      472 <  IN   =  2810 <   190
                       400 >  OUT  = 1700 >   110                                      900 >  OUT  =  2810 >   341
                                 v    ^   *                                                      v    ^   *
                               760   750                                                     1275  1090
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[29 Indian_Nandina.xls] Growth Summary (2)

Project: Moreno Valley Logistics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: 9301
Analyst: CKS
Date: 7/6/2015

LOCATION: Indian Street / Nandina Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	33	302	269	815%	51	286	235	461%
	Through	324	394	70	22%	357	681	324	91%
	Right	22	72	50	227%	40	119	79	198%
	NB Total	379	768	389	103%	448	1,086	638	142%
SOUTH BOUND	Left	4	14	10	250%	48	66	18	38%
	Through	57	266	209	367%	357	460	103	29%
	Right	4	38	34	850%	41	105	64	156%
	SB Total	65	318	253	389%	446	631	185	41%
EAST BOUND	Left	7	6	-1	-14%	7	19	12	171%
	Through	10	24	14	140%	36	156	120	333%
	Right	119	395	276	232%	177	727	550	311%
	EB Total	136	425	289	213%	220	902	682	310%
WEST BOUND	Left	36	99	63	175%	37	87	50	135%
	Through	14	79	65	464%	17	80	63	371%
	Right	13	10	-3	-23%	14	22	8	57%
	WB Total	63	188	125	198%	68	189	121	178%
TOTAL ENTERING VOLUME		643	1,699	1056	164%	1,182	2,808	1626	138%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	318	631			
North Leg	Outbound	410	722			
North Leg	**TOTAL**	**728**	**1,353**	**7%**	**12%**	**11,000**
South Leg	Inbound	768	1,086			
South Leg	Outbound	760	1,274			
South Leg	**TOTAL**	**1,528**	**2,360**	**7%**	**11%**	**21,000**
East Leg	Inbound	188	189			
East Leg	Outbound	110	341			
East Leg	**TOTAL**	**298**	**530**	**6%**	**11%**	**5,000**
West Leg	Inbound	425	902			
West Leg	Outbound	419	471			
West Leg	**TOTAL**	**844**	**1,373**	**8%**	**12%**	**11,000**
OVERALL TOTAL		***3,398***	***5,616***	**7%**	***12%***	***48,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[29 Indian_Nandina.xls]Output (3)

INPUT DATA

Project: =======================> Moreno Valley Logisitics Center <=== Job #: 9301
Scenario: =======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Indian Street / Harley Knox Boulevard**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		114	55	7		
		<	v	>		
	216 ^				^	11
	190 >		Total =	1,193	<	226
	50 v				v	5
		<	^	>		
		85	215	19		

EXISTING MODEL YEAR:

2008			154	278		
			v	^		
	0	<	IN =	443	<	3
	59	>	OUT =	443	>	11
			v	^		
			154	227		

FUTURE MODEL YEAR:

2035			875	995		
			v	^		
	1482	<	IN =	3922	<	1350
	722	>	OUT =	3921	>	681
			v	^		
			763	975		

EXISTING (COUNTED) ADTs BY LEG:

2015			6,492		
			N		
	9,552	W	LEG	E	5,388
			S		
			4,344		

REFINED FUTURE ADT'S BY LEG:

2035			25,000		
			N		
	26,000	W	LEG	E	23,000
			S		
			22,000		

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:

2015		289	303	27		
		<	v	>		
	178 ^				^	5
	194 >		Total =	1,468	<	129
	60 v				v	13
		<	^	>		
		43	220	7		

EXISTING MODEL YEAR:

2008			531	338		
			v	^		
	88	<	IN =	871	<	2
	2	>	OUT =	871	>	10
			v	^		
			435	336		

FUTURE MODEL YEAR:

2035			1679	1209		
			v	^		
	1195	<	IN =	5699	<	1310
	1493	>	OUT =	5698	>	1492
			v	^		
			1802	1217		

EXISTING (COUNTED) ADTs BY LEG:

2015			6,492		
			N		
	9,552	W	+	E	5,388
			S		
			4,344		

REFINED FUTURE ADT'S BY LEG:

2035			25,000		
			N		
	26,000	W	+	E	23,000
			S		
			22,000		

U:\UcJobs_09100-09500_09300\09301\Post Process\[30 Indian_Harley Knox.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logisitics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Indian Street / Harley Knox Boulevard

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                              AM                                                            PM
EXISTING COUNT YEAR:                                       | EXISTING COUNT YEAR:
 2015                          176    442                  |  2015                          619    403
                                v      ^                   |                                 v      ^
                  425 <  IN  =  1193 <     242             |                   461 <  IN  =  1468 <     147
                  456 >  OUT =  1193 >     216             |                   432 >  OUT =  1468 >     228
                                v      ^                   |                                 v      ^
                               110    319                  |                                376    270

GROWTH CALCULATION DECISION RULE                           |
MIN = Minimum Count Growth Approach                        | MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach   ADD   ADD     | ADD = Additive (Growth Increment) Approach   ADD   ADD
MUL = Multiplicative (Ratio) Approach         v     ^      | MUL = Multiplicative (Ratio) Approach         v     ^
                 ADD  <                          <  ADD    |                  ADD  <                          <  ADD
                 ADD  >                          >  ADD    |                  ADD  >                          >  ADD
                                              v     ^      |                                               v     ^
                                             MUL   ADD     |                                              MUL   MUL

MINIMUM GROWTH %s        2008   TO    2035                 |
                                0%     0%                  |                                 0%     0%
                                v      ^                   |                                 v      ^
                     0% <                   <     0%       |                      0% <                   <     0%
                     0% >                   >     0%       |                      0% >                   >     0%
                                v      ^                   |                                 v      ^
                                0%     0%                  |                                 0%     0%

REFINED GROWTH:          2008   TO    2035                 | ADJUSTED GROWTH:         2008   TO    2035
                               720    720                  |                               1150    870
                                v      ^                   |                                 v      ^
                   1480 <                   <   1350       |                    1110 <                   <   1310
                    660 >                   >    670       |                    1490 >                   >   1480
                                v      ^                   |                                 v      ^
                               430    750                  |                               1184    710

PRORATED GROWTH:         2015   TO    2035                 | PRORATED GROWTH:         2015   TO    2035
     20 YEARS                  530    530                  |      20 YEARS                  850    640
                                v      ^                   |                                 v      ^
                   1100 <                   <   1000       |                     820 <                   <    970
                    490 >                   >    500       |                    1100 >                   >   1100
                                v      ^                   |                                 v      ^
                               320    560                  |                                880    530

NEW PROJECTED VOLUMES:     2035                            | NEW PROJECTED VOLUMES:     2035
                               710   1005                  |                               1470   1042
                                v      ^                   |                                 v      ^
                  1584 <  IN  =  3780 <    1240            |                   1283 <  IN  =  4920 <    1120
                   950 >  OUT =  3780 >     746            |                   1530 >  OUT =  4920 >    1333
                                v      ^    *              |                                 v      ^    *
                               445    880                  |                               1263    800
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[30 Indian_Harley Knox.xls] Growth Summary (2)

Project:	Moreno Valley Logisitics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Indian Street / Harley Knox Boulevard
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	85	156	71	84%	43	75	32	74%
	Through	215	615	400	186%	220	667	447	203%
	Right	19	114	95	500%	7	66	59	843%
	NB Total	319	885	566	177%	270	808	538	199%
SOUTH BOUND	Left	7	67	60	857%	27	185	158	585%
	Through	55	310	255	464%	303	911	608	201%
	Right	114	330	216	189%	289	363	74	26%
	SB Total	176	707	531	302%	619	1,459	840	136%
EAST BOUND	Left	216	306	90	42%	178	318	140	79%
	Through	190	565	375	197%	194	1,081	887	457%
	Right	50	88	38	76%	60	147	87	145%
	EB Total	456	959	503	110%	432	1,546	1,114	258%
WEST BOUND	Left	5	47	42	840%	13	204	191	1469%
	Through	226	1,099	873	386%	129	845	716	555%
	Right	11	84	73	664%	5	57	52	1040%
	WB Total	242	1,230	988	408%	147	1,106	959	652%
TOTAL ENTERING VOLUME		1,193	3,781	2588	217%	1,468	4,919	3451	235%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	707	1,459			
North Leg	Outbound	1,005	1,042			
North Leg	**TOTAL**	**1,712**	**2,501**	**7%**	**10%**	**25,000**
South Leg	Inbound	885	808			
South Leg	Outbound	445	1,262			
South Leg	**TOTAL**	**1,330**	**2,070**	**6%**	**9%**	**22,000**
East Leg	Inbound	1,230	1,106			
East Leg	Outbound	746	1,332			
East Leg	**TOTAL**	**1,976**	**2,438**	**9%**	**11%**	**23,000**
West Leg	Inbound	959	1,546			
West Leg	Outbound	1,585	1,283			
West Leg	**TOTAL**	**2,544**	**2,829**	**10%**	**11%**	**26,000**
OVERALL TOTAL		***7,562***	***9,838***	**8%**	***10%***	***96,000***

U:\UcJobs_09100-09500_09300\09301\Post Process\[30 Indian_Harley Knox.xls]Output (3)

INPUT DATA

Project: ======================> Moreno Valley Logisitics Center <=== Job #: 9301
Scenario: ======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION:	**Perris Boulevard / Cactus Avenue**
AM PEAK HOUR	**PM PEAK HOUR**
EXISTING TURNING MOVEMENT VOLUMES: **2015** **39** **466** **99** < v > **63** ^ ^ **75** **402** > Total = 3,108 < **702** **124** v v **59** < ^ > **188** **809** **82**	EXISTING TURNING MOVEMENT VOLUMES: 2015 **38** **913** **125** < v > **49** ^ ^ **73** **546** > Total = 3,342 < **405** **201** v v **48** < ^ > **154** **743** **47**
EXISTING MODEL YEAR: **2008** **676** **742** v ^ **459** < IN = 1906 < **361** **175** > OUT = 1907 > **107** v ^ **599** **694**	EXISTING MODEL YEAR: 2008 **762** **737** v ^ **280** < IN = 2126 < **178** **509** > OUT = 2126 > **473** v ^ **636** **677**
FUTURE MODEL YEAR: **2035** **1406** **1666** v ^ **467** < IN = 3861 < **466** **173** > OUT = 3860 > **175** v ^ **1552** **1816**	FUTURE MODEL YEAR: 2035 **2033** **1659** v ^ **418** < IN = 4930 < **329** **689** > OUT = 4929 > **629** v ^ **2223** **1879**
EXISTING (COUNTED) ADTs BY LEG: 2015 **16,968** N **14,064** W **LEG** E **13,776** S **17,568**	EXISTING (COUNTED) ADTs BY LEG: 2015 16,968 N 14,064 W + E 13,776 S 17,568
REFINED FUTURE ADT'S BY LEG: 2035 **43,000** N **10,000** W **LEG** E **10,000** S **48,000**	REFINED FUTURE ADT'S BY LEG: 2035 43,000 N 10,000 W + E 10,000 S 48,000

U:\UcJobs_09100-09500_09300\09301\Post Process\[31 Perris_Cactus.xls]Input (1)

Growth Calculations

Project: Moreno Valley Logisitics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Perris Boulevard / Cactus Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                          AM                                                  PM
EXISTING COUNT YEAR:                                 EXISTING COUNT YEAR:
 2015                    604    947                   2015                   1076    865
                          v      ^                                             v      ^
               929 <  IN   =  3108 <    836                         597 <  IN   =  3342 <    526
               589 >  OUT  =  3108 >    583                         796 >  OUT  =  3342 >    718
                          v      ^                                             v      ^
                         649   1079                                          1162    944

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                  MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  MUL  ADD ADD = Additive (Growth Increment) Approach  ADD  ADD
MUL = Multiplicative (Ratio) Approach        v    ^  MUL = Multiplicative (Ratio) Approach       v    ^
                     ADD  <                 <  ADD                        ADD  <               <  ADD
                     ADD  >                 >  ADD                        ADD  >               >  ADD
                                             v    ^                                           v    ^
                                            ADD  ADD                                         ADD  ADD

MINIMUM GROWTH %s    2008  TO   2035
                          0%     0%                                            0%     0%
                          v      ^                                             v      ^
               -29% <               <    -27%                       -29% <               <    -27%
               -29% >               >    -27%                       -29% >               >    -27%
                          v      ^                                             v      ^
                          0%     0%                                            0%     0%

REFINED GROWTH:      2008  TO   2035                 ADJUSTED GROWTH:     2008  TO   2035
                         656    920                                          1270    920
                          v      ^                                             v      ^
                10 <                <    110                        140 <                <    150
                 0 >                >     70                        180 >                >    160
                          v      ^                                             v      ^
                         950   1120                                          1590   1200

PRORATED GROWTH:     2015  TO   2035                 PRORATED GROWTH:     2015  TO   2035
   20 YEARS              490    680                     20 YEARS              940    680
                          v      ^                                             v      ^
                10 <                <     80                        100 <                <    110
                 0 >                >     50                        130 >                >    120
                          v      ^                                             v      ^
                         700    830                                          1180    890

NEW PROJECTED VOLUMES:     2035                      NEW PROJECTED VOLUMES:     2035
                        1090   1630                                          2020   1550
                          v      ^                                             v      ^
               940 <  IN   =  4510 <    920                         700 <  IN   =  5420 <    640
               590 >  OUT  =  4550 >    630                         930 >  OUT  =  5430 >    840
                          v      ^   *                                         v      ^   *
                        1350   1910                                          2340   1830
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[31 Perris_Cactus.xls] Growth Summary (2)

Project: Moreno Valley Logisitics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: 9301
Analyst: CKS
Date: 7/6/2015

LOCATION: Perris Boulevard / Cactus Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF- ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF- ERENCE	% CHANGE
NORTH BOUND	Left	188	250	62	33%	154	249	95	62%
	Through	809	1,484	675	83%	743	1,421	678	91%
	Right	82	170	88	107%	47	116	69	147%
	NB Total	1,079	1,904	825	76%	944	1,786	842	89%
SOUTH BOUND	Left	99	110	11	11%	125	158	33	26%
	Through	466	982	516	111%	913	1,878	965	106%
	Right	39	28	-11	-28%	38	32	-6	-16%
	SB Total	604	1,120	516	85%	1,076	2,068	992	92%
EAST BOUND	Left	63	48	-15	-24%	49	40	-9	-18%
	Through	402	349	-53	-13%	546	566	20	4%
	Right	124	204	80	65%	201	339	138	69%
	EB Total	589	601	12	2%	796	945	149	19%
WEST BOUND	Left	59	164	105	178%	48	123	75	156%
	Through	702	662	-40	-6%	405	420	15	4%
	Right	75	98	23	31%	73	89	16	22%
	WB Total	836	924	88	11%	526	632	106	20%
TOTAL ENTERING VOLUME		3,108	4,549	1441	46%	3,342	5,431	2089	63%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,120	2,068			
North Leg	Outbound	1,630	1,550			
North Leg	**TOTAL**	**2,750**	**3,618**	**6%**	**8%**	**43,000**
South Leg	Inbound	1,904	1,786			
South Leg	Outbound	1,350	2,340			
South Leg	**TOTAL**	**3,254**	**4,126**	**7%**	**9%**	**48,000**
East Leg	Inbound	924	632			
East Leg	Outbound	629	840			
East Leg	**TOTAL**	**1,553**	**1,472**	**16%**	**15%**	**10,000**
West Leg	Inbound	601	945			
West Leg	Outbound	940	701			
West Leg	**TOTAL**	**1,541**	**1,646**	**15%**	**16%**	**10,000**
OVERALL TOTAL		***9,098***	***10,862***	**8%**	***10%***	***111,000***

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INPUT DATA

Project: ======================> Moreno Valley Logisitics Center <=== Job #: 9301
Scenario: ======================> GP Buildout Post 2035 Without Project <=== Analyst: CKS
Existing Conditions Model Run ID: ==> RivTAM for MV-Existing Base Model <=== Date: 7/6/2015
Future Conditions Model Run ID: ==> RivTAM-Moreno Valley GP <===

LOCATION: **Perris Boulevard / Krameria Avenue**

AM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:
2015 **7** **558** **89**
< v >
16 ^ ^ **190**
156 > Total = 2,509 < **107**
62 v v **184**
< ^ >
64 **793** **283**

EXISTING MODEL YEAR:
2008 **602** **718**
v ^
108 < IN = 1622 < **354**
47 > OUT = 1623 > **246**
v ^
551 **619**

FUTURE MODEL YEAR:
2035 **1923** **1680**
v ^
141 < IN = 3949 < **281**
51 > OUT = 3950 > **167**
v ^
1962 **1694**

EXISTING (COUNTED) ADTs BY LEG:
2015 **14,664**
N
3,300 W **LEG** E **7,560**
S
15,540

REFINED FUTURE ADT'S BY LEG:
2035 **50,000**
N
3,000 W **LEG** E **7,000**
S
50,000

PM PEAK HOUR

EXISTING TURNING MOVEMENT VOLUMES:
2015 **18** **757** **126**
< v >
24 ^ ^ **87**
97 > Total = 2,396 < **55**
38 v v **154**
< ^ >
34 **834** **172**

EXISTING MODEL YEAR:
2008 **803** **644**
v ^
53 < IN = 1916 < **262**
211 > OUT = 1917 > **539**
v ^
681 **640**

FUTURE MODEL YEAR:
2035 **2381** **2214**
v ^
188 < IN = 5289 < **317**
255 > OUT = 5289 > **517**
v ^
2370 **2336**

EXISTING (COUNTED) ADTs BY LEG:
2015 14,664
N
3,300 W + E 7,560
S
15,540

REFINED FUTURE ADT'S BY LEG:
2035 50,000
N
3,000 W + E 7,000
S
50,000

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Growth Calculations

Project: Moreno Valley Logisitics Center
Scenario: GP Buildout Post 2035 Without Project

Job #: #
Analyst: CKS
Date: 7/6/2015

LOCATION: Perris Boulevard / Krameria Avenue

```
EXISTING COUNTED INBOUND AND OUTBOUND VOLUME CALCULATION
                                   AM                                                          PM
EXISTING COUNT YEAR:                                        EXISTING COUNT YEAR:
 2015                           654    999                   2015                           901    945
                                 v      ^                                                     v      ^
                     178 <   IN   =  2509 <    481                             107 <   IN   =  2396 <    296
                     234 >   OUT  =  2509 >    528                             159 >   OUT  =  2396 >    395
                                 v      ^                                                     v      ^
                                804   1140                                                949   1040

GROWTH CALCULATION DECISION RULE
MIN = Minimum Count Growth Approach                         MIN = Minimum Count Growth Approach
ADD = Additive (Growth Increment) Approach  ADD   ADD       ADD = Additive (Growth Increment) Approach  ADD   ADD
MUL = Multiplicative (Ratio) Approach        v     ^        MUL = Multiplicative (Ratio) Approach        v     ^
                          ADD  <                 <  MIN                                ADD  <                 <  ADD
                          ADD  >                 >  MIN                                MUL  >                 >  MUL
                                 v      ^                                                     v      ^
                               ADD    ADD                                                   ADD    ADD

MINIMUM GROWTH %s     2008   TO    2035
                                 0%     0%                                                    0%     0%
                                 v      ^                                                     v      ^
                     -9% <                   <    -7%                         -9% <                   <    -7%
                     -9% >                   >    -7%                         -9% >                   >    -7%
                                 v      ^                                                     v      ^
                                 0%     0%                                                    0%     0%

REFINED GROWTH:       2008   TO    2035                     ADJUSTED GROWTH:      2008   TO    2035
                               1320    960                                               1580   1570
                                 v      ^                                                     v      ^
                      30 <                   <    -30                         140 <                   <     60
                       0 >                   >    -40                          31 >                   >    -15
                                 v      ^                                                     v      ^
                               1410   1080                                               1690   1700

PRORATED GROWTH:      2015   TO    2035                     PRORATED GROWTH:      2015   TO    2035
     20 YEARS                   980    710                       20 YEARS                1170   1160
                                 v      ^                                                     v      ^
                      20 <                   <    -20                         100 <                   <     40
                       0 >                   >    -30                          20 >                   >    -10
                                 v      ^                                                     v      ^
                               1040    800                                               1250   1260

NEW PROJECTED VOLUMES:     2035                             NEW PROJECTED VOLUMES:     2035
                               1630   1714                                               2070   2110
                                 v      ^                                                     v      ^
                     200 <   IN   =  4260 <    460                             210 <   IN   =  4890 <    340
                     230 >   OUT  =  4260 >    501                             180 >   OUT  =  4910 >    390
                                 v      ^   *                                                 v      ^   *
                               1844   1940                                               2200   2300
```

* NOTE: Outbound future volume may be factored (increased) to match inbound if inbound is greater than outbound.
U:\UcJobs_09100-09500_09300\09301\Post Process\[32 Perris_Krameria.xls] Growth Summary (2)

Project:	Moreno Valley Logisitics Center	Job #:	9301
Scenario:	GP Buildout Post 2035 Without Project	Analyst:	CKS
		Date:	7/6/2015

LOCATION: Perris Boulevard / Krameria Avenue
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	64	106	42	66%	34	100	66	194%
	Through	793	1,526	733	92%	834	1,990	1,156	139%
	Right	283	293	10	4%	172	199	27	16%
	NB Total	1,140	1,925	785	69%	1,040	2,289	1,249	120%
SOUTH BOUND	Left	89	101	12	13%	126	121	-5	-4%
	Through	558	1,531	973	174%	757	1,933	1,176	155%
	Right	7	13	6	86%	18	44	26	144%
	SB Total	654	1,645	991	152%	901	2,098	1,197	133%
EAST BOUND	Left	16	20	4	25%	24	36	12	50%
	Through	156	107	-49	-31%	97	71	-26	-27%
	Right	62	103	41	66%	38	74	36	95%
	EB Total	234	230	-4	-2%	159	181	22	14%
WEST BOUND	Left	184	211	27	15%	154	192	38	25%
	Through	107	81	-26	-24%	55	66	11	20%
	Right	190	168	-22	-12%	87	84	-3	-3%
	WB Total	481	460	-21	-4%	296	342	46	16%
TOTAL ENTERING VOLUME		2,509	4,260	1751	70%	2,396	4,910	2514	105%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,645	2,098			
North Leg	Outbound	1,714	2,110			
North Leg	**TOTAL**	**3,359**	**4,208**	**7%**	**8%**	**50,000**
South Leg	Inbound	1,925	2,289			
South Leg	Outbound	1,845	2,199			
South Leg	**TOTAL**	**3,770**	**4,488**	**8%**	**9%**	**50,000**
East Leg	Inbound	460	342			
East Leg	Outbound	501	391			
East Leg	**TOTAL**	**961**	**733**	**14%**	**10%**	**7,000**
West Leg	Inbound	230	181			
West Leg	Outbound	200	210			
West Leg	**TOTAL**	**430**	**391**	**14%**	**13%**	**3,000**
OVERALL TOTAL		***8,520***	***9,820***	**8%**	***9%***	***110,000***

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APPENDIX 5.1:

E+P CONDITIONS WITHOUT INDIAN STREET BRIDGE INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (vph)	0	333	36	351	1280	0	0	0	736	0	0	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	351	38	369	1347	0	0	0	775	0	0	225
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	526	0	0	96
Lane Group Flow (vph)	0	351	13	369	1347	0	0	0	249	0	0	129
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		21.0	21.0	14.1	39.1				9.8			11.4
Effective Green, g (s)		21.0	21.0	14.1	39.1				9.8			11.4
Actuated g/C Ratio		0.35	0.35	0.23	0.65				0.16			0.19
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		1330	665	446	2476				310			361
v/s Ratio Prot		0.09		c0.19	c0.35				c0.13			0.07
v/s Ratio Perm			0.01									
v/c Ratio		0.26	0.02	0.83	0.54				0.80			0.36
Uniform Delay, d1		14.0	12.8	21.8	5.6				24.2			21.1
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		0.5	0.1	11.4	0.9				13.1			0.2
Delay (s)		14.4	12.8	33.2	6.5				37.3			21.3
Level of Service		B	B	C	A				D			C
Approach Delay (s)		14.3			12.2			37.3			21.3	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM 2000 Control Delay	19.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	381	8	137	163	0	0	0	0	473	2	155
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	405	4	146	173	0				503	2	101
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	569	2303	0				560	2	502
Arrive On Green	0.00	0.25	0.25	0.63	1.00	0.00				0.31	0.31	0.31
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1803	7	1615
Grp Volume(v), veh/h	0	405	4	146	173	0				505	0	101
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	10.7	0.2	4.3	0.0	0.0				32.0	0.0	5.5
Cycle Q Clear(g_c), s	0.0	10.7	0.2	4.3	0.0	0.0				32.0	0.0	5.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	950	404	569	2303	0				562	0	502
V/C Ratio(X)	0.00	0.43	0.01	0.26	0.08	0.00				0.90	0.00	0.20
Avail Cap(c_a), veh/h	0	950	404	569	2303	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.8	33.8	16.1	0.0	0.0				39.5	0.0	30.4
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.1	0.1	0.0				9.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.1	2.1	0.0	0.0				17.4	0.0	2.5
LnGrp Delay(d),s/veh	0.0	39.2	33.9	16.2	0.1	0.0				48.6	0.0	30.6
LnGrp LOS		D	C	B	A					D		C
Approach Vol, veh/h		409			319						606	
Approach Delay, s/veh		39.1			7.4						45.6	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	42.7	35.0		42.3		77.7		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	20.5	* 30		55.0		55.0		
Max Q Clear Time (g_c+I1), s	6.3	12.7		34.0		2.0		
Green Ext Time (p_c), s	0.7	1.4		3.3		0.8		

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↑↱		↰	↑↱	
Volume (veh/h)	24	1008	37	0	1566	196	388	278	5	34	0	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	1029	32	0	1598	156	396	284	5	35	0	39
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	2053	64	0	1911	185	484	533	9	285	0	456
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	278	3666	114	0	3412	329	1390	1861	33	1107	0	1593
Grp Volume(v), veh/h	24	533	528	0	882	872	396	0	289	35	0	39
Grp Sat Flow(s),veh/h/ln	278	1900	1880	0	1900	1842	1390	0	1894	1107	0	1593
Q Serve(g_s), s	5.1	11.2	11.2	0.0	24.8	25.7	17.4	0.0	8.4	1.8	0.0	1.2
Cycle Q Clear(g_c), s	30.9	11.2	11.2	0.0	24.8	25.7	18.6	0.0	8.4	10.1	0.0	1.2
Prop In Lane	1.00		0.06	0.00		0.18	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	156	1064	1053	0	1064	1031	484	0	542	285	0	456
V/C Ratio(X)	0.15	0.50	0.50	0.00	0.83	0.85	0.82	0.00	0.53	0.12	0.00	0.09
Avail Cap(c_a), veh/h	156	1064	1053	0	1064	1031	484	0	542	285	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	8.7	8.7	0.0	11.7	12.0	24.3	0.0	19.5	23.8	0.0	17.0
Incr Delay (d2), s/veh	2.1	1.7	1.7	0.0	7.5	8.5	14.3	0.0	3.7	0.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	6.3	6.2	0.0	14.9	15.3	9.0	0.0	4.9	0.6	0.0	0.6
LnGrp Delay(d),s/veh	26.9	10.4	10.5	0.0	19.2	20.5	38.6	0.0	23.3	24.7	0.0	17.3
LnGrp LOS	C	B	B		B	C	D		C	C		B
Approach Vol, veh/h		1085			1754			685			74	
Approach Delay, s/veh		10.8			19.8			32.1			20.8	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		32.9		12.1		27.7		20.6
Green Ext Time (p_c), s		3.1		1.1		6.9		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			19.5
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	203	652	0	0	296	348	4	0	177	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	221	709	0	0	322	343	4	0	106			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	247	2755	0	0	2126	904	347	0	310			
Arrive On Green	0.27	1.00	0.00	0.00	0.56	0.56	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1809	0	1615			
Grp Volume(v), veh/h	221	709	0	0	322	343	4	0	106			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	14.1	0.0	0.0	0.0	4.9	14.3	0.2	0.0	6.8			
Cycle Q Clear(g_c), s	14.1	0.0	0.0	0.0	4.9	14.3	0.2	0.0	6.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	247	2755	0	0	2126	904	347	0	310			
V/C Ratio(X)	0.90	0.26	0.00	0.00	0.15	0.38	0.01	0.00	0.34			
Avail Cap(c_a), veh/h	550	2755	0	0	2126	904	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.97	0.97	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.8	0.0	0.0	0.0	12.7	14.8	39.3	0.0	42.0			
Incr Delay (d2), s/veh	4.5	0.2	0.0	0.0	0.2	1.2	0.1	0.0	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.3	0.1	0.0	0.0	2.6	6.6	0.1	0.0	3.3			
LnGrp Delay(d),s/veh	47.3	0.2	0.0	0.0	12.9	16.0	39.4	0.0	45.0			
LnGrp LOS	D	A			B	B	D		D			
Approach Vol, veh/h		930			665			110				
Approach Delay, s/veh		11.4			14.5			44.8				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			19.9	72.1		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			16.1	16.3		8.8
Green Ext Time (p_c), s		5.3			0.3	5.1		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Volume (veh/h)	165	1462	231	104	1520	81	51	222	21	77	116	104
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	1539	0	109	1600	77	54	234	1	81	122	56
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2448	694	119	2324	659	445	465	2	152	159	275
Arrive On Green	0.09	0.43	0.00	0.07	0.41	0.41	0.25	0.25	0.25	0.08	0.08	0.08
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1890	8	1810	1900	1591
Grp Volume(v), veh/h	174	1539	0	109	1600	77	54	0	235	81	122	56
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1591
Q Serve(g_s), s	10.5	25.3	0.0	7.2	27.7	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Cycle Q Clear(g_c), s	10.5	25.3	0.0	7.2	27.7	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	2448	694	119	2324	659	445	0	467	152	159	275
V/C Ratio(X)	1.10	0.63	0.00	0.91	0.69	0.12	0.12	0.00	0.50	0.53	0.77	0.20
Avail Cap(c_a), veh/h	158	2448	694	119	2324	659	445	0	467	445	467	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	26.8	0.0	55.7	29.3	22.1	35.2	0.0	38.9	52.7	53.8	42.7
Incr Delay (d2), s/veh	100.5	1.2	0.0	55.8	0.7	0.0	0.6	0.0	3.8	1.1	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	13.5	0.0	5.4	14.7	1.6	1.5	0.0	7.2	2.6	4.1	1.6
LnGrp Delay(d),s/veh	155.2	28.0	0.0	111.5	30.0	22.1	35.7	0.0	42.8	53.8	56.7	42.8
LnGrp LOS	F	C		F	C	C	D		D	D	E	D
Approach Vol, veh/h		1713			1786			289			259	
Approach Delay, s/veh		40.9			34.6			41.5			52.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	57.0		15.6	15.0	54.4		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	9.2	27.3		9.5	12.5	29.7		14.8
Green Ext Time (p_c), s	0.0	4.3		0.5	0.0	0.0		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.9
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
6: Cactus Avenue & Frederick Street

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	174	1255	1708	156	106	68
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	191	1379	1877	161	116	19
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	215	1995	1995	553	1221	737
Arrive On Green	0.12	0.52	0.35	0.35	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1579	3619	1615
Grp Volume(v), veh/h	191	1379	1877	161	116	19
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1579	1810	1615
Q Serve(g_s), s	8.3	21.6	25.5	5.9	1.8	0.5
Cycle Q Clear(g_c), s	8.3	21.6	25.5	5.9	1.8	0.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	215	1995	1995	553	1221	737
V/C Ratio(X)	0.89	0.69	0.94	0.29	0.09	0.03
Avail Cap(c_a), veh/h	215	1995	1995	553	1221	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.33	0.33	1.00	1.00
Uniform Delay (d), s/veh	34.7	14.2	25.2	18.8	18.1	12.0
Incr Delay (d2), s/veh	32.4	2.0	4.1	0.4	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	11.9	14.1	2.6	0.9	0.7
LnGrp Delay(d),s/veh	67.1	16.2	29.3	19.3	18.3	12.0
LnGrp LOS	E	B	C	B	B	B
Approach Vol, veh/h		1570	2038		135	
Approach Delay, s/veh		22.4	28.5		17.4	
Approach LOS		C	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	14.0	33.5		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		23.6		3.8	10.3	27.5		
Green Ext Time (p_c), s		14.4		0.2	0.0	0.4		

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 TWSC
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	56	773	604	35	8	40
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	62	859	671	39	9	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	671	0	-	0	1225	336
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	554	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	929	-	-	-	*356	666
Stage 1	-	-	-	-	*475	-
Stage 2	-	-	-	-	*732	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	929	-	-	-	*310	666
Mov Cap-2 Maneuver	-	-	-	-	*310	-
Stage 1	-	-	-	-	*475	-
Stage 2	-	-	-	-	*638	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	929	-	-	-	559
HCM Lane V/C Ratio	0.067	-	-	-	0.095
HCM Control Delay (s)	9.2	0.5	-	-	12.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	99	1103	177	15	1663	69	138	53	10	60	53	54
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	1186	0	16	1788	72	148	57	8	65	57	23
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	788	2984	1268	27	1921	77	170	1041	143	84	1207	1209
Arrive On Green	0.44	0.79	0.00	0.01	0.35	0.35	0.05	0.32	0.32	0.05	0.32	0.32
Sat Flow, veh/h	1810	3800	1615	1810	5442	219	3619	3271	449	1810	3800	1593
Grp Volume(v), veh/h	106	1186	0	16	1248	612	148	33	32	65	57	23
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1861	1810	1900	1820	1810	1900	1593
Q Serve(g_s), s	3.0	8.3	0.0	0.7	26.9	27.0	3.5	1.0	1.1	3.0	0.9	0.1
Cycle Q Clear(g_c), s	3.0	8.3	0.0	0.7	26.9	27.0	3.5	1.0	1.1	3.0	0.9	0.1
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	788	2984	1268	27	1341	657	170	605	579	84	1207	1209
V/C Ratio(X)	0.13	0.40	0.00	0.60	0.93	0.93	0.87	0.05	0.06	0.78	0.05	0.02
Avail Cap(c_a), veh/h	788	2984	1268	85	1341	657	170	605	579	85	1207	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	2.9	0.0	41.6	26.5	26.5	40.2	20.1	20.1	40.1	20.1	8.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.7	1.5	3.1	33.8	0.2	0.2	31.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.4	0.0	0.4	14.3	14.3	2.5	0.6	0.6	2.3	0.5	0.2
LnGrp Delay(d),s/veh	14.4	3.1	0.0	42.3	28.0	29.6	74.1	20.3	20.3	71.9	20.2	8.0
LnGrp LOS	B	A		D	C	C	E	C	C	E	C	A
Approach Vol, veh/h		1292			1876			213			145	
Approach Delay, s/veh		4.1			28.7			57.6			41.4	
Approach LOS		A			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	73.2	8.5	32.5	43.5	35.5	8.4	32.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	27.0
Max Q Clear Time (g_c+I1), s	2.7	10.3	5.5	2.9	5.0	29.0	5.0	3.1
Green Ext Time (p_c), s	0.0	5.2	0.0	0.4	0.0	0.8	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			✥			↰↑	↱
Volume (veh/h)	6	738	20	3	551	2	110	0	23	0	2	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	777	21	3	580	2	116	0	24	0	2	6
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	853	725	6	844	3	557	5	105	0	796	676
Arrive On Green	0.01	0.45	0.45	0.00	0.45	0.45	0.42	0.00	0.42	0.00	0.42	0.42
Sat Flow, veh/h	1810	1900	1615	1810	1892	7	1198	13	251	0	1900	1615
Grp Volume(v), veh/h	6	777	21	3	0	582	140	0	0	0	2	6
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1462	0	0	0	1900	1615
Q Serve(g_s), s	0.4	45.8	0.9	0.2	0.0	29.4	6.9	0.0	0.0	0.0	0.1	0.3
Cycle Q Clear(g_c), s	0.4	45.8	0.9	0.2	0.0	29.4	7.3	0.0	0.0	0.0	0.1	0.3
Prop In Lane	1.00		1.00	1.00		0.00	0.83		0.17	0.00		1.00
Lane Grp Cap(c), veh/h	11	853	725	6	0	847	667	0	0	0	796	676
V/C Ratio(X)	0.55	0.91	0.03	0.52	0.00	0.69	0.21	0.00	0.00	0.00	0.00	0.01
Avail Cap(c_a), veh/h	68	1180	1003	68	0	1179	667	0	0	0	796	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	30.8	18.5	59.7	0.0	26.6	22.4	0.0	0.0	0.0	20.3	20.3
Incr Delay (d2), s/veh	15.0	6.9	0.0	24.7	0.0	0.4	0.7	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	25.6	0.4	0.1	0.0	15.4	3.1	0.0	0.0	0.0	0.0	0.1
LnGrp Delay(d),s/veh	74.4	37.7	18.5	84.4	0.0	26.9	23.1	0.0	0.0	0.0	20.3	20.4
LnGrp LOS	E	D	B	F		C	C				C	C
Approach Vol, veh/h		804			585			140			8	
Approach Delay, s/veh		37.5			27.2			23.1			20.4	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		55.8	4.9	59.4		55.8	5.2	59.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		25.5	4.5	74.5		25.5	4.5	74.5
Max Q Clear Time (g_c+I1), s		9.3	2.2	47.8		2.3	2.4	31.4
Green Ext Time (p_c), s		0.4	0.0	6.1		0.5	0.0	6.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	89	524	538	51	1011	96	739	381	20	46	305	47
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	570	508	55	1099	95	803	414	20	50	332	35
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	2465	1046	71	2177	188	695	1496	72	64	846	88
Arrive On Green	0.06	0.65	0.65	0.04	0.63	0.63	0.19	0.42	0.42	0.04	0.25	0.25
Sat Flow, veh/h	1810	3800	1613	1810	3449	298	3619	3593	173	1810	3383	354
Grp Volume(v), veh/h	97	570	508	55	605	589	803	218	216	50	185	182
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1847	1810	1900	1866	1810	1900	1837
Q Serve(g_s), s	5.3	6.2	17.9	3.0	17.2	17.3	19.2	7.6	7.6	2.7	8.1	8.2
Cycle Q Clear(g_c), s	5.3	6.2	17.9	3.0	17.2	17.3	19.2	7.6	7.6	2.7	8.1	8.2
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.09	1.00		0.19
Lane Grp Cap(c), veh/h	103	2465	1046	71	1199	1166	695	791	777	64	475	459
V/C Ratio(X)	0.94	0.23	0.49	0.77	0.50	0.51	1.16	0.28	0.28	0.78	0.39	0.40
Avail Cap(c_a), veh/h	103	2465	1046	72	1199	1166	695	791	777	121	475	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	7.3	11.1	47.6	10.0	10.0	40.4	19.2	19.3	47.8	31.2	31.2
Incr Delay (d2), s/veh	51.9	0.1	1.0	35.9	1.5	1.6	84.7	0.8	0.8	7.2	2.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	3.3	8.2	2.2	9.4	9.2	17.7	4.1	4.1	1.5	4.6	4.5
LnGrp Delay(d),s/veh	98.9	7.4	12.1	83.5	11.5	11.6	125.1	20.0	20.1	55.0	33.6	33.8
LnGrp LOS	F	A	B	F	B	B	F	C	C	E	C	C
Approach Vol, veh/h		1175			1249			1237			417	
Approach Delay, s/veh		17.0			14.7			88.3			36.2	
Approach LOS		B			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	71.4	24.7	30.5	10.2	69.6	8.1	47.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	31.8	19.2	* 25	5.7	30.1	6.7	37.5
Max Q Clear Time (g_c+I1), s	5.0	19.9	21.2	10.2	7.3	19.3	4.7	9.6
Green Ext Time (p_c), s	0.0	6.4	0.0	1.0	0.0	6.1	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	7	43	62	36	108	257	68	778	49	130	694	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.94	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	47	22	39	117	118	74	846	38	141	754	10
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	201	171	51	217	182	96	1140	458	577	2195	921
Arrive On Green	0.01	0.11	0.11	0.03	0.11	0.11	0.05	0.30	0.30	0.32	0.58	0.58
Sat Flow, veh/h	1810	1900	1615	1810	1900	1594	1810	3800	1526	1810	3800	1594
Grp Volume(v), veh/h	8	47	22	39	117	118	74	846	38	141	754	10
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1594	1810	1900	1526	1810	1900	1594
Q Serve(g_s), s	0.4	1.9	1.0	1.8	4.9	6.0	3.4	17.0	1.2	4.9	8.9	0.2
Cycle Q Clear(g_c), s	0.4	1.9	1.0	1.8	4.9	6.0	3.4	17.0	1.2	4.9	8.9	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	15	201	171	51	217	182	96	1140	458	577	2195	921
V/C Ratio(X)	0.55	0.23	0.13	0.76	0.54	0.65	0.77	0.74	0.08	0.24	0.34	0.01
Avail Cap(c_a), veh/h	85	541	460	123	581	488	183	1140	458	577	2195	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	42.0	34.8	34.4	41.0	35.5	36.0	39.7	26.8	13.4	21.4	9.5	3.5
Incr Delay (d2), s/veh	11.2	0.2	0.1	8.3	0.8	1.4	4.9	4.4	0.4	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	0.5	1.0	2.6	2.7	1.8	9.6	0.6	2.4	4.7	0.1
LnGrp Delay(d),s/veh	53.2	35.1	34.6	49.3	36.3	37.4	44.6	31.2	13.7	21.5	9.8	3.5
LnGrp LOS	D	D	C	D	D	D	D	C	B	C	A	A
Approach Vol, veh/h		77			274			958			905	
Approach Delay, s/veh		36.8			38.6			31.5			11.6	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.6	31.0	6.9	14.5	9.0	54.6	6.2	15.2
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	9.5	* 26	5.8	24.2	8.6	26.4	4.0	* 26
Max Q Clear Time (g_c+I1), s	6.9	19.0	3.8	3.9	5.4	10.9	2.4	8.0
Green Ext Time (p_c), s	0.1	2.0	0.0	0.1	0.0	2.8	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	92	626	2	55	713
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	97	659	2	58	751

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1525	659	0	0	659	0
Stage 1	659	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	131	467	-	-	939	-
Stage 1	518	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	123	467	-	-	939	-
Mov Cap-2 Maneuver	123	-	-	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	389	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	123	467	939	-
HCM Lane V/C Ratio	-	-	0.026	0.207	0.062	-
HCM Control Delay (s)	-	-	35	14.7	9.1	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.8	0.2	-

HCM 2010 AWSC
13: Heacock Street & Iris Avenue

Intersection	
Intersection Delay, s/veh	36.1
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	45	383	0	246	36	0	200	513
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	48	407	0	262	38	0	213	546
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	24.6	18.6	50
HCM LOS	C	C	E

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	87%	0%	0%	0%	100%
Vol Right, %	13%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	282	45	383	200	513
LT Vol	0	45	0	200	0
Through Vol	246	0	0	0	513
RT Vol	36	0	383	0	0
Lane Flow Rate	300	48	407	213	546
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.568	0.104	0.742	0.419	0.998
Departure Headway (Hd)	6.817	7.786	6.56	7.092	6.582
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	525	458	546	504	546
Service Time	4.915	5.58	4.352	4.887	4.376
HCM Lane V/C Ratio	0.571	0.105	0.745	0.423	1
HCM Control Delay	18.6	11.5	26.1	15	63.7
HCM Lane LOS	C	B	D	B	F
HCM 95th-tile Q	3.5	0.3	6.3	2	14.1

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	21	87	236	65	186	371
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	107	291	80	230	458
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	159	142	796	677	491	1434
Arrive On Green	0.09	0.09	0.42	0.42	0.27	0.75
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	26	107	291	80	230	458
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.9	4.5	7.4	2.1	7.4	5.5
Cycle Q Clear(g_c), s	0.9	4.5	7.4	2.1	7.4	5.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	159	142	796	677	491	1434
V/C Ratio(X)	0.16	0.75	0.37	0.12	0.47	0.32
Avail Cap(c_a), veh/h	439	392	796	677	491	1434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	31.2	13.9	12.4	21.3	2.8
Incr Delay (d2), s/veh	0.2	3.0	1.3	0.4	3.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	4.1	1.0	4.1	3.0
LnGrp Delay(d),s/veh	29.7	34.2	15.2	12.8	24.5	3.4
LnGrp LOS	C	C	B	B	C	A
Approach Vol, veh/h	133		371			688
Approach Delay, s/veh	33.3		14.7			10.4
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	34.8				58.3		11.7
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	9.4	9.4				7.5		6.5
Green Ext Time (p_c), s	0.2	1.9				2.6		0.1

Intersection Summary			
HCM 2010 Ctrl Delay			14.3
HCM 2010 LOS			B

HCM 2010 TWSC
15: Heacock Street & Driveway 1

Moreno Valley Logistics Center TIA (JN 09301)
9/14/2015

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	9	8	292	35	44	347
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	9	317	38	48	377

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	809	178	0	0	355	0
Stage 1	336	-	-	-	-	-
Stage 2	473	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	337	841	-	-	1215	-
Stage 1	702	-	-	-	-	-
Stage 2	631	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	324	841	-	-	1215	-
Mov Cap-2 Maneuver	510	-	-	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	606	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	626	1215	-
HCM Lane V/C Ratio	-	-	0.03	0.039	-
HCM Control Delay (s)	-	-	10.9	8.1	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

16: Heacock Street & Driveway 2

9/14/2015

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	10	317	35	43	312
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	11	345	38	47	339

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	797	191	0	0	383	0
Stage 1	364	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	343	825	-	-	1187	-
Stage 1	679	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	329	825	-	-	1187	-
Mov Cap-2 Maneuver	517	-	-	-	-	-
Stage 1	679	-	-	-	-	-
Stage 2	632	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	652	1187	-
HCM Lane V/C Ratio	-	-	0.03	0.039	-
HCM Control Delay (s)	-	-	10.7	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	11	10	307	53	45	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	14	432	75	63	363

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	922	216	0	0	432	0
Stage 1	432	-	-	-	-	-
Stage 2	490	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	287	795	-	-	1138	-
Stage 1	628	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	271	795	-	-	1138	-
Mov Cap-2 Maneuver	469	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	586	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	1.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	469	795	1138	-
HCM Lane V/C Ratio	-	-	0.033	0.018	0.056	-
HCM Control Delay (s)	-	-	12.9	9.6	8.3	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.2	-

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	2	4	4	7	5	315	1	39	5	115	88	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	5	2	9	7	353	1	52	7	153	117	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	6	95	81	343	449	382	2	618	525	408	1063	903
Arrive On Green	0.00	0.05	0.05	0.19	0.24	0.24	0.00	0.32	0.32	0.23	0.56	0.56
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	3	5	2	9	7	353	1	52	7	153	117	8
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.2	0.3	0.1	0.4	0.3	21.4	0.1	1.9	0.3	7.2	2.9	0.2
Cycle Q Clear(g_c), s	0.2	0.3	0.1	0.4	0.3	21.4	0.1	1.9	0.3	7.2	2.9	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	95	81	343	449	382	2	618	525	408	1063	903
V/C Ratio(X)	0.52	0.05	0.02	0.03	0.02	0.92	0.50	0.08	0.01	0.38	0.11	0.01
Avail Cap(c_a), veh/h	100	551	468	343	523	444	81	618	525	408	1063	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	45.2	36.1	33.0	29.3	37.3	49.9	23.4	22.9	32.8	10.3	5.7
Incr Delay (d2), s/veh	24.3	0.1	0.0	0.0	0.0	12.7	58.7	0.3	0.0	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.2	0.1	10.9	0.1	1.0	0.1	3.6	1.6	0.1
LnGrp Delay(d),s/veh	74.1	45.3	36.1	33.0	29.3	50.0	108.6	23.7	22.9	33.0	10.6	5.7
LnGrp LOS	E	D	D	C	C	D	F	C	C	C	B	A
Approach Vol, veh/h		10			369			60			278	
Approach Delay, s/veh		52.1			49.2			25.0			22.8	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	38.0	23.5	10.5	4.6	61.4	4.8	29.1
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	9.2	3.9	2.4	2.3	2.1	4.9	2.2	23.4
Green Ext Time (p_c), s	0.2	0.1	0.0	0.0	0.0	0.5	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	40	0	2	91	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	43	0	2	97	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	196	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	195	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	797	1090	-	-	1634	-
Stage 1	1028	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	1090	-	-	1634	-
Mov Cap-2 Maneuver	752	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1090	1634	-
HCM Lane V/C Ratio	-	-	-	0.039	0.059	-
HCM Control Delay (s)	-	-	0	8.4	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	534	1	0	407	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	668	1	0	509	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	669	0	1177	668
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	509	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	892	-	213	567
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	662	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	892	-	213	567
Mov Cap-2 Maneuver	-	-	-	-	213	-
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	662	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	567	-	-	892	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	11.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	23	222	0	0	0	95	3	6	3	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	28	271	0	0	0	116	4	7	4	0	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	250	250	8	400	258	4	16	0	0	4	0	0
Stage 1	15	15	-	235	235	-	-	-	-	-	-	-
Stage 2	235	235	-	165	23	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	708	656	1080	564	650	1085	1615	-	-	1631	-	-
Stage 1	1010	887	-	773	714	-	-	-	-	-	-	-
Stage 2	773	714	-	842	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	668	607	1080	385	602	1085	1615	-	-	1631	-	-
Mov Cap-2 Maneuver	676	624	-	460	624	-	-	-	-	-	-	-
Stage 1	937	885	-	717	663	-	-	-	-	-	-	-
Stage 2	717	663	-	609	878	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	0	6.8	1.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	1001	-	1631	-	-
HCM Lane V/C Ratio	0.072	-	-	0.305	-	0.002	-	-
HCM Control Delay (s)	7.4	-	-	10.2	0	7.2	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.3	-	0	-	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 AWSC | Moreno Valley Logistics Center TIA (JN 09301)

22: Cosmos Street & Driveway/Krameria Avenue | 7/16/2015

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	7	1	0	0	16	6	83	0	0	14	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	1	0	0	17	7	90	0	0	15	3
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.5	7.9	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	88%	100%	0%	100%	0%
Vol Thru, %	82%	12%	0%	7%	0%	65%
Vol Right, %	18%	0%	0%	93%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	8	16	89	129	92
LT Vol	0	7	16	0	129	0
Through Vol	14	1	0	6	0	60
RT Vol	3	0	0	83	0	32
Lane Flow Rate	18	9	17	97	140	100
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.025	0.013	0.027	0.121	0.203	0.124
Departure Headway (Hd)	4.958	5.447	5.661	4.504	5.325	4.58
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	724	660	636	801	679	788
Service Time	2.972	3.453	3.361	2.204	3.025	2.28
HCM Lane V/C Ratio	0.025	0.014	0.027	0.121	0.206	0.127
HCM Control Delay	8.1	8.5	8.5	7.8	9.4	7.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.4	0.8	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	129	60	32
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	140	65	35
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.8
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	80	54	10	93	13	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	87	59	11	101	14	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	146	0	239	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1448	-	754	942
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1448	-	748	942
Mov Cap-2 Maneuver	-	-	-	-	810	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	900	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	825	-	-	1448	-
HCM Lane V/C Ratio	0.02	-	-	0.008	-
HCM Control Delay (s)	9.5	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	63	19	16	99	4	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	68	21	17	108	4	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	89	0	221	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	142	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1519	-	772	987
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	890	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	763	987
Mov Cap-2 Maneuver	-	-	-	-	814	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	880	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	880	-	-	1519	-
HCM Lane V/C Ratio	0.009	-	-	0.011	-
HCM Control Delay (s)	9.1	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	19	47	16	104	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	51	17	113	12	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	72	0	194	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	148	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1541	-	799	1029
Stage 1	-	-	-	-	982	-
Stage 2	-	-	-	-	884	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1541	-	790	1029
Mov Cap-2 Maneuver	-	-	-	-	820	-
Stage 1	-	-	-	-	982	-
Stage 2	-	-	-	-	874	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	857	-	-	1541	-
HCM Lane V/C Ratio	0.018	-	-	0.011	-
HCM Control Delay (s)	9.3	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	16	0	0	2	85	188	0	14	102	12
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	5	19	0	0	2	100	221	0	16	120	14
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	9.8	10.6	10.5
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	102	12	4	16	2	85	188	192	95	17
LT Vol	14	0	0	4	0	2	0	0	192	0	0
Through Vol	0	102	0	0	16	0	85	0	0	95	0
RT Vol	0	0	12	0	0	0	0	188	0	0	17
Lane Flow Rate	16	120	14	5	19	2	100	221	226	112	20
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.031	0.212	0.022	0.009	0.035	0.004	0.17	0.332	0.403	0.184	0.029
Departure Headway (Hd)	6.87	6.366	5.662	7.199	6.699	6.602	6.103	5.403	6.419	5.916	5.212
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	521	564	631	497	534	543	588	666	562	607	687
Service Time	4.612	4.108	3.403	4.945	4.445	4.335	3.836	3.136	4.149	3.646	2.942
HCM Lane V/C Ratio	0.031	0.213	0.022	0.01	0.036	0.004	0.17	0.332	0.402	0.185	0.029
HCM Control Delay	9.8	10.8	8.5	10	9.7	9.4	10.1	10.8	13.4	10	8.1
HCM Lane LOS	A	B	A	A	A	A	B	B	B	A	A
HCM 95th-tile Q	0.1	0.8	0.1	0	0.1	0	0.6	1.5	1.9	0.7	0.1

27: Indian Street & Driveway 6

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	3	0	0	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	0	0	0	0	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	9	9	17	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1017	1079	1613	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1017	1079	1613	-	-	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	967	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 2010 Signalized Intersection Summary
28: Indian Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	6	59	75	54	165	5	456	11	91	3	5	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	81	91	74	226	4	625	15	93	4	7	0
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	187	673	80	512	205	1152	1198	1019	8	1161	0
Arrive On Green	0.01	0.10	0.10	0.04	0.13	0.13	0.32	0.63	0.63	0.00	0.31	0.00
Sat Flow, veh/h	1810	1900	1615	1810	3800	1521	3619	1900	1615	1810	3800	0
Grp Volume(v), veh/h	8	81	91	74	226	4	625	15	93	4	7	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1521	1810	1900	1615	1810	1900	0
Q Serve(g_s), s	0.4	3.6	0.5	3.7	4.9	0.2	12.8	0.3	2.0	0.2	0.1	0.0
Cycle Q Clear(g_c), s	0.4	3.6	0.5	3.7	4.9	0.2	12.8	0.3	2.0	0.2	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	15	187	673	80	512	205	1152	1198	1019	8	1161	0
V/C Ratio(X)	0.55	0.43	0.14	0.92	0.44	0.02	0.54	0.01	0.09	0.52	0.01	0.00
Avail Cap(c_a), veh/h	80	549	981	80	1098	439	1152	1198	1019	80	1161	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.5	38.2	6.8	42.8	35.8	33.8	25.3	6.2	6.5	44.7	21.7	0.0
Incr Delay (d2), s/veh	9.7	0.5	0.0	72.7	0.2	0.0	0.3	0.0	0.2	19.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.9	0.9	3.5	2.6	0.1	6.5	0.1	0.9	0.1	0.1	0.0
LnGrp Delay(d),s/veh	54.2	38.7	6.9	115.6	36.0	33.8	25.6	6.2	6.7	63.7	21.8	0.0
LnGrp LOS	D	D	A	F	D	C	C	A	A	E	C	
Approach Vol, veh/h		180			304			733			11	
Approach Delay, s/veh		23.3			55.4			22.8			37.0	
Approach LOS		C			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	62.3	8.5	14.4	34.1	33.0	5.2	17.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	36.0	4.0	26.0	12.5	* 28	4.0	26.0
Max Q Clear Time (g_c+I1), s	2.2	4.0	5.7	5.6	14.8	2.1	2.4	6.9
Green Ext Time (p_c), s	0.0	1.3	0.0	1.2	0.0	0.0	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
29: Indian Street & Nandina Avenue
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	9	14	137	42	22	17	47	525	28	6	107	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	17	108	51	27	19	57	640	32	7	130	1
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	166	142	66	216	183	74	2398	120	13	2392	18
Arrive On Green	0.01	0.09	0.09	0.04	0.11	0.11	0.04	0.67	0.67	0.01	0.64	0.64
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3585	179	1810	3766	29
Grp Volume(v), veh/h	11	17	108	51	27	19	57	339	333	7	66	65
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1864	1810	1900	1895
Q Serve(g_s), s	0.6	0.8	6.5	2.8	1.3	1.1	3.1	7.2	7.2	0.4	1.3	1.3
Cycle Q Clear(g_c), s	0.6	0.8	6.5	2.8	1.3	1.1	3.1	7.2	7.2	0.4	1.3	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	19	166	142	66	216	183	74	1271	1247	13	1207	1203
V/C Ratio(X)	0.58	0.10	0.76	0.77	0.13	0.10	0.77	0.27	0.27	0.55	0.05	0.05
Avail Cap(c_a), veh/h	100	542	460	172	618	525	208	1271	1247	100	1207	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	49.3	42.0	44.6	47.8	39.9	39.8	47.5	6.7	6.7	49.5	6.9	6.9
Incr Delay (d2), s/veh	9.8	0.1	3.2	7.0	0.1	0.1	6.2	0.5	0.5	12.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	3.0	1.5	0.7	0.5	1.7	3.9	3.9	0.2	0.7	0.7
LnGrp Delay(d),s/veh	59.1	42.1	47.8	54.8	40.0	39.9	53.7	7.2	7.2	61.5	7.0	7.0
LnGrp LOS	E	D	D	D	D	D	D	A	A	E	A	A
Approach Vol, veh/h		136			97			729			138	
Approach Delay, s/veh		48.0			47.7			10.8			9.7	
Approach LOS		D			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	72.4	8.1	14.3	8.6	69.0	5.6	16.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.5	36.5	9.5	28.5	11.5	30.5	5.5	32.5
Max Q Clear Time (g_c+I1), s	2.4	9.2	4.8	8.5	5.1	3.3	2.6	3.3
Green Ext Time (p_c), s	0.0	2.6	0.0	0.3	0.0	2.6	0.0	0.3

Intersection Summary			
HCM 2010 Ctrl Delay			18.5
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

30: Indian Street & Harley Knox Boulevard

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	415	206	71	5	245	15	103	255	25	9	65	184
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	441	219	59	5	261	14	110	271	23	10	69	129
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1364	2059	1750	9	1161	62	145	1369	582	35	608	517
Arrive On Green	0.75	1.00	1.00	0.01	0.32	0.32	0.04	0.36	0.36	0.01	0.32	0.32
Sat Flow, veh/h	1810	1900	1615	1810	3573	191	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	441	219	59	5	138	137	110	271	23	10	69	129
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1863	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	7.9	0.0	0.0	0.3	5.3	5.3	3.0	4.9	0.9	0.3	2.6	5.9
Cycle Q Clear(g_c), s	7.9	0.0	0.0	0.3	5.3	5.3	3.0	4.9	0.9	0.3	2.6	5.9
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1364	2059	1750	9	618	606	145	1369	582	35	608	517
V/C Ratio(X)	0.32	0.11	0.03	0.53	0.22	0.23	0.76	0.20	0.04	0.28	0.11	0.25
Avail Cap(c_a), veh/h	1364	2059	1750	72	618	606	145	1369	582	145	608	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.0	0.0	0.0	49.6	24.6	24.6	47.5	22.0	20.8	49.2	24.0	25.1
Incr Delay (d2), s/veh	0.1	0.1	0.0	16.3	0.8	0.9	18.7	0.3	0.1	1.6	0.4	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.1	0.0	0.2	2.9	2.9	1.9	2.6	0.4	0.1	1.4	2.8
LnGrp Delay(d),s/veh	4.1	0.1	0.0	65.9	25.4	25.5	66.2	22.4	20.9	50.8	24.4	26.3
LnGrp LOS	A	A	A	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		719			280			404			208	
Approach Delay, s/veh		2.5			26.2			34.2			26.8	
Approach LOS		A			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	114.5	9.5	37.5	81.5	38.0	5.5	41.5
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	40.0	4.0	* 32	11.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.3	2.0	5.0	7.9	9.9	7.3	2.3	6.9
Green Ext Time (p_c), s	0.0	1.4	0.0	0.6	0.2	0.8	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Volume (veh/h)	69	410	132	60	726	76	193	831	85	100	485	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	456	130	67	807	75	214	923	82	111	539	64
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	979	277	994	2909	270	238	1499	133	141	855	358
Arrive On Green	0.05	0.34	0.34	0.55	0.85	0.85	0.13	0.29	0.29	0.08	0.22	0.22
Sat Flow, veh/h	1810	2847	805	1810	3421	318	1810	5159	457	1810	3800	1590
Grp Volume(v), veh/h	77	303	283	67	448	434	214	679	326	111	539	64
Grp Sat Flow(s),veh/h/ln	1810	1900	1752	1810	1900	1839	1810	1900	1816	1810	1900	1590
Q Serve(g_s), s	3.4	10.0	10.1	1.4	3.7	3.7	9.3	12.3	12.4	4.8	10.2	3.8
Cycle Q Clear(g_c), s	3.4	10.0	10.1	1.4	3.7	3.7	9.3	12.3	12.4	4.8	10.2	3.8
Prop In Lane	1.00		0.46	1.00		0.17	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	99	653	602	994	1616	1564	238	1104	528	141	855	358
V/C Ratio(X)	0.78	0.46	0.47	0.07	0.28	0.28	0.90	0.61	0.62	0.79	0.63	0.18
Avail Cap(c_a), veh/h	102	653	602	994	1616	1564	238	1104	528	170	855	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	20.5	20.5	8.4	1.2	1.2	34.2	24.5	24.5	36.2	28.0	52.2
Incr Delay (d2), s/veh	27.2	2.4	2.6	0.0	0.4	0.4	32.6	2.6	5.3	14.7	3.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.6	5.3	0.7	2.1	2.0	6.8	6.8	7.0	3.0	5.8	1.8
LnGrp Delay(d),s/veh	64.5	22.9	23.2	8.5	1.6	1.6	66.8	27.1	29.9	50.9	31.5	53.3
LnGrp LOS	E	C	C	A	A	A	E	C	C	D	C	D
Approach Vol, veh/h		663			949			1219			714	
Approach Delay, s/veh		27.8			2.1			34.8			36.5	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	33.0	16.0	23.5	8.9	74.4	10.7	28.8
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 28	10.5	* 18	4.5	27.0	7.5	21.0
Max Q Clear Time (g_c+I1), s	3.4	12.1	11.3	12.2	5.4	5.7	6.8	14.4
Green Ext Time (p_c), s	0.1	1.8	0.0	1.3	0.0	3.4	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↑↱		↰	↑↑↑↱	
Volume (veh/h)	19	158	71	186	107	190	98	816	286	89	570	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	174	62	204	118	109	108	897	289	98	626	23
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	212	202	255	268	223	148	2024	649	122	2605	95
Arrive On Green	0.13	0.13	0.13	0.14	0.14	0.14	0.08	0.49	0.49	0.07	0.48	0.48
Sat Flow, veh/h	204	1686	1611	1810	1900	1580	1810	4121	1322	1810	5462	200
Grp Volume(v), veh/h	195	0	62	204	118	109	108	827	359	98	435	214
Grp Sat Flow(s),veh/h/ln	1890	0	1611	1810	1900	1580	1810	1900	1643	1810	1900	1862
Q Serve(g_s), s	12.1	0.0	4.2	13.1	6.8	7.6	7.0	17.0	17.1	6.4	8.1	8.2
Cycle Q Clear(g_c), s	12.1	0.0	4.2	13.1	6.8	7.6	7.0	17.0	17.1	6.4	8.1	8.2
Prop In Lane	0.11		1.00	1.00		1.00	1.00		0.80	1.00		0.11
Lane Grp Cap(c), veh/h	237	0	202	255	268	223	148	1866	807	122	1812	888
V/C Ratio(X)	0.82	0.00	0.31	0.80	0.44	0.49	0.73	0.44	0.45	0.80	0.24	0.24
Avail Cap(c_a), veh/h	472	0	403	452	475	395	148	1866	807	143	1812	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	47.7	49.9	47.2	47.6	53.8	19.9	19.9	55.2	18.5	18.6
Incr Delay (d2), s/veh	2.7	0.0	0.3	2.2	0.4	0.6	27.0	0.8	1.8	20.4	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	1.9	6.7	3.6	3.4	4.6	9.0	8.1	3.9	4.3	4.3
LnGrp Delay(d),s/veh	53.9	0.0	48.0	52.1	47.6	48.2	80.8	20.6	21.7	75.6	18.9	19.2
LnGrp LOS	D		D	D	D	D	F	C	C	E	B	B
Approach Vol, veh/h		257			431			1294			747	
Approach Delay, s/veh		52.5			49.9			25.9			26.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.6	64.4		20.6	14.3	62.7		22.4
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	8.4	19.1		14.1	9.0	10.2		15.1
Green Ext Time (p_c), s	0.0	5.6		0.7	0.0	7.7		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

1: I-215 SB Ramps & Cactus Av.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (veh/h)	0	645	125	507	358	0	0	0	746	0	0	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	679	124	534	377	0	0	0	0	0	0	73
Adj No. of Lanes	0	2	1	1	2	0	0	0	1	0	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2229	947	461	3452	0	0	0	0	0	0	0
Arrive On Green	0.00	0.59	0.59	0.25	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	1810	3800	0		0			0	
Grp Volume(v), veh/h	0	679	124	534	377	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	5.4	2.1	15.3	0.6	0.0						
Cycle Q Clear(g_c), s	0.0	5.4	2.1	15.3	0.6	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2229	947	461	3452	0						
V/C Ratio(X)	0.00	0.30	0.13	1.16	0.11	0.00						
Avail Cap(c_a), veh/h	0	2229	947	461	3452	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	6.2	5.6	22.3	0.3	0.0						
Incr Delay (d2), s/veh	0.0	0.4	0.3	92.7	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.0	19.4	0.3	0.0						
LnGrp Delay(d),s/veh	0.0	6.6	5.8	115.0	0.3	0.0						
LnGrp LOS		A	A	F	A							
Approach Vol, veh/h		803			911							
Approach Delay, s/veh		6.5			67.6							
Approach LOS		A			E							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	19.3	40.7				60.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	15.3	19.2				38.5		
Max Q Clear Time (g_c+I1), s	17.3	7.4				2.6		
Green Ext Time (p_c), s	0.0	3.7				4.8		

Intersection Summary			
HCM 2010 Ctrl Delay			39.0
HCM 2010 LOS			D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	393	9	214	133	0	0	0	0	366	2	278
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	418	10	228	141	0				389	2	219
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1863	792	253	2537	0				448	2	402
Arrive On Green	0.00	0.49	0.49	0.23	1.00	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1801	9	1615
Grp Volume(v), veh/h	0	418	10	228	141	0				391	0	219
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	7.6	0.4	14.7	0.0	0.0				24.8	0.0	14.1
Cycle Q Clear(g_c), s	0.0	7.6	0.4	14.7	0.0	0.0				24.8	0.0	14.1
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1863	792	253	2537	0				451	0	402
V/C Ratio(X)	0.00	0.22	0.01	0.90	0.06	0.00				0.87	0.00	0.54
Avail Cap(c_a), veh/h	0	1863	792	309	2537	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.5	15.7	45.2	0.0	0.0				43.2	0.0	39.2
Incr Delay (d2), s/veh	0.0	0.3	0.0	22.1	0.0	0.0				5.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.2	8.8	0.0	0.0				13.0	0.0	6.5
LnGrp Delay(d),s/veh	0.0	17.8	15.7	67.3	0.0	0.0				48.4	0.0	40.3
LnGrp LOS		B	B	E	A					D		D
Approach Vol, veh/h		428			369						610	
Approach Delay, s/veh		17.7			41.6						45.5	
Approach LOS		B			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	21.3	63.8		34.9		85.1		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	20.5	30.0		55.0		55.0		
Max Q Clear Time (g_c+I1), s	16.7	9.6		26.8		2.0		
Green Ext Time (p_c), s	0.1	2.1		3.0		2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	14	1233	144	0	1551	66	29	30	0	87	0	36
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	1271	144	0	1599	59	30	31	0	90	0	22
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	1874	211	0	2040	75	501	544	0	495	0	462
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.00	0.29	0.00	0.29
Sat Flow, veh/h	305	3347	377	0	3642	134	1412	1900	0	1400	0	1615
Grp Volume(v), veh/h	14	719	696	0	832	826	30	31	0	90	0	22
Grp Sat Flow(s),veh/h/ln	305	1900	1824	0	1900	1876	1412	1900	0	1400	0	1615
Q Serve(g_s), s	2.5	17.4	17.6	0.0	22.3	22.5	1.0	0.8	0.0	3.2	0.0	0.6
Cycle Q Clear(g_c), s	25.0	17.4	17.6	0.0	22.3	22.5	1.7	0.8	0.0	4.0	0.0	0.6
Prop In Lane	1.00		0.21	0.00		0.07	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	1064	1021	0	1064	1051	501	544	0	495	0	462
V/C Ratio(X)	0.08	0.68	0.68	0.00	0.78	0.79	0.06	0.06	0.00	0.18	0.00	0.05
Avail Cap(c_a), veh/h	176	1064	1021	0	1064	1051	501	544	0	495	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	10.1	10.2	0.0	11.2	11.2	17.4	16.8	0.0	18.3	0.0	16.8
Incr Delay (d2), s/veh	0.9	3.4	3.7	0.0	5.7	5.9	0.2	0.2	0.0	0.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	10.0	9.7	0.0	13.2	13.2	0.4	0.4	0.0	1.4	0.0	0.3
LnGrp Delay(d),s/veh	21.9	13.6	13.8	0.0	16.9	17.2	17.6	17.0	0.0	19.1	0.0	17.0
LnGrp LOS	C	B	B		B	B	B	B		B		B
Approach Vol, veh/h		1429			1658			61			112	
Approach Delay, s/veh		13.8			17.0			17.3			18.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		27.0		6.0		24.5		3.7
Green Ext Time (p_c), s		7.7		0.2		9.4		0.2

Intersection Summary		
HCM 2010 Ctrl Delay		15.7
HCM 2010 LOS		B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	248	511	0	0	338	493	8	1	135	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	279	574	0	0	380	529	9	1	43			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	303	2755	0	0	2007	853	314	35	310			
Arrive On Green	0.34	1.00	0.00	0.00	0.53	0.53	0.19	0.19	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1636	182	1615			
Grp Volume(v), veh/h	279	574	0	0	380	529	10	0	43			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1818	0	1615			
Q Serve(g_s), s	17.8	0.0	0.0	0.0	6.3	27.6	0.5	0.0	2.7			
Cycle Q Clear(g_c), s	17.8	0.0	0.0	0.0	6.3	27.6	0.5	0.0	2.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.90		1.00			
Lane Grp Cap(c), veh/h	303	2755	0	0	2007	853	348	0	310			
V/C Ratio(X)	0.92	0.21	0.00	0.00	0.19	0.62	0.03	0.00	0.14			
Avail Cap(c_a), veh/h	550	2755	0	0	2007	853	348	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.1	0.0	0.0	0.0	14.8	19.9	39.4	0.0	40.3			
Incr Delay (d2), s/veh	5.4	0.2	0.0	0.0	0.2	3.4	0.2	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.3	0.1	0.0	0.0	3.3	13.0	0.3	0.0	1.3			
LnGrp Delay(d),s/veh	44.5	0.2	0.0	0.0	15.0	23.2	39.6	0.0	41.2			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		853			909			53				
Approach Delay, s/veh		14.7			19.8			40.9				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			23.6	68.4		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			19.8	29.6		4.7
Green Ext Time (p_c), s		5.3			0.3	4.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰	↱
Volume (veh/h)	97	1314	23	25	1301	74	366	95	181	100	20	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	1355	0	26	1341	45	304	200	133	118	0	66
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	2878	816	33	2589	718	445	262	174	203	0	202
Arrive On Green	0.07	0.50	0.00	0.02	0.45	0.45	0.25	0.25	0.25	0.06	0.00	0.06
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1065	709	3619	0	1615
Grp Volume(v), veh/h	100	1355	0	26	1341	45	304	0	333	118	0	66
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1774	1810	0	1615
Q Serve(g_s), s	6.5	18.5	0.0	1.7	20.1	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Cycle Q Clear(g_c), s	6.5	18.5	0.0	1.7	20.1	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	124	2878	816	33	2589	718	445	0	436	203	0	202
V/C Ratio(X)	0.80	0.47	0.00	0.80	0.52	0.06	0.68	0.00	0.76	0.58	0.00	0.33
Avail Cap(c_a), veh/h	143	2878	816	119	2589	718	445	0	436	890	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	19.3	0.0	58.7	23.4	18.4	41.0	0.0	42.0	55.2	0.0	47.9
Incr Delay (d2), s/veh	21.3	0.6	0.0	15.1	0.1	0.0	8.3	0.0	12.0	1.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	9.8	0.0	1.0	10.6	0.8	10.1	0.0	11.7	1.9	0.0	2.0
LnGrp Delay(d),s/veh	76.4	19.8	0.0	73.8	23.4	18.4	49.3	0.0	54.0	56.2	0.0	48.3
LnGrp LOS	E	B		E	C	B	D		D	E		D
Approach Vol, veh/h		1455			1412			637			184	
Approach Delay, s/veh		23.7			24.2			51.7			53.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	66.1		12.2	12.7	60.0		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	9.5	30.5		29.5
Max Q Clear Time (g_c+I1), s	3.7	20.5		6.5	8.5	22.1		22.9
Green Ext Time (p_c), s	0.0	8.5		0.3	0.0	5.2		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

6: Cactus Avenue & Frederick Street

7/13/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	92	1792	1146	167	325	102
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	1847	1181	164	335	46
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	1995	2286	648	1221	654
Arrive On Green	0.07	0.52	0.40	0.40	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	95	1847	1181	164	335	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	4.1	35.9	12.5	5.4	5.4	1.4
Cycle Q Clear(g_c), s	4.1	35.9	12.5	5.4	5.4	1.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	122	1995	2286	648	1221	654
V/C Ratio(X)	0.78	0.93	0.52	0.25	0.27	0.07
Avail Cap(c_a), veh/h	215	1995	2286	648	1221	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.77	0.77	1.00	1.00
Uniform Delay (d), s/veh	36.7	17.6	18.1	16.0	19.3	14.6
Incr Delay (d2), s/veh	3.9	8.9	0.6	0.7	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	20.9	6.7	2.5	2.8	1.7
LnGrp Delay(d),s/veh	40.6	26.5	18.7	16.7	19.9	14.8
LnGrp LOS	D	C	B	B	B	B
Approach Vol, veh/h		1942	1345		381	
Approach Delay, s/veh		27.1	18.5		19.3	
Approach LOS		C	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	9.9	37.6		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		37.9		7.4	6.1	14.5		
Green Ext Time (p_c), s		3.7		0.6	0.0	10.8		

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	28	619	767	17	14	64
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	673	834	18	15	70

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	834	0	-	0	1231	417
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	397	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	808	-	-	-	*279	590
Stage 1	-	-	-	-	*392	-
Stage 2	-	-	-	-	*804	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	808	-	-	-	*262	590
Mov Cap-2 Maneuver	-	-	-	-	*262	-
Stage 1	-	-	-	-	*392	-
Stage 2	-	-	-	-	*757	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	808	-	-	-	482
HCM Lane V/C Ratio	0.038	-	-	-	0.176
HCM Control Delay (s)	9.6	0.3	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	72	1779	277	6	1046	43	158	53	11	119	138	105
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	1934	0	7	1137	43	172	58	7	129	150	36
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1173	3822	1624	13	1925	73	170	1059	126	85	1252	1572
Arrive On Green	0.65	1.00	0.00	0.01	0.35	0.35	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5454	206	3619	3335	395	1810	3800	1595
Grp Volume(v), veh/h	78	1934	0	7	792	388	172	33	32	129	150	36
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1860	1810	1900	1830	1810	1900	1595
Q Serve(g_s), s	1.3	0.0	0.0	0.3	14.5	14.5	4.0	1.0	1.0	4.0	2.3	0.2
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.3	14.5	14.5	4.0	1.0	1.0	4.0	2.3	0.2
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	1173	3822	1624	13	1341	657	170	604	581	85	1252	1572
V/C Ratio(X)	0.07	0.51	0.00	0.54	0.59	0.59	1.01	0.05	0.06	1.51	0.12	0.02
Avail Cap(c_a), veh/h	1173	3822	1624	85	1341	657	170	604	581	85	1252	1572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.46	0.46	0.00	0.29	0.29	0.29	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.5	0.0	0.0	42.1	22.5	22.5	40.5	20.1	20.1	40.5	19.9	8.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	3.7	0.6	1.1	71.6	0.2	0.2	282.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.0	0.2	7.7	7.6	3.7	0.6	0.6	8.7	1.3	0.4
LnGrp Delay(d),s/veh	5.5	0.2	0.0	45.8	23.0	23.6	112.1	20.3	20.3	323.2	20.1	8.0
LnGrp LOS	A	A		D	C	C	F	C	C	F	C	A
Approach Vol, veh/h		2012			1187			237			315	
Approach Delay, s/veh		0.4			23.4			86.9			142.8	
Approach LOS		A			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	91.8	8.5	33.5	61.4	35.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	* 27
Max Q Clear Time (g_c+I1), s	2.3	2.0	6.0	4.3	3.3	16.5	6.0	3.0
Green Ext Time (p_c), s	0.0	11.7	0.0	0.7	0.0	3.9	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

9: Patterson Avenue & Harley Knox Boulevard

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			↰	↱
Volume (veh/h)	6	468	47	20	626	5	40	4	10	8	4	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	532	53	23	711	6	45	5	11	9	5	14
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	13	661	562	38	680	6	513	63	105	469	242	634
Arrive On Green	0.01	0.35	0.35	0.02	0.36	0.36	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1810	1900	1615	1810	1881	16	1061	160	269	962	617	1615
Grp Volume(v), veh/h	7	532	53	23	0	717	61	0	0	14	0	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1897	1489	0	0	1580	0	1615
Q Serve(g_s), s	0.3	16.5	1.4	0.8	0.0	23.5	0.8	0.0	0.0	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.3	16.5	1.4	0.8	0.0	23.5	1.5	0.0	0.0	0.3	0.0	0.3
Prop In Lane	1.00		1.00	1.00		0.01	0.74		0.18	0.64		1.00
Lane Grp Cap(c), veh/h	13	661	562	38	0	686	681	0	0	711	0	634
V/C Ratio(X)	0.53	0.80	0.09	0.61	0.00	1.05	0.09	0.00	0.00	0.02	0.00	0.02
Avail Cap(c_a), veh/h	111	687	584	111	0	686	681	0	0	711	0	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.2	19.2	14.3	31.6	0.0	20.8	12.4	0.0	0.0	12.1	0.0	12.1
Incr Delay (d2), s/veh	11.7	6.1	0.0	5.7	0.0	46.8	0.3	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	9.7	0.6	0.5	0.0	21.1	0.7	0.0	0.0	0.2	0.0	0.2
LnGrp Delay(d),s/veh	43.8	25.3	14.3	37.3	0.0	67.5	12.7	0.0	0.0	12.1	0.0	12.2
LnGrp LOS	D	C	B	D		F	B			B		B
Approach Vol, veh/h		592			740			61			28	
Approach Delay, s/veh		24.6			66.6			12.7			12.1	
Approach LOS		C			E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		31.0	5.9	28.1		31.0	5.0	29.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		3.5	2.8	18.5		2.3	2.3	25.5
Green Ext Time (p_c), s		0.2	0.0	2.4		0.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	45.7
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	82	933	833	22	560	67	601	496	62	109	535	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	993	871	23	596	65	639	528	62	116	569	39
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2734	1162	35	2283	248	462	1120	131	146	977	67
Arrive On Green	0.06	0.72	0.72	0.02	0.68	0.68	0.21	0.56	0.56	0.08	0.28	0.28
Sat Flow, veh/h	1810	3800	1615	1810	3368	367	3619	3333	390	1810	3517	241
Grp Volume(v), veh/h	87	993	871	23	336	325	639	300	290	116	307	301
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1824	1810	1900	1858
Q Serve(g_s), s	4.3	8.9	43.0	1.1	6.2	6.2	11.5	8.5	8.5	5.7	12.5	12.6
Cycle Q Clear(g_c), s	4.3	8.9	43.0	1.1	6.2	6.2	11.5	8.5	8.5	5.7	12.5	12.6
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.21	1.00		0.13
Lane Grp Cap(c), veh/h	111	2734	1162	35	1288	1244	462	638	613	146	528	516
V/C Ratio(X)	0.79	0.36	0.75	0.65	0.26	0.26	1.38	0.47	0.47	0.79	0.58	0.58
Avail Cap(c_a), veh/h	111	2734	1162	80	1288	1244	462	638	613	175	528	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	4.8	16.3	43.8	5.7	5.7	35.4	15.0	15.0	40.6	28.0	28.0
Incr Delay (d2), s/veh	3.2	0.0	0.4	7.4	0.5	0.5	182.6	2.0	2.1	15.6	4.6	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	18.9	0.6	3.4	3.3	17.4	4.7	4.5	3.5	7.2	7.1
LnGrp Delay(d),s/veh	44.9	4.8	16.7	51.2	6.2	6.2	218.0	17.0	17.1	56.2	32.6	32.8
LnGrp LOS	D	A	B	D	A	A	F	B	B	E	C	C
Approach Vol, veh/h		1951			684			1229			724	
Approach Delay, s/veh		11.9			7.7			121.5			36.5	
Approach LOS		B			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	71.3	17.0	30.5	10.0	67.5	11.8	35.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	29.5	11.5	* 25	5.5	28.0	8.7	27.8
Max Q Clear Time (g_c+I1), s	3.1	45.0	13.5	14.6	6.3	8.2	7.7	10.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	9.1	0.0	3.1

Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	26	159	221	22	100	144	75	939	60	302	934	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	169	121	23	106	56	80	999	46	321	994	15
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	220	187	35	206	101	103	1068	437	634	2225	945
Arrive On Green	0.05	0.12	0.12	0.02	0.09	0.09	0.06	0.28	0.28	0.47	0.78	0.78
Sat Flow, veh/h	1810	1900	1615	1810	2390	1177	1810	3800	1555	1810	3800	1615
Grp Volume(v), veh/h	28	169	121	23	83	79	80	999	46	321	994	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1668	1810	1900	1555	1810	1900	1615
Q Serve(g_s), s	1.3	7.8	5.2	1.1	3.7	4.1	3.9	23.1	2.0	11.2	8.0	0.1
Cycle Q Clear(g_c), s	1.3	7.8	5.2	1.1	3.7	4.1	3.9	23.1	2.0	11.2	8.0	0.1
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	220	187	35	164	144	103	1068	437	634	2225	945
V/C Ratio(X)	0.32	0.77	0.65	0.66	0.51	0.55	0.77	0.94	0.11	0.51	0.45	0.02
Avail Cap(c_a), veh/h	89	528	449	101	549	482	183	1068	437	634	2225	945
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57
Uniform Delay (d), s/veh	41.3	38.6	24.9	43.8	39.3	39.5	41.9	31.6	24.0	18.6	5.0	1.6
Incr Delay (d2), s/veh	0.7	2.1	1.4	7.5	0.9	1.2	4.6	15.8	0.5	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.2	2.4	0.6	2.0	1.9	2.1	14.4	0.9	5.6	4.1	0.1
LnGrp Delay(d),s/veh	42.1	40.7	26.3	51.3	40.2	40.7	46.4	47.3	24.4	18.7	5.4	1.6
LnGrp LOS	D	D	C	D	D	D	D	D	C	B	A	A
Approach Vol, veh/h		318			185			1125			1330	
Approach Delay, s/veh		35.4			41.8			46.3			8.6	
Approach LOS		D			D			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.0	30.8	6.2	15.9	9.6	58.2	8.9	13.3
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.7	* 25	5.0	25.0	9.1	30.9	4.0	26.0
Max Q Clear Time (g_c+I1), s	13.2	25.1	3.1	9.8	5.9	10.0	3.3	6.1
Green Ext Time (p_c), s	0.2	0.1	0.0	0.7	0.0	4.5	0.0	0.4

Intersection Summary		
HCM 2010 Ctrl Delay		27.9
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	60	876	7	124	996
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	65	942	8	133	1071

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2280	942	0	0	942	0
Stage 1	942	-	-	-	-	-
Stage 2	1338	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	44	322	-	-	736	-
Stage 1	382	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	36	322	-	-	736	-
Mov Cap-2 Maneuver	36	-	-	-	-	-
Stage 1	382	-	-	-	-	-
Stage 2	202	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.5	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	36	322	736	-
HCM Lane V/C Ratio	-	-	0.03	0.2	0.181	-
HCM Control Delay (s)	-	-	108.1	19	11	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0.7	0.7	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Intersection Delay, s/veh	56.1
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	18	243	0	633	18	0	512	464
Peak Hour Factor	0.92	0.86	0.86	0.92	0.86	0.86	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	21	283	0	736	21	0	595	540
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	17.7	63.1	61.7
HCM LOS	C	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	97%	0%	0%	0%	100%
Vol Right, %	3%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	651	18	243	512	464
LT Vol	0	18	0	512	0
Through Vol	633	0	0	0	464
RT Vol	18	0	243	0	0
Lane Flow Rate	757	21	283	595	540
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.048	0.554	1	0.974
Departure Headway (Hd)	6.369	8.259	7.059	7.001	6.501
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	575	435	511	524	561
Service Time	4.407	5.988	4.789	4.701	4.201
HCM Lane V/C Ratio	1.317	0.048	0.554	1.135	0.963
HCM Control Delay	63.1	11.4	18.2	65.8	57.1
HCM Lane LOS	F	B	C	F	F
HCM 95th-tile Q	14.5	0.2	3.3	13.9	13.4

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

14: Heacock Street & Krameria Avenue-North

7/13/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	67	210	473	27	81	419
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	83	259	584	33	100	517
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	339	303	607	516	491	1245
Arrive On Green	0.19	0.19	0.32	0.32	0.27	0.66
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	83	259	584	33	100	517
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	2.7	10.9	21.1	1.0	3.0	9.0
Cycle Q Clear(g_c), s	2.7	10.9	21.1	1.0	3.0	9.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	339	303	607	516	491	1245
V/C Ratio(X)	0.24	0.86	0.96	0.06	0.20	0.42
Avail Cap(c_a), veh/h	439	392	607	516	491	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	27.5	23.4	16.5	19.7	5.7
Incr Delay (d2), s/veh	0.1	11.3	28.1	0.2	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.8	15.8	0.5	1.6	4.9
LnGrp Delay(d),s/veh	24.4	38.8	51.5	16.8	20.6	6.7
LnGrp LOS	C	D	D	B	C	A
Approach Vol, veh/h	342		617			617
Approach Delay, s/veh	35.3		49.7			9.0
Approach LOS	D		D			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	27.9				51.4		18.6
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	5.0	23.1				11.0		12.9
Green Ext Time (p_c), s	0.1	0.0				4.1		0.3

Intersection Summary			
HCM 2010 Ctrl Delay			30.6
HCM 2010 LOS			C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 TWSC
15: Heacock Street & Driveway 1

Moreno Valley Logistics Center TIA (JN 09301)
9/14/2015

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	38	47	453	9	10	475
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	51	492	10	11	516

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1035	251	0	0	502	0
Stage 1	497	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	245	755	-	-	1073	-
Stage 1	582	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	242	755	-	-	1073	-
Mov Cap-2 Maneuver	445	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	576	1073	-
HCM Lane V/C Ratio	-	-	0.16	0.01	-
HCM Control Delay (s)	-	-	12.4	8.4	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

16: Heacock Street & Driveway 2

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	39	45	416	10	10	504
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	42	49	452	11	11	548

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1028	232	0	0	463	0
Stage 1	458	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	247	776	-	-	1109	-
Stage 1	609	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	245	776	-	-	1109	-
Mov Cap-2 Maneuver	447	-	-	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	578	1109	-
HCM Lane V/C Ratio	-	-	0.158	0.01	-
HCM Control Delay (s)	-	-	12.4	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

17: Heacock Street & Cardinal Avenue

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	46	387	13	10	558
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	77	65	545	18	14	786

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1359	273	0	0	545	0
Stage 1	545	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	153	731	-	-	1034	-
Stage 1	551	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	151	731	-	-	1034	-
Mov Cap-2 Maneuver	351	-	-	-	-	-
Stage 1	551	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.6	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	351	731	1034	-
HCM Lane V/C Ratio	-	-	0.221	0.089	0.014	-
HCM Control Delay (s)	-	-	18.1	10.4	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.8	0.3	0	-

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	11	6	5	11	0	247	0	71	3	344	212	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	9	7	16	0	353	0	101	0	491	303	3
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	442	375	25	442	376	2	648	551	445	1187	1009
Arrive On Green	0.01	0.23	0.23	0.01	0.00	0.23	0.00	0.34	0.00	0.25	0.62	0.62
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	16	9	7	16	0	353	0	101	0	491	303	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	1.1	0.4	0.4	1.1	0.0	25.8	0.0	4.4	0.0	29.5	8.5	0.1
Cycle Q Clear(g_c), s	1.1	0.4	0.4	1.1	0.0	25.8	0.0	4.4	0.0	29.5	8.5	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	25	442	375	25	442	376	2	648	551	445	1187	1009
V/C Ratio(X)	0.64	0.02	0.02	0.64	0.00	0.94	0.00	0.16	0.00	1.10	0.26	0.00
Avail Cap(c_a), veh/h	113	467	396	113	467	397	60	648	551	445	1187	1009
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.00	0.82	0.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	35.5	35.5	58.9	0.0	45.2	0.0	27.5	0.0	45.3	10.1	8.5
Incr Delay (d2), s/veh	9.8	0.0	0.0	8.1	0.0	25.2	0.0	0.5	0.0	73.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.2	0.6	0.0	14.1	0.0	2.4	0.0	23.8	4.6	0.0
LnGrp Delay(d),s/veh	68.7	35.5	35.5	66.9	0.0	70.4	0.0	28.0	0.0	119.1	10.6	8.5
LnGrp LOS	E	D	D	E		E		C		F	B	A
Approach Vol, veh/h		32			369			101			797	
Approach Delay, s/veh		52.1			70.3			28.0			77.5	
Approach LOS		D			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	46.4	6.2	33.4	0.0	80.4	6.2	33.4
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	29.5	33.5	7.5	29.5	4.0	59.0	7.5	29.5
Max Q Clear Time (g_c+I1), s	31.5	6.4	3.1	2.4	0.0	10.5	3.1	27.8
Green Ext Time (p_c), s	0.0	1.2	0.0	0.6	0.0	1.3	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	70.9
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	7.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	70	2	8	200	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	93	3	11	267	13

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	555	8	0	0	13	0
Stage 1	8	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	496	1080	-	-	1619	-
Stage 1	1020	-	-	-	-	-
Stage 2	584	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	414	1080	-	-	1619	-
Mov Cap-2 Maneuver	462	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1080	1619	-
HCM Lane V/C Ratio	-	-	-	0.086	0.165	-
HCM Control Delay (s)	-	-	0	8.6	7.7	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.3	0.6	-

20: Webster Street & Harley Knox Boulevard

7/13/2015

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	492	0	0	527	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	541	0	0	579	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	541	0	1120	541
Stage 1	-	-	-	-	541	-
Stage 2	-	-	-	-	579	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1045	-	*231	693
Stage 1	-	-	-	-	*656	-
Stage 2	-	-	-	-	*624	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1045	-	*231	693
Mov Cap-2 Maneuver	-	-	-	-	*231	-
Stage 1	-	-	-	-	*656	-
Stage 2	-	-	-	-	*624	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	693	-	-	1045	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	21	85	0	0	0	254	4	0	3	2	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	26	104	0	0	0	310	5	0	4	2	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	643	643	12	708	652	5	21	0	0	5	0	0
Stage 1	19	19	-	624	624	-	-	-	-	-	-	-
Stage 2	624	624	-	84	28	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	389	394	1074	352	390	1084	1608	-	-	1630	-	-
Stage 1	1005	884	-	477	481	-	-	-	-	-	-	-
Stage 2	477	481	-	929	876	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	331	317	1074	256	314	1084	1608	-	-	1630	-	-
Mov Cap-2 Maneuver	361	364	-	347	364	-	-	-	-	-	-	-
Stage 1	811	882	-	385	388	-	-	-	-	-	-	-
Stage 2	385	388	-	813	874	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	0	7.7	1.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	699	-	1630	-	-
HCM Lane V/C Ratio	0.193	-	-	0.204	-	0.002	-	-
HCM Control Delay (s)	7.8	-	-	11.5	0	7.2	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	0.8	-	0	-	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

22: Cosmos Street & Driveway/Krameria Avenue

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	33	7	0	0	4	1	158	0	0	67	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	36	8	0	0	4	1	172	0	0	73	18
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.8	8.2	8.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	82%	100%	0%	100%	0%
Vol Thru, %	80%	18%	0%	1%	0%	70%
Vol Right, %	20%	0%	0%	99%	0%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	40	4	159	64	23
LT Vol	0	33	4	0	64	0
Through Vol	67	7	0	1	0	16
RT Vol	17	0	0	158	0	7
Lane Flow Rate	91	43	4	173	70	25
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.127	0.065	0.007	0.208	0.108	0.034
Departure Headway (Hd)	5.019	5.355	5.539	4.339	5.603	4.886
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	715	670	648	830	641	733
Service Time	3.048	3.38	3.257	2.056	3.331	2.614
HCM Lane V/C Ratio	0.127	0.064	0.006	0.208	0.109	0.034
HCM Control Delay	8.8	8.8	8.3	8.2	9	7.8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0	0.8	0.4	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	64	16	7
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	70	17	8
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.7
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	72	15	2	102	61	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	78	16	2	111	66	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	95	0	201	86
Stage 1	-	-	-	-	86	-
Stage 2	-	-	-	-	115	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1512	-	792	978
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	915	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1512	-	791	978
Mov Cap-2 Maneuver	-	-	-	-	836	-
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	914	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	853	-	-	1512	-
HCM Lane V/C Ratio	0.09	-	-	0.001	-
HCM Control Delay (s)	9.6	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	78	4	4	84	20	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	85	4	4	91	22	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	89	0	187	87
Stage 1	-	-	-	-	87	-
Stage 2	-	-	-	-	100	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1519	-	807	977
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	929	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1519	-	805	977
Mov Cap-2 Maneuver	-	-	-	-	845	-
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	927	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	901	-	-	1519	-
HCM Lane V/C Ratio	0.045	-	-	0.003	-
HCM Control Delay (s)	9.2	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	81	13	4	35	53	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	88	14	4	38	58	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	102	0	142	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	47	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1503	-	856	967
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	981	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1503	-	854	967
Mov Cap-2 Maneuver	-	-	-	-	871	-
Stage 1	-	-	-	-	934	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	893	-	-	1503	-
HCM Lane V/C Ratio	0.085	-	-	0.003	-
HCM Control Delay (s)	9.4	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	25	67	10	0	4	22	55	0	6	68	4
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	29	79	12	0	5	26	65	0	7	80	5
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	9.4	8.6	9.3
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	87%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	13%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	68	4	25	77	4	22	55	175	77	7
LT Vol	6	0	0	25	0	4	0	0	175	0	0
Through Vol	0	68	0	0	67	0	22	0	0	77	0
RT Vol	0	0	4	0	10	0	0	55	0	0	7
Lane Flow Rate	7	80	5	29	91	5	26	65	206	91	8
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.012	0.128	0.007	0.051	0.143	0.008	0.042	0.093	0.333	0.134	0.011
Departure Headway (Hd)	6.259	5.757	5.054	6.275	5.684	6.355	5.855	5.155	5.818	5.316	4.614
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	567	617	699	566	625	558	606	687	614	669	768
Service Time	4.054	3.551	2.848	4.062	3.471	4.148	3.648	2.947	3.595	3.093	2.39
HCM Lane V/C Ratio	0.012	0.13	0.007	0.051	0.146	0.009	0.043	0.095	0.336	0.136	0.01
HCM Control Delay	9.1	9.4	7.9	9.4	9.4	9.2	8.9	8.5	11.5	8.9	7.4
HCM Lane LOS	A	A	A	A	A	A	A	A	B	A	A
HCM 95th-tile Q	0	0.4	0	0.2	0.5	0	0.1	0.3	1.5	0.5	0

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	17	0	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	0	0	0	0	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2	2	4	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1026	1088	1631	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1026	1088	1631	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1631	-	974	-	-
HCM Lane V/C Ratio	-	-	0.019	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
28: Indian Street & San Michele Road
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	11	143	424	147	235	45	314	54	115	103	131	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		1.00	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	217	572	223	356	45	476	82	89	156	198	24
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	330	697	252	1133	478	965	797	676	184	739	81
Arrive On Green	0.00	0.06	0.06	0.14	0.30	0.30	0.27	0.42	0.42	0.10	0.25	0.25
Sat Flow, veh/h	1810	1900	1535	1810	3800	1604	3619	1900	1613	1810	3007	331
Grp Volume(v), veh/h	17	217	572	223	356	45	476	82	89	156	118	104
Grp Sat Flow(s),veh/h/ln	1810	1900	1535	1810	1900	1604	1810	1900	1613	1810	1900	1438
Q Serve(g_s), s	1.1	13.4	10.3	14.5	8.7	2.4	13.3	3.1	4.1	10.2	6.0	7.1
Cycle Q Clear(g_c), s	1.1	13.4	10.3	14.5	8.7	2.4	13.3	3.1	4.1	10.2	6.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	26	330	697	252	1133	478	965	797	676	184	467	354
V/C Ratio(X)	0.65	0.66	0.82	0.89	0.31	0.09	0.49	0.10	0.13	0.85	0.25	0.29
Avail Cap(c_a), veh/h	83	420	770	354	1409	595	965	797	676	264	467	354
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.53	0.53	0.53	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	53.1	12.9	50.7	32.6	30.4	37.2	21.2	21.4	53.0	36.4	36.8
Incr Delay (d2), s/veh	5.3	0.6	3.2	14.0	0.1	0.0	0.1	0.2	0.4	11.6	1.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.1	10.9	8.2	4.6	1.1	6.7	1.7	1.9	5.7	3.3	3.0
LnGrp Delay(d),s/veh	64.7	53.7	16.1	64.7	32.7	30.4	37.3	21.4	21.8	64.7	37.7	38.9
LnGrp LOS	E	D	B	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		806			624			647			378	
Approach Delay, s/veh		27.2			44.0			33.2			49.1	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	55.8	21.2	26.3	37.5	35.0	6.2	41.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	17.5	32.5	23.5	26.5	20.5	* 30	5.5	44.5
Max Q Clear Time (g_c+I1), s	12.2	6.1	16.5	15.4	15.3	9.1	3.1	10.7
Green Ext Time (p_c), s	0.1	1.2	0.2	2.8	0.5	0.7	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	7	38	210	42	19	14	56	421	49	50	559	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	54	179	60	27	1	80	601	66	71	799	60
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	263	223	77	127	108	103	1689	185	91	1730	130
Arrive On Green	0.10	0.14	0.14	0.04	0.07	0.07	0.06	0.50	0.50	0.05	0.50	0.50
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3365	369	1810	3492	262
Grp Volume(v), veh/h	10	54	179	60	27	1	80	339	328	71	435	424
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1834	1810	1900	1854
Q Serve(g_s), s	0.4	1.9	8.1	2.5	1.0	0.0	3.3	8.1	8.1	2.9	11.2	11.2
Cycle Q Clear(g_c), s	0.4	1.9	8.1	2.5	1.0	0.0	3.3	8.1	8.1	2.9	11.2	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.14
Lane Grp Cap(c), veh/h	183	263	223	77	127	108	103	954	921	91	942	919
V/C Ratio(X)	0.05	0.21	0.80	0.78	0.21	0.01	0.78	0.36	0.36	0.78	0.46	0.46
Avail Cap(c_a), veh/h	183	608	517	97	608	517	109	954	921	109	942	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.62	0.62	0.62
Uniform Delay (d), s/veh	30.5	28.7	31.3	35.6	33.1	21.1	34.9	11.3	11.3	35.2	12.4	12.4
Incr Delay (d2), s/veh	0.0	0.1	2.5	21.0	0.3	0.0	24.9	1.0	1.1	13.6	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	3.7	1.7	0.5	0.0	2.4	4.5	4.4	1.8	6.1	5.9
LnGrp Delay(d),s/veh	30.5	28.8	33.9	56.5	33.5	21.1	59.8	12.4	12.4	48.7	13.4	13.4
LnGrp LOS	C	C	C	E	C	C	E	B	B	D	B	B
Approach Vol, veh/h		243			88			747			930	
Approach Delay, s/veh		32.6			49.0			17.5			16.1	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	43.2	7.7	15.9	8.8	42.7	13.1	10.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.5	22.5	4.0	24.0	4.5	22.5	4.0	* 24
Max Q Clear Time (g_c+I1), s	4.9	10.1	4.5	10.1	5.3	13.2	2.4	3.0
Green Ext Time (p_c), s	0.0	4.5	0.0	0.4	0.0	3.8	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary | Moreno Valley Logistics Center TIA (JN 09301)
30: Indian Street & Harley Knox Boulevard | 7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	252	207	74	18	145	6	57	269	7	30	337	503
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	327	269	96	23	188	8	74	349	9	39	438	648
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1016	1700	1445	35	1238	52	130	1354	575	98	640	544
Arrive On Green	0.56	0.89	0.89	0.02	0.34	0.34	0.04	0.36	0.36	0.03	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3618	153	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	327	269	96	23	98	98	74	349	9	39	438	648
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1871	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	9.2	1.6	2.8	1.2	3.4	3.4	1.9	6.2	0.3	1.0	18.9	32.0
Cycle Q Clear(g_c), s	9.2	1.6	2.8	1.2	3.4	3.4	1.9	6.2	0.3	1.0	18.9	32.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1016	1700	1445	35	650	640	130	1354	575	98	640	544
V/C Ratio(X)	0.32	0.16	0.07	0.66	0.15	0.15	0.57	0.26	0.02	0.40	0.68	1.19
Avail Cap(c_a), veh/h	1016	1700	1445	99	650	640	152	1354	575	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	0.6	10.7	46.3	21.7	21.7	45.1	21.7	19.8	45.5	27.1	31.5
Incr Delay (d2), s/veh	0.1	0.2	0.1	7.8	0.5	0.5	1.4	0.5	0.0	1.0	5.9	103.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.9	1.3	0.7	1.9	1.9	1.0	3.3	0.2	0.5	10.9	29.8
LnGrp Delay(d),s/veh	11.2	0.8	10.8	54.1	22.2	22.2	46.5	22.1	19.8	46.4	33.0	134.7
LnGrp LOS	B	A	B	D	C	C	D	C	B	D	C	F
Approach Vol, veh/h		692			219			432			1125	
Approach Delay, s/veh		7.1			25.5			26.3			92.1	
Approach LOS		A			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	91.9	8.9	37.5	60.2	38.0	7.1	39.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	11.2	4.8	3.9	34.0	11.2	5.4	3.0	8.2
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.6	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	50.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Volume (veh/h)	77	568	203	48	410	73	157	754	47	125	929	44
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	580	186	49	418	65	160	769	37	128	948	34
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	924	296	814	2399	370	174	1557	75	161	1021	434
Arrive On Green	0.05	0.33	0.33	0.45	0.75	0.75	0.10	0.29	0.29	0.09	0.27	0.27
Sat Flow, veh/h	1810	2759	882	1810	3209	495	1810	5395	259	1810	3800	1615
Grp Volume(v), veh/h	79	399	367	49	246	237	160	541	265	128	948	34
Grp Sat Flow(s),veh/h/ln	1810	1900	1741	1810	1900	1805	1810	1900	1854	1810	1900	1615
Q Serve(g_s), s	3.5	14.1	14.2	1.2	3.0	3.1	7.0	9.4	9.5	5.5	19.4	1.7
Cycle Q Clear(g_c), s	3.5	14.1	14.2	1.2	3.0	3.1	7.0	9.4	9.5	5.5	19.4	1.7
Prop In Lane	1.00		0.51	1.00		0.27	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	90	637	583	814	1420	1349	174	1096	535	161	1021	434
V/C Ratio(X)	0.87	0.63	0.63	0.06	0.17	0.18	0.92	0.49	0.50	0.79	0.93	0.08
Avail Cap(c_a), veh/h	90	637	583	814	1420	1349	174	1096	535	188	1021	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	22.4	22.4	12.4	2.9	2.9	35.8	23.6	23.6	35.7	28.5	39.3
Incr Delay (d2), s/veh	54.0	4.6	5.1	0.0	0.3	0.3	44.7	1.6	3.3	15.4	15.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	8.2	7.7	0.6	1.7	1.6	5.7	5.2	5.3	3.5	12.3	0.8
LnGrp Delay(d),s/veh	91.7	27.0	27.5	12.4	3.2	3.2	80.5	25.2	26.9	51.1	43.9	39.7
LnGrp LOS	F	C	C	B	A	A	F	C	C	D	D	D
Approach Vol, veh/h		845			532			966			1110	
Approach Delay, s/veh		33.3			4.1			34.8			44.6	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	42.5	32.3	13.2	27.0	8.5	66.3	11.6	28.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 27	7.7	* 22	4.0	26.8	8.3	20.9
Max Q Clear Time (g_c+I1), s	3.2	16.2	9.0	21.4	5.5	5.1	7.5	11.5
Green Ext Time (p_c), s	0.2	2.2	0.0	0.0	0.0	1.7	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	41	97	72	156	55	87	41	845	174	128	775	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	107	63	171	60	-4	45	929	166	141	852	22
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	136	167	218	229	195	148	2453	436	143	2872	74
Arrive On Green	0.10	0.10	0.10	0.12	0.12	0.00	0.08	0.52	0.52	0.08	0.52	0.52
Sat Flow, veh/h	554	1318	1610	1810	1900	1615	1810	4701	836	1810	5530	143
Grp Volume(v), veh/h	152	0	63	171	60	-4	45	750	345	141	585	289
Grp Sat Flow(s),veh/h/ln	1872	0	1610	1810	1900	1615	1810	1900	1738	1810	1900	1873
Q Serve(g_s), s	9.5	0.0	4.4	11.0	3.4	0.0	2.8	14.1	14.2	9.3	10.5	10.5
Cycle Q Clear(g_c), s	9.5	0.0	4.4	11.0	3.4	0.0	2.8	14.1	14.2	9.3	10.5	10.5
Prop In Lane	0.30		1.00	1.00		1.00	1.00		0.48	1.00		0.08
Lane Grp Cap(c), veh/h	194	0	167	218	229	195	148	1983	907	143	1973	972
V/C Ratio(X)	0.79	0.00	0.38	0.78	0.26	-0.02	0.30	0.38	0.38	0.98	0.30	0.30
Avail Cap(c_a), veh/h	468	0	403	452	475	404	148	1983	907	143	1973	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	0.0	50.2	51.2	47.9	0.0	51.9	17.1	17.1	55.2	16.4	16.4
Incr Delay (d2), s/veh	2.7	0.0	0.5	2.3	0.2	0.0	5.2	0.6	1.2	70.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	2.0	5.7	1.8	0.0	1.6	7.5	7.1	7.4	5.6	5.7
LnGrp Delay(d),s/veh	55.1	0.0	50.7	53.6	48.1	0.0	57.1	17.7	18.3	125.2	16.8	17.2
LnGrp LOS	E		D	D	D		E	B	B	F	B	B
Approach Vol, veh/h		215			227			1140			1015	
Approach Delay, s/veh		53.8			53.1			19.4			32.0	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	68.1		17.9	14.3	67.8		20.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	11.3	16.2		11.5	4.8	12.5		13.0
Green Ext Time (p_c), s	0.0	6.8		0.6	0.0	7.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 5.2:

E+P CONDITIONS WITH INDIAN STREET BRIDGE INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (vph)	0	333	36	351	1280	0	0	0	675	0	0	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	351	38	369	1347	0	0	0	711	0	0	225
RTOR Reduction (vph)	0	0	24	0	0	0	0	0	541	0	0	98
Lane Group Flow (vph)	0	351	14	369	1347	0	0	0	170	0	0	127
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		22.3	22.3	14.2	40.5				8.4			10.0
Effective Green, g (s)		22.3	22.3	14.2	40.5				8.4			10.0
Actuated g/C Ratio		0.37	0.37	0.24	0.68				0.14			0.17
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		1412	706	449	2565				266			316
v/s Ratio Prot		0.09		c0.19	c0.35				c0.09			0.07
v/s Ratio Perm			0.01									
v/c Ratio		0.25	0.02	0.82	0.53				0.64			0.40
Uniform Delay, d1		13.0	11.9	21.7	4.9				24.4			22.3
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		0.4	0.1	11.0	0.8				3.7			0.3
Delay (s)		13.5	12.0	32.7	5.7				28.1			22.6
Level of Service		B	B	C	A				C			C
Approach Delay (s)		13.3			11.5			28.1			22.6	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	382	9	138	163	0	0	0	0	535	2	156
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	406	5	147	173	0				569	2	102
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	503	2165	0				626	2	560
Arrive On Green	0.00	0.25	0.25	0.56	1.00	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1803	6	1615
Grp Volume(v), veh/h	0	406	5	147	173	0				571	0	102
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	10.8	0.3	5.2	0.0	0.0				36.1	0.0	5.3
Cycle Q Clear(g_c), s	0.0	10.8	0.3	5.2	0.0	0.0				36.1	0.0	5.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	950	404	503	2165	0				628	0	560
V/C Ratio(X)	0.00	0.43	0.01	0.29	0.08	0.00				0.91	0.00	0.18
Avail Cap(c_a), veh/h	0	950	404	503	2165	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	37.8	33.9	20.4	0.0	0.0				37.4	0.0	27.3
Incr Delay (d2), s/veh	0.0	1.4	0.1	0.1	0.1	0.0				11.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.1	2.5	0.0	0.0				20.1	0.0	2.4
LnGrp Delay(d),s/veh	0.0	39.2	33.9	20.5	0.1	0.0				48.8	0.0	27.5
LnGrp LOS		D	C	C	A					D		C
Approach Vol, veh/h		411			320						673	
Approach Delay, s/veh		39.1			9.5						45.6	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	38.4	35.0		46.6		73.4		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	20.5	* 30		55.0		55.0		
Max Q Clear Time (g_c+I1), s	7.2	12.8		38.1		2.0		
Green Ext Time (p_c), s	0.6	1.4		3.5		0.8		

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	24	947	37	0	1552	196	388	278	5	34	0	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	966	32	0	1584	156	396	284	5	35	0	39
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	2048	68	0	1909	186	484	533	9	285	0	456
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	282	3657	121	0	3409	332	1390	1861	33	1107	0	1593
Grp Volume(v), veh/h	24	502	496	0	875	865	396	0	289	35	0	39
Grp Sat Flow(s),veh/h/ln	282	1900	1879	0	1900	1841	1390	0	1894	1107	0	1593
Q Serve(g_s), s	5.0	10.3	10.3	0.0	24.4	25.3	17.4	0.0	8.4	1.8	0.0	1.2
Cycle Q Clear(g_c), s	30.3	10.3	10.3	0.0	24.4	25.3	18.6	0.0	8.4	10.1	0.0	1.2
Prop In Lane	1.00		0.06	0.00		0.18	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	159	1064	1052	0	1064	1031	484	0	542	285	0	456
V/C Ratio(X)	0.15	0.47	0.47	0.00	0.82	0.84	0.82	0.00	0.53	0.12	0.00	0.09
Avail Cap(c_a), veh/h	159	1064	1052	0	1064	1031	484	0	542	285	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	8.6	8.6	0.0	11.7	11.9	24.3	0.0	19.5	23.8	0.0	17.0
Incr Delay (d2), s/veh	2.0	1.5	1.5	0.0	7.2	8.2	14.3	0.0	3.7	0.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.7	5.7	0.0	14.8	15.1	9.0	0.0	4.9	0.6	0.0	0.6
LnGrp Delay(d),s/veh	26.5	10.1	10.1	0.0	18.9	20.0	38.6	0.0	23.3	24.7	0.0	17.3
LnGrp LOS	C	B	B		B	C	D		C	C		B
Approach Vol, veh/h		1022			1740			685			74	
Approach Delay, s/veh		10.4			19.4			32.1			20.8	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		32.3		12.1		27.3		20.6
Green Ext Time (p_c), s		3.5		1.1		7.1		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			19.3
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	203	713	0	0	297	362	4	0	177	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	221	775	0	0	323	358	4	0	106			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	247	2755	0	0	2126	904	347	0	310			
Arrive On Green	0.27	1.00	0.00	0.00	0.56	0.56	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1809	0	1615			
Grp Volume(v), veh/h	221	775	0	0	323	358	4	0	106			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	14.1	0.0	0.0	0.0	4.9	15.1	0.2	0.0	6.8			
Cycle Q Clear(g_c), s	14.1	0.0	0.0	0.0	4.9	15.1	0.2	0.0	6.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	247	2755	0	0	2126	904	347	0	310			
V/C Ratio(X)	0.90	0.28	0.00	0.00	0.15	0.40	0.01	0.00	0.34			
Avail Cap(c_a), veh/h	550	2755	0	0	2126	904	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.96	0.96	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.8	0.0	0.0	0.0	12.7	15.0	39.3	0.0	42.0			
Incr Delay (d2), s/veh	4.4	0.2	0.0	0.0	0.2	1.3	0.1	0.0	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.3	0.1	0.0	0.0	2.6	7.0	0.1	0.0	3.3			
LnGrp Delay(d),s/veh	47.3	0.2	0.0	0.0	12.9	16.3	39.4	0.0	45.0			
LnGrp LOS	D	A			B	B	D		D			
Approach Vol, veh/h		996			681			110				
Approach Delay, s/veh		10.7			14.7			44.8				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			19.9	72.1		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			16.1	17.1		8.8
Green Ext Time (p_c), s		5.8			0.3	5.6		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.3
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Volume (veh/h)	165	1401	231	104	1506	81	51	222	21	77	116	104
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	1475	0	109	1585	77	54	234	1	81	122	56
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2448	694	119	2324	659	445	465	2	152	159	275
Arrive On Green	0.09	0.43	0.00	0.07	0.41	0.41	0.25	0.25	0.25	0.08	0.08	0.08
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1890	8	1810	1900	1591
Grp Volume(v), veh/h	174	1475	0	109	1585	77	54	0	235	81	122	56
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1591
Q Serve(g_s), s	10.5	23.9	0.0	7.2	27.4	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Cycle Q Clear(g_c), s	10.5	23.9	0.0	7.2	27.4	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	2448	694	119	2324	659	445	0	467	152	159	275
V/C Ratio(X)	1.10	0.60	0.00	0.91	0.68	0.12	0.12	0.00	0.50	0.53	0.77	0.20
Avail Cap(c_a), veh/h	158	2448	694	119	2324	659	445	0	467	445	467	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	26.3	0.0	55.7	29.1	22.1	35.2	0.0	38.9	52.7	53.8	42.7
Incr Delay (d2), s/veh	100.5	1.1	0.0	55.8	0.7	0.0	0.6	0.0	3.8	1.1	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	12.8	0.0	5.4	14.5	1.6	1.5	0.0	7.2	2.6	4.1	1.6
LnGrp Delay(d),s/veh	155.2	27.5	0.0	111.5	29.8	22.1	35.7	0.0	42.8	53.8	56.7	42.8
LnGrp LOS	F	C		F	C	C	D		D	D	E	D
Approach Vol, veh/h		1649			1771			289			259	
Approach Delay, s/veh		40.9			34.5			41.5			52.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	57.0		15.6	15.0	54.4		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	9.2	25.9		9.5	12.5	29.4		14.8
Green Ext Time (p_c), s	0.0	5.4		0.5	0.0	0.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	38.9
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary　Moreno Valley Logistics Center TIA (JN 09301)

6: Cactus Avenue & Frederick Street

7/14/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	174	1194	1694	156	106	68
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	191	1312	1862	161	116	19
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	215	1995	1995	553	1221	737
Arrive On Green	0.12	0.52	0.35	0.35	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1579	3619	1615
Grp Volume(v), veh/h	191	1312	1862	161	116	19
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1579	1810	1615
Q Serve(g_s), s	8.3	20.0	25.2	5.9	1.8	0.5
Cycle Q Clear(g_c), s	8.3	20.0	25.2	5.9	1.8	0.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	215	1995	1995	553	1221	737
V/C Ratio(X)	0.89	0.66	0.93	0.29	0.09	0.03
Avail Cap(c_a), veh/h	215	1995	1995	553	1221	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.34	0.34	1.00	1.00
Uniform Delay (d), s/veh	34.7	13.8	25.1	18.8	18.1	12.0
Incr Delay (d2), s/veh	32.4	1.7	3.8	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	10.9	13.8	2.6	0.9	0.7
LnGrp Delay(d),s/veh	67.1	15.5	28.9	19.3	18.3	12.0
LnGrp LOS	E	B	C	B	B	B
Approach Vol, veh/h		1503	2023		135	
Approach Delay, s/veh		22.1	28.2		17.4	
Approach LOS		C	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	14.0	33.5		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		22.0		3.8	10.3	27.2		
Green Ext Time (p_c), s		15.1		0.2	0.0	0.7		

Intersection Summary		
HCM 2010 Ctrl Delay		25.3
HCM 2010 LOS		C

HCM 2010 TWSC
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	56	834	619	35	8	40
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	62	927	688	39	9	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	688	0	-	0	1276	344
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	916	-	-	-	*349	658
Stage 1	-	-	-	-	*466	-
Stage 2	-	-	-	-	*708	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	916	-	-	-	*300	658
Mov Cap-2 Maneuver	-	-	-	-	*300	-
Stage 1	-	-	-	-	*466	-
Stage 2	-	-	-	-	*608	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	916	-	-	-	549
HCM Lane V/C Ratio	0.068	-	-	-	0.097
HCM Control Delay (s)	9.2	0.6	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	99	1042	177	15	1649	69	138	53	10	60	53	54
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	1120	0	16	1773	72	148	57	8	65	57	23
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	788	2984	1268	27	1920	78	170	1041	143	84	1207	1209
Arrive On Green	0.44	0.79	0.00	0.01	0.35	0.35	0.05	0.32	0.32	0.05	0.32	0.32
Sat Flow, veh/h	1810	3800	1615	1810	5440	221	3619	3271	449	1810	3800	1593
Grp Volume(v), veh/h	106	1120	0	16	1238	607	148	33	32	65	57	23
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1861	1810	1900	1820	1810	1900	1593
Q Serve(g_s), s	3.0	7.6	0.0	0.7	26.6	26.6	3.5	1.0	1.1	3.0	0.9	0.1
Cycle Q Clear(g_c), s	3.0	7.6	0.0	0.7	26.6	26.6	3.5	1.0	1.1	3.0	0.9	0.1
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	788	2984	1268	27	1341	657	170	605	579	84	1207	1209
V/C Ratio(X)	0.13	0.38	0.00	0.60	0.92	0.92	0.87	0.05	0.06	0.78	0.05	0.02
Avail Cap(c_a), veh/h	788	2984	1268	85	1341	657	170	605	579	85	1207	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	2.8	0.0	41.6	26.4	26.4	40.2	20.1	20.1	40.1	20.1	8.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.7	1.4	2.8	33.8	0.2	0.2	31.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.0	0.0	0.4	14.2	14.2	2.5	0.6	0.6	2.3	0.5	0.2
LnGrp Delay(d),s/veh	14.4	3.1	0.0	42.3	27.8	29.2	74.1	20.3	20.3	71.9	20.2	8.0
LnGrp LOS	B	A		D	C	C	E	C	C	E	C	A
Approach Vol, veh/h		1226			1861			213			145	
Approach Delay, s/veh		4.0			28.4			57.6			41.4	
Approach LOS		A			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	73.2	8.5	32.5	43.5	35.5	8.4	32.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	27.0
Max Q Clear Time (g_c+I1), s	2.7	9.6	5.5	2.9	5.0	28.6	5.0	3.1
Green Ext Time (p_c), s	0.0	4.8	0.0	0.4	0.0	1.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			↰↑↱			↰↑	↱
Volume (veh/h)	6	799	20	3	565	2	110	0	23	0	2	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	841	21	3	595	2	116	0	24	0	2	6
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	890	756	6	880	3	481	8	84	0	636	541
Arrive On Green	0.01	0.47	0.47	0.00	0.47	0.47	0.33	0.00	0.33	0.00	0.33	0.33
Sat Flow, veh/h	1810	1900	1615	1810	1893	6	1190	24	251	0	1900	1615
Grp Volume(v), veh/h	6	841	21	3	0	597	140	0	0	0	2	6
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1464	0	0	0	1900	1615
Q Serve(g_s), s	0.3	33.8	0.6	0.1	0.0	19.6	5.1	0.0	0.0	0.0	0.1	0.2
Cycle Q Clear(g_c), s	0.3	33.8	0.6	0.1	0.0	19.6	5.5	0.0	0.0	0.0	0.1	0.2
Prop In Lane	1.00		1.00	1.00		0.00	0.83		0.17	0.00		1.00
Lane Grp Cap(c), veh/h	11	890	756	6	0	883	573	0	0	0	636	541
V/C Ratio(X)	0.53	0.95	0.03	0.51	0.00	0.68	0.24	0.00	0.00	0.00	0.00	0.01
Avail Cap(c_a), veh/h	90	914	777	90	0	914	573	0	0	0	636	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	20.3	11.5	39.8	0.0	16.7	19.5	0.0	0.0	0.0	17.7	17.8
Incr Delay (d2), s/veh	13.6	17.5	0.0	23.6	0.0	1.5	1.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	21.8	0.3	0.1	0.0	10.5	2.4	0.0	0.0	0.0	0.0	0.1
LnGrp Delay(d),s/veh	53.2	37.7	11.5	63.4	0.0	18.2	20.5	0.0	0.0	0.0	17.7	17.8
LnGrp LOS	D	D	B	E		B	C				B	B
Approach Vol, veh/h		868			600			140			8	
Approach Delay, s/veh		37.2			18.4			20.5			17.8	
Approach LOS		D			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		32.3	4.8	43.0		32.3	5.0	42.7
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	38.5		22.0	4.0	38.5
Max Q Clear Time (g_c+I1), s		7.5	2.1	35.8		2.2	2.3	21.6
Green Ext Time (p_c), s		0.4	0.0	1.7		0.5	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	28.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
10: Heacock Street & Cactus Avenue

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	89	524	477	51	1011	96	725	381	20	46	305	47
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	570	441	55	1099	95	788	414	20	50	332	35
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	2465	1046	71	2177	188	695	1496	72	64	846	88
Arrive On Green	0.06	0.65	0.65	0.04	0.63	0.63	0.19	0.42	0.42	0.04	0.25	0.25
Sat Flow, veh/h	1810	3800	1613	1810	3449	298	3619	3593	173	1810	3383	354
Grp Volume(v), veh/h	97	570	441	55	605	589	788	218	216	50	185	182
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1847	1810	1900	1866	1810	1900	1837
Q Serve(g_s), s	5.3	6.2	14.6	3.0	17.2	17.3	19.2	7.6	7.6	2.7	8.1	8.2
Cycle Q Clear(g_c), s	5.3	6.2	14.6	3.0	17.2	17.3	19.2	7.6	7.6	2.7	8.1	8.2
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.09	1.00		0.19
Lane Grp Cap(c), veh/h	103	2465	1046	71	1199	1166	695	791	777	64	475	459
V/C Ratio(X)	0.94	0.23	0.42	0.77	0.50	0.51	1.13	0.28	0.28	0.78	0.39	0.40
Avail Cap(c_a), veh/h	103	2465	1046	72	1199	1166	695	791	777	121	475	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	7.3	10.4	47.6	10.0	10.0	40.4	19.2	19.3	47.8	31.2	31.2
Incr Delay (d2), s/veh	54.4	0.1	0.8	35.9	1.5	1.6	76.4	0.8	0.8	7.2	2.4	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	3.3	6.7	2.2	9.4	9.2	16.9	4.1	4.1	1.5	4.6	4.5
LnGrp Delay(d),s/veh	101.4	7.4	11.3	83.5	11.5	11.6	116.8	20.0	20.1	55.0	33.6	33.8
LnGrp LOS	F	A	B	F	B	B	F	C	C	E	C	C
Approach Vol, veh/h		1108			1249			1222			417	
Approach Delay, s/veh		17.2			14.7			82.4			36.2	
Approach LOS		B			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	71.4	24.7	30.5	10.2	69.6	8.1	47.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	31.8	19.2	* 25	5.7	30.1	6.7	37.5
Max Q Clear Time (g_c+I1), s	5.0	16.6	21.2	10.2	7.3	19.3	4.7	9.6
Green Ext Time (p_c), s	0.0	7.2	0.0	1.0	0.0	6.0	0.0	3.0

Intersection Summary			
HCM 2010 Ctrl Delay			38.3
HCM 2010 LOS			D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
11: Heacock Street & Meyer Drive/John F. Kennedy Drive
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	7	43	62	36	108	257	68	764	49	130	633	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.95	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	47	22	39	117	118	74	830	38	141	688	10
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	186	158	52	225	189	639	1211	487	551	1026	430
Arrive On Green	0.01	0.10	0.10	0.03	0.12	0.12	0.35	0.32	0.32	0.30	0.27	0.27
Sat Flow, veh/h	1810	1900	1615	1810	1900	1595	1810	3800	1529	1810	3800	1593
Grp Volume(v), veh/h	8	47	22	39	117	118	74	830	38	141	688	10
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1595	1810	1900	1529	1810	1900	1593
Q Serve(g_s), s	0.4	1.8	0.5	1.7	4.6	5.6	2.2	15.2	1.1	4.7	12.9	0.3
Cycle Q Clear(g_c), s	0.4	1.8	0.5	1.7	4.6	5.6	2.2	15.2	1.1	4.7	12.9	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	15	186	158	52	225	189	639	1211	487	551	1026	430
V/C Ratio(X)	0.54	0.25	0.14	0.74	0.52	0.62	0.12	0.69	0.08	0.26	0.67	0.02
Avail Cap(c_a), veh/h	90	589	501	118	618	518	639	1211	487	551	1026	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	39.5	33.4	7.3	38.5	33.1	33.6	17.4	23.8	11.4	21.0	26.0	14.3
Incr Delay (d2), s/veh	11.0	0.3	0.1	7.5	0.7	1.3	0.0	3.2	0.3	0.1	3.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	0.2	1.0	2.5	2.6	1.1	8.5	0.5	2.4	7.2	0.1
LnGrp Delay(d),s/veh	50.6	33.7	7.4	46.0	33.8	34.8	17.5	26.9	11.7	21.1	29.1	14.4
LnGrp LOS	D	C	A	D	C	C	B	C	B	C	C	B
Approach Vol, veh/h		77			274			942			839	
Approach Delay, s/veh		27.9			36.0			25.6			27.5	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.9	31.0	6.8	13.3	32.8	27.1	5.2	15.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	25.5	5.2	24.8	8.4	21.6	4.0	26.0
Max Q Clear Time (g_c+I1), s	6.7	17.2	3.7	3.8	4.2	14.9	2.4	7.6
Green Ext Time (p_c), s	0.0	2.3	0.0	0.9	0.1	1.6	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	3	92	612	2	55	652
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	97	644	2	58	686

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1446	644	0	0	644	0
Stage 1	644	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	147	476	-	-	951	-
Stage 1	527	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	138	476	-	-	951	-
Mov Cap-2 Maneuver	138	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	418	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	138	476	951	-
HCM Lane V/C Ratio	-	-	0.023	0.203	0.061	-
HCM Control Delay (s)	-	-	31.7	14.5	9	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.8	0.2	-

Intersection	
Intersection Delay, s/veh	25.7
Intersection LOS	D

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	45	383	0	232	36	0	200	452
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	48	407	0	247	38	0	213	481
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	22.8	17.2	31.2
HCM LOS	C	C	D

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	87%	0%	0%	0%	100%
Vol Right, %	13%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	268	45	383	200	452
LT Vol	0	45	0	200	0
Through Vol	232	0	0	0	452
RT Vol	36	0	383	0	0
Lane Flow Rate	285	48	407	213	481
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.53	0.101	0.722	0.415	0.869
Departure Headway (Hd)	6.688	7.603	6.379	7.014	6.504
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	536	469	562	511	553
Service Time	4.777	5.39	4.165	4.799	4.289
HCM Lane V/C Ratio	0.532	0.102	0.724	0.417	0.87
HCM Control Delay	17.2	11.3	24.2	14.7	38.5
HCM Lane LOS	C	B	C	B	E
HCM 95th-tile Q	3.1	0.3	6	2	9.6

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
14: Heacock Street & Krameria Avenue-North 7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	9	80	230	7	158	338
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	99	284	9	195	417
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	144	129	812	690	491	1450
Arrive On Green	0.08	0.08	0.43	0.43	0.27	0.76
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	11	99	284	9	195	417
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.4	4.2	7.0	0.2	6.2	4.7
Cycle Q Clear(g_c), s	0.4	4.2	7.0	0.2	6.2	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	144	129	812	690	491	1450
V/C Ratio(X)	0.08	0.77	0.35	0.01	0.40	0.29
Avail Cap(c_a), veh/h	439	392	812	690	491	1450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	31.6	13.5	11.5	20.8	2.5
Incr Delay (d2), s/veh	0.1	3.6	1.2	0.0	2.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.0	3.9	0.1	3.4	2.5
LnGrp Delay(d),s/veh	29.9	35.2	14.7	11.6	23.2	3.0
LnGrp LOS	C	D	B	B	C	A
Approach Vol, veh/h	110		293			612
Approach Delay, s/veh	34.7		14.6			9.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	35.4				58.9		11.1
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	8.2	9.0				6.7		6.2
Green Ext Time (p_c), s	0.2	1.7				2.3		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	11	6	231	51	28	319
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	7	251	55	30	347

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	687	153	0	0	307	0
Stage 1	279	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	400	872	-	-	1265	-
Stage 1	749	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	391	872	-	-	1265	-
Mov Cap-2 Maneuver	564	-	-	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	660	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	644	1265	-
HCM Lane V/C Ratio	-	-	0.029	0.024	-
HCM Control Delay (s)	-	-	10.8	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	12	6	276	54	24	306
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	13	7	300	59	26	333

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	714	179	0	0	359	0
Stage 1	329	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	385	839	-	-	1211	-
Stage 1	707	-	-	-	-	-
Stage 2	692	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	377	839	-	-	1211	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	627	1211	-
HCM Lane V/C Ratio	-	-	0.031	0.022	-
HCM Control Delay (s)	-	-	10.9	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	10	284	50	48	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	14	400	70	68	356

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	892	200	0	0	400	0
Stage 1	400	-	-	-	-	-
Stage 2	492	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	300	814	-	-	1170	-
Stage 1	652	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	283	814	-	-	1170	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	477	814	1170	-
HCM Lane V/C Ratio	-	-	0.03	0.017	0.058	-
HCM Control Delay (s)	-	-	12.8	9.5	8.3	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.2	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	2	4	4	7	5	290	1	39	5	110	88	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	5	2	9	7	320	1	52	7	147	117	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	6	95	81	308	412	350	2	618	525	443	1100	935
Arrive On Green	0.00	0.05	0.05	0.17	0.22	0.22	0.00	0.32	0.32	0.25	0.58	0.58
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	3	5	2	9	7	320	1	52	7	147	117	8
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.2	0.3	0.1	0.4	0.3	19.4	0.1	1.9	0.3	6.7	2.8	0.2
Cycle Q Clear(g_c), s	0.2	0.3	0.1	0.4	0.3	19.4	0.1	1.9	0.3	6.7	2.8	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	95	81	308	412	350	2	618	525	443	1100	935
V/C Ratio(X)	0.52	0.05	0.02	0.03	0.02	0.91	0.50	0.08	0.01	0.33	0.11	0.01
Avail Cap(c_a), veh/h	100	551	468	308	523	444	81	618	525	443	1100	935
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	45.2	36.1	34.6	30.8	38.3	49.9	23.4	22.9	31.0	9.4	5.1
Incr Delay (d2), s/veh	24.3	0.1	0.0	0.0	0.0	11.5	58.7	0.3	0.0	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.2	0.2	9.8	0.1	1.0	0.1	3.4	1.5	0.1
LnGrp Delay(d),s/veh	74.1	45.3	36.1	34.6	30.8	49.8	108.6	23.7	22.9	31.2	9.6	5.1
LnGrp LOS	E	D	D	C	C	D	F	C	C	C	A	A
Approach Vol, veh/h		10			336			60			272	
Approach Delay, s/veh		52.1			49.0			25.0			21.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.0	38.0	21.5	10.5	4.6	63.4	4.8	27.2
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	8.7	3.9	2.4	2.3	2.1	4.8	2.2	21.4
Green Ext Time (p_c), s	0.3	0.1	0.0	0.0	0.0	0.5	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 TWSC
19: Heacock Street & Nandina Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	40	0	2	91	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	43	0	2	97	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	196	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	195	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	797	1090	-	-	1634	-
Stage 1	1028	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	1090	-	-	1634	-
Mov Cap-2 Maneuver	752	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1090	1634	-
HCM Lane V/C Ratio	-	-	-	0.039	0.059	-
HCM Control Delay (s)	-	-	0	8.4	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	595	1	0	421	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	744	1	0	526	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	745	0	1270	744
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	526	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	808	-	187	507
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	646	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	808	-	187	507
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	646	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	507	-	-	808	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	12.1	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 2010 TWSC | Moreno Valley Logistics Center TIA (JN 09301)
21: Cosmos Street & Krameria Avenue-North/Driveway | 7/14/2015

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	23	136	0	0	0	76	3	6	3	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	28	166	0	0	0	93	4	7	4	0	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	204	204	8	301	212	4	16	0	0	4	0	0
Stage 1	15	15	-	189	189	-	-	-	-	-	-	-
Stage 2	189	189	-	112	23	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	758	696	1080	655	689	1085	1615	-	-	1631	-	-
Stage 1	1010	887	-	817	748	-	-	-	-	-	-	-
Stage 2	817	748	-	898	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	723	654	1080	512	648	1085	1615	-	-	1631	-	-
Mov Cap-2 Maneuver	726	664	-	591	663	-	-	-	-	-	-	-
Stage 1	952	885	-	770	705	-	-	-	-	-	-	-
Stage 2	770	705	-	734	878	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	0	6.6	1.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	979	-	1631	-	-
HCM Lane V/C Ratio	0.057	-	-	0.204	-	0.002	-	-
HCM Control Delay (s)	7.4	-	-	9.6	0	7.2	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.8	-	0	-	-

HCM 2010 AWSC Moreno Valley Logistics Center TIA (JN 09301)
22: Cosmos Street & Driveway/Krameria Avenue 7/16/2015

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	4	4	0	0	22	19	68	0	0	12	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	4	0	0	24	21	74	0	0	13	5
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.2	7.7	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	50%	100%	0%	100%	0%
Vol Thru, %	71%	50%	0%	22%	0%	74%
Vol Right, %	29%	0%	0%	78%	0%	26%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	8	22	87	62	73
LT Vol	0	4	22	0	62	0
Through Vol	12	4	0	19	0	54
RT Vol	5	0	0	68	0	19
Lane Flow Rate	18	9	24	95	67	79
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.025	0.012	0.036	0.115	0.098	0.1
Departure Headway (Hd)	4.792	5.145	5.426	4.376	5.328	4.544
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	750	699	664	824	677	776
Service Time	2.802	3.151	3.128	2.078	3.028	2.344
HCM Lane V/C Ratio	0.024	0.013	0.036	0.115	0.099	0.102
HCM Control Delay	7.9	8.2	8.3	7.6	8.6	7.9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.1	0	0.1	0.4	0.3	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	62	54	19
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	67	59	21
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.2
HCM LOS	A

Lane

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	46	25	13	104	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	50	27	14	113	7	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	77	0	205	64
Stage 1	-	-	-	-	64	-
Stage 2	-	-	-	-	141	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1535	-	788	1006
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	891	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1535	-	781	1006
Mov Cap-2 Maneuver	-	-	-	-	822	-
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	883	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	875	-	-	1535	-
HCM Lane V/C Ratio	0.011	-	-	0.009	-
HCM Control Delay (s)	9.2	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

24: Driveway 4 & Krameria Avenue

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	46	3	19	116	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	50	3	21	126	1	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	53	0	219	52
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	167	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1566	-	774	1021
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	867	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1566	-	764	1021
Mov Cap-2 Maneuver	-	-	-	-	802	-
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	855	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	968	-	-	1566	-
HCM Lane V/C Ratio	0.006	-	-	0.013	-
HCM Control Delay (s)	8.7	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

25: Driveway 5 & Krameria Avenue

7/14/2015

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	24	25	16	130	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	26	27	17	141	7	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	53	0	216	40
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1566	-	777	1037
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1566	-	769	1037
Mov Cap-2 Maneuver	-	-	-	-	800	-
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	850	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	866	-	-	1566	-
HCM Lane V/C Ratio	0.011	-	-	0.011	-
HCM Control Delay (s)	9.2	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	8	16	2	0	2	85	188	0	24	99	12
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	9	19	2	0	2	100	221	0	28	116	14
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	9.8	10.7	10.5
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	89%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	11%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	99	12	8	18	2	85	188	192	79	33
LT Vol	24	0	0	8	0	2	0	0	192	0	0
Through Vol	0	99	0	0	16	0	85	0	0	79	0
RT Vol	0	0	12	0	2	0	0	188	0	0	33
Lane Flow Rate	28	116	14	9	21	2	100	221	226	93	39
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.054	0.207	0.022	0.019	0.039	0.004	0.171	0.335	0.406	0.154	0.057
Departure Headway (Hd)	6.902	6.399	5.694	7.227	6.649	6.646	6.146	5.446	6.471	5.968	5.264
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	519	560	628	495	538	539	584	659	558	601	680
Service Time	4.646	4.143	3.437	4.976	4.398	4.383	3.883	3.184	4.205	3.702	2.998
HCM Lane V/C Ratio	0.054	0.207	0.022	0.018	0.039	0.004	0.171	0.335	0.405	0.155	0.057
HCM Control Delay	10	10.8	8.6	10.1	9.7	9.4	10.2	10.9	13.6	9.8	8.3
HCM Lane LOS	A	B	A	B	A	A	B	B	B	A	A
HCM 95th-tile Q	0.2	0.8	0.1	0.1	0.1	0	0.6	1.5	2	0.5	0.2

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	17	77	10	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	18	84	11	2	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	180	2	2	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	178	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	814	1088	1634	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	858	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	772	1088	1634	-	-	-
Mov Cap-2 Maneuver	772	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	6.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1634	-	1088	-	-
HCM Lane V/C Ratio	0.051	-	0.017	-	-
HCM Control Delay (s)	7.3	-	8.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	-	-

HCM 2010 Signalized Intersection Summary
28: Indian Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	6	59	70	54	165	5	431	97	91	3	24	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	81	84	74	226	4	590	133	93	4	33	0
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	14	157	859	101	526	211	1627	879	747	406	902	0
Arrive On Green	0.01	0.08	0.08	0.06	0.14	0.14	0.45	0.46	0.46	0.22	0.24	0.00
Sat Flow, veh/h	1810	1900	1615	1810	3800	1523	3619	1900	1615	1810	3800	0
Grp Volume(v), veh/h	8	81	84	74	226	4	590	133	93	4	33	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1523	1810	1900	1615	1810	1900	0
Q Serve(g_s), s	0.5	4.9	0.0	4.8	6.5	0.2	12.9	4.9	3.9	0.2	0.8	0.0
Cycle Q Clear(g_c), s	0.5	4.9	0.0	4.8	6.5	0.2	12.9	4.9	3.9	0.2	0.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	14	157	859	101	526	211	1627	879	747	406	903	0
V/C Ratio(X)	0.57	0.52	0.10	0.74	0.43	0.02	0.36	0.15	0.12	0.01	0.04	0.00
Avail Cap(c_a), veh/h	68	435	1096	188	1124	451	1627	879	747	406	903	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	0.96	0.96	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.3	52.8	13.9	55.8	47.3	18.4	21.7	18.6	18.4	36.2	35.2	0.0
Incr Delay (d2), s/veh	10.9	0.8	0.0	3.9	0.2	0.0	0.0	0.4	0.3	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.6	1.4	2.5	3.4	0.1	6.4	2.6	1.8	0.1	0.4	0.0
LnGrp Delay(d),s/veh	70.2	53.6	13.9	59.7	47.6	18.5	21.8	19.0	18.7	36.2	35.3	0.0
LnGrp LOS	E	D	B	E	D	B	C	B	B	D	D	
Approach Vol, veh/h		173			304			816			37	
Approach Delay, s/veh		35.1			50.1			21.0			35.4	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.4	61.0	12.2	15.4	58.4	34.0	5.4	22.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	55.5	12.5	* 28	31.5	28.5	4.5	35.5
Max Q Clear Time (g_c+I1), s	2.2	6.9	6.8	6.9	14.9	2.8	2.5	8.5
Green Ext Time (p_c), s	0.4	0.5	0.5	0.3	1.0	0.1	0.0	0.9

Intersection Summary		
HCM 2010 Ctrl Delay		29.9
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	9	14	137	42	22	17	47	586	28	6	121	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	17	108	51	27	19	57	715	32	7	148	1
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	104	89	66	153	130	649	2450	110	13	1194	8
Arrive On Green	0.01	0.05	0.05	0.04	0.08	0.08	0.36	0.68	0.68	0.01	0.32	0.32
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3606	161	1810	3770	25
Grp Volume(v), veh/h	11	17	108	51	27	19	57	377	370	7	75	74
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1868	1810	1900	1895
Q Serve(g_s), s	0.5	0.8	2.4	2.5	1.2	1.0	1.9	7.1	7.1	0.3	2.5	2.5
Cycle Q Clear(g_c), s	0.5	0.8	2.4	2.5	1.2	1.0	1.9	7.1	7.1	0.3	2.5	2.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.09	1.00		0.01
Lane Grp Cap(c), veh/h	19	104	89	66	153	130	649	1291	1269	13	602	600
V/C Ratio(X)	0.57	0.16	1.22	0.78	0.18	0.15	0.09	0.29	0.29	0.54	0.12	0.12
Avail Cap(c_a), veh/h	90	538	458	151	602	511	649	1291	1269	90	602	600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	44.3	40.6	10.3	43.0	38.6	38.5	19.1	5.8	5.8	44.5	21.9	21.9
Incr Delay (d2), s/veh	9.4	0.3	105.9	7.2	0.2	0.2	0.0	0.6	0.6	12.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.4	3.7	1.4	0.6	0.4	0.9	3.9	3.8	0.2	1.4	1.4
LnGrp Delay(d),s/veh	53.7	40.8	116.1	50.2	38.8	38.7	19.1	6.3	6.4	56.8	22.3	22.3
LnGrp LOS	D	D	F	D	D	D	B	A	A	E	C	C
Approach Vol, veh/h		136			97			804			156	
Approach Delay, s/veh		101.7			44.8			7.3			23.8	
Approach LOS		F			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	66.7	7.8	10.4	37.8	34.0	5.5	12.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	32.5	7.5	25.5	8.5	* 29	4.5	28.5
Max Q Clear Time (g_c+I1), s	2.3	9.1	4.5	4.4	3.9	4.5	2.5	3.2
Green Ext Time (p_c), s	0.0	2.5	0.0	0.3	1.0	0.4	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
30: Indian Street & Harley Knox Boulevard 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	476	206	71	5	245	15	103	255	25	9	65	198
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	506	219	59	5	261	14	110	271	23	10	69	144
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	752	1450	1232	9	1222	65	152	1403	596	35	640	544
Arrive On Green	0.42	0.76	0.76	0.01	0.34	0.34	0.04	0.37	0.37	0.01	0.34	0.34
Sat Flow, veh/h	1810	1900	1614	1810	3573	191	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	506	219	59	5	138	137	110	271	23	10	69	144
Grp Sat Flow(s),veh/h/ln	1810	1900	1614	1810	1900	1863	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	21.5	2.9	0.9	0.3	4.9	5.0	2.9	4.6	0.9	0.3	2.4	6.2
Cycle Q Clear(g_c), s	21.5	2.9	0.9	0.3	4.9	5.0	2.9	4.6	0.9	0.3	2.4	6.2
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	752	1450	1232	9	650	638	152	1403	596	35	640	544
V/C Ratio(X)	0.67	0.15	0.05	0.53	0.21	0.21	0.72	0.19	0.04	0.28	0.11	0.26
Avail Cap(c_a), veh/h	752	1450	1232	76	650	638	152	1403	596	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	3.0	2.8	47.1	22.2	22.2	45.0	20.4	19.2	46.7	21.7	22.9
Incr Delay (d2), s/veh	1.9	0.2	0.1	16.1	0.7	0.8	13.5	0.3	0.1	1.6	0.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	1.6	0.4	0.2	2.7	2.7	1.7	2.5	0.4	0.1	1.3	2.9
LnGrp Delay(d),s/veh	24.4	3.2	2.8	63.3	22.9	23.0	58.5	20.7	19.3	48.3	22.0	24.1
LnGrp LOS	C	A	A	E	C	C	E	C	B	D	C	C
Approach Vol, veh/h		784			280			404			223	
Approach Delay, s/veh		16.9			23.7			30.9			24.6	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	79.0	8.5	37.5	46.0	38.0	5.4	40.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	35.0	4.0	32.0	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.3	4.9	4.9	8.2	23.5	7.0	2.3	6.6
Green Ext Time (p_c), s	0.0	1.5	0.0	1.7	0.0	0.8	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑	↱
Volume (veh/h)	69	410	132	60	726	76	193	831	85	100	485	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	77	456	130	67	807	75	214	923	82	111	539	64
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	979	277	994	2909	270	238	1499	133	141	855	358
Arrive On Green	0.05	0.34	0.34	0.55	0.85	0.85	0.13	0.29	0.29	0.08	0.22	0.22
Sat Flow, veh/h	1810	2847	805	1810	3421	318	1810	5159	457	1810	3800	1590
Grp Volume(v), veh/h	77	303	283	67	448	434	214	679	326	111	539	64
Grp Sat Flow(s),veh/h/ln	1810	1900	1752	1810	1900	1839	1810	1900	1816	1810	1900	1590
Q Serve(g_s), s	3.4	10.0	10.1	1.4	3.7	3.7	9.3	12.3	12.4	4.8	10.2	3.8
Cycle Q Clear(g_c), s	3.4	10.0	10.1	1.4	3.7	3.7	9.3	12.3	12.4	4.8	10.2	3.8
Prop In Lane	1.00		0.46	1.00		0.17	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	99	653	602	994	1616	1564	238	1104	528	141	855	358
V/C Ratio(X)	0.78	0.46	0.47	0.07	0.28	0.28	0.90	0.61	0.62	0.79	0.63	0.18
Avail Cap(c_a), veh/h	102	653	602	994	1616	1564	238	1104	528	170	855	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	20.5	20.5	8.4	1.2	1.2	34.2	24.5	24.5	36.2	28.0	52.2
Incr Delay (d2), s/veh	27.2	2.4	2.6	0.0	0.4	0.4	32.6	2.6	5.3	14.7	3.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	5.6	5.3	0.7	2.1	2.0	6.8	6.8	7.0	3.0	5.8	1.8
LnGrp Delay(d),s/veh	64.5	22.9	23.2	8.5	1.6	1.6	66.8	27.1	29.9	50.9	31.5	53.3
LnGrp LOS	E	C	C	A	A	A	E	C	C	D	C	D
Approach Vol, veh/h		663			949			1219			714	
Approach Delay, s/veh		27.8			2.1			34.8			36.5	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	50.3	33.0	16.0	23.5	8.9	74.4	10.7	28.8
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	44.0	* 28	10.5	* 18	4.5	27.0	7.5	21.0
Max Q Clear Time (g_c+I1), s	3.4	12.1	11.3	12.2	5.4	5.7	6.8	14.4
Green Ext Time (p_c), s	0.1	1.8	0.0	1.3	0.0	3.4	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	19	158	71	186	107	190	98	816	286	89	570	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	174	62	204	118	109	108	897	289	98	626	23
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	212	202	255	268	223	148	2024	649	122	2605	95
Arrive On Green	0.13	0.13	0.13	0.14	0.14	0.14	0.08	0.49	0.49	0.07	0.48	0.48
Sat Flow, veh/h	204	1686	1611	1810	1900	1580	1810	4121	1322	1810	5462	200
Grp Volume(v), veh/h	195	0	62	204	118	109	108	827	359	98	435	214
Grp Sat Flow(s),veh/h/ln	1890	0	1611	1810	1900	1580	1810	1900	1643	1810	1900	1862
Q Serve(g_s), s	12.1	0.0	4.2	13.1	6.8	7.6	7.0	17.0	17.1	6.4	8.1	8.2
Cycle Q Clear(g_c), s	12.1	0.0	4.2	13.1	6.8	7.6	7.0	17.0	17.1	6.4	8.1	8.2
Prop In Lane	0.11		1.00	1.00		1.00	1.00		0.80	1.00		0.11
Lane Grp Cap(c), veh/h	237	0	202	255	268	223	148	1866	807	122	1812	888
V/C Ratio(X)	0.82	0.00	0.31	0.80	0.44	0.49	0.73	0.44	0.45	0.80	0.24	0.24
Avail Cap(c_a), veh/h	472	0	403	452	475	395	148	1866	807	143	1812	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	47.7	49.9	47.2	47.6	53.8	19.9	19.9	55.2	18.5	18.6
Incr Delay (d2), s/veh	2.7	0.0	0.3	2.2	0.4	0.6	27.0	0.8	1.8	20.4	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	1.9	6.7	3.6	3.4	4.6	9.0	8.1	3.9	4.3	4.3
LnGrp Delay(d),s/veh	53.9	0.0	48.0	52.1	47.6	48.2	80.8	20.6	21.7	75.6	18.9	19.2
LnGrp LOS	D		D	D	D	D	F	C	C	E	B	B
Approach Vol, veh/h		257			431			1294			747	
Approach Delay, s/veh		52.5			49.9			25.9			26.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.6	64.4		20.6	14.3	62.7		22.4
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	8.4	19.1		14.1	9.0	10.2		15.1
Green Ext Time (p_c), s	0.0	5.6		0.7	0.0	7.7		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

1: I-215 SB Ramps & Cactus Av.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (veh/h)	0	645	125	507	358	0	0	0	730	0	0	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	679	124	534	377	0	0	0	0	0	0	73
Adj No. of Lanes	0	2	1	1	2	0	0	0	1	0	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2229	947	461	3452	0	0	0	0	0	0	0
Arrive On Green	0.00	0.59	0.59	0.25	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	1810	3800	0		0			0	
Grp Volume(v), veh/h	0	679	124	534	377	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	5.4	2.1	15.3	0.6	0.0						
Cycle Q Clear(g_c), s	0.0	5.4	2.1	15.3	0.6	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2229	947	461	3452	0						
V/C Ratio(X)	0.00	0.30	0.13	1.16	0.11	0.00						
Avail Cap(c_a), veh/h	0	2229	947	461	3452	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	6.2	5.6	22.3	0.3	0.0						
Incr Delay (d2), s/veh	0.0	0.4	0.3	92.7	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	2.8	3.0	19.4	0.3	0.0						
LnGrp Delay(d),s/veh	0.0	6.6	5.8	115.0	0.3	0.0						
LnGrp LOS		A	A	F	A							
Approach Vol, veh/h		803			911							
Approach Delay, s/veh		6.5			67.6							
Approach LOS		A			E							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	19.3	40.7				60.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	15.3	19.2				38.5		
Max Q Clear Time (g_c+I1), s	17.3	7.4				2.6		
Green Ext Time (p_c), s	0.0	3.7				4.8		

Intersection Summary			
HCM 2010 Ctrl Delay			39.0
HCM 2010 LOS			D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰↑	↱
Volume (veh/h)	0	393	9	214	133	0	0	0	0	382	2	278
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	418	10	228	141	0				406	2	219
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1827	776	253	2500	0				466	2	418
Arrive On Green	0.00	0.48	0.48	0.23	1.00	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1801	9	1615
Grp Volume(v), veh/h	0	418	10	228	141	0				408	0	219
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	7.7	0.4	14.7	0.0	0.0				25.9	0.0	14.0
Cycle Q Clear(g_c), s	0.0	7.7	0.4	14.7	0.0	0.0				25.9	0.0	14.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1827	776	253	2500	0				468	0	418
V/C Ratio(X)	0.00	0.23	0.01	0.90	0.06	0.00				0.87	0.00	0.52
Avail Cap(c_a), veh/h	0	1827	776	309	2500	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.2	16.3	45.2	0.0	0.0				42.6	0.0	38.1
Incr Delay (d2), s/veh	0.0	0.3	0.0	22.1	0.0	0.0				5.2	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.1	0.2	8.8	0.0	0.0				13.6	0.0	6.3
LnGrp Delay(d),s/veh	0.0	18.5	16.3	67.3	0.0	0.0				47.7	0.0	39.2
LnGrp LOS		B	B	E	A					D		D
Approach Vol, veh/h		428			369						627	
Approach Delay, s/veh		18.4			41.6						44.8	
Approach LOS		B			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	21.3	62.7		36.0		84.0		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	20.5	30.0		55.0		55.0		
Max Q Clear Time (g_c+I1), s	16.7	9.7		27.9		2.0		
Green Ext Time (p_c), s	0.1	2.1		3.1		2.2		

Intersection Summary		
HCM 2010 Ctrl Delay		36.0
HCM 2010 LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰	↑↱		↰	↑↱	
Volume (veh/h)	14	1217	144	0	1484	66	29	30	0	87	0	36
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	1255	144	0	1530	59	30	31	0	90	0	22
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	1871	214	0	2036	78	501	544	0	495	0	462
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.00	0.29	0.00	0.29
Sat Flow, veh/h	326	3341	382	0	3636	140	1412	1900	0	1400	0	1615
Grp Volume(v), veh/h	14	711	688	0	798	791	30	31	0	90	0	22
Grp Sat Flow(s),veh/h/ln	326	1900	1823	0	1900	1875	1412	1900	0	1400	0	1615
Q Serve(g_s), s	2.2	17.1	17.3	0.0	20.7	20.9	1.0	0.8	0.0	3.2	0.0	0.6
Cycle Q Clear(g_c), s	23.1	17.1	17.3	0.0	20.7	20.9	1.7	0.8	0.0	4.0	0.0	0.6
Prop In Lane	1.00		0.21	0.00		0.07	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	1064	1021	0	1064	1050	501	544	0	495	0	462
V/C Ratio(X)	0.07	0.67	0.67	0.00	0.75	0.75	0.06	0.06	0.00	0.18	0.00	0.05
Avail Cap(c_a), veh/h	189	1064	1021	0	1064	1050	501	544	0	495	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.7	10.1	10.1	0.0	10.8	10.9	17.4	16.8	0.0	18.3	0.0	16.8
Incr Delay (d2), s/veh	0.8	3.3	3.6	0.0	4.9	5.0	0.2	0.2	0.0	0.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	9.9	9.6	0.0	12.1	12.0	0.4	0.4	0.0	1.4	0.0	0.3
LnGrp Delay(d),s/veh	20.4	13.4	13.7	0.0	15.7	15.9	17.6	17.0	0.0	19.1	0.0	17.0
LnGrp LOS	C	B	B		B	B	B	B		B		B
Approach Vol, veh/h		1413			1589			61			112	
Approach Delay, s/veh		13.6			15.8			17.3			18.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		25.1		6.0		22.9		3.7
Green Ext Time (p_c), s		8.8		0.2		10.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	248	527	0	0	338	560	8	1	135	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	279	592	0	0	380	604	9	1	43			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	303	2755	0	0	2007	853	314	35	310			
Arrive On Green	0.34	1.00	0.00	0.00	0.53	0.53	0.19	0.19	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1636	182	1615			
Grp Volume(v), veh/h	279	592	0	0	380	604	10	0	43			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1818	0	1615			
Q Serve(g_s), s	17.8	0.0	0.0	0.0	6.3	33.9	0.5	0.0	2.7			
Cycle Q Clear(g_c), s	17.8	0.0	0.0	0.0	6.3	33.9	0.5	0.0	2.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.90		1.00			
Lane Grp Cap(c), veh/h	303	2755	0	0	2007	853	348	0	310			
V/C Ratio(X)	0.92	0.21	0.00	0.00	0.19	0.71	0.03	0.00	0.14			
Avail Cap(c_a), veh/h	550	2755	0	0	2007	853	348	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.1	0.0	0.0	0.0	14.8	21.3	39.4	0.0	40.3			
Incr Delay (d2), s/veh	5.4	0.2	0.0	0.0	0.2	4.9	0.2	0.0	0.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.3	0.1	0.0	0.0	3.3	16.3	0.3	0.0	1.3			
LnGrp Delay(d),s/veh	44.5	0.2	0.0	0.0	15.0	26.3	39.6	0.0	41.2			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		871			984			53				
Approach Delay, s/veh		14.4			21.9			40.9				
Approach LOS		B			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			23.6	68.4		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			19.8	35.9		4.7
Green Ext Time (p_c), s		5.7			0.3	4.1		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✣		↰	↰	↱
Volume (veh/h)	97	1298	23	25	1234	74	366	95	181	100	20	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	1338	0	26	1272	45	304	200	133	118	0	66
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	2878	816	33	2589	718	445	262	174	203	0	202
Arrive On Green	0.07	0.50	0.00	0.02	0.45	0.45	0.25	0.25	0.25	0.06	0.00	0.06
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1065	709	3619	0	1615
Grp Volume(v), veh/h	100	1338	0	26	1272	45	304	0	333	118	0	66
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1774	1810	0	1615
Q Serve(g_s), s	6.5	18.2	0.0	1.7	18.8	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Cycle Q Clear(g_c), s	6.5	18.2	0.0	1.7	18.8	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	124	2878	816	33	2589	718	445	0	436	203	0	202
V/C Ratio(X)	0.80	0.46	0.00	0.80	0.49	0.06	0.68	0.00	0.76	0.58	0.00	0.33
Avail Cap(c_a), veh/h	143	2878	816	119	2589	718	445	0	436	890	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	19.2	0.0	58.7	23.0	18.4	41.0	0.0	42.0	55.2	0.0	47.9
Incr Delay (d2), s/veh	21.3	0.5	0.0	15.1	0.1	0.0	8.3	0.0	12.0	1.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	9.7	0.0	1.0	9.9	0.8	10.1	0.0	11.7	1.9	0.0	2.0
LnGrp Delay(d),s/veh	76.4	19.8	0.0	73.8	23.1	18.4	49.3	0.0	54.0	56.2	0.0	48.3
LnGrp LOS	E	B		E	C	B	D		D	E		D
Approach Vol, veh/h		1438			1343			637			184	
Approach Delay, s/veh		23.7			23.9			51.7			53.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	66.1		12.2	12.7	60.0		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	9.5	30.5		29.5
Max Q Clear Time (g_c+I1), s	3.7	20.2		6.5	8.5	20.8		22.9
Green Ext Time (p_c), s	0.0	8.5		0.3	0.0	6.2		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	92	1776	1079	167	325	102
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	1831	1112	164	335	46
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	1995	2286	648	1221	654
Arrive On Green	0.07	0.52	0.40	0.40	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	95	1831	1112	164	335	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	4.1	35.3	11.6	5.4	5.4	1.4
Cycle Q Clear(g_c), s	4.1	35.3	11.6	5.4	5.4	1.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	122	1995	2286	648	1221	654
V/C Ratio(X)	0.78	0.92	0.49	0.25	0.27	0.07
Avail Cap(c_a), veh/h	215	1995	2286	648	1221	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.80	0.80	1.00	1.00
Uniform Delay (d), s/veh	36.7	17.4	17.8	16.0	19.3	14.6
Incr Delay (d2), s/veh	3.9	8.2	0.6	0.8	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	20.6	6.2	2.5	2.8	1.7
LnGrp Delay(d),s/veh	40.6	25.7	18.4	16.7	19.9	14.8
LnGrp LOS	D	C	B	B	B	B
Approach Vol, veh/h		1926	1276		381	
Approach Delay, s/veh		26.4	18.2		19.3	
Approach LOS		C	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	9.9	37.6		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		37.3		7.4	6.1	13.6		
Green Ext Time (p_c), s		4.1		0.6	0.0	11.2		

Intersection Summary	
HCM 2010 Ctrl Delay	22.7
HCM 2010 LOS	C

HCM 2010 TWSC
7: Harley Knox Blvd. & Western Way

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	28	635	835	17	14	64
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	690	908	18	15	70

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	908	0	-	0	1314	454
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	406	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	758	-	-	-	*255	559
Stage 1	-	-	-	-	*359	-
Stage 2	-	-	-	-	*780	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	758	-	-	-	*239	559
Mov Cap-2 Maneuver	-	-	-	-	*239	-
Stage 1	-	-	-	-	*359	-
Stage 2	-	-	-	-	*730	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	758	-	-	-	451
HCM Lane V/C Ratio	0.04	-	-	-	0.188
HCM Control Delay (s)	9.9	0.3	-	-	14.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	72	1763	277	6	979	43	158	53	11	119	138	105
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	1916	0	7	1064	43	172	58	7	129	150	36
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1173	3822	1625	13	1919	77	170	1059	126	85	1252	1572
Arrive On Green	0.65	1.00	0.00	0.01	0.35	0.35	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5438	220	3619	3335	395	1810	3800	1595
Grp Volume(v), veh/h	78	1916	0	7	743	364	172	33	32	129	150	36
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1858	1810	1900	1830	1810	1900	1595
Q Serve(g_s), s	1.3	0.0	0.0	0.3	13.4	13.4	4.0	1.0	1.0	4.0	2.3	0.2
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.3	13.4	13.4	4.0	1.0	1.0	4.0	2.3	0.2
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	1173	3822	1625	13	1341	656	170	604	581	85	1252	1572
V/C Ratio(X)	0.07	0.50	0.00	0.54	0.55	0.55	1.01	0.05	0.06	1.51	0.12	0.02
Avail Cap(c_a), veh/h	1173	3822	1625	85	1341	656	170	604	581	85	1252	1572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.00	0.46	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.5	0.0	0.0	42.1	22.1	22.1	40.5	20.1	20.1	40.5	19.9	8.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	5.9	0.8	1.6	71.6	0.2	0.2	282.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.0	0.2	7.2	7.2	3.7	0.6	0.6	8.7	1.3	0.4
LnGrp Delay(d),s/veh	5.5	0.2	0.0	47.9	22.9	23.7	112.1	20.3	20.3	323.2	20.1	8.0
LnGrp LOS	A	A		D	C	C	F	C	C	F	C	A
Approach Vol, veh/h		1994			1114			237			315	
Approach Delay, s/veh		0.4			23.3			86.9			142.8	
Approach LOS		A			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	91.8	8.5	33.5	61.4	35.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	* 27
Max Q Clear Time (g_c+I1), s	2.3	2.0	6.0	4.3	3.3	15.4	6.0	3.0
Green Ext Time (p_c), s	0.0	11.5	0.0	0.7	0.0	3.8	0.0	0.2

Intersection Summary			
HCM 2010 Ctrl Delay			25.3
HCM 2010 LOS			C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
9: Patterson Avenue & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			↰	↱
Volume (veh/h)	6	484	47	20	694	5	40	4	10	8	4	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	550	53	23	789	6	45	5	11	9	5	14
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	13	828	703	36	844	6	451	55	94	414	215	566
Arrive On Green	0.01	0.44	0.44	0.02	0.45	0.45	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1810	1900	1615	1810	1883	14	1064	156	268	969	614	1615
Grp Volume(v), veh/h	7	550	53	23	0	795	61	0	0	14	0	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1897	1489	0	0	1583	0	1615
Q Serve(g_s), s	0.3	18.4	1.5	1.0	0.0	31.8	1.3	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.3	18.4	1.5	1.0	0.0	31.8	2.1	0.0	0.0	0.4	0.0	0.5
Prop In Lane	1.00		1.00	1.00		0.01	0.74		0.18	0.64		1.00
Lane Grp Cap(c), veh/h	13	828	703	36	0	851	600	0	0	629	0	566
V/C Ratio(X)	0.54	0.66	0.08	0.64	0.00	0.93	0.10	0.00	0.00	0.02	0.00	0.02
Avail Cap(c_a), veh/h	90	860	731	120	0	889	600	0	0	629	0	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.6	17.9	13.2	38.9	0.0	21.0	17.5	0.0	0.0	17.0	0.0	17.0
Incr Delay (d2), s/veh	12.1	1.4	0.0	6.7	0.0	15.8	0.3	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	10.0	0.7	0.6	0.0	20.3	1.0	0.0	0.0	0.2	0.0	0.2
LnGrp Delay(d),s/veh	51.7	19.4	13.2	45.6	0.0	36.8	17.8	0.0	0.0	17.1	0.0	17.1
LnGrp LOS	D	B	B	D		D	B			B		B
Approach Vol, veh/h		610			818			61			28	
Approach Delay, s/veh		19.2			37.0			17.8			17.1	
Approach LOS		B			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		33.6	6.1	40.3		33.6	5.1	41.4
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		23.0	5.3	36.2		23.0	4.0	37.5
Max Q Clear Time (g_c+I1), s		4.1	3.0	20.4		2.5	2.3	33.8
Green Ext Time (p_c), s		0.2	0.0	5.2		0.2	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	82	933	817	22	560	67	534	496	62	109	535	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	993	854	23	596	65	568	528	62	116	569	39
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2734	1162	35	2283	248	462	1120	131	146	977	67
Arrive On Green	0.06	0.72	0.72	0.02	0.68	0.68	0.21	0.56	0.56	0.08	0.28	0.28
Sat Flow, veh/h	1810	3800	1615	1810	3368	367	3619	3333	390	1810	3517	241
Grp Volume(v), veh/h	87	993	854	23	336	325	568	300	290	116	307	301
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1824	1810	1900	1858
Q Serve(g_s), s	4.3	8.9	41.2	1.1	6.2	6.2	11.5	8.5	8.5	5.7	12.5	12.6
Cycle Q Clear(g_c), s	4.3	8.9	41.2	1.1	6.2	6.2	11.5	8.5	8.5	5.7	12.5	12.6
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.21	1.00		0.13
Lane Grp Cap(c), veh/h	111	2734	1162	35	1288	1244	462	638	613	146	528	516
V/C Ratio(X)	0.79	0.36	0.73	0.65	0.26	0.26	1.23	0.47	0.47	0.79	0.58	0.58
Avail Cap(c_a), veh/h	111	2734	1162	80	1288	1244	462	638	613	175	528	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	4.8	15.9	43.8	5.7	5.7	35.4	15.0	15.0	40.6	28.0	28.0
Incr Delay (d2), s/veh	3.2	0.0	0.4	7.4	0.5	0.5	118.1	2.1	2.2	15.6	4.6	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	18.3	0.6	3.4	3.3	13.3	4.7	4.5	3.5	7.2	7.1
LnGrp Delay(d),s/veh	44.9	4.8	16.3	51.2	6.2	6.2	153.5	17.1	17.2	56.2	32.6	32.8
LnGrp LOS	D	A	B	D	A	A	F	B	B	E	C	C
Approach Vol, veh/h		1934			684			1158			724	
Approach Delay, s/veh		11.7			7.7			84.0			36.5	
Approach LOS		B			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	71.3	17.0	30.5	10.0	67.5	11.8	35.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	29.5	11.5	* 25	5.5	28.0	8.7	27.8
Max Q Clear Time (g_c+I1), s	3.1	43.2	13.5	14.6	6.3	8.2	7.7	10.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	9.1	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	33.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	26	159	221	22	100	144	75	871	60	302	917	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	169	121	23	106	56	80	927	46	321	976	15
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	220	187	35	206	101	103	1068	437	634	2225	945
Arrive On Green	0.05	0.12	0.12	0.02	0.09	0.09	0.06	0.28	0.28	0.47	0.78	0.78
Sat Flow, veh/h	1810	1900	1615	1810	2390	1177	1810	3800	1555	1810	3800	1615
Grp Volume(v), veh/h	28	169	121	23	83	79	80	927	46	321	976	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1668	1810	1900	1555	1810	1900	1615
Q Serve(g_s), s	1.3	7.8	5.2	1.1	3.7	4.1	3.9	20.9	2.0	11.2	7.8	0.1
Cycle Q Clear(g_c), s	1.3	7.8	5.2	1.1	3.7	4.1	3.9	20.9	2.0	11.2	7.8	0.1
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	220	187	35	164	144	103	1068	437	634	2225	945
V/C Ratio(X)	0.32	0.77	0.65	0.66	0.51	0.55	0.77	0.87	0.11	0.51	0.44	0.02
Avail Cap(c_a), veh/h	89	528	449	101	549	482	183	1068	437	634	2225	945
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	41.3	38.6	24.9	43.8	39.3	39.5	41.9	30.8	24.0	18.6	5.0	1.6
Incr Delay (d2), s/veh	0.7	2.1	1.4	7.5	0.9	1.2	4.6	9.5	0.5	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.2	2.4	0.6	2.0	1.9	2.1	12.4	0.9	5.6	4.0	0.1
LnGrp Delay(d),s/veh	42.1	40.7	26.3	51.3	40.2	40.7	46.4	40.3	24.4	18.8	5.4	1.6
LnGrp LOS	D	D	C	D	D	D	D	D	C	B	A	A
Approach Vol, veh/h		318			185			1053			1312	
Approach Delay, s/veh		35.4			41.8			40.1			8.6	
Approach LOS		D			D			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.0	30.8	6.2	15.9	9.6	58.2	8.9	13.3
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.7	* 25	5.0	25.0	9.1	30.9	4.0	26.0
Max Q Clear Time (g_c+I1), s	13.2	22.9	3.1	9.8	5.9	9.8	3.3	6.1
Green Ext Time (p_c), s	0.2	1.1	0.0	0.7	0.0	4.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	25.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	60	808	7	124	979
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	65	869	8	133	1053

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2188	869	0	0	869	0
Stage 1	869	-	-	-	-	-
Stage 2	1319	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	51	354	-	-	784	-
Stage 1	414	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	42	354	-	-	784	-
Mov Cap-2 Maneuver	42	-	-	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	209	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.6	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	42	354	784	-
HCM Lane V/C Ratio	-	-	0.026	0.182	0.17	-
HCM Control Delay (s)	-	-	93	17.4	10.5	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0.7	0.6	-

Intersection	
Intersection Delay, s/veh	53.9
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	18	243	0	565	18	0	512	447
Peak Hour Factor	0.92	0.86	0.86	0.92	0.86	0.86	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	21	283	0	657	21	0	595	520
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	17.7	63.1	58.2
HCM LOS	C	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	97%	0%	0%	0%	100%
Vol Right, %	3%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	583	18	243	512	447
LT Vol	0	18	0	512	0
Through Vol	565	0	0	0	447
RT Vol	18	0	243	0	0
Lane Flow Rate	678	21	283	595	520
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.048	0.553	1	0.938
Departure Headway (Hd)	6.343	8.248	7.048	6.999	6.499
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	569	435	511	524	561
Service Time	4.403	5.981	4.782	4.699	4.199
HCM Lane V/C Ratio	1.192	0.048	0.554	1.135	0.927
HCM Control Delay	63.1	11.4	18.2	65.8	49.5
HCM Lane LOS	F	B	C	F	E
HCM 95th-tile Q	14.5	0.2	3.3	13.9	12

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	7	176	439	14	72	412
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	217	542	17	89	509
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	289	258	660	561	491	1298
Arrive On Green	0.16	0.16	0.35	0.35	0.27	0.68
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	9	217	542	17	89	509
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.3	9.1	18.2	0.5	2.6	8.1
Cycle Q Clear(g_c), s	0.3	9.1	18.2	0.5	2.6	8.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	289	258	660	561	491	1298
V/C Ratio(X)	0.03	0.84	0.82	0.03	0.18	0.39
Avail Cap(c_a), veh/h	439	392	660	561	491	1298
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	28.5	20.9	15.1	19.5	4.8
Incr Delay (d2), s/veh	0.0	6.0	11.0	0.1	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.5	11.5	0.2	1.4	4.4
LnGrp Delay(d),s/veh	24.8	34.6	31.9	15.2	20.3	5.7
LnGrp LOS	C	C	C	B	C	A
Approach Vol, veh/h	226		559			598
Approach Delay, s/veh	34.2		31.4			7.9
Approach LOS	C		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	29.8				53.3		16.7
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	4.6	20.2				10.1		11.1
Green Ext Time (p_c), s	0.1	0.0				3.8		0.2

Intersection Summary			
HCM 2010 Ctrl Delay			21.7
HCM 2010 LOS			C

HCM 2010 TWSC
15: Heacock Street & Driveway 1

Moreno Valley Logistics Center TIA (JN 09301)
9/14/2015

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	30	423	12	7	412
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	33	460	13	8	448

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	929	236	0	0	473	0
Stage 1	466	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	284	772	-	-	1099	-
Stage 1	604	-	-	-	-	-
Stage 2	638	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	282	772	-	-	1099	-
Mov Cap-2 Maneuver	480	-	-	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	633	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	554	1099	-
HCM Lane V/C Ratio	-	-	0.167	0.007	-
HCM Control Delay (s)	-	-	12.8	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

HCM 2010 TWSC
16: Heacock Street & Driveway 2

Moreno Valley Logistics Center TIA (JN 09301)
9/14/2015

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	59	25	410	14	5	461
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	64	27	446	15	5	501

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	965	230	0	0	461	0
Stage 1	453	-	-	-	-	-
Stage 2	512	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	270	779	-	-	1111	-
Stage 1	613	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	269	779	-	-	1111	-
Mov Cap-2 Maneuver	470	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	533	1111	-
HCM Lane V/C Ratio	-	-	0.171	0.005	-
HCM Control Delay (s)	-	-	13.1	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	52	49	382	12	10	535
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	73	69	538	17	14	754

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1320	269	0	0	538	0
Stage 1	538	-	-	-	-	-
Stage 2	782	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	162	735	-	-	1040	-
Stage 1	555	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	160	735	-	-	1040	-
Mov Cap-2 Maneuver	361	-	-	-	-	-
Stage 1	555	-	-	-	-	-
Stage 2	448	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	361	735	1040	-
HCM Lane V/C Ratio	-	-	0.203	0.094	0.014	-
HCM Control Delay (s)	-	-	17.5	10.4	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.3	0	-

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
18: Heacock Street & San Michele Road 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	11	6	5	11	0	241	0	71	3	318	212	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	9	7	16	0	344	0	101	0	454	303	3
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	432	366	25	432	367	2	658	559	445	1196	1017
Arrive On Green	0.01	0.23	0.23	0.01	0.00	0.23	0.00	0.35	0.00	0.25	0.63	0.63
Sat Flow, veh/h	1810	1900	1611	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	16	9	7	16	0	344	0	101	0	454	303	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	1.1	0.4	0.4	1.1	0.0	25.1	0.0	4.4	0.0	29.5	8.4	0.1
Cycle Q Clear(g_c), s	1.1	0.4	0.4	1.1	0.0	25.1	0.0	4.4	0.0	29.5	8.4	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	25	432	366	25	432	367	2	658	559	445	1196	1017
V/C Ratio(X)	0.64	0.02	0.02	0.64	0.00	0.94	0.00	0.15	0.00	1.02	0.25	0.00
Avail Cap(c_a), veh/h	113	467	396	113	467	397	60	658	559	445	1196	1017
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.83	0.00	0.83	0.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	36.0	36.0	58.9	0.0	45.5	0.0	27.1	0.0	45.3	9.8	8.2
Incr Delay (d2), s/veh	9.8	0.0	0.0	8.2	0.0	24.4	0.0	0.5	0.0	48.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.2	0.6	0.0	13.6	0.0	2.4	0.0	20.6	4.5	0.0
LnGrp Delay(d),s/veh	68.7	36.0	36.0	67.0	0.0	69.9	0.0	27.6	0.0	93.2	10.3	8.2
LnGrp LOS	E	D	D	E		E		C		F	B	A
Approach Vol, veh/h		32			360			101			760	
Approach Delay, s/veh		52.3			69.8			27.6			59.8	
Approach LOS		D			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	47.1	6.2	32.8	0.0	81.1	6.2	32.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	29.5	33.5	7.5	29.5	4.0	59.0	7.5	29.5
Max Q Clear Time (g_c+I1), s	31.5	6.4	3.1	2.4	0.0	10.4	3.1	27.1
Green Ext Time (p_c), s	0.0	1.2	0.0	0.6	0.0	1.3	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	59.9
HCM 2010 LOS	E

19: Heacock Street & Nandina Avenue

Intersection	
Int Delay, s/veh	7.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	70	2	8	200	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	93	3	11	267	13

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	555	8	0	0	13	0
Stage 1	8	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	496	1080	-	-	1619	-
Stage 1	1020	-	-	-	-	-
Stage 2	584	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	414	1080	-	-	1619	-
Mov Cap-2 Maneuver	462	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1080	1619	-
HCM Lane V/C Ratio	-	-	-	0.086	0.165	-
HCM Control Delay (s)	-	-	0	8.6	7.7	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.3	0.6	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

20: Webster Street & Harley Knox Boulevard

7/14/2015

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	509	0	0	594	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	559	0	0	653	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	559	0	1212	559
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	653	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1020	-	*203	670
Stage 1	-	-	-	-	*637	-
Stage 2	-	-	-	-	*563	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1020	-	*203	670
Mov Cap-2 Maneuver	-	-	-	-	*203	-
Stage 1	-	-	-	-	*637	-
Stage 2	-	-	-	-	*563	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	670	-	-	1020	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	21	63	0	0	0	160	4	0	3	2	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	26	77	0	0	0	195	5	0	4	2	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	414	414	12	465	423	5	21	0	0	5	0	0
Stage 1	19	19	-	395	395	-	-	-	-	-	-	-
Stage 2	395	395	-	70	28	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	552	532	1074	511	526	1084	1608	-	-	1630	-	-
Stage 1	1005	884	-	634	608	-	-	-	-	-	-	-
Stage 2	634	608	-	945	876	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	500	466	1074	413	461	1084	1608	-	-	1630	-	-
Mov Cap-2 Maneuver	524	502	-	504	501	-	-	-	-	-	-	-
Stage 1	883	882	-	557	534	-	-	-	-	-	-	-
Stage 2	557	534	-	850	874	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	0	7.4	1.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	782	-	1630	-	-
HCM Lane V/C Ratio	0.121	-	-	0.148	-	0.002	-	-
HCM Control Delay (s)	7.5	-	-	10.4	0	7.2	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.5	-	0	-	-

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	20	20	0	0	5	4	84	0	0	60	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	22	22	0	0	5	4	91	0	0	65	25
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.5	7.5	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	50%	100%	0%	100%	0%
Vol Thru, %	72%	50%	0%	5%	0%	79%
Vol Right, %	28%	0%	0%	95%	0%	21%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	40	5	88	46	19
LT Vol	0	20	5	0	46	0
Through Vol	60	20	0	4	0	15
RT Vol	23	0	0	84	0	4
Lane Flow Rate	90	43	5	96	50	21
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.119	0.062	0.008	0.114	0.075	0.027
Departure Headway (Hd)	4.766	5.123	5.455	4.283	5.42	4.77
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	755	702	659	840	663	753
Service Time	2.778	3.135	3.164	1.992	3.134	2.484
HCM Lane V/C Ratio	0.119	0.061	0.008	0.114	0.075	0.028
HCM Control Delay	8.4	8.5	8.2	7.5	8.6	7.6
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0.2	0	0.4	0.2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	46	15	4
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	50	16	4
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.3
HCM LOS	A

Lane

23: Driveway 3 & Krameria Avenue

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	82	7	3	65	28	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	89	8	3	71	30	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	97	0	170	93
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1509	-	825	970
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	951	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1509	-	823	970
Mov Cap-2 Maneuver	-	-	-	-	856	-
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	949	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1509	-
HCM Lane V/C Ratio	0.05	-	-	0.002	-
HCM Control Delay (s)	9.3	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 2010 TWSC
24: Driveway 4 & Krameria Avenue

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	95	1	4	64	3	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	103	1	4	70	3	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	182	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1500	-	812	956
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1500	-	810	956
Mov Cap-2 Maneuver	-	-	-	-	848	-
Stage 1	-	-	-	-	925	-
Stage 2	-	-	-	-	947	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	940	-	-	1500	-
HCM Lane V/C Ratio	0.027	-	-	0.003	-
HCM Control Delay (s)	8.9	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

25: Driveway 5 & Krameria Avenue

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	107	7	3	40	28	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	116	8	3	43	30	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	170	120
Stage 1	-	-	-	-	120	-
Stage 2	-	-	-	-	50	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1475	-	825	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1475	-	823	937
Mov Cap-2 Maneuver	-	-	-	-	850	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	881	-	-	1475	-
HCM Lane V/C Ratio	0.056	-	-	0.002	-
HCM Control Delay (s)	9.3	-	-	7.4	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	41	67	20	0	4	22	55	0	8	51	4
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	48	79	24	0	5	26	65	0	9	60	5
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	9.5	8.6	9.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	77%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	23%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	51	4	41	87	4	22	55	175	73	10
LT Vol	8	0	0	41	0	4	0	0	175	0	0
Through Vol	0	51	0	0	67	0	22	0	0	73	0
RT Vol	0	0	4	0	20	0	0	55	0	0	10
Lane Flow Rate	9	60	5	48	102	5	26	65	206	86	12
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.017	0.099	0.007	0.084	0.158	0.008	0.042	0.093	0.335	0.128	0.015
Departure Headway (Hd)	6.444	5.941	5.238	6.233	5.572	6.375	5.875	5.174	5.865	5.363	4.661
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	559	607	687	570	638	556	603	684	607	662	759
Service Time	4.144	3.641	2.938	4.02	3.359	4.173	3.673	2.972	3.648	3.146	2.444
HCM Lane V/C Ratio	0.016	0.099	0.007	0.084	0.16	0.009	0.043	0.095	0.339	0.13	0.016
HCM Control Delay	9.3	9.3	8	9.6	9.4	9.2	8.9	8.5	11.6	8.9	7.5
HCM Lane LOS	A	A	A	A	A	A	A	A	B	A	A
HCM 95th-tile Q	0.1	0.3	0	0.3	0.6	0	0.1	0.3	1.5	0.4	0

27: Indian Street & Driveway 6

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	84	20	2	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	91	22	2	11	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	57	11	11	0	-	0
Stage 1	11	-	-	-	-	-
Stage 2	46	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	955	1076	1621	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	942	1076	1621	-	-	-
Mov Cap-2 Maneuver	917	-	-	-	-	-
Stage 1	1017	-	-	-	-	-
Stage 2	969	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	6.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1621	-	1076	-	-
HCM Lane V/C Ratio	0.013	-	0.085	-	-
HCM Control Delay (s)	7.3	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

HCM 2010 Signalized Intersection Summary
28: Indian Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	11	143	398	147	235	45	308	76	115	103	225	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		1.00	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	217	533	223	356	45	467	115	89	156	341	24
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	329	697	252	1131	478	967	797	677	184	804	54
Arrive On Green	0.00	0.06	0.06	0.14	0.30	0.30	0.27	0.42	0.42	0.10	0.25	0.25
Sat Flow, veh/h	1810	1900	1535	1810	3800	1604	3619	1900	1613	1810	3269	222
Grp Volume(v), veh/h	17	217	533	223	356	45	467	115	89	156	193	172
Grp Sat Flow(s),veh/h/ln	1810	1900	1535	1810	1900	1604	1810	1900	1613	1810	1900	1591
Q Serve(g_s), s	1.1	13.4	9.5	14.5	8.7	2.4	13.0	4.5	4.1	10.2	10.2	11.0
Cycle Q Clear(g_c), s	1.1	13.4	9.5	14.5	8.7	2.4	13.0	4.5	4.1	10.2	10.2	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	26	329	697	252	1131	478	967	797	677	184	467	391
V/C Ratio(X)	0.65	0.66	0.76	0.89	0.31	0.09	0.48	0.14	0.13	0.85	0.41	0.44
Avail Cap(c_a), veh/h	83	420	770	354	1409	595	967	797	677	264	467	391
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	53.1	12.4	50.7	32.7	30.5	37.0	21.5	21.4	53.0	38.0	38.3
Incr Delay (d2), s/veh	4.7	0.6	1.7	14.0	0.1	0.0	0.1	0.4	0.4	11.6	2.7	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.1	9.6	8.2	4.6	1.1	6.5	2.4	1.9	5.7	5.7	5.2
LnGrp Delay(d),s/veh	64.1	53.7	14.1	64.7	32.7	30.5	37.1	21.9	21.8	64.7	40.7	41.8
LnGrp LOS	E	D	B	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		767			624			671			521	
Approach Delay, s/veh		26.4			44.0			32.5			48.2	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	55.9	21.2	26.3	37.5	35.0	6.2	41.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	17.5	32.5	23.5	26.5	20.5	* 30	5.5	44.5
Max Q Clear Time (g_c+I1), s	12.2	6.5	16.5	15.4	15.0	13.0	3.1	10.7
Green Ext Time (p_c), s	0.1	1.3	0.2	2.7	0.6	1.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	36.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
29: Indian Street & Nandina Avenue 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	7	38	210	42	19	14	56	437	49	50	627	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	54	179	60	27	1	80	624	66	71	896	60
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	263	223	77	127	108	103	1697	179	91	1746	117
Arrive On Green	0.10	0.14	0.14	0.04	0.07	0.07	0.06	0.50	0.50	0.05	0.50	0.50
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3379	357	1810	3522	236
Grp Volume(v), veh/h	10	54	179	60	27	1	80	350	340	71	483	473
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1836	1810	1900	1858
Q Serve(g_s), s	0.4	1.9	8.1	2.5	1.0	0.0	3.3	8.4	8.5	2.9	12.9	12.9
Cycle Q Clear(g_c), s	0.4	1.9	8.1	2.5	1.0	0.0	3.3	8.4	8.5	2.9	12.9	12.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.13
Lane Grp Cap(c), veh/h	183	263	223	77	127	108	103	954	922	91	942	921
V/C Ratio(X)	0.05	0.21	0.80	0.78	0.21	0.01	0.78	0.37	0.37	0.78	0.51	0.51
Avail Cap(c_a), veh/h	183	608	517	97	608	517	109	954	922	109	942	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	30.5	28.7	31.3	35.6	33.1	21.1	34.9	11.4	11.4	35.2	12.8	12.8
Incr Delay (d2), s/veh	0.0	0.1	2.5	21.0	0.3	0.0	24.9	1.1	1.1	15.2	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	3.7	1.7	0.5	0.0	2.4	4.7	4.5	1.8	7.1	6.9
LnGrp Delay(d),s/veh	30.5	28.8	33.9	56.5	33.5	21.1	59.8	12.5	12.5	50.4	14.2	14.2
LnGrp LOS	C	C	C	E	C	C	E	B	B	D	B	B
Approach Vol, veh/h		243			88			770			1027	
Approach Delay, s/veh		32.6			49.0			17.4			16.7	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	43.2	7.7	15.9	8.8	42.7	13.1	10.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.5	22.5	4.0	24.0	4.5	22.5	4.0	* 24
Max Q Clear Time (g_c+I1), s	4.9	10.5	4.5	10.1	5.3	14.9	2.4	3.0
Green Ext Time (p_c), s	0.0	4.8	0.0	0.4	0.0	3.7	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	269	207	74	18	145	6	57	269	7	30	337	570
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	349	269	96	23	188	8	74	349	9	39	438	735
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1016	1700	1445	35	1238	52	130	1354	575	98	640	544
Arrive On Green	0.56	0.89	0.89	0.02	0.34	0.34	0.04	0.36	0.36	0.03	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3618	153	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	349	269	96	23	98	98	74	349	9	39	438	735
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1871	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	10.0	1.6	2.8	1.2	3.4	3.4	1.9	6.2	0.3	1.0	18.9	32.0
Cycle Q Clear(g_c), s	10.0	1.6	2.8	1.2	3.4	3.4	1.9	6.2	0.3	1.0	18.9	32.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1016	1700	1445	35	650	640	130	1354	575	98	640	544
V/C Ratio(X)	0.34	0.16	0.07	0.66	0.15	0.15	0.57	0.26	0.02	0.40	0.68	1.35
Avail Cap(c_a), veh/h	1016	1700	1445	99	650	640	152	1354	575	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	0.6	10.7	46.3	21.7	21.7	45.1	21.7	19.8	45.5	27.1	31.5
Incr Delay (d2), s/veh	0.1	0.2	0.1	7.8	0.5	0.5	1.4	0.5	0.0	1.0	5.9	169.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.9	1.3	0.7	1.9	1.9	1.0	3.3	0.2	0.5	10.9	39.9
LnGrp Delay(d),s/veh	11.4	0.8	10.8	54.1	22.2	22.2	46.5	22.1	19.8	46.4	33.0	201.3
LnGrp LOS	B	A	B	D	C	C	D	C	B	D	C	F
Approach Vol, veh/h		714			219			432			1212	
Approach Delay, s/veh		7.3			25.5			26.3			135.5	
Approach LOS		A			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	91.9	8.9	37.5	60.2	38.0	7.1	39.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	3.2	4.8	3.9	34.0	12.0	5.4	3.0	8.2
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.6	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	72.3
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑	↱
Volume (veh/h)	77	568	203	48	410	73	157	754	47	125	929	44
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	580	186	49	418	65	160	769	37	128	948	34
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	924	296	814	2399	370	174	1557	75	161	1021	434
Arrive On Green	0.05	0.33	0.33	0.45	0.75	0.75	0.10	0.29	0.29	0.09	0.27	0.27
Sat Flow, veh/h	1810	2759	882	1810	3209	495	1810	5395	259	1810	3800	1615
Grp Volume(v), veh/h	79	399	367	49	246	237	160	541	265	128	948	34
Grp Sat Flow(s),veh/h/ln	1810	1900	1741	1810	1900	1805	1810	1900	1854	1810	1900	1615
Q Serve(g_s), s	3.5	14.1	14.2	1.2	3.0	3.1	7.0	9.4	9.5	5.5	19.4	1.7
Cycle Q Clear(g_c), s	3.5	14.1	14.2	1.2	3.0	3.1	7.0	9.4	9.5	5.5	19.4	1.7
Prop In Lane	1.00		0.51	1.00		0.27	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	90	637	583	814	1420	1349	174	1096	535	161	1021	434
V/C Ratio(X)	0.87	0.63	0.63	0.06	0.17	0.18	0.92	0.49	0.50	0.79	0.93	0.08
Avail Cap(c_a), veh/h	90	637	583	814	1420	1349	174	1096	535	188	1021	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	22.4	22.4	12.4	2.9	2.9	35.8	23.6	23.6	35.7	28.5	39.3
Incr Delay (d2), s/veh	54.0	4.6	5.1	0.0	0.3	0.3	44.7	1.6	3.3	15.4	15.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	8.2	7.7	0.6	1.7	1.6	5.7	5.2	5.3	3.5	12.3	0.8
LnGrp Delay(d),s/veh	91.7	27.0	27.5	12.4	3.2	3.2	80.5	25.2	26.9	51.1	43.9	39.7
LnGrp LOS	F	C	C	B	A	A	F	C	C	D	D	D
Approach Vol, veh/h		845			532			966			1110	
Approach Delay, s/veh		33.3			4.1			34.8			44.6	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	32.3	13.2	27.0	8.5	66.3	11.6	28.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 27	7.7	* 22	4.0	26.8	8.3	20.9
Max Q Clear Time (g_c+I1), s	13.2	16.2	9.0	21.4	5.5	5.1	7.5	11.5
Green Ext Time (p_c), s	0.2	2.2	0.0	0.0	0.0	1.7	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

32: Perris Boulevard & Krameria Avenue

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	41	97	72	156	55	87	41	845	174	128	775	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	107	63	171	60	-4	45	929	166	141	852	22
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	136	167	218	229	195	148	2453	436	143	2872	74
Arrive On Green	0.10	0.10	0.10	0.12	0.12	0.00	0.08	0.52	0.52	0.08	0.52	0.52
Sat Flow, veh/h	554	1318	1610	1810	1900	1615	1810	4701	836	1810	5530	143
Grp Volume(v), veh/h	152	0	63	171	60	-4	45	750	345	141	585	289
Grp Sat Flow(s),veh/h/ln	1872	0	1610	1810	1900	1615	1810	1900	1738	1810	1900	1873
Q Serve(g_s), s	9.5	0.0	4.4	11.0	3.4	0.0	2.8	14.1	14.2	9.3	10.5	10.5
Cycle Q Clear(g_c), s	9.5	0.0	4.4	11.0	3.4	0.0	2.8	14.1	14.2	9.3	10.5	10.5
Prop In Lane	0.30		1.00	1.00		1.00	1.00		0.48	1.00		0.08
Lane Grp Cap(c), veh/h	194	0	167	218	229	195	148	1983	907	143	1973	972
V/C Ratio(X)	0.79	0.00	0.38	0.78	0.26	-0.02	0.30	0.38	0.38	0.98	0.30	0.30
Avail Cap(c_a), veh/h	468	0	403	452	475	404	148	1983	907	143	1973	972
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.5	0.0	50.2	51.2	47.9	0.0	51.9	17.1	17.1	55.2	16.4	16.4
Incr Delay (d2), s/veh	2.7	0.0	0.5	2.3	0.2	0.0	5.2	0.6	1.2	70.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	2.0	5.7	1.8	0.0	1.6	7.5	7.1	7.4	5.6	5.7
LnGrp Delay(d),s/veh	55.1	0.0	50.7	53.6	48.1	0.0	57.1	17.7	18.3	125.2	16.8	17.2
LnGrp LOS	E		D	D	D		E	B	B	F	B	B
Approach Vol, veh/h		215			227			1140			1015	
Approach Delay, s/veh		53.8			53.1			19.4			32.0	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	68.1		17.9	14.3	67.8		20.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	11.3	16.2		11.5	4.8	12.5		13.0
Green Ext Time (p_c), s	0.0	6.8		0.6	0.0	7.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 5.3:

E+P CONDITIONS WITHOUT INDIAN STREET BRIDGE OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues
1: I-215 SB Ramps & Cactus Av.

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	351	38	369	1347	775	225
v/c Ratio	0.26	0.05	0.83	0.54	0.93	0.49
Control Delay	15.3	0.1	39.3	6.8	25.3	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	0.1	39.3	6.8	25.3	14.8
Queue Length 50th (ft)	47	0	123	112	48	33
Queue Length 95th (ft)	74	0	#242	154	#249	87
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1330	743	484	2475	849	474
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.05	0.76	0.54	0.91	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/13/2015

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	405	9	146	173	505	165
v/c Ratio	0.28	0.01	0.45	0.08	0.81	0.22
Control Delay	28.1	0.0	35.4	11.7	46.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	0.0	35.4	11.7	46.9	4.2
Queue Length 50th (ft)	108	0	46	27	355	0
Queue Length 95th (ft)	167	0	70	42	427	41
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1442	761	324	2234	870	960
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.01	0.45	0.08	0.58	0.17

Intersection Summary

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	1067	1798	396	289	35	44
v/c Ratio	0.21	0.50	0.84	1.00	0.53	0.14	0.08
Control Delay	12.5	9.7	16.4	73.4	23.7	19.1	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	9.7	16.4	73.4	23.7	19.1	8.8
Queue Length 50th (ft)	4	115	261	~156	95	10	3
Queue Length 95th (ft)	19	157	354	#321	164	30	23
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2132	2143	395	544	250	560
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.50	0.84	1.00	0.53	0.14	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	221	709	322	378	4	192
v/c Ratio	0.76	0.26	0.16	0.31	0.01	0.37
Control Delay	37.4	6.5	14.8	2.4	39.5	7.9
Queue Delay	0.0	0.7	0.0	0.0	0.0	0.0
Total Delay	37.4	7.2	14.8	2.4	39.5	7.9
Queue Length 50th (ft)	155	80	60	0	3	0
Queue Length 95th (ft)	205	145	95	50	13	62
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	2059	1202	364	519
Starvation Cap Reductn	7	1614	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.62	0.16	0.31	0.01	0.37

Intersection Summary

1: I-215 SB Ramps & Cactus Av.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	679	132	534	377	785	195
v/c Ratio	0.56	0.19	1.10	0.15	1.04	0.25
Control Delay	19.0	4.2	98.0	4.5	54.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.2	98.0	4.5	54.4	0.7
Queue Length 50th (ft)	100	0	~227	22	~120	0
Queue Length 95th (ft)	144	30	#391	35	#334	0
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	697	484	2438	758	790
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.19	1.10	0.15	1.04	0.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	418	10	228	141	391	296
v/c Ratio	0.24	0.01	0.77	0.06	0.77	0.41
Control Delay	23.0	0.0	67.0	10.5	50.2	4.9
Queue Delay	0.0	0.0	1.6	0.0	0.0	0.0
Total Delay	23.0	0.0	68.6	10.5	50.2	4.9
Queue Length 50th (ft)	97	0	190	17	280	0
Queue Length 95th (ft)	167	0	274	44	348	58
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1729	896	341	2464	870	1031
Starvation Cap Reductn	0	0	32	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.01	0.74	0.06	0.45	0.29

Intersection Summary

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	1419	1667	30	31	90	37
v/c Ratio	0.12	0.66	0.78	0.08	0.06	0.23	0.07
Control Delay	9.8	11.7	14.4	17.7	17.3	19.6	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	11.7	14.4	17.7	17.3	19.6	7.7
Queue Length 50th (ft)	2	173	232	9	9	27	1
Queue Length 95th (ft)	12	234	312	26	26	60	19
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2138	2132	398	543	400	567
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.66	0.78	0.08	0.06	0.23	0.07

Intersection Summary

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/13/2015

	↗	→	←	↖	↑	↗
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	279	574	380	554	10	152
v/c Ratio	0.79	0.21	0.20	0.45	0.03	0.31
Control Delay	44.1	1.8	17.2	2.8	39.8	8.2
Queue Delay	0.1	0.3	0.0	0.0	0.0	0.0
Total Delay	44.3	2.1	17.2	2.8	39.8	8.2
Queue Length 50th (ft)	184	4	77	0	6	0
Queue Length 95th (ft)	65	21	118	57	22	54
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1941	1228	364	487
Starvation Cap Reductn	28	1469	0	0	0	0
Spillback Cap Reductn	0	0	65	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.45	0.20	0.45	0.03	0.31

Intersection Summary

APPENDIX 5.4:

E+P CONDITIONS WITH INDIAN STREET BRIDGE OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	351	38	369	1347	711	225
v/c Ratio	0.25	0.05	0.82	0.53	0.88	0.54
Control Delay	14.7	0.1	38.4	6.2	18.7	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	0.1	38.4	6.2	18.7	16.2
Queue Length 50th (ft)	47	0	121	107	26	34
Queue Length 95th (ft)	74	0	#242	154	#192	87
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1408	779	488	2562	849	474
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.05	0.76	0.53	0.84	0.47

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	406	10	147	173	571	166
v/c Ratio	0.31	0.01	0.45	0.08	0.83	0.21
Control Delay	31.3	0.0	35.3	13.2	45.2	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	0.0	35.3	13.2	45.2	3.7
Queue Length 50th (ft)	115	0	46	27	398	0
Queue Length 95th (ft)	176	0	71	42	472	39
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1314	698	324	2105	870	960
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.01	0.45	0.08	0.66	0.17

Intersection Summary

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	1004	1784	396	289	35	44
v/c Ratio	0.21	0.47	0.83	1.00	0.53	0.14	0.08
Control Delay	12.5	9.4	16.1	73.4	23.7	19.1	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	9.4	16.1	73.4	23.7	19.1	8.8
Queue Length 50th (ft)	4	106	257	~156	95	10	3
Queue Length 95th (ft)	19	145	349	#321	164	30	23
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2132	2143	395	544	250	560
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.47	0.83	1.00	0.53	0.14	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	221	775	323	393	4	192
v/c Ratio	0.76	0.28	0.16	0.33	0.01	0.37
Control Delay	34.3	7.2	14.8	2.4	39.5	7.9
Queue Delay	0.0	0.9	0.0	0.0	0.0	0.0
Total Delay	34.3	8.1	14.8	2.4	39.5	7.9
Queue Length 50th (ft)	157	103	60	0	3	0
Queue Length 95th (ft)	13	156	95	50	13	62
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	2059	1209	364	519
Starvation Cap Reductn	3	1606	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.67	0.16	0.33	0.01	0.37

Intersection Summary

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	679	132	534	377	768	195
v/c Ratio	0.56	0.19	1.10	0.15	1.01	0.25
Control Delay	19.0	4.2	98.0	4.5	47.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.2	98.0	4.5	47.8	0.7
Queue Length 50th (ft)	100	0	~227	22	~98	0
Queue Length 95th (ft)	144	30	#391	35	#318	0
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	697	484	2438	758	790
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.19	1.10	0.15	1.01	0.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/14/2015

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	418	10	228	141	408	296
v/c Ratio	0.25	0.01	0.77	0.06	0.78	0.40
Control Delay	23.7	0.0	68.0	11.0	49.6	4.7
Queue Delay	0.0	0.0	1.6	0.0	0.0	0.0
Total Delay	23.7	0.0	69.6	11.0	49.6	4.7
Queue Length 50th (ft)	98	0	190	17	292	0
Queue Length 95th (ft)	169	0	274	45	360	57
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1694	879	341	2429	870	1031
Starvation Cap Reductn	0	0	32	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.01	0.74	0.06	0.47	0.29

Intersection Summary

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	1403	1598	30	31	90	37
v/c Ratio	0.12	0.66	0.75	0.08	0.06	0.23	0.07
Control Delay	9.8	11.5	13.6	17.7	17.3	19.6	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	11.5	13.6	17.7	17.3	19.6	7.7
Queue Length 50th (ft)	2	169	214	9	9	27	1
Queue Length 95th (ft)	12	229	289	26	26	60	19
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2138	2133	398	543	400	567
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.66	0.75	0.08	0.06	0.23	0.07

Intersection Summary

Queues

Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	279	592	380	629	10	152
v/c Ratio	0.79	0.21	0.20	0.50	0.03	0.31
Control Delay	45.2	1.9	17.2	3.1	39.8	8.2
Queue Delay	0.1	0.3	0.0	0.0	0.0	0.0
Total Delay	45.3	2.2	17.2	3.1	39.8	8.2
Queue Length 50th (ft)	185	6	77	3	6	0
Queue Length 95th (ft)	65	27	118	63	22	54
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1941	1261	364	487
Starvation Cap Reductn	25	1464	0	0	0	0
Spillback Cap Reductn	0	0	65	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.46	0.20	0.50	0.03	0.31

Intersection Summary

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 5.5:

E+P CONDITIONS WITHOUT INDIAN STREET BRIDGE TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/o Indian**

DIST ___ CO ___ RTE ___ PM ___ CALC CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley** CHK CHS DATE 07/09/15

Major Street: **Heacock St** Critical Approach Speed (Major) 50 mph

Minor Street: **Driveway 1** Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **10,527** vpd Minor Street Future ADT = **281** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑ √

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **10,527**	1 **281**	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **10,527**	1 **281**	12,000	8,400 *	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..	A 17% B 33%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___

TRAFFIC CONDITIONS **E+P w/o Indian**

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Heacock St**

Minor Street: **Driveway 2**

Critical Approach Speed (Major) 50 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **10,506** vpd

Minor Street Future ADT = **718** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL XX	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **10,506**	*1* **718**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **10,506**	*1* **718**	12,000	8,400 *	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..					
A **43%**	**B** **84%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Without Indian) Conditions - Weekday PM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **968**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Cardinal Avenue**

High Volume Approach (VPH) = **101**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL

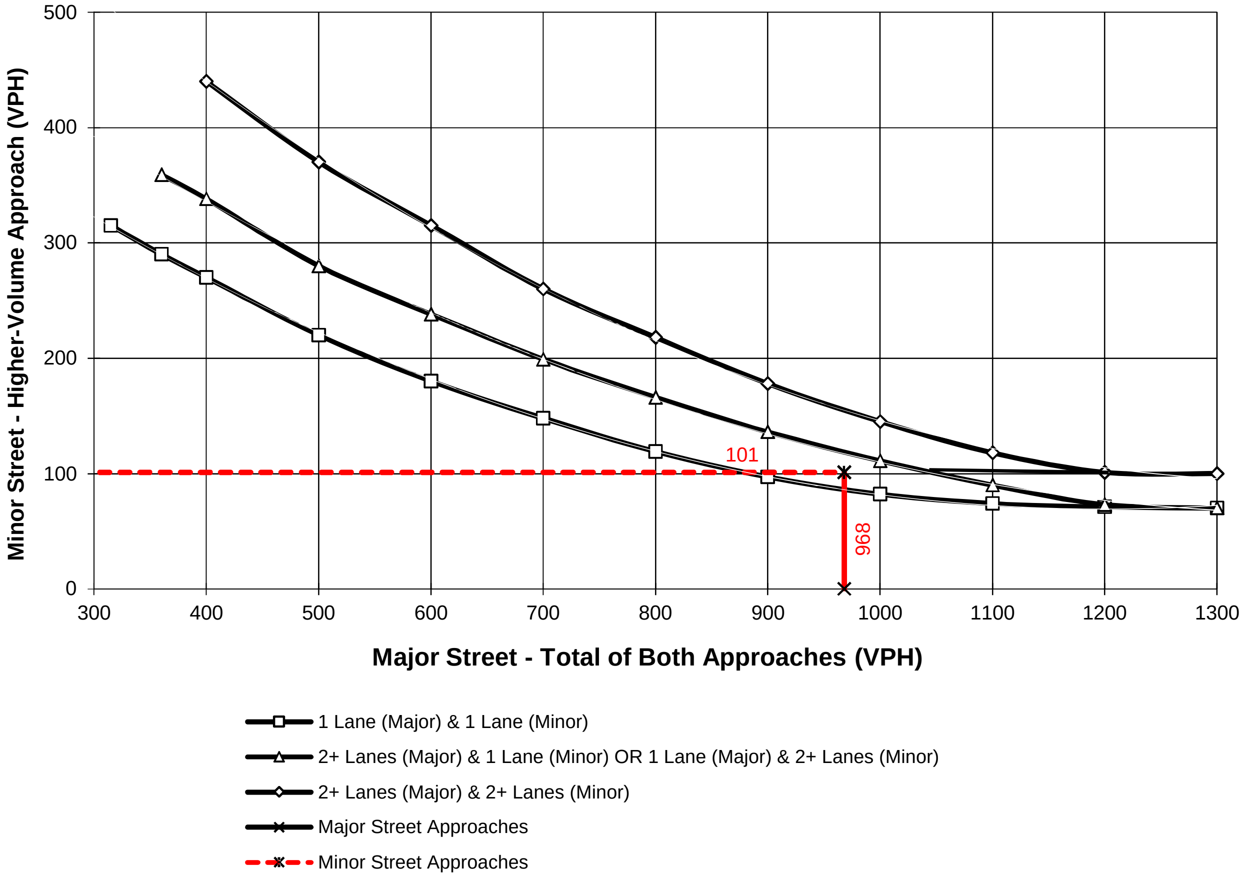

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Without Indian) Conditions - Weekday PM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **220**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Nandina Avenue**

High Volume Approach (VPH) = **70**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

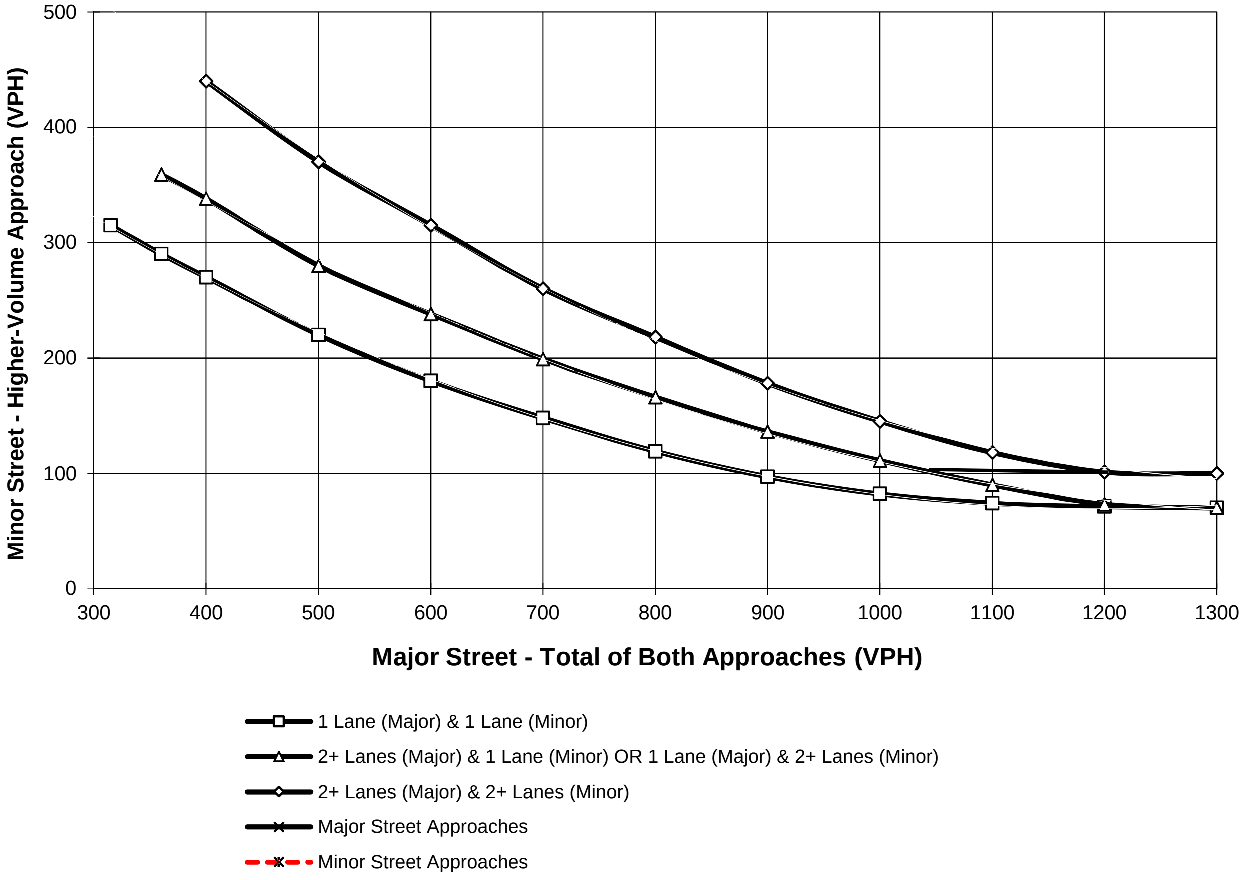

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P (Without Indian) Conditions - Weekday AM Peak Hour**

Major Street Name = **Krameria Avenue (North)**
Total of Both Approaches (VPH) = **250**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Cosmos Street**
High Volume Approach (VPH) = **104**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

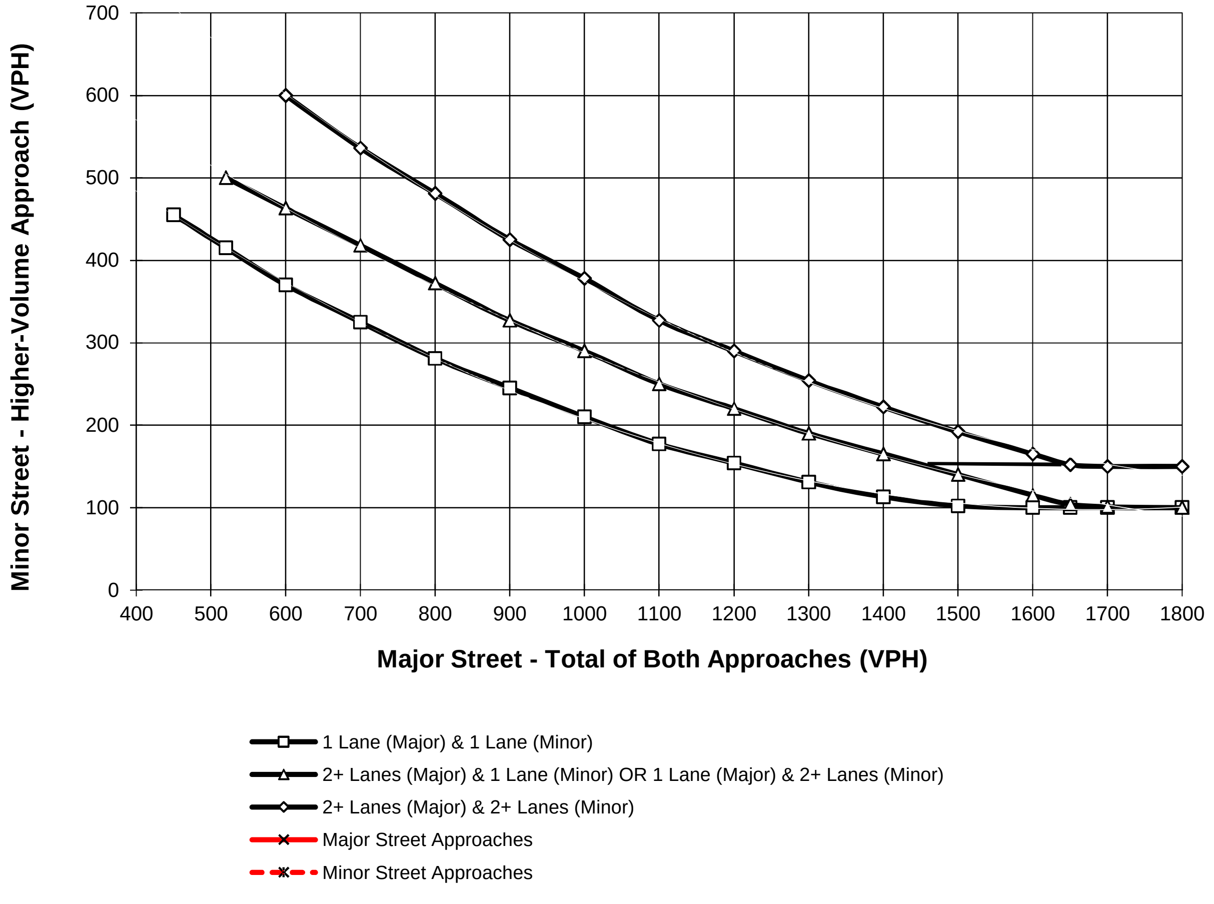

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/o Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Cosmos Street**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **1,512** vpd

Minor Street Future ADT = **1,783** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,512**	1 **1,783**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,512**	1 **1,783**	12,000	8,400	1,200 *	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 19%	B 13%			

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/o Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 3**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,252** vpd

Minor Street Future ADT = **456** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN XX	RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied **XX**				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,252**	*1* **456**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied **XX**				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,252**	*1* **456**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied **XX**				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A **19%**	**B** **19%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/o Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 4**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,884** vpd

Minor Street Future ADT = **194** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,884**	*1* **194**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,884**	*1* **194**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	B				
8%	**16%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/o Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 5**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,595** vpd

Minor Street Future ADT = **447** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); .... ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population .... ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,595**	*1* **447**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,595**	*1* **447**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more					
A	**B**				
19%	**13%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Without Indian) Conditions - Weekday AM Peak Hour**

Major Street Name = **Indian Avenue**

Total of Both Approaches (VPH) = **432**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Krameria Avenue**

High Volume Approach (VPH) = **275**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL

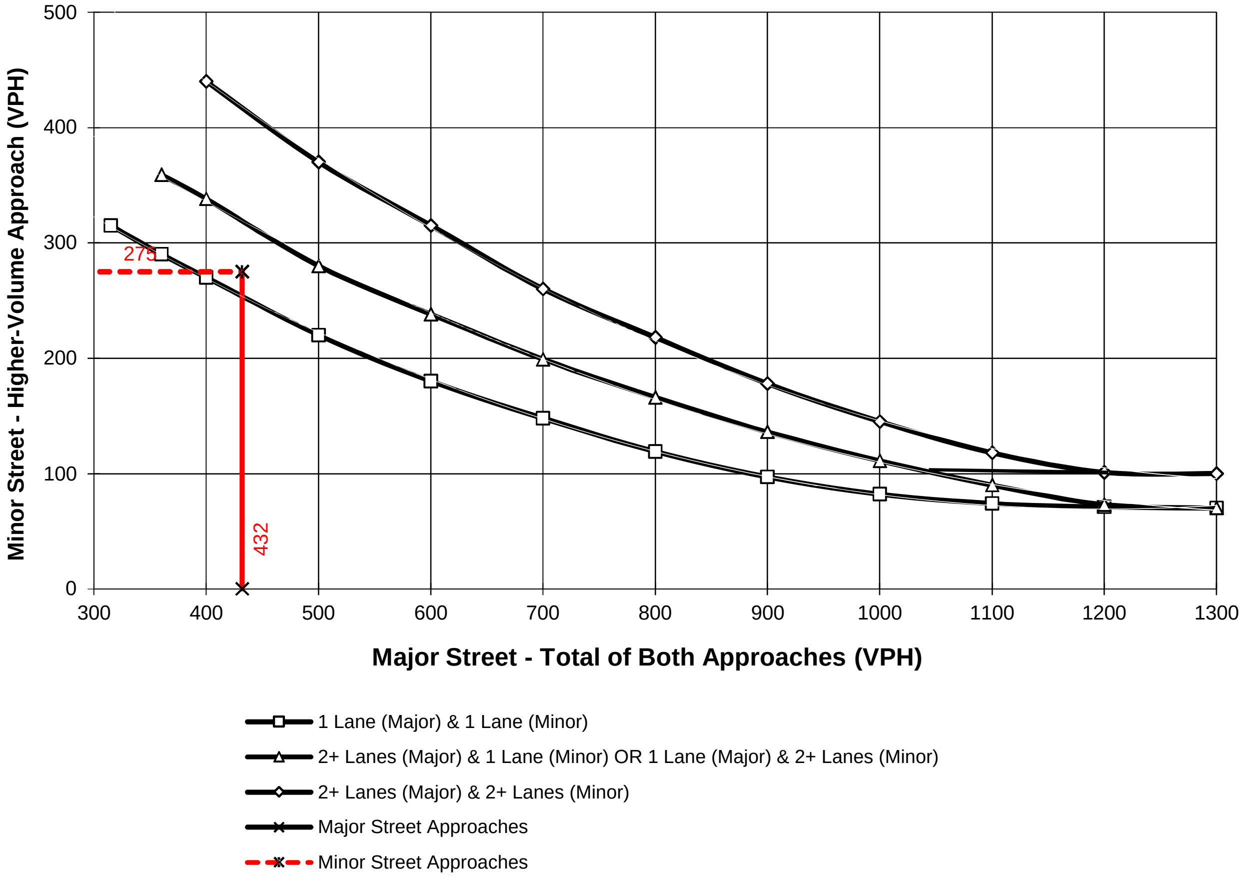

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

URBAN CROSSROADS

APPENDIX 5.6:

E+P CONDITIONS WITH INDIAN STREET BRIDGE TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/ Indian**

DIST ___ CO ___ RTE ___ PM ___
CALC CHS DATE 07/09/15
CHK CHS DATE 07/09/15
Jurisdiction: **City of Moreno Valley**
Major Street: **Heacock St**
Minor Street: **Driveway 1**
Critical Approach Speed (Major) 50 mph
Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane
Minor Street Approach Lanes **1** lane

Major Street Future ADT = **9,713** vpd
Minor Street Future ADT = **281** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑
or
In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **9,713**	1 **281**	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **9,713**	1 **281**	12,000	8,400 *	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..					
A	B				
17%	33%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/ Indian**

___ DIST ___ CO ___ RTE ___ PM

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Heacock St**

Minor Street: **Driveway 2**

Critical Approach Speed (Major) 50 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **10,079** vpd

Minor Street Future ADT = **717** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **10,079**	*1* **717**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **10,079**	*1* **717**	12,000	8,400 *	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..					
A 43%	B 84%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (With Indian) Conditions - Weekday PM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **939**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Nandina Avenue**

High Volume Approach (VPH) = **101**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL

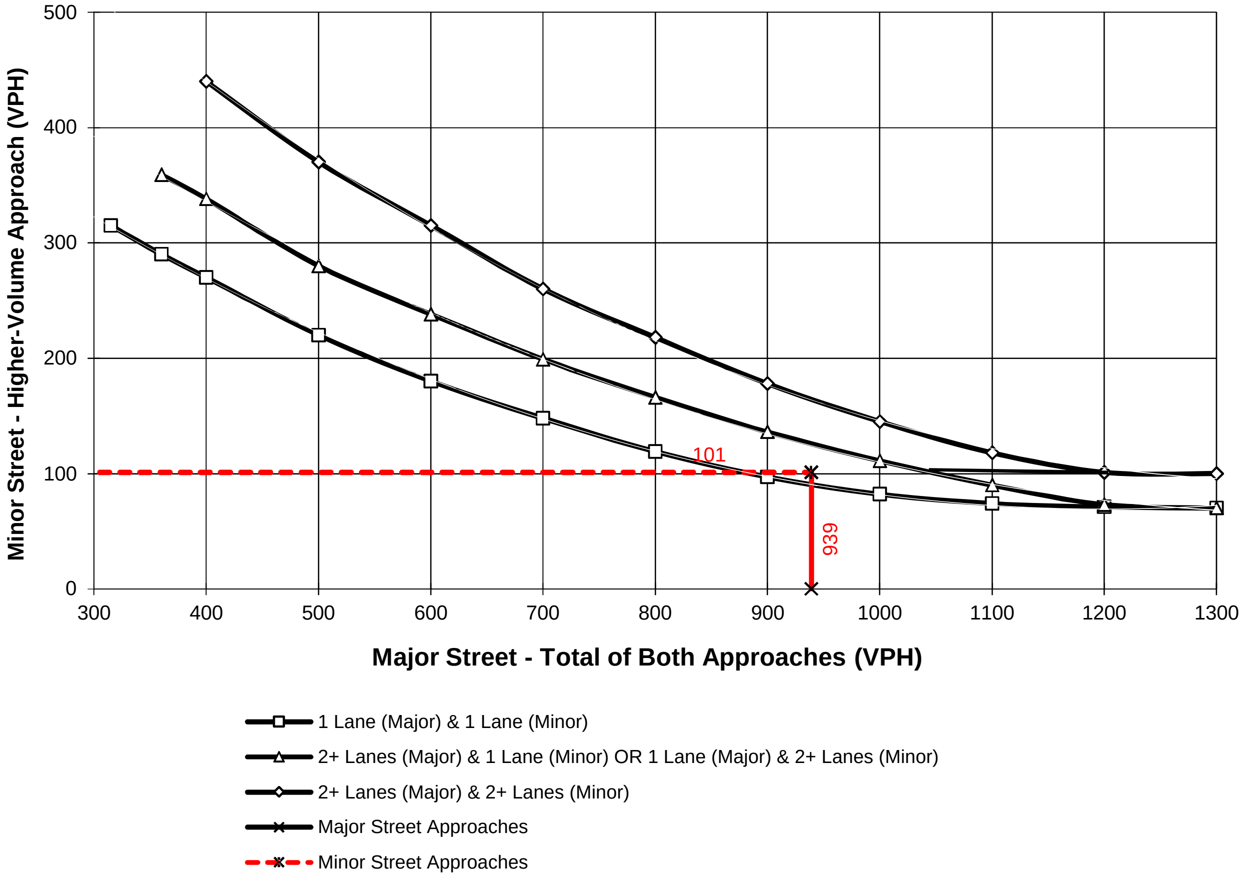

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P (Without Indian) Conditions - Weekday AM Peak Hour**

Major Street Name = **Krameria Avenue (North)**
Total of Both Approaches (VPH) = **164**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Cosmos Street**
High Volume Approach (VPH) = **85**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

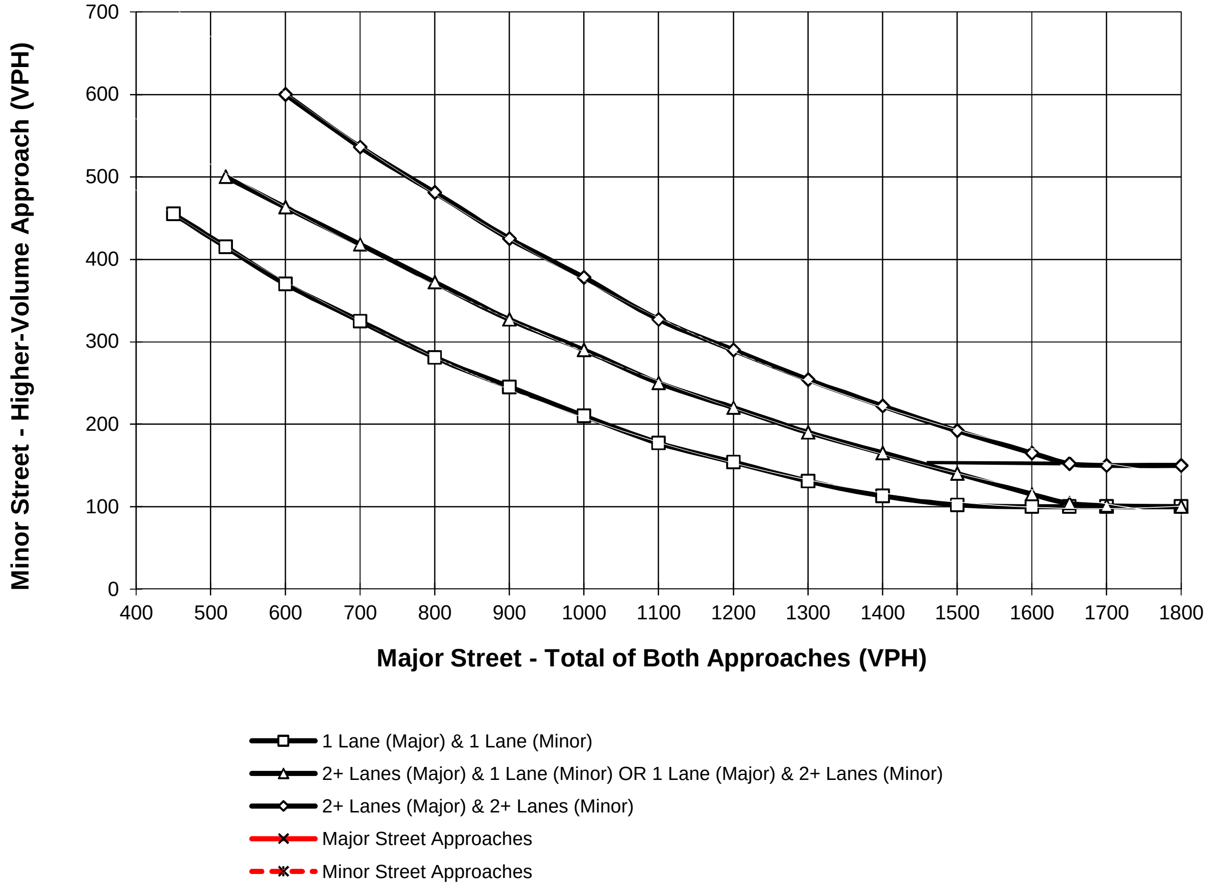

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/ Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Cosmos Street**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,145** vpd

Minor Street Future ADT = **1,204** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,145**	*1* **1,204**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,145**	*1* **1,204**	12,000	8,400	1,200 *	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	**B**				
14%	**10%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/ Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 3**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,750** vpd

Minor Street Future ADT = **256** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,750**	*1* **256**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,750**	*1* **256**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A	B				
11%	15%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/ Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 4**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,723** vpd

Minor Street Future ADT = **124** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN XX	RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,723**	1 **124**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,723**	1 **124**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 5%	B: 10%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P w/ Indian**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/09/15

CHK CHS DATE 07/09/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 5**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,708** vpd

Minor Street Future ADT = **278** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,708**	*1* **278**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,708**	*1* **278**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	**B**				
12%	**14%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 5.7:

E+P CONDITIONS WITHOUT INDIAN STREET BRIDGE BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/13/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5152	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1442	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	69.3	mph	S		mph
D = v_p / S	20.8	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/13/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4739	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1314	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	69.8	mph	S		mph
D = v_p / S	18.8	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/12/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2590	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	962	pc/h/ln
S	70.0	mph
D = v_p / S	13.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/12/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2202	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	810	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	11.6	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/13/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2761	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	780	pc/h/ln
S	70.0	mph
D = v_p / S	11.1	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume

S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/13/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3689	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1028	pc/h/ln
S	70.0	mph
D = v_p / S	14.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/13/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4102	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1516	pc/h/ln
S	68.8	mph
D = v_p / S	22.0	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/13/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3783	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1398	pc/h/ln
S	69.5	mph
D = v_p / S	20.1	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/13/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5581	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1554	pc/h/ln
S	68.5	mph
D = v_p / S	22.7	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/13/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5365	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1487	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	69.0	mph	S	mph
D = v_p / S	21.5	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/13/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3866	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	3		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1436	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	69.4	mph	S		mph
D = v_p / S	20.7	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/13/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3519	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1300	pc/h/ln
S	69.9	mph
D = v_p / S	18.6	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/13/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2703	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	764	pc/h/ln
S	70.0	mph
D = v_p / S	10.9	pc/mi/ln
LOS	A	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/13/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2727	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	756	pc/h/ln
S	70.0	mph
D = v_p / S	10.8	pc/mi/ln
LOS	A	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/13/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3296	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1218	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	17.4	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	B		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/13/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2794	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1028	pc/h/ln
S	70.0	mph
D = v_p / S	14.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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APPENDIX 5.8:

E+P CONDITIONS WITH INDIAN STREET BRIDGE BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5152	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1442	pc/h/ln
S	69.3	mph
D = v_p / S	20.8	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4774	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	4		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1330	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	69.8	mph	S	mph
D = v_p / S	19.1	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2625	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	975	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	13.9	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	B		Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2202	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	3		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	810	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	11.6	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	B		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2761	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	780	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	11.1	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3697	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1030	pc/h/ln
S	70.0	mph
D = v_p / S	14.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4110	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1519	pc/h/ln
S	68.8	mph
D = v_p / S	22.1	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3783	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1398	pc/h/ln
S	69.5	mph
D = v_p / S	20.1	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5581	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1554	pc/h/ln
S	68.5	mph
D = v_p / S	22.7	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5374	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1490	pc/h/ln
S	69.0	mph
D = v_p / S	21.6	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3875	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1439	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	69.3	mph	S	mph
D = v_p / S	20.8	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3519	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1300	pc/h/ln
S	69.9	mph
D = v_p / S	18.6	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2703	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	764	pc/h/ln
S	70.0	mph
D = v_p / S	10.9	pc/mi/ln
LOS	A	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2766	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	770	pc/h/ln
S	70.0	mph
D = v_p / S	11.0	pc/mi/ln
LOS	A	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3334	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1238	pc/h/ln
S	70.0	mph
D = v_p / S	17.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2794	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1028	pc/h/ln
S	70.0	mph
D = v_p / S	14.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 5.9:

E+P CONDITIONS WITHOUT INDIAN STREET BRIDGE FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 173 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4979
Ramp Volume, V_R	605
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4979	0.92	Level	6	0	0.971	1.00	5574
Ramp	605	0.92	Level	16	0	0.926	1.00	710
UpStream	173	0.92	Level	14	0	0.935	1.00	201
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2831 pc/h

V_3 or V_{av34} 1371 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5574	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4864	Exhibit 13-8	9600	No
V_R	710	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2831	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 28.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.752 (Exhibit 13-12)

S_R= 48.9 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 59.1 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4979
Ramp Volume, V_R	605
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 365 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4979	0.92	Level	6	0	0.971	1.00	5574
Ramp	605	0.92	Level	16	0	0.926	1.00	710
UpStream								
DownStream	365	0.92	Level	6	0	0.971	1.00	409

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F \,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2831 pc/h

V_3 or V_{av34} 1371 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5574	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4864	Exhibit 13-8	9600	No
V_R	710	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2831	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = 28.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.752 (Exhibit 13-12)

S_R= 48.9 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 59.1 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	2590
Ramp Volume, V_R	502
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 114 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2590	0.92	Level	5	0	0.976	1.00	2886
Ramp	502	0.92	Level	18	0	0.917	1.00	595
UpStream								
DownStream	114	0.92	Level	29	0	0.873	1.00	142

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.660 using Equation (Exhibit 13-7)

V_{12} = 2108 pc/h

V_3 or V_{av34} 778 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2886	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2291	Exhibit 13-8	7200	No
V_R	595	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2108	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 20.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.352 (Exhibit 13-12)

S_R= 60.2 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 63.9 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 502 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	2088
Ramp Volume, V_R	114
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2088	0.92	Level	1	0	0.995	1.00	2281
Ramp	114	0.92	Level	29	0	0.873	1.00	142
UpStream	502	0.92	Level	18	0	0.917	1.00	595
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 585.36 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 1334 pc/h

V_3 or V_{av34} 947 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1334 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2423	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1476	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 15.3 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

M_S = 0.315 (Exibit 13-11)

S_R= 61.2 mph (Exhibit 13-11)

S_0= 68.4 mph (Exhibit 13-11)

S = 63.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 15 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	2443
Ramp Volume, V_R	318
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2443	0.92	Level	7	0	0.966	1.00	2748
Ramp	318	0.92	Level	11	0	0.948	1.00	365
UpStream	15	0.92	Level	87	0	0.697	1.00	23
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 1587 pc/h

V_3 or V_{av34} 1161 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 1587 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3113	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1952	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = 20.5 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.348 (Exibit 13-11)

S_R= 60.2 mph (Exhibit 13-11)

S_0= 67.6 mph (Exhibit 13-11)

S = 62.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 152 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	3631
Ramp Volume, V_R	471
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3631	0.92	Level	3	0	0.985	1.00	4006
Ramp	471	0.92	Level	13	0	0.939	1.00	545
UpStream	152	0.92	Level	15	0	0.930	1.00	178
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 1058.51 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 2347 pc/h

V_3 or V_{av34} 1659 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2347 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4551	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2892	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 25.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.364 (Exibit 13-11)

S_R= 59.8 mph (Exhibit 13-11)

S_0= 65.8 mph (Exhibit 13-11)

S = 61.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	3783
Ramp Volume, V_R	152
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 471 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3783	0.92	Level	4	0	0.980	1.00	4194
Ramp	152	0.92	Level	15	0	0.930	1.00	178
UpStream								
DownStream	471	0.92	Level	13	0	0.939	1.00	545

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.647 using Equation (Exhibit 13-7)

V_{12} = 2776 pc/h

V_3 or V_{av34} 1418 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4194	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4016	Exhibit 13-8	7200	No
V_R	178	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2776	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 25.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.314 (Exhibit 13-12)

S_R= 61.2 mph (Exhibit 13-12)

S_0= 75.2 mph (Exhibit 13-12)

S = 65.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 152 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5429
Ramp Volume, V_R	683
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5429	0.92	Level	5	0	0.976	1.00	6049
Ramp	683	0.92	Level	6	0	0.971	1.00	765
UpStream	152	0.92	Level	13	0	0.939	1.00	176
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3069 pc/h

V_3 or V_{av34} 1490 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6049	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5284	Exhibit 13-8	9600	No
V_R	765	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3069	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 30.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.757 (Exhibit 13-12)

S_R= 48.8 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 58.9 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5429
Ramp Volume, V_R	683
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 619 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5429	0.92	Level	5	0	0.976	1.00	6049
Ramp	683	0.92	Level	6	0	0.971	1.00	765
UpStream								
DownStream	619	0.92	Level	2	0	0.990	1.00	680

Merge Areas	Diverge Areas

Estimation of v_{12} (Merge Areas)

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Estimation of v_{12} (Diverge Areas)

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3069 pc/h

V_3 or V_{av34} 1490 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks (Merge Areas)

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Capacity Checks (Diverge Areas)

	Actual	Capacity		LOS F?
V_F	6049	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5284	Exhibit 13-8	9600	No
V_R	765	Exhibit 13-10	1800	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3069	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F) (Merge Areas)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Level of Service Determination (if not F) (Diverge Areas)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 30.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination (Merge Areas)

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Speed Determination (Diverge Areas)

D_s = 0.757 (Exhibit 13-12)

S_R= 48.8 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 58.9 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	3866
Ramp Volume, V_R	543
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 196 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3866	0.92	Level	5	0	0.976	1.00	4307
Ramp	543	0.92	Level	13	0	0.939	1.00	629
UpStream								
DownStream	196	0.92	Level	18	0	0.917	1.00	232

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.623 using Equation (Exhibit 13-7)

V_{12} = 2922 pc/h

V_3 or V_{av34} 1385 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4307	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	3678	Exhibit 13-8	7200	No
V_R	629	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2922	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 27.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.355 (Exhibit 13-12)

S_R= 60.1 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 64.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 543 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	3323
Ramp Volume, V_R	196
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3323	0.92	Level	3	0	0.985	1.00	3666
Ramp	196	0.92	Level	18	0	0.917	1.00	232
UpStream	543	0.92	Level	13	0	0.939	1.00	629
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 901.01 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2144 pc/h

V_3 or V_{av34} 1522 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2144 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3898	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2376	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

D_R = 5.475 + 0.00734 v $_R$ + 0.0078 V_{12} - 0.00627 L_A

D_R = 22.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.340 (Exibit 13-11)

S_R= 60.5 mph (Exhibit 13-11)

S_0= 66.3 mph (Exhibit 13-11)

S = 62.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Site Information

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{up} = 1075 ft
V_u = 113 veh/h

Freeway Number of Lanes, N 3
Ramp Number of Lanes, N 1
Acceleration Lane Length, L_A 0
Deceleration Lane Length L_D
Freeway Volume, V_F 2076
Ramp Volume, V_R 627
Freeway Free-Flow Speed, S_{FF} 70.0
Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2076	0.92	Level	6	0	0.971	1.00	2324
Ramp	627	0.92	Level	14	0	0.935	1.00	729
UpStream	113	0.92	Level	16	0	0.926	1.00	133
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F \, (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = 0.577 using Equation (Exhibit 13-6)
V_{12} = 1342 pc/h
V_3 or V_{av34} 982 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 1342 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3053	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2071	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 \, v_R + 0.0078 \, V_{12} - 0.00627 \, L_A$

D_R = 21.3 (pc/mi/ln)
LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.352 (Exibit 13-11)
S_R= 60.1 mph (Exhibit 13-11)
S_0= 68.3 mph (Exhibit 13-11)
S = 62.5 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = using Equation (Exhibit 13-7)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 \, V_{12} - 0.009 \, L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)
S_R= mph (Exhibit 13-12)
S_0= mph (Exhibit 13-12)
S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 130 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	2664
Ramp Volume, V_R	632
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2664	0.92	Level	2	0	0.990	1.00	2925
Ramp	632	0.92	Level	12	0	0.943	1.00	728
UpStream	130	0.92	Level	11	0	0.948	1.00	149
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 866.34 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 1714 pc/h

V_3 or V_{av34} 1211 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1714 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3653	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2442	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 22.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.339 (Exibit 13-11)

S_R= 60.5 mph (Exhibit 13-11)

S_0= 67.4 mph (Exhibit 13-11)

S = 62.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/o Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	2794
Ramp Volume, V_R	130
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 632 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2794	0.92	Level	3	0	0.985	1.00	3083
Ramp	130	0.92	Level	11	0	0.948	1.00	149
UpStream								
DownStream	632	0.92	Level	12	0	0.943	1.00	728

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.676 using Equation (Exhibit 13-7)

V_{12} = 2133 pc/h

V_3 or V_{av34} 950 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3083	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2934	Exhibit 13-8	7200	No
V_R	149	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2133	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 20.1 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.311 (Exhibit 13-12)

S_R= 61.3 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 65.3 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 5.10:

E+P CONDITIONS WITH INDIAN STREET BRIDGE FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 173 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4979
Ramp Volume, V_R	570
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4979	0.92	Level	6	0	0.971	1.00	5574
Ramp	570	0.92	Level	13	0	0.939	1.00	660
UpStream	173	0.92	Level	14	0	0.935	1.00	201
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2803 pc/h

V_3 or V_{av34} 1385 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5574	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4914	Exhibit 13-8	9600	No
V_R	660	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2803	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 28.4 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.747 (Exhibit 13-12)

S_R= 49.1 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 59.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4979
Ramp Volume, V_R	570
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 365 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4979	0.92	Level	6	0	0.971	1.00	5574
Ramp	570	0.92	Level	13	0	0.939	1.00	660
UpStream								
DownStream	365	0.92	Level	6	0	0.971	1.00	409

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2803 pc/h

V_3 or V_{av34} 1385 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5574	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4914	Exhibit 13-8	9600	No
V_R	660	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2803	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 28.4 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.747 (Exhibit 13-12)

S_R= 49.1 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 59.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	2625
Ramp Volume, V_R	537
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 114 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2625	0.92	Level	5	0	0.976	1.00	2925
Ramp	537	0.92	Level	21	0	0.905	1.00	645
UpStream								
DownStream	114	0.92	Level	29	0	0.873	1.00	142

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.657 using Equation (Exhibit 13-7)

V_{12} = 2143 pc/h

V_3 or V_{av34} 782 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2925	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2280	Exhibit 13-8	7200	No
V_R	645	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2143	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = 20.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.356 (Exhibit 13-12)

S_R= 60.0 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 63.8 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 537 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	2088
Ramp Volume, V_R	114
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2088	0.92	Level	1	0	0.995	1.00	2281
Ramp	114	0.92	Level	29	0	0.873	1.00	142
UpStream	537	0.92	Level	21	0	0.905	1.00	645
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 585.36 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 1334 pc/h

V_3 or V_{av34} 947 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1334 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2423	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1476	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 15.3 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

M_S = 0.315 (Exibit 13-11)

S_R= 61.2 mph (Exhibit 13-11)

S_0= 68.4 mph (Exhibit 13-11)

S = 63.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 15 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	2451
Ramp Volume, V_R	310
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2451	0.92	Level	7	0	0.966	1.00	2757
Ramp	310	0.92	Level	10	0	0.952	1.00	354
UpStream	15	0.92	Level	87	0	0.697	1.00	23
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 1592 pc/h

V_3 or V_{av34} 1165 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1592 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3111	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1946	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 20.5 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.348 (Exibit 13-11)

S_R= 60.2 mph (Exhibit 13-11)

S_0= 67.6 mph (Exhibit 13-11)

S = 62.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 152 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	3631
Ramp Volume, V_R	479
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3631	0.92	Level	3	0	0.985	1.00	4006
Ramp	479	0.92	Level	14	0	0.935	1.00	557
UpStream	152	0.92	Level	15	0	0.930	1.00	178
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1061.08 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 2347 pc/h

V_3 or V_{av34} 1659 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2347 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4563	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2904	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 26.0 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.365 (Exibit 13-11)

S_R= 59.8 mph (Exhibit 13-11)

S_0= 65.8 mph (Exhibit 13-11)

S = 61.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	3783
Ramp Volume, V_R	152
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 479 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3783	0.92	Level	4	0	0.980	1.00	4194
Ramp	152	0.92	Level	15	0	0.930	1.00	178
UpStream								
DownStream	479	0.92	Level	14	0	0.935	1.00	557

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.647 using Equation (Exhibit 13-7)

V_{12} = 2776 pc/h

V_3 or V_{av34} 1418 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4194	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4016	Exhibit 13-8	7200	No
V_R	178	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2776	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 25.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.314 (Exhibit 13-12)

S_R= 61.2 mph (Exhibit 13-12)

S_0= 75.2 mph (Exhibit 13-12)

S = 65.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 152 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5429
Ramp Volume, V_R	674
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5429	0.92	Level	5	0	0.976	1.00	6049
Ramp	674	0.92	Level	5	0	0.976	1.00	751
UpStream	152	0.92	Level	13	0	0.939	1.00	176
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3061 pc/h

V_3 or V_{av34} 1494 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6049	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5298	Exhibit 13-8	9600	No
V_R	751	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3061	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 30.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.756 (Exhibit 13-12)

S_R= 48.8 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 59.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5429
Ramp Volume, V_R	674
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 619 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5429	0.92	Level	5	0	0.976	1.00	6049
Ramp	674	0.92	Level	5	0	0.976	1.00	751
UpStream								
DownStream	619	0.92	Level	2	0	0.990	1.00	680

Merge Areas | Diverge Areas

Estimation of v_{12} (Merge Areas)

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Estimation of v_{12} (Diverge Areas)

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3061 pc/h

V_3 or V_{av34} 1494 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks (Merge Areas)

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Capacity Checks (Diverge Areas)

	Actual	Capacity		LOS F?
V_F	6049	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5298	Exhibit 13-8	9600	No
V_R	751	Exhibit 13-10	1800	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3061	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F) (Merge Areas)

$$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Level of Service Determination (if not F) (Diverge Areas)

$$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$$

D_R = 30.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination (Merge Areas)

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Speed Determination (Diverge Areas)

D_s = 0.756 (Exhibit 13-12)

S_R= 48.8 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 59.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A

Deceleration Lane Length L_D 195

Freeway Volume, V_F 3875

Ramp Volume, V_R 552

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 196 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3875	0.92	Level	5	0	0.976	1.00	4317
Ramp	552	0.92	Level	14	0	0.935	1.00	642
UpStream								
DownStream	196	0.92	Level	18	0	0.917	1.00	232

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.623 using Equation (Exhibit 13-7)

V_{12} = 2930 pc/h

V_3 or V_{av34} 1387 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4317	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	3675	Exhibit 13-8	7200	No
V_R	642	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2930	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 27.7 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.356 (Exhibit 13-12)

S_R= 60.0 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 64.2 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 552 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	3323
Ramp Volume, V_R	196
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3323	0.92	Level	3	0	0.985	1.00	3666
Ramp	196	0.92	Level	18	0	0.917	1.00	232
UpStream	552	0.92	Level	14	0	0.935	1.00	642
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 901.01 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2144 pc/h

V_3 or V_{av34} 1522 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2144 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3898	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2376	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 22.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.340 (Exibit 13-11)

S_R= 60.5 mph (Exhibit 13-11)

S_0= 66.3 mph (Exhibit 13-11)

S = 62.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 113 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	2115
Ramp Volume, V_R	588
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2115	0.92	Level	7	0	0.966	1.00	2379
Ramp	588	0.92	Level	12	0	0.943	1.00	677
UpStream	113	0.92	Level	16	0	0.926	1.00	133
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 1374 pc/h

V_3 or V_{av34} 1005 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1374 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3056	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2051	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 21.2 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.351 (Exibit 13-11)

S_R= 60.2 mph (Exhibit 13-11)

S_0= 68.2 mph (Exhibit 13-11)

S = 62.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 130 veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A 300

Deceleration Lane Length L_D

Freeway Volume, V_F 2664

Ramp Volume, V_R 670

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2664	0.92	Level	2	0	0.990	1.00	2925
Ramp	670	0.92	Level	15	0	0.930	1.00	783
UpStream	130	0.92	Level	11	0	0.948	1.00	149
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 878.11 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 1714 pc/h

V_3 or V_{av34} 1211 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1714 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3708	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2497	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 22.7 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.341 (Exibit 13-11)

S_R= 60.4 mph (Exhibit 13-11)

S_0= 67.4 mph (Exhibit 13-11)

S = 62.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P w/ Indian

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	2794
Ramp Volume, V_R	130
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 670 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2794	0.92	Level	3	0	0.985	1.00	3083
Ramp	130	0.92	Level	11	0	0.948	1.00	149
UpStream								
DownStream	670	0.92	Level	15	0	0.930	1.00	783

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.676 using Equation (Exhibit 13-7)

V_{12} = 2133 pc/h

V_3 or V_{av34} 950 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3083	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2934	Exhibit 13-8	7200	No
V_R	149	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2133	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = 20.1 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.311 (Exhibit 13-12)

S_R= 61.3 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 65.3 mph (Exhibit 13-13)

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APPENDIX 5.11:

E+P CONDITIONS WITHOUT INDIAN STREET BRIDGE INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
12: Heacock Street & Gentian Avenue

7/14/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	3	92	626	2	55	713
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	97	659	2	58	751
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	138	123	747	635	561	1476
Arrive On Green	0.08	0.08	0.39	0.39	0.31	0.78
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	3	97	659	2	58	751
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.1	4.4	24.2	0.1	1.7	10.9
Cycle Q Clear(g_c), s	0.1	4.4	24.2	0.1	1.7	10.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	138	123	747	635	561	1476
V/C Ratio(X)	0.02	0.79	0.88	0.00	0.10	0.51
Avail Cap(c_a), veh/h	627	560	747	635	561	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	34.0	21.1	13.8	18.4	3.1
Incr Delay (d2), s/veh	0.0	4.1	14.2	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.1	15.6	0.0	0.9	6.1
LnGrp Delay(d),s/veh	32.1	38.1	35.3	13.8	18.5	4.3
LnGrp LOS	C	D	D	B	B	A
Approach Vol, veh/h	100		661			809
Approach Delay, s/veh	38.0		35.3			5.4
Approach LOS	D		D			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	28.8	35.0				63.8		11.2
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	4.0	* 30				38.0		26.0
Max Q Clear Time (g_c+I1), s	3.7	26.2				12.9		6.4
Green Ext Time (p_c), s	0.1	0.9				2.9		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		20.0
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
13: Heacock Street & Iris Avenue

7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↱		↰	↑
Volume (veh/h)	45	383	246	36	200	513
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	48	407	262	38	213	546
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	450	585	700	101	205	1148
Arrive On Green	0.25	0.25	0.43	0.43	0.15	0.80
Sat Flow, veh/h	1810	1615	1623	235	1810	1900
Grp Volume(v), veh/h	48	407	0	300	213	546
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1858	1810	1900
Q Serve(g_s), s	1.5	16.1	0.0	8.2	8.5	6.8
Cycle Q Clear(g_c), s	1.5	16.1	0.0	8.2	8.5	6.8
Prop In Lane	1.00	1.00		0.13	1.00	
Lane Grp Cap(c), veh/h	450	585	0	801	205	1148
V/C Ratio(X)	0.11	0.70	0.00	0.37	1.04	0.48
Avail Cap(c_a), veh/h	627	743	0	801	205	1148
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.85	0.85
Uniform Delay (d), s/veh	21.7	20.4	0.0	14.5	31.8	3.6
Incr Delay (d2), s/veh	0.0	1.2	0.0	1.3	68.4	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	7.3	0.0	4.5	8.1	3.7
LnGrp Delay(d),s/veh	21.8	21.6	0.0	15.8	100.3	4.8
LnGrp LOS	C	C		B	F	A
Approach Vol, veh/h	455		300			759
Approach Delay, s/veh	21.6		15.8			31.6
Approach LOS	C		B			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	13.0	37.8				50.8		24.2
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	8.5	25.0				38.0		26.0
Max Q Clear Time (g_c+I1), s	10.5	10.2				8.8		18.1
Green Ext Time (p_c), s	0.0	2.6				2.9		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	2	4	4	7	5	315	1	39	5	115	88	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	5	2	9	7	353	1	52	7	153	117	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	95	81	16	95	737	2	618	525	735	1406	1195
Arrive On Green	0.01	0.05	0.05	0.01	0.05	0.05	0.00	0.32	0.32	0.41	0.74	0.74
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	3	5	2	9	7	353	1	52	7	153	117	8
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.2	0.3	0.1	0.5	0.4	0.0	0.1	1.9	0.3	5.5	1.7	0.1
Cycle Q Clear(g_c), s	0.2	0.3	0.1	0.5	0.4	0.0	0.1	1.9	0.3	5.5	1.7	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	95	81	16	95	737	2	618	525	735	1406	1195
V/C Ratio(X)	0.19	0.05	0.02	0.56	0.07	0.48	0.50	0.08	0.01	0.21	0.08	0.01
Avail Cap(c_a), veh/h	100	551	468	72	523	1100	81	618	525	735	1406	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.19	0.19	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	45.2	36.1	49.4	45.3	18.9	49.9	23.4	22.9	19.3	3.6	1.1
Incr Delay (d2), s/veh	2.1	0.1	0.0	2.2	0.0	0.0	58.7	0.3	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.3	0.2	6.8	0.1	1.0	0.1	2.7	0.9	0.0
LnGrp Delay(d),s/veh	51.3	45.3	36.1	51.6	45.3	19.0	108.6	23.7	22.9	19.3	3.7	1.2
LnGrp LOS	D	D	D	D	D	B	F	C	C	B	A	A
Approach Vol, veh/h		10			369			60			278	
Approach Delay, s/veh		45.3			20.3			25.0			12.2	
Approach LOS		D			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.1	38.0	5.4	10.5	4.6	79.5	5.4	10.5
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	7.5	3.9	2.5	2.3	2.1	3.7	2.2	2.4
Green Ext Time (p_c), s	0.3	0.1	0.0	0.0	0.0	0.5	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

12: Heacock Street & Gentian Avenue

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	1	60	876	7	124	996
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	65	942	8	133	1071
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	92	82	965	820	500	1594
Arrive On Green	0.05	0.05	0.51	0.51	0.28	0.84
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	1	65	942	8	133	1071
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.1	4.0	48.4	0.2	5.7	20.8
Cycle Q Clear(g_c), s	0.1	4.0	48.4	0.2	5.7	20.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	92	82	965	820	500	1594
V/C Ratio(X)	0.01	0.79	0.98	0.01	0.27	0.67
Avail Cap(c_a), veh/h	470	420	965	820	500	1594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.1	46.9	24.0	12.2	28.3	3.0
Incr Delay (d2), s/veh	0.0	6.3	23.7	0.0	0.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	31.5	0.1	2.9	11.4
LnGrp Delay(d),s/veh	45.1	53.2	47.7	12.2	28.4	5.2
LnGrp LOS	D	D	D	B	C	A
Approach Vol, veh/h	66		950			1204
Approach Delay, s/veh	53.1		47.4			7.8
Approach LOS	D		D			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	33.1	56.3				89.4		10.6
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	7.7	* 51				63.0		26.0
Max Q Clear Time (g_c+I1), s	7.7	50.4				22.8		6.0
Green Ext Time (p_c), s	0.0	0.2				5.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
13: Heacock Street & Iris Avenue

7/14/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰	↑
Volume (veh/h)	18	243	633	18	512	464
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	283	736	21	595	540
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	250	714	788	22	550	1463
Arrive On Green	0.14	0.14	0.43	0.43	0.30	0.77
Sat Flow, veh/h	1810	1615	1838	52	1810	1900
Grp Volume(v), veh/h	21	283	0	757	595	540
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1891	1810	1900
Q Serve(g_s), s	1.2	14.2	0.0	45.8	36.5	11.0
Cycle Q Clear(g_c), s	1.2	14.2	0.0	45.8	36.5	11.0
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	250	714	0	810	550	1463
V/C Ratio(X)	0.08	0.40	0.00	0.93	1.08	0.37
Avail Cap(c_a), veh/h	392	841	0	810	550	1463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.68	0.68
Uniform Delay (d), s/veh	45.1	22.6	0.0	32.7	41.8	4.4
Incr Delay (d2), s/veh	0.1	0.1	0.0	19.2	55.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.4	0.0	28.1	26.7	5.9
LnGrp Delay(d),s/veh	45.1	22.8	0.0	51.9	97.6	4.9
LnGrp LOS	D	C		D	F	A
Approach Vol, veh/h	304		757			1135
Approach Delay, s/veh	24.3		51.9			53.5
Approach LOS	C		D			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	41.0	56.9				97.9		22.1
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	36.5	42.0				83.0		26.0
Max Q Clear Time (g_c+I1), s	38.5	47.8				13.0		16.2
Green Ext Time (p_c), s	0.0	0.0				5.4		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	48.9
HCM 2010 LOS	D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary | Moreno Valley Logistics Center TIA (JN 09301)
18: Heacock Street & San Michele Road | 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	11	6	5	11	0	247	0	71	3	344	212	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	9	7	16	0	353	0	101	0	491	303	3
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	96	81	26	96	831	469	534	454	840	923	784
Arrive On Green	0.01	0.05	0.05	0.01	0.00	0.05	0.00	0.28	0.00	0.46	0.49	0.49
Sat Flow, veh/h	1810	1900	1599	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	16	9	7	16	0	353	0	101	0	491	303	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.9	0.5	0.4	0.9	0.0	0.0	0.0	4.2	0.0	21.0	10.2	0.1
Cycle Q Clear(g_c), s	0.9	0.5	0.4	0.9	0.0	0.0	0.0	4.2	0.0	21.0	10.2	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	96	81	26	96	831	469	534	454	840	923	784
V/C Ratio(X)	0.62	0.09	0.09	0.62	0.00	0.42	0.00	0.19	0.00	0.58	0.33	0.00
Avail Cap(c_a), veh/h	86	470	396	69	452	1134	469	534	454	840	923	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.00	0.82	0.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	47.6	47.5	51.5	0.0	15.8	0.0	28.7	0.0	20.7	16.5	13.9
Incr Delay (d2), s/veh	8.8	0.2	0.2	7.3	0.0	0.1	0.0	0.8	0.0	0.7	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.3	0.2	0.5	0.0	6.3	0.0	2.3	0.0	10.5	5.6	0.0
LnGrp Delay(d),s/veh	60.3	47.7	47.7	58.7	0.0	15.9	0.0	29.5	0.0	21.4	17.5	13.9
LnGrp LOS	E	D	D	E		B		C		C	B	B
Approach Vol, veh/h		32			369			101			797	
Approach Delay, s/veh		54.0			17.8			29.5			19.9	
Approach LOS		D			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	53.2	35.0	6.0	10.8	31.7	56.5	6.0	10.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	25.5	29.5	4.0	26.0	4.0	51.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	23.0	6.2	2.9	2.5	0.0	12.2	2.9	2.0
Green Ext Time (p_c), s	0.2	0.2	0.0	0.0	0.0	0.9	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

APPENDIX 5.12:

E+P CONDITIONS WITH INDIAN STREET BRIDGE INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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HCM 2010 Signalized Intersection Summary
12: Heacock Street & Gentian Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	3	92	612	2	55	652
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	97	644	2	58	686
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	138	123	747	635	561	1476
Arrive On Green	0.08	0.08	0.39	0.39	0.31	0.78
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	3	97	644	2	58	686
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.1	4.4	23.3	0.1	1.7	9.5
Cycle Q Clear(g_c), s	0.1	4.4	23.3	0.1	1.7	9.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	138	123	747	635	561	1476
V/C Ratio(X)	0.02	0.79	0.86	0.00	0.10	0.46
Avail Cap(c_a), veh/h	627	560	747	635	561	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	34.0	20.9	13.8	18.4	2.9
Incr Delay (d2), s/veh	0.0	4.1	12.5	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.1	14.8	0.0	0.9	5.2
LnGrp Delay(d),s/veh	32.1	38.1	33.4	13.8	18.5	4.0
LnGrp LOS	C	D	C	B	B	A
Approach Vol, veh/h	100		646			744
Approach Delay, s/veh	38.0		33.3			5.1
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	28.8	35.0				63.8		11.2
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	4.0	* 30				38.0		26.0
Max Q Clear Time (g_c+I1), s	3.7	25.3				11.5		6.4
Green Ext Time (p_c), s	0.1	1.0				2.6		0.1

Intersection Summary			
HCM 2010 Ctrl Delay			19.5
HCM 2010 LOS			B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰	↑
Volume (veh/h)	45	383	232	36	200	452
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	48	407	247	38	213	481
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	427	603	746	115	249	1232
Arrive On Green	0.24	0.24	0.46	0.46	0.14	0.65
Sat Flow, veh/h	1810	1615	1609	248	1810	1900
Grp Volume(v), veh/h	48	407	0	285	213	481
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1856	1810	1900
Q Serve(g_s), s	2.0	20.1	0.0	9.2	10.9	11.3
Cycle Q Clear(g_c), s	2.0	20.1	0.0	9.2	10.9	11.3
Prop In Lane	1.00	1.00		0.13	1.00	
Lane Grp Cap(c), veh/h	427	603	0	860	249	1232
V/C Ratio(X)	0.11	0.67	0.00	0.33	0.86	0.39
Avail Cap(c_a), veh/h	497	666	0	860	390	1232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.88	0.88
Uniform Delay (d), s/veh	28.5	24.9	0.0	16.2	40.1	7.9
Incr Delay (d2), s/veh	0.0	1.7	0.0	1.0	5.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	9.2	0.0	5.0	5.8	6.2
LnGrp Delay(d),s/veh	28.5	26.7	0.0	17.2	45.8	8.7
LnGrp LOS	C	C		B	D	A
Approach Vol, veh/h	455		285			694
Approach Delay, s/veh	26.9		17.2			20.1
Approach LOS	C		B			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.5	49.5				67.1		27.9
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	20.5	32.9				57.9		26.1
Max Q Clear Time (g_c+I1), s	12.9	11.2				13.3		22.1
Green Ext Time (p_c), s	0.2	2.5				2.6		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.7
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	2	4	4	7	5	290	1	39	5	110	88	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	5	2	9	7	320	1	52	7	147	117	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	95	81	16	95	737	2	618	525	735	1406	1195
Arrive On Green	0.01	0.05	0.05	0.01	0.05	0.05	0.00	0.32	0.32	0.41	0.74	0.74
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	3	5	2	9	7	320	1	52	7	147	117	8
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.2	0.3	0.1	0.5	0.4	0.0	0.1	1.9	0.3	5.3	1.7	0.1
Cycle Q Clear(g_c), s	0.2	0.3	0.1	0.5	0.4	0.0	0.1	1.9	0.3	5.3	1.7	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	95	81	16	95	737	2	618	525	735	1406	1195
V/C Ratio(X)	0.19	0.05	0.02	0.56	0.07	0.43	0.50	0.08	0.01	0.20	0.08	0.01
Avail Cap(c_a), veh/h	100	551	468	72	523	1100	81	618	525	735	1406	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	45.2	36.1	49.4	45.3	18.4	49.9	23.4	22.9	19.2	3.6	1.1
Incr Delay (d2), s/veh	2.1	0.1	0.0	8.2	0.1	0.1	58.7	0.3	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.3	0.2	6.0	0.1	1.0	0.1	2.6	0.9	0.0
LnGrp Delay(d),s/veh	51.3	45.3	36.1	57.6	45.4	18.6	108.6	23.7	22.9	19.2	3.7	1.2
LnGrp LOS	D	D	D	E	D	B	F	C	C	B	A	A
Approach Vol, veh/h		10			336			60			272	
Approach Delay, s/veh		45.3			20.2			25.0			12.0	
Approach LOS		D			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.1	38.0	5.4	10.5	4.6	79.5	5.4	10.5
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	7.3	3.9	2.5	2.3	2.1	3.7	2.2	2.4
Green Ext Time (p_c), s	0.3	0.1	0.0	0.0	0.0	0.5	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

30: Indian Street & Harley Knox Boulevard

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	476	206	71	5	245	15	103	255	25	9	65	198
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	506	219	59	5	261	14	110	271	23	10	69	144
Adj No. of Lanes	1	3	0	1	3	0	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	752	3146	802	9	1834	97	152	1403	596	35	1280	1215
Arrive On Green	0.42	0.76	0.76	0.01	0.34	0.34	0.04	0.37	0.37	0.01	0.34	0.34
Sat Flow, veh/h	1810	4121	1051	1810	5362	284	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	506	182	96	5	184	91	110	271	23	10	69	144
Grp Sat Flow(s),veh/h/ln	1810	1729	1714	1810	1900	1846	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	21.5	1.2	1.3	0.3	3.2	3.2	2.9	4.6	0.9	0.3	1.2	0.8
Cycle Q Clear(g_c), s	21.5	1.2	1.3	0.3	3.2	3.2	2.9	4.6	0.9	0.3	1.2	0.8
Prop In Lane	1.00		0.61	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	752	2639	1308	9	1300	631	152	1403	596	35	1280	1215
V/C Ratio(X)	0.67	0.07	0.07	0.53	0.14	0.14	0.72	0.19	0.04	0.28	0.05	0.12
Avail Cap(c_a), veh/h	752	2639	1308	76	1300	631	152	1403	596	152	1280	1215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	2.8	2.8	47.1	21.6	21.6	45.0	20.4	19.2	46.7	21.3	8.8
Incr Delay (d2), s/veh	1.9	0.1	0.1	16.1	0.2	0.5	13.5	0.3	0.1	1.6	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.6	0.7	0.2	1.7	1.7	1.7	2.5	0.4	0.1	0.6	1.7
LnGrp Delay(d),s/veh	24.4	2.9	2.9	63.3	21.8	22.1	58.5	20.7	19.3	48.3	21.4	9.0
LnGrp LOS	C	A	A	E	C	C	E	C	B	D	C	A
Approach Vol, veh/h		784			280			404			223	
Approach Delay, s/veh		16.8			22.7			30.9			14.6	
Approach LOS		B			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	79.0	8.5	37.5	46.0	38.0	5.4	40.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	35.0	4.0	32.0	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.3	3.3	4.9	3.2	23.5	5.2	2.3	6.6
Green Ext Time (p_c), s	0.0	1.7	0.0	1.4	0.0	0.9	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
12: Heacock Street & Gentian Avenue 7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	1	60	808	7	124	979
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	65	869	8	133	1053
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	92	82	876	745	552	1571
Arrive On Green	0.05	0.05	0.46	0.46	0.30	0.83
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	1	65	869	8	133	1053
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.0	3.6	40.9	0.2	5.0	19.4
Cycle Q Clear(g_c), s	0.0	3.6	40.9	0.2	5.0	19.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	92	82	876	745	552	1571
V/C Ratio(X)	0.01	0.79	0.99	0.01	0.24	0.67
Avail Cap(c_a), veh/h	523	467	876	745	552	1571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	42.2	24.1	13.1	23.5	3.0
Incr Delay (d2), s/veh	0.0	6.3	28.5	0.0	0.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.7	28.2	0.1	2.5	10.7
LnGrp Delay(d),s/veh	40.6	48.6	52.6	13.2	23.6	5.3
LnGrp LOS	D	D	D	B	C	A
Approach Vol, veh/h	66		877			1186
Approach Delay, s/veh	48.4		52.2			7.4
Approach LOS	D		D			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	32.9	47.0				79.9		10.1
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	7.0	* 42				53.0		26.0
Max Q Clear Time (g_c+I1), s	7.0	42.9				21.4		5.6
Green Ext Time (p_c), s	0.0	0.0				5.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
13: Heacock Street & Iris Avenue 7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰	↑
Volume (veh/h)	18	243	565	18	512	447
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	283	657	21	595	520
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	247	726	772	25	565	1466
Arrive On Green	0.14	0.14	0.42	0.42	0.31	0.77
Sat Flow, veh/h	1810	1615	1831	59	1810	1900
Grp Volume(v), veh/h	21	283	0	678	595	520
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1890	1810	1900
Q Serve(g_s), s	1.2	14.0	0.0	38.8	37.5	10.3
Cycle Q Clear(g_c), s	1.2	14.0	0.0	38.8	37.5	10.3
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	247	726	0	797	565	1466
V/C Ratio(X)	0.08	0.39	0.00	0.85	1.05	0.35
Avail Cap(c_a), veh/h	392	855	0	797	565	1466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.67	0.67
Uniform Delay (d), s/veh	45.2	22.1	0.0	31.3	41.3	4.3
Incr Delay (d2), s/veh	0.1	0.1	0.0	11.1	45.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.2	0.0	22.6	25.9	5.5
LnGrp Delay(d),s/veh	45.3	22.2	0.0	42.4	86.9	4.8
LnGrp LOS	D	C		D	F	A
Approach Vol, veh/h	304		678			1115
Approach Delay, s/veh	23.8		42.4			48.6
Approach LOS	C		D			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	42.0	56.1				98.1		21.9
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	37.5	41.0				83.0		26.0
Max Q Clear Time (g_c+I1), s	39.5	40.8				12.3		16.0
Green Ext Time (p_c), s	0.0	0.1				4.7		0.4

Intersection Summary			
HCM 2010 Ctrl Delay			43.0
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)

18: Heacock Street & San Michele Road
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	11	6	5	11	0	241	0	71	3	318	212	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	9	7	16	0	344	0	101	0	454	303	3
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	96	81	26	96	831	469	534	454	840	923	784
Arrive On Green	0.01	0.05	0.05	0.01	0.00	0.05	0.00	0.28	0.00	0.46	0.49	0.49
Sat Flow, veh/h	1810	1900	1599	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	16	9	7	16	0	344	0	101	0	454	303	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.9	0.5	0.4	0.9	0.0	0.0	0.0	4.2	0.0	18.9	10.2	0.1
Cycle Q Clear(g_c), s	0.9	0.5	0.4	0.9	0.0	0.0	0.0	4.2	0.0	18.9	10.2	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	96	81	26	96	831	469	534	454	840	923	784
V/C Ratio(X)	0.62	0.09	0.09	0.62	0.00	0.41	0.00	0.19	0.00	0.54	0.33	0.00
Avail Cap(c_a), veh/h	86	470	396	69	452	1134	469	534	454	840	923	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.83	0.00	0.83	0.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	47.6	47.5	51.5	0.0	15.7	0.0	28.7	0.0	20.1	16.5	13.9
Incr Delay (d2), s/veh	8.8	0.2	0.2	7.3	0.0	0.1	0.0	0.8	0.0	0.4	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.3	0.2	0.5	0.0	6.0	0.0	2.3	0.0	9.4	5.6	0.0
LnGrp Delay(d),s/veh	60.3	47.7	47.7	58.8	0.0	15.8	0.0	29.5	0.0	20.5	17.5	13.9
LnGrp LOS	E	D	D	E		B		C		C	B	B
Approach Vol, veh/h		32			360			101			760	
Approach Delay, s/veh		54.0			17.7			29.5			19.3	
Approach LOS		D			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	53.2	35.0	6.0	10.8	31.7	56.5	6.0	10.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	25.5	29.5	4.0	26.0	4.0	51.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	20.9	6.2	2.9	2.5	0.0	12.2	2.9	2.0
Green Ext Time (p_c), s	0.3	0.2	0.0	0.0	0.0	0.9	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	20.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	269	207	74	18	145	6	57	269	7	30	337	570
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	349	269	96	23	188	8	74	349	9	39	438	735
Adj No. of Lanes	1	3	0	1	3	0	2	2	1	2	2	1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	896	3257	1086	34	1680	71	125	1228	522	94	1158	1292
Arrive On Green	0.50	0.80	0.80	0.02	0.31	0.31	0.03	0.32	0.32	0.03	0.30	0.30
Sat Flow, veh/h	1810	4095	1365	1810	5428	228	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	349	248	117	23	131	65	74	349	9	39	438	735
Grp Sat Flow(s),veh/h/ln	1810	1900	1659	1810	1900	1856	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	12.7	1.5	1.6	1.3	2.6	2.6	2.1	7.2	0.4	1.1	9.5	0.0
Cycle Q Clear(g_c), s	12.7	1.5	1.6	1.3	2.6	2.6	2.1	7.2	0.4	1.1	9.5	0.0
Prop In Lane	1.00		0.82	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	896	3023	1320	34	1176	575	125	1228	522	94	1158	1292
V/C Ratio(X)	0.39	0.08	0.09	0.68	0.11	0.11	0.59	0.28	0.02	0.42	0.38	0.57
Avail Cap(c_a), veh/h	896	3023	1320	91	1176	575	138	1228	522	138	1158	1292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	2.3	2.4	51.2	25.9	25.9	49.9	26.5	24.2	50.4	28.7	3.9
Incr Delay (d2), s/veh	0.1	0.1	0.1	8.7	0.2	0.4	3.0	0.6	0.1	1.1	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.8	0.8	0.7	1.4	1.4	1.1	3.9	0.2	0.6	5.1	8.2
LnGrp Delay(d),s/veh	16.7	2.4	2.5	59.9	26.1	26.3	52.9	27.1	24.3	51.5	29.6	5.7
LnGrp LOS	B	A	A	E	C	C	D	C	C	D	C	A
Approach Vol, veh/h		714			219			432			1212	
Approach Delay, s/veh		9.4			29.7			31.4			15.8	
Approach LOS		A			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	89.1	9.1	37.5	57.5	38.0	7.2	39.4
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.3	43.7	4.0	* 32	16.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	3.3	3.6	4.1	11.5	14.7	4.6	3.1	9.2
Green Ext Time (p_c), s	0.0	1.8	0.0	3.0	0.2	0.6	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (vph)	0	579	124	580	2468	0	0	0	933	0	0	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	609	131	611	2598	0	0	0	982	0	0	565
RTOR Reduction (vph)	0	0	89	0	0	0	0	0	440	0	0	94
Lane Group Flow (vph)	0	609	42	611	2598	0	0	0	542	0	0	471
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		19.2	19.2	15.3	38.5				10.4			12.0
Effective Green, g (s)		19.2	19.2	15.3	38.5				10.4			12.0
Actuated g/C Ratio		0.32	0.32	0.26	0.64				0.17			0.20
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		1216	608	484	2438				329			380
v/s Ratio Prot		0.16		c0.32	c0.68				c0.29			0.25
v/s Ratio Perm			0.02									
v/c Ratio		0.50	0.07	1.26	1.07				1.65			1.24
Uniform Delay, d1		16.5	14.2	22.4	10.8				24.8			24.0
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		1.5	0.2	133.9	38.7				304.9			127.9
Delay (s)		18.0	14.4	156.2	49.4				329.7			151.9
Level of Service		B	B	F	D				F			F
Approach Delay (s)		17.4			69.8			329.7			151.9	
Approach LOS		B			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	117.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	109.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	524	43	230	288	0	0	0	0	1476	2	386
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	557	41	245	306	0				1570	2	347
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	302	1742	0				828	1	740
Arrive On Green	0.00	0.25	0.25	0.33	0.92	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1807	2	1615
Grp Volume(v), veh/h	0	557	41	245	306	0				1572	0	347
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	15.5	2.3	14.9	1.0	0.0				55.0	0.0	17.8
Cycle Q Clear(g_c), s	0.0	15.5	2.3	14.9	1.0	0.0				55.0	0.0	17.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	950	404	302	1742	0				829	0	740
V/C Ratio(X)	0.00	0.59	0.10	0.81	0.18	0.00				1.90	0.00	0.47
Avail Cap(c_a), veh/h	0	950	404	309	1742	0				829	0	740
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.98	0.98	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	39.5	34.6	38.3	2.7	0.0				32.5	0.0	22.4
Incr Delay (d2), s/veh	0.0	2.6	0.5	13.5	0.2	0.0				407.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.5	1.1	8.5	0.5	0.0				121.3	0.0	8.0
LnGrp Delay(d),s/veh	0.0	42.2	35.1	51.7	3.0	0.0				439.9	0.0	22.9
LnGrp LOS		D	D	D	A					F		C
Approach Vol, veh/h		598			551						1919	
Approach Delay, s/veh		41.7			24.6						364.5	
Approach LOS		D			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	25.0	35.0		60.0		60.0		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	20.5	* 30		55.0		55.0		
Max Q Clear Time (g_c+I1), s	16.9	17.5		57.0		3.0		
Green Ext Time (p_c), s	0.6	1.9		0.0		1.4		

Intersection Summary	
HCM 2010 Ctrl Delay	240.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	39	1372	101	0	2643	247	878	345	36	52	0	73
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	1400	97	0	2697	208	896	352	37	53	0	69
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1968	136	0	1953	149	454	483	51	210	0	456
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	89	3515	243	0	3488	265	1353	1688	177	1010	0	1593
Grp Volume(v), veh/h	40	755	742	0	1453	1453	896	0	389	53	0	69
Grp Sat Flow(s),veh/h/ln	89	1900	1857	0	1900	1853	1353	0	1866	1010	0	1593
Q Serve(g_s), s	0.0	18.8	19.0	0.0	36.4	36.4	16.5	0.0	12.2	3.2	0.0	2.1
Cycle Q Clear(g_c), s	36.4	18.8	19.0	0.0	36.4	36.4	18.6	0.0	12.2	15.5	0.0	2.1
Prop In Lane	1.00		0.13	0.00		0.14	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	111	1064	1040	0	1064	1038	454	0	534	210	0	456
V/C Ratio(X)	0.36	0.71	0.71	0.00	1.37	1.40	1.97	0.00	0.73	0.25	0.00	0.15
Avail Cap(c_a), veh/h	111	1064	1040	0	1064	1038	454	0	534	210	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	10.4	10.5	0.0	14.3	14.3	26.3	0.0	20.9	27.9	0.0	17.3
Incr Delay (d2), s/veh	8.9	4.0	4.2	0.0	170.4	185.7	445.6	0.0	8.5	2.9	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	10.8	10.7	0.0	69.0	71.7	64.3	0.0	7.5	1.1	0.0	1.0
LnGrp Delay(d),s/veh	41.4	14.4	14.7	0.0	184.7	200.0	471.9	0.0	29.4	30.8	0.0	18.0
LnGrp LOS	D	B	B		F	F	F		C	C		B
Approach Vol, veh/h		1537			2905			1285			122	
Approach Delay, s/veh		15.3			192.4			337.9			23.6	
Approach LOS		B			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		38.4		17.5		38.4		20.6
Green Ext Time (p_c), s		0.0		0.6		0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			174.3
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary   Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.   7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	314	1685	0	0	432	632	84	0	312	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	341	1832	0	0	470	652	91	0	253			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	363	2755	0	0	1881	799	347	0	310			
Arrive On Green	0.40	1.00	0.00	0.00	0.49	0.49	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	341	1832	0	0	470	652	91	0	253			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	21.7	0.0	0.0	0.0	8.6	41.0	5.1	0.0	18.0			
Cycle Q Clear(g_c), s	21.7	0.0	0.0	0.0	8.6	41.0	5.1	0.0	18.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	363	2755	0	0	1881	799	347	0	310			
V/C Ratio(X)	0.94	0.66	0.00	0.00	0.25	0.82	0.26	0.00	0.82			
Avail Cap(c_a), veh/h	550	2755	0	0	1881	799	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.78	0.78	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.2	0.0	0.0	0.0	17.5	25.7	41.3	0.0	46.5			
Incr Delay (d2), s/veh	12.3	1.0	0.0	0.0	0.3	9.0	1.8	0.0	20.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.0	0.4	0.0	0.0	4.6	20.3	2.8	0.0	9.8			
LnGrp Delay(d),s/veh	47.4	1.0	0.0	0.0	17.8	34.7	43.1	0.0	67.3			
LnGrp LOS	D	A			B	C	D		E			
Approach Vol, veh/h		2173			1122			344				
Approach Delay, s/veh		8.3			27.6			60.9				
Approach LOS		A			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			27.6	64.4		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			23.7	43.0		20.0
Green Ext Time (p_c), s		24.3			0.4	3.5		0.4

Intersection Summary			
HCM 2010 Ctrl Delay			19.2
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰	↱
Volume (veh/h)	220	2103	256	115	2554	118	59	245	23	109	128	130
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	2214	0	121	2688	116	62	258	3	115	135	84
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2404	681	119	2280	646	445	461	5	166	174	287
Arrive On Green	0.09	0.42	0.00	0.07	0.40	0.40	0.25	0.25	0.25	0.09	0.09	0.09
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1874	22	1810	1900	1592
Grp Volume(v), veh/h	232	2214	0	121	2688	116	62	0	261	115	135	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1896	1810	1900	1592
Q Serve(g_s), s	10.5	44.1	0.0	7.9	48.0	5.6	3.2	0.0	14.4	7.4	8.3	5.5
Cycle Q Clear(g_c), s	10.5	44.1	0.0	7.9	48.0	5.6	3.2	0.0	14.4	7.4	8.3	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	158	2404	681	119	2280	646	445	0	466	166	174	287
V/C Ratio(X)	1.47	0.92	0.00	1.02	1.18	0.18	0.14	0.00	0.56	0.69	0.78	0.29
Avail Cap(c_a), veh/h	158	2404	681	119	2280	646	445	0	466	445	467	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	32.8	0.0	56.0	36.0	23.3	35.3	0.0	39.6	52.9	53.3	42.7
Incr Delay (d2), s/veh	240.5	7.3	0.0	86.7	85.3	0.0	0.7	0.0	4.8	1.9	2.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	24.6	0.0	6.8	43.1	2.5	1.7	0.0	8.2	3.8	4.5	2.4
LnGrp Delay(d),s/veh	295.3	40.1	0.0	142.9	121.3	23.3	36.0	0.0	44.4	54.8	56.1	42.9
LnGrp LOS	F	D		F	F	C	D		D	D	E	D
Approach Vol, veh/h		2446			2925			323			334	
Approach Delay, s/veh		64.3			118.3			42.8			52.3	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	56.1		16.5	15.0	53.5		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	9.9	46.1		10.3	12.5	50.0		16.4
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	88.7
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	220	1733	2822	227	175	93
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	1904	3101	239	192	46
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	645	3514	2978	826	814	939
Arrive On Green	0.36	0.92	0.52	0.52	0.22	0.22
Sat Flow, veh/h	1810	3800	5700	1580	3619	1615
Grp Volume(v), veh/h	242	1904	3101	239	192	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1580	1810	1615
Q Serve(g_s), s	11.9	9.1	62.7	10.2	5.2	0.0
Cycle Q Clear(g_c), s	11.9	9.1	62.7	10.2	5.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	645	3514	2978	826	814	939
V/C Ratio(X)	0.38	0.54	1.04	0.29	0.24	0.05
Avail Cap(c_a), veh/h	645	3514	2978	826	814	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.7	28.6	16.1	38.1	10.8
Incr Delay (d2), s/veh	0.1	0.6	19.8	0.1	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	4.8	38.3	4.5	2.7	1.5
LnGrp Delay(d),s/veh	28.8	1.3	48.5	16.2	38.7	10.9
LnGrp LOS	C	A	F	B	D	B
Approach Vol, veh/h		2146	3340		238	
Approach Delay, s/veh		4.4	46.2		33.4	
Approach LOS		A	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		116.6		32.5	48.4	68.2		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	14.8	* 63		
Max Q Clear Time (g_c+I1), s		11.1		7.2	13.9	64.7		
Green Ext Time (p_c), s		14.3		0.4	0.1	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	62	1936	1021	39	9	44
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	69	2151	1134	43	10	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1134	0	-	0	2347	567
Stage 1	-	-	-	-	1134	-
Stage 2	-	-	-	-	1213	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	623	-	-	-	*128	472
Stage 1	-	-	-	-	*273	-
Stage 2	-	-	-	-	*272	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	623	-	-	-	*128	472
Mov Cap-2 Maneuver	-	-	-	-	*128	-
Stage 1	-	-	-	-	*273	-
Stage 2	-	-	-	-	*272	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	18.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	623	-	-	-	324
HCM Lane V/C Ratio	0.111	-	-	-	0.182
HCM Control Delay (s)	11.5	0	-	-	18.6
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.7

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary   Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	151	1682	271	32	2493	126	211	91	24	94	95	121
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	1809	0	34	2681	133	227	98	23	101	102	95
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1479	4393	1867	47	1902	93	170	952	216	85	1252	1845
Arrive On Green	0.82	1.00	0.00	0.03	0.35	0.35	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5390	263	3619	2997	681	1810	3800	1593
Grp Volume(v), veh/h	162	1809	0	34	1878	936	227	61	60	101	102	95
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1854	1810	1900	1778	1810	1900	1593
Q Serve(g_s), s	1.5	0.0	0.0	1.6	30.0	30.0	4.0	1.9	2.0	4.0	1.6	0.4
Cycle Q Clear(g_c), s	1.5	0.0	0.0	1.6	30.0	30.0	4.0	1.9	2.0	4.0	1.6	0.4
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	1479	4393	1867	47	1341	654	170	604	565	85	1252	1845
V/C Ratio(X)	0.11	0.41	0.00	0.72	1.40	1.43	1.33	0.10	0.11	1.19	0.08	0.05
Avail Cap(c_a), veh/h	1479	4393	1867	85	1341	654	170	604	565	85	1252	1845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.35	0.35	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.6	0.0	0.0	41.1	27.5	27.5	40.5	20.4	20.5	40.5	19.6	6.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.7	180.6	194.6	184.2	0.3	0.4	156.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.0	0.8	49.3	50.6	6.3	1.1	1.0	5.7	0.8	0.8
LnGrp Delay(d),s/veh	1.6	0.1	0.0	41.8	208.1	222.1	224.7	20.8	20.9	196.5	19.8	6.8
LnGrp LOS	A	A		D	F	F	F	C	C	F	B	A
Approach Vol, veh/h		1971			2848			348			298	
Approach Delay, s/veh		0.2			210.7			153.8			75.5	
Approach LOS		A			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	105.3	8.5	33.5	76.5	35.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	* 27
Max Q Clear Time (g_c+I1), s	3.6	2.0	6.0	3.6	3.5	32.0	6.0	4.0
Green Ext Time (p_c), s	0.0	10.7	0.0	0.6	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	123.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
9: Patterson Avenue & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			↰	↱
Volume (veh/h)	84	1821	23	7	937	2	133	0	20	0	2	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	1917	24	7	986	2	140	0	21	0	2	21
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	790	671	13	685	1	520	7	64	0	643	547
Arrive On Green	0.06	0.42	0.42	0.01	0.36	0.36	0.34	0.00	0.34	0.00	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	1895	4	1230	22	188	0	1900	1615
Grp Volume(v), veh/h	88	1917	24	7	0	988	161	0	0	0	2	21
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1440	0	0	0	1900	1615
Q Serve(g_s), s	3.1	27.0	0.6	0.3	0.0	23.5	5.0	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	3.1	27.0	0.6	0.3	0.0	23.5	5.3	0.0	0.0	0.0	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.00	0.87		0.13	0.00		1.00
Lane Grp Cap(c), veh/h	111	790	671	13	0	687	591	0	0	0	643	547
V/C Ratio(X)	0.79	2.43	0.04	0.53	0.00	1.44	0.27	0.00	0.00	0.00	0.00	0.04
Avail Cap(c_a), veh/h	111	790	671	111	0	687	591	0	0	0	643	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	19.0	11.3	32.2	0.0	20.8	16.0	0.0	0.0	0.0	14.2	14.4
Incr Delay (d2), s/veh	28.7	645.9	0.0	11.7	0.0	205.7	1.1	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	155.8	0.3	0.2	0.0	51.4	2.3	0.0	0.0	0.0	0.0	0.3
LnGrp Delay(d),s/veh	58.8	664.9	11.3	43.8	0.0	226.5	17.1	0.0	0.0	0.0	14.2	14.5
LnGrp LOS	E	F	B	D		F	B				B	B
Approach Vol, veh/h		2029			995			161			23	
Approach Delay, s/veh		630.8			225.2			17.1			14.5	
Approach LOS		F			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		27.5	5.0	32.5		27.5	8.5	29.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		7.3	2.3	29.0		2.6	5.1	25.5
Green Ext Time (p_c), s		0.5	0.0	0.0		0.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	469.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	140	1011	509	14	1795	147	883	601	15	72	393	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	1099	476	15	1951	151	960	653	14	78	427	57
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	2563	1088	25	2200	168	695	1469	31	100	821	109
Arrive On Green	0.06	0.67	0.67	0.01	0.63	0.63	0.19	0.40	0.40	0.06	0.25	0.25
Sat Flow, veh/h	1810	3800	1613	1810	3487	266	3619	3705	79	1810	3286	436
Grp Volume(v), veh/h	152	1099	476	15	1051	1051	960	335	332	78	246	238
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1853	1810	1900	1884	1810	1900	1822
Q Serve(g_s), s	5.7	13.2	15.2	0.8	45.7	48.4	19.2	12.9	12.9	4.3	11.1	11.3
Cycle Q Clear(g_c), s	5.7	13.2	15.2	0.8	45.7	48.4	19.2	12.9	12.9	4.3	11.1	11.3
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.04	1.00		0.24
Lane Grp Cap(c), veh/h	103	2563	1088	25	1199	1169	695	754	747	100	475	455
V/C Ratio(X)	1.47	0.43	0.44	0.61	0.88	0.90	1.38	0.44	0.44	0.78	0.52	0.52
Avail Cap(c_a), veh/h	103	2563	1088	72	1199	1169	695	754	747	121	475	455
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	7.5	9.4	49.1	15.2	15.7	40.4	22.1	22.1	46.6	32.3	32.4
Incr Delay (d2), s/veh	217.9	0.0	0.1	8.7	9.2	11.0	179.7	1.7	1.7	18.3	4.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	6.9	6.7	0.5	26.7	27.8	26.9	7.1	7.1	2.6	6.3	6.2
LnGrp Delay(d),s/veh	265.1	7.5	9.5	57.7	24.4	26.7	220.1	23.8	23.8	64.9	36.3	36.6
LnGrp LOS	F	A	A	E	C	C	F	C	C	E	D	D
Approach Vol, veh/h		1727			2117			1627			562	
Approach Delay, s/veh		30.7			25.8			139.6			40.4	
Approach LOS		C			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.9	73.9	24.7	30.5	10.2	69.6	10.0	45.2
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	31.8	19.2	* 25	5.7	30.1	6.7	37.5
Max Q Clear Time (g_c+I1), s	2.8	17.2	21.2	13.3	7.7	50.4	6.3	14.9
Green Ext Time (p_c), s	0.0	12.3	0.0	1.3	0.0	0.0	0.0	4.4

Intersection Summary		
HCM 2010 Ctrl Delay		59.3
HCM 2010 LOS		E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	8	54	85	35	130	312	82	877	56	165	484	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.95	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	59	47	38	141	178	89	953	46	179	526	14
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	259	220	52	296	249	115	1211	487	459	1982	832
Arrive On Green	0.01	0.14	0.14	0.03	0.16	0.16	0.06	0.32	0.32	0.25	0.52	0.52
Sat Flow, veh/h	1810	1900	1615	1810	1900	1599	1810	3800	1529	1810	3800	1594
Grp Volume(v), veh/h	9	59	47	38	141	178	89	953	46	179	526	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1599	1810	1900	1529	1810	1900	1594
Q Serve(g_s), s	0.4	2.2	2.1	1.7	5.4	8.5	3.9	18.2	1.3	6.6	6.1	0.3
Cycle Q Clear(g_c), s	0.4	2.2	2.1	1.7	5.4	8.5	3.9	18.2	1.3	6.6	6.1	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	259	220	52	296	249	115	1211	487	459	1982	832
V/C Ratio(X)	0.55	0.23	0.21	0.74	0.48	0.71	0.77	0.79	0.09	0.39	0.27	0.02
Avail Cap(c_a), veh/h	90	589	501	118	618	520	190	1211	487	459	1982	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79
Uniform Delay (d), s/veh	39.5	30.8	30.7	38.6	30.8	32.1	36.9	24.8	11.5	24.7	10.6	9.2
Incr Delay (d2), s/veh	10.2	0.2	0.2	7.4	0.4	1.4	4.2	5.2	0.4	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.2	0.9	0.9	2.9	3.8	2.1	10.4	0.6	3.3	3.3	0.2
LnGrp Delay(d),s/veh	49.7	30.9	30.9	45.9	31.2	33.5	41.1	30.0	11.9	24.9	10.9	9.3
LnGrp LOS	D	C	C	D	C	C	D	C	B	C	B	A
Approach Vol, veh/h		115			357			1088			719	
Approach Delay, s/veh		32.4			33.9			30.1			14.3	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	31.0	6.8	16.4	9.6	47.2	5.2	18.0
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	* 26	5.2	24.8	8.4	21.6	4.0	26.0
Max Q Clear Time (g_c+I1), s	8.6	20.2	3.7	4.2	5.9	8.1	2.4	10.5
Green Ext Time (p_c), s	0.0	2.0	0.0	1.3	0.0	1.9	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

12: Heacock Street & Gentian Avenue

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	110	723	3	67	528
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	116	761	3	71	556

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1458	761	0	0	761	0
Stage 1	761	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	144	409	-	-	860	-
Stage 1	465	-	-	-	-	-
Stage 2	498	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	132	409	-	-	860	-
Mov Cap-2 Maneuver	132	-	-	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	457	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	132	409	860	-
HCM Lane V/C Ratio	-	-	0.032	0.283	0.082	-
HCM Control Delay (s)	-	-	33.2	17.2	9.6	-
HCM Lane LOS	-	-	D	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	1.1	0.3	-

Intersection	
Intersection Delay, s/veh	46.2
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	340	473	0	304	212	0	271	307
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	362	503	0	323	226	0	288	327
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	47.5	66.9	26
HCM LOS	E	F	D

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	59%	0%	0%	0%	100%
Vol Right, %	41%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	516	340	473	271	307
LT Vol	0	340	0	271	0
Through Vol	304	0	0	0	307
RT Vol	212	0	473	0	0
Lane Flow Rate	549	362	503	288	327
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.809	0.957	0.658	0.7
Departure Headway (Hd)	7.128	8.049	6.849	8.22	7.719
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	511	452	533	441	470
Service Time	5.152	5.763	4.564	5.939	5.438
HCM Lane V/C Ratio	1.074	0.801	0.944	0.653	0.696
HCM Control Delay	66.9	36.9	55.1	25.4	26.6
HCM Lane LOS	F	E	F	D	D
HCM 95th-tile Q	13.7	7.5	12.4	4.6	5.4

HCM 2010 Signalized Intersection Summary
14: Heacock Street & Krameria Avenue-North

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	101	96	465	201	104	543
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	119	574	248	128	670
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	186	166	768	653	491	1406
Arrive On Green	0.10	0.10	0.40	0.40	0.27	0.74
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	125	119	574	248	128	670
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	4.7	5.0	18.1	7.6	3.9	9.9
Cycle Q Clear(g_c), s	4.7	5.0	18.1	7.6	3.9	9.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	186	166	768	653	491	1406
V/C Ratio(X)	0.67	0.72	0.75	0.38	0.26	0.48
Avail Cap(c_a), veh/h	439	392	768	653	491	1406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	30.4	17.8	14.7	20.0	3.7
Incr Delay (d2), s/veh	1.6	2.1	6.6	1.7	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.3	10.8	3.7	2.1	5.5
LnGrp Delay(d),s/veh	31.8	32.5	24.4	16.4	21.3	4.8
LnGrp LOS	C	C	C	B	C	A
Approach Vol, veh/h	244		822			798
Approach Delay, s/veh	32.2		22.0			7.5
Approach LOS	C		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	33.8				57.3		12.7
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	5.9	20.1				11.9		7.0
Green Ext Time (p_c), s	0.1	0.0				5.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	1	625	3	5	620
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	880	4	7	873

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1767	440	0	0	880	0
Stage 1	880	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	84	570	-	-	777	-
Stage 1	371	-	-	-	-	-
Stage 2	406	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	83	570	-	-	777	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	371	-	-	-	-	-
Stage 2	402	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	570	777	-
HCM Lane V/C Ratio	-	-	-	0.002	0.009	-
HCM Control Delay (s)	-	-	0	11.3	9.7	-
HCM Lane LOS	-	-	A	B	A	-
HCM 95th %tile Q(veh)	-	-	-	0	0	-

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
18: Heacock Street & San Michele Road — 7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	28	76	4	40	310	538	1	55	11	404	104	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	37	101	2	53	413	650	1	73	15	539	139	62
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	143	121	409	522	444	2	618	525	297	946	804
Arrive On Green	0.03	0.08	0.08	0.23	0.28	0.28	0.00	0.32	0.32	0.16	0.50	0.50
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	37	101	2	53	413	650	1	73	15	539	139	62
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	2.0	5.2	0.1	2.3	20.1	27.5	0.1	2.7	0.6	16.4	4.0	1.5
Cycle Q Clear(g_c), s	2.0	5.2	0.1	2.3	20.1	27.5	0.1	2.7	0.6	16.4	4.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	143	121	409	523	444	2	618	525	297	946	804
V/C Ratio(X)	0.79	0.71	0.02	0.13	0.79	1.46	0.50	0.12	0.03	1.82	0.15	0.08
Avail Cap(c_a), veh/h	100	551	468	409	523	444	81	618	525	297	946	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	45.2	34.0	30.9	33.6	36.3	49.9	23.7	23.0	41.8	13.6	7.4
Incr Delay (d2), s/veh	10.4	2.4	0.0	0.0	0.7	209.7	58.7	0.4	0.1	379.9	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.8	0.0	1.2	10.7	38.2	0.1	1.5	0.3	39.5	2.2	0.7
LnGrp Delay(d),s/veh	58.8	47.6	34.0	30.9	34.3	246.0	108.6	24.1	23.1	421.7	13.9	7.5
LnGrp LOS	E	D	C	C	C	F	F	C	C	F	B	A
Approach Vol, veh/h		140			1116			89			740	
Approach Delay, s/veh		50.4			157.4			24.9			310.4	
Approach LOS		D			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	38.0	27.1	13.0	4.6	55.3	7.1	33.0
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	18.4	4.7	4.3	7.2	2.1	6.0	4.0	29.5
Green Ext Time (p_c), s	0.0	0.2	0.0	0.3	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	198.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	62	0	2	139	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	66	0	2	148	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	298	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	698	1090	-	-	1634	-
Stage 1	1028	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	635	1090	-	-	1634	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	689	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	7.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1090	1634	-
HCM Lane V/C Ratio	-	-	-	0.061	0.09	-
HCM Control Delay (s)	-	-	0	8.5	7.4	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.3	-

20: Webster Street & Harley Knox Boulevard

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1561	30	0	781	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1951	38	0	976	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1989	0	2946	1970
Stage 1	-	-	-	-	1970	-
Stage 2	-	-	-	-	976	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	-	-	17	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	339	-
Platoon blocked, %	-	-	2	-		2
Mov Cap-1 Maneuver	-	-	-	-	17	-
Mov Cap-2 Maneuver	-	-	-	-	17	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	339	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	
HCM LOS			-

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	-	0	-
HCM Lane LOS	-	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

21: Cosmos Street & Krameria Avenue-North/Driveway

Intersection	
Int Delay, s/veh	9.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	97	45	116	0	10	0	119	6	7	3	1	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	55	141	0	12	0	145	7	9	4	1	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	347	341	35	439	375	7	70	0	0	7	0	0
Stage 1	43	43	-	298	298	-	-	-	-	-	-	-
Stage 2	304	298	-	141	77	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	611	584	1044	532	559	1081	1544	-	-	1627	-	-
Stage 1	976	863	-	715	671	-	-	-	-	-	-	-
Stage 2	710	671	-	867	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	557	528	1044	395	505	1081	1544	-	-	1627	-	-
Mov Cap-2 Maneuver	592	570	-	497	561	-	-	-	-	-	-	-
Stage 1	884	861	-	648	608	-	-	-	-	-	-	-
Stage 2	630	608	-	700	833	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	11.6	6.8	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	729	561	1627	-	-
HCM Lane V/C Ratio	0.094	-	-	0.432	0.022	0.002	-	-
HCM Control Delay (s)	7.6	-	-	13.6	11.6	7.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	2.2	0.1	0	-	-

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	96	19	0	0	2	72	258	0	15	109	13
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	113	22	0	0	2	85	304	0	18	128	15
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	12.6	14.2	12.2
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	109	13	96	19	2	72	258	221	87	40
LT Vol	15	0	0	96	0	2	0	0	221	0	0
Through Vol	0	109	0	0	19	0	72	0	0	87	0
RT Vol	0	0	13	0	0	0	0	258	0	0	40
Lane Flow Rate	18	128	15	113	22	2	85	304	260	102	47
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.039	0.263	0.028	0.245	0.045	0.005	0.159	0.512	0.52	0.19	0.078
Departure Headway (Hd)	7.905	7.397	6.687	7.816	7.316	7.384	6.882	6.18	7.298	6.692	6.084
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	489	538	462	492	488	524	586	497	531	592
Service Time	5.611	5.103	4.393	5.523	5.023	5.084	4.582	3.88	4.998	4.492	3.784
HCM Lane V/C Ratio	0.04	0.262	0.028	0.245	0.045	0.004	0.162	0.519	0.523	0.192	0.079
HCM Control Delay	10.9	12.7	9.6	13	10.4	10.1	10.9	15.2	17.6	11.1	9.3
HCM Lane LOS	B	B	A	B	B	B	B	C	C	B	A
HCM 95th-tile Q	0.1	1	0.1	1	0.1	0	0.6	2.9	3	0.7	0.3

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
28: Indian Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	16	199	295	174	806	10	1251	116	217	5	112	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	273	392	238	1104	11	1714	159	265	7	153	13
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	446	670	172	1183	484	653	881	748	13	964	81
Arrive On Green	0.02	0.31	0.31	0.09	0.31	0.31	0.18	0.46	0.46	0.01	0.28	0.28
Sat Flow, veh/h	1810	1900	1615	1810	3800	1556	3619	1900	1615	1810	3442	288
Grp Volume(v), veh/h	22	273	392	238	1104	11	1714	159	265	7	83	83
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1556	1810	1900	1615	1810	1900	1830
Q Serve(g_s), s	1.2	12.2	4.5	9.5	28.2	0.5	18.1	4.9	10.5	0.4	3.3	3.4
Cycle Q Clear(g_c), s	1.2	12.2	4.5	9.5	28.2	0.5	18.1	4.9	10.5	0.4	3.3	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	33	446	670	172	1183	484	653	881	748	13	532	512
V/C Ratio(X)	0.66	0.61	0.58	1.38	0.93	0.02	2.62	0.18	0.35	0.55	0.16	0.16
Avail Cap(c_a), veh/h	72	494	711	172	1197	490	653	881	748	72	532	512
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.53	0.53	0.53	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	30.5	7.6	45.3	33.4	23.9	41.0	15.7	17.2	49.5	27.1	27.1
Incr Delay (d2), s/veh	0.8	0.1	0.1	204.9	12.8	0.0	733.0	0.2	0.7	12.8	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.4	4.1	14.5	16.8	0.2	75.5	2.6	4.8	0.2	1.8	1.8
LnGrp Delay(d),s/veh	49.3	30.6	7.7	250.1	46.3	23.9	774.0	15.9	17.9	62.3	27.7	27.8
LnGrp LOS	D	C	A	F	D	C	F	B	B	E	C	C
Approach Vol, veh/h		687			1353			2138			173	
Approach Delay, s/veh		18.1			81.9			623.9			29.2	
Approach LOS		B			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	51.8	14.0	28.9	23.6	33.5	6.3	36.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	40.5	9.5	26.0	16.5	* 28	4.0	31.5
Max Q Clear Time (g_c+I1), s	2.4	12.5	11.5	14.2	20.1	5.4	3.2	30.2
Green Ext Time (p_c), s	0.0	5.5	0.0	5.3	0.0	0.4	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	336.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

29: Indian Street & Nandina Avenue

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	13	21	212	68	31	22	260	1432	85	12	422	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	26	200	83	38	25	317	1746	102	15	515	25
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	27	289	246	107	373	317	109	1804	104	26	1661	80
Arrive On Green	0.02	0.15	0.15	0.06	0.20	0.20	0.06	0.51	0.51	0.01	0.46	0.46
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3553	206	1810	3595	174
Grp Volume(v), veh/h	16	26	200	83	38	25	317	926	922	15	272	268
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1859	1810	1900	1869
Q Serve(g_s), s	0.7	0.9	9.0	3.4	1.2	0.9	4.5	35.1	36.3	0.6	6.7	6.8
Cycle Q Clear(g_c), s	0.7	0.9	9.0	3.4	1.2	0.9	4.5	35.1	36.3	0.6	6.7	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.09
Lane Grp Cap(c), veh/h	27	289	246	107	373	317	109	965	944	26	878	864
V/C Ratio(X)	0.58	0.09	0.81	0.78	0.10	0.08	2.92	0.96	0.98	0.58	0.31	0.31
Avail Cap(c_a), veh/h	97	608	517	109	621	528	109	965	944	97	878	864
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	36.7	27.3	30.8	34.8	24.7	24.6	35.3	17.7	18.0	36.7	12.7	12.7
Incr Delay (d2), s/veh	7.2	0.0	2.5	26.2	0.0	0.0	888.4	20.8	24.3	5.5	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	4.1	2.5	0.6	0.4	29.0	23.8	24.8	0.3	3.6	3.7
LnGrp Delay(d),s/veh	43.9	27.4	33.3	61.0	24.8	24.6	923.6	38.5	42.3	42.2	13.3	13.4
LnGrp LOS	D	C	C	E	C	C	F	D	D	D	B	B
Approach Vol, veh/h		242			146			2165			555	
Approach Delay, s/veh		33.3			45.3			169.7			14.1	
Approach LOS		C			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	43.6	8.9	16.9	9.0	40.2	5.6	20.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	22.5	4.5	24.0	4.5	22.0	4.0	24.5
Max Q Clear Time (g_c+I1), s	2.6	38.3	5.4	11.0	6.5	8.8	2.7	3.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	8.2	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	125.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	793	768	176	12	385	42	157	307	30	15	78	374
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	844	817	170	13	410	43	167	327	28	16	83	331
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1381	2097	1782	22	1156	121	152	1425	606	52	640	544
Arrive On Green	0.76	1.00	1.00	0.01	0.34	0.34	0.04	0.37	0.37	0.01	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3380	352	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	844	817	170	13	229	224	167	327	28	16	83	331
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1832	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	19.7	0.0	0.0	0.7	8.6	8.7	4.0	5.6	1.0	0.4	2.9	16.2
Cycle Q Clear(g_c), s	19.7	0.0	0.0	0.7	8.6	8.7	4.0	5.6	1.0	0.4	2.9	16.2
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1381	2097	1782	22	650	627	152	1425	606	52	640	544
V/C Ratio(X)	0.61	0.39	0.10	0.59	0.35	0.36	1.10	0.23	0.05	0.30	0.13	0.61
Avail Cap(c_a), veh/h	1381	2097	1782	76	650	627	152	1425	606	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.0	0.0	0.0	46.7	23.4	23.4	45.5	20.3	18.9	46.3	21.8	26.3
Incr Delay (d2), s/veh	0.6	0.5	0.1	8.9	1.5	1.6	100.9	0.4	0.1	1.2	0.4	5.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.3	0.1	0.4	4.7	4.7	4.1	3.0	0.5	0.2	1.6	7.9
LnGrp Delay(d),s/veh	5.6	0.5	0.1	55.6	24.9	25.0	146.4	20.7	19.0	47.5	22.3	31.3
LnGrp LOS	A	A	A	E	C	C	F	C	B	D	C	C
Approach Vol, veh/h		1831			466			522			430	
Approach Delay, s/veh		2.8			25.8			60.8			30.1	
Approach LOS		A			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	112.3	9.5	37.5	80.0	38.0	5.9	41.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	35.0	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.7	2.0	6.0	18.2	21.7	10.7	2.4	7.6
Green Ext Time (p_c), s	0.0	5.6	0.0	1.3	0.0	1.4	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
31: Perris Boulevard & Cactus Avenue

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑	↱
Volume (veh/h)	138	586	205	146	1164	113	379	1184	145	169	842	213
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	651	211	162	1293	117	421	1316	149	188	936	227
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	944	306	1544	3957	357	238	1382	156	170	855	358
Arrive On Green	0.06	0.34	0.34	0.85	1.00	1.00	0.13	0.28	0.28	0.09	0.22	0.22
Sat Flow, veh/h	1810	2747	890	1810	3431	309	1810	5026	569	1810	3800	1590
Grp Volume(v), veh/h	153	450	412	162	714	696	421	995	470	188	936	227
Grp Sat Flow(s),veh/h/ln	1810	1900	1737	1810	1900	1841	1810	1900	1795	1810	1900	1590
Q Serve(g_s), s	4.5	16.3	16.3	1.2	0.0	0.0	10.5	20.6	20.6	7.5	18.0	18.0
Cycle Q Clear(g_c), s	4.5	16.3	16.3	1.2	0.0	0.0	10.5	20.6	20.6	7.5	18.0	18.0
Prop In Lane	1.00		0.51	1.00		0.17	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	102	653	597	1544	2191	2122	238	1045	494	170	855	358
V/C Ratio(X)	1.50	0.69	0.69	0.10	0.33	0.33	1.77	0.95	0.95	1.11	1.09	0.63
Avail Cap(c_a), veh/h	102	653	597	1544	2191	2122	238	1045	494	170	855	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	22.6	22.6	0.9	0.0	0.0	34.8	28.5	28.5	36.2	31.0	104.2
Incr Delay (d2), s/veh	270.6	5.9	6.4	0.0	0.4	0.4	364.3	18.5	30.2	101.1	59.9	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	9.6	8.8	0.5	0.2	0.2	29.2	13.5	14.3	8.5	16.5	0.8
LnGrp Delay(d),s/veh	308.4	28.4	29.0	1.0	0.4	0.4	399.0	46.9	58.7	137.3	90.9	112.5
LnGrp LOS	F	C	C	A	A	A	F	D	E	F	F	F
Approach Vol, veh/h		1015			1572			1886			1351	
Approach Delay, s/veh		70.9			0.5			128.5			101.0	
Approach LOS		E			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	75.1	33.0	16.0	23.5	9.0	99.1	12.0	27.5
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 28	10.5	* 18	4.5	27.0	7.5	21.0
Max Q Clear Time (g_c+I1), s	3.2	18.3	12.5	20.0	6.5	2.0	9.5	22.6
Green Ext Time (p_c), s	0.1	2.3	0.0	0.0	0.0	6.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	77.5
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	50	232	135	265	238	265	93	1229	364	131	977	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	255	132	291	262	191	102	1351	375	144	1074	41
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	62	289	301	343	360	300	148	1583	438	143	2001	76
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.37	0.37	0.08	0.37	0.37
Sat Flow, veh/h	334	1549	1612	1810	1900	1584	1810	4284	1185	1810	5452	208
Grp Volume(v), veh/h	310	0	132	291	262	191	102	1198	528	144	748	367
Grp Sat Flow(s),veh/h/ln	1883	0	1612	1810	1900	1584	1810	1900	1669	1810	1900	1860
Q Serve(g_s), s	19.2	0.0	8.7	18.6	15.6	13.3	6.6	34.8	35.0	9.5	18.6	18.7
Cycle Q Clear(g_c), s	19.2	0.0	8.7	18.6	15.6	13.3	6.6	34.8	35.0	9.5	18.6	18.7
Prop In Lane	0.18		1.00	1.00		1.00	1.00		0.71	1.00		0.11
Lane Grp Cap(c), veh/h	352	0	301	343	360	300	148	1404	616	143	1394	683
V/C Ratio(X)	0.88	0.00	0.44	0.85	0.73	0.64	0.69	0.85	0.86	1.01	0.54	0.54
Avail Cap(c_a), veh/h	471	0	403	452	475	396	148	1404	616	143	1394	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	0.0	43.2	47.0	45.7	44.8	53.6	34.8	34.9	55.3	29.9	30.0
Incr Delay (d2), s/veh	11.6	0.0	0.4	8.9	2.3	0.8	23.3	6.8	14.3	76.6	1.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	3.9	10.1	8.4	5.9	4.2	19.6	18.6	7.8	10.1	10.1
LnGrp Delay(d),s/veh	59.1	0.0	43.6	55.9	48.0	45.6	76.9	41.6	49.2	131.8	31.4	33.0
LnGrp LOS	E		D	E	D	D	E	D	D	F	C	C
Approach Vol, veh/h		442			744			1828			1259	
Approach Delay, s/veh		54.5			50.5			45.8			43.4	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	49.8		27.9	14.3	49.5		28.3
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	11.5	37.0		21.2	8.6	20.7		20.6
Green Ext Time (p_c), s	0.0	0.0		1.1	0.0	6.8		1.7

Intersection Summary			
HCM 2010 Ctrl Delay			46.8
HCM 2010 LOS			D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (veh/h)	0	1561	593	1019	679	0	0	0	990	0	0	276
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	1643	616	1073	715	0	0	0	0	0	0	169
Adj No. of Lanes	0	2	1	1	2	0	0	0	1	0	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2229	947	461	3452	0	0	0	0	0	0	0
Arrive On Green	0.00	0.59	0.59	0.25	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	1810	3800	0		0			0	
Grp Volume(v), veh/h	0	1643	616	1073	715	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	18.9	15.3	15.3	1.3	0.0						
Cycle Q Clear(g_c), s	0.0	18.9	15.3	15.3	1.3	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2229	947	461	3452	0						
V/C Ratio(X)	0.00	0.74	0.65	2.33	0.21	0.00						
Avail Cap(c_a), veh/h	0	2229	947	461	3452	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	9.0	8.3	22.3	0.3	0.0						
Incr Delay (d2), s/veh	0.0	2.2	3.5	603.2	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	10.3	15.2	84.9	0.7	0.0						
LnGrp Delay(d),s/veh	0.0	11.3	11.7	625.5	0.4	0.0						
LnGrp LOS		B	B	F	A							
Approach Vol, veh/h		2259			1788							
Approach Delay, s/veh		11.4			375.6							
Approach LOS		B			F							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	19.3	40.7				60.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	15.3	19.2				38.5		
Max Q Clear Time (g_c+I1), s	17.3	20.9				3.3		
Green Ext Time (p_c), s	0.0	0.0				18.2		

Intersection Summary	
HCM 2010 Ctrl Delay	172.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰↑	↱
Volume (veh/h)	0	721	105	524	202	0	0	0	0	785	2	419
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	767	112	557	215	0				835	2	369
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	309	1742	0				827	2	740
Arrive On Green	0.00	0.25	0.25	0.29	0.77	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1805	4	1615
Grp Volume(v), veh/h	0	767	112	557	215	0				837	0	369
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	22.8	6.7	20.5	1.8	0.0				55.0	0.0	19.2
Cycle Q Clear(g_c), s	0.0	22.8	6.7	20.5	1.8	0.0				55.0	0.0	19.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	950	404	309	1742	0				829	0	740
V/C Ratio(X)	0.00	0.81	0.28	1.80	0.12	0.00				1.01	0.00	0.50
Avail Cap(c_a), veh/h	0	950	404	309	1742	0				829	0	740
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.85	0.85	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	42.3	36.3	42.9	7.8	0.0				32.5	0.0	22.8
Incr Delay (d2), s/veh	0.0	7.3	1.7	371.6	0.1	0.0				33.5	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.9	3.2	42.1	0.9	0.0				35.1	0.0	8.6
LnGrp Delay(d),s/veh	0.0	49.6	38.0	414.5	8.0	0.0				66.0	0.0	23.3
LnGrp LOS		D	D	F	A					F		C
Approach Vol, veh/h		879			772						1206	
Approach Delay, s/veh		48.1			301.3						53.0	
Approach LOS		D			F						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	25.0	35.0		60.0		60.0		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	20.5	30.0		55.0		55.0		
Max Q Clear Time (g_c+I1), s	22.5	24.8		57.0		3.8		
Green Ext Time (p_c), s	0.0	2.1		0.0		4.5		

Intersection Summary	
HCM 2010 Ctrl Delay	118.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	27	2111	414	0	2463	94	142	62	29	114	1	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	2176	423	0	2539	88	146	64	30	118	1	53
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1738	325	0	2045	70	469	350	164	437	9	455
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	117	3103	580	0	3652	126	1371	1225	574	1323	30	1590
Grp Volume(v), veh/h	28	1300	1300	0	1314	1314	146	0	94	118	0	54
Grp Sat Flow(s),veh/h/ln	117	1900	1783	0	1900	1878	1371	0	1799	1323	0	1619
Q Serve(g_s), s	0.0	36.4	36.4	0.0	36.4	36.4	5.7	0.0	2.6	4.8	0.0	1.6
Cycle Q Clear(g_c), s	36.4	36.4	36.4	0.0	36.4	36.4	7.3	0.0	2.6	7.4	0.0	1.6
Prop In Lane	1.00		0.33	0.00		0.07	1.00		0.32	1.00		0.98
Lane Grp Cap(c), veh/h	111	1064	999	0	1064	1052	469	0	515	437	0	463
V/C Ratio(X)	0.25	1.22	1.30	0.00	1.23	1.25	0.31	0.00	0.18	0.27	0.00	0.12
Avail Cap(c_a), veh/h	111	1064	999	0	1064	1052	469	0	515	437	0	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	14.3	14.3	0.0	14.3	14.3	19.8	0.0	17.5	20.2	0.0	17.1
Incr Delay (d2), s/veh	5.4	108.2	143.0	0.0	113.8	120.1	1.7	0.0	0.8	1.5	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	50.6	57.1	0.0	52.2	53.5	2.4	0.0	1.4	1.9	0.0	0.8
LnGrp Delay(d),s/veh	37.9	122.5	157.3	0.0	128.1	134.4	21.6	0.0	18.3	21.8	0.0	17.6
LnGrp LOS	D	F	F		F	F	C		B	C		B
Approach Vol, veh/h		2627			2627			240			172	
Approach Delay, s/veh		138.8			131.2			20.3			20.5	
Approach LOS		F			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		38.4		9.4		38.4		9.3
Green Ext Time (p_c), s		0.0		0.6		0.0		0.6

Intersection Summary			
HCM 2010 Ctrl Delay			126.7
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	530	975	0	0	675	1452	51	1	191	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	596	1096	0	0	758	1606	57	1	106			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	550	2755	0	0	1488	632	341	6	310			
Arrive On Green	0.61	1.00	0.00	0.00	0.39	0.39	0.19	0.19	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1780	31	1615			
Grp Volume(v), veh/h	596	1096	0	0	758	1606	58	0	106			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1811	0	1615			
Q Serve(g_s), s	36.5	0.0	0.0	0.0	18.2	47.0	3.2	0.0	6.8			
Cycle Q Clear(g_c), s	36.5	0.0	0.0	0.0	18.2	47.0	3.2	0.0	6.8			
Prop In Lane	1.00		0.00	0.00		1.00	0.98		1.00			
Lane Grp Cap(c), veh/h	550	2755	0	0	1488	632	347	0	310			
V/C Ratio(X)	1.08	0.40	0.00	0.00	0.51	2.54	0.17	0.00	0.34			
Avail Cap(c_a), veh/h	550	2755	0	0	1488	632	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.49	0.49	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	23.5	0.0	0.0	0.0	27.7	36.5	40.5	0.0	42.0			
Incr Delay (d2), s/veh	52.2	0.2	0.0	0.0	1.2	698.1	1.0	0.0	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	25.7	0.1	0.0	0.0	9.7	143.5	1.7	0.0	3.3			
LnGrp Delay(d),s/veh	75.7	0.2	0.0	0.0	29.0	734.6	41.5	0.0	45.0			
LnGrp LOS	F	A			C	F	D		D			
Approach Vol, veh/h		1692			2364			164				
Approach Delay, s/veh		26.8			508.3			43.7				
Approach LOS		C			F			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			40.0	52.0		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			38.5	49.0		8.8
Green Ext Time (p_c), s		35.2			0.0	0.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	297.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

5: March AFB/Elsworth Street & Cactus Avenue

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰↰	↰↑	↱
Volume (veh/h)	128	2418	25	28	2122	106	404	105	200	136	22	221
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	2493	0	29	2188	78	338	217	152	156	0	121
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2689	762	37	2307	640	445	256	179	315	0	282
Arrive On Green	0.09	0.47	0.00	0.02	0.40	0.40	0.25	0.25	0.25	0.09	0.00	0.09
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1041	729	3619	0	1615
Grp Volume(v), veh/h	132	2493	0	29	2188	78	338	0	369	156	0	121
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1770	1810	0	1615
Q Serve(g_s), s	8.6	49.3	0.0	1.9	44.5	3.7	20.8	0.0	23.8	4.9	0.0	8.0
Cycle Q Clear(g_c), s	8.6	49.3	0.0	1.9	44.5	3.7	20.8	0.0	23.8	4.9	0.0	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	158	2689	762	37	2307	640	445	0	435	315	0	282
V/C Ratio(X)	0.83	0.93	0.00	0.79	0.95	0.12	0.76	0.00	0.85	0.49	0.00	0.43
Avail Cap(c_a), veh/h	158	2689	762	119	2307	640	445	0	435	890	0	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	29.8	0.0	58.5	34.5	22.4	42.0	0.0	43.1	52.3	0.0	44.2
Incr Delay (d2), s/veh	28.8	7.0	0.0	13.2	9.3	0.0	11.6	0.0	18.2	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	27.4	0.0	1.1	25.3	1.6	11.9	0.0	13.9	2.5	0.0	3.6
LnGrp Delay(d),s/veh	82.7	36.8	0.0	71.7	43.8	22.4	53.5	0.0	61.3	52.7	0.0	44.6
LnGrp LOS	F	D		E	D	C	D		E	D		D
Approach Vol, veh/h		2625			2295			707			277	
Approach Delay, s/veh		39.1			43.4			57.6			49.2	
Approach LOS		D			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	62.1		16.0	15.0	54.1		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	3.9	51.3		10.0	10.6	46.5		25.8
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	0.0		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	43.5
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
6: Cactus Avenue & Frederick Street 7/15/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	119	2778	1808	253	491	152
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	2864	1864	253	506	98
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	214	2610	2978	844	814	555
Arrive On Green	0.12	0.69	0.52	0.52	0.22	0.22
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	123	2864	1864	253	506	98
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	7.7	82.4	27.8	10.6	15.1	0.0
Cycle Q Clear(g_c), s	7.7	82.4	27.8	10.6	15.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	214	2610	2978	844	814	555
V/C Ratio(X)	0.57	1.10	0.63	0.30	0.62	0.18
Avail Cap(c_a), veh/h	223	2610	2978	844	814	555
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.37	0.37	1.00	1.00
Uniform Delay (d), s/veh	50.0	18.8	20.3	16.2	41.9	27.5
Incr Delay (d2), s/veh	2.0	50.6	0.4	0.3	3.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	60.7	14.6	4.8	7.9	3.3
LnGrp Delay(d),s/veh	52.0	69.4	20.7	16.6	45.4	28.2
LnGrp LOS	D	F	C	B	D	C
Approach Vol, veh/h		2987	2117		604	
Approach Delay, s/veh		68.7	20.2		42.7	
Approach LOS		E	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		87.9		32.5	19.7	68.2		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	14.8	* 63		
Max Q Clear Time (g_c+I1), s		84.4		17.1	9.7	29.8		
Green Ext Time (p_c), s		0.0		0.9	4.3	11.4		

Intersection Summary	
HCM 2010 Ctrl Delay	47.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	50.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	1136	2057	18	15	70
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	1235	2236	20	16	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2236	0	-	0	2919	1118
Stage 1	-	-	-	-	2236	-
Stage 2	-	-	-	-	683	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	235	-	-	-	*~ 8	205
Stage 1	-	-	-	-	*69	-
Stage 2	-	-	-	-	*586	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	235	-	-	-	*~ 4	205
Mov Cap-2 Maneuver	-	-	-	-	*~ 4	-
Stage 1	-	-	-	-	*69	-
Stage 2	-	-	-	-	*324	-

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	$ 1902.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	235	-	-	-	21
HCM Lane V/C Ratio	0.139	-	-	-	4.4
HCM Control Delay (s)	22.8	4.8	-		$ 1902.8
HCM Lane LOS	C	A	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	11.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue 7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	209	3115	489	16	1448	78	268	108	26	200	214	224
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	227	3386	0	17	1574	81	291	117	23	217	233	165
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	2936	1248	28	3981	205	170	985	189	85	1252	601
Arrive On Green	0.05	0.77	0.00	0.02	0.74	0.74	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5371	276	3619	3101	594	1810	3800	1595
Grp Volume(v), veh/h	227	3386	0	17	1114	541	291	71	69	217	233	165
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1847	1810	1900	1795	1810	1900	1595
Q Serve(g_s), s	4.0	65.7	0.0	0.8	9.1	9.1	4.0	2.2	2.3	4.0	3.7	6.1
Cycle Q Clear(g_c), s	4.0	65.7	0.0	0.8	9.1	9.1	4.0	2.2	2.3	4.0	3.7	6.1
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	85	2936	1248	28	2816	1369	170	604	570	85	1252	601
V/C Ratio(X)	2.67	1.15	0.00	0.60	0.40	0.40	1.71	0.12	0.12	2.55	0.19	0.27
Avail Cap(c_a), veh/h	85	2936	1248	85	2816	1369	170	604	570	85	1252	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	9.7	0.0	41.6	4.0	4.0	40.5	20.6	20.6	40.5	20.4	18.4
Incr Delay (d2), s/veh	752.6	69.4	0.0	0.7	0.0	0.1	342.6	0.4	0.4	730.0	0.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.8	61.3	0.0	0.4	4.7	4.5	10.1	1.2	1.2	19.3	2.0	2.9
LnGrp Delay(d),s/veh	793.1	79.0	0.0	42.3	4.1	4.1	383.1	20.9	21.0	770.5	20.7	19.6
LnGrp LOS	F	F		D	A	A	F	C	C	F	C	B
Approach Vol, veh/h		3613			1672			431			615	
Approach Delay, s/veh		123.9			4.5			265.5			284.9	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	72.2	8.5	33.5	8.5	69.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	30.0	4.0	* 27
Max Q Clear Time (g_c+I1), s	2.8	67.7	6.0	8.1	6.0	11.1	6.0	4.3
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	18.5	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	117.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

2020 Without Project Conditions - PM Peak Hour Synchro 8 Report
Urban Crossroads, Inc. Page 3

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard

7/13/2015

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			↰	↱
Volume (veh/h)	24	953	52	22	1787	6	79	5	15	8	5	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	1083	59	25	2031	7	90	6	17	9	6	106
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	690	586	40	684	2	500	39	78	430	266	608
Arrive On Green	0.02	0.36	0.36	0.02	0.36	0.36	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	1810	1900	1615	1810	1892	7	1064	104	207	906	708	1615
Grp Volume(v), veh/h	27	1083	59	25	0	2038	113	0	0	15	0	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1374	0	0	1614	0	1615
Q Serve(g_s), s	1.0	23.6	1.6	0.9	0.0	23.5	3.0	0.0	0.0	0.0	0.0	2.8
Cycle Q Clear(g_c), s	1.0	23.6	1.6	0.9	0.0	23.5	3.5	0.0	0.0	0.3	0.0	2.8
Prop In Lane	1.00		1.00	1.00		0.00	0.80		0.15	0.60		1.00
Lane Grp Cap(c), veh/h	43	690	586	40	0	687	616	0	0	696	0	608
V/C Ratio(X)	0.63	1.57	0.10	0.62	0.00	2.97	0.18	0.00	0.00	0.02	0.00	0.17
Avail Cap(c_a), veh/h	111	690	586	111	0	687	616	0	0	696	0	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	20.7	13.7	31.5	0.0	20.8	13.7	0.0	0.0	12.7	0.0	13.5
Incr Delay (d2), s/veh	5.5	263.7	0.0	5.6	0.0	889.8	0.7	0.0	0.0	0.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	62.8	0.7	0.5	0.0	181.9	1.5	0.0	0.0	0.2	0.0	1.4
LnGrp Delay(d),s/veh	36.9	284.5	13.7	37.1	0.0	910.6	14.3	0.0	0.0	12.8	0.0	14.2
LnGrp LOS	D	F	B	D		F	B			B		B
Approach Vol, veh/h		1169			2063			113			121	
Approach Delay, s/veh		265.1			900.0			14.3			14.0	
Approach LOS		F			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		30.0	6.0	29.1		30.0	6.0	29.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		5.5	2.9	25.6		4.8	3.0	25.5
Green Ext Time (p_c), s		0.6	0.0	0.0		0.6	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			626.0
HCM 2010 LOS			F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	129	1804	1171	20	884	112	593	660	23	162	777	64
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	1919	1231	21	940	113	631	702	20	172	827	61
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2739	1164	33	2256	271	462	1176	33	175	971	72
Arrive On Green	0.06	0.72	0.72	0.02	0.68	0.68	0.26	0.64	0.64	0.10	0.28	0.28
Sat Flow, veh/h	1810	3800	1615	1810	3329	400	3619	3675	105	1810	3497	258
Grp Volume(v), veh/h	137	1919	1231	21	536	517	631	363	359	172	449	439
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1829	1810	1900	1879	1810	1900	1854
Q Serve(g_s), s	5.5	25.6	64.9	1.0	11.4	11.4	11.5	10.0	10.0	8.5	20.1	20.1
Cycle Q Clear(g_c), s	5.5	25.6	64.9	1.0	11.4	11.4	11.5	10.0	10.0	8.5	20.1	20.1
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.06	1.00		0.14
Lane Grp Cap(c), veh/h	111	2739	1164	33	1288	1240	462	608	601	175	528	515
V/C Ratio(X)	1.24	0.70	1.06	0.64	0.42	0.42	1.36	0.60	0.60	0.98	0.85	0.85
Avail Cap(c_a), veh/h	111	2739	1164	80	1288	1240	462	608	601	175	528	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	7.1	39.7	43.9	6.5	6.5	33.5	12.8	12.8	40.6	30.7	30.7
Incr Delay (d2), s/veh	114.6	0.1	28.3	7.5	1.0	1.0	176.0	3.8	3.8	62.8	15.8	16.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	13.1	9.1	0.6	6.3	6.1	17.0	5.7	5.6	7.3	12.8	12.5
LnGrp Delay(d),s/veh	156.9	7.2	68.0	51.3	7.5	7.5	209.5	16.6	16.7	103.4	46.5	46.9
LnGrp LOS	F	A	F	D	A	A	F	B	B	F	D	D
Approach Vol, veh/h		3287			1074			1353			1060	
Approach Delay, s/veh		36.2			8.4			106.6			55.9	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	71.4	17.0	30.5	10.0	67.5	13.2	34.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	29.5	11.5	* 25	5.5	28.0	8.7	27.8
Max Q Clear Time (g_c+I1), s	3.0	66.9	13.5	22.1	7.5	13.4	10.5	12.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	12.8	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	48.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	32	190	257	27	129	195	102	751	66	385	1034	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	202	159	29	137	110	109	799	52	410	1100	23
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	255	217	41	227	168	138	1068	437	594	2069	879
Arrive On Green	0.04	0.13	0.13	0.02	0.11	0.11	0.08	0.28	0.28	0.44	0.72	0.72
Sat Flow, veh/h	1810	1900	1615	1810	2020	1493	1810	3800	1555	1810	3800	1615
Grp Volume(v), veh/h	34	202	159	29	128	119	109	799	52	410	1100	23
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1613	1810	1900	1555	1810	1900	1615
Q Serve(g_s), s	1.6	9.3	6.7	1.4	5.8	6.4	5.3	17.2	2.2	16.4	11.7	0.2
Cycle Q Clear(g_c), s	1.6	9.3	6.7	1.4	5.8	6.4	5.3	17.2	2.2	16.4	11.7	0.2
Prop In Lane	1.00		1.00	1.00		0.93	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	255	217	41	214	181	138	1068	437	594	2069	879
V/C Ratio(X)	0.42	0.79	0.73	0.70	0.60	0.66	0.79	0.75	0.12	0.69	0.53	0.03
Avail Cap(c_a), veh/h	81	528	449	101	549	466	183	1068	437	594	2069	879
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	41.9	37.7	23.0	43.7	38.0	38.3	40.9	29.4	24.1	21.6	7.3	2.5
Incr Delay (d2), s/veh	1.3	2.1	1.8	7.7	1.0	1.5	11.2	4.8	0.6	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	5.0	3.1	0.8	3.1	2.9	3.1	9.7	1.0	8.2	6.0	0.1
LnGrp Delay(d),s/veh	43.1	39.9	24.8	51.4	39.0	39.8	52.1	34.2	24.6	21.9	7.4	2.5
LnGrp LOS	D	D	C	D	D	D	D	C	C	C	A	A
Approach Vol, veh/h		395			276			960			1533	
Approach Delay, s/veh		34.1			40.6			35.7			11.2	
Approach LOS		C			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.1	30.8	6.6	17.6	11.4	54.5	8.5	15.6
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.7	* 25	5.0	25.0	9.1	30.9	4.0	26.0
Max Q Clear Time (g_c+I1), s	18.4	19.2	3.4	11.3	7.3	13.7	3.6	8.4
Green Ext Time (p_c), s	0.0	1.8	0.0	0.8	0.0	5.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

12: Heacock Street & Gentian Avenue

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	74	699	9	147	1142
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	80	752	10	158	1228

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2296	752	0	0	752	0
Stage 1	752	-	-	-	-	-
Stage 2	1544	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	43	413	-	-	867	-
Stage 1	469	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	35	413	-	-	867	-
Mov Cap-2 Maneuver	35	-	-	-	-	-
Stage 1	469	-	-	-	-	-
Stage 2	160	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.4	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	35	413	867	-
HCM Lane V/C Ratio	-	-	0.061	0.193	0.182	-
HCM Control Delay (s)	-	-	114.5	15.8	10.1	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.7	0.7	-

Intersection	
Intersection Delay, s/veh	58.5
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	236	318	0	432	347	0	615	555
Peak Hour Factor	0.92	0.86	0.86	0.92	0.86	0.86	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	274	370	0	502	403	0	715	645
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	25.6	65.7	69.3
HCM LOS	D	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	55%	0%	0%	0%	100%
Vol Right, %	45%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	779	236	318	615	555
LT Vol	0	236	0	615	0
Through Vol	432	0	0	0	555
RT Vol	347	0	318	0	0
Lane Flow Rate	906	274	370	715	645
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.632	0.729	1	1
Departure Headway (Hd)	6.848	8.297	7.097	7.861	7.36
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	534	439	514	465	497
Service Time	4.907	5.997	4.797	5.637	5.137
HCM Lane V/C Ratio	1.697	0.624	0.72	1.538	1.298
HCM Control Delay	65.7	24.2	26.6	70.4	68
HCM Lane LOS	F	C	D	F	F
HCM 95th-tile Q	14	4.2	6	13	13.5

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

14: Heacock Street & Krameria Avenue-North

7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	230	126	689	108	84	726
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	284	135	851	133	104	896
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	320	286	836	710	382	1332
Arrive On Green	0.18	0.18	0.44	0.44	0.21	0.70
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	284	135	851	133	104	896
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	13.8	6.8	39.6	4.5	4.3	24.0
Cycle Q Clear(g_c), s	13.8	6.8	39.6	4.5	4.3	24.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	320	286	836	710	382	1332
V/C Ratio(X)	0.89	0.47	1.02	0.19	0.27	0.67
Avail Cap(c_a), veh/h	342	305	836	710	382	1332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	33.3	25.2	15.4	29.7	7.6
Incr Delay (d2), s/veh	21.5	0.5	35.8	0.6	1.8	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	3.0	29.0	2.1	2.4	13.5
LnGrp Delay(d),s/veh	57.7	33.7	61.0	16.0	31.5	10.3
LnGrp LOS	E	C	F	B	C	B
Approach Vol, veh/h	419		984			1000
Approach Delay, s/veh	50.0		54.9			12.5
Approach LOS	D		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	45.1				68.6		21.4
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	38.5				62.0		17.0
Max Q Clear Time (g_c+I1), s	6.3	41.6				26.0		15.8
Green Ext Time (p_c), s	0.1	0.0				9.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	3	801	0	0	983
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	4	1128	0	0	1385

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2513	564	0	0	1128	0
Stage 1	1128	-	-	-	-	-
Stage 2	1385	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	27	474	-	-	627	-
Stage 1	275	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	27	474	-	-	627	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	233	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	168	474	627	-
HCM Lane V/C Ratio	-	-	0.008	0.009	-	-
HCM Control Delay (s)	-	-	26.6	12.7	0	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
18: Heacock Street & San Michele Road 7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	52	316	6	19	93	579	0	88	36	636	250	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	451	9	27	133	827	0	126	47	909	357	46
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	529	449	36	467	397	2	550	461	445	1088	925
Arrive On Green	0.05	0.28	0.28	0.02	0.25	0.25	0.00	0.29	0.29	0.25	0.57	0.57
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	1900	1593	1810	1900	1615
Grp Volume(v), veh/h	74	451	9	27	133	827	0	126	47	909	357	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1900	1593	1810	1900	1615
Q Serve(g_s), s	4.8	27.0	0.5	1.8	6.8	29.5	0.0	6.1	2.6	29.5	11.9	1.5
Cycle Q Clear(g_c), s	4.8	27.0	0.5	1.8	6.8	29.5	0.0	6.1	2.6	29.5	11.9	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	529	449	36	467	397	2	550	461	445	1088	925
V/C Ratio(X)	0.78	0.85	0.02	0.75	0.28	2.08	0.00	0.23	0.10	2.04	0.33	0.05
Avail Cap(c_a), veh/h	113	529	449	113	467	397	60	550	461	445	1088	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	41.0	31.4	58.5	36.7	45.3	0.0	32.4	31.2	45.3	13.5	11.3
Incr Delay (d2), s/veh	20.6	12.2	0.0	1.1	0.0	488.1	0.0	1.0	0.4	477.3	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	15.9	0.2	0.9	3.6	67.0	0.0	3.3	1.2	73.7	6.4	0.7
LnGrp Delay(d),s/veh	76.8	53.1	31.4	59.6	36.7	533.4	0.0	33.4	31.7	522.6	14.3	11.4
LnGrp LOS	E	D	C	E	D	F		C	C	F	B	B
Approach Vol, veh/h		534			987			173			1312	
Approach Delay, s/veh		56.0			453.5			32.9			366.4	
Approach LOS		E			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	40.2	6.9	38.9	0.0	74.2	10.8	35.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	29.5	33.5	7.5	29.5	4.0	59.0	7.5	29.5
Max Q Clear Time (g_c+I1), s	31.5	8.1	3.8	29.0	0.0	13.9	6.8	31.5
Green Ext Time (p_c), s	0.0	1.6	0.0	0.3	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	320.7
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	7.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	120	2	9	244	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	160	3	12	325	15

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	674	9	0	0	15	0
Stage 1	9	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	423	1079	-	-	1616	-
Stage 1	1019	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	338	1079	-	-	1616	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	411	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	7.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1079	1616	-
HCM Lane V/C Ratio	-	-	-	0.148	0.201	-
HCM Control Delay (s)	-	-	0	8.9	7.8	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.5	0.8	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	966	18	0	1677	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1062	20	0	1843	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1081	0	2914	1071
Stage 1	-	-	-	-	1071	-
Stage 2	-	-	-	-	1843	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*411	-	*17	*274
Stage 1	-	-	-	-	*259	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*411	-	*17	*274
Mov Cap-2 Maneuver	-	-	-	-	*17	-
Stage 1	-	-	-	-	*259	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	274	-	-	* 411	-
HCM Lane V/C Ratio	0.02	-	-	-	-
HCM Control Delay (s)	18.4	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

21: Cosmos Street & Krameria Avenue-North/Driveway

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	54	33	101	0	23	0	152	5	0	3	6	122
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	78	48	146	0	33	0	220	7	0	4	9	177

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	570	554	97	651	642	7	186	0	0	7	0	0
Stage 1	106	106	-	448	448	-	-	-	-	-	-	-
Stage 2	464	448	-	203	194	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	435	443	965	384	395	1081	1401	-	-	1627	-	-
Stage 1	905	811	-	594	576	-	-	-	-	-	-	-
Stage 2	582	576	-	804	744	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	359	373	965	263	332	1081	1401	-	-	1627	-	-
Mov Cap-2 Maneuver	426	453	-	368	422	-	-	-	-	-	-	-
Stage 1	763	809	-	501	486	-	-	-	-	-	-	-
Stage 2	457	486	-	640	742	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	14.3	7.8	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1401	-	-	618	422	1627	-	-
HCM Lane V/C Ratio	0.157	-	-	0.441	0.079	0.003	-	-
HCM Control Delay (s)	8	-	-	15.3	14.3	7.2	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	2.2	0.3	0	-	-

HCM 2010 AWSC
26: Indian Street & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	48	54	11	0	4	31	72	0	7	56	4
Peak Hour Factor	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.92	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	54	61	12	0	4	35	81	0	8	63	4
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	10	9.3	9.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	83%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	17%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	56	4	48	65	4	31	72	241	81	115
LT Vol	7	0	0	48	0	4	0	0	241	0	0
Through Vol	0	56	0	0	54	0	31	0	0	81	0
RT Vol	0	0	4	0	11	0	0	72	0	0	115
Lane Flow Rate	8	63	4	54	73	4	35	81	271	91	129
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.015	0.111	0.007	0.102	0.125	0.009	0.062	0.127	0.445	0.137	0.169
Departure Headway (Hd)	6.834	6.331	5.626	6.801	6.183	6.863	6.363	5.663	6.037	5.535	4.832
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	525	568	638	529	582	524	565	636	601	652	747
Service Time	4.553	4.05	3.345	4.514	3.896	4.574	4.074	3.374	3.737	3.235	2.532
HCM Lane V/C Ratio	0.015	0.111	0.006	0.102	0.125	0.008	0.062	0.127	0.451	0.14	0.173
HCM Control Delay	9.7	9.8	8.4	10.3	9.8	9.6	9.5	9.2	13.5	9.1	8.5
HCM Lane LOS	A	A	A	B	A	A	A	A	B	A	A
HCM 95th-tile Q	0	0.4	0	0.3	0.4	0	0.2	0.4	2.3	0.5	0.6

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

28: Indian Street & San Michele Road

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	22	796	1222	219	451	50	652	163	202	124	254	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1206	1782	332	683	53	988	247	221	188	385	36
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	420	618	354	1495	632	618	515	437	264	769	69
Arrive On Green	0.02	0.22	0.22	0.20	0.39	0.39	0.17	0.27	0.27	0.15	0.25	0.25
Sat Flow, veh/h	1810	1900	1548	1810	3800	1607	3619	1900	1612	1810	3128	281
Grp Volume(v), veh/h	33	1206	1782	332	683	53	988	247	221	188	228	193
Grp Sat Flow(s),veh/h/ln	1810	1900	1548	1810	1900	1607	1810	1900	1612	1810	1900	1509
Q Serve(g_s), s	2.2	26.5	19.9	21.7	15.9	1.5	20.5	13.1	8.6	11.9	12.3	13.3
Cycle Q Clear(g_c), s	2.2	26.5	19.9	21.7	15.9	1.5	20.5	13.1	8.6	11.9	12.3	13.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	42	420	618	354	1495	632	618	515	437	264	467	371
V/C Ratio(X)	0.78	2.87	2.88	0.94	0.46	0.08	1.60	0.48	0.51	0.71	0.49	0.52
Avail Cap(c_a), veh/h	83	420	618	354	1495	632	618	515	437	264	467	371
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	46.7	14.4	47.5	26.9	8.8	49.8	36.7	14.1	48.9	38.8	39.1
Incr Delay (d2), s/veh	1.1	844.0	848.5	31.6	0.1	0.0	269.8	0.3	0.4	7.5	3.6	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	112.2	154.0	13.9	8.4	0.7	33.4	6.9	3.9	6.5	6.9	6.1
LnGrp Delay(d),s/veh	59.4	890.8	863.0	79.1	27.0	8.9	319.6	37.0	14.5	56.4	42.4	44.3
LnGrp LOS	E	F	F	E	C	A	F	D	B	E	D	D
Approach Vol, veh/h		3021			1068			1456			609	
Approach Delay, s/veh		865.3			42.3			225.3			47.3	
Approach LOS		F			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	38.0	28.0	32.0	25.0	35.0	7.3	52.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	17.5	32.5	23.5	26.5	20.5	29.5	5.5	44.5
Max Q Clear Time (g_c+I1), s	13.9	15.1	23.7	28.5	22.5	15.3	4.2	17.9
Green Ext Time (p_c), s	1.1	1.0	0.0	0.0	0.0	1.2	0.0	22.8

Intersection Summary	
HCM 2010 Ctrl Delay	490.1
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
29: Indian Street & Nandina Avenue 7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	28	54	412	126	35	16	105	821	91	55	1432	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	77	468	180	50	4	150	1173	126	79	2046	75
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	319	271	97	127	108	109	1538	165	102	1648	60
Arrive On Green	0.15	0.17	0.17	0.05	0.07	0.07	0.06	0.46	0.46	0.06	0.45	0.45
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3374	362	1810	3644	133
Grp Volume(v), veh/h	40	77	468	180	50	4	150	660	639	79	1061	1061
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1835	1810	1900	1877
Q Serve(g_s), s	1.4	2.6	9.7	4.0	1.9	0.1	4.5	21.7	21.8	3.2	33.9	33.9
Cycle Q Clear(g_c), s	1.4	2.6	9.7	4.0	1.9	0.1	4.5	21.7	21.8	3.2	33.9	33.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.07
Lane Grp Cap(c), veh/h	279	319	271	97	127	108	109	866	837	102	859	849
V/C Ratio(X)	0.14	0.24	1.73	1.87	0.39	0.04	1.38	0.76	0.76	0.78	1.23	1.25
Avail Cap(c_a), veh/h	279	608	517	97	608	517	109	866	837	109	859	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	27.4	27.1	18.4	35.5	33.5	20.8	35.3	17.0	17.0	34.9	20.5	20.5
Incr Delay (d2), s/veh	0.1	0.1	340.0	426.1	0.7	0.1	218.8	6.3	6.6	2.7	106.4	113.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	29.9	13.4	1.0	0.1	8.8	12.9	12.5	1.7	43.0	44.1
LnGrp Delay(d),s/veh	27.5	27.2	358.3	461.6	34.3	20.8	254.1	23.3	23.6	37.6	126.9	133.8
LnGrp LOS	C	C	F	F	C	C	F	C	C	D	F	F
Approach Vol, veh/h		585			234			1449			2200	
Approach Delay, s/veh		292.1			362.7			47.3			127.0	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	39.7	8.5	18.1	9.0	39.4	16.1	10.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	22.5	4.0	24.0	4.5	22.5	4.0	24.0
Max Q Clear Time (g_c+I1), s	5.2	23.8	6.0	11.7	6.5	35.9	3.4	3.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	135.1
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	507	370	138	23	750	11	188	305	16	59	398	936
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	658	481	179	30	974	14	244	396	21	77	517	1211
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1381	2076	1765	42	1278	18	152	1341	570	132	640	544
Arrive On Green	0.76	1.00	1.00	0.02	0.34	0.34	0.04	0.35	0.35	0.04	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3736	54	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	658	481	179	30	495	493	244	396	21	77	517	1211
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1890	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	12.9	0.0	0.0	1.6	22.0	22.0	4.0	7.2	0.8	2.0	23.6	32.0
Cycle Q Clear(g_c), s	12.9	0.0	0.0	1.6	22.0	22.0	4.0	7.2	0.8	2.0	23.6	32.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1381	2076	1765	42	650	646	152	1341	570	132	640	544
V/C Ratio(X)	0.48	0.23	0.10	0.72	0.76	0.76	1.60	0.30	0.04	0.58	0.81	2.23
Avail Cap(c_a), veh/h	1381	2076	1765	99	650	646	152	1341	570	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.2	0.0	0.0	46.1	27.8	27.8	45.5	22.2	20.2	45.0	28.7	31.5
Incr Delay (d2), s/veh	0.1	0.3	0.1	8.4	8.2	8.3	299.0	0.6	0.1	1.7	10.5	557.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.2	0.1	0.9	13.0	13.0	8.3	3.8	0.4	1.0	14.2	98.5
LnGrp Delay(d),s/veh	4.3	0.3	0.1	54.5	36.0	36.1	344.5	22.8	20.3	46.7	39.2	589.2
LnGrp LOS	A	A	A	D	D	D	F	C	C	D	D	F
Approach Vol, veh/h		1318			1018			661			1805	
Approach Delay, s/veh		2.2			36.6			141.5			408.5	
Approach LOS		A			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	111.3	9.5	37.5	80.0	38.0	8.0	39.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	3.6	2.0	6.0	34.0	14.9	24.0	4.0	9.2
Green Ext Time (p_c), s	0.0	3.0	0.0	0.0	0.0	2.5	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	181.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Volume (veh/h)	226	1080	391	102	568	141	274	1140	136	197	1458	84
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	231	1102	378	104	580	135	280	1163	128	201	1488	75
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	911	307	1431	3249	754	174	1381	152	188	1021	434
Arrive On Green	0.05	0.33	0.33	0.79	1.00	1.00	0.10	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1810	2718	917	1810	2984	693	1810	5046	555	1810	3800	1615
Grp Volume(v), veh/h	231	765	715	104	369	346	280	876	415	201	1488	75
Grp Sat Flow(s),veh/h/ln	1810	1900	1735	1810	1900	1777	1810	1900	1801	1810	1900	1615
Q Serve(g_s), s	4.0	26.8	26.8	1.0	0.0	0.0	7.7	17.4	17.4	8.3	21.5	5.2
Cycle Q Clear(g_c), s	4.0	26.8	26.8	1.0	0.0	0.0	7.7	17.4	17.4	8.3	21.5	5.2
Prop In Lane	1.00		0.53	1.00		0.39	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	90	637	581	1431	2068	1934	174	1040	493	188	1021	434
V/C Ratio(X)	2.55	1.20	1.23	0.07	0.18	0.18	1.61	0.84	0.84	1.07	1.46	0.17
Avail Cap(c_a), veh/h	90	637	581	1431	2068	1934	174	1040	493	188	1021	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	26.6	26.6	1.9	0.0	0.0	36.2	27.4	27.4	35.8	29.2	73.3
Incr Delay (d2), s/veh	730.2	105.2	118.2	0.0	0.2	0.2	298.5	8.2	15.9	85.7	211.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.3	32.6	31.8	0.5	0.1	0.1	18.3	10.3	10.8	8.6	41.2	2.4
LnGrp Delay(d),s/veh	768.2	131.8	144.8	1.9	0.2	0.2	334.6	35.7	43.3	121.5	240.4	74.2
LnGrp LOS	F	F	F	A	A	A	F	D	D	F	F	E
Approach Vol, veh/h		1711			819			1571			1764	
Approach Delay, s/veh		223.2			0.4			91.0			219.8	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	70.1	32.3	13.2	27.0	8.5	93.9	12.8	27.4
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 27	7.7	* 22	4.0	26.8	8.3	20.9
Max Q Clear Time (g_c+I1), s	3.0	28.8	9.7	23.5	6.0	2.0	10.3	19.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	155.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue 7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	62	166	67	238	121	134	60	1361	209	211	1247	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	195	50	280	142	99	71	1601	232	248	1467	65
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	225	266	331	347	288	148	1937	280	143	2143	95
Arrive On Green	0.16	0.16	0.16	0.18	0.18	0.18	0.08	0.40	0.40	0.08	0.40	0.40
Sat Flow, veh/h	511	1364	1612	1810	1900	1579	1810	4862	702	1810	5414	240
Grp Volume(v), veh/h	268	0	50	280	142	99	71	1250	583	248	1030	502
Grp Sat Flow(s),veh/h/ln	1874	0	1612	1810	1900	1579	1810	1900	1765	1810	1900	1854
Q Serve(g_s), s	16.7	0.0	3.2	18.0	7.9	6.6	4.5	35.4	35.6	9.5	26.9	27.0
Cycle Q Clear(g_c), s	16.7	0.0	3.2	18.0	7.9	6.6	4.5	35.4	35.6	9.5	26.9	27.0
Prop In Lane	0.27		1.00	1.00		1.00	1.00		0.40	1.00		0.13
Lane Grp Cap(c), veh/h	309	0	266	331	347	288	148	1514	703	143	1504	734
V/C Ratio(X)	0.87	0.00	0.19	0.85	0.41	0.34	0.48	0.83	0.83	1.73	0.68	0.68
Avail Cap(c_a), veh/h	469	0	403	452	475	395	148	1514	703	143	1504	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.8	0.0	43.2	47.4	43.3	42.8	52.7	32.4	32.4	55.3	30.0	30.0
Incr Delay (d2), s/veh	7.2	0.0	0.1	8.1	0.3	0.3	10.8	5.3	10.9	356.5	2.6	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	1.4	9.7	4.2	2.9	2.7	19.7	19.5	18.9	14.7	14.9
LnGrp Delay(d),s/veh	56.0	0.0	43.3	55.5	43.6	43.0	63.4	37.7	43.4	411.7	32.6	35.2
LnGrp LOS	E		D	E	D	D	E	D	D	F	C	D
Approach Vol, veh/h		318			521			1904			1780	
Approach Delay, s/veh		54.0			49.9			40.4			86.2	
Approach LOS		D			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	53.3		25.3	14.3	53.0		27.4
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	11.5	37.6		18.7	6.5	29.0		20.0
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	0.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	60.4
HCM 2010 LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (vph)	0	579	124	580	2468	0	0	0	1130	0	0	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	609	131	611	2598	0	0	0	1189	0	0	565
RTOR Reduction (vph)	0	0	89	0	0	0	0	0	440	0	0	94
Lane Group Flow (vph)	0	609	42	611	2598	0	0	0	749	0	0	471
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		19.2	19.2	15.3	38.5				10.4			12.0
Effective Green, g (s)		19.2	19.2	15.3	38.5				10.4			12.0
Actuated g/C Ratio		0.32	0.32	0.26	0.64				0.17			0.20
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		1216	608	484	2438				329			380
v/s Ratio Prot		0.16		c0.32	c0.68				c0.39			0.25
v/s Ratio Perm			0.02									
v/c Ratio		0.50	0.07	1.26	1.07				2.28			1.24
Uniform Delay, d1		16.5	14.2	22.4	10.8				24.8			24.0
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		1.5	0.2	133.9	38.7				584.4			127.9
Delay (s)		18.0	14.4	156.2	49.4				609.2			151.9
Level of Service		B	B	F	D				F			F
Approach Delay (s)		17.4			69.8			609.2			151.9	
Approach LOS		B			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	183.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.47		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	109.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	524	43	248	288	0	0	0	0	1541	2	386
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	557	41	264	306	0				1639	2	347
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	302	1742	0				828	1	740
Arrive On Green	0.00	0.25	0.25	0.33	0.92	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1807	2	1615
Grp Volume(v), veh/h	0	557	41	264	306	0				1641	0	347
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	15.5	2.3	16.5	1.0	0.0				55.0	0.0	17.8
Cycle Q Clear(g_c), s	0.0	15.5	2.3	16.5	1.0	0.0				55.0	0.0	17.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	950	404	302	1742	0				829	0	740
V/C Ratio(X)	0.00	0.59	0.10	0.88	0.18	0.00				1.98	0.00	0.47
Avail Cap(c_a), veh/h	0	950	404	309	1742	0				829	0	740
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.97	0.97	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	39.5	34.6	38.8	2.7	0.0				32.5	0.0	22.4
Incr Delay (d2), s/veh	0.0	2.6	0.5	21.6	0.2	0.0				444.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.5	1.1	10.0	0.5	0.0				129.9	0.0	8.0
LnGrp Delay(d),s/veh	0.0	42.2	35.1	60.4	3.0	0.0				477.2	0.0	22.9
LnGrp LOS		D	D	E	A					F		C
Approach Vol, veh/h		598			570						1988	
Approach Delay, s/veh		41.7			29.6						397.9	
Approach LOS		D			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	25.0	35.0		60.0		60.0		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	20.5	* 30		55.0		55.0		
Max Q Clear Time (g_c+I1), s	18.5	17.5		57.0		3.0		
Green Ext Time (p_c), s	0.4	1.9		0.0		1.4		

Intersection Summary	
HCM 2010 Ctrl Delay	263.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av. 7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	39	1569	101	0	2688	247	878	345	36	52	0	73
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	1601	97	0	2743	208	896	352	37	53	0	69
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1987	120	0	1956	146	454	483	51	210	0	456
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	85	3549	214	0	3493	261	1353	1688	177	1010	0	1593
Grp Volume(v), veh/h	40	853	845	0	1476	1476	896	0	389	53	0	69
Grp Sat Flow(s),veh/h/ln	85	1900	1862	0	1900	1854	1353	0	1866	1010	0	1593
Q Serve(g_s), s	0.0	23.3	23.8	0.0	36.4	36.4	16.5	0.0	12.2	3.2	0.0	2.1
Cycle Q Clear(g_c), s	36.4	23.3	23.8	0.0	36.4	36.4	18.6	0.0	12.2	15.5	0.0	2.1
Prop In Lane	1.00		0.11	0.00		0.14	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	111	1064	1043	0	1064	1038	454	0	534	210	0	456
V/C Ratio(X)	0.36	0.80	0.81	0.00	1.39	1.42	1.97	0.00	0.73	0.25	0.00	0.15
Avail Cap(c_a), veh/h	111	1064	1043	0	1064	1038	454	0	534	210	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	11.4	11.5	0.0	14.3	14.3	26.3	0.0	20.9	27.9	0.0	17.3
Incr Delay (d2), s/veh	8.9	6.4	6.8	0.0	179.9	195.2	445.6	0.0	8.5	2.9	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	14.0	14.0	0.0	71.8	74.5	64.3	0.0	7.5	1.1	0.0	1.0
LnGrp Delay(d),s/veh	41.4	17.8	18.4	0.0	194.2	209.5	471.9	0.0	29.4	30.8	0.0	18.0
LnGrp LOS	D	B	B		F	F	F		C	C		B
Approach Vol, veh/h		1738			2951			1285			122	
Approach Delay, s/veh		18.6			201.9			337.9			23.6	
Approach LOS		B			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		38.4		17.5		38.4		20.6
Green Ext Time (p_c), s		0.0		0.6		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	174.7
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	314	1750	0	0	450	646	84	0	393	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	341	1902	0	0	489	667	91	0	341			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	363	2755	0	0	1881	799	347	0	310			
Arrive On Green	0.40	1.00	0.00	0.00	0.49	0.49	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	341	1902	0	0	489	667	91	0	341			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	21.7	0.0	0.0	0.0	9.0	42.6	5.1	0.0	23.0			
Cycle Q Clear(g_c), s	21.7	0.0	0.0	0.0	9.0	42.6	5.1	0.0	23.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	363	2755	0	0	1881	799	347	0	310			
V/C Ratio(X)	0.94	0.69	0.00	0.00	0.26	0.83	0.26	0.00	1.10			
Avail Cap(c_a), veh/h	550	2755	0	0	1881	799	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.78	0.78	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.2	0.0	0.0	0.0	17.6	26.1	41.3	0.0	48.5			
Incr Delay (d2), s/veh	12.3	1.1	0.0	0.0	0.3	10.0	1.8	0.0	81.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	12.0	0.4	0.0	0.0	4.8	21.1	2.8	0.0	17.2			
LnGrp Delay(d),s/veh	47.4	1.1	0.0	0.0	17.9	36.1	43.1	0.0	129.7			
LnGrp LOS	D	A			B	D	D		F			
Approach Vol, veh/h		2243			1156			432				
Approach Delay, s/veh		8.2			28.4			111.5				
Approach LOS		A			C			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			27.6	64.4		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			23.7	44.6		25.0
Green Ext Time (p_c), s		26.7			0.4	2.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.9
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue

7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Volume (veh/h)	220	2300	256	115	2599	118	59	245	23	109	128	130
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	2421	0	121	2736	116	62	258	3	115	135	84
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2404	681	119	2280	646	445	461	5	166	174	287
Arrive On Green	0.09	0.42	0.00	0.07	0.40	0.40	0.25	0.25	0.25	0.09	0.09	0.09
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1874	22	1810	1900	1592
Grp Volume(v), veh/h	232	2421	0	121	2736	116	62	0	261	115	135	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1896	1810	1900	1592
Q Serve(g_s), s	10.5	50.6	0.0	7.9	48.0	5.6	3.2	0.0	14.4	7.4	8.3	5.5
Cycle Q Clear(g_c), s	10.5	50.6	0.0	7.9	48.0	5.6	3.2	0.0	14.4	7.4	8.3	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	158	2404	681	119	2280	646	445	0	466	166	174	287
V/C Ratio(X)	1.47	1.01	0.00	1.02	1.20	0.18	0.14	0.00	0.56	0.69	0.78	0.29
Avail Cap(c_a), veh/h	158	2404	681	119	2280	646	445	0	466	445	467	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	34.7	0.0	56.0	36.0	23.3	35.3	0.0	39.6	52.9	53.3	42.7
Incr Delay (d2), s/veh	240.5	20.1	0.0	86.7	94.4	0.0	0.7	0.0	4.8	1.9	2.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	31.0	0.0	6.8	45.1	2.5	1.7	0.0	8.2	3.8	4.5	2.4
LnGrp Delay(d),s/veh	295.3	54.8	0.0	142.9	130.4	23.3	36.0	0.0	44.4	54.8	56.1	42.9
LnGrp LOS	F	F		F	F	C	D		D	D	E	D
Approach Vol, veh/h		2653			2973			323			334	
Approach Delay, s/veh		75.8			126.7			42.8			52.3	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	56.1		16.5	15.0	53.5		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	9.9	52.6		10.3	12.5	50.0		16.4
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	97.0
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

6: Cactus Avenue & Frederick Street

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	220	1930	2867	227	175	93
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	242	2121	3151	239	192	46
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	644	3513	2978	826	814	938
Arrive On Green	0.36	0.92	0.52	0.52	0.22	0.22
Sat Flow, veh/h	1810	3800	5700	1580	3619	1615
Grp Volume(v), veh/h	242	2121	3151	239	192	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1580	1810	1615
Q Serve(g_s), s	11.9	11.5	62.7	10.2	5.2	0.0
Cycle Q Clear(g_c), s	11.9	11.5	62.7	10.2	5.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	644	3513	2978	826	814	938
V/C Ratio(X)	0.38	0.60	1.06	0.29	0.24	0.05
Avail Cap(c_a), veh/h	644	3513	2978	826	814	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.8	28.6	16.1	38.1	10.8
Incr Delay (d2), s/veh	0.1	0.8	27.1	0.1	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	6.0	40.3	4.5	2.7	1.5
LnGrp Delay(d),s/veh	28.9	1.6	55.7	16.2	38.7	10.9
LnGrp LOS	C	A	F	B	D	B
Approach Vol, veh/h		2363	3390		238	
Approach Delay, s/veh		4.3	52.9		33.4	
Approach LOS		A	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		116.6		32.5	48.4	68.2		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	14.8	* 63		
Max Q Clear Time (g_c+I1), s		13.5		7.2	13.9	64.7		
Green Ext Time (p_c), s		18.3		0.4	0.1	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 TWSC
Moreno Valley Logistics Center TIA (JN 09301)
7: Harley Knox Blvd. & Western Way
7/13/2015

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	62	2082	1053	39	9	44
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	69	2313	1170	43	10	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1170	0	-	0	2464	585
Stage 1	-	-	-	-	1170	-
Stage 2	-	-	-	-	1294	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	604	-	-	-	*143	459
Stage 1	-	-	-	-	*261	-
Stage 2	-	-	-	-	*199	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	604	-	-	-	*143	459
Mov Cap-2 Maneuver	-	-	-	-	*143	-
Stage 1	-	-	-	-	*261	-
Stage 2	-	-	-	-	*199	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	604	-	-	-	334
HCM Lane V/C Ratio	0.114	-	-	-	0.176
HCM Control Delay (s)	11.7	0	-	-	18.1
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	151	1879	271	32	2538	126	211	91	24	94	95	121
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	2020	0	34	2729	133	227	98	23	101	102	95
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1478	4392	1867	47	1904	91	170	952	216	85	1252	1844
Arrive On Green	0.82	1.00	0.00	0.03	0.35	0.35	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5395	259	3619	2997	681	1810	3800	1593
Grp Volume(v), veh/h	162	2020	0	34	1909	953	227	61	60	101	102	95
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1854	1810	1900	1778	1810	1900	1593
Q Serve(g_s), s	1.5	0.0	0.0	1.6	30.0	30.0	4.0	1.9	2.0	4.0	1.6	0.4
Cycle Q Clear(g_c), s	1.5	0.0	0.0	1.6	30.0	30.0	4.0	1.9	2.0	4.0	1.6	0.4
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	1478	4392	1867	47	1341	654	170	604	565	85	1252	1844
V/C Ratio(X)	0.11	0.46	0.00	0.72	1.42	1.46	1.33	0.10	0.11	1.19	0.08	0.05
Avail Cap(c_a), veh/h	1478	4392	1867	85	1341	654	170	604	565	85	1252	1844
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.12	0.12	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	1.6	0.0	0.0	41.1	27.5	27.5	40.5	20.4	20.5	40.5	19.6	6.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.7	191.0	205.9	184.2	0.3	0.4	156.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.8	51.2	52.7	6.3	1.1	1.0	5.7	0.8	0.8
LnGrp Delay(d),s/veh	1.6	0.0	0.0	41.8	218.5	233.4	224.7	20.8	20.9	196.5	19.8	6.8
LnGrp LOS	A	A		D	F	F	F	C	C	F	B	A
Approach Vol, veh/h		2182			2896			348			298	
Approach Delay, s/veh		0.2			221.3			153.8			75.6	
Approach LOS		A			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	105.3	8.5	33.5	76.5	35.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	* 27
Max Q Clear Time (g_c+I1), s	3.6	2.0	6.0	3.6	3.5	32.0	6.0	4.0
Green Ext Time (p_c), s	0.0	12.7	0.0	0.6	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	125.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

9: Patterson Avenue & Harley Knox Boulevard

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			✥			↰↑	↱
Volume (veh/h)	84	1967	23	10	969	2	133	0	36	0	2	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	2071	24	11	1020	2	140	0	38	0	2	21
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	783	665	20	685	1	475	12	105	0	643	547
Arrive On Green	0.06	0.41	0.41	0.01	0.36	0.36	0.34	0.00	0.34	0.00	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	1896	4	1112	36	311	0	1900	1615
Grp Volume(v), veh/h	88	2071	24	11	0	1022	178	0	0	0	2	21
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1459	0	0	0	1900	1615
Q Serve(g_s), s	3.1	26.8	0.6	0.4	0.0	23.5	5.3	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	3.1	26.8	0.6	0.4	0.0	23.5	5.9	0.0	0.0	0.0	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.00	0.79		0.21	0.00		1.00
Lane Grp Cap(c), veh/h	111	783	665	20	0	687	593	0	0	0	643	547
V/C Ratio(X)	0.79	2.65	0.04	0.55	0.00	1.49	0.30	0.00	0.00	0.00	0.00	0.04
Avail Cap(c_a), veh/h	111	783	665	111	0	687	593	0	0	0	643	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	19.1	11.4	32.0	0.0	20.8	16.1	0.0	0.0	0.0	14.2	14.4
Incr Delay (d2), s/veh	28.7	744.2	0.0	8.4	0.0	227.5	1.3	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	175.7	0.3	0.2	0.0	55.6	2.6	0.0	0.0	0.0	0.0	0.3
LnGrp Delay(d),s/veh	58.8	763.3	11.4	40.4	0.0	248.2	17.4	0.0	0.0	0.0	14.2	14.5
LnGrp LOS	E	F	B	D		F	B				B	B
Approach Vol, veh/h		2183			1033			178			23	
Approach Delay, s/veh		726.7			246.0			17.4			14.5	
Approach LOS		F			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		27.5	5.2	32.3		27.5	8.5	29.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		7.9	2.4	28.8		2.6	5.1	25.5
Green Ext Time (p_c), s		0.6	0.0	0.0		0.7	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			539.6
HCM 2010 LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	140	1011	706	56	1795	147	928	609	24	72	428	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	1099	690	61	1951	151	1009	662	24	78	465	57
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	2462	1045	72	2200	168	695	1444	52	100	831	101
Arrive On Green	0.06	0.65	0.65	0.04	0.63	0.63	0.19	0.40	0.40	0.06	0.25	0.25
Sat Flow, veh/h	1810	3800	1613	1810	3487	266	3619	3642	132	1810	3322	405
Grp Volume(v), veh/h	152	1099	690	61	1051	1051	1009	345	341	78	265	257
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1853	1810	1900	1874	1810	1900	1827
Q Serve(g_s), s	5.7	14.3	29.2	3.3	45.7	48.4	19.2	13.4	13.4	4.3	12.2	12.3
Cycle Q Clear(g_c), s	5.7	14.3	29.2	3.3	45.7	48.4	19.2	13.4	13.4	4.3	12.2	12.3
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.07	1.00		0.22
Lane Grp Cap(c), veh/h	103	2462	1045	72	1199	1169	695	754	743	100	475	457
V/C Ratio(X)	1.47	0.45	0.66	0.84	0.88	0.90	1.45	0.46	0.46	0.78	0.56	0.56
Avail Cap(c_a), veh/h	103	2462	1045	72	1199	1169	695	754	743	121	475	457
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.2	8.7	13.3	47.7	15.2	15.7	40.4	22.2	22.3	46.6	32.7	32.7
Incr Delay (d2), s/veh	217.9	0.1	0.3	53.8	9.2	11.0	210.4	1.7	1.8	18.3	4.7	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	7.5	12.9	2.8	26.7	27.8	29.9	7.4	7.3	2.6	6.9	6.8
LnGrp Delay(d),s/veh	265.1	8.8	13.6	101.5	24.4	26.7	250.8	24.0	24.0	64.9	37.4	37.7
LnGrp LOS	F	A	B	F	C	C	F	C	C	E	D	D
Approach Vol, veh/h		1941			2163			1695			600	
Approach Delay, s/veh		30.6			27.7			159.0			41.1	
Approach LOS		C			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	71.3	24.7	30.5	10.2	69.6	10.0	45.2
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	31.8	19.2	* 25	5.7	30.1	6.7	37.5
Max Q Clear Time (g_c+I1), s	5.3	31.2	21.2	14.3	7.7	50.4	6.3	15.4
Green Ext Time (p_c), s	0.0	0.6	0.0	1.4	0.0	0.0	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	64.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary   Moreno Valley Logistics Center TIA (JN 09301)
11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	8	54	85	45	130	312	82	938	58	165	757	19
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.95	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	59	47	49	141	178	89	1020	48	179	823	14
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	248	211	62	296	249	115	1164	468	482	1982	832
Arrive On Green	0.01	0.13	0.13	0.03	0.16	0.16	0.06	0.31	0.31	0.27	0.52	0.52
Sat Flow, veh/h	1810	1900	1615	1810	1900	1599	1810	3800	1527	1810	3800	1594
Grp Volume(v), veh/h	9	59	47	49	141	178	89	1020	48	179	823	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1599	1810	1900	1527	1810	1900	1594
Q Serve(g_s), s	0.4	2.2	2.1	2.1	5.4	8.5	3.9	20.4	1.4	6.4	10.6	0.3
Cycle Q Clear(g_c), s	0.4	2.2	2.1	2.1	5.4	8.5	3.9	20.4	1.4	6.4	10.6	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	248	211	62	296	249	115	1164	468	482	1982	832
V/C Ratio(X)	0.55	0.24	0.22	0.79	0.48	0.71	0.77	0.88	0.10	0.37	0.42	0.02
Avail Cap(c_a), veh/h	90	589	501	118	618	520	190	1164	468	482	1982	832
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	39.5	31.2	31.1	38.3	30.8	32.1	36.9	26.3	11.8	23.9	11.7	9.2
Incr Delay (d2), s/veh	10.2	0.2	0.2	7.9	0.4	1.4	4.2	9.4	0.4	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.2	0.9	1.2	2.9	3.8	2.1	12.1	0.6	3.2	5.6	0.2
LnGrp Delay(d),s/veh	49.7	31.4	31.3	46.2	31.2	33.5	41.1	35.7	12.2	24.0	12.1	9.3
LnGrp LOS	D	C	C	D	C	C	D	D	B	C	B	A
Approach Vol, veh/h		115			368			1157			1016	
Approach Delay, s/veh		32.8			34.3			35.1			14.1	
Approach LOS		C			C			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	30.0	7.3	15.9	9.6	47.2	5.2	18.0
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.5	* 25	5.2	24.8	8.4	21.6	4.0	26.0
Max Q Clear Time (g_c+I1), s	8.4	22.4	4.1	4.2	5.9	12.6	2.4	10.5
Green Ext Time (p_c), s	0.0	1.0	0.0	1.3	0.0	2.6	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	4	110	786	3	67	811
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	116	827	3	71	854

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1822	827	0	0	827	0
Stage 1	827	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	86	375	-	-	813	-
Stage 1	433	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	78	375	-	-	813	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	329	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	78	375	813	-
HCM Lane V/C Ratio	-	-	0.054	0.309	0.087	-
HCM Control Delay (s)	-	-	53.8	18.8	9.8	-
HCM Lane LOS	-	-	F	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	1.3	0.3	-

Intersection	
Intersection Delay, s/veh	57.2
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	340	473	0	367	212	0	271	590
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	362	503	0	390	226	0	288	628
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	51.8	67	55.7
HCM LOS	F	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	63%	0%	0%	0%	100%
Vol Right, %	37%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	579	340	473	271	590
LT Vol	0	340	0	271	0
Through Vol	367	0	0	0	590
RT Vol	212	0	473	0	0
Lane Flow Rate	616	362	503	288	628
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.824	0.979	0.661	1
Departure Headway (Hd)	7.085	8.203	7.004	8.257	7.757
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	511	441	518	441	471
Service Time	5.182	5.926	4.726	5.957	5.457
HCM Lane V/C Ratio	1.205	0.821	0.971	0.653	1.333
HCM Control Delay	67	39.3	60.8	25.6	69.5
HCM Lane LOS	F	E	F	D	F
HCM 95th-tile Q	13.7	7.8	13.1	4.7	13.2

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	113	132	492	259	259	671
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	163	607	320	320	828
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	236	211	715	608	491	1353
Arrive On Green	0.13	0.13	0.38	0.38	0.27	0.71
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	140	163	607	320	320	828
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	5.1	6.8	20.5	10.8	11.0	15.6
Cycle Q Clear(g_c), s	5.1	6.8	20.5	10.8	11.0	15.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	236	211	715	608	491	1353
V/C Ratio(X)	0.59	0.77	0.85	0.53	0.65	0.61
Avail Cap(c_a), veh/h	439	392	715	608	491	1353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	29.4	20.0	17.0	22.6	5.1
Incr Delay (d2), s/veh	0.9	2.3	12.0	3.2	6.6	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	3.2	13.0	5.3	6.3	8.8
LnGrp Delay(d),s/veh	29.6	31.7	32.0	20.2	29.1	7.2
LnGrp LOS	C	C	C	C	C	A
Approach Vol, veh/h	303		927			1148
Approach Delay, s/veh	30.7		27.9			13.3
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	31.9				55.4		14.6
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	13.0	22.5				17.6		8.8
Green Ext Time (p_c), s	0.2	0.0				6.6		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	21.2
HCM 2010 LOS	C

15: Heacock Street & Driveway 1

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	9	742	35	44	739
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	10	807	38	48	803

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1725	422	0	0	845	0
Stage 1	826	-	-	-	-	-
Stage 2	899	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	90	586	-	-	800	-
Stage 1	395	-	-	-	-	-
Stage 2	401	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	85	586	-	-	800	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	395	-	-	-	-	-
Stage 2	377	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	379	800	-
HCM Lane V/C Ratio	-	-	0.049	0.06	-
HCM Control Delay (s)	-	-	15	9.8	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

16: Heacock Street & Driveway 2

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	8	10	767	35	43	704
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	11	834	38	47	765

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1712	436	0	0	872	0
Stage 1	853	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	92	574	-	-	782	-
Stage 1	383	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	86	574	-	-	782	-
Mov Cap-2 Maneuver	273	-	-	-	-	-
Stage 1	383	-	-	-	-	-
Stage 2	393	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.9	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	385	782	-
HCM Lane V/C Ratio	-	-	0.051	0.06	-
HCM Control Delay (s)	-	-	14.9	9.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

HCM 2010 TWSC
Moreno Valley Logistics Center TIA (JN 09301)

17: Heacock Street & Cardinal Avenue

7/13/2015

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	11	10	753	53	45	648
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	14	1061	75	63	913

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2100	530	0	0	1061	0
Stage 1	1061	-	-	-	-	-
Stage 2	1039	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	51	499	-	-	664	-
Stage 1	298	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	499	-	-	664	-
Mov Cap-2 Maneuver	207	-	-	-	-	-
Stage 1	298	-	-	-	-	-
Stage 2	311	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.4	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	207	499	664	-
HCM Lane V/C Ratio	-	-	0.075	0.028	0.095	-
HCM Control Delay (s)	-	-	23.8	12.4	11	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.3	-

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	28	76	4	40	310	716	1	55	11	443	104	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	37	101	2	53	413	888	1	73	15	591	139	62
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	143	121	409	522	444	2	618	525	297	946	804
Arrive On Green	0.03	0.08	0.08	0.23	0.28	0.28	0.00	0.32	0.32	0.16	0.50	0.50
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	37	101	2	53	413	888	1	73	15	591	139	62
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	2.0	5.2	0.1	2.3	20.1	27.5	0.1	2.7	0.6	16.4	4.0	1.5
Cycle Q Clear(g_c), s	2.0	5.2	0.1	2.3	20.1	27.5	0.1	2.7	0.6	16.4	4.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	143	121	409	523	444	2	618	525	297	946	804
V/C Ratio(X)	0.79	0.71	0.02	0.13	0.79	2.00	0.50	0.12	0.03	1.99	0.15	0.08
Avail Cap(c_a), veh/h	100	551	468	409	523	444	81	618	525	297	946	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	45.2	34.0	30.9	33.6	36.3	49.9	23.7	23.0	41.8	13.6	7.4
Incr Delay (d2), s/veh	10.4	2.4	0.0	0.0	0.7	450.5	58.7	0.4	0.1	457.5	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.8	0.0	1.2	10.7	67.8	0.1	1.5	0.3	45.9	2.2	0.7
LnGrp Delay(d),s/veh	58.8	47.6	34.0	30.9	34.3	486.7	108.6	24.1	23.1	499.3	13.9	7.5
LnGrp LOS	E	D	C	C	C	F	F	C	C	F	B	A
Approach Vol, veh/h		140			1354			89			792	
Approach Delay, s/veh		50.4			330.9			24.9			375.6	
Approach LOS		D			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	38.0	27.1	13.0	4.6	55.3	7.1	33.0
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	18.4	4.7	4.3	7.2	2.1	6.0	4.0	29.5
Green Ext Time (p_c), s	0.0	0.2	0.0	0.3	0.0	1.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	317.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

19: Heacock Street & Nandina Avenue

Intersection	
Int Delay, s/veh	7.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	62	0	2	139	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	66	0	2	148	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	298	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	698	1090	-	-	1634	-
Stage 1	1028	-	-	-	-	-
Stage 2	758	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	635	1090	-	-	1634	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	689	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	7.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1090	1634	-
HCM Lane V/C Ratio	-	-	-	0.061	0.09	-
HCM Control Delay (s)	-	-	0	8.5	7.4	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.3	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1723	30	0	817	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2154	38	0	1021	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2191	0	3194	2173
Stage 1	-	-	-	-	2173	-
Stage 2	-	-	-	-	1021	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	-	-	11	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	309	-
Platoon blocked, %	-	-	2	-		2
Mov Cap-1 Maneuver	-	-	-	-	11	-
Mov Cap-2 Maneuver	-	-	-	-	11	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	309	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	
HCM LOS			-

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	-	0	-
HCM Lane LOS	-	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

21: Cosmos Street & Krameria Avenue-North/Driveway

Intersection	
Int Delay, s/veh	16.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	97	45	329	0	10	0	167	6	7	3	1	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	55	401	0	12	0	204	7	9	4	1	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	464	458	35	686	492	7	70	0	0	7	0	0
Stage 1	43	43	-	415	415	-	-	-	-	-	-	-
Stage 2	421	415	-	271	77	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	512	502	1044	364	481	1081	1544	-	-	1627	-	-
Stage 1	976	863	-	619	596	-	-	-	-	-	-	-
Stage 2	614	596	-	739	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	451	435	1044	184	416	1081	1544	-	-	1627	-	-
Mov Cap-2 Maneuver	488	485	-	209	478	-	-	-	-	-	-	-
Stage 1	847	861	-	537	517	-	-	-	-	-	-	-
Stage 2	520	517	-	425	833	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.6	12.7	7.1	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	776	478	1627	-	-
HCM Lane V/C Ratio	0.132	-	-	0.74	0.026	0.002	-	-
HCM Control Delay (s)	7.7	-	-	21.6	12.7	7.2	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	6.7	0.1	0	-	-

22: Cosmos Street & Driveway/Krameria Avenue

7/16/2015

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	7	1	0	0	16	6	159	0	0	14	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	1	0	0	17	7	173	0	0	15	3
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	9	9.1	8.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	88%	100%	0%	100%	0%
Vol Thru, %	82%	12%	0%	4%	0%	65%
Vol Right, %	18%	0%	0%	96%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	8	16	165	237	92
LT Vol	0	7	16	0	237	0
Through Vol	14	1	0	6	0	60
RT Vol	3	0	0	159	0	32
Lane Flow Rate	18	9	17	179	258	100
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.027	0.014	0.029	0.24	0.395	0.133
Departure Headway (Hd)	5.33	5.885	5.994	4.812	5.52	4.774
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	669	607	598	746	652	749
Service Time	3.386	3.933	3.724	2.542	3.261	2.515
HCM Lane V/C Ratio	0.027	0.015	0.028	0.24	0.396	0.134
HCM Control Delay	8.5	9	8.9	9.1	11.8	8.3
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.1	0	0.1	0.9	1.9	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	237	60	32
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	258	65	35
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.8
HCM LOS	B

Lane

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	188	54	10	169	13	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	204	59	11	184	14	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	263	0	439	234
Stage 1	-	-	-	-	234	-
Stage 2	-	-	-	-	205	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1313	-	579	810
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	834	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1313	-	574	810
Mov Cap-2 Maneuver	-	-	-	-	699	-
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	1313	-
HCM Lane V/C Ratio	0.023	-	-	0.008	-
HCM Control Delay (s)	10.2	-	-	7.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

24: Driveway 4 & Krameria Avenue

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	171	19	16	175	4	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	186	21	17	190	4	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	207	0	421	196
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	225	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1376	-	593	850
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	817	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1376	-	586	850
Mov Cap-2 Maneuver	-	-	-	-	706	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	807	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	761	-	-	1376	-
HCM Lane V/C Ratio	0.01	-	-	0.013	-
HCM Control Delay (s)	9.8	-	-	7.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

25: Driveway 5 & Krameria Avenue

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	127	47	16	180	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	138	51	17	196	12	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	189	0	394	164
Stage 1	-	-	-	-	164	-
Stage 2	-	-	-	-	230	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1397	-	615	886
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	813	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1397	-	608	886
Mov Cap-2 Maneuver	-	-	-	-	718	-
Stage 1	-	-	-	-	870	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	748	-	-	1397	-
HCM Lane V/C Ratio	0.02	-	-	0.012	-
HCM Control Delay (s)	9.9	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Intersection Delay, s/veh	14.9
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	99	29	0	0	2	120	258	0	15	112	13
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	116	34	0	0	2	141	304	0	18	132	15
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	13.2	15.2	13
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	112	13	99	29	2	120	258	221	103	56
LT Vol	15	0	0	99	0	2	0	0	221	0	0
Through Vol	0	112	0	0	29	0	120	0	0	103	0
RT Vol	0	0	13	0	0	0	0	258	0	0	56
Lane Flow Rate	18	132	15	116	34	2	141	304	260	121	66
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.041	0.284	0.03	0.263	0.072	0.005	0.278	0.539	0.547	0.238	0.116
Departure Headway (Hd)	8.275	7.766	7.054	8.117	7.617	7.594	7.091	6.388	7.567	7.06	6.351
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	462	507	443	470	472	507	565	476	509	564
Service Time	6.027	5.518	4.806	5.865	5.365	5.335	4.833	4.129	5.309	4.802	4.093
HCM Lane V/C Ratio	0.042	0.286	0.03	0.262	0.072	0.004	0.278	0.538	0.546	0.238	0.117
HCM Control Delay	11.4	13.6	10	13.8	11	10.4	12.6	16.4	19.1	12	9.9
HCM Lane LOS	B	B	A	B	B	B	B	C	C	B	A
HCM 95th-tile Q	0.1	1.2	0.1	1	0.2	0	1.1	3.2	3.2	0.9	0.4

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	3	0	0	0	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	0	0	0	0	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	9	9	17	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1017	1079	1613	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1017	1079	1613	-	-	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1613	-	967	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	16	199	334	174	806	10	1429	116	217	5	112	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	273	446	238	1104	11	1958	159	265	7	153	13
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	446	670	172	1183	484	653	880	748	13	964	81
Arrive On Green	0.02	0.31	0.31	0.09	0.31	0.31	0.18	0.46	0.46	0.01	0.28	0.28
Sat Flow, veh/h	1810	1900	1615	1810	3800	1556	3619	1900	1615	1810	3442	288
Grp Volume(v), veh/h	22	273	446	238	1104	11	1958	159	265	7	83	83
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1556	1810	1900	1615	1810	1900	1830
Q Serve(g_s), s	1.2	12.2	5.5	9.5	28.2	0.5	18.0	4.9	10.5	0.4	3.3	3.4
Cycle Q Clear(g_c), s	1.2	12.2	5.5	9.5	28.2	0.5	18.0	4.9	10.5	0.4	3.3	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	33	446	670	172	1183	484	653	880	748	13	532	512
V/C Ratio(X)	0.66	0.61	0.67	1.38	0.93	0.02	3.00	0.18	0.35	0.55	0.16	0.16
Avail Cap(c_a), veh/h	72	494	711	172	1197	490	653	880	748	72	532	512
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.35	0.35	0.35	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	30.5	7.9	45.3	33.4	23.9	41.0	15.7	17.2	49.5	27.1	27.1
Incr Delay (d2), s/veh	0.8	0.1	0.2	204.9	12.8	0.0	901.0	0.2	0.5	12.8	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	6.4	4.8	14.5	16.8	0.2	90.7	2.6	4.8	0.2	1.8	1.8
LnGrp Delay(d),s/veh	49.3	30.6	8.1	250.1	46.2	23.9	941.9	15.9	17.7	62.3	27.7	27.8
LnGrp LOS	D	C	A	F	D	C	F	B	B	E	C	C
Approach Vol, veh/h		741			1353			2382			173	
Approach Delay, s/veh		17.6			81.9			777.3			29.2	
Approach LOS		B			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	51.8	14.0	29.0	23.5	33.5	6.3	36.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	40.5	9.5	26.0	16.5	* 28	4.0	31.5
Max Q Clear Time (g_c+I1), s	2.4	12.5	11.5	14.2	20.0	5.4	3.2	30.2
Green Ext Time (p_c), s	0.0	6.7	0.0	5.4	0.0	0.4	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	426.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	⤴	→	⤵	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	13	21	212	68	31	22	260	1610	85	12	461	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	26	200	83	38	25	317	1963	102	15	562	25
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	27	289	246	107	373	317	109	1817	93	26	1668	74
Arrive On Green	0.02	0.15	0.15	0.06	0.20	0.20	0.06	0.51	0.51	0.01	0.46	0.46
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3579	184	1810	3611	160
Grp Volume(v), veh/h	16	26	200	83	38	25	317	1033	1033	15	295	292
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1863	1810	1900	1871
Q Serve(g_s), s	0.7	0.9	9.0	3.4	1.2	0.9	4.5	38.1	38.1	0.6	7.4	7.4
Cycle Q Clear(g_c), s	0.7	0.9	9.0	3.4	1.2	0.9	4.5	38.1	38.1	0.6	7.4	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.09
Lane Grp Cap(c), veh/h	27	289	246	107	373	317	109	965	946	26	878	865
V/C Ratio(X)	0.58	0.09	0.81	0.78	0.10	0.08	2.92	1.07	1.09	0.58	0.34	0.34
Avail Cap(c_a), veh/h	97	608	517	109	621	528	109	965	946	97	878	865
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	36.7	27.3	30.8	34.8	24.7	24.6	35.3	18.5	18.5	36.7	12.9	12.9
Incr Delay (d2), s/veh	7.2	0.0	2.5	26.2	0.0	0.0	888.4	49.7	57.5	5.4	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.5	4.1	2.5	0.6	0.4	29.0	33.2	34.5	0.3	4.0	4.0
LnGrp Delay(d),s/veh	43.9	27.4	33.3	61.0	24.8	24.6	923.6	68.2	76.0	42.1	13.6	13.6
LnGrp LOS	D	C	C	E	C	C	F	F	F	D	B	B
Approach Vol, veh/h		242			146			2382			602	
Approach Delay, s/veh		33.3			45.3			185.4			14.3	
Approach LOS		C			D			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	43.6	8.9	16.9	9.0	40.2	5.6	20.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	22.5	4.5	24.0	4.5	22.0	4.0	24.5
Max Q Clear Time (g_c+I1), s	2.6	40.1	5.4	11.0	6.5	9.4	2.7	3.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	8.9	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	137.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	955	768	176	12	385	42	157	323	30	15	81	410
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1016	817	170	13	410	43	167	344	28	16	86	369
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1381	2097	1782	22	1156	121	152	1425	606	52	640	544
Arrive On Green	0.76	1.00	1.00	0.01	0.34	0.34	0.04	0.37	0.37	0.01	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3380	352	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	1016	817	170	13	229	224	167	344	28	16	86	369
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1832	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	28.8	0.0	0.0	0.7	8.6	8.7	4.0	5.9	1.0	0.4	3.0	18.7
Cycle Q Clear(g_c), s	28.8	0.0	0.0	0.7	8.6	8.7	4.0	5.9	1.0	0.4	3.0	18.7
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1381	2097	1782	22	650	627	152	1425	606	52	640	544
V/C Ratio(X)	0.74	0.39	0.10	0.59	0.35	0.36	1.10	0.24	0.05	0.30	0.13	0.68
Avail Cap(c_a), veh/h	1381	2097	1782	76	650	627	152	1425	606	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.1	0.0	0.0	46.7	23.4	23.4	45.5	20.4	18.9	46.3	21.9	27.1
Incr Delay (d2), s/veh	1.8	0.5	0.1	8.9	1.5	1.6	100.9	0.4	0.1	1.2	0.4	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	0.3	0.1	0.4	4.7	4.7	4.1	3.2	0.5	0.2	1.6	9.3
LnGrp Delay(d),s/veh	7.9	0.5	0.1	55.6	24.9	25.0	146.4	20.8	19.0	47.5	22.3	33.7
LnGrp LOS	A	A	A	E	C	C	F	C	B	D	C	C
Approach Vol, veh/h		2003			466			539			471	
Approach Delay, s/veh		4.2			25.8			59.6			32.1	
Approach LOS		A			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	112.3	9.5	37.5	80.0	38.0	5.9	41.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	35.0	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.7	2.0	6.0	20.7	30.8	10.7	2.4	7.9
Green Ext Time (p_c), s	0.0	6.4	0.0	1.3	0.0	1.4	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑	↱
Volume (veh/h)	143	589	205	146	1180	113	379	1184	145	169	842	239
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	654	211	162	1311	117	421	1316	149	188	936	256
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	102	945	305	1543	3961	352	238	1382	156	170	855	358
Arrive On Green	0.06	0.34	0.34	0.85	1.00	1.00	0.13	0.28	0.28	0.09	0.22	0.22
Sat Flow, veh/h	1810	2750	887	1810	3436	305	1810	5026	569	1810	3800	1590
Grp Volume(v), veh/h	159	452	413	162	723	705	421	995	470	188	936	256
Grp Sat Flow(s),veh/h/ln	1810	1900	1737	1810	1900	1841	1810	1900	1795	1810	1900	1590
Q Serve(g_s), s	4.5	16.4	16.4	1.2	0.0	0.0	10.5	20.6	20.6	7.5	18.0	18.0
Cycle Q Clear(g_c), s	4.5	16.4	16.4	1.2	0.0	0.0	10.5	20.6	20.6	7.5	18.0	18.0
Prop In Lane	1.00		0.51	1.00		0.17	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	102	653	597	1543	2191	2123	238	1045	494	170	855	358
V/C Ratio(X)	1.56	0.69	0.69	0.10	0.33	0.33	1.77	0.95	0.95	1.11	1.09	0.72
Avail Cap(c_a), veh/h	102	653	597	1543	2191	2123	238	1045	494	170	855	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	22.6	22.6	0.9	0.0	0.0	34.8	28.5	28.5	36.2	31.0	130.7
Incr Delay (d2), s/veh	295.1	5.9	6.5	0.0	0.4	0.4	364.3	18.5	30.2	101.1	59.9	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.6	9.6	8.9	0.5	0.2	0.2	29.2	13.5	14.3	8.5	16.5	1.2
LnGrp Delay(d),s/veh	332.8	28.5	29.1	1.0	0.4	0.4	399.0	46.9	58.7	137.3	90.9	142.4
LnGrp LOS	F	C	C	A	A	A	F	D	E	F	F	F
Approach Vol, veh/h		1024			1590			1886			1380	
Approach Delay, s/veh		76.0			0.5			128.5			106.8	
Approach LOS		E			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	75.1	33.0	16.0	23.5	9.0	99.1	12.0	27.5
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 28	10.5	* 18	4.5	27.0	7.5	21.0
Max Q Clear Time (g_c+I1), s	3.2	18.4	12.5	20.0	6.5	2.0	9.5	22.6
Green Ext Time (p_c), s	0.1	2.3	0.0	0.0	0.0	6.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	79.6
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue 7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↑↱		↰	↑↑↑↱	
Volume (veh/h)	53	232	142	265	238	265	125	1229	364	131	977	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	58	255	140	291	262	191	137	1351	375	144	1074	58
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	66	289	304	343	360	300	148	1575	436	143	1956	106
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.08	0.37	0.37	0.08	0.37	0.37
Sat Flow, veh/h	349	1534	1612	1810	1900	1584	1810	4284	1185	1810	5356	289
Grp Volume(v), veh/h	313	0	140	291	262	191	137	1198	528	144	762	370
Grp Sat Flow(s),veh/h/ln	1883	0	1612	1810	1900	1584	1810	1900	1669	1810	1900	1845
Q Serve(g_s), s	19.4	0.0	9.3	18.6	15.6	13.3	9.0	34.9	35.1	9.5	19.1	19.1
Cycle Q Clear(g_c), s	19.4	0.0	9.3	18.6	15.6	13.3	9.0	34.9	35.1	9.5	19.1	19.1
Prop In Lane	0.19		1.00	1.00		1.00	1.00		0.71	1.00		0.16
Lane Grp Cap(c), veh/h	355	0	304	343	360	300	148	1398	614	143	1388	674
V/C Ratio(X)	0.88	0.00	0.46	0.85	0.73	0.64	0.93	0.86	0.86	1.01	0.55	0.55
Avail Cap(c_a), veh/h	471	0	403	452	475	396	148	1398	614	143	1388	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.4	0.0	43.3	47.0	45.7	44.8	54.7	35.0	35.1	55.3	30.2	30.2
Incr Delay (d2), s/veh	11.9	0.0	0.4	8.9	2.3	0.8	56.7	7.0	14.7	76.6	1.6	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	0.0	4.2	10.1	8.4	5.9	6.9	19.7	18.6	7.8	10.4	10.4
LnGrp Delay(d),s/veh	59.3	0.0	43.7	55.9	48.0	45.6	111.5	42.0	49.8	131.8	31.8	33.5
LnGrp LOS	E		D	E	D	D	F	D	D	F	C	C
Approach Vol, veh/h		453			744			1863			1276	
Approach Delay, s/veh		54.5			50.5			49.3			43.6	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	49.6		28.1	14.3	49.3		28.3
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	11.5	37.1		21.4	11.0	21.1		20.6
Green Ext Time (p_c), s	0.0	0.0		1.1	0.0	6.5		1.7

Intersection Summary		
HCM 2010 Ctrl Delay		48.4
HCM 2010 LOS		D

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1: I-215 SB Ramps & Cactus Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (veh/h)	0	1561	593	1019	679	0	0	0	1042	0	0	276
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	1643	616	1073	715	0	0	0	0	0	0	169
Adj No. of Lanes	0	2	1	1	2	0	0	0	1	0	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2229	947	461	3452	0	0	0	0	0	0	0
Arrive On Green	0.00	0.59	0.59	0.25	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	1810	3800	0		0			0	
Grp Volume(v), veh/h	0	1643	616	1073	715	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	18.9	15.3	15.3	1.3	0.0						
Cycle Q Clear(g_c), s	0.0	18.9	15.3	15.3	1.3	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2229	947	461	3452	0						
V/C Ratio(X)	0.00	0.74	0.65	2.33	0.21	0.00						
Avail Cap(c_a), veh/h	0	2229	947	461	3452	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	9.0	8.3	22.3	0.3	0.0						
Incr Delay (d2), s/veh	0.0	2.2	3.5	603.2	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	10.3	15.2	84.9	0.7	0.0						
LnGrp Delay(d),s/veh	0.0	11.3	11.7	625.5	0.4	0.0						
LnGrp LOS		B	B	F	A							
Approach Vol, veh/h		2259			1788							
Approach Delay, s/veh		11.4			375.6							
Approach LOS		B			F							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	19.3	40.7				60.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	15.3	19.2				38.5		
Max Q Clear Time (g_c+I1), s	17.3	20.9				3.3		
Green Ext Time (p_c), s	0.0	0.0				18.2		

Intersection Summary		
HCM 2010 Ctrl Delay		172.3
HCM 2010 LOS		F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↲	↱
Volume (veh/h)	0	721	105	611	202	0	0	0	0	802	2	419
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	767	112	650	215	0				853	2	369
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	309	1742	0				828	2	740
Arrive On Green	0.00	0.25	0.25	0.29	0.77	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1805	4	1615
Grp Volume(v), veh/h	0	767	112	650	215	0				855	0	369
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	22.8	6.7	20.5	1.8	0.0				55.0	0.0	19.2
Cycle Q Clear(g_c), s	0.0	22.8	6.7	20.5	1.8	0.0				55.0	0.0	19.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	950	404	309	1742	0				829	0	740
V/C Ratio(X)	0.00	0.81	0.28	2.10	0.12	0.00				1.03	0.00	0.50
Avail Cap(c_a), veh/h	0	950	404	309	1742	0				829	0	740
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.79	0.79	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	42.3	36.3	42.9	7.8	0.0				32.5	0.0	22.8
Incr Delay (d2), s/veh	0.0	7.3	1.7	504.9	0.1	0.0				39.4	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.9	3.2	53.5	0.9	0.0				36.5	0.0	8.6
LnGrp Delay(d),s/veh	0.0	49.6	38.0	547.8	7.9	0.0				71.9	0.0	23.3
LnGrp LOS		D	D	F	A					F		C
Approach Vol, veh/h		879			865						1224	
Approach Delay, s/veh		48.1			413.6						57.3	
Approach LOS		D			F						E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	25.0	35.0		60.0		60.0		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	20.5	30.0		55.0		55.0		
Max Q Clear Time (g_c+I1), s	22.5	24.8		57.0		3.8		
Green Ext Time (p_c), s	0.0	2.1		0.0		4.5		

Intersection Summary	
HCM 2010 Ctrl Delay	158.4
HCM 2010 LOS	F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	27	2163	414	0	2680	94	142	62	29	114	1	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	2230	423	0	2763	88	146	64	30	118	1	53
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1745	319	0	2052	65	469	350	164	437	9	455
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	94	3116	569	0	3663	116	1371	1225	574	1323	30	1590
Grp Volume(v), veh/h	28	1327	1327	0	1426	1426	146	0	94	118	0	54
Grp Sat Flow(s),veh/h/ln	94	1900	1785	0	1900	1880	1371	0	1799	1323	0	1619
Q Serve(g_s), s	0.0	36.4	36.4	0.0	36.4	36.4	5.7	0.0	2.6	4.8	0.0	1.6
Cycle Q Clear(g_c), s	36.4	36.4	36.4	0.0	36.4	36.4	7.3	0.0	2.6	7.4	0.0	1.6
Prop In Lane	1.00		0.32	0.00		0.06	1.00		0.32	1.00		0.98
Lane Grp Cap(c), veh/h	111	1064	1000	0	1064	1053	469	0	515	437	0	463
V/C Ratio(X)	0.25	1.25	1.33	0.00	1.34	1.35	0.31	0.00	0.18	0.27	0.00	0.12
Avail Cap(c_a), veh/h	111	1064	1000	0	1064	1053	469	0	515	437	0	463
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	14.3	14.3	0.0	14.3	14.3	19.8	0.0	17.5	20.2	0.0	17.1
Incr Delay (d2), s/veh	5.4	119.0	154.0	0.0	159.3	165.7	1.7	0.0	0.8	1.5	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	53.8	60.3	0.0	65.7	66.9	2.4	0.0	1.4	1.9	0.0	0.8
LnGrp Delay(d),s/veh	37.9	133.3	168.3	0.0	173.6	180.0	21.6	0.0	18.3	21.8	0.0	17.6
LnGrp LOS	D	F	F		F	F	C		B	C		B
Approach Vol, veh/h		2681			2851			240			172	
Approach Delay, s/veh		149.6			176.8			20.3			20.5	
Approach LOS		F			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		38.4		9.4		38.4		9.3
Green Ext Time (p_c), s		0.0		0.6		0.0		0.6

Intersection Summary			
HCM 2010 Ctrl Delay			153.7
HCM 2010 LOS			F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	530	992	0	0	762	1523	51	1	211	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	596	1115	0	0	856	1686	57	1	128			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	550	2755	0	0	1488	632	341	6	310			
Arrive On Green	0.61	1.00	0.00	0.00	0.39	0.39	0.19	0.19	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1780	31	1615			
Grp Volume(v), veh/h	596	1115	0	0	856	1686	58	0	128			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1811	0	1615			
Q Serve(g_s), s	36.5	0.0	0.0	0.0	21.2	47.0	3.2	0.0	8.3			
Cycle Q Clear(g_c), s	36.5	0.0	0.0	0.0	21.2	47.0	3.2	0.0	8.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.98		1.00			
Lane Grp Cap(c), veh/h	550	2755	0	0	1488	632	347	0	310			
V/C Ratio(X)	1.08	0.40	0.00	0.00	0.58	2.67	0.17	0.00	0.41			
Avail Cap(c_a), veh/h	550	2755	0	0	1488	632	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.49	0.49	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	23.5	0.0	0.0	0.0	28.7	36.5	40.5	0.0	42.6			
Incr Delay (d2), s/veh	52.2	0.2	0.0	0.0	1.6	754.9	1.0	0.0	4.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	25.7	0.1	0.0	0.0	11.4	153.4	1.7	0.0	4.1			
LnGrp Delay(d),s/veh	75.7	0.2	0.0	0.0	30.3	791.4	41.5	0.0	46.6			
LnGrp LOS	F	A			C	F	D		D			
Approach Vol, veh/h		1711			2542			186				
Approach Delay, s/veh		26.5			535.1			45.0				
Approach LOS		C			F			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			40.0	52.0		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			38.5	49.0		10.3
Green Ext Time (p_c), s		42.8			0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	318.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

5: March AFB/Elsworth Street & Cactus Avenue

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Volume (veh/h)	128	2470	25	28	2339	106	404	105	200	136	22	221
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	2546	0	29	2411	78	338	217	152	156	0	121
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2689	762	37	2307	640	445	256	179	315	0	282
Arrive On Green	0.09	0.47	0.00	0.02	0.40	0.40	0.25	0.25	0.25	0.09	0.00	0.09
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1041	729	3619	0	1615
Grp Volume(v), veh/h	132	2546	0	29	2411	78	338	0	369	156	0	121
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1770	1810	0	1615
Q Serve(g_s), s	8.6	51.2	0.0	1.9	48.6	3.7	20.8	0.0	23.8	4.9	0.0	8.0
Cycle Q Clear(g_c), s	8.6	51.2	0.0	1.9	48.6	3.7	20.8	0.0	23.8	4.9	0.0	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		1.00
Lane Grp Cap(c), veh/h	158	2689	762	37	2307	640	445	0	435	315	0	282
V/C Ratio(X)	0.83	0.95	0.00	0.79	1.05	0.12	0.76	0.00	0.85	0.49	0.00	0.43
Avail Cap(c_a), veh/h	158	2689	762	119	2307	640	445	0	435	890	0	538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.9	30.3	0.0	58.5	35.7	22.4	42.0	0.0	43.1	52.3	0.0	44.2
Incr Delay (d2), s/veh	28.8	8.7	0.0	13.2	31.9	0.0	11.6	0.0	18.2	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	28.8	0.0	1.1	32.2	1.6	11.9	0.0	13.9	2.5	0.0	3.6
LnGrp Delay(d),s/veh	82.7	39.0	0.0	71.7	67.6	22.4	53.5	0.0	61.3	52.7	0.0	44.6
LnGrp LOS	F	D		E	F	C	D		E	D		D
Approach Vol, veh/h		2678			2518			707			277	
Approach Delay, s/veh		41.1			66.3			57.6			49.2	
Approach LOS		D			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.9	62.1		16.0	15.0	54.1		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	3.9	53.2		10.0	10.6	50.6		25.8
Green Ext Time (p_c), s	0.0	0.0		0.4	0.0	0.0		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	53.6
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

6: Cactus Avenue & Frederick Street

7/15/2015

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	119	2830	2025	253	491	152
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	123	2918	2088	253	506	98
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	204	2613	3016	855	814	545
Arrive On Green	0.11	0.69	0.53	0.53	0.22	0.22
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	123	2918	2088	253	506	98
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	7.8	82.5	32.7	10.5	15.1	0.0
Cycle Q Clear(g_c), s	7.8	82.5	32.7	10.5	15.1	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	204	2613	3016	855	814	545
V/C Ratio(X)	0.60	1.12	0.69	0.30	0.62	0.18
Avail Cap(c_a), veh/h	211	2613	3016	855	814	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.18	0.18	1.00	1.00
Uniform Delay (d), s/veh	50.7	18.7	21.0	15.8	41.9	28.0
Incr Delay (d2), s/veh	3.1	58.4	0.2	0.2	3.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	63.7	17.1	4.7	7.9	3.3
LnGrp Delay(d),s/veh	53.7	77.1	21.2	15.9	45.4	28.7
LnGrp LOS	D	F	C	B	D	C
Approach Vol, veh/h		3041	2341		604	
Approach Delay, s/veh		76.2	20.7		42.7	
Approach LOS		E	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		88.0		32.5	19.0	69.0		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	14.0	* 64		
Max Q Clear Time (g_c+I1), s		84.5		17.1	9.8	34.7		
Green Ext Time (p_c), s		0.0		0.9	3.5	13.0		

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	99.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	30	1173	2215	18	15	70
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	1275	2408	20	16	76

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2408	0	-	0	3111	1204
Stage 1	-	-	-	-	2408	-
Stage 2	-	-	-	-	703	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	201	-	-	-	*~ 4	179
Stage 1	-	-	-	-	*55	-
Stage 2	-	-	-	-	*562	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	201	-	-	-	*~ 2	179
Mov Cap-2 Maneuver	-	-	-	-	*~ 2	-
Stage 1	-	-	-	-	*55	-
Stage 2	-	-	-	-	*246	-

Approach	EB	WB	SB
HCM Control Delay, s	7.6	0	$ 3999.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	201	-	-	-	11
HCM Lane V/C Ratio	0.162	-	-	-	8.399
HCM Control Delay (s)	26.3	7.1	-	$	3999.2
HCM Lane LOS	D	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	12.9

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	209	3167	489	16	1665	78	268	108	26	200	214	224
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	227	3442	0	17	1810	81	291	117	23	217	233	165
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	2936	1248	28	4011	179	170	985	189	85	1252	601
Arrive On Green	0.05	0.77	0.00	0.02	0.74	0.74	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5412	242	3619	3101	594	1810	3800	1595
Grp Volume(v), veh/h	227	3442	0	17	1270	621	291	71	69	217	233	165
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1854	1810	1900	1795	1810	1900	1595
Q Serve(g_s), s	4.0	65.7	0.0	0.8	11.0	11.1	4.0	2.2	2.3	4.0	3.7	6.1
Cycle Q Clear(g_c), s	4.0	65.7	0.0	0.8	11.0	11.1	4.0	2.2	2.3	4.0	3.7	6.1
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	85	2936	1248	28	2816	1374	170	604	570	85	1252	601
V/C Ratio(X)	2.67	1.17	0.00	0.60	0.45	0.45	1.71	0.12	0.12	2.55	0.19	0.27
Avail Cap(c_a), veh/h	85	2936	1248	85	2816	1374	170	604	570	85	1252	601
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	9.7	0.0	41.6	4.3	4.3	40.5	20.6	20.6	40.5	20.4	18.4
Incr Delay (d2), s/veh	752.6	77.9	0.0	0.7	0.0	0.1	342.6	0.4	0.4	730.0	0.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.8	64.8	0.0	0.4	5.7	5.6	10.1	1.2	1.2	19.3	2.0	2.9
LnGrp Delay(d),s/veh	793.1	87.6	0.0	42.3	4.3	4.4	383.1	20.9	21.0	770.5	20.7	19.6
LnGrp LOS	F	F		D	A	A	F	C	C	F	C	B
Approach Vol, veh/h		3669			1908			431			615	
Approach Delay, s/veh		131.2			4.7			265.5			284.9	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	72.2	8.5	33.5	8.5	69.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	30.0	4.0	* 27
Max Q Clear Time (g_c+I1), s	2.8	67.7	6.0	8.1	6.0	13.1	6.0	4.3
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	16.7	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	117.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard — 7/13/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			↰	↱
Volume (veh/h)	24	990	52	39	1945	6	79	5	19	8	5	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	1125	59	44	2210	7	90	6	22	9	6	106
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	687	584	61	703	2	471	39	95	420	260	592
Arrive On Green	0.02	0.36	0.36	0.03	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1810	1900	1615	1810	1893	6	1020	107	258	904	709	1615
Grp Volume(v), veh/h	27	1125	59	44	0	2217	118	0	0	15	0	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1385	0	0	1613	0	1615
Q Serve(g_s), s	1.0	23.5	1.6	1.6	0.0	24.1	3.0	0.0	0.0	0.0	0.0	2.9
Cycle Q Clear(g_c), s	1.0	23.5	1.6	1.6	0.0	24.1	3.6	0.0	0.0	0.3	0.0	2.9
Prop In Lane	1.00		1.00	1.00		0.00	0.76		0.19	0.60		1.00
Lane Grp Cap(c), veh/h	43	687	584	61	0	706	605	0	0	679	0	592
V/C Ratio(X)	0.63	1.64	0.10	0.72	0.00	3.14	0.20	0.00	0.00	0.02	0.00	0.18
Avail Cap(c_a), veh/h	111	687	584	111	0	706	605	0	0	679	0	592
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	20.7	13.8	31.1	0.0	20.4	14.1	0.0	0.0	13.2	0.0	14.0
Incr Delay (d2), s/veh	5.5	293.6	0.0	5.8	0.0	967.8	0.7	0.0	0.0	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	68.2	0.7	0.9	0.0	202.2	1.6	0.0	0.0	0.2	0.0	1.4
LnGrp Delay(d),s/veh	36.9	314.3	13.8	36.9	0.0	988.2	14.9	0.0	0.0	13.2	0.0	14.6
LnGrp LOS	D	F	B	D		F	B			B		B
Approach Vol, veh/h		1211			2261			118			121	
Approach Delay, s/veh		293.5			969.7			14.9			14.5	
Approach LOS		F			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.3	6.7	29.0		29.3	6.0	29.6
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		5.6	3.6	25.5		4.9	3.0	26.1
Green Ext Time (p_c), s		0.6	0.0	0.0		0.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	687.5
HCM 2010 LOS	F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	129	1804	1223	29	884	112	810	698	66	162	786	64
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	1919	1286	31	940	113	862	743	66	172	836	61
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2717	1155	43	2256	271	462	1099	98	175	972	71
Arrive On Green	0.06	0.71	0.71	0.02	0.68	0.68	0.21	0.53	0.53	0.10	0.28	0.28
Sat Flow, veh/h	1810	3800	1615	1810	3329	400	3619	3435	305	1810	3500	255
Grp Volume(v), veh/h	137	1919	1286	31	536	517	862	411	398	172	454	443
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1829	1810	1900	1840	1810	1900	1855
Q Serve(g_s), s	5.5	26.2	64.3	1.5	11.4	11.4	11.5	14.2	14.2	8.5	20.4	20.4
Cycle Q Clear(g_c), s	5.5	26.2	64.3	1.5	11.4	11.4	11.5	14.2	14.2	8.5	20.4	20.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.17	1.00		0.14
Lane Grp Cap(c), veh/h	111	2717	1155	43	1288	1240	462	608	589	175	528	515
V/C Ratio(X)	1.24	0.71	1.11	0.71	0.42	0.42	1.86	0.68	0.68	0.98	0.86	0.86
Avail Cap(c_a), veh/h	111	2717	1155	80	1288	1240	462	608	589	175	528	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	7.4	40.0	43.6	6.5	6.5	35.4	17.5	17.6	40.6	30.8	30.8
Incr Delay (d2), s/veh	114.6	0.1	52.6	7.9	1.0	1.0	394.5	4.1	4.2	62.8	16.6	16.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	13.4	16.9	0.9	6.3	6.1	31.0	7.9	7.7	7.3	13.1	12.9
LnGrp Delay(d),s/veh	156.9	7.5	92.5	51.5	7.5	7.5	429.9	21.7	21.8	103.4	47.4	47.8
LnGrp LOS	F	A	F	D	A	A	F	C	C	F	D	D
Approach Vol, veh/h		3342			1084			1671			1069	
Approach Delay, s/veh		46.4			8.8			232.3			56.6	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	70.8	17.0	30.5	10.0	67.5	13.2	34.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	29.5	11.5	* 25	5.5	28.0	8.7	27.8
Max Q Clear Time (g_c+I1), s	3.5	66.3	13.5	22.4	7.5	13.4	10.5	16.2
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	12.9	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	85.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	32	190	257	29	129	195	102	1050	76	385	1105	33
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	202	159	31	137	110	109	1117	63	410	1176	23
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	83	255	217	43	227	168	138	1068	437	592	2065	877
Arrive On Green	0.05	0.13	0.13	0.02	0.11	0.11	0.08	0.28	0.28	0.44	0.72	0.72
Sat Flow, veh/h	1810	1900	1615	1810	2020	1493	1810	3800	1555	1810	3800	1615
Grp Volume(v), veh/h	34	202	159	31	128	119	109	1117	63	410	1176	23
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1613	1810	1900	1555	1810	1900	1615
Q Serve(g_s), s	1.6	9.3	6.7	1.5	5.8	6.4	5.3	25.3	2.7	16.5	13.1	0.2
Cycle Q Clear(g_c), s	1.6	9.3	6.7	1.5	5.8	6.4	5.3	25.3	2.7	16.5	13.1	0.2
Prop In Lane	1.00		1.00	1.00		0.93	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	255	217	43	214	181	138	1068	437	592	2065	877
V/C Ratio(X)	0.41	0.79	0.73	0.72	0.60	0.66	0.79	1.05	0.14	0.69	0.57	0.03
Avail Cap(c_a), veh/h	83	528	449	101	549	466	183	1068	437	592	2065	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	41.8	37.7	23.0	43.6	38.0	38.3	40.9	32.3	24.2	21.7	7.5	2.5
Incr Delay (d2), s/veh	1.2	2.1	1.8	7.9	1.0	1.5	11.2	40.2	0.7	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	5.0	3.1	0.9	3.1	2.9	3.1	19.2	1.3	8.2	6.7	0.1
LnGrp Delay(d),s/veh	43.0	39.9	24.8	51.5	39.0	39.8	52.1	72.6	24.9	22.0	7.6	2.5
LnGrp LOS	D	D	C	D	D	D	D	F	C	C	A	A
Approach Vol, veh/h		395			278			1289			1609	
Approach Delay, s/veh		34.1			40.7			68.5			11.2	
Approach LOS		C			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	30.8	6.7	17.6	11.4	54.4	8.6	15.6
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.7	* 25	5.0	25.0	9.1	30.9	4.0	26.0
Max Q Clear Time (g_c+I1), s	18.5	27.3	3.5	11.3	7.3	15.1	3.6	8.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	5.2	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	36.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 TWSC
12: Heacock Street & Gentian Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	2	74	1008	9	147	1215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	80	1084	10	158	1306

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2707	1084	0	0	1084	0
Stage 1	1084	-	-	-	-	-
Stage 2	1623	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	24	266	-	-	651	-
Stage 1	327	-	-	-	-	-
Stage 2	179	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	18	266	-	-	651	-
Mov Cap-2 Maneuver	18	-	-	-	-	-
Stage 1	327	-	-	-	-	-
Stage 2	136	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.6	0	1.3
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	18	266	651	-
HCM Lane V/C Ratio	-	-	0.119	0.299	0.243	-
HCM Control Delay (s)	-	-	230.5	24.2	12.3	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	0.3	1.2	0.9	-

Intersection	
Intersection Delay, s/veh	59.6
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	236	318	0	741	347	0	615	628
Peak Hour Factor	0.92	0.86	0.86	0.92	0.86	0.86	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	274	370	0	862	403	0	715	730
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	25.6	66	69.2
HCM LOS	D	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	68%	0%	0%	0%	100%
Vol Right, %	32%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1088	236	318	615	628
LT Vol	0	236	0	615	0
Through Vol	741	0	0	0	628
RT Vol	347	0	318	0	0
Lane Flow Rate	1265	274	370	715	730
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.632	0.729	1	1
Departure Headway (Hd)	6.946	8.297	7.097	7.888	7.388
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	531	439	514	465	497
Service Time	4.983	5.997	4.797	5.637	5.137
HCM Lane V/C Ratio	2.382	0.624	0.72	1.538	1.469
HCM Control Delay	66	24.2	26.6	70.4	68
HCM Lane LOS	F	C	D	F	F
HCM 95th-tile Q	13.9	4.2	6	13	13.5

HCM 2010 Signalized Intersection Summary
14: Heacock Street & Krameria Avenue-North

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
	↙	↖	↑	↗	↘	↓
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	290	300	824	121	127	756
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	358	370	1017	149	157	933
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	339	303	1069	908	716	1908
Arrive On Green	0.19	0.19	0.56	0.56	0.40	1.00
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	358	370	1017	149	157	933
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	22.5	22.5	60.5	5.3	6.9	0.0
Cycle Q Clear(g_c), s	22.5	22.5	60.5	5.3	6.9	0.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	339	303	1069	908	716	1908
V/C Ratio(X)	1.06	1.22	0.95	0.16	0.22	0.49
Avail Cap(c_a), veh/h	339	303	1069	908	716	1908
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	48.7	24.7	12.7	24.0	0.0
Incr Delay (d2), s/veh	64.1	125.8	18.1	0.4	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	20.6	36.7	2.5	3.6	0.5
LnGrp Delay(d),s/veh	112.9	174.6	42.8	13.0	24.7	0.9
LnGrp LOS	F	F	D	B	C	A
Approach Vol, veh/h	728		1166			1090
Approach Delay, s/veh	144.2		39.0			4.3
Approach LOS	F		D			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	54.0	73.0				127.0		28.0
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	14.5	* 68				86.5		22.5
Max Q Clear Time (g_c+I1), s	8.9	62.5				2.0		24.5
Green Ext Time (p_c), s	2.2	2.3				4.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 TWSC
15: Heacock Street & Driveway 1

Moreno Valley Logistics Center TIA (JN 09301)
9/14/2015

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	38	47	898	9	10	1034
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	41	51	976	10	11	1124

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2127	493	0	0	986	0
Stage 1	981	-	-	-	-	-
Stage 2	1146	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	49	527	-	-	709	-
Stage 1	329	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	48	527	-	-	709	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	301	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.8	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	319	709	-
HCM Lane V/C Ratio	-	-	0.29	0.015	-
HCM Control Delay (s)	-	-	20.8	10.2	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	39	45	861	10	10	1063
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	42	49	936	11	11	1155

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2118	473	0	0	947	0
Stage 1	941	-	-	-	-	-
Stage 2	1177	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	50	543	-	-	733	-
Stage 1	345	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	49	543	-	-	733	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	345	-	-	-	-	-
Stage 2	291	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	317	733	-
HCM Lane V/C Ratio	-	-	0.288	0.015	-
HCM Control Delay (s)	-	-	20.9	10	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	46	832	13	10	1120
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	77	65	1172	18	14	1577

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2778	586	0	0	1172	0
Stage 1	1172	-	-	-	-	-
Stage 2	1606	-	-	-	-	-
Critical Hdwy	4.2	4.2	-	-	4.1	-
Critical Hdwy Stg 1	4.5	-	-	-	-	-
Critical Hdwy Stg 2	4.5	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	117	712	-	-	603	-
Stage 1	398	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	114	712	-	-	603	-
Mov Cap-2 Maneuver	230	-	-	-	-	-
Stage 1	398	-	-	-	-	-
Stage 2	267	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	230	712	603	-
HCM Lane V/C Ratio	-	-	0.337	0.091	0.023	-
HCM Control Delay (s)	-	-	28.4	10.6	11.1	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	1.4	0.3	0.1	-

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
18: Heacock Street & San Michele Road

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	52	316	6	19	93	623	0	88	36	827	250	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	451	9	27	133	890	0	126	47	1181	357	46
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	95	529	449	36	467	397	2	550	461	445	1088	925
Arrive On Green	0.05	0.28	0.28	0.02	0.25	0.25	0.00	0.29	0.29	0.25	0.57	0.57
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	1900	1593	1810	1900	1615
Grp Volume(v), veh/h	74	451	9	27	133	890	0	126	47	1181	357	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1900	1593	1810	1900	1615
Q Serve(g_s), s	4.8	27.0	0.5	1.8	6.8	29.5	0.0	6.1	2.6	29.5	11.9	1.5
Cycle Q Clear(g_c), s	4.8	27.0	0.5	1.8	6.8	29.5	0.0	6.1	2.6	29.5	11.9	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	95	529	449	36	467	397	2	550	461	445	1088	925
V/C Ratio(X)	0.78	0.85	0.02	0.75	0.28	2.24	0.00	0.23	0.10	2.65	0.33	0.05
Avail Cap(c_a), veh/h	113	529	449	113	467	397	60	550	461	445	1088	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	41.0	31.4	58.5	36.7	45.3	0.0	32.4	31.2	45.3	13.5	11.3
Incr Delay (d2), s/veh	20.6	12.2	0.0	1.1	0.0	559.5	0.0	1.0	0.4	751.1	0.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	15.9	0.2	0.9	3.6	74.9	0.0	3.3	1.2	107.5	6.4	0.7
LnGrp Delay(d),s/veh	76.8	53.1	31.4	59.6	36.7	604.7	0.0	33.4	31.7	796.4	14.3	11.4
LnGrp LOS	E	D	C	E	D	F		C	C	F	B	B
Approach Vol, veh/h		534			1050			173			1584	
Approach Delay, s/veh		56.0			518.8			32.9			597.3	
Approach LOS		E			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	40.2	6.9	38.9	0.0	74.2	10.8	35.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	29.5	33.5	7.5	29.5	4.0	59.0	7.5	29.5
Max Q Clear Time (g_c+I1), s	31.5	8.1	3.8	29.0	0.0	13.9	6.8	31.5
Green Ext Time (p_c), s	0.0	1.6	0.0	0.3	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	456.9
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	7.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	120	2	9	244	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	160	3	12	325	15

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	674	9	0	0	15	0
Stage 1	9	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	423	1079	-	-	1616	-
Stage 1	1019	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	338	1079	-	-	1616	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	411	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	7.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1079	1616	-
HCM Lane V/C Ratio	-	-	-	0.148	0.201	-
HCM Control Delay (s)	-	-	0	8.9	7.8	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.5	0.8	-

20: Webster Street & Harley Knox Boulevard

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1006	18	0	1852	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1105	20	0	2035	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1125	0	3150	1115
Stage 1	-	-	-	-	1115	-
Stage 2	-	-	-	-	2035	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	408	-	*12	*274
Stage 1	-	-	-	-	*259	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	408	-	*12	*274
Mov Cap-2 Maneuver	-	-	-	-	*12	-
Stage 1	-	-	-	-	*259	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	274	-	-	408	-
HCM Lane V/C Ratio	0.02	-	-	-	-
HCM Control Delay (s)	18.4	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
21: Cosmos Street & Krameria Avenue-North/Driveway

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Intersection	
Int Delay, s/veh	12.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	54	33	157	0	23	0	386	5	0	3	6	122
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	66	40	191	0	28	0	471	6	0	4	7	149

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1051	1037	82	1153	1111	6	156	0	0	6	0	0
Stage 1	89	89	-	948	948	-	-	-	-	-	-	-
Stage 2	962	948	-	205	163	-	-	-	-	-	-	-
Critical Hdwy	6	6	6.2	6	6	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5	5	-	5	5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5	5	-	5	5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	285	269	983	250	246	1083	1436	-	-	1628	-	-
Stage 1	949	835	-	422	390	-	-	-	-	-	-	-
Stage 2	416	390	-	853	785	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	193	180	983	132	165	1083	1436	-	-	1628	-	-
Mov Cap-2 Maneuver	233	244	-	168	230	-	-	-	-	-	-	-
Stage 1	638	833	-	284	262	-	-	-	-	-	-	-
Stage 2	250	262	-	652	783	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.7	22.8	8.6	0.2
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1436	-	-	463	230	1628	-	-
HCM Lane V/C Ratio	0.328	-	-	0.643	0.122	0.002	-	-
HCM Control Delay (s)	8.7	-	-	25.7	22.8	7.2	-	-
HCM Lane LOS	A	-	-	D	C	A	-	-
HCM 95th %tile Q(veh)	1.4	-	-	4.4	0.4	0	-	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	33	7	0	0	4	1	291	0	0	67	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	36	8	0	0	4	1	316	0	0	73	18
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	9.3	10.5	9.5
HCM LOS	A	B	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	82%	100%	0%	100%	0%
Vol Thru, %	80%	18%	0%	0%	0%	70%
Vol Right, %	20%	0%	0%	100%	0%	30%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	40	4	292	141	23
LT Vol	0	33	4	0	141	0
Through Vol	67	7	0	1	0	16
RT Vol	17	0	0	291	0	7
Lane Flow Rate	91	43	4	317	153	25
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.14	0.07	0.007	0.407	0.254	0.036
Departure Headway (Hd)	5.518	5.824	5.817	4.612	5.972	5.253
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	644	611	614	778	598	676
Service Time	3.603	3.9	3.562	2.356	3.749	3.03
HCM Lane V/C Ratio	0.141	0.07	0.007	0.407	0.256	0.037
HCM Control Delay	9.5	9.3	8.6	10.5	10.8	8.2
HCM Lane LOS	A	A	A	B	B	A
HCM 95th-tile Q	0.5	0.2	0	2	1	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	141	16	7
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	153	17	8
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.4
HCM LOS	B

Lane

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	149	15	2	235	61	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	162	16	2	255	66	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	178	0	430	170
Stage 1	-	-	-	-	170	-
Stage 2	-	-	-	-	260	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1410	-	586	879
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	788	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1410	-	585	879
Mov Cap-2 Maneuver	-	-	-	-	702	-
Stage 1	-	-	-	-	865	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	722	-	-	1410	-
HCM Lane V/C Ratio	0.107	-	-	0.002	-
HCM Control Delay (s)	10.6	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

24: Driveway 4 & Krameria Avenue

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	155	4	4	217	20	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	168	4	4	236	22	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	173	0	416	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1416	-	597	878
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1416	-	595	878
Mov Cap-2 Maneuver	-	-	-	-	710	-
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	798	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	778	-	-	1416	-
HCM Lane V/C Ratio	0.052	-	-	0.003	-
HCM Control Delay (s)	9.9	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

25: Driveway 5 & Krameria Avenue

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	158	13	4	168	53	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	172	14	4	183	58	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	186	0	370	179
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	191	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1401	-	634	869
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	846	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1401	-	632	869
Mov Cap-2 Maneuver	-	-	-	-	738	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	844	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	766	-	-	1401	-
HCM Lane V/C Ratio	0.099	-	-	0.003	-
HCM Control Delay (s)	10.2	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	65	104	11	0	4	42	72	0	7	73	4
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	76	122	13	0	5	49	85	0	8	86	5
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	11.3	10.1	10.7
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	90%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	10%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	73	4	65	115	4	42	72	241	85	119
LT Vol	7	0	0	65	0	4	0	0	241	0	0
Through Vol	0	73	0	0	104	0	42	0	0	85	0
RT Vol	0	0	4	0	11	0	0	72	0	0	119
Lane Flow Rate	8	86	5	76	135	5	49	85	284	100	140
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.017	0.163	0.008	0.151	0.245	0.01	0.094	0.144	0.509	0.166	0.205
Departure Headway (Hd)	7.344	6.839	6.133	7.09	6.523	7.336	6.834	6.132	6.469	5.966	5.261
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	486	523	581	505	549	487	523	583	556	601	680
Service Time	5.11	4.605	3.898	4.844	4.277	5.096	4.595	3.892	4.213	3.71	3.005
HCM Lane V/C Ratio	0.016	0.164	0.009	0.15	0.246	0.01	0.094	0.146	0.511	0.166	0.206
HCM Control Delay	10.2	10.9	8.9	11.1	11.4	10.2	10.3	9.9	15.8	9.9	9.4
HCM Lane LOS	B	B	A	B	B	B	B	A	C	A	A
HCM 95th-tile Q	0.1	0.6	0	0.5	1	0	0.3	0.5	2.9	0.6	0.8

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	17	0	0	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	18	0	0	0	0	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2	2	4	0	-	0
Stage 1	2	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1026	1088	1631	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1026	1088	1631	-	-	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1026	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1631	-	974	-	-
HCM Lane V/C Ratio	-	-	0.019	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

28: Indian Street & San Michele Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	796	1413	219	451	50	696	163	202	124	254	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1206	2071	332	683	53	1055	247	221	188	385	36
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	420	618	354	1495	632	618	515	437	264	769	69
Arrive On Green	0.02	0.22	0.22	0.20	0.39	0.39	0.17	0.27	0.27	0.15	0.25	0.25
Sat Flow, veh/h	1810	1900	1548	1810	3800	1607	3619	1900	1612	1810	3128	281
Grp Volume(v), veh/h	33	1206	2071	332	683	53	1055	247	221	188	228	193
Grp Sat Flow(s),veh/h/ln	1810	1900	1548	1810	1900	1607	1810	1900	1612	1810	1900	1509
Q Serve(g_s), s	2.2	26.5	19.9	21.7	15.9	1.5	20.5	13.1	8.6	11.9	12.3	13.3
Cycle Q Clear(g_c), s	2.2	26.5	19.9	21.7	15.9	1.5	20.5	13.1	8.6	11.9	12.3	13.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	42	420	618	354	1495	632	618	515	437	264	467	371
V/C Ratio(X)	0.78	2.87	3.35	0.94	0.46	0.08	1.71	0.48	0.51	0.71	0.49	0.52
Avail Cap(c_a), veh/h	83	420	618	354	1495	632	618	515	437	264	467	371
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	46.7	14.4	47.5	26.9	8.8	49.8	36.7	14.1	48.9	38.8	39.1
Incr Delay (d2), s/veh	1.1	844.0	1059.0	31.6	0.1	0.0	318.5	0.3	0.4	7.5	3.6	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	112.2	190.1	13.9	8.4	0.7	37.6	6.9	3.9	6.5	6.9	6.1
LnGrp Delay(d),s/veh	59.4	890.8	1073.5	79.1	27.0	8.9	368.3	37.0	14.5	56.4	42.4	44.3
LnGrp LOS	E	F	F	E	C	A	F	D	B	E	D	D
Approach Vol, veh/h		3310			1068			1523			609	
Approach Delay, s/veh		996.8			42.3			263.2			47.3	
Approach LOS		F			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	38.0	28.0	32.0	25.0	35.0	7.3	52.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	17.5	32.5	23.5	26.5	20.5	29.5	5.5	44.5
Max Q Clear Time (g_c+I1), s	13.9	15.1	23.7	28.5	22.5	15.3	4.2	17.9
Green Ext Time (p_c), s	1.2	1.0	0.0	0.0	0.0	1.2	0.0	26.0

Intersection Summary			
HCM 2010 Ctrl Delay			579.8
HCM 2010 LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	28	54	412	126	35	16	105	865	91	55	1623	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	77	468	180	50	4	150	1236	126	79	2319	75
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	319	271	97	127	108	109	1547	157	102	1656	53
Arrive On Green	0.15	0.17	0.17	0.05	0.07	0.07	0.06	0.46	0.46	0.06	0.45	0.45
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3393	345	1810	3661	118
Grp Volume(v), veh/h	40	77	468	180	50	4	150	690	672	79	1197	1197
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1838	1810	1900	1879
Q Serve(g_s), s	1.4	2.6	9.7	4.0	1.9	0.1	4.5	23.3	23.5	3.2	33.9	33.9
Cycle Q Clear(g_c), s	1.4	2.6	9.7	4.0	1.9	0.1	4.5	23.3	23.5	3.2	33.9	33.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.06
Lane Grp Cap(c), veh/h	279	319	271	97	127	108	109	866	838	102	859	850
V/C Ratio(X)	0.14	0.24	1.73	1.87	0.39	0.04	1.38	0.80	0.80	0.78	1.39	1.41
Avail Cap(c_a), veh/h	279	608	517	97	608	517	109	866	838	109	859	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	27.4	27.1	18.4	35.5	33.5	20.8	35.3	17.4	17.5	34.9	20.5	20.5
Incr Delay (d2), s/veh	0.1	0.1	340.0	426.1	0.7	0.1	218.8	7.5	7.9	2.7	177.5	184.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.4	29.9	13.4	1.0	0.1	8.8	13.9	13.6	1.7	60.0	61.0
LnGrp Delay(d),s/veh	27.5	27.2	358.3	461.6	34.3	20.8	254.1	25.0	25.4	37.6	198.1	205.0
LnGrp LOS	C	C	F	F	C	C	F	C	C	D	F	F
Approach Vol, veh/h		585			234			1512			2473	
Approach Delay, s/veh		292.1			362.7			47.9			196.3	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	39.7	8.5	18.1	9.0	39.4	16.1	10.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	22.5	4.0	24.0	4.5	22.5	4.0	24.0
Max Q Clear Time (g_c+I1), s	5.2	25.5	6.0	11.7	6.5	35.9	3.4	3.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	169.4
HCM 2010 LOS	F

30: Indian Street & Harley Knox Boulevard

7/13/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	547	370	138	23	750	11	188	309	16	59	415	1111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	710	481	179	30	974	14	244	401	21	77	539	1438
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1381	2076	1765	42	1278	18	152	1341	570	132	640	544
Arrive On Green	0.76	1.00	1.00	0.02	0.34	0.34	0.04	0.35	0.35	0.04	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3736	54	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	710	481	179	30	495	493	244	401	21	77	539	1438
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1890	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	14.5	0.0	0.0	1.6	22.0	22.0	4.0	7.3	0.8	2.0	25.0	32.0
Cycle Q Clear(g_c), s	14.5	0.0	0.0	1.6	22.0	22.0	4.0	7.3	0.8	2.0	25.0	32.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1381	2076	1765	42	650	646	152	1341	570	132	640	544
V/C Ratio(X)	0.51	0.23	0.10	0.72	0.76	0.76	1.60	0.30	0.04	0.58	0.84	2.64
Avail Cap(c_a), veh/h	1381	2076	1765	99	650	646	152	1341	570	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.4	0.0	0.0	46.1	27.8	27.8	45.5	22.2	20.2	45.0	29.2	31.5
Incr Delay (d2), s/veh	0.1	0.3	0.1	8.4	8.2	8.3	299.0	0.6	0.1	1.7	12.7	744.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.2	0.1	0.9	13.0	13.0	8.3	3.9	0.4	1.0	15.3	126.8
LnGrp Delay(d),s/veh	4.5	0.3	0.1	54.5	36.0	36.1	344.5	22.8	20.3	46.7	41.9	776.3
LnGrp LOS	A	A	A	D	D	D	F	C	C	D	D	F
Approach Vol, veh/h		1370			1018			666			2054	
Approach Delay, s/veh		2.5			36.6			140.6			556.2	
Approach LOS		A			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	111.3	9.5	37.5	80.0	38.0	8.0	39.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	3.6	2.0	6.0	34.0	16.5	24.0	4.0	9.3
Green Ext Time (p_c), s	0.0	3.2	0.0	0.0	0.0	2.5	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	250.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)

31: Perris Boulevard & Cactus Avenue
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Volume (veh/h)	253	1097	391	102	572	141	274	1140	136	197	1458	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	258	1119	378	104	584	135	280	1163	128	201	1488	81
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	915	304	1431	3253	750	174	1381	152	188	1021	434
Arrive On Green	0.05	0.33	0.33	0.79	1.00	1.00	0.10	0.27	0.27	0.10	0.27	0.27
Sat Flow, veh/h	1810	2731	906	1810	2989	689	1810	5046	555	1810	3800	1615
Grp Volume(v), veh/h	258	773	724	104	371	348	280	876	415	201	1488	81
Grp Sat Flow(s),veh/h/ln	1810	1900	1737	1810	1900	1778	1810	1900	1801	1810	1900	1615
Q Serve(g_s), s	4.0	26.8	26.8	1.0	0.0	0.0	7.7	17.4	17.4	8.3	21.5	5.6
Cycle Q Clear(g_c), s	4.0	26.8	26.8	1.0	0.0	0.0	7.7	17.4	17.4	8.3	21.5	5.6
Prop In Lane	1.00		0.52	1.00		0.39	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	90	637	582	1431	2068	1935	174	1040	493	188	1021	434
V/C Ratio(X)	2.85	1.21	1.24	0.07	0.18	0.18	1.61	0.84	0.84	1.07	1.46	0.19
Avail Cap(c_a), veh/h	90	637	582	1431	2068	1935	174	1040	493	188	1021	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	26.6	26.6	1.9	0.0	0.0	36.2	27.4	27.4	35.8	29.2	73.6
Incr Delay (d2), s/veh	862.8	110.2	124.1	0.0	0.2	0.2	298.5	8.2	15.9	85.7	211.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.7	33.5	32.8	0.5	0.1	0.1	18.3	10.3	10.8	8.6	41.2	2.6
LnGrp Delay(d),s/veh	900.8	136.8	150.7	1.9	0.2	0.2	334.6	35.7	43.3	121.5	240.4	74.6
LnGrp LOS	F	F	F	A	A	A	F	D	D	F	F	E
Approach Vol, veh/h		1755			823			1571			1770	
Approach Delay, s/veh		254.9			0.4			91.0			219.3	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	70.1	32.3	13.2	27.0	8.5	93.9	12.8	27.4
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 27	7.7	* 22	4.0	26.8	8.3	20.9
Max Q Clear Time (g_c+I1), s	13.0	28.8	9.7	23.5	6.0	2.0	10.3	19.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.8	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	165.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	79	166	100	238	121	134	67	1361	209	211	1247	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	182	94	262	133	47	74	1496	205	232	1370	63
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	210	268	309	324	270	428	2003	274	143	1315	60
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.24	0.41	0.41	0.08	0.24	0.24
Sat Flow, veh/h	605	1265	1612	1810	1900	1583	1810	4899	670	1810	5404	248
Grp Volume(v), veh/h	269	0	94	262	133	47	74	1160	541	232	963	470
Grp Sat Flow(s),veh/h/ln	1870	0	1612	1810	1900	1583	1810	1900	1769	1810	1900	1852
Q Serve(g_s), s	16.8	0.0	6.2	16.8	7.5	3.0	3.9	31.2	31.2	9.5	29.2	29.2
Cycle Q Clear(g_c), s	16.8	0.0	6.2	16.8	7.5	3.0	3.9	31.2	31.2	9.5	29.2	29.2
Prop In Lane	0.32		1.00	1.00		1.00	1.00		0.38	1.00		0.13
Lane Grp Cap(c), veh/h	311	0	268	309	324	270	428	1554	723	143	925	451
V/C Ratio(X)	0.87	0.00	0.35	0.85	0.41	0.17	0.17	0.75	0.75	1.62	1.04	1.04
Avail Cap(c_a), veh/h	467	0	403	452	475	396	428	1554	723	143	925	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	0.0	44.3	48.3	44.4	42.5	36.5	30.2	30.2	55.3	45.4	45.4
Incr Delay (d2), s/veh	7.3	0.0	0.3	6.7	0.3	0.1	0.9	3.3	7.0	308.5	41.1	53.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	0.0	2.8	9.0	4.0	1.3	2.1	17.0	16.6	17.0	20.6	21.6
LnGrp Delay(d),s/veh	56.0	0.0	44.6	55.0	44.7	42.6	37.4	33.5	37.2	363.7	86.5	99.1
LnGrp LOS	E		D	D	D	D	D	C	D	F	F	F
Approach Vol, veh/h		363			442			1775			1665	
Approach Delay, s/veh		53.0			50.6			34.8			128.7	
Approach LOS		D			D			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	54.6		25.5	33.9	34.7		26.0
Change Period (Y+Rc), s	4.5	5.5		5.5	5.5	* 5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	* 29		30.0
Max Q Clear Time (g_c+I1), s	11.5	33.2		18.8	5.9	31.2		18.8
Green Ext Time (p_c), s	0.0	0.0		1.0	2.6	0.0		1.1

Intersection Summary		
HCM 2010 Ctrl Delay		74.8
HCM 2010 LOS		E

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues
1: I-215 SB Ramps & Cactus Av.

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	609	131	611	2598	982	565
v/c Ratio	0.50	0.19	1.26	1.07	1.28	1.19
Control Delay	18.3	4.2	158.7	52.6	150.0	127.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	4.2	158.7	52.6	150.0	127.9
Queue Length 50th (ft)	87	0	~287	~536	~288	~218
Queue Length 95th (ft)	128	30	#460	#663	#498	#392
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	697	484	2438	769	474
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.19	1.26	1.07	1.28	1.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/13/2015

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	557	46	245	306	1572	411
v/c Ratio	0.59	0.09	0.76	0.18	1.81	0.43
Control Delay	42.5	5.0	61.6	23.7	392.5	13.7
Queue Delay	61.3	0.0	0.8	0.0	0.5	0.0
Total Delay	103.8	5.0	62.4	23.7	393.0	13.7
Queue Length 50th (ft)	190	0	77	68	~1832	116
Queue Length 95th (ft)	247	19	#237	150	#2096	198
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	950	523	324	1741	870	963
Starvation Cap Reductn	0	0	10	0	0	0
Spillback Cap Reductn	699	0	0	0	80	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.22	0.09	0.78	0.18	1.99	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues Moreno Valley Logistics Center TIA (JN 09301)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av. 7/13/2015

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	40	1503	2949	896	389	53	74
v/c Ratio	0.34	0.70	1.38	2.33	0.71	0.32	0.13
Control Delay	17.8	12.5	192.8	624.3	29.0	24.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	12.5	192.8	624.3	29.0	24.5	11.6
Queue Length 50th (ft)	8	192	~805	~596	134	16	12
Queue Length 95th (ft)	33	259	#938	#800	#235	46	38
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2136	2139	385	548	167	560
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.70	1.38	2.33	0.71	0.32	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/13/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	341	1832	470	687	91	339
v/c Ratio	0.83	0.66	0.26	0.57	0.25	0.84
Control Delay	24.2	15.6	20.1	6.1	43.3	58.8
Queue Delay	0.4	49.2	0.0	0.0	0.0	0.0
Total Delay	24.6	64.7	20.1	6.1	43.3	58.8
Queue Length 50th (ft)	17	394	105	46	60	220
Queue Length 95th (ft)	18	m224	159	160	110	#375
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1819	1210	364	404
Starvation Cap Reductn	37	1567	0	0	0	0
Spillback Cap Reductn	0	0	6	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	1.54	0.26	0.57	0.25	0.84

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	1643	624	1073	715	1042	291
v/c Ratio	1.35	0.69	2.22	0.29	1.43	0.50
Control Delay	186.2	9.8	573.7	5.1	217.8	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	186.2	9.8	573.7	5.1	217.8	8.0
Queue Length 50th (ft)	~403	48	~647	47	~369	10
Queue Length 95th (ft)	#519	144	#855	68	#584	66
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	909	484	2438	729	584
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.35	0.69	2.22	0.29	1.43	0.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/13/2015

Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	767	112	557	215	837	446
v/c Ratio	0.81	0.22	1.69	0.12	0.97	0.42
Control Delay	50.0	19.1	356.9	43.3	56.4	6.1
Queue Delay	0.1	0.0	0.9	0.0	0.0	0.0
Total Delay	50.1	19.1	357.8	43.3	56.4	6.1
Queue Length 50th (ft)	280	32	~659	85	613	42
Queue Length 95th (ft)	351	79	#885	125	#891	111
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	950	519	330	1753	870	1059
Starvation Cap Reductn	0	0	25	0	0	0
Spillback Cap Reductn	4	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.22	1.83	0.12	0.96	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	2603	2636	146	94	118	69
v/c Ratio	0.24	1.21	1.24	0.38	0.17	0.31	0.13
Control Delay	13.6	118.3	129.2	22.1	17.7	21.0	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	118.3	129.2	22.1	17.7	21.0	17.6
Queue Length 50th (ft)	5	~648	~671	46	26	36	20
Queue Length 95th (ft)	22	#780	#804	93	58	77	46
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2147	2132	387	547	378	545
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	1.21	1.24	0.38	0.17	0.31	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues — Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/13/2015

	↗	→	←	↖	↑	↗
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	596	1096	758	1631	58	215
v/c Ratio	1.03	0.40	0.51	1.60	0.16	0.44
Control Delay	84.5	8.6	29.2	297.3	41.9	17.3
Queue Delay	24.7	1.5	1.9	0.0	0.0	0.0
Total Delay	109.2	10.0	31.1	297.3	41.9	17.3
Queue Length 50th (ft)	247	149	220	~1587	38	43
Queue Length 95th (ft)	#293	m163	272	#1825	76	113
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1488	1018	364	484
Starvation Cap Reductn	44	1391	0	0	0	0
Spillback Cap Reductn	0	0	543	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.80	0.80	1.60	0.16	0.44

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	609	131	611	2598	1189	565
v/c Ratio	0.50	0.19	1.26	1.07	1.55	1.19
Control Delay	18.3	4.2	158.7	52.6	269.1	127.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	4.2	158.7	52.6	269.1	127.9
Queue Length 50th (ft)	87	0	~287	~536	~455	~218
Queue Length 95th (ft)	128	30	#460	#663	#677	#392
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	697	484	2438	769	474
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.19	1.26	1.07	1.55	1.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/13/2015

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	557	46	264	306	1641	411
v/c Ratio	0.59	0.09	0.81	0.18	1.89	0.43
Control Delay	42.5	5.0	66.7	23.9	427.2	14.1
Queue Delay	61.3	0.0	1.2	0.0	0.7	0.0
Total Delay	103.8	5.0	67.9	23.9	427.9	14.1
Queue Length 50th (ft)	190	0	83	69	~1943	121
Queue Length 95th (ft)	247	19	#277	151	#2208	202
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	950	523	324	1741	870	959
Starvation Cap Reductn	0	0	9	0	0	0
Spillback Cap Reductn	699	0	0	0	99	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.22	0.09	0.84	0.18	2.13	0.43

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	40	1704	2995	896	389	53	74
v/c Ratio	0.34	0.80	1.40	2.33	0.71	0.32	0.13
Control Delay	17.8	14.9	202.4	624.3	29.0	24.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	14.9	202.4	624.3	29.0	24.5	11.6
Queue Length 50th (ft)	8	240	~825	~596	134	16	12
Queue Length 95th (ft)	33	324	#958	#800	#235	46	38
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2135	2139	385	548	167	560
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.80	1.40	2.33	0.71	0.32	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	341	1902	489	702	91	427
v/c Ratio	0.83	0.69	0.27	0.58	0.25	1.06
Control Delay	24.5	16.3	20.2	6.5	43.3	101.9
Queue Delay	0.4	49.1	0.0	0.0	0.0	0.0
Total Delay	24.8	65.4	20.2	6.5	43.3	101.9
Queue Length 50th (ft)	18	409	110	53	60	~329
Queue Length 95th (ft)	19	m224	165	175	110	#534
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1819	1210	364	404
Starvation Cap Reductn	37	1567	0	0	0	0
Spillback Cap Reductn	0	0	13	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.63	1.60	0.27	0.58	0.25	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queues

1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/13/2015

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	1643	624	1073	715	1097	291
v/c Ratio	1.35	0.69	2.22	0.29	1.50	0.50
Control Delay	186.2	9.8	573.7	5.1	251.3	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	186.2	9.8	573.7	5.1	251.3	8.0
Queue Length 50th (ft)	~403	48	~647	47	~413	10
Queue Length 95th (ft)	#519	144	#855	68	#631	66
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	909	484	2438	729	584
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.35	0.69	2.22	0.29	1.50	0.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	767	112	650	215	855	446
v/c Ratio	0.81	0.22	2.01	0.12	0.98	0.42
Control Delay	50.0	19.1	491.8	43.2	59.3	6.3
Queue Delay	0.1	0.0	0.9	0.0	0.0	0.0
Total Delay	50.1	19.1	492.7	43.2	59.3	6.3
Queue Length 50th (ft)	280	32	~813	85	637	46
Queue Length 95th (ft)	351	79	#1050	125	#920	115
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	950	519	324	1741	870	1055
Starvation Cap Reductn	0	0	25	0	0	0
Spillback Cap Reductn	4	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.22	2.17	0.12	0.98	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	2657	2860	146	94	118	69
v/c Ratio	0.24	1.24	1.34	0.38	0.17	0.31	0.13
Control Delay	13.6	129.5	176.5	22.1	17.9	21.0	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	129.5	176.5	22.1	17.9	21.0	17.8
Queue Length 50th (ft)	5	~672	~769	46	27	36	20
Queue Length 95th (ft)	22	#804	#903	93	59	77	47
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2147	2131	387	546	378	544
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	1.24	1.34	0.38	0.17	0.31	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues | Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. | 7/13/2015

	↖	→	←	↖	↑	↱
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	596	1115	856	1711	58	237
v/c Ratio	1.03	0.40	0.58	1.68	0.16	0.49
Control Delay	84.5	8.8	30.6	332.1	41.9	20.9
Queue Delay	24.7	1.6	4.7	0.0	0.0	0.0
Total Delay	109.2	10.4	35.3	332.1	41.9	20.9
Queue Length 50th (ft)	247	156	257	~1719	38	62
Queue Length 95th (ft)	#293	m164	314	#1955	76	139
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1488	1018	364	480
Starvation Cap Reductn	44	1390	0	0	0	0
Spillback Cap Reductn	0	0	548	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.12	0.82	0.91	1.68	0.16	0.49

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 6.5:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2020 Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Krameria Avenue (North)**

Total of Both Approaches (VPH) = **268**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Cosmos Street**

High Volume Approach (VPH) = **132**

Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

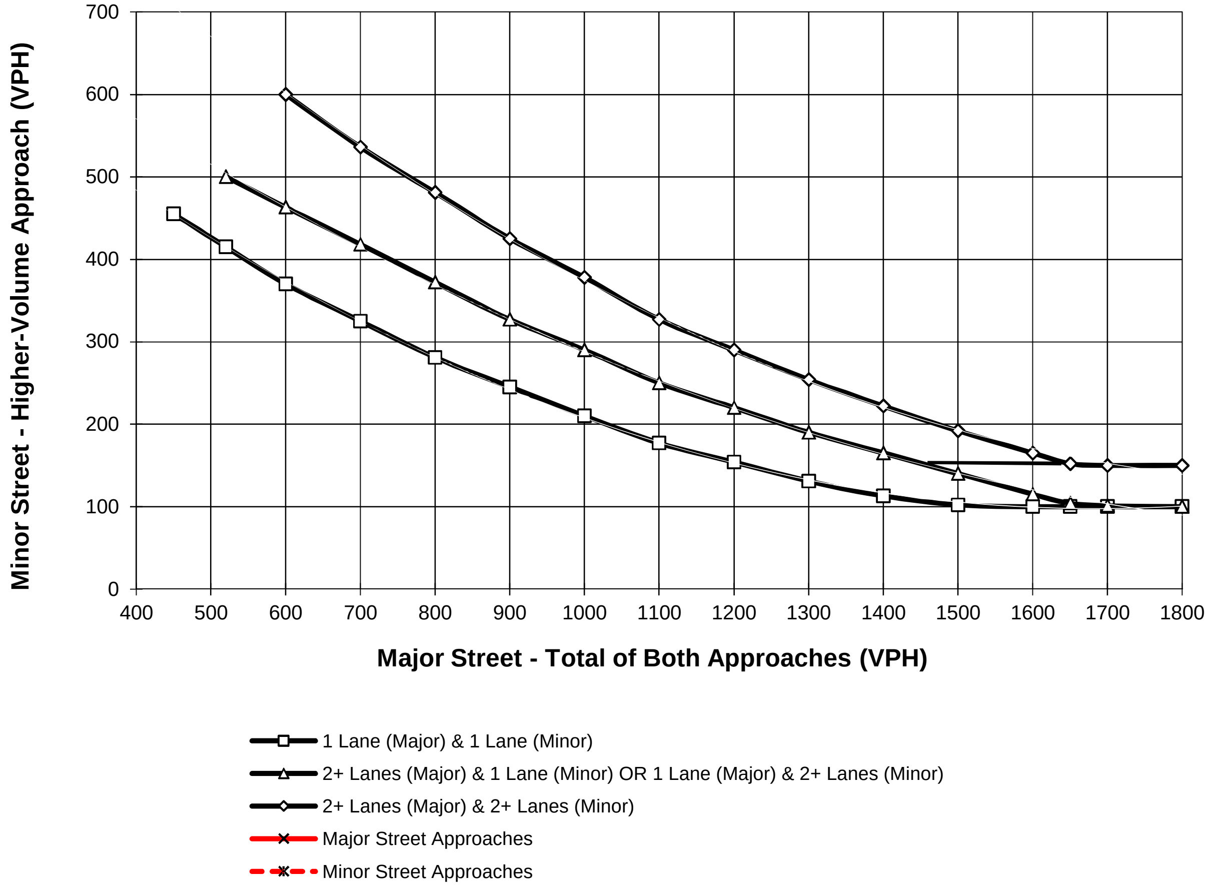

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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APPENDIX 6.6:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2020 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Heacock St**

Minor Street: **Driveway 1**

Critical Approach Speed (Major) 50 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **21,584** vpd

Minor Street Future ADT = **281** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **21,584**	*1* **281**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **21,584**	*1* **281**	12,000	8,400 *	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..					
A	**B**				
17%	33%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___	CO ___	RTE ___	PM ___	TRAFFIC CONDITIONS	2020 WP
				CALC CHS	DATE 07/12/15
Jurisdiction:	City of Moreno Valley			CHK CHS	DATE 07/12/15
Major Street:	**Heacock St**			Critical Approach Speed (Major)	50 mph
Minor Street:	**Driveway 2**			Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **21,563** vpd

Minor Street Future ADT = **718** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **21,563**	1 **718**	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **21,563**	1 **718**	12,000	8,400 *	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..					
A	B				
43%	84%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2020 With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Krameria Avenue (North)**
Total of Both Approaches (VPH) = **481**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Cosmos Street**
High Volume Approach (VPH) = **180**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

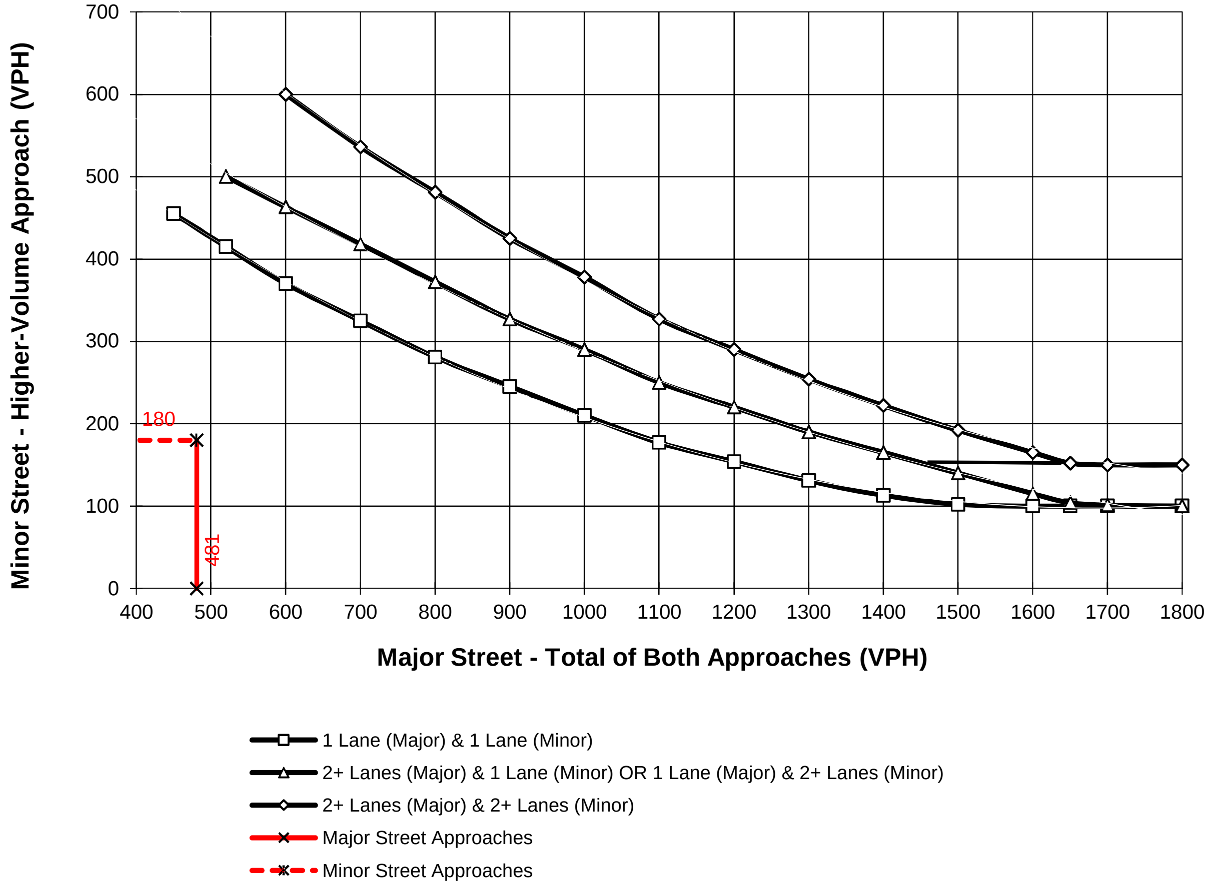

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2020 WP**

___ DIST ___ CO ___ RTE ___ PM

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Cosmos Street**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,893** vpd

Minor Street Future ADT = **3,164** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,893**	1 **3,164**	8,000	5,600	2,400 *	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,893**	1 **3,164**	12,000	8,400	1,200 *	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	**B**				
36%	**24%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2020 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 3**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **5,013** vpd

Minor Street Future ADT = **456** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **5,013**	*1* **456**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic					
Satisfied	Not Satisfied	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **5,013**	*1* **456**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied	2 CONDITIONS 80%		2 CONDITIONS 80%	
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	B				
19%	38%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2020 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 4**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,645** vpd

Minor Street Future ADT = **194** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,645**	1 **194**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,645**	1 **194**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	B				
8%	16%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2020 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 5**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,356** vpd

Minor Street Future ADT = **447** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population ……………………. ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN XX RURAL

CONDITION A - Minimum Vehicular Volume

Satisfied ___ Not Satisfied XX

Minimum Requirements EADT

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches): Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only): Urban	Rural
1 **4,356**	1 **447**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied ___ Not Satisfied XX

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches): Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only): Urban	Rural
1 **4,356**	1 **447**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied ___ Not Satisfied XX

No one condition satisfied, but following conditions fulfilled 80% of more …..

A	B
19%	36%

Vehicles Per Day on Major Street	Vehicles Per Day on Minor Street Approach
2 CONDITIONS 80%	2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 6.7:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6805	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1923	pc/h/ln
S	63.9	mph
D = v_p / S	30.1	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6203	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1736	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	66.7	mph	S	mph
D = v_p / S	26.0	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3813	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	12
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.943

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	3		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1464	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	69.2	mph	S	mph
D = v_p / S	21.2	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2842	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1066	pc/h/ln
S	70.0	mph
D = v_p / S	15.2	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3749	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1065	pc/h/ln
S	70.0	mph
D = v_p / S	15.2	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5378	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1505	pc/h/ln
S	68.9	mph
D = v_p / S	21.8	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5505	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2084	pc/h/ln
S	60.9	mph
D = v_p / S	34.2	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5096	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1920	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	64.0	mph	S		mph
D = v_p / S	30.0	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6978	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1953	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	63.4	mph	S		mph
D = v_p / S	30.8	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7416	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2066	pc/h/ln
S	61.3	mph
D = v_p / S	33.7	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5326	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2026	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	62.1	mph	S		mph
D = v_p / S	32.6	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4882	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1848	pc/h/ln
S	65.1	mph
D = v_p / S	28.4	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4178	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	11
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.948

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1198	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	17.1	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4173	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1168	pc/h/ln
S	70.0	mph
D = v_p / S	16.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4610	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1754	pc/h/ln
S	66.4	mph
D = v_p / S	26.4	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3481	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1299	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	69.9	mph	S	mph
D = v_p / S	18.6	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 6.8:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6972	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	4		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1980	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	62.9	mph	S	mph
D = v_p / S	31.5	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6250	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1749	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	66.5	mph	S		mph
D = v_p / S	26.3	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3859	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	12
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.943

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1482	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	69.1	mph	S		mph
D = v_p / S	21.5	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2858	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1072	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	15.3	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3785	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1080	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	15.4	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	B		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5388	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1508	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	68.9	mph	S		mph
D = v_p / S	21.9	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	C		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5515	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2088	pc/h/ln
S	60.9	mph
D = v_p / S	34.3	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5158	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1944	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	63.6	mph	S		mph
D = v_p / S	30.6	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7019	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1965	pc/h/ln
S	63.2	mph
D = v_p / S	31.1	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7427	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2069	pc/h/ln
S	61.2	mph
D = v_p / S	33.8	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5337	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2030	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	62.0	mph	S		mph
D = v_p / S	32.7	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4956	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1876	pc/h/ln
S	64.7	mph
D = v_p / S	29.0	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4357	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	13
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.939

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1261	pc/h/ln
S	70.0	mph
D = v_p / S	18.0	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4222	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1182	pc/h/ln
S	70.0	mph
D = v_p / S	16.9	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4659	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1772	pc/h/ln
S	66.2	mph
D = v_p / S	26.8	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3496	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1305	pc/h/ln
S	69.9	mph
D = v_p / S	18.7	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 6.9:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 445 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6360
Ramp Volume, V_R	819
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6360	0.92	Level	8	0	0.962	1.00	7190
Ramp	819	0.92	Level	24	0	0.893	1.00	997
UpStream	445	0.92	Level	13	0	0.939	1.00	515
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3697 pc/h

V_3 or V_{av34} 1746 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7190	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6193	Exhibit 13-8	9600	No
V_R	997	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3697	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 36.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.778 (Exhibit 13-12)

S_R= 48.2 mph (Exhibit 13-12)

S_0= 73.9 mph (Exhibit 13-12)

S = 58.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6360
Ramp Volume, V_R	819
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 663 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6360	0.92	Level	8	0	0.962	1.00	7190
Ramp	819	0.92	Level	24	0	0.893	1.00	997
UpStream								
DownStream	663	0.92	Level	7	0	0.966	1.00	746

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3697 pc/h

V_3 or V_{av34} 1746 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7190	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6193	Exhibit 13-8	9600	No
V_R	997	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3697	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$$

D_R = 36.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.778 (Exhibit 13-12)

S_R= 48.2 mph (Exhibit 13-12)

S_0= 73.9 mph (Exhibit 13-12)

S = 58.0 mph (Exhibit 13-13)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	3813
Ramp Volume, V_R	1164
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 193 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3813	0.92	Level	12	0	0.943	1.00	4393
Ramp	1164	0.92	Level	26	0	0.885	1.00	1430
UpStream								
DownStream	193	0.92	Level	27	0	0.881	1.00	238

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.584 using Equation (Exhibit 13-7)

V_{12} = 3162 pc/h

V_3 or V_{av34} 1231 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4393	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2963	Exhibit 13-8	7200	No
V_R	1430	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3162	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 29.7 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.427 (Exhibit 13-12)

S_R= 58.1 mph (Exhibit 13-12)

S_0= 75.9 mph (Exhibit 13-12)

S = 62.1 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 1164 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	2648
Ramp Volume, V_R	193
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2648	0.92	Level	5	0	0.976	1.00	2950
Ramp	193	0.92	Level	27	0	0.881	1.00	238
UpStream	1164	0.92	Level	26	0	0.885	1.00	1430
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 749.07 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 1725 pc/h

V_3 or V_{av34} 1225 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1725 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3188	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1963	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 19.0 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

M_S = 0.325 (Exibit 13-11)

S_R= 60.9 mph (Exhibit 13-11)

S_0= 67.4 mph (Exhibit 13-11)

S = 63.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 64 veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A 0

Deceleration Lane Length L_D

Freeway Volume, V_F 3282

Ramp Volume, V_R 466

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3282	0.92	Level	8	0	0.962	1.00	3710
Ramp	466	0.92	Level	20	0	0.909	1.00	557
UpStream	64	0.92	Level	30	0	0.870	1.00	80
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2143 pc/h

V_3 or V_{av34} 1567 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2143 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4267	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2700	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 26.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.379 (Exibit 13-11)

S_R= 59.4 mph (Exhibit 13-11)

S_0= 66.2 mph (Exhibit 13-11)

S = 61.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 309 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	4787
Ramp Volume, V_R	718
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4787	0.92	Level	7	0	0.966	1.00	5385
Ramp	718	0.92	Level	18	0	0.917	1.00	851
UpStream	309	0.92	Level	18	0	0.917	1.00	366
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1419.10 (Equation 13-6 or 13-7)

P_{FM} = 0.584 using Equation (Exhibit 13-6)

V_{12} = 3146 pc/h

V_3 or V_{av34} 2239 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3146 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6236	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3997	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 34.4 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.506 (Exibit 13-11)

S_R= 55.8 mph (Exhibit 13-11)

S_0= 63.7 mph (Exhibit 13-11)

S = 58.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	5096
Ramp Volume, V_R	309
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 718 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5096	0.92	Level	8	0	0.962	1.00	5761
Ramp	309	0.92	Level	18	0	0.917	1.00	366
UpStream								
DownStream	718	0.92	Level	18	0	0.917	1.00	851

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.599 using Equation (Exhibit 13-7)

V_{12} = 3598 pc/h

V_3 or V_{av34} 2163 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5761	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5395	Exhibit 13-8	7200	No
V_R	366	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3598	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 32.7 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.331 (Exhibit 13-12)

S_R= 60.7 mph (Exhibit 13-12)

S_0= 72.3 mph (Exhibit 13-12)

S = 64.6 mph (Exhibit 13-13)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 227 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6751
Ramp Volume, V_R	899
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6751	0.92	Level	6	0	0.971	1.00	7558
Ramp	899	0.92	Level	11	0	0.948	1.00	1031
UpStream	227	0.92	Level	12	0	0.943	1.00	262
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3877 pc/h

V_3 or V_{av34} 1840 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7558	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6527	Exhibit 13-8	9600	No
V_R	1031	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3877	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 37.6 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.781 (Exhibit 13-12)

S_R= 48.1 mph (Exhibit 13-12)

S_0= 73.5 mph (Exhibit 13-12)

S = 57.9 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6751
Ramp Volume, V_R	899
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 1564 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6751	0.92	Level	6	0	0.971	1.00	7558
Ramp	899	0.92	Level	11	0	0.948	1.00	1031
UpStream								
DownStream	1564	0.92	Level	6	0	0.971	1.00	1751

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3877 pc/h

V_3 or V_{av34} 1840 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7558	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6527	Exhibit 13-8	9600	No
V_R	1031	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3877	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 37.6 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.781 (Exhibit 13-12)

S_R= 48.1 mph (Exhibit 13-12)

S_0= 73.5 mph (Exhibit 13-12)

S = 57.9 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	5326
Ramp Volume, V_R	869
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 425 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5326	0.92	Level	10	0	0.952	1.00	6079
Ramp	869	0.92	Level	20	0	0.909	1.00	1039
UpStream								
DownStream	425	0.92	Level	22	0	0.901	1.00	513

Merge Areas	Diverge Areas
Estimation of v_{12}	**Estimation of v_{12}**
$V_{12} = V_F\ (P_{FM})$	$V_{12} = V_R + (V_F - V_R)P_{FD}$
L_{EQ} = (Equation 13-6 or 13-7)	L_{EQ} = (Equation 13-12 or 13-13)
P_{FM} = using Equation (Exhibit 13-6)	P_{FD} = 0.560 using Equation (Exhibit 13-7)
V_{12} = pc/h	V_{12} = 3863 pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)	V_3 or V_{av34} 2216 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No	Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No	Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)	If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6079	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5040	Exhibit 13-8	7200	No
V_R	1039	Exhibit 13-10	2100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3863	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 35.7 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Speed Determination

D_s = 0.392 (Exhibit 13-12)

S_R= 59.0 mph (Exhibit 13-12)

S_0= 72.0 mph (Exhibit 13-12)

S = 63.2 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 869 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	4457
Ramp Volume, V_R	425
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4457	0.92	Level	7	0	0.966	1.00	5014
Ramp	425	0.92	Level	22	0	0.901	1.00	513
UpStream	869	0.92	Level	20	0	0.909	1.00	1039
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 1249.62 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2932 pc/h

V_3 or V_{av34} 2082 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2932 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5527	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3445	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 30.5 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.420 (Exibit 13-11)

S_R= 58.2 mph (Exhibit 13-11)

S_0= 64.3 mph (Exhibit 13-11)

S = 60.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 374 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	3289
Ramp Volume, V_R	889
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3289	0.92	Level	8	0	0.962	1.00	3718
Ramp	889	0.92	Level	23	0	0.897	1.00	1077
UpStream	374	0.92	Level	13	0	0.939	1.00	433
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2147 pc/h

V_3 or V_{av34} 1571 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2147 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4795	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3224	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 30.1 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.419 (Exibit 13-11)

S_R= 58.3 mph (Exhibit 13-11)

S_0= 66.1 mph (Exhibit 13-11)

S = 60.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 208 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	3273
Ramp Volume, V_R	1337
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3273	0.92	Level	5	0	0.976	1.00	3647
Ramp	1337	0.92	Level	22	0	0.901	1.00	1613
UpStream	208	0.92	Level	15	0	0.930	1.00	243
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = 1210.24 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 2137 pc/h

V_3 or V_{av34} 1510 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 2137 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5260	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3750	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = 32.1 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.460 (Exibit 13-11)

S_R= 57.1 mph (Exhibit 13-11)

S_0= 66.4 mph (Exhibit 13-11)

S = 59.5 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

HCS2010^{TM} Version 6.65 Generated: 7/14/2015 12:19 PM

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	3481
Ramp Volume, V_R	208
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 1337 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3481	0.92	Level	6	0	0.971	1.00	3897
Ramp	208	0.92	Level	15	0	0.930	1.00	243
UpStream								
DownStream	1337	0.92	Level	22	0	0.901	1.00	1613

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.651 using Equation (Exhibit 13-7)

V_{12} = 2623 pc/h

V_3 or V_{av34} 1274 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3897	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	3654	Exhibit 13-8	7200	No
V_R	243	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2623	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = 24.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.320 (Exhibit 13-12)

S_R= 61.0 mph (Exhibit 13-12)

S_0= 75.7 mph (Exhibit 13-12)

S = 65.2 mph (Exhibit 13-13)

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APPENDIX 6.10:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 1000 ft
V_u = 445 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6527
Ramp Volume, V_R	940
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6527	0.92	Level	9	0	0.957	1.00	7414
Ramp	940	0.92	Level	27	0	0.881	1.00	1160
UpStream	445	0.92	Level	13	0	0.939	1.00	515
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.436 using Equation (Exhibit 13-7)
V_{12} = 3887 pc/h
V_3 or V_{av34} 1763 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7414	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6254	Exhibit 13-8	9600	No
V_R	1160	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3887	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 37.7 (pc/mi/ln)
LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.792 (Exhibit 13-12)
S_R= 47.8 mph (Exhibit 13-12)
S_0= 73.8 mph (Exhibit 13-12)
S = 57.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information

Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6527
Ramp Volume, V_R	940
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 663 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6527	0.92	Level	9	0	0.957	1.00	7414
Ramp	940	0.92	Level	27	0	0.881	1.00	1160
UpStream								
DownStream	663	0.92	Level	7	0	0.966	1.00	746

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3887 pc/h

V_3 or V_{av34} 1763 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7414	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6254	Exhibit 13-8	9600	No
V_R	1160	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3887	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$$

D_R = 37.7 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.792 (Exhibit 13-12)

S_R= 47.8 mph (Exhibit 13-12)

S_0= 73.8 mph (Exhibit 13-12)

S = 57.4 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A

Deceleration Lane Length L_D 195

Freeway Volume, V_F 3859

Ramp Volume, V_R 1210

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 209 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3859	0.92	Level	12	0	0.943	1.00	4446
Ramp	1210	0.92	Level	26	0	0.885	1.00	1486
UpStream								
DownStream	209	0.92	Level	28	0	0.877	1.00	259

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.580 using Equation (Exhibit 13-7)

V_{12} = 3204 pc/h

V_3 or V_{av34} 1242 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4446	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2960	Exhibit 13-8	7200	No
V_R	1486	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3204	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 30.1 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.432 (Exhibit 13-12)

S_R= 57.9 mph (Exhibit 13-12)

S_0= 75.8 mph (Exhibit 13-12)

S = 62.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 1210 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	2649
Ramp Volume, V_R	209
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2649	0.92	Level	5	0	0.976	1.00	2951
Ramp	209	0.92	Level	28	0	0.877	1.00	259
UpStream	1210	0.92	Level	26	0	0.885	1.00	1486
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = 753.78 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 1726 pc/h

V_3 or V_{av34} 1225 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1726 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3210	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1985	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = 19.2 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

M_S = 0.326 (Exibit 13-11)

S_R= 60.9 mph (Exhibit 13-11)

S_0= 67.4 mph (Exhibit 13-11)

S = 63.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 64 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	3292
Ramp Volume, V_R	493
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3292	0.92	Level	8	0	0.962	1.00	3721
Ramp	493	0.92	Level	22	0	0.901	1.00	595
UpStream	64	0.92	Level	30	0	0.870	1.00	80
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2149 pc/h

V_3 or V_{av34} 1572 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2149 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4316	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2744	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = 26.6 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.382 (Exibit 13-11)

S_R= 59.3 mph (Exhibit 13-11)

S_0= 66.1 mph (Exhibit 13-11)

S = 61.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 371 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	4787
Ramp Volume, V_R	728
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4787	0.92	Level	7	0	0.966	1.00	5385
Ramp	728	0.92	Level	18	0	0.917	1.00	863
UpStream	371	0.92	Level	19	0	0.913	1.00	442
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = 1421.67 (Equation 13-6 or 13-7)

P_{FM} = 0.584 using Equation (Exhibit 13-6)

V_{12} = 3145 pc/h

V_3 or V_{av34} 2240 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3145 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6248	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4008	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$$

D_R = 34.5 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.509 (Exibit 13-11)

S_R= 55.8 mph (Exhibit 13-11)

S_0= 63.7 mph (Exhibit 13-11)

S = 58.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	5158
Ramp Volume, V_R	371
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 728 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5158	0.92	Level	8	0	0.962	1.00	5831
Ramp	371	0.92	Level	19	0	0.913	1.00	442
UpStream								
DownStream	728	0.92	Level	18	0	0.917	1.00	863

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.594 using Equation (Exhibit 13-7)

V_{12} = 3642 pc/h

V_3 or V_{av34} 2189 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5831	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5389	Exhibit 13-8	7200	No
V_R	442	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3642	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 33.1 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.338 (Exhibit 13-12)

S_R= 60.5 mph (Exhibit 13-12)

S_0= 72.2 mph (Exhibit 13-12)

S = 64.4 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 227 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6792
Ramp Volume, V_R	929
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6792	0.92	Level	6	0	0.971	1.00	7604
Ramp	929	0.92	Level	13	0	0.939	1.00	1075
UpStream	227	0.92	Level	12	0	0.943	1.00	262
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3922 pc/h

V_3 or V_{av34} 1841 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7604	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6529	Exhibit 13-8	9600	No
V_R	1075	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3922	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 38.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.785 (Exhibit 13-12)

S_R= 48.0 mph (Exhibit 13-12)

S_0= 73.5 mph (Exhibit 13-12)

S = 57.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6792
Ramp Volume, V_R	929
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 1564 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6792	0.92	Level	6	0	0.971	1.00	7604
Ramp	929	0.92	Level	13	0	0.939	1.00	1075
UpStream								
DownStream	1564	0.92	Level	6	0	0.971	1.00	1751

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3922 pc/h

V_3 or V_{av34} 1841 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7604	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6529	Exhibit 13-8	9600	No
V_R	1075	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3922	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = 38.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.785 (Exhibit 13-12)

S_R= 48.0 mph (Exhibit 13-12)

S_0= 73.5 mph (Exhibit 13-12)

S = 57.7 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	5337
Ramp Volume, V_R	880
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 499 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5337	0.92	Level	10	0	0.952	1.00	6091
Ramp	880	0.92	Level	20	0	0.909	1.00	1052
UpStream								
DownStream	499	0.92	Level	24	0	0.893	1.00	607

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.559 using Equation (Exhibit 13-7)

V_{12} = 3870 pc/h

V_3 or V_{av34} 2221 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6091	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5039	Exhibit 13-8	7200	No
V_R	1052	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3870	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 35.8 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.393 (Exhibit 13-12)

S_R= 59.0 mph (Exhibit 13-12)

S_0= 72.0 mph (Exhibit 13-12)

S = 63.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 880 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	4457
Ramp Volume, V_R	499
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4457	0.92	Level	7	0	0.966	1.00	5014
Ramp	499	0.92	Level	24	0	0.893	1.00	607
UpStream	880	0.92	Level	20	0	0.909	1.00	1052
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = 1269.73 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2932 pc/h

V_3 or V_{av34} 2082 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☑ Yes ☐ No

If Yes,V_{12a} = 2932 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5621	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3539	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = 31.2 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.432 (Exibit 13-11)

S_R= 57.9 mph (Exhibit 13-11)

S_0= 64.3 mph (Exhibit 13-11)

S = 60.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 374 veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A 0

Deceleration Lane Length L_D

Freeway Volume, V_F 3338

Ramp Volume, V_R 1020

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3338	0.92	Level	9	0	0.957	1.00	3792
Ramp	1020	0.92	Level	26	0	0.885	1.00	1253
UpStream	374	0.92	Level	13	0	0.939	1.00	433
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2190 pc/h

V_3 or V_{av34} 1602 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2190 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5045	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3443	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 31.8 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.443 (Exibit 13-11)

S_R= 57.6 mph (Exhibit 13-11)

S_0= 66.0 mph (Exhibit 13-11)

S = 60.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 223 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	3274
Ramp Volume, V_R	1386
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3274	0.92	Level	5	0	0.976	1.00	3648
Ramp	1386	0.92	Level	23	0	0.897	1.00	1680
UpStream	223	0.92	Level	16	0	0.926	1.00	262
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1224.79 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 2137 pc/h

V_3 or V_{av34} 1511 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2137 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5328	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3817	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 32.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.471 (Exibit 13-11)

S_R= 56.8 mph (Exhibit 13-11)

S_0= 66.4 mph (Exhibit 13-11)

S = 59.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	3496
Ramp Volume, V_R	223
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 1386 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3496	0.92	Level	6	0	0.971	1.00	3914
Ramp	223	0.92	Level	16	0	0.926	1.00	262
UpStream								
DownStream	1386	0.92	Level	23	0	0.897	1.00	1680

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.650 using Equation (Exhibit 13-7)

V_{12} = 2636 pc/h

V_3 or V_{av34} 1278 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3914	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	3652	Exhibit 13-8	7200	No
V_R	262	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2636	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 24.4 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.322 (Exhibit 13-12)

S_R= 61.0 mph (Exhibit 13-12)

S_0= 75.7 mph (Exhibit 13-12)

S = 65.1 mph (Exhibit 13-13)

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APPENDIX 6.11:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑							↱↱
Volume (vph)	0	579	124	580	2468	0	0	0	0	0	0	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5							5.6
Lane Util. Factor		*1.00	1.00	*1.00	*1.00							*1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00							0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00							1.00
Frt		1.00	1.00	1.00	1.00							1.00
Flt Protected		1.00	1.00	1.00	1.00							1.00
Satd. Flow (prot)		3800	1900	3800	3800							3707
Flt Permitted		1.00	1.00	1.00	1.00							1.00
Satd. Flow (perm)		3800	1900	3800	3800							3707
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	609	131	611	2598	0	0	0	0	0	0	565
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	0	0	0	49
Lane Group Flow (vph)	0	609	68	611	2598	0	0	0	0	0	0	516
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA							Perm
Protected Phases		2		1	6							
Permitted Phases			2									4
Actuated Green, G (s)		62.0	62.0	23.2	89.2							19.7
Effective Green, g (s)		62.0	62.0	23.2	89.2							19.7
Actuated g/C Ratio		0.52	0.52	0.19	0.74							0.16
Clearance Time (s)		5.5	5.5	4.0	5.5							5.6
Vehicle Extension (s)		2.0	2.0	2.0	2.0							2.0
Lane Grp Cap (vph)		1963	981	734	2824							608
v/s Ratio Prot		0.16		0.16	c0.68							
v/s Ratio Perm			0.04									c0.14
v/c Ratio		0.31	0.07	0.83	0.92							0.85
Uniform Delay, d1		16.7	14.5	46.5	12.5							48.7
Progression Factor		1.00	1.00	0.94	1.32							1.00
Incremental Delay, d2		0.4	0.1	7.4	6.1							10.2
Delay (s)		17.1	14.7	51.2	22.6							58.9
Level of Service		B	B	D	C							E
Approach Delay (s)		16.7			28.0			0.0			58.9	
Approach LOS		B			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	30.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	524	43	230	288	0	0	0	0	1476	2	386
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	557	41	245	306	0				1570	2	347
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	988	420	316	1557	0				1683	4	748
Arrive On Green	0.00	0.26	0.26	0.09	0.41	0.00				0.47	0.47	0.47
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	9	1607
Grp Volume(v), veh/h	0	557	41	245	306	0				1570	0	349
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	10.2	1.5	5.3	4.1	0.0				32.8	0.0	11.8
Cycle Q Clear(g_c), s	0.0	10.2	1.5	5.3	4.1	0.0				32.8	0.0	11.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	988	420	316	1557	0				1683	0	752
V/C Ratio(X)	0.00	0.56	0.10	0.78	0.20	0.00				0.93	0.00	0.46
Avail Cap(c_a), veh/h	0	988	420	316	1557	0				1719	0	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.97	0.97	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.7	22.5	35.7	15.2	0.0				20.2	0.0	14.6
Incr Delay (d2), s/veh	0.0	2.3	0.5	10.2	0.3	0.0				9.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.7	0.7	3.1	2.2	0.0				18.4	0.0	5.3
LnGrp Delay(d),s/veh	0.0	28.0	22.9	45.9	15.4	0.0				29.9	0.0	15.0
LnGrp LOS		C	C	D	B					C		B
Approach Vol, veh/h		598			551						1919	
Approach Delay, s/veh		27.6			29.0						27.2	
Approach LOS		C			C						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	12.0	25.8		42.2		37.8		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	6.7	* 21		38.0		32.0		
Max Q Clear Time (g_c+I1), s	7.3	12.2		34.8		6.1		
Green Ext Time (p_c), s	0.0	1.6		2.4		1.5		

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av. 7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰↰	↱		↰	↱	
Volume (veh/h)	39	1372	101	0	2643	247	878	345	36	52	0	73
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	1400	97	0	2697	208	896	352	37	53	0	69
Adj No. of Lanes	1	3	0	0	3	0	2	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	3399	236	0	3378	254	825	537	56	139	0	247
Arrive On Green	0.21	0.21	0.21	0.00	0.65	0.65	0.23	0.32	0.32	0.08	0.00	0.16
Sat Flow, veh/h	89	5270	365	0	5237	393	3510	1688	177	1810	0	1591
Grp Volume(v), veh/h	40	1009	488	0	1937	968	896	0	389	53	0	69
Grp Sat Flow(s),veh/h/ln	89	1900	1836	0	1900	1831	1755	0	1866	1810	0	1591
Q Serve(g_s), s	27.7	27.5	27.5	0.0	44.3	47.8	28.2	0.0	21.5	3.3	0.0	4.6
Cycle Q Clear(g_c), s	77.4	27.5	27.5	0.0	44.3	47.8	28.2	0.0	21.5	3.3	0.0	4.6
Prop In Lane	1.00		0.20	0.00		0.21	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	80	2451	1184	0	2451	1181	825	0	594	139	0	247
V/C Ratio(X)	0.50	0.41	0.41	0.00	0.79	0.82	1.09	0.00	0.65	0.38	0.00	0.28
Avail Cap(c_a), veh/h	80	2451	1184	0	2451	1181	825	0	594	139	0	247
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	78.9	27.6	27.6	0.0	15.4	16.0	45.9	0.0	35.2	52.7	0.0	44.8
Incr Delay (d2), s/veh	20.3	0.5	1.1	0.0	2.7	6.4	57.3	0.0	5.6	0.6	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	14.7	14.4	0.0	23.8	26.0	20.2	0.0	12.0	1.7	0.0	2.2
LnGrp Delay(d),s/veh	99.2	28.1	28.7	0.0	18.1	22.5	103.2	0.0	40.8	53.3	0.0	47.6
LnGrp LOS	F	C	C		B	C	F		D	D		D
Approach Vol, veh/h		1537			2905			1285			122	
Approach Delay, s/veh		30.1			19.6			84.3			50.1	
Approach LOS		C			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		83.0	33.8	24.2		83.0	14.8	43.2
Change Period (Y+Rc), s		5.0	5.6	* 5.6		5.0	5.6	5.0
Max Green Setting (Gmax), s		57.6	28.2	* 19		57.6	8.6	38.2
Max Q Clear Time (g_c+I1), s		79.4	30.2	6.6		49.8	5.3	23.5
Green Ext Time (p_c), s		0.0	0.0	0.2		7.6	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	314	1685	0	0	432	632	84	0	312	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	341	1832	0	0	470	0	91	0	253			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	549	2477	0	0	1742	740	528	0	471			
Arrive On Green	0.15	0.65	0.00	0.00	0.46	0.00	0.29	0.00	0.29			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	341	1832	0	0	470	0	91	0	253			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	10.6	38.9	0.0	0.0	9.2	0.0	4.5	0.0	15.8			
Cycle Q Clear(g_c), s	10.6	38.9	0.0	0.0	9.2	0.0	4.5	0.0	15.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	549	2477	0	0	1742	740	528	0	471			
V/C Ratio(X)	0.62	0.74	0.00	0.00	0.27	0.00	0.17	0.00	0.54			
Avail Cap(c_a), veh/h	549	2477	0	0	1742	740	528	0	471			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.51	0.51	0.00	0.00	0.73	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.7	14.0	0.0	0.0	20.1	0.0	31.7	0.0	35.7			
Incr Delay (d2), s/veh	0.8	1.0	0.0	0.0	0.3	0.0	0.7	0.0	4.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	20.5	0.0	0.0	4.9	0.0	2.4	0.0	7.6			
LnGrp Delay(d),s/veh	48.5	15.1	0.0	0.0	20.4	0.0	32.4	0.0	40.0			
LnGrp LOS	D	B			C		C		D			
Approach Vol, veh/h		2173			470			344				
Approach Delay, s/veh		20.3			20.4			38.0				
Approach LOS		C			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		83.3			23.3	60.0		40.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		75.0			16.5	* 55		35.0
Max Q Clear Time (g_c+I1), s		40.9			12.6	11.2		17.8
Green Ext Time (p_c), s		13.0			2.5	1.9		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	220	2103	256	115	2554	118	59	245	23	109	128	130
Future Volume (veh/h)	220	2103	256	115	2554	118	59	245	23	109	128	130
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	2214	0	121	2688	116	62	258	3	115	135	84
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	2584	732	536	3725	1056	77	461	5	98	489	579
Arrive On Green	0.10	0.45	0.00	0.30	0.65	0.65	0.04	0.25	0.25	0.05	0.26	0.26
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1874	22	1810	1900	1594
Grp Volume(v), veh/h	232	2214	0	121	2688	116	62	0	261	115	135	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1896	1810	1900	1594
Q Serve(g_s), s	12.5	41.7	0.0	6.1	37.1	3.2	4.1	0.0	14.4	6.5	6.8	4.3
Cycle Q Clear(g_c), s	12.5	41.7	0.0	6.1	37.1	3.2	4.1	0.0	14.4	6.5	6.8	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	188	2584	732	536	3725	1056	77	0	466	98	489	579
V/C Ratio(X)	1.23	0.86	0.00	0.23	0.72	0.11	0.81	0.00	0.56	1.17	0.28	0.15
Avail Cap(c_a), veh/h	188	2584	732	536	3725	1056	77	0	466	98	489	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	29.3	0.0	31.9	13.6	7.8	57.0	0.0	39.6	56.8	35.6	25.8
Incr Delay (d2), s/veh	141.3	3.9	0.0	0.1	0.6	0.0	58.3	0.0	4.8	144.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	22.7	0.0	3.0	19.4	1.4	3.3	0.0	8.2	7.2	3.6	1.9
LnGrp Delay(d),s/veh	195.1	33.2	0.0	31.9	14.2	7.8	115.3	0.0	44.4	201.6	35.7	25.9
LnGrp LOS	F	C		C	B	A	F		D	F	D	C
Approach Vol, veh/h		2446			2925			323			334	
Approach Delay, s/veh		48.6			14.7			58.0			90.4	
Approach LOS		D			B			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.4	59.9	10.6	36.4	17.0	84.3	12.0	35.0
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	8.6	* 54	5.1	30.9	12.5	50.5	6.5	29.5
Max Q Clear Time (g_c+I1), s	8.1	43.7	6.1	8.8	14.5	39.1	8.5	16.4
Green Ext Time (p_c), s	0.0	7.3	0.0	1.6	0.0	9.2	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	↗	→	←	↖	↘	↙		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	↰	↑↑	↑↑	↱	↰↱			
Volume (veh/h)	62	1936	1021	39	9	44		
Number	5	2	6	16	7	14		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	69	2151	1134	43	10	49		
Adj No. of Lanes	1	2	2	1	0	0		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	89	2196	1818	765	82	404		
Arrive On Green	0.05	0.58	0.48	0.48	0.30	0.30		
Sat Flow, veh/h	1810	3800	3800	1600	275	1346		
Grp Volume(v), veh/h	69	2151	1134	43	60	0		
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1600	1649	0		
Q Serve(g_s), s	3.4	49.6	20.0	1.3	2.4	0.0		
Cycle Q Clear(g_c), s	3.4	49.6	20.0	1.3	2.4	0.0		
Prop In Lane	1.00			1.00	0.17	0.82		
Lane Grp Cap(c), veh/h	89	2196	1818	765	495	0		
V/C Ratio(X)	0.77	0.98	0.62	0.06	0.12	0.00		
Avail Cap(c_a), veh/h	171	2196	1818	765	495	0		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	0.59	0.59	1.00	1.00	1.00	0.00		
Uniform Delay (d), s/veh	42.3	18.5	17.5	12.6	22.9	0.0		
Incr Delay (d2), s/veh	3.2	10.8	1.6	0.1	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	1.8	29.0	10.8	0.6	1.2	0.0		
LnGrp Delay(d),s/veh	45.4	29.3	19.1	12.7	23.4	0.0		
LnGrp LOS	D	C	B	B	C			
Approach Vol, veh/h		2220	1177		60			
Approach Delay, s/veh		29.8	18.8		23.4			
Approach LOS		C	B		C			
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		57.5		32.5	8.9	48.6		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		52.0		27.0	8.5	39.0		
Max Q Clear Time (g_c+I1), s		51.6		4.4	5.4	22.0		
Green Ext Time (p_c), s		0.4		0.1	0.0	14.2		
Intersection Summary								
HCM 2010 Ctrl Delay			25.9					
HCM 2010 LOS			C					

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
2/26/2016

	↰	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	151	1682	271	32	2493	126	211	91	24	94	95	121
Future Volume (veh/h)	151	1682	271	32	2493	126	211	91	24	94	95	121
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	1809	0	34	2681	133	227	98	23	101	102	95
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	4498	1274	43	4115	201	236	735	167	115	892	454
Arrive On Green	0.05	0.79	0.00	0.02	0.76	0.76	0.07	0.25	0.25	0.06	0.23	0.23
Sat Flow, veh/h	1810	5700	1615	1810	5390	263	3619	2997	681	1810	3800	1593
Grp Volume(v), veh/h	162	1809	0	34	1878	936	227	61	60	101	102	95
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1854	1810	1900	1778	1810	1900	1593
Q Serve(g_s), s	5.7	11.3	0.0	2.1	26.6	27.7	7.2	2.9	3.0	6.4	2.4	5.9
Cycle Q Clear(g_c), s	5.7	11.3	0.0	2.1	26.6	27.7	7.2	2.9	3.0	6.4	2.4	5.9
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	90	4498	1274	43	2901	1415	236	466	436	115	892	454
V/C Ratio(X)	1.81	0.40	0.00	0.79	0.65	0.66	0.96	0.13	0.14	0.88	0.11	0.21
Avail Cap(c_a), veh/h	90	4498	1274	96	2901	1415	236	466	436	115	892	454
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	3.7	0.0	55.8	6.4	6.5	53.6	33.8	33.9	53.4	34.6	41.0
Incr Delay (d2), s/veh	398.9	0.2	0.0	1.1	0.1	0.2	47.5	0.6	0.7	47.4	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	6.0	0.0	1.1	13.6	13.9	5.1	1.6	1.6	4.7	1.3	2.7
LnGrp Delay(d),s/veh	453.6	4.0	0.0	56.9	6.5	6.7	101.1	34.4	34.6	100.8	34.9	42.1
LnGrp LOS	F	A		E	A	A	F	C	C	F	C	D
Approach Vol, veh/h		1971			2848			348			298	
Approach Delay, s/veh		40.9			7.1			77.9			59.5	
Approach LOS		D			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	97.2	13.0	32.5	10.2	94.3	11.8	33.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	6.1	54.4	7.5	* 27	5.7	54.8	7.3	27.2
Max Q Clear Time (g_c+I1), s	4.1	13.3	9.2	7.9	7.7	29.7	8.4	5.0
Green Ext Time (p_c), s	0.0	35.5	0.0	0.4	0.0	22.8	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Notes

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

9: Patterson Avenue & Harley Knox Boulevard

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱		✥			↰↑	↱
Volume (veh/h)	84	1821	23	7	937	2	133	0	20	0	2	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	1917	24	7	986	2	140	0	21	0	2	21
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	2032	864	13	1821	774	427	5	54	0	543	462
Arrive On Green	0.06	0.53	0.53	0.01	0.48	0.48	0.29	0.00	0.29	0.00	0.29	0.29
Sat Flow, veh/h	1810	3800	1615	1810	3800	1615	1232	19	188	0	1900	1615
Grp Volume(v), veh/h	88	1917	24	7	986	2	161	0	0	0	2	21
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1439	0	0	0	1900	1615
Q Serve(g_s), s	4.3	42.6	0.6	0.3	16.4	0.1	7.7	0.0	0.0	0.0	0.1	0.8
Cycle Q Clear(g_c), s	4.3	42.6	0.6	0.3	16.4	0.1	8.0	0.0	0.0	0.0	0.1	0.8
Prop In Lane	1.00		1.00	1.00		1.00	0.87		0.13	0.00		1.00
Lane Grp Cap(c), veh/h	113	2032	864	13	1821	774	486	0	0	0	543	462
V/C Ratio(X)	0.78	0.94	0.03	0.54	0.54	0.00	0.33	0.00	0.00	0.00	0.00	0.05
Avail Cap(c_a), veh/h	189	2048	870	80	1821	774	486	0	0	0	543	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	19.7	9.9	44.5	16.5	12.2	25.8	0.0	0.0	0.0	23.0	23.2
Incr Delay (d2), s/veh	4.3	9.5	0.0	12.5	0.2	0.0	1.8	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	24.8	0.3	0.2	8.5	0.0	3.5	0.0	0.0	0.0	0.0	0.4
LnGrp Delay(d),s/veh	45.8	29.2	9.9	57.0	16.7	12.2	27.6	0.0	0.0	0.0	23.0	23.4
LnGrp LOS	D	C	A	E	B	B	C				C	C
Approach Vol, veh/h		2029			995			161			23	
Approach Delay, s/veh		29.7			16.9			27.6			23.4	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		31.2	5.1	53.6		31.2	10.1	48.6
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	48.5		22.0	9.4	43.1
Max Q Clear Time (g_c+I1), s		10.0	2.3	44.6		2.8	6.3	18.4
Green Ext Time (p_c), s		0.5	0.0	3.5		0.6	0.0	17.3

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
2/26/2016

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	1011	509	14	1795	147	883	601	15	72	393	67
Future Volume (veh/h)	140	1011	509	14	1795	147	883	601	15	72	393	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	1099	476	15	1951	151	960	653	14	78	427	57
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2531	1431	24	2121	162	799	1417	30	100	685	91
Arrive On Green	0.07	0.67	0.67	0.01	0.61	0.61	0.22	0.38	0.38	0.06	0.21	0.21
Sat Flow, veh/h	1810	3800	1613	1810	3487	266	3619	3705	79	1810	3286	436
Grp Volume(v), veh/h	152	1099	476	15	1051	1051	960	335	332	78	246	238
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1853	1810	1900	1884	1810	1900	1822
Q Serve(g_s), s	8.5	16.3	2.5	1.0	58.2	61.6	26.5	15.8	15.9	5.1	14.1	14.3
Cycle Q Clear(g_c), s	8.5	16.3	2.5	1.0	58.2	61.6	26.5	15.8	15.9	5.1	14.1	14.3
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.04	1.00		0.24
Lane Grp Cap(c), veh/h	128	2531	1431	24	1156	1127	799	727	721	100	396	379
V/C Ratio(X)	1.19	0.43	0.33	0.63	0.91	0.93	1.20	0.46	0.46	0.78	0.62	0.63
Avail Cap(c_a), veh/h	128	2531	1431	134	1156	1127	799	727	721	167	396	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	9.4	5.7	58.9	20.6	21.3	46.8	27.8	27.8	56.0	43.2	43.3
Incr Delay (d2), s/veh	126.9	0.4	0.5	9.9	12.1	14.8	101.2	1.9	1.9	5.0	7.2	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	8.7	1.2	0.6	33.9	35.9	24.4	8.7	8.6	2.7	8.2	8.0
LnGrp Delay(d),s/veh	182.6	9.8	6.2	68.8	32.7	36.1	148.0	29.6	29.7	61.0	50.3	50.9
LnGrp LOS	F	A	A	E	C	D	F	C	C	E	D	D
Approach Vol, veh/h		1727			2117			1627			562	
Approach Delay, s/veh		24.0			34.6			99.5			52.1	
Approach LOS		C			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	86.4	32.0	30.5	13.0	79.5	11.1	51.4
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.9	39.6	26.5	* 25	8.5	40.0	11.1	40.4
Max Q Clear Time (g_c+I1), s	3.0	18.3	28.5	16.3	10.5	63.6	7.1	17.9
Green Ext Time (p_c), s	0.0	16.9	0.0	1.1	0.0	0.0	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	50.7
HCM 2010 LOS	D

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	4	110	723	3	67	528
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	116	761	3	71	556
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	145	1329	1129	90	1519
Arrive On Green	0.09	0.09	0.70	0.70	0.05	0.80
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	4	116	761	3	71	556
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.2	6.3	18.1	0.1	3.5	7.5
Cycle Q Clear(g_c), s	0.2	6.3	18.1	0.1	3.5	7.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	162	145	1329	1129	90	1519
V/C Ratio(X)	0.02	0.80	0.57	0.00	0.78	0.37
Avail Cap(c_a), veh/h	523	467	1329	1129	90	1519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	1.00	1.00
Uniform Delay (d), s/veh	37.4	40.2	6.8	4.1	42.3	2.6
Incr Delay (d2), s/veh	0.0	3.9	1.7	0.0	32.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.0	9.9	0.0	2.6	4.1
LnGrp Delay(d),s/veh	37.4	44.0	8.4	4.1	75.0	3.2
LnGrp LOS	D	D	A	A	E	A
Approach Vol, veh/h	120		764			627
Approach Delay, s/veh	43.8		8.4			11.4
Approach LOS	D		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.0	68.4				77.4		12.6
Change Period (Y+Rc), s	4.5	5.5				5.5		4.5
Max Green Setting (Gmax), s	4.5	45.0				54.0		26.0
Max Q Clear Time (g_c+I1), s	5.5	20.1				9.5		8.3
Green Ext Time (p_c), s	0.0	5.2				5.5		0.1

Intersection Summary			
HCM 2010 Ctrl Delay			12.5
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
13: Heacock Street & Iris Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
	↙	↖	↑	↗	↘	↓
Lane Configurations	↰	↱	↑↑↱		↰↰	↑↑
Volume (veh/h)	340	473	304	212	271	307
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	362	503	323	226	288	327
Adj No. of Lanes	1	1	2	0	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	423	721	684	468	770	2236
Arrive On Green	0.23	0.23	0.33	0.33	0.21	0.62
Sat Flow, veh/h	1810	1615	2147	1405	3619	3705
Grp Volume(v), veh/h	362	503	283	266	288	327
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1652	1810	1805
Q Serve(g_s), s	14.4	2.8	9.3	9.6	5.1	2.8
Cycle Q Clear(g_c), s	14.4	2.8	9.3	9.6	5.1	2.8
Prop In Lane	1.00	1.00		0.85	1.00	
Lane Grp Cap(c), veh/h	423	721	602	551	770	2236
V/C Ratio(X)	0.85	0.70	0.47	0.48	0.37	0.15
Avail Cap(c_a), veh/h	627	903	602	551	770	2236
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.94	0.94
Uniform Delay (d), s/veh	27.5	16.7	19.8	19.9	25.3	6.0
Incr Delay (d2), s/veh	5.2	1.1	2.6	3.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	1.4	5.1	4.8	2.6	1.4
LnGrp Delay(d),s/veh	32.7	17.7	22.4	22.9	25.4	6.1
LnGrp LOS	C	B	C	C	C	A
Approach Vol, veh/h	865		549			615
Approach Delay, s/veh	24.0		22.6			15.1
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	21.4	30.5				51.9		23.1
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	8.5	* 25				38.0		26.0
Max Q Clear Time (g_c+I1), s	7.1	11.6				4.8		16.4
Green Ext Time (p_c), s	0.3	1.6				1.7		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

18: Heacock Street & San Michele Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰↰	↑	↱
Volume (veh/h)	28	76	4	40	310	538	1	55	11	404	104	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	37	101	2	53	413	650	1	73	15	539	139	62
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	2	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	439	373	69	462	842	150	529	449	978	900	765
Arrive On Green	0.03	0.23	0.23	0.04	0.24	0.24	0.08	0.28	0.28	0.28	0.47	0.47
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	3510	1900	1615
Grp Volume(v), veh/h	37	101	2	53	413	650	1	73	15	539	139	62
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1755	1900	1615
Q Serve(g_s), s	2.3	5.0	0.1	3.3	24.2	5.1	0.1	3.3	0.6	15.0	4.8	1.9
Cycle Q Clear(g_c), s	2.3	5.0	0.1	3.3	24.2	5.1	0.1	3.3	0.6	15.0	4.8	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	439	373	69	462	842	150	529	449	978	900	765
V/C Ratio(X)	0.78	0.23	0.01	0.77	0.89	0.77	0.01	0.14	0.03	0.55	0.15	0.08
Avail Cap(c_a), veh/h	79	466	396	131	520	892	150	529	449	978	900	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.22	0.22	0.22	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	35.9	20.6	54.8	42.1	10.6	48.4	31.1	20.7	35.4	17.2	10.2
Incr Delay (d2), s/veh	9.9	0.1	0.0	1.6	4.2	0.8	0.0	0.5	0.1	0.4	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	0.0	1.7	13.3	11.4	0.0	1.8	0.3	7.3	2.6	0.9
LnGrp Delay(d),s/veh	65.6	36.0	20.6	56.4	46.3	11.4	48.4	31.7	20.8	35.7	17.5	10.4
LnGrp LOS	E	D	C	E	D	B	D	C	C	D	B	B
Approach Vol, veh/h		140			1116			89			740	
Approach Delay, s/veh		43.6			26.5			30.0			30.2	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.5	37.5	8.9	32.1	14.0	60.0	7.5	33.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	26.5	32.0	8.3	28.2	4.0	54.5	5.0	31.5
Max Q Clear Time (g_c+I1), s	17.0	5.3	5.3	7.0	2.1	6.8	4.3	26.2
Green Ext Time (p_c), s	0.8	0.2	0.0	3.1	0.3	0.5	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	29.1
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

28: Indian Street & San Michele Road

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	16	199	295	174	806	10	1251	116	217	5	112	12
Future Volume (veh/h)	16	199	295	174	806	10	1251	116	217	5	112	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.69
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1976	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	273	392	238	1104	11	1714	159	265	7	153	13
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	32	432	960	300	1028	420	1809	1009	858	13	162	13
Arrive On Green	0.04	0.23	0.23	0.33	0.54	0.54	0.96	1.00	1.00	0.01	0.10	0.10
Sat Flow, veh/h	1810	3800	1615	1810	3800	1552	3764	1900	1615	1810	3337	272
Grp Volume(v), veh/h	22	273	392	238	1104	11	1714	159	265	7	84	82
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1552	1882	1900	1615	1810	1900	1709
Q Serve(g_s), s	1.4	7.5	0.0	13.7	31.1	0.4	22.7	0.0	0.0	0.4	5.1	5.5
Cycle Q Clear(g_c), s	1.4	7.5	0.0	13.7	31.1	0.4	22.7	0.0	0.0	0.4	5.1	5.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	32	432	960	300	1028	420	1809	1009	858	13	93	83
V/C Ratio(X)	0.69	0.63	0.41	0.79	1.07	0.03	0.95	0.16	0.31	0.56	0.91	0.98
Avail Cap(c_a), veh/h	63	889	1154	300	1028	420	1809	1009	858	63	93	83
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.69	0.69	0.69	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	42.3	10.5	36.7	26.4	19.3	1.6	0.0	0.0	56.5	51.7	51.8
Incr Delay (d2), s/veh	6.8	0.4	0.1	12.6	50.3	0.0	8.5	0.2	0.7	13.4	71.8	93.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.9	5.5	7.9	23.0	0.2	9.0	0.1	0.2	0.3	4.5	4.7
LnGrp Delay(d),s/veh	61.9	42.7	10.5	49.3	76.7	19.4	10.1	0.2	0.7	69.9	123.5	145.1
LnGrp LOS	E	D	B	D	F	B	B	A	A	E	F	F
Approach Vol, veh/h		687			1353			2138			173	
Approach Delay, s/veh		24.9			71.4			8.2			131.5	
Approach LOS		C			E			A			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.3	66.6	24.6	18.6	60.8	11.1	6.5	36.6
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	55.9	8.2	* 27	54.3	* 5.6	4.0	31.1
Max Q Clear Time (g_c+I1), s	2.4	2.0	15.7	9.5	24.7	7.5	3.4	33.1
Green Ext Time (p_c), s	0.0	5.6	0.0	1.6	5.5	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	35.4
HCM 2010 LOS	D

Notes

29: Indian Street & Nandina Avenue

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	13	21	212	68	31	22	260	1432	85	12	422	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	26	200	83	38	25	317	1746	102	15	515	25
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	79	732	98	156	133	745	2574	149	24	1141	55
Arrive On Green	0.01	0.04	0.04	0.05	0.08	0.08	0.41	0.72	0.72	0.01	0.32	0.32
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3553	206	1810	3595	174
Grp Volume(v), veh/h	16	26	200	83	38	25	317	926	922	15	272	268
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1859	1810	1900	1869
Q Serve(g_s), s	1.1	1.6	1.6	5.5	2.2	1.7	15.0	31.4	32.6	1.0	13.7	13.7
Cycle Q Clear(g_c), s	1.1	1.6	1.6	5.5	2.2	1.7	15.0	31.4	32.6	1.0	13.7	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.09
Lane Grp Cap(c), veh/h	25	79	732	98	156	133	745	1376	1346	24	603	593
V/C Ratio(X)	0.64	0.33	0.27	0.85	0.24	0.19	0.43	0.67	0.68	0.63	0.45	0.45
Avail Cap(c_a), veh/h	77	382	989	98	404	343	745	1376	1346	62	603	593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	58.9	55.9	9.6	56.3	51.6	51.4	25.2	8.9	9.0	58.9	32.6	32.6
Incr Delay (d2), s/veh	9.8	0.9	0.1	44.4	0.3	0.3	0.1	2.6	2.8	9.3	2.3	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	2.7	3.9	1.2	0.8	7.5	17.2	17.5	0.6	7.6	7.5
LnGrp Delay(d),s/veh	68.7	56.8	9.7	100.6	51.9	51.6	25.3	11.5	11.9	68.2	34.9	34.9
LnGrp LOS	E	E	A	F	D	D	C	B	B	E	C	C
Approach Vol, veh/h		242			146			2165			555	
Approach Delay, s/veh		18.6			79.5			13.7			35.8	
Approach LOS		B			E			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	92.4	11.0	10.5	54.9	43.6	6.2	15.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.1	65.3	6.5	24.1	31.3	* 38	5.1	25.5
Max Q Clear Time (g_c+I1), s	3.0	34.6	7.5	3.6	17.0	15.7	3.1	4.2
Green Ext Time (p_c), s	0.0	10.4	0.0	0.5	7.5	1.6	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	793	768	176	12	385	42	157	307	30	15	78	374
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	844	817	170	13	410	43	167	327	28	16	83	331
Adj No. of Lanes	2	3	0	1	3	0	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2679	4756	983	22	1737	179	152	1425	606	52	1280	1776
Arrive On Green	0.76	1.00	1.00	0.01	0.34	0.34	0.04	0.37	0.37	0.01	0.34	0.34
Sat Flow, veh/h	3510	4310	891	1810	5077	523	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	844	654	333	13	305	148	167	327	28	16	83	331
Grp Sat Flow(s),veh/h/ln	1755	1729	1743	1810	1900	1800	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	7.1	0.0	0.0	0.7	5.5	5.6	4.0	5.6	1.0	0.4	1.4	0.0
Cycle Q Clear(g_c), s	7.1	0.0	0.0	0.7	5.5	5.6	4.0	5.6	1.0	0.4	1.4	0.0
Prop In Lane	1.00		0.51	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2679	3816	1923	22	1300	616	152	1425	606	52	1280	1776
V/C Ratio(X)	0.32	0.17	0.17	0.59	0.23	0.24	1.10	0.23	0.05	0.30	0.06	0.19
Avail Cap(c_a), veh/h	2679	3816	1923	76	1300	616	152	1425	606	152	1280	1776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.5	0.0	0.0	46.7	22.4	22.4	45.5	20.3	18.9	46.3	21.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.2	8.9	0.4	0.9	100.9	0.4	0.1	1.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.1	0.1	0.4	2.9	3.0	4.1	3.0	0.5	0.2	0.8	0.1
LnGrp Delay(d),s/veh	3.5	0.1	0.2	55.6	22.8	23.3	146.4	20.7	19.0	47.5	21.5	0.2
LnGrp LOS	A	A	A	E	C	C	F	C	B	D	C	A
Approach Vol, veh/h		1831			466			522			430	
Approach Delay, s/veh		1.7			23.9			60.8			6.1	
Approach LOS		A			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	112.3	9.5	37.5	80.0	38.0	5.9	41.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	35.0	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.7	2.0	6.0	3.4	9.1	7.6	2.4	7.6
Green Ext Time (p_c), s	0.0	6.4	0.0	0.8	0.0	1.6	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
2/26/2016

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	138	586	205	146	1164	113	379	1184	145	169	842	213
Future Volume (veh/h)	138	586	205	146	1164	113	379	1184	145	169	842	213
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1976	1900
Adj Flow Rate, veh/h	153	651	211	162	1293	117	421	1316	149	188	936	227
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	2318	1260	190	2126	192	354	1599	181	201	906	364
Arrive On Green	0.10	0.59	0.59	0.11	0.60	0.60	0.20	0.31	0.31	0.11	0.23	0.23
Sat Flow, veh/h	1810	3952	1609	1810	3568	322	1810	5228	592	1810	3952	1590
Grp Volume(v), veh/h	153	651	211	162	714	696	421	995	470	188	936	227
Grp Sat Flow(s),veh/h/ln	1810	1976	1609	1810	1976	1914	1810	1976	1867	1810	1976	1590
Q Serve(g_s), s	10.0	9.8	3.9	10.6	27.4	27.7	23.5	28.0	28.0	12.4	27.5	15.4
Cycle Q Clear(g_c), s	10.0	9.8	3.9	10.6	27.4	27.7	23.5	28.0	28.0	12.4	27.5	15.4
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	173	2318	1260	190	1177	1140	354	1209	571	201	906	364
V/C Ratio(X)	0.88	0.28	0.17	0.85	0.61	0.61	1.19	0.82	0.82	0.94	1.03	0.62
Avail Cap(c_a), veh/h	173	2318	1260	279	1177	1140	354	1209	571	201	906	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	12.3	3.3	52.8	15.3	15.4	48.3	38.6	38.6	52.9	46.3	41.6
Incr Delay (d2), s/veh	36.2	0.3	0.3	10.8	2.3	2.4	109.4	6.4	12.7	45.5	38.9	7.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	5.4	1.8	5.8	15.6	15.3	22.5	16.3	16.4	8.7	19.9	7.6
LnGrp Delay(d),s/veh	89.8	12.6	3.6	63.6	17.7	17.8	157.7	45.1	51.3	98.4	85.1	49.4
LnGrp LOS	F	B	A	E	B	B	F	D	D	F	F	D
Approach Vol, veh/h		1015			1572			1886			1351	
Approach Delay, s/veh		22.3			22.5			71.8			81.0	
Approach LOS		C			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	76.9	28.0	33.0	16.0	78.0	18.8	42.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	18.5	31.5	23.5	26.5	11.5	38.5	13.3	* 37
Max Q Clear Time (g_c+I1), s	12.6	11.8	25.5	29.5	12.0	29.7	14.4	30.0
Green Ext Time (p_c), s	0.1	9.7	0.0	0.0	0.0	5.8	0.0	3.6

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Notes

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	50	232	135	265	238	265	93	1229	364	131	977	39
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	255	132	291	262	191	102	1351	375	144	1074	41
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	275	142	320	689	576	148	1476	408	128	1820	69
Arrive On Green	0.05	0.23	0.23	0.18	0.36	0.36	0.08	0.34	0.34	0.07	0.33	0.33
Sat Flow, veh/h	1810	1180	611	1810	1900	1590	1810	4284	1185	1810	5452	208
Grp Volume(v), veh/h	55	0	387	291	262	191	102	1198	528	144	748	367
Grp Sat Flow(s),veh/h/ln	1810	0	1791	1810	1900	1590	1810	1900	1668	1810	1900	1860
Q Serve(g_s), s	3.6	0.0	25.4	18.9	12.2	10.4	6.6	36.2	36.4	8.5	19.6	19.6
Cycle Q Clear(g_c), s	3.6	0.0	25.4	18.9	12.2	10.4	6.6	36.2	36.4	8.5	19.6	19.6
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.71	1.00		0.11
Lane Grp Cap(c), veh/h	85	0	417	320	689	576	148	1310	575	128	1269	621
V/C Ratio(X)	0.65	0.00	0.93	0.91	0.38	0.33	0.69	0.91	0.92	1.12	0.59	0.59
Avail Cap(c_a), veh/h	452	0	448	452	689	576	148	1310	575	128	1269	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.2	0.0	45.1	48.4	28.3	27.7	53.6	37.6	37.7	55.8	33.2	33.2
Incr Delay (d2), s/veh	3.0	0.0	24.1	14.4	0.1	0.1	23.3	11.4	22.0	116.5	2.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	15.4	10.7	6.4	4.6	4.2	21.0	20.2	8.4	10.6	10.8
LnGrp Delay(d),s/veh	59.2	0.0	69.1	62.8	28.4	27.8	76.9	49.0	59.7	172.3	35.2	37.3
LnGrp LOS	E		E	E	C	C	E	D	E	F	D	D
Approach Vol, veh/h		442			744			1828			1259	
Approach Delay, s/veh		67.9			41.7			53.7			51.5	
Approach LOS		E			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	46.9	26.7	33.4	14.3	45.6	11.1	49.0
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	8.5	30.5	30.0	30.0	9.8	29.2	30.0	30.0
Max Q Clear Time (g_c+I1), s	10.5	38.4	20.9	27.4	8.6	21.6	5.6	14.2
Green Ext Time (p_c), s	0.0	0.0	0.3	0.4	0.0	6.1	0.1	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	52.4
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

1: I-215 SB Ramps & Cactus Av.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑							↱↱
Volume (veh/h)	0	1561	593	1019	679	0	0	0	990	0	0	276
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	0	1900
Adj Flow Rate, veh/h	0	1643	616	1073	715	0				0	0	169
Adj No. of Lanes	0	2	1	2	2	0				0	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2422	1030	1025	3626	0				0	0	0
Arrive On Green	0.00	0.64	0.64	0.47	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	3619	3800	0					0	
Grp Volume(v), veh/h	0	1643	616	1073	715	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	33.1	26.8	34.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	33.1	26.8	34.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2423	1030	1025	3626	0						
V/C Ratio(X)	0.00	0.68	0.60	1.05	0.20	0.00						
Avail Cap(c_a), veh/h	0	2423	1030	1025	3626	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	13.9	12.7	31.6	0.0	0.0						
Incr Delay (d2), s/veh	0.0	1.5	2.6	41.0	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	17.6	12.5	22.7	0.1	0.0						
LnGrp Delay(d),s/veh	0.0	15.4	15.3	72.6	0.1	0.0						
LnGrp LOS		B	B	F	A							
Approach Vol, veh/h		2259			1788							
Approach Delay, s/veh		15.4			43.6							
Approach LOS		B			D							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	38.0	82.0				120.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	34.0	38.5				76.5		
Max Q Clear Time (g_c+I1), s	36.0	35.1				2.0		
Green Ext Time (p_c), s	0.0	2.9				23.2		

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. — 7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	721	105	524	202	0	0	0	0	785	2	419
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	767	112	557	215	0				835	2	369
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1286	547	668	2280	0				891	2	396
Arrive On Green	0.00	0.34	0.34	0.18	0.60	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	9	1608
Grp Volume(v), veh/h	0	767	112	557	215	0				835	0	371
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	10.9	3.2	9.6	1.6	0.0				14.7	0.0	14.6
Cycle Q Clear(g_c), s	0.0	10.9	3.2	9.6	1.6	0.0				14.7	0.0	14.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1286	547	668	2280	0				891	0	398
V/C Ratio(X)	0.00	0.60	0.20	0.83	0.09	0.00				0.94	0.00	0.93
Avail Cap(c_a), veh/h	0	1286	547	696	2280	0				891	0	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.10	0.10	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.8	15.3	25.5	5.5	0.0				24.0	0.0	24.0
Incr Delay (d2), s/veh	0.0	2.0	0.8	0.8	0.0	0.0				17.0	0.0	28.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.0	1.6	4.9	0.8	0.0				9.4	0.0	9.7
LnGrp Delay(d),s/veh	0.0	19.9	16.1	26.4	5.5	0.0				41.0	0.0	52.7
LnGrp LOS		B	B	C	A					D		D
Approach Vol, veh/h		879			772						1206	
Approach Delay, s/veh		19.4			20.6						44.6	
Approach LOS		B			C						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	17.0	27.0		21.0		44.0		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	12.5	* 22		16.0		39.0		
Max Q Clear Time (g_c+I1), s	11.6	12.9		16.7		3.6		
Green Ext Time (p_c), s	0.2	2.4		0.0		1.8		

Intersection Summary	
HCM 2010 Ctrl Delay	30.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱			↑↑↑↱		↰↰	↱		↰	↱	
Volume (veh/h)	27	2111	414	0	2463	94	142	62	29	114	1	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	2176	423	0	2539	88	146	64	30	118	1	53
Adj No. of Lanes	1	3	0	0	3	0	2	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	3772	700	0	4433	152	234	191	89	127	5	261
Arrive On Green	0.27	0.27	0.27	0.00	0.81	0.81	0.07	0.16	0.16	0.07	0.16	0.16
Sat Flow, veh/h	117	4661	865	0	5478	188	3510	1225	574	1810	30	1590
Grp Volume(v), veh/h	28	1755	844	0	1755	872	146	0	94	118	0	54
Grp Sat Flow(s),veh/h/ln	117	1900	1726	0	1900	1867	1755	0	1799	1810	0	1619
Q Serve(g_s), s	24.6	47.9	51.3	0.0	19.7	20.1	4.9	0.0	5.6	7.8	0.0	3.5
Cycle Q Clear(g_c), s	46.3	47.9	51.3	0.0	19.7	20.1	4.9	0.0	5.6	7.8	0.0	3.5
Prop In Lane	1.00		0.50	0.00		0.10	1.00		0.32	1.00		0.98
Lane Grp Cap(c), veh/h	134	3075	1397	0	3075	1511	234	0	280	127	0	266
V/C Ratio(X)	0.21	0.57	0.60	0.00	0.57	0.58	0.62	0.00	0.34	0.93	0.00	0.20
Avail Cap(c_a), veh/h	134	3075	1397	0	3075	1511	234	0	280	127	0	266
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.7	26.0	27.2	0.0	4.1	4.1	54.5	0.0	45.1	55.5	0.0	43.4
Incr Delay (d2), s/veh	3.5	0.8	1.9	0.0	0.8	1.6	3.8	0.0	3.2	58.4	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	25.6	25.3	0.0	10.3	10.8	2.5	0.0	3.0	6.0	0.0	1.7
LnGrp Delay(d),s/veh	38.3	26.7	29.1	0.0	4.8	5.7	58.4	0.0	48.3	113.9	0.0	45.1
LnGrp LOS	D	C	C		A	A	E		D	F		D
Approach Vol, veh/h		2627			2627			240			172	
Approach Delay, s/veh		27.6			5.1			54.4			92.3	
Approach LOS		C			A			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		102.7	13.6	24.7		102.7	14.0	24.3
Change Period (Y+Rc), s		5.0	5.6	5.0		5.0	5.6	* 5.6
Max Green Setting (Gmax), s		77.3	7.4	19.7		77.3	8.4	* 19
Max Q Clear Time (g_c+I1), s		53.3	6.9	5.5		22.1	9.8	7.6
Green Ext Time (p_c), s		23.2	0.0	0.1		51.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	530	975	0	0	675	1452	51	1	191	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	596	1096	0	0	758	0	57	1	106			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	1990	3008	0	0	760	323	222	4	202			
Arrive On Green	0.55	0.79	0.00	0.00	0.20	0.00	0.13	0.13	0.13			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1780	31	1615			
Grp Volume(v), veh/h	596	1096	0	0	758	0	58	0	106			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1811	0	1615			
Q Serve(g_s), s	10.6	10.1	0.0	0.0	23.9	0.0	3.5	0.0	7.4			
Cycle Q Clear(g_c), s	10.6	10.1	0.0	0.0	23.9	0.0	3.5	0.0	7.4			
Prop In Lane	1.00		0.00	0.00		1.00	0.98		1.00			
Lane Grp Cap(c), veh/h	1990	3008	0	0	760	323	226	0	202			
V/C Ratio(X)	0.30	0.36	0.00	0.00	1.00	0.00	0.26	0.00	0.53			
Avail Cap(c_a), veh/h	2036	3008	0	0	760	323	226	0	202			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.58	0.58	0.00	0.00	0.28	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	14.5	3.7	0.0	0.0	48.0	0.0	47.5	0.0	49.2			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	16.5	0.0	2.7	0.0	9.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	5.3	0.0	0.0	14.3	0.0	1.9	0.0	3.8			
LnGrp Delay(d),s/veh	14.6	3.9	0.0	0.0	64.5	0.0	50.2	0.0	58.6			
LnGrp LOS	B	A			E		D		E			
Approach Vol, veh/h		1692			758			164				
Approach Delay, s/veh		7.6			64.5			55.6				
Approach LOS		A			E			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		100.0			71.0	29.0		20.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		95.0			67.5	* 24		15.0
Max Q Clear Time (g_c+I1), s		12.1			12.6	25.9		9.4
Green Ext Time (p_c), s		7.0			7.0	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	27.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

5: March AFB/Elsworth Street & Cactus Avenue

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	128	2418	25	28	2122	106	404	105	200	136	22	221
Future Volume (veh/h)	128	2418	25	28	2122	106	404	105	200	136	22	221
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	2493	0	29	2188	78	416	108	152	140	23	121
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2636	747	37	2348	651	513	178	251	168	112	209
Arrive On Green	0.07	0.46	0.00	0.02	0.41	0.41	0.28	0.25	0.25	0.09	0.06	0.06
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	715	1006	1810	1900	1615
Grp Volume(v), veh/h	132	2493	0	29	2188	78	416	0	260	140	23	121
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1721	1810	1900	1615
Q Serve(g_s), s	8.5	50.1	0.0	1.9	44.0	2.5	25.7	0.0	16.0	9.1	1.4	4.4
Cycle Q Clear(g_c), s	8.5	50.1	0.0	1.9	44.0	2.5	25.7	0.0	16.0	9.1	1.4	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	128	2636	747	37	2348	651	513	0	429	168	112	209
V/C Ratio(X)	1.03	0.95	0.00	0.79	0.93	0.12	0.81	0.00	0.61	0.83	0.21	0.58
Avail Cap(c_a), veh/h	128	2636	747	92	2348	651	513	0	429	187	467	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	30.8	0.0	58.5	33.7	10.3	40.0	0.0	39.8	53.5	53.8	20.6
Incr Delay (d2), s/veh	87.7	8.7	0.0	13.2	7.4	0.0	13.1	0.0	6.2	22.0	0.3	0.9
Initial Q Delay(d3),s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	28.2	0.0	1.1	24.5	1.1	14.7	0.0	8.3	5.6	0.7	2.0
LnGrp Delay(d),s/veh	143.8	39.5	0.0	71.7	41.1	10.3	53.1	0.0	46.1	75.5	54.1	21.6
LnGrp LOS	F	D		E	D	B	D		D	E	D	C
Approach Vol, veh/h		2625			2295			676			284	
Approach Delay, s/veh		44.8			40.4			50.4			50.8	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	61.0	39.5	12.6	13.0	54.9	16.7	35.4
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	6.1	50.6	12.8	29.5	8.5	48.2	12.4	29.9
Max Q Clear Time (g_c+I1), s	3.9	52.1	27.7	6.4	10.5	46.0	11.1	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	1.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	Y	
Volume (veh/h)	30	1136	2057	18	15	70
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1235	2236	20	16	76
Adj No. of Lanes	1	2	2	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	45	2597	2328	982	64	303
Arrive On Green	0.03	0.91	0.61	0.61	0.22	0.22
Sat Flow, veh/h	1810	3800	3800	1603	284	1347
Grp Volume(v), veh/h	33	1235	2236	20	93	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1603	1648	0
Q Serve(g_s), s	2.2	6.3	66.5	0.6	5.6	0.0
Cycle Q Clear(g_c), s	2.2	6.3	66.5	0.6	5.6	0.0
Prop In Lane	1.00			1.00	0.17	0.82
Lane Grp Cap(c), veh/h	45	2597	2328	982	371	0
V/C Ratio(X)	0.73	0.48	0.96	0.02	0.25	0.00
Avail Cap(c_a), veh/h	60	2597	2328	982	371	0
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.6	2.0	21.9	9.1	38.2	0.0
Incr Delay (d2), s/veh	14.8	0.6	11.5	0.0	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.2	38.2	0.3	2.7	0.0
LnGrp Delay(d),s/veh	72.4	2.6	33.4	9.2	39.8	0.0
LnGrp LOS	E	A	C	A	D	
Approach Vol, veh/h		1268	2256		93	
Approach Delay, s/veh		4.4	33.1		39.8	
Approach LOS		A	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		87.5		32.5	8.5	79.0		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	4.0	* 74		
Max Q Clear Time (g_c+I1), s		8.3		7.6	4.2	68.5		
Green Ext Time (p_c), s		6.5		0.1	0.0	4.1		

Intersection Summary	
HCM 2010 Ctrl Delay	23.2
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	209	3115	489	16	1448	78	268	108	26	200	214	224
Future Volume (veh/h)	209	3115	489	16	1448	78	268	108	26	200	214	224
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	227	3386	0	17	1574	81	291	117	23	217	233	165
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1151	6045	1713	26	2312	119	296	755	145	149	895	1403
Arrive On Green	0.64	1.00	0.00	0.01	0.43	0.43	0.08	0.24	0.24	0.08	0.24	0.24
Sat Flow, veh/h	1810	5700	1615	1810	5370	276	3619	3101	594	1810	3800	1594
Grp Volume(v), veh/h	227	3386	0	17	1114	541	291	71	69	217	233	165
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1847	1810	1900	1795	1810	1900	1594
Q Serve(g_s), s	6.0	0.0	0.0	1.1	27.2	27.2	9.2	3.4	3.5	9.5	5.7	0.0
Cycle Q Clear(g_c), s	6.0	0.0	0.0	1.1	27.2	27.2	9.2	3.4	3.5	9.5	5.7	0.0
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	1151	6045	1713	26	1636	795	296	463	437	149	895	1403
V/C Ratio(X)	0.20	0.56	0.00	0.64	0.68	0.68	0.98	0.15	0.16	1.45	0.26	0.12
Avail Cap(c_a), veh/h	1151	6045	1713	63	1636	795	296	463	437	149	895	1403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	0.00	0.61	0.61	0.61	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.7	0.0	0.0	56.4	26.4	26.4	52.7	34.2	34.2	52.7	35.8	1.1
Incr Delay (d2), s/veh	0.0	0.1	0.0	5.8	1.4	2.9	47.6	0.7	0.8	236.5	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.1	0.0	0.6	14.6	14.5	6.6	1.9	1.8	14.6	3.1	0.8
LnGrp Delay(d),s/veh	8.7	0.1	0.0	62.2	27.8	29.3	100.3	34.9	35.0	289.3	36.5	1.2
LnGrp LOS	A	A		E	C	C	F	C	D	F	D	A
Approach Vol, veh/h		3613			1672			431			615	
Approach Delay, s/veh		0.7			28.6			79.1			116.2	
Approach LOS		A			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	128.5	14.9	32.6	79.7	55.0	14.0	33.5
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	54.5	9.4	* 27	9.0	* 50	9.5	27.0
Max Q Clear Time (g_c+I1), s	3.1	2.0	11.2	7.7	8.0	29.2	11.5	5.5
Green Ext Time (p_c), s	0.0	39.4	0.0	1.0	0.0	7.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.6
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱		✥			↰↑	↱
Volume (veh/h)	24	953	52	22	1787	6	79	5	15	8	5	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	1083	59	25	2031	7	90	6	17	9	6	106
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	2186	929	36	2156	916	329	26	51	286	178	403
Arrive On Green	0.02	0.58	0.58	0.02	0.57	0.57	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	3800	1615	1810	3800	1615	1060	103	206	917	713	1615
Grp Volume(v), veh/h	27	1083	59	25	2031	7	113	0	0	15	0	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1369	0	0	1629	0	1615
Q Serve(g_s), s	1.5	16.9	1.6	1.4	49.7	0.2	6.1	0.0	0.0	0.0	0.0	5.3
Cycle Q Clear(g_c), s	1.5	16.9	1.6	1.4	49.7	0.2	6.7	0.0	0.0	0.6	0.0	5.3
Prop In Lane	1.00		1.00	1.00		1.00	0.80		0.15	0.60		1.00
Lane Grp Cap(c), veh/h	33	2186	929	36	2156	916	406	0	0	464	0	403
V/C Ratio(X)	0.82	0.50	0.06	0.69	0.94	0.01	0.28	0.00	0.00	0.03	0.00	0.26
Avail Cap(c_a), veh/h	72	2186	929	116	2223	945	406	0	0	464	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.9	12.6	9.4	48.7	20.1	9.4	30.6	0.0	0.0	28.4	0.0	30.1
Incr Delay (d2), s/veh	16.9	0.1	0.0	8.4	8.6	0.0	1.7	0.0	0.0	0.1	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	8.9	0.7	0.8	28.2	0.1	2.7	0.0	0.0	0.3	0.0	2.5
LnGrp Delay(d),s/veh	65.8	12.7	9.4	57.1	28.7	9.4	32.3	0.0	0.0	28.5	0.0	31.7
LnGrp LOS	E	B	A	E	C	A	C			C		C
Approach Vol, veh/h		1169			2063			113			121	
Approach Delay, s/veh		13.7			29.0			32.3			31.3	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		30.5	6.5	63.0		30.5	7.3	62.2
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	5.5	* 5.5
Max Green Setting (Gmax), s		22.0	6.4	56.1		22.0	4.0	* 59
Max Q Clear Time (g_c+I1), s		8.7	3.4	18.9		7.3	3.5	51.7
Green Ext Time (p_c), s		0.6	0.0	5.6		0.6	0.0	5.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

10: Heacock Street & Cactus Avenue

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	129	1804	1171	20	884	112	593	660	23	162	777	64
Future Volume (veh/h)	129	1804	1171	20	884	112	593	660	23	162	777	64
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	1919	1231	21	940	113	631	702	20	172	827	61
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	636	2333	1304	32	899	108	701	1253	36	204	874	64
Arrive On Green	0.35	0.61	0.61	0.02	0.27	0.27	0.19	0.34	0.34	0.11	0.25	0.25
Sat Flow, veh/h	1810	3800	1615	1810	3329	400	3619	3675	105	1810	3497	258
Grp Volume(v), veh/h	137	1919	1231	21	536	517	631	363	359	172	449	439
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1829	1810	1900	1879	1810	1900	1854
Q Serve(g_s), s	5.3	39.4	61.4	1.2	27.0	27.0	17.0	15.6	15.6	9.3	23.2	23.2
Cycle Q Clear(g_c), s	5.3	39.4	61.4	1.2	27.0	27.0	17.0	15.6	15.6	9.3	23.2	23.2
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.06	1.00		0.14
Lane Grp Cap(c), veh/h	636	2333	1304	32	513	494	701	648	641	204	475	464
V/C Ratio(X)	0.22	0.82	0.94	0.66	1.05	1.05	0.90	0.56	0.56	0.84	0.95	0.95
Avail Cap(c_a), veh/h	636	2333	1304	72	513	494	742	648	641	233	475	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.7	15.1	40.1	48.8	36.5	36.5	39.4	26.8	26.8	43.5	36.8	36.8
Incr Delay (d2), s/veh	0.0	0.3	1.9	8.2	52.2	53.1	11.7	3.1	3.1	19.3	29.8	30.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	20.6	0.7	0.7	21.5	20.9	9.6	8.7	8.6	5.8	16.0	15.7
LnGrp Delay(d),s/veh	22.8	15.4	42.0	57.0	88.7	89.6	51.1	29.9	29.9	62.9	66.6	67.1
LnGrp LOS	C	B	D	E	F	F	D	C	C	E	E	E
Approach Vol, veh/h		3287			1074			1353			1060	
Approach Delay, s/veh		25.7			88.5			39.8			66.2	
Approach LOS		C			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	67.4	24.9	30.5	41.2	32.5	15.8	39.6
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	30.5	20.5	* 25	7.5	* 27	12.9	32.6
Max Q Clear Time (g_c+I1), s	3.2	63.4	19.0	25.2	7.3	29.0	11.3	17.6
Green Ext Time (p_c), s	0.0	0.0	0.3	0.0	0.0	0.0	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.8
HCM 2010 LOS	D

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	2	74	699	9	147	1142
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	80	752	10	158	1228
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	112	100	1386	1178	158	1624
Arrive On Green	0.06	0.06	0.73	0.73	0.09	0.85
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	2	80	752	10	158	1228
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.1	5.9	21.2	0.2	10.5	31.9
Cycle Q Clear(g_c), s	0.1	5.9	21.2	0.2	10.5	31.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	112	100	1386	1178	158	1624
V/C Ratio(X)	0.02	0.80	0.54	0.01	1.00	0.76
Avail Cap(c_a), veh/h	392	350	1386	1178	158	1624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	52.8	55.5	7.3	4.4	54.7	3.6
Incr Delay (d2), s/veh	0.0	5.4	1.3	0.0	70.8	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.8	11.6	0.1	8.3	17.5
LnGrp Delay(d),s/veh	52.9	61.0	8.6	4.4	125.6	6.9
LnGrp LOS	D	E	A	A	F	A
Approach Vol, veh/h	82		762			1386
Approach Delay, s/veh	60.8		8.5			20.4
Approach LOS	E		A			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	93.1				108.1		11.9
Change Period (Y+Rc), s	4.5	5.5				5.5		4.5
Max Green Setting (Gmax), s	10.5	69.0				84.0		26.0
Max Q Clear Time (g_c+I1), s	12.5	23.2				33.9		7.9
Green Ext Time (p_c), s	0.0	13.1				13.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
13: Heacock Street & Iris Avenue

7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰↰	↑↑
Volume (veh/h)	236	318	432	347	615	555
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	274	370	502	403	715	645
Adj No. of Lanes	1	1	2	0	2	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	377	650	810	650	704	2417
Arrive On Green	0.21	0.21	0.43	0.43	0.19	0.67
Sat Flow, veh/h	1810	1615	2001	1529	3619	3705
Grp Volume(v), veh/h	274	370	475	430	715	645
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1630	1810	1805
Q Serve(g_s), s	12.7	16.0	18.5	18.5	17.5	6.5
Cycle Q Clear(g_c), s	12.7	16.0	18.5	18.5	17.5	6.5
Prop In Lane	1.00	1.00		0.94	1.00	
Lane Grp Cap(c), veh/h	377	650	767	693	704	2417
V/C Ratio(X)	0.73	0.57	0.62	0.62	1.02	0.27
Avail Cap(c_a), veh/h	523	781	767	693	704	2417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.58	0.58
Uniform Delay (d), s/veh	33.2	20.8	20.2	20.2	36.3	6.0
Incr Delay (d2), s/veh	1.6	0.3	3.7	4.1	30.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	7.1	9.9	9.0	11.6	3.3
LnGrp Delay(d),s/veh	34.8	21.1	23.9	24.3	66.3	6.1
LnGrp LOS	C	C	C	C	F	A
Approach Vol, veh/h	644		905			1360
Approach Delay, s/veh	26.9		24.1			37.7
Approach LOS	C		C			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	22.0	43.8				65.8		24.2
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	17.5	31.0				53.0		26.0
Max Q Clear Time (g_c+I1), s	19.5	20.5				8.5		18.0
Green Ext Time (p_c), s	0.0	4.6				6.9		0.8

Intersection Summary		
HCM 2010 Ctrl Delay		31.1
HCM 2010 LOS		C

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰↰	↑	↱
Volume (veh/h)	52	316	6	19	93	579	0	88	36	636	250	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	451	9	27	133	827	0	126	47	909	357	46
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	2	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	474	402	36	413	822	47	504	422	1023	1008	857
Arrive On Green	0.04	0.25	0.25	0.02	0.22	0.22	0.00	0.27	0.27	0.29	0.53	0.53
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	1900	1593	3510	1900	1615
Grp Volume(v), veh/h	74	451	9	27	133	827	0	126	47	909	357	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1900	1593	1755	1900	1615
Q Serve(g_s), s	4.7	26.9	0.4	1.7	6.8	25.0	0.0	6.0	2.2	28.5	12.5	1.6
Cycle Q Clear(g_c), s	4.7	26.9	0.4	1.7	6.8	25.0	0.0	6.0	2.2	28.5	12.5	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	474	402	36	413	822	47	504	422	1023	1008	857
V/C Ratio(X)	0.94	0.95	0.02	0.74	0.32	1.01	0.00	0.25	0.11	0.89	0.35	0.05
Avail Cap(c_a), veh/h	79	474	402	63	413	822	63	504	422	1053	1008	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.58	0.58	0.58	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	42.5	23.5	56.0	37.9	28.2	0.0	33.2	23.3	39.0	15.6	13.0
Incr Delay (d2), s/veh	80.5	29.1	0.0	6.3	0.1	25.5	0.0	1.2	0.5	8.9	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	17.9	0.2	0.9	3.6	16.6	0.0	3.3	1.0	15.0	6.8	0.7
LnGrp Delay(d),s/veh	135.3	71.6	23.5	62.3	38.0	53.8	0.0	34.4	23.9	47.9	16.6	13.2
LnGrp LOS	F	E	C	E	D	F		C	C	D	B	B
Approach Vol, veh/h		534			987			173			1312	
Approach Delay, s/veh		79.6			51.9			31.6			38.2	
Approach LOS		E			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.0	36.0	6.8	34.2	7.5	66.5	10.5	30.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	34.5	30.5	4.0	26.0	4.0	61.0	5.0	* 25
Max Q Clear Time (g_c+I1), s	30.5	8.0	3.7	28.9	0.0	14.5	6.7	27.0
Green Ext Time (p_c), s	0.9	0.4	0.0	0.0	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	49.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	22	796	1222	219	451	50	652	163	202	124	254	32
Future Volume (veh/h)	22	796	1222	219	451	50	652	163	202	124	254	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.36
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1976	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1206	1094	332	683	53	988	247	221	188	385	36
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	1219	1343	234	1653	699	1960	435	370	777	405	35
Arrive On Green	0.02	0.32	0.32	0.13	0.44	0.44	0.17	0.08	0.08	0.43	0.14	0.14
Sat Flow, veh/h	1810	3800	1563	1810	3800	1608	3764	1900	1613	1810	2948	258
Grp Volume(v), veh/h	33	1206	1094	332	683	53	988	247	221	188	239	182
Grp Sat Flow(s),veh/h/ln	1810	1900	1563	1810	1900	1608	1882	1900	1613	1810	1900	1306
Q Serve(g_s), s	2.2	37.9	0.0	15.5	14.9	1.4	28.6	15.1	15.9	7.9	14.9	16.5
Cycle Q Clear(g_c), s	2.2	37.9	0.0	15.5	14.9	1.4	28.6	15.1	15.9	7.9	14.9	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	42	1219	1343	234	1653	699	1960	435	370	777	261	180
V/C Ratio(X)	0.78	0.99	0.81	1.42	0.41	0.08	0.50	0.57	0.60	0.24	0.91	1.02
Avail Cap(c_a), veh/h	92	1219	1343	234	1653	699	1960	435	370	777	261	180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.39	0.39	0.39	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	40.5	4.7	52.3	23.3	7.0	35.6	49.7	50.1	21.8	51.0	51.8
Incr Delay (d2), s/veh	4.6	13.5	1.5	212.4	0.1	0.0	0.1	4.0	5.3	0.1	37.2	71.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
%ile BackOfQ(50%),veh/ln	1.1	22.1	17.6	21.5	7.8	0.6	14.9	8.4	7.7	4.0	10.5	9.5
LnGrp Delay(d),s/veh	62.9	54.1	6.1	264.6	23.4	7.0	35.7	53.7	55.4	21.9	88.2	123.1
LnGrp LOS	E	D	A	F	C	A	D	D	E	C	F	F
Approach Vol, veh/h		2333			1068			1456			609	
Approach Delay, s/veh		31.7			97.6			41.7			78.2	
Approach LOS		C			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	57.0	33.0	21.0	44.0	68.0	22.0	7.3	57.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	18.5	27.5	15.5	* 39	29.5	16.5	6.1	47.9
Max Q Clear Time (g_c+I1), s	9.9	17.9	17.5	39.9	30.6	18.5	4.2	16.9
Green Ext Time (p_c), s	1.8	0.8	0.0	0.0	0.0	0.0	0.0	3.3

Intersection Summary		
HCM 2010 Ctrl Delay		52.4
HCM 2010 LOS		D

Notes

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

29: Indian Street & Nandina Avenue

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	28	54	412	126	35	16	105	821	91	55	1432	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	77	232	180	50	4	150	1173	66	79	2046	75
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	247	323	128	100	84	128	2058	116	100	2047	75
Arrive On Green	0.30	0.26	0.26	0.14	0.11	0.11	0.14	1.00	1.00	0.11	1.00	1.00
Sat Flow, veh/h	1810	1900	1608	1810	1900	1597	1810	3564	200	1810	3644	133
Grp Volume(v), veh/h	40	77	232	180	50	4	150	625	614	79	1061	1061
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1900	1597	1810	1900	1864	1810	1900	1877
Q Serve(g_s), s	2.0	3.9	12.6	8.5	3.0	0.2	8.5	0.0	0.0	5.1	0.0	67.4
Cycle Q Clear(g_c), s	2.0	3.9	12.6	8.5	3.0	0.2	8.5	0.0	0.0	5.1	0.0	67.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.07
Lane Grp Cap(c), veh/h	268	247	323	128	100	84	128	1097	1076	100	1067	1054
V/C Ratio(X)	0.15	0.31	0.72	1.40	0.50	0.05	1.17	0.57	0.57	0.79	0.99	1.01
Avail Cap(c_a), veh/h	268	380	436	128	410	345	128	1097	1076	137	1067	1054
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40	0.40	0.40
Uniform Delay (d), s/veh	36.7	40.1	22.8	51.5	52.2	37.2	51.5	0.0	0.0	52.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	1.9	221.9	1.4	0.1	132.5	2.1	2.2	5.7	16.1	19.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.1	5.7	12.1	1.6	0.1	8.9	0.7	0.7	2.7	4.8	5.6
LnGrp Delay(d),s/veh	36.7	40.3	24.7	273.4	53.6	37.2	184.0	2.1	2.2	58.5	16.1	19.1
LnGrp LOS	D	D	C	F	D	D	F	A	A	E	B	F
Approach Vol, veh/h		349			234			1389			2200	
Approach Delay, s/veh		29.5			222.4			21.8			19.0	
Approach LOS		C			F			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	74.8	13.0	21.1	13.0	72.9	22.3	11.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	9.1	58.4	8.5	24.0	8.5	59.0	6.6	25.9
Max Q Clear Time (g_c+I1), s	7.1	2.0	10.5	14.6	10.5	69.4	4.0	5.0
Green Ext Time (p_c), s	0.0	29.1	0.0	0.4	0.0	0.0	0.1	0.1

Intersection Summary			
HCM 2010 Ctrl Delay			32.2
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	507	370	138	23	750	11	188	305	16	59	398	936
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	658	481	179	30	974	14	244	396	21	77	517	1211
Adj No. of Lanes	2	3	0	1	3	0	2	2	1	2	2	1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2679	4116	1479	42	1917	28	152	1341	570	132	1280	1776
Arrive On Green	0.76	1.00	1.00	0.02	0.34	0.34	0.04	0.35	0.35	0.04	0.34	0.34
Sat Flow, veh/h	3510	3766	1353	1810	5604	81	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	658	440	220	30	660	328	244	396	21	77	517	1211
Grp Sat Flow(s),veh/h/ln	1755	1729	1661	1810	1900	1885	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	5.2	0.0	0.0	1.6	13.1	13.2	4.0	7.2	0.8	2.0	9.9	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.0	1.6	13.1	13.2	4.0	7.2	0.8	2.0	9.9	0.0
Prop In Lane	1.00		0.81	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2679	3779	1815	42	1300	645	152	1341	570	132	1280	1776
V/C Ratio(X)	0.25	0.12	0.12	0.72	0.51	0.51	1.60	0.30	0.04	0.58	0.40	0.68
Avail Cap(c_a), veh/h	2679	3779	1815	99	1300	645	152	1341	570	152	1280	1776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.3	0.0	0.0	46.1	24.9	24.9	45.5	22.2	20.2	45.0	24.2	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	8.4	1.4	2.8	299.0	0.6	0.1	1.7	0.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.1	0.9	7.1	7.3	8.3	3.8	0.4	1.0	5.3	1.1
LnGrp Delay(d),s/veh	3.3	0.1	0.1	54.5	26.3	27.7	344.5	22.8	20.3	46.7	25.1	2.1
LnGrp LOS	A	A	A	D	C	C	F	C	C	D	C	A
Approach Vol, veh/h		1318			1018			661			1805	
Approach Delay, s/veh		1.7			27.6			141.5			10.6	
Approach LOS		A			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	111.3	9.5	37.5	80.0	38.0	8.0	39.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	3.6	2.0	6.0	11.9	7.2	15.2	4.0	9.2
Green Ext Time (p_c), s	0.0	4.0	0.0	5.4	0.0	3.6	0.0	1.8

Intersection Summary	
HCM 2010 Ctrl Delay	29.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
31: Perris Boulevard & Cactus Avenue 2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	226	1080	391	102	568	141	274	1140	136	197	1458	84
Future Volume (veh/h)	226	1080	391	102	568	141	274	1140	136	197	1458	84
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1976	1900
Adj Flow Rate, veh/h	231	1102	378	104	580	135	280	1163	128	201	1488	75
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	234	2223	1089	128	1560	362	204	1871	206	229	1433	585
Arrive On Green	0.13	0.56	0.56	0.07	0.50	0.50	0.11	0.36	0.36	0.13	0.36	0.36
Sat Flow, veh/h	1810	3952	1612	1810	3095	718	1810	5248	577	1810	3952	1615
Grp Volume(v), veh/h	231	1102	378	104	370	345	280	876	415	201	1488	75
Grp Sat Flow(s),veh/h/ln	1810	1976	1612	1810	1976	1837	1810	1976	1874	1810	1976	1615
Q Serve(g_s), s	15.3	20.3	5.5	6.8	13.7	13.8	13.5	22.0	22.0	13.1	43.5	4.1
Cycle Q Clear(g_c), s	15.3	20.3	5.5	6.8	13.7	13.8	13.5	22.0	22.0	13.1	43.5	4.1
Prop In Lane	1.00		1.00	1.00		0.39	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	234	2223	1089	128	996	926	204	1409	668	229	1433	585
V/C Ratio(X)	0.99	0.50	0.35	0.81	0.37	0.37	1.38	0.62	0.62	0.88	1.04	0.13
Avail Cap(c_a), veh/h	234	2223	1089	128	996	926	204	1409	668	326	1433	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	15.9	14.7	55.0	18.1	18.2	53.2	31.9	31.9	51.5	38.3	31.6
Incr Delay (d2), s/veh	55.3	0.8	0.9	29.3	1.1	1.2	196.8	2.1	4.3	13.2	34.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.2	11.3	2.7	4.5	7.7	7.3	17.9	12.4	12.2	7.4	30.5	1.9
LnGrp Delay(d),s/veh	107.5	16.7	15.5	84.3	19.2	19.3	250.0	34.0	36.2	64.7	72.7	32.0
LnGrp LOS	F	B	B	F	B	B	F	C	D	E	F	C
Approach Vol, veh/h		1711			819			1571			1764	
Approach Delay, s/veh		28.7			27.5			73.1			70.1	
Approach LOS		C			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	74.0	19.0	49.0	20.0	67.0	19.7	48.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.5	34.5	13.5	* 44	15.5	27.5	21.6	35.4
Max Q Clear Time (g_c+I1), s	8.8	22.3	15.5	45.5	17.3	15.8	15.1	24.0
Green Ext Time (p_c), s	0.0	6.8	0.0	0.0	0.0	6.6	0.1	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Notes

32: Perris Boulevard & Krameria Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑	↱	↰	↑↑↑↱		↰	↑↑↑↱	
Volume (veh/h)	62	166	67	238	121	134	60	1361	209	211	1247	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	182	58	262	133	47	66	1496	205	232	1370	58
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	98	217	69	291	501	419	89	2056	281	158	2485	105
Arrive On Green	0.05	0.16	0.16	0.16	0.26	0.26	0.05	0.42	0.42	0.09	0.46	0.46
Sat Flow, veh/h	1810	1381	440	1810	1900	1588	1810	4899	670	1810	5426	230
Grp Volume(v), veh/h	68	0	240	262	133	47	66	1160	541	232	959	469
Grp Sat Flow(s),veh/h/ln	1810	0	1821	1810	1900	1588	1810	1900	1769	1810	1900	1856
Q Serve(g_s), s	4.4	0.0	15.4	17.0	6.7	2.7	4.3	30.6	30.7	10.5	22.0	22.0
Cycle Q Clear(g_c), s	4.4	0.0	15.4	17.0	6.7	2.7	4.3	30.6	30.7	10.5	22.0	22.0
Prop In Lane	1.00		0.24	1.00		1.00	1.00		0.38	1.00		0.12
Lane Grp Cap(c), veh/h	98	0	286	291	501	419	89	1595	743	158	1740	850
V/C Ratio(X)	0.69	0.00	0.84	0.90	0.27	0.11	0.74	0.73	0.73	1.47	0.55	0.55
Avail Cap(c_a), veh/h	452	0	455	452	501	419	89	1595	743	158	1740	850
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	0.0	49.1	49.4	35.0	33.5	56.3	29.1	29.1	54.8	23.6	23.6
Incr Delay (d2), s/veh	3.3	0.0	4.1	10.2	0.1	0.0	42.6	2.9	6.2	240.5	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	8.1	9.3	3.5	1.2	3.2	16.6	16.2	15.8	11.8	11.8
LnGrp Delay(d),s/veh	59.0	0.0	53.2	59.6	35.1	33.6	98.8	32.0	35.3	295.3	24.8	26.2
LnGrp LOS	E		D	E	D	C	F	C	D	F	C	C
Approach Vol, veh/h		308			442			1767			1660	
Approach Delay, s/veh		54.5			49.4			35.5			63.0	
Approach LOS		D			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	55.9	24.8	24.3	10.4	60.5	12.0	37.1
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	10.5	28.5	30.0	30.0	5.9	33.1	30.0	30.0
Max Q Clear Time (g_c+I1), s	12.5	32.7	19.0	17.4	6.3	24.0	6.4	8.7
Green Ext Time (p_c), s	0.0	0.0	0.3	0.7	0.0	7.6	0.1	1.5

Intersection Summary		
HCM 2010 Ctrl Delay		49.3
HCM 2010 LOS		D

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 6.12:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑							↱↱
Volume (vph)	0	579	124	580	2468	0	0	0	0	0	0	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5							5.6
Lane Util. Factor		*1.00	1.00	*1.00	*1.00							*1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00							0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00							1.00
Frt		1.00	1.00	1.00	1.00							1.00
Flt Protected		1.00	1.00	1.00	1.00							1.00
Satd. Flow (prot)		3800	1900	3800	3800							3707
Flt Permitted		1.00	1.00	1.00	1.00							1.00
Satd. Flow (perm)		3800	1900	3800	3800							3707
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	609	131	611	2598	0	0	0	0	0	0	565
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	0	0	0	49
Lane Group Flow (vph)	0	609	68	611	2598	0	0	0	0	0	0	516
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA							Perm
Protected Phases		2		1	6							
Permitted Phases			2									4
Actuated Green, G (s)		62.0	62.0	23.2	89.2							19.7
Effective Green, g (s)		62.0	62.0	23.2	89.2							19.7
Actuated g/C Ratio		0.52	0.52	0.19	0.74							0.16
Clearance Time (s)		5.5	5.5	4.0	5.5							5.6
Vehicle Extension (s)		2.0	2.0	2.0	2.0							2.0
Lane Grp Cap (vph)		1963	981	734	2824							608
v/s Ratio Prot		0.16		0.16	c0.68							
v/s Ratio Perm			0.04									c0.14
v/c Ratio		0.31	0.07	0.83	0.92							0.85
Uniform Delay, d1		16.7	14.5	46.5	12.5							48.7
Progression Factor		1.00	1.00	0.94	1.33							1.00
Incremental Delay, d2		0.4	0.1	7.4	6.0							10.2
Delay (s)		17.1	14.7	51.0	22.7							58.9
Level of Service		B	B	D	C							E
Approach Delay (s)		16.7			28.1			0.0			58.9	
Approach LOS		B			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	524	43	248	288	0	0	0	0	1541	2	386
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	557	41	264	306	0				1639	2	347
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	404	611	1829	0				1710	4	760
Arrive On Green	0.00	0.25	0.25	0.17	0.48	0.00				0.47	0.47	0.47
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	9	1607
Grp Volume(v), veh/h	0	557	41	264	306	0				1639	0	349
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	10.3	1.6	5.2	3.6	0.0				34.9	0.0	11.6
Cycle Q Clear(g_c), s	0.0	10.3	1.6	5.2	3.6	0.0				34.9	0.0	11.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	950	404	611	1829	0				1710	0	764
V/C Ratio(X)	0.00	0.59	0.10	0.43	0.17	0.00				0.96	0.00	0.46
Avail Cap(c_a), veh/h	0	950	404	611	1829	0				1719	0	768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.97	0.97	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.4	23.1	29.8	11.7	0.0				20.3	0.0	14.2
Incr Delay (d2), s/veh	0.0	2.6	0.5	0.2	0.2	0.0				13.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.8	0.8	2.6	2.0	0.0				20.4	0.0	5.2
LnGrp Delay(d),s/veh	0.0	29.0	23.6	30.0	11.9	0.0				33.5	0.0	14.6
LnGrp LOS		C	C	C	B					C		B
Approach Vol, veh/h		598			570						1988	
Approach Delay, s/veh		28.6			20.3						30.2	
Approach LOS		C			C						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	18.6	25.0		42.8		43.6		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	7.5	* 20		38.0		32.0		
Max Q Clear Time (g_c+I1), s	7.2	12.3		36.9		5.6		
Green Ext Time (p_c), s	0.0	1.5		0.9		1.6		

Intersection Summary		
HCM 2010 Ctrl Delay		28.1
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.
7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰↰	↱		↰	↱	
Volume (veh/h)	39	1569	101	0	2688	247	878	345	36	52	0	73
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	1601	97	0	2743	208	896	352	37	53	0	69
Adj No. of Lanes	1	3	0	0	3	0	2	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	78	3432	208	0	3383	250	825	537	56	139	0	247
Arrive On Green	0.21	0.21	0.21	0.00	0.65	0.65	0.23	0.32	0.32	0.08	0.00	0.16
Sat Flow, veh/h	85	5321	322	0	5244	387	3510	1688	177	1810	0	1591
Grp Volume(v), veh/h	40	1143	555	0	1967	984	896	0	389	53	0	69
Grp Sat Flow(s),veh/h/ln	85	1900	1843	0	1900	1832	1755	0	1866	1810	0	1591
Q Serve(g_s), s	26.0	31.5	31.6	0.0	45.7	49.4	28.2	0.0	21.5	3.3	0.0	4.6
Cycle Q Clear(g_c), s	77.4	31.5	31.6	0.0	45.7	49.4	28.2	0.0	21.5	3.3	0.0	4.6
Prop In Lane	1.00		0.17	0.00		0.21	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	78	2451	1189	0	2451	1181	825	0	594	139	0	247
V/C Ratio(X)	0.51	0.47	0.47	0.00	0.80	0.83	1.09	0.00	0.65	0.38	0.00	0.28
Avail Cap(c_a), veh/h	78	2451	1189	0	2451	1181	825	0	594	139	0	247
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	80.0	29.2	29.2	0.0	15.7	16.3	45.9	0.0	35.2	52.7	0.0	44.8
Incr Delay (d2), s/veh	21.8	0.6	1.3	0.0	2.9	6.9	57.3	0.0	5.6	0.6	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	16.9	16.6	0.0	24.8	26.9	20.2	0.0	12.0	1.7	0.0	2.2
LnGrp Delay(d),s/veh	101.8	29.8	30.5	0.0	18.6	23.3	103.2	0.0	40.8	53.3	0.0	47.6
LnGrp LOS	F	C	C		B	C	F		D	D		D
Approach Vol, veh/h		1738			2951			1285			122	
Approach Delay, s/veh		31.7			20.1			84.3			50.1	
Approach LOS		C			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		83.0	33.8	24.2		83.0	14.8	43.2
Change Period (Y+Rc), s		5.0	5.6	* 5.6		5.0	5.6	5.0
Max Green Setting (Gmax), s		57.6	28.2	* 19		57.6	8.6	38.2
Max Q Clear Time (g_c+I1), s		79.4	30.2	6.6		51.4	5.3	23.5
Green Ext Time (p_c), s		0.0	0.0	0.2		6.1	0.1	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	314	1750	0	0	450	646	84	0	393	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	341	1902	0	0	489	0	91	0	341			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	554	2482	0	0	1742	740	528	0	471			
Arrive On Green	0.15	0.65	0.00	0.00	0.46	0.00	0.29	0.00	0.29			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	341	1902	0	0	489	0	91	0	341			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	10.6	41.7	0.0	0.0	9.6	0.0	4.5	0.0	22.8			
Cycle Q Clear(g_c), s	10.6	41.7	0.0	0.0	9.6	0.0	4.5	0.0	22.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	554	2482	0	0	1742	740	528	0	471			
V/C Ratio(X)	0.62	0.77	0.00	0.00	0.28	0.00	0.17	0.00	0.72			
Avail Cap(c_a), veh/h	554	2482	0	0	1742	740	528	0	471			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.46	0.46	0.00	0.00	0.70	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.5	14.5	0.0	0.0	20.2	0.0	31.7	0.0	38.2			
Incr Delay (d2), s/veh	0.7	1.1	0.0	0.0	0.3	0.0	0.7	0.0	9.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	22.0	0.0	0.0	5.1	0.0	2.4	0.0	11.4			
LnGrp Delay(d),s/veh	48.2	15.6	0.0	0.0	20.5	0.0	32.4	0.0	47.5			
LnGrp LOS	D	B			C		C		D			
Approach Vol, veh/h		2243			489			432				
Approach Delay, s/veh		20.5			20.5			44.3				
Approach LOS		C			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		83.5			23.5	60.0		40.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		75.0			16.5	* 55		35.0
Max Q Clear Time (g_c+I1), s		43.7			12.6	11.6		24.8
Green Ext Time (p_c), s		13.4			2.5	2.0		1.2

Intersection Summary		
HCM 2010 Ctrl Delay		23.8
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	220	2300	256	115	2599	118	59	245	23	109	128	130
Future Volume (veh/h)	220	2300	256	115	2599	118	59	245	23	109	128	130
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	232	2421	0	121	2736	116	62	258	3	115	135	84
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	2584	732	536	3725	1056	77	461	5	98	489	579
Arrive On Green	0.10	0.45	0.00	0.30	0.65	0.65	0.04	0.25	0.25	0.05	0.26	0.26
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1874	22	1810	1900	1594
Grp Volume(v), veh/h	232	2421	0	121	2736	116	62	0	261	115	135	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1896	1810	1900	1594
Q Serve(g_s), s	12.5	48.4	0.0	6.1	38.4	3.2	4.1	0.0	14.4	6.5	6.8	4.3
Cycle Q Clear(g_c), s	12.5	48.4	0.0	6.1	38.4	3.2	4.1	0.0	14.4	6.5	6.8	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	188	2584	732	536	3725	1056	77	0	466	98	489	579
V/C Ratio(X)	1.23	0.94	0.00	0.23	0.73	0.11	0.81	0.00	0.56	1.17	0.28	0.15
Avail Cap(c_a), veh/h	188	2584	732	536	3725	1056	77	0	466	98	489	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	31.2	0.0	31.9	13.8	7.8	57.0	0.0	39.6	56.8	35.6	25.8
Incr Delay (d2), s/veh	141.3	8.1	0.0	0.1	0.7	0.0	58.3	0.0	4.8	144.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	27.3	0.0	3.0	20.2	1.4	3.3	0.0	8.2	7.2	3.6	1.9
LnGrp Delay(d),s/veh	195.1	39.2	0.0	31.9	14.5	7.8	115.3	0.0	44.4	201.6	35.7	25.9
LnGrp LOS	F	D		C	B	A	F		D	F	D	C
Approach Vol, veh/h		2653			2973			323			334	
Approach Delay, s/veh		52.9			15.0			58.0			90.4	
Approach LOS		D			B			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.3	59.9	10.6	36.4	17.0	84.2	12.0	35.0
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	8.6	* 54	5.1	30.9	12.5	50.5	6.5	29.5
Max Q Clear Time (g_c+I1), s	8.1	50.4	6.1	8.8	14.5	40.4	8.5	16.4
Green Ext Time (p_c), s	0.0	3.3	0.0	1.6	0.0	8.4	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.2
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary

7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)

7/15/2015

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	↰↱	
Volume (veh/h)	62	2082	1053	39	9	44
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	2313	1170	43	10	49
Adj No. of Lanes	1	2	2	1	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	89	2196	1818	765	82	404
Arrive On Green	0.05	0.58	0.48	0.48	0.30	0.30
Sat Flow, veh/h	1810	3800	3800	1600	275	1346
Grp Volume(v), veh/h	69	2313	1170	43	60	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1600	1649	0
Q Serve(g_s), s	3.4	52.0	20.9	1.3	2.4	0.0
Cycle Q Clear(g_c), s	3.4	52.0	20.9	1.3	2.4	0.0
Prop In Lane	1.00			1.00	0.17	0.82
Lane Grp Cap(c), veh/h	89	2196	1818	765	495	0
V/C Ratio(X)	0.77	1.05	0.64	0.06	0.12	0.00
Avail Cap(c_a), veh/h	171	2196	1818	765	495	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.3	19.0	17.7	12.6	22.9	0.0
Incr Delay (d2), s/veh	2.8	30.7	1.8	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	36.2	11.3	0.6	1.2	0.0
LnGrp Delay(d),s/veh	45.1	49.7	19.5	12.7	23.4	0.0
LnGrp LOS	D	F	B	B	C	
Approach Vol, veh/h		2382	1213		60	
Approach Delay, s/veh		49.6	19.2		23.4	
Approach LOS		D	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		57.5		32.5	8.9	48.6		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		52.0		27.0	8.5	39.0		
Max Q Clear Time (g_c+I1), s		54.0		4.4	5.4	22.9		
Green Ext Time (p_c), s		0.0		0.1	0.0	14.1		

Intersection Summary	
HCM 2010 Ctrl Delay	39.1
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	151	1879	271	32	2538	126	211	91	24	94	95	121
Future Volume (veh/h)	151	1879	271	32	2538	126	211	91	24	94	95	121
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	2020	0	34	2729	133	227	98	23	101	102	95
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	4498	1274	43	4119	198	220	735	167	115	909	461
Arrive On Green	0.05	0.79	0.00	0.02	0.76	0.76	0.06	0.25	0.25	0.06	0.24	0.24
Sat Flow, veh/h	1810	5700	1615	1810	5395	259	3619	2997	681	1810	3800	1593
Grp Volume(v), veh/h	162	2020	0	34	1909	953	227	61	60	101	102	95
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1854	1810	1900	1778	1810	1900	1593
Q Serve(g_s), s	5.7	13.3	0.0	2.1	27.5	28.7	7.0	2.9	3.0	6.4	2.4	5.9
Cycle Q Clear(g_c), s	5.7	13.3	0.0	2.1	27.5	28.7	7.0	2.9	3.0	6.4	2.4	5.9
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	90	4498	1274	43	2901	1416	220	466	436	115	909	461
V/C Ratio(X)	1.81	0.45	0.00	0.79	0.66	0.67	1.03	0.13	0.14	0.88	0.11	0.21
Avail Cap(c_a), veh/h	90	4498	1274	96	2901	1416	220	466	436	115	909	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	4.0	0.0	55.8	6.5	6.6	54.0	33.8	33.9	53.4	34.2	41.0
Incr Delay (d2), s/veh	397.4	0.3	0.0	1.1	0.1	0.2	68.8	0.6	0.7	47.4	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	7.0	0.0	1.1	14.1	14.4	5.6	1.6	1.6	4.7	1.3	2.7
LnGrp Delay(d),s/veh	452.1	4.2	0.0	56.9	6.6	6.9	122.9	34.4	34.6	100.8	34.5	42.0
LnGrp LOS	F	A		E	A	A	F	C	C	F	C	D
Approach Vol, veh/h		2182			2896			348			298	
Approach Delay, s/veh		37.5			7.3			92.1			59.4	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	97.2	12.5	33.0	10.2	94.3	11.8	33.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	6.1	54.4	7.0	* 28	5.7	54.8	7.3	27.2
Max Q Clear Time (g_c+I1), s	4.1	15.3	9.0	7.9	7.7	30.7	8.4	5.0
Green Ext Time (p_c), s	0.0	35.1	0.0	0.4	0.0	22.5	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱		✣			↰	↱
Volume (veh/h)	84	1967	23	10	969	2	133	0	36	0	2	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	2071	24	11	1020	2	140	0	38	0	2	21
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	2048	870	19	1851	786	382	9	87	0	529	449
Arrive On Green	0.06	0.54	0.54	0.01	0.49	0.49	0.28	0.00	0.28	0.00	0.28	0.28
Sat Flow, veh/h	1810	3800	1615	1810	3800	1615	1115	31	311	0	1900	1615
Grp Volume(v), veh/h	88	2071	24	11	1020	2	178	0	0	0	2	21
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1458	0	0	0	1900	1615
Q Serve(g_s), s	4.3	48.5	0.6	0.5	16.9	0.1	8.4	0.0	0.0	0.0	0.1	0.9
Cycle Q Clear(g_c), s	4.3	48.5	0.6	0.5	16.9	0.1	8.9	0.0	0.0	0.0	0.1	0.9
Prop In Lane	1.00		1.00	1.00		1.00	0.79		0.21	0.00		1.00
Lane Grp Cap(c), veh/h	113	2048	870	19	1851	786	477	0	0	0	529	449
V/C Ratio(X)	0.78	1.01	0.03	0.57	0.55	0.00	0.37	0.00	0.00	0.00	0.00	0.05
Avail Cap(c_a), veh/h	189	2048	870	80	1851	786	477	0	0	0	529	449
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	20.7	9.7	44.3	16.2	11.9	26.6	0.0	0.0	0.0	23.5	23.8
Incr Delay (d2), s/veh	4.3	22.7	0.0	9.4	0.2	0.0	2.2	0.0	0.0	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	31.5	0.3	0.3	8.8	0.0	3.9	0.0	0.0	0.0	0.0	0.4
LnGrp Delay(d),s/veh	45.8	43.5	9.7	53.7	16.4	11.9	28.8	0.0	0.0	0.0	23.5	23.9
LnGrp LOS	D	F	A	D	B	B	C				C	C
Approach Vol, veh/h		2183			1033			178			23	
Approach Delay, s/veh		43.2			16.8			28.8			23.9	
Approach LOS		D			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		30.5	5.5	54.0		30.5	10.1	49.3
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	48.5		22.0	9.4	43.1
Max Q Clear Time (g_c+I1), s		10.9	2.5	50.5		2.9	6.3	18.9
Green Ext Time (p_c), s		0.5	0.0	0.0		0.7	0.0	18.2

Intersection Summary	
HCM 2010 Ctrl Delay	34.3
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	140	1011	706	56	1795	147	928	609	24	72	428	67
Future Volume (veh/h)	140	1011	706	56	1795	147	928	609	24	72	428	67
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	1099	690	61	1951	151	1009	662	24	78	465	57
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2415	1382	79	2121	162	799	1393	50	100	692	84
Arrive On Green	0.07	0.64	0.64	0.04	0.61	0.61	0.22	0.38	0.38	0.06	0.21	0.21
Sat Flow, veh/h	1810	3800	1613	1810	3487	266	3619	3642	132	1810	3322	405
Grp Volume(v), veh/h	152	1099	690	61	1051	1051	1009	345	341	78	265	257
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1853	1810	1900	1874	1810	1900	1827
Q Serve(g_s), s	8.5	17.8	7.3	4.0	58.2	61.6	26.5	16.5	16.5	5.1	15.4	15.5
Cycle Q Clear(g_c), s	8.5	17.8	7.3	4.0	58.2	61.6	26.5	16.5	16.5	5.1	15.4	15.5
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.07	1.00		0.22
Lane Grp Cap(c), veh/h	128	2415	1382	79	1156	1127	799	727	717	100	396	381
V/C Ratio(X)	1.19	0.46	0.50	0.77	0.91	0.93	1.26	0.47	0.48	0.78	0.67	0.68
Avail Cap(c_a), veh/h	128	2415	1382	134	1156	1127	799	727	717	167	396	381
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	11.2	7.5	56.8	20.6	21.3	46.8	28.0	28.0	56.0	43.7	43.8
Incr Delay (d2), s/veh	123.1	0.4	0.8	5.9	12.1	14.8	126.9	1.9	2.0	5.0	8.7	9.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	9.4	3.3	2.1	33.9	35.9	27.3	9.0	8.9	2.7	9.1	8.8
LnGrp Delay(d),s/veh	178.8	11.6	8.3	62.7	32.7	36.1	173.6	29.9	29.9	61.0	52.4	53.0
LnGrp LOS	F	B	A	E	C	D	F	C	C	E	D	D
Approach Vol, veh/h		1941			2163			1695			600	
Approach Delay, s/veh		23.5			35.2			115.5			53.8	
Approach LOS		C			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	82.8	32.0	30.5	13.0	79.5	11.1	51.4
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.9	39.6	26.5	* 25	8.5	40.0	11.1	40.4
Max Q Clear Time (g_c+I1), s	6.0	19.8	28.5	17.5	10.5	63.6	7.1	18.5
Green Ext Time (p_c), s	0.0	16.3	0.0	1.1	0.0	0.0	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	54.6
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

12: Heacock Street & Gentian Avenue

7/15/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	4	110	786	3	67	811
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	116	827	3	71	854
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	145	950	807	431	1519
Arrive On Green	0.09	0.09	0.50	0.50	0.24	0.80
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	4	116	827	3	71	854
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.2	6.3	34.7	0.1	2.8	14.7
Cycle Q Clear(g_c), s	0.2	6.3	34.7	0.1	2.8	14.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	162	145	950	807	431	1519
V/C Ratio(X)	0.02	0.80	0.87	0.00	0.16	0.56
Avail Cap(c_a), veh/h	523	467	950	807	431	1519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.90	0.90	1.00	1.00
Uniform Delay (d), s/veh	37.4	40.2	19.9	11.3	27.2	3.3
Incr Delay (d2), s/veh	0.0	3.9	9.8	0.0	0.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.0	20.5	0.0	1.4	8.2
LnGrp Delay(d),s/veh	37.4	44.0	29.7	11.3	27.3	4.8
LnGrp LOS	D	D	C	B	C	A
Approach Vol, veh/h	120		830			925
Approach Delay, s/veh	43.8		29.7			6.5
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	26.9	50.5				77.4		12.6
Change Period (Y+Rc), s	5.5	* 5.5				5.5		4.5
Max Green Setting (Gmax), s	4.5	* 45				54.0		26.0
Max Q Clear Time (g_c+I1), s	4.8	36.7				16.7		8.3
Green Ext Time (p_c), s	0.0	2.2				3.7		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		19.2
HCM 2010 LOS		B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
13: Heacock Street & Iris Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰↰	↑↑
Volume (veh/h)	340	473	367	212	271	590
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	362	503	390	226	288	628
Adj No. of Lanes	1	1	2	0	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	553	655	859	491	362	1978
Arrive On Green	0.31	0.31	0.39	0.39	0.10	0.55
Sat Flow, veh/h	1810	1615	2310	1267	3619	3705
Grp Volume(v), veh/h	362	503	317	299	288	628
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1676	1810	1805
Q Serve(g_s), s	13.0	20.2	9.8	10.0	5.8	7.1
Cycle Q Clear(g_c), s	13.0	20.2	9.8	10.0	5.8	7.1
Prop In Lane	1.00	1.00		0.76	1.00	
Lane Grp Cap(c), veh/h	553	655	700	650	362	1978
V/C Ratio(X)	0.65	0.77	0.45	0.46	0.80	0.32
Avail Cap(c_a), veh/h	627	721	700	650	362	1978
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.80	0.80
Uniform Delay (d), s/veh	22.6	19.2	17.0	17.1	33.0	9.3
Incr Delay (d2), s/veh	1.4	3.9	2.1	2.3	8.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	9.6	5.3	5.0	3.4	3.6
LnGrp Delay(d),s/veh	24.0	23.1	19.2	19.4	41.8	9.6
LnGrp LOS	C	C	B	B	D	A
Approach Vol, veh/h	865		616			916
Approach Delay, s/veh	23.5		19.3			19.7
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.0	34.6				46.6		28.4
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	7.5	26.0				38.0		26.0
Max Q Clear Time (g_c+I1), s	7.8	12.0				9.1		22.2
Green Ext Time (p_c), s	0.0	4.1				4.9		0.7

Intersection Summary			
HCM 2010 Ctrl Delay			21.0
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰↰	↑	↱
Volume (veh/h)	28	76	4	40	310	716	1	55	11	443	104	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	37	101	2	53	413	888	1	73	15	591	139	62
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	2	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	444	378	69	467	842	145	529	449	969	900	765
Arrive On Green	0.03	0.23	0.23	0.04	0.25	0.25	0.08	0.28	0.28	0.28	0.47	0.47
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	3510	1900	1615
Grp Volume(v), veh/h	37	101	2	53	413	888	1	73	15	591	139	62
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1755	1900	1615
Q Serve(g_s), s	2.3	4.9	0.1	3.3	24.1	17.4	0.1	3.3	0.6	16.9	4.8	1.9
Cycle Q Clear(g_c), s	2.3	4.9	0.1	3.3	24.1	17.4	0.1	3.3	0.6	16.9	4.8	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	47	444	378	69	467	842	145	529	449	969	900	765
V/C Ratio(X)	0.78	0.23	0.01	0.77	0.88	1.05	0.01	0.14	0.03	0.61	0.15	0.08
Avail Cap(c_a), veh/h	79	466	396	131	520	888	145	529	449	969	900	765
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.7	35.6	20.6	54.8	41.8	14.4	48.7	31.1	20.7	36.2	17.2	10.2
Incr Delay (d2), s/veh	9.9	0.1	0.0	0.6	1.6	27.6	0.0	0.5	0.1	0.8	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	0.0	1.7	12.8	13.9	0.0	1.8	0.3	8.2	2.6	0.9
LnGrp Delay(d),s/veh	65.6	35.7	20.6	55.5	43.4	42.1	48.7	31.7	20.8	37.1	17.5	10.4
LnGrp LOS	E	D	C	E	D	F	D	C	C	D	B	B
Approach Vol, veh/h		140			1354			89			792	
Approach Delay, s/veh		43.4			43.0			30.1			31.6	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.2	37.5	8.9	32.4	13.7	60.0	7.5	33.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	26.5	32.0	8.3	28.2	4.0	54.5	5.0	31.5
Max Q Clear Time (g_c+I1), s	18.9	5.3	5.3	6.9	2.1	6.8	4.3	26.1
Green Ext Time (p_c), s	0.8	0.2	0.0	3.8	0.3	0.5	0.0	2.2

Intersection Summary			
HCM 2010 Ctrl Delay			38.7
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary | Moreno Valley Logistics Center TIA (JN 09301)
28: Indian Street & San Michele Road | 2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	16	199	334	174	806	10	1429	116	217	5	112	12
Future Volume (veh/h)	16	199	334	174	806	10	1429	116	217	5	112	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.77
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1976	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	273	253	238	1104	11	1958	159	265	7	153	13
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	31	419	911	367	1124	460	1708	895	760	90	225	19
Arrive On Green	0.03	0.22	0.22	0.41	0.59	0.59	0.91	0.94	0.94	0.10	0.13	0.13
Sat Flow, veh/h	1810	3800	1615	1810	3800	1555	3764	1900	1615	1810	3377	279
Grp Volume(v), veh/h	22	273	253	238	1104	11	1958	159	265	7	84	82
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1555	1882	1900	1615	1810	1900	1756
Q Serve(g_s), s	1.4	7.8	0.0	12.7	34.0	0.4	54.4	0.7	1.7	0.4	5.0	5.4
Cycle Q Clear(g_c), s	1.4	7.8	0.0	12.7	34.0	0.4	54.4	0.7	1.7	0.4	5.0	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	31	419	911	367	1124	460	1708	895	760	90	127	117
V/C Ratio(X)	0.71	0.65	0.28	0.65	0.98	0.02	1.15	0.18	0.35	0.08	0.66	0.70
Avail Cap(c_a), veh/h	60	823	1083	367	1124	460	1708	895	760	90	127	117
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.6	44.7	11.6	32.2	24.2	17.3	5.6	1.9	1.9	51.6	50.7	50.9
Incr Delay (d2), s/veh	7.0	0.4	0.0	3.2	22.4	0.0	70.7	0.3	0.8	0.1	24.2	29.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.1	3.6	6.7	21.0	0.2	40.5	0.4	0.8	0.2	3.5	3.6
LnGrp Delay(d),s/veh	64.7	45.1	11.6	35.4	46.6	17.3	76.3	2.1	2.7	51.7	74.9	80.3
LnGrp LOS	E	D	B	D	D	B	F	A	A	D	E	F
Approach Vol, veh/h		548			1353			2382			173	
Approach Delay, s/veh		30.4			44.4			63.2			76.5	
Approach LOS		C			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	62.0	28.8	18.7	58.9	13.5	6.6	41.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	56.5	13.5	26.0	52.5	8.0	4.0	35.5
Max Q Clear Time (g_c+I1), s	2.4	3.7	14.7	9.8	56.4	7.4	3.4	36.0
Green Ext Time (p_c), s	1.0	0.9	0.0	1.3	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		54.0
HCM 2010 LOS		D

Notes

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

29: Indian Street & Nandina Avenue

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	13	21	212	68	31	22	260	1610	85	12	461	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	26	200	83	38	25	317	1963	102	15	562	25
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	79	732	98	156	133	745	2593	133	24	1146	51
Arrive On Green	0.01	0.04	0.04	0.05	0.08	0.08	0.41	0.72	0.72	0.01	0.32	0.32
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3579	184	1810	3611	160
Grp Volume(v), veh/h	16	26	200	83	38	25	317	1033	1033	15	295	292
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1863	1810	1900	1871
Q Serve(g_s), s	1.1	1.6	1.6	5.5	2.2	1.7	15.0	39.4	41.1	1.0	15.1	15.1
Cycle Q Clear(g_c), s	1.1	1.6	1.6	5.5	2.2	1.7	15.0	39.4	41.1	1.0	15.1	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.09
Lane Grp Cap(c), veh/h	25	79	732	98	156	133	745	1376	1350	24	603	594
V/C Ratio(X)	0.64	0.33	0.27	0.85	0.24	0.19	0.43	0.75	0.77	0.63	0.49	0.49
Avail Cap(c_a), veh/h	77	382	989	98	404	343	745	1376	1350	62	603	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	58.9	55.9	9.6	56.3	51.6	51.4	25.2	10.0	10.2	58.9	33.1	33.1
Incr Delay (d2), s/veh	9.8	0.9	0.1	44.4	0.3	0.3	0.1	3.8	4.2	9.3	2.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	2.7	3.9	1.2	0.8	7.5	21.8	22.5	0.6	8.3	8.2
LnGrp Delay(d),s/veh	68.7	56.8	9.7	100.6	51.9	51.6	25.3	13.8	14.4	68.2	35.7	35.8
LnGrp LOS	E	E	A	F	D	D	C	B	B	E	D	D
Approach Vol, veh/h		242			146			2382			602	
Approach Delay, s/veh		18.6			79.5			15.6			36.6	
Approach LOS		B			E			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	92.4	11.0	10.5	54.9	43.6	6.2	15.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.1	65.3	6.5	24.1	31.3	* 38	5.1	25.5
Max Q Clear Time (g_c+I1), s	3.0	43.1	7.5	3.6	17.0	17.1	3.1	4.2
Green Ext Time (p_c), s	0.0	11.2	0.0	0.5	8.7	1.8	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	22.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	955	768	176	12	385	42	157	323	30	15	81	410
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1016	817	170	13	410	43	167	344	28	16	86	369
Adj No. of Lanes	2	3	0	1	3	0	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1460	3259	673	22	1737	179	152	1280	544	152	1280	1215
Arrive On Green	0.42	0.76	0.76	0.01	0.34	0.34	0.04	0.34	0.34	0.04	0.34	0.34
Sat Flow, veh/h	3510	4310	891	1810	5077	523	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	1016	654	333	13	305	148	167	344	28	16	86	369
Grp Sat Flow(s),veh/h/ln	1755	1729	1742	1810	1900	1800	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	22.6	5.4	5.5	0.7	5.5	5.6	4.0	6.3	1.5	0.4	1.5	0.0
Cycle Q Clear(g_c), s	22.6	5.4	5.5	0.7	5.5	5.6	4.0	6.3	1.5	0.4	1.5	0.0
Prop In Lane	1.00		0.51	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1460	2615	1318	22	1300	616	152	1280	544	152	1280	1215
V/C Ratio(X)	0.70	0.25	0.25	0.59	0.23	0.24	1.10	0.27	0.05	0.10	0.07	0.30
Avail Cap(c_a), veh/h	1460	2615	1318	76	1300	616	152	1280	544	152	1280	1215
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.8	3.5	3.5	46.7	22.4	22.4	45.5	23.0	39.5	43.8	21.4	3.8
Incr Delay (d2), s/veh	1.2	0.2	0.5	8.9	0.4	0.9	100.9	0.5	0.2	0.1	0.1	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	2.6	2.8	0.4	2.9	3.0	4.1	3.4	0.7	0.2	0.8	3.3
LnGrp Delay(d),s/veh	24.0	3.7	4.0	55.6	22.8	23.3	146.4	23.5	39.6	43.9	21.5	4.4
LnGrp LOS	C	A	A	E	C	C	F	C	D	D	C	A
Approach Vol, veh/h		2003			466			539			471	
Approach Delay, s/veh		14.1			23.9			62.4			8.9	
Approach LOS		B			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	78.3	8.5	37.5	46.0	38.0	8.5	37.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	35.0	4.0	32.0	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.7	7.5	6.0	3.5	24.6	7.6	2.4	8.3
Green Ext Time (p_c), s	0.0	6.9	0.0	0.9	0.0	1.6	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

31: Perris Boulevard & Cactus Avenue

2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	143	589	205	146	1180	113	379	1184	145	169	842	239
Future Volume (veh/h)	143	589	205	146	1180	113	379	1184	145	169	842	239
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1976	1900
Adj Flow Rate, veh/h	159	654	211	162	1311	117	421	1316	149	188	936	256
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	173	2351	1247	190	2159	192	324	1555	176	201	939	378
Arrive On Green	0.10	0.59	0.59	0.11	0.60	0.60	0.18	0.30	0.30	0.11	0.24	0.24
Sat Flow, veh/h	1810	3952	1609	1810	3573	318	1810	5227	592	1810	3952	1590
Grp Volume(v), veh/h	159	654	211	162	723	705	421	995	470	188	936	256
Grp Sat Flow(s),veh/h/ln	1810	1976	1609	1810	1976	1915	1810	1976	1867	1810	1976	1590
Q Serve(g_s), s	10.5	9.6	4.1	10.6	27.4	27.7	21.5	28.4	28.4	12.4	28.4	17.6
Cycle Q Clear(g_c), s	10.5	9.6	4.1	10.6	27.4	27.7	21.5	28.4	28.4	12.4	28.4	17.6
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.32	1.00		1.00
Lane Grp Cap(c), veh/h	173	2351	1247	190	1194	1157	324	1176	556	201	939	378
V/C Ratio(X)	0.92	0.28	0.17	0.85	0.61	0.61	1.30	0.85	0.85	0.94	1.00	0.68
Avail Cap(c_a), veh/h	173	2351	1247	309	1194	1157	324	1176	556	201	939	378
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	11.8	3.5	52.8	14.8	14.9	49.3	39.6	39.6	52.9	45.7	41.6
Incr Delay (d2), s/veh	44.4	0.3	0.3	6.2	2.3	2.4	155.2	7.6	14.7	45.5	28.7	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	5.4	1.9	5.6	15.6	15.3	24.7	16.7	16.9	8.7	19.2	8.7
LnGrp Delay(d),s/veh	98.1	12.1	3.8	58.9	17.1	17.3	204.5	47.2	54.3	98.4	74.4	51.0
LnGrp LOS	F	B	A	E	B	B	F	D	D	F	E	D
Approach Vol, veh/h		1024			1590			1886			1380	
Approach Delay, s/veh		23.8			21.4			84.1			73.4	
Approach LOS		C			C			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.1	77.9	26.0	34.0	16.0	79.0	18.8	41.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	20.5	30.5	21.5	27.5	11.5	39.5	13.3	* 36
Max Q Clear Time (g_c+I1), s	12.6	11.6	23.5	30.4	12.5	29.7	14.4	30.4
Green Ext Time (p_c), s	0.1	9.6	0.0	0.0	0.0	6.4	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.1
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	53	232	142	265	238	265	125	1229	364	131	977	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	58	255	140	291	262	191	137	1351	375	144	1074	58
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	273	150	320	693	580	148	1459	403	128	1766	95
Arrive On Green	0.05	0.24	0.24	0.18	0.36	0.36	0.08	0.34	0.34	0.07	0.33	0.33
Sat Flow, veh/h	1810	1154	633	1810	1900	1590	1810	4283	1185	1810	5356	289
Grp Volume(v), veh/h	58	0	395	291	262	191	137	1198	528	144	762	370
Grp Sat Flow(s),veh/h/ln	1810	0	1787	1810	1900	1590	1810	1900	1668	1810	1900	1845
Q Serve(g_s), s	3.8	0.0	26.0	18.9	12.2	10.4	9.0	36.4	36.7	8.5	20.2	20.2
Cycle Q Clear(g_c), s	3.8	0.0	26.0	18.9	12.2	10.4	9.0	36.4	36.7	8.5	20.2	20.2
Prop In Lane	1.00		0.35	1.00		1.00	1.00		0.71	1.00		0.16
Lane Grp Cap(c), veh/h	88	0	423	320	693	580	148	1294	568	128	1253	608
V/C Ratio(X)	0.66	0.00	0.93	0.91	0.38	0.33	0.93	0.93	0.93	1.12	0.61	0.61
Avail Cap(c_a), veh/h	452	0	447	452	693	580	148	1294	568	128	1253	608
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.1	0.0	44.9	48.4	28.1	27.5	54.7	38.1	38.2	55.8	33.7	33.7
Incr Delay (d2), s/veh	3.1	0.0	25.3	14.4	0.1	0.1	56.7	12.6	23.9	116.5	2.2	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	15.8	10.7	6.4	4.6	6.9	21.4	20.6	8.4	11.0	11.0
LnGrp Delay(d),s/veh	59.2	0.0	70.2	62.8	28.2	27.6	111.5	50.7	62.1	172.3	35.9	38.2
LnGrp LOS	E		E	E	C	C	F	D	E	F	D	D
Approach Vol, veh/h		453			744			1863			1276	
Approach Delay, s/veh		68.8			41.6			58.4			52.0	
Approach LOS		E			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	46.4	26.7	33.9	14.3	45.1	11.3	49.3
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	8.5	30.5	30.0	30.0	9.8	29.2	30.0	30.0
Max Q Clear Time (g_c+I1), s	10.5	38.7	20.9	28.0	11.0	22.2	5.8	14.2
Green Ext Time (p_c), s	0.0	0.0	0.3	0.4	0.0	5.7	0.1	2.8

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary   Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.   7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑							↱↱
Volume (veh/h)	0	1561	593	1019	679	0	0	0	0	0	0	276
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	0	1900
Adj Flow Rate, veh/h	0	1643	616	1073	715	0				0	0	169
Adj No. of Lanes	0	2	1	2	2	0				0	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2422	1030	1025	3626	0				0	0	0
Arrive On Green	0.00	0.64	0.64	0.47	1.00	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	3619	3800	0					0	
Grp Volume(v), veh/h	0	1643	616	1073	715	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	33.1	26.8	34.0	0.0	0.0						
Cycle Q Clear(g_c), s	0.0	33.1	26.8	34.0	0.0	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2423	1030	1025	3626	0						
V/C Ratio(X)	0.00	0.68	0.60	1.05	0.20	0.00						
Avail Cap(c_a), veh/h	0	2423	1030	1025	3626	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	13.9	12.7	31.6	0.0	0.0						
Incr Delay (d2), s/veh	0.0	1.5	2.6	41.0	0.1	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	17.6	12.5	22.7	0.1	0.0						
LnGrp Delay(d),s/veh	0.0	15.4	15.3	72.6	0.1	0.0						
LnGrp LOS		B	B	F	A							
Approach Vol, veh/h		2259			1788							
Approach Delay, s/veh		15.4			43.6							
Approach LOS		B			D							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	38.0	82.0				120.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	34.0	38.5				76.5		
Max Q Clear Time (g_c+I1), s	36.0	35.1				2.0		
Green Ext Time (p_c), s	0.0	2.9				23.2		

Intersection Summary	
HCM 2010 Ctrl Delay	27.9
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	721	105	611	202	0	0	0	0	802	2	419
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	767	112	650	215	0				853	2	369
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1228	522	879	2443	0				891	2	396
Arrive On Green	0.00	0.32	0.32	0.24	0.64	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	9	1608
Grp Volume(v), veh/h	0	767	112	650	215	0				853	0	371
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	11.1	3.3	10.8	1.4	0.0				15.1	0.0	14.6
Cycle Q Clear(g_c), s	0.0	11.1	3.3	10.8	1.4	0.0				15.1	0.0	14.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1228	522	879	2443	0				891	0	398
V/C Ratio(X)	0.00	0.62	0.21	0.74	0.09	0.00				0.96	0.00	0.93
Avail Cap(c_a), veh/h	0	1228	522	879	2443	0				891	0	398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.09	0.09	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.7	16.0	22.7	4.4	0.0				24.2	0.0	24.0
Incr Delay (d2), s/veh	0.0	2.4	0.9	0.3	0.0	0.0				20.5	0.0	28.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.2	1.6	5.4	0.7	0.0				10.0	0.0	9.7
LnGrp Delay(d),s/veh	0.0	21.1	16.9	23.0	4.4	0.0				44.7	0.0	52.7
LnGrp LOS		C	B	C	A					D		D
Approach Vol, veh/h		879			865						1224	
Approach Delay, s/veh		20.5			18.4						47.1	
Approach LOS		C			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	20.8	26.0		21.0		46.8		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	13.5	* 21		16.0		39.0		
Max Q Clear Time (g_c+I1), s	12.8	13.1		17.1		3.4		
Green Ext Time (p_c), s	0.2	2.2		0.0		2.0		

Intersection Summary	
HCM 2010 Ctrl Delay	30.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

# HCM 2010 Signalized Intersection Summary	Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱			↑↑↱		↰↰	↱		↰	↱	
Volume (veh/h)	27	2163	414	0	2680	94	142	62	29	114	1	66
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	2230	423	0	2763	88	146	64	30	118	1	53
Adj No. of Lanes	1	3	0	0	3	0	2	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	3018	545	0	3540	112	201	191	89	127	5	268
Arrive On Green	0.43	0.43	0.43	0.00	0.64	0.64	0.06	0.16	0.16	0.07	0.17	0.17
Sat Flow, veh/h	94	4684	845	0	5496	173	3510	1225	574	1810	30	1590
Grp Volume(v), veh/h	28	1787	866	0	1902	949	146	0	94	118	0	54
Grp Sat Flow(s),veh/h/ln	94	1900	1730	0	1900	1869	1755	0	1799	1810	0	1619
Q Serve(g_s), s	33.2	46.8	51.3	0.0	42.8	44.1	4.9	0.0	5.6	7.8	0.0	3.4
Cycle Q Clear(g_c), s	77.3	46.8	51.3	0.0	42.8	44.1	4.9	0.0	5.6	7.8	0.0	3.4
Prop In Lane	1.00		0.49	0.00		0.09	1.00		0.32	1.00		0.98
Lane Grp Cap(c), veh/h	86	2448	1114	0	2448	1204	201	0	280	127	0	273
V/C Ratio(X)	0.33	0.73	0.78	0.00	0.78	0.79	0.73	0.00	0.34	0.93	0.00	0.20
Avail Cap(c_a), veh/h	86	2448	1114	0	2448	1204	216	0	280	127	0	273
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.3	25.5	26.7	0.0	15.2	15.4	55.6	0.0	45.1	55.5	0.0	42.9
Incr Delay (d2), s/veh	9.8	2.0	5.3	0.0	2.5	5.3	8.9	0.0	3.2	58.4	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	25.3	26.2	0.0	23.0	24.2	2.6	0.0	3.0	6.0	0.0	1.7
LnGrp Delay(d),s/veh	67.1	27.4	32.1	0.0	17.7	20.7	64.6	0.0	48.3	113.9	0.0	44.5
LnGrp LOS	E	C	C		B	C	E		D	F		D
Approach Vol, veh/h		2681			2851			240			172	
Approach Delay, s/veh		29.3			18.7			58.2			92.1	
Approach LOS		C			B			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		82.3	12.5	25.2		82.3	14.0	23.7
Change Period (Y+Rc), s		5.0	5.6	5.0		5.0	5.6	5.0
Max Green Setting (Gmax), s		77.3	7.4	19.7		77.3	8.4	18.7
Max Q Clear Time (g_c+I1), s		79.3	6.9	5.4		46.1	9.8	7.6
Green Ext Time (p_c), s		0.0	0.0	0.3		30.3	0.0	0.3

Intersection Summary			
HCM 2010 Ctrl Delay			27.2
HCM 2010 LOS			C

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	530	992	0	0	762	1523	51	1	211	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	596	1115	0	0	856	0	57	1	128			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	1990	3008	0	0	760	323	222	4	202			
Arrive On Green	0.55	0.79	0.00	0.00	0.20	0.00	0.13	0.13	0.13			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1780	31	1615			
Grp Volume(v), veh/h	596	1115	0	0	856	0	58	0	128			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1811	0	1615			
Q Serve(g_s), s	10.6	10.4	0.0	0.0	24.0	0.0	3.5	0.0	9.0			
Cycle Q Clear(g_c), s	10.6	10.4	0.0	0.0	24.0	0.0	3.5	0.0	9.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.98		1.00			
Lane Grp Cap(c), veh/h	1990	3008	0	0	760	323	226	0	202			
V/C Ratio(X)	0.30	0.37	0.00	0.00	1.13	0.00	0.26	0.00	0.63			
Avail Cap(c_a), veh/h	2036	3008	0	0	760	323	226	0	202			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.56	0.56	0.00	0.00	0.12	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	14.5	3.7	0.0	0.0	48.0	0.0	47.5	0.0	49.9			
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	59.2	0.0	2.7	0.0	14.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.3	5.3	0.0	0.0	18.8	0.0	1.9	0.0	4.8			
LnGrp Delay(d),s/veh	14.6	3.9	0.0	0.0	107.2	0.0	50.2	0.0	64.1			
LnGrp LOS	B	A			F		D		E			
Approach Vol, veh/h		1711			856			186				
Approach Delay, s/veh		7.6			107.2			59.8				
Approach LOS		A			F			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		100.0			71.0	29.0		20.0
Change Period (Y+Rc), s		5.0			5.0	* 5		5.0
Max Green Setting (Gmax), s		95.0			67.5	* 24		15.0
Max Q Clear Time (g_c+I1), s		12.4			12.6	26.0		11.0
Green Ext Time (p_c), s		7.2			7.1	0.0		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	42.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue 2/26/2016

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↱		↰	↑	↱
Traffic Volume (veh/h)	128	2470	25	28	2339	106	404	105	200	136	22	221
Future Volume (veh/h)	128	2470	25	28	2339	106	404	105	200	136	22	221
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	132	2546	0	29	2411	78	416	108	152	140	23	121
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2636	747	37	2348	651	513	178	251	168	112	209
Arrive On Green	0.07	0.46	0.00	0.02	0.41	0.41	0.28	0.25	0.25	0.09	0.06	0.06
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	715	1006	1810	1900	1615
Grp Volume(v), veh/h	132	2546	0	29	2411	78	416	0	260	140	23	121
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1721	1810	1900	1615
Q Serve(g_s), s	8.5	52.1	0.0	1.9	49.4	2.5	25.7	0.0	16.0	9.1	1.4	4.4
Cycle Q Clear(g_c), s	8.5	52.1	0.0	1.9	49.4	2.5	25.7	0.0	16.0	9.1	1.4	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.58	1.00		1.00
Lane Grp Cap(c), veh/h	128	2636	747	37	2348	651	513	0	429	168	112	209
V/C Ratio(X)	1.03	0.97	0.00	0.79	1.03	0.12	0.81	0.00	0.61	0.83	0.21	0.58
Avail Cap(c_a), veh/h	128	2636	747	92	2348	651	513	0	429	187	467	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	31.3	0.0	58.5	35.3	10.3	40.0	0.0	39.8	53.5	53.8	20.6
Incr Delay (d2), s/veh	87.7	11.2	0.0	13.2	25.8	0.0	13.1	0.0	6.2	22.0	0.3	0.9
Initial Q Delay(d3),s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	29.8	0.0	1.1	31.5	1.1	14.7	0.0	8.3	5.6	0.7	2.0
LnGrp Delay(d),s/veh	143.8	42.5	0.0	71.7	61.1	10.3	53.1	0.0	46.1	75.5	54.1	21.6
LnGrp LOS	F	D		E	F	B	D		D	E	D	C
Approach Vol, veh/h		2678			2518			676			284	
Approach Delay, s/veh		47.5			59.6			50.4			50.8	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	61.0	39.5	12.6	13.0	54.9	16.7	35.4
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	6.1	50.6	12.8	29.5	8.5	48.2	12.4	29.9
Max Q Clear Time (g_c+I1), s	3.9	54.1	27.7	6.4	10.5	51.4	11.1	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑	↱	Y	
Volume (veh/h)	30	1173	2215	18	15	70
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1275	2408	20	16	76
Adj No. of Lanes	1	2	2	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	45	2597	2328	982	64	303
Arrive On Green	0.03	0.91	0.61	0.61	0.22	0.22
Sat Flow, veh/h	1810	3800	3800	1603	284	1347
Grp Volume(v), veh/h	33	1275	2408	20	93	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1603	1648	0
Q Serve(g_s), s	2.2	6.6	73.5	0.6	5.6	0.0
Cycle Q Clear(g_c), s	2.2	6.6	73.5	0.6	5.6	0.0
Prop In Lane	1.00			1.00	0.17	0.82
Lane Grp Cap(c), veh/h	45	2597	2328	982	371	0
V/C Ratio(X)	0.73	0.49	1.03	0.02	0.25	0.00
Avail Cap(c_a), veh/h	60	2597	2328	982	371	0
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	57.6	2.0	23.3	9.1	38.2	0.0
Incr Delay (d2), s/veh	14.6	0.6	28.3	0.0	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.3	47.3	0.3	2.7	0.0
LnGrp Delay(d),s/veh	72.2	2.6	51.5	9.2	39.8	0.0
LnGrp LOS	E	A	F	A	D	
Approach Vol, veh/h		1308	2428		93	
Approach Delay, s/veh		4.4	51.2		39.8	
Approach LOS		A	D		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		87.5		32.5	8.5	79.0		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	4.0	* 74		
Max Q Clear Time (g_c+I1), s		8.6		7.6	4.2	75.5		
Green Ext Time (p_c), s		6.8		0.1	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue 2/26/2016

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	209	3167	489	16	1665	78	268	108	26	200	214	224
Future Volume (veh/h)	209	3167	489	16	1665	78	268	108	26	200	214	224
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	227	3442	0	17	1810	81	291	117	23	217	233	165
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1115	5896	1671	26	2296	103	296	755	145	149	895	1370
Arrive On Green	0.62	1.00	0.00	0.01	0.42	0.42	0.08	0.24	0.24	0.08	0.24	0.24
Sat Flow, veh/h	1810	5700	1615	1810	5412	242	3619	3101	594	1810	3800	1594
Grp Volume(v), veh/h	227	3442	0	17	1270	621	291	71	69	217	233	165
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1853	1810	1900	1795	1810	1900	1594
Q Serve(g_s), s	6.3	0.0	0.0	1.1	33.2	33.3	9.2	3.4	3.5	9.5	5.7	0.0
Cycle Q Clear(g_c), s	6.3	0.0	0.0	1.1	33.2	33.3	9.2	3.4	3.5	9.5	5.7	0.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	1115	5896	1671	26	1613	786	296	463	437	149	895	1370
V/C Ratio(X)	0.20	0.58	0.00	0.64	0.79	0.79	0.98	0.15	0.16	1.45	0.26	0.12
Avail Cap(c_a), veh/h	1115	5896	1671	63	1613	786	296	463	437	149	895	1370
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.7	0.0	0.0	56.4	28.6	28.7	52.7	34.2	34.2	52.7	35.8	1.4
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.9	0.4	0.8	47.6	0.7	0.8	236.5	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.1	0.0	0.5	17.4	17.2	6.6	1.9	1.8	14.6	3.1	0.9
LnGrp Delay(d),s/veh	9.7	0.1	0.0	57.3	29.0	29.4	100.3	34.9	35.0	289.3	36.5	1.6
LnGrp LOS	A	A		E	C	C	F	C	D	F	D	A
Approach Vol, veh/h		3669			1908			431			615	
Approach Delay, s/veh		0.7			29.4			79.1			116.3	
Approach LOS		A			C			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	125.2	14.9	32.6	77.0	54.3	14.0	33.5
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	54.5	9.4	* 27	9.7	* 49	9.5	27.0
Max Q Clear Time (g_c+I1), s	3.1	2.0	11.2	7.7	8.3	35.3	11.5	5.5
Green Ext Time (p_c), s	0.0	40.4	0.0	1.0	0.1	6.8	0.0	1.0

Intersection Summary			
HCM 2010 Ctrl Delay			24.8
HCM 2010 LOS			C

Notes

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard

7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱		✥			↰	↱
Volume (veh/h)	24	990	52	39	1945	6	79	5	19	8	5	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	1125	59	44	2210	7	90	6	22	9	6	106
Adj No. of Lanes	1	2	1	1	2	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	33	2211	940	56	2223	945	300	25	60	268	166	375
Arrive On Green	0.02	0.58	0.58	0.03	0.58	0.58	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	3800	1615	1810	3800	1615	1019	108	258	909	715	1615
Grp Volume(v), veh/h	27	1125	59	44	2210	7	118	0	0	15	0	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1385	0	0	1624	0	1615
Q Serve(g_s), s	1.5	17.6	1.6	2.4	57.7	0.2	6.4	0.0	0.0	0.0	0.0	5.4
Cycle Q Clear(g_c), s	1.5	17.6	1.6	2.4	57.7	0.2	7.0	0.0	0.0	0.6	0.0	5.4
Prop In Lane	1.00		1.00	1.00		1.00	0.76		0.19	0.60		1.00
Lane Grp Cap(c), veh/h	33	2211	940	56	2223	945	385	0	0	434	0	375
V/C Ratio(X)	0.83	0.51	0.06	0.78	0.99	0.01	0.31	0.00	0.00	0.03	0.00	0.28
Avail Cap(c_a), veh/h	72	2211	940	116	2223	945	385	0	0	434	0	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.9	12.4	9.1	48.1	20.6	8.6	32.1	0.0	0.0	29.7	0.0	31.6
Incr Delay (d2), s/veh	17.4	0.1	0.0	8.4	17.7	0.0	2.1	0.0	0.0	0.1	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.2	0.7	1.3	35.2	0.1	2.9	0.0	0.0	0.3	0.0	2.6
LnGrp Delay(d),s/veh	66.3	12.5	9.1	56.5	38.2	8.6	34.2	0.0	0.0	29.9	0.0	33.5
LnGrp LOS	E	B	A	E	D	A	C			C		C
Approach Vol, veh/h		1211			2261			118			121	
Approach Delay, s/veh		13.5			38.5			34.2			33.0	
Approach LOS		B			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		28.7	7.6	63.7		28.7	7.3	64.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	5.5	* 5.5
Max Green Setting (Gmax), s		22.0	6.4	56.1		22.0	4.0	* 59
Max Q Clear Time (g_c+I1), s		9.0	4.4	19.6		7.4	3.5	59.7
Green Ext Time (p_c), s		0.6	0.0	5.9		0.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	129	1804	1223	29	884	112	810	698	66	162	786	64
Future Volume (veh/h)	129	1804	1223	29	884	112	810	698	66	162	786	64
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	137	1919	1286	31	940	113	862	743	66	172	836	61
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	935	2939	1580	42	899	108	742	1211	107	204	875	64
Arrive On Green	0.52	0.77	0.77	0.02	0.27	0.27	0.20	0.35	0.35	0.11	0.25	0.25
Sat Flow, veh/h	1810	3800	1615	1810	3329	400	3619	3435	305	1810	3500	255
Grp Volume(v), veh/h	137	1919	1286	31	536	517	862	411	398	172	454	443
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1829	1810	1900	1840	1810	1900	1855
Q Serve(g_s), s	4.0	23.1	77.3	1.7	27.0	27.0	20.5	17.9	17.9	9.3	23.5	23.5
Cycle Q Clear(g_c), s	4.0	23.1	77.3	1.7	27.0	27.0	20.5	17.9	17.9	9.3	23.5	23.5
Prop In Lane	1.00		1.00	1.00		0.22	1.00		0.17	1.00		0.14
Lane Grp Cap(c), veh/h	935	2939	1580	42	513	494	742	670	649	204	475	464
V/C Ratio(X)	0.15	0.65	0.81	0.74	1.05	1.05	1.16	0.61	0.61	0.84	0.96	0.96
Avail Cap(c_a), veh/h	935	2939	1580	72	513	494	742	670	649	233	475	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	5.2	47.9	48.5	36.5	36.5	39.8	26.8	26.8	43.5	37.0	37.0
Incr Delay (d2), s/veh	0.0	0.1	0.4	9.2	52.2	53.1	83.3	2.9	3.0	19.3	31.6	32.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	11.8	0.2	1.0	21.5	20.9	18.8	9.9	9.6	5.8	16.5	16.2
LnGrp Delay(d),s/veh	12.7	5.3	48.4	57.8	88.7	89.6	123.0	29.6	29.7	62.9	68.5	69.0
LnGrp LOS	B	A	D	E	F	F	F	C	C	E	E	E
Approach Vol, veh/h		3342			1084			1671			1069	
Approach Delay, s/veh		22.2			88.2			77.8			67.8	
Approach LOS		C			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	83.2	26.0	30.5	57.5	32.5	15.8	40.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	30.5	20.5	* 25	7.5	* 27	12.9	32.6
Max Q Clear Time (g_c+I1), s	3.7	79.3	22.5	25.5	6.0	29.0	11.3	19.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary   Moreno Valley Logistics Center TIA (JN 09301)
12: Heacock Street & Gentian Avenue

7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	2	74	1008	9	147	1215
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	80	1084	10	158	1306
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	112	100	1386	1178	158	1624
Arrive On Green	0.06	0.06	0.73	0.73	0.09	0.85
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	2	80	1084	10	158	1306
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.1	5.9	43.1	0.2	10.5	38.3
Cycle Q Clear(g_c), s	0.1	5.9	43.1	0.2	10.5	38.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	112	100	1386	1178	158	1624
V/C Ratio(X)	0.02	0.80	0.78	0.01	1.00	0.80
Avail Cap(c_a), veh/h	392	350	1386	1178	158	1624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	55.5	10.2	4.4	54.7	4.1
Incr Delay (d2), s/veh	0.0	5.4	4.5	0.0	70.8	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.8	24.0	0.1	8.3	21.2
LnGrp Delay(d),s/veh	52.9	61.0	14.7	4.4	125.6	8.4
LnGrp LOS	D	E	B	A	F	A
Approach Vol, veh/h	82		1094			1464
Approach Delay, s/veh	60.8		14.6			21.0
Approach LOS	E		B			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	15.0	93.1				108.1		11.9
Change Period (Y+Rc), s	4.5	5.5				5.5		4.5
Max Green Setting (Gmax), s	10.5	69.0				84.0		26.0
Max Q Clear Time (g_c+I1), s	12.5	45.1				40.3		7.9
Green Ext Time (p_c), s	0.0	14.4				19.6		0.1

Intersection Summary			
HCM 2010 Ctrl Delay			19.6
HCM 2010 LOS			B

2020 With Project Conditions - PM Peak Hour WITH IMPROVEMENTS
Urban Crossroads, Inc.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
13: Heacock Street & Iris Avenue 7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑↱		↰↰	↑↑
Volume (veh/h)	236	318	741	347	615	628
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	274	370	862	403	715	730
Adj No. of Lanes	1	1	2	0	2	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	377	650	1019	473	704	2417
Arrive On Green	0.21	0.21	0.43	0.43	0.19	0.67
Sat Flow, veh/h	1810	1615	2491	1112	3619	3705
Grp Volume(v), veh/h	274	370	648	617	715	730
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1704	1810	1805
Q Serve(g_s), s	12.7	16.0	29.0	29.4	17.5	7.5
Cycle Q Clear(g_c), s	12.7	16.0	29.0	29.4	17.5	7.5
Prop In Lane	1.00	1.00		0.65	1.00	
Lane Grp Cap(c), veh/h	377	650	767	724	704	2417
V/C Ratio(X)	0.73	0.57	0.84	0.85	1.02	0.30
Avail Cap(c_a), veh/h	523	781	767	724	704	2417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.51	0.51
Uniform Delay (d), s/veh	33.2	20.8	23.2	23.3	36.3	6.2
Incr Delay (d2), s/veh	1.6	0.3	11.0	12.1	28.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	7.1	16.7	16.2	11.5	3.8
LnGrp Delay(d),s/veh	34.8	21.1	34.2	35.5	64.6	6.3
LnGrp LOS	C	C	C	D	F	A
Approach Vol, veh/h	644		1265			1445
Approach Delay, s/veh	26.9		34.8			35.1
Approach LOS	C		C			D

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	22.0	43.8				65.8		24.2
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	17.5	31.0				53.0		26.0
Max Q Clear Time (g_c+I1), s	19.5	31.4				9.5		18.0
Green Ext Time (p_c), s	0.0	0.0				10.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.4
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	⤴	→	⤵	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰↰	↑	↱
Volume (veh/h)	52	316	6	19	93	623	0	88	36	827	250	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	451	9	27	133	890	0	126	47	1181	357	46
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	2	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	457	388	36	397	906	276	504	422	1237	884	751
Arrive On Green	0.04	0.24	0.24	0.02	0.21	0.21	0.00	0.27	0.27	0.35	0.47	0.47
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	1900	1593	3510	1900	1615
Grp Volume(v), veh/h	74	451	9	27	133	890	0	126	47	1181	357	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1900	1593	1755	1900	1615
Q Serve(g_s), s	4.7	27.2	0.4	1.7	6.8	21.4	0.0	6.0	2.4	37.8	14.2	1.8
Cycle Q Clear(g_c), s	4.7	27.2	0.4	1.7	6.8	21.4	0.0	6.0	2.4	37.8	14.2	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	457	388	36	397	906	276	504	422	1237	884	751
V/C Ratio(X)	0.94	0.99	0.02	0.74	0.34	0.98	0.00	0.25	0.11	0.95	0.40	0.06
Avail Cap(c_a), veh/h	79	457	388	63	413	920	276	504	422	1237	884	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.51	0.51	0.51	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.9	43.5	18.9	56.0	38.7	24.7	0.0	33.2	27.4	36.3	20.2	16.9
Incr Delay (d2), s/veh	80.5	38.2	0.0	5.5	0.1	16.8	0.0	1.2	0.5	15.8	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	19.1	0.2	0.9	3.6	13.5	0.0	3.3	1.1	20.9	7.8	0.8
LnGrp Delay(d),s/veh	135.3	81.6	18.9	61.6	38.8	41.5	0.0	34.4	27.9	52.1	21.6	17.1
LnGrp LOS	F	F	B	E	D	D		C	C	D	C	B
Approach Vol, veh/h		534			1050			173			1584	
Approach Delay, s/veh		88.0			41.6			32.7			44.2	
Approach LOS		F			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	45.0	36.0	6.8	33.2	22.0	59.0	10.5	29.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	34.5	30.5	4.0	26.0	11.5	53.5	5.0	* 25
Max Q Clear Time (g_c+I1), s	39.8	8.0	3.7	29.2	0.0	16.2	6.7	23.4
Green Ext Time (p_c), s	0.0	0.4	0.0	0.0	0.0	1.2	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	49.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	22	796	1413	219	451	50	696	163	202	124	254	32
Future Volume (veh/h)	22	796	1413	219	451	50	696	163	202	124	254	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		0.36
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1976	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	33	1206	1383	332	683	53	1055	247	221	188	385	36
Adj No. of Lanes	1	2	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	1188	1329	249	1653	699	1960	435	370	777	405	35
Arrive On Green	0.02	0.31	0.31	0.14	0.44	0.44	0.17	0.08	0.08	0.43	0.14	0.14
Sat Flow, veh/h	1810	3800	1562	1810	3800	1608	3764	1900	1613	1810	2948	258
Grp Volume(v), veh/h	33	1206	1383	332	683	53	1055	247	221	188	239	182
Grp Sat Flow(s),veh/h/ln	1810	1900	1562	1810	1900	1608	1882	1900	1613	1810	1900	1306
Q Serve(g_s), s	2.2	37.5	37.5	16.5	14.9	1.4	30.7	15.1	15.9	7.9	14.9	16.5
Cycle Q Clear(g_c), s	2.2	37.5	37.5	16.5	14.9	1.4	30.7	15.1	15.9	7.9	14.9	16.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	42	1188	1329	249	1653	699	1960	435	370	777	261	180
V/C Ratio(X)	0.78	1.02	1.04	1.33	0.41	0.08	0.54	0.57	0.60	0.24	0.91	1.02
Avail Cap(c_a), veh/h	92	1188	1329	249	1653	699	1960	435	370	777	261	180
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	41.2	9.6	51.7	23.3	7.0	36.5	49.7	50.1	21.8	51.0	51.8
Incr Delay (d2), s/veh	1.1	12.1	20.9	175.2	0.1	0.0	0.1	3.8	5.1	0.1	37.2	71.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
%ile BackOfQ(50%),veh/ln	1.1	21.6	21.6	20.3	7.8	0.6	16.1	8.4	7.6	4.0	10.5	9.5
LnGrp Delay(d),s/veh	59.4	53.4	30.5	227.0	23.4	7.0	36.6	53.5	55.2	21.9	88.2	123.1
LnGrp LOS	E	F	F	F	C	A	D	D	E	C	F	F
Approach Vol, veh/h		2622			1068			1523			609	
Approach Delay, s/veh		41.4			85.9			42.1			78.2	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	57.0	33.0	22.0	43.0	68.0	22.0	7.3	57.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	18.5	27.5	16.5	* 38	29.5	16.5	6.1	47.9
Max Q Clear Time (g_c+I1), s	9.9	17.9	18.5	39.5	32.7	18.5	4.2	16.9
Green Ext Time (p_c), s	1.9	0.8	0.0	0.0	0.0	0.0	0.0	3.3

Intersection Summary			
HCM 2010 Ctrl Delay			53.6
HCM 2010 LOS			D

Notes

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
29: Indian Street & Nandina Avenue
7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	28	54	412	126	35	16	105	865	91	55	1623	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	77	232	180	50	4	150	1236	66	79	2319	75
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	268	247	323	128	100	84	128	2064	110	100	2056	66
Arrive On Green	0.30	0.26	0.26	0.14	0.11	0.11	0.14	1.00	1.00	0.11	1.00	1.00
Sat Flow, veh/h	1810	1900	1608	1810	1900	1597	1810	3575	191	1810	3661	118
Grp Volume(v), veh/h	40	77	232	180	50	4	150	656	646	79	1197	1197
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1900	1597	1810	1900	1866	1810	1900	1879
Q Serve(g_s), s	2.0	3.9	12.6	8.5	3.0	0.2	8.5	0.0	0.0	5.1	67.4	67.4
Cycle Q Clear(g_c), s	2.0	3.9	12.6	8.5	3.0	0.2	8.5	0.0	0.0	5.1	67.4	67.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.06
Lane Grp Cap(c), veh/h	268	247	323	128	100	84	128	1097	1077	100	1067	1055
V/C Ratio(X)	0.15	0.31	0.72	1.40	0.50	0.05	1.17	0.60	0.60	0.79	1.12	1.13
Avail Cap(c_a), veh/h	268	380	436	128	410	345	128	1097	1077	137	1067	1055
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.21	0.21	0.21
Uniform Delay (d), s/veh	36.7	40.1	22.8	51.5	52.2	37.2	51.5	0.0	0.0	52.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.3	1.9	221.9	1.4	0.1	132.5	2.4	2.5	3.1	57.9	63.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.1	5.7	12.1	1.6	0.1	8.9	0.7	0.7	2.6	17.2	18.6
LnGrp Delay(d),s/veh	36.7	40.3	24.7	273.4	53.6	37.2	184.0	2.4	2.5	55.9	57.9	63.3
LnGrp LOS	D	D	C	F	D	D	F	A	A	E	F	F
Approach Vol, veh/h		349			234			1452			2473	
Approach Delay, s/veh		29.5			222.4			21.2			60.5	
Approach LOS		C			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.1	74.8	13.0	21.1	13.0	72.9	22.3	11.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	9.1	58.4	8.5	24.0	8.5	59.0	6.6	25.9
Max Q Clear Time (g_c+I1), s	7.1	2.0	10.5	14.6	10.5	69.4	4.0	5.0
Green Ext Time (p_c), s	0.0	36.5	0.0	0.4	0.0	0.0	0.1	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑↱		↰	↑↑↑↱		↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	547	370	138	23	750	11	188	309	16	59	415	1111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	710	481	179	30	974	14	244	401	21	77	539	1438
Adj No. of Lanes	2	3	0	1	3	0	2	2	1	2	2	1
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2578	3961	1423	41	1849	27	145	1288	547	131	1235	1711
Arrive On Green	0.73	1.00	1.00	0.02	0.33	0.33	0.04	0.34	0.34	0.04	0.32	0.32
Sat Flow, veh/h	3510	3766	1353	1810	5604	81	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	710	440	220	30	660	328	244	401	21	77	539	1438
Grp Sat Flow(s),veh/h/ln	1755	1729	1661	1810	1900	1885	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	6.7	0.0	0.0	1.6	14.1	14.1	4.0	7.8	0.9	2.1	11.2	0.0
Cycle Q Clear(g_c), s	6.7	0.0	0.0	1.6	14.1	14.1	4.0	7.8	0.9	2.1	11.2	0.0
Prop In Lane	1.00		0.81	1.00		0.04	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2578	3637	1747	41	1254	622	145	1288	547	131	1235	1711
V/C Ratio(X)	0.28	0.12	0.13	0.73	0.53	0.53	1.69	0.31	0.04	0.59	0.44	0.84
Avail Cap(c_a), veh/h	2578	3637	1747	101	1254	622	145	1288	547	145	1235	1711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.4	0.0	0.0	48.6	27.2	27.2	48.0	24.4	22.1	47.5	26.5	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	9.0	1.6	3.2	336.5	0.6	0.1	2.7	1.1	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.1	0.9	7.6	7.8	8.8	4.2	0.4	1.1	6.0	2.5
LnGrp Delay(d),s/veh	4.4	0.1	0.1	57.6	28.7	30.3	384.5	25.1	22.3	50.2	27.7	5.2
LnGrp LOS	A	A	A	E	C	C	F	C	C	D	C	A
Approach Vol, veh/h		1370			1018			666			2054	
Approach Delay, s/veh		2.3			30.1			156.7			12.8	
Approach LOS		A			C			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	111.4	9.5	38.0	79.6	38.5	8.1	39.4
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.6	37.9	4.0	* 33	10.5	* 33	4.0	32.5
Max Q Clear Time (g_c+I1), s	3.6	2.0	6.0	13.2	8.7	16.1	4.1	9.8
Green Ext Time (p_c), s	0.0	4.2	0.0	7.2	0.5	3.6	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
2/26/2016

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	253	1097	391	102	572	141	274	1140	136	197	1458	90
Future Volume (veh/h)	253	1097	391	102	572	141	274	1140	136	197	1458	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1976	1900
Adj Flow Rate, veh/h	258	1119	378	104	584	135	280	1163	128	201	1488	81
Adj No. of Lanes	1	2	1	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	234	2223	1089	128	1563	360	204	1871	206	229	1433	585
Arrive On Green	0.13	0.56	0.56	0.07	0.50	0.50	0.11	0.36	0.36	0.13	0.36	0.36
Sat Flow, veh/h	1810	3952	1612	1810	3100	714	1810	5248	577	1810	3952	1615
Grp Volume(v), veh/h	258	1119	378	104	372	347	280	876	415	201	1488	81
Grp Sat Flow(s),veh/h/ln	1810	1976	1612	1810	1976	1838	1810	1976	1874	1810	1976	1615
Q Serve(g_s), s	15.5	20.7	5.5	6.8	13.8	13.9	13.5	22.0	22.0	13.1	43.5	4.5
Cycle Q Clear(g_c), s	15.5	20.7	5.5	6.8	13.8	13.9	13.5	22.0	22.0	13.1	43.5	4.5
Prop In Lane	1.00		1.00	1.00		0.39	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	234	2223	1089	128	996	927	204	1409	668	229	1433	585
V/C Ratio(X)	1.10	0.50	0.35	0.81	0.37	0.37	1.38	0.62	0.62	0.88	1.04	0.14
Avail Cap(c_a), veh/h	234	2223	1089	128	996	927	204	1409	668	326	1433	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.3	16.0	14.7	55.0	18.2	18.2	53.2	31.9	31.9	51.5	38.3	31.7
Incr Delay (d2), s/veh	89.5	0.8	0.9	29.3	1.1	1.2	196.8	2.1	4.3	13.2	34.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	11.4	2.7	4.5	7.8	7.3	17.9	12.4	12.2	7.4	30.5	2.1
LnGrp Delay(d),s/veh	141.7	16.8	15.5	84.3	19.2	19.3	250.0	34.0	36.2	64.7	72.7	32.2
LnGrp LOS	F	B	B	F	B	B	F	C	D	E	F	C
Approach Vol, veh/h		1755			823			1571			1770	
Approach Delay, s/veh		34.9			27.5			73.1			69.9	
Approach LOS		C			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	74.0	19.0	49.0	20.0	67.0	19.7	48.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.5	34.5	13.5	* 44	15.5	27.5	21.6	35.4
Max Q Clear Time (g_c+I1), s	8.8	22.7	15.5	45.5	17.5	15.9	15.1	24.0
Green Ext Time (p_c), s	0.0	6.7	0.0	0.0	0.0	6.7	0.1	4.8

Intersection Summary		
HCM 2010 Ctrl Delay		54.5
HCM 2010 LOS		D

Notes

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue

7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱		↰	↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	79	166	100	238	121	134	67	1361	209	211	1247	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	182	94	262	133	47	74	1496	205	232	1370	63
Adj No. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	117	210	108	291	521	435	89	1954	267	158	2362	109
Arrive On Green	0.06	0.18	0.18	0.16	0.27	0.27	0.05	0.40	0.40	0.09	0.44	0.44
Sat Flow, veh/h	1810	1181	610	1810	1900	1588	1810	4899	670	1810	5404	249
Grp Volume(v), veh/h	87	0	276	262	133	47	74	1160	541	232	963	470
Grp Sat Flow(s),veh/h/ln	1810	0	1791	1810	1900	1588	1810	1900	1769	1810	1900	1852
Q Serve(g_s), s	5.7	0.0	18.0	17.0	6.6	2.7	4.9	31.7	31.8	10.5	22.9	22.9
Cycle Q Clear(g_c), s	5.7	0.0	18.0	17.0	6.6	2.7	4.9	31.7	31.8	10.5	22.9	22.9
Prop In Lane	1.00		0.34	1.00		1.00	1.00		0.38	1.00		0.13
Lane Grp Cap(c), veh/h	117	0	318	291	521	435	89	1515	706	158	1661	810
V/C Ratio(X)	0.74	0.00	0.87	0.90	0.26	0.11	0.83	0.77	0.77	1.47	0.58	0.58
Avail Cap(c_a), veh/h	452	0	448	452	521	435	89	1515	706	158	1661	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	0.0	48.0	49.4	34.0	32.6	56.6	31.2	31.2	54.8	25.5	25.5
Incr Delay (d2), s/veh	3.5	0.0	9.4	10.2	0.1	0.0	57.0	3.7	7.8	240.5	1.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	9.7	9.3	3.4	1.2	3.8	17.4	17.0	15.8	12.4	12.4
LnGrp Delay(d),s/veh	58.6	0.0	57.3	59.6	34.1	32.6	113.6	35.0	39.1	295.3	27.0	28.5
LnGrp LOS	E		E	E	C	C	F	C	D	F	C	C
Approach Vol, veh/h		363			442			1775			1665	
Approach Delay, s/veh		57.6			49.0			39.5			64.8	
Approach LOS		E			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	53.4	24.8	26.8	10.4	58.0	13.3	38.4
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	10.5	28.5	30.0	30.0	5.9	33.1	30.0	30.0
Max Q Clear Time (g_c+I1), s	12.5	33.8	19.0	20.0	6.9	24.9	7.7	8.6
Green Ext Time (p_c), s	0.0	0.0	0.3	0.8	0.0	6.9	0.1	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	52.0
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 6.13:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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	→	↘	↙	←	↑	↙
Lane Group	EBT	EBR	WBL	WBT	NBT	SBR
Lane Group Flow (vph)	609	131	611	2598	982	565
v/c Ratio	0.31	0.13	0.83	0.92	8.93	0.86
Control Delay	18.0	3.2	53.8	23.8	0.0	57.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	3.2	53.8	23.8	0.0	57.4
Queue Length 50th (ft)	135	0	229	878	0	191
Queue Length 95th (ft)	186	33	m261	m926	0	253
Internal Link Dist (ft)	658			955	1615	
Turn Bay Length (ft)						
Base Capacity (vph)	1964	1045	858	2825	110	709
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.13	0.71	0.92	8.93	0.80

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	557	46	245	306	1570	413
v/c Ratio	0.55	0.08	0.77	0.20	0.88	0.37
Control Delay	28.0	1.1	53.6	16.0	26.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	1.1	53.6	16.0	26.2	2.5
Queue Length 50th (ft)	120	0	61	48	334	2
Queue Length 95th (ft)	168	5	#114	74	#431	46
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1005	572	318	1537	1805	1115
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.08	0.77	0.20	0.87	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	40	1503	2949	896	389	53	74
v/c Ratio	0.62	0.55	1.07	1.03	0.60	0.42	0.21
Control Delay	31.5	18.8	43.4	84.8	37.9	64.2	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	18.8	43.4	84.8	37.9	64.2	13.3
Queue Length 50th (ft)	23	277	~855	~384	254	40	3
Queue Length 95th (ft)	m28	m134	m36	#511	363	83	47
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	64	2743	2746	866	652	136	348
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.55	1.07	1.03	0.60	0.39	0.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

	↗	→	←	↖	↑	↱
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	341	1832	470	687	91	339
v/c Ratio	0.65	0.77	0.27	0.36	0.16	0.57
Control Delay	55.6	19.2	20.6	0.5	32.7	33.2
Queue Delay	0.0	47.9	0.0	0.0	0.0	0.0
Total Delay	55.6	67.0	20.6	0.5	32.7	33.2
Queue Length 50th (ft)	127	479	110	0	52	180
Queue Length 95th (ft)	175	569	145	0	95	279
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	522	2375	1741	1900	554	599
Starvation Cap Reductn	0	873	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	1.22	0.27	0.36	0.16	0.57

Intersection Summary

Queues
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	→	↘	↙	←	↑	↙
Lane Group	EBT	EBR	WBL	WBT	NBT	SBR
Lane Group Flow (vph)	1643	624	1073	715	1042	291
v/c Ratio	0.87	0.55	0.85	0.22	9.47	0.45
Control Delay	33.0	10.0	29.0	0.9	0.0	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	10.0	29.0	0.9	0.0	2.3
Queue Length 50th (ft)	544	120	252	16	0	0
Queue Length 95th (ft)	676	234	356	20	0	0
Internal Link Dist (ft)	658			955	1615	
Turn Bay Length (ft)						
Base Capacity (vph)	1896	1132	1267	3290	110	1395
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.55	0.85	0.22	9.47	0.21

Intersection Summary

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	767	112	557	215	835	448
v/c Ratio	0.60	0.16	0.76	0.09	0.89	0.56
Control Delay	20.2	4.0	33.1	5.7	37.9	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	4.0	33.1	5.7	37.9	5.5
Queue Length 50th (ft)	123	0	105	16	159	1
Queue Length 95th (ft)	173	27	#167	27	#255	63
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1286	720	730	2280	935	803
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.16	0.76	0.09	0.89	0.56

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	2603	2636	146	94	118	69
v/c Ratio	0.44	0.71	0.72	0.64	0.30	0.89	0.22
Control Delay	22.3	17.9	14.1	68.6	39.6	108.2	40.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	17.9	14.1	68.6	39.6	108.2	40.4
Queue Length 50th (ft)	13	507	609	58	53	92	41
Queue Length 95th (ft)	m31	m447	m748	#94	105	#206	86
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	63	3688	3675	227	310	133	318
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.71	0.72	0.64	0.30	0.89	0.22

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 7/15/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	596	1096	758	1631	58	215
v/c Ratio	0.28	0.36	1.00	0.87	0.24	0.55
Control Delay	14.0	4.0	53.8	18.0	50.4	17.2
Queue Delay	1.3	1.6	0.0	0.0	0.0	0.0
Total Delay	15.3	5.7	53.8	18.0	50.4	17.2
Queue Length 50th (ft)	114	102	295	479	41	27
Queue Length 95th (ft)	145	121	m#357	548	83	100
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	2137	3008	760	1877	237	392
Starvation Cap Reductn	1275	1665	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.82	1.00	0.87	0.24	0.55

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 6.14:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Queues
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Lane Group	EBT	EBR	WBL	WBT	SBR
Lane Group Flow (vph)	609	131	611	2598	565
v/c Ratio	0.31	0.13	0.83	0.92	0.86
Control Delay	18.0	3.2	53.7	23.9	57.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	3.2	53.7	23.9	57.4
Queue Length 50th (ft)	135	0	229	881	191
Queue Length 95th (ft)	186	33	m259	m922	253
Internal Link Dist (ft)	658			955	
Turn Bay Length (ft)					
Base Capacity (vph)	1964	1045	858	2825	709
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.31	0.13	0.71	0.92	0.80

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/15/2015

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	557	46	264	306	1639	413
v/c Ratio	0.56	0.08	0.83	0.20	0.91	0.37
Control Delay	28.3	1.1	59.3	16.1	28.5	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	1.1	59.3	16.1	28.5	2.5
Queue Length 50th (ft)	120	0	66	48	360	2
Queue Length 95th (ft)	168	5	#126	74	#514	46
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	988	564	318	1520	1805	1115
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.08	0.83	0.20	0.91	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	40	1704	2995	896	389	53	74
v/c Ratio	0.62	0.62	1.09	1.03	0.60	0.42	0.21
Control Delay	66.0	21.3	51.3	84.8	37.9	64.2	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.0	21.3	51.3	84.8	37.9	64.2	13.3
Queue Length 50th (ft)	23	330	~881	~384	254	40	3
Queue Length 95th (ft)	#82	377	m35	#511	363	83	47
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	64	2742	2745	866	652	136	348
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	1.09	1.03	0.60	0.39	0.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/15/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	341	1902	489	702	91	427
v/c Ratio	0.65	0.80	0.28	0.37	0.16	0.71
Control Delay	55.6	20.3	20.7	0.6	32.7	39.7
Queue Delay	0.0	47.7	0.0	0.0	0.0	0.0
Total Delay	55.6	67.9	20.7	0.6	32.7	39.7
Queue Length 50th (ft)	127	516	115	0	52	254
Queue Length 95th (ft)	175	613	151	0	95	374
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	522	2375	1741	1900	554	599
Starvation Cap Reductn	0	839	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	1.24	0.28	0.37	0.16	0.71

Intersection Summary

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues
1: I-215 SB Ramps & Cactus Av.

Lane Group	EBT	EBR	WBL	WBT	SBR
Lane Group Flow (vph)	1643	624	1073	715	291
v/c Ratio	0.87	0.55	0.85	0.22	0.45
Control Delay	33.0	10.0	32.7	0.8	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	10.0	32.7	0.8	2.3
Queue Length 50th (ft)	544	120	279	15	0
Queue Length 95th (ft)	676	234	375	18	0
Internal Link Dist (ft)	658			955	
Turn Bay Length (ft)					
Base Capacity (vph)	1896	1132	1267	3290	1395
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.87	0.55	0.85	0.22	0.21

Intersection Summary

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/15/2015

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	767	112	650	215	853	448
v/c Ratio	0.60	0.16	0.89	0.09	0.91	0.56
Control Delay	20.2	4.0	42.7	5.7	40.2	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	4.0	42.7	5.7	40.2	5.5
Queue Length 50th (ft)	123	0	127	16	164	1
Queue Length 95th (ft)	173	27	#212	27	#264	63
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1286	720	730	2280	935	803
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.16	0.89	0.09	0.91	0.56

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/15/2015

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	28	2657	2860	146	94	118	69
v/c Ratio	0.44	0.72	0.78	0.64	0.30	0.89	0.22
Control Delay	43.2	22.5	15.5	68.6	39.6	108.2	41.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.2	22.5	15.5	68.6	39.6	108.2	41.7
Queue Length 50th (ft)	15	581	677	58	53	92	43
Queue Length 95th (ft)	m38	630	m754	#94	105	#206	87
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	63	3687	3675	227	310	133	316
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.72	0.78	0.64	0.30	0.89	0.22

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	596	1115	856	1711	58	237
v/c Ratio	0.28	0.37	1.13	0.91	0.24	0.61
Control Delay	14.0	4.1	93.7	20.0	50.4	22.4
Queue Delay	1.3	1.7	0.0	0.0	0.0	0.0
Total Delay	15.3	5.8	93.7	20.0	50.4	22.4
Queue Length 50th (ft)	114	104	~378	491	41	46
Queue Length 95th (ft)	145	125	m#393	m515	83	127
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	2137	3008	760	1877	237	388
Starvation Cap Reductn	1275	1652	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.82	1.13	0.91	0.24	0.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 6.15:

OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 w/o Project - W/ IMPROV

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3749	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	5	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	852	pc/h/ln
S	70.0	mph
D = v_p / S	12.2	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 w/o Project - W/ IMPROV

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4178	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	11
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.948

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	5	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	958	pc/h/ln
S	70.0	mph
D = v_p / S	13.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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APPENDIX 6.16:

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 w/ Project - W/ IMPROV

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3785	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	5		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	864	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	12.3	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 w/ Project - W/ IMPROV

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4357	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	13
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.939

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	5		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1009	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	14.4	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	B		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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APPENDIX 7.1:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (vph)	0	1062	675	931	1838	0	0	0	886	0	0	1001
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1118	711	980	1935	0	0	0	933	0	0	1054
RTOR Reduction (vph)	0	0	404	0	0	0	0	0	433	0	0	40
Lane Group Flow (vph)	0	1118	307	980	1935	0	0	0	500	0	0	1014
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		29.5	29.5	39.0	72.5				36.4			38.0
Effective Green, g (s)		29.5	29.5	39.0	72.5				36.4			38.0
Actuated g/C Ratio		0.25	0.25	0.32	0.60				0.30			0.32
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		934	467	617	2295				576			601
v/s Ratio Prot		c0.29		c0.52	0.51				0.26			c0.53
v/s Ratio Perm			0.16									
v/c Ratio		1.20	0.66	1.59	0.84				0.87			1.69
Uniform Delay, d1		45.2	40.7	40.5	19.2				39.5			41.0
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		99.1	7.1	272.4	4.0				12.6			316.2
Delay (s)		144.4	47.8	312.9	23.2				52.1			357.2
Level of Service		F	D	F	C				D			F
Approach Delay (s)		106.8			120.6			52.1			357.2	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	144.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.54		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	120.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰↑	↱
Volume (veh/h)	0	886	142	239	516	0	0	0	0	1449	2	707
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	943	146	254	549	0				1541	2	688
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	887	377	422	1932	0				994	1	888
Arrive On Green	0.00	0.23	0.23	0.23	0.51	0.00				0.55	0.55	0.55
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1807	2	1615
Grp Volume(v), veh/h	0	943	146	254	549	0				1543	0	688
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	28.0	9.1	15.0	10.0	0.0				66.0	0.0	40.1
Cycle Q Clear(g_c), s	0.0	28.0	9.1	15.0	10.0	0.0				66.0	0.0	40.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	887	377	422	1932	0				995	0	888
V/C Ratio(X)	0.00	1.06	0.39	0.60	0.28	0.00				1.55	0.00	0.77
Avail Cap(c_a), veh/h	0	887	377	422	1932	0				995	0	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.72	0.72	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	46.0	38.8	41.0	17.0	0.0				27.0	0.0	21.2
Incr Delay (d2), s/veh	0.0	48.6	3.0	1.2	0.3	0.0				252.6	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.6	4.4	7.6	5.3	0.0				102.5	0.0	18.8
LnGrp Delay(d),s/veh	0.0	94.6	41.8	42.3	17.2	0.0				279.6	0.0	25.5
LnGrp LOS		F	D	D	B					F		C
Approach Vol, veh/h		1089			803						2231	
Approach Delay, s/veh		87.5			25.1						201.3	
Approach LOS		F			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	33.5	33.0		71.0		66.5		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	11.5	* 28		66.0		44.0		
Max Q Clear Time (g_c+I1), s	17.0	30.0		68.0		12.0		
Green Ext Time (p_c), s	0.0	0.0		0.0		2.5		

Intersection Summary		
HCM 2010 Ctrl Delay		136.9
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	147	1395	406	0	2613	437	853	967	32	230	0	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	1423	408	0	2666	402	870	987	33	235	0	281
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	1434	396	0	1620	238	368	711	24	80	0	620
Arrive On Green	0.50	0.50	0.50	0.00	0.50	0.50	0.39	0.39	0.39	0.39	0.00	0.39
Sat Flow, veh/h	75	2869	791	0	3240	476	1116	1827	61	562	0	1594
Grp Volume(v), veh/h	150	924	907	0	1534	1534	870	0	1020	235	0	281
Grp Sat Flow(s),veh/h/ln	75	1900	1760	0	1900	1816	1116	0	1888	562	0	1594
Q Serve(g_s), s	0.0	42.6	45.0	0.0	45.0	45.0	23.2	0.0	35.0	0.0	0.0	11.8
Cycle Q Clear(g_c), s	45.0	42.6	45.0	0.0	45.0	45.0	35.0	0.0	35.0	35.0	0.0	11.8
Prop In Lane	1.00		0.45	0.00		0.26	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	80	950	880	0	950	908	368	0	734	80	0	620
V/C Ratio(X)	1.87	0.97	1.03	0.00	1.61	1.69	2.36	0.00	1.39	2.94	0.00	0.45
Avail Cap(c_a), veh/h	80	950	880	0	950	908	368	0	734	80	0	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.0	21.9	22.5	0.0	22.5	22.5	35.9	0.0	27.5	45.0	0.0	20.4
Incr Delay (d2), s/veh	437.2	23.2	38.6	0.0	281.5	315.0	622.5	0.0	183.4	904.7	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	28.2	30.9	0.0	97.5	101.9	72.7	0.0	55.6	22.1	0.0	5.6
LnGrp Delay(d),s/veh	482.2	45.1	61.1	0.0	304.0	337.5	658.4	0.0	210.9	949.7	0.0	22.8
LnGrp LOS	F	D	F		F	F	F		F	F		C
Approach Vol, veh/h		1981			3068			1890			516	
Approach Delay, s/veh		85.5			320.8			416.9			444.9	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.0		40.0		50.0		40.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		45.0		35.0		45.0		35.0
Max Q Clear Time (g_c+I1), s		47.0		37.0		47.0		37.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	291.2
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	587	1748	0	0	594	628	162	0	426	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	638	1900	0	0	646	648	176	0	377			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	653	2491	0	0	971	413	422	0	377			
Arrive On Green	0.36	0.66	0.00	0.00	0.26	0.26	0.23	0.00	0.23			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	638	1900	0	0	646	648	176	0	377			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	31.3	31.0	0.0	0.0	13.7	23.0	7.4	0.0	21.0			
Cycle Q Clear(g_c), s	31.3	31.0	0.0	0.0	13.7	23.0	7.4	0.0	21.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	653	2491	0	0	971	413	422	0	377			
V/C Ratio(X)	0.98	0.76	0.00	0.00	0.67	1.57	0.42	0.00	1.00			
Avail Cap(c_a), veh/h	653	2491	0	0	971	413	422	0	377			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.4	10.7	0.0	0.0	30.0	33.5	29.3	0.0	34.5			
Incr Delay (d2), s/veh	6.2	0.2	0.0	0.0	3.6	268.0	3.0	0.0	46.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.7	16.2	0.0	0.0	7.7	40.9	4.1	0.0	14.2			
LnGrp Delay(d),s/veh	34.6	10.9	0.0	0.0	33.6	301.5	32.3	0.0	81.0			
LnGrp LOS	C	B			C	F	C		F			
Approach Vol, veh/h		2538			1294			553				
Approach Delay, s/veh		16.8			167.8			65.5				
Approach LOS		B			F			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		64.0			36.0	28.0		26.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		59.0			32.5	23.0		21.0
Max Q Clear Time (g_c+I1), s		33.0			33.3	25.0		23.0
Green Ext Time (p_c), s		17.2			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.5
HCM 2010 LOS	E

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)

5: March AFB/Elsworth Street & Cactus Avenue
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Volume (veh/h)	202	2004	384	121	2801	222	58	186	21	155	152	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	213	2109	0	127	2948	226	61	196	1	162	162	95
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	2361	669	98	2313	655	445	464	2	201	211	277
Arrive On Green	0.06	0.41	0.00	0.05	0.41	0.41	0.25	0.25	0.25	0.11	0.11	0.11
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1889	10	1810	1900	1592
Grp Volume(v), veh/h	213	2109	0	127	2948	226	61	0	197	162	162	95
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1592
Q Serve(g_s), s	7.5	41.3	0.0	6.5	48.7	11.6	3.2	0.0	10.5	10.5	9.9	6.3
Cycle Q Clear(g_c), s	7.5	41.3	0.0	6.5	48.7	11.6	3.2	0.0	10.5	10.5	9.9	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	113	2361	669	98	2313	655	445	0	467	201	211	277
V/C Ratio(X)	1.88	0.89	0.00	1.30	1.27	0.34	0.14	0.00	0.42	0.81	0.77	0.34
Avail Cap(c_a), veh/h	113	2361	669	98	2313	655	445	0	467	445	467	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	32.7	0.0	56.8	35.6	24.6	35.3	0.0	38.1	52.1	51.9	43.6
Incr Delay (d2), s/veh	429.0	5.7	0.0	189.6	127.0	0.1	0.6	0.0	2.8	2.9	2.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.2	22.7	0.0	8.4	52.7	5.2	1.7	0.0	5.8	5.4	5.4	2.8
LnGrp Delay(d),s/veh	485.2	38.4	0.0	246.3	162.6	24.7	36.0	0.0	40.9	55.0	54.1	43.9
LnGrp LOS	F	D		F	F	C	D		D	E	D	D
Approach Vol, veh/h		2322			3301			258			419	
Approach Delay, s/veh		79.4			156.4			39.7			52.1	
Approach LOS		E			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	55.2		18.8	12.0	54.2		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.5	33.5		29.5	7.5	32.5		29.5
Max Q Clear Time (g_c+I1), s	8.5	43.3		12.5	9.5	50.7		12.5
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	116.3
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
6: Cactus Avenue & Frederick Street

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	142	1895	2838	198	207	71
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	154	2060	3085	205	225	22
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	156	2487	3005	833	888	536
Arrive On Green	0.09	0.65	0.53	0.53	0.25	0.25
Sat Flow, veh/h	1810	3800	5700	1580	3619	1615
Grp Volume(v), veh/h	154	2060	3085	205	225	22
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1580	1810	1615
Q Serve(g_s), s	9.3	45.0	58.0	7.8	5.5	1.0
Cycle Q Clear(g_c), s	9.3	45.0	58.0	7.8	5.5	1.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	156	2487	3005	833	888	536
V/C Ratio(X)	0.99	0.83	1.03	0.25	0.25	0.04
Avail Cap(c_a), veh/h	156	2487	3005	833	888	536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	50.2	14.3	26.0	14.1	33.4	24.9
Incr Delay (d2), s/veh	67.3	3.3	13.7	0.1	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	24.3	33.9	3.4	2.8	1.1
LnGrp Delay(d),s/veh	117.5	17.7	39.7	14.2	34.1	25.0
LnGrp LOS	F	B	F	B	C	C
Approach Vol, veh/h		2214	3290		247	
Approach Delay, s/veh		24.6	38.1		33.3	
Approach LOS		C	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.5		32.5	14.0	63.5		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		72.0		27.0	9.5	58.0		
Max Q Clear Time (g_c+I1), s		47.0		7.5	11.3	60.0		
Green Ext Time (p_c), s		24.2		0.4	0.0	0.0		

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

7: Harley Knox Blvd. & Western Way

7/14/2015

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	86	2089	1186	35	11	36
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	93	2271	1289	38	12	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1289	0	-	0	2611	645
Stage 1	-	-	-	-	1289	-
Stage 2	-	-	-	-	1322	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	545	-	-	-	*42	420
Stage 1	-	-	-	-	*226	-
Stage 2	-	-	-	-	*214	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	545	-	-	-	*42	420
Mov Cap-2 Maneuver	-	-	-	-	*42	-
Stage 1	-	-	-	-	*226	-
Stage 2	-	-	-	-	*214	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	47.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	545	-	-	-	135
HCM Lane V/C Ratio	0.172	-	-	-	0.378
HCM Control Delay (s)	13	0	-	-	47.1
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	0.6	-	-	-	1.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

8: Graham Street & Cactus Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	192	1732	289	29	2601	192	390	202	18	105	140	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	206	1862	0	31	2797	204	419	217	16	113	151	84
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1074	3824	1625	40	2241	159	299	864	63	127	925	1346
Arrive On Green	0.59	1.00	0.00	0.02	0.43	0.43	0.08	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	1810	3800	1615	1810	5260	374	3619	3498	256	1810	3800	1593
Grp Volume(v), veh/h	206	1862	0	31	2001	1000	419	117	116	113	151	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1834	1810	1900	1854	1810	1900	1593
Q Serve(g_s), s	6.0	0.0	0.0	2.0	49.0	49.0	9.5	5.7	5.8	7.1	3.6	0.8
Cycle Q Clear(g_c), s	6.0	0.0	0.0	2.0	49.0	49.0	9.5	5.7	5.8	7.1	3.6	0.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	1074	3824	1625	40	1619	781	299	469	458	127	925	1346
V/C Ratio(X)	0.19	0.49	0.00	0.78	1.24	1.28	1.40	0.25	0.25	0.89	0.16	0.06
Avail Cap(c_a), veh/h	1074	3824	1625	63	1619	781	299	469	458	127	925	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.55	0.55	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	0.0	0.0	56.0	33.0	33.0	52.7	34.7	34.8	53.0	34.3	14.5
Incr Delay (d2), s/veh	0.0	0.2	0.0	1.2	106.6	127.0	199.7	1.3	1.3	46.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.1	0.0	1.0	49.6	52.3	13.0	3.2	3.1	5.2	1.9	1.4
LnGrp Delay(d),s/veh	10.7	0.2	0.0	57.1	139.6	160.0	252.4	36.0	36.1	99.0	34.6	14.6
LnGrp LOS	B	A		E	F	F	F	D	D	F	C	B
Approach Vol, veh/h		2068			3032			652			348	
Approach Delay, s/veh		1.3			145.5			175.1			50.7	
Approach LOS		A			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	121.8	14.0	33.5	74.4	54.5	13.6	33.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	54.5	9.5	27.0	9.5	* 49	8.1	* 28
Max Q Clear Time (g_c+I1), s	4.0	2.0	11.5	5.6	8.0	51.0	9.1	7.8
Green Ext Time (p_c), s	0.0	13.1	0.0	0.8	0.1	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	94.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			↰↑↱			↰↑	↱
Volume (veh/h)	13	1837	107	14	1159	6	172	4	26	1	4	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	1934	113	15	1220	6	181	4	27	1	4	15
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	22	1243	1056	24	1237	6	304	5	37	87	323	329
Arrive On Green	0.01	0.65	0.65	0.01	0.65	0.65	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1810	1900	1615	1810	1889	9	1221	27	182	251	1586	1615
Grp Volume(v), veh/h	14	1934	113	15	0	1226	212	0	0	5	0	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1898	1430	0	0	1837	0	1615
Q Serve(g_s), s	0.9	78.5	3.1	1.0	0.0	75.5	16.5	0.0	0.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.9	78.5	3.1	1.0	0.0	75.5	16.7	0.0	0.0	0.3	0.0	0.9
Prop In Lane	1.00		1.00	1.00		0.00	0.85		0.13	0.20		1.00
Lane Grp Cap(c), veh/h	22	1243	1056	24	0	1243	347	0	0	410	0	329
V/C Ratio(X)	0.62	1.56	0.11	0.63	0.00	0.99	0.61	0.00	0.00	0.01	0.00	0.05
Avail Cap(c_a), veh/h	60	1243	1056	60	0	1243	347	0	0	410	0	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.0	20.8	7.7	58.9	0.0	20.2	44.8	0.0	0.0	38.2	0.0	38.4
Incr Delay (d2), s/veh	10.0	254.2	0.0	9.9	0.0	22.1	7.8	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	128.5	1.4	0.6	0.0	46.8	7.3	0.0	0.0	0.1	0.0	0.4
LnGrp Delay(d),s/veh	69.0	274.9	7.7	68.8	0.0	42.3	52.7	0.0	0.0	38.2	0.0	38.7
LnGrp LOS	E	F	A	E		D	D			D		D
Approach Vol, veh/h		2061			1241			212			20	
Approach Delay, s/veh		258.9			42.6			52.7			38.6	
Approach LOS		F			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.9	6.1	84.0		29.9	6.0	84.1
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	78.5		22.0	4.0	78.5
Max Q Clear Time (g_c+I1), s		18.7	3.0	80.5		2.9	2.9	77.5
Green Ext Time (p_c), s		0.3	0.0	0.0		0.8	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	169.3
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	162	1104	468	17	1752	153	962	716	10	82	354	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	176	1200	432	18	1904	157	1046	778	9	89	385	60
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	2745	1165	27	2341	190	588	1189	14	112	670	103
Arrive On Green	0.06	0.72	0.72	0.02	0.68	0.68	0.16	0.32	0.32	0.06	0.21	0.21
Sat Flow, veh/h	1810	3800	1613	1810	3468	282	3619	3748	43	1810	3214	497
Grp Volume(v), veh/h	176	1200	432	18	1031	1031	1046	394	393	89	226	219
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1850	1810	1900	1891	1810	1900	1811
Q Serve(g_s), s	7.5	15.4	13.5	1.2	46.2	49.0	19.5	21.5	21.5	5.8	12.8	13.1
Cycle Q Clear(g_c), s	7.5	15.4	13.5	1.2	46.2	49.0	19.5	21.5	21.5	5.8	12.8	13.1
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.02	1.00		0.27
Lane Grp Cap(c), veh/h	113	2745	1165	27	1283	1249	588	603	600	112	396	377
V/C Ratio(X)	1.56	0.44	0.37	0.66	0.80	0.83	1.78	0.65	0.65	0.79	0.57	0.58
Avail Cap(c_a), veh/h	113	2745	1165	65	1283	1249	588	603	600	133	396	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.17	0.17	0.17	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	6.8	7.7	58.8	13.8	14.3	50.3	35.3	35.3	55.5	42.7	42.8
Incr Delay (d2), s/veh	257.6	0.1	0.2	9.7	5.4	6.3	355.1	3.7	3.8	20.1	5.9	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.8	8.0	6.0	0.7	26.0	26.8	38.7	11.9	11.9	3.5	7.4	7.2
LnGrp Delay(d),s/veh	313.9	6.8	7.9	68.5	19.3	20.6	405.3	39.0	39.0	75.7	48.6	49.1
LnGrp LOS	F	A	A	E	B	C	F	D	D	E	D	D
Approach Vol, veh/h		1808			2079			1833			534	
Approach Delay, s/veh		37.0			20.3			248.0			53.3	
Approach LOS		D			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	93.2	25.0	30.5	12.0	87.5	11.9	43.6
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.3	51.2	19.5	* 25	7.5	48.0	8.8	35.7
Max Q Clear Time (g_c+I1), s	3.2	17.4	21.5	15.1	9.5	51.0	7.8	23.5
Green Ext Time (p_c), s	0.0	24.2	0.0	1.1	0.0	0.0	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	94.7
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	15	93	177	82	181	333	142	1155	93	181	495	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.95	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	101	147	89	197	201	154	1255	86	197	538	28
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	27	242	206	114	334	282	188	1271	512	437	1836	770
Arrive On Green	0.01	0.13	0.13	0.06	0.18	0.18	0.10	0.33	0.33	0.24	0.48	0.48
Sat Flow, veh/h	1810	1900	1615	1810	1900	1601	1810	3800	1532	1810	3800	1594
Grp Volume(v), veh/h	16	101	147	89	197	201	154	1255	86	197	538	28
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1601	1810	1900	1532	1810	1900	1594
Q Serve(g_s), s	0.8	4.4	7.9	4.4	8.6	10.6	7.5	29.5	2.6	8.3	7.7	0.8
Cycle Q Clear(g_c), s	0.8	4.4	7.9	4.4	8.6	10.6	7.5	29.5	2.6	8.3	7.7	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	27	242	206	114	334	282	188	1271	512	437	1836	770
V/C Ratio(X)	0.60	0.42	0.72	0.78	0.59	0.71	0.82	0.99	0.17	0.45	0.29	0.04
Avail Cap(c_a), veh/h	80	433	368	191	549	463	290	1271	512	437	1836	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	44.1	36.2	37.7	41.5	34.1	35.0	39.5	29.8	11.5	29.0	14.0	12.2
Incr Delay (d2), s/veh	7.9	0.4	1.7	4.2	0.6	1.3	5.6	22.4	0.7	0.2	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.3	3.6	2.3	4.5	4.8	4.1	19.3	1.2	4.2	4.1	0.4
LnGrp Delay(d),s/veh	52.0	36.6	39.4	45.8	34.7	36.2	45.0	52.2	12.2	29.3	14.3	12.3
LnGrp LOS	D	D	D	D	C	D	D	D	B	C	B	B
Approach Vol, veh/h		264			487			1495			763	
Approach Delay, s/veh		39.1			37.4			49.2			18.1	
Approach LOS		D			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.3	35.6	10.2	17.0	13.9	49.0	5.8	21.3
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	9.9	* 30	9.5	20.5	14.4	25.6	4.0	26.0
Max Q Clear Time (g_c+I1), s	10.3	31.5	6.4	9.9	9.5	9.7	2.8	12.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.1	2.1	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	38.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	139	1128	5	94	729
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	146	1187	5	99	767

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2152	1187	0	0	1187	0
Stage 1	1187	-	-	-	-	-
Stage 2	965	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	54	232	-	-	595	-
Stage 1	292	-	-	-	-	-
Stage 2	373	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	45	232	-	-	595	-
Mov Cap-2 Maneuver	45	-	-	-	-	-
Stage 1	292	-	-	-	-	-
Stage 2	311	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	46	0	1.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	45	232	595	-
HCM Lane V/C Ratio	-	-	0.14	0.631	0.166	-
HCM Control Delay (s)	-	-	97.6	43.8	12.3	-
HCM Lane LOS	-	-	F	E	B	-
HCM 95th %tile Q(veh)	-	-	0.4	3.8	0.6	-

Intersection	
Intersection Delay, s/veh	60.8
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	374	520	0	420	233	0	298	649
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	398	553	0	447	248	0	317	690
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	60.1	67	57.1
HCM LOS	F	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	64%	0%	0%	0%	100%
Vol Right, %	36%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	653	374	520	298	649
LT Vol	0	374	0	298	0
Through Vol	420	0	0	0	649
RT Vol	233	0	520	0	0
Lane Flow Rate	695	398	553	317	690
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.908	1	0.725	1
Departure Headway (Hd)	7.175	8.217	7.018	8.237	7.736
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	514	442	520	441	476
Service Time	5.174	5.938	4.739	5.975	5.475
HCM Lane V/C Ratio	1.352	0.9	1.063	0.719	1.45
HCM Control Delay	67	51.8	66	29.9	69.6
HCM Lane LOS	F	F	F	D	F
HCM 95th-tile Q	13.7	9.9	13.8	5.7	13.2

HCM 2010 Signalized Intersection Summary
14: Heacock Street & Krameria Avenue-North

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	128	146	663	285	285	761
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	139	159	721	310	310	827
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	219	196	941	800	382	1437
Arrive On Green	0.12	0.12	0.50	0.50	0.21	0.76
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	139	159	721	310	310	827
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	6.6	8.6	27.8	10.8	14.7	16.9
Cycle Q Clear(g_c), s	6.6	8.6	27.8	10.8	14.7	16.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	219	196	941	800	382	1437
V/C Ratio(X)	0.63	0.81	0.77	0.39	0.81	0.58
Avail Cap(c_a), veh/h	342	305	941	800	382	1437
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.6	38.5	18.5	14.2	33.8	4.7
Incr Delay (d2), s/veh	1.1	4.5	5.9	1.4	16.9	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	4.1	16.0	5.1	9.1	9.4
LnGrp Delay(d),s/veh	38.8	43.0	24.4	15.6	50.7	6.4
LnGrp LOS	D	D	C	B	D	A
Approach Vol, veh/h	298		1031			1137
Approach Delay, s/veh	41.0		21.8			18.5
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	50.1				73.6		16.4
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	38.5				62.0		17.0
Max Q Clear Time (g_c+I1), s	16.7	29.8				18.9		10.6
Green Ext Time (p_c), s	0.1	4.6				8.0		0.3

Intersection Summary			
HCM 2010 Ctrl Delay			22.6
HCM 2010 LOS			C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	0	1	946	3	5	884
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	1028	3	5	961

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2000	514	0	0	1028	0
Stage 1	1028	-	-	-	-	-
Stage 2	972	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	60	511	-	-	683	-
Stage 1	310	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	60	511	-	-	683	-
Mov Cap-2 Maneuver	231	-	-	-	-	-
Stage 1	310	-	-	-	-	-
Stage 2	367	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	511	683	-
HCM Lane V/C Ratio	-	-	-	0.002	0.008	-
HCM Control Delay (s)	-	-	0	12.1	10.3	-
HCM Lane LOS	-	-	A	B	B	-
HCM 95th %tile Q(veh)	-	-	-	0	0	-

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	31	84	4	44	341	592	1	323	13	444	388	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	91	2	48	371	589	1	351	14	483	422	56
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	130	110	351	452	385	2	534	454	465	1038	882
Arrive On Green	0.02	0.07	0.07	0.19	0.24	0.24	0.00	0.28	0.28	0.26	0.55	0.55
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	34	91	2	48	371	589	1	351	14	483	422	56
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	2.0	4.9	0.1	2.3	19.4	25.0	0.1	17.1	0.7	27.0	13.6	1.3
Cycle Q Clear(g_c), s	2.0	4.9	0.1	2.3	19.4	25.0	0.1	17.1	0.7	27.0	13.6	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	43	130	110	351	452	385	2	534	454	465	1038	882
V/C Ratio(X)	0.79	0.70	0.02	0.14	0.82	1.53	0.50	0.66	0.03	1.04	0.41	0.06
Avail Cap(c_a), veh/h	86	456	388	351	452	385	69	534	454	465	1038	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	47.9	36.7	35.1	37.9	40.0	52.4	33.3	27.4	39.0	13.9	6.1
Incr Delay (d2), s/veh	11.0	2.6	0.0	0.0	1.1	240.5	58.8	6.2	0.1	52.1	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.7	0.0	1.1	10.3	36.8	0.1	9.9	0.3	20.2	7.5	0.6
LnGrp Delay(d),s/veh	61.9	50.4	36.7	35.1	38.9	280.5	111.2	39.5	27.5	91.1	15.1	6.2
LnGrp LOS	E	D	D	D	D	F	F	D	C	F	B	A
Approach Vol, veh/h		127			1008			366			961	
Approach Delay, s/veh		53.3			179.9			39.3			52.7	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.5	35.0	24.8	12.7	4.6	62.9	7.0	30.5
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	25.5	* 30	4.8	25.2	4.0	51.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	29.0	19.1	4.3	6.9	2.1	15.6	4.0	27.0
Green Ext Time (p_c), s	0.0	0.8	0.0	0.3	0.0	2.1	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	102.8
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

19: Heacock Street & Nandina Avenue

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	68	269	2	153	283
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	72	286	2	163	301

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	914	287	0	0	288	0
Stage 1	287	-	-	-	-	-
Stage 2	627	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	298	757	-	-	1286	-
Stage 1	766	-	-	-	-	-
Stage 2	540	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	260	757	-	-	1286	-
Mov Cap-2 Maneuver	425	-	-	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	2.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	425	757	1286	-
HCM Lane V/C Ratio	-	-	0.025	0.096	0.127	-
HCM Control Delay (s)	-	-	13.7	10.3	8.2	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.4	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	942	5	11	1470	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1024	5	12	1598	5	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1029	0	2649	1027
Stage 1	-	-	-	-	1027	-
Stage 2	-	-	-	-	1622	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*471	-	*26	*314
Stage 1	-	-	-	-	*296	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*471	-	*20	*314
Mov Cap-2 Maneuver	-	-	-	-	*20	-
Stage 1	-	-	-	-	*296	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	314	-	-	* 471	-
HCM Lane V/C Ratio	0.055	-	-	0.025	-
HCM Control Delay (s)	17.1	-	-	12.8	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	97	45	128	0	10	0	131	6	7	3	1	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	55	156	0	12	0	160	7	9	4	1	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	376	370	35	475	404	7	70	0	0	7	0	0
Stage 1	43	43	-	327	327	-	-	-	-	-	-	-
Stage 2	333	327	-	148	77	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	585	563	1044	503	539	1081	1544	-	-	1627	-	-
Stage 1	976	863	-	690	651	-	-	-	-	-	-	-
Stage 2	685	651	-	859	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	528	503	1044	364	482	1081	1544	-	-	1627	-	-
Mov Cap-2 Maneuver	565	548	-	467	539	-	-	-	-	-	-	-
Stage 1	875	861	-	618	584	-	-	-	-	-	-	-
Stage 2	601	584	-	682	833	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	11.8	6.9	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	717	539	1627	-	-
HCM Lane V/C Ratio	0.103	-	-	0.459	0.023	0.002	-	-
HCM Control Delay (s)	7.6	-	-	14.2	11.8	7.2	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	2.4	0.1	0	-	-

HCM 2010 AWSC
26: Indian Street & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Intersection	
Intersection Delay, s/veh	67.8
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	14	32	165	0	92	150	324	0	339	473	140
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	15	35	179	0	100	163	352	0	368	514	152
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	39.8	59.5	76.4
HCM LOS	E	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	16%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	84%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	339	473	140	14	197	92	150	324	239	357	61
LT Vol	339	0	0	14	0	92	0	0	239	0	0
Through Vol	0	473	0	0	32	0	150	0	0	357	0
RT Vol	0	0	140	0	165	0	0	324	0	0	61
Lane Flow Rate	368	514	152	15	214	100	163	352	260	388	66
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1	1	0.444	0.056	0.724	0.344	0.539	1	0.878	1	0.202
Departure Headway (Hd)	11.689	11.195	10.503	13.249	12.173	12.401	11.904	11.208	12.169	11.671	10.975
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	313	329	344	270	298	291	305	328	299	314	328
Service Time	9.409	8.915	8.223	11.029	9.953	10.122	9.624	8.928	9.886	9.389	8.693
HCM Lane V/C Ratio	1.176	1.562	0.442	0.056	0.718	0.344	0.534	1.073	0.87	1.236	0.201
HCM Control Delay	87	85	21.4	16.8	41.4	21.5	27.7	85	62.1	86.9	16.5
HCM Lane LOS	F	F	C	C	E	C	D	F	F	F	C
HCM 95th-tile Q	10.7	11	2.2	0.2	5.2	1.5	3	11	7.9	10.7	0.7

HCM 2010 Signalized Intersection Summary
28: Indian Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	57	158	304	281	696	341	1026	815	295	127	411	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	172	320	305	757	369	1115	886	296	138	447	55
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	343	723	228	997	407	967	863	734	118	802	98
Arrive On Green	0.04	0.18	0.18	0.13	0.26	0.26	0.27	0.45	0.45	0.07	0.24	0.24
Sat Flow, veh/h	1810	1900	1615	1810	3800	1551	3619	1900	1615	1810	3295	403
Grp Volume(v), veh/h	62	172	320	305	757	369	1115	886	296	138	256	246
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1551	1810	1900	1615	1810	1900	1798
Q Serve(g_s), s	3.9	9.4	4.7	14.5	21.1	26.5	30.7	52.2	14.1	7.5	13.6	13.8
Cycle Q Clear(g_c), s	3.9	9.4	4.7	14.5	21.1	26.5	30.7	52.2	14.1	7.5	13.6	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	80	343	723	228	997	407	967	863	734	118	463	438
V/C Ratio(X)	0.77	0.50	0.44	1.34	0.76	0.91	1.15	1.03	0.40	1.17	0.55	0.56
Avail Cap(c_a), veh/h	142	430	797	228	1041	425	967	863	734	118	463	438
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.28	0.28	0.28	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	42.5	8.0	50.2	39.1	41.1	42.1	31.4	21.0	53.8	38.0	38.1
Incr Delay (d2), s/veh	1.7	0.1	0.0	178.2	2.8	21.6	70.0	17.1	0.1	135.5	4.7	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.9	3.7	18.5	11.4	13.8	24.7	31.4	6.3	8.2	7.7	7.4
LnGrp Delay(d),s/veh	56.1	42.6	8.1	228.4	41.8	62.6	112.1	48.4	21.1	189.2	42.8	43.2
LnGrp LOS	E	D	A	F	D	E	F	F	C	F	D	D
Approach Vol, veh/h		554			1431			2297			640	
Approach Delay, s/veh		24.2			87.0			75.8			74.5	
Approach LOS		C			F			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	57.7	19.0	26.3	36.2	33.5	9.6	35.7
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	7.5	47.0	14.5	26.0	26.5	* 28	9.0	31.5
Max Q Clear Time (g_c+I1), s	9.5	54.2	16.5	11.4	32.7	15.8	5.9	28.5
Green Ext Time (p_c), s	0.0	0.0	0.0	4.6	0.0	1.3	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	73.1
HCM 2010 LOS	E

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	26	40	395	188	85	108	465	1817	353	107	630	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	43	377	204	92	115	505	1975	382	116	685	51
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	380	323	158	508	432	505	1527	284	98	932	69
Arrive On Green	0.02	0.20	0.20	0.09	0.27	0.27	0.28	0.49	0.49	0.05	0.27	0.27
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3105	578	1810	3494	260
Grp Volume(v), veh/h	28	43	377	204	92	115	505	1179	1179	116	372	364
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1784	1810	1900	1854
Q Serve(g_s), s	1.8	2.2	24.0	10.5	4.5	6.7	33.5	59.0	59.0	6.5	21.4	21.5
Cycle Q Clear(g_c), s	1.8	2.2	24.0	10.5	4.5	6.7	33.5	59.0	59.0	6.5	21.4	21.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.32	1.00		0.14
Lane Grp Cap(c), veh/h	37	380	323	158	508	432	505	934	877	98	507	494
V/C Ratio(X)	0.77	0.11	1.17	1.29	0.18	0.27	1.00	1.26	1.34	1.18	0.73	0.74
Avail Cap(c_a), veh/h	87	380	323	158	508	432	505	934	877	98	507	494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.71	0.71	0.71
Uniform Delay (d), s/veh	58.5	39.3	48.0	54.8	33.9	34.7	43.2	30.5	30.5	56.8	40.1	40.1
Incr Delay (d2), s/veh	11.6	0.0	103.5	168.8	0.1	0.1	40.0	126.4	162.4	134.3	6.6	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.2	20.0	12.7	2.4	3.0	22.3	63.7	68.5	6.9	12.2	11.9
LnGrp Delay(d),s/veh	70.1	39.3	151.5	223.6	33.9	34.8	83.2	156.9	192.9	191.1	46.8	47.0
LnGrp LOS	E	D	F	F	C	C	F	F	F	F	D	D
Approach Vol, veh/h		448			411			2862			852	
Approach Delay, s/veh		135.7			128.3			158.7			66.5	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	64.5	15.0	29.5	38.0	37.5	6.9	37.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	6.5	59.0	10.5	24.0	33.5	32.0	5.8	28.7
Max Q Clear Time (g_c+I1), s	8.5	61.0	12.5	26.0	35.5	23.5	3.8	8.7
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	7.3	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	136.5
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	1028	594	254	108	1126	438	156	1121	114	229	638	488
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1094	632	253	115	1198	464	166	1193	117	244	679	452
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1361	1926	1637	132	858	320	126	1107	470	142	612	406
Arrive On Green	0.75	1.00	1.00	0.07	0.33	0.33	0.03	0.29	0.29	0.04	0.29	0.29
Sat Flow, veh/h	1810	1900	1615	1810	2630	982	3619	3800	1615	3619	2134	1416
Grp Volume(v), veh/h	1094	632	253	115	853	809	166	1193	117	244	604	527
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1712	1810	1900	1615	1810	1900	1650
Q Serve(g_s), s	43.6	0.0	0.0	7.2	37.5	37.5	4.0	33.5	6.4	4.5	33.0	33.0
Cycle Q Clear(g_c), s	43.6	0.0	0.0	7.2	37.5	37.5	4.0	33.5	6.4	4.5	33.0	33.0
Prop In Lane	1.00		1.00	1.00		0.57	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	1361	1926	1637	132	620	558	126	1107	470	142	545	474
V/C Ratio(X)	0.80	0.33	0.15	0.87	1.38	1.45	1.32	1.08	0.25	1.72	1.11	1.11
Avail Cap(c_a), veh/h	1361	1926	1637	132	620	558	126	1107	470	142	545	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	0.0	0.0	52.8	38.8	38.8	55.5	40.8	31.1	55.3	41.0	41.0
Incr Delay (d2), s/veh	3.3	0.5	0.2	40.9	179.7	212.0	188.5	50.6	1.3	353.2	71.7	75.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.5	0.2	0.1	5.1	50.5	50.5	5.3	25.3	3.0	9.2	28.1	24.9
LnGrp Delay(d),s/veh	12.3	0.5	0.2	93.6	218.4	250.7	244.0	91.3	32.4	408.5	112.7	116.7
LnGrp LOS	B	A	A	F	F	F	F	F	C	F	F	F
Approach Vol, veh/h		1979			1777			1476			1375	
Approach Delay, s/veh		7.0			225.0			103.8			166.7	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	124.1	9.5	38.5	94.0	43.0	9.0	39.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	8.4	49.6	4.0	* 33	20.5	* 38	4.5	32.5
Max Q Clear Time (g_c+I1), s	9.2	2.0	6.0	35.0	45.6	39.5	6.5	35.5
Green Ext Time (p_c), s	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	120.5
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑	↱
Volume (veh/h)	262	675	297	269	1132	143	394	1484	295	228	1178	293
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	285	734	307	292	1230	146	428	1613	309	248	1280	308
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	731	305	1030	2534	300	279	1532	291	173	998	418
Arrive On Green	0.10	0.29	0.29	0.57	0.76	0.76	0.15	0.33	0.33	0.10	0.26	0.26
Sat Flow, veh/h	1810	2541	1062	1810	3330	394	1810	4653	885	1810	3800	1591
Grp Volume(v), veh/h	285	549	492	292	700	676	428	1315	607	248	1280	308
Grp Sat Flow(s),veh/h/ln	1810	1900	1703	1810	1900	1824	1810	1900	1738	1810	1900	1591
Q Serve(g_s), s	12.5	34.5	34.5	10.0	16.7	16.9	18.5	39.5	39.5	11.5	31.5	29.0
Cycle Q Clear(g_c), s	12.5	34.5	34.5	10.0	16.7	16.9	18.5	39.5	39.5	11.5	31.5	29.0
Prop In Lane	1.00		0.62	1.00		0.22	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	188	546	490	1030	1445	1388	279	1251	572	173	998	418
V/C Ratio(X)	1.51	1.00	1.01	0.28	0.48	0.49	1.53	1.05	1.06	1.43	1.28	0.74
Avail Cap(c_a), veh/h	188	546	490	1030	1445	1388	279	1251	572	173	998	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	42.8	42.8	13.3	5.4	5.5	50.8	40.3	40.3	54.3	44.3	75.4
Incr Delay (d2), s/veh	255.8	39.7	41.9	0.1	1.2	1.2	257.7	40.1	54.7	223.4	135.2	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.6	24.1	21.9	5.0	9.2	8.9	29.2	27.6	27.6	16.5	35.2	14.0
LnGrp Delay(d),s/veh	309.6	82.4	84.7	13.3	6.6	6.7	308.4	80.4	95.0	277.7	179.4	86.5
LnGrp LOS	F	F	F	B	A	A	F	F	F	F	F	F
Approach Vol, veh/h		1326			1668			2350			1836	
Approach Delay, s/veh		132.1			7.8			125.7			177.1	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	74.8	40.0	24.0	37.0	17.0	97.8	16.0	45.0
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	15.5	* 35	18.5	* 32	12.5	37.5	11.5	38.5
Max Q Clear Time (g_c+I1), s	12.0	36.5	20.5	33.5	14.5	18.9	13.5	41.5
Green Ext Time (p_c), s	2.2	0.0	0.0	0.0	0.0	6.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	112.6
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	83	277	215	360	415	242	121	1526	313	139	1531	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	301	218	391	451	164	132	1659	315	151	1664	66
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	98	328	366	452	475	397	83	1366	257	98	1644	65
Arrive On Green	0.23	0.23	0.23	0.25	0.25	0.25	0.05	0.29	0.29	0.05	0.30	0.30
Sat Flow, veh/h	432	1446	1613	1810	1900	1587	1810	4653	875	1810	5443	216
Grp Volume(v), veh/h	391	0	218	391	451	164	132	1352	622	151	1161	569
Grp Sat Flow(s),veh/h/ln	1878	0	1613	1810	1900	1587	1810	1900	1728	1810	1900	1859
Q Serve(g_s), s	24.4	0.0	14.5	24.8	28.0	10.4	5.5	35.2	35.2	6.5	36.2	36.2
Cycle Q Clear(g_c), s	24.4	0.0	14.5	24.8	28.0	10.4	5.5	35.2	35.2	6.5	36.2	36.2
Prop In Lane	0.23		1.00	1.00		1.00	1.00		0.51	1.00		0.12
Lane Grp Cap(c), veh/h	427	0	366	452	475	397	83	1116	507	98	1148	561
V/C Ratio(X)	0.92	0.00	0.60	0.86	0.95	0.41	1.59	1.21	1.23	1.54	1.01	1.01
Avail Cap(c_a), veh/h	470	0	403	452	475	397	83	1116	507	98	1148	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	0.0	41.4	43.1	44.3	37.6	57.3	42.4	42.4	56.8	41.9	41.9
Incr Delay (d2), s/veh	20.7	0.0	1.1	15.2	28.6	0.3	315.5	103.7	118.0	287.5	29.6	41.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	0.0	6.6	14.3	18.4	4.6	10.0	34.5	33.4	11.1	23.7	25.0
LnGrp Delay(d),s/veh	65.9	0.0	42.5	58.3	72.9	37.9	372.7	146.1	160.4	344.3	71.5	83.1
LnGrp LOS	E		D	E	E	D	F	F	F	F	F	F
Approach Vol, veh/h		609			1006			2106			1881	
Approach Delay, s/veh		57.5			61.5			164.5			96.9	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	40.7		32.8	10.0	41.7		35.5
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.5	32.5		30.0	5.5	33.5		30.0
Max Q Clear Time (g_c+I1), s	8.5	37.2		26.4	7.5	38.2		30.0
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	111.7
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (veh/h)	0	2100	802	1355	1751	0	0	0	977	0	0	425
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	2211	836	1426	1843	0	0	0	0	0	0	325
Adj No. of Lanes	0	2	1	1	2	0	0	0	1	0	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2011	855	709	3626	0	0	0	0	0	0	0
Arrive On Green	0.00	0.53	0.53	0.39	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	1810	3800	0		0			0	
Grp Volume(v), veh/h	0	2211	836	1426	1843	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	63.5	60.6	47.0	5.2	0.0						
Cycle Q Clear(g_c), s	0.0	63.5	60.6	47.0	5.2	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2011	855	709	3626	0						
V/C Ratio(X)	0.00	1.10	0.98	2.01	0.51	0.00						
Avail Cap(c_a), veh/h	0	2011	855	709	3626	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	28.3	27.6	36.5	0.2	0.0						
Incr Delay (d2), s/veh	0.0	53.1	25.9	460.4	0.5	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	47.8	46.9	114.1	2.6	0.0						
LnGrp Delay(d),s/veh	0.0	81.4	53.5	496.9	0.8	0.0						
LnGrp LOS		F	D	F	A							
Approach Vol, veh/h		3047			3269							
Approach Delay, s/veh		73.7			217.2							
Approach LOS		E			F							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	51.0	69.0				120.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	47.0	44.5				95.5		
Max Q Clear Time (g_c+I1), s	49.0	65.5				7.2		
Green Ext Time (p_c), s	0.0	0.0				70.0		

Intersection Summary		
HCM 2010 Ctrl Delay		148.0
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	891	194	666	953	0	0	0	0	796	2	748
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	948	206	709	1014	0				847	2	719
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	918	390	520	2153	0				632	1	565
Arrive On Green	0.00	0.24	0.24	0.38	0.75	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1805	4	1615
Grp Volume(v), veh/h	0	948	206	709	1014	0				849	0	719
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	29.0	13.3	34.5	12.2	0.0				42.0	0.0	42.0
Cycle Q Clear(g_c), s	0.0	29.0	13.3	34.5	12.2	0.0				42.0	0.0	42.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	918	390	520	2153	0				633	0	565
V/C Ratio(X)	0.00	1.03	0.53	1.36	0.47	0.00				1.34	0.00	1.27
Avail Cap(c_a), veh/h	0	918	390	520	2153	0				633	0	565
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.59	0.59	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	45.5	39.5	37.1	7.9	0.0				39.0	0.0	39.0
Incr Delay (d2), s/veh	0.0	38.3	5.0	170.6	0.4	0.0				163.6	0.0	135.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	20.1	6.5	41.8	6.4	0.0				49.7	0.0	40.0
LnGrp Delay(d),s/veh	0.0	83.8	44.6	207.7	8.4	0.0				202.6	0.0	174.8
LnGrp LOS		F	D	F	A					F		F
Approach Vol, veh/h		1154			1723						1568	
Approach Delay, s/veh		76.8			90.4						189.9	
Approach LOS		E			F						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	39.0	34.0		47.0		73.0		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	34.5	29.0		42.0		68.0		
Max Q Clear Time (g_c+I1), s	36.5	31.0		44.0		14.2		
Green Ext Time (p_c), s	0.0	0.0		0.0		12.6		

Intersection Summary			
HCM 2010 Ctrl Delay			122.0
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av. 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	512	1720	846	0	3160	155	260	693	31	318	0	995
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	528	1773	868	0	3258	151	268	714	32	328	0	1011
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1371	611	0	1997	92	111	528	24	111	0	472
Arrive On Green	0.55	0.55	0.55	0.00	0.55	0.55	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	53	2475	1103	0	3605	166	566	1805	81	726	0	1615
Grp Volume(v), veh/h	528	1321	1321	0	1705	1705	268	0	746	328	0	1011
Grp Sat Flow(s),veh/h/ln	53	1900	1678	0	1900	1871	566	0	1886	726	0	1615
Q Serve(g_s), s	0.0	36.0	36.0	0.0	36.0	36.0	0.0	0.0	19.0	0.0	0.0	19.0
Cycle Q Clear(g_c), s	36.0	36.0	36.0	0.0	36.0	36.0	19.0	0.0	19.0	19.0	0.0	19.0
Prop In Lane	1.00		0.66	0.00		0.09	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	111	1052	929	0	1052	1036	111	0	551	111	0	472
V/C Ratio(X)	4.77	1.25	1.42	0.00	1.62	1.65	2.42	0.00	1.35	2.96	0.00	2.14
Avail Cap(c_a), veh/h	111	1052	929	0	1052	1036	111	0	551	111	0	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	14.5	14.5	0.0	14.5	14.5	32.5	0.0	23.0	32.5	0.0	23.0
Incr Delay (d2), s/veh	1715.3	122.6	195.7	0.0	283.3	294.7	665.3	0.0	170.7	906.4	0.0	520.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	54.7	54.2	66.8	0.0	101.2	102.9	22.4	0.0	35.9	29.9	0.0	76.7
LnGrp Delay(d),s/veh	1747.8	137.1	210.2	0.0	297.8	309.2	697.8	0.0	193.7	938.9	0.0	543.8
LnGrp LOS	F	F	F		F	F	F		F	F		F
Approach Vol, veh/h		3169			3409			1014			1339	
Approach Delay, s/veh		435.9			303.5			326.9			640.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.0		24.0		41.0		24.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.0		19.0		36.0		19.0
Max Q Clear Time (g_c+I1), s		38.0		21.0		38.0		21.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	403.7
HCM 2010 LOS	F

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	679	1007	0	0	1252	1555	367	3	227	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	738	1095	0	0	1361	1666	399	3	142			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	430	2850	0	0	1837	780	299	2	269			
Arrive On Green	0.47	1.00	0.00	0.00	0.48	0.48	0.17	0.17	0.17			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1797	14	1615			
Grp Volume(v), veh/h	738	1095	0	0	1361	1666	402	0	142			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1810	0	1615			
Q Serve(g_s), s	28.5	0.0	0.0	0.0	34.6	58.0	20.0	0.0	9.6			
Cycle Q Clear(g_c), s	28.5	0.0	0.0	0.0	34.6	58.0	20.0	0.0	9.6			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	430	2850	0	0	1837	780	302	0	269			
V/C Ratio(X)	1.72	0.38	0.00	0.00	0.74	2.14	1.33	0.00	0.53			
Avail Cap(c_a), veh/h	430	2850	0	0	1837	780	302	0	269			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	31.5	0.0	0.0	0.0	25.0	31.0	50.0	0.0	45.7			
Incr Delay (d2), s/veh	323.7	0.0	0.0	0.0	2.7	515.3	170.6	0.0	7.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	52.7	0.0	0.0	0.0	18.8	137.5	24.3	0.0	4.8			
LnGrp Delay(d),s/veh	355.2	0.0	0.0	0.0	27.7	546.3	220.6	0.0	52.9			
LnGrp LOS	F	A			C	F	F		D			
Approach Vol, veh/h		1833			3027			544				
Approach Delay, s/veh		143.0			313.1			176.8				
Approach LOS		F			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		95.0			32.0	63.0		25.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		90.0			28.5	58.0		20.0
Max Q Clear Time (g_c+I1), s		2.0			30.5	60.0		22.0
Green Ext Time (p_c), s		54.1			0.0	0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			241.7
HCM 2010 LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰↰	↰↑	↱
Volume (veh/h)	226	2566	36	33	2216	217	482	125	200	201	27	252
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	233	2645	0	34	2285	193	389	280	152	227	0	153
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2551	723	43	2284	634	445	285	155	390	0	288
Arrive On Green	0.07	0.45	0.00	0.02	0.40	0.40	0.25	0.25	0.25	0.11	0.00	0.11
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1159	629	3619	0	1615
Grp Volume(v), veh/h	233	2645	0	34	2285	193	389	0	432	227	0	153
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1788	1810	0	1615
Q Serve(g_s), s	8.5	53.7	0.0	2.2	48.1	10.0	24.8	0.0	28.8	7.2	0.0	10.3
Cycle Q Clear(g_c), s	8.5	53.7	0.0	2.2	48.1	10.0	24.8	0.0	28.8	7.2	0.0	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	128	2551	723	43	2284	634	445	0	440	390	0	288
V/C Ratio(X)	1.82	1.04	0.00	0.78	1.00	0.30	0.87	0.00	0.98	0.58	0.00	0.53
Avail Cap(c_a), veh/h	128	2551	723	92	2284	634	445	0	440	890	0	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.8	33.1	0.0	58.3	36.0	24.5	43.5	0.0	45.0	51.0	0.0	44.7
Incr Delay (d2), s/veh	397.0	28.3	0.0	10.8	19.0	0.1	20.6	0.0	38.9	0.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	34.8	0.0	1.3	29.2	4.4	15.0	0.0	19.0	3.6	0.0	4.7
LnGrp Delay(d),s/veh	452.7	61.4	0.0	69.1	54.9	24.6	64.1	0.0	83.9	51.5	0.0	45.3
LnGrp LOS	F	F		E	F	C	E		F	D		D
Approach Vol, veh/h		2878			2512			821			380	
Approach Delay, s/veh		93.1			52.8			74.5			49.0	
Approach LOS		F			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	59.2		18.4	13.0	53.6		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.1	33.9		29.5	8.5	31.5		29.5
Max Q Clear Time (g_c+I1), s	4.2	55.7		12.3	10.5	50.1		30.8
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	72.9
HCM 2010 LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	131	2799	2251	278	541	169
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	135	2886	2321	279	558	115
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	2597	3172	899	814	508
Arrive On Green	0.09	0.68	0.56	0.56	0.22	0.22
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	135	2886	2321	279	558	115
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	8.8	82.0	36.6	11.1	17.0	6.3
Cycle Q Clear(g_c), s	8.8	82.0	36.6	11.1	17.0	6.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	162	2597	3172	899	814	508
V/C Ratio(X)	0.84	1.11	0.73	0.31	0.69	0.23
Avail Cap(c_a), veh/h	188	2597	3172	899	814	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.16	0.16	1.00	1.00
Uniform Delay (d), s/veh	53.8	19.0	19.9	14.3	42.6	30.4
Incr Delay (d2), s/veh	21.1	56.3	0.3	0.1	4.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	62.5	19.2	5.0	9.0	6.6
LnGrp Delay(d),s/veh	74.8	75.3	20.2	14.4	47.3	31.4
LnGrp LOS	E	F	C	B	D	C
Approach Vol, veh/h		3021	2600		673	
Approach Delay, s/veh		75.3	19.5		44.6	
Approach LOS		E	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		87.5		32.5	15.2	72.3		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		82.0		27.0	12.5	65.0		
Max Q Clear Time (g_c+I1), s		84.0		19.0	10.8	38.6		
Green Ext Time (p_c), s		0.0		0.9	0.0	25.7		

Intersection Summary	
HCM 2010 Ctrl Delay	49.0
HCM 2010 LOS	D

HCM 2010 TWSC
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Intersection	
Int Delay, s/veh	242

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	41	1193	2730	20	17	77
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	45	1297	2967	22	18	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	2967	0	-	0	3705	1484
Stage 1	-	-	-	-	2967	-
Stage 2	-	-	-	-	738	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	121	-	-	-	*~ 1	116
Stage 1	-	-	-	-	*26	-
Stage 2	-	-	-	-	*562	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	121	-	-	-	*~ 1	116
Mov Cap-2 Maneuver	-	-	-	-	*~ 1	-
Stage 1	-	-	-	-	*26	-
Stage 2	-	-	-	-	*562	-

Approach	EB	WB	SB
HCM Control Delay, s	24.8	0	$ 10171.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	121	-	-	-	5
HCM Lane V/C Ratio	0.368	-	-	-	20.435
HCM Control Delay (s)	51.2	23.9	-	-	$ 10171.5
HCM Lane LOS	F	C	-	-	F
HCM 95th %tile Q(veh)	1.5	-	-	-	14.7

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	240	2964	873	25	1633	119	353	139	28	259	264	356
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	261	3222	0	27	1775	125	384	151	25	282	287	309
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	272	2980	1267	36	3439	242	205	749	122	134	991	659
Arrive On Green	0.15	0.78	0.00	0.02	0.65	0.65	0.06	0.23	0.23	0.07	0.26	0.26
Sat Flow, veh/h	1810	3800	1615	1810	5259	369	3619	3190	518	1810	3800	1594
Grp Volume(v), veh/h	261	3222	0	27	1281	619	384	89	87	282	287	309
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1829	1810	1900	1809	1810	1900	1594
Q Serve(g_s), s	16.5	90.2	0.0	1.7	20.2	20.3	6.5	4.3	4.5	8.5	6.9	16.3
Cycle Q Clear(g_c), s	16.5	90.2	0.0	1.7	20.2	20.3	6.5	4.3	4.5	8.5	6.9	16.3
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	272	2980	1267	36	2485	1196	205	446	425	134	991	659
V/C Ratio(X)	0.96	1.08	0.00	0.74	0.52	0.52	1.88	0.20	0.21	2.11	0.29	0.47
Avail Cap(c_a), veh/h	272	2980	1267	63	2485	1196	205	446	425	134	991	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	12.4	0.0	56.0	10.4	10.4	54.3	35.3	35.4	53.3	34.0	24.7
Incr Delay (d2), s/veh	8.7	37.2	0.0	1.0	0.1	0.1	412.8	1.0	1.1	523.2	0.7	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	61.4	0.0	0.9	10.5	10.2	15.0	2.4	2.4	23.7	3.7	7.6
LnGrp Delay(d),s/veh	57.2	49.6	0.0	57.1	10.5	10.6	467.0	36.3	36.5	576.5	34.7	27.1
LnGrp LOS	E	F		E	B	B	F	D	D	F	C	C
Approach Vol, veh/h		3483			1927			560			878	
Approach Delay, s/veh		50.2			11.1			331.7			206.0	
Approach LOS		D			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	96.7	11.0	35.5	21.8	81.7	14.0	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	55.5	6.5	29.0	17.3	42.2	8.5	* 27
Max Q Clear Time (g_c+I1), s	3.7	92.2	8.5	18.3	18.5	22.3	10.5	6.5
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	19.4	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	82.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
9: Patterson Avenue & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			↰	↱
Volume (veh/h)	26	1269	71	25	2252	6	134	5	63	18	5	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	1379	77	27	2448	7	146	5	68	20	5	116
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	1244	1057	36	1239	4	219	9	80	265	61	317
Arrive On Green	0.02	0.65	0.65	0.02	0.65	0.65	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1810	1900	1615	1810	1894	5	862	45	409	1075	309	1615
Grp Volume(v), veh/h	28	1379	77	27	0	2455	219	0	0	25	0	116
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1316	0	0	1384	0	1615
Q Serve(g_s), s	1.8	78.6	2.1	1.8	0.0	78.5	17.9	0.0	0.0	0.0	0.0	7.5
Cycle Q Clear(g_c), s	1.8	78.6	2.1	1.8	0.0	78.5	19.5	0.0	0.0	1.6	0.0	7.5
Prop In Lane	1.00		1.00	1.00		0.00	0.67		0.31	0.80		1.00
Lane Grp Cap(c), veh/h	37	1244	1057	36	0	1242	309	0	0	326	0	317
V/C Ratio(X)	0.77	1.11	0.07	0.75	0.00	1.98	0.71	0.00	0.00	0.08	0.00	0.37
Avail Cap(c_a), veh/h	60	1244	1057	60	0	1242	309	0	0	326	0	317
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.5	20.7	7.5	58.5	0.0	20.8	47.1	0.0	0.0	39.3	0.0	41.7
Incr Delay (d2), s/veh	11.6	60.8	0.0	11.2	0.0	442.2	13.0	0.0	0.0	0.5	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	61.8	0.9	1.0	0.0	193.3	8.1	0.0	0.0	0.7	0.0	3.6
LnGrp Delay(d),s/veh	70.1	81.5	7.5	69.8	0.0	462.9	60.1	0.0	0.0	39.8	0.0	45.0
LnGrp LOS	E	F	A	E		F	E			D		D
Approach Vol, veh/h		1484			2482			219			141	
Approach Delay, s/veh		77.5			458.7			60.1			44.1	
Approach LOS		E			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.1	6.9	84.1		29.1	6.9	84.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	78.5		22.0	4.0	78.5
Max Q Clear Time (g_c+I1), s		21.5	3.8	80.6		9.5	3.8	80.5
Green Ext Time (p_c), s		0.1	0.0	0.0		1.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	294.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	152	2028	1131	22	933	143	653	586	25	179	744	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	2157	1188	23	993	146	695	623	23	190	791	143
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	1769	752	32	1227	180	467	864	32	204	666	120
Arrive On Green	0.10	0.47	0.47	0.02	0.38	0.38	0.13	0.24	0.24	0.11	0.21	0.21
Sat Flow, veh/h	1810	3800	1615	1810	3240	476	3619	3639	134	1810	3134	566
Grp Volume(v), veh/h	162	2157	1188	23	582	557	695	325	321	190	480	454
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1816	1810	1900	1873	1810	1900	1800
Q Serve(g_s), s	10.6	55.9	32.8	1.5	32.9	33.0	15.5	18.9	18.9	12.5	25.5	25.5
Cycle Q Clear(g_c), s	10.6	55.9	32.8	1.5	32.9	33.0	15.5	18.9	18.9	12.5	25.5	25.5
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.07	1.00		0.31
Lane Grp Cap(c), veh/h	189	1769	752	32	720	688	467	451	445	204	404	383
V/C Ratio(X)	0.86	1.22	1.58	0.71	0.81	0.81	1.49	0.72	0.72	0.93	1.19	1.19
Avail Cap(c_a), veh/h	214	1769	752	60	720	688	467	451	445	204	404	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	32.1	11.0	58.6	33.4	33.4	52.3	42.1	42.1	52.8	47.2	47.3
Incr Delay (d2), s/veh	2.7	99.3	261.7	10.3	9.5	10.0	227.3	7.1	7.3	44.0	106.8	107.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	53.6	69.0	0.9	19.2	18.5	22.5	10.8	10.7	8.7	25.3	24.1
LnGrp Delay(d),s/veh	55.6	131.3	272.8	68.9	42.9	43.4	279.6	49.2	49.3	96.8	154.1	155.1
LnGrp LOS	E	F	F	E	D	D	F	D	D	F	F	F
Approach Vol, veh/h		3507			1162			1341			1124	
Approach Delay, s/veh		175.7			43.6			168.6			144.8	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	61.4	21.0	31.0	17.0	51.0	18.0	34.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	55.0	15.5	* 26	14.2	44.8	13.5	27.5
Max Q Clear Time (g_c+I1), s	3.5	57.9	17.5	27.5	12.6	35.0	14.5	20.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	9.2	0.0	2.3

Intersection Summary			
HCM 2010 Ctrl Delay			148.0
HCM 2010 LOS			F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	48	284	297	57	185	318	222	741	142	513	1108	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	302	202	61	197	241	236	788	133	546	1179	71
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	348	296	79	346	291	248	969	396	558	1657	704
Arrive On Green	0.05	0.18	0.18	0.04	0.18	0.18	0.14	0.25	0.25	0.31	0.44	0.44
Sat Flow, veh/h	1810	1900	1615	1810	1900	1602	1810	3800	1552	1810	3800	1615
Grp Volume(v), veh/h	51	302	202	61	197	241	236	788	133	546	1179	71
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1602	1810	1900	1552	1810	1900	1615
Q Serve(g_s), s	2.8	15.4	8.3	3.3	9.5	14.5	12.9	19.5	7.0	29.9	25.4	1.9
Cycle Q Clear(g_c), s	2.8	15.4	8.3	3.3	9.5	14.5	12.9	19.5	7.0	29.9	25.4	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	348	296	79	346	291	248	969	396	558	1657	704
V/C Ratio(X)	0.63	0.87	0.68	0.77	0.57	0.83	0.95	0.81	0.34	0.98	0.71	0.10
Avail Cap(c_a), veh/h	81	460	391	105	494	416	248	969	396	558	1657	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	46.9	39.7	19.2	47.3	37.3	39.4	42.8	35.0	30.4	34.3	23.0	9.2
Incr Delay (d2), s/veh	10.8	10.6	1.4	15.5	0.6	6.2	43.5	7.4	2.3	7.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.1	3.8	2.0	5.0	6.9	9.5	11.2	3.2	16.0	13.3	0.9
LnGrp Delay(d),s/veh	57.7	50.2	20.6	62.9	37.9	45.6	86.4	42.4	32.6	41.6	23.3	9.2
LnGrp LOS	E	D	C	E	D	D	F	D	C	D	C	A
Approach Vol, veh/h		555			499			1157			1796	
Approach Delay, s/veh		40.2			44.7			50.3			28.3	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.3	31.0	8.9	23.8	18.2	49.1	9.0	23.7
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	24.5	* 26	5.8	24.2	13.7	36.3	4.0	26.0
Max Q Clear Time (g_c+I1), s	31.9	21.5	5.3	17.4	14.9	27.4	4.8	16.5
Green Ext Time (p_c), s	0.0	1.4	0.0	0.9	0.0	4.2	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	81	1013	13	162	1518
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	87	1089	14	174	1632

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3070	1089	0	0	1089	0
Stage 1	1089	-	-	-	-	-
Stage 2	1981	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	14	264	-	-	648	-
Stage 1	326	-	-	-	-	-
Stage 2	119	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	10	264	-	-	648	-
Mov Cap-2 Maneuver	10	-	-	-	-	-
Stage 1	326	-	-	-	-	-
Stage 2	87	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	57.1	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	10	264	648	-
HCM Lane V/C Ratio	-	-	0.538	0.33	0.269	-
HCM Control Delay (s)	-	-	$ 573.9	25.2	12.6	-
HCM Lane LOS	-	-	F	D	B	-
HCM 95th %tile Q(veh)	-	-	1.2	1.4	1.1	-

13: Heacock Street & Iris Avenue

Intersection	
Intersection Delay, s/veh	60.6
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	260	373	0	830	382	0	677	762
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	283	405	0	902	415	0	736	828
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	29.4	66.4	69.5
HCM LOS	D	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	68%	0%	0%	0%	100%
Vol Right, %	32%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1212	260	373	677	762
LT Vol	0	260	0	677	0
Through Vol	830	0	0	0	762
RT Vol	382	0	373	0	0
Lane Flow Rate	1317	283	405	736	828
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.651	0.799	1	1
Departure Headway (Hd)	7.026	8.297	7.097	7.989	7.488
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	527	438	515	456	489
Service Time	5.054	5.997	4.797	5.726	5.226
HCM Lane V/C Ratio	2.499	0.646	0.786	1.614	1.693
HCM Control Delay	66.4	25.2	32.4	70.8	68.4
HCM Lane LOS	F	D	D	F	F
HCM 95th-tile Q	13.8	4.5	7.5	13	13.4

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
14: Heacock Street & Krameria Avenue-North

7/14/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	253	138	824	115	93	798
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	275	132	896	125	101	867
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	312	278	844	718	382	1341
Arrive On Green	0.17	0.17	0.44	0.44	0.21	0.71
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	275	132	896	125	101	867
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	13.4	6.6	40.0	4.2	4.2	22.2
Cycle Q Clear(g_c), s	13.4	6.6	40.0	4.2	4.2	22.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	312	278	844	718	382	1341
V/C Ratio(X)	0.88	0.47	1.06	0.17	0.26	0.65
Avail Cap(c_a), veh/h	342	305	844	718	382	1341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.4	33.6	25.0	15.1	29.7	7.2
Incr Delay (d2), s/veh	20.1	0.5	48.5	0.5	1.7	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	3.0	32.2	2.0	2.3	12.5
LnGrp Delay(d),s/veh	56.5	34.0	73.5	15.6	31.3	9.6
LnGrp LOS	E	C	F	B	C	A
Approach Vol, veh/h	407		1021			968
Approach Delay, s/veh	49.2		66.4			11.9
Approach LOS	D		E			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	45.5				69.0		21.0
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	38.5				62.0		17.0
Max Q Clear Time (g_c+I1), s	6.2	42.0				24.2		15.4
Green Ext Time (p_c), s	0.1	0.0				9.4		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	41.4
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	1	3	936	0	0	1051
Conflicting Peds, #/hr	0	0	0	3	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	3	1017	0	0	1142

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2159	509	0	0	1017	0
Stage 1	1017	-	-	-	-	-
Stage 2	1142	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	47	515	-	-	690	-
Stage 1	315	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	47	515	-	-	690	-
Mov Cap-2 Maneuver	211	-	-	-	-	-
Stage 1	315	-	-	-	-	-
Stage 2	306	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	211	515	690	-
HCM Lane V/C Ratio	-	-	0.005	0.006	-	-
HCM Control Delay (s)	-	-	22.2	12	0	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	57	347	106	120	102	636	0	242	40	700	315	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	377	115	130	111	691	0	263	40	761	342	38
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	405	343	102	428	364	2	504	422	527	1131	962
Arrive On Green	0.04	0.21	0.21	0.06	0.23	0.23	0.00	0.27	0.27	0.29	0.60	0.60
Sat Flow, veh/h	1810	1900	1611	1810	1900	1615	1810	1900	1593	1810	1900	1615
Grp Volume(v), veh/h	62	377	115	130	111	691	0	263	40	761	342	38
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1615	1810	1900	1593	1810	1900	1615
Q Serve(g_s), s	3.9	22.4	7.0	6.5	5.5	25.9	0.0	13.6	2.2	33.5	10.2	1.1
Cycle Q Clear(g_c), s	3.9	22.4	7.0	6.5	5.5	25.9	0.0	13.6	2.2	33.5	10.2	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	405	343	102	428	364	2	504	422	527	1131	962
V/C Ratio(X)	0.77	0.93	0.33	1.27	0.26	1.90	0.00	0.52	0.09	1.44	0.30	0.04
Avail Cap(c_a), veh/h	98	413	350	102	428	364	63	504	422	527	1131	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	44.4	38.3	54.3	36.6	44.5	0.0	36.0	31.9	40.8	11.5	9.6
Incr Delay (d2), s/veh	21.1	26.9	0.2	129.0	0.0	404.9	0.0	3.8	0.4	210.2	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	14.8	3.1	6.9	2.9	52.5	0.0	7.7	1.0	47.5	5.5	0.5
LnGrp Delay(d),s/veh	75.5	71.3	38.5	183.2	36.6	449.4	0.0	39.9	32.3	251.0	12.2	9.7
LnGrp LOS	E	E	D	F	D	F		D	C	F	B	A
Approach Vol, veh/h		554			932			303			1141	
Approach Delay, s/veh		65.0			363.1			38.9			171.4	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.0	36.0	11.0	30.0	0.0	74.0	9.6	31.4
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	33.5	30.0	6.5	25.0	4.0	59.5	6.2	25.3
Max Q Clear Time (g_c+I1), s	35.5	15.6	8.5	24.4	0.0	12.2	5.9	27.9
Green Ext Time (p_c), s	0.0	1.8	0.0	0.1	0.0	2.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	198.5
HCM 2010 LOS	F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	132	150	10	268	273
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	143	163	11	291	297

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1047	168	0	0	174	0
Stage 1	168	-	-	-	-	-
Stage 2	879	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	238	881	-	-	1415	-
Stage 1	867	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	189	881	-	-	1415	-
Mov Cap-2 Maneuver	289	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	307	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	289	881	1415	-
HCM Lane V/C Ratio	-	-	0.038	0.163	0.206	-
HCM Control Delay (s)	-	-	17.9	9.9	8.2	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.6	0.8	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1662	20	30	1183	5	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1807	22	33	1286	5	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1828	0	3168	1817
Stage 1	-	-	-	-	1817	-
Stage 2	-	-	-	-	1351	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	-	-	*12	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	*87	-
Platoon blocked, %	-	-	2	-		2
Mov Cap-1 Maneuver	-	-	-	-	*12	-
Mov Cap-2 Maneuver	-	-	-	-	*12	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	*87	-

Approach	EB	WB	NB
HCM Control Delay, s	0		
HCM LOS			-

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	-	-	-
HCM Lane LOS	-	-	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC Moreno Valley Logistics Center TIA (JN 09301)
21: Cosmos Street & Krameria Avenue-North/Driveway 7/14/2015

Intersection	
Int Delay, s/veh	9.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	54	33	112	0	23	0	167	5	0	3	6	122
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	78	48	162	0	33	0	242	7	0	4	9	177

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	614	597	97	702	685	7	186	0	0	7	0	0
Stage 1	106	106	-	491	491	-	-	-	-	-	-	-
Stage 2	508	491	-	211	194	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	407	419	965	355	373	1081	1401	-	-	1627	-	-
Stage 1	905	811	-	563	552	-	-	-	-	-	-	-
Stage 2	551	552	-	796	744	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	330	346	965	234	308	1081	1401	-	-	1627	-	-
Mov Cap-2 Maneuver	395	426	-	333	398	-	-	-	-	-	-	-
Stage 1	749	809	-	466	457	-	-	-	-	-	-	-
Stage 2	423	457	-	621	742	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	14.9	7.9	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1401	-	-	603	398	1627	-	-
HCM Lane V/C Ratio	0.173	-	-	0.478	0.084	0.003	-	-
HCM Control Delay (s)	8.1	-	-	16.3	14.9	7.2	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	2.6	0.3	0	-	-

Intersection	
Intersection Delay, s/veh	72.4
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	105	179	467	0	200	59	82	0	259	572	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	114	195	508	0	217	64	89	0	282	622	200
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	79.3	40	73.5
HCM LOS	F	E	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	28%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	72%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	259	572	184	105	646	200	59	82	265	523	127
LT Vol	259	0	0	105	0	200	0	0	265	0	0
Through Vol	0	572	0	0	179	0	59	0	0	523	0
RT Vol	0	0	184	0	467	0	0	82	0	0	127
Lane Flow Rate	282	622	200	114	702	217	64	89	288	568	138
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.946	1	0.607	0.409	1	0.804	0.228	0.3	0.98	1	0.424
Departure Headway (Hd)	12.1	11.607	10.917	12.915	11.937	13.321	12.825	12.132	12.252	11.759	11.069
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	301	317	330	280	309	272	281	297	297	313	326
Service Time	9.859	9.366	8.676	10.673	9.696	11.068	10.572	9.879	10.014	9.521	8.831
HCM Lane V/C Ratio	0.937	1.962	0.606	0.407	2.272	0.798	0.228	0.3	0.97	1.815	0.423
HCM Control Delay	75.7	86.8	29.3	24.4	88.2	54.3	19.3	20	84.3	87.5	21.8
HCM Lane LOS	F	F	D	C	F	F	C	C	F	F	C
HCM 95th-tile Q	9.3	10.8	3.8	1.9	10.6	6.3	0.9	1.2	10	10.7	2

28: Indian Street & San Michele Road

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	87	721	1283	262	474	234	684	794	292	436	886	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		0.64
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	784	1345	285	515	238	743	863	256	474	963	92
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	120	553	602	149	1170	494	330	636	540	212	1166	111
Arrive On Green	0.07	0.29	0.29	0.08	0.31	0.31	0.09	0.33	0.33	0.12	0.36	0.36
Sat Flow, veh/h	1810	1900	1559	1810	3800	1605	3619	1900	1613	1810	3230	308
Grp Volume(v), veh/h	95	784	1345	285	515	238	743	863	256	474	566	489
Grp Sat Flow(s),veh/h/ln	1810	1900	1559	1810	1900	1605	1810	1900	1613	1810	1900	1638
Q Serve(g_s), s	6.0	33.5	27.2	9.5	12.5	9.8	10.5	38.5	10.8	13.5	31.2	31.3
Cycle Q Clear(g_c), s	6.0	33.5	27.2	9.5	12.5	9.8	10.5	38.5	10.8	13.5	31.2	31.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	120	553	602	149	1170	494	330	636	540	212	686	591
V/C Ratio(X)	0.79	1.42	2.24	1.91	0.44	0.48	2.25	1.36	0.47	2.23	0.83	0.83
Avail Cap(c_a), veh/h	187	553	602	149	1170	494	330	636	540	212	686	591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.16	0.16	0.16	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	40.8	22.6	52.7	31.9	16.1	52.3	38.3	16.8	50.8	33.5	33.5
Incr Delay (d2), s/veh	0.5	188.4	556.3	431.9	0.1	0.3	563.4	162.3	0.5	569.1	10.9	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	46.5	104.6	22.7	6.5	4.3	31.1	48.8	4.8	40.3	18.4	16.2
LnGrp Delay(d),s/veh	53.4	229.2	579.0	484.6	32.0	16.3	615.7	200.5	17.3	619.8	44.4	46.0
LnGrp LOS	D	F	F	F	C	B	F	F	B	F	D	D
Approach Vol, veh/h		2224			1038			1862			1529	
Approach Delay, s/veh		433.2			152.7			341.0			223.3	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	44.0	14.0	39.0	15.0	47.0	12.1	40.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	13.5	38.5	9.5	33.5	10.5	41.5	11.9	31.1
Max Q Clear Time (g_c+I1), s	15.5	40.5	11.5	35.5	12.5	33.3	8.0	14.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	2.7	0.0	10.2

Intersection Summary	
HCM 2010 Ctrl Delay	315.4
HCM 2010 LOS	F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
29: Indian Street & Nandina Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	79	172	877	403	80	22	473	1140	351	117	1620	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	187	861	438	87	10	514	1239	379	127	1761	150
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	350	275	234	204	121	103	234	1490	445	83	1546	130
Arrive On Green	0.19	0.14	0.14	0.11	0.06	0.06	0.13	0.53	0.53	0.05	0.45	0.45
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	2810	840	1810	3458	291
Grp Volume(v), veh/h	86	187	861	438	87	10	514	828	790	127	956	955
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1750	1810	1900	1849
Q Serve(g_s), s	4.8	11.2	13.0	13.5	5.4	0.6	15.5	43.5	46.4	5.5	53.6	53.6
Cycle Q Clear(g_c), s	4.8	11.2	13.0	13.5	5.4	0.6	15.5	43.5	46.4	5.5	53.6	53.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		0.16
Lane Grp Cap(c), veh/h	350	275	234	204	121	103	234	1008	928	83	849	826
V/C Ratio(X)	0.25	0.68	3.68	2.15	0.72	0.10	2.20	0.82	0.85	1.53	1.13	1.16
Avail Cap(c_a), veh/h	350	499	424	204	529	450	234	1008	928	83	849	826
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	41.0	48.7	29.0	53.3	55.1	39.3	52.3	23.5	24.1	57.3	33.2	33.2
Incr Delay (d2), s/veh	0.1	1.1	1218.6	534.2	3.0	0.2	553.4	7.5	9.7	244.6	58.4	71.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.0	84.9	36.9	2.9	0.3	43.7	24.9	24.7	8.4	41.9	43.7
LnGrp Delay(d),s/veh	41.1	49.8	1247.6	587.5	58.2	39.5	605.6	31.0	33.8	301.8	91.6	104.4
LnGrp LOS	D	D	F	F	E	D	F	C	C	F	F	F
Approach Vol, veh/h		1134			535			2132			2038	
Approach Delay, s/veh		958.6			491.2			170.6			110.7	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	69.1	18.0	22.9	20.0	59.1	27.7	13.1
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.5	49.5	13.5	31.5	15.5	39.5	11.6	33.4
Max Q Clear Time (g_c+I1), s	17.5	48.4	15.5	15.0	17.5	55.6	6.8	7.4
Green Ext Time (p_c), s	0.0	1.1	0.0	2.3	0.0	0.0	0.4	0.2

Intersection Summary		
HCM 2010 Ctrl Delay		332.1
HCM 2010 LOS		F

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	532	1341	199	204	916	366	285	1090	172	633	1379	882
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	578	1458	216	222	996	398	310	1185	187	688	1499	955
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1204	1875	1594	87	933	368	142	1206	513	236	760	435
Arrive On Green	0.67	0.99	0.99	0.05	0.36	0.36	0.04	0.32	0.32	0.07	0.33	0.33
Sat Flow, veh/h	1810	1900	1615	1810	2586	1019	3619	3800	1615	3619	2270	1300
Grp Volume(v), veh/h	578	1458	216	222	728	666	310	1185	187	688	1227	1227
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1705	1810	1900	1615	1810	1900	1671
Q Serve(g_s), s	18.1	4.9	8.3	5.5	41.5	41.5	4.5	35.6	10.3	7.5	38.5	38.5
Cycle Q Clear(g_c), s	18.1	4.9	8.3	5.5	41.5	41.5	4.5	35.6	10.3	7.5	38.5	38.5
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	1204	1875	1594	87	686	615	142	1206	513	236	636	559
V/C Ratio(X)	0.48	0.78	0.14	2.57	1.06	1.08	2.19	0.98	0.36	2.91	1.93	2.19
Avail Cap(c_a), veh/h	1204	1875	1594	87	686	615	142	1206	513	236	636	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	0.0	14.6	54.8	36.8	36.8	55.3	38.9	30.3	53.8	38.3	38.3
Incr Delay (d2), s/veh	0.1	3.2	0.2	736.9	51.9	60.6	557.5	22.1	2.0	873.2	423.8	543.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	2.9	3.8	20.5	31.6	29.8	13.2	22.3	4.9	32.4	95.0	102.1
LnGrp Delay(d),s/veh	9.6	3.3	14.8	791.7	88.7	97.4	612.8	61.0	32.3	926.9	462.1	581.4
LnGrp LOS	A	A	B	F	F	F	F	E	C	F	F	F
Approach Vol, veh/h		2252			1616			1682			3142	
Approach Delay, s/veh		6.0			188.8			159.5			610.5	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	121.0	10.0	44.0	84.0	47.0	12.0	42.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.5	46.5	4.5	* 39	10.5	* 42	7.5	35.5
Max Q Clear Time (g_c+I1), s	7.5	10.3	6.5	40.5	20.1	43.5	9.5	37.6
Green Ext Time (p_c), s	0.0	15.1	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	288.2
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Volume (veh/h)	350	1270	499	164	712	190	293	1421	233	248	1878	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	357	1296	488	167	727	185	299	1450	227	253	1916	254
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	204	923	332	1093	2465	627	173	1480	231	228	1251	532
Arrive On Green	0.11	0.35	0.35	0.60	0.85	0.85	0.10	0.31	0.31	0.13	0.33	0.33
Sat Flow, veh/h	1810	2668	960	1810	2916	742	1810	4814	753	1810	3800	1615
Grp Volume(v), veh/h	357	905	879	167	474	438	299	1144	533	253	1916	254
Grp Sat Flow(s),veh/h/ln	1810	1900	1728	1810	1900	1757	1810	1900	1766	1810	1900	1615
Q Serve(g_s), s	13.5	41.5	41.5	4.8	6.2	6.2	11.5	35.8	35.9	15.1	39.5	23.1
Cycle Q Clear(g_c), s	13.5	41.5	41.5	4.8	6.2	6.2	11.5	35.8	35.9	15.1	39.5	23.1
Prop In Lane	1.00		0.56	1.00		0.42	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	204	657	598	1093	1607	1486	173	1169	543	228	1251	532
V/C Ratio(X)	1.75	1.38	1.47	0.15	0.29	0.29	1.72	0.98	0.98	1.11	1.53	0.48
Avail Cap(c_a), veh/h	204	657	598	1093	1607	1486	173	1169	543	228	1251	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	39.3	39.3	10.4	1.9	1.9	54.3	41.2	41.2	52.5	40.3	76.0
Incr Delay (d2), s/veh	358.6	179.5	220.8	0.0	0.5	0.5	349.0	21.8	34.2	92.7	243.4	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.0	54.5	56.4	2.4	3.4	3.1	22.5	22.3	22.6	13.4	63.0	10.8
LnGrp Delay(d),s/veh	411.9	218.7	260.0	10.4	2.4	2.4	403.2	63.0	75.4	145.1	283.6	79.0
LnGrp LOS	F	F	F	B	A	A	F	E	E	F	F	E
Approach Vol, veh/h		2141			1079			1976			2423	
Approach Delay, s/veh		267.9			3.6			117.8			247.7	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	79.3	47.0	17.0	45.0	18.0	108.3	19.6	42.4
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	7.5	* 42	11.5	* 40	13.5	35.5	15.1	35.9
Max Q Clear Time (g_c+I1), s	16.8	43.5	13.5	41.5	15.5	8.2	17.1	37.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	185.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	97	242	136	314	184	179	113	1990	227	231	1933	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	105	263	121	341	200	141	123	2163	234	251	2101	96
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	116	289	349	386	405	337	68	1727	184	98	1936	88
Arrive On Green	0.22	0.22	0.22	0.21	0.21	0.21	0.04	0.34	0.34	0.05	0.36	0.36
Sat Flow, veh/h	534	1339	1613	1810	1900	1581	1810	5058	538	1810	5406	246
Grp Volume(v), veh/h	368	0	121	341	200	141	123	1616	781	251	1474	723
Grp Sat Flow(s),veh/h/ln	1873	0	1613	1810	1900	1581	1810	1900	1796	1810	1900	1852
Q Serve(g_s), s	23.0	0.0	7.6	21.9	11.1	9.2	4.5	41.0	41.0	6.5	43.0	43.0
Cycle Q Clear(g_c), s	23.0	0.0	7.6	21.9	11.1	9.2	4.5	41.0	41.0	6.5	43.0	43.0
Prop In Lane	0.29		1.00	1.00		1.00	1.00		0.30	1.00		0.13
Lane Grp Cap(c), veh/h	405	0	349	386	405	337	68	1297	613	98	1361	663
V/C Ratio(X)	0.91	0.00	0.35	0.88	0.49	0.42	1.81	1.25	1.27	2.56	1.08	1.09
Avail Cap(c_a), veh/h	468	0	403	452	475	395	68	1297	613	98	1361	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	39.9	45.8	41.5	40.8	57.8	39.5	39.5	56.8	38.5	38.5
Incr Delay (d2), s/veh	18.5	0.0	0.2	15.0	0.3	0.3	417.5	117.1	135.8	731.3	50.3	62.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.9	0.0	3.4	12.6	5.9	4.1	10.1	42.5	43.4	23.2	32.0	33.4
LnGrp Delay(d),s/veh	64.4	0.0	40.1	60.8	41.8	41.1	475.3	156.7	175.4	788.1	88.8	100.6
LnGrp LOS	E		D	E	D	D	F	F	F	F	F	F
Approach Vol, veh/h		489			682			2520			2448	
Approach Delay, s/veh		58.4			51.2			178.0			164.0	
Approach LOS		E			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	46.5		31.4	9.0	48.5		31.1
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.5	32.5		30.0	4.5	34.5		30.0
Max Q Clear Time (g_c+I1), s	8.5	43.0		25.0	6.5	45.0		23.9
Green Ext Time (p_c), s	0.0	0.0		0.9	0.0	0.0		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	148.8
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 7.2:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (vph)	0	1062	675	931	1838	0	0	0	1022	0	0	1001
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1154	734	1012	1998	0	0	0	1111	0	0	1088
RTOR Reduction (vph)	0	0	403	0	0	0	0	0	433	0	0	40
Lane Group Flow (vph)	0	1154	331	1012	1998	0	0	0	678	0	0	1048
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		29.5	29.5	39.0	72.5				36.4			38.0
Effective Green, g (s)		29.5	29.5	39.0	72.5				36.4			38.0
Actuated g/C Ratio		0.25	0.25	0.32	0.60				0.30			0.32
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		934	467	617	2295				576			601
v/s Ratio Prot		c0.30		c0.53	0.53				0.36			c0.55
v/s Ratio Perm			0.17									
v/c Ratio		1.24	0.71	1.64	0.87				1.18			1.74
Uniform Delay, d1		45.2	41.3	40.5	19.8				41.8			41.0
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		115.3	8.8	295.4	4.9				96.6			341.3
Delay (s)		160.5	50.1	335.9	24.7				138.4			382.3
Level of Service		F	D	F	C				F			F
Approach Delay (s)		117.6			129.3			138.4			382.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	166.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.59		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	120.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	886	142	257	516	0	0	0	0	1575	2	707
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	963	149	279	561	0				1712	2	703
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	823	350	437	1900	0				1009	1	902
Arrive On Green	0.00	0.22	0.22	0.24	0.50	0.00				0.56	0.56	0.56
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1808	2	1615
Grp Volume(v), veh/h	0	963	149	279	561	0				1714	0	703
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	26.0	9.6	16.6	10.4	0.0				67.0	0.0	40.9
Cycle Q Clear(g_c), s	0.0	26.0	9.6	16.6	10.4	0.0				67.0	0.0	40.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	823	350	437	1900	0				1010	0	902
V/C Ratio(X)	0.00	1.17	0.43	0.64	0.30	0.00				1.70	0.00	0.78
Avail Cap(c_a), veh/h	0	823	350	437	1900	0				1010	0	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.60	0.60	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	47.0	40.6	40.8	17.6	0.0				26.5	0.0	20.7
Incr Delay (d2), s/veh	0.0	89.2	3.8	1.4	0.2	0.0				317.7	0.0	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	23.8	4.6	8.5	5.5	0.0				122.3	0.0	19.3
LnGrp Delay(d),s/veh	0.0	136.2	44.3	42.2	17.8	0.0				344.2	0.0	25.2
LnGrp LOS		F	D	D	B					F		C
Approach Vol, veh/h		1112			840						2417	
Approach Delay, s/veh		123.9			25.9						251.4	
Approach LOS		F			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	34.5	31.0		72.0		65.5		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	12.5	* 26		67.0		43.0		
Max Q Clear Time (g_c+I1), s	18.6	28.0		69.0		12.4		
Green Ext Time (p_c), s	0.0	0.0		0.0		2.6		

Intersection Summary		
HCM 2010 Ctrl Delay		175.6
HCM 2010 LOS		F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av. 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	147	1531	406	0	2644	437	853	967	32	230	0	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	160	1664	434	0	2874	428	927	1051	35	250	0	299
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	1469	366	0	1623	236	352	711	24	80	0	620
Arrive On Green	0.50	0.50	0.50	0.00	0.50	0.50	0.39	0.39	0.39	0.39	0.00	0.39
Sat Flow, veh/h	59	2938	733	0	3246	471	1097	1827	61	528	0	1594
Grp Volume(v), veh/h	160	1049	1049	0	1651	1651	927	0	1086	250	0	299
Grp Sat Flow(s),veh/h/ln	59	1900	1771	0	1900	1817	1097	0	1888	528	0	1594
Q Serve(g_s), s	0.0	45.0	45.0	0.0	45.0	45.0	22.3	0.0	35.0	0.0	0.0	12.7
Cycle Q Clear(g_c), s	45.0	45.0	45.0	0.0	45.0	45.0	35.0	0.0	35.0	35.0	0.0	12.7
Prop In Lane	1.00		0.41	0.00		0.26	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	80	950	885	0	950	908	352	0	734	80	0	620
V/C Ratio(X)	2.00	1.10	1.18	0.00	1.74	1.82	2.63	0.00	1.48	3.12	0.00	0.48
Avail Cap(c_a), veh/h	80	950	885	0	950	908	352	0	734	80	0	620
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.0	22.5	22.5	0.0	22.5	22.5	36.4	0.0	27.5	45.0	0.0	20.7
Incr Delay (d2), s/veh	491.2	62.1	94.6	0.0	336.5	372.2	743.6	0.0	222.8	988.3	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	39.6	45.2	0.0	112.0	116.1	81.4	0.0	63.6	23.9	0.0	6.0
LnGrp Delay(d),s/veh	536.2	84.6	117.1	0.0	359.0	394.7	780.0	0.0	250.3	1033.3	0.0	23.4
LnGrp LOS	F	F	F		F	F	F		F	F		C
Approach Vol, veh/h		2258			3302			2013			549	
Approach Delay, s/veh		131.7			376.8			494.2			483.2	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.0		40.0		50.0		40.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		45.0		35.0		45.0		35.0
Max Q Clear Time (g_c+I1), s		47.0		37.0		47.0		37.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	345.0
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	587	1874	0	0	612	656	162	0	507	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	638	2037	0	0	665	678	176	0	465			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	622	2375	0	0	902	384	452	0	404			
Arrive On Green	0.34	0.63	0.00	0.00	0.24	0.24	0.25	0.00	0.25			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	638	2037	0	0	665	678	176	0	465			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	27.5	34.7	0.0	0.0	12.9	19.0	6.5	0.0	20.0			
Cycle Q Clear(g_c), s	27.5	34.7	0.0	0.0	12.9	19.0	6.5	0.0	20.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	622	2375	0	0	903	384	452	0	404			
V/C Ratio(X)	1.03	0.86	0.00	0.00	0.74	1.77	0.39	0.00	1.15			
Avail Cap(c_a), veh/h	622	2375	0	0	903	384	452	0	404			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	26.3	12.1	0.0	0.0	28.2	30.5	24.9	0.0	30.0			
Incr Delay (d2), s/veh	18.2	0.4	0.0	0.0	5.3	355.9	2.5	0.0	93.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.8	18.0	0.0	0.0	7.4	46.3	3.5	0.0	19.3			
LnGrp Delay(d),s/veh	44.4	12.5	0.0	0.0	33.5	386.4	27.4	0.0	123.1			
LnGrp LOS	F	B			C	F	C		F			
Approach Vol, veh/h		2675			1343			641				
Approach Delay, s/veh		20.1			211.7			96.8				
Approach LOS		C			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		55.0			31.0	24.0		25.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		50.0			27.5	19.0		20.0
Max Q Clear Time (g_c+I1), s		36.7			29.5	21.0		22.0
Green Ext Time (p_c), s		10.9			0.0	0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			85.9
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Volume (veh/h)	202	2140	384	121	2832	222	58	186	21	155	152	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	220	2326	0	132	3078	232	63	202	1	166	167	99
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	2347	665	98	2300	652	445	464	2	205	215	281
Arrive On Green	0.06	0.41	0.00	0.05	0.40	0.40	0.25	0.25	0.25	0.11	0.11	0.11
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1889	9	1810	1900	1592
Grp Volume(v), veh/h	220	2326	0	132	3078	232	63	0	203	166	167	99
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1592
Q Serve(g_s), s	7.5	48.7	0.0	6.5	48.4	12.0	3.3	0.0	10.8	10.7	10.3	6.6
Cycle Q Clear(g_c), s	7.5	48.7	0.0	6.5	48.4	12.0	3.3	0.0	10.8	10.7	10.3	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	113	2347	665	98	2300	652	445	0	467	205	215	281
V/C Ratio(X)	1.95	0.99	0.00	1.35	1.34	0.36	0.14	0.00	0.44	0.81	0.78	0.35
Avail Cap(c_a), veh/h	113	2347	665	98	2300	652	445	0	467	445	467	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	35.1	0.0	56.8	35.8	24.9	35.4	0.0	38.2	52.0	51.7	43.5
Incr Delay (d2), s/veh	455.9	16.6	0.0	209.2	155.3	0.1	0.7	0.0	2.9	2.9	2.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.1	29.0	0.0	8.9	58.4	5.4	1.7	0.0	6.1	5.6	5.5	2.9
LnGrp Delay(d),s/veh	512.2	51.6	0.0	266.0	191.1	25.1	36.0	0.0	41.1	54.9	54.0	43.8
LnGrp LOS	F	D		F	F	C	D		D	D	D	D
Approach Vol, veh/h		2546			3442			266			432	
Approach Delay, s/veh		91.4			182.8			39.9			52.0	
Approach LOS		F			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	54.9		19.1	12.0	53.9		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.5	33.5		29.5	7.5	32.5		29.5
Max Q Clear Time (g_c+I1), s	8.5	50.7		12.7	9.5	50.4		12.8
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	133.8
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	142	2031	2869	198	207	71
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	154	2208	3118	205	225	22
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	148	2487	3031	841	888	529
Arrive On Green	0.08	0.65	0.53	0.53	0.25	0.25
Sat Flow, veh/h	1810	3800	5700	1580	3619	1615
Grp Volume(v), veh/h	154	2208	3118	205	225	22
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1580	1810	1615
Q Serve(g_s), s	9.0	52.7	58.5	7.7	5.5	1.0
Cycle Q Clear(g_c), s	9.0	52.7	58.5	7.7	5.5	1.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	148	2487	3031	841	888	529
V/C Ratio(X)	1.04	0.89	1.03	0.24	0.25	0.04
Avail Cap(c_a), veh/h	148	2487	3031	841	888	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	50.5	15.7	25.7	13.9	33.4	25.2
Incr Delay (d2), s/veh	85.0	5.2	14.6	0.1	0.7	0.1
Initial Q Delay(d3),s/veh	0.3	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	29.1	34.4	3.4	2.8	1.1
LnGrp Delay(d),s/veh	135.8	20.9	40.3	13.9	34.1	25.4
LnGrp LOS	F	C	F	B	C	C
Approach Vol, veh/h		2362	3323		247	
Approach Delay, s/veh		28.4	38.7		33.3	
Approach LOS		C	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		77.5		32.5	13.5	64.0		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		72.0		27.0	9.0	58.5		
Max Q Clear Time (g_c+I1), s		54.7		7.5	11.0	60.5		
Green Ext Time (p_c), s		17.0		0.4	0.0	0.0		

Intersection Summary		
HCM 2010 Ctrl Delay		34.3
HCM 2010 LOS		C

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	86	2296	1232	35	11	36
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	93	2496	1339	38	12	39

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1339	0	-	0	2774	670
Stage 1	-	-	-	-	1339	-
Stage 2	-	-	-	-	1435	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	521	-	-	-	*30	404
Stage 1	-	-	-	-	*213	-
Stage 2	-	-	-	-	*112	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	521	-	-	-	*30	404
Mov Cap-2 Maneuver	-	-	-	-	*30	-
Stage 1	-	-	-	-	*213	-
Stage 2	-	-	-	-	*112	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	70.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	521	-	-	-	103
HCM Lane V/C Ratio	0.179	-	-	-	0.496
HCM Control Delay (s)	13.4	0	-	-	70.3
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.6	-	-	-	2.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue — 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	192	1868	289	29	2632	192	390	202	18	105	140	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	206	2009	0	31	2830	204	419	217	16	113	151	84
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1074	3824	1625	40	2243	158	299	870	64	124	925	1346
Arrive On Green	0.59	1.00	0.00	0.02	0.43	0.43	0.08	0.25	0.25	0.07	0.24	0.24
Sat Flow, veh/h	1810	3800	1615	1810	5265	370	3619	3498	256	1810	3800	1593
Grp Volume(v), veh/h	206	2009	0	31	2023	1011	419	117	116	113	151	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1854	1810	1900	1593
Q Serve(g_s), s	6.0	0.0	0.0	2.0	49.0	49.0	9.5	5.7	5.8	7.1	3.6	0.8
Cycle Q Clear(g_c), s	6.0	0.0	0.0	2.0	49.0	49.0	9.5	5.7	5.8	7.1	3.6	0.8
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	1074	3824	1625	40	1619	782	299	473	461	124	925	1346
V/C Ratio(X)	0.19	0.53	0.00	0.78	1.25	1.29	1.40	0.25	0.25	0.91	0.16	0.06
Avail Cap(c_a), veh/h	1074	3824	1625	63	1619	782	299	473	461	124	925	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.45	0.45	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	0.0	0.0	56.0	33.0	33.0	52.7	34.6	34.6	53.2	34.3	14.5
Incr Delay (d2), s/veh	0.0	0.2	0.0	1.2	112.7	133.1	199.7	1.3	1.3	52.7	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.1	0.0	1.0	51.0	53.7	13.0	3.2	3.1	5.4	1.9	1.4
LnGrp Delay(d),s/veh	10.7	0.2	0.0	57.1	145.7	166.1	252.4	35.8	35.9	105.9	34.6	14.6
LnGrp LOS	B	A		E	F	F	F	D	D	F	C	B
Approach Vol, veh/h		2215			3065			652			348	
Approach Delay, s/veh		1.2			151.5			175.1			52.9	
Approach LOS		A			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	121.8	14.0	33.5	74.3	54.5	13.4	34.1
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	54.5	9.5	27.0	9.5	* 49	7.9	* 29
Max Q Clear Time (g_c+I1), s	4.0	2.0	11.5	5.6	8.0	51.0	9.1	7.8
Green Ext Time (p_c), s	0.0	15.4	0.0	0.8	0.1	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	95.5
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			↰↑↱			↰↑	↱
Volume (veh/h)	13	2044	107	17	1205	6	172	4	42	1	4	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	2152	113	18	1268	6	181	4	44	1	4	15
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	22	1243	1056	27	1241	6	283	5	56	86	318	326
Arrive On Green	0.01	0.65	0.65	0.02	0.66	0.66	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1810	1900	1615	1810	1889	9	1139	25	277	248	1578	1615
Grp Volume(v), veh/h	14	2152	113	18	0	1274	229	0	0	5	0	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1898	1441	0	0	1826	0	1615
Q Serve(g_s), s	0.9	78.5	3.1	1.2	0.0	78.8	17.9	0.0	0.0	0.0	0.0	0.9
Cycle Q Clear(g_c), s	0.9	78.5	3.1	1.2	0.0	78.8	18.2	0.0	0.0	0.3	0.0	0.9
Prop In Lane	1.00		1.00	1.00		0.00	0.79		0.19	0.20		1.00
Lane Grp Cap(c), veh/h	22	1243	1056	27	0	1247	344	0	0	404	0	326
V/C Ratio(X)	0.62	1.73	0.11	0.66	0.00	1.02	0.67	0.00	0.00	0.01	0.00	0.05
Avail Cap(c_a), veh/h	60	1243	1056	60	0	1247	344	0	0	404	0	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.0	20.8	7.7	58.8	0.0	20.6	45.6	0.0	0.0	38.3	0.0	38.6
Incr Delay (d2), s/veh	10.0	332.5	0.0	9.7	0.0	31.1	9.7	0.0	0.0	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	155.5	1.4	0.7	0.0	51.6	8.1	0.0	0.0	0.1	0.0	0.4
LnGrp Delay(d),s/veh	69.0	353.3	7.7	68.5	0.0	51.7	55.4	0.0	0.0	38.4	0.0	38.9
LnGrp LOS	E	F	A	E		F	E			D		D
Approach Vol, veh/h		2279			1292			229			20	
Approach Delay, s/veh		334.4			52.0			55.4			38.8	
Approach LOS		F			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.7	6.3	84.0		29.7	6.0	84.3
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	78.5		22.0	4.0	78.5
Max Q Clear Time (g_c+I1), s		20.2	3.2	80.5		2.9	2.9	80.8
Green Ext Time (p_c), s		0.2	0.0	0.0		0.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	220.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	162	1104	604	59	1752	153	993	724	19	82	389	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	176	1200	580	64	1904	157	1079	787	19	89	423	60
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	113	1520	645	582	2315	188	618	1202	29	112	679	96
Arrive On Green	0.06	0.40	0.40	0.32	0.67	0.67	0.17	0.33	0.33	0.06	0.21	0.21
Sat Flow, veh/h	1810	3800	1611	1810	3468	282	3619	3693	89	1810	3258	459
Grp Volume(v), veh/h	176	1200	580	64	1031	1031	1079	405	401	89	246	237
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1850	1810	1900	1882	1810	1900	1817
Q Serve(g_s), s	7.5	33.2	40.5	3.0	47.3	50.2	20.5	21.9	21.9	5.8	14.1	14.3
Cycle Q Clear(g_c), s	7.5	33.2	40.5	3.0	47.3	50.2	20.5	21.9	21.9	5.8	14.1	14.3
Prop In Lane	1.00		1.00	1.00		0.15	1.00		0.05	1.00		0.25
Lane Grp Cap(c), veh/h	113	1520	645	582	1268	1235	618	619	613	112	396	379
V/C Ratio(X)	1.56	0.79	0.90	0.11	0.81	0.83	1.75	0.65	0.65	0.79	0.62	0.63
Avail Cap(c_a), veh/h	113	1520	645	582	1268	1235	618	619	613	133	396	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	31.6	33.7	28.6	14.5	15.0	49.8	34.7	34.7	55.5	43.2	43.3
Incr Delay (d2), s/veh	254.2	0.4	2.2	0.0	5.8	6.7	339.7	3.4	3.5	20.1	7.1	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	17.4	18.3	1.5	26.6	27.8	39.4	12.1	12.0	3.5	8.1	8.0
LnGrp Delay(d),s/veh	310.5	32.0	35.9	28.7	20.3	21.7	389.4	38.1	38.2	75.7	50.3	50.9
LnGrp LOS	F	C	D	C	C	C	F	D	D	E	D	D
Approach Vol, veh/h		1956			2125			1885			572	
Approach Delay, s/veh		58.2			21.2			239.2			54.5	
Approach LOS		E			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	45.1	53.5	26.0	30.5	12.0	86.6	11.9	44.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	6.5	* 48	20.5	* 25	7.5	47.0	8.8	36.7
Max Q Clear Time (g_c+I1), s	5.0	42.5	22.5	16.3	9.5	52.2	7.8	23.9
Green Ext Time (p_c), s	1.3	3.1	0.0	1.1	0.0	0.0	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	98.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	15	93	177	92	181	333	142	1202	95	181	707	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.95	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	101	147	100	197	201	154	1307	88	197	768	28
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	27	240	204	128	346	292	187	1288	519	418	1814	761
Arrive On Green	0.01	0.13	0.13	0.07	0.18	0.18	0.10	0.34	0.34	0.23	0.48	0.48
Sat Flow, veh/h	1810	1900	1615	1810	1900	1602	1810	3800	1533	1810	3800	1594
Grp Volume(v), veh/h	16	101	147	100	197	201	154	1307	88	197	768	28
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1602	1810	1900	1533	1810	1900	1594
Q Serve(g_s), s	0.8	4.4	7.9	4.9	8.5	10.6	7.5	30.5	2.6	8.5	11.9	0.8
Cycle Q Clear(g_c), s	0.8	4.4	7.9	4.9	8.5	10.6	7.5	30.5	2.6	8.5	11.9	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	27	240	204	128	346	292	187	1288	519	418	1814	761
V/C Ratio(X)	0.60	0.42	0.72	0.78	0.57	0.69	0.82	1.01	0.17	0.47	0.42	0.04
Avail Cap(c_a), veh/h	80	403	343	219	549	463	213	1288	519	418	1814	761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	44.1	36.3	37.8	41.1	33.6	34.4	39.5	29.8	11.0	29.9	15.4	12.5
Incr Delay (d2), s/veh	7.9	0.4	1.8	3.9	0.5	1.1	17.7	28.8	0.7	0.2	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.4	3.6	2.6	4.5	4.8	4.7	21.1	1.2	4.2	6.3	0.4
LnGrp Delay(d),s/veh	52.0	36.7	39.6	45.0	34.1	35.5	57.3	58.6	11.7	30.1	15.9	12.6
LnGrp LOS	D	D	D	D	C	D	E	F	B	C	B	B
Approach Vol, veh/h		264			498			1549			993	
Approach Delay, s/veh		39.2			36.9			55.8			18.6	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.3	36.0	10.9	16.9	13.8	48.5	5.8	21.9
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	9.5	* 31	10.9	19.1	10.6	29.4	4.0	26.0
Max Q Clear Time (g_c+I1), s	10.5	32.5	6.9	9.9	9.5	13.9	2.8	12.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	3.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	40.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

12: Heacock Street & Gentian Avenue

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	6	139	1177	5	94	951
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	6	146	1239	5	99	1001

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2438	1239	0	0	1239	0
Stage 1	1239	-	-	-	-	-
Stage 2	1199	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	35	216	-	-	569	-
Stage 1	276	-	-	-	-	-
Stage 2	288	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	29	216	-	-	569	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	276	-	-	-	-	-
Stage 2	238	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	55.4	0	1.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	29	216	569	-
HCM Lane V/C Ratio	-	-	0.218	0.677	0.174	-
HCM Control Delay (s)	-	-	160.8	50.8	12.7	-
HCM Lane LOS	-	-	F	F	B	-
HCM 95th %tile Q(veh)	-	-	0.7	4.2	0.6	-

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Intersection Delay, s/veh	61.7
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	374	520	0	469	233	0	298	871
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	398	553	0	499	248	0	317	927
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	60.1	67.1	59.6
HCM LOS	F	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	67%	0%	0%	0%	100%
Vol Right, %	33%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	702	374	520	298	871
LT Vol	0	374	0	298	0
Through Vol	469	0	0	0	871
RT Vol	233	0	520	0	0
Lane Flow Rate	747	398	553	317	927
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.908	1	0.729	1
Departure Headway (Hd)	7.21	8.218	7.019	8.275	7.774
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	515	442	520	441	473
Service Time	5.189	5.939	4.74	5.975	5.475
HCM Lane V/C Ratio	1.45	0.9	1.063	0.719	1.96
HCM Control Delay	67.1	51.8	66	30.2	69.6
HCM Lane LOS	F	F	F	D	F
HCM 95th-tile Q	13.7	9.9	13.8	5.8	13.2

14: Heacock Street & Krameria Avenue-North

7/14/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	128	173	685	285	405	863
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	139	188	745	310	440	938
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	251	224	855	727	432	1404
Arrive On Green	0.14	0.14	0.45	0.45	0.24	0.74
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	139	188	745	310	440	938
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	6.5	10.2	31.9	11.8	21.5	22.9
Cycle Q Clear(g_c), s	6.5	10.2	31.9	11.8	21.5	22.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	251	224	855	727	432	1404
V/C Ratio(X)	0.55	0.84	0.87	0.43	1.02	0.67
Avail Cap(c_a), veh/h	342	305	855	727	432	1404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	37.8	22.4	16.8	34.3	6.0
Incr Delay (d2), s/veh	0.7	10.8	11.8	1.8	47.9	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	5.2	19.4	5.6	16.4	12.7
LnGrp Delay(d),s/veh	36.9	48.5	34.2	18.7	82.1	8.6
LnGrp LOS	D	D	C	B	F	A
Approach Vol, veh/h	327		1055			1378
Approach Delay, s/veh	43.6		29.6			32.1
Approach LOS	D		C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	26.0	46.0				72.0		18.0
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	21.5	36.0				62.0		17.0
Max Q Clear Time (g_c+I1), s	23.5	33.9				24.9		12.2
Green Ext Time (p_c), s	0.0	1.5				9.3		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.5
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	11	6	964	51	28	962
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	7	1048	55	30	1046

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2183	552	0	0	1103	0
Stage 1	1076	-	-	-	-	-
Stage 2	1107	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	45	483	-	-	640	-
Stage 1	293	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	43	483	-	-	640	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	304	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	254	640	-
HCM Lane V/C Ratio	-	-	0.073	0.048	-
HCM Control Delay (s)	-	-	20.3	10.9	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

16: Heacock Street & Driveway 2

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	11	7	1008	48	30	943
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	12	8	1096	52	33	1025

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1700	574	0	0	1148	0
Stage 1	1122	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	85	467	-	-	616	-
Stage 1	277	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	80	467	-	-	616	-
Mov Cap-2 Maneuver	239	-	-	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	502	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.1	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	295	616	-
HCM Lane V/C Ratio	-	-	0.066	0.053	-
HCM Control Delay (s)	-	-	18.1	11.2	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	-

17: Heacock Street & Cardinal Avenue

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	10	1045	50	48	906
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	11	1136	54	52	985

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2225	568	0	0	1136	0
Stage 1	1136	-	-	-	-	-
Stage 2	1089	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	43	471	-	-	622	-
Stage 1	272	-	-	-	-	-
Stage 2	326	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	39	471	-	-	622	-
Mov Cap-2 Maneuver	192	-	-	-	-	-
Stage 1	272	-	-	-	-	-
Stage 2	299	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.9	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	192	471	622	-
HCM Lane V/C Ratio	-	-	0.057	0.023	0.084	-
HCM Control Delay (s)	-	-	24.9	12.8	11.3	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.3	-

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	31	84	4	44	341	592	1	469	13	444	420	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	34	91	2	48	371	589	1	510	14	483	457	56
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	130	110	351	452	385	2	534	454	465	1038	882
Arrive On Green	0.02	0.07	0.07	0.19	0.24	0.24	0.00	0.28	0.28	0.26	0.55	0.55
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	34	91	2	48	371	589	1	510	14	483	457	56
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	2.0	4.9	0.1	2.3	19.4	25.0	0.1	27.7	0.7	27.0	15.1	1.3
Cycle Q Clear(g_c), s	2.0	4.9	0.1	2.3	19.4	25.0	0.1	27.7	0.7	27.0	15.1	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	43	130	110	351	452	385	2	534	454	465	1038	882
V/C Ratio(X)	0.79	0.70	0.02	0.14	0.82	1.53	0.50	0.96	0.03	1.04	0.44	0.06
Avail Cap(c_a), veh/h	86	456	388	351	452	385	69	534	454	465	1038	882
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	47.9	36.7	35.1	37.9	40.0	52.4	37.1	27.4	39.0	14.2	6.1
Incr Delay (d2), s/veh	11.0	2.6	0.0	0.0	1.1	240.5	58.8	29.3	0.1	52.1	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.7	0.0	1.1	10.3	36.8	0.1	18.8	0.3	20.2	8.3	0.6
LnGrp Delay(d),s/veh	61.9	50.4	36.7	35.1	38.9	280.5	111.2	66.4	27.5	91.1	15.6	6.2
LnGrp LOS	E	D	D	D	D	F	F	E	C	F	B	A
Approach Vol, veh/h		127			1008			525			996	
Approach Delay, s/veh		53.3			179.9			65.5			51.7	
Approach LOS		D			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.5	35.0	24.8	12.7	4.6	62.9	7.0	30.5
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	25.5	* 30	4.8	25.2	4.0	51.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	29.0	29.7	4.3	6.9	2.1	17.1	4.0	27.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	2.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	103.1
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 TWSC
19: Heacock Street & Nandina Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	68	415	2	153	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	72	441	2	163	335

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1104	443	0	0	444	0
Stage 1	443	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	214	619	-	-	1127	-
Stage 1	651	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	183	619	-	-	1127	-
Mov Cap-2 Maneuver	380	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	443	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	2.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	380	619	1127	-
HCM Lane V/C Ratio	-	-	0.028	0.117	0.144	-
HCM Control Delay (s)	-	-	14.7	11.6	8.7	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.4	0.5	-

20: Webster Street & Harley Knox Boulevard

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1019	5	11	1487	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1108	5	12	1616	5	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1113	0	2750	1110
Stage 1	-	-	-	-	1110	-
Stage 2	-	-	-	-	1640	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	*355	-	*22	*237
Stage 1	-	-	-	-	*224	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	*355	-	*15	*237
Mov Cap-2 Maneuver	-	-	-	-	*15	-
Stage 1	-	-	-	-	*224	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	21.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	237	-	-	* 355	-
HCM Lane V/C Ratio	0.073	-	-	0.034	-
HCM Control Delay (s)	21.4	-	-	15.5	0
HCM Lane LOS	C	-	-	C	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 TWSC
Moreno Valley Logistics Center TIA (JN 09301)
21: Cosmos Street & Krameria Avenue-North/Driveway
7/14/2015

Intersection	
Int Delay, s/veh	13.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	97	45	248	0	10	0	158	6	7	3	1	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	55	302	0	12	0	193	7	9	4	1	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	442	436	35	614	470	7	70	0	0	7	0	0
Stage 1	43	43	-	393	393	-	-	-	-	-	-	-
Stage 2	399	393	-	221	77	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	529	517	1044	407	495	1081	1544	-	-	1627	-	-
Stage 1	976	863	-	636	609	-	-	-	-	-	-	-
Stage 2	631	609	-	786	835	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	469	451	1044	239	432	1081	1544	-	-	1627	-	-
Mov Cap-2 Maneuver	506	500	-	306	493	-	-	-	-	-	-	-
Stage 1	854	861	-	557	533	-	-	-	-	-	-	-
Stage 2	539	533	-	521	833	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.7	12.5	7.1	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	751	493	1627	-	-
HCM Lane V/C Ratio	0.125	-	-	0.633	0.025	0.002	-	-
HCM Control Delay (s)	7.7	-	-	17.7	12.5	7.2	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	4.6	0.1	0	-	-

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	3	5	0	0	22	26	156	0	0	12	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	5	0	0	24	28	170	0	0	13	5
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	8.7	9	8.4
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	38%	100%	0%	100%	0%
Vol Thru, %	71%	62%	0%	14%	0%	81%
Vol Right, %	29%	0%	0%	86%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	8	22	182	182	67
LT Vol	0	3	22	0	182	0
Through Vol	12	5	0	26	0	54
RT Vol	5	0	0	156	0	13
Lane Flow Rate	18	9	24	198	198	73
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.027	0.014	0.038	0.257	0.306	0.1
Departure Headway (Hd)	5.22	5.604	5.786	4.68	5.571	4.933
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	684	638	620	768	645	725
Service Time	3.268	3.648	3.513	2.407	3.309	2.67
HCM Lane V/C Ratio	0.026	0.014	0.039	0.258	0.307	0.101
HCM Control Delay	8.4	8.7	8.7	9	10.8	8.2
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.1	0	0.1	1	1.3	0.3

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	182	54	13
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	198	59	14
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.1
HCM LOS	B

Lane

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	168	25	13	199	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	183	27	14	216	7	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	210	0	441	196
Stage 1	-	-	-	-	196	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1373	-	577	850
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	800	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1373	-	571	850
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	740	-	-	1373	-
HCM Lane V/C Ratio	0.013	-	-	0.01	-
HCM Control Delay (s)	9.9	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	167	3	19	211	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	182	3	21	229	1	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	185	0	454	183
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	271	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1402	-	568	865
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1402	-	559	865
Mov Cap-2 Maneuver	-	-	-	-	683	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	821	-	-	1402	-
HCM Lane V/C Ratio	0.007	-	-	0.015	-
HCM Control Delay (s)	9.4	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	146	25	16	224	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	159	27	17	243	7	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	186	0	450	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	278	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1401	-	571	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	774	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1401	-	564	877
Mov Cap-2 Maneuver	-	-	-	-	685	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	765	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	739	-	-	1401	-
HCM Lane V/C Ratio	0.013	-	-	0.012	-
HCM Control Delay (s)	9.9	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Intersection Delay, s/veh	69.7
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	21	42	168	0	92	198	324	0	355	473	140
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	46	183	0	100	215	352	0	386	514	152
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	46.1	62.3	78.5
HCM LOS	E	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	20%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	80%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	355	473	140	21	210	92	198	324	239	357	93
LT Vol	355	0	0	21	0	92	0	0	239	0	0
Through Vol	0	473	0	0	42	0	198	0	0	357	0
RT Vol	0	0	140	0	168	0	0	324	0	0	93
Lane Flow Rate	386	514	152	23	228	100	215	352	260	388	101
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	1	1	0.465	0.085	0.786	0.353	0.73	1	0.898	1	0.316
Departure Headway (Hd)	12.193	11.698	11.007	13.442	12.392	12.7	12.203	11.507	12.556	12.059	11.363
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	301	314	329	267	292	285	297	317	291	303	318
Service Time	9.904	9.409	8.718	11.195	10.144	10.407	9.91	9.214	10.256	9.759	9.063
HCM Lane V/C Ratio	1.282	1.637	0.462	0.086	0.781	0.351	0.724	1.11	0.893	1.281	0.318
HCM Control Delay	89	87	22.9	17.4	49	22.2	41.9	86.2	67.1	88.4	19.2
HCM Lane LOS	F	F	C	C	E	C	E	F	F	F	C
HCM 95th-tile Q	10.5	10.7	2.4	0.3	6.1	1.5	5.3	10.8	8.2	10.6	1.3

27: Indian Street & Driveway 6

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	17	77	968	617	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	18	84	1052	671	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1364	335	671	0	-	0
Stage 1	671	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	141	667	929	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	128	667	929	-	-	-
Mov Cap-2 Maneuver	322	-	-	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	421	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	929	-	667	-	-
HCM Lane V/C Ratio	0.09	-	0.028	-	-
HCM Control Delay (s)	9.3	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	-	-

28: Indian Street & San Michele Road

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	57	158	304	281	696	341	1026	908	295	127	432	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	172	320	305	757	369	1115	987	296	138	470	55
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	369	681	212	1016	415	823	870	739	102	924	107
Arrive On Green	0.04	0.19	0.19	0.12	0.27	0.27	0.23	0.46	0.46	0.06	0.28	0.28
Sat Flow, veh/h	1810	1900	1615	1810	3800	1552	3619	1900	1615	1810	3320	386
Grp Volume(v), veh/h	62	172	320	305	757	369	1115	987	296	138	268	257
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1552	1810	1900	1615	1810	1900	1806
Q Serve(g_s), s	3.9	9.2	4.4	13.5	21.0	26.3	26.2	52.7	14.0	6.5	13.6	13.8
Cycle Q Clear(g_c), s	3.9	9.2	4.4	13.5	21.0	26.3	26.2	52.7	14.0	6.5	13.6	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	80	369	681	212	1016	415	823	870	739	102	529	503
V/C Ratio(X)	0.77	0.47	0.47	1.44	0.74	0.89	1.35	1.13	0.40	1.35	0.51	0.51
Avail Cap(c_a), veh/h	99	430	732	212	1097	448	823	870	739	102	529	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.28	0.28	0.28	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	41.0	9.4	50.8	38.5	40.5	44.4	31.2	20.7	54.3	34.9	34.9
Incr Delay (d2), s/veh	6.3	0.1	0.1	220.9	2.2	17.4	160.3	62.1	0.1	208.4	3.4	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.8	4.0	19.8	11.3	13.2	31.4	42.5	6.2	9.2	7.6	7.4
LnGrp Delay(d),s/veh	60.7	41.1	9.4	271.7	40.7	57.9	204.7	93.2	20.8	262.7	38.3	38.6
LnGrp LOS	E	D	A	F	D	E	F	F	C	F	D	D
Approach Vol, veh/h		554			1431			2398			663	
Approach Delay, s/veh		25.0			94.4			136.2			85.1	
Approach LOS		C			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	58.2	18.0	27.8	31.7	37.5	9.6	36.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	6.5	49.0	13.5	26.0	23.5	* 32	6.3	33.2
Max Q Clear Time (g_c+I1), s	8.5	54.7	15.5	11.2	28.2	15.8	5.9	28.3
Green Ext Time (p_c), s	0.0	0.0	0.0	4.6	0.0	1.5	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	105.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	26	40	395	188	85	108	465	1910	353	107	651	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	43	377	204	92	115	505	2076	382	116	708	51
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	380	323	143	492	418	501	1566	278	98	972	70
Arrive On Green	0.02	0.20	0.20	0.08	0.26	0.26	0.28	0.50	0.50	0.05	0.28	0.28
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3132	556	1810	3503	252
Grp Volume(v), veh/h	28	43	377	204	92	115	505	1229	1229	116	384	375
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1788	1810	1900	1855
Q Serve(g_s), s	1.8	2.2	24.0	9.5	4.5	6.8	33.2	60.0	60.0	6.5	21.9	22.0
Cycle Q Clear(g_c), s	1.8	2.2	24.0	9.5	4.5	6.8	33.2	60.0	60.0	6.5	21.9	22.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31	1.00		0.14
Lane Grp Cap(c), veh/h	37	380	323	143	492	418	501	950	894	98	527	515
V/C Ratio(X)	0.77	0.11	1.17	1.42	0.19	0.27	1.01	1.29	1.37	1.18	0.73	0.73
Avail Cap(c_a), veh/h	87	380	323	143	492	418	501	950	894	98	527	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70	0.70	0.70
Uniform Delay (d), s/veh	58.5	39.3	48.0	55.3	34.6	35.5	43.4	30.0	30.0	56.8	39.2	39.3
Incr Delay (d2), s/veh	11.6	0.0	103.5	226.4	0.1	0.1	42.4	140.0	175.7	133.6	6.1	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.2	20.0	13.7	2.4	3.0	22.4	68.1	72.9	6.9	12.4	12.1
LnGrp Delay(d),s/veh	70.1	39.3	151.5	281.6	34.7	35.6	85.8	170.0	205.7	190.3	45.3	45.5
LnGrp LOS	E	D	F	F	C	D	F	F	F	F	D	D
Approach Vol, veh/h		448			411			2963			875	
Approach Delay, s/veh		135.7			157.5			170.5			64.6	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	65.5	14.0	29.5	37.7	38.8	6.9	36.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	6.5	60.0	9.5	24.0	33.2	33.3	5.8	27.7
Max Q Clear Time (g_c+I1), s	8.5	62.0	11.5	26.0	35.2	24.0	3.8	8.8
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	8.2	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	146.3
HCM 2010 LOS	F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
30: Indian Street & Harley Knox Boulevard 7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	1105	594	254	108	1126	438	156	1137	114	229	641	505
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1176	632	253	115	1198	464	166	1210	117	244	682	470
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1377	1917	1629	141	835	312	126	1107	470	142	603	414
Arrive On Green	0.76	1.00	1.00	0.08	0.32	0.32	0.03	0.29	0.29	0.04	0.29	0.29
Sat Flow, veh/h	1810	1900	1615	1810	2630	982	3619	3800	1615	3619	2102	1443
Grp Volume(v), veh/h	1176	632	253	115	853	809	166	1210	117	244	616	536
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1712	1810	1900	1615	1810	1900	1645
Q Serve(g_s), s	51.0	0.0	0.0	7.2	36.5	36.5	4.0	33.5	6.4	4.5	33.0	33.0
Cycle Q Clear(g_c), s	51.0	0.0	0.0	7.2	36.5	36.5	4.0	33.5	6.4	4.5	33.0	33.0
Prop In Lane	1.00		1.00	1.00		0.57	1.00		1.00	1.00		0.88
Lane Grp Cap(c), veh/h	1377	1917	1629	141	603	543	126	1107	470	142	545	472
V/C Ratio(X)	0.85	0.33	0.16	0.81	1.41	1.49	1.32	1.09	0.25	1.72	1.13	1.14
Avail Cap(c_a), veh/h	1377	1917	1629	159	603	543	126	1107	470	142	545	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.4	0.0	0.0	52.2	39.3	39.3	55.5	40.8	31.1	55.3	41.0	41.0
Incr Delay (d2), s/veh	5.2	0.5	0.2	21.8	196.3	229.6	188.5	56.1	1.3	353.2	79.6	84.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.8	0.2	0.1	4.5	52.0	51.9	5.3	26.2	3.0	9.2	29.3	26.0
LnGrp Delay(d),s/veh	14.6	0.5	0.2	74.0	235.6	268.8	244.0	96.9	32.4	408.5	120.6	125.0
LnGrp LOS	B	A	A	E	F	F	F	F	C	F	F	F
Approach Vol, veh/h		2061			1777			1493			1396	
Approach Delay, s/veh		8.5			240.3			108.2			172.6	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	123.5	9.5	38.5	95.0	42.0	9.0	39.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	10.1	47.9	4.0	* 33	21.5	* 37	4.5	32.5
Max Q Clear Time (g_c+I1), s	9.2	2.0	6.0	35.0	53.0	38.5	6.5	35.5
Green Ext Time (p_c), s	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	125.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑	↱
Volume (veh/h)	267	678	297	269	1148	143	394	1484	295	228	1178	319
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	290	737	307	292	1248	146	428	1613	309	248	1280	337
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	702	292	985	2417	282	279	1532	291	173	998	418
Arrive On Green	0.10	0.28	0.28	0.54	0.72	0.72	0.15	0.33	0.33	0.10	0.26	0.26
Sat Flow, veh/h	1810	2544	1059	1810	3336	389	1810	4653	885	1810	3800	1591
Grp Volume(v), veh/h	290	550	494	292	708	686	428	1315	607	248	1280	337
Grp Sat Flow(s),veh/h/ln	1810	1900	1703	1810	1900	1825	1810	1900	1738	1810	1900	1591
Q Serve(g_s), s	12.5	33.1	33.1	10.5	19.7	19.9	18.5	39.5	39.5	11.5	31.5	31.3
Cycle Q Clear(g_c), s	12.5	33.1	33.1	10.5	19.7	19.9	18.5	39.5	39.5	11.5	31.5	31.3
Prop In Lane	1.00		0.62	1.00		0.21	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	188	524	470	985	1377	1322	279	1251	572	173	998	418
V/C Ratio(X)	1.54	1.05	1.05	0.30	0.51	0.52	1.53	1.05	1.06	1.43	1.28	0.81
Avail Cap(c_a), veh/h	188	524	470	985	1377	1322	279	1251	572	173	998	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	43.5	43.5	14.8	7.3	7.3	50.8	40.3	40.3	54.3	44.3	71.7
Incr Delay (d2), s/veh	267.1	53.1	55.5	0.1	1.4	1.5	257.7	40.1	54.7	223.4	135.2	15.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.2	25.1	22.8	5.3	10.8	10.4	29.2	27.6	27.6	16.5	35.2	15.6
LnGrp Delay(d),s/veh	320.8	96.5	98.9	14.9	8.6	8.7	308.4	80.4	95.0	277.7	179.4	87.0
LnGrp LOS	F	F	F	B	A	A	F	F	F	F	F	F
Approach Vol, veh/h		1334			1686			2350			1865	
Approach Delay, s/veh		146.2			9.8			125.7			175.8	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	71.8	38.6	24.0	37.0	17.0	93.4	16.0	45.0
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	16.9	* 33	18.5	* 32	12.5	37.5	11.5	38.5
Max Q Clear Time (g_c+I1), s	12.5	35.1	20.5	33.5	14.5	21.9	13.5	41.5
Green Ext Time (p_c), s	2.6	0.0	0.0	0.0	0.0	6.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	115.4
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	86	277	222	360	415	242	153	1526	313	139	1531	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	93	301	225	391	451	164	166	1659	315	151	1664	84
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	328	369	452	475	397	98	1360	256	98	1571	79
Arrive On Green	0.23	0.23	0.23	0.25	0.25	0.25	0.05	0.29	0.29	0.05	0.29	0.29
Sat Flow, veh/h	443	1435	1613	1810	1900	1587	1810	4653	875	1810	5377	271
Grp Volume(v), veh/h	394	0	225	391	451	164	166	1352	622	151	1176	572
Grp Sat Flow(s),veh/h/ln	1878	0	1613	1810	1900	1587	1810	1900	1728	1810	1900	1848
Q Serve(g_s), s	24.6	0.0	15.0	24.8	28.0	10.4	6.5	35.1	35.1	6.5	35.1	35.1
Cycle Q Clear(g_c), s	24.6	0.0	15.0	24.8	28.0	10.4	6.5	35.1	35.1	6.5	35.1	35.1
Prop In Lane	0.24		1.00	1.00		1.00	1.00		0.51	1.00		0.15
Lane Grp Cap(c), veh/h	429	0	369	452	475	397	98	1110	505	98	1110	540
V/C Ratio(X)	0.92	0.00	0.61	0.86	0.95	0.41	1.69	1.22	1.23	1.54	1.06	1.06
Avail Cap(c_a), veh/h	469	0	403	452	475	397	98	1110	505	98	1110	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	41.5	43.1	44.3	37.6	56.8	42.5	42.5	56.8	42.5	42.5
Incr Delay (d2), s/veh	21.0	0.0	1.4	15.2	28.6	0.3	351.9	106.3	120.6	287.5	44.0	55.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	0.0	6.8	14.3	18.4	4.6	12.8	34.7	33.6	11.1	25.1	26.2
LnGrp Delay(d),s/veh	66.2	0.0	42.9	58.3	72.9	37.9	408.6	148.8	163.0	344.3	86.4	98.0
LnGrp LOS	E		D	E	E	D	F	F	F	F	F	F
Approach Vol, veh/h		619			1006			2140			1899	
Approach Delay, s/veh		57.7			61.5			173.1			110.4	
Approach LOS		E			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	40.6		32.9	11.0	40.6		35.5
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.5	32.5		30.0	6.5	32.5		30.0
Max Q Clear Time (g_c+I1), s	8.5	37.1		26.6	8.5	37.1		30.0
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	119.6
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Volume (veh/h)	0	2100	802	1355	1751	0	0	0	1013	0	0	425
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0	0	0	1900	0	0	1900
Adj Flow Rate, veh/h	0	2211	836	1426	1843	0	0	0	0	0	0	325
Adj No. of Lanes	0	2	1	1	2	0	0	0	1	0	0	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	2011	855	709	3626	0	0	0	0	0	0	0
Arrive On Green	0.00	0.53	0.53	0.39	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	1810	3800	0		0			0	
Grp Volume(v), veh/h	0	2211	836	1426	1843	0		0.0			0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	63.5	60.6	47.0	5.2	0.0						
Cycle Q Clear(g_c), s	0.0	63.5	60.6	47.0	5.2	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2011	855	709	3626	0						
V/C Ratio(X)	0.00	1.10	0.98	2.01	0.51	0.00						
Avail Cap(c_a), veh/h	0	2011	855	709	3626	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	28.3	27.6	36.5	0.2	0.0						
Incr Delay (d2), s/veh	0.0	53.1	25.9	460.4	0.5	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	47.8	46.9	114.1	2.6	0.0						
LnGrp Delay(d),s/veh	0.0	81.4	53.5	496.9	0.8	0.0						
LnGrp LOS		F	D	F	A							
Approach Vol, veh/h		3047			3269							
Approach Delay, s/veh		73.7			217.2							
Approach LOS		E			F							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	51.0	69.0				120.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	47.0	45.5				96.5		
Max Q Clear Time (g_c+I1), s	49.0	65.5				7.2		
Green Ext Time (p_c), s	0.0	0.0				70.7		

Intersection Summary	
HCM 2010 Ctrl Delay	148.0
HCM 2010 LOS	F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Volume (veh/h)	0	891	194	753	953	0	0	0	0	829	2	748
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	948	206	801	1014	0				882	2	719
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	855	363	550	2153	0				632	1	565
Arrive On Green	0.00	0.22	0.22	0.40	0.75	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1806	4	1615
Grp Volume(v), veh/h	0	948	206	801	1014	0				884	0	719
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	27.0	13.6	36.5	12.2	0.0				42.0	0.0	42.0
Cycle Q Clear(g_c), s	0.0	27.0	13.6	36.5	12.2	0.0				42.0	0.0	42.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	855	363	550	2153	0				633	0	565
V/C Ratio(X)	0.00	1.11	0.57	1.46	0.47	0.00				1.40	0.00	1.27
Avail Cap(c_a), veh/h	0	855	363	550	2153	0				633	0	565
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.55	0.55	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	46.5	41.3	35.7	7.9	0.0				39.0	0.0	39.0
Incr Delay (d2), s/veh	0.0	65.1	6.3	210.5	0.4	0.0				187.6	0.0	135.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	21.9	6.7	50.3	6.3	0.0				53.9	0.0	40.0
LnGrp Delay(d),s/veh	0.0	111.6	47.6	246.3	8.3	0.0				226.6	0.0	174.8
LnGrp LOS		F	D	F	A					F		F
Approach Vol, veh/h		1154			1815						1603	
Approach Delay, s/veh		100.2			113.3						203.4	
Approach LOS		F			F						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	41.0	32.0		47.0		73.0		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	36.5	27.0		42.0		68.0		
Max Q Clear Time (g_c+I1), s	38.5	29.0		44.0		14.2		
Green Ext Time (p_c), s	0.0	0.0		0.0		12.6		

Intersection Summary	
HCM 2010 Ctrl Delay	141.6
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Volume (veh/h)	512	1756	846	0	3310	155	260	693	31	318	0	995
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	528	1810	868	0	3412	151	268	714	32	328	0	1011
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	1380	603	0	2001	88	111	528	24	111	0	472
Arrive On Green	0.55	0.55	0.55	0.00	0.55	0.55	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	45	2491	1089	0	3613	159	566	1805	81	726	0	1615
Grp Volume(v), veh/h	528	1339	1339	0	1782	1782	268	0	746	328	0	1011
Grp Sat Flow(s),veh/h/ln	45	1900	1681	0	1900	1872	566	0	1886	726	0	1615
Q Serve(g_s), s	0.0	36.0	36.0	0.0	36.0	36.0	0.0	0.0	19.0	0.0	0.0	19.0
Cycle Q Clear(g_c), s	36.0	36.0	36.0	0.0	36.0	36.0	19.0	0.0	19.0	19.0	0.0	19.0
Prop In Lane	1.00		0.65	0.00		0.08	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	111	1052	931	0	1052	1037	111	0	551	111	0	472
V/C Ratio(X)	4.77	1.27	1.44	0.00	1.69	1.72	2.42	0.00	1.35	2.96	0.00	2.14
Avail Cap(c_a), veh/h	111	1052	931	0	1052	1037	111	0	551	111	0	472
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	14.5	14.5	0.0	14.5	14.5	32.5	0.0	23.0	32.5	0.0	23.0
Incr Delay (d2), s/veh	1715.3	130.1	203.5	0.0	316.0	327.3	665.3	0.0	170.7	906.4	0.0	520.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	54.7	56.5	68.9	0.0	110.8	112.4	22.4	0.0	35.9	29.9	0.0	76.7
LnGrp Delay(d),s/veh	1747.8	144.6	218.0	0.0	330.5	341.8	697.8	0.0	193.7	938.9	0.0	543.8
LnGrp LOS	F	F	F		F	F	F		F	F		F
Approach Vol, veh/h		3206			3563			1014			1339	
Approach Delay, s/veh		439.3			336.1			326.9			640.6	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.0		24.0		41.0		24.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.0		19.0		36.0		19.0
Max Q Clear Time (g_c+I1), s		38.0		21.0		38.0		21.0
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			416.1
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰↑	↱			
Volume (veh/h)	679	1040	0	0	1339	1693	367	3	247	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	738	1130	0	0	1455	1816	399	3	163			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	400	2850	0	0	1900	807	299	2	269			
Arrive On Green	0.44	1.00	0.00	0.00	0.50	0.50	0.17	0.17	0.17			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1797	14	1615			
Grp Volume(v), veh/h	738	1130	0	0	1455	1816	402	0	163			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1810	0	1615			
Q Serve(g_s), s	26.5	0.0	0.0	0.0	37.2	60.0	20.0	0.0	11.2			
Cycle Q Clear(g_c), s	26.5	0.0	0.0	0.0	37.2	60.0	20.0	0.0	11.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	400	2850	0	0	1900	807	302	0	269			
V/C Ratio(X)	1.85	0.40	0.00	0.00	0.77	2.25	1.33	0.00	0.61			
Avail Cap(c_a), veh/h	400	2850	0	0	1900	807	302	0	269			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	33.5	0.0	0.0	0.0	24.3	30.0	50.0	0.0	46.3			
Incr Delay (d2), s/veh	382.0	0.0	0.0	0.0	3.0	566.6	170.6	0.0	9.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	55.5	0.0	0.0	0.0	20.2	153.7	24.3	0.0	5.8			
LnGrp Delay(d),s/veh	415.5	0.0	0.0	0.0	27.3	596.6	220.6	0.0	56.1			
LnGrp LOS	F	A			C	F	F		E			
Approach Vol, veh/h		1868			3271			565				
Approach Delay, s/veh		164.2			343.4			173.1				
Approach LOS		F			F			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		95.0			30.0	65.0		25.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		90.0			26.5	60.0		20.0
Max Q Clear Time (g_c+I1), s		2.0			28.5	62.0		22.0
Green Ext Time (p_c), s		66.6			0.0	0.0		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			267.8
HCM 2010 LOS			F

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

5: March AFB/Elsworth Street & Cactus Avenue

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✣		↰↰	↰	↱
Volume (veh/h)	226	2602	36	33	2366	217	482	125	200	201	27	252
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	233	2682	0	34	2439	193	389	280	152	227	0	153
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	2551	723	43	2284	634	445	285	155	390	0	288
Arrive On Green	0.07	0.45	0.00	0.02	0.40	0.40	0.25	0.25	0.25	0.11	0.00	0.11
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1159	629	3619	0	1615
Grp Volume(v), veh/h	233	2682	0	34	2439	193	389	0	432	227	0	153
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1788	1810	0	1615
Q Serve(g_s), s	8.5	53.7	0.0	2.2	48.1	10.0	24.8	0.0	28.8	7.2	0.0	10.3
Cycle Q Clear(g_c), s	8.5	53.7	0.0	2.2	48.1	10.0	24.8	0.0	28.8	7.2	0.0	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		1.00
Lane Grp Cap(c), veh/h	128	2551	723	43	2284	634	445	0	440	390	0	288
V/C Ratio(X)	1.82	1.05	0.00	0.78	1.07	0.30	0.87	0.00	0.98	0.58	0.00	0.53
Avail Cap(c_a), veh/h	128	2551	723	92	2284	634	445	0	440	890	0	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.8	33.1	0.0	58.3	36.0	24.5	43.5	0.0	45.0	51.0	0.0	44.7
Incr Delay (d2), s/veh	397.0	33.2	0.0	10.8	40.0	0.1	20.6	0.0	38.9	0.5	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	35.9	0.0	1.3	33.6	4.4	15.0	0.0	19.0	3.6	0.0	4.7
LnGrp Delay(d),s/veh	452.7	66.3	0.0	69.1	76.0	24.6	64.1	0.0	83.9	51.5	0.0	45.3
LnGrp LOS	F	F		E	F	C	E		F	D		D
Approach Vol, veh/h		2915			2666			821			380	
Approach Delay, s/veh		97.2			72.2			74.5			49.0	
Approach LOS		F			E			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	59.2		18.4	13.0	53.6		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.1	33.9		29.5	8.5	31.5		29.5
Max Q Clear Time (g_c+I1), s	4.2	55.7		12.3	10.5	50.1		30.8
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	81.9
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

6: Cactus Avenue & Frederick Street

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Volume (veh/h)	130	2835	2400	278	540	169
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	134	2923	2474	279	557	115
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	160	2597	3176	900	814	507
Arrive On Green	0.09	0.68	0.56	0.56	0.22	0.22
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	134	2923	2474	279	557	115
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	8.7	82.0	40.8	11.1	16.9	6.3
Cycle Q Clear(g_c), s	8.7	82.0	40.8	11.1	16.9	6.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	160	2597	3176	900	814	507
V/C Ratio(X)	0.84	1.13	0.78	0.31	0.68	0.23
Avail Cap(c_a), veh/h	176	2597	3176	900	814	507
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	53.8	19.0	20.8	14.2	42.6	30.4
Incr Delay (d2), s/veh	24.0	62.2	0.2	0.1	4.6	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	64.6	21.4	5.0	9.0	6.6
LnGrp Delay(d),s/veh	77.8	81.2	21.0	14.3	47.2	31.5
LnGrp LOS	E	F	C	B	D	C
Approach Vol, veh/h		3057	2753		672	
Approach Delay, s/veh		81.1	20.3		44.5	
Approach LOS		F	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		87.5		32.5	15.1	72.4		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		82.0		27.0	11.7	65.8		
Max Q Clear Time (g_c+I1), s		84.0		18.9	10.7	42.8		
Green Ext Time (p_c), s		0.0		0.9	0.0	22.6		

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D

7: Harley Knox Blvd. & Western Way

7/14/2015

Intersection	
Int Delay, s/veh	14.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	41	1246	2956	20	17	77
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	45	1354	3213	22	18	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	3213	0	-	0	3979	1607
Stage 1	-	-	-	-	3213	-
Stage 2	-	-	-	-	766	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	96	-	-	-	*0	96
Stage 1	-	-	-	-	*19	-
Stage 2	-	-	-	-	*538	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	96	-	-	-	*0	96
Mov Cap-2 Maneuver	-	-	-	-	*0	-
Stage 1	-	-	-	-	*19	-
Stage 2	-	-	-	-	*538	-

Approach	EB	WB	SB
HCM Control Delay, s	34.7	0	191.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	96	-	-	-	96
HCM Lane V/C Ratio	0.464	-	-	-	1.064
HCM Control Delay (s)	71.5	33.5	-	-	191.8
HCM Lane LOS	F	D	-	-	F
HCM 95th %tile Q(veh)	2	-	-	-	6.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
8: Graham Street & Cactus Avenue

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	240	3000	873	25	1782	118	352	138	27	258	264	356
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	261	3261	0	27	1937	124	383	150	24	280	287	309
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	260	2980	1267	36	3501	223	205	753	118	134	991	648
Arrive On Green	0.14	0.78	0.00	0.02	0.66	0.66	0.06	0.23	0.23	0.07	0.26	0.26
Sat Flow, veh/h	1810	3800	1615	1810	5297	338	3619	3208	504	1810	3800	1594
Grp Volume(v), veh/h	261	3261	0	27	1387	674	383	88	86	280	287	309
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1811	1810	1900	1594
Q Serve(g_s), s	16.5	90.2	0.0	1.7	22.4	22.6	6.5	4.3	4.4	8.5	6.9	16.5
Cycle Q Clear(g_c), s	16.5	90.2	0.0	1.7	22.4	22.6	6.5	4.3	4.4	8.5	6.9	16.5
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	260	2980	1267	36	2511	1213	205	446	425	134	991	648
V/C Ratio(X)	1.01	1.09	0.00	0.74	0.55	0.56	1.87	0.20	0.20	2.09	0.29	0.48
Avail Cap(c_a), veh/h	260	2980	1267	63	2511	1213	205	446	425	134	991	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	12.4	0.0	56.0	10.4	10.5	54.3	35.3	35.4	53.3	34.0	25.3
Incr Delay (d2), s/veh	18.0	43.0	0.0	1.0	0.1	0.2	410.6	1.0	1.1	516.6	0.7	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	63.8	0.0	0.9	11.6	11.5	14.9	2.4	2.3	23.4	3.7	7.7
LnGrp Delay(d),s/veh	67.3	55.4	0.0	57.1	10.5	10.6	464.9	36.3	36.4	569.9	34.7	27.8
LnGrp LOS	F	F		E	B	B	F	D	D	F	C	C
Approach Vol, veh/h		3522			2088			557			876	
Approach Delay, s/veh		56.3			11.1			331.0			203.3	
Approach LOS		E			B			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	96.7	11.0	35.5	21.0	82.5	14.0	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	55.5	6.5	29.0	16.5	43.0	8.5	* 27
Max Q Clear Time (g_c+I1), s	3.7	92.2	8.5	18.5	18.5	24.6	10.5	6.4
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	18.1	0.0	0.5

Intersection Summary	
HCM 2010 Ctrl Delay	82.9
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↱			✥			↰	↱
Volume (veh/h)	26	1322	71	42	2478	6	134	5	67	18	5	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	1437	77	46	2693	7	146	5	73	20	5	116
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	687	584	63	704	2	408	31	168	513	118	590
Arrive On Green	0.02	0.36	0.36	0.03	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1810	1900	1615	1810	1894	5	866	84	459	1133	323	1615
Grp Volume(v), veh/h	28	1437	77	46	0	2700	224	0	0	25	0	116
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1410	0	0	1456	0	1615
Q Serve(g_s), s	1.0	23.5	2.1	1.6	0.0	24.2	6.5	0.0	0.0	0.0	0.0	3.2
Cycle Q Clear(g_c), s	1.0	23.5	2.1	1.6	0.0	24.2	7.5	0.0	0.0	0.6	0.0	3.2
Prop In Lane	1.00		1.00	1.00		0.00	0.65		0.33	0.80		1.00
Lane Grp Cap(c), veh/h	44	687	584	63	0	706	606	0	0	632	0	590
V/C Ratio(X)	0.63	2.09	0.13	0.73	0.00	3.82	0.37	0.00	0.00	0.04	0.00	0.20
Avail Cap(c_a), veh/h	111	687	584	111	0	706	606	0	0	632	0	590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	20.8	13.9	31.1	0.0	20.4	15.4	0.0	0.0	13.3	0.0	14.1
Incr Delay (d2), s/veh	5.5	496.3	0.0	6.0	0.0	1274.0	1.7	0.0	0.0	0.1	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	106.9	0.9	0.9	0.0	262.5	3.3	0.0	0.0	0.3	0.0	1.5
LnGrp Delay(d),s/veh	36.9	517.1	13.9	37.1	0.0	1294.4	17.1	0.0	0.0	13.4	0.0	14.9
LnGrp LOS	D	F	B	D		F	B			B		B
Approach Vol, veh/h		1542			2746			224			141	
Approach Delay, s/veh		483.2			1273.3			17.1			14.6	
Approach LOS		F			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.2	6.8	29.0		29.2	6.1	29.7
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		9.5	3.6	25.5		5.2	3.0	26.2
Green Ext Time (p_c), s		1.1	0.0	0.0		1.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	912.9
HCM 2010 LOS	F

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	152	2027	1166	30	932	143	802	623	68	178	752	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	2156	1225	32	991	146	853	663	68	189	800	143
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	176	1725	733	41	1228	181	558	798	82	222	668	119
Arrive On Green	0.10	0.45	0.45	0.02	0.38	0.38	0.15	0.24	0.24	0.12	0.21	0.21
Sat Flow, veh/h	1810	3800	1615	1810	3239	477	3619	3385	347	1810	3140	561
Grp Volume(v), veh/h	162	2156	1225	32	581	556	853	372	359	189	484	459
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1815	1810	1900	1831	1810	1900	1801
Q Serve(g_s), s	10.6	54.5	54.5	2.1	32.8	32.9	18.5	22.3	22.4	12.3	25.5	25.5
Cycle Q Clear(g_c), s	10.6	54.5	54.5	2.1	32.8	32.9	18.5	22.3	22.4	12.3	25.5	25.5
Prop In Lane	1.00		1.00	1.00		0.26	1.00		0.19	1.00		0.31
Lane Grp Cap(c), veh/h	176	1725	733	41	720	688	558	448	432	222	404	383
V/C Ratio(X)	0.92	1.25	1.67	0.79	0.81	0.81	1.53	0.83	0.83	0.85	1.20	1.20
Avail Cap(c_a), veh/h	176	1725	733	60	720	688	558	448	432	237	404	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.42	0.42	0.42	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.7	32.8	32.8	58.4	33.3	33.3	50.8	43.6	43.6	51.6	47.2	47.2
Incr Delay (d2), s/veh	7.3	112.8	302.3	18.7	9.4	9.9	241.9	7.6	7.9	21.9	110.5	111.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	55.5	85.7	1.3	19.2	18.4	28.0	12.6	12.2	7.5	25.8	24.5
LnGrp Delay(d),s/veh	61.0	145.5	335.0	77.0	42.8	43.2	292.6	51.1	51.5	73.4	157.7	158.8
LnGrp LOS	E	F	F	E	D	D	F	D	D	E	F	F
Approach Vol, veh/h		3543			1169			1584			1132	
Approach Delay, s/veh		207.2			43.9			181.3			144.1	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	60.0	23.0	31.0	16.2	51.0	20.2	33.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	52.0	18.5	25.5	11.7	44.3	15.7	* 28
Max Q Clear Time (g_c+I1), s	4.1	56.5	20.5	27.5	12.6	34.9	14.3	24.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	8.8	0.5	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	166.3
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

11: Heacock Street & Meyer Drive/John F. Kennedy Drive

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	48	283	297	59	185	318	222	972	152	512	1162	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	301	202	63	197	241	236	1034	144	545	1236	70
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	340	289	81	338	285	265	1019	417	573	1700	723
Arrive On Green	0.05	0.18	0.18	0.04	0.18	0.18	0.15	0.27	0.27	0.32	0.45	0.45
Sat Flow, veh/h	1810	1900	1615	1810	1900	1601	1810	3800	1554	1810	3800	1615
Grp Volume(v), veh/h	51	301	202	63	197	241	236	1034	144	545	1236	70
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1601	1810	1900	1554	1810	1900	1615
Q Serve(g_s), s	3.0	17.0	9.2	3.8	10.5	16.0	14.1	29.5	8.2	32.4	29.3	2.1
Cycle Q Clear(g_c), s	3.0	17.0	9.2	3.8	10.5	16.0	14.1	29.5	8.2	32.4	29.3	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	340	289	81	338	285	265	1019	417	573	1700	723
V/C Ratio(X)	0.61	0.88	0.70	0.77	0.58	0.85	0.89	1.01	0.35	0.95	0.73	0.10
Avail Cap(c_a), veh/h	84	411	349	102	449	379	290	1019	417	573	1700	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	51.5	44.0	21.4	52.0	41.5	43.8	46.1	40.3	32.5	36.7	24.9	9.9
Incr Delay (d2), s/veh	8.9	15.7	3.1	19.0	0.6	10.1	24.3	31.9	2.3	4.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	10.4	4.4	2.3	5.5	7.9	8.8	19.9	3.8	16.9	15.3	0.9
LnGrp Delay(d),s/veh	60.3	59.8	24.5	70.9	42.1	53.8	70.4	72.1	34.7	40.9	25.1	9.9
LnGrp LOS	E	E	C	E	D	D	E	F	C	D	C	A
Approach Vol, veh/h		554			501			1414			1851	
Approach Delay, s/veh		47.0			51.4			68.0			29.2	
Approach LOS		D			D			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.3	35.0	9.4	25.2	20.6	54.7	9.6	25.1
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	30.5	* 30	6.2	23.8	17.6	42.4	4.0	26.0
Max Q Clear Time (g_c+I1), s	34.4	31.5	5.8	19.0	16.1	31.3	5.0	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.1	5.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	46.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	81	1254	13	161	1574
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	5	87	1348	14	173	1692

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	3387	1348	0	0	1348	0
Stage 1	1348	-	-	-	-	-
Stage 2	2039	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	9	186	-	-	517	-
Stage 1	244	-	-	-	-	-
Stage 2	111	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	6	186	-	-	517	-
Mov Cap-2 Maneuver	6	-	-	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	74	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	100.4	0	1.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	6	186	517	-
HCM Lane V/C Ratio	-	-	0.896	0.468	0.335	-
HCM Control Delay (s)	-	-	$ 1074	40.3	15.4	-
HCM Lane LOS	-	-	F	E	C	-
HCM 95th %tile Q(veh)	-	-	1.4	2.2	1.5	-

13: Heacock Street & Iris Avenue

Intersection	
Intersection Delay, s/veh	61.2
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	259	373	0	1071	381	0	676	818
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	282	405	0	1164	414	0	735	889
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	29.4	66.5	69.5
HCM LOS	D	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	74%	0%	0%	0%	100%
Vol Right, %	26%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1452	259	373	676	818
LT Vol	0	259	0	676	0
Through Vol	1071	0	0	0	818
RT Vol	381	0	373	0	0
Lane Flow Rate	1578	282	405	735	889
Geometry Grp	4	7	7	7	7
Degree of Util (X)	1	0.649	0.799	1	1
Departure Headway (Hd)	7.06	8.297	7.097	7.992	7.491
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	537	439	515	463	489
Service Time	5.085	5.997	4.797	5.725	5.224
HCM Lane V/C Ratio	2.939	0.642	0.786	1.587	1.818
HCM Control Delay	66.5	25.1	32.4	70.8	68.4
HCM Lane LOS	F	D	D	F	F
HCM 95th-tile Q	13.8	4.5	7.5	13	13.4

HCM 2010 Signalized Intersection Summary

14: Heacock Street & Krameria Avenue-North

Moreno Valley Logistics Center TIA (JN 09301)
7/14/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Volume (veh/h)	253	271	932	115	125	822
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	275	295	1013	125	136	893
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	280	250	1010	859	313	1416
Arrive On Green	0.15	0.15	0.53	0.53	0.17	0.75
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	275	295	1013	125	136	893
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	16.7	17.0	58.5	4.3	7.4	24.8
Cycle Q Clear(g_c), s	16.7	17.0	58.5	4.3	7.4	24.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	280	250	1010	859	313	1416
V/C Ratio(X)	0.98	1.18	1.00	0.15	0.44	0.63
Avail Cap(c_a), veh/h	280	250	1010	859	313	1416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	46.5	25.7	13.1	40.7	6.7
Incr Delay (d2), s/veh	48.9	115.2	28.9	0.4	4.4	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	15.5	38.4	2.0	4.1	13.5
LnGrp Delay(d),s/veh	95.3	161.7	54.7	13.4	45.1	8.9
LnGrp LOS	F	F	F	B	D	A
Approach Vol, veh/h	570		1138			1029
Approach Delay, s/veh	129.6		50.1			13.6
Approach LOS	F		D			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	64.0				87.5		22.5
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	58.5				82.0		17.0
Max Q Clear Time (g_c+I1), s	9.4	60.5				26.8		19.0
Green Ext Time (p_c), s	0.1	0.0				11.7		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		53.0
HCM 2010 LOS		D

HCM 2010 TWSC
15: Heacock Street & Driveway 1

Moreno Valley Logistics Center TIA (JN 09301)
9/14/2015

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	55	30	1017	12	7	1068
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	60	33	1105	13	8	1161

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2288	559	0	0	1118	0
Stage 1	1112	-	-	-	-	-
Stage 2	1176	-	-	-	-	-
Critical Hdwy	5.3	5.3	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	88	612	-	-	632	-
Stage 1	281	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	87	612	-	-	632	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	281	-	-	-	-	-
Stage 2	292	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.9	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	272	632	-
HCM Lane V/C Ratio	-	-	0.34	0.012	-
HCM Control Delay (s)	-	-	24.9	10.8	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.4	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	52	32	997	13	7	1116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	57	35	1084	14	8	1213

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1713	549	0	0	1098	0
Stage 1	1091	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Critical Hdwy	5.8	5.8	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	134	573	-	-	643	-
Stage 1	288	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	132	573	-	-	643	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	288	-	-	-	-	-
Stage 2	497	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	325	643	-
HCM Lane V/C Ratio	-	-	0.281	0.012	-
HCM Control Delay (s)	-	-	20.3	10.7	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.1	0	-

17: Heacock Street & Cardinal Avenue

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	52	49	961	12	10	1158
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	57	53	1045	13	11	1259

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2325	522	0	0	1045	0
Stage 1	1045	-	-	-	-	-
Stage 2	1280	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	~ 37	505	-	-	673	-
Stage 1	304	-	-	-	-	-
Stage 2	264	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 36	505	-	-	673	-
Mov Cap-2 Maneuver	188	-	-	-	-	-
Stage 1	304	-	-	-	-	-
Stage 2	260	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.9	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	188	505	673	-
HCM Lane V/C Ratio	-	-	0.301	0.105	0.016	-
HCM Control Delay (s)	-	-	32.2	13	10.4	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.4	0	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Volume (veh/h)	57	347	106	120	102	636	0	279	40	700	473	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	377	115	130	111	691	0	303	40	761	514	38
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	432	367	113	467	397	2	565	474	445	1103	938
Arrive On Green	0.04	0.23	0.23	0.06	0.25	0.25	0.00	0.30	0.30	0.25	0.58	0.58
Sat Flow, veh/h	1810	1900	1611	1810	1900	1615	1810	1900	1593	1810	1900	1615
Grp Volume(v), veh/h	62	377	115	130	111	691	0	303	40	761	514	38
Grp Sat Flow(s),veh/h/ln	1810	1900	1611	1810	1900	1615	1810	1900	1593	1810	1900	1615
Q Serve(g_s), s	4.1	22.9	7.1	7.5	5.6	29.5	0.0	16.0	2.2	29.5	18.7	1.2
Cycle Q Clear(g_c), s	4.1	22.9	7.1	7.5	5.6	29.5	0.0	16.0	2.2	29.5	18.7	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	432	367	113	467	397	2	565	474	445	1103	938
V/C Ratio(X)	0.77	0.87	0.31	1.15	0.24	1.74	0.00	0.54	0.08	1.71	0.47	0.04
Avail Cap(c_a), veh/h	113	467	396	113	467	397	60	565	474	445	1103	938
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.46	0.46	0.46	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	44.7	38.6	56.3	36.2	45.3	0.0	35.2	30.4	45.3	14.5	10.8
Incr Delay (d2), s/veh	11.7	14.6	0.2	103.5	0.0	338.0	0.0	3.6	0.3	329.3	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	13.8	3.2	7.0	3.0	50.5	0.0	9.0	1.0	55.4	10.1	0.6
LnGrp Delay(d),s/veh	68.5	59.3	38.7	159.7	36.3	383.2	0.0	38.9	30.7	374.5	15.9	10.9
LnGrp LOS	E	E	D	F	D	F		D	C	F	B	B
Approach Vol, veh/h		554			932			343			1313	
Approach Delay, s/veh		56.0			310.7			37.9			223.6	
Approach LOS		E			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	41.2	12.0	32.8	0.0	75.2	9.8	35.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	29.5	33.5	7.5	29.5	4.0	59.0	7.5	29.5
Max Q Clear Time (g_c+I1), s	31.5	18.0	9.5	24.9	0.0	20.7	6.1	31.5
Green Ext Time (p_c), s	0.0	2.6	0.0	1.8	0.0	2.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	199.6
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	132	187	10	268	431
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	143	203	11	291	468

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1260	209	0	0	214	0
Stage 1	209	-	-	-	-	-
Stage 2	1051	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	152	836	-	-	1368	-
Stage 1	831	-	-	-	-	-
Stage 2	291	-	-	-	-	-
Platoon blocked, %	1		-	-		-
Mov Cap-1 Maneuver	120	836	-	-	1368	-
Mov Cap-2 Maneuver	215	-	-	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	229	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	3.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	215	836	1368	-
HCM Lane V/C Ratio	-	-	0.051	0.172	0.213	-
HCM Control Delay (s)	-	-	22.6	10.2	8.3	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.6	0.8	-

HCM 2010 TWSC — Moreno Valley Logistics Center TIA (JN 09301)

20: Webster Street & Harley Knox Boulevard

7/14/2015

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	1682	20	30	1267	5	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1828	22	33	1377	5	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1850	0	3281	1839
Stage 1	-	-	-	-	1839	-
Stage 2	-	-	-	-	1442	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	-	-	10	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	39	-
Platoon blocked, %	-	-	2	-		2
Mov Cap-1 Maneuver	-	-	-	-	10	-
Mov Cap-2 Maneuver	-	-	-	-	10	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	39	-

Approach	EB	WB	NB
HCM Control Delay, s	0		
HCM LOS			-

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	-	-	-
HCM Lane LOS	-	-	-	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	11.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	54	33	144	0	23	0	300	5	0	3	6	122
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	66	40	176	0	28	0	366	6	0	4	7	149

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	841	827	82	935	901	6	156	0	0	6	0	0
Stage 1	89	89	-	738	738	-	-	-	-	-	-	-
Stage 2	752	738	-	197	163	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	287	309	983	248	280	1083	1436	-	-	1628	-	-
Stage 1	923	825	-	413	427	-	-	-	-	-	-	-
Stage 2	405	427	-	809	767	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	230	983	147	208	1083	1436	-	-	1628	-	-
Mov Cap-2 Maneuver	257	297	-	225	284	-	-	-	-	-	-	-
Stage 1	688	823	-	308	318	-	-	-	-	-	-	-
Stage 2	275	318	-	630	765	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.5	19.1	8.2	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1436	-	-	494	284	1628	-	-
HCM Lane V/C Ratio	0.255	-	-	0.57	0.099	0.002	-	-
HCM Control Delay (s)	8.4	-	-	21.5	19.1	7.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	1	-	-	3.5	0.3	0	-	-

22: Cosmos Street & Driveway/Krameria Avenue

7/16/2015

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	13	27	0	0	5	6	233	0	0	60	23
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	14	29	0	0	5	7	253	0	0	65	25
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	9.1	9.6	9.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	33%	100%	0%	100%	0%
Vol Thru, %	72%	68%	0%	3%	0%	83%
Vol Right, %	28%	0%	0%	97%	0%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	40	5	239	133	18
LT Vol	0	13	5	0	133	0
Through Vol	60	27	0	6	0	15
RT Vol	23	0	0	233	0	3
Lane Flow Rate	90	43	5	260	145	20
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.133	0.068	0.009	0.33	0.234	0.028
Departure Headway (Hd)	5.306	5.591	5.758	4.568	5.827	5.206
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	671	637	621	785	613	684
Service Time	3.372	3.652	3.497	2.307	3.588	2.967
HCM Lane V/C Ratio	0.134	0.068	0.008	0.331	0.237	0.029
HCM Control Delay	9.2	9.1	8.5	9.6	10.4	8.1
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.5	0.2	0	1.4	0.9	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	133	15	3
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	145	16	3
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	10.1
HCM LOS	B

Lane

23: Driveway 3 & Krameria Avenue

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	176	7	3	215	28	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	191	8	3	234	30	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	199	0	435	195
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	240	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1385	-	582	851
Stage 1	-	-	-	-	843	-
Stage 2	-	-	-	-	805	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1385	-	581	851
Mov Cap-2 Maneuver	-	-	-	-	703	-
Stage 1	-	-	-	-	843	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	744	-	-	1385	-
HCM Lane V/C Ratio	0.06	-	-	0.002	-
HCM Control Delay (s)	10.1	-	-	7.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	188	1	4	215	3	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	204	1	4	234	3	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	205	0	447	205
Stage 1	-	-	-	-	205	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1378	-	573	841
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	803	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1378	-	571	841
Mov Cap-2 Maneuver	-	-	-	-	697	-
Stage 1	-	-	-	-	834	-
Stage 2	-	-	-	-	801	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	819	-	-	1378	-
HCM Lane V/C Ratio	0.031	-	-	0.003	-
HCM Control Delay (s)	9.5	-	-	7.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

25: Driveway 5 & Krameria Avenue

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	201	7	4	191	28	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	100	-	0	-
Veh in Median Storage, #	0	-	-	0	2	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	218	8	4	208	30	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	226	0	438	222
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	216	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1354	-	580	823
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	825	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1354	-	578	823
Mov Cap-2 Maneuver	-	-	-	-	703	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	744	-	-	1354	-
HCM Lane V/C Ratio	0.066	-	-	0.003	-
HCM Control Delay (s)	10.2	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

26: Indian Street & Krameria Avenue

Intersection	
Intersection Delay, s/veh	74.9
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	138	229	484	0	200	70	82	0	263	572	184
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	150	249	526	0	217	76	89	0	286	622	200
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	80	41.2	78
HCM LOS	F	E	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	32%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	68%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	572	184	138	713	200	70	82	265	523	134
LT Vol	263	0	0	138	0	200	0	0	265	0	0
Through Vol	0	572	0	0	229	0	70	0	0	523	0
RT Vol	0	0	184	0	484	0	0	82	0	0	134
Lane Flow Rate	286	622	200	150	775	217	76	89	288	568	146
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.992	1	0.628	0.552	1	0.818	0.274	0.303	1	1	0.458
Departure Headway (Hd)	12.497	12.001	11.306	13.251	12.29	13.546	13.064	12.367	12.598	12.105	11.416
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	292	311	320	273	302	270	277	292	291	307	318
Service Time	10.216	9.719	9.024	10.97	10.009	11.261	10.764	10.067	10.298	9.805	9.116
HCM Lane V/C Ratio	0.979	2	0.625	0.549	2.566	0.804	0.274	0.305	0.99	1.85	0.459
HCM Control Delay	88.2	88.3	31.3	31.2	89.4	57	20.6	20.4	90.6	88.6	23.4
HCM Lane LOS	F	F	D	D	F	F	C	C	F	F	C
HCM 95th-tile Q	10.2	10.6	4	3.1	10.5	6.5	1.1	1.2	10.4	10.6	2.3

27: Indian Street & Driveway 6

7/14/2015

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	84	20	1019	1207	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	91	22	1108	1312	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1909	656	1312	0	-	0
Stage 1	1312	-	-	-	-	-
Stage 2	597	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	61	413	534	-	-	-
Stage 1	220	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	58	413	534	-	-	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	220	-	-	-	-	-
Stage 2	497	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.2	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	534	-	413	-	-
HCM Lane V/C Ratio	0.041	-	0.221	-	-
HCM Control Delay (s)	12	-	16.2	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Volume (veh/h)	87	721	1283	262	474	234	684	817	292	436	987	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.99	1.00		1.00	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	784	1345	285	515	238	743	888	256	474	1073	92
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	83	420	656	312	1320	558	703	515	437	306	776	66
Arrive On Green	0.06	0.29	0.29	0.17	0.35	0.35	0.19	0.27	0.27	0.17	0.25	0.25
Sat Flow, veh/h	1810	1900	1548	1810	3800	1606	3619	1900	1612	1810	3155	269
Grp Volume(v), veh/h	95	784	1345	285	515	238	743	888	256	474	644	521
Grp Sat Flow(s),veh/h/ln	1810	1900	1548	1810	1900	1606	1810	1900	1612	1810	1900	1524
Q Serve(g_s), s	5.5	26.5	22.1	18.6	12.3	8.4	23.3	32.5	10.7	20.3	29.5	29.5
Cycle Q Clear(g_c), s	5.5	26.5	22.1	18.6	12.3	8.4	23.3	32.5	10.7	20.3	29.5	29.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	83	420	656	312	1320	558	703	515	437	306	467	375
V/C Ratio(X)	1.15	1.87	2.05	0.91	0.39	0.43	1.06	1.73	0.59	1.55	1.38	1.39
Avail Cap(c_a), veh/h	83	420	656	354	1409	595	703	515	437	306	467	375
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.3	42.4	11.8	48.8	29.6	11.3	48.3	43.7	16.0	49.8	45.3	45.3
Incr Delay (d2), s/veh	78.3	391.7	473.8	24.1	0.1	0.2	29.4	327.3	0.5	262.2	183.6	191.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	59.5	95.3	11.3	6.5	3.7	14.5	63.8	4.8	32.4	39.3	32.3
LnGrp Delay(d),s/veh	134.7	434.0	485.6	72.8	29.6	11.5	77.7	371.0	16.5	312.0	228.9	236.4
LnGrp LOS	F	F	F	E	C	B	F	F	B	F	F	F
Approach Vol, veh/h		2224			1038			1887			1639	
Approach Delay, s/veh		452.4			37.3			207.5			255.3	
Approach LOS		F			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	38.0	25.2	32.0	27.8	35.0	10.0	47.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	17.5	32.5	23.5	26.5	20.5	29.5	5.5	44.5
Max Q Clear Time (g_c+I1), s	22.3	34.5	20.6	28.5	25.3	31.5	7.5	14.3
Green Ext Time (p_c), s	0.0	0.0	0.1	0.0	0.0	0.0	0.0	14.1

Intersection Summary	
HCM 2010 Ctrl Delay	273.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Volume (veh/h)	79	172	877	403	80	22	473	1163	351	117	1721	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	187	861	438	87	10	514	1264	379	127	1871	150
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	353	410	348	97	140	119	109	1142	334	109	1406	111
Arrive On Green	0.20	0.22	0.22	0.05	0.07	0.07	0.06	0.40	0.40	0.06	0.40	0.40
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	2826	826	1810	3477	275
Grp Volume(v), veh/h	86	187	861	438	87	10	514	839	804	127	1010	1011
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1752	1810	1900	1851
Q Serve(g_s), s	3.0	6.4	12.2	4.0	3.3	0.3	4.5	30.3	30.3	4.5	30.3	30.3
Cycle Q Clear(g_c), s	3.0	6.4	12.2	4.0	3.3	0.3	4.5	30.3	30.3	4.5	30.3	30.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.15
Lane Grp Cap(c), veh/h	353	410	348	97	140	119	109	768	708	109	768	749
V/C Ratio(X)	0.24	0.46	2.47	4.54	0.62	0.08	4.73	1.09	1.13	1.17	1.32	1.35
Avail Cap(c_a), veh/h	353	608	517	97	608	517	109	768	708	109	768	749
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.09	0.09	0.09
Uniform Delay (d), s/veh	25.5	25.6	16.7	35.5	33.7	20.3	35.3	22.3	22.3	35.3	22.3	22.3
Incr Delay (d2), s/veh	0.1	0.3	670.9	1615.9	1.7	0.1	1701.2	60.7	77.4	85.6	142.8	158.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.4	70.3	45.3	1.8	0.2	53.5	28.7	29.8	4.8	46.3	48.3
LnGrp Delay(d),s/veh	25.6	25.9	687.5	1651.4	35.4	20.4	1736.4	83.0	99.7	120.8	165.2	180.6
LnGrp LOS	C	C	F	F	D	C	F	F	F	F	F	F
Approach Vol, veh/h		1134			535			2157			2148	
Approach Delay, s/veh		528.2			1358.1			483.2			169.8	
Approach LOS		F			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	35.8	8.5	21.7	9.0	35.8	19.1	11.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.5	22.5	4.0	24.0	4.5	22.5	4.0	24.0
Max Q Clear Time (g_c+I1), s	6.5	32.3	6.0	14.2	6.5	32.3	5.0	5.3
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	457.4
HCM 2010 LOS	F

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	552	1341	199	204	916	366	285	1094	172	633	1396	966
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	600	1458	216	222	996	398	310	1189	187	688	1517	1046
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1381	2016	1714	99	885	349	152	1320	561	152	743	457
Arrive On Green	0.76	1.00	1.00	0.05	0.34	0.34	0.04	0.35	0.35	0.04	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	2586	1019	3619	3800	1615	3619	2205	1356
Grp Volume(v), veh/h	600	1458	216	222	728	666	310	1189	187	688	1282	1282
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1705	1810	1900	1615	1810	1900	1661
Q Serve(g_s), s	11.2	0.0	0.0	5.2	32.5	32.5	4.0	28.2	8.1	4.0	32.0	32.0
Cycle Q Clear(g_c), s	11.2	0.0	0.0	5.2	32.5	32.5	4.0	28.2	8.1	4.0	32.0	32.0
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	1381	2016	1714	99	650	583	152	1320	561	152	640	559
V/C Ratio(X)	0.43	0.72	0.13	2.24	1.12	1.14	2.03	0.90	0.33	4.51	2.00	2.29
Avail Cap(c_a), veh/h	1381	2016	1714	99	650	583	152	1320	561	152	640	559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.0	0.0	0.0	44.9	31.3	31.3	45.5	29.4	22.9	45.5	31.5	31.5
Incr Delay (d2), s/veh	0.1	2.3	0.2	589.7	73.1	83.0	487.6	10.1	1.6	1596.8	456.6	586.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	1.3	0.1	18.8	30.2	28.7	12.3	16.5	3.8	35.8	97.9	105.7
LnGrp Delay(d),s/veh	4.1	2.3	0.2	634.6	104.3	114.2	533.1	39.5	24.5	1642.3	488.1	618.0
LnGrp LOS	A	A	A	F	F	F	F	D	C	F	F	F
Approach Vol, veh/h		2274			1616			1686			3251	
Approach Delay, s/veh		2.6			181.3			128.6			783.6	
Approach LOS		A			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	108.3	9.5	37.5	80.0	38.0	8.5	38.5
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	7.2	2.0	6.0	34.0	13.2	34.5	6.0	30.2
Green Ext Time (p_c), s	0.0	14.4	0.0	0.0	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 2010 Ctrl Delay	347.0
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
31: Perris Boulevard & Cactus Avenue

7/14/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑↑↱		↰	↑↑	↱
Volume (veh/h)	376	1286	499	164	715	189	293	1421	233	248	1878	265
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	384	1312	488	167	730	184	299	1450	227	253	1916	259
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	219	926	329	1093	2446	617	173	1416	221	252	1251	532
Arrive On Green	0.12	0.35	0.35	0.60	0.84	0.84	0.10	0.29	0.29	0.14	0.33	0.33
Sat Flow, veh/h	1810	2679	951	1810	2922	736	1810	4814	753	1810	3800	1615
Grp Volume(v), veh/h	384	912	888	167	475	439	299	1144	533	253	1916	259
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1810	1900	1758	1810	1900	1766	1810	1900	1615
Q Serve(g_s), s	14.5	41.5	41.5	4.8	6.5	6.5	11.5	35.3	35.3	16.7	39.5	23.5
Cycle Q Clear(g_c), s	14.5	41.5	41.5	4.8	6.5	6.5	11.5	35.3	35.3	16.7	39.5	23.5
Prop In Lane	1.00		0.55	1.00		0.42	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	219	657	598	1093	1591	1472	173	1118	520	252	1251	532
V/C Ratio(X)	1.76	1.39	1.48	0.15	0.30	0.30	1.72	1.02	1.03	1.00	1.53	0.49
Avail Cap(c_a), veh/h	219	657	598	1093	1591	1472	173	1118	520	252	1251	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.8	39.3	39.3	10.4	2.1	2.1	54.3	42.4	42.4	51.7	40.3	75.0
Incr Delay (d2), s/veh	358.5	184.0	226.9	0.0	0.5	0.5	349.0	33.1	46.1	57.9	243.4	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	29.0	55.3	57.5	2.4	3.5	3.3	22.5	23.6	23.8	12.4	63.0	11.0
LnGrp Delay(d),s/veh	411.2	223.2	266.1	10.4	2.6	2.6	403.2	75.4	88.4	109.6	283.6	78.2
LnGrp LOS	F	F	F	B	A	A	F	F	F	F	F	E
Approach Vol, veh/h		2184			1081			1976			2428	
Approach Delay, s/veh		273.7			3.8			128.5			243.6	
Approach LOS		F			A			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	79.3	47.0	17.0	45.0	19.0	107.3	21.2	40.8
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	7.5	* 42	11.5	* 40	14.5	34.5	16.7	34.3
Max Q Clear Time (g_c+I1), s	16.8	43.5	13.5	41.5	16.5	8.5	18.7	37.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	188.7
HCM 2010 LOS	F

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue

7/14/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Volume (veh/h)	114	242	169	314	184	179	120	1990	227	231	1933	92
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	263	168	341	200	96	130	2163	222	251	2101	98
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	135	287	364	383	403	336	68	1695	171	98	1890	88
Arrive On Green	0.23	0.23	0.23	0.21	0.21	0.21	0.04	0.33	0.33	0.05	0.35	0.35
Sat Flow, veh/h	599	1271	1613	1810	1900	1586	1810	5086	514	1810	5401	251
Grp Volume(v), veh/h	387	0	168	341	200	96	130	1607	778	251	1475	724
Grp Sat Flow(s),veh/h/ln	1870	0	1613	1810	1900	1586	1810	1900	1799	1810	1900	1852
Q Serve(g_s), s	24.2	0.0	10.8	22.0	11.1	6.1	4.5	40.0	40.0	6.5	42.0	42.0
Cycle Q Clear(g_c), s	24.2	0.0	10.8	22.0	11.1	6.1	4.5	40.0	40.0	6.5	42.0	42.0
Prop In Lane	0.32		1.00	1.00		1.00	1.00		0.29	1.00		0.14
Lane Grp Cap(c), veh/h	422	0	364	383	403	336	68	1266	600	98	1330	648
V/C Ratio(X)	0.92	0.00	0.46	0.89	0.50	0.29	1.92	1.27	1.30	2.56	1.11	1.12
Avail Cap(c_a), veh/h	468	0	403	452	475	396	68	1266	600	98	1330	648
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	0.0	40.1	45.9	41.7	39.7	57.8	40.0	40.0	56.8	39.0	39.0
Incr Delay (d2), s/veh	20.7	0.0	0.3	15.7	0.4	0.2	461.6	127.6	145.6	731.3	60.5	72.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	0.0	4.8	12.7	5.9	2.7	10.9	43.4	44.1	23.2	33.1	34.4
LnGrp Delay(d),s/veh	66.0	0.0	40.5	61.6	42.0	39.8	519.4	167.6	185.7	788.1	99.5	111.0
LnGrp LOS	E		D	E	D	D	F	F	F	F	F	F
Approach Vol, veh/h		555			637			2515			2450	
Approach Delay, s/veh		58.3			52.2			191.3			173.4	
Approach LOS		E			D			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	45.5		32.6	9.0	47.5		30.9
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	6.5	32.5		30.0	4.5	34.5		30.0
Max Q Clear Time (g_c+I1), s	8.5	42.0		26.2	6.5	44.0		24.0
Green Ext Time (p_c), s	0.0	0.0		0.8	0.0	0.0		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	157.8
HCM 2010 LOS	F

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 7.3:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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1: I-215 SB Ramps & Cactus Av.

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	1118	711	980	1935	933	1054
v/c Ratio	1.20	0.82	1.59	0.84	0.92	1.64
Control Delay	138.9	19.0	302.4	23.6	28.9	325.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.9	19.0	302.4	23.6	28.9	325.0
Queue Length 50th (ft)	~524	129	~1082	568	279	~1159
Queue Length 95th (ft)	#652	301	#1333	675	#579	#1418
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	934	871	617	2295	1009	641
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.82	1.59	0.84	0.92	1.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	943	151	254	549	1543	752
v/c Ratio	1.06	0.31	1.40	0.39	1.48	0.68
Control Delay	93.0	23.4	247.9	29.2	245.2	18.6
Queue Delay	0.0	0.0	0.0	2.0	0.0	0.0
Total Delay	93.0	23.4	247.9	31.2	245.2	18.6
Queue Length 50th (ft)	~402	55	~263	156	~1645	321
Queue Length 95th (ft)	#527	114	#430	202	#1909	460
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	886	492	182	1393	1045	1113
Starvation Cap Reductn	0	0	0	668	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.31	1.40	0.76	1.48	0.68

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	150	1837	3112	870	1020	235	286
v/c Ratio	1.79	0.95	1.62	2.38	1.38	2.80	0.38
Control Delay	419.4	33.3	305.9	650.4	205.9	858.3	19.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	419.4	33.3	305.9	650.4	205.9	858.3	19.9
Queue Length 50th (ft)	~129	461	~1298	~822	~784	~188	104
Queue Length 95th (ft)	#203	#642	#1427	#1047	#1025	#335	170
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	84	1933	1916	365	739	84	743
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.79	0.95	1.62	2.38	1.38	2.80	0.38

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	638	1900	646	683	176	463
v/c Ratio	0.96	0.76	0.64	0.79	0.40	0.94
Control Delay	55.1	13.3	33.1	16.5	32.4	58.2
Queue Delay	46.4	47.6	0.0	0.0	0.0	0.0
Total Delay	101.4	60.9	33.1	16.5	32.4	58.2
Queue Length 50th (ft)	344	331	165	95	85	226
Queue Length 95th (ft)	#559	416	221	#257	146	#414
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	686	2491	1006	864	443	494
Starvation Cap Reductn	180	794	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.12	0.64	0.79	0.40	0.94

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	2211	844	1426	1843	1028	447
v/c Ratio	1.57	0.98	1.92	0.61	1.45	1.55
Control Delay	288.8	53.4	442.4	5.9	228.5	293.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	288.8	53.4	442.4	5.9	228.5	293.7
Queue Length 50th (ft)	~1214	500	~1699	230	~679	~449
Queue Length 95th (ft)	#1344	#784	#1961	274	#937	#655
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1409	860	744	3024	709	289
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.57	0.98	1.92	0.61	1.45	1.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	948	206	709	1014	849	796
v/c Ratio	1.03	0.39	1.30	0.47	1.28	1.09
Control Delay	83.1	24.3	180.1	16.5	170.1	93.1
Queue Delay	27.5	0.0	0.0	1.1	2.9	0.0
Total Delay	110.5	24.3	180.1	17.6	173.0	93.1
Queue Length 50th (ft)	~394	76	~669	172	~832	~640
Queue Length 95th (ft)	#519	148	#906	m175	#1078	#884
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	918	524	546	2153	665	731
Starvation Cap Reductn	0	0	0	830	0	0
Spillback Cap Reductn	282	0	0	0	210	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.49	0.39	1.30	0.77	1.87	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	528	2645	3418	268	746	328	1026
v/c Ratio	4.55	1.20	1.62	2.29	1.34	2.80	1.77
Control Delay	1628.9	113.8	300.8	626.1	188.0	851.5	376.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1628.9	113.8	300.8	626.1	188.0	851.5	376.0
Queue Length 50th (ft)	~362	~637	~1018	~178	~400	~228	~626
Queue Length 95th (ft)	#538	#770	#1151	#274	#598	#338	#845
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	116	2197	2110	117	558	117	579
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	4.55	1.20	1.62	2.29	1.34	2.80	1.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 7/14/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	738	1095	1361	1690	402	247
v/c Ratio	1.64	0.38	0.74	1.49	1.27	0.55
Control Delay	321.8	11.9	28.1	245.3	186.0	21.6
Queue Delay	4.3	51.1	2.4	0.0	0.0	0.0
Total Delay	326.0	62.9	30.4	245.3	186.0	21.6
Queue Length 50th (ft)	~830	379	412	~1629	~393	60
Queue Length 95th (ft)	m#768	m249	495	#1898	#591	144
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	451	2850	1836	1137	316	450
Starvation Cap Reductn	152	2004	0	0	0	0
Spillback Cap Reductn	0	0	333	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.47	1.29	0.91	1.49	1.27	0.55

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.4:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues
1: I-215 SB Ramps & Cactus Av.

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	1154	734	1012	1998	1111	1088
v/c Ratio	1.24	0.84	1.64	0.87	1.10	1.70
Control Delay	154.2	21.5	324.7	25.2	78.6	347.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	154.2	21.5	324.7	25.2	78.6	347.9
Queue Length 50th (ft)	~553	154	~1134	607	~619	~1215
Queue Length 95th (ft)	#682	#351	#1387	723	#879	#1476
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	934	870	617	2295	1009	641
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.24	0.84	1.64	0.87	1.10	1.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues
Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.
7/14/2015

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	963	154	279	561	1714	768
v/c Ratio	1.17	0.33	1.42	0.41	1.62	0.68
Control Delay	131.2	25.1	253.7	30.1	306.3	18.9
Queue Delay	0.0	0.0	0.0	2.3	0.0	0.0
Total Delay	131.2	25.1	253.7	32.4	306.3	18.9
Queue Length 50th (ft)	~444	58	~290	162	~1908	335
Queue Length 95th (ft)	#570	119	#463	210	#2172	479
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	823	461	197	1361	1060	1122
Starvation Cap Reductn	0	0	0	639	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.17	0.33	1.42	0.78	1.62	0.68

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
Moreno Valley Logistics Center TIA (JN 09301)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.
7/14/2015

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	160	2105	3349	927	1086	250	304
v/c Ratio	1.90	1.09	1.75	2.66	1.47	2.98	0.41
Control Delay	469.7	73.4	361.5	771.4	244.4	936.9	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	469.7	73.4	361.5	771.4	244.4	936.9	20.3
Queue Length 50th (ft)	~141	~675	~1444	~721	~865	~206	113
Queue Length 95th (ft)	#221	#809	#1571	#957	#1109	#357	182
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	84	1929	1914	349	739	84	743
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.90	1.09	1.75	2.66	1.47	2.98	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	638	2037	665	713	176	551
v/c Ratio	0.98	0.86	0.74	0.85	0.37	1.04
Control Delay	58.2	17.0	33.9	19.5	27.5	77.2
Queue Delay	39.8	46.8	0.0	0.0	0.0	0.0
Total Delay	98.0	63.9	33.9	19.5	27.5	77.2
Queue Length 50th (ft)	310	366	154	88	73	~271
Queue Length 95th (ft)	#527	476	211	#298	128	#464
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	653	2375	902	842	475	531
Starvation Cap Reductn	128	635	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.22	1.17	0.74	0.85	0.37	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues
1: I-215 SB Ramps & Cactus Av.

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	2211	844	1426	1843	1066	447
v/c Ratio	1.54	0.98	1.92	0.60	1.54	1.64
Control Delay	273.9	52.4	442.4	5.5	267.6	332.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	273.9	52.4	442.4	5.5	267.6	332.6
Queue Length 50th (ft)	~1201	506	~1699	218	~756	~461
Queue Length 95th (ft)	#1331	#790	#1961	259	#1015	#668
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1440	865	744	3055	693	273
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.54	0.98	1.92	0.60	1.54	1.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues — Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/14/2015

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	948	206	801	1014	884	796
v/c Ratio	1.11	0.42	1.39	0.47	1.33	1.09
Control Delay	108.3	26.0	213.6	16.4	191.7	93.1
Queue Delay	2.2	0.0	0.0	1.4	3.1	0.0
Total Delay	110.5	26.0	213.6	17.8	194.8	93.1
Queue Length 50th (ft)	~419	79	~796	172	~889	~640
Queue Length 95th (ft)	#544	152	#1045	m175	#1136	#884
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	855	492	577	2153	665	731
Starvation Cap Reductn	0	0	0	874	0	0
Spillback Cap Reductn	256	0	0	0	220	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.58	0.42	1.39	0.79	1.99	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Queues | Moreno Valley Logistics Center TIA (JN 09301)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

7/14/2015

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	528	2682	3572	268	746	328	1026
v/c Ratio	4.55	1.22	1.69	2.29	1.34	2.80	1.77
Control Delay	1628.9	122.3	333.8	626.1	188.0	851.5	376.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1628.9	122.3	333.8	626.1	188.0	851.5	376.0
Queue Length 50th (ft)	~362	~655	~1086	~178	~400	~228	~626
Queue Length 95th (ft)	#538	#788	#1218	#274	#598	#338	#845
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	116	2193	2109	117	558	117	579
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	4.55	1.22	1.69	2.29	1.34	2.80	1.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues
Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/14/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	738	1130	1455	1840	402	268
v/c Ratio	1.76	0.40	0.77	1.57	1.27	0.61
Control Delay	374.7	12.2	27.7	283.6	186.0	26.5
Queue Delay	3.5	51.1	3.6	0.0	0.0	0.0
Total Delay	378.2	63.3	31.3	283.6	186.0	26.5
Queue Length 50th (ft)	~814	386	442	~1848	~393	82
Queue Length 95th (ft)	m#658	m231	529	#2115	#591	174
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	419	2850	1900	1169	316	441
Starvation Cap Reductn	118	2012	0	0	0	0
Spillback Cap Reductn	0	0	348	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	2.45	1.35	0.94	1.57	1.27	0.61

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.5:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2035 NP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Harley Knox Boulevard**

Minor Street: **Webster Avenue**

Critical Approach Speed (Major) 50 mph

Critical Approach Speed (Minor) 40 mph

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **39,432** vpd

Minor Street Future ADT = **2,026** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL XX	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied XX	Not Satisfied				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 + **39,432**	1 **2,026**	9,600	6,720 *	2,400	1,680 *
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied XX	Not Satisfied				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	12,000	8,400	1,200	850
2 + **39,432**	1 **2,026**	14,400	10,080 *	1,200	850 *
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied XX	Not Satisfied				
No one condition satisfied, but following conditions fulfilled 80% of more ? .. A 100%	B 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2035 Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Krameria Avenue (North)**

Total of Both Approaches (VPH) = **280**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Cosmos Street**

High Volume Approach (VPH) = **144**

Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

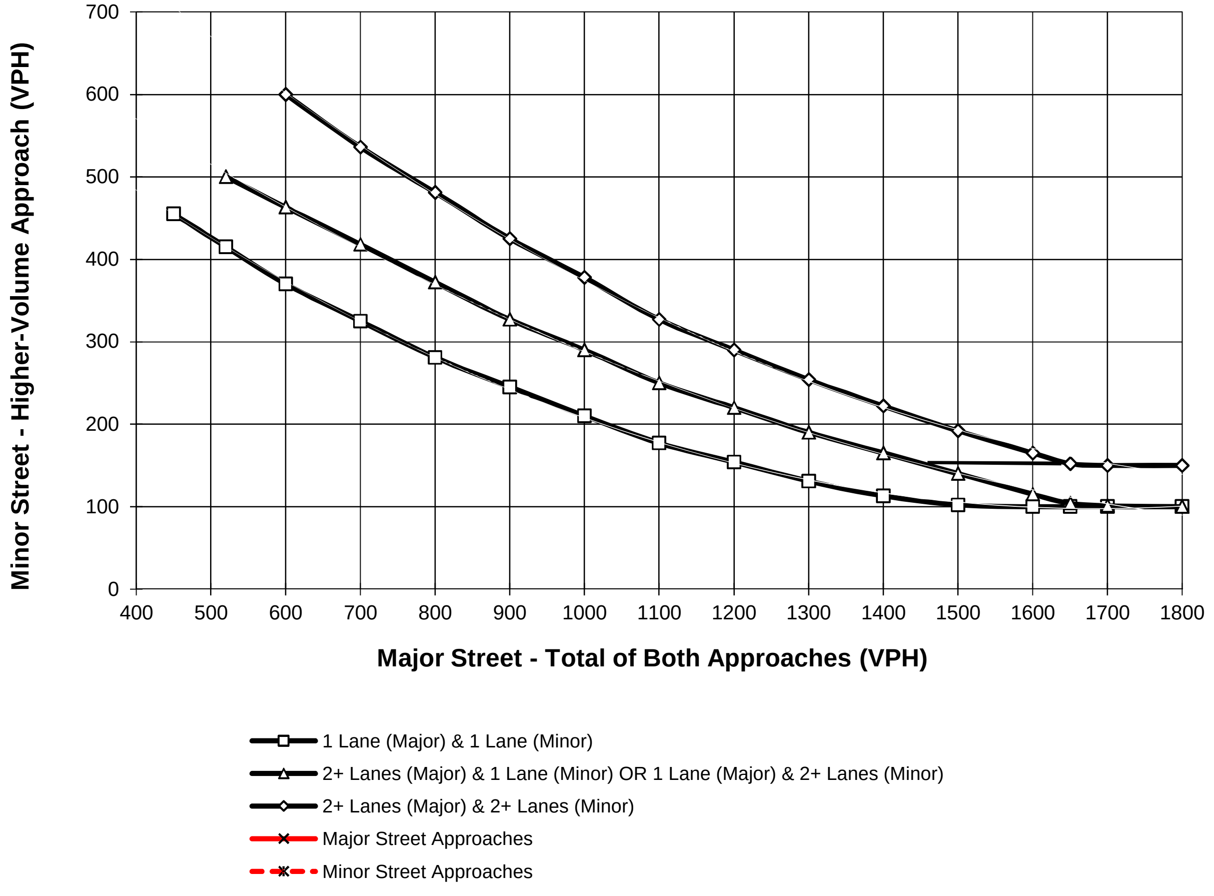

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 7.6:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2035 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Heacock St**

Minor Street: **Driveway 1**

Critical Approach Speed (Major) 50 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **25,166** vpd

Minor Street Future ADT = **281** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **25,166**	*1* **281**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **25,166**	*1* **281**	12,000	8,400 *	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..					
A	**B**				
17%	33%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2035 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Heacock St**

Minor Street: **Driveway 2**

Critical Approach Speed (Major) 50 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **25,464** vpd

Minor Street Future ADT = **720** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ? . ? ... ☑

or **RURAL (R)**

In built up area of isolated community of < 10,000 population ? ? ? ? ? . ? . ? . ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **25,464**	*1* **720**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **25,464**	*1* **720**	12,000	8,400 *	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ? ..					
A	**B**				
43%	**85%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **2035 With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Krameria Avenue (North)**

Total of Both Approaches (VPH) = **400**

Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Cosmos Street**

High Volume Approach (VPH) = **225**

Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

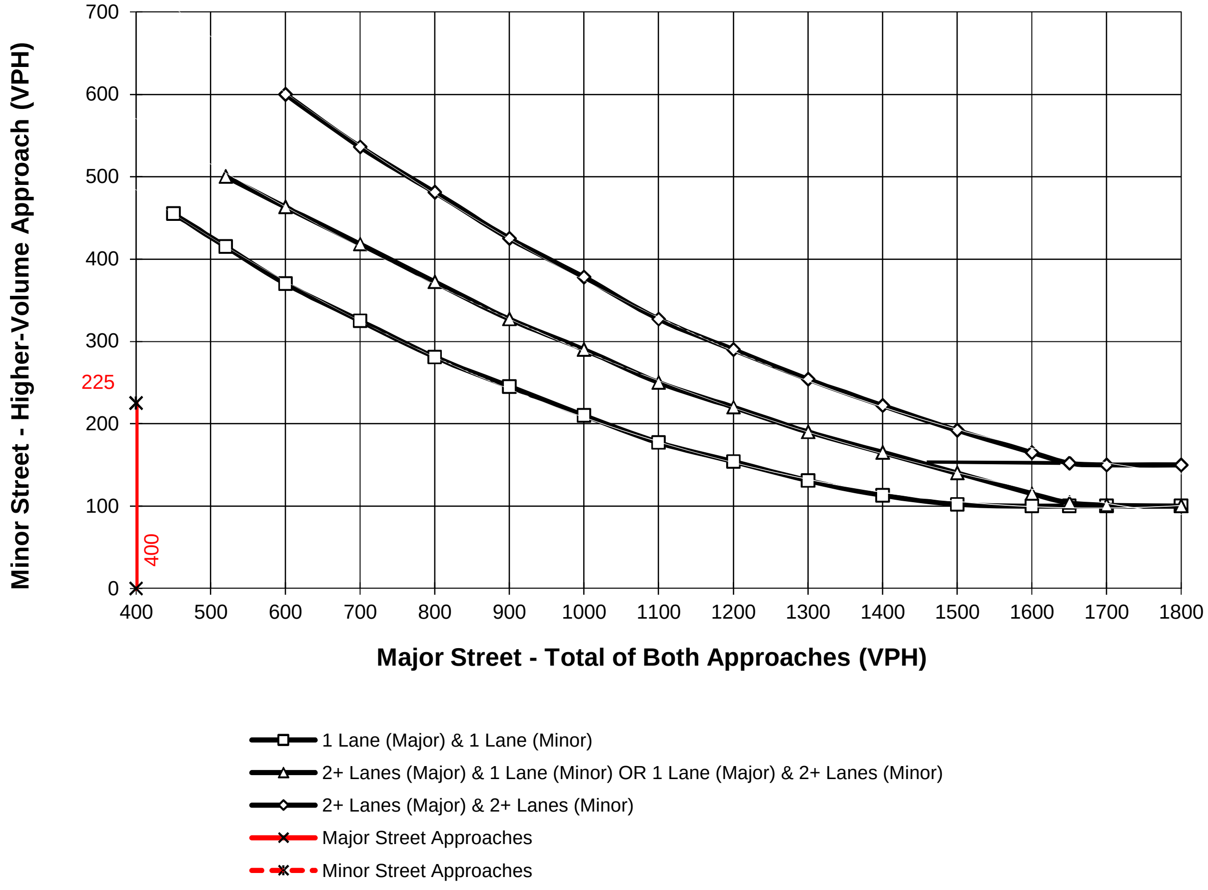

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

URBAN CROSSROADS

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2035 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Cosmos Street**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,729** vpd

Minor Street Future ADT = **2,718** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,729**	1 **2,718**	8,000	5,600	2,400 *	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **2,729**	1 **2,718**	12,000	8,400	1,200 *	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	**B**				
34%	**23%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2035 WP**

___ DIST ___ CO ___ RTE ___ PM

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 3**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **4,919** vpd

Minor Street Future ADT = **256** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,919**	1 **256**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,919**	1 **256**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	B				
11%	21%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST ___ CO ___ RTE ___ PM ___

TRAFFIC CONDITIONS **2035 WP**

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 4**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,893** vpd

Minor Street Future ADT = **124** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,893**	1 **124**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,893**	1 **124**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	B				
5%	10%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **2035 WP**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 07/12/15

CHK CHS DATE 07/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Krameria Street**

Minor Street: **Driveway 5**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,877** vpd

Minor Street Future ADT = **278** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,877**	*1* **278**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2 +*	9,600	6,720	3,200	2,240
1	*2 +*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,877**	*1* **278**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2 +*	14,400	10,080	1,600	1,120
1	*2 +*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more …..					
A	**B**				
12%	**23%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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APPENDIX 7.7:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7746	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2179	pc/h/ln
S	58.9	mph
D = v_p / S	37.0	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7465	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2069	pc/h/ln
S	61.2	mph
D = v_p / S	33.8	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6885	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2544	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	49.0	mph	S	mph
D = v_p / S	51.9	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	F		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5135	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1907	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	64.2	mph	S	mph
D = v_p / S	29.7	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6219	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1766	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	66.3	mph	S		mph
D = v_p / S	26.6	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7185	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2011	pc/h/ln
S	62.4	mph
D = v_p / S	32.2	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6858	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2534	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	49.4	mph	S	mph
D = v_p / S	51.3	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	F		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6235	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2293	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	56.1	mph	S	mph
D = v_p / S	40.8	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	E		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7722	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2172	pc/h/ln
S	59.0	mph
D = v_p / S	36.8	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	8477	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2373	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	54.0	mph	S		mph
D = v_p / S	43.9	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	E		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6860	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2535	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	49.3	mph	S	mph
D = v_p / S	51.4	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	F		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6182	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2285	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	56.3	mph	S	mph
D = v_p / S	40.6	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	E		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6253	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1776	pc/h/ln
S	66.2	mph
D = v_p / S	26.8	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5223	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1448	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	69.3	mph	S	mph
D = v_p / S	20.9	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6891	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2547	pc/h/ln
S	49.0	mph
D = v_p / S	52.0	pc/mi/ln
LOS	F	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5282	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1952	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	63.4	mph	S	mph
D = v_p / S	30.8	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 7.8:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7913	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2236	pc/h/ln
S	57.5	mph
D = v_p / S	38.9	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7546	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2102	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	60.6	mph	S		mph
D = v_p / S	34.7	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6966	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2587	pc/h/ln
S	47.7	mph
D = v_p / S	54.3	pc/mi/ln
LOS	F	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5151	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1922	pc/h/ln
S	64.0	mph
D = v_p / S	30.1	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6256	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	9
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.957

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1776	pc/h/ln
S	66.2	mph
D = v_p / S	26.8	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7203	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2026	pc/h/ln
S	62.1	mph
D = v_p / S	32.6	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6875	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2541	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	49.1	mph	S	mph
D = v_p / S	51.7	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	F		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6296	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2327	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	55.3	mph	S		mph
D = v_p / S	42.1	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	E		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7763	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	4		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2183	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	58.8	mph	S	mph
D = v_p / S	37.1	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	E		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	8497	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2378	pc/h/ln
S	53.9	mph
D = v_p / S	44.1	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6881	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.980

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2543	pc/h/ln
S	49.1	mph
D = v_p / S	51.8	pc/mi/ln
LOS	F	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6257	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2312	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	55.7	mph	S		mph
D = v_p / S	41.5	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	E		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6433	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1836	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	65.3	mph	S		mph
D = v_p / S	28.1	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5311	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1479	pc/h/ln
S	69.1	mph
D = v_p / S	21.4	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6979	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
			Design (N)		
Operational (LOS)			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2592	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	47.5	mph	S		mph
D = v_p / S	54.5	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	F		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5298	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1968	pc/h/ln
S	63.2	mph
D = v_p / S	31.2	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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APPENDIX 7.9:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 1001 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6745
Ramp Volume, V_R	886
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6745	0.92	Level	7	0	0.966	1.00	7588
Ramp	886	0.92	Level	25	0	0.889	1.00	1083
UpStream	1001	0.92	Level	7	0	0.966	1.00	1126
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3919 pc/h

V_3 or V_{av34} 1834 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7588	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6505	Exhibit 13-8	9600	No
V_R	1083	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3919	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 38.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.785 (Exhibit 13-12)

S_R= 48.0 mph (Exhibit 13-12)

S_0= 73.5 mph (Exhibit 13-12)

S = 57.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp		Freeway Number of Lanes, N	4	Downstream Adj Ramp	
☐ Yes	☐ On	Ramp Number of Lanes, N	1	☑ Yes	☑ On
☑ No	☐ Off	Acceleration Lane Length, L_A		☐ No	☐ Off
L_{up} =	ft	Deceleration Lane Length L_D	0	L_{down} =	1500 ft
V_u =	veh/h	Freeway Volume, V_F	6745	V_D =	1606 veh/h
		Ramp Volume, V_R	886		
		Freeway Free-Flow Speed, S_{FF}	70.0		
		Ramp Free-Flow Speed, S_{FR}	15.0		

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6745	0.92	Level	7	0	0.966	1.00	7588
Ramp	886	0.92	Level	25	0	0.889	1.00	1083
UpStream								
DownStream	1606	0.92	Level	3	0	0.985	1.00	1772

Merge Areas	Diverge Areas

Estimation of v_{12} (Merge Areas)

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Estimation of v_{12} (Diverge Areas)

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3919 pc/h

V_3 or V_{av34} 1834 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks (Merge Areas)

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Capacity Checks (Diverge Areas)

	Actual	Capacity		LOS F?
V_F	7588	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6505	Exhibit 13-8	9600	No
V_R	1083	Exhibit 13-10	1800	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3919	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F) (Merge Areas)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Level of Service Determination (if not F) (Diverge Areas)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 38.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination (Merge Areas)

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Speed Determination (Diverge Areas)

D_s = 0.785 (Exhibit 13-12)

S_R= 48.0 mph (Exhibit 13-12)

S_0= 73.5 mph (Exhibit 13-12)

S = 57.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	6885
Ramp Volume, V_R	2130
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 380 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6885	0.92	Level	4	0	0.980	1.00	7633
Ramp	2130	0.92	Level	6	0	0.971	1.00	2385
UpStream								
DownStream	380	0.92	Level	26	0	0.885	1.00	467

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.459 using Equation (Exhibit 13-7)

V_{12} = 4796 pc/h

V_3 or V_{av34} 2837 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4933 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7633	Exhibit 13-8	7200	Yes
$V_{FO} = V_F - V_R$	5248	Exhibit 13-8	7200	No
V_R	2385	Exhibit 13-10	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4796	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$

D_R = 44.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.513 (Exhibit 13-12)

S_R= 55.6 mph (Exhibit 13-12)

S_0= 70.2 mph (Exhibit 13-12)

S = 60.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 2130 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	4755
Ramp Volume, V_R	380
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4755	0.92	Level	4	0	0.980	1.00	5272
Ramp	380	0.92	Level	26	0	0.885	1.00	467
UpStream	2130	0.92	Level	6	0	0.971	1.00	2385
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 1294.99 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 3083 pc/h

V_3 or V_{av34} 2189 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes, V_{12a} = 3083 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5739	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3550	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 31.3 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.433 (Exibit 13-11)

S_R= 57.9 mph (Exhibit 13-11)

S_0= 63.9 mph (Exhibit 13-11)

S = 60.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 406 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	5242
Ramp Volume, V_R	977
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5242	0.92	Level	8	0	0.962	1.00	5926
Ramp	977	0.92	Level	12	0	0.943	1.00	1126
UpStream	406	0.92	Level	17	0	0.922	1.00	479
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 3422 pc/h

V_3 or V_{av34} 2504 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3422 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7052	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4548	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 40.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.689 (Exibit 13-11)

S_R= 50.7 mph (Exhibit 13-11)

S_0= 62.2 mph (Exhibit 13-11)

S = 54.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 580 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	5655
Ramp Volume, V_R	1203
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5655	0.92	Level	2	0	0.990	1.00	6208
Ramp	1203	0.92	Level	16	0	0.926	1.00	1412
UpStream	580	0.92	Level	17	0	0.922	1.00	684
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1715.28 (Equation 13-6 or 13-7)

P_{FM} = 0.566 using Equation (Exhibit 13-6)

V_{12} = 3511 pc/h

V_3 or V_{av34} 2697 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3547 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7620	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4959	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 41.6 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 0.850 (Exibit 13-11)

S_R= 46.2 mph (Exhibit 13-11)

S_0= 61.3 mph (Exhibit 13-11)

S = 50.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	6235
Ramp Volume, V_R	580
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 1203 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6235	0.92	Level	3	0	0.985	1.00	6879
Ramp	580	0.92	Level	17	0	0.922	1.00	684
UpStream								
DownStream	1203	0.92	Level	16	0	0.926	1.00	1412

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.557 using Equation (Exhibit 13-7)

V_{12} = 4132 pc/h

V_3 or V_{av34} 2747 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4179 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6879	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	6195	Exhibit 13-8	7200	No
V_R	684	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4132	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 37.7 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.360 (Exhibit 13-12)

S_R= 59.9 mph (Exhibit 13-12)

S_0= 70.2 mph (Exhibit 13-12)

S = 63.6 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 425 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	7297
Ramp Volume, V_R	977
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	7297	0.92	Level	7	0	0.966	1.00	8209
Ramp	977	0.92	Level	14	0	0.935	1.00	1136
UpStream	425	0.92	Level	10	0	0.952	1.00	485
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 4220 pc/h

V_3 or V_{av34} 1994 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8209	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	7073	Exhibit 13-8	9600	No
V_R	1136	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4220	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 40.5 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.790 (Exhibit 13-12)

S_R= 47.9 mph (Exhibit 13-12)

S_0= 72.9 mph (Exhibit 13-12)

S = 57.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N 4

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A

Deceleration Lane Length L_D 0

Freeway Volume, V_F 7297

Ramp Volume, V_R 977

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 2157 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7297	0.92	Level	7	0	0.966	1.00	8209
Ramp	977	0.92	Level	14	0	0.935	1.00	1136
UpStream								
DownStream	2157	0.92	Level	7	0	0.966	1.00	2427

Merge Areas	Diverge Areas

Estimation of v_{12} (Merge Areas)

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Estimation of v_{12} (Diverge Areas)

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 4220 pc/h

V_3 or V_{av34} 1994 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks (Merge)

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Capacity Checks (Diverge)

	Actual	Capacity		LOS F?
V_F	8209	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	7073	Exhibit 13-8	9600	No
V_R	1136	Exhibit 13-10	1800	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4220	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F) (Merge)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Level of Service Determination (if not F) (Diverge)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 40.5 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination (Merge)

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Speed Determination (Diverge)

D_s = 0.790 (Exhibit 13-12)

S_R= 47.9 mph (Exhibit 13-12)

S_0= 72.9 mph (Exhibit 13-12)

S = 57.5 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	6860
Ramp Volume, V_R	1530
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 852 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6860	0.92	Level	4	0	0.980	1.00	7606
Ramp	1530	0.92	Level	16	0	0.926	1.00	1796
UpStream								
DownStream	852	0.92	Level	21	0	0.905	1.00	1023

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F \, (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734 \, v_R + 0.0078 \, V_{12} - 0.00627 \, L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.487 using Equation (Exhibit 13-7)

V_{12} = 4627 pc/h

V_3 or V_{av34} 2979 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4906 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7606	Exhibit 13-8	7200	Yes
$V_{FO} = V_F - V_R$	5810	Exhibit 13-8	7200	No
V_R	1796	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4627	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086 \, V_{12} - 0.009 \, L_D$$

D_R = 44.7 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.460 (Exhibit 13-12)

S_R= 57.1 mph (Exhibit 13-12)

S_0= 70.2 mph (Exhibit 13-12)

S = 61.2 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 1530 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	5330
Ramp Volume, V_R	852
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5330	0.92	Level	1	0	0.995	1.00	5822
Ramp	852	0.92	Level	21	0	0.905	1.00	1023
UpStream	1530	0.92	Level	16	0	0.926	1.00	1796
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 1531.67 (Equation 13-6 or 13-7)

P_{FM} = 0.578 using Equation (Exhibit 13-6)

V_{12} = 3363 pc/h

V_3 or V_{av34} 2459 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3363 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6845	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4386	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 37.6 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.611 (Exibit 13-11)

S_R= 52.9 mph (Exhibit 13-11)

S_0= 62.5 mph (Exhibit 13-11)

S = 56.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 846 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	4944
Ramp Volume, V_R	1309
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4944	0.92	Level	5	0	0.976	1.00	5508
Ramp	1309	0.92	Level	22	0	0.901	1.00	1579
UpStream	846	0.92	Level	11	0	0.948	1.00	970
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 3181 pc/h

V_3 or V_{av34} 2327 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3181 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7087	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4760	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$$

D_R = 41.9 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.776 (Exibit 13-11)

S_R= 48.3 mph (Exhibit 13-11)

S_0= 63.3 mph (Exhibit 13-11)

S = 52.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s =

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 592 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	4690
Ramp Volume, V_R	2201
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4690	0.92	Level	4	0	0.980	1.00	5200
Ramp	2201	0.92	Level	6	0	0.971	1.00	2464
UpStream	592	0.92	Level	11	0	0.948	1.00	679
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1724.70 (Equation 13-6 or 13-7)

P_{FM} = 0.565 using Equation (Exhibit 13-6)

V_{12} = 2938 pc/h

V_3 or V_{av34} 2262 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2971 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7664	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5435	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 44.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.188 (Exibit 13-11)

S_R= 36.7 mph (Exhibit 13-11)

S_0= 63.8 mph (Exhibit 13-11)

S = 41.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	5282
Ramp Volume, V_R	592
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 2201 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5282	0.92	Level	4	0	0.980	1.00	5856
Ramp	592	0.92	Level	11	0	0.948	1.00	679
UpStream								
DownStream	2201	0.92	Level	6	0	0.971	1.00	2464

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.582 using Equation (Exhibit 13-7)

V_{12} = 3694 pc/h

V_3 or V_{av34} 2162 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5856	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5177	Exhibit 13-8	7200	No
V_R	679	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3694	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 33.5 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.359 (Exhibit 13-12)

S_R= 59.9 mph (Exhibit 13-12)

S_0= 72.3 mph (Exhibit 13-12)

S = 64.0 mph (Exhibit 13-13)

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APPENDIX 7.10:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 1001 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6912
Ramp Volume, V_R	972
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6912	0.92	Level	8	0	0.962	1.00	7814
Ramp	972	0.92	Level	27	0	0.881	1.00	1199
UpStream	1001	0.92	Level	7	0	0.966	1.00	1126
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 4083 pc/h

V_3 or V_{av34} 1865 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7814	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6615	Exhibit 13-8	9600	No
V_R	1199	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4083	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 39.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.796 (Exhibit 13-12)

S_R= 47.7 mph (Exhibit 13-12)

S_0= 73.4 mph (Exhibit 13-12)

S = 57.3 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6912
Ramp Volume, V_R	972
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 1606 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6912	0.92	Level	8	0	0.962	1.00	7814
Ramp	972	0.92	Level	27	0	0.881	1.00	1199
UpStream								
DownStream	1606	0.92	Level	3	0	0.985	1.00	1772

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 4083 pc/h

V_3 or V_{av34} 1865 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7814	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	6615	Exhibit 13-8	9600	No
V_R	1199	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4083	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$$

D_R = 39.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.796 (Exhibit 13-12)

S_R= 47.7 mph (Exhibit 13-12)

S_0= 73.4 mph (Exhibit 13-12)

S = 57.3 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	6966
Ramp Volume, V_R	2211
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 396 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6966	0.92	Level	5	0	0.976	1.00	7761
Ramp	2211	0.92	Level	8	0	0.962	1.00	2499
UpStream								
DownStream	396	0.92	Level	28	0	0.877	1.00	491

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.451 using Equation (Exhibit 13-7)

V_{12} = 4872 pc/h

V_3 or V_{av34} 2889 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 5061 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7761	Exhibit 13-8	7200	Yes
$V_{FO} = V_F - V_R$	5262	Exhibit 13-8	7200	No
V_R	2499	Exhibit 13-10	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4872	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 46.0 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.523 (Exhibit 13-12)

S_R= 55.4 mph (Exhibit 13-12)

S_0= 70.2 mph (Exhibit 13-12)

S = 59.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 2211 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	4755
Ramp Volume, V_R	396
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4755	0.92	Level	4	0	0.980	1.00	5272
Ramp	396	0.92	Level	28	0	0.877	1.00	491
UpStream	2211	0.92	Level	8	0	0.962	1.00	2499
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 1300.12 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 3083 pc/h

V_3 or V_{av34} 2189 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3083 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5763	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3574	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = 31.5 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.437 (Exibit 13-11)

S_R= 57.8 mph (Exhibit 13-11)

S_0= 63.9 mph (Exhibit 13-11)

S = 60.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 406 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	5260
Ramp Volume, V_R	996
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5260	0.92	Level	8	0	0.962	1.00	5946
Ramp	996	0.92	Level	12	0	0.943	1.00	1148
UpStream	406	0.92	Level	17	0	0.922	1.00	479
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 3434 pc/h

V_3 or V_{av34} 2512 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3434 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7094	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4582	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 40.7 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.702 (Exibit 13-11)

S_R= 50.3 mph (Exhibit 13-11)

S_0= 62.2 mph (Exhibit 13-11)

S = 54.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 642 veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A 300

Deceleration Lane Length L_D

Freeway Volume, V_F 5654

Ramp Volume, V_R 1221

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5654	0.92	Level	2	0	0.990	1.00	6207
Ramp	1221	0.92	Level	16	0	0.926	1.00	1433
UpStream	642	0.92	Level	23	0	0.897	1.00	778
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 1719.56 (Equation 13-6 or 13-7)

P_{FM} = 0.565 using Equation (Exhibit 13-6)

V_{12} = 3509 pc/h

V_3 or V_{av34} 2698 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3546 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7640	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4979	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 41.8 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

M_S = 0.861 (Exibit 13-11)

S_R= 45.9 mph (Exhibit 13-11)

S_0= 61.3 mph (Exhibit 13-11)

S = 50.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	6296
Ramp Volume, V_R	642
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 1221 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6296	0.92	Level	4	0	0.980	1.00	6980
Ramp	642	0.92	Level	23	0	0.897	1.00	778
UpStream								
DownStream	1221	0.92	Level	16	0	0.926	1.00	1433

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.550 using Equation (Exhibit 13-7)

V_{12} = 4187 pc/h

V_3 or V_{av34} 2793 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4280 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6980	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	6202	Exhibit 13-8	7200	No
V_R	778	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4187	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$

D_R = 38.5 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.368 (Exhibit 13-12)

S_R= 59.7 mph (Exhibit 13-12)

S_0= 70.2 mph (Exhibit 13-12)

S = 63.4 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 425 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	7338
Ramp Volume, V_R	998
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7338	0.92	Level	7	0	0.966	1.00	8255
Ramp	998	0.92	Level	15	0	0.930	1.00	1166
UpStream	425	0.92	Level	10	0	0.952	1.00	485
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 4257 pc/h

V_3 or V_{av34} 1999 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8255	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	7089	Exhibit 13-8	9600	No
V_R	1166	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4257	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 40.9 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.793 (Exhibit 13-12)

S_R= 47.8 mph (Exhibit 13-12)

S_0= 72.9 mph (Exhibit 13-12)

S = 57.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	7338
Ramp Volume, V_R	998
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 2157 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	7338	0.92	Level	7	0	0.966	1.00	8255
Ramp	998	0.92	Level	15	0	0.930	1.00	1166
UpStream								
DownStream	2157	0.92	Level	7	0	0.966	1.00	2427

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 4257 pc/h

V_3 or V_{av34} 1999 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	8255	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	7089	Exhibit 13-8	9600	No
V_R	1166	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4257	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 40.9 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.793 (Exhibit 13-12)

S_R= 47.8 mph (Exhibit 13-12)

S_0= 72.9 mph (Exhibit 13-12)

S = 57.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	6881
Ramp Volume, V_R	1550
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 926 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6881	0.92	Level	4	0	0.980	1.00	7629
Ramp	1550	0.92	Level	16	0	0.926	1.00	1820
UpStream								
DownStream	926	0.92	Level	25	0	0.889	1.00	1132

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.486 using Equation (Exhibit 13-7)

V_{12} = 4641 pc/h

V_3 or V_{av34} 2988 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☑ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = 4929 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7629	Exhibit 13-8	7200	Yes
$V_{FO} = V_F - V_R$	5809	Exhibit 13-8	7200	No
V_R	1820	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4641	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 44.9 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.462 (Exhibit 13-12)

S_R= 57.1 mph (Exhibit 13-12)

S_0= 70.2 mph (Exhibit 13-12)

S = 61.1 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 1550 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	5331
Ramp Volume, V_R	926
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5331	0.92	Level	1	0	0.995	1.00	5824
Ramp	926	0.92	Level	25	0	0.889	1.00	1132
UpStream	1550	0.92	Level	16	0	0.926	1.00	1820
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1555.42 (Equation 13-6 or 13-7)

P_{FM} = 0.576 using Equation (Exhibit 13-6)

V_{12} = 3355 pc/h

V_3 or V_{av34} 2469 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 3355 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6956	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4487	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 38.3 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.644 (Exibit 13-11)

S_R= 52.0 mph (Exhibit 13-11)

S_0= 62.5 mph (Exhibit 13-11)

S = 55.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{up} = 1075 ft
V_u = 846 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	5032
Ramp Volume, V_R	1401
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5032	0.92	Level	6	0	0.971	1.00	5634
Ramp	1401	0.92	Level	24	0	0.893	1.00	1706
UpStream	846	0.92	Level	11	0	0.948	1.00	970
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = 0.577 using Equation (Exhibit 13-6)
V_{12} = 3254 pc/h
V_3 or V_{av34} 2380 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 3254 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7340	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4960	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 43.4 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

M_S = 0.877 (Exibit 13-11)
S_R= 45.4 mph (Exhibit 13-11)
S_0= 63.0 mph (Exhibit 13-11)
S = 50.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = using Equation (Exhibit 13-7)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)
S_R= mph (Exhibit 13-12)
S_0= mph (Exhibit 13-12)
S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 1395 ft
V_u = 607 veh/h

Freeway Number of Lanes, N 3
Ramp Number of Lanes, N 1
Acceleration Lane Length, L_A 300
Deceleration Lane Length L_D
Freeway Volume, V_F 4691
Ramp Volume, V_R 2288
Freeway Free-Flow Speed, S_{FF} 70.0
Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4691	0.92	Level	4	0	0.980	1.00	5201
Ramp	2288	0.92	Level	8	0	0.962	1.00	2586
UpStream	607	0.92	Level	12	0	0.943	1.00	699
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1751.02 (Equation 13-6 or 13-7)
P_{FM} = 0.563 using Equation (Exhibit 13-6)
V_{12} = 2930 pc/h
V_3 or V_{av34} 2271 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2972 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	7787	Exhibit 13-8		Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	5558	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 45.8 (pc/mi/ln)
LOS = F (Exhibit 13-2)

Speed Determination

M_S = 1.305 (Exibit 13-11)
S_R= 33.5 mph (Exhibit 13-11)
S_0= 63.8 mph (Exhibit 13-11)
S = 38.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = using Equation (Exhibit 13-7)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)
S_R= mph (Exhibit 13-12)
S_0= mph (Exhibit 13-12)
S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{up} = ft
V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	5298
Ramp Volume, V_R	607
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp
☑ Yes ☑ On
☐ No ☐ Off
L_{down} = 1395 ft
V_D = 2288 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5298	0.92	Level	5	0	0.976	1.00	5903
Ramp	607	0.92	Level	12	0	0.943	1.00	699
UpStream								
DownStream	2288	0.92	Level	8	0	0.962	1.00	2586

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)
P_{FM} = using Equation (Exhibit 13-6)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)
S_R= mph (Exhibit 13-11)
S_0= mph (Exhibit 13-11)
S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = 0.580 using Equation (Exhibit 13-7)
V_{12} = 3719 pc/h
V_3 or V_{av34} 2184 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5903	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5204	Exhibit 13-8	7200	No
V_R	699	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3719	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = 33.7 (pc/mi/ln)
LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.361 (Exhibit 13-12)
S_R= 59.9 mph (Exhibit 13-12)
S_0= 72.2 mph (Exhibit 13-12)
S = 63.9 mph (Exhibit 13-13)

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APPENDIX 7.11:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av. 7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑							↱↱
Volume (vph)	0	1062	675	931	1838	0	0	0	0	0	0	1001
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5							5.6
Lane Util. Factor		*1.00	1.00	*1.00	*1.00							*1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00							0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00							1.00
Frt		1.00	1.00	1.00	1.00							1.00
Flt Protected		1.00	1.00	1.00	1.00							1.00
Satd. Flow (prot)		3800	1900	3800	3800							3713
Flt Permitted		1.00	1.00	1.00	1.00							1.00
Satd. Flow (perm)		3800	1900	3800	3800							3713
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1118	711	980	1935	0	0	0	0	0	0	1054
RTOR Reduction (vph)	0	0	393	0	0	0	0	0	0	0	0	72
Lane Group Flow (vph)	0	1118	318	980	1935	0	0	0	0	0	0	982
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA							Perm
Protected Phases		2		1	6							
Permitted Phases			2									4
Actuated Green, G (s)		27.9	27.9	23.4	55.3							23.6
Effective Green, g (s)		27.9	27.9	23.4	55.3							23.6
Actuated g/C Ratio		0.31	0.31	0.26	0.61							0.26
Clearance Time (s)		5.5	5.5	4.0	5.5							5.6
Vehicle Extension (s)		2.0	2.0	2.0	2.0							2.0
Lane Grp Cap (vph)		1178	589	988	2334							973
v/s Ratio Prot		c0.29		c0.26	0.51							
v/s Ratio Perm			0.17									c0.26
v/c Ratio		0.95	0.54	0.99	0.83							1.01
Uniform Delay, d1		30.4	25.7	33.2	13.6							33.2
Progression Factor		1.00	1.00	1.00	1.00							1.00
Incremental Delay, d2		16.5	3.5	26.5	3.6							31.3
Delay (s)		46.9	29.3	59.7	17.2							64.5
Level of Service		D	C	E	B							E
Approach Delay (s)		40.0			31.5			0.0			64.5	
Approach LOS		D			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	886	142	239	516	0	0	0	0	1449	2	707
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	943	146	254	549	0				1541	2	688
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1098	467	307	1631	0				1663	2	740
Arrive On Green	0.00	0.29	0.29	0.08	0.43	0.00				0.46	0.46	0.46
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	5	1611
Grp Volume(v), veh/h	0	943	146	254	549	0				1541	0	690
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	21.1	6.4	6.2	8.7	0.0				36.1	0.0	36.3
Cycle Q Clear(g_c), s	0.0	21.1	6.4	6.2	8.7	0.0				36.1	0.0	36.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1098	467	307	1631	0				1663	0	743
V/C Ratio(X)	0.00	0.86	0.31	0.83	0.34	0.00				0.93	0.00	0.93
Avail Cap(c_a), veh/h	0	1098	467	307	1631	0				1689	0	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.94	0.94	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.3	25.0	40.5	17.1	0.0				22.9	0.0	22.9
Incr Delay (d2), s/veh	0.0	8.8	1.7	15.0	0.5	0.0				9.2	0.0	17.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.3	3.1	3.7	4.6	0.0				20.1	0.0	19.8
LnGrp Delay(d),s/veh	0.0	39.0	26.8	55.5	17.7	0.0				32.1	0.0	40.7
LnGrp LOS		D	C	E	B					C		D
Approach Vol, veh/h		1089			803						2231	
Approach Delay, s/veh		37.4			29.6						34.7	
Approach LOS		D			C						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	12.6	31.0		46.4		43.6		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	7.5	* 26		42.0		38.0		
Max Q Clear Time (g_c+I1), s	8.2	23.1		38.3		10.7		
Green Ext Time (p_c), s	0.0	1.3		3.1		2.6		

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱		↑↑↑↑	↱	↰↰	↑↱		↰↰	↑	↱↱
Volume (veh/h)	147	1395	406	0	2613	437	853	967	32	230	0	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	1423	0	0	2666	402	870	987	33	235	0	281
Adj No. of Lanes	2	3	1	0	4	1	2	2	0	2	1	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1494	4664	1321	0	2736	714	836	1153	39	296	321	1647
Arrive On Green	0.41	0.82	0.00	0.00	0.36	0.36	0.23	0.32	0.32	0.08	0.00	0.17
Sat Flow, veh/h	3619	5700	1615	0	7600	1615	3619	3563	119	3619	1900	2801
Grp Volume(v), veh/h	150	1423	0	0	2666	402	870	500	520	235	0	281
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	0	1900	1615	1810	1805	1877	1810	1900	1400
Q Serve(g_s), s	2.8	6.7	0.0	0.0	38.0	11.3	25.4	28.5	28.5	7.0	0.0	3.5
Cycle Q Clear(g_c), s	2.8	6.7	0.0	0.0	38.0	11.3	25.4	28.5	28.5	7.0	0.0	3.5
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	1494	4664	1321	0	2736	714	836	584	607	296	321	1647
V/C Ratio(X)	0.10	0.31	0.00	0.00	0.97	0.56	1.04	0.86	0.86	0.79	0.00	0.17
Avail Cap(c_a), veh/h	1494	4664	1321	0	2736	714	836	584	607	296	321	1647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	2.4	0.0	0.0	34.7	22.8	42.3	34.8	34.8	49.6	0.0	14.9
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	12.2	3.2	42.3	14.9	14.4	12.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.5	0.0	0.0	22.1	5.7	17.6	16.6	17.2	4.0	0.0	1.9
LnGrp Delay(d),s/veh	19.8	2.6	0.0	0.0	46.9	26.0	84.6	49.7	49.2	62.3	0.0	15.1
LnGrp LOS	B	A			D	C	F	D	D	E		B
Approach Vol, veh/h		1573			3068			1890			516	
Approach Delay, s/veh		4.2			44.1			65.6			36.6	
Approach LOS		A			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		96.8	31.0	24.2	52.2	44.6	14.6	40.6
Change Period (Y+Rc), s		* 5.6	5.6	* 5.6	5.6	5.0	5.6	5.0
Max Green Setting (Gmax), s		* 50	25.4	* 19	5.2	39.6	8.4	35.6
Max Q Clear Time (g_c+I1), s		8.7	27.4	5.5	4.8	40.0	9.0	30.5
Green Ext Time (p_c), s		8.0	0.0	0.9	0.3	0.0	0.0	1.9

Intersection Summary		
HCM 2010 Ctrl Delay		40.4
HCM 2010 LOS		D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	587	1748	0	0	594	628	162	0	426	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	638	1900	0	0	646	0	176	0	377			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	498	2375	0	0	1742	740	528	0	471			
Arrive On Green	0.14	0.63	0.00	0.00	0.46	0.00	0.29	0.00	0.29			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	638	1900	0	0	646	0	176	0	377			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	16.5	45.0	0.0	0.0	13.3	0.0	9.2	0.0	25.9			
Cycle Q Clear(g_c), s	16.5	45.0	0.0	0.0	13.3	0.0	9.2	0.0	25.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	498	2375	0	0	1742	740	528	0	471			
V/C Ratio(X)	1.28	0.80	0.00	0.00	0.37	0.00	0.33	0.00	0.80			
Avail Cap(c_a), veh/h	498	2375	0	0	1742	740	528	0	471			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.38	0.38	0.00	0.00	0.86	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	51.7	16.9	0.0	0.0	21.2	0.0	33.3	0.0	39.3			
Incr Delay (d2), s/veh	132.9	1.1	0.0	0.0	0.5	0.0	1.7	0.0	13.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	17.4	23.6	0.0	0.0	7.1	0.0	4.8	0.0	13.3			
LnGrp Delay(d),s/veh	184.7	18.0	0.0	0.0	21.7	0.0	35.0	0.0	52.6			
LnGrp LOS	F	B			C		D		D			
Approach Vol, veh/h		2538			646			553				
Approach Delay, s/veh		59.9			21.7			47.0				
Approach LOS		E			C			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		80.0			20.0	60.0		40.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		75.0			16.5	55.0		35.0
Max Q Clear Time (g_c+I1), s		47.0			18.5	15.3		27.9
Green Ext Time (p_c), s		15.9			0.0	18.9		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	51.4
HCM 2010 LOS	D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↑	↱	↰	↑↑↑↑	↱	↰↰	↑↱		↰	↑	↱
Volume (veh/h)	202	2004	384	121	2801	222	58	186	21	155	152	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	213	2109	0	127	2948	226	61	196	1	163	160	95
Adj No. of Lanes	1	4	1	1	4	1	2	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	3445	732	580	5154	1095	154	464	2	98	489	579
Arrive On Green	0.10	0.45	0.00	0.32	0.68	0.68	0.04	0.25	0.25	0.05	0.26	0.26
Sat Flow, veh/h	1810	7600	1615	1810	7600	1615	3619	1889	10	1810	1900	1594
Grp Volume(v), veh/h	213	2109	0	127	2948	226	61	0	197	163	160	95
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1594
Q Serve(g_s), s	12.5	25.2	0.0	6.2	24.5	6.3	2.0	0.0	10.5	6.5	8.2	4.9
Cycle Q Clear(g_c), s	12.5	25.2	0.0	6.2	24.5	6.3	2.0	0.0	10.5	6.5	8.2	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	188	3445	732	580	5154	1095	154	0	467	98	489	579
V/C Ratio(X)	1.13	0.61	0.00	0.22	0.57	0.21	0.40	0.00	0.42	1.66	0.33	0.16
Avail Cap(c_a), veh/h	188	3445	732	580	5154	1095	154	0	467	98	489	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	24.8	0.0	29.8	10.2	7.2	56.0	0.0	38.1	56.8	36.1	26.0
Incr Delay (d2), s/veh	104.8	0.8	0.0	0.1	0.1	0.0	7.5	0.0	2.8	338.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	13.4	0.0	3.1	12.7	2.8	1.1	0.0	5.8	12.5	4.3	2.1
LnGrp Delay(d),s/veh	158.6	25.6	0.0	29.8	10.3	7.3	63.4	0.0	40.9	395.6	36.3	26.0
LnGrp LOS	F	C		C	B	A	E		D	F	D	C
Approach Vol, veh/h		2322			3301			258			418	
Approach Delay, s/veh		37.8			10.8			46.2			174.1	
Approach LOS		D			B			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	44.4	59.9	10.6	36.4	17.0	87.3	12.0	35.0
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	8.6	* 54	5.1	30.9	12.5	50.5	6.5	29.5
Max Q Clear Time (g_c+I1), s	8.2	27.2	4.0	10.2	14.5	26.5	8.5	12.5
Green Ext Time (p_c), s	0.0	12.1	0.0	1.4	0.0	18.5	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	Y	
Volume (veh/h)	86	2089	1186	35	11	36
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	2321	1318	39	12	40
Adj No. of Lanes	1	3	3	1	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	123	3293	2622	736	113	376
Arrive On Green	0.07	0.58	0.46	0.46	0.30	0.30
Sat Flow, veh/h	1810	5700	5700	1599	376	1253
Grp Volume(v), veh/h	96	2321	1318	39	53	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1599	1660	0
Q Serve(g_s), s	4.7	26.1	14.6	1.2	2.1	0.0
Cycle Q Clear(g_c), s	4.7	26.1	14.6	1.2	2.1	0.0
Prop In Lane	1.00			1.00	0.23	0.75
Lane Grp Cap(c), veh/h	123	3293	2622	736	498	0
V/C Ratio(X)	0.78	0.70	0.50	0.05	0.11	0.00
Avail Cap(c_a), veh/h	171	3293	2622	736	498	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.3	13.5	17.1	13.5	22.8	0.0
Incr Delay (d2), s/veh	4.9	0.7	0.7	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	13.7	7.9	0.6	1.0	0.0
LnGrp Delay(d),s/veh	46.2	14.2	17.8	13.6	23.2	0.0
LnGrp LOS	D	B	B	B	C	
Approach Vol, veh/h		2417	1357		53	
Approach Delay, s/veh		15.5	17.6		23.2	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		57.5		32.5	10.6	46.9		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		52.0		27.0	8.5	39.0		
Max Q Clear Time (g_c+I1), s		28.1		4.1	6.7	16.6		
Green Ext Time (p_c), s		19.7		0.1	0.0	18.6		

Intersection Summary			
HCM 2010 Ctrl Delay			16.3
HCM 2010 LOS			B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	192	1732	289	29	2601	192	390	202	18	105	140	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	206	1862	0	31	2797	204	419	217	16	113	151	84
Adj No. of Lanes	2	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	4510	1278	40	4016	286	220	858	63	115	909	461
Arrive On Green	0.05	0.79	0.00	0.02	0.76	0.76	0.06	0.25	0.25	0.06	0.24	0.24
Sat Flow, veh/h	3619	5700	1615	1810	5260	374	3619	3498	256	1810	3800	1593
Grp Volume(v), veh/h	206	1862	0	31	2001	1000	419	117	116	113	151	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1834	1810	1900	1854	1810	1900	1593
Q Serve(g_s), s	5.7	11.7	0.0	2.0	30.2	32.6	7.0	5.7	5.8	7.2	3.6	5.2
Cycle Q Clear(g_c), s	5.7	11.7	0.0	2.0	30.2	32.6	7.0	5.7	5.8	7.2	3.6	5.2
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	179	4510	1278	40	2901	1400	220	466	455	115	909	461
V/C Ratio(X)	1.15	0.41	0.00	0.78	0.69	0.71	1.90	0.25	0.25	0.98	0.17	0.18
Avail Cap(c_a), veh/h	179	4510	1278	96	2901	1400	220	466	455	115	909	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.85	0.85	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	3.7	0.0	56.0	6.8	7.1	54.0	34.9	34.9	53.8	34.7	40.7
Incr Delay (d2), s/veh	107.8	0.2	0.0	1.2	0.1	0.3	422.5	1.3	1.3	78.5	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	6.1	0.0	1.0	15.6	16.2	16.4	3.2	3.1	6.1	2.0	2.4
LnGrp Delay(d),s/veh	162.4	4.0	0.0	57.1	6.9	7.4	476.5	36.2	36.3	132.3	35.1	41.5
LnGrp LOS	F	A		E	A	A	F	D	D	F	D	D
Approach Vol, veh/h		2068			3032			652			348	
Approach Delay, s/veh		19.7			7.6			319.2			68.2	
Approach LOS		B			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	97.5	12.5	33.0	10.2	94.3	11.8	33.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	6.1	54.4	7.0	* 28	5.7	54.8	7.3	27.2
Max Q Clear Time (g_c+I1), s	4.0	13.7	9.0	7.2	7.7	34.6	9.2	7.8
Green Ext Time (p_c), s	0.0	36.5	0.0	0.6	0.0	19.0	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	48.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
9: Patterson Avenue & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱		✢			↰↑	↱
Volume (veh/h)	13	1837	107	14	1159	6	172	4	26	1	4	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	1934	113	15	1220	6	181	4	27	1	4	15
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	2285	647	26	2290	649	537	18	67	152	567	587
Arrive On Green	0.01	0.40	0.40	0.01	0.40	0.40	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1217	49	185	250	1561	1615
Grp Volume(v), veh/h	14	1934	113	15	1220	6	212	0	0	5	0	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1451	0	0	1811	0	1615
Q Serve(g_s), s	0.5	21.5	3.2	0.6	11.4	0.2	7.2	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s	0.5	21.5	3.2	0.6	11.4	0.2	7.5	0.0	0.0	0.1	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	0.85		0.13	0.20		1.00
Lane Grp Cap(c), veh/h	25	2285	647	26	2290	649	622	0	0	720	0	587
V/C Ratio(X)	0.57	0.85	0.17	0.57	0.53	0.01	0.34	0.00	0.00	0.01	0.00	0.03
Avail Cap(c_a), veh/h	103	2321	658	103	2321	658	622	0	0	720	0	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.70	0.70	0.70	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.3	19.0	13.5	34.3	15.9	12.6	16.6	0.0	0.0	14.2	0.0	14.3
Incr Delay (d2), s/veh	7.4	2.9	0.0	5.1	0.1	0.0	1.5	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	11.9	1.4	0.3	6.0	0.1	3.3	0.0	0.0	0.1	0.0	0.2
LnGrp Delay(d),s/veh	41.7	21.9	13.6	39.3	16.0	12.6	18.0	0.0	0.0	14.2	0.0	14.4
LnGrp LOS	D	C	B	D	B	B	B			B		B
Approach Vol, veh/h		2061			1241			212			20	
Approach Delay, s/veh		21.6			16.3			18.0			14.4	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		30.9	5.5	33.6		30.9	5.5	33.6
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	28.5		22.0	4.0	28.5
Max Q Clear Time (g_c+I1), s		9.5	2.6	23.5		2.4	2.5	13.4
Green Ext Time (p_c), s		0.7	0.0	4.5		0.8	0.0	12.3

Intersection Summary			
HCM 2010 Ctrl Delay			19.5
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	162	1104	468	17	1752	153	962	716	10	82	354	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	176	1200	432	18	1904	157	1046	778	9	89	385	60
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	3786	1428	27	2989	245	799	1407	16	112	670	103
Arrive On Green	0.10	0.66	0.66	0.02	0.57	0.57	0.22	0.38	0.38	0.06	0.21	0.21
Sat Flow, veh/h	1810	5700	1613	1810	5198	427	3619	3748	43	1810	3214	497
Grp Volume(v), veh/h	176	1200	432	18	1389	672	1046	394	393	89	226	219
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1825	1810	1900	1891	1810	1900	1811
Q Serve(g_s), s	11.6	10.7	2.3	1.2	29.4	29.7	26.5	19.6	19.6	5.8	12.8	13.1
Cycle Q Clear(g_c), s	11.6	10.7	2.3	1.2	29.4	29.7	26.5	19.6	19.6	5.8	12.8	13.1
Prop In Lane	1.00		1.00	1.00		0.23	1.00		0.02	1.00		0.27
Lane Grp Cap(c), veh/h	188	3786	1428	27	2185	1049	799	713	710	112	396	377
V/C Ratio(X)	0.93	0.32	0.30	0.66	0.64	0.64	1.31	0.55	0.55	0.79	0.57	0.58
Avail Cap(c_a), veh/h	188	3786	1428	134	2185	1049	799	713	710	167	396	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.70	0.70	0.70	1.00	1.00	1.00	0.72	0.72	0.72	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	8.6	5.5	58.8	17.1	17.2	46.8	29.5	29.5	55.5	42.7	42.8
Incr Delay (d2), s/veh	37.1	0.2	0.4	9.7	1.4	3.0	145.5	2.2	2.2	7.9	5.9	6.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	5.6	1.0	0.7	15.7	15.8	29.4	10.7	10.7	3.2	7.4	7.2
LnGrp Delay(d),s/veh	90.4	8.7	5.9	68.5	18.5	20.1	192.3	31.8	31.8	63.4	48.6	49.1
LnGrp LOS	F	A	A	E	B	C	F	C	C	E	D	D
Approach Vol, veh/h		1808			2079			1833			534	
Approach Delay, s/veh		16.0			19.5			123.4			51.3	
Approach LOS		B			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	86.2	32.0	30.5	17.0	75.5	11.9	50.6
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.9	39.6	26.5	* 25	12.5	36.0	11.1	40.4
Max Q Clear Time (g_c+I1), s	13.2	12.7	28.5	15.1	13.6	31.7	7.8	21.6
Green Ext Time (p_c), s	0.0	19.7	0.0	1.1	0.0	4.0	0.0	5.0

Intersection Summary		
HCM 2010 Ctrl Delay		51.6
HCM 2010 LOS		D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
12: Heacock Street & Gentian Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Volume (veh/h)	6	139	1128	5	94	729
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	146	1187	5	99	767
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	200	178	1805	807	394	2811
Arrive On Green	0.11	0.11	0.50	0.50	0.22	0.78
Sat Flow, veh/h	1810	1615	3705	1615	1810	3705
Grp Volume(v), veh/h	6	146	1187	5	99	767
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1615	1810	1805
Q Serve(g_s), s	0.3	8.0	22.0	0.1	4.1	5.4
Cycle Q Clear(g_c), s	0.3	8.0	22.0	0.1	4.1	5.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	200	178	1805	807	394	2811
V/C Ratio(X)	0.03	0.82	0.66	0.01	0.25	0.27
Avail Cap(c_a), veh/h	523	467	1805	807	394	2811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	35.7	39.2	16.8	11.3	29.1	2.8
Incr Delay (d2), s/veh	0.0	3.5	1.6	0.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.7	11.3	0.1	2.0	2.8
LnGrp Delay(d),s/veh	35.8	42.7	18.4	11.3	29.3	3.0
LnGrp LOS	D	D	B	B	C	A
Approach Vol, veh/h	152		1192			866
Approach Delay, s/veh	42.4		18.4			6.0
Approach LOS	D		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	25.1	50.5				75.6		14.4
Change Period (Y+Rc), s	5.5	* 5.5				5.5		4.5
Max Green Setting (Gmax), s	4.5	* 45				54.0		26.0
Max Q Clear Time (g_c+I1), s	6.1	24.0				7.4		10.0
Green Ext Time (p_c), s	0.0	5.1				3.2		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰↰	↑↑
Volume (veh/h)	374	520	420	233	298	649
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	398	553	447	248	317	690
Adj No. of Lanes	1	1	2	0	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	597	694	818	450	362	1890
Arrive On Green	0.33	0.33	0.36	0.36	0.10	0.52
Sat Flow, veh/h	1810	1615	2343	1238	3619	3705
Grp Volume(v), veh/h	398	553	358	337	317	690
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1682	1810	1805
Q Serve(g_s), s	14.2	22.3	11.8	12.0	6.5	8.4
Cycle Q Clear(g_c), s	14.2	22.3	11.8	12.0	6.5	8.4
Prop In Lane	1.00	1.00		0.74	1.00	
Lane Grp Cap(c), veh/h	597	694	656	611	362	1890
V/C Ratio(X)	0.67	0.80	0.55	0.55	0.88	0.37
Avail Cap(c_a), veh/h	627	721	656	611	362	1890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.97	0.97
Uniform Delay (d), s/veh	21.6	18.5	18.9	19.0	33.3	10.5
Incr Delay (d2), s/veh	2.0	5.5	3.2	3.5	19.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	10.9	6.5	6.1	4.2	4.4
LnGrp Delay(d),s/veh	23.6	24.0	22.2	22.5	52.8	11.1
LnGrp LOS	C	C	C	C	D	B
Approach Vol, veh/h	951		695			1007
Approach Delay, s/veh	23.8		22.4			24.2
Approach LOS	C		C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	12.0	32.8				44.8		30.2
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	7.5	26.0				38.0		26.0
Max Q Clear Time (g_c+I1), s	8.5	14.0				10.4		24.3
Green Ext Time (p_c), s	0.0	4.3				5.6		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.6
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	31	84	4	44	341	592	1	323	13	444	388	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	112	2	59	455	722	1	431	17	592	517	68
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	52	156	132	352	491	727	128	1121	501	673	1558	697
Arrive On Green	0.03	0.08	0.08	0.19	0.26	0.26	0.07	0.31	0.31	0.19	0.43	0.43
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3610	1615	3510	3610	1615
Grp Volume(v), veh/h	41	112	2	59	455	722	1	431	17	592	517	68
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1805	1615	1755	1805	1615
Q Serve(g_s), s	2.1	5.5	0.1	2.6	22.2	15.9	0.0	8.9	0.7	15.6	9.0	1.8
Cycle Q Clear(g_c), s	2.1	5.5	0.1	2.6	22.2	15.9	0.0	8.9	0.7	15.6	9.0	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	52	156	132	352	491	727	128	1121	501	673	1558	697
V/C Ratio(X)	0.79	0.72	0.02	0.17	0.93	0.99	0.01	0.38	0.03	0.88	0.33	0.10
Avail Cap(c_a), veh/h	95	520	442	352	500	735	128	1121	501	673	1558	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	42.5	40.1	31.8	34.3	13.9	41.0	25.6	22.8	37.3	17.9	9.4
Incr Delay (d2), s/veh	9.3	2.3	0.0	0.0	3.2	8.4	0.0	1.0	0.1	12.4	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.0	0.0	1.3	12.1	8.7	0.0	4.6	0.3	8.7	4.6	0.9
LnGrp Delay(d),s/veh	55.1	44.9	40.1	31.9	37.5	22.3	41.1	26.6	22.9	49.7	18.5	9.6
LnGrp LOS	E	D	D	C	D	C	D	C	C	D	B	A
Approach Vol, veh/h		155			1236			449			1177	
Approach Delay, s/veh		47.5			28.3			26.5			33.7	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.7	35.0	24.0	13.3	11.2	46.5	7.2	30.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	15.5	29.5	4.0	* 26	4.0	41.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	17.6	10.9	4.6	7.5	2.0	11.0	4.1	24.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.3	0.3	2.0	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
20: Heacock Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱			✣			✣	
Volume (veh/h)	10	942	5	11	1470	10	5	10	16	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	1178	6	14	1838	12	6	12	20	12	12	12
Adj No. of Lanes	1	3	0	1	3	0	0	1	0	0	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	171	2601	13	24	2074	14	110	219	315	221	220	194
Arrive On Green	0.09	0.46	0.46	0.01	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	5666	29	1810	5657	37	180	617	885	470	620	545
Grp Volume(v), veh/h	12	790	394	14	1235	615	38	0	0	36	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1895	1810	1900	1893	1681	0	0	1635	0	0
Q Serve(g_s), s	0.5	12.8	12.8	0.7	27.4	27.4	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	12.8	12.8	0.7	27.4	27.4	1.3	0.0	0.0	1.2	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.02	0.16		0.53	0.33		0.33
Lane Grp Cap(c), veh/h	171	1745	870	24	1393	694	644	0	0	635	0	0
V/C Ratio(X)	0.07	0.45	0.45	0.59	0.89	0.89	0.06	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	191	1745	870	80	1393	694	644	0	0	635	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	0.69	0.69	0.69	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.1	16.6	16.6	44.2	26.7	26.7	19.1	0.0	0.0	19.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	1.0	5.8	6.2	11.4	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	6.8	6.9	0.4	15.4	16.4	0.7	0.0	0.0	0.6	0.0	0.0
LnGrp Delay(d),s/veh	37.2	17.1	17.6	50.0	32.9	38.1	19.3	0.0	0.0	19.2	0.0	0.0
LnGrp LOS	D	B	B	D	C	D	B			B		
Approach Vol, veh/h		1196			1864			38			36	
Approach Delay, s/veh		17.5			34.7			19.3			19.2	
Approach LOS		B			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.7	46.8		37.5	14.0	38.5		37.5
Change Period (Y+Rc), s	4.5	5.5		5.5	5.5	* 5.5		5.5
Max Green Setting (Gmax), s	4.0	38.5		32.0	9.5	* 33		32.0
Max Q Clear Time (g_c+I1), s	2.7	14.8		3.2	2.5	29.4		3.3
Green Ext Time (p_c), s	0.0	4.9		0.2	2.9	2.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
26: Indian Street & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	14	32	165	92	150	324	339	473	140	239	357	61
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	38	194	108	176	381	399	556	165	281	420	72
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	123	503	382	496	420	446	1022	433	422	971	413
Arrive On Green	0.01	0.06	0.06	0.21	0.26	0.26	0.25	0.27	0.27	0.23	0.26	0.26
Sat Flow, veh/h	1810	1900	1615	1810	1900	1609	1810	3800	1611	1810	3800	1615
Grp Volume(v), veh/h	16	38	194	108	176	381	399	556	165	281	420	72
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1609	1810	1900	1611	1810	1900	1615
Q Serve(g_s), s	0.8	1.7	0.0	4.5	6.8	20.6	19.2	11.3	7.5	12.7	8.3	3.1
Cycle Q Clear(g_c), s	0.8	1.7	0.0	4.5	6.8	20.6	19.2	11.3	7.5	12.7	8.3	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	123	503	382	496	420	446	1022	433	422	971	413
V/C Ratio(X)	0.61	0.31	0.39	0.28	0.35	0.91	0.89	0.54	0.38	0.67	0.43	0.17
Avail Cap(c_a), veh/h	80	570	883	382	581	492	446	1022	433	422	971	413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	40.2	24.3	29.8	27.1	32.2	32.8	28.2	26.8	31.3	28.0	26.1
Incr Delay (d2), s/veh	8.3	0.5	0.2	0.1	0.1	16.3	19.5	2.1	2.5	3.2	1.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.9	3.8	2.3	3.6	11.1	12.0	6.2	3.6	6.7	4.6	1.5
LnGrp Delay(d),s/veh	52.4	40.7	24.4	29.9	27.2	48.5	52.3	30.3	29.3	34.5	29.4	27.0
LnGrp LOS	D	D	C	C	C	D	D	C	C	C	C	C
Approach Vol, veh/h		248			665			1120			773	
Approach Delay, s/veh		28.7			39.9			38.0			31.1	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.5	29.7	23.5	11.3	26.7	28.5	5.8	29.0
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.3	24.2	4.5	27.0	15.5	23.0	4.0	27.5
Max Q Clear Time (g_c+I1), s	14.7	13.3	6.5	3.7	21.2	10.3	2.8	22.6
Green Ext Time (p_c), s	0.0	1.9	0.0	0.5	0.0	1.4	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

28: Indian Street & San Michele Road

7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	57	158	304	281	696	341	1026	815	295	127	411	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	216	404	385	953	464	1405	1116	372	174	563	68
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	387	1681	780	1018	526	1515	2073	1229	233	601	72
Arrive On Green	0.10	0.20	0.20	0.43	0.54	0.54	0.84	1.00	1.00	0.13	0.37	0.37
Sat Flow, veh/h	1810	3800	3230	3619	3800	1577	3619	3800	1615	3619	3292	396
Grp Volume(v), veh/h	78	216	404	385	953	464	1405	1116	372	174	324	307
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1577	1810	1900	1615	1810	1900	1788
Q Serve(g_s), s	4.9	5.9	0.0	8.8	26.9	30.8	32.5	0.0	0.0	5.3	18.9	19.1
Cycle Q Clear(g_c), s	4.9	5.9	0.0	8.8	26.9	30.8	32.5	0.0	0.0	5.3	18.9	19.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	90	387	1681	780	1018	526	1515	2073	1229	233	347	327
V/C Ratio(X)	0.87	0.56	0.24	0.49	0.94	0.88	0.93	0.54	0.30	0.75	0.93	0.94
Avail Cap(c_a), veh/h	90	859	2083	780	1018	526	1515	2073	1229	368	347	327
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	43.5	13.2	28.2	25.8	19.0	8.1	0.0	0.0	49.2	35.8	35.9
Incr Delay (d2), s/veh	26.6	0.2	0.0	0.2	15.1	15.4	1.1	0.1	0.1	1.8	34.1	36.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.1	3.0	4.3	16.0	15.3	14.9	0.0	0.0	2.7	13.1	12.6
LnGrp Delay(d),s/veh	78.1	43.7	13.2	28.3	40.9	34.5	9.2	0.1	0.1	51.0	69.9	72.6
LnGrp LOS	E	D	B	C	D	C	A	A	A	D	E	E
Approach Vol, veh/h		698			1802			2893			805	
Approach Delay, s/veh		29.9			36.5			4.5			66.8	
Approach LOS		C			D			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	67.4	29.3	17.2	52.8	26.5	10.2	36.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	11.7	46.8	10.5	26.0	37.5	* 21	5.7	30.8
Max Q Clear Time (g_c+I1), s	7.3	2.0	10.8	7.9	34.5	21.1	6.9	32.8
Green Ext Time (p_c), s	0.1	12.2	0.0	1.6	1.2	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		24.8
HCM 2010 LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

29: Indian Street & Nandina Avenue

7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰↰	↑	↱	↰↰	↑↑	↱	↰	↑↑↑↱	
Volume (veh/h)	26	40	395	188	85	108	465	1817	353	107	630	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	49	423	229	104	130	567	2216	428	130	768	57
Adj No. of Lanes	1	1	2	2	1	1	2	2	1	1	3	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	40	95	1289	218	167	142	1263	2542	1155	98	1918	142
Arrive On Green	0.02	0.05	0.05	0.06	0.09	0.09	0.35	0.67	0.67	0.05	0.37	0.37
Sat Flow, veh/h	1810	1900	3230	3619	1900	1615	3619	3800	1582	1810	5244	387
Grp Volume(v), veh/h	32	49	423	229	104	130	567	2216	428	130	555	270
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1582	1810	1900	1831
Q Serve(g_s), s	2.1	3.0	0.0	7.2	6.3	8.1	14.5	55.6	4.1	6.5	13.0	13.1
Cycle Q Clear(g_c), s	2.1	3.0	0.0	7.2	6.3	8.1	14.5	55.6	4.1	6.5	13.0	13.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	40	95	1289	218	167	142	1263	2542	1155	98	1390	670
V/C Ratio(X)	0.79	0.51	0.33	1.05	0.62	0.92	0.45	0.87	0.37	1.33	0.40	0.40
Avail Cap(c_a), veh/h	84	380	1773	218	394	335	1263	2542	1155	98	1390	670
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.77	0.77
Uniform Delay (d), s/veh	58.4	55.6	24.9	56.4	52.8	39.1	30.2	15.8	1.4	56.8	28.3	28.3
Incr Delay (d2), s/veh	12.1	1.6	0.1	75.2	1.4	8.9	0.1	4.5	0.9	191.0	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.6	4.8	5.9	3.4	4.0	7.3	30.5	2.0	8.4	6.9	6.9
LnGrp Delay(d),s/veh	70.4	57.2	25.0	131.6	54.2	48.0	30.3	20.3	2.4	247.8	28.9	29.7
LnGrp LOS	E	E	C	F	D	D	C	C	A	F	C	C
Approach Vol, veh/h		504			463			3211			955	
Approach Delay, s/veh		31.0			90.7			19.6			58.9	
Approach LOS		C			F			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	85.8	11.7	11.5	47.4	49.4	7.2	16.1
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	6.5	63.0	6.5	24.0	25.6	* 44	5.6	24.9
Max Q Clear Time (g_c+I1), s	8.5	57.6	9.2	5.0	16.5	15.1	4.1	10.1
Green Ext Time (p_c), s	0.0	4.7	0.0	1.0	7.5	3.1	0.0	0.4

Intersection Summary		
HCM 2010 Ctrl Delay		34.5
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	1028	594	254	108	1126	438	156	1121	114	229	638	488
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1094	632	253	115	1198	464	166	1193	117	244	679	452
Adj No. of Lanes	2	3	1	1	3	1	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2838	6090	1793	76	1800	580	152	1280	544	171	1340	1836
Arrive On Green	0.78	1.00	1.00	0.04	0.32	0.32	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	3619	5700	1615	1810	5700	1594	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	1094	632	253	115	1198	464	166	1193	117	244	679	452
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1594	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	8.9	0.0	0.0	4.0	17.3	20.3	4.0	28.8	9.1	4.5	13.4	2.7
Cycle Q Clear(g_c), s	8.9	0.0	0.0	4.0	17.3	20.3	4.0	28.8	9.1	4.5	13.4	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2838	6090	1793	76	1800	580	152	1280	544	171	1340	1836
V/C Ratio(X)	0.39	0.10	0.14	1.51	0.67	0.80	1.09	0.93	0.22	1.42	0.51	0.25
Avail Cap(c_a), veh/h	2838	6090	1793	76	1800	580	152	1280	544	171	1340	1836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.2	0.0	0.0	45.5	28.2	27.1	45.5	30.4	77.7	45.2	24.2	7.5
Incr Delay (d2), s/veh	0.0	0.0	0.2	285.4	2.0	11.1	98.8	13.4	0.9	220.9	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	0.0	0.1	8.0	9.4	10.6	4.1	17.5	4.2	7.5	7.2	4.8
LnGrp Delay(d),s/veh	3.2	0.0	0.2	330.9	30.1	38.2	144.3	43.9	78.6	266.2	25.6	7.9
LnGrp LOS	A	A	A	F	C	D	F	D	E	F	C	A
Approach Vol, veh/h		1979			1777			1476			1375	
Approach Delay, s/veh		1.8			51.7			57.9			62.5	
Approach LOS		A			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	109.0	8.5	39.0	82.0	35.5	10.0	37.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	34.5	4.0	32.5	8.5	* 30	4.5	* 32
Max Q Clear Time (g_c+I1), s	6.0	2.0	6.0	15.4	10.9	22.3	6.5	30.8
Green Ext Time (p_c), s	0.0	6.1	0.0	3.7	0.0	3.9	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Volume (veh/h)	262	675	297	269	1132	143	394	1484	295	228	1178	293
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	291	750	313	299	1258	150	438	1649	316	253	1309	316
Adj No. of Lanes	2	3	1	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	249	3083	1079	303	2122	252	453	1686	475	204	1544	431
Arrive On Green	0.07	0.54	0.54	0.17	0.64	0.64	0.13	0.30	0.30	0.11	0.27	0.27
Sat Flow, veh/h	3510	5700	1609	1810	3329	395	3510	5700	1605	1810	5700	1591
Grp Volume(v), veh/h	291	750	313	299	716	692	438	1649	316	253	1309	316
Grp Sat Flow(s),veh/h/ln	1755	1900	1609	1810	1900	1824	1755	1900	1605	1810	1900	1591
Q Serve(g_s), s	8.5	8.3	5.9	19.8	26.3	26.6	14.9	34.4	20.7	13.5	26.1	25.5
Cycle Q Clear(g_c), s	8.5	8.3	5.9	19.8	26.3	26.6	14.9	34.4	20.7	13.5	26.1	25.5
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	3083	1079	303	1211	1163	453	1686	475	204	1544	431
V/C Ratio(X)	1.17	0.24	0.29	0.99	0.59	0.60	0.97	0.98	0.67	1.24	0.85	0.73
Avail Cap(c_a), veh/h	249	3083	1079	303	1211	1163	453	1686	475	204	1544	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	14.6	10.6	49.8	12.6	12.7	52.0	41.9	37.0	53.2	41.4	55.2
Incr Delay (d2), s/veh	111.0	0.2	0.7	47.8	2.1	2.3	33.3	17.3	7.2	143.7	6.0	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	4.4	4.2	13.9	14.4	14.0	9.3	20.7	10.1	14.9	14.6	12.5
LnGrp Delay(d),s/veh	166.7	14.8	11.3	97.6	14.8	15.0	85.3	59.1	44.2	196.9	47.4	65.7
LnGrp LOS	F	B	B	F	B	B	F	E	D	F	D	E
Approach Vol, veh/h		1354			1707			2403			1878	
Approach Delay, s/veh		46.6			29.4			61.9			70.6	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.6	71.4	21.0	38.0	13.0	83.0	18.0	41.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.1	31.9	15.5	* 33	8.5	43.5	13.5	34.5
Max Q Clear Time (g_c+I1), s	21.8	10.3	16.9	28.1	10.5	28.6	15.5	36.4
Green Ext Time (p_c), s	0.0	11.1	0.0	2.7	0.0	8.9	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue 7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↱	
Volume (veh/h)	83	277	215	360	415	242	121	1526	313	139	1531	63
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	91	304	220	396	456	166	133	1677	319	153	1682	67
Adj No. of Lanes	1	2	0	1	2	1	2	3	1	2	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	377	266	374	1239	518	180	2145	598	168	2029	81
Arrive On Green	0.07	0.19	0.19	0.21	0.33	0.33	0.05	0.38	0.38	0.05	0.37	0.37
Sat Flow, veh/h	1810	2023	1427	1810	3800	1589	3510	5700	1590	3510	5442	217
Grp Volume(v), veh/h	91	270	254	396	456	166	133	1677	319	153	1174	575
Grp Sat Flow(s),veh/h/ln	1810	1805	1645	1810	1900	1589	1755	1900	1590	1755	1900	1859
Q Serve(g_s), s	5.7	16.5	17.1	23.8	10.6	9.0	4.3	29.9	9.3	5.0	32.3	32.3
Cycle Q Clear(g_c), s	5.7	16.5	17.1	23.8	10.6	9.0	4.3	29.9	9.3	5.0	32.3	32.3
Prop In Lane	1.00		0.87	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	121	336	307	374	1239	518	180	2145	598	168	1417	693
V/C Ratio(X)	0.75	0.80	0.83	1.06	0.37	0.32	0.74	0.78	0.53	0.91	0.83	0.83
Avail Cap(c_a), veh/h	197	471	429	374	1365	571	180	2145	598	168	1417	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.7	44.8	45.0	45.6	29.7	29.2	53.8	31.7	7.4	54.5	32.7	32.7
Incr Delay (d2), s/veh	2.6	3.4	4.9	62.5	0.1	0.1	23.5	2.9	3.4	43.9	5.7	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	8.5	8.2	18.4	5.5	4.0	2.7	16.3	4.6	3.4	18.1	18.7
LnGrp Delay(d),s/veh	55.3	48.2	49.9	108.1	29.7	29.3	77.3	34.6	10.8	98.4	38.5	43.8
LnGrp LOS	E	D	D	F	C	C	E	C	B	F	D	D
Approach Vol, veh/h		615			1018			2129			1902	
Approach Delay, s/veh		50.0			60.1			33.7			44.9	
Approach LOS		D			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	48.8	29.3	26.9	10.4	48.4	13.2	43.0
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	5.5	34.7	23.8	30.0	5.9	34.3	12.5	41.3
Max Q Clear Time (g_c+I1), s	7.0	31.9	25.8	19.1	6.3	34.3	7.7	12.6
Green Ext Time (p_c), s	0.0	2.7	0.0	1.8	0.0	0.0	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	44.0
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑							↱↱
Volume (veh/h)	0	2100	802	1355	1751	0	0	0	977	0	0	425
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	0	1900
Adj Flow Rate, veh/h	0	2211	836	1426	1843	0				0	0	325
Adj No. of Lanes	0	2	1	2	2	0				0	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2328	989	1116	3626	0				0	0	0
Arrive On Green	0.00	0.61	0.61	0.31	0.95	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	3619	3800	0					0	
Grp Volume(v), veh/h	0	2211	836	1426	1843	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	64.7	49.9	37.0	5.2	0.0						
Cycle Q Clear(g_c), s	0.0	64.7	49.9	37.0	5.2	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2328	989	1116	3626	0						
V/C Ratio(X)	0.00	0.95	0.85	1.28	0.51	0.00						
Avail Cap(c_a), veh/h	0	2328	989	1116	3626	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	21.5	18.7	41.5	0.2	0.0						
Incr Delay (d2), s/veh	0.0	10.1	8.8	132.1	0.5	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	36.7	24.5	38.9	2.6	0.0						
LnGrp Delay(d),s/veh	0.0	31.7	27.5	173.6	0.8	0.0						
LnGrp LOS		C	C	F	A							
Approach Vol, veh/h		3047			3269							
Approach Delay, s/veh		30.5			76.1							
Approach LOS		C			E							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	41.0	79.0				120.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	37.0	60.5				101.5		
Max Q Clear Time (g_c+I1), s	39.0	66.7				7.2		
Green Ext Time (p_c), s	0.0	0.0				73.7		

Intersection Summary	
HCM 2010 Ctrl Delay	54.1
HCM 2010 LOS	D

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	891	194	666	953	0	0	0	0	796	2	748
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	948	206	709	1014	0				847	2	719
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1022	434	1204	2497	0				1287	2	573
Arrive On Green	0.00	0.27	0.27	0.11	0.22	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	4	1611
Grp Volume(v), veh/h	0	948	206	709	1014	0				847	0	721
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	21.9	9.6	16.8	20.6	0.0				17.7	0.0	32.0
Cycle Q Clear(g_c), s	0.0	21.9	9.6	16.8	20.6	0.0				17.7	0.0	32.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1022	434	1204	2497	0				1287	0	574
V/C Ratio(X)	0.00	0.93	0.47	0.59	0.41	0.00				0.66	0.00	1.26
Avail Cap(c_a), veh/h	0	1022	434	1204	2497	0				1287	0	574
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.51	0.51	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	32.0	27.6	34.2	20.2	0.0				24.4	0.0	29.0
Incr Delay (d2), s/veh	0.0	15.4	3.7	0.3	0.3	0.0				1.2	0.0	128.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.6	4.7	8.5	11.0	0.0				9.0	0.0	34.7
LnGrp Delay(d),s/veh	0.0	47.4	31.3	34.5	20.4	0.0				25.6	0.0	157.6
LnGrp LOS		D	C	C	C					C		F
Approach Vol, veh/h		1154			1723						1568	
Approach Delay, s/veh		44.5			26.2						86.3	
Approach LOS		D			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	35.1	29.2		37.0		64.3		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	19.3	* 24		32.0		48.0		
Max Q Clear Time (g_c+I1), s	18.8	23.9		34.0		22.6		
Green Ext Time (p_c), s	0.2	0.2		0.0		6.3		

Intersection Summary	
HCM 2010 Ctrl Delay	52.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	512	1720	846	0	3160	155	260	693	31	318	0	995
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	528	1773	0	0	3258	151	268	714	32	328	0	1011
Adj No. of Lanes	2	3	1	0	4	1	2	2	0	2	1	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1763	5524	1565	0	3316	828	309	624	28	276	321	1866
Arrive On Green	0.49	0.97	0.00	0.00	0.44	0.44	0.09	0.17	0.17	0.08	0.00	0.17
Sat Flow, veh/h	3619	5700	1615	0	7600	1615	3619	3610	162	3619	1900	2842
Grp Volume(v), veh/h	528	1773	0	0	3258	151	268	376	370	328	0	1011
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	0	1900	1615	1810	1900	1871	1810	1900	1421
Q Serve(g_s), s	9.6	1.5	0.0	0.0	46.5	2.5	8.0	19.0	19.0	8.4	0.0	0.0
Cycle Q Clear(g_c), s	9.6	1.5	0.0	0.0	46.5	2.5	8.0	19.0	19.0	8.4	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	1763	5524	1565	0	3316	828	309	328	323	276	321	1866
V/C Ratio(X)	0.30	0.32	0.00	0.00	0.98	0.18	0.87	1.14	1.15	1.19	0.00	0.54
Avail Cap(c_a), veh/h	1763	5524	1565	0	3316	828	309	328	323	276	321	1866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.9	0.1	0.0	0.0	30.6	20.6	49.7	45.5	45.5	50.8	0.0	10.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	12.0	0.5	21.1	94.9	95.6	114.5	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.7	0.0	0.0	27.0	1.2	4.9	18.6	18.4	8.6	0.0	8.3
LnGrp Delay(d),s/veh	17.0	0.2	0.0	0.0	42.6	21.1	70.8	140.4	141.1	165.3	0.0	11.2
LnGrp LOS	B	A			D	C	E	F	F	F		B
Approach Vol, veh/h		2301			3409			1014			1339	
Approach Delay, s/veh		4.1			41.7			122.2			49.0	
Approach LOS		A			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		113.4	15.0	23.6	60.4	53.0	14.0	24.6
Change Period (Y+Rc), s		* 5.6	5.6	5.0	5.6	5.0	5.6	* 5.6
Max Green Setting (Gmax), s		* 67	8.8	18.6	13.4	48.0	8.4	* 19
Max Q Clear Time (g_c+I1), s		3.5	10.0	2.0	11.6	48.5	10.4	21.0
Green Ext Time (p_c), s		13.8	0.0	2.3	1.4	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	42.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	679	1007	0	0	1252	1555	367	3	227	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	763	1131	0	0	1407	0	412	3	146			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	583	2533	0	0	1773	754	399	3	359			
Arrive On Green	0.32	1.00	0.00	0.00	0.47	0.00	0.22	0.22	0.22			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1797	13	1615			
Grp Volume(v), veh/h	763	1131	0	0	1407	0	415	0	146			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	14.5	0.0	0.0	0.0	28.2	0.0	20.0	0.0	7.0			
Cycle Q Clear(g_c), s	14.5	0.0	0.0	0.0	28.2	0.0	20.0	0.0	7.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	583	2533	0	0	1773	754	402	0	359			
V/C Ratio(X)	1.31	0.45	0.00	0.00	0.79	0.00	1.03	0.00	0.41			
Avail Cap(c_a), veh/h	583	2533	0	0	1773	754	402	0	359			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.52	0.52	0.00	0.00	0.45	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	30.5	0.0	0.0	0.0	20.3	0.0	35.0	0.0	29.9			
Incr Delay (d2), s/veh	145.4	0.3	0.0	0.0	1.7	0.0	53.3	0.0	3.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	18.9	0.1	0.0	0.0	15.1	0.0	15.9	0.0	3.4			
LnGrp Delay(d),s/veh	175.9	0.3	0.0	0.0	22.0	0.0	88.3	0.0	33.3			
LnGrp LOS	F	A			C		F		C			
Approach Vol, veh/h		1894			1407			561				
Approach Delay, s/veh		71.0			22.0			74.0				
Approach LOS		E			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		65.0			18.0	47.0		25.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		60.0			14.5	42.0		20.0
Max Q Clear Time (g_c+I1), s		2.0			16.5	30.2		22.0
Green Ext Time (p_c), s		19.7			0.0	8.5		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			53.6
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue 7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↑	↱	↰	↑↑↑↑	↱	↰↰	↑↱		↰	↑	↱
Volume (veh/h)	226	2566	36	33	2216	217	482	125	200	201	27	252
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	233	2645	0	34	2285	193	497	129	152	207	28	153
Adj No. of Lanes	1	4	1	1	4	1	2	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	3409	724	43	3053	635	1026	198	234	187	131	226
Arrive On Green	0.07	0.45	0.00	0.02	0.40	0.40	0.28	0.25	0.25	0.10	0.07	0.07
Sat Flow, veh/h	1810	7600	1615	1810	7600	1581	3619	796	938	1810	1900	1615
Grp Volume(v), veh/h	233	2645	0	34	2285	193	497	0	281	207	28	153
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1733	1810	1900	1615
Q Serve(g_s), s	8.5	35.3	0.0	2.2	30.9	6.7	13.7	0.0	17.4	12.4	1.7	5.6
Cycle Q Clear(g_c), s	8.5	35.3	0.0	2.2	30.9	6.7	13.7	0.0	17.4	12.4	1.7	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	128	3409	724	43	3053	635	1026	0	432	187	131	226
V/C Ratio(X)	1.82	0.78	0.00	0.78	0.75	0.30	0.48	0.00	0.65	1.11	0.21	0.68
Avail Cap(c_a), veh/h	128	3409	724	92	3053	635	1026	0	432	187	467	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	28.0	0.0	58.3	30.7	11.1	35.7	0.0	40.4	53.8	52.8	20.5
Incr Delay (d2), s/veh	397.0	1.8	0.0	10.8	0.9	0.1	1.6	0.0	7.4	97.4	0.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	19.0	0.0	1.3	16.4	2.9	7.1	0.0	9.2	11.2	0.9	2.6
LnGrp Delay(d),s/veh	452.7	29.8	0.0	69.1	31.7	11.2	37.3	0.0	47.8	151.2	53.1	21.8
LnGrp LOS	F	C		E	C	B	D		D	F	D	C
Approach Vol, veh/h		2878			2512			778			388	
Approach Delay, s/veh		64.0			30.6			41.1			93.1	
Approach LOS		E			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	59.3	39.5	13.8	13.0	53.7	17.9	35.4
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	6.1	50.6	12.8	29.5	8.5	48.2	12.4	29.9
Max Q Clear Time (g_c+I1), s	4.2	37.3	15.7	7.6	10.5	32.9	14.4	19.4
Green Ext Time (p_c), s	0.0	12.9	0.0	0.3	0.0	13.4	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	50.2
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	Y	
Volume (veh/h)	41	1193	2730	20	17	77
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1297	2967	22	18	84
Adj No. of Lanes	1	3	3	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	373	4927	3491	982	65	302
Arrive On Green	0.21	0.86	0.61	0.61	0.22	0.22
Sat Flow, veh/h	1810	5700	5700	1603	288	1344
Grp Volume(v), veh/h	45	1297	2967	22	103	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1603	1648	0
Q Serve(g_s), s	2.4	4.8	50.5	0.6	6.2	0.0
Cycle Q Clear(g_c), s	2.4	4.8	50.5	0.6	6.2	0.0
Prop In Lane	1.00			1.00	0.17	0.82
Lane Grp Cap(c), veh/h	373	4927	3491	982	371	0
V/C Ratio(X)	0.12	0.26	0.85	0.02	0.28	0.00
Avail Cap(c_a), veh/h	373	4927	3491	982	371	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.8	1.4	18.8	9.1	38.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.8	0.0	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.5	27.0	0.3	3.0	0.0
LnGrp Delay(d),s/veh	38.8	1.5	21.6	9.2	40.3	0.0
LnGrp LOS	D	A	C	A	D	
Approach Vol, veh/h		1342	2989		103	
Approach Delay, s/veh		2.8	21.5		40.3	
Approach LOS		A	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		109.7		32.5	30.7	79.0		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	4.0	* 74		
Max Q Clear Time (g_c+I1), s		6.8		8.2	4.4	52.5		
Green Ext Time (p_c), s		6.8		0.1	0.0	16.7		

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	240	2964	873	25	1633	119	353	139	28	259	264	356
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	261	3222	0	27	1775	125	384	151	25	282	287	309
Adj No. of Lanes	2	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1272	4358	1235	36	2232	157	296	777	126	149	895	943
Arrive On Green	0.35	0.76	0.00	0.02	0.42	0.42	0.08	0.24	0.24	0.08	0.24	0.24
Sat Flow, veh/h	3619	5700	1615	1810	5259	369	3619	3190	518	1810	3800	1594
Grp Volume(v), veh/h	261	3222	0	27	1281	619	384	89	87	282	287	309
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1829	1810	1900	1809	1810	1900	1594
Q Serve(g_s), s	5.8	35.2	0.0	1.7	33.7	33.9	9.4	4.3	4.4	9.5	7.2	0.0
Cycle Q Clear(g_c), s	5.8	35.2	0.0	1.7	33.7	33.9	9.4	4.3	4.4	9.5	7.2	0.0
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	1272	4358	1235	36	1613	776	296	463	440	149	895	943
V/C Ratio(X)	0.21	0.74	0.00	0.74	0.79	0.80	1.30	0.19	0.20	1.89	0.32	0.33
Avail Cap(c_a), veh/h	1272	4358	1235	63	1613	776	296	463	440	149	895	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.36	0.36	0.00	0.51	0.51	0.51	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	7.3	0.0	56.0	28.7	28.8	52.8	34.5	34.6	52.7	36.3	12.1
Incr Delay (d2), s/veh	0.0	0.4	0.0	5.6	2.2	4.4	156.8	0.9	1.0	423.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	18.4	0.0	0.9	18.1	18.0	11.1	2.4	2.3	22.3	3.9	5.1
LnGrp Delay(d),s/veh	26.1	7.8	0.0	61.6	30.9	33.2	209.6	35.4	35.6	475.8	37.3	13.0
LnGrp LOS	C	A		E	C	C	F	D	D	F	D	B
Approach Vol, veh/h		3483			1927			560			878	
Approach Delay, s/veh		9.1			32.1			154.9			169.6	
Approach LOS		A			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	93.6	14.9	32.6	46.1	54.3	14.0	33.5
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	54.5	9.4	* 27	9.7	* 49	9.5	27.0
Max Q Clear Time (g_c+I1), s	3.7	37.2	11.4	9.2	7.8	35.9	11.5	6.4
Green Ext Time (p_c), s	0.0	15.1	0.0	1.5	0.1	6.7	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	48.1
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary

9: Patterson Avenue & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱		✥			↰↑	↱
Volume (veh/h)	26	1269	71	25	2252	6	134	5	63	18	5	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	30	1442	81	28	2559	7	152	6	72	20	6	122
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	35	2972	842	40	2926	829	316	24	124	373	103	459
Arrive On Green	0.02	0.52	0.52	0.02	0.51	0.51	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	877	84	438	1065	364	1615
Grp Volume(v), veh/h	30	1442	81	28	2559	7	230	0	0	26	0	122
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1400	0	0	1430	0	1615
Q Serve(g_s), s	1.5	14.6	2.3	1.4	35.7	0.2	11.5	0.0	0.0	0.0	0.0	5.3
Cycle Q Clear(g_c), s	1.5	14.6	2.3	1.4	35.7	0.2	12.5	0.0	0.0	1.0	0.0	5.3
Prop In Lane	1.00		1.00	1.00		1.00	0.66		0.31	0.77		1.00
Lane Grp Cap(c), veh/h	35	2972	842	40	2926	829	464	0	0	477	0	459
V/C Ratio(X)	0.86	0.49	0.10	0.69	0.87	0.01	0.50	0.00	0.00	0.05	0.00	0.27
Avail Cap(c_a), veh/h	80	2972	842	127	3072	870	464	0	0	477	0	459
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.84	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.0	13.8	10.9	43.7	19.3	10.7	27.4	0.0	0.0	23.4	0.0	25.0
Incr Delay (d2), s/veh	18.9	0.0	0.0	6.4	2.4	0.0	3.7	0.0	0.0	0.2	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.6	1.0	0.8	19.1	0.1	5.3	0.0	0.0	0.5	0.0	2.5
LnGrp Delay(d),s/veh	62.9	13.8	10.9	50.1	21.7	10.7	31.2	0.0	0.0	23.6	0.0	26.4
LnGrp LOS	E	B	B	D	C	B	C			C		C
Approach Vol, veh/h		1553			2594			230			148	
Approach Delay, s/veh		14.6			22.0			31.2			25.9	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		31.1	6.5	52.4		31.1	7.2	51.7
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	5.5	* 5.5
Max Green Setting (Gmax), s		22.0	6.3	46.2		22.0	4.0	* 49
Max Q Clear Time (g_c+I1), s		14.5	3.4	16.6		7.3	3.5	37.7
Green Ext Time (p_c), s		0.8	0.0	8.1		1.2	0.0	8.5

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	152	2028	1131	22	933	143	653	586	25	179	744	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	2157	1188	23	993	146	695	623	23	190	791	143
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1079	4887	1716	34	1312	192	742	1247	46	222	783	142
Arrive On Green	0.60	0.86	0.86	0.02	0.27	0.27	0.20	0.34	0.34	0.12	0.25	0.25
Sat Flow, veh/h	1810	5700	1615	1810	4860	713	3619	3639	134	1810	3134	566
Grp Volume(v), veh/h	162	2157	1188	23	776	363	695	325	321	190	480	454
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1773	1810	1900	1874	1810	1900	1800
Q Serve(g_s), s	4.0	8.7	33.5	1.3	18.7	18.8	18.9	13.6	13.6	10.3	25.0	25.0
Cycle Q Clear(g_c), s	4.0	8.7	33.5	1.3	18.7	18.8	18.9	13.6	13.6	10.3	25.0	25.0
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.07	1.00		0.31
Lane Grp Cap(c), veh/h	1079	4887	1716	34	1026	479	742	651	642	222	475	450
V/C Ratio(X)	0.15	0.44	0.69	0.67	0.76	0.76	0.94	0.50	0.50	0.86	1.01	1.01
Avail Cap(c_a), veh/h	1079	4887	1716	72	1026	479	742	651	642	233	475	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	1.6	8.8	48.7	33.5	33.5	39.1	26.1	26.1	43.0	37.5	37.5
Incr Delay (d2), s/veh	0.0	0.0	0.2	8.2	5.2	10.7	16.3	2.2	2.2	23.5	43.7	44.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.4	14.0	0.7	10.5	10.6	11.1	7.5	7.4	6.6	18.8	18.0
LnGrp Delay(d),s/veh	9.0	1.7	9.1	57.0	38.7	44.3	55.4	28.3	28.3	66.5	81.3	82.4
LnGrp LOS	A	A	A	E	D	D	E	C	C	E	F	F
Approach Vol, veh/h		3507			1162			1341			1124	
Approach Delay, s/veh		4.5			40.8			42.4			79.2	
Approach LOS		A			D			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	91.7	26.0	30.5	65.6	32.5	16.7	39.8
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	30.5	20.5	* 25	7.5	* 27	12.9	32.6
Max Q Clear Time (g_c+I1), s	3.3	35.5	20.9	27.0	6.0	20.8	12.3	15.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	2.6	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Volume (veh/h)	5	81	1013	13	162	1518
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	87	1089	14	174	1632
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	124	111	1564	700	589	2961
Arrive On Green	0.07	0.07	0.43	0.43	0.33	0.82
Sat Flow, veh/h	1810	1615	3705	1615	1810	3705
Grp Volume(v), veh/h	5	87	1089	14	174	1632
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1615	1810	1805
Q Serve(g_s), s	0.2	4.8	22.0	0.4	6.5	13.4
Cycle Q Clear(g_c), s	0.2	4.8	22.0	0.4	6.5	13.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	124	111	1564	700	589	2961
V/C Ratio(X)	0.04	0.78	0.70	0.02	0.30	0.55
Avail Cap(c_a), veh/h	523	467	1564	700	589	2961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.62	0.62	1.00	1.00
Uniform Delay (d), s/veh	39.1	41.2	20.7	14.6	22.6	2.7
Incr Delay (d2), s/veh	0.0	4.5	1.6	0.0	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.3	11.2	0.2	3.3	6.7
LnGrp Delay(d),s/veh	39.2	45.7	22.3	14.6	22.7	3.4
LnGrp LOS	D	D	C	B	C	A
Approach Vol, veh/h	92		1103			1806
Approach Delay, s/veh	45.4		22.2			5.3
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	34.8	44.5				79.3		10.7
Change Period (Y+Rc), s	5.5	* 5.5				5.5		4.5
Max Green Setting (Gmax), s	10.5	* 39				54.0		26.0
Max Q Clear Time (g_c+I1), s	8.5	24.0				15.4		6.8
Green Ext Time (p_c), s	1.2	4.1				9.7		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	12.7
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
13: Heacock Street & Iris Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↙	↖	↑	↗	↘	↓		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	↰	↱	↑↑↱		↰↰	↑↑		
Volume (veh/h)	260	373	830	382	677	762		
Number	3	18	2	12	1	6		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900		
Adj Flow Rate, veh/h	302	434	965	444	787	886		
Adj No. of Lanes	1	1	2	0	2	2		
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86		
Percent Heavy Veh, %	0	0	0	0	0	0		
Cap, veh/h	336	659	1098	497	806	2609		
Arrive On Green	0.19	0.19	0.45	0.45	0.22	0.72		
Sat Flow, veh/h	1810	1615	2512	1095	3619	3705		
Grp Volume(v), veh/h	302	434	717	692	787	886		
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1707	1810	1805		
Q Serve(g_s), s	19.6	0.0	43.2	44.7	25.9	10.8		
Cycle Q Clear(g_c), s	19.6	0.0	43.2	44.7	25.9	10.8		
Prop In Lane	1.00	1.00		0.64	1.00			
Lane Grp Cap(c), veh/h	336	659	820	775	806	2609		
V/C Ratio(X)	0.90	0.66	0.87	0.89	0.98	0.34		
Avail Cap(c_a), veh/h	397	714	820	775	806	2609		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.82	0.82		
Uniform Delay (d), s/veh	47.8	28.7	29.7	30.1	46.3	6.1		
Incr Delay (d2), s/veh	18.9	1.5	12.5	14.8	22.9	0.3		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	11.6	11.8	24.2	24.1	15.5	5.4		
LnGrp Delay(d),s/veh	66.7	30.2	42.2	44.9	69.2	6.4		
LnGrp LOS	E	C	D	D	E	A		
Approach Vol, veh/h	736		1409			1673		
Approach Delay, s/veh	45.2		43.5			35.9		
Approach LOS	D		D			D		
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	32.2	60.0				92.2		27.8
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	23.7	* 55				82.7		26.3
Max Q Clear Time (g_c+I1), s	27.9	46.7				12.8		21.6
Green Ext Time (p_c), s	0.0	3.6				5.7		0.7
Intersection Summary								
HCM 2010 Ctrl Delay			40.5					
HCM 2010 LOS			D					
Notes								

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	57	347	106	120	102	636	0	242	40	700	315	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	81	496	151	171	146	909	0	346	53	1000	450	50
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	454	385	149	519	1261	2	957	422	1782	2963	1325
Arrive On Green	0.06	0.24	0.24	0.08	0.27	0.27	0.00	0.27	0.27	0.51	0.82	0.82
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	3610	1593	3510	3610	1615
Grp Volume(v), veh/h	81	496	151	171	146	909	0	346	53	1000	450	50
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1805	1593	1755	1805	1615
Q Serve(g_s), s	5.1	27.5	11.9	9.5	7.0	14.3	0.0	9.0	2.9	22.6	2.9	0.7
Cycle Q Clear(g_c), s	5.1	27.5	11.9	9.5	7.0	14.3	0.0	9.0	2.9	22.6	2.9	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	454	385	149	519	1261	2	957	422	1782	2963	1325
V/C Ratio(X)	0.78	1.09	0.39	1.14	0.28	0.72	0.00	0.36	0.13	0.56	0.15	0.04
Avail Cap(c_a), veh/h	173	454	385	149	519	1261	63	957	422	1782	2963	1325
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.49	0.49	0.49	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	43.8	63.3	52.7	32.9	14.1	0.0	34.3	32.1	19.5	2.1	1.9
Incr Delay (d2), s/veh	4.8	69.3	0.2	96.1	0.1	0.9	0.0	1.1	0.6	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	23.1	5.3	8.7	3.7	20.5	0.0	4.6	1.3	10.9	1.5	0.3
LnGrp Delay(d),s/veh	58.3	113.1	63.6	148.8	32.9	15.0	0.0	35.4	32.7	19.7	2.2	2.0
LnGrp LOS	E	F	E	F	C	B		D	C	B	A	A
Approach Vol, veh/h		728			1226			399			1500	
Approach Delay, s/veh		96.7			35.8			35.0			13.9	
Approach LOS		F			D			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	63.9	36.0	15.0	33.0	0.0	99.9	11.1	36.9
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	27.5	* 31	9.5	* 28	4.0	54.0	11.0	26.0
Max Q Clear Time (g_c+I1), s	24.6	11.0	11.5	29.5	0.0	4.9	7.1	16.3
Green Ext Time (p_c), s	0.9	1.2	0.0	0.0	0.0	4.0	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	38.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱			✥			✥	
Volume (veh/h)	10	1662	20	30	1183	10	5	10	26	10	10	10
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	1826	22	33	1300	11	5	11	29	11	11	11
Adj No. of Lanes	1	3	0	1	3	0	0	1	0	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	20	2137	26	47	2232	19	92	196	431	248	247	218
Arrive On Green	0.01	0.38	0.38	0.03	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1810	5620	68	1810	5644	48	106	489	1078	469	618	544
Grp Volume(v), veh/h	11	1234	614	33	875	436	45	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1888	1810	1900	1892	1673	0	0	1631	0	0
Q Serve(g_s), s	0.5	23.9	23.9	1.4	14.5	14.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	23.9	23.9	1.4	14.5	14.5	1.3	0.0	0.0	0.9	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.03	0.11		0.64	0.33		0.33
Lane Grp Cap(c), veh/h	20	1445	718	47	1503	748	719	0	0	713	0	0
V/C Ratio(X)	0.56	0.85	0.85	0.70	0.58	0.58	0.06	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	97	1445	718	93	1503	748	719	0	0	713	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.88	0.37	0.37	0.37	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.4	22.8	22.8	38.7	19.0	19.0	14.8	0.0	0.0	14.7	0.0	0.0
Incr Delay (d2), s/veh	8.0	5.9	11.1	2.6	0.6	1.2	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	13.5	14.5	0.8	7.7	7.8	0.6	0.0	0.0	0.5	0.0	0.0
LnGrp Delay(d),s/veh	47.3	28.7	33.9	41.3	19.6	20.2	15.0	0.0	0.0	14.8	0.0	0.0
LnGrp LOS	D	C	C	D	B	C	B			B		
Approach Vol, veh/h		1859			1344			45			33	
Approach Delay, s/veh		30.5			20.3			15.0			14.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.6	35.9		37.5	5.4	37.1		37.5
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	4.1	28.4		32.0	4.3	28.2		32.0
Max Q Clear Time (g_c+I1), s	3.4	25.9		2.9	2.5	16.5		3.3
Green Ext Time (p_c), s	0.0	2.3		0.3	0.0	9.4		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
26: Indian Street & Krameria Avenue 7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	105	179	467	200	59	82	259	572	184	265	523	127
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	124	211	549	235	69	96	305	673	216	312	615	149
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	255	284	691	171	175	148	503	1013	430	483	971	413
Arrive On Green	0.24	0.25	0.25	0.09	0.09	0.09	0.28	0.27	0.27	0.27	0.26	0.26
Sat Flow, veh/h	1810	1900	1615	1810	1900	1599	1810	3800	1611	1810	3800	1615
Grp Volume(v), veh/h	124	211	549	235	69	96	305	673	216	312	615	149
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1599	1810	1900	1611	1810	1900	1615
Q Serve(g_s), s	5.3	9.2	9.0	8.5	3.1	5.2	13.2	14.2	7.4	13.7	12.9	6.8
Cycle Q Clear(g_c), s	5.3	9.2	9.0	8.5	3.1	5.2	13.2	14.2	7.4	13.7	12.9	6.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	255	284	691	171	175	148	503	1013	430	483	971	413
V/C Ratio(X)	0.49	0.74	0.79	1.38	0.39	0.65	0.61	0.66	0.50	0.65	0.63	0.36
Avail Cap(c_a), veh/h	255	570	934	171	574	483	503	1013	430	483	971	413
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	32.1	7.1	40.8	38.5	39.4	28.2	29.4	14.5	29.2	29.8	27.5
Incr Delay (d2), s/veh	0.5	1.4	2.4	199.2	0.5	1.7	1.5	3.4	4.2	2.3	3.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.9	5.7	13.7	1.6	2.4	6.7	7.9	3.8	7.2	7.2	3.3
LnGrp Delay(d),s/veh	32.2	33.6	9.5	239.9	39.0	41.1	29.7	32.8	18.6	31.6	32.9	29.9
LnGrp LOS	C	C	A	F	D	D	C	C	B	C	C	C
Approach Vol, veh/h		884			400			1194			1076	
Approach Delay, s/veh		18.4			157.5			29.5			32.1	
Approach LOS		B			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.5	29.5	13.0	19.0	29.5	28.5	18.2	13.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	10.5	24.0	8.5	27.0	11.5	23.0	8.3	* 27
Max Q Clear Time (g_c+I1), s	15.7	16.2	10.5	11.2	15.2	14.9	7.3	7.2
Green Ext Time (p_c), s	0.0	2.0	0.0	1.8	0.0	1.8	0.3	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
28: Indian Street & San Michele Road 7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	87	721	1283	262	474	234	684	794	292	436	886	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	784	852	285	515	145	743	863	208	474	963	92
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	118	862	1346	299	962	1006	721	1266	671	1342	1749	167
Arrive On Green	0.13	0.45	0.45	0.17	0.51	0.51	0.40	0.67	0.67	0.74	1.00	1.00
Sat Flow, veh/h	1810	3800	3098	3619	3800	1607	3619	3800	1614	3619	3405	325
Grp Volume(v), veh/h	95	784	852	285	515	145	743	863	208	474	537	518
Grp Sat Flow(s),veh/h/ln	1810	1900	1549	1810	1900	1607	1810	1900	1614	1810	1900	1831
Q Serve(g_s), s	5.9	22.1	26.1	9.0	10.6	0.9	22.9	16.0	0.0	5.3	0.0	0.0
Cycle Q Clear(g_c), s	5.9	22.1	26.1	9.0	10.6	0.9	22.9	16.0	0.0	5.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	118	862	1346	299	962	1006	721	1266	671	1342	976	940
V/C Ratio(X)	0.81	0.91	0.63	0.95	0.54	0.14	1.03	0.68	0.31	0.35	0.55	0.55
Avail Cap(c_a), veh/h	140	862	1346	299	962	1006	721	1266	671	1342	976	940
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.63	0.63	0.63	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	30.3	19.6	47.8	23.8	6.3	34.6	15.5	10.5	10.0	0.0	0.0
Incr Delay (d2), s/veh	2.3	1.5	0.1	39.2	0.3	0.0	34.8	1.9	0.8	0.1	2.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	11.6	13.2	6.1	5.5	1.2	14.8	8.4	2.2	2.6	0.6	0.6
LnGrp Delay(d),s/veh	51.6	31.8	19.7	87.0	24.1	6.3	69.4	17.4	11.3	10.1	2.2	2.3
LnGrp LOS	D	C	B	F	C	A	F	B	B	B	A	A
Approach Vol, veh/h		1731			945			1814			1529	
Approach Delay, s/veh		26.9			40.4			38.0			4.7	
Approach LOS		C			D			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	49.2	43.8	15.0	31.6	27.4	65.6	12.0	34.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	21.1	* 38	9.5	* 26	22.9	36.5	8.9	26.7
Max Q Clear Time (g_c+I1), s	17.3	18.0	11.0	28.1	24.9	2.0	7.9	12.6
Green Ext Time (p_c), s	4.2	3.7	0.0	0.0	0.0	5.0	0.0	2.5

Intersection Summary		
HCM 2010 Ctrl Delay		26.7
HCM 2010 LOS		C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)

29: Indian Street & Nandina Avenue

7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰↰	↑	↱	↰↰	↑↑	↱	↰	↑↑↑↱	
Volume (veh/h)	79	172	877	403	80	22	473	1140	351	117	1620	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	187	681	438	87	10	514	1239	333	127	1761	150
Adj No. of Lanes	1	1	2	2	1	1	2	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	315	249	1117	418	138	116	779	1851	972	153	1800	153
Arrive On Green	0.35	0.26	0.26	0.23	0.14	0.14	0.43	0.97	0.97	0.17	0.69	0.69
Sat Flow, veh/h	1810	1900	3215	3619	1900	1602	3619	3800	1612	1810	5182	440
Grp Volume(v), veh/h	86	187	681	438	87	10	514	1239	333	127	1290	621
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1900	1602	1810	1900	1612	1810	1900	1822
Q Serve(g_s), s	3.8	9.9	0.0	12.7	4.7	0.5	12.4	2.6	0.2	7.5	35.5	36.0
Cycle Q Clear(g_c), s	3.8	9.9	0.0	12.7	4.7	0.5	12.4	2.6	0.2	7.5	35.5	36.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	315	249	1117	418	138	116	779	1851	972	153	1320	633
V/C Ratio(X)	0.27	0.75	0.61	1.05	0.63	0.09	0.66	0.67	0.34	0.83	0.98	0.98
Avail Cap(c_a), veh/h	315	415	1396	418	442	373	779	1851	972	156	1320	633
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40	0.40	0.40
Uniform Delay (d), s/veh	30.8	38.9	24.3	42.3	45.6	28.9	28.1	0.8	0.1	45.0	16.4	16.5
Incr Delay (d2), s/veh	0.2	1.7	0.2	57.2	1.8	0.1	1.7	1.9	1.0	13.2	11.3	18.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.3	6.9	9.6	2.5	0.2	6.3	1.2	0.3	4.3	20.0	20.5
LnGrp Delay(d),s/veh	31.0	40.6	24.5	99.5	47.4	29.0	29.8	2.7	1.1	58.1	27.7	35.1
LnGrp LOS	C	D	C	F	D	C	C	A	A	E	C	D
Approach Vol, veh/h		954			535			2086			2038	
Approach Delay, s/veh		28.2			89.7			9.1			31.8	
Approach LOS		C			F			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	59.1	17.2	19.9	29.2	43.7	23.7	13.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	9.5	43.8	12.7	24.0	15.1	* 38	11.1	25.6
Max Q Clear Time (g_c+I1), s	9.5	4.6	14.7	11.9	14.4	38.0	5.8	6.7
Green Ext Time (p_c), s	0.0	8.4	0.0	1.9	0.1	0.2	0.5	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	532	1341	199	204	916	366	285	1090	172	633	1379	882
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	578	1458	216	222	996	398	310	1185	187	688	1499	955
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	614	1725	622	1581	3298	1198	299	1107	470	617	1474	900
Arrive On Green	0.34	0.61	0.61	0.87	1.00	1.00	0.17	0.58	0.58	0.34	0.78	0.78
Sat Flow, veh/h	3619	5700	1615	3619	5700	1595	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	578	1458	216	222	996	398	310	1185	187	688	1499	955
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1595	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	17.8	23.8	5.2	1.0	0.0	0.0	9.5	33.5	7.2	19.6	44.6	44.6
Cycle Q Clear(g_c), s	17.8	23.8	5.2	1.0	0.0	0.0	9.5	33.5	7.2	19.6	44.6	44.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	614	1725	622	1581	3298	1198	299	1107	470	617	1474	900
V/C Ratio(X)	0.94	0.85	0.35	0.14	0.30	0.33	1.04	1.07	0.40	1.12	1.02	1.06
Avail Cap(c_a), veh/h	614	1725	622	1581	3298	1198	299	1107	470	617	1474	900
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.48	0.48	0.48	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	20.5	15.1	4.2	0.0	0.0	48.0	24.0	18.5	37.9	12.9	15.5
Incr Delay (d2), s/veh	13.4	2.6	0.7	0.0	0.2	0.7	62.0	48.0	2.5	72.2	27.8	47.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	12.4	2.3	0.5	0.1	0.2	7.3	24.5	3.4	15.9	27.6	40.5
LnGrp Delay(d),s/veh	50.8	23.1	15.8	4.2	0.2	0.7	110.0	72.0	21.0	110.1	40.7	63.0
LnGrp LOS	D	C	B	A	A	A	F	F	C	F	F	F
Approach Vol, veh/h		2252			1616			1682			3142	
Approach Delay, s/veh		29.5			0.9			73.4			62.7	
Approach LOS		C			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	56.7	40.3	14.0	50.1	24.0	73.0	25.1	39.0
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	7.1	* 35	9.5	43.6	19.5	22.4	19.6	* 34
Max Q Clear Time (g_c+I1), s	13.0	25.8	11.5	46.6	19.8	2.0	21.6	35.5
Green Ext Time (p_c), s	2.3	4.7	0.0	0.0	0.0	5.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	44.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Volume (veh/h)	350	1270	499	164	712	190	293	1421	233	248	1878	260
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	357	1296	488	167	727	185	299	1450	227	253	1916	254
Adj No. of Lanes	2	3	1	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	416	1639	627	476	1294	329	357	1810	512	280	2066	585
Arrive On Green	0.11	0.29	0.29	0.26	0.44	0.44	0.10	0.32	0.32	0.15	0.36	0.36
Sat Flow, veh/h	3619	5700	1610	1810	2915	742	3510	5700	1613	1810	5700	1615
Grp Volume(v), veh/h	357	1296	488	167	474	438	299	1450	227	253	1916	254
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1756	1755	1900	1613	1810	1900	1615
Q Serve(g_s), s	11.6	25.2	19.6	9.0	22.2	22.2	10.0	27.9	10.3	16.5	38.7	14.3
Cycle Q Clear(g_c), s	11.6	25.2	19.6	9.0	22.2	22.2	10.0	27.9	10.3	16.5	38.7	14.3
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	1639	627	476	843	780	357	1810	512	280	2066	585
V/C Ratio(X)	0.86	0.79	0.78	0.35	0.56	0.56	0.84	0.80	0.44	0.90	0.93	0.43
Avail Cap(c_a), veh/h	467	1639	627	476	843	780	395	1810	512	326	2066	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	39.4	32.1	35.9	24.7	24.7	52.9	37.5	19.3	49.8	36.7	28.9
Incr Delay (d2), s/veh	12.5	4.0	9.2	0.2	2.7	2.9	12.3	3.8	2.8	22.9	8.8	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	13.8	10.3	4.5	12.2	11.3	5.5	15.3	5.0	10.0	21.9	6.8
LnGrp Delay(d),s/veh	64.6	43.4	41.3	36.1	27.4	27.6	65.3	41.3	22.1	72.8	45.5	31.2
LnGrp LOS	E	D	D	D	C	C	E	D	C	E	D	C
Approach Vol, veh/h		2141			1079			1976			2423	
Approach Delay, s/veh		46.5			28.9			42.7			46.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.7	40.0	17.7	49.0	18.3	59.5	23.1	43.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.5	* 35	13.5	* 44	15.5	27.5	21.6	35.4
Max Q Clear Time (g_c+I1), s	11.0	27.2	12.0	40.7	13.6	24.2	18.5	29.9
Green Ext Time (p_c), s	0.0	4.0	0.2	2.2	0.2	1.4	0.1	3.6

Intersection Summary			
HCM 2010 Ctrl Delay			43.1
HCM 2010 LOS			D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue

7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↱	
Volume (veh/h)	97	242	136	314	184	179	113	1990	227	231	1933	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	107	266	133	345	202	97	124	2187	224	254	2124	95
Adj No. of Lanes	1	2	0	1	2	1	2	3	1	2	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	137	356	173	275	849	354	126	2631	734	205	2616	116
Arrive On Green	0.08	0.15	0.15	0.15	0.22	0.22	0.03	0.46	0.46	0.06	0.48	0.48
Sat Flow, veh/h	1810	2418	1172	1810	3800	1586	3619	5700	1591	3619	5413	241
Grp Volume(v), veh/h	107	207	192	345	202	97	124	2187	224	254	1488	731
Grp Sat Flow(s),veh/h/ln	1810	1900	1690	1810	1900	1586	1810	1900	1591	1810	1900	1854
Q Serve(g_s), s	6.7	12.0	12.5	17.5	5.0	5.8	3.9	38.5	5.5	6.5	38.3	38.7
Cycle Q Clear(g_c), s	6.7	12.0	12.5	17.5	5.0	5.8	3.9	38.5	5.5	6.5	38.3	38.7
Prop In Lane	1.00		0.69	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	137	280	249	275	849	354	126	2631	734	205	1837	896
V/C Ratio(X)	0.78	0.74	0.77	1.25	0.24	0.27	0.99	0.83	0.31	1.24	0.81	0.82
Avail Cap(c_a), veh/h	230	496	441	275	1087	454	126	2631	734	205	1837	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.41	0.41	0.41	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.2	46.9	47.2	48.8	36.6	36.9	55.5	27.0	5.7	54.3	25.2	25.3
Incr Delay (d2), s/veh	1.5	0.6	0.8	140.1	0.1	0.2	76.3	3.2	1.1	143.1	4.0	8.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	6.3	5.9	19.4	2.6	2.6	3.3	20.8	2.6	7.3	21.1	21.7
LnGrp Delay(d),s/veh	53.7	47.6	48.0	188.9	36.7	37.1	131.8	30.3	6.7	197.4	29.2	33.4
LnGrp LOS	D	D	D	F	D	D	F	C	A	F	C	C
Approach Vol, veh/h		506			644			2535			2473	
Approach Delay, s/veh		49.0			118.3			33.2			47.7	
Approach LOS		D			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	58.6	23.0	22.4	8.5	61.1	14.2	31.2
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	6.5	40.0	17.5	30.0	4.0	42.5	14.6	32.9
Max Q Clear Time (g_c+I1), s	8.5	40.5	19.5	14.5	5.9	40.7	8.7	7.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.5	0.0	1.8	0.1	1.4

Intersection Summary		
HCM 2010 Ctrl Delay		49.2
HCM 2010 LOS		D

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 7.12:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑							↱↱
Volume (vph)	0	1062	675	931	1838	0	0	0	0	0	0	1001
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5							5.6
Lane Util. Factor		*1.00	1.00	*1.00	*1.00							*1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00							0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00							1.00
Frt		1.00	1.00	1.00	1.00							1.00
Flt Protected		1.00	1.00	1.00	1.00							1.00
Satd. Flow (prot)		3800	1900	3800	3800							3713
Flt Permitted		1.00	1.00	1.00	1.00							1.00
Satd. Flow (perm)		3800	1900	3800	3800							3713
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1118	711	980	1935	0	0	0	0	0	0	1054
RTOR Reduction (vph)	0	0	393	0	0	0	0	0	0	0	0	72
Lane Group Flow (vph)	0	1118	318	980	1935	0	0	0	0	0	0	982
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA							Perm
Protected Phases		2		1	6							
Permitted Phases			2									4
Actuated Green, G (s)		27.9	27.9	23.4	55.3							23.6
Effective Green, g (s)		27.9	27.9	23.4	55.3							23.6
Actuated g/C Ratio		0.31	0.31	0.26	0.61							0.26
Clearance Time (s)		5.5	5.5	4.0	5.5							5.6
Vehicle Extension (s)		2.0	2.0	2.0	2.0							2.0
Lane Grp Cap (vph)		1178	589	988	2334							973
v/s Ratio Prot		c0.29		c0.26	0.51							
v/s Ratio Perm			0.17									c0.26
v/c Ratio		0.95	0.54	0.99	0.83							1.01
Uniform Delay, d1		30.4	25.7	33.2	13.6							33.2
Progression Factor		1.00	1.00	1.00	1.00							1.00
Incremental Delay, d2		16.5	3.5	26.5	3.6							31.3
Delay (s)		46.9	29.3	59.7	17.2							64.5
Level of Service		D	C	E	B							E
Approach Delay (s)		40.0			31.5			0.0			64.5	
Approach LOS		D			C			A			E	

Intersection Summary			
HCM 2000 Control Delay	40.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	886	142	257	516	0	0	0	0	1575	2	707
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	943	146	273	549	0				1676	2	688
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1098	467	961	2318	0				1689	2	752
Arrive On Green	0.00	0.29	0.29	0.27	0.61	0.00				0.47	0.47	0.47
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	5	1611
Grp Volume(v), veh/h	0	943	146	273	549	0				1676	0	690
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	21.1	6.4	5.4	5.9	0.0				41.4	0.0	35.8
Cycle Q Clear(g_c), s	0.0	21.1	6.4	5.4	5.9	0.0				41.4	0.0	35.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1098	467	961	2318	0				1689	0	754
V/C Ratio(X)	0.00	0.86	0.31	0.28	0.24	0.00				0.99	0.00	0.92
Avail Cap(c_a), veh/h	0	1098	467	961	2318	0				1689	0	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.93	0.93	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.3	25.0	26.3	8.0	0.0				23.8	0.0	22.3
Incr Delay (d2), s/veh	0.0	8.8	1.7	0.1	0.2	0.0				20.0	0.0	15.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	12.3	3.1	2.7	3.1	0.0				25.2	0.0	19.2
LnGrp Delay(d),s/veh	0.0	39.0	26.8	26.3	8.2	0.0				43.9	0.0	38.1
LnGrp LOS		D	C	C	A					D		D
Approach Vol, veh/h		1089			822						2366	
Approach Delay, s/veh		37.4			14.2						42.2	
Approach LOS		D			B						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	29.3	31.0		47.0		60.3		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	7.5	* 26		42.0		38.0		
Max Q Clear Time (g_c+I1), s	7.4	23.1		43.4		7.9		
Green Ext Time (p_c), s	0.0	1.3		0.0		2.7		

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av. 7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱		↑↑↑↑	↱	↰↰	↑↱		↰↰	↑	↱↱
Volume (veh/h)	147	1531	406	0	2644	437	853	967	32	230	0	280
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	150	1562	0	0	2698	402	870	987	33	235	0	281
Adj No. of Lanes	2	3	1	0	4	1	2	2	0	2	1	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1494	4664	1321	0	2736	714	836	1153	39	296	321	1647
Arrive On Green	0.41	0.82	0.00	0.00	0.36	0.36	0.23	0.32	0.32	0.08	0.00	0.17
Sat Flow, veh/h	3619	5700	1615	0	7600	1615	3619	3563	119	3619	1900	2801
Grp Volume(v), veh/h	150	1562	0	0	2698	402	870	500	520	235	0	281
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	0	1900	1615	1810	1805	1877	1810	1900	1400
Q Serve(g_s), s	2.8	7.5	0.0	0.0	38.7	11.3	25.4	28.5	28.5	7.0	0.0	3.5
Cycle Q Clear(g_c), s	2.8	7.5	0.0	0.0	38.7	11.3	25.4	28.5	28.5	7.0	0.0	3.5
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	1494	4664	1321	0	2736	714	836	584	607	296	321	1647
V/C Ratio(X)	0.10	0.33	0.00	0.00	0.99	0.56	1.04	0.86	0.86	0.79	0.00	0.17
Avail Cap(c_a), veh/h	1494	4664	1321	0	2736	714	836	584	607	296	321	1647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	2.5	0.0	0.0	34.9	22.8	42.3	34.8	34.8	49.6	0.0	14.9
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	14.2	3.2	42.3	14.9	14.4	12.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.0	0.0	0.0	22.9	5.7	17.6	16.6	17.2	4.0	0.0	1.9
LnGrp Delay(d),s/veh	19.8	2.7	0.0	0.0	49.2	26.0	84.6	49.7	49.2	62.3	0.0	15.1
LnGrp LOS	B	A			D	C	F	D	D	E		B
Approach Vol, veh/h		1712			3100			1890			516	
Approach Delay, s/veh		4.2			46.2			65.6			36.6	
Approach LOS		A			D			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		96.8	31.0	24.2	52.2	44.6	14.6	40.6
Change Period (Y+Rc), s		* 5.6	5.6	* 5.6	5.6	5.0	5.6	5.0
Max Green Setting (Gmax), s		* 50	25.4	* 19	5.2	39.6	8.4	35.6
Max Q Clear Time (g_c+I1), s		9.5	27.4	5.5	4.8	40.7	9.0	30.5
Green Ext Time (p_c), s		9.3	0.0	0.9	0.3	0.0	0.0	1.9

Intersection Summary	
HCM 2010 Ctrl Delay	40.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 7/15/2015

	↰	→	↘	↙	←	↖	↰	↑	↱	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	587	1874	0	0	612	656	162	0	507	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	638	2037	0	0	665	0	176	0	465			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	498	2375	0	0	1742	740	528	0	471			
Arrive On Green	0.14	0.63	0.00	0.00	0.46	0.00	0.29	0.00	0.29			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1810	0	1615			
Grp Volume(v), veh/h	638	2037	0	0	665	0	176	0	465			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	16.5	52.0	0.0	0.0	13.8	0.0	9.2	0.0	34.4			
Cycle Q Clear(g_c), s	16.5	52.0	0.0	0.0	13.8	0.0	9.2	0.0	34.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	498	2375	0	0	1742	740	528	0	471			
V/C Ratio(X)	1.28	0.86	0.00	0.00	0.38	0.00	0.33	0.00	0.99			
Avail Cap(c_a), veh/h	498	2375	0	0	1742	740	528	0	471			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.28	0.28	0.00	0.00	0.84	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	51.7	18.2	0.0	0.0	21.3	0.0	33.3	0.0	42.3			
Incr Delay (d2), s/veh	131.5	1.3	0.0	0.0	0.5	0.0	1.7	0.0	38.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	17.3	27.3	0.0	0.0	7.3	0.0	4.8	0.0	20.3			
LnGrp Delay(d),s/veh	183.2	19.5	0.0	0.0	21.9	0.0	35.0	0.0	80.7			
LnGrp LOS	F	B			C		D		F			
Approach Vol, veh/h		2675			665			641				
Approach Delay, s/veh		58.5			21.9			68.2				
Approach LOS		E			C			E				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		80.0			20.0	60.0		40.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		75.0			16.5	55.0		35.0
Max Q Clear Time (g_c+I1), s		54.0			18.5	15.8		36.4
Green Ext Time (p_c), s		14.3			0.0	20.9		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			53.9
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↑	↱	↰	↑↑↑↑	↱	↰↰	↱		↰	↑	↱
Volume (veh/h)	202	2140	384	121	2832	222	58	186	21	155	152	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	213	2253	0	127	2981	226	61	196	1	163	160	95
Adj No. of Lanes	1	4	1	1	4	1	2	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	3445	732	580	5154	1095	154	464	2	98	489	579
Arrive On Green	0.10	0.45	0.00	0.32	0.68	0.68	0.04	0.25	0.25	0.05	0.26	0.26
Sat Flow, veh/h	1810	7600	1615	1810	7600	1615	3619	1889	10	1810	1900	1594
Grp Volume(v), veh/h	213	2253	0	127	2981	226	61	0	197	163	160	95
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1594
Q Serve(g_s), s	12.5	27.6	0.0	6.2	24.9	6.3	2.0	0.0	10.5	6.5	8.2	4.9
Cycle Q Clear(g_c), s	12.5	27.6	0.0	6.2	24.9	6.3	2.0	0.0	10.5	6.5	8.2	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	188	3445	732	580	5154	1095	154	0	467	98	489	579
V/C Ratio(X)	1.13	0.65	0.00	0.22	0.58	0.21	0.40	0.00	0.42	1.66	0.33	0.16
Avail Cap(c_a), veh/h	188	3445	732	580	5154	1095	154	0	467	98	489	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.8	25.5	0.0	29.8	10.2	7.2	56.0	0.0	38.1	56.8	36.1	26.0
Incr Delay (d2), s/veh	104.8	1.0	0.0	0.1	0.1	0.0	7.5	0.0	2.8	338.9	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	14.6	0.0	3.1	13.1	2.8	1.1	0.0	5.8	12.5	4.3	2.1
LnGrp Delay(d),s/veh	158.6	26.5	0.0	29.8	10.3	7.3	63.4	0.0	40.9	395.6	36.3	26.0
LnGrp LOS	F	C		C	B	A	E		D	F	D	C
Approach Vol, veh/h		2466			3334			258			418	
Approach Delay, s/veh		37.9			10.9			46.2			174.1	
Approach LOS		D			B			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	44.4	59.9	10.6	36.4	17.0	87.3	12.0	35.0
Change Period (Y+Rc), s	5.5	* 5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	8.6	* 54	5.1	30.9	12.5	50.5	6.5	29.5
Max Q Clear Time (g_c+I1), s	8.2	29.6	4.0	10.2	14.5	26.9	8.5	12.5
Green Ext Time (p_c), s	0.0	12.8	0.0	1.4	0.0	18.5	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

7: Harley Knox Blvd. & Western Way

7/15/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	Y	
Volume (veh/h)	86	2296	1232	35	11	36
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	96	2551	1369	39	12	40
Adj No. of Lanes	1	3	3	1	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	123	3293	2622	736	113	376
Arrive On Green	0.07	0.58	0.46	0.46	0.30	0.30
Sat Flow, veh/h	1810	5700	5700	1599	376	1253
Grp Volume(v), veh/h	96	2551	1369	39	53	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1599	1660	0
Q Serve(g_s), s	4.7	30.8	15.4	1.2	2.1	0.0
Cycle Q Clear(g_c), s	4.7	30.8	15.4	1.2	2.1	0.0
Prop In Lane	1.00			1.00	0.23	0.75
Lane Grp Cap(c), veh/h	123	3293	2622	736	498	0
V/C Ratio(X)	0.78	0.77	0.52	0.05	0.11	0.00
Avail Cap(c_a), veh/h	171	3293	2622	736	498	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.37	0.37	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.3	14.5	17.3	13.5	22.8	0.0
Incr Delay (d2), s/veh	3.6	0.7	0.7	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	16.0	8.2	0.6	1.0	0.0
LnGrp Delay(d),s/veh	44.9	15.2	18.0	13.6	23.2	0.0
LnGrp LOS	D	B	B	B	C	
Approach Vol, veh/h		2647	1408		53	
Approach Delay, s/veh		16.3	17.9		23.2	
Approach LOS		B	B		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		57.5		32.5	10.6	46.9		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		52.0		27.0	8.5	39.0		
Max Q Clear Time (g_c+I1), s		32.8		4.1	6.7	17.4		
Green Ext Time (p_c), s		17.1		0.1	0.0	19.0		

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

HCM 2010 Signalized Intersection Summary
8: Graham Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	192	1868	289	29	2632	192	390	202	18	105	140	111
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	206	2009	0	31	2830	204	419	217	16	113	151	84
Adj No. of Lanes	2	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	2696	764	600	4019	283	220	858	63	115	909	461
Arrive On Green	0.05	0.47	0.00	0.33	0.76	0.76	0.06	0.25	0.25	0.06	0.24	0.24
Sat Flow, veh/h	3619	5700	1615	1810	5265	370	3619	3498	256	1810	3800	1593
Grp Volume(v), veh/h	206	2009	0	31	2023	1011	419	117	116	113	151	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1854	1810	1900	1593
Q Serve(g_s), s	5.7	33.0	0.0	1.3	31.0	33.4	7.0	5.7	5.8	7.2	3.6	5.2
Cycle Q Clear(g_c), s	5.7	33.0	0.0	1.3	31.0	33.4	7.0	5.7	5.8	7.2	3.6	5.2
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	179	2696	764	600	2901	1401	220	466	455	115	909	461
V/C Ratio(X)	1.15	0.75	0.00	0.05	0.70	0.72	1.90	0.25	0.25	0.98	0.17	0.18
Avail Cap(c_a), veh/h	179	2696	764	600	2901	1401	220	466	455	115	909	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.82	0.82	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	24.7	0.0	26.2	6.9	7.2	54.0	34.9	34.9	53.8	34.7	40.7
Incr Delay (d2), s/veh	106.7	1.6	0.0	0.0	0.1	0.3	422.5	1.3	1.3	78.5	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	17.7	0.0	0.7	16.1	16.7	16.4	3.2	3.1	6.1	2.0	2.4
LnGrp Delay(d),s/veh	161.4	26.2	0.0	26.2	7.0	7.5	476.5	36.2	36.3	132.3	35.1	41.5
LnGrp LOS	F	C		C	A	A	F	D	D	F	D	D
Approach Vol, veh/h		2215			3065			652			348	
Approach Delay, s/veh		38.8			7.4			319.2			68.2	
Approach LOS		D			A			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	44.6	59.9	12.5	33.0	10.2	94.3	11.8	33.7
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	6.1	* 54	7.0	* 28	5.7	54.8	7.3	27.2
Max Q Clear Time (g_c+I1), s	3.3	35.0	9.0	7.2	7.7	35.4	9.2	7.8
Green Ext Time (p_c), s	2.6	9.7	0.0	0.6	0.0	14.7	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	54.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
9: Patterson Avenue & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱		✥			↰	↱
Volume (veh/h)	13	2044	107	17	1205	6	172	4	42	1	4	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	2152	113	18	1268	6	181	4	44	1	4	15
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	2312	655	31	2330	660	493	20	100	150	556	575
Arrive On Green	0.01	0.41	0.41	0.02	0.41	0.41	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1127	56	281	248	1562	1615
Grp Volume(v), veh/h	14	2152	113	18	1268	6	229	0	0	5	0	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1465	0	0	1810	0	1615
Q Serve(g_s), s	0.5	25.2	3.1	0.7	11.8	0.2	7.7	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s	0.5	25.2	3.1	0.7	11.8	0.2	8.2	0.0	0.0	0.1	0.0	0.4
Prop In Lane	1.00		1.00	1.00		1.00	0.79		0.19	0.20		1.00
Lane Grp Cap(c), veh/h	25	2312	655	31	2330	660	614	0	0	706	0	575
V/C Ratio(X)	0.57	0.93	0.17	0.59	0.54	0.01	0.37	0.00	0.00	0.01	0.00	0.03
Avail Cap(c_a), veh/h	103	2321	658	103	2330	660	614	0	0	706	0	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.32	0.32	0.32	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.3	19.9	13.3	34.2	15.7	12.3	17.1	0.0	0.0	14.6	0.0	14.6
Incr Delay (d2), s/veh	7.4	7.3	0.0	2.2	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	14.7	1.4	0.4	6.1	0.1	3.7	0.0	0.0	0.1	0.0	0.2
LnGrp Delay(d),s/veh	41.7	27.2	13.3	36.3	15.8	12.3	18.9	0.0	0.0	14.6	0.0	14.7
LnGrp LOS	D	C	B	D	B	B	B			B		B
Approach Vol, veh/h		2279			1292			229			20	
Approach Delay, s/veh		26.6			16.0			18.9			14.7	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		30.4	5.7	33.9		30.4	5.5	34.1
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	28.5		22.0	4.0	28.5
Max Q Clear Time (g_c+I1), s		10.2	2.7	27.2		2.4	2.5	13.8
Green Ext Time (p_c), s		0.7	0.0	1.2		0.9	0.0	12.6

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
10: Heacock Street & Cactus Avenue

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	162	1104	604	59	1752	153	993	724	19	82	389	70
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	176	1200	580	64	1904	157	1079	787	19	89	423	60
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	3611	1378	83	2989	245	799	1387	33	112	679	96
Arrive On Green	0.10	0.63	0.63	0.05	0.58	0.58	0.22	0.38	0.38	0.06	0.21	0.21
Sat Flow, veh/h	1810	5700	1613	1810	5198	427	3619	3693	89	1810	3258	459
Grp Volume(v), veh/h	176	1200	580	64	1389	672	1079	405	401	89	246	237
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1825	1810	1900	1882	1810	1900	1817
Q Serve(g_s), s	11.6	11.7	5.6	4.2	29.4	29.7	26.5	20.3	20.3	5.8	14.1	14.3
Cycle Q Clear(g_c), s	11.6	11.7	5.6	4.2	29.4	29.7	26.5	20.3	20.3	5.8	14.1	14.3
Prop In Lane	1.00		1.00	1.00		0.23	1.00		0.05	1.00		0.25
Lane Grp Cap(c), veh/h	188	3611	1378	83	2185	1049	799	713	707	112	396	379
V/C Ratio(X)	0.93	0.33	0.42	0.78	0.64	0.64	1.35	0.57	0.57	0.79	0.62	0.63
Avail Cap(c_a), veh/h	188	3611	1378	134	2185	1049	799	713	707	167	396	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.64	0.64	0.64	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	10.2	6.7	56.7	17.1	17.2	46.8	29.7	29.7	55.5	43.2	43.3
Incr Delay (d2), s/veh	35.0	0.2	0.6	5.7	1.4	3.0	163.0	2.1	2.2	7.9	7.1	7.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	6.2	2.6	2.2	15.7	15.8	31.3	11.1	11.0	3.2	8.1	8.0
LnGrp Delay(d),s/veh	88.3	10.4	7.3	62.4	18.5	20.1	209.8	31.9	31.9	63.4	50.3	50.9
LnGrp LOS	F	B	A	E	B	C	F	C	C	E	D	D
Approach Vol, veh/h		1956			2125			1885			572	
Approach Delay, s/veh		16.5			20.3			133.7			52.6	
Approach LOS		B			C			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	82.5	32.0	30.5	17.0	75.5	11.9	50.6
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.9	39.6	26.5	* 25	12.5	36.0	11.1	40.4
Max Q Clear Time (g_c+I1), s	6.2	13.7	28.5	16.3	13.6	31.7	7.8	22.3
Green Ext Time (p_c), s	0.0	19.6	0.0	1.1	0.0	4.0	0.0	5.2

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
12: Heacock Street & Gentian Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
	↙	↖	↑	↗	↘	↓
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Volume (veh/h)	6	139	1177	5	94	951
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	146	1239	5	99	1001
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	200	178	1665	745	464	2811
Arrive On Green	0.11	0.11	0.46	0.46	0.26	0.78
Sat Flow, veh/h	1810	1615	3705	1615	1810	3705
Grp Volume(v), veh/h	6	146	1239	5	99	1001
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1615	1810	1805
Q Serve(g_s), s	0.3	8.0	25.3	0.2	3.9	7.6
Cycle Q Clear(g_c), s	0.3	8.0	25.3	0.2	3.9	7.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	200	178	1665	745	464	2811
V/C Ratio(X)	0.03	0.82	0.74	0.01	0.21	0.36
Avail Cap(c_a), veh/h	523	467	1665	745	464	2811
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.84	0.84	1.00	1.00
Uniform Delay (d), s/veh	35.7	39.2	19.9	13.1	26.3	3.1
Incr Delay (d2), s/veh	0.0	3.5	2.6	0.0	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	3.7	13.2	0.1	1.9	3.9
LnGrp Delay(d),s/veh	35.8	42.7	22.5	13.1	26.4	3.4
LnGrp LOS	D	D	C	B	C	A
Approach Vol, veh/h	152		1244			1100
Approach Delay, s/veh	42.4		22.4			5.5
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	28.6	47.0				75.6		14.4
Change Period (Y+Rc), s	5.5	* 5.5				5.5		4.5
Max Green Setting (Gmax), s	8.0	* 42				54.0		26.0
Max Q Clear Time (g_c+I1), s	5.9	27.3				9.6		10.0
Green Ext Time (p_c), s	1.0	4.7				4.6		0.2

Intersection Summary		
HCM 2010 Ctrl Delay		16.2
HCM 2010 LOS		B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
13: Heacock Street & Iris Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰↰	↑↑
Volume (veh/h)	374	520	469	233	298	871
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	398	553	499	248	317	927
Adj No. of Lanes	1	1	2	0	2	2
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	604	679	874	432	314	1877
Arrive On Green	0.33	0.33	0.37	0.37	0.09	0.52
Sat Flow, veh/h	1810	1615	2437	1159	3619	3705
Grp Volume(v), veh/h	398	553	384	363	317	927
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1696	1810	1805
Q Serve(g_s), s	14.1	22.6	12.7	12.8	6.5	12.4
Cycle Q Clear(g_c), s	14.1	22.6	12.7	12.8	6.5	12.4
Prop In Lane	1.00	1.00		0.68	1.00	
Lane Grp Cap(c), veh/h	604	679	674	633	314	1877
V/C Ratio(X)	0.66	0.81	0.57	0.57	1.01	0.49
Avail Cap(c_a), veh/h	627	700	674	633	314	1877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.95	0.95
Uniform Delay (d), s/veh	21.4	19.2	18.7	18.7	34.3	11.6
Incr Delay (d2), s/veh	1.9	6.6	3.5	3.8	52.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.1	0.0
%ile BackOfQ(50%),veh/ln	7.3	11.3	6.9	6.6	5.5	6.4
LnGrp Delay(d),s/veh	23.2	25.8	22.2	22.5	86.4	12.5
LnGrp LOS	C	C	C	C	F	B
Approach Vol, veh/h	951		747			1244
Approach Delay, s/veh	24.7		22.3			31.4
Approach LOS	C		C			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.0	33.5				44.5		30.5
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	6.5	27.0				38.0		26.0
Max Q Clear Time (g_c+I1), s	8.5	14.8				14.4		24.6
Green Ext Time (p_c), s	0.0	5.4				7.1		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	31	84	4	44	341	592	1	469	13	444	420	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	112	2	59	455	722	1	625	17	592	560	68
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	52	156	132	352	491	727	128	1121	501	673	1558	697
Arrive On Green	0.03	0.08	0.08	0.19	0.26	0.26	0.07	0.31	0.31	0.19	0.43	0.43
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3610	1615	3510	3610	1615
Grp Volume(v), veh/h	41	112	2	59	455	722	1	625	17	592	560	68
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1805	1615	1755	1805	1615
Q Serve(g_s), s	2.1	5.5	0.1	2.6	22.2	15.9	0.0	13.7	0.7	15.6	9.9	1.8
Cycle Q Clear(g_c), s	2.1	5.5	0.1	2.6	22.2	15.9	0.0	13.7	0.7	15.6	9.9	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	52	156	132	352	491	727	128	1121	501	673	1558	697
V/C Ratio(X)	0.79	0.72	0.02	0.17	0.93	0.99	0.01	0.56	0.03	0.88	0.36	0.10
Avail Cap(c_a), veh/h	95	520	442	352	500	735	128	1121	501	673	1558	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	42.5	40.1	31.8	34.3	13.9	41.0	27.3	22.8	37.3	18.2	9.4
Incr Delay (d2), s/veh	9.3	2.3	0.0	0.0	3.2	8.4	0.0	2.0	0.1	12.4	0.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.0	0.0	1.3	12.1	8.7	0.0	7.2	0.3	8.7	5.0	0.9
LnGrp Delay(d),s/veh	55.1	44.9	40.1	31.9	37.5	22.3	41.1	29.3	22.9	49.7	18.8	9.6
LnGrp LOS	E	D	D	C	D	C	D	C	C	D	B	A
Approach Vol, veh/h		155			1236			643			1220	
Approach Delay, s/veh		47.5			28.3			29.2			33.3	
Approach LOS		D			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.7	35.0	24.0	13.3	11.2	46.5	7.2	30.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	15.5	29.5	4.0	* 26	4.0	41.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	17.6	15.7	4.6	7.5	2.0	11.9	4.1	24.2
Green Ext Time (p_c), s	0.0	2.1	0.0	0.3	0.3	2.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	31.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↱		↰	↑↑↑↱			✥			✥	
Volume (veh/h)	156	1019	5	11	1487	10	5	10	16	10	10	42
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	195	1274	6	14	1859	12	6	12	20	12	12	52
Adj No. of Lanes	1	3	0	1	3	0	0	1	0	0	1	0
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	2425	11	80	2074	13	110	218	313	109	122	399
Arrive On Green	0.11	0.43	0.43	0.04	0.37	0.37	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	5669	27	1810	5657	37	179	614	881	175	342	1122
Grp Volume(v), veh/h	195	854	426	14	1249	622	38	0	0	76	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1895	1810	1900	1894	1673	0	0	1639	0	0
Q Serve(g_s), s	9.5	14.9	14.9	0.7	27.9	27.9	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.5	14.9	14.9	0.7	27.9	27.9	1.3	0.0	0.0	2.7	0.0	0.0
Prop In Lane	1.00		0.01	1.00		0.02	0.16		0.53	0.16		0.68
Lane Grp Cap(c), veh/h	191	1626	811	80	1393	694	641	0	0	629	0	0
V/C Ratio(X)	1.02	0.53	0.53	0.17	0.90	0.90	0.06	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	191	1626	811	80	1393	694	641	0	0	629	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.52	0.52	0.52	0.68	0.68	0.68	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	40.3	19.0	19.0	41.4	26.9	26.9	19.1	0.0	0.0	19.6	0.0	0.0
Incr Delay (d2), s/veh	52.5	0.6	1.3	0.3	6.6	12.1	0.2	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	8.0	8.1	0.3	15.9	16.9	0.7	0.0	0.0	1.3	0.0	0.0
LnGrp Delay(d),s/veh	92.9	19.6	20.3	41.7	33.5	39.0	19.3	0.0	0.0	20.0	0.0	0.0
LnGrp LOS	F	B	C	D	C	D	B			B		
Approach Vol, veh/h		1475			1885			38			76	
Approach Delay, s/veh		29.5			35.4			19.3			20.0	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.5	44.0		37.5	14.0	38.5		37.5
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	4.0	38.5		32.0	9.5	33.0		32.0
Max Q Clear Time (g_c+I1), s	2.7	16.9		4.7	11.5	29.9		3.3
Green Ext Time (p_c), s	0.0	5.3		0.4	0.0	2.2		0.4

Intersection Summary			
HCM 2010 Ctrl Delay			32.4
HCM 2010 LOS			C

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

26: Indian Street & Krameria Avenue

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	21	42	168	92	198	324	355	473	140	239	357	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	49	198	108	233	381	418	556	165	281	420	109
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	37	123	491	395	498	422	433	1022	433	409	971	413
Arrive On Green	0.02	0.06	0.06	0.22	0.26	0.26	0.24	0.27	0.27	0.23	0.26	0.26
Sat Flow, veh/h	1810	1900	1615	1810	1900	1609	1810	3800	1611	1810	3800	1615
Grp Volume(v), veh/h	25	49	198	108	233	381	418	556	165	281	420	109
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1609	1810	1900	1611	1810	1900	1615
Q Serve(g_s), s	1.2	2.2	0.0	4.5	9.3	20.6	20.6	11.3	7.5	12.8	8.3	4.8
Cycle Q Clear(g_c), s	1.2	2.2	0.0	4.5	9.3	20.6	20.6	11.3	7.5	12.8	8.3	4.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	37	123	491	395	498	422	433	1022	433	409	971	413
V/C Ratio(X)	0.67	0.40	0.40	0.27	0.47	0.90	0.97	0.54	0.38	0.69	0.43	0.26
Avail Cap(c_a), veh/h	80	570	871	395	581	492	433	1022	433	409	971	413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	40.4	24.8	29.3	27.9	32.1	33.9	28.2	26.8	31.9	28.0	26.7
Incr Delay (d2), s/veh	7.6	0.8	0.2	0.1	0.2	15.5	34.0	2.1	2.5	4.0	1.4	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.2	3.9	2.2	4.9	11.0	14.3	6.2	3.6	6.9	4.6	2.3
LnGrp Delay(d),s/veh	51.4	41.2	25.0	29.4	28.1	47.6	67.8	30.3	29.3	35.9	29.4	28.3
LnGrp LOS	D	D	C	C	C	D	E	C	C	D	C	C
Approach Vol, veh/h		272			722			1139			810	
Approach Delay, s/veh		30.4			38.6			43.9			31.5	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.8	29.7	24.1	11.3	26.0	28.5	6.3	29.1
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.3	24.2	4.5	27.0	15.5	23.0	4.0	27.5
Max Q Clear Time (g_c+I1), s	14.8	13.3	6.5	4.2	22.6	10.3	3.2	22.6
Green Ext Time (p_c), s	0.0	1.9	0.0	0.5	0.0	1.4	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	37.9
HCM 2010 LOS	D

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
28: Indian Street & San Michele Road

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	57	158	304	281	696	341	1026	908	295	127	432	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	216	404	385	953	464	1405	1244	372	174	592	68
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	387	1681	780	1018	526	1515	2073	1229	233	605	69
Arrive On Green	0.10	0.20	0.20	0.43	0.54	0.54	0.84	1.00	1.00	0.13	0.37	0.37
Sat Flow, veh/h	1810	3800	3230	3619	3800	1577	3619	3800	1615	3619	3314	379
Grp Volume(v), veh/h	78	216	404	385	953	464	1405	1244	372	174	339	321
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1577	1810	1900	1615	1810	1900	1793
Q Serve(g_s), s	4.9	5.9	0.0	8.8	26.9	30.8	32.5	0.0	0.0	5.3	20.2	20.4
Cycle Q Clear(g_c), s	4.9	5.9	0.0	8.8	26.9	30.8	32.5	0.0	0.0	5.3	20.2	20.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	90	387	1681	780	1018	526	1515	2073	1229	233	347	327
V/C Ratio(X)	0.87	0.56	0.24	0.49	0.94	0.88	0.93	0.60	0.30	0.75	0.98	0.98
Avail Cap(c_a), veh/h	90	859	2083	780	1018	526	1515	2073	1229	368	347	327
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	43.5	13.2	28.2	25.8	19.0	8.1	0.0	0.0	49.2	36.3	36.3
Incr Delay (d2), s/veh	26.6	0.2	0.0	0.2	15.1	15.4	1.1	0.1	0.1	1.8	42.6	45.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.1	3.0	4.3	16.0	15.3	14.9	0.0	0.0	2.7	14.5	14.0
LnGrp Delay(d),s/veh	78.1	43.7	13.2	28.3	40.9	34.5	9.2	0.1	0.1	51.0	78.9	81.6
LnGrp LOS	E	D	B	C	D	C	A	A	A	D	E	F
Approach Vol, veh/h		698			1802			3021			834	
Approach Delay, s/veh		29.9			36.5			4.3			74.1	
Approach LOS		C			D			A			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	67.4	29.3	17.2	52.8	26.5	10.2	36.3
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	11.7	46.8	10.5	26.0	37.5	* 21	5.7	30.8
Max Q Clear Time (g_c+I1), s	7.3	2.0	10.8	7.9	34.5	22.4	6.9	32.8
Green Ext Time (p_c), s	0.1	13.7	0.0	1.6	1.2	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

HCM 2010 Signalized Intersection Summary
29: Indian Street & Nandina Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰↰	↑	↱	↰↰	↑↑	↱	↰	↑↑↑↱	
Volume (veh/h)	26	40	395	188	85	108	465	1910	353	107	651	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	49	423	229	104	130	567	2329	428	130	794	57
Adj No. of Lanes	1	1	2	2	1	1	2	2	1	1	3	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	40	95	1289	218	167	142	1263	2542	1155	98	1923	137
Arrive On Green	0.02	0.05	0.05	0.06	0.09	0.09	0.35	0.67	0.67	0.05	0.37	0.37
Sat Flow, veh/h	1810	1900	3230	3619	1900	1615	3619	3800	1582	1810	5257	376
Grp Volume(v), veh/h	32	49	423	229	104	130	567	2329	428	130	573	278
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1582	1810	1900	1833
Q Serve(g_s), s	2.1	3.0	0.0	7.2	6.3	8.1	14.5	62.9	4.1	6.5	13.5	13.6
Cycle Q Clear(g_c), s	2.1	3.0	0.0	7.2	6.3	8.1	14.5	62.9	4.1	6.5	13.5	13.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	40	95	1289	218	167	142	1263	2542	1155	98	1390	671
V/C Ratio(X)	0.79	0.51	0.33	1.05	0.62	0.92	0.45	0.92	0.37	1.33	0.41	0.41
Avail Cap(c_a), veh/h	84	380	1773	218	394	335	1263	2542	1155	98	1390	671
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	58.4	55.6	24.9	56.4	52.8	39.1	30.2	17.0	1.4	56.8	28.4	28.4
Incr Delay (d2), s/veh	12.1	1.6	0.1	75.2	1.4	8.9	0.1	6.6	0.9	189.8	0.7	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.6	4.8	5.9	3.4	4.0	7.3	35.0	2.0	8.4	7.2	7.1
LnGrp Delay(d),s/veh	70.4	57.2	25.0	131.6	54.2	48.0	30.3	23.6	2.4	246.5	29.1	29.9
LnGrp LOS	E	E	C	F	D	D	C	C	A	F	C	C
Approach Vol, veh/h		504			463			3324			981	
Approach Delay, s/veh		31.0			90.7			22.0			58.1	
Approach LOS		C			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	85.8	11.7	11.5	47.4	49.4	7.2	16.1
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	6.5	63.0	6.5	24.0	25.6	* 44	5.6	24.9
Max Q Clear Time (g_c+I1), s	8.5	64.9	9.2	5.0	16.5	15.6	4.1	10.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	7.7	3.2	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	1105	594	254	108	1126	438	156	1137	114	229	641	505
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1176	632	253	115	1198	464	166	1210	117	244	682	470
Adj No. of Lanes	2	3	1	1	3	1	2	2	1	2	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	2838	6090	1793	76	1800	580	152	1280	544	171	1340	1836
Arrive On Green	0.78	1.00	1.00	0.04	0.32	0.32	0.04	0.34	0.34	0.05	0.35	0.35
Sat Flow, veh/h	3619	5700	1615	1810	5700	1594	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	1176	632	253	115	1198	464	166	1210	117	244	682	470
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1594	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	9.9	0.0	0.0	4.0	17.3	20.3	4.0	29.4	9.1	4.5	13.5	2.9
Cycle Q Clear(g_c), s	9.9	0.0	0.0	4.0	17.3	20.3	4.0	29.4	9.1	4.5	13.5	2.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2838	6090	1793	76	1800	580	152	1280	544	171	1340	1836
V/C Ratio(X)	0.41	0.10	0.14	1.51	0.67	0.80	1.09	0.95	0.22	1.42	0.51	0.26
Avail Cap(c_a), veh/h	2838	6090	1793	76	1800	580	152	1280	544	171	1340	1836
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	3.3	0.0	0.0	45.5	28.2	27.1	45.5	30.6	77.7	45.2	24.3	7.6
Incr Delay (d2), s/veh	0.0	0.0	0.1	285.4	2.0	11.1	98.8	15.1	0.9	220.9	1.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	0.1	8.0	9.4	10.6	4.1	18.0	4.2	7.5	7.3	5.0
LnGrp Delay(d),s/veh	3.3	0.0	0.1	330.9	30.1	38.2	144.3	45.7	78.6	266.2	25.6	8.0
LnGrp LOS	A	A	A	F	C	D	F	D	E	F	C	A
Approach Vol, veh/h		2061			1777			1493			1396	
Approach Delay, s/veh		1.9			51.7			59.3			61.7	
Approach LOS		A			D			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	109.0	8.5	39.0	82.0	35.5	10.0	37.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	34.5	4.0	32.5	8.5	* 30	4.5	* 32
Max Q Clear Time (g_c+I1), s	6.0	2.0	6.0	15.5	11.9	22.3	6.5	31.4
Green Ext Time (p_c), s	0.0	6.4	0.0	3.8	0.0	3.9	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	40.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary | Moreno Valley Logistics Center TIA (JN 09301)
31: Perris Boulevard & Cactus Avenue | 7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Volume (veh/h)	267	678	297	269	1148	143	394	1484	295	228	1178	319
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	297	753	313	299	1276	150	438	1649	316	253	1309	344
Adj No. of Lanes	2	3	1	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	249	3083	1079	303	2126	249	453	1686	475	204	1544	431
Arrive On Green	0.07	0.54	0.54	0.17	0.64	0.64	0.13	0.30	0.30	0.11	0.27	0.27
Sat Flow, veh/h	3510	5700	1609	1810	3335	390	3510	5700	1605	1810	5700	1591
Grp Volume(v), veh/h	297	753	313	299	724	702	438	1649	316	253	1309	344
Grp Sat Flow(s),veh/h/ln	1755	1900	1609	1810	1900	1825	1755	1900	1605	1810	1900	1591
Q Serve(g_s), s	8.5	8.4	5.9	19.8	26.8	27.2	14.9	34.4	20.7	13.5	26.1	28.4
Cycle Q Clear(g_c), s	8.5	8.4	5.9	19.8	26.8	27.2	14.9	34.4	20.7	13.5	26.1	28.4
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	3083	1079	303	1211	1163	453	1686	475	204	1544	431
V/C Ratio(X)	1.19	0.24	0.29	0.99	0.60	0.60	0.97	0.98	0.67	1.24	0.85	0.80
Avail Cap(c_a), veh/h	249	3083	1079	303	1211	1163	453	1686	475	204	1544	431
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	14.6	10.6	49.8	12.7	12.8	52.0	41.9	37.0	53.2	41.4	56.4
Incr Delay (d2), s/veh	119.9	0.2	0.7	47.8	2.2	2.3	33.3	17.3	7.2	143.7	6.0	14.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	4.4	4.2	13.9	14.6	14.4	9.3	20.7	10.1	14.9	14.6	14.2
LnGrp Delay(d),s/veh	175.7	14.8	11.3	97.6	14.9	15.1	85.3	59.1	44.2	196.9	47.4	70.7
LnGrp LOS	F	B	B	F	B	B	F	E	D	F	D	E
Approach Vol, veh/h		1363			1725			2403			1906	
Approach Delay, s/veh		49.0			29.3			61.9			71.4	
Approach LOS		D			C			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.6	71.4	21.0	38.0	13.0	83.0	18.0	41.0
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	20.1	31.9	15.5	* 33	8.5	43.5	13.5	34.5
Max Q Clear Time (g_c+I1), s	21.8	10.4	16.9	30.4	10.5	29.2	15.5	36.4
Green Ext Time (p_c), s	0.0	11.2	0.0	1.4	0.0	8.8	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue 7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↱	
Volume (veh/h)	86	277	222	360	415	242	153	1526	313	139	1531	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	304	228	396	456	166	168	1677	319	153	1682	85
Adj No. of Lanes	1	2	0	1	2	1	2	3	1	2	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	125	376	275	374	1240	519	180	2131	594	168	1992	101
Arrive On Green	0.07	0.19	0.19	0.21	0.33	0.33	0.05	0.37	0.37	0.05	0.37	0.37
Sat Flow, veh/h	1810	1991	1455	1810	3800	1589	3510	5700	1590	3510	5377	271
Grp Volume(v), veh/h	95	275	257	396	456	166	168	1677	319	153	1188	579
Grp Sat Flow(s),veh/h/ln	1810	1805	1641	1810	1900	1589	1755	1900	1590	1755	1900	1848
Q Serve(g_s), s	5.9	16.8	17.3	23.8	10.6	9.0	5.5	30.0	9.3	5.0	32.9	33.0
Cycle Q Clear(g_c), s	5.9	16.8	17.3	23.8	10.6	9.0	5.5	30.0	9.3	5.0	32.9	33.0
Prop In Lane	1.00		0.89	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	125	341	310	374	1240	519	180	2131	594	168	1408	685
V/C Ratio(X)	0.76	0.81	0.83	1.06	0.37	0.32	0.93	0.79	0.54	0.91	0.84	0.85
Avail Cap(c_a), veh/h	197	471	428	374	1365	571	180	2131	594	168	1408	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.6	44.6	44.9	45.6	29.7	29.1	54.4	31.9	7.5	54.5	33.2	33.2
Incr Delay (d2), s/veh	3.5	4.9	6.9	62.5	0.1	0.1	51.4	3.0	3.5	43.9	6.4	12.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	8.8	8.5	18.4	5.5	4.0	3.9	16.3	4.7	3.4	18.6	19.2
LnGrp Delay(d),s/veh	56.1	49.6	51.8	108.1	29.7	29.3	105.7	35.0	11.0	98.4	39.5	45.4
LnGrp LOS	E	D	D	F	C	C	F	C	B	F	D	D
Approach Vol, veh/h		627			1018			2164			1920	
Approach Delay, s/veh		51.5			60.1			36.9			46.0	
Approach LOS		D			E			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	48.5	29.3	27.2	10.4	48.1	13.5	43.0
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	5.5	34.7	23.8	30.0	5.9	34.3	12.5	41.3
Max Q Clear Time (g_c+I1), s	7.0	32.0	25.8	19.3	7.5	35.0	7.9	12.6
Green Ext Time (p_c), s	0.0	2.5	0.0	1.8	0.0	0.0	0.0	2.7

Intersection Summary			
HCM 2010 Ctrl Delay			45.7
HCM 2010 LOS			D

Notes

User approved pedestrian interval to be less than phase max green.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	2100	802	1355	1751	0	0	0	0	0	0	425
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				0	0	1900
Adj Flow Rate, veh/h	0	2211	836	1426	1843	0				0	0	325
Adj No. of Lanes	0	2	1	2	2	0				0	0	2
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2328	989	1116	3626	0				0	0	0
Arrive On Green	0.00	0.61	0.61	0.31	0.95	0.00				0.00	0.00	0.00
Sat Flow, veh/h	0	3800	1615	3619	3800	0					0	
Grp Volume(v), veh/h	0	2211	836	1426	1843	0					0.0	
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0						
Q Serve(g_s), s	0.0	64.7	49.9	37.0	5.2	0.0						
Cycle Q Clear(g_c), s	0.0	64.7	49.9	37.0	5.2	0.0						
Prop In Lane	0.00		1.00	1.00		0.00						
Lane Grp Cap(c), veh/h	0	2328	989	1116	3626	0						
V/C Ratio(X)	0.00	0.95	0.85	1.28	0.51	0.00						
Avail Cap(c_a), veh/h	0	2328	989	1116	3626	0						
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00						
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00						
Uniform Delay (d), s/veh	0.0	21.5	18.7	41.5	0.2	0.0						
Incr Delay (d2), s/veh	0.0	10.1	8.8	132.1	0.5	0.0						
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),veh/ln	0.0	36.7	24.5	38.9	2.6	0.0						
LnGrp Delay(d),s/veh	0.0	31.7	27.5	173.6	0.8	0.0						
LnGrp LOS		C	C	F	A							
Approach Vol, veh/h		3047			3269							
Approach Delay, s/veh		30.5			76.1							
Approach LOS		C			E							

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		
Phs Duration (G+Y+Rc), s	41.0	79.0				120.0		
Change Period (Y+Rc), s	4.0	5.5				5.5		
Max Green Setting (Gmax), s	37.0	60.5				101.5		
Max Q Clear Time (g_c+I1), s	39.0	66.7				7.2		
Green Ext Time (p_c), s	0.0	0.0				73.7		

Intersection Summary			
HCM 2010 Ctrl Delay			54.1
HCM 2010 LOS			D

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰↰	↑↑					↰↰	↱	
Volume (veh/h)	0	891	194	753	953	0	0	0	0	829	2	748
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	948	206	801	1014	0				882	2	719
Adj No. of Lanes	0	2	1	2	2	0				2	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	971	413	1488	2744	0				1287	2	573
Arrive On Green	0.00	0.26	0.26	0.14	0.24	0.00				0.36	0.36	0.36
Sat Flow, veh/h	0	3800	1615	3619	3800	0				3619	4	1611
Grp Volume(v), veh/h	0	948	206	801	1014	0				882	0	721
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	22.3	9.8	18.6	20.1	0.0				18.7	0.0	32.0
Cycle Q Clear(g_c), s	0.0	22.3	9.8	18.6	20.1	0.0				18.7	0.0	32.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	971	413	1488	2744	0				1287	0	574
V/C Ratio(X)	0.00	0.98	0.50	0.54	0.37	0.00				0.69	0.00	1.26
Avail Cap(c_a), veh/h	0	971	413	1488	2744	0				1287	0	574
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.41	0.41	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	33.2	28.6	30.9	17.2	0.0				24.7	0.0	29.0
Incr Delay (d2), s/veh	0.0	23.7	4.3	0.1	0.2	0.0				1.5	0.0	128.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	14.8	4.8	9.3	10.6	0.0				9.6	0.0	34.7
LnGrp Delay(d),s/veh	0.0	56.9	32.9	31.0	17.3	0.0				26.2	0.0	157.6
LnGrp LOS		E	C	C	B					C		F
Approach Vol, veh/h		1154			1815						1603	
Approach Delay, s/veh		52.6			23.4						85.3	
Approach LOS		D			C						F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	42.5	28.0		37.0		70.5		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	20.5	* 23		32.0		48.0		
Max Q Clear Time (g_c+I1), s	20.6	24.3		34.0		22.1		
Green Ext Time (p_c), s	0.0	0.0		0.0		6.6		

Intersection Summary	
HCM 2010 Ctrl Delay	52.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱		↑↑↑↑	↱	↰↰	↑↱		↰↰	↑	↱↱
Volume (veh/h)	512	1756	846	0	3310	155	260	693	31	318	0	995
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	528	1810	0	0	3412	151	268	714	32	328	0	1011
Adj No. of Lanes	2	3	1	0	4	1	2	2	0	2	1	2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1763	5524	1565	0	3316	828	309	624	28	276	321	1866
Arrive On Green	0.49	0.97	0.00	0.00	0.44	0.44	0.09	0.17	0.17	0.08	0.00	0.17
Sat Flow, veh/h	3619	5700	1615	0	7600	1615	3619	3610	162	3619	1900	2842
Grp Volume(v), veh/h	528	1810	0	0	3412	151	268	376	370	328	0	1011
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	0	1900	1615	1810	1900	1871	1810	1900	1421
Q Serve(g_s), s	9.6	1.6	0.0	0.0	48.0	2.5	8.0	19.0	19.0	8.4	0.0	0.0
Cycle Q Clear(g_c), s	9.6	1.6	0.0	0.0	48.0	2.5	8.0	19.0	19.0	8.4	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	1763	5524	1565	0	3316	828	309	328	323	276	321	1866
V/C Ratio(X)	0.30	0.33	0.00	0.00	1.03	0.18	0.87	1.14	1.15	1.19	0.00	0.54
Avail Cap(c_a), veh/h	1763	5524	1565	0	3316	828	309	328	323	276	321	1866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.9	0.1	0.0	0.0	31.0	20.6	49.7	45.5	45.5	50.8	0.0	10.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	23.6	0.5	21.1	94.9	95.6	114.5	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.8	0.0	0.0	30.5	1.2	4.9	18.6	18.4	8.6	0.0	8.3
LnGrp Delay(d),s/veh	17.0	0.2	0.0	0.0	54.6	21.1	70.8	140.4	141.1	165.3	0.0	11.2
LnGrp LOS	B	A			F	C	E	F	F	F		B
Approach Vol, veh/h		2338			3563			1014			1339	
Approach Delay, s/veh		4.0			53.2			122.2			49.0	
Approach LOS		A			D			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s		113.4	15.0	23.6	60.4	53.0	14.0	24.6
Change Period (Y+Rc), s		* 5.6	5.6	5.0	5.6	5.0	5.6	* 5.6
Max Green Setting (Gmax), s		* 67	8.8	18.6	13.4	48.0	8.4	* 19
Max Q Clear Time (g_c+I1), s		3.6	10.0	2.0	11.6	50.0	10.4	21.0
Green Ext Time (p_c), s		14.3	0.0	2.3	1.5	0.0	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			47.1
HCM 2010 LOS			D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑			↑↑	↱		↰	↱			
Volume (veh/h)	679	1040	0	0	1339	1693	367	3	247	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	763	1169	0	0	1504	0	412	3	169			
Adj No. of Lanes	2	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	583	2576	0	0	1816	772	379	3	341			
Arrive On Green	0.32	1.00	0.00	0.00	0.48	0.00	0.21	0.21	0.21			
Sat Flow, veh/h	3619	3800	0	0	3800	1615	1797	13	1615			
Grp Volume(v), veh/h	763	1169	0	0	1504	0	415	0	169			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	14.5	0.0	0.0	0.0	30.8	0.0	19.0	0.0	8.3			
Cycle Q Clear(g_c), s	14.5	0.0	0.0	0.0	30.8	0.0	19.0	0.0	8.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	583	2576	0	0	1816	772	382	0	341			
V/C Ratio(X)	1.31	0.45	0.00	0.00	0.83	0.00	1.09	0.00	0.50			
Avail Cap(c_a), veh/h	583	2576	0	0	1816	772	382	0	341			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.46	0.46	0.00	0.00	0.31	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	30.5	0.0	0.0	0.0	20.3	0.0	35.5	0.0	31.3			
Incr Delay (d2), s/veh	144.7	0.3	0.0	0.0	1.5	0.0	71.1	0.0	5.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	18.8	0.1	0.0	0.0	16.5	0.0	17.0	0.0	4.2			
LnGrp Delay(d),s/veh	175.2	0.3	0.0	0.0	21.8	0.0	106.6	0.0	36.4			
LnGrp LOS	F	A			C		F		D			
Approach Vol, veh/h		1932			1504			584				
Approach Delay, s/veh		69.4			21.8			86.3				
Approach LOS		E			C			F				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		66.0			18.0	48.0		24.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		61.0			14.5	43.0		19.0
Max Q Clear Time (g_c+I1), s		2.0			16.5	32.8		21.0
Green Ext Time (p_c), s		22.1			0.0	7.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	54.0
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑↑	↱	↰	↑↑↑↑	↱	↰↰	↱		↰	↑	↱
Volume (veh/h)	226	2602	36	33	2366	217	482	125	200	201	27	252
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	233	2682	0	34	2439	193	497	129	152	207	28	153
Adj No. of Lanes	1	4	1	1	4	1	2	1	0	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	3409	724	43	3053	635	1026	198	234	187	131	226
Arrive On Green	0.07	0.45	0.00	0.02	0.40	0.40	0.28	0.25	0.25	0.10	0.07	0.07
Sat Flow, veh/h	1810	7600	1615	1810	7600	1581	3619	796	938	1810	1900	1615
Grp Volume(v), veh/h	233	2682	0	34	2439	193	497	0	281	207	28	153
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1733	1810	1900	1615
Q Serve(g_s), s	8.5	36.1	0.0	2.2	33.9	6.7	13.7	0.0	17.4	12.4	1.7	5.6
Cycle Q Clear(g_c), s	8.5	36.1	0.0	2.2	33.9	6.7	13.7	0.0	17.4	12.4	1.7	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	128	3409	724	43	3053	635	1026	0	432	187	131	226
V/C Ratio(X)	1.82	0.79	0.00	0.78	0.80	0.30	0.48	0.00	0.65	1.11	0.21	0.68
Avail Cap(c_a), veh/h	128	3409	724	92	3053	635	1026	0	432	187	467	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	28.2	0.0	58.3	31.6	11.1	35.7	0.0	40.4	53.8	52.8	20.5
Incr Delay (d2), s/veh	397.0	1.9	0.0	10.8	1.5	0.1	1.6	0.0	7.4	97.4	0.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	19.3	0.0	1.3	18.1	2.9	7.1	0.0	9.2	11.2	0.9	2.6
LnGrp Delay(d),s/veh	452.7	30.1	0.0	69.1	33.1	11.2	37.3	0.0	47.8	151.2	53.1	21.8
LnGrp LOS	F	C		E	C	B	D		D	F	D	C
Approach Vol, veh/h		2915			2666			778			388	
Approach Delay, s/veh		63.9			32.0			41.1			93.1	
Approach LOS		E			C			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	59.3	39.5	13.8	13.0	53.7	17.9	35.4
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	6.1	50.6	12.8	29.5	8.5	48.2	12.4	29.9
Max Q Clear Time (g_c+I1), s	4.2	38.1	15.7	7.6	10.5	35.9	14.4	19.4
Green Ext Time (p_c), s	0.0	12.2	0.0	0.3	0.0	10.5	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	50.3
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

7: Harley Knox Blvd. & Western Way

	↗	→	←	↖	↘	↙
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑↑	↑↑↑	↱	Y	
Volume (veh/h)	41	1246	2956	20	17	77
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1354	3213	22	18	84
Adj No. of Lanes	1	3	3	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	373	4927	3491	982	65	302
Arrive On Green	0.21	0.86	0.61	0.61	0.22	0.22
Sat Flow, veh/h	1810	5700	5700	1603	288	1344
Grp Volume(v), veh/h	45	1354	3213	22	103	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1603	1648	0
Q Serve(g_s), s	2.4	5.1	60.1	0.6	6.2	0.0
Cycle Q Clear(g_c), s	2.4	5.1	60.1	0.6	6.2	0.0
Prop In Lane	1.00			1.00	0.17	0.82
Lane Grp Cap(c), veh/h	373	4927	3491	982	371	0
V/C Ratio(X)	0.12	0.27	0.92	0.02	0.28	0.00
Avail Cap(c_a), veh/h	373	4927	3491	982	371	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.8	1.4	20.6	9.1	38.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	5.2	0.0	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.7	32.9	0.3	3.0	0.0
LnGrp Delay(d),s/veh	38.8	1.6	25.8	9.2	40.3	0.0
LnGrp LOS	D	A	C	A	D	
Approach Vol, veh/h		1399	3235		103	
Approach Delay, s/veh		2.8	25.7		40.3	
Approach LOS		A	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		109.7		32.5	30.7	79.0		
Change Period (Y+Rc), s		5.5		5.5	5.5	* 5.5		
Max Green Setting (Gmax), s		82.0		27.0	4.0	* 74		
Max Q Clear Time (g_c+I1), s		7.1		8.2	4.4	62.1		
Green Ext Time (p_c), s		7.3		0.1	0.0	10.3		

Intersection Summary	
HCM 2010 Ctrl Delay	19.3
HCM 2010 LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↑	↱
Volume (veh/h)	240	3000	873	25	1782	118	352	138	27	258	264	356
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	261	3261	0	27	1937	124	383	150	24	280	287	309
Adj No. of Lanes	2	3	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	874	3731	1057	36	2248	143	296	753	118	149	895	766
Arrive On Green	0.24	0.65	0.00	0.02	0.42	0.42	0.08	0.23	0.23	0.08	0.24	0.24
Sat Flow, veh/h	3619	5700	1615	1810	5297	338	3619	3208	504	1810	3800	1594
Grp Volume(v), veh/h	261	3261	0	27	1387	674	383	88	86	280	287	309
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1811	1810	1900	1594
Q Serve(g_s), s	6.8	53.1	0.0	1.7	38.1	38.4	9.4	4.3	4.4	9.5	7.2	3.3
Cycle Q Clear(g_c), s	6.8	53.1	0.0	1.7	38.1	38.4	9.4	4.3	4.4	9.5	7.2	3.3
Prop In Lane	1.00		1.00	1.00		0.18	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	874	3731	1057	36	1613	779	296	446	425	149	895	766
V/C Ratio(X)	0.30	0.87	0.00	0.74	0.86	0.87	1.29	0.20	0.20	1.87	0.32	0.40
Avail Cap(c_a), veh/h	874	3731	1057	63	1613	779	296	446	425	149	895	766
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.00	0.34	0.34	0.34	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	16.0	0.0	56.0	30.0	30.1	52.8	35.3	35.4	52.7	36.3	16.9
Incr Delay (d2), s/veh	0.0	1.1	0.0	3.8	2.3	4.7	155.4	1.0	1.1	417.2	0.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	27.9	0.0	0.9	20.3	20.5	11.1	2.4	2.3	22.1	3.9	6.0
LnGrp Delay(d),s/veh	35.7	17.1	0.0	59.8	32.3	34.8	208.2	36.3	36.4	470.0	37.3	18.5
LnGrp LOS	D	B		E	C	C	F	D	D	F	D	B
Approach Vol, veh/h		3522			2088			557			876	
Approach Delay, s/veh		18.5			33.4			154.5			169.0	
Approach LOS		B			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	80.9	13.9	32.6	33.4	54.3	14.0	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	54.5	9.4	27.1	9.7	* 49	9.5	27.0
Max Q Clear Time (g_c+I1), s	3.7	55.1	11.4	9.2	8.8	40.4	11.5	6.4
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1	0.1	5.4	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	52.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
9: Patterson Avenue & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱		✥			↰↑	↱
Volume (veh/h)	26	1322	71	42	2478	6	134	5	67	18	5	107
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	30	1502	81	48	2816	7	152	6	76	20	6	122
Adj No. of Lanes	1	3	1	1	3	1	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	35	3016	854	61	3036	860	294	24	121	349	96	428
Arrive On Green	0.02	0.53	0.53	0.03	0.53	0.53	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	860	89	456	1051	363	1615
Grp Volume(v), veh/h	30	1502	81	48	2816	7	234	0	0	26	0	122
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1405	0	0	1415	0	1615
Q Serve(g_s), s	1.5	15.2	2.2	2.4	41.1	0.2	12.0	0.0	0.0	0.0	0.0	5.4
Cycle Q Clear(g_c), s	1.5	15.2	2.2	2.4	41.1	0.2	13.0	0.0	0.0	1.0	0.0	5.4
Prop In Lane	1.00		1.00	1.00		1.00	0.65		0.32	0.77		1.00
Lane Grp Cap(c), veh/h	35	3016	854	61	3036	860	438	0	0	445	0	428
V/C Ratio(X)	0.86	0.50	0.09	0.78	0.93	0.01	0.53	0.00	0.00	0.06	0.00	0.29
Avail Cap(c_a), veh/h	80	3016	854	127	3072	870	438	0	0	445	0	428
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.0	13.6	10.5	43.1	19.4	9.9	29.0	0.0	0.0	24.7	0.0	26.3
Incr Delay (d2), s/veh	19.4	0.0	0.0	5.9	4.2	0.0	4.6	0.0	0.0	0.3	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.9	1.0	1.3	22.6	0.1	5.7	0.0	0.0	0.5	0.0	2.6
LnGrp Delay(d),s/veh	63.4	13.6	10.5	49.0	23.7	9.9	33.6	0.0	0.0	24.9	0.0	28.0
LnGrp LOS	E	B	B	D	C	A	C			C		C
Approach Vol, veh/h		1613			2871			234			148	
Approach Delay, s/veh		14.4			24.1			33.6			27.4	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		29.3	7.6	53.1		29.3	7.2	53.4
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	5.5	* 5.5
Max Green Setting (Gmax), s		22.0	6.3	46.2		22.0	4.0	* 49
Max Q Clear Time (g_c+I1), s		15.0	4.4	17.2		7.4	3.5	43.1
Green Ext Time (p_c), s		0.8	0.0	8.5		1.2	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑↱		↰↰	↑↱		↰	↑↱	
Volume (veh/h)	152	2027	1166	30	932	143	802	623	68	178	752	141
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	2156	1225	32	991	146	853	663	68	189	800	143
Adj No. of Lanes	1	3	1	1	3	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1079	4860	1708	43	1312	193	742	1161	119	221	785	140
Arrive On Green	0.60	0.85	0.85	0.02	0.27	0.27	0.21	0.34	0.34	0.12	0.25	0.25
Sat Flow, veh/h	1810	5700	1615	1810	4859	714	3619	3385	347	1810	3140	561
Grp Volume(v), veh/h	162	2156	1225	32	774	363	853	372	359	189	484	459
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1773	1810	1900	1832	1810	1900	1801
Q Serve(g_s), s	4.0	9.0	45.7	1.8	18.7	18.8	20.5	16.0	16.0	10.2	25.0	25.0
Cycle Q Clear(g_c), s	4.0	9.0	45.7	1.8	18.7	18.8	20.5	16.0	16.0	10.2	25.0	25.0
Prop In Lane	1.00		1.00	1.00		0.40	1.00		0.19	1.00		0.31
Lane Grp Cap(c), veh/h	1079	4860	1708	43	1026	479	742	652	628	221	475	450
V/C Ratio(X)	0.15	0.44	0.72	0.75	0.75	0.76	1.15	0.57	0.57	0.86	1.02	1.02
Avail Cap(c_a), veh/h	1079	4860	1708	72	1026	479	742	652	628	233	475	450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.60	0.60	0.60	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.0	1.7	10.7	48.5	33.5	33.5	39.7	26.8	26.8	43.0	37.5	37.5
Incr Delay (d2), s/veh	0.0	0.0	0.2	9.4	5.2	10.7	77.1	2.2	2.3	23.3	46.2	47.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.6	19.4	1.0	10.5	10.6	18.1	8.8	8.5	6.6	19.2	18.3
LnGrp Delay(d),s/veh	9.0	1.8	11.0	57.9	38.6	44.2	116.9	29.0	29.1	66.3	83.7	84.9
LnGrp LOS	A	A	B	E	D	D	F	C	C	E	F	F
Approach Vol, veh/h		3543			1169			1584			1132	
Approach Delay, s/veh		5.3			40.9			76.3			81.3	
Approach LOS		A			D			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	91.2	26.0	30.5	65.6	32.5	16.7	39.8
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	30.5	20.5	* 25	7.5	* 27	12.9	32.6
Max Q Clear Time (g_c+I1), s	3.8	47.7	22.5	27.0	6.0	20.8	12.2	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	2.6	0.0	4.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

12: Heacock Street & Gentian Avenue

7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↑	↱	↰	↑↑
Volume (veh/h)	5	81	1254	13	161	1574
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	87	1348	14	173	1692
Adj No. of Lanes	1	1	2	1	1	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	124	111	1564	700	589	2961
Arrive On Green	0.07	0.07	0.43	0.43	0.33	0.82
Sat Flow, veh/h	1810	1615	3705	1615	1810	3705
Grp Volume(v), veh/h	5	87	1348	14	173	1692
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1615	1810	1805
Q Serve(g_s), s	0.2	4.8	30.4	0.4	6.4	14.3
Cycle Q Clear(g_c), s	0.2	4.8	30.4	0.4	6.4	14.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	124	111	1564	700	589	2961
V/C Ratio(X)	0.04	0.78	0.86	0.02	0.29	0.57
Avail Cap(c_a), veh/h	523	467	1564	700	589	2961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.39	0.39	1.00	1.00
Uniform Delay (d), s/veh	39.1	41.2	23.1	14.6	22.6	2.7
Incr Delay (d2), s/veh	0.0	4.5	2.7	0.0	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.3	15.6	0.2	3.2	7.1
LnGrp Delay(d),s/veh	39.2	45.7	25.8	14.6	22.7	3.5
LnGrp LOS	D	D	C	B	C	A
Approach Vol, veh/h	92		1362			1865
Approach Delay, s/veh	45.4		25.7			5.3
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	34.8	44.5				79.3		10.7
Change Period (Y+Rc), s	5.5	* 5.5				5.5		4.5
Max Green Setting (Gmax), s	10.5	* 39				54.0		26.0
Max Q Clear Time (g_c+I1), s	8.4	32.4				16.3		6.8
Green Ext Time (p_c), s	1.2	3.3				10.3		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
13: Heacock Street & Iris Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰↰	↑↑
Volume (veh/h)	259	373	1071	381	676	818
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	301	434	1245	443	786	951
Adj No. of Lanes	1	1	2	0	2	2
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	335	659	1197	413	808	2611
Arrive On Green	0.19	0.19	0.45	0.45	0.22	0.72
Sat Flow, veh/h	1810	1615	2731	909	3619	3705
Grp Volume(v), veh/h	301	434	840	848	786	951
Grp Sat Flow(s),veh/h/ln	1810	1615	1805	1740	1810	1805
Q Serve(g_s), s	19.5	0.0	54.5	54.5	25.9	11.9
Cycle Q Clear(g_c), s	19.5	0.0	54.5	54.5	25.9	11.9
Prop In Lane	1.00	1.00		0.52	1.00	
Lane Grp Cap(c), veh/h	335	659	820	790	808	2611
V/C Ratio(X)	0.90	0.66	1.02	1.07	0.97	0.36
Avail Cap(c_a), veh/h	397	714	820	790	808	2611
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.80	0.80
Uniform Delay (d), s/veh	47.8	28.7	32.8	32.8	46.2	6.2
Incr Delay (d2), s/veh	18.8	1.4	37.8	53.6	21.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	11.8	35.7	37.9	15.3	5.9
LnGrp Delay(d),s/veh	66.6	30.2	70.6	86.3	68.0	6.6
LnGrp LOS	E	C	F	F	E	A
Approach Vol, veh/h	735		1688			1737
Approach Delay, s/veh	45.1		78.5			34.4
Approach LOS	D		E			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	32.3	60.0				92.3		27.7
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	23.7	* 55				82.7		26.3
Max Q Clear Time (g_c+I1), s	27.9	56.5				13.9		21.5
Green Ext Time (p_c), s	0.0	0.0				6.2		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	54.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	57	347	106	120	102	636	0	279	40	700	473	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	81	496	151	171	146	909	0	399	53	1000	676	50
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	2	2	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	454	385	149	519	1207	488	957	422	1664	1695	758
Arrive On Green	0.06	0.24	0.24	0.08	0.27	0.27	0.00	0.27	0.27	0.47	0.47	0.47
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	3610	1593	3510	3610	1615
Grp Volume(v), veh/h	81	496	151	171	146	909	0	399	53	1000	676	50
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1805	1593	1755	1805	1615
Q Serve(g_s), s	5.1	27.5	9.0	9.5	7.0	14.3	0.0	10.5	2.9	24.1	14.1	2.3
Cycle Q Clear(g_c), s	5.1	27.5	9.0	9.5	7.0	14.3	0.0	10.5	2.9	24.1	14.1	2.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	454	385	149	519	1207	488	957	422	1664	1695	758
V/C Ratio(X)	0.78	1.09	0.39	1.14	0.28	0.75	0.00	0.42	0.13	0.60	0.40	0.07
Avail Cap(c_a), veh/h	173	454	385	149	519	1207	488	957	422	1664	1695	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.49	0.49	0.49	0.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.5	43.8	36.7	52.7	32.9	14.1	0.0	34.9	32.1	22.3	19.9	23.5
Incr Delay (d2), s/veh	4.8	69.3	0.2	96.1	0.1	1.2	0.0	1.3	0.6	0.4	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	23.1	4.0	8.7	3.7	20.6	0.0	5.4	1.3	11.8	7.1	1.1
LnGrp Delay(d),s/veh	58.3	113.1	37.0	148.8	32.9	15.3	0.0	36.2	32.7	22.7	20.6	23.7
LnGrp LOS	E	F	D	F	C	B		D	C	C	C	C
Approach Vol, veh/h		728			1226			452			1726	
Approach Delay, s/veh		91.2			36.0			35.8			21.9	
Approach LOS		F			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	59.0	36.0	15.0	33.0	35.5	59.5	11.1	36.9
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	27.5	30.5	9.5	* 28	4.0	54.0	11.0	26.0
Max Q Clear Time (g_c+I1), s	26.1	12.5	11.5	29.5	0.0	16.1	7.1	16.3
Green Ext Time (p_c), s	0.4	1.4	0.0	0.0	0.0	2.8	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	39.8
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
20: Webster Street/Heacock Street & Harley Knox Boulevard

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱			✥			✥	
Volume (veh/h)	47	1682	20	30	1267	10	5	10	26	10	10	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	1848	22	33	1392	11	5	11	29	11	11	185
Adj No. of Lanes	1	3	0	1	3	0	0	1	0	0	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	66	2138	25	47	2087	16	91	194	426	60	57	583
Arrive On Green	0.04	0.38	0.38	0.03	0.37	0.37	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1810	5621	67	1810	5647	45	103	484	1065	31	142	1458
Grp Volume(v), veh/h	52	1249	621	33	937	466	45	0	0	207	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1888	1810	1900	1892	1653	0	0	1631	0	0
Q Serve(g_s), s	2.3	24.3	24.3	1.4	16.5	16.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	24.3	24.3	1.4	16.5	16.5	1.3	0.0	0.0	6.9	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.02	0.11		0.64	0.05		0.89
Lane Grp Cap(c), veh/h	66	1445	718	47	1404	699	711	0	0	700	0	0
V/C Ratio(X)	0.78	0.86	0.86	0.70	0.67	0.67	0.06	0.00	0.00	0.30	0.00	0.00
Avail Cap(c_a), veh/h	97	1445	718	93	1404	699	711	0	0	700	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	0.30	0.30	0.30	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.2	22.9	22.9	38.7	21.1	21.1	14.8	0.0	0.0	16.5	0.0	0.0
Incr Delay (d2), s/veh	10.9	6.2	11.5	2.1	0.8	1.5	0.2	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	13.9	14.9	0.8	8.7	8.8	0.6	0.0	0.0	3.3	0.0	0.0
LnGrp Delay(d),s/veh	49.1	29.1	34.4	40.8	21.9	22.6	15.0	0.0	0.0	17.6	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B			B		
Approach Vol, veh/h		1922			1436			45			207	
Approach Delay, s/veh		31.3			22.6			15.0			17.6	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.6	35.9		37.5	7.4	35.1		37.5
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	4.1	28.4		32.0	4.3	28.2		32.0
Max Q Clear Time (g_c+I1), s	3.4	26.3		8.9	4.3	18.5		3.3
Green Ext Time (p_c), s	0.0	2.0		0.9	0.0	8.1		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

HCM 2010 Signalized Intersection Summary
26: Indian Street & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↑	↱	↰	↑↑	↱
Volume (veh/h)	138	229	484	200	70	82	263	572	184	265	523	134
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	162	269	569	235	82	96	309	673	216	312	615	158
Adj No. of Lanes	1	1	1	1	1	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	306	339	691	171	176	148	451	1013	430	431	971	413
Arrive On Green	0.28	0.30	0.30	0.09	0.09	0.09	0.25	0.27	0.27	0.24	0.26	0.26
Sat Flow, veh/h	1810	1900	1615	1810	1900	1599	1810	3800	1611	1810	3800	1615
Grp Volume(v), veh/h	162	269	569	235	82	96	309	673	216	312	615	158
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1599	1810	1900	1611	1810	1900	1615
Q Serve(g_s), s	6.8	11.7	9.5	8.5	3.7	5.2	13.9	14.2	7.4	14.3	12.9	7.3
Cycle Q Clear(g_c), s	6.8	11.7	9.5	8.5	3.7	5.2	13.9	14.2	7.4	14.3	12.9	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	306	339	691	171	176	148	451	1013	430	431	971	413
V/C Ratio(X)	0.53	0.79	0.82	1.38	0.46	0.65	0.68	0.66	0.50	0.72	0.63	0.38
Avail Cap(c_a), veh/h	306	570	887	171	574	483	451	1013	430	431	971	413
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	30.1	6.9	40.8	38.7	39.4	30.6	29.4	14.5	31.6	29.8	27.6
Incr Delay (d2), s/veh	0.9	1.6	3.9	198.1	0.6	1.6	3.6	3.4	4.2	5.2	3.1	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	6.2	6.0	13.6	2.0	2.4	7.4	7.9	3.8	7.7	7.2	3.6
LnGrp Delay(d),s/veh	30.2	31.7	10.8	238.9	39.3	41.0	34.1	32.8	18.6	36.7	32.9	30.3
LnGrp LOS	C	C	B	F	D	D	C	C	B	D	C	C
Approach Vol, veh/h		1000			413			1198			1085	
Approach Delay, s/veh		19.6			153.2			30.6			33.6	
Approach LOS		B			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.9	29.5	13.0	21.6	26.9	28.5	20.7	13.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	10.5	24.0	8.5	27.0	11.5	23.0	8.3	* 27
Max Q Clear Time (g_c+I1), s	16.3	16.2	10.5	13.7	15.9	14.9	8.8	7.2
Green Ext Time (p_c), s	0.0	2.0	0.0	1.9	0.0	1.8	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
28: Indian Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
7/16/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱↱	↰↰	↑↑	↱	↰↰	↑↑	↱	↰↰	↑↱	
Volume (veh/h)	87	721	1283	262	474	234	684	817	292	436	987	93
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	784	852	285	515	145	743	888	208	474	1073	92
Adj No. of Lanes	1	2	2	2	2	1	2	2	1	2	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	118	862	1346	299	962	644	721	2151	1047	531	1768	151
Arrive On Green	0.13	0.45	0.45	0.17	0.51	0.51	0.40	1.00	1.00	0.29	1.00	1.00
Sat Flow, veh/h	1810	3800	3098	3619	3800	1607	3619	3800	1614	3619	3442	295
Grp Volume(v), veh/h	95	784	852	285	515	145	743	888	208	474	592	573
Grp Sat Flow(s),veh/h/ln	1810	1900	1549	1810	1900	1607	1810	1900	1614	1810	1900	1837
Q Serve(g_s), s	5.9	22.1	26.1	9.0	10.6	5.0	22.9	0.0	0.0	14.4	0.0	0.0
Cycle Q Clear(g_c), s	5.9	22.1	26.1	9.0	10.6	5.0	22.9	0.0	0.0	14.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	118	862	1346	299	962	644	721	2151	1047	531	976	943
V/C Ratio(X)	0.81	0.91	0.63	0.95	0.54	0.23	1.03	0.41	0.20	0.89	0.61	0.61
Avail Cap(c_a), veh/h	140	862	1346	299	962	644	721	2151	1047	664	976	943
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	30.3	19.6	47.8	23.8	14.7	34.6	0.0	0.0	39.8	0.0	0.0
Incr Delay (d2), s/veh	2.3	1.5	0.1	39.2	0.3	0.1	34.4	0.4	0.3	10.9	2.8	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	11.6	13.2	6.1	5.5	2.2	14.7	0.1	0.1	8.0	0.8	0.8
LnGrp Delay(d),s/veh	51.6	31.8	19.7	87.0	24.1	14.8	69.0	0.4	0.3	50.7	2.8	2.9
LnGrp LOS	D	C	B	F	C	B	F	A	A	D	A	A
Approach Vol, veh/h		1731			945			1839			1639	
Approach Delay, s/veh		26.9			41.6			28.1			16.7	
Approach LOS		C			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	71.6	15.0	31.6	27.4	65.6	12.0	34.6
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	21.1	38.3	9.5	* 26	22.9	36.5	8.9	26.7
Max Q Clear Time (g_c+I1), s	16.4	2.0	11.0	28.1	24.9	2.0	7.9	12.6
Green Ext Time (p_c), s	0.4	10.9	0.0	0.0	0.0	10.8	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	26.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
29: Indian Street & Nandina Avenue

7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱↱	↰↰	↑	↱	↰↰	↑↑	↱	↰	↑↑↑↱	
Volume (veh/h)	79	172	877	403	80	22	473	1163	351	117	1721	142
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	187	681	438	87	10	514	1264	333	127	1871	150
Adj No. of Lanes	1	1	2	2	1	1	2	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	315	249	1117	418	138	116	779	1851	972	153	1809	144
Arrive On Green	0.35	0.26	0.26	0.23	0.14	0.14	0.43	0.97	0.97	0.17	0.69	0.69
Sat Flow, veh/h	1810	1900	3215	3619	1900	1602	3619	3800	1612	1810	5211	416
Grp Volume(v), veh/h	86	187	681	438	87	10	514	1264	333	127	1362	659
Grp Sat Flow(s),veh/h/ln	1810	1900	1608	1810	1900	1602	1810	1900	1612	1810	1900	1827
Q Serve(g_s), s	3.8	9.9	0.0	12.7	4.7	0.5	12.4	2.8	0.2	7.5	38.2	38.2
Cycle Q Clear(g_c), s	3.8	9.9	0.0	12.7	4.7	0.5	12.4	2.8	0.2	7.5	38.2	38.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	315	249	1117	418	138	116	779	1851	972	153	1320	634
V/C Ratio(X)	0.27	0.75	0.61	1.05	0.63	0.09	0.66	0.68	0.34	0.83	1.03	1.04
Avail Cap(c_a), veh/h	315	415	1396	418	442	373	779	1851	972	156	1320	634
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Uniform Delay (d), s/veh	30.8	38.9	24.3	42.3	45.6	28.9	28.1	0.8	0.1	45.0	16.8	16.8
Incr Delay (d2), s/veh	0.2	1.7	0.2	57.2	1.8	0.1	1.7	2.1	1.0	11.0	23.4	31.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	5.3	6.9	9.6	2.5	0.2	6.3	1.2	0.3	4.2	23.4	23.8
LnGrp Delay(d),s/veh	31.0	40.6	24.5	99.5	47.4	29.0	29.8	2.8	1.1	56.0	40.2	48.0
LnGrp LOS	C	D	C	F	D	C	C	A	A	E	F	F
Approach Vol, veh/h		954			535			2111			2148	
Approach Delay, s/veh		28.2			89.7			9.1			43.5	
Approach LOS		C			F			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	59.1	17.2	19.9	29.2	43.7	23.7	13.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	9.5	43.8	12.7	24.0	15.1	* 38	11.1	25.6
Max Q Clear Time (g_c+I1), s	9.5	4.8	14.7	11.9	14.4	40.2	5.8	6.7
Green Ext Time (p_c), s	0.0	8.6	0.0	1.9	0.1	0.0	0.5	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑	↱	↰↰	↑↑	↱
Volume (veh/h)	552	1341	199	204	916	366	285	1094	172	633	1396	966
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	600	1458	216	222	996	398	310	1189	187	688	1517	1046
Adj No. of Lanes	2	3	1	2	3	1	2	2	1	2	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	614	1725	622	1581	3298	1198	299	1107	470	617	1474	900
Arrive On Green	0.34	0.61	0.61	0.87	1.00	1.00	0.17	0.58	0.58	0.34	0.78	0.78
Sat Flow, veh/h	3619	5700	1615	3619	5700	1595	3619	3800	1615	3619	3800	1615
Grp Volume(v), veh/h	600	1458	216	222	996	398	310	1189	187	688	1517	1046
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1595	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	18.9	23.8	5.2	1.0	0.0	0.0	9.5	33.5	7.2	19.6	44.6	44.6
Cycle Q Clear(g_c), s	18.9	23.8	5.2	1.0	0.0	0.0	9.5	33.5	7.2	19.6	44.6	44.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	614	1725	622	1581	3298	1198	299	1107	470	617	1474	900
V/C Ratio(X)	0.98	0.85	0.35	0.14	0.30	0.33	1.04	1.07	0.40	1.12	1.03	1.16
Avail Cap(c_a), veh/h	614	1725	622	1581	3298	1198	299	1107	470	617	1474	900
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	20.5	15.1	4.2	0.0	0.0	48.0	24.0	18.5	37.9	12.9	15.5
Incr Delay (d2), s/veh	19.3	2.5	0.7	0.0	0.2	0.7	62.0	49.3	2.5	72.2	31.3	85.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	12.4	2.3	0.5	0.1	0.2	7.3	24.6	3.4	15.9	28.3	50.0
LnGrp Delay(d),s/veh	57.1	23.0	15.8	4.2	0.2	0.7	110.0	73.3	21.0	110.1	44.2	100.7
LnGrp LOS	E	C	B	A	A	A	F	F	C	F	F	F
Approach Vol, veh/h		2274			1616			1686			3251	
Approach Delay, s/veh		31.3			0.9			74.2			76.3	
Approach LOS		C			A			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	56.7	40.3	14.0	50.1	24.0	73.0	25.1	39.0
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	7.1	* 35	9.5	43.6	19.5	22.4	19.6	* 34
Max Q Clear Time (g_c+I1), s	13.0	25.8	11.5	46.6	20.9	2.0	21.6	35.5
Green Ext Time (p_c), s	2.3	4.7	0.0	0.0	0.0	5.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	50.5
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰↰	↑↑↑	↱	↰	↑↱		↰↰	↑↑↑	↱	↰	↑↑↑	↱
Volume (veh/h)	376	1286	499	164	715	189	293	1421	233	248	1878	265
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	384	1312	488	167	730	184	299	1450	227	253	1916	259
Adj No. of Lanes	2	3	1	1	2	0	2	3	1	1	3	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	440	1639	627	476	1276	322	357	1810	512	280	2066	585
Arrive On Green	0.12	0.29	0.29	0.26	0.44	0.44	0.10	0.32	0.32	0.15	0.36	0.36
Sat Flow, veh/h	3619	5700	1610	1810	2921	736	3510	5700	1613	1810	5700	1615
Grp Volume(v), veh/h	384	1312	488	167	475	439	299	1450	227	253	1916	259
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1757	1755	1900	1613	1810	1900	1615
Q Serve(g_s), s	12.5	25.6	19.6	9.0	22.5	22.5	10.0	27.9	10.3	16.5	38.7	14.4
Cycle Q Clear(g_c), s	12.5	25.6	19.6	9.0	22.5	22.5	10.0	27.9	10.3	16.5	38.7	14.4
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	440	1639	627	476	830	768	357	1810	512	280	2066	585
V/C Ratio(X)	0.87	0.80	0.78	0.35	0.57	0.57	0.84	0.80	0.44	0.90	0.93	0.44
Avail Cap(c_a), veh/h	467	1639	627	476	830	768	395	1810	512	326	2066	585
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	39.6	32.1	35.9	25.4	25.4	52.9	37.5	19.3	49.8	36.7	28.4
Incr Delay (d2), s/veh	14.8	4.2	9.2	0.2	2.9	3.1	12.3	3.8	2.8	22.9	8.8	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	14.0	10.3	4.5	12.4	11.5	5.5	15.3	5.0	10.0	21.9	6.8
LnGrp Delay(d),s/veh	66.6	43.8	41.3	36.1	28.2	28.4	65.3	41.3	22.1	72.8	45.5	30.8
LnGrp LOS	E	D	D	D	C	C	E	D	C	E	D	C
Approach Vol, veh/h		2184			1081			1976			2428	
Approach Delay, s/veh		47.2			29.5			42.7			46.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.7	40.0	17.7	49.0	19.1	58.6	23.1	43.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	8.5	* 35	13.5	* 44	15.5	27.5	21.6	35.4
Max Q Clear Time (g_c+I1), s	11.0	27.6	12.0	40.7	14.5	24.5	18.5	29.9
Green Ext Time (p_c), s	0.0	3.9	0.2	2.2	0.1	1.3	0.1	3.6

Intersection Summary		
HCM 2010 Ctrl Delay		43.4
HCM 2010 LOS		D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

HCM 2010 Signalized Intersection Summary
32: Perris Boulevard & Krameria Avenue

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↑	↱	↰↰	↑↑↑	↱	↰↰	↑↑↑↱	
Volume (veh/h)	114	242	169	314	184	179	120	1990	227	231	1933	92
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	125	266	170	345	202	97	132	2187	224	254	2124	99
Adj No. of Lanes	1	2	0	1	2	1	2	3	1	2	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	349	216	275	855	357	126	2565	716	205	2548	118
Arrive On Green	0.09	0.16	0.16	0.15	0.23	0.23	0.03	0.45	0.45	0.06	0.47	0.47
Sat Flow, veh/h	1810	2199	1358	1810	3800	1586	3619	5700	1591	3619	5402	251
Grp Volume(v), veh/h	125	229	207	345	202	97	132	2187	224	254	1491	732
Grp Sat Flow(s),veh/h/ln	1810	1900	1657	1810	1900	1586	1810	1900	1591	1810	1900	1852
Q Serve(g_s), s	7.8	13.2	13.8	17.5	5.0	5.8	4.0	39.4	5.7	6.5	39.2	39.7
Cycle Q Clear(g_c), s	7.8	13.2	13.8	17.5	5.0	5.8	4.0	39.4	5.7	6.5	39.2	39.7
Prop In Lane	1.00		0.82	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	155	301	263	275	855	357	126	2565	716	205	1793	874
V/C Ratio(X)	0.81	0.76	0.79	1.25	0.24	0.27	1.05	0.85	0.31	1.24	0.83	0.84
Avail Cap(c_a), veh/h	230	496	432	275	1087	454	126	2565	716	205	1793	874
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	46.3	46.5	48.8	36.5	36.8	55.5	28.2	6.1	54.3	26.4	26.5
Incr Delay (d2), s/veh	7.2	1.5	2.0	140.1	0.1	0.2	93.8	3.8	1.1	143.1	4.7	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	7.0	6.5	19.4	2.6	2.6	3.6	21.6	2.7	7.3	21.7	22.4
LnGrp Delay(d),s/veh	58.8	47.7	48.5	188.9	36.5	36.9	149.7	32.1	7.3	197.4	31.1	35.9
LnGrp LOS	E	D	D	F	D	D	F	C	A	F	C	D
Approach Vol, veh/h		561			644			2543			2477	
Approach Delay, s/veh		50.5			118.2			36.0			49.6	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	57.3	23.0	23.7	8.5	59.8	15.4	31.4
Change Period (Y+Rc), s	4.5	5.5	5.5	5.5	4.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	6.5	40.0	17.5	30.0	4.0	42.5	14.6	32.9
Max Q Clear Time (g_c+I1), s	8.5	41.4	19.5	15.8	6.0	41.7	9.8	7.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	0.8	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	51.2
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

APPENDIX 7.13:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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	→	↘	↙	←	↑	↙
Lane Group	EBT	EBR	WBL	WBT	NBT	SBR
Lane Group Flow (vph)	1118	711	980	1935	933	1054
v/c Ratio	0.95	0.72	0.99	0.83	5.65	1.01
Control Delay	47.9	10.6	61.2	17.7	0.0	61.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	10.6	61.2	17.7	0.0	61.3
Queue Length 50th (ft)	308	60	278	393	0	~281
Queue Length 95th (ft)	#436	190	#407	496	0	#417
Internal Link Dist (ft)	658			955	1615	
Turn Bay Length (ft)						
Base Capacity (vph)	1178	981	988	2334	165	1045
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.95	0.72	0.99	0.83	5.65	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues

Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/16/2015

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	943	151	254	549	1541	754
v/c Ratio	0.86	0.25	0.80	0.34	0.87	0.76
Control Delay	39.5	12.0	60.8	18.3	28.4	20.3
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay	39.5	12.0	60.8	18.9	28.4	20.3
Queue Length 50th (ft)	252	25	72	102	378	255
Queue Length 95th (ft)	#351	71	#131	140	475	407
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1101	614	316	1608	1773	992
Starvation Cap Reductn	0	0	0	676	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.25	0.80	0.59	0.87	0.76

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBR
Lane Group Flow (vph)	150	1423	414	2666	446	870	1020	235	286
v/c Ratio	0.84	0.55	0.22	0.97	0.45	0.99	0.87	0.81	0.38
Control Delay	87.8	22.5	0.3	47.2	14.6	71.3	44.6	71.8	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.8	22.5	0.3	47.2	14.6	71.3	44.6	71.8	15.8
Queue Length 50th (ft)	53	235	0	459	139	308	354	83	39
Queue Length 95th (ft)	#110	276	0	#541	222	#437	#453	#144	63
Internal Link Dist (ft)		240		1109			1221		
Turn Bay Length (ft)	175					145		100	
Base Capacity (vph)	179	2611	1900	2736	983	877	1169	290	756
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.55	0.22	0.97	0.45	0.99	0.87	0.81	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/16/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	638	1900	646	683	176	463
v/c Ratio	1.22	0.80	0.37	0.36	0.32	0.79
Control Delay	159.9	20.2	22.0	0.5	35.1	45.5
Queue Delay	0.0	47.7	0.0	0.0	0.0	0.0
Total Delay	159.9	67.9	22.0	0.5	35.1	45.5
Queue Length 50th (ft)	~303	515	159	0	106	297
Queue Length 95th (ft)	#417	612	203	0	170	#430
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	522	2375	1741	1900	554	589
Starvation Cap Reductn	0	840	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.22	1.24	0.37	0.36	0.32	0.79

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues
1: I-215 SB Ramps & Cactus Av.

	→	↘	↙	←	↑	↙
Lane Group	EBT	EBR	WBL	WBT	NBT	SBR
Lane Group Flow (vph)	2211	844	1426	1843	1028	447
v/c Ratio	1.15	0.81	1.22	0.57	9.35	1.30
Control Delay	105.2	26.3	142.7	3.6	0.0	185.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.2	26.3	142.7	3.6	0.0	185.6
Queue Length 50th (ft)	~1010	429	~677	156	0	~176
Queue Length 95th (ft)	#1139	618	#808	185	0	#279
Internal Link Dist (ft)	658			955	1615	
Turn Bay Length (ft)						
Base Capacity (vph)	1915	1048	1171	3214	110	345
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.81	1.22	0.57	9.35	1.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/16/2015

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	948	206	709	1014	847	798
v/c Ratio	0.93	0.35	0.87	0.50	0.63	1.09
Control Delay	48.5	13.4	45.7	6.6	26.6	88.0
Queue Delay	0.0	0.0	0.7	1.6	0.0	0.0
Total Delay	48.5	13.4	46.4	8.2	26.6	88.0
Queue Length 50th (ft)	262	38	221	139	197	~483
Queue Length 95th (ft)	#376	94	#297	m127	257	#710
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1021	597	814	2026	1351	731
Starvation Cap Reductn	0	0	16	778	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.35	0.89	0.81	0.63	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Queues Moreno Valley Logistics Center TIA (JN 09301)

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av. 7/16/2015

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBR
Lane Group Flow (vph)	528	1773	872	3258	160	268	746	328	1026
v/c Ratio	1.14	0.51	0.55	0.98	0.16	0.88	1.13	1.13	0.87
Control Delay	131.0	12.8	1.4	43.0	2.3	79.4	119.0	139.2	41.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.0	12.8	1.4	43.0	2.3	79.4	119.0	139.2	41.4
Queue Length 50th (ft)	~218	220	0	555	5	95	~306	~134	360
Queue Length 95th (ft)	#323	254	0	#647	21	#168	#424	#223	#471
Internal Link Dist (ft)		240		1109			1221		
Turn Bay Length (ft)	175					145		100	
Base Capacity (vph)	462	3471	1595	3316	1028	304	659	290	1174
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.51	0.55	0.98	0.16	0.88	1.13	1.13	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	↗	→	←	↖	↑	↱
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	763	1131	1407	1747	415	255
v/c Ratio	1.25	0.45	0.79	0.93	0.98	0.50
Control Delay	154.2	2.8	24.5	11.3	76.7	20.1
Queue Delay	0.0	0.3	0.5	0.0	0.0	0.0
Total Delay	154.2	3.0	25.0	11.3	76.7	20.1
Queue Length 50th (ft)	~239	33	326	0	236	67
Queue Length 95th (ft)	m#234	m42	403	#78	#415	138
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	612	2533	1773	1877	422	512
Starvation Cap Reductn	0	656	0	0	0	0
Spillback Cap Reductn	0	0	97	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.60	0.84	0.93	0.98	0.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.14:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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	→	↘	↙	←	↙
Lane Group	EBT	EBR	WBL	WBT	SBR
Lane Group Flow (vph)	1118	711	980	1935	1054
v/c Ratio	0.95	0.72	0.99	0.83	1.01
Control Delay	47.9	10.6	61.2	17.7	61.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	10.6	61.2	17.7	61.3
Queue Length 50th (ft)	308	60	278	393	~281
Queue Length 95th (ft)	#436	190	#407	496	#417
Internal Link Dist (ft)	658			955	
Turn Bay Length (ft)					
Base Capacity (vph)	1178	981	988	2334	1045
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.95	0.72	0.99	0.83	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	943	151	273	549	1676	754
v/c Ratio	0.86	0.25	0.86	0.34	0.95	0.76
Control Delay	39.8	12.0	67.7	18.3	35.7	20.2
Queue Delay	0.0	0.0	0.0	0.7	0.0	0.0
Total Delay	39.8	12.0	67.7	19.0	35.7	20.2
Queue Length 50th (ft)	252	25	78	102	437	255
Queue Length 95th (ft)	#351	71	#145	140	#601	407
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	1097	612	316	1604	1773	992
Starvation Cap Reductn	0	0	0	676	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.25	0.86	0.59	0.95	0.76

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBR
Lane Group Flow (vph)	150	1562	414	2698	446	870	1020	235	286
v/c Ratio	0.84	0.60	0.22	0.99	0.45	0.99	0.87	0.81	0.38
Control Delay	87.8	23.4	0.3	49.5	14.6	71.3	44.6	71.8	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.8	23.4	0.3	49.5	14.6	71.3	44.6	71.8	15.8
Queue Length 50th (ft)	53	267	0	467	139	308	354	83	39
Queue Length 95th (ft)	#110	311	0	#552	222	#437	#453	#144	63
Internal Link Dist (ft)		240		1109			1221		
Turn Bay Length (ft)	175					145		100	
Base Capacity (vph)	179	2611	1900	2736	983	877	1169	290	756
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.60	0.22	0.99	0.45	0.99	0.87	0.81	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/15/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	638	2037	665	713	176	551
v/c Ratio	1.22	0.86	0.38	0.38	0.32	0.94
Control Delay	159.9	23.0	22.1	0.6	35.1	62.4
Queue Delay	0.0	47.1	0.0	0.0	0.0	0.0
Total Delay	159.9	70.1	22.1	0.6	35.1	62.4
Queue Length 50th (ft)	~303	595	165	0	106	384
Queue Length 95th (ft)	#417	707	210	0	170	#604
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	522	2375	1741	1900	554	589
Starvation Cap Reductn	0	774	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.22	1.27	0.38	0.38	0.32	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: I-215 SB Ramps & Cactus Av.

Moreno Valley Logistics Center TIA (JN 09301)
7/15/2015

	→	↘	↙	←	↙
Lane Group	EBT	EBR	WBL	WBT	SBR
Lane Group Flow (vph)	2211	844	1426	1843	447
v/c Ratio	1.15	0.81	1.22	0.57	1.30
Control Delay	105.2	26.3	142.7	3.6	185.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	105.2	26.3	142.7	3.6	185.6
Queue Length 50th (ft)	~1010	429	~677	156	~176
Queue Length 95th (ft)	#1139	618	#808	185	#279
Internal Link Dist (ft)	658			955	
Turn Bay Length (ft)					
Base Capacity (vph)	1915	1048	1171	3214	345
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.15	0.81	1.22	0.57	1.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

7/16/2015

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	948	206	801	1014	882	798
v/c Ratio	0.98	0.36	0.93	0.50	0.65	1.09
Control Delay	58.1	14.2	48.6	5.8	27.1	88.0
Queue Delay	0.0	0.0	11.8	1.6	0.0	0.0
Total Delay	58.1	14.2	60.4	7.5	27.1	88.0
Queue Length 50th (ft)	267	40	250	125	207	~483
Queue Length 95th (ft)	#391	98	m#317	m116	269	#710
Internal Link Dist (ft)	844			267		1109
Turn Bay Length (ft)		100	80			
Base Capacity (vph)	971	572	865	2026	1351	731
Starvation Cap Reductn	0	0	67	786	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.36	1.00	0.82	0.65	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBR
Lane Group Flow (vph)	528	1810	872	3412	160	268	746	328	1026
v/c Ratio	1.14	0.52	0.55	1.03	0.16	0.88	1.13	1.13	0.87
Control Delay	131.0	13.0	1.4	54.7	2.3	79.4	119.0	139.2	41.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.0	13.0	1.4	54.7	2.3	79.4	119.0	139.2	41.4
Queue Length 50th (ft)	~218	227	0	~645	5	95	~306	~134	360
Queue Length 95th (ft)	#323	261	0	#702	21	#168	#424	#223	#471
Internal Link Dist (ft)		240		1109			1221		
Turn Bay Length (ft)	175					145		100	
Base Capacity (vph)	462	3471	1595	3316	1028	304	659	290	1174
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	0.52	0.55	1.03	0.16	0.88	1.13	1.13	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd.

7/16/2015

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	763	1169	1504	1902	415	278
v/c Ratio	1.25	0.45	0.83	1.01	1.03	0.57
Control Delay	152.4	2.9	25.3	27.7	91.1	24.0
Queue Delay	0.0	0.2	1.2	0.0	0.0	0.0
Total Delay	152.4	3.1	26.4	27.7	91.1	24.0
Queue Length 50th (ft)	~237	38	354	~30	~256	83
Queue Length 95th (ft)	m#213	m43	437	#263	#427	160
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	612	2575	1815	1877	401	488
Starvation Cap Reductn	0	620	0	0	0	0
Spillback Cap Reductn	0	0	133	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.25	0.60	0.89	1.01	1.03	0.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.15:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6662	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1883	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	64.6	mph	S	mph
D = v_p / S	29.2	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6381	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1777	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	66.1	mph	S	mph
D = v_p / S	26.9	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour-W IMPROV

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5921	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2199	pc/h/ln
S	58.4	mph
D = v_p / S	37.6	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour-W IMPROV

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4171	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1564	pc/h/ln
S	68.5	mph
D = v_p / S	22.8	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5349	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	5	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1221	pc/h/ln
S	70.0	mph
D = v_p / S	17.4	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6315	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1776	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	66.2	mph	S	mph
D = v_p / S	26.8	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information | Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5898	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2190	pc/h/ln
S	58.6	mph
D = v_p / S	37.4	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5275	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1949	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	63.5	mph	S	mph
D = v_p / S	30.7	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6641	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1877	pc/h/ln
S	64.7	mph
D = v_p / S	29.0	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7396	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2080	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	61.0	mph	S	mph
D = v_p / S	34.1	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5900	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2191	pc/h/ln
S	58.6	mph
D = v_p / S	37.4	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5222	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1930	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	63.8	mph	S		mph
D = v_p / S	30.2	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5377	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	5	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1227	pc/h/ln
S	70.0	mph
D = v_p / S	17.5	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4347	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1211	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	17.3	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5926	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2201	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	58.4	mph	S	mph
D = v_p / S	37.7	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	E		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4317	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1603	pc/h/ln
S	68.1	mph
D = v_p / S	23.5	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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APPENDIX 7.16:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6805	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1942	pc/h/ln
S	63.6	mph
D = v_p / S	30.5	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6438	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1802	pc/h/ln
S	65.8	mph
D = v_p / S	27.4	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour-W IMPROV

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5991	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2236	pc/h/ln
S	57.5	mph
D = v_p / S	38.9	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4176	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1566	pc/h/ln
S	68.4	mph
D = v_p / S	22.9	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour-W IMPROV

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5380	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	10
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.952

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	5	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1228	pc/h/ln
S	70.0	mph
D = v_p / S	17.5	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour-W IMPROV

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	South of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5327	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1505	pc/h/ln
S	68.9	mph
D = v_p / S	21.8	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	AM Peak Hour-W IMPROV

Site Information

Highway/Direction of Travel	I-215 Northbound
From/To	North of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5913	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2196	pc/h/ln
S	58.5	mph
D = v_p / S	37.5	pc/mi/ln
LOS	E	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5334	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1981	pc/h/ln
S	62.9	mph
D = v_p / S	31.5	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS
Agency or Company	Urban Crossroads, Inc.
Date Performed	7/14/15
Analysis Time Period	PM Peak Hour-W IMPROV

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	North of Cactus Avenue
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6676	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1887	pc/h/ln
S	64.5	mph
D = v_p / S	29.2	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7410	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2084	pc/h/ln
S	60.9	mph
D = v_p / S	34.2	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5918	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2198	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	58.4	mph	S	mph
D = v_p / S	37.6	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	E		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS		
Agency or Company	Urban Crossroads, Inc.		
Date Performed	7/14/15		
Analysis Time Period	PM Peak Hour-W IMPROV		

Site Information

Highway/Direction of Travel	I-215 Southbound
From/To	South of Harley Knox Bl.
Jurisdiction	Caltrans
Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5294	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1966	pc/h/ln
S	63.2	mph
D = v_p / S	31.1	pc/mi/ln
LOS	D	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	5532	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	12
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.943

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	5		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1275	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	69.9	mph	S	mph
D = v_p / S	18.2	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Cactus Avenue
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4410	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.5
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1234	pc/h/ln
S	70.0	mph
D = v_p / S	17.6	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	North of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	6002	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2240	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	57.5	mph	S	mph
D = v_p / S	39.0	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	E		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	South of Harley Knox Bl.
Date Performed	7/14/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4321	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	3		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1613	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	68.0	mph	S	mph
D = v_p / S	23.7	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	C		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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APPENDIX 7.17:

GENERAL PLAN BUILDOUT (POST 2035) WITHOUT PROJECT CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 1001 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5661
Ramp Volume, V_R	886
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5661	0.92	Level	9	0	0.957	1.00	6430
Ramp	886	0.92	Level	25	0	0.889	1.00	1083
UpStream	1001	0.92	Level	7	0	0.966	1.00	1126
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3414 pc/h

V_3 or V_{av34} 1508 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6430	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5347	Exhibit 13-8	9600	No
V_R	1083	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3414	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 33.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.785 (Exhibit 13-12)

S_R= 48.0 mph (Exhibit 13-12)

S_0= 74.8 mph (Exhibit 13-12)

S = 57.7 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5661
Ramp Volume, V_R	886
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 1606 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5661	0.92	Level	9	0	0.957	1.00	6430
Ramp	886	0.92	Level	25	0	0.889	1.00	1083
UpStream								
DownStream	1606	0.92	Level	3	0	0.985	1.00	1772

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3414 pc/h

V_3 or V_{av34} 1508 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6430	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5347	Exhibit 13-8	9600	No
V_R	1083	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3414	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 33.6 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.785 (Exhibit 13-12)

S_R= 48.0 mph (Exhibit 13-12)

S_0= 74.8 mph (Exhibit 13-12)

S = 57.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	5921
Ramp Volume, V_R	2130
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 380 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5921	0.92	Level	5	0	0.976	1.00	6597
Ramp	2130	0.92	Level	6	0	0.971	1.00	2385
UpStream								
DownStream	380	0.92	Level	26	0	0.885	1.00	467

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.485 using Equation (Exhibit 13-7)

V_{12} = 4429 pc/h

V_3 or V_{av34} 2168 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6597	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4212	Exhibit 13-8	7200	No
V_R	2385	Exhibit 13-10	2100	Yes

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4429	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = 40.6 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination

D_s = 0.513 (Exhibit 13-12)

S_R= 55.6 mph (Exhibit 13-12)

S_0= 72.2 mph (Exhibit 13-12)

S = 60.2 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 2130 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	3791
Ramp Volume, V_R	380
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3791	0.92	Level	5	0	0.976	1.00	4224
Ramp	380	0.92	Level	26	0	0.885	1.00	467
UpStream	2130	0.92	Level	6	0	0.971	1.00	2385
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = 1070.71 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2470 pc/h

V_3 or V_{av34} 1754 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2470 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4691	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2937	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = 26.5 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.371 (Exibit 13-11)

S_R= 59.6 mph (Exhibit 13-11)

S_0= 65.5 mph (Exhibit 13-11)

S = 61.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 406 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	4372
Ramp Volume, V_R	977
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4372	0.92	Level	10	0	0.952	1.00	4990
Ramp	977	0.92	Level	12	0	0.943	1.00	1126
UpStream	406	0.92	Level	17	0	0.922	1.00	479
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2882 pc/h

V_3 or V_{av34} 2108 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2882 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6116	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4008	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 36.2 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.536 (Exibit 13-11)

S_R= 55.0 mph (Exhibit 13-11)

S_0= 64.2 mph (Exhibit 13-11)

S = 57.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 580 veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A 300

Deceleration Lane Length L_D

Freeway Volume, V_F 4695

Ramp Volume, V_R 1203

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4695	0.92	Level	2	0	0.990	1.00	5154
Ramp	1203	0.92	Level	16	0	0.926	1.00	1412
UpStream	580	0.92	Level	17	0	0.922	1.00	684
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 1489.72 (Equation 13-6 or 13-7)

P_{FM} = 0.580 using Equation (Exhibit 13-6)

V_{12} = 2988 pc/h

V_3 or V_{av34} 2166 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2988 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6566	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4400	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 37.3 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.612 (Exibit 13-11)

S_R= 52.9 mph (Exhibit 13-11)

S_0= 64.0 mph (Exhibit 13-11)

S = 56.1 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	5275
Ramp Volume, V_R	580
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 1203 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5275	0.92	Level	4	0	0.980	1.00	5848
Ramp	580	0.92	Level	17	0	0.922	1.00	684
UpStream								
DownStream	1203	0.92	Level	16	0	0.926	1.00	1412

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.582 using Equation (Exhibit 13-7)

V_{12} = 3691 pc/h

V_3 or V_{av34} 2157 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5848	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5164	Exhibit 13-8	7200	No
V_R	684	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3691	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 33.5 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.360 (Exhibit 13-12)

S_R= 59.9 mph (Exhibit 13-12)

S_0= 72.3 mph (Exhibit 13-12)

S = 64.0 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 425 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6216
Ramp Volume, V_R	977
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6216	0.92	Level	8	0	0.962	1.00	7027
Ramp	977	0.92	Level	14	0	0.935	1.00	1136
UpStream	425	0.92	Level	10	0	0.952	1.00	485
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3704 pc/h

V_3 or V_{av34} 1661 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7027	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5891	Exhibit 13-8	9600	No
V_R	1136	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3704	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 36.1 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.790 (Exhibit 13-12)

S_R= 47.9 mph (Exhibit 13-12)

S_0= 74.2 mph (Exhibit 13-12)

S = 57.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6216
Ramp Volume, V_R	977
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 2157 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6216	0.92	Level	8	0	0.962	1.00	7027
Ramp	977	0.92	Level	14	0	0.935	1.00	1136
UpStream								
DownStream	2157	0.92	Level	7	0	0.966	1.00	2427

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3704 pc/h

V_3 or V_{av34} 1661 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7027	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5891	Exhibit 13-8	9600	No
V_R	1136	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3704	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 36.1 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.790 (Exhibit 13-12)

S_R= 47.9 mph (Exhibit 13-12)

S_0= 74.2 mph (Exhibit 13-12)

S = 57.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	5900
Ramp Volume, V_R	1530
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 852 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5900	0.92	Level	5	0	0.976	1.00	6573
Ramp	1530	0.92	Level	16	0	0.926	1.00	1796
UpStream								
DownStream	852	0.92	Level	21	0	0.905	1.00	1023

Merge Areas	Diverge Areas

Estimation of v_{12} (Merge Areas)

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Estimation of v_{12} (Diverge Areas)

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.513 using Equation (Exhibit 13-7)

V_{12} = 4247 pc/h

V_3 or V_{av34} 2326 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks (Merge Areas)

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Capacity Checks (Diverge Areas)

	Actual	Capacity		LOS F?
V_F	6573	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4777	Exhibit 13-8	7200	No
V_R	1796	Exhibit 13-10	2100	No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4247	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F) (Merge Areas)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Level of Service Determination (if not F) (Diverge Areas)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = 39.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination (Merge Areas)

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Speed Determination (Diverge Areas)

D_s = 0.460 (Exhibit 13-12)

S_R= 57.1 mph (Exhibit 13-12)

S_0= 71.6 mph (Exhibit 13-12)

S = 61.5 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp
☑ Yes ☐ On
☐ No ☑ Off
L_{up} = 1420 ft
V_u = 1530 veh/h

Freeway Number of Lanes, N 3
Ramp Number of Lanes, N 1
Acceleration Lane Length, L_A 260
Deceleration Lane Length L_D
Freeway Volume, V_F 4370
Ramp Volume, V_R 852
Freeway Free-Flow Speed, S_{FF} 70.0
Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp
☐ Yes ☐ On
☑ No ☐ Off
L_{down} = ft
V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4370	0.92	Level	1	0	0.995	1.00	4774
Ramp	852	0.92	Level	21	0	0.905	1.00	1023
UpStream	1530	0.92	Level	16	0	0.926	1.00	1796
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 1307.40 (Equation 13-6 or 13-7)
P_{FM} = 0.585 using Equation (Exhibit 13-6)
V_{12} = 2792 pc/h
V_3 or V_{av34} 1982 pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No
If Yes,V_{12a} = 2792 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5797	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3815	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 33.1 (pc/mi/ln)
LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.475 (Exibit 13-11)
S_R= 56.7 mph (Exhibit 13-11)
S_0= 64.7 mph (Exhibit 13-11)
S = 59.2 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)
P_{FD} = using Equation (Exhibit 13-7)
V_{12} = pc/h
V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)
Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No
Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No
If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)
LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)
S_R= mph (Exhibit 13-12)
S_0= mph (Exhibit 13-12)
S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 846 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	4068
Ramp Volume, V_R	1309
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4068	0.92	Level	7	0	0.966	1.00	4576
Ramp	1309	0.92	Level	22	0	0.901	1.00	1579
UpStream	846	0.92	Level	11	0	0.948	1.00	970
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2643 pc/h

V_3 or V_{av34} 1933 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2643 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6155	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4222	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 37.7 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.587 (Exibit 13-11)

S_R= 53.6 mph (Exhibit 13-11)

S_0= 64.8 mph (Exhibit 13-11)

S = 56.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 592 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	3725
Ramp Volume, V_R	2201
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3725	0.92	Level	5	0	0.976	1.00	4150
Ramp	2201	0.92	Level	6	0	0.971	1.00	2464
UpStream	592	0.92	Level	11	0	0.948	1.00	679
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 1500.00 (Equation 13-6 or 13-7)

P_{FM} = 0.579 using Equation (Exhibit 13-6)

V_{12} = 2404 pc/h

V_3 or V_{av34} 1746 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2404 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6614	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4868	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

D_R = 5.475 + 0.00734 v $_R$ + 0.0078 V_{12} - 0.00627 L_A

D_R = 40.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.801 (Exibit 13-11)

S_R= 47.6 mph (Exhibit 13-11)

S_0= 65.5 mph (Exhibit 13-11)

S = 51.3 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 Without Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	4317
Ramp Volume, V_R	592
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 2201 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4317	0.92	Level	5	0	0.976	1.00	4810
Ramp	592	0.92	Level	11	0	0.948	1.00	679
UpStream								
DownStream	2201	0.92	Level	6	0	0.971	1.00	2464

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.609 using Equation (Exhibit 13-7)

V_{12} = 3193 pc/h

V_3 or V_{av34} 1617 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4810	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4131	Exhibit 13-8	7200	No
V_R	679	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3193	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = 29.2 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.359 (Exhibit 13-12)

S_R= 59.9 mph (Exhibit 13-12)

S_0= 74.4 mph (Exhibit 13-12)

S = 64.1 mph (Exhibit 13-13)

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APPENDIX 7.18:

GENERAL PLAN BUILDOUT (POST 2035) WITH PROJECT CONDITIONS FREEWAY MERGE/DIVERGE ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 1001 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5804
Ramp Volume, V_R	972
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5804	0.92	Level	10	0	0.952	1.00	6624
Ramp	972	0.92	Level	27	0	0.881	1.00	1199
UpStream	1001	0.92	Level	7	0	0.966	1.00	1126
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3564 pc/h

V_3 or V_{av34} 1530 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6624	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5425	Exhibit 13-8	9600	No
V_R	1199	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3564	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 34.9 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.796 (Exhibit 13-12)

S_R= 47.7 mph (Exhibit 13-12)

S_0= 74.7 mph (Exhibit 13-12)

S = 57.3 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5804
Ramp Volume, V_R	972
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 1606 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5804	0.92	Level	10	0	0.952	1.00	6624
Ramp	972	0.92	Level	27	0	0.881	1.00	1199
UpStream								
DownStream	1606	0.92	Level	3	0	0.985	1.00	1772

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3564 pc/h

V_3 or V_{av34} 1530 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6624	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5425	Exhibit 13-8	9600	No
V_R	1199	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3564	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$$

D_R = 34.9 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.796 (Exhibit 13-12)

S_R= 47.7 mph (Exhibit 13-12)

S_0= 74.7 mph (Exhibit 13-12)

S = 57.3 mph (Exhibit 13-13)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	5991
Ramp Volume, V_R	2211
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 396 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5991	0.92	Level	6	0	0.971	1.00	6707
Ramp	2211	0.92	Level	8	0	0.962	1.00	2499
UpStream								
DownStream	396	0.92	Level	28	0	0.877	1.00	491

Merge Areas	Diverge Areas

Estimation of v_{12} (Merge Areas)

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Estimation of v_{12} (Diverge Areas)

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.477 using Equation (Exhibit 13-7)

V_{12} = 4508 pc/h

V_3 or V_{av34} 2199 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks (Merge)

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Capacity Checks (Diverge)

	Actual	Capacity		LOS F?
V_F	6707	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4208	Exhibit 13-8	7200	No
V_R	2499	Exhibit 13-10	2100	Yes

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4508	Exhibit 13-8	4400:All	Yes

Level of Service Determination (if not F) (Merge)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Level of Service Determination (if not F) (Diverge)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 41.3 (pc/mi/ln)

LOS = F (Exhibit 13-2)

Speed Determination (Merge)

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Speed Determination (Diverge)

D_s = 0.523 (Exhibit 13-12)

S_R= 55.4 mph (Exhibit 13-12)

S_0= 72.1 mph (Exhibit 13-12)

S = 59.9 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 2211 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	3780
Ramp Volume, V_R	396
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3780	0.92	Level	5	0	0.976	1.00	4211
Ramp	396	0.92	Level	28	0	0.877	1.00	491
UpStream	2211	0.92	Level	8	0	0.962	1.00	2499
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1073.07 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2463 pc/h

V_3 or V_{av34} 1748 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2463 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4702	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2954	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 26.7 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.372 (Exibit 13-11)

S_R= 59.6 mph (Exhibit 13-11)

S_0= 65.5 mph (Exhibit 13-11)

S = 61.6 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information | Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 406 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	4384
Ramp Volume, V_R	996
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4384	0.92	Level	10	0	0.952	1.00	5003
Ramp	996	0.92	Level	12	0	0.943	1.00	1148
UpStream	406	0.92	Level	17	0	0.922	1.00	479
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2889 pc/h

V_3 or V_{av34} 2114 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2889 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6151	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4037	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 36.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.542 (Exibit 13-11)

S_R= 54.8 mph (Exhibit 13-11)

S_0= 64.2 mph (Exhibit 13-11)

S = 57.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 642 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	4692
Ramp Volume, V_R	1221
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4692	0.92	Level	2	0	0.990	1.00	5151
Ramp	1221	0.92	Level	16	0	0.926	1.00	1433
UpStream	642	0.92	Level	23	0	0.897	1.00	778
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1493.58 (Equation 13-6 or 13-7)

P_{FM} = 0.580 using Equation (Exhibit 13-6)

V_{12} = 2985 pc/h

V_3 or V_{av34} 2166 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2985 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6584	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4418	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 37.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.617 (Exibit 13-11)

S_R= 52.7 mph (Exhibit 13-11)

S_0= 64.0 mph (Exhibit 13-11)

S = 56.0 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A

Deceleration Lane Length L_D 280

Freeway Volume, V_F 5334

Ramp Volume, V_R 642

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 1221 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5334	0.92	Level	5	0	0.976	1.00	5943
Ramp	642	0.92	Level	23	0	0.897	1.00	778
UpStream								
DownStream	1221	0.92	Level	16	0	0.926	1.00	1433

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.576 using Equation (Exhibit 13-7)

V_{12} = 3751 pc/h

V_3 or V_{av34} 2192 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5943	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	5165	Exhibit 13-8	7200	No
V_R	778	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3751	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 34.0 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.368 (Exhibit 13-12)

S_R= 59.7 mph (Exhibit 13-12)

S_0= 72.1 mph (Exhibit 13-12)

S = 63.8 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GBPO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 425 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6251
Ramp Volume, V_R	998
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	6251	0.92	Level	8	0	0.962	1.00	7066
Ramp	998	0.92	Level	15	0	0.930	1.00	1166
UpStream	425	0.92	Level	10	0	0.952	1.00	485
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3738 pc/h

V_3 or V_{av34} 1664 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7066	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5900	Exhibit 13-8	9600	No
V_R	1166	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3738	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 36.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.793 (Exhibit 13-12)

S_R= 47.8 mph (Exhibit 13-12)

S_0= 74.2 mph (Exhibit 13-12)

S = 57.4 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	6251
Ramp Volume, V_R	998
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 2157 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	6251	0.92	Level	8	0	0.962	1.00	7066
Ramp	998	0.92	Level	15	0	0.930	1.00	1166
UpStream								
DownStream	2157	0.92	Level	7	0	0.966	1.00	2427

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3738 pc/h

V_3 or V_{av34} 1664 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	7066	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5900	Exhibit 13-8	9600	No
V_R	1166	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3738	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 36.4 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.793 (Exhibit 13-12)

S_R= 47.8 mph (Exhibit 13-12)

S_0= 74.2 mph (Exhibit 13-12)

S = 57.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	5918
Ramp Volume, V_R	1550
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 926 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5918	0.92	Level	5	0	0.976	1.00	6593
Ramp	1550	0.92	Level	16	0	0.926	1.00	1820
UpStream								
DownStream	926	0.92	Level	25	0	0.889	1.00	1132

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.511 using Equation (Exhibit 13-7)

V_{12} = 4261 pc/h

V_3 or V_{av34} 2332 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6593	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4773	Exhibit 13-8	7200	No
V_R	1820	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	4261	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 39.1 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

D_s = 0.462 (Exhibit 13-12)

S_R= 57.1 mph (Exhibit 13-12)

S_0= 71.6 mph (Exhibit 13-12)

S = 61.5 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 1550 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	4368
Ramp Volume, V_R	926
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4368	0.92	Level	1	0	0.995	1.00	4772
Ramp	926	0.92	Level	25	0	0.889	1.00	1132
UpStream	1550	0.92	Level	16	0	0.926	1.00	1820
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = 1330.30 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2791 pc/h

V_3 or V_{av34} 1981 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2791 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	5904	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	3923	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = 33.9 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

M_S = 0.495 (Exibit 13-11)

S_R= 56.1 mph (Exhibit 13-11)

S_0= 64.7 mph (Exhibit 13-11)

S = 58.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 846 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	4131
Ramp Volume, V_R	1401
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4131	0.92	Level	8	0	0.962	1.00	4670
Ramp	1401	0.92	Level	24	0	0.893	1.00	1706
UpStream	846	0.92	Level	11	0	0.948	1.00	970
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 2697 pc/h

V_3 or V_{av34} 1973 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2697 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6376	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4403	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 39.0 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.640 (Exibit 13-11)

S_R= 52.1 mph (Exhibit 13-11)

S_0= 64.7 mph (Exhibit 13-11)

S = 55.4 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 607 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	3714
Ramp Volume, V_R	2288
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3714	0.92	Level	5	0	0.976	1.00	4138
Ramp	2288	0.92	Level	8	0	0.962	1.00	2586
UpStream	607	0.92	Level	12	0	0.943	1.00	699
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = 1523.54 (Equation 13-6 or 13-7)

P_{FM} = 0.578 using Equation (Exhibit 13-6)

V_{12} = 2390 pc/h

V_3 or V_{av34} 1748 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2390 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	6724	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	4976	Exhibit 13-8	4600:All	Yes

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 41.2 (pc/mi/ln)

LOS = E (Exhibit 13-2)

Speed Determination

M_S = 0.859 (Exibit 13-11)

S_R= 45.9 mph (Exhibit 13-11)

S_0= 65.5 mph (Exhibit 13-11)

S = 49.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	7/14/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour-W IMPROV	Analysis Year	GPBO P-2035 With Project

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	4321
Ramp Volume, V_R	607
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 2288 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	4321	0.92	Level	6	0	0.971	1.00	4838
Ramp	607	0.92	Level	12	0	0.943	1.00	699
UpStream								
DownStream	2288	0.92	Level	8	0	0.962	1.00	2586

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.607 using Equation (Exhibit 13-7)

V_{12} = 3211 pc/h

V_3 or V_{av34} 1627 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4838	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4139	Exhibit 13-8	7200	No
V_R	699	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3211	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 29.3 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.361 (Exhibit 13-12)

S_R= 59.9 mph (Exhibit 13-12)

S_0= 74.3 mph (Exhibit 13-12)

S = 64.1 mph (Exhibit 13-13)

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Attachment: I1(a) -Traffic Impact Analysis Appendix (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

URBAN CROSSROADS
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September 23, 2015

Ms. Tracy Zinn
T&B Planning
17542 East 17th Street
Tustin, CA 92780

Subject: **Moreno Valley Logistics Center Supplemental Basic Freeway Segment Analysis**

Dear Ms. Tracy Zinn:

This letter serves as a supplement to the *Moreno Valley Logistics Center Traffic Impact Analysis* (dated July 31, 2015) (referred to as "Traffic Study") that assesses freeway mainline segments for the following scenarios found in the Traffic Study:

- Existing (2015) Conditions
- Existing plus Project Conditions (E+P)
- Opening Year Cumulative (2020) Without Project Conditions
- Opening Year Cumulative (2020) With Project Conditions
- Horizon Year (2035) Without Project Conditions
- Horizon Year (2035) With Project Conditions

Study area mainline segments were selected based on the Project's contribution of 25 or more on-way peak hour trips on a segment (passenger-car-equivalent (PCE) volume based as opposed to actual vehicles), which results in a wider study area than the I-215 Freeway at Cactus Avenue and Harley Knox Boulevard interchanges that were evaluated in the Project's Traffic Study.

SUMMARY OF FINDINGS

Based on the results of this analysis, segments on the SR-91 Freeway west of the I-15 Freeway, I-15 Freeway, I-215 Freeway north of the SR-60/SR-91 Freeways, SR-60 Freeway east of Frederick Street, SR-60 Freeway west of the SR-60/SR-91 Freeways, or the I-215 Freeway south of Nuevo Road are anticipated to receive fewer than 25 one-way peak hour trips from the Project and are therefore considered less than significant. Additionally, the proposed Project will result in a less than significant traffic impact on the SR-91 Freeway, SR-60/I-215 Freeway, and I-215 Freeway segments where the Project is anticipated to contribute 25 or more one-way peak hour trips for E+P traffic conditions (see Table 3 attached to this letter). Opening Year Cumulative (2020) and Horizon Year (2035) traffic growth along the SR-91 Freeway, SR-60 Freeway, and I-215 Freeway are anticipated to exceed the capacity of existing lanes, and would thus result in a deficient level of service (LOS) for select freeway mainline segments under both Opening Year Cumulative (2020) traffic conditions (see Table 4 attached to this report) and Horizon Year (2035) traffic conditions (see Table 5 attached to this report).

INTRODUCTION

The *Caltrans Guide for the Preparation of Traffic Impact Studies* (December 2002), specifies when an assessment of a State highway facility (SHF) is typically required. Caltrans has also clarified their traffic study guidelines in a letter to the City of Moreno Valley (dated February 10, 2014) which further defines the scope of study for SHFs in CEQA documents by indicating the need for analysis of freeway segments where a project is anticipated to contribute 50 or more peak hour trips and recognizing that a project's contribution to freeway segments dissipates with distance from the point of entry onto the State Highway System (SHS). The letter written by Caltrans to the City of Moreno Valley is applicable to all development within the Moreno Valley Industrial Area Plan (MVIAP), which the proposed Project is located within. The Caltrans letter is included in Attachment A.

In an effort to conduct a conservative analysis, the Project has evaluated the freeway segments in which the Project is anticipated to contribute 25 or more peak hour trips (in excess of the Caltrans 50 peak hour trip criterion). The Project is anticipated to contribute 25 or more actual vehicle-based peak hour trips to portions of the I-215 Freeway (along the SR-91 Freeway from the I-15 Freeway to the I-215/SR-60/SR-91 Freeway interchange, SR-60 Freeway from the I-215/SR-60/SR-91 Freeway interchange to Day Street, and I-215 Freeway from the I-215/SR-60 Freeway interchange to Nuevo Road). As the proposed Project is not anticipated to contribute 25 or more actual vehicle-based peak hour trips beyond these segments, additional segments of the SR-91 Freeway, SR-60 Freeway, I-15 Freeway, or I-215 Freeway have not been included for the purposes of this analysis and are not required to be evaluated by Caltrans. The freeway segments evaluated for the purposes of this supplemental analysis are shown on Table 1.

REGIONAL GOODS MOVEMENT

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code §6500, also referred to as the Joint Powers Authority law. On April 4, 2012, SCAG adopted the 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) with goals to:

1) Maximize mobility and accessibility for all people and goods in the region;
2) Ensure travel safety and reliability for all people and goods in the region;
3) Preserve and ensure a sustainable transportation system;
4) Maximize productivity of the transportation system;
5) Protect the environment, improve air quality, and promote energy efficiency;

6) Encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and

7) Maximize the security of the transportation system The RTP/SCS includes a chapter titled "Goods Movement."

It states that the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on complex transportation network. The Goods Movement section of the RTP/SCS sets forth regional strategies to achieve an efficient movement of goods throughout Southern California. It recognizes that the SCAG region will experience dramatic increases in truck traffic on east-west corridors that will cause increased congestion and longer delays to both trucks and general traffic on existing routes.

Goods movements within the SCAG region ranges from moving goods directly from manufacturing centers to local consumers, to those traveling from the San Pedro Bay Ports, to distance destinations across the United States. Goods movements and freight transportation are essential to the SCAG regional economy and quality of life. The regional goods movement system has six primary components: seaports, land ports, air cargo facilities, interstate/highways/local roads, railroads and warehousing/distribution centers. Each component is discussed below:

- Seaports – There are three major ports within the SCAG region: Los Angeles, Long Beach and Hueneme. The Ports of Los Angeles and Long Beach combined are the largest container port complex within the United States. Port Hueneme specializes in the import/export of automobiles, fresh fruit, produce, and serves as the primary support facility for the offshore oil industry.
- Land Ports – There are three international border crossings in Imperial County (Calexico West-Mexicali I, Calexico East-Mexicali II and Andrade-Los Algodones. These border crossings are busy commercial land ports primarily used for the transport of agricultural products.
- Air Cargo Facilities – Los Angeles International Airport (LAX) and Ontario International Airport (ONT) handle a combined 96 percent of the SCAG region's air cargo.
- Interstate, Highways, and Local Roads – The roadway system carries a mix of local, domestic trade and international cargoes. The roadway system also provides connections between the ports, manufacturing facilities, intermodal terminals, warehouses and distribution centers.
- Railroads – The Burlington Northern Santa Fe Railway (NBSF) and the Union Pacific (UP) are two Class I railroads that are responsible for carrying international and domestic cargo to and from various areas of the country. Both railroads connect directly to the San Pedro Bay Ports.
- Warehousing and Distribution Centers – As of 2008, the SCAG region consisted of approximately 837 million square feet of warehousing space. Roughly 15 percent of the occupied warehouse space served port-related uses while the remaining 85 percent supported

a mix of domestic and international cargo. Distribution facilities for domestic cargo tend to be located in areas farther away from the Ports – such as the Inland Empire.

REGIONAL FREEWAY SYSTEM

Sections of the I-710, I-605, SR-60 and SR-91 carry the highest volumes of truck traffic within the SCAG region, with each averaging approximately 25,000 trucks per day. Other major freeways within the area include the I-5, I-10, I-15 and I-210 where some carry as much as 20,000 trucks per day. The regional freeway system is a key component to the regional goods movement within the SCAG region. Trucks use the freeway system to carry freight between businesses and consumers throughout the SCAG region. The I-710 is anticipated to experience the highest growth in truck traffic related to the growth in port-related traffic. Considerable growth in truck traffic is also anticipated on the I-10 and I-210 Freeway with the highest growth of the east-west corridors is expected for the SR-60 Freeway.

Based on information from the 2012-2035 Regional Transportation Plan (RTP), 87.9 percent of all truck trips are anticipated to remain internal to Riverside County. The remaining 12.1 percent are external trips generated within Riverside County and leaving the SCAG region. The internal truck trips have origins and destinations within the SCAG region and are generated by local industries, construction sites, domestic warehouses, domestic truck terminals and residences. The external truck trips are interregional that reflect trade between the SCAG region and the remainder of the United States. There are also port truck trips, secondary port truck trips and intermodal truck trips; however, these trips account for less than six percent of the overall truck trips.

Exhibit 1 illustrates the SCAG region truck routes and shows the distribution of truck traffic external to the SCAG region, per the 2012-2035 RTP. Based on the Project trip distribution patterns, the Project PM peak hour trips are shown on Exhibit 2. In excess of the 50 peak hour trip threshold, the SR-91, SR-60, and I-215 Freeways segments listed previously on Table 1 would receive 25 or more Project-related peak hour trips and were thus selected for analysis. In an effort to conservatively determine the study area, passenger-car-equivalent (PCE) volume-based trips were utilized as opposed to actual vehicles.

FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY & ASSUMPTIONS

The freeway segments of the SR-91, SR-60, and I-215 Freeways shown on Table 1 have been selected for analysis based on Caltrans traffic study guidelines. The freeway segments evaluated in this supplemental analysis are based on actual vehicle-based peak hour directional volumes. The freeway segment analysis is based on the methodology described in the Highway Capacity Manual (HCM 2010), and performed using HCS2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2 illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads or through aerial imagery. The existing freeway geometrics have been utilized for the following traffic conditions: Existing (2015) and E+P. Near-term and long-range planned improvements along the SR-91 Freeway and I-215 Freeway have been assumed to be in place for the Opening Year Cumulative (2020) and Horizon Year (2035) analyses, respectively. The improvements that have been evaluated as part of this analysis are discussed subsequently.

The I-215 Freeway mainline volume data was obtained from the Caltrans Performance Measurement System (PeMS) website for each of the segments of the SR-91 Freeway, SR-60 Freeway, and I-215 Freeway identified in Table 1. The data was obtained for May 2015 for which reliable data could be obtained, similar to the count date of the intersections counts conducted for the Traffic Study. In an effort to conduct a conservative analysis, the maximum value observed within the three (3) day period was utilized for the weekday morning (AM) and evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and potential impacts. As such, actual vehicles (as opposed to PCE volumes) have been utilized for the purposes of the basic freeway segment analysis.

PLANNED ENHANCEMENTS TO THE REGIONAL FREEWAY SYSTEM

OPENING YEAR CUMULATIVE (2020) CONDITIONS

In an effort to improve existing congestion along the SR-91 between Anaheim and Corona, RCTC in partnership with Caltrans, the City of Corona and the Orange County Transportation Authority (OCTA), is currently constructing the SR-91 Project. The SR-91 Project includes the addition of two tolled Express Lanes and one mixed flow lane in each direction of travel between the SR-71 Freeway and the I-15 Freeway. The SR-91 Project also includes the addition of a southbound mixed flow lane along the I-15 Freeway between SR-91 Freeway to Ontario Avenue and an eastbound mixed flow lane along the SR-91 Freeway between the I-15 Freeway and Pierce Street. Funding for the project is provided by a combination of federal, state and local sources, as well as revenue bonds. The Express Lanes will be funded by tolls from future drivers who choose to utilize these lanes. Toll revenue will then be used to repay the federal loan for this project. Construction is currently underway and is expected to be completed by 2017.

To improve mobility through the downtown Riverside area, Caltrans, in partnership with RCTC and the City of Riverside, is currently constructing one high-occupancy vehicle (HOV) lane in each direction along the SR-91 Freeway between Adams Street and the SR-60/SR-91/I-215 freeway Interchange. The project was primarily funded by Measure A, federal funds and Corridor Mobility Improvement Account (CMIA) funds (the state Proposition IB funding). The purpose of the project is to provide HOV continuity from the west and improve traffic safety and level of service. Construction began in Spring 2012 and is anticipated to be completed by the end of 2015.

Attachment: I2 - Supplemental Basic Freeway Segment Analysis (1 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

The SCAG RTP includes a list of projects included in the Federal Transportation Improvement Program (FTIP). The following is the only applicable FTIP project within the study area, which has also been assumed for Opening Year Cumulative (2020) and Horizon Year (2035) Without and With Project traffic conditions only:

- Interchange improvements at I-215/Cactus Avenue includes the extension of the northbound auxiliary lane between Alessandro Boulevard south to Cactus Avenue (to be completed by 2018).

Each of the aforementioned improvements have been assumed to be in place for Opening Year Cumulative (2020) traffic conditions.

HORIZON YEAR (2035) CONDITIONS

The Riverside County Transportation Commission (RCTC) has plans in place for the widening of I-215 Freeway through the study area; however, a schedule for the widening of the I-215 between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside has not been set, due to the State's ongoing budget challenges. The I-215 North Project proposes to add a carpool lane (high-occupancy vehicle or HOV lane) in each direction to a 10.75-mile section of the I-215 freeway, the northernmost section of the RCTC's widening efforts along this freeway. Once project costs and funding are determined, project development will begin and last about three (3) years. As indicated on project documents found on the I-215 North Project website, final design will follow for about two and a half (2 ½) years, followed by three (3) years for construction. As such, the future expansion of the I-215 Freeway has only been assumed to be in place for Horizon Year (2035) traffic conditions and not for Existing, E+P, or Opening Year Cumulative (2020) traffic conditions.

EXISTING (2015) CONDITIONS ANALYSIS

Existing (2015) mainline directional volumes for the AM and PM peak hours are provided on Table 3. As shown on Table 3, the I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours. The Existing (2015) peak hour directional freeway mainline LOS is shown on Table 3 and are graphically shown on Exhibit 3. Existing (2015) basic freeway segment analysis worksheets are provided in Attachment B.

E+P CONDITIONS ANALYSIS

E+P conditions mainline directional volumes for the AM and PM peak hours are also shown on Table 3. Project traffic was added to the Existing (2015) volumes based on a combination of the Project's trip distribution from the Traffic Study and the distribution of trucks within the SCAG region (see Exhibit 1).

As shown on Table 3, I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS D or better) with the addition of Project traffic during the peak hours under E+P conditions.

The E+P peak hour directional freeway mainline LOS is shown on Table 3 and are graphically shown on Exhibit 4. E+P conditions basic freeway segment analysis worksheets are provided in Attachment C.

OPENING YEAR CUMULATIVE (2020) CONDITIONS

WITHOUT PROJECT

Opening Year Cumulative (2020) Without Project mainline directional volumes for the AM and PM peak hours are provided on Table 4. Ambient growth and cumulative development traffic have been added to Existing (2015) traffic conditions. As shown on Table 4, I-215 Freeway segments analyzed were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours under Opening Year Cumulative (2020) Without Project traffic conditions, with the exception of the following segments:

ID	Freeway	Direction	Segment	Level of Service
24	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.	LOS F PM peak hour only
29	I-215	Southbound	Ramona Exwy. to Nuevo Rd.	LOS F PM peak hour only
32	SR-91	Westbound	Riverwalk Pkwy. To Magnolia Av.	LOS E PM peak hour only
48	I-215	Northbound	University Av. to Martin Luther King Bl.	LOS E AM peak hour only
51	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway	LOS E PM peak hour only
53	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.	LOS E AM peak hour; LOS F PM peak hour
58	I-215	Northbound	Ramona Exwy. to Nuevo Rd.	LOS E AM and PM peak hours

The Opening Year Cumulative (2020) Without Project peak hour directional freeway mainline LOS is shown on Table 4 and is graphically shown on Exhibit 5. Opening Year Cumulative (2020) Without Project basic freeway segment analysis worksheets are provided in Attachment D.

WITH PROJECT

Opening Year Cumulative (2020) With Project mainline directional volumes for the AM and PM peak hours are also provided on Table 4. Ambient growth, Project traffic, and cumulative development traffic has been added to Existing (2015) traffic conditions. As shown on Table 4, there are no additional freeway segments anticipated to operate at unacceptable LOS with the addition of Project traffic, in addition to those previously identified for Opening Year Cumulative (2020) Without Project traffic conditions.

The Opening Year Cumulative (2020) With Project peak hour directional freeway mainline LOS is shown on Table 4 and is graphically shown on Exhibit 6. Opening Year Cumulative (2020) With Project basic freeway segment analysis worksheets are provided in Attachment E.

HORIZON YEAR (2035) CONDITIONS

WITHOUT PROJECT

Horizon Year (2035) mainline directional volumes for the AM and PM peak hours are provided on Table 5 for Without Project conditions. As shown on Table 5, the following freeway segments evaluated were found to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Horizon Year (2035) Without Project traffic conditions:

ID	Freeway	Direction	Segment	Level of Service
2	SR-91	Eastbound	McKinley St. to Riverwalk Pkwy.	LOS E AM and PM peak hours
3	SR-91	Eastbound	Riverwalk Pkwy. To Magnolia Av.	LOS F AM and PM peak hours
8	SR-91	Eastbound	Adams St. to Madison St.	LOS F AM peak hour; LOS E PM peak hour
24	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.	LOS F PM peak hour only
27	I-215	Southbound	Van Buren Bl. to Harley Knox Bl.	LOS E AM and PM peak hours
29	I-215	Southbound	Ramona Exwy. to Nuevo Rd.	LOS E PM peak hour only
30	SR-91	Westbound	I-15 Freeway to McKinley St.	LOS F AM and PM peak hours
31	SR-91	Westbound	McKinley St. to Riverwalk Pkwy.	LOS F AM and PM peak hours
32	SR-91	Westbound	Riverwalk Pkwy. To Magnolia Av.	LOS F AM and PM peak hours
33	SR-91	Westbound	Magnolia Av. to La Sierra Av.	LOS F AM and PM peak hours
34	SR-91	Westbound	La Sierra Av. to Tyler Av.	LOS F AM and PM peak hours
49	I-215	Northbound	Martin Luther King Bl. to Central Av.	LOS E AM and PM peak hours
51	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway	LOS E PM peak hour only
52	I-215	Northbound	SR-60 Freeway to Eucalyptus Av.	LOS E AM and PM peak hours
53	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.	LOS F PM peak hour only
56	I-215	Northbound	Van Buren Bl. to Harley Knox Bl.	LOS E AM and PM peak hours
58	I-215	Northbound	Ramona Exwy. to Nuevo Rd.	LOS E AM and PM peak hours

The Horizon Year (2035) Without Project peak hour directional freeway mainline LOS are shown on Table 5 and are graphically shown on Exhibit 7. Horizon Year (2035) Without Project basic freeway segment analysis worksheets are provided in Attachment F.

WITH PROJECT

Project traffic has been added to the Horizon Year (2035) Without Project forecasts for Horizon Year (2035) With Project traffic conditions (see Table 5). As shown on Table 5, the addition of Project traffic is not anticipated to result in any additional freeway segment deficiencies from those previously identified under Horizon Year (2035) Without Project traffic conditions. The Horizon Year (2035) With Project peak hour directional freeway mainline LOS are shown on Table 5 and are graphically shown on

Exhibit 8. Horizon Year (2035) With Project basic freeway segment analysis worksheets are provided in Attachment G.

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Aric Evatt, PTP
President

Charlene So, PE
Senior Transportation Engineer

EXHIBIT 1: SCAG REGION TRUCK ROUTES

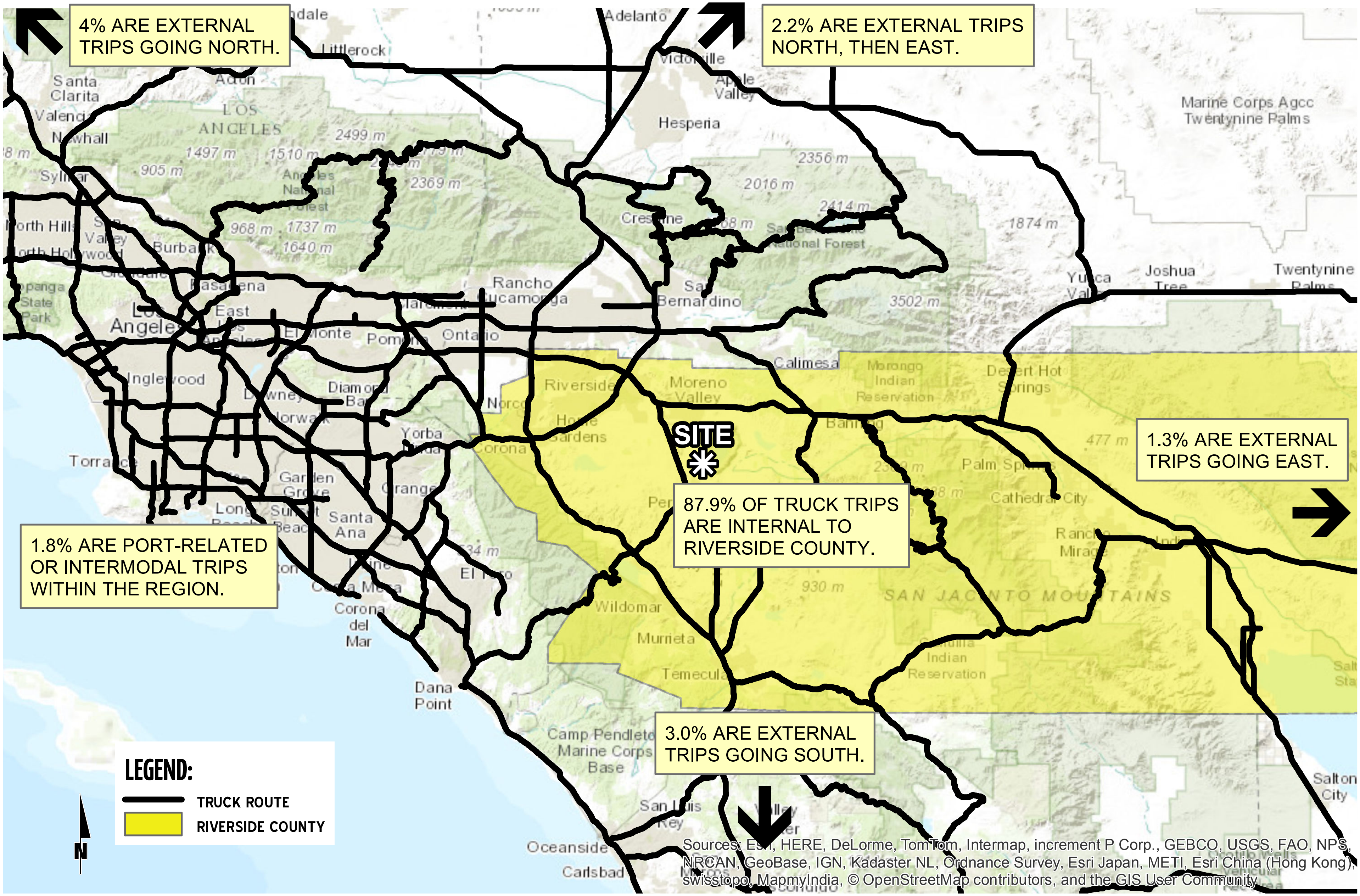

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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URBAN CROSSROADS

EXHIBIT 2: LOCATION MAP

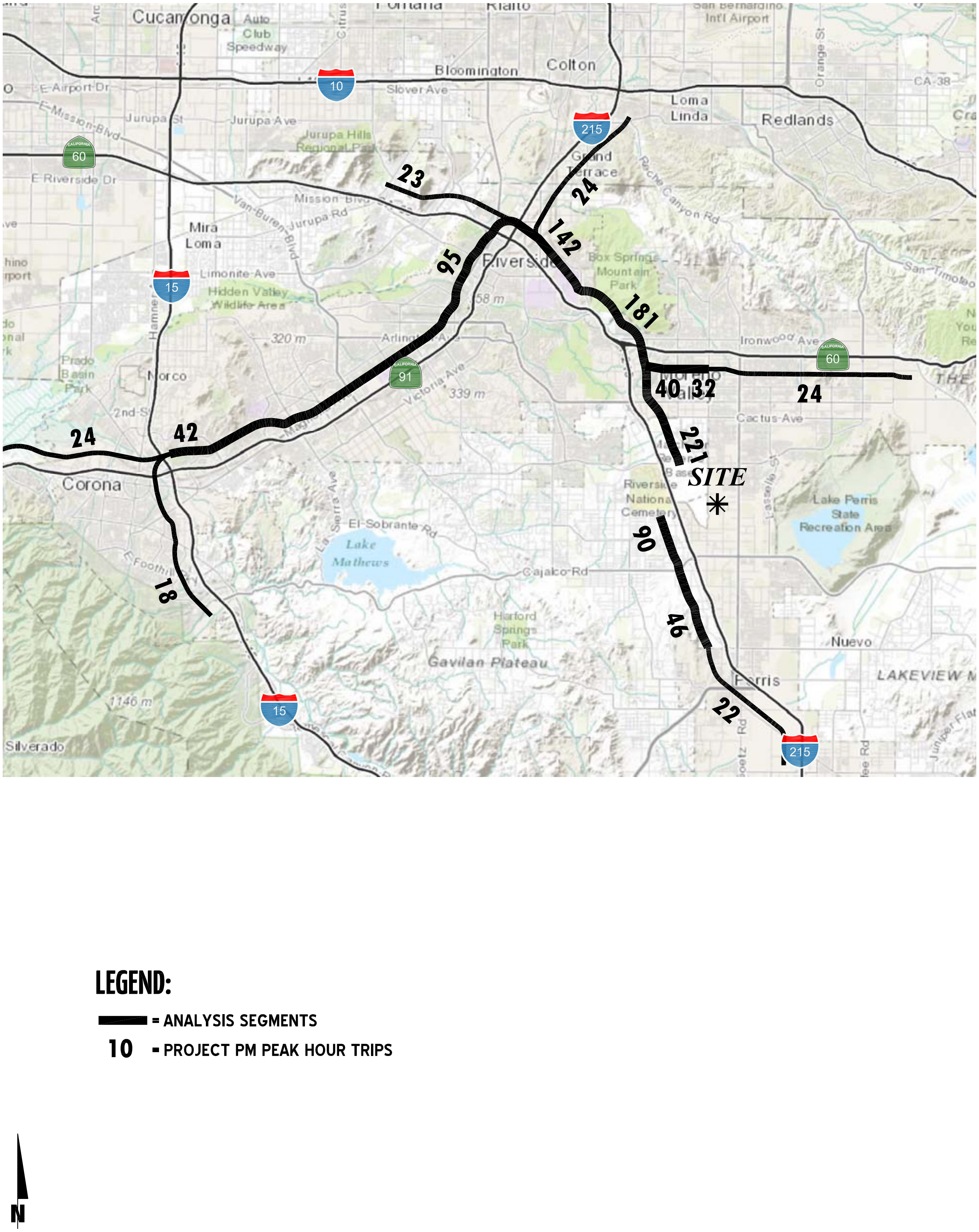

EXHIBIT 3: EXISTING (2015) PEAK HOUR FREEWAY MAINLINE LOS

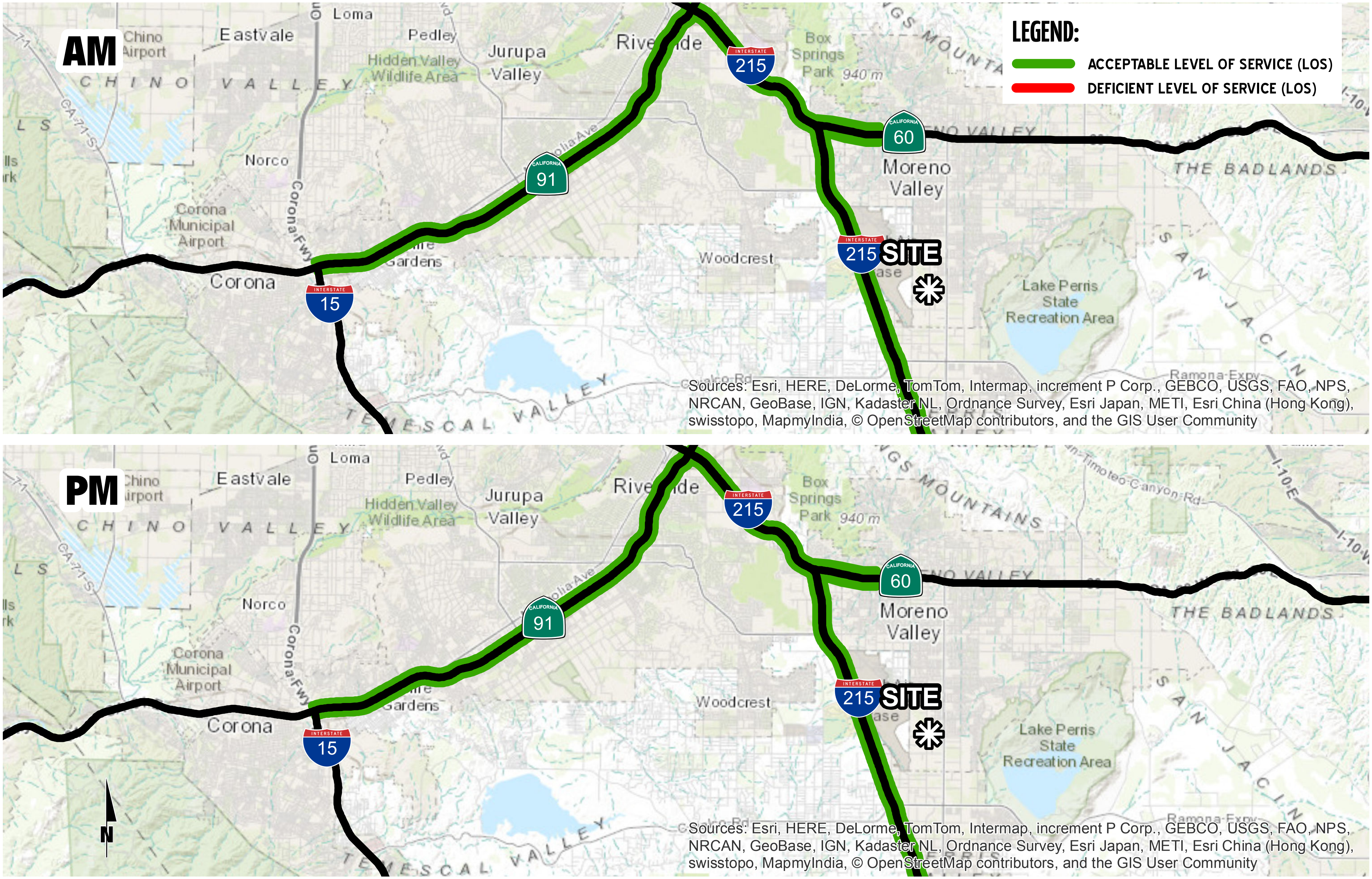

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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EXHIBIT 4: E+P PEAK HOUR FREEWAY MAINLINE LOS

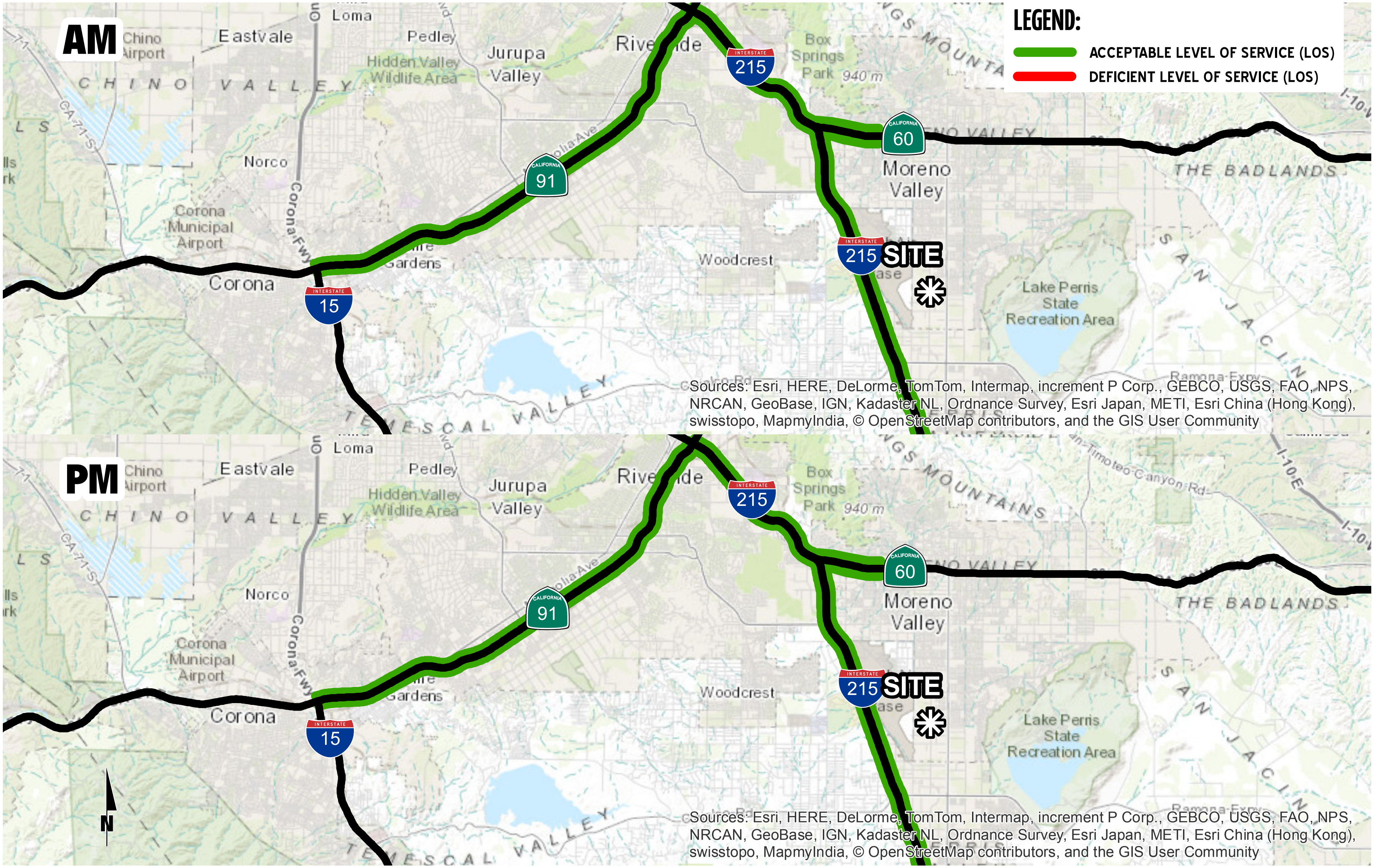

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

URBAN CROSSROADS

EXHIBIT 5: OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT PEAK HOUR FREEWAY MAINLINE LOS

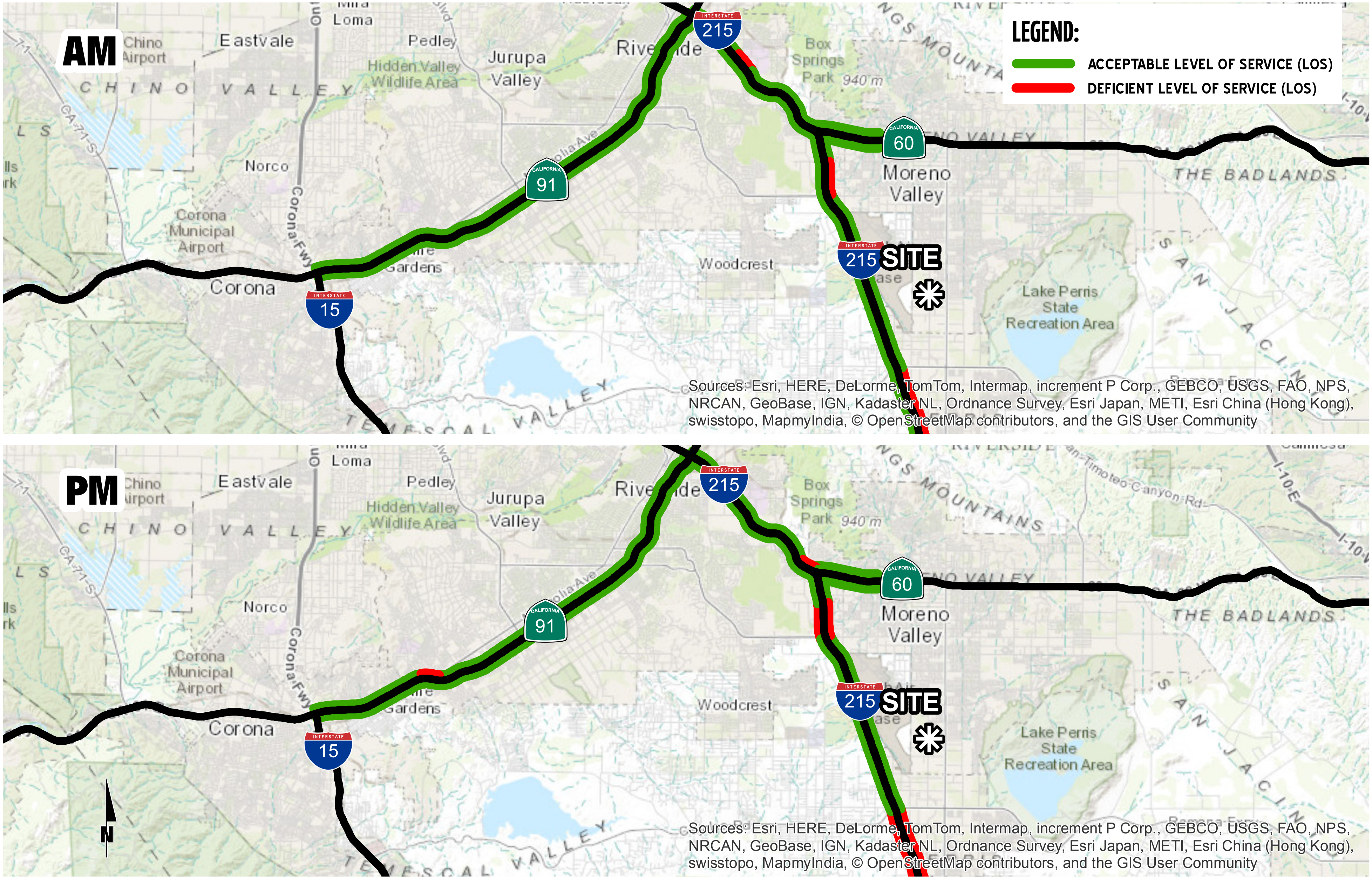

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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URBAN CROSSROADS

EXHIBIT 6: OPENING YEAR CUMULATIVE (2020) WITH PROJECT PEAK HOUR FREEWAY MAINLINE LOS

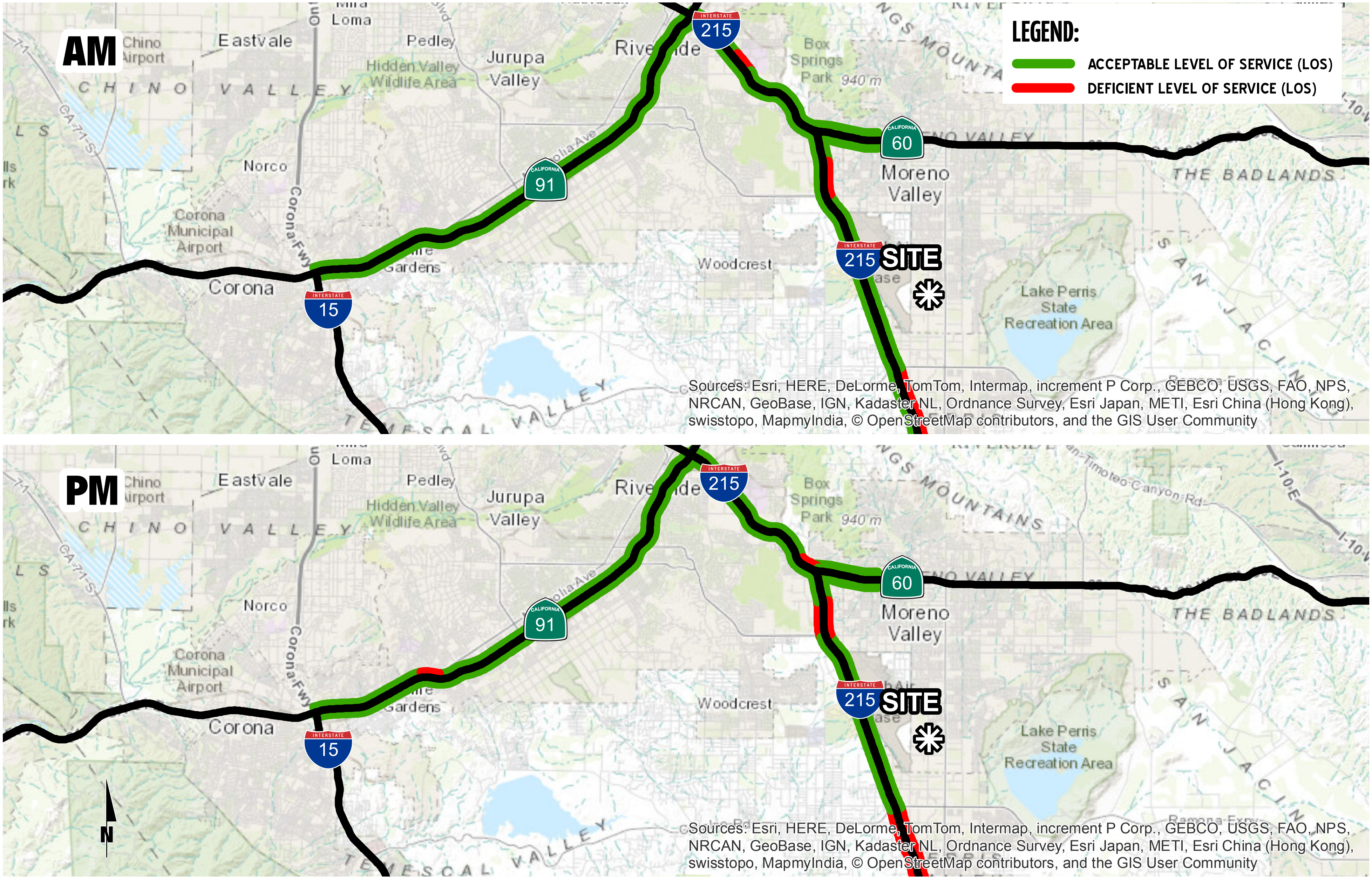

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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URBAN CROSSROADS

EXHIBIT 7: HORIZON YEAR (2035) WITHOUT PROJECT PEAK HOUR FREEWAY MAINLINE LOS

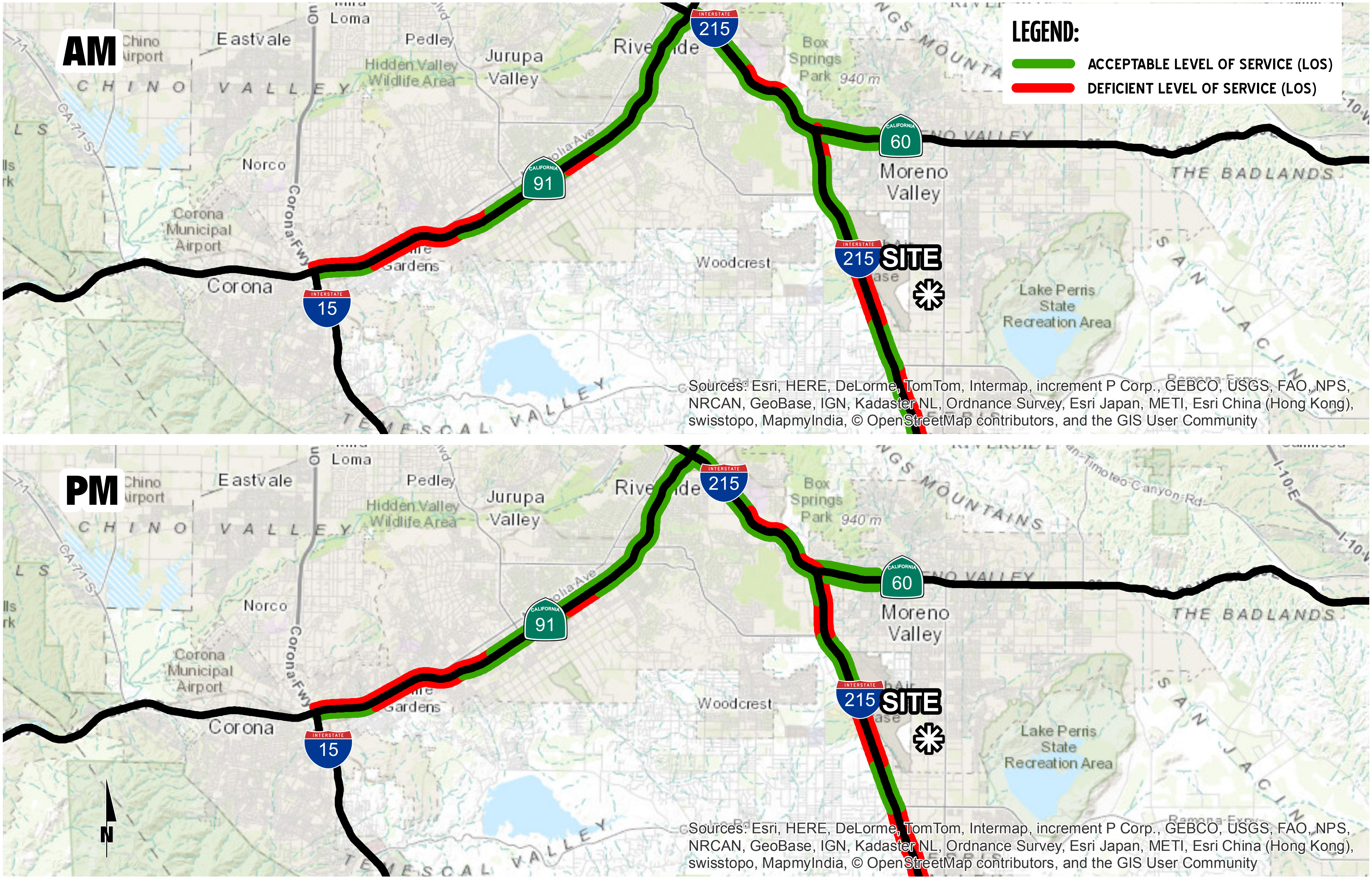

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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EXHIBIT 8: HORIZON YEAR (2035) WITH PROJECT PEAK HOUR FREEWAY MAINLINE LOS

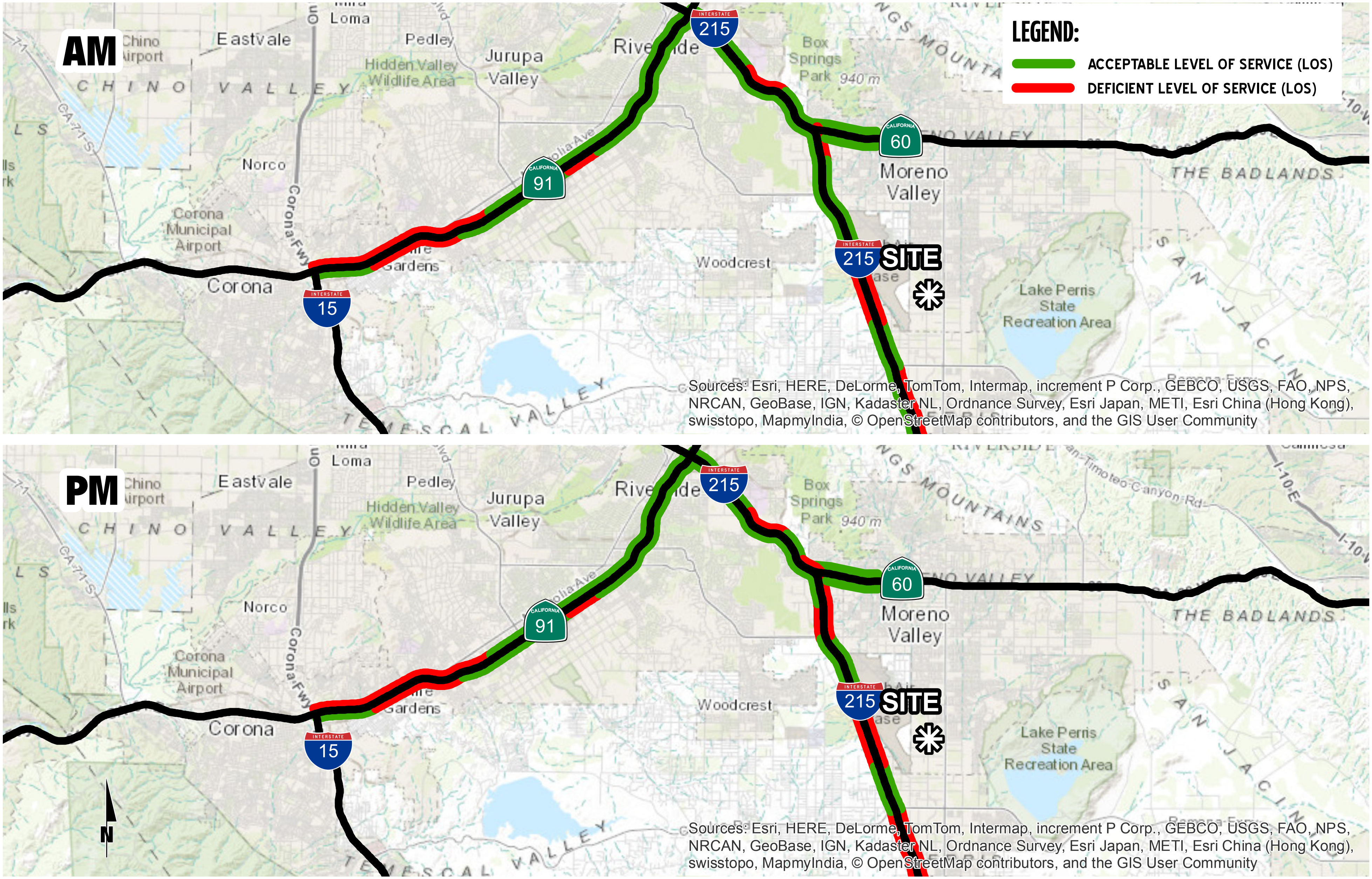

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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Table 1 (Page 1 of 2): Basic Freeway Segment Analysis Locations

ID	Freeway	Direction	Segment
1	SR-91	Eastbound	I-15 Freeway to McKinley St.
2	SR-91	Eastbound	McKinley St. to Riverwalk Pkwy.
3	SR-91	Eastbound	Riverwalk Pkwy. To Magnolia Av.
4	SR-91	Eastbound	Magnolia Av. to La Sierra Av.
5	SR-91	Eastbound	La Sierra Av. to Tyler Av.
6	SR-91	Eastbound	Tyler Av. to Van Buren Bl.
7	SR-91	Eastbound	Van Buren Bl. to Adams St.
8	SR-91	Eastbound	Adams St. to Madison St.
9	SR-91	Eastbound	Madison St. to Arlington Av.
10	SR-91	Eastbound	Arlington Av. to Central Av.
11	SR-91	Eastbound	Central Av. to 14th St.
12	SR-91	Eastbound	14th St. to University Av.
13	SR-91	Eastbound	University Av. to Spruce St.
14	SR-91	Eastbound	Spruce St. to I-215 Freeway
15	SR-60	Westbound	I-215 Freeway to Day St.
16	SR-60	Westbound	Day St. to Frederick St.
17	I-215	Southbound	SR-60/SR-91 Freeway to Blaine St.
18	I-215	Southbound	Blaine St. to University Av.
19	I-215	Southbound	University Av. to Martin Luther King Bl.
20	I-215	Southbound	Martin Luther King Bl. to Central Av.
21	I-215	Southbound	Central Av. to Box Springs Rd.
22	I-215	Southbound	Box Springs Rd. to SR-60/I-215 Freeway
23	I-215	Southbound	SR-60 Freeway to Eucalyptus Av.
24	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.
25	I-215	Southbound	Alessandro Bl. to Cactus Av.
26	I-215	Southbound	Cactus Av. to Van Buren Bl.
27	I-215	Southbound	Van Buren Bl. to Harley Knox Bl.
28	I-215	Southbound	Harley Knox Bl. to Ramona Exwy.
29	I-215	Southbound	Ramona Exwy. to Nuevo Rd.
30	SR-91	Westbound	I-15 Freeway to McKinley St.
31	SR-91	Westbound	McKinley St. to Riverwalk Pkwy.
32	SR-91	Westbound	Riverwalk Pkwy. To Magnolia Av.
33	SR-91	Westbound	Magnolia Av. to La Sierra Av.
34	SR-91	Westbound	La Sierra Av. to Tyler Av.
35	SR-91	Westbound	Tyler Av. to Van Buren Bl.
36	SR-91	Westbound	Van Buren Bl. to Adams St.
37	SR-91	Westbound	Adams St. to Madison St.
38	SR-91	Westbound	Madison St. to Arlington Av.
39	SR-91	Westbound	Arlington Av. to Central Av.
40	SR-91	Westbound	Central Av. to 14th St.
41	SR-91	Westbound	14th St. to University Av.

Table 1 (Page 2 of 2): Basic Freeway Segment Analysis Locations

ID	Freeway	Direction	Segment
42	SR-91	Westbound	University Av. to Spruce St.
43	SR-91	Westbound	Spruce St. to I-215 Freeway
44	SR-60	Eastbound	I-215 Freeway to Day St.
45	SR-60	Eastbound	Day St. to Frederick St.
46	I-215	Northbound	SR-60/SR-91 Freeway to Blaine St.
47	I-215	Northbound	Blaine St. to University Av.
48	I-215	Northbound	University Av. to Martin Luther King Bl.
49	I-215	Northbound	Martin Luther King Bl. to Central Av.
50	I-215	Northbound	Central Av. to Box Springs Rd.
51	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway
52	I-215	Northbound	SR-60 Freeway to Eucalyptus Av.
53	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.
54	I-215	Northbound	Alessandro Bl. to Cactus Av.
55	I-215	Northbound	Cactus Av. to Van Buren Bl.
56	I-215	Northbound	Van Buren Bl. to Harley Knox Bl.
57	I-215	Northbound	Harley Knox Bl. to Ramona Exwy.
58	I-215	Northbound	Ramona Exwy. to Nuevo Rd.

Table 2: Freeway Mainline LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010.

Table 3 (Page 1 of 2): E+P Conditions Basic Freeway Segment Analysis

Freeway	Directio	Mainline Segment	Lanes[1]	Time Period	Existing (2015)			E+P		
					Volume	Density[2]	LOS	Volume	Density[2]	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	4	AM	5,085	20.1	C	5,117	20.2	C
				PM	3,209	12.8	B	3,217	12.9	B
		McKinley St. to Riverwalk Pkwy.	3	AM	4,463	24.5	C	4,497	24.8	C
				PM	4,472	24.6	C	4,480	24.7	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,783	26.7	D	4,816	26.9	D
				PM	4,886	26.9	D	4,894	27.2	D
		Magnolia Av. to La Sierra Av.	4	AM	4,725	18.6	C	4,762	18.7	C
				PM	4,790	18.8	C	4,799	18.9	C
		La Sierra Av. to Tyler Av.	4	AM	4,021	16.0	B	4,066	16.3	B
				PM	4,049	16.1	B	4,060	16.2	B
		Tyler Av. to Van Buren Bl.	4	AM	4,009	16.0	B	4,054	16.3	B
				PM	3,833	15.3	B	3,844	15.3	B
		Van Buren Bl. to Adams St.	4	AM	4,104	16.0	B	4,149	16.3	B
				PM	4,092	16.0	B	4,103	16.0	B
		Adams St. to Madison St.	3	AM	3,610	18.8	C	3,666	19.2	C
				PM	3,711	19.4	C	3,725	19.4	C
		Madison St. to Arlington Av.	4	AM	5,988	24.6	C	6,044	25.0	C
				PM	6,211	25.8	C	6,225	25.8	C
		Arlington Av. to Central Av.	4	AM	4,886	19.2	C	4,942	19.6	C
				PM	5,573	22.3	C	5,587	22.3	C
		Central Av. to 14th St.	3	AM	3,777	20.0	C	3,844	20.5	C
				PM	3,236	17.0	B	3,253	17.1	B
		14th St. to University Av.	4	AM	5,490	22.0	C	5,557	22.4	C
				PM	4,573	18.0	C	4,590	18.1	C
		University Av. to Spruce St.	5	AM	5,756	18.3	C	5,828	18.6	C
				PM	4,939	15.7	B	4,957	15.8	B
		Spruce St. to I-215 Freeway	4	AM	4,135	16.5	B	4,207	16.7	B
				PM	3,436	13.7	B	3,454	13.7	B
SR-60 Fwy	Westbound	I-215 Freeway to Day St.	3	AM	2,957	15.4	B	2,989	15.5	B
				PM	2,937	15.3	B	2,944	15.3	B
		Day St. to Frederick St.	3	AM	2,772	15.2	B	2,798	15.4	B
				PM	4,660	26.3	D	4,666	26.3	D
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,287	13.6	B	4,393	14.1	B
				PM	5,907	18.8	C	5,934	18.9	C
		Blaine St. to University Av.	4	AM	4,344	17.4	B	4,450	17.9	B
				PM	4,209	16.5	B	4,236	16.7	B
		University Av. to Martin Luther King Bl.	4	AM	4,640	19.0	C	4,746	19.5	C
				PM	5,182	20.8	C	5,209	20.9	C
		Martin Luther King Bl. to Central Av.	5	AM	3,460	11.0	A	3,573	11.4	B
				PM	4,518	14.2	B	4,546	14.3	B
		Central Av. to Box Springs Rd.	5	AM	5,093	16.3	B	5,208	16.7	B
				PM	6,720	21.2	C	6,749	21.3	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	4,643	18.2	C	4,778	18.9	C
				PM	5,966	23.9	C	6,000	24.0	C
		SR-60 Freeway to Eucalyptus Av.	5	AM	6,260	19.9	C	6,427	20.6	C
				PM	6,485	20.7	C	6,526	21.0	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,456	18.7	C	3,623	19.8	C
				PM	5,159	30.6	D	5,200	31.2	D
		Alessandro Bl. to Cactus Av.	4	AM	4,985	19.9	C	5,152	20.8	C
				PM	5,540	22.5	C	5,581	22.7	C
		Cactus Av. to Van Buren Bl.	4	AM	4,693	18.6	C	4,739	18.8	C
				PM	5,354	21.5	C	5,365	21.5	C
		Van Buren Bl. to Harley Knox Bl.	3	AM	2,544	13.4	B	2,590	13.7	B
				PM	3,855	20.5	C	3,866	20.7	C
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,186	11.4	B	2,202	11.6	B
				PM	3,445	18.1	C	3,519	18.6	C
		Ramona Exwy. to Nuevo Rd.	3	AM	4,578	25.2	C	4,613	25.4	C
				PM	5,313	31.0	D	5,321	31.1	D

Table 3 (Page 2 of 2): E+P Conditions Basic Freeway Segment Analysis

Freeway	Directio	Mainline Segment	Lanes^1	Time Period	Existing (2015)			E+P		
					Volume	Density^2	LOS	Volume	Density^2	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	5,139	20.3	C	5,146	20.3	C
				PM	5,872	23.4	C	5,906	23.6	C
		McKinley St. to Riverwalk Pkwy.	3	AM	3,525	18.6	C	3,532	18.7	C
				PM	3,780	20.1	C	3,816	20.3	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,410	25.1	C	4,417	25.1	C
				PM	4,755	27.5	D	4,791	28.0	D
		Magnolia Av. to La Sierra Av.	3	AM	4,207	22.9	C	4,215	23.0	C
				PM	4,566	24.9	C	4,605	25.2	C
		La Sierra Av. to Tyler Av.	3	AM	3,556	18.9	C	3,566	19.0	C
				PM	3,719	19.8	C	3,767	20.1	C
		Tyler Av. to Van Buren Bl.	4	AM	3,465	13.7	B	3,475	13.8	B
				PM	3,896	15.5	B	3,944	15.7	B
		Van Buren Bl. to Adams St.	4	AM	4,554	18.1	C	4,564	18.2	C
				PM	4,602	18.3	C	4,650	18.5	C
		Adams St. to Madison St.	4	AM	4,595	18.0	C	4,607	18.1	C
				PM	5,028	19.6	C	5,088	20.0	C
		Madison St. to Arlington Av.	3	AM	3,699	19.6	C	3,711	19.7	C
				PM	4,072	21.8	C	4,132	22.3	C
		Arlington Av. to Central Av.	4	AM	4,708	18.7	C	4,720	18.7	C
				PM	4,840	19.2	C	4,900	19.6	C
		Central Av. to 14th St.	3	AM	4,270	23.1	C	4,285	23.2	C
				PM	4,794	26.8	D	4,866	27.5	D
		14th St. to University Av.	4	AM	2,745	10.9	A	2,760	11.0	A
				PM	2,234	8.8	A	2,306	9.2	A
		University Av. to Spruce St.	6	AM	4,520	11.9	B	4,536	11.9	B
				PM	3,786	9.8	A	3,863	10.1	A
		Spruce St. to I-215 Freeway	4	AM	4,246	16.9	B	4,262	17.0	B
				PM	4,513	18.0	B	4,590	18.4	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	3,030	9.8	A	3,037	9.8	A
				PM	3,159	10.0	A	3,192	10.1	A
		Day St. to Frederick St.	4	AM	1,607	6.5	A	1,612	6.5	A
				PM	2,809	11.0	A	2,836	11.1	A
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	3,532	11.2	B	3,555	11.3	B
				PM	3,453	11.0	A	3,568	11.5	B
		Blaine St. to University Av.	5	AM	4,615	14.8	B	4,638	15.0	B
				PM	3,913	12.8	B	4,028	13.3	B
		University Av. to Martin Luther King Bl.	4	AM	6,526	27.7	D	6,549	27.9	D
				PM	5,849	24.3	C	5,964	25.0	C
		Martin Luther King Bl. to Central Av.	4	AM	5,255	21.4	C	5,280	21.5	C
				PM	5,332	21.9	C	5,454	22.6	C
		Central Av. to Box Springs Rd.	5	AM	5,098	16.5	B	5,123	16.6	B
				PM	5,614	18.7	C	5,738	19.1	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,028	24.3.	C	6,058	24.5	C
				PM	6,305	25.6	C	6,452	26.7	D
		SR-60 Freeway to Eucalyptus Av.	3	AM	3,567	18.8	C	3,604	19.0	C
				PM	3,832	20.4	C	4,012	21.6	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	4,693	26.0	D	4,730	26.3	D
				PM	5,354	31.4	D	5,534	33.4	D
		Alessandro Bl. to Cactus Av.	4	AM	2,724	10.9	A	2,761	11.1	A
				PM	2,523	10.0	A	2,703	10.9	A
		Cactus Av. to Van Buren Bl.	4	AM	3,679	14.6	B	3,689	14.7	B
				PM	2,678	10.6	A	2,727	10.8	A
		Van Buren Bl. to Harley Knox Bl.	3	AM	4,092	22.0	C	4,102	22.0	C
				PM	3,247	17.1	B	3,296	17.4	B
		Harley Knox Bl. to Ramona Exwy.	3	AM	3,721	19.6	C	3,783	20.1	C
				PM	2,779	14.6	B	2,794	14.7	B
		Ramona Exwy. to Nuevo Rd.	3	AM	4,693	26.0	D	4,701	26.1	D
				PM	5,354	31.4	D	5,391	31.8	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 4 (Page 1 of 2): Opening Year Cumulative (2020) Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2020 Without Project			2020 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	<u>5</u>	AM	5,814	18.4	C	5,846	18.5	C
				PM	3,676	11.8	B	3,683	11.8	B
		McKinley St. to Riverwalk Pkwy.	<u>4</u>	AM	5,138	21.0	C	5,172	21.1	C
				PM	5,077	20.5	C	5,085	20.5	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	5,502	33.3	D	5,536	33.7	D
				PM	5,541	32.9	D	5,549	33.0	D
		Magnolia Av. to La Sierra Av.	4	AM	5,449	21.9	C	5,485	22.1	C
				PM	5,442	21.8	C	5,451	21.8	C
		La Sierra Av. to Tyler Av.	4	AM	4,682	18.9	C	4,726	19.1	C
				PM	4,631	18.6	C	4,642	18.7	C
		Tyler Av. to Van Buren Bl.	4	AM	4,679	18.8	C	4,724	19.1	C
				PM	4,399	17.6	B	4,410	17.7	B
		Van Buren Bl. to Adams St.	4	AM	4,837	19.2	C	4,881	19.4	C
				PM	4,720	18.5	C	4,731	18.6	C
		Adams St. to Madison St.	3	AM	4,302	23.3	C	4,358	23.8	C
				PM	4,306	23.1	C	4,320	23.3	C
		Madison St. to Arlington Av.	4	AM	5,967	24.9	C	6,015	25.2	C
				PM	6,083	25.4	C	6,095	25.5	C
		Arlington Av. to Central Av.	4	AM	4,929	19.7	C	4,977	20.0	C
				PM	5,484	22.1	C	5,495	22.1	C
		Central Av. to 14th St.	3	AM	3,922	21.3	C	3,979	21.6	C
				PM	3,295	17.6	B	3,309	17.6	B
		14th St. to University Av.	4	AM	5,557	22.7	C	5,615	23.1	C
				PM	4,570	18.2	C	4,584	18.3	C
		University Av. to Spruce St.	5	AM	5,819	18.8	C	5,880	19.0	C
				PM	4,924	15.8	B	4,939	15.9	B
		Spruce St. to I-215 Freeway	4	AM	4,289	17.3	B	4,350	17.6	B
				PM	3,502	14.1	B	3,518	14.2	B
SR-60 Fwy	Westboun	I-215 Freeway to Day St.	3	AM	3,330	17.4	B	3,362	17.5	B
				PM	3,286	17.1	B	3,293	17.1	B
		Day St. to Frederick St.	3	AM	3,113	17.1	B	3,138	17.2	B
				PM	5,179	30.5	D	5,185	30.6	D
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	5,260	17.0	B	5,366	17.4	B
				PM	6,871	22.4	C	6,897	22.5	C
		Blaine St. to University Av.	4	AM	5,382	22.2	C	5,488	22.9	C
				PM	5,035	20.1	C	5,061	20.3	C
		University Av. to Martin Luther King Bl.	4	AM	5,767	24.6	C	5,873	25.3	C
				PM	6,148	25.7	C	6,174	25.9	C
		Martin Luther King Bl. to Central Av.	5	AM	4,523	14.6	B	4,635	15.0	B
				PM	5,453	17.3	B	5,481	17.4	B
		Central Av. to Box Springs Rd.	5	AM	6,384	20.8	C	6,499	21.4	C
				PM	7,923	26.3	D	7,952	26.4	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	5,946	24.5	C	6,081	25.4	C
				PM	7,129	30.9	D	7,164	31.1	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	8,082	27.7	D	8,250	28.6	D
				PM	7,935	26.9	D	7,976	27.1	D
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,052	30.5	D	5,219	32.3	D
				PM	6,514	**48.5**	**F**	6,555	**49.3**	**F**
		Alessandro Bl. to Cactus Av.	4	AM	6,805	30.1	C	6,972	31.5	D
				PM	6,978	30.8	D	7,019	31.1	D
		Cactus Av. to Van Buren Bl.	4	AM	6,203	26.0	D	6,250	26.3	D
				PM	7,416	33.7	D	7,427	33.8	D
		Van Buren Bl. to Harley Knox Bl.	3	AM	3,813	21.2	C	3,859	21.5	C
				PM	5,326	32.6	D	5,337	32.7	D
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,842	15.2	B	2,858	15.3	B
				PM	4,882	28.4	D	4,956	29.0	D
		Ramona Exwy. to Nuevo Rd.	3	AM	5,440	32.7	D	5,475	33.1	D
				PM	6,836	**52.9**	**F**	6,844	**53.1**	**F**

Table 4 (Page 2 of 2): Opening Year Cumulative (2020) Conditions Basic Freeway Segment Analysis

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2020 Without Project			2020 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	5,788	23.4	C	5,795	28.2	D
				PM	6,697	28.2	D	6,731	28.4	D
		McKinley St. to Riverwalk Pkwy.	3	AM	4,012	21.6	C	4,019	24.4	C
				PM	4,399	24.4	C	4,435	24.6	C
		Riverwalk Pkwy. to Magnolia Av.	3	AM	4,995	30.0	D	5,002	30.0	D
				PM	5,487	**35.1**	**E**	5,523	**35.5**	**E**
		Magnolia Av. to La Sierra Av.	3	AM	4,777	27.2	D	4,785	31.1	D
				PM	5,289	31.1	D	5,329	31.7	D
		La Sierra Av. to Tyler Av.	3	AM	4,064	22.0	C	4,074	24.3	C
				PM	4,365	24.3	C	4,413	24.6	C
		Tyler Av. to Van Buren Bl.	4	AM	3,970	15.9	B	3,979	18.4	C
				PM	4,572	18.4	C	4,620	18.7	C
		Van Buren Bl. to Adams St.	4	AM	5,202	21.0	C	5,212	22.1	C
				PM	5,408	22.1	C	5,456	22.5	C
		Adams St. to Madison St.	4	AM	5,253	20.9	C	5,266	23.9	C
				PM	5,890	23.9	C	5,950	24.2	C
		Madison St. to Arlington Av.	3	AM	3,672	19.7	C	3,683	19.7	C
				PM	4,167	22.9	C	4,219	23.4	C
		Arlington Av. to Central Av.	4	AM	4,635	18.6	C	4,646	18.6	C
				PM	4,906	19.9	C	4,957	20.1	C
		Central Av. to 14th St.	3	AM	4,245	23.2	C	4,258	23.3	C
				PM	4,911	28.4	D	4,973	29.0	D
		14th St. to University Av.	4	AM	2,803	11.3	B	2,815	11.4	B
				PM	2,490	10.2	A	2,552	10.5	A
		University Av. to Spruce St.	6	AM	4,493	11.9	B	4,507	12.0	B
				PM	3,973	10.5	A	4,039	10.8	A
		Spruce St. to I-215 Freeway	4	AM	4,238	17.0	B	4,252	17.2	B
				PM	4,673	19.0	C	4,739	19.3	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	3,382	10.9	A	3,389	10.9	A
				PM	3,557	11.3	B	3,591	11.4	B
		Day St. to Frederick St.	4	AM	1,804	7.3	A	1,809	7.3	A
				PM	3,157	12.4	B	3,184	12.5	B
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,200	13.5	B	4,223	13.6	B
				PM	4,376	14.2	B	4,491	14.6	B
		Blaine St. to University Av.	5	AM	5,429	17.6	B	5,452	17.7	B
				PM	4,947	16.4	B	5,062	16.8	B
		University Av. to Martin Luther King Bl.	4	AM	7,572	**35.2**	**E**	7,596	**35.4**	**E**
				PM	7,147	32.7	D	7,262	33.9	D
		Martin Luther King Bl. to Central Av.	4	AM	6,202	26.4	D	6,227	26.5	D
				PM	6,639	29.4	D	6,760	30.4	D
		Central Av. to Box Springs Rd.	5	AM	6,062	19.9	C	6,087	20.0	C
				PM	7,013	24.2	C	7,137	24.9	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	7,122	30.8	D	7,152	31.0	D
				PM	7,838	**36.5**	**E**	7,985	**38.1**	**E**
		SR-60 Freeway to Eucalyptus Av.	3	AM	4,605	23.5	C	4,642	25.8	C
				PM	5,484	32.7	D	5,663	34.9	D
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,885	**37.5**	**E**	5,922	**38.0**	**E**
				PM	7,234	**63.4**	**F**	7,413	**68.9**	**F**
		Alessandro Bl. to Cactus Av.	5	AM	3,749	12.2	B	3,785	12.3	B
				PM	4,178	13.7	B	4,357	14.4	B
		Cactus Av. to Van Buren Bl.	4	AM	5,378	21.8	C	5,388	21.9	C
				PM	4,173	16.7	B	4,222	16.9	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,505	34.2	D	5,515	34.3	D
				PM	4,610	26.4	D	4,659	26.8	D
		Harley Knox Bl. to Ramona Exwy.	3	AM	5,096	30.0	D	5,158	30.6	D
				PM	6,283	18.6	C	3,496	18.7	C
		Ramona Exwy. to Nuevo Rd.	3	AM	6,071	**40.3**	**E**	6,078	**40.3**	**E**
				PM	6,283	**42.3**	**E**	6,320	**43.3**	**E**

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and reflect new auxiliary lanes and assume the HOV lane in each direction.

[2] Where applicable, volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 5 (Page 1 of 2): Horizon Year (2035) Conditions Basic Freeway Segment Analysis

Freeway	Directio	Mainline Segment	Lanes[1]	Time Period	Post 2035 Without Project			Post 2035 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Eastbound	I-15 Freeway to McKinley St.	**5**	AM	8,731	31.5	D	8,763	31.7	D
				PM	8,724	31.5	D	8,732	31.6	D
		McKinley St. to Riverwalk Pkwy.	**4**	AM	8,098	**40.7**	**E**	8,132	**41.0**	**E**
				PM	8,091	**40.6**	**E**	8,099	**40.7**	**E**
		Riverwalk Pkwy. to Magnolia Av.	3	AM	7,826	**85.4**	**F**	7,860	**87.2**	**F**
				PM	7,819	**85.1**	**F**	7,828	**85.6**	**F**
		Magnolia Av. to La Sierra Av.	4	AM	7,408	34.5	D	7,445	34.8	D
				PM	7,401	34.4	D	7,410	34.5	D
		La Sierra Av. to Tyler Av.	4	AM	6,956	31.6	D	7,001	31.9	D
				PM	6,949	31.5	D	6,960	31.6	D
		Tyler Av. to Van Buren Bl.	4	AM	6,922	30.6	D	6,967	30.9	D
				PM	6,915	30.6	D	6,926	30.7	D
		Van Buren Bl. to Adams St.	4	AM	6,491	27.3	D	6,536	27.8	D
				PM	6,484	27.3	D	6,495	27.3	D
		Adams St. to Madison St.	3	AM	6,351	**43.8**	**E**	6,407	**45.2**	**F**
				PM	6,344	**43.7**	**E**	6,358	**43.9**	**E**
		Madison St. to Arlington Av.	4	AM	6,465	27.7	D	6,513	28.0	D
				PM	6,459	27.7	D	6,471	27.8	D
		Arlington Av. to Central Av.	4	AM	5,130	20.9	C	5,178	21.3	C
				PM	5,984	25.0	C	5,996	25.1	C
		Central Av. to 14th St.	3	AM	4,976	29.4	D	5,034	30.1	D
				PM	4,970	29.3	D	4,984	29.4	D
		14th St. to University Av.	4	AM	6,389	27.3	D	6,447	27.8	D
				PM	5,523	22.8	C	5,537	22.9	C
		University Av. to Spruce St.	5	AM	6,321	20.6	C	6,383	20.8	C
				PM	5,455	17.7	B	5,471	17.8	B
		Spruce St. to I-215 Freeway	4	AM	5,224	21.2	C	5,285	21.7	C
				PM	4,358	17.7	B	4,373	17.7	B
SR-60 Fwy	Westboun	I-215 Freeway to Day St.	3	AM	4,216	24.1	C	4,248	24.3	C
				PM	4,383	25.2	C	4,390	25.2	C
		Day St. to Frederick St.	3	AM	4,106	23.2	C	4,131	23.4	C
				PM	3,505	19.6	C	3,511	19.6	C
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	7,082	24.2	C	7,174	24.7	C
				PM	7,070	24.1	C	7,093	24.2	C
		Blaine St. to University Av.	4	AM	6,725	30.6	D	6,816	31.5	D
				PM	6,713	30.6	D	6,736	30.7	D
		University Av. to Martin Luther King Bl.	4	AM	6,904	32.1	D	6,996	32.8	D
				PM	6,892	32.1	D	6,915	32.2	D
		Martin Luther King Bl. to Central Av.	5	AM	7,908	27.6	D	8,005	28.3	D
				PM	7,895	27.6	D	7,920	27.7	D
		Central Av. to Box Springs Rd.	5	AM	8,788	31.6	D	8,886	32.2	D
				PM	8,775	31.6	D	8,800	31.7	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,588	29.9	D	6,704	30.7	D
				PM	6,575	29.6	D	6,605	30.0	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	7,095	25.4	C	7,239	26.3	D
				PM	7,076	25.3	C	7,111	25.5	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,219	31.8	D	5,363	33.5	D
				PM	6,490	**47.0**	**F**	6,525	**48.2**	**F**
		Alessandro Bl. to Cactus Av.	4	AM	6,662	29.2	D	6,805	30.5	D
				PM	6,641	29.0	D	6,676	29.2	D
		Cactus Av. to Van Buren Bl.	4	AM	6,381	26.9	D	6,438	27.4	D
				PM	7,396	34.1	D	7,410	34.2	D
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,921	**37.6**	**E**	5,991	**38.9**	**E**
				PM	5,900	**37.4**	**E**	5,918	**37.6**	**E**
		Harley Knox Bl. to Ramona Exwy.	3	AM	4,171	22.8	C	7,146	22.9	C
				PM	5,222	30.2	D	5,294	31.1	D
		Ramona Exwy. to Nuevo Rd.	3	AM	5,332	31.2	D	5,362	31.3	D
				PM	6,202	**40.4**	**E**	6,210	**40.5**	**E**

Table 5 (Page 2 of 2): Horizon Year (2035) Conditions Basic Freeway Segment Analysis

Freeway	Directio	Mainline Segment	Lanes[1]	Time Period	Post 2035 Without Project			Post 2035 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
SR-91 Freeway	Westbound	I-15 Freeway to McKinley St.	4	AM	8,723	**48.5**	**F**	8,730	**48.6**	**F**
				PM	8,734	**48.6**	**F**	8,768	**49.1**	**F**
		McKinley St. to Riverwalk Pkwy.	3	AM	8,090	**100.3**	**F**	8,097	**100.8**	**F**
				PM	8,101	**101.2**	**F**	8,137	**103.5**	**F**
		Riverwalk Pkwy. to Magnolia Av.	3	AM	7,818	**85.1**	**F**	7,826	**85.4**	**F**
				PM	7,829	**85.6**	**F**	7,865	**87.4**	**F**
		Magnolia Av. to La Sierra Av.	3	AM	7,400	**68.4**	**F**	7,408	**68.7**	**F**
				PM	7,411	**68.9**	**F**	7,450	**70.1**	**F**
		La Sierra Av. to Tyler Av.	3	AM	6,948	**57.6**	**F**	6,958	**57.9**	**F**
				PM	6,959	**57.9**	**F**	7,007	**59.2**	**F**
		Tyler Av. to Van Buren Bl.	4	AM	6,914	30.6	D	6,924	30.6	D
				PM	6,925	30.7	D	6,973	31.0	D
		Van Buren Bl. to Adams St.	4	AM	6,483	27.3	D	6,493	27.3	D
				PM	6,494	27.3	D	6,542	27.8	D
		Adams St. to Madison St.	4	AM	6,343	26.8	D	6,355	26.9	D
				PM	6,354	26.9	D	6,414	27.4	D
		Madison St. to Arlington Av.	3	AM	4,738	27.2	D	4,748	27.3	D
				PM	4,747	27.3	D	4,799	27.9	D
		Arlington Av. to Central Av.	4	AM	5,123	20.9	C	5,134	20.9	C
				PM	5,562	22.8	C	5,614	23.2	C
		Central Av. to 14th St.	3	AM	4,969	29.3	D	4,982	29.4	D
				PM	5,409	33.2	D	5,470	34.1	D
		14th St. to University Av.	4	AM	5,092	20.9	C	5,105	20.9	C
				PM	5,102	20.9	C	5,163	21.2	C
		University Av. to Spruce St.	6	AM	5,024	13.6	B	5,038	13.7	B
				PM	5,034	13.6	B	5,100	13.9	B
		Spruce St. to I-215 Freeway	4	AM	5,217	21.2	C	5,230	21.4	C
				PM	5,226	21.3	C	5,293	21.7	C
SR-60 Fwy	Eastbound	I-215 Freeway to Day St.	5	AM	4,559	15.1	B	4,566	15.1	B
				PM	5,843	19.1	C	5,876	19.2	C
		Day St. to Frederick St.	4	AM	3,862	16.0	B	3,867	16.0	B
				PM	4,817	19.8	C	4,844	20.0	C
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	7,069	24.1	C	7,089	24.2	C
				PM	7,087	24.2	C	7,186	24.8	C
		Blaine St. to University Av.	5	AM	6,711	22.7	C	6,731	22.7	C
				PM	6,729	22.7	C	6,828	23.3	C
		University Av. to Martin Luther King Bl.	4	AM	6,891	32.1	D	6,911	32.2	D
				PM	6,909	32.2	D	7,008	32.9	D
		Martin Luther King Bl. to Central Av.	4	AM	7,894	**39.8**	**E**	7,915	**40.0**	**E**
				PM	7,912	**40.0**	**E**	8,017	**41.4**	**E**
		Central Av. to Box Springs Rd.	5	AM	8,773	31.5	D	8,795	31.7	D
				PM	8,792	31.7	D	8,898	32.3	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,573	29.6	D	6,599	30.0	D
				PM	7,452	**36.0**	**E**	7,578	**37.4**	**E**
		SR-60 Freeway to Eucalyptus Av.	3	AM	5,353	**37.7**	**E**	5,385	**38.1**	**E**
				PM	5,380	**38.1**	**E**	5,535	**40.6**	**E**
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,198	31.4	D	5,229	31.9	D
				PM	6,945	**56.0**	**F**	7,099	**60.7**	**F**
		Alessandro Bl. to Cactus Av.	5	AM	5,349	17.4	B	5,380	17.5	B
				PM	5,377	17.5	B	5,532	18.2	C
		Cactus Av. to Van Buren Bl.	4	AM	6,315	26.8	D	6,327	27.1	D
				PM	4,347	17.3	B	4,410	17.6	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,898	**37.4**	**E**	5,913	**37.5**	**E**
				PM	5,926	**37.7**	**E**	6,002	**39.0**	**E**
		Harley Knox Bl. to Ramona Exwy.	3	AM	5,275	30.7	D	5,334	31.5	D
				PM	4,317	23.5	C	4,321	23.7	C
		Ramona Exwy. to Nuevo Rd.	3	AM	5,771	**35.0**	**E**	5,777	**35.1**	**E**
				PM	5,762	**35.2**	**E**	5,794	**35.8**	**E**

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and reflect new auxiliary lanes and assume the HOV lane in each direction.

[2] Where applicable, volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

ATTACHMENT A
CALTRANS LETTER, FEBRUARY 10, 2014

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN J

DEPARTMENT OF TRANSPORTATION
DISTRICT 8
PLANNING (MS 722)
464 WEST 4th STREET, 6th Floor
SAN BERNARDINO, CA 92401-1400
PHONE (909) 383-4557
FAX (909) 383-5936
TTY (909) 383-6300
www.dot.ca.gov/dist8

Flex your power!
Be energy efficient!

February 10, 2014

Michael Lloyd
Senior Traffic Engineer
City of Moreno Valley
Planning Department
14177 Frederick Street
Moreno Valley, CA 92552

RE: Scope of Study for State Highway Facilities in CEQA Documents

Mr. Lloyd:

It has been brought to our attention that clarification is needed related to the interpretation and use of the California Department of Transportation's "Guide for the Preparation of Traffic Impact Studies" (December 2002). On January 21, 2014, Tracy Zinn of T&B Planning, Inc. and Aric Evatt of Urban Crossroads, Inc. attended a meeting in our office, during which they asked for clarification of our Guidelines and particularly Section II (When a Traffic Impact Study is Needed) Subsection A (Trip Generation Thresholds). It is our understanding that Ms. Zinn and Mr. Evatt are consultants working on several traffic studies and California Environmental Quality Act (CEQA) compliance documents for which the City of Moreno Valley is the CEQA lead agency.

As the owner of the State Highway System (SHS), it is our responsibility to coordinate and consult with local jurisdictions when proposed development may impact our facilities. As a responsible agency under CEQA, it is also our responsibility to make recommendations to offset impacts associated with projects that add traffic to the SHS.

This letter clarifies Section II, Subsection A of our Guidelines. It also describes the approach and geographic scope of analysis that Caltrans District 8 finds acceptable for the evaluation of direct and cumulative impacts to the SHS that may be caused by industrial, warehouse, and logistics center development in the geographic area of the Moreno Valley Industrial Area Plan (MVIAP). This area is generally bounded by March Air Reserve Base to the west, Oleander Avenue to the south, Wildwood Street to the north, and Indian Avenue (north of Cardinal Avenue) and Kitching Street (south of Cardinal Avenue) to the east.

1. <u>When a TIS is Needed:</u> If a development project will add traffic to the SHS, a traffic impact study (TIS) is recommended by Caltrans if either of the first two criteria are met. The third criteria may come into play based on consultations with Caltrans. The third criteria under section II subsection A is slightly different then criteria 1 and 2. We point out that it <u>MAY</u> need a study. This is due to specific or unique contexts causing potentially significant impacts with lesser volumes.

2. Requested Geographic Scope of Study for Freeway Mainline Segments: Once it is determined that a traffic study is needed the criteria set forth in section ii and based on consultation with Caltrans can be used to determine the geographical scope of the study. For industrial, warehouse, and logistics center development projects in the MVIAP, Caltrans District 8 requests quantitative analysis of project-related traffic on freeway mainline segments where the project would add 50 or more peak hour trips and/or the most heavily impacted segment in each direction. Because impacts to freeway segments dissipate with distance from the point of SHS entry, quantitative study of a larger area is not highly useful to Caltrans decision-making. Typically, when a project's traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the SHS.

3. Significance Thresholds for SHS Roadway Segments: Caltrans District 8 recommends that the City apply the following significance thresholds in its CEQA documents for impacts to SHS freeway segments. Impacts are considered significant by Caltrans if:
    i. The traffic study finds that the LOS of a segment will degrade form D or better to E or F.
    ii. The traffic study finds that the project will exacerbate an already deficient condition. A segment that is operating at or near capacity or under saturated conditions (LOS E&F) is deemed to be deficient.

4. Mitigation for Significant Impacts: At this time, Caltrans has no fee programs or other mitigation programs in place for the mitigation of direct or cumulative impacts caused by development projects in the MVIAP on SHS roadway segments. Mitigation of direct and cumulative impacts to freeway ramps are satisfied by mandatory participation in the TUMF program.

We appreciate the opportunity to offer comments concerning this project. If you have any questions regarding this letter, please contact Talvin Dennis at (909) 806-3957 or myself at (909) 383-4557 for assistance.

Sincerely,

Original signed by Daniel Kopulsky

DANIEL KOPULSKY
Office Chief
Community and Regional Planning

Cc: Tracy Zinn, T&B Planning, Inc.
Aric Evatt, Urban Crossroads, Inc.

ATTACHMENT B
EXISTING (2015) CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5085*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1396*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*20.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4463*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1657*	pc/h/ln
S	*67.6*	mph
D = v_p / S	*24.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4783*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1768*	pc/h/ln
S	*66.3*	mph
D = v_p / S	*26.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information | Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4725*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1297*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4021*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1120*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4009*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1117*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4104*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1121*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3610*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1315*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5988*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1660*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.5*	mph	S	mph
D = v_p / S	*24.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4886*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1341*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3777*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1389*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5490*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1514*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CSH*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5756*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1283*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.9*	mph	S		mph
D = v_p / S	*18.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4135*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1152*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2957*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1077*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	CHS	Highway/Direction of Travel	SR-60 Westbound
Agency or Company	Urban Crossroads, Inc.	From/To	Day to Frederick
Date Performed	8/5/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	Existing (2015)

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2772	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	12
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.943

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	3	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1065	pc/h/ln
S	70.0	mph
D = v_p / S	15.2	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4287*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*955*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*13.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4344*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1216*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4640*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1324*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3460*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*767*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5093*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1140*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*16.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CSH*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4643*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1274*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6260*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1388*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*19.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3456*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1309*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4985*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1388*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4693*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1301*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2544*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*940*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2186*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*800*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4578*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1692*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5139*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1410*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3525*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1303*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4410*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1686*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.3*	mph	S	mph
D = v_p / S	*25.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4207*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1570*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.4*	mph	S	mph
D = v_p / S	*22.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3556*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1321*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3465*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*960*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS)   ☐ Des.(N)   ☐ Planning Data

Flow Inputs

Volume, V	*4554*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1268*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4595*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1261*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*18.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3699*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1367*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4708*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1305*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.9*	mph	S		mph
D = v_p / S	*18.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4270*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
<u>Operational (LOS)</u>			<u>Design (N)</u>		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1578*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*68.3*	mph	S		mph
D = v_p / S	*23.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2745*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*765*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4520*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*831*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4246*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1183*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3030*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*685*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*9.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1607*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*454*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*6.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3532*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*787*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4615*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1038*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6526*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1818*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.6*	mph	S	mph
D = v_p / S	*27.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5255*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1478*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5098*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1158*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6028*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1646*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3567*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1312*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4693*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1734*	pc/h/ln
S	*66.7*	mph
D = v_p / S	*26.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2724*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*766*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3679*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1025*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4092*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1512*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.9*	mph	S	mph
D = v_p / S	*22.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3721*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1368*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.7*	mph	S	mph
D = v_p / S	*19.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4693*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
<u>Operational (LOS)</u>			<u>Design (N)</u>		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1734*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*66.7*	mph	S		mph
D = v_p / S	*26.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3209*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*898*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*12.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4472*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1661*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4886*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1779*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.1*	mph	S	mph
D = v_p / S	*26.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4790*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1315*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4049*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1128*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3833*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1068*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Site Information

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4092*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1118*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3711*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1351*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.7*	mph	S	mph
D = v_p / S	*19.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6211*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1722*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.8*	mph	S	mph
D = v_p / S	*25.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5573*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1530*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.7*	mph	S	mph
D = v_p / S	*22.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3236*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1190*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4573*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1261*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*18.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4939*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1101*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3436*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*957*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2937*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1069*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4660*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1747*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.5*	mph	S	mph
D = v_p / S	*26.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5907*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1316*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*18.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4209*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1155*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5182*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1443*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4518*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*992*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*14.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6720*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1468*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5966*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1621*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.9*	mph	S	mph
D = v_p / S	*23.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR60/I215 to Eucalyptus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6485*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1438*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5159*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1944*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.6*	mph	S	mph
D = v_p / S	*30.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5540*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1543*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5354*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1484*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3855*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1425*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.4*	mph	S	mph
D = v_p / S	*20.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3445*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1267*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5313*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1963*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.2*	mph	S	mph
D = v_p / S	*31.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5872*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1596*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*68.2*	mph	S		mph
D = v_p / S	*23.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3780*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1397*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4755*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1809*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.7*	mph	S	mph
D = v_p / S	*27.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4566*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1679*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*24.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3719*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1381*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3896*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1085*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4602*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1282*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5028*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1366*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4072*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1505*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.9*	mph	S	mph
D = v_p / S	*21.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4840*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1342*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4794*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1772*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.2*	mph	S	mph
D = v_p / S	*26.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2234*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*619*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*8.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3786*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*689*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*9.8*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4513*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1257*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*18.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	CHS	Highway/Direction of Travel	SR-60 Eastbound
Agency or Company	Urban Crossroads, Inc.	From/To	I-215 to Day
Date Performed	8/5/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3159	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	4
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.980

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	5		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	700	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	10.0	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	A		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	SR-60 Eastbound
Agency or Company	Urban Crossroads, Inc.	From/To	Day to Frederick
Date Performed	8/5/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing (2015)

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2809	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	1
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.995

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	767	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	11.0	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	A		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3453*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*769*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3913*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*897*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/5/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5849*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1645*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5332*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1507*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.9*	mph	S	mph
D = v_p / S	*21.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5614*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1306*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6304*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1713*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.9*	mph	S	mph
D = v_p / S	*25.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3832*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1416*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.5*	mph	S	mph
D = v_p / S	*20.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / *Site Information*

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5354*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1979*	pc/h/ln
S	*63.0*	mph
D = v_p / S	*31.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2523*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*703*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2678*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*742*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*10.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3247*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1200*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2779*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1022*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/5/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing (2015)*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5354*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1979*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.0*	mph	S	mph
D = v_p / S	*31.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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ATTACHMENT C
E+P CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/7/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5117*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1404*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4497*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1670*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.4*	mph	S	mph
D = v_p / S	*24.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4816*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1780*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.1*	mph	S	mph
D = v_p / S	*26.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4762*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1307*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.9*	mph	S		mph
D = v_p / S	*18.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4066*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1138*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4054*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1129*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4149*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1139*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3666*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1342*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6044*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1683*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4942*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1363*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3844*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1421*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.4*	mph	S	mph
D = v_p / S	*20.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5557*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
<u>Operational (LOS)</u>			<u>Design (N)</u>		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1540*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*68.7*	mph	S		mph
D = v_p / S	*22.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CSH*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5828*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1299*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.9*	mph	S		mph
D = v_p / S	*18.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4207*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1172*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2989*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1088*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2798*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1075*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4393*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*984*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*14.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4450*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1252*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4746*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1361*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.7*	mph	S	mph
D = v_p / S	*19.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3573*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*796*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5208*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1172*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CSH*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4778*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1318*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6427*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1432*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.4*	mph	S	mph
D = v_p / S	*20.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3623*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1378*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*19.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5152*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1442*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.3*	mph	S	mph
D = v_p / S	*20.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4739*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1314*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*18.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2590*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*962*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*13.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2202*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*810*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*11.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4613*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1705*	pc/h/ln
S	*67.0*	mph
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5146*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1412*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.5*	mph	S	mph
D = v_p / S	*20.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3532*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1305*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4417*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1688*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4215*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1573*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.4*	mph	S	mph
D = v_p / S	*23.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3566*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1324*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3475*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*968*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*13.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4564*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1271*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4607*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1264*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*18.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3711*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1371*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4720*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1308*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4285*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1584*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*68.3*	mph	S		mph
D = v_p / S	*23.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2760*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*769*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.0*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4536*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*834*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4262*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1187*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3037*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*687*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*9.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1612*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*456*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*6.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3555*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*792*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4638*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1049*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6549*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1824*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.5*	mph	S	mph
D = v_p / S	*27.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5280*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1485*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5123*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1164*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*16.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6058*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1654*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.6*	mph	S	mph
D = v_p / S	*24.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3604*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
			Design (N)		
Operational (LOS)			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1325*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.8*	mph	S		mph
D = v_p / S	*19.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4730*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1748*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.5*	mph	S	mph
D = v_p / S	*26.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2761*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*780*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3689*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1028*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4102*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1516*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3783*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1398*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.5*	mph	S	mph
D = v_p / S	*20.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

### General Information		### Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4701*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

### Speed Inputs			### Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

### LOS and Performance Measures			### Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1737*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.7*	mph	S	mph
D = v_p / S	*26.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3217*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*900*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*12.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4480*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1664*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.5*	mph	S	mph
D = v_p / S	*24.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4894*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1791*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.9*	mph	S	mph
D = v_p / S	*27.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4799*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1317*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*18.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4060*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1131*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3844*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1071*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4103*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1121*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3725*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1356*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6225*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1725*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.8*	mph	S	mph
D = v_p / S	*25.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5587*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1533*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.7*	mph	S	mph
D = v_p / S	*22.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3253*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1196*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	SR-91 Eastbound
Agency or Company	Urban Crossroads, Inc.	From/To	14th to University
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing plus Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4590	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.985

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1266	pc/h/ln
S	69.9	mph
D = v_p / S	18.1	pc/mi/ln
LOS	C	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N	Number of lanes	S	Speed
V	Hourly volume	D	Density
v_p	Flow rate	FFS	Free-flow speed
LOS	Level of service	BFFS	Base free-flow speed
DDHV	Directional design hour volume		

Factor Location

E_R	Exhibits 11-10, 11-12	f_{LW}	Exhibit 11-8
E_T	Exhibits 11-10, 11-11, 11-13	f_{LC}	Exhibit 11-9
f_p	Page 11-18	TRD	Page 11-11
LOS, S, FFS, v_p	Exhibits 11-2, 11-3		

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4957*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1105*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3454*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*962*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*13.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2944*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1072*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4666*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1750*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*66.5*	mph	S		mph
D = v_p / S	*26.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary

- N - Number of lanes
- V - Hourly volume
- v_p - Flow rate
- LOS - Level of service
- DDHV - Directional design hour volume
- S - Speed
- D - Density
- FFS - Free-flow speed
- BFFS - Base free-flow speed

Factor Location

- E_R - Exhibits 11-10, 11-12
- E_T - Exhibits 11-10, 11-11, 11-13
- f_p - Page 11-18
- LOS, S, FFS, v_p - Exhibits 11-2, 11-3
- f_{LW} - Exhibit 11-8
- f_{LC} - Exhibit 11-9
- TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5934*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1322*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*18.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	Blaine St to University Av
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing plus Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4236	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	3
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.985

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	4	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1168	pc/h/ln
S	70.0	mph
D = v_p / S	16.7	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume

S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5209*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1451*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4546*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*998*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6749*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1475*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6000*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1630*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.9*	mph	S	mph
D = v_p / S	*24.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6526*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1454*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*21.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5200*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1969*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.1*	mph	S	mph
D = v_p / S	*31.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5581*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1554*	pc/h/ln
S	*68.5*	mph
D = v_p / S	*22.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5365*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1487*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.0*	mph	S	mph
D = v_p / S	*21.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3866*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1436*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3519*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1300*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5321*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1966*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*63.2*	mph	S		mph
D = v_p / S	*31.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5906*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*0*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*1.000*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1605*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.1*	mph	S	mph
D = v_p / S	*23.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3816*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1410*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.5*	mph	S		mph
D = v_p / S	*20.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4791*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1831*	pc/h/ln
S	*65.4*	mph
D = v_p / S	*28.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4605*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1694*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3767*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1399*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3944*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1099*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4650*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1295*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5088*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1390*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4132*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1535*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.7*	mph	S	mph
D = v_p / S	*22.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4900*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1365*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.7*	mph	S	mph
D = v_p / S	*19.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4866*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1807*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.7*	mph	S	mph
D = v_p / S	*27.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2306*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*642*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*9.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3863*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*6*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*707*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4590*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1285*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3192*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*708*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2836*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*775*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	SR-60 to Blaine St
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	Existing plus Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3568	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	7
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.966

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	5	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	70.0	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	70.0	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	803	pc/h/ln
S	70.0	mph
D = v_p / S	11.5	pc/mi/ln
LOS	B	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4028*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*928*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5964*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1685*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5454*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1549*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.6*	mph	S	mph
D = v_p / S	*22.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		*Site Information*	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5738*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1335*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6452*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1771*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.2*	mph	S	mph
D = v_p / S	*26.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4012*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1490*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5534*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2055*	pc/h/ln
S	*61.5*	mph
D = v_p / S	*33.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2703*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*764*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2727*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*756*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3296*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1218*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2794*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1028*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*Existing plus Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5391*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1992*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*62.7*	mph	S		mph
D = v_p / S	*31.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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ATTACHMENT D
OPENING YEAR CUMULATIVE (2020) WITHOUT PROJECT CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/7/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5814*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1289*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5138*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1452*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*21.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5502*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2053*	pc/h/ln
S	*61.6*	mph
D = v_p / S	*33.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5449*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1510*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4682*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1323*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*18.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4679*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1316*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*18.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4837*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1341*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

speed

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4302*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1590*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5967*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1678*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*24.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4929*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1373*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.7*	mph	S	mph
D = v_p / S	*19.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3922*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1471*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.1*	mph	S	mph
D = v_p / S	*21.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5557*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1555*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.5*	mph	S	mph
D = v_p / S	*22.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CSH*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5819*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1316*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*18.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4289*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1212*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3330*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1219*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3113*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1196*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*17.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5260*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1189*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5382*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1528*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.8*	mph	S	mph
D = v_p / S	*22.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5767*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1661*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4523*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1023*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6384*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1443*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.3*	mph	S	mph
D = v_p / S	*20.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CSH*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5946*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1656*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.6*	mph	S	mph
D = v_p / S	*24.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8082*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1818*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.6*	mph	S	mph
D = v_p / S	*27.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5052*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1940*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6805*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1923*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.9*	mph	S	mph
D = v_p / S	*30.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6203*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1736*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.7*	mph	S	mph
D = v_p / S	*26.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3813*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1464*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2842*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1066*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.2*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5440*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2030*	pc/h/ln
S	*62.0*	mph
D = v_p / S	*32.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
speed
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5788*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1596*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4012*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1490*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.0*	mph	S	mph
D = v_p / S	*21.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4995*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1918*	pc/h/ln
S	*64.0*	mph
D = v_p / S	*30.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4777*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1791*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.9*	mph	S	mph
D = v_p / S	*27.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4064*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1517*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.8*	mph	S	mph
D = v_p / S	*22.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3970*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1111*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5202*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1456*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5253*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1449*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.3*	mph	S	mph
D = v_p / S	*20.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3672*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1370*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.7*	mph	S	mph
D = v_p / S	*19.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4635*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1297*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4245*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1584*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2803*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*792*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4493*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*834*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4238*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1192*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3382*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*765*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1804*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*510*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*7.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4200*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*945*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5429*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1233*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7572*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2119*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*60.2*	mph	S	mph
D = v_p / S	*35.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6202*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1753*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6062*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1384*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*19.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7122*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1955*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.4*	mph	S	mph
D = v_p / S	*30.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4605*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1710*	pc/h/ln
S	*67.0*	mph
D = v_p / S	*25.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5885*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2196*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*58.5*	mph	S	mph
D = v_p / S	*37.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3749*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*852*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*12.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5378*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1505*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.9*	mph	S	mph
D = v_p / S	*21.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5505*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2084*	pc/h/ln
S	*60.9*	mph
D = v_p / S	*34.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Harley Knox to Ramona Exwy*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5096*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1920*	pc/h/ln
S	*64.0*	mph
D = v_p / S	*30.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6071*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2277*	pc/h/ln
S	*56.5*	mph
D = v_p / S	*40.3*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3676*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*827*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5077*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1421*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Riverwalk to Magnolia*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5541*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2038*	pc/h/ln
S	*61.9*	mph
D = v_p / S	*32.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5442*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1501*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.9*	mph	S	mph
D = v_p / S	*21.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4631*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1302*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4399*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1231*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.6*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4720*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
			Design (N)		
Operational (LOS)			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1295*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.9*	mph	S		mph
D = v_p / S	*18.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4306*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1576*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.4*	mph	S	mph
D = v_p / S	*23.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6083*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1703*	pc/h/ln
S	*67.1*	mph
D = v_p / S	*25.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5484*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3295*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1230*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4570*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1273*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4924*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1108*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3502*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*985*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3286*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.995*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1197*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5179*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1942*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.6*	mph	S	mph
D = v_p / S	*30.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6871*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1539*	pc/h/ln
S	*68.7*	mph
D = v_p / S	*22.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5035*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1396*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6148*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1721*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.9*	mph	S	mph
D = v_p / S	*25.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5453*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1209*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7923*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1748*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7129*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1957*	pc/h/ln
S	*63.4*	mph
D = v_p / S	*30.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7935*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1777*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.1*	mph	S	mph
D = v_p / S	*26.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6514*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2478*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*51.1*	mph	S	mph
D = v_p / S	*48.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6978*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1953*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.4*	mph	S	mph
D = v_p / S	*30.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7416*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2066*	pc/h/ln
S	*61.3*	mph
D = v_p / S	*33.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5326*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2026*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.1*	mph	S	mph
D = v_p / S	*32.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4882*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1848*	pc/h/ln
S	*65.1*	mph
D = v_p / S	*28.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6836*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2563*	pc/h/ln
S	*48.4*	mph
D = v_p / S	*52.9*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5795*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1598*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.2*	mph	S	mph
D = v_p / S	*23.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4019*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1493*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5002*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1921*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.0*	mph	S	mph
D = v_p / S	*30.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4785*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1794*	pc/h/ln
S	*65.9*	mph
D = v_p / S	*27.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4074*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.8*	mph	S	mph
D = v_p / S	*22.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3979*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1114*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5212*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1459*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.2*	mph	S	mph
D = v_p / S	*21.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5266*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1452*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.3*	mph	S	mph
D = v_p / S	*21.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4167*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1570*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.4*	mph	S	mph
D = v_p / S	*22.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4906*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1386*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*19.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4911*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1851*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.1*	mph	S	mph
D = v_p / S	*28.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2490*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*714*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.2*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3973*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*6*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*738*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4673*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1327*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.8*	mph	S		mph
D = v_p / S	*19.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	CHS	Highway/Direction of Travel	SR-60 Eastbound
Agency or Company	Urban Crossroads, Inc.	From/To	I-215 to Day
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 Without Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	3557	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	5
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.976

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	5		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	70.0	mph
FFS (measured)	70.0	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	793	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	70.0	mph	S		mph
D = v_p / S	11.3	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	B		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3157*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*866*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*12.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4376*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*994*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4947*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1145*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7147*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2030*	pc/h/ln
S	*62.0*	mph
D = v_p / S	*32.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6639*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1894*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.4*	mph	S	mph
D = v_p / S	*29.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7013*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1639*	pc/h/ln
S	*67.8*	mph
D = v_p / S	*24.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7838*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2162*	pc/h/ln
S	*59.3*	mph
D = v_p / S	*36.5*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5484*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2066*	pc/h/ln
S	*61.3*	mph
D = v_p / S	*33.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7234*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2726*	pc/h/ln
S	*43.0*	mph
D = v_p / S	*63.4*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4178*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*958*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4173*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1168*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4610*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1754*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.4*	mph	S	mph
D = v_p / S	*26.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3481*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1299*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		*Site Information*	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6283*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2333*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*55.1*	mph	S	mph
D = v_p / S	*42.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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ATTACHMENT E
OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/7/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5846*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*5*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1296*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5172*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1462*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.2*	mph	S	mph
D = v_p / S	*21.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5536*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2066*	pc/h/ln
S	*61.3*	mph
D = v_p / S	*33.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5485*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1520*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.8*	mph	S	mph
D = v_p / S	*22.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4726*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1336*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4724*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1335*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4881*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1353*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4358*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1618*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*68.0*	mph	S		mph
D = v_p / S	*23.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6015*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1692*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.2*	mph	S	mph
D = v_p / S	*25.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4977*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1393*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3979*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1492*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5615*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1579*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.3*	mph	S	mph
D = v_p / S	*23.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CSH*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5880*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1329*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.8*	mph	S	mph
D = v_p / S	*19.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4350*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1235*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*17.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3362*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.995*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1224*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*17.5*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3138*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.943*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1205*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5366*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1219*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*17.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5488*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1566*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*68.4*	mph	S		mph
D = v_p / S	*22.9*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5873*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1700*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.1*	mph	S	mph
D = v_p / S	*25.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4635*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1053*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6499*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1476*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.1*	mph	S	mph
D = v_p / S	*21.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CSH*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6081*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1702*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*67.1*	mph	S		mph
D = v_p / S	*25.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8250*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1856*	pc/h/ln
S	*65.0*	mph
D = v_p / S	*28.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5219*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2014*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.3*	mph	S	mph
D = v_p / S	*32.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6972*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1980*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.9*	mph	S	mph
D = v_p / S	*31.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6250*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1749*	pc/h/ln
S	*66.5*	mph
D = v_p / S	*26.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3859*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1482*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.1*	mph	S	mph
D = v_p / S	*21.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2858*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1072*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5475*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2043*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*61.8*	mph	S	mph
D = v_p / S	*33.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6697*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1838*	pc/h/ln
S	*65.3*	mph
D = v_p / S	*28.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4399*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs		
Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS		
f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1650*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *5487*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4995*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1918*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.0*	mph	S	mph
D = v_p / S	*30.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2,
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5289*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1964*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4365*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1645*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.7*	mph	S	mph
D = v_p / S	*24.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4572*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1286*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.9*	mph	S		mph
D = v_p / S	*18.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5408*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1521*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5890*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1625*	pc/h/ln
S	*67.9*	mph
D = v_p / S	*23.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3683*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1374*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*19.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4646*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1300*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4258*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1589*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.2*	mph	S	mph
D = v_p / S	*23.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	SR-91 Westbound
Agency or Company	Urban Crossroads, Inc.	From/To	14th to University
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	2020 With Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	2815	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	796	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	11.4	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4507*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*837*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.0*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4252*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1202*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3389*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*766*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*10.9*	pc/mi/ln
LOS	*A*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*1809*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*511*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*7.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4223*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*950*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*13.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5452*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1239*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7596*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2126*	pc/h/ln
S	*60.1*	mph
D = v_p / S	*35.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6227*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1760*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.4*	mph	S	mph
D = v_p / S	*26.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service speed	BFFS - Base free-flow	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6087*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1389*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*20.0*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7152*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1963*	pc/h/ln
S	*63.2*	mph
D = v_p / S	*31.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4642*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1724*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5922*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2210*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*58.2*	mph	S	mph
D = v_p / S	*38.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3785*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*864*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*12.3*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5388*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1508*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5515*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2088*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*60.9*	mph	S	mph
D = v_p / S	*34.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5158*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1944*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6078*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2279*	pc/h/ln
S	*56.5*	mph
D = v_p / S	*40.3*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3683*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*829*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5085*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1423*	pc/h/ln
S	*69.4*	mph
D = v_p / S	*20.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5549*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2041*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*61.8*	mph	S		mph
D = v_p / S	*33.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5451*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1503*	pc/h/ln
S	*68.9*	mph
D = v_p / S	*21.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4642*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1306*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4410*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1240*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4731*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1298*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4320*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1589*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.2*	mph	S	mph
D = v_p / S	*23.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6095*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1706*	pc/h/ln
S	*67.0*	mph
D = v_p / S	*25.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5495*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1523*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.8*	mph	S	mph
D = v_p / S	*22.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3309*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1235*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*17.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4584*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1277*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4939*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1111*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*15.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3518*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*994*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3293*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*1*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.995*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1199*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5185*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1944*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*63.6*	mph	S		mph
D = v_p / S	*30.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6897*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1544*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5061*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1410*	pc/h/ln
S	*69.5*	mph
D = v_p / S	*20.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6174*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1728*	pc/h/ln
S	*66.8*	mph
D = v_p / S	*25.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5481*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1215*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7952*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1755*	pc/h/ln
S	*66.4*	mph
D = v_p / S	*26.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	From/To	Box Springs Rd to SR60/I215
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2020 With Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7164	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	2
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length	mi
			Up/Down %	

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.990

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1966	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	63.2	mph	S		mph
D = v_p / S	31.1	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	D		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7976*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1786*	pc/h/ln
S	*66.0*	mph
D = v_p / S	*27.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6555*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2494*	pc/h/ln
S	*50.6*	mph
D = v_p / S	*49.3*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7019*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1965*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.2*	mph	S	mph
D = v_p / S	*31.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7427*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2069*	pc/h/ln
S	*61.2*	mph
D = v_p / S	*33.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5337*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2030*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.0*	mph	S	mph
D = v_p / S	*32.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4956*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u> Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1876*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.7*	mph	S	mph
D = v_p / S	*29.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6844*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2566*	pc/h/ln
S	*48.4*	mph
D = v_p / S	*53.1*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service speed
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6731*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1847*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.1*	mph	S	mph
D = v_p / S	*28.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4435*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1663*	pc/h/ln
S	*67.5*	mph
D = v_p / S	*24.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5523*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2131*	pc/h/ln
S	*59.9*	mph
D = v_p / S	*35.5*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5329*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1989*	pc/h/ln
S	*62.8*	mph
D = v_p / S	*31.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4413*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1663*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.5*	mph	S	mph
D = v_p / S	*24.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4620*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1306*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5456*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1542*	pc/h/ln
S	*68.6*	mph
D = v_p / S	*22.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5950*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1641*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.7*	mph	S	mph
D = v_p / S	*24.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4219*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1597*	pc/h/ln
S	*68.2*	mph
D = v_p / S	*23.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4957*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1401*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.5*	mph	S	mph
D = v_p / S	*20.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4973*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1874*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.7*	mph	S	mph
D = v_p / S	*29.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2552*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*735*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4039*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*6*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*754*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*10.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*A*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Spruce to I-215*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4739*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1346*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3591*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*800*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3184*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*874*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*12.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4491*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1025*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5062*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1177*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7262*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2072*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*61.2*	mph	S		mph
D = v_p / S	*33.9*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6760*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1938*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.7*	mph	S	mph
D = v_p / S	*30.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7137*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*16*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.926*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1676*	pc/h/ln
S	*67.4*	mph
D = v_p / S	*24.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7985*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2213*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*58.1*	mph	S	mph
D = v_p / S	*38.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5566*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2107*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*60.5*	mph	S	mph
D = v_p / S	*34.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7413*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2793*	pc/h/ln
S	*40.6*	mph
D = v_p / S	*68.9*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4357*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1009*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*14.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4222*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1182*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*16.9*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4659*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1772*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*66.2*	mph	S		mph
D = v_p / S	*26.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3496*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1305*	pc/h/ln
S	*69.9*	mph
D = v_p / S	*18.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2020 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6320*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2359*	pc/h/ln
S	*54.4*	mph
D = v_p / S	*43.3*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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ATTACHMENT F
HORIZON YEAR (2035) WITHOUT PROJECT CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/7/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8731*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1983*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.9*	mph	S	mph
D = v_p / S	*31.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8098*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2289*	pc/h/ln
S	*56.2*	mph
D = v_p / S	*40.7*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7826*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2949*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*34.5*	mph	S		mph
D = v_p / S	*85.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*F*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7408*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs / Calc Speed Adj and FFS

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2094*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*60.7*	mph	S	mph
D = v_p / S	*34.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6956*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1985*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.9*	mph	S	mph
D = v_p / S	*31.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6922*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1947*	pc/h/ln
S	*63.5*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6491*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1799*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.8*	mph	S	mph
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6351*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2370*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*54.1*	mph	S	mph
D = v_p / S	*43.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6465*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1818*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.6*	mph	S	mph
D = v_p / S	*27.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5130*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1450*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Central to 14th*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4976*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1893*	pc/h/ln
S	*64.4*	mph
D = v_p / S	*29.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6389*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1797*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.9*	mph	S	mph
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CSH*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6321*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*5*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1429*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.4*	mph	S	mph
D = v_p / S	*20.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5224*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1469*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.2*	mph	S	mph
D = v_p / S	*21.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4216*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1634*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.8*	mph	S	mph
D = v_p / S	*24.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Westbound*
From/To	*Day to Frederick*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4106*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1584*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7082*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1640*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*67.8*	mph	S		mph
D = v_p / S	*24.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6725*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1946*	pc/h/ln
S	*63.5*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6904*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2007*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.4*	mph	S	mph
D = v_p / S	*32.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7908*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1814*	pc/h/ln
S	*65.6*	mph
D = v_p / S	*27.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
speed
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8788*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1987*	pc/h/ln
S	*62.8*	mph
D = v_p / S	*31.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CSH*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6588*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1916*	pc/h/ln
S	*64.1*	mph
D = v_p / S	*29.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7095*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*21*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.905*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1704*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.1*	mph	S	mph
D = v_p / S	*25.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5219*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1995*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.7*	mph	S	mph
D = v_p / S	*31.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6662*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1883*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.6*	mph	S	mph
D = v_p / S	*29.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / *Site Information*

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6381*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1777*	pc/h/ln
S	*66.1*	mph
D = v_p / S	*26.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5921*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2199*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*58.4*	mph	S	mph
D = v_p / S	*37.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4171*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1564*	pc/h/ln
S	*68.5*	mph
D = v_p / S	*22.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5332*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1971*	pc/h/ln
S	*63.1*	mph
D = v_p / S	*31.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8723*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2477*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*51.1*	mph	S	mph
D = v_p / S	*48.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8090*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*3048*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*30.4*	mph	S	mph
D = v_p / S	*100.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7818*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2946*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*34.6*	mph	S	mph
D = v_p / S	*85.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7400*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2788*	pc/h/ln
S	*40.7*	mph
D = v_p / S	*68.4*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6948*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2643*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*45.8*	mph	S	mph
D = v_p / S	*57.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6914*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1945*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.6*	mph	S	mph
D = v_p / S	*30.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6483*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1797*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.9*	mph	S	mph
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6343*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1775*	pc/h/ln
S	*66.2*	mph
D = v_p / S	*26.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Madison to Arlington*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4738*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1794*	pc/h/ln
S	*65.9*	mph
D = v_p / S	*27.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5123*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1448*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4969*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1890*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.5*	mph	S	mph
D = v_p / S	*29.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5092*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1446*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5024*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*6*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*951*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*13.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5217*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1467*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.2*	mph	S	mph
D = v_p / S	*21.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4559*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1056*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3862*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1118*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*16.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary / Factor Location

N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7069*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1637*	pc/h/ln
S	*67.8*	mph
D = v_p / S	*24.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6711*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			<u>Design (N)</u>	
<u>Operational (LOS)</u>			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1554*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.5*	mph	S	mph
D = v_p / S	*22.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6891*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2004*	pc/h/ln
S	*62.5*	mph
D = v_p / S	*32.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7894*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2263*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*56.9*	mph	S	mph
D = v_p / S	*39.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8773*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1983*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.9*	mph	S	mph
D = v_p / S	*31.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6573*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1902*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.3*	mph	S	mph
D = v_p / S	*29.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5353*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*27*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.881*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2201*	pc/h/ln
S	*58.4*	mph
D = v_p / S	*37.7*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5198*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1977*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.0*	mph	S	mph
D = v_p / S	*31.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5349*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1221*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.4*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6315*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1776*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.2*	mph	S	mph
D = v_p / S	*26.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5898*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2190*	pc/h/ln
S	*58.6*	mph
D = v_p / S	*37.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5275*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1949*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.5*	mph	S	mph
D = v_p / S	*30.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5771*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2112*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*60.4*	mph	S		mph
D = v_p / S	*35.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*I-15 to McKinley*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8724*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1982*	pc/h/ln
S	*62.9*	mph
D = v_p / S	*31.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8091*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2287*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*56.3*	mph	S	mph
D = v_p / S	*40.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7819*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2946*	pc/h/ln
S	*34.6*	mph
D = v_p / S	*85.1*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7401*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2092*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*60.8*	mph	S	mph
D = v_p / S	*34.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6949*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1983*	pc/h/ln
S	*62.9*	mph
D = v_p / S	*31.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6915*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1945*	pc/h/ln
S	*63.6*	mph
D = v_p / S	*30.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6484*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1797*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.9*	mph	S	mph
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6344*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2368*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*54.2*	mph	S		mph
D = v_p / S	*43.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6459*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1817*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.6*	mph	S	mph
D = v_p / S	*27.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5984*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1683*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.3*	mph	S	mph
D = v_p / S	*25.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4970*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1891*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.5*	mph	S	mph
D = v_p / S	*29.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5523*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1561*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.5*	mph	S	mph
D = v_p / S	*22.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

- N - Number of lanes
- V - Hourly volume
- v_p - Flow rate
- LOS - Level of service
- DDHV - Directional design hour volume
- S - Speed
- D - Density
- FFS - Free-flow speed
- BFFS - Base free-flow speed

Factor Location

- E_R - Exhibits 11-10, 11-12
- E_T - Exhibits 11-10, 11-11, 11-13
- f_p - Page 11-18
- LOS, S, FFS, v_p - Exhibits 11-2, 11-3
- f_{LW} - Exhibit 11-8
- f_{LC} - Exhibit 11-9
- TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5455*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1239*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4358*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1238*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4383*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1691*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3505*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1365*	pc/h/ln
S	*69.7*	mph
D = v_p / S	*19.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7070*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1637*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*67.8*	mph	S		mph
D = v_p / S	*24.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6713*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1943*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.6*	mph	S	mph
D = v_p / S	*30.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6892*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2004*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.5*	mph	S	mph
D = v_p / S	*32.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7895*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1811*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.7*	mph	S	mph
D = v_p / S	*27.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8775*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1984*	pc/h/ln
S	*62.9*	mph
D = v_p / S	*31.6*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6575*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1903*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.3*	mph	S	mph
D = v_p / S	*29.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7076*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*21*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.905*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1700*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.1*	mph	S	mph
D = v_p / S	*25.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*		
Agency or Company	*Urban Crossroads, Inc.*		
Date Performed	*8/6/2015*		
Analysis Time Period	*PM Peak Hour*		

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6490*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2446*	pc/h/ln
S	*52.0*	mph
D = v_p / S	*47.0*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Alessandro Bl. to Cactus Av.*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6641*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1877*	pc/h/ln
S	*64.7*	mph
D = v_p / S	*29.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7396*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2080*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*61.0*	mph	S		mph
D = v_p / S	*34.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5900*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2191*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*58.6*	mph	S	mph
D = v_p / S	*37.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5222*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1930*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.8*	mph	S	mph
D = v_p / S	*30.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Ramona Exwy to Nuevo*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6202*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2281*	pc/h/ln
S	*56.4*	mph
D = v_p / S	*40.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6697*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1838*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.3*	mph	S	mph
D = v_p / S	*28.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4399*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1650*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.7*	mph	S	mph
D = v_p / S	*24.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5487*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2117*	pc/h/ln
S	*60.2*	mph
D = v_p / S	*35.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5289*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1964*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*63.2*	mph	S		mph
D = v_p / S	*31.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4365*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1645*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.7*	mph	S	mph
D = v_p / S	*24.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4572*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1286*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5408*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1521*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.8*	mph	S	mph
D = v_p / S	*22.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5890*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1625*	pc/h/ln
S	*67.9*	mph
D = v_p / S	*23.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4747*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1797*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.9*	mph	S	mph
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5562*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1564*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.5*	mph	S	mph
D = v_p / S	*22.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5409*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2048*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*61.7*	mph	S	mph
D = v_p / S	*33.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5102*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1449*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.3*	mph	S	mph
D = v_p / S	*20.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5034*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*6*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*953*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*13.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5226*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1470*	pc/h/ln
S	*69.2*	mph
D = v_p / S	*21.3*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5843*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1334*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4817*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1381*	pc/h/ln
S	*69.6*	mph
D = v_p / S	*19.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7087*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1641*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6729*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*5*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1558*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.5*	mph	S	mph
D = v_p / S	*22.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6909*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2009*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.4*	mph	S	mph
D = v_p / S	*32.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7912*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2268*	pc/h/ln
S	*56.8*	mph
D = v_p / S	*40.0*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		*Site Information*	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8792*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1988*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.8*	mph	S	mph
D = v_p / S	*31.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7452*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2146*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*59.6*	mph	S		mph
D = v_p / S	*36.0*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*E*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume

S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2020 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5386*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2030*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*62.0*	mph	S		mph
D = v_p / S	*32.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6945*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2617*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*46.7*	mph	S	mph
D = v_p / S	*56.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5377*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1227*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4347*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1211*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5926*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2201*	pc/h/ln
S	*58.4*	mph
D = v_p / S	*37.7*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4317*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1603*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.1*	mph	S	mph
D = v_p / S	*23.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 Without Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5762*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2119*	pc/h/ln
S	*60.2*	mph
D = v_p / S	*35.2*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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ATTACHMENT G
HORIZON YEAR (2035) WITH PROJECT CONDITIONS
HCS2010 BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/7/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8763*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1991*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.7*	mph	S	mph
D = v_p / S	*31.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8132*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2298*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*56.0*	mph	S	mph
D = v_p / S	*41.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7860*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2962*	pc/h/ln
S	*34.0*	mph
D = v_p / S	*87.2*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Magnolia to La Sierra*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7445*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2104*	pc/h/ln
S	*60.5*	mph
D = v_p / S	*34.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7001*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1998*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.6*	mph	S	mph
D = v_p / S	*31.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6967*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1959*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.3*	mph	S	mph
D = v_p / S	*30.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6536*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1820*	pc/h/ln
S	*65.5*	mph
D = v_p / S	*27.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6407*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+$P_T(E_T$ - 1) + $P_R(E_R$ - 1)]	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2403*	pc/h/ln
S	*53.2*	mph
D = v_p / S	*45.2*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6513*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1832*	pc/h/ln
S	*65.4*	mph
D = v_p / S	*28.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5178*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1470*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.2*	mph	S	mph
D = v_p / S	*21.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5034*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1924*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.9*	mph	S	mph
D = v_p / S	*30.1*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6447*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1822*	pc/h/ln
S	*65.5*	mph
D = v_p / S	*27.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CSH*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6383*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1443*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5285*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1494*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.0*	mph	S	mph
D = v_p / S	*21.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4248*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1647*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.7*	mph	S	mph
D = v_p / S	*24.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4131*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1594*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.2*	mph	S	mph
D = v_p / S	*23.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7174*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1669*	pc/h/ln
S	*67.4*	mph
D = v_p / S	*24.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6816*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1982*	pc/h/ln
S	*62.9*	mph
D = v_p / S	*31.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6996*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2034*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*61.9*	mph	S		mph
D = v_p / S	*32.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8005*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*5*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1845*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.2*	mph	S	mph
D = v_p / S	*28.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8886*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2009*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.4*	mph	S	mph
D = v_p / S	*32.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CSH*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6704*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1949*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*63.5*	mph	S		mph
D = v_p / S	*30.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7239*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*22*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.901*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1747*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*66.5*	mph	S	mph
D = v_p / S	*26.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5363*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2060*	pc/h/ln
S	*61.4*	mph
D = v_p / S	*33.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6805*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1942*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.6*	mph	S	mph
D = v_p / S	*30.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6438*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1802*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.8*	mph	S	mph
D = v_p / S	*27.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5991*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2236*	pc/h/ln
S	*57.5*	mph
D = v_p / S	*38.9*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4176*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1566*	pc/h/ln
S	*68.4*	mph
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5362*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1972*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.1*	mph	S	mph
D = v_p / S	*31.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8730*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2479*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*51.0*	mph	S	mph
D = v_p / S	*48.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*McKinley to Riverwalk*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8097*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*3051*	pc/h/ln
S	*30.3*	mph
D = v_p / S	*100.8*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7826*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2949*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*34.5*	mph	S	mph
D = v_p / S	*85.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7408*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2791*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*40.6*	mph	S	mph
D = v_p / S	*68.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*La Sierra to Tyler*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6958*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2647*	pc/h/ln
S	*45.7*	mph
D = v_p / S	*57.9*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6924*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1947*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.5*	mph	S	mph
D = v_p / S	*30.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren to Adams*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6493*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
			Design (N)		
Operational (LOS)			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1800*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*65.8*	mph	S		mph
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6355*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1779*	pc/h/ln
S	*66.1*	mph
D = v_p / S	*26.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4748*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1798*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.9*	mph	S	mph
D = v_p / S	*27.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Arlington to Central*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5134*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1451*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.3*	mph	S	mph
D = v_p / S	*20.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4982*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1895*	pc/h/ln
S	*64.4*	mph
D = v_p / S	*29.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5105*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1450*	pc/h/ln
S	*69.3*	mph
D = v_p / S	*20.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5038*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*6*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*958*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5230*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1478*	pc/h/ln
S	*69.1*	mph
D = v_p / S	*21.4*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-60 Eastbound*
From/To	*I-215 to Day*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4566*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1057*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*15.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3867*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1119*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*16.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7089*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1641*	pc/h/ln
S	*67.7*	mph
D = v_p / S	*24.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6731*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1558*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.5*	mph	S	mph
D = v_p / S	*22.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University Av to MLK Bl*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6911*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2009*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.4*	mph	S	mph
D = v_p / S	*32.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7915*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2269*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*56.7*	mph	S	mph
D = v_p / S	*40.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8795*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1988*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.8*	mph	S	mph
D = v_p / S	*31.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6599*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1919*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.0*	mph	S	mph
D = v_p / S	*30.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5385*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*27*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.881*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2214*	pc/h/ln
S	*58.1*	mph
D = v_p / S	*38.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5229*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1999*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.6*	mph	S	mph
D = v_p / S	*31.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5380*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1228*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6327*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1788*	pc/h/ln
S	*66.0*	mph
D = v_p / S	*27.1*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*Van Buren Bl. to Harley Knox B*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5913*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2196*	pc/h/ln
S	*58.5*	mph
D = v_p / S	*37.5*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5334*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
			Design (N)	
Operational (LOS)			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1981*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.9*	mph	S	mph
D = v_p / S	*31.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5777*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*2*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.990*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2114*	pc/h/ln
S	*60.3*	mph
D = v_p / S	*35.1*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8732*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1984*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.9*	mph	S	mph
D = v_p / S	*31.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	CHS	Highway/Direction of Travel	SR-91 Eastbound
Agency or Company	Urban Crossroads, Inc.	From/To	McKinley to Riverwalk
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035 With Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	8099	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	8
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.962

Speed Inputs / Calc Speed Adj and FFS

Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures / Design (N)

Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2289	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	56.2	mph	S	mph
D = v_p / S	40.7	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	E		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7828*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2950*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*34.5*	mph	S	mph
D = v_p / S	*85.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information | Site Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7410*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2094*	pc/h/ln
S	*60.7*	mph
D = v_p / S	*34.5*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6960*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1986*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.8*	mph	S	mph
D = v_p / S	*31.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Tyler to Van Buren*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6926*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1948*	pc/h/ln
S	*63.5*	mph
D = v_p / S	*30.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6495*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1800*	pc/h/ln
S	*65.8*	mph
D = v_p / S	*27.3*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Adams to Madison*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6358*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2373*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*54.0*	mph	S	mph
D = v_p / S	*43.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6471*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1820*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*65.5*	mph	S	mph
D = v_p / S	*27.8*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5996*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1686*	pc/h/ln
S	*67.3*	mph
D = v_p / S	*25.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4984*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1896*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.4*	mph	S	mph
D = v_p / S	*29.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*14th to University*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5537*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1565*	pc/h/ln
S	*68.5*	mph
D = v_p / S	*22.9*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Eastbound*
From/To	*University to Spruce*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5471*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1243*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.8*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

DDHV - Directional design hour volume

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4373*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1242*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*17.7*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4390*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures

<u>Operational (LOS)</u>

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1694*	pc/h/ln
S	*67.2*	mph
D = v_p / S	*25.2*	pc/mi/ln
LOS	*C*	

Design (N)

<u>Design (N)</u>

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3511*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*15*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.930*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1368*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.7*	mph	S	mph
D = v_p / S	*19.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR-60 to Blaine St*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7093*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1642*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*67.7*	mph	S	mph
D = v_p / S	*24.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Blaine St to University Av*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6736*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1949*	pc/h/ln
S	*63.5*	mph
D = v_p / S	*30.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*University Av to MLK Bl*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6915*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2011*	pc/h/ln
S	*62.4*	mph
D = v_p / S	*32.2*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*MLK Bl to Central Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7920*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.948*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*5*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1816*	pc/h/ln
S	*65.6*	mph
D = v_p / S	*27.7*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8800*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1990*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.8*	mph	S	mph
D = v_p / S	*31.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Box Springs Rd to SR60/I215*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6605*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1920*	pc/h/ln
S	*64.0*	mph
D = v_p / S	*30.0*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7111*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*21*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.905*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1708*	pc/h/ln
S	*67.0*	mph
D = v_p / S	*25.5*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*Eucalyptus Av. to Alessandro B*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6525*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2471*	pc/h/ln
S	*51.3*	mph
D = v_p / S	*48.2*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6676*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1887*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*64.5*	mph	S	mph
D = v_p / S	*29.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Cactus Av. to Van Buren Bl.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7410*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2084*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*60.9*	mph	S	mph
D = v_p / S	*34.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5918*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2198*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*58.4*	mph	S	mph
D = v_p / S	*37.6*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5294*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**			
Lane Width		ft				
Rt-Side Lat. Clearance		ft	f_{LW}			mph
Number of Lanes, N	*3*		f_{LC}			mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment			mph
FFS (measured)	*70.0*	mph	FFS	*70.0*		mph
Base free-flow Speed, BFFS		mph				

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1966*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*63.2*	mph	S		mph
D = v_p / S	*31.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume

S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6210*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2284*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*56.4*	mph	S	mph
D = v_p / S	*40.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-15 to McKinley*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8768*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2490*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*50.7*	mph	S		mph
D = v_p / S	*49.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*F*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*McKinley to Riverwalk*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8137*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*3066*	pc/h/ln
S	*29.6*	mph
D = v_p / S	*103.5*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Riverwalk to Magnolia*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7865*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2964*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*33.9*	mph	S		mph
D = v_p / S	*87.4*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*F*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Magnolia to La Sierra*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7450*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2807*	pc/h/ln
S	*40.0*	mph
D = v_p / S	*70.1*	pc/mi/ln
LOS	*F*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*La Sierra to Tyler*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7007*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2666*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*45.1*	mph	S		mph
D = v_p / S	*59.2*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*F*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Tyler to Van Buren*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6973*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1961*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*63.3*	mph	S	mph
D = v_p / S	*31.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Van Buren to Adams*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6542*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1822*	pc/h/ln
S	*65.5*	mph
D = v_p / S	*27.8*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Adams to Madison*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6414*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*7*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.966*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1804*	pc/h/ln
S	*65.8*	mph
D = v_p / S	*27.4*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Madison to Arlington*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4799*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1826*	pc/h/ln
S	*65.5*	mph
D = v_p / S	*27.9*	pc/mi/ln
LOS	*D*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*SR-91 Westbound*
From/To	*Arlington to Central*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5614*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1587*	pc/h/ln
S	*68.3*	mph
D = v_p / S	*23.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central to 14th*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5470*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*3*				
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2081*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*61.0*	mph	S		mph
D = v_p / S	*34.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*D*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*14th to University*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5163*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1466*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.2*	mph	S	mph
D = v_p / S	*21.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*University to Spruce*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5100*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.952*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*6*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*970*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*13.9*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-91 Westbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Spruce to I-215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5293*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1496*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.0*	mph	S	mph
D = v_p / S	*21.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*I-215 to Day*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5876*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*10*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.952*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1341*	pc/h/ln
S	*69.8*	mph
D = v_p / S	*19.2*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*SR-60 Eastbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Day to Frederick*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4844*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*11*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.948*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1389*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*20.0*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*SR-60 to Blaine St*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7186*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*5*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1672*	pc/h/ln
S	*67.4*	mph
D = v_p / S	*24.8*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Blaine St to University Av*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6828*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*14*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = $1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.935*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1588*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*68.3*	mph	S	mph
D = v_p / S	*23.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	University Av to MLK Bl
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035 With Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	7008	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	14
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	0.935

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	2038	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	61.9	mph	S	mph
D = v_p / S	32.9	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	D		Required Number of Lanes, N	

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*8/6/2015*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*MLK Bl to Central Av*
Jurisdiction	*Caltrans*
Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8017*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2309*	pc/h/ln
S	*55.7*	mph
D = v_p / S	*41.4*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	mph
D = v_p / S	pc/mi/ln
Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed
DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.ah

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Central Av to Box Springs Rd*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*8898*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.962*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2012*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*62.4*	mph	S	mph
D = v_p / S	*32.3*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*D*		Required Number of Lanes, N	

Glossary

N - Number of lanes	S - Speed
V - Hourly volume	D - Density
v_p - Flow rate	FFS - Free-flow speed
LOS - Level of service	BFFS - Base free-flow speed
DDHV - Directional design hour volume	

Factor Location

E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
f_p - Page 11-18	TRD - Page 11-11
LOS, S, FFS, v_p - Exhibits 11-2, 11-3	

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Box Springs Rd to SR60/I215*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7578*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*13*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.939*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2193*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*58.6*	mph	S	mph
D = v_p / S	*37.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*E*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / *Site Information*

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*SR60/I215 to Eucalyptus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5535*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*28*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.877*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2286*	pc/h/ln
S	*56.3*	mph
D = v_p / S	*40.6*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Eucalyptus Av. to Alessandro B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*7099*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*9*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.957*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2688*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*44.3*	mph	S	mph
D = v_p / S	*60.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*F*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I2 - Supplemental Basic Freeway Segment Analysis (2 of 2) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Alessandro Bl. to Cactus Av.*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5532*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*12*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.943*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*5*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1275*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.2*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		**Site Information**	
Analyst	CHS	Highway/Direction of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	From/To	Cactus Av. to Van Buren Bl.
Date Performed	8/6/2015	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	2035 With Project

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	4410	veh/h	Peak-Hour Factor, PHF	0.92
AADT		veh/day	%Trucks and Buses, P_T	6
Peak-Hr Prop. of AADT, K			%RVs, P_R	0
Peak-Hr Direction Prop, D			General Terrain:	Level
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	mi

Calculate Flow Adjustments

f_p	1.00	E_R	1.2
E_T	1.5	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	0.971

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	4		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	70.0	mph	FFS	70.0	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	1234	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	70.0	mph	S	mph
D = v_p / S	17.6	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	B		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Van Buren Bl. to Harley Knox B*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*6002*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2240*	pc/h/ln
S	*57.5*	mph
D = v_p / S	*39.0*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Harley Knox to Ramona Exwy*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4321*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1613*	pc/h/ln
S	*68.0*	mph
D = v_p / S	*23.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*Ramona Exwy to Nuevo*
Date Performed	*8/6/2015*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*2035 With Project*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5794*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*2141*	pc/h/ln
S	*59.7*	mph
D = v_p / S	*35.8*	pc/mi/ln
LOS	*E*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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November 17, 2015

Ms. Tracy Zinn
T&B Planning
17542 East 17th Street
Tustin, CA 92780

SUBJECT: MORENO VALLEY LOGISTICS CENTER CONSTRUCTION TRAFFIC EVALUATION

Dear Ms. Tracy Zinn:

Urban Crossroads, Inc. is pleased to submit this letter report to document the Construction Traffic Evaluation performed for the proposed Moreno Valley Logistics Center development (referred to as "Project"). The proposed Project is located on the southwest corner of Indian Street and Krameria Avenue in the City of Moreno Valley.

BACKGROUND

The purpose of this traffic assessment is to identify potential impacts to traffic and circulation at the study area intersections during the construction phase of the proposed Project (see Exhibit 1). Specifically, this analysis will be utilized to determine if construction of the Project would result in improvement needs at the study area intersections in order to maintain acceptable peak hour intersection operations.

Based on the schedule of construction activities, the most conservative mix of vehicles has been evaluated based on the various construction activities that are anticipated to occur and accounts for traffic associated with employees, vendors, and heavy trucks. Based on the scenario with the most conservative construction activities, trip generation for the construction period has been estimated to generate approximately 4,128 passenger car equivalent (PCE) trip ends per day with 182 PCE AM peak hour trips and 494 PCE PM peak hour trips.

Peak hour intersection operations analysis has been performed for Existing plus Project (E+P) with construction traffic conditions and compared to Existing traffic conditions previously reported in the Moreno Valley Logistics Center Traffic Impact Analysis (referred to as Traffic Study) to determine potential impacts.

POTENTIAL CONSTRUCTION IMPACTS

Based on the findings of this traffic assessment and shown on Table 3, the following study area intersections are anticipated to operate at an unacceptable level of service (LOS) (i.e. LOS E or worse) for E+P (Construction Traffic) conditions:

ID	Intersection Location
12	Heacock Street / Gentian Avenue – LOS F PM peak hour only
13	Heacock Street / Iris Avenue – LOS F PM peak hour only
16	Heacock Street / San Michele Road – LOS E PM peak hour only

However, the intersections of Heacock Street at Gentian Avenue and Heacock Street at Iris Avenue are currently operating at unacceptable LOS under Existing conditions.

CONSTRUCTION MITIGATION MEASURES

Mitigation Measure 1.1** – **Heacock Street / Gentian Avenue (#12) – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.

Mitigation Measure 2.1** – **Heacock Street / Iris Avenue (#13) – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.

Mitigation Measure 3.1** – **Heacock Street / San Michele Road (#18) – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's impact to less-than-significant:

- Modify the existing traffic signal to implement overlap phasing on the westbound right turn lane.

STUDY AREA

The study area intersections are consistent with the locations evaluated in the traffic study with the exception of the Project driveways. As the Project driveways would not exist for the construction period, they have been excluded from the E+P (Construction Traffic) analysis. However, it is anticipated that the staging area for the construction activity would be located near the intersection of Cosmos Street and Krameria Avenue. As such, the intersection of Cosmos Street and Krameria Avenue have been evaluated in conjunction with the off-site intersections from the Traffic Study.

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

ANALYSIS METHODOLOGY

The analysis methodologies discussed in the Traffic Study have also been utilized to evaluate the intersections, roadway segments, free-way off-ramp queues, freeway mainline segments, and freeway merge/diverge ramp junctions for E+P (Construction Traffic) conditions.

PROJECT TRIP GENERATION

In order to estimate the traffic characteristics associated with the construction period of the proposed Project, trip generation has been estimated based on the schedule of construction activities. Per the City of Moreno Valley's Municipal Code, Section 11.80.030 (D) (7) and Section 8.21.050, general construction is permitted between the hours of 7:00 AM and 8:00 PM on any day, and grading activities are limited to 7:00 AM to 6:00 PM Monday through Friday and between 8:00 AM and 4:00 PM on weekends and holidays or as approved by the City Engineer. As such, the majority of employees are anticipated to arrive to the site prior to the morning peak period (before 7:00 AM), but are anticipated to depart around 4 PM during the evening peak period. It is anticipated that trucks would come and go during all hours throughout the construction period.

During the 13-month construction period, Table 1 shows the most conservative scenario based on the anticipated schedule of construction activities, which is anticipated to occur approximately in early 2017. In other words, the construction activities that are anticipated to occur concurrently around January 2017 are likely to generate the most conservative number of total vehicle (PCE) trips during the construction period. As such in an effort to conduct a conservative analysis and overstate, as oppsed to understate potential construction-related traffic impacts, the highest trip generation has been evaluated based on the worst-case combination of construction activities.

Based on the scenario with the most conservative construction activities, trip generation for the construction period has been estimated to generate approximately 2,427 trip ends per day with 110 AM peak hour trips and 422 PM peak hour trips (see Table 2). However, consistent with analysis conducted in the Traffic Study, the passenger car equivalent (PCE) trip generation has been utilized for the purposes of this analysis. As shown on Table 3, the Project is anticipated to generate approximately 4,239 PCE trip ends per day with 182 PCE AM peak hour trips and 494 PCE PM peak hour trips.

TABLE 1: CONSTRUCTION ACTIVITIES, JANUARY 2017

Construction Activity	Employee (2-Way) Trips	Medium-Heavy Duty Vendor Truck (2-Way) Trips	Heavy-Heavy Duty Vendor Truck (2-Way) Trips
Roof/Overhead Work Building 1	125	416	0
Architectural Coatings Building 1	213	0	0
Paving Building 1	10	0	46
Miscellaneous Finishes Building 2	40	416	0
Architectural Coatings Building 3	213	0	0
Miscellaneous Finishes Building 3	40	416	0
Paving Building 3	8	0	28
Roof/Overhead Work Building 4	40	416	0
Totals	**689**	**1,664**	**74**

Source: Table 3-4, Schedule of Construction Activities from Moreno Valley Logistics Center Air Quality
Note: Heavy-heavy duty vendor truck trips are associated with night-time pours and are not anticipated to occur during the peak hours.

PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute.

The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for both passenger cars and truck traffic. The trip distribution patterns for passenger cars (employees) are anticipated to be coming from either the Los Angeles or Inland Empire basin. As such, it is anticipated they would utilize the I-215 Freeway via Cactus Avenue or Harley Knox Avenue or Perris Boulevard via the SR-60 Freeway to access the site. Similarly, the truck traffic trip distribution patterns have also been based on the anticipated subcontractor base within the region. The Project trip distribution patterns for both passenger cars and trucks were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, and the site's proximity to the regional arterial and state highway system.

Exhibit 2 shows the employee trip distribution patterns and Exhibit 3 illustrates the truck trip distribution patterns.

PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified construction traffic generation and trip distribution patterns, Project (Construction) peak hour intersection volumes and estimated daily link traffic volumes are indicated on Exhibit 4.

E+P CONDITIONS

The E+P conditions analysis determines the traffic impacts based on a comparison of the E+P (Construction Traffic) conditions to Existing (2015) conditions. E+P traffic forecasts include existing traffic plus construction project traffic. E+P (Construction Traffic) peak hour intersection volumes and daily link traffic are illustrated on Exhibit 5.

INTERSECTION OPERATIONS ANALYSIS

As shown on Table 4, the addition of construction traffic for E+P conditions is anticipated to result in the following intersection deficiencies (i.e., LOS E or worse):

ID	Intersection Location
12	Heacock Street / Gentian Avenue – LOS F PM peak hour only
13	Heacock Street / Iris Avenue – LOS F PM peak hour only
16	Heacock Street / San Michele Road – LOS E PM peak hour only

It should be noted that the intersections of Heacock Street at Gentian Avenue and Heacock Street at Iris Avenue are currently operating at deficient LOS during the peak hours. A summary of the peak hour intersection LOS for E+P (Construction Traffic) conditions are shown on Exhibit 6.

E+P intersection operations analysis worksheets are provided in Attachment A.

ROADWAY SEGMENT CAPACITY ANALYSIS

The City of Moreno Valley, and where applicable the City of Perris, stated roadway segment capacities are approximate figures only, and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet future traffic demand.

Table 5 provides a summary of the E+P (Construction Traffic) conditions roadway segment capacity analysis based on the City of Moreno Valley and City of Perris General Plan Circulation Element Roadway Segment Capacity/(LOS) Thresholds identified on Table 2-3 of the Traffic Study. As shown on Table 5, the following additional roadway segments are anticipated to operate at an unacceptable LOS under E+P (Construction Traffic) conditions:

ID	Street	Segment
34	Heacock Street	South of Gentian Avenue – LOS F
35		North of Iris Avenue – LOS E

The segment of Heacock Street, south of Gentian Avenue currently operates at LOS F under Existing traffic conditions.

OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the I-215 Freeway and Cactus Avenue and Harley Knox Boulevard interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-215 Freeway mainline. Queuing analysis findings are presented in Table 6 for E+P (Construction Traffic) conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline.

As shown on Table 6, consistent with Existing traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for E+P (Construction Traffic) conditions. Worksheets for E+P (Construction Traffic) conditions off-ramp queuing analysis are provided in Attachment B.

TRAFFIC SIGNAL WARRANT ANALYSIS

The following study area intersections were found to currently meet peak hour volume based traffic signal warrants under Existing traffic conditions, as presented in the Traffic Study:

ID	Intersection Location
7	Western Way / Harley Knox Boulevard
10	Heacock Street / Gentian Avenue
11	Indian Street / Iris Avenue

There are no additional study area intersections are anticipated to warrant traffic signals under E+P (Construction Traffic), in addition to those previously warranted under Existing traffic conditions (see Attachment C.

BASIC FREEWAY SEGMENT ANALYSIS

E+P (Construction Traffic) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 7. As shown on Table 7, the basic freeway segments analyzed for this study are anticipated to operate at an acceptable LOS (i.e., LOS C or better) during the peak hours, with the addition of construction traffic. E+P (Construction Traffic) basic freeway segment analysis worksheets are provided in Attachment D.

FREEWAY MERGE DIVERGE ANALYSIS

Ramp merge and diverge operations were also evaluated for E+P (Construction Traffic) conditions and the results of this analysis are presented in Table 8. As shown in Table 8, the freeway ramp merge and diverge areas are anticipated to operate at acceptable LOS (i.e., LOS D or better). E+P (Construction Traffic) freeway ramp junction operations analysis worksheets are provided in Attachment E.

CONSTRUCTION IMPACTS & MITIGATION MEASURES

RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Improvements necessary to reduce project-related traffic impacts to less-than-significant are also discussed below. The effectiveness of the proposed recommended mitigation measures are presented in Table 9 for E+P (Construction Traffic) conditions. As shown on Table 9, the recommended improvements for each of the impacted intersections are the same for Existing traffic conditions from the Traffic Study, with the exception of the intersection of Heacock Street and San Michele Road. With the implementation of the intersection mitigation measures discussed below, there are no project-related impacts anticipated to the study area intersections.

Potential Impact 1.1 – Heacock Street / Gentian Avenue (#12) – Although this intersection was found to operate at an unacceptable LOS (LOS F) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of construction traffic. As such, the impact is considered cumulatively significant (Impact 1.1).

Mitigation Measure 1.1 – Heacock Street / Gentian Avenue (#12) – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.

Potential Impact 2.1 – Heacock Street / Iris Avenue (#13) – Although this intersection was found to operate at an unacceptable LOS (LOS E) during the PM peak hour under Existing traffic conditions, the intersection is anticipated to continue to operate at unacceptable levels during one or more of the peak hours with the addition of construction traffic. As such, the impact is considered cumulatively significant (Impact 2.1).

Mitigation Measure 2.1 – Heacock Street / Iris Avenue (#13) – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's cumulative impact to less-than-significant:

- Payment of the Project's DIF fees to be applied towards the installation of a traffic signal to improve the existing deficiency.

Potential Impact 3.1 – Heacock Street / San Michele Road (#18) – This intersection was found to operate at acceptable LOS (LOS D or better) during the peak hours under Existing traffic conditions, however, the addition of construction traffic is anticipated to result in deficient peak hour operations during the PM peak hour only. As such, the impact is considered significant (Impact 3.1).

Mitigation Measure 3.1 – ***Heacock Street / San Michele Road (#18)*** – The following improvement is necessary to reduce the Project's proportionate increase in delay to pre-project levels or better, thus reducing the Project's impact to less-than-significant:

- Modify the existing traffic signal to implement overlap phasing on the westbound right turn lane.

Worksheets for E+P (Construction Traffic) conditions, with improvements, HCM calculation worksheets are provided in Attachment F.

RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON ROADWAY SEGMENTS

As shown on Table 9, the E+P (Construction Traffic) peak hour analysis indicates that the adjacent study area intersections on either side of the deficient roadway segments are anticipated to operate at acceptable LOS with the recommended intersection improvements shown. As such, roadway segment widening does not appear necessary to address the deficiencies at the identified roadway segments.

RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously on Table 6, there are no peak hour queuing issues at the I-215 Freeway at Cactus Avenue or Harley Knox Boulevard interchanges for E+P (Construction Traffic) conditions. As such, no improvements have been recommended.

RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously on Tables 7 and 8, there are no deficient freeway mainline segments or merge/diverge ramp junctions anticipated for E+P (Construction Traffic) conditions. As such, no improvements have been recommended.

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Aric Evatt, PTP
President

Charlene So, PE
Senior Transportation Engineer

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 2

Project Construction Trip Generation Summary (without PCE)[2]

Construction Activity	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Roof/Overhead 1							
Employee Trips:	6	1	6	6	57	63	125
Vendor Truck Trips (3-Axle):	10	10	19	10	10	19	416
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Architectural Coatings 1							
Employee Trips:	10	1	11	11	96	107	213
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Paving 1							
Employee Trips:	0	0	1	1	5	5	10
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	46
Miscellaneous Finishes 2							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	10	10	19	10	10	19	416
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Architectural Coatings 3							
Employee Trips:	10	1	11	11	96	107	213
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Micellaneous Finishes 3							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	10	10	19	10	10	19	416
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Paving 3							
Employee Trips:	0	0	0	0	4	4	8
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	28
Roof/Overhead 4							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	10	10	19	10	10	19	416
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
TOTAL (without PCE)	**69**	**41**	**110**	**73**	**350**	**422**	**2,427**

[1] Heavy heavy duty (4+-Axle) vendor truck trips are related to night-time pours and are anticipated to occur after 6 PM.

[2] The trip generation in this table has been provided for informational purposes only.
The trip generation shown in Table 2 has been utilized forthe purposes of this analysis.

Table 3

Project Construction Trip Generation Summary (in PCE)

Construction Activity[2]	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Roof/Overhead 1							
Employee Trips:	6	1	6	6	57	63	125
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Architectural Coatings 1							
Employee Trips:	10	1	11	11	96	107	213
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Paving 1							
Employee Trips:	0	0	1	1	5	5	10
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	138
Miscellaneous Finishes 2							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Architectural Coatings 3							
Employee Trips:	10	1	11	11	96	107	213
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Micellaneous Finishes 3							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
Paving 3							
Employee Trips:	0	0	0	0	4	4	8
Vendor Truck Trips (3-Axle):	0	0	0	0	0	0	0
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	84
Roof/Overhead 4							
Employee Trips:	2	0	2	2	18	20	40
Vendor Truck Trips (3-Axle):	19	19	38	19	19	38	832
Vendor Truck Trips (4+-Axle):[1]	0	0	0	0	0	0	0
TOTAL (in PCE)	**107**	**79**	**186**	**111**	**388**	**498**	**4,239**

[1] Heavy heavy duty (4+-Axle) vendor truck trips are related to night-time pours and are anticipated to occur after 6 PM.

[2] PCE factors of 2.0 utilized for 3-Axle and 3.0 utlized for 4+-Axle heavy trucks.

Table 4

Intersection Analysis for E+P (Construction Traffic) Conditions

			Existing (2015)[1]				E+P (Construction Traffic)			
			Delay[2] (secs.)		Level of Service		Delay[2] (secs.)		Level of Service	
#	Intersection	Traffic Control[3]	AM	PM	AM	PM	AM	PM	AM	PM
1	I-215 SB Ramps / Cactus Av	TS	14.4	39.0	B	D	14.6	51.7	B	D
2	I-215 SB Ramps / Harley Knox Bl	TS	33.8	31.2	C	C	33.9	37.8	C	D
3	I-215 NB Ramps / Cactus Av	TS	19.1	13.7	B	B	19.4	14.9	B	B
4	I-215 NB Ramps / Harley Knox Bl	TS	13.6	17.0	B	B	14.1	18.0	B	B
5	Elsworth St / Cactus Av	TS	38.9	30.2	D	C	38.9	30.2	D	C
6	Frederick St / Cactus Av	TS	24.9	21.9	C	C	25.2	22.9	C	C
7	Western Wy / Harley Knox Bl	CSS	12.0	12.1	B	B	12.3	14.1	B	B
8	Graham St / Cactus Av	TS	21.3	24.5	C	C	22.6	25.2	C	C
9	Patterson Av / Harley Knox Bl	TS	27.6	26.3	C	C	35.8	51.1	D	D
10	Heacock St / Cactus Av	TS	34.3	18.6	C	B	38.0	32.1	D	C
11	Heacock St / John F. Kennedy Dr	TS	23.3	21.8	C	C	25.5	23.3	C	C
12	Heacock St / Gentian Av	CSS	22.8	**58.0**	C	**F**	25.4	**78.6**	D	**F**
13	Heacock St / Iris Av	AWS	15.2	**37.5**	C	**E**	16.7	**53.4**	C	**F**
14	Heacock St / Krameria Av (North)	TS	11.1	9.0	B	A	14.7	20.2	B	C
15	Heacock St / Cardinal Av	CSS	9.0	13.4	A	B	9.2	18.0	A	C
16	Heacock St / San Michele Rd	TS	25.6	39.5	C	D	28.2	**65.7**	C	**E**
17	Heacock St / Nandina Av	CSS	8.4	8.6	A	A	8.4	8.6	A	A
18	Webster Av / Harley Knox Bl	CSS	10.0	10.1	B	B	10.4	10.3	B	B
19	Cosmos St / Krameria Av (North)	CSS	9.8	9.3	A	A	9.8	12.7	A	B
20	Cosmos St / Krameria Av	**AWS**	Future Intersection				8.1	11.5	A	B
21	Indian St / Krameria Av	AWS	10.7	9.2	B	A	10.8	9.8	B	A
22	Indian St / San Michele Rd	TS	29.3	35.8	C	D	31.3	36.4	C	D
23	Indian St / Nandina Av	TS	18.4	19.9	B	B	20.2	20.1	C	C
24	Indian St / Harley Knox Bl	TS	17.0	24.2	B	C	19.1	51.5	B	D
25	Perris Bl / Cactus Av	TS	24.8	32.4	C	C	24.8	32.6	C	C
26	Perris Bl / Krameria Av	TS	31.2	22.9	C	C	31.2	30.6	C	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Delay and LOS results are from the Moreno Valley Logistics Traffic Impact Analysis.

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal: AWS= All-way stop

Table 5

Page 1 of 2

Roadway Volume/Capacity Analysis for E+P (Construction Traffic) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015[4]	V/C[2]	LOS[3]	E+P (Construction Traffic)	V/C[2]	LOS[3]	Acceptable LOS
1	Cactus Avenue	I-215 SB Ramps to I-215 NB Ramps	4D	37,500	25,080	0.67	B	25,903	0.69	B	D
2		East of I-215 NB Ramps	4D	37,500	31,154	0.83	D	32,801	0.87	D	D
3		West of Elsworth Street	6D	56,300	34,154	0.61	B	35,801	0.64	B	D
4		East of Elsworth Street	6D	56,300	31,029	0.55	A	32,676	0.58	A	D
5		West of Frederick Street	5D	46,900	32,583	0.69	B	34,230	0.73	C	D
6		East of Frederick Street	5D	46,900	35,981	0.77	C	37,628	0.80	C	D
7		West of Graham Street	5D	46,900	36,044	0.77	C	37,691	0.80	C	D
8		East of Graham Street	5D	46,900	31,120	0.66	B	32,767	0.70	B	D
9		West of Heacock Street	5D	46,900	35,778	0.76	C	37,425	0.80	C	D
10		East of Heacock Street	4D	37,500	19,360	0.52	A	19,360	0.52	A	C
11		West of Perris Boulevard	4D	37,500	15,973	0.43	A	15,973	0.43	A	C
12	Krameria Avenue	Heacock Street to Cosmos Street	2U	12,500	1,076	0.09	A	5,177	0.41	A	D
13		Cosmos Street to Indian Street	2U	12,500	620	0.05	A	2,719	0.22	A	D
17		East of Indian Street	2D	18,750	3,716	0.20	A	3,854	0.21	A	D
18		West of Perris Boulevard	2U	12,500	3,040	0.24	A	3,178	0.25	A	D
19	Cardinal Avenue	East of Heacock Street	2U	12,500	46	0.00	A	46	0.00	A	C
20	San Michele Road	East of Heacock Street	2D	18,750	4,269	0.23	A	6,368	0.34	A	D
21		West of Indian Street	2D	18,750	10,411	0.56	A	12,510	0.67	B	D
22	Harley Knox Boulevard	I-215 SB Ramps to I-215 NB Ramps	4D	35,900	11,390	0.32	A	12,440	0.35	A	D
23		I-215 NB Ramps to Western Way	4D	35,900	17,815	0.50	A	19,915	0.55	A	D
24		East of Western Way	4U	25,900	13,901	0.54	A	16,000	0.62	B	D
25		West of Patterson Avenue	4U	25,900	11,444	0.44	A	13,543	0.52	A	D
26		East of Patterson Avenue	2D	18,000	10,492	0.58	A	12,591	0.70	B	D
27		West of Webster Avenue	2D	18,000	9,144	0.51	A	11,243	0.62	B	D
28		East of Webster Avenue	2D	18,000	9,156	0.51	A	11,255	0.63	B	D
29		West of Indian Street	3D	26,925	11,624	0.43	A	13,723	0.51	A	D

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Table 5
Page 2 of 2

Roadway Volume/Capacity Analysis for E+P (Construction Traffic) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2015[4]	V/C[2]	LOS[3]	E+P (Construction Traffic)	V/C[2]	LOS[3]	Acceptable LOS
30	Heacock Street	South of Cactus Avenue	4D	37,500	24,824	0.66	B	26,827	0.72	C	D
31		North of John F. Kennedy Drive	4D	37,500	22,764	0.61	B	24,766	0.66	B	D
32		South of John F. Kennedy Drive	4D	37,500	21,272	0.57	A	23,274	0.62	B	D
33		North of Gentian Avenue	3D	28,150	19,047	0.68	B	21,049	0.75	C	D
34		South of Gentian Avenue	2U	12,500	**17,054**	**1.36**	**F**	**19,056**	**1.52**	**F**	D
35		North of Iris Avenue	2D	18,750	16,730	0.89	D	**18,732**	**1.00**	**E**	D
36		Iris Avenue to Krameria Avenue (N)	2U	12,500	9,113	0.73	C	11,115	0.89	D	D
37		Krameria Avenue (N) to Cardinal Avenue	3D	28,150	8,516	0.30	A	10,615	0.38	A	D
40		Cardinal Avenue to San Michele Road	3D	28,150	7,400	0.26	A	9,499	0.34	A	D
41		San Michele Road to Nandina Avenue	2D	18,750	3,427	0.18	A	3,427	0.18	A	D
42		South of Nandina Avenue	2U	12,500	228	0.02	A	228	0.02	A	D
43		North of Harley Knox Boulevard	2U	13,000	0	0.00	A	0	0.00	A	D
44	Cosmos Street	Krameria Avenue (N) to Krameria Avenue	2U	12,500	620	0.05	A	4,721	0.38	A	D
45	Indian Street	San Michele Road to Nandina Avenue	4D	37,500	10,793	0.29	A	12,892	0.34	A	D
46		South of Nandina Avenue	2D	18,750	12,523	0.67	B	14,622	0.78	C	D
47		North of Harley Knox Boulevard	4D	35,900	13,201	0.37	A	15,300	0.43	A	D

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities have been obtained from the City of Moreno Valley's Transportation Division's Traffic Impact Analysis Preparation Guidelines (August 2007), Table CE-9 of the City of Perris General Plan Circulation Element, or Figure C-2 of the County of Riverside General Plan Circulation Element.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

[4] V/C and LOS results are from the Moreno Valley Logistics Traffic Impact Analysis.

Table 6

Peak Hour Off-Ramp Queuing Analysis for E+P (Construction Traffic) Conditions

Intersection	Movement	Stacking Distance (Feet)	95th Percentile Stacking Distance Required (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Ramps / Cactus Av.						
	NBR	1,850	69	325	Yes	Yes
	SBR	1,115	87	0	Yes	Yes
I-215 SB Ramps / Harley Knox Bl.						
	SBL/T	1,330	396	351	Yes	Yes
	SBR	270	43	58	Yes	Yes
I-215 NB Ramps / Cactus Av.						
	NBL	145	321 [2]	26	Yes[3]	Yes
	NBT	1,650	164	26	Yes	Yes
I-215 NB Ramps / Harley Knox Bl.						
	NBL/T	1,120	13	22	Yes	Yes
	NBR	265	54	56	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[3] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound left turn lane without spilling back and affecting the I-215 Freeway mainline.

Table 7

Basic Freeway Segment Analysis for E+P Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Existing (2015)				E+P (Construction Traffic)			
				Density[2]		LOS		Density[2]		LOS	
				AM	PM	AM	PM	AM	PM	AM	PM
I-215 Freeway	SB	North of Cactus Avenue	4	19.9	22.5	C	C	20.1	22.7	C	C
		South of Cactus Avenue	4	18.6	21.5	C	C	18.7	21.6	C	C
		North of Harley Knox Boulevard	3	13.4	20.5	B	C	13.5	20.7	B	C
		South of Harley Knox Boulevard	3	11.4	18.1	B	C	11.5	18.5	B	C
	NB	North of Cactus Avenue	4	10.9	10.0	A	A	11.1	10.6	B	A
		South of Cactus Avenue	4	14.6	10.6	B	A	14.7	10.8	B	A
		North of Harley Knox Boulevard	3	22.0	17.1	C	B	22.1	17.4	C	B
		South of Harley Knox Boulevard	3	19.6	14.6	C	B	19.9	14.7	C	B

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 8

Freeway Ramp Junction Merge/Diverge Analysis for E+P (Construction Traffic) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				E+P (Construction Traffic)			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Loop Off-Ramp at Cactus Avenue - Upstream	4	26.9	C	30.2	D	27.3	C	30.7	D
		Loop Off-Ramp at Cactus Avenue - Downstream	4	26.9	C	30.2	D	27.3	C	30.7	D
		Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C	20.3	C	27.7	C
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.6	C	15.3	B	22.1	C
	NB	On-Ramp at Cactus Avenue	3	20.2	C	19.8	B	20.4	C	20.7	C
		On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C	25.9	C	22.2	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B	25.3	C	20.1	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Table 9

Intersection Analysis for E+P (Construction Traffic) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
12	Heacock St / Gentian Av																	
	- Existing (2015)	CSS	0	1	1	1	1	0	0	0	0	0	1	d	22.8	**58.0**	C	**F**
	With Improvements	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	12.4	14.7	B	B
	- E+P (Construction Traffic)	CSS	0	1	1	1	1	0	0	0	0	0	1	d	25.4	**78.6**	D	**F**
	With Improvements	**TS**	0	1	1	1	1	0	0	0	0	0	1	d	19.9	15.8	B	B
13	Heacock St / Iris Av																	
	- Existing (2015)	AWS	0	1	0	1	1	0	0	0	0	1	0	d	15.2	**37.5**	C	**E**
	With Improvements	**TS**	0	1	0	1	1	0	0	0	0	1	0	d	26.7	38.5	C	D
	- E+P (Construction Traffic)	AWS	0	1	0	1	1	0	0	0	0	1	0	d	16.7	**53.4**	C	**F**
	With Improvements	**TS**	0	1	0	1	1	0	0	0	0	1	0	d	32.4	47.2	C	D
16	Heacock St / San Michele Rd																	
	- Existing (2015)	TS	1	1	1	1	1	1	1	1	1	1	1	1	25.6	39.5	C	D
	With Improvements		Improvements Not Necessary															
	- E+P (Construction Traffic)	TS	1	1	1	1	1	1	1	1	1	1	1	1	28.2	**65.7**	C	**E**
	With Improvements	TS	1	1	1	1	1	1	1	1	1	1	1	**1>**	16.9	20.7	B	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for rig turning vehicles to travel outside the through lanes

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal o all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (o movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

EXHIBIT 1: LOCATION MAP

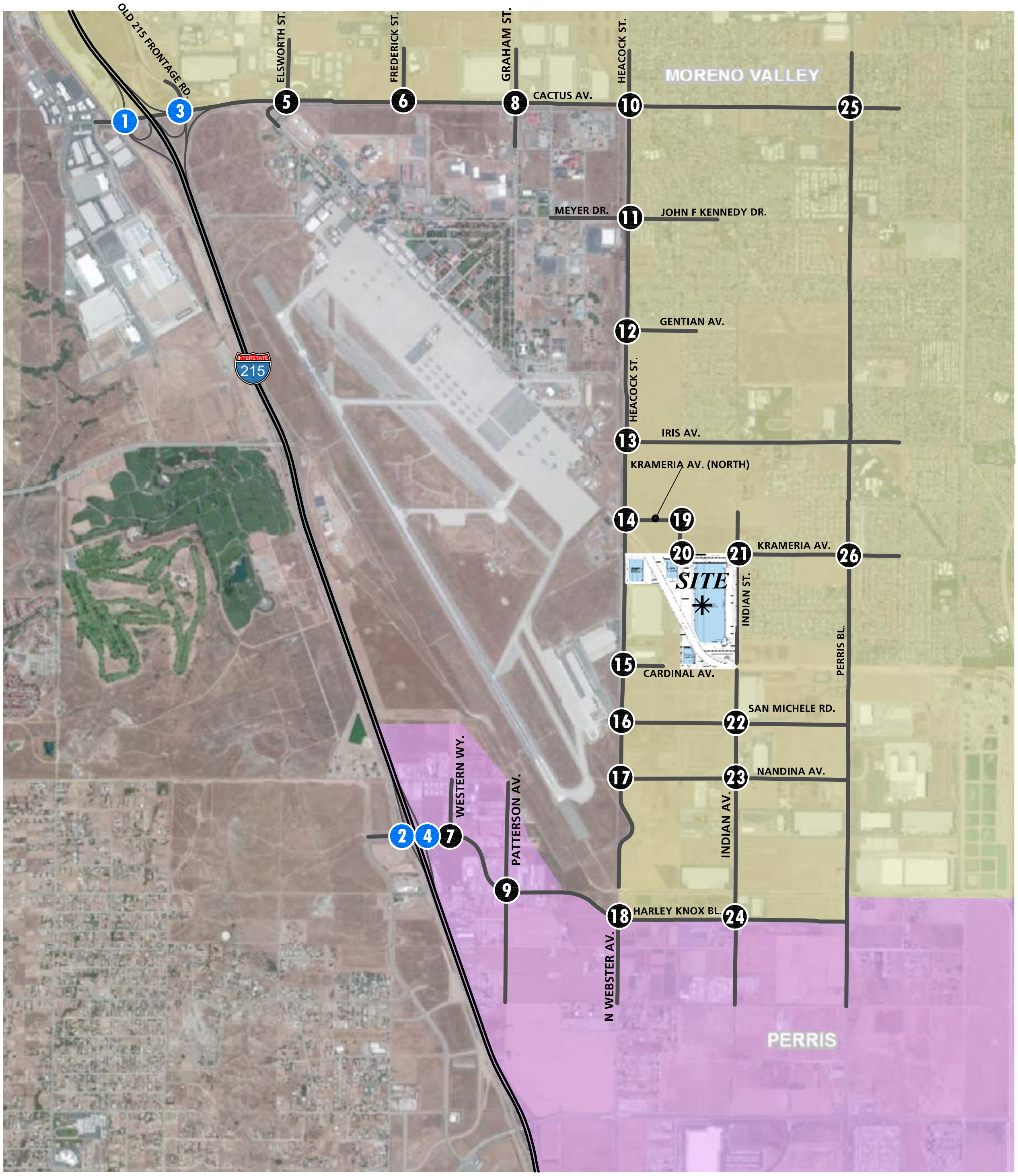

LEGEND:

0 = EXISTING INTERSECTION ANALYSIS LOCATION

0 = RIVERSIDE COUNTY CMP INTERSECTION ANALYSIS LOCATION

N

EXHIBIT 2 : EMPLOYEE TRIP DISTRIBUTION

LEGEND:

10 = PERCENT TO/FROM PROJECT

EXHIBIT 3 : TRUCK TRIP DISTRIBUTION

LEGEND:

10 = PERCENT TO/FROM PROJECT

09301 - tripsconst2.dwg

EXHIBIT 4 (1 OF 2): PROJECT (CONSTRUCTION TRAFFIC) TRAFFIC VOLUMES (IN PCE)

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EXHIBIT 4 (2 OF 2): PROJECT (CONSTRUCTION TRAFFIC) TRAFFIC VOLUMES (IN PCE)

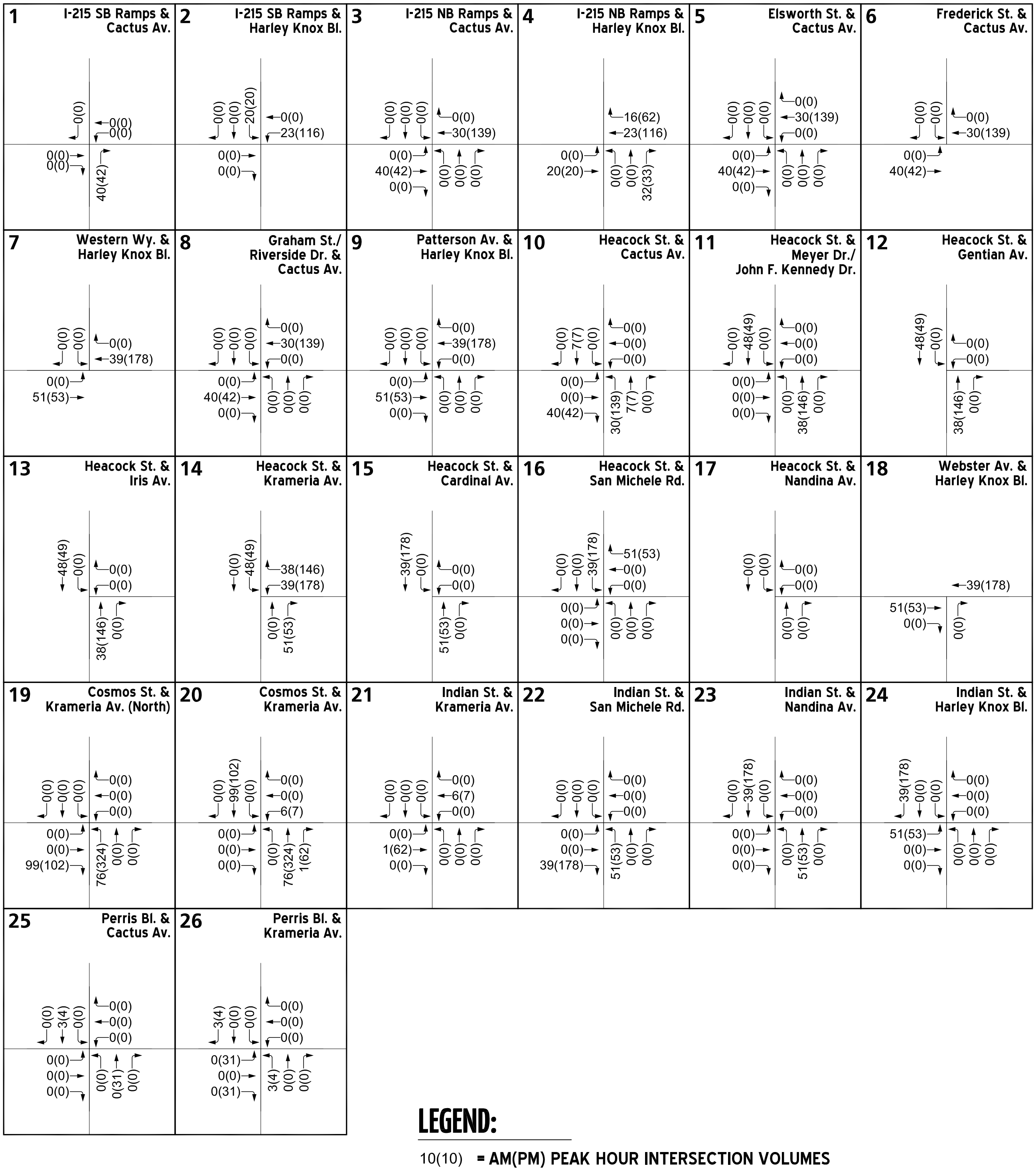

EXHIBIT 5 (1 OF 2): E+P (CONSTRUCTION TRAFFIC) TRAFFIC VOLUMES (IN PCE)

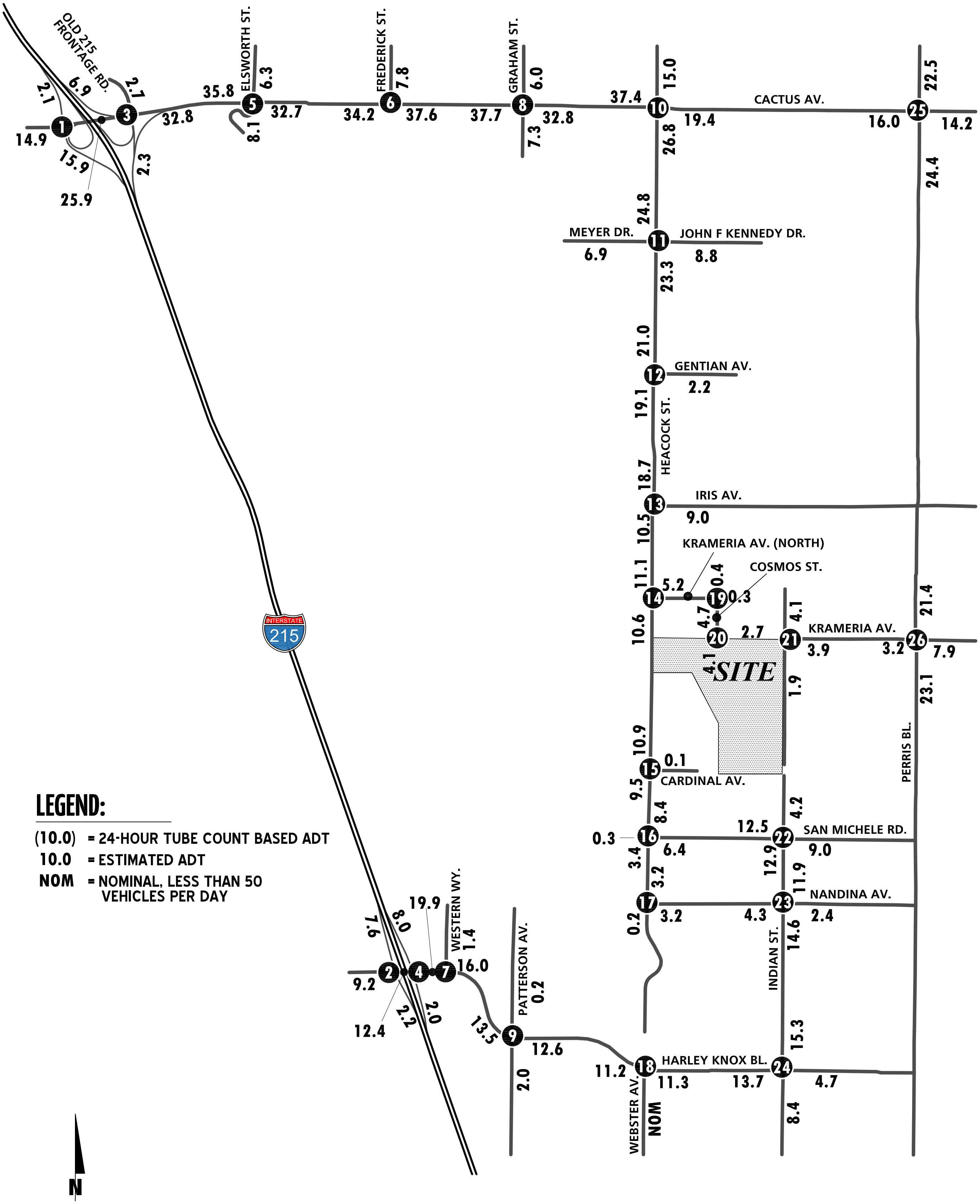

LEGEND:

(10.0) = 24-HOUR TUBE COUNT BASED ADT
10.0 = ESTIMATED ADT
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

09301 - adtconst.dwg

EXHIBIT 5 (2 OF 2): E+P (CONSTRUCTION TRAFFIC) TRAFFIC VOLUMES (IN PCE)

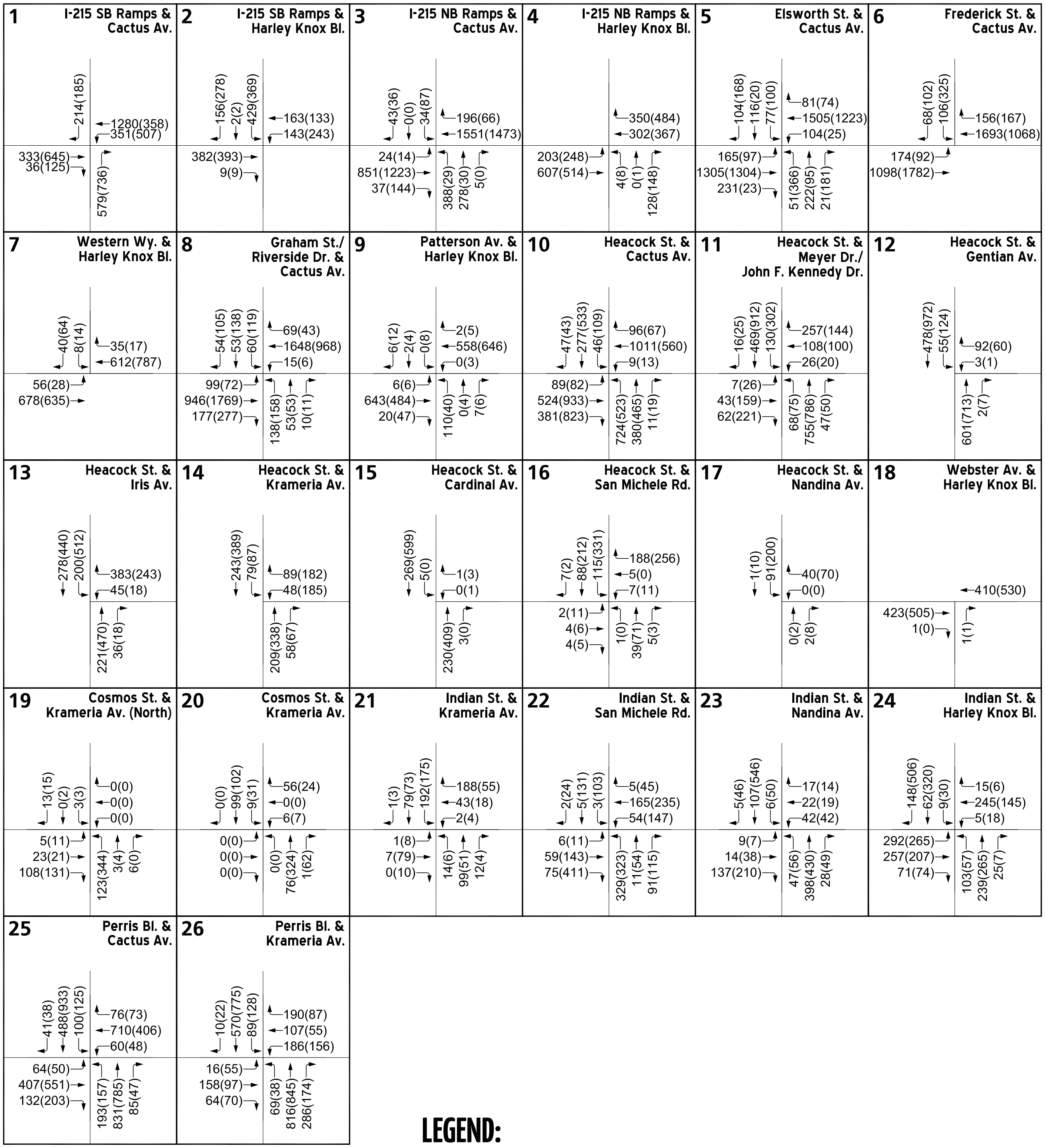

LEGEND:

10(10) **= AM(PM) PEAK HOUR INTERSECTION VOLUMES**

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EXHIBIT 6: SUMMARY OF PEAK HOUR INTERSECTION LOS FOR E+P (CONSTRUCTION TRAFFIC) CONDITIONS

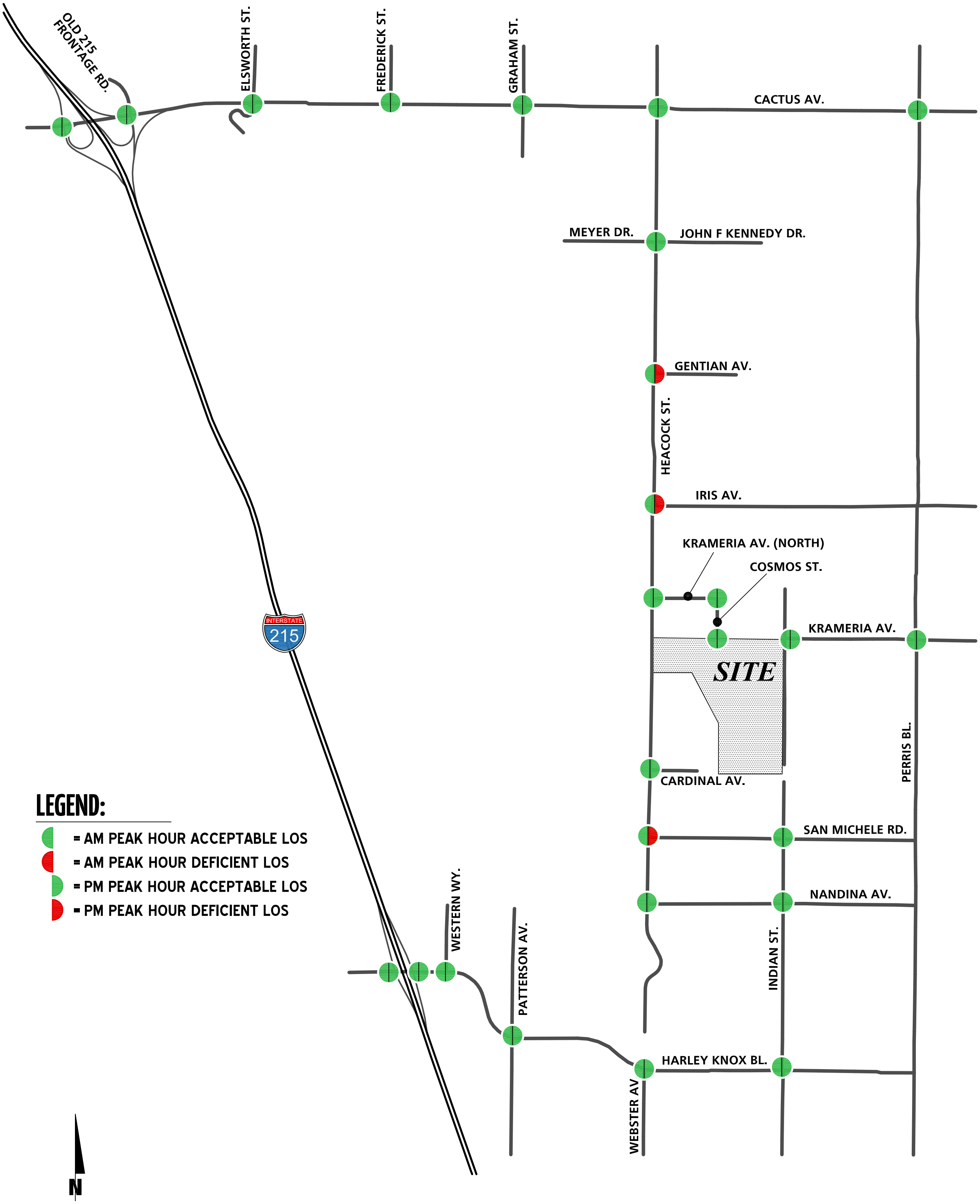

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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EXHIBIT 7: E+P (CONSTRUCTION TRAFFIC) FREEWAY MAINLINE VOLUMES

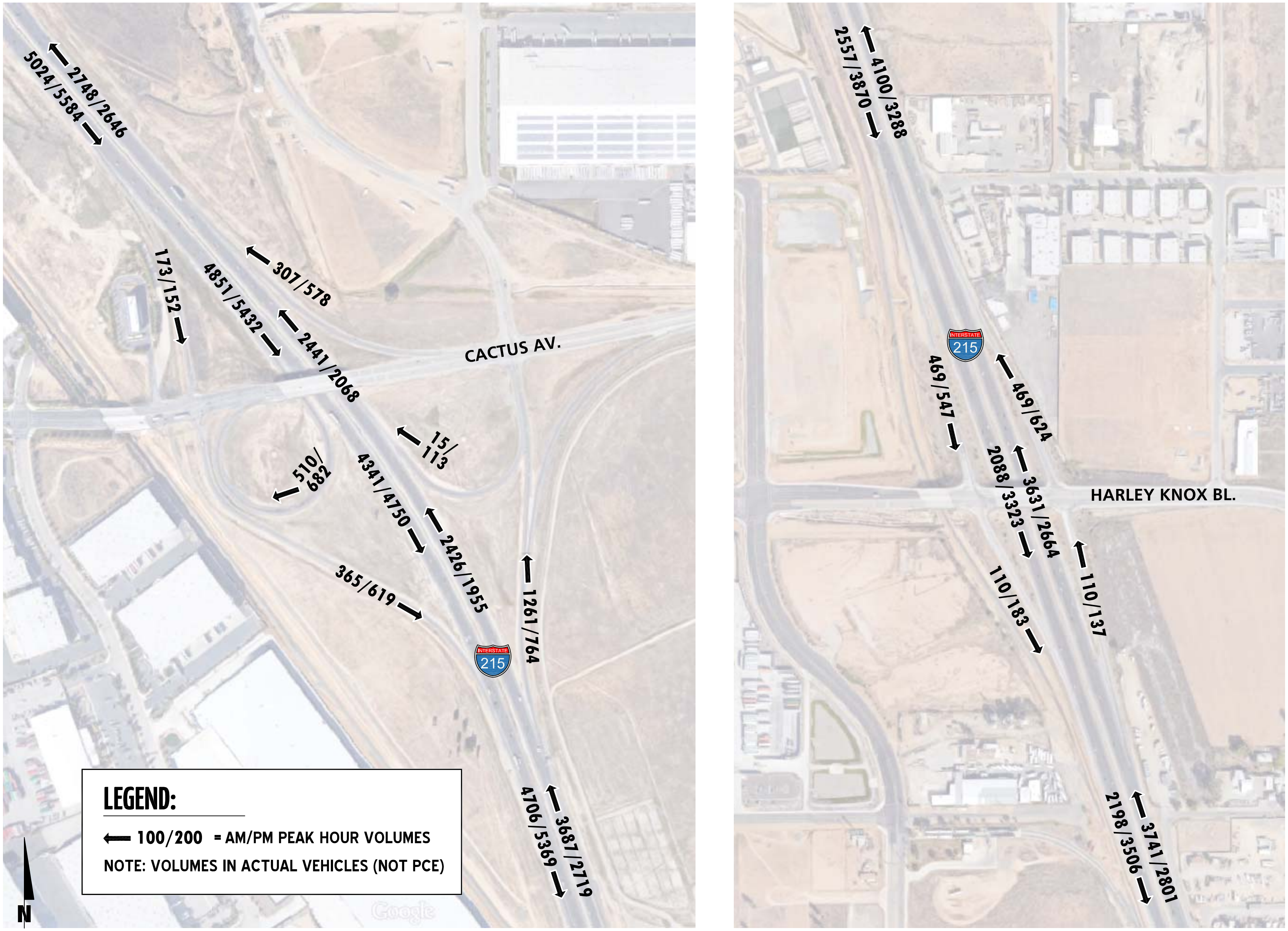

09301 - freewayconst.dwg

ATTACHMENT A
E+P (CONSTRUCTION TRAFFIC) CONDITIONS INTERSECTION OPERATIONS WORKSHEETS

HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

11/11/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Traffic Volume (vph)	0	333	36	351	1280	0	0	0	579	0	0	214
Future Volume (vph)	0	333	36	351	1280	0	0	0	579	0	0	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	351	38	369	1347	0	0	0	609	0	0	225
RTOR Reduction (vph)	0	0	23	0	0	0	0	0	538	0	0	101
Lane Group Flow (vph)	0	351	15	369	1347	0	0	0	71	0	0	124
Confl. Bikes (#/hr)									2			2
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		23.2	23.2	14.7	41.9				7.0			8.6
Effective Green, g (s)		23.2	23.2	14.7	41.9				7.0			8.6
Actuated g/C Ratio		0.39	0.39	0.24	0.70				0.12			0.14
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		1469	734	465	2653				221			272
v/s Ratio Prot		0.09		c0.19	c0.35				0.04			c0.07
v/s Ratio Perm			0.01									
v/c Ratio		0.24	0.02	0.79	0.51				0.32			0.46
Uniform Delay, d1		12.4	11.4	21.2	4.2				24.3			23.6
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		0.4	0.1	8.5	0.7				0.3			0.4
Delay (s)		12.8	11.4	29.7	4.9				24.6			24.0
Level of Service		B	B	C	A				C			C
Approach Delay (s)		12.7			10.3			24.6			24.0	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd. 11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰	↱
Traffic Volume (veh/h)	0	382	9	143	163	0	0	0	0	429	2	156
Future Volume (veh/h)	0	382	9	143	163	0	0	0	0	429	2	156
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	406	5	152	173	0				456	2	102
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	918	390	632	2403	0				512	2	459
Arrive On Green	0.00	0.24	0.24	0.70	1.00	0.00				0.28	0.28	0.28
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1802	8	1615
Grp Volume(v), veh/h	0	406	5	152	173	0				458	0	102
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	10.9	0.3	3.7	0.0	0.0				29.1	0.0	5.8
Cycle Q Clear(g_c), s	0.0	10.9	0.3	3.7	0.0	0.0				29.1	0.0	5.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	918	390	632	2403	0				515	0	459
V/C Ratio(X)	0.00	0.44	0.01	0.24	0.07	0.00				0.89	0.00	0.22
Avail Cap(c_a), veh/h	0	918	390	632	2403	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	38.6	34.6	12.3	0.0	0.0				41.1	0.0	32.8
Incr Delay (d2), s/veh	0.0	1.5	0.1	0.1	0.1	0.0				7.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.9	0.1	1.8	0.0	0.0				15.6	0.0	2.6
LnGrp Delay(d),s/veh	0.0	40.2	34.7	12.4	0.1	0.0				48.5	0.0	33.0
LnGrp LOS		D	C	B	A					D		C
Approach Vol, veh/h		411			325						560	
Approach Delay, s/veh		40.1			5.8						45.7	
Approach LOS		D			A						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	46.9	34.0		39.1		80.9		
Change Period (Y+Rc), s	5.0	* 5		5.0		5.0		
Max Green Setting (Gmax), s	21.5	* 29		55.0		55.0		
Max Q Clear Time (g_c+I1), s	5.7	12.9		31.1		2.0		
Green Ext Time (p_c), s	0.7	1.4		3.0		0.8		

Intersection Summary	
HCM 2010 Ctrl Delay	33.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	24	851	37	0	1551	196	388	278	5	34	0	43
Future Volume (veh/h)	24	851	37	0	1551	196	388	278	5	34	0	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	868	32	0	1583	156	396	284	5	35	0	39
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	2040	75	0	1909	186	484	533	9	285	0	456
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.29	0.29	0.00	0.29
Sat Flow, veh/h	282	3642	134	0	3409	332	1390	1861	33	1107	0	1593
Grp Volume(v), veh/h	24	453	447	0	875	864	396	0	289	35	0	39
Grp Sat Flow(s),veh/h/ln	282	1900	1876	0	1900	1841	1390	0	1894	1107	0	1593
Q Serve(g_s), s	5.0	8.9	8.9	0.0	24.4	25.3	17.4	0.0	8.4	1.8	0.0	1.2
Cycle Q Clear(g_c), s	30.3	8.9	8.9	0.0	24.4	25.3	18.6	0.0	8.4	10.1	0.0	1.2
Prop In Lane	1.00		0.07	0.00		0.18	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	159	1064	1051	0	1064	1031	484	0	542	285	0	456
V/C Ratio(X)	0.15	0.43	0.43	0.00	0.82	0.84	0.82	0.00	0.53	0.12	0.00	0.09
Avail Cap(c_a), veh/h	159	1064	1051	0	1064	1031	484	0	542	285	0	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	8.3	8.3	0.0	11.7	11.9	24.3	0.0	19.5	23.8	0.0	17.0
Incr Delay (d2), s/veh	2.0	1.2	1.3	0.0	7.2	8.1	14.3	0.0	3.7	0.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	5.0	5.0	0.0	14.8	15.1	9.0	0.0	4.9	0.6	0.0	0.6
LnGrp Delay(d),s/veh	26.4	9.5	9.5	0.0	18.8	20.0	38.6	0.0	23.3	24.7	0.0	17.3
LnGrp LOS	C	A	A		B	B	D		C	C		B
Approach Vol, veh/h		924			1739			685			74	
Approach Delay, s/veh		10.0			19.4			32.1			20.8	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		32.3		12.1		27.3		20.6
Green Ext Time (p_c), s		3.4		1.1		6.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)

4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 11/11/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Traffic Volume (veh/h)	203	607	0	0	302	350	4	0	128	0	0	0
Future Volume (veh/h)	203	607	0	0	302	350	4	0	128	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	221	660	0	0	328	345	4	0	53			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	247	2755	0	0	2126	904	347	0	310			
Arrive On Green	0.27	1.00	0.00	0.00	0.56	0.56	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1615	1809	0	1615			
Grp Volume(v), veh/h	221	660	0	0	328	345	4	0	53			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1615	1810	0	1615			
Q Serve(g_s), s	14.1	0.0	0.0	0.0	5.0	14.4	0.2	0.0	3.3			
Cycle Q Clear(g_c), s	14.1	0.0	0.0	0.0	5.0	14.4	0.2	0.0	3.3			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	247	2755	0	0	2126	904	347	0	310			
V/C Ratio(X)	0.90	0.24	0.00	0.00	0.15	0.38	0.01	0.00	0.17			
Avail Cap(c_a), veh/h	550	2755	0	0	2126	904	347	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.97	0.97	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.8	0.0	0.0	0.0	12.7	14.8	39.3	0.0	40.5			
Incr Delay (d2), s/veh	4.5	0.2	0.0	0.0	0.2	1.2	0.1	0.0	1.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.3	0.1	0.0	0.0	2.6	6.6	0.1	0.0	1.6			
LnGrp Delay(d),s/veh	47.3	0.2	0.0	0.0	12.9	16.0	39.4	0.0	41.7			
LnGrp LOS	D	A			B	B	D		D			
Approach Vol, veh/h		881			673			57				
Approach Delay, s/veh		12.0			14.5			41.6				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			19.9	72.1		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			16.1	16.4		5.3
Green Ext Time (p_c), s		5.0			0.3	4.9		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	14.1
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary
5: March AFB/Elsworth Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)

11/11/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	↰↑↱		↰	↰↑	↱
Traffic Volume (veh/h)	165	1305	231	104	1505	81	51	222	21	77	116	104
Future Volume (veh/h)	165	1305	231	104	1505	81	51	222	21	77	116	104
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	1374	0	109	1584	77	54	234	1	81	122	56
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	158	2448	694	119	2324	659	445	465	2	152	159	275
Arrive On Green	0.09	0.43	0.00	0.07	0.41	0.41	0.25	0.25	0.25	0.08	0.08	0.08
Sat Flow, veh/h	1810	5700	1615	1810	5700	1615	1810	1890	8	1810	1900	1591
Grp Volume(v), veh/h	174	1374	0	109	1584	77	54	0	235	81	122	56
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	0	1898	1810	1900	1591
Q Serve(g_s), s	10.5	21.7	0.0	7.2	27.3	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Cycle Q Clear(g_c), s	10.5	21.7	0.0	7.2	27.3	3.6	2.8	0.0	12.8	5.2	7.5	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	2448	694	119	2324	659	445	0	467	152	159	275
V/C Ratio(X)	1.10	0.56	0.00	0.91	0.68	0.12	0.12	0.00	0.50	0.53	0.77	0.20
Avail Cap(c_a), veh/h	158	2448	694	119	2324	659	445	0	467	445	467	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.8	25.7	0.0	55.7	29.1	22.1	35.2	0.0	38.9	52.7	53.8	42.7
Incr Delay (d2), s/veh	100.5	0.9	0.0	55.8	0.7	0.0	0.6	0.0	3.8	1.1	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	11.5	0.0	5.4	14.5	1.6	1.5	0.0	7.2	2.6	4.1	1.6
LnGrp Delay(d),s/veh	155.2	26.7	0.0	111.5	29.8	22.1	35.7	0.0	42.8	53.8	56.7	42.8
LnGrp LOS	F	C		F	C	C	D		D	D	E	D
Approach Vol, veh/h		1548			1770			289			259	
Approach Delay, s/veh		41.1			34.5			41.5			52.8	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.4	57.0		15.6	15.0	54.4		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	10.5	29.5		29.5
Max Q Clear Time (g_c+I1), s	9.2	23.7		9.5	12.5	29.3		14.8
Green Ext Time (p_c), s	0.0	6.9		0.5	0.0	0.1		0.8

Intersection Summary			
HCM 2010 Ctrl Delay			38.9
HCM 2010 LOS			D

Notes

6: Cactus Avenue & Frederick Street

11/11/2015

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	174	1098	1693	156	106	68
Future Volume (veh/h)	174	1098	1693	156	106	68
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	191	1207	1860	161	116	19
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	215	1995	1995	553	1221	737
Arrive On Green	0.12	0.52	0.35	0.35	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1579	3619	1615
Grp Volume(v), veh/h	191	1207	1860	161	116	19
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1579	1810	1615
Q Serve(g_s), s	8.3	17.7	25.2	5.9	1.8	0.5
Cycle Q Clear(g_c), s	8.3	17.7	25.2	5.9	1.8	0.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	215	1995	1995	553	1221	737
V/C Ratio(X)	0.89	0.61	0.93	0.29	0.09	0.03
Avail Cap(c_a), veh/h	215	1995	1995	553	1221	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.34	0.34	1.00	1.00
Uniform Delay (d), s/veh	34.7	13.2	25.1	18.8	18.1	12.0
Incr Delay (d2), s/veh	32.4	1.4	3.8	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	9.6	13.8	2.6	0.9	0.7
LnGrp Delay(d),s/veh	67.1	14.6	28.9	19.3	18.3	12.0
LnGrp LOS	E	B	C	B	B	B
Approach Vol, veh/h		1398	2021		135	
Approach Delay, s/veh		21.8	28.1		17.4	
Approach LOS		C	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	14.0	33.5		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		19.7		3.8	10.3	27.2		
Green Ext Time (p_c), s		15.9		0.2	0.0	0.8		

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

HCM 2010 TWSC
7: Harley Knox Blvd. & Western Way

Moreno Valley Logistics Center TIA (JN 09301)
11/11/2015

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	56	678	612	35	8	40
Future Vol, veh/h	56	678	612	35	8	40
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	62	753	680	39	9	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	680	0	-	0	1181	340
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	501	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	922	-	-	-	*330	662
Stage 1	-	-	-	-	*470	-
Stage 2	-	-	-	-	*780	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	922	-	-	-	*291	662
Mov Cap-2 Maneuver	-	-	-	-	*291	-
Stage 1	-	-	-	-	*470	-
Stage 2	-	-	-	-	*690	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	922	-	-	-	546
HCM Lane V/C Ratio	0.067	-	-	-	0.098
HCM Control Delay (s)	9.2	0.5	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Notes

~: Volume exceeds capacity $: Delay exceeds 300s   +: Computation Not Defined   *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↱		↰↰	↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	99	946	177	15	1648	69	138	53	10	60	53	54
Future Volume (veh/h)	99	946	177	15	1648	69	138	53	10	60	53	54
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	106	1017	0	16	1772	72	148	57	8	65	57	23
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	788	2984	1268	27	1920	78	170	1041	143	84	1207	1209
Arrive On Green	0.44	0.79	0.00	0.01	0.35	0.35	0.05	0.32	0.32	0.05	0.32	0.32
Sat Flow, veh/h	1810	3800	1615	1810	5440	221	3619	3271	449	1810	3800	1593
Grp Volume(v), veh/h	106	1017	0	16	1237	607	148	33	32	65	57	23
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1861	1810	1900	1820	1810	1900	1593
Q Serve(g_s), s	3.0	6.7	0.0	0.7	26.6	26.6	3.5	1.0	1.1	3.0	0.9	0.1
Cycle Q Clear(g_c), s	3.0	6.7	0.0	0.7	26.6	26.6	3.5	1.0	1.1	3.0	0.9	0.1
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	788	2984	1268	27	1341	657	170	605	579	84	1207	1209
V/C Ratio(X)	0.13	0.34	0.00	0.60	0.92	0.92	0.87	0.05	0.06	0.78	0.05	0.02
Avail Cap(c_a), veh/h	788	2984	1268	85	1341	657	170	605	579	85	1207	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.00	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	2.7	0.0	41.6	26.4	26.4	40.2	20.1	20.1	40.1	20.1	8.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.7	1.4	2.8	33.8	0.2	0.2	31.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.5	0.0	0.4	14.2	14.2	2.5	0.6	0.6	2.3	0.5	0.2
LnGrp Delay(d),s/veh	14.4	2.9	0.0	42.3	27.8	29.2	74.1	20.3	20.3	71.9	20.2	8.0
LnGrp LOS	B	A		D	C	C	E	C	C	E	C	A
Approach Vol, veh/h		1123			1860			213			145	
Approach Delay, s/veh		4.0			28.3			57.6			41.4	
Approach LOS		A			C			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	73.2	8.5	32.5	43.5	35.5	8.4	32.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	27.0
Max Q Clear Time (g_c+I1), s	2.7	8.7	5.5	2.9	5.0	28.6	5.0	3.1
Green Ext Time (p_c), s	0.0	4.3	0.0	0.4	0.0	1.0	0.0	0.4

Intersection Summary			
HCM 2010 Ctrl Delay			22.6
HCM 2010 LOS			C

Notes

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard

11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			✥			↰↑	↱
Traffic Volume (veh/h)	6	643	20	0	558	2	110	0	7	0	2	6
Future Volume (veh/h)	6	643	20	0	558	2	110	0	7	0	2	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	6	677	21	0	587	2	116	0	7	0	2	6
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	11	756	642	2	670	2	750	2	42	0	970	825
Arrive On Green	0.01	0.40	0.40	0.00	0.35	0.35	0.51	0.00	0.51	0.00	0.51	0.51
Sat Flow, veh/h	1810	1900	1615	1810	1892	6	1354	3	82	0	1900	1615
Grp Volume(v), veh/h	6	677	21	0	0	589	123	0	0	0	2	6
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1899	1440	0	0	0	1900	1615
Q Serve(g_s), s	0.4	40.0	1.0	0.0	0.0	34.9	5.3	0.0	0.0	0.0	0.1	0.2
Cycle Q Clear(g_c), s	0.4	40.0	1.0	0.0	0.0	34.9	5.4	0.0	0.0	0.0	0.1	0.2
Prop In Lane	1.00		1.00	1.00		0.00	0.94		0.06	0.00		1.00
Lane Grp Cap(c), veh/h	11	756	642	2	0	672	794	0	0	0	970	825
V/C Ratio(X)	0.55	0.90	0.03	0.00	0.00	0.88	0.15	0.00	0.00	0.00	0.00	0.01
Avail Cap(c_a), veh/h	68	1180	1003	68	0	1179	794	0	0	0	970	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	59.5	33.8	22.1	0.0	0.0	36.3	15.7	0.0	0.0	0.0	14.4	14.4
Incr Delay (d2), s/veh	15.0	4.1	0.0	0.0	0.0	1.5	0.4	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	21.7	0.4	0.0	0.0	18.6	2.3	0.0	0.0	0.0	0.0	0.1
LnGrp Delay(d),s/veh	74.4	37.9	22.1	0.0	0.0	37.8	16.1	0.0	0.0	0.0	14.4	14.4
LnGrp LOS	E	D	C			D	B				B	B
Approach Vol, veh/h		704			589			123			8	
Approach Delay, s/veh		37.7			37.8			16.1			14.4	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		66.8	0.0	53.2		66.8	5.2	48.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		25.5	4.5	74.5		25.5	4.5	74.5
Max Q Clear Time (g_c+I1), s		7.4	0.0	42.0		2.2	2.4	36.9
Green Ext Time (p_c), s		0.4	0.0	5.6		0.4	0.0	5.6

Intersection Summary			
HCM 2010 Ctrl Delay			35.8
HCM 2010 LOS			D

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
10: Heacock Street & Cactus Avenue

Moreno Valley Logistics Center TIA (JN 09301)
11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	89	524	381	9	1011	96	724	380	11	46	277	47
Future Volume (veh/h)	89	524	381	9	1011	96	724	380	11	46	277	47
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	570	337	10	1099	95	787	413	10	50	301	35
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	2578	1094	18	2177	188	695	1538	37	64	836	96
Arrive On Green	0.06	0.68	0.68	0.01	0.63	0.63	0.19	0.42	0.42	0.04	0.25	0.25
Sat Flow, veh/h	1810	3800	1613	1810	3449	298	3619	3693	89	1810	3345	386
Grp Volume(v), veh/h	97	570	337	10	605	589	787	212	211	50	170	166
Grp Sat Flow(s),veh/h/ln	1810	1900	1613	1810	1900	1847	1810	1900	1882	1810	1900	1831
Q Serve(g_s), s	5.3	5.7	9.5	0.6	17.2	17.3	19.2	7.3	7.4	2.7	7.4	7.5
Cycle Q Clear(g_c), s	5.3	5.7	9.5	0.6	17.2	17.3	19.2	7.3	7.4	2.7	7.4	7.5
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.05	1.00		0.21
Lane Grp Cap(c), veh/h	103	2578	1094	18	1199	1166	695	791	784	64	475	458
V/C Ratio(X)	0.94	0.22	0.31	0.57	0.50	0.51	1.13	0.27	0.27	0.78	0.36	0.36
Avail Cap(c_a), veh/h	103	2578	1094	72	1199	1166	695	791	784	121	475	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.0	6.1	8.2	49.3	10.0	10.0	40.4	19.2	19.2	47.8	30.9	30.9
Incr Delay (d2), s/veh	57.7	0.1	0.5	10.3	1.5	1.6	75.8	0.8	0.8	7.2	2.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.0	4.4	0.3	9.4	9.2	16.9	4.0	4.0	1.5	4.1	4.1
LnGrp Delay(d),s/veh	104.7	6.2	8.7	59.6	11.5	11.6	116.2	19.9	20.0	55.0	33.0	33.2
LnGrp LOS	F	A	A	E	B	B	F	B	B	E	C	C
Approach Vol, veh/h		1004			1204			1210			386	
Approach Delay, s/veh		16.6			11.9			82.5			35.9	
Approach LOS		B			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	74.3	24.7	30.5	10.2	69.6	8.1	47.1
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	31.8	19.2	* 25	5.7	30.1	6.7	37.5
Max Q Clear Time (g_c+I1), s	2.6	11.5	21.2	9.5	7.3	19.3	4.7	9.4
Green Ext Time (p_c), s	0.0	8.0	0.0	0.9	0.0	5.8	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.0
HCM 2010 LOS	D

Notes

11: Heacock Street & Meyer Drive/John F. Kennedy Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	7	43	62	26	108	257	68	755	47	130	469	16
Future Volume (veh/h)	7	43	62	26	108	257	68	755	47	130	469	16
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.94	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	47	22	28	117	118	74	821	36	141	510	10
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	212	180	41	217	182	96	1140	458	577	2195	921
Arrive On Green	0.01	0.11	0.11	0.02	0.11	0.11	0.05	0.30	0.30	0.32	0.58	0.58
Sat Flow, veh/h	1810	1900	1615	1810	1900	1594	1810	3800	1526	1810	3800	1594
Grp Volume(v), veh/h	8	47	22	28	117	118	74	821	36	141	510	10
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1594	1810	1900	1526	1810	1900	1594
Q Serve(g_s), s	0.4	1.9	1.0	1.3	4.9	6.0	3.4	16.4	1.1	4.9	5.6	0.2
Cycle Q Clear(g_c), s	0.4	1.9	1.0	1.3	4.9	6.0	3.4	16.4	1.1	4.9	5.6	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	15	212	180	41	217	182	96	1140	458	577	2195	921
V/C Ratio(X)	0.55	0.22	0.12	0.68	0.54	0.65	0.77	0.72	0.08	0.24	0.23	0.01
Avail Cap(c_a), veh/h	85	541	460	123	581	488	183	1140	458	577	2195	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	42.0	34.4	34.0	41.2	35.5	36.0	39.7	26.6	13.6	21.4	8.8	3.5
Incr Delay (d2), s/veh	11.2	0.2	0.1	7.1	0.8	1.4	4.9	3.9	0.3	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	0.5	0.7	2.6	2.7	1.8	9.2	0.5	2.4	3.0	0.1
LnGrp Delay(d),s/veh	53.2	34.6	34.1	48.3	36.3	37.4	44.6	30.5	14.0	21.5	9.0	3.5
LnGrp LOS	D	C	C	D	D	D	D	C	B	C	A	A
Approach Vol, veh/h		77			263			931			661	
Approach Delay, s/veh		36.4			38.1			31.0			11.6	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.6	31.0	6.4	15.0	9.0	54.6	6.2	15.2
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	9.5	* 26	5.8	24.2	8.6	26.4	4.0	* 26
Max Q Clear Time (g_c+I1), s	6.9	18.4	3.3	3.9	5.4	7.6	2.4	8.0
Green Ext Time (p_c), s	0.1	2.1	0.0	0.1	0.0	2.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C

Notes

12: Heacock Street & Gentian Avenue

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	3	92	601	2	55	478
Future Vol, veh/h	3	92	601	2	55	478
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	97	633	2	58	503

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1252	633	0	0	633	0
Stage 1	633	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	192	483	-	-	960	-
Stage 1	533	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	180	483	-	-	960	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	533	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.7	0	0.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	180	483	960	-
HCM Lane V/C Ratio	-	-	0.018	0.201	0.06	-
HCM Control Delay (s)	-	-	25.4	14.3	9	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.7	0.2	-

Intersection	
Intersection Delay, s/veh	16.7
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	45	383	0	221	36	0	200	278
Future Vol, veh/h	0	45	383	0	221	36	0	200	278
Peak Hour Factor	0.92	0.94	0.94	0.92	0.94	0.94	0.92	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	48	407	0	235	38	0	213	296
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	19.1	15.3	15.2
HCM LOS	C	C	C

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	86%	0%	0%	0%	100%
Vol Right, %	14%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	45	383	200	278
LT Vol	0	45	0	200	0
Through Vol	221	0	0	0	278
RT Vol	36	0	383	0	0
Lane Flow Rate	273	48	407	213	296
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.483	0.095	0.672	0.406	0.522
Departure Headway (Hd)	6.355	7.153	5.934	6.867	6.358
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	566	499	607	523	565
Service Time	4.422	4.92	3.699	4.634	4.125
HCM Lane V/C Ratio	0.482	0.096	0.671	0.407	0.524
HCM Control Delay	15.3	10.7	20.1	14.3	15.9
HCM Lane LOS	C	B	C	B	C
HCM 95th-tile Q	2.6	0.3	5.1	2	3

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
14: Heacock Street & Krameria Avenue-North 11/11/2015

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Traffic Volume (veh/h)	48	89	209	58	79	243
Future Volume (veh/h)	48	89	209	58	79	243
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	59	110	258	72	98	300
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	170	151	785	668	491	1423
Arrive On Green	0.09	0.09	0.41	0.41	0.27	0.75
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	59	110	258	72	98	300
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	2.1	4.6	6.5	1.9	2.9	3.3
Cycle Q Clear(g_c), s	2.1	4.6	6.5	1.9	2.9	3.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	170	151	785	668	491	1423
V/C Ratio(X)	0.35	0.73	0.33	0.11	0.20	0.21
Avail Cap(c_a), veh/h	439	392	785	668	491	1423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	30.8	13.9	12.6	19.6	2.6
Incr Delay (d2), s/veh	0.5	2.5	1.1	0.3	0.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.2	3.6	0.9	1.6	1.8
LnGrp Delay(d),s/veh	30.2	33.3	15.1	12.9	20.6	3.0
LnGrp LOS	C	C	B	B	C	A
Approach Vol, veh/h	169		330			398
Approach Delay, s/veh	32.2		14.6			7.3
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	34.4				57.9		12.1
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	4.9	8.5				5.3		6.6
Green Ext Time (p_c), s	0.1	1.4				1.9		0.2

Intersection Summary			
HCM 2010 Ctrl Delay			14.7
HCM 2010 LOS			B

17: Heacock Street & Cardinal Avenue

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	1	230	3	5	269
Future Vol, veh/h	0	1	230	3	5	269
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1	324	4	7	379

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	717	162	0	0	324	0
Stage 1	324	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	384	861	-	-	1247	-
Stage 1	711	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	382	861	-	-	1247	-
Mov Cap-2 Maneuver	492	-	-	-	-	-
Stage 1	711	-	-	-	-	-
Stage 2	682	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	861	1247	-
HCM Lane V/C Ratio	-	-	-	0.002	0.006	-
HCM Control Delay (s)	-	-	0	9.2	7.9	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	0	-

18: Heacock Street & San Michele Road

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	2	4	4	7	5	188	1	39	5	115	88	7
Future Volume (veh/h)	2	4	4	7	5	188	1	39	5	115	88	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	5	2	9	7	184	1	52	7	153	117	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	6	95	80	157	254	216	2	618	525	594	1258	1070
Arrive On Green	0.00	0.05	0.05	0.09	0.13	0.13	0.00	0.32	0.32	0.33	0.66	0.66
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	3	5	2	9	7	184	1	52	7	153	117	8
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.2	0.3	0.1	0.5	0.3	11.1	0.1	1.9	0.3	6.2	2.2	0.1
Cycle Q Clear(g_c), s	0.2	0.3	0.1	0.5	0.3	11.1	0.1	1.9	0.3	6.2	2.2	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	6	95	80	157	254	216	2	618	525	594	1258	1070
V/C Ratio(X)	0.52	0.05	0.02	0.06	0.03	0.85	0.50	0.08	0.01	0.26	0.09	0.01
Avail Cap(c_a), veh/h	100	551	468	157	523	444	81	618	525	594	1258	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	45.3	36.1	41.9	37.7	42.4	49.9	23.4	22.9	24.6	6.1	2.8
Incr Delay (d2), s/veh	24.3	0.1	0.0	0.0	0.0	2.6	58.7	0.3	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.2	0.2	5.1	0.1	1.0	0.1	3.1	1.2	0.1
LnGrp Delay(d),s/veh	74.1	45.3	36.1	41.9	37.7	44.9	108.6	23.7	22.9	24.7	6.2	2.8
LnGrp LOS	E	D	D	D	D	D	F	C	C	C	A	A
Approach Vol, veh/h		10			200			60			278	
Approach Delay, s/veh		52.1			44.5			25.0			16.3	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.3	38.0	13.2	10.5	4.6	71.7	4.8	18.8
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	8.2	3.9	2.5	2.3	2.1	4.2	2.2	13.1
Green Ext Time (p_c), s	0.3	0.1	0.0	0.0	0.0	0.5	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	40	0	2	91	1
Future Vol, veh/h	0	40	0	2	91	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	43	0	2	97	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	196	1	0	0	2	0
Stage 1	1	-	-	-	-	-
Stage 2	195	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	797	1090	-	-	1634	-
Stage 1	1028	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	750	1090	-	-	1634	-
Mov Cap-2 Maneuver	719	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.4	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1090	1634	-
HCM Lane V/C Ratio	-	-	-	0.039	0.059	-
HCM Control Delay (s)	-	-	0	8.4	7.3	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.1	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	423	1	0	410	0	1
Future Vol, veh/h	423	1	0	410	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	529	1	0	513	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	530	0	1042	529
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	513	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1044	-	257	670
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	652	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1044	-	257	670
Mov Cap-2 Maneuver	-	-	-	-	257	-
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	652	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	670	-	-	1044	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.4	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	5	23	108	0	0	0	123	3	6	3	0	13
Future Vol, veh/h	5	23	108	0	0	0	123	3	6	3	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	6	28	132	0	0	0	150	4	7	4	0	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	319	319	8	399	327	4	16	0	0	4	0	0
Stage 1	15	15	-	304	304	-	-	-	-	-	-	-
Stage 2	304	304	-	95	23	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	638	601	1080	565	595	1085	1615	-	-	1631	-	-
Stage 1	1010	887	-	710	667	-	-	-	-	-	-	-
Stage 2	710	667	-	917	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	592	544	1080	443	538	1085	1615	-	-	1631	-	-
Mov Cap-2 Maneuver	607	569	-	542	569	-	-	-	-	-	-	-
Stage 1	916	885	-	644	605	-	-	-	-	-	-	-
Stage 2	644	605	-	778	878	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.8	0	6.9	1.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	915	-	1631	-	-
HCM Lane V/C Ratio	0.093	-	-	0.181	-	0.002	-	-
HCM Control Delay (s)	7.5	-	-	9.8	0	7.2	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.7	-	0	-	-

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	0	0	0	6	0	56	0	0	76	1
Future Vol, veh/h	0	0	0	0	0	6	0	56	0	0	76	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	7	0	61	0	0	83	1
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	0	7.4	8.4
HCM LOS	-	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	100%	0%
Vol Thru, %	99%	100%	0%	0%	0%	100%
Vol Right, %	1%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	0	6	56	9	99
LT Vol	0	0	6	0	9	0
Through Vol	76	0	0	0	0	99
RT Vol	1	0	0	56	0	0
Lane Flow Rate	84	0	7	61	10	108
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.109	0	0.01	0.073	0.014	0.139
Departure Headway (Hd)	4.698	5.074	5.496	4.292	5.161	4.66
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	754	0	655	839	689	763
Service Time	2.784	3.077	3.196	1.992	2.928	2.427
HCM Lane V/C Ratio	0.111	0	0.011	0.073	0.015	0.142
HCM Control Delay	8.4	8.1	8.3	7.3	8	8.2
HCM Lane LOS	A	N	A	A	A	A
HCM 95th-tile Q	0.4	0	0	0.2	0	0.5

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	9	99	0
Future Vol, veh/h	0	9	99	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	10	108	0
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.2
HCM LOS	A

Lane

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	1	7	0	0	2	43	188	0	14	99	12
Future Vol, veh/h	0	1	7	0	0	2	43	188	0	14	99	12
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1	8	0	0	2	51	221	0	16	116	14
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	9.4	10.2	10
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	14	99	12	1	7	2	43	188	192	79	1
LT Vol	14	0	0	1	0	2	0	0	192	0	0
Through Vol	0	99	0	0	7	0	43	0	0	79	0
RT Vol	0	0	12	0	0	0	0	188	0	0	1
Lane Flow Rate	16	116	14	1	8	2	51	221	226	93	1
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.03	0.197	0.021	0.002	0.015	0.004	0.082	0.316	0.389	0.147	0.002
Departure Headway (Hd)	6.578	6.076	5.372	6.96	6.46	6.455	5.955	5.256	6.192	5.69	4.987
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	546	593	668	516	555	558	606	688	585	633	721
Service Time	4.294	3.791	3.087	4.682	4.182	4.155	3.655	2.956	3.9	3.398	2.695
HCM Lane V/C Ratio	0.029	0.196	0.021	0.002	0.014	0.004	0.084	0.321	0.386	0.147	0.001
HCM Control Delay	9.5	10.3	8.2	9.7	9.3	9.2	9.2	10.4	12.8	9.4	7.7
HCM Lane LOS	A	B	A	A	A	A	A	B	B	A	A
HCM 95th-tile Q	0.1	0.7	0.1	0	0	0	0.3	1.4	1.8	0.5	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	192	79	1
Future Vol, veh/h	0	192	79	1
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	226	93	1
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.8
HCM LOS	B

Lane

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	6	59	75	54	165	5	329	11	91	3	5	2
Future Volume (veh/h)	6	59	75	54	165	5	329	11	91	3	5	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.94	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	81	91	74	226	4	451	15	93	4	7	0
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	15	187	673	80	512	205	1152	1198	1019	8	1161	0
Arrive On Green	0.01	0.10	0.10	0.04	0.13	0.13	0.32	0.63	0.63	0.00	0.31	0.00
Sat Flow, veh/h	1810	1900	1615	1810	3800	1521	3619	1900	1615	1810	3800	0
Grp Volume(v), veh/h	8	81	91	74	226	4	451	15	93	4	7	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1521	1810	1900	1615	1810	1900	0
Q Serve(g_s), s	0.4	3.6	0.5	3.7	4.9	0.2	8.7	0.3	2.0	0.2	0.1	0.0
Cycle Q Clear(g_c), s	0.4	3.6	0.5	3.7	4.9	0.2	8.7	0.3	2.0	0.2	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	15	187	673	80	512	205	1152	1198	1019	8	1161	0
V/C Ratio(X)	0.55	0.43	0.14	0.92	0.44	0.02	0.39	0.01	0.09	0.52	0.01	0.00
Avail Cap(c_a), veh/h	80	549	981	80	1098	439	1152	1198	1019	80	1161	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.5	38.2	6.8	42.8	35.8	33.8	23.9	6.2	6.5	44.7	21.7	0.0
Incr Delay (d2), s/veh	9.7	0.5	0.0	72.7	0.2	0.0	0.1	0.0	0.2	19.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.9	0.9	3.5	2.6	0.1	4.3	0.1	0.9	0.1	0.1	0.0
LnGrp Delay(d),s/veh	54.2	38.7	6.9	115.6	36.0	33.8	24.0	6.2	6.7	63.7	21.8	0.0
LnGrp LOS	D	D	A	F	D	C	C	A	A	E	C	
Approach Vol, veh/h		180			304			559			11	
Approach Delay, s/veh		23.3			55.4			20.6			37.0	
Approach LOS		C			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	62.3	8.5	14.4	34.1	33.0	5.2	17.6
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	36.0	4.0	26.0	12.5	* 28	4.0	26.0
Max Q Clear Time (g_c+I1), s	2.2	4.0	5.7	5.6	10.7	2.1	2.4	6.9
Green Ext Time (p_c), s	0.0	1.0	0.0	1.2	0.2	0.0	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.3
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
29: Indian Street & Nandina Avenue

Moreno Valley Logistics Center TIA (JN 09301)
11/11/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	9	14	137	42	22	17	47	398	28	6	107	5
Future Volume (veh/h)	9	14	137	42	22	17	47	398	28	6	107	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	17	108	51	27	19	57	485	32	7	130	1
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	19	166	142	66	216	183	74	2356	155	13	2392	18
Arrive On Green	0.01	0.09	0.09	0.04	0.11	0.11	0.04	0.67	0.67	0.01	0.64	0.64
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3522	232	1810	3766	29
Grp Volume(v), veh/h	11	17	108	51	27	19	57	261	256	7	66	65
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1853	1810	1900	1895
Q Serve(g_s), s	0.6	0.8	6.5	2.8	1.3	1.1	3.1	5.3	5.3	0.4	1.3	1.3
Cycle Q Clear(g_c), s	0.6	0.8	6.5	2.8	1.3	1.1	3.1	5.3	5.3	0.4	1.3	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.02
Lane Grp Cap(c), veh/h	19	166	142	66	216	183	74	1271	1240	13	1207	1203
V/C Ratio(X)	0.58	0.10	0.76	0.77	0.13	0.10	0.77	0.21	0.21	0.55	0.05	0.05
Avail Cap(c_a), veh/h	100	542	460	172	618	525	208	1271	1240	100	1207	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	49.3	42.0	44.6	47.8	39.9	39.8	47.5	6.4	6.4	49.5	6.9	6.9
Incr Delay (d2), s/veh	9.8	0.1	3.2	7.0	0.1	0.1	6.2	0.4	0.4	12.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	3.0	1.5	0.7	0.5	1.7	2.9	2.8	0.2	0.7	0.7
LnGrp Delay(d),s/veh	59.1	42.1	47.8	54.8	40.0	39.9	53.7	6.7	6.7	61.5	7.0	7.0
LnGrp LOS	E	D	D	D	D	D	D	A	A	E	A	A
Approach Vol, veh/h		136			97			574			138	
Approach Delay, s/veh		48.0			47.7			11.4			9.7	
Approach LOS		D			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.2	72.4	8.1	14.3	8.6	69.0	5.6	16.9
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	5.5	36.5	9.5	28.5	11.5	30.5	5.5	32.5
Max Q Clear Time (g_c+I1), s	2.4	7.3	4.8	8.5	5.1	3.3	2.6	3.3
Green Ext Time (p_c), s	0.0	2.0	0.0	0.3	0.0	2.0	0.0	0.3

Intersection Summary			
HCM 2010 Ctrl Delay			20.2
HCM 2010 LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	292	257	71	5	245	15	103	239	25	9	62	148
Future Volume (veh/h)	292	257	71	5	245	15	103	239	25	9	62	148
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	311	273	59	5	261	14	110	254	23	10	66	90
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1157	1841	1565	9	1161	62	145	1369	582	35	608	517
Arrive On Green	0.64	0.97	0.97	0.01	0.32	0.32	0.04	0.36	0.36	0.01	0.32	0.32
Sat Flow, veh/h	1810	1900	1614	1810	3573	191	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	311	273	59	5	138	137	110	254	23	10	66	90
Grp Sat Flow(s),veh/h/ln	1810	1900	1614	1810	1900	1863	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	7.5	0.5	1.6	0.3	5.3	5.3	3.0	4.6	0.9	0.3	2.4	4.0
Cycle Q Clear(g_c), s	7.5	0.5	1.6	0.3	5.3	5.3	3.0	4.6	0.9	0.3	2.4	4.0
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1157	1841	1565	9	618	606	145	1369	582	35	608	517
V/C Ratio(X)	0.27	0.15	0.04	0.53	0.22	0.23	0.76	0.19	0.04	0.28	0.11	0.17
Avail Cap(c_a), veh/h	1157	1841	1565	72	618	606	145	1369	582	145	608	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	0.1	9.4	49.6	24.6	24.6	47.5	21.9	20.8	49.2	24.0	24.5
Incr Delay (d2), s/veh	0.0	0.2	0.0	16.3	0.8	0.9	18.7	0.3	0.1	1.6	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.3	0.7	0.2	2.9	2.9	1.9	2.5	0.4	0.1	1.3	1.9
LnGrp Delay(d),s/veh	7.9	0.2	9.4	65.9	25.4	25.5	66.2	22.2	20.9	50.8	24.3	25.2
LnGrp LOS	A	A	A	E	C	C	E	C	C	D	C	C
Approach Vol, veh/h		643			280			387			166	
Approach Delay, s/veh		4.8			26.2			34.7			26.4	
Approach LOS		A			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.0	102.6	9.5	37.5	69.6	38.0	5.5	41.5
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	40.0	4.0	* 32	11.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	2.3	3.6	5.0	6.0	9.5	7.3	2.3	6.6
Green Ext Time (p_c), s	0.0	1.3	0.0	0.5	0.2	0.8	0.0	1.1

Intersection Summary			
HCM 2010 Ctrl Delay			19.1
HCM 2010 LOS			B

Notes

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	64	407	132	60	710	76	193	831	85	100	488	41
Future Volume (veh/h)	64	407	132	60	710	76	193	831	85	100	488	41
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	452	130	67	789	75	214	923	82	111	542	36
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	977	279	992	2914	277	238	1499	133	141	855	358
Arrive On Green	0.05	0.34	0.34	0.55	0.85	0.85	0.13	0.29	0.29	0.08	0.22	0.22
Sat Flow, veh/h	1810	2841	810	1810	3413	324	1810	5159	457	1810	3800	1590
Grp Volume(v), veh/h	71	301	281	67	439	425	214	679	326	111	542	36
Grp Sat Flow(s),veh/h/ln	1810	1900	1751	1810	1900	1838	1810	1900	1816	1810	1900	1590
Q Serve(g_s), s	3.1	9.9	10.0	1.4	3.5	3.5	9.3	12.3	12.4	4.8	10.3	2.1
Cycle Q Clear(g_c), s	3.1	9.9	10.0	1.4	3.5	3.5	9.3	12.3	12.4	4.8	10.3	2.1
Prop In Lane	1.00		0.46	1.00		0.18	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	92	653	602	992	1622	1569	238	1104	528	141	855	358
V/C Ratio(X)	0.78	0.46	0.47	0.07	0.27	0.27	0.90	0.61	0.62	0.79	0.63	0.10
Avail Cap(c_a), veh/h	102	653	602	992	1622	1569	238	1104	528	170	855	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	20.5	20.5	8.5	1.1	1.1	34.2	24.5	24.5	36.2	28.0	51.6
Incr Delay (d2), s/veh	24.3	2.3	2.6	0.0	0.4	0.4	32.6	2.6	5.3	14.7	3.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	5.6	5.3	0.7	2.0	2.0	6.8	6.8	7.0	3.0	5.8	1.0
LnGrp Delay(d),s/veh	61.8	22.8	23.1	8.5	1.5	1.5	66.8	27.1	29.9	50.9	31.6	52.1
LnGrp LOS	E	C	C	A	A	A	E	C	C	D	C	D
Approach Vol, veh/h		653			931			1219			689	
Approach Delay, s/veh		27.2			2.0			34.8			35.8	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	50.2	33.0	16.0	23.5	8.5	74.6	10.7	28.8
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	44.0	* 28	10.5	* 18	4.5	27.0	7.5	21.0
Max Q Clear Time (g_c+I1), s	13.4	12.0	11.3	12.3	5.1	5.5	6.8	14.4
Green Ext Time (p_c), s	0.0	1.8	0.0	1.2	0.0	3.3	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	24.8
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary — Moreno Valley Logistics Center TIA (JN 09301)
32: Perris Boulevard & Krameria Avenue — 11/11/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	16	158	64	186	107	190	69	816	286	89	570	10
Future Volume (veh/h)	16	158	64	186	107	190	69	816	286	89	570	10
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	174	54	204	118	109	76	897	289	98	626	9
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	22	212	199	255	268	223	148	2031	652	122	2683	39
Arrive On Green	0.12	0.12	0.12	0.14	0.14	0.14	0.08	0.49	0.49	0.07	0.48	0.48
Sat Flow, veh/h	177	1714	1611	1810	1900	1580	1810	4121	1322	1810	5604	80
Grp Volume(v), veh/h	192	0	54	204	118	109	76	827	359	98	424	211
Grp Sat Flow(s),veh/h/ln	1891	0	1611	1810	1900	1580	1810	1900	1643	1810	1900	1885
Q Serve(g_s), s	11.9	0.0	3.6	13.1	6.8	7.6	4.8	16.9	17.0	6.4	7.9	7.9
Cycle Q Clear(g_c), s	11.9	0.0	3.6	13.1	6.8	7.6	4.8	16.9	17.0	6.4	7.9	7.9
Prop In Lane	0.09		1.00	1.00		1.00	1.00		0.80	1.00		0.04
Lane Grp Cap(c), veh/h	234	0	199	255	268	223	148	1873	810	122	1819	902
V/C Ratio(X)	0.82	0.00	0.27	0.80	0.44	0.49	0.51	0.44	0.44	0.80	0.23	0.23
Avail Cap(c_a), veh/h	473	0	403	452	475	395	148	1873	810	143	1819	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	0.0	47.7	49.9	47.2	47.6	52.8	19.7	19.7	55.2	18.4	18.4
Incr Delay (d2), s/veh	2.7	0.0	0.3	2.2	0.4	0.6	12.2	0.8	1.8	20.4	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	1.6	6.7	3.6	3.4	2.9	9.0	8.1	3.9	4.2	4.3
LnGrp Delay(d),s/veh	54.0	0.0	47.9	52.1	47.6	48.2	65.0	20.5	21.5	75.6	18.7	19.0
LnGrp LOS	D		D	D	D	D	E	C	C	E	B	B
Approach Vol, veh/h		246			431			1262			733	
Approach Delay, s/veh		52.7			49.9			23.5			26.4	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.6	64.6		20.4	14.3	62.9		22.4
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	8.4	19.0		13.9	6.8	9.9		15.1
Green Ext Time (p_c), s	0.0	5.5		0.7	0.0	7.7		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Notes

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM Signalized Intersection Capacity Analysis Moreno Valley Logistics Center TIA (JN 09301)
1: I-215 SB Ramps & Cactus Av.

11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑				↱			↱
Traffic Volume (vph)	0	645	125	507	358	0	0	0	736	0	0	185
Future Volume (vph)	0	645	125	507	358	0	0	0	736	0	0	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Lane Util. Factor		*1.00	1.00	1.00	*1.00				1.00			1.00
Frt		1.00	1.00	1.00	1.00				1.00			1.00
Flt Protected		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (prot)		3800	1900	1900	3800				1900			1900
Flt Permitted		1.00	1.00	1.00	1.00				1.00			1.00
Satd. Flow (perm)		3800	1900	1900	3800				1900			1900
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	679	132	534	377	0	0	0	775	0	0	195
RTOR Reduction (vph)	0	0	90	0	0	0	0	0	429	0	0	156
Lane Group Flow (vph)	0	679	42	534	377	0	0	0	346	0	0	39
Turn Type		NA	Perm	Prot	NA				Prot			Prot
Protected Phases		2		1	6				3			7
Permitted Phases			2									
Actuated Green, G (s)		19.2	19.2	15.3	38.5				10.4			12.0
Effective Green, g (s)		19.2	19.2	15.3	38.5				10.4			12.0
Actuated g/C Ratio		0.32	0.32	0.26	0.64				0.17			0.20
Clearance Time (s)		5.5	5.5	4.0	5.5				5.6			4.0
Vehicle Extension (s)		2.0	2.0	2.0	2.0				2.0			2.0
Lane Grp Cap (vph)		1216	608	484	2438				329			380
v/s Ratio Prot		c0.18		c0.28	0.10				c0.18			0.02
v/s Ratio Perm			0.02									
v/c Ratio		0.56	0.07	1.10	0.15				1.05			0.10
Uniform Delay, d1		16.9	14.2	22.4	4.3				24.8			19.6
Progression Factor		1.00	1.00	1.00	1.00				1.00			1.00
Incremental Delay, d2		1.9	0.2	72.1	0.1				63.8			0.0
Delay (s)		18.7	14.4	94.4	4.4				88.6			19.6
Level of Service		B	B	F	A				F			B
Approach Delay (s)		18.0			57.2			88.6			19.6	
Approach LOS		B			E			F			B	

Intersection Summary			
HCM 2000 Control Delay	51.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	15.1
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↱	↰	↑↑						↰↑	↱
Traffic Volume (veh/h)	0	393	9	243	133	0	0	0	0	369	2	278
Future Volume (veh/h)	0	393	9	243	133	0	0	0	0	369	2	278
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	418	10	259	141	0				393	2	219
Adj No. of Lanes	0	2	1	1	2	0				0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1792	762	283	2529	0				452	2	406
Arrive On Green	0.00	0.47	0.47	0.26	1.00	0.00				0.25	0.25	0.25
Sat Flow, veh/h	0	3800	1615	1810	3800	0				1801	9	1615
Grp Volume(v), veh/h	0	418	10	259	141	0				395	0	219
Grp Sat Flow(s),veh/h/ln	0	1900	1615	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	7.8	0.4	16.7	0.0	0.0				25.1	0.0	14.1
Cycle Q Clear(g_c), s	0.0	7.8	0.4	16.7	0.0	0.0				25.1	0.0	14.1
Prop In Lane	0.00		1.00	1.00		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1792	762	283	2529	0				455	0	406
V/C Ratio(X)	0.00	0.23	0.01	0.92	0.06	0.00				0.87	0.00	0.54
Avail Cap(c_a), veh/h	0	1792	762	309	2529	0				830	0	740
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.99	0.99	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.8	16.9	43.6	0.0	0.0				43.0	0.0	38.9
Incr Delay (d2), s/veh	0.0	0.3	0.0	27.7	0.0	0.0				5.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.2	0.2	10.4	0.0	0.0				13.2	0.0	6.4
LnGrp Delay(d),s/veh	0.0	19.1	16.9	71.3	0.0	0.0				48.2	0.0	40.0
LnGrp LOS		B	B	E	A					D		D
Approach Vol, veh/h		428			400						614	
Approach Delay, s/veh		19.1			46.2						45.3	
Approach LOS		B			D						D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	23.3	61.6		35.1		84.9		
Change Period (Y+Rc), s	4.5	5.0		5.0		5.0		
Max Green Setting (Gmax), s	20.5	30.0		55.0		55.0		
Max Q Clear Time (g_c+I1), s	18.7	9.8		27.1		2.0		
Green Ext Time (p_c), s	0.1	2.1		3.1		2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱			↑↱		↰	↱		↰	↱	
Traffic Volume (veh/h)	14	1223	144	0	1473	66	29	30	0	87	0	36
Future Volume (veh/h)	14	1223	144	0	1473	66	29	30	0	87	0	36
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	0	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	1261	144	0	1519	59	30	31	0	90	0	22
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	1872	213	0	2035	79	501	544	0	495	0	462
Arrive On Green	0.56	0.56	0.56	0.00	0.56	0.56	0.29	0.29	0.00	0.29	0.00	0.29
Sat Flow, veh/h	330	3343	380	0	3634	141	1412	1900	0	1400	0	1615
Grp Volume(v), veh/h	14	714	691	0	792	786	30	31	0	90	0	22
Grp Sat Flow(s),veh/h/ln	330	1900	1823	0	1900	1875	1412	1900	0	1400	0	1615
Q Serve(g_s), s	2.2	17.2	17.4	0.0	20.5	20.6	1.0	0.8	0.0	3.2	0.0	0.6
Cycle Q Clear(g_c), s	22.8	17.2	17.4	0.0	20.5	20.6	1.7	0.8	0.0	4.0	0.0	0.6
Prop In Lane	1.00		0.21	0.00		0.08	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	191	1064	1021	0	1064	1050	501	544	0	495	0	462
V/C Ratio(X)	0.07	0.67	0.68	0.00	0.74	0.75	0.06	0.06	0.00	0.18	0.00	0.05
Avail Cap(c_a), veh/h	191	1064	1021	0	1064	1050	501	544	0	495	0	462
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.5	10.1	10.1	0.0	10.8	10.8	17.4	16.8	0.0	18.3	0.0	16.8
Incr Delay (d2), s/veh	0.7	3.4	3.6	0.0	4.7	4.9	0.2	0.2	0.0	0.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	9.9	9.7	0.0	12.0	11.9	0.4	0.4	0.0	1.4	0.0	0.3
LnGrp Delay(d),s/veh	20.2	13.5	13.7	0.0	15.5	15.7	17.6	17.0	0.0	19.1	0.0	17.0
LnGrp LOS	C	B	B		B	B	B	B		B		B
Approach Vol, veh/h		1419			1578			61			112	
Approach Delay, s/veh		13.7			15.6			17.3			18.7	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.4		23.6		41.4		23.6
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		36.4		18.6		36.4		18.6
Max Q Clear Time (g_c+I1), s		24.8		6.0		22.6		3.7
Green Ext Time (p_c), s		9.0		0.2		10.3		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
4: I-215 NB Off Ramp/I-215 NB On Ramp & Harley Knox. Blvd./Harley Knox Blvd. 11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑			↑↑	↱		↰	↱			
Traffic Volume (veh/h)	248	514	0	0	367	484	8	1	148	0	0	0
Future Volume (veh/h)	248	514	0	0	367	484	8	1	148	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	279	578	0	0	412	519	9	1	57			
Adj No. of Lanes	1	2	0	0	2	1	0	1	1			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	303	2755	0	0	2007	853	314	35	310			
Arrive On Green	0.34	1.00	0.00	0.00	0.53	0.53	0.19	0.19	0.19			
Sat Flow, veh/h	1810	3800	0	0	3800	1614	1636	182	1615			
Grp Volume(v), veh/h	279	578	0	0	412	519	10	0	57			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1614	1818	0	1615			
Q Serve(g_s), s	17.8	0.0	0.0	0.0	6.9	26.8	0.5	0.0	3.5			
Cycle Q Clear(g_c), s	17.8	0.0	0.0	0.0	6.9	26.8	0.5	0.0	3.5			
Prop In Lane	1.00		0.00	0.00		1.00	0.90		1.00			
Lane Grp Cap(c), veh/h	303	2755	0	0	2007	853	348	0	310			
V/C Ratio(X)	0.92	0.21	0.00	0.00	0.21	0.61	0.03	0.00	0.18			
Avail Cap(c_a), veh/h	550	2755	0	0	2007	853	348	0	310			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.1	0.0	0.0	0.0	15.0	19.7	39.4	0.0	40.6			
Incr Delay (d2), s/veh	5.4	0.2	0.0	0.0	0.2	3.2	0.2	0.0	1.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	9.3	0.1	0.0	0.0	3.7	12.7	0.3	0.0	1.7			
LnGrp Delay(d),s/veh	44.5	0.2	0.0	0.0	15.2	22.9	39.6	0.0	41.9			
LnGrp LOS	D	A			B	C	D		D			
Approach Vol, veh/h		857			931			67				
Approach Delay, s/veh		14.6			19.5			41.6				
Approach LOS		B			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		92.0			23.6	68.4		28.0
Change Period (Y+Rc), s		5.0			3.5	5.0		5.0
Max Green Setting (Gmax), s		87.0			36.5	47.0		23.0
Max Q Clear Time (g_c+I1), s		2.0			19.8	28.8		5.5
Green Ext Time (p_c), s		5.5			0.3	4.9		0.1

Intersection Summary			
HCM 2010 Ctrl Delay			18.0
HCM 2010 LOS			B

HCM 2010 Signalized Intersection Summary
Moreno Valley Logistics Center TIA (JN 09301)
5: March AFB/Elsworth Street & Cactus Avenue
11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↑	↱	↰	↑↑↑	↱	↰	✥		↰	↰↑	↱
Traffic Volume (veh/h)	97	1304	23	25	1223	74	366	95	181	100	20	168
Future Volume (veh/h)	97	1304	23	25	1223	74	366	95	181	100	20	168
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	1344	0	26	1261	45	304	200	133	118	0	66
Adj No. of Lanes	1	3	1	1	3	1	1	1	0	2	0	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	124	2878	816	33	2589	718	445	262	174	203	0	202
Arrive On Green	0.07	0.50	0.00	0.02	0.45	0.45	0.25	0.25	0.25	0.06	0.00	0.06
Sat Flow, veh/h	1810	5700	1615	1810	5700	1581	1810	1065	709	3619	0	1615
Grp Volume(v), veh/h	100	1344	0	26	1261	45	304	0	333	118	0	66
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1581	1810	0	1774	1810	0	1615
Q Serve(g_s), s	6.5	18.3	0.0	1.7	18.6	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Cycle Q Clear(g_c), s	6.5	18.3	0.0	1.7	18.6	1.9	18.3	0.0	20.9	3.8	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	124	2878	816	33	2589	718	445	0	436	203	0	202
V/C Ratio(X)	0.80	0.47	0.00	0.80	0.49	0.06	0.68	0.00	0.76	0.58	0.00	0.33
Avail Cap(c_a), veh/h	143	2878	816	119	2589	718	445	0	436	890	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.1	19.2	0.0	58.7	22.9	18.4	41.0	0.0	42.0	55.2	0.0	47.9
Incr Delay (d2), s/veh	21.3	0.5	0.0	15.1	0.1	0.0	8.3	0.0	12.0	1.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	9.7	0.0	1.0	9.7	0.8	10.1	0.0	11.7	1.9	0.0	2.0
LnGrp Delay(d),s/veh	76.4	19.8	0.0	73.8	23.0	18.4	49.3	0.0	54.0	56.2	0.0	48.3
LnGrp LOS	E	B		E	C	B	D		D	E		D
Approach Vol, veh/h		1444			1332			637			184	
Approach Delay, s/veh		23.7			23.8			51.7			53.4	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.7	66.1		12.2	12.7	60.0		35.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	7.9	32.1		29.5	9.5	30.5		29.5
Max Q Clear Time (g_c+I1), s	3.7	20.3		6.5	8.5	20.6		22.9
Green Ext Time (p_c), s	0.0	8.4		0.3	0.0	6.4		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑	↱	↰↰	↱
Traffic Volume (veh/h)	92	1782	1068	167	325	102
Future Volume (veh/h)	92	1782	1068	167	325	102
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	1837	1101	164	335	46
Adj No. of Lanes	1	2	3	1	2	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	1995	2286	648	1221	654
Arrive On Green	0.07	0.52	0.40	0.40	0.34	0.34
Sat Flow, veh/h	1810	3800	5700	1615	3619	1615
Grp Volume(v), veh/h	95	1837	1101	164	335	46
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1615	1810	1615
Q Serve(g_s), s	4.1	35.6	11.5	5.4	5.4	1.4
Cycle Q Clear(g_c), s	4.1	35.6	11.5	5.4	5.4	1.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	122	1995	2286	648	1221	654
V/C Ratio(X)	0.78	0.92	0.48	0.25	0.27	0.07
Avail Cap(c_a), veh/h	215	1995	2286	648	1221	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.80	0.80	1.00	1.00
Uniform Delay (d), s/veh	36.7	17.5	17.8	16.0	19.3	14.6
Incr Delay (d2), s/veh	3.9	8.5	0.6	0.8	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	20.7	6.1	2.6	2.8	1.7
LnGrp Delay(d),s/veh	40.6	25.9	18.4	16.7	19.9	14.8
LnGrp LOS	D	C	B	B	B	B
Approach Vol, veh/h		1932	1265		381	
Approach Delay, s/veh		26.7	18.2		19.3	
Approach LOS		C	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		47.5		32.5	9.9	37.6		
Change Period (Y+Rc), s		5.5		5.5	4.5	5.5		
Max Green Setting (Gmax), s		42.0		27.0	9.5	28.0		
Max Q Clear Time (g_c+I1), s		37.6		7.4	6.1	13.5		
Green Ext Time (p_c), s		4.0		0.6	0.0	11.3		

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	28	635	787	17	14	64
Future Vol, veh/h	28	635	787	17	14	64
Conflicting Peds, #/hr	0	0	0	9	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	690	855	18	15	70

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	855	0	-	0	1261	428
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	406	-
Critical Hdwy	4.1	-	-	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	793	-	-	-	*283	581
Stage 1	-	-	-	-	*382	-
Stage 2	-	-	-	-	*780	-
Platoon blocked, %		-	-	-	1	
Mov Cap-1 Maneuver	793	-	-	-	*265	581
Mov Cap-2 Maneuver	-	-	-	-	*265	-
Stage 1	-	-	-	-	*382	-
Stage 2	-	-	-	-	*733	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	793	-	-	-	479
HCM Lane V/C Ratio	0.038	-	-	-	0.177
HCM Control Delay (s)	9.7	0.3	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

8: Graham Street & Cactus Avenue

11/11/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↑↑↱		↰↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	72	1769	277	6	968	43	158	53	11	119	138	105
Future Volume (veh/h)	72	1769	277	6	968	43	158	53	11	119	138	105
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	1923	0	7	1052	43	172	58	7	129	150	36
Adj No. of Lanes	1	2	1	1	3	0	2	2	0	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1173	3822	1624	13	1918	78	170	1059	126	85	1252	1572
Arrive On Green	0.65	1.00	0.00	0.01	0.35	0.35	0.05	0.32	0.32	0.05	0.33	0.33
Sat Flow, veh/h	1810	3800	1615	1810	5435	222	3619	3335	395	1810	3800	1595
Grp Volume(v), veh/h	78	1923	0	7	735	360	172	33	32	129	150	36
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1857	1810	1900	1830	1810	1900	1595
Q Serve(g_s), s	1.3	0.0	0.0	0.3	13.2	13.2	4.0	1.0	1.0	4.0	2.3	0.2
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.3	13.2	13.2	4.0	1.0	1.0	4.0	2.3	0.2
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	1173	3822	1624	13	1341	655	170	604	581	85	1252	1572
V/C Ratio(X)	0.07	0.50	0.00	0.54	0.55	0.55	1.01	0.05	0.06	1.51	0.12	0.02
Avail Cap(c_a), veh/h	1173	3822	1624	85	1341	655	170	604	581	85	1252	1572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.00	0.49	0.49	0.49	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.5	0.0	0.0	42.1	22.1	22.1	40.5	20.1	20.1	40.5	19.9	8.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	6.2	0.8	1.6	71.6	0.2	0.2	282.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.0	0.2	7.0	7.0	3.7	0.6	0.6	8.7	1.3	0.4
LnGrp Delay(d),s/veh	5.5	0.2	0.0	48.2	22.9	23.7	112.1	20.3	20.3	323.2	20.1	8.0
LnGrp LOS	A	A		D	C	C	F	C	C	F	C	A
Approach Vol, veh/h		2001			1102			237			315	
Approach Delay, s/veh		0.4			23.3			86.9			142.8	
Approach LOS		A			C			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	91.8	8.5	33.5	61.4	35.5	9.5	32.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.0	30.0	4.0	27.0	4.0	* 30	4.0	* 27
Max Q Clear Time (g_c+I1), s	3.3	2.0	6.0	4.3	3.3	15.2	6.0	3.0
Green Ext Time (p_c), s	0.0	11.6	0.0	0.7	0.0	3.7	0.0	0.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary | Moreno Valley Logistics Center TIA (JN 09301)
9: Patterson Avenue & Harley Knox Boulevard | 11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱			✥			↰↑	↱
Traffic Volume (veh/h)	6	484	47	3	646	5	40	4	6	8	4	12
Future Volume (veh/h)	6	484	47	3	646	5	40	4	6	8	4	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	550	53	3	734	6	45	5	7	9	5	14
Adj No. of Lanes	1	1	1	1	1	0	0	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	13	695	590	6	680	6	546	63	71	470	243	634
Arrive On Green	0.01	0.37	0.37	0.00	0.36	0.36	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1810	1900	1615	1810	1882	15	1137	160	182	964	618	1615
Grp Volume(v), veh/h	7	550	53	3	0	740	57	0	0	14	0	14
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	0	1897	1479	0	0	1583	0	1615
Q Serve(g_s), s	0.3	16.8	1.4	0.1	0.0	23.5	0.9	0.0	0.0	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.3	16.8	1.4	0.1	0.0	23.5	1.4	0.0	0.0	0.3	0.0	0.3
Prop In Lane	1.00		1.00	1.00		0.01	0.79		0.12	0.64		1.00
Lane Grp Cap(c), veh/h	13	695	590	6	0	686	680	0	0	712	0	634
V/C Ratio(X)	0.53	0.79	0.09	0.51	0.00	1.08	0.08	0.00	0.00	0.02	0.00	0.02
Avail Cap(c_a), veh/h	111	695	590	111	0	686	680	0	0	712	0	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.2	18.4	13.5	32.3	0.0	20.8	12.4	0.0	0.0	12.1	0.0	12.1
Incr Delay (d2), s/veh	11.7	5.7	0.0	23.2	0.0	57.6	0.2	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	9.8	0.6	0.1	0.0	23.2	0.7	0.0	0.0	0.2	0.0	0.2
LnGrp Delay(d),s/veh	43.8	24.1	13.5	55.6	0.0	78.3	12.6	0.0	0.0	12.1	0.0	12.2
LnGrp LOS	D	C	B	E		F	B			B		B
Approach Vol, veh/h		610			743			57			28	
Approach Delay, s/veh		23.4			78.2			12.6			12.1	
Approach LOS		C			E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		31.0	4.7	29.3		31.0	5.0	29.0
Change Period (Y+Rc), s		5.5	4.5	5.5		5.5	4.5	5.5
Max Green Setting (Gmax), s		22.0	4.0	23.5		22.0	4.0	23.5
Max Q Clear Time (g_c+I1), s		3.4	2.1	18.8		2.3	2.3	25.5
Green Ext Time (p_c), s		0.2	0.0	2.4		0.2	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑	↱	↰	↑↱		↰↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	82	933	823	13	560	67	523	465	19	109	533	43
Future Volume (veh/h)	82	933	823	13	560	67	523	465	19	109	533	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	993	861	14	596	65	556	495	16	116	567	39
Adj No. of Lanes	1	2	1	1	2	0	2	2	0	1	2	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	111	2758	1172	24	2283	248	462	1229	40	146	977	67
Arrive On Green	0.06	0.73	0.73	0.01	0.68	0.68	0.21	0.56	0.56	0.08	0.28	0.28
Sat Flow, veh/h	1810	3800	1615	1810	3368	367	3619	3659	118	1810	3516	241
Grp Volume(v), veh/h	87	993	861	14	336	325	556	257	254	116	306	300
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1835	1810	1900	1877	1810	1900	1857
Q Serve(g_s), s	4.3	8.7	41.3	0.7	6.2	6.2	11.5	6.9	6.9	5.7	12.5	12.5
Cycle Q Clear(g_c), s	4.3	8.7	41.3	0.7	6.2	6.2	11.5	6.9	6.9	5.7	12.5	12.5
Prop In Lane	1.00		1.00	1.00		0.20	1.00		0.06	1.00		0.13
Lane Grp Cap(c), veh/h	111	2758	1172	24	1288	1244	462	638	631	146	528	516
V/C Ratio(X)	0.79	0.36	0.73	0.59	0.26	0.26	1.20	0.40	0.40	0.79	0.58	0.58
Avail Cap(c_a), veh/h	111	2758	1172	80	1288	1244	462	638	631	175	528	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	4.6	15.6	44.2	5.7	5.7	35.4	14.6	14.6	40.6	28.0	28.0
Incr Delay (d2), s/veh	3.2	0.0	0.4	8.4	0.5	0.5	108.2	1.7	1.7	15.6	4.6	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.6	18.3	0.4	3.4	3.3	12.6	3.9	3.8	3.5	7.2	7.1
LnGrp Delay(d),s/veh	44.9	4.6	16.0	52.5	6.2	6.2	143.6	16.3	16.3	56.2	32.6	32.7
LnGrp LOS	D	A	B	D	A	A	F	B	B	E	C	C
Approach Vol, veh/h		1941			675			1067			722	
Approach Delay, s/veh		11.5			7.1			82.7			36.4	
Approach LOS		B			A			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	71.8	17.0	30.5	10.0	67.5	11.8	35.7
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	29.5	11.5	* 25	5.5	28.0	8.7	27.8
Max Q Clear Time (g_c+I1), s	2.7	43.3	13.5	14.5	6.3	8.2	7.7	8.9
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	9.1	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰	↑↑	↱	↰	↑↑	↱
Traffic Volume (veh/h)	26	159	221	20	100	144	75	786	50	302	912	25
Future Volume (veh/h)	26	159	221	20	100	144	75	786	50	302	912	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	169	121	21	106	56	80	836	35	321	970	15
Adj No. of Lanes	1	1	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	220	187	33	206	101	103	1068	437	636	2229	948
Arrive On Green	0.05	0.12	0.12	0.02	0.09	0.09	0.06	0.28	0.28	0.47	0.78	0.78
Sat Flow, veh/h	1810	1900	1615	1810	2390	1177	1810	3800	1555	1810	3800	1615
Grp Volume(v), veh/h	28	169	121	21	83	79	80	836	35	321	970	15
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1668	1810	1900	1555	1810	1900	1615
Q Serve(g_s), s	1.3	7.8	5.2	1.0	3.7	4.1	3.9	18.2	1.5	11.1	7.6	0.1
Cycle Q Clear(g_c), s	1.3	7.8	5.2	1.0	3.7	4.1	3.9	18.2	1.5	11.1	7.6	0.1
Prop In Lane	1.00		1.00	1.00		0.71	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	220	187	33	164	144	103	1068	437	636	2229	948
V/C Ratio(X)	0.32	0.77	0.65	0.64	0.51	0.55	0.77	0.78	0.08	0.50	0.44	0.02
Avail Cap(c_a), veh/h	87	528	449	101	549	482	183	1068	437	636	2229	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	41.4	38.6	24.9	43.9	39.3	39.5	41.9	29.8	23.8	18.5	4.9	1.6
Incr Delay (d2), s/veh	0.8	2.1	1.4	7.5	0.9	1.2	4.6	5.7	0.4	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.2	2.4	0.6	2.0	1.9	2.1	10.4	0.7	5.6	4.0	0.1
LnGrp Delay(d),s/veh	42.2	40.7	26.3	51.4	40.2	40.7	46.4	35.5	24.1	18.7	5.3	1.6
LnGrp LOS	D	D	C	D	D	D	D	D	C	B	A	A
Approach Vol, veh/h		318			183			951			1306	
Approach Delay, s/veh		35.4			41.7			36.0			8.5	
Approach LOS		D			D			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.1	30.8	6.1	15.9	9.6	58.3	8.8	13.3
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.7	* 25	5.0	25.0	9.1	30.9	4.0	26.0
Max Q Clear Time (g_c+I1), s	13.1	20.2	3.0	9.8	5.9	9.6	3.3	6.1
Green Ext Time (p_c), s	0.2	1.7	0.0	0.7	0.0	4.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Notes

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	1	60	713	7	124	972
Future Vol, veh/h	1	60	713	7	124	972
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	65	110	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	65	767	8	133	1045

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2079	767	0	0	767	0
Stage 1	767	-	-	-	-	-
Stage 2	1312	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	59	405	-	-	856	-
Stage 1	462	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	50	405	-	-	856	-
Mov Cap-2 Maneuver	50	-	-	-	-	-
Stage 1	462	-	-	-	-	-
Stage 2	215	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	50	405	856	-
HCM Lane V/C Ratio	-	-	0.022	0.159	0.156	-
HCM Control Delay (s)	-	-	78.6	15.6	10	-
HCM Lane LOS	-	-	F	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.6	0.6	-

Intersection	
Intersection Delay, s/veh	53.4
Intersection LOS	F

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Traffic Vol, veh/h	0	18	243	0	470	18	0	512	440
Future Vol, veh/h	0	18	243	0	470	18	0	512	440
Peak Hour Factor	0.92	0.86	0.86	0.92	0.86	0.86	0.92	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	21	283	0	547	21	0	595	512
Number of Lanes	0	1	1	0	1	0	0	1	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	17.7	61.8	58.8
HCM LOS	C	F	F

Lane	NBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	100%	0%
Vol Thru, %	96%	0%	0%	0%	100%
Vol Right, %	4%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	488	18	243	512	440
LT Vol	0	18	0	512	0
Through Vol	470	0	0	0	440
RT Vol	18	0	243	0	0
Lane Flow Rate	567	21	283	595	512
Geometry Grp	4	7	7	7	7
Degree of Util (X)	0.995	0.048	0.553	1	0.938
Departure Headway (Hd)	6.311	8.286	7.051	7.11	6.599
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	573	435	511	518	553
Service Time	4.399	5.988	4.787	4.81	4.299
HCM Lane V/C Ratio	0.99	0.048	0.554	1.149	0.926
HCM Control Delay	61.8	11.4	18.2	66.4	49.9
HCM Lane LOS	F	B	C	F	E
HCM 95th-tile Q	14.3	0.2	3.3	13.8	11.9

HCM 2010 Signalized Intersection Summary
14: Heacock Street & Krameria Avenue-North

Moreno Valley Logistics Center TIA (JN 09301)
11/11/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Traffic Volume (veh/h)	185	182	338	67	87	389
Future Volume (veh/h)	185	182	338	67	87	389
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	228	225	417	83	107	480
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	307	274	642	545	491	1279
Arrive On Green	0.17	0.17	0.34	0.34	0.27	0.67
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	228	225	417	83	107	480
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	8.4	9.4	13.0	2.5	3.2	7.7
Cycle Q Clear(g_c), s	8.4	9.4	13.0	2.5	3.2	7.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	307	274	642	545	491	1279
V/C Ratio(X)	0.74	0.82	0.65	0.15	0.22	0.38
Avail Cap(c_a), veh/h	439	392	642	545	491	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	28.0	19.7	16.2	19.7	5.0
Incr Delay (d2), s/veh	1.9	6.1	5.0	0.6	1.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	4.7	7.7	1.2	1.7	4.3
LnGrp Delay(d),s/veh	29.5	34.1	24.7	16.8	20.8	5.8
LnGrp LOS	C	C	C	B	C	A
Approach Vol, veh/h	453		500			587
Approach Delay, s/veh	31.8		23.4			8.6
Approach LOS	C		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	23.5	29.1				52.6		17.4
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.0	18.5				42.0		17.0
Max Q Clear Time (g_c+I1), s	5.2	15.0				9.7		11.4
Green Ext Time (p_c), s	0.1	1.3				3.2		0.5

Intersection Summary		
HCM 2010 Ctrl Delay		20.2
HCM 2010 LOS		C

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	1	3	409	0	0	599
Future Vol, veh/h	1	3	409	0	0	599
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	0	140	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	4	576	0	0	844

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1420	288	0	0	576	0
Stage 1	576	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Critical Hdwy	6.6	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	140	715	-	-	1007	-
Stage 1	531	-	-	-	-	-
Stage 2	425	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	140	715	-	-	1007	-
Mov Cap-2 Maneuver	278	-	-	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	425	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	278	715	1007	-
HCM Lane V/C Ratio	-	-	0.005	0.006	-	-
HCM Control Delay (s)	-	-	18	10.1	0	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	0	-

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
18: Heacock Street & San Michele Road

Moreno Valley Logistics Center TIA (JN 09301)
11/11/2015

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	11	6	5	11	0	256	0	71	3	331	212	2
Future Volume (veh/h)	11	6	5	11	0	256	0	71	3	331	212	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	9	7	16	0	366	0	101	0	473	303	3
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	25	456	387	25	456	388	2	634	539	445	1172	997
Arrive On Green	0.01	0.24	0.24	0.01	0.00	0.24	0.00	0.33	0.00	0.25	0.62	0.62
Sat Flow, veh/h	1810	1900	1612	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	16	9	7	16	0	366	0	101	0	473	303	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1612	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	1.1	0.4	0.4	1.1	0.0	26.7	0.0	4.5	0.0	29.5	8.7	0.1
Cycle Q Clear(g_c), s	1.1	0.4	0.4	1.1	0.0	26.7	0.0	4.5	0.0	29.5	8.7	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	25	456	387	25	456	388	2	634	539	445	1172	997
V/C Ratio(X)	0.64	0.02	0.02	0.64	0.00	0.94	0.00	0.16	0.00	1.06	0.26	0.00
Avail Cap(c_a), veh/h	113	467	396	113	467	397	60	634	539	445	1172	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.00	0.80	0.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.9	34.8	34.8	58.9	0.0	44.8	0.0	28.1	0.0	45.3	10.5	8.8
Incr Delay (d2), s/veh	9.8	0.0	0.0	7.9	0.0	26.4	0.0	0.5	0.0	60.5	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.2	0.2	0.6	0.0	14.8	0.0	2.5	0.0	22.2	4.7	0.0
LnGrp Delay(d),s/veh	68.7	34.8	34.8	66.8	0.0	71.2	0.0	28.7	0.0	105.7	11.0	8.8
LnGrp LOS	E	C	C	E		E		C		F	B	A
Approach Vol, veh/h		32			382			101			779	
Approach Delay, s/veh		51.7			71.0			28.7			68.5	
Approach LOS		D			E			C			E	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	34.0	45.5	6.2	34.3	0.0	79.5	6.2	34.3				
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5				
Max Green Setting (Gmax), s	29.5	33.5	7.5	29.5	4.0	59.0	7.5	29.5				
Max Q Clear Time (g_c+I1), s	31.5	6.5	3.1	2.4	0.0	10.7	3.1	28.7				
Green Ext Time (p_c), s	0.0	1.2	0.0	0.6	0.0	1.3	0.0	0.1				
Intersection Summary												
HCM 2010 Ctrl Delay			65.7									
HCM 2010 LOS			E									

Intersection	
Int Delay, s/veh	7.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	70	2	8	200	10
Future Vol, veh/h	0	70	2	8	200	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	115	0	-	-	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	93	3	11	267	13

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	555	8	0	0	13	0
Stage 1	8	-	-	-	-	-
Stage 2	547	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	496	1080	-	-	1619	-
Stage 1	1020	-	-	-	-	-
Stage 2	584	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	414	1080	-	-	1619	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	1020	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.6	0	7.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	-	1080	1619	-
HCM Lane V/C Ratio	-	-	-	0.086	0.165	-
HCM Control Delay (s)	-	-	0	8.6	7.7	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.3	0.6	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	505	0	0	530	0	1
Future Vol, veh/h	505	0	0	530	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	555	0	0	582	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	555	0	1137	555
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	582	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1026	-	*225	675
Stage 1	-	-	-	-	*641	-
Stage 2	-	-	-	-	*624	-
Platoon blocked, %	-	-	1	-		1
Mov Cap-1 Maneuver	-	-	1026	-	*225	675
Mov Cap-2 Maneuver	-	-	-	-	*225	-
Stage 1	-	-	-	-	*641	-
Stage 2	-	-	-	-	*624	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	675	-	-	1026	-
HCM Lane V/C Ratio	0.002	-	-	-	-
HCM Control Delay (s)	10.3	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	11	21	131	0	0	0	344	4	0	3	2	15
Future Vol, veh/h	11	21	131	0	0	0	344	4	0	3	2	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	0	200	-	-
Veh in Median Storage, #	-	2	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	26	160	0	0	0	420	5	0	4	2	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	863	863	12	956	872	5	21	0	0	5	0	0
Stage 1	19	19	-	844	844	-	-	-	-	-	-	-
Stage 2	844	844	-	112	28	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	277	295	1074	240	291	1084	1608	-	-	1630	-	-
Stage 1	1005	884	-	361	382	-	-	-	-	-	-	-
Stage 2	361	382	-	898	876	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	221	217	1074	151	214	1084	1608	-	-	1630	-	-
Mov Cap-2 Maneuver	249	263	-	229	264	-	-	-	-	-	-	-
Stage 1	743	882	-	267	282	-	-	-	-	-	-	-
Stage 2	267	282	-	740	874	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.7	0	7.9	1.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	663	-	1630	-	-
HCM Lane V/C Ratio	0.261	-	-	0.3	-	0.002	-	-
HCM Control Delay (s)	8	-	-	12.7	0	7.2	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	1.3	-	0	-	-

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	0	0	0	7	0	24	0	0	324	62
Future Vol, veh/h	0	0	0	0	0	7	0	24	0	0	324	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	8	0	26	0	0	352	67
Number of Lanes	0	0	1	0	0	1	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	1	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	2	2
HCM Control Delay	0	8.2	12.8
HCM LOS	-	A	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	100%	0%
Vol Thru, %	84%	100%	0%	0%	0%	100%
Vol Right, %	16%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	386	0	7	24	31	102
LT Vol	0	0	7	0	31	0
Through Vol	324	0	0	0	0	102
RT Vol	62	0	0	24	0	0
Lane Flow Rate	420	0	8	26	34	111
Geometry Grp	6	6	7	7	7	7
Degree of Util (X)	0.532	0	0.013	0.037	0.051	0.151
Departure Headway (Hd)	4.568	5.903	6.339	5.128	5.399	4.896
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	776	0	567	701	666	736
Service Time	2.665	3.916	4.048	2.837	3.106	2.603
HCM Lane V/C Ratio	0.541	0	0.014	0.037	0.051	0.151
HCM Control Delay	12.8	8.9	9.1	8	8.4	8.5
HCM Lane LOS	B	N	A	A	A	A
HCM 95th-tile Q	3.2	0	0	0.1	0.2	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	31	102	0
Future Vol, veh/h	0	31	102	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	34	111	0
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	8.5
HCM LOS	A

Lane

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	8	79	10	0	4	18	55	0	6	51	4
Future Vol, veh/h	0	8	79	10	0	4	18	55	0	6	51	4
Peak Hour Factor	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	9	93	12	0	5	21	65	0	7	60	5
Number of Lanes	0	1	1	0	0	1	1	1	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	9.5	8.4	9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	0%	89%	0%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	0%	11%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	51	4	8	89	4	18	55	175	73	3
LT Vol	6	0	0	8	0	4	0	0	175	0	0
Through Vol	0	51	0	0	79	0	18	0	0	73	0
RT Vol	0	0	4	0	10	0	0	55	0	0	3
Lane Flow Rate	7	60	5	9	105	5	21	65	206	86	4
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.012	0.095	0.007	0.016	0.163	0.008	0.034	0.091	0.328	0.125	0.004
Departure Headway (Hd)	6.204	5.702	4.999	6.191	5.612	6.262	5.762	5.062	5.738	5.237	4.535
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	573	623	709	575	636	568	617	702	624	680	783
Service Time	3.984	3.482	2.779	3.959	3.38	4.036	3.536	2.836	3.503	3.001	2.299
HCM Lane V/C Ratio	0.012	0.096	0.007	0.016	0.165	0.009	0.034	0.093	0.33	0.126	0.005
HCM Control Delay	9.1	9.1	7.8	9.1	9.5	9.1	8.7	8.3	11.3	8.8	7.3
HCM Lane LOS	A	A	A	A	A	A	A	A	B	A	A
HCM 95th-tile Q	0	0.3	0	0	0.6	0	0.1	0.3	1.4	0.4	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	175	73	3
Future Vol, veh/h	0	175	73	3
Peak Hour Factor	0.92	0.85	0.85	0.85
Heavy Vehicles, %	0	0	0	0
Mvmt Flow	0	206	86	4
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	10.5
HCM LOS	B

Lane

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↑	↱	↰↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	11	143	411	147	235	45	323	54	115	103	131	24
Future Volume (veh/h)	11	143	411	147	235	45	323	54	115	103	131	24
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.99	1.00		1.00	1.00		0.49
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	217	553	223	356	45	489	82	89	156	198	24
Adj No. of Lanes	1	1	1	1	2	1	2	1	1	1	2	0
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	329	697	252	1132	478	966	797	677	184	739	81
Arrive On Green	0.00	0.06	0.06	0.14	0.30	0.30	0.27	0.42	0.42	0.10	0.25	0.25
Sat Flow, veh/h	1810	1900	1535	1810	3800	1604	3619	1900	1613	1810	3007	331
Grp Volume(v), veh/h	17	217	553	223	356	45	489	82	89	156	118	104
Grp Sat Flow(s),veh/h/ln	1810	1900	1535	1810	1900	1604	1810	1900	1613	1810	1900	1438
Q Serve(g_s), s	1.1	13.4	9.9	14.5	8.7	2.4	13.7	3.1	4.1	10.2	6.0	7.1
Cycle Q Clear(g_c), s	1.1	13.4	9.9	14.5	8.7	2.4	13.7	3.1	4.1	10.2	6.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	26	329	697	252	1132	478	966	797	677	184	467	354
V/C Ratio(X)	0.65	0.66	0.79	0.89	0.31	0.09	0.51	0.10	0.13	0.85	0.25	0.29
Avail Cap(c_a), veh/h	83	420	770	354	1409	595	966	797	677	264	467	354
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.50	0.50	0.50	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.4	53.1	12.7	50.7	32.6	30.4	37.3	21.1	21.4	53.0	36.4	36.8
Incr Delay (d2), s/veh	5.0	0.6	2.3	14.0	0.1	0.0	0.2	0.2	0.4	11.6	1.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	7.1	10.3	8.2	4.6	1.1	6.9	1.7	1.9	5.7	3.3	3.0
LnGrp Delay(d),s/veh	64.5	53.7	15.0	64.7	32.7	30.5	37.5	21.4	21.8	64.7	37.7	38.9
LnGrp LOS	E	D	B	E	C	C	D	C	C	E	D	D
Approach Vol, veh/h		787			624			660			378	
Approach Delay, s/veh		26.8			44.0			33.3			49.1	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	55.8	21.2	26.3	37.5	35.0	6.2	41.2
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	17.5	32.5	23.5	26.5	20.5	* 30	5.5	44.5
Max Q Clear Time (g_c+I1), s	12.2	6.1	16.5	15.4	15.7	9.1	3.1	10.7
Green Ext Time (p_c), s	0.1	1.2	0.2	2.7	0.5	0.7	0.0	3.4

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Notes

HCM 2010 Signalized Intersection Summary
29: Indian Street & Nandina Avenue

Moreno Valley Logistics Center TIA (JN 09301)
11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	7	38	210	42	19	14	56	430	49	50	546	46
Future Volume (veh/h)	7	38	210	42	19	14	56	430	49	50	546	46
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	54	179	60	27	1	80	614	66	71	780	60
Adj No. of Lanes	1	1	1	1	1	1	1	2	0	1	2	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	183	263	223	77	127	108	103	1693	182	91	1727	133
Arrive On Green	0.10	0.14	0.14	0.04	0.07	0.07	0.06	0.50	0.50	0.05	0.50	0.50
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	3373	362	1810	3485	268
Grp Volume(v), veh/h	10	54	179	60	27	1	80	345	335	71	425	415
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1835	1810	1900	1853
Q Serve(g_s), s	0.4	1.9	8.1	2.5	1.0	0.0	3.3	8.3	8.3	2.9	10.9	10.9
Cycle Q Clear(g_c), s	0.4	1.9	8.1	2.5	1.0	0.0	3.3	8.3	8.3	2.9	10.9	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.14
Lane Grp Cap(c), veh/h	183	263	223	77	127	108	103	954	921	91	942	918
V/C Ratio(X)	0.05	0.21	0.80	0.78	0.21	0.01	0.78	0.36	0.36	0.78	0.45	0.45
Avail Cap(c_a), veh/h	183	608	517	97	608	517	109	954	921	109	942	918
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.64	0.64	0.64
Uniform Delay (d), s/veh	30.5	28.7	31.3	35.6	33.1	21.1	34.9	11.4	11.4	35.2	12.3	12.3
Incr Delay (d2), s/veh	0.0	0.1	2.5	21.0	0.3	0.0	24.9	1.1	1.1	14.1	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.0	3.7	1.7	0.5	0.0	2.4	4.6	4.5	1.8	5.9	5.8
LnGrp Delay(d),s/veh	30.5	28.8	33.9	56.5	33.5	21.1	59.8	12.4	12.5	49.2	13.3	13.3
LnGrp LOS	C	C	C	E	C	C	E	B	B	D	B	B
Approach Vol, veh/h		243			88			760			911	
Approach Delay, s/veh		32.6			49.0			17.4			16.1	
Approach LOS		C			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	43.2	7.7	15.9	8.8	42.7	13.1	10.5
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.5	22.5	4.0	24.0	4.5	22.5	4.0	* 24
Max Q Clear Time (g_c+I1), s	4.9	10.3	4.5	10.1	5.3	12.9	2.4	3.0
Green Ext Time (p_c), s	0.0	4.4	0.0	0.4	0.0	3.9	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

HCM 2010 Signalized Intersection Summary
30: Indian Street & Harley Knox Boulevard

Moreno Valley Logistics Center TIA (JN 09301)
11/11/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↱		↰↰	↑↑	↱	↰↰	↑↱	
Traffic Volume (veh/h)	265	207	74	18	145	6	57	265	7	30	320	506
Future Volume (veh/h)	265	207	74	18	145	6	57	265	7	30	320	506
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	344	269	96	23	188	8	74	344	9	39	416	652
Adj No. of Lanes	1	1	1	1	2	0	2	2	1	2	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1016	1700	1445	35	1238	52	130	1354	575	98	640	544
Arrive On Green	0.56	0.89	0.89	0.02	0.34	0.34	0.04	0.36	0.36	0.03	0.34	0.34
Sat Flow, veh/h	1810	1900	1615	1810	3618	153	3619	3800	1615	3619	1900	1615
Grp Volume(v), veh/h	344	269	96	23	98	98	74	344	9	39	416	652
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1871	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	9.8	1.6	2.8	1.2	3.4	3.4	1.9	6.1	0.3	1.0	17.7	32.0
Cycle Q Clear(g_c), s	9.8	1.6	2.8	1.2	3.4	3.4	1.9	6.1	0.3	1.0	17.7	32.0
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1016	1700	1445	35	650	640	130	1354	575	98	640	544
V/C Ratio(X)	0.34	0.16	0.07	0.66	0.15	0.15	0.57	0.25	0.02	0.40	0.65	1.20
Avail Cap(c_a), veh/h	1016	1700	1445	99	650	640	152	1354	575	152	640	544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	0.6	10.7	46.3	21.7	21.7	45.1	21.6	19.8	45.5	26.7	31.5
Incr Delay (d2), s/veh	0.1	0.2	0.1	7.8	0.5	0.5	1.4	0.5	0.0	1.0	5.1	106.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	0.9	1.3	0.7	1.9	1.9	1.0	3.3	0.2	0.5	10.1	30.2
LnGrp Delay(d),s/veh	11.4	0.8	10.8	54.1	22.2	22.2	46.5	22.1	19.8	46.4	31.8	137.7
LnGrp LOS	B	A	B	D	C	C	D	C	B	D	C	F
Approach Vol, veh/h		709			219			427			1107	
Approach Delay, s/veh		7.3			25.5			26.3			94.7	
Approach LOS		A			C			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	91.9	8.9	37.5	60.3	38.0	7.1	39.3
Change Period (Y+Rc), s	4.5	5.5	5.5	* 5.5	5.5	* 5.5	4.5	5.5
Max Green Setting (Gmax), s	5.2	33.8	4.0	* 32	6.5	* 33	4.0	32.0
Max Q Clear Time (g_c+I1), s	13.2	4.8	3.9	34.0	11.8	5.4	3.0	8.1
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.0	0.6	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	51.5
HCM 2010 LOS	D

Notes

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary
31: Perris Boulevard & Cactus Avenue

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↑↱		↰	↑↑	↱
Traffic Volume (veh/h)	50	551	203	48	406	73	157	785	47	125	933	38
Future Volume (veh/h)	50	551	203	48	406	73	157	785	47	125	933	38
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	562	186	49	414	65	160	801	37	128	952	28
Adj No. of Lanes	1	2	0	1	2	0	1	3	0	1	2	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	65	916	302	533	1943	303	174	1560	72	161	1021	434
Arrive On Green	0.04	0.33	0.33	0.29	0.61	0.61	0.10	0.29	0.29	0.09	0.27	0.27
Sat Flow, veh/h	1810	2735	902	1810	3204	499	1810	5407	249	1810	3800	1615
Grp Volume(v), veh/h	51	390	358	49	244	235	160	562	276	128	952	28
Grp Sat Flow(s),veh/h/ln	1810	1900	1738	1810	1900	1804	1810	1900	1856	1810	1900	1615
Q Serve(g_s), s	2.2	13.7	13.8	1.6	4.6	4.7	7.0	9.9	9.9	5.5	19.6	1.2
Cycle Q Clear(g_c), s	2.2	13.7	13.8	1.6	4.6	4.7	7.0	9.9	9.9	5.5	19.6	1.2
Prop In Lane	1.00		0.52	1.00		0.28	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	65	637	582	533	1152	1093	174	1096	535	161	1021	434
V/C Ratio(X)	0.78	0.61	0.62	0.09	0.21	0.21	0.92	0.51	0.52	0.79	0.93	0.06
Avail Cap(c_a), veh/h	90	637	582	533	1152	1093	174	1096	535	188	1021	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	22.3	22.3	20.5	7.1	7.1	35.8	23.8	23.8	35.7	28.5	28.7
Incr Delay (d2), s/veh	17.0	4.4	4.8	0.0	0.4	0.4	44.7	1.7	3.5	15.4	15.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	7.9	7.3	0.8	2.6	2.5	5.7	5.4	5.6	3.5	12.4	0.6
LnGrp Delay(d),s/veh	55.2	26.6	27.1	20.5	7.5	7.6	80.5	25.5	27.3	51.1	44.5	29.0
LnGrp LOS	E	C	C	C	A	A	F	C	C	D	D	C
Approach Vol, veh/h		799			528			998			1108	
Approach Delay, s/veh		28.7			8.8			34.8			44.8	
Approach LOS		C			A			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	32.3	13.2	27.0	7.4	54.6	11.6	28.6
Change Period (Y+Rc), s	5.5	* 5.5	5.5	* 5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	4.0	* 27	7.7	* 22	4.0	26.8	8.3	20.9
Max Q Clear Time (g_c+I1), s	3.6	15.8	9.0	21.6	4.2	6.7	7.5	11.9
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.0	1.6	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

Notes

E+P (Construction) Conditions - PM Peak Hour
Urban Crossroads, Inc.

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰↑	↱	↰	↑↑↱		↰	↑↑↱	
Traffic Volume (veh/h)	55	97	70	156	55	87	38	845	174	128	775	22
Future Volume (veh/h)	55	97	70	156	55	87	38	845	174	128	775	22
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	60	107	61	171	60	-4	42	929	166	141	852	22
Adj No. of Lanes	0	1	1	0	2	1	1	3	0	1	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	75	134	180	218	229	195	148	2414	429	143	2825	73
Arrive On Green	0.11	0.11	0.11	0.12	0.12	0.00	0.08	0.51	0.51	0.08	0.51	0.51
Sat Flow, veh/h	671	1196	1611	1810	1900	1615	1810	4701	836	1810	5530	143
Grp Volume(v), veh/h	167	0	61	171	60	-4	42	750	345	141	585	289
Grp Sat Flow(s),veh/h/ln	1866	0	1611	1810	1900	1615	1810	1900	1738	1810	1900	1873
Q Serve(g_s), s	10.5	0.0	4.2	11.0	3.4	0.0	2.6	14.4	14.5	9.3	10.7	10.7
Cycle Q Clear(g_c), s	10.5	0.0	4.2	11.0	3.4	0.0	2.6	14.4	14.5	9.3	10.7	10.7
Prop In Lane	0.36		1.00	1.00		1.00	1.00		0.48	1.00		0.08
Lane Grp Cap(c), veh/h	209	0	180	218	229	195	148	1951	892	143	1941	957
V/C Ratio(X)	0.80	0.00	0.34	0.78	0.26	-0.02	0.28	0.38	0.39	0.98	0.30	0.30
Avail Cap(c_a), veh/h	467	0	403	452	475	404	148	1951	892	143	1941	957
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	49.2	51.2	47.9	0.0	51.8	17.7	17.7	55.2	17.0	17.0
Incr Delay (d2), s/veh	2.7	0.0	0.4	2.3	0.2	0.0	4.8	0.6	1.3	70.1	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	1.9	5.7	1.8	0.0	1.5	7.7	7.2	7.4	5.7	5.8
LnGrp Delay(d),s/veh	54.7	0.0	49.6	53.6	48.1	0.0	56.6	18.3	19.0	125.2	17.4	17.8
LnGrp LOS	D		D	D	D		E	B	B	F	B	B
Approach Vol, veh/h		228			227			1137			1015	
Approach Delay, s/veh		53.3			53.1			19.9			32.5	
Approach LOS		D			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	67.1		18.9	14.3	66.8		20.0
Change Period (Y+Rc), s	4.5	5.5		5.5	4.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	29.5		30.0	9.8	29.2		30.0
Max Q Clear Time (g_c+I1), s	11.3	16.5		12.5	4.6	12.7		13.0
Green Ext Time (p_c), s	0.0	6.7		0.7	0.0	7.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.6
HCM 2010 LOS	C

Notes

ATTACHMENT B

E+P (CONSTRUCTION TRAFFIC) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

Queues Moreno Valley Logistics Center TIA (JN 09301)

1: I-215 SB Ramps & Cactus Av. 11/11/2015

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	351	38	369	1347	609	225
v/c Ratio	0.24	0.05	0.79	0.51	0.78	0.60
Control Delay	14.1	0.1	35.5	5.4	10.3	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	0.1	35.5	5.4	10.3	18.8
Queue Length 50th (ft)	42	0	120	83	0	36
Queue Length 95th (ft)	74	0	#242	154	69	87
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1468	807	504	2652	849	474
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.05	0.73	0.51	0.72	0.47

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	406	10	152	173	458	166
v/c Ratio	0.26	0.01	0.47	0.07	0.80	0.24
Control Delay	25.8	0.0	35.8	10.4	48.8	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	0.0	35.8	10.4	48.8	4.6
Queue Length 50th (ft)	103	0	48	25	325	0
Queue Length 95th (ft)	161	0	73	43	396	43
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1545	810	324	2336	870	960
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.01	0.47	0.07	0.53	0.17

Intersection Summary

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

11/11/2015

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	906	1783	396	289	35	44
v/c Ratio	0.21	0.42	0.83	1.00	0.53	0.14	0.08
Control Delay	12.5	8.9	16.1	73.4	23.7	19.1	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	8.9	16.1	73.4	23.7	19.1	8.8
Queue Length 50th (ft)	4	92	257	~156	95	10	3
Queue Length 95th (ft)	19	127	349	#321	164	30	23
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2133	2143	395	544	250	560
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.42	0.83	1.00	0.53	0.14	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

	↗	→	←	↖	↑	↗
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	221	660	328	380	4	139
v/c Ratio	0.76	0.24	0.16	0.32	0.01	0.29
Control Delay	39.5	6.3	14.8	2.4	39.5	8.4
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0
Total Delay	39.6	6.9	14.8	2.4	39.5	8.4
Queue Length 50th (ft)	157	73	61	0	3	0
Queue Length 95th (ft)	212	128	96	49	13	54
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	2059	1203	364	476
Starvation Cap Reductn	9	1620	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.58	0.16	0.32	0.01	0.29

Intersection Summary

	→	↘	↙	←	↗	↙
Lane Group	EBT	EBR	WBL	WBT	NBR	SBR
Lane Group Flow (vph)	679	132	534	377	775	195
v/c Ratio	0.56	0.19	1.10	0.15	1.02	0.25
Control Delay	19.0	4.2	98.0	4.5	50.5	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.2	98.0	4.5	50.5	0.7
Queue Length 50th (ft)	100	0	~227	22	~107	0
Queue Length 95th (ft)	144	30	#391	35	#325	0
Internal Link Dist (ft)	658			955		
Turn Bay Length (ft)						
Base Capacity (vph)	1216	697	484	2438	758	790
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.19	1.10	0.15	1.02	0.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

2: I-215 SB On Ramp/I-215 SB Off Ramp & Harley Knox Blvd./Harley Knox. Blvd.

11/11/2015

	→	↘	↙	←	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Group Flow (vph)	418	10	259	141	395	296
v/c Ratio	0.25	0.01	0.78	0.06	0.77	0.41
Control Delay	24.7	0.0	66.6	11.2	50.0	4.9
Queue Delay	0.0	0.0	8.3	0.0	0.0	0.0
Total Delay	24.7	0.0	74.9	11.2	50.0	4.9
Queue Length 50th (ft)	101	0	216	17	283	0
Queue Length 95th (ft)	172	0	304	47	351	58
Internal Link Dist (ft)	844			267	1109	
Turn Bay Length (ft)		100	80			270
Base Capacity (vph)	1647	857	359	2456	870	1031
Starvation Cap Reductn	0	0	68	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.01	0.89	0.06	0.45	0.29

Intersection Summary

3: I-215 NB Ramps/Old 215 Frontage Rd. & Cactus Av.

	↗	→	←	↖	↑	↘	↓
Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	14	1409	1587	30	31	90	37
v/c Ratio	0.12	0.66	0.74	0.08	0.06	0.23	0.07
Control Delay	9.8	11.6	13.4	17.7	17.3	19.6	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	11.6	13.4	17.7	17.3	19.6	7.7
Queue Length 50th (ft)	2	171	212	9	9	27	1
Queue Length 95th (ft)	12	232	286	26	26	60	19
Internal Link Dist (ft)		240	1109		1221		592
Turn Bay Length (ft)	175			145		100	
Base Capacity (vph)	117	2138	2133	398	543	400	567
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.66	0.74	0.08	0.06	0.23	0.07

Intersection Summary

	↗	→	←	↖	↑	↗
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	279	578	412	544	10	166
v/c Ratio	0.79	0.21	0.21	0.44	0.03	0.33
Control Delay	46.2	1.6	17.3	2.8	39.8	8.1
Queue Delay	0.1	0.3	0.0	0.0	0.0	0.0
Total Delay	46.3	1.9	17.3	2.8	39.8	8.1
Queue Length 50th (ft)	65	4	84	0	6	0
Queue Length 95th (ft)	78	22	128	57	22	56
Internal Link Dist (ft)		267	594		929	
Turn Bay Length (ft)	60			100		265
Base Capacity (vph)	577	2755	1941	1223	364	498
Starvation Cap Reductn	23	1457	0	0	0	0
Spillback Cap Reductn	0	0	123	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.45	0.23	0.44	0.03	0.33

Intersection Summary

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

ATTACHMENT C

E+P (CONSTRUCTION TRAFFIC) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Construction) Conditions - Weekday PM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **1008**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Cardinal Avenue**

High Volume Approach (VPH) = **4**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

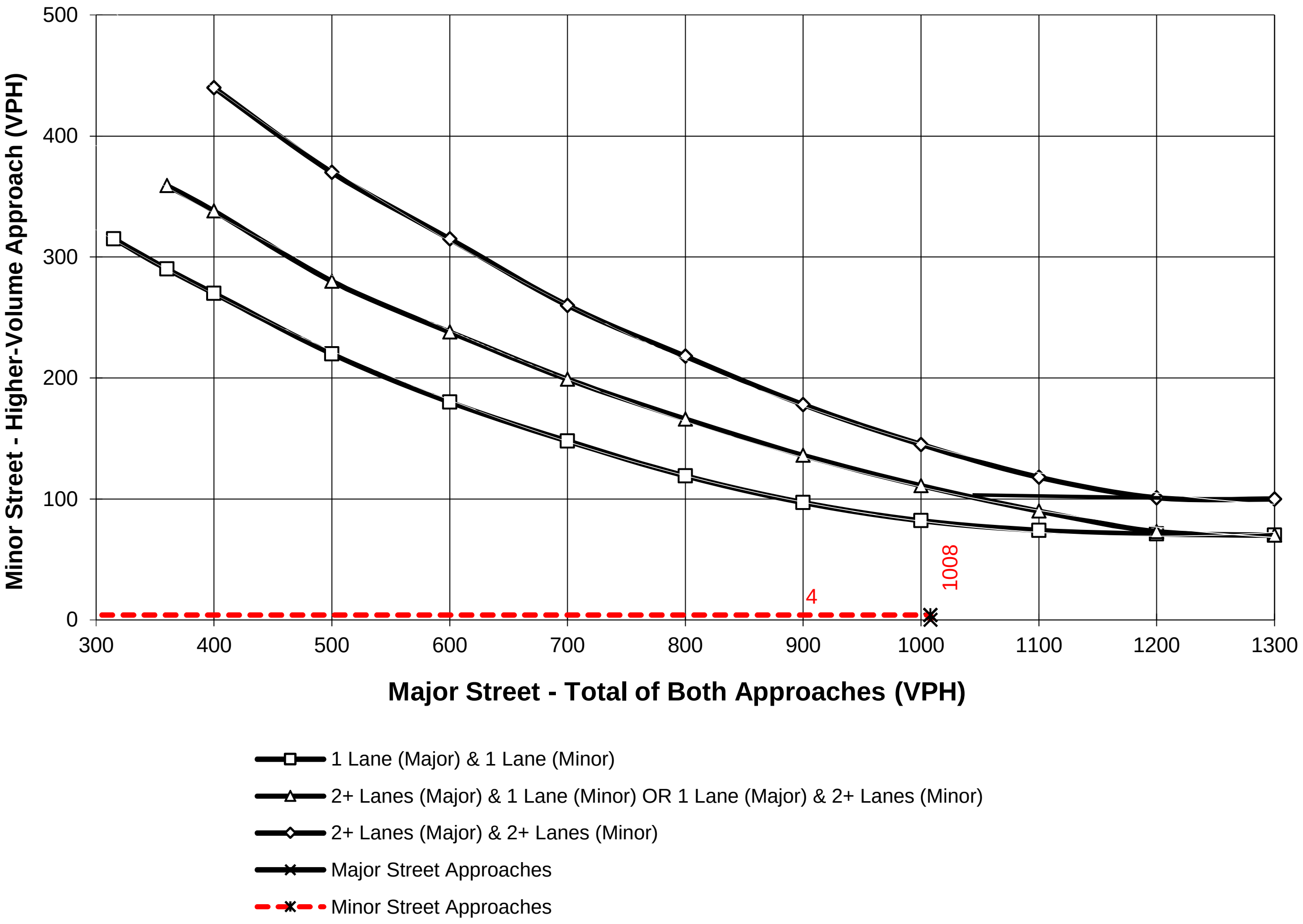

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Construction) Conditions - Weekday PM Peak Hour**

Major Street Name = **Heacock Street**

Total of Both Approaches (VPH) = **220**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Nandina Avenue**

High Volume Approach (VPH) = **70**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

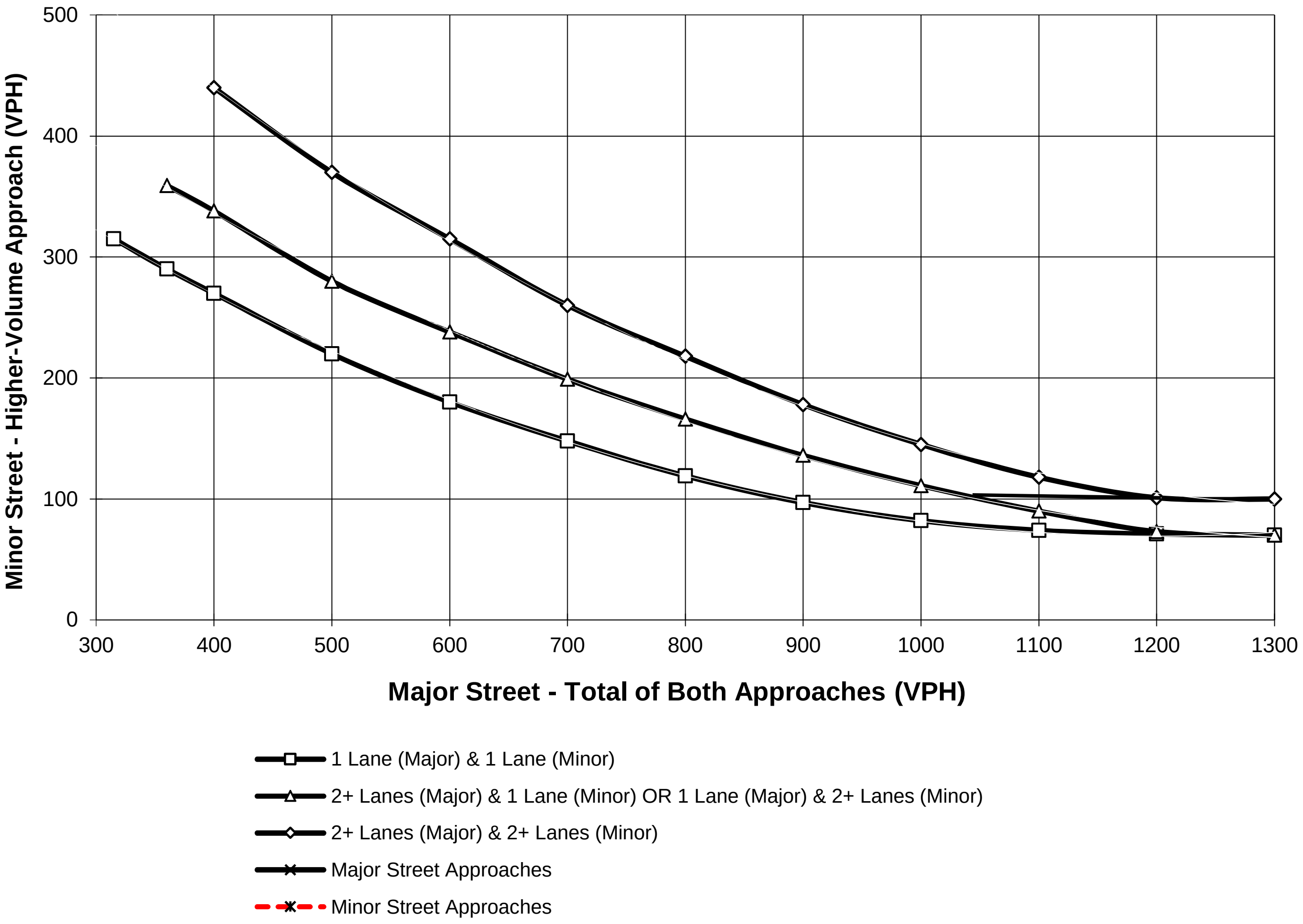

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P (Construction) Conditions - Weekday AM Peak Hour**

Major Street Name = **Cosmos Street**

Total of Both Approaches (VPH) = **368**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Krameria Avenue (North)**

High Volume Approach (VPH) = **163**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

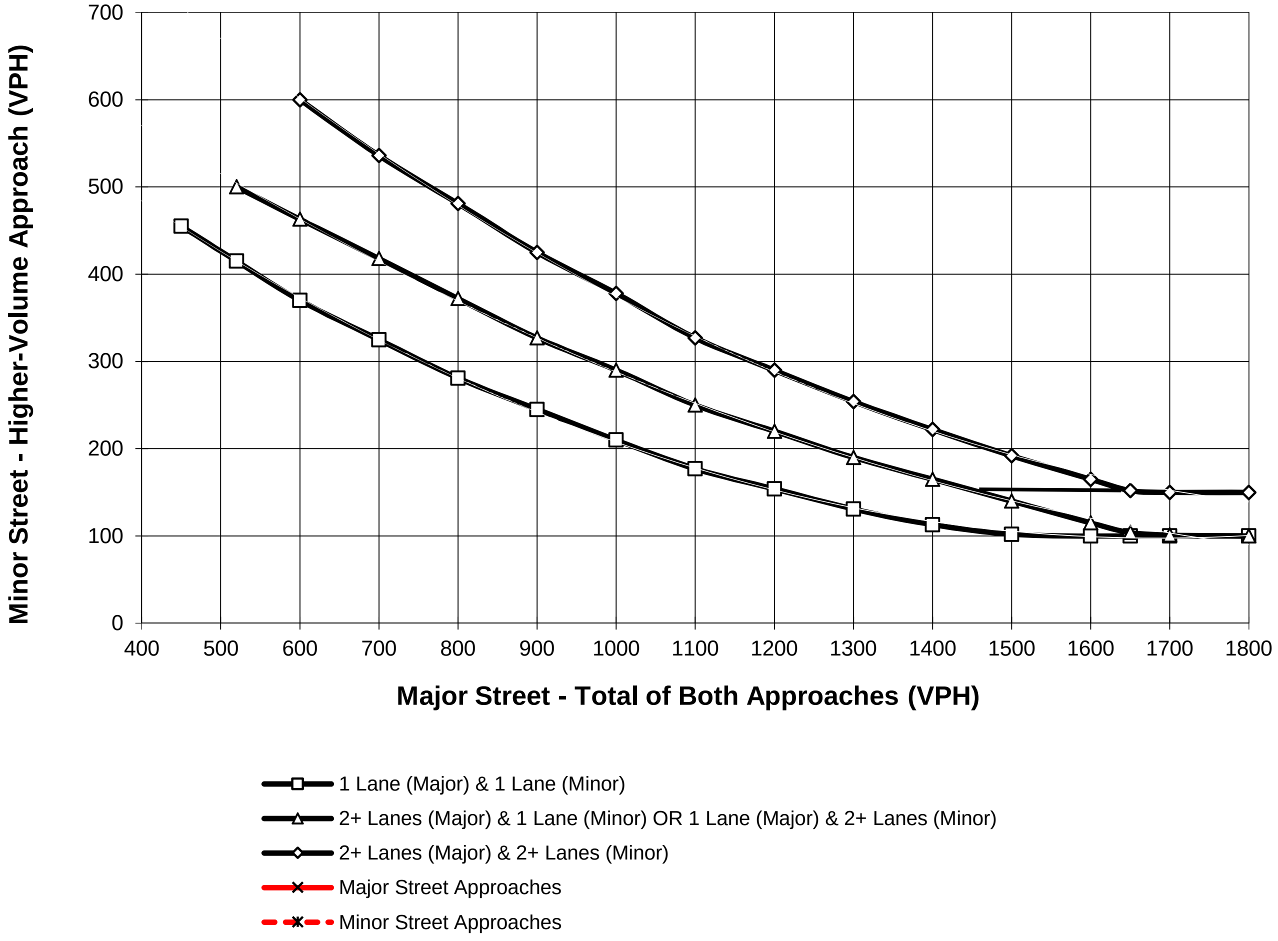

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

California MUTCD 2014 (FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

TRAFFIC CONDITIONS **E+P Construction**

DIST ___ CO ___ RTE ___ PM ___

CALC CHS DATE 11/12/15

CHK CHS DATE 11/12/15

Jurisdiction: **City of Moreno Valley**

Major Street: **Cosmos Street**

Minor Street: **Krameria Avenue**

Critical Approach Speed (Major) 25 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,369** vpd

Minor Street Future ADT = **379** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ………. ☐

or **URBAN (U)**

In built up area of isolated community of < 10,000 population …………………… ☐

(Based on Estimated Average Daily Traffic - See Note)

URBAN		RURAL		Minimum Requirements EADT			
XX							
CONDITION A - Minimum Vehicular Volume				Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied		Not Satisfied					
		XX					
Number of lanes for moving traffic on each approach							
Major Street		Minor Street		Urban	Rural	Urban	Rural
1	**4,369**	*1*	**379**	8,000	5,600	2,400	1,680
2 +		*1*		9,600	6,720	2,400	1,680
2 +		*2 +*		9,600	6,720	3,200	2,240
1		*2 +*		8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied		Not Satisfied					
		XX					
Number of lanes for moving traffic on each approach							
Major Street		Minor Street		Urban	Rural	Urban	Rural
1	**4,369**	*1*	**379**	12,000	8,400	1,200	850
2 +		*1*		14,400	10,080	1,200	850
2 +		*2 +*		14,400	10,080	1,600	1,120
1		*2 +*		12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				2 CONDITIONS 80%		2 CONDITIONS 80%	
Satisfied		Not Satisfied					
		XX					
No one condition satisfied, but following conditions fulfilled 80% of more …..		A	B				
		16%	**32%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

California MUTCD 2014 Edition
(FHWA's MUTCD 2009, as amended for use in California)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Construction) Conditions - Weekday AM Peak Hour**

Major Street Name = **Indian Avenue**

Total of Both Approaches (VPH) = **312**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Krameria Avenue**

High Volume Approach (VPH) = **97**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED

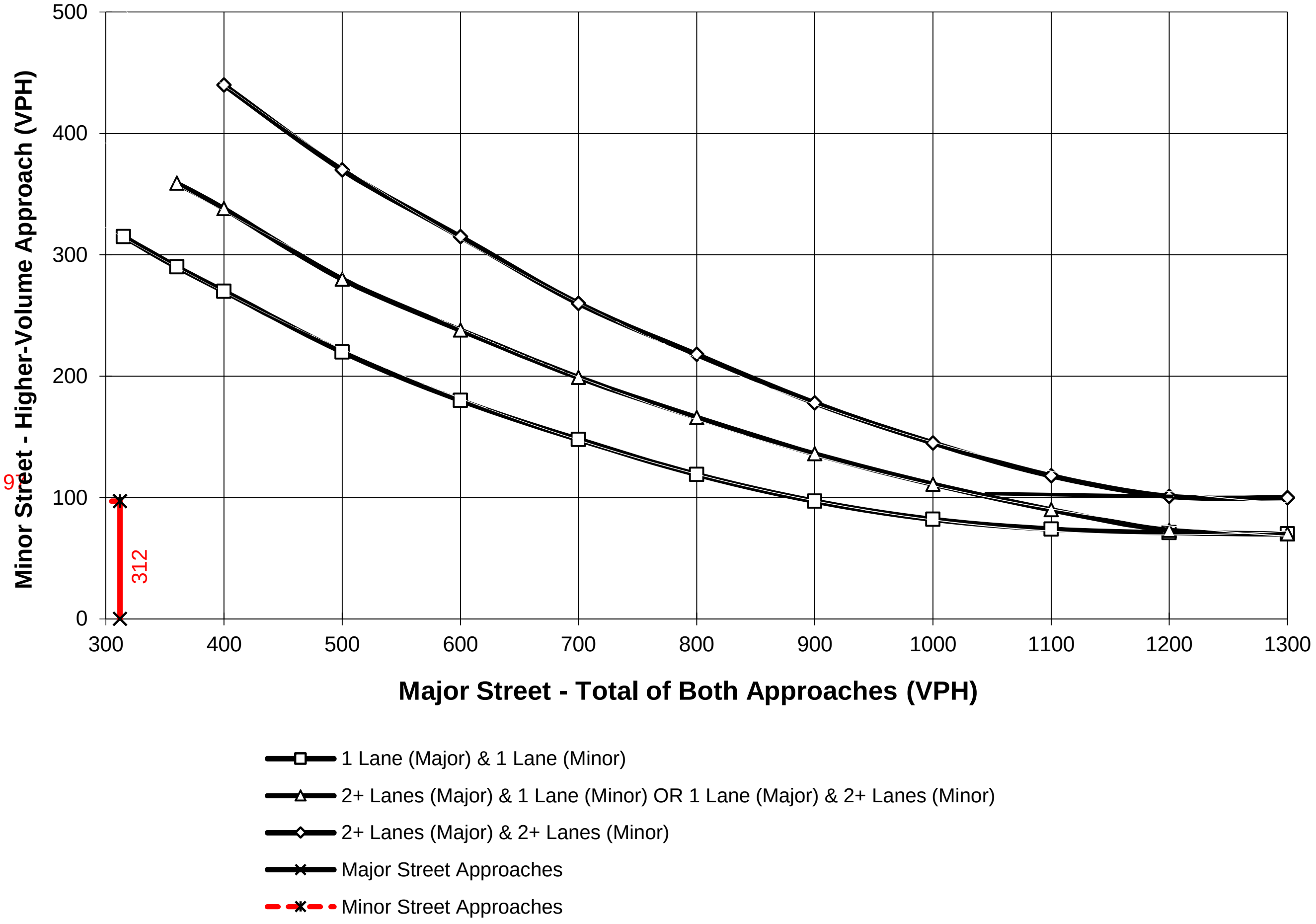

*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

ATTACHMENT D
E+P (CONSTRUCTION TRAFFIC) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*North of Cactus Avenue*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5024*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1399*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.5*	mph	S		mph
D = v_p / S	*20.1*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*South of Cactus Avenue*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4706*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1304*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*11/11/15*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*North of Harley Knox Bl.*
Jurisdiction	*Caltrans*
Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2557*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*945*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*13.5*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*South of Harley Knox Bl.*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2198*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*808*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*11.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*11/11/15*
Analysis Time Period	*AM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Northbound*
From/To	*North of Cactus Avenue*
Jurisdiction	*Caltrans*
Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2748*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*8*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.962*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*777*	pc/h/ln
S	*70.0*	mph
D = v_p / S	*11.1*	pc/mi/ln
LOS	*B*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*South of Cactus Avenue*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3687*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft	f_{LW}		mph
Rt-Side Lat. Clearance		ft	f_{LC}		mph
Number of Lanes, N	*4*		TRD Adjustment		mph
Total Ramp Density, TRD		ramps/mi	FFS	*70.0*	mph
FFS (measured)	*70.0*	mph			
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1027*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*14.7*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / *Site Information*

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*North of Harley Knox Bl.*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*4100*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*3*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1523*	pc/h/ln
S	*68.8*	mph
D = v_p / S	*22.1*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*South of Harley Knox Bl.*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*AM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3741*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1383*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.6*	mph	S	mph
D = v_p / S	*19.9*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information / Site Information

Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*North of Cactus Avenue*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5584*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1555*	pc/h/ln
S	*68.5*	mph
D = v_p / S	*22.7*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information

Analyst	*CHS*
Agency or Company	*Urban Crossroads, Inc.*
Date Performed	*11/11/15*
Analysis Time Period	*PM Peak Hour*

Site Information

Highway/Direction of Travel	*I-215 Southbound*
From/To	*South of Cactus Avenue*
Jurisdiction	*Caltrans*
Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*5369*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs

Lane Width		ft
Rt-Side Lat. Clearance		ft
Number of Lanes, N	*4*	
Total Ramp Density, TRD		ramps/mi
FFS (measured)	*70.0*	mph
Base free-flow Speed, BFFS		mph

Calc Speed Adj and FFS

f_{LW}		mph
f_{LC}		mph
TRD Adjustment		mph
FFS	*70.0*	mph

LOS and Performance Measures

Operational (LOS)

v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1488*	pc/h/ln
S	*69.0*	mph
D = v_p / S	*21.6*	pc/mi/ln
LOS	*C*	

Design (N)

Design (N)

Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S		mph
D = v_p / S		pc/mi/ln
Required Number of Lanes, N		

Glossary

N - Number of lanes
V - Hourly volume
v_p - Flow rate
LOS - Level of service
DDHV - Directional design hour volume
S - Speed
D - Density
FFS - Free-flow speed
BFFS - Base free-flow speed

Factor Location

E_R - Exhibits 11-10, 11-12
E_T - Exhibits 11-10, 11-11, 11-13
f_p - Page 11-18
LOS, S, FFS, v_p - Exhibits 11-2, 11-3
f_{LW} - Exhibit 11-8
f_{LC} - Exhibit 11-9
TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*North of Harley Knox Bl.*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3870*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*5*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.976*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1437*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*69.3*	mph	S		mph
D = v_p / S	*20.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*C*		Required Number of Lanes, N		

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Southbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*South of Harley Knox Bl.*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3506*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length	*mi*
			Up/Down %	

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)	
Operational (LOS)			Design (N)	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1296*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*69.9*	mph	S	mph
D = v_p / S	*18.5*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*C*		Required Number of Lanes, N	

Glossary

N - Number of lanes

V - Hourly volume

v_p - Flow rate

LOS - Level of service

S - Speed

D - Density

FFS - Free-flow speed

BFFS - Base free-flow speed

DDHV - Directional design hour volume

Factor Location

E_R - Exhibits 11-10, 11-12

E_T - Exhibits 11-10, 11-11, 11-13

f_p - Page 11-18

LOS, S, FFS, v_p - Exhibits 11-2, 11-3

f_{LW} - Exhibit 11-8

f_{LC} - Exhibit 11-9

TRD - Page 11-11

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*North of Cactus Avenue*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2646*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*6*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.971*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*741*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*10.6*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*South of Cactus Avenue*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2719*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.5*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*4*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*754*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*10.8*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*A*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		***Site Information***	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*North of Harley Knox Bl.*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*3288*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*4*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.980*

Speed Inputs			**Calc Speed Adj and FFS**		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			**Design (N)**	
<u>Operational (LOS)</u>			<u>Design (N)</u>	
			Design LOS	
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1215*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	pc/h/ln
S	*70.0*	mph	S	mph
D = v_p / S	*17.4*	pc/mi/ln	D = v_p / S	pc/mi/ln
LOS	*B*		Required Number of Lanes, N	

Glossary		**Factor Location**	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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BASIC FREEWAY SEGMENTS WORKSHEET

General Information		Site Information	
Analyst	*CHS*	Highway/Direction of Travel	*I-215 Northbound*
Agency or Company	*Urban Crossroads, Inc.*	From/To	*South of Harley Knox Bl.*
Date Performed	*11/11/15*	Jurisdiction	*Caltrans*
Analysis Time Period	*PM Peak Hour*	Analysis Year	*E+P Construction*

Project Description *Moreno Valley Logistics Center TIA (JN 09301)*

☑ Oper.(LOS) ☐ Des.(N) ☐ Planning Data

Flow Inputs

Volume, V	*2801*	veh/h	Peak-Hour Factor, PHF	*0.92*
AADT		veh/day	%Trucks and Buses, P_T	*3*
Peak-Hr Prop. of AADT, K			%RVs, P_R	*0*
Peak-Hr Direction Prop, D			General Terrain:	*Level*
DDHV = AADT x K x D		veh/h	Grade % Length Up/Down %	*mi*

Calculate Flow Adjustments

f_p	*1.00*	E_R	*1.2*
E_T	*1.5*	$f_{HV} = 1/[1+P_T(E_T - 1) + P_R(E_R - 1)]$	*0.985*

Speed Inputs			Calc Speed Adj and FFS		
Lane Width		ft			
Rt-Side Lat. Clearance		ft	f_{LW}		mph
Number of Lanes, N	*3*		f_{LC}		mph
Total Ramp Density, TRD		ramps/mi	TRD Adjustment		mph
FFS (measured)	*70.0*	mph	FFS	*70.0*	mph
Base free-flow Speed, BFFS		mph			

LOS and Performance Measures			Design (N)		
Operational (LOS)			Design (N)		
			Design LOS		
v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)	*1030*	pc/h/ln	v_p = (V or DDHV) / (PHF x N x f_{HV} x f_p)		pc/h/ln
S	*70.0*	mph	S		mph
D = v_p / S	*14.7*	pc/mi/ln	D = v_p / S		pc/mi/ln
LOS	*B*		Required Number of Lanes, N		

Glossary		Factor Location	
N - Number of lanes	S - Speed	E_R - Exhibits 11-10, 11-12	f_{LW} - Exhibit 11-8
V - Hourly volume	D - Density	E_T - Exhibits 11-10, 11-11, 11-13	f_{LC} - Exhibit 11-9
v_p - Flow rate	FFS - Free-flow speed	f_p - Page 11-18	TRD - Page 11-11
LOS - Level of service	BFFS - Base free-flow speed	LOS, S, FFS, v_p - Exhibits 11-2, 11-3	
DDHV - Directional design hour volume			

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

ATTACHMENT E

E+P (CONSTRUCTION TRAFFIC) CONDITIONS FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS WORKSHEETS

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 173 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4851
Ramp Volume, V_R	510
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4851	0.92	Level	5	0	0.976	1.00	5405
Ramp	510	0.92	Level	10	0	0.952	1.00	582
UpStream	173	0.92	Level	14	0	0.935	1.00	201
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

D_R = 5.475 + 0.00734 v $_R$ + 0.0078 V_{12} - 0.00627 L_A

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2685 pc/h

V_3 or V_{av34} 1360 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5405	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4823	Exhibit 13-8	9600	No
V_R	582	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2685	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D

D_R = 27.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.740 (Exhibit 13-12)

S_R= 49.3 mph (Exhibit 13-12)

S_0= 75.4 mph (Exhibit 13-12)

S = 59.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	4851
Ramp Volume, V_R	510
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 365 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	4851	0.92	Level	5	0	0.976	1.00	5405
Ramp	510	0.92	Level	10	0	0.952	1.00	582
UpStream								
DownStream	365	0.92	Level	6	0	0.971	1.00	409

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 2685 pc/h

V_3 or V_{av34} 1360 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	5405	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	4823	Exhibit 13-8	9600	No
V_R	582	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2685	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 27.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.740 (Exhibit 13-12)

S_R= 49.3 mph (Exhibit 13-12)

S_0= 75.4 mph (Exhibit 13-12)

S = 59.7 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	2557
Ramp Volume, V_R	469
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 110 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2557	0.92	Level	4	0	0.980	1.00	2835
Ramp	469	0.92	Level	18	0	0.917	1.00	556
UpStream								
DownStream	110	0.92	Level	35	0	0.851	1.00	140

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.664 using Equation (Exhibit 13-7)

V_{12} = 2068 pc/h

V_3 or V_{av34} 767 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	2835	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2279	Exhibit 13-8	7200	No
V_R	556	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2068	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 20.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.348 (Exhibit 13-12)

S_R= 60.3 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 64.0 mph (Exhibit 13-13)

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 469 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	2088
Ramp Volume, V_R	110
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2088	0.92	Level	1	0	0.995	1.00	2281
Ramp	110	0.92	Level	35	0	0.851	1.00	140
UpStream	469	0.92	Level	18	0	0.917	1.00	556
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\,(P_{FM})$

L_{EQ} = 584.93 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 1334 pc/h

V_3 or V_{av34} 947 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1334 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2421	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1474	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$

D_R = 15.3 (pc/mi/ln)

LOS = B (Exhibit 13-2)

Speed Determination

M_S = 0.315 (Exibit 13-11)

S_R= 61.2 mph (Exhibit 13-11)

S_0= 68.4 mph (Exhibit 13-11)

S = 63.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 15 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	2441
Ramp Volume, V_R	307
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2441	0.92	Level	7	0	0.966	1.00	2746
Ramp	307	0.92	Level	12	0	0.943	1.00	354
UpStream	15	0.92	Level	87	0	0.697	1.00	23
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 1586 pc/h

V_3 or V_{av34} 1160 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1586 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3100	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1940	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = 20.4 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.348 (Exibit 13-11)

S_R= 60.3 mph (Exhibit 13-11)

S_0= 67.6 mph (Exhibit 13-11)

S = 62.8 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 110 veh/h

Freeway Number of Lanes, N 3

Ramp Number of Lanes, N 1

Acceleration Lane Length, L_A 300

Deceleration Lane Length L_D

Freeway Volume, V_F 3631

Ramp Volume, V_R 469

Freeway Free-Flow Speed, S_{FF} 70.0

Ramp Free-Flow Speed, S_{FR} 45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3631	0.92	Level	3	0	0.985	1.00	4006
Ramp	469	0.92	Level	14	0	0.935	1.00	545
UpStream	110	0.92	Level	18	0	0.917	1.00	130
DownStream								

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = 1058.51 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 2347 pc/h

V_3 or V_{av34} 1659 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 2347 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	4551	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2892	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = 25.9 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.364 (Exibit 13-11)

S_R= 59.8 mph (Exhibit 13-11)

S_0= 65.8 mph (Exhibit 13-11)

S = 61.9 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	AM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	3741
Ramp Volume, V_R	110
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 469 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3741	0.92	Level	4	0	0.980	1.00	4148
Ramp	110	0.92	Level	18	0	0.917	1.00	130
UpStream								
DownStream	469	0.92	Level	14	0	0.935	1.00	545

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734 v_R + 0.0078 V_{12} - 0.00627 L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.650 using Equation (Exhibit 13-7)

V_{12} = 2743 pc/h

V_3 or V_{av34} 1405 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes, V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4148	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	4018	Exhibit 13-8	7200	No
V_R	130	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2743	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086 V_{12} - 0.009 L_D$

D_R = 25.3 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.310 (Exhibit 13-12)

S_R= 61.3 mph (Exhibit 13-12)

S_0= 75.2 mph (Exhibit 13-12)

S = 65.4 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Upstream
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1000 ft

V_u = 152 veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5432
Ramp Volume, V_R	682
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	5432	0.92	Level	5	0	0.976	1.00	6052
Ramp	682	0.92	Level	6	0	0.971	1.00	764
UpStream	152	0.92	Level	13	0	0.939	1.00	176
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3070 pc/h

V_3 or V_{av34} 1491 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6052	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5288	Exhibit 13-8	9600	No
V_R	764	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3070	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = 30.7 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.757 (Exhibit 13-12)

S_R= 48.8 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 58.9 mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus Off-ramp Loop Downstrea
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	4
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	0
Freeway Volume, V_F	5432
Ramp Volume, V_R	682
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	15.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1500 ft

V_D = 619 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	5432	0.92	Level	5	0	0.976	1.00	6052
Ramp	682	0.92	Level	6	0	0.971	1.00	764
UpStream								
DownStream	619	0.92	Level	2	0	0.990	1.00	680

Merge Areas

Estimation of v_{12}

$V_{12} = V_F (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.436 using Equation (Exhibit 13-7)

V_{12} = 3070 pc/h

V_3 or V_{av34} 1491 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	6052	Exhibit 13-8	9600	No
$V_{FO} = V_F - V_R$	5288	Exhibit 13-8	9600	No
V_R	764	Exhibit 13-10	1800	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	3070	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 30.7 (pc/mi/ln)

LOS = D (Exhibit 13-2)

Speed Determination

D_s = 0.757 (Exhibit 13-12)

S_R= 48.8 mph (Exhibit 13-12)

S_0= 74.9 mph (Exhibit 13-12)

S = 58.9 mph (Exhibit 13-13)

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	195
Freeway Volume, V_F	3870
Ramp Volume, V_R	547
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1420 ft

V_D = 183 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	3870	0.92	Level	5	0	0.976	1.00	4312
Ramp	547	0.92	Level	14	0	0.935	1.00	636
UpStream								
DownStream	183	0.92	Level	13	0	0.939	1.00	212

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\,v_R + 0.0078\,V_{12} - 0.00627\,L_A$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.623 using Equation (Exhibit 13-7)

V_{12} = 2926 pc/h

V_3 or V_{av34} 1386 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	4312	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	3676	Exhibit 13-8	7200	No
V_R	636	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2926	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\,V_{12} - 0.009\,L_D$$

D_R = 27.7 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.355 (Exhibit 13-12)

S_R= 60.1 mph (Exhibit 13-12)

S_0= 75.3 mph (Exhibit 13-12)

S = 64.2 mph (Exhibit 13-13)

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Southbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1420 ft

V_u = 547 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	260
Deceleration Lane Length L_D	
Freeway Volume, V_F	3323
Ramp Volume, V_R	183
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	3323	0.92	Level	3	0	0.985	1.00	3666
Ramp	183	0.92	Level	13	0	0.939	1.00	212
UpStream	547	0.92	Level	14	0	0.935	1.00	636
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = 896.73 (Equation 13-6 or 13-7)

P_{FM} = 0.585 using Equation (Exhibit 13-6)

V_{12} = 2144 pc/h

V_3 or V_{av34} 1522 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☑ Yes ☐ No

If Yes,V_{12a} = 2144 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3878	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2356	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = 22.1 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.339 (Exibit 13-11)

S_R= 60.5 mph (Exhibit 13-11)

S_0= 66.3 mph (Exhibit 13-11)

S = 62.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information		Site Information	
Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Cactus On-ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{up} = 1075 ft

V_u = 113 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	0
Deceleration Lane Length L_D	
Freeway Volume, V_F	2068
Ramp Volume, V_R	578
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	$v = V/PHF \times f_{HV} \times f_p$
Freeway	2068	0.92	Level	6	0	0.971	1.00	2315
Ramp	578	0.92	Level	7	0	0.966	1.00	650
UpStream	113	0.92	Level	16	0	0.926	1.00	133
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F\,(P_{FM})$$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = 0.577 using Equation (Exhibit 13-6)

V_{12} = 1337 pc/h

V_3 or V_{av34} 978 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☑ Yes ☐ No

If Yes,V_{12a} = 1337 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	2965	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	1987	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\, v_R + 0.0078\, V_{12} - 0.00627\, L_A$$

D_R = 20.7 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.349 (Exibit 13-11)

S_R= 60.2 mph (Exhibit 13-11)

S_0= 68.3 mph (Exhibit 13-11)

S = 62.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * $V_{12}/2$ ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\, V_{12} - 0.009\, L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox On-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☑ Yes ☐ On

☐ No ☑ Off

L_{up} = 1395 ft

V_u = 137 veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	300
Deceleration Lane Length L_D	
Freeway Volume, V_F	2664
Ramp Volume, V_R	624
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{down} = ft

V_D = veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2664	0.92	Level	2	0	0.990	1.00	2925
Ramp	624	0.92	Level	11	0	0.948	1.00	716
UpStream	137	0.92	Level	15	0	0.930	1.00	160
DownStream								

Merge Areas

Estimation of v_{12}

$$V_{12} = V_F (P_{FM})$$

L_{EQ} = 863.77 (Equation 13-6 or 13-7)

P_{FM} = 0.586 using Equation (Exhibit 13-6)

V_{12} = 1714 pc/h

V_3 or V_{av34} 1211 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☑ Yes ☐ No

If Yes,V_{12a} = 1714 pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}	3641	Exhibit 13-8		No

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}	2430	Exhibit 13-8	4600:All	No

Level of Service Determination (if not F)

$$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$$

D_R = 22.2 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

M_S = 0.338 (Exibit 13-11)

S_R= 60.5 mph (Exhibit 13-11)

S_0= 67.4 mph (Exhibit 13-11)

S = 62.7 mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$$V_{12} = V_R + (V_F - V_R)P_{FD}$$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = using Equation (Exhibit 13-7)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F		Exhibit 13-8		
$V_{FO} = V_F - V_R$		Exhibit 13-8		
V_R		Exhibit 13-10		

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}		Exhibit 13-8		

Level of Service Determination (if not F)

$$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

D_s = (Exhibit 13-12)

S_R= mph (Exhibit 13-12)

S_0= mph (Exhibit 13-12)

S = mph (Exhibit 13-13)

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RAMPS AND RAMP JUNCTIONS WORKSHEET

General Information / Site Information

Analyst	CHS	Freeway/Dir of Travel	I-215 Northbound
Agency or Company	Urban Crossroads, Inc.	Junction	Harley Knox Off-Ramp
Date Performed	11/11/15	Jurisdiction	Caltrans
Analysis Time Period	PM Peak Hour	Analysis Year	E+P Construction

Project Description Moreno Valley Logistics Center TIA (JN 09301)

Inputs

Upstream Adj Ramp

☐ Yes ☐ On

☑ No ☐ Off

L_{up} = ft

V_u = veh/h

Freeway Number of Lanes, N	3
Ramp Number of Lanes, N	1
Acceleration Lane Length, L_A	
Deceleration Lane Length L_D	280
Freeway Volume, V_F	2801
Ramp Volume, V_R	137
Freeway Free-Flow Speed, S_{FF}	70.0
Ramp Free-Flow Speed, S_{FR}	45.0

Downstream Adj Ramp

☑ Yes ☑ On

☐ No ☐ Off

L_{down} = 1395 ft

V_D = 624 veh/h

Conversion to pc/h Under Base Conditions

(pc/h)	V (Veh/hr)	PHF	Terrain	%Truck	%Rv	f_{HV}	f_p	v = V/PHF x f_{HV} x f_p
Freeway	2801	0.92	Level	3	0	0.985	1.00	3090
Ramp	137	0.92	Level	15	0	0.930	1.00	160
UpStream								
DownStream	624	0.92	Level	11	0	0.948	1.00	716

Merge Areas

Estimation of v_{12}

$V_{12} = V_F\ (P_{FM})$

L_{EQ} = (Equation 13-6 or 13-7)

P_{FM} = using Equation (Exhibit 13-6)

V_{12} = pc/h

V_3 or V_{av34} pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☐ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☐ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_{FO}		Exhibit 13-8		

Flow Entering Merge Influence Area

	Actual	Max Desirable		Violation?
V_{R12}		Exhibit 13-8		

Level of Service Determination (if not F)

$D_R = 5.475 + 0.00734\ v_R + 0.0078\ V_{12} - 0.00627\ L_A$

D_R = (pc/mi/ln)

LOS = (Exhibit 13-2)

Speed Determination

M_S = (Exibit 13-11)

S_R= mph (Exhibit 13-11)

S_0= mph (Exhibit 13-11)

S = mph (Exhibit 13-13)

Diverge Areas

Estimation of v_{12}

$V_{12} = V_R + (V_F - V_R)P_{FD}$

L_{EQ} = (Equation 13-12 or 13-13)

P_{FD} = 0.675 using Equation (Exhibit 13-7)

V_{12} = 2139 pc/h

V_3 or V_{av34} 951 pc/h (Equation 13-14 or 13-17)

Is V_3 or V_{av34} > 2,700 pc/h? ☐ Yes ☑ No

Is V_3 or V_{av34} > 1.5 * V_{12}/2 ☐ Yes ☑ No

If Yes,V_{12a} = pc/h (Equation 13-16, 13-18, or 13-19)

Capacity Checks

	Actual	Capacity		LOS F?
V_F	3090	Exhibit 13-8	7200	No
$V_{FO} = V_F - V_R$	2930	Exhibit 13-8	7200	No
V_R	160	Exhibit 13-10	2100	No

Flow Entering Diverge Influence Area

	Actual	Max Desirable		Violation?
V_{12}	2139	Exhibit 13-8	4400:All	No

Level of Service Determination (if not F)

$D_R = 4.252 + 0.0086\ V_{12} - 0.009\ L_D$

D_R = 20.1 (pc/mi/ln)

LOS = C (Exhibit 13-2)

Speed Determination

D_s = 0.312 (Exhibit 13-12)

S_R= 61.3 mph (Exhibit 13-12)

S_0= 76.8 mph (Exhibit 13-12)

S = 65.3 mph (Exhibit 13-13)

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Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

ATTACHMENT F
E+P (CONSTRUCTION TRAFFIC) CONDITIONS INTERSECTION OPERATIONS WORKSHEETS, WITH IMPROVEMENTS

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Traffic Volume (veh/h)	3	92	601	2	55	478
Future Volume (veh/h)	3	92	601	2	55	478
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	97	633	2	58	503
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	138	123	747	635	561	1476
Arrive On Green	0.08	0.08	0.39	0.39	0.31	0.78
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	3	97	633	2	58	503
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.1	4.4	22.7	0.1	1.7	6.0
Cycle Q Clear(g_c), s	0.1	4.4	22.7	0.1	1.7	6.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	138	123	747	635	561	1476
V/C Ratio(X)	0.02	0.79	0.85	0.00	0.10	0.34
Avail Cap(c_a), veh/h	627	560	747	635	561	1476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.84	0.84	1.00	1.00
Uniform Delay (d), s/veh	32.0	34.0	20.7	13.8	18.4	2.5
Incr Delay (d2), s/veh	0.0	4.1	9.8	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.1	13.8	0.0	0.9	3.3
LnGrp Delay(d),s/veh	32.1	38.1	30.5	13.8	18.5	3.2
LnGrp LOS	C	D	C	B	B	A
Approach Vol, veh/h	100		635			561
Approach Delay, s/veh	38.0		30.4			4.7
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	28.8	35.0				63.8		11.2
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	4.0	* 30				38.0		26.0
Max Q Clear Time (g_c+I1), s	3.7	24.7				8.0		6.4
Green Ext Time (p_c), s	0.1	1.1				1.7		0.1

Intersection Summary		
HCM 2010 Ctrl Delay		19.9
HCM 2010 LOS		B

Notes

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↱		↰	↑
Traffic Volume (veh/h)	45	383	221	36	200	278
Future Volume (veh/h)	45	383	221	36	200	278
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	48	407	235	38	213	296
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	491	438	668	108	250	1152
Arrive On Green	0.27	0.27	0.42	0.42	0.14	0.61
Sat Flow, veh/h	1810	1615	1596	258	1810	1900
Grp Volume(v), veh/h	48	407	0	273	213	296
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1854	1810	1900
Q Serve(g_s), s	1.8	22.1	0.0	9.0	10.3	6.5
Cycle Q Clear(g_c), s	1.8	22.1	0.0	9.0	10.3	6.5
Prop In Lane	1.00	1.00		0.14	1.00	
Lane Grp Cap(c), veh/h	491	438	0	775	250	1152
V/C Ratio(X)	0.10	0.93	0.00	0.35	0.85	0.26
Avail Cap(c_a), veh/h	553	493	0	775	392	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.95	0.95
Uniform Delay (d), s/veh	24.5	31.9	0.0	17.9	37.9	8.3
Incr Delay (d2), s/veh	0.0	21.7	0.0	1.3	5.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	12.4	0.0	4.9	5.5	3.5
LnGrp Delay(d),s/veh	24.6	53.6	0.0	19.1	43.6	8.8
LnGrp LOS	C	D		B	D	A
Approach Vol, veh/h	455		273			509
Approach Delay, s/veh	50.5		19.1			23.4
Approach LOS	D		B			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	16.9	43.1				60.1		29.9
Change Period (Y+Rc), s	4.5	5.5				5.5		5.5
Max Green Setting (Gmax), s	19.5	27.5				51.5		27.5
Max Q Clear Time (g_c+I1), s	12.3	11.0				8.5		24.1
Green Ext Time (p_c), s	0.2	1.6				1.8		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.4
HCM 2010 LOS	C

Attachment: I3 - Construction Traffic Evaluation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

HCM 2010 Signalized Intersection Summary

Moreno Valley Logistics Center TIA (JN 09301)

18: Heacock Street & San Michele Road

11/12/2015

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	2	4	4	7	5	188	1	39	5	115	88	7
Future Volume (veh/h)	2	4	4	7	5	188	1	39	5	115	88	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	5	2	9	7	184	1	52	7	153	117	8
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	16	95	80	16	95	737	2	618	525	735	1406	1195
Arrive On Green	0.01	0.05	0.05	0.01	0.05	0.05	0.00	0.32	0.32	0.41	0.74	0.74
Sat Flow, veh/h	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	3	5	2	9	7	184	1	52	7	153	117	8
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.2	0.3	0.1	0.5	0.4	0.0	0.1	1.9	0.3	5.5	1.7	0.1
Cycle Q Clear(g_c), s	0.2	0.3	0.1	0.5	0.4	0.0	0.1	1.9	0.3	5.5	1.7	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	16	95	80	16	95	737	2	618	525	735	1406	1195
V/C Ratio(X)	0.19	0.05	0.02	0.56	0.07	0.25	0.50	0.08	0.01	0.21	0.08	0.01
Avail Cap(c_a), veh/h	100	551	468	72	523	1100	81	618	525	735	1406	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.68	0.68	0.68	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	45.3	36.1	49.4	45.3	16.7	49.9	23.4	22.9	19.2	3.6	1.1
Incr Delay (d2), s/veh	2.1	0.1	0.0	7.6	0.1	0.0	58.7	0.3	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.0	0.3	0.2	3.1	0.1	1.0	0.1	2.7	0.9	0.0
LnGrp Delay(d),s/veh	51.3	45.3	36.1	56.9	45.4	16.7	108.6	23.7	22.9	19.3	3.7	1.2
LnGrp LOS	D	D	D	E	D	B	F	C	C	B	A	A
Approach Vol, veh/h		10			200			60			278	
Approach Delay, s/veh		45.3			19.5			25.0			12.2	
Approach LOS		D			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	46.1	38.0	5.4	10.5	4.6	79.5	5.4	10.5
Change Period (Y+Rc), s	5.5	* 5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	14.5	* 33	4.0	29.0	4.5	42.5	5.5	27.5
Max Q Clear Time (g_c+I1), s	7.5	3.9	2.5	2.3	2.1	3.7	2.2	2.4
Green Ext Time (p_c), s	0.3	0.1	0.0	0.0	0.0	0.5	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Notes

HCM 2010 Signalized Intersection Summary Moreno Valley Logistics Center TIA (JN 09301)
12: Heacock Street & Gentian Avenue 11/12/2015

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑	↱	↰	↑
Traffic Volume (veh/h)	1	60	713	7	124	972
Future Volume (veh/h)	1	60	713	7	124	972
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1	65	767	8	133	1045
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	92	82	965	820	500	1594
Arrive On Green	0.05	0.05	0.51	0.51	0.28	0.84
Sat Flow, veh/h	1810	1615	1900	1615	1810	1900
Grp Volume(v), veh/h	1	65	767	8	133	1045
Grp Sat Flow(s),veh/h/ln	1810	1615	1900	1615	1810	1900
Q Serve(g_s), s	0.1	4.0	33.3	0.2	5.7	19.7
Cycle Q Clear(g_c), s	0.1	4.0	33.3	0.2	5.7	19.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	92	82	965	820	500	1594
V/C Ratio(X)	0.01	0.79	0.79	0.01	0.27	0.66
Avail Cap(c_a), veh/h	470	420	965	820	500	1594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.70	0.70	1.00	1.00
Uniform Delay (d), s/veh	45.1	46.9	20.3	12.2	28.3	2.9
Incr Delay (d2), s/veh	0.0	6.3	4.8	0.0	0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	18.5	0.1	2.9	10.8
LnGrp Delay(d),s/veh	45.1	53.2	25.1	12.2	28.4	5.0
LnGrp LOS	D	D	C	B	C	A
Approach Vol, veh/h	66		775			1178
Approach Delay, s/veh	53.1		25.0			7.6
Approach LOS	D		C			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	33.1	56.3				89.4		10.6
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	7.7	* 51				63.0		26.0
Max Q Clear Time (g_c+I1), s	7.7	35.3				21.7		6.0
Green Ext Time (p_c), s	0.0	2.7				5.4		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Notes

	↙	↖	↑	↗	↘	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰	↑
Traffic Volume (veh/h)	18	243	470	18	512	440
Future Volume (veh/h)	18	243	470	18	512	440
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	283	547	21	595	512
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	344	307	591	23	628	1364
Arrive On Green	0.19	0.19	0.32	0.32	0.35	0.72
Sat Flow, veh/h	1810	1615	1818	70	1810	1900
Grp Volume(v), veh/h	21	283	0	568	595	512
Grp Sat Flow(s),veh/h/ln	1810	1615	0	1888	1810	1900
Q Serve(g_s), s	1.1	20.6	0.0	34.9	38.4	12.5
Cycle Q Clear(g_c), s	1.1	20.6	0.0	34.9	38.4	12.5
Prop In Lane	1.00	1.00		0.04	1.00	
Lane Grp Cap(c), veh/h	344	307	0	613	628	1364
V/C Ratio(X)	0.06	0.92	0.00	0.93	0.95	0.38
Avail Cap(c_a), veh/h	392	350	0	613	628	1364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.70	0.70
Uniform Delay (d), s/veh	39.8	47.7	0.0	39.1	38.1	6.5
Incr Delay (d2), s/veh	0.0	25.7	0.0	22.1	18.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	11.4	0.0	21.9	22.4	6.8
LnGrp Delay(d),s/veh	39.8	73.4	0.0	61.2	56.3	7.1
LnGrp LOS	D	E		E	E	A
Approach Vol, veh/h	304		568			1107
Approach Delay, s/veh	71.1		61.2			33.6
Approach LOS	E		E			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	47.2	44.5				91.7		28.3
Change Period (Y+Rc), s	5.5	* 5.5				5.5		5.5
Max Green Setting (Gmax), s	39.5	* 39				83.0		26.0
Max Q Clear Time (g_c+I1), s	40.4	36.9				14.5		22.6
Green Ext Time (p_c), s	0.0	0.5				2.6		0.2

Intersection Summary			
HCM 2010 Ctrl Delay			47.2
HCM 2010 LOS			D

Notes

	↗	→	↘	↙	←	↖	↖	↑	↗	↘	↓	↙
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑	↱	↰	↑	↱	↰	↑	↱
Traffic Volume (veh/h)	11	6	5	11	0	256	0	71	3	331	212	2
Future Volume (veh/h)	11	6	5	11	0	256	0	71	3	331	212	2
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	9	7	16	0	366	0	101	0	473	303	3
Adj No. of Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	96	81	26	96	831	469	534	454	840	923	784
Arrive On Green	0.01	0.05	0.05	0.01	0.00	0.05	0.00	0.28	0.00	0.46	0.49	0.49
Sat Flow, veh/h	1810	1900	1599	1810	1900	1615	1810	1900	1615	1810	1900	1615
Grp Volume(v), veh/h	16	9	7	16	0	366	0	101	0	473	303	3
Grp Sat Flow(s),veh/h/ln	1810	1900	1599	1810	1900	1615	1810	1900	1615	1810	1900	1615
Q Serve(g_s), s	0.9	0.5	0.4	0.9	0.0	0.0	0.0	4.2	0.0	19.9	10.2	0.1
Cycle Q Clear(g_c), s	0.9	0.5	0.4	0.9	0.0	0.0	0.0	4.2	0.0	19.9	10.2	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	26	96	81	26	96	831	469	534	454	840	923	784
V/C Ratio(X)	0.62	0.09	0.09	0.62	0.00	0.44	0.00	0.19	0.00	0.56	0.33	0.00
Avail Cap(c_a), veh/h	86	470	396	69	452	1134	469	534	454	840	923	784
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.80	0.00	0.80	0.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.5	47.6	47.5	51.5	0.0	16.0	0.0	28.7	0.0	20.4	16.5	13.9
Incr Delay (d2), s/veh	8.8	0.2	0.2	7.1	0.0	0.1	0.0	0.8	0.0	0.5	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.3	0.2	0.5	0.0	6.5	0.0	2.3	0.0	10.0	5.6	0.0
LnGrp Delay(d),s/veh	60.3	47.7	47.7	58.6	0.0	16.1	0.0	29.5	0.0	21.0	17.5	13.9
LnGrp LOS	E	D	D	E		B		C		C	B	B
Approach Vol, veh/h		32			382			101			779	
Approach Delay, s/veh		54.0			17.9			29.5			19.6	
Approach LOS		D			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	53.2	35.0	6.0	10.8	31.7	56.5	6.0	10.8
Change Period (Y+Rc), s	4.5	5.5	4.5	5.5	4.5	5.5	4.5	5.5
Max Green Setting (Gmax), s	25.5	29.5	4.0	26.0	4.0	51.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	21.9	6.2	2.9	2.5	0.0	12.2	2.9	2.0
Green Ext Time (p_c), s	0.3	0.2	0.0	0.0	0.0	0.9	0.0	0.6

Intersection Summary			
HCM 2010 Ctrl Delay			20.7
HCM 2010 LOS			C

URBAN CROSSROADS
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June 17, 2016

Ms. Tracy Zinn
T&B Planning
17542 East 17th Street
Tustin, CA 92780

SUBJECT: MORENO VALLEY LOGISTICS CENTER FAIR SHARE CALCULATIONS

Dear Ms. Tracy Zinn:

The purpose of this letter is to provide fair share calculations for each building proposed as part of the Moreno Valley Logistics Center development (referred to as "Project") located in the City of Moreno Valley, based on the land uses and intensities proposed and analyzed in the current *Moreno Valley Logistics Center Traffic Impact Analysis* (revised date June 17, 2016, referred to as "Traffic Study"). The percent contribution (i.e., fair share), by building, for the cumulatively impacted intersections is provided on Table 1. The sum of the fair share percentages shown for each building add up to the total Project fair share identified in the Traffic Study for each applicable intersection.

TABLE 1: PROJECT FAIR SHARE BY BUILDING

#	Intersection	Building 1	Building 2	Building 3	Building 4	Total Project Fair Share[1]
5	Elsworth St / Cactus Av	2.0%	1.3%	1.1%	1.8%	**6.2%**
7	Western Wy / Harley Knox Bl	3.6%	2.3%	1.8%	3.1%	**10.7%**
8	Graham St / Cactus Av	1.8%	1.2%	1.0%	1.7%	**5.7%**
9	Patterson Av / Harley Knox Bl	3.9%	2.4%	1.9%	3.3%	**11.5%**
10	Heacock St / Cactus Av	3.4%	2.1%	1.7%	2.9%	**10.0%**
13	Heacock St / Iris Av	3.1%	2.1%	1.7%	2.9%	**9.8%**
18	Heacock St / San Michele Rd	3.0%	1.8%	1.5%	2.5%	**8.8%**
20	Webster Av / Harley Knox Bl	4.5%	2.8%	2.2%	3.8%	**13.4%**
26	Indian St / Krameria Av	2.1%	1.3%	1.0%	1.8%	**6.2%**
28	Indian St / San Michele Rd	1.0%	0.6%	0.5%	0.8%	**2.9%**
29	Indian St / Nandina Av	1.1%	0.7%	0.5%	0.9%	**3.1%**
30	Indian St / Harley Knox Bl	0.8%	0.5%	0.4%	0.6%	**2.2%**
31	Perris Bl / Cactus Av	0.5%	0.3%	0.2%	0.4%	**1.4%**
32	Perris Bl / Krameria Av	0.7%	0.4%	0.3%	0.6%	**2.1%**

[1] Total Project fair share percentage from the traffic study for each applicable intersection.

Attachment: I4 - Fair Share Calculations (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Aric Evatt, PTP
President

Charlene So, PE
Senior Transportation Engineer

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

Water Supply Assessment Report For the Moreno Valley Logistics Center

September 16, 2015

Section I - Introduction

1.1 Purpose

Water Code 10910 (a)(b)(c)

The purpose of the "Water Supply Assessment Report" is to satisfy the requirements under Senate Bill 610 (SB 610), Water Code Section 10910 et seq., and Senate Bill 221 (SB 221), Government Code Section 66473.7 that adequate water supplies are or will be available to meet the water demand associated with the proposed development. SB 610 focuses on the content of a water supply agency's Urban Water Management Plan (UWMP). It also stipulates that, when an environmental impact report is required in connection with a project, the appropriate water supply agency must provide an assessment of whether its total projected water supplies will meet the projected water demand associated with the Proposed Project. SB 221 requires water supply verification when a tentative map, parcel map, or development agreement for a project is submitted to a land use agency for approval. Senate Bill 221 applies to proposed residential development of more than 500 dwelling units with some exceptions. Senate Bill 610 applies to a proposed residential development of more than 500 dwelling units, or large commercial, industrial, or mixed-use development. The need for an assessment or verification is determined by the lead agency for the project.

1.2 Project Description

The City of Moreno Valley is the lead agency for the preparation of an EIR pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21000, et seq. for the Moreno Valley Logistics Center (Proposed Project). The Proposed Project is located South of Krameria Avenue, East of March Air Reserve Base, North of Cardinal Avenue, and West of Indian Avenue. The project will consist of warehouses on approximately 89.4 acres. The estimated demand for the project is 55 AFY. The land use considered for the project area in the 2010 UWMP demand projection was business park and light industrial. The demand for this project is within the limits of projected demand accounted for in the 2010 UWMP and would be included in the projected demand shown in Table 9 of this water supply assessment report. The project developer is Prologis, L.P. Figure A shows the location of the project.

1.3 Requirements

The City of Moreno Valley requested that Eastern Municipal Water District (EMWD) prepare this updated Water Supply Assessment Report. EMWD has confirmed that the demand from the Proposed Project is within the limits of demand accounted for in the EMWD 2010 UWMP adopted in June of 2011. Accordingly, the District has elected to incorporate information from the 2010 UWMP in the preparation of this Water Supply Assessment Report as authorized by Water Code Section 10910 (c)(2). The 2010 UWMP is attached as Appendix A.

In accordance with Water Code Section 10910(d) – (f), the Water Supply Assessment shall:

- Identify any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the Proposed Project, and provide a description of the quantities of water received in prior years by the public water system, under existing water supply entitlements, water rights, or water service contracts;

- If no water has been received in prior years by the public water system, identify other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts to the same source of water as the public water system; and

- If groundwater is included in the proposed supply, identify the groundwater basin or basins from which the Proposed Project will be supplied; and include any applicable documentation of adjudicated rights to pump. If the basin is not adjudicated, regardless of whether the basin has been identified as over-drafted; provide a detailed description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin from which the Proposed Project will be supplied; and provide a detailed description and analysis of the amount and location of groundwater from the basin or basins from which the Proposed Project will be supplied to meet the projected water demand associated with the Proposed Project.

If the Proposed Project includes a “subdivision” of more than 500 residential dwelling units as defined by Government Code Section 66473.7(a)(1), the public water system shall also provide verification as to whether the public water system is able or unable to provide a sufficient water supply based upon an analysis of whether water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection, will meet the projected demand associated with the proposed subdivision which considers:

- The historical record for at least 20 years;
- The applicability of any urban water shortage contingency analysis;
- The reduction in water supply for “specific water use sector” per an adopted resolution, ordinance or contract; and
- The amount of water that can be reasonably relied upon from specified supply projects.

This assessment is a technical, informational, and advisory opinion only. It is a supporting document for an environmental impact report and is not a commitment by EMWD to supply water for the Proposed Project. The information included is based on information available at the time of the report and changing circumstances could affect EMWD’s water supply evaluation presented in this document.

This assessment does not specifically address funding of new or existing supplies. The cost of water supplies will increase over time. The developer of this project will be required to fund the acquisition of new supplemental supplies, treatment, or recycled water facilities and water efficiency measures for existing customers. The extent of additional funding will be determined by EMWD and may take the form of a new component of connection fees or a separate charge. New customers may also be required to pay a higher commodity rate for water used than existing customers. This would offset the rising costs of new supplies.

Prior to project construction, the developer of this project is required to meet with EMWD staff to develop a plan of service. The plan of service will detail water, wastewater, and recycled water requirements to serve the projects. If there is a change in the circumstances detailed in this assessment, EMWD will address the changes in the plan of service for the project. Modifications at the plan of service stage could reduce the amount of water available to serve this project.

1.4 Background

Eastern Municipal Water District was formed in 1950 and annexed into The Metropolitan Water District of Southern California (MWD) in 1951 to deliver imported water. With the acquisition of the Fruitvale Mutual Water Company in 1971, EMWD assumed the role of a groundwater producer. Presently, EMWD's supply portfolio includes desalted groundwater and recycled water in addition to imported water and potable groundwater.

EMWD's service area encompasses 540 square miles with an estimated population of over 755,000. The service area includes areas where EMWD provides retail water directly or indirectly through the following agencies:

City of Hemet Water Department
City of Perris Water System
City of San Jacinto Water Department
Lake Hemet Municipal Water District (LHMWD)
North Perris Water System
Nuevo Water Company
Rancho California Water District (RCWD)

1.5 Urban Water Management Plan

Water Code 10910 (c) (1)

In June of 2011, the EMWD Board of Directors adopted the 2010 UWMP. This plan details EMWD's demand projections and provides information regarding EMWD's supply. The majority of EMWD's existing and future planned demand is met through imported water delivered by MWD. EMWD's 2010 UWMP relies heavily on information and assurances included in the 2010 MWD Regional Urban Water Management Plan (2010 RUWMP) when determining supply reliability. Demand for EMWD included in the 2010 UWMP is calculated across the District and is not project-specific. The 2010 RUWMP is attached as Appendix B.

1.6 Population Projection

EMWD used the Riverside County Center for Demographic Research (RCCDR) 2010 Projection to estimate the future population. RCCDR considers land use and land agency information to develop projections. The RCCDR projection has been adopted by the Western Riverside Council of Governments.

As evidenced by the population projection, EMWD is located in a developing area. Approximately 40 percent of EMWD's service area remains undeveloped. As population and the associated water demand increase, EMWD will increase the amount of water imported through MWD to meet demands.

Table 1 - Projected Population – 2015 – 2035

	2015	2020	2025	2030	2035
EMWD Retail Service Area	548,718	628,918	709,729	785,810	849,059
City Of Perris Water Department	9,151	9,464	9,906	10,312	10,699
North Perris Water Company	4,977	4,977	4,977	4,977	4,977
Nuevo Water Company	7,781	8,580	6,903	5,902	5,346
City of San Jacinto Water Department	19,706	21,467	22,738	23,635	24,341
City of Hemet Water Department	27,474	29,363	31,273	33,181	35,217
Lake Hemet Municipal Water District	47,446	50,865	54,296	57,742	59,167
Rancho California Water District	114,604	116,969	120,231	122,259	122,923
Total	**779,857**	**870,603**	**960,053**	**1,043,818**	**1,111,729**

Source: Riverside County Center for Demographic Research

Section 2 - Identification of Supply and Quantity

Water Code 10910 (d) (1)

2.1 Overview of Supplies

EMWD has four sources of water supply: imported water purchased from MWD, local potable groundwater, local desalted groundwater, and recycled water. Imported water accounts for approximately 67 percent, local potable groundwater is approximately 12 percent, desalted groundwater is 3 percent, and recycled water is 19 percent of supply. Table 2, with information taken from the 2010 UWMP, lists the past supply quantities by source. Figure 1 shows the location of EMWD supplies.

Table 2 - Water Supply (AFY) – 2009– 2013

Type	Source	2010	2011	2012	2013	2014
Imported	Metropolitan Water District	75,000	72,500	75,900	78,200	82,100
Imported – Locally Treated	Metropolitan Water District	16,600	17,000	20,300	18,200	21,600
Groundwater	West San Jacinto Management Area	15,800	17,400	15,500	18,800	12,700
Desalination	West San Jacinto Management Area	5,800	5,700	5,700	5,000	6,800
Recycled Water	EMWD Regional Water Reclamation Facilities	28,200	31,000	36,800	34,500	38,800
Total		**141,400**	**143,700**	**154,200**	**154,700**	**162,000**

Figure 1 - Location of Supply Sources

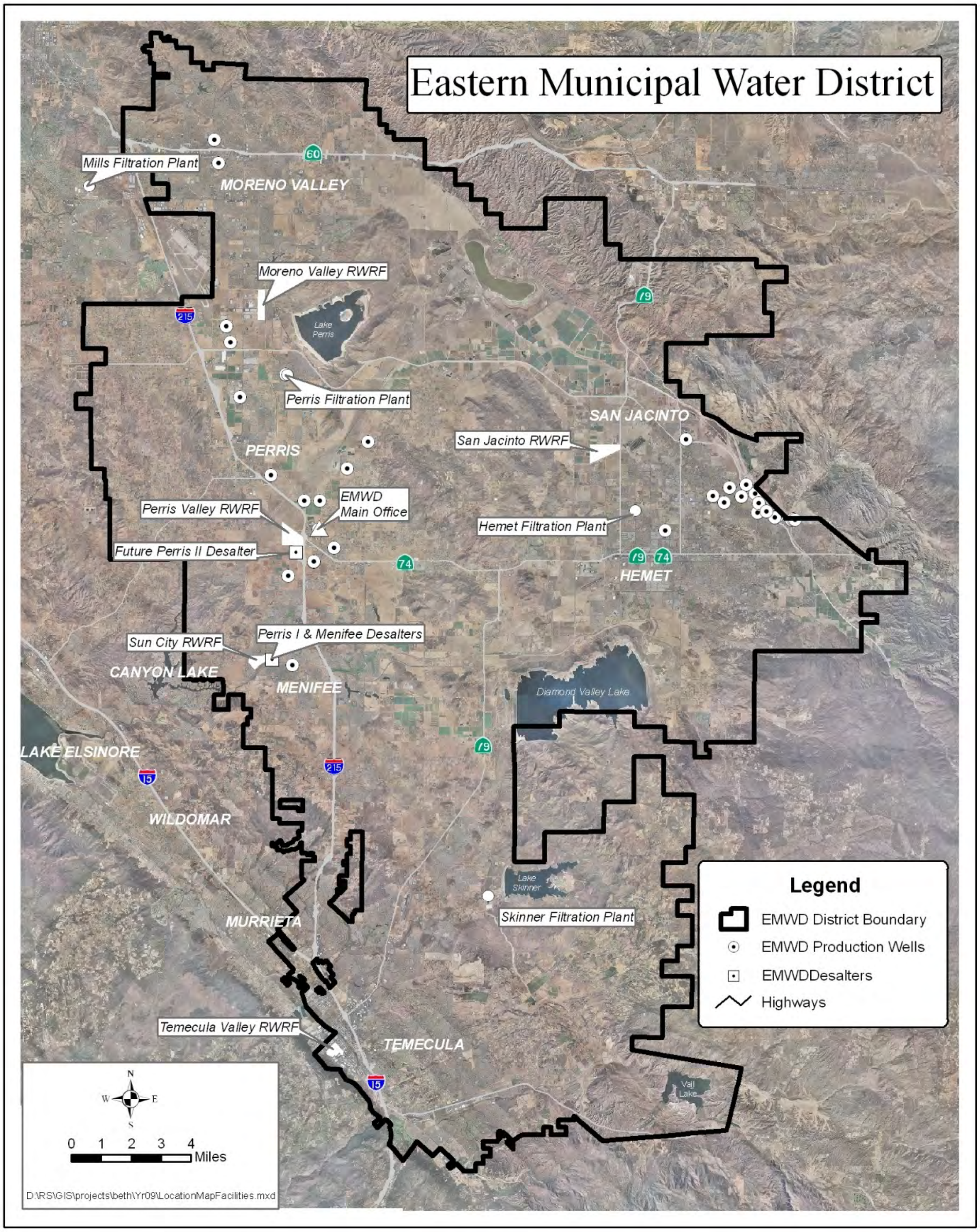

It is anticipated that the majority of the water demands within EMWD's jurisdiction caused by future development will be met through additional water imports from MWD recognizing the conditions described in this document. Imported sources will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. In the 2010 RUWMP, MWD analyzed the reliability of water delivery through the State Water Project (SWP) and the Colorado River Aqueduct (CRA) and concluded that with the storage and transfer programs developed by MWD, MWD will have a reliable source of water to serve its member agencies' needs through 2030 during normal, historic single-dry, and historic multiple-dry years within a 20-year projection. Unprecedented shortage will be addressed through the principles of the Water Surplus and Drought Management Plan as described in the MWD RUWMP.

Table 3 - Existing Water Supply Resources – Average Year Hydrology – 2015 – 2035

	2015	2020	2025	2030	2035
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled Water	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Based on an average of 2004- 2009 conditions

To supplement existing water supplies, EMWD has identified several projects that would supplement imported supplies, retrofit of potable water landscape customers, indirect potable recharge, and additional water use efficiency. These projects will offset the demand of existing water and free up resources for new development. Table 4 provides a summary of additional potential local supplies.

Table 4 - Potential Water Supply – 2015 - 2035

	2015	2020	2025	2030	2035
Additional Recycled Water	6,100	13,500	16,400	22,200	28,200
Desalination	4,500	4,500	4,500	4,500	4,500
Planned Additional Conservation	0	0	1,300	4,300	6,400
Water Transfers/Exchanges	0	0	0	0	0
Total	**10,600**	**18,000**	**22,200**	**31,000**	**39,100**

These projects are in the planning stage of development and costs and implementation timelines are subject to change. New development will be required to help fund new water supply sources. The extent of additional funding will be determined by the EMWD and may take the form of a new component of connection fees or a separate charge. Details about funding will be developed with the plan of service

2.2 Wholesale Water Supplies

2.2a Written Contracts or Other Proof of Entitlement

Water Code Section 10910 (d) (2) (A)

EMWD is one of the 26 member agencies that make up MWD. The statutory relationship between MWD and its member agencies establishes the scope of EMWD's entitlements from MWD. Typically there are no set limits on supply quantities to member agencies and MWD has provided evidence in the 2010 RUWMP that its supplies will meet member agency demands during normal, historic single-dry and historic multiple-dry years within a 20-year projection.

During unprecedented shortage events, the MWD Water Supply Plan (WSAP) is implemented, requiring a reduction in demand by member agencies. The allocation plan takes into account member agency population growth and investments in local resources. Member agencies are allocated a portion of their anticipated demand with the assurance that a member agency will not see a retail shortage greater than the regional shortage. Water supply is not limited under the allocation plan but water use above a member agency's allocation is charged at a much higher rate. Several years of statewide dry conditions and limitations on State Water Project operations required MWD to implement the allocation plan at a 15 percent regional shortage level on July 1, 2015. This action follows the principles in the Water Surplus and Drought Management Plan as described in the 2010 RUWMP. During the allocation from MWD, EMWD will implement demand reduction strategies as outlined in its Water Shortage Contingency Plan and reduced imported demand below the allocation level.

2.2b Metropolitan Water District of Southern California Supply

EMWD relies on MWD to provide the majority of its potable water supply and a small percent of its non-potable water supply. The majority of EMWD's potable water is supplied in the northern part of EMWD by the Mills MWD Water Treatment Facility and in the southeastern portion of EMWD by the MWD Lake Skinner Water Treatment Facility. Untreated water from MWD is treated at EMWD's Perris and Hemet Microfiltration Plants for use as a potable source of water.

It is anticipated that the majority of the water demands within EMWD's jurisdiction caused by future development, will be met through additional water imports from MWD recognizing the conditions described in this document. Imported sources will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. In the 2010 RUWMP, MWD analyzed the reliability of water delivery through the State Water Project (SWP) and the Colorado River Aqueduct. The RUWMP concluded that with programs developed, MWD will have a reliable source of water to serve its member agencies' needs through 2035. The analysis included in the UWMP included reliability data for historic single-dry and historic multiple-dry years. Unprecedented shortage is addressed through the Water Supply Allocation Plan as described in the MWD RUWMP.

2.2c MWD Regional Urban Water Management Plan

The 2010 RUWMP provides information about MWD supply reliability and demand. MWD does not provide supply projections for each member agency; instead MWD uses a regional approach to developing projections. MWD calculates the demand for the entire region, as discussed in Appendix A.1 of the 2010 RUWMP, and then, using information about existing and proposed local projects, determines the amount of imported water that will be needed in the future. EMWD staff worked with MWD on the 2010 RUWMP, exchanging information about demand, local supply and projects, and clarification on boundary information and population projections. Based on this information and additional data provided by other member agencies, MWD states it is able to meet the projected demands of all member agencies through 2035. The information supplied in the 2010 RUWMP provides assurance that MWD will have a reliable water supply available to deliver the demand required by all the member agencies including EMWD through 2035, even during dry periods. Under extreme conditions, water supply could be allocated to member agencies using the WSAP to preserve storage. The 2010 RUWMP is included as Attachment B of this assessment.

2.3 Local Resources

Water Code 10910 (d) (1)

In an effort to reduce dependency on imported water from MWD, EMWD has developed several programs designed to take advantage of local resources. High-quality groundwater is a source of water for local customers in the Hemet/San Jacinto Area. In the West San Jacinto Basin, groundwater is blended with imported water for use in the western portion of EMWD. EMWD has also constructed two desalination facilities to recover poor quality groundwater with high total dissolved solids (TDS) levels in the West San Jacinto groundwater basin areas. The product water from the desalters enters EMWD's potable distribution system. A third desalter is now in the final stages of design.

2.4 Groundwater

Water Code Section 10910 (f)

Groundwater information is included in this assessment to assist the lead agency in determining the adequacy of EMWD's total supply. Groundwater is not being proposed to serve this project. New developments, including this project, will be supplied with imported water – (1) treated imported water directly from The Metropolitan Water District of Southern California (MWD); (2) untreated imported water from MWD subsequently treated by EMWD; or (3) untreated imported water treated by EMWD and recharged into the basin for later withdrawal.

2.4a Urban Water Management Plan Review

Water Code Section 10910 (f) (1)

The 2010 UWMP discusses projected groundwater use in EMWD and explains assumptions made about groundwater. In the following sections, portions of the 2010 UWMP are included with information about groundwater resources. The water supply for the Proposed Project will not include groundwater. The following information regarding EMWD's groundwater supply is for informational purposes only.

2.4b San Jacinto Watershed - Groundwater Management Zones in EMWD's Service *Area*

Water Code Section 10910 (f) (2)

The San Jacinto Watershed covers an area of approximately 728 square miles, measured above a point just downstream from Railroad Canyon Dam. The groundwater management zones of the San Jacinto Watershed lie within alluvium-filled valleys carved into the elevated bedrock plateau of the Perris Block. Collectively, the groundwater management zones are nearly surrounded by impermeable bedrock mountains and hills. Internally, island-like masses of granite and metamorphic bedrock rise above the valley floor.

The San Jacinto Fault Zone, which contains the Claremont and Casa Loma faults, is the major geologic feature that bounds and/or crosscuts many of the groundwater management zones, and typically provides effective barriers to groundwater flow. The area between the Claremont and Casa Loma faults is a deep, alluvium-filled graben of tectonic origin, commonly referred to as the San Jacinto Graben. The effective base of freshwater in the graben is known to be quite deep but has not been precisely determined. The San Jacinto Graben consists of a forebay area in the southeast where surface water recharge primarily occurs, and a pressure area in the northwest where deep aquifers exist under confined conditions. To the east, the San Jacinto mountain range is the dominant geographic feature of the region, rising to a height of 10,805 feet.

Groundwater management zones were delineated based on major impermeable boundaries, constrictions in impermeable bedrock, groundwater divides, and internal flow systems. The eight groundwater management zones in the San Jacinto Watershed within EMWD's service area include the Canyon, San Jacinto Upper Pressure, San Jacinto Lower Pressure, Lakeview/Hemet North, Hemet South, Perris South, Perris North, and Menifee Management Zones.

Detailed descriptions of each Management Zone are included in the 2010 UWMP under Section 3 attached as Appendix A of this report.

2.4c Groundwater Management

Water Code 10910 (f) (2)

Since 2001, the Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District (LHMWD), EMWD, and representatives of the private groundwater producers, with DWR acting as an impartial mediator, have been working on a groundwater management plan for the Hemet/San Jacinto Water Management Plan area. Over the past several years, the group has discussed and resolved several controversial issues, including San Jacinto Tunnel seepage water, export of groundwater from the basins, and how to maximize the use of recycled water. As a result of their efforts, a final Hemet/San Jacinto Water Management Plan (HSJWMP) was completed in 2007 and a Stipulated Judgment was final in 2013. The Stipulated Judgment for the Hemet/San Jacinto Water Management Plan is in effect, and has established a Watermaster responsible for managing the basins.

The Hemet/San Jacinto Water Management Plan:

- Limits the amount of water being extracted from the basin to a sustainable yield.
- Implements continued recharge of the basin using imported water through the Integrated Recharge and Recovery Project (IRRP).
- Insures settlement claims by the Soboba Band of Luiseño Indians are facilitated and accommodated.
- Expands existing water production and water services system to meet future urban growth through the use of imported water recharged into the basin.
- Protects and/or enhances water quality in the management plan area.
- Supports cost-effective water supplies and treatment by the public agencies.
- Eliminates groundwater overdraft and enhances basin yield.
- Continues the monitoring program to promote and provide for best management and engineering principles to protect water resources.

Long term groundwater management includes artificial recharge using MWD replenishment water via permanent facilities through the IRRP. An agreement with the Soboba Band of Luiseño Indians requires, on average, an annual delivery of 7,500 acre-feet of water from MWD for the next 30 years. Water will be delivered to EMWD, LHMWD, and the Cities of Hemet and San Jacinto. This is part of an effort to recharge groundwater in the Hemet/San Jacinto area, fulfilling the Soboba Tribe's water rights and addressing chronic groundwater overdrafts.

EMWD's rights under the HSJWMP are a base groundwater production right of 9,097 AFY in 2015/16. If water levels continue to decline EMWD will be required to reduce production by up 10 percent annually over six years. Any pumping above that amount is subject to replenishment fees.

In the West San Jacinto area, a cooperative groundwater management plan is already in place to insure the reliability and quality of the water supply. In June 1995, EMWD adopted the West San Jacinto Groundwater Basin Management Plan (WSJGBMP) in accordance with the statutes in the State Water Code Sections 10750 through 10755 resulting from the passage of Assembly Bill 3030 (AB 3030). The plan was adopted after extensive public outreach and meetings with interested individuals and agencies.

Implementation of the WSJGBMP began directly after its adoption. Initial efforts to implement the WSJGBMP included establishing an advisory committee; prioritizing the management zones; evaluating groundwater resources including establishing groundwater quality, level, and extraction monitoring programs; and conducting hydro-geophysical investigations. The West San Jacinto Groundwater Basin Management Plan Annual Report, documenting the implementation of the plan and activities in the groundwater management zones, has been published annually since 1996.

2.4d Groundwater Recharge

Through pilot programs and using temporary facilities, EMWD has recharged groundwater in the Hemet/San Jacinto area with imported surplus water from MWD since 1990. Long term facilities have been built as part of the Integrated Recharge Recovery Program (IRRP). The IRRP is an integral piece of the water management plan and the Soboba settlement. The IRRP initially consists of 35 acres of basins or ponds for recharging State Project Water; three extraction wells; three monitoring wells; modification to two existing pump stations; and pipelines within, and adjacent to, the San Jacinto River. Imported water recharged at the IRRP ponds was approximately 6,000 AF, 7,500 AF, and 3,500 AF during 2012, 2013, and 2014; respectively.

EMWD is also contributing to the replenishment of the basin by providing recycled water in lieu of groundwater production. The Recycled In-Lieu Program supplies recycled water for agricultural irrigation in-lieu of pumping native groundwater. The project can deliver up to 8,540 acre-feet per year to local agricultural water producers. The project costs are jointly funded by EMWD, LHMWD, and the Cities of Hemet and San Jacinto. Agreements that set limits on groundwater production, and provide for a payment of a portion of the operation and maintenance costs have been in place since 2008.

2.4e Groundwater Pumping Rights

Water Code 10910 (f)

The eastern portion of EMWD's service area or Hemet/San Jacinto area contains good quality groundwater and is a major source of municipal as well as private production, although groundwater levels are in serious decline. To manage the groundwater in the area the HSJWMP is in place. EMWD's rights under the HSJWMP will be a base groundwater production right of 9,097 AFY in 2015/16. If water levels continue to decline EMWD will be required to reduce production by up 10 percent annually over the next three years. Any pumping above that amount is subject to replenishment fees.

2.4f Surface Water Diversion Rights

License No. 10667

EMWD holds a right to divert up to 5,760 AFY of San Jacinto River flows for recharge and subsequent use from November 1 through June 30 each year. EMWD's diversion and recharge of San Jacinto River surface water to the Canyon Management Zone takes place at EMWD's Grant Avenue Ponds in the Valle Vista area. EMWD's diverted water is recharged into the groundwater aquifer of the Canyon Management Zone and is not used for direct use or sale. The San Jacinto River is an ephemeral river and, consequently, river flows may be insufficient for any diversion at all. In 2014, approximately 211 AF of river flows were diverted. Additional information about surface water diversion is available in Chapter 3 of the Annual Report.

2.4g Past Groundwater Extraction

Water Code 10910 (f) (3)

Table 2 depicts the total potable groundwater extracted by EMWD from 2008 through 2013. The majority of EMWD's groundwater is extracted from the Hemet/San Jacinto area. The remaining groundwater is extracted from the area covered by the WSJGBMP, including brackish groundwater extraction for the desalters. The location of wells used to pump groundwater and the desalters can be seen on Map 1.

2.4h Projected Groundwater Extraction

Water Code 10910 (f) (4)

Table 3 lists the amount of potable groundwater that EMWD is projecting to be available. Groundwater extraction in the Hemet/San Jacinto area is limited by the HSJWMP. EMWD has a base groundwater production right of 9,097 acre feet in 2015/16. This is reduced from base production rights due to declining water levels. If water levels continue to decline EMWD will continue to reduce production by up 10 percent annually over six years. Any pumping above that amount will need to come from imported water recharged into the basin and is subject to replenishment fees. The Perris/Moreno Valley wells in the WSJGBMP area are projected to continue to produce 6,000 AFY. The desalters are part of managing the WSJGBMP area and will reduce salinity in the groundwater management zones with the added benefit of providing a source of potable water. The well locations shown on Figure 1 should remain consistent in the future.

2.4i Analysis of the Sufficiency of Groundwater

Water Code 10910 (f) (5)

Protecting the available groundwater supply is an important part of EMWD's planning efforts. EMWD is actively working with other agencies and groups to insure that groundwater will be a reliable resource far into the future. Part of managing groundwater responsibly requires the replacement of groundwater extracted beyond the safe yield. Groundwater extraction in Hemet/San Jacinto area will be replaced with imported water as water is recharged through the HSJWMP, and groundwater extraction in the WSJGBMP area will remain static. Although the desalters will provide an additional supply of water, the amount of water produced is not sufficient to accommodate the proposed growth within EMWD. The majority of the increased water demand caused by this project will be met by increasing the use of imported water from MWD recognizing the conditions of approval outlined in this document.

2.5 Recycled Water

Water Code 10910 (d) (1)

Recycled water is extensively used in EMWD's service area in place of potable water. To offset municipal demand, recycled water is used to irrigate landscape and for industrial purposes. The majority of EMWD's agricultural customers also use recycled water. In some cases, recycled water is used by agricultural customers in lieu of groundwater production, increasing the amount of groundwater available for municipal use without increased recharge.

The supply of recycled water will continue to grow with EMWD's population growth. Recycled water is currently used for both municipal and agricultural purposes. Municipal customers use recycled water for landscape irrigation and industrial process water. Agricultural customers use recycled water for irrigation of crops. A portion of agricultural demand of recycled water is in lieu of using groundwater. Currently, the use of recycled water is limited by the amount available to serve during peak demands and with livestream discharge occurring in off peak periods. EMWD has developed plans to eliminate discharge and use all of the recycled water available within the District, and to offset demand of existing potable customers, including retrofit of potable water landscape customers and indirect potable recharge.

2.6 Water Use Efficiency Measures

The Water Conservation Act of 2009, Senate Bill 7x-7, set a requirement for water agencies to reduce their per capita water use by the year 2020. The overall goal is to reach a state wide reduction of per capita urban water use of 20 percent by December 31, 2020, with an intermediate 10 percent reduction by December 31, 2015. Demand reduction can be achieved through both conservation and the use of recycled water as a potable demand offset. EMWD will reduce potable water demand to meet the goals of SB7x-7 two ways; using recycled water to offset potable water demand, and reducing demand for water through conservation. Three methods have been identified for conserving water: 1) a budget based tiered rate, 2) requirements for water efficiency in new construction, and 3) an active conservation program. Water use reduction will be focused on outdoor demand reduction by all customer types. Table 5 summarizes water savings by type.

Attachment: J - Water Supply Assessment (1 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 5 - Water Efficiency Savings (AFY) – 2005 - 2035

Saving Type	2005	2010	2015	2020	2025	2030	2035
Recycled Water Potable Offset	3,601	4,041	5,000	6,300	11,500	13,900	14,300
Tiered Rate	0	8,700	8,700	8,700	8,700	8,700	8,700
New Construction	0	200	2,000	4,100	6,100	8,000	9,600
Active Conservation	1,500	3,400	6,500	9,500	10,700	11,700	12,600
Total	**5,101**	**16,341**	**22,200**	**28,600**	**37,000**	**42,300**	**45,200**

Recycled water will be used to offset potable demand through the expansion of the existing recycled water system.

Tiered Rate savings are an estimate of water saved by customers, after the implementation of a budget based tiered rate. In April 2009, EMWD implemented a tiered rate billing structure for its residential and landscape customers. Customers are provided an allocation for reasonable water use and are required to pay a higher rate for water use over their allocated limit. Water savings by existing customers has been estimated. Actual water demand since the implementation of the tiered rate has been lower than the estimated amounts, likely as a result of several factors and not the tiered rate implementation alone.

Water Use Efficiency Requirements in New Development includes installing lower water use landscape and interior fixtures. Water use efficiency is mandated statewide through existing ordinances, plumbing codes, and legislation. To enforce water use efficiency in new development EMWD has lowered the water budget allocations for new development. Any residential or dedicated landscape account installed after January 1, 2011 has an outdoor budget allocation based on only 70 percent of ET and non-functional turf is prohibited. Water use savings shown in Table 5 are calculated assuming lower budgets allocation will result in a reduction in a proportionate reduction in water use. Actual savings will be measured based on average use by new meters.

Active Conservation savings are the result of water use efficiency programs implemented by EMWD. EMWD encourages the replacement of inefficient devices and includes monetary rebate, distribution, and direct installation programs. Water savings are based on estimated water savings for each device and takes into account the lifetime of each device.

Through the above three methods of reducing water use, and recycled water use, EMWD anticipates the reduction of potable water demand to meet the requirements of SB7x-7.

2.7 Local Resources Documentation

2.7a Written Contracts or Other Proof

Water Code 10910 (d) (2) (A)

Below is a list of documents related to EMWD's local water supply:

- **EMWD 2010 Urban Water Management Plan (June 2010)** - EMWD's 2010 Urban Water Management Plan is attached as Appendix A. This plan supplies additional information on EMWD, its service area, and water management, and supply capabilities.

- **West San Jacinto Groundwater Basin Groundwater Management Plan 2014 Annual Report (June 2015)** - Detailed information on the history and progress of groundwater basin management and the Groundwater Monitoring Program can be found in the 2011 Annual Report on the Status of the Groundwater Subbasins, located on EMWD's Website (www.emwd.org).
- **Hemet/San Jacinto Groundwater Water Management Area Water Management Plan 2014 Annual Report (May 2015)** - Detailed information on the history and progress of the Water Management Plan and Groundwater Monitoring Program can be found in the 2011 Annual Report on the Status of the Groundwater Subbasins, located on EMWD's Website (www.emwd.org).
- **Hemet/San Jacinto Groundwater Management Area Water Management Plan** – This plan was developed by the stakeholders in the Hemet/San Jacinto area to provide a foundation to guide and support responsible water management into the future. The plan was finalized in 2007 and an EIR was approved for the project on November 21, 2007 by EMWD's Board of Directors.

With regard to EMWD's ownership and use of reclaimed/recycled water, California Water Code Section 1210 states:

The owner of a waste water treatment plant operated for the purpose of treating wastes from a sanitary sewer system shall hold the exclusive right to the treated waste water as against anyone who has supplied the water discharged into the waste water collection and treatment system, including a person using water under a water service contract, unless otherwise provided by agreement.

With regard to the Water Use Efficiency Ordinance that will result in additional supplies through conservation:

The County of Riverside Board of Supervisors approved an update to Ordinance No. 859 on October 20, 2009, requiring water efficient landscaping in any new development requiring a permit.

EMWD's Administrative Code requires water efficient landscaping in new developments and water efficiency by all customers. The efficiency is enforced through allocation based tiered rates. EMWD's Administrative Code can be found on EMWD's website www.emwd.org.

2.7b EMWD's Capital Improvement Plan

Water Code 10910 (d) (2) (B)

EMWD maintains and periodically updates a comprehensive Water Facilities Master Plan (WFMP). This working plan defines water supply, transmission mains, and storage facilities required for the accommodation of projected growth within EMWD. On a yearly basis, a five-year Capital Improvement Plan (CIP) is prepared, which is based on a further refinement of the WFMP. The CIP outlines specific projects and their funding source. Each project is also submitted individually to the Board for authorization and approval. This allows EMWD to accurately match facilities' needs with development trends. Financing information for the desalter plant construction, regional water reclamation facilities expansion, and well replacement can also be found in the CIP.

2.7c Federal, State and Local Permits Needed for Construction

Water Code 10910 (d) (2) (C)

As part of EMWD's CIP, an Environmental Review Committee has been established. This Committee, made up of representatives from the Engineering, Planning, and Environmental and Regulatory Compliance Departments, discuss each project and the steps needed to comply with regulatory requirements. EMWD works with various government agencies, including the U.S. Department of Fish and Wildlife, the U.S. Army Corps of Engineers, the California Department of Public Health, the California State Water Resources Board, the California Air Quality Management District, and the California Department of Fish & Game to obtain permits when necessary. The Engineering Department procures additional construction permits on a case-by-case basis. EMWD has already, or is in the process of, obtaining Environmental Impact Reports or other environmental documents necessary for desalter construction, regional water reclamation facilities expansion, and well replacements. Any necessary permits secured by EMWD are kept on file at the District office.

2.7d Regulatory Approvals

Water Code 10910 (d) (2) (D)

The Department of Public Health (DPH) has issued a system-wide permit for EMWD's water supply system. EMWD's Environmental and Regulatory Compliance Department conforms to specific regulations and obtains any additional necessary approvals. As new facilities are constructed by EMWD, they are subject to inspection and testing by regulatory agencies and the DPH permit is amended.

Section 3 - Demand

3.1 Demand Projections

Water Code 10910 (c) (2), 10631 (e) (1)

EMWD's primary retail customers can be divided into residential, commercial, industrial, institutional, and landscape sectors. Although the residential section is by far EMWD's largest customer segment, each market segment plays a role in the growth and development of EMWD's service area. See Table 6 for water use by various customer types.

Table 6 - Retail Water Deliveries by Customer Type – 2005 - 2035

Year/ Type	**Units**	**Single family Res.**	**Multi-family Res.**	**Comm -ercial**	**Indus -trial**	**Inst/ gov.**	**Land-scape**	**Agri-culture**	**Total**
2005	No. of accounts	114,100	1,000	1,500	100	40	1,500	200	**118,440**
Actual	Volume (AF)	62,300	5,500	3,900	400	2,900	7,500	2,400	**84,900**
2010	No. of accounts	129,400	4,300	2,100	100	500	2,200	100	**138,700**
Actual	Volume (AF)	54,000	6,100	4,200	400	2,300	8,900	1,800	**77,700**
2015	No. of accounts	140,600	5,700	2,300	1,200	100	3,300	100	**153,300**
Projected	Volume (AF)	74,400	8,300	5,600	600	3,600	18,500	2,800	**113,800**
2020	No. of	150,200	6,100	2,400	1,300	100	3,500	85	**163,685**

	accounts								
Projected	Volume (AF)	79,600	8,800	5,900	600	3,800	19,600	2,400	**120,700**
2025	No. of accounts	169,600	6,900	2,700	1,400	100	4,000	85	**184,785**
Projected	Volume (AF)	89,800	10,000	6,700	700	4,300	22,200	2,400	**136,100**
2030	No. of accounts	187,700	7,700	3,000	1,500	100	4,400	85	**204,485**
Projected	Volume (AF)	99,400	11,000	7,400	800	4,800	24,500	2,400	**150,300**
2035	No. of accounts	202,800	8,200	3,300	1,700	100	4,700	85	**220,885**
Projected	Volume (AF)	107,400	11,900	8,000	800	5,200	26,500	2,400	**162,200**

Note: Water Quantities include raw water to agricultural customers but does not include recycled water deliveries.

Table 7 shows sub-agency water use and Table 8 shows other water uses. Total water use is shown in Table 9.

Table 7 - Wholesale to Other Agencies – 2005 - 2035

	Actual Sales (AF)		**Projected Sales (AF)**				
Water distributed	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
City of Hemet	100	0	0	0	0	0	0
City of Perris	1,900	1,700	1,700	1,800	1,900	2,000	2,100
City of San Jacinto	0	0	0	0	0	0	0
Lake Hemet MWD[1.]	100	1,300	1,100	1,100	1,000	1,100	1,100
North Perris Water Company	0	0	0	0	0	0	0
Nuevo Water Company	800	600	800	1,600	1,700	1,700	1,700
Murrieta Water Company	100	1,600	0	0	0	0	0
Rancho California Water District	26,300	21,900	36,500	48,600	50,800	53,000	55,200
Hemet/San Jacinto Basin Plan Water Master	0	0	7,500	8,500	9,600	11,200	12,300
Total	**29,300**	**27,100**	**47,600**	**61,600**	**65,000**	**69,000**	**72,400**

1. Sales of water to Lake Hemet are for non-potable supplies used to meet agricultural demand.

Table 8 - Other Water Uses – 2005 – 2035

	Actual Use (AF)		**Projected Use (AF)**				
	2005	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Recycled Water	32,600	28,200	43,900	50,000	53,900	54,900	55,300
Recharge Water [1]	7,000	0	0	0	0	0	0
Distribution System Water Loses	7,600	8,200	8,400	8,900	10,100	11,200	12,100
Treatment Water Losses	100	200	200	200	200	200	200
Total	**47,300**	**36,600**	**52,500**	**59,100**	**64,200**	**66,300**	**67,600**

1. Future recharge will be through the Hemet/San Jacinto Basin Plan Water Master as seen in Table 8.

Table 9 - Water Demand (AFY) – 2005 - 2035

	Actual		Projected				
	2005	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Retail Potable Water Sales	84,900	77,700	113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies	29,400	27,100	47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses	47,300	49,900	52,500	59,100	64,200	66,300	67,600
Total	**161,600**	**154,700**	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

3.2 Project Demand

The City of Moreno Valley is the lead agency for the preparation of an EIR pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21000, et seq. for the Moreno Valley Logistics Center (Proposed Project). The Proposed Project is located South of Krameria Avenue, East of March Air Reserve Base, North of Cardinal Avenue, and West of Indian Avenue. The project will consist of warehouses on approximately 89.4 acres. The estimated demand for the project is 55 AFY as shown in Table 10. The land use considered for the project area in the 2010 UWMP demand projection was business park and light industrial. The demand for this project is within the limits of projected demand accounted for in the 2010 UWMP and would be included in the projected demand shown in Table 9 of this water supply assessment report. The project developer is Prologis, L.P. Figure A shows the location of the project.

Table 10 – Project Demand

Description	Quantity	Demand Factor	Average Day Demand	Annual Demand	
		gpd/unit	gpd	MG	AFY
Industrial (Warehouse/Distribution)	89.4 ac	550/ac	49,170	18	55
		TOTAL	**49,170**	**18**	**55**

The demand for this project is estimated based on average annual demand from similar land use and is for supply planning only. Demand for facilities planning will be based on peak flows and determined as part of the plan of service for the project.

All new development is required to install water efficient devices and landscaping. The use of turf for non-functional purposes is prohibited. Water Efficient Guidelines for New Development are available on EMWD's website to help increase water efficiency for this project.

3.3 Database of Proposed Projects

Water Code 10910 (c) (3)

To develop the projections used in this Water Supply Assessment, EMWD uses a development-tracking database that assesses future water demands for specific projects. EMWD uses this database to help plan for future water supply and infrastructure needs by monitoring new projects through various stages of development. Subject to the Board of Director's approval of this assessment, information associated with this project will be updated in the supply and demand projections EMWD uses for planning. Changes in density and land use are also tracked in this database for planning purposes. The developer is required to notify EMWD if any changes to project density or land use occur.

Section 4 Evaluation of Supply and Demand

Water Code 10910 (c) (2)

1.1 Supply and Demand Evaluation under Historic Conditions

Tables 11, 12 and 13, taken from the 2010 UWMP, are an estimate of EMWD's demand during average, single, and multiple dry years.

Table 11 - Existing Water Supply Resources – Average Year Hydrology – 2015 - 2035

	2015	2020	2025	2030	2035
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Total Projected Demands	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Based on a repeat of 2004- 2009 conditions

Table 12 - Existing Water Supply Resources – Dry Year Hydrology – 2015 – 2035

	2015	2020	2025	2030	2035
Metropolitan Water District	155,300	177,600	198,300	218,300	235,100
Recycled	45,500	51,800	55,800	56,900	57,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Total Projected Demands	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Note: Based on a repeat of 1977 conditions

Table 13 - Existing Water Supply Resources – Multi - Dry Year – 2015 - 2035

	2015	2020	2025	2030	2035
Metropolitan Water District	156,600	179,000	199,800	219,900	236,900
Recycled	45,800	52,200	56,200	57,300	57,700
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Total Projected Demands	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Note: Based on a repeat of 1990-1992 conditions

EMWD's 2010 UWMP discusses the supply reliability for EMWD during dry years. It is anticipated that the majority of water for future development will be supplied by imported water from MWD during single dry years. Typically, MWD does not place imported water limits on a member agency, but predicts the future water demand based on regional growth information. MWD stated in its 2010 RUWMP that with the addition of all water supplies, existing and planned, MWD would have the ability to meet all of its member agencies' projected supplemental demand through 2035, even under a repeat of historic drought scenarios.

1.2 Contingency Planning

In March of 2014, EMWD updated its Water Shortage Contingency Plan (WSCP). In the case of shortage EMWD will reduce demand using significant penalties for wasteful water. EMWD's WSCP details the plan for demand reduction for several stages of shortage through a 50 percent or greater reduction. Additional information about contingency planning is included in Section 5 of EMWD's 2010 UWMP. The WSCP is located in Title 5, Article 10 of the EMWD Administrative Code and is available on EMWD's website.

EMWD is currently in Stage 4 of the WSCP in response to current statewide drought conditions. MWD is allocating water as described in its Water Supply Allocation Plan. EMWD has reduced water demand to meet allocation targets. Current actions are consistent with EWMD contingency planning.

Section 5 - Water Supply Assessment

5.1 Potable Water

From a facilities perspective, the Proposed Project would be conditioned to construct off-site and on-site water facilities needed to distribute water throughout the project area. Prior to construction the developer should contact EMWD staff to develop a plan of service and determine if any revisions are required to the master plan. See Figure B for existing water facilities in relation to the project.

With respect to water supply, as discussed above, the project will be required to fund conservation to offset demand not considered in the 2010 UWMP. The remaining project demand will be served using imported water from MWD supplemented with new local supply projects during multi-dry years, if needed. Allocation from MWD may result in water supplies being made available at a significantly higher cost depending on circumstances.

5.2 Recycled Water

EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, green-belts, open space common areas, commercial landscaping, and supply for aesthetic impoundment or other water features.

According to EMWD policy, the project may be conditioned to construct a recycled water system physically separated from the potable water system. The system will need to be constructed to recycled water standards. The project may also be conditioned to construct off-site recycled water facilities. EMWD will make a final determination on requirements for recycled water use and facilities during the plan of service phase of the project.

5.3 Duration of Approval

This assessment will be reviewed every three years until the project begins construction. The project applicant shall notify EMWD when construction has begun. The review will ensure that the information included in this assessment remains accurate and no significant changes to either the project or EMWD's water supply have occurred. Further, if the environmental impact report (EIR) for the project is not certified within three years after the adoption of this WSA, the WSA may be updated at such time if there are changed circumstances warranting updated analysis. If the EIR is certified within three years of the adoption of the WSA, then the applicant shall provide updates to EMWD every three years on the status of the project until construction commences; however, in such instance, the WSA shall not be amended or invalidated by EMWD. If neither the project applicant nor the lead agency contacts EMWD within three years of approval of this WSA, it will be assumed that the Proposed Project no longer requires the estimated water demand calculated, the demand for this project will not be considered in assessments for future projects, and the assessment provided by this document will become invalid.

5.4 Conclusion

EMWD relies on MWD to meet the needs of its growing population. MWD stated in its 2010 RUWMP that with the addition of all water supplies, existing and planned, MWD would have the ability to meet all of its member agencies' projected supplemental demand through 2035, even under a repeat of historic multi-year drought scenarios.

Based on present information and the assurance that MWD is engaged in identifying solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, EMWD has determined that it will be able to provide adequate water supply to meet the potable water demand for this project as part of its existing and future demands.

In the event the lead agency determines adequate water supply exists for this project, the developer of this project is required to meet with EMWD staff to develop a plan of service. The plan of service will detail water, wastewater, and recycled water requirements to serve the projects. An agreement developed prior to construction will determine additional funding required reducing existing customer demand on imported supplies through the expansion of local resources. The reduction of existing customer demand on imported water supplies will free up allocated imported water to be used to serve this project under multiple dry year conditions. The amount of funding will be determined by the EMWD and may take the form of a new component of connection fees or a separate charge. The estimated cost of desalinated water is between $1,400 and $1,700 per AF. These costs are expected to increase over time.

If there is a change in the circumstances detailed in this assessment, EMWD will address the changes in the plan of service for the project. Modifications at the plan of service stage could reduce the amount of water available to serve this project.

Section 6 - Conditions of Approval

This assessment is not a commitment to serve the project, but a review of EMWD supplies based on present information available. This assessment is conditioned on MWD's ability to continue to supply imported water to meet EMWD's requirements, including the requirements for this project. This project is subject to any special or additional requirements imposed by MWD or EMWD on such deliveries, including increased pricing or a different pricing structure.

All new development is required to install water efficient devices and landscaping. The use of turf for non-functional purposes is prohibited. Water Efficient Guidelines for New Development are available on EMWD's website to help increase water efficiency for this project.

The lead agency for the project is responsible to evaluate the adequacy of the water supply assessment and make the ultimate decision of the sufficiency of the water supply. The developer for the project is responsible for keeping EMWD informed about progress in the planning and development of the project. The project applicant will contact EMWD with project status information and updates every three years until the project begins construction. This will ensure that the information included in this assessment remains accurate and no significant changes to either the project or EMWD's water supply have occurred. Further, if the environmental impact report (EIR) for the project is not certified within three years after the adoption of this WSA, the WSA may be updated at such time if there are changed circumstances warranting updated analysis. If the EIR is certified within three years of the adoption of the WSA, then the applicant shall provide updates to EMWD every three years on the status of the project until construction commences; however, in such instance, the WSA shall not be amended or invalidated by EMWD. If neither the project applicant nor the lead agency contacts EMWD within three years of approval of this WSA, it will be assumed that the Proposed Project no longer requires the estimated water demand calculated, the demand for this project will not be considered in assessments for future projects, and the assessment provided by this document will become invalid.

If the lead agency determines adequate water supply exists for this project, to the greatest extent possible, recycled water shall be used on the Proposed Project. Details about the feasibility of recycled water use shall be included in the plan of service for the project.

Figure A Project Location

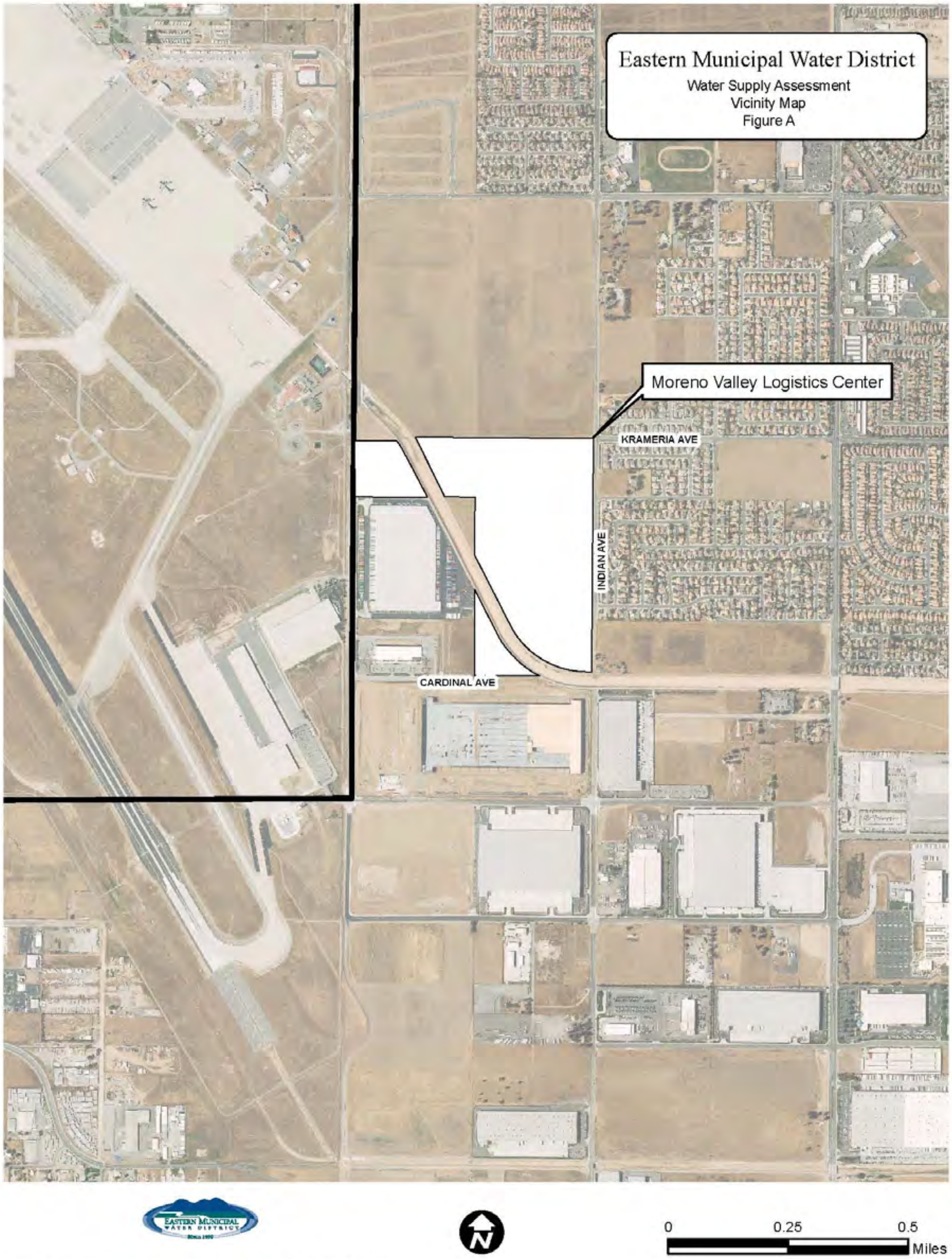

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Figure B Project Location in Relation to Existing Waterlines

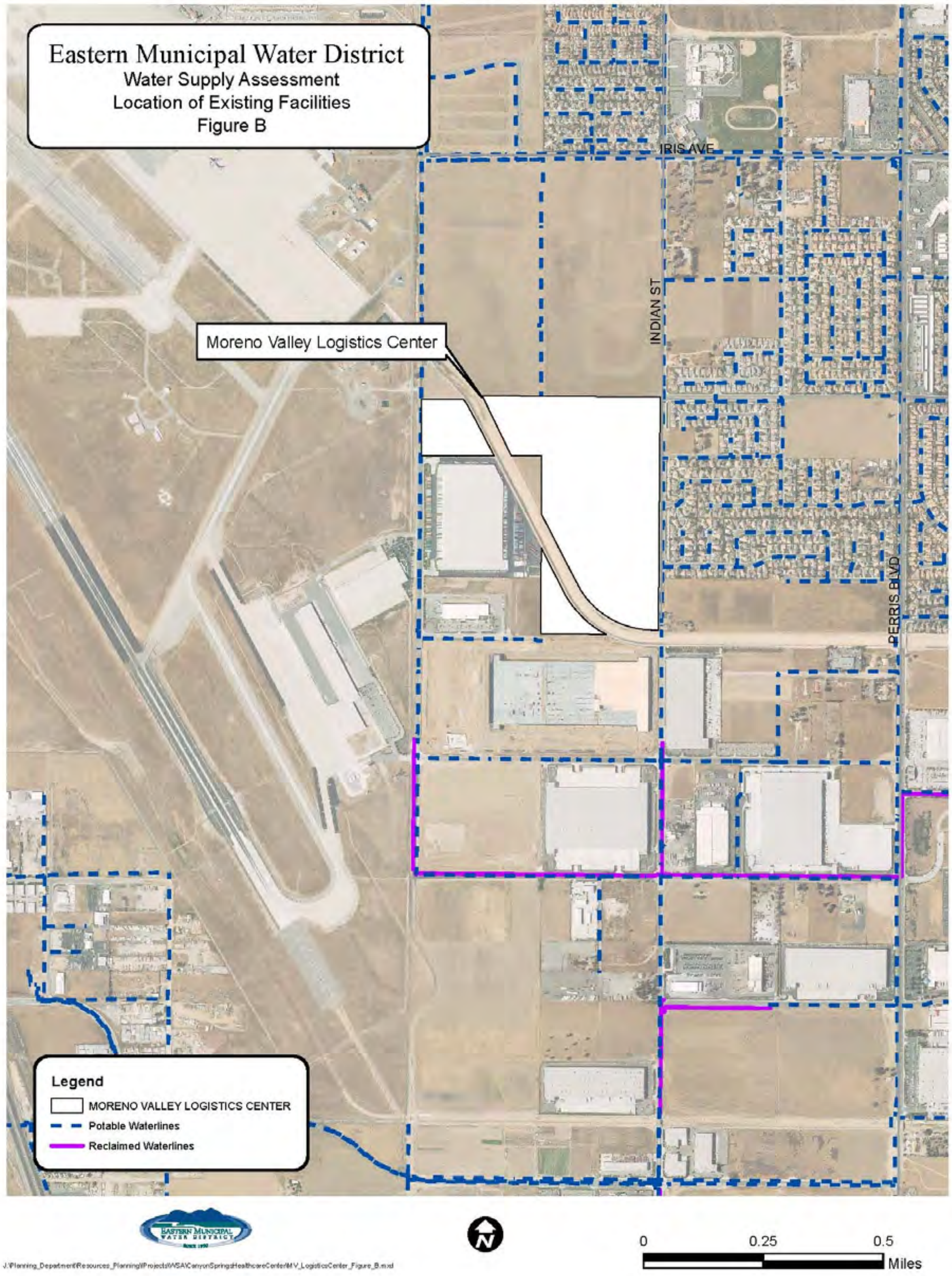

WATER SUPPLY ASSESSMENT REPORT

Supplemental Information

Appendix A
2010 Urban Water Management Plan

Appendix B
2010 MWD's RUWMP

Appendix C
EMWD's CIP Budget

EASTERN MUNICIPAL WATER DISTRICT
2010 URBAN WATER MANAGEMENT PLAN

Prepared By:
Eastern Municipal Water District
Resource Development
June 2011

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Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2011 UWMP – List of Abbreviations & Acronyms

AB 3030	Assembly Bill 3030
AF	acre-feet
AFY	acre-feet pe-r year
AWWA	American Water Works Association
Bay-Delta	San Francisco Bay /Sacramento-San Joaquin Delta
BDCP	Bay Delta Conservancy Plan
BMPs	best management practices
CFS	cubic feet per second
CII	Commercial, industrial, and institutional
CRA	Colorado River Aqueduct
CRW	Colorado River Water
CUWCC	California Urban Water Conservation Council
DBPs	disinfection byproducts
DMM	Demand Measurements Measures
DOE	US Department of Energy
DWR	California Department of Water Resources
ECs	emerging constituents
EMWD	Eastern Municipal Water District
ESA	Endangered Species Act
ET	Evapotranspiration
ETo	reference Evapotranspiration
Forum	Colorado River Basin Salinity Control Forum
FY	fiscal years
GPCD	gallons per capita per day
HECW	high-efficiency clotheswashers
HET	high-efficiency toilets
HSJWMP	Hemet/San Jacinto Water Management Plan
IEUA	Inland Empire Utilities Agency
IPR	Indirect Potable Recharge
IRP	Integrated Resource Plan
IRRP	Integrated Recharge and Recovery Program
LHMWD	Lake Hemet Municipal Water District
MCL	maximum contaminant level
Mills	Mills Filtration Plant
MOU	Memorandum of Understanding
MFR	multi-family residential
MWD	Metropolitan Water District of Southern California
NDMA	N-Nitrosodimethylamine
OEHHA	Office of Environmental Health Hazard Assessment
PG&E	Pacific Gas and Electric
PHG	public health goal
PPCPs	pharmaceuticals and personal care products
RCCDR	Riverside County Center for Demographic Research
RCWD	Rancho California Water District
RUWMP	Regional Urban Water Management Plan
RWRF	Regional Water Reclamation Facilities
SAWPA	Santa Ana Watershed Project Authority
SB7x-7	Senate Bill 7 of Special Extended Session7, the Water Conservation Bill of 2009
SDCWA	San Diego County Water Authority
SFR	single-family residential
Skinner	Skinner Filtration Plant
Soboba Tribe	Soboba Band of Luiseño Indians
SWP	State Water Project

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TAF	thousand acre-feet
TDS	total dissolved solids
TMDL	total maximum daily load
ULFT	ultra low-flush toilets
USBR	U.S. Department of the Interior, Bureau of Reclamation
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
VOCs	volatile organic compounds
WBIC	weather-based irrigation controller
WSAP	Water Supply Allocation Plan
WSCP	Water Shortage Contingency Plan
WSDMP	Water Surplus and Drought Management Plan
WSEOP	Water Shortage Emergency Operations Plan
WSJGBMP	West San Jacinto Groundwater Basin Management Plan
WSO	Water System Optimization
WSS	Water Sense Specified
WUIW	Water Use It Wisely

Section 1 - Introduction

1.1 Urban Water Management Planning Act

Water Code Section 10620 (a) of the Urban Water Management Act, states “Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with section 10640)”. These plans are to be updated every five years and submitted to the Department of Water Resources (DWR). Requirements for the urban water management plan include:

- Assessment of current and projected water supplies.
- Evaluation of Demand and Customer Types.
- Evaluation of the reliability of water supplies.
- Description of conservation measures implemented by the urban water supplier.
- Response plan, in the event of a water shortage.
- Comparison of demand and supply projections.

In November of 2009, the State legislation passed Senate Bill 7 as part of the Seventh Extraordinary Session, referred to as SBx7-7 or the Water Conservation Act of 2009. This law requires that every Urban Water Management Plan includes:

- Baseline per capita water use data.
- Urban water use target.
- Interim urban water use targets.

SBx7-7 also sets the deadline for approval of the 2010 Urban Water Management Plan (UWMP) by an urban water supplier’s governing board at July 1, 2011 with submittal to DWR required by August 1, 2011.

This report has been prepared to comply with the Urban Water Planning Act and SBx7-7. In addition to meeting the requirements of the Act, this report will be used to support water supply assessments and verifications required by Senate Bills 610 and 221 of 2001. These bills require that water supply information be provided to counties and cities for projects of a certain size, prior to project approval. Both bills allow an UWMP to be used as a source document to fulfill these legislative requirements. This UWMP was adopted by Eastern Municipal Water District (EMWD) Board of Directors on June 15, 2011 by I.C. Resolution No. 5023. Appendix A includes the adoption order and. Appendix A.1 includes the DWR UWMP checklist.

1.2 Coordination

Article 3, Section 10642 of the UWMP Act requires each urban water supplier to encourage the active involvement of diverse social, cultural and economic elements of the population within the service area. EMWD has encouraged the participation of sub agencies, cities and the County of Riverside and other public groups. Public participation and coordination efforts are detailed in Appendix B.

1.3 Eastern Municipal Water District

EMWD is a public water agency formed in 1950 by popular vote. In 1951, it was annexed into the Metropolitan Water District of Southern California (MWD) and gained a supply of imported water from the Colorado River Aqueduct (CRA). Today, EMWD remains one of MWD's twenty-six member agencies and receives water from Northern California through the State Water Project (SWP) in addition to deliveries through the CRA.

EMWD's initial mission was to deliver imported water to supplement local groundwater for a small, mostly agricultural, community. Over time, EMWD has evolved to include groundwater production, desalination, water filtration, wastewater collection and treatment, and regional water recycling on the list of products and services it offers to its over 135,000 customers. Located in one of the most rapidly growing regions in the Nation, EMWD's mission is "to provide safe and reliable water and wastewater management services to our community in an economical, efficient, and responsible manner, now and in the future."

A five-member Board of Directors governs EMWD. Each Director serves an area of equivalent population size within EMWD's boundaries and is elected to office every four years. As a member agency of MWD, EMWD also has a board member appointed to the MWD Board.

1.4 Service Area Physical Description

EMWD is located in western Riverside County, approximately 75 miles east of Los Angeles. The 555 square mile service area includes seven incorporated cities in addition to the unincorporated areas of the County of Riverside.

The areas within EMWD's boundary are:

City of Hemet
City of Menifee
City of Moreno Valley
City of Murrieta
City of Perris
City of San Jacinto
City of Temecula
Homeland
Lakeview
Nuevo
Quail Valley
Romoland
Valle Vista
Winchester

In most of the listed areas, EMWD provides both water and sewer service. However, in some places EMWD provides only sewer or water service, or provides wholesale water to a sub agency.

Figure 1.1 - Areas Within EMWD Boundaries

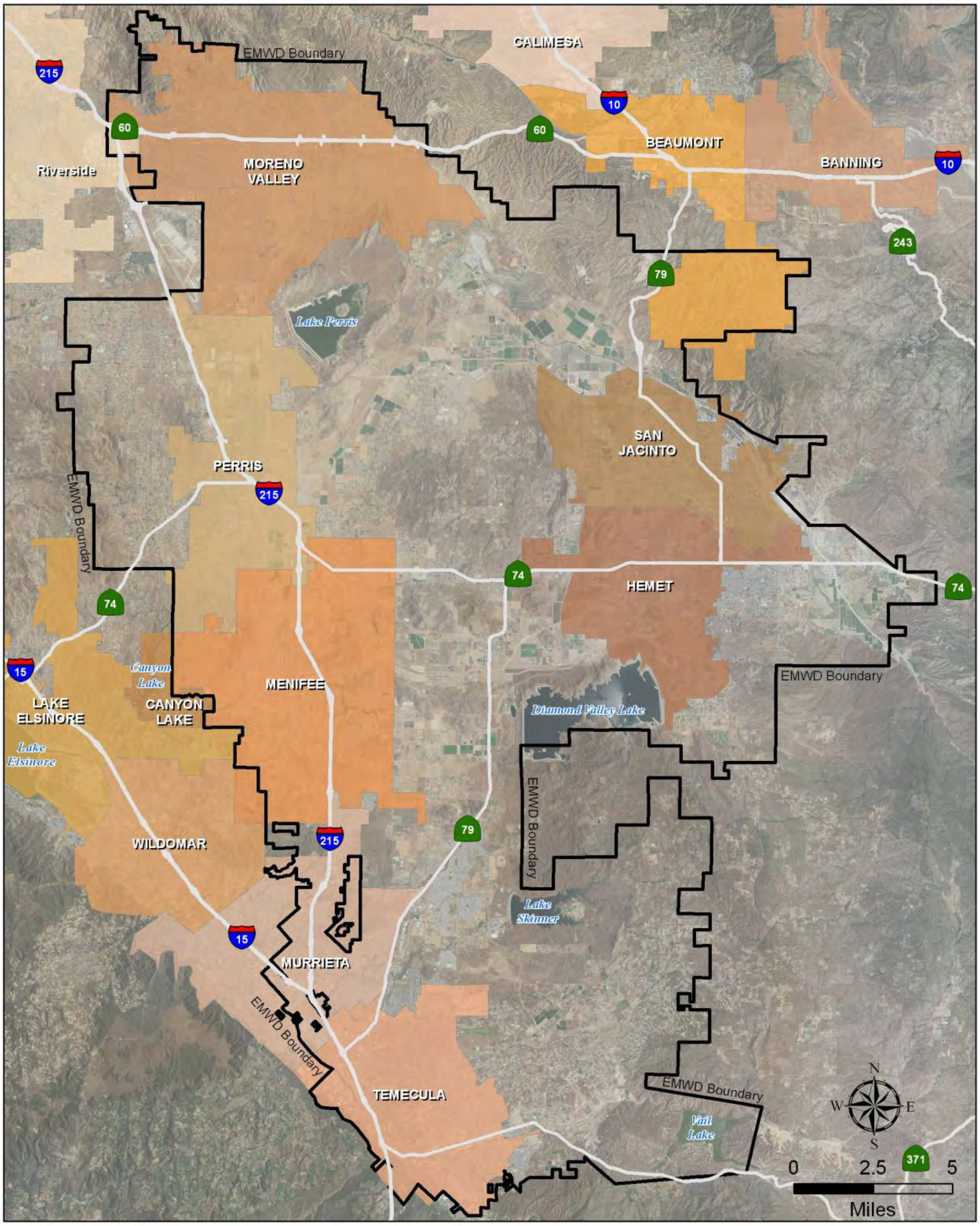

Eastern Municipal Water District
Cities

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

EMWD is a wholesale provider to the following sub agencies:

City of Hemet Water Department
City of Perris Water System
City of San Jacinto Water Department
Lake Hemet Municipal Water District (LHMWD)
North Perris Water System
Nuevo Water Company
Rancho California Water District (RCWD)

Several of these agencies have or will prepare their own UWMP. EMWD has discussed and reviewed the supplemental water demand required by each agency with representatives of that agency. The demand requirements and water supply are discussed in this plan.

1.5 Climate

EMWD has a semi-arid climate characterized by hot, dry summers and cooler winters. The average total rainfall is between 10 and 11 inches, occurring mostly in December through March. The region experiences a wide variation in rainfall and periodic local drought. Table 1.1 has a summary of average evapotranspiration (Et_o), temperature and precipitation for EMWD's service area taken from 3 local climate stations (Riverside-44, Temecula-62, Winchester-179).

Table 1.1 - EMWD Climate

	Standard Monthly Average ETo (inches)	Average Rainfall (inches)	Average Max. Temperature (Fahrenheit)	Average Min. Temperature (Fahrenheit)
January	2.37	2.2	66.7	41.3
February	2.57	3.0	65.1	42.1
March	4.13	0.9	70.3	44.3
April	5.03	0.9	72.1	45.9
May	6.23	0.2	77.6	51.4
June	6.83	0.0	83.2	55.5
July	7.57	0.1	91.4	60.8
August	7.27	0.0	91.8	60.1
September	5.70	0.1	89.2	57.6
October	4.03	0.5	78.9	51.9
November	2.70	0.7	72.6	45.6
December	2.30	2.0	64.6	40.4
Total	56.63	**10.6**	**77.0**	**49.7**

In dry years, potable water demand increases slightly during the months when rainfall usually occurs, but peak demand for dry or wet years during hot summer months remains fairly constant.

The recycled water system, which serves agricultural and landscape demand, is slightly more sensitive to climate fluctuation. In dry years, there may be an increase in demand during typically wet months to make up for the lack of rainfall, but summer demand typically remains high.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1.6 Population

Through the past decade EMWD's service area within Riverside County was one of the fastest growing regions in California. Since 1990, nearly 350,000 people have been added to the service area of EMWD, doubling the population. Table 1.2 summarizes the 1990-2010 population for EMWD.

Table 1.2 - Population within EMWD's Boundary – 1990 - 2010

Water Service Area	1990	1995	2000	2005	2010
EMWD Retail Service Area	240,293	277,013	297,111	383,286	475,841
City Of Perris Water System	5,189	6,531	7,043	7,928	8,883
North Perris Water System	0	0	0	3,270	4,977
Nuevo Water Company	3,825	5,320	5,891	6,509	7,141
City of San Jacinto Water Department	11,078	13,538	14,138	15,602	17,819
City of Hemet Water Department	22,345	22,627	22,801	23,347	24,921
Lake Hemet Municipal Water District	34,536	39,535	42,607	43,617	44,963
Rancho California Water District	25,389	47,381	74,624	94,779	111,387
Total	**342,655**	**411,945**	**464,215**	**578,338**	**695,932**

The population within EMWD's retail service area represents the area directly served by EMWD's distribution system. Population for EMWD's retail service area has been calculated based on data available from the 1990 and 2000 Census and the California Department of Finance available in 2010.

1.6.1 Projected Population

To insure that planning efforts for future growth are comprehensive, EMWD incorporates regional projections in its UWMP. The Riverside County Center for Demographic Research (RCCDR) 2010 Projection is used to calculate future population. RCCDR considers land use and land agency information to develop projections. The RCCDR projection has been adopted by the Western Riverside Council of Governments.

Table 1.3 - Projected Population – 2010 - 2035

	2015	2020	2025	2030	2035
EMWD Retail Service Area	548,718	628,918	709,729	785,810	849,059
City Of Perris Water System	9,151	9,464	9,906	10,312	10,699
North Perris Water System	4,977	4,977	4,977	4,977	4,977
Nuevo Water Company	7,781	8,580	6,903	5,902	5,346
City of San Jacinto Water Department	19,706	21,467	22,738	23,635	24,341
City of Hemet Water Department	27,474	29,363	31,273	33,181	35,217
Lake Hemet Municipal Water District	47,446	50,865	54,296	57,742	59,167
Rancho California Water District	114,604	116,969	120,231	122,259	122,923
Total	**779,857**	**870,603**	**960,053**	**1,043,818**	**1,111,729**

Source: Riverside County Center for Demographic Research

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

1.7 Other Demographic Factors

As the population within EMWD's service area continues to grow, the characteristics of the service area are continually changing. District-wide, tract homes, commercial centers and new industrial warehouses are replacing acres of agriculture and vacant land. The average household size is becoming smaller and the median income is increasing. Over the next 25 years, EMWD's population is projected to grow by over 400,000 people, a sixty percent increase over the current retail area population.

From the mid -1980's to 1990's, population growth in EMWD routinely exceeded 10% per year. In the early 1990's, growth slowed during an economic recession. During the late 1990's, growth began to steadily increase, and the first five years of the 2000's brought accelerated population growth to the area. This growth has challenged EMWD to develop new sources of supply and construct new facilities and infrastructure to bring water to hundreds of new customers each month. Growth within EMWD's service area reached its peak rate in 2005. In the late 2000's there was a major decline in the housing development and growth slowed again during the recent economic recession. However, EMWD is still a growing water agency. Ultimate demand estimates indicate that before EMWD reaches build out, the population will nearly triple its current size. Land will continue to be developed in western Riverside County as more and more people move into the area. Just as it has in the past, EMWD will continue to meet the challenges of new development with innovation, efficiency and responsibility. Table 1.4 shows EMWD new retail connections for 1990 through 2010.

Table 1.4 - EMWD New Connections – 1990 - 2010

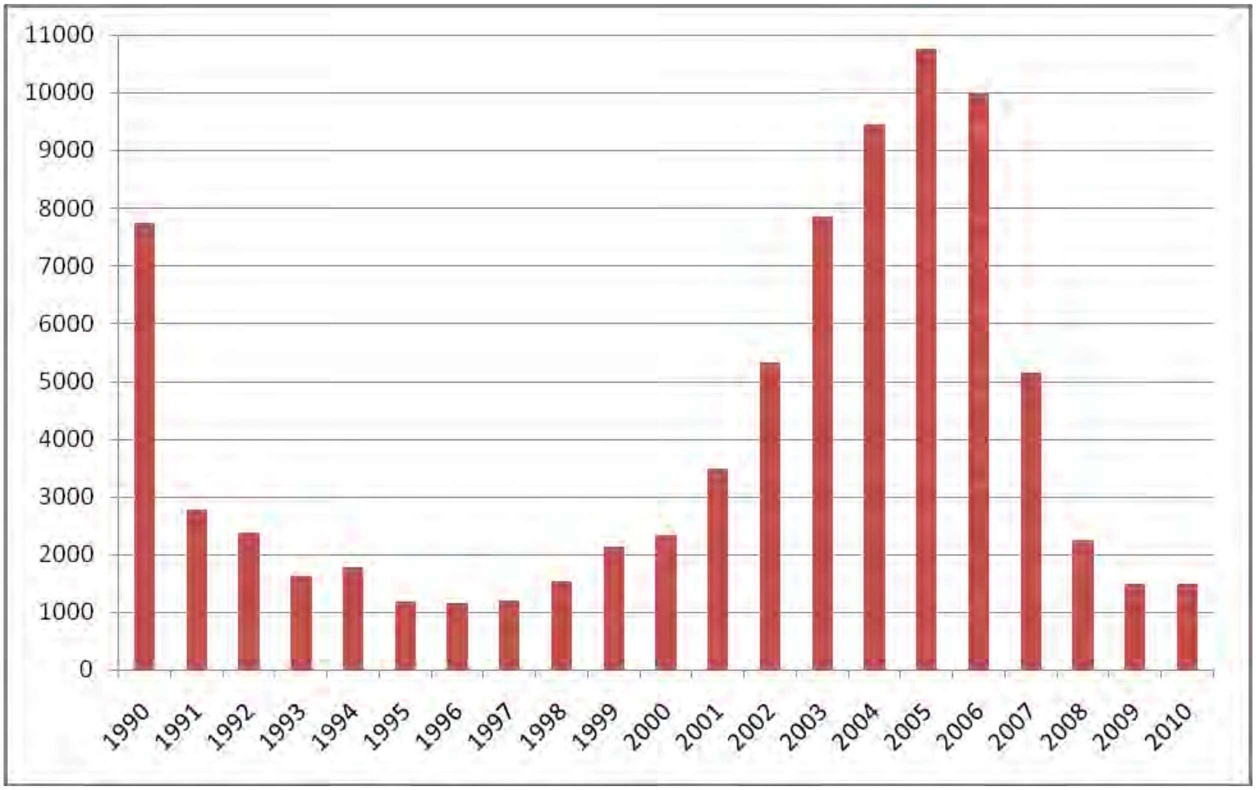

Section 2 - System Demands

2.1 Overview

Over the past several decades the potable water use in EMWD's service area has shifted from agricultural to urban use. The reduction in agricultural demand has two major causes: rural farm land has been transformed to urban housing as people moved from neighboring counties in search of affordable housing and agricultural demand have been shifted to the recycled water system. The development of new homes and the accompanying increase in population led to the increasing demand for domestic water. Influenced by the last period of a construction boom and drier than average weather conditions, water demands peaked in 2007 before declining through 2010. The reduced demand can be attributed to several different factors including the implementation of a tiered rate billing system, and a water shortage with the accompanying outreach calling for conservation throughout California, but much of it can also be associated with the decline in the economy. High unemployment and record high foreclosure rates have reduced demand for all customers, especially EMWD's largest customer group, single family residential.

Through 2007, EMWD per capita water consumption was trending upwards. Moving forward, EMWD has devised a plan to reverse that trend and insure efficient water use standards are met by customers, in order to meet the requirements of the Water Conservation Act of 2009.

Figure 2.1 - Retail Potable Water Sales – 1970 – 2010

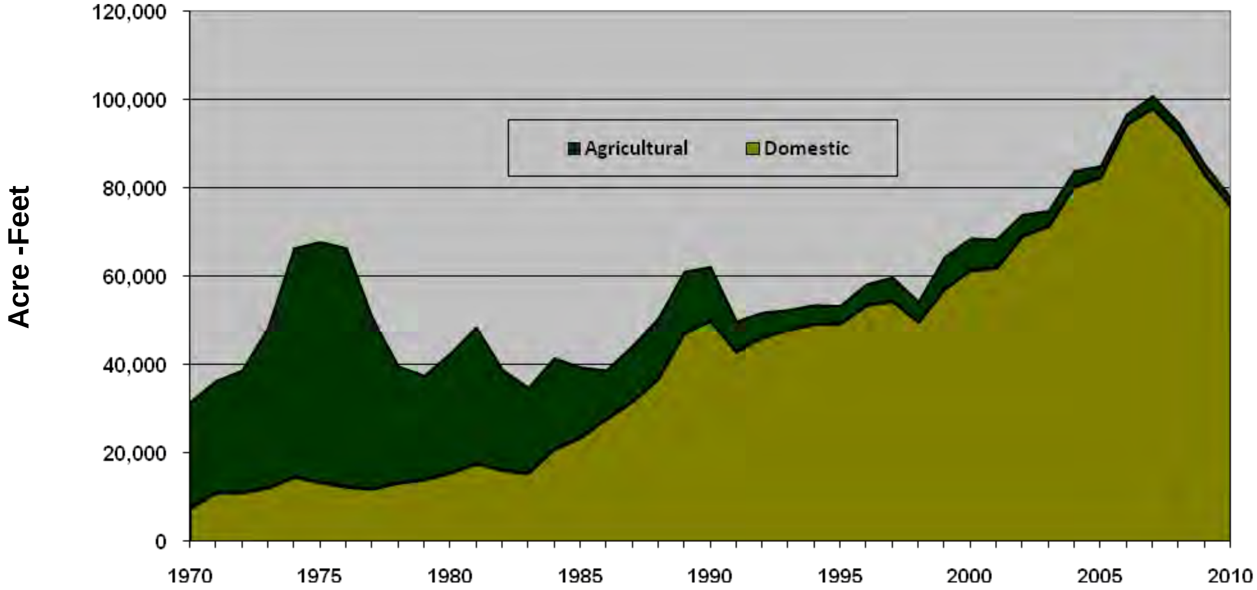

In addition to retail potable water demand, EMWD delivers water to seven wholesale customers and meets a significant portion of demand with recycled water. Table 2.1 summarizes the past and projected demand for water within EMWD's service area.

Table 2.1 - Water Demand (AFY) – 2005 - 2035

	Actual		Projected				
	2005	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Retail Potable Water Sales	84,900	77,700	113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies	29,400	27,100	47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses	47,300	49,900	52,500	59,100	64,200	66,300	67,600
Total	**161,600**	**154,700**	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

2.2 Water Conservation Act of 2009

The Water Conservation Act of 2009, Senate Bill x7-7, set a requirement for water agencies to reduce their per capita water use by the year 2020. The overall goal is to reach a state wide reduction of per capita urban water use of 20% by December 31, 2020 with an intermediate 10% reduction by December 31, 2015. Demand reduction can be achieved through both conservation and the use of recycled water as a potable demand offset.

An urban water provider's 2010 UWMP must include a target for per capita water use in 2020 and an interim target for 2015. The 2020 target may be updated in the 2015 UWMP. These targets must be developed using one of four methods. Effective 2016, urban water retailers who do not meet their water conservation targets will be ineligible for state water grants or loans unless one of two exceptions is met. The first exception states that an urban supplier may be eligible if they have submitted a compliance schedule, financing plan and budget to DWR for approval, showing how they will meet their target per capita water use by 2020. The second exception states that an urban water supplier may be eligible for funding if their entire water service area qualifies as a disadvantaged community.

Any one of the four methods can be used to determine the per capita water use targets. Three methods were specified in the legislation, and the fourth was developed by DWR. The four methods are:

- Using eighty percent of the baseline as the per capita water use target.
- Using an efficiency standard with targets for indoor use, landscape use, commercial, industrial and institutional use and an optional target for agricultural use.
- Using ninety-five percent of the applicable state hydrologic region target developed by DWR and published in the state's *20X2020 Water Conservation Plan.*
- Using a method developed by DWR that accounts for water savings due to water metering and achieving water conservation measures in three water use sectors.

DWR, through a public process, developed and published *Methodologies for Calculating Baseline and Compliance Urban Water Per Capita Use* in October of 2010 for consistent application of the Act throughout the state.

2.3 EMWD Baseline and Compliance Targets

Using the methodology established by DWR, EMWD has calculated its baseline and compliances target.

2.3.1 Gross Water Use

Gross water use was calculated using the best available meter data about water entering and exiting EMWD's distribution. The distribution system includes a potable water system service that serves both domestic and agricultural demand, and a raw water system used to provide water to a few agricultural customers.

Potable sources are potable groundwater wells, treated water from two desalination plants, imported water from MWD and water imported from other agencies. Imported water from MWD includes water delivered directly to the distribution system and raw water treated at EMWD facilities. Small amounts of water are also delivered from WMWD. Only water delivered to the distribution system is included in the gross water calculations. The single source for the raw water system is imported water from MWD.

EMWD sells a portion of the water that enters its distribution system to wholesale customers. Some MWD connections also have a portion of water that is diverted to other agencies without being part of EMWD's distribution system. RCWD, EMWD's largest whole sale customer has dedicated connections to MWD's system and does not impact EMWD's distribution system. Table 2.2 shows gross water use calculations.

Table 2.2 - Gross Water Use Calculations (AF) – 1999 - 2008

	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Potable Wells	20,280	21,287	18,536	18,861	17,574	16,564	18,064	19,644	19,489	20,043
Desalter	0	0	0	4	999	1,440	855	4,802	4,792	2,973
Mills and Skinner	62,896	68,454	68,260	77,313	74,516	60,798	73,029	72,515	70,430	62,900
MWD Raw Water	0	0	0	1,064	760	233	108	91	41	353
EMWD Water Filtration Plants	0	0	0	0	3,741	7,911	5,636	8,405	17,271	16,594
Other Agencies	76	111	39	36	35	37	31	39	37	831
Exported to other Utilities	-13,862	-17,847	-16,776	-15,995	-11,309	-7,006	-3,046	-4,665	-7,682	-6,510
Gross Water Use	**69,389**	**72,005**	**70,060**	**81,283**	**86,315**	**79,977**	**94,677**	**100,832**	**104,378**	**97,184**

2.3.2 Baseline per Capita Water Use

EMWD used several sources of data to calculate the historical population of its retail service area and project the future population of its service area including: the Riverside County Center for Demographic Research (RCCDR) 2010 Projection, the 1990 and 2000 United States Census and the California Department of Finance annual population estimates for cities and counties. GIS was used to segregate data between sub agencies and EMWD's retail service area and Department of Finance data was used to calculate annual growth rates Table 2.3 has the retail service area population and daily per capita water use for the base years to calculate the baseline per capita use. Table 2.4 has the population and daily per capita use for 2003-2007 for use in calculating the minimum per capita reduction.

Table 2.3 - Daily Per Capita Use (1999-2008, Calendar Year)

Base Years	Service Area Population	Gross water Use (gal. per day)	Daily Per Capita Water Use (gallons)
1999	291,637	61,946,331	212
2000	297,111	64,281,539	216
2001	307,103	62,545,269	204
2002	324,678	72,564,859	223
2003	336,579	77,057,492	229
2004	359,198	71,399,100	199
2005	383,286	84,522,023	221
2006	416,954	90,017,125	216
2007	440,933	93,183,042	211
2008	457,771	86,759,842	190
		Total	**2121**
Divide Total by Number of Base Years			**212**

Table 2.4 - Five Year Daily Per Capita Use (2003-2007, calendar year)

Base Years	Service Area Population	Gross water Use (gal. per day)	Daily Per Capita Water Use (gallons)
2003	336,579	77,057,492	229
2004	359,198	71,399,100	199
2005	383,286	84,522,023	221
2006	416,954	90,017,125	216
2007	440,933	93,183,042	211
		Total	**1076**
Divide Total by Number of Base Years			**215**

Using the methodology established by DWR, EMWD has calculated its baseline use to be 212 gallons per capita per day water (GPCD), based on the average GPCD between 1999 and 2008.

2.3.3 Compliance Target

EMWD has selected method two to determine compliance with SBx7-7. Method two efficiency standards for water demand are:

- Indoor residential per capita use to meet target demand of 55 GPCD.
- Landscape irrigation, delivered either through a residential meter or a dedicated landscape meter to meet the efficiency standards of the Model Water Efficient Landscape Ordinance.
- Commercial, industrial, and institutional demand to be reduced by ten percent from baseline per capita demand.
- Agricultural water use to meet the efficiency standards of the Model Water Efficient Landscape Ordinance.

In 2009, EMWD implemented a budget based tiered rate program. For residential and landscape customers, these budgets are based on persons per household and the irrigated landscape areas. To develop budgets for over 130,000 accounts EMWD estimated irrigated areas using parcel data supplied by the County of Riverside. Accounts with over 6,000 square-feet of irrigated area were verified using aerial photography or field measurements. Customers are also able to file a variance to correct EMWD estimated irrigated areas. This information was used to estimate the irrigated area for 2020. Actual irrigated area will be determined in the compliance year.

Table 2.5 - Landscape Irrigated Area Efficiency Standard

Account Installed:	Prior to Jan 1, 2010	After Jan 1, 2010	After Jan 1,2010	**Total**
Account Status	Existing	Existing	Projected	
Irrigated Area (SF)	682,427,442	6,983,623	112,320,000	**801,731,065**
% ETo	80%	70%	70%	
Reference ETo	56.63	56.63	56.63	
Target water Use (gal per day)	52801967.78	472805.44	7604291.79	**60,879,065**
2020 Population				**628,918**
Target Daily Per Capita Water Use (gallons)				**96.80**

Table 2.6 contains the calculation for the CII Target per capita water use. CII water use does not include multifamily.

Table 2.6 – Commercial, Industrial and Institutional, Daily Per Capita Use (1999-2008, Calendar Year)

Base Years	Service Area Population	Commercial Water Use (gal. per day)	Industrial Water Use (gal. per day)	Institutional Water Use (gal. per day)	Sum CII Water Use (gal. per day)	Daily Per Capita Water Use (gallons)
1999	291,637	3,282,584	355,279	2,382,239	6,020,101	20.6
2000	297,111	3,462,465	382,229	2,538,002	6,382,696	21.5
2001	307,103	3,520,994	384,146	2,450,010	6,355,150	20.7
2002	324,678	3,566,972	390,599	2,543,603	6,501,174	20.0
2003	336,579	3,696,911	374,467	2,378,707	6,450,085	19.2
2004	359,198	3,877,039	393,268	2,716,276	6,986,583	19.5
2005	383,286	3,519,052	360,928	2,616,731	6,496,711	17.0
2006	416,954	4,355,240	459,347	2,540,133	7,354,720	17.6
2007	440,933	4,369,360	404,093	2,702,941	7,476,395	17.0
2008	457,771	4,435,262	334,517	2,522,392	7,292,171	15.9
						189
					Divide Total by Number of Base Years	18.9
					Target GPCD (90% of Base)	17.0

Agricultural areas were measured using aerial photography and anticipated to decrease through 2020.

Table 2.7 - Agricultural Efficiency Standard

Account Installed:	**Total**
Account Status	Existing
Irrigated Area (SF)	74,564,916
% ETo	100%
Reference ETo	56.63
Target water Use (gal per day)	60,879,065
2020 Population	628,918
Target Daily Per Capita Water Use (gal)	**15.2**

Table 2.8 combines the four efficiency targets for a 2020 compliance target of 184 GPCD. The 2015 interim target is 198 GPCD. The target is lower than the minimum five percent reduction of the five year average GPCD.

Table 2.8 - Compliance Daily per Capita Water Use (GPCD)

Type of Target	**Target**
Residential Indoor	55
Irrigated Landscape	96.8
Commercial, Industrial and Institutional	17.0
Agricultural	15.2
2020 Compliance Target	**184**
2015 Interim Target	**198**

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2.4 EMWD Implementation Plan for Water Use Reduction

EMWD will reduce potable water demand to meet the goals of SBx7-7 two ways; using recycled water to offset potable water demand and reducing demand for water through conservation. Three methods have been identified for conserving water: 1) a budget based tiered rate, 2) requirements for water efficiency in new construction and 3) an active conservation program. Water use reduction will be focused on outdoor demand reduction by all customer types.

Table 2.9 - Water Efficiency Savings (AFY) – 2005 - 2035

Saving Type	2005	2010	2015	2020	2025	2030	2035
Recycled Water Potable Offset	3,600	4,000	5,000	6,300	11,500	13,900	14,300
Tiered Rate	0	8,700	8,700	8,700	8,700	8,700	8,700
New Construction	0	200	2,000	4,100	6,100	8,000	9,600
Active Conservation	1,500	3,400	6,500	9,500	10,700	11,700	12,600
Total	**5,100**	**16,300**	**22,200**	**28,600**	**37,000**	**42,300**	**45,200**

Recycled water will be used to offset potable demand through the expansion of the existing recycled water system. Additional information about the use of recycled water can be found in section 3.5

Tiered Rate savings are an estimate of water saved by customers after the implementation of a budget based tiered rate. In April 2009, EMWD implemented a tiered rate billing structure for its residential and landscape customers. Customers are provided an allocation for reasonable water use and are required to pay a higher rate for water use over their allocated limit. Water savings by existing customers has been estimated. Actual water demand since the implementation of the tiered rate has been lower than the estimated amounts, likely as a result of several factors and not the tiered rate implementation alone.

Water Use Efficiency Requirements in New Development includes installing lower water use landscape and interior fixtures. Water use efficiency is mandated statewide through existing ordinances, plumbing codes and legislation. To enforce water use efficiency in new development EMWD has lowered the water budget allocations for new development. Any residential or dedicated landscape account installed after January 1, 2011 will have an outdoor budget allocation based on only 70% of ET, compared to up to 100% of ET for older accounts. Water use savings shown in Table 2.1 are calculated assuming lower budgets allocation will result in a reduction in a proportionate reduction in water use. Actual savings will be measured based on average use by new meters.

Active Conservation savings are the result of water use efficiency programs implemented by EMWD. EMWD encourages the replacement of inefficient devices and includes monetary rebate, distribution and direct installation programs. Water savings are based on estimated water savings for each device and takes into account the lifetime of each device.

EMWD has already experienced the economic impact of the implementation of tiered rates. In 2009, EMWD implemented the budget based tiered rate with the goals that it would encourage water use efficiency and provide revenue stability. The rate structure was developed to ensure that revenue would remain neutral as customers decrease their water use. Since the implementation of the tiered rate, EMWD has seen reduction in water use that puts EMWD on target to meet the SBx7-7 compliance target. In the future, EMWD will continue to monitor customer response to the budget based tiered rate and make any adjustments required to ensure revenue stability.

The long term economic impact of conservation and the use of recycled water to comply with SBx7-7 were evaluated as part of EMWD's Integrated Resource Plan (IRP). The IRP included financial stability as one objective when evaluating potential supply scenarios. Scenarios that included conservation and recycled water use in quantities that meet or exceed the reduction requirement for SBx7-7 performed better than those without. The costs associated with reducing EMWD's demand for potable water are offset by the avoided cost of importing additional water.

Through the above three methods of reducing water use, and recycled water use, EMWD anticipates the reduction of potable water demand to meet the requirements of SBx7-7.

2.5 Water Demand Projection

Demands for EMWD were developed using projections provided by the Riverside County Center for demographic research. EMWD retail demand projections include the water savings needed to meet the Water Conservation Bill of 2007 requirements. Although currently the area is experiencing a slowdown in new development, EMWD's service area is at about 40 percent of build out. To track new developments EMWD uses a spacial database, updated quarterly. Currently, EMWD is tracking the status of over 700 proposed projects and over 150,000 residential units.

2.5.1 Retail Market Segments

EMWD's primary retail customers can be divided into residential, commercial, industrial, institutional and landscape sectors. Although the residential section is by far EMWD's largest customer segment, each market segment plays a role in the growth and development of EMWD's service area. See Table 2.10 for water use by various customer types.

Table 2.10 - Potable Retail Water Deliveries by Customer Type – 2005 - 2035

Year /Type	Units	Single family Res.	Multi-family Res.	Com-mercial	Indus-trial	Inst/ gov.	Land-scape	Agriculture	Total
2005	No. of accounts	114,100	1,000	1,500	100	40	1,500	200	**118,440**
Actual	Volume (AF)	62,300	5,500	3,900	400	2,900	7,500	2,400	**84,900**
2010	No. of accounts	129,400	4,300	2,100	100	500	2,200	100	**138,700**
Actual	Volume (AF)	54,000	6,100	4,200	400	2,300	8,900	1,800	**77,700**
2015	No. of accounts	140,600	5,700	2,300	1,200	100	3,300	100	**153,300**
Projected	Volume (AF)	74,400	8,300	5,600	600	3,600	18,500	2,800	**113,800**
2020	No. of accounts	150,200	6,100	2,400	1,300	100	3,500	85	**163,685**
Projected	Volume (AF)	79,600	8,800	5,900	600	3,800	19,600	2,400	**120,700**
2025	No. of accounts	169,600	6,900	2,700	1,400	100	4,000	85	**184,785**
Projected	Volume (AF)	89,800	10,000	6,700	700	4,300	22,200	2,400	**136,100**
2030	No. of accounts	187,700	7,700	3,000	1,500	100	4,400	85	**204,485**
Projected	Volume (AF)	99,400	11,000	7,400	800	4,800	24,500	2,400	**150,300**
2035	No. of accounts	202,800	8,200	3,300	1,700	100	4,700	85	**220,885**
Projected	Volume (AF)	107,400	11,900	8,000	800	5,200	26,500	2,400	**162,200**

Residential consumption is the dominant demand for EMWD which will continue in the future according to current general plans for the County of Riverside and local cities. Residential accounts are required to keep their demands below a budgeted allocation or pay a high rate for water use. Accounts dedicated to irrigating landscaped areas have the second highest consumption rate. Just as with residential accounts, landscape accounts are subject to a budgeted allocation. New development in both of these account classes are provided lower budget allocations to account for water efficiency regulations in place requiring water efficient landscape and plumbing fixtures.

Commercial developments will also continue to increase and will be focused along the major transportation highways through EMWD’s boundary (Interstate Highway 15, Interstate Highway 215, Highway 79, and Highway 74). Currently, commercial demands account for about 5% of EMWD’s retail demand. Land use based projections indicate that the ratio of commercial demand to retail demand will increase slightly over time.

EMWD has a very small industrial use sector, accounting for less than 1% of retail demand. Industrial developments are proposed around Interstate Highway 215 and other main transportation corridors. Much of the proposed growth consists of large warehouse projects with minimal water demand. As much as possible, EMWD will try to meet the needs of industrial accounts with very high demands for potable water by using recycled water.

Currently, the demand from institutional accounts account for about 4% of retail demand for potable water. EMWD works closely with institutional and government accounts to help reduce their demand and promote the efficient use of water. Whenever possible, recycled water is used for landscape irrigation for schools and other government facilities. EMWD has also developed conservation programs designed to assist public sector accounts like schools to reduce demand through the retrofit of inefficient devices.

When EMWD was formed, it was primarily serving the agricultural community with imported water from MWD. Since then, EMWD service area has gone through a major transformation from a farming community to a residential community. Currently, agricultural demand accounts for about 4% of EMWD's potable water market. Agricultural demand from agricultural expected to remain relatively stable for the next twenty years with some fluctuations from year to year due to changes in weather or crop rotations.

2.5.2 Wholesale to Other Agencies

EMWD wholesales water to six different agencies. The demand for each agency differs based on its need each year. These demands can be unstable at times as these agencies use water from EMWD to supplement their system when their local facilities are inadequate or fail. EMWD will also provide backup for the North Perris Water System if an emergency should occur.

Each urban water supplier is responsible for compliance with SBx7-7. EMWD currently participates in and supports programs developed and implemented by MWD that benefit its entire service including EMWD's wholesale customers. These programs include region wide rebates for both commercial and residential customers, conservation messaging outreach, and research and development of new conservation programs and devices. EMWD also actively promotes conservation throughout Riverside County through participation in organizations such as the Riverside County Water Task Force and the San Jacinto Valley Conservation League. EMWD will continue to support water reduction by wholesale customers through outreach, providing technical support and encouraging participation in regional programs.

Under the Hemet/San Jacinto Water Management Plan, EMWD will be responsible for providing water to recharge the groundwater basin. A portion of the water supplied will be State Water Project Water imported through MWD to meet the requirements of the Soboba Settlement (see Section 3.3.4 infra) and improve the reliability of groundwater in the area. Individual agencies including EMWD will extract their allotted amount of the recharged water from the basin using wells already in place and new wells yet to be constructed.

A portion of the water EMWD wholesales to Lake Hemet Municipal Water District (LHMWD) is raw water for agricultural uses. This water is needed especially when surface water is not available to LHMWD in dry years. See Table 2.11 for water sales to other agencies.

Table 2.11 - Wholesale to Other Agencies (AF) – 2005 - 2035

	Actual Sales (AF)		Projected Sales (AF)				
Water distributed	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
City of Hemet	100	0	0	0	0	0	0
City of Perris Water System	1,900	1,700	1,700	1,800	1,900	2,000	2,100
City of San Jacinto	0	0	0	0	0	0	0
Lake Hemet MWD[1.]	100	1,300	1,100	1,100	1,000	1,100	1,100
North Perris Water System	0	0	0	0	0	0	0
Nuevo Water Company	800	600	800	1,600	1,700	1,700	1,700
Murrieta Water Company	100	1,600	0	0	0	0	0
Rancho California Water District	26,300	21,900	36,500	48,600	50,800	53,000	55,200
Hemet/San Jacinto Basin Plan Water Master	0	0	7,500	8,500	9,600	11,200	12,300
Total	29,400	27,100	47,600	61,600	65,000	69,000	72,400

1. Sales of water to Lake Hemet are for non-potable supplies used to meet agricultural demand.

2.5.3 Other Water Uses

EMWD also has recycled water use, potable water losses and process water that are described in this section. See Table 2.12, for the projected use of water by each type.

Table 2.12 - Other Water Uses (AFY)– 2005 - 2035

	Actual Use (AF)		Projected Use (AF)				
	2005	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Recycled Water	32,600	41,500	43,900	50,000	53,900	54,900	55,300
Recharge Water [1]	7,000	0	0	0	0	0	0
Distribution System Water Loses	7,600	8,200	8,400	8,900	10,100	11,200	12,100
Treatment Water Losses	100	200	200	200	200	200	200
Total	47,300	49,900	52,500	59,100	64,200	66,300	67,600

1 Future recharge will be through the Hemet/San Jacinto Basin Plan Water Master

There are several existing uses of recycled water; municipal use; including industrial and landscape use, agricultural use and environmental use.

Much of the increasing demand for EMWD's recycled water use from accounts that will use recycled water for industrial processing and for landscape irrigation. To meet the needs of these accounts, EMWD has taken steps to improve the reliability and quality of the recycled water system including pressurizing the recycled water system and monitoring account demands to prevent excessive peaking on the system.

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Agricultural accounts may use recycled water to grow short-term row crops. Using potable water would not be cost-effective for these accounts. Their profitability is based on the availability of low-cost recycled water and low-cost land available for lease. The location of these accounts frequently changes each year depending on land availability. As more residential development takes place and the population grows, land is becoming less accessible for agricultural use. In the future, EMWD expects to have fewer and fewer agricultural accounts. Other agricultural accounts use recycled water to irrigate crops that require a long-term investment such as citrus trees. These accounts would use potable water if needed to protect their investment. Recycled water is also being used by agricultural accounts in lieu of potable ground water.

EMWD also sells water to the California Department of Fish and Game for the San Jacinto Wildlife Area. This wildlife refuge is the only refuge area in the state to use recycled water for habitat creation and recycled water is used to help maintain, enhance and improve this environmental preserve.

Water loss within EMWD's potable distribution system is estimated to be 7% of total water use. Losses are highest where pipelines are older and smaller in size, especially in the Hemet and San Jacinto areas that were once owned by the Fruitvale Mutual Water Company. To insure that water losses are accurately accounted for and to meet the requirements of the memorandum of understanding for the California Urban Water Conservation Council, EMWD has implemented a water loss study to prevent an increase in water losses. EMWD tracks leaky pipes and identifies pipes for replacement as part of its capital improvements program.

Treatment water losses include water purchased from MWD and used in the treatment processes at EMWD's filtration plants. This water does not enter EMWD's distribution system but is part of EMWD's demand for imported water.

2.6 Lower Income Housing Demand

Senate Bill 1087 requires that water use projections of a UWMP include the projected water use for single-family and multi-family residential housing for lower income households as identified in the housing element of any city and county in the service area of the supplier. EMWD used the percent of low income and very low income housing identified in the Housing Need Allocation Plan for January 1, 2006 through June 30, 2014, approved by the Southern California Association of Governments on July 12, 2007 to estimate the number of new low income housing units may be required within EMWD's retail service area. The number of low income housing units and associated demand is included in Table 2.13. The demand for these units is included in the total projected residential demand in Table 2.10.

Table 2.13 - Projected New Lower Income Housing Units and Demand (Retail Service Area) – 2015 - 2035

Year	Units	City of Hemet	City of Menifee	City of Moreno Valley	City of Murrieta	City of Perris	City of San Jacinto	City of Temecula	Riverside County	Total
2015	Housing Units	2,000	1,400	1,900	600	1,500	2,100	400	1,400	**11,300**
	Demand (AF)	700	500	700	200	500	700	100	500	**3,900**
2020	Housing Units	1,300	2,000	1,800	600	1,400	1,800	100	2,700	**11,700**
	Demand (AF)	500	700	600	200	500	600	35	900	**4,035**
2025	Housing Units	1,200	1,400	1,800	600	1,300	1,200	300	3,200	**11,000**
	Demand (AF)	400	500	600	200	500	400	100	1,100	**3,800**
2030	Housing Units	1,500	1,400	2,100	600	1,300	800	100	2,900	**10,700**
	Demand (AF)	500	500	700	200	500	300	35	1,000	**3,735**
2035	Housing Units	1,500	1,600	1,400	600	1,300	700	100	3,000	**10,200**
	Demand (AF)	500	600	500	200	500	200	35	1,100	**3,635**

Section 3 - Existing Water Sources

3.1 Overview

EMWD has four existing sources of water supply: imported water from MWD, recycled water, local groundwater production and desalted groundwater. Imported water from MWD is either delivered directly as potable water, delivered to EMWD as raw water and then treated at two local filtration plants owned and operated by EMWD or delivered to EMWD as raw water for non-potable use. Figure 3.1 quantifies the amount of water EMWD has received from each source annually in acre-feet from 2005 through 2010.

Figure 3.1 - Water Received by Source (AFY) – 2005 - 2010

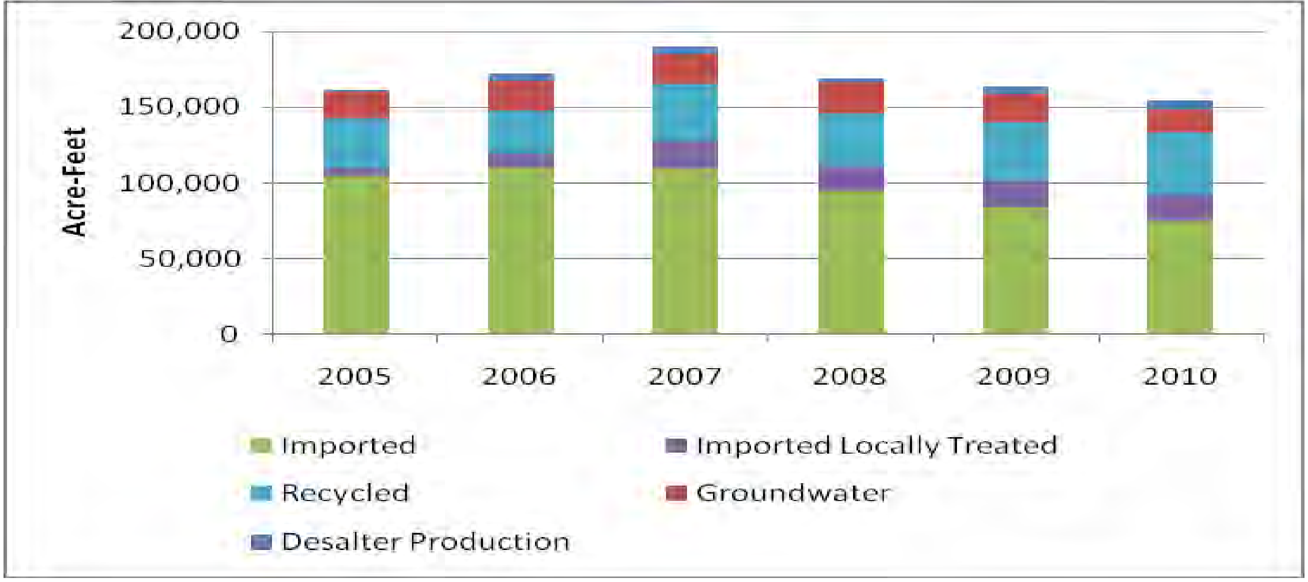

1. Imported water includes water received at EMWD treatment plants and used in the treatment process.
2. Imported Treated by EMWD is water entering the distribution system after being treated at EMWD's filtration plants.
3. Recycled represents recycled water delivered water only, not total available supply.

For the past six years EMWD's reliance on imported water has remained proportionally consistent or decreased, even as EMWD added over 20,000 new water connections. This has been achieved through the construction of desalination facilities, a commitment to increase recycled water use and through a decrease in demand from water efficiency. These efforts have increased the reliability of supplies and decreased the dependence on imported water sources. Information about water deliveries from each source is included in Table 3.1.

Table 3.1 - Water Supply (AFY) – 2005 - 2010

Type	Source	2005	2006	2007	2008	2009	2010
Imported	Metropolitan Water District	104,400	110,400	109,900	94,400	84,200	75,000
Imported – Locally Treated	Metropolitan Water District	5,600	8,400	17,300	16,600	17,000	16,600
Groundwater	West San Jacinto Management Area	18,100	19,600	19,500	20,000	18,100	15,800
Desalination	West San Jacinto Management Area	900	4,800	4,800	3,000	4,800	5,800
Recycled	EMWD Regional Water Reclamation Facilities	32,600	28,800	38,600	35,100	39,200	41,500
Total		**161,600**	**172,000**	**190,100**	**169,100**	**163,300**	**154,700**

Delivery points for each source of water are located throughout EMWD service area. Groundwater wells are mostly located within the San Jacinto Watershed and serve the northern portion of EMWD area, with the largest amount of production taking place around the cities of Hemet and San Jacinto. Two desalination plants that treat brackish groundwater through reverse osmosis for drinking are located in Sun City.

Potable imported water is delivered directly from MWD's two large filtration plants. The Henry J. Mills Filtration Plant (Mills), owned and operated by MWD, treats water from northern California and provides it through two connection points located in the north east portion of EMWD. The Robert F. Skinner Filtration Plant (Skinner), also owned and operated by MWD, treats a blend of Colorado River Water (CRW) and water from northern California for potable use and provides water to EMWD through a connection point in the southwest portion of EMWD.

Microfiltration plants, owned and operated by EMWD, filtering water from the Colorado River and/or State Water Project (SWP) delivered by MWD through membranes to remove particulate contaminants to potable water standards are located in Hemet and Perris. Recharge water from MWD is used for groundwater replenishment in the eastern part of EMWD. This untreated water from MWD is percolated into the ground, adding water to the aquifer. EMWD and others can extract this water at a later date for beneficial uses. Untreated water from MWD used for agricultural purposes is delivered in the northeast portion of EMWD for use by EMWD retail and wholesale accounts and in the south for RCWD agricultural accounts.

Recycled water, highly treated wastewater, is used for many purposes including agriculture, landscape irrigation, and industrial use. An intricate web of pipelines connects EMWD's four Regional Water Reclamation Facilities (RWRF) as well as several storage ponds to deliver recycled water to appropriate accounts through the service area of EMWD. The location of each water source can be seen in Figure 3.2.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Figure 3.2 - Locations of Supplies

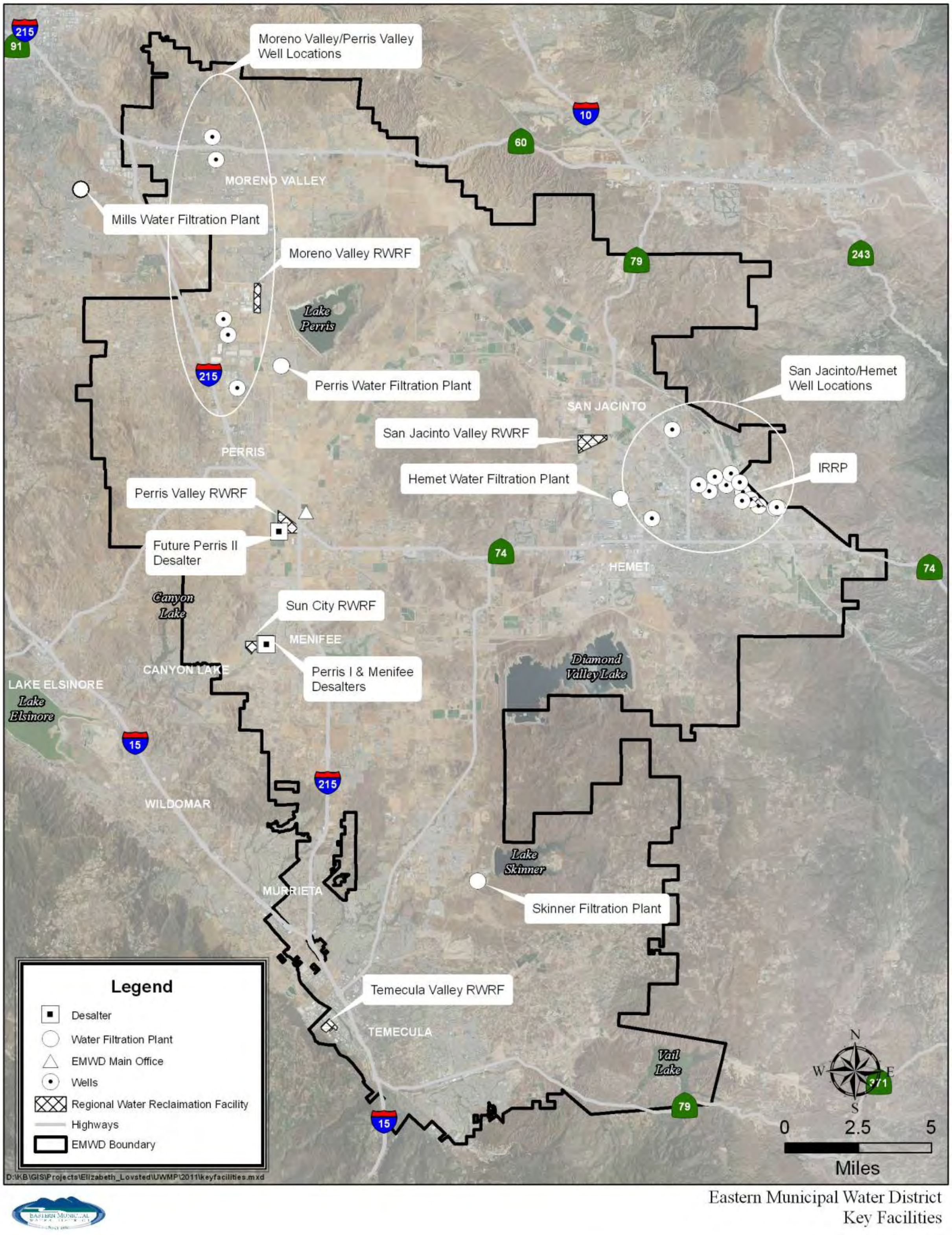

Eastern Municipal Water District
Key Facilities

Future resources will continue to be a blend of local supply and imported sources. Table 3.2 through 3.4 show EMWD's existing supply resources under normal, single dry and multi-dry years. Since the majority of EMWD's supplies are imported from MWD, single and multi-dry year conditions are based on a repeat of 1977 hydrology and 1990-1992 hydrologies reflecting the dry year conditions in MWD's 2010 Regional Urban Water Management Plan (RUWMP). Existing supplies are in place and currently operational. Imported water makes up the difference between existing local supplies and projected demand.

Table 3.2 - Existing Water Supply Resources, Average Year Hydrology (AFY) - 2015 - 2035

	2015	2020	2025	2030	2035
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Total Projected Demands	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Based on a repeat of 2004- 2009 conditions

Table 3.3 - Existing Water Supply Resources, Dry Year Hydrology (AFY) - 2015 - 2035

	2015	2020	2025	2030	2035
Metropolitan Water District	155,300	177,600	198,300	218,300	235,100
Recycled	45,500	51,800	55,800	56,900	57,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Total Projected Demands	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Note: Based on a repeat of 1977 conditions

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 3.4 - Existing Water Supply Resources, Multi - Dry Year Hydrology (AFY) – 2015 - 2035

	2015	2020	2025	2030	2035
Metropolitan Water District	156,600	179,000	199,800	219,900	236,900
Recycled	45,800	52,200	56,200	57,300	57,700
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Total Projected Demands	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Note: Based on a repeat of 1990-1992 conditions

The majority of EMWD’s current and projected water supplies are imported through the MWD. In its 2010 RUWMP, MWD concluded that with the storage and transfer programs developed, MWD will have a reliable source of water to serve its member agencies’ needs through 2035 during normal, historic single-dry and historic multiple-dry years. Unprecedented shortage will be addressed through the Water Supply Allocation Plan (see Section 3.2.8).

To supplement MWD sources and improve reliability, EMWD has several local resource programs. Production of local groundwater has been a source of supply for EMWD’s service area for decades, but overproduction in groundwater, has lead to a need for groundwater management. Native production is expected to be limited but plans are in place to recharge local ground water basins with imported or recycled water to increase supply reliability. Desalination of high TDS groundwater also provides a reliable local supply of water.

Recycled water production and sales reduce the demand for imported water and provide a sustainable supply. EMWD’s continued investment in improved facilities will continue to grow the market for recycled water, and innovative planning and recycled water management will allow EMWD’s recycled water supply to bring an even greater benefit to the service area.

In addition to the development of local resource, EMWD aggressively promotes the efficient use of water. Through the implementation of local ordinances, conservation programs and an innovative tiered pricing structure, EMWD is reducing demand by retail accounts. Reducing demand allows existing and proposed water supplies to stretch farther and reduces the potential for water supply shortage.

Based on the information provided in the MWD 2010 RUWMP, EMWD has the ability to meet current and projected water demands through 2035 during normal, historic single-dry and historic multiple-dry years using existing supplies and imported water from MWD with existing supply resources. Planned local supplies will supplement imported supplies and improve reliability for EMWD and the region.

3.2 Metropolitan Water District Overview

EMWD relies on MWD for the majority of its water supply. Although MWD only delivers water from two sources, the Colorado River Aqueduct and the State Water Project, it takes a comprehensive and proactive approach to planning for the future. Through coordination with member agencies, MWD has developed regional targets for imported water, local resources and conservation to accommodate for growth, and face the challenges to future supply reliability. Through the past decade, MWD has undertaken several planning initiatives including the MWD Integrated Resources Plan (MWD IRP), the Water Surplus and Drought Management Plan (WSDMP), and the Strategic Plan. These programs and plans provide a framework and guidelines for the future Southern California Supply planning.

MWD's resource mix depends on a blend of improving the reliability and availability of imported water supplies into the region, increasing local storage and developing local resources. The 2010 MWD IRP update demonstrated that MWD and its member agencies have moved the region toward the goal of long-term water reliability and major achievements have been made in:

- Conservation
- Water recycling and groundwater recovery
- Storage and groundwater management programs within the Southern California region
- Storage programs related to the SWP and the Colorado River
- Other water supply management programs outside of the region

EMWD works closely with MWD staff and its leadership to coordinate planning efforts and quantify local supply resources.

The MWD 2010 RUWMP, documents current challenges to supply reliability including drought conditions, environmental regulations, water quality concern, infrastructure vulnerable to natural disaster, and response to variations in water supply availability from year to year. RUWMP concludes that MWD has supply capabilities that would be sufficient to meet expected demands from 2015 through 2035 under the single dry-year and multiple dry-year conditions. MWD supply capabilities under single dry-year and multiple dry-year conditions are presented in Figure 3.3.

Figure 3.3 - MWD Supply Capabilities under Single Dry and Multiple Dry-Year Hydrologies – 2015 – 2035

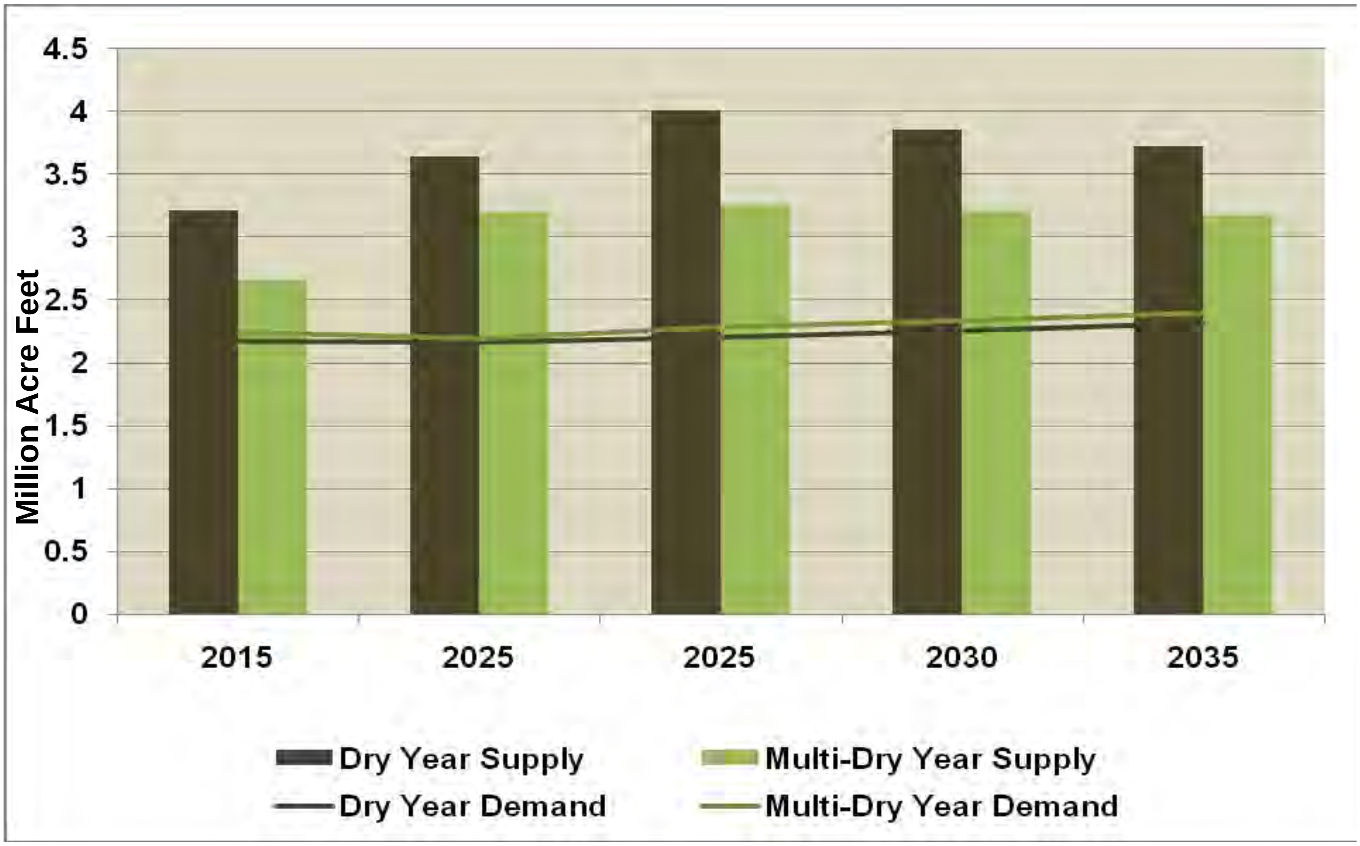

Source: MWD 2010 Regional Urban Water Management Plan

3.2.1 The Metropolitan Water District of Southern California Existing Conditions

The Metropolitan Water District of Southern California (MWD) was formed in 1928 by thirteen Southern California cities to develop, store and distribute water for domestic and municipal purpose to the residents of Southern California. Today, MWD service area stretches across the Southern California coastal plain and includes portions of Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. In 2009, MWD's service area population was estimated to be 18,706,000 people, nearly 90% of the population in the six counties served by MWD.

MWD is a wholesale water provider, and has no retail customers. It provides treated and untreated water directly to its member agencies. The 26 member agencies then deliver to their customers a blend of groundwater, surface water, desalinated water, recycled water and imported water from MWD. MWD has provided between 45% and 60% of the municipal and agricultural water used in its nearly 5,200-square mile service area. The remaining water is provided through local resources and imported water from other sources.

EMWD is one of the 26 member agencies that make up MWD, including fourteen cities, ten other municipal water districts and one county water authority. The statutory relationship between MWD and its member agencies establishes the scope of EMWD's entitlements from MWD. EMWD, like other member agencies, receives deliveries at different points in the system and pays for the service through a rate structure made up of multiple components. Each year member agencies advise MWD how much water they anticipate they will need during the next five years. MWD also works with member agencies to develop a forecast of long term future water supply. MWD delivers supply to member agencies from two sources, the Colorado River Aqueduct, which it owns and operates, and the State Water Project. Figure 3.4 shows MWD facilities in California. Additional information about MWD is summarized in Section I.2 of the 2010 RUWMP.

Figure 3.4 - MWD Facilities in California

Source: MWD

3.2.2 EMWD and MWD

The first function of MWD was to build the Colorado Aqueduct bringing Colorado River water to Southern California. As MWD was constructing the San Jacinto Tunnel Portion of the project, a great amount of seepage was encountered. As the seepage began to affect local water resources within EMWD's region, residents began to organize to protect their water supply. About the same time, the region experienced years of dry weather and the underground basin began to experience overdraft. It became clear that a source of imported water was necessary. EMWD was formed in 1950 to bring imported water into the area. In 1951, it was annexed into MWD and the first major sale of Colorado River water within EMWD, began in July of 1952.

In 1960, MWD contracted for additional water supplies from the State Water Project (SWP) operated by the State of California Department of Water Resources (DWR). In 1972, the SWP began bringing water from the wet climate of northern California to the dry climate of Southern California. Through the 1980's, EMWD built facilities to take advantage of the SWP water available, and today, the largest portion of EMWD's water supply is provided from Northern California. Treated potable water is available in the North from the Henry J Mills Water Treatment Plant (Mills) and in the south through the Skinner Water Filtration Plant (Skinner). EMWD also owns and operates two water filtration plants that treat raw imported water: Perris Water Treatment Plant and Hemet Water Treatment Plant. Raw imported water is also used for recharge purposes and to meet agricultural demand.

MWD does not provide supply projections for each member agency. Instead MWD uses a regional approach to developing projections. MWD calculates the demand for the entire region as discussed in Appendix A.1 of the 2010 RUWMP and then using information about existing and proposed local projects, determines the amount of imported water. Throughout the preparation of the 2010 UWMP, EMWD has provided to MWD information about local supply and projects, clarification on boundary information and population projects. Based on this information and information provided by other member agencies, MWD has determined it is able to meet the demands of all member agencies through 2035.

Deliveries from MWD ranged between 75,000 AF and 91, 000 AF over the past several years. Deliveries decreased in recent years due to a decrease in demand resulting from several factors including conservation and economic down turn.

Figure 3.5 - MWD Facilities within EMWD's Service Area

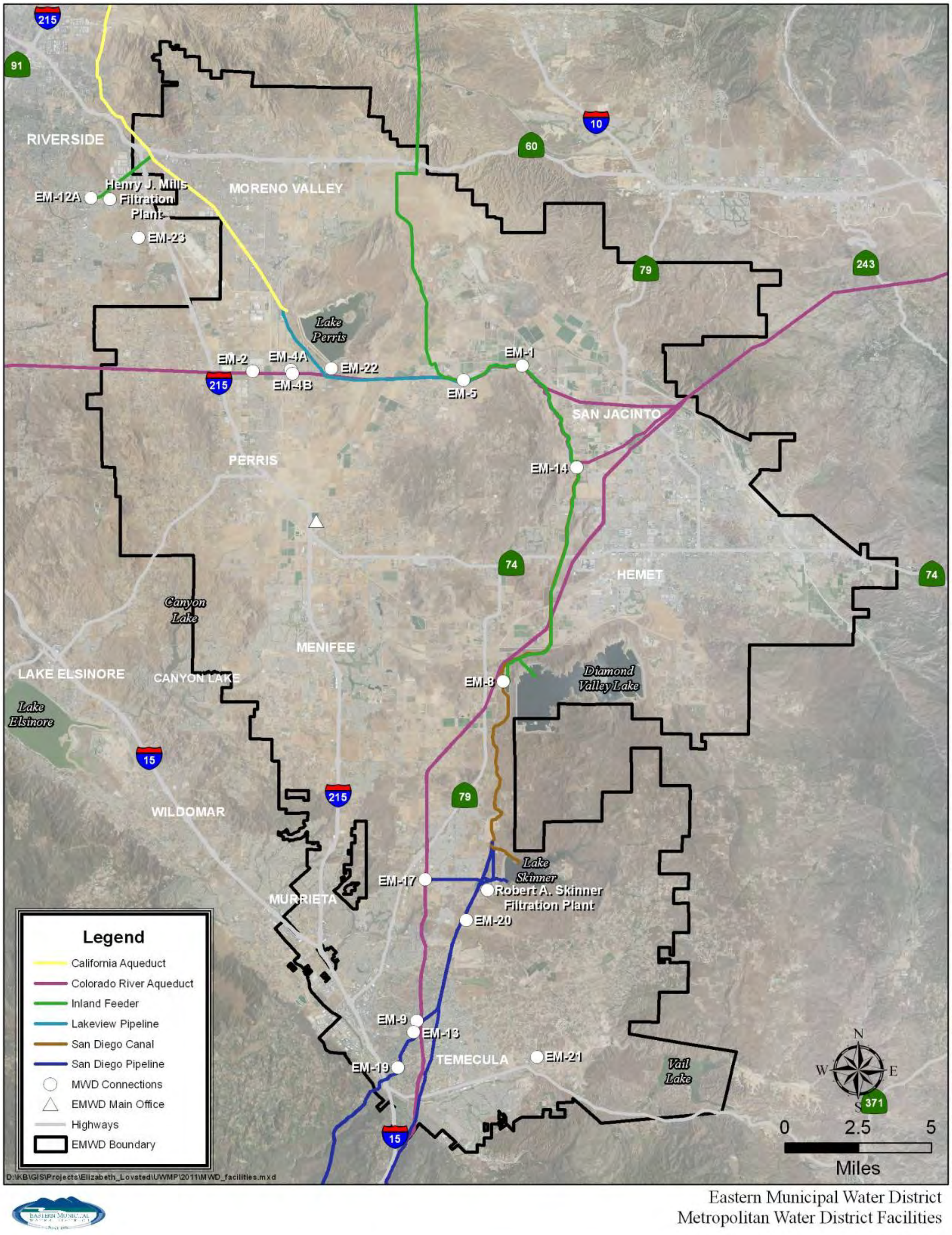

3.2.3 MWD Resources Planning

In the 1990's, several years of drought and regulation requirements began to affect the reliability of MWD water supply. In response to this challenge, MWD and its member agencies began an IRP process to assess supply reliability needed and to find a cost-effective way to meet the goals established. The IRP was a collective effort drawing input from several groups including MWD's Board of Directors, an IRP workgroup (comprised of MWD staff, member agencies and sub agency managers, as well as groundwater basin managers), and representatives from the environmental, agricultural, business and civic communities. It was important for the IRP process to be collaborative because its viability is contingent on the success of local projects and local plans in achieving their individual target goals for resource management and development.

The outcome of the IRP process was a "Preferred Resource Mix" which would ensure MWD and its member agencies' reliability through 2020. The MWD Board of Directors adopted the first IRP in January of 1996. In November 2001, the MWD Board of Directors adopted a plan to update the IRP. The update focused on changed conditions, updated resource targets, and extending the planning horizon to 2025 and beyond. Again, the process was a collaborative effort. The 2003 IRP Update was adopted in July of 2004.

In 2010, MWD completed the most recent update to its IRP This dynamic long-term water plan, developed through an open, collaborative process, provides a strategy for meeting MWD's mission of providing adequate and reliable supplies to member agencies to meet present and future water supply needs. Challenges addressed in the IRP include: limitations on State Water Project (SWP) and Colorado River Aqueduct (CRA) supplies due to environmental issues and drought, regulatory restrictions, economics and climate. The MWD 2010 IRP proposes a strategy that balances the potential risks to water supplies with the need to avoid unnecessary investment in resources. The proposed approach is made up of three components:

1. The Core Resource Strategy, an effort to manage supply and demand based on currently available resources. Under this approach MWD and member agencies will advance water use efficiency through conservation and recycled water, and continue to develop local supplies, including groundwater recovery and seawater desalination. MWD will also stabilize resources from the CRA and the SWP.

2. The Uncertainty Buffer, a set of goals for a range of potential buffer supplies to protect the region from shortages. This starts with expansion of water use efficiency and conservation. Future water conditions could fall short of current estimates due to any one of the numerous challenges facing water supplies. The buffer supplies will allow the region to adapt to future challenges through regional collaboration.

3. Foundation Actions are preliminary steps to determine the feasibility of alternative supply programs. These actions are lower-cost efforts including feasibility studies, technological research and regulatory review, that will lay a foundation for implementation of alternative supplies if they are needed.

This adaptive planning approach provides MWD with a strategy for meeting the demands of the region under several different scenarios and mitigates supply uncertainties.

3.2.4 Colorado River Aqueduct Overview

MWD was established more than eighty years ago to obtain an allotment of Colorado River Water and today the Colorado River Aqueduct (CRA) continues to be a core supply for Southern California. The CRA, with a 1.25 MAF capacity, transports water from Lake Havasu, at the border of California and Arizona, approximately 242 miles to Lake Mathews in Riverside County. Since 1999, the Colorado River has been experiencing a prolonged drought. During 2005, 2008 and 2009, drought conditions eased somewhat with near or above average inflow conditions and net gains in storage. 2011 will be another above average inflow year so drought conditions are easing somewhat in the Colorado River Basin.

MWD has a legal right to receive water from the Colorado River under a permanent service agreement with the Secretary of the Interior and holds a basic apportionment of 550 TAF of water from the Colorado River. Over the years MWD has increased the reliable supply from the CRA through funding and implementing programs including: farm and irrigation district conservation programs, land management programs, improved reservoir system operations, and water transfers and exchanges through arrangements with agricultural water districts in Southern California and entities in Arizona and Nevada that use Colorado River delivered by the U.S. Department of the Interior, Bureau of Reclamation (USBR). Through these efforts MWD is able to obtain between 1.14 and 1.12 MAF of water during normal, historic single-dry and historic multiple-dry years. MWD also has an additional 186 TAF of supplies under development. In addition to MWD supplies, the CRA is also used to convey non-MWD supplies to other parties including over 200 TAF to the San Diego County Water Authority (SDCWA) as part of an agreement between SDCWA and the Imperial Irrigation District. Since the capacity of the CRA is limited to 1.25 MAF, the maximum supply MWD can deliver is limited to 1.25 MAF in any given year, including conveyance obligations. A detailed description of the limitations and management strategy for the CRA can be found in Section 3.1 of MWD's 2010 RUWMP.

3.2.5 State Water Project Overview

The State Water Project (SWP) is owned by the State of California and operated by the State Department of Water Resources (DWR). More than two thirds of California's resident's depend on the SWP for a portion of their drinking water. The SWP faces several environmental and water quality challenges as well as concerns about vulnerability to natural disasters.

The 600 mile SWP project delivers water to Southern California from Northern California through a series of pump station, reservoirs and aqueducts. At the hub of the SWP is the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta). The Bay-Delta's declining ecosystem, caused by a number of factors including agricultural runoff and operation of water pumps that can alter flow, has led to historic restriction on water supply deliveries from the SWP.

In 1960, MWD signed a contract with DWR to receive water from the SWP. MWD is one of the 29 agencies with long-term contracts for water service from DWR and the largest agency in terms of population served, its contracted amount of SWP water (46 percent), and the annual payments made to DWR. The original contract MWD held was for 1,911 TAF of SWP water. Before 1994 the SWP water reliability was rapidly deteriorating. MWD estimated its SWP delivery would be reduced to 171 TAF, about 8.9 percent of its SWP contract under a dry year scenario. After the 1994 Bay Delta Accord established new operating criteria DWR estimated that MWD's allocation under a dry year scenario would increase to 418 TAF. Although the accord improved conditions, MWD continues to address concerns that threaten reliability in the SWP.

The listing of several species as threatened or endangered in the Bay-Delta region have impacted operations and limited the flexibility of the SWP. Operations have been curtailed due to restrictions put into place to protect Delta Smelt, salmon, and other species that spawn in rivers flowing to the Bay-delta, which are federal and state-listed threatened fish species that inhabit the estuaries of the Bay-Delta region. Changes in SWP operation have affected the manner in which water is diverted from the Bay Delta, and limited deliveries. Based on the Water Allocation analysis released by the DWR on March 22, 2010, export restriction could reduce MWD deliveries by 150 to 200 TAF under mean hydrologic conditions, and operations could remain restricted until a long term solution is found to improve the stability of the Bay-Delta region.

SWP operations may also be restricted by the new biological opinions for listed species under the federal Endangered Species Act (ESA) or by the Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Additional new litigation, listing of additional species or new regulatory requirements could also restrict operations and limit water supply. To address potential constraints on the SWP, MWD has developed near and long action plans to increase water supply reliability.

Part of the near term action developed to protect fish species includes the Two Gate System. This would provide movable barriers to modify flows and prevent vulnerable fish from being drawn toward pumping plants. This system is expected to help protect fish and allow an estimated 150 TAF of water to be exported from the Delta when SWP allocations exceed 35 percent. The Two Gate System is subject to operational studies, environmental documentation, acquisition of right of ways, completion of design, and construction. It is anticipated to be in place in 2013.

MWD is also working with stakeholders throughout the state to develop and implements long term solution to the problem in the Bay Delta. The Bay Delta Conservancy Plan (BDCP) developed by State and federal resource agencies, aimed at addressing ecosystem need and securing long term operating permits for the SWP. A working draft of the BDCP was released in November of 2010 and reflects significant progress toward consensus on a plan to restoring the Bay-Delta ecosystem and associated sensitive species and provide for improved water supply and reliability. In evaluating the supply reliability for the 2010 RUWMP, MWD assumed a new Delta conveyance would be fully operational by 2022, bringing supply reliability close to 2005 levels prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with MWD's long-term Delta action plan approved in 2007, and supported by recently passed legislation that included a roadmap for establishing governance structures and financing approaches to implement and manage a Delta solution.

In Section 3.2 of the 2010 RUWMP, MWD provides details about the planned actions and achievements to date in improving the reliability of the SWP. MWD also describes other challenges affecting the SWP including water quality and climate change.

3.2.6 MWD System Storage

Storage is an important element in MWD's dry-year water supply reliability. Over the past several decades MWD has increased storage significantly through projects like Diamond Valley Lake, located within EMWD's service area, in order to insure that water needs will be met during years of drought or during a catastrophic event such as an earthquake. The MWD Water Surplus and Drought Management Plan established long goals for in basin storage and provides guidance in managing supplies in years of surplus and drought. MWD had identified an in-region surface storage goal of 620 TAF of dry-year storage. MWD has achieved that goal and aims to sustain this level of storage in Diamond Valley Lake.

The probability of MWD meeting dry year demands is dependent on the amount of storage MWD has in its reserves. In developing the 2010 RUWMP, MWD assumed a simulated median storage level at the beginning of each five year supply and demand scenario. All storage capability figures in the 2010 RUWMP reflect the actual storage program conveyance constraints. Under some conditions MWD may choose to implement the Water Supply Allocation Plan, allocating water to member agencies, to preserve storage reserved for a future year.

3.2.7 MWD Supply Reliability

Tables 3.5 through 3.7 from the 2010 RUWMP list Metropolitan’s Supply Capability and Projected demands from 2015 through 2035. Single dry year conditions are based on a repeat of 1977 hydrology. Multi dry year conditions are based on a repeat of 1990-1992 hydrology, and average year conditions are based on a average of 1922-2004 hydrology.

Table 3.5 - MWD Supply Capability and Projected Demands, Single Dry-Year (AFY) – 2015 – 2035

Forecast Year	**2015**	**2020**	**2025**	**2030**	**2035**
Current Programs					
In-Region Storage and Programs	637,000	892,000	1,046,000	931,000	796,00
California Aqueduct[2]	508,000	588,000	642,000	600,000	601,00
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,407,000	1,815,000	1,675,000	1,425,000	1,425,00
Aqueduct Capacity Limit[4]	1,250,000	1,250,000	1,250,000	1,250,000	1,250,00
Colorado River Aqueduct Capacity	1,250,000	1,250,000	1,250,000	1,250,000	1,250,00
Capability of Current Programs	**2,395,000**	**2,730,000**	**2,938,000**	**2,781,000**	**2,647,00**
Demands					
Firm Demands of Metropolitan	1,922,000	1,719,000	1,726,000	1,767,000	1,818,00
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,00
Total Demands on MWD[5]	**2,102,000**	**1,992,000**	**2,006,000**	**2,047,000**	**2,098,00**
Surplus	**293,000**	**738,000**	**932,000**	**734,000**	**549,00**
Programs under Development					
In-Region Storage and Programs	34,000	34,000	34,000	34,000	34,00
California Aqueduct	556,000	556,000	700,000	700,000	700,00
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	206,000	206,000	191,000	186,000	186,00
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	
Colorado River Aqueduct Capacity	0	0	0	0	
Capability of Proposed Programs	**590,000**	**590,000**	**734,000**	**734,000**	**734,00**
Potential Surplus	**883,000**	**1,328,000**	**1,666,000**	**1,468,000**	**1,283,00**

Source: MWD 2010 RUWMP

1. Represents Supply Capability for resource programs under listed year types.
2. California Aqueduct includes Central Valley transfers and storage programs supplies conveyed by the aqueduct.
3. Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal lining conveyed by the aqueduct.
4. Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.
5. Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but needs to be shown for the purposes of CRA capacity limit calculations without double counting.

Table 3.6 - MWD Supply Capability and Projected Demands, Multiple Dry-Year (AFY) – 2015 - 2035

Forecast Year	**2015**	**2020**	**2025**	**2030**	**2035**
Current Programs					
In-Region Storage and Programs	224,000	348,000	425,000	387,000	342,00
California Aqueduct[2]	741,000	790,000	832,000	808,000	809,00
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,282,000	1,591,000	1,423,000	1,422,000	1,407,00
Aqueduct Capacity Limit[4]	1,250,000	1,250,000	1,250,000	1,250,000	1,250,00
Colorado River Aqueduct Capacity	1,250,000	1,250,000	1,250,000	1,250,000	1,250,00
Capability of Current Programs	**2,215,000**	**2,388,000**	**2,507,000**	**2,445,000**	**2,401,00**
Demands					
Firm Demands of MWD	1,951,000	1,766,000	1,784,000	1,821,000	1,869,00
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,00
Total Demands on MWD[5]	**2,131,000**	**2,007,000**	**2,064,000**	**2,101,000**	**2,149,00**
Surplus	**84,000**	**381,000**	**443,000**	**344,000**	**252,00**
Programs Under Development					
In-Region Storage and Programs	34,000	34,000	34,000	34,000	34,00
California Aqueduct	242,000	273,000	419,000	419,000	419,00
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	206,000	206,000	191,000	186,000	186,00
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	
Colorado River Aqueduct Capacity	0	0	0	0	
Capability of Proposed Programs	**262,000**	**299,000**	**450,000**	**452,000**	**453,00**
Potential Surplus	**346,000**	**680,000**	**893,000**	**796,000**	**705,00**

Source: MWD 2010 RUWMP

1. Represents Supply Capability for resource programs under listed year types.
2. California Aqueduct includes Central Valley transfers and storage programs supplies conveyed by the aqueduct.
3. Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal lining conveyed by the aqueduct.
4. Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.
5. Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but needs to be shown for the purposes of CRA capacity limit calculations without double counting.

Table 3.7 - MWD Supply Capability and Projected Demands (AFY) – 2015 - 2035

Forecast Year	**2015**	**2020**	**2025**	**2030**	**2035**
Current Programs					
In-Region Storage and Programs	637,000	892,000	1,046,000	931,000	796,000
California Aqueduct[2]	1,536,000	1,663,000	1,754,000	1,724,000	1,725,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,498,000	1,520,000	1,478,000	1,438,000	1,435,000
Aqueduct Capacity Limit[4]	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Colorado River Aqueduct Capacity	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	**3,423,000**	**3,805,000**	**4,050,000**	**3,905,000**	**3,771,000**
Demands					
Firm Demands of MWD	1,728,000	1,524,000	1,526,000	1,566,000	1,615,000
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,000
Total Demands on MWD[5]	**1,908,000**	**1,797,000**	**1,806,000**	**1,846,000**	**1,895,000**
Surplus	**1,515,000**	**2,008,000**	**2,244,000**	**2,059,000**	**1,876,000**
Programs Under Development					
In-Region Storage and Programs	34,000	34,000	34,000	34,000	34,000
California Aqueduct	378,000	383,000	715,000	715,000	715,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	206,000	206,000	191,000	186,000	186,000
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	*0*
Colorado River Aqueduct Capacity	0	0	0	0	0
Capability of Proposed Programs	**412,000**	**417,000**	**749,000**	**749,000**	**749,000**
Potential Surplus	**1,927,000**	**2,425,000**	**2,993,000**	**2,808,000**	**2,625,000**

Source: MWD 2010 RUWMP

1. Represents Supply Capability for resource programs under listed year types.
2. California Aqueduct includes Central Valley transfers and storage programs supplies conveyed by the aqueduct.
3. Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal lining conveyed by the aqueduct.
4. Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.
5. Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but needs to be shown for the purposes of CRA capacity limit calculations without double counting.

It is anticipated that water demands within EMWD's jurisdiction caused by future development, will be met through additional water imports from MWD, recognizing the conditions described in this document. Imported sources will be supplemented by an increase in desalination of brackish groundwater, recycled water use and water use efficiency. MWD analyzed the reliability of water delivery through the State Water Project (SWP), the Colorado River Aqueduct, and concluded that with the storage and transfer programs developed by MWD, MWD will have a reliable source of water to serve its member agencies' needs through 2035 during normal, historic single-dry and historic multiple-dry years within a 20-year projection. Unprecedented shortages will be addressed through the Water Supply Allocation Plan (see Section3.2.8).

3.2.8 MWD's Water Surplus and Drought Management Plan

In order to insure that water needs will be met during years of drought, surplus water must be managed during years of surplus. To accomplish this task, MWD developed the WSDMP. Adopted in April of 1999, this plan provides policy guidance for management of regional water to achieve the reliability goal of the IRP. The guiding principle of the WSDMP is to "Manage Metropolitan's water resources and management programs to maximize adverse impacts of water shortage to retail customers." Should mandatory imported water allocations be necessary, MWD adopted Water Supply Allocation Plan (WSAP) that allocates water based on needs throughout the region.

Water Supply Allocation Plan

In February 2008, MWD's Board adopted the WSAP which contains a specific formula and methodology to determine member agency supply allocation. The plan takes into consideration:

a. The impact on retail customers and the economy

b. Population and growth

c. Changes and/or loss of local supply

d. Reclamation and recycling

e. Conservation

f. Investment in local resources

In the event allocation is required, MWD will establish base period demands and then adjust them for growth and changes in local supply. Regional shortages will be phased in 10 stages and credits are given for conservation and investment in local supplies. At each stage, member agencies will not experience shortages on the wholesale level that are greater than one-and-a-half times the percentage shortage of regional water supplies. The member agency will also not face a retail shortage more than the regional shortage.

3.3 Groundwater Overview

EMWD produces potable groundwater from two management plan areas within the San Jacinto Watershed, the West San Jacinto Groundwater Basin Management Plan area and the Hemet/San Jacinto Water Management Plan area. EMWD also owns and operates two desalination plants that convert brackish groundwater into potable water. These plants not only provide a reliable source of potable water, they also support EMWD's groundwater salinity management program.

EMWD is a key player in two cooperative efforts to protect groundwater quality and reliability. The West San Jacinto Groundwater Basin Management Plan area is subject to an existing groundwater management plan, and the Hemet/San Jacinto Water Management Plan area is complete and will be approved by the adopting agency boards in 2011. The Hemet/San Jacinto Water Management Plan will be implemented by a Watermaster appointed and supervised by the Superior Court pursuant to a Stipulated Judgment involving the groundwater pumpers in the area. Native potable groundwater production is limited or will be limited according to management plan provisions to prevent continued overdraft. EMWD is anticipating limitations on native groundwater production and has developed alternatives to assure reliability including an Integrated Recharge and Recovery Program (IRRP), filtration plants to treat and deliver imported water to areas dependent on groundwater and recycled water use for irrigation of landscape and agriculture. Both management plan areas are part of Basin 8-5 the San Jacinto Basin in California's Groundwater - Bulletin 118.

Portions of EMWD also overlay the Santa Margarita Watershed. EMWD does not extract groundwater from the Santa Margarita Watershed and has no plans to do so.

3.3.1 Groundwater Existing Conditions

The West San Jacinto Groundwater Basin Management Plan area and the Hemet/San Jacinto Water Management Plan area are both located within the San Jacinto Watershed. Within the watershed, groundwater management zones were delineated based on major impermeable boundaries, constrictions in impermeable bedrock, groundwater divides, and internal flow systems.

The Hemet/San Jacinto Water Management Plan area covers the Hemet South, Canyon, and San Jacinto Upper Pressure Management Zones, and the Hemet North portion of the Lakeview/Hemet North Management Zone. The Perris North, Perris South, San Jacinto Lower Pressure, and Menifee Management Zones, and the Lakeview portion of the Lakeview/Hemet North Management Zone, are included in the West San Jacinto Groundwater Basin Management Plan. EMWD produces water for potable use or blending in four management zones; Perris North, Hemet South, San Jacinto Upper Pressure and Canyon. Desalter production wells are located in the Perris South and Lakeview/Hemet North Management Zones. Groundwater Management Zones are included in Figure 3.1.

The boundaries of the Canyon Management Zone include the San Jacinto Mountains to the east, north, and south, as well as the San Jacinto fault zone to the west. The San Jacinto Mountains are composed of consolidated crystalline bedrock and semi-consolidated sedimentary rocks. These rocks are virtually impermeable and bound the water-bearing, alluvium-filled canyons within this management zone. A branch of the San Jacinto fault zone extends southeast along the channel of Bautista Creek until it intersects the Park Hill fault. In the early 1900s, the barrier effect of the fault resulted in rising groundwater within the San Jacinto River upstream of the fault. This area is known as the Cienega and is an area of significant municipal groundwater production.

The San Jacinto Upper Pressure Management Zone is bounded by the San Jacinto fault to the northeast, the Casa Loma and Bautista Creek fault zones to the southwest and the flow system boundary with the San Jacinto Lower Pressure Management Zone to the northwest. The Claremont fault is a known barrier to groundwater flow, and separates the San Jacinto Graben from the San Timoteo Badlands and the San Jacinto Mountains. East of the City of San Jacinto, a branch of the San Jacinto fault zone cuts the alluvial fill by extending southeast across the San Jacinto River and along the channel of Bautista Creek until it intersects the Park Hill fault. This branch of the San Jacinto fault zone separates the San Jacinto Upper Pressure Management Zone from the Canyon Management Zone. The Casa Loma and Bautista Creek fault zones are known barriers to groundwater flow. However, groundwater leaks across the fault zones as underflow to the Hemet South and Lakeview/Hemet North Management Zones.

Boundaries of the San Jacinto Lower Pressure Management Zone include the Claremont fault to the northeast; the Casa Loma fault and its northwestward extension; various crystalline bedrock outcrops to the north and west; and the flow system boundary with the San Jacinto Upper Pressure Management Zone to the southeast. The Casa Loma fault zone is a known barrier to groundwater flow, however, groundwater leaks across the fault zone as underflow to the Perris North Management Zone.

Boundaries of the Lakeview/Hemet North Management Zone include the Casa Loma fault zone to the east; the groundwater divide near Esplanade Avenue to the south; the Lakeview Mountains to the west and south; the Bernasconi Hills to the north; and a bedrock constriction/saddle to the west. The Casa Loma fault zone is a known barrier to groundwater flow. However, groundwater leaks across the fault zone as underflow from the San Jacinto Upper Pressure Management Zone. Impermeable, crystalline bedrock outcrops that compose the Bernasconi Hills and the Lakeview Mountains to the north and south, respectively, are hard rock barriers to groundwater flow. To the west, the gap between the Bernasconi Hills and the Lakeview Mountains becomes narrow and the buried bedrock surface forms a saddle. This area of constriction in the water-bearing alluvium is the boundary between the Perris South and Lakeview/Hemet North Management Zones.

The boundaries include the Casa Loma and Bautista Creek fault zones to the east; the groundwater divide near Esplanade Avenue to the north; the groundwater divide in the Winchester area to the west; and various crystalline bedrock outcrops to the south. The Casa Loma and Bautista Creek fault zones are known barriers to groundwater. However, groundwater leaks across the fault zones as underflow from the San Jacinto Upper Pressure Management Zone.

Boundaries of the Perris North Management Zone include the Casa Loma fault to the northeast bordering the San Jacinto Lower Pressure Management Zone; a bedrock constriction to the south bordering the Perris South Management Zone; the Bernasconi Hills and the Lakeview Mountains to the west; and the bedrock and surrounding hills the north and west. The Casa Loma fault zone is a known barrier to groundwater flow, however, groundwater leaks across the fault zone as underflow from the San Jacinto Lower Pressure Management Zone.

Lake Perris is located to the east of the Perris North Management Zone and is surrounded by the Bernasconi Hills and Lakeview Mountains to the north, east, and south, and a dam on the west side. Seepage is known to occur under the dam through a subterranean channel into the Perris North Management Zone.

Boundaries of the Perris South Management Zone include a groundwater divide in the Winchester area; bedrock constrictions/saddles bordering the Menifee Management Zone; a bedrock constriction/saddle bordering the Lakeview/Hemet North Management Zone; a bedrock constriction bordering the Perris North Management Zone; and the surrounding bedrock mountains and hills. A groundwater high exists in the Winchester area near Highway 79. The divide is likely an artifact of natural and artificial recharge and groundwater production patterns. As such, the position (or the very existence) of this groundwater divide may vary with changing artificial recharge and/or production patterns.

Southwest of EMWD's Winchester Ponds, a narrow constriction in the bedrock coincides with a buried bedrock saddle. This area of constriction in the water-bearing alluvium is a boundary between the Perris South and Menifee Management Zones. Groundwater can flow through this bedrock gap from the Winchester area into the Menifee Management Zone; this is especially true during times of high groundwater levels. Southeast of Sun City, a bedrock constriction in the water-bearing alluvium also is a boundary between the Perris South and Menifee Management Zones. Groundwater flows through this bedrock gap from the Sun City area into the Menifee Management Zone.

To the northeast, the gap between the Bernasconi Hills and the Lakeview Mountains becomes narrow and the buried bedrock surface forms a saddle. This area of constriction in the water-bearing alluvium is the boundary between the Perris South and Lakeview Management Zones. Under original flow conditions, groundwater flowed westward from Lakeview into Perris South. However, groundwater now flows from Perris South eastward into Lakeview toward a “pumping depression” in the groundwater table.

Boundaries of the Menifee Management Zone include the bedrock constrictions/saddles bordering the Perris South Management Zone, a bedrock constriction to the east, and the surrounding bedrock mountains and hills. Southwest of the Winchester Ponds, a narrow constriction in the bedrock coincides with a buried bedrock saddle surface. This area of constriction in the water-bearing alluvium is a boundary between the Perris South and Menifee Management Zones. Groundwater can flow through this bedrock gap from the Winchester area into the Menifee Management Zone, especially during times of high groundwater levels.

Southeast of Sun City, a bedrock constriction in the water-bearing alluvium also is a boundary between the Perris South and Menifee Management Zones. Groundwater flows through this bedrock gap from the Sun City area into the Menifee Management Zone. The groundwater management zones in the San Jacinto Watershed within EMWD's service area are shown on Figure 3.6.

EMWD has an existing potable well capacity of 54.2 cubic feet per second (CFS). In the Hemet/San Jacinto Water Management Plan area, well capacity is 46.5 CFS including three wells dedicated to the future Integrated Recharge and Recovery Program (IRRP). The IRRP will recharge surplus imported water into the basin for future extraction. In the West San Jacinto Groundwater Basin Management Plan area, there is 7.7 CFS of well capacity. Potable wells deliver water to EMWD’s distribution system.

Figure 3.6 - Groundwater Management Zones

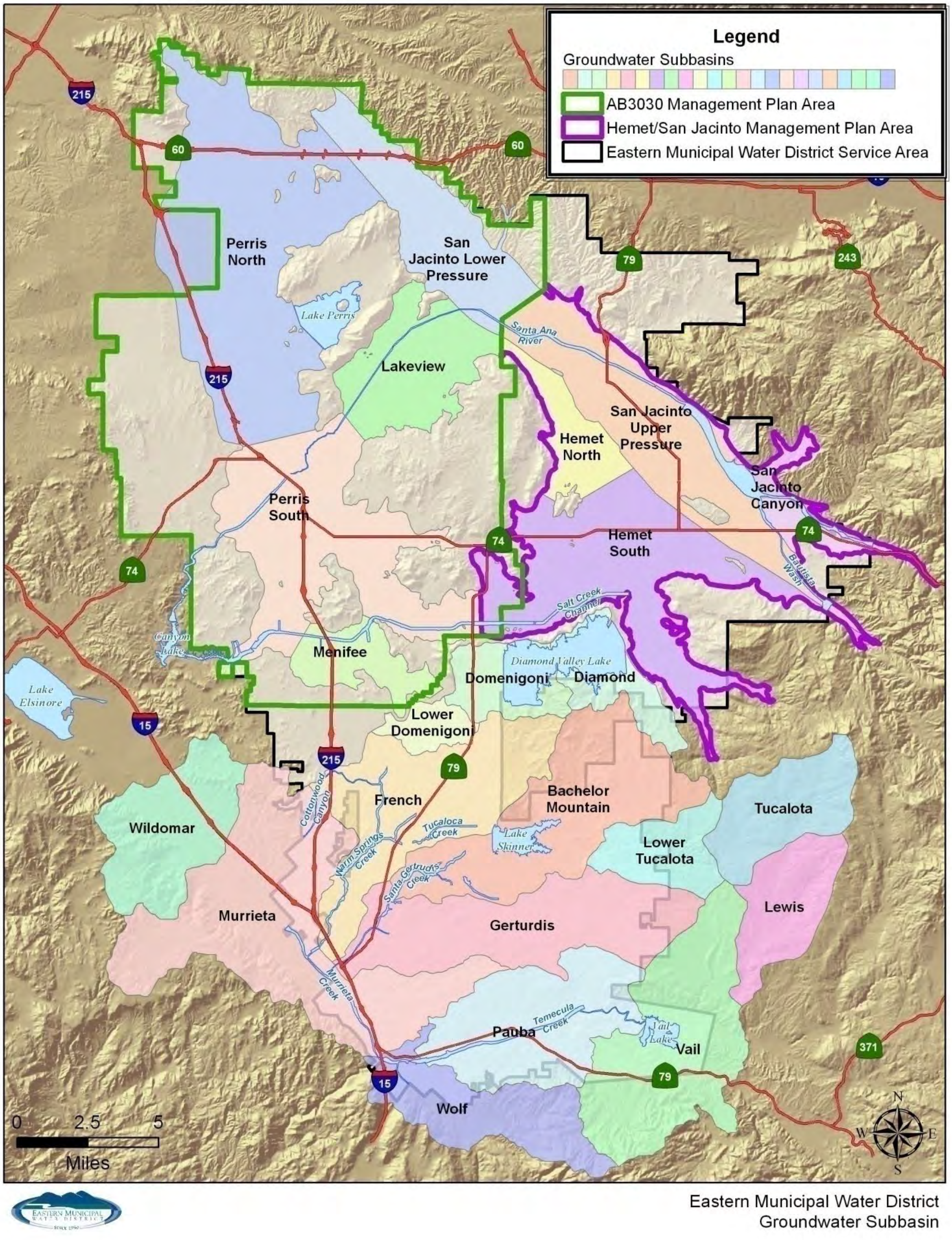

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 3.8 - Existing Potable Groundwater Production Capability (CFS)

Facility	Capacity
Potable Groundwater Production by Management Zone	
San Jacinto Upper Pressure	
EMWD Wells	25.4
IRRP Wells	11.1
Hemet South	2.1
Canyon	7.9
Perris North	7.7
Total	**52.4**

As seen in Table 3.1 EMWD’s potable groundwater extraction varied from a low of 15,800 acre-feet per year (AFY) up to 20,000 AFY from 2005 through 2010. Potable groundwater in the West San Jacinto Groundwater Basin is monitored limited by the basin management plan, but there are not restrictions on the amount of water that can be extracted. Current production in the Hemet/San Jacinto Water Management Plan area is limited by existing facilities if water is used within the management area. In the future, production will be limited by a management plan and administered by a water master. Production in recent years is reflective of a reduction in demand due to conservation, economic conditions and weather patterns and not a reflection of supply reliability.

3.3.2 Groundwater Rights

In the Hemet/San Jacinto Water Management Plan area, EMWD's groundwater production is currently constrained by the 1954 Fruitvale Judgment and Decree. Under that Judgment and Decree, EMWD, as successor-in-interest to the Fruitvale Mutual Water Company, may extract the subsurface waters of the Canyon Basin for use over or outside the entire basin without restriction as long as the static water level in a specific well is not over 25 feet below a specific elevation. If the water level in the well is more than 25 feet below the specified elevation, EMWD's extraction is limited to 4,500 AFY. The District may extract from the Entire Basin, a total of not more than 12,000 AFY from the Entire Basin for use outside the basin, subject to the 4,500 AFY Canyon Basin extraction limit. The perimeters of the Canyon Basin and Entire Basin are defined in the Judgment and Decree. The Hemet/San Jacinto area contains good quality water and is a major source of municipal as well as private production, although water levels are in serious decline. Once the Stipulated Judgment for the Hemet/San Jacinto Water Management Plan is in effect, it will supersede the Fruitvale Judgment and Decree.

Since 2001, the Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District (LHMWD), EMWD, and representatives of the private groundwater producers, with DWR acting as an impartial mediator, have been working on a groundwater management plan for the Hemet/San Jacinto Water Management Plan area. Over the past several years, the group has discussed and resolved several controversial issues, including San Jacinto Tunnel seepage water, the Fruitvale Judgment and Decree, export of groundwater from the basins, and how to maximize the use of recycled water. As a result of their efforts, a final Hemet/San Jacinto Water Management Plan (HSJWMP) was completed in 2007 and a Stipulated Judgment is scheduled to be submitted to the courts in May of 2011. The final plan is included in Appendix C of this document.

The Hemet/San Jacinto Water Management Plan:

- Limits the amount of water being extracted from the basin free of the replenishment charge to a sustainable yield.
- Implements continued recharge of the basin using imported water through the Integrated Recharge and Recovery Project.
- Insures settlement claims by the Soboba Band of Luiseño Indians are facilitated and accommodated.
- Expands existing water production and water services system to meet future urban growth through the use of imported water recharged into the basin.
- Protects and/or enhances water quality in the management plan area.
- Supports cost-effective water supplies and treatment by the public agencies.
- Eliminates groundwater overdraft and enhances basin yield.
- Continues the monitoring program to promote and provide for best management and engineering principles to protect water resources.

Long term groundwater management includes plans for artificial recharge using MWD replenishment water via permanent facilities through the IRRP Program. An agreement with the Soboba Band of Luiseño Indians requires that, on average, an annual delivery of 7,500 acre-feet of water from MWD for the next 30 years to EMWD, LHMWD, and the Cities of Hemet and San Jacinto as part of an effort to recharge groundwater in the Hemet/San Jacinto area, fulfilling the Soboba Tribe's water rights and addressing chronic groundwater overdrafts (see Section 3.3.4).

EMWD's rights under the Hemet/San Jacinto Water Management Plan will be a base groundwater production right of 10,869 AFY. Any pumping above that amount is subject to replenishment fees.

In the West San Jacinto area, a cooperative groundwater management plan is already in place to insure the reliability and quality of the water supply. In June 1995, EMWD adopted the West San Jacinto Groundwater Basin Management Plan (WSJGBMP) in accordance with the statutes in the State Water Code Sections 10750 through 10755 resulting from the passage of Assembly Bill 3030 (AB 3030). The plan was adopted after extensive public outreach and meetings with interested individuals and agencies. A copy of the Management Plan is included in Appendix C.

Implementation of the WSJGBMP began directly after its adoption. Initial efforts to implement the WSJGBMP included establishing an advisory committee; prioritizing the management zones; evaluating groundwater resources including establishing groundwater quality, level, and extraction monitoring programs; and conducting hydro-geophysical investigations. The West San Jacinto Groundwater Basin Management Plan Annual Report, documenting the implementation of the plan and activities in the groundwater management zones, has been published annually since 1996.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

3.3.3 Surface Water Diversion Rights

License No. 10667

EMWD holds a right to divert up to 5,760 AFY of San Jacinto River flows for recharge and subsequent use from September 1 through June 30 each year. EMWD's diversion and recharge of San Jacinto River surface water to the Canyon Management Zone takes place at EMWD's Grant Avenue Ponds in the Valle Vista area. EMWD's diverted water is recharged into the groundwater aquifer of the Canyon Management Zone and is not used for direct use or sale. The San Jacinto River is an ephemeral river and, consequently, river flows may be insufficient for any diversion at all.

3.3.4 Soboba Settlement Act

On June 7, 2006, after eleven years of negotiations, the Soboba Band of Luiseno Indians (Soboba Tribe), MWD, EMWD, and LHMWD signed the *Soboba Band of Luiseño Indians Water Settlement Agreement (Soboba Settlement Agreement)* at a 4:00 pm ceremony at The Country Club at Soboba Springs in San Jacinto. Tribal Chairman Robert Salgado, Jr., signed the Settlement Agreement for the Soboba Tribe.

On March 1, 2007, Congresswoman Mary Bono (CA-45) introduced *The Soboba Band of Luiseño Indians Settlement Act of 2007 (Soboba Settlement Act)* which was co-sponsored by Congressmen Jerry Lewis (R, CA-41), Joe Baca (D, CA-43), and Dale Kildee (D, MI-5), and codifies the agreement between the Soboba Tribe, MWD, EMWD, and LHMWD.

In 2008, Congress passed and the President signed the Soboba Settlement Act that will provide to the Soboba Tribe an annual water supply of 9,000 acre-feet, 128 acres of land near Diamond Valley Lake for commercial development, and approves and ratifies the Soboba Settlement Agreement that set forth $17 million from the local water districts for economic development. Additionally, the United States government will provide the Soboba Tribe with $11 million for water development.

The agreement will terminate litigation against MWD and EMWD, which was filed by the Soboba Tribe in April 2000 *(Soboba Band of Luiseño Indians v. MWD)*. That lawsuit sought damages and injunctive relief for the continuing drainage of water from the Soboba Reservation into MWD's nearby San Jacinto Tunnel which was constructed in the 1930s. The bill mandates, on average, an annual delivery of 7,500 acre-feet of water by MWD for the next 30 years to EMWD, LHMWD, and the cities of Hemet and San Jacinto, as part of an effort to recharge the San Jacinto groundwater basin, fulfilling the Soboba Tribe's water rights and addressing chronic groundwater overdrafts.

As outlined in the Soboba Settlement Act, the cities and agencies will also receive $10 million in federal funds to build the facilities to recharge the aquifer with the imported water, and between 6,100 and 4,900 acre-feet per year of the Soboba Tribe's water (on a declining scale over a 50 year period) to be used towards basin replenishment. The Soboba Tribe will also make 98 acres of Soboba Reservation land available for endangered species habitat, on an acre for acre basis, to replace EMWD land found to be not suitable for mitigation.

On March 8, 2007, the bill was referred to the House Natural Resources Subcommittee on Water and Power. (Subcommittee hearing held on March 13, 2008). Ratified by the U.S. House of Representatives and the Senate, and signed by the President, the pact will bring to an end decades of conflict between the Soboba Tribe, the U.S. Government, MWD, and EMWD.

3.3.5 Groundwater Replenishment

Through pilot programs and using temporary facilities, EMWD has recharged groundwater in the Hemet/San Jacinto area with imported surplus water from MWD since 1990. In April of 2004, EMWD, LHMWD, and the Cities of Hemet and San Jacinto executed a Memorandum of Understanding (MOU) for an Interim Water Supply Plan. The purpose of the plan was to address the deteriorating situation in the Hemet/San Jacinto area by providing recharge of imported water from the SWP into the aquifer at two sites – the Conjunctive Use Ponds in the Intake portion of the San Jacinto Upper Pressure Management Zone, and the Grant Avenue Ponds in the Canyon Management Zone. From 2004 through 2007, 20,819 AF of imported water from the SWP was recharged into the aquifer. Due to dry conditions, environmental restriction, and the level of demands in its service area, MWD curtailed Replenishment Service effective as of May 1, 2007. Since then, permits to recharge water at the two sites have expired. To replace the temporary recharge facilities, long term facilities are being designed and built as part of the IRRP, an integral piece of the water management plan and the Soboba settlement. The IRRP initially consists of 35 acres of basins or ponds for recharging State Project Water from MWD; three extraction wells; three monitoring wells; modification to two existing pump stations; and pipelines within, and adjacent to, the San Jacinto River.

EMWD and the other three local agencies are also contributing to the replenishment of the basin by providing recycled water in lieu of groundwater production. The Recycled In-Lieu Program supplies recycled water for agricultural irrigation in-lieu of pumping native groundwater. The project can deliver up to 8,540 acre-feet per year to local agricultural water producers. The project costs are jointly funded by EMWD, LHMWD, and the Cities of Hemet and San Jacinto. Agreements that set limits on groundwater production, and provide for a payment of a portion of the operation and maintenance costs have been in place since 2008.

3.3.6 Supply Reliability

Protecting the available groundwater supply is an important part of EMWD’s planning efforts. EMWD is actively working with other agencies and groups to insure that groundwater will be a reliable resource far into the future. Part of managing groundwater responsibly requires the replacement of water produced beyond the basin’s safe yield. Production in the Hemet/San Jacinto area will be supplemented with recharged imported water as the Hemet/San Jacinto Water Management Plan is implemented. Groundwater extraction in the West San Jacinto Groundwater Basin Management Plan area is anticipated to remain static.

3.4 Groundwater Desalination Overview

The West San Jacinto Groundwater Basin Management Plan was adopted in 1995. This 250 square mile area is experiencing increasing water levels due to high TDS groundwater and decreased production. The high TDS groundwater is migrating into the Lakeview portion of the Lakeview/Hemet North management zone, an area of good quality groundwater. Lowering groundwater levels and removal of saline groundwater is an integral element in the West San Jacinto Groundwater Basin Management Plan. To address these concerns, EMWD implemented a Groundwater Salinity Management Program. This program currently consists of two desalination facilities owned and operated by EMWD. These facilities recover high TDS groundwater from the Menifee and Perris South Management Zones, and the Lakeview portion of the Lakeview/Hemet North Management Zone, for potable use. In addition to being a source of potable water, the main role of the desalter is to play a part in managing the groundwater management zones by addressing the migration of brackish groundwater into areas of good quality groundwater.

3.4.1 Groundwater Desalination Existing Condition

Desalter wells deliver water to an integrated raw water system that delivers water to the desalination plants where it is treated prior to entering the distribution system. The Menifee Desalter was the first of three desalters to be built. This facility began producing potable water in 2003. The second desalter, the Perris I Desalter, is located next to the Menifee Desalter at the Sun City Regional Water Reclamation Facility. This plant began production in 2006. Plant production capacity is 10.5 CFS. Groundwater extraction for use in the desalter program has not caused a decline in water levels to date.

3.4.2 Groundwater Desalination Reliability

Groundwater extracted from desalter wells is limited by existing facilities and not groundwater supplies. Desalination helps manage increasing water levels due to high total dissolved solids (TDS) groundwater and decreased production, and prevents migration of brackish water. Extraction from the existing desalter wells has not caused a decline in water levels historically.

High iron and manganese concentrations will irreversibly impact the desalter membranes, and have resulted in several brackish groundwater extraction wells remaining off-line. In 2004, an effort was initiated to evaluate alternative technologies for removal of iron and manganese prior to desalination. A removal process was selected and final design was completed in 2009. Completion of construction is scheduled for September 2011 that will increase extraction capacity.

3.5. Recycled Water Overview

Recycled water is extensively used in EMWD's service area to meet non potable demands. The supply of recycled water will continue to increase with EMWD's population size. The four (4) regional water reclamation facilities that EMWD currently operates have either recently completed an expansion, are currently in the process of expansion or have an expansion planned in the near future. Recycled water is currently used for both municipal and agricultural purposes. Municipal customers use recycled water for landscape irrigation and industrial process water. Agricultural customers use recycled water for irrigation of crops. A portion of agricultural demand of recycled water is in-lieu of using groundwater. Currently the use of recycled water is limited by the amount available to serve during peak demands and with discharge occurring in off peak periods. EMWD has developed plans to eliminate discharge and use all of the recycled water available within EMWD and to offset demand of existing potable customers.

3.5.1 Recycled Water Existing Conditions

As a full-spectrum provider of water, wastewater collection, and treatment and recycled water services, EMWD has been active in developing local and regional plans for expanded water recycling in its service area. EMWD's first Recycled Water Facilities Master Plan was developed in 1990 and formally updated in 2010. In 2009, EMWD completed a Recycled Water System Strategic Plan that provides guidelines for moving forward with recycled water projects. Information from the strategic plan was incorporated into the EMWD Integrated Resource Plan to evaluate potential recycled water projects. EMWD's local water recycling plan is also incorporated into the Integrated Regional Water Management Plan developed by the Santa Ana Watershed Planning Authority for the San Jacinto and Santa Ana Watersheds.

EMWD has worked closely with the Santa Ana Regional Water Quality Control Board in updating local basin plans and developing a long-term salinity management plan to support and ensure compliance with local basin objectives for salinity and nitrogen. EMWD is also participating in the development of a Total Maximum Daily Load (TMDL) analysis for impacted surface waters in the Santa Ana Watershed.

EMWD is involved with a variety of local agencies and public interest groups in recycled water planning efforts. Table 3.9 lists agencies participating in recycled water planning.

Table 3.9 - Recycled Water Coordinating Agencies

Group/Agency	Role
1) Santa Ana Watershed Project Authority	Regional Cooperative Planning
2) Santa Ana Regional Water Quality Control Board	Basin Planning/Salinity Mgmt.
3) Rancho California Water District	Facility Planning/Market Dev.
4) West San Jacinto Groundwater Management Plan Advisory Board	Plan Review/Public Oversight
5) Hemet/San Jacinto Groundwater Management Plan Policy Committee (Cities of Hemet, and San Jacinto and Lake Hemet Municipal Water District)	Plan Review/Public Oversight
6) Elsinore Valley Municipal Water District	Facility Planning/Market Dev.
7) EMWD Recycled Water Advisory Committee	Plan Review/public Oversight
8) San Jacinto Watershed Council	Plan Review/Public Oversight
9) Lake Elsinore/San Jacinto Watershed Authority	Plan Review/Water Quality
10) Metropolitan Water District of Southern California	Regional Urban Water Mgmt. Planning, Funding

EMWD is responsible for all wastewater collection and treatment in its service area. It has four operational regional water reclamation facilities (RWRF) located throughout EMWD and in 2010 treated 46,500 AFY. Inter-connections between the local collections systems serving each treatment plant allow for operational flexibility, improved reliability, and expanded deliveries of recycled water. All of EMWD's RWRF's produce tertiary effluent, suitable for all Department of

Figure 3.7 - Key Recycled Water Facilities

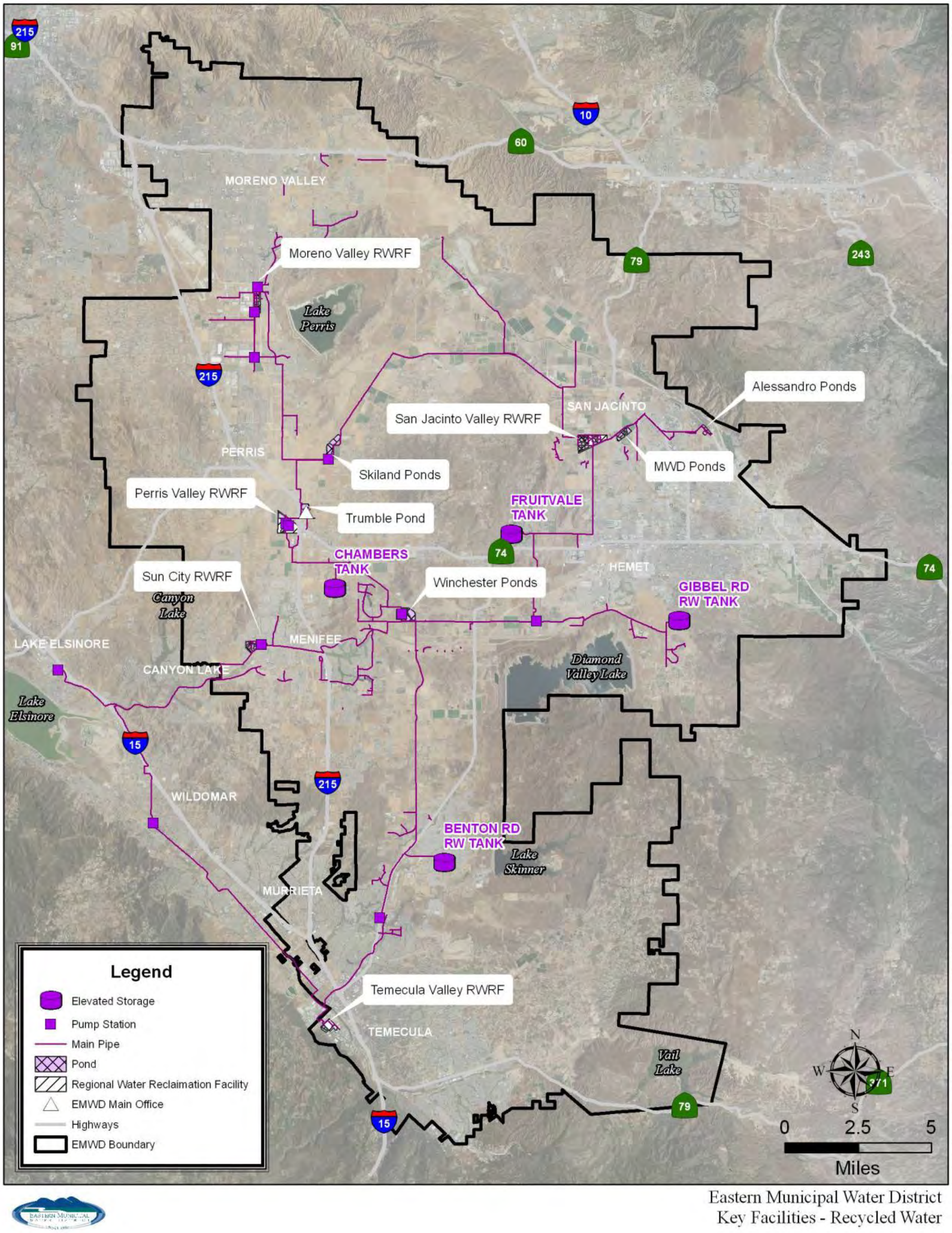

Health Services permitted uses, including irrigation of food crops and full-body contact. Table 3.10 summarizes existing and planned treatment capacities.

Table 3.10 - RWRF Treatment Capacity (AFY)

	Existing	Future	Year of Expansion
Moreno Valley	17,900	26,000	2012
Perris Valley	16,800	38,000	2011
San Jacinto	12,300	14,000	2014
Temecula Valley	20,200	20,200	NA

In addition to treatment facilities, EMWD has several recycled water storage ponds throughout EMWD. Using existing storage ponds, EMWD is able to sell more than the recycled water produced by its treatment plants during the peak demand months (June – September). During the cooler, wetter parts of the year, surplus recycled water is stored in unlined surface impoundments, resulting in extensive groundwater recharge. If storage capacity is full, surplus recycled water is disposed of through a regional outfall pipeline to Temescal Creek and the Santa Ana River.

EMWD treats all of the wastewater collected in its service area to tertiary standards and disposes of its recycled water in one of three ways; 1) customer sales 2) discharge to Temescal Creek, or, 3) through percolation and evaporation while stored in pond throughout EMWD. Table 3.11 provides the amount of wastewater collected, treated and disposed from 2006 through 2010.

Table 3.11 - Wastewater Collection, Treatment and Disposal (AFY) – 2006 - 2010

	2006	2007	2008	2009	2010
Wastewater Collected/ Treated to Tertiary Standards	45,100	47,600	44,500	45,500	46,500
Discharge	16,300	9,100	9,400	6,300	4,900
Total Sales	21,400	27,700	28,000	32,500	28,300
Peculated/Evaporated Water	7,400	10,800	7,100	6,700	13,300

EMWD has sold up to 32,500 AF annually of recycled water to retail and whole sale customers throughout its service area. The majority of recycled water sold is used for agricultural irrigation. A portion of the water sold for agriculture is used in lieu of groundwater preserving the groundwater basin and improving water supply reliability. In addition to meeting agricultural demand, recycled sales to municipal customers are increasing rapidly as residential and urban development replaces irrigated farmland. Landscape irrigation is an emerging market and in 2008, EMWD started selling recycled water to a large industrial customer for cooling towers in a power generation plant. EMWD also sells recycled water to the California Department of Fish and Game for environmental use within the San Jacinto Wildlife Area. EMWD uses existing storage facilities to store water during off peak periods for delivery in peak months and maximize the amount of recycled water sold.

Table 3.12 - Summary of Recycled Water Sales (AFY) – 2006 - 2010

	2006	2007	2008	2009	2010
Agricultural	14,200	19,400	19,700	18,200	13,800
Construction	800	600	100	0	0
Environmental	1,200	2,400	3,100	2,800	2,000
Agricultural In Lieu	0	0	0	4,600	4,800
Landscape	4,200	4,900	4,700	4,300	4,000
Industrial Process Water	0	0	300	1,700	3,000
Wholesale	1,000	400	200	900	700
Total Sales	**21,400**	**27,700**	**28,100**	**32,500**	**28,300**

3.5.2 2010 Recycled Water Use

Wastewater collected and treated in 2010 was 46,500 AF, approximately 15,000 AF less than projected in 2005. Several factors contributed to the reduction in wastewater flows including economic forces and conservation efforts. Between 2005 and 2010 EMWD experienced a slowdown in development and new connections. Thousands of planned new homes have been deferred and many homes remain vacant due to foreclosure. Public outreach and news media reports focused on water shortage and mandatory restrictions in place through 2010 have resulted in increased conservation.

In addition to reducing the amount of wastewater available to treat, economic conditions depressed new demand for recycled water due to new development. Landscape demand did not reach the anticipated 7,700 AF projected by 2010 and may not for several years as new development is delayed. New industrial customer demand did not materialize in the quantity projected in 2005. Only one of two power plants proposed in 2005 was constructed and to date has not required its full allotment of projected recycled water. In addition, the California Department of Fish and Game did not use its full projected demand for recycled water at the San Jacinto Wildlife Area or increase its use of recycled water as projected.

Even with the decrease in demand, EMWD has increased the percentage of recycled water sold and decreased the amount of recycled water discharged. This was achieved through implementing operational practices that encourage the storage of water in the winter for use during peak periods. Recycled water was also used to recharge groundwater basins through an in lieu agricultural program. EMWD is aggressively pursuing recycled water policies and programs that reduce discharge and increase recycled water use.

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Table 3.13 - Proposed vs. Actual Recycled Water Use in 2010 (AF)

	Projected 2010	**Actual 2010**
Wastewater Collected and Treated	61,051	46,451
Quantity Meeting Tertiary Recycled Standards	61,051	46,451
Agricultural Sales	13,400	13,796
Construction Sales		27
Environmental Sales	4,300	1,999
Agricultural In Lieu Sales		4,785
Wetlands/Lakes/Supply Augmentation Sales	2,000	
Landscape Sales	7,700	4,041
Industrial Process Water Sales	5,000	2,950
Wholesale Sales		649
Total Sales	**32,400**	**28,246**
% Sold	**53%**	**61%**
Livestream Discharge	13,651	4,902
Groundwater Recharge	15,000	13,303

3.5.3 Recycled Water Reliability

In June of 2009, EMWD completed a recycled water strategic plan. The plan examined several options for the expansion of EMWD's recycled water system and considered the current and potential constraints and opportunities for reducing discharge and increasing the use of recycled water. Currently demand opportunities exceed projected supply through 2030 and less desirable programs were eliminated as part of the strategic plan evaluation.

Historically, EMWD has used recycled water to meet the needs of agricultural development with increasing landscape demand, as land use changes from agricultural to urban. Water has also been used for environmental purposes at the California Department of Fish and Game San Jacinto Wildlife Area. Recently, new demands have emerged for manufacturing and industrial processes and for use in lieu of ground water. Other proposed special projects with a potential recycled water demand include:

- Indirect Potable Recharge (IPR) would advance treat recycled water at the San Jacinto Valley regional Water Reclamation Facility to be used for groundwater recharge.
- An alternative recycled water project that that will provide recycled water to a wholesale customer as an imported water offset.

Table 3.14 list potential recycled water demand.

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Table 3.14 - Recycled Water Use Potential (AFY) – 2015 - 2035

Type of Use	Feasibility	2015	2020	2025	2030	2035
Agriculture Irrigation	High	26,400	25,100	23,800	22,400	22,400
Landscape Irrigation	High	5,600	5,600	11,300	15,300	16,000
Golf Course Irrigation	High	4,400	4,400	4,400	4,400	4,400
Wildlife Habitat	High	4,500	4,500	4,500	4,500	4,500
Industrial	High	5,800	5,800	5,800	5,800	5,800
Storage Pond Recharge/Evaporation	High	11,000	11,000	11,000	11,000	11,000
Indirect Potable Reuse (Advanced Treatment)	Medium		5,000	5,000	15,000	15,000
Alternative Recycled Water Project (Advanced Treatment)	Medium					5,000
Retrofit of Potable Landscaped	Medium	400	400	1900	1900	1900
Total		**58,100**	**61,800**	**67,700**	**80,300**	**86,000**

One of the highest performing special projects, IPR, was included in the IRP potential portfolios and modeled under several hydraulic and supply conditions. EMWD's Recycled Water Strategic plan also evaluated the storage and system augmentation needed to offset peak demand. Additional storage is required to fully utilize EMWD's recycled water supply. Table 3.15 summarizes the projected supply and demand that can be met with the current existing recycled water system

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Table 3.15 - Supply and Use of Recycled Water by Type (AFY) – 2015 - 2035

	2015	2020	2025	2030	2035
Recycled Water Supply					
Tertiary Treated Recycled Water	56,100	63,500	70,300	77,100	83,500
Recycled Water Use Existing System					
Agriculture Irrigation	20,000	22,500	23,800	22,400	22,400
Landscape Irrigation	5,100	8,100	10,700	13,100	13,500
Wildlife Habitat	2,000	2,600	2,600	2,600	2,600
Industrial	5,800	5,800	5,800	5,800	5,800
Storage Pond Recharge/Evaporation	11,000	11,000	11,000	11,000	11,000
Total Existing System	**43,900**	**50,000**	**53,900**	**54,900**	**55,300**
Balance	**12,200**	**13,500**	**16,400**	**22,200**	**28,200**

3.5.4 - Incentives to Encourage Use of Recycled Water

To ensure that recycled continues to be used to the fullest extent possible, EMWD uses five methods to expand the use of recycled water within its service area. These methods are:

Mandatory Recycled Water Use Ordinance – EMWD has adopted an ordinance requiring new and existing customers to use recycled water for appropriate permitted uses when it is available. This ordinance provides a basis for denying potable water service and providing recycled water for permitted uses.

Rate Incentives – Recycled water is currently priced below the cost of potable water for both municipal and agricultural use.

Water Supply Assessments – EMWD's Water Supply Assessments condition all major new developments to use recycled water as a condition of service where it is available and permitted.

Public Education – EMWD actively promotes the use of recycled water with its water education program. EMWD also places prominent signage at public recycled water use sites promoting the benefits of water recycling.

Facilities Financing – EMWD will work with private parties to arrange or provide financing for construction of facilities needed to convert potable demands to recycled water.

EMWD does not have any data to support a projection of how much increased recycled water sales will result from each of the listed methods of encouraging recycled water use. Historically, the low cost of recycled water was the primary inducement for agricultural customers to use recycled water in-lieu of groundwater. However, as municipal customers continue to replace agriculture, it is reasonable to assume that the mandatory provisions of the District's Recycled Water Use Ordinance will play a major role in program expansion.

Section 4 - Planned Water Supplies

4.1 Integrated Resource Plan

EMWD has developed an IRP to serve as a framework for planning and prioritizing supply options. Several supply portfolios were developed and evaluated using performance measures that meet EMWD's objectives for future water supplies. EMWD's objectives are:

- **Develop a sustainable water supply**. This is measured by increases in local groundwater storage.
- **Accomplish financial Stability.** Measurements include capital costs and escalated annual costs.
- **Provide a reliable water supply.** Reliability is measured under drought imported shortage conditions, under emergency conditions and for peak day demand.
- **Maximize water use efficiency**. Measurements for water use efficiency include the percent of demand offset by conservation and the reduced amount of recycled water discharged.
- **Maximize use of Local resources.** Value was placed on projects that use local resources to meet EMWD retail demand.
- **Implement projects that improve the environment and salinity conditions in the service area.** Measured by Carbon dioxide emissions per AF of delivered water, and TDS and TIN contribution to the groundwater management zones.

Several projects and supply options were proposed and evaluated during the IRP process. Portfolios that increased water use efficiency, and implemented local supply projects including additional desalination and recycled water projects met more objectives. EMWD will use the results of the IRP to guide the development of new water supply sources and implement new water supply programs. Table 4.1 summarizes potential water supply sources to meet future demands.

Table 4.1 - Potential Water Supply (AFY) – 2015 - 2035

	2015	2020	2025	2030	2035
Recycled Water	6,100	13,500	16,400	22,200	28,200
Desalination	4,500	4,500	4,500	4,500	4,500
Planned Additional Conservation	0	0	1,300	4,300	6,400
Water Transfers/Exchanges	0	0	0	0	0
Total	**10,600**	**18,000**	**22,200**	**31,000**	**39,100**

4.2 Potential Recycled Water Use

The IRP results demonstrate the benefit of expanding the use of recycled water and examined multiple options for expanding the recycled water program allowing for flexibility in implementation as EMWD's demands increase. The IRP process provides several portfolios that allow EMWD to achieve the goal of full utilization of recycled water by 2035. Using EMWD's entire recycled water supply to offset demand for potable will decrease the dependence of EMWD on imported water supplies and provide additional supply reliability. The two recycled water projects have been identified as candidates that assist EMWD in meeting our water supply goal; using advanced treated water for recharge of basins in the Hemet/San Jacinto Water Management Plan area (Indirect Potable Recharge) and alternative recycled water project that that will provide recycled water to a wholesale customer for a water supply project are being studied for implementation potential. Limitations on the amount of recycled water available to serve both projects could determine the feasibility, size and phasing of the proposed special projects.

In addition to special projects, storage and/or augmentation is needed to offset the balance between winter and summer demands and fully utilize recycled water. As EMWD continues to investment in the development of the recycled water program reliability will improve and all the recycled water produced by EMWD's treatment plants will be utilized.

4.3 Potential Desalinization

EMWD has an existing desalination program that recovers high TDS groundwater from the Menifee and Perris South Management Zones, and the Lakeview portion of the Lakeview/Hemet North Management Zone for potable use. A third desalination plant, Perris II, has been designed and is projected to be on line in 2015. Table 4.1 summarized water supply from an additional planned desalination.

A fourth desalter could be warranted to meet salinity management requirements for the Hemet/San Jacinto Water Management Plan area. The requirement to reduce salinity associated with the use of recycled water could also be met with the implementation of the Indirect Potable Recharge project.

4.4 Additional Potential Conservation

The IRP results demonstrated that reducing demand through conservation is a cost effective method of improving reliability and extending the capacity of supply programs. In addition to meeting the requirement of SBx7-7, EMWD is proposing a targeted thirty percent reduction in outdoor demand and a 10 percent reduction in indoor demand by 2035. This may be achieved through adjustment in the budget based tiered rate, additional legislation and code changes and through active conservation programs.

4.5 Water Transfers

EMWD currently relies on MWD for any transfers or exchanges. As a member agency, EMWD benefits from MWD's efforts to improve supply reliability through transfers and exchanges detailed in the 2010 Regional Urban Water Management Plan.

In addition to relying on MWD, water transfers have been identified as a method of improving reliability especially during periods of water shortage. EMWD is investigating opportunities for independent transfers and exchanges. Since there is no guarantee that exchanges or transfers will be feasible for EMWD, and it's impossible to quantify the amount of water that could be made available, transfers and exchanges are not listed as part of EMWD water supply.

Section 5 - Water Shortage Contingency Plan

5.1 Overview

Recognizing the need to preserve and protect public health and safety, EMWD's Water Shortage Contingency Plan (WSCP) applies regulations and restrictions on the delivery and consumption of potable outdoor water use during water shortages**.** Ordinance 117.2, the WSCP for EMWD was updated in April of 2009 to account for changes in EMWD's water pricing structure and the MWD Water supply allocation plan. The WSCP is attached as Appendix D.

The WSCP is based on the following priorities:

- Public safety, health and welfare
- Sustaining economic vitality
- Quality of life

Restrictions are structured to protect the safety, health and welfare of the public and minimize the impact a water shortage may have on the local economy and quality of life. This is done mainly through the use of EMWD's budget based tiered rate structure, focusing on those customers with wasteful behaviors first and then affecting other customers as a shortage becomes more severe.

The WSCP applies specific reduction requirements and restrictions to each of four separate groups of customer types:

- Single-family residential, multi-family residential and landscape customers
- Commercial, industrial and institutional (CII)
- Agricultural
- Wholesale

Over ninety percent of EMWD's customers are either single-family residential, multi-family residential or landscape customers. These customers are subject to a budget based tiered rate. There are four tiers in EMWDs rate structure; the first two tiers apply to indoor and outdoor use respectively, the third tier is applied to water use up to fifty percent above the tier one and two budgets, and tier four is applied to any water use in excess of tier 3. In times of water shortage, penalties are added to the highest tier and tiers two and three are reduced as shortage levels increase. Under the most extreme shortage conditions no outdoor water use is allowed.

Commercial, industrial and institutional (CII) and agricultural customers must reduce demand during periods of shortage. CII customers face event driven penalties and could face fines if found violating water use restrictions. Agricultural customers are required to reduce demand over historical use and face penalties for use over allocation. Wholesale customers are allocated water using the formula and methodology based on MWD's Water Supply Allocation Plan.

The WSCP can be implemented for either an extended term water shortage that may last months or years, or a limited shortage that may only last a few days or weeks.

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5.2 Stages of Action

The WSCP limits water demand during times of shortage in seven stages. These stages can be triggered when there is water deficiency caused by limitations on supply or limitations on EMWD's delivery system. The plan shall be implemented in case of a long or short-term water deficiency, or in case of an emergency water shortage. The stages are summarized in the table below:

Table 5.1 - Water Shortage Contingency Plan Stages of Action

Stage No.	Water Supply Conditions	% Shortage
1	Anticipated or existing water demand exceeds available supply due to any of the following: – Shortfall at MWD's water treatment plants (Skinner or Mills) – Reduction in availability of MWD's raw water supply – Shortfall at EMWD microfiltration plants or desalination plants – Reduction in availability of water from EMWD wells. – Limitations on delivery system – Allocation from MWD	**< 5**
2		**5-10**
3		**10-15**
4		**15-25**
5		**25-35**
6		**35-50**
7		**>50**

When implementation of the plan is triggered by anticipated limitations in supply or delivery, EMWD's General Manager shall request the Board of Directors to authorize and implement the provisions of the Plan. The request shall be made at a regular or special meeting of the Board of Directors, to implement provisions of the Plan. The Board of Directors has the authority to initiate or terminate the water shortage contingency measures described in this Plan. When a water shortage emergency occurs, the WSCP authorizes the General Manager to declare the extent of a potable water shortage emergency and to implement the appropriate water shortage contingency measures.

5.3 Prohibition, Penalties and Consumption Reduction Methods

In order to reduce demand by EMWD customers in the case of deficiency in water supply, EMWD has developed several prohibitions and consumptive reduction methods. These methods are targeting outdoor water use, and under the most extreme deficiencies would reduce demand more than 50%.

5.3.1 Restrictions

The WSCP prohibitions and reduction methods are organized by customer groups with different limitations on each group. Stage 1 starts with voluntary measures. In the past, voluntary conservation that is the result of intense public relations costs has led to a 10% reduction in demand. As the water deficiency increases, measures become mandatory and will lead to the needed reduction in water demand. The tables below list limitations placed on customers in the event the WSCP is implemented.

Single-Family Residential, Multi-Family Residential and Landscape Customers

The WSCP targets a reduction in demand use in specific tiers for single-family residential, multi-family residential and landscape customer. Although methods that would allow customers to meet the proposed targets are listed in the WSCP, enforcement will be primarily through the tiered rate structure. Table 5.2 summarizes the required reduction in each tier by stage.

Table 5.2 - Water Shortage Contingency Measures (Single-Family Residential, Multi-Family Residential and Landscape Customers)

Shortage Stage	Tier 1 – Indoor Use	Tier 2 – Outdoor Use	Tier 3 – Excessive Use	Tier 4 – Wasteful Use
1	**Voluntary Reduction**			
2				100% reduction
3		25% reduction		100% reduction
4		50% reduction		100% reduction
5		50% reduction	70% reduction	100% reduction
6		50% reduction	100% reduction	100% reduction
7		100% reduction	100% reduction	100% reduction

EMWD's rate structure includes a multiplier that can restrict the size of a customer's allocation in any tier. To achieve the desired reduction, the allocation for each tier will be adjusted as listed and beginning in Stage 2, significant penalties will be added to the Tier 4 rate. The proposed restrictions at each stage were modeled to determine the potential for water reduction and to help insure the correct amount of water saving shall be achieved.

Commercial, Industrial and Institutional (CII)

CII demand makes a small portion of EMWD's demand and is not currently subject to a tiered rate. In the case the WSCP is implemented, CII customers are subject to restrictions on outdoor water use and event based penalties may be imposed to enforce water demand reduction. Table 5.3 summarizes CII restrictions.

Table 5.3 - CII Water Shortage Restrictions

Restriction	Stage
Refrain from hosing down driveways and other hard surfaces.	Stage 1 - Voluntary Stage 2 -Mandatory
Repair faucets, toilets, pipes and other potential sources of water leaks.	
Irrigate landscape only between 9:00 p.m. and 6:00 a.m.	
Refrain from watering or irrigating more than fifteen (15) minutes.	
Adjust and operate all landscape irrigation systems to avoid runoff.	
Refrain from watering or irrigating that causes or allows runoff.	
Do not use decorative fountains unless they are equipped with a recycling system.	
Do not allow water to run while washing vehicles.	
When installing new landscaping, plant low-water demand trees and plants. Do not incorporate non-functional turf areas.	
Refrain from watering during rain.	

Table 5.3 - CII Water Shortage Restrictions, Continued

Watering or irrigating of lawn, landscape or other vegetated areas with sprinklers will be limited to the following schedule: a. June through August – Three days a week b. September, October, and March through May – Two days a week c. November through February – One day a week	Stage 3 - Mandatory
Refrain from filling or re-filling of ornamental lakes or ponds.	
Refrain from using potable water to wash or clean a vehicle, including but not limited to, any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not.	
Refrain from refilling more than one foot and initial filling of residential swimming pools or outdoor spas with potable water.	
Watering or irrigating of lawn, landscape or other vegetated areas with sprinklers will be limited to the following schedule: a. June through August – Two days a week b. September through May – One day a week	Stage 4 - Mandatory
A 50 percent reduction in outdoor use is required with the restrictions of the previous stage continued.	Stages 4-6 Mandatory
No outdoor water use is permitted except for purposes of health and human safety.	Stage 7 - Mandatory

Beginning with Stage 2 event-driven penalties can be imposed for violating any of the restrictions in the WSCP. Table 5.4 lists penalties for event driven restrictions.

Table 5.4 - Event Driven Penalties and Charges

Penalty and Charges	Stage When Penalty Takes Effect
For the first monthly violation of the provisions of the water shortage contingency plan, the District shall issue a written notice of fact of such violation to the customer.	Any stage in which the measure or provision intentionally ignored or violated is mandatory.
For the second and third month violations, a surcharge of 100% of current charges.	Any stage in which the measure or provision intentionally ignored or violated is mandatory.
For the fourth and succeeding month(s) violation, a surcharge of 200% of current water bill commodity charge shall be added to the customer's water bill.	Any stage in which the measure or provision is intentionally ignored or violated is mandatory.
The District may also terminate a customer's irrigation/landscape meter service.	Any stage in which the measure or provision intentionally ignored or violated is mandatory.

Agricultural Customers

Agricultural customers must reduce demand between 5 and 50% over historical water use, depending on the shortage stage. A penalty rate is applied for use over the allocation.

Wholesale Customers

Under a water shortage plan, supply to wholesale customers will be allocated using the formula and methodology based on MWD's Water Supply Allocation Plan. EMWD will establish base period demands and then adjust them for growth and changes in local supply. Regional shortages will be phased in 10 stages. At each stage, the wholesale customers will not experience shortages on the wholesale level that are greater than one-and-a-half times the percentage shortage of regional water supplies. The wholesale customer will also not face a retail shortage less than the regional shortage. Credits will be given for conservation and investment in local supplies. Penalty rates apply for use over allocation.

5.4 Estimate of Minimum Supply

Under a dry year scenario, EMWD would increase deliveries from MWD to account for any losses in local supply. If an extreme shortage occurs MWD may implement its water supply allocation plan for member agencies in order to preserve storage reserves. The water supply allocation plan charges significantly higher rates for water deliveries over the allocated amount for each member agency. EMWD will meet allocation targets through demand reductions as outlined in the EMWD WSCP.

Table 5.5 - Three- Year Estimated Dry Year Supply (AFY) – 1990 - 1992 Hydrology

	2011	2012	2013
Current Supplies			
Groundwater	15,700	15,200	14,700
Groundwater Desalters	5,800	6,100	6,500
Imported Water	100,000	109,600	126,900
Recycled Water	29,400	29,500	31,300
Total	150,900	160,400	179,400
Demand	150,900	160,400	179,400
% of Normal	**100%**	**100%**	**100%**

5.5 Catastrophic Supply Interruption

EMWD is dependent on MWD for the majority of its supply. MWD has prepared for emergencies through storage, facility design and redundant power sources. Emergency storage requirements are based on the potential for a major earthquake that renders major water transportation facilities out of service for six months. Assuming 100 percent of its supplies are unavailable for six months, MWD has enough water storage to sustain 75 percent of normal year firm deliveries. MWD has reserved up to half of the capacity of Diamond Valley Lake for emergency supply. In the event of a major power outage water supply can be delivered by gravitational feed from recreational reservoirs including, Diamond Valley Lake Reservoir. For treatment plants MWD has a backup power generator in place in case of electrical outage. Additional information about addressing catastrophic Supply interruption can be found in Section 2.5 of MWD's RUWMP.

To protect EMWD customers in the case of an emergency, EMWD has developed the Water Shortage Emergency Operations Plan (WSEOP). This plan determines the operation response to any emergency. It specifies chain of command and provides the authority to respond in an emergency. Elements of that response can include interdepartmental staff notification and mobilization; activation of alternative water supply sources (i.e. interagency connections), use of temporary pumping facilities; use of power generators; public notification; and activation of conservation measures. An emergency is defined as any time MWD or EMWD facilities are incapable of supplying potable water. An emergency could be caused by a natural disaster such as an earthquake or through facility failures. The WSEOP describes the coordination required between operational staff, management, community involvement staff and other EMWD employees. In addition, communication and cooperation will be required with the community and other agencies such as the Department of Health Services and MWD. In the event that one or more water supply sources are unavailable, remaining sources of supply will be maximized to meet demand. If needed, the WSCP could be implemented to conserve water and reduce demand. If an electrical or gas power outage occurs, some of EMWD's booster facilities have backup generators. Facilities without redundant power sources may be served on a priority basis by portable generators.

5.6 Analysis of Revenue

As a result of a water shortage or emergency situation, there may be a reduction of revenue from water sales. To protect EMWD from financial hardship in such a situation, a financial reserve account has been established to meet the fixed cost associated with water delivery that may not be met in the case of reduced water sales. In the tables below, the revenue impacts of implementing the WSCP are analyzed.

Table 5.6 - Actions and Conditions that Impact Revenue

Type	Anticipated Revenue Reduction
Reduced Water Sales	Water sales are approximately 40% of EMWD's annual revenue. A reduction in the demand of water by 50% would also mean a reduction in revenue from water sales of 50% leaving a shortfall of approximately 20% of EMWD annual revenue.

Table 5.7 - Actions and Conditions that Impact Expenditures

Category	Anticipated Cost
Increased Staff Cost	Staff costs for implementing the WSCP could vary depending on the stage trigger by a deficiency in water supply. Stage 1 and 2 would probably be implemented with only current staff members. Stage 3 or 4 of the plan may require additional staff to implement. The amount and level of staff will vary greatly depending on the public's response to the plan.
O & M Cost	Operations and maintenance cost may be minimally impacted by the implementation of the WSCP, but these costs are projected to have minimal impact on EMWD's total revenue.
Cost of Supply and Treatment	Cost of supply would decrease due to a decrease in demand and would offset some of the costs associated with reduced water sales.
Public Outreach Costs	Costs associated with informing the public about implementing the WSCP will vary based on the public's response and the stage of the plan implemented.

Table 5.8 - Proposed Measures to Overcome Revenue Impacts and Increased Expenditures

Name of Measure	Summary of Effect
Rate Adjustment	Part of the WSCP is the ability to impose a penalty rate. This may offset some of the lost revenue due to a decrease in water sales.
Reserve Policy	EMWD, as a matter of policy, keeps a reserve of funds equivalent to 90 days of operational expenses. This reserve fund could be used to mitigate revenue shortfalls.
Rate Stabilization Fund	EMWD also has a rate stabilization fund with approximately $3 million available to offset increased costs and decreased sales.

Section 6 - Water Quality

6.1 Overview

Promoting and protecting the quality of its water resources is a vital part of EMWD's planning and operations. Water quality constraints and concerns are part of the criteria used to evaluate the value of a proposed project and the protection of groundwater resources is a priority. EMWD does not anticipate a reduction in supply reliability due to water quality constraints. Contaminants of concern may require treatment or blending but long term supply planning anticipates that the quantity of available water will not be diminished from projected levels.

6.2 Imported Water

As part of the Integrated Resource Plan and other planning efforts, MWD has concentrated on maintaining the quality of source water and developing management programs that protect and enhance water quality. MWD has two water sources: the Colorado River Aqueduct (CRA); and the State Water Project (SWP). MWD responds to water quality concerns by concentrating on protecting the quality of source water and developing water management programs that maintain and enhance water quality. Based on current knowledge the only threat to MWD water supplies is the potential for increased salinity levels that may require future treatment.

To date, MWD has not identified any other water quality issues that cannot be mitigated. Increased salinity may impact the amount of water available in the future. If additional treatment is required, MWD could experience a loss of up to 15 percent of the water processed. Since only a small portion of the total water supply would be treated and blended with the remaining unprocessed water, there is no significant risk to MWD's water supply availability.

Additional information and analysis of water quality is included in Section 4 of the 2010 RUWMP.

6.2.1 Colorado River

The most significant threat to the Colorado River supplies is salinity levels. Colorado River supplies must be blended with State Water Project (SWP) water to meet the MWD's adopted salinity standards. Several programs are in place to reduce the current salinity level and protect salinity levels from rising in the Colorado River. In addition, MWD is also working to protect the Colorado River from threats of uranium, perchlorate and hexavalent chromium. MWD has also been active in efforts to protect CRA supplies from potential increases in nutrient loading, and occurrences of N-Nitrosodimethylamine (NDMA) and constituents of emerging concern. MWD fully expects its source protection efforts to be successful, therefore only water quality concern with the potential to significantly impact the use of Colorado River Water is salinity levels.

Salinity

Water imported via the CRA has the highest level of salinity of all of MWD's sources of supply, with Total Dissolved Solids (TDS) averaging around 630 mg/L since 1976. Concerns about salinity lead the seven Colorado River basin states to form the Colorado River Basin Salinity Control Forum (Forum) to cooperatively address the issue. The Forum proposed and the U. S.

Environmental Protection Agency (USEPA) approved water quality standards in 1975 that established numeric criteria for salt loading and requires that the flow-weighted average annual salinity remain at or below the 1972 levels. The forum also resulted in the Colorado River Basin Salinity Control Program, designed to prevent a portion of the salt supply from moving into the river system through the interception and control of non-point sources, such as surface runoff, as well as wastewater and saline hot springs. Salinity control projects have reduced salinity concentrations of Colorado River water TDS on average by over 100 mg/L or $264 million per year (2005 dollars) in avoided damages. During periods of high flow, salinity levels have been known to drop to 525 mg/L, but drought has brought the return of higher salinity levels with Lake Havasu having a TDS level of 628 mg/L in November of 2009.

Uranium

Near Moab, Utah, 750 feet from the Colorado River, a 16 million ton pile of uranium mill tailings is a potential source of water contamination. In 1999, the US Department of Energy (DOE) began the remediation of the site, including the removal and offsite disposal of the tailings and onsite groundwater remediation. DOE projects that the cleanup should be completed by 2025. MWD is monitoring cleanup efforts and encourages the on-going funding and rapid cleanup of the site.

In recent years an increase in mining claims filed near Grand Canyon National Park and the Colorado River has caused concern. MWD has responded with letters to the Secretary of Interior to bring attention to the importance of source water protection and advocate for close federal oversight over these activities. In 2009, Secretary of Interior Ken Salazar announced a two-year hold on new mining claims on 1 million acres adjacent to the Grand Canyon. In 2009, H.R. 644 – Grand Canyon Watersheds Protection Act was introduced and if enacted, would permanently withdraw areas around the Grand Canyon from new mining activities.

Perchlorate

In June of 1997, percolate was first detected in Colorado River water and attributed to a chemical manufacturing site in Henderson, Nevada. Another large perchlorate plume has also been detected in the Henderson area but is not known to have reached Las Vegas wash. Remediation began in 1998 and has reduced perchlorate loading entering the Colorado River system by 90 percent. Levels of perchlorate in the Colorado River measured at Lake Havasu have decreased from a high of 9□ g/L to 2□ g/L since June of 2006. California's maximum contaminant level (MCL) for Perchlorate is 6 µg/L in finished drinking water.

Chromium VI

On August 20, 2009, The Office of Environmental Health Hazard Assessment (OEHHA) released a draft public health goal (PHG) of 0.06 µg/L for Chromium VI in drinking water. A Public Health Goal (PHG) is the level of a contaminant in drinking water, which there is no known or expected risk to health. OEHHA based these goals on the best available toxicological data in the scientific literature. These are goals and not regulations. Chromium VI has been detected in a groundwater aquifer on the site of Pacific Gas and Electric (PG&E) near the vicinity of the Colorado River at Topock, Arizona. Currently PG&E is operating an interim groundwater extraction and treatment system that is protecting the Colorado River. MWD participates in various stakeholder workgroups and forums that are involved in the corrective action report. Results from Chromium VI monitoring of the Colorado River from sites upstream and downstream of the Topock site have ranged from not detected (<0.03 □ g/L) to 0.06 □ g/L.

Nutrients

High levels of nutrients (phosphorous and nitrogen compounds) can stimulate algae and aquatic weed growth that affect consumer acceptability and produce taste and odor concerns. Nutrients and the resulting algae and aquatic weed growth can also impede conveyance, increase operational costs and provide a food source for invasive mussel species. The Colorado River naturally has low concentration in phosphorous but population increases in the future could increase loading. Additional phosphorous loading could prohibit MWD's ability to blend Colorado River with SWP, which has higher concentrations of nutrients. To prevent an increase in nutrient loading in CRA water, higher levels of wastewater treatment are required at existing reclamation facilities along the Colorado River. MWD is engaged with these agencies to encourage enhanced wastewater management.

N-Nitrosodimethylamine

N-Nitrosodimethylamine (NDMA) is a byproduct of disinfection of some natural water with chloramines. MWD uses chloramines as secondary disinfection at all of its treatment plants. MWD is in the process of understanding the watershed sources and developing treatment strategies to minimize NDMA formation. OEHHA set a public health goal for NDMA of 0.003 □ g/L. MWD has monitored sources waters and treated water on a quarterly basis since 1999 with results ranging from not detected to 0.014 □ g/L. It is likely that NMDA will be regulated by the USEPA in the future.

Pharmaceuticals and Personal Care Products

Pharmaceuticals and personal care products (PPCPs) are an emerging concern for the water industry. In 2007 MWD began a monitoring program to determine the occurrence of PPCPs in drinking water treatment plants and source water locations. PPCPs have been detected in source waters at very low part per trillion (ng/L) levels consistent with the results from other water agencies. More work is required to improve testing and analytical methods, characterizing PPCPs in drinking water sources and then determining the effects PPCPs may have on recycled water use and groundwater recharge.

6.2.2 State Water Project

Water quality issues in SWP include total organic carbon (TOCs), bromides, arsenic, nutrients, N-Nitrosodimethylamine, pharmaceuticals and personal care products (PPCPs), and salinity. TOCs and bromides present the greatest water quality concern for the SWP causing operational constraints and additional treatment at MWD facilities.

Total Organic Carbon and Bromides

TOCs and bromide concentration in SWP supplies present a significant challenge for MWD to maintain safe drinking water quality. High levels of TOC and bromide levels form disinfection byproducts (DBPs) during the water treatment processes. Agricultural drainage and seawater intrusion increase the levels of TOCs and bromide. The Bay Delta Conservancy Plan (BDCP) has outlined several options for improving water quality in the Delta. In addition to addressing the protection of source water, MWD uses CRA water to blend with SWP to reduce TOC and Bromide concentrations in two of their existing plants. MWD has upgraded three SPW facilities by installing ozone treatment. Ozone readily oxidizes organic compounds to reduce the formation of disinfection byproducts and taste and odor compounds. However, ozone can cause bromate formation when bromide is present in SPW.

Arsenic

Historically, arsenic in MWD supplies have been detected at very low levels that do not require treatment or blending. However, some of the ground water basins used by MWD for storage programs have higher levels of arsenic that are at or near the threshold requiring additional treatment. MWD has had to restrict flow from one program to meet arsenic limits in the SWP. One groundwater banking partner has installed a pilot treatment program increasing the cost of the groundwater banking program. MWD has also invested in solids handling facilities and implemented operation changes to manage arsenic in solids resulting from treatment.

Nutrients

The SWP has significantly higher nutrient levels than the CRA. Agricultural discharges, wastewater discharges and nutrient rich Delta soils contribute to higher concentrations of nutrients in the Delta. Algae growing in nutrient rich water also can release taste and odor compounds into the water. MWD reservoirs containing SWP have been bypassed at times to avoid taste and odor complaints causing short-term supply reliability concerns. To address nutrient levels, MWD is working with other agencies receiving Delta water to reduce nutrient loading in the Delta. MWD also uses a comprehensive algae monitoring program to provide early warning of problems and to better monitor water quality in the system. Implementation of ozonation has also helped with taste and odor problems associated with algae blooms.

N-Nitrosodimethylamine

As described under CRA supplies, N-Nitrosodimethylamine (NDMA) is an emerging concern and MWD is active in efforts to monitor and address NDMA.

Pharmaceuticals and Personal Care Products

As described under CRA supplies, pharmaceuticals and personal care products (PPCPs) are an emerging concern and MWD is active in efforts to monitor and address PPCPs.

6.3 Local Supply

EMWD has three sources of local supply, groundwater, desalinated groundwater and recycled water. Each of our local resources meets the water quality requirements for its intended use and EMWD does not anticipate significant water supply limitations due to water quality.

6.3.1 Groundwater and Desalinated Groundwater

EMWD has an extensive and proactive groundwater monitoring program that includes collecting, compiling and analyzing data related to groundwater quality. There are no known significant threats to EMWD's groundwater supply that cannot be mitigated by treatment or blending and EMWD does not anticipate a significant loss of supply due to water quality issues.

EMWD does take action to protect groundwater supplies from potential water quality risks including contamination from salinity, nitrates, chlorinated and other volatile organic compounds.

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Other contaminants have been found in local groundwater sources at levels exceeding public health goals that may require additional treatment in the future.

Salinity and Nitrates

In partnership with other agencies, EMWD is responsible for the protection and preservation of local groundwater under the authority of the Hemet/San Jacinto Basin Water Management Plan and the West San Jacinto Groundwater Basin Management Plan. Salinity and nitrate levels in groundwater increase due to agricultural activities, urban use, and recycled water use. EMWD monitors the salinity and nitrate levels in local basins as part of the groundwater management plan. EMWD also protects the water quality of the basin through salinity management and considering the affect of various water supplies on the underlying basins.

Different sources of water can affect the concentrations of salinity and nitrates within groundwater. Imported water from MWD includes supplies from both SWP and CRA. As discussed previously, CRA has high salinity levels, while SWP has high nutrient levels (phosphorous and nitrogen compounds). Recycled water also has higher levels of salinity and nutrients than other water sources and the impact of recycled water application on underlying basins is considered when selecting recycled water users. Water quality objectives for salinity and nitrates can be achieved several different ways including: blending sources, additional treatment and demand management. As EMWD considers options to meet demands, water quality is a priority when selecting alternatives.

EMWD also actively addresses salinity concerns through the effort of our desalination program. Two operational and one planned desalination plants are part of EMWD’s effort to remove salts from basins with high salinity levels. In addition to supplying a source of drinking water, desalination also prevents the migration of brackish groundwater to potable management zones and removes salts from the basins balancing the salts that may have been added through the application of recycled water or other sources of water.

Chlorinated Solvents and Other Volatile Organic Compounds

In the West San Jacinto Groundwater Basin Management Plan chlorinated solvents and other volatile organic compounds have been found in amounts that exceed public health goals. Chlorinated solvents are volatile organic compounds (VOCs) that contain chlorine. In general, they are used in aerospace and electronics industries, dry cleaning, and degreasing industries. EMWD is vigilant in protecting groundwater basins from VOC contamination by closely monitoring the construction of new businesses such as gas stations and manufacturing within the vicinity of production wells. Through the review of proposed new development EMWD works with local land agencies to ensure groundwater is protected.

Arsenic

Arsenic is a naturally occurring compound found in rocks, soil, water and air. Arsenic has been detected in several of EMWDs wells at levels that range from not detected to 7.7 μg/L (2006 to 2010 data). In 2006, the maximum contaminant level for arsenic in domestic water supplies was lowered to 10 μg/L by EPA. Should California lower the State’s MCL below the Federal level some of EMWD’s production wells could be impacted requiring additional treatment costs to utilize these wells.

Pharmaceuticals and Personal Care Products

Pharmaceutical and personal care product (PPCPs) are a constituents of emerging concern and EMWD has been and will continue to be proactive in addressing water quality concerns that arise.

6.3.2 Recycled Water

EMWD has an extensive recycled water program and this supply is used for irrigation of the landscape, agricultural and a cooling tower. It significantly offsets the non-potable water demands throughout the EMWD. One of the challenges with the use of the recycled water is that it has a higher salinity and nutrient concentrations than EMWD's potable water supply. In some of the groundwater water basins, the salt and nutrients that are applied through landscaping and storage must be mitigated to ensure protection of the groundwater basins. EMWD has an offset mitigation program for these basins that has been approved by the Santa Ana Regional Water Quality Control Board. This program ensures that for every pound of the salt or nutrient added to the basin that it is removed by desalinization wells or mitigated by replenishment with higher quality water.

Salinity Management

Pharmaceuticals and Personal Care Products

Pharmaceuticals and personal care products are a source of concern in EMWD's recycled water. In 2008, EMWD participated with the Santa Ana Watershed Project Authority (SAWPA) to form a Task Force to develop a plan to characterize emerging constituents (ECs) throughout the region. In 2009 the Task Force presented an acceptable monitoring plan to the Santa Ana Regional Water Quality Control Board to monitor specific ECs. The plan included monitoring by SAWPA members to evaluate EC levels in wastewater effluent, local receiving streams and other raw water supplies imported into the area. Samples were collected in the spring of 2010 and a final report was prepared by SAWPA in late 2010. The results indicated the presence of some ECs at trace levels (parts per trillion) in the wastewater effluent and are consistent with other wastewater agencies results. More work is required to improve testing and analytical methods, characterizing ECs in recycled water.

6.4 Reliability

There are no known water quality concerns that will significantly impact water supply reliability. Water supplies will be managed to protect water quality to the greatest extent possible and treatment will be implemented if necessary. Table 6.1 summarizes projected reductions in water supplies due to water quality issues.

Table 6.1 - Estimated Reduction in Water Supplies Due to Water Quality Constraints (AFY)

Water Source	Description of Condition	2010	2015	2020	2025	2030	2035
Imported Water	MWD has not identified any water quality issues that cannot be mitigated	0	0	0	0	0	0
Groundwater	EMWD has not identified any water quality issues that cannot be mitigated	0	0	0	0	0	0
Recycled Water	EMWD has not identified any water quality issues that cannot be mitigated	0	0	0	0	0	0

Section 7 - Climate Change

7.1 Impact of Climate Change

EMWD has considered the impact of climate change on water supplies as part of our long term strategic planning. Climate change has the potential to affect not only local demand and supplies, but to reduce the amount of water available for import. Potential changes that may impact water supply include:

- Warmer temperatures leading to higher demand for water within EMWD's service area and throughout California;
- Reduction in the Sierra Nevada snow pack;
- Increased intensity and frequency of extreme weather events; and
- Rising sea levels resulting in increased risk of damage from storms in the Delta, high tide event and the erosion of levees in the Delta.

7.2 Response to Climate Change

One of the outcomes of climate change could be more frequent limitations on imported supplies. To limit the impact of climate change, EMWD's long term planning focuses on the development of reliable local recourses and the implementation of water use efficiency. This includes the full utilization of recycled water and the recharge of local groundwater basins to increase supply reliability during periods of water shortage. EMWD is also focused on reducing demand for water supplies, especially outdoors. Increasing the use of local resource and reducing the need for imported water has the duel benefit of not only improving water quality reliability, but reducing the energy required to import water to EMWD's service area.

Section 8 - Demand Management Measures

8.1 Implementation of Conservation Demand Management Measures

EMWD has implemented the fourteen demand management measures as required by Senate Bill 1420. EMWD's compliance is in conjunction with the requirements of the California Urban Water Conservation Council Memorandum of Understanding (MOU) Regarding Urban Water Conservation in California. As a signatory of the MOU, EMWD pledged to make a good faith effort to implement a prescribed set of urban water conservation best management practices (BMP). EMWD is both a retail and wholesale water agency and is responsible to fulfill the requirements of both retail and wholesale BMPs. In December 2008, the Urban MOU was amended and the BMPs were revised. The revision reorganized CUWCC's 14 BMPs into five categories. Two of the categories, Utility Operations and Education, are referred to as "Foundational BMPs" because they are considered to be essential water conservation activities by any utility and are adopted for implementation by all signatories to the CUWCC as ongoing practices with no time limits. The remaining three categories are "Programmatic BMPs" and are organized into Residential; Commercial, Industrial and Institutional (CII); and Landscape categories. Table 8.1 provides a list of the old BMPs and a mapping of the new BMPs; Table 8.2 provides a list of new BMP categories and UWMP Demand Measurement Measures (DMM). Current CUWCC coverage reports are not available at this time, for clarity purposes, EMWD has included the completed DWR DMM review form.

Table 8.1 - BMP Revisions

BMP Number	BMP Description	Applied to		New BMP Category
		Retail	Wholesale	
1	Residential Water Surveys	Yes	No	Programmatic: Residential
2	Residential Plumbing Retrofits	Yes	No	Programmatic: Residential
3	System Water Audits, Leak Detection	Yes	Yes	Foundational: Utility Operations – Water Loss Control
4	Metering and Commodity Rates	Yes	No	Foundational: Utility Operations – Metering
5	Large Landscape Audits	Yes	No	Programmatic: Landscape
6	High Efficiency Washing Machines	Yes	No	Programmatic: Residential
7	Public Information	Yes	Yes	Foundational: Education – Public Information Programs
8	School Information	Yes	Yes	Foundational: Education – School Education Programs
9	Commercial, Industrial, Institutional	Yes	No	Programmatic: Commercial, Industrial, Institutional
10	Wholesale Agency Assistance	No	Yes	Foundational: Utility Operations – Operations
11	Conservation pricing	Yes	Yes	Foundational: Utility Operations – Pricing
12	Conservation Coordinator	Yes	Yes	Foundational: Utility Operations – Operations
13	Water Waste Prohibition	Yes	No	Foundational: Utility Operations – Operations
14	Residential ULFT Replacement	Yes	No	Programmatic: Residential

Table 8.2 - Best Management Practices and Demand Management Measures

CUWCC BMP Organization and Names (2009 MOU)				**UWMP DMMs**	
Type	**Category**	**BMP #**	**BMP Name**	**DMM**	**DMM Name**
Foundational	Utility Operations Program	1.1.1	Conservation Coordinator	L	Water conservation coordinator
		1.1.2	Water Waste Prevention	M	Water waste prohibition
		1.1.3	Wholesale Agency Assistance Programs	J	Wholesale agency programs
		1.2	Water Loss Control	C	System water audits, leak detection, and repair
		1.3	Metering with commodity Rates for All New Connections and Retrofit of Existing Connections	D	Metering with commodity rates for all new connections and retrofits of existing connections
		1.4	Retail Conservation Pricing	K	Conservation pricing
	Education Programs	2.1	Public Information Programs	G	Public information programs
		2.2	School Education Programs	H	School information programs
Programmatic	Residential	3.1	Residential Assistance Program	A	Water survey programs for single-family residential and multi-family residential customers[1]
				B	Residential plumbing retrofit
		3.2	Landscape Water Survey	A	Water survey programs for single-family residential and multi-family residential customers[1]
		3.3	High Efficiency Clothes Washers	F	High efficiency washing machine rebate programs
		3.4	WaterSense Specification (WSS) Toilets	N	Residential ultra-low-flush toilet replacement programs
	Commercial, Industrial, and Institutional	4	Commercial, Industrial, and Institutional	I	Conservation programs for commercial, industrial, and institutional accounts
	Landscape	5	Landscape	E	Large landscape conservation programs and incentives

[1] Components of DMM A (Water survey programs for single-family residential and multi-family residential customers) applies to both BMP 3.1 (Residential assistance program) and BMP 3.2 (Landscape water survey)

8.2 Foundational BMPs

Foundational BMPs are considered to be essential water conservation activities by any utility and are adopted for implementation by all signatories to the MOU as ongoing practices with no time limits. Foundational BMPs are comprised of Utility Operations Programs and Education Programs. This section will describe the coverage requirements and EMWDs method of compliance for the Foundational BMPs.

8.2.1 Utility Operations Programs

Water utilities throughout California are implementing water conservation programs and providing services to the customers they serve. There are four subcategories that comprise signatory utility operation program responsibilities.

The Utility Operations Programs Foundational BMP encompasses old BMPs 3, 4, 10, 11, 12 and 13.

Operations Practices

This practice will outline several key actions that utilities shall take to better enable the implementation of conservation programs, to supplement conservation incentives with regulations where appropriate, and to assist one another through the wholesaler-retailer relationship.

Conservation Coordinator (DMM L)

Coverage requirements: Staff maintains the position of trained conservation coordinator, or equivalent consulting support, and provides that function with the necessary resources to implement BMPs.

Compliance method: EMWD has met the coverage requirements for this practice; full time Conservation staff consists of one conservation analyst, one conservation program supervisor, one conservation program specialist, and three conservation program assistants.

The **conservation analyst** serves as a liaison between EMWD and other public agencies, community and industry groups, and the media; recommends, develops and coordinates implementation of EMWD conservation programs; assists in analyzing program goals, performance measures, and sources of funding. The **conservation program supervisor** participates in the implementation of conservation programs; develops and implements programs to inform, educate and assist with efficient water use and conservation; represents EMWD with customers, in community events and meetings regarding conservation issues; develops and implements methods to measure improvements in water use efficiency and customer satisfaction. The **conservation program specialist** assists in the development and implementation of conservation programs; conducts water leak investigations; issues citations to enforce mandatory water conservation ordinances during times of water shortage; and represents EMWD with customers and community events and meetings on conservation issues. The **conservation program assistants** performs a variety of customer service functions related to water conservation; assist with residential, landscape and CII water surveys; measure landscape area for water budgets; send out water waste notices; research problems; and related duties assigned.

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Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

Water Waste Prevention (DMM M)

Coverage requirements: Water agency shall do one or more of the following: (a) enact and enforce an ordinance or establish terms of service that prohibit water waste; (b) enact and enforce an ordinance or establish terms of service for water efficient design in new development; (c) support legislation or regulations that prohibit water waste; (d) enact an ordinance or establish terms of service to facilitate implementation of water shortages response measures; (e) support local ordinances that prohibit water waste; and/or (f) support local ordinances that establish permit requirements for water efficient design in new development.

Compliance method: EMWD has met the coverage requirements in the following ways:

- Ordinance 72.25 – Water Use Efficiency Ordinance, implemented January 1991 with the most recent revision effective January 2011. This ordinance prohibits water waste, imposes penalties for runoff, and requires efficient design in new development. This Ordinance is enforced in two ways, (1) through EMWD's allocation based tiered rate structure for single-family, multi-family and landscape accounts utilizing the domestic water system; and (2) though penalties for runoff.

- Ordinance 117.2 – Water Shortage Contingency Plan, implemented July 2005 with the most recent revision effective April 2009. This Ordinance is designed for the purpose of protecting the integrity of water supply facilities (infrastructure), and implementing a contingency plan in times of drought, supply reductions, failure of water distribution systems or emergencies.

- EMWD supports legislation and local ordinances that prohibit water waste, and supports local ordinances that establish requirements for water efficient design in new development. As a member of the Riverside County Water Task Force, EMWD participated in updating Riverside County's Water Efficient Landscape Requirements Ordinance 859.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

Wholesale Agency Programs (DMM J)

Coverage requirements: (a) Wholesale agency programs include financial investments and building partnerships, when mutually agreeable and beneficial to a wholesaler and its retail agencies cost effectiveness assessments, including avoided cost per acre-foot, for each BMP the wholesale agency is potentially obligated to support. (b) When requested, the wholesale agency will provide technical support, incentives, staff or consultant support, and equivalent resources to retail members to assist or otherwise support the implementation of BMPs. (c) When mutually beneficial to a wholesaler and its retail agencies, a wholesaler may offer program management and BMP reporting assistance to its retailers. Wholesale agencies have limited control over retail agencies, thus wholesale agencies cannot be held responsible for levels of implementation by individual retailers in their wholesale service area. (d) Water shortage allocation plans or policies will encourage and reward investment in long-term conservation. (e) Wholesale water agencies will report on non-signatory BMP implementation, when possible. (f) Wholesale agency will encourage CUWCC membership and offer recruitment assistance.

Compliance method: EMWD has met the coverage requirements in the following ways:

(a) Financial incentives provided for by MWD for a variety of water efficient devices are administered through two regional rebate programs; (1) Save-a-Buck for commercial customers; and (2) SoCal Water$mart for residential customers. Both residential and commercial customers of EMWD's sub-agencies are eligible to participate in the regional rebate programs.

(b) EMWD has hosted and/or conducted workshops for landscape professionals, including personnel and customers of EMWD's sub-agencies, providing certification opportunities for smart irrigation controller technologies. EMWD's Board members hold Director Advisory Committee meetings with stakeholders throughout the year; and staff members attend/participate at local city councils and planning commissions. EMWD also provides assistance to sub-agencies with various GIS mapping requests.

(c) Staff meets with sub-agencies to discuss conservation related topics. Regional incentive programs are administered though vendors assigned by MWD and sub-agencies are encouraged to participate in these programs. MWD hosts monthly water use efficiency meetings to discuss the implementation of conservation programs, EMWD's sub-agencies are encouraged to participate.

(d) Under the WSCP, supply to wholesale customers will be allocated using the formula and methodology based on MWD's Water Supply Allocation Plan as described in Section 5.This plan take into consideration; the impact on retail customers and the economy; population and growth; changes and/or loss of local supply; reclamation and recycling; conservation; and investment in local resources. EMWD will establish base period demands and then adjust them for growth and changes in local supply. Regional shortages will be phased in 10 stages. At each stage the wholesale customers will not experience shortages on the wholesale level that are greater than one-and-a-half times the percentage shortage of regional water supplies; nor will they face a retail shortage less than the regional shortage. Credits will be given for conservation and investment in local supplies.

(e) EMWD will evaluate the feasibility to provide BMP reports for sub-agencies that are non-signatories with CUWCC.

(f) EMWD has encouraged sub-agencies to become signatories of the CUWCC.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

Water Loss Control (DMM C)

The goals of modern water loss control methods include both an increase in water use efficiency in the utility operations and proper economic valuation of water losses to support water loss control activities. In May 2009 the American Water Works Association (AWWA) published the 3rd Edition M36 Manual "Water Audits and Loss Control Programs." BMP 1.2 incorporates these new water loss management procedures and applies them in California. Agencies are expected to use the AWWA Free Water Audit Software (AWWA Software) to complete their standard water audit and water balance.

Coverage requirements: (1) Compile the standard water audit and balance annually, using the AWWA Software, and beginning in the 2nd year of implementation agencies to test source, import, and production meters annually. (2) During the first four years of implementation, agencies shall improve the data accuracy and data completeness of the standard water balance, and achieve a "Water Audit Data Validity" score of 66 or higher using the AWWA software; and achieve data validity level IV no later than the end of the 5th year of implementation. (3) During the first four years of implementation, seek training in the AWWA water audit method and component analysis process, and complete a component analysis of real losses; and update analysis no less than every four years. (4) During years five through ten of implementation, agencies shall demonstrate progress in water loss control performance as measured my AWWA software real loss performance indicator "gallons per service connection per day;" gallons per mile of mains per day;" or achieving a performance indicator score that is (a) less than the agency's score the previous year; (b) less than the average of the agency's scores for the previous three years; (c) in the top 20% of all signatory agencies reporting with a Data Validity Level IV or (d) in year six and beyond, reducing real losses to or below the benchmark value determined by the Council's process. (5) Repair all reported leaks and breaks to the extent cost effective, establish and maintain a record keeping system for the repair of reported leaks by the end of year two, and include estimated leakage volume and repair cost to report by the end of year four. (6) Locate and repair unreported leaks to the extent cost effective.

Compliance method: EMWD has met the coverage requirements in the following ways:

(1) EMWD has compiled the standard water audit report to be submitted to CUWCC in February 2011. The following methods are used to test source, import and production meters:

Source Meters: Well meters are recalibrated annually. Filtration Plant and Desalter system supply meters are monitored against the raw water supply meters and serviced as needed. A program for scheduled meter maintenance is being developed.

Import Meters: MWD tests their connection meters bi-annually. EMWD's system meters are recalibrated annually and flows are monitored daily. Significant differences with MWD deliveries are addressed jointly between EMWD and MWD.

Production Meters: Production meters are bench tested by a certified independent laboratory. A plan to do volumetric testing at the sites is being developed.

(2) EMWD has contracted with a qualified water loss control consultant, Water System Optimization, Inc. (WSO) to do an audit and balance; evaluate existing data, methods and procedures, and recommend a phased program of improvements to data accuracy and completeness. EMWD will pursue phased implementation of recommended improvements based on justification and cost effectiveness. EMWD currently has a Water Audit Data Validity score of 70.

(3) Staff has attended AWWA sponsored training and a large cross section of staff attended a kick-off meeting to explain objectives and methodology

(4) WSO will assist EMWD in completing a component analysis of real losses by December 2011.

(5) EMWD repairs reported leaks and breaks to the extent that are cost effective. Currently, a work order tracking system is used to track pipeline and service leaks by type and completed repairs. This system is effective on a general scale; however, a more detailed system is needed to identify and track leaks more accurately. WSO will assist EMWD in developing a detailed tracking system.

(6) EMWD is currently in the process of soliciting a vendor, through a competitive bid process, to develop a leak detection program in order to identify unreported leaks.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections (DMM D)

For consistency with California Water Code (Section 525b), this BMP refers to potable water systems. A water meter is defined as a device that measures the actual volume of water delivered to an account in conformance with the guidelines of the American Water Works Association.

Coverage requirements: (1) Metering for all new service connections; (2) Establish a retrofit program for existing unmetered service connections; (3) Read meters and bill customers by volume of use; (4) Prepare a written plan, policy or program for meters that includes (census, testing, repair and replacement); (5) Identify barriers to retrofitting mixed use commercial accounts with dedicated landscape meters and conduct feasibility study(s) to assess the merits of providing incentives to switch mixed use accounts to dedicated landscape meters.

Compliance method: EMWD has met the coverage requirements for this measure; (1) meters are required on all new service connections; (2) all service connections in EMWD's service area are metered; (3) meters are read on a monthly basis and billed monthly in hundred-cubic feet (ccf); (4) EMWD's program for meter testing and replacement is referenced in Table 3 below; (5) EMWD is in the process of identifying commercial customers with mixed use meters. Upon completion of this process should be able to better identify barriers associated with retrofitting mixed use commercial meters with dedicated landscape meters.

Table 8.3 - Meter Testing and Replacement

Meter Type	Meter Size	Monthly (CCF) Consumption	Meter Testing Frequency	Meter Replacement Frequency
Residential	5/8" – 2"	N/A	Customer Request	Upon Failure
Commercial	3" and Larger	1001 – Above	6 Months	Upon Failure
Commercial	3" and Larger	401 – 1000	12 Months	Upon Failure
Commercial	3" and Larger	201 – 400	24 Months	Upon Failure
Commercial	3" and Larger	0 – 200	36 Months	Upon Failure
Sample	N/A	N/A	Bi-Annually[1]	Upon Failure

[1] Based on age segment (1960's, 1961 – 1969, 1970 – 1979, etc.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

Retail Conservation Pricing (DMM K)

Retail Water Services Rates

Definition: Conservation pricing provides economic incentives (a price signal) to customers to use waster efficiently. Because conservation pricing requires a volumetric rate, metered water service is a necessary condition of conservation pricing.

This BMP is intended to reinforce the need for water agencies to establish a strong nexus between volume-related systems costs and volumetric commodity rates. Conservation pricing requires volumetric rates. The goal of this BMP is to recover the maximum amount of water sales revenue from volumetric rates that is consistent with utility costs (which may include utility long-run marginal costs), financial stability, revenue sufficiency, and customer equity. In addition to volumetric rates, conservation pricing may also include service connection charges, meter service charges and/or special rates and charges for temporary service, fire protection service and other irregular services provided by the utility.

The following volumetric rate designs are potentially consistent with the above definition:

(1) **Uniform rate** in which the volumetric rate is constant regardless of the quantity consumed

(2) **Seasonal rates** in which the volumetric rate reflects seasonal variation in water delivery costs

(3) **Tiered rates** in which the volumetric rate increases as the quantity used increases

(4) **Allocation-based rates** in which the consumption tiers and respective volumetric rates are based on water use norms and water delivery costs established by the utility

Coverage requirements: Maintain a rate structure that satisfies at least one of the two options listed in the CUWCC's Memorandum of Understanding. Conformance will be assessed by using (1) most recent year data or (2) average revenue from three most recent years when most recent year data does not satisfy the option.

Compliance method: EMWD has met the coverage requirements in the following ways:

In February 2009, EMWD implemented an allocation based tired rate structure for single-family residential, multi-family residential and landscape accounts. The rate structure was instituted to promote the efficient use of water, and is designed to provide customers a significant economic incentive to use the proper amount of water required to serve indoor and outdoor (landscape) demands. This is accomplished by setting a customized "allocation" for each customer account based on a variety of factors such as: irrigated area, daily weather characteristics, size of household, and other more unique characteristics such as the presence of a pool, livestock or medical needs. Water is then sold to customers under a four tier structure based upon their monthly allocation which varies for landscape use relating to daily weather patterns. Customers using water within their allocation purchase water in the lower two tiers. Customers using in excess of their allocation also purchase water in the remaining two tiers that generally will result in relatively high water bills which can send a strong pricing signal for excessive use. The Tiered rate structure was also designed to so that 70 percent of the rate is variable.

Retail Wastewater Rates

Conservation pricing of sewer service provides incentives to reduce average or peak use, or both. Such pricing includes: (a) rates designed to recover the cost of providing service, and (b) billing for sewer service based on metered water use.

The following characterizes conservation pricing of sewer services:

(1) **Uniform rates** in which the unit rate is the same across all units of service

(2) **Increasing block rates** in which the unit rate increases as the quantity of units purchased increases

(3) Rates in which the unit rate is based upon the long-run marginal cost or the cost of adding the next unit of capacity to the sewer system

Rates that charge customers a fixed amount per billing cycle for sewer service regardless of the unit of service consumed; and/or rates in which the typical bill is determined by high fixed charges and low commodity charges do not satisfy the definition of conservation pricing of sewer services.

Coverage requirements: Maintain a rate structure for sewer service consistent with the characteristics of conservation pricing for services.

Compliance method: EMWD has met the coverage requirements in the following ways:

EMWD uses a uniform rate for sewer charges.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

8.3 Education Programs

California water agencies have played a major role in stressing the need for their customers to conserve water through both public information and school education programs.

8.3.1 Public Information Programs (DMM G)

Public information programs can be an effective tool to inform customers about the need for water conservation and ways they can conserve, and to influence customer behavior to conserve. The following actions are necessary to implement a public information program to promote water conservation and related benefits:

- **Public speakers** to employees, community groups and the media
- **Advertising** using paid and public service
- **Customer communication** using bill inserts and on bill comparison charts for multi-year usage
- **Coordination** with government agencies, industry groups, public interest groups and media

- **Marketing** designed to change attitudes and influence behavior

Coverage requirements: Maintain an active public information program to promote and educate customers about water conservation. Minimum program components consist of: (1) providing public speakers to employees, community groups and the media; using paid and public service advertising; using bill inserts; providing information on customers' bills; providing public information to promote water conservation measures and coordinating with other government agencies, industry groups, public interest groups and the media; (2) social marketing elements which are designed to change attitudes and influence behavior. This includes seeking input for the public to shape the water conservation message, training stakeholders outside the utility staff in water conservation priorities and techniques; and developing partnerships with stakeholders who carry the conservation message to their target markets; and (3) wholesale agency or another lead regional agency may operate all or part of the education program.

Compliance method: EMWD has met the coverage requirements in the following ways:

(1) EMWD provides public speakers at new employee orientation which is conducted twice each year; provides information to employees via intranet updates on a regular basis, and occasionally provides employees with fact sheets or talking points on typical issues that may be topics of discussion with individuals outside of EMWD. Public speakers are also provided to community groups, in a variety of settings such as rotary clubs, homeowners associations, religious organizations, mobile home parks, etc. On the average EMWD provides speakers to multiple groups/events each month. EMWD maintains a liaison with reporters by phone, email and direct contact regarding topical issues relating the need to encourage water use efficiency throughout the service area. EMWD utilizes a number of means for paid advertising such as the Riverside County Fair program, various Chambers of Commerce programs and newsletters, and Community Council newsletters. Monthly cable slides are used for public service advertising. Customer communication includes bill inserts, bill messaging, monthly usage comparisons on the water bills and bi-monthly newsletters.

(2) EMWD provides public information to promote water conservation measures. In an effort to affect changes in attitude and influence behavior, the "Water Use It Wisely" (WUIW) conservation campaign was adopted as a theme; EMWD has active pages on common social marketing sites that are updated daily; and a conservation website that is updated on a regular basis. Addressing the subject of training stakeholders, EMWD has hosted and/or conducted workshops for landscape professionals, providing certification opportunities for smart irrigation controller technologies. EMWD's Board members hold Director Advisory Committee meetings with stakeholders throughout the year; and staff members attend/participate at local city councils and planning commissions.

(3) As a wholesale agency, EMWD takes the lead in an annual landscaping competition with customers from EMWD, WMWD, and Inland Empire Utilities Agency (IEUA) and the respective sub-agencies. EMWD also provides support to Valley Beautiful, a local community group, with their garden tours. EMWD provides support to other water agencies during Community Water Conservation Festivals and other related functions.

EMWD participates in MWD's regional rebate programs administered through Save-a-Buck for commercial customers and SoCal Water$mart for residential customers.

8.3.2 School Education Programs (DMM H)

School education programs have been implemented to reach the youngest water users at an early age and enforce the need to engage in water conservation as a life-long behavior. The following actions are necessary to implement school education program to promote water conservation and related benefits:

(1) Provide instructional assistance to school districts and private schools within service area
(2) Provide educational materials and classroom presentations that identify urban, agricultural and environmental issues and conditions in the local watershed
(3) Develop and/or provide grade appropriate educational materials that meet the state education framework requirements

Coverage requirements: Maintain an active school education program to educate students in the agency's service area about water conservation and efficient water use. Minimum program components consist of: (1) implement a school education program to promote water conservation and related benefits; (2) work with school districts and private schools in service area to provide instruction assistance, educational materials and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Educational materials must meet the state education framework requirements; and (3) wholesale agency or another lead regional agency may operate all or part of the education program.

Compliance method: EMWD has met the coverage requirements in the following ways:

(1) EMWD has a very robust school education program that promotes water conservation and all aspects of environmental education. Additionally, EMWD works very closely with public and private schools within both its retail and wholesale service areas to provide educational materials which are in alignment with the California content standards for grades K-12.

(2) EMWD provides classroom presentations covering water conservation, potable water treatment, wastewater treatment, and all aspects of environmental education. EMWD sponsors weekly field trips, for students in ten school districts throughout EMWD's service area to tour one of EMWD's wastewater treatment facilities and wetlands project. EMWD provides materials developed by the MWD and Channing Bete for K-12 students. EMWD has also developed a variety of curriculum for K-5 students including:

- Wastewater Treatment for All Curious Beings – activity book
- Dewie the Dragon – curriculum packet
- Gobi's Adventure – curriculum packet
- Otis the Turtle gets Water Wise – curriculum packet

The following contests are also promoted by EMWD on a quarterly basis:

- Grades K-5 Students – Poster contest "Water Use it Wisely"
- Grades 6-8 Students – Language Arts contest (resulted in a published book, written & illustrated by 6-8 students)
- Grades 9-12 Students – Solar Cup event (MWD provides boat hull for students to assemble and EMWD provides financial support for students to outfit the boat with a motor and solar panels)

EMWD participates in the following school and community activities:

- Environmental, science, health, and community fairs – provide activities and materials
- Annual environmental youth conference – provided in partnership with other agencies
- Environmental assembly program for schools in EMWD's service area

EMWD offers the following assistance for teachers in the service area:

- Financial assistance to take the online college-level course "Teaching the Water Story"[1]
- Training programs offered by EMWD and MWD
- Training workshops offered by EMWD in partnership with other agencies to spotlight programs
- Training for Project WET offered

1. EMWD, in partnership with other local agencies, developed an online college-level course, "Teaching the Water Story." This course is offered to students worldwide through Fresno Pacific University

(3) As a wholesale agency, EMWD has created the language arts program "Write Off" for middle school students, and is the lead agency in partnership with Rancho California Water District (RCWD), a sub-agency of EMWD. Two programs, which include complete curriculum packets, have resulted from this program, and agencies throughout California have either duplicated the program or have requested materials to add to their current education programs.

EMWD is one of MWD's member agencies, as such MWD has taken the lead as the wholesale agency in the Student Art Program and the Annual Solar Cup Event. MWD has also provided curriculum for K-12 students.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

8.4 Programmatic BMPs

Programmatic BMPs are designed to achieve quantifiable water savings. Compliance with these BMPs can be achieved by two approaches; traditional implementation as prescribed by the components of the BMP category or by the Flex Track Menu Alternatives option, included in each programmatic BMP. Requirements for compliance are determined by base year data from single-family residential (SFR) customers, multi-family residential (MFR) units, and commercial, industrial and institutional (CII) customers.

EMWD has chosen to use the Flex Track approach for Programmatic BMP compliance. This section will identify the traditional coverage requirements and EMWD's approach to be in compliance with the Programmatic BMPs.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

8.4.1 Residential

Residential water users throughout California depend on a reliable and safe supply of water for their homes. This BMP will define the best and most proven water conservation methods and measures that single-family residential (SFR) and multi-family residential (MFR) customers, working in conjunction with water agencies, can implement to increase water use efficiency and reliability.

The Residential Programmatic BMP encompasses old BMPs 1, 2, 6 and 14. Compliance with this category can be achieved by two approaches; traditional implementation as prescribed by the components of the BMP category or by the Flex Track Menu Alternatives option.

The traditional approach includes completing the coverage requirements, as defined in the BMP category for residential water surveys, residential plumbing retrofits, high efficiency washing machines and toilet replacements.

The Flex Track menu alternative allows an agency to achieve water savings by implementing alternative programs that are able to tack water savings and/or focusing on one or more of the prescribed components of the BMP category.

<u>Residential Assistance Program (DMM A and B)</u>

Traditional coverage requirements: Determine the current number of SFR accounts and MFR units in EMWD's service area. Provide site specific leak detection assistance that may include, (a) water conservation surveys; (b) water efficiency suggestions; and/or (c) inspection, to an average of 1.5% per year of current SFR accounts and 1.5% per year of MFR units during the 10-year period covering fiscal years (FY) 2009/10 – 2018/19. After meeting the 15% target, program maintenance will continue at a level of high-bill complaints with a minimum of 0.75% per year for SFR accounts and 0.75% per year MFR units. WaterSense Specified (WSS) showerheads and faucet aerators may be provided to customers as needed.

Approach: In 1997 EMWD's Conservation staff began performing Residential surveys on a limited basis; during FY 2007/08 and a portion of FY 2008/09 these surveys were outsourced to a third party; in early 2009 the number of Conservation staff members increased, and in April 2009 the function of performing residential surveys was resumed by internal staff. More than 2,700 surveys have been completed since 1997. Components of the indoor water survey include checking the water meter leak detector and testing the water meter for accuracy; testing flow rates for kitchen faucet, bathroom faucet(s) and showerhead(s) to determine gallons per minute (gpm); verify toilet(s) gallons per flush (gpf) and perform a leak detection dye test on each toilet; verify use of dishwasher, hot water heater setting and clothes washer type. Upon completion of each survey, the customer is provided with a report that includes survey results and water efficient recommendations, along with information on incentives for eligible water saving devices when available. Showerheads, aerators and toilet flappers are distributed with surveys as needed.

In addition to surveys EMWD provides leak detection assistance to customers through the distribution of conservation packets. On the average, staff members also distribute more than 250 conservation packets to residential customers each month. These packets are available in both English and Spanish to accommodate the needs of a majority of EMWD's residential retail customers. Conservation packets provide the customer with information on how to read their

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

water meter, leak detection dye tablets for toilets, and instructions on how to identify leaks in the home.

EMWD also provided 1,900 WaterWise residential indoor conservation kits though public schools within EMWD's service area during fiscal year 2008/09, which included shower heads and aerators. Since 1990 EMWD has maintained a program to provide residential customers with water efficient showerheads and faucet aerators, nearly 60,000 devices have been distributed to SFR and MFR customers. These devices continue to be distributed when needed and are made available to customers at EMWD's office, as part of the residential survey program and at various outreach events.

EMWD has determined that the current number of SFR accounts for FY 2009/10 amount to 124,527 and MFR units amount to 4,249.

This BMP will continue to be met through the flex track option using various methods listed above.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

Landscape Water Survey (DMM A)

Traditional coverage requirements: Determine the current number of SFR accounts in EMWD's service area. Perform site specific landscape water surveys to an average of 1.5% per year of current SFR accounts during the first 10 years. After completing the 15% target, program maintenance will continue at a level of high-bill complaints with a minimum of 0.75% per year for SFR accounts.

Approach: EMWD has determined that the current number of SFR accounts for FY 2009/10 amount to 124,527. The landscape water survey requirement is being met through the implementation of tiered rates. A water budget for efficient landscape irrigation was developed for all residential customers. The water budget is enforced monthly through a tiered billing system. For those who exceed budget targets, residential surveys. Staff members perform on-site landscape surveys as part the complete residential survey. Components of the outdoor water survey for SFR accounts include checking the water meter leak detector and testing the water meter for accuracy; check irrigation timer programming; run a one minute test for each irrigation station obtain gpm data and check for system leaks; check system pressure; obtain plant and soil type(s) for reporting and measure irrigated landscape area. Upon completion of each survey, the customer is provided with a report that includes survey results and a watering schedule, water efficient recommendations, and information on incentives for eligible water saving devices when available. EMWD has also developed a cost share program for the direct installation of residential smart irrigation controllers, and on-site landscape surveys are a component of this program.

This BMP will be met through the flex track option as described above.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

High Efficiency Clothes Washers (DMM F)

Traditional coverage requirements: Provide financial incentives or institute ordinance requiring the purchase of High Efficiency Clothes Washers (HECW) to meet an average water factor value of 5.0. Financial incentives shall be provided for the purchase of HECWs to 0.9% of current SFR accounts during the first reporting period and 1.0% per year for the remainder of the 10 year period. An alternative method is to demonstrate 1.4% per year of the market penetration during the first ten years.

Approach: EMWD has determined that the current number of SFR accounts for FY 2009/10 amount to 124,527 and MFR units amount to 4,249. EMWD has provided incentives for HECWs since 2001 and to date an estimated 6,624 HECWs have received financial incentives, of which approximately 5,572 have an average water factor of 5.0 or less. In late 2010, EMWD established partnerships with the U.S Bureau of Reclamation (USBR) through grant funding, and Southern California Gas Company (SoCal Gas), for the direct installation of 1,700 HEWs with a water factor of 4.0 or less.

This BMP will be met through the flex track option with EMWD's incentive program and direct install program.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

WaterSense Specification Toilets (DMM N)

Traditional coverage requirements: Provide incentives or ordinance requiring the replacement of toilets using 3.5 or more gpf (gallons per flush) with toilets meeting WSS. Compliance will entail demonstrating a number of toilet replacements of 3.5 gpf or greater toilets at or above the level achieved through a retrofit on resale ordinance until 2014, or a market saturation of 75% is demonstrated, whichever is sooner.

Approach: EMWD began offering incentives for toilet retrofits in 1992, beginning with Ultra Low-Flush Toilets (ULFT). Incentives included customer rebates and free distribution events. Incentives for High Efficiency Toilets (HET) were added in 2005. HET incentive programs included customer rebates, free distribution events and a direct installation program which began in 2008. Since the program's beginning in 1992, EMWD has provided incentives for approximately 17,371 ULFTs and approximately 22,613 HETs. EMWD is currently in the process of developing a share of cost, direct install program for WSS stealth toilets, designed to achieve a greater savings than HETs.

This BMP will be met through the flex track option with EMWD's direct installation programs conducted during fiscal years 2008/09, 2009/10 and 2010/11.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

8.4.2 Commercial, Industrial, and Institutional (DMMI)

Commercial, Industrial, and Institutional (CII) water demands make up a large percentage of total demand for California. CII water use varies dramatically between business sectors as well as within a given water agency's territory. The goal of this BMP is to implement comprehensive yet flexible BMPs, allowing each water agency to tailor the implementation of each practice to fit local needs and opportunities. The end result is a practice that is successful and will produce the greatest amount of cost-effective water savings.

Traditional coverage requirements: Implement measures to achieve the water savings goal for CII accounts of 10% of the 2008 baseline water use over a 10-year period. To remain on track to meet the annual water savings goal, estimated savings for the first two-year reporting period may be up to 0.5% followed by 2.4% by the end of year four; 4.3% by the end of year six; 6.4% by the end of year eight and 9% by the end of year 10. EMWD uses fiscal year data and reporting periods are as follows:

(1) 2008/09 – 2009/10 (first two-year reporting period)
(2) 2010/11 – 2011/12 (end of year four)
(3) 2012/13 – 2013/14 (end of year six)
(4) 2014/15 – 2015/16 (end of year eight)
(5) 2016/17 – 2017/18 (end of year ten)

Compliance method for CII Programmatic BMP: Baseline water use for EMWD's CII customers in 2008 was a total of 7,763 acre feet (AF). Credit for prior activities, as reported through the BMP database, will be given for up to 50% of the goal. EMWD has been in compliance with this BMP for CII customers and should receive credit for past efforts, which will be applied when the revised BMP reporting database is complete. Savings goals for the new 10-year period will be determined after credit is applied. EMWD may be required to achieve a reduction in CII usage up to 38.8 AFY by the end of 2010/11.

Financial incentives provided for by MWD for a variety of water efficient devices used in the CII sector are administered through the Save-a-Buck regional rebate program. In 2008 EMWD implemented the Public School Retrofit program; providing surveys and direct installation of both indoor and outdoor devices for more than 40 school sites with EMWD's retail service area. In 2009, conservation staff developed a program to identify CII accounts with mixed used meters, accounts with the highest water use are contacted first and offered CII water use surveys; to date an estimated 560 accounts have been contacted and 50 surveys have been completed. Components of the CII water use survey include checking the water meter leak detector and testing the water meter for accuracy; check irrigation timer programming; run a one minute test for each irrigation station obtain gpm data and check for system leaks; check system pressure; obtain plant and soil type(s) for reporting and measure irrigated landscape area. Upon completion of each survey, the customer is provided with a report that includes survey results and a watering schedule, water efficient recommendations, and information on incentives for eligible water saving devices when available.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

8.4.3 Landscape (DMM E)

Irrigation accounts for a large portion of the urban water use in California. Irrigation water use varies dramatically depending on water pricing and availability, plant choice, geographic locations, seasonal conditions, and the level of commitment to sound water efficiency practices. The goal of this BMP is that irrigators, with assistance from signatories, will achieve a higher level of water use efficiency consistent with the actual irrigation needs of the plant materials. Reaching this goal would reduce overall demands for water, reduce demands during the peak summer months, and still result in a healthy and vibrant landscape in California.

Agencies shall provide non-residential customers with support and incentives to improve their landscape water use efficiency. Credit will be given for documented water savings for prior activities through 2008.

Accounts with Dedicated Irrigation Meters

Traditional coverage requirements: (1) Identify accounts with dedicated irrigation meters and assign ETo-based water budgets equal to no more than an average of 70% ETo (reference Evapotranspiration) of annual average local ETo per square foot of landscape area. (2) Provide notices each billing cycle showing the relationship between the budget and actual consumption. (3) Offer site-specific technical assistance to reduce water use to those accounts that are 20% over budget at a rate of 9% per year with a 90% over 10 years. (4) Implement and maintain a customer incentive program for irrigation equipment retrofits.

The California Model Water Efficient Landscape Ordinance currently requires 70% ETo; should this ordinance be revised to reduce water allowance, this BMP will be revised automatically to reflect that change.

Recreational areas (portions of parks, playgrounds, sports fields, golf courses, or school yards in public and private projects where turf provides a playing surface or serves other high-use recreational purposes) and areas permanently and solely dedicated to edible plants, such as orchards and vegetable gardens, may require water in addition to the water use budget, these designated areas may not exceed 100% ETo on an annual basis.

Approach: (1) Through the tiered rate process, EMWD has developed water budgets for 100% of dedicated landscape accounts; (2) Water bills for these accounts include data that reflect the relationship between the water budgets 70% ETo and actual usage; (3) Each water bill for dedicated landscape meters, provides a contact number with an offer for assistance. An audit program and technical assistance are made available to customers that make a request; and (4) EMWD has offered financial incentive programs for landscape since 1992, including large landscape audits, soil moisture sensors, WBIC rebate and distribution, large rotary nozzle rebates, rotating nozzle and synthetic turf rebates. In 2006 EMWD implemented a program to supplement the cost of high efficiency nozzles, including labor for installation, for large landscape accounts. In 2008 EMWD also implemented a public school retrofit program that includes the direct installation of WBICs and high efficiency nozzles. EMWD is currently in the process of developing an assistance program for large landscape accounts that will include incentives for efficient irrigation equipment.

Commercial, Industrial, Institutional (CII) Accounts without Meters or with Mixed-Use Meters

Traditional coverage requirements: (1) Develop and implement a strategy, targeting and marketing large landscape water use surveys to CII accounts with mixed-use meters. (2) Complete irrigation water use surveys for not less than 15% of all CII accounts with mixed-use meters within 10 years at an average rate of 1.5% per year. (3) Implement and maintain a customer incentive program for irrigation equipment retrofits.

Approach: (1) EMWD's retail service area includes an estimated 3,000 CII accounts. (2) In July 2009, Conservation staff developed a program to identify CII accounts with mixed use meters and offer on-site surveys, to date an estimated 560 accounts have been contacted and 50 surveys have been completed. (3) EMWD has offered financial incentive programs for landscape since 1992, including large landscape audits, soil moisture sensors, WBIC rebate and distribution, large rotary nozzle rebates, rotating nozzle and synthetic turf rebates.

Evaluation of Effectiveness: Effectiveness is measured through compliance with the CUWCC MOU.

8.5 Effect of BMP Implementation

In 2010, EMWD estimates that 12,300 AF of potable water was saved through the implementation for conservation programs including the implementation of the BMPs. Water saving was due to ordinances in place, the implementation of tiered rates and through active conservation. As discussed in Section 2.4, EMWD will continue to improve water efficiency through a budget based tiered rate, requirements for water efficiency in new construction and an active conservation program. Water use reduction will be focused on outdoor demand reduction by all customer types. Maintaining the target GPCD of 184 will save up to 30,900 AFY in 2035. Even meeting the efficiency target, EMWD estimates that there is the potential for an additional 6,400 AFY of conservation saving in 2035 as discussed in Section 4.4.

8.6 Demand Management Measure Review Checklist

DMM REVIEW FOR Eastern Municipal Water District

DMM A – Water Survey Programs for Single-Family and Multi-Family Residential Customers (10631 (f)(1)(A))

Implementation

☒ Describe the **residential water survey program** currently being implemented or scheduled for implementation (10631) (f) (1)(2)) 8.4.1 pg. 88/89 Reference & Page Number

Description may include:

- ☒ Year program implemented or scheduled for implementation 1997 Year
- ☒ Description of components of the indoor water survey for SFR and MFR
- ☒ Description of components of the outdoor water survey for SFR and MFR
- ☒ Description of information / items provided to customer upon completion of the survey
- ☒ Quantification of surveys, if available **(Data for full residential surveys included below)**

Table A1

Actual	2006	2007	2008	2009	2010
Number of single family surveys	43	27	266	782	310
Number of multifamily surveys	0	0	0	0	394
Actual water savings - AFY	1.0	0.6	6.3	18.4	11.2

Table A2

Planned	2011	2012	2013	2014	2015
Number of single family surveys	480	480	480	480	480
Number of multifamily surveys	20	20	20	20	20
Projected water savings - AFY	11.5	11.5	11.5	11.5	11.5

COMMENT

☒ Describe steps necessary to implement measure 8.4.1 pg. 89 Reference & Page Number

Description may include:

- ☐ Marketing / targeting strategy for SFR and MFR water use surveys
- ☐ Methods of tracking numbers of surveys requested or completed

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation 8.4.1 pg. 89 Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation 8.5 pg 93 Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table A3 – 10631 (g)(2) Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(4)). ________ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ________ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(3) &(h)). ________ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM B – Residential Plumbing Retrofit (10631(f)(1)(B))

Implementation

☒ Describe the **residential plumbing retrofit program** currently being offered or scheduled to be offered (10631) (f) (1)(2)) 8.4.1 pg 87 Reference & Page Number

Description may include:

☒ • Year program implemented or scheduled for implementation 1997 Year

☒ • Description of devices provided to customer

☐ • Whether there is an enforceable ordinance in your service area requiring replacement of high-flow water fixtures

☐ • Quantification of devices distributed, if available **(Included Below)**

Table B1

Actual	2006	2007	2008	2009	2010
Number of single family devices	43	27	266	782	310
Number of multifamily devices		0	0	0	394
Actual water savings - AFY	0.3	0.2	1.6	4.8	4.3

Table B2

Planned	2011	2012	2013	2014	2015
Number of single family devices	480	480	480	480	480
Number of multifamily devices	20	20	20	20	20
Projected water savings - AFY	3	3	3	3	3

COMMENT

☒ Describe steps necessary to implement measure 8.4.1 pg. 89 Reference & Page Number

Description may include:

☐ • Marketing / targeting strategy for retrofit program

☐ • Methods of tracking numbers of surveys requested or completed

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation 8.4.1 pg. 89 Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation 8.5 pg 93 Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not Applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table B3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ________ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ________ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ________ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM C – System Water Audits, Leak Detection and Repair (10631(f)(1)(C))

Implementation

☒ Describe the **system water audit and leak detection and repair program** currently being implemented or scheduled for implementation (10631) (f) (1)(2)) 8.2.1 pg 81,82 Reference & Page Number

☒ Describe steps necessary to implement measure 8.2.1 pg. 81,82 Reference & Page Number

Description may include:

- ☒ Year program implemented or scheduled for implementation 2011 Year
- ☐ Whether a water audit is performed to determine unaccounted-for water loss; year last audit performed
- ☐ The percentage of unaccounted-for water
- ☐ Whether your agency has an active leak detection program (as opposed to only fixing leaks when found)
- ☐ Description of the leak detection program
- ☐ An estimate of water savings from repair of leaks

COMMENT

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation 8.2.1 pg. 82 Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation 8.5 pg 93 Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not Applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

Table C1 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	

☐ Legal authority (10631 (g)(4))

Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ________ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ________ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ________ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM D – Metering with Commodity Rates (10631(f)(1)(D))

☒ **SYSTEM FULLY METERED** 8.2.1 pg 82 Reference & Page Number

Implementation Not Applicable

☐ Describe the **residential meter installation retrofit program** currently being implemented or scheduled for implementation (10631) (f) (1)(2)) ________ Reference & Page Number

Description may include:

- ☐ Year program implemented or scheduled for implementation Not Applicable Year
- ☐ The current number of connections and number of unmetered connection
- ☐ The current rate of meter retrofit for unmetered connections
- ☐ The expected year of completion to meet A306 (2003-04), which requires all connections be metered by 2025 (WC527(a)(1)).
- ☐ The number of connections billed by volume-of-use
- ☐ Quantification of meters installed, if available

Table D1

Actual	2006	2007	2008	2009	2010
Number of unmetered accounts					
Number of retrofit meters installed					
Number accts w/o commodity rates					
Actual water savings - AFY					

Table D2

Planned	2011	2012	2013	2014	2015
Number of unmetered accounts					
Number of retrofit meters installed					
Number accts w/o commodity rates					
Projected water savings - AFY					

COMMENT

☐ Describe steps necessary to implement measure Not Applicable Reference & Page Number

Description may include:

- ☐ Marketing / targeting strategy for conversion to metered deliveries
- ☐ Methods of tracking numbers of meters installed

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation 8.2.1 pg 83 Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation — 8.5 pg 93 — Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) — Not Applicable — Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table D3 – 10631 (g)(2) Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). — ________ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM — ________ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). — ________ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM E –Large Landscape Conservation Programs and Incentives (10631(f)(1)(E))

Implementation

☒ Describe the **large landscape conservation program** currently being implemented or scheduled for implementation (10631) (f) (1)(2)) — 8.4.3 pg 92,93 — Reference & Page Number

Description may include:

- ☒ Year program implemented or scheduled for implementation — 1992 — Year
- ☒ Number of dedicated irrigation meters, CII accounts with landscape meters and/or surveys
- ☒ Elements of the landscape that are surveyed (e.g. irrigation efficiency, area of landscape, area of turf, distribution uniformity, etc)
- ☒ Information on evaluation provided to the customer
- ☒ Whether a budget is developed for surveyed area
- ☒ Quantification of surveys and budgets completed, if available **(See Below. Water savings estimated based on budge based tiered rate implementation.)**

Table E1

Actual	2006	2007	2008	2009	2010
Number of surveys completed	10	3	6	21	13
Number of budgets developed	855	1087	1,253	2,112	2,138
Number of follow-up visits	00	0	0	0	0
Actual water savings - AFY				900	900

Table E2

Planned	2011	2012	2013	2014	2015
Number of surveys completed	0	0	0	0	0
Number of budgets developed	2,300	2,500	2,700	3,000	3,300
Number of follow-up visits	0	0	0	0	0
Projected water savings - AFY	950	1,000	1,150	1,300	1500

COMMENT

☒ Describe steps necessary to implement measure — 8.4.3 pg 92,93 — Reference & Page Number

Description may include:

- ☐ Marketing / targeting strategy for landscape surveys
- ☐ Methods of tracking numbers of surveys performed and budgets developed
- ☐ Methods of calculating water savings after survey performed

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation — 8.4.3 pg 93 — Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation — 8.5 pg. 93 — Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) — Not Applicable — Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table E3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). — Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM — Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). — Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM F –High Efficiency Washing Machine Rebate Programs (10631(f)(1)(F))

Implementation

☒ Describe the **high efficiency washing machine rebate program** currently being implemented or scheduled for implementation (10631) (f) (1)(2)) 8.4.1 pg 90 Reference & Page Number

Description may include:

- ☒ Year program implemented or scheduled for implementation 2001 Year
- ☒ Whether your agency or any other agency provides rebates
- ☒ Quantification of rebates paid, if available (Saving estimated based on average water factor of 5)

Table F1

Actual	2006	2007	2008	2009	2010
$ per rebate		$175	$175	$175	$140
Number of rebates paid	537	578	1,131	1,403	589
Actual water savings - AFY	16.7	17.8	35.2	43.6	18.3

COMMENT

Table F2

Planned	2011	2012	2013	2014	2015
$ per rebate	$140	$140	$140	$140	$140
Number of rebates paid	1,300	1,500	1,500	1,200	1,200
Projected water savings - AFY	40.4	46.7	46.7	37.3	37.3

☒ Describe steps necessary to implement measure 8.4.1 pg. 90 Reference & Page Number

Description may include:

- ☐ Marketing / targeting strategy for rebates
- ☐ Methods of tracking numbers of rebates awarded
- ☐ Methods of calculating water savings after rebate

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation 8.4.1 pg. 90 Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation 8.5 pg. 93 Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not Applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table F3 – 10631 (g)(2) Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ______ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ______ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ______ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM G –Public Information Program (10631(f)(1)(G))

Implementation

☒ Describe the **public information program** currently being implemented or scheduled for implementation (10631) (f) (1)(2)) 8.3.1 pg 84,85 Reference & Page Number

Description may include:

☐ • Year program implemented or scheduled for implementation ________ Year

☒ • Description of publications, venues, demonstration garden, or other public information programs

☐ • Quantification of rebates paid, if available

Table G1

Actual	2006	2007	2008	2009	2010
Paid Advertising	7	10	11	14	22
Public Service Announcement	2			2	4
Bill Inserts / Newsletters / Brochures	27	12	15	16	16
Bill comparing previous water usage				3	12
Demonstration Gardens			1	1	1
Special Events, Media Events	4	6	8	8	8
Speakers Bureau	24	15	20	20	20
Program to coordinate with other govt agencies, industry and public interest groups and media	Yes	Yes	Yes	Yes	Yes

COMMENT

Table G2

Planned	2011	2012	2013	2014	2015
Paid Advertising	20	20	20	20	20
Public Service Announcement	4	4	4	4	4
Bill Inserts / Newsletters / Brochures	16	16	16	16	16
Bill comparing previous water usage	12	12	12	12	12
Demonstration Gardens	1	1	1	1	1
Special Events, Media Events	8	8	8	8	8
Speakers Bureau	20	20	20	20	20
Program to coordinate with other govt agencies, industry and public interest groups and media	Yes	Yes	Yes	Yes	Yes

☒ Describe steps necessary to implement measure 8.3.1 pg. 854 Reference & Page Number

Description may include:

☐ • Methods for publicizing public information activities

☐ • Whether attendance to public activities is tracked

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not Applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table G3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ______ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ______ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ______ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM H –School Education Program (10631(f)(1)(H))

Implementation

☒ Describe the **school education program** currently being implemented or scheduled for implementation (10631) (f) (1)(2)) 8.3.2 pg 86 Reference & Page Number

Description may include:

- ☐ Year program implemented or scheduled for implementation ______ Year
- ☒ Description of program activities and grades addressed
- ☒ Whether material provided meet the state education framework requirements
- ☐ Quantification of classroom presentations, if available

Table H1	Number of class presentations				
Actual	2006	2007	2008	2009	2010
Grades K-3rd	85	100	102	125	150
Grades 4th-6th	70	100	110	135	155
Grades 7th-8th	2	3	2	5	5
High School	15	15	18	20	21
Unspecified					

Table H1	Number of class presentations				
Planned	2011	2012	2013	2014	2015
Grades K-3rd	170	170	170	170	170
Grades 4th-6th	175	175	175	175	175
Grades 7th-8th	7	7	7	7	7
High School	21	21	21	21	21
Unspecified					

COMMENT

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not Applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table H3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ______ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ______ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure ______ Reference & Page implementation of the measure and to share the cost of implementation (10631 (g)(4)). ____________ Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM I –Conservation Programs for Commercial, Industrial and Institutional (10631(f)(1)(I))

Implementation

☒ Describe the **CII conservation programs** currently being implemented or scheduled for implementation (10631) (f) (1)(2) 8.4.2 pg 91 Reference & Page Number

Description may include:

☐ - Year program implemented or scheduled for implementation ____________ Year
☒ - Identification of highest CII water users
☒ - Description of components of the CII water use survey
☐ - Evaluation of water using apparatus and processes
☒ - Description of information / items provided to customer upon completion of the survey
☐ - Quantification of surveys completed (**Water saving below is estimated for all CII conservation programs)**

Table I1

Actual	2006	2007	2008	2009	2010
Number of surveys completed					44
Were incentives provided?	Yes	Yes	Yes	Yes	Yes
Number of follow-up visits	0	0	0	0	0
Actual water savings - AFY	969	1,170	1,474	1,308	1,194

Table I2

Planned	2011	2012	2013	2014	2015
Number of surveys completed	32	32	40	40	50
Were incentives provided?	Yes	Yes	Yes	Yes	Yes
Number of follow-up visits	0	0	0	0	0
Projected water savings - AFY	1,200	1,200	1,200	1,200	1,200

COMMENT

☒ Describe steps necessary to implement measure 8.4.2 pg. 89 Reference & Page Number

Description may include:

☐ - Marketing / targeting strategy for CII conservation programs
☐ - Methods of tracking numbers of surveys performed or completed
☐ - Methods of follow-up of previous surveys

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation 8.4.2 pg. 91 Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation 8.5 pg 93 Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not Applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

Table I3 – 10631 (g)(2) Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	

Cost of Water $/AF	
Water Savings AFY	

☐ Legal authority (10631 (g)(4))

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ________ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ________ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ________ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM J –Wholesale Agency Programs (10631(f)(1)(J))

☐ **NOT A WHOLESALE WATER AGENCY**

Implementation

☒ Describe the **conservation programs provided to your retailers** currently being implemented or scheduled for implementation (10631) (f) (1)(2) 8.2.1 pg 79 Reference & Page Number

Description may include:

- ☐ Year program(s) implemented or scheduled for implementation ________ Year
- ☐ Describe the program your agency provides to your retailers for each DMM (may include financial, technical and staff provided)
- ☐ Identify agencies you assist
- ☐ Quantification activities by program, if available

Table J1	Number of agencies assisted				
Program activities	2006	2007	2008	2009	2010
DMM A (1): Water Surveys					
DMM B (2): Residential Retrofit	2	2	6	6	6
DMM C (3): System Audits					
DMM D (4): Meter/Commodity Rates					
DMM E (5): Landscape Programs	2	2	6	6	6
DMM F (6): Washing Machines	2	2	6	6	6
DMM G (7): Public Information	6	6	6	6	6
DMM H (8): School Education	6	6	6	6	6
DMM I (9): CII Conservation Programs	6	6	6	6	6
DMM L (12): WC Coordinator	6	6	6	6	6
DMM M (14): ULFT Replacement	2	2	6	6	0

COMMENT

Table J2	Number of agencies to be assisted				
Program activities	2011	2012	2013	2014	2015
DMM A (1): Water Surveys					
DMM B (2): Residential Retrofit					
DMM C (3): System Audits					
DMM D (4): Meter/Commodity Rates					
DMM E (5): Landscape Programs	6	6	6	6	6
DMM F (6): Washing Machines	6	6	6	6	6
DMM G (7): Public Information	6	6	6	6	6
DMM H (8): School Education	6	6	6	6	6
DMM I (9): CII Conservation Programs	6	6	6	6	6
DMM L (12): WC Coordinator					
DMM M (14): ULFT Replacement					

☒ Describe steps necessary to implement measure 8.2.1 pg 79,80 Reference & Page Number

Description may include:

- ☐ Marketing / targeting strategy for retailer participation

☐ • Methods of tracking in which each retailer participates

☐ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation — 8.2.1 pg 79,80 — Reference & Page Number

☐ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation — 8.5 pg. 93 — Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) — Not Applicable — Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table J3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). — Reference & Page Number

DMM K –Conservation Pricing (10631(f)(1)(K))

Implementation

☒ Describe the **conservation pricing structure** currently being implemented or scheduled for implementation (10631) (f) (1)(2) — 8.2.1 pg 842 — Reference & Page Number

Description may include:

☐ • Year program implemented or scheduled for implementation — Year

☐ • Identification of water rate structure for each sector and effective date of rate

Table K1 – Retailers	Water Rate Structure
Residential	Allocation-based Rate
Commercial	Uniform Rate
Industrial	Uniform Rate
Institutional/Government	Uniform Rate
Irrigation	Allocation-based Rate
Other	

Table K2 – Wholesalers	Water Rate Structure
To retailers	Uniform Rate
Other	
Other	

COMMENT

☒ Describe steps necessary to implement measure — 8.4.1 pg. 84 — Reference & Page Number

Description may include:

☐ • If no conservation pricing at this time, provide timeline for implementing

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation — 8.4.1 pg. 84 — Reference & Page Number

☐ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation — 8.5 pg. 93 — Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) ________ Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table K3 – 10631 (g)(2) Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ________ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ________ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ________ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM L –Water Conservation Coordinator (10631(f)(1)(L))

Implementation

☒ Describe the **staff that perform the functions of the water conservation coordinator** currently being implemented or scheduled for implementation (10631) (f) (1)(2) 8.2.1 pg 78 Reference & Page Number

Description may include:

- ☐ Year program implemented or scheduled for implementation ________ Year
- ☒ Number of full time and part time staff that perform conservation coordinator activities
- ☒ The responsibilities of the staff and activities performed
- ☒ The approximate number of hours spent on conservation activities
- ☒ Description of events in which the conservation coordinator participates

Table L1

Actual	2006	2007	2008	2009	2010
Number of full-time positions	4	4	4	6	6
Number of full/part-time staff	4	4	3	6	6

Table L2

Planned	2011	2012	2013	2014	2015
Number of full-time positions	6	6	6	6	6
Number of full/part-time staff	6	6	6	6	6

COMMENT

☐ Describe steps necessary to implement measure 8.2.1 pg 78 Reference & Page Number

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation 8.2.1 pg 79 Reference & Page Number

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation 8.5 pg. 93 Reference & Page Number

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) Not Applicable Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table L3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ____ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ____ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ____ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM M –Water Waste Prohibition (10631(f)(1)(M))

Implementation

☒ Describe the **water waste prohibitions** currently being implemented or scheduled for implementation (10631) (f) (1)(2) 8.2.1 pg 79 Reference & Page Number

Description may include:

- ☒ Year program implemented or scheduled for implementation 1991 Year
- ☒ Does your agency have a water waste prohibition
- ☒ Whether this water waste prohibition is enforced at all times or only during water shortage
- ☐ Provide a list o prohibited water uses
- ☐ Provide a copy of the ordinance

Table M1

Actual	2006	2007	2008	2009	2010
Waste ordinance in effect	Yes	Yes	Yes	Yes	Yes
Number of on-site visits					

Table M2

Planned	2011	2012	2013	2014	2015
Waste ordinance in effect	Yes	Yes	Yes	Yes	Yes
Number of on-site visits					

COMMENT

☒ Describe steps necessary to implement measure 8.2.1 pg. 78 Reference & Page Number

Description may include:

- ☐ Targeting strategy for water waster
- ☐ Methods for receiving information regarding water waste (e.g. phone line, website, etc)
- ☐ Methods for tracking numbers of warnings issued
- ☐ Methods for follow-up to warnings to assure compliance

☐ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not 8.2.1 pg. 79 Reference & Page Number evaluated, please provide an explanation ______

☒ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation — 8.5 pg. 93 — Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) — Not Applicable — Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table M3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). ______ Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM ______ Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). ______ Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

DMM N –Residential Ultra-Low Flush Toilet Replacement Programs (10631(f)(1)(N))

Implementation

☒ Describe the **residential ultra-low flush toilet replacement program** currently being implemented or scheduled for implementation (10631) (f) (1)(2) — 8.4.1 pg 90 — Reference & Page Number

Description may include:

- ☒ Year program implemented or scheduled for implementation — 1992 — Year
- ☒ Description of your agencies toilet replacement program for SFR and MFR
- ☐ The rebate value
- ☐ Whether there is a toilet retrofit upon resale ordinance

Table N1	Rebates disbursed				
Actual	2006	2007	2008	2009	2010
Number of ULFT rebates	1,516	4,757	2,470	12,022	2,796
Actual water savings - AFY	56	176	91	444	103

Table N2	Rebates to be disbursed				
Planned	2011	2012	2013	2014	2015
Number of ULFT rebates	0	0	0	0	0
Projected water savings - AFY	0	0	0	0	0

COMMENT

☒ Describe steps necessary to implement measure — 8.4.1 pg.90 — Reference & Page Number

Description may include:

- ☐ Marketing strategy for SFR and MFR
- ☐ Targeting strategy for SFR and MFR
- ☐ Methods for tracking numbers of rebates

☐ • Methods for calculating water savings

☒ Describe methods, if any, used to evaluate the effectiveness of this demand management measure (10631 (f)(3)). If the effectiveness of the program is not evaluated, please provide an explanation — 8.4.1 pg.90 — Reference & Page Number

☐ Provide estimates, if available, of existing conservation savings on water use and the effect of such savings on the supplier's ability to further reduce demand (10631 (f)(4)). If no estimates are available, please provide an explanation — 8.5 pg. 93 — Reference & Page Number

Provide an evaluation for this DMM if it is not implemented (Section 10631(g)) — Not Applicable — Reference & Page Number

Evaluation shall take into account:

☐ Economic and non-economic factors (10631(g)(1))

☐ Environmental, social, health and technological factors (10631 (g)(1))

☐ Customer impact (10631 (g)(1))

☐ Legal authority (10631 (g)(4))

Table N3 – 10631 (g)(2)	
Cost Effectiveness Summary	
Total Costs	
Total Benefits	
B/C Ratio	
Cost of Water $/AF	
Water Savings AFY	

☐ Describe funding available to implement any planned water supply project that would provide water at higher unit cost (10631 (g)(3) &(h)). — Reference & Page Number

☐ No planned water supply projects at a high unit cost than cost of DMM — Reference & Page Number

☐ If applicable, describe the efforts to work with other relevant agencies to ensure implementation of the measure and to share the cost of implementation (10631 (g)(4)). — Reference & Page Number

If Another Agency Implementing

☐ If another agency is implementing this DMM in your service area, include a description of the program (10631 (f)(1) & (g)(4))

Agency Name

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Appendix A

Adoption Order

I.C
R-502

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

June 15, 2011

TO: Board of Directors

FROM: General Manager

SUBJECT: Adopt Proposed Resolution No. 5023, Approving the 2010 Urban Water Management Plan

RECOMMENDATION

That the Board adopt proposed Resolution No. 5023 approving the 2010 Urban Water Management Plan, including the implementation plan and targets for water use required by the Conservation Act of 2009 for Eastern Municipal Water District, and direct staff to transmit the required copies of the said Plan to the State Department of Water Resources.

Concur:

Anthony J. Pack
General Manager

Submitted by:

Behrooz Mortazavi
Assistant General Manager
Resource Development

Directors: All
Divisions: All

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

BACKGROUND

As required by the California Water Code, Sections 10610 through 10657, the Urban Water Management Planning Act mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, prepare an Urban Water Management Plan (UWMP). These plans are required to assist in the development and understanding of the urban water management within the service areas. The Water Conservation Act of 2009 (Act) also requires the 2010 UWMPs to include a water use baseline, a target per capita water use for 2020, and an implementation plan on how to meet the 2020 target.

In accordance with the provisions of the Act, staff has prepared the District's updated 2010 Urban Water Management Plan for the District, and the Public Hearing was duly noticed in accordance with the provisions of the Act and held on June 15, 2011. All public comments on the Plan and responses to said comments received as part of the public hearing will be included in the Plan.

The adoption of the Urban Water Management Plan supports the Strategic Plan Objective I (Community Relations) to, "Promote and sustain effective communication between the District and its stakeholders." This Plan communicates information about the District's supply reliability and availability to the general public, the development community, District's sub-agencies, and government agencies within its jurisdiction.

Attachments: UWMP
UWMPAppendixA
UWMPAppendixA1
UWMPAppendixB
UWMPAppendixC
UWMPAppendixD
R-5023 UWMP 2010
Public Notice

Finance ____n/a___

Purchasing/Contracts ____n/a____

Author: Elizabeth Lovsted

MWG: EL:tm

UWMPResBrdLtr_061511

RESOLUTION NO. 5023

RESOLUTION OF THE BOARD OF DIRECTORS OF EASTERN MUNICIPAL WATER DISTRICT PROVIDING FOR THE IMPLEMENTATION AND CARRYING OUT OF WATER CODE SECTIONS 10610 THROUGH 10657: ADOPTING, DIRECTING, FILING, AND IMPLEMENTING THE EASTERN MUNICIPAL WATER DISTRICT 2010 URBAN WATER MANAGEMENT PLAN

WHEREAS, the California Legislature enacted Assembly Bills 797 (1983), 2661 (1990), IIX (1991), 1869 (1991), 892 (1991), 2853 (1994), 184509952552 (2000), 901 (2001), 105 (2003),1367 (2007), 1420 (2007), 1465 (2010) and Senate Bills 1017 (1994), 1011 (1995), 610 (2001), 672 (2001), 1348 (2002), 1384 (2002), 1518 (2002), 318 (2004), 1087 (2005), x3 27 (2009), x7 7 (2009) amending Water Code Sections 10610 through 10657; known as the Urban Water Management Planning Act which mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, prepare an Urban Water Management Plan (UWMP), the primary objective of which is to plan a reliable supply of water. Included in the UWMP is the baseline per capita water use data, urban water use target, interim urban water use targets, the method used to determine targets, and an implementation plan to meet per capita targets by 2020.

WHEREAS, the Eastern Municipal Water District did prepare and will file said Plan with the California Department of Water Resources by August 1, 2011; and

WHEREAS, the Eastern Municipal Water District is an urban supplier of water providing water to about 133,300 customers and has therefore, prepared and circulated for public review, a Draft 2010 Urban Water Management Plan, in compliance with the requirements of Section 10610 through 10657 of the California Water Code, and properly noticed a public hearing regarding this Plan held by the Board of Directors on June 15, 2011, and will include all public comments on the Plan and responses to said comments as part of the Plan.

NOW, THEREFORE, BE IT RESOLVED, by the Board of Directors of the Eastern Municipal Water District as follows:

I. The Urban Water Management Plan is hereby adopted and ordered filed with the Secretary to the Board of Directors.

II. The General Manager is hereby authorized and directed to file the Plan with the California Department of Water Resources in accordance with the California Urban Water Management Planning Act.

III. The General Manager is hereby authorized and directed to implement the District's Urban Water Management Plan, including recommendations to the Board of Directors regarding necessary procedures, rules, and regulations to carry out effective and equitable water conservation programs.

IV. The President of the Board of Directors is hereby authorized to sign the transmittal letter on behalf of the Board of Directors.

V. The Resolution is effective this 15th day of June 2011.

ADOPTED, SIGNED, AND APPROVED this 15th day of June 2011.

Joseph J. Kuebler, President

ATTEST:

Rosemarie V Howard

Rosemarie V. Howard, Secretary

(SEAL)

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

NOTICE OF PUBLIC HEARING TO ADOPT THE 2010 URBAN WATER MANAGEMENT PLAN AND THE IMPLEMENTATION PLAN TO MEET THE REQUIREMENTS OF THE WATER CONSERVATION ACT OF 2009

Eastern Municipal Water District (EMWD) has prepared a Draft 2010 Urban Water Management Plan (UWMP) in compliance with the requirements established by the Urban Water Management Planning Act (California Water Code Division 6, Part 2.6 Sections 10610-10656). In addition, the Water Conservation Act of 2009 requires that every Urban Water Management Plan includes: baseline per capita water use data, urban water use target, interim urban water use targets and an implementation plan for meeting the identified targets. This information is included in the Draft 2010 UWMP.

This Public Notice officially notifies the general public that the Draft Urban Water Management Plan is available for public review at District headquarters or on EMWD's website at www.emwd.org. E-mail or written comments on the Draft UMWP or requests for more information should be sent to:

Eastern Municipal Water District
Attention: M. Elizabeth Lovsted
lovstede@emwd.org
P.O. Box 8300
Perris, CA 92572-8300

Public input is encouraged. E-mail or written comments are due by June 15, 2011 and will be considered during finalization of the 2010 Urban Water Management Plan.

A public hearing of the EMWD Board of Directors to take action on the 2010 Urban Water Management Plan and allow community input regarding the Implementation Plan to meet the requirements of the Water Conservation Act of 2009 will be held at 1:00 pm on June 15, 2011, at the District headquarters:

Eastern Municipal Water District
2270 Trumble Road
Perris, CA 92570

Appendix A.1

DWR Checklist

Table I-1 Urban Water Management Plan checklist, organized by legislation number

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)	System Demands		Section 2.3
2	*Wholesalers:* Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. *Retailers:* Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	System Demands	Retailer and wholesalers have slightly different requirements	Section 2.4 and Appendix B
3	Report progress in meeting urban water use targets using the standardized form.	10608.40	Not applicable	Standardized form not yet available	NA
4	Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)	Plan Preparation		Appendix B
5	An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.	10620(f)	Water Supply Reliability . . .		Sections 3.3,3.4,3.5 and 4.0
6	Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.	10621(b)	Plan Preparation		Appendix B
7	The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).	10621(c)	Plan Preparation		Appendix A and B

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
8	Describe the service area of the supplier	10631(a)	System Description		Section 1.4
9	(Describe the service area) climate	10631(a)	System Description		Section 1.5
10	(Describe the service area) current and projected population . . . The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier . . .	10631(a)	System Description	Provide the most recent population data possible. Use the method described in “Baseline Daily Per Capita Water Use.” See Section M.	Section 1.6
11	. . . (population projections) shall be in five-year increments to 20 years or as far as data is available.	10631(a)	System Description	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Section 1.6.1 Table 1.3
12	Describe . . . other demographic factors affecting the supplier's water management planning	10631(a)	System Description		Section 1.7
13	Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).	10631(b)	System Supplies	The ‘existing’ water sources should be for the same year as the “current population” in line 10. 2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Section 3, Table 3.2
14	(Is) groundwater . . . identified as an existing or planned source of water available to the supplier . . .?	10631(b)	System Supplies	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	Yes, Section 3.3

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
15	(Provide a) copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management. Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)	System Supplies		Appendix C
16	(Provide a) description of any groundwater basin or basins from which the urban water supplier pumps groundwater.	10631(b)(2)	System Supplies		Section 3.3.1
17	For those basins for which a court or the board has adjudicated the rights to pump groundwater, (provide) a copy of the order or decree adopted by the court or the board	10631(b)(2)	System Supplies		NA
18	(Provide) a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.	10631(b)(2)	System Supplies		Section 3.3.2
19	For basins that have not been adjudicated, (provide) information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.	10631(b)(2)	System Supplies		Section 3.3
20	(Provide a) detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.	10631(b)(3)	System Supplies		Table 3.1
21	(Provide a) detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.	10631(b)(4)	System Supplies	Provide projections for 2015, 2020, 2025, and 2030.	Section3.3.1 and Table 3.8

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following: (A) An average water year, (B) A single dry water year, (C) Multiple dry water years.	10631(c)(1)	Water Supply Reliability . . .		Table 3.2 to 3.4
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)	Water Supply Reliability . . .		NA
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)	System Supplies		Section 4.5
25	Quantify, to the extent records are available, past and current water use, and projected water use (over the same five-year increments described in subdivision (a)), identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses: (A) Single-family residential; (B) Multifamily; (C) Commercial; (D) Industrial; (E) Institutional and governmental; (F) Landscape; (G) Sales to other agencies; (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof;(I) Agricultural.	10631(e)(1)	System Demands	Consider “past” to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	Table 2.10

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
26	(Describe and provide a schedule of implementation for) each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following: (A) Water survey programs for single-family residential and multifamily residential customers; (B) Residential plumbing retrofit; (C) System water audits, leak detection, and repair; (D) Metering with commodity rates for all new connections and retrofit of existing connections; (E) Large landscape conservation programs and incentives; (F) High-efficiency washing machine rebate programs; (G) Public information programs; (H) School education programs; (I) Conservation programs for commercial, industrial, and institutional accounts; (J) Wholesale agency programs; (K) Conservation pricing; (L) Water conservation coordinator; (M) Water waste prohibition;(N) Residential ultra-low-flush toilet replacement programs.	10631(f)(1)	DMMs	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	Section 8
27	A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.	10631(f)(3)	DMMs		Section 8
28	An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.	10631(f)(4)	DMMs		Section 8

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
29	An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following: (1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors; (2) Include a cost-benefit analysis, identifying total benefits and total costs; (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost; (4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.	10631(g)	DMMs	See 10631(g) for additional wording.	NA
30	(Describe) all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.	10631(h)	System Supplies		Section 4
31	Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.	10631(i)	System Supplies		Sections 3.4 and 4.3

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
32	Include the annual reports submitted to meet the Section 6.2 requirement (of the MOU), if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	DMMs	Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.	CUWCC Reports not available
33	Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).	10631(k)	System Demands	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	Section 3.2 Tables 3.2,3.3 and 3.4
34	The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)	System Demands		Section 2.6
35	Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.	10632(a)	Water Supply Reliability . . .		Section 5
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)	Water Supply Reliability . . .		Table 5.5
37	(Identify) actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)	Water Supply Reliability . . .		Section 5.5

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
38	(Identify) additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)	Water Supply Reliability . . .		Section 5.3.1
39	(Specify) consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)	Water Supply Reliability . . .		Section 5.3.1
40	(Indicated) penalties or charges for excessive use, where applicable.	10632(f)	Water Supply Reliability . . .		Section 5.3.1
41	An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)	Water Supply Reliability . . .		Section 5.6
42	(Provide) a draft water shortage contingency resolution or ordinance.	10632(h)	Water Supply Reliability . . .		Appendix D
43	(Indicate) a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)	Water Supply Reliability . . .		Section 5.3
44	Provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area	10633	System Supplies		Table 3.9,3.14 and 3.15
45	(Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)	System Supplies		Table 3.15
46	(Describe) the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)	System Supplies		Table 3.15

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
47	(Describe) the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)	System Supplies		Section 3.5
48	(Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)	System Supplies		Table 3.14
49	(Describe) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.	10633(e)	System Supplies		Tables 3.15 and 3.13
50	(Describe the) actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)	System Supplies		Section 3.5.4
51	(Provide a) plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)	System Supplies		Section 3.5.3
52	The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.	10634	Water Supply Reliability . . .	For years 2010, 2015, 2020, 2025, and 2030	Table 3.2

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
53	Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier.	10635(a)	Water Supply Reliability . . .		Tables 3.2, 3.3and 3.4
54	The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.	10635(b)	Plan Preparation		Appendix B
55	Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642	Plan Preparation		Appendix B
56	Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.	10642	Plan Preparation		Appendix B
57	After the hearing, the plan shall be adopted as prepared or as modified after the hearing.	10642	Plan Preparation		
58	An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.	10643	Plan Preparation		

No.	UWMP requirement [a]	Calif. Water Code reference	Subject [b]	Additional clarification	UWMP location
59	An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.	10644(a)	Plan Preparation		
60	Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.	10645	Plan Preparation		

a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.

b The Subject classification is provided for clarification only. It is aligned with the organization presented in Part I of this guidebook. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review.

Appendix B

Public Review and Coordination

B.1 Coordination

EMWD coordinated preparation of the UWMP MWD, our wholesale water supplier, water agencies that receive wholesale water from EMWD and local cities and counties. Table B.1 summarizes the participation in the development of the UWMP.

Prior to the preparation of the UWMP, EMWD provide information on projected demand and local supplies to MWD. This information was used in the MWD 2010 RUWMP. EMWD relied on the 2010 RUWMP to prepare the UWMP. EMWD also exchanged demand and supply information with wholesale customers and local land agencies.

Table B.1 Coordination with Appropriate Agencies

Coordinating Agencies	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan	Was sent a notice of intention to adopt	Not involved / No information
Metropolitan Water District	x			x			
Lake Hemet Municipal Water District	x			x	X	x	
City of Hemet				x	X	x	
City of Temecula	x			x	X	x	
City of Murrieta	x			x	X	x	
City of San Jacinto	x			x	X	x	
City of Perris	x			x	X	x	
Rancho California Water District	x			x	X	x	
Nuevo Water Company				x	X	x	
City of Menifee	x			x	X	x	
County of Riverside	x			x	X	x	
General public					On request	On request	

B.2 Notices to the Cities and County

Attached are copies of letters sent to the cities and county EMWD provides water supplies to, notifying them that the UWMP was under review sent on March 30, 2011. Each city, the County of Riverside also received a draft copy of the plan to review and will receive a final copy of the 2010 UWMP within 30 day of adoption.

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Mary Lanier
Director of Planning/Community Dev. Director
City of Murrieta
26442 Beckman Ct.
Murrieta, CA 92562

SUBJECT: Urban Water Management Plan

Dear Mary Lanier,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

Eastern Municipal Water District (EMWD) is in the process of preparing its 2010 UWMP. Over the next several months, EMWD will be documenting its projections on how to provide reliable, quality water supply to its retail and wholesale customers. EMWD's UWMP will discuss the sources of available water and the demand for water in its service area.

The draft of the EMWD 2010 UWMP is scheduled to be available in early May 2011 for public review, with EMWD Board of Directors adoption planned in June of 2011. Input and comments on the 2010 UWMP will be accepted any time prior to or at the public hearing that will be scheduled in June of 2011. If you have any questions or concerns, please contact Elizabeth Lovsted at 951-928-3777 Ext. 4307 or by e-mail at lovstede@emwd.org.

Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Rene Avila
Assistant Director of Dev. Services
City of Perris
101 N. "D" St.
Perris, CA 92572

SUBJECT: Urban Water Management Plan

Dear Rene Avila,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

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EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Deanna Elliano
Community Development Director
City of Hemet
445 E. Florida Ave.
Hemet, CA 92543

SUBJECT: Urban Water Management Plan

Dear Deanna Elliano,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

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Joseph J. Kuebler, CPA

Vice President
Philip E. Paule

Ronald W. Sullivan
Randy A. Record
David J. Slawson

Board Secretary
Rosemarie V. Howard

General Manager
Anthony J. Pack

Director of The Metropolitan Water District of So. Calif.
Randy A. Record

Legal Counsel
Redwine and Sherrill

March 30, 2011

Asher Hartel
Planning Director
City of San Jacinto, Bldg. A
595 S. San Jacinto Ave.
San Jacinto, CA 92583

SUBJECT: Urban Water Management Plan

Dear Asher Hartel,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

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WATER DISTRICT
SINCE 1950

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Board Secretary
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General Manager
Anthony J. Pack

Director of The Metropolitan Water District of So. Calif.
Randy A. Record

Legal Counsel
Redwine and Sherrill

March 30, 2011

Linda Nixon
Mgm't Assistant, Public Works-Engineering
City of Hemet
510 E. Florida Ave.
Hemet, CA 92543

SUBJECT: Urban Water Management Plan

Dear Linda Nixon,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

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Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Mr. John Terell
Planning Official
City of Moreno Valley
14177 Frederick Blvd.
Moreno Valley, CA 92555

SUBJECT: Urban Water Management Plan

Dear Mr. John Terell,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Anthony J. Pack
General Manager

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EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Patrick Richardson
Director of Planning
City of Temecula
43174 Business Park Dr.
Temecula, CA 92591

SUBJECT: Urban Water Management Plan

Dear Patrick Richardson,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

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EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Carolyn Syms Luna
Planning Director, Planning Dept.
County of Riverside
P.O. Box 1409
Riverside, CA 92502-1409

SUBJECT: Urban Water Management Plan

Dear Carolyn Syms Luna,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Adam Rush
Principal Planner, Planning Dept.
County of Riverside
P.O. Box 1409
Riverside, CA 92502-1409

SUBJECT: Urban Water Management Plan

Dear Adam Rush,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Daryl Hartwill
Public Works Manager
City of Perris
1015 S. "G" St.
Perris, CA 92570-2410

SUBJECT: **Urban Water Management Plan**

Dear Daryl Hartwill,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Anthony J. Pack
General Manager

AJP:EL:tm

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Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Ed Piester
Operations Manager
Nuevo Water Company
30427 11th St.
Nuevo, CA 92567-9528

SUBJECT: Urban Water Management Plan

Dear Ed Piester,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Anthony J. Pack
General Manager

AJP:EL:tm

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Mike Gow
Assistant General Manager
Lake Hemet Municipal Water District
PO Box 5039
Hemet, CA 92544-0039

SUBJECT: Urban Water Management Plan

Dear Mike Gow,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

Eastern Municipal Water District (EMWD) is in the process of preparing its 2010 UWMP. Over the next several months, EMWD will be documenting its projections on how to provide reliable, quality water supply to its retail and wholesale customers. EMWD's UWMP will discuss the sources of available water and the demand for water in its service area.

The draft of the EMWD 2010 UWMP is scheduled to be available in early May 2011 for public review, with EMWD Board of Directors adoption planned in June of 2011. Input and comments on the 2010 UWMP will be accepted any time prior to or at the public hearing that will be scheduled in June of 2011. If you have any questions or concerns, please contact Elizabeth Lovsted at 951-928-3777 Ext. 4307 or by e-mail at lovstede@emwd.org.

Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Carmen Cave
Community Dev. Director
City of Menifee
29714 Haun Rd.
Menifee, CA 92586

SUBJECT: Urban Water Management Plan

Dear Carmen Cave,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

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Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

Board of Directors

President and Treasurer
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Vice President
Philip E. Paule

Ronald W. Sullivan
Randy A. Record
David J. Slawson

Board Secretary
Rosemarie V. Howard

General Manager
Anthony J. Pack

Director of The Metropolitan Water District of So. Calif.
Randy A. Record

Legal Counsel
Redwine and Sherrill

March 30, 2011

Perry R. Louck
Director of Planning
Rancho Calif. Water Dist.
42135 Winchester Rd.
Temecula, CA 92590

SUBJECT: Urban Water Management Plan

Dear Perry R. Louck,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

Mailing Address: Post Office Box 8300 Perris, CA 92572-8300 Telephone: (951) 928-3777 Fax: (951) 928-6177
Location: 2270 Trumble Road Perris, CA 92570 Internet : www.emwd.org

EASTERN MUNICIPAL
WATER DISTRICT
SINCE 1950

March 30, 2011

Denise Landstedt
Water Resource Planner, Planning Dept.
Rancho Calif. Water Dist.
42135 Winchester Rd.
Temecula, CA 92590

SUBJECT: Urban Water Management Plan

Dear Denise Landstedt,

The Urban Water Management Planning Act (Act) requires urban water suppliers providing water to 3,000 or more customers, or providing over 3,000 acre-feet per year of water, to prepare an Urban Water Management Plan (UWMP). These plans are prepared every five years and are submitted to California Department of Water Resources (DWR). UWMP's are required for an agency to be eligible to receive grant funding, and provide the basis for water supply assessments and verifications. The 2010 UWMP's for retail water purveyors are due by July 1, 2011.

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Sincerely

Anthony J. Pack
General Manager

AJP:EL:tm

B.3 Encouraging Public Involvement

In addition to informing and coordinating with the agencies listed in Table B.1, EMWD made an effort to inform the public about the plan and encourage comment on the plan. Efforts include:

- A presentation to the EMWD Board Planning Committee on October 25, 2010
- A presentation to the EMWD Board Planning Committee on May 16, 2011
- A presentation was made to the Director Advisory Committee for Direct Sullivan on June 2, 2011. The DAC includes community leader from throughout EMWD's service area.
- A presentation to the Consultant, Attorneys and Managers Group for the Hemet/San Jacinto Water Management Plan on June 13, 2011.

The Draft Urban Water Management Plan was made available on EMWD's web site on May 16, 2011 for comment and review and the public notice was published in the Press Enterprise on May 22 and May 27, 2011 and a public hearing was held June 15, 2011. A copy of the public notice is included.

A copy of the final plan will be available for public review within 30 days of submittal to DWR.

NOTICE OF PUBLIC HEARING TO ADOPT THE 2010 URBAN WATER MANAGEMENT PLAN AND THE IMPLEMENTATION PLAN TO MEET THE REQUIREMENTS OF THE WATER CONSERVATION ACT OF 2009

Eastern Municipal Water District (EMWD) has prepared a Draft 2010 Urban Water Management Plan (UWMP) in compliance with the requirements established by the Urban Water Management Planning Act (California Water Code Division 6, Part 2.6 Sections 10610-10656). In addition, the Water Conservation Act of 2009 requires that every Urban Water Management Plan includes: baseline per capita water use data, urban water use target, interim urban water use targets and an implementation plan for meeting the identified targets. This information is included in the Draft 2010 UWMP.

This Public Notice officially notifies the general public that the Draft Urban Water Management Plan is available for public review at District headquarters or on EMWD's website at www.emwd.org. E-mail or written comments on the Draft UMWP or requests for more information should be sent to:

Eastern Municipal Water District
Attention: M. Elizabeth Lovsted
lovstede@emwd.org
P.O. Box 8300
Perris, CA 92572-8300

Public input is encouraged. E-mail or written comments are due by June 15, 2011 and will be considered during finalization of the 2010 Urban Water Management Plan.

A public hearing of the EMWD Board of Directors to take action on the 2010 Urban Water Management Plan and allow community input regarding the Implementation Plan to meet the requirements of the Water Conservation Act of 2009 will be held at 1:00 pm on June 15, 2011, at the District headquarters:

Eastern Municipal Water District
2270 Trumble Road
Perris, CA 92570

B.4 Public Hearing

On June 15, 2011 EMWD held a public hearing to consider the adoption of the 2010 UWMP and meet the requirements of the Water Conservation Act of 2009. Attached is a copy of the presentation made at the public hearing. Information presented included the proposed implementation plan, method and targets for water use required, and the economic impact of the implementation plan for the Conservation Act of 2009.

2010 Urban Water Management Plan
Public Hearing

June 15, 2011

Overview

- Introduction
- Demand
- The Water Conservation Act of 2009, Senate Bill (SB x 7-7)
    - Compliance Method
    - Baseline and Targets
    - Implementation Plan
- Supply
    - Existing
    - Potential Local Resources
- Supply and Demand Comparison
- Water Supply Challenges
- Addressing Challenges
- Conclusion

UWMP Act

- California Water Code Division 6, Part 2.6 Sections 10610-10656
- Requires:
  - Evaluation of demand
  - Evaluation of supply reliability
  - Description of conservation measures implemented
  - Water shortage response plan
  - Comparison of demand and supply projections

UWMP 2005 -2035
EMWD Water Demand (AFY)

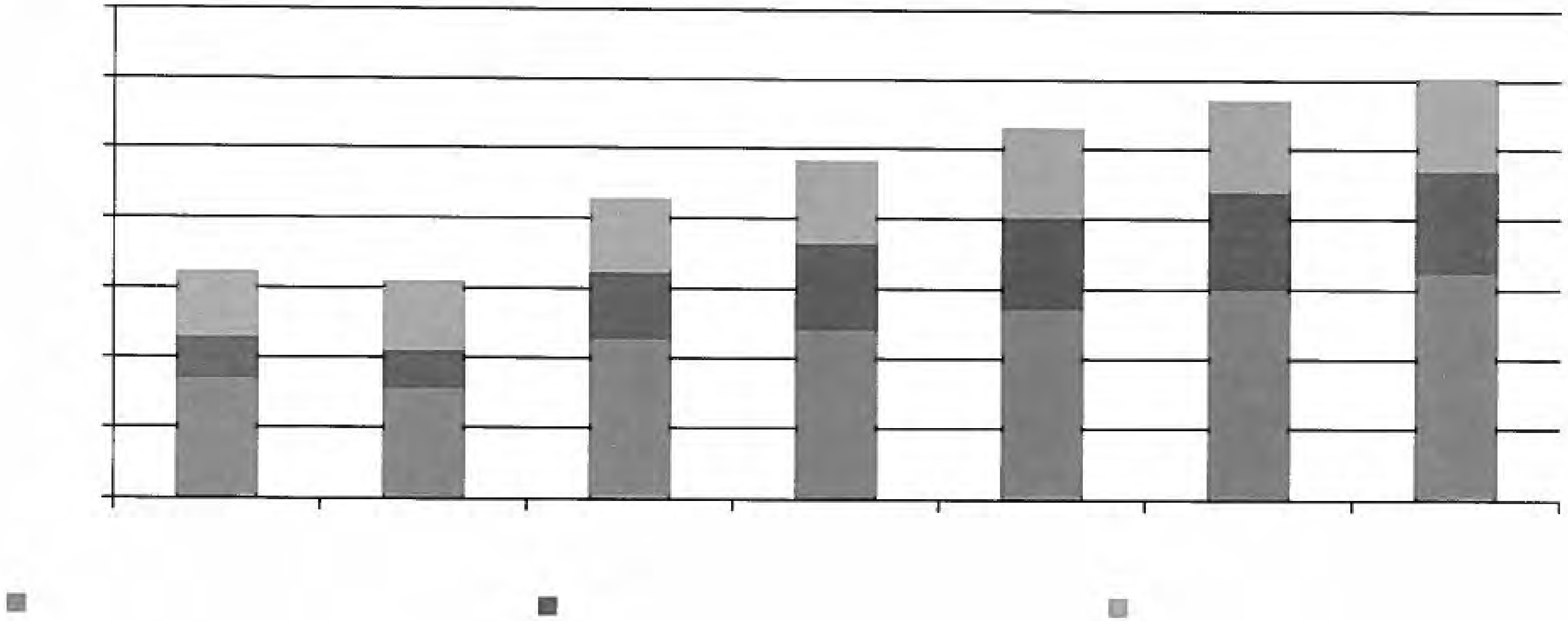

Note: Based on regional projections, wholesale agency information and includes compliance with the Water Conservation Act of 2009, SB x7-7 for EMWD retail demand

The Water Conservation Act of 2009, SB x7-7

- Reduce urban per capita water demand in California 20 % by 2020
- Urban water suppliers must:
    - Adopt one of four methods for compliance target
    - Set baseline and compliance targets
    - Develop an implementation plan
    - Consider the economic impact of the implementation plan

EMWD Efficiency Targets for Retail Water Use

Compliance Daily Per Capita Water Use (GPCD)

Type of Target	Target
Residential Indoor	55
Irrigated Landscape	96.8
Commercial, Industrial and Institutional	17.0
Agricultural	15.16
2020 Compliance Target	**183.96**

Note: Calculated using method 2 described in SB x7-7

Baseline and Target Gallons Per Capita Per Day (GPCD) for EMWD Retail

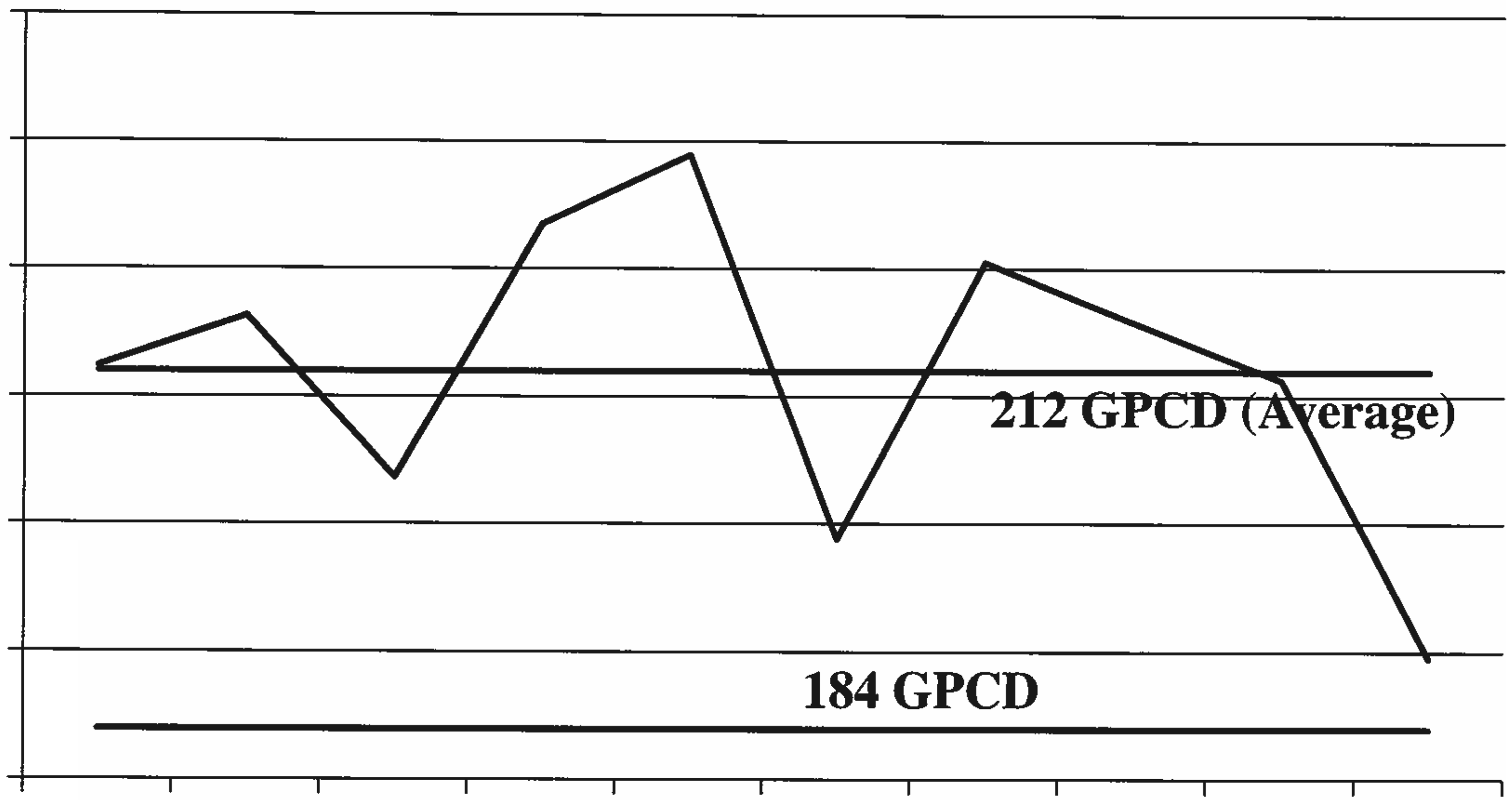

Implementation Plan

- Recycled Water Use
  - Offset potable water use in landscape
  - Commercial, industrial, institutional and residential

  Economic Impact –
  - Uses sustainable supply and generates revenue
  - Defers cost of new potable supply
- Active Conservation
  - Programs and incentives aimed at all customer types
  - Includes rebates, education programs and direct install programs.

  Economic Impact –
  - Defers cost of new potable supply

Implementation Plan, cont.

- Tiered Rates – Existing Customers
  - Applies an indoor and out water budget to residential customers
  - Applies an outdoor landscape budget to commercial, industrial and institutional customer

  Economic Impact –
  - Implemented in 2009
  - Designed to promote revenue stability
- New Construction Requirements
  - Applies a reduced outdoor water budget to new accounts

  Economic Impact –
  - Defers cost of new potable supply and facilities

Water Savings to Meet SB x7-7 Target (AFY)

Saving Type	2015	2020	2025	2030	2035
Recycled Water	5,000	6,300	11,500	13,900	14,300
Active Conservation	6,500	9,500	10,700	11,700	12,600
Tiered Rate	8,700	8,700	8,700	8,700	8,700
New Construction Requirements	2,000	4,100	6,100	8,000	9,600
Total	**22,200**	**28,600**	**37,000**	**42,300**	**45,200**

UWMP Supplies

- Existing
  - Metropolitan Water District (MWD) Imported
  - Groundwater
  - Recycled Water (existing system)
  - Two Desalters
- Potential Local Supply Projects
  - Full Utilization of Recycled
  - Third Desalter
  - Additional Conservation

2015-2035 Water Supply and Demand Average Year Hydrology (AFY)

	2015	2020	2025	2030	2035
Metropolitan Water District	149,200	170,700	190,700	210,000	226,200
Recycled	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	213,800	241,400	265,300	285,600	302,200
Total Projected Demands	213,800	241,400	265,300	285,600	302,200
Shortfall/Surplus	0	0	0	0	0

Based on a average of 2004-2009 conditions

2015-2035 Water Supply and Demand Dry Year Hydrology (AFY)

	2015	2020	2025	2030	2035
Metropolitan Water District	155,300	177,600	198,300	218,300	235,100
Recycled	45,500	51,800	55,800	56,900	57,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**221,500**	**250,100**	**274,900**	**295,900**	**313,100**
Total Projected Demands	**221,500**	**250,100**	**274,900**	**295,900**	**313,100**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Based on a repeat of 1977 conditions

2015-2035 Water Supply and Demand Multi-Dry Year Hydrology (AFY)

	2015	2020	2025	2030	2035
Metropolitan Water District	156,600	179,000	199,800	219,900	236,900
Recycled	45,800	52,200	56,200	57,300	57,700
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**223,000**	**251,800**	**276,800**	**297,900**	**315,300**
Total Projected Demands	**223,000**	**251,800**	**276,800**	**297,900**	**315,300**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Based on a repeat of 1990-1992 conditions

Potential Supply/Demand Challenges

- Limitation on Imported Water
  - Supply allocation may be required to preserve storage
- Climate change
  - Higher demand
  - Local supply limitations
  - Imported water limitations
- Demand Fluctuation
  - Higher per capita demand
  - Rapid new development
  - Imported water limitations

Addressing Challenges

- Maximize Local Resources
  - Increases reliability
  - Provide buffer against uncertainty of imported water
  - Improves ability to meet higher demands
- Implement Cost Effective Conservation
  - Reduces demand on imported supplies
  - Defers supply development
  - Extends existing resources

UWMP Report Conclusion

- EMWD relies on MWD to meet its projected demand with imported water in normal, dry and multi- dry years
    - MWD has assured reliability in the 2010 Regional Urban Water Management Plan
- Per capita demand will be reduced through the tiered rate, restrictions on new development and conservation programs to meet SB x 7-7 Targets in 2015 and 2020
- Development of potential local supply projects will improve reliability and help meet supply challenges

Appendix C

Ground Water Management Plans

GROUNDWATER MANAGEMENT PLAN
WEST SAN JACINTO GROUNDWATER BASIN

EASTERN MUNICIPAL WATER DISTRICT

JUNE 8, 1995

ADDENDUM

GROUNDWATER MANAGEMENT PLAN
WEST SAN JACINTO GROUNDWATER BASIN
Draft September 1994

MAY 1995

Eastern Municipal Water District

GROUNDWATER MANAGEMENT PLAN
WEST SAN JACINTO GROUNDWATER BASIN
September 1994 Draft

ADDENDUM - May 1995

(~~Strikeout~~ indicates deletion and
underline indicates insertion.)

Table of Contents

Page iii Last item under Section 7: ~~TRANSFER~~ **EXCHANGE OF AGRICULTURAL AND OTHER NON-POTABLE** ~~USERS~~ **USES FROM GROUNDWATER TO RECLAIMED WATER.**

Section 1 - Executive Summary

Page 1-1 1st ¶, 3rd bullet item: • ~~structural adequacy~~ capacity of the delivery system is limited;

Last ¶, last sentence: One such action that could adversely affect EMWD's local water resources is a claim recently filed by a neighboring water district ~~Orange County Water District,~~ which underscored the urgent need for action by EMWD to protect the water resources within its service area for use by EMWD consumers.

Page 1-3 2nd ¶, last line: ... ~~Edgemont Gardens~~ Moreno Valley Mutual Water Company ...

Page 1-4 2nd ¶, 2nd and 3rd sentences: Water requirements by these subagencies ~~varies~~ vary depending on development and the availability of local supplies. These entities and public agencies include the Brownlands Mutual Water Company, ~~city~~ City of Perris, ~~Edgemont Gardens~~ Moreno Valley Mutual Water Company and Nuevo Water Company.

Page 1-5 2nd ¶: **Local Planning and Regulatory Agencies.** Other local agencies that may have a significant influence on groundwater management include:

> Riverside County Flood Control and Water Conservation Agency. This agency plans, constructs and operates flood control and water

conservation facilities in Riverside County. The construction of ... significant impact. This agency issues the following permits:

a. Separate Application for Flood Plain Management (County Ordinance No. 458)

b. Encroachment Permits

Same ¶, last section: ~~Riverside County Health Department.~~ County of Riverside Department of Environmental Health. The County of Riverside Department of Environmental Health will review NPDES and solid waste facility permits and compatibility of well construction policies and well abandonment and destruction programs with County Ordinance No. 682. EMWD fully intends to coordinate with the County when development of well construction policies and development of a well abandonment and destruction program are developed as part of Plan implementation. ~~The Riverside County Health Department will review water supply and wastewater plans that could be embodied in the groundwater management plan.~~

Page 1-6 4th ¶: Groundwater production estimates for 1993 were estimated from annual reports of groundwater production on file at the State Water Resources Control Board and from Southern California Association of Governments (SCAG) ~~SCAG~~ land use.

Page 1-7 1st ¶, add to end of ¶: Non-irrigated, vacant land will accommodate most of the urbanization growth in the area.

Page 1-8 2nd ¶, 12th line: ... such as SWP water~~.~~ and demineralization.

3rd ¶, 1st line: ... water distribution ~~plan~~ system ...

Page 1-9 1st ¶, 5th line: 3,360 acre-ft/yr of potable water.

Page 1-14 3rd ¶, **Ultimate Plan Description.** The groundwater management plan consists of a series of elements that, when implemented, will achieve the management plan goal stated above within the constraints of this plan. Involuntary groundwater production assessments and groundwater pumping restrictions are not authorized as part of this management plan except as necessary to prevent unauthorized production of water stored by EMWD.

Page 1-15 2nd ¶, **Monitoring of Groundwater Level and Quality**, 3rd sentence: EMWD will measure groundwater levels and quality from select private wells. EMWD's measurements will not interfere with the well owners' use of the wells. EMWD's measurements will be provided to participating well owners free of charge upon request.

3rd ¶, **Development of Well Construction Policies**, last sentence: These policies will be related to water quality and health protection only and will not limit, or suspend, or unreasonably increase the cost of current or future groundwater production by ~~existing groundwater producers~~ private landowners for use within the plan boundary.

Page 1-16 2nd ¶, **Exchange of Agricultural and Other Non-potable Groundwater Production to Municipal Use**, 1st sentence: The intent of this element is to increase the groundwater yield available for municipal use by either ~~retiring~~ voluntary retirement of agricultural and non-potable demands or by voluntarily substituting reclaimed water for groundwater used for agricultural and other non-potable uses.

Page 1-17 Top of page, 4th bullet item: • Administration and Monitoring of Well Construction, Abandonment and Destruction

Page 1-20 2nd ¶, **Financing the Groundwater Management Plan**: The cost of implementing and operating the West San Jacinto Groundwater Basin management plan ~~should~~ shall be borne by municipal water users in the management area... There could be some cost to local groundwater producers if groundwater replenishment is necessary due to groundwater overdraft and groundwater producers choose to participate in the groundwater replenishment program in order to access supplemental water supplies instead of curtailing their own groundwater production or enjoining the groundwater production of others in the affected subbasin. In the event of continued overdraft, an equitable cost sharing plan should be developed to allocate costs among EMWD, other benefitted municipal water suppliers, and participating groundwater producers to correct the overdraft.

Page 1-21 1st ¶, last line: The following tasks will be completed in Phase ~~I~~ 1.

2nd ¶, last 2 sentences under **Phase 2 Refine the Ultimate Groundwater Management Plan**: ... management plan. The complexity and ...

Page 1-22 Last ¶, Schedule and Cost. The cost to complete Phases 1 and 2 is estimated to range between 3 to 5 million dollars. The cost to complete Phase 3 cannot be estimated until the ultimate plan is described at the conclusion of Phase 2. The cost to implement and operate the Groundwater Management Plan is estimated to be between $50 million and $70 Million. Estimates at this time are very rough and they will be refined when the specific projects are identified and designed.

Section 2 - Introduction

Page 2-1 1st ¶, 3rd bullet item: • ~~structural adequacy~~ capacity of the delivery system is limited;

Last ¶, last sentence: One such action that could adversely affect EMWD's local water resources is a claim recently filed by a neighboring water district ~~Orange County Water District,~~ which underscored the urgent need for action by EMWD to protect the water resources within its service area for use by EMWD consumers.

Page 2-4 2nd ¶ under **Approach to Development of Groundwater Management Plan**, second sentence: These goals can be modified during the plan development process within the constraints of this plan. These goals will determine the magnitude of the plan, beneficiaries of the plan, and will guide the technical work that shapes the plan. Involuntary groundwater production assessments and groundwater pumping restrictions are not authorized as part of this management plan except as necessary to prevent unauthorized production of water stored by EMWD.

Page 2-5 Mid-page, 3rd bullet item: ... plan goals; ~~and~~

Page 2-6 Last ¶, last line: ~~Dr.~~ Mr. P. Ravishanker.

Section 3 - Existing Water Resources Framework

Page 3-2 2nd ¶, 5th line: ... ~~Edgemont Gardens~~ Moreno Valley Mutual Water Company, ...

5th ¶, 1st line: ~~Edgemont Gardens~~ Moreno Valley Mutual Water Company.

Page 3-3 Substitute section titled "**Colorado River Water**" with the following:
MWD has water delivery contracts for Colorado River water with the U.S. Department of the Interior for 1.212 million acre-feet per year (MAF/Y) and an additional 180,000 acre-feet per year (AF/Y) of surplus water. The capacity of MWD's Colorado River Aqueduct is 1,800 cubic feet per second or 1.3 MAF/Y. However, as a result of the 1964 U.S. Supreme Court decree in Arizona v. California, MWD's dependable supply of Colorado River water was reduced to less than 550,000 AF/Y. This reduction in dependable supply occurred with the commencement of Colorado River deliveries by the Central Arizona Project.
MWD has a priority to divert 550,000 AF/Y of California's 4.4 MAF/Y basic apportionment under its water delivery contract with the Secretary of the

Interior. In addition, MWD has entered into agreements with other agencies serving Colorado River Water for agricultural purposes in the California desert to increase its dependable supplies. Water use by holders of present perfected rights (Indian reservations, towns, and other individuals along the Colorado River that predate MWD's rights) is estimated to reduce dependable diversions by about 30,000 AF/Y. Conveyance losses along the Colorado River Aqueduct of 10,000 AF/Y further reduce the amount of Colorado River water received in the coastal plain. MWD's dependable Colorado River supplies are projected to total 626,000 acre-feet upon completion of a cooperative water conservation program with Imperial Irrigation District.

Based on an annual determination, the Secretary of the Interior has allowed MWD in recent years to divert Colorado River water apportioned to, but unused, by Arizona and Nevada. Arizona and Nevada are not expected to use their full apportionments until the years 2036 and 2005, respectively. MWD is pursuing several projects to increase the reliability of its Colorado River supplies.

Page 3-4 Substitute the section titled "**State Project Water**" with the following:

SWP water comes from Northern California, is transported through the Sacramento-San Joaquin Delta, and is delivered to MWD through the California Aqueduct. MWD, one of 29 agencies that have contracted with the State for SWP supplies, holds a contract for entitlement to 2.01 MAF/Y, or nearly half of the total contracted entitlement of 4.23 MAF/Y. Initial SWP facilities completed in the early 1970s have produced yields adequate to meet just over half of the total contracted entitlement on a dependable basis. While it was intended that addition SWP facilities would be constructed to meet contractor demands as they increased, this has not occurred. In addition, constraints placed on SWP operations in the Delta under State and federal Endangered Species acts have reduced available SWP supplies. However, the December 1994 consensus agreement on interim standards for Delta flows and water quality brings more certainty to SWP supply availability during the next three years, and is the foundation for immediate initiation of a process for identifying a long-term solution to water supply and fishery problems in the Delta. In the future, if additional facilities are not completed, availability of water from the SWP is expected to decrease due to increased use of water in Northern California, and increasing allocations of water for environmental needs in the Bay-Delta.

Page 3-9 1st ¶, 3rd line: The proposed regulations are included in Appendix A-2 ~~A-1~~.

Page 3-10 4th ¶, 1st line: A summary of existing and proposed water quality standards is presented in Appendix A-3 ~~A-2~~.

Last ¶, 1st section: **Riverside County Flood Control and Water Conservation Agency.** This agency ... Riverside County. The construction of ... significant impact. This agency issues the following permits:

a. Separate Application for Flood Plain Management (County Ordinance No. 458)
b. Encroachment Permits

Last ¶, last section: ~~Riverside County Health Department.~~ County of Riverside Department of Environmental Health. The County of Riverside Department of Environmental Health will review NPDES and solid waste facility permits and compatibility of well construction policies and well abandonment and destruction programs with County Ordinance No. 682. EMWD fully intends to coordinate with the Department when development of well construction policies and development of a well abandonment and destruction program are developed as part of Plan implementation. ~~The Riverside County Health Department will review water supply and wastewater plans that could be embodied in the groundwater management plan.~~

Section 4 - Groundwater Resources in the West San Jacinto Basin

Page 4-5 1st ¶, insert after 1st sentence: ... on the north. The San Jacinto River flows through this subbasin include tributary flows from Potrero Creek and Laborde Canyon.

2nd ¶, 3rd line: San Jacinto ~~Creek~~ River

Table 4-2 10th line of data is a duplicate: ~~0 0 0 0 800 1,200 2,000~~

Page 4-9 5th ¶: The total outflow in the basin, from all sources, ranges from a low of zero ~~1,300~~ acre-ft/yr from the Menifee ~~San Jacinto Lower Pressure~~ subbasin, to a high of 4,000 ~~4,600~~ acre-ft/yr for the Lakeview ~~Menifee~~ subbasin. The total outflow for the management area is about 10,200 ~~14,800~~ acre-ft/yr.

Page 4-10 3rd ¶, 5th line: San Jacinto ~~Creek~~ River

Page 4-14 2nd ¶, 1st sentence: The principle sources of groundwater in this basin are underflow from the San Jacinto Lower Pressure, Perris South I, Perris South II subbasins, storm flow percolation in the San Jacinto River ~~Creek~~ which includes flow from Potrero Creek and Laborde Canyon tributaries, and runoff from the Lakeview Mountains and Bernasconi Hills.

2nd ¶, insert: Most of the groundwater in the basin is sodium chloride in character. Potentially contaminated surface water flows from Potrero Creek and Laborde Canyon may impact groundwater quality in the basin. The Casa Loma fault ...

Page 4-16 1st ¶, last sentence under **Future Groundwater Quality**: ... These estimates, however, are based on a model that:

- has not been calibrated for TDS or nitrate;
- has each subbasin ~~is~~ represented by only one node and thus the resolution of the analysis is crude; and
- has future water supply and wastewater plans ~~that were~~ used in these studies that are not representative of ~~the~~ future plans.

Last ¶, last sentence: The planning tool would consist of groundwater flow and simulation models similar to those models ~~that were~~ developed and ~~that are~~ in current use in other basins. ~~to develop the Chino Basin Water Resources Management Plan (Montgomery Watson & Wildermuth, Mark J., 1992; Montgomery Watson & Wildermuth, Mark J., 1993).~~

Section 5 - Future Water Supply and Wastewater Flows

Page 5-1 1st ¶, Reclamation Plant List: ~~Temescal~~ Temecula Valley

1st ¶, add following last sentence: Non-irrigated, vacant land will accommodate most of the urbanization growth in the area.

Last ¶, 1st line: seasonal discount are~~:~~ to: achieve ...

Page 5-5 2nd ¶, 2nd sentence: ~~All agricultural demands would be satisfied with reclaimed water by the year 2010.~~

Section 6 - Groundwater Management Goals

Page 6-1 3rd ¶, 2nd sentence: Much of the r~~R~~emaining agricultural water demand will be converted to reclaimed water.

Page 6-2 2nd sentence: The negative impacts, if any, of a groundwater management plan on these users must be minimized; and the ability of these groundwater producers to continue producing groundwater for beneficial use must be preserved~~ or equitably replaced~~.

Section 7 - Elements of Groundwater Management Plan

Page 7-2 2nd ¶, 2nd sentence: The monitoring of groundwater quality includes the collection and review of groundwater quality data that can be used to assess current and future trends in groundwater quality, and to evaluate groundwater quality response to groundwater management activities and climate. EMWD's monitoring activities will not interfere with the well owners' use of the wells. EMWD's monitoring data will be provided to participating well owners free of charge upon request.

Page 7-3 Insert new ¶ following 3rd bullet item: EMWD will coordinate with the County of Riverside Department of Environmental Health when development of well construction policies and development of a well abandonment and destruction program are developed as part of the Groundwater Management Plan implementation.

Page 7-8 3rd ¶, last sentence: ... Reclaimed water can be recharged in the San Jacinto Lower Pressure, Menifee and Winchester subbasins by injection. Recharge of reclaimed water will be implemented in a manner that avoids adverse impacts to construction, operation and use of wells by private landowners. Where reclaimed water recharge interferes with such construction, operation, or use of a well, suitable arrangements will by made for EMWD to provide alternative water supplies to meet both the short-term and long-term needs of the impacted landowner, or for EMWD to provide monetary compensation for the interference caused by EMWD's reclaimed water recharge activities.

Page 7-9 Last bullet item: Water harvesting in the Lakeview subbasin. Storm water captured in ~~EMWD's~~ Mystic Lake ~~project~~ could be ~~captured and~~ conveyed to test recharge basins in the Lakeview subbasin.

1st ¶ under **Recovery of Contaminated Groundwater**: ... Other treatment technologies may be required if water quality conditions change or new types of contamination are discovered.
Recovery of contaminated groundwater will be implemented in a manner that avoids adverse impacts to construction, operation and use of wells by private landowners. Where groundwater recovery activities interfere with such construction, operation or use of a well, suitable arrangements will be made for EMWD to provide alternative water supplies to meet both the short-term and long-term needs of the impacted landowner, or for EMWD to provide monetary compensation for the interference caused by EMWD's groundwater recovery activities.

Page 7-14 3rd ¶: ... Limited conjunctive use in these subbasins could be done in conjunction with groundwater treatment. Conjunctive use activities will be implemented in a manner that avoids adverse impacts to construction, operation and use of wells by private landowners. Where conjunctive use activities interfere with such construction, operation, or use of a well, suitable arrangements will be made for EMWD to provide alternative water supplies to meet both the short-term and long-term needs of the impacted landowner, or for EMWD to provide monetary compensation for the interference caused by EMWD's conjunctive use activities.

Page 7-15 2nd ¶, **EXCHANGE OF AGRICULTURAL AND OTHER NON-POTABLE ~~USERS~~ USES FROM GROUNDWATER TO RECLAIMED WATER.** The exchange of agricultural and other non-potable groundwater production to municipal uses can occur through

- Voluntary retirement of agricultural lands, that is, the conversion of agricultural lands to non-agricultural uses; and
- by voluntarily substituting other supplies such as reclaimed water.

Section 8 - Groundwater Management Plan

Page 8-3 4th ¶, 3rd line: ... ~~city~~ City of Perris ...

4th ¶, 4th line: ... ~~Edgemont Gardens~~ Moreno Valley Mutual Water Company, ...

2nd ¶, **ULTIMATE PLAN DESCRIPTION**, 1st sentence: The groundwater management plan consists of a series of elements that, when implemented, will achieve the management plan goal stated above within the constraints of this plan: Involuntary groundwater production assessments and groundwater pumping restrictions are not authorized as part of this management plan except as necessary to prevent unauthorized production of water stored by EMWD.

Page 8-4 2nd ¶, **Monitoring of Groundwater Level and Quality**, beginning with 3rd sentence: EMWD will measure groundwater levels and quality from select private wells. EMWD's measurements will not interfere with the well owners' use of the wells. EMWD's measurements will be provided to participating well owners free of charge upon request.

3rd ¶, 2nd line: ... Riverside County ~~Health Department~~ Department of Environmental Health ...

Last ¶, 2nd line: ... Riverside County ~~Health Department~~ Department of Environmental Health ...

Last ¶, last sentence: These policies will be related to water quality and health protection only and will not limit, or suspend, or unreasonably increase the cost of current or future groundwater production by ~~existing groundwater producers~~ private landowners for use within the plan boundary.

Page 8-5 1st ¶, 5th line: ... Riverside County ~~Health Department~~ Department of Environmental Health ... (Riverside Co. Dept. Environmental Health)

3rd ¶, **Exchange of Agricultural and Other Non-Potable Groundwater Production to Municipal Use,** 1st sentence: The intent of this element is to increase the groundwater yield available for municipal use by either ~~retiring~~ voluntary retirement of agricultural and non-potable demands or by voluntarily substituting reclaimed water for groundwater used for agricultural and other non-potable uses.

Page 8-11/12 2nd ¶ of **Financing the Groundwater Management Plan**: The cost of implementing and operating the West San Jacinto Groundwater Basin management plan ~~should~~ shall be borne by municipal water users in the management area... There could be some cost to local groundwater producers if groundwater replenishment is necessary due to groundwater overdraft and groundwater producers choose to participate in the groundwater replenishment program in order to access supplemental water supplies instead of curtailing their own groundwater production or enjoining the groundwater production of others in the affected subbasin. In the event of continued overdraft, an equitable cost sharing plan should be developed to allocate costs among EMWD, other benefitted municipal water suppliers, and participating groundwater producers to correct the overdraft.

Page 8-12 3rd ¶: The benefits and costs associated with the groundwater management plan should be accounted for locally, that is, by subbasin or some other geographic unit, to insure the benefits and costs are equitably distributed among municipal water users and other voluntary participants.

Page 8-15 2nd ¶, 3rd line: Prepare Project Specific Environmental ~~Impact Report~~ Reviews.

3rd ¶: **Task 2-2 Prepare Project Specific Environmental ~~Impact Reports (EIR)~~ Reviews**. ~~EIR's will be prepared~~ CEQA reviews will be performed for the implementation of specific groundwater management ~~elements~~ projects that are developed in Phase 1. This Task consists of the following subtasks.

~~Prepare and Distribute Notice of Preparation (NOP). The NOP will be prepared based on the results of initial environmental study prepared in Task 1-5 and the facility and operational plans developed in Task 2-1. The final scope of work for the EIR studies will be based on the NOP and comments received on the NOP.~~

Initial Study. CEQA reviews will be done on each project proposed under the Groundwater Management Plan. An Initial Study will be done such that the need for either a Negative Declaration or an EIR can be determined, based on project-specific design parameters and project site characteristics.

Estimate Environmental Impacts and Develop Mitigation Plans. This work ~~will~~ could include: biological assessments, archaeological assessments, impact assessments and development of mitigation plans as needed on a project-specific basis.

Page 8-16 3rd line: Prepare and Distribute ~~Draft EIR(s)~~ CEQA Documents and Notices.

4th line: ~~Conduct Meetings, Public Hearings and Respond to Comments.~~

5th line: ~~Finalize EIR(s).~~

Page 8-19 Last ¶: The cost to complete Phases 1 and 2 is estimated to range between 2 to 3 million dollars. The cost to complete Phase 3 cannot be estimated until the ultimate plan is described at the conclusion of Phase 2. The cost to implement and operate the Groundwater Management Plan is estimated to be between $50 million and $70 million. Estimates at this time are very rough and they will be refined when the specific projects are identified and designed.

References

~~Montgomery Watson, Wildermuth, Mark J., "Final Task 4 Memorandum, New Planning Model Implementation Plan", prepared for Santa Anna Watershed Project Authority, May 1992~~

~~Montgomery Watson, Wildermuth Mark J., "Draft task 6 Memorandum, Develop Three Dimensional Groundwater Model, prepared for Santa Anna Watershed Project Authority, November 1993~~

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DRAFT
GROUNDWATER MANAGEMENT PLAN
WEST SAN JACINTO GROUNDWATER BASIN

Prepared for

EASTERN MUNICIPAL WATER DISTRICT

SEPTEMBER 1994

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SECTION 1
EXECUTIVE SUMMARY

THE NEED FOR GROUNDWATER MANAGEMENT

EMWD, together with the majority of water purveyors in Southern California, have been heavily relying on imported supplies from Metropolitan Water District of Southern California (Metropolitan). Recently, Metropolitan's ability to supply the ever-growing needs of Southern California has become increasingly unreliable due to the following reasons:

- ☐ demand for water is continuing to increase;
- ☐ environmental constraints at the point of origin may limit the water available for export;
- ☐ structural adequacy of the delivery system is limited;
- ☐ climatological uncertainties can limit delivery; and
- ☐ inadequate local storage facilities.

EMWD could purchase imported water from Metropolitan to meet these projected municipal demands. Metropolitan's sources, however, are not reliable and will be very expensive in the future. Metropolitan, with its current planning and future projects, will experience shortages in four of five years, with shortages reaching as high as 30 percent. The cost of imported water from Metropolitan is currently (July 1994) $412 per acre-ft for treated water and is projected to reach about $1,100 per acre-ft by 2010. These rising costs and lack of water to meet all of the demands has encouraged some local agencies in Southern California to claim water rights in the service areas of other agencies. One such action that could adversely affect EMWD's local water resources is a claim recently filed by Orange County Water District, which underscores the urgent need for action by EMWD to protect the water resources within its service area for use by EMWD consumers.

SECTION 1
EXECUTIVE SUMMARY

The West San Jacinto Groundwater Basin underlies a large portion of the Eastern Municipal Water District (EMWD). The West San Jacinto Groundwater Basin includes the Perris North, Perris South, Menifee, Winchester, Lakeview and the San Jacinto Lower Pressure subbasins. The location of these subbasins is shown in Figure 1-1. This area is experiencing rapid land use conversion from agriculture to urban uses. Total municipal water demands are expected to increase from 47,000 acre-ft/yr in 1995, to 112,000 acre-ft/yr in 2010.

Three sources of water supply for these demands can be considered: groundwater, imported water and reclaimed water. Groundwater in the West San Jacinto Groundwater Basin, for the most part, is of poor quality due to natural causes and irrigated agriculture. Most of the groundwater resources cannot be used as municipal supply due to poor quality - the groundwater quality either violates drinking water standards or is too high in total dissolved solids (TDS) or other water quality constituents to be discharged after municipal use. To meet increasing demands, EMWD could purchase imported water from Metropolitan. However, availability and costs might limit this alternative. EMWD has reclaimed water resources that could be used to meet agricultural demands and non-potable municipal demands. Reclaimed water cannot be directly used for potable demand unless, after groundwater recharge and dilution, it meets Title 22 requirements (State Department of Health Services Reclaimed Water Regulations). Additionally, groundwater treatment practices can convert non-potable water supplies to potable supplies.

The availability and reliability of the total water supply can be improved through the joint, optimized (conjunctive) management of all the water supply sources. It is the intent of Assembly Bill AB 3030, which was incorporated into the Water Code in 1992 (Part 2.75 commencing with Section 10750 of Division 6) with amendments by AB 1152 of 1993, to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions. Authorization to adopt and implement a plan is contained in the following section of AB 3030:

> "§10753 (a) Any local agency, whose service area includes a groundwater basin, or a portion of a groundwater basin, that is not subject to groundwater management pursuant to other provisions of law or a court order, judgment, or decree, may, by ordinance, or by resolution if the local agency is not authorized to act by ordinance, adopt and implement a groundwater management plan pursuant to this part within all or a portion of its service area."

The components of a groundwater management plan may include the following:

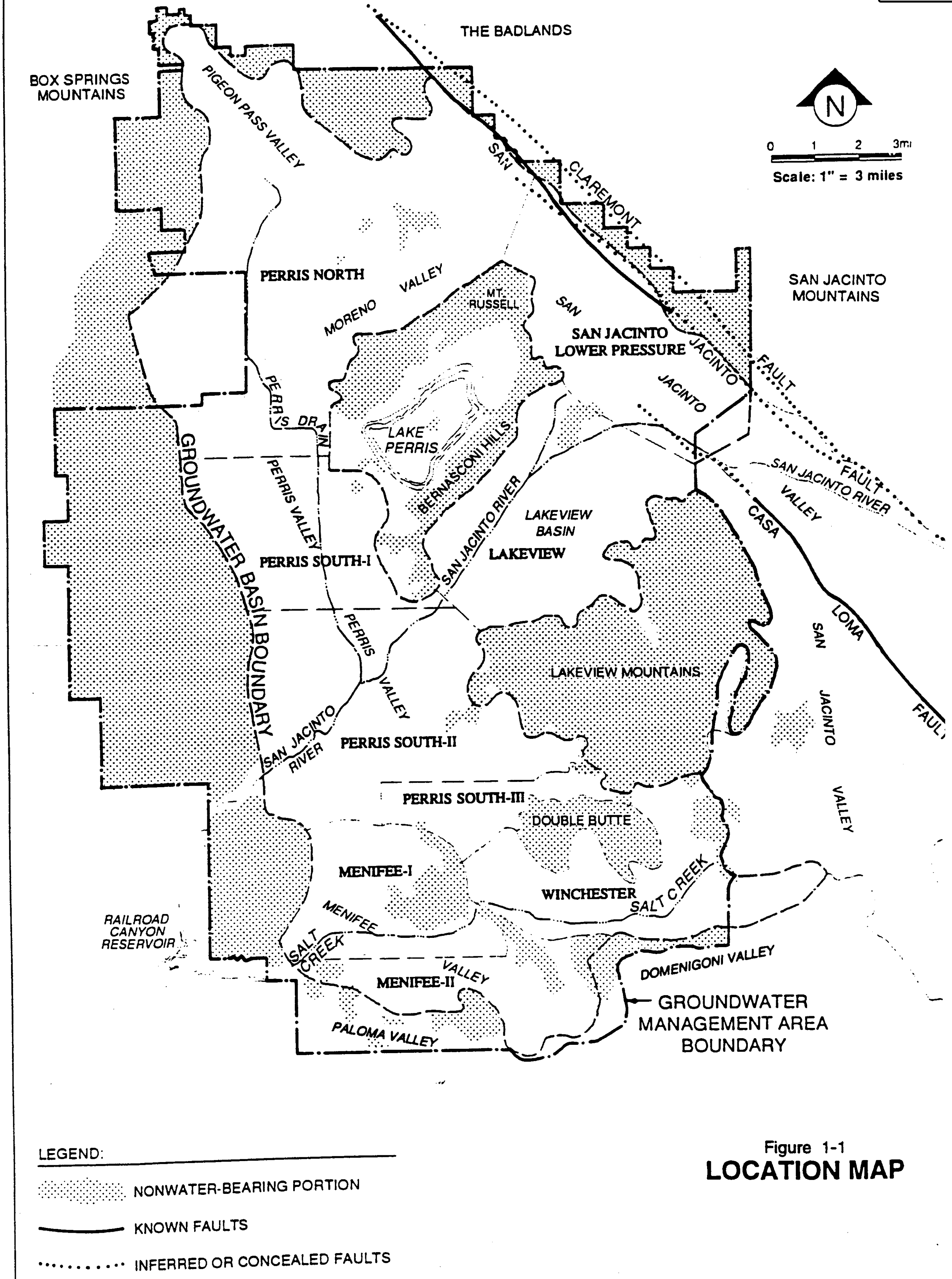

Figure 1-1
LOCATION MAP

REFERENCE: DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1977.

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> "§10753.7 (a) The control of saline water intrusion.
> (b) Identification and management of wellhead protection areas and recharge areas.
> (c) Regulation of the migration of contaminated groundwater.
> (d) The administration of a well abandonment and well destruction program.
> (e) Mitigation of conditions of overdraft.
> (f) Replenishment of groundwater extracted by water producers.
> (g) Monitoring of groundwater levels and storage.
> (h) Facilitating conjunctive use operations.
> (i) Identification of well construction policies.
> (j) The construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects.
> (k) The development of relationships with state and federal regulatory agencies.
> (l) The review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination."

EMWD's Board of Directors adopted resolution No. 3039 to develop a Groundwater Management Plan for the West San Jacinto Groundwater Basin and published a Notice of Intent on August 25, 1993. The groundwater management plan for the West San Jacinto Groundwater Basin is being developed under the authority of Assembly Bill 3030 (AB 3030), which allows a local water agency to take the lead in development of a plan. Up to two years can be taken for development of a plan. Local water purveyors, both public and private, have been involved in development of the plan. There are approximately forty-five (45) pumpers in the area. Public meetings, workshops and hearings were held during the preparation of the draft plan. Cooperative agreements with EMWD have already been signed by Nuevo Water Company, Edgemont Gardens Mutual Water District and the City of Perris.

EXISTING WATER RESOURCES FRAMEWORK

Eastern Municipal Water District

EMWD encompasses over 540 square miles in the western portion of Riverside County as shown on Figure 1-2. It is bounded on the west by Western Municipal Water District, on the north by mountains which approximately parallel the San Bernardino County boundary, on the east by the San Jacinto Mountains, and on the south by mountains which parallel the San Diego County line. Only about half of the area within EMWD's boundary receives water service at this time. EMWD is the only wastewater treatment entity in the West San Jacinto groundwater management area.

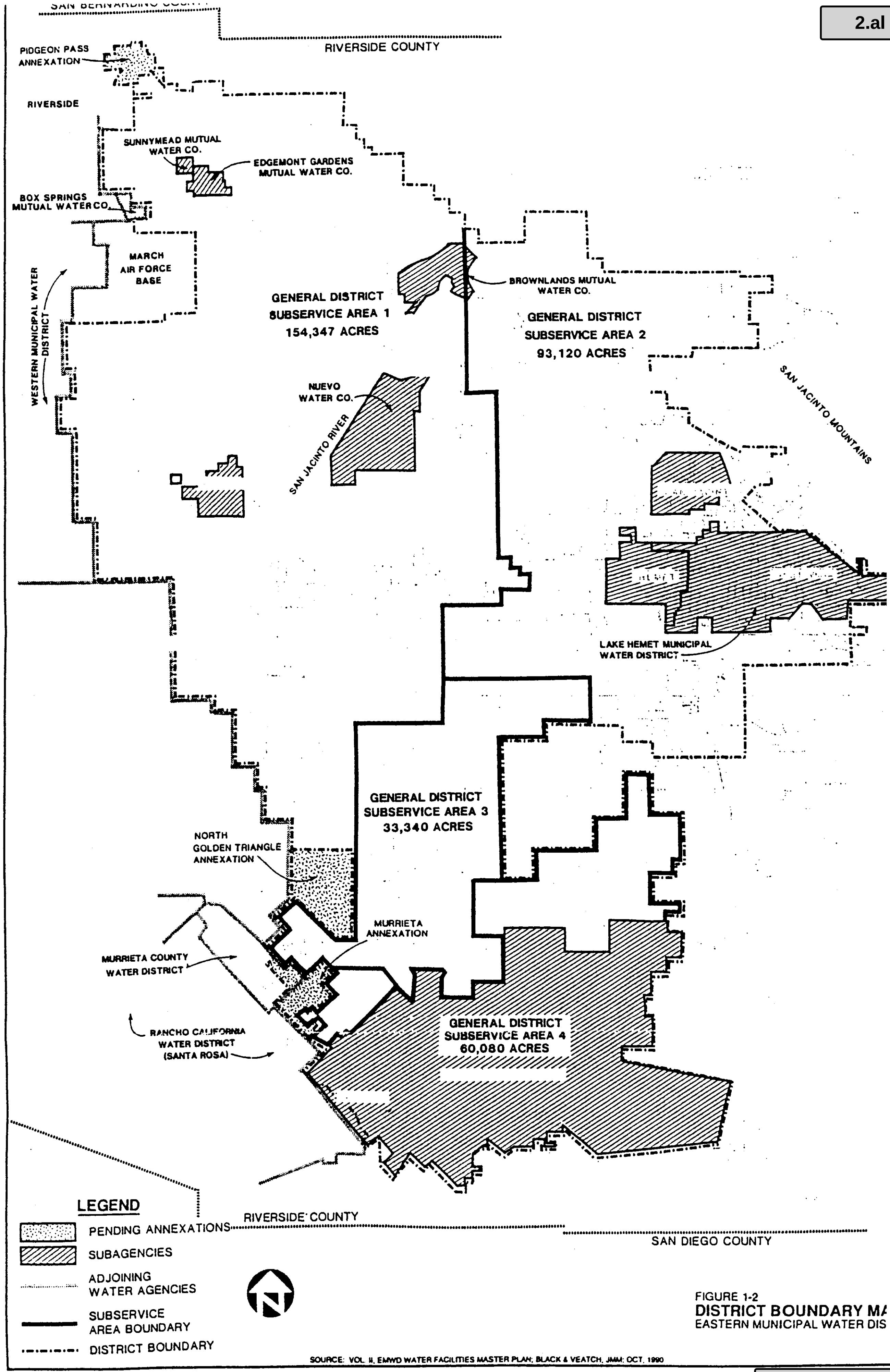

FIGURE 1-2
DISTRICT BOUNDARY MA
EASTERN MUNICIPAL WATER DIS

SOURCE: VOL. II, EMWD WATER FACILITIES MASTER PLAN; BLACK & VEATCH, JMM; OCT. 1990

EMWD has divided its service area into four subservice areas for the distribution of water as shown on Figure 1-2. The boundary of the groundwater management area is approximately the same as EMWD Service Area 41, which is supplied by Metropolitan's Mills and Skinner treatment plants. The management area includes the cities of Moreno Valley and Perris, and the unincorporated areas in western Riverside County such as the communities of Lakeview, Nuevo, Sun City and Winchester.

EMWD has agreed to supply water on a wholesale basis to eight public entities and companies, four of which are in the West San Jacinto Groundwater Management area. Water requirements by these subagencies varies depending on development and the availability of local supplies. These entities and public agencies include the Brownlands Mutual Water Company, city of Perris, Edgemont Gardens Mutual Water Company and Nuevo Water Company. The location of these entities within the West San Jacinto Groundwater Management area are shown in Figure 1-3.

Metropolitan Water District of Southern California

Metropolitan Water District of Southern California (Metropolitan) is a wholesale water agency serving supplemental imported water to 27 member cities and water agencies in portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties. This service area has a current population of about 15 million people. Approximately one-half of the total water used throughout the entire Metropolitan service area is imported water purchased from Metropolitan to supplement the local water supplies of the study area. Metropolitan obtains imported supplies from the Colorado River and the State Water Project (SWP). Figure 1-4 shows the locations of Metropolitan's, state and EMWD imported water facilities.

Regulation of Wastewater

The West San Jacinto Groundwater Management plan will be influenced by the plans and policies of the Federal Environmental Protection Agency, State Water Resources Control Board, California Regional Water Quality Control Board, Santa Ana Region as well as the state and local health departments.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

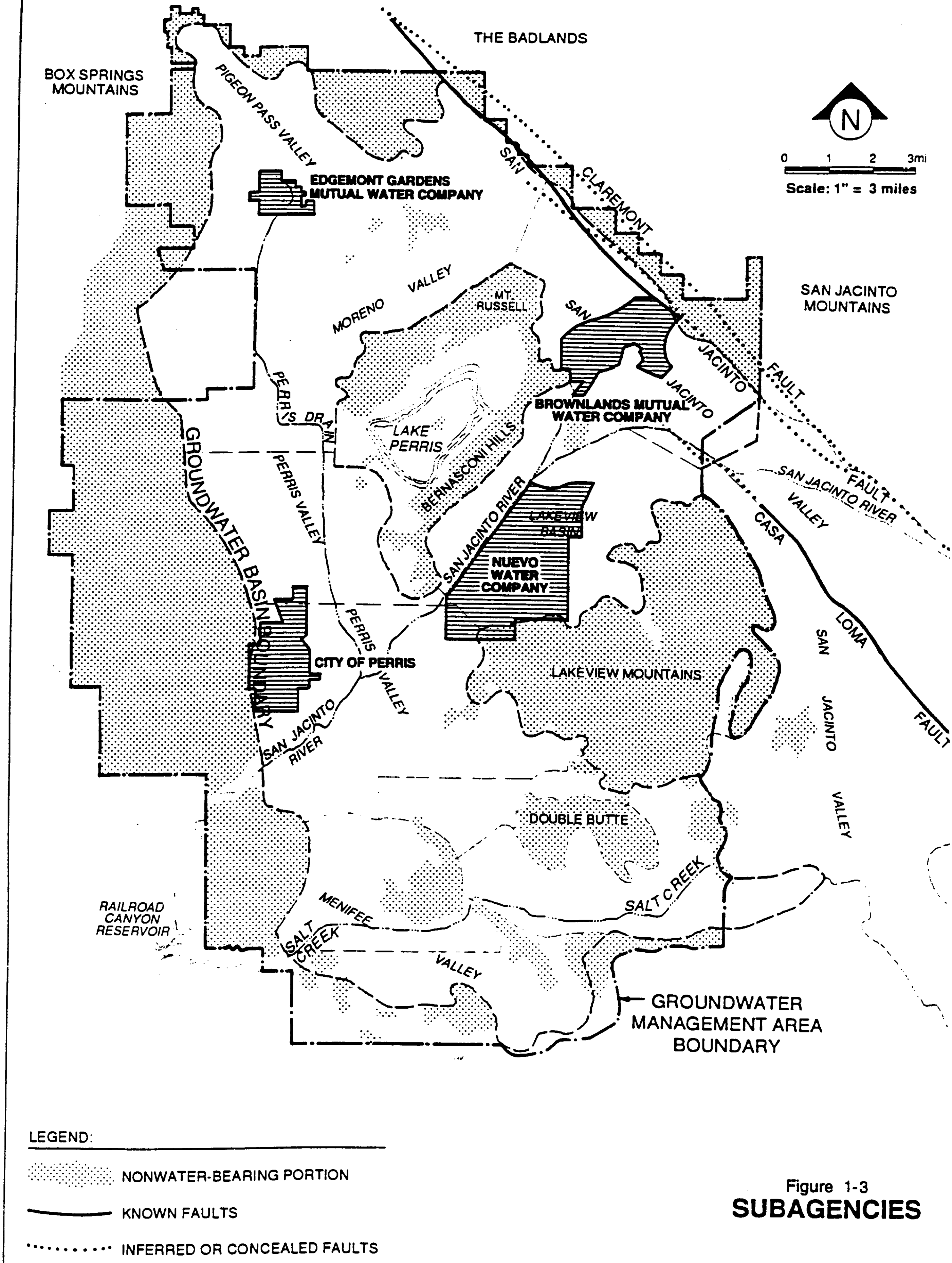

Figure 1-3
SUBAGENCIES

REFERENCE: VOL. II, EMWD WATER FACILITIES MASTER PLAN; BLACK & VEATCH, JMM; OCT. 1990.

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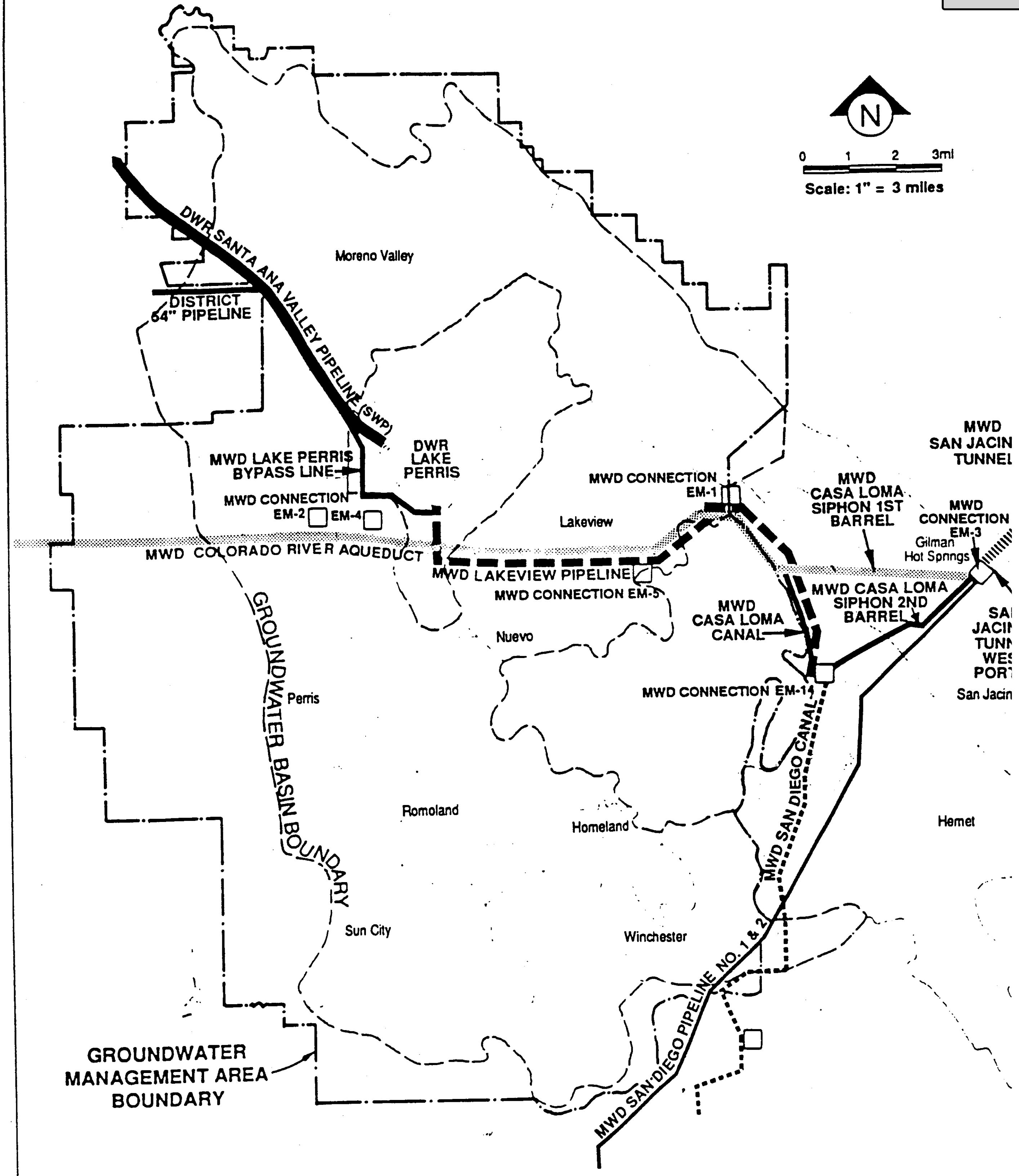

Figure 1-4
IMPORTED WATER FACILITIES

REFERENCE: EMWD WATER FACILITIES MASTER PLAN, *FIG. 4-3: SOURCES OF SUPPLY MAP*, OCTOBER, 1990.

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Regulation of Drinking Water

Drinking water quality standards are enforced in California by California Department of Health Services (DHS). Groundwater developed in the groundwater management plan for municipal uses must satisfy the standards described in Title 22 of California Code of Regulations.

Local Planning and Regulatory Agencies

Other local agencies that may have a significant influence on groundwater management include:

> Riverside County Flood Control and Water Conservation District. This agency plans, constructs and operates flood control and water conservation facilities in Riverside County. The construction of flood control and water conservation facilities affects the volume of recharge to groundwater and thus, has a potentially significant impact.
>
> Riverside County Planning Department. Riverside County Planning Department develops and reviews general plans for all unincorporated areas in the county. Thus, this agency will review the groundwater management plan for consistency with general plans under their jurisdiction.
>
> Riverside County Health Department. The Riverside County Health Department will review water supply and wastewater plans that could be embodied in the groundwater management plan.

GROUNDWATER RESOURCES IN THE WEST SAN JACINTO BASIN

Figure 1-5 shows the major physical features, waterbearing and non-waterbearing areas of the groundwater management area. The major physical features in the study area include the San Jacinto mountains, the Badlands, the San Jacinto River, Salt Creek, Perris Valley Drain, the San Jacinto and Casa Loma faults, the Lakeview mountains, the Bernasconi Hills, and Double Butte. The management area groundwater basins are shown in Figure 1-6 and include Perris South I, II and III, Menifee I and II, Lakeview, the San Jacinto Lower-Pressure and portions of Perris North and Winchester subbasins.

The safe yield, volume of groundwater in storage, storage capacity, and water quality characteristics in the subbasins are summarized in Table 1-1. The safe yield of the individual subbasins ranges from about 1,600 for the Winchester subbasin to about 13,700 acre-ft/yr for the Perris North subbasin. The total safe yield of the West San Jacinto Groundwater Basin is about 36,200 acre-ft/yr. The safe yield increases if the volume of other planned groundwater recharge

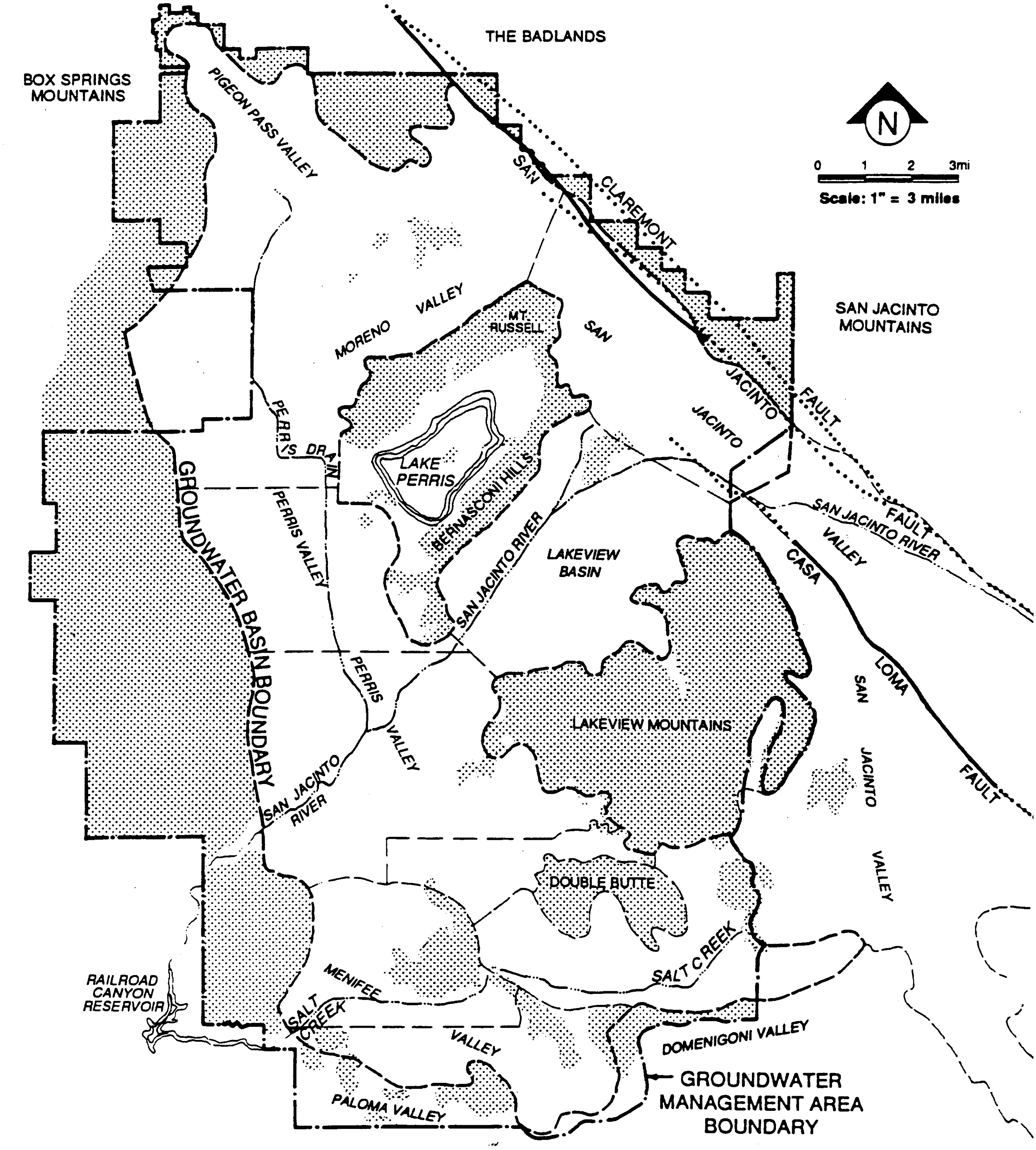

LEGEND:

▨ NONWATER-BEARING PORTION

━━ KNOWN FAULTS

······· INFERRED OR CONCEALED FAULTS

Figure 1-5

MAJOR PHYSICAL FEATURES

REFERENCE: DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1977.

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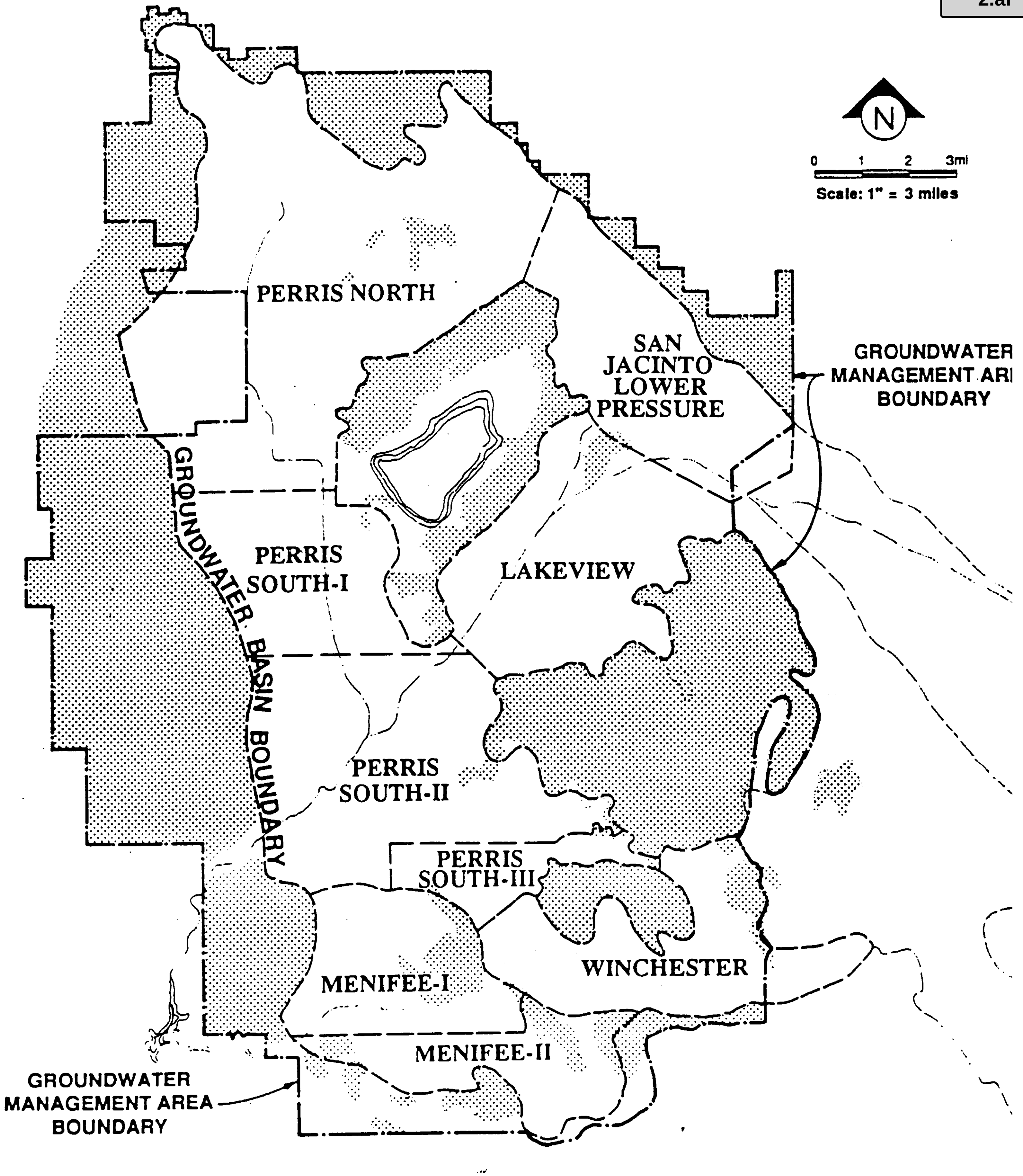

Figure 1-6
GROUNDWATER SUBBASINS

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TABLE 1-1
AVAILABILITY OF GROUNDWATER IN THE WEST SAN JACINTO BASIN

Subbasin	Volume in Storage (acre-ft)	Storage Capacity (acre-ft)	Fraction of Groundwater in West San Jacinto Basin	Natural Safe Yield (acre-ft/yr)	Safe Yield with Wastewater Recharge (acre-ft/yr)	Fraction of Yield in West San Jacinto Basin	Average TDS Concentration (mg/L)	Average Nitrate Concentration (as Nitrogen) (mg/L)
Perris North	123,000	347,000	11%	13,700	19,500	41%	450	7
Lakeview	283,000	515,000	25%	6,800	6,800	14%	500	3
Perris South	248,000	402,000	22%	8,300	12,800	27%	920	5
San Jacinto Lower Pressure	382,000	391,000	34%	2,500	2,500	5%	1,000	4
Winchester	36,000	41,000	3%	1,600	1,800	4%	2,000	8
Menifee	56,000	101,000	5%	3,300	4,700	10%	2,250	6
Totals	1,128,000	1,797,000	100%	36,200	48,100	100%		
Average							891	5

Table 1-1
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Water Resources Engineer

water is included in the safe yield estimate. The safe yield, including reclaimed water percolation for the West San Jacinto Groundwater Basin, is about 48,100 acre-ft/yr.

The volume of groundwater in storage ranges from about 36,000 acre-ft for the Winchester subbasin to about 382,000 acre-ft for the San Jacinto Lower Pressure subbasin. The total volume of groundwater in storage in West San Jacinto Groundwater Basin is about 1,128,000 acre-ft. The volume of existing groundwater in storage that can economically be extracted is less than half the current volume in storage. On the other hand, all the water that is added to groundwater storage above the existing levels of groundwater storage can be recovered

Groundwater storage capacity ranges from about 41,000 acre-ft for the Winchester subbasin to about 515,000 acre-ft for the Lakeview subbasin. The total storage capacity for West San Jacinto Groundwater Basin is about 1,797,000 acre-ft.

Groundwater production estimates for 1993 were estimated from annual reports of groundwater production on file at the State Water Resources Control Board and from SCAG land use. Using reported groundwater production data, the total groundwater production from the West San Jacinto Groundwater Basin is about 8,200 acre-ft/yr. Combining reported groundwater production from municipal agencies, groundwater production estimates based on agricultural land uses and deducting agricultural use of reclaimed water yields a basin wide production estimate of about 26,100 acre-ft/yr.

Groundwater quality in most areas renders the groundwater marginal to unacceptable for direct use as a municipal supply. Groundwater from the Lakeview, Perris North, and parts of Perris South I can be used directly for municipal supply. Groundwater from parts of the Perris South I, Perris South II and Perris South III, and San Jacinto Lower Pressure subbasins could be blended with state project water and then used directly. Groundwater from Menifee, parts of Perris South II and Perris III, and the Winchester subbasins will need to be demineralized before use as a municipal supply.

FUTURE WATER DEMANDS AND WASTEWATER FLOWS

Projected Municipal Water demands for the West San Jacinto Groundwater Management area are listed in Table 1-2 and shown graphically in Figure 1-7. These estimates are based on land use and population projections and projected water use rates. Municipal demands in the West

TABLE 1-2
PROJECTIONS OF MUNICIPAL AND AGRICULTURAL DEMANDS WEST SAN JACINTO GROUNDWATER BASIN

Year	Municipal Demands(1) (acre-ft/yr)	Agricultural Demands (acre-ft/yr)
1995	47,000	33,000
2000	63,000	32,000
2005	84,000	31,000
2010	112,000	31,000

Sources: (1) EMWD Projections 8/94

FIGURE 1-7 WATER DEMAND PROJECTIONS FOR THE WEST SAN JACINTO GROUNDWATER MANAGEMENT AREA

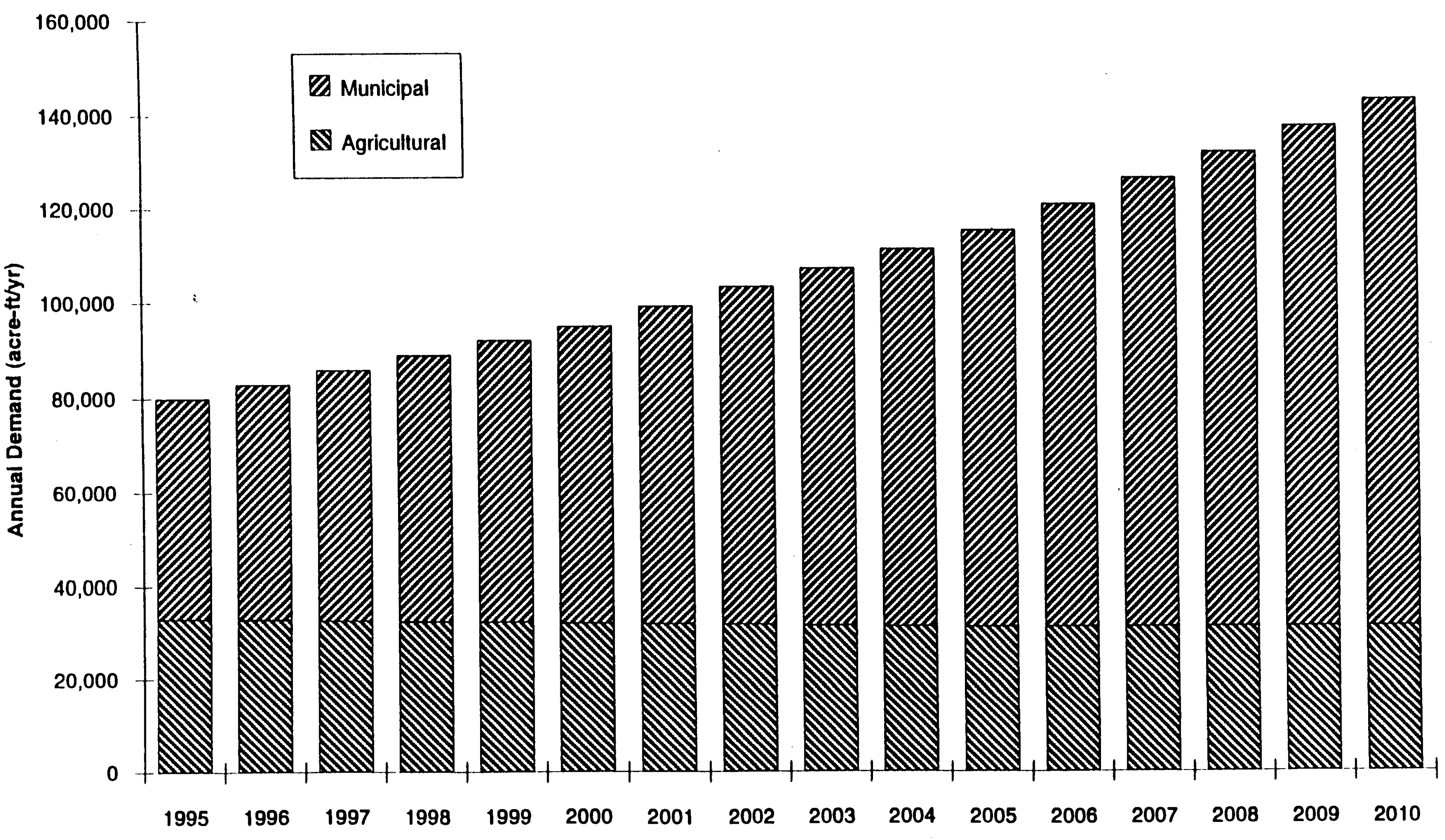

San Jacinto Groundwater Management Area range from 47,000 acre-ft/yr in 1995, to 112,000 acre-ft/yr in 2010. Agricultural demands are projected to decline from about 33,200 acre-ft/yr in 1995, to 31,000 acre-ft/yr in 2010.

The sources of supply to the West San Jacinto Groundwater Management area include imported water from Metropolitan, groundwater, and reclaimed water.

Imported Water from Metropolitan. The quality of treated imported water is generally excellent and meets all drinking water regulations. Metropolitan adopted a schedule of projected water rate increases in 1991. The water rates established included:

- ☐ a base (non-interruptible) rate;
- ☐ a treatment surcharge to be added to the base rate for purchases of treated water; and
- ☐ a seasonal discount for water produced from October 1 through April 30, to be subtracted from the base rate.

The goals of the seasonal discount are: to achieve greater conjunctive use of imported supplies and local supplies; encourage the construction of additional local production facilities; and reduce member agencies' dependence on Metropolitan deliveries during the summer months. Recently, Metropolitan announced water prices for 1993 and forecasted rates for the following ten years. The projected cost of imported water purchased from Metropolitan is shown graphically in Figure 1-8.

Metropolitan is currently evaluating supply reliability for its service area (Metropolitan Water District of Southern California, 1994). Metropolitan is projecting that with year 2000 demands, shortages in retail supplies will occur at least four out of five years, with shortages up to 30 percent. By the year 2020, shortages will occur on average once in five years, with shortages up to 20 percent. The frequency and magnitude of retail shortages will be comparable to Metropolitan shortages for areas that depend heavily on Metropolitan.

Groundwater. Groundwater is available throughout the management area in that most of the management area overlies the West San Jacinto Basin. However, the quality of groundwater precludes the use of some of the management area groundwater for municipal supply. TDS and nitrate are the water quality constituents that limit the use of groundwater. TDS is regulated as a secondary standard. Secondary standards are for those substances that are not hazardous to

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

FIGURE 1-8 COST OF IMPORTED WATER

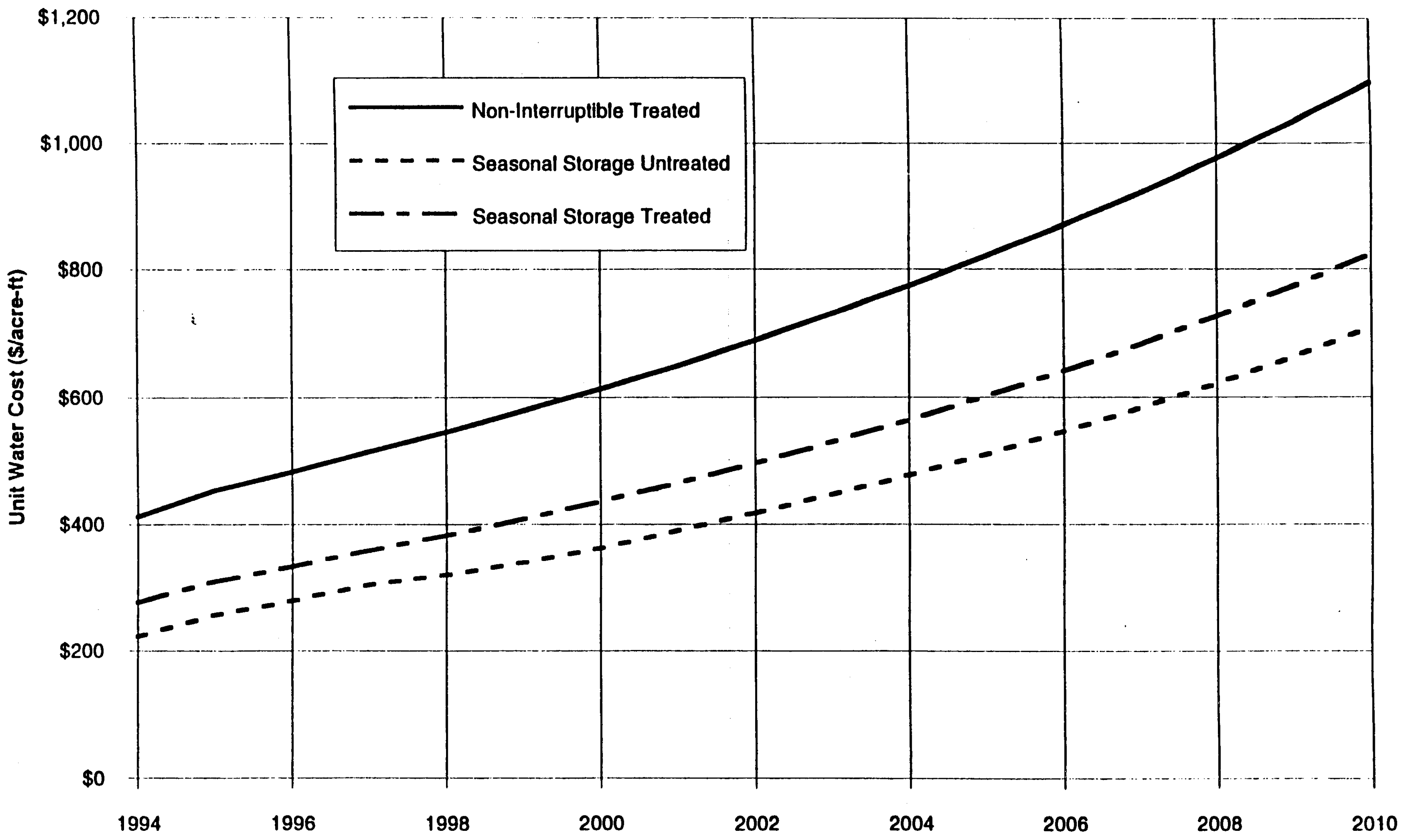

health, but may cause taste, order, color, staining or other conditions that adversely affect the aesthetics of drinking water. The maximum contaminant level (MCL) for TDS is expressed as follows:

> *Recommended MCL* - 500 mg/L. TDS concentrations less than or equal to the *Recommended MCL* are desirable for a higher level of consumer acceptance.
>
> *Upper MCL* - 1,000 mg/L. TDS concentrations ranging up to the *Upper MCL* are acceptable if it is neither reasonable nor feasible to provide more suitable waters.
>
> *Short Term MCL* - 1,500 mg/L. TDS concentrations ranging up to the *Short Term MCL* are acceptable only for existing systems on a temporary basis, pending the construction of treatment facilities or the development of acceptable new water sources.

Nitrate is regulated under primary standards. The MCL for nitrate is 10 mg/L (as nitrogen). Table 1-1 lists the average TDS and nitrate concentrations for each groundwater subbasin in the management area. The subbasins are ranked in Table 1-1 from lowest to highest in TDS. From a drinking water perspective, approximately 36 percent of the yield of the West San Jacinto Basin could be developed from the Lakeview and Perris North subbasins for direct use, without additional treatment for TDS and nitrate. Some groundwater in the Perris South-I subbasin could also be used without treatment and San Jacinto Lower Pressure, Perris South-II and Perris South-III groundwater could be used if blended with SWP water. Groundwater from the Menifee-I, Menifee-II, Winchester and parts of the Perris South-II and Perris South-III subbasins will require treatment if groundwater from these subbasins is to be used as a municipal drinking water supply. The treatment processes that would make these basins useful as a water supply source are blending with low TDS supplies such as SWP water, and demineralization. The cost to produce groundwater, exclusive of treatment, is estimated at about $68 per acre-ft.

Reclaimed Water. EMWD is constructing a reclaimed water distribution plan that will make reclaimed water available throughout the management area. The reclaimed water system consists of five reclamation plants and about 79 miles of backbone distribution pipelines. The use of reclaimed water replaces non-potable demand on groundwater and imported supplies.

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Water Supply Plan without a Groundwater Management Plan

The water supply plan for the management area, in the absence of a groundwater management plan, consists of the use of imported water for all new municipal uses and a combination of groundwater and reclaimed water for agricultural uses. All agricultural demands would be satisfied with groundwater and reclaimed water. The Menifee desalter would be operational in 1997, producing about 3,360 acre-ft/yr. The water supply plan for the management area is listed in Table 1-3.

The cost of this water supply plan is described in Table 5-6 in Section 5 of this report. Table 5-6 shows the annual demand, supplies by source and cost of each source in terms of annual cost, total annual cost and present value of all cost over the 1995 to 2010 planning period. The fractions of total supply and total supply cost by source are listed below.

Source	Fraction of Total Supply	Fraction of Total Supply Cost
Imported Water	64%	91%
Reclaimed Water	10%	2%
Menifee Desalter	3%	4%
Groundwater	23%	3%

The present value cost of future water supplies in the management area for the period 1995 to 2010 is about $557,000,000.

GROUNDWATER MANAGEMENT GOALS

The mission statement of EMWD is:

> ***The mission of the Eastern Municipal Water District is to deliver a dependable supply of safe, quality water and provide sewage collection services to its customers in an economical, efficient and publicly responsible manner.***

The water supply part of EMWD's mission statement is a goal shared by all purveyors of water in the West San Jacinto Groundwater Basin management area. The safe yield of the West San

TABLE 1-3
WATER SUPPLY PLAN IN THE ABSENCE OF A GROUNDWATER MANAGEMENT PLAN
(acre-ft/yr)

Year	1995		2000		2005		2010	
	Volume	Fraction	Volume	Fraction	Volume	Fraction	Volume	Fraction
Municipal Demand	47,000	100%	63,000	100%	84,000	100%	112,000	100%
Imported Water	44,500	95%	56,140	89%	76,140	91%	103,140	92%
Menifee Desalter	0	0%	3,360	5%	3,360	4%	3,360	3%
Reclaimed Water	0	0%	1,000	2%	2,000	2%	3,000	3%
Groundwater	2,500	5%	2,500	4%	2,500	3%	2,500	2%
Agricultural Demand	33,000	100%	32,000	100%	31,000	100%	31,000	100%
Reclaimed Water	8,900	27%	8,900	28%	8,900	29%	8,900	29%
Groundwater	24,100	73%	23,100	72%	22,100	71%	22,100	71%
Total Demand	80,000	100%	95,000	100%	115,000	100%	143,000	100%
Imported Water	44,500	56%	56,140	59%	76,140	66%	103,140	72%
Menifee Desalter (1	0	0%	3,360	4%	3,360	3%	3,360	2%
Reclaimed Water	8,900	11%	9,900	10%	10,900	9%	11,900	8%
Groundwater (2)	26,600	33%	25,600	27%	24,600	21%	24,600	17%

Jacinto Basin is about 36,200 acre-ft/yr. Projections of groundwater usage in the management area range from about 26,600 acre-ft/yr in 1995, to 24,600 acre-ft/yr in 2010.

Agricultural groundwater use will decrease slightly in the future, from about 24,100 acre-ft/yr to 22,100 acre-ft/yr, as agricultural lands are converted to urban uses. The majority of this agricultural water demand will be satisfied by reclaimed water. The need for potable water will increase dramatically in the future. Potable water demands in the management area will range from 47,000 acre-ft/yr in 1995, to 112,000 acre-ft/yr by 2010.

In the absence of a groundwater management plan, most of the new potable demand will be met from treated imported water purchased from Metropolitan. Metropolitan's supplies are projected to increase in cost about 142 percent over the 1995 to 2010 planning period, from $454 per acre-ft in 1995, to about $1,100 per acre-ft in 2010. Metropolitan's supply is also not entirely reliable. For year 2000 demands, Metropolitan has projected shortages in four years out of five years, ranging from 10 to 30 percent.

There are many private groundwater producers in the management area that do not rely on EMWD for water supply. The negative impacts, if any, of a groundwater management plan on these users must be minimized; and the ability of these groundwater producers to continue producing groundwater for beneficial use must be preserved.

The goal of the groundwater management plan is to

> ***maximize the use of groundwater for potable demands in such a way as to lower the cost of water supply and to improve the reliability of the <u>total</u> water supply for <u>all water users in the West San Jacinto Groundwater Basin Management area</u>.***

ELEMENTS OF A GROUNDWATER MANAGEMENT PLAN

The groundwater management plan consists of four elements that include adoption of groundwater management policies, development of groundwater yield enhancement programs, conjunctive use with imported supplies and the exchange of groundwater from agricultural and other non-potable uses with reclaimed water.

Groundwater Management Policies

Management policy elements consist of developing and implementing policies, regulations and coordinated activities among the groundwater producers. Currently, there is no routine monitoring of groundwater production, groundwater level and groundwater quality in the management area. There are no programs or institutions that routinely collect and review these data. There are no management tools available to forecast the impact of existing and future groundwater management practices. There is no coordination or oversight of well construction in the management area. There is no systematic plan to manage unused and obsolete wells. The management plan needs to include policies to manage well construction and to ensure their destruction when wells become obsolete. The following management policy elements should be included in the groundwater management plan.

- ☐ Establishment of Groundwater Basin Manager
- ☐ Groundwater Production Monitoring
- ☐ Groundwater Level and Quality Monitoring
- ☐ Development of Well Construction Policies.
- ☐ Development of Well Abandonment and Destruction Policies
- ☐ Monitoring of Well Construction, Abandonment and Destruction
- ☐ Groundwater Quality Protection

Yield Enhancement Elements

Yield enhancement refers to increasing the useful yield of the groundwater resource. In the West San Jacinto Groundwater Management area there are two yield enhancement elements that could be incorporated in the groundwater management plan -- artificial recharge and recovery of contaminated groundwater.

Artificial recharge can be done in spreading basins, injection wells and exchange. Groundwater storage capacity and favorable hydrogeologic conditions favor artificial recharge in the Lakeview, Perris North and parts of Perris South I and Perris South II subbasins. The other subbasins are full and have poor hydrogeologic characteristics for recharge. The source water for artificial recharge would consist of small quantities of local runoff and significantly larger quantities of state project water from Metropolitan and reclaimed water from EMWD.

Recovery of contaminated groundwater consists of the pumping and treatment of contaminated groundwater. The types of treatment that are included in this element include demineralization and blending; although other types of treatment may be required depending on water quality conditions. Demineralization will be necessary to remove salt accumulating in groundwater and to develop municipal supplies from parts of the Perris South II and Perris South III, and the Winchester subbasins. Blending could be used to recover degraded groundwater from parts of the Perris South I, Perris South II and Perris South III, and San Jacinto Lower Pressure subbasins. This assessment is based on limited water quality data and therefore the type of treatment necessary to recover contaminated groundwater may change when better data becomes available.

Conjunctive Use

Conjunctive use is an operational strategy that combines the operations of multiple sources of water and storage resources in such a way that the combined yield is greater than the yield that would occur from the sum of independent, uncoordinated operations of the sources. The same definition would apply if other objectives could be achieved by coordinated operation and the yield remained at an acceptable level. Other objectives might include reduced cost, more reliable supply, and the attainment of environmental objectives. In most cases, conjunctive use results in increased yield and lower cost. Conjunctive use is commonly associated with storing of imported water in groundwater basins for use during periods of shortage. The more general definition could involve EMWD reclamation and municipal distribution facilities, Metropolitan facilities and resources, state project facilities and resources, groundwater basins within EMWD, and, potentially, groundwater basins outside of EMWD. Conjunctive use can operate seasonally, over-year, or both. Seasonal conjunctive use would bank water during seasonal period(s) of over-supply or abundance for use during dry times of the year. Over-year conjunctive use would bank water during years of over-supply or abundance for use during drought periods and imported water shortages.

Based on current knowledge of groundwater conditions, EMWD could bank local runoff, imported water purchased from Metropolitan and reclaimed water in the Lakeview, Perris North and Perris South subbasins during the period of October 1 through April 30, for use either during the summer, during periods of imported water shortages, or both. The unused storage capacity of the Lakeview, Perris North and Perris South subbasins is about 600,000 acre-ft. EMWD could use up to half (and possibly more) of this unused storage capacity for seasonal and over-year storage, thereby reducing the cost of imported water purchases and providing an additional source of water during periods of imported supply shortage. Recharge would be accomplished with a combination of new spreading basins and injection wells. Recovery of recharge will be through existing and new production wells. Reclaimed water could be a source of recharge in a conjunctive use program for augmentation of potable supplies. EMWD should be able to shift about 30,000 to 50,000 acre-ft year of non-interruptible rate purchases to off-peak with conjunctive use projects in the Lakeview, Perris North and Perris South subbasins. The reduction in cost would be much more substantial if a blend of reclaimed water and imported water were recharged during the winter.

Based on current knowledge of groundwater conditions, conjunctive use with imported supplies and local runoff in the San Jacinto Lower Pressure, Menifee and Winchester subbasins appears to be more difficult to implement and of less benefit. Limited conjunctive use in these subbasins could be done in conjunction with groundwater treatment.

GROUNDWATER MANAGEMENT PLAN

Contents of the Management Plan

The management plan described herein is a program to achieve the management plan goals and includes conceptual descriptions of elements of the plan, and a description of the process to define and implement these elements consistent with the management plan goal. The groundwater management program includes: the development and implementation of policies, engineering investigations, facilities construction and operation, and other management activities. There are significant deficiencies in the knowledge of the groundwater resources of the West San Jacinto Groundwater Basin management area. These deficiencies preclude the definitive descriptions for some of the physical and institutional elements of the groundwater management plan. The groundwater management program includes studies to obtain additional information that is necessary to develop all the institutional and physical elements described in the plan.

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The goal of the management plan is:

> ***maximize the use of groundwater for potable demands in such a way as to lower the cost of water supply and to improve the reliability of the total water supply for all water users in the West San Jacinto Groundwater Basin management area***

This goal extends to all groundwater users. Groundwater users that are not dependent on EMWD should benefit from the groundwater management plan. Adverse impacts, if any, from the groundwater plan will be minimized or mitigated. The rights of private groundwater producers will be protected. Groundwater producers who extract 10 acre-ft/yr or less would be exempt from the operation and implementation of the groundwater management plan.

Ultimate Plan Description

The groundwater management plan consists of a series of elements that, when implemented, will achieve the management plan goal stated above within the constraints. The management plan includes implementation of new policies, institutional arrangements, and physical projects. EMWD will be the agency responsible for implementation of the groundwater management plan. Based on the information developed in this study and presented in the previous sections, the ultimate groundwater management plan should include the following elements.

> **Establishment of a Groundwater Basin Manager.** EMWD will implement the groundwater management plan. EMWD Board of Directors will be the decision-making body responsible for directing the implementation of the groundwater management plan. EMWD staff will serve as the staff to assist the EMWD Board of Directors in implementing the plan.
>
> Upon adoption of the groundwater management plan, EMWD Board of Directors will appoint an Advisory Committee. The Advisory Committee will be composed of seven members, with one member each from city of Moreno Valley, city of Perris, Nuevo Mutual Water Company, Edgemont Gardens Mutual Water Company, and EMWD; and two members representing agricultural producers. The Advisory Committee will study, review and provide comments on all groundwater management plan activities directly to the EMWD Board of Directors.
>
> EMWD staff, will prepare an annual engineering report describing the operation of the management plan for review by the EMWD board of directors, Advisory Committee and groundwater producers. EMWD, in consultation with the Advisory Committee and participating groundwater producers, will develop a coordinated operating strategy on an annual basis, based on the management plan and the findings of the annual report.

Monitoring of Groundwater Production. EMWD, in cooperation with the Advisory Committee, will implement a groundwater production monitoring program. Detailed estimates of the safe yield will be developed during the first year of the program. Groundwater production estimates will be developed by EMWD based on totalizing meters, energy usage and land use. EMWD will produce a groundwater production report and estimates of overdraft (if any). These data will be included in the annual report provided to the management committee. The production monitoring program will not limit or suspend groundwater production by existing groundwater producers.

Monitoring of Groundwater Level and Quality. EMWD, in cooperation with the Advisory Committee, will implement a groundwater level and quality monitoring program. Groundwater level and quality data will be collected from well owners. EMWD will measure groundwater levels and quality from select private wells. Groundwater levels and quality data from agencies' wells will be provided to EMWD by the agencies. EMWD will compile these data and develop estimates of the groundwater in storage, change in storage, overdraft and groundwater quality conditions. These data will be included in the annual report provided to the management committee.

Development of Well Construction Policies. EMWD, in cooperation with the Advisory Committee, the Department of Health Services and the Riverside County Health Department, will develop well construction policies that are specific to the West San Jacinto Groundwater Basin management area. These policies will be updated continuously based on new regulatory requirements and data. These policies will not limit or suspend groundwater production by existing groundwater producers.

Monitoring of Well Construction. EMWD has compiled and digitized most, if not all the well construction information that is available for existing wells. EMWD, in cooperation with other groundwater producers, will collect well construction data for new wells. EMWD will provide comments and suggestions to supplement design criteria that will be required by other agencies, including the Department of Health Services and the Riverside County Health Department.

Development of a Well Abandonment and Destruction Program. EMWD, in cooperation with the Advisory Committee, the Department of Health Services and the Riverside County Health Department, should develop well abandonment and destruction policies that are specific to the West San Jacinto Groundwater Basin management area. These policies should be updated continuously based upon new regulatory requirements and data.

Groundwater Quality Protection. EMWD, in cooperation with the Advisory Committee and parties responsible for groundwater quality degradation, should develop cooperative plans to prevent further degradation of groundwater and to integrate the solution of existing water quality problems to maximize the beneficial use of groundwater. The known areas of concern are the high TDS groundwater in the Perris South II (Ski Land area) and Winchester subbasins, and the groundwater contamination associated with March Air Force Base. The existing efforts undertaken by EMWD to rehabilitate the Menifee subbasins (the Menifee desalter project) will be completed independent of the groundwater management plan. Additional degraded groundwater areas could be discovered through groundwater monitoring.

Exchange of Agricultural and Other Non-potable Groundwater Production to Municipal Use. The intent of this element is to increase the groundwater yield available for municipal use by either retiring agricultural and non potable demands or by substituting reclaimed water for groundwater used for agricultural and other non-potable uses. Incentives should be developed to encourage the exchange of agricultural groundwater production to municipal use.

Maximize Yield Augmentation with Local Resources - Local Runoff and Reclaimed Water. Yield augmentation through the recharge of runoff (water harvesting) and through the recharge of reclaimed water should be implemented where consistent with water quality objectives and other elements of the groundwater management plan. The Lakeview, Perris North and Perris South subbasins appear to be the most feasible areas for this element.

Maximize Conjunctive Use. Conjunctive use should be implemented in the West San Jacinto Groundwater Basin management area. The unused storage capacity in the West San Jacinto Groundwater Basin management area is about 670,000 acre-ft, with about 600,000 acre-ft or 90 percent in the Lakeview, Perris North and Perris South subbasins. The yield from conjunctive use, exclusive of safe yield, could range from 30,000 to 50,000 acre-ft, or perhaps larger. Conjunctive use will improve overall water supply reliability, groundwater quality, and will lower water supply cost. These benefits will be realized by all groundwater users.

The specifics of recharge, extraction, conveyance and treatment facilities will be developed after a thorough groundwater resources evaluation is performed and planning studies are done to develop and evaluate conjunctive use alternatives.

Groundwater Treatment. Groundwater treatment in the form of blending and demineralization should be done in the West San Jacinto Groundwater Basin management area to recover contaminated groundwater for municipal use. The specifics of treatment facilities will be developed after a thorough groundwater resources evaluation is performed and planning studies are done to evaluate groundwater treatment feasibility.

Groundwater Management Plan Alternatives

Four groundwater management alternatives were developed to evaluate the economic benefits to all water users in the groundwater management area from increasingly complex and capital-intensive groundwater management plans. All four of these alternatives include the following management elements:

☐ Establishment of a Groundwater Basin Manager
☐ Monitoring of Groundwater Production

- ☐ Monitoring of Groundwater Level and Quality
- ☐ Development of Well Construction Policies
- ☐ Development of Well Abandonment and Destruction Policies
- ☐ Monitoring of Well Construction, Abandonment and Destruction.
- ☐ Groundwater Quality Protection

Alternative 1 - Agricultural Exchange and Blending. Alternative 1 consists of the above-mentioned common elements plus the exchange of agricultural groundwater production, of which 2,000 acre-ft/yr are permanent transfers from land use conversions and about 17,500 acre-ft/yr of exchange of groundwater production for reclaimed water. Seven thousand one hundred acre-ft/yr of poor quality groundwater will be pumped from the San Jacinto Lower Pressure and Perris South subbasins and blended with imported water for municipal use.

Alternative 2 - Agricultural Exchange, Blending and Demineralization. Alternative 2 consists of the above-mentioned common elements plus the exchange of agricultural groundwater production, of which 2,000 acre-ft/yr are permanent transfers from land use conversions and about 21,700 acre-ft/yr of exchange of groundwater production for reclaimed water. Seven thousand one hundred acre-ft/yr of poor quality groundwater will be pumped from the San Jacinto Lower Pressure and Perris South subbasins and blended with imported water for municipal use. Five thousand three hundred acre-ft/yr of highly mineralized groundwater from the Perris South and Winchester subbasins will be pumped and demineralized to produce about 4,200 acre-ft of drinking water.

Alternative 3 - Agricultural Exchange, Blending, Demineralization and 30,000 acre-ft/yr Conjunctive Use. Alternative 3 includes all the elements of Alternative 2, plus conjunctive use. Conjunctive use will be implemented in the Perris North, Perris South I, Perris South II and Lakeview subbasins. Recharge would occur in spreading basins. Source water is state project water and reclaimed water. Average annual increase in recharge and extraction from conjunctive use will be about 30,000 acre-ft/yr.

Alternative 4 - Agricultural Exchange, Blending, Demineralization and 50,000 acre-ft/yr Conjunctive Use.. Alternative 4 is identical to Alternative 3 except that the conjunctive use element has been expanded to 50,000 acre-ft/yr.

Economic Evaluation of the Groundwater Management Plan Alternatives

Tables 8-1 through 8-4 in Section 8 illustrate the economic benefits that water users in the West San Jacinto Groundwater Basin management area would realize if a groundwater management plan were implemented. Each table lists the projected total demand for water and shows how that demand would be satisfied with each groundwater management plan alternative. For economic evaluation purposes, the plan elements are assumed on line in 1999, that is, all elements would be implemented in five years. Actual implementation could take place over a longer period of time ranging from five to fifteen years. The groundwater management plan alternatives are compared to the *no groundwater management plan case* in Table 1-4. The difference in costs between the *with management plan* cases and *without management plan* case occurs in years 1999 through 2010.

Alternative 1 - Agricultural Exchange and Blending groundwater management plan case has a present value savings of about $108,000,000 over the no groundwater management plan case. The saving comes from the exchange of up to 17,500 acre-ft/yr of agricultural groundwater production to municipal uses and the reduction in the use of a like amount of imported water.

Alternative 2 - Agricultural Exchange, Blending and Demineralization groundwater management plan is identical to Alternative 1 except that the agricultural exchange of groundwater production to municipal uses has been expanded to about 21,700 acre-ft/yr and municipal groundwater production has been expanded by about 4,200 acre-ft/yr through construction of a demineralization facility. Alternative 2 has a present value savings of about $104,000,000 over the *no groundwater management plan case* and is comparable to the cost of Alternative 1. The cost savings over the *no groundwater management plan case* come from the exchange of up to 21,600 acre-ft/yr of agricultural groundwater production to municipal uses and the reduction in the use of a like amount of imported water. The cost of Alternative 2 is slightly higher than Alternative 1 because the demineralization costs are higher than the cost of imported water prior to 2010. After 2010 demineralization costs will be less than imported water. Alternative 2 would have costs savings greater than Alternative 1 if the economic analysis were extended beyond 2010.

Alternative 3 - Agricultural Exchange, Blending, Demineralization and 30,000 acre-ft/yr Conjunctive Use management plan has all the elements contained in Alternative 2 plus the incorporation of 30,000 acre-ft/yr of conjunctive use. The source water for conjunctive use is 20,000 acre-ft of state project water and 10,000 acre-ft/yr of reclaimed water. The demand for treated non-interruptible water from Metropolitan has dropped from 64 percent for the *no management plan case* to 26 percent. The demand for untreated seasonal water has risen to 14 percent. Treated non-interruptible and seasonal untreated imported water make up 40 percent of municipal supplies. Alternative 3 has a present value savings of about $172,000,000 over the *no groundwater management plan case* illustrated in Table 5-6 and about $66,000,000 over Alternatives 1 and 2. About 62 percent of the cost savings comes from the agricultural exchange,

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TABLE 1-4 (revised 9/7/94)
COMPARISON OF GROUNDWATER MANAGEMENT PLAN ALTERNATIVES

Alternative	--------- Percentage of Total Supply ---------			----- Size of Groundwater Management Plan Elements -----				Present Value Cost of Supply	Reduction in Present Value Cost of Supply from Groundwater Management Plan
	Non Interruptible Treated Imported Water	Seasonal Treated Imported Water	Seasonal Untreated Imported Water	Agricultural Exchange (acre-ft/yr)	Blending (acre-ft/yr)	Demineralization (acre-ft/yr)	Conjunctive Use (acre-ft/yr)		
No Groundwater Management Plan	64%	0%	0%	0	0	0	0	$557,000,000	na
1 Agricultural Exchange and Blending	49%	0%	0%	17,510	7,100	0	0	$449,000,000	$108,000,000
2 Agricultural Exchange, Blending and Demineralization	46%	0%	0%	21,690	7,100	4,180	0	$453,000,000	$104,000,000
3 Agricultural Exchange, Blending, Demineralization and 30,000 acre-ft/yr Conjunctive Use (all recharge through spreading)	26%	0%	14%	21,690	7,100	4,180	30,000	$385,000,000	$172,000,000
4 Agricultural Exchange, Blending, Demineralization and 50,000 acre-ft/yr Conjunctive Use (80 recharge through spreading, 20 % through injection)	18%	4%	18%	21,690	7,100	4,180	50,000	$371,000,000	$186,000,000

blending and demineralization elements included in Alternatives 1 and 2; the remaining cost savings are due to conjunctive use.

Alternative 4 - Agricultural Exchange, Blending, Demineralization and 50,000 acre-ft/yr Conjunctive Use management plan has all the elements contained in Alternative 3 except that conjunctive use has been expanded from 30,000 to 50,000 acre-ft. The source water for conjunctive use is 40,000 acre-ft of state project water and 10,000 acre-ft/yr of reclaimed water. The demand for treated non-interruptible water from Metropolitan has dropped from 64 percent for the no management plan case to 18 percent. Untreated seasonal water has risen to 18 percent and treated seasonal water to 4 percent. Treated non-interruptible, treated seasonal and seasonal untreated imported water make up 40 percent of municipal supplies. Treated seasonal water would be used for recharge by injection. Alternative 4 has a present value savings of about $186,000,000 over the *no groundwater management plan case* illustrated in Table 5-6 and about $80,000,000 over Alternatives 1 and 2. About 57 percent of the cost savings comes from the agricultural exchange, blending and demineralization elements included in Alternatives 1 and 2; the remaining cost savings are due conjunctive use.

The groundwater management plan development costs and the costs of recharge of basins and blending facilities have not been included in these analyses. These costs could have a present value ranging from $50,000,000 to $70,000,000. The cost savings from implementation of any of these alternatives far exceed the cost of implementation. The projected cost savings from the groundwater management plan illustrated in Tables 8-1 through 8-4 are for the 15-year period of 1999 to 2010 in which the capital-intensive facilities, such as spreading basins, have been in operation (and amortized) for 11 years. If these analyses were extended to the period of time over which capital-intensive facilities were to be financed, say 20 years, the cost saving would be significantly greater.

There are two additional significant benefits from a groundwater management plan. First, imported water for direct use has been reduced by half, which will improve overall water supply reliability. The volumetric impact of water shortages in the imported water supply could be reduced by half. Second, the recharge of state project water into the Lakeview, Perris North and Perris South subbasins will improve the quality of the groundwater in these subbasins.

Financing the Groundwater Management Plan

The primary beneficiaries of the plan are municipal water users in the West San Jacinto Groundwater Basin management area. Private groundwater producers such as farmers, dairy operators and individuals with small domestic wells will either be beneficially impacted or have no impacts. It is the intent of the plan to mitigate all significant adverse groundwater impacts to private groundwater producers. The types of beneficial impacts that private well owners could experience will be stabilized or increased groundwater levels where overdraft is occurring, such as the Lakeview subbasin, and reduced supply cost for those groundwater producers that can use reclaimed water in lieu of groundwater.

The cost of implementing and operating the West San Jacinto Groundwater Basin management plan should be born by municipal water users in the management area. The cost savings experienced by the local private groundwater users should be their incentive to participate in the groundwater management plan. There could be some cost to local groundwater producers if groundwater replenishment is necessary due to groundwater overdraft. In the event of overdraft, an equitable cost sharing plan should be developed to correct the overdraft.

Some of the elements of the management plan are capital intensive such as recharge facilities, wells, treatment plants, pipelines, etc. EMWD will need to develop a plan to finance these elements of the groundwater management plan with cost recovery based on the sale of water developed by the plan, or some other method as appropriate. Economic analyses show that the management plan should easily pay for itself.

Implementation of the Groundwater Management Plan

Upon adoption of the groundwater management plan, EMWD will form the Advisory Committee and begin implementation of the policy and physical elements of the management plan. The implementation of the groundwater management plan will occur in a phased process and consist of the following:

Phase 1	Short Term Implementation
Phase 2	Refine the Ultimate Groundwater Management Plan
Phase 3	Ultimate Groundwater Management Plan Implementation

Phase 1 Short Term Implementation. The goals of the short term implementation phase are to: implement those elements of the groundwater management plan that are easy to implement; where existing information is adequate for implementation; and to develop and implement demonstration projects that will provide engineering information necessary for design of management elements in the ultimate plan. The following tasks will be completed in Phase I.

- ☐ Groundwater Resources Evaluation
- ☐ Develop Groundwater Management Policies
- ☐ Construct and Operate Demonstration Projects for Blending, Demineralization and Conjunctive Use
- ☐ Develop Water Resources Planning Model
- ☐ Develop and Evaluate Feasibility Level Plans for physical elements of the Management Plan

Phase 2 Refine the Ultimate Groundwater Management Plan. *Phase 1 Short Term Implementation* will develop policies and data necessary for defining the ultimate groundwater management plan. Phase 2 consists of the detailed engineering, environmental and financial work to describe and implement the ultimate management plan The complexity and cost for the tasks listed below are dependent on the management plan elements included in the management plan.

- ☐ Prepare Facility and Operation Plans
- ☐ Prepare Financial Plan
- ☐ Prepare Project Specific Environmental Impact Reports
- ☐ Prepare Engineering Report for a Planned Recharge Project
- ☐ Institutional Planning

Phase 3 Ultimate Groundwater Management Plan Implementation. The facility plans, environmental documentation and draft agreements developed in Phase 2 will be converted to construction documents, project-specific environmental documentation and final agreements. These projects will then be constructed and operated. The sequencing and sizing of the management elements will depend on actual future water demands and the availability of funds for construction. It is premature to speculate on the magnitude of the effort required by most of these tasks because of uncertainties in what facilities and operating plans will be included in the groundwater management plan and the timing of the tasks.

Management and Monitoring

The management and monitoring of the groundwater management plan will occur while the elements of the ultimate groundwater management plan are being implemented. The management and monitoring activities developed in Phase 1 will be adopted by EMWD board action. Future modifications to management and monitoring programs will be incorporated as warranted by changing conditions.

Schedule and Cost

The Phase 1 work should take about two years to complete. Phase 2 will take about two years to complete and will overlap Phase 1 by about one year. The cumulative time required to complete phases 1 and 2 will be about three to four years. Phase 3 could take up to 10 years to complete with some projects (e.g., blending) coming on line within a couple of years and other projects (e.g., large scale surface recharge) taking 5 years to implement.

The cost to complete Phases 1 and 2 is estimated to range between 3 to 5 million dollars. The cost to complete Phase 3 cannot be estimated until the ultimate plan is described at the conclusion of Phase 2.

SECTION 2

SECTION 2
INTRODUCTION

THE NEED FOR GROUNDWATER MANAGEMENT

EMWD, together with the majority of water purveyors in Southern California, have been heavily relying on imported supplies from Metropolitan Water District of Southern California (Metropolitan). Recently, Metropolitan's ability to supply the ever-growing needs of Southern California has become increasingly unreliable due to the following reasons:

☐ demand for water is continuing to increase;
☐ environmental constraints at the point of origin may limit the water available for export;
☐ structural adequacy of the delivery system is limited;
☐ climatological uncertainties can limit delivery; and
☐ inadequate local storage facilities.

EMWD could purchase imported water from Metropolitan to meet these projected municipal demands. Metropolitan's sources, however, are not reliable and will be very expensive in the future. Metropolitan, with its current planning and future projects, will experience shortages in four of five years, with shortages reaching as high as 30 percent. The cost of imported water from Metropolitan is currently (July 1994) $412 per acre-ft for treated water and is projected to reach about $1,100 per acre-ft by 2010. These rising costs and lack of water to meet all of the demands has encouraged some local agencies in Southern California to claim water rights in the service areas of other agencies. One such action that could adversely affect EMWD's local water resources is a claim recently filed by Orange County Water District, which underscores the urgent need for action by EMWD to protect the water resources within its service area for use by EMWD consumers.

SECTION 2
INTRODUCTION

The West San Jacinto Groundwater Basin underlies a large portion of the Eastern Municipal Water District (EMWD). The West San Jacinto Groundwater Basin includes the Perris North, Perris South, Menifee, Winchester, Lakeview and the San Jacinto Lower Pressure subbasins. The location of these subbasins is shown in Figure 2-1. This area is experiencing rapid land use conversion from agriculture to urban uses. Total municipal water demands are expected to increase from 47,000 acre-ft/yr in 1995, to 112,000 acre-ft/yr in 2010.

Three sources of water supply for these demands can be considered: groundwater, imported water and reclaimed water. Groundwater in the West San Jacinto Groundwater Basin, for the most part, is of poor quality due to natural causes and irrigated agriculture. Most of the groundwater resources cannot be used as municipal supply due to poor quality - the groundwater quality either violates drinking water standards or is too high in total dissolved solids (TDS) or other water quality constituents to be discharged after municipal use. To meet increasing demands, EMWD could purchase imported water from Metropolitan. However, availability and costs might limit this alternative. EMWD has reclaimed water resources that could be used to meet agricultural demands and non-potable municipal demands. Reclaimed water cannot be directly used for potable demand unless, after groundwater recharge and dilution, it meets Title 22 requirements (State Department of Health Services Reclaimed Water Regulations). Additionally, groundwater treatment practices can convert non-potable water supplies to potable supplies.

The availability and reliability of the total water supply can be improved through the joint, optimized (conjunctive) management of all the water supply sources. It is the intent of Assembly Bill AB 3030, which was incorporated into the Water Code in 1992 (Part 2.75 commencing with Section 10750 of Division 6) with amendments by AB 1152 of 1993, to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions. Authorization to adopt and implement a plan is contained in the following section of AB 3030:

> "§10753 (a) Any local agency, whose service area includes a groundwater basin, or a portion of a groundwater basin, that is not subject to groundwater management pursuant to other provisions of law or a court order, judgment, or decree, may, by ordinance, or by resolution if the local agency is not authorized to act by ordinance, adopt and implement a groundwater management plan pursuant to this part within all or a portion of its service area."

The components of a groundwater management plan may include the following:

> "§10753.7 (a) The control of saline water intrusion.
>
> (b) Identification and management of wellhead protection areas and recharge areas.
>
> (c) Regulation of the migration of contaminated groundwater.
>
> (d) The administration of a well abandonment and well destruction program.
>
> (e) Mitigation of conditions of overdraft.
>
> (f) Replenishment of groundwater extracted by water producers.
>
> (g) Monitoring of groundwater levels and storage.
>
> (h) Facilitating conjunctive use operations.
>
> (i) Identification of well construction policies.
>
> (j) The construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects.
>
> (k) The development of relationships with state and federal regulatory agencies.
>
> (l) The review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination."

EMWD's Board of Directors adopted resolution No. 3039 to develop a Groundwater Management Plan for the West San Jacinto Groundwater Basin and published a Notice of Intent on August 25, 1993. The groundwater management plan for the West San Jacinto Groundwater Basin is being developed under the authority of Assembly Bill 3030 (AB 3030), which allows a local water agency to take the lead in development of a plan. Up to two years can be taken for development of a plan. Local water purveyors, both public and private, have been involved in development of the plan. There are approximately forty-five (45) pumpers in the area. Public meetings, workshops and hearings were held during the preparation of the draft plan. Cooperative agreements with EMWD have already been signed by Nuevo Water Company, Edgemont Gardens Mutual Water District and the City of Perris.

APPROACH TO DEVELOPMENT OF GROUNDWATER MANAGEMENT PLAN

EMWD's approach to developing a groundwater management plan consists of the following elements:

- ☐ Establishing a clear set of management goals;
- ☐ Resolving major uncertainties in the knowledge of the groundwater resources;
- ☐ Integration of the planning activities and goals of all interested entities;
- ☐ Evaluation of the benefits, costs and impacts to interested entities; and
- ☐ Providing an environment that obtains consensus at key decision points in the plan development.

A set of management goals must be established early in the plan development process. These goals can be modified during the plan development process. These goals will determine the magnitude of the plan, beneficiaries of the plan, and will guide the technical work that shapes the plan.

There are many uncertainties regarding hydrogeology, hydrology and water quality of the West San Jacinto Groundwater Basin (management area). The entities having an interest in the groundwater management plan have different interpretations of the management area groundwater resources and management issues affecting these resources. Therefore, one of the first steps in the planning process is to develop a complete description of groundwater resources that is understood and accepted by the entities having an interest in the plan.

The water development and wastewater management activities of the entities having an interest in the management area <u>must</u> be integrated into the groundwater management plan. This does not mean that these activities will be included in the plan; rather, these activities will be accommodated in the plan. The plan development process must identify and describe all relevant water development and wastewater planning activities in the management area.

The benefits, costs and other impacts must be evaluated for entities having an interest in the management area. Equity among these entities must be incorporated into the plan in order for the plan to be accepted and implemented. Therefore, the plan development process must include steps to identify and evaluate the benefits, costs and other impacts to the interested entities.

The plan development process will succeed only if there is consensus among the interested entities. Therefore, the process must provide an environment conducive to consensus. The first step to gaining consensus is to invite all the potentially interested entities in the management area to participate in the plan development process. Workshops and meetings were held to inform interested parties during the plan development process. EMWD took the leadership role in the plan development and in disseminating information regarding the plan to all interested parties.

PURPOSE OF THIS REPORT

The purpose of this report is to:

☐ document what is known about the groundwater resources and water supply needs;

☐ develop management goals;

☐ describe the elements of a groundwater management plan consistent with plan goals; and

☐ describe the management plan; and

☐ describe what additional information will be required to develop and implement the groundwater management plan.

This report describes the types of groundwater management practices that are being used in other groundwater basins and their applicability to the West San Jacinto Groundwater Basin. The types of information necessary to implement these groundwater management elements are also described. This report presents groundwater management practices in the context of the future water demands and the water resources of the management area. Finally, this report describes a groundwater management plan for the West San Jacinto Groundwater Basin and a program to implement the management plan.

Implementation of the groundwater management plan will occur over the next 20 to 40 years. As mentioned above, information describing the groundwater basins is inadequate to definitively describe the groundwater management plan. New information will need to be developed during plan implementation. Over the course of the next 20 to 40 years, new technologies, water quality standards and operating concepts will be developed. Therefore the management plan must have alternatives to achieve the management plan goals and be flexible to accommodate future changes.

ORGANIZATION OF THIS REPORT

This report consists of eight sections and two appendices. The remaining seven sections of this report are:

Section 1 Executive Summary

Section 3 Existing Water Resources Management Framework

Section 4 Groundwater Resources in the West San Jacinto Basin

Section 5 Future Water Demands and Wastewater Flows

Section 6 Groundwater Management Goals

Section 7 Elements of the Groundwater Management Plan

Section 8 Description of the Groundwater Management Plan

ACKNOWLEDGMENTS

A great deal of research and data gathering went into the preparation of this study and report. Assistance in research, data gathering and plan formulation was provided by the staff of EMWD, in particular Dr. Behrooz Mortazavi and Dr. P. Ravishanker. Their help was greatly appreciated.

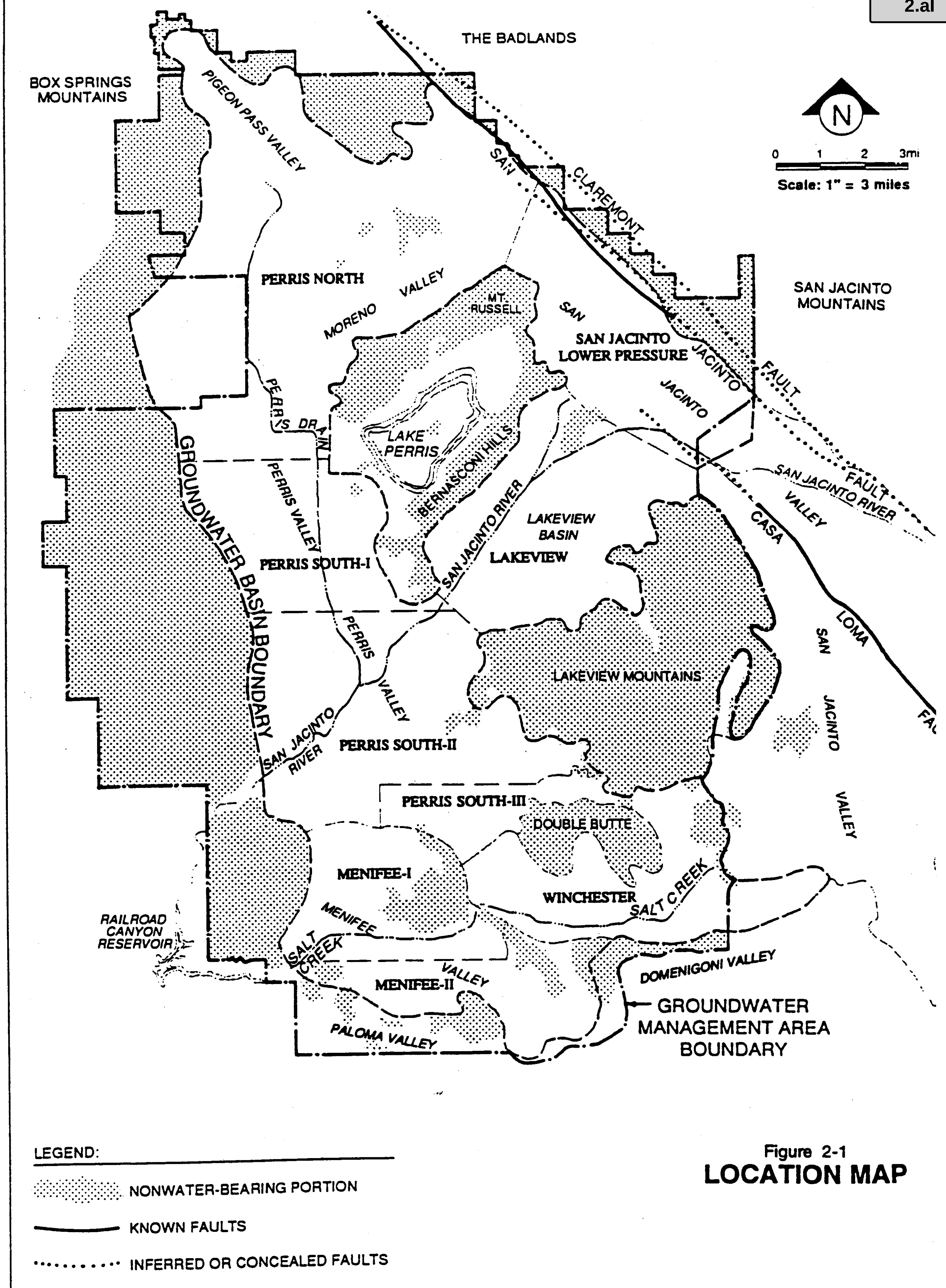

Figure 2-1

LOCATION MAP

REFERENCE: DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1977.

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SECTION 3

SECTION 3
EXISTING WATER RESOURCES FRAMEWORK

This section describes the existing institutional and regulatory framework for the groundwater management plan. First, the agencies that sell, import and otherwise provide water for the management area are listed and described. The regulatory constraints for the management of wastewater and drinking water are also described.

WATER SUPPLY AND WASTEWATER AGENCIES

Eastern Municipal Water District

EMWD encompasses over 540 square miles in the western portion of Riverside County as shown on Figure 3-1. It is bounded on the west by Western Municipal Water District, on the north by mountains which approximately parallel the San Bernardino County boundary, on the east by the San Jacinto Mountains, and on the south by mountains which parallel the San Diego County line. Only about half of the area within EMWD's boundary receives water service at this time. Other areas will receive service by EMWD as they develop. EMWD is the only wastewater treatment entity in the West San Jacinto groundwater management area. EMWD's sphere of influence extends easterly to the San Jacinto and Santa Margarita watershed boundaries.

EMWD has divided its service area into four subservice areas for the distribution of water as shown on Figure 3-2. The divisions are based on location, local water resources, existing water deliveries, and proximity to sources of imported water. Water can be transferred from one subservice area to another. Each subservice area encompasses a specific section of EMWD. Service Area 41, which is mainly supplied by MWD's Mills Filtration Plant, includes Moreno Valley, Perris and the community of Sun City. The area including the cities of Hemet and San Jacinto and unincorporated Winchester is supplied mainly by well water and is in Subservice Area 42. Subservice Area 43 encompasses the Antelope-French-Domenigoni Valley and the

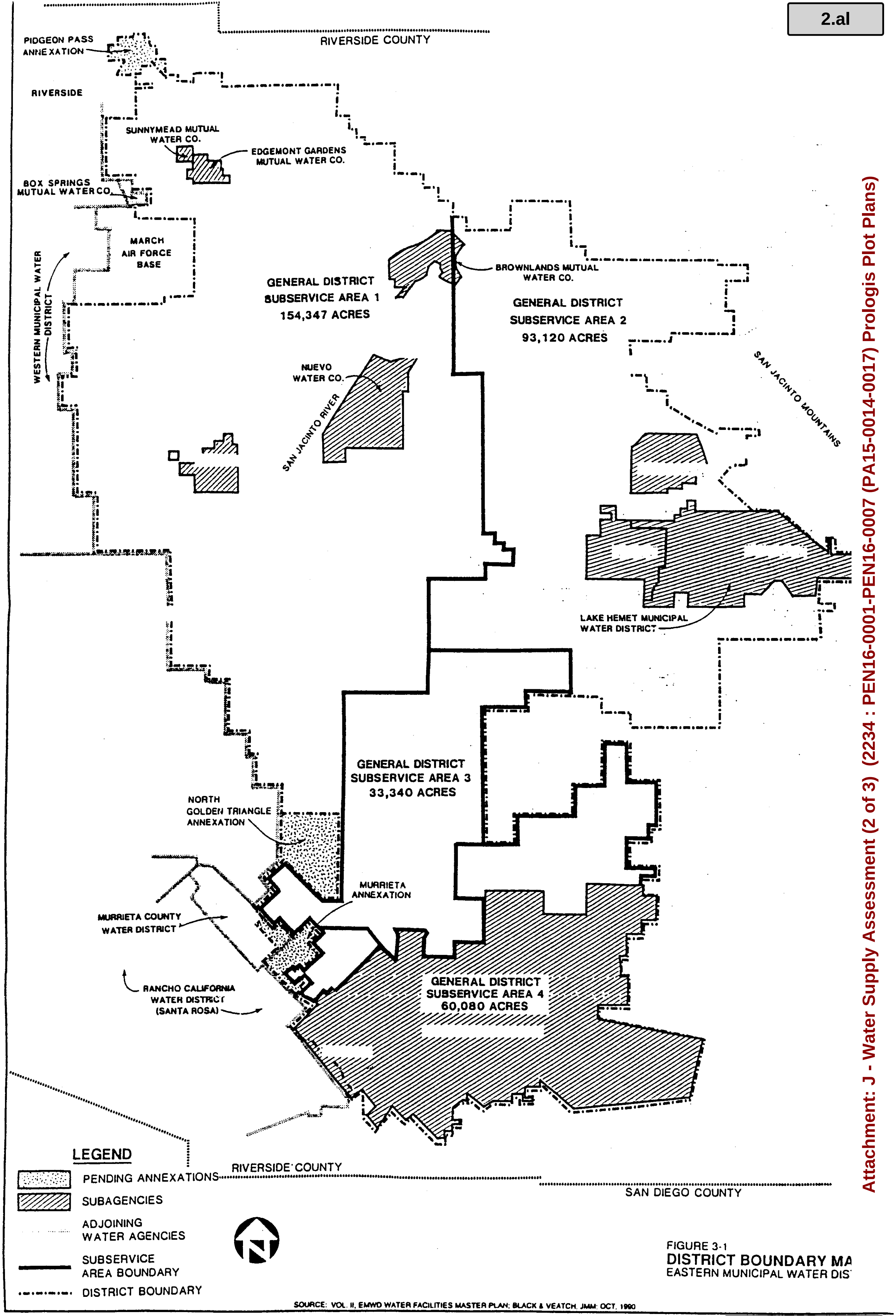

FIGURE 3-1
DISTRICT BOUNDARY MA
EASTERN MUNICIPAL WATER DIS

SOURCE: VOL. II, EMWD WATER FACILITIES MASTER PLAN; BLACK & VEATCH, JMM; OCT. 1990

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

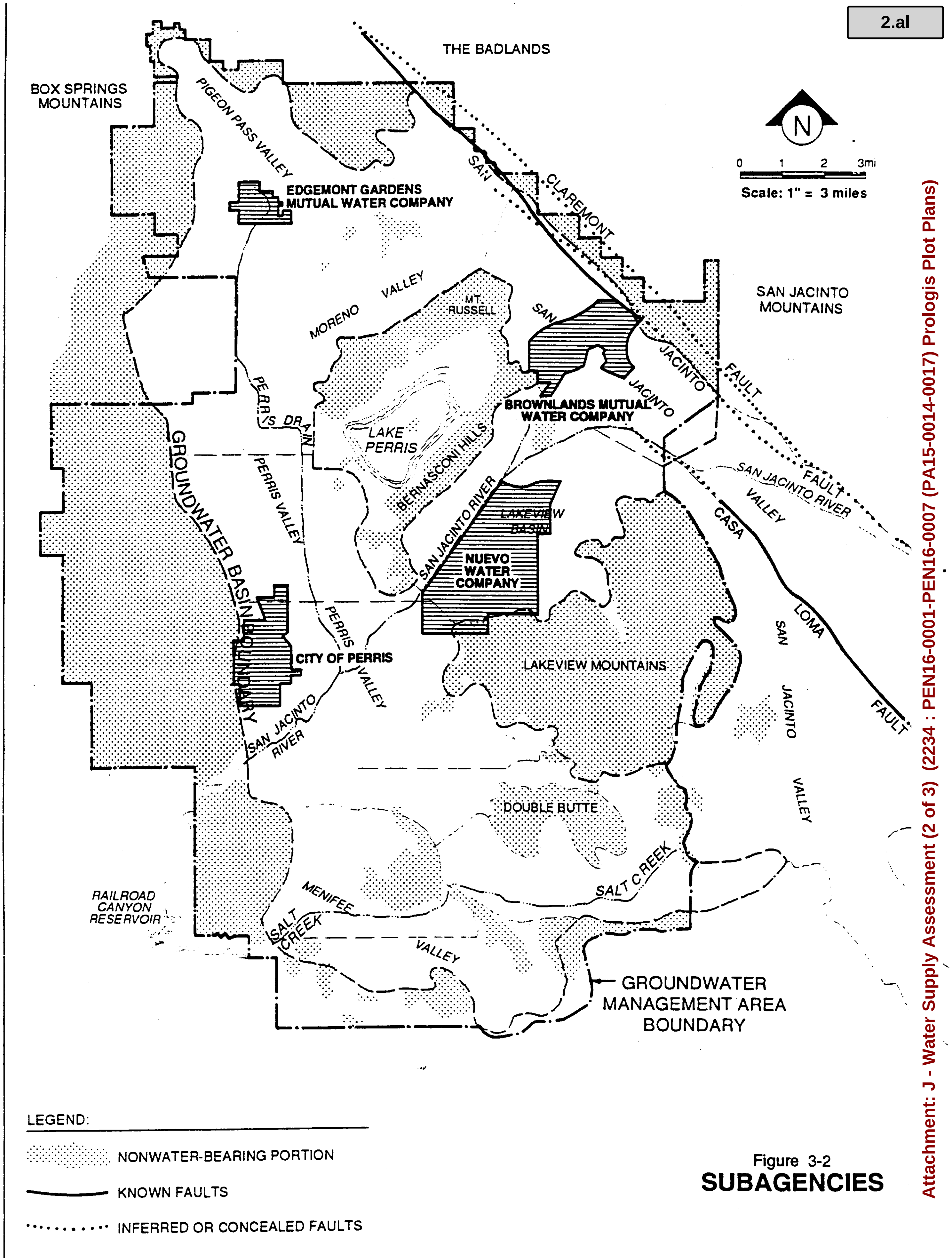

Figure 3-2

SUBAGENCIES

REFERENCE: VOL. II, EMWD WATER FACILITIES MASTER PLAN; BLACK & VEATCH, JMM; OCT, 1990.

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Murrieta Hot Springs Region of EMWD. The Golden Triangle and Dutch Village developments are also located in this subservice area and will eventually receive almost their entire supply from MWD's Skinner Filtration Plant. At the extreme southern end of EMWD is the historic town of Temecula and surrounding Rancho California which is a rapidly developing, planned 87,500 acre, agricultural, industrial, commercial and residential community which is bisected by Interstate 15. Temecula and the eastern 41,000 acres of Rancho California are located in Subservice Area 44. The water supply to this area is from the Rancho California Water District, which is a subagency of EMWD. The supply for the area is well water supplemented with water from MWD's Skinner Filtration Plant.

EMWD has agreed to supply water on a wholesale basis to eight public entities and companies, four of which are in the West San Jacinto Groundwater Management area. Water requirements by these subagencies varies depending on development and the availability of local supplies. These entities and public agencies include the Brownlands Mutual Water Company, city of Hemet, city of Perris, city of San Jacinto, Edgemont Gardens Mutual Water Company, Lake Hemet Municipal Water District, Nuevo Water Company, and Rancho California Water District. EMWD also supplies water, wholesale, to Elsinore Valley Municipal Water District and March Air Force Base, in accordance with contracts with Western Municipal Water District. The entities and public agencies within the West San Jacinto Groundwater Management area are shown in Figure 3-2 and are described below.

City of Perris. The city of Perris relies entirely on EMWD for its supply since local well water is high in TDS and chlorides. Water is supplied directly through three connections to EMWD's 1627 (Perris) pressure zone, and is provided on a demand basis. The city has water storage facilities consisting of a 1.0 MG and a 1.25 MG steel tank which have high water elevations of 1,595 feet.

Nuevo Water Company. Nuevo Water Company encompasses approximately 4,064 acres and supplies approximately 1,260 connections. The company has two wells with capacities of 1.01 mgd (700 gpm) and 0.58 mgd (400 gpm) and a 12-inch connection to EMWD's system. District water is used only as a supplemental supply to meet total maximum day summer demands of approximately 2.3 mgd.

Edgemont Gardens Mutual Water Company. Edgemont Gardens Mutual Water Company serves 661 acres and approximately 950 connections in the city of Moreno Valley. Their supply is provided by two 350-gpm wells and three connections to EMWD. Water from EMWD is used to supplement their normal supply and to provide fire protection since their system does not have water storage facilities.

Brownlands Mutual Water Company. Brownlands Mutual Water Company encompasses 2,042 acres east of Lake Perris near the Badlands. The company does not have a water system and consequently, does not provide water service. A connection to EMWD's system has never been constructed for this subagency. In the future these areas will probably be supplied directly by EMWD.

Metropolitan Water District of Southern California

Metropolitan Water District of Southern California (Metropolitan) is a wholesale water agency serving supplemental imported water to 27 member cities and water agencies in portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura counties. This service area has a current population of about 15 million people. Approximately one-half of the total water used throughout the entire Metropolitan service area is imported water purchased from Metropolitan to supplement the local water supplies of the study area. Metropolitan obtains imported supplies from the Colorado River and the State Water Project (SWP). Figure 3-3 shows the locations of Metropolitan's, state and EMWD imported water facilities.

Colorado River Water. The Colorado River Aqueduct, owned and operated by Metropolitan, transports water from Lake Havasu on the Colorado River, 242 miles to its terminus at Lake Matthews in Riverside County. Construction of the Colorado River Aqueduct began in 1931 and the first deliveries of water to member agencies took place in 1941.

Metropolitan's total entitlement to Colorado River water is approximately 1.39 million acre-ft/yr. This entitlement consists of a fourth priority right to 550,000 acre-ft/yr, a fifth priority right of 662,000 acre-ft/yr and surplus contract rights of 180,000 acre-ft/yr. Several irrigation districts hold higher priority rights to 3.85 million acre-ft/yr. Certain Indian reservations, towns and individuals also hold present perfected rights that predate Metropolitan's rights. In 1964, the United States Supreme Court limited California's diversions on a dependable basis to 4.4 million acre-ft/yr in the case *Arizona v. California*. As such, Metropolitan's diversions from the Colorado River on a dependable basis were limited to less than 550,000 acre-ft/yr. During declarations of surplus, Metropolitan has the highest priority of any California contractor to divert these surplus waters.

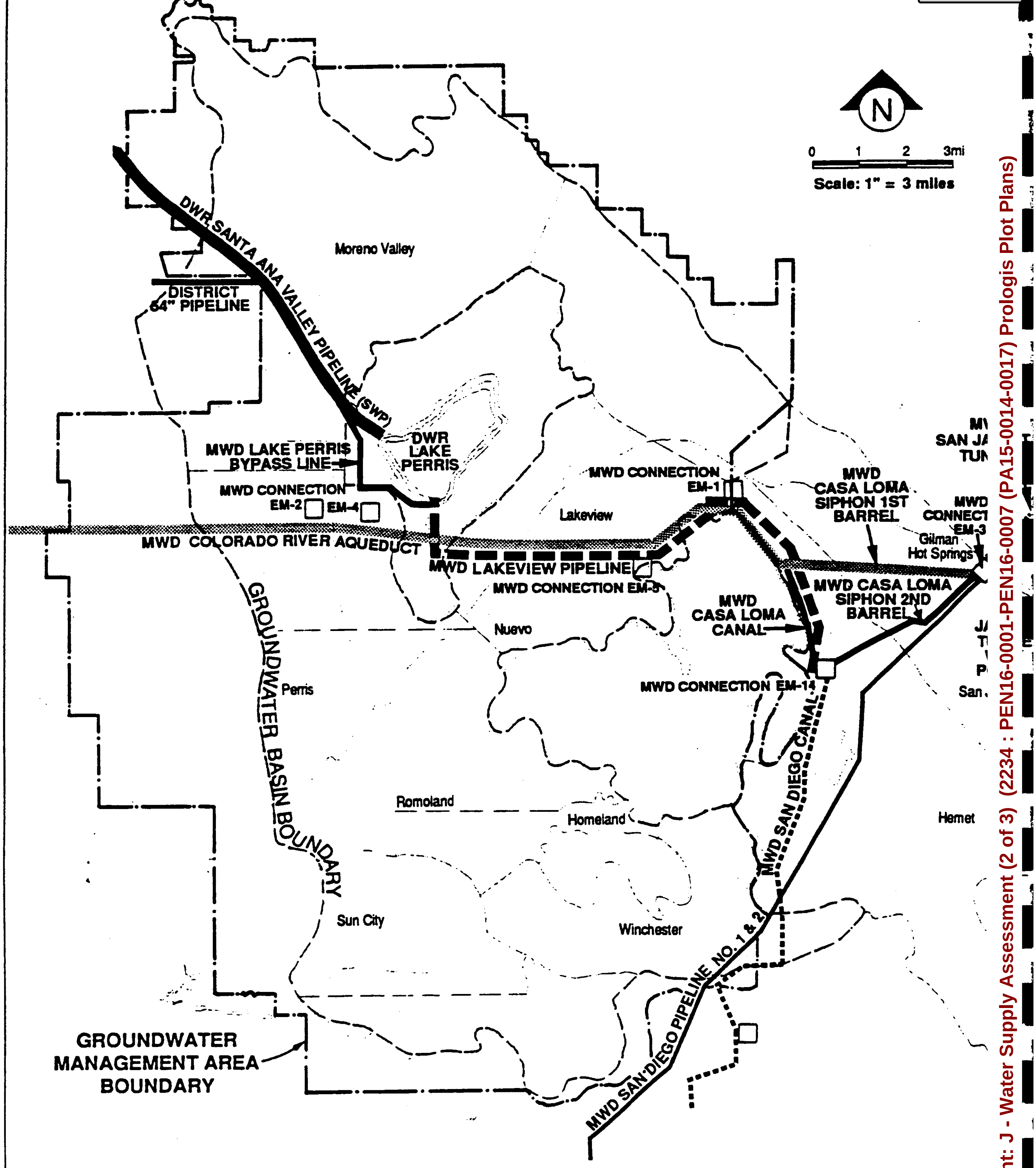

Figure 3-3

IMPORTED WATER FACILITIES

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REFERENCE: EMWD WATER FACILITIES MASTER PLAN, *FIG. 4-3: SOURCES OF SUPPLY MAP*, OCTOBER, 1990.

The Secretary of the Interior has the discretion to allow California to use any water that Arizona and Nevada have available from the Colorado River, but do not use. It is difficult to predict the criteria the Secretary will use in determining whether to release unused water to California. If the agricultural agencies in California do not use the entire supply available to them, Metropolitan has the right to divert the unused portion. Although agricultural use was less than 3.85 million acre-ft/yr throughout much of the mid 1980's, there was no unused agricultural priority water available in 1989.

Metropolitan is actively seeking additional water supplies from the Colorado River. Metropolitan recently signed a long-term agreement with the Imperial Irrigation District that will yield 106,110 acre-ft/yr of Colorado River water from implementation of specific water-saving measures. Metropolitan is pursuing several other projects to obtain increased Colorado River supplies including:

- ☐ Additional water conservation measures with Imperial Irrigation District
- ☐ Lining of the All-American and Coachella Canals to stop water seepage losses
- ☐ Groundwater storage project on the East Mesa of Imperial County
- ☐ Land fallowing program with Palo Verde Irrigation District

If all of these projects are implemented, Metropolitan's total Colorado River supplies could be about 1,000,000 acre-ft/yr by the year 2000 (Montgomery Watson, 1993).

<u>State Project Water.</u> Metropolitan's second source of water is the State Water Project (SWP). The SWP is owned by the State of California and operated by the California Department of Water Resources (DWR). This project transports water from the Sacramento-San Joaquin Delta via the California Aqueduct to thirty contract agencies in the state. The total length of the California Aqueduct is 444 miles.

Metropolitan has an entitlement to SWP water of 2,011,500 acre-ft/yr out of a total maximum contractual entitlement of 4.23 million acre-ft/yr for the 30 contractors. As currently developed, and under current Delta water quality standards, the SWP has an average yield during extended dry periods of approximately 2.4 million acre-ft/yr. Requested deliveries for 1993 totaled 3.6 million acre-ft/yr (agricultural contractors have had a 100 percent deficiency applied against them). Initial deliveries were estimated to be ten percent of the requests before the recent wet period. Demands for SWP water are expected to increase to 4.15 million acre-ft/yr by the year 2010.

Metropolitan's water supply from the SWP also faces potential limitations in the future. The current firm yield of the SWP can currently supply only about one-half of the contract entitlements due to capacity limitations of existing facilities. The State Department of Water Resources is developing a program to increase the firm yield of the SWP through a combination of additional pumping facilities at the Delta, improved water management in the Delta, new surface reservoirs, and groundwater storage. These projects are expected to increase the dry period yield to 3.2 million acre-ft/yr by the year 2010 [DWR, Bulletin 132-89]. Metropolitan is pursuing its own program of groundwater storage and water transfers from other SWP contractors to increase its firm supplies.

The State Water Resources Control Board (SWRCB) has been conducting hearings and other proceedings in an on-going process to review the water quality objectives for the San Francisco Bay/Sacramento-San Joaquin Delta estuary. The SWRCB recently proposed more stringent water quality requirements for the Delta through its draft Decision D-1630. If adopted in its current form, D-1630 is expected to reduce deliveries to the SWP, the Central Valley Project and other Delta diverters by as much as 1.2 million acre-ft/yr depending on water supply conditions in the Delta. The impact of this decision on Metropolitan is still under study; however, preliminary estimates indicate a reduction on the order of 200,000 acre-ft/yr (Montgomery Watson, 1993).

REGULATION OF WASTEWATER

The West San Jacinto Groundwater Management plan will be influenced by the plans and policies of the Federal Environmental Protection Agency, State Water Resources Control Board, California Regional Water Quality Control Board, Santa Ana Region as well as the state and local health departments. A summary of the more important regulations of these agencies is presented in the following paragraphs.

Federal Environmental Protection Agency

On October 18, 1972, Congress passed the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500). Those amendments have been acclaimed as "one of the most significant, most comprehensive, most thoroughly debated pieces of environmental legislation ever to be considered by the Congress." The 1972 Act has been amended several times. The 1977 Amendments included a change in name to the Clean Water Act; however, the Act's goals and policy remain the same. Section 101(a) of the Act states:

> The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this Act--
>
> (1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;
>
> (2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection of and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;
>
> (3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;
>
> (4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;
>
> (5) it is the national policy that area wide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State; and
>
> (6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans.

To reach these goals, the Act requires that a discharge of waste or waste-containing water be of a specified, improved quality before its release from a point source to the receiving water, or in some cases, that the discharge be prohibited. To assure that the improved quality is attained, the Act provides a new authority to the Federal and State governments to continue and fully develop a basin plan program as well as a national permit system. These two programs are discussed later in this Section under the California Regional Water Quality Control Board, Santa Ana Region.

State Water Resources Control Board

California's Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) establishes the responsibilities and authorities of the State Water Resources Control Board and the nine Regional Water Quality Control Boards. That Act names the Boards "...the principal state agencies with primary responsibility for the coordination and control of water quality."

In carrying out this responsibility, the State Water Resources Control Board coordinat oversees the activities of the nine Regional Boards. It has also adopted several statewide p controlling specific aspects of water quality. These policies which apply to the San J Water Reclamation Program include:

Nondegradation Policy (1968). This is the single most important statewide water control policy (CRWQCB, SAR, 1984). It was adopted as SWRCB Resolution No. "Statement of Policy with Respect to Maintaining High Quality Waters in California". policy requires that high quality water be maintained and protected unless: (1) allowing degradation is clearly in the best interests of the people of California as a whole, (2) tha allowable degradation does not preclude an identified (present or future) beneficial use, a that the applicable Basin Plan or some statewide policy takes note of the change in questi concedes that it is appropriate.

Reclamation Policy (1977). The "Policy and Action Plan for Water Reclamation in Cali recognizes the present and future need for increased amounts of water in California, prima support growth. This policy commits both the State Board and the nine Regional Boa support reclamation and reclamation projects which are consistent with sound principl demonstrated needs.

California Regional Water Quality Control Board, Santa Ana Region

The California Regional Water Quality Control Board, Santa Ana Region, controls water within its region by adoption and implementation of a basinwide water quality contro (Basin Plan) and waste discharge requirements for individual dischargers within its These two programs, as they relate to the West San Jacinto Groundwater Management Pl discussed in the following paragraphs.

Basin Plan. The Porter-Cologne Act directs each Regional Board to "...formulate and water quality control plans for all areas within the region." A water quality control defined as having three components: beneficial uses which are to be protected, water objectives which protect those uses, and an implementation plan which accomplishes objectives. For the Santa Ana Region, the original basin plan was adopted in 1975 and an in 1983. As required, that plan is again being reviewed and updated where necessary.

The objective of that plan entitled: "Water Quality Control Plan for the Santa Ana River Basin (8)" is to show how the quality of the surface and ground waters in the Santa Ana Region should be controlled to provide the maximum benefit possible. As stated in that plan:

> The uses made of water and the benefits derived from it are varied, and the quality of the water is an important factor. For example, drinking water has to be of higher quality than water used to irrigate pastures. Both are legitimate uses, but the quality requirements for irrigation are different from those for domestic use. The plan recognizes such variations. First, it lists the uses to which the various waters are put (Beneficial Uses, Chapter 3). Second, it describes the water quality which must be maintained to allow those uses (Water Quality Objectives, Chapter 4). Federal terminology is somewhat different, in that beneficial uses and water quality objectives are combined and the combination is called Water Quality Standards. Chapter 5, the Implementation Plan, then describes the programs, projects and other actions which are necessary to achieve the goals of this plan. Chapter 6, Monitoring and Assessment, discusses the impacts the plan will have.

Applicable sections of the 1994 Basin Plan are summarized in the following paragraphs.

Beneficial uses. Beneficial uses that are to be protected in the West San Jacinto Groundwater Management Plan are shown in Tables 3-1 and 3-2.

Water Quality Objectives. The narrative objectives below apply to all inland surface waters, including bays and estuaries, and to groundwaters, as noted within the region. In addition, specific numerical objectives are listed in Tables 3-3 and 3-4. Where more than one objective is applicable, the stricter shall apply.

Trace constituents. The concentrations of trace constituents in groundwaters designated MUN shall not exceed the values listed immediately below.

Arsenic	0.05 mg/l	Iron	0.3 mg/l
Barium	1.0 mg/l	Lead	0.05 mg/l
Cadmium	0.01 mg/l	Manganese	0.05 mg/l
Chromium	0.05 mg/l	Mercury	0.002 mg/l
Cobalt	0.2 mg/l	Selenium	0.01 mg/l
Cyanide	0.2 mg/l	Silver	0.05 mg/l
Fluoride	1.0 mg/l		

California Department of Health Services

Recharge of reclaimed water can occur through surface spreading, direct injection and by over irrigation. Recharge by percolation and injection is subject to regulatory approval. The Department of Health Services (DHS) has released proposed regulations for planned recharge projects that recharge reclaimed water. If the proposed regulations are adopted, strict criteria

TABLE 3-1
BENEFICIAL USES OF SURFACE WATERS

Water Body	Municipal and Domestic Supply	Industrial Service Supply	Agricultural Supply	Groundwater Recharge	Water Contact Recreation	Non-contact Water Recreation	Warm Freshwater Habitat	Wildlife Habitat	Cold Freshwater Habitat
San Jacinto River					I		I		
Reach 3	I		I	I	I	I	I	I	
Reach 4	I		I	I	I	I	I	I	
Canyon Lake *	X	X	X	X	X	X	X	X	X
Lake Elsinore					X	X	X	X	

I = Intermittent Beneficial Use

X = Present or Potential Beneficial Use

*Note - Canyon Lake is Reach 2

TABLE 3-2
GROUNDWATER BENEFICIAL USES

Groundwater Subbasin	Municipal and Domestic Supply	Agricultural Supply	Industrial Service Supply	Industrial Process Supply
San Jacinto - Lower Pressure	X	X	X	
Lakeview	X	X	X	X
Perris North	X	X	X	X
Perris South I	X	X		
Perris South II	X	X		
Perris South III		X		
Winchester	X	X		
Menifee I	X	X	X	
Menifee II	X	X	X	

I = Intermittent Beneficial Use

X = Present or Potential Beneficial Use

TABLE 3-3
SURFACE WATER QUALITY OBJECTIVES
(mg/l)

Water body	Total Dissolved Solids	Total Hardness	Sodium	Chloride	Total Inorganic Nitrogen	Sulfate	Filtered Biochemical Oxygen Demand	Chemical Oxygen Demand
San Jacinto River								
Reach 3	820	400		250	6		7	15
Reach 4	500	220	75	125	5	65		
Canyon Lake*	700	325	100	90	8	290		

Note - Canyon Lake is Reach 2

TABLE 3-4
GROUNDWATER QUALITY OBJECTIVES
(mg/l)

Groundwater Subbasin	Total Dissolved Solids	Total Hardness	Sodium	Chloride	Nitrate as Nitrogen	Sulfate
San Jacinto - Lower Pressure	800	380	120	100	3	330
Lakeview	500	190	80	160	2	25
Perris North	300	100	70	90	3	15
Perris South I	1000					
Perris South II	2000					
Perris South III	1500					
Winchester	1200					
Menifee I	2000					
Menifee II	1500					

must be satisfied for a planned recharge project using reclaimed water. In the interim, the Regional Board and the DHS are requiring agencies interested in recharge of reclaimed water to follow the proposed regulations. The proposed regulations are included in Appendix A-1.

The proposed regulations define four categories of recharge projects:

> Project Category I - Surface spreading project that uses reclaimed water that has been oxidized (secondary treatment), filtered (tertiary treatment), disinfected and subjected to organics removal.
>
> Project Category II - Surface spreading project that uses reclaimed water that has been oxidized (secondary treatment), filtered (tertiary treatment) and disinfected.
>
> Project Category III - Surface spreading project that uses reclaimed water that has been oxidized (secondary treatment) and disinfected.
>
> Project Category IV - Direct injection project that uses reclaimed water that has been oxidized (secondary treatment), filtered (tertiary treatment), disinfected and subjected to organics removal.

For project categories I and IV, the maximum amount of reclaimed water that can be captured by any well is a function of the total organic carbon (TOC) in the reclaimed water. The maximum contribution of reclaimed water at a well for categories I and IV is 50 percent. Table 3-5 shows the maximum allowable contributions of reclaimed water in a well as a function of the TOC in the reclaimed water after organics removal. Table 3-6 summarizes other important operational criteria from the proposed recharge guidelines. The maximum allowable reclaimed water contributions in any well for categories II and III is 20 percent. With the exception of nitrogen compounds, reclaimed water quality used for planned recharge projects must meet Title 22 standards for drinking water quality (Title 22, Division 4, Chapter 15, Sections 64435, 64443, 64444.5 and 64473). The total nitrogen concentration of reclaimed water used in recharge projects shall not exceed 10 mg/L as nitrogen, unless the project sponsor can demonstrate that the standard can be consistently met prior to reaching the groundwater level. The minimum retention time in the groundwater prior to production shall be six months for categories I and II, and twelve months for categories III and IV. The minimum horizontal separation between the recharge facility and a producing domestic well is 500 feet for categories I and II; 1000 feet for category III and 2,000 feet for category IV. The project sponsor must have the authority to prevent the use of groundwater for drinking water within the area required to achieve the minimum retention time and minimum horizontal separation. The proposed regulations require rigorous groundwater and reclaimed water monitoring.

TABLE 3-5
MAXIMUM ALLOWABLE TOC AFTER ORGANICS REMOVAL IN RECLAIMED WATER

Reclaimed water Contribution (%)	Maximum TOC Concentration (mg/L) Surface Spreading Category I	Maximum TOC Concentration (mg/L) Direct Injection Category IV
0 - 20	20	5
21 - 25	16	4
26 - 30	12	3
31 - 35	10	3
36 - 45	8	2
46 - 50	6	2

TABLE 3-6
KEY CRITERIA FOR RECLAIMED WATER RECHARGE PROJECT

Criterion	Category I	Category II	Category III	Category IV
Maximum Contribution of Reclaimed Water in Water at Domestic Wells (1)	50%	20%	20%	50%
Minimum Horizontal Separation Between Point of Recharge and Domestic Wells (feet)	500	500	1,000	2,000
Minimum Retention Time in Groundwater (months)	6	6	12	12

note - (1) see Table 7-1 for categories I and IV

Table 3-5 and 3-6 one pg
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Direct Discharge into a Water System. A plan that involves direct discharge into a domestic water supply system or storage unit for the near future (within the next decade) is not acceptable because of the uncertain health implications. DHS will recommend against the element of a basin plan which contains such a proposal.

Where a plan requiring a near-term decision involves options or alternatives for the use or disposal of the wastewater, DHS will reject the domestic water reuse alternative and consider the remaining options as the proposals for evaluation.

Direct discharge into a water system may be presented in a plan as a future option which may be appraised as additional information becomes available and future needs and attitudes are clearer.

REGULATION OF DRINKING WATER

A summary of existing and proposed water quality standards is presented in Appendix A-2. Both primary Maximum contaminant Levels (MCLs) and Secondary Maximum Contaminant Levels (SMCLs) are shown as proposed, promulgated, and implemented by EPA and DHS. The more rigorous of the two standard MCLs for any contaminant must be satisfied.

LOCAL PLANNING AND REGULATORY AGENCIES

Other local agencies that may have a significant influence on groundwater management include:

> Riverside County Flood Control and Water Conservation District. This agency plans, constructs and operates flood control and water conservation facilities in Riverside County. The construction of flood control and water conservation facilities affects the volume of recharge to groundwater and thus has a potentially significant impact.
>
> Riverside County Planning. Riverside County Planning Department develops and reviews general plans for all unincorporated areas in the county. Thus this agency will review the groundwater management plan for consistency with general plans under their jurisdiction.
>
> Riverside County Health Department. The Riverside County Health Department will review water supply and wastewater plans that could be embodied in the groundwater management plan.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

SECTION 4

SECTION 4
GROUNDWATER RESOURCES IN THE WEST SAN JACINTO BASIN

PHYSICAL FEATURES

Figure 4-1 shows the major physical features, waterbearing and non-waterbearing areas of the groundwater management area. The major physical features in the study area include the San Jacinto mountains, the Badlands, the San Jacinto River, Salt Creek, Perris Valley Drain, the San Jacinto and Casa Loma faults, the Lakeview mountains, the Bernasconi Hills, and Double Butte. The management area groundwater basins are shown in Figure 4-2 and include the Perris North, Perris South I, II and III, Menifee I and II, Winchester, Lakeview and the San Jacinto Lower-Pressure subbasins.

The San Jacinto mountain range, which dominates the area, was formed about 130 million years ago when subsurface activity thrust the igneous (formed under extreme heat) rock upward. Continued erosion reduced the mountain range and its adjacent area, and the resulting sediments were deposited in the valleys of the management area. These are called alluviated valleys and the deposited sediments are termed alluvium (California Department of Water Resources, 1978). The aquifers in the management area consist of interbedded gravels, sands, silts, and clays. In general, coarser alluvium occurs near the sources of the alluvium and the finer alluvium occurs further away from the sources. The sources of alluvium include the mountains, hills and badland areas that border the management area. Coarser alluvium also occurs in the vicinity of significant streambeds grading to finer alluvium away from the streambeds.

The Perris Subbasins

The Perris Basin has been subdivided into Perris North, Perris South-I, Perris South-II and Perris South-III subbasins. This division is based on water quality variations and has no hydrologic

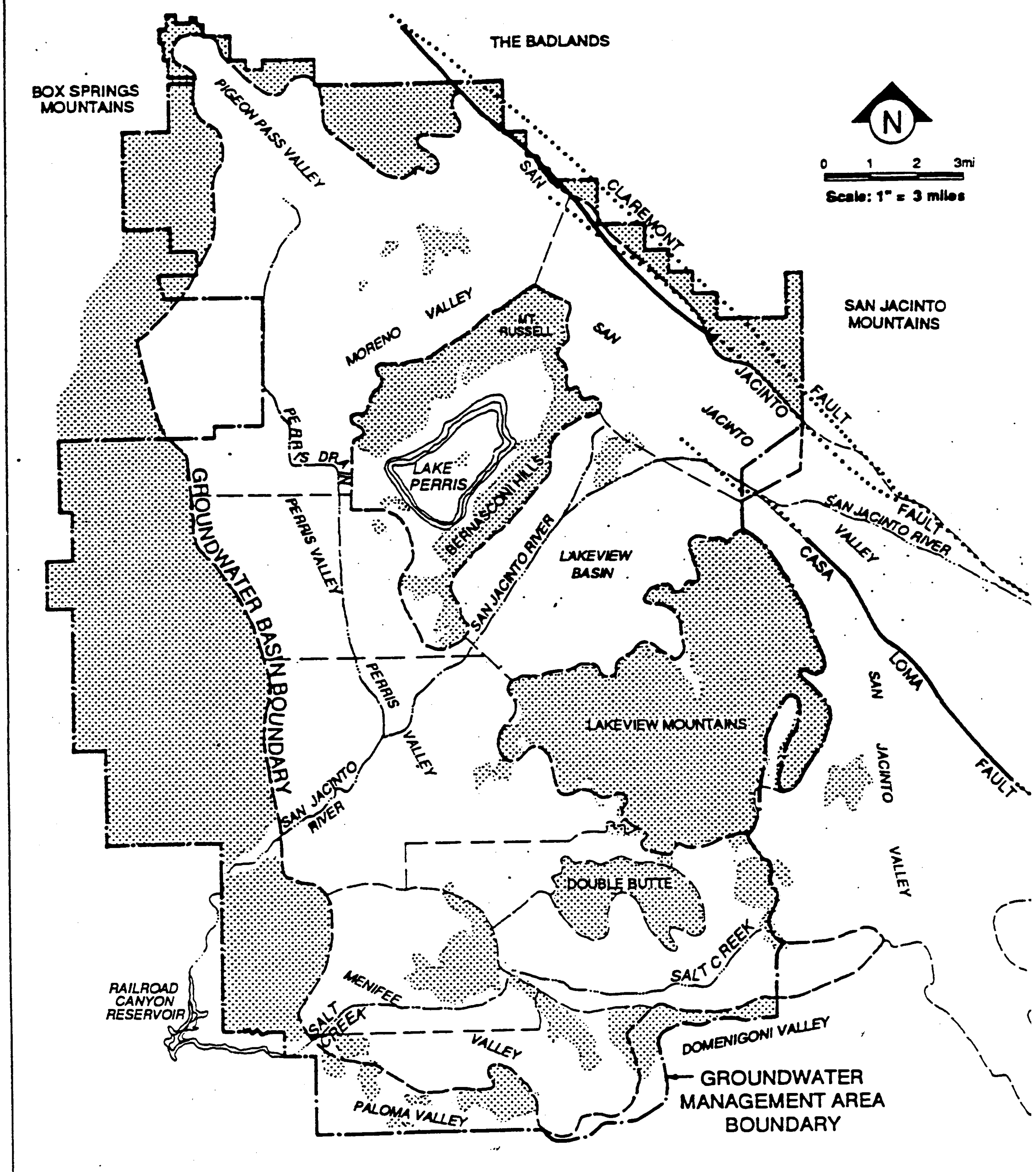

LEGEND:

▨ NONWATER-BEARING PORTION

— KNOWN FAULTS

·········· INFERRED OR CONCEALED FAULTS

Figure 4-1
MAJOR PHYSICAL FEATURES

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Water Resources Engineer

REFERENCE: DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1977.

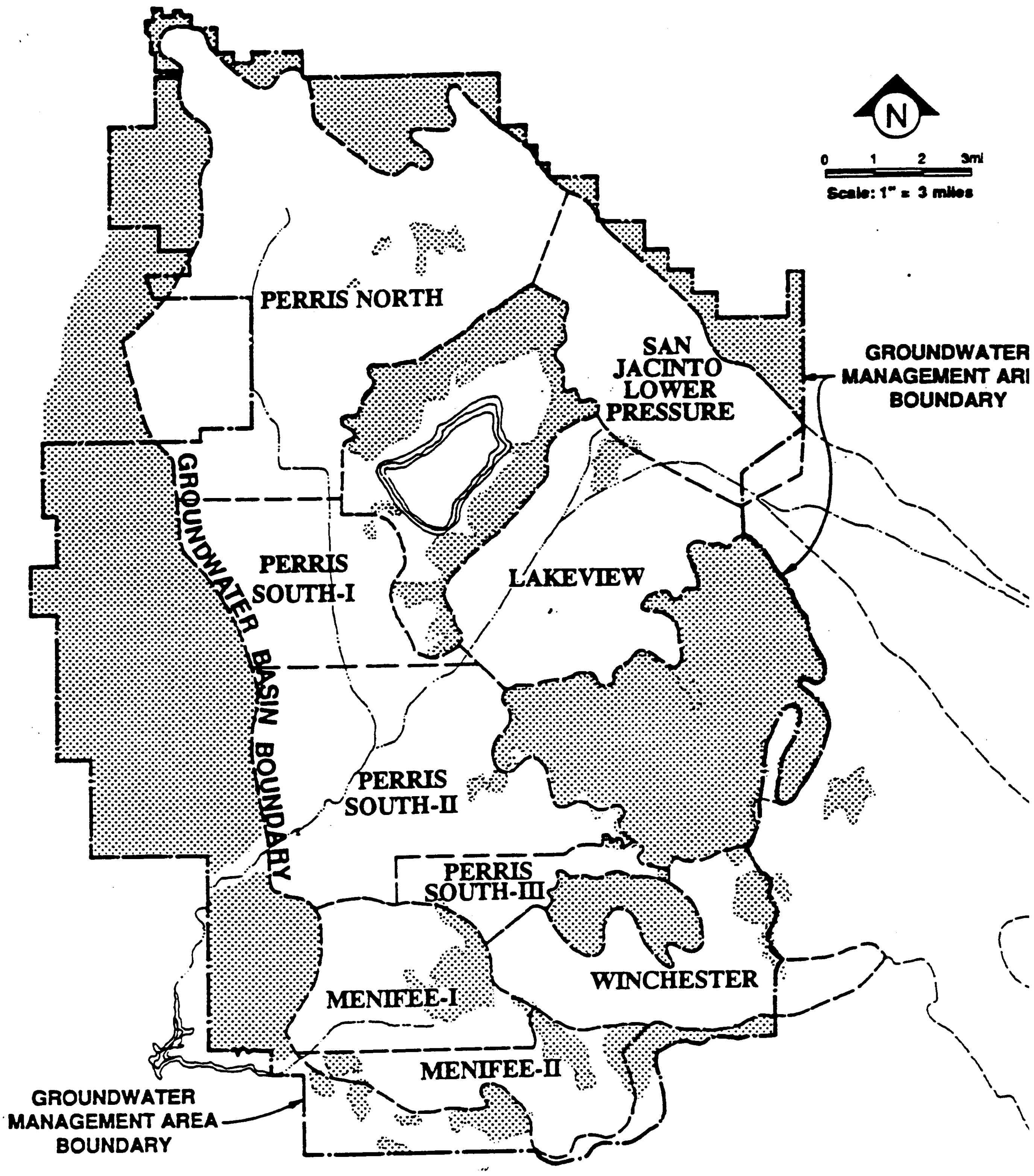

Figure 4-2
GROUNDWATER SUBBASINS

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significance. The Perris North subbasin is bounded on the north by Box Springs Mountains and the Badlands; on the east by San Jacinto Lower-Pressure subbasin and unnamed hills north of Lake Perris; on the south by the Perris South-I subbasin and on the west by a series of extensive non-waterbearing hills and plateaus.

The Perris South-I subbasin is bounded on the north by the Perris North subbasin; on the east by the southerly extension of the Bernasconi Hills; on the south by the Perris South-II subbasin and on the west by a series of extensive non-waterbearing hills and plateaus.

Perris South-II is bounded on the North by the Perris South-I subbasin, on the east by the Lakeview subbasins and the Lakeview mountains; on the south by the Menifee-I and Perris South-III subbasins; and on the west by a series of extensive non-waterbearing hills and plateaus.

The Perris South-III subbasin is bounded on the north and west sides by the Perris South-II subbasin; on the east by the Lakeview mountains and the Winchester subbasin; and on the south by the Double Butte hills, the Winchester subbasin and the Menifee-I subbasin.

The Perris subbasins are considered one hydrologic basin. The Perris North subbasin consists of tonalite and granodiorite mountains surrounding alluvium and older alluvium to 600 feet in depth, over tonalite and granodiorite basement rocks. The northeasterly section near Moreno consists of alluvium up to about 850 feet in depth, over undifferentiated granitic basement rocks.

The Perris South I and Perris South II subbasins consist of alluvium at depths ranging from a few hundred to 1,000 feet, extending southerly, through the mid Perris Valley and into the Menifee subbasin to the south. The base of the aquifer consists of tonalite and granodiorite basement rocks. Mountains composed of tonalite and granodiorite basement rocks bound the southwestern and southeastern area. Clays and gravels are in the central and southern sections, with waterbearing sediments beginning at a depth of 100 feet.

Table 4-1 summarizes available well test data and aquifer characteristics (California Department of Water Resources, 1978). The depth of wells in the Perris North and South subbasins is reported to range from 200 to 800 feet below ground surface (ft-bgs), with production rates ranging from 90 to about 1,000 gallons per minute (gpm). Based on interpretation of well efficiency tests, the transmissivity of these subbasins is estimated to range between 3,600 to 64,800 gallons per day, per foot (g/d/ft). Transmissivity is a measure of how well the aquifer

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 4-1
AVAILABLE PUMP TEST DATA
WELL CHARACTERISTICS AND AQUIFER PROPERTIES

Basin	Number of wells	------ Depth of Wells ------ (ft-bgs)			------ Production ------ (gpm)			---------- Transmissivity ---------- (gpm/ft/day)			----- Specific Yield -----		
		Low	High	Avg	Low	High	Avg	Low	High	Avg	Low	High	Avg
Perris	42	200	800	440	90	1,000	400	3,600	64,800	16,200	0.04	0.14	0.08
Lakeview	31	300	1,000	450	100	2,000	690	1,800	90,000	34,200	0.04	0.16	0.12
Winchester	9	200	600	450	100	850	300	3,600	14,400	10,800	0.04	0.11	0.09
Menifee	7	100	600	500	10	1,000	330	1,800	108,000	23,400	0.06	0.11	0.08

Source: Water Resources Evaluation of the San Jacinto Area, DWR, 1978; Plate 2, TIR 1335-11-A-2 Preliminary Evaluation of Storage Capacity and Specific Yield of Groundwater Basins in the San Jacinto Study by Area.

transmits water. Transmissivities for large municipal wells usually exceed 30,000 g/d/ft, with larger values being better. Specific yield is a measure of the aquifer's ability to store water. Specific yield is numerically equal to the fraction of the water that, after saturation, can be drained by gravity from the unit volume of the aquifer. Larger values of specific yield imply greater storage capacity and less regional drawdown. Based on well construction logs, the specific yield in the Perris subbasins is estimated to range from .04 to .14.

The Menifee Subbasins

The Menifee basin has been subdivided into the Menifee-I and Menifee-II subbasins. As with the Perris subbasins, this division is based on water quality variations and has no hydrologic significance. The Menifee-I subbasin is bounded on the North by the Perris South-II and Perris South-III subbasins; on the east by unnamed hills and the Winchester subbasin; on the south by Menifee-II subbasin and on the west by a series of extensive non-waterbearing hills and plateaus.

The Menifee-II subbasin is bounded on the north by the Menifee-I and Winchester subbasins and unnamed hills; on the east by Domenigoni Valley; and on the south by a saddle-shaped feature consisting of unnamed hills and Paloma Valley.

Alluvium, up to 900 feet in the north, extends into the Railroad Canyon area in the west and toward the east and southeast boundaries. The base of the aquifer consists of tonalite and granodiorite basement rocks. Waterbearing sediments consist of coarse gravel and sandy disintegrated coarse granite. The base of the aquifer occurs at a depth of 800 feet in the center of the valley and reaches 1,200 feet in the northern and eastern portions of the valley.

Table 4-1 summarizes available well test data and aquifer characteristics. The depth of wells in the Menifee subbasins is reported to range from 100 to 600 ft-bgs, with production rates ranging from 10 to about 1,000 gpm. The transmissivity is estimated to range between 1,800 to 108,000 g/d/ft. The specific yield is estimated to range from .06 to .11.

Winchester Subbasin

The Winchester subbasin is bounded on the north by the Double Butte hills and Lakeview mountains; on the east by the Hemet subbasin; on the south by a line of unnamed hills that separate the Winchester subbasin from Domenigoni and Menifee valleys; and on the west by Perris South-III.

The western and southern sections mainly consist of alluvium from depths of a few hundred to 1,000 feet. The base of the aquifer consists of tonalite and granodiorite along the western, southern and northern boundaries and to the north are tonalite and granodiorite basement rocks and the underlying basement tonalite and granodiorites of the surrounding mountains. Clay and gravel with uniform stratification prevail except for fine sands in the northern and southern borders. Salt Creek, a San Jacinto River tributary, crosses the subbasin from east to west, providing surface drainage.

Table 4-1 summarizes available well test data and aquifer characteristics. The depth of wells in the Winchester subbasin is reported to range from 200 to 600 ft-bgs with production rates ranging from 100 to about 850 gpm. The transmissivity is estimated to range between 3,600 to 14,400 g/d/ft. The specific yield is estimated to range from .04 to .11.

Lakeview Subbasin

The Lakeview subbasin is bounded on the northwest by the Bernasconi hills; on the northeast by the San Jacinto Lower Pressure subbasin; on the southeast by the Lakeview Mountains; and on the southwest by the Perris South-I and Perris South-II subbasins. The subsurface geology consists mainly of alluvium reaching over 1000 feet in depth.

In the northeast section near the base of the Badlands, waterbearing sediments are at about 100 feet in sandy shales. Elsewhere, in the north and northeast sections, waterbearing sediments are at depths over 150 feet or more, in relatively thin strata, with clay predominating. The central and southern sections are clays and gravels with waterbearing sediments occurring at 100-foot depths or more.

Table 4-1 summarizes available well test data and aquifer characteristics. The depth of wells in the Lakeview subbasin is reported to range from 300 to 1,000 ft-bgs with production rates ranging from 100 to about 2,000 gpm. The transmissivity is estimated to range between 1,800 to 90,000 g/d/ft. The specific yield is estimated to range from .04 to .16.

San Jacinto Lower Pressure Subbasin

The San Jacinto Lower Pressure subbasin is bounded by the San Jacinto Mountains on the east, Bridge Street on the south, the Casa Loma fault on the west, and the westerly line of Range 2 West on the north. This subbasin has alluvium to about 1,200 feet deep, is comprised mostly of clays and silt and produces little water. The transmissivity of the subbasin has not been characterized.

GROUNDWATER HYDROLOGY OF THE WEST SAN JACINTO BASIN

Groundwater Levels and Movement

Historically, the movement of groundwater generally followed the land surface profile toward and along the San Jacinto River and Salt Creek. Groundwater intersected the ground surface in San Jacinto Creek as the creek left the Perris South-II subbasin, and where Salt Creek exited the Menifee-I subbasin. The natural groundwater flow pattern has been altered by groundwater production.

Figure 4-3 is a groundwater elevation map for the West San Jacinto Groundwater basin area that corresponds to Spring 1974 conditions (California Department of Water Resources, 1978). Figure 4-4 is a comparable map for 1993. In 1974 there was subsurface flow from the San Jacinto Lower Pressure and Perris South I subbasins into Lakeview subbasin indicating that groundwater production in the Lakeview subbasin was large enough to reverse the historical groundwater flow direction from Lakeview to Perris South II subbasins. Groundwater originating in Perris North subbasin flowed into the San Jacinto Lower Pressure and Perris South subbasins. Groundwater in Perris South I flowed south to Perris South II. Groundwater in the Menifee subbasins and Winchester subbasin flowed north into Perris South II and Perris South III respectively. The groundwater from the Hemet subbasin flowed west into the Winchester subbasin.

Flow patterns have changed slightly in the intervening period of 1974 to 1993. Currently, groundwater continues to flow from the San Jacinto Lower Pressure and Perris South II subbasins into Lakeview subbasin; and from the Perris North subbasin into the Perris South I subbasin and continuing to Perris South II. The differences are as follows: there is a groundwater divide in the Menifee subbasin with some groundwater flowing north into Perris

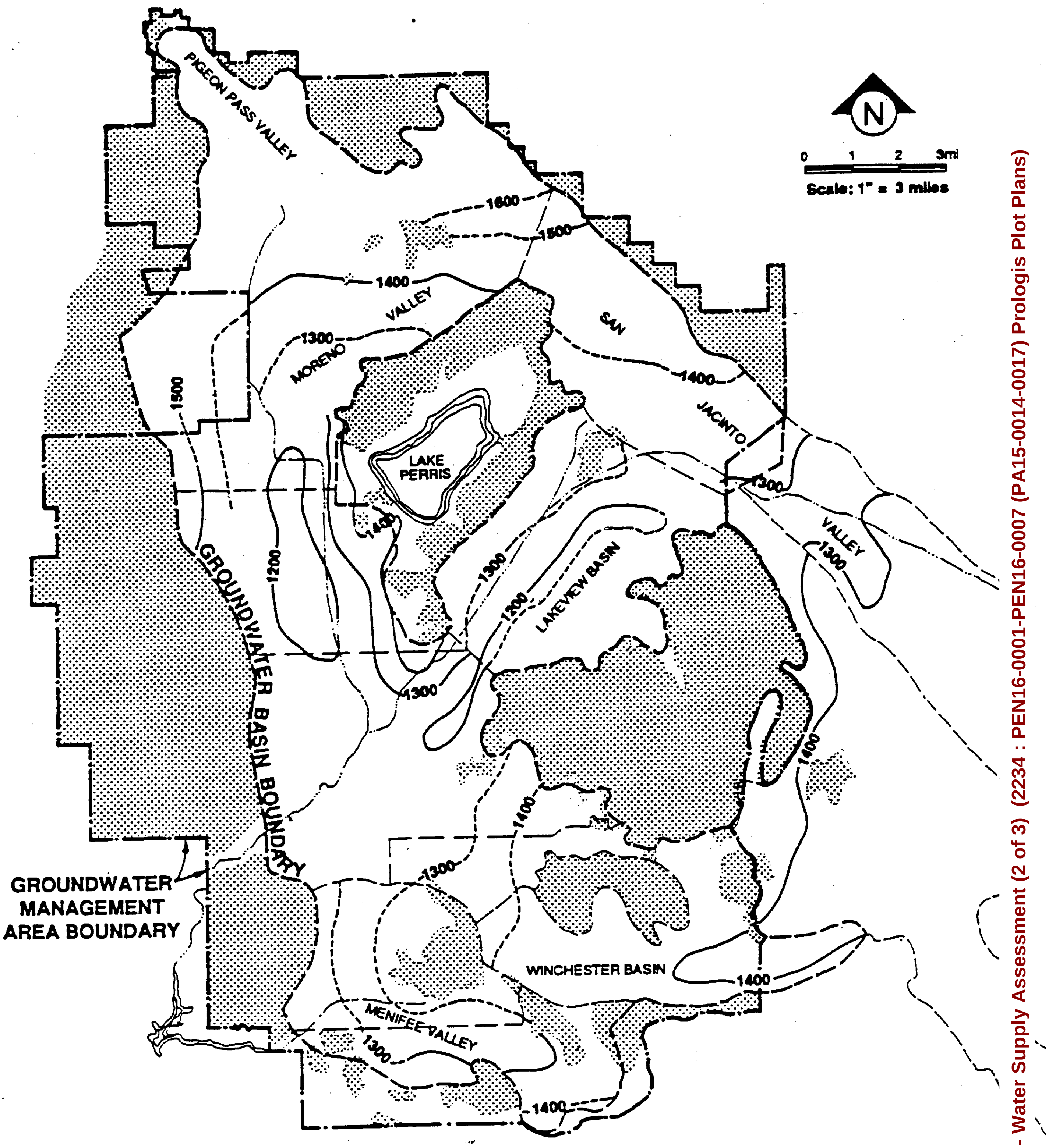

LEGEND:

▨ NONWATER-BEARING PORTION

—1200— CONTOURS IN FEET BASED ON NEARBY DATA

- - - - - INFERRED CONTOURS

Figure 4-3
GROUNDWATER
ELEVATION MAP, 1974

REFERENCE: DEPARTMENT OF WATER RESOURCES. SOUTHERN DISTRICT, 1977.

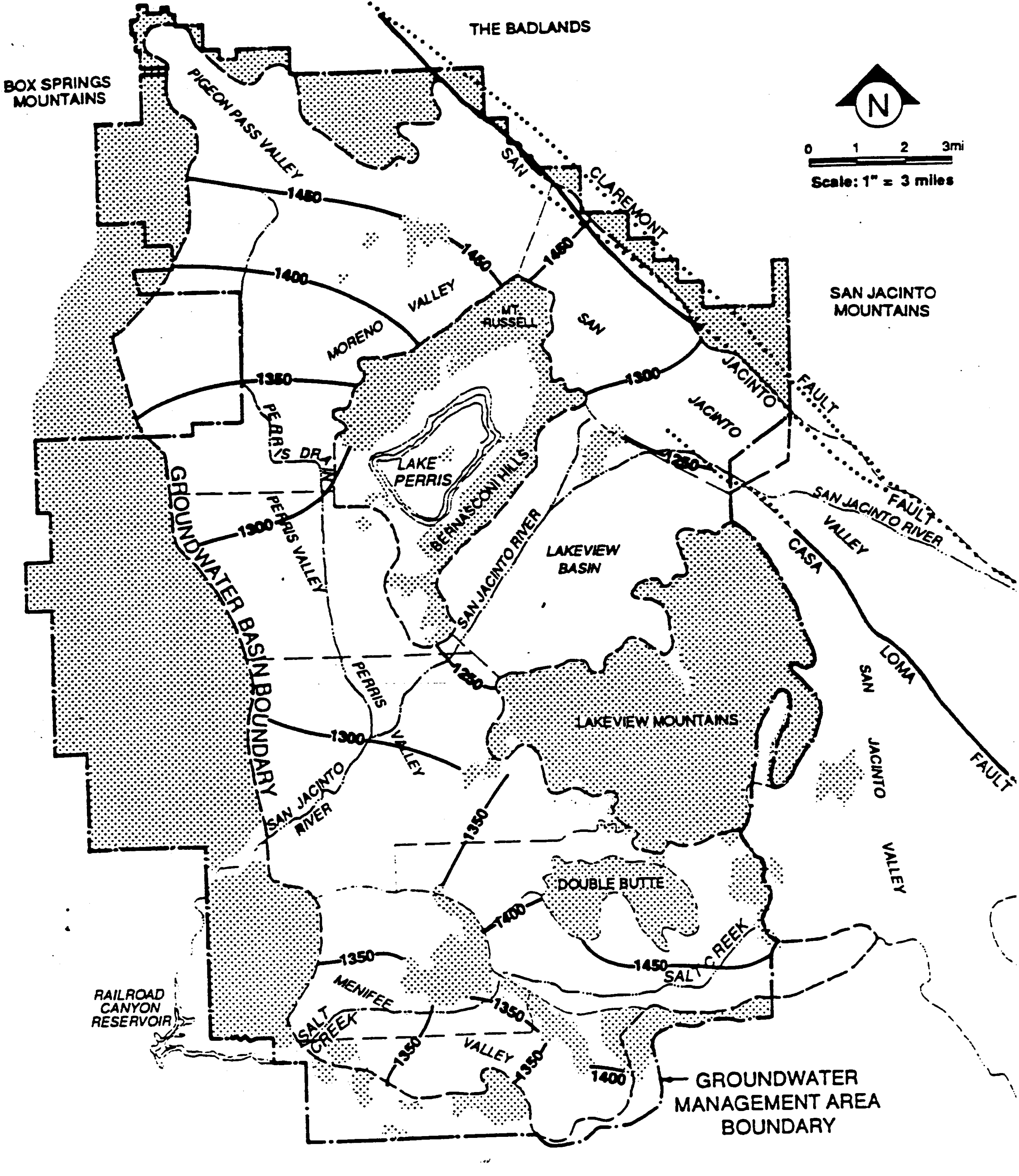

Figure 4-4

GROUNDWATER ELEVATION MAP, 1993

LEGEND:

▨ NONWATER-BEARING PORTION

—— KNOWN FAULTS

········ INFERRED OR CONCEALED FAULTS

—1450— CONTOURS IN FEET BASED ON NEARBY DATA

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South II subbasin, the remainder to a pumping depression in the Menifee II subbasin; groundwater in the Winchester subbasin flows northwest into the Perris South III subbasin and to the east into the Hemet subbasin.

The groundwater elevation changes between 1974 and 1993 are as follows:

San Jacinto Lower Pressure	-50 to -100 feet
Perris North	generally unchanged
Perris South I	+50 to +100 feet
Perris South II	+50 to +100 feet
Perris South III	+25 to +50 feet
Menifee I	+50 feet
Menifee II	+50 feet
Winchester	+25 to +50 feet
Lakeview	slightly less

Generally, water levels will fluctuate both seasonally and on a long-term basis. Records of water levels in wells for the last 45 years generally indicate that the water table declined during the period of 1945 to the mid-seventies and recovered somewhat from the mid-1970's to the present. This long term trend was caused by a drought period that occurred from the mid 1940's to 1977, which was followed by an extremely wet period from 1978 to 1983. Agricultural use of groundwater has declined over the last twenty years without a concurrent increase in domestic groundwater usage.

Water levels are usually higher in the winter and spring months, when precipitation is greatest and there is less pumping than in the summer and fall months. When water levels in an area are declining from year to year, this indicates that more ground water is being removed from the area than is being replenished. Water levels were declining on a yearly basis through the mid 1970's. Groundwater elevation time-histories for selected wells are shown in Figure 4-5 for the Perris, Lakeview and Menifee subbasins; and Figure 4-6 for the Winchester and San Jacinto Lower Pressure subbasins. These hydrographs indicate the degree of groundwater level fluctuations that can occur in groundwater levels over the long term and seasonally.

Groundwater Hydrology

The occurrence and quality of groundwater in the West San Jacinto Basin groundwater management area are directly affected by the volume and quality of the water that recharges the area.

FIGURE 4-5 GROUNDWATER ELEVATION IN PERRIS, LAKEVIEW AND MENIFEE SUBBASINS

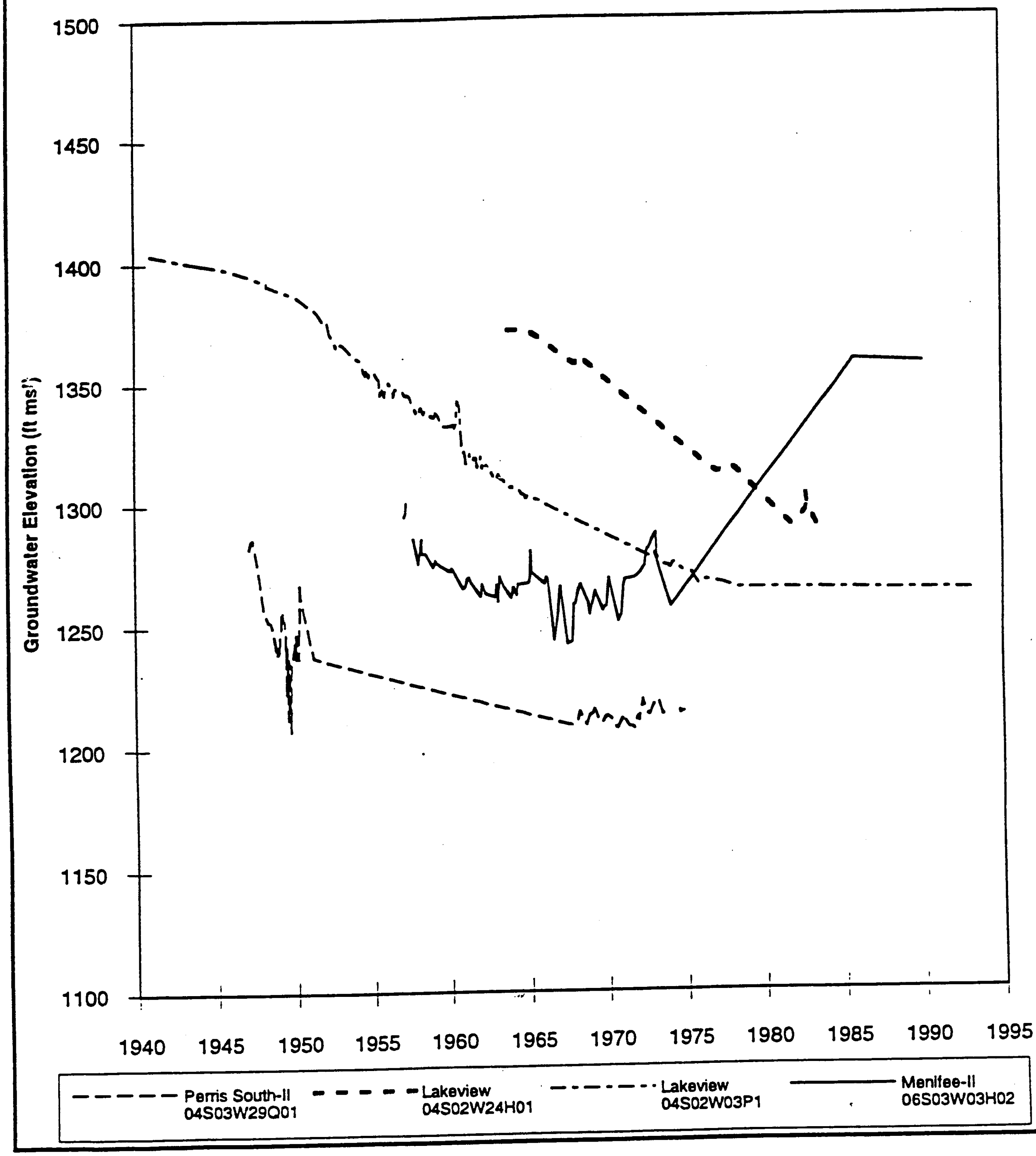

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FIGURE 4-6 GROUNDWATER ELEVATION IN SAN JACINTO AND WINCHESTER SUBBASINS

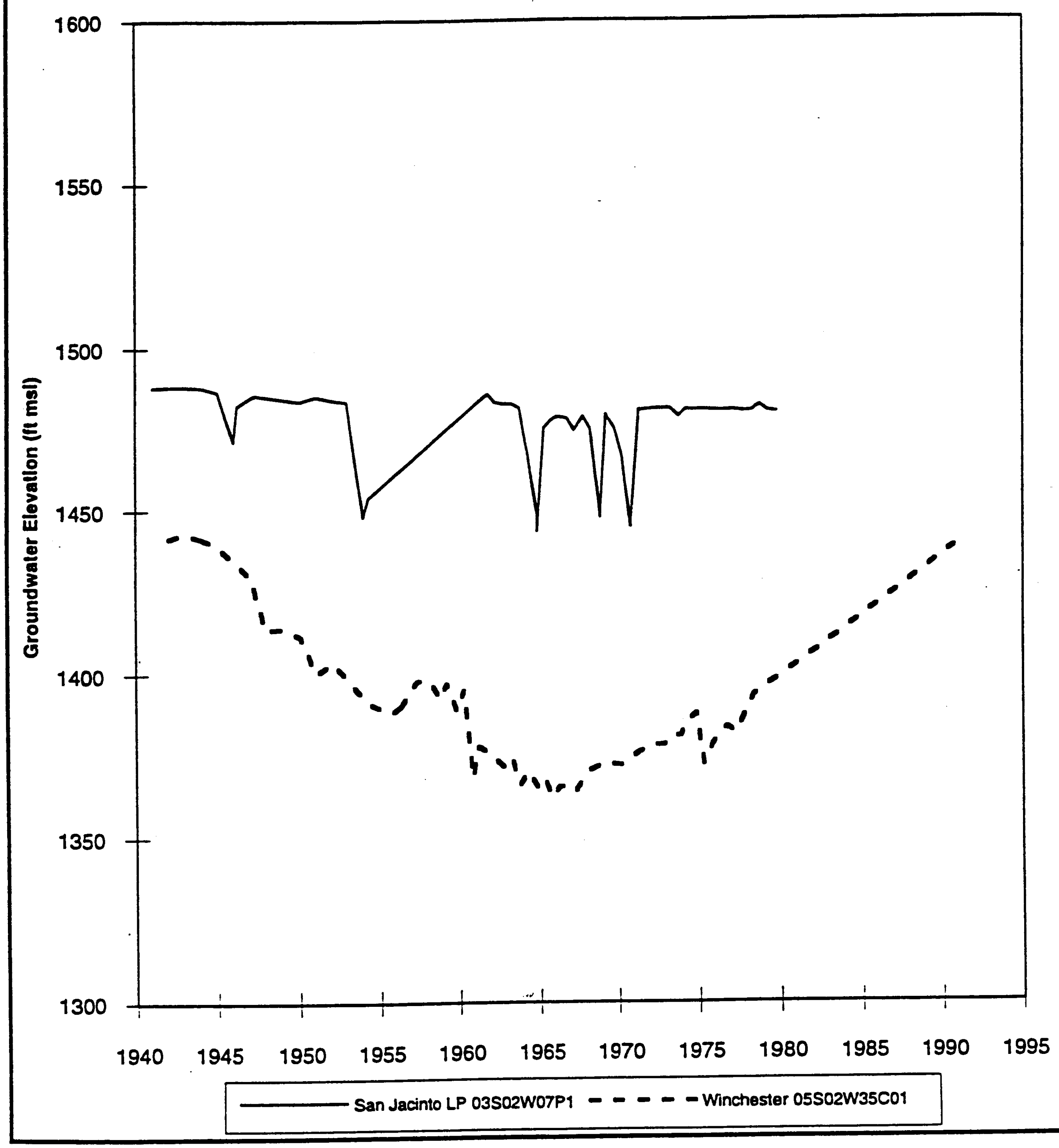

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Recharge Components. Recharge in the management area consists of the following hydrologic components:

- ☐ deep percolation of stormflows
- ☐ deep percolation of precipitation
- ☐ deep percolation of applied water
- ☐ artificial recharge of imported water
- ☐ subsurface inflow from adjacent groundwater basins; and
- ☐ subsurface inflow from adjacent non-groundwater areas.

Estimates of these components were made by Water Resources Engineers in 1973 (Water Resources Engineers, 1973) and were updated in 1988 (Camp, Dresser & McKee, 1988). Table 4-2 lists the average annual value for each of these recharge components for year 2000 land use conditions for each subbasin. Values for Perris South-I, Perris South-II and Perris South-III are aggregated into Perris South. The Menifee subbasins have also been aggregated into one subbasin. These data were used in the 1994 Water Quality Control Plan (Basin Plan) developed by the Santa Ana Regional Water Quality Control Board (Regional Board). These components are described below.

<u>Streambed Percolation.</u> Stormflow percolation consists of percolation of stormflow in unlined channels and spreading grounds. The major unlined streams in the management area are the San Jacinto River, Perris Valley drain and Salt Creek. Table 4-2 contains estimates of stormflow percolation for each subbasin. Long term average stormflow percolation varies from about 300 acre-ft/yr for the Menifee subbasin, to a high of about 3,500 acre-ft/yr for the Perris North subbasin. The total stormflow percolation for the management area averages about 8,700 acre-ft/yr.

<u>Percolation of Precipitation.</u> Deep percolation of precipitation occurs when precipitation exceeds soil moisture demand. Soil moisture demand is the total water necessary to fully wet the soil and satisfy consumptive requirements of local vegetation. In most years, precipitation will not directly recharge groundwater unless the soil is kept wet from high precipitation and irrigation. Figure 4-7 shows the average annual precipitation in the management area. The average annual

TABLE 4-2
HYDROLOGIC COMPONENTS OF THE WEST SAN JACINTO BASINS
YEAR 2000 CONDITIONS PER BASIN PLAN
(acre-ft/yr)

Hydrologic Components	Subbasin						Total for West San Jacinto Basin
	Lakeview	Menifee	Perris North	Perris South	San Jacinto Lower Pressure	Winchester	
Inflow Components							
Stream Bed Percolation	1,200	300	3,500	1,600	1,000	1,100	8,700
Percolation of Precipitation	1,600	1,200	1,100	1,200	900	400	6,400
Imported Water Recharge	0	0	0	0	0	0	0
Local Stream Flow Diverted for Recharge	0	0	0	0	0	0	0
Subsurface Inflows from Mountain Boundaries	1,500	0	1,300	0	0	0	2,800
Deep Percolation of Applied Water	2,500	3,200	13,600	10,000	1,400	1,500	32,200
Municipal Wastewater	0	1,400	5,800	4,500	0	200	11,900
Irrigation	2,500	1,800	7,800	5,500	1,400	1,300	20,300
Subtotal Inflow	6,800	4,700	19,500	12,800	3,300	3,000	50,100
Outflow Components							
Subsurface Outflows to	0	0	0	0	800	1,200	2,000
Outside of WSJ Area	0	0	0	0	800	1,200	2,000
Groundwater Production(1)	4,000	0	2,300	1,400	500	0	8,200
Subtotal Outflow	4,000	0	2,300	1,400	1,300	1,200	10,200
Summary Statistics							
Approximate Net Inflow (natural safe yield)	6,800	3,300	13,700	8,300	2,500	1,600	36,200
Approximate Net Inflow plus Intentional Wastewater Recharge	6,800	4,700	19,500	12,800	2,500	1,800	48,100
Volume of Groundwater in Storage	283,000	56,000	123,000	248,000	382,000	36,000	1,128,000
Storage Capacity	515,000	101,000	347,000	402,000	391,000	41,000	1,797,000

Source - All hydrologic components from Basin Planning Model projections (JMM, 1991) except for groundwater production which was estimated from data in Table 4-3 and EMWD; and intentional wastewater recharge which came from EMWD (EMWD,1993).

(1) Excludes groundwater production from individual residences where production is less than 25 acre-ft/yr, groundwater production estimates based on land use are much higher and are projected to be about 26,600 acre-f/yr.

(2) Subtotal excludes subsurface flows between subbasins within the West San Jacinto Basin.

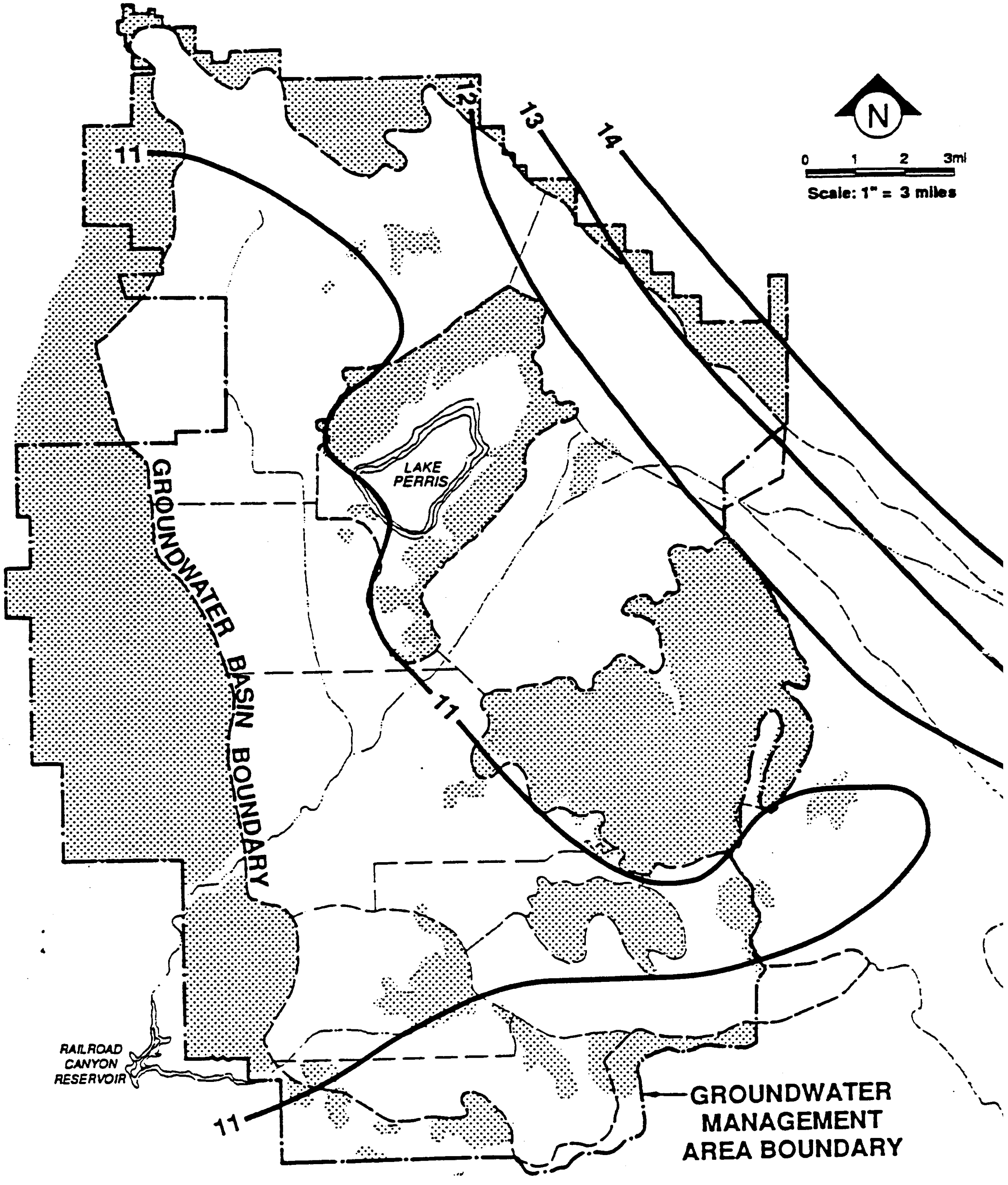

Figure 4-7

AVERAGE ANNUAL PRECIPITATIO
GROUNDWATER MANAGEMENT A

LEGEND:

▨ NONWATER-BEARING PORTION

—11— EQUAL PRECIPITATION IN INCHES (Snowfall Converted to Equivalent Rainfall)

REFERENCE: DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1977.

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precipitation in the management area ranges between 10 to 12 inches per year. By contrast, the potential evapotranspiration in the management area is about 50 inches (California Department of Water Resources, 1978). Deep percolation of precipitation will occur in wet years, during periods of very high precipitation. In the management area, deep percolation of precipitation varies from about 400 acre-ft/yr in the Winchester subbasin, to a high of about 1,600 acre-ft year in the Lakeview subbasin. The long term deep percolation of precipitation for the management area is about 6,400 acre-ft/yr.

Deep Percolation of Applied Water. The deep percolation of applied water includes recharge from percolation ponds at municipal water plants, septic and irrigation return flows. Recharge from municipal wastewater plants, in order of magnitude, occurs in Perris South (from the Sun City and Perris reclamation plants), Perris North (from the Moreno Valley reclamation plant), and Winchester subbasins (from the Rancho Temecula reclamation plant). The annual recharge of reclaimed water in the management area is projected to be about 11,900 acre-ft/yr (Eastern Municipal Water District, 1993).

The deep percolation of irrigation ranges from about 1,300 acre-ft/yr in the Winchester subbasin, to 7,800 acre-ft/yr in the Perris North subbasin. The long term deep percolation of irrigation and septic tank returns for the management area is about 20,300 acre-ft/yr.

The deep percolation of applied water from reclamation plants, irrigation returns and septic tank disposal ranges from about 1,400 acre-ft/yr for the San Jacinto Lower Pressure subbasin, to about 13,600 acre-ft/yr for the Perris South subbasin.

Subsurface Inflow . Subsurface inflow along mountain boundaries is defined as the sum of subsurface inflows from the mountain boundaries plus runoff that percolates to groundwater along the mountain - aquifer contact. Subsurface inflow is projected to be about 2,800 acre-ft/yr.

Subtotal Inflow. The total inflow or recharge to the management area ranges from a low of 3,000 acre-ft/yr for the Winchester subbasin, to a high of about 19,500 acre-ft/yr for the Perris South subbasin. The total of all recharge into the management area is about 50,200 acre-ft/yr.

Outflow Components. Outflow from the management area consists of the following hydrologic components:

☐ subsurface outflow to areas outside the management area;

☐ groundwater production; and

☐ consumptive use from riparian vegetation.

Table 4-2 lists the average value for each of these recharge components for year 2000 land use conditions for each subbasin. These components are described below.

Subsurface Outflow. Subsurface outflow to areas outside the management area ranges from a low of zero for the Lakeview Menifee, Perris North and Perris South subbasins, to a high of about 1,200 acre-ft/yr for the Winchester subbasin. The total water lost to subsurface outflow is about 2,000 acre-ft/yr in the management area.

Groundwater Production. Groundwater production data was obtained for the period 1987 through 1991, the last five year period for which the State Water Resources Control Board (SWRCB) had compiled records of reported groundwater production. These data are listed in Table 4-3. Actual groundwater production is significantly larger because some groundwater producers do not report their groundwater production to the SWRCB. Groundwater production, while a hydrologic component, is omitted from the table because it is unknown. The safe yield estimate shown in Table 4-2 is based on total inflows minus non pumping outflows.

Losses to Riparian Vegetation. Losses to riparian vegetation are negligible. In the predevelopment past, uptake of groundwater by riparian vegetation was probably large, but has dropped to insignificance because of agricultural land development and lower groundwater levels.

Subtotal Outflow. The total outflow in the basin, from all sources, ranges from a low of 1,300 acre-ft/yr for the San Jacinto Lower Pressure subbasin, to a high of 4,600 acre-ft/yr for the Menifee subbasin. The total outflow for the management area is about 14,800 acre-ft/yr.

Volume of Groundwater in Storage. The volume of groundwater in storage was estimated from the Basin Planning Model simulations used in the 1993 Basin Plan. These estimates are listed in Table 4-2 and correspond to the year 2000. The volume of groundwater in storage is estimated as the product of the thickness of saturated sediments, times the specific yield, times the area of saturated sediments. The volume of groundwater in storage ranges from about 36,000

TABLE 4-3
HISTORICAL GROUNDWATER PRODUCTION

User	State Well ID	1987	1988	1989	1990	1991
		——— Reported Groundwater Production (acre-ft/yr) ———				
			Lakeview Subbasin Production			
Hammerschmidt	4S/2W 07J	750	750	750		
Motte	4S/2W 10C		600.3	792	653.4	428.1
Motte	4S/2W 09A	579	600.4	201	507.2	26.8
Nuevo Water Co.	4S/2W 18A	527	580.5	780.6	720	382.7
Nuevo Water Co.	4S/2W 18B	522.6	568.3	520	407	777.5
Nutrilite	4S/2W 08Q	83	100.1	102.4	124.8	70
Nutrilite	4S/2W 08K	53.7	120.6	102.8	120	130
Nutrilite	4S/2W 08	361.6	1199.2	1166.9	1132.1	980
Verger	4S/2W 10B	724		620	600	510
Verger	4S/02W 10A	440		430	420	350
Total Annual Production for Lakeview Subbasin		4,041	4,519	5,466	4,685	3,655
			Perris North Subbasin Production			
E.G.M.W.C.	3S/3W 06N	13.8	12.5	77.6	1.1	0.3
EMWD	3S/3W 6D	6176	763	613.8	601.5	231.3
Knox	3S/3W 30Q	200				3.6
Schori	3S/3W 31Q			750		
UCR	3S/3W 21C	39.9	56.5	71.5	34.1	61.8
UCR	3S/3W 22D	266.5	325.5	181.4	276.3	266.8
UCR	3S/3W 21A	35.9	71.4	30.9	42.3	46
Warmington	3S/3W 21 F1		847		845	
Total Annual Production for Perris North Subbasin		6,732	2,076	1,725	1,800	610
			Perris South-I Subbasin Production			
Smith	4S/3W 16N	94.8				
Total Annual Production for Perris South-I Subbasin		95	0	0	0	0
			Perris South-II Subbasin Production			
Motte	5S/3W 11M	556	558	716	318	421.2
Underwood Farms	5S/3W 14P	375	365	365	365	350
Total Annual Production for Perris South-II Subbasin		931	923	1,081	683	771
			Perris South-III Subbasin Production			
Agri-Empire	5S/3W 13A	455	442	496	441	381
Agri-Empire	5S/3W 13Q	205	168	170	164	148
Agri-Empire	5S/3W 13A1					165
Total Annual Production for Perris South-III Subbasin		660	610	666	605	694
			San Jacinto Lower Pressure Subbasin Production			
Agri-Empire	4S/2W 35D1	576		638	293	204
H. Welch	3S/2W 33R1	20.2				
Hill & Sooy	3S/2W 28Q	166	208	214	211	172
Total Annual Production for San Jacinto Lower Pressure Subbasin		762	208	852	504	376
Total Reported Groundwater Production West San Jacinto Groundwater Basin		13,221	8,336	9,790	8,777	6,106

Table 4-3, reported GW prod
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acre-ft for the Winchester subbasin, to about 380,000 acre-ft in the San Jacinto Lower Pressure subbasin. The total groundwater in storage in the management area is about 1,130,000 acre-ft.

The storage capacity of these subbasins is also shown in Table 4-2. The storage capacity is equal to the volume of groundwater that could be stored in the basin with a minimum 50 feet depth to water. The storage capacity of groundwater in storage ranges from about 41,000 acre-ft for the Winchester subbasin, to about 515,000 acre-ft for the Lakeview subbasin. The total storage capacity in the management area is about 1,800,000 acre-ft

Safe Yield. Two estimates of the safe yield are presented in Table 4-2. The natural safe yield of the groundwater basins is assumed equal to the net inflow and is numerically equal to the long term average inflow, minus subsurface outflow from the management area, minus the average annual percolation of reclaimed water. The natural safe yield ranges from a low of 1,600 acre-ft/yr for the Winchester subbasin, to a high of about 13,700 acre-ft/yr for the Perris North subbasin. The natural safe yield for the management area is about 36,200 acre-ft. If the percolation of reclaimed water is included in the yield, then the safe yield will range from 1,800 acre-ft/yr for Winchester subbasin, to 19,500 acre-ft/yr for the Perris North subbasin. The safe yield of the management area is about 48,100 acre-ft/yr.

GROUNDWATER QUALITY

The water quality trends in the West San Jacinto Groundwater Basin are typical of the arid southwest. There are three principle sources of water quality degradation in operation in the management area. Naturally occurring brackish groundwater occurs in the vicinity of Salt Creek in the Menifee and Winchester subbasins; and in the Perris South-II subbasin in the vicinity of San Jacinto Creek. Groundwater production patterns in these areas have caused the brackish groundwater to spread out and thus affect larger areas.

The second principle cause of water quality degradation is irrigated agriculture. The mineral content in irrigation return flows to groundwater is three to four times the mineral content of the irrigation source. The irrigation returns degrade the groundwater. If the groundwater is subsequently reused, the mineral content of the irrigation returns are further increased causing additional groundwater degradation. Groundwater will continuously degrade unless additional sources of high quality recharge are introduced to the basin.

Finally, elevated boron and fluoride levels in groundwater have been observed near faults, in particular near the Casa Loma and San Jacinto faults. Boron, fluoride and elevated groundwater temperatures are common near faults. The area degraded by these contaminants is near the Casa Loma and San Jacinto faults.

Groundwater quality descriptions are presented below for each subbasin. These descriptions are based on all groundwater quality data currently available for the management area. Most of the discussion is based on the groundwater quality descriptions developed by the DWR in *Water Resources Evaluation of the San Jacinto Area* (California Department of Water Resources, 1978). With the exception of the Menifee-I, Menifee-II and Winchester subbasins, very little new water quality data has been collected since the DWR prepared the above-mentioned report. Data collected after 1978, including a recent round of water quality sampling by the United States Geological Survey (USGS), were reviewed in detail and, where appropriate, modifications to the DWR's descriptions were developed and included herein.

The water quality discussion presented herein is limited to general minerals, nitrate and chloride due to the lack of data on heavy metals, organics and radionuclides. An inventory of the available water quality data at wells is included in Appendix B. The available water quality data base contains water quality data for about 300 wells. The average period of record for these wells is about 5 years, with 62 percent of the wells having only one water quality sample. On the average, about half of the water quality data is from before 1980 and about 72 percent before 1990. Most of the recent data was obtained from wells in the Menifee subbasins as part of EMWD's Menifee desalter studies, and groundwater quality sampling surveys by the USGS. It should be emphasized that there is practically no information on heavy metals, organics or radionuclides.

New groundwater quality data will need to be collected and a new water quality characterization of the West San Jacinto Groundwater Basin will need to be prepared in the implementation of the groundwater management plan. The need for new data will become obvious in the discussion of Sections 7 and 8. A plan to obtain these data has been incorporated into the management plan described in Section 8.

Perris North Subbasin

Figure 4-8 shows the distribution of TDS in the management area as interpreted by the DWR (DWR 1978). TDS, nitrate and the general inorganic chemistry for the Perris North subbasin is shown in Figure 4-9. Figure 4-9 is based on all available data and corresponds approximately to 1993 conditions. In the Perris North subbasin, TDS concentrations generally range from about 300 mg/L to 600 mg/L with some wells exceeding 800 mg/L. The chemical character of its water is mostly sodium chloride, probably because of the extensive irrigated agriculture. Evapotranspiration and the frequent application of irrigation water produce changes in the relative concentrations of the mineral constituents that leave more sodium and chloride in solution. Recycling of this water further concentrates these ions. The only source of dilution is the deep percolation of precipitation and stormflow which are small compared to total recharge in the subbasin (see Table 4-2).

Nitrate concentrations range from about 1 to 12 mg/L (as nitrogen) with most values between 4 mg/L to 9 mg/L. Nitrate concentrations have increased over the years as a result of fertilization practices in the valley. Figures 4-10, 4-11, and 4-12 show TDS, nitrate and chloride trends in the Perris North subbasin. Figure 4-11 suggests an increasing trend of nitrate concentration.

Most of the water ranges from soft to moderately hard. Fluoride and boron concentrations are relatively high in certain wells in the area, possibly indicating the presence of unmapped faults. For human consumption, water from some wells in the area may not meet Department of Health Services standards for nitrate and fluoride concentrations.

Perris South Subbasins

Figure 4-13 illustrates the TDS, nitrate and general inorganic chemistry of the Perris South I and Lakeview subbasins and Figure 4-14 shows the same interpretation for the Perris South II and Perris South III subbasins. Figures 4-13 and 4-14 are based on all available data and correspond approximately to 1993 conditions. The variations in TDS and nitrate concentrations in the Perris South subbasins are listed below (mg/L).

Subbasin	TDS	Nitrate (as N)
Perris South-I	500 to 1300	0.0 to 7.2
Perris South-II	640 to 14,000	0.0 to 9.0
Perris South-III	400 to 3,300	5.0 to 31

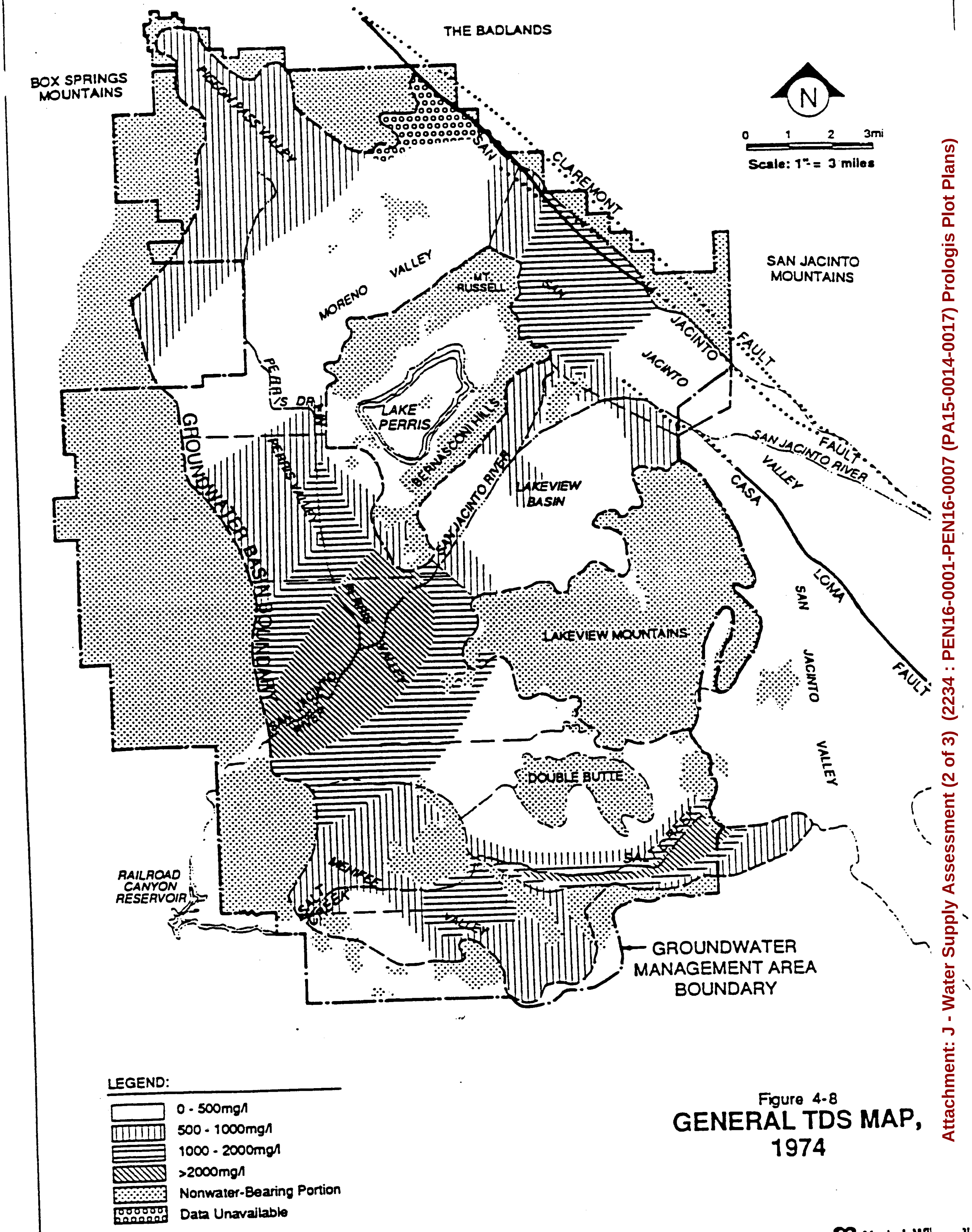

Figure 4-8

GENERAL TDS MAP, 1974

REFERENCE: DEPARTMENT OF WATER RESOURCES, SOUTHERN DISTRICT, 1977.

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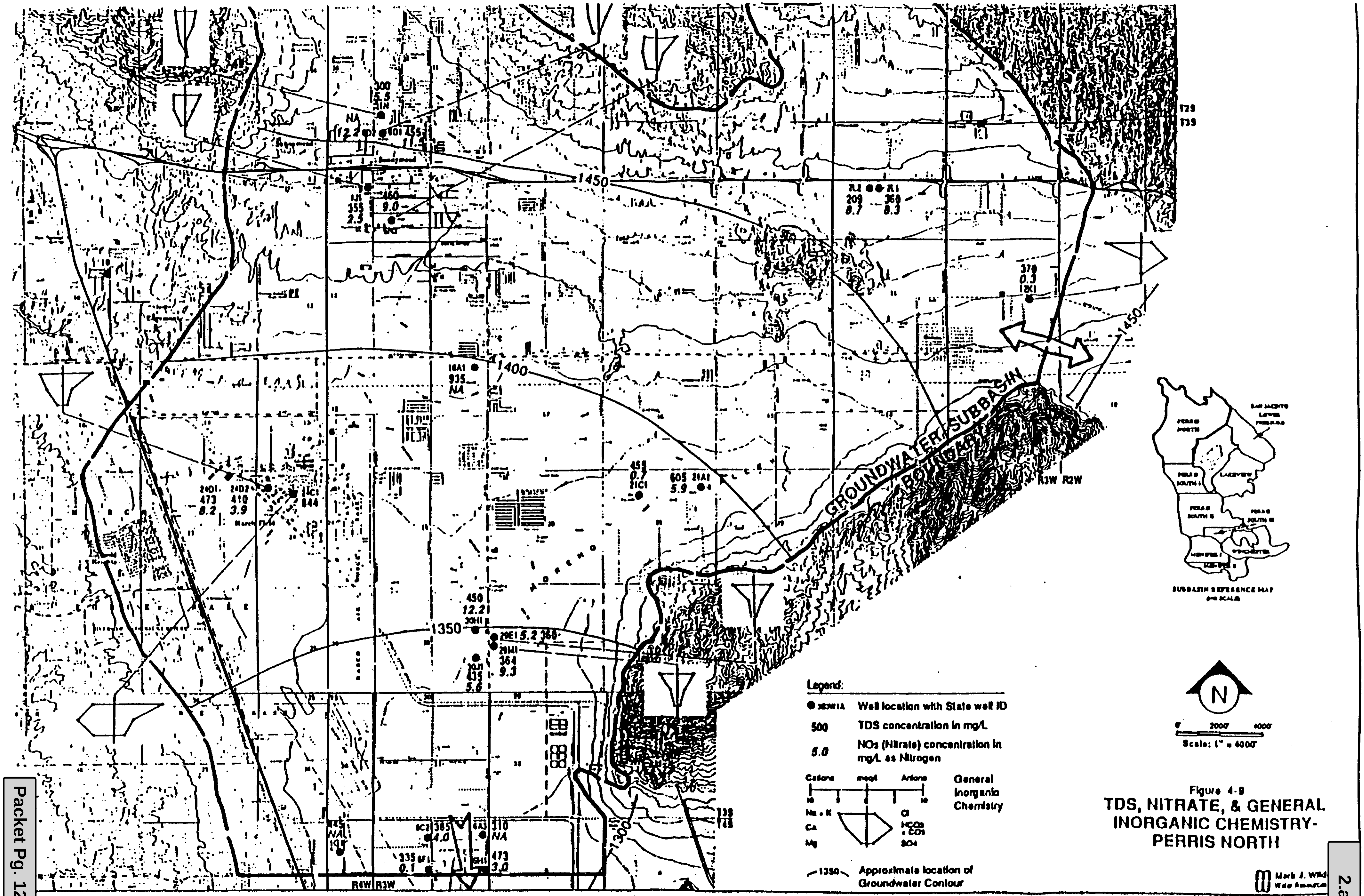

Figure 4-9

TDS, NITRATE, & GENERAL INORGANIC CHEMISTRY-PERRIS NORTH

FIGURE 4-10 TDS CONCENTRATION IN PERRIS NORTH AND SOUTH BASINS

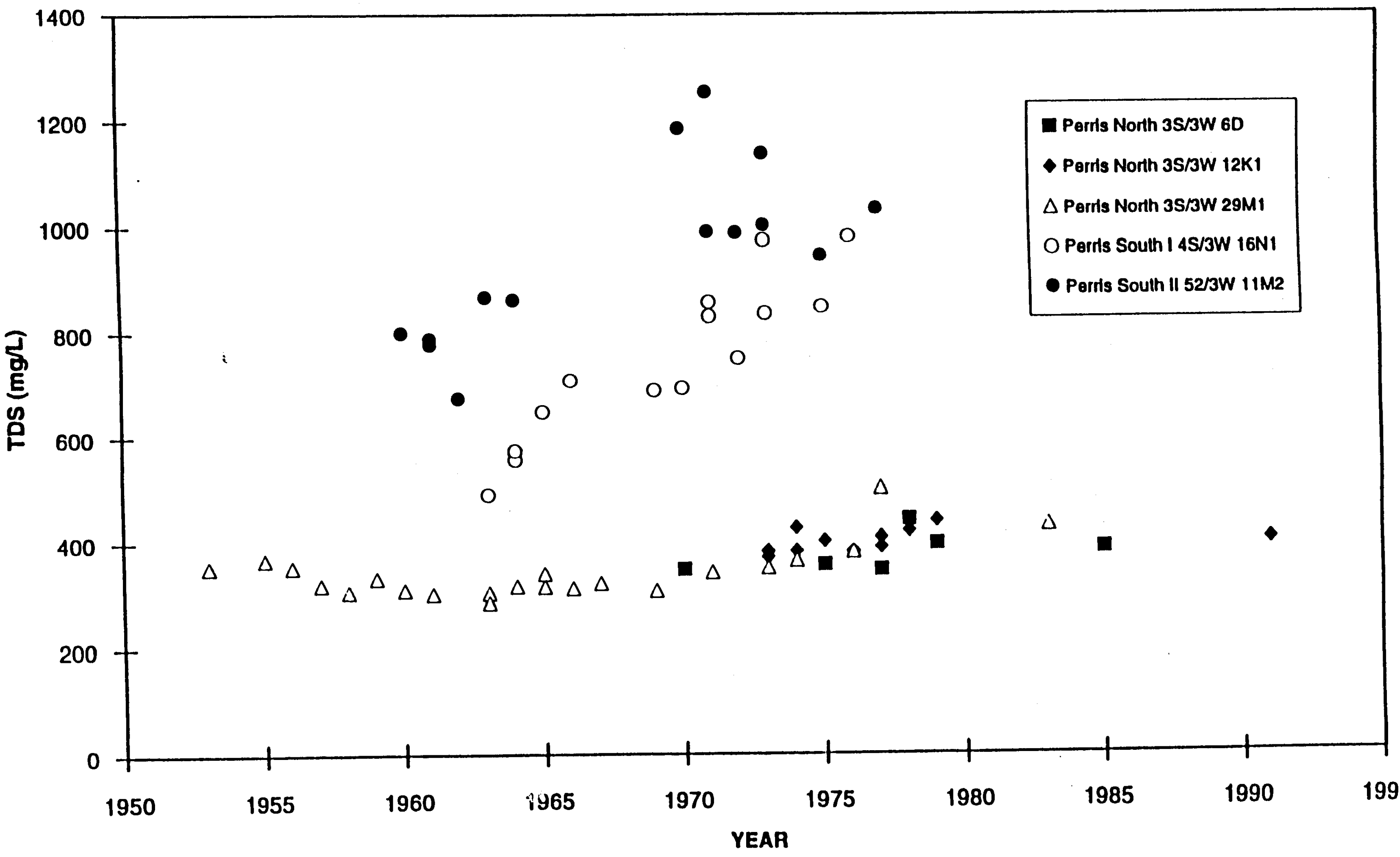

FIGURE 4-11 NITRATE-N CONCENTRATION PERRIS NORTH AND SOUTH BASINS

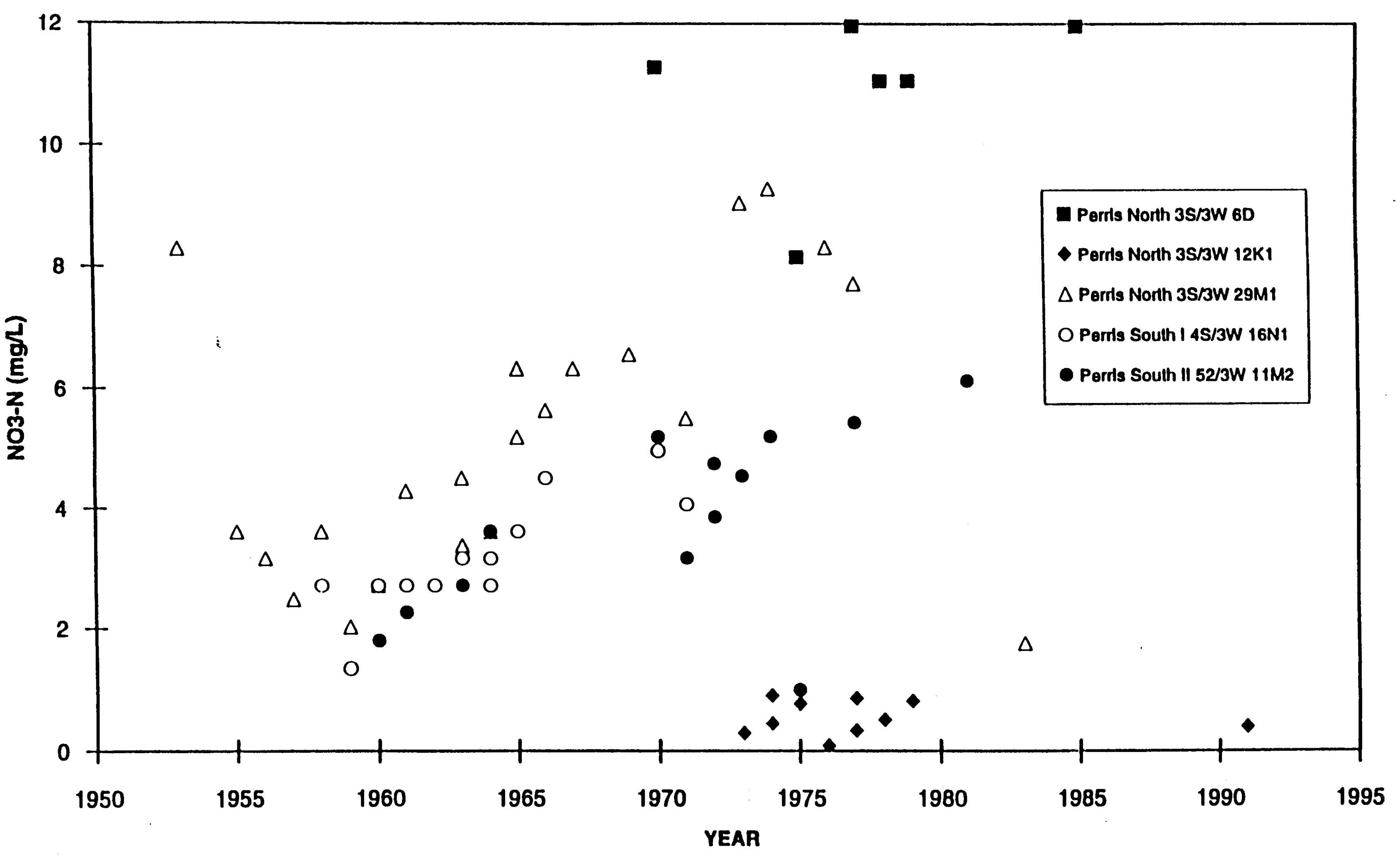

FIGURE 4-12 CHLORIDE CONCENTRATION PERRIS NORTH AND SOUTH BASINS

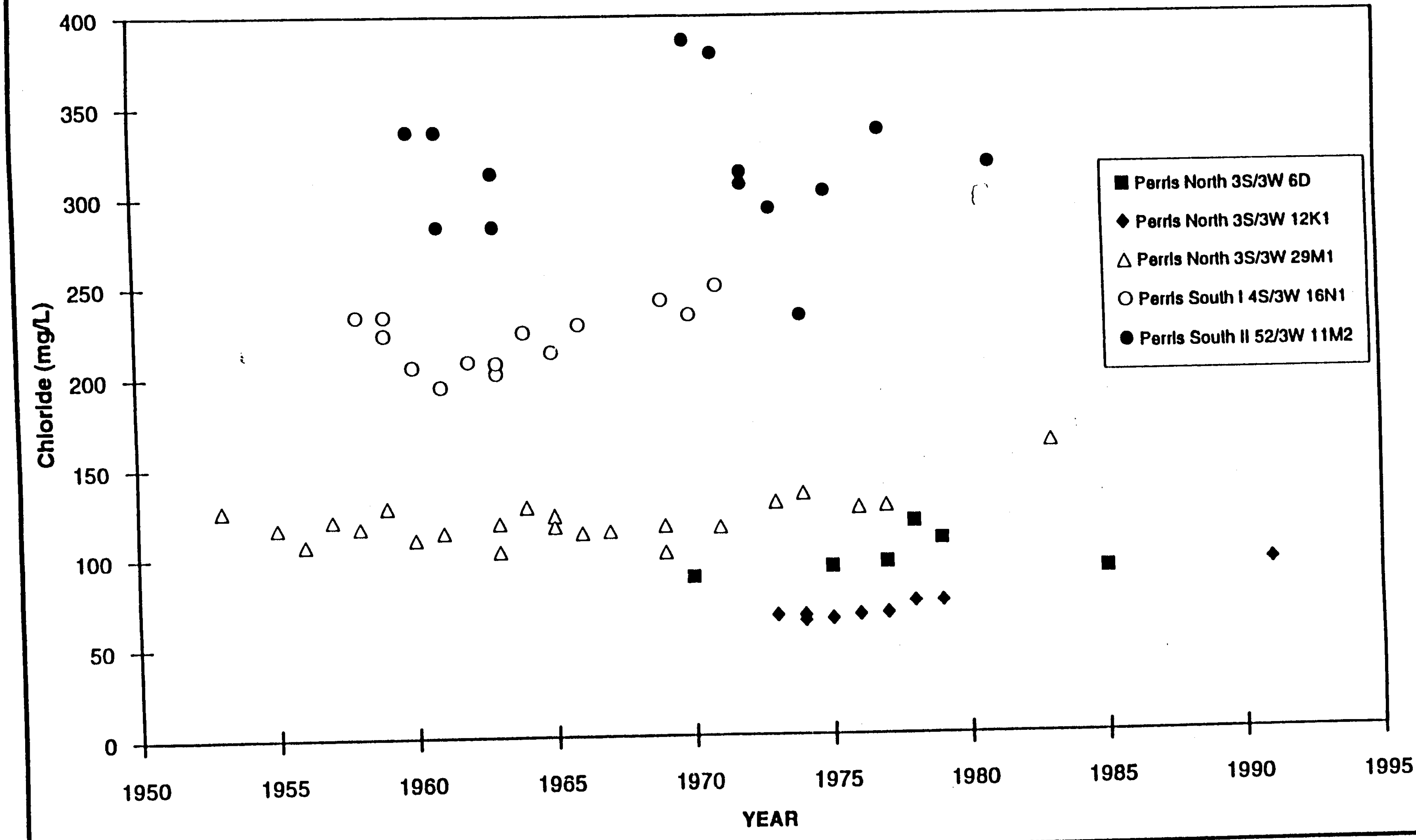

Chloride Plot Perris N&S

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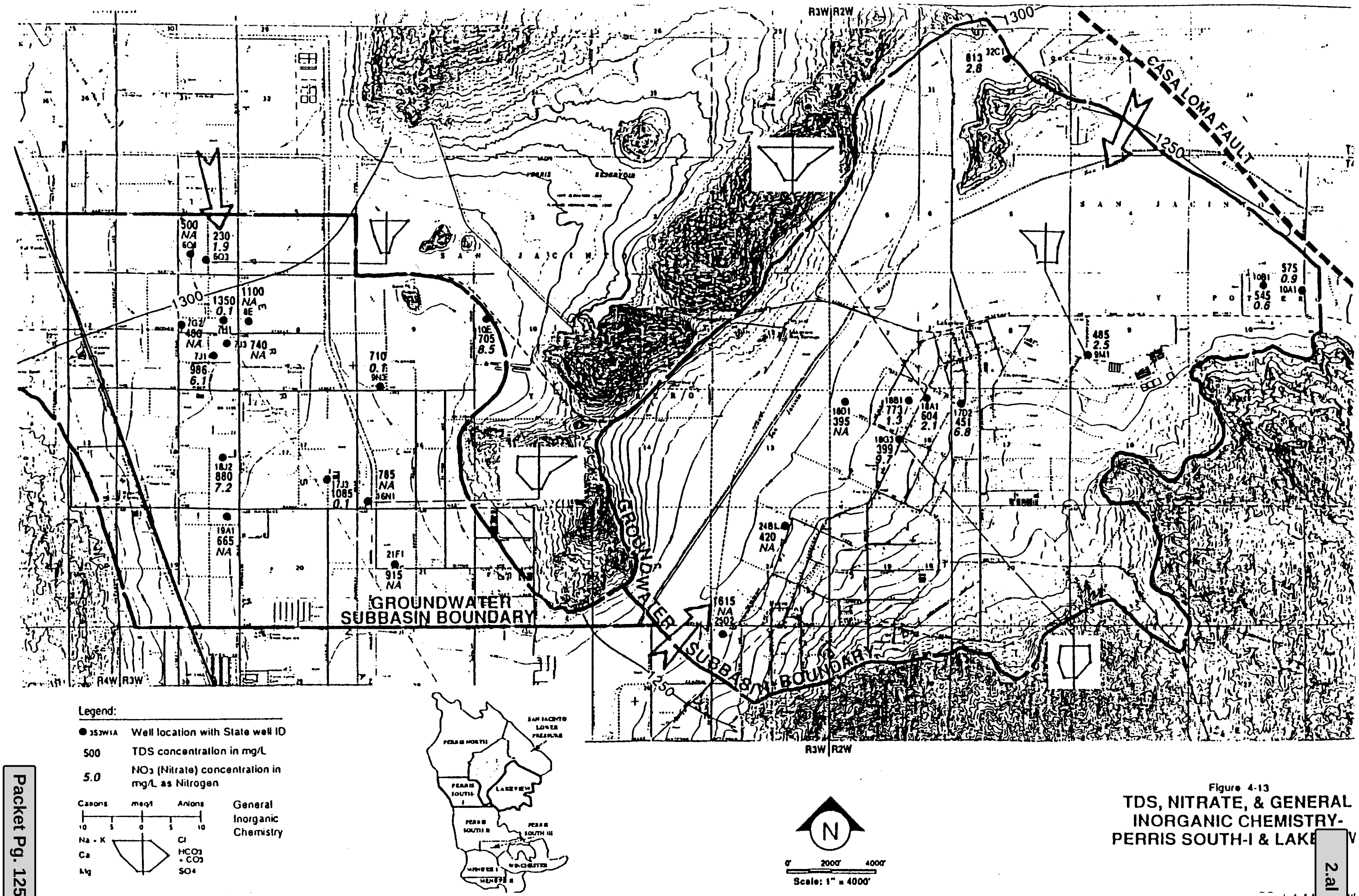

Figure 4-13
TDS, NITRATE, & GENERAL
INORGANIC CHEMISTRY-
PERRIS SOUTH-I & LAKE

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Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

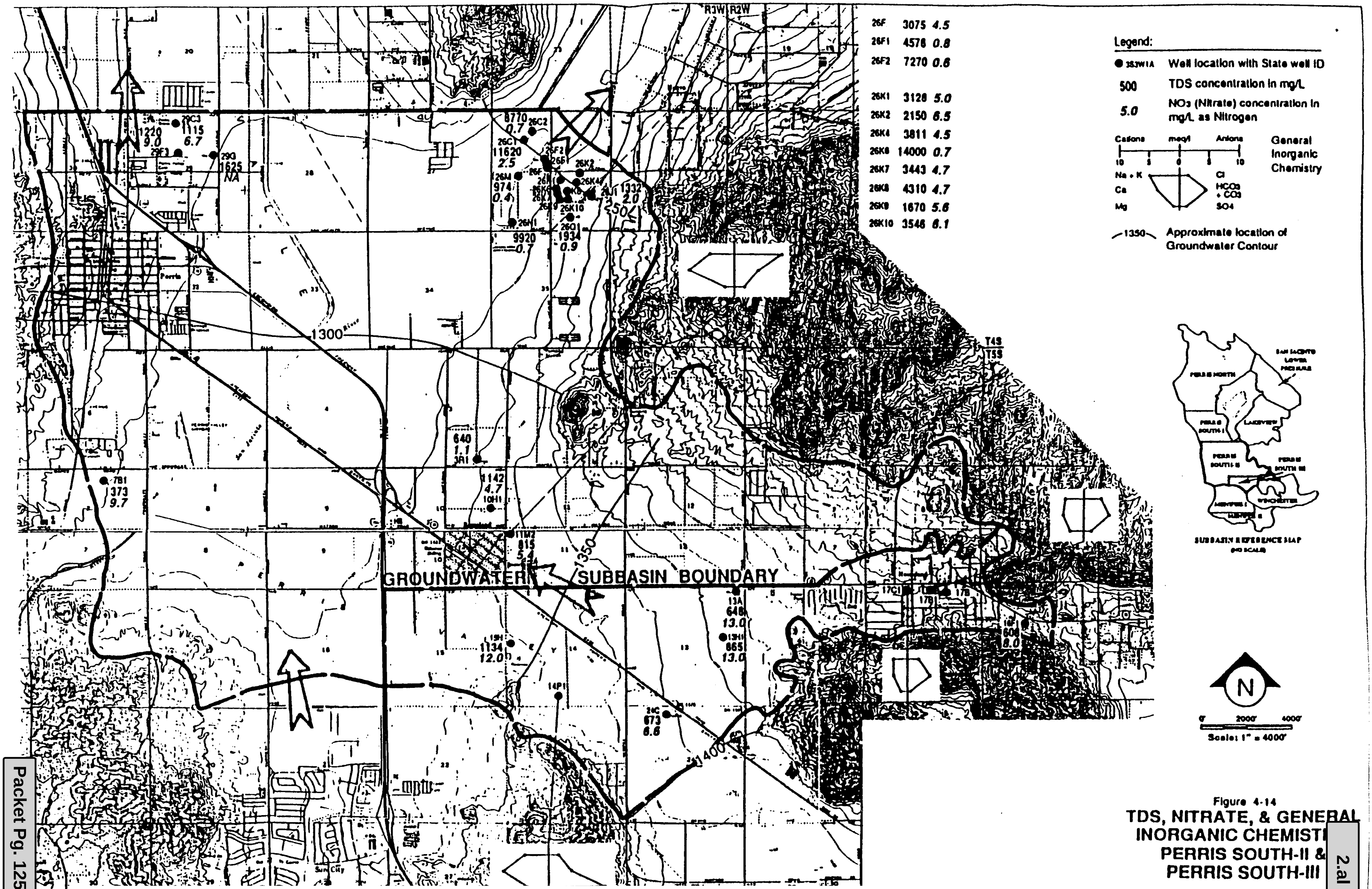

Figure 4-14

TDS, NITRATE, & GENERAL
INORGANIC CHEMIST
PERRIS SOUTH-II &
PERRIS SOUTH-III

The poorest quality water is found near the San Jacinto River in the Perris South-II subbasin. This brackish water is believed to be the result of the large evapotranspiration losses incurred because of the high water table that existed in the past. As wells were abandoned because of this brackish water, pumping increased in the areas of better quality to the north and south. As a result, brackish water has spread out toward these areas. Thus, the TDS concentration of the groundwater has increased as water levels have declined in the areas north and south of the river. Figures 4-10, 4-11, and 4-12 illustrate TDS, nitrate and chloride trends in the Perris South subbasins. Figure 4-10 shows this increase in TDS concentration. The Ski Land area has anomalously high TDS concentrations ranging from 1,700 mg/L to 14,000 mg/L.

Menifee Subbasins

Figure 4-15 illustrates the TDS, nitrate and general inorganic chemistry of the Menifee-I and Menifee-II subbasins. Figure 4-15 is based on all available data and corresponds approximately to 1993 conditions.

Groundwater flow between Menifee and the adjacent subbasins is negligible. The volume of groundwater in storage for Menifee-I and Menifee-II is relatively small and is estimated at about 56,000 acre-ft (Table 4-2). Groundwater produced in these subbasins was, and is, used for agriculture and landscape irrigation. Returns from irrigation have contributed to increased mineral concentrations in these subbasins.

Under natural conditions, groundwater flowed toward Salt Creek from all directions and from Salt Creek westward, where high groundwater caused large evapotranspiration losses and concurrent salt buildup. In time, brackish water developed in these areas and, under normal conditions, remained close to the creek. TDS concentrations throughout the basin ranged from 300 to 1,500 mg/L in 1974, and have increased to range from 800 to 3,700 mg/L.

Most groundwater in the Menifee-I and Menifee-II subbasins cannot be used for domestic supply without demineralization or blending with imported water. Agricultural usage is somewhat limited due to high chloride and sodium concentrations.

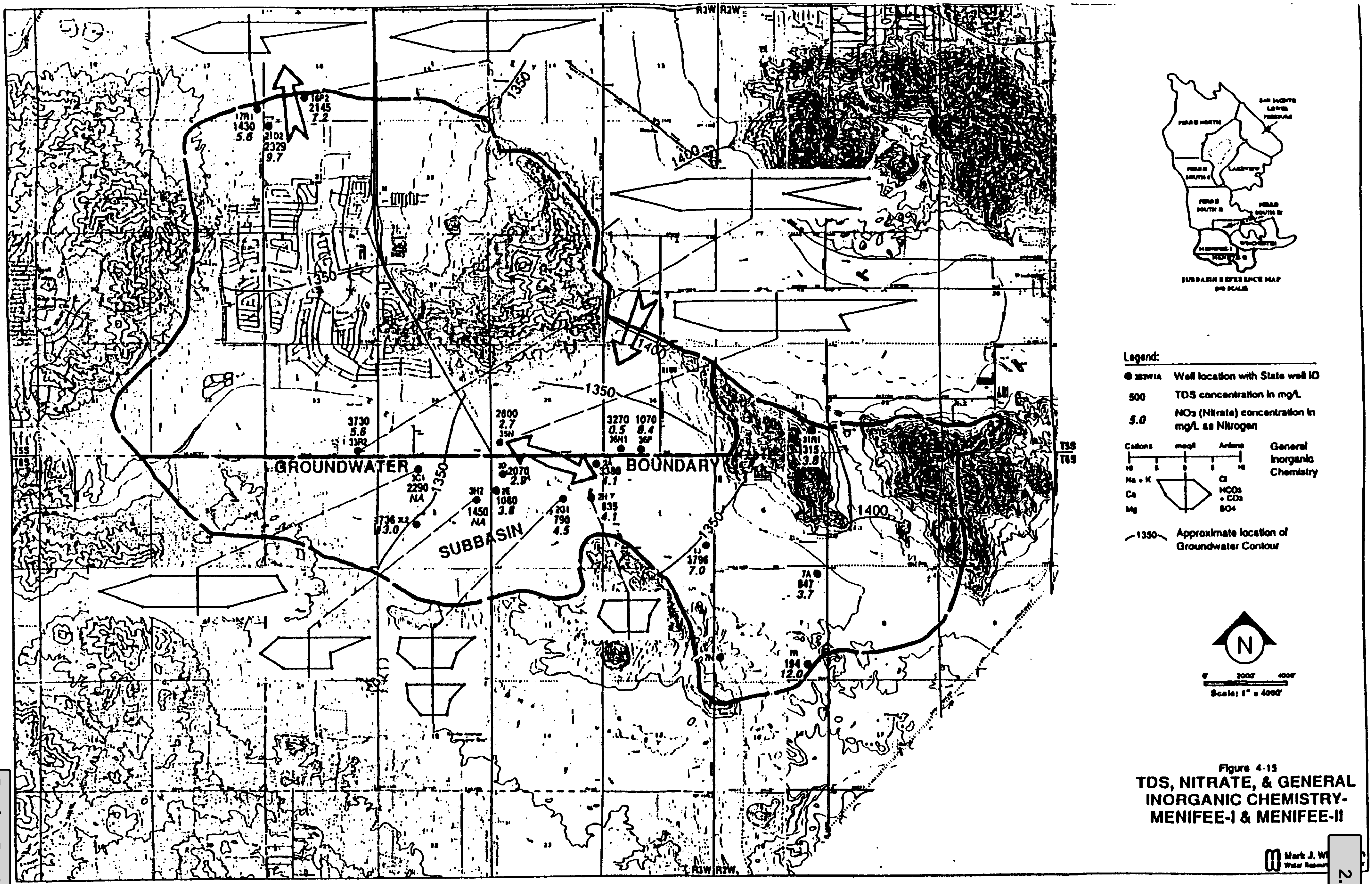

Figure 4-15
TDS, NITRATE, & GENERAL INORGANIC CHEMISTRY-MENIFEE-I & MENIFEE-II

Lakeview Subbasin

Figure 4-13 illustrates the TDS, nitrate and general inorganic chemistry of the Lakeview subbasin. Figure 4-13 is based on all available data and corresponds approximately to 1993 conditions. Figures 4-16, 4-17 and 4-18 contain time histories for two wells in the Lakeview subbasin covering the period of 1957 to 1989.

The principle sources of groundwater in this basin are underflow from the San Jacinto Lower Pressure, Perris South I, Perris South II subbasins, stormflow percolation in San Jacinto Creek, and runoff from the Lakeview Mountains and Bernasconi Hills. Groundwater quality under natural conditions has been altered by a groundwater level drop of about 200 feet that has changed the direction of flow of groundwater. Groundwater flows toward Lakeview from all sides. Groundwater on the northwest and southeast sides of the basin has TDS concentrations of below 500 mg/L as a direct result of the recharge of the Bernasconi Hills and Lakeview Mountains, respectively. Brackish groundwater is entering from the Perris South-II subbasin because of lowered groundwater levels near Lakeview. The most conspicuous constituents of the brackish water are sodium and chloride. TDS concentrations range from 400 to 1,600 mg/L, with more typical values ranging from 400 to 600 mg/L. Nitrates range from 1 to 9 mg/L as nitrogen, with typical values less than 6 mg/L. Most of the groundwater in the basin is sodium chloride in character. The Casa Loma fault, which forms the eastern boundary of the basin, affects the quality of water in that area. Both boron and fluoride concentrations are relatively high near the fault and in a few other specific areas of the basin. Chloride is generally high and most of the groundwater is moderately hard.

With the exception of some instances of elevated fluoride, groundwater in the Lakeview subbasin is suitable for domestic and municipal supply. Agricultural usage is somewhat limited due to high boron and chloride concentrations.

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FIGURE 4-16 TDS CONCENTRATION IN MENIFEE, WINCHESTER, LAKEVIEW BASINS

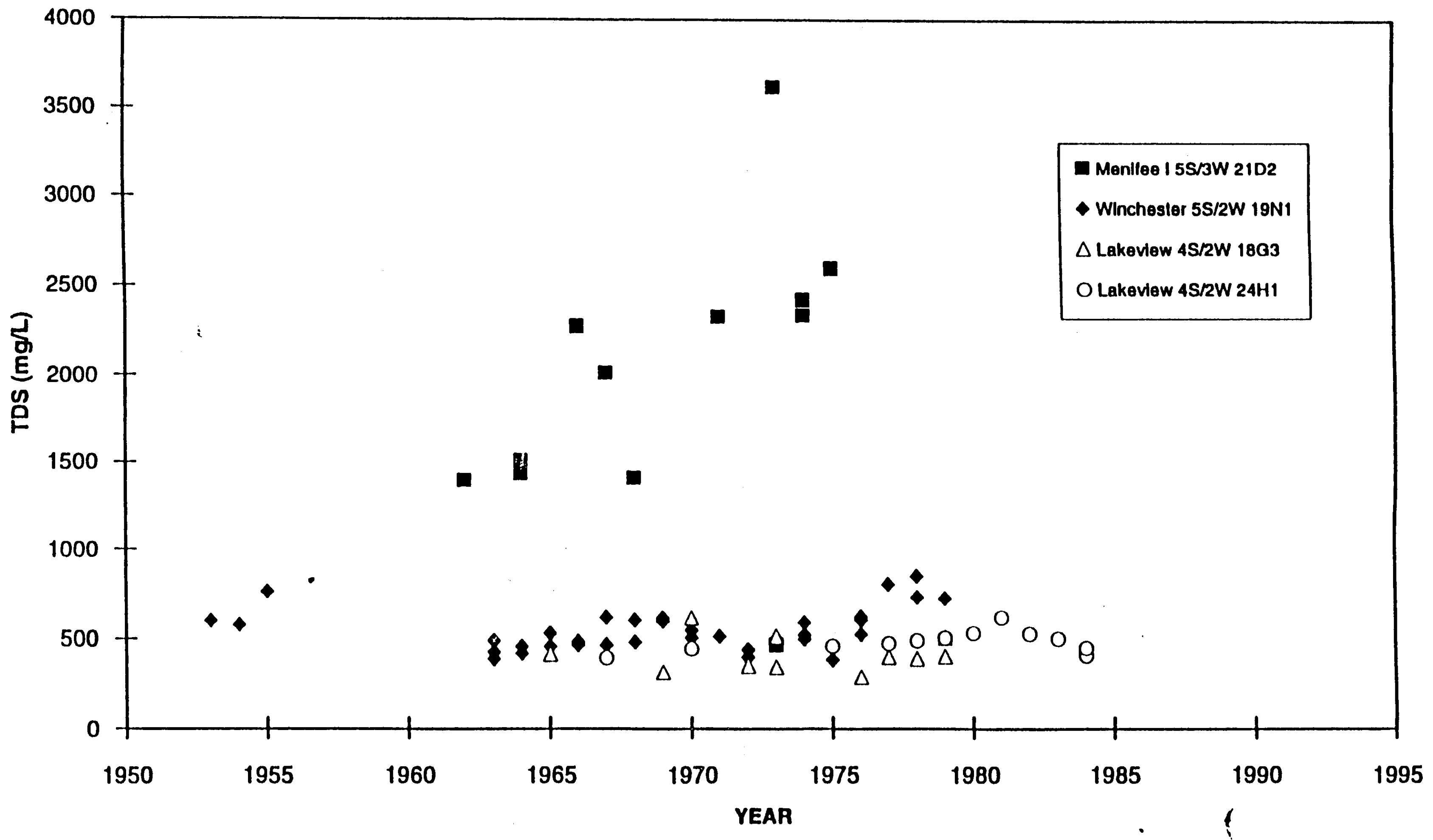

TDS Plot Men-Win-Lak
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FIGURE 4-17 NITRATE-N CONCENTRATION MENIFEE I, WINCHESTER, AND LAKEVIEW BASINS

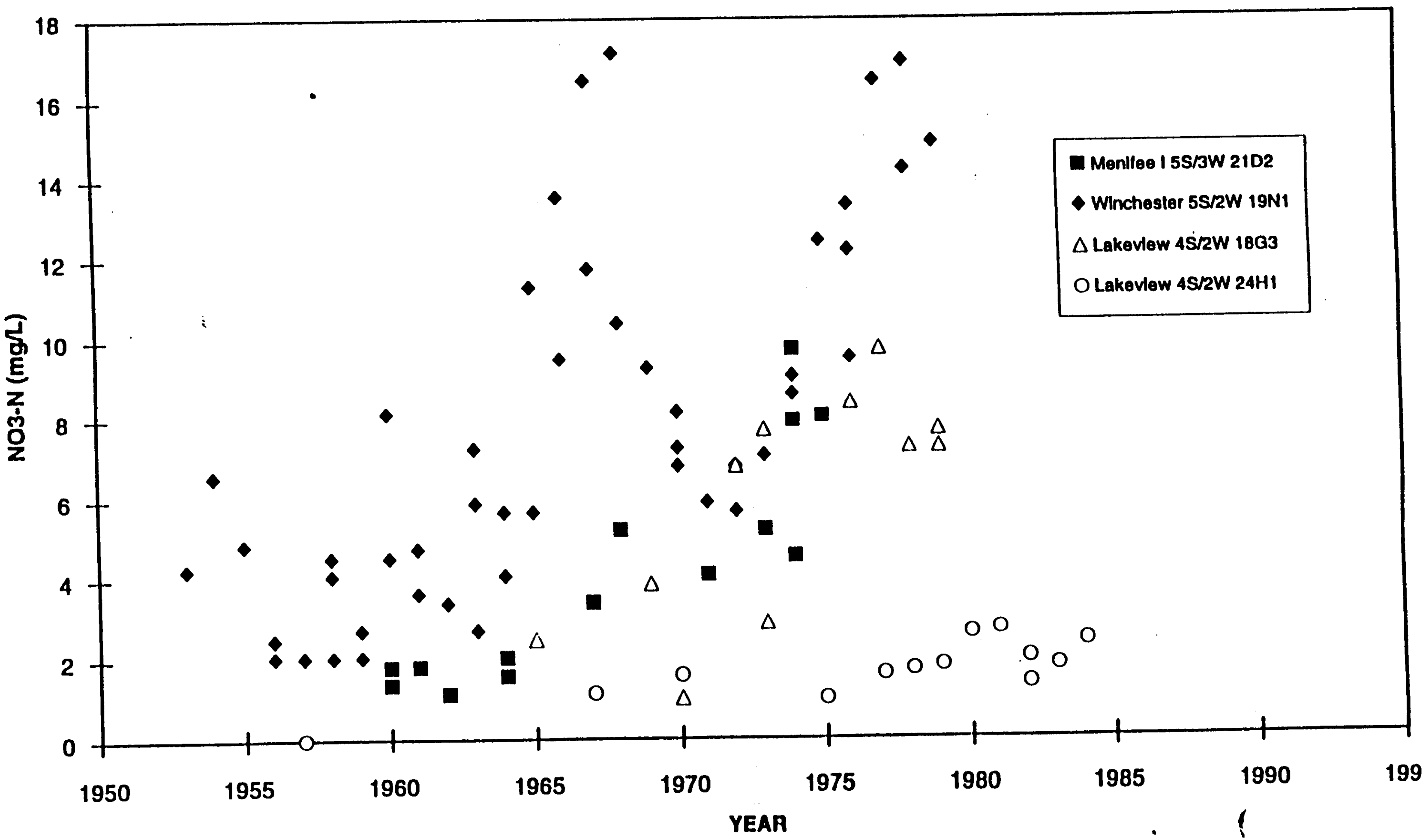

FIGURE 4-18 CHLORIDE CONCENTRATION IN MENIFEE, WINCHESTER, AND LAKEVIEW BASINS

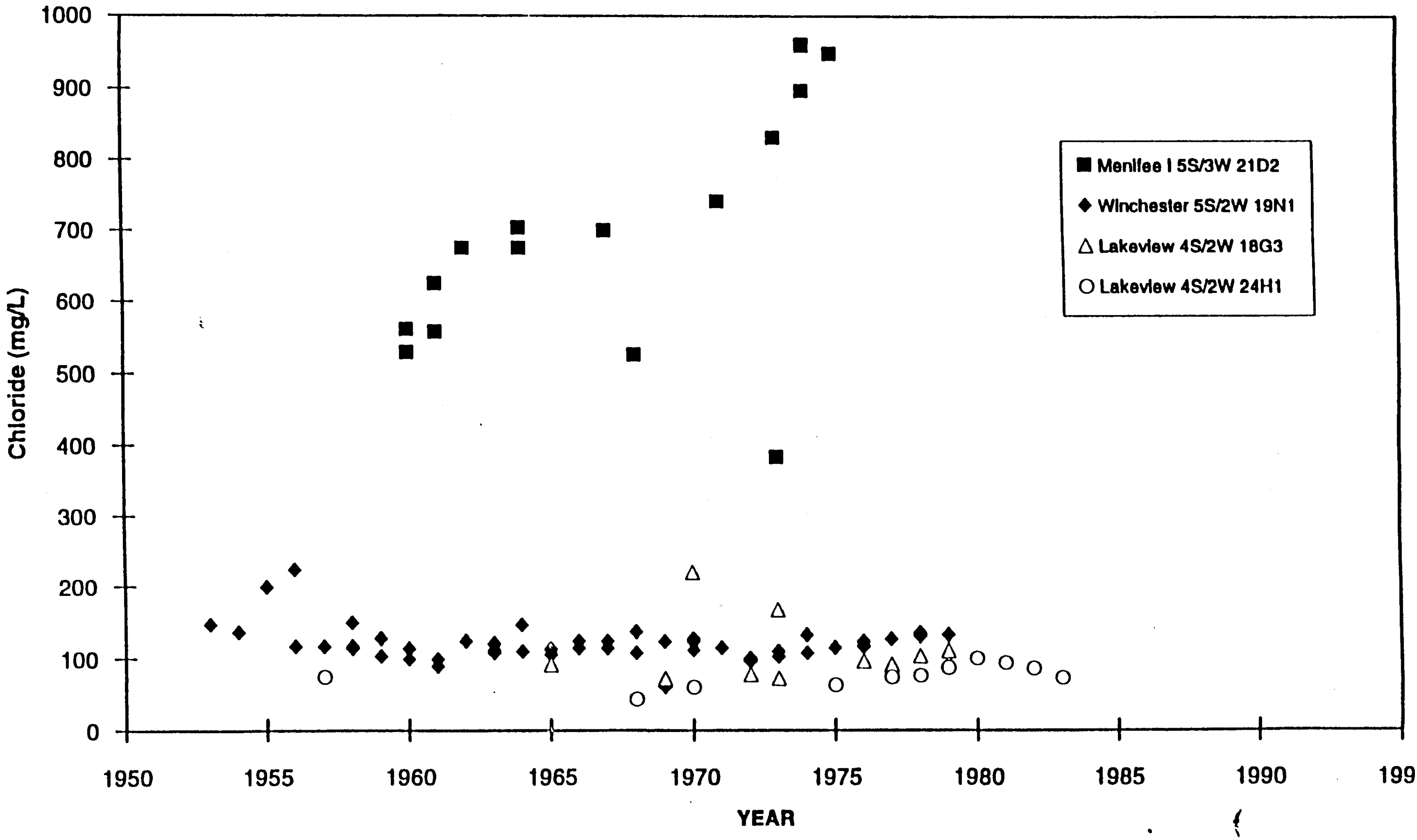

Chloride Plot Men-Win-Lak
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Winchester Subbasin

Figure 4-19 illustrates the TDS, nitrate and general inorganic chemistry of the Winchester subbasin. Figure 4-19 is based on all available data and corresponds approximately to 1993 conditions. Winchester is the smallest of the groundwater basins, with about 36,000 acre-ft in storage and capacity of about 41,000 acre-ft. TDS concentrations range from 700 to 6,400 mg/L, with more typical values ranging from 1,000 to 3,000 mg/L. Nitrates range from 1 to 51 mg/L as nitrogen, with typical values ranging from 2 to 12 mg/L. TDS mapping in Figure 4-8 (California Department of Water Resources, 1978) indicates that brackish groundwater occurs in a half-mile-wide strip along the entire length of Salt Creek. This high TDS water is probably the result of evaporite deposits caused by past high-water-table conditions.

Under natural conditions, the primary source of recharge in the Winchester subbasin was subsurface inflow from the Hemet subbasin. The TDS in the subsurface inflow from the Hemet subbasin ranged from 500 to 1,000 mg/L. Currently, the Winchester subbasin flows into the Hemet subbasin causing groundwater degradation in that basin.

TDS, hardness and, occasionally, nitrate limit the use of Winchester groundwater for domestic purposes. Some groundwater in the Winchester subbasin cannot be used for municipal supply without demineralization. Agricultural usage is somewhat limited due to high boron and chloride concentrations.

San Jacinto Lower Pressure Subbasin

Figure 4-20 illustrates the TDS, nitrate and general inorganic chemistry of the San Jacinto Lower Pressure subbasin. Figure 4-20 is based on all available data and corresponds approximately to 1993 conditions. Water quality time histories could not be developed for this subbasin due to lack of data.

TDS concentrations in groundwater typically range from 500 to 1,500 mg/L. Nitrates range from near zero to 33 mg/L as nitrogen, with typical values less than 3 mg/L. Although data in the northwestern part of the subbasin are limited, the faults in the area appear to affect nearby groundwater because high boron and fluoride concentrations are found there.

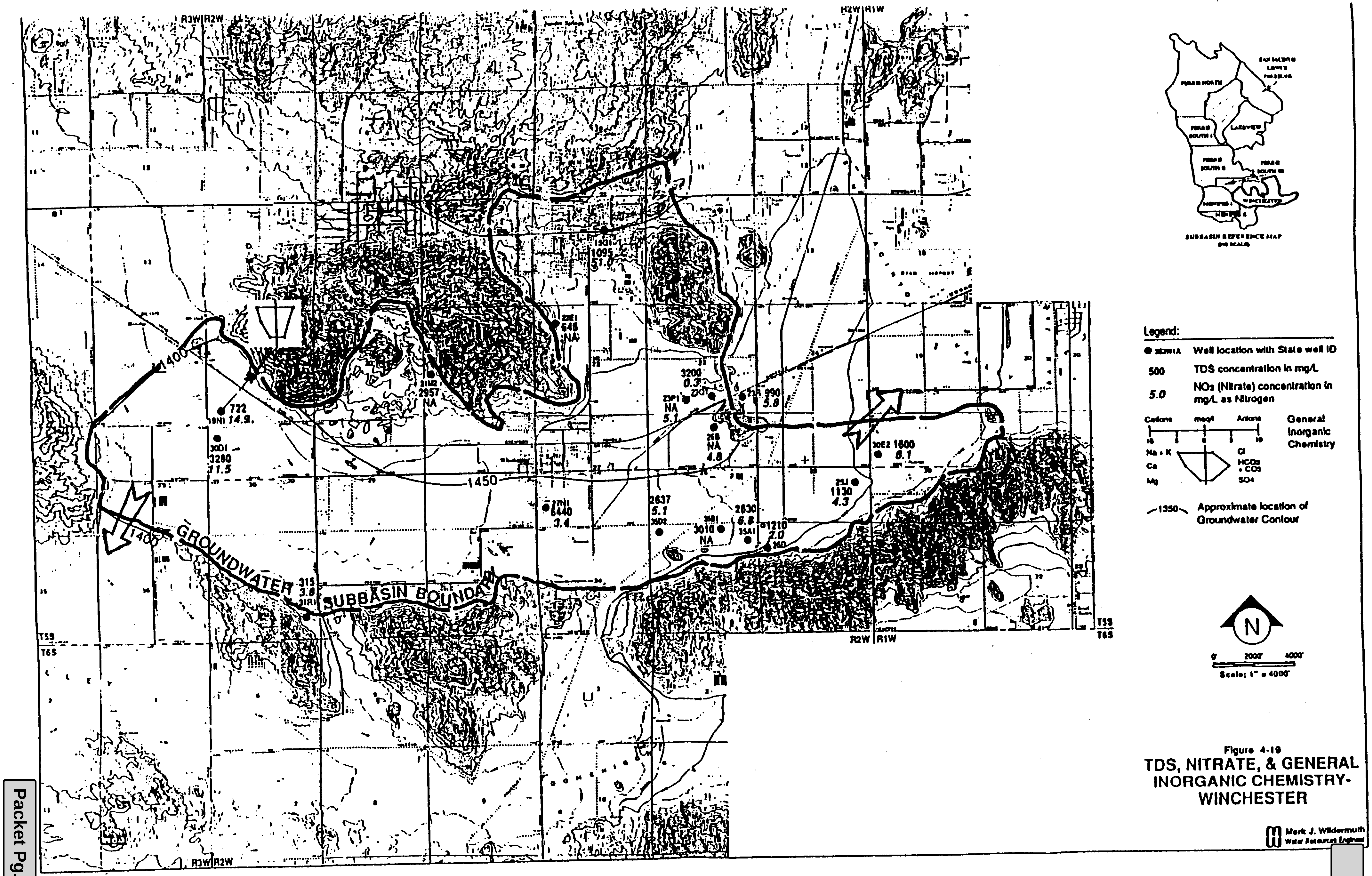

Figure 4-19

TDS, NITRATE, & GENERAL INORGANIC CHEMISTRY-WINCHESTER

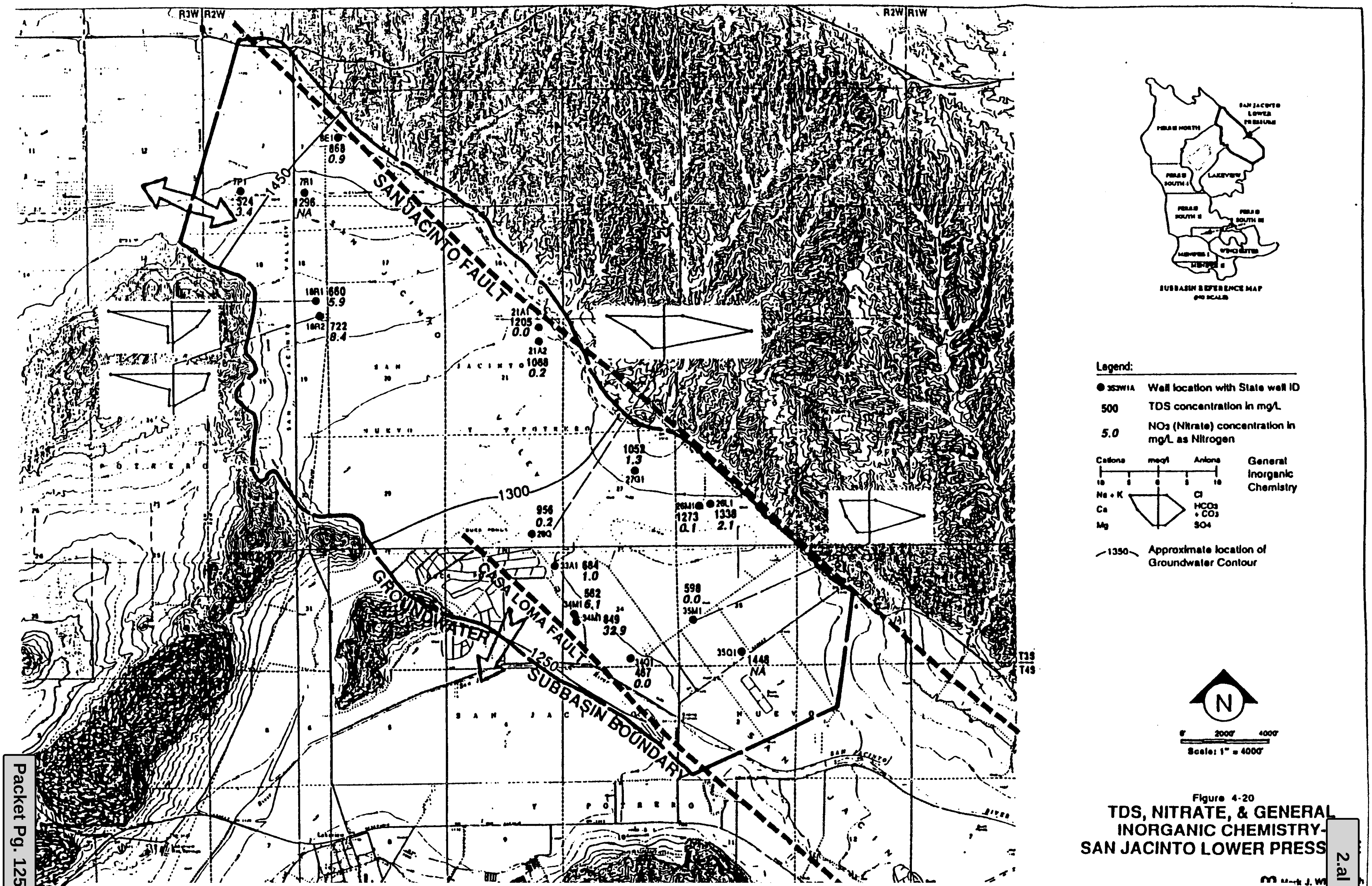

Figure 4-20

TDS, NITRATE, & GENERAL INORGANIC CHEMISTRY-SAN JACINTO LOWER PRESS

FUTURE GROUNDWATER QUALITY

Future projections of groundwater quality in the West San Jacinto Groundwater basin were prepared by SAWPA as part of the *Nitrogen and TDS Studies, Santa Ana River Watershed* (James M. Montgomery, 1989). These studies developed future projections of TDS and nitrate by subbasin for the period 1990 through 2005. These estimates, however, are based on a model that:

- ☐ has not been calibrated for TDS or nitrate;
- ☐ each subbasin is represented by only one node and thus the resolution of the analysis is crude; and
- ☐ future water supply and wastewater plans that were used in these studies are not representative of the future.

Therefore, the results are questionable and not of much value as a management tool for the West San Jacinto Groundwater Basin.

There is a need for a planning tool to estimate the groundwater level and quality response to groundwater management practices. The planning tool would consist of groundwater flow and simulation models similar to those models that were developed and that are in current use to develop the Chino Basin Water Resources Management Plan (Montgomery Watson & Wildermuth, Mark J., 1992; Montgomery Watson & Wildermuth, Mark J., 1993).

SECTION 5

SECTION 5
FUTURE WATER DEMANDS AND WASTEWATER FLOWS

WATER DEMANDS AND SOURCES OF SUPPLY

Projected Demands

Projected Municipal Water demands for the West San Jacinto Groundwater Management area are listed in Table 5-1 and shown graphically in Figure 5-1. These estimates are based on land use and population projections and projected water use rates. The projections in Table 5-1 were developed by the planning staff of EMWD and represent an update of the water demand projections developed for the 1990 Water Facilities Master Plan (Black & Veatch, James M. Montgomery, Inc., 1990). Municipal demands in the West San Jacinto Groundwater Management Area range from 47,000 acre-ft/yr in 1995 (58 percent of total demand), to 112,000 acre-ft/yr in 2010.

Agricultural demands are based on land use and are projected to decline from about 33,200 acre-ft/yr in 1995, to 31,000 acre-ft/yr in 2010. In 1990, about eight percent of the imported water served by EMWD was delivered to agricultural users. Throughout the planning period we assumed that agricultural demands would be satisfied with groundwater and reclaimed water.

Sources of Supply

The sources of supply to the West San Jacinto Groundwater Management area include imported water from Metropolitan, groundwater, and reclaimed water.

Imported Water from Metropolitan. The quality of treated imported water is generally excellent and meets all drinking water regulations. TDS in Colorado River water and, occasionally, SWP water, causes TDS concentration in wastewater to exceed the TDS limit specified for wastewater plants. The TDS concentrations in water will increase from 200 to 300

TABLE 5-1
PROJECTIONS OF MUNICIPAL AND AGRICULTURAL DEMANDS WEST SAN JACINTO GROUNDWATER BASIN

Year	Municipal Demands(1) (acre-ft/yr)	Agricultural Demands (acre-ft/yr)
1995	47,000	33,000
2000	63,000	32,000
2005	84,000	31,000
2010	112,000	31,000

Sources: (1) EMWD Projections 8/94

FIGURE 5-1 WATER DEMAND PROJECTIONS FOR THE WEST SAN JACINTO GROUNDWATER MANAGEMENT AREA

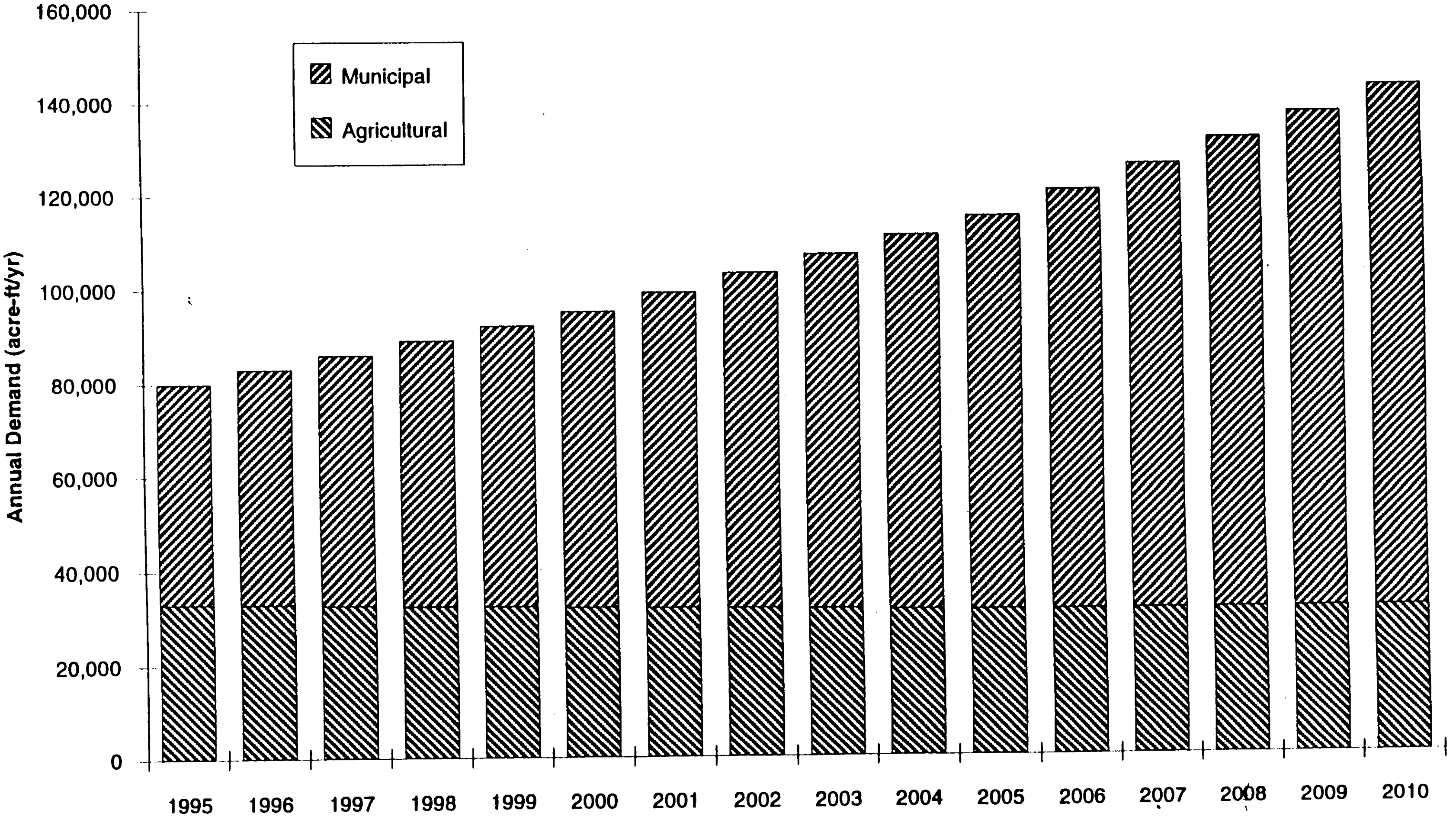

mg/L through typical municipal use. Thus, if the average TDS concentration in a water supply is 400 mg/L, the TDS concentration in the resulting wastewater will be about 600 to 700 mg/L. The TDS limits for EMWD's reclamation plants and the TDS required in the water supply to meet the TDS limits are listed below.

Reclamation Plant	TDS Limit (mg/L)	Water Supply TDS in the Tributary Area (mg/L)
Hemet-San Jacinto	575	325
Moreno Valley	550	300
Perris Valley	825	575
Sun City	950	700
Temescal	700	450

Figure 5-2 shows the TDS concentration of SWP water and Colorado River water available from Metropolitan in the management area. The average TDS concentration for SWP water is about 250 mg/L for the period shown in Figure 5-2. The comparable average for Colorado River water is about 660 mg/L. SWP water can be used in the areas tributary to all five reclamation plants listed above without causing violations, with the exception of the Moreno Valley plant that would have TDS concentrations in excess of the TDS limitations about 29 percent of the time. The use of Colorado River water or other sources with high TDS could cause TDS violations to occur at all five plants.

Metropolitan adopted a schedule of projected water rate increases in 1991. The water rates established included:

- ☐ a base rate;
- ☐ a treatment surcharge, to be added to the base rate for purchases of treated water; and
- ☐ a seasonal discount for water produced from October 1 through April 30, to be subtracted from the base rate.

The goals of the seasonal discount are: to achieve greater conjunctive use of imported supplies and local supplies; encourage the construction of additional local production facilities; and reduce member agencies' dependence on Metropolitan deliveries during the summer months. Recently, Metropolitan announced water prices for 1993 and forecasted rates for the following ten years. The projected cost of imported water purchased from Metropolitan is listed in Table 5-2 and is shown graphically in Figure 5-3. Imported water costs after 2002 are assumed to increase 6 percent per year.

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FIGURE 5-2 TDS OF IMPORTED SUPPLIES

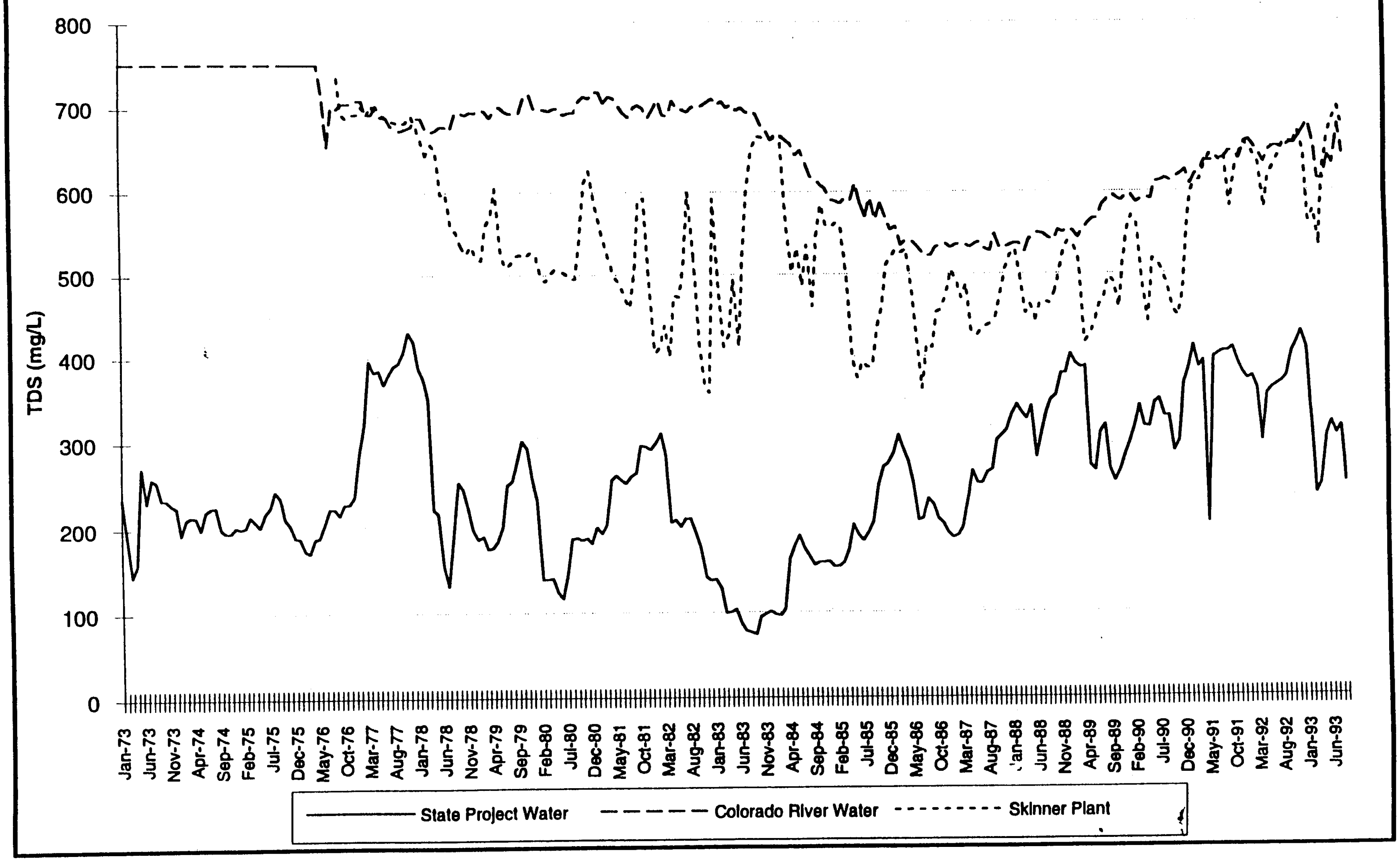

Figure 5-2 MWD

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TABLE 5-2
METROPOLITAN WATER RATE PROJECTIONS

4/2/94

Year	Treatment Surcharge	Base Rate	Base Treated	Seasonal Storage (1) Untreated	Seasonal Storage (1) Treated
1994	$77	$335	$412	$222	$275
1995	$77	$377	$454	$256	$256
1996	$78	$405	$483	$278	$279
1997	$78	$437	$515	$304	$304
1998	$89	$456	$545	$319	$328
1999	$98	$480	$578	$338	$345
2000	$104	$509	$613	$361	$366
2001	$105	$544	$649	$389	$390
2002	$109	$579	$688	$417	$420
2003	$114	$616	$730	$447	$451
2004	$119	$654	$773	$477	$481
2005	$124	$696	$820	$511	$515
2006	$130	$739	$869	$545	$550
2007	$136	$785	$921	$582	$587
2008	$142	$834	$976	$621	$626
2009	$148	$887	$1,035	$664	$669
2010	$154	$943	$1,097	$708	$713

FIGURE 5-3 COST OF IMPORTED WATER

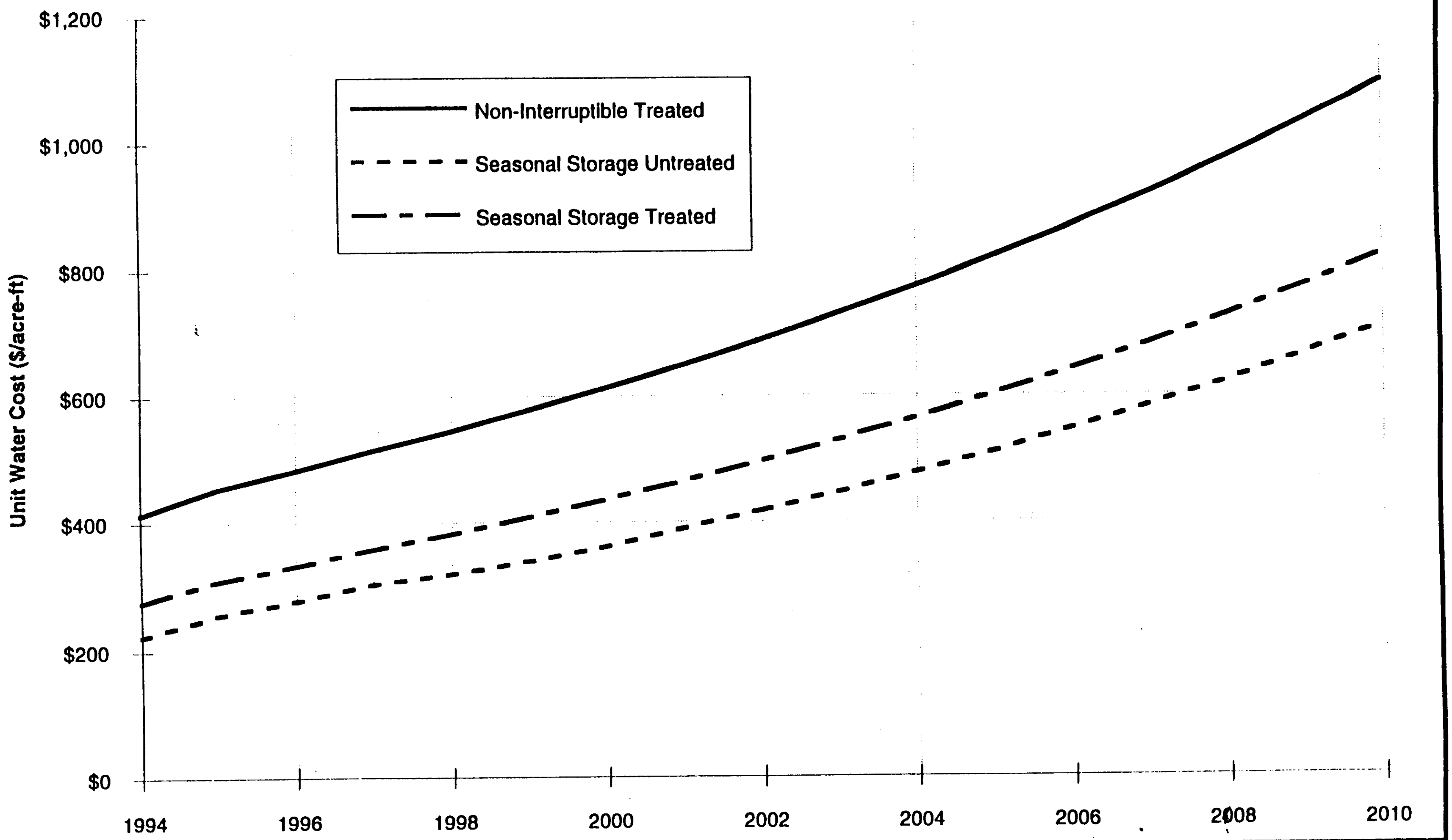

Figure 5-3

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Metropolitan is currently evaluating supply reliability for its service area (Metropolitan Water District of Southern California, 1994). Metropolitan is projecting that with year 2000 demands, shortages in retail supplies will occur at least four out of five years, with shortages up to 30 percent. By the year 2020, shortages will occur on average once in five years, with shortages up to 20 percent. The frequency and magnitude of retail shortages will be comparable for areas that depend heavily on Metropolitan.

Groundwater. Groundwater is available throughout the management area in that most of the management area overlies the West San Jacinto Basin. However, the quality of groundwater precludes the use of some of the management area groundwater for municipal supply. TDS and nitrate are the water quality constituents that limit the use of groundwater. TDS is regulated as a secondary standard. Secondary standards are for those substances that are not hazardous to health, but may cause taste, order, color, staining or other conditions that adversely affect the aesthetics of drinking water. The maximum contaminant level (MCL) for TDS is expressed as follows:

> *Recommended MCL* - 500 mg/L. TDS concentrations less than or equal to the *Recommended MCL* are desirable for a higher level of consumer acceptance.
>
> *Upper MCL* - 1,000 mg/L. TDS concentrations ranging up to the *Upper MCL* are acceptable if it is neither reasonable nor feasible to provide more suitable waters.
>
> *Short Term MCL* - 1,500 mg/L. TDS concentrations ranging up to the *Short Term MCL* are acceptable only for existing systems on a temporary basis, pending the construction of treatment facilities or the development of acceptable new water sources.

Nitrate is regulated under primary standards. The MCL for nitrate is 10 mg/L (as nitrogen). Table 5-3 lists the groundwater in storage, storage capacity, safe yield, and average TDS and nitrate concentrations for each groundwater subbasin in the management area. The subbasins are ranked in Table 5-3 from lowest to highest in TDS. From a drinking water perspective, approximately 36 percent of the yield of the West San Jacinto Basin could be developed from the Lakeview and Perris North subbasins for direct use, without additional treatment for TDS and nitrate. Some groundwater in the Perris South-I subbasin could also be used without treatment and San Jacinto Lower Pressure, Perris South-II and Perris South-III groundwater could be used

TABLE 5-3
AVAILABILITY OF GROUNDWATER IN THE WEST SAN JACINTO BASIN
YEAR 2000 CONDITIONS

Subbasin	Volume in Storage (acre-ft)	Storage Capacity (acre-ft)	Fraction of Groundwater in West San Jacinto Basin	Natural Safe Yield (acre-ft/yr)	Safe Yield with Wastewater Recharge (acre-ft/yr)	Fraction of Yield in West San Jacinto Basin	Average TDS Concentration (mg/L)	Average Nitrate Concentration (as Nitrogen) (mg/L)
Perris North	123,000	347,000	11%	13,700	19,500	41%	450	7
Lakeview	283,000	515,000	25%	6,800	6,800	14%	500	3
Perris South	248,000	402,000	22%	8,300	12,800	27%	920	5
San Jacinto Lower Pressure	382,000	391,000	34%	2,500	2,500	5%	1,000	4
Winchester	36,000	41,000	3%	1,600	1,800	4%	2,000	8
Menifee	56,000	101,000	5%	3,300	4,700	10%	2,250	6
Totals	1,128,000	1,797,000	100%	36,200	48,100	100%		
Average							891	5

if blended with SWP water. Groundwater from the Menifee-I, Menifee-II, Winchester and parts of the Perris South-II subbasins will require treatment if groundwater from these subbasins is to be used as a municipal drinking water supply. The treatment processes that would make these basins useful as a water supply source are blending with low TDS supplies such as SWP water, and demineralization. From a wastewater perspective, most of the groundwater in the West San Jacinto Basin would have to be treated prior to use as a municipal supply.

EMWD is currently designing a groundwater demineralization facility in the Menifee area. This facility will produce about 3 mgd (3,360 acre-ft/yr) of potable water for municipal use. The source water to the desalter will have a TDS of about 2,400 mg/L. The product water will have a TDS concentration of about 400 mg/L. This project will develop the full yield of the Menifee-I and Menifee-II subbasins for municipal use.

The cost to use groundwater, exclusive of treatment, includes capital cost and operations and maintenance costs. The capital cost for new municipal wells ranges from about $400,000 to $500,000. This is equivalent to about $32 per acre-ft, assuming a 1,500 gpm well (2,420 acre-ft/yr), six percent amortization rate, 20-year amortization period and 50% usage. Fixed operating and maintenance costs are about $6 per acre-ft. Power costs vary according to lift and pumping plant efficiency. The cost for a pumping lift of 200 feet and overall plant efficiency of 60 percent is about $30 per acre-ft. Thus, the total cost to produce groundwater for a 1,500-gpm well, operating year round with a total lift of 200 feet would be about $68 per acre-ft.

Reclaimed Water. Currently, EMWD is in a phased process of implementing a reclaimed water distribution plan that will make reclaimed water available throughout the management area. The reclaimed water system consists of five reclamation plants and about 79 miles of backbone distribution pipelines. Figure 5-4 shows the layout of the pipelines and the location of reclamation plants. Table 5-4 shows the projections of the availability of reclaimed water during the planning period. Reclaimed water sources include the discharge of up to 30 mgd or 33,600 acre-ft/yr of reclaimed water from the city of San Bernardino. The TDS of reclaimed water from San Bernardino is projected to range between 480 mg/L to 500 mg/L, which is lower than any of the reclaimed water generated in EMWD. The use of reclaimed water replaces non-potable demand on groundwater and imported supplies.

For this study, we have assumed the cost of producing and distributing reclaimed water in the EMWD service area to be a sunk cost. EMWD must treat and dispose of reclaimed water. The

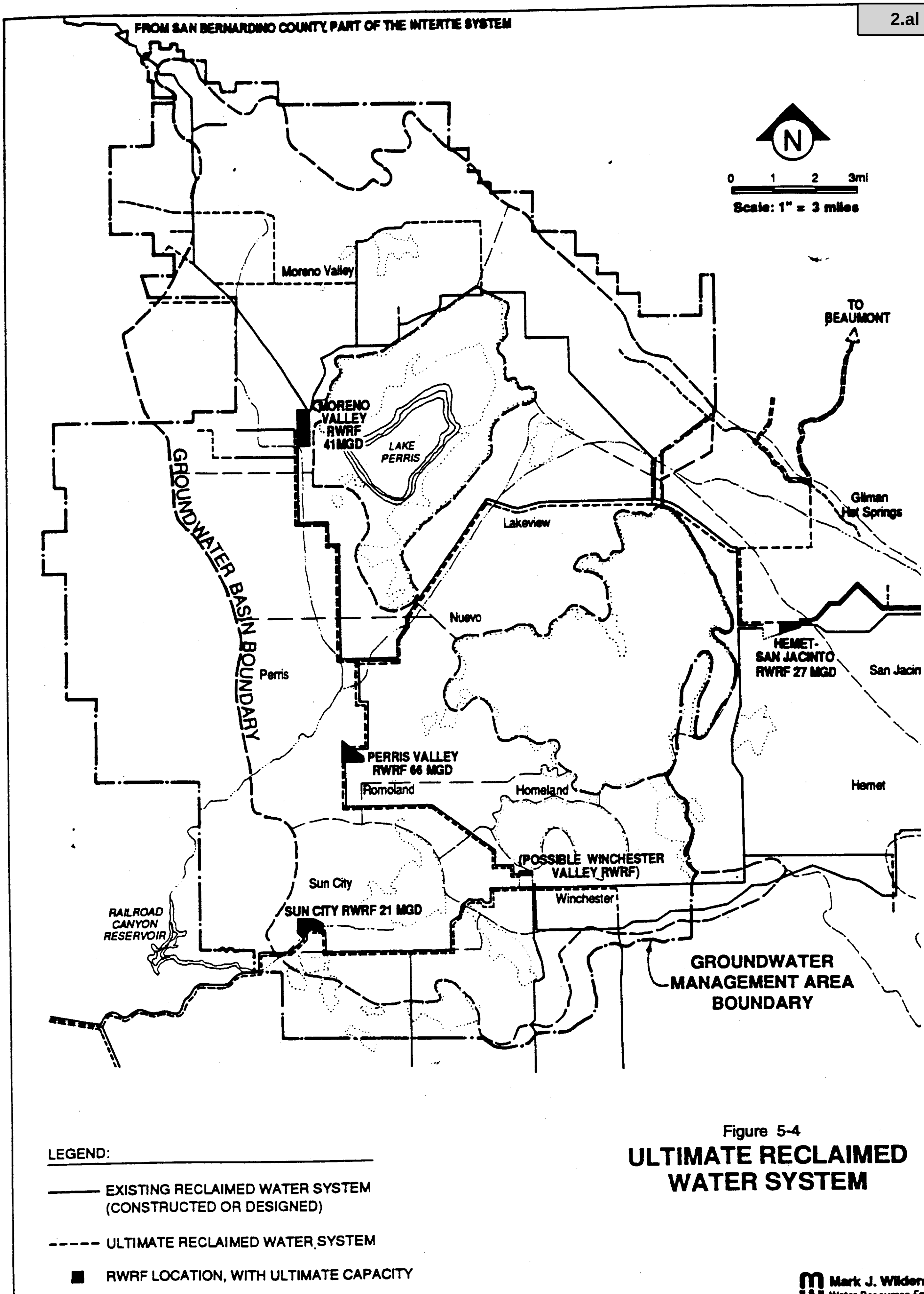

Figure 5-4

ULTIMATE RECLAIMED WATER SYSTEM

REFERENCE: EMWD RECLAIMED WATER FACILITIES MASTER PLAN, 1993. (DOCUMENT FILE NAME: DFILEOIN.DGN, REV. 8/93)

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TABLE 5-4
PROJECTED RECLAIMED WATER FLOWS
(acre-ft/yr)

Reclamation Plant	1995	2000	2005	2010
Moreno Valley	10,328	15,274	20,435	25,597
Perris Valley	8,110	11,994	16,041	20,089
Sun city	2,532	3,750	5,013	6,275
Temecula Valley (1)	5,332	7,897	10,558	13,219
Hemet-San Jacinto (1)	5,646	8,343	11,165	13,987
Subtotal	31,947	47,258	63,213	79,167
San Bernardino (2)	0	11,201	12,322	20,723
Totals	31,947	58,459	75,534	99,890

Sources: Wastewater Facilities Master Plan Black & Veatch and James M. Montgomery, 1990; Projected Water Demands and Planned Storage for the Years 1995 to 2005, Eastern Municipal Water District, 1993.

Note - (1) Reclaimed water from outside of West San Jacinto Groundwater Basin management area.
(2) Reclaimed water pumped to EMWD from city of San Bernardino.

cost of the reclaimed water distribution system is the cost of disposal. The value of the reclaimed water as a resource to non-potable water users is equal to their next least costly source of water. For a farmer, the value of the reclaimed water is approximately the same as the cost to produce groundwater. A typical 1,000 gpm agricultural well cost would be about $250,000. Assuming the well is operated half the year, the amortization cost is about $27 per acre-ft. Total operation and maintenance costs would be about $36 per acre-ft for a total lift of 200 feet. The total cost of operating a well for an agricultural supply is about $63 per acre-ft. These costs would be about the same for industrial and large urban landscape users. These costs vary with depth to groundwater and location in the study area.

WATER SUPPLY PLAN WITHOUT GROUNDWATER MANAGEMENT PLAN

The water supply plan for the management area, in the absence of a groundwater management plan, consists of the use of imported water for all municipal uses and a combination of groundwater and reclaimed water for agricultural uses. All agricultural demands would be satisfied with reclaimed water by the year 2010. The Menifee desalter would be operational in 1997, producing about 3,360 acre-ft/yr. The water supply plan for the management area is listed in Table 5-5. Groundwater usage in 1995 is estimated to range from 26,600 acre-ft/yr (33 percent of total supply) in 1995, to 28,000 acre-ft/yr by 2010 (19 percent of total supply). The Menifee desalter will require about 4,200 acre-ft/yr of groundwater to produce 3,360 acre-ft/yr of product water.

Imported water use in the management area is projected to range from about 44,500 acre-ft/yr (56 percent of total supply) in 1995, to 103,000 acre-ft/yr (72 percent of total supply) by the year 2010. Imported water is used for municipal purposes only. Reclaimed water use in the management area is projected to range from about 8,900 acre-ft/yr (11 percent of total supply) in 1995, to 11,900 acre-ft/yr (8 percent of total supply) by the year 2010. Reclaimed water would be used for agricultural and non-potable municipal purposes.

The cost of this water supply plan, exclusive of the distribution costs, is summarized in Table 5-6. Table 5-6 shows the annual demand, supplies by source and cost of each source in terms of annual cost, total annual cost and present value of all cost over the 1995 to 2010 planning period. The fractions of total supply and total supply cost by source are listed below.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 5-5
WATER SUPPLY PLAN IN THE ABSENCE OF A GROUNDWATER MANAGEMENT PLAN
(acre-ft/yr)

Year	1995		2000		2005		2010	
	Volume	Fraction	Volume	Fraction	Volume	Fraction	Volume	Fraction
Municipal Demand	47,000	100%	63,000	100%	84,000	100%	112,000	100%
Imported Water	44,500	95%	56,140	89%	76,140	91%	103,140	92%
Menifee Desalter	0	0%	3,360	5%	3,360	4%	3,360	3%
Reclaimed Water	0	0%	1,000	2%	2,000	2%	3,000	3%
Groundwater	2,500	5%	2,500	4%	2,500	3%	2,500	2%
Agricultural Demand	33,000	100%	32,000	100%	31,000	100%	31,000	100%
Reclaimed Water	8,900	27%	8,900	28%	8,900	29%	8,900	29%
Groundwater	24,100	73%	23,100	72%	22,100	71%	22,100	71%
Total Demand	80,000	100%	95,000	100%	115,000	100%	143,000	100%
Imported Water	44,500	56%	56,140	59%	76,140	66%	103,140	72%
Menifee Desalter (1	0	0%	3,360	4%	3,360	3%	3,360	2%
Reclaimed Water	8,900	11%	9,900	10%	10,900	9%	11,900	8%
Groundwater (2)	26,600	33%	25,600	27%	24,600	21%	24,600	17%

note - (1) actual groundwater production for the Menifee desalter will be about 4,200 acre-ft/yr with 3,360 acre-ft/yr of potable water and 1,840 acre-ft/yr.

TABLE 5-6
COST OF WATER SUPPLY FOR THE WEST SAN JACINTO GROUNDWATER BASIN MANAGEMENT AREA WITHOUT A GROUNDWATER MANAGMENT PLAN

Year	Demand	Imported Water			Reclaimed Water			Groundwater										Total Cost	Composite Unit Cost of Supply
								Menifee Desalter			Agricultural Use			Municipal Use			Total Cost of Groundwater Production		
		Volume	Rate	Cost	Volume	Rate	Cost	Volume	Rate	Cost	Volume	Rate	Cost	Volume	Rate	Cost			
	(acre-ft/yr)	(acre-ft/yr)	($/acre-ft)	($)	(acre-ft/yr)	($/acre-ft)	($)	(acre-ft/yr;	($/acre-ft)	($)	(acre-ft/yr)	($/acre-ft)	($)	(acre-ft/yr)	($/acre-ft)	($)	($)	($)	($/acre-ft)
1995	80,000	44,500	$454	$20,203,000	8,900	$63	$560,700	0	$501	$0	24,100	$63	$1,518,300	2,500	$68	$170,000	$1,688,300	$22,452,000	$281
1996	83,000	47,500	$483	$22,942,500	9,100	$66	$596,232	0	$516	$0	23,900	$66	$1,565,928	2,500	$71	$176,800	$1,742,728	$25,281,460	$305
1997	86,000	47,140	$515	$24,277,100	9,300	$68	$633,709	3,360	$532	$1,787,520	23,700	$68	$1,614,937	2,500	$74	$183,872	$3,586,329	$28,497,138	$331
1998	89,000	50,140	$545	$27,326,300	9,500	$71	$673,231	3,360	$549	$1,844,640	23,500	$71	$1,665,361	2,500	$76	$191,227	$3,701,228	$31,700,759	$356
1999	92,000	53,140	$578	$30,714,920	9,700	$74	$714,901	3,360	$578	$1,942,080	23,300	$74	$1,717,235	2,500	$80	$198,876	$3,858,191	$35,288,012	$384
2000	95,000	56,140	$613	$34,413,748	9,900	$77	$758,826	3,360	$613	$2,059,752	23,100	$77	$1,770,595	2,500	$83	$206,831	$4,037,178	$39,209,752	$413
2001	99,000	60,140	$649	$39,030,784	10,100	$80	$805,122	3,360	$649	$2,180,716	22,900	$80	$1,825,476	2,500	$86	$215,104	$4,221,296	$44,057,202	$445
2002	103,000	64,140	$688	$44,128,240	10,300	$83	$853,908	3,360	$688	$2,311,760	22,700	$83	$1,881,914	2,500	$89	$223,708	$4,417,383	$49,399,531	$480
2003	107,000	68,140	$730	$49,742,115	10,500	$86	$905,308	3,360	$730	$2,452,885	22,500	$86	$1,939,947	2,500	$93	$232,657	$4,625,489	$55,272,912	$517
2004	111,000	72,140	$773	$55,764,130	10,700	$90	$959,454	3,360	$773	$2,597,370	22,300	$90	$1,999,611	2,500	$97	$241,963	$4,838,944	$61,562,528	$555
2005	115,000	76,140	$820	$62,434,704	10,900	$93	$1,016,484	3,360	$820	$2,755,296	22,100	$93	$2,060,944	2,500	$101	$251,642	$5,067,882	$68,519,069	$596
2006	120,600	81,540	$869	$70,858,158	11,100	$97	$1,076,540	3,360	$869	$2,919,942	22,100	$97	$2,143,382	2,500	$105	$261,707	$5,325,031	$77,259,729	$641
2007	126,200	86,940	$921	$80,071,632	11,300	$101	$1,139,775	3,360	$921	$3,094,668	22,100	$101	$2,229,117	2,500	$109	$272,175	$5,595,960	$86,807,367	$688
2008	131,800	92,340	$976	$90,123,726	11,500	$105	$1,206,346	3,360	$976	$3,279,474	22,100	$105	$2,318,282	2,500	$113	$283,062	$5,880,819	$97,210,890	$738
2009	137,400	97,740	$1,035	$101,160,779	11,700	$109	$1,276,419	3,360	$1,017	$3,417,239	22,100	$109	$2,411,013	2,500	$118	$294,385	$6,122,637	$108,559,835	$790
2010	143,000	103,140	$1,097	$113,144,452	11,900	$113	$1,350,167	3,360	$1,041	$3,497,882	22,100	$113	$2,507,454	2,500	$122	$306,160	$6,311,496	$120,806,115	$845
Total Volume	1,719,000	1,100,959			166,400			47,041			364,600			40,000					
Fraction of Total	100%	64%			10%			3%			21%			2%					
Total Cost				$866,336,287			$14,527,124			$36,141,224			$31,169,495					$951,884,301	
Fraction of Total				91%			2%			4%			3%						
Present Value																		$556,663,649.25	

Table 5-6
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Source	Fraction of Total Supply	Fraction of Total Supply Cost
Imported Water	64%	91%
Reclaimed Water	10%	2%
Menifee Desalter	3%	4%
Groundwater	23%	3%

The most expensive water in the supply plan is Menifee desalter water, ranging from $532 to $1,041 per acre-ft over the planning period. The second most expensive water in the supply plan is imported water, ranging from $454 to $1097 per acre-ft over the planning period. The cost of reclaimed water and groundwater are about one-tenth that of imported water, ranging from about $63 to $122 per acre-ft over the planning period. From a purely economic viewpoint, the cost of future supplies could be reduced if more groundwater and reclaimed water can be used for municipal supplies. The present value cost of future water supplies in the management area, exclusive of new pipelines, pump stations and reservoirs, is about $557,000,000 for the period of 1995 to 2010.

SECTION 6

SECTION 6
GROUNDWATER MANAGEMENT GOALS

The mission statement of EMWD is:

> ***The mission of the Eastern Municipal Water District is to deliver a dependable supply of safe, quality water and provide sewage collection services to its customers in an economical, efficient and publicly responsible manner.***

The water supply part of EMWD's mission statement is a goal shared by all purveyors of water in the West San Jacinto Groundwater Basin management area. Groundwater, as a potentially important part of the water supply in the management area, should be incorporated into the water supply plans of the management area. The safe yield of the West San Jacinto Basin is about 32,000 acre-ft/yr. Projections of groundwater usage in the management area range from about 30,000 acre-ft/yr in 1995, to 28,000 acre-ft/yr in 2010.

Agricultural groundwater use will decrease slightly in the future, from about 24,100 acre-ft/yr to 22,100 acre-ft/yr, as agricultural lands are converted to urban uses. Remaining agricultural water demand will be converted to reclaimed water. The need for potable water will increase dramatically in the future. Potable water demands in the management area will range from 69,600 acre-ft/yr in 1995, to 167,000 acre-ft/yr by 2010.

Most of the new potable demand will be met from treated imported water purchased from Metropolitan. Metropolitan's supplies are projected to increase in cost about 142 percent over the 1995 to 2010 planning period, from $454 per acre-ft in 1995, to $1097 per acre-ft in 2010. Metropolitan's supply is also not entirely reliable. For year 2000 demands, Metropolitan has projected shortages in four years out of five years, ranging from 10 to 30 percent.

There are many private groundwater producers in the management area that do not rely on EMWD for water supply. The negative impacts, if any, of a groundwater management plan on these users must be minimized; and the ability of these groundwater producers to continue producing groundwater for beneficial use must be preserved or equitably replaced.

Based on the above comments, the goal of the groundwater management plan is to

> ***maximize the use of groundwater for potable demands in such a way as to lower the cost of water supply and to improve the reliability of the <u>total</u> water supply for <u>all water users in the West San Jacinto Groundwater Basin Management area</u>.***

There are several elements that could go into the management plan to achieve this goal. The next section describes these elements.

SECTION 7

SECTION 7
ELEMENTS OF GROUNDWATER MANAGEMENT PLAN

This section describes the features or elements that can be used to build a groundwater management plan that is consistent with the management plan goal described in Section 6 and A.B. 3030. These elements include: new management policies, yield enhancement programs, conjunctive use, and the exchange of agricultural and other non-potable water users from groundwater to reclaimed water. These elements are described below.

MANAGEMENT POLICY ELEMENTS

Management policy elements consist of developing and implementing policies, regulations and coordinated activities among the groundwater producers. Currently, there is no routine monitoring of groundwater production, groundwater level and groundwater quality in the management area. There are no programs or institutions that routinely collect and review these data. There are no management tools available to forecast the impact of existing and future groundwater management practices. Consequently, there is little information available to site new groundwater recharge and extraction facilities.

Currently, there is no coordination or oversight of well construction in the management area. There is no systematic plan to manage unused and obsolete wells. The management plan needs to include policies to manage well construction and to ensure their destruction when wells become obsolete.

Monitoring of Groundwater Production, Groundwater Levels and Groundwater Quality

Groundwater Production. There is very little reported groundwater production data in the management area. The reported groundwater production volumes for the period ranged from 6,000 to 13,000 acre-ft/yr during the five-year period of 1987 to 1991 (see table 4-3). The 1991 estimate of agricultural demand in the management area, based on land use, is about 33,200 acre-ft/yr, of which about 27,000 acre-ft is estimated to be satisfied with groundwater. Groundwater production needs to be limited to the long term safe-yield of the management area and, locally, to the safe yield of the individual subbasins in the management area. Temporary overdraft could be allowed and, occasionally, encouraged during periods of imported supply shortages, as long as there is a way to replenish the overdraft. Uncontrolled overdraft, similar to that which occurred prior to the mid 1970's, will cause groundwater levels to drop, some wells to dry up, increase the cost of producing groundwater and lead to groundwater quality degradation. Therefore, it is important to obtain accurate information on groundwater production volume and to make a determination of the hydrologic balance for each subbasin in the management area.

Groundwater Level and Quality Monitoring. The monitoring of groundwater level (or storage) data includes the routine collection and review of groundwater level data to determine the hydraulic and volumetric response of the groundwater basin to groundwater management activities and climate. The monitoring of groundwater quality includes the collection and review of groundwater quality data that can be used to assess current and future trends in groundwater quality, and to evaluate groundwater quality response to groundwater management activities and climate.

Administration and Monitoring of Well Construction

Monitoring of Well Construction. The monitoring of well construction and location is extremely important to the understanding of current groundwater conditions and for future groundwater development. Well construction information includes the size and design of the well, lithology and aquifer test data. These data are necessary for the interpretation of groundwater production, level and quality data; and the evaluation of the aquifer as a source of supply. For the management plan, all these data should be collected, digitized and placed into a data base for future use. EMWD is in the process of completion of this data base for most of the existing wells in the management area. These data would be made available to all groundwater producers so that the producers can more reliably construct and operate new wells. These data would be used in future groundwater studies.

Administration of Well Construction Policies. Poor well construction can lead to groundwater contamination and excessive drawdown. Contamination can occur from inadequate sanitary seals, location of wells in, or near, contaminated groundwater, and cross contamination.

Excessive drawdown could be caused by over-extraction, interference from other adjacent wells or poor aquifer properties. Policies need to be developed that:

☐ Specify criteria that will be used to locate wells. Well location criteria would be established to ensure that new wells do not contribute to groundwater quality degradation. The intent of this policy is to minimize the redirection and acceleration of known contaminated groundwater to areas of potable supply.

☐ Develop minimum well construction standards. Minimum well construction standards would be developed based on existing state and county standards and additional standards that will be unique to the management area.

☐ Review and approval of proposed new well locations and well designs. The intent of the policy is to protect groundwater quality consistents with well siting criteria and construction standards.

Administration of Well Abandonment and Destruction Program

There are many obsolete and unused wells in the management area that are potentially useful for future production and monitoring of groundwater levels and quality. Unused wells could also be a source of contamination. Illegal disposal of wastes sometimes occurs in unused wells. Cross contamination between aquifers can occur through wells when contaminated groundwater in one aquifer flows into a well, vertically, through the casing and out of the well into an uncontaminated aquifer. The management plan should contain policies and regulations that will locate all obsolete and unused wells, and make a determination as to the most beneficial fate of each such well. Obsolete and unused wells that do not present a water quality contamination threat and have a potential use should be preserved. Otherwise, these wells should be properly destroyed.

Groundwater Quality Protection

Groundwater quality protection will maintain existing yield and reduce the future cost of water treatment. There are two parallel tracks to follow:

☐ prevention of pollution

☐ control and mitigation of existing groundwater quality problems.

EMWD should develop an aggressive groundwater pollution prevention program that, at a minimum, embodies the Basin Plan. Groundwater quality should be constantly monitored to assess spatial and time trends in groundwater quality in the groundwater management area. At a minimum, these efforts should include the monitoring of water quality data from municipal and agricultural wells, landfills, chemical and industrial operations, underground storage tanks, areas undergoing groundwater remediation such as March Air Force Base, sludge disposal areas and reclaimed water recharge areas. EMWD should consider obtaining authority to act proactively to prevent pollution and to take immediate action on new pollution threats when they occur.

The control and mitigation of existing groundwater quality problems consists of the containment and, potentially, the remediation of existing water quality problems, such that adjacent high quality groundwater resources are not degraded. Three major areas of concern in the West San Jacinto Groundwater Management Plan area are high TDS groundwater in the Perris South II subbasin (Ski Land area), migration of high TDS groundwater from the Winchester subbasin into the Hemet subbasin, and the organics contamination at March Air Force Base. The groundwater management plan should contain elements that will ensure that these three problems are controlled and mitigated.

EMWD has initiated a pollution prevention program in the Menifee subbasin. This program will intercept and treat saline groundwater that would otherwise migrate to areas with high quality groundwater and cause the abandonment of wells. This program will lead to the eventual recovery of the entire Menifee subbasin.

YIELD ENHANCEMENT ELEMENTS

Artificial Recharge

Artificial recharge is the recharge of water from sources that are not normally tributary to groundwater. There are three sources of water for artificial recharge in the West San Jacinto Groundwater Basin management area: local runoff, imported water and reclaimed water.

Artificial recharge with local runoff. There are several ways local runoff can be captured and recharged. The most common approach is to divert storm flows into spreading basins where the captured water can percolate into the underlying groundwater basin. Spreading basins can have multiple uses including flood peak attenuation, water treatment, recharge of imported water and reclaimed water, wildlife habitat enhancement and recreational use.

Several factors must be considered for the development of a spreading basin. They include:

☐ Water rights

☐ Availability of recharge water

☐ Surface flow and flood hazard impacts

☐ Percolation rates

☐ Subsurface permeability and the presence of barriers or aquitards that hinder percolation

☐ Depth to groundwater

☐ Underlying groundwater quality

☐ Recharge water quality

☐ Proximity to major areas of groundwater production

☐ Creation of undesirable conditions such as high groundwater levels or vector problems

☐ Economic feasibility

Runoff generated on individual lots can be retained and recharged on individual lots. This would require special grading and drainage specifications on individual lots and is only practical for new development. The same considerations for spreading basins apply to artificial recharge through local retention and recharge.

Most of the precipitation for frequently occurring precipitation events that falls on undeveloped land is lost to evapotranspiration. Groundwater recharge occurred only during periods of heavy rainfall prior to the development of the land. About 60 to 80 percent of the land becomes impervious as land is developed for urban uses. The remaining land is irrigated and has relatively high soil moisture. Consequently, precipitation that falls on developed land is either:

☐ converted to runoff; or
☐ recharges the groundwater basin through presaturated soils.

New runoff due to developed land can be collected and recharged, a process referred to as water harvesting. EMWD has conducted studies of water harvesting in the San Jacinto and Hemet subbasins, but has not yet conducted such studies in the West San Jacinto Groundwater Management Area. EMWD is currently evaluating these studies and proceeding to implement water harvesting in these subbasins. EMWD has stated a goal of reaching 10,000 acre-ft/yr of additional yield in its service area using water harvesting.

Artificial recharge of runoff can occur anywhere in the management area where suitable recharge facilities can be sited. The DWR published a draft report in 1975, *TIR 1335-11-A-3 Preliminary Evaluation of Potential Artificial Recharge sites and Sink Sites in the San Jacinto Study Area* (California Department of Water Resources, 1975) that concluded that conditions conducive to artificial recharge through spreading basins exist in the Lakeview, Perris North and Perris South subbasins. In the Lakeview subbasin, there is a one mile-wide band of tight surface sediments along the San Jacinto River. The rest of the subbasin appears to have good recharge characteristics. Water quality in this subbasin is generally good and the unused storage capacity is about 230,000 acre-ft (see Table 5-3). Recharge in the Perris North subbasin could occur along a small creek that drains the Pigeon Pass Valley, in spreading basins located at the base of the hills on the south side of the subbasin and near major drainage features such as the Perris Valley drain. There may be other areas suitable for spreading basins. Water quality in the Perris North subbasin is good. The unused storage capacity in the Perris North subbasin is about 220,000 acre-ft.

Groundwater quality in the Perris South subbasins ranges from acceptable to poor. The soils and geology appear to favor recharge in spreading basins. However, due to existing groundwater quality conditions, it may not be possible to recover additional potable groundwater without groundwater treatment. The unused storage capacity in the Perris South subbasins is about 120,000 acre-ft. The San Jacinto Lower Pressure, Menifee I, Menifee II and Winchester subbasins have soil and geologic conditions that appear non-suitable for surface spreading.

Imported Water. Recharge of imported water can occur through surface spreading, direct injection and by in-lieu recharge. Surface spreading is done by conveying imported water to spreading basins for percolation. Untreated water can be used for surface spreading. Untreated off-peak water can be purchased at substantially lower rates if spreading is done between October 1 to April 30.

Conventional injection of imported water is accomplished by conveying treated water to wells and injecting the water into the saturated part of the groundwater basin. Imported water is discharged into the well below the standing water level in the well. The pressure in the well forces the water into the aquifer. Water used for injection into the saturated zone must be treated to drinking water standards prior to injection. Treatment consists of filtration and disinfection and can be obtained by either purchasing treated water from Metropolitan or by purchasing untreated water from Metropolitan and using other treatment facilities. Treated off-peak water can be purchased at substantially lower rates if injection is done between October 1 to April 30.

In-lieu recharge occurs when imported water is used in lieu of groundwater, allowing groundwater to accumulate in the groundwater basin. The basic premise is that imported water would be used when there is an abundance of imported water, allowing groundwater to accumulate. Groundwater production in excess of the normal extraction rates could occur when imported water is scarce due to drought or shortages in the imported water system.

The areas that are suitable for artificial recharge of imported water in spreading basins are identical to the areas described in *artificial recharge of runoff* above. Artificial recharge of imported water by injection can occur almost anywhere in the management area where groundwater production is practical. Considerations in siting injection facilities include favorable hydrogeologic conditions, proximity to source water facilities, proximity of recovery wells, and unused groundwater storage capacity. Unlike spreading basins that create a veneer of imported water on top of ambient groundwater, injection wells create a zone of imported water around the injection well. The injected water within this zone drifts slowly away from the injection well with the regional groundwater flow. The water quality in wells that tap into the injected water zone will have a water quality that is similar to the imported water.

Reclaimed water. Recharge of reclaimed water can occur through surface spreading, direct injection and by over irrigation. Recharge by percolation and injection is subject to regulatory approval. The DHS proposed regulations for planned recharge projects that recharge reclaimed water were described in Section 3 and are contained in Appendix A.

Reclaimed water can be used to augment potable supplies through groundwater recharge. The volume of natural recharge is small in the West San Jacinto Groundwater Basin management area. The dilution of reclaimed water that can be obtained in the groundwater basin could be small and insufficient to achieve the dilution requirements in the proposed guidelines. Therefore, reclaimed water may have to be blended with other non-reclaimed water prior to recharge. The most probable source of blending water will be imported water purchased from Metropolitan.

The groundwater basins can also be used for seasonal storage of reclaimed water. Reclaimed water can be stored in the groundwater basins during the winter when demand for reclaimed water is low and recovered in the spring, summer and fall when reclaimed water demands exceed supply.

The subbasins in the management area that are conducive to recharge of reclaimed water, either by spreading or injection, include the Perris North, Lakeview and Perris South subbasins. Reclaimed water can be recharged in the San Jacinto Lower Pressure, Menifee and Winchester subbasins by injection.

Increase in Yield. The increase in yield from artificial recharge is approximately equal to the long term average annual volume of artificial recharge. That is, if the annual volume of artificial recharge is 30,000 acre-ft, then the increase in groundwater yield would be about 30,000 acre-ft. The Lakeview, Perris North and Perris South subbasins are the most promising subbasins for artificial recharge that can increase potable supplies to the West San Jacinto Groundwater Basin management area. These basins have a combined unused storage capacity of about 600,000 acre-ft, good water quality and reasonably good aquifer properties. The natural replenishment in these subbasins is small, averaging about 29,000 acre-ft/yr (Table 4-1). Hydrogeologic conditions and economics control the size of artificial recharge projects in these subbasins. Based on current information, it seems reasonable to expect that the combined increase in groundwater yield from artificial recharge could range from 30,000 to 50,000 acre-ft/yr.

Information Needs. New information and engineering studies are required to develop definitive estimates of the size and benefits of potential artificial recharge projects. The types of new information and studies that are required include:

- ☐ geophysical studies to determine aquifer boundaries and geometry
- ☐ hydrogeologic studies to determine aquifer hydraulic properties
- ☐ geochemical studies to establish ambient groundwater quality, trends, and compatibility of ambient groundwater with recharge water

☐ facility studies to site and evaluate engineering and facility requirements

☐ economic studies

☐ environmental studies

Part of these investigations should include demonstration or pilot projects. Demonstration-level artificial recharge projects should be done to test the technical and institutional feasibility of artificial recharge. Demonstration projects should include the following:

☐ Surface spreading in The Perris North, Perris South and Lakeview subbasins. Small recharge basins, observation wells and pipelines would be constructed and operated to develop data and design criteria for full scale projects. The source water would be imported water from Metropolitan and reclaimed water from EMWD.

☐ Groundwater Injection in The Perris North, Perris South and Lakeview subbasins. Injection of imported water could be done in the winter time using EMWD's existing wells in these subbasins. Small observation wells may need to be constructed.

☐ Water Harvesting in the Lakeview subbasin. Storm water captured in EMWD's Mystic Lake project could be captured and conveyed to test recharge basins in the Lakeview subbasin.

Recovery of Contaminated Groundwater

Some of the groundwater in the West San Jacinto Groundwater Management area is contaminated and cannot be put to beneficial use without treatment. Currently, production of contaminated groundwater is avoided. Contaminated groundwater takes up storage in the aquifer and reduces the useful storage capacity in the groundwater basins. Contaminated groundwater can be put to beneficial use through treatment. The types of treatment that are appropriate depend on the nature of contamination and the intended water use. The types of treatment that appear appropriate in the West San Jacinto Management area are blending, demineralization and nitrate removal through ion exchange. Other treatment technologies may be required if water quality conditions change or new types of contamination are discovered.

Blending. Blending is a very simple form of treatment and consists of mixing a poor quality supply with a suitable amount of high quality water such that the blend is of adequate quality for its intended use. Table 7-1 lists the groundwater subbasins, the reclamation plants that receive water from these subbasins, reclamation plant TDS regulatory limitations, estimated average

TABLE 7-1
BLENDING WATER REQUIREMENTS TO MEET TITLE 22 DRINKING WATER REGULATIONS AND WASTE DISCHARGE REQUIREMENTS AT RECLAMATION PLANTS

Subbasin	Supply Tributary to EMWD Reclamation Plant (1)	Reclamation Plant TDS Objective (mg/L)	Estimated Average TDS in Subbasin (2) (mg/L)	Required Water Supply TDS (mg/L)	Blending Ratio of SWP Water to Groundwater for SWP Water TDS (in mg/L) of	
					250	300
Perris North	Morreno Valley	550	450	300	3.0	Infeasible
Lakeview	Perris Valley	825	500	575	No Blending Required	No Blending Required
Perris South-I	Perris Valley	825	700	575	0.4	0.5
Perris South-II	Perris Valley	825	1,100	575	1.6	1.9
Perris South-III	Sun City	950	1,100	700	0.9	1.0
Menifee-I	Sun City	950	3,000	700	5.1	5.8
Menifee-II	Sun City	950	2,200	700	3.3	3.8
Winchester	(3)	na	2,000	na	na	na
San Jacinto Lower Pressure	Perris Valley	825	1,000	575	1.3	1.5

note - (1) based on Figure 3-1 Existing Wastewater Service Areas, Wastewater Facilities Master Plan, (Black & Veatch, James M. Montgomery, 1990); revised by EMWD 1993.

(2) Subbasin averages based on available data, and in most cases, old data. Average for Perris South-II excludes Ski Land area.

(3) Winchester subbasin is currently unsewered. In the future, the Winchester subbasin area will either be sewered to a new reclamation plant in Winchester area or sewered to an existing reclamation plant.

TDS concentration for each subbasin, the water supply TDS requirement and the blending ratios for SWP water to groundwater. Based on existing groundwater quality information, blending SWP water with groundwater from the San Jacinto Lower Pressure, Perris North, Perris South-I, parts of Perris South-II, and parts of Perris South-III, could provide potable water that is also within the waste discharge requirements of EMWD reclamation plants. Generally, blending ratios around one are considered economically feasible and blending ratios of two could be feasible. Lakeview groundwater will not need to be blended. Perris North groundwater will need three parts of SWP water if it is to be used in the area tributary to the Moreno Valley reclamation plant. Groundwater from Perris South-I, Perris South-II, Perris South-III, and the San Jacinto Lower Pressure subbasins can easily be blended with SWP water. Menifee-I, Menifee-II and Winchester cannot be economically blended.

Demineralization. Demineralization is a treatment process that reduces the mineral content of groundwater to a specified level that is established for the use of the product water. Demineralization facilities, often called desalters, have been constructed in the Arlington subbasin, near Riverside, and are in design for the Chino Basin and the Menifee area.

The proposed Menifee desalter will convert 4,200 acre-ft/yr of groundwater pumped from the Menifee I and II subbasins with a TDS concentration of 2,400 mg/L to 3,360 acre-ft of potable water, with a TDS concentration of 400 mg/L (Black & Veatch, 1993). Product water from the Menifee desalter will be served in EMWD service area.

Demineralization could be used to recover the yield of the San Jacinto Lower Pressure, Perris South-I, Perris South-II, Perris South-III, and Winchester subbasins. These basins are excessively mineralized, partly from irrigated agriculture and partly from natural sources. The proposed Menifee desalter will recover the yield of the Menifee-I and Menifee-II subbasins. EMWD is considering treating groundwater from the Perris South II, Perris South III and Winchester subbasins at the Menifee desalter site in a future expansion of that facility.

Other Treatment Technologies. Other treatment technologies can be used to recover groundwater when other contaminants render groundwater unusable. Selective ion exchange can be used to remove specific ions such as nitrate or uranium. Granulated activated carbon (GAC), air stripping and advanced oxidation can be used individually, or in combination, to remove organic compounds. The need for these treatment technologies is unknown at this time due to the lack of water quality data.

Increase In Supply. Currently, contaminated groundwater is either avoided, or is used for non-potable demands such as agricultural or landscape irrigation. These non potable demands, whenever possible, could be supplied with reclaimed water, allowing the contaminated groundwater to be treated and supplied for municipal use. The volume of contaminated groundwater that can be recovered and used through blending will cause an equal reduction in the demand for imported water. The volume of contaminated groundwater that can be recovered through demineralization varies between 70 and 85 percent of the water produced for demineralization; the remaining water is a brine which must be exported. The volume of potable water produced by the demineralization will cause an equal reduction in the demand for imported water. The increase in supply from the recovery of contaminated groundwater is equal to the safe yield of the subbasins where the recovery projects will occur, minus the existing level of groundwater pumping in those subbasins. Table 7-2 summarizes considerations for blending and demineralization of elements and presents an estimate of the groundwater production that could be used for blending or demineralization. The volume of groundwater available for blending or demineralization is estimated as the safe yield of the subbasin, minus reported groundwater production. The safe yield used in this estimate includes the recharge of EMWD reclaimed water. The estimates of groundwater available for blending and demineralization shown in Table 7-2 are slightly higher than would be implemented because actual groundwater production by local producers is higher than reported production. Estimates of actual groundwater production will need to be developed prior to implementing blending or demineralization elements.

Cost. The cost of blending consists of the capital and operations and maintenance costs associated with wells, pipelines and reservoirs required to implement blending. The costs of these types of facilities are highly sensitive to location of wells, blending water sources and the design flow rates (e.g., base load or peaking). The development of these costs is beyond the scope of this investigation. Most of the facilities that will be required for blending will be required even if blending were not used. Thus, the incremental cost associated with blending facilities will be small, relative to the cost of future water distribution facilities. The volume of groundwater used with blending would offset the need for an equal amount of imported water. The SWP water used for blending is not a new imported water demand. The blending water would come from SWP water that would have been used if there were no blending with groundwater. Therefore, blending will cause a net decrease in imported water demands.

The cost of demineralization varies depending on source water quality, product water quality, well field(s), distribution system and the treatment technology. The Menifee desalter is a three

TABLE 7-2
CONSIDERATIONS FOR BLENDING AND DEMINERALIZATION ELEMENTS

Conjunctive Use Characteristics	Subbasin					
	Lakeview	Menifee	Perris North	Perris South (1)	San Jacinto Lower Pressure	Winchester
Groundwater Quality (2)	Good	Poor	Good	Poor	Poor	Poor
Range in Capacity of Producing Wells (gpm)	100-2,000	10-1,000	90-1,000	90-1,000	Unknown	100-850
Safe Yield						
Natural Safe Yield	6,800	3,300	13,700	8,300	2,500	1,600
Natural Safe Yield plus Reclaimed Water Recharge (acre-ft/yr)	6,800	4,700	19,500	12,800	2,500	1,800
Average Reported Groundwater Production 1987 to 1991 (2) (acre-ft/yr)	4,000	0	2,300	1,400	500	0
Potential Groundwater Production That could Be Used for Blending and Demineralization (acre-ft/yr)	Not Applicable	4,700	Not Applicable	12,100	700	1,800

note - (1) part of Perris South-I and -II have good quality water
(2) Production values shown in Table 4-3 and excludes small producers (<25 acre-ft/yr).

mgd treatment plant with a capital cost estimated to range from $14,000,000 to $17,000,000. Table 7-3 lists the capital and operations and maintenance cost opinions for the Menifee desalter (Black & Veatch, 1993). The 1995 cost to produce water from the Menifee desalter is about $501 per acre-ft, which is slightly higher than comparable water imported from Metropolitan. By 2001, the unit cost of water from the Menifee desalter will be equal to water from Metropolitan.

Metropolitan has instituted a Groundwater Recovery (GWR) program that will subsidize the cost of these desalters up to $250 per acre-ft. In the GWR program, Metropolitan will purchase the product water from the desalter for up to $250 over Metropolitan's base treated rate and sell the water back to EMWD at the base treated rate. Metropolitan instituted this program to encourage the recovery of contaminated groundwater. Table 7-3 shows how the GWR program will work for the Menifee desalter.

Information Needs. New information and engineering studies are required to develop definitive estimates of the size and benefits of projects to recover contaminated groundwater. The types of new information and studies that are required include:

- ☐ geophysical studies to determine aquifer boundaries and geometry
- ☐ hydrogeologic studies to determine aquifer hydraulic properties
- ☐ geochemical studies to establish ambient groundwater quality, and trends
- ☐ facility studies to site and evaluate engineering and facility requirements
- ☐ economic studies
- ☐ environmental studies

Part of these investigations should include demonstration or pilot projects. Demonstration-level projects for the recovery of contaminated water should be done to test the technical and institutional feasibility of full scale projects. Demonstration projects should include the following:

- ☐ Pilot scale demineralization projects in Winchester, Perris South and San Jacinto Lower Pressure subbasins. These tests would provide design data for large scale projects.

- ☐ Well scale blending projects. Poor quality groundwater from out-of-service EMWD wells could be injected into EMWD's distribution system. This could be done with EMWD's Falico well in the Perris South subbasin

TABLE 7-3
MENIFEE DESALTER COSTS AND METROPOLITAN'S GROUNDWATER RECOVER PROGRAM

Year	---------------- Menifee Desalter Cost ----------------				Metropolitan Treated Base Rate	Metropolitan GWR Subsidy	Purchase Price to Metropolitan	Remaining Unsubsidized Cost	Unit Cost to EMWD
	Amortized Capital cost ($)	Annual O & M Cost ($)	Total Annual Cost (1) ($)	Unit Cost (2) ($/acre-ft)	($/acre-ft)	($/acre-ft)	($/acre-ft)	($/acre-ft)	($/acre-ft)
1995	$919,652	$1,748,734	$2,668,386	$794	$454	$250	$704	$90	$544
1996	$919,652	$1,801,196	$2,720,848	$810	$483	$250	$733	$77	$560
1997	$919,652	$1,855,232	$2,774,884	$826	$515	$250	$765	$61	$576
1998	$919,652	$1,910,889	$2,830,541	$842	$545	$250	$795	$47	$592
1999	$919,652	$1,968,216	$2,887,868	$859	$578	$250	$828	$31	$609
2000	$919,652	$2,027,262	$2,946,914	$877	$613	$250	$863	$14	$627
2001	$919,652	$2,088,080	$3,007,732	$895	$649	$246	$895	$0	$649
2002	$919,652	$2,150,722	$3,070,374	$914	$688	$226	$914	$0	$688
2003	$919,652	$2,215,244	$3,134,896	$933	$730	$203	$933	$0	$730
2004	$919,652	$2,281,701	$3,201,353	$953	$773	$180	$953	$0	$773
2005	$919,652	$2,350,152	$3,269,804	$973	$820	$153	$973	$0	$820
2006	$919,652	$2,420,657	$3,340,309	$994	$869	$125	$994	$0	$869
2007	$919,652	$2,493,277	$3,412,929	$1,016	$921	$95	$1,016	$0	$921
2008	$919,652	$2,568,075	$3,487,727	$1,038	$976	$62	$1,038	$0	$976
2009	$919,652	$2,645,117	$3,564,769	$1,061	$1,035	$26	$1,061	$0	$1,035
2010	$919,652	$2,724,471	$3,644,123	$1,085	$1,097	$0	$1,085	$0	$1,097

note (1) annual O & M cost escalate at three percent per year

(2) desalter produces 3,360 acre-ft/yr

and other wells in Winchester and the Lower San Jacinto subbasins, as appropriate.

CONJUNCTIVE USE

Conjunctive use is an operational strategy that combines the operations of multiple sources of water and storage resources in such a way that the combined yield is greater than the yield that would occur from the sum of independent, uncoordinated operations of the sources. The same definition would apply if other goals could be achieved by coordinated operation and the yield remained at an acceptable level. Other goals might include reduced cost, more reliable supply, and the attainment of environmental objectives. In most cases, conjunctive use results in increased yield and lower cost. Conjunctive use is commonly associated with storing of imported water in groundwater basins for use during periods of shortage. The more general definition could involve EMWD reclamation and municipal distribution facilities, Metropolitan facilities and resources, state project facilities and resources, groundwater basins within EMWD, and, potentially, groundwater basins outside of EMWD. Conjunctive use can operate seasonally, over-year or both. Seasonal conjunctive use would bank water during seasonal period(s) of over-supply or abundance for use during dry times of the year. Over-year conjunctive use would bank water during years of over-supply or abundance for use during drought periods and imported water shortages.

Table 7-4 summarizes the considerations for conjunctive use projects by subbasin. Based on current knowledge of groundwater conditions, EMWD could bank local runoff, imported water purchased from Metropolitan and reclaimed water in the Lakeview, Perris North and Perris South subbasins during the period of October 1 through April 30, for use either during the summer, during periods of imported water shortages, or both. The unused storage capacity of the Lakeview, Perris North and Perris South subbasins is about 600,000 acre-ft. EMWD could use up to half (and possibly more) of this unused storage capacity for seasonal and over-year storage, thereby reducing the cost of imported water purchases and providing an additional source of water during periods of imported supply shortage.

Recharge would be accomplished with a combination of new spreading basins and injection wells. Recovery of recharge will be through existing and new production wells. Where practical, injection and production will occur at the same well. That is, injection will take place

TABLE 7-4
CONSIDERATIONS FOR CONJUNCTIVE USE PROJECTS

Conjunctive Use Characteristics	Subbasin Lakeview	Menifee	Perris North	Perris South(1)	San Jacinto Lower Pressure	Winchester
Unused Groundwater Storage Capacity (acre-ft)	230,000	40,000	220,000	150,000	9,000	5,000
Groundwater Quality (2)	Good	Poor	Good	Poor	Poor	Poor
Range in Capacity of Producing Wells (gpm)	100-2,000	10-1,000	90-1,000	90-1,000	Unknown	100-850
Recharge Methods	Spreading Basins In-Lieu Injection	Injection In-Lieu	Spreading Basins In-Lieu Injection	Spreading Basins In-Lieu Injection	Injection In-Lieu	Injection In-Lieu
Spreading Basin Potential	Yes	No	Yes	Yes	No	No
Proximity to Imported Water Facilities	State Project Water Colorado River Water		State Project Water	State Project Water Colorado River Water		State Project Water Colorado River Water
Proximity to Reclaimed Water Facilities	Yes	Yes	Yes	Yes	Yes	Yes
Proximity to Major Drainage Facilities	San Jacinto River	Salt Creek	Perris Valley Drain	San Jacinto River Salt Creek	San Jacinto River	Salt Creek

note - (1) part of Perris South-I and -II have good quality water
(2) good quality water has a TDS less than 500 mg/L; poor quality water has TDS greater than 500 mg/L and generally greater than 1,000 mg/L

during the recharge period of October 1 through April 30, followed by groundwater production at the same well during the period of May 1 to September 30. This type of aquifer storage and recovery scheme is ideal for areas where spreading is infeasible due to land use, low recharge rates or groundwater quality limitations.

Reclaimed water could be a source of recharge in a conjunctive use program for augmentation of potable supplies. Parts of groundwater subbasins could be used for the seasonal storage of reclaimed water.

Based on current knowledge of groundwater conditions, conjunctive use with imported supplies and local runoff in the San Jacinto Lower Pressure, Menifee and Winchester subbasins appears to be more difficult to implement and of less benefit. Limited conjunctive use in these subbasins could be done in conjunction with groundwater treatment.

Increase in Supply. The increase in supply from conjunctive use could not be determined at this level of study. Under a worst case scenario, conjunctive use would reduce shortages that EMWD customers would face during imported water shortages and would reduce the cost of imported water use through the purchase of off-peak supplies and use of reclaimed water for recharge. EMWD should be able to shift about 30,000 to 50,000 acre-ft year of base rate purchases to off-peak, with large conjunctive use projects in the Lakeview, Perris North and Perris South subbasins. The reduction in cost would be much more substantial if a blend of reclaimed water and imported water were recharged during the winter.

Information Needs. New information and engineering studies are required to develop definitive estimates of the size and benefits of potential artificial recharge projects. The types of new information and studies that are required include:

☐ geophysical studies to determine aquifer boundaries and geometry
☐ hydrogeologic studies to determine aquifer hydraulic properties
☐ geochemical studies to establish ambient groundwater quality, trends, and compatibility of ambient groundwater with imported water
☐ facility studies to site and evaluate engineering and facility requirements
☐ economic studies
☐ environmental studies

Demonstration projects should be developed to test injection of treated imported water in the Lakeview, Perris North and Perris South subbasins. These demonstration projects would test the feasibility of well injection for groundwater recharge and aquifer storage and recovery for conjunctive use. Demonstration level injection well tests should be done for blends of treated imported water and reclaimed water.

EXCHANGE OF AGRICULTURAL AND OTHER NON-POTABLE WATER USERS FROM GROUNDWATER TO RECLAIMED WATER

The exchange of agricultural and other non-potable groundwater production to municipal uses can occur through:

- ☐ retirement of agricultural lands, that is, the conversion of agricultural lands to non-agricultural uses; and
- ☐ by substituting other supplies such as reclaimed water.

Agricultural demands are projected to range from 33,000 acre-ft/yr in 1995 to 31,000 acre-ft/yr in 2010. The average agricultural demand during this period is approximately equal to the total yield of the West San Jacinto Basin. The substitution of reclaimed water for agriculture groundwater production and other non-potable uses is a prerequisite to developing municipal supplies from the West San Jacinto Groundwater Basin. There are some agricultural demands that cannot be satisfied with reclaimed water, such as dairy cow washing and processing of produce for market.

Increase in Supply. The increase in municipal supply that will occur from the exchange of agricultural and other non-potable groundwater production to municipal production is approximately one acre-ft for each acre-ft of exchange. Agricultural groundwater production is projected to range from about 24,100 acre-ft/yr in 1995, to 22,100 acre-ft/yr in 2010. A reasonable goal would be to exchange between 10,000 to 20,000 acre-ft of agricultural and other non-potable groundwater production to municipal production.

Demonstration-level projects for the exchange of agricultural and other non-potable users from groundwater to reclaimed water should be done to test the technical and institutional feasibility of full scale projects. Long term use of reclaimed water for irrigation may impact the drainage characteristics of the soil. Demonstration projects should be done to investigate the impacts from irrigation with reclaimed water on soils and evaluate appropriate soil and irrigation management practices. EMWD is currently in the process of completing exchange agreements similar to that described above with Moreno Valley Ranch Golf Course and University of California, Riverside, in the Perris North subbasin and Mr. John D. Mott in Lakeview Subbasin.

Cost. The cost associated with supplying reclaimed water to agricultural users is the capital, operations and maintenance cost associated with the conveyance of reclaimed water to the agricultural and other non-potable water users. This cost is a sunk cost as EMWD must treat and dispose of reclaimed water whether any water exchange occurs or doesn't occur. The water supply cost associated with the exchange of agricultural groundwater production to municipal production with the retirement of agricultural lands is assumed to be zero.

SECTION 8

SECTION 8
GROUNDWATER MANAGEMENT PLAN

CONTENTS OF THE MANAGEMENT PLAN

The management plan described herein is a program to achieve the management plan goals and includes conceptual descriptions of elements of the plan, and a description of the process to define and implement these elements consistent with the management plan goal. This plan, when adopted, will be the groundwater management program for the West San Jacinto Groundwater Basin management area. The groundwater management program will include: the development and implementation of policies, engineering investigations, facilities construction and operation, and other management activities. There are significant deficiencies in the knowledge of the groundwater resources of the West San Jacinto Groundwater Basin management area. These deficiencies preclude the definitive descriptions for some of the physical and institutional elements of the groundwater management plan. The groundwater management program includes studies to develop additional information that is necessary to develop all the institutional and physical elements described in the plan.

MANAGEMENT PLAN CRITERIA

The goal of the management plan stated in Section 6 is:

> ***maximize the use of groundwater for potable demands in such a way as to lower the cost of water supply and to improve the reliability of the <u>total</u> water supply for <u>all water users in the West San Jacinto Groundwater Basin management area</u>***

This goal extends to all groundwater users. Groundwater users that are not dependent on EMWD should benefit from the groundwater management plan. Adverse impacts, if any, from the groundwater plan will be minimized or mitigated. The rights of private groundwater producers will be protected. Groundwater producers who extract 10 acre-ft/yr or less shall be exempt from the operation and implementation of the groundwater management plan.

The implementation of this goal and its attendant constraints requires a set of criteria from which to test the various elements of the Management Plan. These criteria include:

- ☐ meet future water demands
- ☐ minimize dependence on imported water
- ☐ adequate (safe) water supply quality
- ☐ minimum cost
- ☐ ease of implementation

The groundwater management plan must be an integral part of satisfying the water demands in the West San Jacinto Groundwater Basin management area. Each element of the plan must, on its own, either add to the water supply or, by complementary action, cause the yield of another element to increase.

Minimizing the dependence on imported water is driven by the need for reliability and cost. The management area will, for the foreseeable future, be heavily dependent on imported water. Imported water is expensive and prone to shortage. Groundwater, properly managed, can be used to minimize peak seasonal demand on imported supplies and can provide carry-over storage for use when shortages occur in the imported supply.

The yield developed by the management program should, when delivered to water users, be of suitable quality. For municipal users this will be potable quality. For private groundwater producers, groundwater quality should be improved or the same as if the groundwater management plan did not exist.

The cost of municipal water supplies should be less with the management plan. The water supply cost for private water users should be less or unchanged. The yield of the management plan is part of the mix of water sources available in the management area. The groundwater management elements incorporated in the groundwater management plan will be such as to minimize the cost of the total water supply and will not be based on the individual element cost.

The groundwater management plan should be implementable. The benefits, cost and institutional complexity should be such that it will be feasible to implement the groundwater management plan.

ULTIMATE PLAN DESCRIPTION

The groundwater management plan consists of a series of elements that, when implemented, will achieve the management plan goal stated above within the constraints. The management plan includes implementation of new policies, institutional arrangements, and physical projects. EMWD will be the agency responsible for implementation of the groundwater management plan. Based on the information developed in this study and presented in the previous sections, the ultimate groundwater management plan should include the following elements.

Establishment of a Groundwater Basin Manager

EMWD will implement the groundwater management plan. EMWD Board of Directors will be the decision-making body responsible for directing the implementation of the groundwater management plan. EMWD staff will serve as the staff to assist the EMWD Board of Directors in implementing the plan.

Upon adoption of the groundwater management plan, EMWD Board of Directors will appoint an Advisory Committee. The Advisory Committee will be composed of seven members, with one member each from city of Moreno Valley, city of Perris, Nuevo Mutual Water Company, Edgemont Gardens Mutual Water Company, and EMWD; and two members representing agricultural producers. The Advisory Committee shall study, review and provide comments on all groundwater management plan activities directly to the EMWD Board of Directors.

EMWD staff will prepare an annual engineering report describing the operation of the management plan for review by the EMWD Board of Directors, Advisory Committee and groundwater producers. EMWD, in consultation with the Advisory Committee and participating groundwater producers, will develop a coordinated operating strategy on an annual basis, based on the management plan and the findings of the annual report.

Monitoring of Groundwater Production

EMWD, in cooperation with the Advisory Committee, will implement a groundwater production monitoring program. Detailed estimates of the safe yield will be developed in the first year of the groundwater production monitoring. Groundwater production estimates will be developed by EMWD based on totalizing meters, energy usage and land use. EMWD will produce a groundwater production report and estimates of overdraft (if any). These data will be included in the annual report provided to the Advisory Committee. The production monitoring program will not limit or suspend groundwater production by existing groundwater producers.

Monitoring of Groundwater Level and Quality

EMWD, in cooperation with the Advisory Committee, will implement a groundwater level and quality monitoring program. Groundwater level and quality data will be collected from well owners. EMWD will measure groundwater levels and quality from select private wells. Groundwater levels and quality data from agencies' wells will be provided to EMWD by the agencies. EMWD will compile these data and develop estimates of the groundwater in storage, change in storage, overdraft and groundwater quality conditions. These data will be included in the annual report provided to the management committee.

Development of Well Construction Policies

EMWD, in cooperation with the Advisory Committee, the Department of Health Services and the Riverside County Health Department, will develop well construction policies that are specific to the West San Jacinto Groundwater Basin management area. These policies will be updated continuously based on new regulatory requirements and data. These polices will not limit or suspend groundwater production by existing groundwater producers.

Development of a Well Abandonment and Destruction Program

EMWD, in cooperation with the Advisory Committee, the Department of Health Services and the Riverside County Health Department, should develop well abandonment and destruction policies that are specific to the West San Jacinto Groundwater Basin management area. These policies should be updated continuously based upon new regulatory requirements and data.

Monitoring of Well Construction, Abandonment and Destruction

EMWD has compiled and digitized most, if not all the well construction information that is available for existing wells. EMWD, in cooperation with other groundwater producers, will collect well construction data for new wells. EMWD will provide comments and suggestions to supplement design criteria that will be required by other agencies, including the Department of Health Services and the Riverside County Health Department. EMWD, through the monitoring of groundwater production, will determine wells that are inactive and make recommendations to well owners regarding the fate of these wells.

Groundwater Quality Protection

EMWD, in cooperation with the Advisory Committee and parties responsible for groundwater quality degradation, should develop cooperative plans to prevent further degradation of groundwater and to integrate the solution of existing water quality problems to maximize the beneficial use of groundwater. The known areas of concern are the high TDS groundwater in the Perris South II (Ski Land area) and Winchester subbasins, and the groundwater contamination associated with March Air Force Base. The existing efforts undertaken by EMWD to rehabilitate the Menifee subbasins (the Menifee desalter project) will be completed independent of the groundwater management plan. Additional degraded groundwater areas could be discovered through groundwater monitoring.

Exchange of Agricultural and Other Non-potable Groundwater Production to Municipal Use

The intent of this element is to increase the groundwater yield available for municipal use by either retiring agricultural and non potable demands or by substituting reclaimed water for groundwater used for agricultural and other non-potable uses. It is the goal of this element to maximize the exchange of groundwater production from non-potable uses to municipal uses. Incentives should be developed to encourage the exchange of agricultural groundwater production to municipal use. From an agricultural perspective, the cost of using reclaimed water should be equal to, or less than, the cost of groundwater.

EMWD should consider providing reliable reclaimed water service to individual farms and other non-potable users by constructing pipelines from EMWD reclamation facilities to logical points in the farm irrigation systems. The farmer would pay for the reclaimed water at a rate that would make the farmer indifferent to either groundwater or reclaimed water; or at a rate slightly less than his groundwater production cost. The rate should be based on the actual cost of groundwater production and the usefulness of the farmer's well to EMWD. The farmer would pay for reclaimed water based on the operation and maintenance cost of his well. The farmer would produce only enough groundwater for potable uses on the farm, and future potable demands, when the land is developed, would be served by EMWD.

If the agricultural well were suitable for municipal use, then the farmer's well and necessary easements could be purchased by EMWD. The purchase price would be reflected in the cost of reclaimed water. In this case, the farmer would pay for reclaimed water based on the operation and maintenance cost of his well, less the amortized purchase price of the farmer's well. In either case, the reclaimed water rate may have to be discounted slightly to cause the exchange to occur.

Use of reclaimed water on some soils may reduce the drainage rate of soil and lead to water logged and other undesirable soil conditions. Each site where reclaimed water could be applied in lieu of groundwater needs to be evaluated to ensure that the reclaimed water can safely be applied to the soil. This evaluation will be completed prior to formalizing agreements to exchange groundwater for reclaimed water.

Maximize Yield Augmentation with Local Resources - Local Runoff and Reclaimed Water

Yield augmentation through the recharge of runoff (water harvesting) and through the recharge of reclaimed water should be implemented where consistent with water quality objectives and other elements of the groundwater management plan. The Lakeview, Perris North and Perris South subbasins appear to be the most feasible areas for this element. The cost associated with the recharge of runoff and reclaimed water are the capital and operation costs for the facilities to capture and recharge runoff and reclaimed water.

The specifics of recharge and conveyance facilities will be developed after a thorough groundwater resources evaluation is performed and planning studies are done to develop and evaluate yield augmentation alternatives.

Maximize Conjunctive Use

Conjunctive use should be implemented in the West San Jacinto Groundwater Basin management area. The unused storage capacity in the West San Jacinto Groundwater Basin management area is about 670,000 acre-ft, with about 600,000 acre-ft or 90 percent in the Lakeview, Perris North and Perris South subbasins. The yield from conjunctive use, exclusive of safe yield, could range from 30,000 to 50,000 acre-ft, or perhaps larger. Conjunctive use will improve overall water supply reliability, groundwater quality, and will lower water supply cost. These benefits will be realized by all groundwater users.

The specifics of recharge, extraction, conveyance and treatment facilities will be developed after a thorough groundwater resources evaluation is performed and planning studies are done to develop and evaluate conjunctive use alternatives.

Groundwater Treatment

Groundwater treatment in the form of blending and demineralization should be done in the West San Jacinto Groundwater Basin management area to recover contaminated groundwater for municipal use. The specifics of treatment facilities will be developed after a thorough groundwater resources evaluation is performed and planning studies are done to evaluate groundwater treatment feasibility.

Groundwater Management Plan Alternatives

Four groundwater management alternatives were developed to evaluate the economic benefits to all water users in the groundwater management area. All four of these alternatives include the following management elements:

- ☐ Establishment of Groundwater Basin Manager
- ☐ Monitoring of Groundwater Production
- ☐ Monitoring of Groundwater Level and Quality
- ☐ Development of Well Construction Policies
- ☐ Development of a Well Abandonment and Destruction Program
- ☐ Monitoring of Well Construction, Abandonment and Destruction
- ☐ Groundwater Quality Protection

Alternative 1 - Agricultural Exchange and Blending. Alternative 1 consists of the above-mentioned common elements plus the exchange of agricultural groundwater production, of which 2,000 acre-ft/yr are permanent transfers from land use conversions and about 17,500 acre-ft/yr of exchange of groundwater production for reclaimed water. Seven thousand one hundred acre-ft/yr of poor quality groundwater will be pumped from the San Jacinto Lower Pressure and Perris South subbasins and blended with imported water for municipal use.

Alternative 2 - Agricultural Exchange, Blending and Demineralization. Alternative 2 consists of the above-mentioned common elements plus the exchange of agricultural groundwater production, of which 2,000 acre-ft/yr are permanent transfers from land use conversions and about 21,700 acre-ft/yr of exchange of groundwater production for reclaimed water. Seven thousand one hundred acre-ft/yr of poor quality groundwater will be pumped from the San Jacinto Lower Pressure and Perris South subbasins and blended with imported water for municipal use. Five thousand three hundred acre-ft/yr of highly mineralized groundwater from the Perris South and Winchester subbasins will be pumped and demineralized to produce about 4,200 acre-ft of drinking water.

Alternative 3 - Agricultural Exchange, Blending, Demineralization and 30,000 acre-ft/yr Conjunctive Use. Alternative 3 includes all the elements of Alternative 2, plus conjunctive use. Conjunctive use will be implemented in the Perris North, Perris South I, Perris South II and Lakeview subbasins. Recharge would occur in spreading basins. Source water is state project water and reclaimed water. Average annual increase in recharge and extraction from conjunctive use will be about 30,000 acre-ft/yr.

Alternative 4 - Agricultural Exchange, Blending, Demineralization and 50,000 acre-ft/yr Conjunctive Use.. Alternative 4 is identical to Alternative 3 except that the conjunctive use element has been expanded to 50,000 acre-ft/yr.

Economic Evaluation of the Groundwater Management Plan Alternatives

Tables 8-1 through 8-4 illustrate the economic benefits that water users in the West San Jacinto Groundwater Basin management area would realize if a groundwater management plan were implemented. Each table lists the projected total demand for water and shows how that demand would be satisfied with each groundwater management plan alternative. For economic

TABLE 8-1

PRELIMINARY ESTIMATE OF C⁚ST OF WATER SUPPLY PLAN FOR THE WEST SAN JACINTO GROUNDWATER BASIN MANAGEMENT AREA

ALTERNATIVE 1 - AGRICULTURAL EXCHANGE AND BLENDING

Year	Demand	Imported Water					Reclaimed Water				Agricultural Groundwater			Municipal Use of Groundwater								Total Groundwater Usage (acre-ft/yr)	Total Cost ($)	Composite Unit Cost ($/acre-ft)
		Treated Base Water			Total									Demineralization		Direct Municipal Use		Blending						
	(acre-ft/yr)	Direct Use (acre-ft/yr)	Blending (acre-ft/yr)	Rate ($/acre-ft)	Imported Volume	Imported Cost ($)	Direct Use (acre-ft/yr)	Rate ($/acre-ft)	Total Recl. Water Use (acre-ft/yr)	Cost ($)	Volume (acre-ft/yr)	Rate ($/acre-ft)	Cost ($)	Volume (acre-ft/yr)	Rate ($/acre-ft)	Volume (acre-ft/yr)	Rate ($/acre-ft)	Volume (acre-ft/yr)	Rate ($/acre-ft)	Cost	Total Mun. Use of Groundwater (acre-ft/yr)			
1995	80,000	44,500	0	$454	44,500	$20,203,000	8,900	$63	8,900	$560,700	24,100	$63	$1,518,300	0	$0	2,500	$68	0	$68	$170,000	2,500	26,600	$22,452,000	$281
1996	83,000	47,300	0	$483	47,300	$22,845,900	10,849	$66	10,849	$710,826	22,351	$66	$1,464,438	0	$0	2,500	$71	0	$71	$176,800	2,500	24,851	$25,197,964	$304
1997	86,000	46,740	0	$515	46,740	$24,071,100	12,798	$68	12,798	$872,066	20,602	$68	$1,403,837	3,360	$576	2,500	$74	0	$74	$2,119,232	5,860	26,462	$28,466,235	$331
1998	89,000	49,540	0	$545	49,540	$26,999,300	14,747	$71	14,747	$1,045,067	18,853	$71	$1,336,045	3,360	$592	2,500	$76	0	$76	$2,180,347	5,860	24,713	$31,560,759	$355
1999	92,000	33,604	5,500	$578	39,104	$22,602,112	16,696	$74	16,696	$1,230,513	17,104	$74	$1,260,583	3,360	$609	8,636	$80	7,100	$80	$3,298,045	19,096	36,200	$28,391,254	$309
2000	95,000	34,655	5,500	$613	40,155	$24,615,015	18,645	$77	18,645	$1,429,123	15,355	$77	$1,176,947	3,360	$627	10,385	$83	7,100	$83	$3,553,296	20,845	36,200	$30,774,381	$324
2001	99,000	36,706	5,500	$649	42,206	$27,391,694	20,594	$80	20,594	$1,641,653	13,606	$80	$1,084,604	3,360	$649	12,134	$86	7,100	$86	$3,835,566	22,594	36,200	$33,953,516	$343
2002	103,000	38,757	5,500	$688	44,257	$30,448,816	22,543	$83	22,543	$1,868,898	11,857	$83	$982,989	3,360	$688	13,883	$89	7,100	$89	$4,189,309	24,343	36,200	$37,490,013	$364
2003	107,000	40,808	5,500	$730	46,308	$33,804,840	24,492	$86	24,492	$2,111,697	10,108	$86	$871,510	3,360	$730	15,632	$93	7,100	$93	$4,568,301	26,092	36,200	$41,356,348	$387
2004	111,000	42,859	5,500	$773	48,359	$37,381,507	26,441	$90	26,441	$2,370,929	8,359	$90	$749,540	3,360	$773	17,381	$97	7,100	$97	$4,966,679	27,841	36,200	$45,468,654	$410
2005	115,000	44,910	5,500	$820	50,410	$41,336,200	28,390	$93	28,390	$2,647,521	6,610	$93	$616,418	3,360	$820	19,130	$101	7,100	$101	$5,395,423	29,590	36,200	$49,995,562	$435
2006	120,600	50,310	5,500	$869	55,810	$48,498,890	28,590	$97	28,590	$2,772,818	6,610	$97	$641,075	3,360	$869	19,130	$105	7,100	$105	$5,665,672	29,590	36,200	$57,578,455	$477
2007	126,200	55,710	5,500	$921	61,210	$56,374,410	28,790	$101	28,790	$2,903,904	6,610	$101	$666,718	3,360	$921	19,130	$109	7,100	$109	$5,950,225	29,590	36,200	$65,895,257	$522
2008	131,800	61,110	5,500	$976	66,610	$65,011,360	28,990	$105	28,990	$3,041,040	6,610	$105	$693,387	3,360	$976	19,130	$113	7,100	$113	$6,249,252	29,590	36,200	$74,995,039	$569
2009	137,400	66,510	5,500	$1,035	72,010	$74,530,350	29,190	$109	29,190	$3,184,501	6,610	$109	$721,122	3,360	$1,035	19,130	$118	7,100	$118	$6,566,287	29,590	36,200	$85,002,260	$619
2010	143,000	71,910	5,500	$1,097	77,410	$84,918,770	29,390	$113	29,390	$3,334,573	6,610	$113	$749,967	3,360	$1,085	19,130	$122	7,100	$122	$6,857,835	29,590	36,200	$95,861,145	$670
Total Volume	1,719,000	765,929	66,000		831,929		350,045				201,955			47,040		202,831		85,200			335,071	537,026		
Fraction of Total		45%	4%				20%				12%			3%		12%		5%						
Total Cost						$641,033,264				$31,725,830			$15,937,480							$65,742,269			$754,438,842	
Fraction of Total						85%				4%			2%							9%				
Present Value																							$449,025,159	

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TABLE 8-2
PRELIMINARY ESTIMATE OF COST OF WATER SUPPLY PLAN FOR THE WEST SAN JACINTO GROUNDWATER BASIN MANAGEMENT AREA
ALTERNATIVE 2 - AGRICULTURAL EXCHANGE, BLENDING AND DEMINERALIZATION

Year	Demand	Imported Water: Treated Base Water			Imported Water: Total		Reclaimed Water				Agricultural Groundwater			Municipal Use of Groundwater								Total	Total Cost	Composite
	(acre-ft/yr)	Direct Use (acre-ft/yr)	Blending (acre-ft/yr)	Rate ($/acre-ft)	Imported Volume	Imported Cost ($)	Direct Use (acre-ft/yr)	Rate ($/acre-ft)	Total Recl. Water Use (acre-ft/yr)	Cost ($)	Volume (acre-ft/yr)	Rate ($/acre-ft)	Cost ($)	Demineralization Volume (acre-ft/yr)	Demineralization Rate ($/acre-ft)	Direct Municipal Use Volume (acre-ft/yr)	Direct Municipal Use Rate ($/acre-ft)	Blending Volume (acre-ft/yr)	Blending Rate ($/acre-ft)	Municipal Cost	Total Mun. Use of Groundwater (acre-ft/yr)	Groundwater Usage (acre-ft/yr)	($)	Unit Cost ($/acre-ft)
1995	80,000	44,500	0	$454	44,500	$20,203,000	8,900	$63	8,900	$560,700	24,100	$63	$1,518,300	0	$0	2,500	$68	0	$68	$170,000	2,500	26,600	$22,452,000	$281
1996	83,000	47,300	0	$483	47,300	$22,845,900	11,269	$66	11,269	$738,345	21,931	$66	$1,436,919	0	$0	2,500	$71	0	$71	$176,800	2,500	24,431	$25,197,964	$304
1997	86,000	46,740	0	$515	46,740	$24,071,100	13,638	$68	13,638	$929,304	19,762	$68	$1,346,598	3,360	$576	2,500	$74	0	$74	$2,119,232	5,860	25,622	$28,466,235	$331
1998	89,000	49,540	0	$545	49,540	$26,999,300	16,007	$71	16,007	$1,134,359	17,593	$71	$1,246,753	3,360	$592	2,500	$76	0	$76	$2,180,347	5,860	23,453	$31,560,759	$355
1999	92,000	31,924	5,500	$578	37,424	$21,631,072	18,376	$74	18,376	$1,354,331	15,424	$74	$1,136,766	7,540	$609	6,136	$80	7,100	$80	$3,644,789	20,776	36,200	$29,766,958	$324
2000	95,000	32,555	5,500	$613	38,055	$23,327,715	20,745	$77	20,745	$1,590,086	13,255	$77	$1,015,984	7,540	$627	8,305	$83	7,100	$83	$6,002,073	22,945	36,200	$31,935,858	$336
2001	99,000	34,186	5,500	$649	39,686	$25,756,214	23,114	$80	23,114	$1,842,535	11,086	$80	$883,722	7,540	$649	10,474	$86	7,100	$86	$6,405,557	25,114	36,200	$34,888,027	$352
2002	103,000	35,817	5,500	$688	41,317	$28,426,096	25,483	$83	25,483	$2,112,635	8,917	$83	$739,252	7,540	$688	12,643	$89	7,100	$89	$6,954,190	27,283	36,200	$38,232,173	$371
2003	107,000	37,448	5,500	$730	42,948	$31,352,040	27,852	$86	27,852	$2,401,395	6,748	$86	$581,812	7,540	$730	14,812	$93	7,100	$93	$7,543,390	29,452	36,200	$41,878,637	$391
2004	111,000	39,079	5,500	$773	44,579	$34,459,567	30,221	$90	30,221	$2,709,876	4,579	$90	$410,593	7,540	$773	16,981	$97	7,100	$97	$8,159,104	31,621	36,200	$45,739,140	$412
2005	115,000	40,710	5,500	$820	46,210	$37,892,200	32,590	$93	32,590	$3,039,193	2,410	$93	$224,745	7,540	$820	19,150	$101	7,100	$101	$8,825,036	33,790	36,200	$49,981,175	$435
2006	120,600	46,110	5,500	$869	51,610	$44,849,090	32,790	$97	32,790	$3,180,158	2,410	$97	$233,735	7,540	$869	19,150	$105	7,100	$105	$9,300,185	33,790	36,200	$57,563,169	$477
2007	126,200	51,510	5,500	$921	57,010	$52,506,210	32,990	$101	32,990	$3,327,537	2,410	$101	$243,085	7,540	$921	19,150	$109	7,100	$109	$9,802,183	33,790	36,200	$65,879,015	$522
2008	131,800	56,910	5,500	$976	62,410	$60,912,160	33,190	$105	33,190	$3,481,619	2,410	$105	$252,808	7,540	$976	19,150	$113	7,100	$113	$10,331,196	33,790	36,200	$74,977,783	$569
2009	137,400	62,310	5,500	$1,035	67,810	$70,183,350	33,390	$109	33,390	$3,642,703	2,410	$109	$262,920	7,540	$1,035	19,150	$118	7,100	$118	$10,894,942	33,790	36,200	$84,983,916	$619
2010	143,000	67,710	5,500	$1,097	73,210	$80,311,370	33,590	$113	33,590	$3,811,103	2,410	$113	$273,437	7,540	$1,085	19,150	$122	7,100	$122	$11,395,584	33,790	36,200	$95,791,494	$670
Total Volume	1,719,000	724,149	66,000		790,349		394,145				157,855			97,200		194,251		85,200			376,651	534,506		
Fraction of Total		43%	4%		46%		23%				9%			6%		11%		5%						
Total Cost						$605,726,384				$35,855,879			$11,807,430							$105,904,608			$759,294,301	
Fraction of Total						80%				5%			2%							14%				
Present Value																							$452,553,506	

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TABLE 8-3 (revised 9/7/94)
PRELIMINARY ESTIMATE OF COST OF WATER SUPPLY PLAN FOR THE WEST SAN JACINTO GROUNDWATER BASIN MANAGEMENT AREA
ALTERNATIVE 3 - AGRICULTURAL EXCHANGE, BLENDING, DEMINERALIZATION AND
30,000 ACRE-FT CONJUNCTIVE USE (ALL RECHARGE THROUGH SPREADING)

Year	Demand	Imported Water							Reclaimed Water						Agricultural Groundwater			Municipal Use of Groundwater								Total	Total Cost	Composite
		Treated Base Water			Untr. Seasonal Water		Total											Demineralization		Direct + Conj. Use		Blending				Groundwater		Unit Cost
		Direct Use	Blending	Rate	Conj Use	Rate	Imported Volume	Imported Cost	Direct Use	Rate	Conj. Use	Rate	Total Recl. Water Use	Cost	Volume	Rate	Cost	Volume	Rate	Volume	Rate	Volume	Rate	Cost	Total Mun. Use of Groundwater	Usage		
	(acre-ft/yr)	(acre-ft/yr)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)		($)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($)	(acre-ft/yr)	($/acre-ft)	($)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)		(acre-ft/yr)	(acre-ft/yr)	($)	($/acre-ft)
1995	80,000	44,500	0	$454	0	$236	44,500	$20,203,000	8,900	$63	0	$0	8,900	$560,700	24,100	$63	$1,518,300	0	$0	2,500	$68	0	$68	$170,000	2,500	26,600	$22,452,000	$281
1996	83,000	47,500	0	$483	0	$278	47,500	$22,942,500	11,069	$66	0	$0	11,069	$725,241	21,931	$66	$1,436,919	0	$0	2,500	$71	0	$71	$176,800	2,500	24,431	$25,281,460	$305
1997	86,000	47,140	0	$515	0	$304	47,140	$24,277,100	13,238	$68	0	$0	13,238	$902,048	19,762	$68	$1,346,598	3,360	$576	2,500	$74	0	$74	$2,119,232	5,860	25,622	$28,644,978	$333
1998	89,000	50,140	0	$545	0	$319	50,140	$27,326,300	15,407	$71	0	$0	15,407	$1,091,839	17,593	$71	$1,246,753	3,360	$592	2,500	$76	0	$76	$2,180,547	5,860	23,453	$31,845,239	$358
1999	92,000	2,724	5,500	$578	20,000	$338	28,224	$11,513,472	17,576	$74	10,000	$0	27,576	$1,295,370	15,424	$74	$1,136,766	7,540	$609	36,136	$80	7,100	$80	$4,031,300	50,776	66,200	$21,976,908	$239
2000	95,000	3,555	5,500	$613	20,000	$361	29,055	$12,774,715	19,745	$77	10,000	$0	29,745	$1,513,437	13,255	$77	$1,015,984	7,540	$627	38,305	$83	7,100	$83	$4,484,045	52,945	66,200	$23,788,181	$250
2001	99,000	5,386	5,500	$649	20,000	$389	30,886	$14,849,014	21,914	$80	10,000	$0	31,914	$1,746,877	11,086	$80	$883,722	7,540	$649	40,474	$86	7,100	$86	$4,986,808	55,114	66,200	$26,466,420	$267
2002	103,000	7,217	5,500	$688	20,000	$417	32,717	$17,093,296	24,083	$83	10,000	$0	34,083	$1,996,570	8,917	$83	$739,252	7,540	$688	42,643	$89	7,100	$89	$9,638,691	57,283	66,200	$29,467,809	$286
2003	107,000	9,048	5,500	$730	20,000	$447	34,548	$19,557,320	26,252	$86	10,000	$0	36,252	$2,263,444	6,748	$86	$581,812	7,540	$730	44,812	$93	7,100	$93	$10,333,271	59,452	66,200	$32,737,846	$306
2004	111,000	10,879	5,500	$773	20,000	$477	36,379	$22,204,378	28,421	$90	10,000	$0	38,421	$2,548,473	4,579	$90	$410,593	7,540	$773	46,981	$97	7,100	$97	$11,062,661	61,621	66,200	$36,226,104	$326
2005	115,000	12,710	5,500	$820	20,000	$511	38,210	$25,142,468	30,590	$93	10,000	$0	40,590	$2,852,642	2,410	$93	$224,745	7,540	$820	49,150	$101	7,100	$101	$11,844,734	63,790	66,200	$40,064,630	$348
2006	120,600	18,110	5,500	$869	20,000	$545	43,610	$31,422,808	30,790	$97	10,000	$0	40,790	$2,986,187	2,410	$97	$233,733	7,540	$869	49,150	$105	7,100	$105	$12,440,672	63,790	66,200	$47,083,402	$390
2007	126,200	23,510	5,500	$921	20,000	$582	49,010	$38,363,837	30,990	$101	10,000	$0	40,990	$3,125,807	2,410	$101	$243,085	7,540	$921	49,150	$109	7,100	$109	$13,068,288	63,790	66,200	$54,801,017	$434
2008	131,800	28,910	5,500	$976	20,000	$621	54,410	$46,014,012	31,190	$105	10,000	$0	41,190	$3,271,819	2,410	$105	$252,808	7,540	$976	49,150	$113	7,100	$113	$13,727,946	63,790	66,200	$63,266,586	$480
2009	137,400	34,310	5,500	$1,035	20,000	$664	59,810	$54,477,596	31,390	$109	10,000	$0	41,390	$3,424,511	2,410	$109	$262,920	7,540	$1,035	49,150	$118	7,100	$118	$14,427,562	63,790	66,200	$72,592,590	$528
2010	143,000	39,710	5,500	$1,097	20,000	$708	65,210	$63,758,026	31,590	$113	10,000	$0	41,590	$3,584,184	2,410	$113	$273,437	7,540	$1,085	49,150	$122	7,100	$122	$15,069,509	63,790	66,200	$82,685,156	$578
Total Volume	1,719,000	385,349	66,000		240,000		691,349		373,145						157,855			97,200		554,231		85,200			736,651	894,506		
Fraction of Total		22%	4%		14%		40%		22%						9%			6%		32%		5%						
Total Cost								$451,919,843						$33,889,189			$11,807,430							$141,763,865			$639,380,327	
Fraction of Total								71%						5%			2%							22%				
Present Value																											$384,636,284	

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TABLE 8-4 (revised 9/7/94)
PRELIMINARY ESTIMATE OF COST OF WATER SUPPLY PLAN FOR THE WEST SAN JACINTO GROUNDWATER BASIN MANAGEMENT AREA
ALTERNATIVE 4 - AGRICULTURAL EXCHANGE, BLENDING, DEMINERALIZATION AND
50,000 ACRE-FT CONJUNCTIVE USE (80% RECHARGE THROUGH SPREADING, 20% RECHARGE THROUGH INJECTION)

Year	Demand	Imported Water: Treated Base Water			Imported Water: Untr Seasonal Water		Imported Water: Treated Seasonal Water		Total		Reclaimed Water						Agricultural Groundwater			Municipal Use of Groundwater								Total	Total Cost	Composite
		Direct Use	Blending	Rate	Conj Use	Rate	Conj. Use	Rate	Imported Volume	Imported Cost	Direct Use	Rate	Conj. Use	Rate	Total Recl Water Use	Cost	Volume	Rate	Cost	Demineralization Volume	Demineralization Rate	Direct + Conj Use Volume	Direct + Conj Use Rate	Blending Volume	Blending Rate	Cost	Total Mun. Use of Groundwater	Groundwater Usage		Unit Cost
	(acre-ft/yr)	(acre-ft/yr)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)		($)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($)	(acre-ft/yr)	($/acre-ft)	($)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)	(acre-ft/yr)	($/acre-ft)		(acre-ft/yr)	(acre-ft/yr)	($)	($/acre-ft)
1995	80,000	44,500	0	$454	0	$256		$309	44,500	$20,207,000	8,900	$63	0	$0	8,900	$560,700	24,100	$63	$1,518,300	0	$0	2,500	$68	0	$68	$170,000	2,500	26,600	$22,452,000	$281
1996	83,000	47,500	0	$483	0	$278		$312	47,500	$22,942,500	11,069	$66	0	$0	11,069	$725,241	21,931	$66	$1,436,919	0	$0	2,500	$71	0	$71	$176,800	2,500	24,431	$25,281,460	$305
1997	86,000	47,140	0	$515	0	$304		$337	47,140	$24,277,100	13,238	$68	0	$0	13,238	$902,048	19,762	$68	$1,346,398	3,360	$576	2,500	$74	0	$74	$2,119,232	5,860	25,622	$28,644,978	$333
1998	89,000	50,140	0	$545	0	$319		$381	50,140	$27,326,300	15,407	$71	0	$0	15,407	$1,091,839	17,593	$71	$1,246,753	3,360	$592	2,500	$76	0	$76	$2,180,347	5,860	23,453	$31,845,239	$358
1999	92,000	0	5,500	$578	21,362	$338	1,362	$408	28,224	$10,954,780	17,576	$74	10,000	$0	27,576	$1,295,370	15,424	$74	$1,136,766	7,540	$609	38,860	$80	7,100	$80	$8,247,996	53,500	64,924	$21,634,911	$235
2000	95,000	0	5,500	$613	21,777	$361	1,778	$436	29,055	$12,012,205	19,745	$77	10,000	$0	29,745	$1,513,437	13,255	$77	$1,015,984	7,540	$627	41,860	$83	7,100	$83	$8,778,158	56,500	69,755	$23,319,784	$245
2001	99,000	0	5,500	$649	22,693	$389	2,693	$465	30,886	$13,652,783	21,914	$80	10,000	$0	31,914	$1,746,877	11,086	$80	$883,722	7,540	$649	45,860	$86	7,100	$86	$9,450,228	60,500	71,586	$25,733,610	$260
2002	103,000	0	5,500	$688	23,609	$417	3,609	$496	32,717	$15,422,561	24,083	$83	10,000	$0	34,083	$1,996,570	8,917	$83	$739,232	7,540	$688	49,860	$89	7,100	$89	$10,264,492	64,500	73,417	$28,442,875	$276
2003	107,000	0	5,500	$730	24,524	$447	4,524	$529	34,548	$17,368,898	26,252	$86	10,000	$0	36,252	$2,263,444	6,748	$86	$581,812	7,540	$730	53,860	$93	7,100	$93	$11,177,302	68,500	75,248	$31,391,435	$293
2004	111,000	0	5,500	$773	25,439	$477	5,440	$564	36,379	$19,457,314	28,421	$90	10,000	$0	38,421	$2,548,473	4,579	$90	$410,593	7,540	$773	57,860	$97	7,100	$97	$12,115,587	72,500	77,079	$34,531,966	$311
2005	115,000	0	5,500	$820	26,355	$511	6,355	$601	38,210	$21,786,477	30,590	$93	10,000	$0	40,590	$2,852,642	2,410	$93	$224,745	7,540	$820	61,860	$101	7,100	$101	$13,124,060	76,500	78,910	$37,987,985	$330
2006	120,600	0	5,500	$869	29,033	$545	9,033	$641	43,610	$26,423,415	30,790	$97	10,000	$0	40,790	$2,966,187	2,410	$97	$233,735	7,540	$869	67,260	$105	7,100	$105	$14,336,479	81,900	84,310	$43,979,816	$365
2007	126,200	3,510	5,500	$921	30,000	$582	10,000	$682	49,010	$32,588,631	30,990	$101	10,000	$0	40,990	$3,125,807	2,410	$101	$243,085	7,540	$921	69,150	$109	7,100	$109	$15,245,692	83,790	86,200	$51,203,235	$406
2008	131,800	8,910	5,500	$976	30,000	$621	10,000	$726	54,410	$39,970,938	31,190	$105	10,000	$0	41,190	$3,271,819	2,410	$105	$252,806	7,540	$976	69,150	$113	7,100	$113	$15,992,446	83,790	86,200	$59,488,012	$451
2009	137,400	14,310	5,500	$1,035	30,000	$664	10,000	$773	59,810	$48,148,719	31,390	$109	10,000	$0	41,390	$3,424,511	2,410	$109	$262,920	7,540	$1,035	69,150	$118	7,100	$118	$16,782,642	85,790	86,200	$68,618,794	$499
2010	143,000	19,710	5,500	$1,097	30,000	$708	10,000	$823	65,210	$57,129,354	31,590	$113	10,000	$0	41,390	$3,584,184	2,410	$113	$273,437	7,540	$1,085	69,150	$122	7,100	$122	$17,518,792	83,790	86,200	$78,505,767	$549
Total Volume	1,719,000	233,720	66,000		314,814		74,816		691,349		373,145						137,855			97,200		703,480		85,200			886,280	1,044,135		
Fraction of Total		14%	4%		18%		4%		40%		22%						9%			6%		41%		5%						
Total Cost										$409,664,995						$33,849,189			$11,807,430							$157,700,273			$613,061,887	
Fraction of Total										67%						6%			2%							26%				
Present Value																													$371,114,039	

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evaluation purposes, all the plan elements are assumed on line in 1999, that is, all elements would be implemented in five years. Actual implementation could take place over a longer period of time ranging from five to fifteen years. This analysis assumes an amortization period of 20 years, amortization rate of six percent and an inflation rate of four percent. Capital, operations and maintenance costs for recharge facilities, and blending facilities are not included. Salvage costs are not included for the wells and desalters.

Tables 8-1 through 8-4 list the annual cost of water supply and the total present value cost of the water supply plan with the implementation of a groundwater management plan. Similar costs are presented in Table 5-6 for a case without a groundwater management plan. The groundwater management plan alternatives are compared to the *no groundwater management plan case* in Table 8-5. The difference in costs between the *with management plan* cases and *without management plan* case occurs in years 1999 through 2010.

Alternative 1 - Agricultural Exchange and Blending groundwater management plan case has a present value savings of about $108,000,000 over the no groundwater management plan case illustrated in Table 5-6. The saving comes from the exchange of up to 17,500 acre-ft/yr of agricultural groundwater production to municipal uses and the reduction in the use of a like amount of imported water.

Alternative 2 - Agricultural Exchange, Blending and Demineralization groundwater management plan is identical to Alternative 1 except that the agricultural exchange of groundwater production to municipal uses has been expanded to about 21,700 acre-ft/yr and municipal groundwater production has been expanded by about 4,200 acre-ft/yr through construction of a demineralization facility. Alternative 2 has a present value savings of about $104,000,000 over the *no groundwater management plan case* illustrated in Table 5-6 and is comparable to the cost of Alternative 1. The cost savings over the *no groundwater management plan case* come from the exchange of up to 21,600 acre-ft/yr of agricultural groundwater production to municipal uses and the reduction in the use of a like amount of imported water. The cost of Alternative 2 is slightly higher than Alternative 1 because the demineralization costs are higher than the cost of imported water prior to 2010. After 2010 demineralization costs will be less than imported water. Alternative 2 would have costs savings greater than Alternative 1 if the economic analysis were extended beyond 2010.

TABLE 8-5 (revised 9/7/94)
COMPARISON OF GROUNDWATER MANAGEMENT PLAN ALTERNATIVES

Alternative	---------- Percentage of Total Supply ---------- Non Interruptible Treated Imported Water	Seasonal Treated Imported Water	Untreated Imported Water	----- Size of Groundwater Management Plan Elements ----- Agricultural Exchange (acre-ft/yr)	Blending (acre-ft/yr)	Demineralization (acre-ft/yr)	Conjunctive Use (acre-ft/yr)	Present Value Cost of Supply	Reduction in Present Value Cost of Supply from Groundwater Management Plan
No Groundwater Management Plan	64%	0%	0%	0	0	0	0	$557,000,000	na
1 Agricultural Exchange and Blending	49%	0%	0%	17,510	7,100	0	0	$449,000,000	$108,000,000
2 Agricultural Exchange, Blending and Demineralization	46%	0%	0%	21,690	7,100	4,180	0	$453,000,000	$104,000,000
3 Agricultural Exchange, Blending, Demineralization and 30,000 acre-ft/yr Conjunctive Use (all recharge through spreading)	26%	0%	14%	21,690	7,100	4,180	30,000	$385,000,000	$172,000,000
4 Agricultural Exchange, Blending, Demineralization and 50,000 acre-ft/yr Conjunctive Use (80 recharge through spreading, 20 % through injection)	18%	4%	18%	21,690	7,100	4,180	50,000	$371,000,000	$186,000,000

Alternative 3 - Agricultural Exchange, Blending, Demineralization and 30,000 acre-ft/yr Conjunctive Use management plan has all the elements contained in Alternative 2 plus the incorporation of 30,000 acre-ft/yr of conjunctive use. The source water for conjunctive use is 20,000 acre-ft of state project water and 10,000 acre-ft/yr of reclaimed water. The demand for treated non-interruptible water from Metropolitan has dropped from 64 percent for the *no management plan case* to 26 percent. The demand for untreated seasonal water has risen to 14 percent. Treated non-interruptible and seasonal untreated imported water make up 40 percent of municipal supplies. Alternative 3 has a present value savings of about $172,000,000 over the *no groundwater management plan case* illustrated in Table 5-6 and about $66,000,000 over Alternatives 1 and 2. About 62 percent of the cost savings comes from the agricultural exchange, blending and demineralization elements included in Alternatives 1 and 2; the remaining cost savings are due to conjunctive use.

Alternative 4 - Agricultural Exchange, Blending, Demineralization and 50,000 acre-ft/yr Conjunctive Use management plan has all the elements contained in Alternative 3 except that conjunctive use has been expanded from 30,000 to 50,000 acre-ft. The source water for conjunctive use is 40,000 acre-ft of state project water and 10,000 acre-ft/yr of reclaimed water. The demand for treated non-interruptible water from Metropolitan has dropped from 64 percent for the no management plan case to 18 percent. Untreated seasonal water has risen to 18 percent and treated seasonal water to 4 percent. Treated non-interruptible, treated seasonal and seasonal untreated imported water make up 40 percent of municipal supplies. Treated seasonal water would be used for recharge by injection. Alternative 4 has a present value savings of about $186,000,000 over the *no groundwater management plan case* illustrated in Table 5-6 and about $80,000,000 over Alternatives 1 and 2. About 57 percent of the cost savings comes from the agricultural exchange, blending and demineralization elements included in Alternatives 1 and 2; the remaining cost savings are due conjunctive use.

The groundwater management plan development costs and the costs of recharge of basins and blending facilities are not included in Tables 8-1 through 8-4. These costs could have a present value ranging from $50,000,000 to $70,000,000. The cost savings from implementation of any of these alternatives far exceed the cost of implementation. The projected cost savings from the groundwater management plan illustrated in Tables 8-1 through 8-4 are for the 15-year period of 1999 to 2010 in which the capital-intensive facilities, such as spreading basins, have been in operation (and amortized) for 11 years. If these analyses were extended to the period of time

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

over which capital-intensive facilities were to be financed, say 20 years, the cost saving would be significantly greater.

There are two additional significant benefits from a groundwater management plan. First, imported water for direct use has been reduced by half, which will improve overall water supply reliability. The volumetric impact of water shortages in the imported water supply could be reduced by half. Second, the recharge of state project water into the Lakeview, Perris North and Perris South subbasins will improve the quality of the groundwater in these subbasins.

The groundwater management alternatives illustrated in Tables 8-1 through 8-4 clearly show that the economic benefits, water supply reliability benefits and water quality benefits of a groundwater management plan are very significant. Tables 8-1 through 8-4 assume that the conjunctive use elements are operational in 1999. As mentioned above, it could take an additional five years (till 2004) to implement the large scale conjunctive use projects described in these examples. Other management elements, yield augmentation in particular, should also be included in the management plan. Cooperative efforts among the water users in the management area, and results of future engineering and economic studies will define which elements will ultimately be used in the management plan.

FINANCING THE GROUNDWATER MANAGEMENT PLAN

The primary beneficiaries of the plan are municipal water users in the West San Jacinto Groundwater Basin management area. Private groundwater producers such as farmers, dairy operators and individuals with small domestic wells will either be beneficially impacted or have no impacts. It is the intent of the plan to mitigate all significant adverse groundwater impacts to private groundwater producers. The types of beneficial impacts that private well owners could experience will be stabilized or increased groundwater levels where overdraft is currently occurring, such as the Lakeview subbasin, and reduced supply cost for those groundwater producers that can use reclaimed water in lieu of groundwater.

The cost of implementing and operating the West San Jacinto Groundwater Basin management plan should be born by municipal water users in the management area. The cost savings experienced by the local private groundwater users should be their incentive to participate in the groundwater management plan. There could be some cost to local groundwater producers if groundwater replenishment is necessary due to groundwater overdraft. In the event of continued overdraft, an equitable cost sharing plan should be developed to correct the overdraft.

EMWD, acting as manager of the West San Jacinto Basin Groundwater Basin, will not levy and/or collect any rate, fee or charge from any groundwater producer unless authorized by law or contract with the producer, or in the event a producer extracts water stored in a basin by entities participating in the management plan. The plan will not require financial participation by any producer unless there is a consideration provided to such producer in the form of a quantifiable benefit to the producer.

The benefits and costs associated with the groundwater management plan should be accounted for locally, that is, by subbasin or some other geographic unit, to insure the benefits and costs are equitably distributed. The benefits to municipal users in the management area are essentially uniform throughout the management area and thus, the costs associated with those benefits should be distributed uniformly to all municipal water users in the management area. Localized benefits or costs to the Nuevo Water Company and the Edgemont Gardens Mutual Water Company should be estimated when the projects implemented by the groundwater management plan are better defined. EMWD and these agencies may need to develop adjustments in the cost of water supplied to these agencies by EMWD to compensate for localized benefits and costs to these agencies that are caused by the management plan.

Some of the elements of the management plan are capital intensive such as recharge facilities, wells, treatment plants, pipelines, etc. EMWD will need to develop a plan to finance these elements of the groundwater management plan with cost recovery based on the sale of water developed by the plan, or some other method as appropriate. The economic analysis presented previously in this section show that the management plan should easily pay for itself.

IMPLEMENTATION OF THE GROUNDWATER MANAGEMENT PLAN

Upon adoption of the groundwater management plan, EMWD will form the Advisory Committee and implement the groundwater management plan. The implementation of the groundwater management plan will occur in phases and consist of the following:

Phase 1 Short Term Implementation

Phase 2	Refine the Ultimate Groundwater Management Plan
Phase 3	Ultimate Groundwater Management Plan Implementation

Phase 1 Short Term Implementation

The goals of the short term implementation phase are to: implement those elements of the groundwater management plan that are easy to implement, where existing information is adequate for implementation; and to develop and implement demonstration projects that will provide engineering information necessary for design of management elements in the ultimate plan. This phase consists of five tasks that are described below.

Task 1-1 Groundwater Resources Evaluation. Section 4 described what is currently known about the groundwater resources in the management area, based on available reports and data. Most of the water quality data and groundwater elevation data is fifteen to twenty years old. There are no definitive studies evaluating the feasibility of surface water recharge. A complete groundwater resource evaluation should be done to define the groundwater resources in the management area. This effort will include the following sub tasks.

> Define the Hydrogeologic Characteristics of the basin including: geology; flow controlling features such as faults, barriers, aquicludes, effective base of the aquifer, and hydraulic conductivity. This will involve: review of existing well logs, new aquifer tests, drilling new test holes, and geophysical studies.
>
> Describe Groundwater Quality Conditions Historical groundwater quality data will be mapped and reviewed. EMWD has recently collected and entered these data into a data base, which will greatly facilitate this effort. A completely new groundwater quality monitoring program will be conducted evaluating the groundwater quality for constituents described in Title 22, plus other constituents that could be regulated and constituents that can be used to understand the groundwater hydrology, such as isotopes of oxygen and hydrogen.
>
> Describe the Occurrence of Groundwater including: groundwater levels, groundwater hydrology, volume of groundwater in storage, unused groundwater storage, and groundwater production and use. This will involve an extensive

groundwater level survey, and review/estimation of historical and future groundwater production.

Task 1-2 Develop Groundwater Management Policies. In this task EMWD, in cooperation with the Advisory Committee and participating groundwater producers, will develop policies for monitoring of groundwater production, monitoring groundwater level and quality, monitoring of well construction, well construction, well abandonment and destruction. Policies for the exchange of agricultural and other non-potable groundwater production to municipal use will be developed in this Task.

Task 1-3 Construct and Operate Demonstration Projects for Blending, Demineralization and Conjunctive Use. EMWD will evaluate the technical feasibility of blending, demineralization, irrigation with reclaimed water, and conjunctive use through small scale demonstration projects. The experience and data developed in this task will be used in subsequent tasks for design of large scale projects. The demonstration projects described in Section 7, or similar projects, will be constructed and operated. The feasibility of water harvesting will be evaluated.

Task 1-4 Develop Water Resources Planning Model. A water resources planning model will be used to evaluate the groundwater level response, groundwater quality response, water supply reliability, water supply quality and wastewater quality responses of the management plan. This model will be used to evaluate management plan alternatives in Phase 1 and in subsequent phases.

Task 1-5 Develop and Evaluate Feasibility Level Plans for the Management Plan Elements. The management elements and new management elements that arise from Tasks 1-1 and 1-2 efforts, will be combined and developed into alternatives. The capacity, size and operational characteristics of the management elements will be defined and analyzed using the data from Tasks 1-1, 1-3 and 1-4. An initial environmental study will be done to assess probable environmental impacts and help develop the scope of work for environmental studies in Phase 2.

Phase 2 Refine the Ultimate Groundwater Management Plan

Phase 1 Short Term Implementation will develop policies and data necessary for defining the ultimate groundwater management plan. Phase 2 consists of the detailed engineering, environmental and financial work to describe and implement the ultimate management plan. The complexity and cost for the analyses described below are dependent on the management plan elements included in the management plan. Phase 2 consists of four tasks that are described below.

Task 2-1 Prepare Facility and Operation Plans. This task will produce an initial set of facility and operational plans. The initial plans will be based on the results of Phase 1 and will be used in *Task 2-2 Prepare Project Specific Environmental Impact Report.* The initial facility and operational plans will include plans and cost opinions. The facility and operational plans will be modified in this task, based on the Task 2-2 effort to minimize undesirable environmental impacts and to include mitigation measures. The facility and operational plan will be finalized with the EIR prepared in Task 2-2. An optimum management plan will be developed that is consistent with the management plan goal and its constraints.

Task 2-2 Prepare Project Specific Environmental Impact Reports (EIR). EIR's will be prepared for the implementation of specific groundwater management elements that are developed in Phase 1. This Task consists of the following sub tasks.

> <u>Prepare and Distribute Notice of Preparation (NOP).</u> The NOP will be prepared based on the results of the initial environmental study prepared in Task 1-5 and the facility and operational plans developed in Task 2-1. The final scope of work for the EIR studies will be based on the NOP and comments received on the NOP.
>
> <u>Estimate Environmental Impacts and Develop Mitigation Plans.</u> This work will include: biological assessments, archaeological assessments, impact assessments and development of mitigation plans. This Task includes the evaluation of other environmental impacts such as construction related impacts, growth inducing impacts and cumulative impacts. Alternative facility and operational plans and mitigation measures will be developed in coordination with *Task 2-1 Prepare*

Facility and Operation Plans. This task includes the development of mitigation and mitigation monitoring plans.

Prepare and Distribute Draft EIR(s).

Conduct Meetings, Public Hearings and Respond to Comments.

Finalize EIR(s).

Task 2-3 Prepare Engineering Report for a Planned Recharge Project. California Department of Health Services is requiring that new projects that involve planned recharge of reclaimed water follow the proposed regulations for planned recharge projects. This has recently occurred in the Los Angeles Central Basin, the Chino Basin and in the Riverside-Colton Basins. The data and models developed in Phase 1 will be used to evaluate the hydraulic and water quality response from reclaimed water recharge. This task consists of the following subtasks.

Describe the Impacts from Reclaimed Water Recharge. This subtask includes estimating the impacts of wastewater recharge at the regional and local levels. The data and models developed in Phase I will be used to estimate the regional and local impacts. If warranted, the facility and operational plans will be revised and the impact analysis repeated.

Develop a Groundwater Production Management and Monitoring Plan. A groundwater production management and monitoring plan will be developed consistent with proposed DHS regulations. The implementation of this plan will be included in the EIR's developed in Task 2-2 and the institutional plan developed in Task 2-4.

Prepare Engineering Report.

Task 2-4 Institutional Planning. This task consists of institutional planning necessary for implementation of the groundwater management plan. The work will be iterative with the institutional plans and agreements evolving throughout Phase 2. This task consists of the following subtasks.

Describe Powers and Limitations of Entities Involved in Groundwater Management Plan. This subtask consists of identifying and describing the statutory responsibilities, powers and limitations of participants, regulatory agencies and third party interests.

Describe Regulatory and Water Rights Implications of Groundwater Management Plan. This task consists of describing the existing and proposed regulatory limits and water rights implications of the groundwater management plan; and the development of institutional arrangements and agreements necessary for implementation of plan elements.

Conduct Economic Analysis of Groundwater Management Plan. The capital and operating costs of the groundwater management plan will be evaluated and updated throughout Phase 2. Using Task 2-1 results, the economic benefits and costs for participating entities and third parties will be evaluated. The results of the economic analysis will feed back to Task 2-1, providing the opportunity to optimize the groundwater management plan.

Develop Preliminary Financing Plan. Financing alternatives will be developed throughout the Phase 2 effort that will be consistent with the facilities described in Task 2-1 and the financing capabilities of the participating agencies.

Describe Institutional Arrangements Necessary to Implement Groundwater Management Plan. This subtask consists of finalizing alternative institutional arrangements for participation, facility construction, ownership and management, payment and collection of fees, etc..

Develop Agreements. This subtask consists of preparing draft agreements for all the agreements that will be necessary to implement the ultimate groundwater management plan.

Phase 3 Ultimate Groundwater Management Plan Implementation

The facility plans, environmental documentation and draft agreements developed in Phase 2 will be converted to construction documents, project-specific environmental documentation and final agreements. These projects will then be constructed and operated. The sequencing and sizing of the management elements will depend on actual future water demands and the availability of funds for construction. It is premature to speculate on the magnitude of the effort required by most of these tasks because of uncertainties in what facilities and operating plans will be included in the groundwater management plan and the timing of the tasks.

Task 3-1 Prepare Final Design and Bid Documents. This task consists of final engineering, design and preparation of bid documents. The types of facilities that will be included are wells, pipelines, reservoirs, treatment facilities, and spreading basins.

Task 3-2 Prepare Project Specific Supplemental EIR's and Negative Declarations. This task consists of the preparation of supplemental project-specific EIR's and negative declarations (if applicable). These documents will be for specific elements in groundwater management plan projects that will include wells, pipelines and recharge facilities.

Task 3-3 Prepare Final Agreements. This task consists of developing and finalizing the agreements that allow the groundwater management plan to be constructed and operated.

Construction and Operation. Several series of tasks will need to be developed to describe the construction and operational process for the groundwater management plan elements that will actually be constructed.

MANAGEMENT AND MONITORING

The management and monitoring of the groundwater management plan will occur while the elements of ultimate groundwater management plan are being implemented. The management and monitoring activities developed in Phase 1 will be adopted by EMWD board action. Future modifications to management and monitoring programs will be incorporated as warranted by change conditions.

SCHEDULE AND COST

The Phase 1 work should take about two years to complete. Phase 2 will take about two years to complete and will overlap Phase 1 by about one year. The cumulative time required to complete phases 1 and 2 will be about three years. Phase 3 could take up to 10 years to complete with some projects (e.g., blending) coming on line within a couple of years and other projects (e.g., large scale surface recharge) taking 10 years to implement.

The cost to complete Phases 1 and 2 is estimated to range between 2 to 3 million dollars. The cost to complete Phase 3 cannot be estimated until the ultimate plan is described at the conclusion of Phase 2.

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APPENDIX A

A - 1

AB 3030 with AB 1152 Amendments

PART 2.75

GROUNDWATER MANAGEMENT

Part 2.75 was added by Stats.1992, c. 947 (A.B.3030), § 2.

Former Part 2.75, Groundwater Resources, consisting of §§ 10750 to 10767, was added by Stats.1991, c. 903 (A.B.255), § 1, and repealed by Stats.1992, c. 947 (A.B.3030), § 1.

CHAPTER 1

GENERAL PROVISIONS

Chapter 1 was added by Stats.1992, c. 947 (A.B.3030), § 2.

§ 10750. Legislative findings, declarations and intent

The Legislature finds and declares that groundwater is a valuable natural resource in California, should be managed to ensure both its safe production and its quality. It is the intent of the Legislat to encourage local agencies to work cooperatively to manage groundwater resources within t jurisdictions.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

(a) Subject to subdivision (b), this part applies to all groundwater basins in the state.

(b) This part does not apply to any portion of a groundwater basin that is subject to groundwater management by a local agency or a watermaster pursuant to other provisions of law or a court order, judgment, or decree, unless the local agency or watermaster agrees to the application of this part.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10750, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10750.4. Adoption of groundwater management plan or program not required

Nothing in this part requires a local agency overlying a groundwater basin to adopt or implement a groundwater management plan or groundwater management program pursuant to this part.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

§ 10750.6. Authority of local agencies or watermaster to manage groundwater not affected

Nothing in this part affects the authority of a local agency or a watermaster to manage groundwater pursuant to other provisions of law or a court order, judgment, or decree.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

§ 10750.7. Management by local agencies within service area of another agency, water corporation or mutual water company without agreement prohibited; application of section

(a) A local agency may not manage groundwater pursuant to this part within the service area of another local agency, a water corporation regulated by the Public Utilities Commission, or a mutual water company without the agreement of that other entity.

(b) This section applies only to groundwater basins that are not critically overdrafted.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10762, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10750.8. Management by local agencies within service area of another agency without agreement prohibited; application of section

(a) A local agency may not manage groundwater pursuant to this part within the service area of another local agency without the agreement of that other entity.

(b) This section applies only to groundwater basins that are critically overdrafted.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10762, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10750.9. Groundwater management program; procedures to establish commenced prior to January 1, 1993; completion; amendment

(a) A local agency that commences procedures, prior to January 1, 1993, to adopt an ordinance or resolution to establish a program for the management of groundwater pursuant to Part 2.75 (commencing with Section 10750), as added by Chapter 903 of the Statutes of 1991, may proceed to adopt the ordinance or resolution pursuant to * * * Part 2.75, and the completion of those procedures is deemed to meet the requirements of this part.

(b) A local agency that has adopted an ordinance or resolution pursuant to Part 2.75 (commencing with Section 10750), as added by Chapter 903 of the Statutes of 1991, may amend its groundwater management program by ordinance or resolution of the governing body of the local agency to include any of the plan components set forth in Section 10753.7.

(Added by Stats.1992, c. 947 (A.B.3030), § 2. Amended by Stats.1993, c. 320 (A.B.1152), § 1.)

§ 10750.10. Other powers

This part is in addition to, and not a limitation on, the authority granted to a local agency pursuant to other provisions of law.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10766, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10751. Repealed by Stats.1992, c. 947 (A.B.3030), § 1

Historical and Statutory Notes

The repealed section, added by Stats.1991, c. 903 (A.B. 255), § 1, set forth definitions. See, now, § 10752.

CHAPTER 2

DEFINITIONS

Chapter 2 was added by Stats.1992, c. 947 (A.B.3030), § 2.

§ 10752. Definitions

Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Groundwater" means all water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water which flows in known and definite channels.

(b) "Groundwater basin" means any basin identified in the department's Bulletin No. 118, dated September 1975, and any amendments to that bulletin, but does not include a basin in which the average well yield is less than 100 gallons per minute.

(c) "Groundwater extraction facility" means any device or method for the extraction of groundwater within a groundwater basin.

(d) "Groundwater management plan" or "plan" means a document that describes the activities intended to be included in a groundwater management program.

(e) "Groundwater management program" or "program" means a coordinated and ongoing activity undertaken for the benefit of a groundwater basin, or a portion of a groundwater basin, pursuant to a groundwater management plan adopted pursuant to this part.

(f) "Groundwater recharge" means the augmentation of groundwater, by natural or artificial means, with surface water or recycled water.

(g) "Local agency" means any local public agency that provides water service to all or a portion of its service area, and includes a joint powers authority formed by local public agencies that provide water service.

(h) "Recharge area" means the area that supplies water to an aquifer in a groundwater basin and includes multiple wellhead protection areas.

(i) “Watermaster” means a watermaster appointed by a court or pursuant to other provisions of law.

(j) “Wellhead protection area” means the surface and subsurface area surrounding a water well or well field that supplies a public water system through which contaminants are reasonably likely to migrate toward the water well or well field.

(Added by Stats.1992, c. 947 (A.B.3030), § 2. Amended by Stats.1993, c. 320 (A.B.1152), § 2.)

Historical and Statutory Notes

1992 Legislation

Former § 10752 was repealed by Stats.1992, c. 947 (A.B.3030), § 1. See, now, § 10753.

Derivation: Former § 10751, added by Stats.1991, c. 903 (A.B.255) § 1.

CHAPTER 3. GROUNDWATER MANAGEMENT PLANS

Chapter 3 was added by Stats.1992, c. 947 (A.B.3030), § 2.

§ 10753. Adoption or implementation of plan

(a) Any local agency, whose service area includes a groundwater basin, or a portion of a groundwater basin, that is not subject to groundwater management pursuant to other provisions of law or a court order, judgment, or decree, may, by ordinance, or by resolution if the local agency is not authorized to act by ordinance, adopt and implement a groundwater management plan pursuant to this part within all or a portion of its service area.

(b) Notwithstanding subdivision (a), a local public agency, other than an agency defined in subdivision (g) of Section 10752, that provides flood control, groundwater management, or groundwater replenishment, or a local agency formed pursuant to this code for the principal purpose of providing water service that has not yet provided that service, may exercise the authority of this part within a groundwater basin * * * that is located within its boundaries within areas that are either of the following:

(1) * * * Not served by a local agency.

(2) * * * Served by a local * * * agency * * * whose governing body, by a majority vote, declines to exercise the authority of this part and enters into an agreement with the local public agency pursuant to Section 10750.7 or 10750.8.

(Added by Stats.1992, c. 947 (A.B.3030), § 2. Amended by Stats.1993, c. 320 (A.B.1152), § 3.)

Historical and Statutory Notes

1992 Legislation

Former § 10753 was repealed by Stats.1992, c. 947 (A.B.3030), § 1. See, now, § 10753.2.

Derivation: Former § 10752, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10753.2. Hearing; notice; resolution of intention to adopt plan

(a) Prior to adopting a resolution of intention to draft a groundwater management plan, a local agency shall hold a hearing, after publication of notice pursuant to Section 6066 of the Government Code, on whether or not to adopt a resolution of intention to draft a groundwater management plan pursuant to this part for the purposes of implementing the plan and establishing a groundwater management program.

(b) At the conclusion of the hearing, the local agency may draft a resolution of intention to adopt a groundwater management plan pursuant to this part for the purposes of implementing the plan and establishing a groundwater management program.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10753, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10753.3. Publication of resolution of intention

(a) After the conclusion of the hearing, and if the local agency adopts a resolution of intention, the local agency shall publish the resolution of intention in the same manner that notice for the hearing held under Section 10753.2 was published.

(b) Upon written request, the local agency shall provide any interested person with a copy of the resolution of intention.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10754, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10753.4. Preparation of plan; adoption; expiration of resolution of intention

The local agency shall prepare a groundwater management plan within two years of the date of the adoption of the resolution of intention. If the plan is not adopted within two years, the resolution of intention expires, and no plan may be adopted except pursuant to a new resolution of intention adopted in accordance with this chapter.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

§ 10753.5. Second hearing; notice; protests to adoption of plan

(a) After a groundwater management plan is prepared, the local agency shall hold a second hearing to determine whether to adopt the plan. Notice of the hearing shall be given pursuant to Section 6066 of the Government Code. The notice shall include a summary of the plan and shall state that copies of the plan may be obtained for the cost of reproduction at the office of the local agency.

(b) At the second hearing, the local agency shall consider protests to the adoption of the plan. At any time prior to the conclusion of the second hearing, any landowner within the local agency may file a written protest or withdraw a protest previously filed.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10755, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10753.6. Written protest; contents; majority protest

(a) A written protest filed by a landowner shall include the landowner's signature and a description of the land owned sufficient to identify the land. A public agency owning land is deemed to be a landowner for the purpose of making a written protest.

(b) The secretary of the local agency shall compare the names and property descriptions on the protest against the property ownership records of the county assessors.

(c) (1) A majority protest shall be determined to exist if the governing board of the local agency finds that the protests filed and not withdrawn prior to the conclusion of the second hearing represent more than 50 percent of the assessed value of the land within the local agency subject to groundwater management pursuant to this part.

(2) If the local agency determines that a majority protest exists, the groundwater plan may not be adopted and the local agency shall not consider adopting a plan for the area proposed to be included within the program for a period of one year after the date of the second hearing.

(3) If a majority protest has not been filed, the local agency, within 35 days after the conclusion of the second hearing, may adopt the groundwater management plan.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former §§ 10756, 10757, added by Stats. 1991, c. 903 (A.B.255), § 1.

§ 10753.7. Plan components

A groundwater management plan may include components relating to all of the following:

(a) The control of saline water intrusion.

(b) Identification and management of wellhead protection areas and recharge areas.

(c) Regulation of the migration of contaminated groundwater.

(d) The administration of a well abandonment and well destruction program.

(e) Mitigation of conditions of overdraft.

(f) Replenishment of groundwater extracted by water producers.

(g) Monitoring of groundwater levels and storage.

(h) Facilitating conjunctive use operations.

(i) Identification of well construction policies.

(j) The construction and operation by the local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects.

(k) The development of relationships with state and federal regulatory agencies.

(*l*) The review of land use plans and coordination with land use planning agencies to assess activities which create a reasonable risk of groundwater contamination.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

§ 10753.8. Rules and regulations to implement and enforce plan

(a) A local agency shall adopt rules and regulations to implement and enforce a groundwater management plan adopted pursuant to this part.

(b) Nothing in this part shall be construed as authorizing the local agency to make a binding determination of the water rights of any person or entity.

(c) Nothing in this part shall be construed as authorizing the local agency to limit or suspend extractions unless the local agency has determined through study and investigation that groundwater replenishment programs or other alternative sources of water supply have proved insufficient or infeasible to lessen the demand for groundwater.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

§ 10753.9. Potential impact of rules and regulations on business activities; consideration

In adopting rules and regulations pursuant to Section 10753.8, the local agency shall consider the potential impact of those rules and regulations on business activities, including agricultural operations, and to the extent practicable and consistent with the protection of the groundwater resources, minimize any adverse impacts on those business activities.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

CHAPTER 4

FINANCES

Chapter 4 was added by Stats.1992, c. 947 (A.B.3030), § 2.

§ 10754. Local agencies; water replenishment district powers; fees and assessments

For purposes of groundwater management, a local agency that adopts a groundwater management plan pursuant to this part has the authority of a water replenishment district pursuant to Part 4 (commencing with Section 60220) of Division 18 and may fix and collect fees and assessments for groundwater management in accordance with Part 6 (commencing with Section 60300) of Division 18.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

1992 Legislation

Former § 10754 was repealed by Stats.1992, c. 947 (A.B.3030), § 1. See, now, § 10753.3.

Derivation: Former §§ 10759, 10760 added by Stats. 1991, c. 903 (A.B.255), § 1.

§ 10754.2. Annual fees and assessments based on amount of groundwater extracted; payment of costs; remediation program excluded

(a) Subject to Section 10754.3, except as specified in subdivision (b), a local agency that adopts a groundwater management plan pursuant to this part, may impose equitable annual fees and assessments for groundwater management based on the amount of groundwater extracted from the groundwater basin within the area included in the groundwater management plan to pay for costs incurred by the local agency for groundwater management, including, but not limited to, the costs associated with the acquisition of replenishment water, administrative and operating costs, and costs of construction of capital facilities necessary to implement the groundwater management plan.

(b) The local agency may not impose fees or assessments on the extraction and replacement of groundwater pursuant to a groundwater remediation program required by other provisions of law or a groundwater storage contract with the local agency.

(Added by Stats.1992, c. 947 (A.B.3030), § 2. Amended by Stats.1993, c. 320 (A.B.1152), § 4.)

Historical and Statutory Notes

Derivation: Former §§ 10759, 10760 added by Stats. 1991, c. 903 (A.B.255), § 1.

§ 10754.3. Elections to authorize assessments or fees

Before a local agency may levy a water management assessment pursuant to Section 10754.2 or otherwise fix and collect fees for the replenishment or extraction of groundwater pursuant to this part, the local agency shall hold an election on the proposition of whether or not the local agency shall be authorized to levy a groundwater management assessment or fix and collect fees for the replenishment or extraction of groundwater. The local agency shall be so authorized if a majority of the votes cast at the election is in favor of the proposition. The election shall be conducted in the manner prescribed by the laws applicable to the local agency or, if there are no laws so applicable, then as prescribed by laws relating to local elections. The election shall be conducted only within the portion of the jurisdiction of the local agency subject to groundwater management pursuant to this part.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

Derivation: Former § 10761, added by Stats.1991, c. 903 (A.B.255), § 1.

CHAPTER 5

MISCELLANEOUS

Chapter 5 was added by Stats.1992, c. 947 (A.B.3030), § 2.

§ 10755. Annexed land; compliance with plan

(a) If a local agency annexes land subject to a groundwater management plan adopted pursuant to this part, the local agency annexing the land shall comply with the groundwater management plan for the annexed property.

(b) If a local agency subject to a groundwater management plan adopted pursuant to this part ann land not subject to a groundwater management plan adopted pursuant to this part at the time of annexation, the annexed territory shall be subject to the groundwater management plan of the local agency annexing the land.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

Historical and Statutory Notes

1992 Legislation

Former § 10755 was repealed by Stats.1992, c. 947 (A.B.3030), § 1. See, now, § 10753.5.

Derivation: Former § 10764, added by Stats.1991, c. 903 (A.B.255), § 1.

§ 10755.2. Coordinated plans for local agencies within same groundwater basin; joint powers agreements; agreements with public entities or private parties

(a) It is the intent of the Legislature to encourage local agencies, within the same groundwater basin, that are authorized to adopt groundwater management plans pursuant to this part, to adopt and implement a coordinated groundwater management plan.

(b) For the purpose of adopting and implementing a coordinated groundwater management program pursuant to this part, a local agency may enter into a joint powers agreement pursuant to Chapter 5 (commencing with Section 6500) of Division 7 of Title 1 of the Government Code with public agencies, or a memorandum of understanding with public or private entities providing water service.

(c) A local agency may enter into agreements with public entities or private parties for the purpose of implementing a coordinated groundwater management plan.

(Added by Stats.1992, c. 947 (A.B.3030), § 2. Amended by Stats.1993, c. 320 (A.B.1152), §5.)

Historical and Statutory Notes

Derivation: Former §§ 10758, 10763 added by Stats. 1991, c. 903 (A.B.255), § 1.

§ 10755.3. Meetings to coordinate plans

Local agencies within the same groundwater basin that conduct groundwater management programs within that basin pursuant to this part shall, at least annually, meet to coordinate those programs.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

§ 10755.4. Limitation on application of part

Except in those groundwater basins that are subject to critical conditions of groundwater overdraft, as identified in the department's Bulletin 118–80, revised on December 24, 1982, the requirements of a groundwater management plan that is implemented pursuant to this part do not apply to the extraction of groundwater by means of a groundwater extraction facility that is used to provide water for domestic purposes to a single-unit residence and, if applicable, any dwelling unit authorized to be constructed pursuant to Section 65852.1 or 65852.2 of the Government Code.

(Added by Stats.1992, c. 947 (A.B.3030), § 2.)

§§ 10756 to 10767. Repealed by Stats.1992, c. 947 (A.B.3030), § 1

Historical and Statutory Notes

Sections 10756 and 10757, see, now, § 10753.6.

Section 10758, see, now, § 10755.2.

Sections 10759 and 10760, see, now, §§ 10754 and 10754.2.

Section 10761, see, now, § 10754.3.

Section 10762, see, now, §§ 10750.7 and 10750.8.

Section 10763, see, now, § 10755.2.

Section 10764, see, now, § 10755.

Section 10766, see, now, § 10750.10.

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Proposed Regulation: Title 22, California Code of Regulations
Division 4. Environmental Health, Chapter 3 Reclamation Criteria

PROPOSED REGULATION:

Title 22, CALIFORNIA CODE OF REGULATIONS

DIVISION 4. ENVIRONMENTAL HEALTH

CHAPTER 3. RECLAMATION CRITERIA

ARTICLE 1. DEFINITIONS

Section 60301. Definitions.

(a) **Reclaimed Water.** Reclaimed water means water which, as a result of treatment of domestic wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur.

(b) **Reclamation Plant.** Reclamation plant means an arrangement of devices, structures, equipment, processes and controls which produce a reclaimed water suitable for the intended reuse.

(c) **Regulatory Agency.** Regulatory agency means the California Regional Water Quality Control Board in whose jurisdiction the reclamation plant is located.

(d) **Direct Beneficial Use.** Direct beneficial use means the use of reclaimed water which has been transported from the point of production to the point of use without an intervening discharge to waters of the State.

(e) **Food Crops.** Food crops mean any crops intended for human consumption.

(f) **Spray Irrigation.** Spray irrigation means application of reclaimed water to crops by spraying it from orifices in piping.

(g) **Surface Irrigation.** Surface irrigation means application of reclaimed water by means other than spraying such that contact between the edible portion of any food crop and reclaimed water is prevented.

(h) **Restricted Recreational Impoundment.** A restricted recreational impoundment is a body of reclaimed water in which recreation is limited to fishing, boating, and other non-body-contact water recreation activities.

(i) **Nonrestricted Recreational Impoundment.** A nonrestricted recreational impoundment is an impoundment of reclaimed water in which no limitations are imposed on body-contact water sport activities.

(j) **Landscape Impoundment.** A landscape impoundment is a body of reclaimed water which is used for aesthetic enjoyment or which otherwise serves a function not intended to include public contact.

(k) **Approved Laboratory Methods.** Approved laboratory methods are those specified in the latest edition of "Standard Methods for the Examination of Water and Wastewater," prepared and published jointly by the American Public Health Association, the American Water Works Association, and the Water Pollution Control

Federation and which are conducted in laboratories approved by the State Department of Health.

(l) **Unit Process.** Unit process means an individual stage in the wastewater treatment sequence which performs a major single treatment.

(m) **Primary Effluent.** Primary effluent is the effluent from a wastewater treatment process which provides removal of sewage solids so that it contains not more than 0.5 milliliter per liter per hour of settleable solids as determined by an approved laboratory method.

(n) **Oxidized Wastewater.** Oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

(o) **Biological Treatment.** Biological treatment means methods of wastewater treatment in which bacterial or biochemical action is intensified as a means of producing an oxidized wastewater.

(p) **Secondary Sedimentation.** Secondary sedimentation means the removal by gravity of settleable solids remaining in the effluent after the biological treatment process.

(q) **Coagulated Wastewater.** Coagulated wastewater means oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

(r) **Filtered Wastewater.** Filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

(s) **Disinfected Wastewater.** Disinfected wastewater means wastewater in which the pathogenic organisms have been destroyed by chemical, physical or biological means.

(t) **Multiple Units.** Multiple units means two or more units of a treatment process which operate in parallel and serve the same function.

(u) **Standby Unit Process.** A standby unit process is an alternate unit process or an equivalent alternative process which is maintained in operable condition and which is capable of providing comparable treatment for the entire design flow of the unit for which it is a substitute.

(v) **Power Source.** Power source means a source of supplying energy to operate unit processes.

(w) **Standby Power Source.** Standby power source means an automatically actuated self-starting alternate energy source maintained in immediately operable condition and of sufficient capacity to provide necessary service during failure of the normal power supply.

(x) **Standby Replacement Equipment.** Standby replacement equipment means reserve parts and equipment to replace broken-down or worn-out units which can be placed in operation within a 24-hour period.

(y) **Standby Chlorinator.** A standby chlorinator means a duplicate chlorinator for reclamation plants having one chlorinator and a duplicate of the largest unit for plants having multiple chlorinator units.

(z) **Multiple Point Chlorination.** Multiple point chlorination means that chlorine will be applied simultaneously at the reclamation plant and at subsequent chlorination stations located at the use area and/or some intermediate point. It does not include chlorine application for odor control purposes.

(aa) **Alarm.** Alarm means an instrument or device which continuously monitors a specific function of a treatment process and automatically gives warning of an unsafe or undesirable condition by means of visual and audible signals.

(bb) **Person.** Person also includes any private entity, city, county, district, the State or any department or agency thereof.

(cc) **Direct Injection.** The controlled subsurface addition of water directly into the groundwater basin that results in the replenishment of groundwater used or suitable for use as a source of domestic water supply.

(dd) **General Mineral.** Water analyses for bicarbonate, carbonate, and hydroxide alkalinity, calcium, chloride, copper, foaming agents, iron, magnesium, manganese, pH, sodium, sulfate, specific conductance, total dissolved solids, total hardness, and zinc.

(ee) **General Physical.** Water analyses for color and odor.

(ff) **Initial Percolative Capacity.** The rate (unit volume per unit area per unit time or unit length per unit time) at which water moves through the soil prior to recharge conditions.

(gg) **Organics Removal.** Granular activated carbon adsorption or reverse osmosis treatment designed to remove organic compounds from the reclaimed water.

(hh) **Planned Groundwater Recharge Project.** Any water reclamation project designed for the purpose of recharging groundwater suitable for use as a source of domestic water supply.

(ii) **Project Category I.** A surface spreading recharge project which uses reclaimed water that has been oxidized, filtered, disinfected, and subjected to organics removal.

(jj) **Project Category II.** A surface spreading recharge project which uses reclaimed water that has been oxidized, filtered, and disinfected.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

(kk) **Project Category III.** A surface spreading recharge project which uses reclaimed water that has been oxidized and disinfected.

(ll) **Project Category IV.** A direct injection recharge project which uses reclaimed water that has been oxidized, filtered, disinfected, and subjected to organics removal.

(mm) **Project Sponsor.** An agency or agencies that receives from a Regional Water Quality Control Board water reclamation requirements for a planned groundwater recharge project.

(nn) **Surface Spreading.** The controlled application of water to the ground surface for the purpose of replenishing groundwater used or suitable for use as a source of domestic water supply.

(oo) **Total Organic Carbon (TOC).** The oxidizable organic carbon present in the reclaimed water measured by the methods prepared and published jointly by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation in Section 5310 of the 17th edition of Standard Methods for the Examination of Water and Wastewater and which are conducted in laboratories approved by the State Department of Health Services.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

ARTICLE 5.1. GROUNDWATER RECHARGE

~~Section 60320. Groundwater Recharge.~~

~~(a) Reclaimed water used for groundwater recharge of domestic water supply aquifers by surface spreading shall be at all times of a quality that fully protects public health. The State Department of Health Services' recommendations to the Regional Water Quality Control Boards for proposed groundwater recharge projects and for expansion of existing projects will be made on an individual case basis where the use of reclaimed water involves a potential risk to public health.~~

~~(b) The State Department of Health Services' recommendations will be based on all relevant aspects of each project, including the following factors: treatment provided; effluent quality and quantity; spreading area operations; soil characteristics; hydrogeology; residence time; and distance to withdrawal.~~

~~(c) The State Department of Health Services will hold a public hearing prior to making the final determination regarding the public health aspects of each groundwater recharge project. Final recommendations will be submitted to the Regional Water Quality Control Board in an expeditious manner.~~

Section 60320.01. Planned Groundwater Recharge Projects.

(a) This article shall apply only to planned groundwater recharge projects using reclaimed water. The creation or operation of recharge facilities to cause the infiltration or injection of reclaimed water into a groundwater basin is evidence of a planned groundwater recharge project.

(b) A wastewater disposal project which is not designed for groundwater recharge, but which incidentally results in portions of the treated wastewater reaching groundwater or discharging to an ephemeral stream, is not covered by this article.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.02. Source Control.

All reclaimed water used for planned groundwater recharge projects shall be from a wastewater collection system operating under a comprehensive program for the control of discharge of toxic wastes from point sources, which is approved by the Regional Water Quality Control Board.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.03. Treatment Requirements and Performance Standards.

(a) Reclaimed water used for planned groundwater recharge projects shall comply with the following treatment requirements and treatment performance standards. Monitoring requirements and the basis for determining compliance with treatment performance standards are specified in Section 60320.06.

(1) Oxidized Wastewater.

Oxidized wastewater is required for all project categories. The oxidized wastewater prior to recharge shall not exceed 20 milligrams per liter (mg/L) total organic carbon (TOC), 30 mg/L suspended solids (SS), and 30 mg/L biochemical oxygen demand (BOD).

(2) Filtered Wastewater.

(A) Filtered wastewater is required for project categories I, II, and IV.

(B) The turbidity of the filtered wastewater prior to recharge shall not exceed an average of 2 turbidity units.

(C) The turbidity of the filtered wastewater prior to recharge shall not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

(3) Disinfected Wastewater.

(A) Disinfected wastewater is required for all project categories.

(B) For project categories I, II, and IV, the median number of total coliform organisms in the disinfected wastewater shall not exceed 2.2 per 100 milliliters (mL). The number of total coliform organisms shall not exceed 23 per 100 mL in more than one sample within any 30-day period.

(C) For project category III, the median number of total coliform organisms in the disinfected wastewater shall not exceed 23 per 100 mL. The number of total coliform organisms shall not exceed 240 per 100 mL in more than one sample within any 30-day period.

(4) Organics Removal.

Reclaimed water used for project categories I and IV shall be subjected to organics removal. The TOC in the wastewater prior to recharge shall be reduced to the concentration specified in Table 1 as identified by the reclaimed water contribution to any affected domestic water supply well and by project category. The entire reclaimed water stream used for project category IV shall be subjected to organics removal.

Table 1. Maximum Allowable TOC after Organics Removal

Reclaimed Water Contribution (%)	Maximum TOC (mg/L)	
	Surface Spreading (Category I)	Direct Injection (Category IV)
0-20	20	5
21-25	16	4
26-30	12	3
31-35	10	3
36-45	8	2
46-50	6	2

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.04. Reclaimed Water Quality Requirements.

(a) The level of general physical characteristics, radioactivity, and the concentration of general mineral, inorganic chemicals (except nitrogen compounds), and organic chemicals in the reclaimed water prior to recharge shall not exceed the maximum contaminant levels specified in Chapter 15, Sections 64435, 64443, 64444.5, and 64473.

(b) The total nitrogen concentration of the reclaimed water shall not exceed a standard of 10 mg/L as nitrogen unless the project sponsor demonstrates that the standard can be consistently met prior to reaching the groundwater level.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.05. Recharge Site Requirements.

(a) Maximum Reclaimed Water Contribution.

(1) For project categories II and III, all the water of reclaimed water origin extracted from any domestic water supply well shall not exceed 20 percent of the total flow.

(2) For project categories I and IV, all the water of reclaimed water origin extracted from any domestic water supply well shall not exceed 50 percent of the total flow.

(3) Calculation of the percent in section 60320.05(a)(1 and 2) shall be based upon the reclaimed water contribution of all planned groundwater recharge projects affecting the basin.

(b) Minimum Depth-To-Groundwater Requirement.

(1) Planned groundwater recharge projects using surface spreading shall meet the minimum depth-to-groundwater requirements specified in Table 2 by project category and initial percolative capacity.

(2) Planned groundwater recharge projects shall not be allowed where the initial percolative capacity exceeds 0.3 in/min.

(3) The initial percolative capacity shall be determined once by representative testing of the spreading area prior to the start of groundwater recharge and shall reflect conditions throughout the required depth to groundwater. The testing procedure and results shall be described in the engineering report submitted pursuant to Section 60320.07.

(A) For existing surface spreading basins using reclaimed water or other waters, the initial percolative capacity shall be determined at least 14 days after the basins which make up a spreading area have been drained and at least 24 hours after pre-recharge conditions have been restored in the bottom of the basin.

(B) For proposed surface spreading basins, the initial percolative capacity shall be determined in a prototype basin or basins.

Table 2. Minimum Required Depth-to-Groundwater for Surface Spreading Groundwater Recharge Projects

	Minimum Depth-to-Groundwater (ft)		
Initial Percolative Capacity (in/min)	Project Category		
	I	II	III
<0.2	10	10	20
<0.3	20	20	50

(c) Minimum Retention Time Underground and Horizontal Separation Requirements.

(1) Reclaimed water shall be retained underground a minimum of 6 months prior to being withdrawn at a domestic water supply well for project categories I and II.

(2) Reclaimed water shall be retained underground a minimum of 12 months prior to being withdrawn at a domestic water supply well for project categories III and IV.

(3) The minimum horizontal separation between an area where reclaimed water is applied by surface spreading and a domestic

water supply well shall be 500 feet for project categories I and II.

(4) The minimum horizontal separation between an area where reclaimed water is applied by surface spreading and a domestic water supply well shall be 1000 feet for project category III.

(5) The minimum horizontal separation between the point where reclaimed water is applied by direct injection and a domestic water supply well shall be 2000 feet for project category IV.

(6) The project sponsor shall prevent the use of groundwater for drinking water within the area required to achieve the minimum retention time and minimum horizontal separation pursuant to Section 60320.05 (c)(1-5).

(d) Monitoring Wells.

Monitoring wells shall be provided to detect the influence of the recharge operation. As a minimum, monitoring wells shall be located at points one-quarter and one-half of the distance (plus or minus 10%) from the recharge area to the nearest domestic water supply well. The number and location of the proposed monitoring wells shall be described in the engineering report submitted pursuant to Section 60320.07.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.06. Monitoring and Compliance.

(a) Treatment Performance Standards.

(1) **Oxidized Wastewater.** For all project categories, the BOD, SS, and TOC concentration of the oxidized wastewater shall be determined from 24-hour composite samples. Compliance with Section 60320.03(a)(1) shall be determined monthly for each constituent by averaging the results of all samples collected during the month and comparing the average to the standard in Section 60320.03(a)(1).

(A) The BOD samples for all project categories shall be collected at least weekly.

(B) The SS samples for all project categories shall be collected at least daily.

(C) The TOC samples for project categories II and III shall be collected at least daily.

(D) The TOC samples for project categories I and IV shall be collected at least weekly.

(2) **Filtered Wastewater.** For project categories I, II, and IV, the turbidity of the filtered wastewater shall be continuously measured and recorded.

(A) Turbidity measurements shall be read at least once every 4 hours. Compliance with the average operating turbidity pursuant to Section 60320.03(a)(2)(B) shall be determined monthly by averaging the results of all turbidity samples read during the month and comparing the average to the turbidity standard in Section 60320.03(a)(2)(B).

(B) The turbidity record shall be read daily. Compliance with the high turbidity duration standard pursuant to Section 60320.03(a)(2)(C) shall be determined monthly by determining the highest percent of a day during the month that the filtered wastewater exceeded 5 turbidity units and comparing that percent to the standard in Section 60320.03(a)(2)(C).

(3) **Disinfected Wastewater.** For all project categories, bacteriological samples shall be collected and tested for coliform to monitor the performance of the disinfection process each day reclaimed water is produced for planned groundwater recharge projects. Compliance with the disinfected wastewater requirements pursuant to Section 60320.03(a)(3) shall be determined daily by determining the median coliform result of the last 7 days for which analyses have been completed and comparing that median to the appropriate coliform standard in Section 60320.03(a)(3).

(4) **Organics Removal.** For project categories I and IV the TOC concentration in the wastewater after the organics removal process shall be determined daily from 24-hour composite samples. Compliance with the organics removal requirement pursuant to Section 60320.03(a)(4) shall be determined daily

by averaging daily TOC concentrations for the last 90 days of operation and comparing that average to the appropriate maximum TOC concentration in Section 60320.03(a)(4).

(b) Reclaimed Water Quality.

(1) On a quarterly basis, grab or 24-hour composite samples of reclaimed water shall be collected and analyzed for the general mineral and general physical constituents listed in subsections 64433(1) and (2), for the inorganic chemicals (except nitrogen compounds) listed in Section 64435 (Table 2), and for gross alpha and gross beta. Compliance with Section 60320.04(a) shall be determined annually by averaging the results of all samples collected during the previous 12 months and comparing the average to the standards in Section 64473 (Table 6), Section 64435 (Table 2), and Section 64443 (Table 4).

(2) On a quarterly basis, grab samples of reclaimed water shall be collected and analyzed for the organic chemicals in Table 5, Section 64444.5. Compliance with Section 60320.04(a) shall be determined annually by averaging the results of all samples collected during the previous 12 months and comparing the average to the standards in Section 64444.5 (Table 5).

(3) On a weekly basis, grab or 24-hour composite samples shall be collected and analyzed for total nitrogen. Compliance with Section 60320.04(b) shall be determined annually by averaging the results of all samples collected

during the previous 12 months and comparing the average to the total nitrogen standard in Section 60320.04(b).

(c) Recharge Site Requirements.

(1) Maximum Reclaimed Water Contribution.

(A) The reclaimed water contribution, pursuant to Sections 60320.03(a)(4) and 60320.05(a), shall be determined annually and at the domestic water supply well which receives the highest percentage of reclaimed water. The method used for the annual determination shall be described in the engineering report pursuant to Section 60320.07. Compliance with the maximum reclaimed water contribution shall be determined by averaging the last five annual determinations of reclaimed water contribution and comparing that average to the appropriate maximum percent contribution in Section 60320.05(a).

(B) The project sponsor shall demonstrate and document, once every five years, in a complete engineering report to the Regional Water Quality Control Board and the Department of Health Services that the maximum reclaimed water contribution pursuant to Section 60320.05(a) will not be exceeded.

(2) Minimum Depth-to-Groundwater Requirement.

(A) The depth-to-groundwater shall be measured every day reclaimed water is present in the spreading basin.

Compliance with Section 60320.05(b) shall be determined daily by averaging the previous 30 daily depth-to-groundwater measurements taken when reclaimed water was present in the spreading basin and comparing the result to the appropriate standard in Table 2.

(B) When the average depth-to-groundwater is less than the depth-to-groundwater requirement pursuant to Section 60320.05(b), the discharge of reclaimed water onto the spreading basin shall be halted until the depth-to-groundwater measurement exceeds the required depth-to-groundwater pursuant to Section 60320.05(b).

(C) The depth-to-groundwater shall be measured at at least one monitoring well located at each spreading basin. The location of this well shall be specified in the engineering report pursuant to Section 60320.07. The monitoring well shall be sited so that the groundwater level is measured at a point where it is closest to the bottom of the spreading basin.

(3) Minimum Retention Time Underground and Horizontal Separation Requirements.

(A) The retention time underground, pursuant to Section 60320.05(c), shall be determined annually and at the domestic water supply well in which the reclaimed water has the shortest retention time underground. The method used for the annual determination shall be described in the engineering report pursuant to Section 60320.07. Compliance with the minimum retention time underground shall be determined by averaging the last five annual determinations of retention time and comparing that average to the appropriate retention time in Section 60320.05(c).

(B) The project sponsor shall demonstrate and document, once every five years, in a complete engineering report to the Regional Water Quality Control Board and Department of Health Services that the minimum retention time underground pursuant to Section 60320.05(c) will not be exceeded.

(C) Compliance with the horizontal separation requirement pursuant to Section 60320.05(c) for surface spreading and direct injection projects shall be determined by taking field measurements of the shortest distance between a point of recharge and a domestic water supply well. In no case shall the distance be less than the horizontal separation requirement pursuant to Section 60320.05(c).

(d) Monitoring Well Requirements.

Samples shall be collected from monitoring wells at least quarterly and analyzed for TOC and total nitrogen.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.07. Engineering Report.

(a) Any project sponsor proposing a groundwater recharge project using reclaimed water shall submit an engineering report on the proposed groundwater recharge project to the regulatory agency. The report shall be prepared by an engineer registered in California and experienced in the fields of wastewater treatment and public water supply, in conjunction with a geologist, experienced in hydrogeology and registered in California.

(b) Groundwater recharge projects not in operation by January 1, 1993, shall not recharge reclaimed water until the project sponsor submits a complete engineering report to the Regional Water Quality Control Board and the Department of Health Services. For direct injection projects, the Department will not schedule a hearing pursuant to section 13540, Article 6, until a complete engineering report has been received by the Department.

(c) For existing groundwater recharge projects, project sponsors have five years from January 1, 1993 to submit a completed engineering report to the Regional Water Quality control Boards and Department of Health Services.

(d) For existing and proposed groundwater recharge projects, the engineering report shall consist of a thorough investigation and evaluation of the groundwater recharge project, impacts on the existing and potential uses of the impacted groundwater basin, and proposed means for achieving compliance with Sections

60320.01 to 60320.06. The engineering report shall include, but not be limited to the following:

(1) An engineering plan of the reclamation plant, transmission facilities, spreading basins/direct injections wells, and monitoring wells.

(2) A physical description of the proposed groundwater recharge project.

(3) A hydrogeologic study on the impacted groundwater basin. The study shall describe the impact of the recharge project on domestic groundwater sources. The study shall describe the source, area of recharge, quantity, quality, and groundwater flow patterns of all basin recharge waters. The study shall identify all quantities and sources of water used to determine the percent reclaimed water contribution. The study shall identify the aquifer zone in which the maximum allowed reclaimed water contribution is not met pursuant to Section 60320.05(a). The study shall identify the aquifer zone in which the provided organics removal is not sufficient for the reclaimed water contribution to the groundwater pursuant to Section 60320.03(a)(4). The study shall identify all wells that will be impacted by the proposed project and describe the groundwater quality in the impacted basin. The study shall identify the well(s) subject to the highest reclaimed water contribution and shortest reclaimed water retention time. The study shall also include quantitative

descriptions of the soil, soil layers, infiltration rates, aquifer transmissivity, groundwater movement, historic depth-to-groundwater, safe yield of the basin, and usable storage capacity of the basin.

(4) A description of the operational and management personnel, their qualifications, experience, and responsibilities.

(5) A description of how the project will be operated to comply with the recharge site requirements of maximum reclaimed water contribution, minimum depth-to-groundwater, horizontal separation, and retention time underground pursuant to Section 60320.05 (b and c).

(6) Identification of the agency responsible for preventing the use of groundwater for drinking water within certain areas pursuant to Section 60320.05 (c)(6), and the mechanism that will be used.

(7) A contingency plan for redirection of reclaimed water when treatment performance standards or depth-to-groundwater requirements are not met.

(8) A description of the methods of determination and results for initial percolative capacity, maximum reclaimed water contribution, minimum retention time underground, and horizontal separation.

(9) The number and location of monitoring wells in the spreading basin and groundwater basin.

(10) A plan for the monitoring well network to monitor groundwater flow and water quality in the impacted groundwater basin.

(11) A water quality monitoring plan for the treated wastewater, reclaimed water, and monitoring wells.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.08. Alternatives.

(a) Alternatives to the recharge site requirements specified in Section 60320.05 (b) and (c) (2, 4, and 5), or the treatment performance standards specified in Section 60320.03 (a)(1 to 4) may be allowed if the project sponsor demonstrates to the regulating agency that the proposed alternative reliably achieves an equal degree of public health protection. Alternatives may not be used to reduce the retention time below 6 months in Section 60320.05 (c)(2) or the horizontal separation below 500 feet in Section 60320.05 (c)(4 and 5). Alternatives to Sections 60320.01 to 60320.07, inclusive, shall not be allowed, unless the planned groundwater recharge projects meet the requirements of Section 60320.08 (b to e) or 60320.09

(b) Alternatives to achieve a disinfected and filtered wastewater pursuant to Section 60320.03(a)(2) and (a)(3)(B and C) shall be accepted if the project sponsor demonstrates to the regulating agency that the alternatives reliably provide an equal degree of public health protection. Such a demonstration shall be based on the results from a prior equivalency demonstration, pilot-plant testing, or full-scale testing on an installation that is treating a wastewater with similar flow and wastewater quality characteristics as the wastewater proposed for treatment.

(c) Alternatives to the granular activated carbon or reverse osmosis treatment processes shall be accepted if the project sponsor demonstrates to the regulating agency that the organics removal treatment performance standards pursuant to Section 60320.03 (4) can be reliably met. Such a demonstration shall be based on the results from a prior equivalency demonstration, pilot-plant testing, or full-scale testing on an installation that is treating a wastewater with similar flow and wastewater quality characteristics as the wastewater proposed for treatment.

(d) The results of any alternative demonstration shall be presented in a complete report prepared and signed by an engineer registered in California and experienced in the fields of wastewater treatment and public water supply. Such alternatives shall not be accepted until the Regional Water Quality Control Boards and the Department of Health Services have reviewed the reports.

(e) Within 60 days following the first full year of operation of any alternative approved by the regulating agency, the project sponsor shall submit an report, prepared by an engineer registered in California and experienced in the fields of wastewater treatment and public water supply, describing the effectiveness of the plant operation. The report shall include results of all water quality tests performed and shall evaluate compliance with established performance standards under actual operating conditions. It shall also include an assessment of problems experienced, corrective actions needed, and a schedule for providing needed improvements.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

Section 60320.09. Research and Demonstration Projects.

The maximum percentage reclaimed water contribution in the total flow extracted from any domestic water supply well pursuant to Section 60320.05(a)(2) shall not apply to a project which the Department has designated as a research and demonstration project for the purpose of conducting special monitoring, treatment, health effects, or other research studies.

NOTE: Authority cited: Section 208, Health and Safety Code and Section 13521, Water Code. Reference: Section 13520, Water Code.

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Drinking Water Standards and Health Advisories Table

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

DRINKING WATER STANDARDS AND HEALTH ADVISORIES TABLE

DECEMBER 1993

DRINKING WATER AND GROUNDWATER PROTECTION BRANCH

Contact: Bruce Macler, Regional Toxicologist, (415) 744-1884

REGION 9 DRINKING WATER STANDARDS AND HEALTH ADVISORIES TABLE

The USEPA Region 9 Drinking Water Standards and Health Advisories Table is a compendium of numerical standards, advisories and related information for chemicals and other contaminants which may be found in ground and surface waters. It provides a comprehensive listing of all current and proposed National Primary Drinking Water Regulations (NPDWRs), specific Maximum Contaminant Levels (MCLs) for California, Arizona and Hawaii, and California Drinking Water Action Levels. Where available, it includes USEPA Integrated Risk Information System (IRIS) cancer risk levels and oral reference dose (RfD) values, and USEPA Office of Ground Water and Drinking Water (OGWDW) Health Advisories for drinking water contaminants.

In order to make this table a manageable size, very few explanations or caveats for the values are included in the body of the table. Because of this, and the fact that background documentation and understanding of the derivation of specific values are critical to the proper use of this information, this table should not be used as a sole source of information for decision making. While the Appendix contains brief explanations of the different standards, criteria and advisories, consideration must be given to the context in which these numbers will be used. The appropriate reference materials should be consulted to determine the applicability of the number being considered. Some references are listed in the Appendix.

The values in this table are current to the publication date, but are subject to change. The user is advised to contact Bruce Macler, Regional Toxicologist, USEPA Region 9, at (415) 744-1884, if questions arise regarding current values.

INFORMATION IN THIS TABLE

The information for specific contaminants in this table is arranged by contaminant type. Inorganic chemicals are listed first, followed by radionuclides, organic chemicals, microbial contaminants and water quality factors.

For each contaminant, any applicable or proposed USEPA National Primary Drinking Water Regulation is listed. These include the enforceable **Maximum Contaminant Levels (MCLs)**, the health-based **Maximum Contaminant Level Goals (MCLGs)**, and the aesthetics-based **Secondary MCLs**. A given contaminant may have both a MCL and a Secondary MCL, as well as a MCLG. The regulatory status of these values is indicated. **Proposed MCLs or MCLGs** have been formally proposed by USEPA, but not promulgated. **Final MCLs or MCLGs** have been promulgated, but are not yet effective as of the publication date. The effective date, if available, is indicated. **Current MCLs or MCLGs** are in effect.

In addition to regulatory information, health risk information is provided in the table. Data from IRIS for cancer and non-cancer health effects associated with drinking water contaminants is listed. The **RfD** is the daily oral intake (on a body weight basis) that is below the level USEPA believes to be without adverse, non-cancer health risks (i.e., zero risk). The IRIS **10^{-6} risk level** is that contaminant concentration (in ug/liter) in drinking water that might yield no greater than an additional risk of one-in-a-million (10^{-6}) after a lifetime of drinking that water. The USEPA OGWDW Health Advisories provide information on acceptably safe levels of exposures to contaminants in drinking water. The **Acute 10-day** values apply specifically to acute toxic effects on children, but should be protective for adults. The **chronic (lifetime)** values for non-cancer health effects should be protective of health even with a lifetime exposure. In most cases, this value will be the same as the MCLG, if one has been established. The chronic (lifetime) values for cancer are set at a level that should yield no greater than an additional 10^{-6} risk over a lifetime exposure. EPA **cancer weight of evidence** determinations are listed to provide additional information on EPA's judgement of carcinogenicity for each chemical. The weight of evidence classifications are as follows:

A	known human carcinogen
B1	probable human carcinogen based on human data
B2	probable human carcinogen based on animal data
C	possible human carcinogen based on animal data
D	insufficient data to classify chemical
E	not a human carcinogen

APPLICABILITY AND USES OF THIS TABLE

The different types of standards and advisories contained in this table are based upon approaches and assumptions that are specific to each and consequently may have varying applications depending on their derivation. Use of specific types of information should be guided by the relevant legal requirements and an understanding of the meaning of the information itself.

MCLs and treatment techniques are the only federally enforceable NPDWRs. They are set to be health protective as well as feasible. More stringent state-specific MCLs are enforceable in the indicated state. MCLGs are not enforceable, but provide health-based guidance for decision making. MCLGs for chemicals causing non-carcinogenic health effects are based on the RfD and set at a level believed to be safe. MCLGs for chemicals believed to be carcinogens are set at zero, from the perspective that no level of carcinogen is safe. Feasibility is not considered in setting MCLGs. Secondary MCLs are not enforceable, but provide information on aesthetics and palatability.

Health advisories and criteria are not formally promulgated in regulations and are subject to change as new data and analyses become available. MCLGs, values in IRIS and health advisories are developed by different offices and on different schedules. Therefore, values for similar effects from a given chemical may not be consistent throughout the table. The derivations of MCLGs and chronic (lifetime) health advisories for non-carcinogenic chemicals are based on the same assumptions regarding endpoints of toxicity. In theory, the MCLG and lifetime health advisory should be the same for a specific contaminant. Slight differences in the table are due to rounding of numbers.

When considering a value to use for determining an acceptable level of contaminant in drinking water, the MCL should be selected first. In the absence of existing or proposed MCLs, users may have to decide which criteria are most appropriate. USEPA recommends a priority ranking to first consider any proposed MCLG (if other than zero), followed by the IRIS RfD or cancer risk level, and finally the chronic health advisory values.

Under the **Superfund Program**, remdial actions must comply with the **Applicable or Relevant and Appropriate Requirements (ARARs)**. For actions involving contamination of drinking water supplies, the ARARs under the Safe Drinking Water Act are the MCLs. Where there are no MCLs, or where the MCLs are determined to be insufficiently protective because of multiple contaminants, reference should be made to Superfund guidance documents to determine clean-up policy. For remedial actions impacting aquatic organisms and waters regulated under the Clean Water Act, consult the National Ambient Water Quality Criteria (NAWQC).

SYMBOLS USED IN THE TABLE

mg/l = milligrams per liter, equivalent to parts per million (ppm)
ug/l = micrograms per liter, equivalent to parts per billion (ppb)

Note: values in table are in ug/l unless otherwise stated

IRIS = USEPA Integrated Risk Information System
RfD = Reference dose for daily oral ingestion in micrograms per kilogram body weight per day (ug/kg-d)
10^{-6} = one in a million excess lifetime cancer risk
TT = treatment technique, set in lieu of numeric MCL
+ = value from USEPA Final Draft Health Advisory
td = temperature dependent value
LOQ = Limit of quantification
T&O = taste and odor refers to a value based upon organoleptic data for controlling undersirable taste and odor qualities

INORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
Aluminum	Secondry	50-200								1000		
Ammonia							30,000		D			
Antimony	Current	6	6	0.4		15	3		D			
Arsenic	Current	50		0.3	0.02			0.02	A	50		50
Asbestos	Current	7E+6 long fi	7E+6 bers						A			
Barium	Current	2,000	2,000	70			2,000+		D	1,000		1000
Beryllium	Current	4	4	5	.008	30,000		0.008	B2			
Boron				90		900	600		D			
admium	Current	5	5	.5		40+	5+		D	10		10
Chloramine				100		1000	2600		D			
Chlorate									D			
Chloride	Secondry	250ppm										
Chlorine									D			
Chlorine Dioxide				3			80		D			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.

INORGANIC		EPA		IRIS		Health Advisories			Wt. of Evid.	California		Arizon MCL
Chemicals	Standard	MCL	MCLG	RfD µg/kg-d	10^{-6} Risk	Acute 10 Day	Chronic(lifetime) Non-Cancer	Chronic(lifetime) Cancer		MCL	Action Level	
Chlorite												
Chromium(Total)	Current	100	100	5		1,000+	100+		D	50		50
Copper	Current Secondry	TT## 1,000	1,300						D			
Cyanide	Current	200	200	22		200+	200+		D			
Fluoride	Current Proposed secondry	4,000 2,000	4,000	120					D	1400-2400td		
Iron	Secondry	300										
Lead	Current	TT#	0						B2	50		
Manganese	Secondry	50		140								
Mercury (inorganic)	Current	2	2	0.3			2+		D	2		
Molybdenum				5		80	35		D			
Nickel	Current	100	100	20		1,000+	100+		D			
Nitrate (as N)	Current	10ppm	10ppm	1600		10,000+***			D	45ppm as NO3		10ppm (as N)
Nitrite (as N)	Current	1,000	1,000	160		1,000+***			D			
Selenium	Current	50	50	5						10		50

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
TT - Treatment technique in lieu of numeric MCL
- Treatment technique triggered at Action Level of 1300 ppb
td - td- temperature dependent value
- Treatment technique and public notification triggered at Action Level of 15 ppb
*** - 10-day HA for nitrate/nitrite for 4kg child (protective of 10kg child & adults); also used for chronic (lifetime)

[EPA-DWS&HA-1 12/01/93]

Drinking Water Standards And Health Advisories

INORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
Silver	Secondry	100		5		200	100		D	50		50
Strontium				600		25,000	17,000		D			
Sulfate	Secondry	250 ppm										
Thalium	Current	2	0.5	0.07		7	0.4					
Vanadium				7					D			
Zinc	Secondry	5,000		300		6,000	2,000		D			5,000
Acrylonitrile					0.06	20+		0.06+	B1			10
RADIONUCLIDES												
ross Alpha, excl. ranium & Radon	Current	15pCi/l						.15pCi/l	A	15pCi/l		
Gross Beta	Current	4mrem per yr						0.04mrem per year	A	50pCi/l		
Radium 226	Current Proposed	5 pCi/l (+228) 20pCi/l	 0					.22-.26 pCi/l	A	5 pCi/l (+Ra 22		
Radium 228	Current Proposed	5 pCi/l (+226) 20pCi/l	 0					.22-.26 pCi/l	A	5 pCi/l (+Ra 22		
Radon	Proposed	300 pCi/l	0					1.5pCi/l	A			
Strontium 90									A	8pCi/l		

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.

RADIONUCLIDES Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizor MCL
Tritium									A	20nCi/l		
Uranium	Proposed	20 ppb	0					0.7 ppb	A	20pCi/l		35pCi/l
ORGANIC												
Acenaphthylene (acenapthene)				60								
Acephate				4					C			
Acetone				100					D			
Acetophenone				100								
Acifluorfen				13	1.0	2,000+		1.0+	B2			
Acrolein									C			320
Acrylamide	Current	TT	0	0.2	.01	30+		0.01+	B2			
Adipates (di(ethylhexyl)-adipate)	Current	400	400	600	0.03	20,000	400	0.03	C			
Alachlor	Current	2	0	10	0.4	100+		0.4+	B2		LOQ (.2)	0.2
Aldicarb	Final(a)	3	1	1.0			7+		D		10	9
Aldicarb Sulfone	Final(a)	2	1	1.0			7+		D			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
TT - Treatment technique in lieu of numeric MCL
a - Effective date postponed

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
Aldicarb Sulfoxide	Final(a)	4	1	1.0			7+		D			
Aldrin				0.03	.002	0.3		0.002	B2		LOQ (0.05)	
Allyl alcohol				5								
Ametryn				9		9,000+	60+		D			
Ammonium Sulfamate				280		20,000+	2,000+		D			
Anthracene (PAH)				300					D			
Atrazine	Current	3	3	35	0.16	100+	3+		C	3		(HI 3)
Baygon ropoxur)				4		40+	3+		C		90	
nefin				300								
Bentazon (Basagran)				2.5		300+	20+		D	18		
Benzene	Current	5	0		1	200+		1.0+	A	1		5
Benzene hexachloride α, β isomers (BHC)											0.7 α 0.3 β	
Benz(a)anthracene (PAH)	Proposed	0.1	0						B2			
Benzo(a)pyrene (PAH)	Current	0.2	0						B2			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
HI - State of Hawaii MCL

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
Benzo(b)fluoranthene (PAH)	Proposed	0.2	0						B2			
Bolero (thiobencarb)										70		
Bromacil				130		5,000+	90+		C			
Bromochloromethane				13		1,000	90					
Bromodichloro-methane (THM)	Current	100 @		20	0.6	7,000+		0.6	B2			
Bromoform (THM)	Current	100 @		20	4	2,000		4	B2			
Bromomethane (Methyl Bromide)				1		100+	10+		D			2.5
Butyl benzyl-phthlate (PAE)	Proposed	100	0	200					C			
Butylate				50		2,000+	350+		D			
Captafol				2	4				C			
Captan				130					B2		350	
Carbaryl				100		1,000+	700+		D		60	
Carbofuran	Current	40	40	5		50+	40+		E	18		36
Carbon Disulfide				100								830

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
@ - Total Trihalomethanes MCL includes 4 compounds: chloroform, bromodichloromethane, dibromochlormethane, bromoform

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

ORGANIC		EPA		IRIS		Health Advisories			Wt.	California		
Chemicals	Standard	MCL	MCLG	RfD µg/kg-d	10^{-6} Risk	Acute 10 Day	Chronic(lifetime) Non-Cancer	Cancer	of Evid.	MCL	Action Level	Arizon MCL
Carbon Tetrachloride	Current	5	0	0.7	0.3	200+		0.3+	B2	0.5		5
Carboxin				100		1,000+	700+		D			
Chloral Hydrate				0.2		1,400	60		D			
Chloramben				15		3,000+	100+		D			
Chlordane	Current	2	0	0.06	0.03	60+		0.03+	B2	0.1		
2,4-Dinitrotoluene				2	50	500		50	B2			
Chlorobenzene (Monochlorobenzene)	Current	100	100	20		2,000+	100+		D	30		
Chlorodibromomethane (THM)	Current	100 @		20		7,000	60		C			
hloroform (trichloromethane) (THM)	Current	100 @		10	6	4,000		6.0	B2			
bis-2-Chloroiso-propyl ether				40		4,000+	300+		D			
Chloromethane				4		400	3		C			
2-Chlorophenol				5		50	40		D			
Chloropicrin											50(37 T&O)	
Chlorothalonil				15	1.5	200+		1.5+	B2			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
@ - Total Trihalomethanes MCL includes 4 compounds: chloroform, bromodichloromethane, dibromochlormethane, bromoform

ORGANIC Chemicals	Standard	EPA MCL	 MCLG	IRIS RfD µg/kg-d	 10^{-6} Risk	Health Advisories Acute 10 Day	 Chronic(lifetime) Non-Cancer	 Cancer	Wt. of Evid.	California MCL	 Action Level	Arizon MCL
Chlorotoluene(o,p)				20		2,000+	100+		D			
CIPC (Chlorpropham) (isopropylN(3chlorophenyl) carbamate)				200							350	
Chlorpyrifos				3		30+	20+		D			
Cresol(o,m)				500					C			
Cyanazine				2		100+	1		C			
DDT				0.5	0.1				B2			
Dalapon	Current	200	200	26		3,000+	200+		D			
DCPA (Dacthal)				500		80,000+	4,000+		D			
Di(ethylhexyl)-adipate (Adipates)	Current	400	400	600	0.03	20,000	400+	0.03	C			
Diazinon				0.09		20+	0.6+		E		14	
Dibromochloro-methane (THM)	Current	100 @		20		7,000	60		C			
1,2-Dibromo-3-chloro propane (DBCP)	Current	0.2	0		0.03	50+		0.03	B2	0.2		(HI.04)
Dibutyl phthalate (PAE)				100					D			
Dicamba				30		300+	200+		D			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
@ - Total Trihalomethanes MCL includes 4 compounds: chloroform, bromodichloromethane, dibromochlormethane, bromoform
HI - State of Hawaii MCL

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
Dichloroacetic Acid				8		50,000+			B2			
Dichloroacetonitrile				8		1000+	6+		C			
1,2-Dichlorobenzene (o-Dichlorobenzene)	Current Proposed secondry	600 10	600	90		9,000+	600+		D		130 *** (10T&O)	
1,3-Dichlorobenzene (m-Dichlorobenzene)	Current	600	600	90		9,000+	600+		D		130 *** (20T&O)	
1,4-Dichlorobenzene (p-Dichlorobenzene)	Current Proposed secondry	75 5	75	100		10,000+	75+		C	5		750
Dichlorodifluoromethane (Freon 12)				200		40,000+	1,000+		D			1.0
1,1-Dichloroethane										5		
1,2-Dichloroethane	Current	5	0		0.4	700+		0.4	B2	0.5		5.0
1-Dichloroethylene	Current	7	7	9		1,000+	7+		C	6		7.0
cis-1,2-Dichloroethylene	Current	70	70	10		3,000+	70+		D	6		
trans-1,2-Dichloroethylene	Current	100	100	20		2,000+	100+		D	10		
Dichloromethane (Methylene chloride)	Current	5	0	60		2,000+		5+	B2		40	
2,4-Dichlorophenol				3		30+	20+		D			
2,4-Dichlorophenoxy-acetic acid (2,4-D)	Current	70	70	10		300+	70+		D	100		100

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
*** - Action Level is for a single isomer or sum isomers

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizo MCL
1,2-Dichloropropane	Current	5	0		0.5	90+		0.5+	B2	5		
1,3-Dichloropropene				0.3	0.2	30+		0.2+	B2	0.5		
Dieldrin				0.05	.002	0.5+		0.002+	B2		LOQ- (0.05)	
Diethylphthalate (PAE)				800			5000+		D			
Diisopropylmethylphosphonate				80		8,000+	600+		D			
Dimethoate				0.2							140	
Dimethrin				300		10,000+	2,000+		D			
Dimethylaniline				20	0.05				C			
2,4-Dimethylphenol				200							400 (T&O)	
2,6-Dinitrotoluene				1.0	50 (tg)	400		50 (tg)	B2 (TG)			
1,3 Dinitrobenzene				0.1		40	1		D			
Dinoseb	Current	7	7	1		300+	7+		D			
1,4-Dioxane (p-Dioxane)					7	400+		7+	B2			
Dioxin (2,3,7,8-TCDD)	Current	3E-5	0	1E-6	2E-7	1E-4		2E-7+	B2			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
tg - technical grade dinitrotoluene only

Drinking Water Standards And Health Advisories

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
Diphenamid(e)				30		300+	200+		D		40	
Di(ethylhexyl)-phthalate (PAE) (Phthalates)	Current	6	0	20	3			3+	B2	4		
Diquat	Current	20	20	2.2			20+		D			
Disulfoton				0.04		10+	0.3+		E			
Diuron				2		1,000+	10+		D			
Endothall	Current	100	100	20		800+	100+		D			
Endrin	Current	2	2	0.3		20+	2+		D	.2		0.2
Epichlorohydrin	Current	TT	0	2	4	100+		4	B2			
hion				0.5							35	
Ethylbenzene	Current Proposed secondry	700 30	700	100		3,000+	700+		D	680		
Ethylene Dibromide (dibromoethane) (EDB)	Current	0.05	0		4E-4	8		0.0004	B2	0.02		(HI.04)
Ethylene Glycol				2,000		6,000+	7,000+		D			
Ethylene Thiourea (ETU)				0.08	0.3	300+		0.3	B2			
Fenamiphos				0.25		9+	2+		D			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
TT - Treatment technique in lieu of numeric MCL
HI - State of Hawaii MCL

ORGANIC		EPA		IRIS		Health Advisories			Wt.		California	
						Acute	Chronic(lifetime)		of		Action	Arizon
Chemicals	Standard	MCL	MCLG	RfD µg/kg-d	10^{-6} Risk	10 Day	Non-Cancer	Cancer	Evid.	MCL	Level	MCL
Fluometuron				13		2,000+	90+		D			
Fluorotrichloromethane				300		7,000+	2,000+		D			
Folpet				100					B2			
Fonofos				2		20+	10+		D			
Formaldehyde				150		5,000+	1,000+		B1		30	
Glycidaldehyde				4					B2			
Glyphosate	Current	700	700	100		20,000+	700+		D	700		
HMX				50		5,000+	400+		D			
Heptachlor	Current	0.4	0	0.5	.008	10+		0.008+	B2	0.01		
Heptachlor epoxide	Current	0.2	0	0.013	.004			0.004	B2	0.01		
Hexachlorobenzene (Perchlorobenzene) (HCB)	Current	1	0	0.8	0.02	50+		0.02+	B2			
Hexachlorobutadiene				2		300+	1+		C			
Hexachlorocyclopentadiene (HEX)	Current Proposed secondry	50 8	50	7					D			
n-Hexane						4,000+			D			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
Hexazinone				33		3,000+	200+		D			
Isophorone				200		15,000+	100+		C			
Lindane (gamma-HCCH) (gamma-BHC)	Current	0.2	0.2	0.3		1,000+	0.2+	0.03	C	4		
Linuron				2					C			
MCPA				1.5		100+	11+		E			
Malathion				20		200+	200+		D		160	
Maleic Hydrazide				500		10,000+	4,000+		D			
Cresol(p)				5					C			
erphos				0.3								
Methomyl (Lannate)				25		300+	200+		D			
Methoxychlor	Current	40	40	5		50	40		D	100		
Methylene Chloride (Dichloromethane)	Current	5	0	60	5	2,000+		5+	B2		40	
Methyl ethyl ketone (MEK,2-Butanone)				600					D			
Methyl Parathion				.25		300+	2+		D		30	

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.

ORGANIC		EPA		IRIS		Health Advisories			Wt. of Evid.	California		Arizo
Chemicals	Standard	MCL	MCLG	RfD µg/kg-d	10^{-6} Risk	Acute 10 Day	Chronic(lifetime) Non-Cancer	Cancer		MCL	Action Level	MCL
Methyl t-butyl ether				5		3,000+	40+		D			
Metolachlor				150		2,000+	100+		C			
Metribuzin				25		5,000+	200+		D			
Mirex				0.2	.02				B2			
Molinate				2						20		
Naphthalene				4		500+	20+		D			
Nitroguanidine				100		10,000+	700+		D			
Oxamyl (Vydate)	Current	200	200	25		200+	200+		E			
Paraquat				4.5		100+	30+		E			
Parathion (Ethyl Parathion)				6					C		30	
Pentachloronitro-benzene (Terrachlor)				3	0.1				C		0.9	
Pentachlorophenol	Current	1	0	30	0.3	300+		0.3	B2		30	
Phenol				600		6,000+	4,000+		D		5(T&O) Cl2Syst	
Phthalates (di(ethylhexyl)-phthalate)	Current	6	0	20	3			3+	B2	4		

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.

ORGANIC		EPA		IRIS		Health Advisories			Wt.	California		Arizona
Chemicals	Standard	MCL	MCLG	RfD µg/kg-d	10^{-6} Risk	Acute 10 Day	Chronic(lifetime) Non-Cancer	Chronic(lifetime) Cancer	of Evid.	MCL	Action Level	MCL
Picloram	Current	500	500	70		20,000+	500+		D			
Polychlorinated Biphenyls (PCBs)	Current	0.5	0		.005			0.005	B2			
Polynuclear Aromatic Hydrocarbons (PAHs) (benzo(a)pyrene)	Current	0.2	0						B2			
Prometon				15		200+	100+		D			
Pronamide				75		800+	50+		C			
Propachlor				13		500+	90+		D			
Propazine				20		1,000+	10+		C			
Propham				20		5,000+	100+		D			
DX				3	0.3	100+	2+	.3	C			
Simazine	Current	4	4	5		70	4+		C	10		
Styrene	Current Proposed secondry	100 10	100	200		2,000+	100+		C			
Tebutiuron				70		3,000+	500+		D			
Terbacil				13		300+	90+		E			
Terbufos				.13		5+	0.9+		D			

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizon MCL
Terrachlor (pentachloronitrobenzene)				3	0.1				C		0.9	
1,1,1,2-Tetrachloroethane				30	1	2,000+	70+	1+	C			
1,1,2,2-Tetrachloroethane									C	1		
Tetrachloroethylene (Perchloroethylene)	Current	5	0	10	0.7	2,000+		0.7+	B2	5		
2,3,7,8-Tetrachlorodibenzo-p-dioxin (Dioxin)	Current	3E-5	0	1E-6	2E-7	1E-4+		2E-7+	B2			
Thiobencarb										70		
Toluene	Current Proposed secondry	1,000 40	1,000	200		2,000+	1,000+		D		100	
Toxaphene	Current	3	0	100	0.03	40+		0.03+	B2	5		5
Tribromomethane (Bromoform)(THM)	Current	100 a		20	4	2,000+		4	B2			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)										1200		
Trichloroacetic acid				40		2000	1000		C			
1,2,4-Trichlorobenzene	Current	70	70	10		100+	70		D			
1,3,5-Trichlorobenzene				6		600+	40+		D			
1,1,1-Trichloroethane	Current	200	200	35		40,000+	200+		D	200		200

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
a - Total Trihalomethanes MCL includes 4 compounds: chloroform, bromodichloromethane, dibromochlormethane, bromoform

ORGANIC Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
1,1,2-Trichloroethane	Current	5	3	4		400+	3+		C	32		
Trichloroethylene	Current	5	0		3			3	B2	5		5
Trichlorofluoromethane (Freon 11)				700						150	150	
2,4,6-Trichlorophenol					3			3	B2			
2,4,5,-Trichlorophenoxyacetic acid (2,4,5-T)				10		800+	70+		D			
2,4,5 Trichlorphenoxypropionic acid (2,4,5-TP) (Silvex)	Current	50	50	7.5		200+	50+		D	10		10
1,2,3-Trichloropropane				6		600+	40+		B2			(HI .8)
Trifluralin				7.5		80+	5+	5+	C			
ihalomethanes (TTHM) (See Chloroform)	Current	100 a							B2	100		
Trinitroglycerol						5	5					
Trinitrotoluene				0.5	1	20	2	1	C			
Trithion											7	
Vinyl Chloride	Current	2	0		.015	3,000+		0.015+	A	0.5		
Xylenes- sum of isomers	Current Proposed secondry	10ppm 20	10ppm	2000		40,000+	10,000+		D	1750		

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
HI - State of Hawaii MCL
a - Total Trihalomethanes MCL includes 4 compounds: chloroform, bromodichloromethane, dibromochlormethane, bromoform
TT - Treatment technique in lieu of numeric MCL

MICROB.-TURBIDITY Chemicals	Standard	EPA MCL	EPA MCLG	IRIS RfD µg/kg-d	IRIS 10^{-6} Risk	Health Advisories Acute 10 Day	Health Advisories Chronic(lifetime) Non-Cancer	Health Advisories Chronic(lifetime) Cancer	Wt. of Evid.	California MCL	California Action Level	Arizona MCL
MICROB.-TURBIDITY												
Giardia Lamblia	Current	TT	0									
Heterotrophic Plate Count	Current	TT β	NA									
Legionella	Current	TT β	0									
Total Coliforms	Current	P/A @@	0									
Turbidity	Current	1/5 NTU	NA									
Viruses	Current	TT β	0									
WATER QLTY.SECONDARY MAX.CONT.LEV												
Color	Secondry	15color units										
Corrosivity	Secondry	Noncorrosive										
Foaming Agents	Secondry	500										
Odor (Odor threshold)	Secondry	3.0 OT#										
Total Dissolved Solids (TDS)	Secondry	500 ppm										
pH	Secondry	6.5-8.5										

Values are indicated in micro grams per liter (µg/l) [equivalent to parts per billion (ppb)] unless otherwise stated

Oral Referenced Doses (RfD) are in micrograms per kilogram per day (µg/kg-d), 10^{-6} risk levels are in micrograms per liter.
TT - Treatment technique in lieu of numeric MCL
β - Surface waters and groundwater under the direct influence of surface water only.
@@ - P/A - MCL is based on the presence/absence of total coliforms
@ - 1 NTU Monthly average, 5 NTU two-day consecutive average
\# - Odor Threshold Numbers

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TABLE 2

PRIORITY LIST OF CONTAMINANTS WHICH MAY REQUIRE REGULATION UNDER THE SDWA (1991 VERSION)

Microorganisms

Cryptosporidium

Inorganics

Aluminum
Boron
Chloramines
Chlorate
Chlorine
Chlorine dioxide
Chlorite
Cyanogen chloride
Hypochlorite ion
Manganese
Molybdenum
Strontium
Vanadium
Zinc

Pesticides

Asulan
Bentazon
Bromacil
Cyanazine
Cyromazine
DCPA (and acid metabolites)
Dicamba
Ethylenethiourea
Fomesafen
Latofen/Acifluorfen
Metalaxyl
Methomyl
Metolachlor
Metribuzin
Parathion degradation product (4-nitrophenol)
Prometon
2,4,5-T
Thiodicarb
Trifluralin

Synthetic Organic Chemicals

Acrylonitrile
Bromobenzene
Bromochloroacetonitrile
Bromodichloromethane
Bromoform
Bromomethane
Chloroethane
Chloroform
Chloromethane
Chloropicrin
o-Chlorotoluene
p-Chlorotoluene
Dibromoacetonitrile
Dibromochloromethane
Dibromomethane
Dichloroacetonitrile
1,3-Dichlorobenzene
Dichlorodifluoromethane
1,1-Dichloroethane
2,2-Dichloropropane
1,3-Dichloropropane
1,1-Dichloropropene
1,3-Dichloropropene
2,4-Dinitrophenol

Synthetic Organic Chemicals (con't)

2,4-Dinitrotoluene
2,6-Dinitrotoluene
1,2-Diphenylhydrazine
Fluorotrichloromethane
Hexachlorodutadiene
Hexachloroethane
Isophorone
Methyl ethyl ketone
Methyl isobutyl ketone
Methyl t-butyl ether
Naphthalene
Nitrobenzene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrahydrofuran
Trichloroacetonitrile
1,2,3-Trichloropropane

Chlorination/ chloramination byproducts (misc.): haloacetic acids, haloketones, chloral hydrate, 3-chloro-4-(dichloromethyl)-5-hydroxy-2(5H)-furanone (MX-2), N-organochloramines

Ozonation byproducts: aldehydes, epoxides, peroxides, nitrosamines, bromate, iodate

APPENDIX

DESCRIPTION OF STANDARDS AND ADVISORIES

Authority

Under the authority of the Safe Drinking Water Act (SDWA, Public Law 93-523), the USEPA is mandated to establish National Primary Drinking Water Regulations for contaminants occurring in drinking water. Primary NPDWRs are established and enforced to protect the public from adverse health effects resulting from a drinking water contaminant. Included in these regulations are the drinking water standards which set either 1) treatment techniques to control a contaminant, or 2) the Maximum Contaminant Level (MCL) allowable for the contaminant in drinking water. An MCL is set when an appropriate method of detection for the contaminant exists. A treatment technique approach is used when it is not possible to quantify the contaminant at the level necessary to protect public health. Secondary standards are established based on non-health related aesthetic qualities of appearance, taste and odor. These secondary standards are not federally enforceable.

States may choose to accept responsibility (Primacy Status) for the oversight and enforcement of US drinking water regulations. States which have primacy status from USEPA must adopt State drinking water standards that are at least as stringent as federal standards. A state may choose to enforce secondary standards as well as primary standards.

USEPA Maximum Contaminant Level Goals (MCLGs)

MCLGs are developed by the Office of Science and Technology in the USEPA Office of Water as a required first step toward promulgation of NPDWRs. MCLGs are non-enforceable health goals which are to be set at levels at which no known or anticipated adverse effects on the health of persons occur, and which allow for an adequate margin of safety. Prior to the SDWA Amendments of 1986, these levels were called Recommended Maximum Contaminant Levels (RMCLs). MCLGs are strictly health-based levels and are derived from relevant toxicological data.

For chemicals that produce adverse health effects and are not believed to be carcinogenic (non-carcinogens), the MCLG is based on the Reference Dose (RfD). A RfD is calculated from toxicological data to represent a contaminant level that should be without risk of adverse health effects even with a lifetime exposure. USEPA assumes that a threshold exists for non-cancer health effects from chemical contaminants, below which the effect will not occur. Thus the MCLG will be a non-zero number. The RfD, which is based on the total daily amount of contaminant taken up by a person on a body weight basis, is converted to a Drinking Water Equivalent Level (DWEL) concentration and adjusted for the percentage contribution of other sources (relative source contribution, RSC) of the contaminant besides drinking water (air, food, etc) to arrive at the MCLG. This calculation assumes a lifetime consumption of 2 liters of drinking water per day by a 70 kg adult. Unless otherwise noted, the RSC from drinking water for organic and inorganic compounds is respectively 20% and 10%.

USEPA assumes that no threshold exists for cancer and thus, there is no absolutely safe level of contamination. For chemicals that are known (Group A) or probable (Group B) human carcinogens, USEPA policy directs that the MCLG be set at zero, in accordance with a recommendation by the US Congress. For contaminants believed to be possible human carcinogens (Group C), the MCLG may be derived based on relevant non-cancer health effects as described above. In this case, the RfD is divided by an additional uncertainty factor of 10. In some cases, Group C chemicals will have MCLGs set based on calculated maximum lifetime cancer risks of between 1/10,000 and 1/million.

Maximum Contaminant Levels (MCLs)

MCLs are federally enforceable limits for contaminants in drinking water established as NPDWRs. The MCL for a given contaminant is set as close to the corresponding MCLG as is feasible. "Feasible" is defined in the 1986 SDWA Amendments as "feasible with the use of the best technology, treatment techniques and other means which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration)." To promulgate a MCL for a contaminant requires that a method of detection for that contaminant is available suitable for the level desired and a Best Available Technology is identified that can feasibly remove the contaminant to the desired level.

Secondary Maximum Contaminant Levels

Secondary MCLs are established under the SDWA to protect the public welfare. Such regulations apply to contaminants in drinking water that adversely affect its odor, taste or appearance and consequently cause a substantial number of persons to discontinue its use. Secondary MCLs are not based on direct adverse health effects associated with the contaminant, although some contaminants may have both a MCL and a SMCL. SMCLs are considered as desirable goals and are not fereally enforceable. However, states may choose to promulgate and enforce SMCLs at the state level.

Health Advisories

Health Advisories (HAs) for drinking water contaminants are levels considered to be without appreciable health risk for specific durations of exposure. HAs should be considered guidance and are not enforceable drinking water standards. HAs were previously know as Suggested No Adverse Response Levels (SNARLs).

USEPA HAs are developed and published initially as External Review Drafts, and then as a Final Draft. This designation indicates that the HA will be always subject to change as additional information becomes available. HAs are developed for one-day, 10-day, longer-term (approximately 7 years) and lifetime (70 year) exposures based on data describing non-carcinogenic health effects resulting from the contaminant. One-day and 10-day HAs use parameters which reflect exposures and effects for a 10 kg child consuming 1 liter of water per day. Lifetime HAs consider a 70 kg adult consuming 2 liters of water per day. Longer-term HAs can incorporate either child or adult parameters. A relative source contribution from water is also factored into the lifetime HA calculation to account for exposures from other sources (air, food, soil, etc) of the contaminant.

For known or probably human carcinogens, the lifetime HA level is based on an upper-bound excess lifetime cancer risk of 1/million. This means that **USEPA considers that the risk from a lifetime consumption of water at the given level is unlikely to be greater than 1/million, is most likely substantially less and may be zero.**

Reference Dose (RfD) and Drinking Water Equivalent Level (DWEL)

The RfD is a daily exposure level which is believed to be without appreciable health risk to humans over a lifetime. The RfD is usually derived from an experimental "no observed adverse effect level" (NOAEL), identified as the highest dose in the most relevant study that did not result in a known adverse effect. The NOAEL is divided by various uncertainty factors to derive the RfD. These uncertainty factors account for the variation in human response, extrapolation to human responses if animal experiments were used, data quality and relevance. The RfD takes the form of dose ingested per unit body weight per day (ug/kg-d).

The DWEL is the conversion of the RfD into an equivalen water concentration. It assumes that a 70 kg adult consumes two liters of water per day and that the total dose to a person results solely from drinking water. It is important to remember that actual exposures in the environment may occur through other routes, such as inhalation or dermal contact, or from other sources, such as from food or soil.

California Action Levels

California Department of Health Services Action Levels are health-based criteria derived much in the same way as EPA Health Advisories. Specific approaches to determining cancer risks and exposure assumptions may differ in some ways from those used by USEPA. California Action Levels are not enforceable drinking water standards, but are levels at which CA DOHS strongly urges water purveyors to take corrective action to reduce the level of contamination in the water they supply. Action Levels cease to exist when CA State MCLS are promulgated.

Integrated Risk Information System (IRIS)

IRIS is an EPA catalogue of Agency risk assessment and risk management information for chemical substances. It is available electronically in several formats. The risk assessment information contained in IRIS, unless specifically noted, has been reviewed and agreed upon by intra-agency work groups and represents Agency consensus. Chemical contaminants listed in IRIS may have descriptions of relevant toxicological experiments and risk assessment approaches used in the determination of RfDs, cancer risks and health advisories. Extensive bibliographies are included. Regulations and regulatory status for different media may be presented.

REFERENCES

EPA MCLs: Code of Federal Regulations, Title 40, Part 141.

EPA Final Rule and Proposed Rule, Fluoride: Federal Register Vol. 50, No. 220, November 14, 1985.

EPA Final Rule and Proposed Rule, Volatile Synthetic Organic Chemicals: Federal Register Vol. 50, No. 219, November 13, 1985.

EPA Final Rule, Fluoride National Primary and Secondary Drinking Water Regulations: Federal Register Vol. 51, No. 63, April 2, 1986.

EPA Final Rule, Volatile Organic Chemicals Drinking Water Regulations: Federal Register Vol. 52, No. 130, July 8, 1987.

EPA Proposed Rule, National Primary and Secondary Drinking Water Regulations; Synthetic Organic Chemicals and Inorganc Chemicals Federal Register, Vol. 55, No. 143, July 25, 1990.

EPA Final Rule, National Primary Drinking Water Regulations; Federal Register, Vol. 56, No. 20, January 30, 1991.

EPA Final Rule, Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper; Federal Register, Vol. 56, No. 110, June 7, 1991.

EPA Final Rule, National Primary Drinking Water Regulations; Federal Register, Vol. 56, No. 126, July 1, 1991.

NAS Health Advisories: Drinking Water and Health, National Academy Press, Volumes 1 (1977), 3 (1980), 4 (1982), 5 (1983), 6 (1986), and 7 (1988).

EPA Health Advisories: are from the EPA Office of Drinking Water. These are published and are available from the National Technical Information Service (NTIS).

IRIS, Integrated Risk Information System, EPA, Office of Health and Environmental Assessment, Office of Research and Development, Washington, D.C. 20460.

Arizona Department of Health Services, Office of Risk Assessment and Investigation, 3008 N. 3rd Street, Phoenix, Arizona 85012.

California Department of Health Services, Office of Drinking Water, 2151 Berkeley Way, Berkeley, CA 94704.

APPENDIX B

TABLE B-1
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

State Well Number	Period of Record	Types of Analysis TDS	NO3	Gen Min	Other	Other Type
T2S/3W 31N1	1955 - 1983			21	4	metals, organics
31R1	1957 - 1963			12		
_36E1	1949			1		
T2S/4W 36R1	1956 - 1960			2		
T3S/2W 7R	1985 - 1993	1	1	1		
7P1	1953 - 1967			29		
_8E1	1973			1		
18R1	1963 - 1973			3		
18R2	1973 - 1992			2		
21A1	1969			1		
21A2	1973			1		
21B1	1963			1		
21C1	1949			1		
26L1	1973			1		
26M1	1963 - 1973			3		
27G1	1963 - 1993	1	1	4		
28L	1992	1	1			
28Q1	1975 - 1992	1	1	2		
29R1	1952			1		
30C1	1963			1		
32C1	1967			1		
32G1	1959 - 1964			2		
32R1	1963 - 1965			2		
33A	1967			1		
34E	1992	1	1			
34M	1967			2		
34Q	1967			1		
34Q1	1967			1		
35M	1967 - 1992			2		
35M1	1965 - 1967			2		
35Q2	1973			2		
32E	1985			1		
32D1	1985			1		
T3S/3W 2H1						
2L1	1973			1		
2L2	1973 - 1991	2	2	2	2	metals, pesticides
6D	1970 - 1985			6		
6D2	1991			2	2	metals
6M1	1967 - 1970			2		
6N3	1967 - 1983			6	1	metals
7F1	1968			1		
7Q1	1977	1				
12K1	1973 - 1991	1		10		

TABLE B-1 (Continued)
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

		Types of Analysis				
State Well Number	Period of Record	TDS	NO3	Gen Min	Other	Other Type
18A1	1977			1		
20A	1958 - 1960			2		
20G2	1977	1				
21A1	1977	1				
21A2	1965 - 1977			3		
21C	1958			1		
21C1	1950 - 1977	1		5		
22D1	1960 - 1976			9		
22D	1977	1				
_29E1	1958 - 1978	1		21		
29M1	1953 - 1983			24		
30H1	1977	1		1		
30J1	1977	1		1		
30Q1	1977	1		1		
31B1	1993	1	1			
32M1	1958 - 1959			1		
T3S/4W1J1	1974 - 1982			5		
4W10	1981 - 1983			3		
4W10	1981 - 1983				3	metals
24C1	1976 - 1982			2		
24D1	1976 - 1983			3		
24D2	1976 - 1983			3	1	pesticides
T4S/2W 2C	1953 - 1973			6		
2D1	1963 - 1967			2		
2D2	1965			1		
2K1	1973			1		
2N2	1949			1		
3P	1967			1		
7J	1991	1	1			
7P	1992	1	1			
7Q	1991	1	1			
8B	1991	1	1			
_8E1	1967			1		
8G	1993	1	1			
8Q	1967			1		
8R	1967 1993		1	1		
8K	1993		1			
8Q	1993		1			
9M1	1973 - 1979			8		
10A	1993	1	1			
10A1	1975 - 1993	1	1	1		
10B1	1975			1		

TABLE B-1 (Continued)
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

State Well Number	Period of Record	Types of Analysis				
		TDS	NO3	Gen Min	Other	Other Type
10C1	1963 - 1967			2		
10E	1964 - 1993		1	2		
11B1	1964 - 1974			10		
11B2	1972 - 1974			4		
11C1	1963 - 1979			19		
11C2	1993	1	1			
11D1		1	1			
_11E1	1964			1		
_11E2	1963 - 1967			3		
11F	1964			1		
11F1	1972			1		
12N	1967			1		
12N1	1958			1		
17D2	1965 1976			10		
18A1	1965 1989		1	18		
18B1	1965 1989			13		
18D	1990	1	1			
18D1	1977	1				
18G1	1987		1			
18G3	1939 1979			13		
24H1	1957 1984		1	13	2	metals
24J1	1972 1973			2		
27H2	1974 1979			9		
_36E1	1993	1	1			
36J1	1954 1958			7		
36J2	1963			1		
36M	1985			1		
36N	1983 1991				2	bacteriological
T4S/3W 6A3	1975 - 1981	1		3		
6C	1991			3	1	organics
6C1	1994	1	1			
6C2	1975 - 1977	1		2		
6F1	1977	1		1		
6H1	1970 - 1979			6	2	pesticides
6H2	1973 - 1983			5		
6Q1	1954 - 1993	2	1	32	1	organics
6Q2	1986				2	organics
6Q3	1967 - 1988			15	5	organics,metals radiological
7G2	1953 - 1977	1		1		
7H1	1977	1		1		
7J1	1955 - 1977	1		28		

TABLE B-1 (Continued)
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

State Well Number	Period of Record	TDS	NO3	Gen Min	Other	Other Type
		Types of Analysis				
7J2	1993	1	1			
_8E1	1969 - 1977	1		2		
8N1	1963			1		
9N2	1966			1		
9N3	1966 - 1977	1		4		
9P	1993	1	1			
10E	1981			2		
_10E1	1980 - 1983			2		
_10E3	1967			1		
13Q1	1955 - 1969			25		
16B				1		
16C	1985 - 1993			1	1	organics & metals
16N1	1958 - 1977	1		22		
17A1	1959 - 1968			18		
17C1	1954 - 1965			24		
17J1	1956 - 1978			11		
17J3	1977	1		1		
18	1970			1		
18J	1972			1		
18J2	1975 - 1988			7	4	organics & metals
19A1	1953 - 1993	2	1	3		
19A3	1977	1				
20P1	1954			1		
21F	1956 - 1976	1		28		
21D	1958 -			1		
24B	1990		1			
24B1	1963 - 1977	1		1		
24N	1969			1		
24P1	1943 - 1976			29		
25D2	1965 - 1977	1		3		
26J1	1958 - 1973			4		
26K	1989 - 1991	3	5	3		
28C1	1954					
28H1	1965 - 1968			13		
29C3	1977			2		
29G2	1970 - 1977	1		5		
29K1	1963 1977	1		2		
29Q	1969			1		
29Q1	1959 1969			2		
32B	1965			1		
4S/4W 1A1	1993	1	1			
4S/4W 1G1	1993	2	1			
T5S/1W 30D	1992			1		

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TABLE B-1 (Continued)
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

State Well Number	Period of Record	TDS	NO3	Gen Min	Other	Other Type
		Types of Analysis				
30D2	1977			1		
_30E2	1992			1		
30M1	1957 - 1960			8		
T5S/2W 7E	1990		1			
14R	1980 - 1981			2		
15A1	1958 - 1960			6		
_15E1	1953 - 1956			4		
15F1	1963			1		
15G1	1982 - 1985			2		
15H	1982	1	1			
16F	1982			1		
16F1	1993	1	1			
16G	1983			1		
17B	1982 - 1985	2	2	2		
17B	1982			1		
17B1	1969 - 1978			18		
17C	1982			1		
17C1	1953 - 1967			27		
17F	1982 - 1985			2		
19N1	1953 - 1979			49		
21M2	1993	1				
2.20E+03	1993	1				
23J	1972			1		
23P1	1989				4	bacteriological
23P1	1989		2			
23Q	1986			1		
23R	1989				3	bacteriological
23R	1986			1		
23R1	1973			1		
24B	1981			1		
24B1	1993	1	1			
25C	1979			1		
25C1	1965 - 1977			3		
_25E1	1959 - 1963			2		
25J	1991	1	1			
26B	1987			1		
26G1	1968			1		
26G2	1957			1		
26H2	1963			1		
26H3	1964			1		
26L1	1963			2		
27N1	1988		1	1	1	bacteriological
30D	1991			1	1	radiological
30J1	1975			1		
31N1	1975			1		

TABLE B-1 (Continued)
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

State Well Number	Period of Record	Types of Analysis				
		TDS	NO3	Gen Min	Other	Other Type
31R	1987			1		
31R	1987				1	metals
33E	1981	1				
35A	1991			1		
35A1	1993	1				
35B1	1969 - 1993	1		1		
35D2	1993	1	1			
36D	1991			3		
36D4	1993		1			
T5S/3W 2Q1	1993	1	1			
3Q2	1975			1		
3R1	1963 - 1968			3		
3R1	1977	1				
3R2	1977	1				
7B1	1975			1		
10H1	1975			1		
11M1	1953			1		
11M2	1955 - 1981			23		
13A	1977 - 1981			2		
13A1	1993	1	1			
13H1	1993	1	1			
14P1	1985			1		
14P1	1977	1				
14P1	1975			1		
15H1	1993	1	1			
16D1	1993	1	1			
16F1	1993	1	1			
16P1	1955 - 1958			6		
16P2	1977 - 1981			2		
17R1	1991			1		
21C1	1975			1		
21C1	1977	1				
21D1	1962 - 1971			17		
21D2	1960 - 1975			16		
21D2	1977	1				
21K	1993	1	1			
24C1	1993	1	1			
27L1	1975			1		
28M1	1993	1	1			
28M2	1993	1	1			
28M3	1993	1	1			
28M4	1993	1	1			
29H1	1955 - 1959			8		
29Q1	1958			1		
32G	1976			1		

TABLE B-1 (Continued)
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

State Well Number	Period of Record	Types of Analysis				
		TDS	NO3	Gen Min	Other	Other Type
33R2	1991			1		
33R2	1991				1	organics
35N	1992			1		
35P1	1956 - 1968			4		
35Q	1977 - 1993	2	1			
36D1	1963 - 1968			4		
36K1	1962 - 1963			2		
36N	1977	1				
36N1	1991			1		
36P	1992			5		
36P1	1953 - 1956			3		
36Q1	1958 - 1965			11		
T6S/2W 1A2	1976			1		
2G1	1963			1		
2N1	1963			1		
3R2	1962 - 1970			5		
4R1	1988			1		
4R2	1988		1			
7A	1988		1			
7A1	1993	1	1			
7N	1975			1		
7R2	1993	1	1			
T6S/3W 1	1991			4		
1D1	1965			1		
1D2	1975			1		
1E1	1977	1				
1J1	1975			1		
1J2	1993	1	1			
2A	1993	1	1			
2F1	1963 - 1968			4		
2C1	1975			1		
2D	1993	1	1			
2E	1993	1	1			
2G	1991	2	2	5	2	organics
2H	1991	1	1	2	2	organics
3C	1967			1		
3C1	1975 - 1991			3		
3C2	1975			1		
3H2	1977 - 1991	1		1		
3L1	1993	1	1			
3L2	1993	1	1			
4K1	1953 - 1963			2		
9B1	1975			1		
Totals		106	79	1015	48	

TABLE B-1 (Continued)
AVAILABILITY OF GROUNDWATER QUALITY DATA FOR WELLS IN THE WEST SAN JACINTO AREA

	Total	Statistics Average	 Maximum	 Minimum
Length of Record (years)		5.18	40	1
Number of Samples per Well		4.14	49	1
Samples per Year		1	11	0
Year of Last Sample		1979	1994	1949
Total Number of Wells with Data	301			
Fraction of Wells with Only One Sample	63%			

Hemet/San Jacinto

Groundwater Management Area

Water Management Plan

Prepared for:

Eastern Municipal Water District
Since 1950

Lake Hemet Municipal Water District
Incorporated 1955

City of Hemet
Riverside County, California

San Jacinto

in coordination with:

Department of Water Resources
State of California

Prepared by:

WRIME Water Resources & Information Management Engineering, Inc.

in association with Stetson Engineers and Geoscience

November 7, 2007

WRIME Water Resources & Information
Management Engineering, Inc.

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Hemet/San Jacinto Groundwater Management Area
Water Management Plan

November 7, 2007

Prepared for:

Eastern Municipal Water District
Lake Hemet Municipal Water District
City of Hemet
City of San Jacinto

in coordination with
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SELECTED ACRONYMS, ABBREVIATIONS, AND TERMINOLOGY

Advisor	independent engineering firm or a qualified individual
AF	acre-foot
AFY	acre-feet per year
Agreement	Settlement Agreement
Association	Hemet/San Jacinto Groundwater Association
CAM	Consultants-Attorneys-Managers
CEQA	California Environmental Quality Act
cfs	cubic feet per second
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
FMWC	Fruitvale Mutual Water Company
GIS	Geographic Information System
Hemet North	Hemet North portion of the Lakeview/Hemet North
IRRP	Integrated Recharge and Recovery Program
JPA	Joint Powers Authority
JUDGMENT	Stipulated Judgment
Legal Counsel	independent attorney or legal firm
LHMWD	Lake Hemet Municipal Water District
Management Area	Hemet/San Jacinto Groundwater Management Area
MGD	million gallons per day
MOU	Memorandum of Understanding
MWD	Metropolitan Water District of Southern California
PC	Policy Committee
Plan	Hemet/San Jacinto Water Management Plan
Plan Participants	EMWD, LHMWD, Private Water Producers, and Cities of Hemet and San Jacinto (collectively)
Principles	Principles for Water Management
Private Water Producers	Property owners who are pumping groundwater pursuant to overlying water rights
Public Agencies	EMWD, LHMWD, and Cities of Hemet and San Jacinto (collectively)
RCFC&WCD	Riverside County Flood Control and Water Conservation District
RWQCB	Santa Ana Regional Water Quality Control Board
RWRD	Regional Water Resources Database
S.A.A.	Settlement Agreement Approval
S.J.A.	Stipulated Judgment Approval
Soboba Tribe	Soboba Band of Luiseno Indians
TC	Technical Committee
TDS	Total Dissolved Solids

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TM	Technical Memorandum
TMDL	Total Maximum Daily Load
Upper Pressure	San Jacinto - Upper Pressure Management Zone
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
Watermaster	Watermaster Governing Board
WRIME	Water Resources & Information Management Engineering, Inc.

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BACKGROUND AND GOALS

The stakeholders in the Hemet/San Jacinto Groundwater Management Area (Figure ES.1) have developed the Hemet/San Jacinto Water Management Plan (Plan) to provide a foundation that guides and supports responsible water management into the future. The Participants in the Plan are Eastern Municipal Water District (EMWD), Lake Hemet Municipal Water District (LHMWD), Cities of Hemet and San Jacinto (Public Agencies), and Private Water Producers.

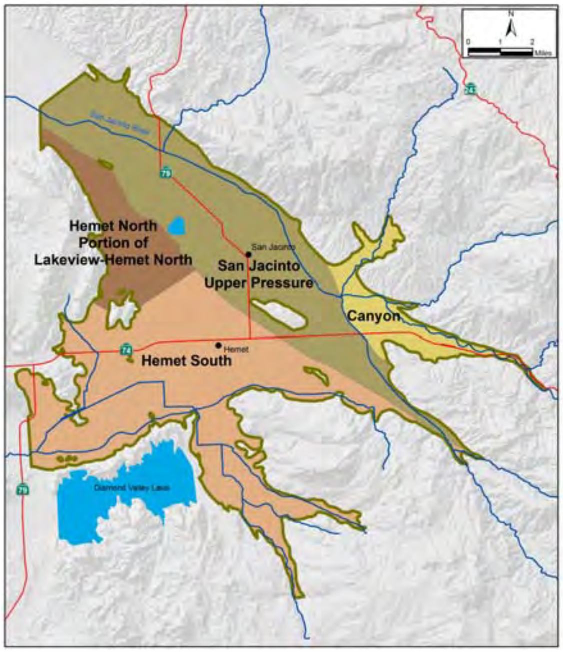

Figure ES.1 Hemet/San Jacinto Groundwater Management Area and Management Zones

Private Water Producers are those property owners who are pumping groundwater pursuant to overlying water rights, typically for agricultural or domestic uses. Private Water Producers may elect two levels of participation in the Plan, with varying levels of benefits and responsibilities, or may elect not to participate. The details on this matter are described in Section 2 of the Plan document.

The Plan, adopted by the governing bodies of the Plan Participants, has eight primary goals:

- Address pumping overdraft and declining groundwater levels,
- Provide for Soboba Tribe prior and paramount water rights,

- Ensure reliable water supply,
- Provide for planned urban growth,
- Protect and enhance water quality,
- Develop cost-effective water supply,
- Provide adequate monitoring for water supply and water quality, and
- Supersede the Fruitvale judgment and agreement.

GROUNDWATER AS A CORNERSTONE FOR WATER MANAGEMENT

The goals of the Plan are interrelated and begin with maintaining groundwater as a high-quality, low-cost, flexible source of water. Efforts are needed to make this happen, as historical groundwater pumping in excess of the Safe Yield of the groundwater basin has resulted in decreasing trends in water levels. In addition, historical land and water use practices for agricultural irrigation and dairy industry waste have raised the levels of nitrates and total dissolved solids in groundwater. Safe Yield, the long-term average quantity of water that can be pumped without causing undesirable results, has been estimated at 40,000 to 45,000 AFY, while average annual production exceeds this amount by approximately 10,000 to 15,000 AFY. The 10,000 to 15,000 AFY difference between the long-term average annual groundwater production and Safe Yield is known as overdraft, which can be responsible for creating undesirable conditions in the basin, including degradation of groundwater quality. The Plan assumes a pragmatic and economic approach in setting the target to reduce overdraft, and assumes an overdraft of 10,000 AFY. This will allow the Plan Participants and the Watermaster to initiate and adopt plans and policies to eliminate overdraft with implementation of economically feasible and cost-effective projects. The Plan intends to stabilize or reverse the decreasing trend in water levels through reducing groundwater production to a level that brings the basin production within the Safe Yield of the Management Area. Higher water levels will increase water in storage, decrease energy costs for pumping, and inhibit the migration of poor quality groundwater from surrounding basins, helping to protect groundwater quality in the Management Area.

INTEGRATION OF GROUNDWATER WITH OTHER WATER SOURCES AND DEMAND MANAGEMENT TO MEET FUTURE WATER NEEDS

The Plan Participants have several options available to increase water supply and reliability in the Management Area. Water used in the Management Area for agricultural and domestic use comes from groundwater, surface water, imports, and recycled water. As shown on Figure ES.2, most of this water has historically been from groundwater, based on 2004 data. This allows significant opportunities for underutilized sources, particularly recycled water and winter-time imported water, to replace or augment groundwater production. The regional cooperation developed over the years is also of importance as the supply mix varies between the different water users in the Management Area; by cooperating, the water users can fully utilize their available water resources.

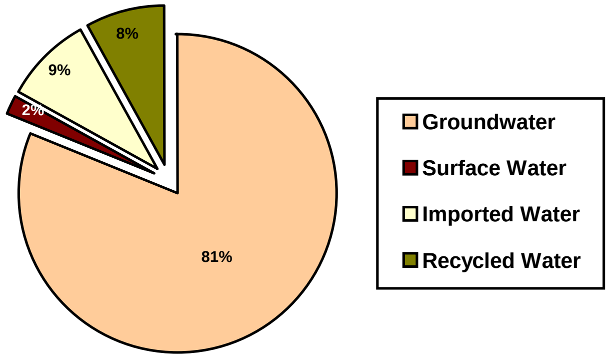

Figure ES.2 Components of Management Area Water Supply

The high-quality groundwater basin also plays an important role in future water availability. Historical declines in groundwater levels are a concern and a major impetus for the development of this Plan. However, even the dewatered portion of the groundwater basin is a significant asset and allows for the full utilization of the available water supplies mentioned above. The new water supplies can be introduced into the system filling the empty portions of the groundwater basin by either substitution for pumping groundwater (in-lieu recharge) or by placing the water in the groundwater system through seepage from specially designed ponds or through injection from wells (direct recharge). Both these methods benefit the Management Area groundwater basin, which is composed of materials that can store large quantities of water and holds high quality groundwater that can be pumped for usage at a later time. A complex system of faults and other geologic features separate the groundwater system into four Management Zones (see Figure ES.1), which require some degree of individual attention in planning and designing recharge and extraction projects, based on each Management Zone's unique attributes.

The numerous water supply opportunities along with water conservation by both the Public Agencies and Private Water Producers will be utilized to meet the current and future water needs of the Management Area. Based on the latest data and information on land and water practices, general plans, urban water management plans, and other specific plans, water demand in the Management Area is projected to increase over the course of next 15-20 years (Figure ES.3). Based on these projections, there will also be a shift from agricultural water use to urban water use, resulting in more stringent water quality requirements to meet drinking water standards.

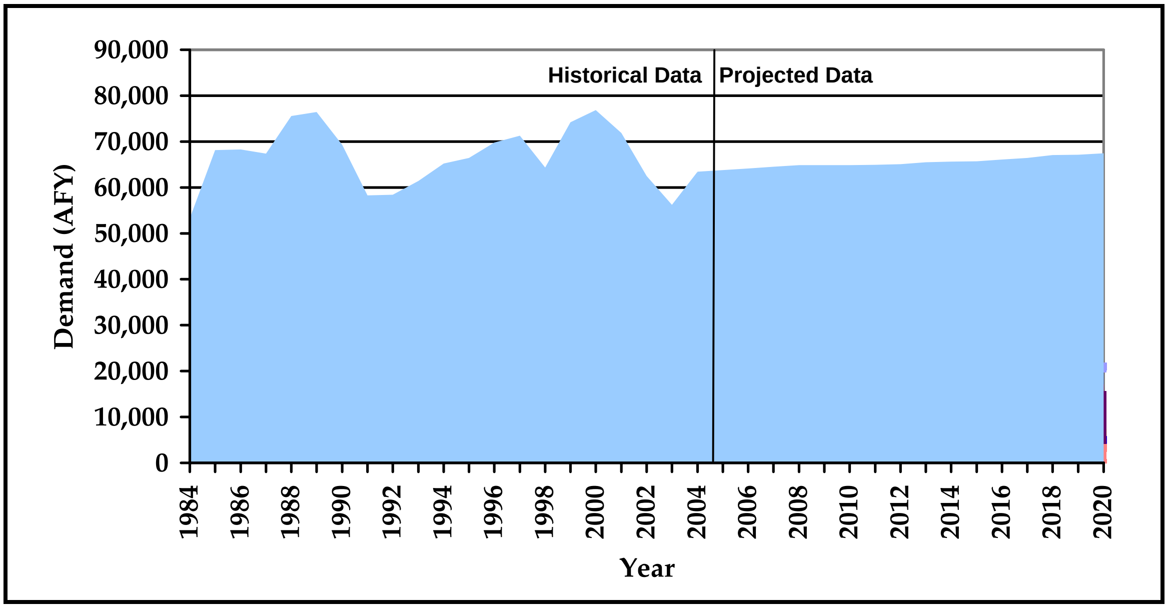

Figure ES.3 Historical and Projected Water Demand

PHYSICAL SOLUTION IS THE BASIS OF WATER SUPPLY PROJECT IN THE MANAGEMENT AREA

As described in the Stipulated Judgment, the Physical Solution is the court decreed method of managing the water supply in the Management Area to maximize the reasonable and beneficial use of the waters, eliminate overdraft, protect the prior rights of the Soboba Tribe, and provide for the substantial enjoyment of all water rights by recognizing their priorities. The Physical Solution consists of numerous water supply and conjunctive use projects, including direct and in-lieu recharge, increased use of recycled water, increased conservation, and improved monitoring. The core project in the Physical Solution is the Hemet/San Jacinto Integrated Recharge and Recovery Program (IRRP). Phase I of the IRRP has been designed, funded, the necessary environmental permits have been acquired, and construction is currently underway. Phase II is in planning stages. The IRRP is a regional recharge and recovery program to meet the following goals:

- Satisfy Prior and Paramount Soboba Tribe water rights;
- Offset the estimated 10,000 AFY overdraft in the Management Area; and
- Provide an additional 15,000 AFY to help meet the projected demand increases.

In addition to IRRP, the Plan identifies other projects that can potentially meet the above goals. These include direct recharge, in-lieu recharge, and recycled water projects.

A FIRM LEGAL AND INSTITUTIONAL ARRANGEMENT

Development of a comprehensive system of water management begins with the legal and institutional framework. To meet the goal of reducing groundwater production to eliminate overdraft, the Public Agencies agreed upon some basic principles as a basis for allocating Base Production rights. Base Production rights establish the initial amount that each Public Agency would be able to pump without the need to replenish the basin. The Base Production rights are calculated on the basis of actual production by Public Agencies during 1995-99 calendar years, and adjusted for specific historical operational activities, such as:

- Recharge Activities;
- MWD San Jacinto Tunnel Seepage;
- Fruitvale Entitlement Water Sold by EMWD to LHMWD, Hemet, and San Jacinto;
- Stream Diversions;
- Conveyance Water Deliveries; and
- Other Considerations.

The Public Agencies have, therefore, agreed to the following Base Production Rights:

Table ES.1 Public Agency Base Production Rights

Public Agency	Base Production Rights (AFY)	Base Production Rights (Percent)
EMWD	10,869	33.7
LHMWD	11,063	34.2
City of Hemet	6,320	19.6
City of San Jacinto	4,031	12.5
Total	**32,283**	**100**

Surface water rights are not impacted and/or changed by the Plan or any other recent agreements. LHMWD diverts water from the San Jacinto River and its tributaries through its pre-1914 water rights to meet their irrigation and municipal water demands, and EMWD has a license to divert water from the San Jacinto River for recharge purposes.

Soboba Tribal water rights are recognized throughout the Plan, and details of the monetary, water quantity, water quality, and property requirements to meet the obligations set forth in the settlement agreement with the Soboba Tribe are discussed in Section 8 of the Plan.

The Institutional Plan, discussed in Section 9 of the document, assigns the administration, implementation, and monitoring of the Plan to a Watermaster. The Watermaster will consist of one elected official representing each of the Public Agencies and one representative selected by the participating Private Water Producers. The Watermaster will utilize the counsel of legal advisor, as well as provide technical oversight through an Advisor and Technical Advisory Committee. The Watermaster will utilize services of EMWD for recharge operations and administration and monitoring of the projects and the Plan. The relationships and basic responsibilities of these entities are summarized in Figure ES.4. The Watermaster will also review, approve, and adopt the annual budget, which will be funded by administrative assessments and replenishment assessments. The details of Watermaster administration are discussed in Section 9 of the Plan document.

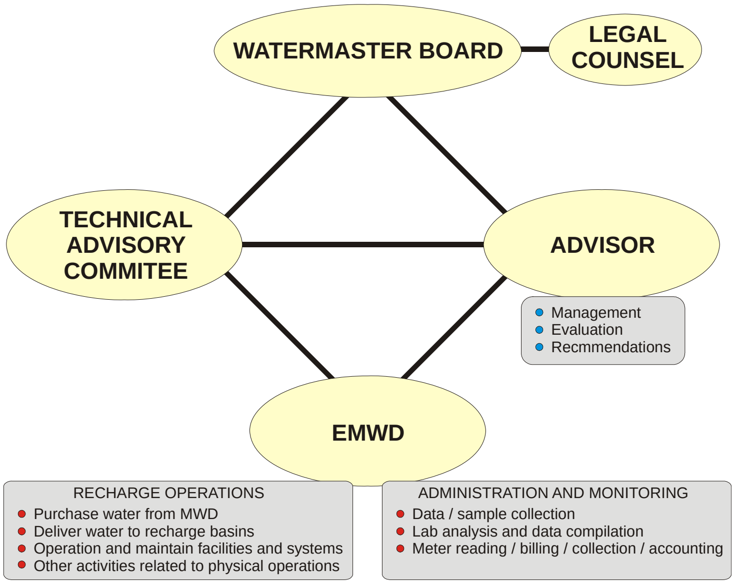

Figure ES.4 Plan Institutional Setup

IMPLEMENTATION AND PLAN EVOLUTION

The implementation of the Plan, along with any additions or modifications as may become appropriate, and all financial matters relating to Plan activities are the responsibility of the Watermaster. The implementation process can be divided into two processes: implementation and ongoing activities. The schedules for these processes are shown in Table ES.2 and Table ES.3.

Table ES.2 Implementation Schedule

Months after Approval of Stipulated Judgment	Implementation Item
Month 1	Determine the method of selection for the Private Pumper representative.
Month 2	Select Public Agency and Private Pumper representatives.
Month 3	Hold first meeting of the Watermaster. Contract with EMWD for Watermaster services.
Month 4	none
Month 5	none
Month 6	Retain legal council and advisor. Prepare and adopt Rules and Regulations for its own operation as well as for the operation of the Water Management Plan and Judgment. Review and reissue agreements and MOUs, as needed.
Upon Settlement Agreement Implementation	Recognize Tribal water rights.

Table ES.3 Ongoing Schedule

Timing	Frequency	Activity	Responsibility
January 1	Annual	Propose Monitoring Program.	EMWD
End of January	Annual	Review Monitoring Program.	Advisor
End of February	Annual	Approve budget for Monitoring Program.	Watermaster
1st Quarter	Annual	Advance payment of Administrative Assessments.	Public Agencies
1st Quarter	Annual	Payment of Replenishment Assessments.	Public Agencies
Four months after completion of calendar year monitoring	Annual	Submit Annual Hemet/San Jacinto Water Management Area Report.	EMWD
As needed	As needed	Revise safe yield.	Advisor
TBD	Annual	Prepare, File, and Distribute Watermaster Annual Report.	Watermaster

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1.1 PROJECT BACKGROUND

The stakeholders in the Hemet/San Jacinto Groundwater Management Area (Figure 1.1) (Management Area) have developed the Hemet/San Jacinto Water Management Plan (Plan) to provide a foundation that guides and supports responsible water management in the future. The local stakeholders involved in the Plan include Eastern Municipal Water District (EMWD), Lake Hemet Municipal Water District (LHMWD), Cities of Hemet and San Jacinto, and Private Water Producers, collectively referred to as "Plan Participants". EMWD, LHMWD, and the Cities of Hemet and San Jacinto are collectively referred to as "Public Agencies".

A Policy Committee (PC) of the Plan Participants developed and adopted the Principles for Water Management (Principles), which guide the management, development, and governance of local water supplies. The adopted Principles, along with a variety of technical analyses, guided development of the Plan. The PC established the Principles based on the historical data on the operation of the groundwater basin; historical and projected water demands; and existing and potential future facilities. The California Department of Water Resources (DWR) provided financial, facilitation, and technical support to the PC.

A Technical Committee (TC) supported the PC and served as the investigative and review body to ensure that proper technical analyses were conducted to provide a defensible technical foundation for the Plan. The TC provided technical input to support decisions by the Public Agencies, Private Water Producers, and other stakeholders. DWR also provided financial and technical support to the TC.

A Consultants-Attorneys-Managers (CAM) committee served as an interim body to develop and review technical, legal, institutional, and financial documents, plans, and standards. The CAM committee discussed the technical/policy/legal issues in anticipation of evolving documents and recommendations for action by the policy makers for the PC.

EMWD and LHMWD have also worked with the Soboba Band of Luiseño Indians (Soboba Tribe) and the Federal Government to develop a Settlement Agreement (Agreement) (Appendix A) that would resolve past issues with respect to Tribal water rights and the water management practices in the basin. The Agreement will be supported by two stipulated

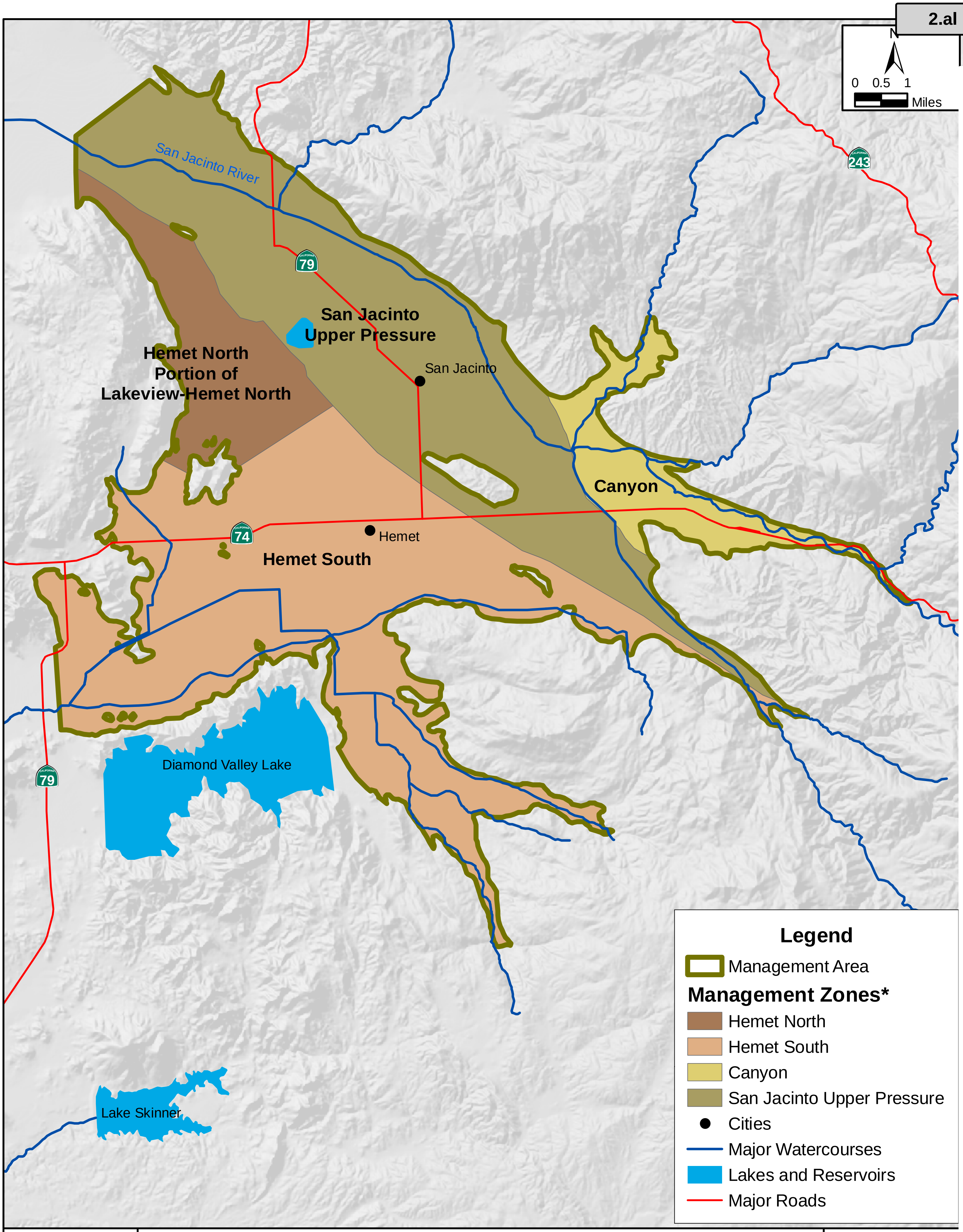

WRIME

Management Area and Management Zones

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 1.1

judgments[1] that will provide the legal and technical basis for future water supplies for the Soboba Tribe.

1.2 WATER MANAGEMENT PLAN

The Plan, adopted by the governing bodies of the Plan Participants, will provide a roadmap for implementation of the Physical Solution, ensure adequate and reliable sources of future water supply for the Management Area, and meet the Prior and Paramount Soboba Tribe water rights requirements. The Plan may be modified and updated in the future based on, among other things, the availability of new data, updated technical analysis, and changes in the institutional/financial structure of the stakeholders.

1.3 PHYSICAL SOLUTION

As described in the Stipulated Judgment (Appendix B), the Physical Solution is the court decreed method of managing the water supply in the Management Area to maximize the reasonable and beneficial use of the waters, eliminate overdraft, protect the prior rights of the Soboba Tribe, and provide for the substantial enjoyment of all water rights by recognizing their priorities. Therefore, the Physical Solution is a group of water supply and conjunctive use projects that would serve this purpose.

The project that is considered to be the core of the Physical Solution is Phase I of the *Hemet/San Jacinto Integrated Recharge and Recovery Program (IRRP)*. Phase I of the IRRP has been designed, funded, and the necessary environmental permits are being acquired. Phase II is in planning stages. The complete project is designed to recharge (replenish) imported water and extract groundwater at a capacity such that the following goals are met:

1. Satisfy Prior and Paramount Soboba Tribe water rights;
2. Offset the estimated 10,000 acre-feet per year (AFY) overdraft in the Management Area; and
3. Provide an additional 15,000 AFY to help meet the projected demand increases.

Major elements of Phase I of the Project are:

- Modifications to Pump Stations (Warren and Commonwealth);
- Construction of Pipelines;

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[1] These judgments are in the case of Soboba Tribe v. Metropolitan Water District, et. al.; U.S. District Court in Los Angeles, Case No. 00-04208 GAF, and in a Riverside County Superior Court action, yet to be filed.

- Design and Construction of Recharge Basins;
- Drilling Three Extraction Wells;
- Installation of Pumps and Chlorination Equipment for Three Extraction Wells; and
- Design and Drilling of Three Monitoring Wells.

Additional details on Phase I of the IRRP are presented in Section 3.2.2 of this Plan, and details on Phase II are presented in Section 5.3.1.

In addition to the *San Jacinto River Integrated Recharge and Recovery Project*, there are other projects that the TC has identified as potential projects to be further considered in the future as part of the Physical Solution for the Management Area. These include *direct recharge* and *in-lieu recharge* projects and are described in Section 5.3 of this Plan.

1.4 WATER MANAGEMENT PLAN GOALS

The Principles include eight primary goals for the management of water resources in the Management Area. These are:

- Address pumping overdraft and declining groundwater levels,
- Provide for Soboba Tribe prior and paramount water rights,
- Ensure reliable water supply,
- Provide for planned urban growth,
- Protect and enhance water quality,
- Develop cost-effective water supply,
- Provide adequate monitoring for water supply and water quality, and
- Supersede the Fruitvale judgment and agreement.

This section briefly describes the geographic boundaries of the four divisions, or Management Zones, that make up the Management Area and provides a brief history and background on each of the primary stakeholder organizations. Past agreements and related activities leading to the Plan are discussed below, including the role of the state and public participation.

2.1 MANAGEMENT AREA

The Management Area is divided into four Management Zones: The Canyon, San Jacinto Upper Pressure (Upper Pressure), Hemet South, and the Hemet North portion of the Lakeview/Hemet North (Hemet North). The locations of the Management Zones are shown in Figure 1.1. The delineation of the Management Zones is based on the recent update by the Santa Ana Regional Water Quality Control Board (RWQCB) in the *Water Quality Control Plan - Santa Ana River Basin (RWQCB, as amended 2004)*. The RWQCB defined these boundaries on the basis of hydrogeologic conditions to support implementation of specific water quality criteria. Additional descriptions of the basin hydrogeology are provided in Section 4.

2.2 MANAGEMENT PLAN PARTICIPANTS

A map of the service areas of the Public Agencies near the Management Area and the Soboba Reservation is provided in Figure 2.1. The Plan Participants are briefly described below.

2.2.1 PUBLIC AGENCIES

EMWD, LHMWD, the City of Hemet, and the City of San Jacinto provide water service in various areas of the Canyon, Upper Pressure, Hemet South, and Hemet North Management Zones. A list of governing bodies is provided in Appendix C. Additionally, there are a number of Private Water Producers extracting groundwater for agricultural and domestic use.

2.2.1.1 Eastern Municipal Water District (EMWD)

Since its formation in 1950, EMWD has matured from a small agency primarily serving agriculture to one whose major demands come from domestic customers. In 1951, EMWD annexed to the Metropolitan Water District of Southern California (MWD). With the purchase of the Fruitvale Mutual Water Company (FMWC) in 1971, EMWD acquired all of Fruitvale's

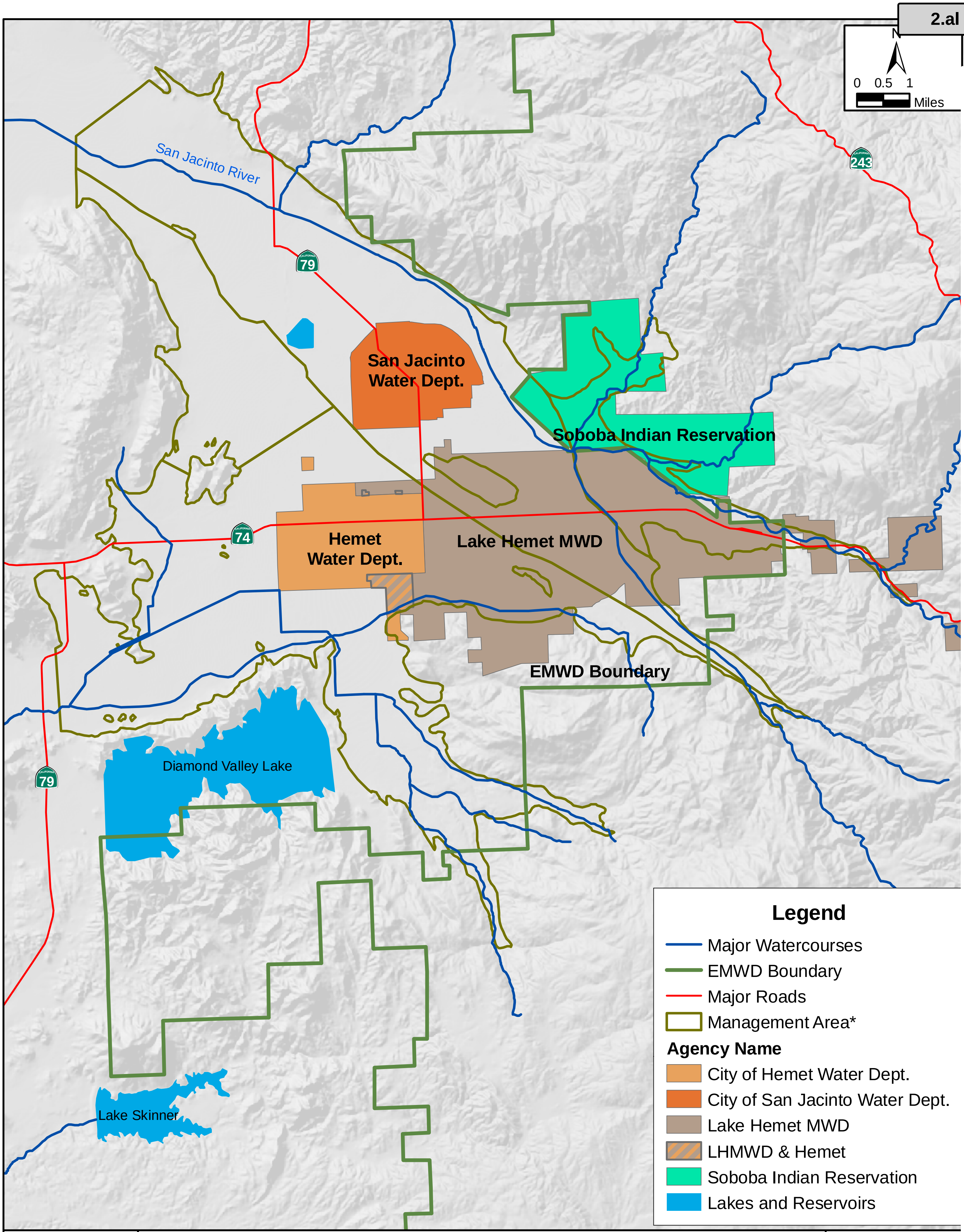

Public Agencies and Soboba Reservation

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 2.1

assets including appropriative, prescriptive, and riparian water rights; water system, wells, well sites, pumps, and storage; real property, easements, rights, and interests; and franchises, permits, and licenses. Over time, the agency has continued to grow. Today, in addition to providing retail service, EMWD provides wholesale water to the seven local water agencies within its service area, including the three remaining Public Agencies in the Management Area.

As of 2005, EMWD serves approximately 113,000 retail connections, including approximately 200 agricultural connections, in a service area with an estimated population of 567,000 within the 555-square-miles, including many areas outside the Management Area. The population within EMWD's boundaries is expected to grow to 830,000 by 2025 (EMWD, 2005a), not including the population of the Rancho California Water District.

In addition to wholesale and retail potable water supply, EMWD's services include wastewater collection and treatment as well as water recycling. The San Jacinto Valley Regional Water Reclamation Facility is an 11 million gallons per day (MGD) plant that provides most of the treatment and water recycling capability for the Management Area.

The five-member Board of Directors comprise the governing body of EMWD and are responsible for setting the policies guiding the operations of the District. Board members are elected to four-year terms by the registered voters from five geographic divisions, which are apportioned on the basis of population distribution. Terms of service are staggered to ensure continuity; public elections are held in at least two divisions every two years. Directors must reside within the division from which they are elected.

The 2004 water use in the portion of the EMWD service area within the Management Area was 13,900 AFY, and it is projected to increase to 21,000 AFY by the year 2020 (EMWD, 2005b).

2.2.1.2 Lake Hemet Municipal Water District (LHMWD)

LHMWD was created in its present form in 1955, but its origins date back to the late 1880s. The service area covers 16,500 acres in the Hemet/San Jacinto Valley area with an additional 2,200 acres in Garner Valley. LHMWD provides water to residential and agricultural customers in its service area. All wastewater collection and treatment within the LHMWD area is performed by EMWD.

LHMWD operates the Hemet Dam and reservoir. The dam, an engineering marvel at the time of its construction in 1895, is a gravity-type, granite dam. LHMWD historically treated a portion of this surface water for domestic use, however since 1998 the surface water treatment plant has been offline and all surface water usage has been for untreated agricultural uses.

LHMWD usually maintains approximately 11.7 million gallons in storage in the Hemet/San Jacinto Valley.

LHMWD customers are represented by a publicly elected board of five directors from five divisions, representing approximately 13,700 domestic and 52 agricultural connections within a 21-square mile service area with a 2005 population of approximately 39,100. The population within the LHMWD service area is expected to grow to approximately 49,500 by 2025 (LHMWD, 2005).

The 2004 water use within the LHMWD service area was estimated to be 16,900 AFY. Due to the expected benefits of more robust conservation efforts, demand is projected to remain fairly constant over the next several years despite an increasing number of service connections. Demand in 2020 is expected to be 16,300 AFY before increasing above the 2004 demand level in years thereafter (LHMWD, 2005).

2.2.1.3 The City of Hemet

The development of Hemet began in 1887 with the formation of the Lake Hemet Water Company and the Hemet Land Company by W. F. Whittier and E. L. Mayberry. The completion of the Hemet Dam in 1895, the formation of Lake Hemet behind the dam, and a water distribution system to and through the valley made future development of the Hemet area possible.

As of 2005, the city had a population of 78,600 with an area of approximately 26 square miles. City of Hemet anticipates a population growth to 154,000 by 2025 (Hemet, 2006).

The City of Hemet was incorporated on January 20, 1910 with a population of 992. The city government is a Council/Manager form of government with seven elected positions, which includes five Council Members, one City Treasurer, and one City Clerk. The Mayor is elected by the Council Members and serves a one-year term. All Council Members serve a four-year term.

The City of Hemet Water Department treats and distributes water to 9,500 connections, covering 5 square miles of the city area. The 2005 population of the Water Department's service area is 20,200 and is projected to grow to 22,300 by 2025. EMWD and LHMWD serve the remaining 21 square miles of the city, with 7,830 and 3,025 connections, respectively. All wastewater collection and treatment within the City of Hemet area is performed by EMWD.

The 2004 water use within the City of Hemet Water service area was estimated to be 6,000 AFY, and is projected to increase to 6,700 AFY by year 2020 (Hemet, 2006).

2.2.1.4 The City of San Jacinto

Incorporated in 1888, San Jacinto is one of the oldest communities in Riverside County. The city has a Council/Manager form of government with a five member Council that includes a Mayor and Vice Mayor. The City of San Jacinto Water/Wastewater Divisions are responsible for the health and safety of the community through the delivery of the potable water supply and the collection of wastewater. The city wastewater collection system is maintained by this Division while wastewater treatment service is provided by EMWD.

The 2005 population of the city was 34,100; it is anticipated the population of the city will grow to 63,600 by 2025 (San Jacinto, 2005). The City of San Jacinto Water Department serves the central portion of the city with approximately 3,700 residential and commercial service connections. The 2005 population of the Water Department's service area is 13,200 and is projected to grow to 24,000 by 2025. The remaining portions of the city are served by EMWD and LHMWD, which have 4,636 and 475 service connections within the city boundaries, respectively.

The 2004 water use within the City of San Jacinto water service area was estimated to be 3,100 AFY, and is projected to increase to 5,100 AFY by year 2020 (San Jacinto, 2005).

2.2.2 PRIVATE WATER PRODUCERS

Private Water Producers are those property owners who are pumping groundwater pursuant to overlying water rights, typically for agricultural or domestic uses. Historically there was no comprehensive metering program in-place to monitor groundwater production and/or water use by the Private Water Producers. EMWD collected groundwater data through an informal, voluntary monitoring program. In 2004 the Hemet/San Jacinto Groundwater Monitoring Program was initiated by the Public Agencies and the DWR to collect, analyze, and compile groundwater-related data (EMWD, 2005).

It is estimated, on the basis of limited data and land use analysis, that the 2004 water use by Private Water Producers was about 22,200 AFY. This annual level of water use is unusually low, compared to a long-term average of 31,000 for 1984-2004 (WRIME, 2003a). Water use is expected to drop to approximately 16,000 AFY by 2020.

The Public Agencies recognize the overlying water rights of Private Water Producers, and the Principles provide several options for voluntary participation in the Plan by the Private Producers. For more details, please see the Principles provided in Appendix D.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

There are two classes of participants, Class A and Class B; both agree to have their wells metered and to have those meters read by EMWD personnel at no cost to the participants. The two types of participants are further explained below.

2.2.2.1 Class A Participants

A Private Water Producer can sign an agreement acknowledging the existence of the Plan, while not being required to participate in Plan implementation. Class A participants are allowed to vote for and/or serve as the Private Water Producer representative on the Watermaster board. The Class A participants may continue to pump from their property without assessments by the Watermaster, so long as the water is put to a reasonable and beneficial use as authorized by California law.

The Class A participants have the right to convert to Class B during a grace period that ends 3 years after the entry of the Stipulated Judgment, and upon payment of the total assessments without interest, as if they were Class B participants to begin with.

2.2.2.2 Class B Participants

A Private Water Producer can become a Class B participant by electing to limit annual pumping to their estimated average annual production during the 1995 – 1999 calendar years and by agreeing to pay replenishment assessments on amounts in excess of that average annual production.

Like Class A Participants, Class B Participants can vote for and/or serve as the Private Water Producer's representative on the Plan's governing board. Additional benefits are given to Class B Participants as well. Under certain conditions, the Class B Participant can convey their Adjusted Production Right to the Plan or to a Public Agency. Also, upon conversion from agricultural to urban uses, Class B Participants would receive credits from the Public Agency toward the satisfaction of any requirements then in effect for water supplies and toward any fees associated with water supply that the Public Agency may then have in effect. For more information on production rights, please see Section 6.

2.2.2.3 Non-Participants

A Private Water Producer can elect not to participate in the Plan and not to formally acknowledge its existence. These non-participants will continue to exercise their water rights unaffected by the Plan.

2.2.3 ROLE OF STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

In June 2001, the DWR executed a Memorandum of Understanding (MOU) with EMWD, LHMWD, and the Cities of Hemet and San Jacinto. Initially, DWR worked to bring the group together to establish a mutual understanding of the issues in the Management Area. The goals of the group were determined and included the following: (i) finalizing an approach to groundwater management; (ii) settling on a mechanism to involve the Plan Participants in the water rights claim by the Soboba Tribe; (iii) agreeing on the basic components of a regional conjunctive use program; and (iv) establishing the necessary institutional structures. Major involvement of the DWR to-date include providing technical support to the TC and PC on resolving various technical and data analysis issues, providing facilitation and mediation support to the PC and the CAM committee, providing financial support on a number of studies and projects, including the Plan document.

2.2.4 PUBLIC PARTICIPATION

There have been numerous opportunities for public input into the development of the Plan. Meetings were held for the public at the beginning of the Plan process to provide information and gather input. While the Plan was being developed, more opportunities were provided for public input, including TC and PC meetings and meetings with the Private Water Producers, all of which were open to the public. The public was also given the opportunity to review the draft of the Plan and submit comments.

2.3 PREVIOUS AGREEMENTS AND INSTITUTIONAL BODIES

During the course of history of water supply in the Management Area, there have been other agreements and institutional bodies that have been formed and operated to facilitate the management of water supplies. Following is a brief description of these agreements and institutional bodies, which are no longer active or are superseded by this Plan.

2.3.1 FRUITVALE JUDGMENT AND DECREE

The Fruitvale Judgment and Decree (The City of San Jacinto, et al., v. Fruitvale Mutual Water Company, et al., No. 51546, Riverside County) was entered into Book 72, Page 164 of Judgments, Riverside County, on June 4, 1954. Under the Judgment and Decree, FMWC could extract groundwater from an area which largely corresponds to the Canyon Management Zone without any restrictions as long as a specified criteria regarding static depth to groundwater and production limits were met. After purchase of FMWC, EMWD was subject to the provisions of the Judgment and Decree. The Water Management Plan and related Stipulated Judgment will subsume and supersede the 1954 Fruitvale Judgment and Decree, along with any other agreements between EMWD and other agencies related to the FMWC acquisition, provided that none of the service area agreements included in the Fruitvale documents or those related to mutual aid or system interties are affect by this Plan or the Stipulated Judgment.

In 1971, EMWD purchased all of FMWC's assets and water rights, and FMWC was dissolved. EMWD also agreed to continue to provide to the Cities of Hemet and San Jacinto and LHMWD the amounts of water which they had been entitled to receive as shareholders in FMWC. These deliveries were known as "entitlement water" and the water was provided at a fixed rate, subject to annual adjustments. The amounts of water to be provided were:

- City of Hemet: 6.39% of the greater of FMWC pumping or 9,000 AFY;
- City of San Jacinto: 0.38% of FMWC pumping; and
- LHMWD: 3.74% of FMWC pumping.

The reporting by EMWD since the purchase of FMWC shows that an average of approximately 10,000 AFY was pumped from FMWC wells. Of this total, an average of 61% was from Upper Pressure, 33% was from Canyon, and 6% AFY was from Hemet South.

2.3.2 HEMET/SAN JACINTO GROUNDWATER ASSOCIATION

The Hemet/San Jacinto Groundwater Association (Association) was formed in 1991 to provide an over-arching organization to proactively address groundwater issues in the Management Area. The Association Board of Directors included representatives from the Private Water Producers, EMWD, LHMWD, and the Cities of Hemet and San Jacinto.

The Mission Statement and Articles of Association were approved on September 9, 1991. The Mission Statement read: *The Hemet/San Jacinto Groundwater Association serves as the regional groundwater management entity for portions of the San Jacinto Valley groundwater basins. The Mission of the Association is to maintain a secure reliable and reasonably priced supply of high quality water for groundwater producers in the basin. The Association will implement its Mission by developing and applying sound groundwater basin management concepts.*

With regard to the area covered by the Association, the Articles of Association state: *The portions of the San Jacinto Valley Groundwater Basins shall include the Canyon area, the Intake area, and the upper pressure area, of the San Jacinto Hydrologic Subarea; the Hemet Hydrologic Subarea; and a portion of the Winchester Hydrologic Subarea. Such also being that portion of the San Jacinto Valley southeasterly of Bridge Street and northeast of one-quarter mile west of California Avenue in the area of Simpson Road, together with tributary basins, streams, and watersheds.*

In May 1994, following receipt of the Soboba Band of Mission Indians water rights settlement claim, requests were submitted to the U.S. Department of the Interior by EMWD, the Association, and the Soboba Tribe, to appoint an Indian Water Rights Settlement team to participate in settlement negotiations. The activities of the Association stopped when the current negotiations took precedence.

2.4 ACTIVE INSTITUTIONAL BODIES

As part of the on-going activities leading to the development and adoption of the Principles, the Stipulated Judgment, and agreement with the Soboba Tribe, the following institutional bodies are formed:

- Hemet/San Jacinto Policy Committee (PC),
- Hemet/San Jacinto Technical Committee (TC), and
- Hemet/San Jacinto Consultant-Attorney-Managers Committee (CAM).

Following is a brief description of each body, their role, and participants.

2.4.1 HEMET/SAN JACINTO POLICY COMMITTEE

The PC is comprised of elected officials representing EMWD, LHMWD, the Cities of Hemet and San Jacinto, and representatives of the Private Water Producers. Each entity, including the Private Water Producers, has three representatives on this committee. In the case of the Public Agencies, the PC representatives are two members of the Board of Directors or City Council and the agency or city manager. Three representatives reflecting the Private Water Producers interests (agricultural, dairy, golf course, etc.) are selected by the Private Water Producers. Each entity participates and votes as a unit in the PC. The decision making process is based on consensus. DWR provides a facilitator, a project manager, and technical experts to support and facilitate the decisions of the PC and TC members. Observers to the PC include other Private Water Producers, attorneys, and/or consultants representing various members, and representatives of the Soboba Tribe.

The list of participants in the PC at the time of adoption of this Plan is presented in Appendix E.

2.4.2 HEMET/SAN JACINTO TECHNICAL COMMITTEE

The PC formed a TC to compile, share, interpret, evaluate, and reach agreement on data; to define problems; and to address the PC's technical issues and make recommendations to the PC. Committee membership consists of representatives assigned by the Public Agencies, the Private

Water Producers, and DWR and an engineering consultant provided by DWR as a neutral third-party participant. The representative from LHMWD served as the TC chairman. Through a collaborative effort, the TC developed the data set (WRIME, 2003a) that provides the basis for understanding the area's hydrology, and has identified potentially feasible initiatives, programs, and projects to enhance the safe yield of the Management Zones.

The list of participants in the TC at the time of adoption of this Plan is presented in Appendix E.

2.4.3 HEMET/SAN JACINTO CONSULTANT-ATTORNEY-MANAGERS COMMITTEE

The PC formed the CAM Committee, consisting of technical, legal, and management representatives of each Public Agency, assisted by the DWR project manager and facilitator. The role of the CAM Committee is to facilitate the preparation of technical and legal documents in support of the Stipulated Judgment, the Agreement, and the Plan. Tasks assigned to the CAM Committee include: the development of contractual agreements and MOUs, and the evaluation of the financial impacts to the community for consideration and action by the PC. The CAM Committee provides administrative or policy recommendations to the PC.

The list of participants in the CAM Committee at the time of adoption of this Plan is presented in Appendix E.

2.5 RELATED GROUNDWATER MANAGEMENT ACTIVITIES

There have been numerous investigations and technical analyses conducted in the Management Area. This section highlights more recent reports that were produced to support the Plan, reviewed by the TC, and used by the PC to make decisions. There has been a significant amount of work completed by the local agencies documented in the form of presentations to the PC and the TC. These include:

- Analysis of EMWD Fruitvale water transfer and use by other agencies;
- Analysis of Conveyance (export) water from the Management Area;
- Reconciliation of the Groundwater Production records amongst the participants;
- Estimation of basin overdraft;
- Review and assessment of the San Jacinto Watershed Groundwater Model; and
- Recycled water use and activities.

A Basin Assessment Study was undertaken in 2003 by the local stakeholders with the support of DWR in order to evaluate the existing conditions of the Management Area, evaluate likely future conditions, and develop and evaluate potential conjunctive use opportunities in the

Management Area. To support the Basin Assessment Study, the following Technical Memoranda (TM) and reports were produced:

- *Operational Yield Study, Hemet/San Jacinto Groundwater Management Area (WRIME, 2003d);*
- *Technical Memorandum No. 1 (TM1), Assessment of Historical and Projected Land and Water Use Data (WRIME, 2003a);*
- *Technical Memorandum No. 2 (TM2) - Description of Preferred Potential Conjunctive Use Projects (WRIME, 2003c);*
- *Basin Assessment Study Executive Summary (ES) (WRIME, 2003b); and*
- *Draft Technical Memorandum No. 3 (TM3) - Analysis of Impacts of Conjunctive Use Projects (January 2004).*

The *Operational Yield Study, Hemet/San Jacinto Groundwater Management Area* presents estimates of the operational yield of the Management Area. Several time periods were used to examine the water budgets of each Management Zone and the Management Area as a whole under various hydrologic conditions. The purpose of the report was to review the previous estimates of hydrologic water budget and reconcile differences in the previously prepared water budgets, and to achieve a consensus on the assumptions, data, methods, and yield of the basin. The long-term period of 1958-2001 was used since it had the best available data at the time and represented a balanced hydrologic period, with wet, dry, and normal periods similar in frequency to the overall historical record.

Hemet/San Jacinto Basin Assessment Study – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 1 (TM 1), Assessment of Historical and Projected Land and Water Use Data presents background and available data, and analyzes the quality and utility of the data for evaluating basin conditions. The data presented in TM 1 include historical groundwater production, water diversions, water sales, and imported water. The purpose of the report was to obtain agreement on existing conditions, document assumptions, and provide a baseline for purposes of future comparison.

Hemet/San Jacinto Basin Assessment Study – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 2 (TM 2), Identification and Description of Potential Conjunctive Use Projects presents the process and basis of selection of sites for further evaluation for potential conjunctive use projects. Seven sites were selected from an initial group of 15. The sites were ranked based on screening criteria that included: general site characteristics (size, recharge needs, ownership, etc.), recharge water sources, hydrogeologic suitability, sub-basin interactions, engineering suitability, land use suitability, and environmental impacts. An initial screening was also performed for two potential in-lieu projects.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Hemet/San Jacinto Basin Assessment Study – Executive Summary provides a summary of TM 1 and TM 2.

Draft Hemet/San Jacinto Basin Assessment Study – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 3 (TM 3), Analysis of Impacts of Conjunctive Use Projects (January 2004) presents a summary of available information on seven potential recharge sites and two potential in-lieu sites for conjunctive use. Draft TM 3 synthesizes information from multiple sources to compare potential recharge sites and proposes preferred sites and documents any additional study or data needs. The TM 3 was presented to the TC in draft form, and comments were received. Due to initiation of the development of the Water Management Plan, the work to finalize TM 3 was re-scoped, which obviated the need to prepare a final TM 3.

Significant other work has been performed and documented by EMWD. These reports include planning documents and feasibility studies with modeling efforts:

- *West San Jacinto Groundwater Basin Management Plan;*
- *Hemet/San Jacinto Water Management Area 2004 Annual Report;*
- *Hemet-San Jacinto Recharge and Recovery Program- Feasibility Study;*
- *Regional Groundwater Model for the San Jacinto Watershed;*
- *Hemet-San Jacinto Integrated Recharge and Recovery Program- Feasibility Study Groundwater Flow Model;*
- *Lake Elsinore and Canyon Lake Nutrient Source Assessment;*
- *Groundwater Infiltration Predictions Using Surface Water Model Output for the San Jacinto Watershed;*
- *Development of the Regional Water Resources Database (RWRD); and*
- *Preliminary Design Report for the San Jacinto Agricultural In-Lieu Water Supply Project.*

West San Jacinto Groundwater Basin Management Plan (EMWD, 1995). This plan was prepared in accordance with Assembly Bill 3030. This groundwater management plan covers the western portion of the EMWD service area in the San Jacinto Watershed. Since the groundwater management in the eastern San Jacinto watershed was being developed under Association in the early 1990s, the Management Area was excluded from the AB3030 planning process. The goal of the West San Jacinto Groundwater Basin Management Plan is "to maximize the use of groundwater for all beneficial uses in such a way as to lower the cost of water supply and to improve the reliability of the total water supply for all water users in the West San Jacinto Groundwater Basin Management Area" (EMWD, 2004). Implementation of the plan included the establishment of an Advisory Committee; Management Zone prioritization; and groundwater resources evaluation including groundwater quality and level monitoring, extraction monitoring, and hydrogeophysical investigations.

Hemet/San Jacinto Water Management Area 2004 Annual Report (EMWD, 2005b). As part of the reporting process to the Management Area stakeholder group, EMWD produces annual reports that summarize groundwater quality, level, and extraction monitoring results, and provide an update on activities and progress toward meeting the previous year's recommendations and goals of the groundwater management plan. The first annual report for the Hemet/San Jacinto Area was produced in June 2005.

Hemet-San Jacinto Recharge and Recovery Program- Feasibility Study (Psomas, 2003). This report documents the feasibility of a proposed recharge project. The proposed Hemet/San Jacinto Integrated Recharge and Recovery Program consists of average annual recharge of 43,750 acre-feet (AF) based on long-term hydrology at a site within the City of Hemet and near the San Jacinto River's confluences with Poppet and Bautista Creeks. This program involves the construction of approximately 15 recharge ponds on a 100-acre site in the San Jacinto River channel, construction of new pipeline facilities, upgrade of existing pump stations, and construction of new extraction wells at various locations within the Management Area. In order to assess the feasibility of the proposed program, a comparative analysis was completed to evaluate potential alternatives to the preferred option of recharging imported water.

Regional Groundwater Model for the San Jacinto Watershed (TechLink Environmental, 2002a). This report documents the development of a regional groundwater flow and transport model for the San Jacinto watershed basin within EMWD's service area, an area that includes the Management Area as well as the areas to the west included in the *West San Jacinto Groundwater Basin Management Plan*. *Regional Groundwater Model for the San Jacinto Watershed* includes review of available data, development of a conceptual model, setup of a flow and transport model, calibration of the model, and simulation of management scenarios.

Hemet-San Jacinto Integrated Recharge and Recovery Program - Feasibility Study Groundwater Flow Model (TechLink, 2002b). This report documents the application of the regional groundwater model to evaluate the various recharge and recovery activities and alternative water supplies. These model simulations are intended to compare project and no-project alternatives, evaluate the aquifer capability to store large volumes of water, and evaluate the availability of recharged water for extraction.

Lake Elsinore and Canyon Lake Nutrient Source Assessment (TetraTech, 2003). TetraTech developed a watershed model of the San Jacinto watershed for the Lake Elsinore and San Jacinto Watershed Authority and the RWQCB as part of the Lake Elsinore and Canyon Lake Nutrient Source Assessment. The model provided a framework for nutrient source assessment through representation of contributing land uses in a subwatershed network and subsequent determination of required nutrient load reductions and allocations to Total Maximum Daily Load (TMDL) objectives. Relating to the Management Area, the report showed that nutrients from the Management Area only reach the lakes when Mystic Lake overflows.

Groundwater Infiltration Predictions Using Surface Water Model Output for the San Jacinto Watershed (TetraTech, 2004). This report documents the update and modification of the watershed model by TetraTech to support EMWD's development of a groundwater model of the San Jacinto River basin to simulate aquifer storage in the region. The update and modification included extension of the modeling period from January 1984 to March 2003, division of one subwatershed into 4 subwatersheds, and modification of model output. The model was validated and scenarios were run.

Regional Water Resources Database (EMWD, 2005c). A RWRD was developed for EMWD in 2004 to house the existing and future groundwater-related records and to interface Geographic Information System (GIS) maps and aerial photographs. The RWRD contains information for groundwater levels and extraction; streamflow and diversions; well information, construction data, downhole logs, and well/aquifer pump tests; precipitation; temperature; evaporation; imported water usage and quality; conjunctive use; and water quality data from other laboratories and published reports. While no formal document is available to-date describing the full development and implementation of this project, *Regional Water Resources Database* presents a concise summary of the capabilities of this important component of data management in the region.

Preliminary Design Report for the San Jacinto Agricultural In-Lieu Water Supply Project (Engineering Resources of Southern California, 2005). This report details how recycled water could be incorporated into existing irrigation infrastructure and how to be consistent with the regulatory constraints associated with recycled water use. This included study of water demands, pipeline alignment and size, and environmental issues and resulted in the development of a preliminary plan and cost estimate. The preliminary plan included 13,200 feet of 24-inch pipeline serving Rancho Casa Loma and Scott Brothers Dairy Farms. Total irrigation demand from these farms is estimated at 8,640 AFY. Of this amount, the project could deliver 3,215 AFY due to limited availability of recycled water during the summer months. The project is estimated to take 13 months to complete.

The elements of this Plan include water management goals and a set of management strategies that discuss and identify the actions necessary for meeting the goals.

3.1 MANAGEMENT PLAN GOALS

The Plan has eight primary goals derived from the Principles and the Agreement. Each of the goals, listed below, is briefly discussed in subsequent sections:

- Address pumping overdraft and declining groundwater levels,
- Provide for Soboba Tribe prior and paramount water rights,
- Ensure reliable water supply,
- Provide for planned urban growth,
- Protect and enhance water quality,
- Develop cost-effective water supply,
- Provide adequate monitoring for water supply and water quality, and
- Supersede the Fruitvale Judgment and Decree.

3.1.1 ADDRESS PUMPING OVERDRAFT AND DECLINING GROUNDWATER LEVELS

The Principles and the Stipulated Judgment recognize that groundwater levels within the Management Area have generally been declining for a number of years, and that the Management Area is presently in a condition of groundwater overdraft. The amount of groundwater overdraft is estimated to range from 10,000 to 15,000 AFY. This Plan has a goal of reducing the overdraft in the short-term, and completely eliminating the annual overdraft in the long-term. The timeframe will depend on the extent of overdraft, as more knowledge is gained through the years. For example, a six-year period would be needed to eliminate overdraft if there is an annual overdraft of 10,000 AF.

The Principles identify management strategies to be included in the Plan to reduce overdraft and ensure a long-term supply of reliable water for current and future uses. The Plan contains both management (non-structural) and capital facility (structural) elements to reduce demand and/or increase the available supply. The management elements include: reduction in native groundwater production; enhanced recharge with local runoff, imported, and/or recycled water; and water conservation programs. Short-term planned reductions in pumping are part of the Plan while further supplies are obtained through the identified management elements. The management strategies are described in more detail in Section 3.2.

3.1.2 PROVIDE FOR SOBOBA PRIOR AND PARAMOUNT WATER RIGHTS

The Agreement with the Soboba Tribe provides for financial obligations, settlement of all water rights claims, and water purchases from MWD, including infrastructure and groundwater storage. The Plan requires that all parts of the Agreement with the Soboba Tribe be met. The management elements to ensure this include: recognition of 9,000 AFY of Soboba Tribe water rights and up to 4,100 AFY of water use in Canyon and Upper Pressure Management Zones for the first 50 years from the date of Settlement, purchase of replenishment water, and MWD's long-term average delivery of 7,500 AFY of imported water.

3.1.3 ENSURE RELIABLE WATER SUPPLY

Reliability is a key component of any water supply system. This goal of the Plan is to ensure that the Public Agencies have a consensus and commitment to develop a comprehensive water supply portfolio that realizes all potential opportunities, and that plans are in place to adapt to changing demands, natural disasters, and drought conditions. Such a portfolio should rely on a range of sources of water supply and include a large component of local supply and storage. These objectives minimize, to the extent possible, reliance on weather patterns, over-stressed aquifers, and over-allocated imported water. The Plan elements that address these goals include imported and recycled water use.

3.1.4 PROVIDE FOR PLANNED URBAN GROWTH

The Management Area, like much of the Inland Empire area of Southern California, is experiencing dramatic urbanization. The Principles and the Plan recognize and acknowledge that the Management Area will continue to experience residential, commercial, and industrial growth and development, and that the existing water production and service systems will need to be expanded to meet this growth. This urbanization will affect water supplies in several ways. Urban development on non-irrigated lands will increase water use. Urban development and conversion of irrigated lands may not significantly increase water use, but the urban water use requires a more dependable, higher quality water supply. It is estimated that at least 15,000 AFY incremental water supply capacities over the existing Base Production Rights of Public Agencies must be dedicated to adequately serve this growth. The Plan will help local communities comply with recent changes in state law effective January 2002 (SB 221 and SB 610) requiring municipal suppliers, water districts, and cities or counties to document water availability from all sources in normal, dry, and multiple dry years whenever land use decisions are made. Planned urban growth, as identified in prevailing land use and general plans, or in approved Urban Water Management Plans (UWMP), provided the basis for all demand forecasts and assumptions in the Plan.

3.1.5 PROTECT AND ENHANCE WATER QUALITY

The Management Area has some of the highest quality groundwater in the San Jacinto Watershed, but it has its own problems and issues. Nitrates and Total Dissolved Solids (TDS) concentrations have historically increased as the area experienced urban and agricultural growth. As noted above, urban uses will replace agricultural uses, resulting in more stringent water quality standards for most constituents, including nitrates. The Plan seeks to meet goals for water quality through preventing degradation of the groundwater due to activities in the Management Area, and as a result of implementation of the Plan. Each of the Public Agencies also seeks to prevent degradation or to improve groundwater quality to avoid high costs for drinking water treatment.

3.1.6 DEVELOP COST-EFFECTIVE WATER SUPPLY

Equitable distribution of costs and benefits are part of the Plan. It is important that the Plan elements are selected and implemented in a way that keeps costs to a minimum so as to keep water bills as low as possible for customers. Cost management includes purchasing imported water at low rates; utilizing groundwater storage space; fully utilizing existing infrastructure; promoting conservation; efficiently implementing new infrastructure; and maintaining good quality groundwater and surface water to keep treatment costs low. The Public Agencies also seek to cost-effectively reclaim municipal wastewater for beneficial reuse whenever possible.

3.1.7 PROVIDE ADEQUATE MONITORING FOR WATER SUPPLY AND WATER QUALITY

Monitoring programs will be implemented to determine if the Plan's goals are being met; to document that anticipated benefits are being achieved; and to predict future needs. Included in the monitoring should be water quality, sampled at sufficient locations to be representative, with analysis for all constituents of concern. In addition, the monitoring program should include monitoring of water levels, well metering, and tracking of imported water and recycled water availability and deliveries. Monitoring can also be used to improve yield estimates and groundwater model performance through the development of better estimates of stream recharge and other components. The results of monitoring will be used to strengthen or relax actions needed to meet Plan goals.

3.1.8 SUPERSEDE THE FRUITVALE JUDGMENT AND DECREE

The Fruitvale Judgment and Decree (The City of San Jacinto, et al., v. Fruitvale Mutual Water Company, et al., No. 51546, Riverside County) was entered into Book 72, Page 164 of Judgments, Riverside County, on June 4, 1954. EMWD, as successor in interest to FMWC, is subject to the provisions of the Judgment and Decree. Provisions in the document are discussed and summarized in Section 2 of this Plan. The Stipulated Judgment and its Water Management Plan are to supersede the Fruitvale Judgment and Agreement subject to certain exceptions in Section 3.5 of the Stipulated Judgment.

3.2 WATER MANAGEMENT PLAN STRATEGIES

To meet the stated goals of the Plan, the stakeholders have adopted the following specific strategies.

3.2.1 REDUCE PUBLIC AGENCY NATIVE GROUNDWATER PRODUCTION

The Public Agencies have agreed to reduce native groundwater production so that total production is within the Safe Yield of the Management Area. The average annual groundwater production in the Management Area for the hydrologic period 1958-2004 is estimated to be 54,800 AFY. The initial estimate of Safe Yield is 45,000 AF. The Public Agencies have also agreed to a 10% reduction from each Base Production Right in the first full year after entry of the Stipulated Judgment. The Public Agencies' share of Safe Yield is calculated based on their Adjusted Production Right, and is discussed further in Section 11. Within the first six years, the Watermaster will make a determination of the Safe Yield of the Management Area. Thereafter, the Safe Yield shall be reviewed and modified, if necessary, upon the recommendation of the TC or as the Watermaster may determine. Until Adjusted Production Rights are consistent with the Public Agencies' share of Safe Yield, the Watermaster will determine the required reductions in Adjusted Production Rights in each subsequent year to achieve Safe Yield within a reasonable period of time as determined by the Watermaster. The Watermaster is to consider the extent of the overdraft, the economic impact on the parties bound by this Judgment, and other relevant factors in determining the total and pro-rata shares of Adjusted Production Rights. The goal is to achieve production at the same level as Safe Yield over a six-year period assuming an annual overdraft of 10,000 acre-feet. In the event the extent of the overdraft is different than assumed, then the period of time reasonably required to reach Safe Yield may be extended or reduced accordingly. However, in no event shall any reduction for any Public Agency be more than 10% of the Adjusted Production Rights of the prior year.

3.2.2 IMPLEMENT THE SAN JACINTO RIVER RECHARGE AND RECOVERY PROJECT

The stakeholders have agreed that Phase I of the IRRP is the primary project considered to be the core of the Physical Solution. The stakeholders are working towards an agreement for Phase I of the IRRP project which documents their agreement on the ownership, financing, and operation of the facilities.

The information presented here is based on previously published documents adjusted when appropriate based on the latest knowledge at the time of publication of the Plan.

Phases I and II of the IRRP are designed to recharge (replenish) imported water and extract groundwater at a capacity such that the following goals are met:

- Satisfy the Tribe's prior and paramount rights as set forth in the Agreement with the Tribe by providing an average annual supply of 7,500 acre-feet pursuant to the terms of such agreement. The proposed Program would provide the MWD with the right to store up to 40,000 acre-feet of imported water in the Upper Pressure Sub-basin as advance deliveries under its agreement to provide an average annual supply of 7,500 acre-feet.
- Offset the existing overdraft of the Management Area, estimated at approximately 10,000 AFY.
- Provide approximately an additional 15,000 AFY of water storage to help meet projected demand increases.

Major elements of Phase I of the Project are (Figure 3.1):

- Modifications to Pump Stations (Warren and Commonwealth);
- Construction of Pipelines;
- Design and Construction of Recharge Basins;
- Drilling Three (3) Extraction Wells;
- Installation of Pumps and Chlorination Equipment for Three (3) Extraction Well; and
- Design and Installation of Three (3) Monitoring Wells.

The project is designed and implemented in two Phases. While project Phase I activities are defined in detail, Phase II of the project is defined at conceptual level and the detailed design will be developed in the future.

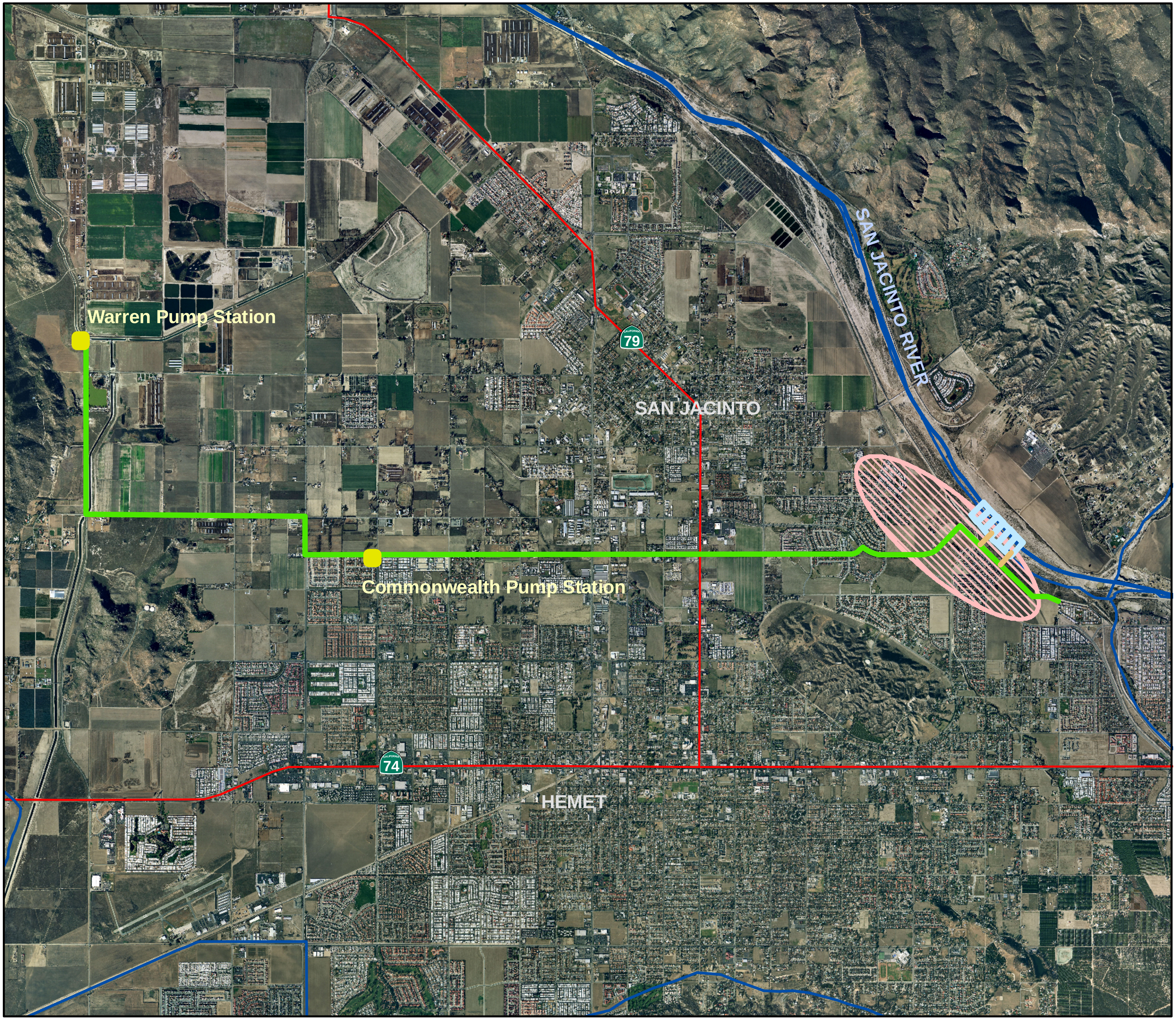

Hemet / San Jacinto
Water Management
Plan

**Schematic of Integrate
Recharge Recovery
Program - Phase I**

Figure 3.1

Legend

🟨 Pump Station
▬ Phase I Pipeline
☐ Phase I Ponds
▬ Existing Pipeline
▨ Phase I Well Field

Source: EMWD

N

0 0.5 1
Mile

October 2007

3.2.2.1 Phase I

This phase of the project consists of the construction of the San Jacinto Integrated Recharge and Recovery Project, which will provide up to 42 cubic feet per second (cfs)* of recharge water capacity. Phase I is scheduled to be completed by December 2008*, and will cost approximately $16.2* million. Major activities during Phase I are:

1. **Completion of Environmental Process -** The Environmental Impact Report (EIR) was prepared and adopted in August of 2004. Additional permitting requirements include Section 7 consultation with USFWS and issuance of Biological Opinion by the appropriate federal agency.
2. **Acquisition of Land -** A 100 acre parcel has been purchased by EMWD for required habitat mitigation measures for a 35 acre* parcel that is dedicated to recharge basins. In addition, EMWD is in the process of acquiring approximately one acre of land (in several parcels) for monitoring wells.
3. **Approval, Advertising, and Award of Construction Contract -** The EMWD Board of Directors has approved the bidding process.
4. **Drilling of Extraction Wells No. 1, 2, and 3 -** This includes construction and testing of three 18-inch diameter extraction wells, each to a depth of approximately 1,000 feet.
5. **Installation of Pump and Chlorination Equipment for Wells No. 1, 2, and 3 -** This includes installation of pump and chlorination equipment, appurtenances and site improvements required to complete and operate the new extraction wells.
6. **Modifications to the Pump Station -** This includes modifications to the Warren and Commonwealth Pump Stations. The modifications include upgrades to increase pump station capacity to provide a seasonal maximum of 42 cfs* to the recharge basins.
7. **Construction of Recharge Basins -** This activity includes construction of six recharge ponds within the San Jacinto river bed in two clusters of three ponds each. The footprint of the recharge area will be approximately 35 acres*, along the west side of the San Jacinto River, immediately upstream of the river confluence with the Meridian Channel.
8. **Construction of Pipelines -** This includes design and construction of pipelines and appurtenances to convey, regulate, and meter raw imported water flows into the recharge basins. Pipelines include two (2) 24-inch diameter laterals to convey water from an existing 33-inch diameter transmission main along the proposed Ramona Expressway alignment to the first basin in each of the two basin clusters. There will be appurtenances including regulation valves, meters to record water

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* Number has been updated since the publication of the IRRP Feasibility Report.

flow, telemetry-based flow control systems, and discharge piping into the recharge basins.

9. **Design and Construction of Monitoring Wells -** Three monitoring wells will be constructed outside the river bed along the west berm. The wells are designed to monitor the vertical and lateral migration of recharge water into the underlying aquifer zones. These clustered wells will be multi-cased and perforated to monitor the groundwater levels at various depths.

The overall project size may change as a result of negotiations with regulatory agencies.

3.2.3 IMPLEMENT GROUNDWATER REPLENISHMENT PROGRAM

The groundwater aquifers in the Management Area are a valuable resource and provide many advantages to operating a reliable water supply system. For many Private Water Producers, groundwater is their sole source of water. Declining water levels increase costs for pumping water and can also cause wells to go dry, requiring deeper drilling, or can result in the intrusion of poor quality groundwater from neighboring Management Zones, rendering the groundwater unsuitable for many beneficial uses. Also, the replenishment of high quality imported water from the State Water Project or high quality runoff from the surrounding mountains can maintain or improve the quality of the groundwater in the Management Area.

Groundwater replenishment, therefore, is a major part of the water management strategies considered by the stakeholders. Replenishment efforts to increase water supply in the Management Area can be grouped into two categories:

1. Direct replenishment of groundwater to store water for future use; and
2. Augmentation of imported or recycled water supplies to provide immediate increases in water supply and the associated decrease in groundwater pumping. Often, these categories are combined, with increases in imported or recycled water being used to replenish groundwater for future use.

3.2.3.1 Enhancing Natural Replenishment

The Management Area already receives a significant amount of natural recharge, from sources such as direct recharge from precipitation and infiltration from the San Jacinto River and its tributaries. While much of this water is able to infiltrate naturally, natural recharge could be increased by capturing surface flows during storm events, allowing the water to infiltrate over time rather than be swept out of the Management Area. As part of the Basin Assessment Study, the TC has identified and considered several conjunctive use and natural replenishment projects that have the potential to address such a water supply management strategy. These are described in Section 5.3 of the Plan.

3.2.3.2 Additional MWD Replenishment Water

Utilizing replenishment allows for significant cost savings when purchasing imported water from MWD. MWD provides special rates for water used for replenishment purposes. This water is available during the low-demand winter period and currently costs $238/AF for untreated water, while full-service Tier 1 & 2 untreated water currently costs $331/AF and $427/AF, respectively.

3.2.4 EXPAND THE USE OF RECYCLED WATER

Recycled water is available from EMWD's San Jacinto Valley Regional Water Reclamation Facility. Currently, recycled water is used by agricultural users and other large-scale outdoor irrigators such as golf courses and municipal facilities in place of groundwater. The Watermaster will use recycled water as a significant part of its water supply strategy for replenishment of the groundwater basin. The Watermaster will work with EMWD to determine the operational constraints currently facing the availability of recycled water for replenishment of the basin. The recycled water is to follow the State and Federal guidelines. Future phases of the Plan include upgrade of the San Jacinto Valley Regional Water Reclamation Facility to tertiary treatment.

3.2.4.1 Continue and Expand the In-Lieu Replenishment with Recycled and/or Imported Water

In-lieu replenishment with recycled and/or imported water provides many benefits over direct replenishment of the groundwater. In-lieu involves utilizing an alternate source, in this case imported or recycled water, instead of pumping groundwater. Using in-lieu recharge means that there is no cost to pump groundwater, no land is needed for a spreading basin, and there is no constant recharge through a basin to push salts out of the unsaturated zone. Disadvantages include timing of the supplies with demand; that is, most in-lieu customers cannot use the quantity of water available during the off-peak time. To maximize use of water available for in-lieu replenishment, significant infrastructure will be needed to serve the maximum number of customers. This strategy would require the Watermaster to work with EMWD, other agencies, and Private Water Producers to develop specific plans for expanding the use of recycled water for in-lieu replenishment of the basin.

3.2.4.2 Expand and Upgrade the San Jacinto Valley Regional Water Reclamation Facility

The San Jacinto Valley Regional Water Reclamation Facility is currently an 11 MGD plant with capability to treat wastewater to a secondary level of treatment. While this plant is scheduled for upgrade to tertiary treatment, the recycled water discharge beyond the sale to the agricultural customers is currently being disposed of in the basin. The plant is scheduled for expansion in size and upgrade of the treatment level, and the upgraded plant will have the capacity to treat 14 MGD by 2011 and 18 MGD by 2024. The Watermaster shall have the right of first refusal to purchase all recycled water produced from the treatment facilities serving the Management Area that is not subject to then existing contracts. The Watermaster will analyze the need and decide on the amount of recycled water for direct recharge and/or direct delivery.

3.2.5 PROVIDE FOR RELIABLE WATER SUPPLY TO MEET THE FUTURE DEMAND

The Plan is to provide sufficient water supplies to meet future water demands in the Management Area. This strategy is tied directly to the IRRP that is designed to provide 15,000 AFY of additional supplies to meet the projected water demands. As part of this strategy, additional conjunctive use projects, identified in Section 5.3 of this Plan, will augment Phase II of the IRRP. These projects are mostly designed to capture winter run-off for recharge, unlike the IRRP that is designed to recharge imported water.

3.2.6 IMPLEMENT ADDITIONAL WATER CONSERVATION MEASURES

The current level of water conservation has significantly helped to reduce the water demand in the Management Area. In addition to the conservation measures implemented by the Public Agencies, additional conservation measures can be designed and implemented by the agricultural and dairy water users. The Watermaster, in coordination with the Agencies, should develop specific strategies for additional water conservation. In addition, they should identify practical steps and means for voluntary implementation by the agricultural and dairy water users that would help water management of the basin.

3.2.7 IMPLEMENT AND EXPAND MONITORING PROGRAM

At the heart of any water management plan is a robust monitoring program capable of assessing the status of the basin and monitoring the responses to future management actions.

EMWD, on a voluntary basis, has compiled historical groundwater elevation and quality data from mid-1950s through the present. In the early data collection efforts, the location and frequency of monitoring were not as consistent as the more recent measurements. This was mostly due to the voluntary nature of participation in the monitoring program, as well as funding availability. This lack of consistency in data collection hampers rigorous and thorough analysis. However, long-term hydrographs as well as contours of groundwater levels have been produced by EMWD to present long-term trends in groundwater conditions over time, and with appropriate geographic extent.

In 2004, the Hemet/San Jacinto Groundwater Monitoring Program was initiated to collect, compile, and analyze groundwater-related data. This program was undertaken by the Public Agencies and DWR. The monitoring program provides the information necessary for a comprehensive view of the Management Area, and contains the following elements:

- Groundwater Level Monitoring;
- Groundwater Quality Monitoring;
- Groundwater Extraction Monitoring; and
- Inactive Well Capping and Sealing.

Finally, the monitoring program utilizes EMWD's RWRD, for assembling and assessing groundwater-related data in the Management Area. All Public Agencies provide data on their wells and assist in communicating with private well owners in their respective jurisdictions to collect their data and information.

This strategy reconfirms that the monitoring program, as established in 2004, should continue and be expanded to new areas. The Stipulated Judgment requires that the Watermaster implement a monitoring program to ensure that Plan activities follow best management and engineering principles to protect Management Area water resources, and to compile and analyze data on groundwater production, water levels, water quality, and groundwater in storage. The Watermaster, in coordination with EMWD and other Public Agencies, will develop plans for expansion of the monitoring program, as well as, specific actions for implementation of the monitoring program in the Management Area. Funding for the monitoring program will come from the Administrative Assessment, as detailed in Section 10.3.1.

3.2.7.1 Groundwater Monitoring

Groundwater level and quality monitoring are valuable, but can be costly and time consuming. A robust network of monitoring wells can be established to develop the optimum amount of data on groundwater. Some criteria to be used in the development or modification of the network may include:

- Monitor the same well for selected seasons over many years to understand trends and variability;
- Develop an unbiased distribution of monitoring wells, aerially and vertically, that account for differences in:
  - ☐ Topography,
  - ☐ Geology and soils,
  - ☐ Climate, and
  - ☐ Land Use;
- Maintain supporting data to aid in analysis, including:
  - ☐ Meteorological data,
  - ☐ Hydrologic data, and
  - ☐ Land use data, including pumping and irrigation;
- Monitor at a frequency that captures variability of water level and water quality fluctuations;
- Utilize wells, to the extent possible, intended solely for groundwater monitoring, not production; and
- Maintain high levels of data quality.

The Watermaster is to work cooperatively with the Public Agencies and Private Water Producers to establish an optimum network of monitoring wells for collection and analysis of groundwater trends and variability.

3.2.7.2 Surface Water Monitoring

Surface water monitoring would build on the existing cooperative program between EMWD and the United States Geological Survey (USGS). This program monitors streamflow on the San Jacinto River just upstream of State Street and on Lamb Canyon Creek near Victory Ranch. The USGS also monitors a gage on the San Jacinto River at the Cranston Ranger Station. Continued and additional surface water flow and quality monitoring would include the following criteria:

- Monitor the same location for many years to understand trends and variability;
- Maintain supporting data to aid in analysis, including:
  - ☐ Meteorological data,
  - ☐ Groundwater data, and
  - ☐ Land use data, including pumping and irrigation; and
- Maintain high levels of data quality.

Gaging station should be installed on reaches not currently being monitored, such as:

- San Jacinto River near Main Street;
- San Jacinto River near Highway 74 bridge crossing;
- Bautista Creek near Highway 74 bridge crossing; and
- Salt Creek near State Street.

The Watermaster is to work cooperatively with the Public Agencies to establish specific monitoring locations for collection and analysis of surface water trends and variability.

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SECTION 4 STATE OF THE MANAGEMENT AREA

This section discusses the local geologic and hydrologic conditions that provide the foundation for the development of the Plan. The ability to manage available water supplies is to a large degree governed by naturally occurring conditions and the physical environment. This section further describes water supply conditions and sources; historical and current water demands; status of the groundwater basin; and summarizes water quality conditions.

4.1 GEOGRAPHY AND CLIMATE

4.1.1 GEOGRAPHY

The Management Area is located in western Riverside County, approximately 70 miles southeast of the City of Los Angeles. The area encompasses the Cities of Hemet and San Jacinto; unincorporated residential/commercial areas, including Valle Vista; and agricultural lands. State Highway 74 (Florida Avenue) crosses the valley in an east-west direction and State Highway 79 provides a north-south corridor for the region. The San Jacinto mountain range, to the east of the valley, is the dominant geographic feature of the region, rising to a height of 10,805 feet at Mount San Jacinto. Elevations on the valley floor range from approximately 1,400 to 1,800 feet. There are various bedrock outcrops in the area, none of which exceed 2,700 feet.

The San Jacinto Watershed (Figure 4.1) includes the Management Area and surrounding mountains and covers an area of approximately 728 square miles, measured above a point just downstream from Railroad Canyon Dam. All of the streams and rivers in the watershed are ephemeral, flowing only when precipitation occurs and losing much of this flow to groundwater infiltration. The San Jacinto River arises in and drains the western slopes of the San Jacinto Mountains. Waterways tributary to the river include the North and South Forks and Strawberry, Indian, Poppet, and Bautista Creeks. Lake Hemet, located in the mountains on the South Fork of the San Jacinto River, is a 12,775 AF capacity LHMWD-operated reservoir completed in 1895. The San Jacinto River recharges the groundwater basin, primarily in the area southeast of the City of San Jacinto. It then occasionally flows northwest past the Lakeview Mountains, filling Mystic Lake, before turning southwest to flow across the Perris Valley floor. The San Jacinto River ultimately flows into Lake Elsinore via Railroad Canyon and Canyon Lake. Lake Elsinore, when full, overflows into Temescal Wash, which joins the Santa Ana River near Prado Dam.

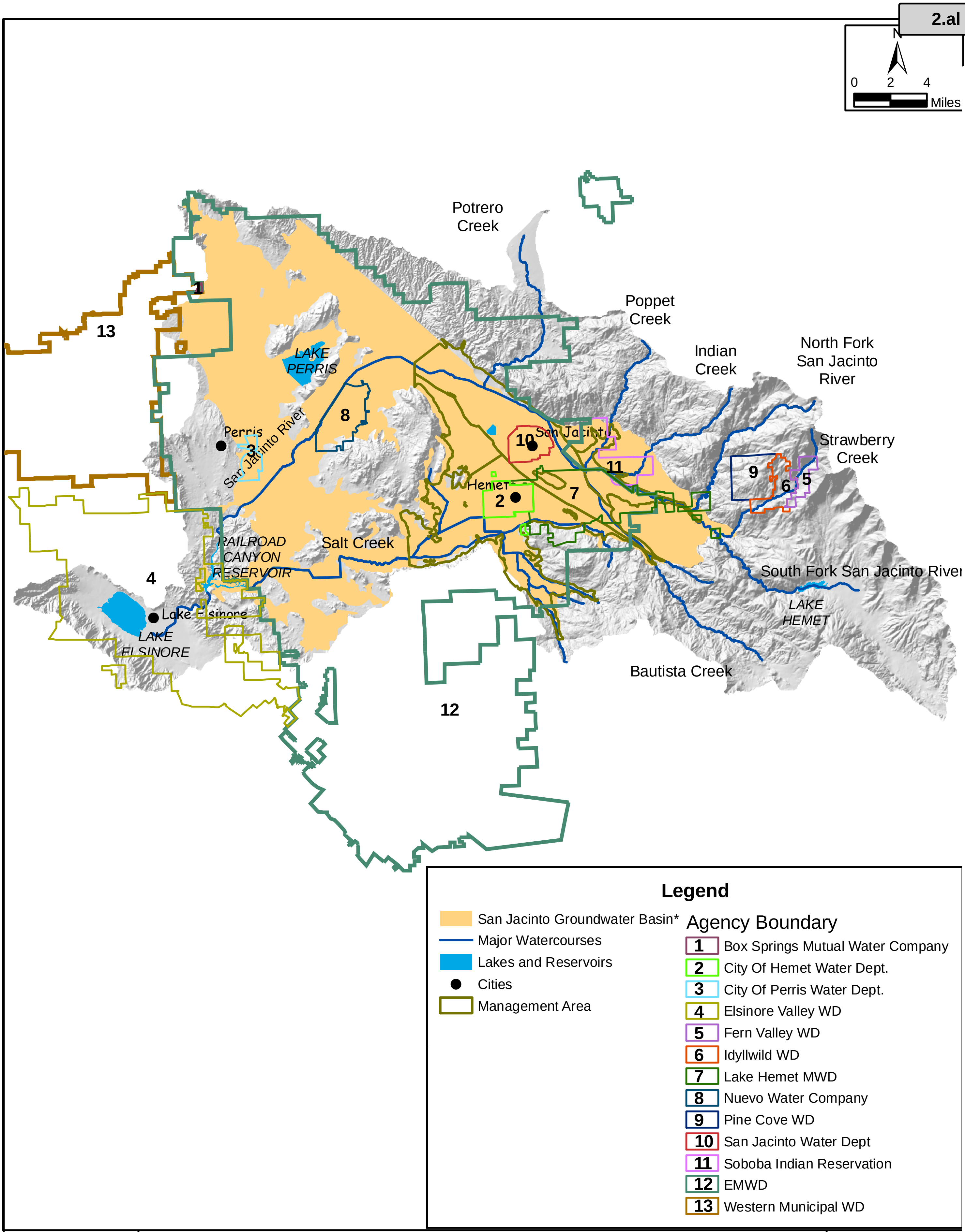

San Jacinto Watershed

Hemet / San Jacinto Water Management Plan

October 2007

Figure 4.1

*Source: DWR, 2003

4.1.2 CLIMATE

The climate of the area is that of a dry, semi-arid, near-Mediterranean zone, typical of the moderately elevated inland valleys of southern California. The climate is characterized by wet and dry seasons, generally low precipitation, and a large proportion of clear days, moderately high summer temperatures, and mild winter temperatures. The yearly average temperature at the City of San Jacinto is 62°F (25°C). Summer temperatures are often more than 100°F (38°C), and the recorded maximum at San Jacinto is 120°F (49°C). Frost occasionally occurs during the December through February period. The lowest recorded temperature was 7°F (-14°C). The average frost-free period is 247 days long, from March 15 to November 19. These temperatures for the San Jacinto climate station are considered to be generally representative of temperatures throughout the valley area.

Along with the rest of Southern California, the area is subject to the annual Santa Ana winds. Usually occurring in the fall of the year, these winds blow from the northeast, bringing hot, dry desert air with velocities of up to 50 miles per hour. Relative humidity has at times dropped below 5 percent with temperatures of 105°F (40°C) and higher. This phenomenon normally lasts only a few days, but has been known to last for several weeks, thereby greatly increasing the evaporation rate.

As a result of the hot, dry climate, the area has a high rate of evapotranspiration. Evapotranspiration is recorded as reference evapotranspiration (ETo; evapotranspiration from a standardized grass surface) by the DWR's California Irrigation Management Information System. Reference evapotranspiration averages 57 inches per year and is highly seasonal, with an average monthly maximum of 7.9 inches in July and average monthly minimum of 2.0 inches in December (DWR CIMIS, 2006).

Virtually all precipitation falls in the winter months, with some summer thunderstorms. Topography generally controls the relative amounts of precipitation from one location to the next. The average precipitation on the valley floor is about 13 inches, but near Mt. San Jacinto, the average precipitation is approximately 40 inches. Figure 4.2 shows the distribution of precipitation in the watershed.

The Riverside County Flood Control and Water Conservation District (RCFC&WCD) currently maintains precipitation records from the National Weather Service precipitation gauge at the California Division of Forestry Station at 1st Street and San Jacinto Avenue in San Jacinto (Site #186). Annual San Jacinto precipitation totals for the 1850/51 through 2004/05 rain years (July – June) are shown in Figure 4.3. For the 155 years from July 1850 through June 2005, average precipitation equaled 13.12 inches; median precipitation was 12.13 inches; the year with

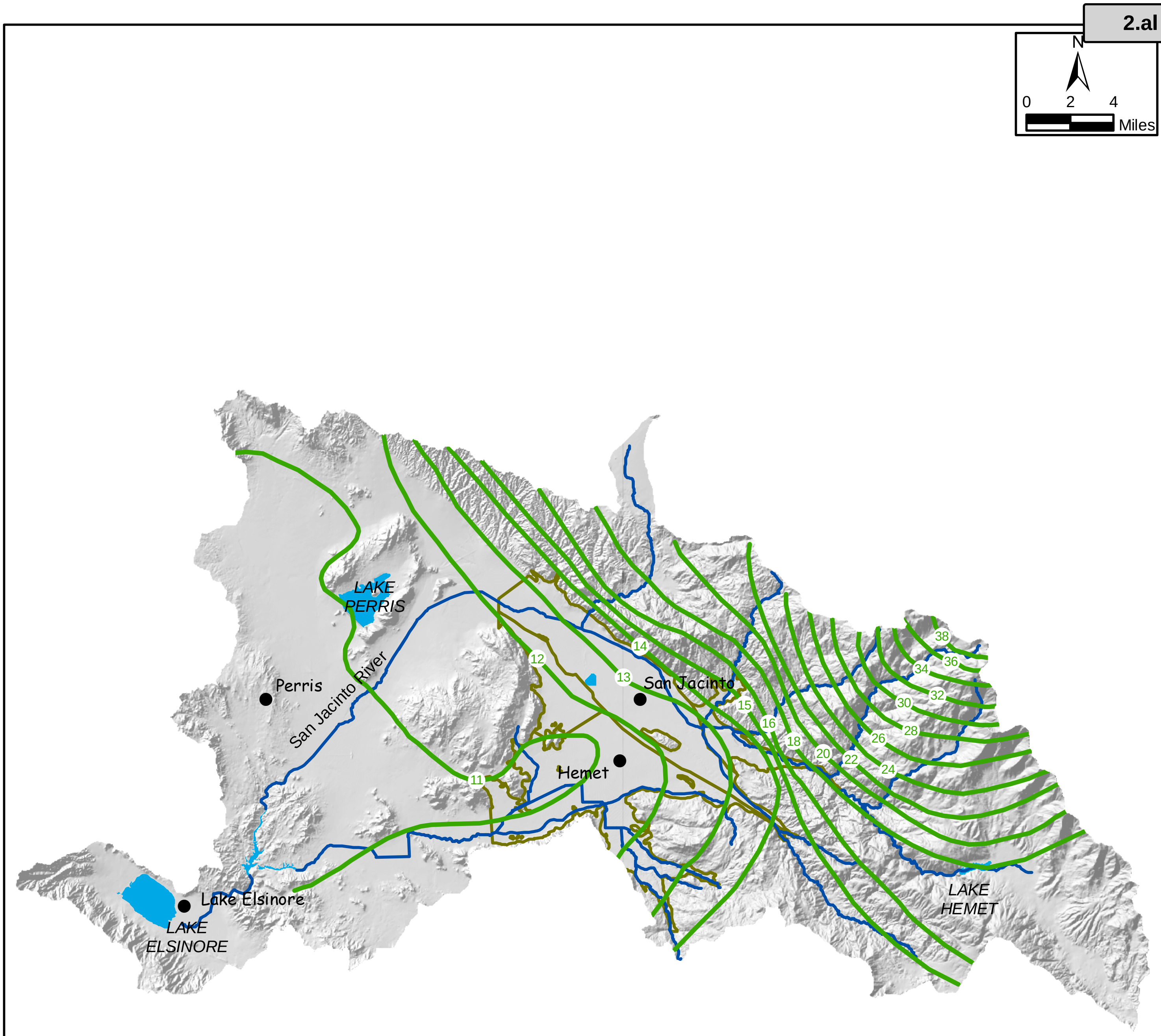

Legend

- Equal Precipitation (in)*
- ☐ Management Area
- ■ Lakes and Reservoirs
- Major Watercourses
- ● Cities

Average Annual Precipitation

Hemet / San Jacinto Water Management Plan

*Source DWR, 1978
(1932 - 1964 data)

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Figure 4.2

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Figure 4.3 Annual Precipitation and Cumulative Departure from Mean Precipitation

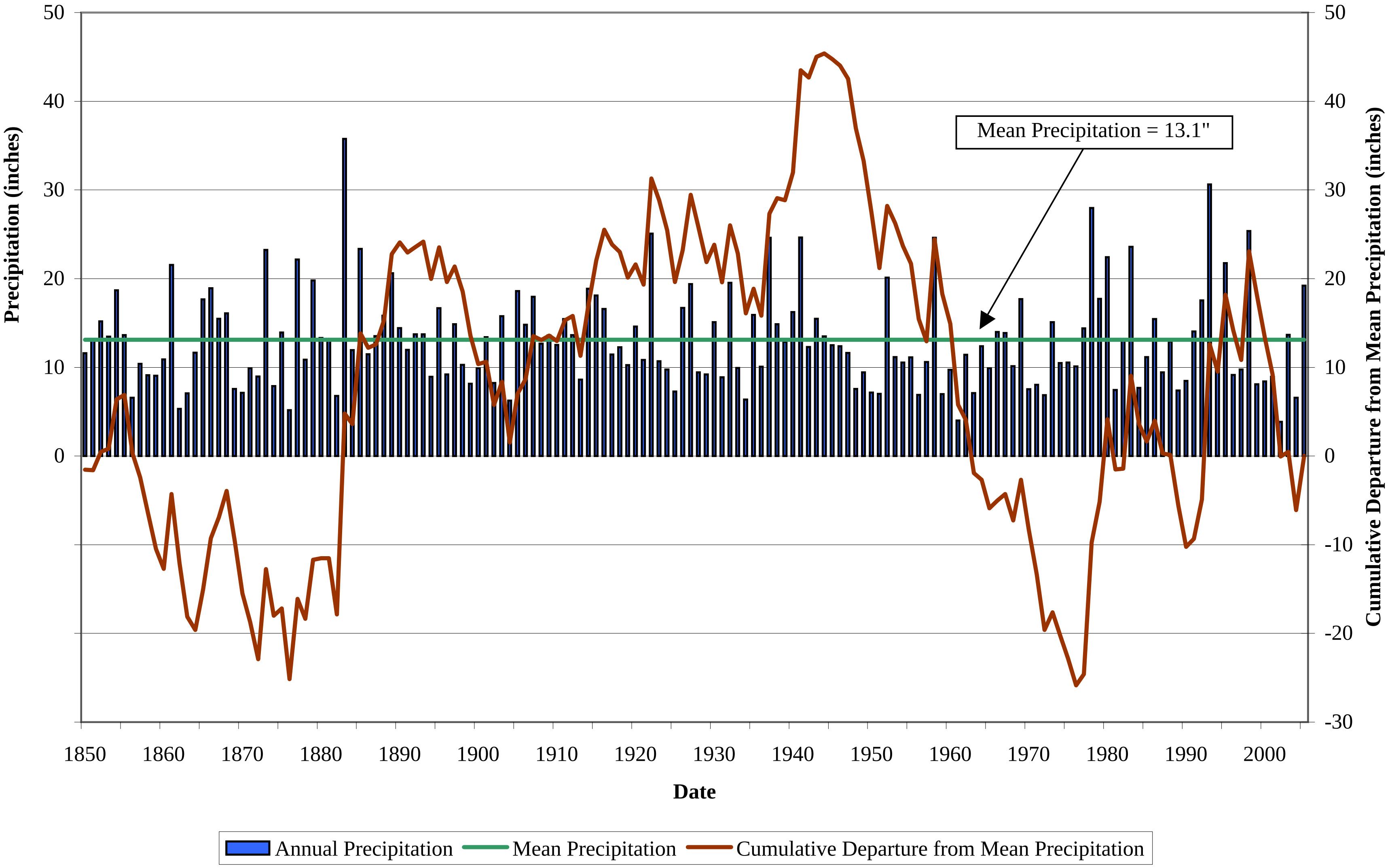

the highest precipitation was 1883/84 with 35.77 inches of rain; and the driest year was 2001/02 with 3.85 inches. Figure 4.3 also shows the cumulative departure from mean precipitation. This chart represents wet periods with increasing values, such as 1882-1890 and 1990-1998; normal periods with near-constant values, such as 1859-1881 and 1980-1988; and dry periods as decreasing values, such as 1944-1976 and 1999-2004.

4.2 SURFACE WATER CONDITIONS

The San Jacinto River and its tributaries are the primary surface water elements in the Management Area. This river and its tributaries provide water for direct use, artificial recharge, as well as for significant natural recharge to the groundwater system through the riverbeds. The San Jacinto River contains high quality water that flows from the mountain watershed and recharges groundwater. The river is a losing stream throughout the Management Area. Artificial and natural recharge of San Jacinto River water improves the overall quality and quantity of groundwater. Groundwater levels have been lowered over the years to the point where additional changes in groundwater levels has little or no impact on surface flows or vice versa, although in predevelopment conditions groundwater contributed to surface flows in swampy areas of the basin floor, particularly upgradient of faults.

EMWD and RCFC&WCD have partnered with USGS to monitor stream flows. USGS gaging stations along the San Jacinto River and its tributaries in the Hemet/San Jacinto and surrounding area are listed in Table 4.1, below.

In 1996, EMWD entered into a Cooperative Water Program Joint Funding Agreement with the USGS for a long-term water budget study in the San Jacinto area. As part of this project, the USGS installed two stream flow gages and three stage gages in the San Jacinto Watershed.

The USGS applied a rainfall-runoff model to estimate the water budgets for groundwater and surface water flows and to determine the hydrological effects of urbanization. The study used historical precipitation data with the model to produce a simulated long-term record of groundwater recharge and surface water runoff for a variety of potential urbanized conditions. The major objectives of the study were to:

1. Estimate groundwater recharge and surface water flows in the Canyon and Upper Pressure Management Zones;
2. Summarize the long-term water budget of the study area upstream of Mystic Lake; and
3. Determine the effects of urbanization in the study area.

Table 4.1 USGS Surface Water Gaging Stations

Station No.	Description:	Lat.; Long.*	Data Type	Time Frame
11069200	Lake Hemet WC up Canyon near San Jacinto	33°44'20"; 116°49'30"	Daily flows	1961-1991
11069300	WF San Jacinto Tributary near Valle Vista	33°43'20"; 116°48'00"	Peak flows Daily flows	1962-1973 1961-1967
11069500	San Jacinto River near San Jacinto (Cranston Ranger Station)	33°44'17"; 11649'59"	Real time Peak flows Daily flows Water Qual.	 1921-present 1920-present 1998
11069501	San Jacinto River near San Jacinto plus Canals	33°44'17"; 116°49'59"	Daily flows	1948-1990
11070000	Bautista Creek Near Hemet	33°41'40"; 116°51'00"	Peak flows Daily flows	1947-1969 1947-1969
11070020	Bautista Creek at head of Flood Channel in Hemet	33°42'42"; 116°52'04"	Peak flows Daily flows	1988-2003 1987-present
11070050	Bautista Creek at Valle Vista	33°44'04"; 116°53'33"	Peak flows Daily flows	1970-1987 1969-1987
11070150	San Jacinto River above State Street near San Jacinto	33°49'17"; 116°58'21"	Peak flows Daily flows	1997-present 1996-present
11070158	Line D Storm Drain at Santa Fe St. near San Jacinto	33°46'44"; 116°57'46"	Peak flows	1997-1999
11070160	Line E Storm Drain at Santa Fe St. near San Jacinto	33°46'41': 116°58'18"	Peak flows	1997-1999
11070185	Lamb Canyon at Victory Ranch near San Jacinto	33°51'31"; 117°00'53"	Peak flows	1997-2004
11070190	Laborde Canyon near San Jacinto	33°51'44"; 117°01'29"	Peak flows	1962-1973
11070210	San Jacinto River at Ramona Expressway near Lakeview	33°50'23"; 117°08'06"	Real time Peak flows Daily flows	 2001-present 2000-present

* The longitude and latitude measurements are published figures, but were estimated by the USGS from maps and, therefore, only have an accuracy of +/- 500 feet.

Five gages were installed upstream of Bridge Street in the San Jacinto basin area. Two stream flow gages were installed in the San Jacinto River, one at the State Street (Highway 79) crossing and the other at the Cranston Ranger Station. Three crest stage gages were installed in Potrero Canyon near San Jacinto, Lamb Canyon near San Jacinto, and at an urban runoff site.

Groundwater recharge in the Canyon and Upper Pressure Management Zones was calculated in addition to the surface runoff leaving the Management Area (including urban runoff) that reaches the Mystic Lake area. The study results are summarized in the USGS Water Resources Investigations Report 02-4090, *Rainfall-Runoff Characteristics and Effects of Increased Urban Density on Streamflow and Infiltration in the Eastern Part of the San Jacinto River Basin, Riverside County,* *California*. The report includes all measured, simulated, and statistical data used to support the conclusions of the study.

After the end of the study, some of the crest stage gages were no longer monitored and fell into disrepair. However, EMWD continues to fund, and USGS continues to operate, the stream gage on the San Jacinto River at State Street. The crest stage gage at Lamb Canyon Creek at Victory Ranch is still jointly funded by EMWD and USGS. For the 2005/2006 monitoring, the effort was funded as part of the Hemet/San Jacinto Monitoring Program by EMWD, LHMWD, and the Cities of Hemet and San Jacinto. The stream gage on the San Jacinto River at Cranston Ranger Station is currently funded and maintained by USGS and Riverside County Flood Control District with real-time data available on the USGS website.

4.3 GEOLOGY

The geology of the Hemet/San Jacinto area, relevant to groundwater supplies, has two primary features: a sediment filled graben, and the San Jacinto fault zone. The sediments in the graben provide for the majority of storage and movement of groundwater in the area and the movement of water is altered by the presence of the faults, which provide most of the internal boundaries for the area’s Management Zones.

The Management Area partially contains a geomorphic feature known as a graben or fault-graben, along with additional permeable materials in alluvium-filled valleys. A graben is a depressed, trough-like structure in the Earth's crust, filled or partially filled with sediments, and usually formed by faulting and the relative downward movement of block-like geologic structures. The San Jacinto graben is a deep, sediment-filled structure approximately 2.5 miles wide and more than 20 miles long and forms the Upper Pressure Management Zone’s boundaries in the Management Area. The Management Area, including the graben, is nearly surrounded by impermeable bedrock mountains and hills. Internally, island-like masses of granite and metamorphic bedrock or older alluvium rise above the valley floor. Surface and near-surface sediments in the graben and alluvium filled valleys are primarily sand and sandy silt with some silt and silty clay. The San Jacinto graben consists of a forebay area in the southeast where surface water recharge primarily occurs and a pressure area in the northwest where deep aquifers exist under confined conditions. The northwest-southeast oriented graben is formed by the right-slipping San Jacinto fault zone, believed to be the most seismically active in southern California. Between 1899 and the present, seven earthquakes of Richter magnitude 6.0 or greater have occurred along the San Jacinto fault between the San Gabriel Mountains and Mexico. This complex zone of faulting and cross faulting has two main branches, the Claremont and the Casa Loma, which form the northeast and southwest borders of the graben, respectively (see Figure 4.4).

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

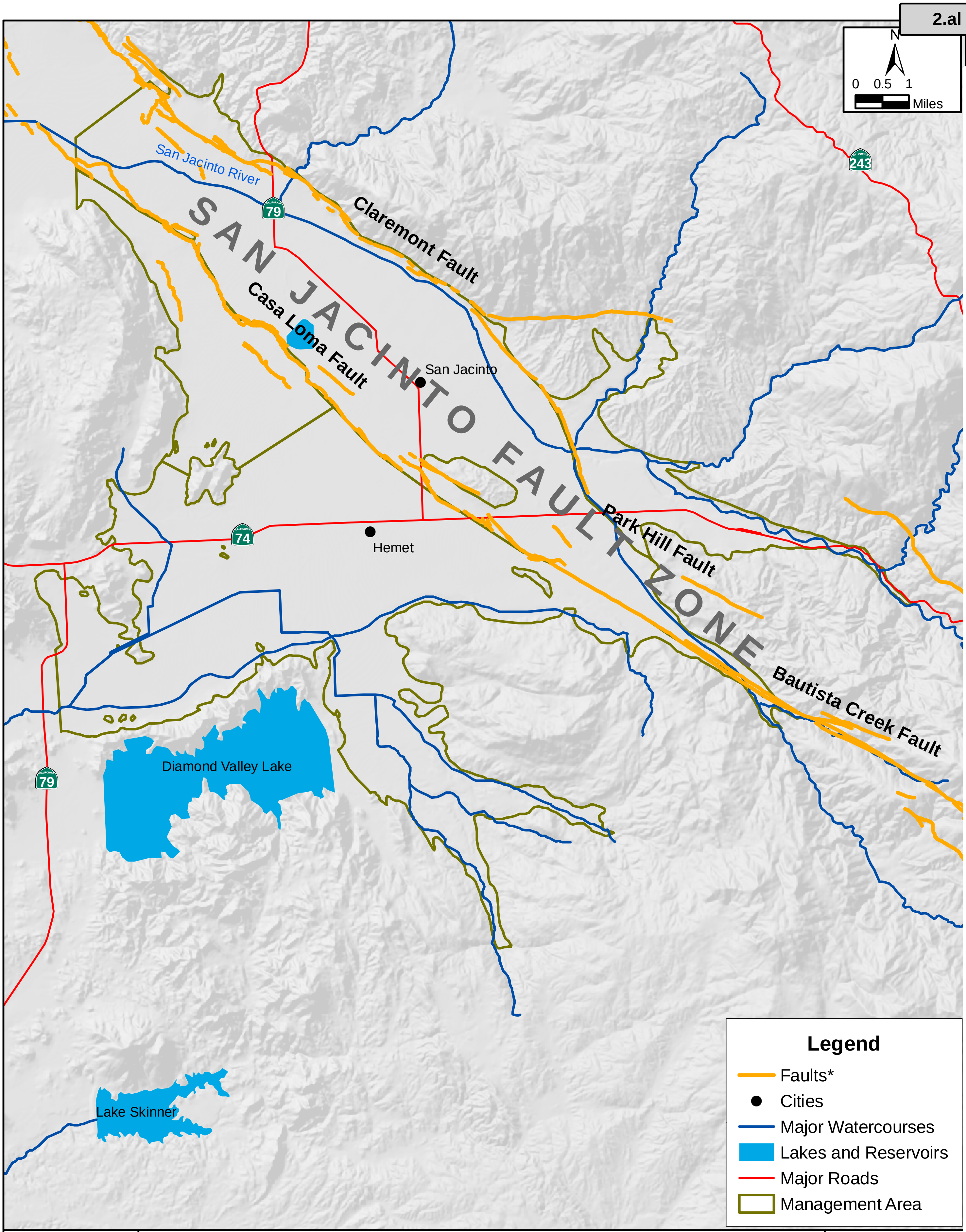

Fault Locations

Hemet / San Jacinto Water Management Plan

*Source: Riverside County

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Figure 4.4

The Claremont fault separates the graben from the Badlands and the San Jacinto Mountains on the northeast. This fault follows Gilman Springs Road from State Highway 60 to the City of San Jacinto, hugging the foothills. It then follows the San Jacinto River before shifting to Bautista Creek south of Valle Vista. To the west, the Casa Loma fault generally parallels the Claremont Fault. The Casa Loma portion of the San Jacinto fault zone forms the southwesterly border of the graben. It runs from Park Hill (also known as Casa Loma) to the northwest toward Reche Canyon. The Bautista Creek fault is an extension of the Casa Loma fault, but is separately named due to differences in fault movement (DWR, 1969). The Bautista Creek fault runs from Bautista Canyon through the intersection of Menlo and San Jacinto Streets, joining the Casa Loma fault on the western side of Park Hill.

The portions of the Management Area outside the graben, to the east of the Claremont Fault and to the west of the Casa Loma and Bautista Creek faults, are sediment filled basins. These sediments are similar in nature to those in the graben, but are much thinner.

The faulting in the Management Area plays an important role in the movement of groundwater and is therefore a key factor in the delineation of Management Zones.

4.4 DELINEATION OF MANAGEMENT ZONES

Groundwater Management Zones (Figure 2.1) were delineated by the RWQCB based on major impermeable boundaries (such as bedrock or faults), flow systems that prevent widespread mixing even without a physical barrier, and water quality. Groundwater flow, whether or not determined by a physical barrier, was the primary characteristic used to define the Management Zones. Water quality data were used to support understanding of the flow regime and to assure that unusually high quality or poor quality waters were distinguished for regulatory purposes. (RWQCB, Resolution No. R8-2004-0001).

The four Management Zones within the Hemet/San Jacinto Management Area are:

1. Canyon;
2. San Jacinto Upper Pressure (Upper Pressure);
3. The Hemet North portion of Lakeview/Hemet North (Hemet North); and
4. Hemet South.

The Canyon Management Zone lies along a northwest to southeast axis in the eastern part of the Management Area. The boundaries of the Canyon Management Zone include the virtually impermeable San Jacinto Mountains to the east and Claremont Fault to the west. The Claremont Fault inhibits flow between Canyon and Upper Pressure Management Zones (DWR, 1969; DWR, 1978; SWRB, 1955).

Like the Canyon Management Zone, the Upper Pressure Management Zone lies along a northwest to southeast axis in the eastern part of the Management Area. The Upper Pressure Management Zone is bounded by the Claremont Fault to the northeast, the Casa Loma and Bautista Creek Faults to the southwest, and the flow system boundary with the San Jacinto Lower Pressure Management Zone to the northwest.

Boundaries of the Hemet North Management Zone include the Casa Loma Fault to the east; the groundwater divide near Esplanade Avenue to the south; the impermeable bedrock of the Lakeview Mountains to the west; and a constricted area of permeable materials between the Lakeview Mountains and the Casa Loma Fault to the northwest. The Casa Loma fault zone is a known barrier to groundwater flow (DWR, 1969; DWR, 1978; SWRB, 1955).

The Hemet South Management Zone boundaries include the Casa Loma and Bautista Creek faults to the east; the groundwater divide near Esplanade Avenue to the north; the groundwater divide in the Winchester area and various crystalline bedrock outcrops to the west. Diamond Valley Lake, a water supply reservoir for the MWD completed in 1999 and filled by 2002, is located southwest of the Hemet South Management Zone. MWD (1991) states that seepage through the permeable materials in the upper 200 feet may take place. The Casa Loma and Bautista Creek faults are known barriers to groundwater (DWR, 1969; DWR, 1978; SWRB, 1955).

For the Management Area as a whole, the mountains (Figure 4.1) form a nearly impermeable boundary such that there are only three pathways for groundwater to migrate to or from other Management Zones outside the Management Area. These locations are:

- Between the Hemet South and Perris South Management Zones, in the southwest;
- Between the Hemet North portion and Lakeview portion of Lakeview/Hemet North Management Zones, in the northwest; and
- Between the Upper Pressure and Lower Pressure Management Zones, in the northwest.

Groundwater flow in and out of the Management Area is important, as water quality is typically better in the Management Area than in the surrounding areas.

4.5 SOILS

The influence of soils on water use and hydrologic processes makes it an important component to consider when estimating changes in water use due to land use change as well as for siting spreading basins for artificial recharge projects.

The predominant soils, as defined in the USDA's soil survey (USDA, 1971) at the series level, in the Management Area are shown in Figure 4.5 and are listed below:

- Dello,
- Grangeville,
- Greenfield,
- Metz,
- San Emigdio, and
- Traver.

The remaining soils are classified as "Other" in Figure 4.5 and consist of Chino, Domino, Exeter, Hanford, Pachappa, Ramona, Riverwash, as well as other soil series occurring in less than one square mile of the Management Area.

An important soil classification used by the USDA for hydrology is the hydrologic soils group. The hydrologic soils group can be used to estimate the amount of infiltration that can be expected from a certain soil. This grouping is based on estimates of the intake of water during the latter part of a storm of long duration, after the soil profile is wet and has an opportunity to swell, without the protective effect of any vegetation. Also considered are depths to the seasonal high water table and to a low permeability layer. The classification is useful at a planning level, but detailed studies are required for a thorough understanding of the infiltration capacity of soils. Features such as slope, ground cover, or low permeability materials away from the upper soil profile may impact the soil's capability to infiltrate water.

Under the hydrologic soils group classification system, soils are grouped A to D with "A" having the lowest runoff potential (highest infiltration rates) and "D" having the highest runoff potential (lowest infiltration rates). A map of hydrologic soils groups is provided as Figure 4.6 (USDA-SCS, 1971) and a corresponding table of hydrologic soil groups and soil series is provided in Table 4.2. As can be seen on Figure 4.6, most of the Management Area is classified as "B", soils with a moderate infiltration rate. Of the Management area, nearly 80% are "B" soils, 10% are "A" soils, and the remainder are either "C", "D", or are deemed too variable to be classified. The "A" soils are generally located along the San Jacinto River and Bautista Creek; much of the "variable" soils along these watercourses also have the potential for very high infiltration rates.

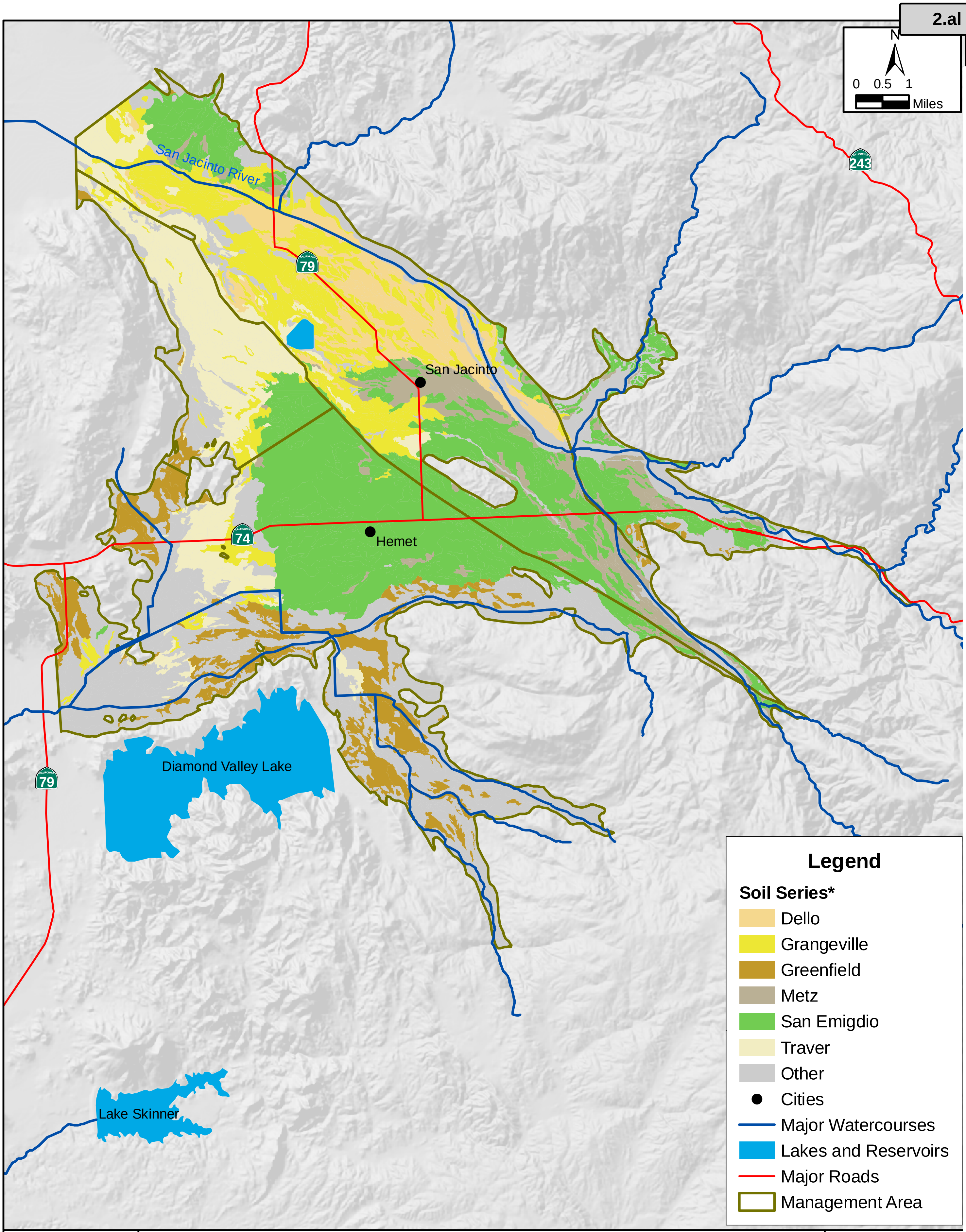

Soil Series

Hemet / San Jacinto Water Management Plan

*Source: USDA, 1971

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Figure 4.5

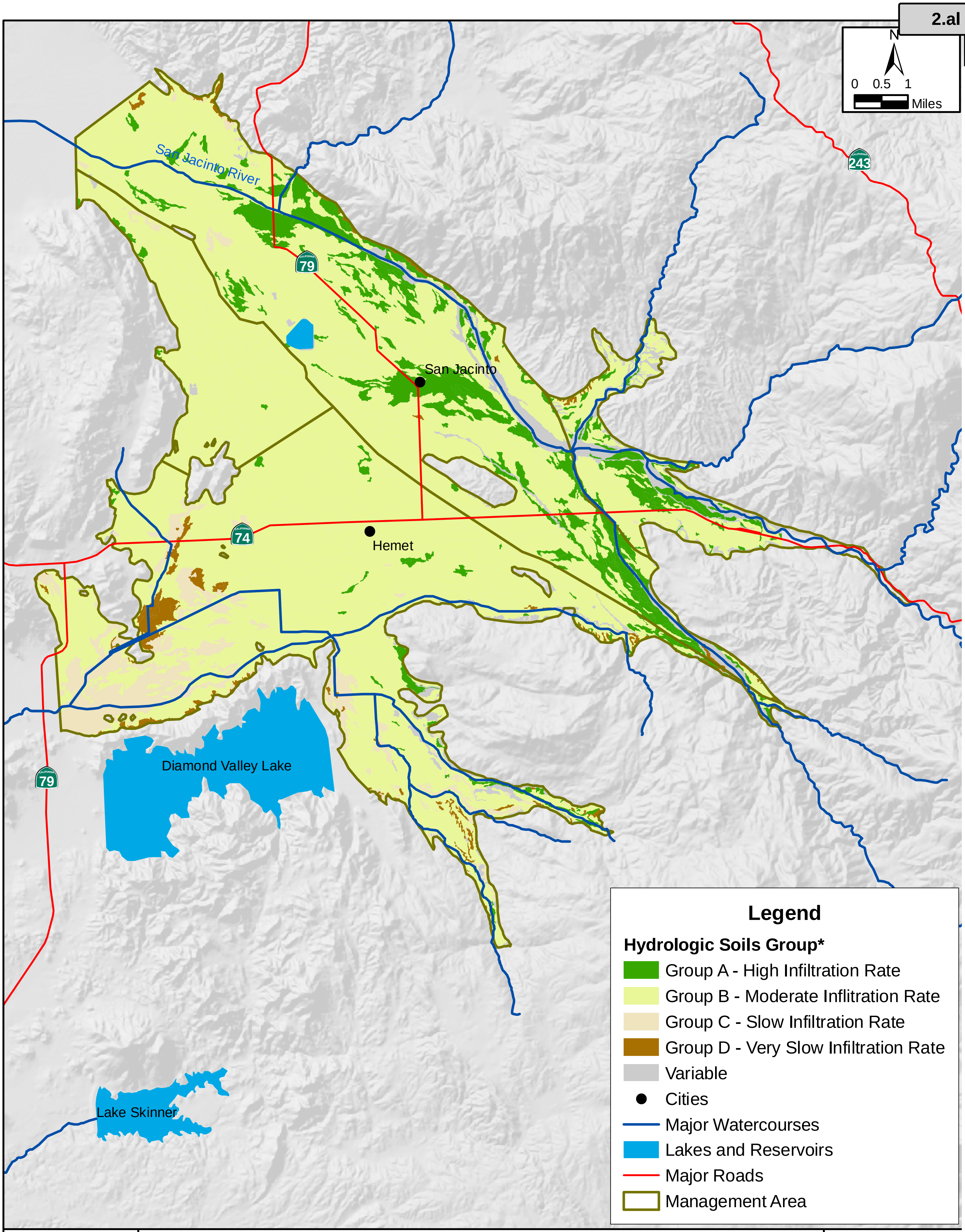

WRIME

Hydrologic Soils Groups

Hemet / San Jacinto Water Management Plan

*Source: USDA, 1971

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Figure 4.6

Table 4.2 Hydrologic Soils Groups

Common Soil Series	Hydrologic Soils Group	Minor Soil Series	Hydrologic Soils Group
Dello	A-C	Chino	B-C
Grangeville	B-C	Domino	C
Greenfield	B	Exeter	C
Metz	A	Hanford	B
San Emigdio	B	Pachappa	B
Traver	B-C	Ramona	B-C
		Riverwash	variable
		Other	variable

4.6 GROUNDWATER CONDITIONS

As previously stated, groundwater flow between Management Zones is inhibited by geologic faults, (Figure 4.4) notably the Casa Loma Fault, Bautista Creek Fault and Claremont Fault, all strands of the San Jacinto fault zone. The Claremont Fault acts as a barrier to flow between Canyon and Upper Pressure Management Zones, while the Casa Loma Fault is a barrier to flow between the Upper Pressure Management Zone and both the Hemet North and Hemet South Management Zones.

The San Jacinto River enters the basin in the southeast part of the Management Area and flows north and west across the Upper Pressure Management Zone. In most years, all river flow is lost to percolation and limited evapotranspiration in the Canyon and Upper Pressure Management Zones. Recharge from the San Jacinto River and its tributaries forms a large portion of total inflow for the Canyon and Upper Pressure Management Zones.

Groundwater pumping for irrigation and domestic purposes is the principal source of groundwater outflow. Major pumping depressions occur in the Hemet South and Upper Pressure Management Zones.

Historically, extraction in excess of recharge has resulted in lowered groundwater levels and altered directions of groundwater flow.

4.6.1 ARTIFICIAL RECHARGE OPERATIONS

In addition to natural inflows and return flows from agricultural and municipal uses, there has been and continues to be artificial recharge operations in the Management Area. These operations use imported water, when available, typically at lower winter rates, to artificially recharge groundwater through spreading basins. The annual volume of imported water recharged is presented in Figure 4.7. Recharge operations did not begin until 1990. More recently, the Public Agencies have signed memoranda of understanding in 2004 and 2005 to plan for the recharge at two existing recharge facilities in the San Jacinto riverbed.

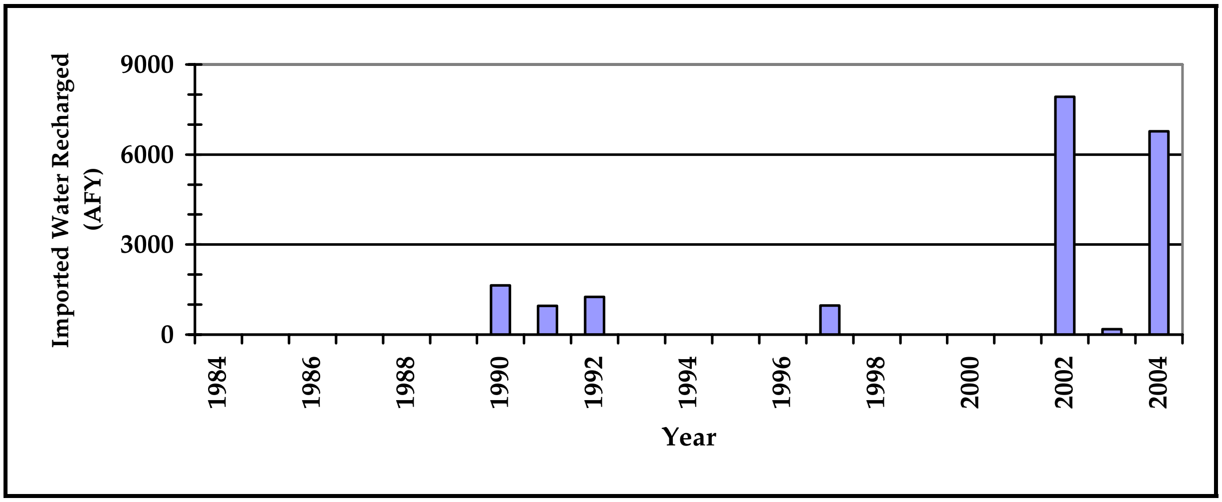

Figure 4.7 Annual Imported Water Recharged

The artificial recharge operations help address the impact of overdraft caused by past groundwater production.

4.6.2 GROUNDWATER LEVELS AND FLOW

Historical groundwater extraction from the Management Area has resulted in a significant drop in groundwater levels. The lowered groundwater levels also changed the direction of flow in parts of the Management Area. Figure 4.8 shows the flow directions in the early 20th Century. Figure 4.9 shows current flow directions. Notable changes over time include the development of a groundwater divide between the Hemet South and Perris South Management Zones (previously flow was out of the Hemet South Management Zone into the Perris South Management Zone and flow from the Hemet North portion to the Lakeview portion of the Lakeview/Hemet North Management Zone due to lower water levels in the Lakeview portion. (TechLink, 2002a)

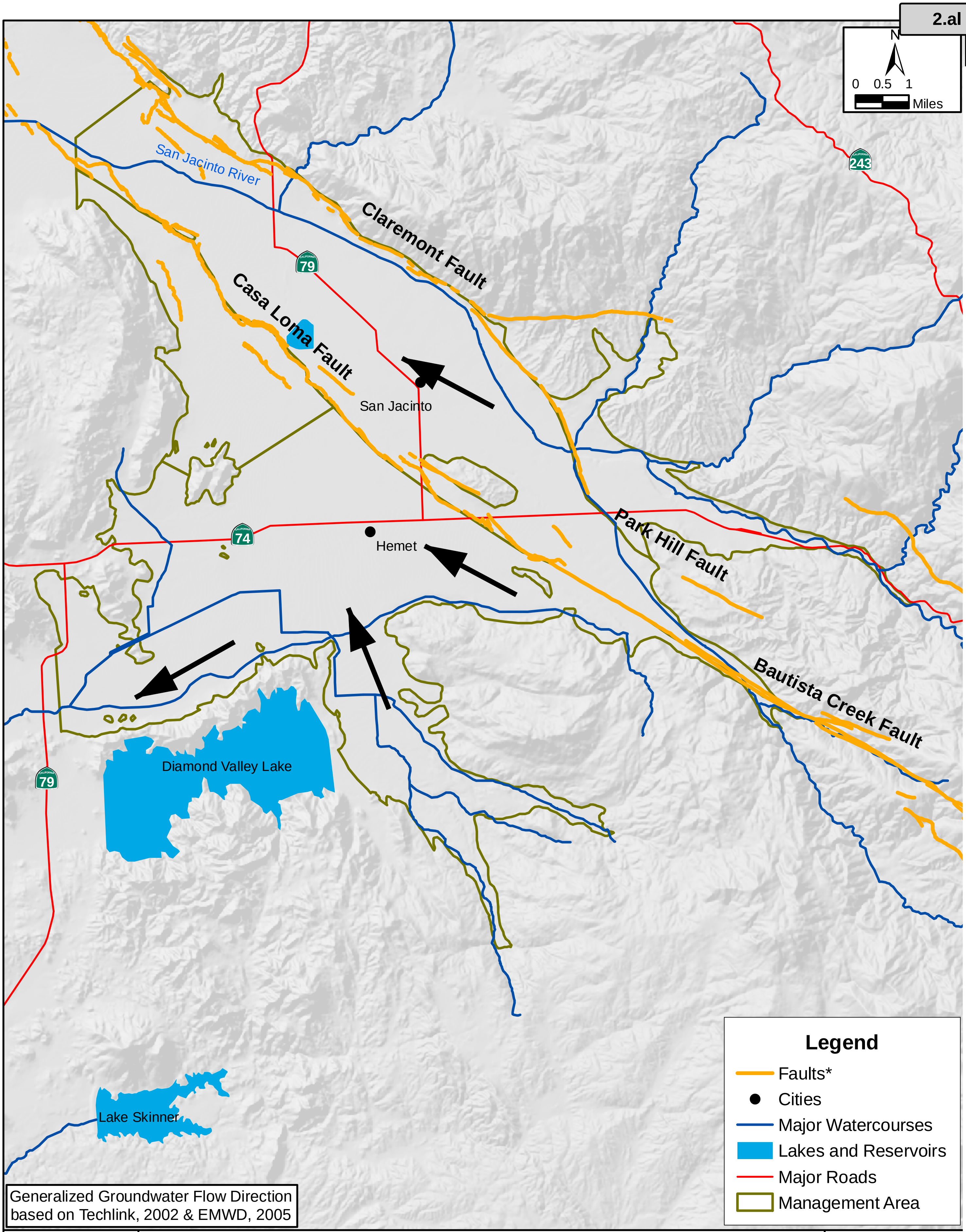

Generalized Groundwater Flow Direction based on Techlink, 2002 & EMWD, 2005

Early 20th Century Groundwater Flow Direction

Hemet / San Jacinto Water Management Plan

*Source: Riverside County

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Figure 4.8

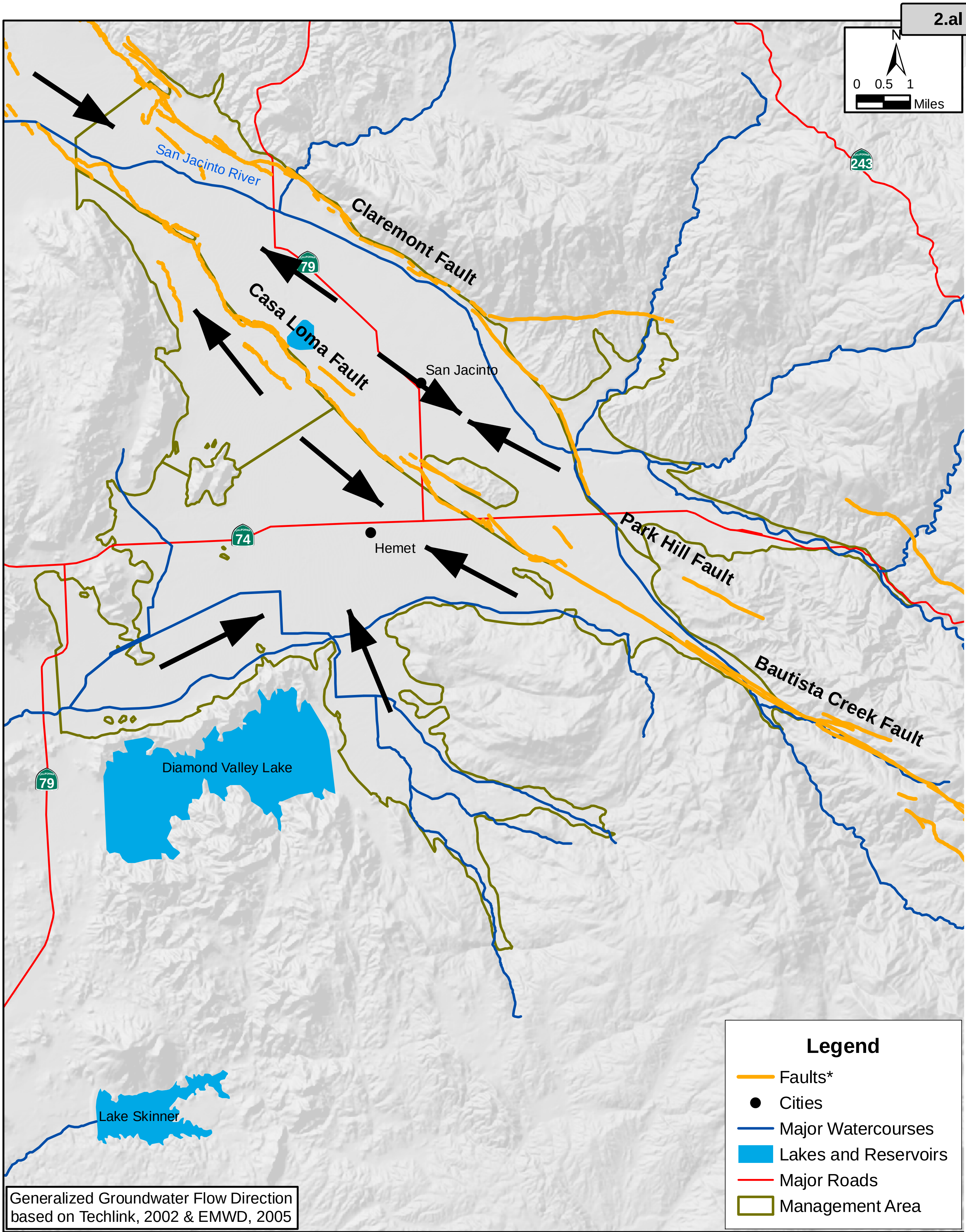

Generalized Groundwater Flow Direction based on Techlink, 2002 & EMWD, 2005

RIME

Current Groundwater Flow Direction

Hemet / San Jacinto Water Management Plan

*Source: Riverside County

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Figure 4.9

Figure 4.10 shows Spring 2004 groundwater levels. The groundwater level contours show pumping depressions in the northeastern part of the Hemet South Management Zone and in the northwestern part of the Upper Pressure Management Zone. These pumping depressions are due to concentrated pumping in those areas in excess of the local recharge capacity.

Historical groundwater levels are affected by both climatic conditions, which impact the amount of recharge, and pumping. Historical conditions in the four Management Zones can be studied in relation to their unique setting by analyzing observed water levels at representative wells with long periods of record. Hydrographs for four selected wells are presented in the following sections. The locations of the wells can be found on Figure 4.11.

4.6.2.1 Canyon Management Zone

The Canyon Management Zone benefits from significant surface water recharge from the San Jacinto River and its tributaries. This additional recharge reduces the impact of the pumping occurring in the Canyon Management Zone. Figure 4.12 shows groundwater levels from 1948 to 2005 for EMWD's #6 Cienega well. This figure shows the impact of hydrologic variability and pumping in the area. One drought period in the late 1980s resulted in groundwater levels dropping by over 100 feet. Such declines in groundwater levels are likely due to a combination of reduced precipitation, reduced recharge from streamflow, and the effects of pumping. Most of this decline was recovered in the wet period that followed from 1991 to 1993.

Changes are also seen seasonally, with groundwater levels changing by as much as 100 feet from late fall to late spring. These seasonal changes in water levels are also due to a combination of reduced precipitation, reduced recharge from streamflow, and the effects of pumping.

4.6.2.2 Upper Pressure Management Zone

The Upper Pressure Management Zone benefits from surface water recharge from the San Jacinto River and its tributaries and supplies most of the groundwater for the Management Area. However, even with significant recharge from surface water as well as other inflows, wells in the Upper Pressure Management Zone have shown a decline in water levels over time. Figure 4.13 presents water level elevations for EMWD's #9 Hewitt and Evans well, showing a consistent decline through the dry period of the 1950s, 1960s, and 1970s with a drop of more than 200 feet over the 30-year period. The hydrologically wet and normal periods during 1978 to 1986 resulted in a recovery of about half the decline from the previous three decades. Since 1986, groundwater levels have dropped approximately 200 feet. The changes seen in the well

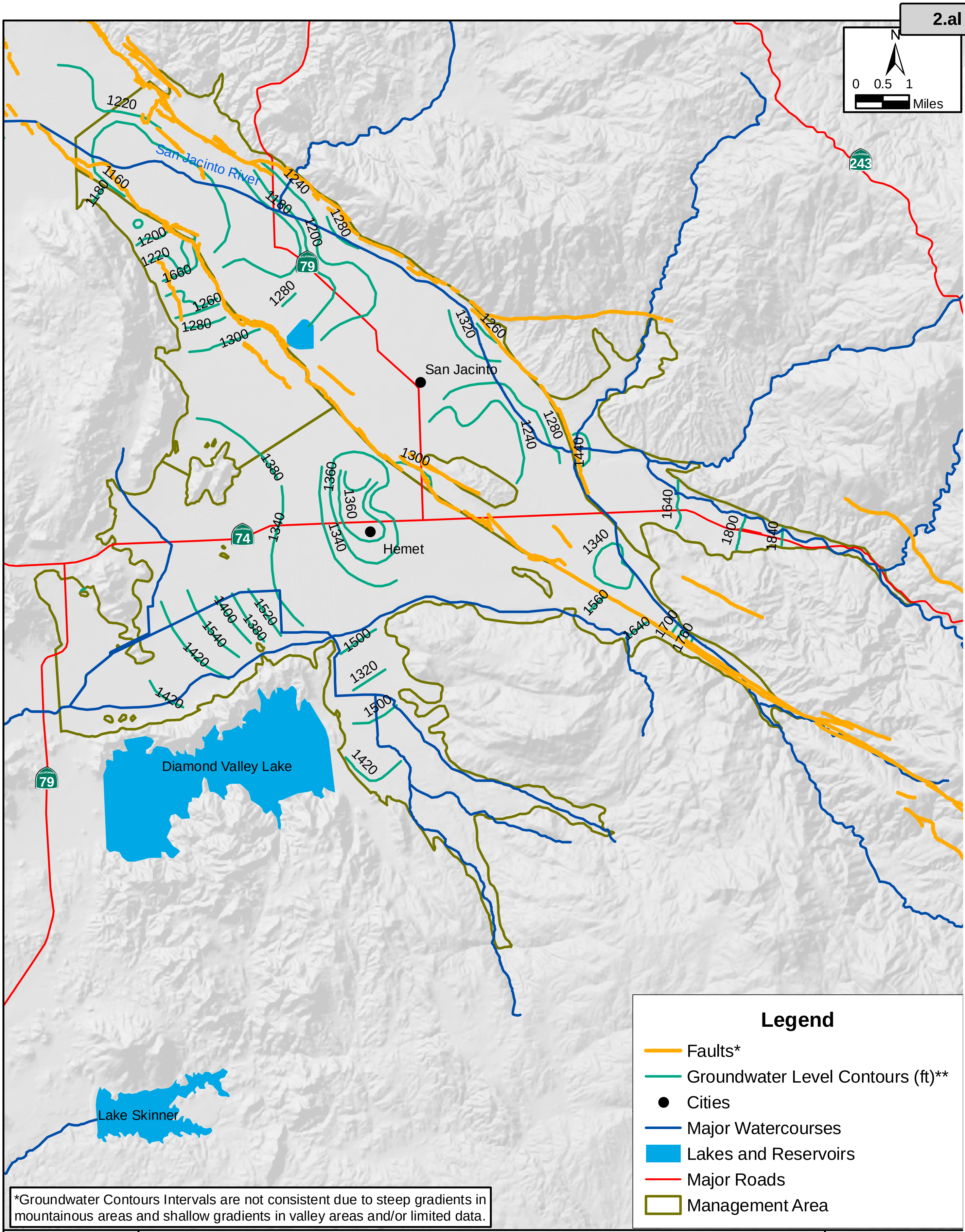

*Groundwater Contours Intervals are not consistent due to steep gradients in mountainous areas and shallow gradients in valley areas and/or limited data.

WRIME

Spring 2004 Groundwater Elevation

Hemet / San Jacinto Water Management Plan

*Source: Riverside County
**Source: EMWD, 2005

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Figure 4.10

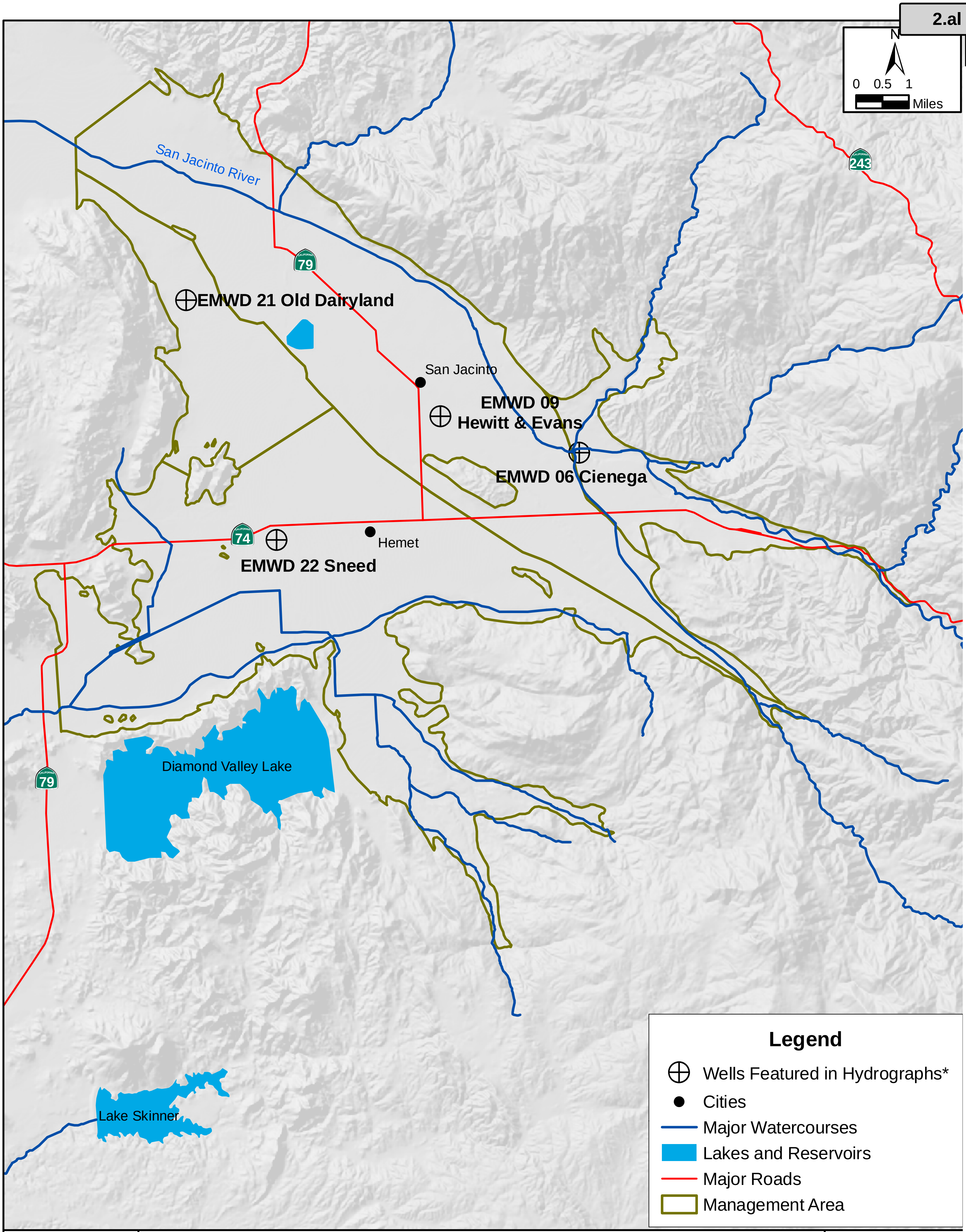

RIME

Location of Representative Well Hydrographs

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 4.11

Figure 4.12 Groundwater Elevation
Canyon Management Zone, EMWD #6 Cienega

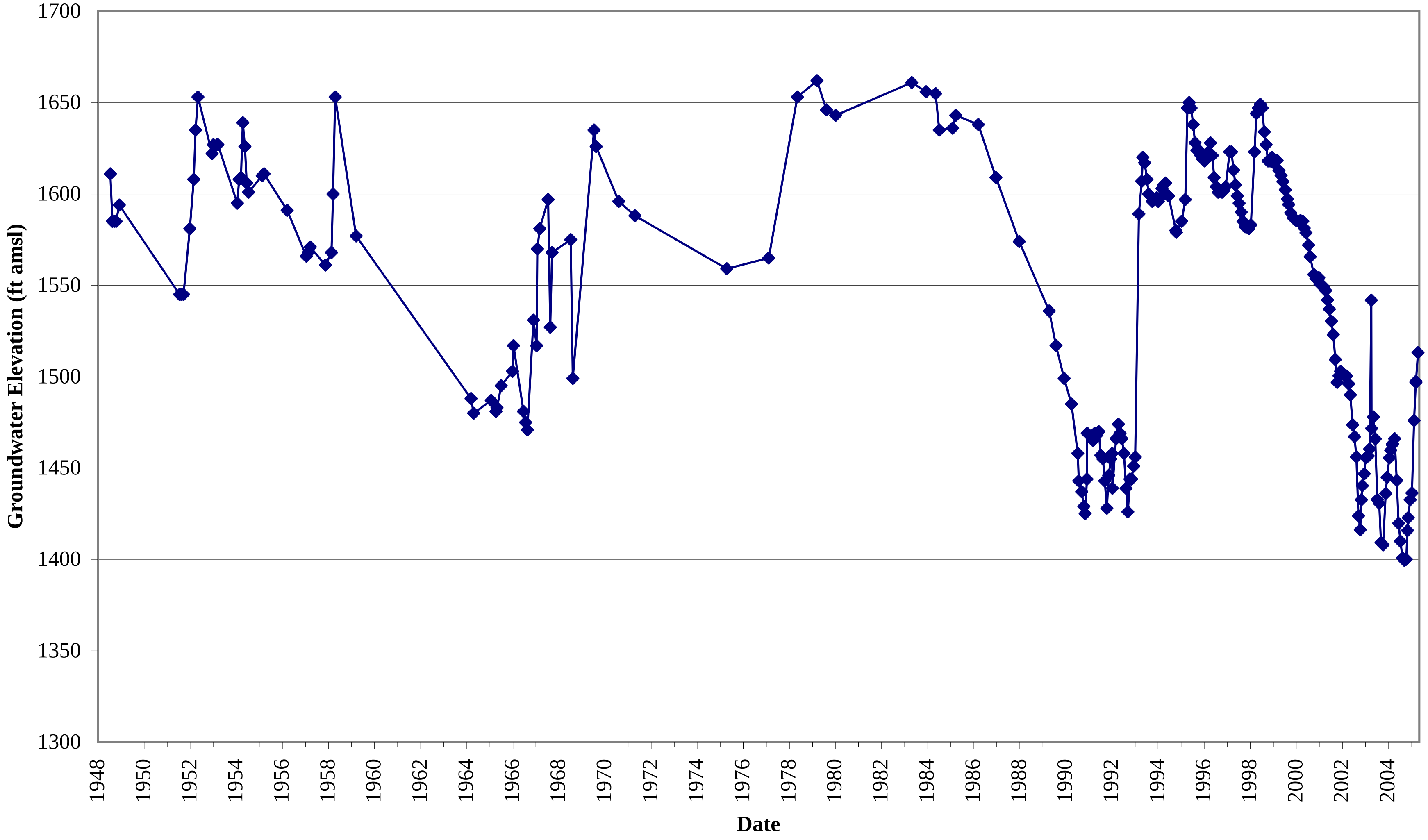

Figure 4.13 Groundwater Elevation
Upper Pressure Management Zone, EMWD #9 Hewitt and Evans

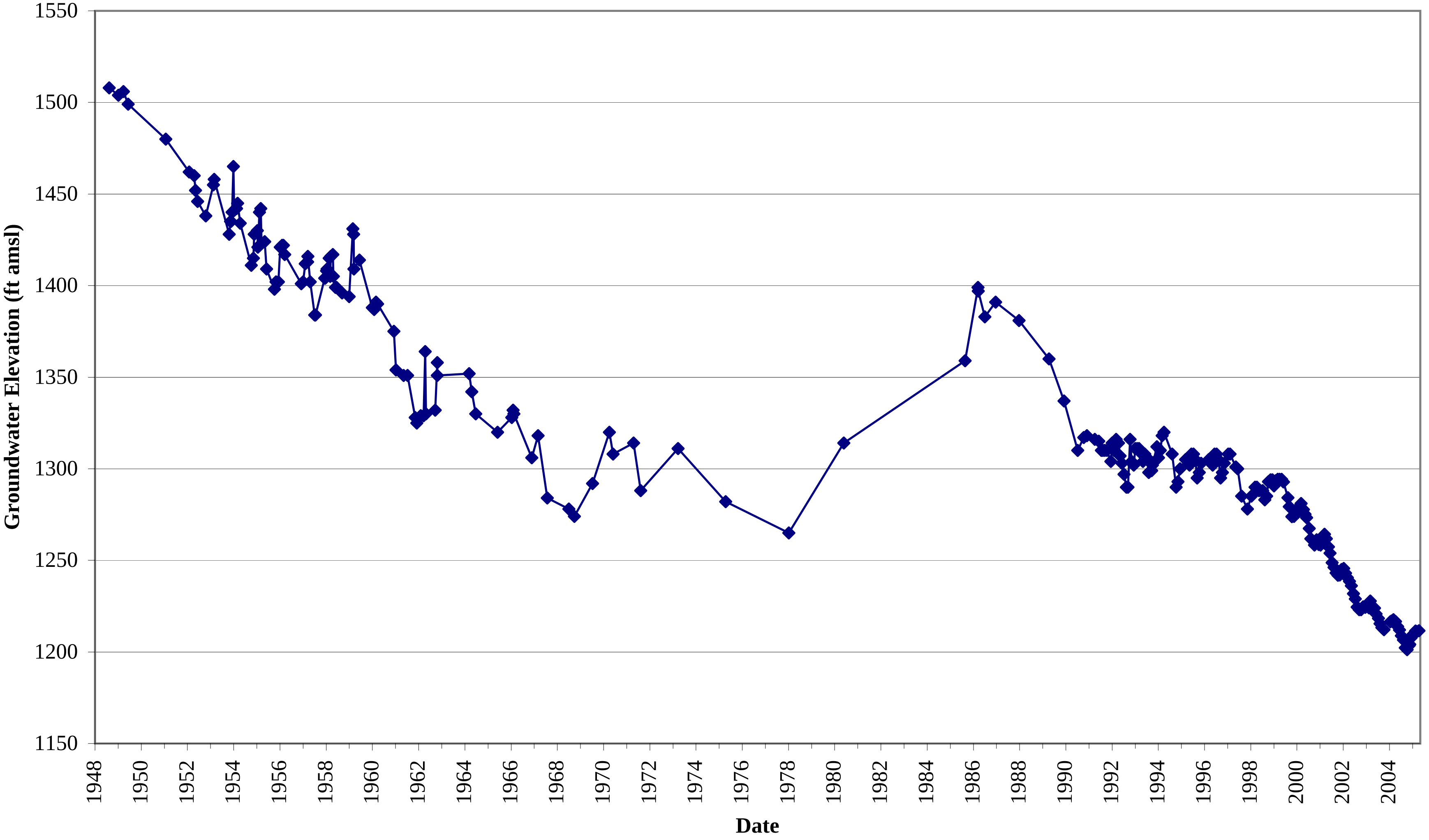

are likely due to a combination of reduced precipitation, reduced recharge from streamflow, and effects of pumping.

4.6.2.3 Hemet North Portion of the Lakeview/Hemet North Management Zone

Groundwater levels in Hemet North portion of the Lakeview/Hemet North Management Zone have shown a steady decline followed by recent stabilization. These declines occur even though significantly less water was pumped from the Hemet North portion than from other Management Zones. The Hemet North portion does not receive as much surface water recharge as Upper Pressure and Canyon Management Zones, thus impacts of pumping are more pronounced than they might be in those Management Zones. Figure 4.14 shows groundwater levels at EMWD's #21 Old Dairyland well. Since the beginning of the record in 1966, groundwater levels have steadily declined, with little variability. After dropping more than 100 feet from the mid-1960s to the mid-1990s, groundwater levels have stabilized at an average of 1,250 feet above mean sea level.

4.6.2.4 Hemet South Management Zone

Groundwater levels in the Hemet South Management Zone have shown a steady decline, although the recent rate of decline has slowed. Figure 4.15 shows groundwater levels at EMWD's #22 Sneed well since the beginning of the record in 1952. While data is limited for the 1952 to 1990 period, groundwater levels declined through the 1952-1990 period, and the increased data available from 1990 to 2005 shows little variability. Groundwater level declines have slowed but have still dropped approximately 20 feet in the past 10 years.

4.6.3 GROUNDWATER BUDGET

The changes in groundwater levels and flow directions are the result of changes in the balance of inflows and outflows from the Management Area. A groundwater budget can identify potential causes of an imbalance. The groundwater budget presented in Table 4.3 shows average annual values for the components of total inflow and total outflow. The values are based on a water balance spreadsheet tool developed for use by the TC. This Excel-based tool allowed the TC members to investigate the impact of inclusion and exclusion of specific water budget components, such as artificial recharge, imported water, and others, as well as the implications of different data sources, such as the calibrated groundwater model and the database or reported values with underflow estimates. This allowed for a more thorough understanding of the potential impacts of definitions of water budget components on the calculated yield and overdraft. The values presented in Table 4.3, as agreed upon by the TC, are the results of the calibrated groundwater model except for groundwater extraction, which is

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Figure 4.14 Groundwater Elevation
Hemet North Management Zone, EMWD #21 Old Dairyland

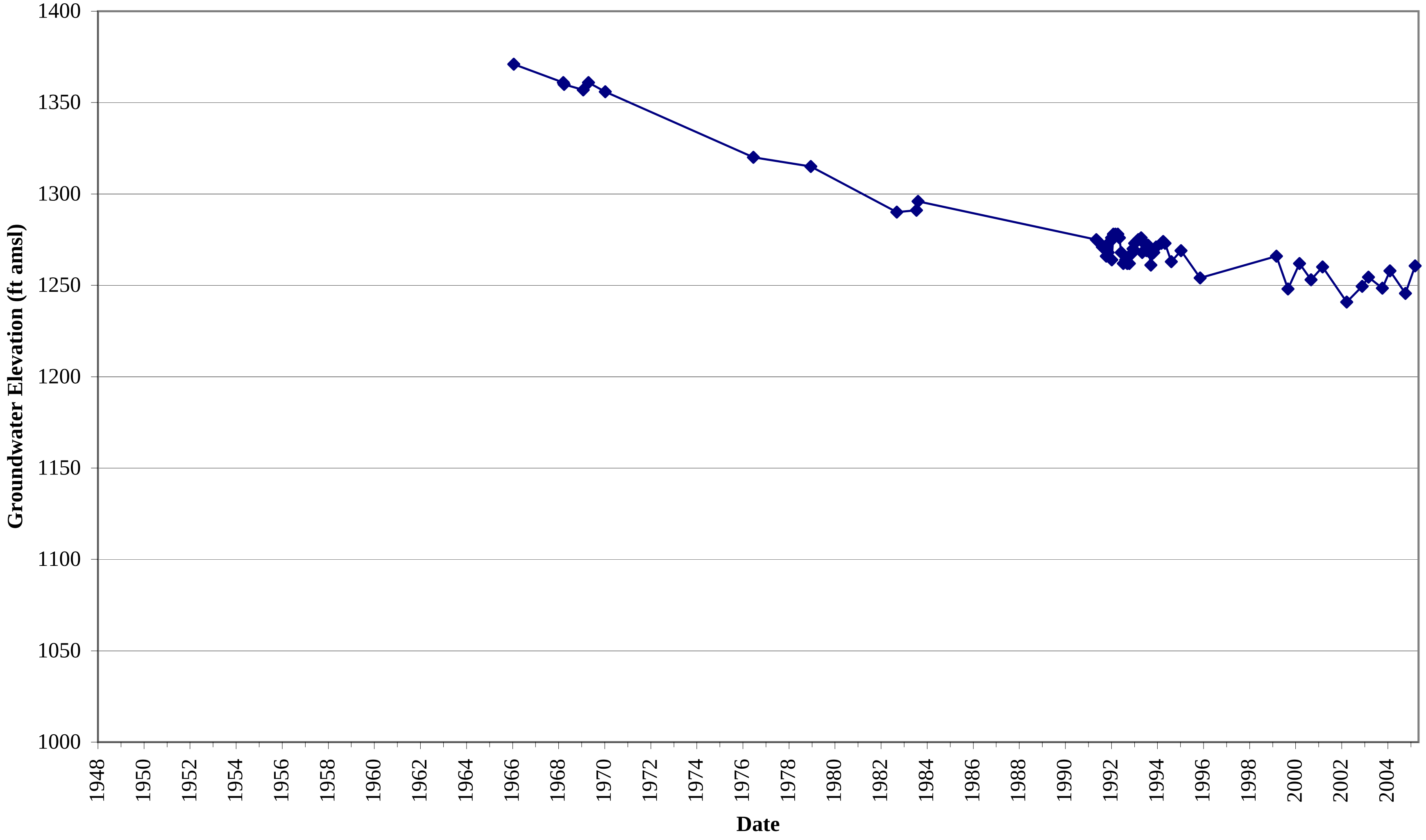

Figure 4.15 Groundwater Elevation
Hemet South Management Zone, EMWD #22 Sneed

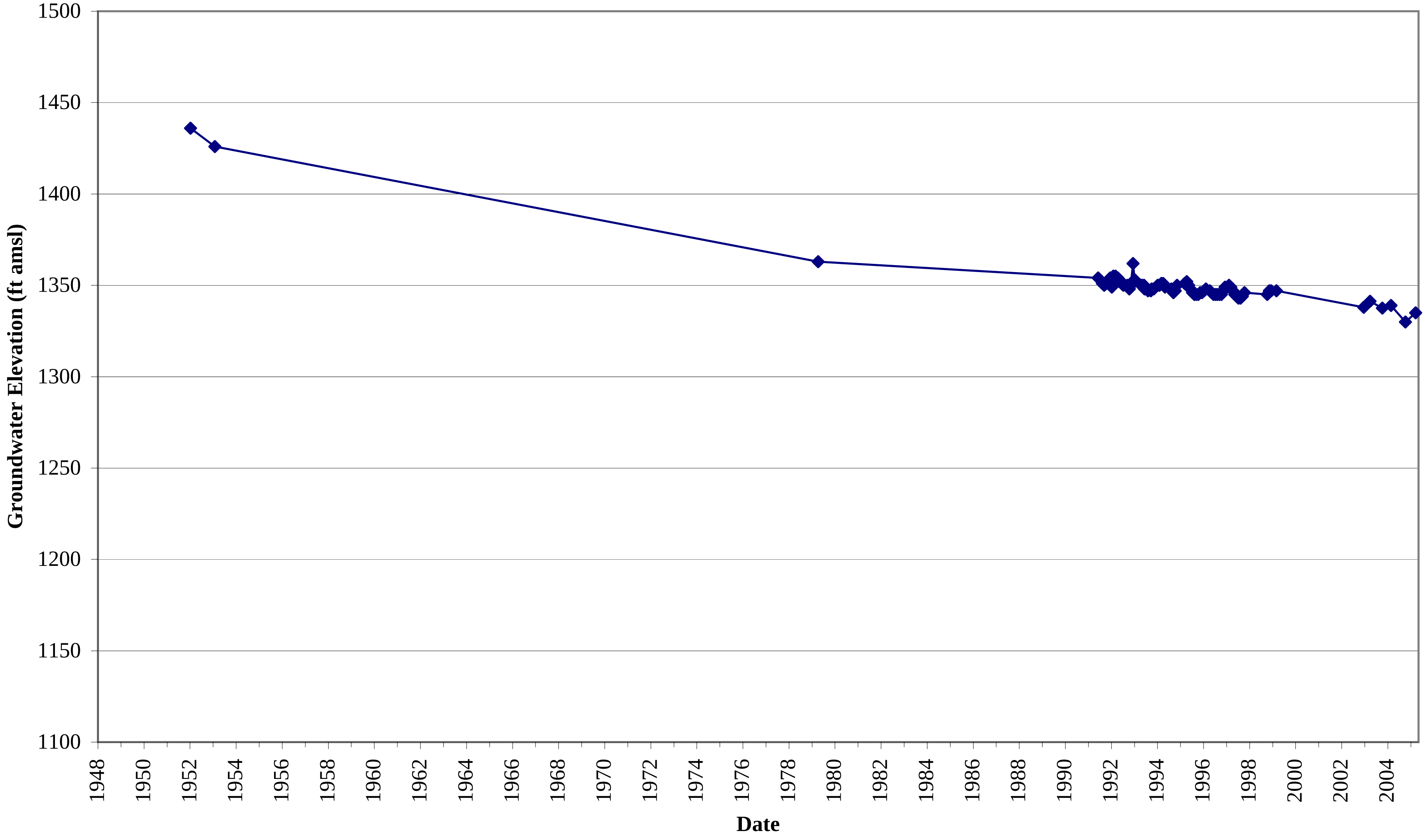

obtained from the data tabulated in *Assessment of Historical and Projected Land and Water Use Data* (WRIME, 2003a).

Table 4.3 Groundwater Budget for the Management Area
(Average Annual Volume for Water Years 1984-2004*)

Inflow Component	Volume (AFY)	Outflow Component	Volume (AFY)
Recharge from Rainfall	8,900	Groundwater Production	57,800
San Jacinto River and Bautista Creek Recharge	9,900	Subsurface Outflow from Hemet South to Perris South	300
Recharge from Public Agency Sales	2,900	Subsurface Outflow from Hemet North to Lakeview	1,500
Recharge from Irrigation	9,600		
Conjunctive Use Recharge	800		
Reclaimed Water Recharge	1,500		
Subsurface Inflow from Mountain Fronts	8,000		
Subsurface Inflow from Lower Pressure to Upper Pressure	1,700		
Total	43,300	**Total**	59,600

* Values for Groundwater Production represent 1984-2004 averages, an update from the 1984-2003 values presented in WRIME, 2003a. All other data is taken from the 1984-1999 modeling results (TechLink, 2002a).

The total average annual inflow is 43,300 AFY and the total average annual outflow is 59,600 AFY, resulting in an average annual deficit of 16,300 AFY for the 20-year hydrologic period of 1984 to 2004. Nearly all (97%) outflow is from groundwater extraction while inflow is primarily natural recharge, representing 66% of inflow and the remainder a direct result of recharge from applied water or other human activities. The 1984-2004 hydrologic period presented in Table 4.3 represents the period during which the most consistent and continuous data for the Management Area is available. It should be noted, however, that this period does not necessarily represent the long-term groundwater basin conditions, and as described in Section 4.9 of this document, long-term overdraft is estimated based on longer periods, as well as other methods and criteria.

4.6.4 LAND SUBSIDENCE

In additional to water quantity and quality concerns, there is the potential for further land subsidence in the Management Area, although not at rates to cause significant damage.

Widespread land subsidence has been observed in the San Jacinto basin as the area and its groundwater resources have been developed. Three forms of subsidence have been reported by the U.S. Environmental Protection Agency (Boen, et al., 1971): local or regional tectonic adjustments along the faults in the area; groundwater withdrawals and subsequent artesian head decline; and soil collapse or compaction due to causes other than tectonic or artesian head decline. In the graben, tectonic subsidence has averaged 0.2 in/yr (4.5 mm/year) over the past 40,000 years and subsidence due to groundwater withdrawal and aquifer compaction is 1 - 1.2 in/yr (2.5 - 3 cm/yr) (Morton, 1995). Lofgren (1975, 1976) reported in studies that, through the years, the periods of subsidence tend to correspond to the periods of groundwater production; land surface elevation at the well tends to be lower each year; and subsidence has been greater within the graben than on either side.

4.7 LAND USE

Land use in the Management Area has experienced changes over the past half-century. The conversion from agricultural or undeveloped lands to urban uses has an impact on basin hydrogeology as well as on water demand. Figure 4.16 and Table 4.4 show land uses in 1998 for most of the project area.

Table 4.4 Land Use Distribution Based on the 1998 Survey

Land Use	Canyon	Upper Pressure	Hemet South	Hemet North	Total
Total Area (acres)	4,400	21,200	25,300	5,600	56,500
% Urban and Suburban	24%	24%	36%	11%	28%
% Irrigated Crops and Recreational	12%	49%	15%	47%	31%
% Non-Irrigated Crops and Native Vegetation	16%	24%	45%	42%	35%
% Unmapped	48%	3%	4%	0%	7%

Much of the urban uses in the area are recent. This is shown by the significant population growth in the area, as highlighted Figure 4.17, which displays population data from the decennial US Census reports and a 2004 US Census estimate for the incorporated areas of Hemet and San Jacinto.

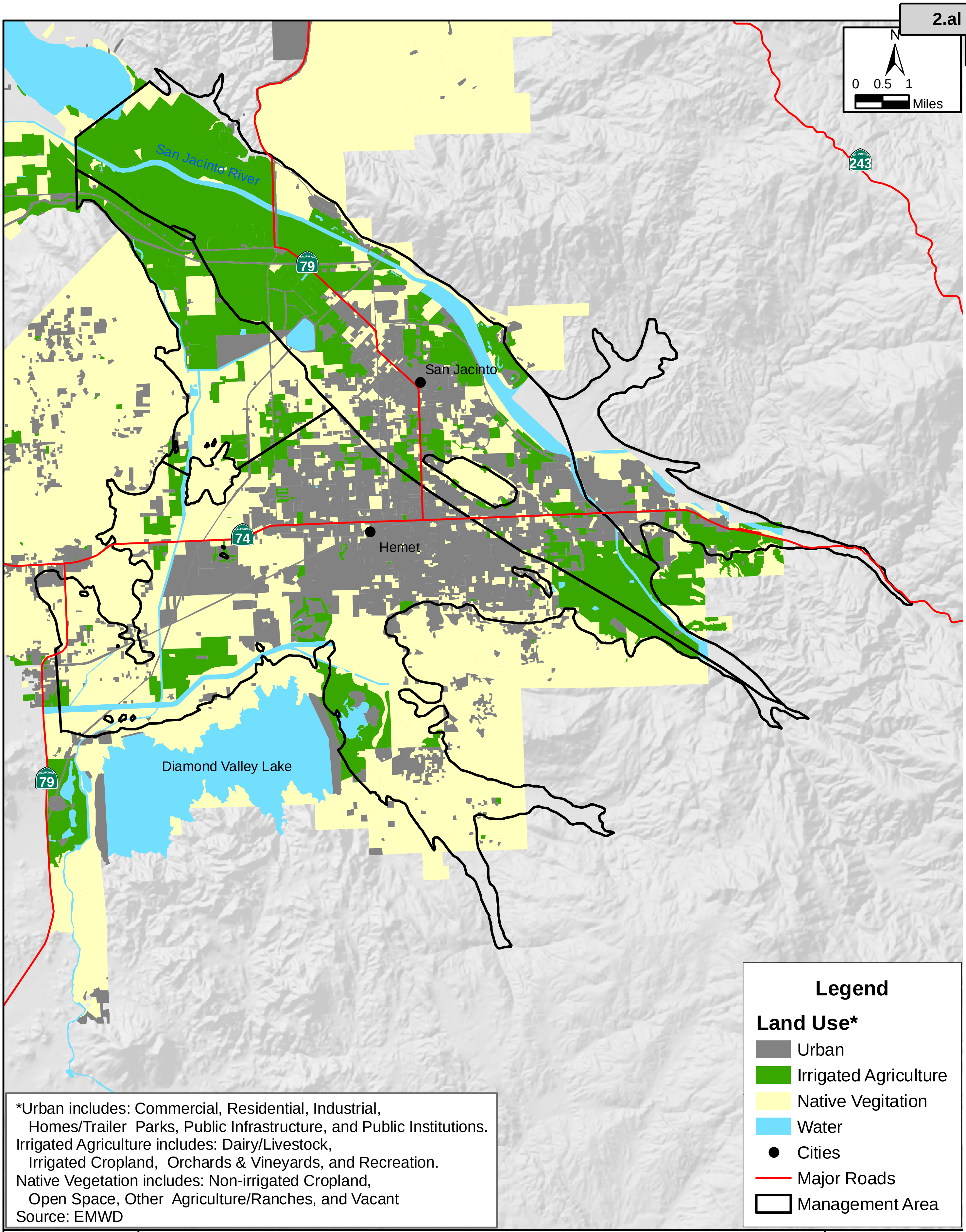

*Urban includes: Commercial, Residential, Industrial, Homes/Trailer Parks, Public Infrastructure, and Public Institutions.
Irrigated Agriculture includes: Dairy/Livestock, Irrigated Cropland, Orchards & Vineyards, and Recreation.
Native Vegetation includes: Non-irrigated Cropland, Open Space, Other Agriculture/Ranches, and Vacant
Source: EMWD

Legend

Land Use*

- ■ Urban
- 🟩 Irrigated Agriculture
- 🟨 Native Vegitation
- 🟦 Water
- ● Cities
- — Major Roads
- ☐ Management Area

1998 Land Use

Hemet / San Jacinto Water Management Plan

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Figure 4.16

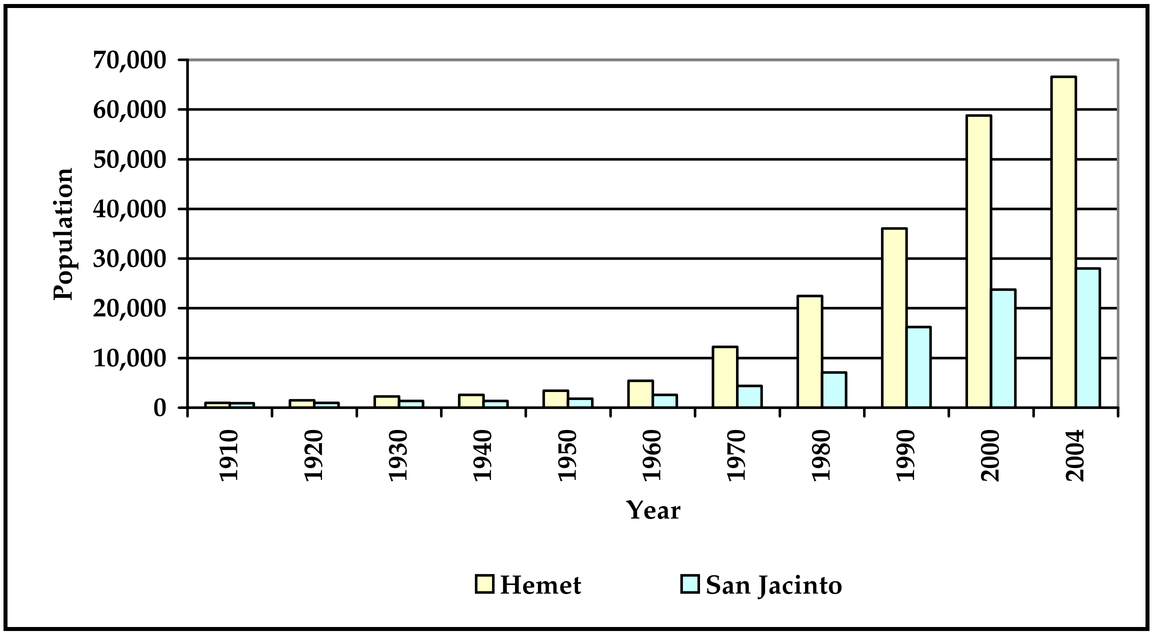

Figure 4.17 Population Growth in Incorporated Hemet and San Jacinto

From 1950 to 2004, the population in Hemet increased twenty-fold and the population in San Jacinto increased sixteen-fold. Such urbanization results in changes in both water demand and hydrologic processes. For newly urbanized areas that were previously non-irrigated, water demands obviously increase significantly. Areas that change from irrigated agricultural uses to urban uses do not typically see major changes in the total annual water demand. However, water demand from urban users is typically less elastic than water demand from agricultural users, making drought contingencies more important. The requirements for water quality are also typically more stringent for urban users. From a hydrologic perspective, urbanization results in an increase in the impervious land area, e.g., more pavement and buildings, with the resulting increased runoff and decreased infiltration. Additionally, the water used indoors by urban users is sent to treatment plants, shifting the potential for recharge of this water from the area of use to the treatment plant area.

The urbanization trend is not unique to the Management Area, but has been pervasive throughout the fringes of urbanized Southern California. While the rate of urbanization may change in the future, the trend of urbanization is likely to continue and to play a significant role in land use and water demand. Further discussion of future land use changes may be found in Section 5.

4.8 CURRENT WATER SUPPLIES

There are four Public Agencies primarily responsible for water supply in the Management Area: EMWD, LHMWD, and Cities of Hemet and San Jacinto. In addition, Private Water Producers produce groundwater and purchase water from the Public Agencies, and the Soboba Tribe pumps groundwater for its respective uses. Each entity pumps groundwater, and some entities also utilize a mix of some of the following sources: surface water diversions, surface water and/or groundwater purchases, surface water imports, and recycled water. The water supply conditions in the Management Area and the interrelationships among the various agencies is a primary factor for future water management in the area. Figure 4.18 shows these interrelationships in a diagram form.

Figure 4.19 shows the makeup of the water supply and how this mix has changed from 1985 to 2004 for the Management Area. Groundwater is the predominant source of water supplies for the Management Area. The remaining sources are smaller, but still important, sources of water. Supplies listed by entity are provided in Appendix F. Note that items such as sales to other agencies are not subtracted in these supply values, resulting in a supply that represents both wholesale and retail supplies. As a result of this definition, supplies will not equal the historical demand. Historical demand for the individual entities is shown in Figures 4.20 – 4.25.

4.8.1 GROUNDWATER

All entities pump groundwater for all or a portion of their water supply. The quantity of groundwater extraction for each Management Zone is shown in Figures 4.26a, 26b, and 4.27.

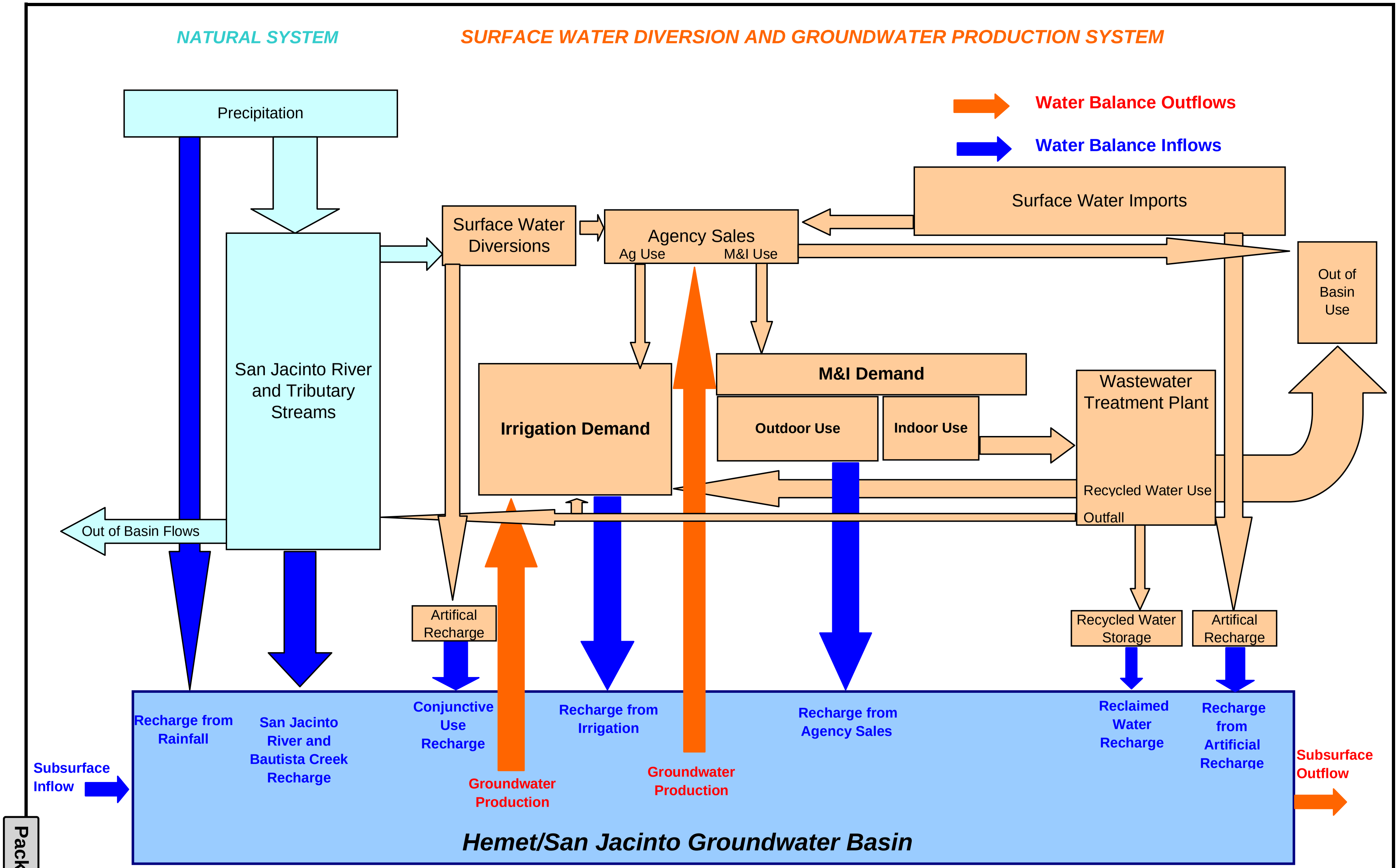

Figure 4.18 Components of Hemet/San Jacinto Groundwater Balance

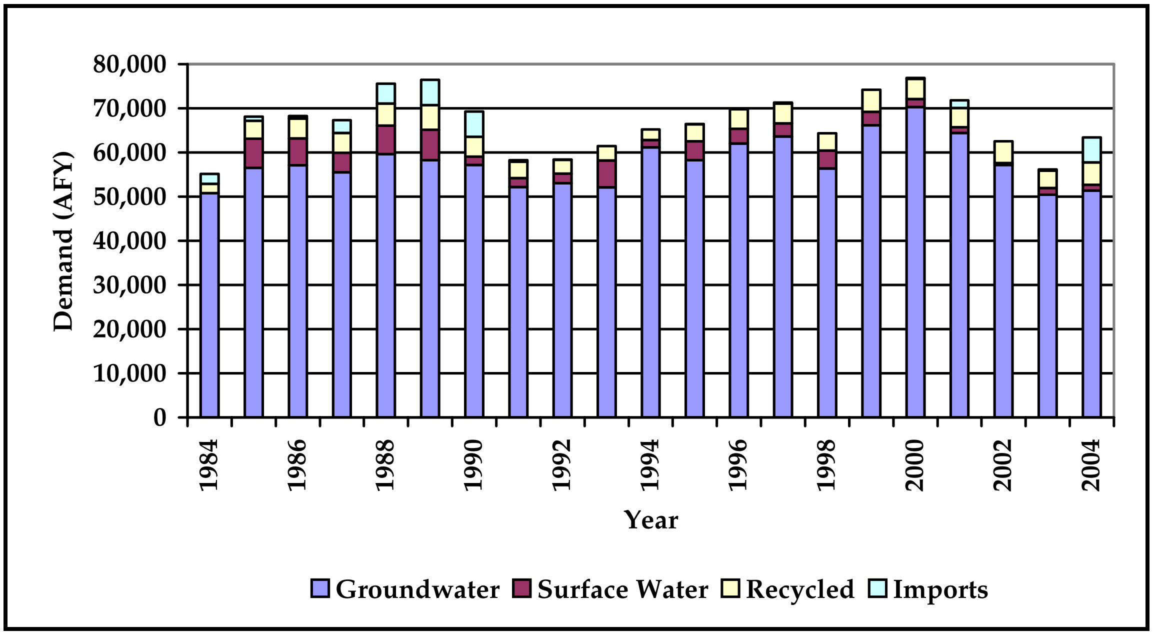

Figure 4.19 Annual Management Area Water Supplies

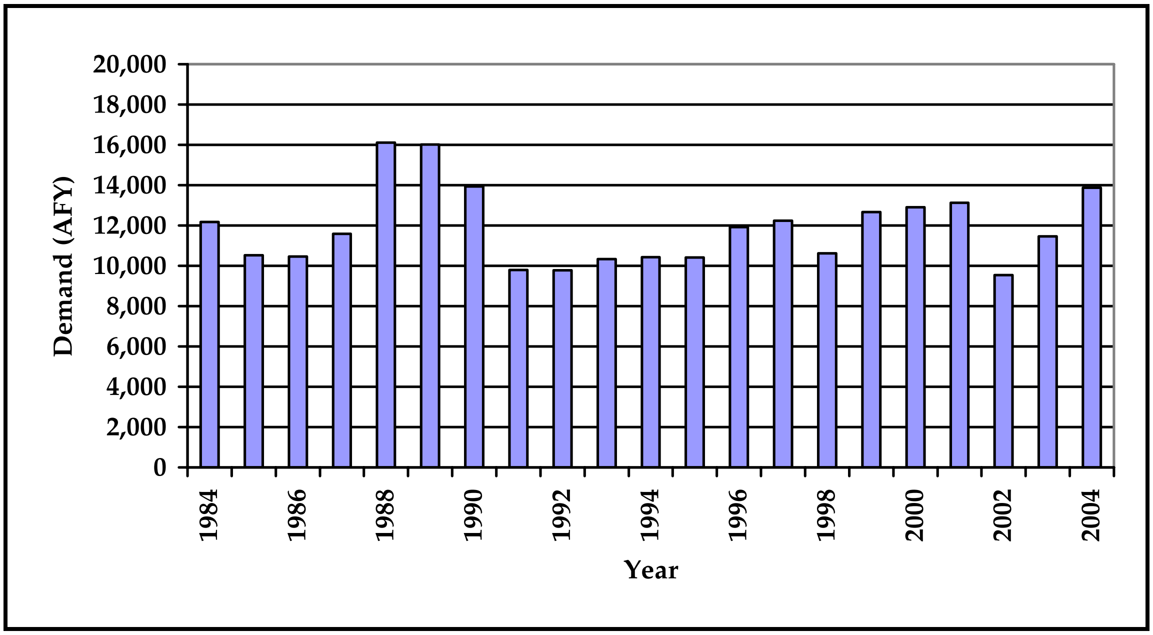

Figure 4.20 EMWD Historical Annual Demand

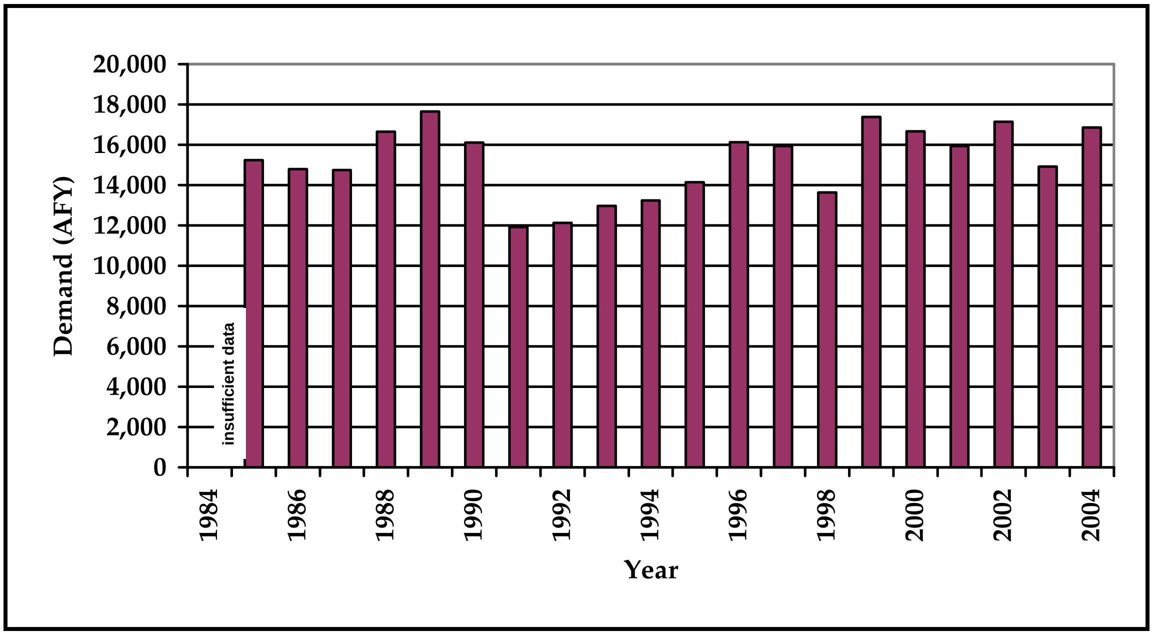

Figure 4.21 LHMWD Historical Annual Demand

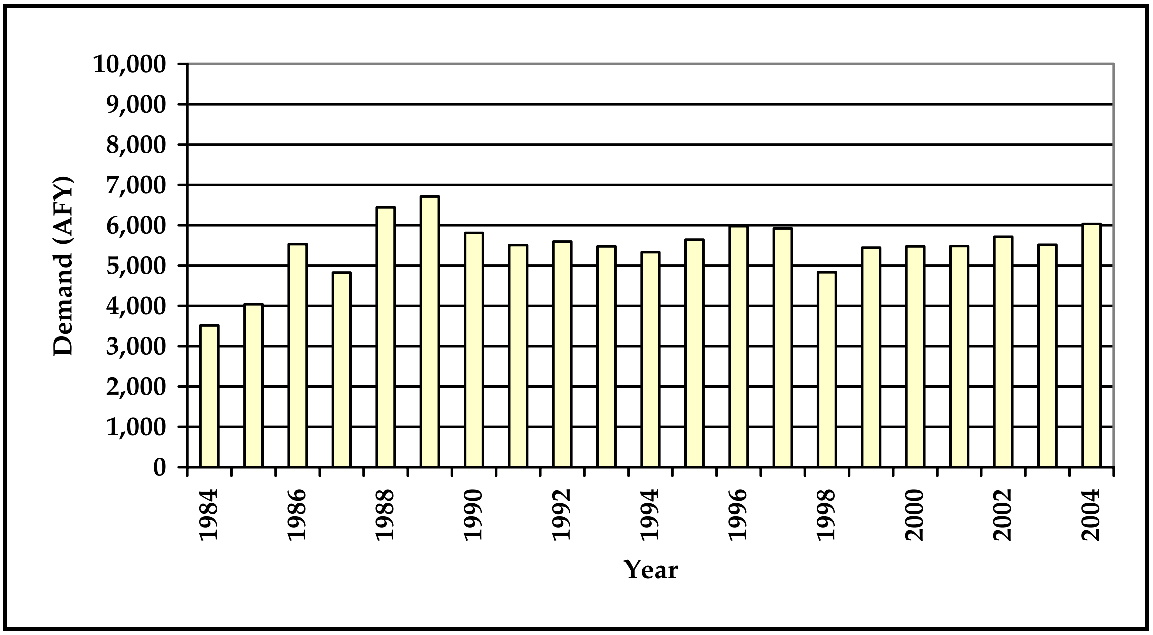

Figure 4.22 City of Hemet Water Service Area Historical Annual Demand

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

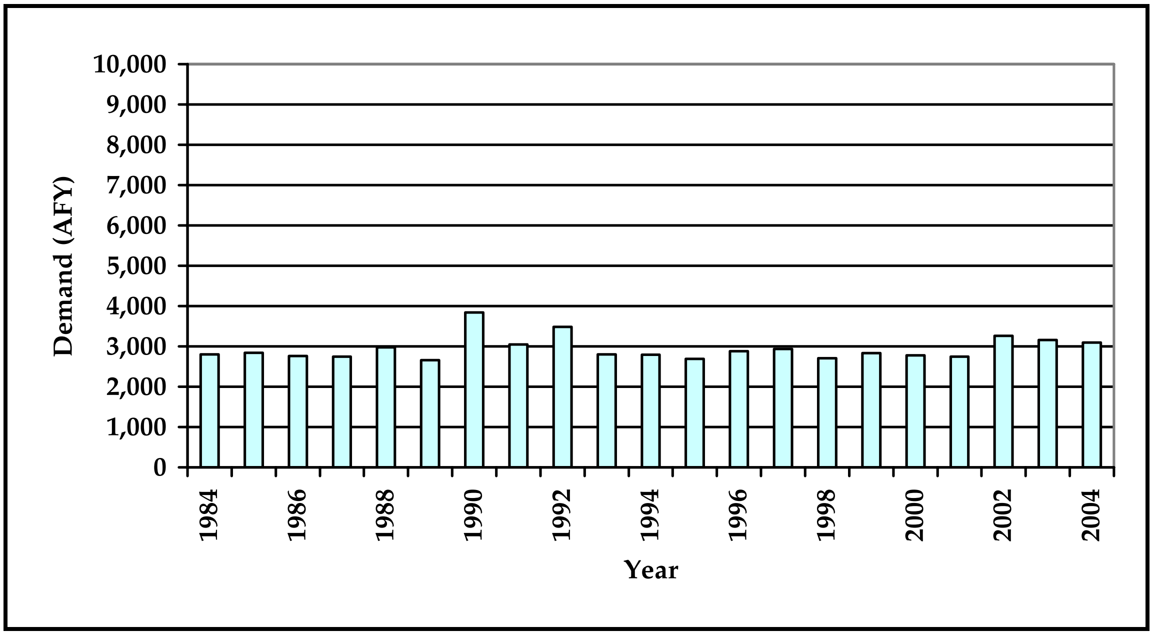

Figure 4.23 City of San Jacinto Water Service Area Historical Annual Demand

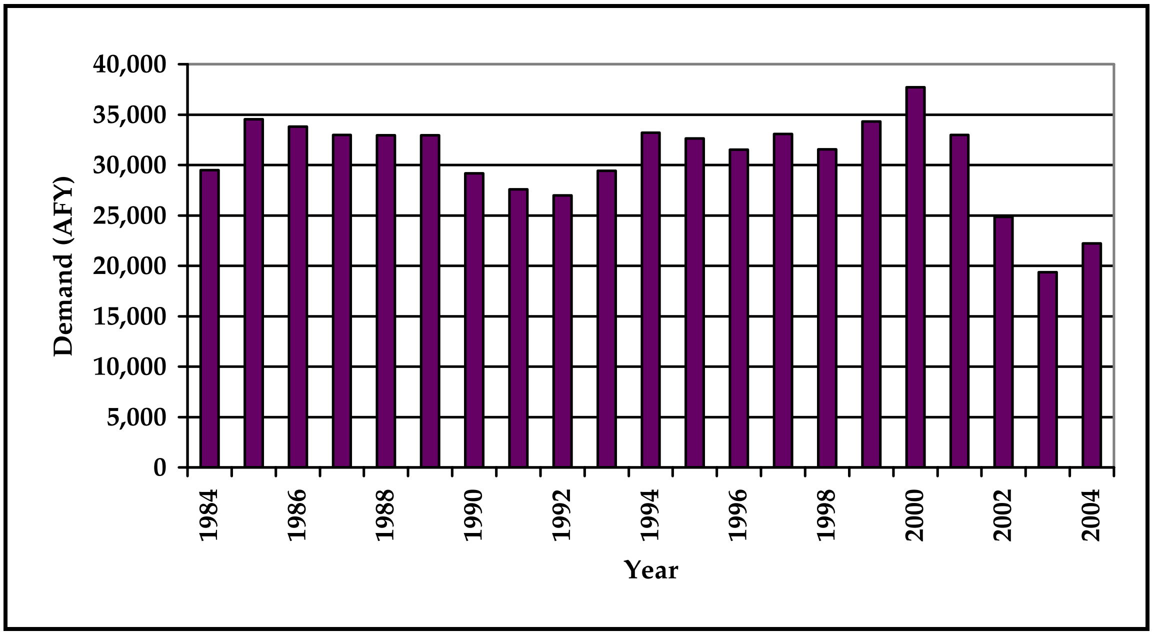

Figure 4.24 Private Water Producers Historical Annual Demand

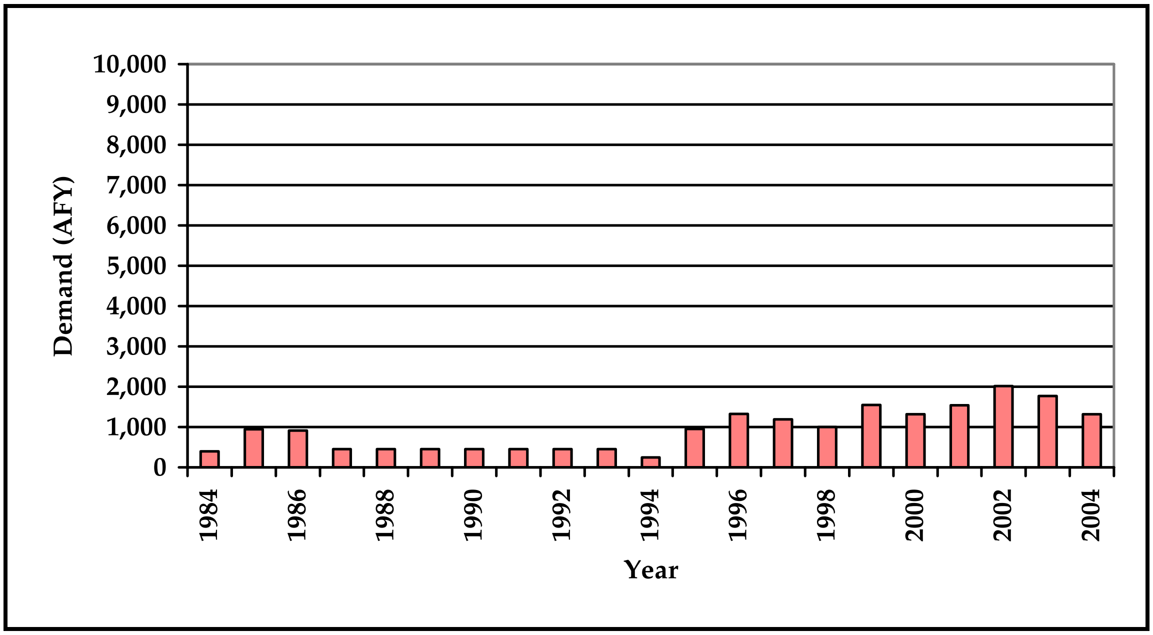

Figure 4.25 Soboba Historical Annual Demand

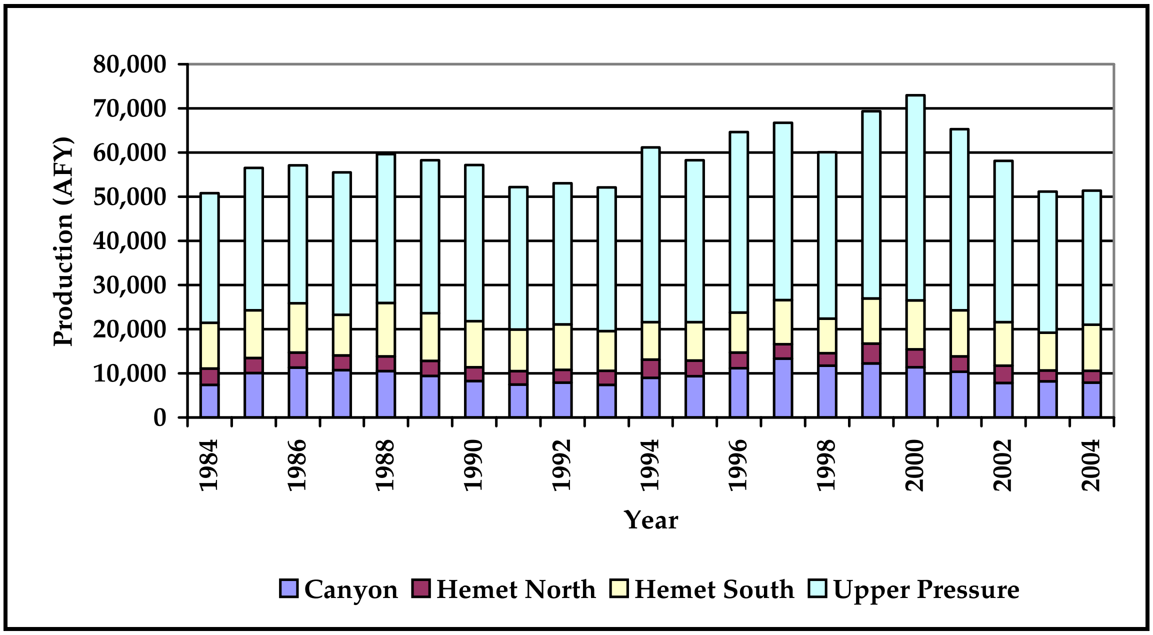

Figure 4.26a Annual Groundwater Production, by Management Zone

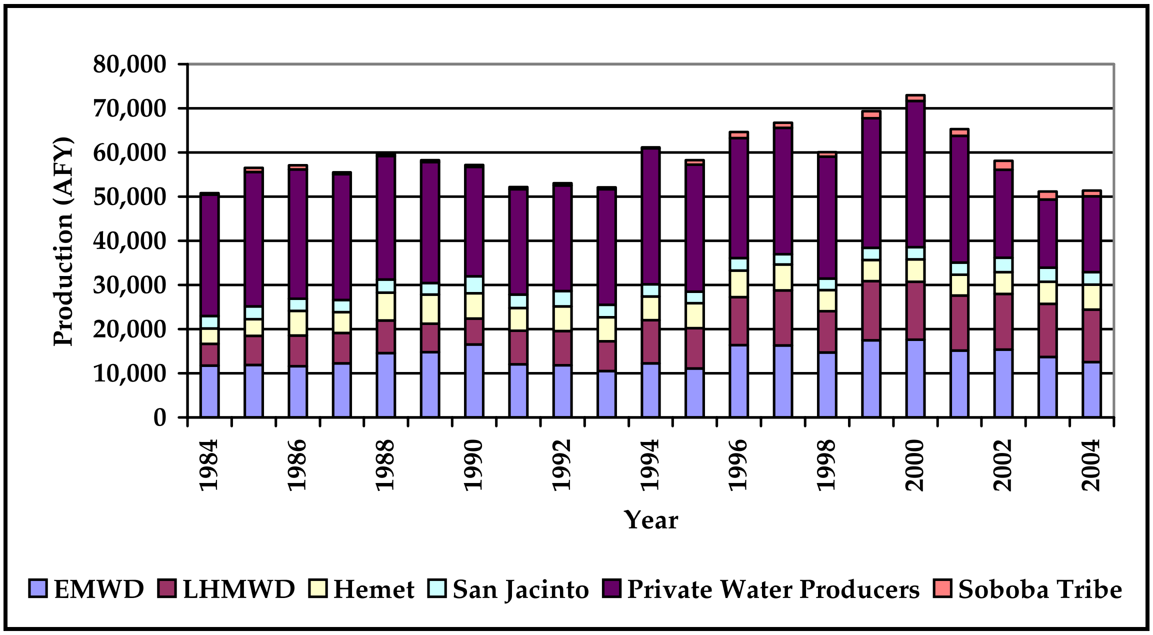

Figure 4.26b Annual Groundwater Production, by Entity

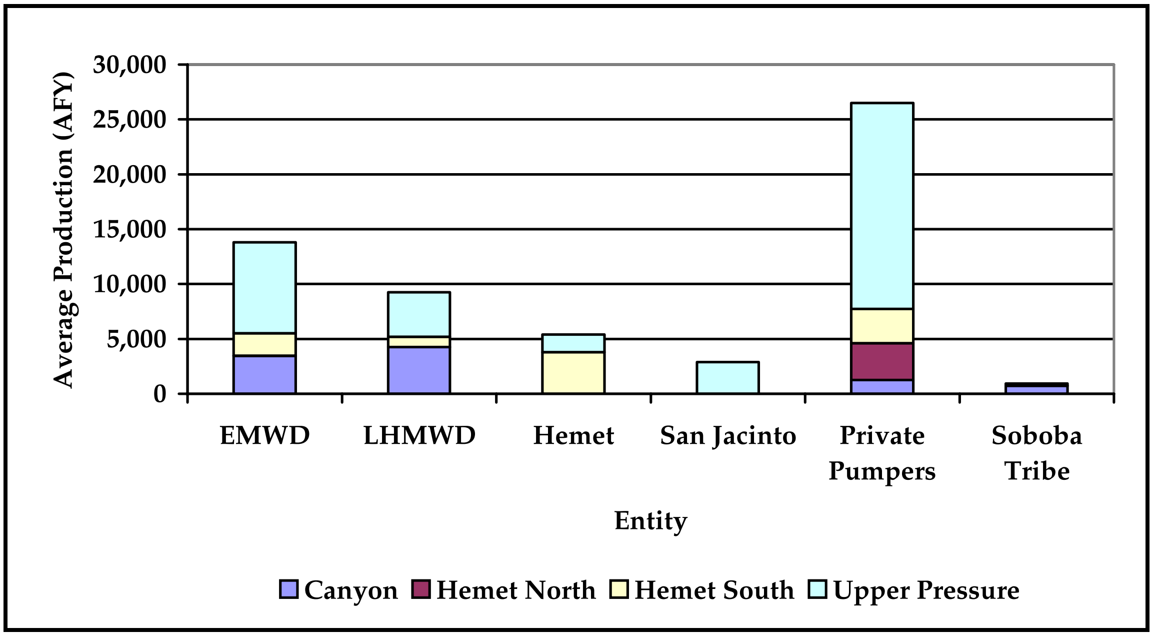

Figure 4.27 Average Annual Entity Groundwater Production, by Management Zone, 1984-2004

Since 1984, each entity except for the City of San Jacinto has pumped groundwater from multiple Management Zones. San Jacinto's pumping during that time period has always been from the Upper Pressure Management Zones. The percentage of the water supply from groundwater for each remaining entity, compared to other components of the water supply, is shown in Figures 4.28a-e as a pie chart breaking down the entity's 2004 groundwater supply by

Management Zone. Additionally, Figure 4.29a-e presents stacked area charts showing the historical annual percentage of groundwater supply from each Management Zone.

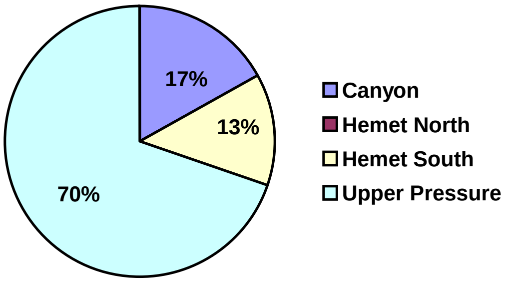

Figure 4.28a EMWD 2004 Groundwater Production, Percentage by Supply Source

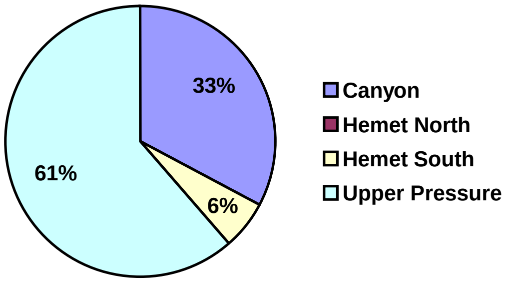

Figure 4.28b LHMWD 2004 Groundwater Production, Percentage by Supply Source

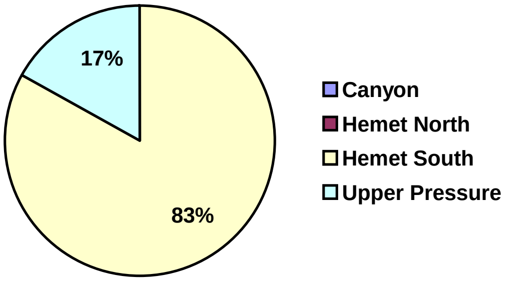

Figure 4.28c City of Hemet Water Service Area 2004 Groundwater Production, Percentage by Supply Source

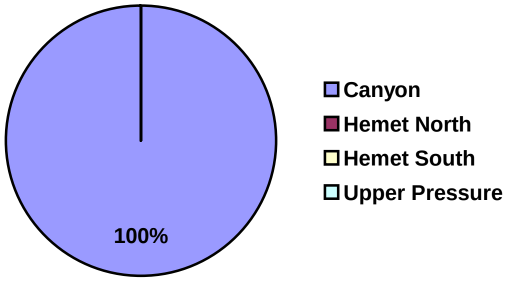

Figure 4.28d Soboba 2004 Groundwater Production, Percentage by Supply Source

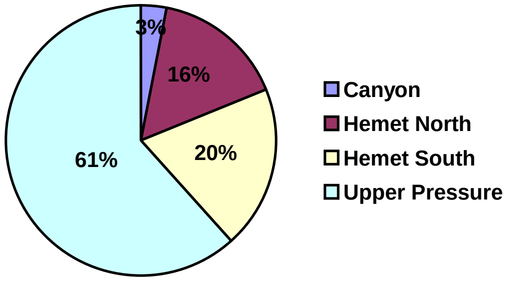

Figure 4.28e Private Water Producers 2004 Groundwater Production, Percentage by Supply Source

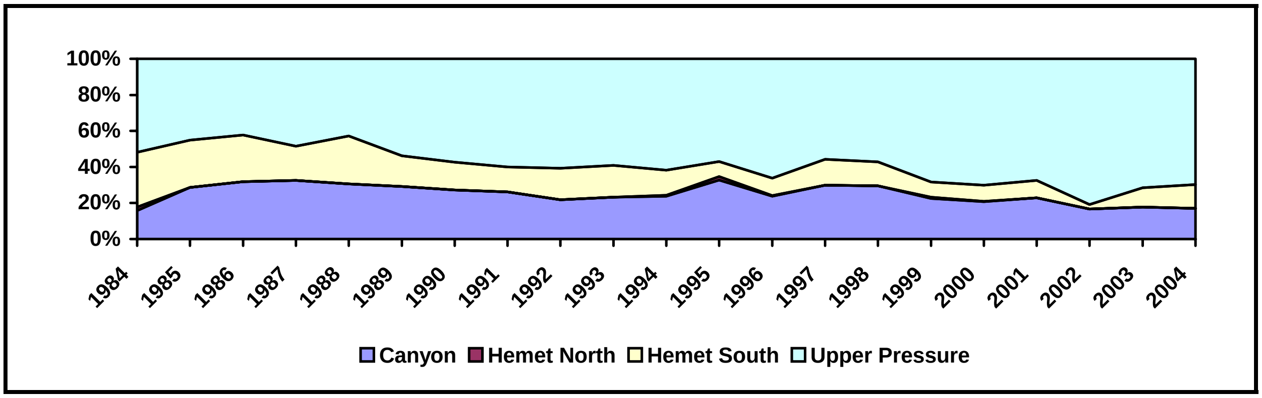

Figure 4.29a EMWD Historical Groundwater Production, Percentage by Supply Source

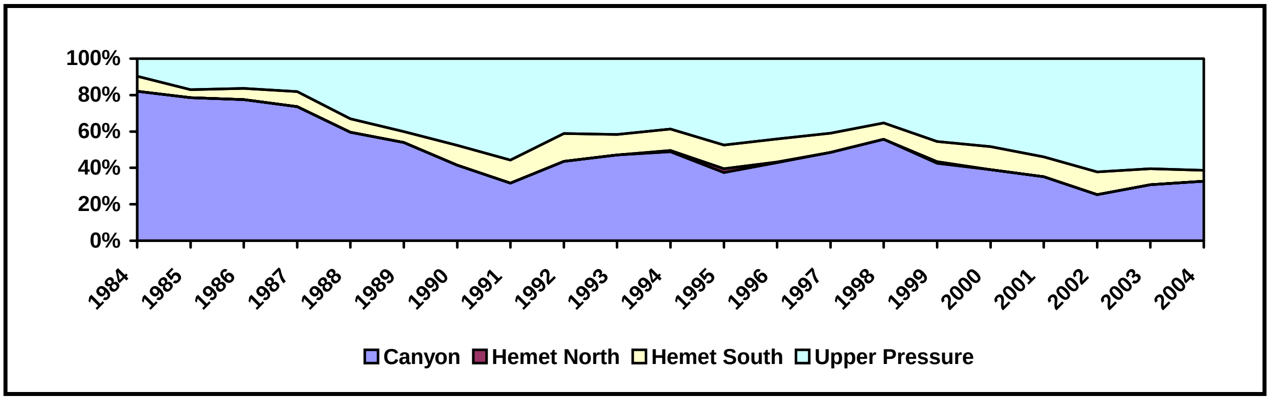

Figure 4.29b LHMWD Historical Groundwater Production, Percentage by Supply Source

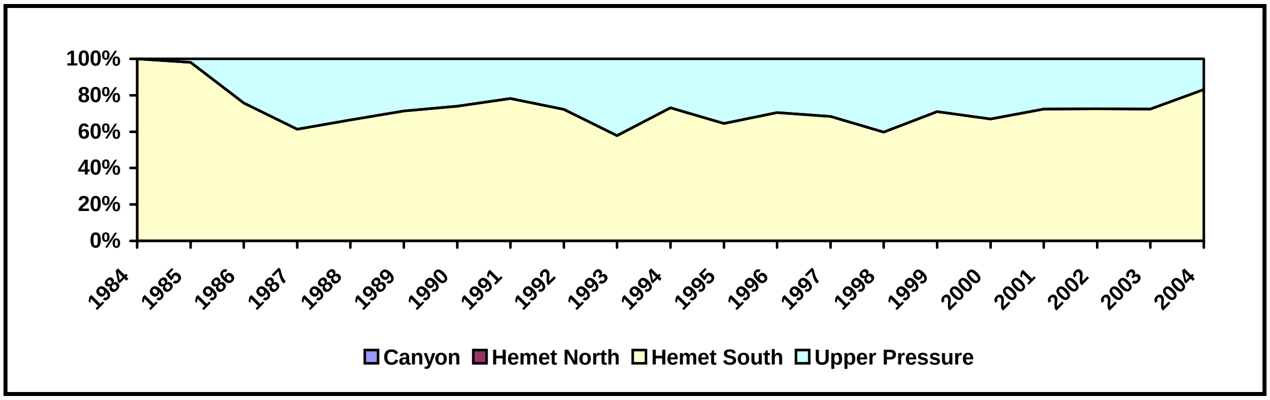

Figure 4.29c City of Hemet Water Service Area Historical Groundwater Production, Percentage by Supply Source

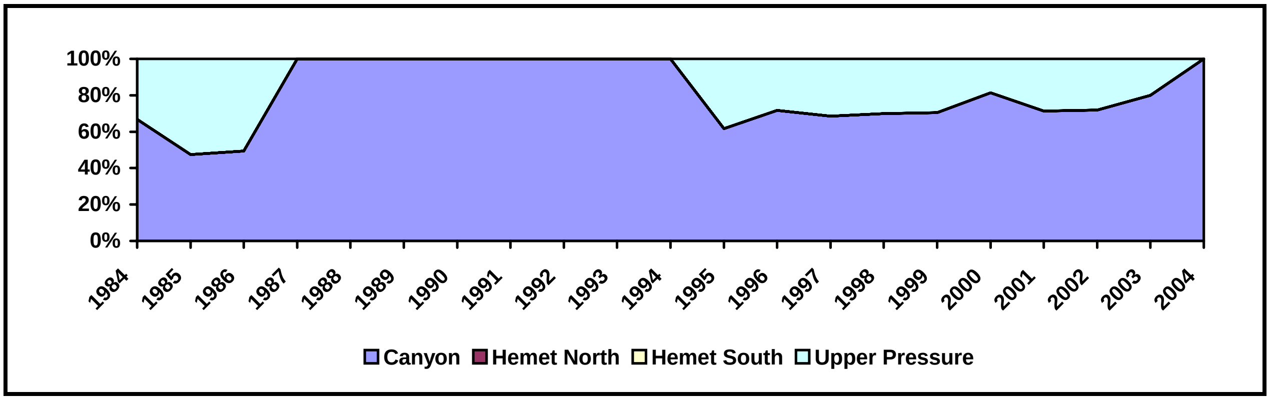

Figure 4.29d Soboba Historical Groundwater Production, Percentage by Supply Source

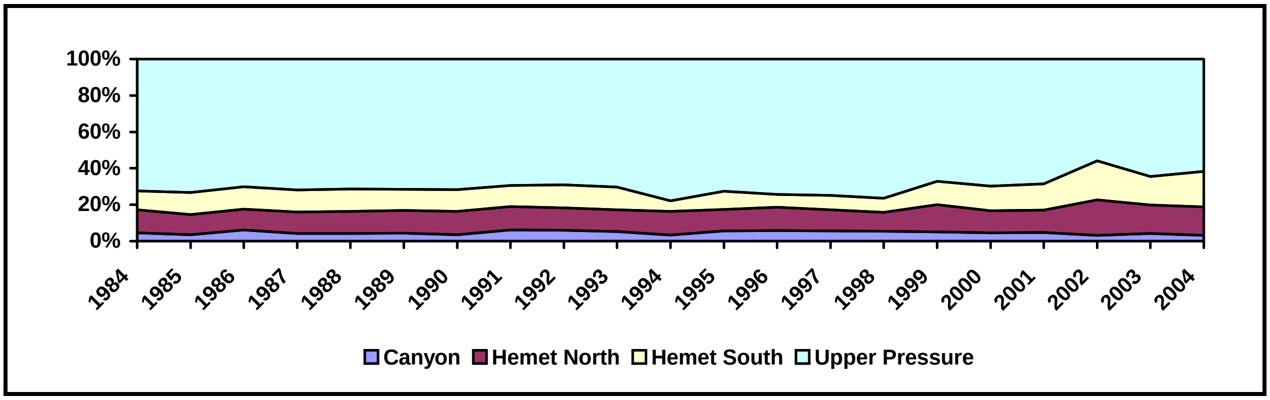

Figure 4.29e Private Water Producers Historical Groundwater Production, Percentage by Supply Source

The pie charts show that in 2004 the Upper Pressure Management Zone provided the majority of groundwater for four of the six entities. The Hemet South Management Zone provided the majority of water to the City of Hemet Water Services Area and The Canyon Management Zone provided all groundwater for the Soboba Tribe.

The only significant trend seen in the 1984 - 2004 historical annual charts is LHMWD's shift in groundwater sources from majority Canyon Management Zone water in the mid-1980s to mostly Upper Pressure Management Zone water recently. These charts also emphasis the importance of the Upper Pressure Management Zone, as it was a component of the groundwater supply for all entities over the 1984 – 2004 time period.

4.8.2 IMPORTED WATER

EMWD is a member agency of the MWD, and, as such, is able to import water from Northern California via the State Water Project and from the Colorado River Aqueduct. Imported water is used for supply as well as for groundwater recharge; this section only discusses imported water for supply, imported water for recharge is discussed in Section 4.6.1. District-wide, imported water comprises 80% of EMWD's total potable water supply. However, imported water is a small portion of EMWD's water supply in the Management Area due to the availability of high quality groundwater, which is less common in the rest of the EMWD service area. Over the 1984-2004 period, imported water represented 13% of EMWD's supply and 2% of the total Management Area supply (WRIME, 2003a). In 2004, imported water represented 41% of EMWD's supply and 9% of the total supply for the Management Area (EMWD, 2005a,b).

The usage of imported water for direct use has been variable over the past decades, as shown in Figure 4.30. The volume of water imported was reduced in 1991 as the importation of unfiltered Colorado River water to the Management Area was curtailed to meet the requirements of the Surface Water Treatment Rule, part of the Safe Drinking Water Act.

Imported water usage in recent years has increased, which in turn reduced the stress on groundwater resources in the Management Area.

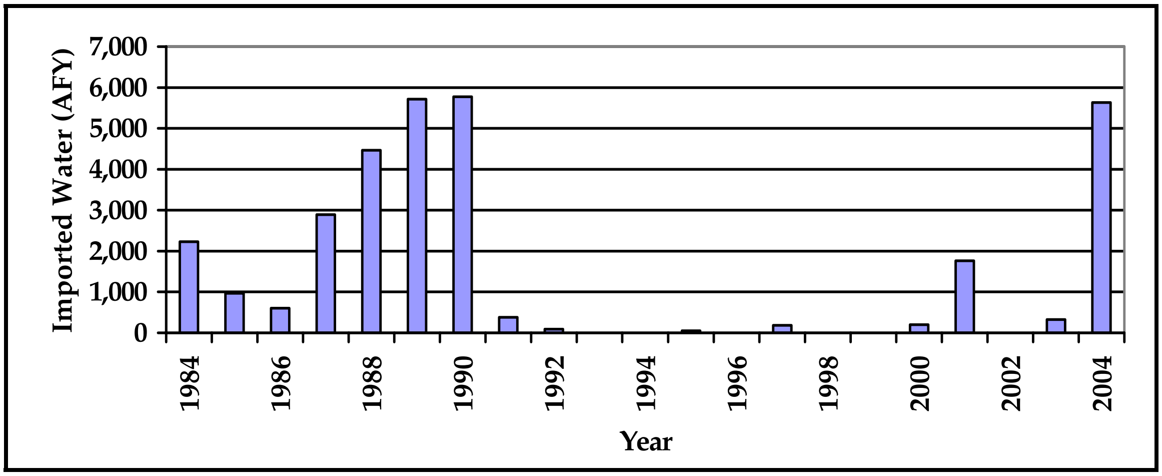

Figure 4.30 Annual Imported Water Supply

4.8.3 RECYCLED WATER

Recycled water is treated at EMWD's San Jacinto Valley Regional Water Reclamation Facility and is currently used primarily for irrigation in the public municipal areas, industrial uses, and agricultural irrigation purposes in the Management Area and for habitat creation at the California Fish and Game San Jacinto Wildlife Area outside the Management Area. Recycled water is a highly reliable source of supply and will increase in availability as the population of the Management Area increases. Most of the recycled water is sold by EMWD to private land owners for agricultural irrigation. Recycled water usage in the Management Area has been fairly stable over the past decades, with approximately 5,000 AF supplied in 2004. Annual amounts of recycled water use are presented in Figure 4.31.

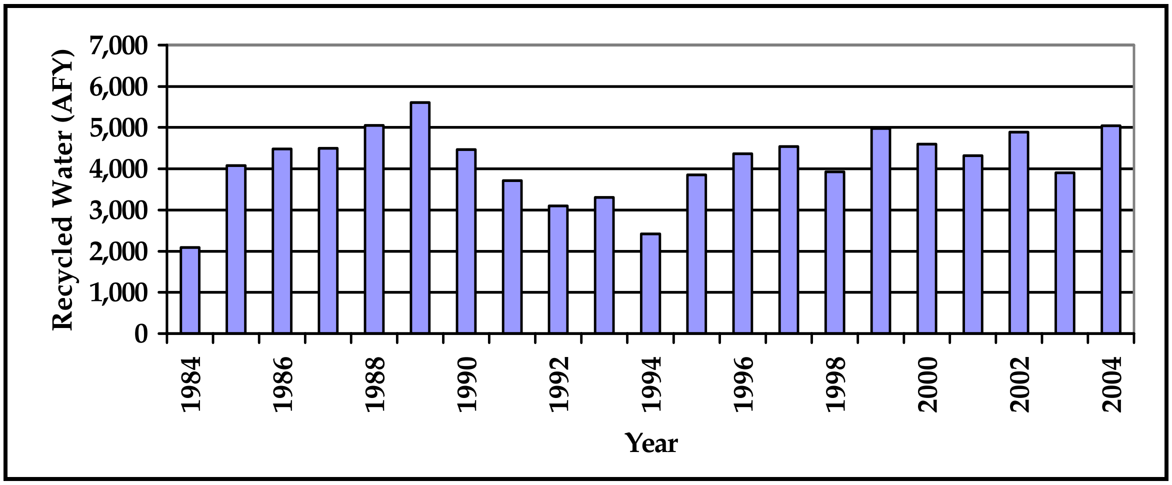

Figure 4.31 Annual Recycled Water Supply

4.8.4 SURFACE WATER

LHMWD has pre-1914 rights for the diversion and storage of surface water from the San Jacinto River and its tributaries. These rights date back to the late 1800s, and the diversion amounts are filed each year with the Division of Water Rights, State Water Resources Control Board on Annual Notices of Groundwater Extraction or Diversion, numbers G330016, G330017, and G330018.

When available, LHMWD diverts surface water for direct use. It should be noted that the San Jacinto River is an ephemeral river. The river may not flow every year and, therefore, there may be occasional years where diversion is not possible. Annual surface water diversions for 1985-2004 are shown in Figure 4.32. Details of the surface water rights are discussed in Section 7.1.

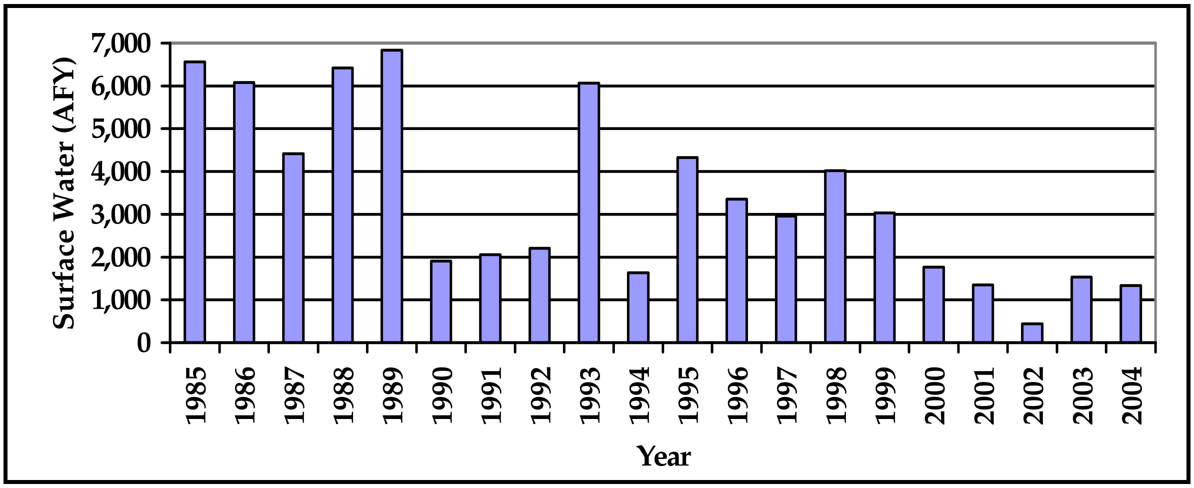

Figure 4.32 Annual Surface Water Supply

EMWD's surface water diversions are not utilized for direct use and are therefore not considered part of the water supply. More information on EMWD's surface water diversions is included in Section 7, Surface Water Rights.

4.8.5 PURCHASES FROM EMWD

LHMWD, City of Hemet, and City of San Jacinto purchase water from EMWD to supplement their water supplies. The annual volume of water sold to the other agencies by EMWD is shown in Figure 4.33. In addition to these sales, EMWD sells recycled water to private land owners for agricultural irrigation.

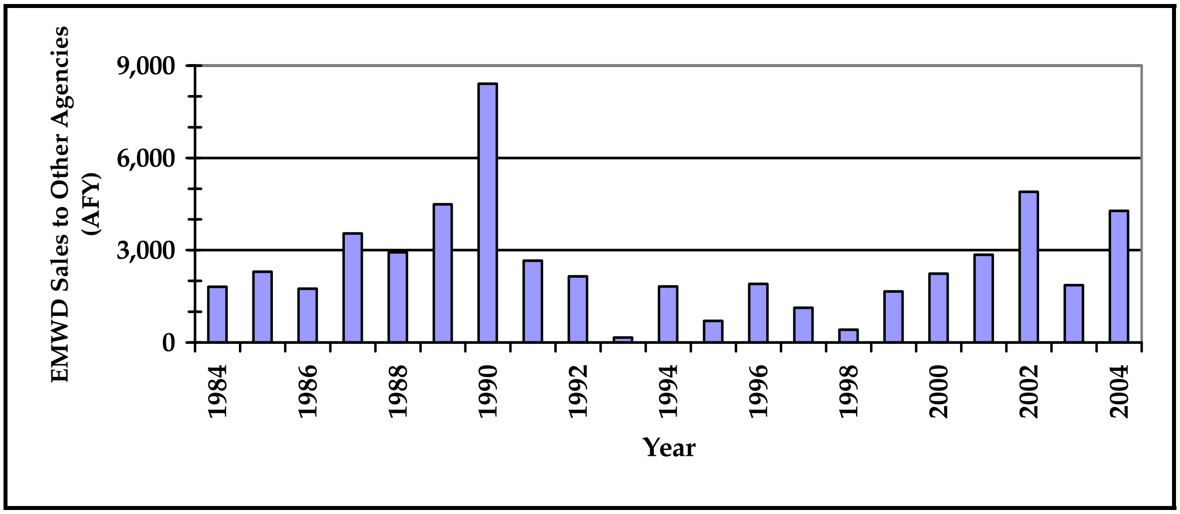

Figure 4.33 Annual Sales by EMWD to Other Agencies within Management Area

4.9 ESTIMATES OF SAFE YIELD AND OVERDRAFT

4.9.1 SAFE YIELD

The Safe Yield of the Management Area is defined in the Stipulated Judgment as the long term, average quantity of water supply in the Management Area that can be pumped without causing undesirable results, including the gradual reduction of natural groundwater in storage over long-term hydrologic cycles.

The following clarifying notes are presented to better define the Safe Yield definition:

- **Period of Record:** Safe Yield is a function of annual variability of the hydrology, but should reflect long-term average conditions, including wet and dry replenishment conditions. Identification of "long term, average" is important, but difficult to determine, as precipitation is highly variable from year to year and subject to long-term climatic changes. As hydrologic data will continue to be collected and a greater understanding of the hydrology will be gained, the period of record for determining the Safe Yield will be subject to change over time.

- **Water Supply Components:** The following components of water supply are considered in the definition of Safe Yield:
  a. Natural recharge from infiltration of precipitation,
  b. Recharge from infiltration of streamflow and other surface water runoff,
  c. Recharge from infiltration of irrigation applied water on agricultural lands,
  d. Recharge from infiltration of outdoor irrigation in the urbanized areas,
  e. Artificial recharge, such as replenishment programs, historically operated, using imported, recycled, and surface water diversions,
  f. Subsurface groundwater inflows, such as from the Lower Pressure Management Zone and the boundaries of the basin, and
  g. Subsurface groundwater outflows, such as to the Lakeview portion of the Lakeview/Hemet North Management Zone.
- **Study Area:** Safe Yield is calculated for the Management Area as one unit, and not by the smaller units of Management Zones.
- **Undesirable Effects:** The definition of Safe Yield emphasizes protection of groundwater in storage. It is assumed that potential undesirable effects on water quality are indirectly addressed, and therefore are not included in the analysis.

The Safe Yield of the Management Area has been estimated in a number of studies in the past. A summary of methods, hydrologic periods, and results from each study is presented in Table 4.5.

Two major methodologies have traditionally been used to estimate the Safe Yield: (1) Water Balance methodology, and (2) Change in storage methodology. These methods are briefly described below.

Table 4.5 Published Estimates of Safe Yield for the Management Area

Yield Study	Method	Time Period	Safe Yield (AFY)	Pumping (AFY)	Overdraft (AFY)
Fritz and Rosell*, 1947	Water Balance (Conventional)	1920-1945	27,400 (35,100 w/o trees/brush)	32,400	4,800
Schwartz*, 1967	Water Balance (Conventional)	1923-1960	26,100	n/a	12,100
EMWD White Paper, 2000	Water Level Recovery Analysis	Variable	50,000	60,600	10,600
GIS Recharge Estimates	Change in Storage (GIS)	1998-2003	39,700	n/a	n/a
WRIME, 2003d	Water Balance (Conventional)	1984-2001	44,700	59,000	14,300
Based on TechLink, 2002a	Water Balance (Model-based)	1984-1999	41,300	58,000	16,700

* Fritz and Rosell (1947) and Schwartz (1967) both used a larger geographic area that roughly included what is today called the San Jacinto-Lower Pressure Management Zone. This additional area is the area northwest of Bridge Street to Redlands Boulevard in Moreno Valley.

4.9.1.1 Method 1 - Water Balance Method

The water balance method utilizes inflows and outflows from the basin to estimate change in storage and the Safe Yield of the basin. The amount of pumping that can be sustained with little or no long-term change in storage is the Safe Yield of the basin. The Safe Yield estimate may be calculated by

Safe Yield = Change in Groundwater Storage + Groundwater Production,

where Change in Groundwater Storage is Inflows less Outflows. The estimate must be over a long-term base period which reflects a number of wet, normal, and dry periods. Groundwater production values are based on historical data as reported by the Public Agencies and estimated for the Private Water Producers. The TC has reviewed and agreed to the data for use in the Water Balance Method. The following inflow and outflow components are used to calculate Change in Groundwater Storage for the Management Area:

Inflows

- Recharge from Retail Water Sales,
- Recharge from Irrigation Return Flow,
- Recharge from Precipitation,

- Grant Avenue Ponds Diversion Recharge,
- Reclaimed Ponds Recharge,
- Recharge from Recycled Water Sales,
- Subsurface Inflow from Other Management Zones,
- Bautista Creek Recharge,
- San Jacinto River Recharge, and
- Boundary Inflow.

Outflows

- Subsurface Outflow to Other Management Zones,
- Boundary Outflow, and
- Groundwater Production.

4.9.1.2 Method 2 - Change in Storage Methodology

This method uses a GIS database to develop surfaces of groundwater elevations based on observed groundwater levels at multiple control points (i.e., wells) throughout the Management Area for two different time periods. The product of change in volume between the two surfaces at two different times and the specific yield of the aquifer determines the change in storage between those two time points. The Safe Yield is then calculated as the sum of the calculated change in storage and the groundwater production during the same time period. Variations of this method are used based on the spatial distribution, including vertical distribution, of the specific yield in the aquifer system.

4.9.1.3 Summary of Previous Yield Estimates

Calculation of Safe Yield is a function of the hydrologic period used in the analysis. Figure 4.34 presents the long-term hydrologic conditions as precipitation at San Jacinto gaging station (RCFC&WCD Site #186), along with estimates of the Safe Yield. As indicated in the figure, the Safe Yield estimates range from 26,400 to 44,700 AFY. Since the two estimates made by Fritz & Rosell (1947) and Schwartz (1967) are based on much older data sets and short-term hydrologic records, and the geographic area may not be consistent with some of the more recent estimates, the TC decided in its August 25, 2005 meeting not to use these estimates. Instead, the TC concluded that the Safe Yield of the Management Area ranges from approximately 40,000 to 45,000 AFY based on the most recent analyses.

The TC also concluded that the following guidelines for estimation of Safe Yield of the Management Area be considered by the Watermaster when calculating Safe Yield in the future:

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Figure 4.34 Safe Yield Estimates

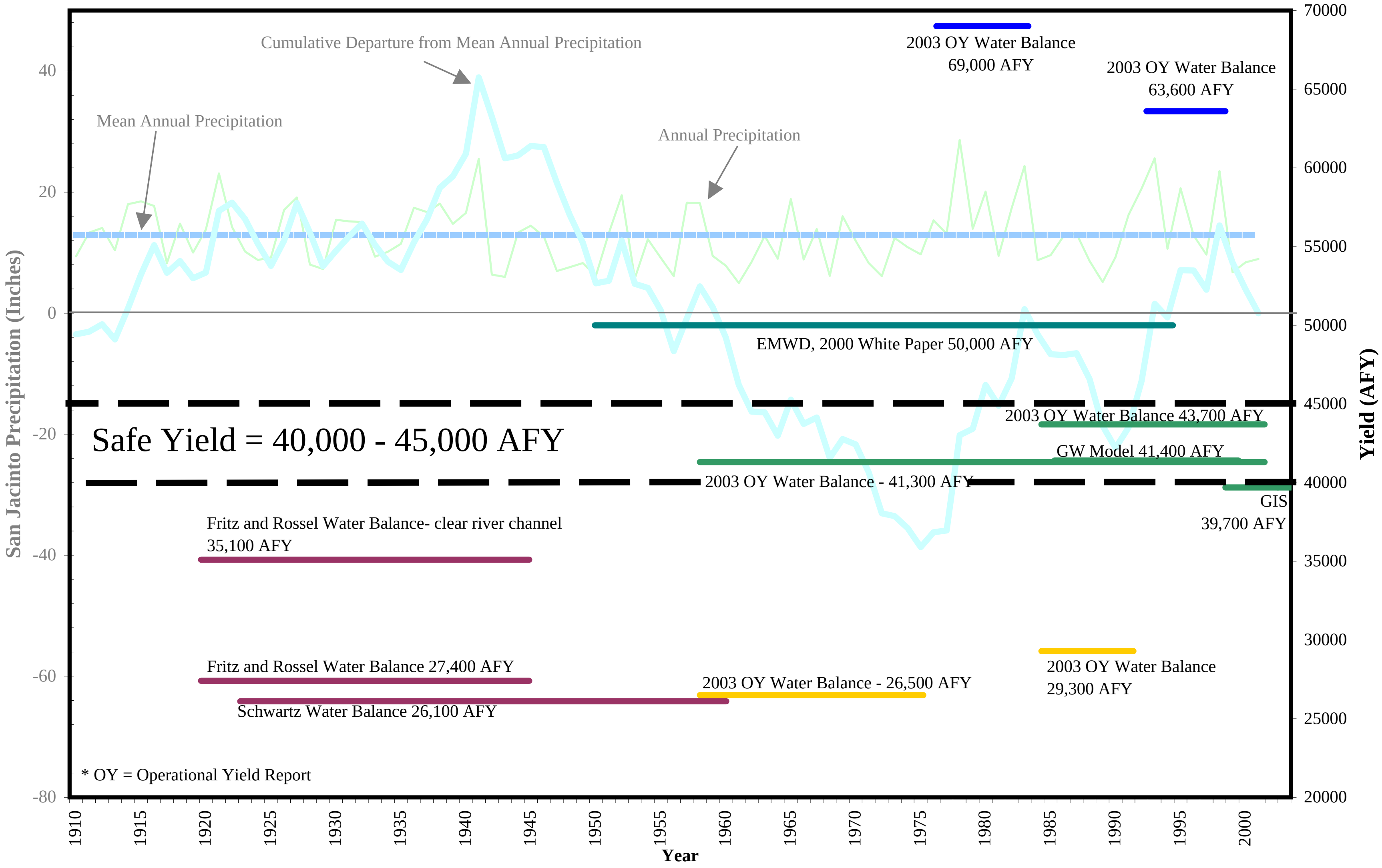

- Review and modify Safe Yield, if necessary, upon the recommendation of the TC or as the Watermaster may determine.
- Use latest available data with consideration for proper spatial, temporal, and vertical characteristics of the aquifer system.
- Consider a long period of record that includes above average, below average, and normal conditions.
- Consider latest methodologies that can provide more flexibility based on the available data and information, as necessary.
- Consider using the San Jacinto Watershed Groundwater Model, with appropriate updates and calibration, for re-estimation of groundwater conditions, as needed.

4.9.2 OVERDRAFT

Overdraft is defined in the Stipulated Judgment as the condition whereby groundwater production in the Management Area exceeds the Safe Yield, creating undesirable conditions in the basin. The amount of overdraft is calculated as the difference between long-term average annual groundwater production in the Management Area and Safe Yield. Figure 4.35 shows the estimated annual groundwater production in the Management Area, along with the range of Safe Yield. Based on this figure, the overdraft in the Management Area is estimated to be 10,000 to 15,000 AFY. For planning purposes and to evaluate options to reduce the overdraft, this Plan assumes that the overdraft is at least 10,000 AFY.

4.10 WATER QUALITY CONDITIONS

This section presents a summary of the groundwater quality conditions in the Management Area. This description will assist in establishing a baseline condition for future water management efforts to maintain or improve groundwater quality in the Management Area. The TC has decided that the water quality conditions in the Management Area would be evaluated based on TDS and nitrate levels. This is consistent with the TIN/TDS studies (Wildermuth, 2000) and the emphasis on TDS and nitrate in the Basin Plan as amended (RWQCB, 2004).

The Management Area lies within the jurisdiction of the RWQCB, Santa Ana Region 8. The RWQCB implements state and federal laws through adoption of Water Quality Control Plans or Basin Plans (RWQCB, 1995). The Basin Plan establishes both the legal beneficial use designations and sets the standards to protect these uses. The Basin Plan was recently amended (RWQCB, 2004) to incorporate an updated TDS and Nitrogen Management Plan for the Santa Ana Region, including revised groundwater Management Zones (combining Hemet North and Lakeview into one Management Zone; Hemet North remains treated separately from Lakeview

Figure 4.35 Groundwater Production and Range of Safe Yield Estimates

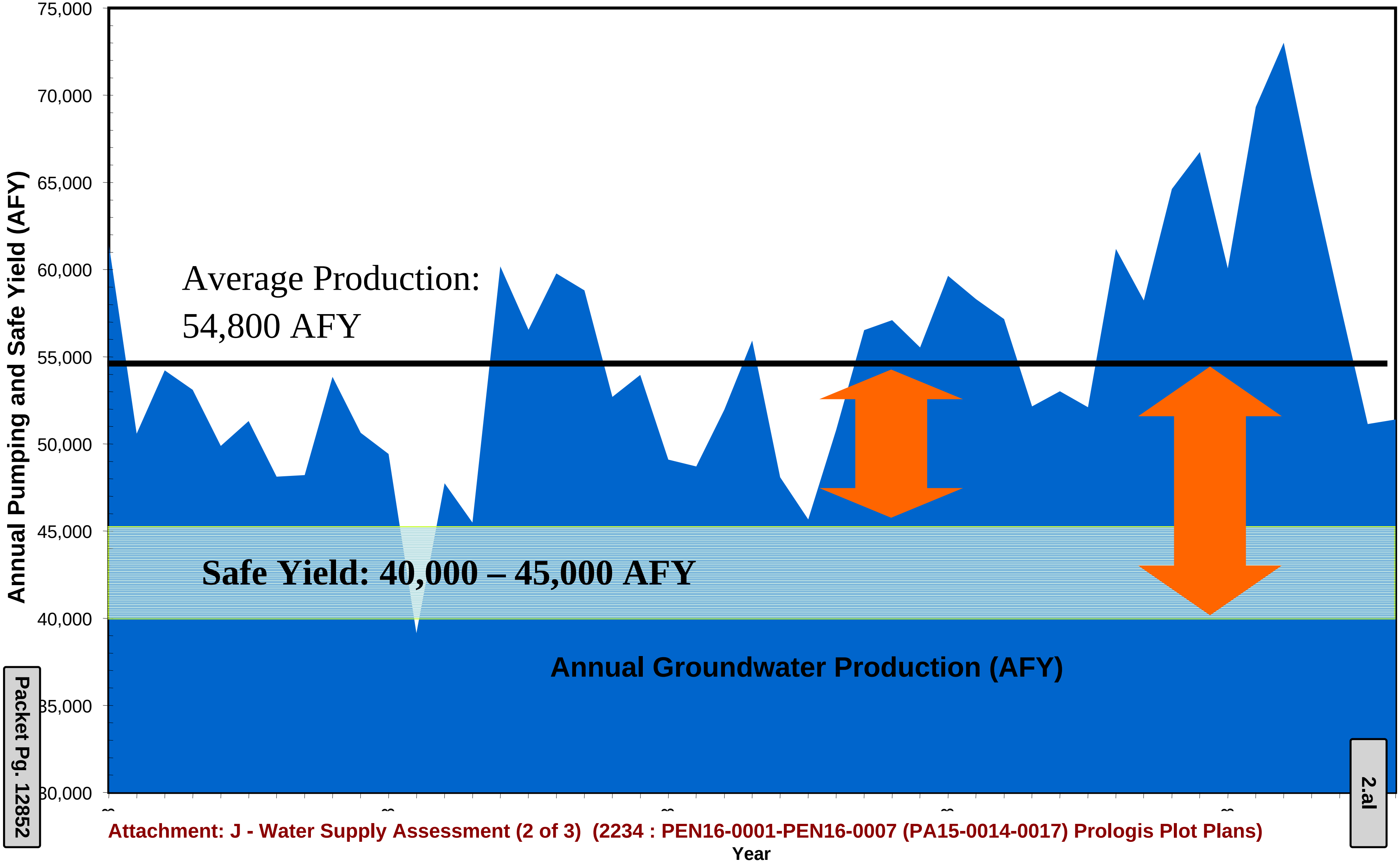

in this Plan), TDS and nitrate quality objectives for groundwater, TDS and Nitrogen waste load allocations, and stream reach designations.

Within the Santa Ana Watershed, which includes the Management Area, a statistical method has been developed to use nitrate (as N) and TDS to evaluate the status of water quality; to compare sub-basin concentrations; and to trigger management actions (RWQCB, 2004; Wildermuth, 2000, 2005). Point statistics were used to show (i) historical ambient water quality conditions as represented by the 1954-1973 time period, (ii) 1997 Current ambient water quality conditions as represented by the 1978-1997 time period, and (iii) 2003 Current ambient water quality conditions as represented by the 1984-2003 time period. A summary of the data is shown in Table 4.6, revealing nitrate (as N) levels below the MCL of 10 mg/L for all cases. TDS exceeds the recommended secondary MCL of 500 mg/L in Hemet South (current and historical) and Hemet North (current and historical), and TDS exceeds the maximum secondary MCL of 1000 mg/L in the 1997 current levels in Hemet South.

Table 4.6 Historical (1954-1973), 1997 Current (1978-1997), and 2003 Current (1984-2003) Ambient Nitrate as N and TDS Concentrations (mg/L)

Sub-basin	**Nitrate as N [1]**				**TDS[2]**			
	Basin Plan Objective[3]	**Historical**	**1997 Current**	**2003 Current**	**Basin Plan Objective[4]**	**Historical**	**1997 Current**	**2003 Current**
Canyon	2.5	2.5	1.6	2.1	230	**234**	220	**420**
Upper Pressure	1.4	1.4	**1.9**	**1.7**	320	**321**	**370**	**370**
Hemet South	4.1	4.1	**5.2**	**5.4**	**730**	**732**	**1030**	**850**
Hemet North	1.8	1.8	**2.7**	**3.4**	520	519	**830**	**840**

Source: Wildermuth, 2005. 2003 update 1984-2003)
[1] Table 3-2
[2] Table 3-1
[3] Basin Plan Amendment, 2004 (Table 5-4)
[4] Basin Plan Amendment, 2004 (Table 5-3)

The point statistics and water quality objectives were used by the RWQCB to develop estimates of assimilative capacity. Areas with assimilative capacity are able to accept waters with higher concentrations of a constituent than the concentration in the receiving waters because natural processes such as recharge and dilution will allow for the water quality objectives to continue to be met. The most recent computations indicate that Hemet South, Hemet North, Canyon, and Upper Pressure Management Zones do not currently have assimilative capacity for TDS. For nitrate, the Hemet South, Hemet North, and Upper Pressure Management Zones do not have assimilative capacity remaining, and the Canyon area has only a very small amount of nitrate that it can assimilate (0.4 mg/l nitrate as N; Wildermuth, 2005).

Table 4.7 shows the changes seen over the 30-year time period between the historical and 2003 Current time periods. The Canyon Management Zone shows a decrease in nitrate as N concentrations while all other nitrate (as N) and TDS concentrations for all other Management Zones show increases in concentrations of between 0.3 and 1.6 mg/L nitrate (as N) and 49 to 321 mg/L TDS. It should be noted that changes seen between these time periods are a combination of true changes in ambient water quality and artificial changes due to limitations in monitoring data and the estimation technique (Wildermuth, 2005). In the future, as current monitoring programs assemble more data, a long-term record of analytical data at specific wells will be available to better show changes over time at specific locations.

Table 4.7 Change in Ambient Concentration (mg/L) of Nitrate as N and TDS, Between Historical (1954-1973) and 2003 Current (1984-2003) Time Periods

Sub-basin	Change in Nitrate as N (mg/L)	Change in TDS (mg/L)
Canyon	-0.4	186
Upper Pressure	0.3	49
Hemet South	1.3	118
Hemet North	1.6	321

The most recent data from public and private wells, as complied by EMWD, were used to plot the 2004 nitrate (as N) and TDS conditions as shown in Figures 4.36 and 4.37. While these values are taken from wells screened at different depths, the plots show the general variability in concentrations across the Management Area.

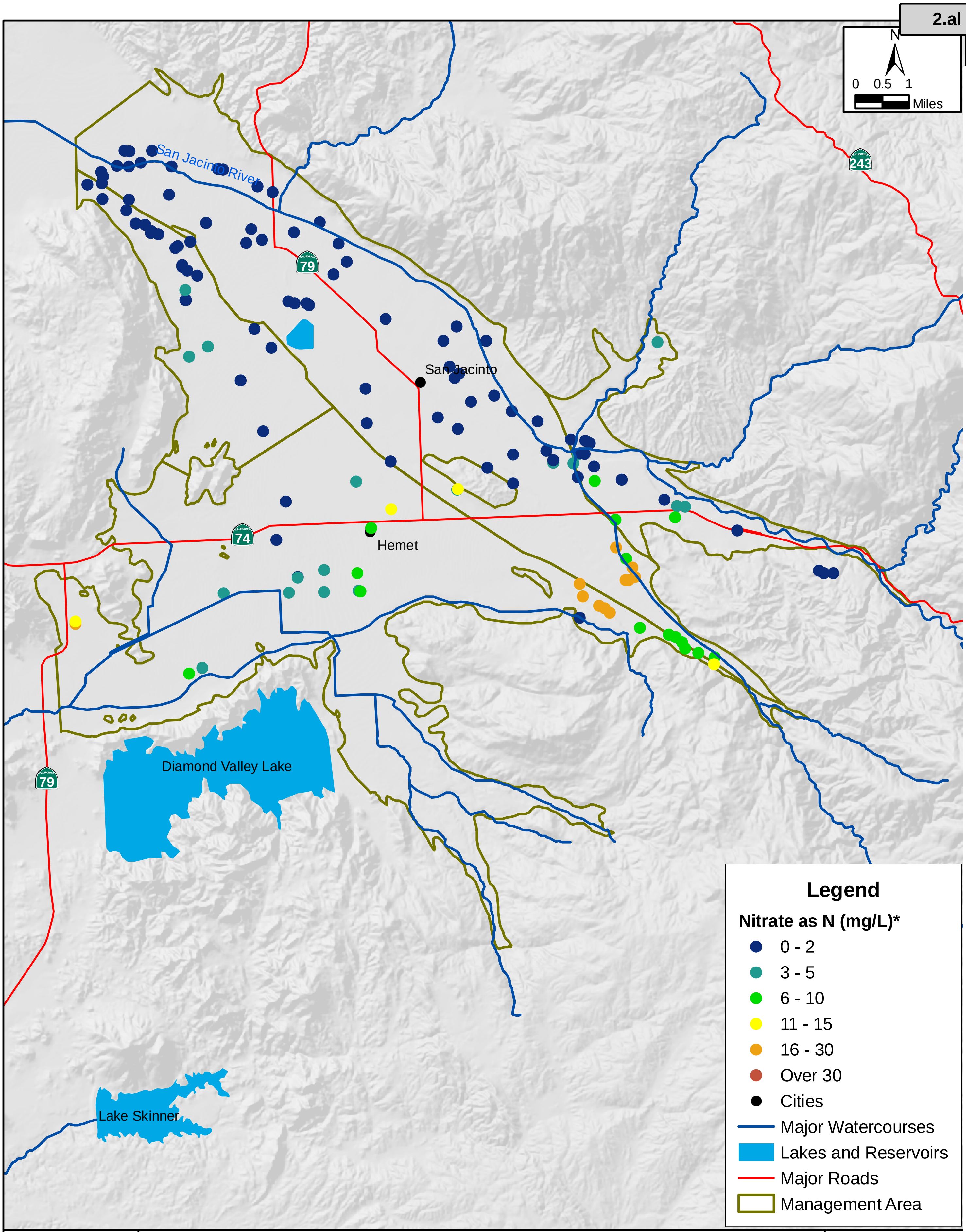

WRIME

2004 Nitrate as N Concentrations in Groundwater (mg/L)

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 4.36

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

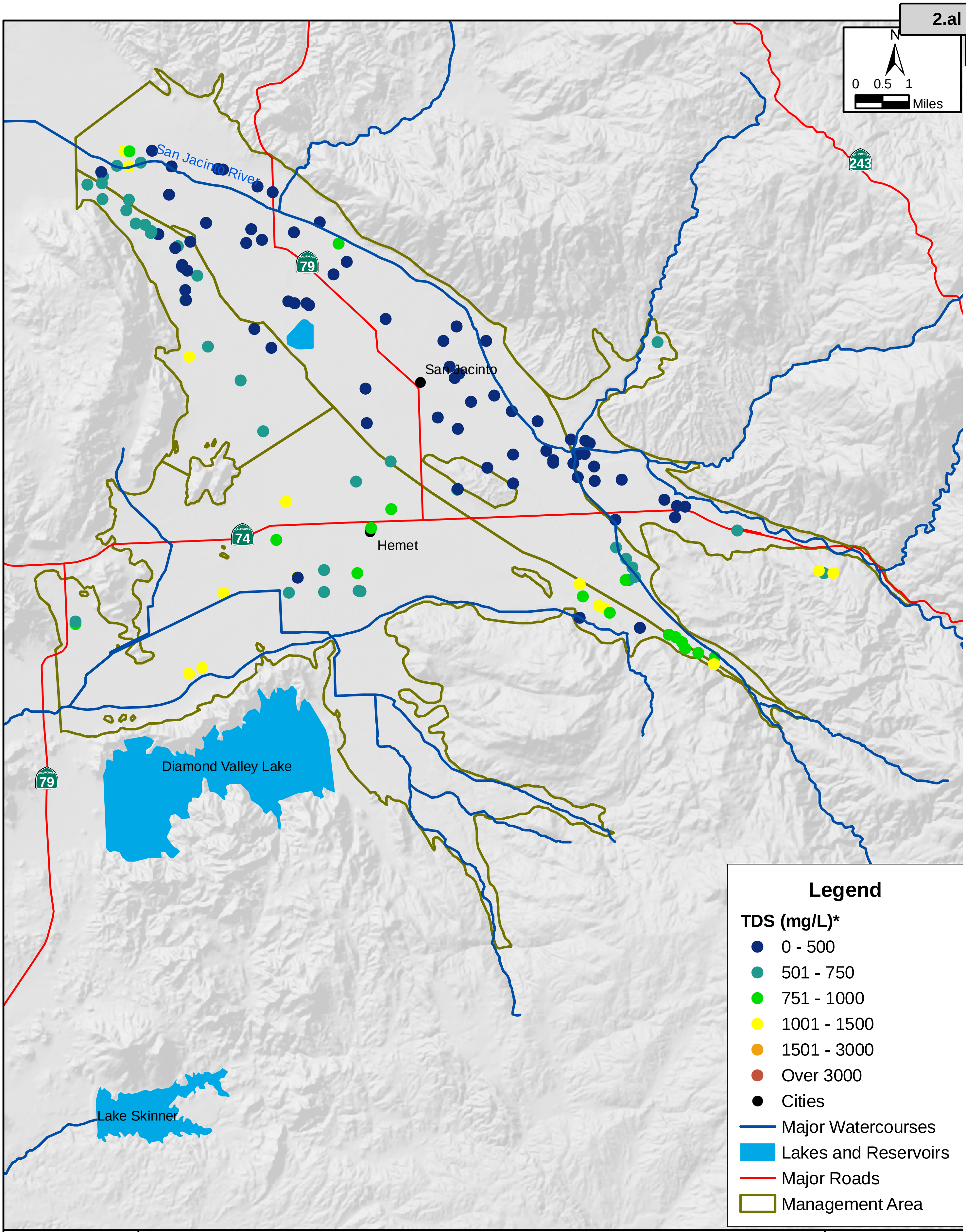

WRIME

2004 TDS Concentrations in Groundwater (mg/L)

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 4.37

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SECTION 5 PROJECTED WATER DEMANDS AND FUTURE PLAN PHASES

5.1 PROJECTED LAND USE CONDITIONS

This Section presents a brief description of the projected land use conditions in the Management Area. Figure 5.1 shows the general land use categories at build-out.

Area UWMPs echo the projected urban growth indicated in the build-out land use:

- EMWD UWMP – EMWD service area population, including areas outside the Management Area, projected to increase from 494,000 in 2005 to 830,000 in 2025. (EMWD, 2005a)
- LHMWD UWMP – LHMWD service area population projected to increase from 39,100 in 2005 to 49,500 in 2025. (LHMWD, 2005)
- Hemet UWMP:
  - ❑ City of Hemet population projected to increase from 78,600 in 2005 to 154,000 in 2025; and
  - ❑ City of Hemet water system service area population projected to increase from 20,200 in 2005 to 22,300 in 2025. (Hemet, 2006)
- San Jacinto UWMP:
  - ❑ City of San Jacinto population projected to increase from 34,100 in 2005 to 63,600 in 2025; and
  - ❑ City of San Jacinto water system service area population projected to increase from 13,200 in 2005 to 24,000 in 2025. (San Jacinto, 2005)

The total land use acreage for each category is estimated and presented in Table 5.1.

Based on Tables 5.1 and 4.3, the urban area is projected to increase from 28% in the 1998 survey to 65% at build out. This increase is due to a combination of conversion of agricultural land and undeveloped land to urban uses. These future conversions have significant implications on the total projected water demand in the Management Area, as well as impacts on the precipitation, runoff, and recharge conditions. This concept is further discussed in the following sections.

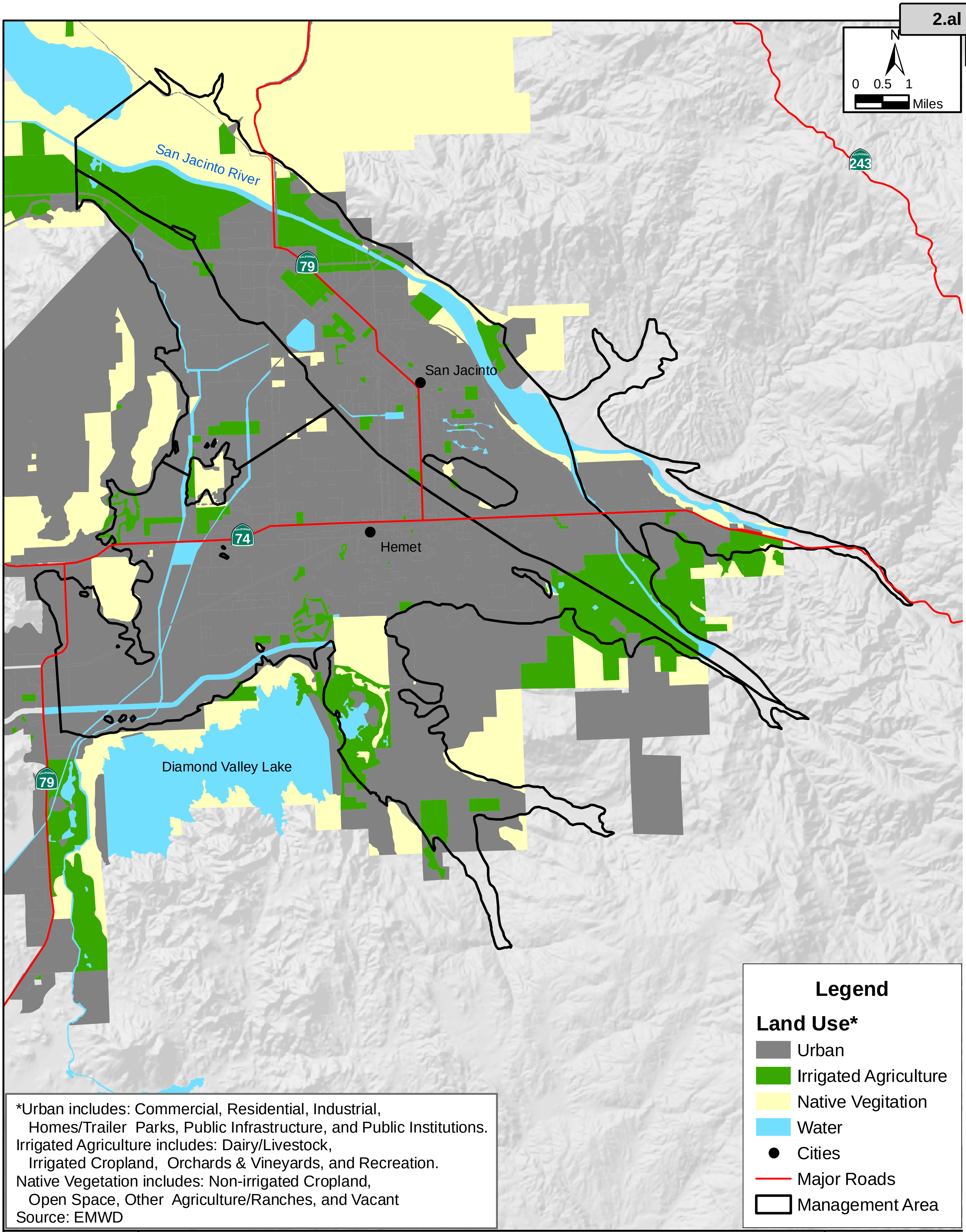

*Urban includes: Commercial, Residential, Industrial,
Homes/Trailer Parks, Public Infrastructure, and Public Institutions.
Irrigated Agriculture includes: Dairy/Livestock,
Irrigated Cropland, Orchards & Vineyards, and Recreation.
Native Vegetation includes: Non-irrigated Cropland,
Open Space, Other Agriculture/Ranches, and Vacant
Source: EMWD

2025 Projected Ultimate Land Use

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Figure 5.1

Table 5.1 Generalized Projected Acreage in the Management Area

Land Use	Total Acreage	Percent
Urban	37,100	65%
Irrigated Cropland	8,100	14%
Non-Irrigated Cropland	4,500	8%
Water	3,600	6%
Unmapped*	4,000	7%
Total	57,300	100%

*Unmapped areas are outside EMWD's service area and were not included in the EMWD ultimate land use dataset.

Source: EMWD ultimate land use (1998), based on city general plans

5.2 PROJECTED WATER DEMANDS

Projected water demands are based on information contained in 2005 UWMP, the *Hemet/San Jacinto Water Management Area 2004 Annual Report* (EMWD, 2005b), and *Basin Assessment Report Technical Memorandum No. 1* (WRIME, 2003a). The projected water demands of each of the stakeholders and of the Management Area as a whole are described below.

5.2.1 EMWD

Projected retail water demand for the portion of EMWD's service area within the Management Area is based on the *Hemet/San Jacinto Water Management Area 2004 Annual Report*. Projected total demand is shown together with recent historical demand in Figure 5.2. Estimates of projected demand are also presented in the EMWD's 2005 UWMP, but these values are for the entire EMWD service area; the UWMP system-wide projections show a similar rate of increase in water demand of approximately 50% from 2005 to 2020.

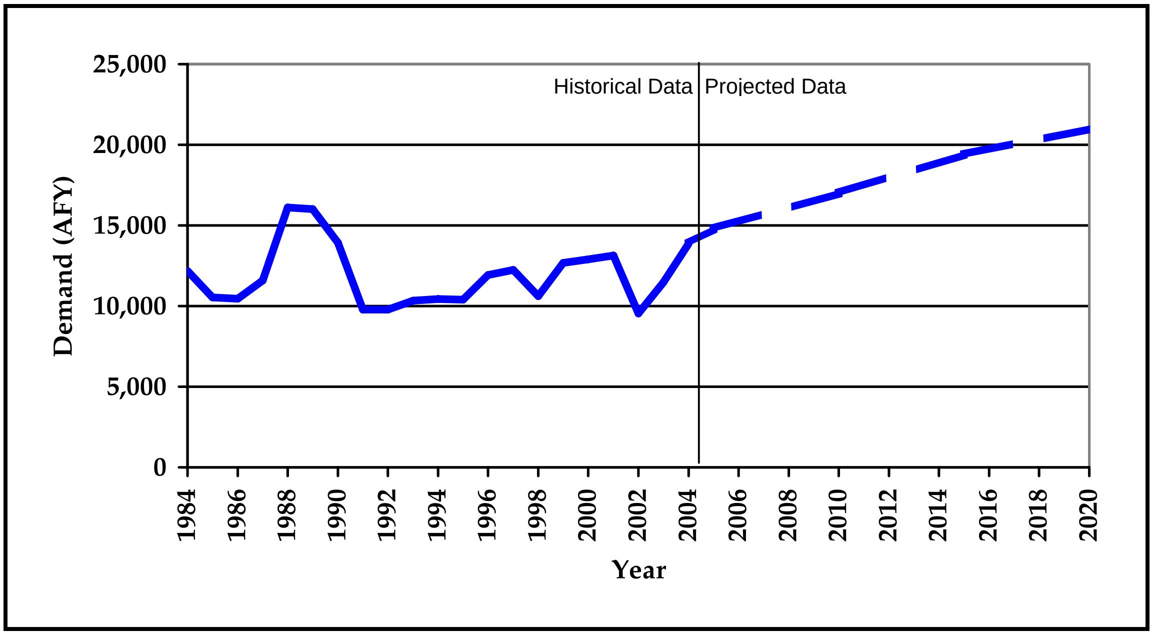

Figure 5.2 EMWD Historical and Projected Demand

5.2.2 LHMWD

Projected water demand is based on *Lake Hemet Municipal Water District 2005 Urban Water Management Plan* (LHMWD, 2005). Projected total demand is shown together with recent historical demand on Figure 5.3.

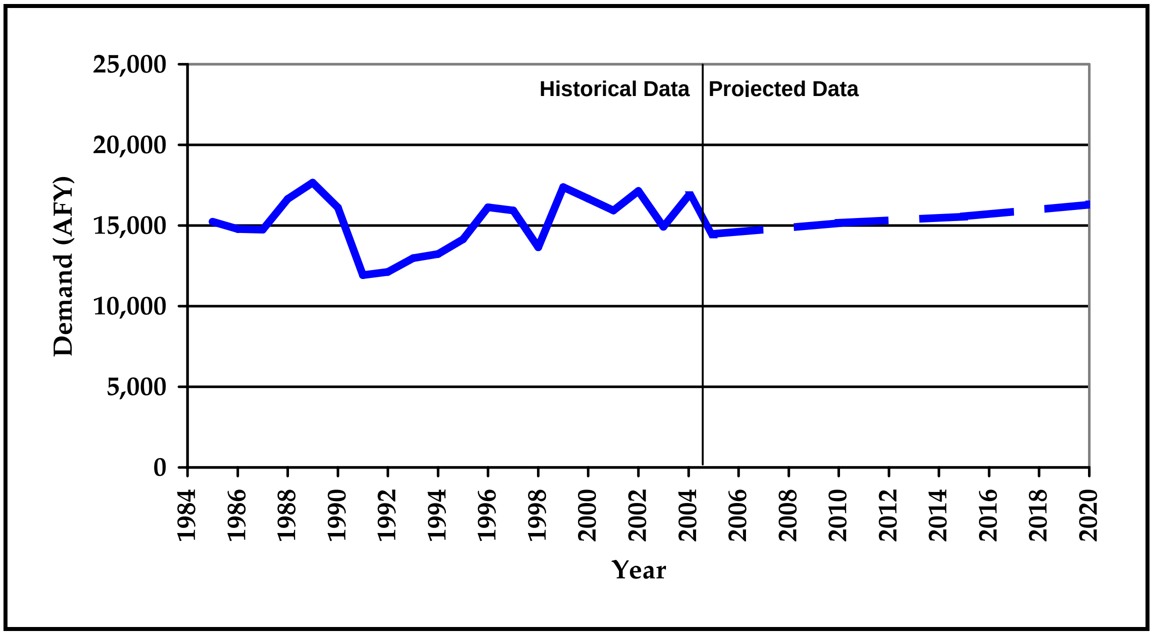

Figure 5.3 LHMWD Historical and Projected Demand

5.2.3 CITY OF HEMET WATER SERVICE AREA

Projected water demand in the City of Hemet's water service area is based on *City of Hemet 2005 Urban Water Management Plan* (Hemet, 2006). Projected demand is shown together with recent historical demand on Figure 5.4.

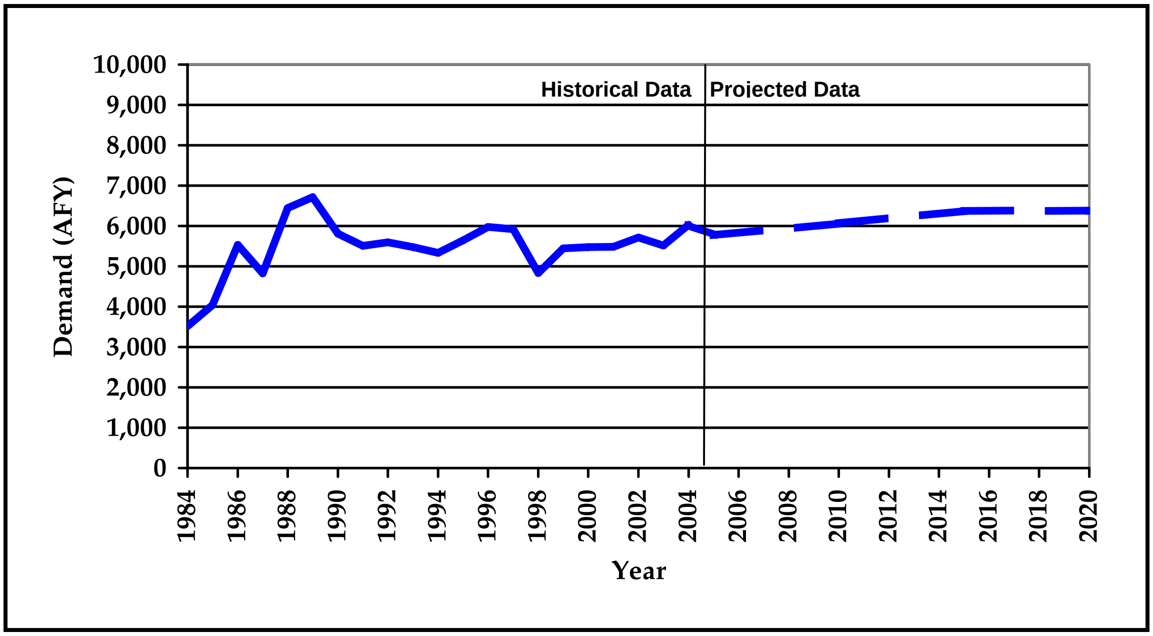

Figure 5.4 City of Hemet Water Service Area Historical and Projected Demand

5.2.4 CITY OF SAN JACINTO

Projected water demand in the City of San Jacinto's water service area is based on *City of San Jacinto 2005 Urban Water Management Plan* (San Jacinto, 2005). Projected demand is shown together with recent historical demand on Figure 5.5.

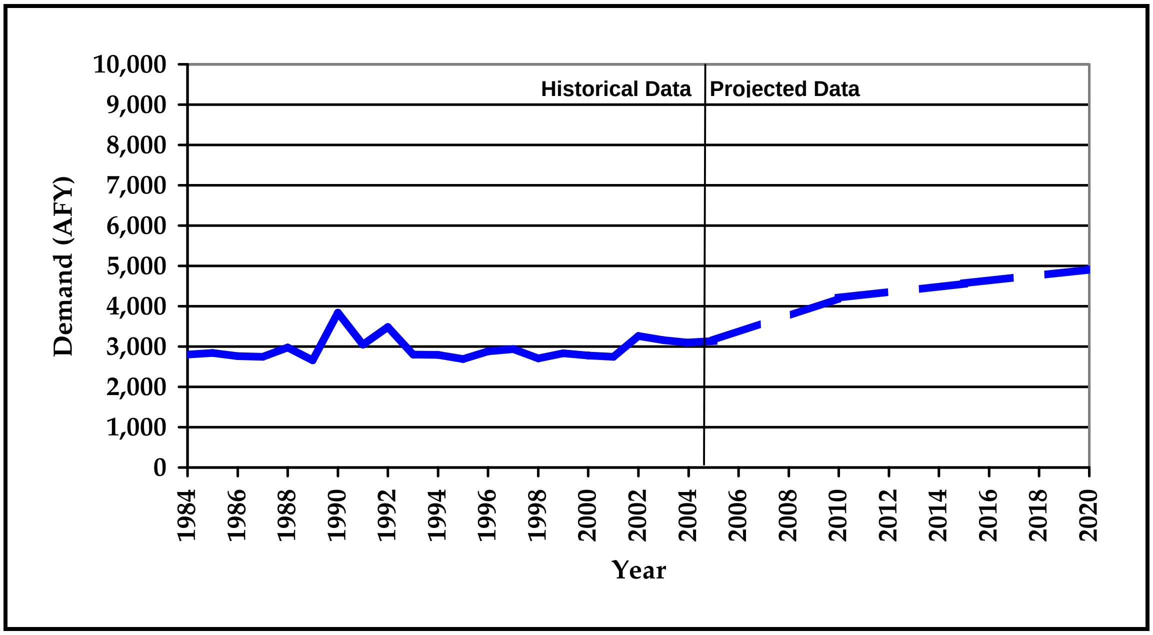

Figure 5.5 City of San Jacinto Water Service Area Historical and Projected Demand

5.2.5 SOBOBA TRIBE

Projected water demand for the Soboba Tribe is taken from the Settlement Agreement, assuming that the Settlement Agreement is implemented in 2008. Projected total demand is shown together with recent historical demand on Figure 5.6.

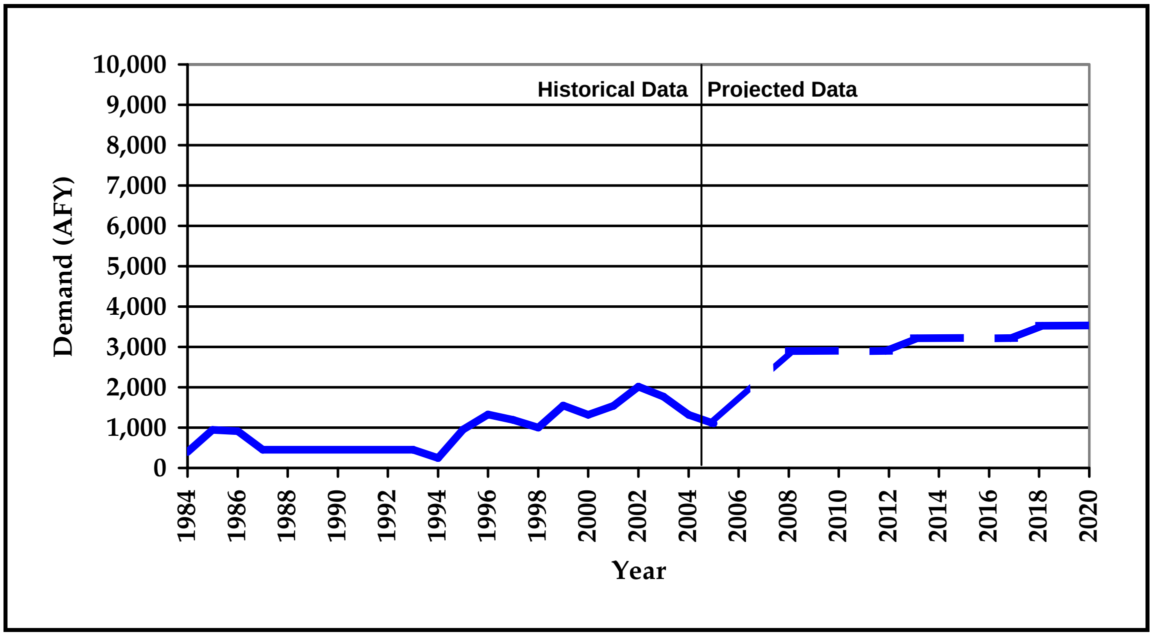

Figure 5.6 Soboba Tribe Historical and Projected Demand

5.2.6 PRIVATE WATER PRODUCERS

Projected water demand for the Private Water Producers is a refinement of estimates presented in the Operational Yield Study (WRIME, 2003d) based on updated information on current and future development and their impact on water demand. Figure 5.7 shows the assumed future agricultural water use by local producers together with recent historical demand.

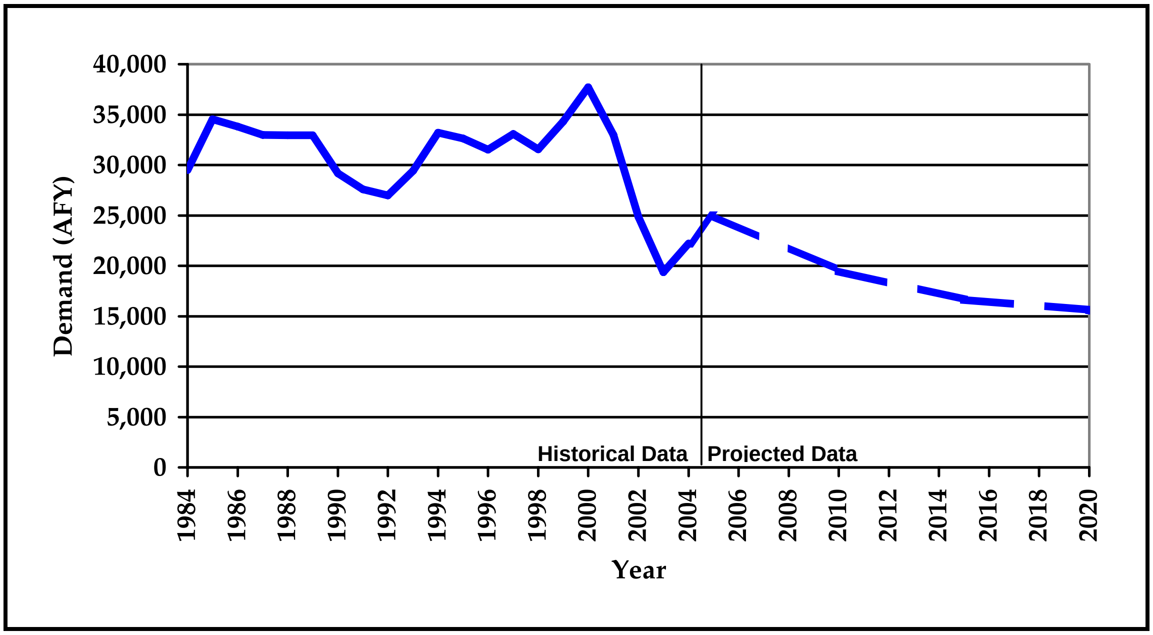

Figure 5.7 Private Water Producers Historical and Projected Demand

5.2.7 MANAGEMENT AREA

Projected and historical water demand for the Management Area as a whole presented in Figure 5.8 as the sum of the demand for the individual entities presented in the previous subsections.

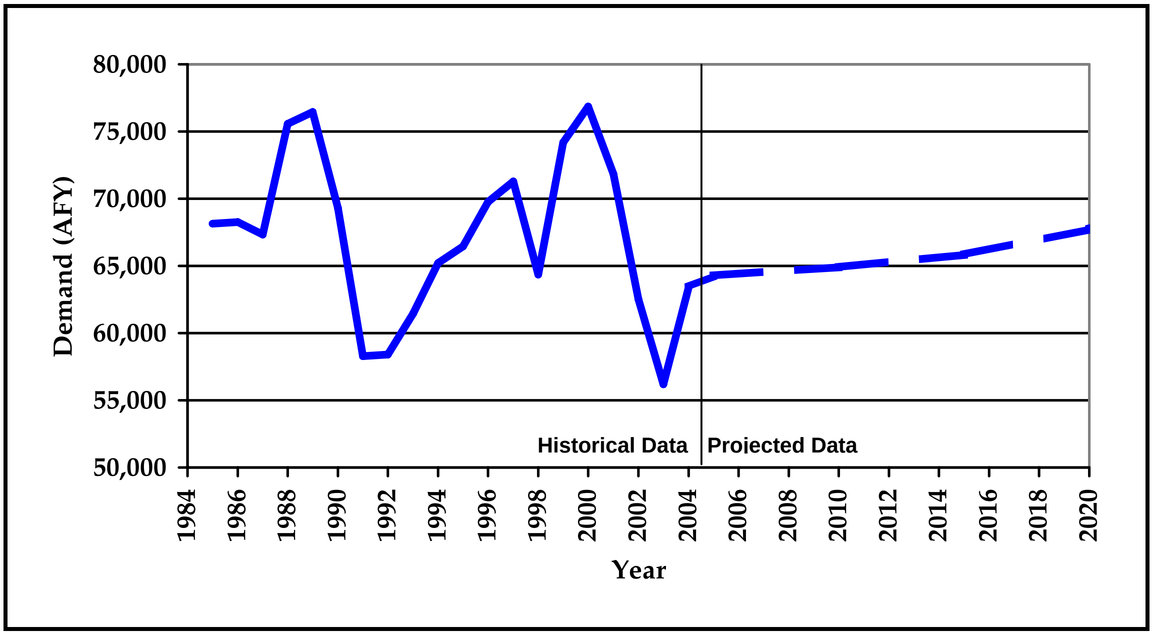

Figure 5.8 Management Area Historical and Projected Demand

5.3 FUTURE PLAN PHASES

The Integrated Recharge and Recovery Project is considered to be the core of the Physical Solution. The project is designed and implemented in two Phases. Phase I is described in Section 3 of this Plan. While Phase II facilities are described at the conceptual level, and the EIR is certified, there are additional projects that have been considered by the TC and will need to be evaluated for possible design and implementation. Following is a discussion of Phase II of the IRRP, along with other potential projects.

5.3.1 SAN JACINTO RIVER INTEGRATED RECHARGE AND RECOVERY PROJECT, PHASE II

Phase II of the project consists of construction of the remaining portions of the San Jacinto Integrated Recharge and Recovery Project. The information presented here is based on previously published documents adjusted based on the latest knowledge at the time of publication from ongoing negotiations with regulators. Phase II will provide up to 110 cfs of recharge water capacity and will cost approximately $50 million[*]. A schematic of Phase II is shown in Figure 5.9. Major activities during Phase II are:

1. **Construction of Recharge Basins -** This activity includes construction of nine additional recharge ponds within the San Jacinto River bed in three clusters of

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[*] Number has been updated since the publication of the IRRP Feasibility Report.

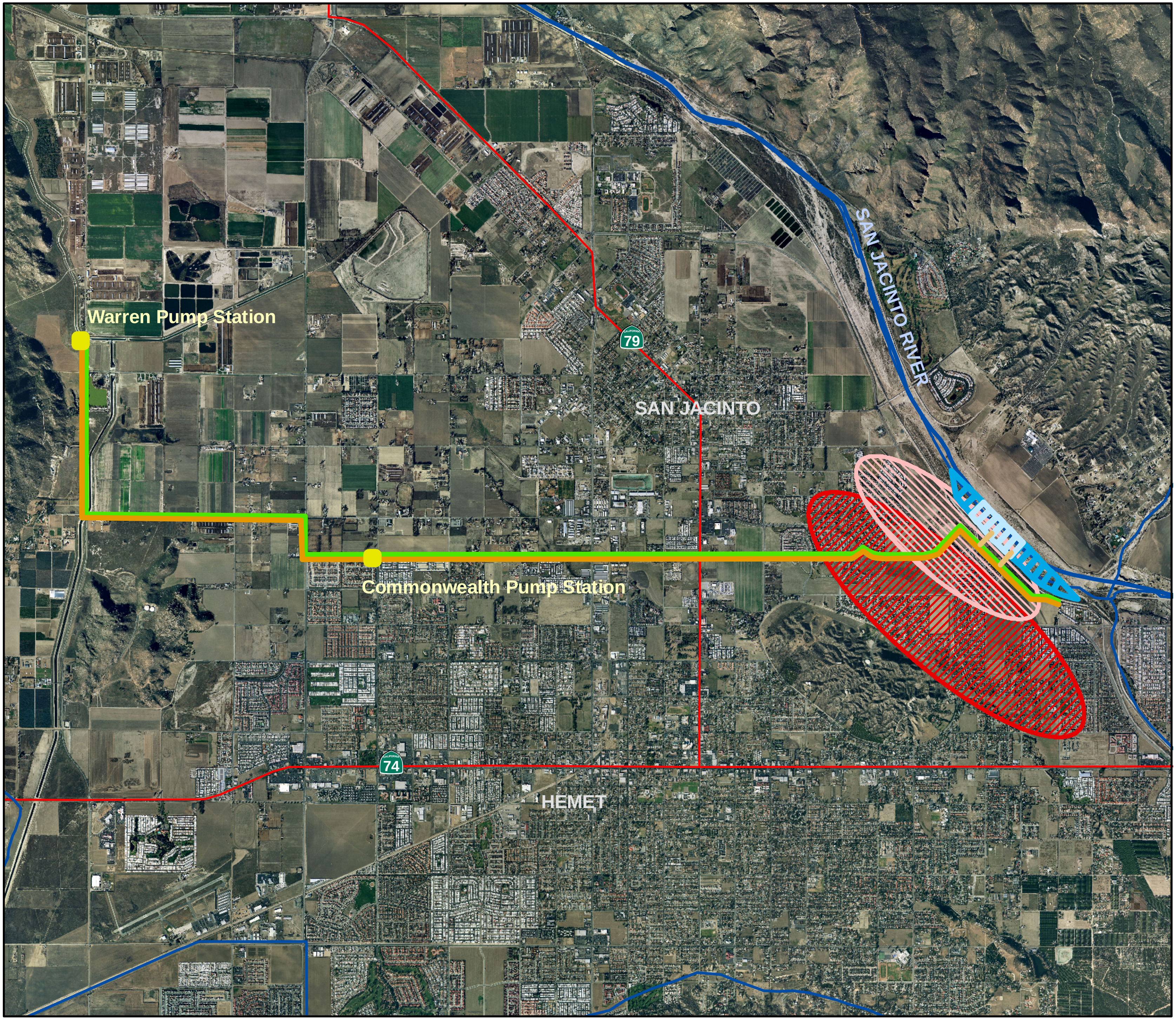

Hemet / San Jacinto
Water Management
Plan

**Schematic of Integrate
Recharge Recovery
Program - Phases I and**

Figure 5.9

Legend

🟨 Pump Station
— Phase I Pipeline
— Phase II Pipeline
▭ Phase I Ponds
▭ Phase II Ponds
— Existing Pipeline
▨ Phase I Well Field
▨ Phase II Well Fiel

Source: EMWD

N

0 0.5 1 Mile

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three basins each, covering approximately 35 acres. Combined Phases I and II will have 15 basins covering approximately 70 acres*.

2. **Construction of Pipelines -** This includes design and construction of a 7.7 mile water supply pipeline from the EM-14 turnout to the proposed recharge basins. Included is increasing the capacity of the EM-14 turnout structure from 40 cfs to 110 cfs; replacing 200 feet of 48-inch-diamater pipeline with 63-inch-diamater pipeline; constructing 15,800 feet of new 54-inch-diamater pipeline paralleling the existing 39-inch-diamater pipeline; and constructing 24,800 feet of new 57-inch-diameter pipeline paralleling the existing 33-inch-diamater pipeline.
3. **Pump Station Upgrades –** Upgraded or new pump stations would be built to increase capacity at the Warren Road and Commonwealth pump stations.
4. **Drilling of Extraction Wells -** This includes construction and testing of up to five additional extraction wells designed and operated identically to those constructed in Phase I. The construction of these new wells will result in a total of up to eight Phase I and II extraction wells.
5. **Design and Construction of Monitoring Wells –** Up to three additional monitoring wells will be constructed, bringing the total number of Phase I and II monitoring wells to up to six wells.

Only Phase I has been designed in detail and funding sources are being secured.

5.3.2 POTENTIAL CONJUNCTIVE USE PROJECTS

Conjunctive use is the coordinated operation of surface water storage and use, groundwater storage and use, and conveyance facilities to meet water management needs. This recognizes that there is a hydrologic connection between the surface water resource and the groundwater resource (DWR, 2006). In the Management Area, conjunctive use helps utilize available subsurface storage along with seasonally available water (imports and local surface water) or recycled water. Methods currently being considered include direct recharge and in-lieu recharge.

As part of the basin planning process, the TC identified and selected seven potential direct recharge sites and two potential in-lieu recharge projects for further evaluation and prioritization out of a pool of 15 direct recharge sites and two in-lieu projects initially considered. Further information is provided in *Hemet/San Jacinto Basin Assessment – Basin Assessment Report/Integrated Water Management Plan, Technical Memorandum No. 2, Analysis of Impacts of Conjunctive Use Projects* (WRIME, 2003c).

The recharge sites were selected based on screening criteria that included:

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* Number has been updated since the publication of the IRRP Feasibility Report.

- General site characteristics (size, recharge needs, ownership, etc.),
- Hydrogeologic suitability,
- Sub-basin interaction,
- Engineering suitability,
- Land use suitability, and
- Environmental impacts.

The seven potential direct-recharge sites and two in-lieu projects are shown on Figure 5.10. In general, the direct recharge sites would utilize imported water, surface water, or recycled water to recharge the groundwater through surface spreading; the in-lieu projects (Upper Pressure In-Lieu Project and Hemet-Simpson CU Area) were designed to reduce the amount of groundwater production by delivering imported water, from either the Colorado River or the State Water Project, to be used in conjunction and coordination with local groundwater.

A preliminary description of the recharge sites is presented based on information from City of Hemet, City of San Jacinto, LHMWD, and EMWD, along with a brief review of available reports. Table 5.2 summarizes the findings for the nine potential projects. All findings are tentative planning-level data and should not be used in any intensive analysis without further research.

The identification of the potential sites allows for the concentration of future work on these sites. The future work includes:

- Evaluation of the general site conditions;
- Evaluation of water supply availability and reliability;
- Preparation of an environmental checklist; and
- Evaluation of the effectiveness of the projects in meeting the goals and objectives of the Management Area.

A more detailed description of each site is provided below.

5.3.3 DIRECT RECHARGE PROJECTS

Direct recharge projects involve utilizing available imported, surface, or recycled water in a constructed basin for percolation to groundwater. Successful projects require a site with high permeability to allow for water to quickly percolate to groundwater; compatible nearby land uses; an available and accessible water supply; and the ability to either recapture the water or allow the water to raise groundwater levels. The Plan supports the use of direct recharge of water of suitable quality.

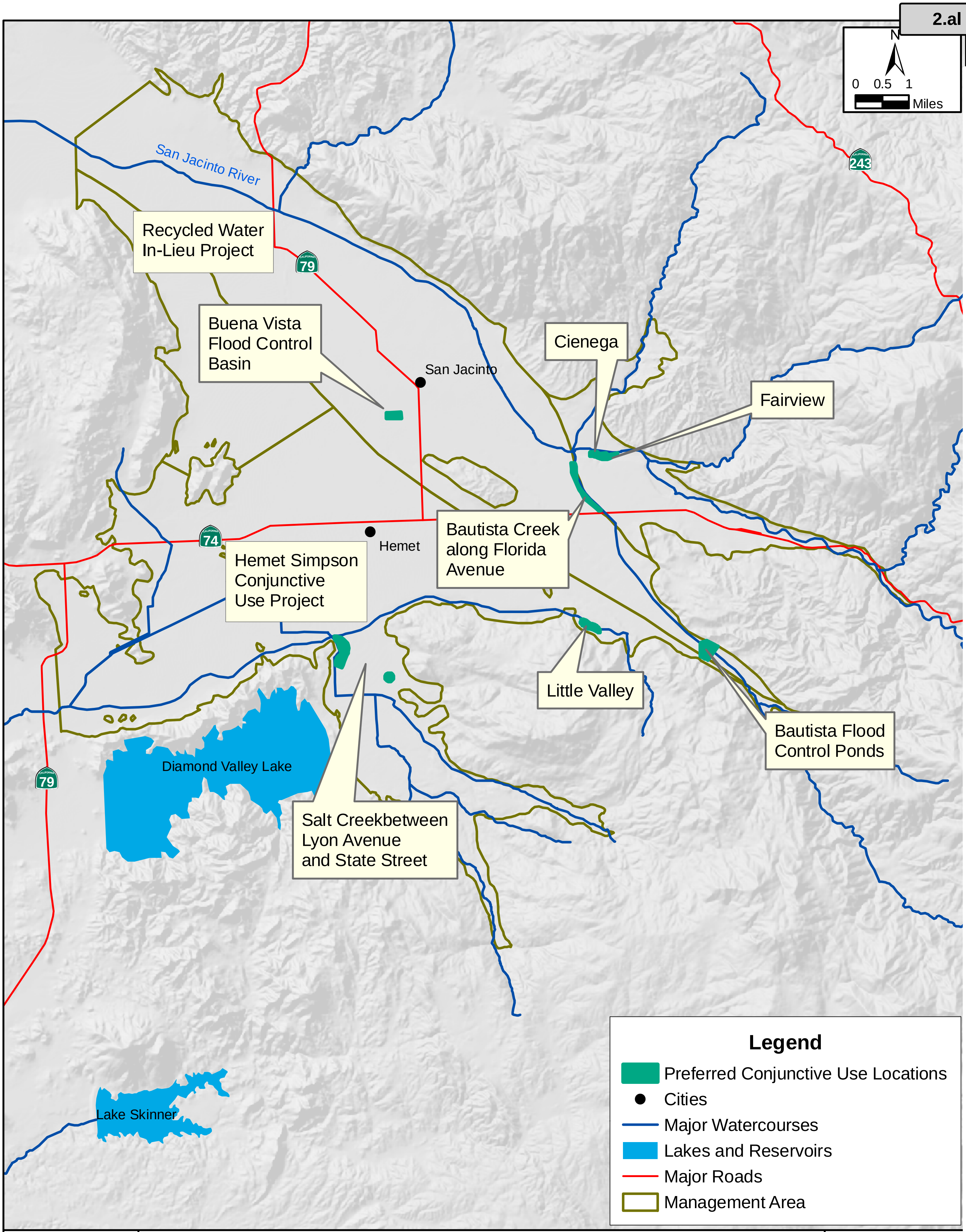

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Location of Nine Preferred Projects

Hemet / San Jacinto Water Management Plan

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Figure 5.10

Table 5.2 Summary of Selected Conjunctive Use Site Conditions

Site	Project Type	Water Source	Annual Water Availability	Soils Infiltration Rate	Approximate Depth to Water (ft)	Potential Constraints
Buena Vista Flood Control Basin	Recharge	Runoff, recycled, or imported	600 AF	n/a	200 – 250	Groundwater quality
Cienega	Recharge	River diversion	n/a	High	210 - 240	Kangaroo Rat, water rights
Fairview	Recharge	River diversion	n/a	High	210 - 240	Kangaroo Rat, water rights
Bautista Creek along Florida Avenue	Recharge	Irrigation water, Bautista Creek, imported	n/a	Moderate	n/a	n/a
Salt Creek between Lyon Avenue and State Street	Recharge	Salt Creek diversion/runoff	1,000 AF	Moderate	200 - 250	n/a
Little Valley	Recharge	Runoff, LHMWD flume, imported	n/a	High and variable	85	Potential archeological sites, shallow bedrock
Bautista Flood Control Ponds	Recharge	Surface runoff/ river diversion	n/a	n/a	180 - 210	No proponent
Upper Pressure In-lieu Project	In-lieu	Imported (Colorado River)	n/a	▨	n/a	Must gain agreements between many parties
Hemet-Simpson Conjunctive Use Project	In-lieu	Imported (Colorado River and State Water Project)	n/a	▨	n/a	Must gain agreements between many parties

5.3.3.1 Buena Vista Flood Control Basin

The existing Buena Vista flood control basin has been identified as a potential recharge project site. Buena Vista basin, located at the end of Buena Vista Street north of Esplanade Avenue, is located in the Upper Pressure Management Zone and is owned and operated by RCFC&WCD.

The site would initially use storm water for recharge purposes. Recharge water would be conveyed to the site from the 2,700-acre drainage area by existing drainage facilities that are owned by RCFC&WCD. It is estimated that approximately 600 AF of water could be delivered to the basin via runoff, with a first flush volume of approximately 20 AF. Surface water quality is good, with some elevated levels of oil and grease, suspended residues, and iron, based on sampling on March 6, 1992 (Singh, 1992). The basin can be enlarged through excavation to provide an additional 36 AF of storage volume, approximately equal to the average storm event runoff.

There is an existing EMWD raw water pipeline that runs nearby along Oakwood Street. This pipeline could potentially be used to supply the project with recycled or imported water (if supplies were to be available) in the future, although it would require the construction of an approximately 4,000-foot pipeline to connect to the basin.

The following items should be considered before moving forward with this project:

- Availability of the site for use and coordination with flood control needs;
- Surface water quality;
- Water infiltration potential;
- Deep percolation potential;
- Availability of imported water to augment surface runoff;
- Subsurface conditions; and
- The clogging potential of surface soils with local runoff.

5.3.3.2 Cienega and Fairview

The Cienega and Fairview sites are adjacent, thus conditions are essentially the same and described together. Preference between the two sites would be based on political, engineering, environmental, and operational factors.

The Cienega and Fairview sites are located in the Canyon Management Zone. Fairview was first used in the early 1990s by LHMWD. LHMWD cut basins near the riverbed and placed a diversion dam in the river. Water was diverted into the basins during the rainy season, typically the 1st quarter of the year. Future use of Fairview, potentially by LHMWD and/or EMWD, would likely involve an expansion of the basin area. Water would be supplied from the river during periods of increased flow, typically January through March. Imported water could also be used if water becomes available and the infrastructure could be built. Infiltration rates are considered high based on monitoring well responses during LHMWD's use, a study by EMWD at the Cienega blowoff pond, and the prevalence of coarse-sand riverbed deposits.

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Potential problems for development of the project include San Bernardino Kangaroo Rat habitat, water rights, and limited available underground storage.

5.3.3.3 Bautista Creek along Florida Avenue

Bautista along Florida is located along the boundary between Upper Pressure and Canyon Management Zones. There is an existing recharge site located along the west side of Bautista Creek. The creek was placed in a concrete channel in the 1970s and 1980s, reducing recharge to the aquifer system. The current recharge facility was installed in the 1960s and consists of 3 ponds located along the creek. The three ponds cover approximately 15–20 acres. Future use of the site could include increasing the pond area through expansion to the north and increasing the supply of water to the ponds. Water for the existing project is provided by a turnout that captures agricultural runoff of acceptable quality from Bautista Creek. In general, creek water is not diverted into the ponds. Currently, approximately 200-300 AFY is recharged. Future recharge activities could take advantage of the nearby imported (State Project Water) raw water line on Cedar Avenue. Percolation rates at the site are considered reasonable based on field observations of surface sediments.

5.3.3.4 Salt Creek between Lyon Avenue and State Street

Two potential sites are identified along Salt Creek for a recharge project. One site, State Street Basin, is at the State Street crossing of Salt Creek; a second site, Lyon Basin, is downstream of State Street, near Lyon Avenue. Both sites are located in Hemet South Management Zone. Lyon Basin is the preferred location and is planned to be approximately 40 acres in size and approximately 5 feet deep, resulting in a maximum storage volume of 200 AF. The volume of the State Street Basin would likely be similar to that of the Lyon Basin. Both sites would initially use storm runoff for recharge purposes. Recharge water to both sites would be conveyed to the site via Salt Creek. It is estimated that five storm events per year could each fill the Lyon Basin, resulting in delivery of approximately 1000 AF/year for recharge. Anticipated future development of the watershed will likely increase the amount of available runoff. The State Street site would likely have slightly lower volumes due to its upstream location. Due to limited upstream development, water quality is anticipated to be good.

Potential problems for development of the project include water rights, relatively shallow depth to water and relatively shallow depth to bedrock that may limit the amount and rates of recharge at the sites.

5.3.3.5 Little Valley

Little Valley is located in Hemet South Management Zone. Previously in a pilot project, water was supplied over 2 or 3 years via a LHMWD flume to the area. Water for the recharge basin would be provided by local surface runoff, the LHMWD flume, or from imported water. Infiltration testing in the past has shown rates between 0.6 and 1.4 ft/day in the central part of the valley and 2.0 and 4.6 ft/day in the eastern part of the valley (Rees, 1994).

The following items should be considered before moving forward with this project:

- Potential environmental constraints including possible archeological sites; and
- Shallow depth to bedrock may limit the amount and rate of recharge at the site.

5.3.3.6 Bautista Flood Control Ponds

The Bautista Flood Control Ponds are located in the Upper Pressure Management Zone, very close to the boundary with the Hemet South Management Zone.

The existing ponds are owned and operated by RCFC&WCD and are comprised of a debris dam that creates the 49-acre pond. Future use of the site, apart from continued flood control, would likely be for water harvesting.

5.3.4 IN-LIEU PROJECTS

In-lieu recharge projects involve reducing the usage of groundwater and substituting it with available imported, surface, or recycled water. Successful projects require water users whose needs coincide with the availability and quality of the alternate water supply. The Plan supports the use of quality direct recharge projects.

5.3.4.1 Raw Water In-Lieu Projects

Imported raw water is available from MWD and provides opportunities for in-lieu recharge projects for agricultural users or landscape irrigation. Raw water is available from the State Water Project via EM-14 and from the Colorado River Aqueduct via EM-1. Proximity to these connections is an important factor for keeping costs low for in-lieu projects. One hurdle for such projects is that the period when there is the most availability of raw water, winter, coincides with the period of lowest demand for most agricultural users. Another hurdle is the need for blending the raw water with higher quality groundwater supplies to meet the needs of some of the more sensitive users, such as dairies.

5.3.4.2 Recycled Water In-Lieu Projects

Recycled water is a reliable source of water year round and offers an opportunity for in-lieu use. Public perception generally limits the usage of recycled water to agricultural and landscape irrigation uses. The nearest source of recycled water is the San Jacinto Valley Regional Water Reclamation Facility. Proximity to this source is an important factor for keeping costs low for in-lieu projects.

One project already in the planning stages would deliver between 3,500 and 8,000 AFY of recycled water to Rancho Casa Loma and the Scott Brothers Dairy, both located roughly between Ramona Expressway and Gilman Springs Road and between Sanderson Avenue and Bridge Street in the northwestern-most portion of the Upper Pressure and Hemet North Management Zones. The delivered recycled water would coincide with an equivalent reduction in groundwater pumping by both Rancho Casa Loma and Scott Brothers Dairy. Details of the project include construction of approximately 13,000 linear feet of 24-inch pipeline, and acquisition of property in fee title and easement. Project costs would be split between the Public Agencies based on the pro-rata share of proposed production rights. Agreements with Rancho Casa Loma and the Scott Brothers Dairy would set limits on groundwater production and provide for payment of a portion of the O&M costs.

5.3.4.3 Hemet-Simpson Conjunctive Use Project

Currently MWD delivers treated water from Colorado River and State Water Project to its wholesale customers using the Skinner Water Treatment Plant. Although the Skinner plant is at full capacity, during wet years there appears to be excess water available from the plant for other potential wholesale customers.

The Simpson pump station is currently capable of pumping water to both the west and east. The treated water available from the Skinner plant would be used by customers such as the City of Hemet in lieu of groundwater pumping. The Simpson pump station has a capacity of approximately 14.5 cfs.

The following issues and constraints should be evaluated for this project:

- Quantity and timing of water available from the Skinner Plant;
- Quality of Skinner Plant water in relation to the groundwater quality used by customers such as City of Hemet, and any blending issues;
- Use of chlorinated water from Skinner Plant versus well water that does not contain chlorine;

- Transmission pipeline from Skinner line to the Simpson pump station and from Simpson pump station to local distribution system;
- Connections to the local distribution system and their impacts on the distribution system pressure zones; and
- Cost of MWD water and the cost distribution of such delivery.

5.3.4.4 Hemet Water Filtration Plant

Availability of treated imported water for distribution, in-lieu of groundwater production, has become a significant source for reducing stress on the groundwater system. One of the limiting factors in the substitution of imported water for groundwater is the ability to treat the imported water, which requires more treatment than groundwater. To allow for increased use of imported water, EMWD is building the 10 mgd (11,000 AFY) Hemet Water Filtration Plant near the intersection of Commonwealth Avenue and Kirby Street in Hemet. The plant will utilize State Water Project supplies.

The purpose of this Section is to document the background and settings in establishing the groundwater production rights for each Public Agency. The Base Production Rights and the method for determining Adjusted Production Rights have been established in a collaborative manner among the agencies, and have been the basis for the distribution of costs in a number of occasions during the development of the Plan.

6.1 PUBLIC AGENCIES BASE PRODUCTION RIGHTS

6.1.1 GENERAL

Together, the Public Agencies agreed upon some basic principles as a basis for allocating Base Production Rights. The base period for documenting actual pumping was determined to be calendar years 1995 through 1999. Figure 6.1 shows the average annual groundwater production by each Public Agency for 1995 – 1999. It was also recognized that, as a result of various operational activities of the Public Agencies, several adjustments would need to be made to the raw pumping data for 1995-1999. It was ultimately agreed to finalize all appropriate adjustments and to make one comprehensive adjustment to each Public Agency's raw 1995-1999 recorded pumping.

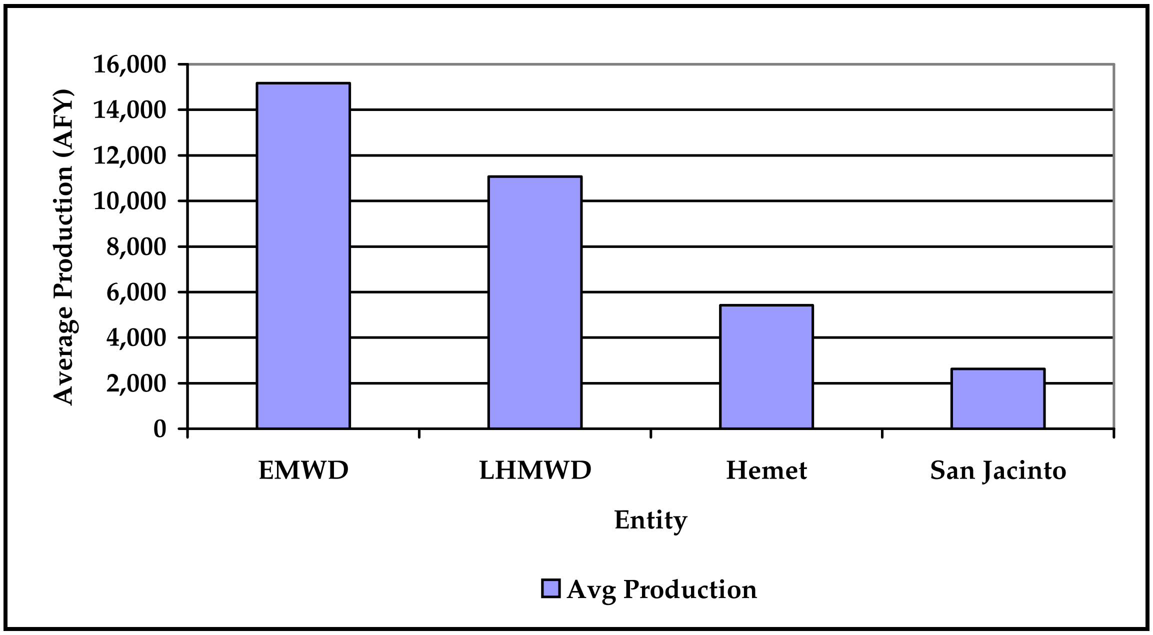

Figure 6.1 Average Annual Groundwater Production, 1995 - 1999

The operational activities that impacted groundwater resources, and therefore were used to make appropriate adjustments to raw 1995-1999 pumping data, include:

- Recharge Activities;
- MWD San Jacinto Tunnel Seepage;
- Fruitvale Entitlement Water Sold by EMWD to LHMWD, City of Hemet and City of San Jacinto;
- River Diversions;
- Conveyance Water Deliveries; and
- Other Considerations.

The Fruitvale Entitlement allocation amount was determined to be a total of 597 acre-feet for LHMWD, and Cities of Hemet and San Jacinto. The Tunnel Seepage allocation amount was determined to be 1,800 AFY, and the river diversions were determined to be 3,635 AFY for pro-ration to the four agencies. The Public Agencies have, therefore, been assigned the pro-rata shares of Base Production Rights as shown in Table 6.1:

Table 6.1 Base Production Rights

Public Agency	Base Production Rights (AFY)	Base Production Rights (Percent)
EMWD	10,869	33.7%
LHMWD	11,063	34.2%
City of Hemet	6,320	19.6%
City of San Jacinto	4,031	12.5%
Total	**32,283**	**100 %**

The details of the Public Agencies Base Production Right, with their corresponding adjustments, are described below:

6.1.2 EMWD BASE PRODUCTION RIGHTS

For EMWD, the 1995-1999 actual average annual pumping was determined to be 15,166 AFY. After consideration of all appropriate adjustments, it was determined that EMWD's Base Production Right would include a deduction of 2,497 acre-feet for conveyance water and an additional net deduction of 1,800 acre-feet for other operational activities, including tunnel seepage, export, and Fruitvale Entitlement water sales. Therefore, EMWD's Base Production Right was set at 10,869 AFY.

6.1.3 LHMWD BASE PRODUCTION RIGHTS

For LHMWD, the 1995-1999 actual average annual pumping was determined to be 11,063 AFY. There were no net adjustments for LHMWD as their credit for the Fruitvale entitlement water purchase tunnel seepage was deemed to be equivalent to their surface water diversion. Thus, the Base Production Right for LHMWD is set to 11,063 AFY.

6.1.4 CITY OF HEMET BASE PRODUCTION RIGHTS

For the City of Hemet, the 1995-1999 actual average annual pumping was determined to be 5,420 AFY. After consideration of all appropriate adjustments, it was agreed that the City of Hemet's Base Production Right would include an additional 900 AFY pumping right to account for Fruitvale Entitlement water purchase tunnel seepage credit, and surface diversion water. Therefore, the City of Hemet's Base Production Right was set at 6,320 AFY.

6.1.5 CITY OF SAN JACINTO BASE PRODUCTION RIGHTS

For the City of San Jacinto, the 1995-1999 actual average annual pumping was determined to be 2,631 AFY. However, review of the city's historic pumping showed the 1995-1999 base period was not as representative as other historic pumping periods. Therefore, it was agreed for the City of San Jacinto to receive an additional 500 AFY of pumping rights. In addition, after consideration of all other appropriate adjustments, it was determined that San Jacinto's Base Production Right would include an additional 900 AFY pumping right to account for Fruitvale Entitlement water purchase tunnel seepage credit and surface diversion water. Therefore, the City of San Jacinto's Base Production Right was set at 4,031 AFY.

6.2 PRIVATE WATER PRODUCER'S PRODUCTION RIGHTS

6.2.1 GENERAL

Development of the Hemet-San Jacinto Water Management Plan recognizes the rights of the overlying pumpers to pump and beneficially use needed groundwater. The overlying pumpers within the management area include Private Water Producers (and the Soboba Band of Luiseño Indians, discussed later). In recognition of the Private Water Producers' overlying rights, the management plan does not adversely impact or affect these rights and uses that are consistent with historical uses.

The Plan provides for the Private Water Producers to be Non-participants, Class A Participants, or Class B Participants. For Non-participants, the private producer(s) may elect to not participate and/or not acknowledge the Plan's existence. Non-participants are free to continue their past practices of pumping groundwater for beneficial uses according to state law. Non-participants are also excluded from future participation in the Plan. Class A and Class B Participants are described below.

6.2.2 CLASS A PRODUCTION RIGHTS

Class A Participants in the Plan have agreed to cooperate with the administrative and pumping accounting portions of the Plan. While historic pumping and beneficial uses may continue, the Class A Participants' pumping facilities are subject to metering, testing, and water level and water quality sampling at no cost to the owner. This information is valuable for successful implementation of the Plan. Class A participants are eligible to convert to Class B Participant status during the first three years of formal Plan implementation (Entry of the Judgment), with the payment of all past assessments (without interest) that would have been incurred as a Class B Participant.

6.2.3 CLASS B PRODUCTION RIGHTS

Class B Participants become participants to the Plan and have their water rights determined. The annual Base Production Right shall be determined based upon the average annual production from 1995 to 1999, less any amount of water that had been used on land that was developed for non-agricultural purposes after 1999, which is the Participant's Base Production Right. The Class B Participant shall pay Replenishment Water Assessments for pumping in excess of the individual Base Production Right. Class B Participants are not subject to Administrative Assessments, and until conversion to a Public Agency, not subject to reduction in Safe Yield. Class B Participants may sell or lease unused groundwater to the Watermaster or one of the Public Agencies, under terms and conditions approved by the Watermaster. Upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall credit, to the extent legally permissible, the Class B Participant's Base Production Right, adjusted pursuant to certain reductions, against any requirement then in effect for any water supply assessment requirements, or against any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit added to its Base Production Right as set forth in the Judgment. Class B Participants to the Plan have also agreed to participate in the groundwater monitoring and pumping accounting portion of the Plan, at no cost to the owner.

6.3 SOBOBA TRIBE WATER RIGHTS

Section 8 of this document provides a detailed description of the Soboba Indian Tribe water rights.

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This Section provides a description of the surface water rights and licenses held by LHMWD and EMWD. The contents of this Section are provided for general information and documentation of the surface water rights only; such rights are not affected by the Stipulated Judgment or this Plan.

7.1 LHMWD'S DIVERSION RIGHTS

LHMWD holds pre-1914 rights to divert and store water in Lake Hemet, and to divert water from Strawberry Creek, and from the North and South Forks of the San Jacinto River (See Figure 7.1). These rights have been acquired as the successor-in-interest to rights established by the Fairview Land and Water Company, the Lake Hemet Company, the Lake Hemet Water Company, the Florida Water Company, Charles Thomas, H. M. Johnston, E. L. Mayberry, W. F. Whittier, William B. and Mary Webster, and others.

7.1.1 LAKE HEMET

Construction of Lake Hemet Dam began in 1889 and was completed in 1895. The reservoir is located in Township 6S, Range 3E, Sections 7 and 8. Water rights for the diversion and storage of water are based on actual use and upon at least these Notices of Appropriation filed on November 18, 1884 in Book 1 of Water Claims, page 38; on January 19, 1885 in Book 1 of Water Claims, page 47; on December 23, 1885 in Book 1 of Water Claims, page 115; on April 7, 1886 in Book 1 of Water Claims, page 134; and on October 18, 1890 in Book 2 of Water Claims, page 61. The reservoir impounds water from Hurkey Creek and the South Fork of the San Joaquin River, and has a capacity of 12,775 acre-feet. Releases from the reservoir are discharged into the South Fork of the San Jacinto River.

7.1.2 SOUTH FORK OF THE SAN JACINTO RIVER

This diversion site is located about a quarter of a mile upstream of the river's confluence with Strawberry Creek. A wooden diversion dam was originally constructed in 1888, but later replaced with a concrete diversion dam, taking water through a tunnel on the right bank of the stream into a 30-inch pipeline. Water rights are based on actual use and upon at least these Notices of Appropriation filed on June 6, 1885 in Book 1 of Water Claims, page 61; on August 11, 1886 in Book 1 of Water Claims, page 160; and on the Judgment entered

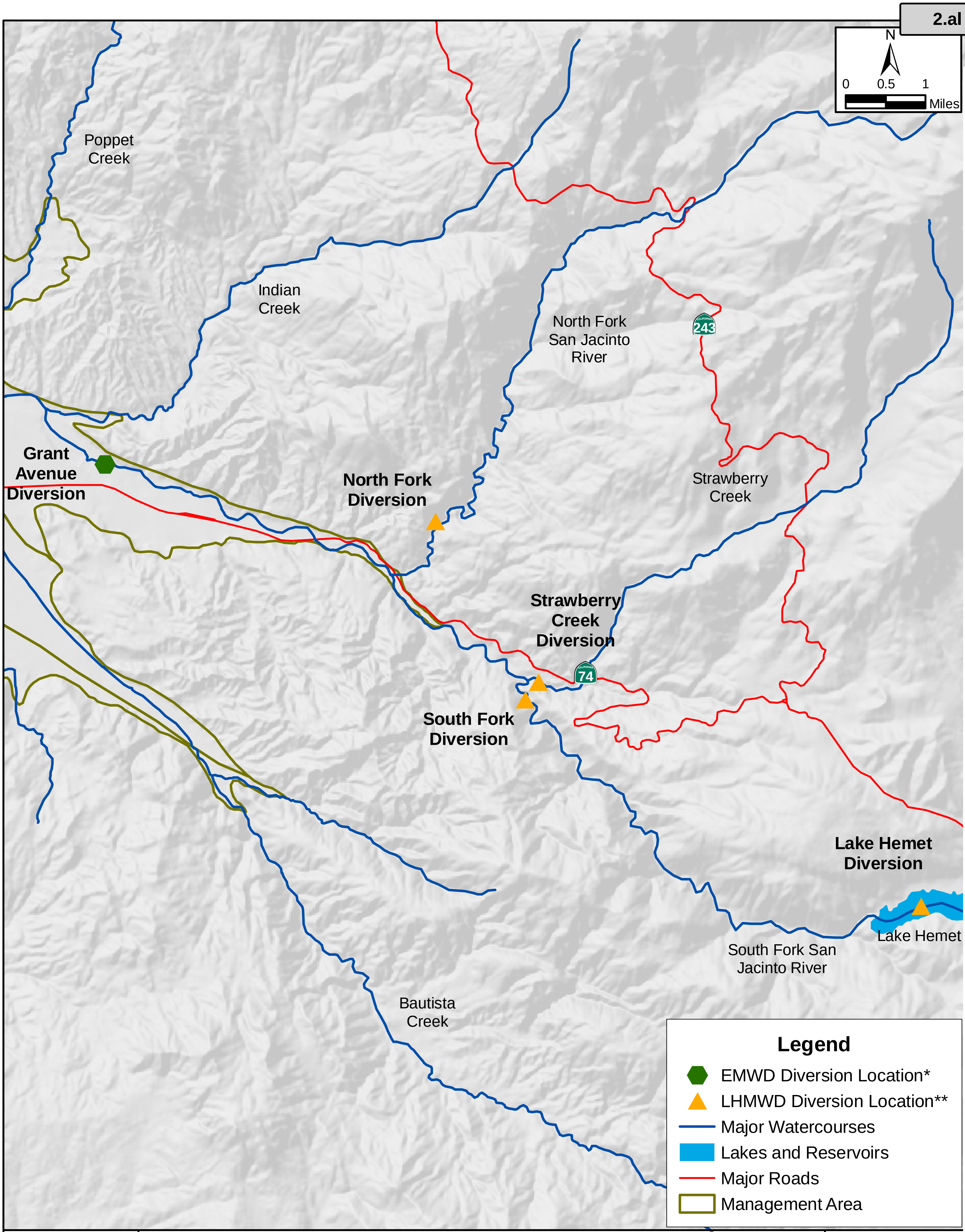

Location of Surface Water Diversions

Hemet / San Jacinto Water Management Plan

*Source: EMWD
**Source: LHMWD

October 2007

Figure 7.1

November 24, 1894 in the case of Florida Water Company v. Mary Webster, et al., No. 169, Riverside Superior Court.

7.1.3 NORTH FORK OF THE SAN JACINTO RIVER

This diversion site is now located on the North Fork of the San Jacinto River near the "Falls" in Section 17, T5S, R2E. The original facilities consisted of a small rock dam and a 10-inch sheet iron pipe constructed in about 1887. Current facilities, constructed in 1969-1970, consist of a concrete diversion dam, concrete intake and control structure, and 24-inch steel pipeline. Water rights are based on actual use and upon at least these Notices of Appropriation filed on September 14, 1886 in Book 1 of Water Claims, page 173; on May 19, 1897 in Book 1 of Water Claims, page 159; and on the Judgment described above.

7.1.4 STRAWBERRY CREEK

LHMWD's diversion site on Strawberry Creek is located in Section 28, T5S, R2E, about 1,300 feet upstream of its confluence with the South Fork of the San Jacinto River. Original construction of a concrete diversion dam and flume, carrying the water over the South Fork and into the main water line, occurred in about 1905. Current facilities consist of a concrete diversion dam, intake structure, and 28-inch pipeline. Water rights are based upon actual use and at least on these Notices of Appropriation filed on January 27, 1885 in Book 1 of Water Claims, page 49; on August 11, 1886 in Book 1 of Water Claims, page 160; and on deeds recorded July 24, 1885 in Book 51, page 145; on August 25, 1886 in Book 64, page 223; on February 21, 1887 in Book 73, page 235; on April 21, 1887 in Book 79, page 264; on April 27, 1887 in Book 79, page 266; and on the Judgment described above.

7.2 EMWD'S DIVERSION RIGHTS

EMWD holds a license to divert water from the San Jacinto River (see Appendix G). EMWD currently does not divert surface water for direct use, but recharges the water, when available, into the aquifer to augment groundwater supplies. Thus, the diversion is not directly part of EMWD's water supply. However, it plays an indirect role in groundwater resources. Information on these diversions is presented here.

EMWD's recharge of surface water from the San Jacinto River to the Canyon Management Zone takes place at EMWD's Grant Avenue Ponds in the Valle Vista area (See Figure 7.1). An application for a permit to appropriate water from the San Jacinto River and Indian Creek, Application 924, was filed on February 14, 1918 by the Citizens Water Company. Permit 468 was subsequently approved on August 15, 1918. On November 23, 1920, the filing was assigned to the FMWC as the successor-in-interest to the Citizens Water Company. Upon its 1971 acquisition of the FMWC, EMWD became the successor-in-interest to the filing.

Based on Application 924 and Permit 468, the State Water Resources Control Board issued License No. 10667 for the Diversion and Use of Water to EMWD on June 8, 1976. This license, still held by EMWD, allows for the diversion, underground storage by spreading, and subsequent extraction and beneficial use of 5,760 AFY of San Jacinto River water to be collected from November 1 of each year to June 30 of the succeeding year at a rate of 41 cfs. Additionally, the rate of diversion may be increased to a maximum of 100 cfs provided that the total quantity in any 30-day period does not exceed 2,442 AF.

SECTION 8 SOBOBA TRIBE SETTLEMENT REQUIREMENTS

8.1 ORIGINAL SOBOBA CLAIM

In 1995 the Soboba Tribe filed claims against EMWD and LHMWD for an alleged infringement of their water rights, and for damages in the sum of $70 million related to the alleged historical interference with the Tribe's rights and the unauthorized use of its water. EMWD and LHMWD denied any such interference or wrongful use of Tribal water, but agreed to negotiations to determine the water rights of the Tribe.

8.1.1 EARLY NEGOTIATIONS

Negotiations with the Tribe began in 1995 and in time involved the active participation of the United States.

8.1.2 UNITED STATES SETTLEMENT PROPOSAL

In 1998, the United States proposed a settlement whereby the Tribal Water Right would be determined to be 9,000 AFY, and the Federal government would provide a supply of 7,500AFY. Subsequently this proposal proved not to be feasible.

8.1.3 TRIBAL CLAIM AGAINST MWD

In 2000 the MWD was brought into the dispute when the Tribe filed suit against MWD in the U.S. District Court in Los Angeles, Case No. 00-04208 (GAF) (MANx) ("Los Angeles case"). The complaint alleged that the MWD tunnel drilled through Mt. San Jacinto in the 1930's had dried up springs on the Reservation and otherwise interfered with the Tribe's water supply.

8.1.4 MWD'S CROSS COMPLAINT

MWD brought EMWD into the Los Angeles action based upon an indemnity agreement signed by EMWD when the District was annexed to MWD, and in return for seepage water that continued to flow into the San Jacinto tunnel.

8.1.5 FINAL NEGOTIATIONS

After lengthy negotiations among the Tribe, United States, EMWD, LHMWD and MWD, the parties reached an Agreement in 2004, subject to approval of Congress.

8.1.6 STATUS OF CONGRESSIONAL APPROVAL

The Agreement has not yet been approved by Congress, and it expires if such approval is not obtained by December 31, 2007.

8.2 FRAMEWORK OF THE SETTLEMENT AGREEMENT

The Agreement determines the water rights of the Tribe, and settles all claims among the parties, including those made in the Los Angeles case. The Agreement will be incorporated into a Stipulated Judgment in the Los Angeles case, and made subject to the continuing jurisdiction of the Court.

8.3 TRIBAL WATER RIGHT

Under the Agreement, the Tribe has a prior and paramount right, superior to all others, to pump 9,000 acre-feet annually from the Canyon Sub-basin and the Intake portion of the Upper Pressure Sub-basin for any use on the Reservation, and on lands now owned or hereafter acquired by the Tribe contiguous to the Reservation or within the above-mentioned Sub-basins. The Tribe's right is subject to an agreement to limit its pumping according to a yearly schedule, with a maximum of 4,100 AFY, for 50 years after the effective date of the Agreement.

8.4 PAYMENTS TO THE TRIBE

The United States agrees to pay $11 million to the Tribe, and EMWD and LHMWD are obligated to pay $17 million to the Tribe.

8.5 FUNDS RECEIVED BY THE LOCAL AGENCIES

The United States agrees to contribute to EMWD, on behalf of the participants in this Water Management Plan, the sum of $10 million for construction and operation of recharge facilities to accommodate deliveries of Imported Water.

8.6 IMPORTED WATER

MWD agrees to provide an average supply of 7,500 AFY of Imported Water to recharge the Canyon Management Zone and Intake portion of the Upper Pressure Management Zone, at untreated replenishment rates, until 2035, and to negotiate in good faith for an extension of the supply for a total of 50 years after the effective date of the Agreement.

8.6.1 MWD STORAGE RIGHT

The local agencies are obligated to provide groundwater recharge facilities to accommodate a flow rate of 42 cfs and to store up to 40,000 acre feet of Imported Water.

8.6.2 USE OF MWD SUPPLY

The supply of Imported Water provided by MWD is to supply water for the Tribe, and to reduce overdraft. Water not used by the Tribe is available for use by the participants in the Water Management Plan, pursuant to the terms hereof.

8.7 WATER QUALITY REQUIREMENTS

The Agreement provides that all water recharged shall conform to all applicable State water quality regulations and recharge in the Canyon Sub-basin and shall not exceed Federal or State primary or secondary drinking water quality standards (except for turbidity, color or coliform bacteria), nor 0.3 mg/l boron, or 0.05 mg/l lithium.

8.8 PROPERTY TRANSACTIONS

EMWD shall convey to the Tribe approximately 106 acres of land at Domenigoni Parkway and Highway 79. MWD shall convey to the Tribe approximately 21.7 acres of land. LHMWD shall make available for environmental mitigation purposes approximately 12 acres in the San Jacinto River bed. The Tribe shall make available up to 98 acres of land for habitat preservation and/or environmental mitigation in connection with the recharge facilities.

8.9 APPROVAL OF WATER MANAGEMENT PLAN

The Agreement provides that EMWD and LHMWD, with the cooperation of other groundwater producers, shall develop and implement a Water Management Plan for the Canyon

Management Zone and Intake portion of the Upper Pressure Management Zone that will address the current overdraft, and recognize and take into account the Tribal Water Right. This Plan is intended to meet such requirements of the Agreement, and is subject to the approval of the Soboba Tribe and the United States. No implementation or subsequent modification of this Plan shall threaten or adversely affect the rights of the Tribe under the Agreement, and the Tribe and the United States shall have the right under the continuing jurisdiction of the Court in the Los Angeles case to litigate any such issue.

9.1 PURPOSE

The purpose of the Watermaster is to implement the Water Management Plan (The Plan) as embodied in the Stipulated Judgment (JUDGMENT) in Eastern Municipal Water District v. Lake Hemet Municipal Water District, et al.; said implementation may be by Watermaster actions alone, actions undertaken through or in conjunction with one or more Public Agency Members or through a Joint Powers Authority (JPA) composed of some or all of its Public Agency Members.

9.2 WATERMASTER

9.2.1 COMPOSITION

The Watermaster Governing Board will consist of one (1) elected official representing each of the Public Agencies, namely, EMWD, LHMWD, and the Cities of Hemet and San Jacinto (collectively, Public Agencies), and one (1) representative selected by the Class A and Class B private groundwater producers (Private Water Producers).

9.2.2 TERMS OF OFFICE

Each member of the Watermaster shall serve until replaced by the Public Agency or Private Water Producers that made the original appointment.

9.2.3 REMOVAL AND REPLACEMENT

Any Watermaster member may be removed and replaced by the same procedure used in his or her appointment.

9.2.4 VOTING

Each member of the Watermaster shall have one (1) vote. All actions by the Watermaster shall require three (3) affirmative votes, except actions in the following matters that shall require four (4) affirmative votes:

- Any change sought in the form of governance;

- Any change in voting requirements;
- Establishing, levying, increasing or decreasing all assessment amounts;
- Determining the extent of overdraft and quantifying safe yield;
- Determining Adjusted Production Rights;
- Decisions regarding the financing of supplemental water or facilities, other than any financing provisions included in the Judgment;
- Decisions regarding ownership of facilities, other than ownership of the Phase I facilities (described in Section 3.2.2.1), which facilities shall be owned by EMWD, subject to a right of use by those parties participating in the financing thereof;
- Policies for the management of the Management Area;
- Any decision that involves a substantial commitment by the Watermaster, including any contracts for conserved water;
- Retaining the services of legal counsel or Advisor; and
- Adoption or amendment of an annual budget.

9.3 RULES AND REGULATIONS

The Watermaster may make such rules and regulations as may be necessary for the implementation of the Water Management Plan and Judgment, and for its own operations and procedures, subject to Court approval.

9.4 MEETINGS

The meetings of the Watermaster and standing committees will be subject to those provisions of the California Government Code known as the Brown Act (also popularly known as the Open Meeting Laws).

9.5 WATERMASTER ORGANIZATION

In carrying out its development and implementation responsibilities, the Watermaster may hire full-time or part-time personnel, such as managers, engineers, attorneys, hydrologists, geologists, accountants, operators, secretaries, clerical or others; may retain outside consultants on a full-time, part-time, or as-needed basis; and may contract with other agencies to perform some or all of the development and implementation tasks.

The Watermaster shall retain the services of an independent attorney or law firm to act as the Watermaster's legal counsel.

The Watermaster shall retain the services of a qualified independent individual or engineering firm with appropriate experience in hydrology to serve as Advisor to the Watermaster. The Advisor shall assist the Watermaster in the performance of the Watermaster's responsibilities as follows:

- Provide advice to the Watermaster on all matters within the authority and jurisdiction of the Watermaster;
- Provide recommendations for action to the Watermaster on all matters within the authority and jurisdiction of the Watermaster;
- Evaluate proposals for projects and/or recommendations for action received from members of the Watermaster regarding matters within the authority and jurisdiction of the Watermaster;
- Propose and/or evaluate contracts and other agreements to be entered into by the Watermaster necessary to the performance of its responsibilities;
- To administer all contracts and agreements entered into by the Watermaster;
- Assist the Watermaster in evaluating and analyzing data, the collection of which is required under the Judgment and/or Water Management Plan;
- Coordinate the evaluation and analyses of data, proposals, projects, and recommendations by the TC with members of the Watermaster and other consultants of the Watermaster;
- Serve as the Chairman of the TC; and
- Perform such other services, and take such actions, as may be approved by the Watermaster, that are necessary to implement and execute the directions and policies of the Watermaster.

The Watermaster retains the authority to assign or contract the performance of any task or function necessary to consider or perform any matter within the authority and jurisdiction of the Watermaster to any member of the Watermaster, the TC, or any other independent engineering firm or qualified individual. Such assignment or contract shall be coordinated and administered by the Advisor.

As used herein, the term independent means that the Consultant's or Advisor's representation of the Watermaster does not create any actual or potential conflict of interest between the Consultant or Advisor and any other member entity under applicable California statute, regulation, or court decision, or under the common law. Nothing in this definition shall prohibit the Watermaster and affected entity, after appropriate vote, from waiving such conflict in writing.

9.6 GENERAL DUTIES

The general duties of the Watermaster in order to implement the Judgment fall into three categories, as follows:

9.6.1 POLICY

The Watermaster is responsible for the administration of the Judgment and for the development of policies necessary to carry out the implementation of the Water Management Plan, and for additions and modifications thereof.

9.6.2 WATER MANAGEMENT PLAN IMPLEMENTATION

The Watermaster shall implement a water management plan; its responsibilities in that regard include the following:

- Calculating and making determinations regarding the following: (i) safe yield of the Management Area; (ii) each member's share of safe yield; (iii) necessary reductions in each member's Base Production Right to ensure production ultimately equals safe yield; (iv) unused storage capacity which may be used for put and take operations of recycled or imported water; and (v) whether replenishment of exported water is accomplished with an appropriate amount of similar or better quality water.
- Approving projects to be undertaken by the Watermaster in collaboration with member entities as proposed by members of the Watermaster or by the Advisor.
- Providing for the recharge of the Management Area. This includes: (i) implementing a replenishment program for the Management Area; (ii) acquisition of supplemental water supplies (imported, recycled, and Soboba Tribe water); and (iii) providing for the construction and operation of all necessary facilities (including surface and sub-surface percolation and injection facilities).
- Determining the amount of, and levying, billing, and collecting the administrative and replenishment assessments.
- Budgeting and appropriating funds collected by or on behalf of the Watermaster and paying, or authorizing the payment of, costs and expenses of the Watermaster consistent with the Judgment and Water Management Plan.
- Initiating and performing such planning and study activities as may be necessary to implement the Judgment and Water Management Plan, including, but not limited to, preparation of a Watermaster's Annual Report.

- Initiating necessary conservation and drought management measures, and developing water conservation agreements with the Private Water Producers and/or Soboba Tribe for local conservation measures.
- Identifying and participating in the in-lieu replenishment projects.
- Performing all other tasks and taking all other actions as may be necessary to carry out the purpose and intent of the Judgment and the Plan.

9.6.3 TECHNICAL OVERSIGHT

9.6.3.1 Technical Committee Composition

The Stipulated Judgment provides for the operation of a TC, consisting of representatives named in a written designation by EMWD, LHMWD, the Cities of Hemet and San Jacinto, and the Private Water Producers (as one entity). The representative(s) of an entity may be changed by that entity by written notice of the change to the Watermaster.

9.6.3.2 Technical Committee Purpose

The TC will provide such technical assistance as the Watermaster may request and should make recommendations to the Advisor and to the Watermaster on all matters requiring four votes for Watermaster action as outlined in the Voting section above, and on such other matters as requested by the Watermaster. The TC members shall also keep their respective City Councils and Boards of Directors of the Public Agency parties and the Private Water Producers fully informed about the implementation of the Plan.

9.6.3.3 Technical Committee Chairperson

The Advisor will act as the TC's Chairperson and fulfill all the necessary administrative functions required on behalf of the TC.

9.6.3.4 Technical Committee Costs

Costs incurred by individual TC members are the responsibility of the entity appointing that member, and Watermaster funds cannot be used to cover the costs and expenses incurred as a result of the TC activities and functions.

9.7 WATERMASTER INTERACTION WITH EMWD

9.7.1 CONTRACT FOR SERVICES

The Watermaster will contract with EMWD to provide the following services:

- Collection and maintenance of all production, water level, water quality, and other technical data necessary under or required by the Water Management Plan and the transmittal of such data to the Watermaster, its Advisor, and the TC as directed by the Watermaster; the foregoing shall not restrict the Watermaster from entering into other agreements with other members of the Watermaster and/or private firms and individuals for the collection of data.
- Obtaining imported water from MWD or other sources as requested by the Watermaster for replenishment or direct delivery; the foregoing shall not restrict the Watermaster's ability to enter into other agreements with other members of the Watermaster and/or private firms and individuals for the purchase and delivery of imported and/or supplemental water.
- Construct and operate the Phase I facilities (existing EMWD facilities, expansions thereof, and newly constructed facilities) in a manner consistent with the Water Management Plan.
- Perform the accounting functions necessary under the Judgment, i.e., the levy, billing, and collection of all assessments provided for under the Judgment; the payment of costs and expenses of the Watermaster; and related and required accounting and related functions. All funds collected shall be held in a segregated account. All expenses and disbursements shall be separately accounted for. The foregoing shall not restrict the Watermaster from entering into other agreements with other members of the Watermaster and/or private firms and individuals to perform some or all of the accounting functions.

9.7.2 FINANCIAL RESPONSIBILITIES

EMWD will establish restricted accounts and hold all funds collected on behalf of the Watermaster separate from other EMWD funds. All expenditures, encumbrances, and use of funds from these accounts are subject to Watermaster authorization and will be limited to activities related to the Plan. EMWD will transmit periodic reports regarding its financial activities to the Advisor, including annual reporting summarizing the preceding fiscal year financial activities for the approval of the Advisor and the Watermaster.

10.1 ANNUAL BUDGET

The Advisor shall prepare an Annual Budget for review, approval, and adoption by the Watermaster. This Budget shall identify each Public Agency member's financial obligations and assessments and a description of budgeted expenditures, including:

- Replenishment water purchase;
- Operation and maintenance;
- Data collection and evaluation;
- Plan implementation administration;
- Project planning and reporting;
- Billing and assessment collection;
- Capital facilities financial obligations; and
- Preparation of an Annual Audit.

10.2 OWNERSHIP OF FACILITIES

Each Public Agency will continue to own its existing capital facilities for water management. However, in some situations, it may be necessary and/or convenient to form a JPA to finance and build specific capital facilities. Responsibility for the cost of any existing and future capital facilities of the Management Plan should be apportioned among the Public Agencies based on relative benefit to be derived by each Public Agency.

10.2.1 EXISTING FACILITIES

The existing groundwater recharge facilities in the Management Area are owned by EMWD. The Phase I project which is an upgrade of the existing recharge facilities is defined in Section 3.2.2 of this document, and EMWD will own these upgraded facilities. However, the use of the upgraded facilities and the benefits of the low-cost MWD water deliveries through this system will be shared by all agencies based on the level of construction funding contributions for the Phase I facilities and level of participation in the Soboba Settlement financing.

10.2.2 FUTURE PROJECTS

Any of the participating Public Agencies may propose water supply projects to the Watermaster for inclusion in the Plan. Such proposals, after evaluation by the Advisor and the TC, shall be presented to the Watermaster for approval or rejection. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project as long as it does not significantly impact the implementation of the Plan and/or interfere with ongoing groundwater production by the Public Agencies.

10.2.3 USE OF MEMBER AGENCY ASSETS

It is the intent of the Member Agencies that their respective facilities shall be used in a manner that facilitates the implementation of the Plan, on terms that are equitable to all parties and consistent with each agency's obligations to its customer base.

10.3 ASSESSMENTS

Public agencies participating in the Plan are subject to two different assessments:

- Administrative Assessment; and
- Replenishment Assessment.

The purpose and use of these assessment funds are described in the following two sections:

10.3.1 ADMINISTRATIVE ASSESSMENTS

Administrative Assessments will be levied on each acre-foot pumped by each Public Agency up to the agency's Adjusted Production Right. These assessments can be used to pay costs associated with:

- Advisor's activities and his/her administrative expenses;
- Billing and assessment collection costs;
- Data collection and evaluation projects;
- Plan implementation administration, including monitoring plan, and associated salaries and overhead; and
- Project planning and reporting expenses.

Initially, the Administrative Assessment shall be Fifty Dollars ($50.00) per AF, subject to adjustment by the Watermaster.

At the discretion of the Watermaster, any excess funds not used for the above expenditures at the end of the fiscal year can be used to purchase, deliver, and recharge the groundwater within the Management Area. These recharge waters are above and beyond groundwater replenishment waters purchased using the replenishment assessments, and should not be credited to individual Public Agencies as part of their required replenishment obligations. This shall not prohibit the development of a program or plan to provide credits for water purchased above and beyond that needed to satisfy a party's replenishment obligation.

Subject to the Watermaster's approval, funds may also be used to acquire and deliver water for direct use in lieu of pumping.

10.3.2 REPLENISHMENT ASSESSMENTS

Replenishment Assessments will be levied on each acre-foot of water pumped in excess of each Public Agency's or Class B Participant's Adjusted Production Right. Replenishment Assessments will be in amounts equal to the cost of importing or acquiring supplemental water to recharge the Management Area. The component costs will include the cost of the water (including conveyance, transportation and energy costs, operations and maintenance costs, a reserve for replacement and other administrative costs). These assessments will be levied on a per AF of water in excess of each respective member's adjusted Base Production Right. The revenue received for the replacement component shall be placed in a separate reserve fund to be used to fund the replacement cost of the existing system. New and/or expanded facilities will be financed from other resources.

10.3.3 COLLECTIONS AND ACCOUNTS

All the collected assessments and accounts associated with the Plan will be administered by the EMWD and are subject to the policies set by the Watermaster. All payments made to the Watermaster shall be maintained in a separate restricted account established by EMWD, and all accounts shall be subject to annual independent financial audits.

All revenues and assessments shall be used exclusively to acquire supplemental water for the recharge of the management Area and for the facilities and operational and administrative expenses associated with the Plan.

10.4 PHASE I FACILITIES CONSTRUCTION AND SOBOBA SETTLEMENT FINANCING

10.4.1 EMWD CONSTRUCTION COST

The initial facilities, Phase I, shall consist of existing EMWD facilities and expansion and additions to be constructed by EMWD at a cost currently estimated at $16.12 million less public grants totaling $5.0 million, for a net cost of $11.12 million. EMWD shall finance the construction of these facilities through a bond issue or cash payment or by combination thereof. Each Public Agency shall be responsible for pro-rata repayment of the bonds through EMWD or reimbursement to EMWD (to the extent EMWD pays cash for said construction) based on that Agency's Base Production Right allocation percentage, i.e., 34.2% for LHMWD, 33.7% for EMWD, 19.6% for the City of Hemet, and 12.5% for the City of San Jacinto.

10.4.2 PAYMENTS TO SOBOBA TRIBE

In addition to the financing of the construction of Phase I facilities referred to in Section 10.4.1 above, the Soboba Settlement requires the payment of an additional $17 million to the Soboba Tribe in return for the right to use low cost MWD water delivered for the benefit of the Tribe but which the Tribe does not use and other unused Tribal water. The $17 million will be financed in the same manner as the construction of the initial Phase I facilities, i.e., by bond issue or cash payment by EMWD or a combination thereof. The $17 million obligation will be partially offset by a $10 million contribution by the United States toward the costs of constructing the Phase I facilities. Each Public Agency shall be responsible for pro-rata repayment of the bonds through EMWD or reimbursement to EMWD (for cash payment) based on that Agency's Base Production Right allocation percentage, as set out in Subparagraph (a) above.

10.4.2.1 Water Cost

The payment described above to the Soboba Tribe for the right to use low-cost MWD water delivered for the benefit of the Tribe but not used by the Tribe does not include the price of the water itself, which must be paid to MWD. Each Public Agency shall contractually agree with EMWD to pay its share of MWD's price for such water that it acquires for use to EMWD to enable EMWD to pay MWD.

10.4.3 EMWD OBLIGATION

Agreements between EMWD and each other Public Agency setting forth that Agency's financial commitment as required under Sections 10.4.1 and 10.4.2 (*citation*) above will be required as a condition precedent to EMWD's obligation to finance the facilities construction and the payment to the Tribe so as to establish a dedicated source of revenue for bond repayment or reimbursement, as appropriate. Said agreements shall also provide that, in return for said financial commitment, the Public Agency shall be entitled to: (1) share in the capacity of the Phase I facilities (those in existence and those to be constructed) and (2) share in the rights to the MWD water not used by the Tribe and other unused Tribal water, in each case based on the Agency's Base Production Right allocation percentage, as set out in Subparagraph (a) above. Each agreement with EMWD shall provide for the Agency's method of pro-rata repayment of bonds or reimbursement to EMWD, provided, however, that no Agency will be required to do so by cash payment without its consent.

10.4.4 RIGHT TO TRANSFER ENTITLEMENT TO USE FACILITIES AND/OR ENTITLEMENT TO SHARE IN RIGHTS TO WATER NOT USED BY TRIBE

Each Public Agency shall have the right to sell, lease or otherwise transfer the rights and obligations it holds to use the Phase I facilities described in Section 10.4.1 above and/or to share in the rights to the MWD water not used by the Tribe or other water not used by the Tribe described in Sections 10.4.2 and 10.4.3 above, provided that the transferee thereof shall be bound by said obligations. The foregoing notwithstanding, the Watermaster shall have the right of first refusal regarding any such transfer proposed by a Public Agency.

10.5 FUTURE CAPITAL FACILITIES

Future facilities may be required to meet the growth needs of the Management Area, which may require that a JPA or other financing conduit be formed. In either case, each Public Agency's contribution toward the cost of acquiring the added facilities shall be established by the Watermaster at the time such facilities will be needed. The use of such facilities shall be at the discretion of the Watermaster and be dedicated to replenishment activities. The foregoing shall not affect the right of a Public Agency to undertake a water supply project pursuant to Section 10.4.2 above.

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The five-member Watermaster Governing Board (Watermaster) will be composed of one elected official each from the City of Hemet, City of San Jacinto, LHMWD, and EMWD (Public Agencies) and one representative elected by the private groundwater producers (Private Water Producers). Each member of the Watermaster will have one vote and will serve until replaced by the entity (Public Agencies or the Private Water Producers) making the original appointment.

The Watermaster is responsible for administering and enforcing the provisions of the Stipulated Judgment and any subsequent instructions or orders of the Court. The implementation of the Management Plan, along with any additions or modifications as may from time to time be appropriate, and all financial matters relating to Management Plan Activities are the responsibility of the Watermaster.

This section describes how the Watermaster is expected to implement different elements of the Physical Solution outlined in the Stipulated Judgment. Information provided in this section should be used for planning purposes and is not intended to set or change any conditions imposed by the Stipulated Judgment. The timelines provided in this section should be used as guidelines and are not meant to imply any obligation to be met by the Watermaster. The Watermaster is expected to use the information provided in this section during the early years after its formation and refine, revise, or redefine the information, as it deems appropriate.

11.1 ORGANIZATION

The Watermaster will receive assistance and support from legal counsel, an Advisor, a Technical Committee (TC), and Eastern Municipal Water District (EMWD). The duties and responsibilities of each entity are outlined in subsequent sections. Figure 11.1 demonstrates the relationships between the Watermaster and its supporting entities.

Within one month of the Stipulated Judgment approval, the Private Pumpers identified as Class A and B participants are expected to develop a procedure for electing their representative. The elected officials from the Agencies and the Private Pumpers serving as the Watermaster should be identified within the first two months of Stipulated Judgment approval, and the Watermaster should conduct its first meeting at a mutually acceptable location within one month after that.

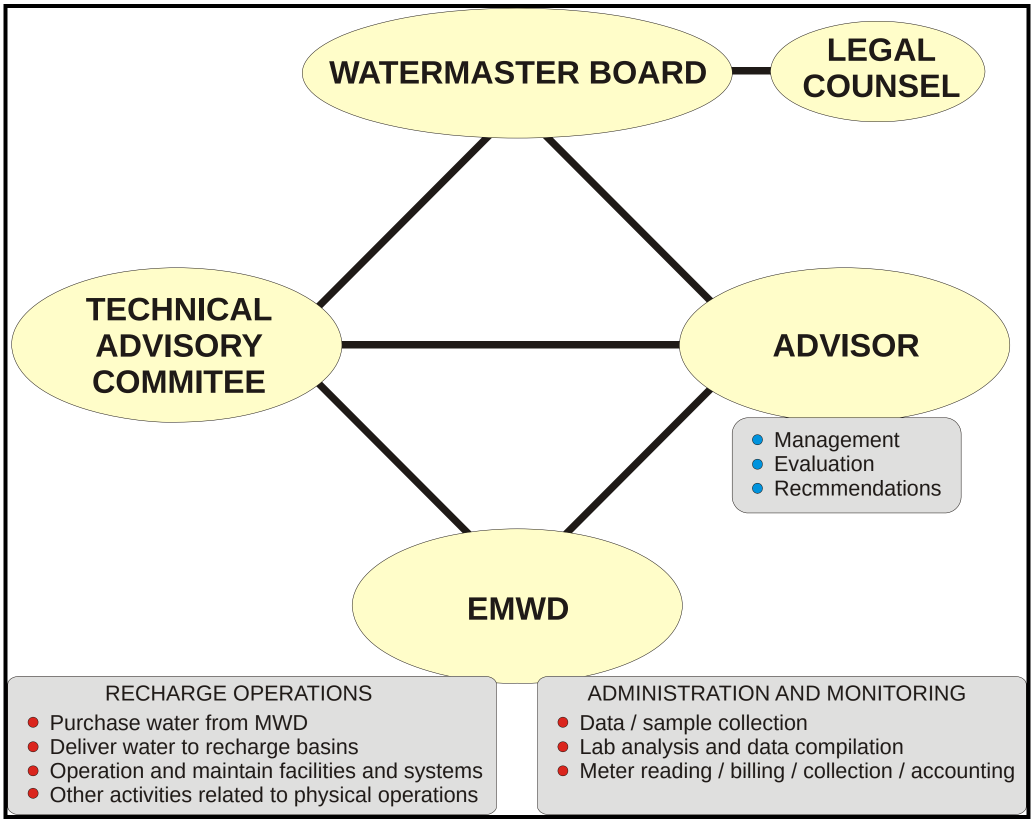

Figure 11.1 Relationships between Entities

Within three months of the Watermaster's first meeting, the Watermaster will retain the services of an independent attorney or legal firm (Legal Counsel) to provide assistance with legal matters and to provide ongoing advice and recommendations in legal areas appropriate to the Watermaster carrying out its duties

Also within three months of the Watermaster's first meeting, the Watermaster will contract with either an independent engineering firm or a qualified individual (Advisor) experienced in hydrology to evaluate and analyze the data collected by EMWD and any conclusions based on that data, and to make recommendations to the Watermaster. The Advisor will provide general coordination between the Watermaster, the Technical Committee, and EMWD with respect to their respective functions, and will also perform such executive functions as the Watermaster may direct. The Watermaster may refer any matter it chooses to any person it may select for assistance in carrying out its duties under the Judgment.

The TC will consist of managerial and technical representatives of the Agencies and Private Water Producers. The Advisor will serve as the TC chairman. The TC will provide technical assistance at the request of the Watermaster. The TC will make recommendations to the Advisor and to the Watermaster on all matters requiring four votes for Watermaster action, which are:

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Any change in the form of governance;
- Any change in voting requirements;
- Retaining the services of legal counsel and Advisor;
- Establishing, levying, increasing or decreasing all assessment amounts;
- Adopting or amending the annual budget;
- Determining the extent of overdraft and quantifying safe yield;
- Determining Adjusted Production Rights;
- Decisions regarding the financing of Supplemental Water or facilities;
- Decisions regarding ownership of facilities, other than ownership of the Phase I facilities, which will be owned by EMWD, subject to a right of use by those parties participating in the Phase I financing;
- Management policies for the Management Area; and
- Any decision that involves a substantial commitment by the Watermaster, including any contracts for conserved water.

In addition, the TC will receive all Monitoring Program and associated data from EMWD for review and evaluation. The TC members are anticipated to keep the City Councils, Agency Boards of Directors, and participating Private Pumpers informed about the Watermaster activities and the Water Management Plan's status.

Within six months of Stipulated Judgment approval, the Watermaster will prepare and adopt Rules and Regulations for its own operation as well as for the operation of the Water Management Plan and Judgment. A dispute resolution process will be included in the Rules and Regulations.

11.2 MONITORING PROGRAM IMPLEMENTATION

The Monitoring Program was initiated with the execution of the September 2003 *Agreement to Develop a Groundwater Monitoring Program in the Hemet/San Jacinto Management Area* between the Cities of Hemet and San Jacinto, EMWD, and LHMWD. Its purpose was to measure and monitor groundwater levels to assist in the accurate evaluation of conditions of overdraft and the evaluation of the operational safe yield in the Management Area. In addition to water levels, the program included water quality and production monitoring. The agreement for 2005 added surface water monitoring of San Jacinto River flows in conjunction with the U.S. Geological Survey. Funded equitably among the agencies, the Monitoring Program has been managed by EMWD. The monitoring locations currently are sampled annually for quality and are measured semi-annual for water levels. The locations are presented in Figure 11.2. These locations may be updated based on the recommendations in the annual monitoring program as discussed later in this Section.

To protect groundwater supplies, an Inactive Well Capping/Sealing Program is included in the Monitoring Programs. Under this program, an inactive well or open casing will be capped/sealed at no charge to the well owner. These wells may still be used for water level and, in some cases, water quality monitoring. Priority is given to those wells that are potentially dangerous open holes (16-18" casings) or those located in areas where flooding resulting from precipitation might carry manure, fertilizers, or other contaminants into the well.

Any Agency or well owner can provide the Watermaster or Monitoring Program personnel with the location of an unused well or open casing for consideration for the Inactive Well Capping/Sealing Program.

Under a contract with the Watermaster, EMWD will lead the Monitoring Program effort. Prior to January 1st of any given year, EMWD staff will present a proposed Monitoring Program to the Advisor. The program is anticipated to include:

1. Estimated number of wells to be monitored for groundwater levels;
2. Estimated number of wells to be sampled for water quality;
3. Number of meters to be read monthly or installed or repaired;
4. Estimated number of inactive wells to be capped;
5. Any changes or variation from the previous year's activities; and
6. Estimated budget to include cost for the field activities and development of the annual report.

The Advisor will review, revise, approve or reject the proposed monitoring program and initiate the annual monitoring program before the end of January of each year. The annual Monitoring Program budget must be approved by the Watermaster before the end of February of each year. The Monitoring Program is run on a calendar year basis and each annual report and associated budget will reflect such a calendar year time period.

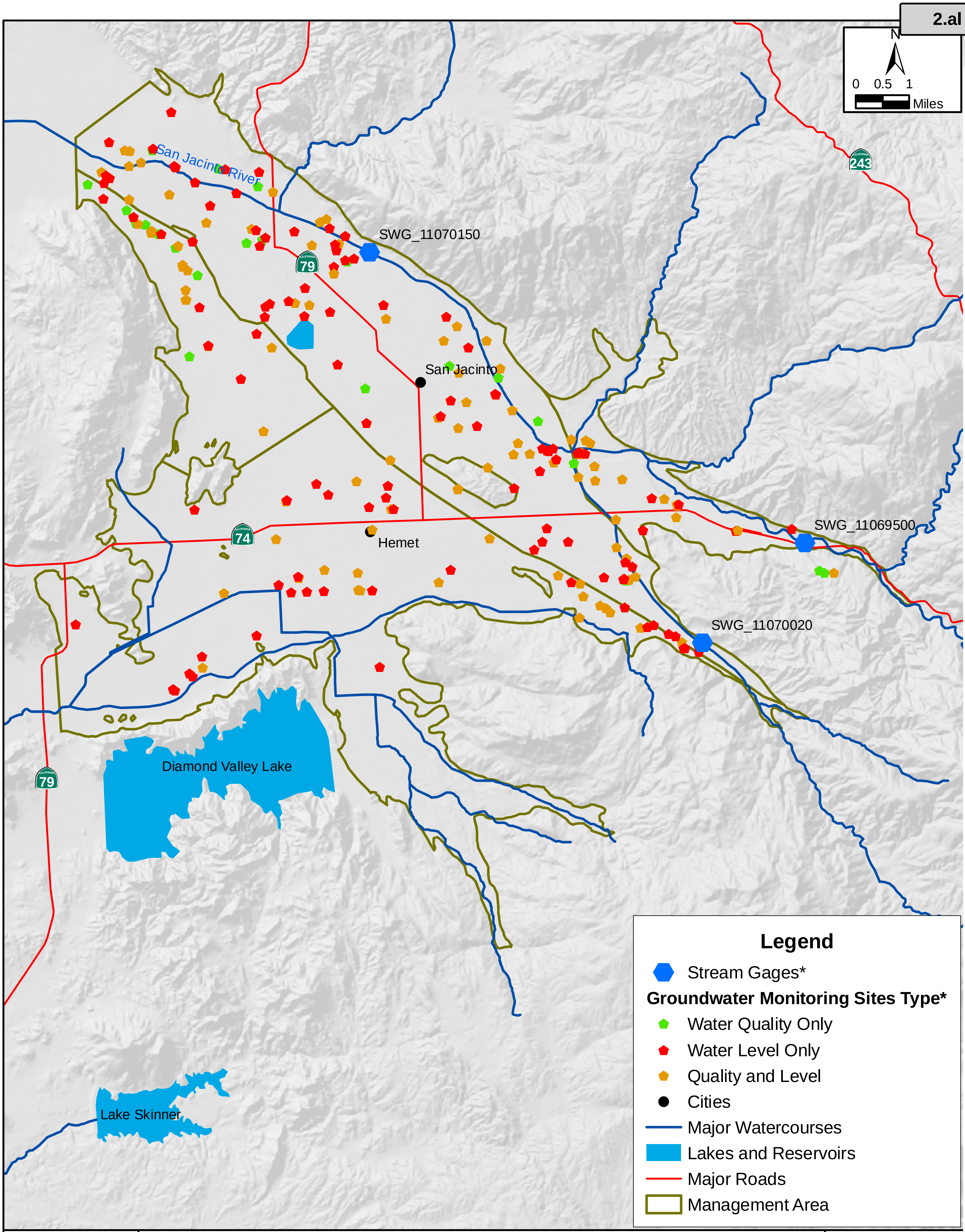

WRIME

Stream Gages and Groundwater Monitoring Sites

Hemet / San Jacinto Water Management Plan

*Source: EMWD

October 2007

Figure 11.2

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Data to be considered for collection and inclusion in the Hemet/San Jacinto Water Management Area Annual Reports to assess the status of the basins and to monitor the responses for future management activities may include, but is not limited to:

- Groundwater level monitoring results;
- Groundwater quality monitoring results;
- Groundwater production;
- Surface water flow monitoring results;
- Surface water quality;
- Surface water diversions;
- Imported water;
- Hydrologic data (rainfall and evaporation);
- Recycled water production;
- Recycled water sales/use;
- Conveyance water;
- Water conservation measures;
- Population growth and development; and
- Land use and crop mix.

EMWD will submit the Annual Hemet/San Jacinto Water Management Area Report resulting from the Monitoring Program to the Advisor for review within four months after completion of each calendar year's monitoring program. The Advisor will then provide the Watermaster with recommendations on how best to operate the Management Area as well as provide a proposed determination of Administrative and Replenishment Assessments for each agency based on previous year's activities. Within the first six years, the Watermaster, with input from its Advisor and the TC, will make a determination of the safe yield of the Management Area. Thereafter, the safe yield shall be reviewed and modified, if necessary, upon the recommendation of the TC or as the Watermaster may determine.

The Watermaster will use information provided in the Annual Hemet/San Jacinto Water Management Area Report and Advisor's recommendations to decide on how to meet the goals for the upcoming year(s).

11.3 MANAGEMENT PLANNING TOOLS

In the future, the Watermaster may want to develop or use databases and other numerical models as planning tools. EMWD maintains a RWRD. Data from the Groundwater and Surface

Water Monitoring Programs, as well as other water and groundwater-related data, are stored in this database. These data form the basis of the Hemet/San Jacinto Water Management Area Annual Reports and can be made available to the Advisor.

EMWD's groundwater flow/transport numerical model can also be made available to assist the Advisor and the Watermaster in evaluating different water resources management alternatives for future projects, for planning purposes, for analysis as in the Regional Water Quality Control Board permitting process, and for determining safe yield. The model is capable of calculating the water budget, exhibiting trends, evaluating regulatory constraints, and can be used as a planning tool. It is recommended that the model be updated every three to five years at the discretion of the Watermaster.

To use EMWD's RWRD and groundwater flow/transport numerical model, the Watermaster is anticipated to enter into a contract with EMWD to cover the Watermaster related cost of software upgrades, necessary hardware, and resources required for maintenance of these tools.

11.4 FINANCIAL ADMINISTRATION

The Watermaster is responsible for the levying, billing, and collection of all assessments provided for under the Judgment, for the payment of all costs and expenses of the Watermaster, and for the performance of accounting and related functions required in connection with performing the Watermaster's duties. The Agencies' groundwater production will be subject to Administrative and Replenishment Assessments. Class B participants are only subject to Replenishment Assessments.

The Watermaster will determine the amount of the Administrative Assessments. For the first year of implementation these assessments are set at $50 per acre-foot. The amount of the Replenishment Assessments will equal the cost of providing a like quantity of supplemental water to recharge the Management Area. The cost of providing a like quantity of water will include the costs of water, operations and maintenance costs of the replenishment system; capital recovery, and other administrative costs as defined in the Stipulated Judgment. An Administrative Assessment will be levied on each acre foot pumped by an Agency up to its adjusted base production right excluding any adjustments as outlined in the Stipulated Judgment.

In order to obtain operating funds for the Watermaster, the Agencies will advance payment of their share of the Administrative Assessments. These payments are anticipated to be paid within the first quarter of each year. Replenishment Assessments due will be determined on the basis of production during the prior calendar year, and are expected to be paid within the first quarter of the year following the prior calendar year's production. Replenishment Assessments will be collected prior to actual recharge by the Watermaster.

In addition, the Agencies will be required to make payments as required under other obligations with EMWD, such as, Phase 1 Facilities and Construction Cost and Use, and delivery and use of recycled water agreements.

Starting with the second year, the Watermaster's invoices should reflect the balance of the Administrative and Replenishment Assessment payments from the previous year as a credit or debit on the invoices.

Within three months of Stipulated Judgment approval, the Watermaster is anticipated to contract with EMWD to perform the Watermaster's accounting functions including billing, collection, and accounting. EMWD will maintain a restricted account for such activities as the operation of the Monitoring Programs and purchase of replenishment water. In addition, EMWD will invoice the Watermaster for its share of imported water costs. EMWD's restricted accounts will be included in the Watermaster's year-end audits to be conducted in accordance with accepted accounting principles.

Funding for the monitoring program, development and use of the management planning tools, and the financial management of the accounts are anticipated to come from Administrative Assessments.

All funds collected by EMWD must be held in a segregated account and all expenses and disbursements must be separately accounted for.

11.5 STIPULATED JUDGMENT ADMINISTRATION

The Watermaster shall prepare, file with the Court, and distribute to relevant parties a Watermaster Annual Report including a summary of all activities during the preceding calendar year, an audited statement of all accounts and financial activities of the Watermaster, and a summary of extractions and replenishments as well as all other pertinent information. The Watermaster will provide the Court updated estimates of the groundwater budget, safe yield, and overdraft as required.

During the development of the Water Management Plan, a number of Agreements and MOUs were initiated among and between the Agencies. Within three months of the Stipulated Judgment approval, the Watermaster will review and re-issue the Agreements and MOUs in the name of the Watermaster if necessary and appropriate. The current MOUs are presented in Appendix H.

Upon Settlement Agreement implementation, the Watermaster will recognize the Tribal Water Rights, as set forth in the Stipulated Judgment and the applicable provisions of the Soboba Tribe Settlement Agreement.

11.6 FACILITIES AND PROJECTS

Each Agency shall continue to own its existing capital facilities for water management. However, capital facilities may be jointly constructed and owned by the Management Plan. Joint financing of such facilities may be funded by regional capital fees, loans and grants, municipal bonds, and contributions for storage by The Metropolitan Water District of Southern California or other third parties. Responsibility for the costs of any existing and future capital facility of the Management Plan should be apportioned among the Agencies based on the relative benefit to be derived by each Agency. Any Agency may propose a project to be included in the Management Plan to increase Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject a proposal, the proposing Agency may implement the rejected project as long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Agencies. The maintenance and upgrading of facilities currently owned by any Agency, and used to further the goals of the Management Plan, will be considered by the Watermaster for funding.

The Agencies have been evaluating and developing a number of programs to mitigate overdraft. The stakeholders agreed that the primary project, the core of the Physical Solution, is the IRRP. This project involves the artificial recharge of imported water into the basin along the San Jacinto River. An agreement that documents the ownership, financing, and operation of the facilities for Phase I of the IRRP is anticipated to be executed after completion of the California Environmental Quality Act (CEQA) process.

The Recycled Water In-Lieu Program identifies large agricultural pumpers in the Management Area that can use recycled water as their source of supply instead of producing groundwater. Providing recycled water to these producers will reduce the stress on groundwater resources and will reduce the community’s long-term need for imported replenishment water.

The Watermaster, with assistance from the Advisor, TC, and EMWD, will develop recycled water strategies. The operational feasibility of these strategies will be assessed and determined by the Advisor and EMWD. The Advisor will recommend economically feasible projects to the Watermaster for implementation. It is anticipated that EMWD, as the sole recycled water provider in the Management Area will, own, operate and administer facilities required for these projects.

11.7 SPECIAL PROJECTS AND STUDIES

It will be necessary to conduct technical or other investigations such as hydrogeologic investigations, GIS analyses, field investigations, numerical modeling, or feasibility studies. The Watermaster may act individually or participate with other entities to conduct such investigations or to collect data necessary to accomplish the main goals of the Management Plan. In addition, any Agency may propose investigations or studies that are appropriate to the goals of the Management Plan. Such proposals, after review by the Advisor and evaluation by the Watermaster, shall either be accepted or rejected. If the Watermaster rejects a study, the proposing Agency may still implement the investigation or study so long as it does not significantly impact the implementation of the Management Plan or interfere with the ongoing activities by the Agencies.

11.8 CONSERVATION PROGRAMS

Each agency maintains its own individual Conservation Program. Additional conservation measures can be designed and implemented using Best Management Practices by the agencies and/or implemented by the agricultural producers and dairy water users. The Watermaster has the discretion to expand its involvement in local conservation programs and if appropriate, lead any collaborative conservation program amongst the agencies.

11.9 WELL CONSTRUCTION, ABANDONMENT, AND DESTRUCTION

Riverside County regulates the construction, reconstruction, abandonment, and destruction of community water supply wells, individual domestic wells, and agricultural wells. Through the offices of the Department of Environmental Health, the County is responsible for issuing permits for well drilling or abandonment.

Section 10 of the Ordinance No. 682.3 states, *"Standards for the construction, reconstruction, abandonment, or destruction of wells shall be the standards recommended in the Bulletins of the California Department of Water Resources as follows: Bulletin NO 74-81 Chapter II Water Wells, and Bulletin NO 74-90 (Supplement to Bulletin 74-81) and as these Bulletins may be amended by the State of California from time to time."*

To oversee management of the groundwater resources in the area, the Watermaster is expected to coordinate with the County of Riverside, and track new developments in the area. This will help the Watermaster to identify critical groundwater monitoring wells that are located in areas to be developed. A plan for proper abandonment and/or destruction, and replacement of the well as a monitoring well, if appropriate, will then be set in motion.

If the well is critical in providing data for the Management Area Monitoring Program, the Watermaster will work with the appropriate jurisdictional agency and the well owner to save the well for monitoring or to replace it with a new monitoring well in an area adjacent to a retention basin, park, green belt, or other community area in the vicinity of the original well location.

The Advisor, with the concurrence of the Watermaster, will arrange meetings with the Agencies to discuss and review future construction of any facilities that may be of value or interest to the Management Plan area. The Watermaster will work with the project proponent with regard to enhancing and or modifying the facilities to maximize the benefit to the Management Plan effort.

11.10 PUBLIC PARTICIPATION

The process by which interested and affected individuals, organizations, agencies and government entities are consulted and included in decision making, has been the driving force in the development of the Water Management Plan. Stakeholders in the Hemet/San Jacinto basins have recognized for several years that their groundwater basins are in a state of overdraft. The Soboba Water rights Proposal presented in February of 1995 provided the impetus for the examination of the overdraft problem. The topic of discussion of a public meeting held on December 13, 2000 was the state of the Hemet/San Jacinto groundwater basins.

EMWD sponsored community discussions in early 2001 entitled: “Groundwater Management: Avoiding Political Pitfalls”, “State of the Hemet/San Jacinto Basins”, and “Cooperate to Self-govern”. The Principles for Water Management were drafted as the basis for a starting point to develop solutions, both for the Soboba proposal and for the overdrafted basin. The Principles were circulated to the general public in February 2001.

In June, 2001, EMWD, LHMWD, City of Hemet and City of San Jacinto signed a conjunctive management Memorandum of Understanding (MOU) with DWR. Two committees were organized to work cooperatively to address the issues. The policy committee, comprised of elected officials and staff members of the four agencies, plus local private pumpers, and a technical advisory committee with representatives from the four agencies, the private pumpers and a neutral consultant provide by DWR. The policy committee meetings are open to the public and are frequently attended by agricultural pumpers, local business owners, local residents, and tribal members, attorneys and technical consultants of the Soboba Band of Luiseño Indians.

Water Outreach Public Information Programs hosted by EMWD have been held at a local restaurant in Hemet in October 2001 and August 2002 to discuss the progress of the Groundwater and Technical Committees in the development of a Water Management Plan.

The Watermaster will continue this process of public involvement and community outreach during Management Plan implementation. Meetings of the Watermaster will be public meetings and will, therefore, be subject to the Brown Act.

11.11 GROUNDWATER MANAGEMENT PLAN COMPONENTS AND CONSISTENCY WITH THE CALIFORNIA WATER CODE

Groundwater management is the planned and coordinated local effort of sustaining the groundwater basin to meet future water supply needs. With the passage of AB 3030 in 1992, local water agencies were provided a systematic way of formulating groundwater management plans (California Water Code, Sections 10750 et seq.). AB 3030 also encourages coordination between local entities through joint-power authorities or MOUs. SB 1938, passed in 2002, further emphasized the need for groundwater management in California. SB 1938 requires AB 3030 groundwater management plans to contain specific plan components to receive state funding for water projects.

The Water Management Plan includes the seven mandatory components that are required to be eligible for the award of certain funds administered by DWR for the construction of groundwater projects or groundwater quality projects. The Plan also addresses the 12 specific technical issues identified in the California Water Code along with the seven recommended components identified in DWR Bulletin 118 (DWR 2003). Appendix I lists the required and recommended components and identifies the specific location within this Plan where the information can be found.

11.12 SCHEDULE

The Plan Implementation Schedule is shown in Table 11.1.

Phase I of the Integrated Recharge and Recovery Program is scheduled to be constructed in two phases, Phase A and Phase B. The schedule for activities related to these phases is shown in Table 11.2.

Table 11.1 Plan Implementation Schedule

Task No.	Description	Time Required	Estimated Completion
1	Retain Services of Legal Counsel	3 Mos.	Within 6 mos. of Stipulated Judgment Approval (S.J.A.)
2	Retain Services of Advisor	3 Mos.	
3	Review and Re-issue Existing Agreements and MOUs in the Name of the Watermaster if Appropriate and/or Necessary	3 Mos.	
4.	Watermaster Enter into Contract(s) with EMWD to: a) Manage/administer the Groundwater and Surface Water Monitoring Programs and prepare the *Hemet/San Jacinto Water Management Plan Annual Report* containing Monitoring Program results and related information; b) Compile all data and maintain the Regional Water Resources Database; c) Operate, maintain, and update the Groundwater Model. d) Provide Accounting Functions. e) Manage Recharge Facilities and any Other Field Operations.	3 Mos.	
6	First Watermaster Annual Report to the Court	3 Mos.	Within 14 mos. of S.J.A.
7	Develop and Adopt Rules and Regulations	3 Mos.	Within 6 mos. of S.J.A.
8	Administrative Assessment Payment	1st Quarter of Each Year	On-going
9	Replenishment Assessment Payment	1st Quarter of Each Year Following the Actual Production	On-going

Table 11.2 Phase I Project Construction

Task No.	Description	Time Required	Estimated Completion
PHASE A			
1	Environmental Process (EIR)	---	Completed
2	Land Acquisition		Within 6 mos. of Settlement Agreement Approval (S.A.A.)
3	Grant Approval, Advertising, Award	7 Mos.	
4	Extraction Well Drilling	17 Mos.	
5	Extraction Well Pump & Chlorination Equipping	12 Mos.	
6	Pump Station Modifications	12 Mos.	
PHASE B			
1	NEPA/Permitting Process	---	Before S.A.A.
2	Extraction Well Drilling	6 Mos.	Within 12 mos. of S.A.A.
3	Extraction Well Pump & Chlorination Equipping	19 Mos.	
4	Recharge Basins	5 Mos.	
5	Pipelines	5 Mos.	
6	Monitoring Wells	6 Mos.	

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SOBOBA BAND OF LUISEÑO INDIANS

SETTLEMENT AGREEMENT

THIS SETTLEMENT AGREEMENT is entered into by the Soboba Band of Luiseño Indians on behalf of itself and its members (collectively, the ñSoboba Tribeò); the United States of America solely in its capacity as trustee for the Soboba Tribe (the ñUnited Statesò); the Eastern Municipal Water District (ñEMWDò); the Lake Hemet Municipal Water District (ñLHMWDò); and The Metropolitan Water District of Southern California (ñMWDò).

ARTICLE 1- RECITALS

1.1 The Soboba Tribe has made claims against EMWD and LHMWD (collectively, the ñLocal Districtsò) for alleged infringement of its water rights in the San Jacinto River (ñRiverò) and the Canyon Sub-basin and the Intake portion of the Upper Pressure Sub-basin associated therewith (collectively ñBasinò) in Riverside County, California, and for damages related to historical interference with the Soboba Tribeôs rights and the unauthorized use of its water. Specifically, the Soboba Tribe alleges that the Local Districts, through their longstanding diversion of waters from the River and pumping of Groundwater from the Basin, have interfered with the Soboba Tribeôs water resources and its rights to the beneficial use and enjoyment of the Reservation.

1.2 The Soboba Tribe also has filed a lawsuit against MWD styled *Soboba Band of Luiseño Indians v. Metropolitan Water District of Southern California*, United States District Court Case No. 00-04208 GAF (MANx) (the ñActionò). The Action alleges that MWD, by the construction and operation of the San Jacinto Tunnel (the ñTunnelò), has interfered with the Soboba Tribeôs water resources and its rights to the beneficial use and enjoyment of the Reservation.

1.3 The Parties have agreed to settle the Soboba Tribeôs claims on the terms set forth in this Settlement Agreement.

1.4 MWD also contends that it has legal indemnification claims and other rights against EMWD for the Action arising out of MWD Board Resolution 3940 (EMWDộs Terms of Annexation into MWD). In 1951, EMWD was created and annexed into MWD for the purposes of resolving claims that MWDộs construction and operation of the Tunnel interfered with local water rights in the Basin and to obtain a supplemental supply of water for the area. The Terms of Annexation required EMWD to resolve potentially conflicting rights to the Tunnel seepage water and that MWD annually credit EMWD for the entire amount of Tunnel seepage, which MWD has done every year since 1951. In exchange for the benefits of being annexed into the MWD service area and the return of the Tunnel seepage water to EMWD, EMWD was required to defend and indemnify Metropolitan from certain claims seeking recovery for loss or injury as a consequence of the Tunnel seepage, specifically including claims brought by the Tribe. In response to the Tribeộs Action, MWD tendered the defense and indemnity of the Tribeộs claims to EMWD, which EMWD declined on the grounds that the Action allegedly exceeded the scope of its obligations under the Terms of Annexation. MWD subsequently filed a third party action against EMWD seeking to enforce the defense and indemnity provisions contained in the Terms of Annexation. EMWD and MWD dispute each otherộs contentions.

1.5 EMWD and MWD have agreed as part of this settlement to resolve their dispute over the scope of EMWDộs defense and indemnity obligations to MWD reflected in the EMWDộs Terms of Annexation.

NOW, THEREFORE, in consideration of the promises and agreements hereinafter set forth, the Parties agree as follows:

ARTICLE 2 - DEFINITIONS

This Settlement Agreement employs abbreviated terms that have the meanings below. To the extent that the definitions below conflict with those terms defined in other sections of the Settlement Agreement, the definitions in Article 2 shall prevail.

2.1 ñActò unless otherwise indicated, shall mean the Soboba Settlement Act approving this Settlement Agreement, attached as Exhibit A.

2.2 ñActionò means the Soboba Tribeôs lawsuit against MWD styled Soboba Band of Luiseño Indians v. Metropolitan Water District of Southern California, United States District Court Case No. 00-04208 GAF (MANx) and includes MWDôs third party claim against EMWD.

2.3 ñAFAò means acre-foot of water per annum.

2.4 ñBasinò means collectively the Canyon Sub-basin and the Intake portion of the Upper Pressure Sub-basin as depicted on Exhibit B (map) and described in Exhibit C.

2.5 ñBest Effortsò means that the Districts will take all commercially reasonable actions to fulfill the referenced contractual obligation.

2.6 ñCanyon Sub-basinò means the groundwater basin as depicted on Exhibit B (map) and described in Exhibit C.

2.7 ñCourtò shall mean the Federal District Court for the Central District of California, Central Division, which has exercised jurisdiction over the Action.

2.8 ñDecree Courtò means the court with jurisdiction over the judgment and decree entered in accordance with this Settlement Agreement.

2.9 ñDistrictsò means EMWD, LHMWD, and MWD.

2.10 ñEffective Dateò means the date on which the Secretary causes to be published in the Federal Register a statement of findings that the conditions in Section 3.1 have been fulfilled.

2.11 ñEMWDò means the Eastern Municipal Water District.

2.12 ñGroundwaterò for the purposes of this Settlement Agreement means all water beneath the surface of the earth.

2.13 ñImported Waterò means water sold by MWD to EMWD pursuant to Section 4.4 and is not intended to have the same meaning as the term ñImported Waterò is used in MWDôs Administrative Code.

2.14 ñIntake Sub-basinò means the portion of the Upper Pressure groundwater Sub-basin as depicted on Exhibit B (map) and described in Exhibit C.

2.15 ñLHMWDò means the Lake Hemet Municipal Water District.

2.16 ñLocal Districtsò means EMWD and LHMWD.

2.17 ñMWDò means The Metropolitan Water District of Southern California.

2.18 ñPartyò is the singular form of ñParties,ò which means the entities represented by the signatories to this Settlement Agreement.

2.19 ñRecharge Facilitiesò means those facilities to be constructed by the Local Districts pursuant to Section 4.4.G of this Settlement Agreement for the purpose of recharging the Imported Water into the Basin.

2.20 ñReservationò means the Soboba Indian Reservation as depicted on Exhibit D (map), comprising approximately 5,935 acres, as established by Executive Order on June 19, 1883; thereafter expanded by Executive Orders on January 29, 1887, and December 29, 1891, the purchase of 709.65 acres known at ñTract 8ò in 1911, the issuance of a trust patent for 68.9 acres in 1913, and the transfer of 880 acres pursuant to the Southern California Indian Land Transfer Act, Pub. L. No. 100-581, 102 Stat. 2946 (1988); and, thereafter modified by Executive Orders of March 22, 1886, and January 29, 1887, and the issuance of a fee patent for 32.84 acres in 1900. It does not include the 950 acres northwest of and contiguous to the Reservation known as the ñJones Ranch,ò purchased by the Soboba Tribe in fee on July 21, 2001, and placed into trust on January 13, 2003, nor the 278.49 acres southeast of and contiguous to the Reservation known as the ñGreater Horseshoe,ò purchased by the Soboba Tribe in fee in five separate transactions in June and December 2001 and December 2004; nor the 478 acres north of and contiguous to the Reservation known as ñKwiili,ò purchased by the Soboba Tribe in fee on April 4, 2004.

2.21 ñRiverò means the surface flow of the San Jacinto River and its tributaries from its origins in the San Jacinto Mountains into and across the Basin as shown on Exhibit B (map).

2.22 ñSecretaryò means the Secretary of the Interior or her designee.

2.23 ñSettlement Agreementò means this document including all exhibits, which are incorporated by reference.

2.24 ñSoboba Tribeò means the Soboba Band of Luiseño Indians, a body politic and federally recognized Indian tribe, and its individual members.

2.25 ñSurface Waterò means all surface water flows of the River.

2.26 ñTerms of Annexationò means Metropolitan Resolution No. 3940 which sets forth the terms of EMWDôs annexation to MWD.

2.27 ñTribal Water Rightò means the Soboba Tribeôs rights to water set forth in Section 4.1.

2.28 ñTunnelò means that portion of the Colorado River Aqueduct known as the San Jacinto Tunnel.

2.29 ñUnited States,ò unless otherwise indicated, means the United States of America solely in its capacity as trustee on behalf of the Soboba Tribe or its members.

2.30 ñUntreated Replenishment Waterò means untreated water sold pursuant to the Replenishment Service program as defined by MWDôs Administrative Code at sections 4104, 4114 and 4514.

2.31 ñUpper Pressure Sub-basinò means the groundwater basin as depicted on Exhibit B (map).

2.32 ñWMPò means the Water Management Plan that will be developed by EMWD, LHMWD, the City of Hemet, the City of San Jacinto and other Basin users, pursuant to Section 4.8.A of this Settlement Agreement, to manage the Canyon Sub-basin, the Upper Pressure Sub-basin downstream to Bridge Street, and the Hemet Basins. The principles of the Water Management Plan are attached as Exhibit E. The area covered by the Water Management Plan is depicted on Exhibit F (map) and described in Exhibit G.

ARTICLE 3 – CONDITIONS PRECEDENT AND ENFORCEMENT

3.1 This Settlement Agreement shall become enforceable, and the releases and waivers of Article 5 effective, as of the date the Secretary causes to be published in the Federal Register a statement of findings that the following conditions have been fulfilled:

A. the Act has been enacted;

B. to the extent that the Settlement Agreement conflicts with the Act, the Settlement Agreement has been revised to conform with the Act;

C. the Settlement Agreement, as so revised, and the Waivers and Releases have been executed by the Parties and the Secretary;

D. warranty deeds for the property to be conveyed in fee to the Soboba Tribe pursuant to Section 4.6 have been placed in escrow with instructions that they shall be delivered to the Soboba Tribe by close of business on the first business day following the date that all of the conditions in this paragraph have been fulfilled;

E. the Soboba Tribe and the United States have approved the WMP;

F. the Judgment and Decree attached to the Settlement Agreement as Exhibit H have been approved by the United States District Court, Eastern Division of the Central District of California, and that judgment and decree have become final and nonappealable; and

G. the Congress of the United States has appropriated the funds and the funds have been deposited in the appropriate accounts pursuant to Sections 4.5 and 4.7.

3.2 Other than to take all necessary steps to cause the events described in this Article to occur, no Party shall be required to perform any of the obligations, or be entitled to any of the benefits, under this Settlement Agreement before all conditions precedent have been fulfilled. After the fulfillment of all conditions precedent, the Parties shall be bound by all provisions of this Settlement Agreement.

3.3 If all of the conditions listed in Section 3.1 have not been fulfilled by December 31, 2007, this Settlement Agreement shall be null and void, and any consideration, together with any income earned thereon, shall be returned to the depositing entity.

ARTICLE 4 - TRIBAL WATER RIGHTS

4.1 Water Rights. The Parties ratify, confirm, declare to be valid and agree not to object to or dispute or challenge in any judicial or administrative proceedings the rights of the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe, to the water rights set forth in this Section. In so doing, the Parties acknowledge that these rights are the result of bargained for and exchanged concessions, as a result of which the Local Districts have agreed to supply water to the Soboba Tribe if it is unable, except for mechanical failure of its wells, pumps or water facilities, to produce the water to which it is entitled under this Article. Therefore, the Soboba Tribe shall have the following water rights which shall be held in trust by the United States for the benefit of the Soboba Tribe:

A. The prior and paramount right, superior to all others, to pump 9,000 AFA from the Basin for any use on the Reservation and lands now owned or hereafter acquired by the Soboba Tribe contiguous to the Reservation or within the Basin.

B. The Soboba Tribeᦽs right to pump a total of 9,000 AFA from the Basin is without regard to whether the water was naturally or artificially recharged.

C. In the event the Soboba Tribe is unable, except for mechanical failure of its wells, pumps or water facilities, to produce from its existing wells or equivalent replacements up to 3,000 AFA production from the Canyon Sub-basin and the remainder of its Tribal Water Right from the Intake Sub-basin, subject to Section 4.3.A, the Local Districts shall deliver any shortage to the Soboba Tribe. Any shortage shall be delivered at such locations as the Soboba Tribe and the Local Districts may agree, or if there is no agreement, at the wellheads where the shortage occurred. Such water may be supplied from Local District wells in either the Canyon or Intake Sub-basins, or from other sources. For any water delivered pursuant to this paragraph, the Soboba Tribe shall pay an acre-foot charge equal to its then current cost of production, and any avoided cost of treatment, from the wells where the shortage occurred, assuming pumping lifts equal to the Soboba Tribeᦽs averages in the respective Sub-basins over the preceding ten years.

4.2 Water Quality. Recharged water placed in the Canyon Sub-basin by Local Districts and/or the WMP and any replacement water delivered to the Soboba Tribe pursuant to Section 4.3.C shall conform to all applicable State water quality regulations and, without prior written approval from the Soboba Tribe, shall neither exceed (1) any Federal or State of California primary or secondary drinking water standards (except with respect to recharged water, turbidity, color, or coliform bacteria) nor (2) 0.3 milligrams per liter (mg/l) boron or 0.05

mg/l lithium. Recharged water placed in the Intake Sub-basin by EMWD, LHMWD, and/or the WMP shall conform to all applicable State water quality regulations. Nothing in this paragraph shall affect the water quality obligations assumed by Metropolitan for Imported Water set forth in Section 4.4.

4.3 Soboba Tribeȏs Water Use. Beginning on the Effective Date, the Soboba Tribeȏs right to pump groundwater in the exercise of its Tribal Water Right shall be subject to the following provisions:

A. The Soboba Tribe agrees to limit its exercise of the Tribal Water Right to 4,100 AFA for a period of fifty (50) years commencing with the Effective Date, according to the schedule set forth in Exhibit I to this Settlement Agreement. Should the Soboba Tribe during that period identify a need for water in addition to the Schedule set forth in Exhibit J, the Soboba Tribe shall have the right to purchase water from the WMP at the rate then being charged to the WMPȏs municipal producers.

B. Any use of the Tribal Water Right by an individual member of the Soboba Tribe shall be satisfied out of the water resources provided to the Soboba Tribe in this Settlement Agreement.

C. In addition to the limitation in Section 4.3.A, the Soboba Tribe may enter into contracts and options to lease, contracts and options to exchange, or contracts and options to forbear the use of the Tribal Water Right or postpone undertaking new or expanded water uses, provided that any such contract or option for a term greater than five years shall require the approval of the Secretary. Any such water thereby made available to others shall only be used by participants in, or other users within the area of, the WMP. No contract shall be for a term exceeding one hundred (100) years, nor shall any contract provide for permanent alienation of any portion of the Tribal Water Right.

4.4 Purchase of Imported Water [see definition of Imported Water in Section 2.13 of this Settlement Agreement]. In order to provide water to the Soboba Tribe and to reduce the overdraft of the Basin, EMWD and MWD agree to enter into a contract pursuant to which MWD will sell and EMWD on behalf of the WMP will purchase the Imported Water under the following terms:

A. Price. The Imported Water will be sold by MWD to EMWD at the then prevailing service rate charged by MWD for Untreated Replenishment Water, which rate is reflected in MWDôs Administrative Code at section 4401(a)(2). As of the date this Settlement Agreement is signed by MWD, the service rate for such water is $233 per acre foot. Changes in the rates charged for Imported Water shall be effective the same date that the new rates for Untreated Replenishment Water become applicable to MWDôs member agencies. Should MWD ever discontinue the delivery of Untreated Replenishment Water, the service rate for water supplied pursuant to this contract shall initially be determined by taking the last published service rate for Untreated Replenishment Water and charged to EMWD under this contract. Thereafter, the rate for Imported Water would continue to be adjusted on the same percentage basis as MWDôs service rate for the non-interruptible untreated water deliveries to its member agencies, which adjustments shall become effective on the same date that the new service rates become applicable to MWDôs member agencies.

B. Use. For purposes of the Imported Water only, MWD releases EMWD from all covenants that now, or may in the future, require that water purchased at the service rate for Untreated Replenishment Water be left in the ground or otherwise not used for any period of time.

C. Duration. The contract shall commence upon the Effective Date and will expire on December 31, 2035. EMWD and MWD agree to negotiate in good faith a possible extension of this water sale contract for an additional period which, when added to the original term expiring on December 31, 2035, would provide for a total term of 50 years. In determining whether or not to extend the term of this contract for this additional period, MWD will consider the current status of its replenishment water program, the status of MWDôs State Water Project contract, the implementation of this Settlement Agreement, and any other information that MWD deems relevant to the possible extension of the water sale contract. Nothing in this paragraph shall be construed to require MWD to extend the water sale contact.

D. Water Quality. Water sold by MWD pursuant to this contract shall be of a quality that is consistent with MWDâs operational and water quality goals. MWD agrees to make Best Efforts to meet water quality objectives set by the Santa Ana Regional Water Quality Control Board for recharged water being put into the Basin. MWD takes no risks associated with any discrepancy between the water quality obligations assumed by MWD pursuant to this paragraph and water quality standards applicable to recharged water set by the Santa Ana Regional Water Quality Control Board or other regulatory body.

E. Deliveries. Deliveries under this contract shall not begin until the Effective Date. Once deliveries are commenced, MWD shall use Best Efforts to deliver 7,500 AFA for the duration of the contract based upon 15-year averages. Annual deliveries shall be calculated on a January 1 to December 31 calendar year and shall be pro rated for any portion of a year during which the contract is in force. MWD reserves the right to deliver water at any time of the year. MWD shall give EMWD advance notice of Imported Water deliveries as provided for in MWDâs then current Administrative Code and implementing guidelines for replenishment water deliveries, which presently is reflected in section 4514(c) of MWDâs Administrative Code.

F. Point of Delivery. Deliveries shall be made by MWD to EMWD at the connection known as EM-14 or, upon mutual agreement of MWD and EMWD, at one or more additional existing or future connections. The Parties acknowledge that the suspension or termination of deliveries to EM-14 may, at any time, as determined by MWDâs Chief Executive Officer, be required to meet MWDâs operational needs. If deliveries to this location are suspended or terminated, then EMWD and MWD agree to negotiate in good faith to identify an alternative delivery point or points and, if MWD and EMWD are unable to reach agreement, the dispute shall be resolved by the Decree Court.

G. Recharge Facilities. The Local Districts, through the WMP, shall construct, operate, and maintain facilities for artificial Groundwater recharge and banking of the Imported Water. Said facilities shall be sufficient to accommodate a flow rate of 42 cubic feet per second and to store up to 40,000 acre feet of Imported Water in the Basin. MWD shall have a paramount right to use capacity in the Recharge Facilities sufficient to accommodate a flow rate of 42 cubic feet per second and a paramount right to store up to 40,000 acre feet of Imported Water to meet its obligations under this Settlement Agreement, provided that MWDôs sole remedy if the required storage capacity is not made available is to reduce its obligation by the amount of water that it was prepared but unable to deliver due to the lack of storage capacity. MWDôs obligations under this Section 4.4 shall not arise until the Recharge Facilities are capable of meeting the capacity and storage requirements set forth in this paragraph.

H. Postponed Deliveries. EMWD shall have the right to postpone deliveries during periods when the Recharge Facilities are not capable of meeting the capacity and storage requirements set forth in Section 4.4.G, provided that each of the following four conditions are met: (i) the inability to meet capacity and storage requirements is the result of events beyond the control of the Local Districts and/or the WMP; (ii) the inability to meet capacity and storage requirements is not the result of negligence on the part of the Local Districts and/or the WMP; (iii) the inability to meet capacity and storage requirements is not the result of water quality limitations that are more restrictive than those established pursuant to Section 4.4.D, and (iv) that the Local Districts use Best Efforts to make necessary repairs and/or take other actions necessary to make the Recharge Facilities fully operational.

(1) If the conditions for postponed deliveries are met as required herein, MWD shall make up such deferred deliveries at a later time, to the extent that MWD has Untreated Replenishment Water available.

(2) If the conditions for postponed deliveries are not met as required herein, then MWDôs obligation to deliver water shall be reduced by the amount of water that MWD was prepared to deliver, subject to the 42 cubic feet per second maximum flow rate, and the existence of unused storage capacity up to the 40,000 acre-foot maximum.

I. Pre-Deliveries. MWD shall have complete discretion concerning use of the 40,000 acre feet of storage capacity for the pre-delivery of Imported Water, including the right not to use such capacity. As such, MWD makes no commitments to pre-deliver any amount of Imported Water.

4.5 Funding for Infrastructure. In accordance with the Act, the United States shall establish in the Treasury of the United States a fund in the amount of $10,000,000, managed by the Secretary of the Interior, which may be drawn upon by EMWD to pay or reimburse costs associated with constructing, operating, and maintaining that portion of the Recharge Facilities necessary to accommodate deliveries of the Imported Water.

4.6 Land Transfer.

A. EMWD Property. In settlement of the Action, EMWD shall place into escrow a warranty deed conveying to the Soboba Tribe in fee all of the property presently owned by EMWD at Domenigoni Parkway and Highway 79, consisting of approximately 106 acres which is described and illustrated in Exhibit J to this Settlement Agreement. The escrow instructions shall provide that the warranty deed shall be delivered to the Soboba Tribe by close of business on the first business day following the Effective Date.

B. MWD Property. In settlement of the Action, MWD shall place into escrow a warranty deed conveying to the Soboba Tribe in fee property presently owned by MWD at Domenigoni Parkway and Patterson Avenue, consisting of approximately 21.7 acres which is described and illustrated in Exhibit K to this Settlement Agreement. The escrow instructions shall provide that the warranty deed shall be delivered to the Soboba Tribe by close of business on the first business day following the Effective Date.

C. The Secretary shall accept into trust for the benefit of the Tribe the lands conveyed to the Tribe pursuant to this Section.

D. Use of Property. Management and development by the Soboba Tribe of the lands transferred by this paragraph shall comply with all applicable Federal law. Any regulation by the Soboba Tribe of the environment on, under or above such lands that impacts MWDôs operations, including but not limited to its operations related to Diamond Valley Reservoir, shall be consistent with, and no more stringent than, comparable regulation by the United States and the

State of California.

4.7 Development Funds.

A. Local Districts. No later than 120 days after the Effective Date and before any funds are released to the Local Districts under Section 4.5, the Local Districts shall pay to the Soboba Tribe the sum of $17,000,000 plus interest at the average daily prime rate (as reported by the Wall Street Journal) plus two and one-quarter percent (2.25%) per annum from the Effective Date until paid. These funds are determined to be non-trust funds and shall be managed by the Soboba Tribe in its sole discretion. The United States shall have no responsibility with respect to the funds provided to the Soboba Tribe pursuant to this paragraph.

B. United States. In accordance with the Act, the United States shall establish in the Treasury of the United States a trust fund in the amount of $11,000,000, managed by the Secretary of the Interior in accordance with the American Indian Trust Fund Management Reform Act of 1994 (25 U.S.C. 4001 et seq.) and this Settlement Agreement. There shall be no expenditures from the trust fund until the conditions in Section 3.1 are fulfilled.

(1) Investment of the Fund**.** The Secretary shall invest amounts in this fund in accordance with the Act of April 1, 1880 (21 Stat. 70, ch. 41, 25 U.S.C. 161), the first section of the Act of June 24, 1938 (52 Stat. 1037, ch. 648, 25 U.S.C. 162a), and this paragraph.

(2) Fund Uses. This fund may be drawn upon by the Soboba Tribe with the approval of the Secretary to pay or reimburse costs associated with constructing, operating, and maintaining water and sewage infrastructure or other water-related development projects.

4.8 Other Terms.

A. The Local Districts, with the cooperation of other Groundwater producers in the Basin, shall develop and implement a WMP for the Basin that will address the current Basin overdraft, and recognize and take into account the Tribal Water Right. The WMP shall not be final or deemed effective for the purposes of this Settlement until it is approved by the Soboba Tribe and the United States. No implementation or subsequent modification of the WMP shall threaten or adversely affect the rights of the Soboba Tribe hereunder, and the Soboba Tribe and the United States reserve the right under the continuing jurisdiction of the Decree Court to litigate any such issue.

B. EMWD will credit to the Soboba Tribe the sum of $1,000,000 to be deducted from the cost of water and sewage financial participation fees (connection fees) and similar fees charged by EMWD for any property owned by the Soboba Tribe within EMWDǒs then existing service area for which service is sought pursuant to an agreement for service between the Soboba Tribe and EMWD. The Soboba Tribe and EMWD agree to negotiate in good faith concerning any future agreement for service which shall be funded in whole or in part by the credit established pursuant to this paragraph.

C. LHMWD will make available for habitat preservation and/or environmental mitigation purposes property it owns in the San Jacinto River bed, consisting of approximately 12 acres which is described and illustrated in Exhibit L to this Settlement Agreement. This property shall be used for habitat preservation and/or environmental mitigation to assist in meeting the requirements of applicable Federal and State environmental laws relating to the Recharge Facilities.

D. In consideration for the benefits received under this Settlement Agreement, the Soboba Tribe shall make available, without transfer of title, up to 98 acres of land for habitat preservation and/or environmental mitigation to assist in meeting the requirements of applicable Federal and State environmental laws relating to the Recharge Facilities. The area from which the Soboba Tribe, in consultation with the United States Fish and Wildlife Service, will select the land to be used for these purposes is described and illustrated in Exhibit M of this Settlement Agreement.

E. The Soboba Tribe agrees to provide the Local Districts with all information reasonably available to the Soboba Tribe that the Local Districts and the Soboba Tribe agree is required to implement this Settlement Agreement and the WMP.

F. MWD shall not be joined in any legal proceeding to enforce the Tribal Water Right described in Sections 4.1 through 4.3 or which concerns the duties and obligations reflected at Section 4.8, paragraphs A through E, unless said proceeding relates to MWDổs failure to perform its obligations to deliver water set forth in Section 4.4.

ARTICLE 5 - RELEASES AND WAIVERS

5.1 Soboba Tribe

A. The Soboba Tribe, on behalf of itself and its members, and the United States solely in its capacity as trustee for the Tribe releases EMWD, LHMWD, and MWD for:

(1) All past, present and future claims to Surface and Groundwater rights for the Reservation, from time immemorial through the Effective Date and anytime thereafter;

(2) All past, present and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, interference with Surface and Groundwater rights and resources of the Reservation, including, but not limited to, all claims for injury to the Soboba Tribeổs use and enjoyment of the Reservation, economic development, religion, language, social structure and culture, and injury to the natural resources of the Reservation, from time immemorial through the Effective Date;

(3) All past, present and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, continuing interference with Surface and Groundwater rights and resources of the Reservation, including the full scope of claims defined in Section 5.1.A(2), to the extent that such continuing interference began prior to the Effective Date, from time immemorial through the Effective Date and anytime thereafter;

(4) All past, present and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, seepage of water into the Tunnel, including the full scope of claims defined in Section 5.1.A(2), from time immemorial through the Effective Date and anytime thereafter.

B. The Soboba Tribe, on behalf of itself and its members, releases the United States for:

(1) All claims described in Section 5.1.A(1)-(4);

(2) All past, present and future claims for failure to acquire or develop water rights

and resources of the Reservation from time immemorial through the Effective Date and anytime thereafter;

(3) All past, present and future claims for failure to protect water rights and resources of the Reservation from time immemorial through the Effective Date, and any past, present and future claims for any continuing failure to protect water rights and resources of the Reservation, from time immemorial through the Effective Date and, to the extent that such continuing failure to protect began before the Effective Date, anytime thereafter;

(4) All past, present and future claims arising from the failure of any non-federal Party to fulfill the terms of this Settlement Agreement at anytime.

(5) All past, present, and future claims arising out of the negotiation of this Settlement Agreement or the negotiation and enactment of the Act, or any specific terms or provisions thereof, including but not limited to the Soboba Tribeô s consent to limit the number of participant parties to this Settlement Agreement.

C. The Soboba Tribe, on behalf of itself and its members, expressly preserves as against all Parties all rights and remedies relating to:

(1) The enforcement of this Settlement Agreement;

(2) The infringement of any water rights arising under Federal or State law which may be appurtenant to property, other than the Reservation, that is now owned or hereafter acquired by the Soboba Tribe, excepting claims identified in Section 5.1.A(4), which relate to Tunnel seepage, and any challenge to approved portions of the WMP.

D. The Soboba Tribe agrees to defend, indemnify, and hold harmless EMWD, LHMWD, MWD, and the United States for any claim seeking damages or other form of relief based upon the rights released by the Soboba Tribe in Section 5.1.A and B, and all of their respective subparts.

5.2 EMWD

A. EMWD shall release LHMWD, MWD, the Soboba Tribe, and the United States from:

(1) All past and present claims arising from or in any way related to the claims released by the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe in Section 5.1, A and B, and all of their respective subparts; and

(2) All past and present claims arising from, or in any way related to, interference with EMWDȏs Surface and Groundwater rights under Federal or State law from time immemorial through the Effective Date, including, but not limited to, all rights originally belonging to EMWDȏs predecessors and/or otherwise acquired by EMWD prior to the Effective Date .

B. Notwithstanding the dispute between EMWD and MWD over the scope of EMWDȏs defense and indemnity obligations reflected in Section 8 of Resolution 3940 (the Terms of Annexation) or the language of Section 8, EMWD shall defend and indemnify MWD against all demands, claims, suits, or other administrative or legal proceedings arising from, or in anyway connected to, the infiltration of water into the Tunnel. This obligation shall apply irrespective of when the claim arose or the alleged infringement, harm, or injury occurred.

C. EMWD expressly preserves all rights and remedies relating to:

(1) As against all Parties, the enforcement of this Settlement Agreement;

(2) As against all Parties, the infringement of any water rights arising under State law acquired in the future by EMWD; and

(3) As against MWD, the Terms of Annexation, except as expressly agreed to in Section 5.2.B.

5.3 LHMWD

A. LHMWD shall release EMWD, MWD, the Soboba Tribe, and the United States from:

(1) All past and present claims arising from or in any way related to the claims released by the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe in Section 5.1.A and B, and all of their respective subparts; and

(2) All past and present claims arising from, or in any way related to, interference

with LHMWDôs Surface and Groundwater rights under Federal or State law from time immemorial through Effective Date.

B. LHMWD expressly preserves all rights and remedies relating to:

(1) As against all Parties, the enforcement of th is Settlement Agreement; and

(2) As against all Parties, the infringement of any water rights arising under State law acquired in the future by LHMWD.

5.4 MWD

A. MWD shall release EMWD, LHMWD, the Soboba Tribe, and the United States from:

(1) All past and present claims arising from or in any way related to the claims released by the Soboba Tribe and the United States solely in its capacity as trustee for the Soboba Tribe in Section 5.1.A and B, and all of their respective subparts; and

(2) All past and present claims arising from, or in any way related to, interference with MWDôs Surface and Groundwater rights under Federal or State law from time immemorial through the Effective Date .

B. MWD expressly preserves all rights and remedies relating to:

(1) As against all Parties, the enforcement of this Settlement Agreement;

(2) As against all Parties, the infringement of any water rights arising under State law acquired in the future by MWD; and

(3) As against EMWD, the Terms of Annexation, except as expressly agreed to in Section 5.2.B.

5.5 All Parties Release of Unknown Claims.

A. Each Party acknowledges and agrees that certain of the releases reflected in Sections 5.1 through 5.5 apply to all claims whether known or unknown to the releasing Party.

B. Each Party certifies that it has read the following provisions of California Civil Code Section 1542:

ñA general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor.ò

C. Each Party waives the application of California Civil Code Section 1542. In doing so, each Party acknowledges that it is consciously releasing claims that may exist as of the date of this release but which it does not know exist, and which, if known, would materially affect its decision to execute this Settlement Agreement, regardless of whether the Partiesô lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

5.6 Waiver of Sovereign Immunity. If any Party to this Settlement Agreement brings an action or other proceeding in any court of the United States relating only and directly to the interpretation or enforcement of the Act or the Settlement Agreement and names the United States or the Soboba Tribe as a party, the United States, the Tribe, or both, may be joined in any such action, and any claim by the United States or the Tribe to sovereign immunity from the action is waived, other than with respect to claims for monetary awards, for the limited and sole purpose of such interpretation or enforcement.

ARTICLE 6- ADMINISTRATION AND OTHER CONSIDERATIONS

6.1 Disclaimer. Nothing in this Settlement Agreement shall be construed as establishing any standard to be used for the quantification of Federal reserved rights, aboriginal claims, or any other Indian claims to water or lands in any judicial or administrative forum or proceeding. Nothing in this Settlement Agreement shall be construed to quantify or otherwise affect the water rights, claims or entitlements to water of any California tribe, band or community other than the Soboba Tribe.

6.2 Evidentiary Effect of Negotiations. This Settlement Agreement has been arrived at in the process of good faith negotiation for the purpose of resolving legal disputes, including pending litigation, and all Parties agree that no conduct, statements, offers, or compromises made in the course thereof shall be construed as admissions against interest or be used in any legal forum or proceeding other than one for approval, confirmation, interpretation, or enforcement of this Settlement Agreement.

6.3 Authorship. The Parties agree that this Settlement Agreement reflects the joint drafting efforts of all Parties. In the event that any dispute, disagreement, or controversy arises regarding this Settlement Agreement, the Parties shall be considered joint authors and no provision shall be interpreted against any Party because of authorship.

6.4 Authorization to Execute. Each Party represents and warrants that she or he is authorized to execute this Settlement Agreement on behalf of the respective Parties to this Settlement Agreement and does so freely and voluntarily.

6.5 Effect of Execution by the Districts. Execution of this Settlement Agreement by the Districts signifies that provisions of this Settlement Agreement affecting the Districts have been approved by their respective Boards of Directors, and these agencies assume the obligations of and are entitled to the benefits of this Settlement Agreement.

6.6 No Inducements. Each Party acknowledges and represents that in executing this Settlement Agreement it has not relied upon any inducements, promises, or representations made by the other Parties which are not reflected in this Settlement Agreement.

6.7 Advice of Counsel. Each Party warrants and represents that, in executing this Settlement Agreement, it has relied upon legal advice from counsel of its choice; that the terms of this Settlement Agreement have been read and its consequences have been completely explained to it by counsel; and that it fully understands the terms of this Settlement Agreement.

6.8 Contingent on Appropriation of Funds. The expenditure or advance of any money or the performance of any obligation by the United States under this Settlement Agreement is contingent upon appropriation of funds therefor. If funds are not appropriated, the United States shall accrue no liability.

6.9 Officials Not to Benefit. No member of or delegate to Congress or Resident Commissioner shall be admitted to any share or part of this Settlement Agreement or to any benefit that may arise from this Settlement Agreement. This restriction shall not be construed to extend to this Settlement Agreement if made with a corporation or company for its general benefit.

6.10 Counterparts. This Settlement Agreement may be signed in counterparts by one or more of the Parties, and those counterparts, when taken together, shall have the same force and effect as if a single, original document had been signed by all the Parties.

6.11 Jurisdiction. The Decree Court retains jurisdiction over the Judgment and Decree and the Settlement Agreement.

6.12 Governing Law. This Settlement Agreement shall be construed in accordance with Federal laws and where appropriate the laws of the State of California.

6.13 Successors and Assigns. This Settlement Agreement and the attached waivers and agreements shall, unless otherwise indicated, be binding on and inure to the benefit of the Parties, and their respective successors and assigns.

6.14 Integration. This Settlement Agreement incorporates all the exhibits and sets forth the entire agreement of the Parties with respect to the subject matter hereof, with the exception that EMWD and MWD have resolved certain rights and obligations by way of a Partial Settlement Agreement dated November 14, 2001 which shall remain binding on those two Parties only. This Settlement Agreement may be amended only by written agreement executed by the Parties.

ARTICLE 7- NOTICE AND SIGNATURES

7.1 Notices. Any notice or other communication given under this Settlement Agreement must be in writing and delivered by overnight courier service or certified mail, return receipt requested, postage prepaid and properly addressed to the Parties at the addresses listed below (or to any other or further addresses the Parties may subsequently designate by notice in this manner). All these notices and communication shall be effective when delivery to the required recipient is completed in accordance with this paragraph:

To the Soboba Tribe:

Chairperson
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581

To the United States of America:
Asst. Secretary for Indian Affairs
U.S. Department of the Interior
1849 C St. NW 4104 MIB
Washington, DC 20240-0001
Chief, U.S. Dept. of Justice
Indian Resources Section
P.O. Box 44378
LôEnfant Plaza Station Washington, DC 20026-4378

cc: Regional Director
Bureau of Indian Affairs
Pacific Region
2800 Cottage Way
Sacramento, CA 95825

To EMWD:
General Manager
Eastern Municipal Water District
P.O. Box 8300
Perris, CA 92572-8300

To LHMWD:
General Manager
Lake Hemet Municipal Water District
2480 East Florida Avenue
P.O. Box 5039
Hemet, CA 92544

To MWD:
Chief Executive Officer
Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153

General Counsel
Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153

IN WITNESS WHEREOF, the Parties have executed this Settlement Agreement on the day and year written below.

SOBOBA BAND OF LUISEÑO INDIANS

Date: ___________

By:____
Robert J. Salgado Sr., Chairman

THE UNITED STATES OF AMERICA

Date: ___________ By:_______________________________________

THE EASTERN MUNICIPAL WATER DISTRICT

Date: ___________ By:_______________________________________
Randy A. Record, President

THE LAKE HEMET MUNICIPAL WATER DISTRICT

Date: ___________ By:_______________________________________
Joseph D. Van Sickle, President

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Date ___________ By:_______________________________________
Jeffrey Kightlinger, General Manager

EXHIBITS TO SETTLEMENT AGREEMENT

A. Soboba Settlement Act

B. Map of the Basin and San Jacinto River

C. Description of the Basin

D. Map of the Soboba Reservation

E Principles for Water Management

F. Map of the Water Management Plan Area

G. Description of the Water Management Plan Area

H. Judgment and Decree

I. Soboba Tribeôs Water Development Schedule

J. Description of EMWD Property

K. Description of MWD Property

L. Description of LHMWD Property

M. Map of Potential Soboba Reservation Lands for Habitat Preservation and/or Environmental Mitigation

Exhibit A – Soboba Settlement Act

SEC. 1. SHORT TITLE.

This Act may be cited as the ‘Soboba Band of Luiseño Indians Settlement Act’.

SEC. 2. FINDINGS AND PURPOSES.

(a) FINDINGS.– The Congress finds the following–

(1) The Soboba Band of Luiseño Indians is a federally-recognized Indian tribe whose Reservation of approximately 6,000 acres, extending east and north from the banks of San Jacinto River in Riverside County, California, was created by an Executive Order of June 19, 1883, and enlarged and modified by subsequent Executive Orders, purchases, and an Act of Congress.

(2) The Tribe’s water rights have not been quantified, and the Tribe has longstanding unresolved claims for interferences with the water resources of its Reservation, which the Tribe maintains have rendered much of the Tribe’s Reservation useless for habitation, livestock, or agriculture. On April 20, 2000, the Tribe filed a lawsuit against The Metropolitan Water District of Southern California for interference with the Tribe’s water resources and damages to its Reservation allegedly caused by Metropolitan’s construction and operation of the San Jacinto Tunnel, which is part of the Colorado River Aqueduct. The lawsuit, styled *Soboba Band of Luiseño Indians v. Metropolitan Water District of Southern California*, No. 00-04208 GAF (MANx), is pending in the United States District Court for the Central District of California.

(3) The Tribe also has made claims against Eastern Municipal Water District and Lake Hemet Municipal Water District, located adjacent to the Reservation, seeking to secure its water rights and damages arising from alleged past interference with the Tribe’s water resources.

(4) Recognizing that the final resolution of its water rights and claims through litigation will take many years and entail great expense to all parties, continue to limit the Tribe's access to water with economic, social, and cultural consequences to the Tribe, prolong uncertainty as to the availability of water supplies, and seriously impair the long-term economic planning and development of all parties, the Tribe and non-Indian entities have sought to settle their water-related disputes and reduce the burdens of litigation.

(5) After negotiations, which included participation by representatives of the Tribe, the United States, The Metropolitan Water District of Southern California, Eastern Municipal Water District, and Lake Hemet Municipal Water District, the parties have entered into a Settlement Agreement to determine the Tribe’s water rights, resolve all of its claims for interference with the water resources of, and damages to, its Reservation, and provide for the construction of water projects to facilitate the exercise of the Tribe's rights.

(6) Pursuant to the Settlement Agreement, Eastern Municipal Water District and Lake Hemet Municipal Water District acknowledge and assure the Tribe’s prior and paramount right, superior to all others, to pump 9,000 acre-feet of water annually from the San Jacinto River basin. To provide water to the Tribe and to

reduce the overdraft of the basin, the two water districts and The Metropolitan Water District of Southern California will contract to import and recharge supplemental water supplies into the basin. The water districts also will make substantial additional contributions to the settlement, including the conveyance of certain replacement lands and economic development funds to the Tribe, to carry out the Settlement Agreement's provisions.

(7) It is appropriate that the United States participate in the implementation of the Settlement Agreement, and contribute funds to enable the Tribe to use its water entitlement in developing its Reservation, and to assist the neighboring non-Indian entities in the construction, operation, and maintenance of the facilities required to recharge the imported water.

(b) PURPOSES.– The purposes of this Act are–

(1) to approve, ratify, and confirm the Settlement Agreement entered into by the Tribe and non-Indians entities;

(2) to authorize and direct the Secretary of the Interior to execute and perform the Settlement Agreement and related waivers;

(3) to authorize the actions, agreements, and appropriations as provided in the Settlement Agreement and this Act.

SEC. 3. DEFINITIONS.

In this Act–

(1) RESTORATION FUND.– The term ‘Restoration Fund’ means the San Jacinto Basin Restoration Fund established by section 6 of this Act.

(2) DEVELOPMENT FUND.– The term ‘Development Fund’ means the Soboba Band of Luiseño Indians Water Development Fund established by section 7 of this Act.

(3) RESERVATION.– The term ‘Reservation’ means the Soboba Indian Reservation created by an Executive Order dated June 19, 1883, and enlarged and modified by subsequent Executive Orders, purchases, and an Act of Congress, excluding the 950 acres northwest of and contiguous to the Reservation known as the “Jones Ranch,” purchased by the Soboba Tribe in fee on July 21, 2001, and placed into trust on January 13, 2003, the 129.19 acres southeast of and contiguous to the Reservation known as the “Horseshoe Properties,” purchased by the Soboba Tribe in fee in four separate transactions in June and December 2001, and the 478 acres north of and contiguous to the Reservation known as “Kwiili,” purchased by the Soboba Tribe in fee on April 4, 2004.

(4) SECRETARY.– The term ‘Secretary’ means the Secretary of the Interior or her designee.

(5) SETTLEMENT AGREEMENT.– The term ‘Settlement Agreement’ means that agreement dated ___________, 2004, together with all exhibits thereto. The parties to the Settlement Agreement are the Soboba Band of Luiseño Indians and its members, the United States on behalf of the Tribe and its members, The

Metropolitan Water District of Southern California, Eastern Municipal Water District, and Lake Hemet Municipal Water District.

(6) TRIBE, SOBOBA TRIBE, or SOBOBA BAND OF LUISEÑO INDIANS.– The terms ‘Tribe’, ‘Soboba Tribe’, or ‘Soboba Band of Luiseño Indians’ means the body politic and federally recognized Indian tribe, and its members.

(7) WATER MANAGEMENT PLAN.– The term ‘Water Management Plan’ means the plan, approved by the Soboba Tribe and the Secretary, developed pursuant to Section 4.8, paragraph A of the Settlement Agreement to resolve the overdraft of the San Jacinto basin.

SEC. 4. RATIFICATION OF SETTLEMENT AGREEMENT; AUTHORIZATION.

(a) IN GENERAL.– The United States hereby approves, ratifies, and confirms the Settlement Agreement, except to the extent it conflicts with the provisions of this Act, and consents to be made a party to the pending action described in section 2, paragraph (a)(2) of this Act for the purpose of entering the judgment and decree attached to the Settlement Agreement as Exhibit H.

(b) AUTHORIZATION.– The Secretary is authorized and directed to execute, and take such other actions as are necessary to implement, the Settlement Agreement and any amendments approved by the parties necessary to make the Settlement Agreement consistent with this Act.

SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

(a) RESTORATION FUND.– There is authorized to be appropriated to the San Jacinto Basin Restoration Fund established in section 6 of this Act the amount of $10,000,000 to pay or reimburse costs associated with constructing, operating, and maintaining the portion of the basin recharge project, described in Section 4.5 of the Settlement Agreement, necessary to accommodate deliveries of the supplemental imported water under Section 4.4 of the Settlement Agreement.

(b) DEVELOPMENT FUND.– There is authorized to be appropriated to the Soboba Band of Luiseño Indians Water Development Fund established in section 7 of this Act the amount of $11,000,000 to pay or reimburse costs associated with constructing, operating, and maintaining water and sewage infrastructure, and other water-related development projects.

SEC. 6. RESTORATION FUND.

(a) ESTABLISHMENT.– There shall be established within the Treasury of the United States a non-interest bearing account to be known as the ‘San Jacinto Basin Restoration Fund’, consisting of the amounts authorized to be appropriated in section 5, paragraph (a) of this Act.

(b) ADMINISTRATION.– The Restoration Fund shall be administered by the Secretary for the purposes set forth in paragraph (d) of this section.

(c) AVAILABILITY.– The funds authorized to be appropriated pursuant to section 5, paragraph (a) of this Act shall be available for expenditure or withdrawal only after the requirements set forth in section 9(e) of this Act and paragraph (d) of this section have been met.

(d) EXPENDITURES AND WITHDRAWALS.–

(1) EXPENDITURE PLAN.–

(A) IN GENERAL.– Eastern Municipal Water District, on behalf of the Water Management Plan, shall submit to the Secretary for approval an expenditure plan for use of the Restoration Fund.

(B) REQUIREMENTS.– The expenditure plan shall require that any funds be expended or reimbursed in accordance with the purposes described in section 5, paragraph (a) of this Act.

(C) APPROVAL.– The Secretary shall approve the expenditure plan if it is reasonable and not inconsistent with this Act.

(2) WITHDRAWALS.– On approval by the Secretary of the expenditure plan described in this section, Eastern Municipal Water District, on behalf of the Water Management Plan, may withdraw monies from the Restoration Fund as provided in the plan.

(3) ENFORCEMENT.– The Secretary may take judicial or administrative action to enforce the provisions of any expenditure plan to ensure that monies withdrawn from the Restoration Fund under the plan are used in accordance with this Act.

(4) LIABILITY.– If Eastern Municipal Water District, on behalf of the Water Management Plan, exercises the right to withdraw monies from the Restoration Fund, neither the Secretary nor the Secretary of the Treasury shall retain any liability for the expenditure or investment of the monies withdrawn.

(5) ANNUAL REPORT.– Eastern Municipal Water District shall submit to the Tribe and the Secretary an annual report that describes all expenditures from the Restoration Fund during the year covered by the report.

SEC. 7. DEVELOPMENT FUND.

(a) ESTABLISHMENT.– There shall be established within the Treasury of the United States an interest bearing account to be known as the ‘Soboba Band of Luiseño Indians Water Development Fund’, to be managed and invested by the Secretary, consisting of the amounts authorized to be appropriated in section 5, paragraph (b) of this Act.

(b) MANAGEMENT.– The Secretary shall manage the Development Fund, make investments, and make monies available for distribution consistent with the American Indian Trust Fund Management Reform Act of 1994 (25 U.S.C. 4001 et seq.) (referred to in this section as the ‘Trust Fund Reform Act’), this Act, and the Settlement Agreement.

(c) INVESTMENT.– The Secretary shall invest amounts in the Development Fund in accordance with–

(1) the Act of April 1, 1880 (21 Stat. 70, ch. 41, 25 U.S.C. 161);

(2) the first section of the Act of June 24, 1938 (52 Stat. 1037, ch. 648, 25 U.S.C. 162a); and

(3) paragraph (b) of this section.

(d) AVAILABILITY.– The funds authorized to be appropriated pursuant to section 5, paragraph (b) of this Act shall be available for expenditure or withdrawal only after the requirements set forth in section 9(e) of this Act and paragraph (e) below have been met.

(e) EXPENDITURES AND WITHDRAWALS.–

(1) TRIBAL MANAGEMENT PLAN.–

(A) IN GENERAL.– The Tribe may withdraw all or part of the Development Fund on approval by the Secretary of a tribal management plan as described in the Trust Fund Reform Act.

(B) REQUIREMENTS.– In addition to the requirements under the Trust Fund Reform Act, the tribal management plan shall require that any funds be expended or reimbursed in accordance with the purposes described in section 5, paragraph (b) of this Act.

(2) ENFORCEMENT.– The Secretary may take judicial or administrative action to enforce the provisions of any tribal management plan to ensure that monies withdrawn from the Development Fund under the plan are used in accordance with this Act.

(3) LIABILITY.– If the Tribe exercises the right to withdraw monies from the Development Fund, neither the Secretary nor the Secretary of the Treasury shall retain any liability for the expenditure or investment of the monies withdrawn.

(4) ANNUAL REPORT.– The Tribe shall submit to the Secretary an annual report that describes all expenditures from the Development Fund during the year covered by the report.

(5) NO PER CAPITA DISTRIBUTIONS.– No part of the Development Fund shall be distributed on a per capita basis to members of the Tribe.

SEC. 8. WAIVERS AND RELEASES.

(a) TRIBE AND UNITED STATES AUTHORIZATION.– The Tribe, on behalf of itself and its members, and the Secretary, on behalf of the United States in its capacity as trustee for the Tribe and its members, are authorized, as part of the performance of their obligations under the Settlement Agreement, to execute a waiver and release for claims under Federal, State, or other law against The Metropolitan Water District of Southern California, Eastern Municipal Water District and Lake Hemet Municipal Water District, for any and all–

(1) past, present, and future claims to surface and groundwater rights for the Reservation from time immemorial through the effective date described in section 10 of this Act and anytime thereafter;

(2) past, present, and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to,

interference with surface and groundwater rights and resources of the Reservation, including, but not limited to, all claims for injury to the Tribe's use and enjoyment of the Reservation, economic development, religion, language, social structure and culture, and injury to the natural resources of the Reservation, from time immemorial through the effective date described in section 10 of this Act;

(3) past, present, and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, continuing interference with surface and groundwater rights and resources of the Reservation, including the full scope of claims defined in Section 5.1, paragraph A(2) of the Settlement Agreement, to the extent that such continuing interference began prior to the effective date described in section 10 of this Act, from time immemorial through the effective date described in section 10 of this Act and anytime thereafter; and

(4) past, present, and future claims for injury of any kind, whether to person, property, or other right or interest, arising from, or in any way related to, seepage of water into the San Jacinto Tunnel, including the full scope of claims defined in Section 5.1, paragraph A(2) of the Settlement Agreement, from time immemorial through the effective date described in section 10 of this Act and anytime thereafter.

(b) TRIBAL WAIVERS AGAINST THE UNITED STATES.– The Tribe is authorized, as part of the performance of its obligations under the Settlement Agreement, to execute a waiver and release for claims against the United States (acting in its capacity as trustee for the Tribe or its members, or otherwise acting on behalf of the Tribe or its members), including any agencies, officials, or employees thereof, for any and all–

(1) claims described in paragraph (a) of this section;

(2) past, present, and future claims for failure to acquire or develop water rights and resources of the Reservation from time immemorial through the effective date described in section 10 of this Act and anytime thereafter;

(3) past, present, and future claims for failure to protect water rights and resources of the Reservation from time immemorial through the effective date described in section 10 of this Act, and any past, present, and future claims for any continuing failure to protect water rights and resources of the Reservation, from time immemorial through the effective date described in section 10 of this Act and, to the extent that such continuing failure to protect began before the effective date described in section 10 of this Act, anytime thereafter;

(4) past, present, and future claims arising from the failure of any non-federal Party to fulfill the terms of the Settlement Agreement at anytime; and

(5) past, present, and future claims arising out of the negotiation of the Settlement Agreement or the negotiation and enactment of this Act, or any specific terms or provisions thereof, including, but not limited to, the Tribe's consent to limit the number of participant parties to the Settlement Agreement.

SEC. 9. MISCELLANEOUS PROVISIONS.

(a) WAIVER OF SOVEREIGN IMMUNITY.– If any party to the Settlement Agreement brings an action or other proceeding in any court of the United States relating only and directly to the interpretation or enforcement of this Act or the Settlement Agreement and names the United States or the Soboba Tribe as a party–

(1) the United States, the Tribe, or both, may be joined in any such action; and

(2) any claim by the United States or the Tribe to sovereign immunity from the action is waived, other than with respect to claims for monetary awards, for the limited and sole purpose of such interpretation or enforcement.

(b) TRIBAL USE OF WATER.–

(1) IN GENERAL.– With respect to water rights made available under the Settlement Agreement–

(A) the Tribe may use water made available to it under the Settlement Agreement for any use it deems advisable on the Reservation and on any other lands it owns or may acquire, in fee or in trust, contiguous to the Reservation or within the area of the groundwater basin described in Section 2.4 of the Settlement Agreement;

(B) such water rights shall be held in trust by the United States in perpetuity, and shall not be subject to forfeiture or abandonment; and

(C) State law shall not apply to the Tribe's use of water made available to it under the Settlement Agreement.

(2) LIMITATION.–

(A) IN GENERAL.– Except as provided in paragraph (B) below, the Tribe shall not sell or lease water made available to it under the Settlement Agreement.

(B) EXCEPTION.– The Tribe may enter into contracts and options to lease, contracts and options to exchange, or contracts and options to forbear the use of water made available to it under the Settlement Agreement or postpone undertaking new or expanded water uses, provided that any such contract or option for a term greater than five years shall require the approval of the Secretary. Any such water thereby made available to others shall only be used by participants in, or other users within the area of, the Water Management Plan described in Section 2.32 of the Settlement Agreement. No contract shall be for a term exceeding one hundred years, nor shall any contract provide for permanent alienation of any portion of the water rights made available under the Settlement Agreement.

(c) ACCEPTANCE OF LAND INTO TRUST.– The Secretary shall accept into trust for the benefit of the Tribe the lands conveyed to the Tribe pursuant to Section 4.6 of the Settlement Agreement, which conveyed lands shall be considered for all purposes as if they were so acquired into trust status in 1937, except as to valid rights existing at the time of acquisition pursuant to this Act.

(d) HABITAT CONSERVATION.– The United States, in its capacity as trustee for the Tribe, and the Tribe in its own right shall make available, including, if necessary, by conveyance of a permanent easement to the United States Fish and Wildlife Service or other agency of the United States, up to 98 acres of Reservation land for habitat conservation related to the portion of the basin recharge project necessary to accommodate deliveries of the supplemental imported water described in Section 4.4 of the Settlement Agreement.

(e) AVAILABILITY OF APPROPRIATIONS.– The funds authorized to be appropriated under section 5 of this Act shall not be available for expenditure or withdrawal until the requirements of section 10(a) of this Act have been met and the waivers and releases set out in section 8 of this Act become effective.

(f) RETENTION OF RIGHTS.–

(1) In the event the waivers and releases set out in section 8 of this Act do not become effective pursuant to section 10(a) of this Act, the Soboba Tribe and the United States shall retain the right to assert all rights and claims enumerated in section 8, and any claims or defenses of the parties to the Settlement Agreement shall also be retained.

(2) The parties expressly reserve all rights not specifically granted, recognized, waived, or released by the Settlement Agreement or this Act.

(g) PRECEDENT.– Nothing in this Act shall be construed or interpreted as a precedent for the quantification or litigation of federal reserved water rights or the interpretation or administration of future water settlement Acts.

(h) OTHER INDIAN TRIBES.– Nothing in the Settlement Agreement or this Act shall be construed in any way to quantify or otherwise adversely affect the water rights, claims, or entitlements to water of any Indian tribe, band, or community, other than the Soboba Tribe.

(i) ENVIRONMENTAL COMPLIANCE.–

(1) Signing by the Secretary of the Settlement Agreement does not constitute major Federal action under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

(2) The Secretary shall comply with all aspects of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), and other applicable environmental laws, in implementing the terms of the Settlement Agreement and this Act.

SEC. 10. EFFECTIVE DATE.

(a) IN GENERAL.– The waiver and release authorizations contained in subsections (b) and (c) of section 8 of this Act shall become effective as of the date the Secretary causes to be published in the Federal Register a statement of findings that–

(1) this Act has been enacted;

(2) to the extent that the Settlement Agreement conflicts with this Act, the Settlement Agreement has been revised to conform with the Act;

(3) the Settlement Agreement, revised as necessary, and the waivers and releases described in Article 5 of the Settlement Agreement and section 8 of this Act have been executed by the parties and the Secretary;

(4) warranty deeds for the property to be conveyed to the Tribe described in section 4.6 of the Settlement Agreement have been placed in escrow;

(5) the Tribe and the Secretary have approved the Water Management Plan;

(6) the judgment and decree attached to the Settlement Agreement as Exhibit H has been approved by the United States District Court, Eastern Division of the Central District of California, and that judgment and decree have become final and nonappealable; and

(7) the payment of the funds authorized by section 5 of this Act have been appropriated and deposited into the Restoration Fund and the Development Fund.

(b) DEADLINE FOR EFFECTIVE DATE.– If the conditions precedent required under paragraph (a) of this section have not been fulfilled by December 31, 2007, the Settlement Agreement and this Act shall not thereafter be effective and shall be null and void. Any funds and the interest accrued thereon appropriated pursuant to section 5 shall revert to the general fund of the United States Treasury on October 1, 2008.

Exhibit B
Map of the Basin and the San Jacinto River

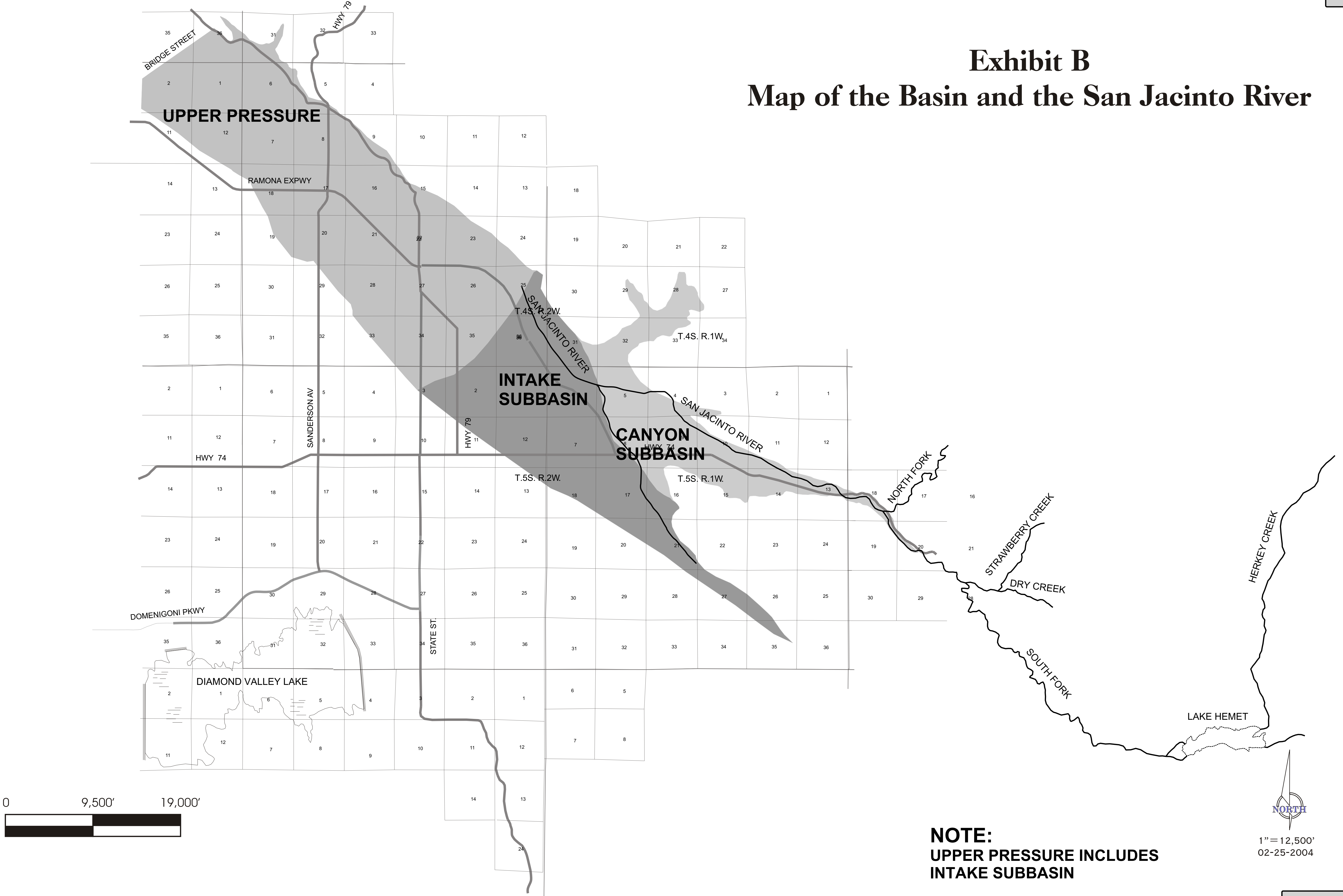

NOTE:
UPPER PRESSURE INCLUDES INTAKE SUBBASIN

Exhibit C – Description of the Basin

Legal Description for Canyon Sub-basin

Beginning at a point lying North 03-03-37 East, a distance of 8693.42 feet from the north one quarter corner of Section 7, Township 5 South, Range 1 East, S.B.B. & M.:

Thence South 33-29-10 East, a distance of 1188.9727
Thence South 20-26-50 East, a distance of 500.9370
Thence South 27-28-23 East, a distance of 428.6517
Thence South 31-35-33 East, a distance of 630.8741
Thence South 21-07-46 East, a distance of 910.5965
Thence South 18-48-47 East, a distance of 1015.1730
Thence South 24-22-09 East, a distance of 638.3066
Thence South 14-50-24 East, a distance of 1778.9616
Thence South 09-47-36 East, a distance of 1132.4407
Thence South 10-53-51 East, a distance of 909.1444
Thence South 21-23-19 East, a distance of 960.3948
Thence South 16-05-57 East, a distance of 627.4825
Thence South 17-13-52 East, a distance of 1029.1928
Thence South 26-09-14 East, a distance of 249.2721
Thence South 46-45-44 East, a distance of 1246.0249
Thence South 45-42-20 East, a distance of 804.0414
Thence South 53-45-51 East, a distance of 494.8303
Thence South 41-51-15 East, a distance of 662.8068
Thence South 37-57-12 East, a distance of 682.2970
Thence South 44-35-54 East, a distance of 598.8896
Thence South 31-20-45 East, a distance of 1101.0137
Thence South 37-47-48 East, a distance of 1333.2990
Thence South 55-04-55 East, a distance of 865.4271
Thence South 61-29-59 East, a distance of 379.0620
Thence South 66-22-49 East, a distance of 339.4363
Thence South 42-07-01 East, a distance of 362.8961
Thence South 59-20-26 East, a distance of 310.8241
Thence North 44-35-20 West, a distance of 271.0057
Thence North 27-14-21 West, a distance of 679.4763
Thence North 09-26-25 West, a distance of 669.1250
Thence North 15-50-43 West, a distance of 716.4738
Thence North 22-47-41 West, a distance of 436.5304
Thence North 20-37-42 West, a distance of 399.1550
Thence North 05-56-49 West, a distance of 259.3960
Thence North 12-05-28 West, a distance of 264.3646
Thence North 14-27-19 East, a distance of 118.1782
Thence North 50-21-25 East, a distance of 158.1102
Thence North 65-13-15 East, a distance of 328.2188
Thence North 82-49-41 East, a distance of 264.3181
Thence South 84-49-29 East, a distance of 420.5895
Thence South 77-19-12 East, a distance of 411.1524
Thence South 62-03-23 East, a distance of 453.0744
Thence South 53-30-14 East, a distance of 237.5929
Thence South 57-59-51 East, a distance of 266.6488
Thence South 66-45-48 East, a distance of 360.0835
Thence South 74-02-50 East, a distance of 326.3171
Thence South 70-08-39 East, a distance of 314.8424
Thence South 63-01-30 East, a distance of 234.3736
Thence South 35-38-22 East, a distance of 237.4798

Exhibit C – Description of the Basin

57 Thence South 42-04-07 East, a distance of 284.3200
58 Thence South 48-59-46 East, a distance of 322.1632
59 Thence South 55-05-28 East, a distance of 338.9985
60 Thence South 76-41-52 East, a distance of 627.2030
61 Thence South 80-50-12 East, a distance of 689.1699
62 Thence South 68-34-43 East, a distance of 243.1736
63 Thence South 51-17-14 East, a distance of 422.9187
64 Thence South 23-13-07 East, a distance of 305.0162
65 Thence South 17-07-37 East, a distance of 348.0598
66 Thence South 20-36-34 East, a distance of 243.2560
67 Thence South 77-20-44 East, a distance of 411.1112
68 Thence North 88-22-32 East, a distance of 489.4467
69 Thence South 89-35-23 East, a distance of 209.5054
70 Thence South 77-48-51 East, a distance of 428.1470
71 Thence South 46-33-41 East, a distance of 358.4156
72 Thence South 54-02-09 East, a distance of 300.5375
73 Thence North 76-21-42 East, a distance of 288.1242
74 Thence North 17-30-54 East, a distance of 237.5765
75 Thence North 16-48-48 East, a distance of 309.4149
76 Thence North 34-06-01 East, a distance of 125.9718
77 Thence North 84-56-56 East, a distance of 368.4308
78 Thence South 89-35-24 East, a distance of 227.1308
79 Thence South 79-15-43 East, a distance of 390.4622
80 Thence South 89-35-24 East, a distance of 751.1442
81 Thence North 68-02-21 East, a distance of 321.0451
82 Thence North 76-24-34 East, a distance of 144.1615
83 Thence North 82-57-46 East, a distance of 405.0514
84 Thence North 77-54-02 East, a distance of 322.0287
85 Thence South 66-25-23 East, a distance of 265.9506
86 Thence South 68-58-41 East, a distance of 149.3127
87 Thence North 54-52-10 East, a distance of 300.6385
88 Thence North 29-27-12 East, a distance of 179.7287
89 Thence North 56-43-55 East, a distance of 251.9098
90 Thence South 81-28-20 East, a distance of 370.4709
91 Thence South 78-57-07 East, a distance of 284.3959
92 Thence South 67-47-29 East, a distance of 470.2621
93 Thence South 83-24-48 East, a distance of 650.0405
94 Thence South 87-51-03 East, a distance of 576.6556
95 Thence North 81-40-49 East, a distance of 229.7933
96 Thence South 89-34-59 East, a distance of 524.0139
97 Thence South 80-08-29 East, a distance of 424.8993
98 Thence South 68-58-59 East, a distance of 149.1738
99 Thence South 85-18-12 East, a distance of 700.7279
100 Thence North 69-21-28 East, a distance of 243.2410
101 Thence North 83-18-13 East, a distance of 140.9616
102 Thence North 87-02-55 East, a distance of 297.3945
103 Thence South 84-24-08 East, a distance of 385.7145
104 Thence South 73-38-13 East, a distance of 381.5806
105 Thence South 60-46-31 East, a distance of 398.7573
106 Thence South 44-33-51 East, a distance of 197.5537
107 Thence South 44-36-26 East, a distance of 148.2746
108 Thence South 80-51-20 East, a distance of 229.6689
109 Thence South 77-41-23 East, a distance of 339.1733
110 Thence South 80-08-20 East, a distance of 106.1940
111 Thence South 74-17-21 East, a distance of 199.1918
112 Thence South 63-03-57 East, a distance of 156.1926

Attachment: J - Water Supply Assessment (2 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Exhibit C – Description of the Basin

113 Thence South 89-35-24 East, a distance of 139.7536
114 Thence North 69-52-16 East, a distance of 149.1074
115 Thence South 74-22-05 East, a distance of 199.2446
116 Thence South 54-02-09 East, a distance of 150.2688
117 Thence South 57-32-02 East, a distance of 164.7486
118 Thence South 80-08-39 East, a distance of 212.5112
119 Thence South 81-28-20 East, a distance of 246.9807
120 Thence South 57-34-32 East, a distance of 164.8208
121 Thence South 59-51-45 East, a distance of 281.7053
122 Thence South 49-18-45 East, a distance of 297.3849
123 Thence South 53-35-18 East, a distance of 237.6448
124 Thence South 41-33-00 East, a distance of 235.0086
125 Thence South 49-00-08 East, a distance of 483.1160
126 Thence South 55-49-43 East, a distance of 125.8518
127 Thence South 44-35-25 East, a distance of 123.5701
128 Thence South 44-36-30 East, a distance of 271.6237
129 Thence South 44-36-10 East, a distance of 197.5973
130 Thence South 31-11-39 East, a distance of 266.6825
131 Thence South 29-50-24 East, a distance of 242.6743
132 Thence South 26-09-18 East, a distance of 273.3663
133 Thence South 28-55-20 East, a distance of 320.7559
134 Thence South 44-37-15 East, a distance of 247.0063
135 Thence South 39-21-54 East, a distance of 136.3797
136 Thence South 39-30-43 East, a distance of 1115.9357
137 Thence South 56-57-13 East, a distance of 518.5041
138 Thence South 32-18-58 East, a distance of 290.6424
139 Thence South 54-36-52 East, a distance of 213.2716
140 Thence South 47-36-34 East, a distance of 234.9146
141 Thence South 44-35-24 East, a distance of 172.8920
142 Thence South 35-05-29 East, a distance of 150.2478
143 Thence South 59-20-24 East, a distance of 242.6739
144 Thence South 59-19-30 East, a distance of 242.5664
145 Thence South 89-35-24 East, a distance of 139.7536
146 Thence South 89-35-24 East, a distance of 139.7536
147 Thence South 89-35-23 East, a distance of 52.3763
148 Thence North 67-16-06 East, a distance of 132.9522
149 Thence North 00-24-32 East, a distance of 52.5643
150 Thence North 33-16-47 West, a distance of 62.8730
151 Thence North 58-37-01 West, a distance of 203.6710
152 Thence North 47-58-30 West, a distance of 210.3380
153 Thence North 50-17-39 West, a distance of 248.1038
154 Thence North 41-34-22 West, a distance of 235.0915
155 Thence North 35-34-47 West, a distance of 237.6102
156 Thence North 52-44-11 West, a distance of 261.9812
157 Thence North 49-21-11 West, a distance of 297.5341
158 Thence North 49-21-20 West, a distance of 297.3572
159 Thence North 44-34-50 West, a distance of 271.7576
160 Thence North 38-15-35 West, a distance of 335.4983
161 Thence North 27-27-57 West, a distance of 336.0671
162 Thence North 50-30-00 West, a distance of 360.1165
163 Thence North 21-23-39 West, a distance of 470.1461
164 Thence North 10-11-56 West, a distance of 284.4954
165 Thence North 07-44-11 West, a distance of 246.9982
166 Thence North 19-33-17 West, a distance of 204.2826
167 Thence North 41-52-09 West, a distance of 259.7636
168 Thence North 63-00-09 West, a distance of 429.5609

Exhibit C – Description of the Basin

169 Thence North 43-07-25 West, a distance of 481.8419
170 Thence North 42-44-17 West, a distance of 382.9316
171 Thence North 28-24-46 West, a distance of 398.7864
172 Thence North 28-23-07 West, a distance of 398.6130
173 Thence North 38-46-12 West, a distance of 608.4346
174 Thence North 72-21-04 West, a distance of 530.2057
175 Thence North 77-53-41 West, a distance of 517.3797
176 Thence North 84-31-51 West, a distance of 596.0885
177 Thence North 68-33-48 West, a distance of 486.5318
178 Thence North 67-12-28 West, a distance of 642.2768
179 Thence North 76-42-02 West, a distance of 627.0671
180 Thence North 60-32-28 West, a distance of 899.1237
181 Thence North 75-54-13 West, a distance of 665.1543
182 Thence North 66-23-19 West, a distance of 665.0515
183 Thence North 80-51-29 West, a distance of 459.4613
184 Thence North 74-27-13 West, a distance of 669.4943
185 Thence North 63-02-06 West, a distance of 312.4704
186 Thence North 73-53-13 West, a distance of 580.5569
187 Thence North 76-51-43 West, a distance of 555.1563
188 Thence North 72-03-23 West, a distance of 347.9228
189 Thence North 71-08-13 West, a distance of 497.2030
190 Thence North 69-01-58 West, a distance of 746.1565
191 Thence North 46-26-06 West, a distance of 382.9739
192 Thence North 55-28-34 West, a distance of 654.0611
193 Thence North 65-37-13 West, a distance of 516.0126
194 Thence North 73-38-41 West, a distance of 508.7107
195 Thence North 70-36-46 West, a distance of 591.0123
196 Thence North 69-01-55 West, a distance of 447.6429
197 Thence North 64-48-32 West, a distance of 1750.7575
198 Thence North 68-24-13 West, a distance of 917.8053
199 Thence North 68-02-33 West, a distance of 1427.2827
200 Thence North 64-07-22 West, a distance of 1625.0677
201 Thence North 43-46-42 West, a distance of 876.7911
202 Thence North 47-49-40 West, a distance of 655.7561
203 Thence North 61-41-57 West, a distance of 335.8997
204 Thence North 51-42-49 West, a distance of 199.2231
205 Thence North 48-40-34 West, a distance of 346.7099
206 Thence North 47-34-33 West, a distance of 235.0408
207 Thence North 36-26-36 West, a distance of 174.6548
208 Thence North 09-53-20 East, a distance of 106.2668
209 Thence South 78-41-19 East, a distance of 462.3561
210 Thence South 74-50-24 East, a distance of 343.1933
211 Thence South 79-53-51 East, a distance of 726.5141
212 Thence South 82-28-31 East, a distance of 422.3874
213 Thence North 74-29-44 East, a distance of 254.3821
214 Thence North 67-11-37 East, a distance of 399.0744
215 Thence North 60-41-37 East, a distance of 281.6756
216 Thence North 79-05-27 East, a distance of 445.1700
217 Thence North 00-26-51 East, a distance of 192.0059
218 Thence North 31-36-58 West, a distance of 164.7668
219 Thence North 80-07-13 West, a distance of 637.4534
220 Thence North 79-17-00 West, a distance of 585.8427
221 Thence North 83-52-06 West, a distance of 702.1421
222 Thence North 81-40-22 West, a distance of 634.8176
223 Thence North 71-46-52 West, a distance of 513.7552
224 Thence North 78-48-11 West, a distance of 746.7136

Exhibit C – Description of the Basin

225 Thence North 70-26-56 West, a distance of 905.9868
226 Thence North 65-52-49 West, a distance of 2823.3710
227 Thence North 52-03-27 West, a distance of 1519.7285
228 Thence North 36-15-37 West, a distance of 1023.5333
229 Thence North 28-50-12 West, a distance of 1501.3573
230 Thence North 03-16-40 East, a distance of 699.5825
231 Thence North 40-00-38 East, a distance of 657.5376
232 Thence North 55-55-24 East, a distance of 339.1029
233 Thence North 56-42-53 East, a distance of 377.8643
234 Thence North 26-59-25 East, a distance of 312.6105
235 Thence North 71-58-47 East, a distance of 497.0045
236 Thence North 80-06-42 East, a distance of 585.9547
237 Thence South 87-23-25 East, a distance of 454.3462
238 Thence North 42-41-35 East, a distance of 519.3043
239 Thence North 65-30-29 East, a distance of 539.2736
240 Thence North 85-13-27 East, a distance of 192.9198
241 Thence South 77-48-22 East, a distance of 428.1601
242 Thence South 79-18-05 East, a distance of 195.2692
243 Thence North 69-51-14 East, a distance of 298.5136
244 Thence North 28-19-28 East, a distance of 335.9044
245 Thence North 31-22-11 East, a distance of 305.6825
246 Thence North 56-01-15 East, a distance of 402.0238
247 Thence North 82-39-26 East, a distance of 387.8052
248 Thence North 78-08-24 East, a distance of 411.1519
249 Thence North 60-22-03 East, a distance of 383.3919
250 Thence North 59-26-14 East, a distance of 203.6705
251 Thence North 05-12-58 East, a distance of 210.3711
252 Thence North 54-35-53 West, a distance of 426.4772
253 Thence North 11-40-50 West, a distance of 250.0533
254 Thence North 49-48-05 East, a distance of 161.0345
255 Thence North 48-23-44 East, a distance of 235.0392
256 Thence North 00-24-37 East, a distance of 174.5675
257 Thence North 23-13-24 West, a distance of 304.9592
258 Thence North 70-45-15 East, a distance of 259.7676
259 Thence South 78-49-18 East, a distance of 373.3326
260 Thence South 72-19-46 East, a distance of 530.4007
261 Thence North 68-01-44 East, a distance of 321.0687
262 Thence North 61-21-05 East, a distance of 179.8988
263 Thence North 15-39-15 East, a distance of 199.2007
264 Thence North 00-24-37 East, a distance of 174.5675
265 Thence North 09-52-20 West, a distance of 195.3932
266 Thence North 38-41-05 West, a distance of 359.9806
267 Thence North 38-15-35 West, a distance of 335.4983
268 Thence North 24-47-03 West, a distance of 328.3020
269 Thence North 18-01-30 West, a distance of 220.9698
270 Thence North 00-27-21 East, a distance of 157.1300
271 Thence North 24-36-33 West, a distance of 289.0680
272 Thence North 26-08-49 West, a distance of 195.4380
273 Thence North 37-10-21 West, a distance of 286.5286
274 Thence North 71-10-31 West, a distance of 276.0141
275 Thence North 89-35-24 West, a distance of 366.7594
276 Thence North 47-18-37 West, a distance of 259.8516
277 Thence North 02-26-15 West, a distance of 349.7545
278 Thence North 02-27-48 West, a distance of 125.0526
279 Thence North 02-27-50 West, a distance of 78.5106
280 Thence North 02-27-01 West, a distance of 146.1957

Exhibit C – Description of the Basin

281 Thence North 05-17-26 West, a distance of 351.1208
282 Thence North 29-50-24 West, a distance of 242.6743
283 Thence North 87-54-29 West, a distance of 594.1460
284 Thence South 25-25-45 West, a distance of 289.0690
285 Thence South 07-33-35 West, a distance of 54.1577
286 Thence South 07-31-36 West, a distance of 368.3617
287 Thence South 15-40-43 West, a distance of 398.2550
288 Thence South 21-34-12 West, a distance of 580.7325
289 Thence South 17-07-05 West, a distance of 546.9813
290 Thence South 18-03-11 West, a distance of 403.3575
291 Thence South 25-37-23 West, a distance of 328.0751
292 Thence South 34-42-09 West, a distance of 465.0331
293 Thence South 25-01-48 West, a distance of 461.1868
294 Thence South 54-23-57 West, a distance of 475.1916
295 Thence South 69-37-52 West, a distance of 541.7496
296 Thence North 73-56-54 West, a distance of 453.4280
297 Thence North 48-34-43 West, a distance of 532.4290
298 Thence North 28-23-07 West, a distance of 398.6121
299 Thence North 54-35-53 West, a distance of 426.4777
300 Thence North 16-41-42 West, a distance of 237.5764
301 Thence North 12-06-59 West, a distance of 322.1772
302 Thence North 33-16-47 West, a distance of 251.7194
303 Thence North 60-46-31 West, a distance of 398.7569
304 Thence North 40-31-06 West, a distance of 346.7031
305 Thence North 29-18-46 West, a distance of 281.6207
306 Thence North 31-34-49 West, a distance of 329.6291
307 Thence North 65-37-55 West, a distance of 344.1602
308 Thence North 33-16-48 West, a distance of 314.8173
309 Thence North 40-10-53 West, a distance of 160.9938
310 Thence South 48-09-08 West, a distance of 259.5913
311 Thence South 05-10-56 West, a distance of 210.3598
312 Thence South 01-52-06 East, a distance of 437.1073
313 Thence South 17-14-28 East, a distance of 403.1796
314 Thence South 16-17-52 East, a distance of 546.9801
315 Thence South 17-24-29 East, a distance of 513.9131
316 Thence South 44-35-54 East, a distance of 296.2405
317 Thence South 40-10-11 East, a distance of 322.2593
318 Thence South 35-07-29 East, a distance of 300.4644
319 Thence South 31-25-13 East, a distance of 596.0948
320 Thence South 27-28-50 East, a distance of 335.9003
321 Thence South 04-21-44 East, a distance of 210.3594
322 Thence South 42-01-35 West, a distance of 210.4263
323 Thence South 45-23-50 West, a distance of 197.5089
324 Thence South 52-08-16 West, a distance of 422.9006
325 Thence South 45-24-36 West, a distance of 469.3541
326 Thence South 70-25-56 West, a distance of 408.8638
327 Thence South 66-59-15 West, a distance of 571.0711
328 Thence South 33-18-10 West, a distance of 353.7851
329 Thence South 37-17-32 West, a distance of 349.2845
330 Thence South 49-29-46 West, a distance of 346.7099
331 Thence South 65-13-51 West, a distance of 328.1924
332 Thence South 55-43-12 West, a distance of 276.0820
333 Thence South 59-26-46 West, a distance of 407.4482
334 Thence South 55-41-57 West, a distance of 385.3996
335 Thence South 74-49-34 West, a distance of 746.6568
336 Thence South 88-29-17 West, a distance of 502.1748

Exhibit C – Description of the Basin

Thence North 70-28-56 West, a distance of 460.1936
Thence North 69-36-20 West, a distance of 783.2207
Thence North 43-33-28 West, a distance of 939.4676
Thence South 90-00-00 East, a distance of 0.0000
to the point of beginning.

Perimeter: 140686.1563

Area: 191218952.8402 4389.7831 acres

Legal Description for Intake Sub-basin

Beginning at a point lying North 03-03-37 East, a distance of 8693.42 feet from the north one quarter corner of Section 7, Township 5 South, Range 1 East, S.B.B. & M.:

Thence North 43-33-19 West, a distance of 1036.0201
Thence North 40-54-46 West, a distance of 2583.7541
Thence North 31-11-35 West, a distance of 1531.8376
Thence North 29-04-17 West, a distance of 883.9252
Thence North 09-00-43 East, a distance of 1454.7700
Thence North 54-11-24 West, a distance of 779.7834
Thence North 87-31-53 West, a distance of 469.5258
Thence South 14-02-10 West, a distance of 1192.3299
Thence South 19-44-49 West, a distance of 1658.1895
Thence South 20-33-22 West, a distance of 1709.5454
Thence South 30-34-45 West, a distance of 1022.5993
Thence South 37-11-05 West, a distance of 1456.6566
Thence South 37-20-58 West, a distance of 1912.8988
Thence South 36-19-37 West, a distance of 1688.8119
Thence South 47-17-26 West, a distance of 1415.9609
Thence South 51-20-25 West, a distance of 1024.9459
Thence South 62-35-33 West, a distance of 1217.0825
Thence South 67-50-01 West, a distance of 1166.6981
Thence South 53-21-57 West, a distance of 2545.3471
Thence South 51-32-23 East, a distance of 1521.6193
Thence South 52-06-41 East, a distance of 3640.2127
Thence South 54-16-42 East, a distance of 2832.0686
Thence South 54-45-45 East, a distance of 8093.9477
Thence South 66-45-32 East, a distance of 1985.2225
Thence South 63-00-45 East, a distance of 1076.6119
Thence South 57-44-44 East, a distance of 10768.6202
Thence South 52-42-56 East, a distance of 2888.8756
Thence South 55-53-51 East, a distance of 6249.5878
Thence South 52-42-56 East, a distance of 2888.8756
Thence South 53-45-11 East, a distance of 2138.0014
Thence South 64-43-22 East, a distance of 2206.1030
Thence North 46-42-44 West, a distance of 156.7825
Thence North 44-35-15 West, a distance of 405.2711
Thence North 46-18-48 West, a distance of 669.1426
Thence North 37-52-35 West, a distance of 693.8574
Thence North 34-17-42 West, a distance of 906.2395
Thence North 33-57-07 West, a distance of 659.8059
Thence North 44-35-16 West, a distance of 608.0830
Thence North 46-47-40 West, a distance of 1054.3274
Thence North 48-19-10 West, a distance of 1868.4824
Thence North 56-06-31 West, a distance of 2130.4779
Thence North 66-07-44 West, a distance of 1655.6256
Thence North 58-12-53 West, a distance of 1376.2780
Thence North 41-24-29 West, a distance of 730.8163
Thence North 41-13-30 West, a distance of 345.0212
Thence North 26-08-55 West, a distance of 384.6138
Thence North 13-37-46 West, a distance of 354.3535
Thence North 41-34-35 West, a distance of 385.5755
Thence North 42-50-20 West, a distance of 669.1777

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Exhibit C – Description of the Basin (Continued)

Thence North 50-29-55 West, a distance of 1181.6210
Thence North 31-24-48 West, a distance of 978.2580
Thence North 26-09-14 West, a distance of 704.9949
Thence North 08-33-23 West, a distance of 551.1343
Thence North 10-42-42 East, a distance of 640.9180
Thence North 35-06-54 East, a distance of 453.0875
Thence North 45-23-44 East, a distance of 243.3389
Thence North 52-32-18 East, a distance of 326.7674
Thence North 00-25-00 East, a distance of 171.8795
Thence North 34-34-34 West, a distance of 349.7803
Thence North 44-35-13 West, a distance of 337.0774
Thence North 59-20-26 West, a distance of 310.8241
Thence North 42-07-01 West, a distance of 362.8961
Thence North 66-22-49 West, a distance of 339.4363
Thence North 61-29-59 West, a distance of 379.0620
Thence North 55-04-55 West, a distance of 865.4271
Thence North 37-47-48 West, a distance of 1333.2990
Thence North 31-20-45 West, a distance of 1101.0137
Thence North 44-35-54 West, a distance of 598.8896
Thence North 37-57-12 West, a distance of 682.2970
Thence North 41-51-15 West, a distance of 662.8068
Thence North 53-45-51 West, a distance of 494.8303
Thence North 45-42-20 West, a distance of 804.0414
Thence North 46-45-44 West, a distance of 1246.0249
Thence North 26-09-14 West, a distance of 249.2721
Thence North 17-13-52 West, a distance of 1029.1928
Thence North 16-05-57 West, a distance of 627.4825
Thence North 21-23-19 West, a distance of 960.3948
Thence North 10-53-51 West, a distance of 909.1444
Thence North 09-47-36 West, a distance of 1132.4407
Thence North 14-50-24 West, a distance of 1778.9616
Thence North 24-22-09 West, a distance of 638.3066
Thence North 18-48-47 West, a distance of 1015.1730
Thence North 21-07-46 West, a distance of 910.5965
Thence North 31-35-33 West, a distance of 630.8741
Thence North 27-28-23 West, a distance of 428.6517
Thence North 20-26-50 West, a distance of 500.9370
Thence North 33-29-10 West, a distance of 1188.9727
Thence South 90-00-00 East, a distance of 0.0000
to the point of beginning.

Perimeter: 115214.4657

Area: 308717524.7511 7087.1792 acres

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Exhibit D - Map of the Soboba Reservation

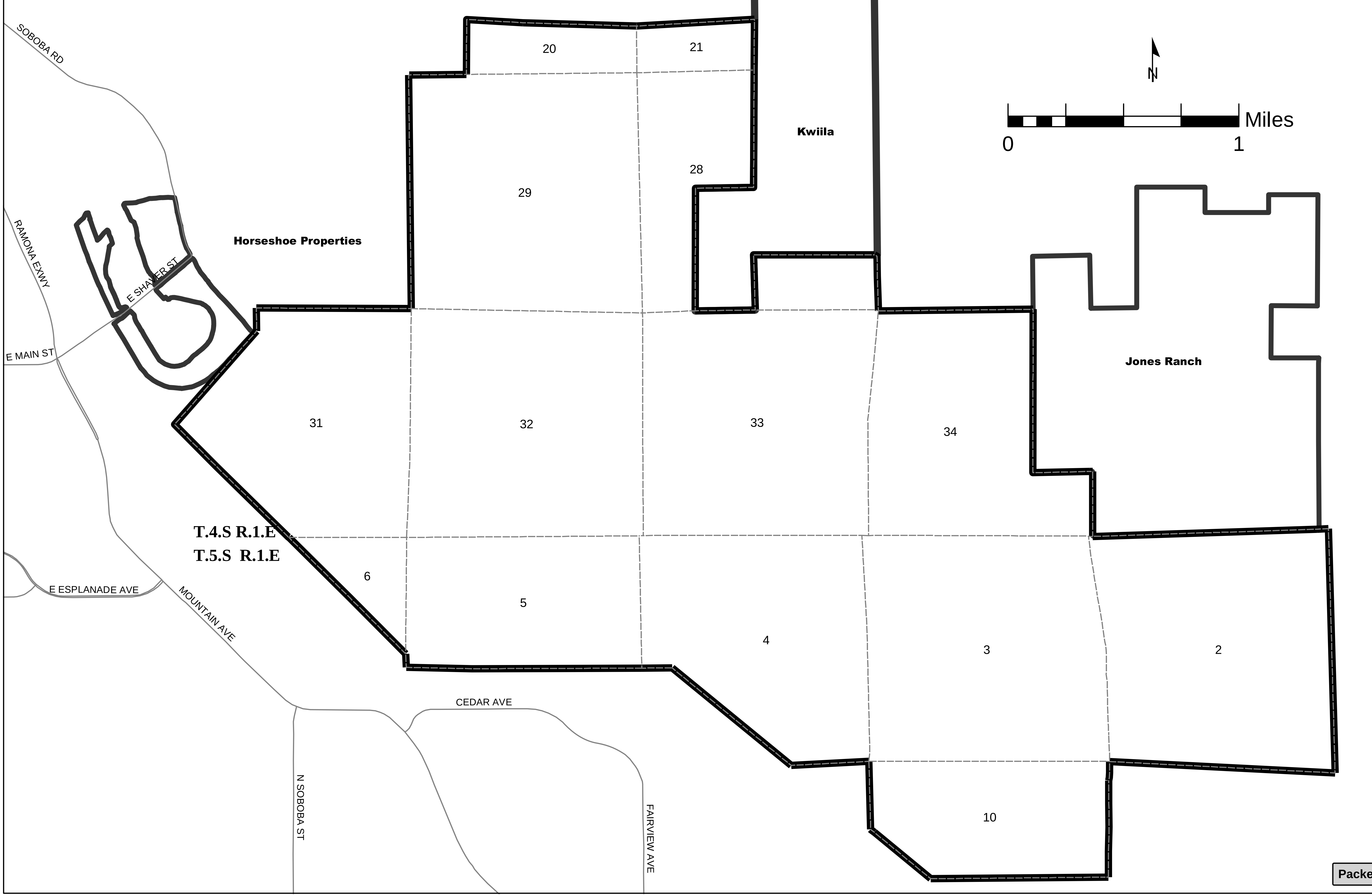

PRINCIPLES FOR WATER MANAGEMENT

1. Water Management Plan. These Principles, approved by the appropriate authority of each party, are intended to form the basis from which the parties will develop a Water Management Plan ("Management Plan") for the area described in Section 2. The Management Plan is being developed to ensure an adequate and reliable source of future water supply. The Management Plan is also intended to facilitate and accommodate a settlement of the claims of the Soboba Band of Luiseno Indians ("Soboba Tribe").

2. Management Area. The area included in the Management Plan consists of the Canyon Sub-basin and the San Jacinto Upper Pressure Sub-basin, downstream to Bridge Street, and the Hemet Basins ("Management Area"). The Management Area is shown upon the attached map.

3. Pumpers within the Management Area. The primary pumpers within the Management Area are: Eastern Municipal Water District ("Eastern"), Lake Hemet Municipal Water District ("Lake Hemet"), City of San Jacinto ("San Jacinto"), and City of Hemet ("Hemet") (individually

"Public Agency," collectively "Public Agencies"); the Soboba Tribe (not a Management Plan participant); and approximately 62 individual agricultural and other private pumpers who pump more than 25 acre-feet per year ("Private Pumpers").

4. Goals. The parties agree that the Management Plan shall incorporate and serve to implement the following goals:

A. Allowing for Future Urban Growth. The parties acknowledge that the Management Area will continue to experience residential, commercial, and industrial growth and development, and that existing water production and service systems will need to be expanded to meet this growth. It is estimated that at least 15,000 afy incremental water supply capacity over the existing base production rights of the Public Agencies must be dedicated to adequately serve this growth. The Management Plan should serve and provide a clear planning process so that each affected Public Agency will be able to meet these projected growth needs.

B. Water Quality Protection. Implementation of the Management Plan should protect and/or enhance Management Area water quality. However, implementation of certain elements of the Management Plan may cause limited localized water quality degradation. If such degradation impedes the then current beneficial use of any Public Agency in the Management Area, the Watermaster described in Section 22 ("Watermaster") shall implement appropriate mitigation measures to ensure water supply to the affected Public Agency and bear the associated costs. The standards for local water quality degradation shall be defined in the Management Plan.

C. Cost-Effective Management. The Management Plan should serve to support the pursuit of cost-effective water supply and water treatment by the Public Agencies, both individually and collectively.

D. Overdraft. The groundwater levels within the Management Area have generally been declining for a number of years, and the Management Area is presently in a condition of overdraft. It is recognized that the Management Plan will, within a reasonable period, eliminate groundwater overdraft and enhance operational yield by implementing a combination of available water resources management elements. These elements include: reduction in native groundwater production; enhanced recharge with native, imported and/or recycled water; development of supplemental supplies such as imported and recycled water; and water conservation programs.

E. Monitoring. The Watermaster shall implement a monitoring program to ensure the Management Plan activities follow best management and engineering principles to protect Management Area water resources.

5. Public Agencies Base Production Rights.

A. The base production rights of Eastern, Lake Hemet and Hemet in the first year of the Management Plan shall be based upon their average production for calendar years 1995-1999. This period was chosen to reflect these Public Agencies' recent pumping, and shall determine their base production rights.

B. The base production right of San Jacinto in the first year of the Management Plan, shall be based upon its average production for calendar years 1995-1999, plus 500 afy. The 500 afy is added because San Jacinto's recent production does not reflect its historic production because of water purchases and other factors.

C. Pursuant to Section 21 below, for the life of the Management Plan, Hemet and San Jacinto shall each add an additional 900 afy to their base production rights. The additional 900 afy shall not be subject to reduction by the Watermaster as provided in Section 5.D and shall not be subject to any Administrative or Replenishment Assessments as provided in Section 6, or other fee or charge imposed under the Management Plan.

D. It is the goal of the Management Plan to adjust base production rights over time to a level consistent with the Watermaster's calculation of the Public Agencies' share of safe yield for the Management Area. Based on current information, it appears that the total reduction in base production rights will need to be approximately 35%. The ultimate reduction will be based on periodic demand, hydrology, recharge and availability of imported water. In order to implement this reduction in a phased manner, each Public Agency's base production rights shall be subject to adjustment as follows:

(1) A 10% reduction from the base production rights in the first year of the Management Plan; and

(2) Until base production rights are consistent with the Public Agencies' share of safe yield, Watermaster shall determine the reductions in base production rights in each subsequent year of the Management Plan, to achieve this goal within 6 years of approval of the Management Plan. Each reduction shall not be more than 10% of the base production right of the prior year.

(3) Pursuant to Section 7(A)(2)(b), upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall receive an increase in its base production rights equal to the adjusted base production right of the Class B Participant.

6. Public Agency Production Assessments. The Public Agency production will be subject to the following assessments:

A. An Administrative Assessment on each acre-foot pumped by a Public Agency up to its adjusted base production right. The parties contemplate that the Administrative Assessment will be $50.00 per acre-foot of water pumped in the first year of the Management Plan, and that such amount will thereafter be set by the Watermaster.

B. A Replenishment Assessment on each acre-foot pumped by a Public Agency in excess of its adjusted base production right equal to the cost of providing a like quantity of supplemental water to recharge the Management Area, including recharge losses. Pumping by a Public Agency in excess of its adjusted base production right in order to meet increasing demands is expected and permissible, provided that such excess extractions shall be subject to the Replenishment Assessment. The costs of providing a like quantity of supplemental water shall include the costs of water, O&M costs of the replenishment system, capital recovery and other administrative costs. Currently, the total of these cost items is estimated to be in the range of $300 to $400 per acre-feet; the actual amount will reflect the costs at the time incurred.

7. Private Pumpers Water Rights. The Public Agencies recognize the overlying water rights of the Private Pumpers, and do not intend to take or adversely impact these rights without an agreement with the owner of such rights. The Management Plan will lay out alternatives for the retention, protection, or transfer of such rights, leaving selection of the alternative to the individual overlying water rights owner. A Private Pumper can elect not to participate in the Management Plan and not to formally acknowledge its existence. Such Pumpers shall be referred to herein as “Non-Participants”; such Pumpers shall continue to exercise whatever water rights they may hold under California law unaffected by the Management Plan. There is no intent to affect water use that is consistent with the historical use of the Private Pumpers. However, other pumpers under the Management Plan do not waive their rights to challenge new or expanded water rights. Non-Participants will not have the option of joining the program at a later date. The alternatives available to participants are as follows:

Exhibit E – Principles for Water Management

A. (1) Class A Participation. A Private Pumper can elect to sign a written agreement acknowledging the existence of the Management Plan. Such Pumper shall be a Class A Participant and shall be entitled to vote for and/or be elected to serve as the Private Pumper representative on the Management Plan's governing board or body described in Paragraph 22 below, but shall not otherwise be required to participate in the Management Plan implementation. A Class A Participant may, without any financial assessment by the Watermaster, pump from his/her/its property within the Management Area the amount of water that can be put to reasonable and beneficial use on the Pumper's land as may be authorized under California law. Class A Participants shall have the right to convert to Class B Participation during a grace period that shall end three (3) years after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, upon payment of the total assessments the Pumper would have paid had the Pumper elected to be a member of Class B from the outset, plus interest.

(2) Class B Participation. A Private Pumper can become a Class B Participant by electing to limit annual pumping to the Pumper's average annual production during the calendar years 1995 through

1999 and to pay replenishment assessments on amounts in excess of that average annual production. A Class B Participant shall enjoy the following benefits of Plan Participation:

a. Vote for and/or be elected to serve as the Private Pumper's representative on the Management Plan's Governing Board;

b. Upon conversion of Pumper's land from agricultural use to a use that requires water service from a participating Public Agency, Public Agency shall credit to the extent legally permissible, Pumper or Pumper's successor-in-interest's adjusted production right, using the formula in Section 5 towards satisfaction of any requirement then in effect for water supply assessment requirements. Furthermore, Pumper or Pumper's successor-in-interest shall be given a credit for Pumper's adjusted production right using the formula in Section 5 towards any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit to its production right as set forth in Section 5.

c. To the extent the Pumper's land is not covered under Section 7(A)(2)(b), Pumper will be eligible to enter into a contract with the Management Plan, or a participating Public Agency, to sell for a defined period of time some portion of Pumper's adjusted production right, under terms and conditions mutually agreed upon by the Pumper and the Management Plan. Criteria used in consideration of such contract shall include:

(i) Management Plan's need to acquire additional water supplies to address Basin overdraft and recovery;

(ii) Submission of a water conservation plan, including use of in lieu water, by Pumper that will reasonably guarantee conservation of water that would otherwise be produced from the Basin;

(iii) Public policy considerations of local government jurisdictions, including economic and land use impacts of proposed water conservation plan.

B. In-Lieu Water Use. In the event a Private Pumper (or successor) receives recycled and/or imported water from a Public Agency to serve an overlying use in place of groundwater, or otherwise engages in an in-lieu program, the overlying water right of the Private Pumper (or successor) shall not be diminished by the receipt and use of such recycled and/or imported water or by engaging in an in-lieu program.

C. Well Monitoring. To become a Class A or B Participant, a Private Pumper shall authorize the metering of the Pumper's well(s) and the collection of groundwater level and quality data, and the reading thereof by Management Plan personnel. The metering and reading shall be at no cost to the Pumper, and the Pumper shall receive copies of the reports and information obtained upon request.

D. Future Production Participation. Any new Pumper after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, can only participate as a Class A Participant as described in Section 7A(1).

E. Replacement Wells. The redrilling of existing wells and the drilling of new wells to replace existing wells will not be considered new private production.

8. Capital Facilities. Each Public Agency shall continue to own its existing capital facilities for water management. However, capital facilities may be jointly constructed and owned by the Management Plan. Joint financing of such facilities may be funded by regional capital fees, loans and grants, contributions for storage by The Metropolitan Water District of Southern California ("Metropolitan") or other third-parties, and municipal bonds. Responsibility for the costs of any existing and future capital facility of the Management Plan should be apportioned among the Public Agencies based on relative benefit to be derived by each Public Agency. Any of the participating Public Agencies may propose projects to be included in the Management Plan to increase Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project as long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Public Agencies.

9. Soboba Tribe's Water Rights. The Soboba Tribe's water rights shall be determined as part of a settlement among the Soboba Tribe, the United States, Eastern, Lake Hemet and Metropolitan. Major points of the proposed settlement are:

A. The Soboba Tribe shall have a senior, prior right in the Canyon and San Jacinto Upper Pressure Sub-basins of 9000 afy, but its use shall be limited to a maximum of 4100 afy during the first 50 years after the effective date of the settlement.

B. The Soboba Tribe shall have the right to purchase replenishment water for use pursuant to the Principles of Settlement at the Management Plan replenishment rate.

C. The Soboba settlement provides that, among other things, Metropolitan will use its best efforts to deliver sufficient water to yield a 15-year average of 7,500 afy to the Management Plan until 2035 at its long-term interruptible rate (currently $233/af).

D. Subject to full funding of the settlement by the United States, the Management Plan shall pay the Soboba Tribe $10 million.

E. The Management Plan will also pay the Soboba Tribe $7 million. A Public Agency's payment of its share of this amount is optional, but in order to obtain the benefits of the low-cost Metropolitan water delivered pursuant to the settlement, a Public Agency shall pay its share of this amount.

F. The Management Plan will receive $10 million for capital improvements from the United States, and all unused Soboba Tribe water based on the Public Agency's participation in the payment in Section 9(E) above.

10. Implementation of These Principles. These Interim Principles for Water Management shall be used by the parties as a basis for the preparation of the Management Plan, and a stipulated judgment in a water rights adjudication. As explained below, the Management Plan shall be administered by the Watermaster. The Watermaster will be under the continuing jurisdiction of the Court.

11. Assessment Program. The assessment program contemplated by the Management Plan shall be administered by the Watermaster subject to the governance provisions herein. All payments shall be made to the Watermaster and shall be maintained in a separate restricted fund. All assessments shall be used exclusively to acquire imported, recycled or Metropolitan water for the recharge of the Management Area, and for the facilities and operational and administrative expenses associated with the assessment and recharge programs. Subject to Management Plan approval, assessments may also be used by affected parties to acquire and deliver water for direct use by the parties, in lieu of pumping.

12. Replenishment Program. The replenishment program contemplated by the Management Plan shall also be administered by the Watermaster. The program shall include: the acquisition of supplemental water supplies (including imported, recycled and Soboba Tribe water); the expenditure of assessments; the recharge of the Management Area; and the construction and operation of all necessary facilities, including but not limited to, development of surface and sub-surface percolation and injection facilities. Priority for replenishment will be based on an equitable

apportionment of available replenishment water among the sub-basins after full consideration of: the Public Agency's participation in the payment in Section 9(E) above; the Management Area conditions; water demands; the availability of storage capacity to accommodate the recharge of natural flows; the availability of appropriate conveyance facilities; and the availability of replenishment or imported water. The Watermaster is encouraged to take advantage of surplus imported water that occasionally may be available at low cost, and to use available assessment funds to bank such recharge against future pumping in excess of adjusted production rights.

13. Rights to Groundwater. Groundwater in the Management Area may occur from: natural recharge; spreading operations of natural flows; replenishment with imported, recycled or Metropolitan water acquired with assessment funds; or in-lieu recharge programs financed with assessment funds. All such groundwater shall be available to support the pumping of the parties as allowed herein, and shall not be the property of any individual party, subject to the provisions of Section 14.

14. Storage Rights. The parties recognize that unused storage capacity exists in the Management Area, and the Management Plan contemplates that this capacity will be managed conjunctively with available imported and recycled water supplies. Subject to availability of the Management Plan fund for assessments and unused storage capacity as determined by Watermaster, the Management Area will be recharged and water stored therein when such supplies are available, and drawn upon by the Public Agencies in dry years when such supplemental water supplies may not be available. In addition, unused storage capacity as determined by Watermaster may be used for “put and take” operations of recycled or imported water that is paid for by any party to the Management Plan provided that:

A. Such operations do not interfere with the rights of any other pumper, or with the use of the storage capacity for recharge and storage under the Management Plan;

B. Water available for recharge is purchased first, as needed, for the Management Plan;

C. Later recovery of stored water shall exclude losses; and

D. Such recovered water may be used anywhere within the service area of the party.

Any conjunctive use programs for the benefit of territory outside of the Management Area shall be subject to the governance provisions herein. Any storage, conjunctive use programs by third parties or in-lieu recharge programs financed with assessment funds shall be subject to the governance provisions herein.

15. Spreading Operations. The Public Agencies shall independently or jointly operate their respective facilities to maximize the existing spreading and recharge operations of natural flow in the Management Area.

16. Recharge Water Quality. Consistent with Section 4(E) above all water used to replenish any sub-basin in the Management Area shall meet the Regional Water Quality Control Board requirements, and may be used in any sub-basin where such requirements are met.

17. Recharge Losses. The accounting for storage recharge of the Management Area shall not include any water that escapes therefrom and migrates downstream beyond the Management Area. Losses will be calculated based upon best engineering principles.

18. Recycled Water. The use of recycled water can be of substantial benefit in providing additional water in the Management Area. Each Public Agency may implement a recycled water program, including the ownership, operation and construction of all necessary facilities, and the application for and administration of any loan or grant applications. The Management Plan will support loan or grant applications, and the Public Agencies will work to integrate recycled water into the Management Plan to the extent economically feasible while meeting regulatory standards. Subject to existing recycled water contracts, the Management Plan will have a first right of refusal to purchase excess recycled water for recharge. Priority shall be given to Management Area recharge for the use of recycled water which originates therefrom.

19. Export. The Public Agencies may export water outside the Management Area, on a temporary basis, upon approval by the Watermaster.

However, any water exported shall be replenished with an appropriate amount of similar or better quality water as determined by Watermaster. Also, water exports by the Public Agencies shall not interfere with the Management Plan or any other Public Agency's operations. The Management Plan will set forth the specific criteria for the export of water, including, but not limited to, conjunctive use programs.

20. Credits. Recharge credits documented before the Management Plan shall be calculated pursuant to the Management Plan. Future recharge credits shall be established by replenishment of water or by not exercising the full, adjusted base production right, and shall be calculated pursuant to the Management Plan.

21. Tunnel Seepage, Stream Diversions, Fruitvale To resolve Eastern's use of Tunnel seepage, Lake Hemet's stream diversions and Eastern's use of Fruitvale water, 900 afy shall be added to Hemet's adjusted base production and 900 afy shall be added to San Jacinto's adjusted base production right as discussed in Section 5 above. This is intended to provide Hemet and San Jacinto a fair share of water from these disputed issues.

22. Governance. The Management Plan will be administered by a Watermaster as follows:

A. The governing board of the Watermaster shall consist of one elected official from each of the Public Agencies and one Private Pumper representative selected by the Private Pumpers who participate in the Management Plan. Each member shall have one vote.

B. The Watermaster's duties shall include: determining safe yield; determining replenishment needs; determining annual adjusted base production rights; purchasing and selling imported and recycled water; constructing future capital facilities; establishing assessment rates; initiating necessary conservation and drought management measures; and implementing other responsibilities identified in the Management Plan documents.

Dated: ______, 2004.

EASTERN MUNICIPAL WATER
DISTRICT

By: ______________________________

Dated: ______, 2004. LAKE HEMET MUNICIPAL WATER DISTRICT

By: ____________________________

Dated: ______, 2004. CITY OF HEMET

By: ____________________________

Dated: ______, 2004. CITY OF SAN JACINTO

By: ____________________________

Exhibit F
Map of the Water Management Plan Area

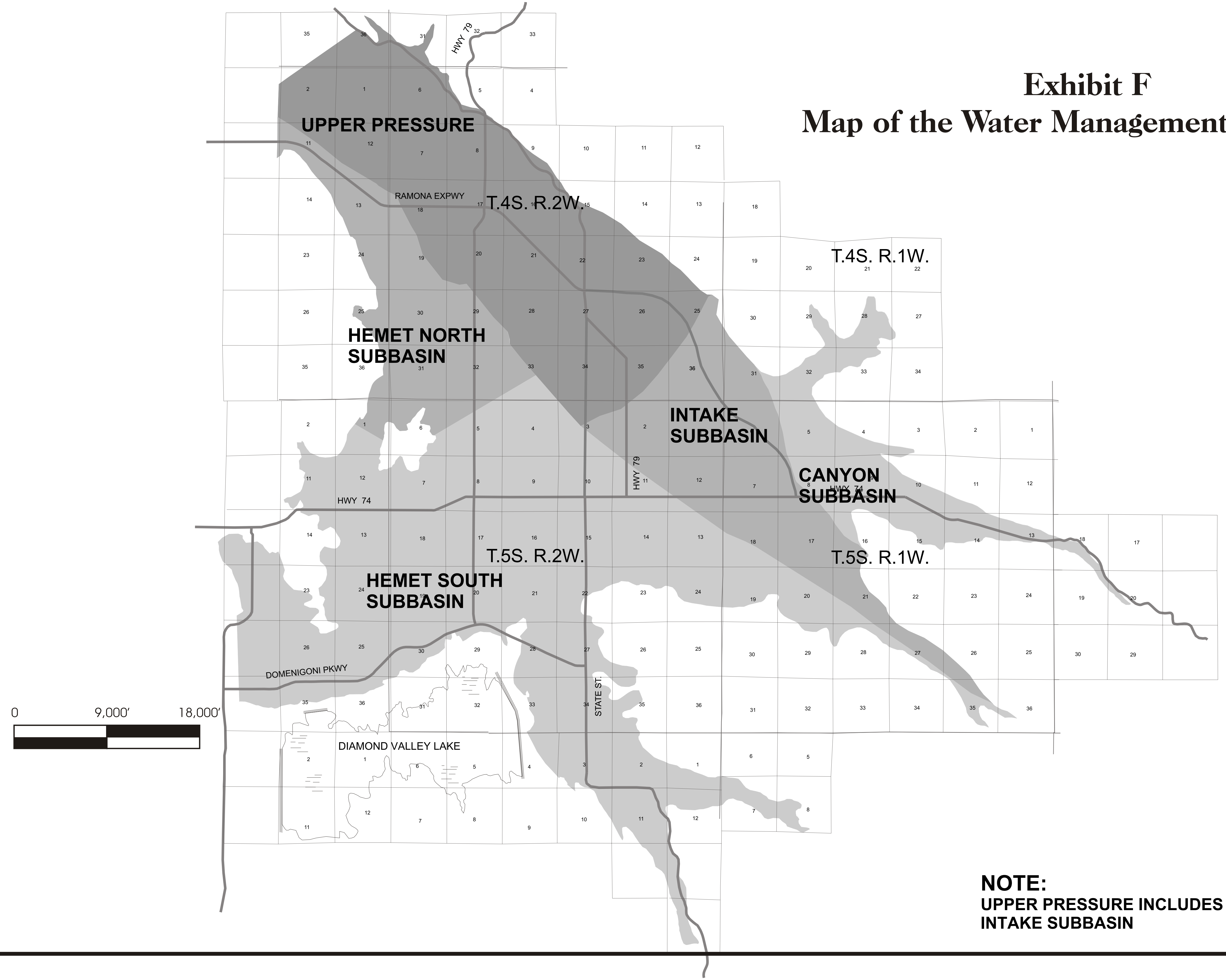

NORTH

1"=9,000'
06-02-2004

NOTE:
UPPER PRESSURE INCLUDES
INTAKE SUBBASIN

Exhibit G – Description of the Water Management Plan Area

Water Management Plan Area

Beginning at the North quarter Corner of Section 2, Township 4 South, Range 2 West, S.B.B.& M.:

Thence South 55-09-46 West, a distance of 3086.02 to the True Point of Beginning;

Thence South 01-57-57 West, a distance of 3159.1491
Thence South 00-29-02 West, a distance of 429.3273
Thence South 00-14-26 West, a distance of 1908.6588
Thence South 01-46-37 West, a distance of 1567.6119
Thence North 55-21-31 East, a distance of 446.8379
Thence North 26-23-15 East, a distance of 631.4127
Thence South 87-18-21 East, a distance of 191.4616
Thence South 87-17-52 East, a distance of 446.7468
Thence South 70-03-12 East, a distance of 419.5431
Thence South 48-59-17 East, a distance of 352.6834
Thence South 49-46-27 East, a distance of 298.9505
Thence South 38-14-56 East, a distance of 408.2682
Thence South 43-41-06 East, a distance of 568.0886
Thence South 33-24-04 East, a distance of 907.5881
Thence South 39-40-04 East, a distance of 681.4619
Thence South 44-35-36 East, a distance of 523.0954
Thence South 40-05-37 East, a distance of 805.0741
Thence South 37-55-01 East, a distance of 359.8351
Thence South 35-20-31 East, a distance of 531.5890
Thence South 22-00-05 East, a distance of 405.3986
Thence South 17-22-41 East, a distance of 504.7266
Thence South 25-17-32 East, a distance of 595.1082
Thence South 32-14-23 East, a distance of 575.2528
Thence South 38-11-56 East, a distance of 414.9866
Thence South 21-26-59 East, a distance of 691.8554
Thence South 22-44-15 East, a distance of 524.2415
Thence South 20-38-45 East, a distance of 573.2541
Thence South 32-15-39 East, a distance of 191.7948
Thence South 88-14-08 East, a distance of 156.3241
Thence South 46-34-05 East, a distance of 439.2778
Thence South 12-36-58 East, a distance of 409.7686
Thence South 18-19-44 East, a distance of 426.9082
Thence South 16-24-51 East, a distance of 572.8471
Thence South 22-07-10 East, a distance of 731.9991
Thence South 22-31-31 East, a distance of 720.1255
Thence South 22-41-43 East, a distance of 1039.9629
Thence South 38-30-56 East, a distance of 426.1504
Thence South 37-08-43 East, a distance of 350.8795
Thence South 35-21-27 East, a distance of 265.6921
Thence South 00-21-06 West, a distance of 692.3260
Thence South 09-53-35 East, a distance of 427.7983
Thence South 14-00-56 East, a distance of 460.9092
Thence South 00-49-47 East, a distance of 353.9741
Thence South 39-14-44 West, a distance of 334.1122
Thence North 88-16-13 West, a distance of 312.6425
Thence North 88-15-40 West, a distance of 327.5258

Exhibit G – Description of the Water Management Plan Area

Thence South 65-20-48 West, a distance of 211.1187
Thence South 51-19-16 West, a distance of 262.9182
Thence North 81-25-48 West, a distance of 270.5204
Thence North 00-23-36 East, a distance of 254.9440
Thence North 14-20-10 West, a distance of 196.8810
Thence North 69-38-37 West, a distance of 331.8501
Thence North 88-16-15 West, a distance of 312.7674
Thence South 45-39-54 West, a distance of 220.8974
Thence South 00-40-33 West, a distance of 158.9491
Thence South 08-40-14 West, a distance of 373.9607
Thence South 18-56-44 West, a distance of 166.3231
Thence South 13-04-14 East, a distance of 219.4350
Thence South 88-17-54 East, a distance of 208.3419
Thence South 52-36-50 East, a distance of 454.9685
Thence South 57-10-41 East, a distance of 307.7555
Thence South 10-23-15 East, a distance of 271.0676
Thence South 47-38-04 East, a distance of 488.4199
Thence South 38-59-11 East, a distance of 489.7587
Thence South 43-18-04 East, a distance of 225.0918
Thence South 36-19-43 East, a distance of 1211.7791
Thence South 00-40-32 West, a distance of 159.0111
Thence South 15-40-02 East, a distance of 555.4493
Thence South 32-13-48 East, a distance of 383.6829
Thence South 34-03-33 East, a distance of 457.3251
Thence South 06-55-29 West, a distance of 478.9941
Thence South 11-48-53 West, a distance of 538.4695
Thence South 04-00-47 East, a distance of 639.4428
Thence South 57-16-59 West, a distance of 374.5463
Thence South 59-59-38 West, a distance of 302.6944
Thence South 45-44-02 West, a distance of 220.8122
Thence South 40-23-23 West, a distance of 407.4181
Thence South 27-02-10 West, a distance of 234.5719
Thence South 18-54-48 West, a distance of 499.3999
Thence South 18-54-28 West, a distance of 332.9008
Thence South 08-40-29 West, a distance of 373.7759
Thence South 11-49-45 West, a distance of 538.4344
Thence South 00-40-31 West, a distance of 318.1471
Thence South 00-39-43 West, a distance of 530.0974
Thence South 30-14-06 West, a distance of 422.2534
Thence South 31-26-41 West, a distance of 305.2671
Thence South 77-24-27 West, a distance of 214.1513
Thence North 25-17-38 West, a distance of 238.1444
Thence South 35-31-17 West, a distance of 637.9021
Thence South 39-15-19 West, a distance of 169.0961
Thence South 39-13-20 West, a distance of 165.0641
Thence South 39-14-20 West, a distance of 668.3212
Thence South 30-15-45 West, a distance of 422.1539
Thence South 06-16-29 West, a distance of 531.8110
Thence South 18-55-03 West, a distance of 166.5596
Thence South 21-01-01 West, a distance of 449.2623
Thence South 27-03-08 West, a distance of 351.8017
Thence South 31-28-15 West, a distance of 305.2794
Thence South 45-41-33 West, a distance of 515.4747
Thence South 77-23-51 West, a distance of 642.2232
Thence South 85-54-45 West, a distance of 522.5793
Thence North 82-59-20 West, a distance of 576.5611

Exhibit G – Description of the Water Management Plan Area

Thence North 64-53-25 West, a distance of 400.6090
Thence North 66-16-35 West, a distance of 566.0858
Thence North 38-59-11 West, a distance of 489.7595
Thence North 32-14-03 West, a distance of 383.4039
Thence North 20-39-20 West, a distance of 286.6781
Thence North 43-18-43 West, a distance of 225.0460
Thence South 18-53-52 West, a distance of 166.3412
Thence North 88-17-24 West, a distance of 416.8106
Thence South 04-55-55 East, a distance of 533.6007
Thence South 51-18-38 East, a distance of 264.5584
Thence South 16-03-15 East, a distance of 723.6602
Thence South 34-10-30 West, a distance of 188.4831
Thence South 37-27-05 West, a distance of 261.0635
Thence South 06-18-55 East, a distance of 428.4127
Thence South 00-40-32 West, a distance of 371.0878
Thence South 66-17-12 East, a distance of 283.1573
Thence South 54-26-34 East, a distance of 380.8999
Thence South 18-53-51 West, a distance of 499.4190
Thence South 32-15-38 East, a distance of 191.7957
Thence South 14-32-01 West, a distance of 434.8520
Thence South 17-11-06 West, a distance of 549.9921
Thence South 31-27-03 West, a distance of 305.2142
Thence South 60-02-12 West, a distance of 302.7087
Thence South 60-45-52 West, a distance of 721.1047
Thence South 83-27-27 West, a distance of 367.5184
Thence South 57-14-27 West, a distance of 374.5758
Thence South 20-39-20 East, a distance of 286.6781
Thence South 88-16-51 East, a distance of 312.5156
Thence South 25-17-24 East, a distance of 476.0654
Thence South 57-08-56 East, a distance of 307.8569
Thence North 50-10-17 East, a distance of 479.5142
Thence North 29-05-00 East, a distance of 656.5286
Thence South 34-02-30 East, a distance of 457.5323
Thence South 17-22-42 East, a distance of 168.2415
Thence South 00-40-33 West, a distance of 158.9491
Thence South 60-02-12 West, a distance of 302.7087
Thence South 00-40-31 West, a distance of 371.2758
Thence South 67-32-00 East, a distance of 448.9489
Thence South 64-52-57 East, a distance of 400.4958
Thence North 71-51-49 East, a distance of 481.6809
Thence South 89-35-03 East, a distance of 344.3841
Thence South 46-25-17 East, a distance of 279.7030
Thence South 03-10-14 East, a distance of 409.0632
Thence South 23-51-22 West, a distance of 416.9340
Thence South 03-24-06 East, a distance of 383.4255
Thence South 66-09-28 East, a distance of 498.9547
Thence North 61-17-01 East, a distance of 418.4674
Thence North 62-31-22 East, a distance of 424.9349
Thence South 60-02-46 East, a distance of 439.7373
Thence South 24-58-10 East, a distance of 414.5596
Thence South 33-07-02 East, a distance of 260.1327
Thence South 34-34-28 East, a distance of 318.9559
Thence South 18-21-02 East, a distance of 308.8960
Thence South 13-34-41 West, a distance of 413.1727
Thence South 42-19-37 West, a distance of 343.9836
Thence South 63-55-07 West, a distance of 198.5981

Exhibit G – Description of the Water Management Plan Area

Thence North 85-31-13 West, a distance of 366.4946
Thence North 76-58-32 West, a distance of 406.8413
Thence North 72-11-08 West, a distance of 279.2651
Thence South 48-26-06 West, a distance of 204.3228
Thence South 34-26-55 West, a distance of 484.3828
Thence South 07-01-37 West, a distance of 389.2991
Thence South 05-32-54 East, a distance of 480.9402
Thence South 47-03-44 East, a distance of 682.8003
Thence South 21-46-09 East, a distance of 371.7621
Thence South 02-53-33 East, a distance of 483.0534
Thence South 14-20-24 West, a distance of 531.9487
Thence South 35-28-25 West, a distance of 663.8471
Thence South 52-23-59 West, a distance of 364.7668
Thence South 08-13-01 East, a distance of 698.7991
Thence South 67-31-20 East, a distance of 449.3910
Thence South 25-24-05 East, a distance of 238.0781
Thence South 22-14-37 West, a distance of 282.6599
Thence South 22-16-19 West, a distance of 282.6499
Thence South 26-41-31 East, a distance of 328.3674
Thence South 08-00-01 East, a distance of 374.5201
Thence South 00-14-32 West, a distance of 295.8146
Thence South 22-50-30 East, a distance of 524.2347
Thence South 32-19-47 East, a distance of 135.8012
Thence South 74-41-41 East, a distance of 495.5765
Thence North 87-48-16 East, a distance of 230.0439
Thence South 62-02-24 East, a distance of 271.0081
Thence South 27-01-09 East, a distance of 158.7654
Thence South 00-25-08 West, a distance of 188.1300
Thence South 47-28-36 West, a distance of 306.8174
Thence South 67-08-04 West, a distance of 1017.9951
Thence South 88-16-15 West, a distance of 559.2547
Thence North 38-00-54 West, a distance of 199.5152
Thence North 01-24-06 West, a distance of 209.4997
Thence North 29-50-03 West, a distance of 268.0941
Thence North 58-00-46 West, a distance of 880.2816
Thence North 18-49-54 East, a distance of 131.2772
Thence North 41-46-48 East, a distance of 881.2088
Thence North 53-22-34 East, a distance of 244.5273
Thence North 12-17-03 East, a distance of 196.8192
Thence North 32-10-09 West, a distance of 185.4739
Thence North 63-33-01 West, a distance of 250.0488
Thence North 87-33-20 West, a distance of 561.2607
Thence North 66-33-29 West, a distance of 616.6454
Thence North 08-43-43 East, a distance of 216.6340
Thence North 67-39-56 East, a distance of 702.4460
Thence North 35-11-58 East, a distance of 228.9973
Thence North 05-39-39 West, a distance of 221.7695
Thence North 52-37-23 West, a distance of 454.7550
Thence North 70-59-03 West, a distance of 713.5651
Thence North 88-13-32 West, a distance of 260.3749
Thence North 81-50-24 West, a distance of 472.9131
Thence North 46-37-10 West, a distance of 638.0651
Thence North 43-16-43 West, a distance of 300.1255
Thence North 38-12-54 West, a distance of 414.8389
Thence North 17-22-30 West, a distance of 336.5442
Thence North 15-44-09 East, a distance of 601.0252

Exhibit G – Description of the Water Management Plan Area

Thence North 17-21-42 West, a distance of 673.1694
Thence North 20-38-46 West, a distance of 573.2531
Thence North 18-52-30 West, a distance of 622.8685
Thence South 60-02-48 West, a distance of 302.6778
Thence North 69-38-36 West, a distance of 331.8504
Thence South 60-02-48 West, a distance of 302.6778
Thence North 43-18-30 West, a distance of 675.1831
Thence North 32-14-42 West, a distance of 383.5238
Thence North 57-09-25 West, a distance of 615.5074
Thence South 80-11-19 West, a distance of 529.6212
Thence South 86-26-44 West, a distance of 574.6054
Thence North 35-20-05 West, a distance of 531.4653
Thence North 00-38-55 East, a distance of 265.0170
Thence North 67-31-12 West, a distance of 448.8571
Thence South 88-18-10 West, a distance of 886.2638
Thence South 60-46-39 West, a distance of 721.0129
Thence South 45-41-01 West, a distance of 589.1057
Thence South 14-55-27 East, a distance of 387.3153
Thence South 00-40-32 West, a distance of 371.0888
Thence South 13-04-27 East, a distance of 438.7482
Thence South 21-26-38 East, a distance of 692.0304
Thence South 46-37-24 East, a distance of 638.0219
Thence South 47-03-19 East, a distance of 563.1754
Thence South 14-56-23 East, a distance of 387.4074
Thence South 23-12-42 East, a distance of 643.1882
Thence South 28-23-55 East, a distance of 428.9302
Thence South 14-56-32 East, a distance of 387.3475
Thence South 08-36-11 East, a distance of 323.3886
Thence South 04-55-55 East, a distance of 533.6007
Thence South 13-03-12 East, a distance of 205.8819
Thence South 09-36-40 East, a distance of 902.1630
Thence South 33-16-14 East, a distance of 321.9605
Thence South 36-27-41 West, a distance of 173.5290
Thence South 58-28-58 West, a distance of 639.1622
Thence South 01-42-32 East, a distance of 8216.1537
Thence North 78-59-47 East, a distance of 87.1013
Thence South 88-12-52 East, a distance of 469.3529
Thence South 74-02-23 East, a distance of 432.5486
Thence South 69-39-25 East, a distance of 664.8422
Thence South 88-10-48 East, a distance of 208.6052
Thence South 69-38-45 East, a distance of 498.6348
Thence South 82-26-13 East, a distance of 525.1939
Thence North 80-15-12 East, a distance of 265.0761
Thence South 69-37-59 East, a distance of 332.4062
Thence North 80-15-12 East, a distance of 265.0761
Thence North 61-21-31 East, a distance of 418.1679
Thence North 78-16-23 East, a distance of 907.4410
Thence South 79-58-51 East, a distance of 370.0179
Thence North 82-08-20 East, a distance of 316.2216
Thence North 55-40-58 East, a distance of 239.1251
Thence North 32-41-32 East, a distance of 260.8180
Thence North 87-54-28 East, a distance of 267.0530
Thence South 74-39-09 East, a distance of 360.3507
Thence South 81-59-59 East, a distance of 351.1678
Thence South 85-51-12 East, a distance of 535.0256
Thence North 74-27-22 East, a distance of 253.5225

Exhibit G – Description of the Water Management Plan Area

Thence North 68-04-45 East, a distance of 405.9771
Thence North 72-57-30 East, a distance of 164.2103
Thence North 68-40-29 East, a distance of 674.5618
Thence South 88-12-52 East, a distance of 469.3529
Thence North 84-02-19 East, a distance of 787.1317
Thence North 57-20-59 East, a distance of 187.2075
Thence North 72-57-06 East, a distance of 328.3010
Thence North 89-27-22 East, a distance of 1303.8087
Thence North 69-30-36 East, a distance of 279.4284
Thence North 55-24-17 East, a distance of 446.5897
Thence North 77-27-37 East, a distance of 428.3428
Thence North 57-20-59 East, a distance of 187.2075
Thence North 68-40-15 East, a distance of 674.4450
Thence North 54-02-04 East, a distance of 259.7702
Thence North 61-32-05 West, a distance of 236.0350
Thence North 11-48-13 East, a distance of 268.8725
Thence North 74-44-23 East, a distance of 542.1152
Thence North 79-01-23 East, a distance of 478.8868
Thence North 72-58-07 East, a distance of 328.4024
Thence North 39-15-47 East, a distance of 333.7907
Thence North 18-52-51 East, a distance of 332.5833
Thence North 77-29-05 East, a distance of 428.3020
Thence South 64-07-57 East, a distance of 518.8621
Thence South 88-12-19 East, a distance of 365.1791
Thence North 57-18-33 East, a distance of 748.5774
Thence North 30-13-53 East, a distance of 421.8035
Thence North 50-13-44 East, a distance of 479.1141
Thence North 27-01-48 East, a distance of 351.2419
Thence North 69-48-55 East, a distance of 347.5974
Thence North 73-52-54 East, a distance of 276.2335
Thence North 64-10-01 East, a distance of 564.5414
Thence North 48-25-39 East, a distance of 770.2680
Thence North 02-42-04 West, a distance of 363.4037
Thence North 07-15-13 East, a distance of 494.0156
Thence South 82-00-37 East, a distance of 544.5357
Thence North 23-34-36 East, a distance of 248.7655
Thence North 08-21-28 West, a distance of 257.9899
Thence North 12-57-56 West, a distance of 211.7095
Thence North 39-05-14 East, a distance of 188.3414
Thence South 59-36-44 East, a distance of 294.3064
Thence South 29-40-15 East, a distance of 384.3301
Thence North 77-27-50 East, a distance of 214.2324
Thence South 37-11-16 East, a distance of 340.4048
Thence South 29-37-50 East, a distance of 310.4751
Thence North 63-11-55 East, a distance of 298.2940
Thence North 54-27-48 East, a distance of 484.6434
Thence North 53-19-04 East, a distance of 504.0777
Thence North 70-16-43 East, a distance of 313.3817
Thence North 68-19-13 East, a distance of 338.7091
Thence South 79-55-46 East, a distance of 321.3256
Thence South 88-11-10 East, a distance of 260.6306
Thence South 88-14-05 East, a distance of 365.1733
Thence South 61-32-01 East, a distance of 235.8955
Thence South 69-37-59 East, a distance of 332.4058
Thence South 71-22-52 East, a distance of 548.3222
Thence South 13-09-09 East, a distance of 219.1868

Exhibit G – Description of the Water Management Plan Area

Thence South 22-05-36 East, a distance of 405.4599
Thence South 35-25-24 East, a distance of 265.9093
Thence South 61-31-13 East, a distance of 235.9251
Thence North 09-57-27 East, a distance of 320.9599
Thence North 12-08-01 West, a distance of 709.4744
Thence North 05-00-10 West, a distance of 533.2184
Thence North 31-28-03 East, a distance of 304.8291
Thence North 62-04-26 East, a distance of 534.2079
Thence North 76-04-08 East, a distance of 380.0540
Thence North 50-36-14 East, a distance of 898.3854
Thence South 60-30-43 East, a distance of 295.9651
Thence South 09-03-18 East, a distance of 874.4608
Thence South 42-03-39 West, a distance of 1049.7552
Thence South 33-04-47 East, a distance of 305.9692
Thence South 00-25-20 West, a distance of 424.0115
Thence South 08-41-25 West, a distance of 175.3885
Thence South 18-57-27 West, a distance of 88.8830
Thence South 00-37-56 West, a distance of 158.5727
Thence South 02-24-11 West, a distance of 420.3696
Thence South 10-51-56 West, a distance of 218.1612
Thence South 23-17-39 West, a distance of 1081.6711
Thence South 22-14-55 West, a distance of 282.6016
Thence South 09-56-34 West, a distance of 642.1445
Thence South 00-36-30 West, a distance of 423.7739
Thence South 05-36-43 East, a distance of 480.6166
Thence South 34-07-27 East, a distance of 457.6755
Thence South 43-22-35 East, a distance of 525.6352
Thence South 43-21-59 East, a distance of 468.2066
Thence South 86-51-47 East, a distance of 194.1659
Thence North 13-02-05 West, a distance of 207.2779
Thence North 31-29-15 East, a distance of 304.8943
Thence South 28-28-33 East, a distance of 429.1724
Thence South 00-37-56 West, a distance of 101.9432
Thence South 00-34-18 West, a distance of 162.8831
Thence South 79-04-14 West, a distance of 215.9165
Thence South 16-16-25 East, a distance of 365.7800
Thence South 29-40-24 East, a distance of 310.3196
Thence South 00-36-30 West, a distance of 211.8869
Thence South 11-46-39 West, a distance of 268.8469
Thence South 34-06-24 East, a distance of 457.6575
Thence South 32-18-47 East, a distance of 383.7376
Thence South 05-00-57 East, a distance of 533.2921
Thence South 18-52-51 West, a distance of 332.5833
Thence South 34-14-57 West, a distance of 564.8157
Thence South 62-30-45 West, a distance of 350.7168
Thence South 27-53-02 East, a distance of 1292.0070
Thence South 26-38-27 East, a distance of 844.3959
Thence South 35-16-45 East, a distance of 1398.9888
Thence South 43-11-11 East, a distance of 1392.1514
Thence South 42-14-40 East, a distance of 491.7866
Thence North 45-24-07 East, a distance of 151.1478
Thence South 77-29-31 East, a distance of 410.3647
Thence South 18-02-51 East, a distance of 181.1631
Thence South 39-21-33 East, a distance of 223.9113
Thence South 33-18-20 East, a distance of 206.6998
Thence South 00-25-39 West, a distance of 167.5677

Exhibit G – Description of the Water Management Plan Area

Thence South 54-42-30 East, a distance of 111.6424
Thence South 50-39-25 East, a distance of 838.8686
Thence North 11-47-14 West, a distance of 130.9483
Thence North 07-43-40 West, a distance of 202.6535
Thence North 00-24-22 East, a distance of 229.3178
Thence North 00-25-00 East, a distance of 171.8795
Thence North 37-17-40 East, a distance of 143.3793
Thence South 83-52-17 East, a distance of 288.0212
Thence South 35-07-26 East, a distance of 246.5899
Thence South 57-35-35 East, a distance of 270.2065
Thence South 66-24-50 East, a distance of 218.3676
Thence South 84-22-46 East, a distance of 316.5217
Thence South 67-45-17 East, a distance of 154.3641
Thence South 60-13-50 East, a distance of 526.0466
Thence South 30-34-27 East, a distance of 334.2156
Thence South 20-07-23 East, a distance of 244.8868
Thence South 21-23-16 East, a distance of 463.0777
Thence South 26-09-54 East, a distance of 192.1947
Thence South 37-28-06 East, a distance of 326.7182
Thence South 31-11-18 East, a distance of 437.6249
Thence South 36-28-24 East, a distance of 429.8103
Thence South 32-03-48 East, a distance of 373.6888
Thence South 38-14-10 East, a distance of 366.9793
Thence South 26-09-29 East, a distance of 448.5666
Thence South 26-08-48 East, a distance of 256.4284
Thence South 28-11-19 East, a distance of 359.0890
Thence South 27-53-11 East, a distance of 423.0643
Thence South 28-12-22 East, a distance of 359.1480
Thence South 32-03-30 East, a distance of 373.7422
Thence South 44-37-29 East, a distance of 80.9655
Thence North 18-52-20 East, a distance of 181.2433
Thence North 00-24-01 East, a distance of 143.1905
Thence North 14-50-58 West, a distance of 326.7890
Thence North 05-18-17 West, a distance of 287.9834
Thence North 00-24-59 East, a distance of 258.0698
Thence North 53-33-00 East, a distance of 143.2788
Thence North 84-41-51 East, a distance of 288.1079
Thence South 51-43-06 East, a distance of 326.7620
Thence South 44-34-21 East, a distance of 527.0298
Thence South 31-11-28 East, a distance of 437.3463
Thence South 33-58-56 East, a distance of 659.7382
Thence South 38-14-14 East, a distance of 550.5564
Thence South 63-00-06 East, a distance of 384.5311
Thence South 38-59-18 East, a distance of 1038.4843
Thence South 15-17-56 East, a distance of 952.6996
Thence South 55-56-23 East, a distance of 206.5605
Thence South 55-53-00 East, a distance of 516.8216
Thence South 38-53-16 East, a distance of 407.1779
Thence South 16-56-09 East, a distance of 1441.3852
Thence South 07-11-08 East, a distance of 433.7182
Thence South 21-02-16 East, a distance of 862.1560
Thence South 27-40-23 East, a distance of 487.1621
Thence South 26-09-29 East, a distance of 448.5666
Thence South 45-22-28 West, a distance of 81.1422
Thence South 06-42-29 East, a distance of 231.1453
Thence South 20-08-17 East, a distance of 244.7103

Exhibit G – Description of the Water Management Plan Area

Thence South 09-04-03 East, a distance of 174.4926
Thence South 09-02-24 East, a distance of 174.2271
Thence South 07-43-40 East, a distance of 202.6525
Thence South 00-24-00 West, a distance of 286.5700
Thence South 14-49-32 East, a distance of 326.8170
Thence South 00-24-00 West, a distance of 286.5070
Thence South 21-21-44 East, a distance of 154.4223
Thence South 13-37-15 East, a distance of 236.2051
Thence South 13-38-35 East, a distance of 236.3570
Thence South 15-31-50 East, a distance of 208.6814
Thence South 22-46-58 East, a distance of 218.2129
Thence South 22-46-35 East, a distance of 218.2700
Thence South 55-52-57 East, a distance of 206.7006
Thence South 78-16-53 East, a distance of 146.1716
Thence North 79-05-28 East, a distance of 292.2816
Thence North 74-28-54 East, a distance of 208.6048
Thence North 82-16-12 East, a distance of 202.5910
Thence South 89-35-39 East, a distance of 229.3808
Thence South 80-06-19 East, a distance of 174.2164
Thence North 22-12-54 East, a distance of 154.3976
Thence North 26-07-54 West, a distance of 192.1396
Thence North 36-27-45 West, a distance of 286.6826
Thence North 41-34-35 West, a distance of 385.5748
Thence North 26-08-54 West, a distance of 384.3343
Thence North 13-37-11 West, a distance of 354.5964
Thence North 24-22-44 West, a distance of 410.3376
Thence North 18-00-48 West, a distance of 362.5852
Thence North 12-07-44 West, a distance of 264.1464
Thence North 05-55-46 West, a distance of 519.0893
Thence North 00-24-59 East, a distance of 429.9494
Thence North 02-18-24 West, a distance of 602.4882
Thence North 02-04-24 West, a distance of 659.9320
Thence North 02-05-06 West, a distance of 659.6867
Thence North 25-08-41 West, a distance of 730.7479
Thence North 42-06-19 West, a distance of 466.4456
Thence North 19-15-13 West, a distance of 426.0813
Thence North 02-57-04 West, a distance of 488.0222
Thence North 00-24-41 East, a distance of 487.3876
Thence North 00-25-30 East, a distance of 286.5709
Thence North 19-34-09 West, a distance of 335.5043
Thence North 34-05-50 West, a distance of 556.3259
Thence North 22-12-56 West, a distance of 745.1916
Thence North 23-12-25 West, a distance of 500.5652
Thence North 06-43-37 West, a distance of 462.0560
Thence North 10-53-48 West, a distance of 292.2697
Thence North 00-25-22 East, a distance of 372.6971
Thence North 00-24-28 East, a distance of 544.3888
Thence North 00-24-21 East, a distance of 458.6995
Thence North 13-37-02 West, a distance of 472.5327
Thence North 16-18-14 West, a distance of 299.2196
Thence North 06-09-17 East, a distance of 287.9729
Thence North 63-49-21 East, a distance of 256.2870
Thence North 63-49-04 East, a distance of 192.3620
Thence South 89-35-15 East, a distance of 286.5074
Thence South 72-52-12 East, a distance of 299.4071
Thence South 36-27-54 East, a distance of 286.4572

Exhibit G – Description of the Water Management Plan Area

Thence South 63-00-19 East, a distance of 320.4094
Thence South 87-05-43 East, a distance of 659.8478
Thence South 87-18-26 East, a distance of 717.0418
Thence North 78-19-20 East, a distance of 410.3691
Thence North 86-20-49 East, a distance of 402.1922
Thence North 75-28-47 East, a distance of 444.9628
Thence North 68-35-42 East, a distance of 463.0656
Thence South 89-35-15 East, a distance of 573.1398
Thence North 74-30-26 East, a distance of 208.7087
Thence North 67-12-39 East, a distance of 218.1548
Thence North 40-38-39 East, a distance of 488.2085
Thence North 56-43-24 East, a distance of 309.9471
Thence North 82-49-48 East, a distance of 433.6411
Thence South 64-49-28 East, a distance of 410.3555
Thence South 79-35-09 East, a distance of 494.7756
Thence South 51-42-35 East, a distance of 326.8004
Thence South 67-19-51 East, a distance of 681.2553
Thence South 53-53-05 East, a distance of 1129.4102
Thence South 36-27-09 East, a distance of 573.2902
Thence South 69-38-11 East, a distance of 335.3323
Thence North 82-19-37 East, a distance of 202.6898
Thence North 75-09-58 East, a distance of 326.6362
Thence South 86-44-29 East, a distance of 573.9280
Thence South 44-35-15 East, a distance of 405.2711
Thence South 54-53-15 East, a distance of 453.2260
Thence South 26-08-48 East, a distance of 256.4275
Thence South 70-17-49 East, a distance of 607.3060
Thence South 72-29-09 East, a distance of 389.8210
Thence South 57-07-23 East, a distance of 373.7322
Thence South 78-17-20 East, a distance of 292.2079
Thence North 60-38-50 East, a distance of 231.0356
Thence North 63-52-05 East, a distance of 192.2792
Thence North 63-50-06 East, a distance of 256.2596
Thence North 33-14-52 West, a distance of 103.2813
Thence North 73-39-56 West, a distance of 208.6728
Thence North 83-14-16 West, a distance of 259.5556
Thence North 83-52-07 West, a distance of 287.8969
Thence North 38-15-29 West, a distance of 183.7039
Thence North 31-36-33 West, a distance of 270.2132
Thence North 06-40-38 West, a distance of 231.1308
Thence North 31-21-38 East, a distance of 167.1723
Thence North 36-29-06 West, a distance of 286.5315
Thence North 52-43-48 West, a distance of 143.2535
Thence North 12-07-13 West, a distance of 264.3292
Thence North 00-26-14 East, a distance of 229.3817
Thence North 49-48-32 East, a distance of 264.1064
Thence North 63-50-04 East, a distance of 64.2044
Thence North 81-00-14 East, a distance of 174.2687
Thence North 37-17-40 East, a distance of 143.3793
Thence North 11-41-40 East, a distance of 146.1588
Thence North 00-22-29 East, a distance of 114.6895
Thence North 44-33-45 West, a distance of 162.1090
Thence North 54-04-38 West, a distance of 246.5087
Thence North 74-39-06 West, a distance of 444.8663
Thence North 55-53-48 West, a distance of 206.6659
Thence North 81-26-16 West, a distance of 202.7599

Exhibit G – Description of the Water Management Plan Area

Thence North 89-35-15 West, a distance of 286.5074
Thence South 60-39-45 West, a distance of 231.1446
Thence South 75-28-47 West, a distance of 444.9625
Thence South 84-04-11 West, a distance of 259.5139
Thence North 74-39-14 West, a distance of 889.8532
Thence North 37-28-30 West, a distance of 326.6682
Thence North 60-56-43 West, a distance of 359.0601
Thence North 51-42-35 West, a distance of 326.8004
Thence North 74-40-45 West, a distance of 444.9374
Thence North 78-16-36 West, a distance of 584.4413
Thence North 59-50-38 West, a distance of 462.3204
Thence North 41-12-16 West, a distance of 345.1619
Thence North 36-28-24 West, a distance of 429.8103
Thence North 44-33-45 West, a distance of 324.2179
Thence North 78-17-37 West, a distance of 292.3305
Thence North 82-27-35 West, a distance of 230.9974
Thence North 85-45-59 West, a distance of 430.9259
Thence North 74-51-11 West, a distance of 563.0613
Thence South 86-51-26 West, a distance of 459.4410
Thence South 66-26-36 West, a distance of 282.2731
Thence North 87-12-58 West, a distance of 688.4375
Thence North 66-44-39 West, a distance of 590.7479
Thence North 71-08-45 West, a distance of 815.7709
Thence North 61-17-05 West, a distance of 423.1666
Thence North 75-34-27 West, a distance of 472.6522
Thence North 86-00-24 West, a distance of 459.4906
Thence North 54-52-19 West, a distance of 453.1594
Thence North 77-03-58 West, a distance of 792.7378
Thence North 64-34-10 West, a distance of 474.3353
Thence North 69-21-42 West, a distance of 580.3709
Thence North 65-57-27 West, a distance of 500.4138
Thence North 48-24-23 West, a distance of 914.0925
Thence North 48-58-47 West, a distance of 528.5110
Thence North 26-09-15 West, a distance of 576.8086
Thence North 28-38-22 West, a distance of 294.9630
Thence North 05-55-05 West, a distance of 259.4447
Thence North 39-03-22 East, a distance of 183.5086
Thence North 08-32-50 East, a distance of 202.6892
Thence North 18-02-29 West, a distance of 181.2221
Thence North 44-34-49 West, a distance of 283.6904
Thence North 16-56-18 West, a distance of 480.5332
Thence North 26-57-57 East, a distance of 63.9531
Thence North 26-59-06 East, a distance of 320.3812
Thence North 00-24-56 East, a distance of 86.1903
Thence North 13-36-07 West, a distance of 117.9965
Thence North 55-53-15 West, a distance of 103.4197
Thence North 80-07-57 West, a distance of 348.6579
Thence South 83-19-15 West, a distance of 231.0682
Thence South 71-56-46 West, a distance of 181.3012
Thence North 89-35-15 West, a distance of 286.5074
Thence North 65-37-31 West, a distance of 282.2862
Thence North 21-24-19 West, a distance of 154.4679
Thence North 00-25-00 East, a distance of 257.8188
Thence North 50-35-45 East, a distance of 223.8940
Thence North 72-00-09 East, a distance of 362.4866
Thence North 77-51-49 East, a distance of 264.2818

Exhibit G – Description of the Water Management Plan Area

Thence North 51-44-27 East, a distance of 367.0951
Thence North 54-54-11 East, a distance of 246.4308
Thence North 56-41-40 East, a distance of 310.0497
Thence North 62-07-05 East, a distance of 423.2595
Thence North 06-43-28 East, a distance of 259.4095
Thence North 21-22-37 West, a distance of 617.2803
Thence North 23-33-48 West, a distance of 282.3551
Thence North 89-33-45 West, a distance of 114.6283
Thence North 89-35-22 West, a distance of 401.2603
Thence South 69-51-30 West, a distance of 244.8490
Thence South 60-09-01 West, a distance of 398.0591
Thence South 54-23-11 West, a distance of 389.9315
Thence South 54-22-33 West, a distance of 389.8293
Thence South 61-48-41 West, a distance of 359.0890
Thence South 84-03-32 West, a distance of 259.6446
Thence North 89-35-15 West, a distance of 286.5074
Thence North 57-07-23 West, a distance of 373.7322
Thence North 00-24-59 East, a distance of 258.0698
Thence North 30-40-48 East, a distance of 398.0960
Thence North 00-23-59 East, a distance of 143.3785
Thence North 18-00-35 West, a distance of 90.5622
Thence North 40-11-02 West, a distance of 264.2419
Thence North 65-07-41 West, a distance of 346.2386
Thence North 83-15-30 West, a distance of 519.0892
Thence North 44-35-39 West, a distance of 324.3934
Thence North 60-59-24 West, a distance of 359.0481
Thence North 30-30-56 West, a distance of 167.1519
Thence North 18-02-29 West, a distance of 362.4451
Thence North 00-25-00 East, a distance of 171.9425
Thence North 53-32-05 East, a distance of 286.7694
Thence North 79-07-22 East, a distance of 292.1233
Thence South 89-35-23 East, a distance of 200.6301
Thence South 84-48-57 East, a distance of 345.1619
Thence South 50-18-17 East, a distance of 407.2701
Thence South 44-36-07 East, a distance of 324.3485
Thence South 47-35-44 East, a distance of 385.4597
Thence South 47-57-26 East, a distance of 345.2181
Thence South 50-18-41 East, a distance of 407.2305
Thence South 65-07-08 East, a distance of 346.2647
Thence South 85-11-02 East, a distance of 373.6944
Thence South 89-35-12 East, a distance of 372.6347
Thence North 70-25-25 East, a distance of 335.3866
Thence North 67-14-11 East, a distance of 218.3853
Thence North 32-23-49 East, a distance of 270.3989
Thence North 00-24-59 East, a distance of 344.0091
Thence North 06-44-46 West, a distance of 230.9107
Thence North 37-17-40 East, a distance of 286.7579
Thence North 00-23-34 East, a distance of 200.5677
Thence North 00-23-58 East, a distance of 143.4405
Thence North 54-03-04 West, a distance of 493.0265
Thence North 79-16-58 West, a distance of 640.9295
Thence North 85-45-54 West, a distance of 430.8012
Thence North 74-20-13 West, a distance of 653.5178
Thence North 71-09-25 West, a distance of 543.7674
Thence North 53-33-23 West, a distance of 779.7344
Thence North 26-08-55 West, a distance of 768.9482

Exhibit G – Description of the Water Management Plan Area

Thence North 21-24-02 West, a distance of 617.3128
Thence North 04-14-31 East, a distance of 430.9305
Thence North 42-24-18 East, a distance of 385.5473
Thence North 41-00-36 East, a distance of 264.2145
Thence North 30-08-41 East, a distance of 230.9893
Thence North 07-43-31 West, a distance of 202.7149
Thence North 40-45-25 West, a distance of 304.6257
Thence North 70-17-49 West, a distance of 607.3060
Thence North 55-54-46 West, a distance of 310.0155
Thence North 26-09-10 West, a distance of 256.3718
Thence North 00-27-01 East, a distance of 143.1924
Thence North 14-27-19 East, a distance of 118.1782
Thence North 00-23-59 East, a distance of 143.3785
Thence North 54-03-37 West, a distance of 246.4075
Thence North 81-58-34 West, a distance of 433.8727
Thence North 77-04-54 West, a distance of 264.1866
Thence North 37-26-54 West, a distance of 326.8667
Thence North 00-25-42 East, a distance of 200.6306
Thence North 00-24-14 East, a distance of 372.5092
Thence North 15-40-06 East, a distance of 326.7674
Thence North 16-21-03 East, a distance of 208.6903
Thence North 35-24-20 East, a distance of 349.7396
Thence North 63-50-04 East, a distance of 64.2044
Thence North 63-50-50 East, a distance of 256.3718
Thence North 56-43-24 East, a distance of 309.9471
Thence North 53-33-00 East, a distance of 286.5577
Thence North 76-22-18 East, a distance of 945.3672
Thence North 52-15-15 East, a distance of 510.2846
Thence North 66-11-52 East, a distance of 628.5904
Thence North 74-26-54 East, a distance of 625.9155
Thence North 58-25-38 East, a distance of 270.2542
Thence South 85-01-19 East, a distance of 718.8363
Thence South 63-01-36 East, a distance of 384.4457
Thence South 66-20-26 East, a distance of 218.3532
Thence South 69-03-13 East, a distance of 244.9364
Thence North 83-16-16 East, a distance of 230.9660
Thence North 53-34-47 East, a distance of 143.3794
Thence South 84-23-40 East, a distance of 949.5407
Thence South 56-51-35 East, a distance of 476.9601
Thence South 58-35-04 East, a distance of 167.2702
Thence North 84-03-22 East, a distance of 519.0406
Thence North 56-46-52 East, a distance of 103.2473
Thence North 58-23-45 East, a distance of 270.4916
Thence North 71-54-54 East, a distance of 90.6009
Thence South 89-35-01 East, a distance of 172.0045
Thence South 74-03-10 East, a distance of 535.4830
Thence South 44-34-13 East, a distance of 324.1737
Thence South 33-18-20 East, a distance of 310.0497
Thence South 20-36-19 East, a distance of 399.2270
Thence South 47-58-49 East, a distance of 345.0929
Thence South 53-33-09 East, a distance of 389.8856
Thence South 76-35-51 East, a distance of 764.7010
Thence South 81-44-01 East, a distance of 838.9669
Thence South 77-41-35 East, a distance of 556.5393
Thence South 84-08-48 East, a distance of 1209.1792
Thence South 87-06-12 East, a distance of 1319.5612

Exhibit G – Description of the Water Management Plan Area

Thence North 82-17-20 East, a distance of 607.8717
Thence South 89-35-38 East, a distance of 458.6365
Thence North 68-02-09 East, a distance of 526.8664
Thence North 76-22-18 East, a distance of 472.6836
Thence North 76-23-14 East, a distance of 590.8480
Thence South 89-35-37 East, a distance of 114.5029
Thence North 56-42-13 East, a distance of 103.4884
Thence North 63-53-06 East, a distance of 128.0747
Thence North 45-25-36 East, a distance of 243.2076
Thence North 29-27-11 East, a distance of 295.1445
Thence North 41-00-36 East, a distance of 264.2145
Thence South 89-35-37 East, a distance of 114.6279
Thence North 82-16-29 East, a distance of 202.7149
Thence South 89-35-00 East, a distance of 257.8818
Thence South 83-52-26 East, a distance of 288.1455
Thence South 52-40-48 East, a distance of 143.1916
Thence South 30-33-09 East, a distance of 167.2154
Thence South 09-52-16 West, a distance of 174.2679
Thence South 30-08-41 West, a distance of 230.9893
Thence South 22-12-22 West, a distance of 154.4560
Thence South 00-26-15 West, a distance of 229.1317
Thence South 00-23-59 West, a distance of 143.3785
Thence South 26-09-10 East, a distance of 384.5573
Thence South 30-33-01 East, a distance of 334.2063
Thence South 47-04-25 East, a distance of 466.5541
Thence South 59-51-47 East, a distance of 462.0867
Thence South 66-04-10 East, a distance of 718.7888
Thence South 60-34-06 East, a distance of 295.0830
Thence South 36-26-24 East, a distance of 429.9371
Thence South 38-16-32 East, a distance of 183.4302
Thence South 50-55-44 East, a distance of 367.0959
Thence South 80-07-32 East, a distance of 522.9976
Thence South 83-14-16 East, a distance of 259.5556
Thence South 89-35-00 East, a distance of 343.8841
Thence North 59-26-40 East, a distance of 167.0758
Thence North 60-38-50 East, a distance of 231.0356
Thence North 66-27-54 East, a distance of 282.3629
Thence North 63-51-05 East, a distance of 192.3069
Thence South 89-35-22 East, a distance of 200.5051
Thence South 44-36-00 East, a distance of 202.5910
Thence South 18-01-23 East, a distance of 181.4008
Thence South 13-38-22 East, a distance of 236.4173
Thence South 03-58-18 East, a distance of 373.5851
Thence South 10-53-48 East, a distance of 292.2697
Thence South 22-46-58 East, a distance of 218.2120
Thence South 31-34-53 East, a distance of 270.4261
Thence South 39-24-51 East, a distance of 223.8461
Thence North 76-20-46 East, a distance of 118.0872
Thence North 68-37-46 East, a distance of 154.3636
Thence North 18-52-43 East, a distance of 181.1847
Thence North 26-57-53 East, a distance of 256.3714
Thence North 18-50-39 East, a distance of 362.6232
Thence North 36-25-57 East, a distance of 389.8114
Thence North 45-25-49 East, a distance of 364.7890
Thence North 58-48-12 East, a distance of 437.5179
Thence North 73-54-12 East, a distance of 807.0133

Exhibit G – Description of the Water Management Plan Area

Thence South 89-35-13 East, a distance of 372.6347
Thence South 70-07-37 East, a distance of 516.6417
Thence South 57-26-00 East, a distance of 1184.7900
Thence South 42-06-12 East, a distance of 933.1152
Thence South 68-33-43 East, a distance of 399.1137
Thence South 44-35-55 East, a distance of 283.7774
Thence South 68-32-12 East, a distance of 399.1825
Thence South 71-10-13 East, a distance of 453.1256
Thence South 86-24-01 East, a distance of 516.6443
Thence South 63-00-36 East, a distance of 256.2886
Thence South 47-57-26 East, a distance of 345.2181
Thence South 61-08-28 East, a distance of 782.1325
Thence South 53-20-23 East, a distance of 533.2286
Thence South 58-37-21 East, a distance of 835.5739
Thence South 44-35-29 East, a distance of 526.8518
Thence South 68-43-27 East, a distance of 644.0187
Thence South 60-46-50 East, a distance of 654.2487
Thence South 56-28-54 East, a distance of 786.8458
Thence South 34-42-45 East, a distance of 946.2958
Thence South 31-35-39 East, a distance of 1081.5570
Thence South 24-47-42 East, a distance of 1076.9010
Thence South 09-02-24 East, a distance of 174.2261
Thence South 10-53-23 East, a distance of 292.4543
Thence South 29-50-59 East, a distance of 398.0591
Thence South 54-01-30 East, a distance of 246.5173
Thence South 55-54-06 East, a distance of 206.8047
Thence South 39-23-59 East, a distance of 223.7180
Thence South 35-07-27 East, a distance of 246.5891
Thence South 49-48-18 East, a distance of 223.7016
Thence South 71-06-40 East, a distance of 272.0239
Thence South 82-30-21 East, a distance of 230.9730
Thence South 89-35-39 East, a distance of 114.6279
Thence South 78-15-28 East, a distance of 146.1842
Thence South 63-02-06 East, a distance of 192.2788
Thence South 62-57-36 East, a distance of 128.1311
Thence North 00-22-28 East, a distance of 57.3762
Thence North 30-32-53 West, a distance of 166.9909
Thence North 36-27-13 West, a distance of 430.0114
Thence North 55-53-59 West, a distance of 309.9120
Thence North 29-50-11 West, a distance of 398.2213
Thence North 16-42-00 West, a distance of 389.7520
Thence North 03-40-13 West, a distance of 402.2620
Thence North 34-06-00 East, a distance of 310.1378
Thence South 89-35-37 East, a distance of 114.6279
Thence South 89-35-00 East, a distance of 257.8818
Thence South 33-18-20 East, a distance of 103.3499
Thence South 50-17-04 East, a distance of 407.3895
Thence South 83-51-32 East, a distance of 288.0279
Thence South 63-02-07 East, a distance of 192.2783
Thence South 58-09-42 East, a distance of 604.5925
Thence South 59-00-31 East, a distance of 732.2881
Thence North 85-12-37 East, a distance of 316.6057
Thence South 89-35-00 East, a distance of 343.8841
Thence South 79-34-59 East, a distance of 494.6526
Thence North 51-42-18 West, a distance of 326.6633
Thence North 53-35-56 West, a distance of 82.4656

Exhibit G – Description of the Water Management Plan Area

Thence North 53-34-06 West, a distance of 307.3090
Thence North 55-53-22 West, a distance of 413.3665
Thence North 72-53-50 West, a distance of 598.4647
Thence North 60-58-05 West, a distance of 718.2480
Thence North 46-42-41 West, a distance of 390.6740
Thence North 46-42-44 West, a distance of 156.7825
Thence North 44-35-15 West, a distance of 405.2711
Thence North 46-18-48 West, a distance of 669.1426
Thence North 37-52-35 West, a distance of 693.8574
Thence North 34-17-42 West, a distance of 906.2395
Thence North 33-57-07 West, a distance of 659.8059
Thence North 44-35-16 West, a distance of 608.0830
Thence North 46-47-40 West, a distance of 1054.3274
Thence North 48-19-10 West, a distance of 1868.4824
Thence North 56-06-31 West, a distance of 2130.4779
Thence North 66-07-44 West, a distance of 1655.6256
Thence North 58-12-53 West, a distance of 1376.2780
Thence North 41-24-29 West, a distance of 730.8163
Thence North 41-13-30 West, a distance of 345.0212
Thence North 26-08-55 West, a distance of 384.6138
Thence North 13-37-46 West, a distance of 354.3535
Thence North 41-34-35 West, a distance of 385.5755
Thence North 42-50-20 West, a distance of 669.1777
Thence North 50-29-55 West, a distance of 1181.6210
Thence North 31-24-48 West, a distance of 978.2580
Thence North 26-09-14 West, a distance of 704.9949
Thence North 08-33-23 West, a distance of 551.1343
Thence North 10-42-42 East, a distance of 640.9180
Thence North 35-06-54 East, a distance of 453.0875
Thence North 45-23-44 East, a distance of 243.3389
Thence North 52-32-18 East, a distance of 326.7674
Thence North 00-25-00 East, a distance of 171.8795
Thence North 34-34-34 West, a distance of 349.7803
Thence North 44-35-13 West, a distance of 337.0774
Thence North 44-35-20 West, a distance of 271.0057
Thence North 27-14-21 West, a distance of 679.4763
Thence North 09-26-25 West, a distance of 669.1250
Thence North 15-50-43 West, a distance of 716.4738
Thence North 22-47-41 West, a distance of 436.5304
Thence North 20-37-42 West, a distance of 399.1550
Thence North 05-56-49 West, a distance of 259.3960
Thence North 12-05-28 West, a distance of 264.3646
Thence North 14-27-19 East, a distance of 118.1782
Thence North 50-21-25 East, a distance of 158.1102
Thence North 65-13-15 East, a distance of 328.2188
Thence North 82-49-41 East, a distance of 264.3181
Thence South 84-49-29 East, a distance of 420.5895
Thence South 77-19-12 East, a distance of 411.1524
Thence South 62-03-23 East, a distance of 453.0744
Thence South 53-30-14 East, a distance of 237.5929
Thence South 57-59-51 East, a distance of 266.6488
Thence South 66-45-48 East, a distance of 360.0835
Thence South 74-02-50 East, a distance of 326.3171
Thence South 70-08-39 East, a distance of 314.8424
Thence South 63-01-30 East, a distance of 234.3736
Thence South 35-38-22 East, a distance of 237.4798

Exhibit G – Description of the Water Management Plan Area

Thence South 42-04-07 East, a distance of 284.3200
Thence South 48-59-46 East, a distance of 322.1632
Thence South 55-05-28 East, a distance of 338.9985
Thence South 76-41-52 East, a distance of 627.2030
Thence South 80-50-12 East, a distance of 689.1699
Thence South 68-34-43 East, a distance of 243.1736
Thence South 51-17-14 East, a distance of 422.9187
Thence South 23-13-07 East, a distance of 305.0162
Thence South 17-07-37 East, a distance of 348.0598
Thence South 20-36-34 East, a distance of 243.2560
Thence South 77-20-44 East, a distance of 411.1112
Thence North 88-22-32 East, a distance of 489.4467
Thence South 89-35-23 East, a distance of 209.5054
Thence South 77-48-51 East, a distance of 428.1470
Thence South 46-33-41 East, a distance of 358.4156
Thence South 54-02-09 East, a distance of 300.5375
Thence North 76-21-42 East, a distance of 288.1242
Thence North 17-30-54 East, a distance of 237.5765
Thence North 16-48-48 East, a distance of 309.4149
Thence North 34-06-01 East, a distance of 125.9718
Thence North 84-56-56 East, a distance of 368.4308
Thence South 89-35-24 East, a distance of 227.1308
Thence South 79-15-43 East, a distance of 390.4622
Thence South 89-35-24 East, a distance of 751.1442
Thence North 68-02-21 East, a distance of 321.0451
Thence North 76-24-34 East, a distance of 144.1615
Thence North 82-57-46 East, a distance of 405.0514
Thence North 77-54-02 East, a distance of 322.0287
Thence South 66-25-23 East, a distance of 265.9506
Thence South 68-58-41 East, a distance of 149.3127
Thence North 54-52-10 East, a distance of 300.6385
Thence North 29-27-12 East, a distance of 179.7287
Thence North 56-43-55 East, a distance of 251.9098
Thence South 81-28-20 East, a distance of 370.4709
Thence South 78-57-07 East, a distance of 284.3959
Thence South 67-47-29 East, a distance of 470.2621
Thence South 83-24-48 East, a distance of 650.0405
Thence South 87-51-03 East, a distance of 576.6556
Thence North 81-40-49 East, a distance of 229.7933
Thence South 89-34-59 East, a distance of 524.0139
Thence South 80-08-29 East, a distance of 424.8993
Thence South 68-58-59 East, a distance of 149.1738
Thence South 85-18-12 East, a distance of 700.7279
Thence North 69-21-28 East, a distance of 243.2410
Thence North 83-18-13 East, a distance of 140.9616
Thence North 87-02-55 East, a distance of 297.3945
Thence South 84-24-08 East, a distance of 385.7145
Thence South 73-38-13 East, a distance of 381.5806
Thence South 60-46-31 East, a distance of 398.7573
Thence South 44-33-51 East, a distance of 197.5537
Thence South 44-36-26 East, a distance of 148.2746
Thence South 80-51-20 East, a distance of 229.6689
Thence South 77-41-23 East, a distance of 339.1733
Thence South 80-08-20 East, a distance of 106.1940
Thence South 74-17-21 East, a distance of 199.1918
Thence South 63-03-57 East, a distance of 156.1926

Exhibit G – Description of the Water Management Plan Area

Thence South 89-35-24 East, a distance of 139.7536
Thence North 69-52-16 East, a distance of 149.1074
Thence South 74-22-05 East, a distance of 199.2446
Thence South 54-02-09 East, a distance of 150.2688
Thence South 57-32-02 East, a distance of 164.7486
Thence South 80-08-39 East, a distance of 212.5112
Thence South 81-28-20 East, a distance of 246.9807
Thence South 57-34-32 East, a distance of 164.8208
Thence South 59-51-45 East, a distance of 281.7053
Thence South 49-18-45 East, a distance of 297.3849
Thence South 53-35-18 East, a distance of 237.6448
Thence South 41-33-00 East, a distance of 235.0086
Thence South 49-00-08 East, a distance of 483.1160
Thence South 55-49-43 East, a distance of 125.8518
Thence South 44-35-25 East, a distance of 123.5701
Thence South 44-36-30 East, a distance of 271.6237
Thence South 44-36-10 East, a distance of 197.5973
Thence South 31-11-39 East, a distance of 266.6825
Thence South 29-50-24 East, a distance of 242.6743
Thence South 26-09-18 East, a distance of 273.3663
Thence South 28-55-20 East, a distance of 320.7559
Thence South 44-37-15 East, a distance of 247.0063
Thence South 39-21-54 East, a distance of 136.3797
Thence South 39-30-43 East, a distance of 1115.9357
Thence South 56-57-13 East, a distance of 518.5041
Thence South 32-18-58 East, a distance of 290.6424
Thence South 54-36-52 East, a distance of 213.2716
Thence South 47-36-34 East, a distance of 234.9146
Thence South 44-35-24 East, a distance of 172.8920
Thence South 35-05-29 East, a distance of 150.2478
Thence South 59-20-24 East, a distance of 242.6739
Thence South 59-19-30 East, a distance of 242.5664
Thence South 89-35-24 East, a distance of 139.7536
Thence South 89-35-24 East, a distance of 139.7536
Thence South 89-35-23 East, a distance of 52.3763
Thence North 67-16-06 East, a distance of 132.9522
Thence North 00-24-32 East, a distance of 52.5643
Thence North 33-16-47 West, a distance of 62.8730
Thence North 58-37-01 West, a distance of 203.6710
Thence North 47-58-30 West, a distance of 210.3380
Thence North 50-17-39 West, a distance of 248.1038
Thence North 41-34-22 West, a distance of 235.0915
Thence North 35-34-47 West, a distance of 237.6102
Thence North 52-44-11 West, a distance of 261.9812
Thence North 49-21-11 West, a distance of 297.5341
Thence North 49-21-20 West, a distance of 297.3572
Thence North 44-34-50 West, a distance of 271.7576
Thence North 38-15-35 West, a distance of 335.4983
Thence North 27-27-57 West, a distance of 336.0671
Thence North 50-30-00 West, a distance of 360.1165
Thence North 21-23-39 West, a distance of 470.1461
Thence North 10-11-56 West, a distance of 284.4954
Thence North 07-44-11 West, a distance of 246.9982
Thence North 19-33-17 West, a distance of 204.2826
Thence North 41-52-09 West, a distance of 259.7636
Thence North 63-00-09 West, a distance of 429.5609

Exhibit G – Description of the Water Management Plan Area

Thence North 43-07-25 West, a distance of 481.8419
Thence North 42-44-17 West, a distance of 382.9316
Thence North 28-24-46 West, a distance of 398.7864
Thence North 28-23-07 West, a distance of 398.6130
Thence North 38-46-12 West, a distance of 608.4346
Thence North 72-21-04 West, a distance of 530.2057
Thence North 77-53-41 West, a distance of 517.3797
Thence North 84-31-51 West, a distance of 596.0885
Thence North 68-33-48 West, a distance of 486.5318
Thence North 67-12-28 West, a distance of 642.2768
Thence North 76-42-02 West, a distance of 627.0671
Thence North 60-32-28 West, a distance of 899.1237
Thence North 75-54-13 West, a distance of 665.1543
Thence North 66-23-19 West, a distance of 665.0515
Thence North 80-51-29 West, a distance of 459.4613
Thence North 74-27-13 West, a distance of 669.4943
Thence North 63-02-06 West, a distance of 312.4704
Thence North 73-53-13 West, a distance of 580.5569
Thence North 76-51-43 West, a distance of 555.1563
Thence North 72-03-23 West, a distance of 347.9228
Thence North 71-08-13 West, a distance of 497.2030
Thence North 69-01-58 West, a distance of 746.1565
Thence North 46-26-06 West, a distance of 382.9739
Thence North 55-28-34 West, a distance of 654.0611
Thence North 65-37-13 West, a distance of 516.0126
Thence North 73-38-41 West, a distance of 508.7107
Thence North 70-36-46 West, a distance of 591.0123
Thence North 69-01-55 West, a distance of 447.6429
Thence North 64-48-32 West, a distance of 1750.7575
Thence North 68-24-13 West, a distance of 917.8053
Thence North 68-02-33 West, a distance of 1427.2827
Thence North 64-07-22 West, a distance of 1625.0677
Thence North 43-46-42 West, a distance of 876.7911
Thence North 47-49-40 West, a distance of 655.7561
Thence North 61-41-57 West, a distance of 335.8997
Thence North 51-42-49 West, a distance of 199.2231
Thence North 48-40-34 West, a distance of 346.7099
Thence North 47-34-33 West, a distance of 235.0408
Thence North 36-26-36 West, a distance of 174.6548
Thence North 09-53-20 East, a distance of 106.2668
Thence South 78-41-19 East, a distance of 462.3561
Thence South 74-50-24 East, a distance of 343.1933
Thence South 79-53-51 East, a distance of 726.5141
Thence South 82-28-31 East, a distance of 422.3874
Thence North 74-29-44 East, a distance of 254.3821
Thence North 67-11-37 East, a distance of 399.0744
Thence North 60-41-37 East, a distance of 281.6756
Thence North 79-05-27 East, a distance of 445.1700
Thence North 00-26-51 East, a distance of 192.0059
Thence North 31-36-58 West, a distance of 164.7668
Thence North 80-07-13 West, a distance of 637.4534
Thence North 79-17-00 West, a distance of 585.8427
Thence North 83-52-06 West, a distance of 702.1421
Thence North 81-40-22 West, a distance of 634.8176
Thence North 71-46-52 West, a distance of 513.7552
Thence North 78-48-11 West, a distance of 746.7136

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Exhibit G – Description of the Water Management Plan Area

Thence North 70-26-56 West, a distance of 905.9868
Thence North 65-52-49 West, a distance of 2823.3710
Thence North 52-03-27 West, a distance of 1519.7285
Thence North 36-15-37 West, a distance of 1023.5333
Thence North 28-50-12 West, a distance of 1501.3573
Thence North 03-16-40 East, a distance of 699.5825
Thence North 40-00-38 East, a distance of 657.5376
Thence North 55-55-24 East, a distance of 339.1029
Thence North 56-42-53 East, a distance of 377.8643
Thence North 26-59-25 East, a distance of 312.6105
Thence North 71-58-47 East, a distance of 497.0045
Thence North 80-06-42 East, a distance of 585.9547
Thence South 87-23-25 East, a distance of 454.3462
Thence North 42-41-35 East, a distance of 519.3043
Thence North 65-30-29 East, a distance of 539.2736
Thence North 85-13-27 East, a distance of 192.9198
Thence South 77-48-22 East, a distance of 428.1601
Thence South 79-18-05 East, a distance of 195.2692
Thence North 69-51-14 East, a distance of 298.5136
Thence North 28-19-28 East, a distance of 335.9044
Thence North 31-22-11 East, a distance of 305.6825
Thence North 56-01-15 East, a distance of 402.0238
Thence North 82-39-26 East, a distance of 387.8052
Thence North 78-08-24 East, a distance of 411.1519
Thence North 60-22-03 East, a distance of 383.3919
Thence North 59-26-14 East, a distance of 203.6705
Thence North 05-12-58 East, a distance of 210.3711
Thence North 54-35-53 West, a distance of 426.4772
Thence North 11-40-50 West, a distance of 250.0533
Thence North 49-48-05 East, a distance of 161.0345
Thence North 48-23-44 East, a distance of 235.0392
Thence North 00-24-37 East, a distance of 174.5675
Thence North 23-13-24 West, a distance of 304.9592
Thence North 70-45-15 East, a distance of 259.7676
Thence South 78-49-18 East, a distance of 373.3326
Thence South 72-19-46 East, a distance of 530.4007
Thence North 68-01-44 East, a distance of 321.0687
Thence North 61-21-05 East, a distance of 179.8988
Thence North 15-39-15 East, a distance of 199.2007
Thence North 00-24-37 East, a distance of 174.5675
Thence North 09-52-20 West, a distance of 195.3932
Thence North 38-41-05 West, a distance of 359.9806
Thence North 38-15-35 West, a distance of 335.4983
Thence North 24-47-03 West, a distance of 328.3020
Thence North 18-01-30 West, a distance of 220.9698
Thence North 00-27-21 East, a distance of 157.1300
Thence North 24-36-33 West, a distance of 289.0680
Thence North 26-08-49 West, a distance of 195.4380
Thence North 37-10-21 West, a distance of 286.5286
Thence North 71-10-31 West, a distance of 276.0141
Thence North 89-35-24 West, a distance of 366.7594
Thence North 47-18-37 West, a distance of 259.8516
Thence North 02-26-15 West, a distance of 349.7545
Thence North 02-27-48 West, a distance of 125.0526
Thence North 02-27-50 West, a distance of 78.5106
Thence North 02-27-01 West, a distance of 146.1957

Exhibit G – Description of the Water Management Plan Area

Thence North 05-17-26 West, a distance of 351.1208
Thence North 29-50-24 West, a distance of 242.6743
Thence North 87-54-29 West, a distance of 594.1460
Thence South 25-25-45 West, a distance of 289.0690
Thence South 07-33-35 West, a distance of 54.1577
Thence South 07-31-36 West, a distance of 368.3617
Thence South 15-40-43 West, a distance of 398.2550
Thence South 21-34-12 West, a distance of 580.7325
Thence South 17-07-05 West, a distance of 546.9813
Thence South 18-03-11 West, a distance of 403.3575
Thence South 25-37-23 West, a distance of 328.0751
Thence South 34-42-09 West, a distance of 465.0331
Thence South 25-01-48 West, a distance of 461.1868
Thence South 54-23-57 West, a distance of 475.1916
Thence South 69-37-52 West, a distance of 541.7496
Thence North 73-56-54 West, a distance of 453.4280
Thence North 48-34-43 West, a distance of 532.4290
Thence North 28-23-07 West, a distance of 398.6121
Thence North 54-35-53 West, a distance of 426.4777
Thence North 16-41-42 West, a distance of 237.5764
Thence North 12-06-59 West, a distance of 322.1772
Thence North 33-16-47 West, a distance of 251.7194
Thence North 60-46-31 West, a distance of 398.7569
Thence North 40-31-06 West, a distance of 346.7031
Thence North 29-18-46 West, a distance of 281.6207
Thence North 31-34-49 West, a distance of 329.6291
Thence North 65-37-55 West, a distance of 344.1602
Thence North 33-16-48 West, a distance of 314.8173
Thence North 40-10-53 West, a distance of 160.9938
Thence South 48-09-08 West, a distance of 259.5913
Thence South 05-10-56 West, a distance of 210.3598
Thence South 01-52-06 East, a distance of 437.1073
Thence South 17-14-28 East, a distance of 403.1796
Thence South 16-17-52 East, a distance of 546.9801
Thence South 17-24-29 East, a distance of 513.9131
Thence South 44-35-54 East, a distance of 296.2405
Thence South 40-10-11 East, a distance of 322.2593
Thence South 35-07-29 East, a distance of 300.4644
Thence South 31-25-13 East, a distance of 596.0948
Thence South 27-28-50 East, a distance of 335.9003
Thence South 04-21-44 East, a distance of 210.3594
Thence South 42-01-35 West, a distance of 210.4263
Thence South 45-23-50 West, a distance of 197.5089
Thence South 52-08-16 West, a distance of 422.9006
Thence South 45-24-36 West, a distance of 469.3541
Thence South 70-25-56 West, a distance of 408.8638
Thence South 66-59-15 West, a distance of 571.0711
Thence South 33-18-10 West, a distance of 353.7851
Thence South 37-17-32 West, a distance of 349.2845
Thence South 49-29-46 West, a distance of 346.7099
Thence South 65-13-51 West, a distance of 328.1924
Thence South 55-43-12 West, a distance of 276.0820
Thence South 59-26-46 West, a distance of 407.4482
Thence South 55-41-57 West, a distance of 385.3996
Thence South 74-49-34 West, a distance of 746.6568
Thence South 88-29-17 West, a distance of 502.1748

Exhibit G – Description of the Water Management Plan Area

Thence North 70-28-56 West, a distance of 460.1936
Thence North 69-36-20 West, a distance of 783.2207
Thence North 43-33-28 West, a distance of 939.4676
Thence North 43-33-19 West, a distance of 1036.0201
Thence North 40-54-46 West, a distance of 2583.7541
Thence North 31-11-35 West, a distance of 1531.8376
Thence North 29-04-17 West, a distance of 883.9252
Thence North 09-00-43 East, a distance of 1454.7700
Thence North 54-11-24 West, a distance of 779.7834
Thence North 87-31-53 West, a distance of 468.6850
Thence North 57-43-25 West, a distance of 728.5775
Thence North 45-11-13 West, a distance of 1123.8200
Thence North 42-28-03 West, a distance of 639.0971
Thence North 44-35-23 West, a distance of 993.5551
Thence North 53-37-20 West, a distance of 1053.8761
Thence North 45-08-03 West, a distance of 1265.5924
Thence North 59-09-53 West, a distance of 2532.3330
Thence North 47-35-59 West, a distance of 2350.0134
Thence North 58-27-25 West, a distance of 2060.8752
Thence North 66-50-08 West, a distance of 1174.2981
Thence North 63-57-03 West, a distance of 968.6480
Thence North 63-00-31 West, a distance of 390.6801
Thence North 70-40-49 West, a distance of 646.2686
Thence North 40-55-19 West, a distance of 581.6539
Thence North 34-57-19 West, a distance of 664.1211
Thence North 29-30-50 West, a distance of 665.0486
Thence North 40-11-42 West, a distance of 644.1840
Thence North 32-41-45 West, a distance of 479.4718
Thence North 31-47-25 West, a distance of 557.3641
Thence North 35-29-16 West, a distance of 625.5074
Thence North 57-26-41 West, a distance of 722.0837
Thence North 56-11-52 West, a distance of 920.3187
Thence North 52-01-01 West, a distance of 859.5622
Thence North 43-09-18 West, a distance of 988.3405
Thence North 48-19-27 West, a distance of 1138.6784
Thence North 49-20-55 West, a distance of 892.3305
Thence North 61-42-59 West, a distance of 128.6036
Thence North 61-46-06 West, a distance of 582.4067
Thence North 38-45-39 West, a distance of 608.3563
Thence North 57-50-10 West, a distance of 431.4674
Thence North 54-15-44 West, a distance of 513.7375
Thence North 47-06-09 West, a distance of 284.2715
Thence North 61-17-55 West, a distance of 257.9420
Thence North 69-55-30 West, a distance of 259.6503
Thence North 82-28-31 West, a distance of 422.3874
Thence North 76-33-36 West, a distance of 233.1347
Thence North 73-00-13 West, a distance of 856.5357
Thence North 30-02-19 West, a distance of 344.5967
Thence North 32-29-37 West, a distance of 707.3623
Thence North 37-17-46 West, a distance of 485.6130
Thence North 24-21-08 West, a distance of 500.1906
Thence North 19-14-31 West, a distance of 519.2580
Thence North 09-53-20 East, a distance of 212.5327
Thence North 00-24-37 East, a distance of 296.8196
Thence North 38-14-00 West, a distance of 335.6954
Thence North 89-35-24 West, a distance of 192.1299

Exhibit G – Description of the Water Management Plan Area

Thence North 89-35-24 West, a distance of 209.6304
Thence North 55-06-11 West, a distance of 339.1010
Thence North 16-16-08 West, a distance of 182.4945
Thence North 34-35-39 West, a distance of 213.1185
Thence North 64-49-05 West, a distance of 250.1489
Thence North 70-17-53 West, a distance of 370.0374
Thence North 44-34-57 West, a distance of 345.8289
Thence North 16-18-05 West, a distance of 364.7246
Thence North 29-57-57 West, a distance of 587.1073
Thence North 16-16-28 West, a distance of 182.4350
Thence North 38-34-12 East, a distance of 310.9619
Thence North 26-58-53 East, a distance of 507.7685
Thence North 26-02-10 East, a distance of 484.4089
Thence North 28-30-44 East, a distance of 296.9540
Thence North 09-08-31 East, a distance of 229.7301
Thence North 06-25-49 East, a distance of 333.7245
Thence North 09-22-35 East, a distance of 336.0530
Thence North 04-13-57 East, a distance of 262.5279
Thence North 31-34-44 West, a distance of 164.7022
Thence South 45-26-05 West, a distance of 98.9540
Thence South 50-38-19 West, a distance of 136.2910
Thence South 31-20-58 West, a distance of 203.7449
Thence South 20-23-24 West, a distance of 204.5015
Thence South 37-18-31 West, a distance of 174.6797
Thence South 35-56-42 West, a distance of 300.4641
Thence South 30-10-36 West, a distance of 281.7456
Thence South 19-50-56 West, a distance of 314.7618
Thence South 10-42-47 West, a distance of 390.6845
Thence South 56-43-54 West, a distance of 251.9103
Thence South 62-31-10 West, a distance of 335.9003
Thence North 83-15-45 West, a distance of 316.4353
Thence South 67-46-15 West, a distance of 226.9957
Thence South 84-04-56 West, a distance of 316.4363
Thence North 80-51-20 West, a distance of 229.6689
Thence North 66-23-39 West, a distance of 398.4678
Thence North 66-22-50 West, a distance of 665.7744
Thence North 40-11-08 West, a distance of 805.0972
Thence North 55-01-37 West, a distance of 954.6359
Thence North 44-35-45 West, a distance of 419.8105
Thence North 59-05-55 West, a distance of 344.5304
Thence North 42-58-24 West, a distance of 432.4011
Thence North 50-05-14 West, a distance of 384.7675
Thence North 63-02-07 West, a distance of 312.4699
Thence North 64-14-47 West, a distance of 367.0874
Thence South 17-59-39 East, a distance of 110.4651
Thence South 35-50-56 East, a distance of 324.8520
Thence South 32-28-58 East, a distance of 353.7862
Thence South 31-35-51 East, a distance of 329.4689
Thence South 44-35-03 East, a distance of 420.0770
Thence South 41-51-46 East, a distance of 519.2197
Thence South 13-37-56 East, a distance of 287.9879
Thence South 09-35-21 East, a distance of 301.6528
Thence South 05-18-52 East, a distance of 175.4412
Thence South 27-00-57 West, a distance of 117.2299
Thence South 49-48-06 West, a distance of 161.0338
Thence North 89-35-23 West, a distance of 157.1290

Exhibit G – Description of the Water Management Plan Area

Thence North 72-13-07 West, a distance of 292.8656
Thence North 38-14-40 West, a distance of 223.5397
Thence North 49-21-21 West, a distance of 1487.2756
Thence North 50-30-26 West, a distance of 154.9607
Thence South 53-10-59 West, a distance of 150.5821
Thence South 54-44-21 West, a distance of 1005.8733
Thence South 55-06-24 West, a distance of 6992.3760
Thence South 54-09-37 West, a distance of 1051.0319
to the True Point of Beginning.

Perimeter: 551741.8300

Area: 2495992473.0343 57300.1027 acres
Mapcheck Closure - (Uses listed courses & COGO Units)
Error of Closure: 0.02737 Thence South 68-46-44 W
Precision 1: 20161685.12

Exhibit H – Judgment and Decree

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

SOBOBA BAND OF LUISEÑO INDIANS, a federally recognized Indian tribe,

Plaintiff,

v.

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA, a California metropolitan water district; LAKE HEMET MUNICIPAL WATER DISTRICT, a California water district; the UNITED STATES OF AMERICA for the benefit of the Soboba Band of Luiseño Indians,

Defendants,

v.

EASTERN MUNICIPAL WATER DISTRICT, a California water district,

Third-Party Defendant.

Case No. 00-04208 GAF (MANx)
Judge: Honorable Gary A. Feess

STIPULATED JUDGMENT

JUDGMENT AND DECREE

The Court has considered the Settlement Agreement dated _______, 2004, which permanently resolves the claims of the Soboba Band of Luiseño Indians, (hereinafter “Soboba Tribe”) and the United States appearing for the benefit of the Soboba Tribe for alleged infringement of its water rights in the San Jacinto River and the Canyon Sub-basin and Intake portion of the Upper Pressure Sub-basin associated therewith (collectively “Basin”) in Riverside County, California, and for damages related to historical interference with the Soboba Tribe’s rights and unauthorized use of its water. A copy of the Settlement Agreement is attached as Exhibit 1 to the Stipulation and Request for Entry of Judgment and Decree.

After consideration of the pleadings and papers filed in this action, the evidence presented by the Parties, and the Stipulation and Request for Entry of Judgment and Decree, it is hereby ORDERED, ADJUDGED AND DECREED:

1. The Settlement Agreement is hereby approved in its entirety, and this Judgment and Decree incorporates the definitions set forth therein. When used in this Judgment and Decree, the term “United States” shall mean the United States of America acting on behalf of the Soboba Tribe, and in no other capacity except as specifically otherwise provided herein.

2. The Soboba Tribe shall have the right to waters beneath the Soboba Indian Reservation, which shall be held in trust by the United States for the benefit of the Soboba Tribe, as follows:

A. The prior and paramount right, superior to all others, to pump 9,000 AFA from the Basin for any use on the Reservation and lands now owned or hereafter acquired by the Soboba Tribe contiguous to the Reservation or within the Basin.

B. The Soboba Tribe’s right to pump a total of 9,000 AFA from the

Basin is without regard to whether the water was naturally or artificially recharged.

C. In the event the Soboba Tribe is unable, except for mechanical failure of its wells, pumps or water facilities, to produce from its existing wells or equivalent replacements up to 3,000 AFA production from the Canyon Sub-basin and the remainder of its Tribal Water Right from the Intake Sub-basin, Eastern Municipal Water District and Lake Hemet Municipal Water District ("the Local Districts") shall deliver any shortage to the Soboba Tribe. Any shortage shall be delivered at such locations as the Soboba Tribe and the Local Districts may agree, or if there is no agreement, at the wellheads where the shortage occurred. Such water may be supplied from Local District wells in either the Canyon or Intake Sub-basins, or from other sources. For any water delivered pursuant to this paragraph, the Soboba Tribe shall pay an acre-foot charge equal to its then current cost of production, and any avoided cost of treatment, from the wells where the shortage occurred, assuming pumping lifts equal to the Soboba Tribe's averages in the respective Sub-basins over the preceding ten years.

3. Beginning on the Effective Date of the Settlement Agreement, the Soboba Tribe's right to pump groundwater in the exercise of its Tribal Water Right shall be subject to the following provisions:

A. The Soboba Tribe agrees to limit its exercise of the Tribal Water Right to 4,100 acre-feet annually, for a period of fifty (50) years commencing with the Effective Date of the Settlement Agreement, according to the schedule set forth in Exhibit F of the Settlement Agreement. Should the Soboba Tribe during that period identify a need for water in addition to the Schedule set forth in Exhibit F, the Soboba Tribe shall have the right to purchase water from the Water Management Plan at the rate then being charged to the Water Management Plan's municipal producers.

B. Any use of the Tribal Water Right by an individual member of the

Soboba Tribe shall be satisfied out of the water resources provided to the Soboba Tribe in the Settlement Agreement and this Judgment and Decree.

4. The foregoing rights are in full satisfaction of all of the Soboba Tribe's claims as provided in Article 5 of the Settlement Agreement.

5. This Court retains jurisdiction over this matter and the Parties for the limited and sole purpose of interpretation and enforcement of this Judgment and Decree and the Settlement Agreement.

6. The Action shall be transferred to the United States District Court, Central District of California, Eastern Division.

7. Except as may be included in the payments contemplated by the Settlement Agreement, no Party shall recover any attorney's fees or costs from any other Party.

8. The Parties have waived their rights to appeal, and therefore, this Judgment and Decree shall become final and nonappealable as of the date it is entered. This Judgment and Decree shall become enforceable as of the date the United States Secretary of the Interior causes to be published in the Federal Register a statement of findings that all actions necessary to make the settlement effective have been completed, as required by Section 10 of the Soboba Band of Luiseño Indians Settlement Act, Public Law ______.

Dated: ________________, 200_ ________________________________

United States District Court Judge

Exhibit I – Soboba Tribe's Water Development Schedule

SETTLEMENT YEARS (FROM EFFECTIVE DATE)	MAXIMUM TRIBAL USAGE (AFA)
1 – 5	2900
6 – 10	3215
11 – 15	3520
16 – 20	3825
21 – 25	4010
26 – 30	4020
31 – 35	4025
36 – 40	4040
41 – 45	4075
46 – 50	4100

Exhibit J – Description of EMWD Property

Parcel 1:

The North half of the Northwest quarter of Section 34 in Township 5 South, Range 2 West, San Bernardino Meridian, in the County of Riverside, State of California, according to the Official Plat thereof;

Excepting therefrom the Westerly 30 feet for road purposes as conveyed to the County of Riverside, by Deed recorded November 13, 1929 in Book 722 page 447 of Deeds, Riverside County Records;

Also excepting therefrom that portion conveyed to the County of Riverside, for road purposes, by Deed filed for record January 18, 1949 as Instrument No. 1917, Official Records.

Also except that portion conveyed to Riverside County Flood Control and Water Conservation District by Grant Deed recorded May 13, 1987 as Instrument No. 133741, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation, by Grant Deed recorded July 22, 1994 as Instrument No. 291698, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California by Grant Deed recorded July 22, 1994 as Instrument No. 291699, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation by Grant Deed recorded January 30, 1997 as Instrument No. 32920, Official Records.

Parcel 2:

The South half of the Northwest quarter of Section 34, Township 5 South,.Range 2 East, San Bernardino Meridian, in the County of Riverside, State of California, according to the Official Plat thereof.

Except that portion conveyed to the County of Riverside, by deed recorded April 26, 1949 in Book 1071, Page 392, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation, by Grant Deed recorded July 22, 1994 as Instrument No. 291698, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation by Grant Deed recorded January 30, 1997 as Instrument No. 32920, Official Records.

Also except that portion conveyed to the Metropolitan Water District of Southern California, a public corporation, by Grant Deed recorded May 5, 1997 as Instrument No. 154365, Official Records.

Exhibit K - Description of MWD Property

DRAFT

EXHIBIT A

Diamond Valley Lake
144-1-649C
Grant Deed
MWD to
The Soboba Band of Luiseno Indians

That parcel of land conveyed to The Metropolitan Water District of Southern California by Grant Deed recorded April 25, 1996 as Instrument No. 149322 Official Records of Riverside County, California, lying within the west half of the northeast quarter of Section 34, Township 5 South, Range 2 West San Bernardino Meridian, as shown on Record of Survey filed in Book 104, pages 62 through 76, inclusive, Records of Survey of said County.

EXCEPTING therefrom that portion lying southerly of the northerly line of that certain parcel conveyed to the County of Riverside by Grant Deed recorded November 21, 1999 as Document No. 1999-463789 Official Records of said County.

ALSO EXCEPTING therefrom that portion lying northerly of the southerly line of that certain parcel conveyed to the Riverside County Flood Control and Water Conservation District by Document No. 1999-441419, recorded October 4, 1999, Official Records of said County

Containing 21.718 acres, more or less.

All as shown on EXHIBIT "B" attached hereto and made a part hereof.

END OF DESCRIPTION

PREPARED UNDER MY SUPERVISION

DRAFT

Date ______________________

EXHIBIT B

PAGE 1 OF 1

W1/2NE1/4, SEC. 34, T5S, R2W, SBM,
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

THIS EXHIBIT IS TO BE ATTACHED TO THE LEGAL DESCRIPTION

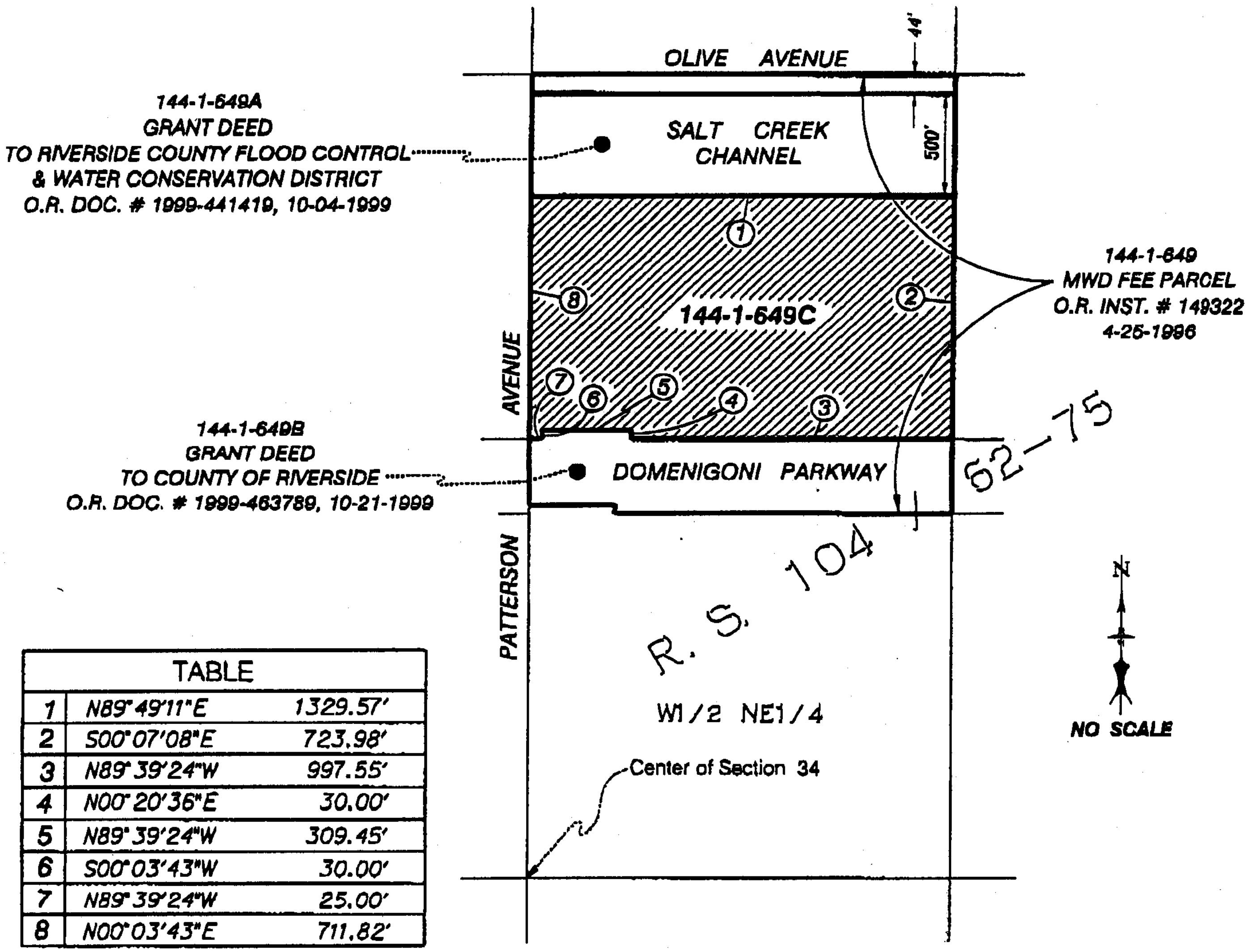

TABLE		
1	N89°49'11"E	1329.57'
2	S00°07'08"E	723.98'
3	N89°39'24"W	997.55'
4	N00°20'36"E	30.00'
5	N89°39'24"W	309.45'
6	S00°03'43"W	30.00'
7	N89°39'24"W	25.00'
8	N00°03'43"E	711.82'

LEGEND

▨ = **144-1-649C GRANT DEED 21.718 ACRES.**

VICINITY MAP

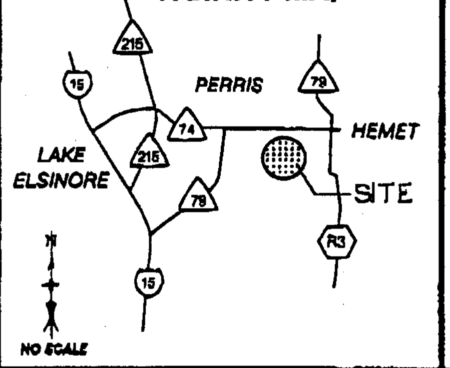

PREPARED UNDER
MY SUPERVISION

DRAFT

DATE

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

DIAMOND VALLEY LAKE PROJECT

GRANT DEED

MWD
TO
THE SOBOBA BAND OF LUISENO INDIANS
144-1-649C

/dvr/row/exhib/1441649c.dgn

4-8-2003 HN

Exhibit L – Description of LHMWD Property

Portions of Lots 3, 4 and 5 of Fairview Tract, as shown on the plat in San Diego Map Book 006, page 307, in Riverside County, California, comprising 11.57 acres more or less.

Exhibit M - Map of Potential Soboba Reservation Lands for Habitat Preservation and /or Environmental Mitigation

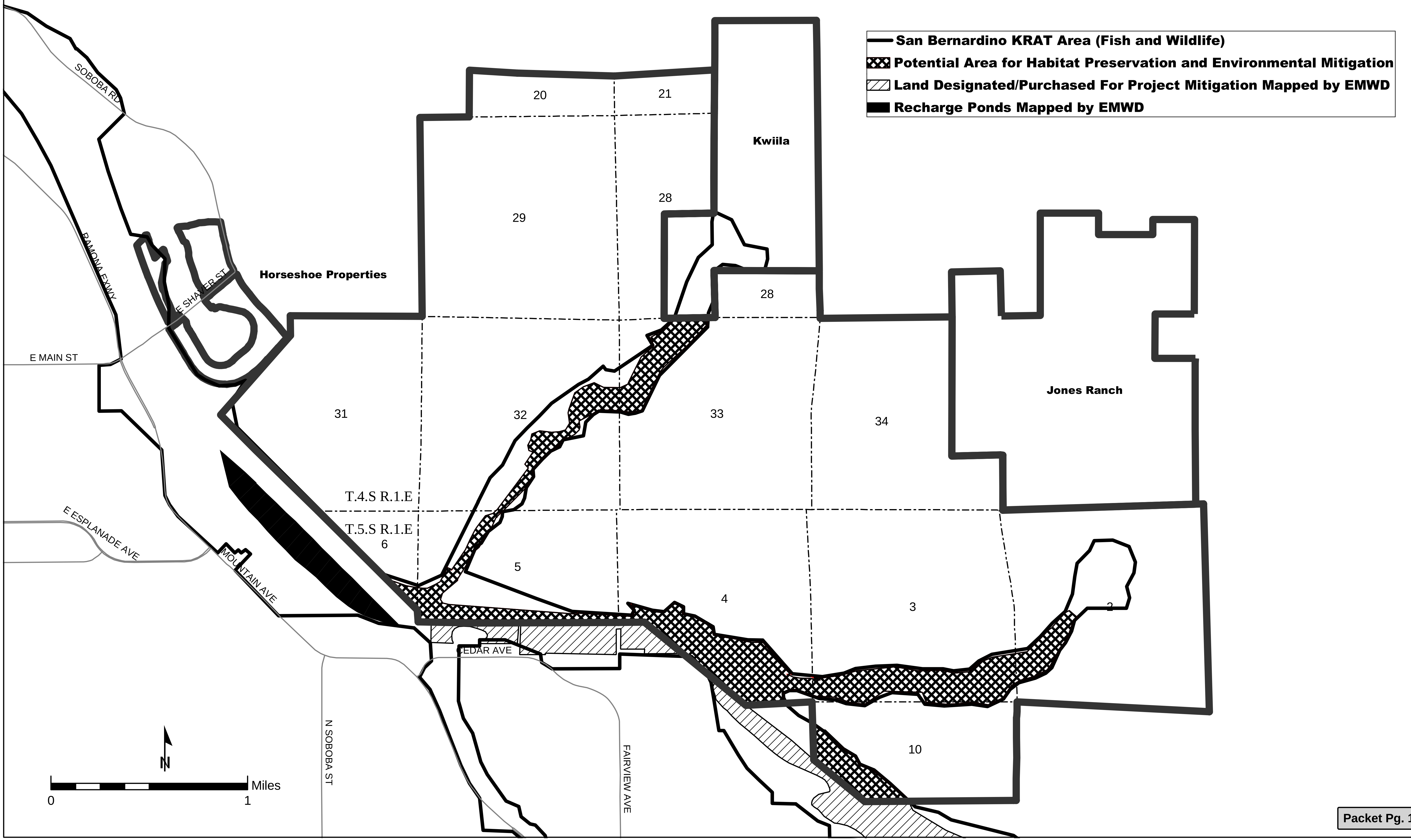

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX B STIPULATED JUDGMENT

DRAFT
May 19, 2006

DRAFT

Attorneys for ______________________

____

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district,

Plaintiff,

v.

LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district;
CITY OF HEMET, a California municipal corporation;
CITY OF SAN JACINTO, a California municipal corporation;
________________, an individual;
________________, an individual;
________________, an individual;
_ ________________, an individual,

Defendants.

Case No.
Judge:

STIPULATED JUDGMENT

Action Filed: _________, 200_
Trial Date: Stipulation

FINDINGS

After consideration of the pleadings and the Stipulation for Entry of Judgment, the Court finds that:

1. Complaint. On __________, 200_, Plaintiff Eastern Municipal Water District ("Eastern") filed a Complaint against Defendants Lake Hemet Municipal Water District ("Lake Hemet"), City of Hemet ("Hemet"), City of San Jacinto ("San Jacinto"), __________, ________, ________. The Complaint requests a declaration of Plaintiff's and Defendants' individual and collective rights to surface water and groundwater in the Canyon Sub-basin, the San Jacinto Upper Pressure Sub-basin downstream to Bridge Street, and the Hemet Basin ("Management Area") and the imposition of a physical solution to achieve the optimum, reasonable, beneficial use of the waters of the Management Area pursuant to Section 2 of Article X of the California Constitution. A map describing the boundaries of the Management Area is attached to this Judgment as Exhibit A and to the Complaint.

2. Parties.

A. Eastern. Eastern is a California municipal water district formed pursuant to the Municipal Water District Law, California Water Code Sections 71000-73001 (West 1966), with its principal place of business in Riverside County, California. Eastern diverts surface water from the San Jacinto River, and pumps groundwater from the Management Area for use by its customers within its boundaries.

B. Lake Hemet. Lake Hemet is a California municipal water district formed pursuant to the Municipal Water District Law, California Water Code Sections 71000-73001 (West 1966), with its principal place of business in Riverside County, California. Lake Hemet diverts surface water from the Santa Jacinto River and its tributaries, and pumps groundwater from the Management Area for use by its customers within its boundaries.

C. Hemet. Hemet is a California municipal corporation providing utility services pursuant to the California Constitution, Article XI, Section 9. Hemet pumps groundwater from the Management Area for use by its customers within its boundaries.

D. San Jacinto. San Jacinto is a California municipal corporation providing utility services pursuant to the California Constitution, Article XI, Section 9. San Jacinto pumps groundwater from the Management Area for use by its customers within its boundaries.

E. ___________, _________, _________, _________ and _________ are persons who own farms or other property within the Management Area, and pump groundwater from the Management Area.

3. Answers and Stipulation for Judgment. On ____________, 200_, Defendants filed Answers. On _____________, 200_, the Parties filed a Stipulation for Entry of Judgment.

4. Sole Producers. Other than the Soboba Band of Luiseno Indians, and certain overlying users not parties to this litigation, the parties claim essentially all of the rights to produce surface water and groundwater in the Management Area.

5. Importance of Surface Water and Groundwater. Surface water and groundwater from the Management Area are important water supplies for agriculture, domestic and municipal use. The Parties have a mutual and collective interest in the coordinated management of such water resources to ensure that the common resource is used efficiently and reasonably, and that it is sustained and replenished.

6. Overdraft. It is estimated that the overdraft of the Management Area is at least 10,000 acre-feet per year. This estimate will be refined through further studies to be completed pursuant to the Water Management Plan, including data on the several sub-basins within the Management Area. Studies confirm that in recent years the total production from the Management Area, including pumping by those persons not parties to this litigation, has averaged approximately 63,800 acre-feet per year.

7. Importance of Judgment. The Parties have an interest in the physical solution imposed by this Judgment to promote the efficient and coordinated management of surface water and groundwater, to avoid problems from overdraft, to assist in protecting the rights of the Soboba Band of Luiseno Indians, to sustain and enhance water resources, and to resolve competing claims to surface water and groundwater.

8. Jurisdiction. This Court has jurisdiction to enter this Judgment declaring and adjudicating the rights of the Parties to the reasonable and beneficial use of surface water and groundwater in the Management Area, and to impose a physical solution pursuant to law, including California Constitution, Article X, Section 2.

JUDGMENT

IT IS ORDERED, ADJUDGED AND DECREED:

1. DEFINITIONS.

1.1 Adjusted Production Right – the Base Production Right of each Public Agency, as adjusted pursuant to Sections 3.2 to 3.2.5.

1.2 Administrative Assessment – an acre-foot charge to be levied against each Public Agency for water pumped up to its Adjusted Production Right, including any unused amount of such Right that is pumped in a following year. Such assessments shall be used for Administrative Expenses, and for the purchase of Supplemental Water after Administrative Expenses have been paid.

1.3 Administrative Expenses – Watermaster's expenses for office rental, personnel, supplies, office equipment, general overhead, preparing and collecting assessments, monitoring well pumping, measuring water levels, sampling and analyzing water quality, compiling and interpreting collected data, conducting special studies, and litigation.

1.4 Advisor. An independent engineering firm or qualified individual as provided in Section 9.6.3.

1.5 Annual Basin Yield – the quantity of Groundwater that Watermaster determines the Parties may Produce from the Management Area in a calendar year without a replenishment obligation under the Physical Solution.

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1.6 Base Production Right – the water right of a Public Agency or Class B Participant as set forth in the attached Exhibit "C."

1.7 Carry-Over Credit – a Party's credit against the Replenishment Assessment in a Fiscal Year, based on the Party's Adjusted Production Right or share of Imported Water not produced in prior calendar years.

1.8 Class A Participant – a Private Pumper who stipulates to this Judgment and participates in the Water Management Plan as defined in Sections 4.3 to 4.3.5.

1.9 Class B Participant – a Private Pumper who stipulates to this Judgment and participates in the Water Management Plan as defined in Sections 4.4 to 4.4.6.

1.10 Fiscal Year – the period from July 1 through June 30 of the following calendar year.

1.11 Fruitvale Documents –

(a) Fruitvale Judgment – The Judgment and Decree entered in the Superior Court for the County of Riverside on June 4, 1954, in an action titled The City of San Jacinto, et al. v. Fruitvale Mutual Water Company, et al., Case No. 51-546;

(b) Fruitvale Mutual Water Company Sale of Assets to Eastern – That certain "Agreement for the Sale of Assets of the Fruitvale Mutual Water Company to Eastern Municipal Water District" dated September 10, 1971;

(c) Fruitvale Mutual Water Company Agency Agreements – The Agreement Between the City of San Jacinto and Eastern Municipal Water District dated June 15, 1972, the Agreement Between Lake Hemet Municipal Water District and Eastern Municipal Water District dated June 9, 1972, and the Agreement Between the City of Hemet and Eastern Municipal Water District dated June 13, 1972, all providing for recognition of ownership of stock in Fruitvale Mutual Water Company by the Cities and by Lake Hemet, and making provision for the continued sale of water produced through the Fruitvale facilities by Eastern to the Cities and to Lake Hemet.

1.12 Groundwater – all water within and beneath the ground surface of the Management Area.

1.13 Imported Water – An average of 7,500 acre feet annually of water sold by The Metropolitan Water District of Southern California to Eastern pursuant to Section 4.4 of the Soboba Band of Luiseño Indians "Settlement Agreement."

1.14 Management Area –the Canyon Sub-basin, the San Jacinto Upper Pressure Sub-basin downstream to Bridge Street, and the Hemet Basin, as delineated on the map attached as Exhibit "A."

1.15 Metropolitan – The Metropolitan Water District of Southern California.

1.16 Natural Recharge – Groundwater replenishment within the Management Area occurring from precipitation on the surface, percolation from surface flows of the San Jacinto River and its tributaries, return flows from irrigation, artificial spreading or injection of such surface flows, and subsurface inflows.

1.17 Non-Participant – a Private Pumper who elects not to participate in the Management Plan, or to be a party to this Judgment.

1.18 Overdraft – a condition whereby pumping in the Management Area exceeds the Safe Yield thereof.

1.19 Overlying Right – the appurtenant right of an owner of land overlying the Management Area to pump water from such land for beneficial use thereon.

1.20 Party or Parties – Eastern, Lake Hemet, Hemet, San Jacinto and the other Persons listed in the attached Exhibit "B."

1.21 Person – any individual, partnership, association, corporation, trust, government agency or other organization.

1.22 Physical Solution – the Court decreed method of managing the water supply of the Management Area to maximize the reasonable and beneficial use of the waters thereof pursuant to the California Constitution, Article X, Section 2, to eliminate overdraft pursuant to the provisions of this Judgment, to protect the prior rights of the Soboba Tribe, and to provide for the substantial enjoyment of all water rights recognizing their priorities.

1.23 Private Pumper – a Person who owns land with an Overlying Right or other right in the Management Area and pumps more than 25 acre-feet per year.

1.24 Public Agency or Agencies – Eastern, Lake Hemet, Hemet and San Jacinto.

1.25 Recharge or Replenish – to sink, spread or inject water directly or indirectly underground in the Management Area.

1.26 Recharge Right – a Party's right to the use of Recharge Water.

1.27 Recharge Water – water used for Recharge.

1.28 Recycled Water – treated wastewater which is processed and suitable for controlled use in the Management Area, including Recharge.

1.29 Replenishment Assessment – an acre-foot charge to be levied against each Public Agency for water pumped in excess of the sum of its respective Adjusted Production Right, its share of Imported Water, and applicable Carry-Over Credits; and against each Class B Participant for pumping in excess of its 1995-99 average production, i.e., its Base Production Right. Such assessments shall be determined by the Watermaster to be used for Replenishment Expenses.

1.30 Replenishment Expenses – Watermaster expenses for the acquisition of Supplemental Water supplies, for land, and for the construction, maintenance and operation of facilities necessary to replenish groundwater in the

Management Area, or otherwise to provide water to producers within the Management Area.

1.31 Safe Yield – the long term, average quantity of water supply in the Management Area that can be pumped without causing undesirable results, including the gradual reduction of natural groundwater in storage over long-term hydrologic cycles.

1.32 Settlement Agreement – that Agreement titled "The Soboba Band of Luiseño Indians Settlement Agreement" among the Soboba Tribe, the United States, as Trustee for the Tribe, Eastern Municipal Water District, Lake Hemet Municipal Water District, and The Metropolitan Water District of Southern California.

1.33 Soboba Tribe (sometimes the "Tribe") – the Soboba Band of Luiseno Indians.

1.34 Soboba Action – the lawsuit entitled Soboba Band of Mission Indians, etc., v. Metropolitan, etc., et al, U.S. District Court, Central District of California, Case No. 00-84208 GAF (MANx).

1.35 Storage Agreement – an agreement between Watermaster and a Party to store Supplemental Water by sinking, spreading, injecting or in-lieu procedures in the Management Area, and subsequently to recover such water, without payment of Replenishment Assessments.

1.36 Storage Right – a Party's right to store and pump Supplemental Water pursuant to a Storage Agreement.

1.37 Stored Water – Supplemental Water stored by a Party pursuant to a Storage Agreement.

1.38 Surface Water – all water tributary to the Management Area and flowing above the ground surface.

1.39 Supplemental Water – nontributary water imported into the Management Area, including Imported Water and Recycled Water, and in-lieu programs that reduce groundwater pumping.

1.40 Transfer – a temporary or permanent conveyance, assignment, sale, contract or lease of part or all of a Party's Adjusted Production Right, Carry-Over Credit, Storage Right or Recharge Right to any other Party, or a temporary assignment, contract, lease or sale of part of the Soboba Tribe's quantified water right.

1.41 Tribal Water Rights – the Soboba Tribe's rights to water set forth in Section 4.1 of the Settlement Agreement and Section 5 of this Stipulated Judgment.

1.42 Tunnel – the San Jacinto Tunnel in Riverside County, California, constructed by Metropolitan in the 1930s.

1.43 Watermaster – the Board with the powers and duties defined in Section 9.

1.44 Water Management Plan (sometimes the "Plan") – the Plan adopted by the Watermaster, as it may be modified from time to time, to implement the Physical Solution, to ensure an adequate and reliable source of future water supply for the Management Area, and to protect the prior rights of the Soboba Tribe.

2. EXHIBITS.

The following exhibits are attached to this Judgment and incorporated in it:

"A." Map of the Management Area and the Management Area Watershed.

"B." List of Parties to this Judgment.

"C." Description of each Public Agency's and Class B Participant's Base Production Right.

3. PUBLIC AGENCIES' WATER RIGHTS.

3.1 Base Production Right. The Public Agencies are owners of rights to pump groundwater from the Management Area as set forth in Exhibit "C." These rights are for a calendar year and were calculated as follows:

3.1.1 The Base Production Right of Eastern is based upon its respective average pumping for calendar years 1995-1999, less an adjustment of 1800 acre-feet for seepage from Metropolitan's San Jacinto tunnel, and for use of Fruitvale water. The 1995-1999 period was chosen to reflect recent production prior to the commencement of negotiations leading to this Stipulated Judgment.

3.1.2 The Base Production Right of Lake Hemet is based on its average production for calendar years 1995-1999.

3.1.3 The Base Production Right of Hemet is based on its average production for calendar years 1995-99, plus an adjustment of 900 acre feet per year.

3.1.4 The Base Production Right of San Jacinto is based upon its average Production for calendar years 1995-1999, plus 500 acre-feet per year, and plus an adjustment of 900 acre feet per year. The 500 acre-feet per year has been added because San Jacinto's recent pumping does not reflect its historic production, due to water purchases and other factors.

3.1.5 The Base Production Rights of Hemet and San Jacinto each include 900 acre-feet per year that have been added to their respective amounts of pumping for calendar years 1995-1999. These amounts have been added to provide Hemet and San Jacinto a fair share of water from, and to resolve disputes regarding, Eastern's use of tunnel seepage, Eastern's use of Fruitvale waters, and Lake Hemet's surface stream diversions. These additional amounts of 900 acre-feet per year shall be treated as the first amounts pumped by Hemet and San Jacinto, shall not be subject to reduction by the Watermaster as provided in Sections 3.2 to 3.2.2, and shall not be subject to any Administrative or Replenishment Assessments as provided in Sections 3.3 to 3.3.2, or to any other fee or charge imposed under the Management Plan.

3.2 <u>Adjusted Production Rights</u>. It is the goal of the Physical Solution to adjust Base Production Rights over time on a pro-rata basis to a level consistent with the Watermaster's determination of Safe Yield. The reduction will be based on periodic demand, hydrology, recharge, and the community's ability to pay for Supplemental Water, and protection of the Tribal Water Rights. In order to implement this reduction in a phased manner, each Public Agency's Base Production Right shall be subject to adjustment as follows:

3.2.1 Subject to Section 3.1.5, a 10% reduction from each Base Production Right in the first full year after entry of this Judgment.

3.2.2 Until Adjusted Production Rights are consistent with the Public Agencies' share of Safe Yield, Watermaster shall determine the required reductions in Adjusted Production Rights in each subsequent year to achieve Safe Yield within a reasonable period of time as determined by the Watermaster, considering the extent of the overdraft, the economic impact on the Parties bound by this Judgment, and other relevant factors. The goal is to achieve Safe Yield over a six (6) year period assuming an annual overdraft of 10,000 acre feet. In the event the extent of the overdraft is greater or lesser than assumed, then the period of time reasonably required to reach Safe Yield may be extended or reduced accordingly. However, in no event shall any reduction be more than 10% of the Adjusted Production Rights of the prior year.

3.2.3 A party may pump in excess of its Adjusted Production Right, without any additional Replenishment Assessment, by an amount equal to its share of the 7,500 acre feet of Imported Water that is not used by the Tribe. The amount of the Tribe's unused portion of the 7,500 acre feet shall be determined annually by the Watermaster. This provision shall apply only during such period as Imported Water is provided pursuant to Section 5.2 hereof. Shares of unused Imported Water shall be allotted in proportion to Base Production Rights, and shall be acquired and paid for pursuant to contract with Eastern.

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3.2.4 A Base Production Right of a Public Agency serving the land of a Class B Participant shall be increased in an amount equal to such Participant's Base Production Right, adjusted and reduced pursuant to Sections 3.2.1 and 3.2.2, when the Participant's land is converted from agricultural use to water service from the Public Agency, pursuant to Section 4.4.3.

3.2.5 The Adjusted Production Rights of the Public Agencies may be increased by the Watermaster on a prorata basis to the extent that pumping by Class A participants, or pumping by persons not parties to this Judgment, may decrease, and the Watermaster finds that achieving the goal of maintaining the Management Area in a Safe Yield condition can still be met.

3.3 <u>Public Agency Production Assessments</u>. Public Agency pumping shall be subject to the following assessments:

3.3.1 An Administrative Assessment as provided in Section 1.2 . The Administrative Assessment will be $50.00 per acre-foot of water pumped in the first full year after entry of this Judgment, and such amount thereafter will be set by the Watermaster.

3.3.2 A Replenishment Assessment as provided in Section 1.29. Pumping by a Public Agency in excess of the sum of its Adjusted Production Right, its share of Imported Water, and applicable Carry-Over Credits in order to meet increasing demands is permissible, provided that such excess extractions shall be subject to Replenishment Assessments.

3.4 <u>Surface Rights</u>. Eastern holds License Number 016667 from the State Water Resources Control Board to divert, spread and recover surface flows of the San Jacinto River within the Management Area. Lake Hemet holds pre-1914 appropriative rights to divert and store surface flows in Lake Hemet, and to divert surface flows tributary to but outside of the Management Area from Strawberry Creek and from the North and South Forks of the San Jacinto River. All Parties acknowledge such Eastern and Lake Hemet rights, and the fact that they are not subject to any assessments under this Judgment; provided that any water pumped by Eastern under its License shall be included in its Adjusted Production Right.

3.5 Fruitvale Judgment, Sale of Assets, and Agreements. The Court hereby finds that Eastern purchased all of the water rights and assets of the Fruitvale Mutual Water Company ("Fruitvale") pursuant to the Agreement described in Section 1.11(b) hereof, and is now the owner thereof. Eastern, as the successor in interest to Fruitvale, is also a defendant in the action described in Section 1.11(a) hereof. The Court finds that the only other remaining party in such action is the plaintiff City of San Jacinto. The Court retained continuing jurisdiction in such action, and Eastern has made annual reports pursuant to the Fruitvale Judgment. Pursuant to stipulation between Eastern and San Jacinto, and in accord with the physical solution and terms of this Judgment, the Court hereby finds that the rights and obligations of the Fruitvale Judgment have been subsumed in, and superseded by, this Judgment and are no longer enforceable; that the limitations upon the place and amounts of water use in the Fruitvale Judgment, the sale Agreement, and the Agency Agreements described in Sections 1.11(a), (b), (c) are no longer applicable or enforceable; and that the continuing jurisdiction of the Court under the Fruitvale Judgment, and the obligation of Eastern to report thereunder, are hereby terminated; provided, however, that none of the service area agreements included in the Fruitvale documents in Section

1.11, or any other agreements related to mutual aid, system interties, or service areas, shall be affected by this Judgment.

3.6 Fruitvale Agency Rights. The water rights of Hemet, San Jacinto and Lake Hemet under the several agreements with Eastern described in Section 1.11(c) hereof have been incorporated in their respective Base Production Rights under this Judgment.

4. PRIVATE PUMPERS' WATER RIGHTS

4.1 Recognition of Rights. The Private Pumpers are owners of Overlying or other water rights to pump from the Management Area. The Public Agencies recognize these rights, and do not intend to take or adversely impact these rights without an agreement with the owner of such rights. There is no intent to affect water use that is consistent with the historical use of the Private Pumpers.

4.2 Non-Participation. A Private Pumper can elect not to participate in the Water Management Plan and not to formally acknowledge its existence. Such Pumpers are referred to as Non-Participants. Non-Participants shall continue to exercise whatever water rights they may hold under California law unaffected by the Plan. However, the Parties do not waive their rights to challenge any new or expanded use of water or water rights. Non-Participants will not have the option of intervening as a party under the Judgment at a later date.

4.3 Class A Participation. A Private Pumper can stipulate to be a party to the Judgment as a Class A Participant under the following terms:

4.3.1 A Class A Participant approves this Physical Solution and may vote for and/or be elected to serve as the Private Pumper representative on the Watermaster, but other than Section 4.3.4 shall not otherwise have any obligation for the implementation of the Physical Solution or the Water Management Plan.

4.3.2 A Class A Participant may, without any assessment by the Watermaster, pump from the Participant's property within the Management Area the amount of water that can be put to reasonable and beneficial use in the Participant's historic place of use or as authorized under California law.

4.3.3 A Class A Participant shall have the right to convert to Class B Participation during a grace period that shall end 3 years after the entry of this Judgment, and upon payment of the total assessments, without interest, that the Class A Participant would have paid had the Class A Participant elected to be a Class B Participant from the outset.

4.3.4 A Class A Participant hereby authorizes the installation of water meters, and the collection and reading of Groundwater production, level and water quality data from the Class A Participant's well(s) by personnel authorized by the Watermaster. The metering, meter reading, and other related monitoring efforts shall be at no cost to the Class A Participant, and the Class A Participant shall receive copies of the reports and information obtained upon request.

4.3.5 The Stipulation signed by a Class A Participant shall describe or otherwise identify the Participant's land and wells within the Management Area. The heirs, successors and assigns of such land and wells shall succeed to the benefits of the Participant's rights under the Judgment, and be bound by the obligations thereof, provided that such successor intervenes as a party under the Judgment. Absent such intervention, the successor will be treated as a Non-Participant.

4.4 Class B Participation. A Private Pumper can stipulate to be or intervene as a party under the Judgment as a Class B Participant on the following terms:

4.4.1 A Class B Participant's annual pumping shall be limited to average annual Production during the calendar years 1995 through 1999, less any amount of water that had been used on land that was developed for non-agricultural purposes after 1999, which is the Participant's Base Production Right. The Class B Participant shall pay Replenishment Assessments on amounts in excess of its Base Production Right. A Class B Participant shall not be subject to Administrative Assessments, and until conversion to a Public Agency, such Base Production Right shall not be subject to reduction to Safe Yield. In the absence of production history for this period, the Watermaster, using all available information including power consumption records and records of water use by similar farming operations in the area, will estimate the average annual production for the Participant.

4.4.2 The Class B Participant approves this Physical Solution and may vote for and/or be elected to serve as the Private Pumper's representative on the Watermaster;

4.4.3 Upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall credit, to the extent legally permissible, the Class B Participant's Base

Production Right, adjusted pursuant to the percentage reductions in Sections 3.2.1 and 3.2.2, against any requirement then in effect for any water supply assessment requirements, or against any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit added to its Base Production Right as set forth in Section 3.2.4.

4.4.4 A Class B Participant is eligible to enter into a contract with the Watermaster, or a participating Public Agency, to sell for a defined period of time the unused portion of the Class B Participant's Base Production Right, under terms and conditions approved by the Watermaster. Criteria used in consideration of such contract shall include:

4.4.4.1 The Water Management Plan's need to acquire additional water supplies to address overdraft and recovery;

4.4.4.2 Submission of a water conservation plan, including use of in lieu water, by the Class B Participant that will reasonably guarantee conservation of water that would otherwise be produced from the Management Area; and the amount of conserved water transferred reflects a reduction pursuant to Sections 3.2.1 and 3.2.2.

4.4.4.3 Public policy considerations of local government jurisdictions, including economic, land use and community impacts of any proposed water conservation plan.

4.4.5 The Class B Participant hereby authorizes the installation of meters and the collection and reading of Groundwater production, water level and water quality data from the Class B Participant's well(s) by personnel authorized by the Watermaster. The metering, meter reading and other related monitoring efforts shall be at no cost to the Class B Participant, and the Class B Participant shall receive copies of the reports and information obtained upon request.

4.4.6 The Stipulation signed by a Class B Participant shall describe or otherwise identify the Participant's land and wells within the Management Area. The heirs, successors and assigns of such land and wells shall succeed to the benefits of the Participant's rights under the Judgment, and be bound by the obligations thereof, provided that such successor intervenes as a party under the Judgment. Absent such intervention, the successor will be treated as a Non-Participant.

4.5 In-Lieu Water Use. In the event a Private Pumper receives Supplemental Water from a Public Agency to serve an historic use in place of Groundwater, or otherwise engages in an in-lieu program, the Overlying Right of the Private Pumper shall not be diminished by the receipt and use of such Supplemental Water or by engaging in an in-lieu program.

4.6 Future Production Participation. Any new pumper after the entry of this Judgment may intervene in this action and Judgment only as a Class A Participant.

4.7 Replacement Wells. Re-drilling of existing wells and the drilling of new wells to replace existing wells will not be considered new production as provided in Section 4.6.

5. TRIBAL WATER RIGHTS

The Tribal Water Rights will be determined as part of a settlement among the Soboba Tribe, the United States, Eastern, Lake Hemet and Metropolitan. The settlement will be reflected in a Settlement Agreement, Congressional legislation and appropriation of funds, and a Judgment in the Soboba Action. Such settlement includes the following provisions, which shall be effective only upon fulfillment of all of the conditions precedent set forth in Article 3 of the Settlement Agreement, a copy of which is attached hereto.

5.1 Senior Right. The Soboba Tribe shall have a prior and paramount right, superior to all others, to pump 9000 acre-feet per year (3000 acre feet from the Canyon Subbasin and the remainder from a portion of the San Jacinto Upper Pressure Subbasin referred to as the Intake Subbasin), for use on the Reservation, as defined in Article 2.20 of the Settlement Agreement, and on lands now owned or hereafter acquired by the Soboba Tribe contiguous to the Reservation or within the Canyon and Intake Subbasins; provided, however, that such use shall be limited to 4100 acre-feet per year for the first 50 years after the Effective Date as set forth in the Settlement Agreement. The Tribe's right to pump applies to all Groundwater, whether replenished by Natural Recharge or by Supplemental Water. In addition, the Tribe shall have the right to purchase additional water from the Watermaster during the fifty years that its use is limited to 4,100 AFA at the rate then being charged to the Public Agencies under the Water Management Plan. In the event the Soboba Tribe is unable, except for mechanical failure of its wells, pumps or water facililties, to produce from its existing wells or equivalent replacements up to 3000 AFA production from the Canyon Sub-basin and the remainder of its Tribal Water Rights from the Intake Sub-basin, Eastern and Lake Hemet shall deliver any shortage to the Soboba

Tribe as provided in Section 4.1C of the Settlement Agreement. Pumping for such purpose shall not be subject to Administrative or Replenishment Assessments, and shall not be counted as part of Adjusted Production Rights.

5.2 Metropolitan Water. The Soboba settlement provides, among other matters, that Metropolitan will use its best efforts to deliver sufficient Imported Water to yield 7,500 acre-feet per year, based upon 15 year averages, for recharge in the Management Area at its untreated replenishment water rate, or any successor rate as provided in Section 4.4A of the Settlement Agreement.

5.3 Settlement Payment. Subject to the Effective Date of the Settlement Agreement and funding by the United States, Eastern pursuant to the terms set forth in the Water Management Plan, will pay the Soboba Tribe $17 million dollars pursuant to Article 4.7A of the Settlement Agreement in consideration, in part, of the Tribe's agreement to limit its water use up to 4,100 acre-feet per year for the first 50 years after the Effective Date according to the build-up schedule set forth in the Settlement Agreement as Exhibit I. Subject to contracts with Eastern, the Public Agencies shall have the right to pump and use all Imported Water not used by the Tribe, and the unused portion of the Tribal Water Rights shall be available for use by the Parties, pursuant to their rights herein.

5.4 Capital Facilities. Eastern on behalf of the Water Management Plan participants will receive $10 million from the United States, to be applied to the costs of constructing and operating the Phase I capital facilities necessary to import and recharge Supplemental Water as described in the Plan. Additional grant funds from the State of California or the United States may also be available for such capital facilities. The rights of the Public Agencies to the use of such facilities will be affirmed by contract as set forth in Sections 9.6.4(a) and 9.6.4(c).

5.5 Acknowledgement of Soboba Tribe Settlement. The Parties to this Judgment hereby recognize the Tribal Water Rights, as set forth above, and the applicable provisions of the Soboba Tribe Settlement Agreement, and acknowledge that protection of Tribal Water Rights is one of the goals of the Water Management Plan.

6. PHYSICAL SOLUTION.

6.1 Purpose and Objective. Pursuant to California water law and the California Constitution, Article X, Section 2, the Court adopts this Physical Solution to maximize reasonable beneficial use of Surface Water, Groundwater and Supplemental Water for water users in or dependent upon the Management Area, to eliminate overdraft, to protect the prior rights of the Soboba Tribe, and to provide the Parties with the substantial enjoyment of their respective rights, including~~,~~ the priorities thereof.

6.2 Need for Flexibility. In order to adapt to potential changes in hydrology, land use, and social and economic conditions, the Physical Solution must provide some degree of flexibility and adaptability. Accordingly, the Court retains broad jurisdiction to supplement the discretion granted to the Watermaster.

6.3 Rights to Groundwater. Groundwater in the Management Area may occur from: natural recharge; spreading operations of natural flows; recharge with Supplemental Water acquired with Assessment funds; return flows, fallowing or in-lieu recharge programs financed with Assessment funds. All such Groundwater shall be available to support the pumping of the Parties as allowed herein, and shall not be the property of any individual Party. Subject to the provisions of Section 6.7.2, this Section does not preclude any Party, pursuant to a Storage Agreement, from storing Supplemental Water at its own cost, retaining title thereto, and pumping such water without Assessment.

6.4 Resolution of Priorities. By reason of the long and continuous overdraft of the Management Area, the contribution of all parties to the overdraft, the economies that have developed on the basis of the overdraft, the severe economic disruption that could occur under strict priorities and the doctrines of prescription and laches, the complexity of determining appropriative priorities, and the need to make the maximum beneficial use of the water resources of the State, the Parties are estopped and barred from asserting specific priorities or preferences to the pumping of groundwater in the Management area, except as provided in this Judgment, and the Court finds that the provisions of this Judgment provide for the substantial enjoyment of the respective rights of the Parties.

6.5 Water Management Plan. The Watermaster will approve and implement a Water Management Plan to enforce and implement the Physical Solution, and may modify such Plan as conditions require, subject to the provisions of the Settlement Agreement. The Plan will also facilitate and accommodate the settlement of the water rights of the Soboba Tribe, and shall be subject to the approval of the Soboba Tribe and the United States as trustee for the Tribe. The Parties agree that the Plan shall incorporate and serve to implement the following goals:

6.5.1 Groundwater levels within the Management Area have generally been declining for a number of years, and the Management Area is presently in a condition of Overdraft. The Plan will, within a reasonable period, eliminate Groundwater Overdraft and provide for excess production by implementing a combination of available water resources management elements. These elements include: reduction in natural Groundwater production; enhanced Recharge with native and/or Supplemental Water; increased use of recycled water; in-lieu replenishment; acquisition and development of Supplemental Water; and water conservation programs.

6.5.2 The Management Area is expected to experience residential, commercial, and industrial growth and development over the next decade. The estimated amount of Supplemental Water that will be necessary to provide for and adequately serve this new growth and development is 15,000 acre feet per year. The Water Management Plan shall accommodate the orderly expansion of existing water production and service systems, and provide a clear planning process for meeting these projected growth trends.

6.5.3 The Plan should be implemented in a manner to protect and/or enhance Management Area water quality. However, implementation of certain elements of the Plan may cause limited localized water quality degradation. If such degradation impedes the then current beneficial uses of water by any Public Agency in the Management Area, the Watermaster shall implement appropriate mitigation measures to ensure the water supply to the affected Public Agency, and to bear the associated costs. The standards for local water quality degradation shall be defined in the Plan.

6.5.4 The Water Management Plan should serve to support the pursuit of cost-effective water supply and water treatment by the Public Agencies, both individually and collectively.

6.5.5 The Water Management Plan should serve to protect Tribal Water Rights.

6.5.6 The Watermaster shall implement a monitoring program to ensure that Plan activities follow best management and engineering principles to protect Management Area water resources, and to compile and analyze data on groundwater production, water levels, water quality and groundwater in storage.

6.6 <u>Replenishment Program</u>. The groundwater replenishment program shall be administered by the Watermaster. The program shall include: the acquisition of Supplemental Water; the collection and expenditure of Replenishment Assessments; the recharge of the Management Area; and the construction and operation of all necessary facilities, including but not limited to, development of surface and sub-surface percolation and injection facilities. In addition, a source of Recharge Water for agencies contributing to the Settlement Payment described in Section 5.3 will be Imported Water provided by Metropolitan under the Settlement Agreement, and not used by the Soboba Tribe.

6.6.1 Priority for replenishment will be based on an equitable apportionment of available replenishment water among the sub-basins after full consideration of:

6.6.1.1 The Public Agency's participation in the payment in the Settlement Payment described in Section 5.3.

6.6.1.2 Hydrologic conditions in the Management Area.

6.6.1.3 The Management Area's Water demands.

6.6.1.4 The availability of storage capacity to accommodate the Natural Recharge of surface flows.

6.6.1.5 The availability of appropriate conveyance facilities.

6.6.1.6 The availability of Supplemental Water,

6.6.1.7 Protection of Tribal Water Rights.

6.6.2 The Watermaster is encouraged to take advantage of surplus imported water from Metropolitan that occasionally may be available at low cost, and to use available Assessment funds to bank such Recharge Water against future production in excess of Adjusted Production Rights.

6.6.3 The Public Agencies shall independently or jointly operate their present facilities to maximize the existing spreading and Recharge operations of natural flow in the Management Area. Such Recharge Water shall be available to support the pumping of all users, and shall not be the property of the spreading Public Agency.

6.6.4 All water used to replenish any sub-basin in the Management Area shall meet the Regional Water Quality Control Board, Santa Ana

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Region requirements, and the provisions of Article 4.2 of the Settlement Agreement, and may be used in any sub-basin where such requirements are met.

6.7 Storage Rights. Unused storage capacity may exist in the Management Area, and this capacity will be managed by the Watermaster conjunctively with natural and available Supplemental Water supplies.

6.7.1 Subject to availability of Assessment funds and unused storage capacity as determined by Watermaster, the Management Area may be Recharged when water is available, to be drawn upon by the Public Agencies in later years when such Supplemental Water may not be available.

6.7.2 Unused storage capacity, as determined by Watermaster, and pursuant to a Storage Agreement, may be used for "put and take" operations of Supplemental Water that is paid for by any Public Agency provided that:

6.7.2.1 Such operations do not interfere with the rights of any other pumper, or with the use of the storage capacity for recharge and storage under the Water Management Plan.

6.7.2.2 The Watermaster shall have the first right to purchase any water available for Recharge for use under the Plan.

6.7.2.3 Later recovery of Stored Water shall exclude losses, and shall not be subject to either Administrative or Replenishment Assessments.

6.7.2.4 Such recovered water may be used anywhere within the service area of the Party.

6.7.2.5 Such Stored Water may be transferred while still in storage.

6.7.3 Any conjunctive use programs for the benefit of territory outside of the Management Area shall be subject to the Watermaster and the governance provisions herein. Any storage, conjunctive use programs by third parties, or in-lieu recharge programs financed with assessment funds, shall be subject to the Watermaster and the governance provisions herein; provided that Metropolitan has the right under the Soboba Settlement Agreement to use up to 40,000 acre-feet of storage capacity in the San Jacinto Upper Pressure Sub-basin for the pre-delivery of water required under Section 5.2.

6.7.4 Eastern and Lake Hemet have previously provided water for replenishment of the Management Area. As of May 1, 2005 these amounts, less losses, were 12,694 acre-feet for Eastern and 950 acre-feet for Lake Hemet Such Parties shall have Recharge Rights to recover these amounts, less any future losses, without either Administrative or Replenishment Assessments, and may be used to offset excess pumping in lieu of Replenishment Assessments. The water available under such Recharge Rights shall be pumped within 15 years of the entry of this Judgment, but at not more than 2000 acre-feet in a single year. The Public Agencies shall notify the Watermaster when such Recharged Water is being pumped, and in what amounts, and the Watermaster shall keep an accounting of the amounts remaining. The use of such credits shall be interpreted and administered so as not to increase the replenishment obligations or assessments of those parties without such past credits, or after such credits have been fully used.

6.7.5 The accounting for recovery of Stored Water or Recharge Water from the Management Area shall not include any water that escapes therefrom and migrates downstream beyond the Management Area. Losses will be calculated based upon best engineering principles.

6.8 Recycled Water. The use of Recycled Water produced by Eastern can be of substantial benefit in providing additional water in the Management Area. The Watermaster shall have a right of first refusal to purchase all recycled water produced from treatment facilities serving the Management Area that is not subject to then existing contracts. Such recycled water may be used for recharge or direct use within the Management Area..

6.8.1 Each Public Agency may implement its own Recycled Water program, for direct use, subject to the availability of recycled water. The Public Agency shall be responsible for financing, operating and maintaining the facilities necessary for that program. The Watermaster will support loan or grant applications, and the Public Agencies will work to integrate Recycled Water into the Water Management Plan, to the extent economically feasible while meeting regulatory standards.

6.8.2 Currently only Eastern has Recycled Water available for Recharge. To the extent such Recycled Water is not acquired by the Watermaster for use under the Plan, the water if recharged in the Management Area shall remain the property of Eastern and may be pumped (less losses) without Replenishment Assessments.

6.9 Assessment Program. The assessment program contemplated by the Water Management Plan shall be administered by Eastern pursuant to a contract with the Watermaster pursuant to the provisions of Section 9.6.4(e).

6.9.1 All Assessments shall be used for Replenishment Expenses and Administrative Expenses.

6.9.2 Subject to the limitations in this Judgment, each Public Agency that produces less than its Adjusted Production Right and share of Imported Water, and any Class B Participant producing less than its Base Production Right, shall have the following Carry-Over Credit:

6.9.2.1 Carry-Over Credit shall be the difference in acre-feet between a Party's Adjusted Production Right and share of Imported Water, or the Class B Participant's Base Production Right, and the Party's actual production in a calendar year.

6.9.2.2 The Carry-Over Credit may be applied to reduce the amount of acre feet upon which a Party must pay a Replenishment Assessment. Carry-Over Credits are transferable among the Parties, and may be retained for more than one calendar year. The Parties shall notify the Watermaster if a Carry-Over Credit is being retained.

6.9.2.3 The Watermaster shall keep an accounting of all Carry-Over Credits.

6.9.3 All Watermaster assessment invoices shall be payable to Watermaster within 60 days of notice. Any delinquent assessments shall bear interest at a rate to be set by the Watermaster. Watermaster is entitled to recover its reasonable expenses in collecting any assessment, including attorney's fees and costs.

6.10 Export. The Public Agencies may export water outside the Management Area, on a temporary basis, upon approval by the Watermaster. However, any water exported shall be replenished with an appropriate amount of similar or better quality water as determined by Watermaster. Water exports by the Public Agencies shall not interfere with the Water Management Plan or any other Public Agency's operations. The Water Management Plan will set forth the specific criteria for the export of water, including, but not limited to, conjunctive use programs.

6.11 Capital Facilities. Each Public Agency shall continue to own its existing capital facilities for water supply and management, subject to the provisions of Section 9.6.6. However, the Phase I capital facilities necessary to implement the Water Management Plan shall be owned and operated by Eastern, pursuant to the Plan and in a fiduciary capacity for the benefit of all Parties under this Judgment, pursuant to Sections 5.4; 9.6.4(a); 9.6.4(c).

6.11.1 Financing of Water Management Plan facilities may be funded by Assessments, regional capital fees, loans and grants, contributions for storage rights by Metropolitan or other third-parties, and municipal bonds. Responsibility for the costs of future capital facilities necessary to implement the Plan, beyond the Phase I facilities, shall be determined by the Watermaster and apportioned on relative benefit to be derived by each Public Agency.

6.11.2 Any of the participating Public Agencies may propose projects to be included in the Water Management Plan to increase the Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project at its own cost so long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Public Agencies.

7. INJUNCTION.

Each Party and his, her or its officers, agents, employees, successors and assigns, is enjoined and restrained from:

7.1 Producing water from the Management Area without payment of required Administrative Assessments.

7.2 Producing water from the Management Area in excess of the Party's Adjusted Production Right and share of Imported Water, or the Base Production Right in the case of a Class B Participant, without payment of required Replenishment Assessments.

7.3 Transferring Production Rights except as authorized in this Judgment.

7.4 Recharging water in the Management Area except as authorized in this Judgment.

7.5 Storing or exporting water except as authorized in this Judgment.

8. CONTINUING JURISDICTION.

8.1 Full Jurisdiction. Full jurisdiction, power and authority is reserved to the Court as to all matters contained in this Judgment, including expedited intervention by successors in interest to Private Pumpers, except:

8.1.1 To redetermine Base Production Rights of the Public Agencies or Class B Participants.

8.1.2 As otherwise limited by law.

8.2 Motion to Interpret. By motion to the Court, upon 30 days written notice and after hearing, any Party or Watermaster may request the Court to make such further or supplemental orders to interpret, enforce, carry-out or amend this Judgment. Any such motion shall be reviewed de novo by the Court. Any such motion shall be served on all Parties and Watermaster at the addresses on the Watermaster's notice list.

9. WATERMASTER.

9.1 Composition. The Watermaster shall consist of a board composed of one elected official selected by each of the Public Agencies and one Private Pumper representative selected by the Class A and Class B Private Pumpers.

9.2 Terms. Each member of the Watermaster shall serve until replaced by the Public Agency or Private Pumpers that made the original appointment.

9.3 Removal and Replacement. Any Watermaster member may be removed and replaced by the same procedure used in his or her appointment.

9.4 Voting. Each member of the Watermaster shall have one vote. Four affirmative votes shall be required in order to constitute Watermaster action on each of the following matters. (1) any change sought in the form of governance; (2) any change in voting requirements; (3) retaining the services of legal counsel and Advisor; (4) establishing, levying, increasing or decreasing all assessment amounts; (5) adopting or amending an annual budget; (6) determining the extent of overdraft and quantifying safe yield; (7) determining Adjusted Production Rights; (8) decisions regarding the financing of Supplemental Water or facilities, other than any financing provisions included in this Stipulated Judgment as provided in Sections 5.3, 5.4, 5.5 hereof; (9) decisions regarding ownership of facilities, other than ownership of the Phase I facilities described in the Water Management Plan, which shall be owned by Eastern Municipal Water District, subject to a right of use by those parties participating in the financing thereof; (10) policies for the management of the Management Area; (11) and any decision that involves a substantial commitment by the Watermaster, including any contracts for conserved water. All other actions by the Watermaster shall require three affirmative votes.

9.5 Court Review. Any action by the Watermaster, or any failure to act by virtue of insufficient votes, may be reviewed by the Court on motion by any party, with notice to all other parties. The Court's review shall be de novo, and the Court's decision shall constitute action by the Watermaster.

9.6 Powers and Duties. In order to implement the provisions of this Judgment, the Watermaster shall have the following duties and powers:

9.6.1 Water Management Plan. Watermaster shall develop and implement a Water Management Plan, with such additions and modifications as may from time to time be appropriate, and shall administer the provisions of this Judgment. The Water Management Plan shall be subject to approval by the Court, by the Soboba Tribe, and by the United States.

9.6.2 Independent Counsel. The Watermaster shall retain independent legal counsel to provide such legal services as the Watermaster may direct.

9.6.3 Advisor. The Watermaster shall retain either an independent engineering firm or qualified individual experienced in hydrology to evaluate and analyze the data collected by Eastern, and any conclusions based thereon, and to make recommendations to the Watermaster, referred to herein as "Advisor." The Advisor shall also provide general coordination among Eastern, the Technical Advisory Committee and the Watermaster with respect to their respective functions, and perform such executive functions as the Watermaster may direct. The Watermaster reserves the right to refer any matter it may choose to any person it may select for assistance in carrying out its duties under this Judgment.

9.6.4 Operations and Other Functions.

(a) *Operations – Phase I Facilities*. The Phase I Facilities (including capital facilities and spreading basins, as more particularly defined in the Water Management Plan) are either existing facilities of Eastern that will be expanded or improved as part of the Water Management Plan, or are new facilities that will be integrated into Eastern's existing facilities and will be owned by Eastern. Pursuant to the terms and conditions of contracts to be entered into between Eastern and the Watermaster, and Eastern and the other Public Agencies, Eastern shall construct, install, and operate the Phase I Facilities consistent with the Water Management Plan.

(b) *Operations – Other Facilities*. The Water Management Plan anticipates the need for the construction and installation of other facilities in order to accomplish the goals of the Judgment. Such facilities may be constructed, installed and operated under contract with the Watermaster, by a member of the Watermaster or, in circumstances approved by the Watermaster, by other responsible entities.

(c) *Purchase of Water for Groundwater Recharge*. The Soboba settlement requires Metropolitan to use its best efforts to deliver an average of 7500 acre-feet per year of Imported Water for recharge of the Management Area. This supply is dedicated first to satisfy the rights of the Soboba Tribe as provided in the Settlement Agreement. Such portion of the supply that is not used by the Soboba Tribe will be available to those Parties who have participated in the cost thereof. Subject to the approval of the Watermaster, Eastern shall enter into a contract with Metropolitan for the purchase and delivery of such Imported Water supply. Eastern shall also purchase as a member agency of Metropolitan, or otherwise acquire, such additional supplies of water as may be directed by the Watermaster to implement the Water Management Plan, subject to availability and transmission capacity. All such water delivered by Metropolitan, or otherwise acquired by Eastern, and all Eastern facilities used to deliver, recharge and recapture such water, shall be subject to rights of use by the Parties entitled thereto. Such rights of use shall be confirmed in detail in written contracts with Eastern. Recyled water is also available for direct and indirect groundwater recharge from Eastern's wastewater treatment facilities serving the Management Area. The Watermaster shall have a right of first refusal to purchase all recycled water produced from such plant that is not subject to then existing contracts. Nothing contained herein shall limit the right of the Watermaster to acquire Imported or Supplemental Water supplies from any of the Parties, or from other responsible entities.

(d) *Data Collection.* The Watermaster shall provide for the collection and maintenance of all production, water level, water quality, and other technical data necessary under or required by the Water Management Plan ("Data"). Pursuant to the terms and conditions of a contract to be entered into between Eastern and the Watermaster, Eastern shall collect and maintain all such Data and transmit such Data to the Watermaster, its Advisor, and the Technical Advisory Committee as directed by the Watermaster. The foregoing clause does not restrict the ability of the Watermaster to enter into other agreements with other members of the Watermaster and/or private firms and individuals for the collection of Data.

(e) *Accounting*. The Watermaster shall provide for the levy, billing, and collection of all assessments provided for under the Judgment, for the payment of costs and expenses of the Watermaster, and for the performance of such accounting and related functions as may be required in connection with those functions ("Accounting Functions"). All funds collected shall be held in a segregated account. All expenses and disbursements shall be separately accounted for. Pursuant to the terms and conditions of a contract to be entered into between Eastern and the Watermaster, Eastern shall initially perform the Accounting Functions for Watermaster. The foregoing clause does not restrict the ability of the Watermaster to enter into other agreements with other members of the Watermaster and/or private firms and individuals to provide some or all of the Accounting Functions.

9.6.5 <u>Technical Advisory Committee</u>. There has been a Technical Advisory Committee that has functioned throughout the development of the Water Management Principles and Plan, and this Stipulated Judgment. That Committee has been composed of such managerial and technical representatives as the individual parties decide to appoint. Each party has paid the costs of its own representatives, and shall continue to do so in the future. The Technical Advisory Committee shall continue to function, and to provide such technical assistance as

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the Watermaster may request. The Technical Advisory Committee shall make recommendations to the Watermaster's Advisor and to the Watermaster on all matters requiring four votes for Watermaster action, and shall receive from Eastern all data associated with such matters for its review and evaluation. The Technical Advisory Committee and its members shall also function as a way to keep the City Councils, Boards of Directors and participating Private Pumpers fully informed about the implementation of this Judgment.

9.6.6 <u>Reservation of Rights</u>. The Watermaster reserves the right to assume, on its own, any functions set forth in Section 9.6.4, except as provided in Section 9.6.4(a), and to undertake all other acts required to implement the Plan and this Judgment, so long as it is legally capable of performing such functions. The Watermaster, if it should choose, may also act through or in conjunction with the other Public Agencies, or through a Joint Powers Agency composed of all the Public Agencies hereunder. Except as specifically provided in Section 9.6.4(a) with respect to Eastern's facilities used in Phase I, the Watermaster shall have no right to use or acquire the water facilities of any of the Parties, without their consent, provided that it is the intent of the Parties that their individual facilities will be available where appropriate to implement the Water Management Plan, upon terms equitable to all parties, and consistent with their respective obligations to their own customers.

9.6.7 <u>Rules and Regulations</u>. The Watermaster may make such rules and regulations as may be necessary for its own operations as well as for the operation of the Plan and this Judgment, subject to Court approval. Meetings of the Watermaster shall be subject to the Brown Act .

9.6.8 Reports to Court. The Watermaster shall file annually with the Court, and serve on all Parties, a report regarding its activities during the preceding year, including an audited statement of all accounts and financial activities.

9.6.9 Notice to Parties. Watermaster shall maintain a current list of the Parties and their addresses for notice purposes. Rules for service shall be governed by the California Code of Civil Procedure and the California Rules of Court. Each Party shall notify Watermaster in writing of the name and address for its receipt of notice and service under this Judgment. A Party may change this information by written notice to Watermaster. Notice shall be deemed sufficient if directed to the most recent address provided by the Watermaster.

9.7 Watermaster Records. Watermaster's records shall be kept at the office of Eastern unless changed by the Watermaster and approved by the Court. These records shall be treated as public records under the Public Records Act. Cal. Gov't Code §§ 6250-6277 (West 1995 and Supp. 2002).

10. MISCELLANEOUS.

10.1 Intervention After Judgment. Any Person who is not a Party and who proposes to Produce water from the Management Area, or who is an heir, successor or assign of an existing party, may become a Party to this action and Judgment, subject to the conditions contained herein, by filing a petition in intervention. The petition may be filed and approved ex parte with notice to the Watermaster. Such intervener shall thereafter be a Party bound by this Judgment, and entitled to the rights and privileges accorded under this Judgment.

10.2 Loss of Rights. No right adjudicated in this Judgment shall be lost by non-use, abandonment, forfeiture or otherwise, except upon a written election by the owner of the right filed with Watermaster, or by order of the Court upon noticed motion and after hearing.

10.3 Attorney's Fees and Costs. No Party shall recover any attorney's fees or costs in this proceeding from any Party.

Dated: ________________, 200_

____
Judge of the Superior Court

EXHIBIT B

List of Parties to this Judgment

1. <u>Parties</u>

A. Eastern Municipal Water District ("Eastern)
B. Lake Hemet Municipal Water District ("Lake Hemet")
C. City of Hemet ("Hemet")
D. City of San Jacinto ("San Jacinto")

2. <u>Class A Participants</u>

A.
B.
C.
D.

3. <u>Class B Participants</u>

A.
B.
C.

Exhibit C

Base Production Rights

1. Public Agencies

Agency Name	Base Production Rights (Acre-feet per year)
Eastern Municipal Water District	10,869
Lake Hemet Municipal Water District	11,063
City of Hemet	6,320
City of San Jacinto	4,031

2. Class B Participants

APPENDIX C LIST OF GOVERNING BODIES

Eastern Municipal Water District:

Name	Title
David J. Slawson	Board President, Division 5
Ronald Sullivan	Board Vice President, Division 4
Joe Kuebler, CPA	Director Division 2, EMWD Board Treasurer
Philip E. Paule	Director Division 1
Randy A. Record	Director Division 3, MWD Director

Lake Hemet Municipal Water District:

Name	Title
Frank Douglas Marshall III	Board President
Patrick Searl	Board Vice President
Herbert C. Forst	Board Secretary
John S. Fricker	Board Treasurer
Larry Minor	Director

City of Hemet:

Name	Title
Marc Searl	Mayor
Lori Van Arsdale	Vice- Mayor
C. Robin Resser Lowe	Councilperson
Brian Christie	Councilperson
Eric Mc Bride	Councilperson
Steve Clayton	City Clerk
Judith Oltman	City Treasurer

City of San Jacinto:

Name	Title
Jim Ayres	Mayor
Chris Carlson	Vice- Mayor
Dale Stubblefield	Council Member
Robert Ritchie	Council Member
John Mansperger	Council Member

APPENDIX D PRINCIPLES FOR WATER MANAGEMENT

PRINCIPLES FOR WATER MANAGEMENT

1. Water Management Plan. These Principles, approved by the appropriate authority of each party, are intended to form the basis from which the parties will develop a Water Management Plan ("Management Plan") for the area described in Section 2. The Management Plan is being developed to ensure an adequate and reliable source of future water supply. The Management Plan is also intended to facilitate and accommodate a settlement of the claims of the Soboba Band of Luiseno Indians ("Soboba Tribe").

2. Management Area. The area included in the Management Plan consists of the Canyon Sub-basin and the San Jacinto Upper Pressure Sub-basin, downstream to Bridge Street, and the Hemet Basins ("Management Area"). The Management Area is shown upon the attached map.

3. Pumpers within the Management Area. The primary pumpers within the Management Area are: Eastern Municipal Water District ("Eastern"), Lake Hemet Municipal Water District ("Lake Hemet"), City of San Jacinto ("San Jacinto"), and City of Hemet ("Hemet") (individually

"Public Agency," collectively "Public Agencies"); the Soboba Tribe (not a Management Plan participant); and approximately 62 individual agricultural and other private pumpers who pump more than 25 acre-feet per year ("Private Pumpers").

4. Goals. The parties agree that the Management Plan shall incorporate and serve to implement the following goals:

A. Allowing for Future Urban Growth. The parties acknowledge that the Management Area will continue to experience residential, commercial, and industrial growth and development, and that existing water production and service systems will need to be expanded to meet this growth. It is estimated that at least 15,000 afy incremental water supply capacity over the existing base production rights of the Public Agencies must be dedicated to adequately serve this growth. The Management Plan should serve and provide a clear planning process so that each affected Public Agency will be able to meet these projected growth needs.

B. Water Quality Protection. Implementation of the Management Plan should protect and/or enhance Management Area water quality. However, implementation of certain elements of the Management Plan may cause limited localized water quality degradation. If such degradation impedes the then current beneficial use of any Public Agency in the Management Area, the Watermaster described in Section 22 ("Watermaster") shall implement appropriate mitigation measures to ensure water supply to the affected Public Agency and bear the associated costs. The standards for local water quality degradation shall be defined in the Management Plan.

C. Cost-Effective Management. The Management Plan should serve to support the pursuit of cost-effective water supply and water treatment by the Public Agencies, both individually and collectively.

D. Overdraft. The groundwater levels within the Management Area have generally been declining for a number of years, and the Management Area is presently in a condition of overdraft. It is recognized that the Management Plan will, within a reasonable period, eliminate groundwater overdraft and enhance operational yield by implementing a combination of available water resources management elements. These elements include: reduction in native groundwater production; enhanced recharge with native, imported and/or recycled water; development of supplemental supplies such as imported and recycled water; and water conservation programs.

E. Monitoring. The Watermaster shall implement a monitoring program to ensure the Management Plan activities follow best management and engineering principles to protect Management Area water resources.

5. Public Agencies Base Production Rights.

A. The base production rights of Eastern, Lake Hemet and Hemet in the first year of the Management Plan shall be based upon their average production for calendar years 1995-1999. This period was chosen to reflect these Public Agencies' recent pumping, and shall determine their base production rights.

B. The base production right of San Jacinto in the first year of the Management Plan, shall be based upon its average production for calendar years 1995-1999, plus 500 afy. The 500 afy is added because San Jacinto's recent production does not reflect its historic production because of water purchases and other factors.

C. Pursuant to Section 21 below, for the life of the Management Plan, Hemet and San Jacinto shall each add an additional 900 afy to their base production rights. The additional 900 afy shall not be subject to reduction by the Watermaster as provided in Section 5.D and shall not be subject to any Administrative or Replenishment Assessments as provided in Section 6, or other fee or charge imposed under the Management Plan.

D. It is the goal of the Management Plan to adjust base production rights over time to a level consistent with the Watermaster's calculation of the Public Agencies' share of safe yield for the Management Area. Based on current information, it appears that the total reduction in base production rights will need to be approximately 35%. The ultimate reduction will be based on periodic demand, hydrology, recharge and availability of imported water. In order to implement this reduction in a phased manner, each Public Agency's base production rights shall be subject to adjustment as follows:

(1) A 10% reduction from the base production rights in the first year of the Management Plan; and

(2) Until base production rights are consistent with the Public Agencies' share of safe yield, Watermaster shall determine the reductions in base production rights in each subsequent year of the Management Plan, to achieve this goal within 6 years of approval of the Management Plan. Each reduction shall not be more than 10% of the base production right of the prior year.

(3) Pursuant to Section 7(A)(2)(b), upon conversion of a Class B Participant's land from agricultural to a use that requires water service from a Public Agency, the Public Agency shall receive an increase in its base production rights equal to the adjusted base production right of the Class B Participant.

6. Public Agency Production Assessments. The Public Agency production will be subject to the following assessments:

A. An Administrative Assessment on each acre-foot pumped by a Public Agency up to its adjusted base production right. The parties contemplate that the Administrative Assessment will be $50.00 per acre-foot of water pumped in the first year of the Management Plan, and that such amount will thereafter be set by the Watermaster.

B. A Replenishment Assessment on each acre-foot pumped by a Public Agency in excess of its adjusted base production right equal to the cost of providing a like quantity of supplemental water to recharge the Management Area, including recharge losses. Pumping by a Public Agency in excess of its adjusted base production right in order to meet increasing demands is expected and permissible, provided that such excess extractions shall be subject to the Replenishment Assessment. The costs of providing a like quantity of supplemental water shall include the costs of water, O&M costs of the replenishment system, capital recovery and other administrative costs. Currently, the total of these cost items is estimated to be in the range of $300 to $400 per acre-feet; the actual amount will reflect the costs at the time incurred.

7. Private Pumpers Water Rights. The Public Agencies recognize the overlying water rights of the Private Pumpers, and do not intend to take or adversely impact these rights without an agreement with the owner of such rights. The Management Plan will lay out alternatives for the retention, protection, or transfer of such rights, leaving selection of the alternative to the individual overlying water rights owner. A Private Pumper can elect not to participate in the Management Plan and not to formally acknowledge its existence. Such Pumpers shall be referred to herein as “Non-Participants”; such Pumpers shall continue to exercise whatever water rights they may hold under California law unaffected by the Management Plan. There is no intent to affect water use that is consistent with the historical use of the Private Pumpers. However, other pumpers under the Management Plan do not waive their rights to challenge new or expanded water rights. Non-Participants will not have the option of joining the program at a later date. The alternatives available to participants are as follows:

A. (1) Class A Participation. A Private Pumper can elect to sign a written agreement acknowledging the existence of the Management Plan. Such Pumper shall be a Class A Participant and shall be entitled to vote for and/or be elected to serve as the Private Pumper representative on the Management Plan's governing board or body described in Paragraph 22 below, but shall not otherwise be required to participate in the Management Plan implementation. A Class A Participant may, without any financial assessment by the Watermaster, pump from his/her/its property within the Management Area the amount of water that can be put to reasonable and beneficial use on the Pumper's land as may be authorized under California law. Class A Participants shall have the right to convert to Class B Participation during a grace period that shall end three (3) years after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, upon payment of the total assessments the Pumper would have paid had the Pumper elected to be a member of Class B from the outset, plus interest.

(2) Class B Participation. A Private Pumper can become a Class B Participant by electing to limit annual pumping to the Pumper's average annual production during the calendar years 1995 through

1999 and to pay replenishment assessments on amounts in excess of that average annual production. A Class B Participant shall enjoy the following benefits of Plan Participation:

a. Vote for and/or be elected to serve as the Private Pumper's representative on the Management Plan's Governing Board;

b. Upon conversion of Pumper's land from agricultural use to a use that requires water service from a participating Public Agency, Public Agency shall credit to the extent legally permissible, Pumper or Pumper's successor-in-interest's adjusted production right, using the formula in Section 5 towards satisfaction of any requirement then in effect for water supply assessment requirements. Furthermore, Pumper or Pumper's successor-in-interest shall be given a credit for Pumper's adjusted production right using the formula in Section 5 towards any fees associated with water supply that the Public Agency may then have in effect. The Public Agency serving the converted land shall receive a credit to its production right as set forth in Section 5.

c. To the extent the Pumper's land is not covered under Section 7(A)(2)(b), Pumper will be eligible to enter into a contract with the Management Plan, or a participating Public Agency, to sell for a defined period of time some portion of Pumper's adjusted production right, under terms and conditions mutually agreed upon by the Pumper and the Management Plan. Criteria used in consideration of such contract shall include:

(i) Management Plan's need to acquire additional water supplies to address Basin overdraft and recovery;

(ii) Submission of a water conservation plan, including use of in lieu water, by Pumper that will reasonably guarantee conservation of water that would otherwise be produced from the Basin;

(iii) Public policy considerations of local government jurisdictions, including economic and land use impacts of proposed water conservation plan.

B. In-Lieu Water Use. In the event a Private Pumper (or successor) receives recycled and/or imported water from a Public Agency to serve an overlying use in place of groundwater, or otherwise engages in an in-lieu program, the overlying water right of the Private Pumper (or successor) shall not be diminished by the receipt and use of such recycled and/or imported water or by engaging in an in-lieu program.

C. Well Monitoring. To become a Class A or B Participant, a Private Pumper shall authorize the metering of the Pumper's well(s) and the collection of groundwater level and quality data, and the reading thereof by Management Plan personnel. The metering and reading shall be at no cost to the Pumper, and the Pumper shall receive copies of the reports and information obtained upon request.

D. Future Production Participation. Any new Pumper after the effective date of the Management Plan, as approved by a judgment of the Superior Court for Riverside County, can only participate as a Class A Participant as described in Section 7A(1).

E. Replacement Wells. The redrilling of existing wells and the drilling of new wells to replace existing wells will not be considered new private production.

8. Capital Facilities. Each Public Agency shall continue to own its existing capital facilities for water management. However, capital facilities may be jointly constructed and owned by the Management Plan. Joint financing of such facilities may be funded by regional capital fees, loans and grants, contributions for storage by The Metropolitan Water District of Southern California ("Metropolitan") or other third-parties, and municipal bonds. Responsibility for the costs of any existing and future capital facility of the Management Plan should be apportioned among the Public Agencies based on relative benefit to be derived by each Public Agency. Any of the participating Public Agencies may propose projects to be included in the Management Plan to increase Management Area water supply. Such proposals, after evaluation by the Watermaster, shall be included or rejected. If the Watermaster chooses to reject the proposal, the proposing Public Agency may implement the rejected project as long as it does not significantly impact the implementation of the Management Plan and/or interfere with the ongoing production by the Public Agencies.

9. Soboba Tribe's Water Rights. The Soboba Tribe's water rights shall be determined as part of a settlement among the Soboba Tribe, the United States, Eastern, Lake Hemet and Metropolitan. Major points of the proposed settlement are:

A. The Soboba Tribe shall have a senior, prior right in the Canyon and San Jacinto Upper Pressure Sub-basins of 9000 afy, but its use shall be limited to a maximum of 4100 afy during the first 50 years after the effective date of the settlement.

B. The Soboba Tribe shall have the right to purchase replenishment water for use pursuant to the Principles of Settlement at the Management Plan replenishment rate.

C. The Soboba settlement provides that, among other things, Metropolitan will use its best efforts to deliver sufficient water to yield a 15-year average of 7,500 afy to the Management Plan until 2035 at its long-term interruptible rate (currently $233/af).

D. Subject to full funding of the settlement by the United States, the Management Plan shall pay the Soboba Tribe $10 million.

E. The Management Plan will also pay the Soboba Tribe $7 million. A Public Agency's payment of its share of this amount is optional, but in order to obtain the benefits of the low-cost Metropolitan water delivered pursuant to the settlement, a Public Agency shall pay its share of this amount.

F. The Management Plan will receive $10 million for capital improvements from the United States, and all unused Soboba Tribe water based on the Public Agency's participation in the payment in Section 9(E) above.

10. Implementation of These Principles. These Interim Principles for Water Management shall be used by the parties as a basis for the preparation of the Management Plan, and a stipulated judgment in a water rights adjudication. As explained below, the Management Plan shall be administered by the Watermaster. The Watermaster will be under the continuing jurisdiction of the Court.

11. Assessment Program. The assessment program contemplated by the Management Plan shall be administered by the Watermaster subject to the governance provisions herein. All payments shall be made to the Watermaster and shall be maintained in a separate restricted fund. All assessments shall be used exclusively to acquire imported, recycled or Metropolitan water for the recharge of the Management Area, and for the facilities and operational and administrative expenses associated with the assessment and recharge programs. Subject to Management Plan approval, assessments may also be used by affected parties to acquire and deliver water for direct use by the parties, in lieu of pumping.

12. Replenishment Program. The replenishment program contemplated by the Management Plan shall also be administered by the Watermaster. The program shall include: the acquisition of supplemental water supplies (including imported, recycled and Soboba Tribe water); the expenditure of assessments; the recharge of the Management Area; and the construction and operation of all necessary facilities, including but not limited to, development of surface and sub-surface percolation and injection facilities. Priority for replenishment will be based on an equitable

apportionment of available replenishment water among the sub-basins after full consideration of: the Public Agency's participation in the payment in Section 9(E) above; the Management Area conditions; water demands; the availability of storage capacity to accommodate the recharge of natural flows; the availability of appropriate conveyance facilities; and the availability of replenishment or imported water. The Watermaster is encouraged to take advantage of surplus imported water that occasionally may be available at low cost, and to use available assessment funds to bank such recharge against future pumping in excess of adjusted production rights.

13. <u>Rights to Groundwater</u>. Groundwater in the Management Area may occur from: natural recharge; spreading operations of natural flows; replenishment with imported, recycled or Metropolitan water acquired with assessment funds; or in-lieu recharge programs financed with assessment funds. All such groundwater shall be available to support the pumping of the parties as allowed herein, and shall not be the property of any individual party, subject to the provisions of Section 14.

14. Storage Rights. The parties recognize that unused storage capacity exists in the Management Area, and the Management Plan contemplates that this capacity will be managed conjunctively with available imported and recycled water supplies. Subject to availability of the Management Plan fund for assessments and unused storage capacity as determined by Watermaster, the Management Area will be recharged and water stored therein when such supplies are available, and drawn upon by the Public Agencies in dry years when such supplemental water supplies may not be available. In addition, unused storage capacity as determined by Watermaster may be used for "put and take" operations of recycled or imported water that is paid for by any party to the Management Plan provided that:

A. Such operations do not interfere with the rights of any other pumper, or with the use of the storage capacity for recharge and storage under the Management Plan;

B. Water available for recharge is purchased first, as needed, for the Management Plan;

C. Later recovery of stored water shall exclude losses; and

D. Such recovered water may be used anywhere within the service area of the party.

Any conjunctive use programs for the benefit of territory outside of the Management Area shall be subject to the governance provisions herein. Any storage, conjunctive use programs by third parties or in-lieu recharge programs financed with assessment funds shall be subject to the governance provisions herein.

15. Spreading Operations. The Public Agencies shall independently or jointly operate their respective facilities to maximize the existing spreading and recharge operations of natural flow in the Management Area.

16. Recharge Water Quality. Consistent with Section 4(E) above all water used to replenish any sub-basin in the Management Area shall meet the Regional Water Quality Control Board requirements, and may be used in any sub-basin where such requirements are met.

17. Recharge Losses. The accounting for storage recharge of the Management Area shall not include any water that escapes therefrom and migrates downstream beyond the Management Area. Losses will be calculated based upon best engineering principles.

18. Recycled Water. The use of recycled water can be of substantial benefit in providing additional water in the Management Area. Each Public Agency may implement a recycled water program, including the ownership, operation and construction of all necessary facilities, and the application for and administration of any loan or grant applications. The Management Plan will support loan or grant applications, and the Public Agencies will work to integrate recycled water into the Management Plan to the extent economically feasible while meeting regulatory standards. Subject to existing recycled water contracts, the Management Plan will have a first right of refusal to purchase excess recycled water for recharge. Priority shall be given to Management Area recharge for the use of recycled water which originates therefrom.

19. Export. The Public Agencies may export water outside the Management Area, on a temporary basis, upon approval by the Watermaster.

However, any water exported shall be replenished with an appropriate amount of similar or better quality water as determined by Watermaster. Also, water exports by the Public Agencies shall not interfere with the Management Plan or any other Public Agency's operations. The Management Plan will set forth the specific criteria for the export of water, including, but not limited to, conjunctive use programs.

20. Credits. Recharge credits documented before the Management Plan shall be calculated pursuant to the Management Plan. Future recharge credits shall be established by replenishment of water or by not exercising the full, adjusted base production right, and shall be calculated pursuant to the Management Plan.

21. Tunnel Seepage, Stream Diversions, Fruitvale To resolve Eastern's use of Tunnel seepage, Lake Hemet's stream diversions and Eastern's use of Fruitvale water, 900 afy shall be added to Hemet's adjusted base production and 900 afy shall be added to San Jacinto's adjusted base production right as discussed in Section 5 above. This is intended to provide Hemet and San Jacinto a fair share of water from these disputed issues.

22. Governance. The Management Plan will be administered by a Watermaster as follows:

A. The governing board of the Watermaster shall consist of one elected official from each of the Public Agencies and one Private Pumper representative selected by the Private Pumpers who participate in the Management Plan. Each member shall have one vote.

B. The Watermaster's duties shall include: determining safe yield; determining replenishment needs; determining annual adjusted base production rights; purchasing and selling imported and recycled water; constructing future capital facilities; establishing assessment rates; initiating necessary conservation and drought management measures; and implementing other responsibilities identified in the Management Plan documents.

Dated: ______, 2004.

EASTERN MUNICIPAL WATER
DISTRICT

By: ____________________________

Dated: ______, 2004.

LAKE HEMET MUNICIPAL WATER DISTRICT

By: ______________________________

Dated: ______, 2004.

CITY OF HEMET

By: ______________________________

Dated: ______, 2004.

CITY OF SAN JACINTO

By: ______________________________

MANAGEMENT AREA

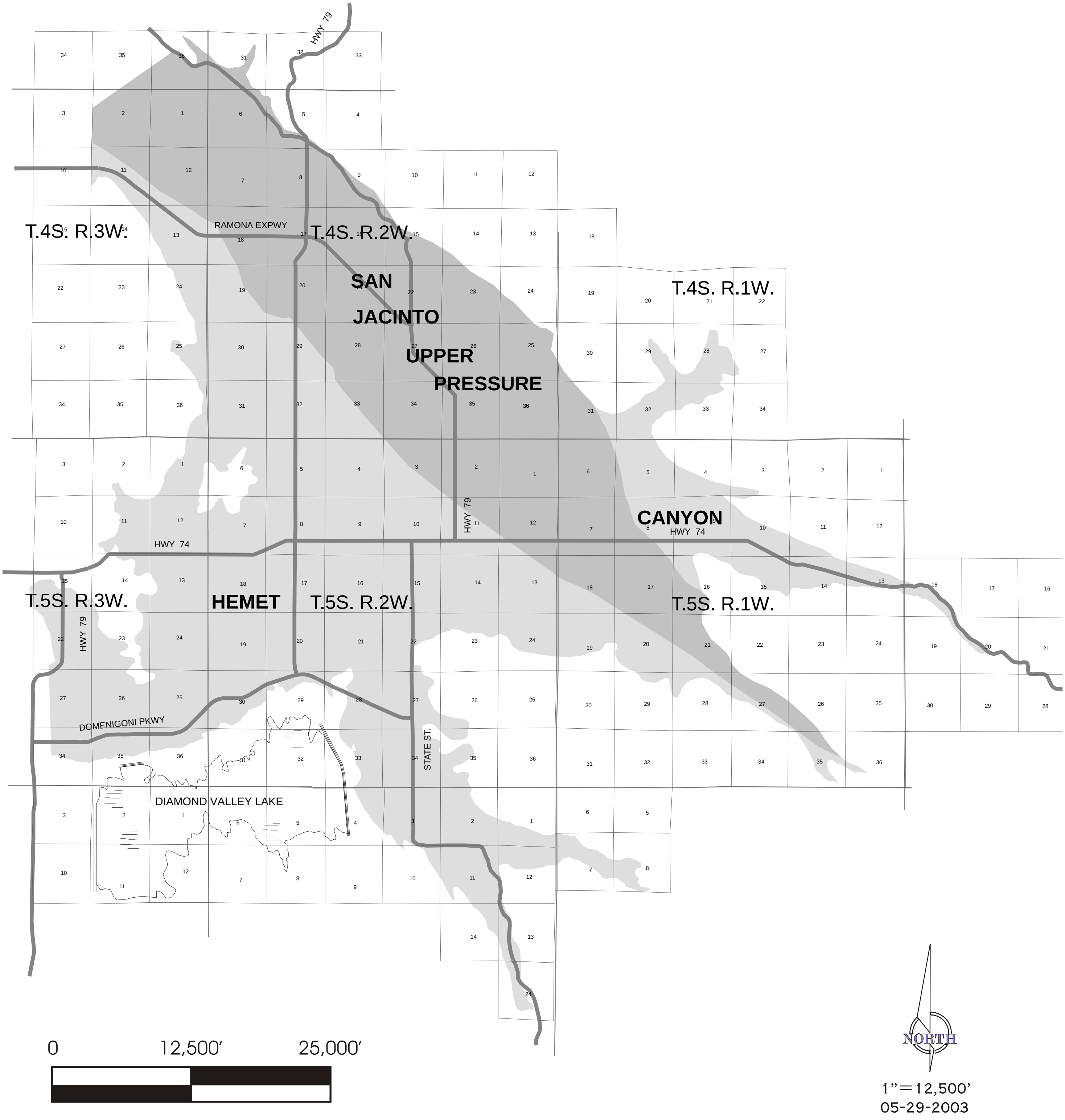

1"=12,500'
05-29-2003

APPENDIX E LIST OF COMMITTEE ATTENDEES

The attendees of the PC who contributed to this plan:

Name	Title	Affiliation
Debi Lara	Administrative Assistant	City of Hemet
Marc Searl	Member, City Council	City of Hemet
Steve Temple	City Manager	City of Hemet
Eric Vail	Attorney	City of Hemet
Lori VanArsdale	Member, City Council	City of Hemet
Dennis Williams	Consultant	City of Hemet
Chris Carlson-Buydos	Member, City Council	City of San Jacinto
Bob Hargreaves	Attorney	City of San Jacinto
Steven Johnson	Consultant	City of San Jacinto
Barry McClellan	City Manager	City of San Jacinto
Ken Shaw	Member, City Council	City of San Jacinto
Samson Haile-Selassie	Project Manager	DWR
Eric Hong	Project Manager	DWR
Dale Schafer	Facilitator	DWR
Ali Taghavi	Consultant	DWR
Mike Garner	Asst. General Manager	EMWD
Richard Hall	Member, BOD	EMWD
Behrooz Mortazavi	Asst. General Manager	EMWD
Tony Pack	General Manager	EMWD
Ravi Ravishanker	Deputy General Manager	EMWD
Gerry Shoaf	Attorney	EMWD
Rodger Siems	Member, BOD	EMWD
Herb Forst	Member, BOD	LHMWD
John Fricker	Member, BOD	LHMWD
Rob Lindquist	General Manager	LHMWD
Art Littleworth	Attorney	LHMWD
John Loncar	Consultant	LHMWD
Tom Wagoner	General Manager	LHMWD
Bruce Scott	Private Water Producer	Private Water Producer
Jim Conner	Private Water Producer	Private Water Producer
Bill Corwin	Private Water Producer	Private Water Producer
Gary McMillan	Private Water Producer	Private Water Producer
Randy Record	Private Water Producer	Private Water Producer
Joe Garcia	Environmental Specialist	Soboba Tribe

The members of the TC who contributed to this plan:

Name	Title	Affiliation
Mike Gow	Director of Public Works	City of Hemet
Dennis Williams	Consultant	City of Hemet
Steve Johnson	Consultant	City of San Jacinto
Maurice Hall	Project Manager	DWR
Eric Hong	Project Manager	DWR
Dale Schafer	Facilitator	DWR
Ali Taghavi	Consultant	DWR
Khos Ghaderi	Director of Operations	EMWD
Joe Lewis	Director of Engineering Svcs.	EMWD
Fahkri Manghi	Hydrologist	EMWD
Behrooz Mortazavi	Asst. General Manager	EMWD
Peter Odencrans	Public Affairs Officer	EMWD
Ralph Phraner	Senior Geologist	EMWD
Ravi Ravishanker	Deputy General Manager	EMWD
John Loncar	Consultant	LHMWD
Tom Wagoner	General Manager	LHMWD
Dick Kelley	Private Water Producer	Private Water Producer
Bruce Scott	Private Water Producer	Private Water Producers
Joe Garcia	Environmental Specialist	Soboba Tribe
Peter Pyle	Consultant	Soboba Tribe

The representatives of each Public Agency and DWR at CAM Committee meetings who contributed to this plan:

Name	Title	Affiliation
Steve Temple	City Manager	City of Hemet
Eric Vail	Attorney	City of Hemet
Dennis Williams	Consultant	City of Hemet
Bob Hargreaves	Attorney	City of San Jacinto
Steve Johnson	Consultant	City of San Jacinto
Barry McClellan	City Manager	City of San Jacinto
Samson Haile-Selassie	Project Manager	DWR
Eric Hong	Project Manager	DWR
Dale Schafer	Facilitator	DWR
Ali Taghavi	Consultant	DWR
Mike Garner	Asst. General Manager	EMWD
Behrooz Mortazavi	Asst. General Manager	EMWD
Tony Pack	General Manager	EMWD
Chuck Rathbone	Director of Finance	EMWD
Gerry Shoaf	Attorney	EMWD
Art Littleworth	Attorney	LHMWD
John Loncar	Consultant	LHMWD
Tom Wagoner	General Manager	LHMWD

LHMWD SURFACE WATER DIVERSION

EMWD IMPORTED WATER USAGE

EMWD RECYCLED WATER PRODUCTION

EMWD RECYCLED WATER SALES

EMWD
Historical Water Supply Components (AF)

Year	Groundwater*	Imports	Recycled Water**	Sales to other Agencies	Conveyance Water	Total
1984	11,763	2,228	0	(1,811)	0	12,181
1985	11,859	971	0	(2,301)	0	10,529
1986	11,605	605	0	(1,750)	0	10,460
1987	12,217	2,889	37	(3,549)	0	11,594
1988	14,539	4,463	42	(2,929)	0	16,116
1989	14,762	5,712	40	(4,500)	0	16,014
1990	16,533	5,774	24	(8,417)	0	13,915
1991	12,051	378	24	(2,667)	0	9,786
1992	11,810	92	25	(2,149)	0	9,778
1993	10,483	0	1	(155)	0	10,329
1994	12,253	0	0	(1,823)	0	10,430
1995	11,055	50	7	(707)	0	10,406
1996	16,349	0	57	(1,902)	(2,583)	11,921
1997	16,282	183	31	(1,133)	(3,120)	12,242
1998	14,692	0	4	(417)	(3,656)	10,623
1999	17,458	0	0	(1,658)	(3,130)	12,670
2000	17,634	198	0	(2,236)	(2,690)	12,906
2001	15,127	1,761	0	(2,853)	(907)	13,128
2002	15,370	0	0	(4,895)	(929)	9,546
2003	13,693	325	0	(1,864)	(686)	11,468
2004	12,515	5,636	0	(4,283)	0	13,868

* Groundwater includes conveyance water

** Recycled water does not include water sold to land owners for irrigation

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

LHMWD
Historical Water Supply Components (AF)

Year	Groundwater	Purchases from EMWD	Surface Water	Total
1984	4,901	1811	*	*
1985	6,609	2074	6,557	15,241
1986	6,961	1750	6,078	14,789
1987	6,929	3396	4,418	14,743
1988	7,427	2792	6,424	16,642
1989	6,481	4338	6,837	17,656
1990	5,829	8382	1,902	16,114
1991	7,559	2300	2,057	11,917
1992	7,770	2149	2,206	12,125
1993	6,748	155	6,064	12,967
1994	9,780	1820	1,633	13,233
1995	9,166	653	4,328	14,146
1996	10,932	1841	3,359	16,132
1997	12,472	507	2,959	15,938
1998	9,356	266	4,019	13,641
1999	13,390	952	3,033	17,375
2000	13,093	1808	1,765	16,666
2001	12,490	2103	1,348	15,941
2002	12,595	4100	441	17,136
2003	12,044	1343	1,530	14,918
2004	11,900	3635	1,330	16,865

* Surface water data unavailable for 1984

City of Hemet Water Service Area
Historical Water Supply Components (AF)

Year	Groundwater	Purchases from EMWD	Total
1984	3,514	0	3,514
1985	3,810	227	4,037
1986	5,531	0	5,531
1987	4,669	153	4,822
1988	6,306	137	6,443
1989	6,549	162	6,711
1990	5,776	35	5,811
1991	5,138	367	5,505
1992	5,597	0	5,597
1993	5,478	0	5,478
1994	5,327	3	5,330
1995	5,643	1	5,644
1996	5,961	14	5,975
1997	5,891	27	5,918
1998	4,801	31	4,832
1999	4,805	642	5,447
2000	5,048	428	5,476
2001	4,735	749	5,484
2002	4,955	761	5,716
2003	4,999	518	5,517
2004	5,684	345	6,029

City of San Jacinto Water Service Area
Historical Water Supply Components (AF)

Year	Groundwater	Purchases from EMWD	Total
1984	2,805	0	2,805
1985	2,840	0	2,840
1986	2,763	0	2,763
1987	2,746	0	2,746
1988	2,980	0	2,980
1989	2,662	0	2,662
1990	3,841	0	3,841
1991	3,051	0	3,051
1992	3,481	0	3,481
1993	2,802	0	2,802
1994	2,793	0	2,793
1995	2,637	54	2,691
1996	2,831	47	2,878
1997	2,337	600	2,937
1998	2,585	120	2,705
1999	2,766	65	2,831
2000	2,780	0	2,780
2001	2,742	1	2,743
2002	3,231	34	3,265
2003	3,154	2	3,156
2004	2,794	303	3,097

Private Water Producers
Historical Water Supply Components (AF)

Year	Groundwater	Recycled Water	Total
1984	27,420	2086	29,506
1985	30,465	4076	34,541
1986	29,317	4480	33,797
1987	28,512	4461	32,973
1988	27,933	5010	32,943
1989	27,390	5571	32,961
1990	24,725	4439	29,164
1991	23,894	3688	27,582
1992	23,904	3076	26,980
1993	26,130	3301	29,431
1994	30,777	2416	33,193
1995	28,777	3847	32,624
1996	27,216	4312	31,528
1997	28,566	4507	33,073
1998	27,630	3926	31,556
1999	29,358	4975	34,333
2000	33,123	4596	37,719
2001	28,678	4319	32,997
2002	19,962	4888	24,850
2003	15,465	3898	19,363
2004	17,179	5047	22,226

Soboba Tribe
Historical Water Supply Components (AF)

Year	Groundwater	Total
1984	398	398
1985	948	948
1986	912	912
1987	450	450
1988	450	450
1989	450	450
1990	450	450
1991	450	450
1992	450	450
1993	450	450
1994	246	246
1995	951	951
1996	1,324	1,324
1997	1,190	1,190
1998	1,000	1,000
1999	1,545	1,545
2000	1,321	1,321
2001	1,536	1,536
2002	2,016	2,016
2003	1,773	1,773
2004	1,315	1,315

APPENDIX G

EMWD LICENSE FOR SAN JACINTO RIVER DIVERSION

STATE OF CALIFORNIA
THE RESOURCES AGENCY
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS

License for Diversion and Use of Water

APPLICATION 924 PERMIT 468 LICENSE 10667

THIS IS TO CERTIFY, *That* EASTERN MUNICIPAL WATER DISTRICT
P. O. BOX 858, HEMET, CALIFORNIA 92343

HAS *made proof as of* JANUARY 23, 1969 *(the date of inspection) to the satisfaction of the State Water Resources Control Board of a right to the use of the water of* SAN JACINTO RIVER IN RIVERSIDE COUNTY

tributary to LAKE ELSINORE

for the purpose of IRRIGATION AND DOMESTIC USES
under Permit 468 *of the Board and that the right to the use of this water has been perfected in accordance with the laws of California, the Regulations of the Board and the permit terms; that the priority of this right dates from* FEBRUARY 14, 1918 *and that the amount of water to which this right is entitled and hereby confirmed is limited to the amount actually beneficially used for the stated purposes and shall not exceed* FIVE THOUSAND SEVEN HUNDRED SIXTY (5,760) ACRE-FEET PER ANNUM, TO BE COLLECTED TO UNDERGROUND STORAGE BY SPREADING FROM NOVEMBER 1 OF EACH YEAR TO JUNE 30 OF THE SUCCEEDING YEAR AT A RATE OF 41 CUBIC FEET PER SECOND AND SUBSEQUENTLY EXTRACTED AND PLACED TO BENEFICIAL USE. SO LONG AS THERE IS NO INTERFERENCE WITH OTHER RIGHTS, JUNIOR, AS WELL AS SENIOR, LICENSEE MAY INCREASE HIS RATE OF DIVERSION TO A MAXIMUM OF 100 CUBIC FEET PER SECOND; PROVIDED THAT THE TOTAL QUANTITY DIVERTED IN ANY 30-DAY PERIOD DOES NOT EXCEED 2,442 ACRE-FEET.

THE POINTS OF DIVERSION OF SUCH WATER ARE LOCATED:

(1) SOUTH 2,900 FEET AND EAST 1,400 FEET FROM NW CORNER OF SECTION 10, T5S, R1E, SBB&M, BEING WITHIN NE1/4 OF SW1/4 OF SAID SECTION 10, AND
(2) NORTH 1,600 FEET AND WEST 900 FEET FROM SW CORNER OF SECTION 4, T5S, R1E, SBB&M, BEING WITHIN NW1/4 OF SW1/4 OF SAID SECTION 4.

A DESCRIPTION OF LANDS OR THE PLACE WHERE SUCH WATER IS PUT TO BENEFICIAL USE IS AS FOLLOWS:

DOMESTIC USE AND IRRIGATION OF 7,500 ACRES NET WITHIN A GROSS AREA OF 29,500 ACRES WITHIN T4S, R1W; T4S, R1E; T5S, R1E; T5S, R1W; T5S, R2W, SBB&M, AS SHOWN ON MAP FILED WITH STATE WATER RESOURCES CONTROL BOARD.

DIVERSION OF WATER UNDER THIS LICENSE IS, AND SHALL BE, SUBJECT TO THE PROVISION OF JUDGMENT AND DECREE ISSUED IN CASE NUMBER 51,546 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA IN AND FOR THE COUNTY OF RIVERSIDE, SAID JUDGMENT AND DECREE BEING DATED 3 JUNE, 1954.

Licensee shall allow representatives of the Board and other parties, as may be authorized from time to time by the Board, reasonable access to project works to determine compliance with the terms of this license.

All rights and privileges under this license including method of diversion, method of use and quantity of water diverted are subject to the continuing authority of the Board in accordance with law and in the interest of the public welfare to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

Reports shall be filed promptly by licensee on appropriate forms which will be provided for the purpose from time to time by the Board.

The right hereby confirmed to the diversion and use of water is restricted to the point or points of diversion herein specified and to the lands or place of use herein described.

This license is granted and licensee accepts all rights herein confirmed subject to the following provisions of the Water Code:

Section 1625. Each license shall be in such form and contain such terms as may be prescribed by the Board.

Section 1626. All licenses shall be under the terms and conditions of this division (of the Water Code).

Section 1627. A license shall be effective for such time as the water actually appropriated under it is used for a useful and beneficial purpose in conformity with this division (of the Water Code) but no longer.

Section 1628. Every license shall include the enumeration of conditions therein which in substance shall include all of the provisions of this article and the statement that any appropriator of water to whom a license is issued takes the license subject to the conditions therein expressed.

Section 1629. Every licensee, if he accepts a license does so under the conditions precedent that no value whatsoever in excess of the actual amount paid to the State therefor shall at any time be assigned to or claimed for any license granted or issued under the provisions of this division (of the Water Code), or for any rights granted or acquired under the provisions of this division (of the Water Code), in respect to the regulation by any competent public authority of the services or the price of the services to be rendered by any licensee or by the holder of any rights granted or acquired under the provisions of this division (of the Water Code) or in respect to any valuation for purposes of sale to or purchase, whether through condemnation proceedings or otherwise, by the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State, of the rights and property of any licensee, or the possessor of any rights granted, issued, or acquired under the provisions of this division (of the Water Code).

Section 1630. At any time after the expiration of twenty years after the granting of a license, the State or any city, city and county, municipal water district, irrigation district, lighting district, or any political subdivision of the State shall have the right to purchase the works and property occupied and used under the license and the works built or constructed for the enjoyment of the rights granted under the license.

Section 1631. In the event that the State, or any city, city and county, municipal water district, irrigation district, lighting district, or political subdivision of the State so desiring to purchase and the owner of the works and property cannot agree upon the purchase price, the price shall be determined in such manner as is now or may hereafter be provided by law for determining the value of property taken in eminent domain proceedings.

Dated: MAY 25 1976

STATE WATER RESOURCES CONTROL BOARD

R. L. Rosenberger

Chief, Division of Water Rights

Action	DISTRIBUTION	Copy
	Board Secretary	
	General Manager	
	Deputy General Manager	
	Administrative Services	
	Community Relations	
	Contract Administration	
	Purchasing	
	Engineering Branch	
	Planning	
	Maps & Records	
	Engineering	
	Construction	
	Operations Branch	
	Water Reclam.-Sewer	
	Water Operations & [illegible]	X w/encl.
	Water Quality	
	Administrative Branch	
	Customer Service	
	Water Billing	
	Information Systems	
	Finance	
	General Services	

APPENDIX H MEMORANDA OF UNDERSTANDING

APPENDIX H1: PREPARATION OF WATER MANAGEMENT PLAN

APPENDIX H2: DRAFT AGREEMENT REGARDING PHASE 1 FACILITIES CONSTRUCTION COST AND USE

APPENDIX H3: MONITORING PROGRAM

APPENDIX H4: INTERIM WATER SUPPLY PLAN

MEMORANDUM OF UNDERSTANDING

PREPARATION OF WATER MANAGEMENT PLAN FOR THE HEMET/SAN JACINTO MANAGEMENT AREA

This Memorandum Of Understanding: Preparation of Water Management Plan for the Hemet/San Jacinto Management Area ("MOU"), is hereby entered into this 17th day of June, 2004 by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. Groundwater in the Hemet/San Jacinto Management area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County providing an invaluable contribution to the local economy and public good. As a result, the Parties have acknowledged their collective interest in the management of local water resources within the Hemet/San Jacinto Management area.

B. In furtherance of this collective interest, the Parties entered into that "Memorandum of Understanding to Work Cooperatively to Promote Conjunctive Use Projects and Programs in Upper San Jacinto River Basins" dated June 19, 2001 (the "Conjunctive Use MOU"). The purpose of the Conjunctive Use MOU is to encourage cooperation among the Parties to facilitate and support local groundwater management efforts and conjunctive use programs particularly those that could increase dry-year water supplies, within the safe-yield and without the overdraft of San Jacinto groundwater basins.

C. In the cooperative spirit of the Conjunctive MOU and with assistance from the State Department of Water Resources, the parties engaged in several rounds of policy discussions and technical investigations into suitable methods to alleviate the overdraft, manage long term water supplies, and provide for demands of growth. As the result of these efforts, the Parties each approved a statement of principles entitled "Principles for Water Management" (the "Principles") in February 2004 with regard to the Hemet and San Jacinto Basins. The Principles established the framework from which the Parties agreed to develop a Water Management Plan for the Hemet and San Jacinto Basins.

D. The intent of this MOU is to provide for the creation of the Water Management Plan ("WMP") called for in the Principles, to appoint Eastern Municipal Water District as the Contract Administrator for preparation of the WMP, and to establish an equitable mechanism for funding the WMP by the Parties.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 AGREEMENT TO UNDERTAKE WMP

1.1 **Cooperation**. The Parties agree that the WMP shall be timely undertaken and completed in accordance with this MOU. In order to ensure the timely and efficient completion of the WMP within the budget described in this MOU, the Parties agree to cooperate with and amongst each other, to share information necessary for the preparation of the WMP, and to take such other reasonable actions as may be necessary for the timely completion of the WMP, provided such actions do not result in additional costs to the Parties.

1.2. **Scope of Work**. The WMP shall be prepared in accordance with the Scope of Work attached hereto and incorporated herein by reference as Attachment 1 (hereinafter referred to as the "Scope of Work"). The Scope of Work defines the extent of the WMP, the tasks necessary for its completion, assigns responsibility for those tasks, and outlines the basic content of each constituent section.

1.3. **Consultant**. The Parties agree that the WMP shall be prepared by an independent contractor, except for those sections which the Scope of Work designates will be prepared by EMWD or the Parties collectively. The Parties agree that Water Resources & Information Management Engineering, Inc, (hereinafter "WRIME") is hereby selected to be the independent contractor principally responsible for undertaking and completing the Scope of Work. However, it is contemplated that WRIME will subcontract with, or EMWD will enter into separate contracts with, GEOSCIENCE, Support Services, Inc., and Stetson Engineering (hereinafter collectively referred to as "Subconsultants") for certain work identified in the Scope of Work. Subconsultants shall serve as consultants for WRIME with regard to performance of the Scope of Work and shall not serve as consultants for Hemet or San Jacinto or their attorneys for performance of the Scope of Work.

1.4. **Project Cost**. The Parties agree that the amount to be paid to WRIME and Subconsultants for undertaking and completing the Scope of Work shall not exceed that amounts reflected on the WMP Budget attached hereto and incorporated herein by reference as Attachment 2. The WMP Budget reflects a total, not to exceed, project cost of $180,894 ("Total Project Cost"). The Parties agree that the approximately $16,869 remaining in the budget for the Hemet/San Jacinto Groundwater Association ("GWA") and the approximately $20,000 remaining in the budget for the Integrated Water Management Plan ("IWMP") shall be reprogrammed and allocated toward payment of the Total Project Cost. After application of these funds, a cost of $144,025 remains to be funded by and apportioned among the Parties ("Adjusted Project Cost"). The Adjusted

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Project Cost excludes individual expenses of the Parties regarding for their own review, comment, and approval of the WMP as well as expenses of EMWD in preparing sections of the WMP for which the Scope of Work indicates it is principally responsible.

ARTICLE 2.0 OBLIGATIONS OF THE PARTIES

2.1 **Funding of WMP**. Each of the Parties individually agrees to fund up to their apportioned share of the Adjusted Project Cost as determined in Article 3.0 "Apportionment of Cost" and to pay such share in a lump sum payment within thirty (30) calendar days of receipt of an invoice from EMWD, provided that EMWD invoices the parties in July of 2004 or thereafter in accordance with Attachment 3.

2.2 **Administration of Contract**. EMWD hereby agrees to act as the contracting agency for the preparation of the WMP. In this regard, EMWD shall enter into and execute the appropriate contract(s) with WRIME and the Subconsultants to perform the Scope of Work for an amount not to exceed the Project Cost. EMWD shall also perform the duties set forth in Attachment 3.

ARTICLE 3.0 APPORTIONMENT OF COST

3.1. **Method of Apportionment**. The Parties agree to apportion the Adjusted Project Cost among themselves based on each Party's pro rata share of the total base production of all the Parties as determined by the Hemet/San Jacinto Policy Committee and shown below:

Apportionment of Adjusted Project Cost (*900 af credit taken out)

Agency	Base Production (AF)	Percentage	Cost Contribution
City of Hemet*	5,420	17.7 %	$ 25,492
City of San Jacinto*	3,131	10.3 %	$ 14,835
LHMWD.	11,063	36.3 %	$ 52,281
EMWD	10,869	35.7 %	$ 51,417
Totals	**30,483**	**100.0 %**	**$144,025**

ARTICLE 4.0 MISCELLANEOUS PROVISIONS

4.1 **Term**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, upon acceptance of the completed WMP by the governing boards of each of the Parties, provided the Consultant has been fully paid for the Scope of Work and has released the Parties, and each of them, from any claims for further or additional compensation for the Scope of Work.

4.2 **Ownership of Documents**. The WMP together with all data, information, materials and reports (including electronically or digitally stored materials) produced in the preparation of the WMP shall become the joint property of the Parties upon acceptance of the WMP.

4.3 **Individual Costs & Expenses**. Except for the costs and expenses which the Parties have collectively agreed to fund as provided in Article 3.0 "Apportionment of Funding" of this MOU, any cost or expense incurred any one of the Parties with regard to the WMP or its review or approval, shall remain the sole cost and expense of the incurring Party.

4.4 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

4.5 **Counterpart Originals**. This Agreement may be executed in original counterparts, which together shall constitute a single agreement.

4.6 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

EASTERN MUNICIPAL WATER DISTRICT

By:________________________
AJ PACK, General Manager

LAKE HEMET MUNICIPAL WATER DISTRICT

By:________________________
ROBERT V. LINDQUIST, JR., General Manager

[additional signatures on following page]

CITY OF HEMET

By:________________________
Steve Temple, City Manager

ATTEST:

By: Sarah McComas

for ~~Stephen Clayton~~ Sarah McComas

Deputy City Clerk

Approved as to Form:

By: Julie Biggs

~~Eric S. Vail~~ Julie H. Biggs

Assistant City Attorney

CITY OF SAN JACINTO

By: Peter A Cosentini

Peter A. Cosentini, City Manager

ATTEST:

By: Dorothy L. Chauinard

City of San Jacinto

City Clerk

Approved as to Form:

By:

Robert Hargreaves, Best Best & Krieger

City Attorney

AGREEMENT TO DEVELOP A GROUNDWATER MONITORING PROGRAM IN THE HEMET/SAN JACINTO MANAGEMENT AREA

THIS AGREEMENT is made and entered into by and among the following entities, which are hereinafter collectively referred to as the "AGENCIES."

City of Hemet
Lake Hemet Municipal Water District
City of San Jacinto
Eastern Municipal Water District

I. RECITALS

A - Background:

1. Groundwater in the Hemet/San Jacinto Management Area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County providing an invaluable contribution to the local economy and public good.
2. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District strive to increase the availability and reliability of local surface and ground water resources in the area.
3. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District have an interest in the management of local water resources within the Hemet/San Jacinto Management Area.
4. The Department of Water Resources seeks to support local groundwater management efforts, particularly those that could increase dry-year water supplies, within the safe yield and without the overdraft of groundwater resources.
5. Through cooperation, open communication, and consensus building among the AGENCIES, the Hemet/San Jacinto Groundwater Policy and Technical Committees were formed in June of 2001 to identify programs needed to improve groundwater resources management in the area.
6. The AGENCIES have determined that development and implementation of a groundwater monitoring program is necessary for the accurate evaluation of the operational yield of the Hemet/San Jacinto Management Area.

B – The Purpose of this Agreement:

1. Develop a Monitoring Program in the Hemet/San Jacinto Management Area.
2. Appoint Eastern Municipal Water District as the Monitoring Program Administrator.
3. Establish an equitable funding mechanism among the Agencies to collect and fund the Monitoring Program.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

II. COVENANTS

NOW, THEREFORE, in consideration of the foregoing recitals and mutual covenants contained herein, the AGENCIES hereby agree as follows:

A Develop a Groundwater Monitoring Program:
The AGENCIES and other private groundwater producers in the area hereby agree to develop the Groundwater Monitoring Program, as more specifically provided for in Attachment 1.

B Roles and Responsibilities of the AGENCIES:
The AGENCIES shall perform the duties as more specifically provided for in Attachment 1.

C Monitoring Program Costs:
A total of $200,000 is estimated to be required for the meter installation and first year operation of the monitoring program. This amount includes contingencies and uncertainties associated with such monitoring programs. Attachment 1 contains detailed cost estimates.
It is anticipated that Department of Water Resources (DWR) will contribute $100,000 of the $200,000 estimated cost for the meter installation and first year implementation of the monitoring program, provided the Agencies agree to fund and implement the monitoring program into future years pursuant to Covenant II.D, below.

D Cost Sharing of the Monitoring Program:
Until the full implementation of the Water Management Plan, the AGENCIES will share the annual Monitoring Program costs based on their base groundwater production percentages as determined by the Hemet/San Jacinto Groundwater Policy Committee and shown below:

Cost Sharing Prior to Plan Implementation

Agency	Base Production (AF)	Percentage	Cost Contribution
City of Hemet	6,320	19.6 %	$ 19,600
City of San Jacinto	4,031	12.5 %	$ 12,500
LHMWD.	11,063	34.2 %	$ 34,200
EMWD	10,869	33.7 %	$ 33,700
Totals	**32,283**	**100.0 %**	**$100,000**

As noted above, the AGENCIES' share of the first year's budget is $100,00. Future years' budgets will be approved by the Hemet/San Jacinto Groundwater Policy Committee, and incorporate any excesses or deficits from prior years.

E Term of the Agreement:
This Agreement shall terminate, unless extended by mutual agreement of the AGENCIES, on the date a stipulated judgment for the Water Management Plan is executed by the AGENCIES provided that all debts and liabilities of the Monitoring Program are satisfied.

An Agency may terminate its participation in this agreement on an anniversary date of the Agreement by given the other Agencies written notice three months prior to that anniversary date.

F Ownership of Documents:

All data and reports produced shall become the joint property of the AGENCIES.

G Effective Date:

This Agreement shall become effective upon execution by all AGENCIES pursuant to authorization by each AGENCY's Governing Board.

H Counterparts:

This Agreement may be executed in original counterparts, which together shall constitute a single agreement.

IN WITNESS WHEREOF, the AGENCIES have executed this Agreement on the date set forth below.

CITY OF HEMET

DATE 9/13/03 BY ______________

City Manager

CITY OF SAN JACINTO

DATE 9-16-03 BY ______________

City Manager

LAKE HEMET MUNICIPAL WATER DISTRICT

DATE 9/16/03 BY ______________

General Manager

EASTERN MUNICIPAL WATER DISTRICT

DATE 9/19/03 BY ______________

General Manager

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

AGREEMENT TO IMPLEMENT THE 2005 WATERSHED MONITORING PROGRAM IN THE HEMET/SAN JACINTO MANAGEMENT AREA

THIS AGREEMENT is made and entered into by and among the following entities, which are hereinafter collectively referred to as the "AGENCIES."

City of Hemet	City of San Jacinto
Lake Hemet Municipal Water District	Eastern Municipal Water District

I. RECITALS

A - Background:

1. Groundwater in the Hemet/San Jacinto Management area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County providing an invaluable contribution to the local economy and public good.
2. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District strive to increase the availability and reliability of local surface and ground water resources in the area.
3. The Cities of Hemet and San Jacinto, Lake Hemet Municipal Water District, and Eastern Municipal Water District have an interest in the management of local water resources within the Hemet/San Jacinto Management area.
4. The Department of Water Resources seeks to support local groundwater management efforts, particularly those that could increase dry-year water supplies, within the safe yield and without the overdraft of groundwater resources.
5. Through cooperation, open communication, and consensus building among the AGENCIES, the Hemet/San Jacinto Policy and Technical Committees was formed in June of 2001 to identify programs needed to improve groundwater resources management in the area.
6. The AGENCIES developed and implemented a groundwater monitoring program for the year 2004 for the accurate evaluation of groundwater changes within the Hemet/San Jacinto Management area.
7. The AGENCIES are interested in the continuation of the groundwater monitoring program for the accurate evaluation of water resources in the Hemet/San Jacinto Management area.
8. The AGENCIES are interested in overseeing the current USGS surface water monitoring program for better evaluation of the recharge into the Hemet/San Jacinto Management area.
9. The AGENCIES have determined that implementation of a watershed monitoring program which consists of groundwater and surface water monitoring is necessary for the accuate evaluation of the safe yield of the Hemet/San Jacinto Management area.

B – The Purpose of this Agreement:

1. Conduct a Watershed Monitoring Program which consists of groundwater and surface water monitoring in the Hemet/San Jacinto Management area for year 2005.
2. Appoint Eastern Municipal Water District as the Monitoring Program Administrator.
3. Establish an equitable funding mechanism to collect the corresponding shares of each entity to fund the Monitoring Program for 2005.

II. COVENANTS

NOW, THEREFORE, in consideration of the foregoing recitals and mutual covenants contained herein, the AGENCIES hereby agree as follows:

A Watershed Monitoring Program:
The AGENCIES and other private groundwater producers in the area hereby will implement a Watershed Monitoring Program during 2005.

B Roles and Responsibilities of the AGENCIES:
The AGENCIES shall continue the duties as performed during implementation of the Groundwater Monitoring Program in 2004 and oversee the surface water monitoring conducted by U.S. Department of Interior - Geological Survey (USGS).

C Monitoring Program Costs:
A total of $112,000 is estimated to be required for the operation of the watershed monitoring program during 2005. This amount includes participation in a cooperative surface water monitoring program with USGS in addition to the groundwater monitoring program conducted during 2004. Contingencies and uncertainties associated with such monitoring programs are also included in this amount.

D Cost Sharing of the Monitoring Program:
Until the full implementation of the Water Management Plan, the AGENCIES will share the Watershed Monitoring Program costs based on their base groundwater production percentages that are subject to assessments as determined by the Hemet/San Jacinto Policy Committee and shown below:

Cost Sharing For 2005

Agency	Base Production (AF)	Production subject to Assessment	Percentage	Cost Contribution
City of Hemet	6,320	5,420	17.8%	$ 19,900
City of San Jacinto	4,031	3,131	10.3%	$ 11,500
LHMWD.	11,063	11,063	36.3%	$ 40,700
EMWD	10,869	10,869	35.7%	$ 39,900

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Totals	**32,283**	**30,483**	**100.0%**	**$ 112,000**

If the above costs increase by more than 10%, the AGENCIES shall meet and confer on the cost allocation amendment.

E Term of the Agreement:

This Agreement shall terminate, unless extended by mutual agreement of the AGENCIES, on the date a stipulated judgment for the Water Management Plan is executed by the AGENCIES provided that all debts and liabilities of the Monitoring Program are satisfied.

F Ownership of Documents:

All data and reports produced shall become the joint property of the AGENCIES.

G Effective Date:

This Agreement shall become effective upon execution by all AGENCIES pursuant to authorization by each AGENCY's Governing Board.

H Counterparts:

This Agreement may be executed in original counterparts, which together shall constitute a single agreement.

IN WITNESS WHEREOF, the AGENCIES have executed this Agreement on the date set forth below.

CITY OF HEMET

DATE 1/26/05 BY ____________________

City Manager

CITY OF SAN JACINTO

DATE 1-12-05 BY ____________________

City Manager

LAKE HEMET MUNICIPAL
WATER DISTRICT

DATE JAN. 12, 2004 **BY**____________________________
General Manager

EASTERN MUNICIPAL WATER DISTRICT

DATE Jan 19, 2005 **BY**____________________________
General Manager

MEMORANDUM OF UNDERSTANDING

2006-2008 WATERSHED MONITORING PROGRAM

HEMET/SAN JACINTO MANAGEMENT AREA

This Memorandum Of Understanding; 2006-2008 Watershed Monitoring Program, Hemet/San Jacinto Management Area ("MOU"), is hereby dated for reference purposes as of May 23, 2006, by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties previously entered into an "Agreement to Implement the 2004 Watershed Monitoring Program in the Hemet/San Jacinto Management Area" dated September 19, 2003 ("2004 MOU") and an "Agreement to Implement the 2005 Watershed Monitoring Program in the Hemet/San Jacinto Management Area" dated January 26, 2005 ("2005 MOU"). The purpose and rationale of the Watershed Monitoring Program ("WMP") as reflected in the 2004 MOU and 2005 MOU is to conduct a program which consists of groundwater and surface water monitoring in the Hemet/San Jacinto Management Area ("Management Area") for years 2004 and 2005.

B. The Parties agree that the groundwater in the Management Area has been, and will remain, a significant source of water for the people and agribusiness of Riverside County, thus providing an invaluable contribution to the local economy and public good, for which the Parties strive to increase the availability and reliability of local surface and groundwater resources in the area.

C. The Parties have an interest in the management of local water resources within the Management Area. To this end, the California Department of Water Resources seeks to support local groundwater management efforts, particularly those that could increase dry-year water supplies, within the safe yield and without the overdraft of groundwater resources.

D. Through cooperation, open communication, and consensus building among the Parties, the Hemet/San Jacinto Policy and Technical Committees were formed in June of 2001, to identify programs needed to improve groundwater resources management in the area. Through these committees, the Parties developed and implemented the 2004 MOU and 2005 MOU for the accurate evaluation of groundwater changes within the Management Area. The parties desire to continue the WMP for the accurate evaluation of water resources within the Management Area.

E. The Parties further desire to oversee the current U.S. Department of Interior - Geological Survey ("USGS") Surface Water Monitoring Program for a better evaluation of the recharge into the Management Area. Accordingly, the Parties have determined that implementation of a WMP which consists of groundwater and surface water monitoring is necessary for the accurate evaluation of the safe yield of the Management Area.

F. In furtherance thereof, it is the purpose and intent of the Parties in entering into this MOU to continue the WMP consisting of groundwater and surface water monitoring in the Management Area for years 2006 through 2008, appoint Eastern Municipal Water District as the WMP Administrator, and establish an equitable funding mechanism to collect the corresponding shares of each entity to fund the WMP for 2006 through 2008. To implement this goal, the Parties pledge to undertake the following actions.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

1.0 THE PARTIES' PLEDGES AND CONDITIONS

1.1 **Pledges by the Parties**. Subject to the conditions set forth in Section 1.2, the Parties pledge the following:

1.1.1 Implementation of the WMP. The Parties agree to implement, and other local private groundwater producers have separately agreed to implement outside of this MOU, a WMP for the years 2006 through 2008, and agree to continue the duties as performed during implementation of the 2004 MOU and 2005 MOU to oversee the surface water monitoring conducted by U.S. Department of Interior - Geological Survey (USGS).

1.1.2 Appointment of EMWD as WMP Administrator. The Parties agree that EMWD shall be appointed as the WMP Administrator, whose duties shall include the administration of the WMP and the invoicing of the other Parties as provided below.

1.1.3 WMP Costs. An annual cost of $112,000 is estimated to be required for the operation of the WMP for each of the three years from 2006 through 2008. This amount includes participation in a cooperative Surface Water Monitoring Program with USGS in addition to the WMP conducted during 2004 and 2005. Contingencies and uncertainties associated with such monitoring programs are also included in this amount. If the above cost increases by more than 10%, the Parties agree to meet and confer on the cost allocation amendment.

1.1.4 Cost Sharing of the WMP. Until the full implementation of the Water Management Plan, the Parties agree to share the WMP costs based on their base groundwater production percentages that are subject to assessments as determined by the Hemet/San Jacinto Policy Committee and shown in the table below:

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Cost Sharing For 2006 through 2008				
Agency	Base Production (AF)	Production subject to Assessment	Percentage	Cost Contribution
Hemet	6,320	5,420	17.8%	$ 19,900
San Jacinto	4,031	3,131	10.3%	$ 11,500
LHMWD	11,063	11,063	36.3%	$ 40,700
EMWD	10,869	10,869	35.7%	$ 39,900
Totals	32,283	30,483	100.0%	$ 112,000

1.2 **Cooperation with Other Parties**. The Parties agree to cooperate with each other to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

2.0 MISCELLANEOUS PROVISIONS

2.1 **Term and Continuation of the WMP**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on the earlier of the following dates: (i) the date upon which two or more Parties mutually agree to terminate the MOU; (ii) the date upon which all Parties have adopted the Water Management Plan; or (iii) December 31, 2008. During the Term of this MOU, all of the obligations of the Parties shall be continued and carried over to the next calendar year, subject to adjustment if the WMP cost increases by more than 10%. The Parties shall meet and confer during the last quarter of the preceding year to determine the anticipated cost to be apportioned among the Parties for the forthcoming year and memorialized in a statement signed by the managers of all Parties. In any year subsequent to 2006, no Party shall be obligated to contribute more than one hundred twenty-five percent (125%) of its contribution assigned for the prior year without approval of its Board or Council

2.2 **Invoicing**. The Parties agree that EMWD shall invoice each Party for its contribution to the WMP and subsequent years, either in one lump sum during the year, or in installments over the year as is agreed upon by the Party being invoiced and arranged by that Party with EMWD.

2.3 **Ownership of Documents**. The Parties agree that all data and reports produced shall become the joint property of the Parties.

2.4 **Costs & Expenses**. Other than as set forth above, the Parties shall bear their own costs and expenses of otherwise participating in this MOU.

2.5 **Authority**. The individuals executing this MOU on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

2.6 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original.

2.7 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

[SIGNATURE ON FOLLOWING PAGES]

EASTERN MUNICIPAL WATER DISTRICT

By: ______________________________

Tony Pack
General Manager

ATTEST:

By: Rosemarie V. Howell
____
Board Secretary

Approved as to Form:

By: ______________________________

Gerry Schoaf
General Counsel

LAKE HEMET MUNICIPAL WATER DISTRICT

By: Tom Wagoner
Tom Wagoner, General Manager

ATTEST:

By:
District, Secretary

Approved as to Form:

By: Arthur L. Littleworth
Arthur Littleworth, General Counsel

CITY OF HEMET

By:____________________________
Steve Temple, City Manager

ATTEST:

By: Stephen B. Clayton
Stephen Clayton, City Clerk

Approved as to Form:

By: E Vail
Eric S. Vail, City Attorney

CITY OF SAN JACINTO

By:________________________________
Barry McClellan, City Manager

ATTEST:

By:________________________________
Dorothy Chouinard, City Clerk

Approved as to Form:

By:________________________________
Robert Hargreaves, Special Counsel

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MEMORANDUM OF UNDERSTANDING

INTERIM WATER SUPPLY PLAN

UPPER SAN JACINTO SUB-BASINS

This Memorandum Of Understanding; Interim Water Supply Plan, Upper San Jacinto Sub-Basins ("MOU"), is hereby entered into this 1st day of April, 2004 by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties have entered into that "Memorandum of Understanding to Work Cooperatively to Promote Conjunctive Use Projects and Programs in Upper San Jacinto River Basins" dated June 19, 2001 (the "Conjunctive Use MOU"). The purpose of the Conjunctive Use MOU is to encourage cooperation among the Parties to facilitate and support local groundwater management efforts and conjunctive use programs particularly those that could increase dry-year water supplies, within the safe-yield and without the overdraft of San Jacinto groundwater basins.

B. The Parties have also entered into that "Agreement to Develop a Groundwater Monitoring Program in the Hemet/San Jacinto Management Area" dated __________ 2003 ("GWM Program"). The purpose of the GWM Program is to measure and monitor groundwater levels to assist in the accurate evaluation of conditions of overdraft and the evaluation of operational safe yield in the Hemet/San Jacinto Management Area.

C. Furthermore, in February of 2004, the Parties each approved a statement of principles entitled "Principles for Water Management" (the "PWM") with regard to the Hemet and San Jacinto Basins. The PWM establishes the framework from which the Parties will develop a Water Management Plan for the Hemet and San Jacinto Basins.

D. The Conjunctive Use MOU and the PWM recognize that the Parties, individually and collectively, have an interest in managing and preserving the ground and surface water resources within the Hemet and San Jacinto Basins in order to alleviate an escalating condition of overdraft within those Basins.

E. Through the ongoing GWM Program conducted by the Parties, it has been discovered that well levels within certain portions of the Canyon and Intake sub-areas of the San Jacinto Basin ("Upper San Jacinto Sub-Basins") have declined more than the Parties had originally projected. This fact suggests that the condition of overdraft in the Upper San Jacinto Sub-Basins may be deteriorating more rapidly than anticipated, making a collective effort to address the situation prudent prior to establishment of the Water Management Plan.

F. Therefore, in furtherance of the goals stated in the Conjunctive Use MOU and the PWM, it is the purpose and intent of the Parties in entering into this MOU to provisionally address the deteriorating situation by providing interim stabilization of the Upper San Jacinto Sub-Basins through the application of approximately 6,000 acre feet of direct and indirect groundwater recharge during calendar year 2004. To implement this goal, the Parties pledge to undertake the following actions during the calendar year 2004.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 - EMWD's PLEDGES AND CONDITIONS

1.1 **Pledges by EMWD**. Subject to the conditions set forth in Section 1.2, EMWD pledges the following:

1.1.1 Purchase and Recharge of Water. EMWD will contribute up to Eight Hundred Eighty Three Thousand Dollars and No Cents ($883,000.00) for the acquisition, transportation, operations, and recharge of imported water into the Upper San Jacinto Sub-Basins. EMWD will coordinate and cooperate with LHMWD and MWD regarding the acquisition of imported water. EMWD understands and agrees that it will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

1.1.2 Restriction on Conveyances and Exports. EMWD will use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area during July, August, and September 2004, and will eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2004 calendar year. In addition, EMWD will pursue construction of Reach 16 to deliver recycled water to the Heartland Area and will investigate water supply contingency plans.

1.2 **EMWD's Conditions**. The pledges of EMWD stated in Section 1.1 are subject to the following conditions:

1.2.1 Optimizing Capacity. That the Parties cooperate with EMWD's efforts to optimize its delivery capacity during the months of July, August, and September 2004, by refraining, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that any Party's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of their contract rights under the Fruitvale Agreements or such other rights as the Party may have to purchase and receive Fruitvale Water.

1.2.2 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 2.1, 3.2, and 4.2.

1.3 **Acceptance of Other Parties' Conditions**. EMWD hereby accepts each other Party's conditions on their respective pledges.

1.4 **Cooperation with Other Parties**. EMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 2.0 - LHMWD'S PLEDGES AND CONDITIONS

2.1 **Pledges by LHMWD**. Subject to the conditions set forth in Section 2.2, LHMWD pledges the following:

2.1.1 Purchase and Recharge of Water. LHMWD will contribute up to Eight Hundred Twenty-eight Thousand Dollars and No Cents ($828,000.00) for the acquisition, transportation, operations, and recharge of imported water into the Upper San Jacinto Sub-Basins. LHMWD will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. LHMWD understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

2.1.2 Optimizing Capacity. LHMWD will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2004, by refraining during such months, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD. It is understood and agreed that LHMWD's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of LHMWD's contract rights under the Fruitvale Agreements or such other rights as LHMWD may have to purchase and receive Fruitvale Water.

2.2 **LHMWD's Conditions**. The pledges of LHMWD stated in Section 2.1 are subject to the following conditions:

2.2.1 Emergency Production of Water. In the event LHMWD experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the LHMWD, LHMWD reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2004 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within LHMWD's entitlement. For amounts required by LHMWD and delivered by EMWD over the entitlement amount, LHMWD shall pay EMWD's then current wholesale water rates.

2.2.2 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area during July, August, and September 2004, and to eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2004 calendar year.

2.2.3 Preservation of Fruitvale Water Rights. Notwithstanding LHMWD's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2004, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of LHMWD's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

2.2.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 3.2, and 4.2.

2.3 **Acceptance of Other Parties' Conditions**. LHMWD hereby accepts each other Party's conditions on their respective pledges.

2.4 **Cooperation with Other Parties**. LHMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 3.0 - HEMET'S PLEDGES AND CONDITIONS

3.1 **Acknowledgement of Conditions**. Hemet acknowledges the need of the Parties to cooperatively minimize the impacts on water resources in the Upper San Jacinto Sub-Basins. The Parties acknowledge that groundwater resources and well levels surrounding Hemet's water production facilities in the Hemet Basin have not experienced the same rate of decline, as have facilities of the Parties in the San Jacinto Basin. The Parties further acknowledge that Hemet's temporary reallocation of production from the Upper San Jacinto Sub-Basins to the Hemet Basin, as stated in

Section 3.2.1 [Reallocation of Water Production], is provided by Hemet as a means of cooperating with, and providing benefit to, the other Parties to address the conditions in the Upper San Jacinto Sub-Basins. The Parties also acknowledge that Hemet's temporary reallocation of production will not adversely impact the rights, interests, or facilities of the other Parties, and will not unreasonable contribute to the overdraft of the Hemet Basin.

3.2 **Pledges by Hemet**. Subject to the conditions set forth in Section 3.3, Hemet pledges the following:

3.2.1 Reallocation of Water Production. Hemet will reduce its water production and/or receipt from the Upper San Jacinto Sub-Basins during calendar year 2004 by a total of 1072 acre feet. The reduction will be accomplished by: (i) reducing groundwater production from Hemet wells No. 6 and No. 9, by approximately 300 acre feet over the 2004 calendar year; and (ii) by foregoing the exercise of its right to receive deliveries of Entitlement Water or Excess Water ("Fruitvale Water") – currently 772 acre feet -- under EMWD's Improvement District No. 24 program as provided in that Agreement between Hemet and EMWD dated June 13, 1972 ("Fruitvale Agreement") during calendar year 2004. Hemet will off-set this decrease in water production and/or receipt with an increase in groundwater production from Hemet's new or existing facilities in the Hemet Basin.

3.2.2 Optimizing Capacity. Hemet will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2004, by refraining during such months, to the extent feasible, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that Hemet's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of Hemet's contract rights under the Fruitvale Agreements or such other rights as Hemet may have to purchase and receive Fruitvale Water.

3.3 **Hemet's Conditions**. The pledge's of Hemet stated in Section 3.2 are subject to the following conditions:

3.3.1 Emergency Production of Water. In the event Hemet experiences an emergency loss of water production capacity, or is otherwise unable to satisfy its municipal demand from its own facilities, as determined by the Hemet Water District, Hemet shall be entitled to increase water production from Hemet Well No. 6 and No. 9, or receive Fruitvale Water during the duration of the emergency. Hemet's pledge to reallocate water production as provided in Section 3.2 shall be reduced by the same amount. However, Hemet shall contribute an amount of funds equal to the acre feet of water produced multiplied by EMWD's then current wholesale water rate for the acquisition of replacement water.

3.3.2 Preservation of Water Lease Obligations. Hemet has an obligation to produce one hundred (100) acre feet of water per year each from Well No. 6 and Well No. 9. Notwithstanding anything to the contrary in Section 3.2, Hemet shall be entitled to produce such amounts from these wells. Hemet anticipates that it will be able to meet both its pledged reduction and its lease obligations.

3.3.3 Preservation of Fruitvale Water Rights. Notwithstanding Hemet's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during calendar year 2004, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of Hemet's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

3.3.4 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and to eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2004 calendar year.

3.3.5 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 4.2.

3.4 **Acceptance of Other Parties' Conditions**. Hemet hereby accepts each other Party's conditions on their respective pledges.

3.5 **Cooperation with Other Parties**. Hemet agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 4.0 - SAN JACINTO'S PLEDGES AND CONDITIONS

4.1 **Acknowledgement of Conditions**. San Jacinto acknowledges the need of the Parties to cooperatively minimize the impacts on water resources in the Upper San Jacinto Sub-Basins.

4.2 **Pledges by San Jacinto**. Subject to the conditions set forth in Section 4.3, San Jacinto pledges the following:

4.2.1 Pledge of Future Credits. San Jacinto pledges 243 acre feet (the current equivalent of $78,260 at the import water rate of $322) of future recharge credits that are anticipated to accrue to San Jacinto pursuant to Section 20 of the Principles For Water Management. San Jacinto's recharge credits will be reduced by 243 acre feet once accrued. Another Party may purchase these credits from the

Watermaster for $78,260, which amount will then be applied to the 2004 interim recharge program.

4.2.2 Optimizing Capacity. San Jacinto will make a good faith effort to cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2004, by refraining, to the extent feasible in its sole discretion, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that San Jacinto's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of San Jacinto's contract rights under the Fruitvale Agreements or such other rights as San Jacinto may have to purchase and receive Fruitvale Water.

4.3 **San Jacinto's Conditions**. San Jacinto's pledges as stated in Section 4.2 are subject to the following conditions:

4.3.1 Emergency Production of Water. In the event San Jacinto experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the San Jacinto, San Jacinto reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2004 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within San Jacinto's entitlement. For amounts required by San Jacinto and delivered by EMWD over the entitlement amount, San Jacinto shall pay EMWD's then current wholesale water rates.

4.3.2 Preservation of Fruitvale Rights. Notwithstanding San Jacinto's pledge to not otherwise exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2004, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of San Jacinto's rights under the Fruitvale Agreement or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

4.3.3 Restriction on Conveyances and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and will eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2004 calendar year.

4.3.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 3.2.

4.4 **Acceptance of Other Parties' Conditions**. San Jacinto hereby accepts each other Party's conditions on their respective pledges.

4.5 **Cooperation with Other Parties**. San Jacinto agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 5.0 - MISCELLANEOUS PROVISIONS

5.1 **Term**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on December 31, 2004.

5.2 **Costs & Expenses**. The Parties shall bear the costs of implementing their own pledges, and shall bear their own costs and expenses otherwise participating in this MOU.

5.3 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

5.4 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original.

5.5 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

EASTERN MUNICIPAL WATER
DISTRICT

By: ______________________

Its: GENERAL MANAGER

LAKE HEMET MUNICIPAL WATER
DISTRICT

By:

Its:
GENERAL MANAGER

CITY OF HEMET

By:

Steve Temple, City Manager

ATTEST:

By: Stephen B. Clayton
Stephen Clayton
City Clerk

Approved as to Form:

By:
Eric S. Vail
Assistant City Attorney for the City of Hemet

CITY OF SAN JACINTO

By:
Peter A. Cosentini, City Manager

ATTEST:

Dorothy L. Chouinard
Dorothy L. Chouinard, City Clerk

Approved as to Form:

By:
City Attorney for the City of San Jacinto
Best Best & Krieger LLP

MEMORANDUM OF UNDERSTANDING

2005 INTERIM WATER SUPPLY PLAN

UPPER SAN JACINTO SUB-BASINS

This Memorandum Of Understanding; 2005 Interim Water Supply Plan, Upper San Jacinto Sub-Basins ("MOU"), is hereby entered into this 1ST day of March, 2005 by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties previously entered into that "Memorandum of Understanding Interim Water Supply Plan Upper San Jacinto Sub-Basins" dated April 1, 2004 ("2004 MOU") to purchase supplemental water for recharge into certain portions of the canyon and intake sub-areas of the San Jacinto Basin ("Upper San Jacinto Sub-Basins"). The purpose and rationale of the Interim Water Supply Plan ("IWSP") is more fully recited in the 2004 MOU and is incorporated herein by reference.

B. The Parties have determined that it is in the best interest of each of them to continue the IWSP through calendar year 2005 on the terms and conditions set forth in this MOU. The Parties have also affirmed that continuation of the IWSP in this manner is consistent with their effort to engage in collective approaches to addressing the overdraft while the Parties work toward completion of the Water Management Plan.

C. In furtherance thereof, it is the purpose and intent of the Parties in entering into this MOU to assist in providing for interim stabilization of the Upper San Jacinto Sub-Basins through the application of approximately 8,000 acre feet of direct and indirect groundwater recharge during the calendar year 2005. To implement this goal, the Parties pledge to undertake the following actions during the calendar year 2005.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 - EMWD's PLEDGES AND CONDITIONS

1.1 **Pledges by EMWD**. Subject to the conditions set forth in Section 1.2, EMWD pledges the following:

1.1.1 Purchase and Recharge of Water. EMWD will contribute up to One Million One Hundred Fifty-eight Thousand Two Hundred Dollars and No Cents ($1,158,200.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. EMWD will coordinate and cooperate with LHMWD and MWD regarding the acquisition of imported water. EMWD understands and agrees that it will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

1.1.2 Restriction on Conveyances and Exports. EMWD will use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2005, and will eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2005 calendar year. In addition, EMWD will pursue construction of Reach 16 to deliver recycled water to the Heartland Area and will investigate water supply contingency plans.

1.2 **EMWD's Conditions**. The pledges of EMWD stated in Section 1.1 are subject to the following conditions:

1.2.1 Optimizing Capacity. That the Parties cooperate with EMWD's efforts to optimize its delivery capacity during the months of July, August, and September 2005, by refraining, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that any Party's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of their contract rights under the Fruitvale Agreements or such other rights the Party may have to purchase and receive Fruitvale Water.

1.2.2 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 2.1, 3.1, and 4.1.

1.3 **Acceptance of Other Parties' Conditions**. EMWD hereby accepts each other Party's conditions on their respective pledges.

1.4 **Cooperation with Other Parties**. EMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

ARTICLE 2.0 - LHMWD'S PLEDGES AND CONDITIONS

2.1 **Pledges by LHMWD**. Subject to the conditions set forth in Section 2.2, LHMWD pledges the following:

2.1.1 Purchase and Recharge of Water. LHMWD will contribute up to Nine Hundred Eighty-seven Thousand Six Hundred Dollars and No Cents ($987,600.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. LHMWD will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. LHMWD understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

2.1.2 Optimizing Capacity. LHMWD will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2005, by refraining during such months, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD. It is understood and agreed that LHMWD's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of LHMWD's contract rights under the Fruitvale Agreements or such other rights as LHMWD may have to purchase and receive Fruitvale Water.

2.2 **LHMWD's Conditions**. The pledges of LHMWD stated in Section 2.1 are subject to the following conditions:

2.2.1 Emergency Production of Water. In the event LHMWD experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the LHMWD, LHMWD reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2005 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within LHMWD's entitlement. For amounts required by LHMWD and delivered by EMWD over the entitlement amount, LHMWD shall pay EMWD's then current wholesale water rates.

2.2.2 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2005, and to eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2005 calendar year.

2.2.3 Preservation of Fruitvale Water Rights. Notwithstanding LHMWD's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2005, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of LHMWD's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

2.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 3.1, and 4.1.

2.3 **Acceptance of Other Parties' Conditions**. LHMWD hereby accepts each other Party's conditions on their respective pledges.

2.4 **Cooperation with Other Parties**. LHMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 3.0 - HEMET'S PLEDGES AND CONDITIONS

3.1 **Pledges by Hemet**. Subject to the conditions set forth in Section 3.2, Hemet pledges the following:

3.1.1 Purchase and Recharge of Water. Hemet will contribute up to One Hundred Sixty-four Thousand Dollars and No Cents ($164,000.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. Hemet will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. Hemet understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

3.1.2 Optimizing Capacity. Hemet will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2005, by refraining during such months, to the extent feasible, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that Hemet's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of Hemet's contract rights under the Fruitvale Agreements or such other rights Hemet may have to purchase and receive Fruitvale Water.

3.2 **Hemet's Conditions**. The pledges of Hemet stated in Section 3.1 are subject to the following conditions:

3.2.1 Emergency Production of Water. In the event Hemet experiences an emergency loss of water production capacity, or is otherwise unable to satisfy its municipal demand from its own facilities, as determined by the Hemet Water District, Hemet shall be entitled to increase water production from Hemet Well No. 6 and No. 9, or receive Fruitvale

Water during the duration of the emergency. Hemet's pledge to reallocate water production as provided in Section 3.2 shall be reduced by the same amount. However, Hemet shall contribute an amount of funds equal to the acre feet of water produced multiplied by EMWD's then current wholesale water rate for the acquisition of replacement water.

3.2.2 Preservation of Fruitvale Water Rights. Notwithstanding Hemet's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during calendar year 2005, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of Hemet's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

3.2.3 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and to eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2005 calendar year.

3.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 4.1.

3.3 **Acceptance of Other Parties' Conditions**. Hemet hereby accepts each other Party's conditions on their respective pledges.

3.4 **Cooperation with Other Parties**. Hemet agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 4.0 - SAN JACINTO'S PLEDGES AND CONDITIONS

4.1 **Pledges by San Jacinto**. Subject to the conditions set forth in Section 4.3, San Jacinto pledges the following:

4.1.1 Purchase and Recharge of Water. San Jacinto will contribute up to Ninety Thousand Two Hundred Dollars and No Cents ($90,200.00) for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. San Jacinto will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. San Jacinto understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area.

4.1.2 Optimizing Capacity. San Jacinto will make a good faith effort to cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of

July, August, and September 2005, by refraining, to the extent feasible in its sole discretion, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that San Jacinto's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of San Jacinto's contract rights under the Fruitvale Agreements or such other rights as San Jacinto may have to purchase and receive Fruitvale Water.

4.2 **San Jacinto's Conditions**. San Jacinto's pledges as stated in Section 4.2 are subject to the following conditions:

4.2.1 Emergency Production of Water. In the event San Jacinto experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by San Jacinto, San Jacinto reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2005 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within San Jacinto's entitlement. For amounts required by San Jacinto and delivered by EMWD over the entitlement amount, San Jacinto shall pay EMWD's then current wholesale water rates.

4.2.2 Preservation of Fruitvale Rights. Notwithstanding San Jacinto's pledge to not otherwise exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2005, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of San Jacinto's rights under the Fruitvale Agreement or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

4.2.3 Restriction on Conveyances and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and will eliminate the use of any conveyance water during the 2004 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2005 calendar year.

4.2.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 3.1.

4.3 **Acceptance of Other Parties' Conditions**. San Jacinto hereby accepts each other Party's conditions on their respective pledges.

4.4 **Cooperation with Other Parties**. San Jacinto agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 5.0 - MISCELLANEOUS PROVISIONS

5.1 **Term**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on December 31, 2005.

5.2 **Invoicing**. The Parties agree that EMWD shall invoice each Party for its contribution to the 2005 IWSP either in one lump sum during the Term, or in installments over the Term as is agreed upon by the Party being invoiced and arranged by that Party with EMWD.

5.3 **Costs & Expenses**. The Parties shall bear the costs of implementing their own pledges, and shall bear their own costs and expenses of otherwise participating in this MOU.

5.4 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

5.5 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original.

5.6 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

[SIGNATURE PAGES FOLLOW]

EASTERN MUNICIPAL WATER DISTRICT

By: ____________________
Tony Pack
General Manager

ATTEST:

By: Rosemarie V. Howell
____
Board Secretary

Approved as to Form:

By: ____________________
Gerry Schoaf
General Counsel

LAKE HEMET MUNICIPAL WATER DISTRICT

By:____________________
Rob Lindquist, General Manager

ATTEST:

By:____________________
Karen Hornbarger, ~~Secretary~~
Assistant Secretary

Approved as to Form:

By: Arthur L. Littleworth
Arthur Littleworth, General Counsel

CITY OF HEMET

By:______________________________
Steve Temple, City Manager

ATTEST:

By:______________________________
Stephen Clayton, City Clerk

Approved as to Form:

By:______________________________
Eric S. Vail, City Attorney

CITY OF SAN JACINTO

By: Peter A. Cosentini
Peter Cosentini, City Manager

ATTEST:

By: Dorothy L. Chouinard
San Jacinto City Clerk

Approved as to Form:

By:
Robert Hargreaves, Special Counsel

MEMORANDUM OF UNDERSTANDING

2006 INTERIM WATER SUPPLY PLAN

UPPER SAN JACINTO SUB-BASINS

This Memorandum Of Understanding; 2006 Interim Water Supply Plan, Upper San Jacinto Sub-Basins ("MOU"), is hereby dated for reference purposes as of March 8, 2006, by and between the EASTERN MUNICIPAL WATER DISTRICT, a California municipal water district ("EMWD"), LAKE HEMET MUNICIPAL WATER DISTRICT, a California municipal water district ("LHMWD"), CITY OF HEMET, a California general law city ("Hemet"), and CITY OF SAN JACINTO, a California general law city ("San Jacinto"), (collectively referred to hereinafter as the "Parties"), based on the following facts:

RECITALS

A. The Parties previously entered into that "Memorandum of Understanding, Interim Water Supply Plan, Upper San Jacinto Sub-Basins" dated April 1, 2004 ("2004 MOU") and that "Memorandum of Understanding, 2005 Interim Water Supply Plan, Upper San Jacinto Sub-Basins" dated March 1, 2005 ("2005 MOU"). The purpose and rationale of the Interim Water Supply Plan ("IWSP") as reflected in the 2004 MOU and 2005 MOU is to purchase supplemental water for recharge into certain portions of the canyon and intake sub-areas of the San Jacinto Basin ("Upper San Jacinto Sub-Basins").

B. The IWSP was undertaken by the parties as an interim measure pending completion and adoption of a Water Management Plan and entry of a Stipulated Judgment (collectively "WMP") by a Court of competent jurisdiction, binding the Parties to a long term solution to managing and resolving the overdraft of the Hemet / San Jacinto Basin ("Management Area"). Although the Parties have been working earnestly toward completion of the WMP, it is anticipated that the WMP will not be finalized and adopted by all Parties sufficiently early in 2006 so as to supersede the need for the IWSP.

C. Based on this state of affairs, the Parties have determined that it is in their mutual best interests to continue the IWSP through calendar year 2006 and/or until such time as the WMP is finalized and adopted by all of the Parties. The Parties have also affirmed that continuation of the IWSP in this manner is consistent with their effort to engage in collective approaches to addressing the overdraft while the Parties work toward completion of the WMP.

D. In furtherance thereof, it is the purpose and intent of the Parties in entering into this MOU to assist in providing for interim stabilization of the Upper San Jacinto Sub-Basins through the application of approximately 6,000 acre feet of direct and indirect groundwater recharge during the calendar year 2006 and an equivalent or greater amount of water, adequate supply providing, in subsequent years. To implement this goal, the Parties pledge to undertake the following actions.

OPERATIVE PROVISIONS

NOW, THEREFORE, in consideration of the promises made and recited herein, the Parties do hereby enter into this Memorandum of Understanding setting forth their pledges, commitments, understandings and appropriate limiting conditions, as follows:

ARTICLE 1.0 - EMWD's PLEDGES AND CONDITIONS

1.1 **Pledges by EMWD**. Subject to the conditions set forth in Section 1.2, EMWD pledges the following:

1.1.1 Purchase and Recharge of Water. During the Term of this MOU, EMWD agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. EMWD will coordinate and cooperate with LHMWD and MWD regarding the acquisition of imported water. EMWD understands and agrees that it will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area. For calendar 2006, EMWD agrees to contribute up to Six Hundred Seventy-Five Thousand Seven Hundred Dollars and No Cents ($675,700.00) for imported water under the MOU.

1.1.2 Restriction on Conveyances and Exports. EMWD will use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2006, and will eliminate the use of any conveyance water during the 2006 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2006 calendar year. In addition, EMWD will investigate water supply contingency plans.

1.1.3 Continued Participation in IWSP. Subject to Section 5.1 EMWD agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 1.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

1.2 **EMWD's Conditions**. The pledges of EMWD stated in Section 1.1 are subject to the following conditions:

1.2.1 Optimizing Capacity. That the Parties cooperate with EMWD's efforts to optimize its delivery capacity during the months of July, August, and September 2006, by refraining, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that any Party's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of their contract rights under the Fruitvale Agreements or such other rights the Party may have to purchase and receive Fruitvale Water.

1.2.2 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 2.1, 3.1, and 4.1.

1.3 **Acceptance of Other Parties' Conditions**. EMWD hereby accepts each other Party's conditions on their respective pledges.

1.4 **Cooperation with Other Parties**. EMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 2.0 - LHMWD'S PLEDGES AND CONDITIONS

2.1 **Pledges by LHMWD**. Subject to the conditions set forth in Section 2.2, LHMWD pledges the following:

2.1.1 Purchase and Recharge of Water. During the Term of this MOU, LHMWD agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. LHMWD will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. LHMWD understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area. For calendar 2006, LHMWD agrees to contribute up to Eight Hundred Forty-Two Thousand Four Hundred Dollars and No Cents ($842,400.00) for imported water under the MOU.

2.1.2 Optimizing Capacity. LHMWD will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2006, by refraining during such months, to the extent feasible, from exercising their rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD. It is understood and agreed that LHMWD's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of LHMWD's contract rights under the Fruitvale Agreements or such other rights as LHMWD may have to purchase and receive Fruitvale Water.

2.1.3 Continued Participation in IWSP. Subject to Section 5.1, LHMWD agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 2.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

2.2 **LHMWD's Conditions**. The pledges of LHMWD stated in Section 2.1 are subject to the following conditions:

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

2.2.1 Emergency Production of Water. In the event LHMWD experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by the LHMWD, LHMWD reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2006 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within LHMWD's entitlement. For amounts required by LHMWD and delivered by EMWD over the entitlement amount, LHMWD shall pay EMWD's then current wholesale water rates.

2.2.2 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper Flats area during July, August, and September 2006, and to eliminate the use of any conveyance water during the 2005 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge, or made available due to groundwater recharge, in the Upper San Jacinto Sub-Basins during the 2006 calendar year.

2.2.3 Preservation of Fruitvale Water Rights. Notwithstanding LHMWD's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2006, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of LHMWD's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

2.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 3.1, and 4.1.

2.3 **Acceptance of Other Parties' Conditions**. LHMWD hereby accepts each other Party's conditions on their respective pledges.

2.4 **Cooperation with Other Parties**. LHMWD agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 3.0 - HEMET'S PLEDGES AND CONDITIONS

3.1 **Pledges by Hemet**. Subject to the conditions set forth in Section 3.2, Hemet pledges the following:

3.1.1 Purchase and Recharge of Water. During the Term of this MOU, Hemet agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. Hemet will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. Hemet understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area. For calendar 2006, Hemet agrees to contribute up to One Hundred Ninety-Four Thousand Dollars and No Cents ($194,000.00) for imported water under the MOU.

3.1.2 Optimizing Capacity. Hemet will cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2006, by refraining during such months, to the extent feasible, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that Hemet's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of Hemet's contract rights under the Fruitvale Agreements or such other rights Hemet may have to purchase and receive Fruitvale Water.

3.1.3 Continued Participation in IWSP. Subject to Section 5.1, Hemet agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 3.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

3.2 **Hemet's Conditions**. The pledges of Hemet stated in Section 3.1 are subject to the following conditions:

3.2.1 Emergency Production of Water. In the event Hemet experiences an emergency loss of water production capacity, or is otherwise unable to satisfy its municipal demand from its own facilities, as determined by the Hemet Water Department, Hemet shall be entitled to increase water production from any one or more of Hemet's wells located within the Upper San Jacinto Sub-Basins, or receive Fruitvale Water during the duration of the emergency for which Hemet shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within Hemet's entitlement. For amounts required by Hemet and delivered by EMWD over the entitlement amount, Hemet shall pay EMWD's then current wholesale water rates.

3.2.2 Preservation of Fruitvale Water Rights. Notwithstanding Hemet's pledge to not exercise its entitlements to purchase and receive Fruitvale Water during calendar year 2006, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of Hemet's rights under the Fruitvale Agreements or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

3.2.3 Restriction on Conveyance Water and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and to eliminate the use of any conveyance water during the 2006 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2006 calendar year.

3.2.4 Compliance by Other Parties. That each other Party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 4.1.

3.3 **<u>Acceptance of Other Parties' Conditions</u>**. Hemet hereby accepts each other Party's conditions on their respective pledges.

3.4 **<u>Cooperation with Other Parties</u>**. Hemet agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 4.0 - SAN JACINTO'S PLEDGES AND CONDITIONS

4.1 **<u>Pledges by San Jacinto</u>**. Subject to the conditions set forth in Section 4.3, San Jacinto pledges the following:

4.1.1 <u>Purchase and Recharge of Water</u>. During the Term of this MOU, San Jacinto agrees to contribute funds, in the amounts provided for in this MOU, for the acquisition, transportation, operation, and recharge of imported water into the Upper San Jacinto Sub-Basins. San Jacinto will coordinate and cooperate with EMWD and MWD regarding the acquisition of imported water. San Jacinto understands and agrees that EMWD will implement the transportation and recharge of the purchased imported water into the Upper San Jacinto Sub-Basins using its existing conveyance and spreading facilities within the Management Area. For calendar 2006, San Jacinto agrees to contribute up to Eighty-Seven Thousand Nine Hundred Dollars and No Cents ($87,900.00) for imported water under the MOU.

4.1.2 <u>Optimizing Capacity</u>. San Jacinto will make a good faith effort to cooperate with EMWD's efforts to optimize EMWD's delivery capacity during the months of July, August, and September 2006, by refraining, to the extent feasible in its sole discretion, from exercising its rights to delivery of Entitlement Water and/or Excess Water ("Fruitvale Water") under EMWD's Improvement District No. 24 program as provided in those agreements between the Parties individually and EMWD ("Fruitvale Agreements"). It is understood and agreed that San Jacinto's cooperation with such effort by EMWD will not result in a loss, waiver, abrogation or diminishment of San Jacinto's contract rights under the Fruitvale Agreements or such other rights as San Jacinto may have to purchase and receive Fruitvale Water.

4.1.3 <u>Continued Participation in IWSP</u>. Subject to Section 5.1, San Jacinto agrees that it will continue its participation in the Interim Water Supply Plan in the same manner and to the same extent as set forth in Article 4.0 of the MOU during each subsequent calendar year until the WMP has been finalized and adopted by all parties.

4.2 **<u>San Jacinto's Conditions</u>**. San Jacinto's pledges as stated in Section 4.1 are subject to the following conditions:

4.2.1 <u>Emergency Production of Water</u>. In the event San Jacinto experiences an emergency loss of water production capacity or is otherwise unable to satisfy its municipal demand through the use of its own facilities, as determined by San Jacinto, San Jacinto reserves the right to exercise its rights to delivery of Fruitvale Water during the months of July, August and September 2006 and shall pay EMWD the standard rate for Fruitvale Water, for amounts delivered within San Jacinto's entitlement. For amounts required by San Jacinto and delivered by EMWD over the entitlement amount, San Jacinto shall pay EMWD's then current wholesale water rates.

4.2.2 Preservation of Fruitvale Rights. Notwithstanding San Jacinto's pledge to not otherwise exercise its entitlements to purchase and receive Fruitvale Water during July, August and September 2006, such pledge and non-exercise shall not be construed by the Parties or any of them as a waiver, failure to exercise, or other abrogation of San Jacinto's rights under the Fruitvale Agreement or Fruitvale Adjudication and such rights shall be preserved, survive without diminishment, and remain valid and in full force and effect.

4.2.3 Restriction on Conveyances and Exports. That EMWD use its best efforts to eliminate flows from San Jacinto Basin to the Homeland and Juniper flats area and will eliminate the use of any conveyance water during the 2006 calendar year in the Menifee Area. EMWD will not otherwise export any water intended for groundwater recharge in the Upper San Jacinto Sub-Basins during the 2006 calendar year.

4.2.4 Compliance by Other Parties. That each other party use its best efforts in good faith to perform and fulfill their respective pledges as expressed in Sections 1.1, 2.1, and 3.1.

4.3 **Acceptance of Other Parties' Conditions**. San Jacinto hereby accepts each other Party's conditions on their respective pledges.

4.4 **Cooperation with Other Parties**. San Jacinto agrees to cooperate with the other Parties to reasonably facilitate each Party's performance of their pledge, to share information and to regularly meet and confer concerning implementation of this MOU as part of the regularly scheduled meetings of the Groundwater Policy Committee or such sub-committee as the Policy Committee shall designate from time to time.

ARTICLE 5.0 - MISCELLANEOUS PROVISIONS

5.1 **Term and Continuation of the IWSP**. This MOU shall terminate, unless extended by the mutual agreement of the Parties memorialized in writing, on the earlier of the following dates: (i) the date upon which two or more Parties mutually agree to terminate the MOU; (ii) the date upon which all Parties have adopted the WMP; or (ii) December 31, 2008. During the Term of this MOU, all of the obligations of the Parties shall be continued and carried over to the next calendar year, subject to adjustment for the amount of water to be recharged in any subsequent year. The Parties acknowledge that the amount of water to be recharged may fluctuate year to year depending upon conditions within the Management Area, the availability of Imported Water, and the ability to receive and recharge such water. The Parties agree that the goal is to purchase and recharge between 6,000 to 8,000 acre feet of Imported Water each year during the Term. The Parties shall meet and confer during the last quarter of the preceding year to determine the amount of water and the anticipated cost to be apportioned among the Parties for the forthcoming year and memorialized in a statement signed by the managers of all Parties. In any year subsequent to 2006, no Party shall be obligated to contribute more than one hundred twenty-five percent (125%) of its contribution assigned for the prior year without approval of its Board or Council.

5.2 **Invoicing**. The Parties agree that EMWD shall invoice each Party for its contribution to the 2006 IWSP and subsequent years, either in one lump sum during the year, or in installments over the year as is agreed upon by the Party being invoiced and arranged by that Party with EMWD.

5.3 **Costs & Expenses**. The Parties shall bear the costs of implementing their own pledges, and shall bear their own costs and expenses of otherwise participating in this MOU.

5.4 **Authority**. The individuals executing this Agreement on behalf of the Parties and the instruments referenced on behalf of the Parties represent and warrant that they have the legal power, right and actual authority to bind the Parties to the terms and conditions hereof and thereof.

5.5 **Counterpart Originals**. This Agreement may be executed in duplicate originals, each of which is deemed to be an original

5.6 **Effective Date**. This MOU has become effective among and between the Parties on the date by which each Party's governing board or council has approved the MOU and the authorized representative of each Party has executed the MOU.

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date and year first above written.

[SIGNATURE ON FOLLOWING PAGES]

EASTERN MUNICIPAL WATER DISTRICT

By: ____________________________
Anthony J. Pack
General Manager

ATTEST:

By: ____________________________
Rosemarie V. Howell
Board Secretary

Approved as to Form:

By: ____________________________
Gerald D. Shoaf
General Counsel

LAKE HEMET MUNICIPAL WATER DISTRICT

By:

Tom Wagoner, General Manager

ATTEST:

By:

Assistant Secretary
Karen Hornbarger

Approved as to Form:

By: Arthur L. Littleworth

Arthur Littleworth, General Counsel

CITY OF SAN JACINTO

By:____________________
Barry McClellan, City Manager

ATTEST:

By:____________________
Dorothy Chouinard, City Clerk

Approved as to Form:

By:____________________
Robert Hargreaves, Special Counsel

CITY OF HEMET

By:____________________________
Steve Temple, City Manager

ATTEST:

By: Stephen B. Clayton
Stephen Clayton, City Clerk

Approved as to Form:

By:____________________________
Eric S. Vail, City Attorney

APPENDIX I SB1938 GROUNDWATER MANAGEMENT PLAN COMPLIANCE CHECKLIST

Water Management Plan GWMP Components

Description	Section(s)
SB 1938 Mandatory Components	
1. Documentation of public involvement	2.2.4, 11.10
2. BMO(s)	3.1
3. Monitoring and management of groundwater elevations, groundwater quality, inelastic land subsidence, and changes in surface water flows and quality that directly affect groundwater levels or quality	3.1.7, 3.2.7, 11.2
4. Plan to involve other agencies located in the groundwater basin	2
5. Adoption of monitoring protocols	11.2
6. Map of groundwater basin boundary, as delineated by DWR Bulletin 118, with agencies boundaries that are subject to GWMP	2.2, 4.1
7. For agencies not overlying groundwater basins, prepare the GWMP using appropriate geologic and hydrogeologic principles	N/A
AB 3030 and SB 1938 Voluntary Components	
1. Control of saline water intrusion	3.2.3
2. Identify and manage well protection and recharge areas	3.2, 11.2
3. Regulate the migration of contaminated groundwater	3.2
4. Administer well-abandonment and destruction program	11.2, 11.9
5. Control and mitigate groundwater overdraft	3.2, 5.3
6. Replenish groundwater	3.2, 5.3
7. Monitor groundwater levels	3.2, 11.2
8. Develop and operate conjunctive use projects	3.2, 5.3
9. Identify well-construction policies	11.9
10. Develop and operate groundwater contamination cleanup, recharge, storage, conservation, water-recycling, and extraction projects	3.2, 5.3
11. Develop relationships with state and federal regulatory agencies	1.1, 3.2, 4.10
12. Review land use plans and coordinate with land use planning agencies to assess activities that create reasonable risk of groundwater contamination	5.1
DWR Bulletin 118 Suggested Components	
1. Manage with guidance of advisory committee	2.4, 9
2. Describe area to be managed under GWMP	2.1
3. Create links between BMOs and goals and actions of GWMP	3, 11.6
4. Describe GWMP monitoring programs	3.2, 11.2
5. Describe integrated water–management planning efforts	3.2, 4.8.3, 5.3.3.1, 5.3.3.6

Description	Section(s)
6. Report of implementation of GWMP	11.2, 11.5
7. Evaluate GWMP periodically	11.5, 9.6.2

Appendix D

Water Shortage Contingency Plan

ORDINANCE NO. 117.2

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE EASTERN MUNICIPAL WATER DISTRICT AMENDING THE WATER SHORTAGE CONTINGENCY PLAN

BE IT ORDAINED by the Board of Directors of the Eastern Municipal Water District, in Adjourned Regular Session, assembled the 5th day of March, 2009, a majority of the Directors being present and concurring, that the Eastern Municipal Water District Water Shortage Contingency Plan, which is attached hereto and made a part of this Ordinance, be, and the same is hereby approved and adopted.

BE IT FURTHER ORDAINED that the amendments contained and set forth in Ordinance No. 117.1 are hereby rescinded; and

BE IT FINALLY ORDAINED that the effective date of this Ordinance No. 117.2 is April 1, 2009.

ADOPTED this 5th day of March, 2009.

Ronald W. Sullivan

Ronald W. Sullivan, President

ATTEST:

Rosemarie V. Howell

Rosemarie V. Howell, Secretary

(SEAL)

Eastern Municipal Water District

Water Shortage Contingency Plan

Ordinance No.117.2

Effective
April 1, 2009

Table of Contents

Water Shortage Contingency Plan
For Domestic (Potable) Water

Eastern Municipal Water District

Section I: Declaration of Purpose and Principles

In accordance with Water Code 10632 requirements, Eastern Municipal Water District (EMWD) is responsible for conserving the available water supply, protecting the integrity of water supply facilities (infrastructure), and implementing a contingency plan in times of drought, supply reductions, failure of water distribution systems or emergencies. Particular emphasis is placed on use of domestic (potable) water, sanitation, fire protection and preserving public health, welfare, and safety, in addition to minimizing the adverse impacts of water supply shortage or other water supply emergency conditions that do not include recycled water. Therefore, EMWD hereby adopts regulations and restrictions on the delivery and consumption of **potable outdoor water use during water shortages.**

Financial Impacts

In the event that EMWD was to implement the Water Shortage Contingency Plan (the Plan), it is recognized that the reduction in sales would impact the revenues that would normally be generated. To the extent that this reduction negatively impacts the coverage of its fixed related costs (those that are not tied to volume), EMWD will utilize its Rate Stabilization Reserve to mitigate any shortfall.

Priorities

The Plan is based on the following priorities:

- Public safety, health and welfare
- Sustaining economic vitality
- Quality of life

Section II: Public Education

EMWD will periodically provide the public with information about the Plan, including conditions under which each stage of the Plan is to be initiated or terminated and the conservation response measures to be implemented in each stage. This information will be provided by means of public events, website, press releases, bill inserts, etc.

Section III: Coordination with Regional Water Planning Groups

The water service area of EMWD is located primarily within the regional area of the Santa Ana Watershed Project Authority (SAWPA). In addition to SAWPA, coordination and implementation of this Plan are in concert with MWD's Water Supply Allocation Plan as well as EMWD sub-agencies – Lake Hemet Municipal Water District, Nuevo Water Company, Rancho California Water District, and the cities of Perris, Hemet and San Jacinto.

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Section IV: Shortage Declaration Process

A. Long and Short Term Water Deficiencies

Driven by the requirements outlined in Water Code 10632, and the demand for potable water expected to be in excess of the water supply, EMWD's General Manager shall request the Board of Directors to authorize and implement the provisions of the Plan. The request shall be made at a regular or special meeting of the Board of Directors, to implement provisions of the Plan. The Board of Directors has the authority to initiate or terminate the water shortage contingency measures described in this Plan.

B. Emergency Water Shortage Response

By adopting this Plan, the Board of Directors authorizes the General Manager to declare the extent of a potable water shortage emergency and to implement the appropriate water shortage contingency measures. The General Manager shall report such water shortage conditions and level of response to the Board of Directors in a timely manner.

The declaration of the Board of Directors shall be made by public announcement and shall be published in a newspaper of general circulation. The declaration shall become effective immediately upon such publication.

Section V: Application

The water shortage contingency measures of this Plan shall apply to all persons, customers, and properties utilizing potable water provided by EMWD. The terms "person" and "customer" as used in the Plan include individuals, corporations, partnerships, agencies, associations, and all other legal entities.

Section VI: Definitions

For the purposes of this Plan, the following definitions shall apply:

Commercial, Industrial and Institutional (CII): Includes but is not limited to any type of non-profit establishments, governmental entities, schools, retail establishments, hotels, motels, restaurants, car washes and office buildings.

Conservation: Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that supply is conserved and made available for future or alternative uses.

Customer: Any person, company, agency, or organization using water supplied by EMWD.

EMWD: Eastern Municipal Water District.

Domestic water: Used for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution. Also used for landscape irrigation.

Household: Residential premises served by the customer's meter.

Landscape irrigation use: The irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, rights-of-way and medians.

Long Term Shortage: A prolonged shortage of water supplies expected to last at least a year.

Potable water: Filtered/treated water suitable for drinking; also used for household needs and landscape irrigation.

Short Term Shortage: A shortage of water supplies expected to last less than a year.

Water Shortage Contingency Plan: The Plan as defined by this document.

Water shortage: A condition in which the existing or projected potable water supply available to EMWD is not adequate to meet the water requirements of its customers. This condition may be the result of factors including, but not limited to, voluntary or mandatory curtailment of EMWD's allocation from the MWD, drought, emergency conditions or failure of water distribution systems.

Water shortage period: The period beginning on the effective date of the Board of Director's approval of implementing EMWD's Water Shortage Contingency Plan, and ending on the date of the Board of Director's finding that a potable water shortage no longer exists.

Section VII: Criteria for Initiation/Termination of Water Shortage Contingency Stages

At the time of either a long or short-term water shortage, EMWD shall monitor potable water supply conditions on a regular basis and shall determine when conditions warrant initiation or termination of each stage of the Plan as follows:

Stage 1: When water deficiencies are predicted to or actually range between 0 and less than 5 percent of available supply and/or capacity.

Stage 2: When water deficiencies are predicted to or actually range from 5 percent up to 10 percent of available supply and/or capacity.

Stage 3: When water deficiencies are predicted to or actually range from 10 percent up to 15 percent of available supply and/or capacity.

Stage 4: When water deficiencies are predicted to be or actually range from 15 to 25 percent of available supply and/or capacity and storage is not recovering.

Stage 5: When water deficiencies are predicted to be or actually range from 25 to 35 percent of available supply and/or capacity and storage is not recovering.

Stage 6: When water deficiencies are predicted to be or actually range from 35 to 50 percent of available supply and/or capacity and storage is not recovering.

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<u>Stage 7:</u> When water supply deficiencies are predicted to or actually exceed 50 percent of available supply and/or capacity and/or capacity and storage is not recovering.

Section VIII: Public Notification Procedures

When EMWD determines that a potable water shortage condition exists, any or all of the following notification procedures may be implemented:

A. Notify the general public and influential local decision-makers what the situation is, actions to be taken, what the customers are intended to achieve, and how these actions are to be implemented.

B. The public at large will be informed of the situation and what must be done. Contact can be made through billing inserts, special mailings, telephone contact, e-mail, roadway signage, water conservation booths, speaker's bureau, community association meetings, newsletters, and education programs, etc. Literature should be provided on the potable water shortage condition, conservation methods, and water-savings devices.

C. Use of media in all its available forms should be employed. This would include public service announcements on radio and cable television as well as press releases in local newspapers.

D. Posting of all pertinent information on EMWD's web site, www.emwd.org.

Section IX: Water Shortage Contingency Measures (Single-Family Residential, Multi-Family Residential and Landscape Customers)

The following measures will be required to meet demand reduction targets for each stage:

<u>Stage 1:</u> The message to the public is focused on a voluntary 10 percent reduction in water use, implementation of the requirements listed in the Water Use Efficiency Ordinance and the potential for mandatory allocations.

<u>Stage 2:</u> Elimination of all wasteful water use is required with a message to the public focused on mandatory efficiency as outlined in the Water Use Efficiency Ordinance to avoid penalties.

<u>Stage 3:</u> A 25 percent reduction in outdoor use and elimination of wasteful water use is required and the following restrictions in addition to the restrictions of the previous stage can be used to meet the restrictions without paying significant penalties:

1. Watering or irrigating of lawn, landscape or other vegetated areas with sprinklers will be limited to the following schedule:
    a. June through August – Three days a week
    b. September, October, and March through May – Two days a week
    c. November through February – One day a week

    Watering days will be established and posted by EMWD.

2. All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system repaired within seventy-two hours.

3. Refrain from filling or re-filling of ornamental lakes or ponds.

4. Refrain from using potable water to wash or clean a vehicle, including but not limited to, any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not.

5. Maintain existing water levels on swimming pools or outdoor spas.

Stage 4: A 50 percent reduction in outdoor water use and elimination of wasteful water use is required and the following restrictions, in addition to the restrictions of the previous stage, can be used to meet the restrictions without paying significant penalties:

1. Watering or irrigating of lawn, landscape or other vegetated areas with sprinklers will be limited to the following schedule:

    a. June through August – Two days a week

    b. September through May – One day a week

    Watering days will be established and posted by EMWD.

Stage 5: A 50 percent reduction in outdoor water use, elimination of water use in excess of 15 percent above the total of indoor and outdoor budgets, and elimination of wasteful water use is required.

Stage 6: A 50 percent reduction in outdoor water use, elimination of water use in excess of indoor and outdoor budgets, and elimination of wasteful water use is required.

Stage 7: Elimination of outdoor water use except for purposes of health and human safety, elimination of water use in excess of indoor budgets, and elimination of wasteful water use is required.

Section X: Water Shortage Contingency Measures (Commercial, Industrial and Institutional)

The following measures will be required to meet demand reduction targets for each stage:

Stage 1: The message to the public is focused on a voluntary 10 percent reduction in water use, efficient water use as listed in the Water Use Efficiency Ordinance and the potential for mandatory allocations.

Stage 2: Elimination of wasteful behavior is required with a message to the public focused on mandatory efficiency as outlined in the Water Use Efficiency Ordinance and penalties for violation.

Stage 3: A 25 percent reduction in outdoor water use and the following restrictions will be imposed in addition to the restrictions in the Water Use Efficiency Ordinance:

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1. Watering or irrigating of lawn, landscape or other vegetated areas with sprinklers will be limited to the following schedule:

    a. June through August – Three days a week

    b. September, October, and March through May – Two days a week

    c. November through February – One day a week

    Watering days will be established and posted by EMWD.

2. All leaks, breaks, or other malfunctions in the water user's plumbing or distribution system repaired within seventy-two hours.

3. Refrain from filling or re-filling of ornamental lakes or ponds.

4. Refrain from using potable water to wash or clean a vehicle, including but not limited to, any automobile, truck, van, bus, motorcycle, boat or trailer, whether motorized or not.

5. Maintain existing water levels on swimming pools or outdoor spas.

Stage 4: A 50 percent reduction in outdoor water use is required and the following restrictions will be imposed in addition to the restrictions in the previous stage:

1. Watering or irrigating of lawn, landscape or other vegetated areas with sprinklers will be limited to the following schedule:

    a. June through August – Two days a week

    b. September through May – One day a week

    Watering days will be established and posted by EMWD.

Stage 5: A 50 percent reduction in outdoor use is required with the restrictions of the previous stage continued.

Stage 6: A 50 percent reduction in outdoor use is required with the restrictions of the previous stage continued

Stage 7: No outdoor water use is permitted except for purposes of health and human safety.

Section XI: Water Shortage Contingency Measures (Agriculture)

Stage 1: A voluntary 5 percent reduction in water use is required.

Stage 2: A mandatory 5 percent reduction in agricultural use is required.

Stage 3: A mandatory 10 percent reduction in agricultural water use is required.

Stage 4: A mandatory 15 percent reduction in agricultural water use is required.

Stage 4: A mandatory 15 percent reduction in agricultural water use is required.

Stage 5: A mandatory 25 percent reduction in agricultural water use is required.

Stage 6: A mandatory 35 percent reduction in agricultural water use is required.

Stage 7: A mandatory 50 percent reduction in agricultural water use is required.

Note: These restrictions apply only to agricultural customers paying a full domestic rate for potable water deliveries.

Section XII: Enforcement

No person or entity shall knowingly or intentionally use potable water from EMWD for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan pursuant to action taken by EMWD's Board of Directors to implement provisions of this Plan.

The various responses to drought or emergencies described in previous sections are intended to avoid or defer the need for rationing community water supplies, while preserving some latitude of choice with respect to how much potable water individual customers use. However, the success of this framework depends on all customers using water efficiently. In the event of unreasonable use or waste, EMWD reserves the right to impose penalties in addition to the financial disincentives described, including the right to shut off supply.

If a person or entity knowingly or intentionally violates the provision of the Plan, the Board of Directors may choose to implement event-driven penalties, and/or tiered rate penalties and allocation reduction as described below:

Event Driven Penalties

Beginning with Stage 2 event-driven penalties can be imposed for violating any of the restrictions in the Water Use Efficiency Ordinance in addition to the restrictions listed in this plan.

NOTE: *The penalties listed below will replace runoff penalties listed in the Water Use Efficiency Ordinance during Stages 2 through 7.*

a. For the first violation of these sub-sections, EMWD shall issue a written notice of fact of such violation to the customer.

b. For the second and third violations, a surcharge of 100 percent of current water charges shall be added to the customer's water bill.

c. For the fourth and succeeding violation(s), a surcharge of 200 percent of current water charges shall be added to the customer's water bill.

d. EMWD may also terminate a customer's irrigation/landscape meter service.

In all cases customers will be given the right to apply for a variance. See section XIII.

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Tiered Rate (Single-Family Residential, Multi-Family Residential and Landscape Customers)

Penalties and limitations will be applied to discourage prohibited water uses.

Stage 1 - There are no penalties.

Stage 2 - Tier 4 will include a penalty equal to twice the current Tier 4 rate.

Stage 3 - Tier 2, Outdoor Allocation will be reduced by 25 percent to restrict outdoor use; and Tier 4 will include a penalty equal to twice the current Tier 4 rate.

Stage 4 - Tier 2, Outdoor Allocation will be reduced by 50 percent to restrict outdoor use; and Tier 4 will include a penalty equal to twice the current Tier 4 rate.

Stage 5 -Tier 2 will be reduced by 50 percent to restrict outdoor use; the quantity of water provided at the Tier 3 rate will be reduced to 15 percent of Tier 1 and 2 budgets; and Tier 4 will have a penalty rate of twice the current Tier 4 rate.

Stage 6 - Tier 2, Outdoor Allocation will be reduced by 50 percent to restrict outdoor use; the quantity of water provided at the Tier 3 rate will be reduced to zero; and Tier 4 will have a penalty rate of twice the current Tier 4 rate.

Stage 7- Tier 2 and 3 Allocations will be eliminated and Tier 4 will have a penalty rate of twice the current Tier 4 rate.

Tiered Rate Penalty (Agricultural Customers)

NOTE: *These restrictions apply only to agricultural customers paying a full domestic rate for potable water deliveries.*

Stage 1 - There are no penalties.

Stage 2 - Agricultural Use will be allocated at 95 percent of base year use. Deliveries over the allocated amount are subject to the Tier 3 Rate.

Stage 3 - Use will be allocated at 90 percent of base year use. Deliveries over the allocated amount are subject to the Tier 3 Rate.

Stage 4 - Use will be allocated at 85 percent of base year use. Deliveries over the allocated amount are subject to the Tier 3 Rate.

Stage 5 - Use will be allocated at 75 percent of base year use. Deliveries over the allocated amount are subject to the Tier 3 Rate.

Stage 6 - Use will be allocated at 65 percent of base year use. Deliveries over the allocated amount are subject to the Tier 3 Rate.

Stage 7 - Use will be allocated at 50 percent of base year use. Deliveries over the allocated amount are subject to the Tier 3 Rate.

Section XIII: Variances

EMWD may, in writing, grant a temporary variance for existing potable water uses otherwise prohibited under this Plan, if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance, and if one or more of the following conditions are met:

a. Compliance with this Plan cannot be technically accomplished during the duration of the potable water supply shortage or other condition for which the Plan is in effect.

b. Alternative methods can be implemented which will achieve the same level of reduction in potable water use.

All petitions for variances shall be reviewed by EMWD, and shall include the following:

a. Name and address of the petitioner(s).

b. Purpose of potable water use.

c. Specific provision(s) of the Plan from which the petitioner is requesting relief.

d. Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Plan.

e. Description of the relief requested.

f. Period of time for which the variance is sought.

g. Alternative water use restrictions or other measures the petitioner is taking or proposes.

h. Alternative potable water use restrictions or other measures the petitioner is taking, or proposes to take, to meet the intent of this Plan and the compliance date.

i. Other pertinent information.

Variances granted by EMWD shall be subject to the following conditions, unless waived or modified by EMWD:

a. Variances granted shall include an expiration date.

b. Variances granted shall expire when the Plan is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this Plan occurring prior to the issuance of the variance.

Section XIV: Wholesale Supply Allocation

Under a water shortage plan, supply to wholesale customers will be allocated using the formula and methodology based on MWD's Water Supply Allocation Plan. This plan takes into consideration:

a. The impact on retail customers and the economy

b. Population and growth

c. Changes and/or loss of local supply

d. Reclamation and recycling

e. Conservation

f. Investment in local resources

EMWD will establish base period demands and then adjust them for growth and changes in local supply. Regional shortages will be phased in 10 stages. At each stage, the wholesale customers will not experience shortages on the wholesale level that are greater than one-and-a-half times the percentage shortage of regional water supplies. The wholesale customer will also not face a retail shortage less then the regional shortage. Credits will be given for conservation and investment in local supplies.

Section XV: Wholesale Supply Allocation Penalties

Penalties for deliveries over 100 percent up to 110 percent over allocation will have 3 times the Metropolitan Water District's Tier 2 Rate added to the base cost of the water.

Penalties for deliveries over 110 percent of allocation will have 5 times the Metropolitan Water District's Tier 2 Rate added to the base cost of the water.

THE REGIONAL URBAN WATER MANAGEMENT PLAN

NOVEMBER 201

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

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THE METROPOLITAN WATER DISTRICT
OF
SOUTHERN CALIFORNIA

REGIONAL URBAN WATER MANAGEMENT PLAN

Prepared by:

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
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November 2010

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LIST OF ABBREVIATIONS

Abbreviation	**Terms**
AF	Acre-Feet
TAF	Thousand Acre-Feet
MAF	Million Acre-Feet
cfs	Cubic feet per second
GPCD	Gallon Per Capita per Day
KWH	Kilowatt-hours
µg/L	Micrograms per liter
mg/L	Milligrams per liter
pCi/L	Picocuries per liter
AGWA	Association of Ground Water Agencies
AMPAC	American Pacific Corporation
ARRA	American Recovery and Reinvestment Act
BDCP	Bay Delta Conservation Plan
BIOp	Biological Opinion
BLM	U.S. Department of Interior Bureau of Land Management
BMP	Best Management Practices
CAWCD	Central Arizona Water Conservation District
CBSC	California Building Standards Commission
CCL3	Contaminant Candidate List 3
CCP	Conservation Credits Program
CCWD	Contra Costa Water District
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Information System
CPE	Comprehensive Program Evaluation
CRA	California River Aqueduct
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
CVWD	Coachella Valley Water District
D/DBP	Disinfectants/Disinfection Byproduct
DBP	Disinfection Byproduct
DFG	Department of Fish & Game
DLR	Detection Level for purposes of Reporting
DOE	U.S. Department of Energy
DPC	Delta Protection Commission
DVL	Diamond Valley Lake
DWCV	Desert Water Agency/Coachella Valley Water District
DWR	Department of Water Resources
EDC	Endocrine Disruptor Chemical
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ELPH	Equivalent Level of Public Health Protection
EMRS	Energy Management & Reliability Study
ESA	Endangered Species Act
FBR	Fluidized Bed Reactors
FWU	Friant Water Users Authority

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LIST OF ABBREVIATIONS

Abbreviation	Terms
GRP	Groundwater Recovery Program
HECW	High Efficiency Clothes Washers
IAWP	Interim Agricultural Water Program
ICS	Intentionally Created Surplus
IICP	Incremental Interruption and Conservation Plan
IID	Imperial Irrigation District
IRP	Integrated Water Resources Plan
LAA	Los Angeles Aqueduct
LPP	Local Projects Program
LRP	Local Resources Program
M&I	Municipal & Industrial
MCL	Maximum Contaminant Level
MOU	Memorandum of Understanding
MTBE	Methyl Tertiary-Butyl Ether
NASA	National Aeronautics and Space Administration
NCCPA	Natural Community Conservation Planning Act
NDEP	Nevada Division of Environmental Protection
NDMA	N-nitrosodimethylamine
NMFS	National Marine Fisheries Services
NOAA	National Oceanic and Atmosphere Administration
OEHHA	Office of Environmental Health Hazard Assessment
PG&E	Pacific Gas & Electric
PHG	Public Health Goal
PPCP	Pharmaceutical/Personal Care Product
PPR	Present Perfected Rights
PVID	Palo Verde Irrigation District
QMCP	Quagga Mussel Control Plan
QSA	Quantification Settlement Agreement
RDM	Robust Decision Making
RFP	Request for Proposals
RTS	Readiness-to-Serve
RUWMP	Regional Urban Water Management Plan
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SAR	System Access Rate
SARI	Santa Ana Regional Interceptor
SBX7-7	Senate Bill 7, Water Use Reduction Target
SCAG	Southern California Association of Governments
SCCWRRS	Southern California Comprehensive Wastewater Recycling and Reclamation Project
SDCWA	San Diego County Water Authority
SDP	Seawater Desalination Program
SNWA	Southern Nevada Water Agency
SPR	System Power Rate
SWC	State Water Contractors
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids

LIST OF ABBREVIATIONS

Abbreviation	Terms
TOC	Total Organic Carbon
UCMR2	Unregulated Contaminant Monitoring Regulation 2
USBR	U.S. Department of Interior, Bureau of Reclamation
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Services
UWMP	Urban Water Management Plan
VOC	Volatile Organic Compounds
WBIC	Weather-Based Irrigation Controllers
WSAP	Water Supply Allocation Plan
WSDM	Water Surplus and Drought Management
WSR	Water Stewardship Rate
WUCA	Water Utility Climate Alliance
YCWA	Yuba County Water Agency
Act	Urban Water Management Planning Act
Arvin-Edison	Arvin-Edison Water Storage District
Bay-Delta	San Francisco Bay/Sacramento-San Joaquin Delta
Calleguas	Calleguas Municipal Water District
Code	Metropolitan's Administrative Code
Conservancy	Sacramento-San Joaquin Delta Conservancy
Council	Delta Stewardship Council
Forum	Colorado River Basin Salinity Control Forum
Kern Delta	Kern Delta Water District
Metropolitan	The Metropolitan Water District of Southern California
Policy	State Recycled Water Policy
Regional Board	Santa Ana Regional Water Quality Control Board
Science Board	Delta Independent Science Board
Semitropic	Semitropic Water Storage District
Urban MOU	California Urban Water Conservation Council Memorandum of Understanding Regarding Water Conservation in California
Valley District	San Bernardino Valley Municipal Water District

SUMMARY OF METROPOLITAN COMPLIANCE UNDER THE DWR GUIDELINES

In 2005, DWR provided guidance materials to aid water districts in developing their urban water management plans. These materials both helped water districts comply with the law and DWR staff review submitted plans for regulatory compliance. The guidance materials consisted of a series of worksheets detailing acceptable responses to the requirements set forth in the Urban Water Management Planning Act (Act), as per the California Water Code. At that time, DWR also provided a checklist for cross referencing sections of the respondent water agency's Plan with the relevant sections of the Water Code to be sure that it addresses all relevant provisions of the Act.

Since the revised guidebook and checklist for the 2010 Urban Water Management Plan will not be released until DWR completes the development of new reporting methodologies for retail agencies, Metropolitan used the 2005 guideline materials in the development of this plan. In addition, Metropolitan also closely monitored changes in the reporting requirements brought about by new legislation and changes to the Act. Presented below is a compliance checklist reflective of these changes. This compliance checklist is organized by Water Code section and summarizes Metropolitan's compliance to the reporting requirements of the Act in the Water Code.

Agency Coordination

Water Code § 10620 (d)(1)(2) Coordination with Appropriate Agencies

Participated in areawide, regional, watershed or basinwide urban water management planning

- See Section 5.

Describe the coordination of the plan preparation and anticipated benefits.

- See Section 5.

Water Code §10620 (f) - Describe resource maximization / import minimization plan

Discuss how water management tools and options are used to maximize resources and minimize the need to import water.

- Metropolitan's planning strategy within the IRP and adaptive implementation approach is discussed in Section 2 and provides an overview of the water management tools and options. See pages 2-1 through 2-11.
- Further details are provided in Sections 3.4 (conservation, pages 3-28 through 3-39) and 3-5 (recycling, groundwater recovery and desalination, pages 3-40 through 3-55.)

Water Code § 10621 (b) - City and County Notification and Participation

Notify any city or county within service area of UWMP of plan review & revision. Consult and obtain comments from cities and counties within service area.

- Notification is discussed in Section 5, pages 5-7 thru 5-11.

Water Code § 10631 (a) - Service Area Information

Describe service area of supplier

- Service area is discussed on pages 1-6 through 1-10.

Include current and projected population

- Population analysis is discussed in Appendix A.1, page A.1-2. Projections are on page A.1-8, Table A.1-2.

Population projections were based on data from state, regional or local agency

- See footnote Table A.1-2, page A.1-8.

Describe climate characteristics that affect water management

- See Page I-15 through I-17.

Describe other demographic factors affecting water management

- See Page I-14.

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Contents of UWMP

Water Code § 10631 (b) - Water Sources

Identify existing and planned water supply sources, Provide current water supply quantities, Provide planned water supply quantities

- Historic and current water supplies are described in Appendix A.2. Planned water supplies are discussed in Section 2, and details are provided in Appendix A.3, and particularly in Table A.3-7, pages A.3-43 through A.3-55.

Water Code §10631 (b)(1-4) - If Groundwater identified as existing or planned source

- Metropolitan does not supply groundwater. However, Metropolitan does use groundwater basins for groundwater banking.
- See Section 3.6 and Appendix A.2 (pages A.2-5 through A.2.6) and Appendix A.3 (pages A.3-36 through A.3-42) for discussions of issues related to groundwater basins.

Water Code §10631 (c) (1) - Reliability of Supply

Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage

- Section 2, pages 2-15 though 2-19 and the discussions presented under the CRA and SWP Sections 3-1 and 3-2.

Basis of Water Year data

- Section 2, Tables 2-9 through 2-11, pages 2-17 though 2-19.

Water Code §10631 (c) (2) - Water Sources Not Available on a Consistent Basis

Describe plans to supplement or replace inconsistent sources with alternative sources or water Demand Management Measures (DMMs)

- For a discussion on alternative sources, see adaptive management planning in Section 2 on pages 2-3 through 2-8.
- For a discussion on water demand management measures, see Sections 2 and 3, in particular, pages 2-2, 2-29, and 3-34.

Water Code §10631 (d) - Transfer or Exchange Opportunities

Describe short term and long term exchange or transfer opportunities

- Section 3.1 (pages 3-2 through 3-9) describes plans for banking, exchange and transfer opportunities along the Colorado River and Aqueduct.
- Section 3.2 (pages 3-10 through 3-22) describes plans for banking, exchange and transfer opportunities within the State Water Project.
- Section 3.3 (pages 3-22 through 3-27) describes plans for banking, exchange and transfer opportunities within the Central Valley.
- Section 3.6 (pages 3-56 through 3-60) describes plans for banking, exchange and transfer opportunities within the local region.
- Further details including dry year supply projections are provided in Appendix A.3, particularly Table A.3.7 on pages A.3-43 through A.3-55.

Water Code §10631 (e)(1)(2) - Water Use Provisions

Quantify past water use by sector, current water use by sector, Project future water use by sector

- Past, current, and future water uses are shown in Table A.1-13 on page A.1-12. Water uses by sector and county are shown in Tables A.1-6 through A.1-11 on pages A.1-10 through A.1-12.

Identify and quantify sales to other agencies

- Historic sales are presented in Table A.2-2 on page A.2-4. Metropolitan does not project sales by individual agency. However, total projected sales/demands to other agencies are shown in Section 2.

Water Code §10631 (f) - 2010 Urban Water Management Plan "Review of DMMs for Completeness" Form

- See CUWCC filings in Appendix A.6.

Water Code §10631 (g) - Planned Water Supply Projects and Programs, including non-implemented Demand Management Measures

- See discussion on the conservation credits program and implementation approach, Section 3.4, pages 3-28 through 3-39.

Water Code §10631 (h) - **Planned Water Supply Projects and Programs**

Detailed description of expected future supply projects & programs
Timeline for each proposed project
Quantification of each projects normal yield (AFY)
Quantification of each projects single dry-year yield (AFY)
Quantification of each projects multiple dry-year yield (AFY)

- Section 3.1 (pages 3-2 through 3-9) describes plans for banking, exchange and transfer opportunities along the Colorado River and Aqueduct.
- Section 3.2 (pages 3-10 through 3-22) describes plans for banking, exchange and transfer opportunities within the State Water Project.
- Section 3.3 (pages 3-23 through 3-27) describes plans for banking, exchange and transfer opportunities within the Central Valley.
- Section 3.6 (pages 3-56 through 3-60) describes plans for banking, exchange and transfer opportunities within the local region.
- Further details including dry year supply projections are provided in Appendix A.3, particularly Table A.3.7 on pages A.3-43 through A.3-55.

Water Code §10631 (i) - Opportunities for development of desalinated water

Describes opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply

- See discussion in Section 3.5 on groundwater recovery and seawater desalination, pages 3-47 through 3-55.
- See Appendix A.5, Table A.5-1 on pages A.5-1 through A.5-3 for a list of existing and conceptual groundwater recovery projects and their ultimate yield/capacity.
- See Appendix A.5, Table A.5-3 on page A.5-10 for a list of conceptual, planned, and under construction seawater desalination projects.

Determination of Demand Management Measures Implementation

Water Code § 10631 (j) - District is a CUWCC signatory

Agency is a CUWCC member
2005-08 annual updates are attached to plan
annual updates are considered completed by CUWCC website

- See Section 3.4 and attached documents in Appendix A.6.

Water Code § 10631 (k) – If supplier receives or projects receiving water from a wholesale supplier

Provided written availability projections, by source, to member agencies

- See Appendix A.3, Table A.3-7.

Water Code § 10631.1 - Projected Water Use for Low-Income Housing

Water use projections for single-family and multi-family residential housing for low-income housing

- This is incorporated with the retail demand forecast, as reflected in the discussions in Section 2.

Water Code § 10631.5 - Implementing water demand management demand measures

Compliance on a regional basis

- In determining its supply reliability, Metropolitan estimates total retail demands for its regional service areas and factors out water savings attributed to conservation, as discussed in section 2.2 (pages 2-9 though 2-14) and shown in tables 2-6 through 2-8.
- Metropolitan has invested over $268 million through a nearly 20-year period in regional conservation programs as discussed in Section 3.4 (pages 3-28 through 3-39).
- Metropolitan's "Water Stewardship Rate" element of its rate structure recovers the cost of providing financial incentives in conservation and water recycling and is identified as a demand management service function of the cost of service process, as discussed in Section 2.7 on page 2-29.
- Metropolitan's Conservation Credits Program provides the basis for financial incentives and funding for urban BMP and other demand management related activities, as discussed in Section 3.4, pages 3-28 though 3-39.
- Metropolitan's conservation related achievements are discussed in Section 3.4 and are shown in Tables 3-7 through 3-10.

Water Shortage Contingency Plan

Water Code § 10632 - Water Shortage Contingency Plan Section

Water Code § 10632 (a) - Stages of Action

Provide stages of action

Provide the water supply conditions for each stage

Includes plan for 50 percent supply shortage

- Documentation of the stages of actions Metropolitan would undertake to address up to 50 percent reduction in its water supplies and a catastrophic interruption in water supplies is included in its Water Surplus and Drought Management and Water Supply Allocation Plans and in the discussion of its Emergency Storage Requirement developed under its catastrophic supply interruption plan. See discussion on Section 2, pages 2-20 through 2-23.

Water Code §10632 (b) - **Three-Year Minimum Water Supply**

Identifies driest 3-year period

Minimum water supply available by source for the next three years

- Metropolitan has projected its supply capabilities for the next three years 2011 through 2013 under a multiple dry year hydrology (based on a repeat of 1990-1992 hydrology, which represents the three years of shortest supplies). See Table 1-6, page 1-24.

Water Code §10632 (c) - **Preparation for catastrophic water supply interruption**

Provided catastrophic supply interruption plan

Regional power outage

Earthquake

Delta levee failure

Aqueduct failure

- See Section 2, pages 2-20 through 2-28.

Water Code § 10632 (d) - **Prohibitions**

List the mandatory prohibitions against specific water use practices during water shortages

- Not applicable.

Water Code § 10632 (e) - Consumption Reduction Methods

List the consumption reduction methods the water supplier will use to reduce water use in the most restrictive stages with up to a 50% reduction.

- See Section 2, especially page 2-22 and Appendix A.4.

Water Code § 10632 (f) - Penalties

List excessive use penalties or charges for excessive use

- See Section 2 and Appendix A.4.

Water Code § 10632 (g) - Revenue and Expenditure Impacts

Describe how actions and conditions impact revenues
Describe how actions and conditions impact expenditures
Describe measures to overcome the revenue and expenditure impacts

- See Section 2-7, pages 2-29 through 2-35.

Water Code § 10632 (h) - Water Shortage Contingency Ordinance/Resolution

Attach a copy of the draft water shortage contingency resolution or ordinance.

- Not applicable to Metropolitan. The WSDM and WSAP plans adopted to deal with shortages are discussed in Section 2, pages 2-20 through 2-23. The WSAP is also included as Appendix A.4.

Water Code § 10632 (i) - Reduction Measuring Mechanism

Provided mechanisms for determining actual reductions

- Metropolitan's water sales are metered. See Section 2.

Recycled Water Plan

Water Code § 10633 - Recycling Plan Agency Coordination

Describe the coordination of the recycling plan preparation information to the extent available.

- See Section 3-5, pages 3-40 through 3-55, Table 3-15 on page 3-54, Table 3-16 on page 3-55, and in Appendix A.5, Table A.5-2.

Water Code § 10633 (a) - Wastewater System Description

Describe the wastewater collection and treatment systems in the supplier's service area
Quantify the volume of wastewater collected and treated

- See Section 3-5, pages 3-40 through 3-55, Table 3-15 on page 3-54, Table 3-16 on page 3-55, and in Appendix A.5, Table A.5-2.

Water Code § 10633 (a - d) - Wastewater Disposal and Recycled Water Uses

Describes methods of wastewater disposal

- See Section 3-5, page 3-40.

Describe the current type, place and use of recycled water

- See Section 3-5, page 3-42, and Table A.5-2.

Describe and quantify potential uses of recycled water

- See Section 3-5, page 3-42, and Table A.5-2.

Determination of technical and economic feasibility of serving the potential uses

- See Section 3-5, pages 3-42 through 3-47.

Water Code § 10633 (e) - Projected Uses of Recycled Water

Projected use of recycled water, 20 years

- See Section 2, Tables 2-6 through Table 2-8, pages 2-12 through 2-14 and Section 3-5.

Compare UWMP 2005 projections with UWMP 2010 actual

- The 2005 RUWMP, Tables II-4, II-5, and II-6, included the following projections for recycled water use in 2010: 310,000 AF for a single dry year; 300,000 AF for a multiple dry year; and 316,000 AF for an average year. In 2009, actual recycled water use is estimated at 310,000 AF, as discussed in Appendix A.2, page A.2-8 of this 2010 RUWMP.

Water Code § 10633 (f) - Plan to Optimize Use of Recycled Water

Describe actions that might be taken to encourage recycled water uses

Describe projected results of these actions in terms of acre-feet of recycled water used per year

Provide a recycled water use optimization plan which includes actions to facilitate the use of recycled water (dual distribution systems, promote recirculating uses)

- See Section 3-5, pages 3-40 through 3-55, Table 3-15 on page 3-54, Table 3-16 on page 3-55, and in Appendix A.5, Table A.5-2.

Water Quality Impacts on Reliability

Water Code §10634 - Water quality impacts on availability of supply

Discusses water quality impacts (by source) upon water management strategies and supply reliability

- See Section 4, Water Quality, pages 4-1 through 4-17.

Water Service Reliability

Water Code § 10635 (a) - Supply and Demand Comparison to 20 Years

Compare the projected normal water supply to projected normal water use over the next 20 years, in 5-year increments.

- See Section 2, Tables 2-6 to 2-8, pages 2-12 through 2-14, for projected water use and Table A.3-7 in Appendix A.3, pages A.3-43 through A.3-55 for projected water supply.

Water Code § 10635 (a) - Supply and Demand Comparison: Single-dry Year Scenario

Compare the projected single-dry year water supply to projected single-dry year water use over the next 20 years, in 5-year increments.

- See Section 2, Tables 2-6 to 2-8, pages 2-12 through 2-14, for projected water use and Table A.3-7 in Appendix A.3, pages A.3-43 through A.3-55 for projected water supply.

Water Code § 10635 (a) - Supply and Demand Comparison: Multiple-dry Year Scenario

Project a multiple-dry year period occurring between 2011-2015 and compare projected supply and demand during those years

Project a multiple-dry year period occurring between 2016-2020 and compare projected supply and demand during those years

Project a multiple-dry year period occurring between 2021-2025 and compare projected supply and demand during those years

Project a multiple-dry year period occurring between 2026-2030 and compare projected supply and demand during those years

- Metropolitan has projected multiple dry year periods for years ending in "0" or "5". Its planning for multiple dry years is based on the three years of shortest supplies (1990-1992 hydrology). The results presented in Section 2 for multiple dry years are for an average of three years with this extreme hydrology. See Section 2, Tables 2-6 to 2-8, pages 2-12 through 2-14, for projected water use and Table A.3-7 in Appendix A.3, pages A.3-43 through A.3-55 for projected water supply.

Water Code § 10642 – Does the plan include public participation and plan adoption?

Attach a copy of adoption resolution

- See Section 5, page 5-11.

Encourage involvement of social, cultural & economic community groups

- See Section 5, pages 5-7 through 5-8.

Plan available for public inspection

- See Section 5, pages 5-9 and 5-10.

Provide proof of public hearing

- See Section 5, page 5-10.

Provided meeting notice to local governments

- See Section 5, page 5-9.

Water Code § 10643 – Review of implementation of 2005 uwmp

Reviewed implementation plan and schedule of 2005 UWMP
implemented in accordance with the schedule set forth in the plan

- Metropolitan has conducted a review of its planning progress through the IRP Update, discussed in Section 2.I. In addition, in each section, Metropolitan has included a "Achievement to Date" that discusses progress towards its planning goals, and discussion on current issues and potential problems with continued implementation of the plan.

DMM Programs

- Metropolitan is a member of CUWCC, and has submitted its recent DMM reports to the CUWCC to comply with the UWMP requirements. In addition, Metropolitan has discussed its conservation plan and approach in Section 3-4. Individual conservation programs are discussed on pages 3-28 through 3-39.

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EXECUTIVE SUMMARY

Metropolitan's 2010 Regional Urban Water Management Plan (RUWMP) has been prepared in compliance with Water Code Sections 10608.36 and 10610 through 10656 of the Urban Water Management Planning Act (Act), which were added by Statute 1983, Chapter 1009, and became effective on January 1, 1984. This Act requires that:

> *"every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually prepare and adopt, in accordance with prescribed requirements, an urban water management plan."*

The Urban Water Management Planning Act (Act) requires urban water suppliers to describe and evaluate sources of water supply, efficient uses of water, demand management measures, implementation strategy and schedule, and other relevant information and programs. Urban water suppliers are required by the Act to update their Urban Water Management Plan (UWMP) and submit a complete plan to California Department of Water Resources (DWR) every five years. An UWMP is required in order for a water supplier to be eligible for DWR administered state grants and loans and drought assistance.

As with Metropolitan's previous plans, the 2010 RUWMP does not explicitly discuss specific activities undertaken by its member agencies unless it relates to one of Metropolitan's water demand or supply management programs. Each member agency will discuss these activities in its UWMP. Information from Metropolitan's 2010 RUWMP may be used by many of the local water suppliers in the preparation of their own plans, although it is not mandatory for local agencies to rely on Metropolitan's plan because participation in any regional planning activity is voluntary (pursuant to Water Code § 10620).

The information included in the 2010 RUWMP represents the most current available planning projections of supply capability and demand developed through a collaborative process with the member agencies. Metropolitan is in the process of completing its 2010 Integrated Water Resources Plan Update (2010 IRP Update), which represents Metropolitan's comprehensive planning process and will serve as Metropolitan's blueprint for long-term water reliability, including key supply development and water use efficiency goals.

Factors of Consideration

The Act requires reporting agencies to describe its water reliability under a single dry-year, multiple dry-year, and average year conditions, with projected information in five-year increments for 20 years. The factors of consideration used to evaluate Metropolitan's supply and demand balance for the 2010 RUWMP are presented below. Some of the considerations and resulting projections may change as Metropolitan's planning process is finalized. These changes may be reflected in future preparations of the RUWMP.

Demand Projections

Within Metropolitan's service area, retail water demands can be met with local supplies or imported supplies. Metropolitan's long-term plan focuses on the future demands for Metropolitan's imported supplies. The expected firm demand on Metropolitan is the difference between total demands, adjusted for conservation, and projected total local supplies. Thus, in order to project the regional need for imported water, Metropolitan starts with a projection of total demand including retail Municipal and Industrial (M&I), retail agricultural, seawater barrier, and replenishment demands, determines the adjustments from total conservation, and subtracts the total local supplies that are available to meet a portion of those demands.

Total Demands

Metropolitan updates its retail M&I projection periodically based on the release of official regional demographic and economic projections. The projections of retail M&I water demands used in the 2010 RUWMP are based on data from the following reports:

- Southern California Association of Governments (SCAG) 2007 Regional Transportation Plan
- San Diego Association of Governments (SANDAG) Series 12: 2050 Regional Growth Forecast Update

The SCAG and SANDAG regional growth forecasts are the core assumptions that drive the estimating equations in Metropolitan's MWD-MAIN demand forecasting model. SCAG and SANDAG's projections undergo extensive local review and incorporate zoning information from city and county general plans and are backed by Environmental Impact Reports.

Retail agricultural demands consist of water use for irrigating crops. Metropolitan's member agencies estimate agricultural water use based on many factors, including farm acreage, crop types, historical water use, and land use conversion. Each member agency estimates its agricultural demands differently, depending on availability of information. Metropolitan relies on member agencies' estimates of agricultural demands for the 2010 RUWMP.

Metropolitan also includes in its assessment of total demands the local groundwater requirements for seawater barrier and basin replenishment. Seawater barrier demands represent the amount of water needed to hold back seawater intrusion into the coastal groundwater basins, and are considered firm demands. Replenishment demands represent the amount of water that member agencies plan to use to replenish the groundwater basins as available. Metropolitan relies on member and groundwater management agencies' projections for these demands. For the 2010 RUWMP, replenishment deliveries are not included as part of firm demands.

Total Conservation

Projected regional water demand is adjusted to account for water conserved by Best Management Practices from active, code-based, and price-effect conservation. Active conservation levels are derived by calculating water savings from all active program device-based savings installed to date. Code-based conservation levels are derived by calculating water savings from devices covered by existing water conservation ordinances and plumbing codes, with replacement and new construction rates driven by demographic growth consistent with those used to derive retail demand. Price-effect conservation is derived by calculating water savings by retail customers attributable to the effect of changes in the real (inflation adjusted) price of water.

Water use reduction under Senate Bill 7 (SBX7-7) is factored into regional local water supplies. This has been done to recognize the fact that one method of compliance with SBX7-7 is the development of recycled water in addition to conservation.

Total Local Supplies

Projections of local supplies are based on information gathered from a number of sources including past urban water management plans, Metropolitan's annual local production surveys, and communications between Metropolitan and member agency staff. The projections include groundwater and surface water production, recycled water and recovery of contaminated or degraded groundwater (funded under the Metropolitan's Local Resources Program as wells as local agency funded programs) and seawater desalination. The local supply projections presented in demand tables for the 2010 RUWMP include existing projects that are currently producing water and projects that are under construction.

The total local supplies presented in the 2010 RUWMP also include Los Angeles Aqueduct deliveries and non-Metropolitan water supplies imported by member agencies from sources outside of Metropolitan service area.

Water Use Reduction Target

On November 10, 2009, the state Legislature passed Senate Bill 7 as part of the Seventh Extraordinary Session, referred to as SBX7-7. This new law is the water conservation component to the historic Delta legislative package, and seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. According to Water Code §10608.36, wholesale agencies are required to include in their UWMPs an assessment of present and proposed future measures, programs, and policies that would help achieve the water use reductions required under SBX7-7. Urban wholesale water suppliers are not required to comply with the target-setting and reporting requirements of SBX7-7.

Approximately 380 TAF of the additional conservation and/or recycling would be implemented as a result of full compliance by local water agencies with water reduction targets by 2020 at the retail level. This estimated amount is reflected in the projected demand for imported supply in the 2010 RUWMP and is further described in Section 2.2.

Supply Capabilities

The 2010 RUWMP reports on Metropolitan's water reliability and identifies projected supplies to meet the long-term demand within its service area. Metropolitan's supply capabilities are evaluated using the following assumptions:

Hydrologic Conditions and Reporting Period

The 2010 RUWMP presents Metropolitan's supply capabilities from 2015 through 2035 under the three hydrologic conditions specified in the Act: single dry-year (represented by a repeat of 1977 hydrology), multiple dry-year (represented by a repeat of 1990 to 1992 hydrologies) and average year (represented by the average of 1922 to 2004 hydrologies).

Colorado River Aqueduct Supplies

Colorado River Aqueduct supplies include supplies that would result from existing and committed programs and from implementation of the Quantification Settlement Agreement (QSA) and related agreements. The QSA, which is the subject of current litigation, is a component of the California Plan and establishes the baseline water use for each of the agreement parties and facilitates the transfer of water from agricultural agencies to urban uses. A detailed discussion of the QSA is included in Section 3. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 MAF on an as-needed basis.

State Water Project Supplies

State Water Project (SWP) supplies are estimated using the draft 2009 SWP Delivery Reliability Report distributed by DWR in December 2009. The draft 2009 reliability report presents the current DWR estimate of the amount of water deliveries for current

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(2009) conditions and conditions 20 years in the future. These estimates incorporate restrictions on SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008, and June 4, 2009, respectively. Under the 2009 draft reliability report, the delivery estimates for the SWP for current (2009) conditions as percentage of maximum Table A amounts, are 7%, equivalent to 134 TAF, under a single dry-year (1977) condition and 60%, equivalent to 1.15 MAF, under long-term average condition.

In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. Over the last two years under the pumping restrictions of the SWP, Metropolitan has worked collaboratively with the other contractors to develop numerous voluntary Central Valley/SWP storage and transfer programs. The goal of this storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available Banks pumping capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

Delta Improvements

The listing of several fish species as threatened or endangered under the federal or California Endangered Species Acts (ESAs) have adversely impacted operations and limited the flexibility of the SWP. In response to court decisions related to the Biological Opinions for fish species listed under the ESAs, DWR altered the operations of the SWP. This resulted in export restrictions and reduced SWP deliveries. In June 2007, Metropolitan's Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta Action Plan aims to prioritize immediate short-term actions to stabilize the Delta while an ultimate solution is selected, and mid-term steps to maintain the Bay-Delta while the long-term solution is implemented.

In the near-term, the physical and operational actions in the Bay-Delta being developed include measures that protect fish species and reduce supply impacts with the goal of reducing conflicts between water supply conveyance and environmental needs. The potential for Increased supply due to these near-term fixes is included in the 2010 RUWMP as a 10 percent increase in water supplies obtained from the SWP allocation for the year. In evaluating the supply capabilities for the 2010 RUWMP, additional supplies from this interim fix are assumed to materialize by 2013. Also included as a possible near-term fix for the Bay-Delta is the proposed Two-Gate System demonstration program, which would provide movable barriers on the Old and Middle Rivers to modify flows and prevent fish from being drawn toward the Bay-Delta pumping plants. The Two-Gate System is anticipated to protect fish and increase SWP supplies.

Operational constraints likely will continue until a long-term solution to the problems in the Bay-Delta is identified and implemented. State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan (BDCP), which is aimed at addressing the basic elements that include the Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development. In dealing with these basic issues, the ideal solutions sought are the ones that address both the physical changes required as well as the financing and governance. In evaluating the supply capabilities for the 2010 RUWMP, Metropolitan assumed a new Delta conveyance is fully operational by 2022 that would return supply reliability similar to 2005 condition, prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with Metropolitan's long-term Delta Action Plan that recognizes the need for a global, comprehensive approach to the fundamental issues and conflicts to result in a sustainable Bay-Delta, sufficient to avoid biological opinion restrictions on planned SWP deliveries to Metropolitan and the other SWP Contractors. Further, recently passed state legislation included pathways for establishing governance structures and financing approaches to implement and manage the identified elements.

Storage

A key component of Metropolitan's water supply capability is the amount of water in Metropolitan's storage facilities. Storage is a major component of Metropolitan's dry-year resource management strategy. Metropolitan's likelihood of having adequate supply capability to meet projected demands, without implementing the Water Supply Allocation plan (WSAP), is dependent on its storage resources.

In developing the supply capabilities for the 2010 RUWMP, Metropolitan assumed a simulated median storage level going into each of five-year increments based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. All storage capability figures shown in the 2010 RUWMP reflect actual storage program conveyance constraints. It is important to note that under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands.

Findings of the 2010 Regional Urban Water Management Plan

The 2010 RUWMP provides a comprehensive summary of Metropolitan's demand and supply outlook through 2035. As a reporting document, the RUWMP will be updated every five years to reflect changes in water demand and supply projections.

The 2010 RUWMP satisfies all the reporting requirements mandated by the Act. The key reporting points of this report are as follows:

- Metropolitan has supply capabilities that would be sufficient to meet expected demands from 2015 through 2035 under the single dry-year and multiple dry-year conditions, as presented in Figure ES-1.
- Metropolitan has comprehensive plans for stages of actions it would undertake to address up to 50 percent reduction in its water supplies and a catastrophic interruption in water supplies through its Water Surplus and Drought Management and Water Supply Allocation Plans. Metropolitan also developed an Emergency Storage Requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the Southern California region, including seismic events along the San Andreas fault. In addition, Metropolitan is working with the State to implement a comprehensive improvement plan to address catastrophic occurrences that could occur outside of the Southern California region, such as a maximum probable seismic event in the Delta that would cause levee failure and disruption of SWP deliveries.
- Metropolitan has plans for supply implementation and continued development of a diversified resource

mix including programs in the CRA, SWP, Central Valley transfers, local resource projects, and in-region storage that enables the region to meet its water supply needs.

- Metropolitan has a collaborative process in its planning initiatives, including the preparation of the 2010 RUWMP.

Figure ES-1 Supply Capabilities under Single Dry-Year and Multiple Dry-Year Hydrologies

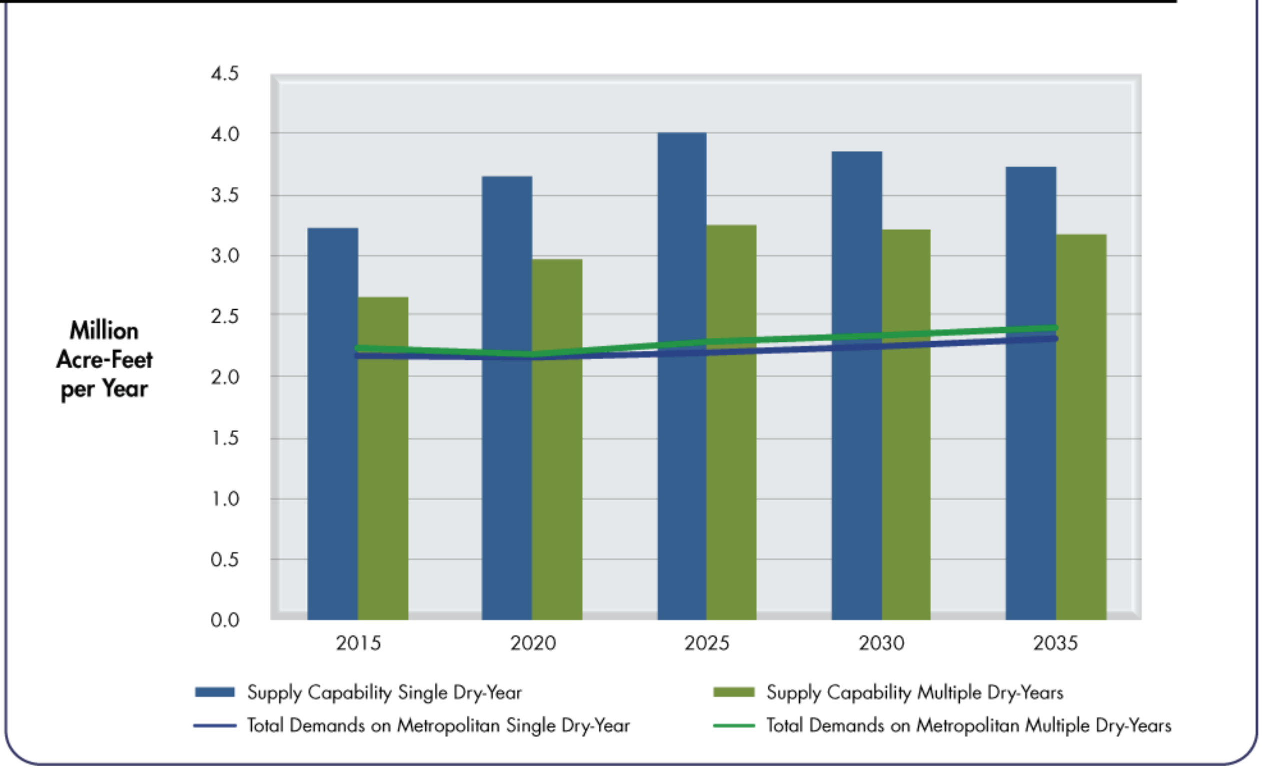

Note:

1. Supply capabilities are derived using simulated median storage level going into each of five-year increments based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used.
2. Under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet firm demands.
3. All storage capability figures shown in the 2010 RUWMP reflect actual storage program conveyance constraints.

Introduction

1

1.1 Introduction to this Document and the Agency

Organization of this Document

This report complies with the Urban Water Management Planning Act of 1984. In addition to complying with the Act, this report details Metropolitan's current situation and how it will meet the challenges of the future. This document contains five sections. The first section is the introduction that defines Metropolitan in terms of governance, structure, and current water supply status. This section also outlines briefly how Metropolitan will meet current and future challenges. The second section describes Metropolitan's planning activities and explains how the agency will manage the region's water resources to ensure a reliable water supply for the region. The third section describes the actions Metropolitan has taken to implement the plans outlined in Section 2 and lists future programs and activities. The fourth section of this report addresses the issue of water quality and steps taken to deliver high-quality water to Metropolitan's service area. The last section details the public outreach component integrated with Metropolitan's planning processes. Appendices that include supporting documents for this report are at the conclusion of this report. The sections are further described in detail below:

Section 1 - Introduction

In addition to demonstrating how this report complies with the Act, the 2010 RUWMP details Metropolitan's current situation and outlines its plan for meeting the challenges of the future. The Introduction section includes:

- Discussion of the Act and Metropolitan's reporting responsibilities under the Act
- Introduction of Metropolitan and description of the formation, purpose, service area, member agencies and governance
- Historical and demographic information on Metropolitan's service area
- Discussion of Metropolitan's current condition, challenges, and resource planning strategies
- Evaluation of Metropolitan's supply capabilities for the next three years under multiple dry-year scenario

Section 2 - Planning for the Future

The Planning for the Future section discusses how Metropolitan plans to meet Southern California's water needs in the future. The section highlights the importance of Integrated Resource Planning by summarizing Metropolitan's planning processes over the years and emphasizes the need for Metropolitan to implement adaptive planning strategies that will prepare the region to deal with uncertainties. This section also includes:

- Evaluation of regional water demand under single dry-year, multiple dry-year, and average year condition for years 2015 through 2035
- Evaluation of supply capabilities under single dry-year, multiple dry-year, and average year condition for years 2015 through 2035
- Discussion of water shortage contingency analysis though the Water Surplus and Drought Management Plan and the Water Supply Allocation Plan

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- Discussion of other supply reliability risks including climate change
- Discussion of the different elements of Metropolitan's rate structure and revenue management

Section 3 - Implementation Plan

The Implementation Plan section summarizes Metropolitan's progress in developing a diversified resource mix that enables the region to meet its water supply needs. The investments that Metropolitan has made and its continuing efforts in many different areas coalesce toward its goal of long-term supply reliability for the region. This section includes:

- Discussion of resources and program development within the CRA, SWP, Central Valley transfers programs, conservation, LRP (groundwater recovery, recycling, desalination), and groundwater
- Discussion of Metropolitan's action to meet the water reduction target (20 percent by 2020)

Section 4 - Water Quality

The Water Quality section identifies key regional water quality issues and provides discussion of the protection of the quality of source water and development of water management programs that maintain and enhance water quality. This section also includes:

- Discussion of water quality issues of concern, issues of decreasing concern, and actions that Metropolitan has undertaken to protect its water supplies.

Section 5 - Public Outreach

The Public Outreach section presents the processes undertaken in the development of the 2010 IRP Update, RUWMP, and Groundwater workshops with the stakeholders. It provides a list of all meetings and workshops accomplished to promote and achieve consensus and collaborative planning processes. Also included in this section are the public notification letters and announcements distributed by Metropolitan as required by the Act and a copy of the Metropolitan resolution adopting the 2010 RUWMP and approving it for submittal to DWR. This section also includes description of public processes for:

- IRP Update Process
- Groundwater Process
- 2010 Regional Urban Water Management Plan Process

<u>Appendices</u>

The appendices provided present detailed background on the information presented in the 2010 RUWMP.

- A.1 - Demand Forecasting
- A.2 - Evaluation of existing regional water supplies
- A.3 - Justifications for supply projections
- A.4 - Water Supply Allocation Plan
- A.5 - List of local projects
- A.6 - Recent CUWCC Filings

Urban Water Management Planning Act

This report has been prepared in compliance with Water Code Sections 10610 through 10656 of the Urban Water Management Planning Act (Act), which were added by Statute 1983, Chapter 1009, and became effective on January 1, 1984. This Act requires that "*every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually prepare and adopt, in accordance with prescribed requirements, an urban water management plan.*" These plans must be filed with the California Department of Water Resources (DWR) every five years.[1] The Act's requirements include:

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[1] UWMPs prepared by urban wholesale water suppliers are due to DWR by December 31, 2010; plans prepared by urban retail water suppliers were granted a six-month extension and are due to DWR by July 1, 2011.

- Detailed evaluation of the supplies necessary to meet demands over at least a 20-year period in a single year and multi-year droughts and during average year conditions,
- Documentation of the stages of actions it would undertake to address up to 50 percent reduction in its water supplies,
- Description of the actions to be undertaken in the event of a catastrophic interruption in water supplies, and
- Evaluation of reasonable and practical efficient water uses, recycling, and conservation activities.

In addition, Water Code § 10608.36 requires wholesale agencies to include in their UWMPs an assessment of present and proposed future measures, programs, and policies that would help achieve water use reduction targets.

Changes in the Act Since 2005

Since 2005, several amendments have been added to the Act. Some of the amendments provided for reporting on lower income and affordable household water projections, eligibility for state water management grants or loans, and reporting on the feasibility of serving recycled water demands. The following is a summary of the significant changes in the Act that have occurred from 2005 to the present:

- Clarifies that every urban water supplier preparing a plan must give at least 60 days advance notice to any city or county prior to the public hearing on the UWMP within which the supplier provides water supplies to allow opportunity for consultation on the proposed plan (Water Code § 10621(b)).
- Requires plan by retail water suppliers to include water use projections for single-family and multifamily residential housing needed for lower income and affordable households to assist with compliance with the existing requirement under Section 65589.7 of the Government Code that suppliers grant a priority for the provision of service to housing units affordable to lower income households (Water Code § 10631.1).
- Conditions eligibility for a water management grant or loan made to an urban water supplier and awarded or administered by DWR, the State Water Resources Control Board, or the California Bay-Delta Authority or its successor agency on the implementation of water demand management measures, including consideration of the extent of compliance with the conservation measures described in the California Urban Water Conservation Council's Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) (Water Code § 10631.5).[2]
- Exempts projects funded by the American Recovery and Reinvestment Act of 2009 from the conditions placed on state funding for water management to urban water suppliers (Water Code § 10631.5(a)(2)).
- Requires DWR, in consultation with the State Water Resources Control Board and the California Bay-Delta Authority or its successor agency, to develop eligibility requirements to implement the foregoing grant and loan conditions (Water Code § 10631.5(b)).
- Repeals existing grant funding conditions of state water management grants or loans on July 1, 2016 if the UWMP is not extended or altered prior to this date (Water Code § 10631.5(f)).

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[2] Although this section is included in the Act, it does not directly relate to the reporting required under the UWMPs. Instead, it is focused on eligibility for DWR grants and loans. Thus, there is no corresponding reporting section for this portion of the Act in this plan.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Deems water suppliers that are members of the California Urban Water Conservation Council and comply with the MOU, as it may be amended, to be in compliance with the requirement to describe the supplier's water demand management measures in its urban water management plan (Water Code § 10631(j)).
- Required DWR, in consultation with the California Urban Water Conservation Council, to convene a technical panel, no later than January 1, 2009, to provide information and recommendations to the Department and the Legislature on new demand management measures, technologies, and approaches. The panel and DWR were to report to the Legislature on their findings no later than January 1, 2010 and each five years thereafter (Water Code § 10631.7).[3]
- Clarifies that "indirect potable reuse" of recycled water should be described and quantified in the plan, including a determination with regard to the technical and economic feasibility of serving those uses (Water Code § 10633(d)). Requires DWR to recognize exemplary efforts by water suppliers by obligating DWR to identify and report to the technical panel, described above, any "exemplary elements" of individual water suppliers' plans, meaning any water demand management measures adopted and implemented by specific urban water suppliers that achieve water savings significantly above the levels required to meet the conditions to state grant or loan funding (Water Code § 10644(c)).

Senate Bill 7 of the Seventh Extraordinary Session of 2009 Water Conservation in the Delta Legislative Package

In addition to changes to the Act, the state Legislature passed Senate Bill 7 as part of the Seventh Extraordinary Session, referred to as SBX7-7, on November 10, 2009, which became effective February 3, 2010. This new law was the water conservation component to the historic Delta legislative package, and seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. This implements the governor's similar 2008 water use reduction goals. The law will require each urban retail water supplier to develop urban water use targets to help meet the 20 percent goal by 2020, and an interim urban water reduction target by 2015.

The bill states that the legislative intent is to require all water suppliers to increase the efficiency of use of water resources and to establish a framework to meet the state targets for urban water conservation called for by the governor. The bill establishes methods for urban retail water suppliers to determine targets to help achieve increased water use efficiency by the year 2020. The law is intended to promote urban water conservation standards consistent with the California Urban Water Conservation Council's adopted best management practices.

Additionally, the bill specifically includes reporting requirements in the upcoming UWMPs. Specifically, urban retail water suppliers must include in their 2010 UWMPs the following information from its target-setting process: (1) baseline daily per capita water use; (2) urban water use target; (3) interim water use target; and (4) compliance daily per capita water use, including technical bases and supporting data for those determinations. An urban retail water supplier may update its 2020 urban water use target in its 2015 UWMP (Water Code § 10608.20).

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[3] Due to subsequent changes in the law (see discussion of Senate Bill 7), DWR has not yet convened this technical panel or submitted a report to the Legislature.

To give retail urban water suppliers time to conduct the additional required analyses, SBX7-7 grants an extension for submission of UWMPs due in 2010 to July 1, 2011. The bill does not expressly provide this same extension for wholesale water agencies such as Metropolitan (Water Code § 10608.20(j)).

Urban *wholesale* water suppliers are not required to perform all of the target-setting and reporting requirements of SBX7-7. However, wholesale agencies must include in UWMPs an assessment of present and proposed future measures, programs, and policies that would help achieve the water use reductions required under this bill (Water Code § 10608.36).

Metropolitan addresses the actions it is taking to help achieve the urban per capita water use reduction pursuant to the goals set forth in SBX7-7 in Section 3.7.

Metropolitan's Responsibilities Under the Urban Water Management Planning Act

As with Metropolitan's previous plans, this plan does not explicitly discuss specific activities undertaken by member agencies unless it relates to one of Metropolitan's water demand or supply management programs. Presumably, each member agency will discuss these activities in its Urban Water Management Plan. Information from this Plan may be used by many of the local water suppliers in the preparation of their own plans, but elements of this Plan do not necessarily have to be adopted by the urban water suppliers or the public agencies directly providing retail water because participation in any regional planning activity is voluntary (pursuant to Water Code § 10620). By law, an urban water supplier that provides water indirectly (such as Metropolitan) may not include planning elements in its water management plan that would be applicable to agencies that provide water directly, without the consent of those agencies.

DWR Guidance

In 2005, DWR provided guidance materials to aid water districts in developing their urban water management plans. These materials both helped water districts comply with the law and DWR staff review submitted plans for regulatory compliance. The guidance materials consisted of a series of worksheets detailing acceptable responses to the requirements set forth in the Act. At that time, DWR also provided a checklist for cross referencing sections of the respondent water agency's Plan with the relevant sections of the Water Code to be sure that it addresses all relevant provisions of the Act.

Since the revised guidebook and checklist for the 2010 Urban Water Management Plan will not be released until DWR completes the development of new reporting methodologies for retail agencies, Metropolitan used the 2005 guideline materials in the development of this plan. In addition, Metropolitan also closely monitored changes in the reporting requirements brought about by new legislation and changes to the Act. Included in this plan is a compliance checklist at the beginning of this document, organized by Water Code section, which summarizes response to requirements of the Water Code.

1.2 The Metropolitan Water District of Southern California

Formation and Purpose

The Metropolitan Water District of Southern California (Metropolitan) is a public agency organized in 1928 by a vote of the electorates of 13 Southern California cities. The agency was enabled by the adoption of the original Metropolitan Water District Act (Metropolitan Act) by the California Legislature "for the purpose of developing, storing, and distributing water" to the residents of Southern California. The Metropolitan Act also allows Metropolitan to sell additional water, if available, for other beneficial uses. In 1992, the Metropolitan Board of Directors adopted the following mission statement:

> *"To provide its service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way."*

The first function of Metropolitan was building the Colorado River Aqueduct (CRA) to convey water from the Colorado River. Deliveries through the aqueduct began in the early 1940s and supplemented the local water supplies of the Southern California member cities. In 1960, to meet growing water demands in its service area, Metropolitan contracted for additional water supplies from the State Water Project (SWP) via the California Aqueduct, which is owned and operated by DWR. SWP deliveries began in 1972. Metropolitan currently receives imported water from both of these sources: (1) the Colorado River water via the CRA and (2) the SWP via the California Aqueduct.

Service Area

Metropolitan's service area covers the Southern California coastal plain. It extends about 200 miles along the Pacific Ocean from the city of Oxnard on the north to the international boundary with Mexico on the south, and it reaches as far as 70 miles inland from the coast (Figure 1-1). The total area served is nearly 5,200 square miles, and it includes portions of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties. Table 1-1 shows that although only 14 percent of the land area of the six Southern California counties is within Metropolitan's service area, nearly 90 percent of the populations of those counties reside within Metropolitan's boundaries.

Member Agencies

Metropolitan is currently composed of 26 member agencies, including 14 cities, 11 municipal water districts, and one county water authority. Metropolitan is a water wholesaler with no retail customers. It provides treated and untreated water directly to its member agencies.

Metropolitan's 26 member agencies deliver to their customers a combination of local groundwater, local surface water, recycled water, and imported water purchased from Metropolitan. For some member agencies, Metropolitan supplies all the water used within that agency's service area, while others obtain varying amounts of water from Metropolitan to supplement local supplies. Metropolitan provided between 45 and 60 percent of the municipal, industrial, and agricultural water used in its service area. The remaining water supply comes from local wells, local surface water, recycling, the city of Los Angeles' aqueduct from the eastern Sierra Nevada, and the San Diego County Water Authority's water transfers from the Imperial Irrigation District delivered through an exchange of water supplies with Metropolitan. Member agencies also implement conservation programs that can be considered part of their supplies.

Some member agencies provide retail water service, while others provide water to the local area as wholesalers. Table 1-2 shows Metropolitan member agencies and the type of service that they provide. As shown in the table, 15 member agencies provide retail service to customers, nine provide only wholesale service, and two provide a combination of both. Throughout Metropolitan's service area, approximately 250 retail water supply agencies directly serve the population.

Metropolitan's member agencies serve residents in 152 cities and 89 unincorporated communities. Table 1-3 shows the member agencies of Metropolitan, as well as the cities and communities served by those member agencies. Figure 1-1 also shows the geographical area served by the member agencies.

Currently, member agencies receive water from Metropolitan at various delivery points, and pay for service through a rate structure made up of multiple components. The majority of these components consist of uniform volumetric rates, and the majority of the revenue is collected through a tiered volumetric supply charge. The second tier of this rate is set at the cost of developing new supplies. Metropolitan’s pricing and rate structure are described in detail in Section 2.7.

To aid in planning future water needs, member agencies advise Metropolitan in April of each year how much water they anticipate they will need during the next five years. In addition, Metropolitan works with its member agencies to forecast future water demands.

Table 1-1
July 1, 2009 Area and Population in the Six Counties of Metropolitan's Service Area

County	Total County	In Metropolitan Service Area	Percent in Metropolitan
Land Area (Square Miles)			
Los Angeles County	4,061	1,408	35%
Orange County	789	699	89%
Riverside County	7,208	1,057	15%
San Bernardino County	20,052	242	1%
San Diego County	4,200	1,420	34%
Ventura County	1,845	365	20%
Metropolitan's Service Area	**38,155**	**5,191**	**14%**
Population (Persons)			
Los Angeles County	10,409,000	9,500,000	91%
Orange County	3,155,000	3,155,000	100%
Riverside County	2,128,000	1,520,000	71%
San Bernardino County	2,064,000	816,000	40%
San Diego County	3,208,000	3,076,000	96%
Ventura County	841,000	617,000	73%
Metropolitan's Service Area	**21,805,000**	**18,684,000**	**86%**

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 1-2
Metropolitan's Member Agencies and Type of Water Service Provided

Member Agency	Retail or Wholesale
Los Angeles County	
Beverly Hills, City of	Retail
Burbank, City of	Retail
Central Basin Municipal Water District	Wholesale
Compton, City of	Retail
Foothill Municipal Water District	Wholesale
Glendale, City of	Retail
Las Virgenes Municipal Water District	Retail
Long Beach, City of	Retail
Los Angeles, City of	Retail
Pasadena, City of	Retail
San Fernando, City of	Retail
San Marino, City of	Retail
Santa Monica, City of	Retail
Three Valleys Municipal Water District	Wholesale
Torrance, City of	Retail
Upper San Gabriel Valley Municipal Water District	Wholesale
West Basin Municipal Water District	Wholesale
Orange County	
Anaheim, City of	Retail
Fullerton, City of	Retail
Municipal Water District of Orange County	Wholesale
Santa Ana, City of	Retail
Riverside County	
Eastern Municipal Water District	Retail & Wholesale
Western Municipal Water District	Retail & Wholesale
San Bernardino County	
Inland Empire Utilities Agency	Wholesale
San Diego County	
San Diego County Water Authority	Wholesale
Ventura County	
Calleguas Municipal Water District	Wholesale

Table 1-3
Member Agencies

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Municipal Water Districts (11)		Member Cities (14)			County Water Authorities (1)
Calleguas	Orange County	Anaheim	Glendale	San Marino	San Diego
Central Basin	Three Valleys	Beverly Hills	Long Beach	Santa Ana	
Foothill	Upper San Gabriel Valley	Burbank	Los Angeles	Santa Monica	
Inland Empire		Compton	Pasadena	Torrance	
Eastern	West Basin	Fullerton	San Fernando		
Las Virgenes	Western				

CITIES WITHIN MEMBER AGENCIES

CALLEGUAS MWD
- *Camarillo*
- *Camarillo Heights*
- *Fairview*
- *Lake Sherwood Valley*
- *Las Posas*
- *Moorpark*
- *NAWS Point Mugu*
- *NCBC Port Hueneme*
- *Oak Park*
- *Oxnard*
- *Port Hueneme*
- *Santa Rosa Valley*
- *Simi Valley*
- *Somis*
- *Thousand Oaks*

Central Basin MWD
- *Artesia*
- *Bell*
- *Bellflower*
- *Bell Gardens*
- *Cerritos*
- *Commerce*
- *Cudahy*
- *Downey*
- *East Los Angeles*
- *Florence*
- *Hawaiian Gardens*
- *Huntington Park*
- *La Habra Heights*
- *Lakewood*
- *La Mirada*
- *Lynwood*
- *Maywood*
- *Montebello*
- *Norwalk*
- *Paramount*
- *Pico Rivera*
- *Santa Fe Springs*
- *Signal Hill*
- *South Gate*
- *South Whittier*
- *Vernon*
- *Whittier*

FOOTHILL MWD
- *Altadena*
- *La Cañada Flintridge*
- *La Crescenta*
- *Montrose*

INLAND EMPIRE
- *Chino*
- *Chino Hills*
- *Fontana*
- *Montclair*
- *Ontario*
- *Rancho Cucamonga*
- *Upland*

Eastern MWD
- *Good Hope*
- *Hemet*
- *Homeland*
- *Juniper Flats*
- *Lakeview*
- *Mead Valley*
- *Menifee*
- *Moreno Valley*
- *Murrieta*
- *Murrieta Hot Springs*
- *Nuevo*
- *North Canyon Lake*
- *Perris*
- *Quail Valley*
- *Romoland*
- *San Jacinto*
- *Sun City*
- *Temecula*
- *Valle Vista*
- *Winchester*

LAS VIRGENES MWD
- *Agoura*
- *Agoura Hills*
- *Calabasas*
- *Chatsworth*
- *Hidden Hills*
- *Lake Manor*
- *Malibu Lake*
- *Monte Nido*
- *Westlake Village*
- *West Hills*

MWD OF ORANGE COUNTY
- *Aliso Viejo*
- *Brea*
- *Buena Park*
- *Capistrano Beach*
- *Corona Del Mar*
- *Costa Mesa*
- *Coto De Caza*
- *Cypress*
- *Dana Point*
- *Fountain Valley*
- *Garden Grove*
- *Huntington Beach*
- *Irvine*
- *Laguna Beach*
- *Laguna Hills*
- *Laguna Niguel*
- *Laguna Woods*
- *La Habra*
- *Lake Forest*
- *La Palma*
- *Leisure World*
- *Los Alamitos*
- *Mission Viejo*
- *Monarch Beach*
- *Newport Beach*
- *Orange*
- *Placentia*
- *Rancho Santa Margarita*
- *San Clemente*

MWD OF ORANGE COUNTY (cont.)
- *San Juan Capistrano*
- *Seal Beach*
- *Stanton*
- *Tustin*
- *Tustin Foothills*
- *Villa Park*
- *Westminster*
- *Yorba Linda*

Three Valleys MWD
- *Azusa*
- *Charter Oak*
- *Claremont*
- *Covina*
- *Covina Knolls*
- *Diamond Bar*
- *Glendora*
- *Industry*
- *La Verne*
- *Pomona*
- *Rowland Heights*
- *San Dimas*
- *So. San Jose Hills*
- *Walnut*
- *West Covina*

UPPER SAN GABRIEL VALLEY MWD
- *Arcadia*
- *Avocado Heights*
- *Baldwin Park*
- *Bradbury*
- *Citrus*
- *Covina*
- *Duarte*
- *El Monte*
- *Glendora*
- *Hacienda Heights*
- *Industry*
- *Irwindale*
- *La Puente*
- *Mayflower Village*
- *Monrovia*
- *Rosemead*
- *San Gabriel*
- *South El Monte*
- *South Pasadena*
- *South San Gabriel*
- *Temple City*
- *Valinda*
- *West Covina*
- *West Puente Valley*

WEST BASIN MWD
- *Alondra Park*
- *Carson*
- *Culver City*
- *El Segundo*
- *Gardena*
- *Hawthorne*
- *Hermosa Beach*
- *Inglewood*
- *Ladera Heights*
- *Lawndale*
- *Lennox*

WEST BASIN MWD (cont.)
- *Lomita*
- *Malibu*
- *Manhattan Beach*
- *Marina Del Rey*
- *Palos Verdes Estates*
- *Rancho Palos Verdes*
- *Redondo Beach*
- *Rolling Hills*
- *Rolling Hills Estates*
- *Ross-Sexton*
- *Topanga Canyon*
- *West Athens*
- *West Hollywood*

WESTERN MWD OF RIVERSIDE COUNTY
- *Bedford Heights*
- *Canyon Lakes*
- *Corona*
- *Eagle Valley*
- *El Sobrante*
- *Jurupa*
- *Lake Elsinore*
- *Lake Mathews*
- *March AFB*
- *Murrieta*
- *Norco*
- *Riverside*
- *Rubidoux*
- *Temecula*
- *Temescal Canyon*
- *Woodcrest*

SAN DIEGO CWA
- *Alpine*
- *Bonita*
- *Bonsall*
- *Camp Pendleton*
- *Carlsbad*
- *Casa De Oro*
- *Chula Vista*
- *Del Mar*
- *El Cajon*
- *Encinitas*
- *Escondido*
- *Fallbrook*
- *Lakeside*
- *La Mesa*
- *Lemon Grove*
- *Mount Helix*
- *National City*
- *Oceanside*
- *Pauma Valley*
- *Poway*
- *Rainbow*
- *Ramona*
- *Rancho Santa Fe*
- *San Diego*
- *San Marcos*
- *Santee*
- *Solana Beach*
- *Spring Valley*
- *Valley Center*
- *Vista*

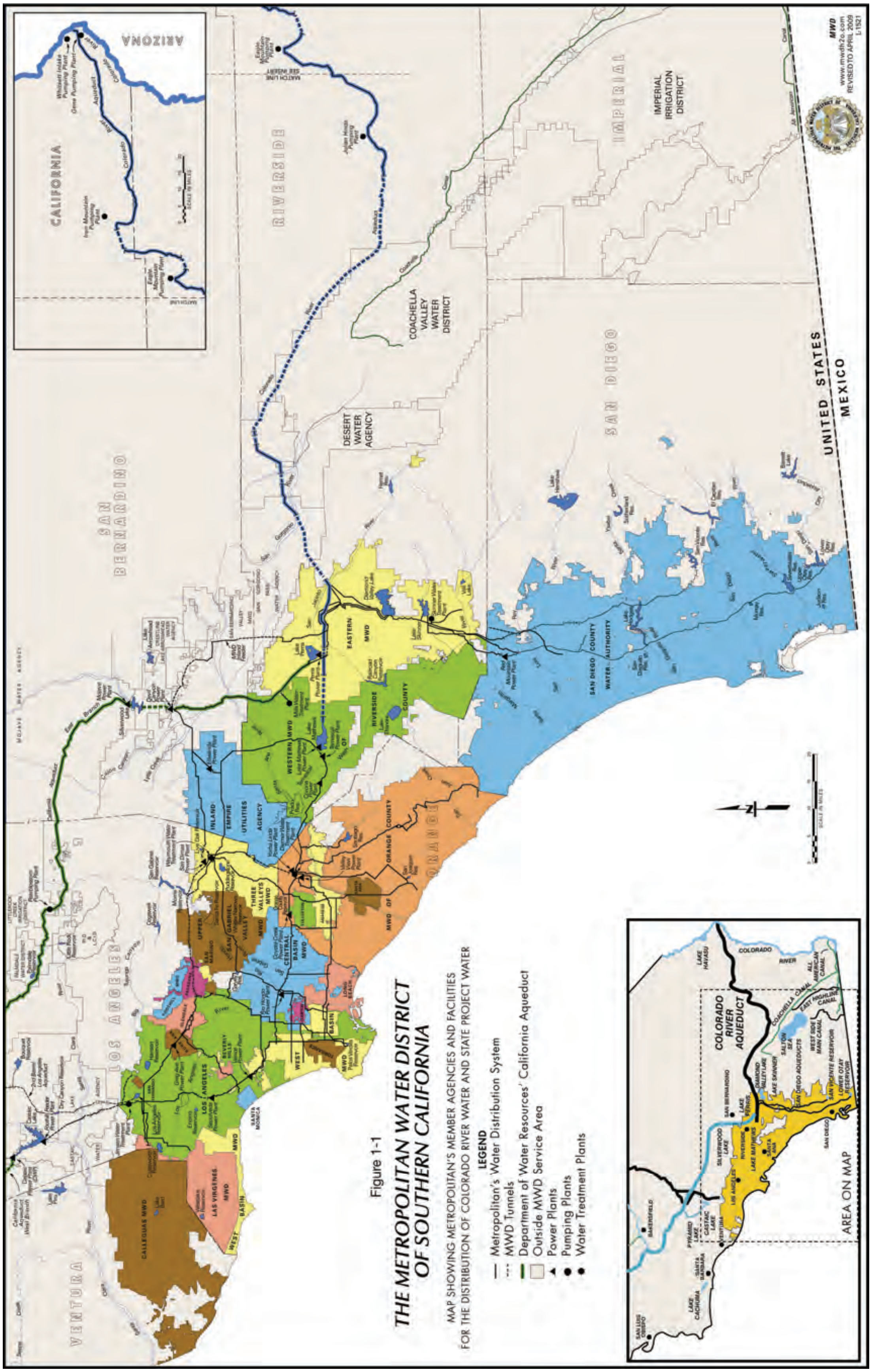

Figure 1-1

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

MAP SHOWING METROPOLITAN'S MEMBER AGENCIES AND FACILITIES FOR THE DISTRIBUTION OF COLORADO RIVER WATER AND STATE PROJECT WATER

LEGEND

- Metropolitan's Water Distribution System
- MWD Tunnels
- Department of Water Resources' California Aqueduct
- Outside MWD Service Area
- Power Plants
- Pumping Plants
- Water Treatment Plants

Board of Directors and Management Team

Metropolitan's Board of Directors currently consists of 37 directors. The Board consists of at least one representative from each member agency, with each agency's assessed valuation determining its additional representation and voting rights. Directors can be appointed by the chief executive officer of the member agency or be elected by a majority vote of the governing body of the agency. Metropolitan does not compensate directors for their service. The Board includes business, professional and civic leaders. Board meetings are generally held on the second Tuesday of each month and are open to the public.

Throughout its history, the Board has delegated certain tasks to Metropolitan staff, which are codified in Metropolitan's Administrative Code (Code). In addition, Metropolitan has developed policy principles to help achieve its mission to provide adequate and reliable supplies of high-quality water in an environmentally and economically responsible way. These policies can be found in a variety of documents including: specific policy statements, the Administrative Code, Board-adopted policy principles, and letters submitted to the Board. Policy statements are also imbedded in formal Board meeting discussions and recorded in meeting minutes. The policies established by the Board are subject to all applicable laws and regulations. The management of Metropolitan is under the direction of its General Manager, who serves at the discretion of the Board, as do Metropolitan's General Auditor, General Counsel, and Ethics Officer.

1.3 Metropolitan Service Area Historical Information

Population

In 1990, the population of Metropolitan's service area was approximately 14.8 million people. By 2010, it had reached an estimated 19.1 million, representing about 50 percent of the state's population. In the past, annual growth has varied from about 200,000 annually in the 1970s and early-to-mid-1980s to more than 300,000 annually in the late 1980s. Population growth slowed during the early 1990s to just over 50,000 in 1995, before again rising to more than 300,000 per year in the period 1999 through 2002. Growth has generally oscillated around 200,000 persons per year since that time. Figure 1-2 shows the service area population growth from 1970-2010.

The most populated cities within Metropolitan's service area are Los Angeles (largest city in the state), San Diego (second largest in the state), Long Beach, Anaheim, Santa Ana and Riverside. Between 2006 and 2010 the largest population increases are estimated to have occurred in the city of Los Angeles and in the service area of the San Diego County Water Authority. While these two areas have increased by the largest numbers, Figure 1-3 shows that populations of Riverside and San Bernardino counties have historically increased at the fastest rates. As can also be seen from this figure, however, the rates of increase for Riverside and San Bernardino fell markedly between 2006 and 2010, evidencing the disproportionate effect of the housing "bust" and the economic recession of the late 2000s. Appendix A.1 presents a detailed discussion of the demographic trends in Southern California and their impacts on regional demand forecasts.

Figure 1-2 Service Area Population Growth 1970-2010

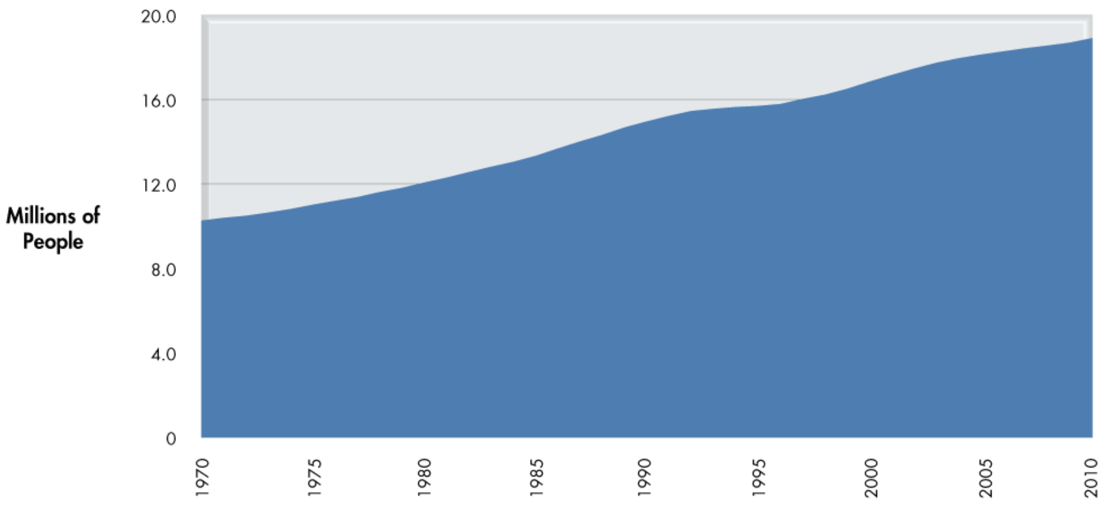

SOURCE: U.S. Census, California Department of Finance and Metropolitan

Figure 1-3 Average Annual Population Growth Rates in Metropolitan's Service Area

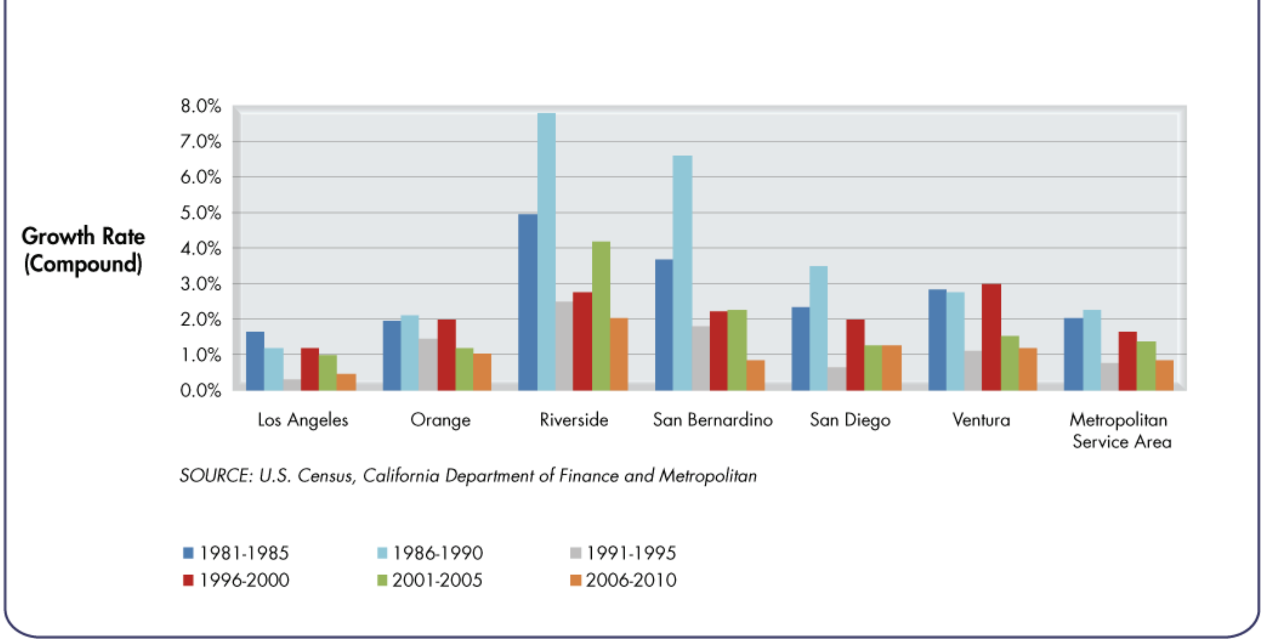

SOURCE: U.S. Census, California Department of Finance and Metropolitan

Historical Retail Water Demands

Figure 1-4 presents historical retail water demands on a calendar year basis in Metropolitan's service area. Since 1980, retail water demands varied from 2.9 million acre-feet (MAF) in 1983 to nearly 4.2 MAF in 2007. Due to the economic recession, drought impacts and conservation, water use declined to 3.1 MAF in 1991. Demand remained below the peak level as a result of continuing effects from the recession and the drought coupled with a number of wet years and ongoing conservation efforts. In 2000, retail demands reached 3.9 MAF surpassing the early peak level for the first time in a decade. Since 2000, retail demands reached a new peak level in 2007 with nearly 4.2 MAF. Calendar year 2007 was the driest year since 1989, with precipitation measured at 5.66 inches in the Los Angeles Civic Center.

Currently, about 93 percent of the retail demands are used for municipal and industrial purposes (M&I), and 7 percent for agricultural purposes. The relative share of M&I water use to total water use has been increasing over time as agricultural water use has declined due to urbanization and market factors, including the price of water. Agricultural water use accounted for 19 percent of total regional water demand in 1970, 16 percent in 1980, 12 percent in 1990 and five percent in 2008. Part of the reduction seen in 2008 was a 30 percent mandatory reduction in Metropolitan's Interim Agricultural Water Program (IAWP) deliveries, which continued into 2009 and is now a 25 percent reduction in 2010.

Figure 1-4 Retail Demand in Metropolitan's Service Area

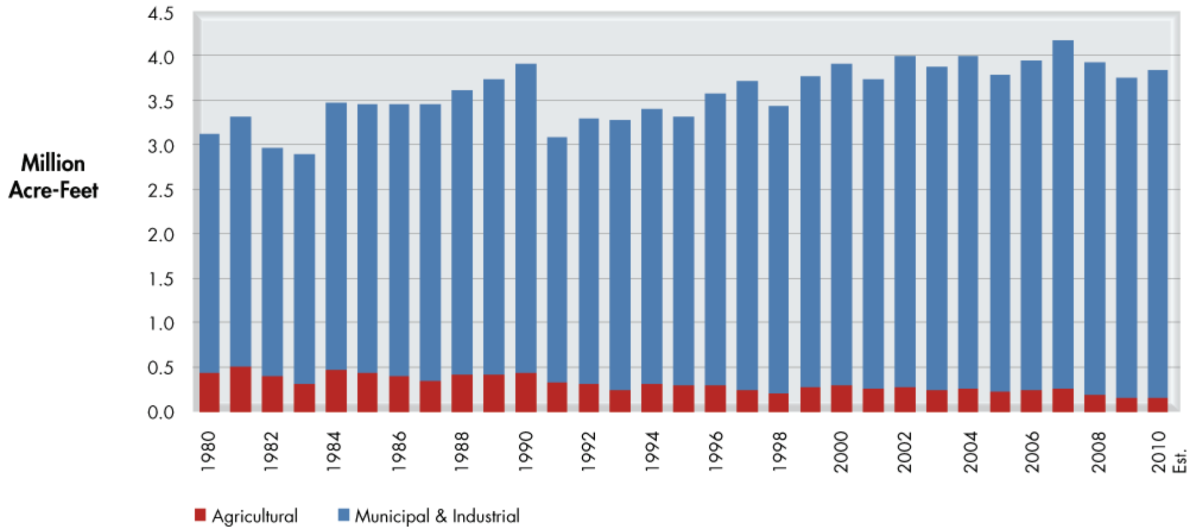

Per Capita Water Use

Per capita water use is defined by law as gross water use divided by population. Per capita water use does not express the amount of water actually used by an individual because it includes all categories of urban water use, including residential, commercial, industrial, fire fighting and other miscellaneous uses. Generally speaking, per capita water use is not a good measure of water use efficiency. For example, Southern California's per capita water-use may be high because it produces more than two-thirds of California's gross product. However, per capita water use can provide a general indication of how water use within a particular region is changing over time. Figure 1-5 shows the change in per capita water use within Metropolitan's service territory. This shows that per capita water use fell from a high of around 206 gallons per capita per day (GPCD) in 1990 and 1991 to a low of 162 GPCD as a result of water restrictions accompanying the drought of the late 1980s and early 1990s. Following recovery from that drought, per capita use has shown a general tendency to decrease and has remained noticeably lower than during the pre-1990 era.

A number of factors affect per capita water use in a particular location, including the relative share of residential versus nonresidential water use in an area, the number and type of housing units, the number of employees, the types of businesses, persons per household, lot sizes, income levels, and climate. Water use varies widely between counties. In Southern California, many of the differences in per capita water use among the counties can be attributed to climate differences. Within Metropolitan's service area, the inland counties of Riverside and San Bernardino account for the greatest levels of M&I per capita water use while the coastal plain counties show lower M&I per capita water use. The historic and projected per capita M&I retail demands for the six counties within Metropolitan's service area are presented in Appendix A.1.

Figure 1-5 Per Capita Water Use in Metropolitan's Service Area

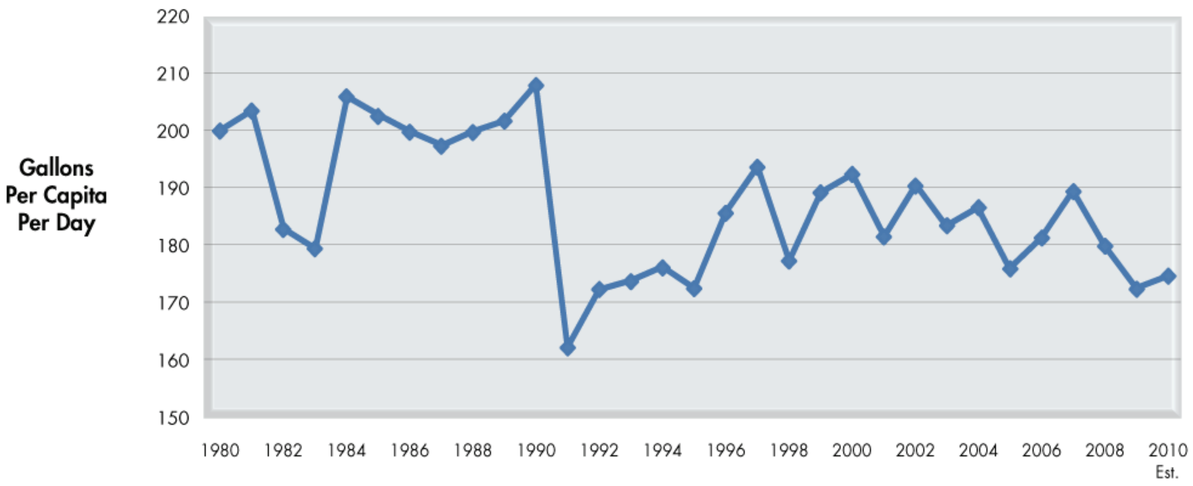

Climate and Rainfall

As Figure 1-6 shows, Metropolitan's service area encompasses three major climate zones. Table 1-4 reports the 30-year (1979-2009) average temperature, rainfall and evapotranspiration (expressed as Et_o) information for representative locations within those three zones. Annual rainfall also varies within the region: average annual rainfall in Pasadena from 1980 through 2003 was more than double the 11 inches received at the San Diego airport and Culver City. Region wide, annual rainfall routinely varies by more than 100 percent from year to year.

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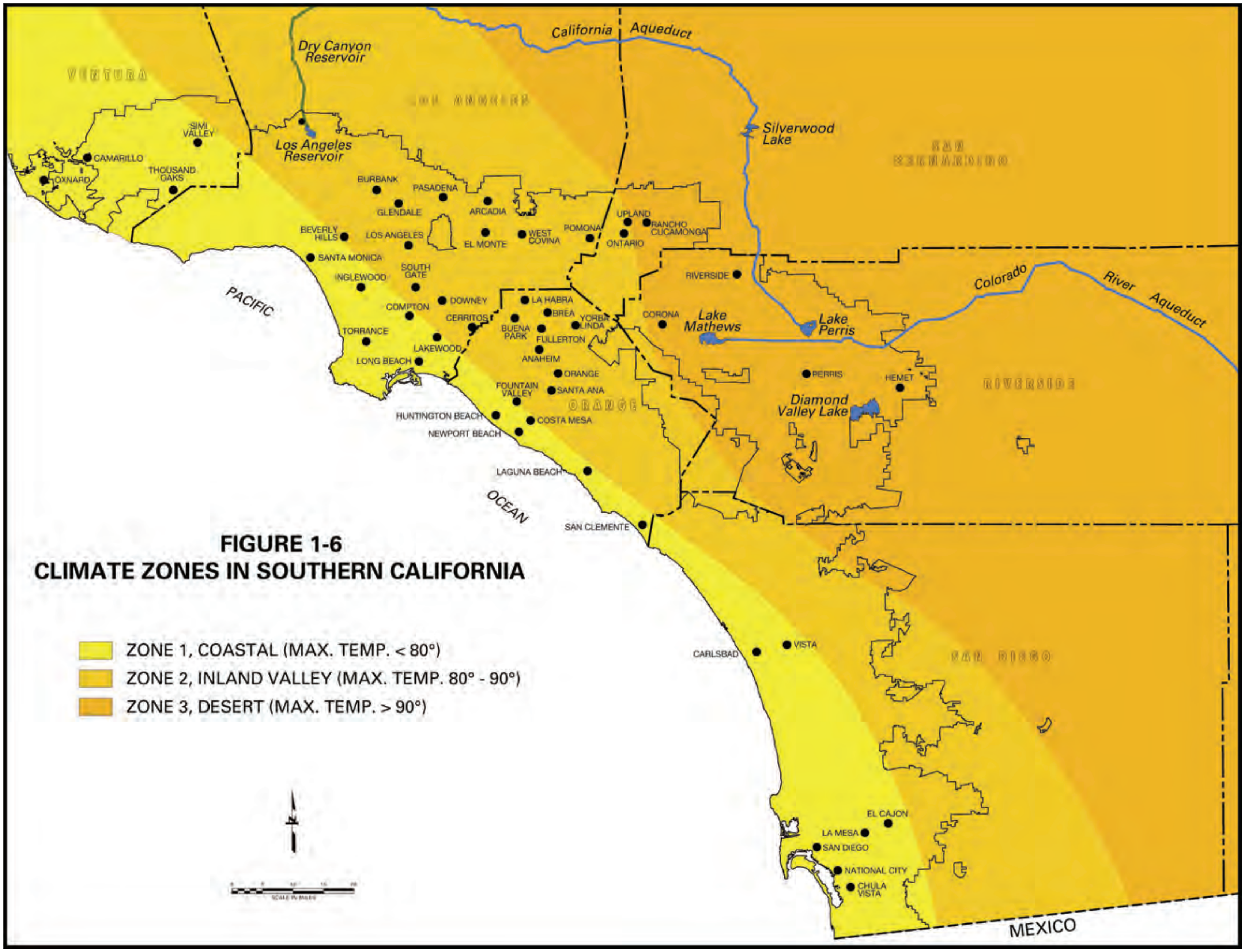

FIGURE 1-6
CLIMATE ZONES IN SOUTHERN CALIFORNIA

Table 1-4
Weather Variables in Three Zones in Metropolitan's Service Area

30-year Average (1979-2009)

Average Temperature	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Los Angeles County[1]	58.99	60.13	61.54	64.32	66.90	70.41	74.47	75.29	74.18	69.67	63.54	58.90	66.53
Riverside County[2]	54.91	56.17	58.44	62.41	67.09	72.09	77.83	78.48	75.37	67.95	59.95	54.67	65.45
San Diego County[3]	57.67	58.54	59.98	62.45	64.60	67.21	70.79	72.29	71.23	67.25	61.79	57.27	64.25

30-year Average (1979-2009)

Average Precipitation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Los Angeles County[1]	3.31	4.05	2.68	0.84	0.26	0.09	0.01	0.04	0.23	0.63	1.00	1.97	15.10
Riverside County[2]	2.35	2.52	1.91	0.62	0.20	0.09	0.04	0.09	0.15	0.40	0.79	1.12	10.26
San Diego County[3]	2.17	2.29	1.93	0.74	0.14	0.07	0.03	0.02	0.14	0.51	0.95	1.33	10.33

Et_o[4]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Los Angeles County	2.2	2.7	3.7	4.7	5.5	5.8	6.2	5.9	5.0	3.9	2.6	1.9	50.1
Riverside County	2.5	2.9	4.2	5.3	5.9	6.6	7.2	6.9	5.4	4.1	2.9	2.6	56.4
San Diego County	2.1	2.4	3.4	4.6	5.1	5.3	5.7	5.6	4.3	3.6	2.4	2.0	46.5

[1] Temperature and Precipitation data from Western Regional Climate Center, Los Angeles Civic Center Station (045115). Data last updated April 5, 2010.

[2] Temperature and Precipitation from Western Regional Climate Center, Riverside Citrus Experiment Station (047473). Data last updated April 5, 2010.

[3] Temperature and Precipitation data from Western Regional Climate Center, San Diego WSO Airport Station (047740). Data last updated April 5, 2010.

[4] ETo values from Model Water Efficient Landscape Ordinance (September 10, 2009), Appendix A- Reference Evapotranspiration (Eto) Table.
The ETo values were derived from: 1) California Irrigation Management Information System (CIMIS); 2) Reference EvapoTranspiration Zones Map, UC Dept. of Land, Air & Water Resources and California Dept of Water Resources 1999; and 3) Reference Evapotranspiration for California, University of California, Department of Agriculture and Natural Resources (1987) Bulletin 1922, and 4) Determining Daily Reference Evapotranspiration, Cooperative Extension UC Division of Agriculture and Natural Resources (1987), Publication Leaflet 21426

1.4 Current Conditions

Current Challenges

Metropolitan continues to face ongoing water supply challenges. This section offers a brief discussion of Metropolitan's current challenges, current available resources, short-term supply outlook, and short-term actions to meet these challenges. The dry hydrology experienced during the last three years has resulted in diminished snowmelt and runoff levels and additional environmental restrictions were imposed on water imports from the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta). By the end of 2009, mandatory conservation was in place across much of Metropolitan's service area. The restrictions on water use, however, also generated a record demand for water-saving rebates and refocused efforts to increase development of local water resources.

Delta Issues

The Bay-Delta is the hub of California's water supply and is critically important to the entire state. About 30 percent of Southern California's water supply moves across the Bay-Delta. The Bay-Delta's declining ecosystem, caused by a number of factors that include agricultural runoff and operation of water pumps that can alter flows, has led to historic restrictions in water supply deliveries.

Operational constraints likely will continue until a long-term solution to the problems in the Bay-Delta is identified and implemented. The Delta Vision process, established by Governor Schwarzenegger, is aimed at identifying long-term solutions to the conflicts in the Bay-Delta, including natural resource, infrastructure, land use, and governance issues. In addition, State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan (BDCP), which is aimed at addressing ecosystem needs and securing long-term operating permits for the SWP.

SWP operational requirements may be further modified under new biological opinions for listed species under the Federal Endangered Species Act (ESA) or by the California Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Biological opinions or incidental take authorizations under the Federal ESA and California ESA might further adversely affect the SWP and Central Valley Project operations. Additionally, new litigation, listings of additional species or new regulatory requirements could further adversely affect SWP operations in the future by requiring additional export reductions, releases of additional water from storage or other operational changes impacting water supply operations. SWP delivery restrictions due to the biological opinions resulted in the loss of about one-third of the available SWP supplies in 2008, reducing the likelihood that regional storage can be refilled in the near-term. Impacts due to the biological opinions for a dry year 2009 were approximately 200,000 AF of SWP supplies.

Water Supply Conditions

The water conditions that the region faced in 2010 were shaped by supply conditions and resource actions that occurred in the preceding years, including several extraordinary events, such as:

- An extended ten year drought in the Colorado River watershed that has decreased storage levels in Lake Mead and Lake Powell below 50 percent of capacity in 2007 and early 2008 and keeping storage below surplus levels despite an ease in drought conditions in 2009;
- Groundwater basins and local reservoirs dropping to very low operating levels due to record-dry hydrology in Southern California;
- Restrictions of SWP deliveries by federal court orders due to endangered Delta smelt and salmon which resulted in the combined loss of approximately 700 TAF

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of SWP supplies in 2008 and 2009, reducing the likelihood that regional storage can be refilled in the near term;

- End of year 2008 and 2009 SWP supplies in Lake Oroville were at their lowest and third lowest operating levels respectively since the reservoirs were first filled after consecutive dry years since 2006 and the driest spring of record in 2008;
- Supply availability in the Los Angeles Aqueduct system continues to be affected by environmental issues related to Owens Lake and the Lower Owens River.

These supply conditions, along with increasing firm demands on Metropolitan, have led to significant withdrawals from Metropolitan's storage reserves, including Diamond Valley Lake (DVL) and its groundwater banking and conjunctive use programs to meet scheduled water deliveries. To illustrate this point, an estimated 1.1 MAF of storage reserves were withdrawn to meet about one-quarter of wholesale demands from January 2007 through December 2008. In 2009, an additional 49 TAF were taken from storage reserves to meet firm demands within Metropolitan’s service area.

In addition, new challenges such as the detection of the quagga mussel in the Metropolitan’s CRA supplies and increasingly stringent water quality regulations to control disinfection byproducts exacerbate the water supply condition and underscore the importance of flexible and adaptive regional planning strategies.

Current Available Resources

Metropolitan’s primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member public agencies. Metropolitan’s principal sources of water are the SWP and the Colorado River. Metropolitan’s robust planning strategy continues to balance available local and imported water resources and member agencies demands within Metropolitan’s service area.

A. Imported Supplies

Historically, Metropolitan has been responsible for obtaining imported water for the region through its operation of the CRA and its contract with the state for SWP supplies. Metropolitan receives water from the SWP through the California Aqueduct and the Colorado River through the CRA. Figure 1-7 shows the historic annual deliveries from the SWP and the CRA.

Colorado River

The Colorado River was Metropolitan’s original source of water after Metropolitan’s establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. The CRA, which is owned and operated by Metropolitan, transports water from Lake Havasu, at the border of the state of California and Arizona, approximately 242 miles to its terminus at Lake Mathews in Riverside County, with a capacity of 1.25 MAF a year.

Over the years, Metropolitan increased reliable supply from the CRA through programs that it helped fund and implement including: farm and irrigation district conservation programs, improved reservoir system operations, land management programs, and water transfers and exchanges through arrangements with agricultural water districts in southern California and entities in Arizona and Nevada that use Colorado River water, and the U.S. Department of the Interior, Bureau of Reclamation (USBR). A detailed discussion of availability of Colorado River water for delivery to Metropolitan is described in Section 3.1.

State Water Project

Metropolitan imports water from the SWP, owned by the state of California and operated by the California Department of Water resources (DWR). This project transports Feather River water stored in and released from Oroville Dam and unregulated flows diverted directly from the Bay-Delta south via the California Aqueduct to four delivery points near the northern and eastern boundaries of Metropolitan's service area.

In 1960, Metropolitan signed a contract with DWR. Metropolitan is one of 29 agencies that have long-term contracts for water service from DWR, and is the largest agency in terms of the number of people it serves (19.1 million), the share of SWP water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water contracts (approximately 60 percent in 2008). A more detailed discussion of the SWP supplies is provided in Section 3.2.

Figure 1-7 Imported Water Supplies in Metropolitan's Service Area

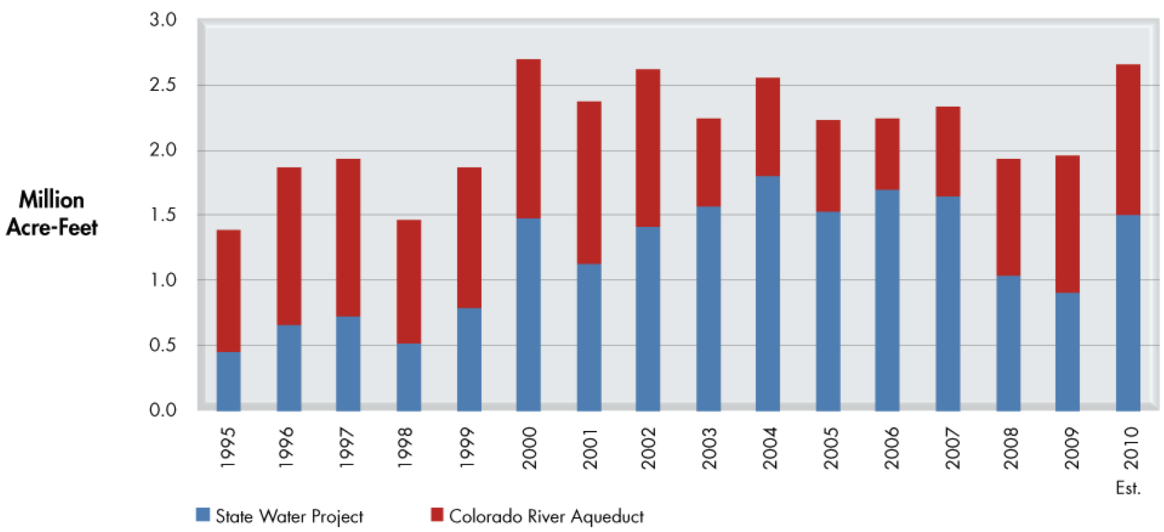

B. *Local Supplies*

Approximately 50 percent of the region's water supplies come from resources controlled or operated by local water agencies. These resources include water extracted from local groundwater basins, catchment of local surface water, non-Metropolitan imported water supplied through the Los Angeles Aqueduct, and Colorado River water exchanged for Metropolitan supplies. Figure 1-8 shows the historic annual use of local and imported water suppplies within Metropolitan's service area.

Figure 1-8 Annual Regional Water Supplies in Metropolitan's Service Area

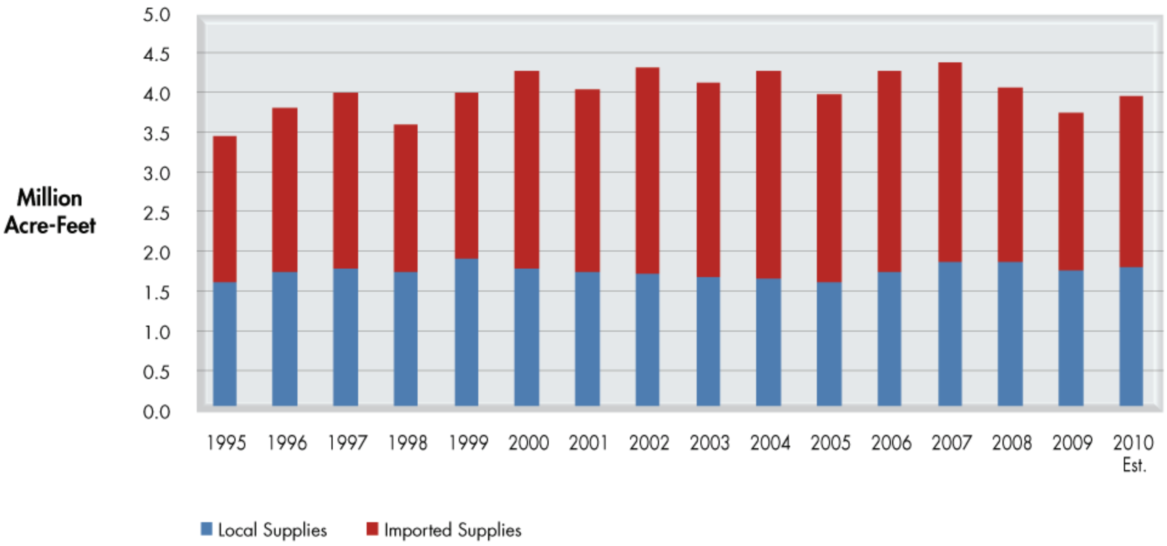

Groundwater

The groundwater basins that underlie the region provide approximately 86 percent of the local water supply in Southern California. The major groundwater basins in the region provide an annual average supply of approximately 1.35 MAF. Most of this water recharges naturally, but approximately 200 thousand acre-feet (TAF) has historically been replenished each year through Metropolitan imported supplies. By 2025, estimates show that groundwater production will increase to 1.65 MAF.

Because the groundwater basins contain a large volume of stored water, it is possible to produce more than the natural recharge of 1.16 MAF and the imported replenishment amount for short periods of time. During a dry year, imported replenishment deliveries can be postponed, but doing so requires that the shortfall be restored in wet years. Similarly, in dry years the level of the groundwater basins can be drawn down, as long as the balance is restored to the natural recharge level by increasing replenishment in wet years. Thus, the groundwater basins can act as a water bank, allowing deposits in wet years and withdrawals in dry years.

Recycling and Groundwater Recovery

Recycling and groundwater recovery are regional resources that add balance to Southern California's diverse portfolio of resource options. Water recycling provides extensive treated wastewater for applicable municipal and industrial uses. Common uses of recycled water include landscape irrigation, agricultural irrigation, and commercial and industrial applications. Groundwater recovery employs additional treatment techniques to effectively use degraded groundwater supplies that were previously not considered viable due to high salinity or other contamination.

While water recycling and groundwater recovery projects in the Southern California region are primarily developed by local water agencies, many newer projects have been developed with financial incentives provided through Metropolitan's Local Resources Program (LRP). The LRP is a performance-based program that provides incentives to expand water recycling and support recovery of degraded groundwater. In 2009, the regional water production from water recycling and groundwater recovery totaled 353 TAF, of which 201 TAF was developed with Metropolitan funding assistance. A detailed discussion of recycling and groundwater recovery is presented in Section 3.5.

Seawater Desalination

Seawater desalination represents a significant opportunity to diversify the region's water resource mix with a new, locally-controlled, reliable potable supply. Metropolitan continues to pursue a target for seawater desalination of 150,000 acre-feet (AF) per year by 2025, and several local and retail water agencies have identified seawater desalination as an important component of their future water supply portfolio. The Carlsbad Seawater Desalination Project in San Diego has obtained all of the local, State, and Federal permits for necessary to begin construction, though as of May 2010, there are legal challenges to three of the permits. Project proponents anticipate the project will come on-line as early as 2012, providing the region with an additional 56 TAF of new local supplies.

Surface Water

In addition to the groundwater basins, local agencies maintain surface reservoir capacity to capture local runoff. The average yield captured from local watersheds is estimated at approximately 90 TAF per year. The majority of this supply comes from reservoirs within the service area of the San Diego County Water Authority.

Los Angeles Aqueduct

Although the Los Angeles Aqueduct (LAA) imports water from outside the region, Metropolitan classifies water provided by the LAA as a local resource because it is developed and imported by a local agency (the Los Angeles Department of Water and Power). This resource is estimated to provide approximately 256 TAF per year on average, which may be reduced to approximately 106 TAF during a historical dry period.

Imperial Irrigation District / San Diego County Water Authority Transfer

The San Diego County Water Authority (SDCWA) has executed an agreement with the Imperial Irrigation District (IID) under which IID is transferring water to SDCWA. Since this supply is developed and transferred through an agreement by a local agency (SDCWA), Metropolitan also classifies this water as a local resource. Currently, the water transferred by IID is made available by SDCWA to Metropolitan for diversion at Lake Havasu. Metropolitan provides a matching volume of water to SDCWA by exchange. Under the transfer, 60 TAF was transferred and exchanged with Metropolitan in 2009. The transfer volumes increase in accordance with an annual build-up schedule, reaching 100 TAF annually in 2013 and stabilizing at 200 TAF annually in 2023. Currently, the water is being conserved through land fallowing arrangements made by IID with its customers. Beginning in 2013, IID will begin replacing land fallowing with irrigation efficiency measures that will allow farming operations to continue with reduced amounts of applied water. By 2017, all of the transferred water should be made available through irrigation and distribution system efficiency measures.

Coachella and All-American Canal Lining Projects

The Coachella Canal Lining Project consists of a 35-mile concrete-lined canal, including siphons, which replaced an earthen canal. The project was completed in December 2006. The project is conserving 30,850 AF annually. The All-American Canal Lining Project consists of replacing 23 miles of earthen canal with a concrete-lined canal constructed parallel to the existing canal.

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Two reaches of the project were placed in service in 2008 with the third reach placed in service in 2009. This project is conserving 67,700 AF annually beginning in 2010.

Pursuant to the QSA and related agreements, the total 98,550 AF of annual yield from these projects is allocated as follows in 2010: 16,000 AF to Metropolitan, 80,200 AF to SDCWA, and up to 2,350 AF for Coachella Canal Lining Project mitigation, with the amount not needed for mitigation becoming available to SDCWA. The water is made available at Lake Havasu for diversion by Metropolitan, and by exchange, Metropolitan delivers an equal volume of water to SDCWA. Metropolitan classifies the portion of the supply exchanged with SDCWA as local resources and evaluated its availability. Table 1-5 shows the projected local supplies estimate for the average and dry-years for 2015, 2025, and 2035.

Table 1-5
Local Supplies*
(Acre-Feet)

	2015		2025		2035	
	Average Year*	Dry Year	Average Year	Dry Year*	Average Year	Dry Year*
Local Groundwater						
From Natural Recharge	1,251,000	1,214,000	1,242,000	1,202,000	1,240,000	1,206,000
Replenishment	178,000	172,000	187,000	187,000	191,000	190,000
Local Projects						
Groundwater Recovery	*101,000*	100,000	114,000	113,000	126,000	125,000
Recycling	*264,000*	258,000	303,000	299,000	333,000	330,000
Seawater Desalination	*0*	0	0	0	0	0
Local Runoff Stored	103,000	91,000	102,000	91,000	102,000	91,000
Los Angeles Aqueduct	224,000	63,000	226,000	71,000	230,000	78,000
IID/SDCWA Transfer	100,000	100,000	200,000	200,000	200,000	200,000
Coachella & All American Canal Lining	80,000	80,000	80,000	80,000	80,000	80,000
Total	**2,301,000**	**2,078,000**	**2,454,000**	**2,243,000**	**2,502,000**	**2,300,000**

* Dry Year is based on Multiple Dry Years (1990-92)

Short-term Supply Outlook

Metropolitan evaluated the short-term supply outlook during each of the next three years from 2011 through 2013 and determined the minimum water supplies available based on the driest three-year historic sequence of 1990 through 1992. This analysis incorporates the actual storage levels at the beginning of 2010 and the forecasted supplies and demands under a multiple dry-year sequence. This evaluation of supply capabilities also takes into account the actual storage program conveyance constraints. Table 1-6 shows the projected yields of the in-region storage and imported supplies from the SWP and CRA, for both current programs and those under development. Detailed description of the current programs and programs under development are included in Appendix A.3.

For this supply capability evaluation, SWP supplies are estimated using the draft 2009 SWP Delivery Reliability Report distributed by

DWR in December 2009. The draft 2009 reliability report presents the current DWR estimate of the amount of water deliveries for current (2009) conditions and conditions 20 years in the future. These estimates incorporate restrictions on SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008, and June 4, 2009, respectively.

Metropolitan forecast shows that under a multi-dry year hydrology, Metropolitan could face depleted supply capability during the next three years. This places considerable emphasis on developing robust short-term actions that will increase supply reliability to Metropolitan service area.

Table 1-6

Multiple Dry-Year Supply Capability[1] Repeat of 1990-1992 Hydrologies

(acre-feet per year)

Forecast Year	2011	2012	2013
Current Programs			
In-Region Storage	351,000	50,000	17,000
California Aqueduct[2]	582,000	625,000	611,000
Colorado River Aqueduct[3]	998,000	932,000	937,000
Subtotal of Current Programs	***1,931,000***	***1,607,000***	***1,565,000***
Programs Under Development			
In-Region Storage	12,000	12,000	12,000
California Aqueduct	23,000	30,000	374,000
Colorado River Aqueduct	176,000	176,000	176,000
Subtotal of Proposed Programs	***211,000***	***218,000***	***562,000***
Maximum Metropolitan Supply Capability	**2,142,000**	**1,825,000**	**2,127,000**

[1] Represents Supply Capability for resource programs under listed year type.

[2] California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

[3] Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal linings.

[3] Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.

Metropolitan Actions over the Next 15 Years

Metropolitan endeavored to address the on-going challenges and current water supply condition with recent actions that include: (1) Metropolitan Board approval of a Delta Action Plan that provide a framework to help address Bay-Delta issues, (2) development of a Five-Year Supply Plan to identify specific resource and conservation actions to manage water supplies under drought and court ordered restrictions, (3) adoption of a Water Supply alert resolution in response to the proclamation of statewide drought in California, (4) development of the Water Supply Allocation Plan that will serve as the

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foundation for the urban water shortage contingency analysis and help the region allocate limited supplies, (5) development of the Quagga Mussel Control Plan to protect regional supplies through enhanced detection, surveillance, and mitigation strategies, and (6) continued improvement of Metropolitan facilities to handle increasing stringent water quality regulations and enhance flexibility to deliver supplies to meet region's growing demands.

A. Delta Strategy

In June 2007, Metropolitan's Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. Building a sustainable Delta will require significant investment and will take decades. The Delta Action Plan aims to prioritize immediate short-term actions to stabilize the Delta while an ultimate solution is selected, and mid-term steps to maintain the Delta while the long-term solution is implemented. The water supply planning implications for the near- and mid-term are described below while the long-term action plan and the Bay Delta Conservation Plan (BDCP) are described in Section 3.2.

Short-Term Action Plan

While a course of action for the long-term restoration of Delta ecosystem and water supply reliability is being developed, short-term actions must be taken to stabilize the current situation. These actions include the following: securing state and federal Endangered Species Acts take authorization; emergency preparedness steps to prepare for possibility of catastrophic failure in the event of earthquake or flood; actions to enhance habitat for Delta smelt and other pelagic species; completion of the BDCP; and actions to begin work on ecosystem restoration projects that will help species regardless of which ultimate solution is selected (e.g., marsh restoration, island rebuilding.)

Mid-Term Action Plan

Upon selection and enactment of an ultimate Delta solution, it will likely take ten years or more to complete environmental documentation and construct new facilities. During this period, it will be necessary to maintain the stabilization process of the Delta through the following actions: continue implementation of the BDCP projects with selected habitat and fishery improvements to improve Delta native species; begin implementing flood control protections, including bypasses and levee improvements; finalize site selection and environmental documentation for new storage projects; implement new governance structures for managing the Delta; and undertake implementation of the long-term Delta solution.

B. Five-Year Supply Plan

Metropolitan staff prepared a Five-Year Supply Plan (Supply Plan) to identify the specific resource and conservation actions that would be implemented over the next five years to manage water deliveries under continued drought conditions and court ordered restrictions. Since April 2008, staff has been working with the member agencies through a series of meetings and workshops to develop and implement the Supply Plan. The Supply Plan was initiated in response to a number of extraordinary events, such as regulatory actions that reduced water supplies from the SWP to protect Delta smelt, as well as a record-dry hydrology that resulted in over 1.1 MAF of withdrawals from Metropolitan storage from January 2007 through December 2008.

The Supply Plan focuses on six categories of resource options to improve Metropolitan's reliability from 2009 through 2013. The individual projects included as part of the resource options are discussed in further detail in Appendix A.3. These six categories of Supply Plan resource options are as follows:

Water Conservation

The Supply Plan targets water conservation strategies to increase and accelerate conservation savings by increasing the use of water efficient devices, affecting water use practices in Southern California and identifying and reducing prohibited uses of water. Key components of this strategy include (1) increased outreach to heighten the public's awareness of the need to conserve, (2) increased resources and support for water use ordinances and conservation-based rate structures to motivate conservation, and (3) accelerated installation of water efficient devices due to Drought Ordinances discussed in this section.

Colorado River Transactions

Metropolitan is pursuing additional supplies such as the emergency short-term fallowing program within Palo Verde Irrigation District (PVID). Metropolitan's Board authorized participation with the Bureau of Reclamation in the pilot operation of the Yuma Desalting Plant that could yield up to 27 TAF in 2010. New initiatives also include expansion of the 2004 storage and interstate release agreement with Southern Nevada Water Agency (SNWA), an agreement with Coachella Valley water District (CVWD), a water exchange with Arizona, and a fallowing program with California Indian tribes. Metropolitan estimates that these programs on the Colorado River could provide an additional 185 TAF of CRA supply in 2010, with the potential to increase in the following years.

Near-Term Delta Actions

Near-term Delta actions being developed include measures that protect fish species and reduce supply impacts, such as habitat and hatchery projects, and physical and operational actions with the goal of reducing conflicts between water supply conveyance and environmental needs.

The proposed Two-Gate System would provide movable barriers on the Old and Middle Rivers to modify flows and prevent vulnerable fish from being drawn toward the Bay-Delta pumping plants. The Two-Gate System is anticipated to protect fish habitat while allowing up to an estimated additional 150 TAF per year of water supply export from the Bay-Delta in years when the allocation for State Water Project contractors exceeds 35 percent. The proposed Two-Gate System is subject to operational studies, monitoring, environmental documentation and compliance, acquisition of right-of-way and completion of design and construction.

State Water Project Transactions

The Supply Plan includes transfers from willing sellers located upstream of the Bay-Delta to buyers located downstream of the Bay-Delta through the State Water Project and Central Valley Project. Delivery of these transfers is contingent on sufficient capacity for export of this water through the Bay-Delta. Metropolitan took delivery of 29 TAF from the Drought Water Bank, a transfer program facilitated by DWR, in 2009.

The Supply Plan also includes additional transfers with entities within the Bay-Delta and investigations into the feasibility of crop rotation demonstration projects with Kern County agencies, as well as the return of existing transfers stored in Shasta Lake. In addition, Metropolitan may take up to 27.5 TAF of SWP supplies over the next three years available under a water transfer between North Kern Water Storage District and Desert. This water, along with approximately 8.5 TAF of water transferred to Metropolitan in 2008, will be returned to Desert in increments of 1.2 TAF per year over the next 30 years.

Groundwater Recovery

Groundwater that requires treatment and recovery for consumptive use is a resource that has the potential to yield significant amounts of supply. Based on groundwater inventories conducted by Metropolitan and the member agencies, it is estimated that there is over 300 TAF of groundwater that could be treated and recovered in Metropolitan's service area. Additionally, it is estimated that the Hayfield groundwater basin located adjacent to the Colorado River Aqueduct has 70 to 100 TAF that could be extracted over the next five to ten years. Also, more than 300 TAF of recovered groundwater accumulated from agricultural drainage in the San Joaquin Valley could be made available to Metropolitan if Metropolitan funds groundwater treatment facilities.

Local Resources

Metropolitan is working with its member agencies to determine which local projects could be expanded and/or accelerated with a potential to be on line by 2013. Local projects include recycled water treatment plants, groundwater recovery plants, desalination plants, and new hookups to existing recycled plants. Over 50 potential projects have been identified. The combined annual yield for these efforts has the potential to grow to approximately 60 to 120 TAF by 2014.

Metropolitan's estimate of the dry year yield of the above Supply Plan actions is shown in Table 1-7.

C. Drought Ordinances

In June 2008, following Governor Arnold Schwarzenegger's proclamation of a statewide drought, Metropolitan adopted a Water Supply Alert resolution. Among other provisions, the Alert encouraged cities, counties, and local public water agencies, to adopt and enforce local water conservation ordinances. To facilitate ordinance adoption, Metropolitan compiled a library of available local ordinances, developed a model water conservation ordinance and hosted several workshops. Approximately half of the 19 million residents in Metropolitan's service area are now covered by adopted ordinances, and an additional one-third resides in jurisdictions that have taken action toward adoption of ordinances. Metropolitan is projecting about 235 TAF of water savings in the next few years from adoption and enforcement of local water conservation ordinances.

Table 1-7
Estimated Yield of Five-Year Supply Plan Actions
(in Thousands of Acre-Feet)

	2010	2011	2012	2013	2014
Water Conservation	235	235	235	235	235
Colorado River Transactions	185	176	176	176	176
Near Term Delta Actions[1]	0	0	0	0	0
State Water Project Transactions	36	43	38	33	33
Groundwater Recovery	9	17	28	28	28
Local Resources	0	0	20	40	60
Total	**465**	**471**	**497**	**512**	**532**

[1] It is estimated that the proposed Two-Gate System would provide up to 150 TAF when the State Water Project allocation is greater than about 35 percent. Yield is shown at 0 because of this contingency.

D. Water Supply Allocation

Recent year introduced a number of water supply challenges for Metropolitan and its member agencies. Critically dry conditions in addition to the biological opinions that provided protective measures for the Delta smelt and Chinook salmon in the Sacramento-San Joaquin River Delta brought uncertainty to future supplies from the SWP. This uncertainty, along with the impacts of dry conditions that affected all of Metropolitan's main supply sources, raised the possibility that Metropolitan would not have access to the supplies necessary to meet total firm demands and would have to allocate shortages in supplies to the member agencies.

In preparing for this possibility, Metropolitan staff worked jointly with its member agency managers and staff to develop a Water Supply Allocation Plan (WSAP) that was adopted by the Board in February 2008. The WSAP includes the specific formulas for calculating member agency supply allocations and the key implementation elements needed for administering an allocation, should a shortage be declared. Ultimately, the WSAP will be the foundation for the urban water shortage contingency analysis required under Water Code § 10632.

On April 14, 2009, Metropolitan's Board voted to reduce firm water deliveries to its member agencies for the first time since 1991. In response to expected water supply conditions for the rest of 2009, Metropolitan implemented the WSAP to allocate available water supplies to its member agencies at a WSAP Regional Shortage Level 2. A resolution containing findings describing the water supply conditions in California and Metropolitan's service area and supporting the recommendation to implement the WSAP was also adopted by the Board at that time. On April 13, 2010, Metropolitan's Board approved continuing its member agencies water allocation at Shortage Level 2 for a second year. The unprecedented consecutive year water supply allocation was necessitated by continuing low SWP supplies due to continued environmental restrictions and low storage levels for Metropolitan. The approved allocation offers local water providers the flexibility to choose among various conservation strategies, from tiered pricing to limits on outdoor water use, to help ensure that demands stay in balance with limited supplies. Details of the WSAP are included as Appendix A.4.

E. Quagga Mussels Control

Zebra mussels (Dreissena polymorpha) were introduced into the Great Lakes area of North America in the mid-1980s in the fresh-water ballast of a transoceanic ship traveling from Eastern Europe. Quagga mussels (Dreissena bugensis), a related species to the better-known zebra mussels and indigenous to the Ukraine, were similarly introduced to the Great Lakes in the late 1980s. Although the introduction of these two species into drinking water supplies does not typically result in violation of drinking water standards, invasive mussel infestations can adversely impact aquatic environments. If unmanaged, invasive mussel infestations have been known to severely impact the aquatic ecology of lakes and rivers; clog intakes and raw water conveyance systems; reduce the recreational and aesthetic value of lakes and beaches; alter or destroy fish habitats; and render lakes more susceptible to deleterious algae blooms. These organisms currently infest much of the Great Lakes basin, the St. Lawrence Seaway, and much of the Mississippi River drainage system.

Invasive zebra and quagga mussels spread west of the 100th Meridian in 2007 and 2008. The 100th Meridian has historically been considered as the line of longitude in the United States that represented the boundary between the moist east and the arid west. The term has been adapted by the 100th Meridian Initiative which is a cooperative effort between state, provincial, and federal agencies to prevent the westward spread of zebra mussels and other aquatic nuisance species in North America. Quagga mussels were discovered in January of 2007 in Lake Mead and rapidly spread downstream to the Lower Colorado River. The presence and spawning of quagga mussels in the Lower Colorado River and in reservoirs located in southern California poses an immediate threat to water and power systems serving more than 25 million people in the southwestern United States. The recent spread of zebra mussels into a northern California lake and a Colorado lake further indicates that if these invasive mussels are not controlled, the entire western United States could be impacted.

Although a number of controls for invasive mussels have been reported in the literature, current drinking water and environmental regulations limit the options available for implementation. In 2007, Metropolitan developed a quagga mussel control plan (QMCP) incorporating enhanced detection, surveillance, and mitigation strategies. The QMCP will be conducted in at least three phases. Phase I addressed immediate quagga mussel detection, surveillance, and mitigation strategies for the first seven months of the mussel infestation. Phase I was completed in September of 2007. Phase II consists of infrastructure upgrades and a comprehensive, multi-year approach for mussel management, and Phase III will address long-term needs and cost minimization strategies.

The presence and spawning of quagga mussels in the lower Colorado River from Lake Mead through Lake Havasu poses a threat to Metropolitan and other Colorado River water users due to the potential to continuously seed water conveyance systems with mussel larvae. Chlorination is the most frequently used means to control mussel larvae entering water systems. To date, Metropolitan has appropriated $9.55 million to upgrade chlorination facilities in the aqueduct and at two additional locations in its system, the outlets of Lakes Mathews and Skinner. It is likely that additional upgrade costs will be incurred for these facilities. Chemical control (chlorination) at Copper Basin, Lake Mathews, and the Lake Skinner Outlet costs approximately $3.0-3.2 million per year depending on the amount of CRA moved through the aqueduct.

As part of the QMCP O&M activities, Metropolitan will be evaluating control measures aimed at: (1) Changing environmental conditions in the CRA or in Metropolitan's reservoirs that will promote a suboptimal or antagonistic environment for quagga mussel attachment, growth or proliferation; (2) Identifying physical or mechanical processes to deter attachment or remove quagga mussels from surfaces; (3) Promoting the use of biological controls such as predators, parasites or diseases targeted to suppress or kill larvae or adult quagga; and (4) Applying oxidative chemical controls (i.e., chlorine) or non-oxidative controls (i.e., molluscicides). Limnological and flow pattern studies will be conducted to assess the feasibility of modifying environmental conditions such as oxygen demand, temperature, and pH to control mussels in Metropolitan's reservoirs. In addition, studies of surface treatments which may deter attachment, and of molluscicide use, will be conducted under laboratory and field conditions. The results of these studies will be used to design infrastructure improvements for long-term management of quagga mussels.

F. Facility Improvements

Inland Feeder

The Inland Feeder's origins date to the district-wide Distribution System Overview Study completed in 1988. The study concluded that Southern California needed additional storage and conveyance facilities to reliably meet the region's growing demands and to respond to an emergency such as an earthquake. In response to the identified needs, Metropolitan developed the Diamond Valley Lake and the Inland Feeder.

The completion of the $1.2 billion Inland Feeder in September 2009 further integrated Metropolitan's distribution system, connecting SWP supplies from Northern California with Metropolitan's CRA and allows for delivery of SWP water into Diamond Valley Lake. The Inland Feeder significantly increased Metropolitan's water delivery capacity from the SWP's east branch at the Devil Canyon Power Plant. As the state identifies solutions to problems in the Sacramento-San Joaquin Delta, the operational flexibility offered by the Inland Feeder will ultimately help protect the Delta's fragile environment by allowing Metropolitan to deliver water during wet periods when water is available and then store it in Southern California's reservoirs and groundwater basins. In dry years, the region can rely on these reserves and reduce reliance on imported water sources. The Inland Feeder will also help Southern California deal with future weather uncertainties that may be brought on by climate change, including the possibility of less snowpack but more rain. The Inland Feeder will allow Metropolitan to capture storm related short-duration high-flow water supplies to store for dry times.

Oxidation Retrofit Project

Metropolitan is currently undertaking the Oxidation Retrofit Project for all five water treatment plants in its service area. In January 2002, new U.S. Environmental Protection Agency (USEPA) regulations became effective which balanced the risk of disinfection byproduct (DBP) exposure while more aggressively controlling pathogenic microorganisms. This rule, known as the Stage 1 Disinfectants/ Disinfection Byproducts (D/DBP) Rule, required water systems to comply with new maximum contaminant levels (MCLs) and with a treatment technique to improve control of DBPs. USEPA subsequently promulgated the Stage 2 D/DBP Rule in January 2006 that requires compliance with the MCL at individual distribution system locations, rather than on an averaged, system-wide basis. No further capital facilities are required for Metropolitan to comply with this second stage of the rule.

Prior to completion of its ozonation facilities, Metropolitan operates its treatment plants under interim strategies designed to comply with the regulations. These strategies include adding large amounts of treatment chemicals to reduce DBP precursors, limiting high blends of SWP supplies to reduce DBP formation, and constraining treatment plant flow rates to ensure adequate disinfection. Adverse impacts from these strategies include limited control of taste and odors, production of total dissolved solids (TDS) levels in excess of Metropolitan's goal of 500 mg/L, and potential limitations on plant capacity. In recent years, with less SWP supply available, Metropolitan has not been constrained by these interim strategies.

The addition of ozone as the primary disinfection process at Metropolitan's treatment plants allows treatment of any blend of its source waters and substantially lowers disinfection by-product levels for compliance with both D/DBP Rules. Use of ozone also enhances Metropolitan's ability to treat water with variable source-water quality, and provide critical operational flexibility to meet varying treatment challenges resulting from periodic occurrences such as drought and other source water limitations. Further, ozonation provides the capability to control taste- and odor-causing compounds that periodically affect the source waters. Ozone is also recognized to be effectively removing many pharmaceuticals/personal care products (PPCPs) and endocrine disruptor chemicals (EDCs), some of which have been detected in Metropolitan's raw water supplies.

The ozonation process is currently in use at the Mills, Jensen, and Skinner plants. Construction of ozone-related facilities are underway at the Diemer and Weymouth plants.

Energy Management Initiatives

Metropolitan is currently embarking on energy management initiatives aimed at working toward operating its facilities in the most energy-efficient and cost-effective manner, and enhancing its ability to provide long-term power reliability. To highlight a few recent accomplishments, Metropolitan completed the Energy Management & Reliability Study (EMRS) in December 2009, which is a roadmap to identify future actions and to serve as a blueprint for achieving energy reliability and cost control. Metropolitan also completed the audit and certification of its 2008 carbon footprint with the California Climate Action Registry as a registered member, and submitted emissions data to the Air Resources Board, which is the state agency mandating emissions reporting annually.

In May 2009, Metropolitan completed a 10-acre field of solar panels at the district's Robert A. Skinner Water Treatment Plant in the Temecula Valley of southwestern Riverside County. The 1-megawatt solar installation is designed to generate approximately 2.4 million kilowatt-hours (kWh) of clean, renewable energy a year, equal to the power used by about 250 homes annually. Metropolitan will receive more than $5 million in rebates during the first five years of the facility's operation. Based on projected power costs, the capital expenditure for this project will be recovered in approximately 10-12 years.

Metropolitan also started final design activities for a 2-megawatt solar installation at the Weymouth plant. This planned solar installation would meet up to 20 percent of the Weymouth plant's expected daily power consumption. A total of 10-megawatts of solar power generation is proposed for the Jensen, Weymouth, Mills and Skinner treatment plants, including the existing 1-megawattt at Skinner.

In August 2010, Metropolitan' s Board adopted Energy Management Policies, to provide Metropolitan staff with the necessary guidance in moving forward with cost-effective and environmentally responsible programs, projects, and initiatives. Projects would then be brought to the Board for authorization on a case-by-case basis. These policies recognize the upward pressure on costs caused by the expiration of Metropolitan's Hoover power contract in 2017, by evolving power markets, by increased direct and indirect regulatory pressure to reduce green house gas (GHG) emissions, and by the risk of reduced Colorado River hydropower supplies with climate change. The specific policies are as follows:

- Water/Energy Nexus: Identify collaborative programs and initiatives between the water and energy industries, constructing sustainable partnerships to reduce costs and provide enhanced reliability.
- Regulatory: Track federal and state greenhouse gas regulations and develop strategies to hedge against price and regulatory risks towards Metropolitan.
- Legislation: Pursue legislation to protect or enhance reliability of energy supply and mitigate energy cost risk.
- Contracts: Maintain maximum flexibility on existing and future contracts with Hoover and other energy contracts to hedge against cost and regulatory risks.
- Projects/Partnerships: Pursue cost-effective renewable energy projects and partnerships to hedge against energy price increases and regulatory risks, while reducing Metropolitan' s carbon footprint.

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- Revenue Stream: Pursue revenue stream renewable energy facilities on operational lands to assist in cost containment.
- Economic & Environmental Stewardship: Based on projected economic and regulatory conditions, develop cost-effective programs, projects and initiatives to control operational costs and move Metropolitan towards energy independence. Implementation of proposed Energy Management Plan activities would result in substantial reductions in GHG emissions.
- Energy Management Updates: Staff will return to the Board on a regular basis to report on progress on the Energy Management Master Plan and the suitability of these policies, in light of changing regulatory and economic conditions.

Moving forward with these energy management initiatives will enhance Metropolitan's ability to provide long-term power reliability, to protect against energy market price volatility, and to hedge against overall cost risks for operation of Metropolitan's distribution system and the CRA.

I.5 Current Resource Planning

Metropolitan's Long-term Actions

As Metropolitan continues to face various water supply challenges, development of adaptable strategies for managing resources to meet the range of estimated demands into the future and for adjusting to changing resource conditions are on-going.

Resources Planning

Metropolitan's continued progress in developing a diverse resource mix enables the region to meet its water supply needs. The investments that Metropolitan has made and its on-going efforts in many different areas coalesce toward its goal of long-term regional water supply reliability. Metropolitan's actions have been focused on the following:

- Pursuing long-term solutions for Delta
- Developing storage programs related to the SWP and the Colorado River
- Developing storage and groundwater management programs within the Southern California region
- Increasing conservation
- Increasing water recycling, groundwater recovery, and seawater desalination
- Developing water supply management programs outside of the region

Many programs have already been successfully implemented through these actions. Others, including institutional and facility changes in the Colorado River region and the SWP, will take more time to execute. Considerations are also in place for emerging integrated supplies, which could augment sources of regional water supply from non-traditional sources. In addition, water demand reductions brought about by legislative mandates could also affect the landscape of future supply planning and implementation.

Metropolitan continues its commitment to regional long-term supply planning, with strategies for implementation discussed in detail in Section 3 of this report.

Figure 1-9 shows the various resources that are expected to be developed to meet the projected demands in Metropolitan service area under a dry-year scenario. The following sections of this report discuss each of these programs, presenting both achievements to date and future expectations for programs that are still under development.

Figure 1-9 Dry-Year Demand and Supplies

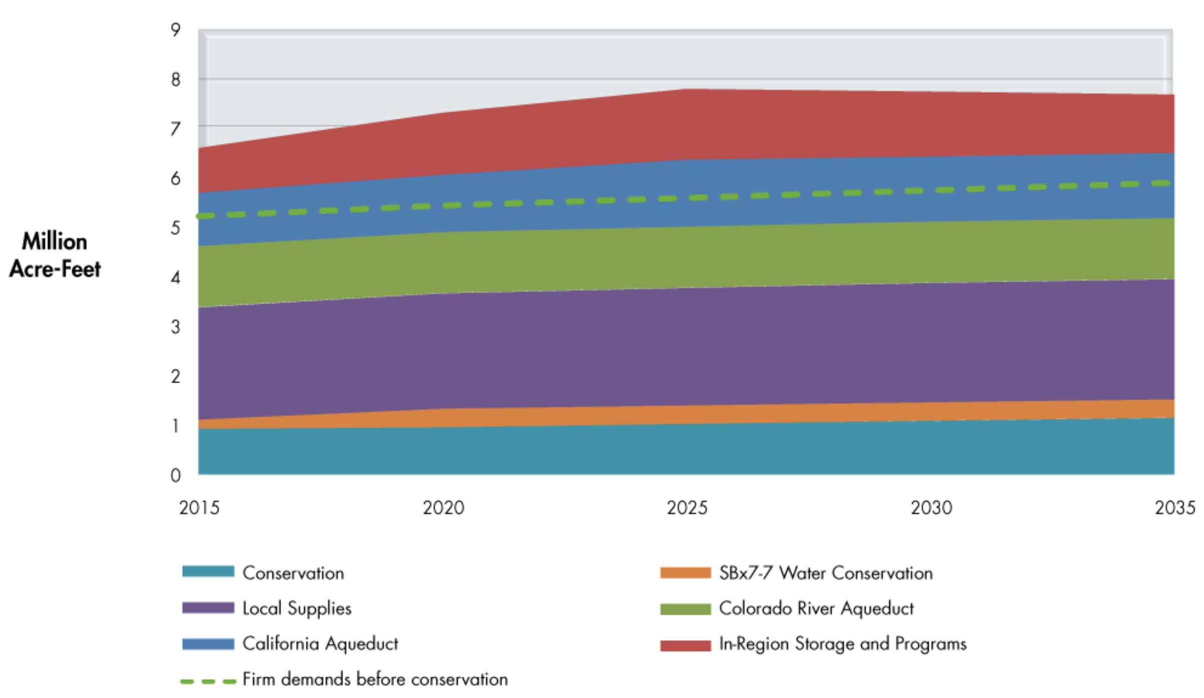

Planning for the Future

2

The purpose of this section is to show how Metropolitan plans to meet Southern California's water supply needs in the future. In its role as supplemental supplier to the Southern California water community, Metropolitan faces ongoing challenges in meeting the region's needs for water supply reliability and quality. Increased environmental regulations and competition for water from outside the region have resulted in changes in delivery patterns and timing of imported water supply availability. At the same time, the Colorado River watershed has experienced a protracted drought since 1999 while total water demand continues to rise within the region because of population and economic growth.

As described in the previous chapter, the water used in Southern California comes from a number of sources. About one-third comes from local sources, and the remainder is imported from three sources: the Colorado River, the Sacramento-San Joaquin River Delta (via the State Water Project), and the Owens Valley and Mono Basin (through the Los Angeles Aqueducts).[1]

Because of competing needs and uses associated with these resources, and because of concerns related to regional water operations, Metropolitan has undertaken a number of planning initiatives over the past fifteen years. This Regional Urban Water Management Plan summarizes these efforts, which include the Integrated Resources Plan (IRP), two IRP Updates, the Water Surplus and Drought Management Plan, the Water Supply Allocation Plan, and the Long-term Conservation Plan. Collectively, they provide a policy framework with guidelines and resource targets for Metropolitan to follow into the future.

While Metropolitan coordinates regional water supply planning for the region through its inclusive integrated planning processes, Metropolitan's member agencies also conduct their own planning analyses – including their own urban water management plans – and may develop projects independently of Metropolitan. Appendix A.5 shows a list of these potential local projects provided to Metropolitan by its member agencies.

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[1] Although the water from the Los Angeles Aqueduct is imported, Metropolitan considers it a local source because it is managed by the Los Angeles Department of Water and Power and not by Metropolitan.

2.1 Integrated Resource Planning

The 1996 IRP Process

Acknowledging the importance of water to the economic and social well-being of Southern California, Metropolitan has gradually shifted roles from an exclusive supplier of imported water to a regional water planner working in collaboration with its member agencies. After the drought of 1987-1992, Metropolitan recognized the changed conditions and the need to develop a long-term water resources strategy to fulfill the agency's mission of providing a high-quality reliable water supply to its service area. This planning process that was undertaken is now known as the Integrated Resources Plan (IRP). The first IRP was adopted by Metropolitan's Board in 1996 and guided by six objectives established early in the process:

1. Ensuring Reliability
2. Ensuring Affordability
3. Ensuring Water Quality
4. Maintaining Diversity
5. Ensuring Flexibility
6. Acknowledging Environmental and Institutional Constraints.

One of the fundamental outcomes of the IRP was the recognition that regional water supply reliability could be achieved through the implementation of a diverse portfolio of resource investments and conservation measures. The resulting IRP strategy was a balance between demand management and supply augmentation. For example, in its dry year profile, the resource framework counted on almost equal proportion of water conservation and recycled water as withdrawal from storage and water transfers. The IRP also balanced between the use of local resources and imported supplies. In a dry year, about 55 percent of the region's water resources come from local resources and conservation. Additionally, through the IRP process Metropolitan found solutions that offer long-term reliability at the lowest possible cost to the region as a whole.

The 1996 IRP, as a blueprint to resource program implementation, also established the "Preferred Resource Mix that would provide the Metropolitan region with reliable and affordable water supplies through 2020.

The IRP provided details on the Preferred Resource Mix and guidelines to established broad resource targets for each of the major supplies available to the region including:

- Conservation
- Local Resources - Water Recycling, Groundwater Recovery and Desalination
- Colorado River Supplies and Transfers
- State Water Project Improvement
- In-Region Surface Reservoir Storage
- In-Region Groundwater Storage

The 2004 IRP Update

In 2004, the Metropolitan Board adopted an updated IRP. Various legislative issues concerning population growth and water supply called for further planning considerations of these changed conditions. This IRP Update had three objectives:

1. Review the goals and achievements of the 1996 IRP
2. Identify the changed conditions for water resource development
3. Update resource development targets through 2025

The 2004 IRP process fulfilled the new objectives and updated the long-term plan to account for new water planning legislation. The updated plan contained resource development targets through 2025, which reflected changed conditions; particularly increased conservation savings, planned increases in local supplies and uncertainties. The 2004 IRP also explicitly recognized the need to handle uncertainties inherent in any planning process. For the water industry, some of these uncertainties are the level of population and economic growth which directly drive water demands, water quality regulations, new chemicals found to be unhealthful, endangered species affecting sources of supplies, and periodic and new changes in climate and hydrology. As a result, a key component of the Updated Plan was the addition of a 10 percent planning buffer. The planning buffer provided for the identification of additional supplies, both imported and locally developed, that can be implemented to address uncertainty in future supplies and demands.

2010 Integrated Water Resources Plan Update

Metropolitan and its member agencies face increasing uncertainties and challenges as they plan for future water supplies. The 1996 and 2004 IRP resource strategies emphasized the need for a diverse and adaptable water supply strategy to cope with changing circumstances and conditions. Recent history and events have highlighted several emerging trends that need to be addressed in the context of the region's water supply planning and reliability. These trends cover a wide range of considerations including climate change, energy use and greenhouse gas emissions, endangered species protection and conveyance needs in the Sacramento-San Joaquin River Delta system. These trends point strongly to the importance of updating the region's Integrated Resources Plan, and to the need to solidify adaptive strategies to address additional challenges into the long-term future.

The basic objectives of the current IRP process are to:

1. Review the achievements of the 1996 IRP and the 2004 Update
2. Identify changing conditions affecting water resource development
    - Attention will be given to emerging factors and considerations, such as the current drought, climate change, energy use, and changes in Delta pumping operations
3. Update resource development targets through 2030
    - Discussion will focus on adaptation to future uncertainties, and potential alternatives for further diversifying Metropolitan's water resource portfolio and increasing supply reliability in the face of changing circumstances

Public Process

The current IRP Update process has sought input from member agencies, retail water agencies, other water and wastewater managers, environmental, business and community interests. In the fall of 2008, Metropolitan's senior management, Board of directors, member agency managers, elected officials, and community groups collectively discussed strategic direction and regional water solutions at a series of four stakeholder forums; nearly 600 stakeholders participated in the forums.

Similar types of ideas and issues were raised by the participants at all the forums, emphasizing the importance of local resources development and resolving issues with the Delta. Participants suggested that Metropolitan should take a leadership position in several areas including:

- Providing outreach to legislators concerning needs for water supply reliability and quality improvements
- Developing brine lines to enhance recycled water use
- Fostering partnerships with energy utilities
- Building relationships with environmental community
- Participating in research and development of new technologies
- Providing assistance to retail agencies in designing "correct" tiered rate structures

Technical Workgroup Process

Following the stakeholder forums, Metropolitan embarked upon a Technical Workgroup Process to further explore some of the issues and opportunities identified by forum participants. To facilitate the workgroup process, the technical discussions were grouped into six resource areas:

- Conservation
- Graywater
- Groundwater
- Recycled water
- Stormwater / Urban Runoff
- Seawater Desalination

The Technical Workgroup process provided a forum for review of the issues associated with each area, and in-depth discussions with area experts. The workgroups included member agency and retail agency staff, other non-governmental organizations, and staff from wastewater and stormwater management agencies, as well as Metropolitan staff and consultants.

Strategic Policy Review

As part of the current IRP update process, Metropolitan's Board initiated a Strategic Policy Review. This Review examined the ramifications of alternative roles for Metropolitan, member agencies and local retail agencies in future development of water resources. The process explored three alternative policy cases:

1. Current approach – continuation of IRP policies and partnerships with member agencies
2. Imported focus – Metropolitan focuses on addressing Delta issues, imported supplies and water transfers and leaves local supply development entirely to member agencies
3. Enhanced Regional focus – Metropolitan examines new approaches, up to and including development and ownership for implementing large regional scale water recycling, groundwater recharge and seawater desalination

A study of water supply reliability and cost impacts associated with these approaches found that it is in the region's best interest for Metropolitan to continue to explore ways of increasing regional reliability and not limiting itself to singular areas like addressing Delta issues. The study results under this process was a broader view of Metropolitan's role in comprehensive planning and implementation for regional reliability; adopting an adaptive resource development plan for the future may provide the most benefit for the region. In this adaptive approach, Metropolitan may need to take on an enhanced role in local supply development, in order to best adapt and respond to changing regional conditions and lay a solid foundation for future reliability. This role could include the creation of partnership with local agencies or Metropolitan's direct ownership of local projects to ensure regional reliability. The adaptive approach would be incorporated into the 2010 IRP for Board consideration.

Uncertainty Analysis

A major component of the current IRP update effort is to explicitly reflect uncertainty in Metropolitan's future water management environment. This involves evaluating a wider range of water management strategies, and seeking robust and adaptive plans that respond to uncertain conditions as they evolve over time, and that ultimately will perform adequately under a wide range of future conditions. The potential impacts and risks associated with climate change, as well as other major uncertainties and vulnerabilities, will be incorporated in to the update and accounted for. A key evolution from the 2004 IRP will be the identification of vulnerabilities and contingency actions that will extend the concept of a Planning Buffer into tangible actions that will enable construction and implementation of contingency supplies if they are needed.

Adaptive Planning Implementation

Regional water supply reliability largely depends on Metropolitan's preparedness to adapt to supply uncertainties. An adaptive management approach was utilized in developing a strategy that will prepare the region to deal with unforeseen supply shortages. An important step in this approach is identifying where additional water supply will come from. Four local water sources were considered:

- Stormwater
- Recycled Water
- Graywater
- Seawater

The stakeholder groups established during the IRP process evaluated the viability of using one or more of these resources to supplement existing water supply in the region. The stakeholders (e.g., member agencies, retail agencies, and industry experts) gathered important information on each resource such as regional development status, yield potential, and implementation challenges.

Another key aspect of this strategy is determining what actions are required to eliminate or mitigate the implementation challenges in developing these resources. The adaptive approach essentially provides a blueprint on how to address these challenges and develop supply within each resource.

The most important aspect of this strategy is the adaptive management approach used in responding to potential water supply shortage. The implementation elements identified within each blueprint can be executed at varying levels of urgency. Under the adaptive approach, Metropolitan developed three alternative implementation schedules for each resource:

- Status Quo
- Proactive
- Aggressive

Status Quo entails delaying action until a trigger is met. A trigger sets the point in time at which a potential shortage is identified and when deliberate action is taken to mitigate that shortage. The Proactive schedule implements low-risk actions early-on regardless of whether a trigger occurs. Implementing these low-risk actions shortens the overall time required to complete the implementation schedule. The Aggressive option implements both low-risk and medium-to-high risk actions that may require significant investment (e.g. land acquisition). By initiating these actions early-on, the overall implementation time can be shortened significantly. Table 2-1 highlights the differences between each schedule.

Table 2-1
Schedule Options

Schedule Option	Brief Description	Timeframe from Trigger to Production Yield	Financial Risk
Status Quo	Delay action until the adaptive management trigger occurs	Long	Low
Proactive	Begin planning actions (generally lower cost) before the adaptive management trigger occurs	Medium	Medium
Aggressive	Perform project implementation actions, such as land acquisition, before the adaptive management trigger occurs	Short	High

This strategy also utilizes an adaptive approach for determining an optimal project mix, or portfolio, used to meet a supply gap. The portfolio can comprise of projects from any of the four resources. Project drivers such as cost, yield, implementation time, and location of the project will be used to create customized portfolios that could address specific needs. For example, if a water supply shortage is occurring in a specific area, the portfolio could contain projects that serve that area. Another example might entail selecting projects that have the shortest implementation time in order to expedite supply development. Yet another example might involve selecting the most cost-efficient projects ($/AF) regardless of implementation time or location if minimizing costs is of highest priority. Furthermore, the number of projects within a portfolio is scalable based on the level of shortage at hand. This comprehensive approach is illustrated in Figure 2-1.

Metropolitan's adaptive approach is basically organized into four individual sections referred to as Foundational Studies. These individual studies discuss in detail the implementation challenges and recommended action for each resource. The first step in developing planning actions is categorizing the implementation challenges within each resource. In most cases the categories represent common themes such as establishing funding projects (Funding) or garnering legislative support (Legislative). The next step in developing planning actions is identifying implementation elements that mitigate the implementation challenges. This step involves identifying specific actions that are needed to support each implementation element. The last step in this process is developing of timelines and implementation schedules. Three alternative implementation schedules are developed for each resource.

Tables 2-2 through 2-5 summarize the categories and implementation elements for each resource. Detailed actions and schedules can be found in the foundational studies.

Figure 2-1 Comprehensive Approach

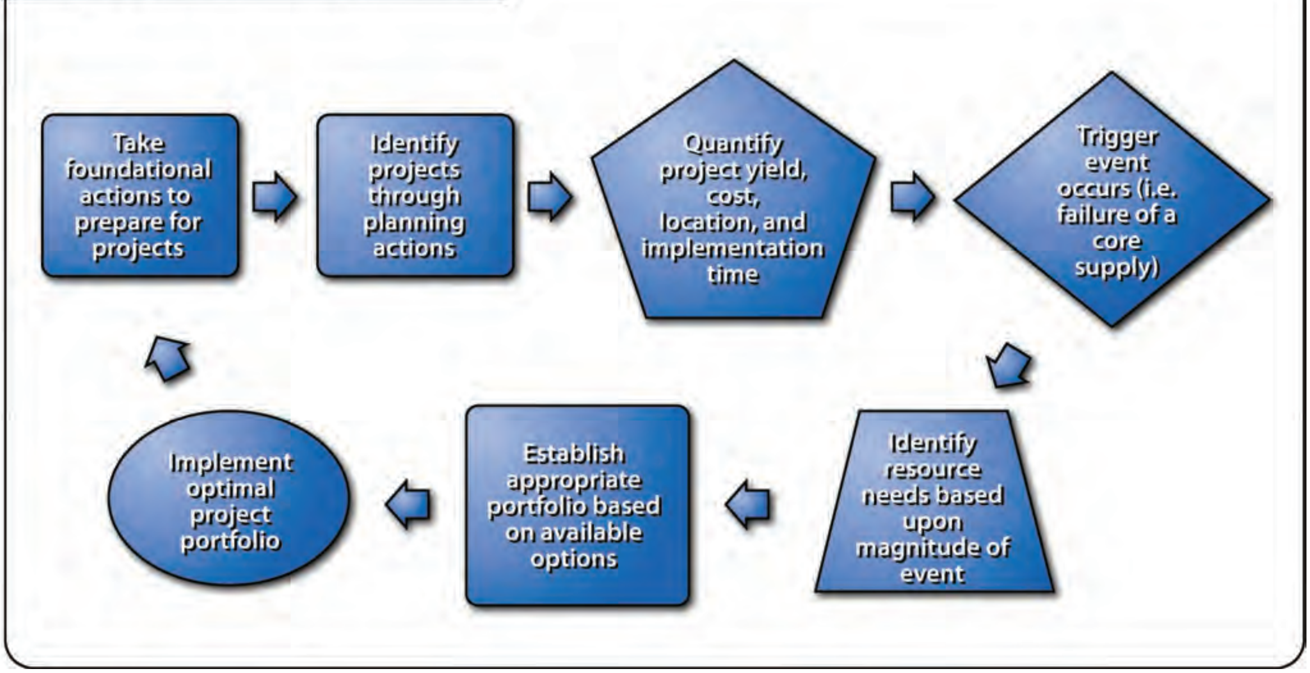

Table 2-2
Stormwater Issue Categories and Implementation Elements

Category	Implementation Element
Data Management	Regional Water Supply Project Database
Legislative/Regulatory/Education	Regional Synergy Task Force
Procedural	Regional Implementation Partnerships
Technical	Regional Feasibility Study
Funding	Funding Strategy Plan
Operational	Local Resource Baseline Plan
Implementation Planning	Alternatives Analysis Plan
Project Implementation	Incentive Programs Land Acquisition Advanced Planning Design Construction
Post Construction	O&M Performance Monitoring

Table 2-3
Recycled Water Issue Categories and Implementation Elements

Category	Implementation Element
Public Perception	Recycled Marketing Campaign Recycled Water Educational Campaign
Legislative	Recycled Water Legislative Task Force
Funding	Regional Recycled Water Finance Committee
Procedural	Regional Recycled Water Permitting and Inspection JPA Regional Recycled Water Policy Task Force
Operational	Regional Salt Management Plan Regional Basin Management Plan Recycled Water Blue Ribbon Panel (SWRCB) Regional Recycled Water Facility Plan
Facility	Regional Project (CIP) Implementation Joint Groundwater Replenishment Project

Table 2-4
Graywater Issue Categories and Implementation Elements

Category	Implementation Element
Public Perception	Graywater Marketing Campaign Graywater Educational Campaign
Legislative	Graywater Legislative Task Force
Technical	Regional Graywater Feasibility Study
Funding	Regional Graywater Finance Committee
Procedural	Regional Graywater Permitting and Inspection Regional Graywater Policy Task Force
Operational	Regional Graywater Management Plan
Construction	Regional Project Implementation

Table 2-5
Desalination Issue Categories and Implementation Elements

Category	Implementation Element
Data Management	Regional Water Supply Project Database
Legislative/Regulatory/Education	Regional Synergy Task Force
Procedural	Regional Implementation Partnerships
Technical	Regional Feasibility Study
Funding	Funding Strategy Plan
Operational	Local Resource Baseline Plan
Project Implementation	Incentive Programs Alternatives Analysis Plan Land Acquisition Advanced Planning Design Construction
Post Construction	O&M Performance Monitoring

Innovative approaches are critical to meeting the water supply needs of Southern California. Maintaining reliable water supplies given regulatory uncertainty, competing uses of groundwater and surface water, and overall variability in water supply is a growing challenge. An adaptive regional approach that develop, promote, and practice integrated regional water management of both traditional and emerging supplies may be the key to continued regional reliability.

2.2 Evaluating Supply Reliability

The Urban Water Management Plan Act requires that three basic planning analyses be conducted to evaluate supply reliability. The first is a water supply reliability assessment requiring development of a detailed evaluation of the supplies necessary to meet projected demands over at least a 20-year period. This analysis is to consider average, single-year and multi-year drought conditions. The second is a water shortage contingency plan which documents the actions that would be implemented in addressing up to a 50 percent reduction in an agency's supplies. Finally, a plan must be developed specifying the steps that would be taken under a catastrophic interruption in water supplies.

To address these three requirements, Metropolitan developed estimates of future demands and supplies from local sources and from Metropolitan. Supply and demand analyses for the single- and multi-year drought cases were based on conditions affecting the SWP. For this supply source, the single driest year was 1977 and the three-year dry period was 1990-1992. The SWP is the appropriate point of reference for these analyses since it is Metropolitan's largest and most variable supply. For the "average" year analysis 83 years of historic hydrology (1922-2004) were used to estimate supply and demand.

Estimating Demands on Metropolitan

Metropolitan developed its demand forecast by first estimating total retail demands for its service area and then factoring out water savings attributed to conservation.[2] Projections of local supplies then were derived using data on current and expected local supply programs and the IRP Local Resource Program Target. The resulting difference between total demands net of conservation and local supplies is the expected regional demands on Metropolitan supplies. These various estimates are shown in Tables 2-6 through 2-8. Major categories used in these tables are defined below.

Total Demands

Total demand is the sum of retail demand for M&I and agricultural, seawater barrier demand, and replenishment demand. Total demand represents the total amount of water needed by the member agencies. Total demands include:

- Retail Municipal and Industrial (M&I) — Retail Municipal and Industrial (M&I) demands represent the full spectrum of urban water use within the region. These include residential, commercial, industrial, institutional and un-metered water uses. To forecast urban water demands Metropolitan used the MWD-MAIN Water Use Forecasting System (MWD-Main), consisting of econometric models that have been adapted for conditions in Southern California. The demographic and economic data used in developing these forecasts were taken from the Southern California Association of Government's (SCAG) 2007 Regional Transportation Plan and from the San Diego County Association of Government's (SANDAG) Series 12: 2050 Regional Growth Forecast (Feb 2010). The SCAG and SANDAG regional growth forecasts are the core assumptions that drive the estimating equations in Metropolitan's MWD-MAIN demand forecasting model. SCAG and SANDAG's projections undergo extensive local review and incorporate zoning information from city and county general plans and are backed by Environmental Impact Reports.

  Impacts of potential annexation are not included in the demand projections for the 2010 RUWMP. However, Metropolitan's Review of Annexation Procedures concluded that the impacts of annexation within the service area beyond 2020 would not exceed 2 percent of overall demands.

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[2] Information generated as part of this analysis are contained in Appendix A-1.

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- Retail Agricultural Demand — Retail agricultural demands consist of water use for irrigating crops. Member agencies estimate agricultural water use based on many factors, including farm acreage, crop types, historical water use, and land use conversion. Each member agency estimates their agricultural demand differently, depending on the availability of information. Metropolitan relies on member agencies' estimates of agricultural demands for the 2010 RUWMP
- Seawater Barrier Demand — Seawater barrier demands represent the amount of water needed to hold back seawater intrusion into the coastal groundwater basins. Groundwater management agencies determine the barrier requirements based on groundwater levels, injection wells, and regulatory permits.
- Replenishment Demand — Replenishment demands represent the amount of water member agencies plan to use to replenish their groundwater basins. For the 2010 RUWMP, replenishment deliveries are not included as part of firm demands.

Conservation Adjustment

The conservation adjustment subtracts estimated conservation from total retail demand. The conservation estimates consist of three types:

- Code-Based Conservation — Water savings resulting from plumbing codes and other institutionalized water efficiency measures.
- Active Conservation — Water saved as a direct result of programs and practices directly funded by a water utility (e.g., measures outlined by the California Urban Water Conservation Council's "Best Management Practices"). Water savings from active conservation currently completed will decline to zero as the lifetime of those devices is reached. This will be offset by an increase in water savings for those devices that are mandated by law, plumbing codes or other efficiency standards.
- Price Effect Conservation — Reductions in customer use attributable to changes in the real (inflation adjusted) cost of water.

Water Use Reduction Target

On November 10, 2009, the state Legislature passed Senate Bill 7 as part of the Seventh Extraordinary Session, referred to as SBX7-7. This new law is the water conservation component of the historic Delta legislative package, and seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. According to Water Code §10608.36, wholesale agencies are required to include in their UWMPs an assessment of present and proposed future measures, programs, and policies that would help achieve the water use reductions required under SBX7-7. Urban wholesale water suppliers are not required to comply with the target-setting and reporting requirements of SBX7-7. Additional discussion of the water reduction target is included in Section 3.7.

Based on Metropolitan' s analysis of population and demand and the methodologies for setting targets described in the legislation, compliance with 20x2020 on an individual agency basis throughout the region would result in reduced potable demand of 380 TAF in 2020 through additional conservation and/or recycling. This estimated amount is reflected in the projected demand tables under 20x2020 Retail Compliance.

Local Supplies

Local supplies represent a spectrum of water produced by the member agencies to meet their total demands. Local supplies are a key component in determining how much Metropolitan supply is needed to supplement member agencies local supplies to meet their total demand. Projections of local supplies relied on information gathered from a number of sources including past urban water management plans, Metropolitan's annual local production surveys, and communications between Metropolitan and member agency staff. Local supplies include:

- Groundwater and Surface Water — Groundwater production consists of extractions from local groundwater basins. Surface water comes from stream diversions and rainwater captured in reservoirs.
- The Los Angeles Aqueduct — A major source of imported water is conveyed from the Owens Valley via the Los Angeles Aqueduct (LAA) by LADWP. Although LADWP imports water from outside of Metropolitan's service area, Metropolitan classifies water provided by the LAA as a local resource because it is developed and controlled by a local agency.
- Seawater desalination — Seawater desalinated for potable use.
- Groundwater Recovery and Recycled Water — Locally developed and operated, groundwater recovery projects treat contaminated groundwater to meet potable use standards. Recycled water projects recycle wastewater for municipal and industrial use.
- Non-Metropolitan Imports — Water supplies imported by member agencies from sources outside of the Metropolitan service area.

The local supply projections presented in demand tables include existing projects that are currently producing water and projects that are under construction. Appendix A.5 contains a complete list of existing, under construction, fully designed with appropriated funds, feasibility, and conceptual projects that are within the service area.

Firm Demands

After calculating the expected regional demands on Metropolitan supplies, projected firm demands were calculated based on Metropolitan's established reliability goal. For the purposes of reliability planning, the 1996 IRP established a reliability goal that states that full service demands at the retail level would be satisfied under all "foreseeable hydrologic" conditions through 2020. This principle has been retained in the current update.

This goal allows for intermittent interruptions to non-firm, discounted rate supplies sold under the Replenishment and Interim Agricultural Water Programs. Thus, firm demand on Metropolitan equals Full Service demands (Tier I and Tier II). For the purpose of analysis, "foreseeable hydrologic conditions" is understood to mean under "historical hydrology," which presently covers the range of historical hydrology spanning the years 1922 through 2004. Tables 2-6 through 2-8 show estimates of firm demands on Metropolitan for single dry-year, multiple dry-year, and average year.

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Table 2-6
Metropolitan Regional Water Demands
Single Dry Year
(Acre-Feet)

		2015	2020	2025	2030	2035
A.	**Total Demands[1]**	**5,480,000**	**5,662,000**	**5,804,000**	**5,961,000**	**6,101,000**
	Retail Municipal and Industrial	5,000,000	5,194,000	5,354,000	5,515,000	5,653,000
	Retail Agricultural	231,000	213,000	193,000	186,000	186,000
	Seawater Barrier	71,000	72,000	72,000	72,000	72,000
	Groundwater Replenishment	177,000	184,000	186,000	188,000	191,000
B.	**Total Conservation**	**936,000**	**967,000**	**1,033,000**	**1,096,000**	**1,156,000**
	Existing Active (through 2009)[2]	97,000	46,000	16,000	2,000	0
	Code-based and Price-Effect	589,000	671,000	766,000	844,000	906,000
	Pre-1990 Conservation	250,000	250,000	250,000	250,000	250,000
C.	**SBx7-7 Water Conservation**	**190,000**	**380,000**	**380,000**	**380,000**	**380,000**
	20% by 2020 Retail-Level Compliance	190,000	380,000	380,000	380,000	380,000
D.	**Total Local Supplies**	**2,260,000**	**2,322,000**	**2,366,000**	**2,405,000**	**2,419,000**
	Groundwater	1,457,000	1,395,000	1,407,000	1,423,000	1,416,000
	Surface Water	98,000	97,000	97,000	97,000	97,000
	Los Angeles Aqueduct	66,000	66,000	66,000	66,000	66,000
	Groundwater Recovery	101,000	108,000	114,000	120,000	126,000
	Total Recycling	348,000	375,000	394,000	410,000	426,000
	Other Imported Supplies	190,000	281,000	288,000	288,000	288,000
E.	**Total Metropolitan Demands (E=A-B-C-D)**	**2,094,000**	**1,993,000**	**2,025,000**	**2,080,000**	**2,146,000**
	Full Service (Tier I and Tier II)	1,991,000	1,889,000	1,921,000	1,974,000	2,039,000
	Replenishment Service[3]	103,000	103,000	104,000	106,000	107,000
	Interim Agricultural Water Program[4]	0	0	0	0	0
3	**Firm Demands on Metropolitan[5]**	**1,991,000**	**1,889,000**	**1,921,000**	**1,974,000**	**2,039,000**

Notes:
All units are acre-feet unless specified, rounded the nearest thousand.
Totals may not sum due to rounding.

[1] Growth projections are based on SCAG 2007 Regional Transportation Plan and SANDAG Series 12 2050 Regional Growth Forecast (Feb 2010).

[2] Includes code-based, price-effect and existing active savings through 2009; does not include future active conservation savings. 1990 is base year.

[3] Replenishment Service as defined in MWD Administrative Code Section 4114. Replenishment service includes direct and in-lieu replenishment.

[4] IAWP deliveries will be phased out by 2013.

[5] Firm demand on Metropolitan equals Full Service demands plus 70% of the Interim Agricultural Water Program demands.

Table 2-7
Metropolitan Regional Water Demands
Multiple Dry Year
(Acre-Feet)

		2015	2020	2025	2030	2035
A.	**Total Demands[1]**	**5,478,000**	**5,702,000**	**5,862,000**	**6,017,000**	**6,161,000**
	Retail Municipal and Industrial	5,004,000	5,232,000	5,409,000	5,572,000	5,715,000
	Retail Agricultural	231,000	214,000	195,000	185,000	184,000
	Seawater Barrier	71,000	71,000	72,000	72,000	72,000
	Groundwater Replenishment	172,000	184,000	187,000	188,000	190,000
B.	**Total Conservation**	**936,000**	**967,000**	**1,033,000**	**1,096,000**	**1,156,000**
	Existing Active (through 2009)[2]	97,000	46,000	16,000	2,000	0
	Code-based and Price-Effect	589,000	671,000	766,000	844,000	906,000
	Pre-1990 Conservation	250,000	250,000	250,000	250,000	250,000
C.	**SBx7-7 Water Conservation**	**190,000**	**380,000**	**380,000**	**380,000**	**380,000**
	20% by 2020 Retail-Level Compliance	190,000	380,000	380,000	380,000	380,000
D.	**Total Local Supplies**	**2,171,000**	**2,305,000**	**2,343,000**	**2,378,000**	**2,402,000**
	Groundwater	1,386,000	1,389,000	1,389,000	1,397,000	1,396,000
	Surface Water	91,000	91,000	91,000	91,000	91,000
	Los Angeles Aqueduct	63,000	67,000	71,000	75,000	78,000
	Groundwater Recovery	100,000	107,000	113,000	119,000	125,000
	Total Recycling	340,000	370,000	390,000	407,000	423,000
	Other Imported Supplies	191,000	282,000	288,000	288,000	288,000
E.	**Total Metropolitan Demands (E=A-B-C-D)**	**2,154,000**	**2,049,000**	**2,106,000**	**2,163,000**	**2,224,000**
	Full Service (Tier I and Tier II)	2,056,000	1,947,000	2,003,000	2,059,000	2,119,000
	Replenishment Service[3]	97,000	102,000	103,000	104,000	104,000
	Interim Agricultural Water Program[4]	0	0	0	0	0
F.	**Firm Demands on Metropolitan[5]**	**2,056,000**	**1,947,000**	**2,003,000**	**2,059,000**	**2,119,000**

Notes:
All units are acre-feet unless specified, rounded the nearest thousand.
Totals may not sum due to rounding.

[1] Growth projections are based on SCAG 2007 Regional Transportation Plan and SANDAG Series 12 2050 Regional Growth Forecast (Feb 2010).

[2] Includes code-based, price-effect and existing active savings through 2009; does not include future active conservation savings. 1990 is base year.

[3] Replenishment Service as defined in MWD Administrative Code Section 4114. Replenishment service includes direct and in-lieu replenishment.

[4] IAWP deliveries will be phased out by 2013.

[5] Firm demand on Metropolitan equals Full Service demands plus 70% of the Interim Agricultural Water Program demands.

Table 2-8
Metropolitan Regional Water Demands
Average Year
(Acre-Feet)

		2015	2020	2025	2030	2035
A.	**Total Demands**[1]	**5,449,000**	**5,632,000**	**5,774,000**	**5,930,000**	**6,069,000**
	Retail Municipal and Industrial	4,978,000	5,170,000	5,330,000	5,491,000	5,627,000
	Retail Agricultural	222,000	205,000	186,000	179,000	180,000
	Seawater Barrier	71,000	72,000	72,000	72,000	72,000
	Groundwater Replenishment	178,000	185,000	187,000	189,000	191,000
B.	**Total Conservation**	**936,000**	**967,000**	**1,033,000**	**1,096,000**	**1,156,000**
	Existing Active (through 2009)[2]	97,000	46,000	16,000	2,000	0
	Code-based and Price-Effect	589,000	671,000	766,000	844,000	906,000
	Pre-1990 Conservation	250,000	250,000	250,000	250,000	250,000
C.	**SBx7-7 Water Conservation**	**190,000**	**380,000**	**380,000**	**380,000**	**380,000**
	20% by 2020 Retail-Level Compliance	190,000	380,000	380,000	380,000	380,000
D.	**Total Local Supplies**	**2,395,000**	**2,522,000**	**2,553,000**	**2,581,000**	**2,603,000**
	Groundwater	1,429,000	1,430,000	1,429,000	1,431,000	1,431,000
	Surface Water	103,000	102,000	102,000	102,000	102,000
	Los Angeles Aqueduct	224,000	225,000	226,000	229,000	230,000
	Groundwater Recovery	101,000	108,000	114,000	120,000	126,000
	Total Recycling	348,000	375,000	394,000	410,000	426,000
	Other Imported Supplies	190,000	281,000	288,000	288,000	288,000
E.	**Total Metropolitan Demands (E=A-B-C-D)**	**1,928,000**	**1,763,000**	**1,808,000**	**1,874,000**	**1,931,000**
	Full Service (Tier I and Tier II)	1,826,000	1,660,000	1,705,000	1,769,000	1,826,000
	Replenishment Service[3]	102,000	103,000	103,000	104,000	105,000
	Interim Agricultural Water Program[4]	0	0	0	0	0
F.	**Firm Demands on Metropolitan**[5]	**1,826,000**	**1,660,000**	**1,705,000**	**1,769,000**	**1,826,000**

Notes:
All units are acre-feet unless specified, rounded the nearest thousand.
Totals may not sum due to rounding.

[1] Growth projections are based on SCAG 2007 Regional Transportation Plan and SANDAG Series 12 2050 Regional Growth Forecast (Feb 2010).

[2] Includes code-based, price-effect and existing active savings through 2009; does not include future active conservation savings. 1990 is base year.

[3] Replenishment Service as defined in MWD Administrative Code Section 4114. Replenishment service includes direct and in-lieu replenishment.

[4] IAWP deliveries will be phased out by 2013.

[5] Firm demand on Metropolitan equals Full Service demands plus 70% of the Interim Agricultural Water Program demands.

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2.3 Water Supply Reliability

After estimating demands for single dry year, multiple dry years, and average years the water reliability analysis requires urban water suppliers to identify projected supplies to meet these demands. Table 2-9 summarizes the sources of supply for the single dry year (1977 hydrology), while Table 2-10 shows the region's ability to respond in future years under a repeat of the 1990-92 hydrology. Table 2-10 provides results for the average of the three dry years rather than a year-by-year detail, because most of Metropolitan's dry-year supplies are designed to provide equal amounts of water over each year of a three-year period. These tables show that the region can provide reliable water supplies under both the single driest year and the multiple dry year hydrologies. Table 2-11 reports the expected situation on average over all of the historic hydrologies. Appendix A.3 contains detailed justifications for the sources of supply used for this analysis.

Metropolitan' s supply capabilities are evaluated using the following assumptions:

Colorado River Aqueduct Supplies

Colorado River Aqueduct supplies include supplies that would result from existing and committed programs and from implementation of the Quantification Settlement Agreement (QSA) and related agreements. The QSA, which is the subject of current litigation, is a component of the California Plan and establishes the baseline water use for each of the agreement parties and facilitates the transfer of water from agricultural agencies to urban uses. A detailed discussion of the QSA is included in Section 3. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 MAF on an as-needed basis.

State Water Project Supplies

State Water Project (SWP) supplies are estimated using the draft 2009 SWP Delivery Reliability Report distributed by DWR in December 2009. The draft 2009 reliability report presents the current DWR estimate of the amount of water deliveries for current (2009) conditions and conditions 20 years in the future. These estimates incorporate restrictions on SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008, and June 4, 2009, respectively. Under the 2009 draft reliability report, the delivery estimates for the SWP for current (2009) conditions as percentage of maximum Table A amounts, are seven percent, equivalent to 134 TAF, under a single dry-year (1977) condition and 60%, equivalent to 1.15 MAF, under long-term average condition.

In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley storage and transfer programs. Over the last two years under the pumping restrictions of the SWP, Metropolitan has worked collaboratively with the other contractors to develop numerous voluntary Central Valley storage and transfer programs. The goal of this storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available Banks pumping capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

Delta Improvements

The listing of several fish species as threatened or endangered under the federal or California Endangered Species Acts (ESAs) have adversely impacted operations and limited the flexibility of the SWP. In response to court decisions related to the Biological Opinions for fish species listed under the ESAs, DWR altered the operations of the SWP. This resulted in export restrictions and reduced SWP deliveries. In June 2007, Metropolitan's Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta Action Plan aims to prioritize immediate short-term actions to stabilize the Delta while an ultimate solution is selected, and mid-term steps to maintain the Bay-Delta while the long-term solution is implemented.

In the near-term, the physical and operational actions in the Bay-Delta being developed include measures that protect fish species and reduce supply impacts with the goal of reducing conflicts between water supply conveyance and environmental needs. The potential for Increased supply due to these near-term fixes is included in the 2010 RUWMP as a 10 percent increase in water supplies obtained from the SWP allocation for the year. In evaluating the supply capabilities for the 2010 RUWMP, additional supplies from this interim fix are assumed to materialize by 2013. Also included as a possible near-term fix for the Bay-Delta is the proposed Two-Gate System demonstration program, which would provide movable barriers on the Old and Middle Rivers to modify flows and prevent fish from being drawn toward the Bay-Delta pumping plants. The Two-Gate System is anticipated to protect fish and increase SWP supplies.

Operational constraints likely will continue until a long-term solution to the problems in the Bay-Delta is identified and implemented. State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan (BDCP), which is aimed at addressing the basic elements that include the Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development. In dealing with these basic issues, the ideal solutions sought are the ones that address both the physical changes required as well as the financing and governance. In evaluating the supply capabilities for the 2010 RUWMP, Metropolitan assumed a new Delta conveyance is fully operational by 2022 that would return supply reliability similar to 2005 condition, prior to supply restrictions imposed due to the Biological Opinions. This assumption is consistent with Metropolitan's long-term Delta Action Plan that recognizes the need for a global, comprehensive approach to the fundamental issues and conflicts to result in a sustainable Bay-Delta, sufficient to avoid biological opinion restrictions on planned SWP deliveries to Metropolitan and the other SWP Contractors. Further, recently passed state legislation included pathways for establishing governance structures and financing approaches to implement and manage the identified elements.

Storage

A key component of Metropolitan's water supply capability is the amount of water in Metropolitan's storage facilities. Storage is a major component of Metropolitan's dry-year resource management strategy. Metropolitan's likelihood of having adequate supply capability to meet projected demands, without implementing the Water Supply Allocation plan (WSAP), is dependent on its storage resources.

In developing the supply capabilities for the 2010 RUWMP, Metropolitan assumed a simulated median storage level going into each of five-year increments based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. All storage capability figures shown in the 2010 RUWMP reflect actual storage program conveyance constraints. It is important to note that under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands.

Table 2-9
Single Dry-Year
Supply Capability[1] and Projected Demands
Repeat of 1977 Hydrology

(acre-feet per year)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	685,000	931,000	1,076,000	964,000	830,000
California Aqueduct[2]	522,000	601,000	651,000	609,000	610,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,416,000	1,824,000	1,669,000	1,419,000	1,419,000
Aqueduct Capacity Limit[4]	*1,250,000*	*1,250,000*	*1,250,000*	*1,250,000*	*1,250,000*
Colorado River Aqueduct Capability	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	**2,457,000**	**2,782,000**	**2,977,000**	**2,823,000**	**2,690,000**
Demands					
Firm Demands of Metropolitan	1,991,000	1,889,000	1,921,000	1,974,000	2,039,000
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,000
Total Demands on Metropolitan[5]	**2,171,000**	**2,162,000**	**2,201,000**	**2,254,000**	**2,319,000**
Surplus	**286,000**	**620,000**	**776,000**	**569,000**	**371,000**
Programs Under Development					
In-Region Storage and Programs	206,000	306,000	336,000	336,000	336,000
California Aqueduct	556,000	556,000	700,000	700,000	700,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	187,000	187,000	187,000	182,000	182,000
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	*0*
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Proposed Programs	**762,000**	**862,000**	**1,036,000**	**1,036,000**	**1,036,000**
Potential Surplus	**1,048,000**	**1,482,000**	**1,812,000**	**1,605,000**	**1,407,000**

[1] Represents Supply Capability for resource programs under listed year type.

[2] California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

[3] Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal linings conveyed by the aqueduct.

[4] Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.

[5] Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

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Table 2-10
Multiple Dry-Year
Supply Capability[1] and Projected Demands
Repeat of 1990-1992 Hydrology
(acre-feet per year)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	246,000	373,000	435,000	398,000	353,000
California Aqueduct[2]	752,000	794,000	835,000	811,000	812,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,318,000	1,600,000	1,417,000	1,416,000	1,416,000
Aqueduct Capacity Limit[4]	*1,250,000*	*1,250,000*	*1,250,000*	*1,250,000*	*1,250,000*
Colorado River Aqueduct Capability	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	**2,248,000**	**2,417,000**	**2,520,000**	**2,459,000**	**2,415,000**
Demands					
Firm Demands of Metropolitan	2,056,000	1,947,000	2,003,000	2,059,000	2,119,000
IID-SDCWA Transfers and Canal Linings	180,000	241,000	280,000	280,000	280,000
Total Demands on Metropolitan[5]	**2,236,000**	**2,188,000**	**2,283,000**	**2,339,000**	**2,399,000**
Surplus	**12,000**	**229,000**	**237,000**	**120,000**	**16,000**
Programs Under Development					
In-Region Storage and Programs	162,000	280,000	314,000	336,000	336,000
California Aqueduct	242,000	273,000	419,000	419,000	419,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	187,000	187,000	187,000	182,000	182,000
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	*0*
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Proposed Programs	**404,000**	**553,000**	**733,000**	**755,000**	**755,000**
Potential Surplus	**416,000**	**782,000**	**970,000**	**875,000**	**771,000**

[1] Represents Supply Capability for resource programs under listed year type.

[2] California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

[3] Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal linings conveyed by the aqueduct.

[4] Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.

[5] Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

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Table 2-11
AverageYear
Supply Capability[1] and Projected Demands
Average of 1922-2004 Hydrologies
(acre-feet per year)

Forecast Year	2015	2020	2025	2030	2035
Current Programs					
In-Region Storage and Programs	685,000	931,000	1,076,000	964,000	830,000
California Aqueduct[2]	1,550,000	1,629,000	1,763,000	1,733,000	1,734,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	1,507,000	1,529,000	1,472,000	1,432,000	1,429,000
Aqueduct Capacity Limit[4]	*1,250,000*	*1,250,000*	*1,250,000*	*1,250,000*	*1,250,000*
Colorado River Aqueduct Capability	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Capability of Current Programs	**3,485,000**	**3,810,000**	**4,089,000**	**3,947,000**	**3,814,000**
Demands					
Firm Demands of Metropolitan	1,826,000	1,660,000	1,705,000	1,769,000	1,826,000
IID-SDCWA Transfers and Canal Linings	180,000	273,000	280,000	280,000	280,000
Total Demands on Metropolitan[5]	**2,006,000**	**1,933,000**	**1,985,000**	**2,049,000**	**2,106,000**
Surplus	**1,479,000**	**1,877,000**	**2,104,000**	**1,898,000**	**1,708,000**
Programs Under Development					
In-Region Storage and Programs	206,000	306,000	336,000	336,000	336,000
California Aqueduct	382,000	383,000	715,000	715,000	715,000
Colorado River Aqueduct					
Colorado River Aqueduct Supply[3]	187,000	187,000	187,000	182,000	182,000
Aqueduct Capacity Limit[4]	*0*	*0*	*0*	*0*	*0*
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Proposed Programs	**588,000**	**689,000**	**1,051,000**	**1,051,000**	**1,051,000**
Potential Surplus	**2,067,000**	**2,566,000**	**3,155,000**	**2,949,000**	**2,759,000**

[1] Represents Supply Capability for resource programs under listed year type.

[2] California Aqueduct includes Central Valley transfers and storage program supplies conveyed by the aqueduct.

[3] Colorado River Aqueduct includes water management programs, IID-SDCWA transfers and canal linings conveyed by the aqueduct.

[4] Maximum CRA deliveries limited to 1.25 MAF including IID-SDCWA transfers and canal linings.

[5] Firm demands are adjusted to include IID-SDCWA transfers and canal linings. These supplies are calculated as local supply, but need to be shown for the purposes of CRA capacity limit calculations without double counting.

2.4 Water Shortage Contingency Analysis

In addition to the Water Supply Reliability analysis addressing average year and drought conditions, the Act requires agencies to document the stages of actions that it would undertake in response to water supply shortages, including up to a 50 percent reduction in its water supplies. Metropolitan has captured this planning in its Water Surplus and Drought Management Plan (WSDM Plan) which guides Metropolitan's planning and operations during both shortage and surplus conditions. Furthermore, Metropolitan developed the WSAP which provides a standardized methodology for allocating supplies during times of shortage.

Water Surplus and Drought Management Plan

In April 1999, Metropolitan's Board adopted the Water Surplus and Drought Management Plan (WSDM Plan)[3], included in Appendix A.4. It provides policy guidance for managing regional water supplies to achieve the reliability goals of the IRP and identifies the expected sequence of resource management actions that Metropolitan will execute during surpluses and shortages to minimize the probability of severe shortages and reduce the possibility of extreme shortages and shortage allocations. Unlike Metropolitan's previous shortage management plans, the WSDM Plan recognizes the link between surpluses and shortages, and it integrates planned operational actions with respect to both conditions.

WSDM Plan Development

Metropolitan and its member agencies jointly developed the WSDM Plan during 1998 and 1999. This planning effort included more than a dozen half-day and full-day workshops and more than three dozen meetings between Metropolitan and member agency staff. The result of the planning effort is a consensus plan that addresses a broad range of regional water management actions and strategies.

WSDM Plan Principles and Goals

The guiding principle of the WSDM plan is to manage Metropolitan's water resources and management programs to maximize management of wet year supplies and minimize adverse impacts of water shortages to retail customers. From this guiding principle came the following supporting principles:

- Encourage efficient water use and economical local resource programs
- Coordinate operations with member agencies to make as much surplus water as possible available for use in dry years
- Pursue innovative transfer and banking programs to secure more imported water for use in dry years
- Increase public awareness about water supply issues

The WSDM plan also declared that if mandatory import water allocations become necessary, they would be calculated on the basis of need, as opposed to any type of historical purchases. The WSDM plan contains the following considerations that would go into an equitable allocation of imported water:

- Impact on retail consumers and regional economy
- Investments in local resources, including recycling and conservation
- Population growth
- Changes and/or losses in local supplies
- Participation in Metropolitan's Non-firm (interruptible) programs
- Investment in Metropolitan's facilities

WSDM Plan Implementation

Each year, Metropolitan evaluates the level of supplies available and existing levels of water in storage to determine the appropriate management stage. Each stage is associated with specific resource

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[3] Metropolitan Water District of Southern California. *Water Surplus and Drought Management Plan,* Report No. 1150, August, 1999.

management actions designed to (1) avoid an Extreme Shortage to the maximum extent possible and (2) minimize adverse impacts to retail customers if an Extreme Shortage occurs. The current sequencing outlined in the WSDM Plan reflects anticipated responses based on detailed modeling of Metropolitan's existing and expected resource mix.

Surplus Stages

Metropolitan's supply situation is considered to be in surplus as long as net annual deliveries can be made to water storage programs. The WSDM Plan further defines five surplus management stages that guide the storage of surplus supplies in Metropolitan's storage portfolio. Deliveries for storage in the DVL and in the SWP terminal reservoirs continue through each surplus stage provided there is available storage capacity. Withdrawals from DVL for regulatory purposes or to meet seasonal demands may occur in any stage. Deliveries to other storage facilities may be interrupted, depending on the amount of the surplus.

Shortage Stages

The WSDM Plan distinguishes between Shortages, Severe Shortages, and Extreme Shortages. Within the WSDM Plan, these terms have specific meaning relating to Metropolitan's ability to deliver water to its customers.

Shortage: Metropolitan can meet full-service demands and partially meet or fully meet interruptible demands, using stored water or water transfers as necessary.

Severe Shortage: Metropolitan can meet full-service demands only by using stored water, transfers, and possibly calling for extraordinary conservation. In a Severe Shortage, Metropolitan may have to curtail Interim Agricultural Water Program deliveries.

Extreme Shortage: Metropolitan must allocate available supply to full-service customers.

The WSDM Plan also defines seven shortage management stages to guide resource management activities. These stages are not defined merely by shortfalls in imported water supply, but also by the water balances in Metropolitan's storage programs. Thus, a ten percent shortfall in imported supplies could be a stage one shortage if storage levels are high. If storage levels are already depleted, the same shortfall in imported supplies could potentially be defined as a more severe shortage.

When Metropolitan must make net withdrawals from storage to meet demands, it is considered to be in a shortage condition. Under most of these stages, it is still able to meet all end-use demands for water. For shortage stages 1 through 4, Metropolitan will meet demands by withdrawing water from storage. At shortage stages 5 through 7, Metropolitan may undertake additional shortage management steps, including issuing public calls for extraordinary conservation, considering curtailment of Interim Agricultural Water Program deliveries in accordance with their discounted rates, exercising water transfer options, or purchasing water on the open market.

Figure 2-2 shows the actions under surplus and shortage stages when an allocation plan would be necessary to enforce mandatory cutbacks. The overriding goal of the WSDM Plan is to never reach Shortage Stage 7, an Extreme Shortage.

At shortage stage 7 Metropolitan will implement its Water Supply Allocation Plan[4] (WSAP) to allocate available supply fairly and efficiently to full-service customers.

Water Supply Allocation Plan

In February 2008 Metropolitan's Board adopted the WSAP. The WSAP includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering an allocation.

The WSAP was developed in consideration of the principles and guidelines described in the

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[4] Metropolitan Water District of Southern California, Water Supply Allocation Plan, June 2009.

WSDM Plan, with the objective of creating an equitable needs-based allocation. The WSAP formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of Metropolitan supplies of up to 50 percent. The formula takes into account growth, local investments, changes in supply conditions and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs.

Water Supply Allocation Plan Development

Between July 2007 and February 2008, Metropolitan staff worked jointly with Metropolitan's member agencies to develop the WSAP. Throughout the development process Metropolitan's Board was provided with regular progress reports on the status of the WSAP The WSAP was adopted at the February 12, 2008 Board meeting.

The WSAP Formula

The WSAP formula is calculated in three steps: base period calculations, allocation year calculations, and supply allocation calculations. The first two steps involve standard computations, while the third step contains specific methodology developed for the WSAP.

Step 1: Base Period Calculations

The first step in calculating a water supply allocation is to estimate water supply and demand using a historical base period with established water supply and delivery data. The base period for each of the different categories of demand and supply is calculated using data from the three most recent non-shortage years, 2004-2006.

Step 2: Allocation Year Calculations

The next step in calculating the water supply allocation is estimating water needs in the allocation year. This is done by adjusting the base period estimates of retail demand for population or economic growth and changes in local supplies.

Step 3: Supply Allocation Calculations

The final step is calculating the water supply allocation for each member agency based on the allocation year water needs identified in Step 2. Each element and its application in the allocation formula is discussed in detail in Metropolitan's Water Supply Allocation Plan.[5]

Annual Reporting Schedule on Supply/ Demand Conditions

Managing Metropolitan's water supply resources to minimize the risk of shortages requires timely and accurate information on changing supply and demand conditions throughout the year. To facilitate effective resource management decisions, the WSDM Plan includes a monthly schedule for providing supply/demand information to Metropolitan's senior management and Board, and for making resource allocation decisions. Table 2-12 shows this schedule.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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[5] Metropolitan Water District of Southern California, Water Supply Allocation Plan, June 2009.

Figure 2-2 Resource Stages, Anticipated Actions, And Supply Declarations

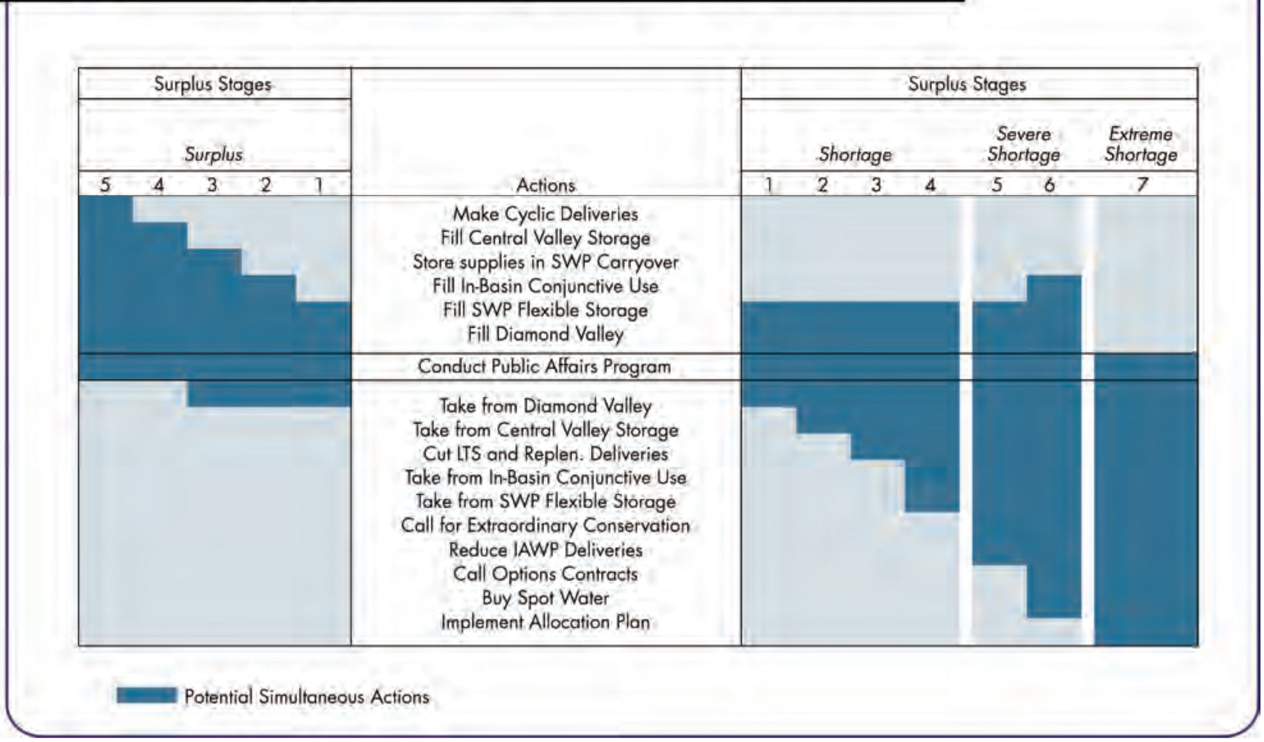

Table 2-12
Schedule of Reporting and Resource Allocation Decision-Making

Month	Information Report/Management Decision
January	Initial supply/demand forecasts for year
February - March	Update supply/demand forecasts for year
April - May	Finalize supply/demand forecasts Management decisions re: Contractual Groundwater and Option Transfer Programs Board decision re: Need for Extraordinary Conservation
October - December	Report on Supply and Carryover Storage
October	Management decisions re: Delivery Interruptions for the Replenishment and Interim Agricultural Water Programs

2.5 Catastrophic Supply Interruption Planning

The third type of planning needed to evaluate supply reliability is a catastrophic supply interruption plan that documents the actions necessary for a catastrophic interruption in water supplies. For Metropolitan this planning is captured in the analysis that went into developing the Emergency Storage Requirements.

Emergency Storage Requirements

Metropolitan established its criteria for determining emergency storage requirements in the October 1991 Final Environmental Impact Report for the Eastside Reservoir, which is now named Diamond Valley Lake. These criteria were again discussed in the 1996 IRP. Metropolitan's Board has approved both of these documents.

Emergency storage requirements are based on the potential of a major earthquake damaging the aqueducts that transport Southern California's imported water supplies (SWP, CRA, and Los Angeles Aqueduct). The adopted criteria assume that damage from such an event could render the aqueducts out of service for six months. Therefore, Metropolitan has based its planning on a 100 percent reduction in its supplies for a period of six months, which is a greater shortage than required by the Act.

To safeguard the region from catastrophic loss of water supply, Metropolitan has made substantial investments in emergency storage. The emergency plan outlines that under such a catastrophe, non-firm service deliveries would be suspended, and firm supplies to member agencies would be restricted by a mandatory cutback of 25 percent from normal-year demand levels. At the same time, water stored in surface reservoirs and groundwater basins under Metropolitan's interruptible program would be made available, and Metropolitan would draw on its emergency storage, as well as other available storage. Metropolitan has reserved up to half of DVL storage to meet such an emergency, while the remainder is available for dry-year and seasonal supplies. In addition, Metropolitan has access to emergency storage at its other reservoirs, at the SWP terminal reservoirs, and in its groundwater conjunctive use storage accounts. With few exceptions, Metropolitan can deliver this emergency supply throughout its service area via gravity, thereby eliminating dependence on power sources that could also be disrupted by a major earthquake. The WSDM Plan shortage stages will guide Metropolitan's management of available supplies and resources during the emergency to minimize the impacts of the catastrophe.

Electrical Outages

Metropolitan has also developed contingency plans that enable it to deal with both planned and unplanned electrical outages. These plans include the following key points:

- In event of power outages, water supply can be maintained by gravity feed from regional reservoirs such as DVL, Lake Mathews, Castaic Lake and Silverwood Lake.
- Maintaining water treatment operations is a key concern. As a result, all Metropolitan treatment plants have backup generation sufficient to continue operating in event of supply failure on the main electrical grid.
- Valves at Lake Skinner can be operated by the backup generation at the Lake Skinner treatment plant.
- Metropolitan owns mobile generators that can be transported quickly to key locations if necessary.

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2.6 Other Supply Reliability Risks

Metropolitan provides water to a broad and heterogeneous service area with water supplies from a variety of sources and geographic regions. Each of these demand areas and supplies has its own unique set of benefits and challenges. Among the challenges Metropolitan faces are the following:

Supplies

- The region and Colorado River Basin have been experiencing drought conditions for multiple years.
- Endangered species protections and conveyance needs in the Sacramento-San Joaquin River Delta System have resulted in operational constraints particularly important because pumping restrictions impact many water resource programs – SWP supplies and additional voluntary transfers, Central Valley storage and transfers, in-region groundwater storage and in-region surface water storage.
- Changing climate patterns are predicted to shift precipitation patterns and possibly affect water supply.
- Difficulty and implications of environmental review, documentation, and permitting for multi-year transfer agreements, recycled water projects and seawater desalination plants.
- Public perception of recycled water use for replenishment.

Operations and Water Quality

- The cost and use of energy and greenhouse gas emissions.
- Water quality regulations and issues like the quagga mussels within the Colorado River Aqueduct. Controlling the spread and impacts of the quagga mussels will require more extensive maintenance and reduced operational flexibility.
- Salt and concentrate balance from variety of sources.

Demand

- Uncertain population and economic growth
- Uncertain location of growth
- Uncertain housing stock and density

The challenges posed by continued population growth, environmental constraints on the reliability of imported supplies, and new uncertainties imposed by climate change demand that Metropolitan assert the same level of leadership and commitment to taking on large-scale regional solutions to providing water supply reliability. New solutions are available in the form of dramatically improved water-use efficiency, indirect potable use of recycled water, and large-scale application of ocean desalinization.

Climate Change

Climate change adds its own new uncertainties to the challenges of planning. Metropolitan's water supply planning has been fortunate in having almost one-hundred years of hydrological data regarding weather and water supply. This history of rainfall data has provided a sound foundation for forecasting both the frequency and the severity of future drought conditions, as well as the frequency and abundance of above-normal rainfall. But, weather patterns can be expected to shift dramatically and unpredictably in a climate driven by increased concentrations of carbon dioxide in the atmosphere, as experienced in Australia. These changes in weather significantly affect water supply planning, irrespective of the debate associated with the sources and cause of increasing concentrations of greenhouse gasses. As a major steward of the region's water supply resources, Metropolitan is committed to performing its due diligence with respect to climate change.

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Potential Impacts

While uncertainties remain regarding the exact timing, magnitude, and regional impacts of these temperature and precipitation changes, researchers have identified several areas of concern for California water planners. These include:

- Reduction in Sierra Nevada snowpack;
- Increased intensity and frequency of extreme weather events; and
- Rising sea levels resulting in
  - Increased risk of damage from storms, high-tide events, and the erosion of levees; and
  - Potential pumping cutbacks on the SWP and Central Valley Project (CVP).

Other important issues of concern due to global climate change include:

- Effects on local supplies such as groundwater;
- Changes in urban and agricultural demand levels and patterns ;
- Impacts to human health from water-borne pathogens and water quality degradation;
- Declines in ecosystem health and function; and
- Alterations to power generation and pumping regimes.

Metropolitan's Activities Related to Climate Change Concerns

An extended Colorado River drought put climate change on Metropolitan's radar screen in the mid-1990s. In 2000, Metropolitan's Board received a briefing on the potential impacts of climate change on water supply by leading experts in the field. Metropolitan then hosted a California Water Plan meeting on climate change and a held Drought Preparedness Workshop on similar issues. In March 2002, the Board adopted policy principles on global climate change as related to water resource planning. The Principles stated in part that 'Metropolitan supports further research into the potential water resource and quality effects of global climate change, and supports flexible "no regret" solutions that provide water supply and quality benefits while increasing the ability to manage future climate change impacts.'

<u>Knowledge Sharing and Research Support</u>
Metropolitan is an active and founding member of the Water Utility Climate Alliance (WUCA). WUCA consists of ten nationwide water providers collaborating on climate change adaptation and green house gas mitigation issues. As a part of this effort, WUCA pursues a variety of activities on multiple fronts.

WUCA monitors development of climate change-related research, technology, programs and federal legislation. Activities to date include such things as:

- Letter of support for Western Water Assessment's continued funding as a Regional Integrated Sciences and Assessments team under the National Oceanic and Atmospheric Administration (NOAA)
- Letter of support for the 2009 Kerry-Boxer Water Utilities Mitigation and Adaptation Partnerships congressional bill addendum
- Regular communication and consultations with federal agencies on the U.S. Environmental Protection Agency's Climate Ready Water Utility Working Group
- NOAA Climate Service and January 2010 International Climate Change Forum

In addition to supporting federal and regional efforts, WUCA released a white paper entitled "Options for Improving Climate Modeling to Assist Water Utility Planning for Climate Change" in January 2010. The purpose of this paper was to assess Global Circulation Models, identify key aspects for water utility planning and make seven initial recommendations for how climate modeling and downscaling techniques can be improved so that these tools and techniques can be more useful for the water sector.

In order to address water provider-specific needs, WUCA has focused not only on climate change science and Global Circulation Models, but on how best to incorporate that knowledge into water planning. This was explored more thoroughly in a second January 2010 white paper on decision support methods for incorporating climate change uncertainty into water planning. This paper assessed five known decision support approaches for applicability in incorporating Climate Change uncertainty in water utility planning and identified additional research needs in the area of decision support methodologies.

In addition to these efforts, the member agencies of WUCA annually share individual agency actions to mitigate greenhouse gas emissions to facilitate further implementation of these programs. At a September 2009 summit at the Aspen Global Change Institute WUCA, members met with global climate modelers, along with federal agencies, academic scientists, and climate researchers to establish collaborative directions to progress climate science and modeling efforts. WUCA continues to pursue these opportunities and partnerships with water providers, climate scientists, federal agencies, research centers, academia and key stakeholders.

Metropolitan also continues to pursue knowledge sharing and research support activities outside of WUCA. Metropolitan regularly provides input and direction on California legislation related to climate change issues. Metropolitan is active in collaborating with other state and federal agencies, as well as non-governmental organizations on climate change related planning issues. The following list provides a sampling of entities that Metropolitan has recently worked with on a collaborative basis:

- U.S. Bureau of Reclamation
- U.S. Army Corps of Engineers
- American Water Works Association Research Foundation
- National Center for Atmospheric Research
- California Energy Commission
- California Department of Water Resources

<u>Quantification of Current Research</u>

Metropolitan continues to incorporate current climate change science into its planning efforts. A major component of the current IRP update effort is to explicitly reflect uncertainty in Metropolitan’s future water management environment. This involves evaluating a wider range of water management strategies, and seeking robust and adaptive plans that respond to uncertain conditions as they evolve over time, and that ultimately will perform adequately under a wide range of future conditions. The potential impacts and risks associated with climate change, as well as other major uncertainties and vulnerabilities, will be incorporated into the update and accounted. Overall, Metropolitan’s planning activities strive to support the Board adopted policy principles on climate change by:

- Supporting reasonable, economically viable, and technologically feasible management strategies for reducing impacts on water supply
- Supporting flexible “no regret” solutions that provide water supply and quality benefits while increasing the ability to manage future climate change impacts, and

- Evaluating staff recommendations regarding climate change and water resources against the California Environmental Quality Act (CEQA) to avoid adverse effects on the environment.

Implementation of Programs and Policies
Metropolitan has made great efforts to implement greenhouse gas mitigation programs and policies for its facilities and operations. To date, these programs and policies have focused on:

- Exploring water supply/energy relationships and opportunities to increase efficiencies;
- Joining the California Climate Action Registry;
- Acquiring "green" fleet vehicles, and supporting an employee Rideshare program;
- Developing solar power at the Skinner water treatment plant; and
- Identifying and pursuing development of "green" renewable water and energy programs that support the efficient and sustainable use of water.

Metropolitan also continues to be a leader in efforts to increase regional water use efficiency. Metropolitan has worked to increase the availability of incentives for local conservation and recycling projects, as well as supporting conservation Best Management Practices for industry and commercial businesses.

2.7 Pricing and Rate Structures

Revenue Management

A high proportion of Metropolitan's revenues come from volumetric water rates; during the last five fiscal years through 2008-09, water sales revenues were approximately 75 percent of Metropolitan's total revenues. As a result, Metropolitan's revenues vary according to regional weather and the availability of statewide water supplies. In dry years, local demands increase and Metropolitan may receive higher than anticipated revenues due to increased sales volumes. In contrast, in wet years demands decrease, and revenues drop due to lower sales volumes. In addition, statewide supply shortages such as those in 1991 and 2009 also affect Metropolitan's revenues. Such revenue surpluses and shortages could cause instability in water rates. To mitigate this risk, Metropolitan maintains financial reserves, with a minimum and maximum balance, to stabilize water rates during times of reduced water sales. The reserves hold revenues collected during times of high water sales and are used to offset the need for revenues during times of low sales.

Another way to mitigate rate increases is by generating a larger portion of revenues from fixed sources. Metropolitan currently has two fixed charges, the Readiness-to-Serve Charge and the Capacity Charge. Metropolitan also collects tax revenue from taxable property within its boundaries. For the last five fiscal years the revenues from fixed charges generated almost 18 percent of all Metropolitan revenues. RTS revenues have been increasing gradually, from $80 million in 2007, to $114 million in 2010, $125 million in 2011, and $146 million in 2012.

Finally, Metropolitan generates a significant amount of revenue from interest income, hydroelectric power sales, and miscellaneous income such as rents and leases. For the last five fiscal years, these averaged almost 7 percent of all Metropolitan revenues. These internally generated revenues are referred to as revenue offsets and reduce the amount of revenue that has to be collected from rates and charges.

Elements of Rate Structure

This section provides an overview of Metropolitan's rate structure. The different elements of the rate structure are discussed below and summarized in Table 2-13.

System Access Rate (SAR)

The SAR is a volumetric system-wide rate levied on each acre-foot of water that moves through the Metropolitan system. All system users (member agency or third party) pay the SAR to use Metropolitan's conveyance and distribution system. The SAR recovers the cost of providing conveyance and distribution capacity to meet average annual demands.

Water Stewardship Rate (WSR)

The WSR recovers the costs of providing financial incentives for existing and future investments in local resources including conservation and recycled water. These investments or incentive payments are identified as the "demand management" service function in the cost of service process. The WSR is a volumetric rate levied on each acre-foot of water that moves through the Metropolitan system.

System Power Rate (SPR)

The SPR recovers the costs of energy required to pump water to Southern California through the SWP and Colorado River Aqueduct. The cost of power is recovered through a uniform volumetric rate. The SPR is applied to all deliveries to member agencies.

Treatment Surcharge

The treatment surcharge recovers the costs of providing treated water service through a uniform, volumetric rate. The treatment surcharge recovers all costs associated with providing treated water service, including commodity, demand and standby related costs.

Capacity Charge

The capacity charge is levied on the maximum summer day demand placed on the system between May 1 and September 30 for a three-calendar year period. Demands measured for the purposes of billing the capacity charge include all firm demand and agricultural demand, including wheeling service and exchanges. Replenishment service is not included in the measurement of peak day demand for purposes of billing the capacity charge.

The capacity charge is intended to pay for the cost of peaking capacity on Metropolitan's system, while providing an incentive for local agencies to decrease their use of the Metropolitan system to meet peak day demands and to shift demands into lower use time periods. Over time, a member agency will benefit from local supply investments and operational strategies that reduce its peak day demand on the system in the form of a lower total capacity charge.

Readiness-To-Serve Charge (RTS)

The costs of providing standby service, including emergency storage and those standby costs related to the conveyance and aqueduct system, are recovered by the RTS.

The RTS is allocated to the member agencies based on each agency's proportional share of a ten-year rolling average of all firm deliveries (including water transfers and exchanges that use Metropolitan system capacity). The ten-year rolling average does not include replenishment service and interim agricultural deliveries because these deliveries will be the first to be curtailed in the event of an emergency. A ten-year rolling average leads to a relatively stable RTS allocation that reasonably represents an agency's potential long-term need for standby service under different demand conditions. Member agencies may choose to have a portion of their total RTS obligation offset by standby charge collections levied by Metropolitan on behalf of the member agency. These standby charges are assessed on parcels of land within the boundaries of a given member agency.

Tier 1 Supply Rate

The costs of maintaining existing supplies and developing additional supplies are recovered through a two-tiered pricing approach. The Tier 1 Supply Rate recovers the majority of the supply costs and reflects the cost of existing supplies. Each member agency has a predetermined amount of water that can be purchased at the lower Tier 1 Supply Rate in a calendar year. Purchases in excess of this limit will be made at the higher Tier 2 Supply Rate.

The Tier 1 Supply rate includes a Delta Supply Surcharge of $69 per AF in 2010, $51 per AF in 2011 and $58 per AF in 2012. This surcharge reflects the impact on Metropolitan's water supply rates due to lower deliveries from the SWP as a result of pumping restrictions designed to protect endangered fish species. The Delta Supply Surcharge will remain in effect until a long-term solution for the delta was achieved or until interim facility improvements restore SWP yield.

Tier 2 Supply Rate

The Tier 2 Supply Rate reflects Metropolitan's cost of developing long-term firm supplies. The Tier 2 Supply Rate recovers a greater proportion of the cost of developing additional supplies from member agencies that have increasing demands on the Metropolitan system.

Replenishment Program and Agricultural Water Program

Metropolitan currently administers two pricing programs that make surplus system supplies (system supplies in excess of what is needed to meet consumptive municipal and industrial demands) available to the member agencies at a discounted water rate. The Replenishment Program provides supplies, when available, for the purpose of replenishing local storage. The Interim Agricultural Water Program (IAWP) makes surplus water available for agricultural purposes. In October 2008, the Board approved a phase out of the IAWP by 2013. Because of the critically dry conditions and uncertainty about future supply, discounted replenishment deliveries have been curtailed for the past three years. If water supply conditions improve and surplus water becomes available, Metropolitan could make Replenishment service available to its member agencies at discounted rates, subject to meeting Metropolitan's storage objectives to meet full service demands.

Table 2-13
Rate Structure Components

Rate Design Elements	Service Provided/ Costs Recovered	Type of Charge
System Access Rate	Conveyance/Distribution (Average Capacity)	Volumetric ($/AF)
Water Stewardship Rate	Conservation/Local Resources	Volumetric ($/AF)
System Power Rate	Power	Volumetric ($/AF)
Treatment Surcharge	Treatment	Volumetric ($/AF)
Capacity Charge	Peak Distribution Capacity	Fixed/Volumetric ($/cfs)
Readiness-To-Serve Charge	Conveyance/Distribution/Emergency Storage(Standby Capacity)	Fixed ($Million)
Tier 1 Supply Rate	Supply	Volumetric/Fixed ($/AF)
Tier 2 Supply Rate	Supply	Volumetric ($/AF)
Surplus Water Rates	Replenishment/Agriculture	Volumetric ($/AF)

The following tables provide further information regarding Metropolitan's rates. Table 2-14 summarizes the rates and charges effective January 1, 2010, January 1, 2011, and January 1, 2012. Average costs by member agency will vary depending upon an agency's RTS allocation, Capacity Charge and relative proportions of treated and untreated Tier 1, Tier 2, replenishment, and agricultural water purchases. Table 2-15 provides the details of the Capacity Charge, calculated for calendar year 2011.

Table 2-16 provides the details of the Readiness-to-Serve Charge calculation for calendar year 2011 broken down by member agency. Table 2-17 provides the current Purchase Order commitment quantities that member agencies will purchase from Metropolitan over the 10-year period starting January 2003 through December 2012. Tier 1 limits for each member agency are also shown in this table.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table 2-14
Metropolitan Water Rates and Charges

Effective	Jan 1, 2010	Jan 1, 2011	Jan 1, 2012
Tier 1 Supply Rate ($/AF)	$101	$104	$106
Delta Supply Surcharge ($/AF)	$69	$51	$58
Tier 2 Supply Rate ($/AF)	$280	$280	$290
System Access Rate ($/AF)	$154	$204	$217
Water Stewardship Rate ($/AF)	$41	$41	$43
System Power Rate ($/AF)	$119	$127	$136
Full Service Untreated Volumetric Cost ($/AF)			
Tier 1	$484	$527	$560
Tier 2	$594	$652	$686
Replenishment Water Rate Untreated ($/AF)	$366	$409	$442
Interim Agricultural Water Program Untreated ($/AF)	$416	$482	$537
Treatment Surcharge ($/AF)	$217	$217	$234
Full Service Treated Volumetric Cost ($/AF)			
Tier 1	$701	$744	$794
Tier 2	$811	$869	$920
Treated Replenishment Water Rate ($/AF)	$558	$601	$651
Treated Interim Agricultural Water Program ($/AF)	$615	$687	$765
Readiness-to-Serve Charge ($M)	$114	$125	$146
Capacity Charge ($/cfs)	$7,200	$7,200	$7,400

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Table 2-15
Capacity Charge Detail

	Peak Day Demand (cfs) (May 1 through September 30) Calendar Year				
Agency	**2007**	**2008**	**2009**	**3-Year Peak**	**Calendar Year 2011 Capacity Charge ($7,200/cfs)**
Anaheim	37.9	36.1	40.7	40.7	$ 293,040
Beverly Hills	33.9	32.9	31.0	33.9	244,080
Burbank	33.7	34.2	21.6	34.2	246,240
Calleguas	260.8	250.0	192.8	260.8	1,877,760
Central Basin	125.9	102.7	94.7	125.9	906,480
Compton	7.1	4.9	5.9	7.1	51,120
Eastern	303.0	263.1	227.8	303.0	2,181,600
Foothill	25.4	21.5	24.3	25.4	182,880
Fullerton	36.9	27.1	37.4	37.4	269,280
Glendale	54.6	55.7	56.0	56.0	403,200
Inland Empire	176.2	125.8	106.1	176.2	1,268,640
Las Virgenes	45.3	45.3	42.7	45.3	326,160
Long Beach	61.3	68.1	67.2	68.1	490,320
Los Angeles	768.5	821.9	698.2	821.9	5,917,680
MWDOC	469.2	453.7	489.5	489.5	3,524,400
Pasadena	58.5	55.6	50.2	58.5	$421,200
San Diego [1]	1278.4	1039.9	1055.3	1278.4	9,204,480
San Fernando	6.5	0.1	0.0	6.5	$46,800
San Marino	5.2	5.2	3.5	5.2	$37,440
Santa Ana	29.7	14.5	16.4	29.7	213,840
Santa Monica	27.6	26.2	25.0	27.6	198,720
Three Valleys	171.4	168.1	132.7	171.4	1,234,080
Torrance	41.6	35.5	39.3	41.6	299,520
Upper San Gabriel	63.8	36.9	27.6	63.8	459,360
West Basin	262.3	243.3	221.3	262.3	1,888,560
Western	289.1	271.4	219.9	289.1	2,081,520
Total	**4,673.8**	**4,239.7**	**3,927.1**	**4,759.5**	**$ 34,268,400**

Totals may not foot due to rounding

Table 2-16

Readiness-to-Serve Charge (by Member Agency)
Calendar Year 2011 RTS charge

Member Agency	Rolling Ten-Year Average Firm Deliveries (Acre-Feet) FY1999/00 - FY2008/09	RTS Share	12 months @ $125 million per year (1/11-12/11)
Anaheim	20,966	1.11%	$ 1,382,122
Beverly Hills	12,737	0.67%	839,692
Burbank	12,908	0.68%	850,938
Calleguas MWD	113,610	5.99%	7,489,554
Central Basin MWD	63,256	3.34%	4,170,058
Compton	3,146	0.17%	207,408
Eastern MWD	92,013	4.85%	6,065,789
Foothill MWD	11,570	0.61%	762,706
Fullerton	9,694	0.51%	639,087
Glendale	24,150	1.27%	1,592,015
Inland Empire Utilities Agency	61,205	3.23%	4,034,823
Las Virgenes MWD	23,282	1.23%	1,534,813
Long Beach	36,970	1.95%	2,437,211
Los Angeles	314,757	16.60%	20,749,798
Municipal Water District of Orange County	231,692	12.22%	15,273,878
Pasadena	23,397	1.23%	1,542,428
San Diego County Water Authority	491,238	25.91%	32,384,010
San Fernando	119	0.01%	7,819
San Marino	1,001	0.05%	65,963
Santa Ana	12,743	0.67%	840,028
Santa Monica	12,794	0.67%	843,429
Three Valleys MWD	73,095	3.85%	4,818,678
Torrance	20,742	1.09%	1,367,401
Upper San Gabriel Valley MWD	15,631	0.82%	1,030,447
West Basin MWD	141,522	7.46%	9,329,606
Western MWD	71,906	3.79%	4,740,301
MWD Total	**1,896,143**	**100.00%**	**$ 125,000,000**

Totals may not foot due to rounding

Table 2-17
Purchase Order Commitments and Tier 1 Limits
(by Member Agency)

	2011 Tier 1 Limit with Opt-outs	Purchase Order Commitment (acre-feet)
Anaheim	22,240	148,268
Beverly Hills	13,380	89,202
Burbank	16,336	108,910
Calleguas	110,249	692,003
Central Basin	72,361	482,405
Compton	5,058	33,721
Eastern	87,740	504,664
Foothill	10,997	73,312
Fullerton	11,298	75,322
Glendale	26,221	174,809
Inland Empire	59,792	398,348
Las Virgenes	21,087	137,103
Long Beach	39,471	263,143
Los Angeles	304,970	2,033,132
MWDOC	228,130	1,486,161
Pasadena	21,180	141,197
San Diego	547,239	3,342,571
San Fernando	630	-
San Marino	1,199	-
Santa Ana	12,129	80,858
Santa Monica	11,515	74,062
Three Valleys	70,474	469,331
Torrance	20,967	139,780
Upper San Gabriel	16,512	110,077
West Basin	156,874	1,045,825
Western	69,720	391,791
Total	**1,957,768**	**12,495,995**

Totals may not foot due to rounding.

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Implementing the Plan

3

The result of the recent strategic review process reveals a broader view of Metropolitan's role in comprehensive planning and implementation for regional reliability. As Metropolitan continues to deal with current and emerging concerns on changing trends in climate, cost and use of energy, endangered species protections, and conveyance issues in the Sacramento-San Joaquin River Delta System , the need for a robust and flexible water supply planning and implementation that can quickly adapt to variations in future trends becomes evident. Metropolitan's current strategy of implementing an adaptive resource development plan for the future will provide the most benefit for the region. What emanates from this adaptive strategy is a Metropolitan that can adopt alternative roles, including that of an enhanced water importer, local supply funder, and project developer; and a Metropolitan that can respond to changing regional conditions that ultimately will perform efficiently under a wide range of possible future conditions.

This section summarizes Metropolitan's implementation plans and continued progress in developing a diversified resource mix that enables the region to meet its water supply needs. The investments that Metropolitan has made and its on-going efforts in many different areas coalesce toward its goal of long-term regional water supply reliability. Many of the resource programs discussed are already successfully implemented. Others, including institutional and facility changes in the Colorado River region and the SWP, will take more time to execute. Considerations are also in place for emerging integrated supplies, which could augment sources of regional water supply from non-traditional sources. In addition, water demand reductions brought about by legislative mandates could also affect the landscape of future supply planning and implementation. The following sections discuss each of these programs, presenting both successes to date and the programs that are still under way.

3.1 Colorado River Aqueduct

Metropolitan continues to pursue Colorado River Aqueduct (CRA) supplies of 1.2 MAF per year. However, over the years, a number of constraints have developed that restrict Metropolitan's access to Colorado River supplies. As a result, Metropolitan adopted a revised policy of utilizing the full capacity of the CRA when needed through the basic apportionment and various water banking and acquisition programs. This water will help Metropolitan manage regional storage conditions and water quality.

Metropolitan was established to obtain an allotment of Colorado River water, and its first mission was to construct and operate the CRA. Under its contracts with the federal government, Metropolitan has a basic entitlement of 550 TAF per year of Colorado River water. Metropolitan also holds a fifth priority for an additional 662 TAF per year that exceeds California's 4.4 MAF per year basic apportionment, and another 180 TAF per year when surplus flows are available. Metropolitan can obtain water under the fifth priority from:

- Water unused by the California holders of priorities 1 through 3
- Water saved by the Palo Verde land management, crop rotation, and water supply program, or
- When the U.S. Secretary of the Interior makes available either or both:
  - Surplus water, and
  - Water apportioned to, but unused by, Arizona and/or Nevada.

Background

To satisfy a condition imposed by Congress in the Boulder Canyon Project Act, California's legislature enacted the Limitation Act in 1929 agreeing to limit consumptive use of Colorado River water to 4.4 MAF per year, plus not more than one-half of any excess or surplus waters unapportioned by the Colorado River Compact. The 1931 Seven Party Agreement provides the basis for the priorities among California's contractors to use of Colorado River water made available to California. Palo Verde Irrigation District (PVID), the Yuma Project (Reservation Division), Imperial Irrigation District (IID), and Coachella Valley Water District (CVWD), collectively the "agricultural entities"), and Metropolitan are the entities that currently hold the priorities. These priorities are included in the contracts that the Department of the Interior executed with the California agencies in the 1930s for delivery of water from Lake Mead. The first four priorities total the 4.4 MAF per year available to California. Metropolitan has the fourth priority to California's basic apportionment and the fifth priority to 662 TAF per year. Under Priorities 1 through 3, an amount not to exceed 3.85 MAF was apportioned to the agricultural entities for beneficial consumptive use. The Seven Party Agreement did not specify individual quantities for each of the first three priorities; rather, the amount of water available under the third priority was limited to the amount unused by the holders of priorities 1 and 2 on designated areas of land. This lack of quantification among the agricultural priorities posed an obstacle to the acquisition of water from the agricultural entities for use in Metropolitan's service area.

The Consolidated Decree of the U.S. Supreme Court in Arizona v. California, preceded by a 1964 decree, confirmed the allocation of 4.4 MAF per year to California. This limit reduced Metropolitan's dependable supply of Colorado River water to its fourth priority amount of 550 TAF per year. For a period following the Court's ruling, Metropolitan's fifth priority rights were satisfied with water allocated to Arizona and Nevada which they did not use. With the commencement of Colorado River water deliveries to the Central Arizona Project in 1985, the availability of Colorado River water to meet Metropolitan's Consolidated Decree, preceded by a 1979 decree, also quantifies present perfected rights (PPRs) to the use of Colorado River water by certain Indian reservations, federal wildlife refuges, and other users. Since 1985, these PPR holders have used less than 20 TAF annually. Some but not all of these PPR's are encompassed by the Seven Party Agreement. Consumptive use under these non-encompassed PPRs, known as "Miscellaneous and Indian PPRs," could reach as much as 61 TAF annually. Because over 5.362 MAF of Colorado River water were already allocated by California's Seven Party Agreement, it was not clear which rights would be affected by the use of these non-encompassed PPRs.

At that time, no formal guidelines existed to determine whether surplus water would be available. Decisions regarding surplus water availability were to be made at the discretion of the Secretary of the Interior. As a result, the year-to-year availability of Colorado River water to Metropolitan was uncertain beginning in 1985.

Figure 3-1 shows the major aqueducts within southern California including those from the Colorado River, and the entities within the state having rights to the use of more than 5.362 MAF of water from the Colorado River.

Figure 3-1

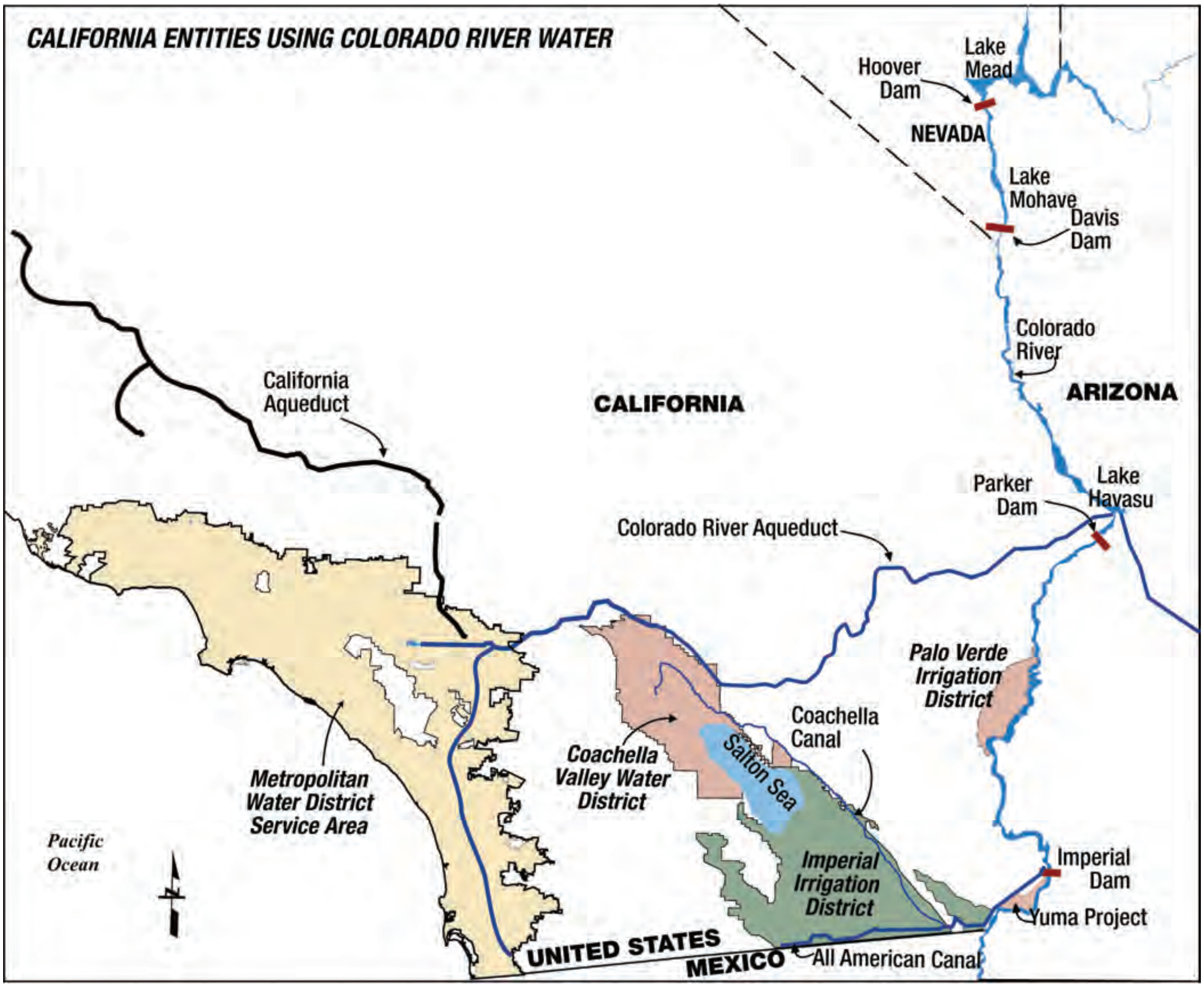

Changed Conditions

Metropolitan and the State of California acknowledged that Metropolitan would obtain less water from the Colorado River in the future than Metropolitan had in the past, but the lack of clearly quantified water rights hindered efforts to promote water management projects. The Secretary of the Interior asserted that California's users of Colorado River water had to limit their use to a total of 4.4 MAF per year, plus any available surplus water. Under the auspices of the state's Colorado River Board, these users developed a draft plan to resolve the problem, which was known as "California's Colorado River Water Use Plan" or the "California Plan." It characterized how California would develop a combination of programs to allow the state to limit its annual use of Colorado River water to 4.4 MAF per year plus any available surplus water. The 2003 Quantification Settlement Agreement (QSA) among IID, CVWD and Metropolitan is a critical component of the California Plan. It establishes the baseline water use for each of the agencies and facilitates the transfer of water from agricultural agencies to urban uses, and specifies that IID, CVWD, and Metropolitan would forbear use of water to permit the Secretary of the Interior to satisfy the uses of the non-encompassed PPRs.

On November 5, 2003, IID filed a validation action in Imperial County Superior Court, seeking a judicial determination that thirteen agreements associated with the IID/SDCWA water transfer and the QSA are valid, legal and binding. Other lawsuits also were filed challenging the execution, approval and subsequent implementation of the QSA on various grounds. All of the QSA cases were coordinated in Sacramento County Superior Court. After a number of pleading challenges, appeal of rulings dismissing one Imperial County case and dismissing portions of another, and pretrial rulings, the first phase of trial began on November 9, 2009, and concluded on December 2, 2009. One of the key issues was the constitutionality of the QSA Joint Powers Authority Agreement, pursuant to which IID, CVWD, and SDCWA agreed to commit $133 million toward certain mitigation costs associated with implementation of the transfer of 300 TAF of water conserved by IID pursuant to the QSA, and the State agreed to be responsible for any mitigation costs exceeding this amount. A final judgment was issued on February 11, 2010, holding that the State's commitment was unconditional in nature and, as such, violated the State's debt limitation under the California Constitution, and that eleven other agreements, including the QSA, also are invalid because they are inextricably interrelated with the QSA Joint Powers Authority Agreement and the funding mechanism it established to cover such mitigation costs. The court also ruled that all other claims raised by the parties, including CEQA claims related to the QSA Programmatic EIR and the IID Transfer Project EIR, are moot.

Metropolitan, CVWD and SDCWA have filed appeals of the court's decision, which will stay the ruling pending outcome of the appeal. If the ruling stands, it could delay the implementation of programs authorized under the QSA or result in increased costs or other adverse impacts. The impact, if any, that the ruling might have on Metropolitan's water supplies cannot be adequately determined at this time.

Runoff in the Colorado River Basin above Lake Powell from 2000 through 2007 was the lowest eight-year runoff on record bringing Colorado River system storage down to 50 percent of capacity. Runoff returned to near normal during 2008 through 2010 but the system storage remained slightly above 50 percent of capacity.

SDCWA is participating in two projects that are providing additional water supplies to that agency.[1] These projects are resulting in increased amounts of Colorado River water

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[1] These projects, the San Diego County Water Authority/Imperial Irrigation District transfer and the Coachella and All-American canal lining projects will be discussed in that Authority's Urban Water Management Plan.

being diverted into the CRA. In exchange, Metropolitan is delivering an amount of water equal to the amount conserved for SDCWA. Federal law allocates a portion of the water available as a result of the Coachella and All-American Canal lining projects for the benefit of parties, including five Indian Bands, involved in litigation over water rights to the San Luis Rey River in San Diego County once certain conditions have been satisfied. Metropolitan has agreed to exchange that water and provide an equal amount of water to the United States for use by the San Luis Rey Settlement Parties, and SDCWA has agreed to convey the water when capacity is available for use within the Settlement Parties' service areas. As the Settlement Parties had not satisfied the conditions required to receive the benefit of those supplies through 2009, Metropolitan has utilized this water. The remainder of the water available as a result of the canal lining projects is exchanged with SDCWA and decreases San Diego's demands on Metropolitan water supplies.

In 2005, Metropolitan entered into a settlement agreement in *Arizona v. California* with the Quechan Indian Tribe and other parties. The Tribe uses Colorado River water on the Fort Yuma Indian Reservation. Under the settlement agreement, the Tribe, in addition to the amounts of water decreed for the benefit of the Reservation in the 1964 decree, is entitled to (a) an additional 20,000 acre-feet of diversions from the Colorado River or (b) the amount necessary to supply the consumptive use required for irrigation of a specified number of acres, and for the satisfaction of related uses, whichever is less. Of the additional water, 13,000 acre-feet became available to the Tribe in 2006. An additional 7,000 acre-feet becomes available to the Tribe in 2035. Metropolitan and the Tribe agreed that if the Tribe chooses to limit proposed development and utilization of their farm lands, which would require the diversion of any of the additional water in a year, and instead allows the water which would otherwise be used to be diverted by Metropolitan, Metropolitan provides an incentive payment to the Tribe to avoid or reduce a loss of supply.

Implementation Approach

Metropolitan's planning strategy recognized explicitly that program development would play an important part in reaching the target level of deliveries from the CRA. The implementation approach explored a number of water conservation programs with water agencies that received water from the Colorado River or were located in close proximity to the CRA. Negotiating the QSA was a necessary first step for all of these programs. On October 10, 2003, after lengthy negotiations, representatives from Metropolitan, IID, and CVWD executed the QSA and other related agreements. Parties involved also included the SDCWA, the California Department of Water Resources (DWR), the California Department of Fish and Game, the U.S. Department of the Interior, and the San Luis Rey Settlement Parties. One of those related agreements was the Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement which specifies to which agencies water will be delivered under priorities 3a and 6a of the Seven Party Agreement during its term.

Metropolitan has identified a number of programs that could be used to achieve the regional long-term development targets for the CRA, as shown in Table 3-1. Metropolitan has entered into or is exploring agreements with a number of agencies as described in this section. In addition, Appendix A.3 provides a detailed discussion of these programs and describes whether the programs are being implemented, are deferred, or under investigation. In developing these supply capabilities, Metropolitan assumed a simulated median storage level going into year 2030 based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher and a 50 percent probability that storage levels would be lower than the assumption used. In addition, the storage capability used in this evaluation reflects actual storage program conveyance constraints.

Colorado River Water Management Programs

Imperial Irrigation District / Metropolitan Water District Conservation Program

Under a 1988 agreement, Metropolitan has funded water efficiency improvements within IID's service area in return for the right to divert the water conserved by those investments. Under this program, IID implemented a number of structural and non-structural measures, including the lining of existing earthen canals with concrete, constructing local reservoirs and spill-interceptor canals, installing non-leak gates, and automating the distribution system. Other implemented programs include the delivery of water to farmers on a 12-hour rather than a 24-hour basis and improvements in on-farm water management through the installation of tailwater pumpback systems, and drip irrigation systems. Through this program, Metropolitan obtained an additional 105 TAF per year, on average upon completion of program implementation. Execution of the QSA and amendments to the 1988 and 1989 agreements resulted in changes in the availability of water under the program, extending the term to 2078 if the term of the QSA extends through 2077 and guaranteeing Metropolitan at least 85 TAF per year. The remainder of the conserved water is available to CVWD.

Palo Verde Land Management, Crop Rotation, and Water Supply Program

In May 2004, Metropolitan's Board authorized a 35-year land management, crop rotation, and water supply program with PVID. Under the program, participating farmers in PVID are paid to reduce their water use by not irrigating a portion of their land. A maximum of 29 percent of the lands within the Palo Verde Valley can be fallowed in any given year. Under the terms of the QSA, water savings within the PVID service area are made available to Metropolitan. This program provides up to 133 TAF of water to be available to Metropolitan in certain years, and a minimum of 33 TAF per year. In 2005, 2006, 2007, 2008, and 2009 approximately 108.7, 105.0, 72.3, 94.3, and 120.2 TAF of water, respectively, were saved and made available to Metropolitan. In March 2009, Metropolitan and PVID entered into a one-year supplemental fallowing program within PVID that provides for the fallowing of additional acreage, with savings projected to be as much as 62 TAF. Of that total, 24.1 TAF of water was saved in 2009, with the balance to be made available in 2010.

Southern Nevada Water Authority and Metropolitan Storage and Interstate Release Agreement

Southern Nevada Water Authority (SNWA) has undertaken extraordinary water conservation measures to maintain its consumptive use within Nevada's basic apportionment of 300 TAF. The success of the conservation program has resulted in unused basic apportionment for Nevada. As SNWA expressed interest in storing a portion of the water with Metropolitan, the agencies along with the United States and the Colorado River Commission of Nevada entered into a storage and interstate release agreement in October 2004. Under the agreement, additional Colorado River water supplies are made available to Metropolitan when there is space available in the CRA to receive the water. Metropolitan has received 70 TAF through 2009. SNWA may call on Metropolitan to reduce its Colorado River water order to return this water no earlier than 2019, unless Metropolitan agrees otherwise.

Lower Colorado Water Supply Project

In March 2007, Metropolitan, the City of Needles, and the USBR executed a Lower Colorado Water Supply Project contract. Under the contract, Metropolitan receives, on an annual basis, Lower Colorado Water Supply Project water unused by Needles and other entities with no rights or insufficient rights to use of Colorado River water in California,

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

the beneficiaries of the project. A portion of the payments made by Metropolitan to Needles are placed in a trust fund for potentially acquiring a new water supply for Needles and other users of the Project should the groundwater pumped from the project's wells become too saline for use. In 2009, Metropolitan received 2.3 TAF from this project.

Lake Mead Storage Program

In May 2006, Metropolitan and the USBR executed an agreement for a demonstration program that allowed Metropolitan to leave conserved water in Lake Mead that Metropolitan would otherwise have used in 2006 and 2007. USBR would normally make unused water available to other Colorado River water users, so the program included a provision that water left in Lake Mead must be conserved through extraordinary conservation measures and not simply be water that was not needed by Metropolitan in the year it was stored. This extraordinary conservation was accomplished through savings realized under the Palo Verde Land Management, Crop Rotation, and Water Supply Program. Through the two-year demonstration program, Metropolitan created 44.8 TAF of "Intentionally Created Surplus" (ICS) water. In December 2007, Metropolitan entered into agreements to set forth the rules under which ICS water is developed, and stored in and delivered from Lake Mead. The amount of water stored in Lake Mead, created through extraordinary conservation, that is available for delivery in a subsequent year is reduced by a one-time deduction of five percent, resulting in additional system water in storage in the lake, and an annual evaporation loss, beginning in the year following the year the water is stored. Metropolitan created 55.8 TAF of ICS water through the Palo Verde Land Management, Crop Rotation, and Water Supply Program in 2009. As of January 1, 2010, Metropolitan had a total of 79.8 TAF of Extraordinary Conservation ICS water in Lake Mead.

The December 2007 federal guidelines concerning the operation of the Colorado River system reservoirs provided the ability for agencies to create "System Efficiency ICS" through the development and funding of system efficiency projects that save water that would otherwise be lost from the Colorado River. To that end, in 2008 the Central Arizona Water Conservation District (CAWCD), SNWA, and Metropolitan contributed funds for the construction of the Drop 2 Reservoir by the USBR. The purpose of the Drop 2 Reservoir is to increase the capacity to regulate deliveries of Colorado River water at Imperial Dam reducing the amount of excess flow downstream of the dam by approximately 70 TAF annually. In return for its $28.7 million contribution toward construction[2], 100 TAF of water that remains stored in Lake Mead was assigned to Metropolitan as System Efficiency ICS. As of January 1, 2010, Metropolitan had 66 TAF of System Efficiency ICS water in Lake Mead.

In 2009, Metropolitan entered into an agreement with the United States, SNWA, the Colorado River Commission of Nevada, and CAWCD to have USBR conduct a one-year pilot operation of the Yuma Desalting Plant at one-third capacity. The pilot operation began in May 2010 and is providing data for future decision making regarding long-term operation of the Plant and developing a near-term water supply. Metropolitan's contribution toward plant operating costs is expected to secure 23.2 TAF of System Efficiency ICS by 2011.

Hayfield Groundwater Storage Program

The Hayfield Groundwater Storage Program will allow CRA water to be stored in the Hayfield Groundwater Basin in east Riverside County (about 50 miles east of Palm Springs) for future withdrawal and delivery to the CRA. In June 2000, the Metropolitan Board approved the implementation of the Hayfield program and authorized storage of 800 TAF of

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[2] As of April 2010, $1.6 million is being returned to Metropolitan as construction costs are lower than estimated.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

CRA supplies when available. As of 2003, there were over 70 TAF in storage. At that time, construction of facilities for extracting the stored water began, but it was then deferred because drought conditions in the Colorado River watershed resulted in a lack of surplus supplies for storage. A prototype well was completed in August 2009. Hydrogeologic investigations indicate that conversion of the prototype well into a production well could extract as much as 5 TAF per year of previously stored water. When water supplies become more plentiful, Metropolitan may pursue this program and develop storage capacity of about 400 TAF.

Achievements to Date

Metropolitan recognizes that in the short-term, programs are not yet in place to provide the full targeted amount, even with the programs adopted under the QSA and the opportunities to store conserved water in Lake Mead. The December 2007 federal guidelines concerning the operation of the Colorado River system reservoirs provide more certainty to Metropolitan with respect to the determination of a shortage, normal, or surplus condition for the operation of Lake Mead.

Table 3-1
Colorado River Aqueduct
Program Capabilities
Year 2030
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Basic Apportionment – Priority[4]	550,000	550,000	550,000
IID/MWD Conservation Program	85,000	85,000	85,000
Priority 5 Apportionment (Surplus)	0	0	13,000
PVID Land Management, Crop Rotation, and Water Supply Program	133,000	133,000	133,000
Lower Colorado Water Supply Project	5,000	5,000	5,000
Lake Mead Storage Program	400,000	400,000	400,000
Quechan Settlement Agreement Supply	7,000	7,000	7,000
Forbearance for Present Perfected Rights	(47,000)	(47,000)	(47,000)
CVWD SWP/QSA Transfer Obligation	(35,000)	(35,000)	(35,000)
DWCV SWP Table A Obligation	(77,000)	(60,000)	(155,000)
DWCV SWP Table A Transfer Callback	41,000	32,000	82,000
DWCV Advance Delivery Account	36,000	28,000	73,000
Drop 2 Reservoir Funding	22,000	25,000	25,000
SNWA Agreement	0	0	0
Expand SNWA Agreement	0	0	0
Subtotal of Current Programs	***1,120,000***	***1,123,000***	***1,136,000***
Programs Under Development			
Additional PVID Transfers (Crop Stressing/Fallowing)	62,000	62,000	62,000
Arizona Programs - CAP	50,000	50,000	50,000
California Indians / Other Ag	10,000	10,000	10,000
ICS Exchange	25,000	25,000	25,000
Agreements with CVWD	35,000	35,000	35,000
Hayfield Groundwater Extraction Project	0	0	0
Subtotal of Proposed Programs	***182,000***	***182,000***	***182,000***
Additional Non-Metropolitan CRA Supplies			
SDCWA/IID Transfer	200,000	200,000	200,000
Coachella & All-American Canal Lining			
To SDCWA	80,000	80,000	80,000
To San Luis Rey Settlement Parties1	16,000	16,000	16,000
Subtotal of Non-Metropolitan Supplies	***296,000***	***296,000***	***296,000***
Maximum CRA Supply Capability[2]	**1,598,000**	**1,601,000**	**1,614,000**
Less CRA Capacity Constraint (amount above 1.25 MAF)	*(348,000)*	*(351,000)*	*(364,000)*
Maximum Expected CRA Deliveries[3]	**1,250,000**	**1,250,000**	**1,250,000**
Less Non-Metropolitan Supplies[4]	*(296,000)*	*(296,000)*	*(296,000)*
Maximum Metropolitan Supply Capability[5]	**954,000**	**954,000**	**954,000**

[1] Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

[2] Total amount of supplies available without taking into consideration CRA capacity constraint.

[3] The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

[4] Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

[5] The amount of CRA water available to Metropolitan after meeting its exchange obligations.

3.2 State Water Project

Much of the SWP water supply passes through the San Francisco-San Joaquin Bay-Delta (Bay-Delta). More than two-thirds of California's residents obtain some of their drinking water from the Bay-Delta system. For decades, the Bay-Delta has experienced water quality and supply reliability challenges and conflicts due to variable hydrology and environmental standards that limit pumping operations.

The SWP consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by DWR. Figure 3-2 shows SWP facilities. This statewide water supply infrastructure provides water to 29 urban and agricultural agencies throughout California. The original State Water Contract called for an ultimate delivery capacity of 4.2 MAF, with Metropolitan holding a contract for 1,911 TAF.

Prior to the 1994 Bay-Delta Accord, the reliability of SWP deliveries was deteriorating rapidly. Based on an analysis of the State Water Resources Control Board's (SWRCB) draft water rights decision 1630, Metropolitan estimated that by 2005 its SWP delivery would be reduced to 171 TAF – about 8.9 percent of its SWP contract – under hydrologic conditions comparable to 1977, the driest year on record for the SWP. The SWRCB subsequently withdrew draft water rights decision 1630, and the Bay-Delta Accord, through SWRCB water rights decision 1641, established new operating criteria for the SWP. Under these new criteria, DWR projects that in critically dry years, SWP delivery would be 418 TAF or about 22 percent of Metropolitan's SWP contractual amounts. Consequently, Metropolitan's key concern is the continual deterioration of water supply reliability.

Another important concern for Metropolitan is sustained improvement in SWP water quality. Metropolitan must be able to meet the increasingly stringent drinking water regulations that are expected for disinfection by-products and pathogens in order to protect public health. Meeting these regulations will require improving the Bay-Delta water supply by cost effectively combining alternative source waters, source improvement, and treatment facilities. Additionally, Metropolitan requires water quality improvements of Bay-Delta water supplies to meet its 500 mg/L salinity blending objective in a cost-effective manner, while minimizing resource losses and helping to ensure the viability of regional recycling and groundwater management programs.

Background

The listing of several fish species as threatened or endangered under the federal or California Endangered Species Acts (respectively, the "Federal ESA" and the "California ESA" and, collectively, the "ESAs") have adversely impacted operations and limited the flexibility of the SWP. An annual environmental water account established under the Bay-Delta Program as a means of meeting environmental flow requirements and export limitations has helped to mitigate these impacts. Currently, five species (the winter-run and spring-run Chinook salmon, Delta smelt, North American green sturgeon, and Central Valley steelhead) are listed under the ESAs. In addition, on June 25, 2009, the California Fish and Game Commission declared the longfin smelt a threatened species under the California ESA.

In 2004 and 2005, the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) issued biological opinions and incidental take statements that govern operations of the SWP and the CVP with respect to the Delta smelt, the winter-run and spring-run Chinook salmon, and the Central Valley steelhead. In July 2006, the USBR reinitiated consultation with the USFWS and NMFS with respect to the 2004 and 2005 biological opinions (with the addition of the North American green sturgeon, which was listed in April 2006) following the filing of legal challenges to those biological opinions and incidental take statements.

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Figure 3-2
Current and Projected Facilities of the State Water Project

Litigation filed by several environmental interest groups alleged that the 2004 and 2005 biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA. On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment in *NRDC v. Kempthorne*, finding the USFWS biological opinion for Delta smelt to be invalid. On December 14, 2007, Judge Wanger issued his Interim Remedial Order requiring that the SWP and CVP operate according to certain specified criteria until a new biological opinion for the Delta smelt is issued. Under the Interim Remedial Order, SWP operations were constrained in the winter and spring of 2007-08 by prevailing conditions and the status of the Delta smelt. Export restrictions resulting from the Interim Remedial Order during the winter and spring of 2007-08 reduced SWP deliveries to Metropolitan by approximately 250 TAF, as water that otherwise could have been diverted for delivery through the California Aqueduct bypassed the SWP pumps.

The USFWS released a new biological opinion on the impacts of the SWP and CVP on Delta smelt on December 15, 2008. Metropolitan, The San Luis & Delta Mendota Water Authority, Westlands Water District, Kern County Water Agency, Coalition for a Sustainable Delta and State Water Contractors, a California nonprofit corporation formed by agencies contracting with DWR for water from the SWP (the "State Water Contractors"), the Family Farm Alliance and the Pacific Legal Foundation on behalf of several owners of small farms in California's Central Valley have filed separate lawsuits in federal district court challenging the biological opinion.

The federal court consolidated the six lawsuits challenging the Delta smelt biological opinion under the caption Delta Smelt Consolidated Cases.

On April 16, 2008, the court granted the plaintiffs' motion for summary judgment in *Pacific Coast Federation of Fishermen's Associations v. Gutierrez* and invalidated the 2004 NMFS's biological opinion for the salmon and other fish species that spawn in rivers flowing into the Bay-Delta. The NMFS released its new biological opinion for salmonid species on June 4, 2009. The salmonid species biological opinion contains additional restrictions on SWP and CVP operations. The NMFS calculated that these restrictions will reduce the amount of water the SWP and CVP combined will be able to export from the Bay-Delta by 5 to 7 percent, in addition to restriction due to biological opinion for Delta smelt. DWR estimated a 10 percent average water loss, expected to begin in 2010, under this biological opinion. Six lawsuits have been filed challenging the 2009 salmon biological opinion which the court has consolidated under the caption *Consolidated Salmon Cases.* The court held a multiple-day hearing on motions for preliminary injunction in both the *Delta Smelt Consolidated Cases* and the *Consolidated Salmon Cases. [Discussion to be updated for the Final RUWMP since ruling is expected by May 2010.]*

The impact on SWP deliveries attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be 1.0 MAF in an average year, reducing SWP deliveries from approximately 3.3 MAF to approximately 2.3 MAF for the year under average hydrology.

In addition to the litigation under the Federal ESA, other environmental groups sued DWR on October 4, 2006 in the Superior Court of the State of California for Alameda County alleging that DWR was "taking" listed species without authorization under the California ESA. On April 18, 2007, the Alameda County Superior Court issued its Statement of Decision in this litigation (*Watershed Enforcers v. California Department of Water Resources*), which found that DWR was illegally "taking" listed fish through operation of the SWP export facilities. The Superior Court ordered DWR to "cease and desist from further operation" of those facilities within 60 days unless it obtains take authorization from the California Department of Fish and Game.

DWR appealed the Alameda County Superior Court's order on May 7, 2007. DWR applied for incidental take authorization for the Delta smelt and salmon under the California ESA, based on the consistency of the federal biological opinions with California ESA requirements ("Consistency Determinations"). The California Department of Fish & Game subsequently issued Consistency Determinations under the California ESA authorizing the incidental take of both Delta smelt and salmon. The State Water Contractors and Kern County Water Agency have filed suit in state court challenging the Consistency Determinations under the California ESA that have been issued for both Delta smelt and salmon.

The California Fish and Game Commission's issued its declaration of the longfin smelt as a threatened species on June 25, 2009. On February 23, 2009, in anticipation of the listing action, the California Department of Fish and Game issued a California ESA section 2081 incidental take permit to DWR authorizing the incidental take of longfin smelt by the SWP. This permit authorizes continued operation of the SWP under the conditions specified in the section 2081 permit. The State Water Contractors filed suit against the California Department of Fish and Game on March 25, 2009, alleging that the export restrictions imposed by the section 2081 permit have no reasonable relationship to any harm to longfin smelt caused by SWP operations, are arbitrary and capricious and are not supported by the best available science.

DWR has altered the operations of the SWP to accommodate species of fish listed under the ESAs. These changes in project operations have adversely affected SWP deliveries. Restrictions on Bay-Delta pumping under the Interim Remedial Order in *NRDC v. Kempthorne* reduced deliveries of SWP water to Metropolitan by approximately 250 TAF in 2008. Based on the Water Allocation Analysis released by DWR on March 22, 2010, which incorporated the Delta smelt biological opinion's effects on SWP operations, export restrictions could reduce deliveries to Metropolitan by 150 to 200 TAF for 2010 under median hydrologic conditions. DWR has reported that as of April 21, 2010, real time measurements indicate approximately 520,000 acre-feet have been lost to the SWP for calendar year 2010, of which nearly 240 TAF would have been made available to Metropolitan.

Operational constraints likely will continue until a long-term solution to the problems in the Bay-Delta is identified and implemented. The Delta Vision process, established by Governor Schwarzenegger, was aimed at identifying long-term solutions to the conflicts in the Bay-Delta, including natural resource, infrastructure, land use, and governance issues. In addition, State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan (BDCP), which is aimed at addressing ecosystem needs and securing long-term operating permits for the SWP.

Other issues, such as the recent decline of some fish populations in the Bay-Delta and surrounding regions and certain operational actions in the Bay-Delta, may significantly reduce Metropolitan's water supply from the Bay-Delta. SWP operational requirements may be further modified under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Biological opinions or incidental take authorizations under the Federal ESA and California ESA might further adversely affect SWP and CVP operations. Additionally, new litigation, listings of additional species or new regulatory requirements could further adversely affect SWP operations in the future by requiring additional export reductions, releases of additional water from storage or other operational changes impacting water supply operations. Metropolitan cannot predict the ultimate outcome of any of the litigation or regulatory processes described above but believes they could have an adverse impact on the operation of the SWP pumps, Metropolitan's SWP supplies and Metropolitan's water reserves.

Changed Conditions

In August 2008, DWR issued its 2007 biannual SWP Delivery Reliability Report (Reliability Report). In projecting SWP delivery reliability, DWR incorporated the court-ordered interim operating rules to protect Delta smelt. The Reliability Report identified three areas of reliability uncertainty including pelagic

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organism decline, climate change and sea level rise, and vulnerability of Delta levees for failure. DWR estimated that with current facilities and regulatory requirements, the SWP will deliver 3.0 MAF per year on average. SWP single dry year and wet year delivery capability was reported to be 0.243 TAF and 3.848 TAF, respectively. Under its contract Metropolitan may use 46 percent of this quantity.

In December 2009, DWR released a draft of the biannual update. The report shows that future SWP deliveries will be impacted by two significant factors. The first is the significant restrictions on SWP and CVP Delta pumping required by the biological opinions issued by the USFWS (December 2008) and NMFS (June 2009). The second is climate change, which is altering the hydrologic conditions in the State. The 2009 draft Reliability Report shows greater reductions in water deliveries on average when compared to the 2007 report. Over multiple-year dry periods, average annual Table A deliveries vary from 32% to 34% of the maximum Table A amount, while average annual deliveries over multiple-year wet periods range from 72 to 94 percent of the maximum Table A amount. Under future conditions, annual SWP Article 21 deliveries average 62 TAF, ranging from 1 TAF to 550 TAF over the 82-year simulation period.

In evaluating the supply outlook for the 2010 RUWMP, Metropolitan used the draft 2009 reliability report as this presents DWR's current estimate of the amount of SWP water deliveries for current (2009) conditions and conditions 20 years in the future.

Implementation Approach

Metropolitan's implementation approach for the SWP depends on the full use of the current State Water Contract provisions, including its basic contractual amounts, Article 21 interruptible supplies, and Turnback Pool supply provisions. In addition, it requires successful negotiation and implementation of a number of agreements, including the Sacramento Valley Water Management (Phase 8 Settlement) Agreement, and the BDCP. Each of these stakeholder processes or agreements involves substantial Metropolitan and member agency staff involvement to represent regional interests. Metropolitan is committed to working collaboratively with DWR, SWP contractors, and other stakeholders to ensure the success of these extended negotiations and programs.

SWP Reliability

This discussion provides details of the major actions Metropolitan is undertaking to improve SWP reliability. The BDCP is being prepared through a collaboration of state, federal, and local water agencies, state and federal fish agencies, environmental organizations, and other interested parties. These organizations have formed the BDCP Steering Committee. The plan will identify a set of water flow and habitat restoration actions that contribute to the recovery of endangered and sensitive species and their habitats in California's Bay-Delta. The goal of the BDCP is to provide for both species/habitat protection and improved reliability of water supplies.

In order to select the most appropriate elements of the final conservation plan, the BDCP will consider a range of options for accomplishing these goals using information developed as part of an environmental review process. Potential habitat restoration and water supply conveyance options included in the BDCP will be assessed through an Environmental Impact Report (EIR)/ Environmental Impact Statement (EIS). The BDCP planning process and the supporting EIR/EIS process is being funded by state and federal water contractors.

Lead agencies for the EIR/EIS are DWR, USBR, the USFWS, and NOAA's NMFS, in cooperation with the California Department of Fish and Game, the U.S. Environmental Protection Agency (USEPA), and the U.S. Army Corps of Engineers.

Metropolitan also has been working with Bay-Delta watershed users toward settlement on how all Bay-Delta water users would bear some of the responsibility of meeting flow requirements. In December 2002, all of the parties signed a settlement agreement known as "The Sacramento Valley Water Management Agreement" or "Phase 8 Settlement Agreement." The agreement resulted from the SWRCB Bay-Delta Water Rights Phase 8 proceedings. It includes work plans to develop and manage water resources to meet Sacramento Valley in-basin needs, environmental needs under the SWRCB's Water Quality Control Plan, and export supply needs for both water demands and water quality. The agreement specifies about 60 water supply and system improvement projects by 16 different entities in the Sacramento Valley. Its various conjunctive use projects will yield approximately 185 TAF per year in the Sacramento Valley, and approximately 55 TAF of this water would come to Metropolitan through its SWP allocation. The Agreement specifies a supply breakdown of 110 TAF (60 percent) to the SWP and 75 TAF (40 percent) to the CVP.

Based on the Sacramento Valley Management Agreement, potential annual and dry-year supply capabilities are projected to be 55 TAF in 2010, 55 TAF in 2015, and 110 TAF beyond 2015.

Monterey Amendment

The Monterey Amendment originated from disputes between the urban and agricultural SWP contractors over how contract supplies are to be allocated in times of shortage. In 1994, in settlement discussions in Monterey, the contractors and the DWR reached agreement to settle their disputes by amending certain provisions the long-term water supply contracts. These changes, known as the Monterey Amendment, altered the water allocation procedures such that both shortages and surpluses would be shared in the same manner for all contractors, eliminating the prior "agriculture first" shortage provision. In turn, the agricultural contractors agreed to permanently transfer 130 TAF to urban contractors and permanently retire 45 TAF of their contracted supply. The amendment facilitated several important water supply management practices including ground water banking, voluntary water marketing, and more flexible and efficient use of SWP facilities including borrowing from Castaic Lake and Lake Perris and use of carryover storage in San Luis Reservoir to enhance dry-year supplies. It also provided for the transfer of DWR land to the Kern County Water Agency for development of the Kern Water Bank. The Monterey Amendment was challenged in court and the original Environmental Impact Report (EIR) invalidated. Following a settlement, a new EIR was completed and the CEQA process concluded in May 2010. However, the project has been challenged again in a new round of lawsuits.

SWP Terminal Storage

Metropolitan has contractual rights to 65 TAF of flexible storage at Lake Perris (East Branch terminal reservoir) and 153.94 TAF of flexible storage at Castaic Lake (West Branch terminal reservoir). This storage provides Metropolitan with additional options for managing SWP deliveries to maximize yield from the project. Over multiple dry years it can provide Metropolitan with 73 TAF of additional supply. In a single dry year like 1977 it can provide up to 219 TAF of additional supply to Southern California.

Yuba Dry Year Water Purchase Program

In December 2007, Metropolitan entered into an agreement with DWR providing for Metropolitan's participation in the Yuba Dry Year Water Purchase Program between Yuba County Water Agency and DWR. This program provides for transfers of water from the Yuba County Water Agency during dry years through 2025.

Desert Water Agency/Coachella Valley WD SWP Table A Transfer

Under the transfer agreement, Metropolitan transferred 100 TAF of its SWP Table A contractual amount to Desert Water Agency/Coachella Valley Water District

(DWCV). Under the terms of the agreement, DWCV pays all SWP charges for this water, including capital costs associated with capacity in the California Aqueduct to transport this water to Perris Reservoir as well as the associated variable costs. The amount of water actually delivered in any given year depends on that year's SWP allocation. Water is delivered through the existing exchange agreements between Metropolitan and DWCV. While Metropolitan transferred 100 TAF of its Table A amount, it retained other rights, including interruptible water service; its full carryover amounts in San Luis Reservoir; its full use of flexible storage in Castaic and Perris Reservoirs; and any rate management credits associated with the 100 TAF. In addition, Metropolitan is able to recall the SWP transfer water in years in which Metropolitan determines it needs the water to meet its water management goals. The main benefit of the agreement is to reduce Metropolitan's SWP fixed costs in wetter years when there are more than sufficient supplies to meet Metropolitan's water management goals, while at the same time preserving its dry-year SWP supply. In a single critically dry-year like 1977 the call-back provision of the entitlement transfer can provide Metropolitan about 5 TAF of SWP supply. In multiple dry years like 1990-1992 it can provide Metropolitan about 26 TAF of SWP supply.

<u>Desert Water Agency/Coachella Valley WD Advance Delivery Program</u>

Under this program, Metropolitan delivers Colorado River water to the Desert Water Agency and Coachella Valley WD in advance of the exchange for their SWP Contract Table A allocations. In addition to their Table A supplies, Desert Water Agency and Coachella Valley WD, subject to Metropolitan's written consent, may take delivery of SWP supplies available under Article 21, the Turn-back Pool Program. By delivering enough water in advance to cover Metropolitan's exchange obligations, Metropolitan is able to receive Desert Water Agency and Coachella Valley WD's available SWP supplies in years in which Metropolitan's supplies are insufficient without having to deliver an equivalent amount of Colorado River water. This program allows Metropolitan to maximize delivery of SWP and Colorado River water in such years. These Table A deliveries are incorporated into the estimate of SWP Deliveries under Current Programs shown in Table 3-2.[1]

<u>Desert Water Agency/Coachella Valley WD Other SWP deliveries</u>

Since 2008, Metropolitan has provided Desert Water Agency and Coachella Valley WD written consent to take delivery from the SWP facilities non-SWP supplies separately acquired by each agency. These deliveries include water acquired from the Yuba Dry Year Water Purchase Program and the 2009 Drought Water Bank. Metropolitan has also consented to,

- 10 TAF of exchange deliveries to CVWD for non-SWP water acquired from the San Joaquin Valley from 2008 through 2010, and
- 36 TAF of exchange deliveries to DWA for non-SWP water acquired from the San Joaquin Valley from 2008 through 2015.

Table 3-2 summarizes Metropolitan's SWP supply range for 2030. In developing the program capabilities shown in this table, Metropolitan assumed a simulated median storage level going into year 2030 based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. In addition, the supply capabilities shown reflect actual storage program conveyance constraints.

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[1] 18 TAF out of a total of 509 TAF SWP annual delivery for a multiple dry-year event similar to the period 1990-1992 are due to the DWCV advance delivery provision. For a single-dry year similar to 1977, 6 TAF out of a total of 175 TAF are due to the advance delivery provision.

Table 3-2
California Aqueduct Program Capabilities
Year 2030
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
MWD Table A	469,000	107,000	1,026,000
DWCV Table A	77,000	60,000	155,000
San Luis Carryover[1]	69,000	208,000	208,000
Article 21 Supplies	0	0	52,000
Yuba River Accord Purchase	0	0	0
Subtotal of Current Programs	***615,000***	***375,000***	***1,441,000***
Programs Under Development			
Delta Improvements	341,000	628,000	605,000
IRP SWP Target[2]	0	0	0
Subtotal of Proposed Programs	***341,000***	***628,000***	***605,000***
Maximum Supply Capability	**956,000**	**1,003,000**	**2,046,000**

[1] Includes DWCV carryover.

[2] Remaining supply needed to meet IRP target.

SWP Water Quality

Metropolitan requires a safe drinking water supply from the Bay-Delta to meet current and future regulatory requirements for public health protection. Finding cost-effective ways to reduce total organic carbon (TOC), bromide concentrations, pathogenic microbes, and other unknown contaminants from Bay-Delta water supply is one of Metropolitan's top priorities. Metropolitan also requires a SWP supply that is consistently low in salinity - Total Dissolved Solids (TDS) - so it can blend SWP water with higher-salinity Colorado River water to achieve salinity goals for its member agencies. In addition, Metropolitan needs consistently low-salinity SWP water to increase in-basin water recycling and groundwater management programs. These programs require that blended water supplied to the member agencies meets the TDS goals adopted by Metropolitan's Board, which specify a salinity objective of 500 mg/L for blended imported water.

Metropolitan is actively involved in DWR's Municipal Water Quality Investigations Program. The highly variable quality of State Water Project water influences the operation of Metropolitan's system and its water treatment process. Increasingly restrictive State and Federal drinking water standards, concerns over emerging contaminants such as personal care products and pharmaceuticals, algal taste and odors, and Delta ecosystem fisheries issues are critical variables. DWR's MWQI program strives to monitor, protect, and improve drinking water quality of Delta water deliveries to the urban State Water Contractors and other users of Delta water. The program focuses on issues related to drinking water quality through regular water quality monitoring, special field and laboratory studies, the use of forecasting tools such as computer models and data management systems, and reporting. While the program has developed extensive monitoring in the Delta including real-time monitoring, increased monitoring along the California Aqueduct is the next major step.

Levee modifications at Franks Tract and other source control actions may significantly reduce ocean salinity concentrations in Delta

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water, which would benefit Delta water users and export interests alike.

Franks Tract is an island located in the central Delta that was actively farmed until levee breaches in 1936 and 1938. Since 1938, the tract has remained a flooded island and its levees remain in disrepair. Tidal flows in the Delta entrap saline ocean water in the flooded tract, resulting in degraded water quality for both in-delta and export users. Recent computer modeling analyses by Metropolitan, DWR, and the US Geological Survey indicate that reducing this salinity intrusion by partially closing existing levee breach openings and/or building radial gate flow control structures will significantly reduce TDS and bromide[2] concentrations in water from the Delta during the summer and fall months and in drought years. Based on Metropolitan's analysis, improvements to Franks Tract alone could reduce peak bromide concentrations in the summer and fall months by about 33 percent at Contra Costa Water District's (CCWD) Rock Slough intake, by 27 percent at CCWD's Old River intake, and by 24 percent at the SWP intake in the South Delta.

DWR and USBR proposed to implement the Franks Tract Project to improve water quality and fisheries conditions in the Bay-Delta. DWR and USBR are evaluating installing operable gates to control the flow of water at key locations (Three mile Slough and/or West False River) to reduce sea water intrusion, and to positively influence movement of fish species of concern to areas that provide favorable habitat conditions. By protecting fish resources, this project also would improve operational reliability of the SWP and CVP because curtailments in water exports (pumping restrictions) are likely to be less frequent.

The state has adopted an "equivalent level of public health protection" (ELPH) program that targets water quality actions outside the Delta. The Bay-Delta Program is coordinating a feasibility study on water quality improvement in the California Aqueduct.

Metropolitan and the Friant Water Users Authority (FWUA) have entered into a partnership to investigate the potential of enhancing the quantity and affordability of the eastern San Joaquin Valley's water supply while improving Southern California's water quality. The FWUA and Metropolitan studied projects that benefited both regions. Using Proposition 13 funds, an existing canal belonging to the Arvin-Edison Water Storage District was enlarged, enabling greater volumes of water to be exchanged between their groundwater and the California Aqueduct.

SWP System Outage and Capacity Constraints

As its infrastructure ages, the SWP becomes increasingly vulnerable to natural disasters, particularly the Delta levee system and the California Aqueduct, which are both susceptible to floods and earthquakes. In June 2004, a levee in the Jones Tract of the Delta failed, resulting in total inundation of the island and disrupting SWP operations. Catastrophic loss of either the Delta levee system or the aqueduct would shut down the project, affecting the welfare of millions. While Metropolitan has made substantial investments in local resources and in-basin storage to insulate Southern California against loss of its imported water supplies, additional investment is needed in the at-risk infrastructure.

The Bay-Delta Levees Program coordinates Delta levee maintenance and improvement activities. Its goal is to protect water supplies needed for the environment, agriculture and urban uses by reducing the threat of levee failure and seawater intrusion. Over the next two to three years, DWR and other agencies will carry out a Comprehensive Program Evaluation (CPE). It will incorporate the risk study that has been commissioned by DWR, including the currently-proposed expanded scope of that study. The CPE will:
(a) supplement the DWR risk study to ensure

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[2] The importance of bromides is discussed in the Water Quality chapter.

that it considers all relevant levee risks, (b) include the development of a formal strategic plan that contains a description of any proposed future program changes, and (c) recommend priorities and estimate funding needs for the Levees Program. For example, the Army Corps of Engineers (P.L. 84-99 ROD) target will be reevaluated as part of the CPE using information from the Risk Study.

The California Aqueduct remains susceptible to floods at several points as it travels from the Delta along the west side of the San Joaquin Valley. Key among these is where the aqueduct crosses the Arroyo Pasajero, an alluvial fan located near Coalinga, California. At that spot, the aqueduct effectively forms a barrier to Arroyo flood flows. Although flood control facilities were built to protect the aqueduct, the volumes of runoff and sediment deposition are much greater than originally estimated, so a significant flood risk remains. The aqueduct was severely damaged during March of 1995 when a flood overwhelmed control facilities and overtopped the aqueduct with 10 TAF of floodwater and an estimated 800,000 cubic yards of sediment. Impacts to downstream water users lasted through the summer of 1995. In December of 2004, DWR began construction of “Phase I” improvements to the aqueduct where it crosses the Arroyo. These improvements will increase the size of the detention basins west of the aqueduct to protect it against a 50-year storm event.

DWR is also investing in the replacement of aging SWP infrastructure critical to SWP operations. It is midway into its Turbine Rehabilitation Program at Oroville Reservoir’s Hyatt-Thermalito complex. In 2004, DWR awarded a contract to replace four pumps at the Edmonston Pumping Plant. Moreover, improved maintenance procedures have decreased the amount of time pumps at Edmonston come off-line for maintenance to less than 10 percent of the time.

Because of the risk of a prolonged shutdown of the SWP caused by seismic or hydrologic events either within the Delta or along the California Aqueduct, Metropolitan has acted decisively to ensure that Southern California has adequate emergency storage. Diamond Valley Lake and SWP terminal reservoir storage, combined with member-agency emergency storage, are jointly capable of providing the region with a six-month supply of water if combined with a temporary 25 percent reduction in demand. Metropolitan engineering studies indicate this would provide sufficient time to repair the SWP and resume delivery.

Metropolitan is investigating the potential for carbon sequestration in the Delta islands to create a revenue source for Delta landowners. Farming the Delta peat soils generates a large amount of carbon dioxide, and growing native vegetation not only stops those emissions, but actually sequesters an even larger amount of carbon dioxide while rebuilding the peat soils. With the soils rebuilding to their historic elevations, the risk of levee failure would decrease, and may eventually be eliminated.

Achievements to Date

SWP Reliability

Delta Vision

The Delta has suffered from multiple crises for years – ecosystem, water supply, levee stability, water quality, policy, program and litigation. The ecosystem condition continues to deteriorate, with record-low reports of fish populations, Delta smelt and other species on the brink of extinction, and the commercial salmon season shut down completely for two years in a row. Continued drought conditions and court-ordered restrictions on water exports have led to reductions in water deliveries to contractors. Deteriorating levees, land subsidence, earthquake risk and climate change all contribute to growing concerns about mass Delta levee failure. Delta water quality also continues to decline, as the freshwater barrier that keeps salinity from the bay from moving upstream becomes more difficult to maintain, and both agricultural and urban communities contribute contaminants to the system. Finally, the litigation crisis grows as more than 25 lawsuits now stand on Delta-related issues.

Metropolitan's Long-Term Action Plan

Besides the short- and mid-term actions described earlier in Section 1.4, Metropolitan's adopted Delta action plan in June 2007 includes a long-term Delta Plan. The long-term action plan recognizes the need for a global, comprehensive approach to the fundamental issues and conflicts in the Delta to result in a truly sustainable Delta. A piecemeal approach cannot satisfy the many stakeholders that have an interest in the Delta and will fail; there must be a holistic approach that deals with all issues simultaneously. In dealing with the basic issues of the Delta, solutions must address the physical changes required, as well as the financing and governance. There are three basic elements that must be addressed: Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development. In addition, the state needs to establish governance structures and financing approaches to implement and manage the three identified elements.

Governor's Delta Vision Process

Through this enduring Delta crisis, the Legislature and the Governor initiated, in 2006, a process to develop a new long-term vision for the Delta. SB 1574 (Kuehl/2006) required a cabinet committee to present recommendations for a Delta strategic vision. The governor created a Delta Vision Blue-Ribbon Task Force to advise the Cabinet Committee. The Task Force produced an October 2008 Strategic Plan, which the Cabinet Committee largely adopted and submitted, with its recommendations, to the Legislature on January 3, 2009. Metropolitan, as a stakeholder to the process, provided input to the Task Force.

The 2009 Delta Legislation

After delivery of the Delta Vision recommendations, the Legislature held informational hearings from Delta experts, Task Force members, and the Schwarzenegger Administration, as well as the public at large, and engaged in vigorous water policy discussions. Following the informational hearings, several legislators began developing detailed legislation which culminated in pre-print proposals being issued in early August of 2009 for public review and discussion over the summer recess. The Assembly Water, Parks and Wildlife Committee and the Senate Natural Resources and Water Committee then held joint informational hearings on the pre-print proposals and received extensive public comment. Thereafter, legislative leadership appointed a conference committee, which convened and held additional public hearings, with further legislator discussions on key issues. That work continued into the 7th Extraordinary Session, which was called by the governor specifically to address the pending Delta and water issues, and culminated in the signing of a historic package of bills. One of the keystones of that package was SB 1 X7, which reformed Delta policy and governance. Specifically, SB 1 X7:

- Establishes a new legal framework for Delta management, emphasizing the coequal goals of "providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem" as foundation for state decisions as to Delta management.
- Reconstitutes and redefines role of the Delta Protection Commission (DPC), to narrow membership to focus on local representation and to expand DPC role in economic sustainability.
- Creates a new Sacramento-San Joaquin Delta Conservancy (Conservancy), to support efforts that advance environmental protection and the economic well-being of Delta residents.

- Creates the Delta Stewardship Council (Council) as an independent state agency to guide actions in the Delta that furthers the coequal goals of Delta restoration and water supply reliability.
- Repeals the CALFED Bay-Delta Authority Act and transfers existing staff, contracts, etc. to the Council.
- Creates Delta Independent Science Board (Science Board) and Delta Science Program.
- Requires the State Water Resources Control Board (SWRCB), by August 12, 2010, to develop new flow criteria for the Delta ecosystem necessary to protect public trust resources.
- Requires the Department of Fish and Game (DFG), by December 31, 2010, to develop and recommend to the SWRCB flow criteria and quantifiable biological objectives for aquatic and terrestrial species.
- Creates a Delta Watermaster as the enforcement officer for SWRCB in the Delta.
- Requires the Council to develop, adopt, and commence implementation of the "Delta Plan" by January 1, 2012, with a report to the Legislature by March 31, 2012.
- Requires the DPC to develop a proposal to protect, enhance, and sustain the unique cultural, historical, recreational, agricultural, and economic values of the Delta as an evolving place.
- Requires Delta Plan to further the coequal goals of Delta ecosystem restoration and a reliable water supply.
- Requires the Delta Plan to promote statewide water conservation, water use efficiency, and sustainable use of water, as well as improvements to water conveyance/storage and operation of both to achieve the coequal goals.
- Requires the Delta Plan to attempt to reduce risks to people, property, and state interests in the Delta by promoting effective emergency preparedness, appropriate land uses, and strategic levee investments.
- Requires the Council to consider including the Bay Delta Conservation Plan (BDCP) in the Delta Plan and makes the BDCP eligible for state funding if:
  - The BDCP complies with Natural Community Conservation Planning Act (NCCPA).
  - The BDCP complies with the California Environmental Quality Act and includes a full range of alternatives, including a reasonable range of flow criteria, rates of diversion, and other operational criteria.
  - DWR consults with the Council and Science Board during development of the BDCP.
  - The BDCP incorporates a transparent, real-time operational decision making process in which the fishery agencies ensure that applicable biological performance measures are achieved in a timely manner.

SWP Water Quality

The most significant achievement for SWP water quality has been continued definition and advancement of the Delta Improvement Package. Most notably, the Franks Tract studies identified cost-effective ways to achieve significant improvements in the quality of Delta export water.

Progress was also made on the Southern California-San Joaquin Regional Water Quality Exchange Project. In 2009, Metropolitan and Arvin Edison Water Storage District enlarge their South Canal to enable exchanging more water between their groundwater basins and the California Aqueduct. Their relatively pure water allows Metropolitan to improve source water, and increase quantities, during times when quality

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and quantity are relatively poor. This project also allows MWD better access to water it has stored in the Arvin Edison Groundwater Storage Project.

SWP System Reliability

The completion and filling of Diamond Valley Lake marked the most important achievement with respect to protecting Southern California against an SWP system outage. Water began pouring into the reservoir in November 1999 and the lake was filled by early 2003. The lake can hold up to 810 TAF that provides Southern California with a six-month emergency water supply as well as carryover and regulatory storage.

The Inland Feeder Project

The Inland Feeder project is a high-capacity water delivery system designed to increase Southern California's water supply reliability in the face of future weather pattern uncertainties, while minimizing the impact on the San Francisco Bay/Sacramento-San Joaquin Delta environment in northern California. The massive water project will take advantage of large volumes of water when available from northern California, depositing it in surface storage reservoirs, such as Diamond Valley Lake, and local groundwater basins for use during dry periods and emergencies. The project also will improve the quality of the Southland's drinking water by allowing more uniform blending of better quality water from the state project with Colorado River supplies, which have a higher mineral content.

3.3 Central Valley/State Water Project Storage and Transfer Programs

Metropolitan endeavors to increase the reliability of supplies received from the California Aqueduct by developing flexible Central Valley storage and transfer programs. Over the years, Metropolitan has developed numerous voluntary Central Valley storage and transfer programs, aiming to develop additional dry-year water supplies.

To date, Metropolitan's Central Valley/SWP storage programs consist of partnerships with Central Valley agricultural districts. These partnerships allow Metropolitan to store its State Water Project (SWP) supplies during wetter years for return in future drier years. Metropolitan's Central Valley transfer programs include partnerships with Sacramento Valley Central Valley Project (CVP) and SWP settlement contractors. They allow Metropolitan to purchase water in drier years for delivery via the California Aqueduct to Metropolitan's service area.

Background

Before the 1994 Bay-Delta Accord, SWP delivery reliability was deteriorating rapidly. To gain a clearer picture of the extent of the deterioration, Metropolitan carried out an analysis based on the State Water Resources Control Board's (SWRCB) draft water rights decision 1630. This analysis showed that by 2005, if the hydrologic conditions were comparable to those of the driest year on record, 1977, Metropolitan's SWP delivery would be reduced to 171 TAF, which is only about 8.9 percent of its SWP contract entitlement.

The SWRCB later withdrew draft water rights decision 1630 and the Bay-Delta Accord established new operating criteria for the SWP. Metropolitan again analyzed these new criteria to estimate the potential water deliveries in critically dry years. Under these criteria, SWP deliveries to Metropolitan, not counting carryover storage, increased to 418 TAF, which is about 22 percent of its SWP contract entitlement. Metropolitan's Board determined that while the new criteria established by the Bay-Delta Accord represented an improvement in SWP reliability, they were not, of themselves, sufficient to meet Metropolitan's overall supply reliability objectives.

Moreover, DWR's most recent estimates of SWP delivery capability, which they released to SWP contractors in August 2008, show that SWP reliability under conditions similar to 1977 could be far worse than earlier modeling indicated. Based on these new DWR reliability projections, Metropolitan estimates that in a single-dry year similar to 1977, SWP deliveries to its service area would be about 134 TAF rather than 418 TAF of Table A water. Metropolitan estimates another 280 TAF of carryover storage could be delivered, for a total delivery of 414 TAF.

Metropolitan believes that it now has in place Central Valley/SWP storage and transfer programs capable of reaching its planning target, and it has several other programs under development. Because yields from individual programs can vary widely depending on hydrologic conditions and CVP/SWP operations, the dry-year yields for the various programs reported in this section are expected values only. In any given year, actual yields could depart from the expected values. Despite that uncertainty, Metropolitan's models of these programs indicate that in the aggregate, they can meet the resource target under a wide range of hydrologic conditions and CVP/SWP operations.

The Central Valley/SWP storage and transfer programs have served to demonstrate the value of partnering, and increasingly, Central Valley agricultural interests see partnering with Metropolitan as a sensible business practice beneficial to their local district and regional economy. In addition, Metropolitan staff has demonstrated the ability to work with DWR and USBR staff to facilitate Central Valley storage and transfer programs. Taken together, these positive changes enabled Metropolitan to reach the 2010 resource target by 2003.

Implementation Approach

Metropolitan currently has several Central Valley/SWP storage programs in operation that serve to increase the reliability of supplies received from the California Aqueduct. Metropolitan is also pursuing a new storage program with Mojave Water Agency, and it is currently under development. In addition, Metropolitan pursues Central Valley water transfers on an as needed basis. Table 3-3 lists the expected yields from these programs. Figure 3-3 shows the location of Metropolitan's statewide groundwater banking programs.

Storage and Transfer Programs

Semitropic Storage Program

Metropolitan has a groundwater storage program with Semitropic Water Storage District located in the southern part of the San Joaquin Valley. The maximum storage capacity of the program is 350 TAF. The specific amount of water Metropolitan can store in and subsequently expect to receive from the programs depends upon hydrologic conditions, any regulatory requirements restricting Metropolitan's ability to export water for storage, and the demands placed on the Semitropic Program by other program participants. During the recent dry year of 2008, the storage program delivered 125 TAF to Metropolitan. During wet years, Metropolitan has the discretion to use the program to store portions of its SWP entitlement water that are in excess of the amounts needed to meet Metropolitan's service area demand. In Semitropic, the water is delivered to district farmers who use the water in-lieu of pumping groundwater. During dry years, the districts return Metropolitan's previously stored water to Metropolitan by direct groundwater pump-in return and the exchange of State Water Project entitlement water.

Arvin-Edison Storage Program

Metropolitan amended the groundwater storage program with Arvin-Edison Water Storage District in 2008 to include the South Canal Improvement Project. The project increases the reliability of Arvin-Edison returning higher water quality to the California Aqueduct. The program storage capacity is 350 TAF. The specific amount of water Metropolitan can expect to store in and subsequently receive from the programs depends upon hydrologic conditions and any regulatory requirements restricting Metropolitan's ability to export water for storage. The storage program is estimated to deliver 75 TAF. During wet years, Metropolitan has the discretion to use the program to store portions of its SWP Table A supplies which are in excess of the amounts needed to meet Metropolitan's service area demand. The water can be either directly recharged into the groundwater basin or delivered to district farmers who use the water in-lieu of pumping groundwater. During dry years, the district returns Metropolitan's previously stored water to Metropolitan by direct groundwater pump-in return or by exchange of surface water supplies.

Table 3-3 summarizes Metropolitan's Central Valley/SWP transfer programs supply range for 2030. In developing the program capabilities shown in this table, Metropolitan assumed a simulated median storage level going into year 2030 based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. The supply capabilities shown reflect actual storage program conveyance constraints. In addition, SWP supplies are estimated using the draft 2009 SWP Delivery Reliability Report distributed by DWR in December 2009. The draft 2009 reliability report presents the current DWR estimate of the amount of water deliveries for current (2009) conditions and conditions 20 years in the future. These estimates incorporate restrictions on SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service

Table 3-3
Central Valley/State Water Project Storage and Transfer Programs
Supply Projection
Year 2030

(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
San Bernardino Valley MWD Minimum Purchase	12,000	8,000	20,000
San Bernardino Valley MWD Option Purchase	12,000	11,000	29,000
Central Valley Storage and Transfers			
Semitropic Program	46,000	41,000	69,000
Arvin Edison Program	63,000	75,000	75,000
San Bernardino Valley MWD Program	16,000	49,000	49,000
Kern Delta Program	47,000	50,000	50,000
Subtotal of Current Programs	***196,000***	***234,000***	***292,000***
Programs Under Development			
Mojave Groundwater Storage Program	11,000	5,000	43,000
North of Delta/In-Delta Transfers	33,000	33,000	33,000
SBVMWD Central Feeder	5,000	5,000	5,000
Shasta Return	18,000	18,000	18,000
Semitropic Agricultural Water Reuse Demonstration	11,000	11,000	11,000
Subtotal of Proposed Programs	***78,000***	***72,000***	***110,000***
Maximum Supply Capability	**274,000**	**306,000**	**402,000**

issued on December 15, 2008, and June 4, 2009, respectively.

San Bernardino Valley MWD Storage Program

The San Bernardino Valley MWD Storage program allows for the purchase of a portion of San Bernardino Valley Municipal Water District's State Water Project supply. The program includes a minimum purchase provision of 20 TAF and the option of purchasing additional supplies when available. This program can deliver between 20 TAF and 70 TAF in dry years, depending on hydrologic conditions. The expected delivery for a single dry year similar to 1977 is 70 TAF. The agreement with San Bernardino Valley MWD also allows Metropolitan to store up to 50 TAF of transfer water for use in dry years.

Kern-Delta Water District Storage Program

This groundwater storage program has 250 TAF of storage capacity. When fully developed, it will be capable of providing 50 TAF of dry-year supply. The water can be either directly recharged into the groundwater basin or delivered to district farmers who use the water in-lieu of pumping groundwater. During dry years, the districts returns Metropolitan's previously stored water to Metropolitan by direct groundwater pump-in return or by exchange of surface water supplies.

Mojave Storage Program

Currently operated as a demonstration program, the program will store SWP supply delivered in wet years for subsequent withdrawal during dry years. When fully developed, the program is expected to have a dry-year yield of 35 TAF depending on hydrologic conditions.

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Figure 3-3

METROPOLITAN STATEWIDE GROUNDWATER BANKING PROGRAMS

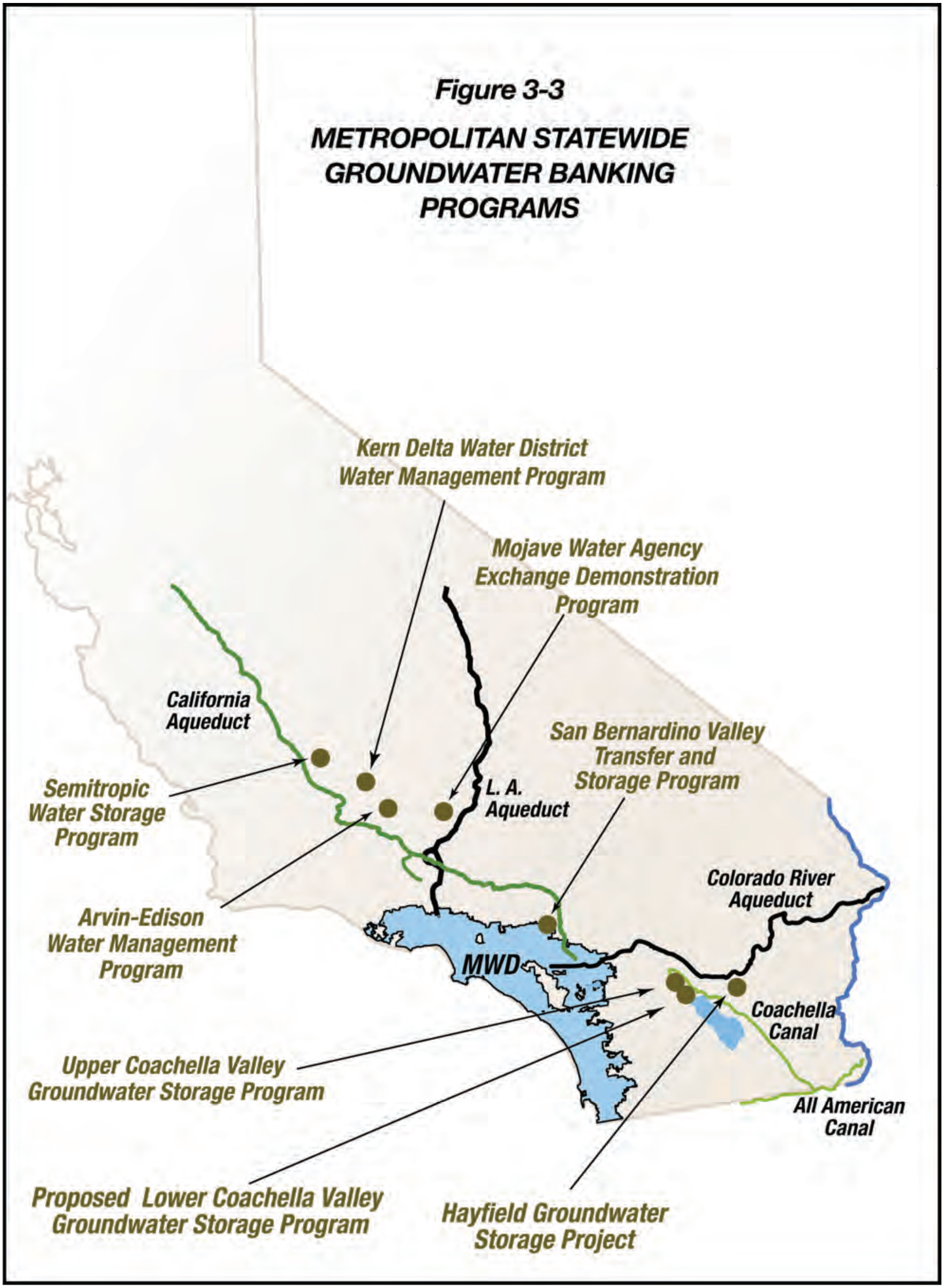

Central Valley Transfer Programs

Metropolitan expects to secure Central Valley water transfer supplies via spot markets and option contracts to meet its service area demands when necessary. Hydrologic and market conditions, and regulatory measures governing Delta pumping plant operations will determine the amount of water transfer activity occurring in any year. Transfer market activity in 2003, 2005, 2008, and 2009 provide examples of how Metropolitan has secured water transfer supplies as a resource to fill anticipated supply shortfalls needed to meet Metropolitan's service area demands.

In 2003, Metropolitan secured options to purchase approximately 145 TAF of water from willing sellers in the Sacramento Valley during the irrigation season. These options protected against potential shortages of up to 650 TAF within Metropolitan's service area that might have arisen from a decrease in Colorado River supply or as a result of drier-than-expected hydrologic conditions. Using these options, Metropolitan purchased approximately 125 TAF of water for delivery to the California Aqueduct.

In 2005, Metropolitan, in partnership with seven other State Water Contractors, secured options to purchase approximately 130 TAF of water from willing sellers in the Sacramento Valley, of which Metropolitan's share was 113 TAF. Metropolitan also had the right to assume the options of the other State Water Contractors if they chose not to purchase the transfer water. Due to improved hydrologic conditions, Metropolitan and the other State Water Contractors did not exercise these options.

In 2008, Metropolitan in partnership with seven other State Water Contractors, secured approximately 40 TAF of water from willing sellers in the Sacramento Valley, of which Metropolitan's share was approximately 27 TAF.

In 2009, Metropolitan in partnership with eight other buyers and 21 sellers participated in a statewide Drought Water Bank, which secured approximately 74 TAF, of which Metropolitan's share was approximately 37 TAF.

Metropolitan's recent water transfer activities in have demonstrated Metropolitan's ability to develop and negotiate water transfer agreements either working directly with the agricultural districts who are selling the water or through a statewide Drought Water Bank. Because of the complexity of cross-Delta transfers and the need to optimize the use of both CVP and SWP facilities, DWR and USBR are critical players in the water transfer process, especially when shortage conditions increase the general level of demand for transfers and amplify ecosystem and water quality issues associated with through-Delta conveyance of water. Therefore, Metropolitan views state and federal cooperation to facilitate voluntary, market-based exchanges and sales of water as a critical component of its overall water transfer strategy.

Achievements to Date

Metropolitan has made rapid progress to date developing Central Valley/SWP storage and transfer programs. Most notably, by 2003, it was able to put in place sufficient storage and transfer programs to meet its 2010 dry-year resource target of 300 TAF. This rapid progress may be attributed to several factors, including Metropolitan dedicating additional staff to identify, develop, and implement Central Valley/SWP storage and transfer programs; increased willingness of Central Valley agricultural interests to enter into storage and transfer programs with Metropolitan; and Metropolitan staff's ability to work with DWR and USBR staff to facilitate Central Valley storage and transfer programs.

3.4 Conservation and Public Affairs

Conservation is a core element of Metropolitan's long-term water management strategy. Metropolitan continues to build on a nearly 20-year investment in conservation of more than $268 million, reflecting a long-term commitment to water conservation. Among other measures, this investment has resulted in the retrofit of more than 2.7 million toilets with more water efficient models and the distribution of more than 334,000 high efficiency clothes washers (HECWs). Collectively, Metropolitan's conservation programs and other conservation in the region will reduce Southern California's reliance on imported water by more than 1.033 MAF per year from 1980 through 2025.

Metropolitan's conservation policies and practices are shaped largely by two factors: Metropolitan's planning strategy and the California Urban Water Conservation Council Memorandum of Understanding Regarding Water Conservation in California (Urban MOU). As a signatory to the Urban MOU, Metropolitan pledged to make a good faith attempt to implement a prescribed set of urban water conservation Best Management Practices (BMPs).

Metropolitan's planning strategy places equal emphasis on local and imported resource development and treats conservation as a core local supply, on par with other resources such as water recycling and storage. Conservation savings result from active, code-based, and price-effect conservation efforts. Active conservation consists of water-agency funded programs such as rebates, installations, and education. Code-based and price-based conservation, formerly described as passive conservation, consists of demand reductions attributable to conservation-oriented plumbing codes and usage reductions resulting from increases in the price of water. Including regional pre-1990 conservation savings, Metropolitan continues to pursue a 2025 total conservation target of approximately 1.033 MAF per year. A large share of the target has already been achieved through existing Metropolitan and member agency programs, pre-1990 savings, price-effects, and continued savings that accrue from plumbing codes. The remainder is expected to be achieved through additional agency-sponsored active conservation programs, code changes, and price-effects.

Background

Unlike traditional water supplies, conservation reduces water demand in ways that are quantified indirectly. Demand is reduced through changes in consumer behavior and savings from water-efficient fixtures like toilets and showerheads. Quantifying and projecting conservation savings requires specially designed estimating models. Such models were used during Metropolitan's planning process.

Conservation savings are commonly estimated from a base-year water-use profile. Metropolitan uses 1980 as the base year because it marked the effective date of a new plumbing code in California requiring toilets in new construction be rated at 3.5 gallons per flush or less. Between 1980 and 1990, the region saved an estimated 250 TAF per year as the result of this 1980 plumbing code and unrelated water rate increases. These savings are referred to as "pre-1990 savings." Metropolitan's resource planning target combines pre-1990 savings and estimates of more recently achieved savings.

Distinguishing between active, code-based and price-effect conservation can be analytically complex when, for example, active programs for fixtures are concurrent with conservation-related plumbing codes. This plan combines active, code-based, and price-effect conservation savings using methods that avoid double counting.

Metropolitan does not currently assign a savings value for public awareness campaigns and conservation education because any initial effect on demand reduction and the longevity of the effect is difficult to measure. It is generally accepted

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that these programs prompt consumers to install water saving fixtures and change water-use behavior thereby creating a residual benefit of increasing the effectiveness of companion conservation programs.

Implementation Approach

Metropolitan's implementation approach for achieving the conservation target includes support to member agencies in developing cost-effective BMP-oriented active conservation programs and new, innovative programs that address regional water uses. The stewardship charge in Metropolitan's rate structure provides the funding mechanism for active programs and non-incentive strategies. Metropolitan continues to seek supplemental state and federal funding in coordination with the member agencies.

Implementation of Conservation "Best Management Practices"

Metropolitan's conservation programs are closely linked to the efforts of the California Urban Water Conservation Council (CUWCC), the organization created to administer the Urban MOU. As a signatory to the Urban MOU, Metropolitan has pledged to make a good faith effort to implement a prescribed set of urban water conservation BMPs. Metropolitan provides technical and financial support needed by member agencies in meeting the terms of the Urban MOU. Table 3-4 provides a list of the BMPs and compares how they apply to Metropolitan, which is a water wholesaler, versus retail water agencies. Enclosed with this report, as Appendix A.7, are copies of the BMP reports Metropolitan has filed with the CUWCC.

Table 3-4
Urban Water Conservation Best Management Practices

BMP Number	BMP Description	Applies to	
		Retailers	Wholesalers
1	Residential Water Surveys	Yes	No
2	Residential Plumbing Retrofits	Yes	No
3	System Water Audits, Leak Detection	Yes	Yes
4	Metering and Commodity Rates	Yes	No
5	Large Landscape Audits	Yes	No
6	High Efficiency Washing Machines	Yes	No
7	Public Information	Yes	Yes
8	School Education	Yes	Yes
9	Commercial, Industrial, & Institutional	Yes	No
10	Wholesale Agency Assistance	No	Yes
11	Conservation Pricing	Yes	Yes
12	Conservation Coordinator	Yes	Yes
13	Water Waste Prohibition	Yes	No
14	Residential ULFT Replacements	Yes	No

In December 2008, the Urban MOU was amended and the BMPs were revised. The revision reorganized the Council's 14 BMPs into five categories. Two categories, Utility Operations and Education, are referred to as "Foundational BMPs," because they are considered to be essential water conservation activities by any utility and are adopted for implementation by all signatories to the Urban MOU as ongoing practices with no time limits. The remaining BMPs are "Programmatic BMPs" and are organized into Residential; Commercial, Industrial, and Institutional (CII); and Landscape categories.

A mapping from the old BMPs to the new BMPs is shown in Table 3-5.

Table 3-5
Mapping of Prior BMPs to New BMPs

Prior BMP Number & Name	New BMP category
Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers	Programmatic: Residential
Residential Plumbing Retrofit	Programmatic: Residential
System Water Audits, Leak Detection and Repair	Foundational: Utility Operations – Water Loss Control
Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	Foundational: Utility Operations – Metering
Large Landscape Conservation Programs and Incentives	Programmatic: Landscape
High-Efficiency Clothes Washing Machine Financial Incentive Programs	Programmatic: Residential
Public Information Programs	Foundational: Education – Public Information Programs
School Education Programs	Foundational: Education – School Education Programs
Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts	Programmatic: Commercial, Industrial, and Institutional
Wholesale Agency Assistance Programs	Foundational: Utility Operations – Operations
Retail Conservation Pricing	Foundational: Utility Operations – Pricing
Conservation Coordinator	Foundational: Utility Operations – Operations
Water Waste Prohibition	Foundational: Utility Operations – Operations
Residential ULFT Replacement Programs	Programmatic: Residential

In addition to implementing cost-effective BMPs, Metropolitan actively supports many CUWCC committee and research activities. For example, Metropolitan has historically assisted in CUWCC's ongoing efforts to document and increase the effectiveness of BMP-related conservation efforts. Presently, Metropolitan is represented on the following CUWCC committees:

- Board (formerly Steering Committee)
- Commercial, Industrial, and Institutional Committee
- Residential Committee
- Landscape Committee
- Research and Evaluation Committee
- Utility Operations Committee
- Education Committee
- BMP Reporting Committee

The following sections describe Metropolitan's conservation programs.

Regional Conservation Programs

Metropolitan's conservation programs focus on two main areas: residential programs, and commercial, industrial and institutional programs.

Residential Programs

Metropolitan's residential conservation consists of three major programs:

SoCal Water$mart

In July 2008, Metropolitan initiated a new region-wide residential program named SoCal Water$mart. During its first year of operation, rebate activity exceeded expectations as many residential customers became increasingly aware of the financial incentives available to them to help offset the purchase of water-efficient devices. Metropolitan issued a record 54,000 rebates for residential fixtures totaling $10 million in fiscal year 2008/09, resulting in approximately 2.3 TAF of water to be saved annually.

Save Water, Save A Buck (Multi-Family)

Metropolitan's regional Save-A-Buck program extends rebates to multi-family dwellings. More than 40,000 rebates were issued fiscal year 2008/09 for high-efficiency toilets and washers for multi-family units within Southern California.

Member Agency Residential Programs

In addition to regional programs implemented by Metropolitan, member and retail agencies also implement local water conservation programs within their respective service areas and receive Metropolitan incentives for qualified retrofits and other water-saving actions. Typical projects include toilet replacements, locally administered clothes washer rebate programs, and residential water audits.

Metropolitan provides incentives on a variety of water efficient devices for the residential sector. The following is a brief description of current and past devices that contribute to projected conservation savings:

High-Efficiency Clothes Washers

High-efficiency clothes washers (HECWs) is a growing segment in water conservation. Metropolitan has supplemented its HECW rebate using state or federal grants whenever possible. The water efficiency of clothes washers is represented by the "water factor," which is a measure of the amount of water used to wash a standard load of laundry. Washers with a lower water factor save more water. Metropolitan has continued to move the market by changing its program requirement to lower water factors. The program eligibility requirement is currently set at water factor 4.0, which saves over 10,000 gallons per year per washer over a conventional top loading washer.

High-Efficiency Toilets and Ultra-Low-Flush Toilets

Metropolitan has provided incentives for toilet programs since 1988. Currently, Metropolitan only provides funding for high-efficiency toilets (1.28 gallons per flush or less), which use

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20 percent less than ultra-low-flush toilets (1.6 gallons per flush). Ultra-low-flush toilets are the current standard defined by the plumbing code. Metropolitan uses the EPA's WaterSense list of tested toilets in its programs as qualifying models.

Irrigation Evaluations and Residential Surveys

Metropolitan provides funding to its member agencies that choose to implement irrigation evaluations and indoor surveys for residents. Irrigation evaluations provide customers with a recommended irrigation schedule and suggested improvements for irrigation systems. Indoor residential surveys provide customers with information on identifying leaks and making changes to water-using devices in the home.

Rotating Nozzles for Sprinklers

Pop-up spray heads with multi-stream, multi-trajectory rotating nozzles represent a new alternative to the irrigation of landscapes. Field tests demonstrate these devices apply water more evenly than traditional nozzles with fixed conical spray patterns, offering the potential for significant water savings. Low precipitation rates associated with these nozzles can reduce run-off and related pollution, thereby offering a significant value-added benefit when irrigating sloping landscapes.

Weather-Based Irrigation Controllers

Weather-based irrigation controllers (WBIC) are a rapidly evolving conservation technology. Rather than relying on periodic manual adjustments, WBICs adjust irrigation schedules based on rain, temperature, sunlight, soil moisture, or some combination of indicators. Metropolitan began funding WBIC incentives in homes after conducting a pilot study that evaluated potential savings and ease of use.

Synthetic Turf

From July 2007 through June 2010, Metropolitan offered an incentive for synthetic turf based on a pilot project conducted with financial assistance from the United States Bureau of Reclamation (USBR). Synthetic turf provides water savings benefits as a replacement for irrigated turf and lawn areas.

Commercial, Industrial and Institutional Programs

Metropolitan's commercial industrial and institutional (CII) conservation consists of three major programs:

Save Water, Save-A-Buck Program

The majority of the CII conservation activity comes from Metropolitan's regional Save-A-Buck program. The Save-A-Buck program had its largest year in fiscal year 2008/09, providing about $8.8 million in rebates for approximately 145,000 device retrofits.

Water Savings Performance Program

The Water Savings Performance Program is a component of the commercial program and provides financial incentives for documented water savings for landscape irrigation and industrial process improvements. This program allows large-scale water users to customize conservation projects and receive incentives for five years of water savings for capital water-use efficiency improvements.

Member Agency Commercial Programs

Member and retail agencies also implement local commercial water conservation programs using Metropolitan incentives. Projects target specific commercial sectors, with many programs also receiving assistance from state or federal grant programs. Metropolitan incentives are used as the basis for meeting cost-share requirements.

Accelerated Public Sector Water Efficiency Partnership Demonstration Program

A fourth program, the Public Sector Demonstration Program, also contributes to the savings. From August 2007 through 2008, Metropolitan offered a one-time program to provide up-front funding to increase water use efficiency in public buildings and landscapes within its service area. The program was designed to reinforce the region's conservation message by demonstrating willingness for public agencies to respond to the call to save water. Participants included various special districts, school districts, state colleges and universities, municipalities, counties and other government agencies. There were four components of the program:

1. Water audits
2. Enhanced incentives
3. Pay-for-performance
4. Recycled water hook-up

Free water audits were provided to assess current indoor and outdoor water use and make specific recommendations for practical solutions and improvements for public facility and landscape areas. Water use experts created an equipment inventory list and made recommendations for replacements or upgrades. A written report was provided as a guide to initiating equipment upgrades.

Enhanced incentives were provided to replace high water-use equipment including toilets, urinals, and irrigation controllers. Program incentives were often sufficient to cover the total cost of the equipment, capped at the manufacturer's suggested retail price.

Pay-for-performance incentives were also offered to reduce landscape irrigation water use by at least 10 percent through behavioral modifications.

Metropolitan' s CII programs provide rebates for water-saving plumbing fixtures, landscaping equipment, food-service equipment, cleaning equipment, HVAC (heating, ventilating, air conditioning) and medical equipment. Following is a list of current and past devices that contribute to projected conservation savings:

- Connectionless Food Steamer
- Cooling Tower Conductivity Meter
- Dry Vacuum Pump
- High-Efficiency Clothes Washers
- High-Efficiency Toilet
- High-Efficiency Urinal
- Large Rotors - High Efficiency Nozzle
- Multi Stream Rotating Nozzles
- pH Cooling Tower Controller
- Pre-rinse Spray Head
- Steam Sterilizer
- Synthetic Turf
- Ultra-Low-Flush Toilet
- Ultra-Low-Flush Urinals
- Water Broom
- Weather-Based Irrigation Controller
- X-ray Processor
- Zero Water Urinal

Research and Development Programs

Metropolitan encourages research and development of new and creative ways to conserve water. The Innovative Conservation Program provides funding to individuals and organizations to test new technologies. The Enhanced Conservation Program provides funding directly to Metropolitan's member agencies to encourage new and creative approaches to implement urban water conservation.

Water Conservation Ordinances

In June 2008, Metropolitan adopted a Water Supply Alert resolution following Governor Arnold Schwarzenegger's proclamation of a statewide drought. Among other provisions, the Alert encouraged cities, counties, and local public water agencies to adopt and enforce local water conservation ordinances. To facilitate ordinance adoption, Metropolitan compiled a library of available local ordinances, developed a model water conservation ordinance, and hosted several workshops. Approximately half of the 19 million residents in Metropolitan's service area are now covered by adopted ordinances, and an additional one-third

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reside in jurisdictions that have taken action toward adoption of ordinances.

New Construction Programs

With grants from the USBR and the State of California, Metropolitan offered financial incentives through the California Friendly® New Home Program. Builders of new single-family model homes and multi-family developments are encouraged to incorporate water efficient fixtures and landscapes, including high-efficiency toilets and clothes washers, smart irrigation controllers, and landscapes designed with appropriate plant palettes and efficient irrigation systems. California Friendly model homes showcase residential water efficiency, helping to increase consumer awareness of water-conserving features and provide inspiration for water-conserving landscapes.

Since program inception in 2003, Metropolitan has provided incentives to eight homebuilders for more than 220 new homes with over 300,000 square feet of landscape.

Conservation Funding

Metropolitan's Conservation Credits Program (CCP) provides the basis for financial incentives and funding for urban BMP and other demand management related activities. Established in 1988, this funding mechanism supports Metropolitan's commitment to conservation as a long-term water management strategy.

The basis of Metropolitan financial support to member agency conservation efforts is estimated as the lesser of $195 per acre-foot of water saved or one-half of average device cost. In general, CCP funded water conservation project proposals must:

- Have demonstrable water savings;
- Reduce water demands on Metropolitan's system; and
- Be technically sound and require Metropolitan's participation to make the project financially and economically feasible.

Grant Programs

Additional funding for conservation programs has been made available through government agencies. Metropolitan has worked to obtain a share of this funding to enhance the region's water conservation investments. Table 3-6 and the following summaries describe briefly past sources and uses of these funds.

Measurement and Evaluation

Measurement and evaluation is an important component of Metropolitan's conservation program. These serve four primary functions:

- Providing a means to measure and evaluate the effectiveness of current and potential conservation programs
- Developing reliable estimates of various conservation programs and assessing the relative benefits and costs of these interventions
- Providing technical assistance and support to member agencies in the areas of research methods, statistics and program evaluation
- Documenting the results and the effectiveness of Metropolitan-assisted conservation efforts

Metropolitan's staff has served as technical advisors for a number of state and national studies involving the quantification and valuation of water savings.

Other Conservation-Related Activities at Metropolitan

Conservation activities are closely coordinated with Metropolitan's External Affairs Group. Table 3-7 summarizes the major conservation-related activities for the public information BMP administered by External Affairs. Table 3-8 shows Metropolitan's extensive commitment to the BMP for conservation-related education programs.

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Conservation Outreach Campaign

Metropolitan has conducted annual advertising, education, and community outreach campaigns since 2003 under its bewaterwise.com® and California Friendly® brands to urge Southern California consumers and business owners to make permanent changes in their everyday uses of water. From 2007 through 2010, the Board authorized an expansion of these efforts in order to meet the critical water supply crisis facing the state. Outreach campaigns in the latter part of the decade reflected these unprecedented challenges with more urgent calls for water conservation behavior. Creative such as "Time to Get Serious" and "Cut Your Water Use" were seen and heard across more media outlets at higher frequency levels and over longer periods of time than pre-2007 campaigns. Metropolitan was a lead sponsor of the "California's Water: A Crisis We Can't Ignore" statewide campaign with the Association of California Water Agencies in fall 2007. Leading up to the summer of 2009, Metropolitan's "Move the Needle" outreach campaign (featuring a water supply gauge nearing empty) communicated the change from voluntary to mandatory water conservation in many Southern California cities and communities.

Other activities include:

- Annual reports to the Legislature (SB 60)
- Maintaining and updating the bewaterwise.com® website in English and Spanish (more than 1.7 million individuals have visited bewaterwise.com® for information on water conservation from 2005 to 2010)
- Maintaining 9 California Irrigation Management Information System (CIMIS) stations
- Conducting consumer focus groups and surveys to measure effectiveness of outreach efforts
- Participating in workshops and local fairs regarding conservation outreach

California Friendly Landscape Training Program

Metropolitan's California Friendly Landscape Training Program, formerly known as Professional Protector del Agua, offers in-person and online courses in irrigation efficiency and water-wise garden design. Nearly 9,000 landscape maintenance professionals and residents attended the workshops in fiscal year 2008/09. Courses are conducted in English and Spanish.

Achievements to Date

Conservation is an integral part of water supply planning at Metropolitan. The Regional Supply Unit within Metropolitan works to improve understanding of costs and benefits of water conservation so investment decisions are both efficient and effective at meeting program goals. As a cooperative member of California's water conservation community, Metropolitan has made significant contributions to the development and coordination of conservation activities throughout the state. These contributions have been recognized in the form of "Gold Star" certification from the Association of California Water Agencies and awards from the USBR and California Municipal Utilities Association.

Table 3-9 summarizes Conservation Credits Program savings and investments.
Table 3-10 summarizes activities Metropolitan implemented in its service area beginning fiscal year 1990-91 and shows the achievements the region has made in implementing these programs.

Conservation continues to be an important part of Metropolitan's water supply planning. Continued investment in cost-effective conservation remains a key component of Metropolitan's resource goals

Table 3-6
Grant Program Funding

Funding Source	Program/Project	Funding Amount ($1,000s)	Description	Status
CALFED				
	Residential HECW	$925	Increase rebate amount	Completed
	Protector del Agua	$100	Course development	Completed
Prop 13 Grants				
	HECW	$2,500	Increase rebate amount	Completed
	ET Controllers	$1,800	Initiate rebates	Completed
CPUC (w/CUWCC)				
2003	Pre-Rinse Spray Valves: Phase 1	$1,600[1]	12,000 direct installations[1]	Completed
2004	Pre-Rinse Spray Valves: Phase 2	$2,200[1]	17,000 direct installations[1]	Completed
USBR				
2003	CA-Friendly Landscapes	$182	New home landscapes	Completed
2003	Data Loggers	$50	Software error analysis	Deferred
2004	CA-Friendly Landscapes	$60	New home landscapes	Completed
2004	Synthetic Turf pilot	$220	Provide incentives	Completed
2004	World Forum	$50	College/university grants	Completed
2004	CII Region wide	$250	Add $ to rebate amounts and for administration	Completed
2005	Protector del Agua	$50	Develop web classes	Completed
2005	Landscape Market Analysis	$50	Analyze landscape conservation opportunities	Completed
2005	City Makeover	$50	Public landscapes	Completed
2006	Innovative Conservation Program	$300	Support research projects	Completed
2008	Innovative Conservation Program	$300	Support research projects	In Progress
Water for the West				
	Protector del Agua	$25	Develop web classes	Completed
Prop 50				
	Residential HECW	$1,660	Increase rebate amount	Completed
	CA-Friendly Landscapes	$423	Common area landscapes	In Process
	High Efficiency Toilets	$1,000	Increase rebate amount	Completed
	Protector del Agua	$78	Develop on-line classes	Completed
2008	Residential HECW	$2,000	Increase rebate amount	In Process

[1] This is the funding amount and number of installations that represents Metropolitan's share of the project.

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Table 3-7
External Affairs Group
Conservation-Related Activities

Program or Activity	Description
Paid and public service advertising	Metropolitan has conducted annual water conservation advertising and education campaigns since 2003 using television, radio, online, event sponsorship and outdoor billboards.
Speaker's Bureau	Provides speakers for organizations, service clubs, churches, business and other community groups and associations. An estimated 15,000 – 20,000 people attend these presentations annually.
Community Relations	Organizes and conducts an average of 65 to 70 Board of Director-sponsored inspection trips of Metropolitan's distribution system per year for elected officials, community leaders and members of the public. Approximately 3,000 people learn about Metropolitan's conservation and water management policies and practices each year through these trips. Additionally, Metropolitan's education curriculum and program activities engage an average of 100,000 students per year. Metropolitan partners with community-based organizations and others to promote water education through event sponsorships and cost-sharing of educational materials.
Media and Publications	Conducts editorial briefings and media field trips; assembles press packets; prepares and disseminates news releases, speeches, videos, fact sheets, brochures, articles, and editorials describing Metropolitan's water management objectives and programs.
Government Relations	Provides elected officials, public agencies, businesses, and organizations with information about Metropolitan's water management objectives and programs.

Table 3-8
School Education Programs

Program or Activity	Date Initiated	Date Updated	Current Status	Grades	Description
Admiral Splash	1983	2006	Ongoing	Grade 4	A two-week program focusing on Southern California history, the water cycle, supply and the distribution system, water uses and conservation.
All About Water	1991	2008	Ongoing	K-3	Activities to teach young students about droughts, conservation, water quality and physical properties of water.
Geography of Water	1993	1998	Ongoing	Grades 4-8	A curriculum module on the relationship between population, precipitation, geography, economics, and water distribution.
Water Politics	1994	2004	Ongoing	Grades 9-12	A case study-based exploration of water supply issues facing Southern California, the Colorado River Basin, and the Middle East.
Water Ways	1995	2006	Ongoing	Grade 5	A supplement integrated into fifth-grade U.S. History curricula regarding water use, sources, ethics, and environment issues selected from three historical periods. This includes historical attitudes towards the stewardship of water.
Water Quality	2001	-	Ongoing	Grades 7-12	Hands-on activities to investigate water quality issues, with conservation as an element of the overall picture.
Water Works	2001	-	Ongoing	Grades 7-12	A school-to-career, job-specific program featuring activities and profiles on a variety of water-related careers, including conservation specialist.
Water Times	2005	-	Ongoing	Grade 6	An age-appropriate newspaper that provides interdisciplinary concepts, tools, and calculations related to water conservation, and that conveys an overall ethic of water stewardship.
Conservation Connection: Water and Energy Use in Southern California	2010	-	Ongoing	Grades 5-9	An activity-focused unit designed to engage students in finding solutions to conserve both water and energy at school and home. The curriculum also contains an online water and energy survey for students and their families.

Table 3-9
Conservation Credits Program

Fiscal Year	New Annual Water Savings	Investment
2008 – 2009	134,000	$44.5 million
2007 – 2008	118,000	$15.4 million
2006 – 2007	116,000	$10.6 million

Table 3-10
Conservation Achievements in Metropolitan's Service Area

	Qty	Units
CII Rebated Devices (FY 1990-91 to FY 2008-09)		
Audits/Surveys	6,353	ea
Connectionless Food Steamers	26	ea
Cooling Tower Conductivity Controllers	1,028	ea
Dry Vacuum Pump	20	ea
Toilets	107,265	ea
Urinals	20,084	ea
High Efficiency Washers	35,664	ea
pH Conductivity Controllers	103	ea
Pre-Rinse Spray Heads	17,171	ea
Multi-Stream Rotating Nozzles	77,505	ea
Steam Sterilizers	25	ea
Water Brooms	5,942	ea
Weather Based Irrigation Controllers	12,929	acres
X-Ray Processors	185	ea
High Efficiency Nozzles	19,476	ea
Synthetic Turf	5,570,848	sq. ft.
California Friendly Landscape	295,230	sq. ft.
Residential Rebated Devices (FY 1990-91 to FY 2008-09)		
Aerators	158,814	ea
Audits/Surveys	111,199	ea
High Efficiency Clothes Washers	285,903	ea
Toilets	2,629,047	ea
Multi-Stream Rotating Nozzles	65,960	ea
Showerheads	1,735,436	ea
Weather Based Irrigation Controllers	2,203	acres

3.5 Recycling, Groundwater Recovery, and Desalination

Metropolitan continues to support local resources development including water recycling, groundwater recovery, and seawater desalination to meet its supply reliability and water quality objectives in a cost effective manner.

Water recycling has proven to be a reliable core supply, and it helps local agencies comply with environmental regulations. Metropolitan continues to pursue a 2025 target for combined water recycling, groundwater recovery, and seawater desalination elements totaling 500 TAF per year of committed development and 250 TAF per year of planning buffer to address uncertainties and implementation risks. Currently, more than half of the water recycling in California occurs in Metropolitan's service area. Previous regional planning highlighted that a significant amount of future water recycling will be used for groundwater replenishment and seawater intrusion barrier purposes.

In addition, local agencies have implemented several projects to recover contaminated or degraded groundwater for potable uses that help meet the region's current or future water demand. Groundwater recovery projects use a variety of treatment technologies to remove undesirable constituents such as nitrates, volatile organic compounds (VOCs), perchlorate, color, and salt. Desalination of brackish groundwater and other local supplies enhances the continued supply reliability of the region by maximizing local groundwater resources. Furthermore, several agencies are progressively pursuing development of seawater desalination projects.

Background

A. Recycling

Local water recycling projects involve further treatment of secondary treated wastewater that is currently discharged to the ocean or streams and lands and use it for direct non-potable uses such as landscape and agricultural irrigation, commercial and industrial purpose and for indirect potable uses such as groundwater recharge, seawater intrusion barriers, and surface water augmentation. This section provides a description of the wastewater sources that potentially could be used for recycled water.

<u>Wastewater Disposal in the Service Area</u>

As part of regional planning that encourages use of recycled water, a database has been developed that include the name of each wastewater treatment facility, operating agency, location and elevation of the facility, extent of wastewater treatment, capacity and anticipated production, method of effluent disposal, and influent and effluent water qualities. Shown in Table 3-11 are the existing and projected total effluent capacities of the wastewater treatment plants from a database of 89 plants identified within Metropolitan's service area.

Wastewater treatment capacity provides an indication of the amount of wastewater being generated and disposed in Metropolitan's service area. Most wastewater plants in the service area provide secondary treatment, a level of treatment that complies with the Clean Water Act. Inland wastewater plants generally provide treatment to tertiary levels so the effluent may be disposed of in a stream or other water body or for beneficial reuse. A small percentage of tertiary treated effluent undergoes reverse osmosis or electrodialysis reversal processes, producing high-quality recycled water for groundwater recharge, industrial uses, or, in some instances, municipal uses.

Within Metropolitan's service area, many local agencies collect and treat municipal wastewater. Some of the largest agencies include:

- Los Angeles County Sanitation Districts
- Orange County Sanitation District

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Table 3-11
Existing and Projected Total Effluent Capacity
Wastewater Treatment Plants within Metropolitan's Service Area

Treatment Level	Existing Capacity (MGD)	2040 Capacity (MGD)
Primary	2,120	3,139
Secondary	1,546	2,708
Tertiary	607	1,464
Advanced	34	229

This data was compiled as part of the Southern California Comprehensive Water Reclamation and Reuse Study.

- City of Los Angeles Bureau of Sanitation
- San Diego Metropolitan Wastewater Department
- Eastern Municipal Water District
- Inland Empire Utilities Agency

Many small special-purpose wastewater agencies, dual-purpose (water and wastewater) special districts, and municipal wastewater agencies also provide wastewater treatment and disposal services within Metropolitan's service area.

As a rule, wastewater is collected in a sewer collection system. From there, it flows to a wastewater treatment plant. Once treated, wastewater is disposed of through one of three mechanisms:

1. *Ocean Outfalls* – Treated wastewater is either disposed of directly through an ocean outfall or conveyed to the ocean outfall via a land pipeline.
2. *Reuse* – Currently, about 308 TAF per year of recycled water is used for irrigation, industrial processes, and groundwater recharge applications. A few inland treatment plants (in Riverside and San Bernardino counties) irrigate feed and fodder crops with recycled water. While this use is considered beneficial, it is not necessarily the highest and best use for recycled water. Higher value uses such as landscape or agricultural irrigation and industrial applications, however, will require more developed markets.
3. *Live Stream Discharge* – A number of inland plants discharge treated effluent into local streams and rivers. That water is then used downstream for beneficial uses, eventually flowing to the ocean. Some of the affected rivers (or ephemeral streams) include:

- Los Angeles River
- Santa Ana River
- Calleguas Creek
- Rio Hondo & San Gabriel Rivers
- Santa Margarita River

Regional Planning for Optimal Recycling

In the 1990s, the United States Bureau of Reclamation, in cooperation with Metropolitan, the California Department of Water Resources, and six other Southern California water agencies, studied the feasibility of regional water reclamation projects in Southern California.[1] This study identified 34 potential regional projects within Metropolitan's service area with an estimated yield of 450 TAF per year. Metropolitan and its member agencies continue to explore these and other projects and develop updated plans on a regular basis.

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[1] This was the Southern California Comprehensive Wastewater Recycling and Reclamation Project (SCCWRRS).

Metropolitan has identified a potential for more than 1.0 MAF of recycled water to be developed by 2050. The majority of these projects are currently in conceptual planning phases.

Uses of Recycled Water

There are about 335 TAF per year of planned and permitted uses of recycled water throughout Metropolitan's service area. These include landscape irrigation, commercial and industrial use, seawater intrusion barriers, and groundwater recharge applications. It is anticipated that about 458 TAF per year of new recycled water could be developed in Metropolitan's service area by the year 2035. A number of these projects are currently being implemented and will go on-line within the next five years. Other projects are in various stages of planning, and their development will depend on cost, financing, regulatory actions, and water supply demands.

1. *Industrial* – Industrial users represent a large potential market for recycled water, particularly in heavily industrialized areas, such as the cities of Vernon, Commerce, Industry and the Wilmington area of Los Angeles. Additionally, refineries in West Basin MWD's service area and the city of Torrance use recycled water. Typical industrial uses include cooling tower makeup water, boiler feed water, paper manufacturing, carpet dying, and process water. In 2009, approximately 15 TAF of recycled water was used for industrial purposes. Industrial users are high-demand, continuous-flow customers, which allows greater operational flexibility by allowing plants to base load operations rather than contend with seasonal and diurnal flow variations. Because of these operational benefits, industrial users reduce the need for storage and other peak demand facilities and management.
2. *Irrigation* – Currently, about 132 TAF per year of recycled water is used to irrigate golf courses, parks, schoolyards, cemeteries, greenbelts, and agricultural purposes throughout Southern California. Using recycled water for irrigation reduces the need for imported water during the critical summer months and in drought situations when water supplies are scarce.
3. *Indirect Potable* – Indirect Potable Reuse refers to the use of recycled water for groundwater recharge, and surface water reservoir augmentation purposes.
    a. *Groundwater Recharge* – Metropolitan's service area overlies numerous groundwater basins, some of which are over-drafted, and some of which are threatened by seawater intrusion. Water agencies along the Los Angeles and Orange county coastline inject water into the underlying groundwater basins to create a barrier against this seawater intrusion. The use of recycled water for seawater intrusion barrier projects is increasing and is replacing imported water used for this purpose. Increasing the proportion of recycled water can free imported water for direct consumption. Currently, approximately 118 TAF per year of recycled water is "permitted" for recharge and seawater barrier injection into the Orange County, Central and West Coast groundwater basins.

       About 38 percent of the recycled water in Metropolitan's service area is used for groundwater replenishment and seawater barriers. Table 3-12 presents a summary of this recycled water use.

Table 3-12
2009 Groundwater Replenishment and Seawater Barrier Injection Projects Using Recycled Water
(TAF per year)

Project	Recycled Water Use
OCWD GWRS	56.0
West Coast Barrier	10.9
Central Basin Spreading	41.8
Alamitos Barrier	2.2
Inland Empire Utilities Agency	2.2
Los Angeles Harbor	2.7
Camp Pendleton and other smaller projects	2.2
Total	**118.0**

Current groundwater recharge regulations require that recycled water be blended with specified percentages of imported water or other local water. With technological advancements, the percentage of recycled water is increasing. It is anticipated that some projects will soon be able to use 100 percent recycled water for seawater barrier and groundwater replenishment projects, thereby increasing recycled water use and further reducing a demand on imported supplies.

Large-scale groundwater replenishment projects utilizing recycled water require case-by-case review by the California Department of Public Health (CDPH). The greater the percentage of recycled water used for replenishment, the more stringent CDPH requirements.

One potential concern related to the use of recycled water for groundwater recharge is adverse impacts to groundwater quality from organic contaminants, metals, and salts. CDPH has proposed regulations for groundwater recharge with recycled water in aquifers used as a domestic supply source. Advanced treatment of recycled water (reverse osmosis, micro/ultra filtration, ultraviolet light, and hydrogen peroxide) is beginning to address many of these concerns and allow for greater flexibility for future recycled water use.

b. *Reservoir Augmentation* – Reservoir augmentation includes use of advanced treated recycled water to augment a surface water reservoir. Blended water from the reservoir is then treated at a conventional water treatment plant for potable purposes. There is currently no Reservoir augmentation with recycled water in Metropolitan's service area. In continuation of its effort, the City of San Diego recently approved construction of a demonstration project to test the feasibility and design requirements of a full-scale reservoir augmentation project.

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Technical and Economic Issues of Recycled Water

Recycled water use is growing rapidly in Metropolitan's service area. Further expansion depends on progress in research, regulatory change, public acceptance, and financing of local projects. Metropolitan supports:

- Increasing water recycling in California and the Colorado River Basin
- Advocating funding assistance by parties that benefit both directly and indirectly from the use of recycled water
- Expanding recycled water uses
- Reviewing recycled water regulations to ensure streamlined administration, public health and environmental protection
- Planning efforts and voluntary cooperative partnerships at the local and statewide levels
- Conducting research and studies to address public acceptance, new technologies and health effects assessments
- Increasing cooperation between agencies to serve recycled water in other agency service areas

Metropolitan is actively involved with other agencies and organizations such as WateReuse Foundation to support research and to further expand the use of recycled water. Metropolitan is also working with the WateReuse Association and other agencies on legislative and regulatory issues to streamline permitting processes and provide needed funding and support for increased use of the recycled water.

Recycled Water Task Force

Pursuant to AB 331 in 2002, the Department of Water Resources (DWR) convened a Task Force consisting of 40 water and wastewater agency managers, water recycling experts, environmental organizations, public health officials, researchers, and the public to evaluate the framework of State and local rules, regulations, ordinances, and permits to identify the opportunities for and obstacles to increasing the safe use of recycled water. The Task Force provided a list of recommendations and overarching issues discussed below.

1. *Funding* – Capital funding is a significant constraint to increased recycled water project development. Recycled water systems are separate from potable systems, so projects require significant capital investments in treatment and distribution. Variability in demand for recycled water lengthens the time needed to fully develop markets, which can affect project economics by increasing unit costs during early years of operation. Uncertainty of market demands creates a risk to cost recovery required for the repayment of capital debt.

   Estimates show the need for about $4 billion in capital improvements for near-term projects to develop 450 TAF per year of recycled water from future projects. This funding could come from many sources, including water agencies, wastewater agencies, and federal and state funding programs. However, the large capital risk may deter agencies from undertaking these projects. Metropolitan's Local Resources Program (LRP) assists member agencies in overcoming this obstacle. In its role as the regional water supplier, Metropolitan provides financial assistance up to $250 per AF to participating projects that displace a demand on its imported water supplies.

   In addition to the LRP, many water agencies partner with wastewater agencies to provide needed financial resources. The San Diego County Water Authority's Reclaimed Water Development Fund assists local agencies in developing recycling projects in San Diego County. Wastewater agencies understand that beneficial reuse may be a cost-effective alternative to regulatory and disposal issues. Implementing a reuse program can defer or eliminate the need for ocean outfall expansions and extensions. Also, a recent trend by the regulatory community to require zero discharge during certain periods encourages wastewater agencies to consider water reuse as a supply option. Project partnerships between water supply and wastewater treatment agencies have led to projects in which both entities contribute financial resources and share multiple benefits.

The USBR's Title XVI program Authorized by congress in 1992 represents another major funding source. To date, approximately $94 million grants has been provided to projects in Metropolitan's service area.

Proposition 50, passed in 2002, includes funding for the development of local projects including water recycling. It is expected to be an important source of funding for local projects.

The proposed bond under the Safe, Clean, and Reliable Drinking Water Supply Act of 2010, if passed by voters in November 2010, could provide an additional one billion dollars of grants and loans for development of water recycling projects.

The State Water Resources Control Board's (SWRCB) State Revolving Fund program continues to provide low interest loans for capital funding of water recycling projects. Loan payment proceeds go back to the Fund to provide loans to other projects.

2. *Regulatory Issues* – Two state agencies are involved in regulating water recycling projects. The Regional Water Quality Control Board (RWQCB) is the permitting authority and the CDPH oversees public health concerns and standards. Combining water quality concerns and health effects requires meeting stringent goals and standards. Title 22 of the California Administrative Code provides specific guidelines for treatment levels and corresponding reuse opportunities. Currently, state regulatory agencies review and determine requirements for recharge projects on a case-by-case basis.

   a. *SWRCB Recycled Water Policy* – SWRCB adopted the State Recycled Water Policy (Policy) in February 2009 after several years of negotiation. The Policy supports the SWRCB 2008-2001 Strategic Plan to promote sustainable local water supplies and establishes a mandate to increase the use of recycled water in California by 200 TAF per year by 2020 and by an additional 300 TAF per year by 2030. The Policy is organized into recycled water goals, roles of agencies, salt and nutrient management plans, landscape irrigation, groundwater recharge, anti-degradation, emerging constituents, and recycled water incentives.

   Due to incomplete knowledge of emerging contaminants analytical methods and public health impacts, the SWRCB has established a technical blue ribbon advisory panel to evaluate the current situation and provide recommendations to the SWRCB.

   b. *SWRCB General Permit for Landscape Irrigation Use of Municipal Recycled Water* – Pursuant to California Water Code § 13552.5, (Assembly Bill 1481, De La Torre, 2007) the SWRCB adopted a general permit for landscape irrigation uses of recycled water for which CDPH has established uniform statewide recycling criteria pursuant to Section 13521. The General Permit for Landscape Irrigation Uses of Municipal Recycled Water allows the use of recycled water for landscape irrigation including uses for parks, greenbelts, playgrounds, cemeteries, commercial landscaping, and freeway and highway landscaping.

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The general permit's intent was to develop a uniform interpretation of state standards that ensures the safe, reliable use of recycled water for landscape irrigation uses, consistent with state and federal water quality law. The general permit would be for uses where CDPH has established uniform statewide standards. The general permit is also intended to reduce costs to producers and users of recycled water by streamlining the permitting process for its use in landscape irrigation.

In addition, Metropolitan continue to work with other agencies and provide comments on the proposed revisions to CDPH's Draft Title 22 Code of Groundwater Recharge Regulations, California Department of Housing and Community Development's Graywater standards, and DWR's proposed Dual Plumbing design standards.

Draft Title 22 Groundwater Recharge Reuse Regulations were proposed by the CDPH on August 5, 2009. The regulations proposed changes the level of treatment, retention time, and dilution of groundwater recharge projects. Additional public comments periods are anticipated in 2010.

The emergency graywater regulations, which added Chapter 16A "Nonpotable Water Reuse Systems" into the 2007 California Plumbing Code, were approved by the California Building Standards Commission (CBSC) on July 30, 2009. The emergency regulations were subsequently filed with the Secretary of State on August 4, 2009 and became effective immediately upon filing.

Assembly Bill 371 (Goldberg 2006) and Senate Bill 283 (DeSaulnier, 2009) directed the DWR, in consultation with the State Department of Health Services, to adopt and submit to the California Building Standards Commission regulations to establish a state version of Appendix J (renamed Chapter 16 Part 2) of the Uniform Plumbing Code to provide design standards to safely plumb buildings with both potable and recycled water systems.

On November 18, 2009 the Building Standards Commission unanimously voted to approve the California Dual Plumbing Code that establishes statewide standards for installing both potable and recycled water plumbing systems in commercial, retail, and office buildings, theaters, auditoriums, condominiums, schools, hotels, apartments, barracks, dormitories, jails, prisons, and reformatories. The code is scheduled to be published in July 2010 with an effective date of January 1, 2011.

3. *Institutional Issues* – Multiple local agencies are often involved in the development of local water recycling projects. For example, recycled water from a single wastewater source may be used by a number of agencies that provide recycled water service, or the recycled water may be treated and delivered by an agency in one service area and used in another. Also, an agency responsible for wastewater collection and treatment may deliver recycled water within a water district's service area. If recycled water is used for groundwater recharge, local agencies must coordinate with groundwater managers. In most instances, these projects require a committed agency that is willing to negotiate with other affected agencies to develop water recycling.

4. *Water Quality* – Water quality requirements for various types of irrigation and industrial uses are critical when evaluating whether recycled water will be an acceptable supply. Possible

constituents in recycled water, such as TDS, chloride, pH, or ammonia, may cause problems for specific applications. Several golf courses and other users have complained about the high salt content in recycled water and expressed reluctance to its use on their property or crops. Also, groundwater basin managers are concern with increasing salt load in groundwater due to use of high salinity recycled water. Therefore, agencies, locally and on regional basis, are engaged in addressing the high salinity in recycled water and plan for salinity management control to accommodate the water quality needs of customers and to reduce salt accumulation in underlying groundwater where recycled water is used.

5. *Seasonal Storage* – Production of wastewater at a water reclamation plant is relatively uniform year round since indoor residential use does not vary much from winter to summer. Flows may be somewhat higher in the winter at the wastewater reclamation plant from stormwater inflow into the sewers, but more than 60 percent of irrigation demand on recycled water (parks, golf courses, etc.) occurs in summer (May through September). Therefore, some projects store surplus recycled water in the winter for later use during the dry summer months to optimize recycling. Agencies such as Las Virgenes Municipal Water District and Irvine Ranch Water District have undertaken extensive engineering and operational studies to manage their seasonal supply variations. Operational storage is also needed because regulations only allow watering at night to reduce opportunities for direct public contact. Current practice is to use supplement recycled water with potable water or other water to meet peak demand in summer which outpace available recycled water supplies.

6. *Public Acceptance* – Public education programs are an integral part of recycled water project implementation. Recycled water users and the general public need to be educated on recycled water benefits and need to be reassured of the safety of recycled water. To encourage public acceptance, Metropolitan supports a continuous review of recycled water use regulations to ensure streamlined administration, public health, environmental protection, and research efforts that address public acceptance, new technologies, and health effects assessments.

B. Groundwater Recovery

All Southern California groundwater basins experience varying degrees of water quality challenges as a result of urban and agricultural uses. The accumulation of high-salinity water and degradation from volatile organics are two common constraints to the economic use of groundwater for urban applications. In some cases, the threat of increased salt buildup can also complicate conjunctive use of groundwater basins and imported supplies.

In limited instances, recovering degraded groundwater costs less than purchasing imported water from Metropolitan. As a result, these projects have moved forward on their own because they make economic sense. In many cases, particularly where total dissolved solids are the constituent of concern, more expensive membrane processes are required, and agencies are more reluctant to make the capital investments necessary to recover the degraded water. In those cases, agencies typically seek financial assistance to offset costs.

Metropolitan initiated its Groundwater Recovery Program (GRP) in 1991 to encourage local agencies to treat and use degraded groundwater for municipal purposes. Under the GRP, Metropolitan provided financial assistance of up to $250 per AF to local agencies for the construction and operation of project facilities used to recover degraded groundwater that will cost the implementing agency more than purchasing that water supply from Metropolitan. The GRP was open to all technologies that recovered and used degraded groundwater. It was retired in 1998 folded into Metropolitan's Local Resources Program, which now includes both recycled water and groundwater recovery projects.

Use of degraded groundwater normally requires high levels of treatment. Membrane processes used to recover the majority of severely degraded water have a high capital cost and incur a high operational cost for power. Once treated, however, recovered groundwater may be integrated to potable water systems.

All processes that recover degraded groundwater also produce concentrated waste flows for which disposal can be problematic. Most importantly, membrane processes produce significant volumes of brine – about 15 percent of the treated water – that require disposal to an ocean outfall or sanitary sewer. Since discharge to sewers only exacerbates the salinity problems that challenge downstream water recycling projects, brine disposal requires separate and expensive ocean outfalls.

Lastly, most of the groundwater basins in Southern California are regulated by basin managers through adjudication or groundwater management plans. Where recovery of contaminated groundwater exceeds the limitations on production of groundwater specified in the basin adjudication or management plan groundwater recovery projects may include groundwater replenishment with supplemental water.

Brine Disposal

All processes that recover degraded groundwater also produce concentrated waste flows for which disposal can be problematic. Most importantly, membrane processes such as reverse osmosis – the predominant desalting technology used in Southern California – produce significant volumes of brine that can account for about 15 percent of the treated water. In Southern California, brines generated from brackish water desalination are typically disposed through dedicated brine lines to ocean outfalls or sanitary sewers. Advanced wastewater treatment with membrane also generates a high salinity brine.

Brine disposal is a critical issue facing Southern California in the further development of brackish groundwater projects and recycled water supplies, since introducing high-salinity brines into sanitary sewers impacts the ability to recycle waste water. The U.S. Bureau of Reclamation, partnering with Metropolitan and 13 other water, waste water and groundwater agencies, recently completed a study of the Region's brine disposal current and future needs. The Southern California Regional Brine-Concentrate Management Study, Phase I, found that brine generation from brackish groundwater desalters is expected to grow from 15 mgd in 2008 to 76 mgd by 2035. Over the same period, brines produced by advanced treatment of wastewater for recycled uses will grow from 17 mgd in 2008 to 60 mgd by 2035. Total local supplies of about 500 mgd would be supported by brine producing projects and necessary disposal by 2035.

The management of existing regional brine lines and the development of new brine line systems will be a critical factor in the continued growth in brackish groundwater desalination and recycled water supplies in Southern California. The region currently has one operating brine line, the Santa Ana Regional Interceptor (SARI line). The SARI line collects brine from desalters in San Bernardino, Riverside, and Orange counties. A key benefit of the SARI line is that it has allowed inland water agencies to recover impaired groundwater resources which would otherwise be unusable. A second brine line – the Calleguas Regional Salinity Management Project is under construction in Ventura County, and will collect brine from existing and planned groundwater desalters and wastewater treatment plants. A third regional line is in the planning phase in San Diego County. The Southern California Salinity Coalition, a coalition of water and wastewater agencies, has advocated for state and federal financial assistance to build these regional brine lines.

C. Seawater Desalination

Seawater desalination represents a significant opportunity to diversify the region's water resource mix with a new, locally controlled, reliable potable supply. Like conservation, recycling, and other new local supplies, seawater desalination will increase regional supply reliability by offsetting existing and future demands for imported water. Metropolitan continues to pursue a target for seawater desalination of 150,000 AF per year by 2025, and several local and retail water agencies have identified seawater desalination as an important component of their water supply portfolio in their Urban Water Management Plans.

The implementation of large-scale seawater desalination plants in California offers many opportunities and challenges. In the past decade, advances in energy efficiency and membrane technology have reduced the cost of seawater desalination relative to the costs for imported water supplies and other supply alternatives. Challenges to seawater desalination include high capital and operation costs, pre-treatment design, addressing environmental issues, system integration, and navigating an uncertain permitting process. Metropolitan's member agencies are actively pursuing research into alternative intake and outfall technologies, process designs, and treatment alternatives that could minimize some of the environmental issues and lower unit costs.

Changed Conditions

The status of locally planned recycling and groundwater recovery projects changes from year to year. Metropolitan periodically surveys its member agencies for planned projects to coordinate local supply projections and plans. Changes in long-term strategies, regulations, funding priorities, and new opportunities contribute to changing outcomes.

Other changes include the following:

- Decreases in the seawater desalination costs;
- Accelerated development of groundwater recovery projects;
- Increases in recycled water use for groundwater replenishment and seawater barriers.

Implementation Approach

The IRP Preferred Resource Mix provides Metropolitan with a strategy to meet future water supply reliability needs. Developing locally owned water recycling, groundwater recovery, and seawater desalination projects allows Metropolitan to reduce its capital improvements and its O&M costs for water importation, treatment, and distribution. Metropolitan schedules its financial assistance for these types of projects to conform to expanding regional needs for imported water.

Since 1982, Metropolitan has implemented several programs to provide financial assistance to its member agencies and subagencies for developing local water supplies. Metropolitan's incentive programs are based on a pay-for-performance principle, with incentive payments provided on a contractual basis for yield developed by local agencies and applied to beneficial uses. These incentive programs have been instrumental in helping the region implement Metropolitan's local resource targets. Since the inception of the program, Metropolitan has invested more than $347 million and partnered with member agencies on 62 recycling projects and 22 groundwater recovery projects. Member and retail agencies have also funded a significant number of local projects without Metropolitan funding, many of which pre-date Metropolitan's incentive programs. The following is a brief summary of the evolution of Metropolitan's investment in water recycling and groundwater recharge implementation.

Water Recycling and Groundwater Recovery

1981 The Local Projects Program (LPP) was initiated and designed to facilitate the development of water reclamation projects. Under the original program, Metropolitan contributed a negotiated amount to help finance project capital costs. Two projects were constructed under this approach for a collective yield of 3,560 AF per year.

1986 The LPP was revised such that Metropolitan contributed its avoided energy costs of State Water Project pumping in the form of a rebate per acre-foot of recycled water delivered to end-use customers. This change was based on the assumption that local projects resulted in the avoidance of water importation pumping costs. Under the 1986 revisions, 14 projects with a combined ultimate yield of 31 TAF per year were approved for LPP assistance.

1990 Metropolitan's Board increased the LPP contribution to $154 per AF, which was calculated based on Metropolitan's avoided capital and operational costs to convey, treat, and distribute water, and included considerations of reliability and service area needs. In 1990, the LPP goal was to achieve an additional 150 TAF of recycled water use by the year 2000.

Attributes of the LPP included a relatively simple program administration where participating agencies could depend on receiving a fixed level of contribution per acre-foot of recycled water delivered, and payments were tied to performance. Disadvantages of the LPP were that fixed contribution payments may not provide sufficient incentives during the early years of a project to encourage development of economical projects. In addition LPP contributions were based on preliminary, feasibility level cost estimates made prior to construction which could result in over payment by Metropolitan.

1991 The Groundwater Recovery Program (GRP) established in 1991, was designed to improve water supply reliability through the recovery of otherwise unusable groundwater that has been degraded by minerals and other contaminants and provide access to the storage assets of the degraded groundwater. An ancillary benefit was maintaining the quality of groundwater resources by reducing the spread of degraded plumes. In 1991, the GRP goal was to implement projects to recover 200 TAF per year of groundwater for domestic purposes.

The GRP was similar to the LPP in that Metropolitan entered into agreements to pay for water produced by each individual project for 20-year terms. However, the GRP contribution was paid based on a sliding scale from $0 to a maximum of $250 per AF. To receive a contribution, project unit costs must have exceeded Metropolitan's non-interruptible treated water rate. When the project unit cost of the GRP project equaled the current applicable Metropolitan water rate, the incentive was zero. Agencies are required to submit annual project costs and production data at the conclusion of each fiscal year of operation in order to determine the appropriate incentive.

The main advantage of the GRP over the LPP was that variable rate contributions provided a greater financial incentive in the early years of project operation, when project unit costs were higher. Further, GRP contributions were based on actual incurred construction, operation and replacement costs, and water production values reported after the end of the fiscal year. These costs and production values are subject to audit. However, program administration under the GRP is more difficult than the LPP because project costs must be verified annually, and discrepancies involving payment adjustments have to be resolved.

1995 During development of the Local Resources Program (LRP), Metropolitan's board allowed the immediate conversion of existing projects under the LPP to include proposed GRP-type incentive terms. The proposal was made to 40 approved LPP projects at the time, of which 37 projects had already executed agreements and three were in the process of final execution. Conversion of projects from the existing LPP to LRP was voluntary and was accomplished through the amendment of existing agreements. The proposal was extended to seven additional LPP projects whose applications were under review at the time.

By June 1999, new agreements were executed that converted 15 LPP projects to include new LRP terms similar to sliding scale incentives paid under the GRP.

1996 Metropolitan's IRP identified goals for a diverse mix of six local and imported water resource elements optimized to meet future supply reliability in a cost-effective manner. The IRP set initial targets for resource development that the region must achieve for water supply reliability through the year 2020. Studies showed reduced long-term costs to the region when local resources were developed due to downsizing or deferral of Metropolitan's capital improvements, reduction in operating costs for importation, treatment and distribution, and reduction in costs for developing alternative regional supplies. Encouraging water recycling and groundwater recovery projects by providing financial assistance was consistent with the IRP goals approved by Metropolitan's board as a strategy to meet future water supply reliability needs of Metropolitan's service area in a cost-effective manner.

1998 Metropolitan established the competitive Local Resources Program, which encourages local development of recycled water and recovered groundwater through a process that emphasizes cost-efficiency to Metropolitan, timing new production according to regional need, and minimizing administrative cost and complexity. The LRP replaced the LPP and GRP with uniform criteria for financial assistance to local projects that contribute to regional water supply reliability. Under the competitive program, agencies requested fixed financial assistance payments up to $250 per AF of production for agreement terms up to 25 years. Proposals that requested lower financial assistance and terms scored higher under the competitive process. Under the LRP, Metropolitan issues a request for proposals for a specified regional quantity of water to achieve production targets identified under the IRP. A review panel evaluates proposals using scoring criteria adopted by Metropolitan's board and identifies the mix of project proposals that best meet the region's needs consistent with the RFP.

In June 1998, Metropolitan issued a Request for Proposals (RFP) for the development of 53,000 AF per year of new water recycling and groundwater recovery projects under the LRP to help achieve regional water supply reliability goals identified by the IRP. Fourteen projects were selected through the competitive process and agreements were executed with the local agencies by April 2000 to provide financial assistance for up to 25 years.

In April 2003, Metropolitan issued the second competitive RFP for the development of an additional 65,000 AF of new recycled water and recovered groundwater under the LRP. Thirteen projects were competitively selected and agreements for ten local projects were executed by December 2005. Three projects did not meet the deadline for inclusion in the LRP.

Under the competitive RFP process the weighted average incentive payment for 27 projects is about $115 per AF of yield, and is below the maximum contribution of $250 per AF. Additionally, some proposals resulted in shorter duration agreements compared to the maximum of 25 years.

2004 The Board approved the IRP Update that refined regional supply development targets based on the identified changed conditions and provided a long-term resources plan to 2025. These targets, specified in five-year intervals, set development schedules needed to ensure regional supply reliability, allowing for compliance with current applicable water code provisions and growth legislation. The IRP Update also established the concept of a 10 percent water supply planning buffer, which set total resource development targets above forecasted water demands for planning purposes, and identified resources in advance of need.

2007 Metropolitan updated the policies and procedures for the LRP and established a goal of financing additional 174 TAF per year of new water recycling and groundwater recovery under the LRP. The program shifts from a competitive selection process to a first-come-first served bases with priorities given to projects that are ready to proceed. Under the new program, LRP incentive are on a sliding scale of up to $250 per AF, calculated annually based on actual project unit cost above Metropolitan's prevailing water rate. Project applications are accepted on a continuous basis until the IRP target is achieved. So far, Metropolitan has approved five projects totaling 57,150 AF per year under the 2007 LRP. Since then, Metropolitan has entered into agreements with local agencies for implementation of five projects with an ultimate yield of 57 TAF of recycled water. Metropolitan is currently reviewing LRP applications for nine water recycling and groundwater recovery projects, which would collectively produce 40 TAF of new water.

Seawater Desalination Program

Metropolitan's Seawater Desalination Program (SDP) was created in 2001 to encourage the development of seawater desalination by local agencies and was modeled after the LRP. Like the LRP, it offers sliding-scale incentives to member and local agencies that provide up to $250 per AF for produced supplies. The incentive is designed accelerate the development of expensive local supply projects by local agencies by lowering their cost. Metropolitan has entered into four SDP agreements, while a fifth potential project is currently on hold.[2] Of the four SDP projects, the Carlsbad Seawater Desalination project is the farthest along. This project has obtained all of the local, State, and Federal permits for necessary to begin construction, though as of May 2010, there are legal challenges to three of the permits. Project proponents anticipate the project will

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[2] LADWP's 28,000 AF per year seawater desalination project.

come on-line as early as 2012, providing the region with an additional 56 TAF of new local supplies. Table 3-13 provides a summary of the status of the four SDP projects. Local agencies are also considering three projects independent of the SDP with the potential to produce up to 280,000 AF per year if developed. Table 3-14 provides a summary of these local agency projects.

Table 3-13
Seawater Desalination Program Project Status

Project	Member Agency Service Area	AF per Year	Status	Executed Incentives Contract
Long Beach Seawater Desalination Project	Long Beach Water Department	10,000	Pilot study	Yes
South Orange Coastal Ocean Desalination Project	Municipal Water District of Orange County	16,000-28,000	Pilot study	Yes
Carlsbad Seawater Desalination Project	San Diego County Water Authority	56,000	Permitting	Yes
West Basin Seawater Desalination Project	West Basin Municipal Water District	20,000	Pilot study	Yes
Total: Seawater Desalination Projects		**102,000-114,000**		

Table 3-14
Other Potential Seawater Desalination Projects in Metropolitan's Service Area

Project	Member Agency Service Area	AF per Year	Status
Huntington Beach Seawater Desalination Project	Municipal Water District of Orange County	56,000	Permitting
Camp Pendleton Seawater Desalination Project	San Diego County Water Authority	56,000 to 168,000	Planning
Rosarito Beach Seawater Desalination Feasibility Study	San Diego County Water Authority	28,000 to 56,000[1]	Feasibility study
Total: Other Potential Projects		**140,000 to 280,000**	

[1] Metropolitan's service area would receive a share of the total supply produced by the project.

To promote the development of local seawater desalination projects, Metropolitan provides regional facilitation by supporting member agency projects during permit hearings and other proceedings, coordinating responses to potential legislation and regulations, and working with the member agencies to resolve related issues such as greenhouse gas emission standards and seawater intake regulations that could impact seawater desalination projects. Metropolitan has also formed a special Board Committee to find additional ways to promote potential projects and explore opportunities for developing regional seawater desalination supplies.

Achievements to Date

Metropolitan is committed to providing financial assistance to the development of water recycling projects throughout its service area. Since adopting the IRP in 1996, Metropolitan and its 26 member agencies, have made significant progress in achieving regional targets for recycling and groundwater recovery. Since 1982, Metropolitan executed LRP contracts for 62 recycled water projects, of which 59 produced about 161 TAF in 2009. Local projects not receiving funding from Metropolitan provide an additional 147 TAF of recycled water to the region.

Since 1991, Metropolitan executed GRP and LRP contracts for 23 recovered groundwater projects, of which 22 produced about 62 TAF in 2009. In addition to the projects under Metropolitan's programs, about 35 TAF of degraded groundwater is recovered by agencies in Metropolitan's service area without Metropolitan's financial assistance.

Table 3-15 provides a summary of the current level of regional production from these local projects. To date, Metropolitan has invested $244 million in recycling programs and $102 million for groundwater recovery. Table 3-16 provides a summary of the groundwater and recycled water production and incentive payment under Metropolitan's programs to date.

Metropolitan has continued to develop and refine its programs to encourage the involvement of its member agencies in water recycling, groundwater recovery, and desalination. Developing and managing these programs requires considerable coordination and refinement. Changing conditions over the last five years have reduced the costs of these options and allow Metropolitan to rely on these sources for future water supply.

Table 3-15
2009 Water Production From Recycling and Groundwater Recovery
(TAF)

Type of Project	With Metropolitan Funding	Without Metropolitan Funding	Total
Recycled Water	161	147	308
Groundwater Recovery	62	35	97
Total	**223**	**182**	**405**

Table 3-16
Local Resources Program[1]

	Recovered Groundwater	Recycled Water	Total
Projects			
Planned	22	62	84
In Operation	21	59	80
Ultimate Yield (TAF)	86	335	421
Deliveries (AF)			
FY 2008/2009	62	161	223
Since Inception	545	1,323	1,868
Payments ($ millions)			
FY 20082009	$12.6	$26.7	$39.3
Since Inception	$102.4	$244.3	$346.7

[1] Including Chino II Desalter

3.6 Storage and Groundwater Management Programs: Within the Region

Since the 1950s, local water management in Metropolitan's service area has included the conjunctive use of groundwater and surface water. Conjunctive use of water refers to the use and storage of imported surface water supplies in groundwater basins and reservoirs during periods of abundance. This stored water is available for use during periods of low surface water supplies as a way of augmenting seasonal and multiyear shortages.

Storage capacity in the region's groundwater basins allows for conjunctive use programs. In 2000, the Association of Ground Water Agencies (AGWA) published Groundwater and Surface Water in Southern California: A Guide to Conjunctive Use that estimated the potential for dry-year or long term conjunctive use in Metropolitan's service area at approximately 4.0 MAF. In 2007, Metropolitan published the Groundwater Assessment Study that estimated 3.2 MAF of space in groundwater basins available for storage within Metropolitan's service area.

To prepare for supply disruptions, Metropolitan and its member agencies have adopted goals for water storage within the region. Metropolitan has identified in-region storage that should be set aside for use in emergencies, such as a disruption to the California Aqueduct. In addition, Metropolitan's planning process calls for dry-year storage that can be called on at times of supply shortage due to drought.

Background

Metropolitan established general long-term storage guidelines in its WSDM plan. The WSDM plan provides for flexibility during dry years, allowing Metropolitan to use storage for managing water quality, hydrology, SWP, and CRA issues. Dry-year surface storage yields have been characterized in several ways, including delivery capabilities over two- and three-year dry periods. The approach used in the Metropolitan's resource planning assumes that dry-year surface storage can be used as needed and as available within the WSDM planning framework. Metropolitan had identified an in-region surface water target of 620 TAF of dry-year storage for year 2020. Metropolitan had achieved this target and aims to sustain this level of storage in Diamond Valley Lake (DVL) and in the SWP terminal reservoirs (Castaic and Perris) made available through the Monterey Amendment to the SWP contract.

Metropolitan has also refined its characterization of the flexible storage available in the SWP terminal reservoirs. Previous planning studies assumed that up to 50 percent of the available SWP flexible storage could be used in a repeat of a single dry-year event, such as the 1977 hydrology. In its current planning strategy, Metropolitan's dry-year surface production, including Monterey storage, is not limited in this way. Instead, Metropolitan's reliability modeling determines the availability of stored surface water supplies in each forecast year based on historical hydrology.

Implementation Approach

A. Surface Storage

Since the beginning of the Metropolitan's planning process, two significant changes have occurred to regional surface storage.

<u>Diamond Valley Lake</u>

Construction of Southern California's newest and largest reservoir nearly doubled the area's surface water storage capacity. Transport of imported water to the lake began in November 1999, and the lake reached capacity in early 2003. DVL holds up to 810 TAF, some of which is for dry-year and seasonal storage, and the remainder for emergency storage.

<u>SWP Terminal Reservoirs</u>

Under the 1994 Monterey Agreement, Metropolitan received operational control of 218,940 AF in the reservoirs at the southern terminals of the California Aqueduct. Control of this storage capacity in Castaic Lake and Lake Perris gives Metropolitan greater flexibility in handling supply shortages. In 2005, seismic concerns arose regarding Perris dam. In response, DWR reduced the storage amount at Lake Perris by half until those concerns can be studied and addressed; however, Metropolitan operational storage remained the same. Since then, Metropolitan has continued to withdraw and replace water from the reservoir operating from the lower level. In January 2010, DWR issued a Draft Environmental Impact Report for the repair of the dam at Lake Perris. Discussions are ongoing regarding the ultimate disposition of reservoir as it relates to costs allocated to the SWP contractors.

B. Groundwater Storage

Many local groundwater storage programs have been implemented over the years to maximize the use of local water supplies. These programs have included the diversion of water flows into percolation ponds for recharging groundwater basins and the recovery of degraded groundwater.

- For many years, flood control agencies within Metropolitan's service area have captured and spread stormwater for groundwater replenishment. Local runoff and reclaimed water have been conserved via spreading grounds, injection wells, reservoirs, and unlined river channels. In addition, flood control agencies have operated seawater barrier projects in Los Angeles and Orange Counties to prevent seawater intrusion into the coastal groundwater basins.
- Growing water quality problems have raised serious concerns about the ability to sustain average annual production levels. The federal Superfund program, although slow to implement clean-up projects, has helped maintain or increase the usable groundwater. These increased levels have been augmented by groundwater water recovery projects discussed in Section 3.5.

Conjunctive use of the aquifers offers an even more important source of dry year supplies. Unused capacity in Southern California groundwater basins can be used to optimize imported water supplies, and the development of groundwater storage projects allows effective management and regulation of the region's major imported supplies from the Colorado River and SWP. To meet the adopted targets for dry year storage, Metropolitan and its member agencies have encouraged the recharge of the groundwater basins. Over the years, Metropolitan has implemented conjunctive water use through various incentive programs. Typically this storage takes place in one of two ways:

- Direct deliveries to storage – Metropolitan delivers replenishment water directly to water storage facilities, including spreading sites and injection wells.
- In-lieu deliveries to storage – Metropolitan delivers additional water directly to the member agency's distribution system. The member agency then uses this water rather than pumping the groundwater it otherwise would have taken out of storage. The deferred local production results in water being left in local storage (surface or groundwater) for future use.

Metropolitan has developed a number of local programs to work with its member agencies to increase storage in groundwater basins. Metropolitan has encouraged storage through its replenishment, cyclic, and conjunctive use storage programs. These programs allow Metropolitan to deliver water into a groundwater basin in advance of agency demands. Discounted replenishment service water is delivered when Metropolitan has surplus imported water supply and is for use after one year. Cyclic storage agreements allowed pre-delivery of surplus imported water for recharge into groundwater basins in excess of an agency's planned and budgeted deliveries. This water is then purchased at a later time when the agency has need for groundwater replenishment deliveries. Conjunctive use agreements provide for storage of imported water that can be called for use by Metropolitan during dry, drought, or emergency conditions. During a dry period, Metropolitan has the option to call water stored in the groundwater basins pursuant to its contractual conjunctive use agreements. At the time of the call, the member agency pays Metropolitan the prevailing rate for that water. Since 2007, Metropolitan has drawn on dry-year supply from cyclic storage accounts with several member agencies, long-term replenishment programs, and ten contractual conjunctive use storage programs to address shortages from the State Water Project.

Achievements to Date

In 2000, Metropolitan entered an agreement with the State of California Department of Water Resources to administer $45 million of Proposition 13 state bond funds for Metropolitan's Southern California Water Supply Reliability Projects Program. Metropolitan paired the $45 million of state funds with $35 million of Metropolitan capital funds to develop nine groundwater storage programs in partnership with member and retail agencies and groundwater basin managers. These nine contractual storage programs combined with one additional conjunctive use program previously developed provide for storage of up to 422 TAF and dry-year yield of up to 117 TAF. These programs are summarized in Table 3-17.

In 2007, Metropolitan prepared the Groundwater Assessment Study Report in collaboration with its member agencies and with groundwater basin managers. The report finds that while there is substantial storage space in service area groundwater basins that could be used for conjunctive use, that there are significant challenges that must be overcome in order to implement additional storage programs. Use of additional storage opportunity requires:

- capture, delivery and recharge of additional local and imported surface supplies;
- improved capability to store available of surplus surface supplies with adequate conveyance and recharge capacity; and
- resolution of constraints including: remediation of contamination, institutional and legal issues, funding for significant investment in capital infrastructure, and incongruity between aquifer capability with overlying demand for water supplies.

To follow up on the findings of the Groundwater Assessment Study Report, Metropolitan initiated a series of seven groundwater workshops beginning in July 2008 among Metropolitan, member agencies, groundwater basin managers, and stakeholders to discuss challenges for increasing conjunctive use and to develop recommendations for addressing the challenges. The workgroup's recommendations were submitted as a Board Report to Metropolitan's Board of Directors and provided as input to Metropolitan's current planning process. The recommendations are as follows:

1. Enhance groundwater recharge with increased storm water and recycled water recharge and imported replenishment water when it is available.
2. Streamline requirements, remove policy constraints, clarify procedures, increase coordination and sharing of information to accomplish recharge goals.
3. Develop flexible regional policies and programs that can be tailored to meet

specific local needs of each groundwater basin.

4. Increase integration of local groundwater and regional water supplies with proposal for a comprehensive modeling study to initiate review of innovative opportunities.
5. Use appropriate price signals to encourage conjunctive use and investments for storage.
6. Increase coordination among Metropolitan, member agencies, basin managers, groundwater producers and stakeholders inclusive of collaboration for legislative, regulatory, and educational efforts in support of specific initiatives and funding needed for sound groundwater management.

As an initial effort toward comprehensive modeling for increased integration of local and regional water supplies recommended in the workshop process, Metropolitan worked with groundwater basin managers to develop groundwater basin modules for five key groundwater basins in its service area. The modules are run with Metropolitan's regional supply model, RPSIM, to evaluate conjunctive use opportunities and changes to groundwater basin water levels under a variety of local and regional supply scenarios.

In 2010, Metropolitan entered into an agreement with the Los Angeles County Sanitation District to conduct a feasibility study for developing a regional recharge project using recycled water.

Other Identified Contractual Groundwater Storage Programs

Metropolitan continues to discuss opportunities to expand groundwater conjunctive use storage programs throughout its service area. The use of the supplemental storage program in 2005 provides one example of these opportunities. The state's wet winter of 2004-05 provided Metropolitan with abundant water supplies. To encourage maximized storage in the region, Metropolitan offered discount rates to its member agencies that allowed more storage of surplus imported water supplies than previously planned. The stored water was produced at Metropolitan's call in 2008-09 and 2009-10 to offset imported water demands. Identified potential programs include:

- Chino Basin Storage Program Expansion
- Orange County Basin Storage Program Expansion
- Pasadena Groundwater Storage Program
- North Las Posas Phase 3
- Central Basin Storage Program
- West Basin Storage Program
- San Fernando Basin Storage Program
- San Jacinto Basin Storage Program
- City of San Diego Storage Program

Table 3-17
Contractual Conjunctive Groundwater Projects

Project and Project Proponents	Storage Capacity (TAF)	Dry-Year Yield (TAF/Year)	Balance as of July 1, 2007 (TAF)	Storage Account Balance as of 12/31/2009 (TAF)
LOS ANGELES COUNTY				
Long Beach Conjunctive Use Project Long Beach	13.0	4.3	13.0	6.4
Foothill Area GW Storage Project Foothill MWD	9.0	3.0	3.3	0.6
Long Beach CUP: Expansion in Lakewood Long Beach	3.6	1.2	1.8	1.8
City of Compton Conjunctive Use Program City of Compton	2.3	0.8	1.1	0
Upper Claremont Heights Conjunctive Use Three Valleys MWD	3.0	1.0	0	0
ORANGE COUNTY				
Orange County GW Conjunctive Use Program OCWD, MWDOC	66.0	22.0	47.9	8.6
SAN BERNARDINO COUNTY				
Chino Basin Programs IEUA, TVMWD, Chino Basin Watermaster	100.0	33.0	80.6	23.0
Live Oak Basin Conjunctive Use Project Three Valleys MWD	3.0	1.0	0.70	0.7
RIVERSIDE COUNTY				
Elsinore Groundwater Storage Program Western MWD, Elsinore Valley MWD	12.0	4.0	0.4	0
VENTURA COUNTY				
North Las Posas Groundwater Storage Program Calleguas MWD	210.0	47.0	60.6	43.5
Total	**421.9**	**117.3**	**209.4**	**84.6**

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3.7 20x2020 Water Reduction Target

In November 2009, Governor Arnold Schwarzenegger signed the Water Conservation Act of 2009 (SB 7) into law as part of the historic comprehensive water package designed to address the State's growing water challenges. The Act represented the culmination of efforts by water industry leaders (including Metropolitan), the environmental community, and the Legislature to enact legislation that would answer the governor's call for the state to reduce per capita water use 20 percent by the year 2020 (referred to as "20x2020") as part of a larger effort to ensure reliable water supplies for future generations and restore the Bay-Delta.

The 20X2020 legislation requires urban retail water suppliers to develop urban water use targets to help meet the 20 percent reduction in water use by 2020, with interim targets for 2015. The legislation provides flexibility in how targets are established and achieved. Per capita reductions can be accomplished through any combination of increased water conservation, improved water use efficiency, and increased use of recycled water to offset potable demand. Potable demand offsets can occur through direct reuse of recycled water, such as for irrigation, or indirect potable reuse through groundwater recharge and reservoir augmentation. Retail water suppliers receive partial credit for past efforts in conservation and recycled water; therefore, not all agencies need to reduce demand by 20 percent in order to comply with the new law.

The legislation provides additional flexibility by allowing compliance on an individual agency basis or through collaboration with other agencies in a region. Based on Metropolitan's analysis of population and demand and the methodologies for setting targets described in the legislation, compliance with 20x2020 on an individual agency basis throughout the region would result in reduced potable demand of 380 TAF in 2020. The additional conservation and/or recycling that local water agencies would implement at the retail level to attain the 380 TAF target in 2020 and an interim target of 190 TAF by 2015 are reflected in the 2010 RUWMP demand projections.

Achieving regional consistency with the legislative goal – a 20 percent reduction for the region as a whole – would result in additional savings of 200 TAF for a total of 580 TAF. This additional 200 TAF savings target for 2020 could be an important part of the region's future supplies and is included in the Programs under Development in the water supply forecast tables presented in Appendix A.3. For the region, the baseline water demand is estimated to be 178 gallons per capita per day (GPCD). A 20 percent reduction would reduce this to 142 GPCD. Achieving an annual demand reduction of 580 TAF by 2020 will require additional local and regional investments in both conservation and recycled water.

The policies and programs to address the water reduction target will be consistent to Metropolitan's conservation measured described in Sections 3.4 and the water recycling efforts described in Section 3.5.

Metropolitan's 2004 IRP Update includes a goal of 10 TAF per year for active water conservation programs and a recycling goal of 135 TAF of annual recycled water. These two goals combined with measures taken by retail water agencies would be the means to achieve the regional 20x2020 goal.

Over the next five years, Metropolitan will periodically assess water supply conditions and trends in per capita demand within its service area and evaluate potential programs to ensure attainment of the goal. Metropolitan also continues to provide support for retail agency efforts through technical assistance, legislation, code and standards updates, and potential financial incentives where needed for market transformation to increase water use efficiency.

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Water Quality 4

Metropolitan's planning efforts have recognized the importance of the quality of its water supplies. To the extent possible, Metropolitan responds to water quality concerns by concentrating on protecting the quality of the source water and developing water management programs that maintain and enhance water quality. Contaminants that cannot be sufficiently controlled through protection of source waters must be handled through changed water treatment protocols or blending. These practices can increase costs and/or reduce operating flexibility and safety margins. In addition, Metropolitan has developed enhanced security practices and policies in response to national security concerns.

Background

Implementing the major components of Metropolitan's planning efforts – groundwater storage, recycled water, and minimized impacts on the Delta – requires meeting specific water quality targets for imported water. Metropolitan has two major sources of water: the Colorado River and the State Water Project (SWP). Groundwater inflows are also received into the SWP through groundwater banking programs in the Central Valley. Each source has specific quality issues, which are summarized in this section. To date, Metropolitan has not identified any water quality risks that cannot be mitigated. As described in this section, the only potential effect of water quality on the level of water supplies based on current knowledge could result from increases in the salinity of water resources. If diminished water quality caused a need for membrane treatment, Metropolitan could experience losses of up to 15 percent of the water processed. However, Metropolitan would only process a small proportion of the affected water and would reduce total salinity by blending the processed water with the remaining unprocessed water. Thus, Metropolitan anticipates no significant reductions in water supply availability from these sources due to water quality concerns over the study period.

Colorado River

High salinity levels represent a significant issue associated with Colorado River supplies. In addition, Metropolitan has been engaged in efforts to protect its Colorado River supplies from threats of uranium, perchlorate and Chromium VI, which are discussed later in this chapter. Metropolitan has also been active in efforts to protect these supplies from potential increases in nutrient loading due to urbanization, as well as investigating the sources and occurrence of constituents of emerging concern, such as N-nitrosodimethylamine (NDMA) and pharmaceuticals and personal care products (PPCPs). Metropolitan fully expects its source water protection efforts to be successful, so the only foreseeable water quality constraint to the use of Colorado River water will be the need to blend (mix) it with SWP supplies to meet the adopted salinity standards.

State Water Project

The key water quality issues on the SWP are disinfection byproduct precursors, in particular, total organic carbon and bromide. Metropolitan is working to protect the water quality of this source, but it has needed to upgrade its water treatment plants to deal adequately with disinfection byproducts. Disinfection byproducts result from total organic carbon and bromide in the source water reacting with disinfectants at the water treatment plant, and they may place some near term restrictions on Metropolitan's ability to use SWP water. Metropolitan expects these treatment restrictions to be overcome through the addition of ozone disinfection at its treatment plants. Arsenic is also of concern in some groundwater storage programs. Groundwater inflows into the California Aqueduct are managed to comply with regulations and protect downstream water quality while meeting supply targets. Additionally, nutrient levels are significantly higher in the SWP system than within the Colorado River, leading to the potential for algal related concerns that can affect water management strategies. Metropolitan is engaged in efforts to protect the quality of SWP water from potential increases in nutrient loading from wastewater treatment plants. Also, as in the Colorado River watershed, Metropolitan is active in studies on the occurrence, sources, and fate and transport of constituents of emerging concern, such as NDMA and PPCPs.

Local Agency Supplies and Groundwater Storage

New standards for contaminants, such as arsenic, and other emerging standards may add costs to the use of groundwater storage and may affect the availability of local agency groundwater sources. These contaminants are not expected to affect the availability of Metropolitan supplies, but they may affect the availability of local agency supplies, which could in turn affect the level of demands on Metropolitan supplies if local agencies abandon supplies in lieu of treatment options. Metropolitan has not analyzed the effect that many of these water quality issues could have on local agency supply availability. There have, however, been some investigations into the supply impacts of perchlorate groundwater contamination as indicated later in this section.

In summary, the major regional concerns include the following:

- Salinity
- Perchlorate
- Total organic carbon and bromide (disinfection byproduct precursors)
- Nutrients (as it relates to algal productivity)
- Arsenic
- Uranium
- Chromium VI
- N-nitrosodimethylamine (NDMA)
- Pharmaceuticals and personal care products (PPCPs)

Metropolitan has taken several actions and adopted programs to address these contaminants and ensure a safe and reliable water supply. These actions, organized by contaminant, are discussed below. Another constituent previously identified in the 2005 RUWMP as a regional concern, methyl tertiary-butyl ether (MTBE), is now a decreasing concern due to the elimination of this chemical as a gasoline additive in California. This is also further discussed below, along with other water quality programs that Metropolitan has been engaged in to protect its water supplies.

Issues of Concern

Salinity

Imported water from the Colorado River has high salinity levels, so it must be blended (mixed) with lower-salinity water from the SWP to meet salinity management goals. Higher salinity levels in either Colorado River water or groundwater would increase the proportion of SWP supplies required to meet the adopted imported water salinity objectives. Metropolitan adopted an imported water salinity goal because higher salinity could increase costs and reduce operating flexibility. For example,

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1. If diminished water quality causes a need for membrane treatment, the process typically results in losses of up to 15 percent of the water processed. These losses result both in an increased requirement for additional water supplies and environmental constraints related to brine disposal. In addition, the process is costly. However, only a portion of the imported water would need to be processed, so the possible loss in supplies is small.
2. High total dissolved solids (TDS) in water supplies leads to high TDS in wastewater, which lowers the usefulness and increases the cost of recycled water.
3. Degradation of imported water supply quality could limit the use of local groundwater basins for storage because of standards controlling the quality of water added to the basins.

In addition to the link between water supply and water quality, Metropolitan has identified economic benefits from reducing the TDS concentrations of water supplies. Estimates show that a simultaneous reduction in salinity concentrations of 100 milligrams per liter (mg/L) in both the Colorado River and SWP supplies will yield economic benefits of $95 million per year within Metropolitan's service territory.[1] This estimate has added to Metropolitan's incentives to reduce salinity concentrations within the region's water supplies.

For all of these reasons, Metropolitan's Board approved a Salinity Management Policy on April 13, 1999. The policy set a goal of achieving salinity concentrations in delivered water of less than 500 mg/L TDS. The Salinity Management Policy is further discussed later in this section.

Within Metropolitan's service area, local water sources account for approximately half of the salt loading, and imported water accounts for the remainder. All of these sources must be managed appropriately to sustain water quality and supply reliability goals. The following sections discuss the salinity issues relevant to each of Metropolitan's major supply sources.

Colorado River

Water imported via the Colorado River Aqueduct (CRA) has the highest level of salinity of all of Metropolitan's sources of supply, averaging around 630 mg/L since 1976. Concern over salinity levels in the Colorado River has existed for many years. To deal with the concern, the International Boundary and Water Commission approved Minute No. 242, Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River in 1973, and the President approved the Colorado River Basin Salinity Control Act in 1974. High TDS in the Colorado River as it entered Mexico and the concerns of the seven basin states regarding the quality of Colorado River water in the United States drove these initial actions. To foster interstate cooperation on this issue, the seven basin states formed the Colorado River Basin Salinity Control Forum (Forum).

The salts in the Colorado River system are indigenous and pervasive, mostly resulting from saline sediments in the Basin that were deposited in prehistoric marine environments. They are easily eroded, dissolved, and transported into the river system. The Colorado River Basin Salinity Control Program is designed to prevent a portion of this abundant salt supply from moving into the river system. The program targets the interception and control of non-point sources, such as surface runoff, as well as wastewater and saline hot springs.

The Forum proposed, the states adopted, and the U. S. Environmental Protection Agency (USEPA) approved water quality standards in 1975, including numeric criteria and a plan for controlling salinity increases. The standards require that the plan ensure that the flow-weighted average annual salinity remain at or below the 1972 levels,

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[1] Metropolitan Water District of Southern California and U.S. Bureau of Reclamation, Salinity Management Study: Final Report (June 1999)

while the Basin states continue to develop their 1922 Colorado River Compact-apportioned water supply. The Forum selected three stations on the main stream of the lower Colorado River as appropriate points to measure the river's salinity. These stations and numeric criteria are (1) below Hoover Dam, 723 mg/l; (2) below Parker Dam, 747 mg/l; and (3) at Imperial Dam, 879 mg/l. The numeric criteria are flow-weighted average annual salinity values.

By some estimates, concentrations of salts in the Colorado River cause approximately $353 million in quantified damages in the lower Basin each year. The salinity control program has proven to be very successful and cost-effective. Salinity control projects have reduced salinity concentrations of Colorado River water on average by over 100 mg/L or $264 million per year (2005 dollars) in avoided damages.

During the high water flows of 1983-1986, salinity levels in the CRA dropped to a historic low of 525 mg/L. However, during the 1987-1992 drought, higher salinity levels of 600 to 650 mg/L returned. TDS in Lake Havasu was measured at 628 mg/L in November 2009.

State Water Project

Water supplies from the SWP have significantly lower TDS concentrations than the Colorado River, averaging approximately 250 mg/L in water supplied through the East Branch and 325 mg/L on the West Branch over the long-term, with short term variability as a result of hydrologic conditions.[2] Because of this lower salinity, Metropolitan blends SWP water with high salinity CRA water to reduce the salinity concentrations of delivered water. However, both the supply and the TDS concentrations of SWP water can vary significantly in response to hydrologic conditions in the Sacramento-San Joaquin watersheds.

As indicated above, the TDS concentrations of SWP water can vary widely over short periods of time. These variations reflect seasonal and tidal flow patterns, and they pose an additional problem for use of blending as a management tool to lower the higher TDS from the CRA supply. For example, in the 1977 drought, the salinity of SWP water reaching Metropolitan increased to 430 mg/L, and supplies became limited. During this same event, salinity at the SWP's Banks pumping plant exceeded 700 mg/L. Under similar circumstances, Metropolitan's 500 mg/L salinity objective could only be achieved by reducing imported water from the CRA. Thus, it may not always be possible to maintain both the salinity objective and water supply reliability unless salinity concentrations of source supplies can be reduced.

A federal court ruling and a resulting biological opinion issued through consultation with U.S. Fish and Wildlife Service addressing the effects of the water supply pumping operations on Delta smelt has limited SWP exports at specified times of the year since December 2007. These restrictions have increased reliance on higher salinity Colorado River water, impacting the ability at times to meet Metropolitan's goal of 500 mg/L TDS at its blend plants. Drought conditions leading to lower SWP water supply allocations in recent years also affects Metropolitan's ability to meet its salinity goal.

TDS objectives in Article 19 of the SWP Water Service Contract specify a ten-year average of 220 mg/L and a maximum monthly average of 440 mg/L. These objectives have not been met, and Metropolitan is working with DWR and other agencies on programs aimed at reducing salinity in Delta supplies. These programs aim to improve salinity on the San Joaquin River through modifying agricultural drainage and developing comprehensive basin plans. In addition, studies are underway to evaluate the benefits in reduced salinity of modifying levees in Franks Tract and other flooded islands in the Delta, or by placing operable gates in

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[2] The higher salinity in the West Branch deliveries is due to salt loadings from local streams, operational conditions, and evaporation at Pyramid and Castaic Lakes.

strategic locations to impede transport of seawater derived salt.

Recycled Water

Wastewater flows always experience significantly higher salinity concentrations than the potable water supply. Typically, each cycle of urban water use adds 250 to 400 mg/L of TDS to the wastewater. Salinity increases tend to be higher where specific commercial or industrial processes add brines to the discharge stream or where brackish groundwater infiltrates into the sewer system.

Where wastewater flows have high salinity concentrations, the use of recycled water may be limited or require more expensive treatment. Landscape irrigation and industrial reuse become problematic at TDS concentrations of over 1,000 mg/L. Some crops are particularly sensitive to high TDS concentrations, and the use of high-salinity recycled water may reduce yields of these crops. In addition, concern for the water quality in groundwater basins may lead to restrictions on the use of recycled water on lands overlying those basins.

These issues are exacerbated during times of drought, when the salinity of imported water supplies increases because of increased salinity in wastewater flows and recycled water. Basin management plans and recycled water customers may restrict the use of recycled water at a time when its use would be most valuable. To maintain the cost-effectiveness of recycled water, therefore, the salinity level of the region’s potable water sources and wastewater flows must be controlled.

In May 2009, the State Water Resources Control Board (SWRCB) adopted a Recycled Water Policy[3] to help streamline the permitting process and help establish uniform statewide criteria for recycled water projects. This policy promotes the development of watershed- or basin-wide salt management plans (to then be adopted by the respective Regional Boards) to meet water quality objectives and protect beneficial uses, rather than imposing project-by-project restrictions. The Recycled Water Policy identifies several criteria to guide recycled water irrigation or groundwater recharge project proponents in developing a salt (and nutrient) management plan.

Groundwater Basins

Increased TDS in groundwater basins occurs either when basins near the ocean are overdrafted, leading to seawater intrusion, or when agricultural and urban return flows add salts to the basins. Much of the water used for agricultural or urban irrigation infiltrates into the aquifer, so where irrigation water is high in TDS or where the water transports salts from overlying soil, the infiltrating water will increase the salinity of the aquifer. In addition, wastewater discharges in inland regions may lead to salt buildup from fertilizer and dairy waste. In the 1950s and 1960s, Colorado River water was used to recharge severely overdrafted aquifers and prevent saltwater intrusion. As a result, the region’s groundwater basins received more than 3.0 MAF of this high-TDS imported water, significantly impacting salt loadings.

In the past, these high salt concentrations have caused some basins within Metropolitan’s service area to be unsuitable for municipal uses if left untreated. The Arlington Basin in Riverside and the Mission Basin in San Diego required demineralization before they could be returned to municipal service. The capacity of the larger groundwater basins makes them better able to dilute the impact of increasing salinity. While most groundwater basins within the region still produce water of acceptable quality, this resource must be managed carefully to minimize further degradation. Even with today’ s more heightened concern regarding salinity, approximately 600,000 tons of salts per year accumulate within the region, leading to ever-increasing salinity concentrations in many groundwater basins.

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[3] http://www.swrcb.ca.gov/water_issues/programs/water_recycling_policy/docs/recycledwaterpolicy_approved.pdf

Table 4-1 shows the salinity from existing productive groundwater wells within the region, and Figure 4-1 shows the distribution of those salinity concentrations. To protect the quality of these basins, regional water quality control boards often place restrictions on the salinity concentrations of water used for basin recharge or for irrigation of lands overlying the aquifers. Those situations may restrict water reuse and aquifer recharge, or they may require expensive mitigation measures.

Metropolitan has participated with water and wastewater agencies and the Santa Ana Regional Water Quality Control Board (Regional Board) in a coordinated program to develop water quality data for local and imported supplies used to recharge groundwater basins in the Santa Ana River watershed.[4] In January 2008, this workgroup submitted its "Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Uses of Imported Water in the Santa Ana River Basin" to the Santa Ana Regional Board. This initial agreement addresses nitrogen and TDS and includes the following tasks:

1. Prepare a projection of ambient water quality in each groundwater management zone at six-year intervals for the subsequent 20 years.
2. Determine the impacts of foreseeable recharge projects and compare to baseline ambient water quality with salinity objectives.
3. Compare current water quality in each groundwater management zone with the ambient water quality projection made six years earlier, together with an evaluation of the reason(s) for any differences.

The Salinity Management Policy

The Salinity Management Policy adopted by Metropolitan's Board specified a salinity objective of 500 mg/L for blended imported water. It also identified the need for both local and imported water sources to be managed comprehensively to maintain the ability to use recycled water and groundwater. To achieve these targets, SWP water supplies are blended with Colorado River supplies. Using this approach, the salinity target could be met in seven out of ten years. In the other three years, hydrologic conditions would result in increased salinity and reduced volume of SWP supplies. Metropolitan has alerted its local agencies that such conditions are inevitable, and that despite its best efforts, high salinity could be a concern at such times. Metropolitan has also urged its member agencies to structure the operation of their local projects and groundwater so they are prepared to mitigate the effect of higher salinity levels in imported waters. In addition, Metropolitan will concentrate on obtaining better quality water in the spring/summer months (April through September) to maximize the use of recycled water in agriculture.

Table 4-1
Salinity Levels at Productive Groundwater Wells

TDS Concentration (mg/L)	Annual Production (Million Acre-Feet)	Percent of Production
Less than 500	1.06	78
500 to 1,000	0.15	11
Greater than 1,000	0.15	11
Total	**1.36**	**100**

Source: Metropolitan Water District of Southern California, Salinity Management Study, Final Report, June 1999.

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[4] http://www.swrcb.ca.gov/rwqcb8/board_decisions/adopted_orders/orders/2008/08_019.pdf

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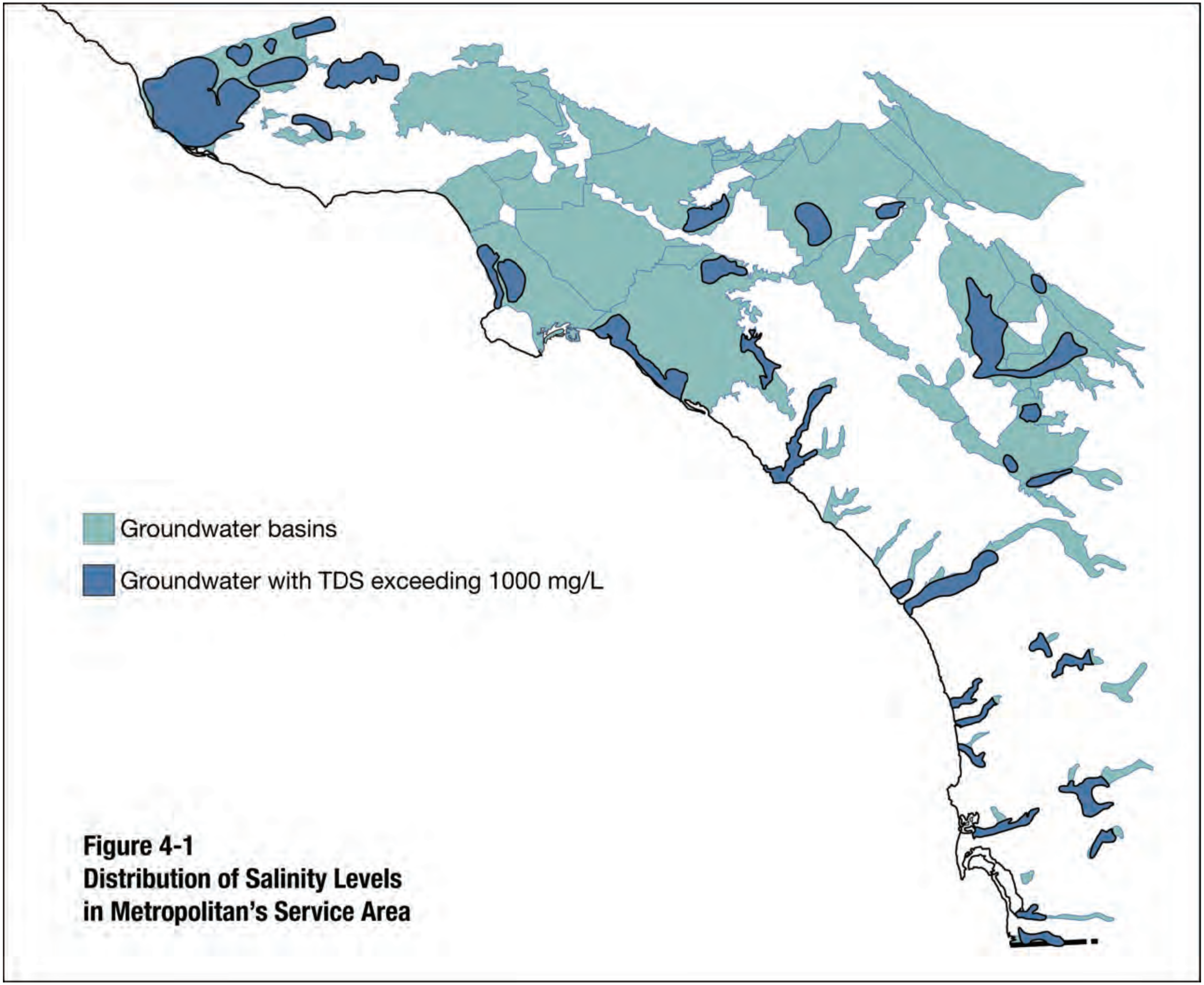

Figure 4-1
Distribution of Salinity Levels in Metropolitan's Service Area

Perchlorate

Perchlorate compounds are used as a main component in solid rocket propellant, and are also found in some types of munitions and fireworks. Perchlorate compounds quickly dissolve and become highly mobile in groundwater. Unlike many other groundwater contaminants, perchlorate neither readily interacts with the soil matrix nor degrades in the environment. Conventional drinking water treatment (as utilized at Metropolitan's water treatment plants) is not effective in removing perchlorate.

The primary human health concern related to perchlorate is its effects on the thyroid. Perchlorate interferes with the thyroid's ability to produce hormones required for normal growth and development. Pregnant women who are iodine deficient and their fetuses, infants and small children with low dietary iodide intake and individuals with hypothyroidism may be more sensitive to the effects of perchlorate.

The California Department of Public Health (CDPH) established a primary drinking water standard for perchlorate with an MCL of 6 micrograms per liter (μg/L)[5] effective October 18, 2007. There is currently no federal drinking water standard for perchlorate, but the USEPA is in the process of making its final regulatory determination for this contaminant. A regulatory determination would be the first step toward developing a national drinking water standard. Metropolitan has offered comments to USEPA during this regulatory process, focusing on the need to protect the Colorado River and to address cleanup of impacted water supplies as a result of federal institutions within its service area. In essence, Metropolitan urged for necessary actions to ensure expedited cleanup in areas that a California drinking water standard could not be enforced.

Perchlorate was first detected in Colorado River water in June 1997 and was traced back to Las Vegas Wash. The source of contamination was found to be emanating from a chemical manufacturing facility in Henderson, Nevada, now owned by Tronox, Inc. Tronox is currently responsible for the ongoing perchlorate remediation of the site. Another large perchlorate groundwater plume is also present in the Henderson area from a second industrial site, and although not known to have reached Las Vegas Wash yet, remediation activities are ongoing for cleanup of that plume by American Pacific Corporation (AMPAC).

Following the detection of perchlorate in the Colorado River, Metropolitan, along with USEPA and agencies in Nevada including the Nevada Division of Environmental Protection (NDEP), organized the forces necessary to successfully treat and decrease the sources of perchlorate loading. Under NDEP oversight, remediation efforts began in 1998 and treatment operations became fully operational in 2004. These efforts have reduced perchlorate loading into Las Vegas Wash from over 1000 lbs/day (prior to treatment) to 60-90 lbs/day since early 2007. This has resulted in over 90 percent reduction of the perchlorate loading entering the Colorado River system. In January 2009, Tronox filed for Chapter 11 bankruptcy protection citing significant environmental liabilities taken from the previous site owner. Tronox has continued operating its remediation system during the bankruptcy proceedings.

Perchlorate levels in Colorado River water at Lake Havasu have decreased significantly in recent years from its peak of 9 μg/L in May 1998 as a result of the aggressive clean-up efforts. Levels have remained less than 6 μg/L since October 2002, and have been typically less than 2 μg/L since June 2006. Metropolitan routinely monitors perchlorate at 34 locations within its system and levels currently remain at non-detectable levels (below 2 μg/L). Metropolitan has not detected perchlorate in the SWP since monitoring began in 1997.

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[5] 1 microgram per liter is equivalent to 1 part per billion

Perchlorate has also been found in groundwater basins within Metropolitan's service area, largely from local sources. The vast majority of locations where perchlorate has been detected in the groundwater are associated with the manufacturing or testing of solid rocket fuels for the Department of Defense and the National Aeronautics and Space Administration (NASA), or with the manufacture, storage, handling, or disposal of perchlorate (such as Aerojet in Azusa in the Main San Gabriel Basin and the Jet Propulsion Laboratory/NASA in the Raymond Basin). Past agricultural practices using fertilizers laden with naturally occurring perchlorate have also been implicated in some areas.

Metropolitan has conducted several surveys to determine the impact of perchlorate on its member and retail agencies. As of October 2007, 18 member agencies have detected perchlorate in their service areas at levels greater than 4 μg/L, while 11 have detected levels greater than 6 μg/L in at least 101 out of 1337 wells (7.6 percent). Member and retail agencies have shut down 32 wells over the years due to perchlorate contamination, losing more than 52.5 TAF per year of their groundwater production. Many of these agencies have built new wells, blended their water, or installed ion exchange treatment systems to reduce perchlorate levels, thus lowering their potential additional demand for Metropolitan water supplies to about 15 TAF per year.

Metropolitan has investigated technologies to mitigate perchlorate contamination. Perchlorate cannot be removed using conventional water treatment. Nanofiltration and reverse osmosis do work effectively but at a very high cost. Aerojet has implemented biological treatment through fluidized bed reactors (FBR) in Rancho Cordova and is re-injecting the treated water into the ground. Tronox also utilizes an FBR process train for the cleanup of their Henderson site. A number of sites in Southern California have successfully installed ion exchange systems to treat perchlorate impacted groundwater. The city of Pasadena has been using ion exchange treatment at one well site and, in November 2009, completed a study of biological treatment for perchlorate removal in groundwater. Funding for this study was provided through a Congressional mandate from USEPA to Metropolitan.

Treatment options are available to recover groundwater supplies contaminated with perchlorate. However, it is very difficult to predict whether treatment will be pursued to recover all lost production because local agencies will make decisions based largely on cost considerations, ability to identify potentially responsible parties for cleanup, and the availability of alternative supplies.

Total Organic Carbon and Bromide

Disinfection byproducts (DBPs) form when source water containing high levels of total organic carbon (TOC) and bromide is treated with disinfectants such as chlorine or ozone. Studies have shown a link between certain cancers and DBP exposure. In addition, some studies have shown an association between reproductive and developmental effects and chlorinated water. While many DBPs have been identified and some are regulated under the Safe Drinking Water Act, there are others that are not yet known. Even for those that are known, the potential adverse health effects may not be fully characterized.

Water agencies began complying with new regulations to protect against the risk of DBP exposure in January 2002. This rule, known as the Stage 1 Disinfectants and Disinfection Byproducts (D/DBP) Rule, required water systems to comply with new MCLs and a treatment technique to improve control of DBPs. USEPA then promulgated the Stage 2 D/DBP Rule in January 2006 that makes regulatory compliance more challenging as compliance is based on a locational basis, rather than on a distribution system-wide basis.

Existing levels of TOC and bromide in Delta water supplies present significant concern for Metropolitan's ability to maintain safe drinking water supplies and comply with regulations. Levels of these constituents in SWP water increase several fold due to agricultural drainage and seawater intrusion as water moves through the Delta. One of Metropolitan's primary objectives for the CALFED Bay-Delta process is protection and improvement of the water quality of its SWP supplies to ensure compliance with current and future drinking water regulations. Source water protection of SWP water supplies is a necessary component of meeting these requirements cost effectively.

The CALFED Record of Decision released in August 2000 adopted the following water quality goals for TOC and bromide:

- Average concentrations at Clifton Court Forebay and other southern and central Delta drinking water intakes of 50 µg/L bromide and 3.0 mg/L total organic carbon, or
- An equivalent level of public health protection using a cost-effective combination of alternative source waters, source control, and treatment technologies.

CALFED's Bay-Delta Program calls for a wide array of actions to improve Bay-Delta water quality, ranging from improvements in treatment technology to safeguarding water quality at the source. These actions include conveyance improvements, alternative sources of supply, changes in storage and operations, and advanced treatment by water supply agencies.

Source water quality improvements must be combined with cost-effective water treatment technologies to ensure safe drinking water at a reasonable cost. Metropolitan has five treatment plants: two that receive SWP water exclusively, and three that receive a blend of SWP and Colorado River water. In 2003 and 2005, Metropolitan completed upgrades to its SWP-exclusive water treatment plants, Mills and Jensen, respectively, to utilize ozone as its primary disinfectant. This ozonation process avoids the production of certain regulated disinfection byproducts that would otherwise form in the chlorine treatment of SWP water. The non-ozone plants utilizing blended water have met federal guidelines for these byproducts through managing the blend of SWP and Colorado River water. To maintain the byproducts at a level consistent with federal law, Metropolitan limits the percentage of water from the SWP used in each plant. In mid 2010, Metropolitan anticipates ozone at the Skinner water treatment plant to come online. Metropolitan's Board has also adopted plans to install ozonation at its other two blend plants with a total estimated ozone retrofit program cost of $1.2 billion for all five plants.

Nutrients

Elevated levels of nutrients (phosphorus and nitrogen compounds) can stimulate nuisance algal and aquatic weed growth that affects consumer acceptability, including the production of noxious taste and odor compounds and algal toxins. In addition to taste and odor toxin concerns, increases in algal and aquatic weed biomass can impede flow in conveyances, shorten filter run times and increase solids production at drinking water treatment plants, and add to organic carbon loading. Further, nutrients can provide an increasing food source that may lead to the proliferation of quagga and zebra mussels, and other invasive biological species. Studies have shown phosphorus to be the limiting nutrient in both SWP and Colorado River supplies. Therefore, any increase in phosphorus loading has the potential to stimulate algal growth, leading to the concerns identified above.

SWP supplies have significantly higher nutrient levels than Colorado River supplies. Wastewater discharges, agricultural drainage, and nutrient-rich soils in the Delta are primary sources of nutrient loading to the SWP. Metropolitan and other drinking water agencies receiving Delta water have been engaged in efforts to minimize the effects of nutrient loading from Delta wastewater plants. Metropolitan reservoirs receiving SWP water have experienced numerous taste and

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odor episodes in recent years. For example, in 2005, Metropolitan reservoirs experienced 12 taste and odor events requiring treatment. A taste and odor event can cause a reservoir to be bypassed and potentially have a short-term effect on the availability of that supply. Metropolitan has a comprehensive program to monitor and manage algae in its source water reservoirs. This program was developed to provide an early warning of algae related problems and taste and odor events to best manage water quality in the system.[6]

Although phosphorus levels are much lower in the Colorado River than the SWP, this nutrient is still of concern. Despite relatively low concentrations (Colorado River has been considered an oligotrophic, or low-productivity, system), any additions of phosphorus to Colorado River water can result in increased algal growth. In addition, low nutrient Colorado River water is relied upon by Metropolitan to blend down the high nutrient SWP water in Metropolitan's blend reservoirs. With population growth expected to continue in the future (e.g., Las Vegas area), ensuring high levels of treatment at wastewater treatment plants to maintain existing phosphorus levels will be critical in minimizing the operational, financial, and public health impacts associated with excessive algal growth and protect downstream drinking water uses. In addition, Metropolitan continues its involvement with entities along the lower Colorado River seeking to enhance wastewater management (and therefore better manage nutrient impacts) within river communities.

Although current nutrient loading is of concern for Metropolitan and is anticipated to have cost implications, with its comprehensive monitoring program and response actions to manage algal related issues, there should be no impact on availability of water supplies. Metropolitan's source water protection program will continue to focus on preventing increases in future nutrient loading as a result of urban and agricultural sources.

Arsenic

Arsenic is a naturally occurring element found in rocks, soil, water, and air. It is used in wood preservatives, alloying agents, certain agricultural applications, semi-conductors, paints, dyes, and soaps. Arsenic can get into water from the natural erosion of rocks, dissolution of ores and minerals, runoff from agricultural fields, and discharges from industrial processes. Long-term exposure to elevated levels of arsenic in drinking water has been linked to certain cancers, skin pigmentation changes, and hyperkeratosis (skin thickening).

The MCL for arsenic in domestic water supplies was lowered to 10 µg/L, with an effective date of January 2006 in the federal regulations, and an effective date of November 2008 in the California regulations. The standard impacts both groundwater and surface water supplies. Historically, Metropolitan's water supplies have had low levels of this contaminant and would not require treatment changes or capital investment to comply with this new standard. However, some of Metropolitan's water supplies from groundwater storage programs are at levels near the MCL. These groundwater storage projects are called upon to supplement flow only during low SWP allocation years. Metropolitan has had to restrict flow from one program to limit arsenic increases in the SWP. Implementation of a pilot arsenic treatment facility by one groundwater banking partner has also resulted in increased cost. Moreover, Metropolitan has invested in solids handling facilities and implemented operational changes to manage arsenic in the solids resulting from the treatment process.

In April 2004, California's Office of Environmental Health Hazard Assessment (OEHHA) set a public health goal for arsenic

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[6] William D. Taylor et al., *Early Warning and Management of Surface Water Taste-and-Odor Events*, Project No. 2614 (Denver, CO: American Water Works Association Research Foundation, 2006)

of 0.004 µg/L, based on lung and urinary bladder cancer risk. Monitoring results submitted to CDPH in 2001-2003 showed that arsenic is ubiquitous in drinking water sources, reflecting its natural occurrence. They also showed that many sources have arsenic detections above the 10 µg/L MCL. Southern California drinking water sources that contain concentrations of arsenic over 10 µg/L include San Bernardino (64 sources), Los Angeles (48 sources), Riverside (26 sources), Orange (4 sources), and San Diego (5 sources).[7]

The state detection level for purposes of reporting (DLR) of arsenic is 2 µg/L. Between 2001 and 2008, arsenic levels in Metropolitan's water treatment plant effluents ranged from not detected (< 2 µg/L) to 2.9 µg/L. For Metropolitan's source waters, levels in Colorado River water have ranged from not detected to 3.5 µg/L, while levels in SWP water have ranged from not detected to 4.0 µg/L. Increasing coagulant doses at water treatment plants can reduce arsenic levels for delivered water.

Some member agencies may face greater problems with arsenic compliance. A 1992 study for Central Basin Municipal Water District, for example, indicated that some of the Central Basin wells could have difficulty in complying with a lowered standard.[8] Water supplies imported by the Los Angeles Department of Water and Power may also contain arsenic above the MCL. The cost of arsenic removal from these supplies could vary significantly.

Uranium

A 16-million-ton pile of uranium mill tailings near Moab, Utah lies approximately 750 feet from the Colorado River. Due to the proximity of the pile to the Colorado River, there is a potential for the tailings to enter the river as a result of a catastrophic flood event or other natural disaster. In addition, contaminated groundwater from the site is slowly seeping into the river. The U.S. Department of Energy (DOE) is responsible for remediating the site, which includes removal and offsite disposal of the tailings and onsite groundwater remediation.

Previous investigations have shown uranium concentrations contained within the pile at levels significantly above the California MCL of 20 picocuries per liter (pCi/L). Metropolitan has been monitoring for uranium in the Colorado River Aqueduct and at its treatment plants since 1986. Monitoring at Lake Powell began in 1998. Uranium levels measured at Metropolitan's intake have ranged from 1-6 pCi/L, well below the California MCL. Conventional drinking water treatment, as employed at Metropolitan's water treatment plants, can remove low levels of uranium, however these processes would not be protective if a catastrophic event washed large volumes of tailings into the Colorado River. Public perception of drinking water safety is also of particular concern concerning uranium.

Remedial actions at the site since 1999 have focused on removing contaminated water from the pile and groundwater. Through 2009, over 2,700 pounds of uranium in contaminated groundwater have been removed. In July 2005, DOE issued its Final Environmental Impact Statement with the preferred alternative of permanent offsite disposal by rail to a disposal cell at Crescent Junction, Utah, located approximately 30 miles northwest of the Moab site.

Rail shipment and disposal of the uranium mill tailings pile from the Moab, Utah site began in April 2009. Through March 2010, DOE has shipped over 1 million tons of mill tailings to the Crescent Junction disposal cell. Using American Recovery and Reinvestment Act (ARRA) 2009 funding, DOE has increased shipments in order to meet its ARRA project

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[7] From the CDPH web site: http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Arsenic.aspx . Note that the numbers reported there may change because the website is frequently updated.

[8] *Summary Review on the Occurrence of Arsenic in the Central Groundwater Basin, Los Angeles County, California*, prepared by Richard C. Slade & Associates, Sept. 7, 1993.

commitment to ship an additional 2 million tons of mill tailings by September 2011 and accelerate overall clean-up of the site. DOE estimates completing movement of the tailings pile by 2025, with a goal of 2019 should additional funding be secured. Metropolitan continues to track progress of the remediation efforts, provide the necessary legislative support for rapid cleanup, and work with Congressional representatives to support increased annual appropriations for this effort.

Another uranium-related issue began receiving attention in 2008 due to a renewed worldwide interest in nuclear energy and the resulting increase in uranium mining claims filed throughout the western United States. Of particular interest were thousands of mining claims filed near Grand Canyon National Park and the Colorado River. Metropolitan has since sent letters to the Secretary of Interior to highlight source water protection and consumer confidence concerns related to uranium exploration and mining activities near the Colorado River, and advocate for close federal oversight over these activities. In 2009, Secretary of Interior Ken Salazar announced the two-year hold on new mining claims on 1 million acres adjacent to the Grand Canyon to allow necessary scientific studies and environmental analyses to be conducted. In 2009, H.R. 644 – Grand Canyon Watersheds Protection Act was introduced and if enacted, would permanently withdraw areas around the Grand Canyon from new mining activities.

Chromium VI

Chromium is a naturally occurring element found in rocks, soil, plants, and animals. Chromium III is typically the form found in soils and is an essential nutrient that helps the body use sugar, protein, and fat. Chromium VI is used in electroplating, stainless steel production, leather tanning, textile manufacturing, dyes and pigments, wood preservation and as an anti-corrosion agent. Chromium occurs naturally in deep aquifers and can also enter drinking water through discharges of dye and paint pigments, wood preservatives, chrome plating liquid wastes, and leaching from hazardous waste sites. In drinking water, Chromium VI is very stable and soluble in water, whereas chromium III is not very soluble. Chromium VI is the more toxic species and is known to cause lung cancer in humans when inhaled, but the health effects in humans from ingestion are still in question. There is evidence that when Chromium VI enters the stomach, gastric acids may reduce it to chromium III. However, recent studies conducted by the National Toxicology Program have shown that Chromium VI can cause cancer in animals when administered orally.

Currently, there are no drinking water standards for Chromium VI. Total chromium (including chromium III and Chromium VI) is regulated in California with an MCL of 50 µg/L. On August 20, 2009, OEHHA released a draft public health goal (PHG) of 0.06 µg/L for Chromium VI in drinking water. The PHG is a health-protective, non-regulatory level that will be used by CDPH in its development of an MCL. CDPH will set the MCL as close to the PHG as technically and economically feasible.

Metropolitan utilizes an analytical method with a minimum reporting level of 0.03 µg/L, which is less than the State detection level for purposes of reporting (DLR) of 1 µg/L. The results from all of Metropolitan's source and treated waters are less than the State DLR of 1 µg/L (except for one detection of 1 µg/L at the influent to the Mills water treatment plant). The following summarizes Chromium VI levels found in Metropolitan's system:

- In the past 10 years, results of source and treated water monitoring for Chromium VI indicate: Levels in Colorado River water are mostly not detected (<0.03 µg/L) but when detected range from 0.03 – 0.08 µg/L. SWP levels range from 0.03 – 0.8 µg/L. Treated water levels range from 0.03 – 0.7 µg/L.

- There is a slight increase in Chromium VI in the treated water from the oxidation (chlorination and ozonation) of natural background chromium (total) to Chromium VI.
- Colorado River monitoring results upstream and downstream of the Topock site (discussed below) have ranged from not detected (<0.03 µg/L) to 0.06 µg/L.
- Chromium VI in Metropolitan's groundwater pump-in storage programs in the Central Valley has ranged from not detected (< 1 µg/L) to 9.1 µg/L with the average for the different programs from 1.4 to 5.0 µg/L.
- Chromium VI has been detected in a groundwater aquifer on the site of a Pacific Gas and Electric (PG&E) gas compressor station located along the Colorado River near Topock, Arizona.

PG&E used Chromium VI as an anti-corrosion agent in its cooling towers from 1951 to 1985. Wastewater from the cooling towers was discharged from 1951 to 1968 into a dry wash next to the station. Monitoring wells show the plume concentration has peaked as high as 16,000 µg/L. PG&E operates an interim groundwater extraction and treatment system that is protecting the Colorado River. Quarterly monitoring of the river has shown levels of Chromium VI less than 1 µg/L, which are considered background levels. The California Department of Toxic Substances Control and the U. S. Department of Interior are the lead state and federal agencies overseeing the cleanup efforts. Metropolitan participates through various stakeholder workgroups and partnerships that include state and federal regulators, Indian tribes, and other stakeholders (e.g., Colorado River Board) involved in the corrective action process. In 2010, it is anticipated that a final treatment alternative will be selected, and an Environmental Impact Report will be released for the recommended cleanup alternative.

The federal- and state-approved technologies for removing total chromium from drinking water include coagulation/filtration, ion exchange, reverse osmosis, and lime softening. Potential treatment technologies for Chromium VI in drinking water may include reduction/chemical precipitation, an ion exchange, or reverse osmosis. For several years, the cities of Glendale, Burbank, and Los Angeles have been voluntarily limiting Chromium VI levels in their drinking water to 5 µg/L, an order of magnitude lower than the current statewide total chromium standard of 50 µg/L. The experience of these agencies in the treatment of water containing Chromium VI will be helpful in CDPH's evaluations of treatment technologies and associated costs, which are required as part of a proposed MCL regulation package.

N-Nitrosodimethylamine

N-Nitrosodimethylamine (NDMA) is part of a family of organic chemicals called nitrosamines and is a byproduct of the disinfection of some natural waters with chloramines. Metropolitan utilizes chloramines as a secondary disinfectant at its treatment plants. Wastewater treatment plant effluent and agricultural runoff can contribute organic material into source waters which react to form NDMA at water treatment plants. Certain polymers can also contribute NDMA precursor materials. Some NDMA control measures or removal technologies may be required to avoid adverse impacts on Southern California drinking water supplies. Metropolitan is involved in several projects to understand the watershed sources and occurrence of NDMA precursors in Metropolitan source waters, and to develop treatment strategies to minimize NDMA formation in drinking water treatment plants and distribution systems. Special studies conducted at Metropolitan have shown removal of NDMA using advanced oxidation processes. Other treatment process such as biological, membrane, and carbon adsorption need to be evaluated for NDMA removal.

USEPA considers NDMA to be a probable human carcinogen. USEPA placed NDMA in the Unregulated Contaminant Monitoring

Regulation 2 (UCMR2) and on the Contaminant Candidate List 3 (CCL3). CDPH also considers NDMA to be a probable human carcinogen. CDPH has not established a MCL for NDMA. However, in 1998 CDPH established a notification level of 0.01 µg/L. Occurrences of NDMA in treated water supplies at concentrations greater than 0.01 µg/L are recommended to be included in the utility's annual Consumer Confidence Report. In December 2006, OEHHA set a public health goal for NDMA of 0.003 µg/L. Metropolitan has monitored its source waters (at treatment plant influents) and treated waters on a quarterly basis since 1999. Test results for the presence of NDMA in Metropolitan's system have ranged from non-detect (reporting limit of 0.002 µg/L) to 0.014 µg/L. Preliminary data from UCMR2 confirm that the presence of NDMA is not limited to Metropolitan waters, but is widespread. NDMA, or a broader class of nitrosamines, may likely be the next disinfection byproduct(s) to be regulated by USEPA.

Pharmaceuticals and Personal Care Products

Pharmaceuticals and personal care products (PPCPs) are a growing concern to the water industry. Numerous studies have reported the occurrence of these emerging contaminants in treated wastewater, surface water, and sometimes, in finished drinking water in the United States and around the world. The sources of PPCPs in the aquatic environment include (but may not be limited to) treated wastewater and industrial discharge, agricultural run-off, and leaching of municipal landfills. Currently, there is no evidence of human health risks from long-term exposure to the low concentrations (low ng/L; parts per trillion) of PPCPs found in some drinking water. Furthermore, there are no regulatory requirements for PPCPs in drinking water. In October 2009, USEPA included 13 PPCPs on the CCL3; however, currently there are no standardized analytical methods for these compounds.

In 2007, Metropolitan implemented a monitoring program to determine the occurrence of PPCPs and other organic wastewater contaminants in Metropolitan's treatment plant effluents and selected source water locations within the Colorado River and SWP watersheds. Some PPCPs have been detected at very low ng/L levels, which is consistent with reports from other utilities. However, analytical methods are still being refined and more work is required to fully understand occurrence issues. Metropolitan has been actively involved in various studies related to PPCPs, including analytical methods improvements, and characterization of drinking water sources in California.

Metropolitan has participated with water and wastewater agencies and the Santa Ana Regional Board in a coordinated program to address emerging constituents relevant to local and imported supplies used to recharge groundwater basins in the Santa Ana River watershed. As part of the Regional Board-adopted "Cooperative Agreement to Protect Water Quality and Encourage the Conjunctive Uses of Imported Water in the Santa Ana River Basin", there are provisions for the workgroup to initiate development of monitoring for emerging unregulated constituents. Metropolitan, Orange County Water District, and the National Water Research Institute provided substantial input to the workgroup through its two-year monitoring study of emerging constituents in waters found throughout watersheds of the SWP, Colorado River, and Santa Ana River. In April 2009, the workgroup completed its Phase I Report summarizing its findings and recommendations regarding investigation into emerging constituents in water supplies. In December 2009, the workgroup submitted its proposed 2010/11 plan for monitoring of emerging constituents in imported and local waters. The workgroup also provided input to a Blue Ribbon Panel convened by the State Water Resources Control Board to review the emerging science of unregulated chemicals as it relates to the use of recycled water for irrigation and groundwater recharge.

Decreasing Concerns

Methyl Tertiary-Butyl Ether

Methyl tertiary-butyl ether (MTBE) was the primary oxygenate in virtually all the gasoline used in California, prior to the discovery that MTBE had contaminated groundwater supplies and was also found in surface water supplies. MTBE was banned in California as of December 31, 2003, although the concentration of MTBE in gasoline blends was voluntarily reduced beginning in January 2003. MTBE has subsequently been replaced by ethanol which is now the primary oxygenate in use. CDPH has adopted a primary MCL of 13 $\mu g/L$ for MTBE based on carcinogenicity studies in animals. MTBE also has a California secondary MCL of 5 $\mu g/L$, which was established based on taste and odor concerns.

MTBE was introduced into surface water bodies from the motor exhausts of recreational watercraft. At Diamond Valley Lake and Lake Skinner, Metropolitan has taken steps to reduce the potential for MTBE contamination. In 2003, Metropolitan's Board authorized a non-polluting boating program for these reservoirs that calls for specific boat requirements (MTBE-free fuel and clean burning engines) and a monitoring program that will show if MTBE or other gasoline contaminants appear at the lake. Metropolitan regularly monitors its water supply for contamination from MTBE and other oxygenates. In recent years, MTBE testing results in source waters have remained at non-detectable levels (below 3 $\mu g/L$).

MTBE still presents a significant problem to local groundwater basins. Leaking underground storage tanks and poor fuel-handling practices in the past at local gas stations may provide a large source of MTBE. MTBE is very soluble in water and has low affinity for soil particles, so it moves quickly into the groundwater. Within Metropolitan's service area, local groundwater producers have been forced to close some of their wells due to MTBE contamination. MTBE is also resistant to chemical and microbial degradation in water, making treatment more difficult than the treatment of other gasoline components. A combination of an advanced oxidation process (typically ozone and hydrogen peroxide) followed by granular activated carbon has been found to be effective in reducing the levels of these contaminants.

Although some groundwater supplies remain contaminated with this highly soluble chemical, contamination of Metropolitan's surface water supplies are no longer a problem. Further, improved underground storage tank requirements and monitoring, and the phase-out of MTBE as a fuel additive, will decrease the likelihood of MTBE groundwater problems in the future.

Other Water Quality Programs

In addition to monitoring for and controlling specific identified chemicals in the water supply, Metropolitan has undertaken a number of programs to protect the quality of its water supplies. These programs are summarized below.

Source Water Protection

Source water protection is the first step in a multi-barrier approach to provide safe and reliable drinking water. In accordance with California's Surface Water Treatment Rule, Title 22 of the California Code of Regulations, CDPH requires large utilities delivering surface water to complete a Watershed Sanitary Survey every five years to identify possible sources of drinking water contamination, evaluate source and treated water quality, and recommend watershed management activities that will protect and improve source water quality. The most recent sanitary surveys for Metropolitan's water sources were completed in 2005 and 2006.[9] The next Sanitary Surveys for the watersheds of the

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[9] Metropolitan Water District of Southern California, *Colorado River Watershed Sanitary Survey, 2005 Update*. For the State Water Project, the sanitary survey report was prepared on behalf of the State Water Project Contractors Authority, in 2006, and was titled *California State Water Project Watershed Sanitary Survey, 2006 Update*.

Colorado River and the SWP will report on water quality issues and monitoring data through 2010. Metropolitan has an active source water protection program and continues to advocate on behalf of numerous SWP and Colorado River water quality protection issues.

Support SWP Water Quality Programs

Metropolitan supports DWR policies and programs aimed at maintaining or improving the quality of SWP water delivered to Metropolitan. In particular, Metropolitan supported the DWR policy to govern the quality of non-project water conveyed by the California Aqueduct. In addition, Metropolitan has supported the expansion of DWR's Municipal Water Quality Investigations Program beyond its Bay-Delta core water quality monitoring and studies to include enhanced water quality monitoring and forecasting of the Delta and SWP. These programs are designed to provide early warning of water quality changes that will affect treatment plant operations both in the short-term (hours to weeks) and up to seasonally. The forecasting model is currently suitable for use in a planning mode. It is expected that with experience and model refinement, it will be suitable to use as a tool in operational decision making.

Water Quality Exchanges

Metropolitan has implemented selective withdrawals from the Arvin-Edison storage program and exchanges with the Kern Water Bank to improve water quality. Although these programs were initially designed to provide dry-year supply reliability, they can also be used to store SWP water at periods of better water quality so the stored water may be withdrawn at times of lower water quality, thus diluting SWP water deliveries. Although elevated arsenic levels has been a particular concern in one groundwater banking program, there are also short-term water quality benefits that can be realized through other storage programs, such as groundwater pump-ins into the California Aqueduct with lower TOC levels (as well as lower bromide and TDS, in some programs).

Water Supply Security

The change in the national and international security situation has led to increased concerns about protecting the nation's water supply. In coordination with its member agencies, Metropolitan added new security measures in 2001 and continues to upgrade and refine procedures. Changes have included an increase in the number of water quality tests conducted each year (Metropolitan now conducts over 300,000 analytical tests on samples collected within our service area and source waters), as well as contingency plans that coordinate with the Homeland Security Office's multicolored tiered risk alert system.

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Public Outreach 5

Integrated Resources Plan Process Outreach Component

The Integrated Resources Plan is Metropolitan's blueprint for long-term water reliability. It was first adopted in the early 1996 and is updated periodically to reflect Metropolitan's planning strategies. Because of the diverse needs, interests, and institutional entities within the region, Metropolitan's planning goals are achieved through an open and participatory process that involves the major stakeholders. The collaborative planning process sought input from member agencies, retail water agencies, other water and wastewater managers, policy decision-makers, interest groups, environmental, business and community interests. Each interest group provided valuable input and guidance regarding the preferred water resource strategy and carefully reviewed the technical analyses supporting the decision-making process. Collectively, Metropolitan and the regionwide stakeholders analyzed available resources and updated the preferred strategy for resource development. The overall process involved two main components - a technical component (discussed in Section 2 of this report) and an outreach component.

During September and October 2008, Metropolitan's executive management, Board, member agency managers, elected officials, and community groups collectively discussed strategic direction and regional water solutions at these forums. Nearly 600 stakeholders participated in the first round of forums. Similar types of ideas and issues were raised by the participants at all the forums, emphasizing the importance of local resources development and resolving issue with the Bay-Delta. Participants suggested that Metropolitan should take a leadership position in several areas including:

- Outreach to legislators concerning needs for water supply reliability and quality improvements.
- Development of brine lines to enhance recycled water use.
- Foster partnerships with energy utilities.
- Build relationships with environmental community.
- Research and development in new technologies.
- Assist retail agencies in designing "correct" tiered rate structures.
- Review the achievements of the 1996 IRP and 2004 Update.
- Identify changing conditions affecting water resource development.
- Update resource development targets through 2035.

During a second round of workshops in October 2009, participants discussed technical assessments of various resource options, alternate approaches to water supply reliability, recommendations of a preferred approach, and implementation strategies.

In order to have a cooperative and effective outreach effort between Metropolitan, its member agencies, and the interested general public, Metropolitan staff made presentations to city and local governments, associations, and other

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

parties throughout the region. This open and participatory process has allowed for valuable input, guidance and data exchange in which statewide business, environmental, community, agricultural and water interests were represented. Table 5-1 lists the major meetings comprising the 2009 IRP Update outreach process.

Table 5-1
Stakeholder Participation in IRP Update

Year	Month	Meeting
2008	June	IRP Board Workshop: Review and discuss IRP Update process
	July	IRP Steering Committee: Review June Board Workshop and discuss Committee objectives and responsibilities.
	August	IRP Steering Committee: Prepare for September IRP Stakeholder Forums.
	September	IRP Stakeholder Forums: Review and discuss IRP goals and prior resource targets, breakout discussion groups with stakeholders IRP Stakeholder Forum #1 – Newport Beach IRP Stakeholder Forum #2 – Ontario IRP Stakeholder Forum #3 – Los Angeles IRP Steering Committee: Mid-point status briefing of IRP Stakeholder Forums
	October	IRP Stakeholder Forums Continued: Review and discuss IRP goals and prior resource targets, breakout discussion groups with stakeholders IRP Stakeholder Forum #4 – San Diego IRP Technical Oversight Committee: Review of IRP Update process, role of IRP Technical Workgroups, current status of existing and planned projects/programs, and draft evaluation criteria
	December	Stormwater/Urban Runoff Technical Workgroup: Review IRP process and begin work on Stormwater Issue Paper Desalination Technical Workgroup: Review IRP Update process and begin work on Seawater Desalination Issue Paper Conservation Technical Workgroup: Review IRP Update process and begin work on Conservation Issue Paper Graywater Technical Workgroup: Review IRP Update process and begin work on Graywater Issue Paper Recycled Water Technical Workgroup: Review IRP Update process and begin work on Recycled Water Issue Paper

Table 5-1 (Contd)
Stakeholder Participation in IRP Update

Year	Month	Meeting
2009	January	Stormwater/Urban Runoff Technical Workgroup: Review work on draft Stormwater Issue Paper. Graywater Technical Workgroup: Review work on draft Graywater Issue Paper. Recycled Water Technical Workgroup: Review work on draft Recycled Water Issue Paper. IRP Technical Oversight Committee: Review IRP Update schedule, draft evaluation criteria, Technical Workgroup activities, and analytical approach for modeling uncertainty
	February	Stormwater/Urban Runoff Technical Workgroup: Review draft Stormwater Issue Paper Conservation Technical Workgroup: Review draft Conservation Issue Paper Recycled Water Technical Workgroup: Review draft Recycled Water Issue Paper IRP Technical Oversight Committee: Review and discuss updated IRP evaluation criteria
	March	Conservation Technical Workgroup: Review and discuss draft Conservation Issue Paper. Recycled Water Technical Workgroup: Review and discuss draft Recycled Water Issue Paper Stormwater/Urban Runoff Technical Workgroup: Review and discuss draft Stormwater Issue Paper Graywater Technical Workgroup: Review and discuss draft Graywater Issue Paper IRP Steering Committee: Review and discuss status of technical workgroups and IRP schedule
	April	Recycled Water Technical Workgroup: Review and discuss draft Recycled Water Issue Paper Conservation Technical Workgroup: Review and discuss draft Conservation Issue Paper. Graywater Technical Workgroup: Review and discuss draft Graywater Issue Paper Groundwater Study Meeting: Review and discuss groundwater modeling in Orange County Basin Synergy Workshop: Discussion between stakeholders from the groundwater, stormwater and recycled water IRP Update technical workgroups IRP Technical Oversight Committee: Review and discuss IRP Update schedule and status of IRP Update technical workgroups, preliminary supply and demand estimates, climate change data, and analytical models

Table 5-1 (Contd)
Stakeholder Participation in IRP Update

Year	Month	Meeting
2009	May	Member Agency Managers Meeting: Update on activities of the IRP Update technical workgroups, Technical Oversight Committee IRP Steering Committee: Review and discuss IRP Update schedule, supply and demand estimates, and technical workgroup findings
	June	IRP Technical Oversight Committee and Member Agency Managers Meeting: Review and discuss IRP Update schedule, gap analysis, technical workgroup findings, and the Robust Decision Making (RDM) analytical approach
	July	IRP Board Workshop: Review and discuss status of resource development and IRP policy alternatives and provided board members with Issue Paper 1 - IRP Implementation Status and Potential Development Needs and Issue Paper 2 - Metropolitan Involvement in Water Resources Development
	August	Board Transmittal - Supplemental Tables for IRP Issue Paper with the following attachments: 1. Identified project list for recycling and groundwater recovery 2. Tables on CRA supplies 3. Table showing balance of groundwater programs Seawater Desalination Technical Workgroup: Review and discuss draft of the desalination IRP Issue Paper Strategic Policy Review Board Workshop: Review and discuss IRP Update process and schedule, guiding principles and evaluation criteria, and alternatives for new regional supplies
	September	Stormwater/Urban Runoff Technical Workgroup: Review and discuss Stormwater Issue Paper IRP Steering Committee: Review and discuss IRP Update process and schedule, potential policy approaches, and work schedule
	October	Strategic Policy Review Board Workshop: Review and discuss evaluation criteria and alternatives and presentation of the dynamic gap
	November	Strategic Policy Review Board Workshop: Review and discuss cost and reliability under various approaches and key policy questions
2010	February	IRP Steering Committee: Strategic Policy Review, IRP Adaptive Management Approach and Adaptive Resource Options – Conservation
	April	IRP Steering Committee: Adaptive Resource Options - Groundwater and Stormwater IRP Steering Committee: Adaptive Resource Options – Graywater and Recycled Water

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Table 5-1 (Contd)
Stakeholder Participation in IRP Update

Year	Month	Meeting
2010	May	IRP Steering Committee: Adaptive Resource Options - Seawater Desalination, overview of minimum/no regrets actions in each adaptive resource area
	June	IRP Steering Committee: Member agency panel discussion on resource options for the future, review of 2010 Update schedule and preliminary overview of Draft IRP Update
	July	IRP Steering Committee, Member Agency Managers Meeting and Board Workshop: Overview of Draft IRP Update
	August	IRP Stakeholder Forums: Review and discuss Draft IRP Update IRP Stakeholder Forum #1 – Orange IRP Stakeholder Forum #2 – Ontario IRP Stakeholder Forum #3 – San Diego IRP Stakeholder Forum #4 – Los Angeles

Groundwater Outreach Component

In 2007, Metropolitan prepared the Groundwater Assessment Study Report in collaboration with its member agencies and with groundwater basin managers. This study evaluated the potential for groundwater storage and identified the challenges in developing additional storage programs. To follow up on the findings of the Groundwater Assessment Study Report, Metropolitan initiated a series of seven groundwater workshops in July 2008 among Metropolitan, member agencies, groundwater basin managers, and stakeholders to discuss challenges for increasing conjunctive use and to develop recommendations for addressing the challenges. Summarized in Table 5-2 are the workshops and meetings which comprised the outreach components for the groundwater strategic process.

Table 5-2
Stakeholder Participation in Groundwater Process

Year	Month	Meeting
2008	July	Groundwater Workshop #1– Initiate process, set ground rules and identify discussion topics
	August	Groundwater Workshop #2 – Review IRP context, review availability of surplus imported water for groundwater recharge
	September	Groundwater Workshop #3 – Continued review of availability of surplus imported water for groundwater recharge; discussion of groundwater basin production capabilities
	October	Groundwater Workshop #4 – Continued discussion of groundwater basin production capabilities
	December	Groundwater Workshop #5 – Review of opportunities; discussion of Groundwater Workgroup policy recommendations for IRP Update
2009	February	Groundwater Workshop #6 – Continued discussion of policy recommendations for IRP Update
	April	Synergy Workshop among Groundwater, Stormwater, and Recycled Water Technical Workgroups Groundwater Basin Module Meeting with Orange Co Basin
	September	Groundwater Basin Module Meeting with Orange Co Basin Groundwater Basin Module Meeting with Central and West Coast basins
	November	Groundwater Basin Module Meeting with Main San Gabriel Basin Groundwater Basin Module Meeting with Chino Basin
2010	January	Groundwater Workshop #7 – Review initial modeling outcomes using groundwater basin modules; Finalize Groundwater Workgroup policy recommendations for the IRP Update
	March	Groundwater Basin Module Meeting with Main San Gabriel Basin

Regional Urban Water Management Program Outreach Component

Public involvement in Metropolitan's planning process continues to be an integral part of the development of this UWMP report. In October 2009, Metropolitan kicked off the update of its Regional Urban Water Management Plan with a meeting at Metropolitan's headquarters. An initial draft data set of demographics, total demands after conservation, local supplies, and demands on Metropolitan at the member agency and regional levels was distributed. In addition, Metropolitan staff held numerous coordination meetings, workshops, and conference calls with the member agencies to review the initial draft data set and address various issues associated with the report preparation. Based on these meetings, Metropolitan finalized the draft data set and developed the draft RUWMP. Simultaneously, Metropolitan developed preliminary estimates of its existing and planned water sources in five-year increments under single-dry, multi-dry, and average-year conditions as required under the Act.

These demand and supply estimates were included in the draft copy of the RUWMP distributed to the member agencies in June 8, 2010. Following the distribution, Metropolitan sponsored a workshop on June 21, 2010, with the member agencies and sanitation districts within the service area to discuss the contents of the draft RUWMP. Table 5-3 lists all the meetings and workshops held during the preparation of the 2010 RUWMP report.

The public review draft was posted prominently on Metropolitan's website on August 9, 2010. The notice of availability of the document was sent to the member agencies, as well as cities and counties in the Metropolitan service area. The announcement is in compliance with Water Code § 10621(b)), which requires that every urban water supplier preparing a plan give at least 60 days advance notice prior to the public hearing on the UWMP to any city or county within which the supplier provides water supplies to allow opportunity for consultation on the proposed plan. Included in this chapter is a copy of the letter of notification sent to cities and counties in Metropolitan's service area. Also included is a copy of the Public Notice advertising the meeting as published in six Southern California newspapers on August 9 and 16, 2010.

Metropolitan held the publicly-noticed meeting, as required by the Act, as part of the Water Planning and Stewardship Committee Meeting of its Board of Directors held on October 11, 2010. On November 9, 2010, Metropolitan's Board determined that the 2010 RUWMP is consistent with the Act and an accurate representation of the water resources plan for the Metropolitan service area. As prescribed in Resolution 9117, the Board approved the 2010 RUWMP for submission to the State of California. Included in this section is a copy of Resolution 9117 approved by the Metropolitan Board.

In summary, this Urban Water Management Plan involved a number of agencies and groups in its preparation:

Water Agencies assisted in plan development, received a copy of draft documents, commented on those documents, were invited to and attended the public meeting, and received notice of the intention to adopt.

Relevant Public Agencies such as cities and counties received notice that the document was available, were invited to comment on those documents, were invited to attend the public meeting, and received notice of the intention to adopt.

Website Posting: The public review draft was posted prominently on Metropolitan's website on August 9, 2010.

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Table 5-3 summarizes the workshops and meetings held to satisfy the outreach requirement for completing the 2010 Regional Urban Water Management Plan.

Table 5-3
Stakeholder Participation and Outreach for the 2010 Regional Urban Water Management Plan

Year	Month	Meeting
2009	October	*RUWMP Kick-off Meeting*: Start of the 2010 RUWMP process, discuss schedule and milestones to complete the report, and distribute data on demographics, total demands after conservation, local supplies, and demands on Metropolitan
2010	January	*Coordination Meeting with Inland Empire Utilities Agency:* Review and refinement of demand projections *Coordination Meeting with San Diego County Water Authority:* Review and refinement of demand projections *Coordination Meeting with Eastern MWD:* Review and refinement of demand projections
	February	*Coordination Meeting with City of Santa Monica:* Review and refinement of demand projections *Conference call with Calleguas MWD:* Discuss RUWMP issues, impacts of new legislation, report outline, schedule, and milestones *Coordination Meeting with Calleguas MWD:* Review of demographic assumptions and refine demand projections *Coordination Meeting with City of Pasadena*
	May	RUWMP presentation at the Member Agency Managers Meeting
	June	RUWMP Coordination Workshop with Member Agencies and Sanitation Districts *RUWMP Presentation:* Discussion of the status, contents, and assumptions of the Draft RUWMP at the Member Agency Managers Meeting.
	August	Notification (60-day) for Public Hearing to local publications Sent letters to Cities and Counties within Metropolitan service area RUWMP presentation at the Metropolitan Board of Directors meeting of the Water Planning and Stewardship Committee *Co-hosted Meeting of Southern California Water Committee Urban Task Force*: Discussion of technical and legal aspects of preparing an Urban Water Management Plan with various agencies and stakeholders in Southern California *Coordination Meeting*: Discussion of RUWMP and IRP with Orange County member and retail agencies
	October	*Public Hearing:* Public review and comments on the 2010 Regional Urban Water Management Plan held as part of the Water Planning and Stewardship Committee meeting of Metropolitan's Board of Directors.
	November	*Metropolitan Board of Director's Meeting:* Adopt 2010 Regional Urban Water Management Plan

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Letter Notifying Cities and Counties

July 30, 2010

To Whom It May Concern:

This letter serves as notification that The Metropolitan Water District of Southern California (Metropolitan) will be holding a public hearing at the Water Planning and Stewardship Committee Board meeting to receive input on the draft 2010 Regional Urban Water Management Plan (RUWMP). The RUWMP presents Metropolitan's long-term plans for ensuring the reliability and quality of water resources for the region. The RUWMP complies with California state law requiring urban water suppliers to prepare and update Urban Water Management Plans every five years. Public Input is encouraged, appreciated, and will be considered during finalization of the 2010 RUWMP.

Public Hearing will be held on:
Monday, October 11, 2010
Committee Room US 2-456 at 1:30 p.m.
Metropolitan Water District Headquarters Building
700 North Alameda Street
Los Angeles, Ca 90012

The draft Plan will be posted on Metropolitan's web site at www.mwdh2o.com beginning August 9, 2010. Please check on the website for updated room and time information. Written comments are due by **October 11, 2010**. Please send comments to:

Metropolitan Water District
700 North Alameda Street
Los Angeles, Ca 90012
Attn: Edgar Fandialan

If you would like more information or have any questions, please contact Edgar Fandialan at (213) 217-6764 or via email at efandialan@mwdh2o.com.

Very Truly Yours,

Devendra Upadhyay
Manager, Water Resource Management

PUBLIC HEARING SCHEDULED ON DRAFT REGIONAL URBAN WATER MANAGEMENT PLAN

The Metropolitan Water District of Southern California (Metropolitan) will hold a public hearing on **Monday, October 11, 2010** to receive comments on the draft 2010 Regional Urban Water Management Plan (RUWMP).

The hearing will be held at 1:30 p.m. in the Committee Room US 2-456 of Metropolitan's Headquarters Building at 700 North Alameda Street, Los Angeles, California before the Water Planning and Stewardship Committee of Metropolitan's Board of Directors.

The RUWMP presents Metropolitan's long-term plans for ensuring the reliability and quality of water resources for the region. The RUWMP complies with California State law requiring urban water suppliers to prepare and update urban water management plans every five years. The draft plan is posted on Metropolitan's Web site at www.mwdh2o.com.

Public input is encouraged, appreciated, and will be considered during finalization of the 2010 RUWMP. In addition to the public hearing, Metropolitan will accept written comments on the draft plan. All written comments must be received by **October 11, 2010** to:

The Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, CA 90054-0153
Attn: Edgar Fandialan

For more information on the draft RUWMP, please call Edgar Fandialan of Metropolitan's Water Resource Management Group at (213) 217-6764.

RESOLUTION 9117

RESOLUTION
OF THE BOARD OF DIRECTORS
OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
ADOPTING THE 2010 REGIONAL URBAN WATER MANAGEMENT PLAN

WHEREAS, the California Urban Water Management Planning Act requires urban water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually prepare and adopt, in accordance with prescribed requirements, an urban water management plan every five years; and

WHEREAS, the California Urban Water Management Planning Act specifies the requirements and procedures for adopting such Urban Water Management Plans; and

WHEREAS, the Board of Directors of The Metropolitan Water District of Southern California has duly reviewed, discussed, and considered such Urban Water Management Plan and has determined the 2010 Regional Urban Water Management Plan to be consistent with the California Urban Water Management Planning Act and to be an accurate representation of the water resources plan for The Metropolitan Water District of Southern California.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of The Metropolitan Water District of Southern California that, on November 9, 2010 this District hereby adopts this 2010 Regional Urban Water Management Plan for submittal to the state of California.

I HEREBY CERTIFY that the foregoing is a full, true and correct copy of a resolution adopted by the Board of Directors of The Metropolitan Water District of Southern California, at its meeting held on November 9, 2010.

Dawn Chin

Board Executive Secretary
The Metropolitan Water District
of Southern California

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APPENDIX A.1
Demand Forecast

A.1 DEMAND FORECAST

Forecast Overview

Retail Municipal and Industrial (M&I) demands represent the full spectrum of urban water use within a region, including residential, commercial, industrial, institutional and unmetered uses. Within the water industry, numerous approaches exist for projecting future retail M&I water demands. These include per capita projections, trend extrapolation, land use build-out estimates, and econometric models.

To forecast urban water demands, Metropolitan uses the MWD-MAIN Water Use Forecasting framework, an implementation of the original IWR-MAIN Water Use Forecasting Model. The MWD-MAIN framework includes statistical models that have been adapted to conditions in Southern California. The model incorporates projections of demographic and economic variables developed by Southern California's two regional planning agencies – the Southern California Association of Governments (SCAG) and the San Diego Association of Governments (SANDAG) – into statistical models of water demand, yielding forecasts of gross retail urban M&I water demand. This estimate of gross retail demand is then adjusted for conservation savings and local agency supplies to obtain an estimate of retail demands needing to be met by Metropolitan.

The MWD-MAIN framework uses separate models for each of three sectors—single-family residential, multi-family residential, and nonresidential. Demand forecast for the two residential sectors are obtained by multiplying model-based estimates of water demand per occupied dwelling unit by SCAG and SANDAG estimates of the future number of occupied units. For the non-residential sector, water use per employee is multiplied by estimates of future employment patterns. The basic relationships involved are shown in Table A.1-1.

In addition to accounting for future demographic trends, Metropolitan's water demand forecasts also account for conservation savings. As a signatory to the 1991 *Memorandum of Understanding (MOU) Regarding Urban Water Conservation*,[1] Metropolitan's efforts to promote water use efficiency are largely informed by the California Urban Water Conservation Council's "Best Management Practices" (BMPs) concerning urban water conservation.[2]

The range of activities intended to promote water conservation within Metropolitan's service area are accounted for in Metropolitan's Conservation Model. This model distinguishes between the following components of regional conservation:

- *Code-Based Conservation* – Water saved as a result of legislative changes in water efficiency requirements as reflected in more efficient plumbing codes and water using devices.

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[1] A copy of the MOU can be found at http://www.cuwcc.org/.

[2] Section 3.1 contains a more complete accounting of Metropolitan's efforts in this area.

- *Active Conservation* – Water saved directly as a result of conservation programs funded by water agencies (includes implementation of the Best Management Practices). The form and extent of such conservation is unlikely to result without agency encouragement.
- *Price-effect Conservation* – Water saved by retail customers attributable to the effect of changes in the real (inflation-adjusted) price of water. There may be some overlap between this form of conservation and the previous two. For example, increased water prices might motivate consumers to participate in one or more active conservation programs
- *Reductions in Distribution System Losses* – To the extent that conservation efforts result in less water traveling through the distribution system, system losses will be reduced.

Table A.1-1
MWD-MAIN Demand Model Variables

Demand Sector	Projected Demographic	Dependent Variable	Explanatory Variables
Single Family Residential	Number of Single Family Households	Water use per household	Climate Household Size Income Price and Conservation Housing Density Service Area Location
Multifamily Residential	Number of Multifamily Households	Water use per household	Climate Household Size Income Price and Conservation Housing Density Service Area Location
Commercial, Industrial, Institutional (CII)	Total Urban Employment	Water use per employee	Climate Price and Conservation Industrial / Service employment Share
Unmetered Use			Percentage of total use

Estimates obtained from Metropolitan's Conservation Model are subtracted from gross estimates of retail urban water demand. Following this, adjustments are made for local agency supplies, system losses, and price effects. This results in an estimate of total regional M&I demands facing Metropolitan.

Trends in Southern California

Population

According to SCAG and SANDAG estimates, the population in Metropolitan's service area will reach 18.9 million in 2010, 21.3 million in 2025, and 22.5 million by 2035.[3] While

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[3] The most recent calendar year for which actual data are available is 2008. Data for 2009 and later are model-based estimates.

Los Angeles County leads in total population, the inland areas of Riverside and San Bernardino counties are projected to grow at the fastest rates over the next ten years. Generally speaking, however, annual growth rates will slow for all counties between 2010 and 2035. In part this is due to changing patterns of migration. It also reflects the effects of the recession of the late 2000s and the ongoing restructuring of the Southern California economy.

Figure A. 1-1 Actual and Projected Population

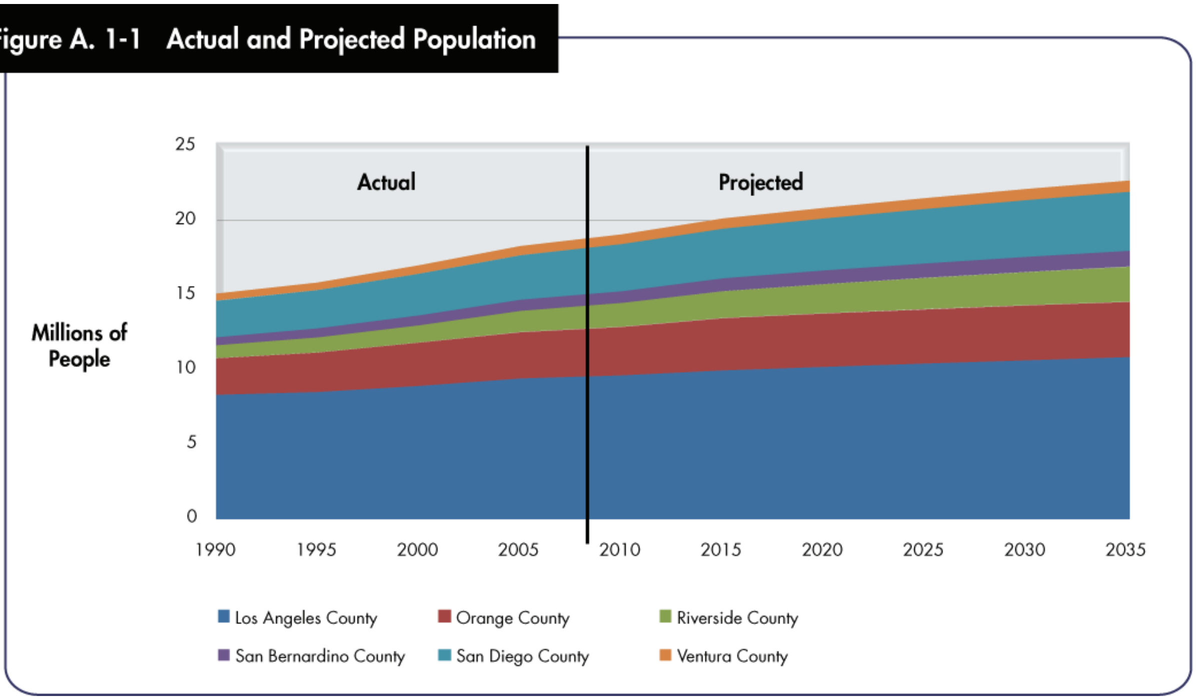

Employment

Economic trends are important drivers of water demand. Metropolitan captures economic trends by tracking regional employment growth and the changing mix of industries comprising the Southern California economy.

Recession during the 1990s cost Southern California around 400,000 jobs and caused a major shift in the region's industry base. Almost 300,000 manufacturing jobs were lost by 1995, many of them in the aerospace and defense industries. Los Angeles and Orange counties were especially hard hit by these changes. While manufacturing and other sectors of the economy suffered, service employment held steady and experienced modest growth in Riverside and San Bernardino counties.

The economic recovery of the late 1990s included growth in high-tech and computer-related industries and a rapid expansion of the service economy. Job growth in the late 1990s approached levels of the late 1980s. But regional job growth slowed once again during the early 2000s as the result a mild economic downturn and then fell again in response to the economic recession beginning in 2007. Southern California suffered more than most regions during this period due to the combination of housing and economic declines occurring during the post-2007 period.

Within Metropolitan's service area, employment growth is likely to occur unevenly across the six counties. Over the 25-year period between 2010 and 2035, the greatest employment increases are expected to occur in Riverside, San Diego, and Los Angeles counties with estimated increases of 469,000 TAF, 461,000 TAF, and 432,000 TAF jobs respectively. Relative to existing employment, Riverside and San Bernardino counties are expected to have the highest rates of employment growth.

Figure A.1-2 and Table A.1-3 summarize the projected growth of commercial, industrial and institutional employment in Metropolitan's service area. The number of people employed in commerce and industry is expected to increase from 8.3 million in 2010 to about 10.2 million in 2035. This increase of about 23 percent is greater than the projected population increase (19 percent), suggesting that an increased share of the population will be employed over time.

Figure A. 1-2 Actual and Projected Urban Employment

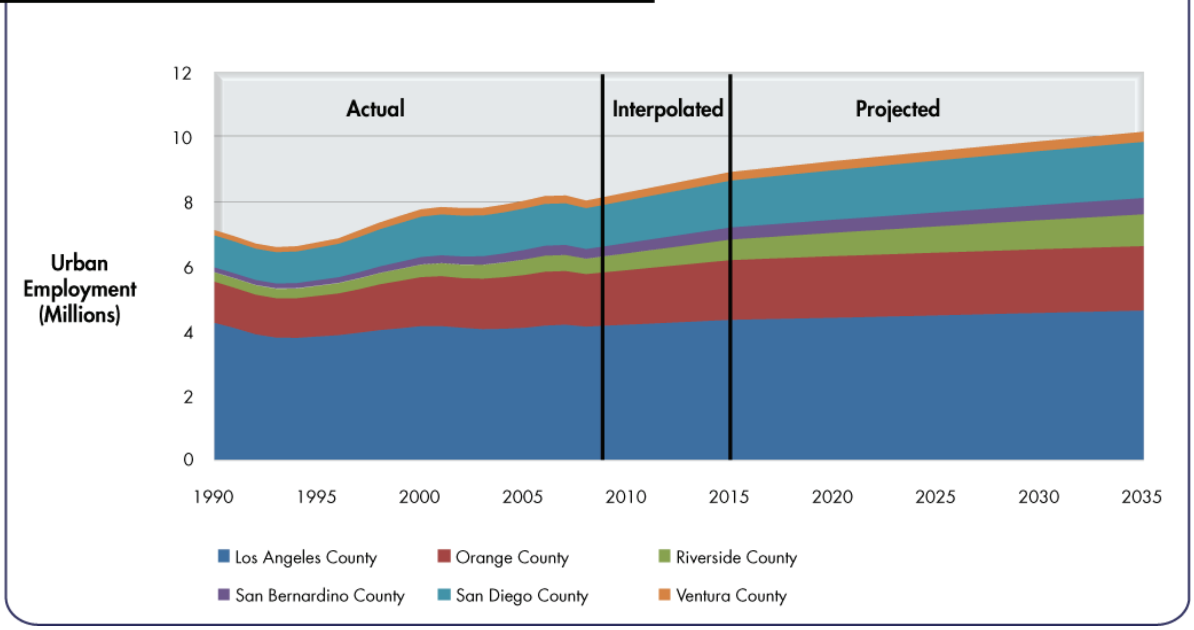

Residential Consumers

Southern California's regional planning agencies have forecast residential housing growth in all parts of the Metropolitan service area. These forecasts are shown in Figure A.1-3 and Table A.1 4. The total occupied housing stock is expected to increase more than 19 percent between 2010 and 2035, growing from 6.1 to around 7.3 million housing units. Much of this growth will likely occur in hotter inland areas of Southern California. Although small changes in geographic service area are expected to occur as the results of annexations, no major increase in the total geographic service area is expected. Within the service territory, the household occupancy size (household population divided by total occupied dwelling units) is projected to decline slightly from about 3.05 persons per unit currently to 3.03 persons per unit by 2035.

Permits for new residential housing construction are another indicator of the future growth in water demand. Figure A.1-4 shows the pattern of historical growth in residential housing permits between 1970 and 2009.[4]

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[4] 2009 is the last year for which complete data are available.

Figure A. 1-3 Actual and Projected Households

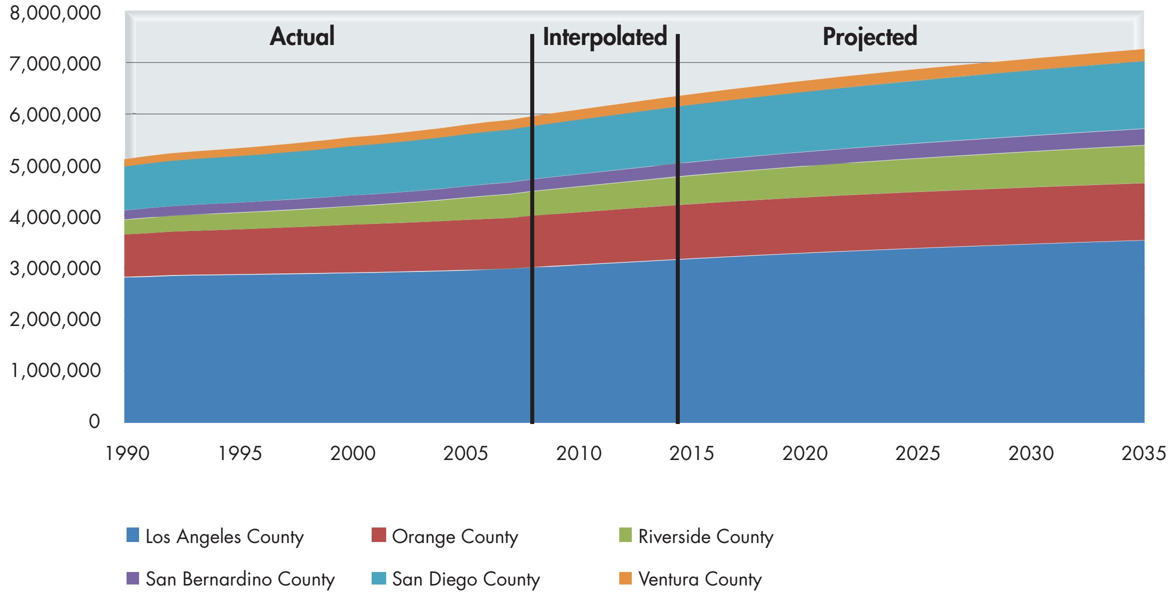

Figure A. 1-4 Residential Housing Permits in Six-County Region

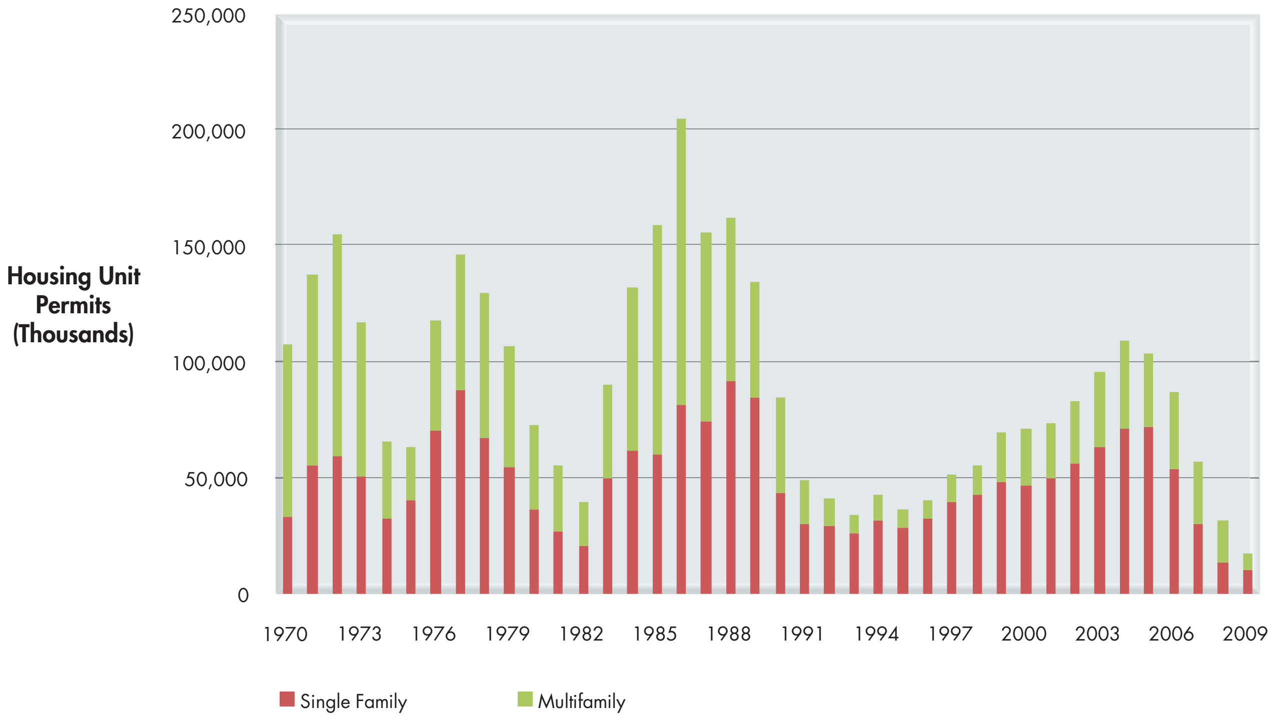

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

The effect of economic cycles can clearly be seen over time with the precipitous fall in housing construction accompanying the 2007 recession being most notable.

Water Demands

As shown in Figure A.1-5 and Table A.1-5, actual retail water demands within Metropolitan's service area have increased from 3.1 million acre-feet (MAF) in 1980 to a projected 4.0 MAF in 2010.[5] This represents an estimated annual increase of about 1.0 percent. A similar gradual increase in estimated total retail water demand is expected between 2010 and 2035.

Of the estimated 4.0 MAF of total retail water use in 2010, 93 percent is due to M&I use with agriculture accounting for the other 7 percent. The relative share of M&I water use has increased over time at the expense of agricultural use which has declined due to urbanization and market factors. By 2035, it is estimated that agriculture will account for only about 4 percent of total Metropolitan retail demands.

Retail Demand

It is estimated that total M&I water use will grow from an annual average of 4.0 MAF in 2010 to 4.7 MAF in 2035. All water demand projections assume normal weather conditions. Future changes in estimated water demand assume continued water savings due to conservation measures such as water savings resulting from plumbing codes, price effects, and the continuing implementation of utility-funded conservation BMPs.

By County

M&I water demand is not expected to grow uniformly across counties. Consistent with the general pattern of future demographic distributions, the largest absolute increases in urban water demands are expected to occur in Los Angeles and Riverside counties, with respective estimated increases of about 178,300 and 230,700 AF per year between 2010 and 2035.

By Sector

Water use can also be broken down by sector. Between 2010 and 2035, single-family residential water use is expected to increase by 17.5 percent (Table A.1-8), while multifamily water use is estimated to increase by 29.4 percent (Table A.1-9). In contrast, Table A.1-10 shows a relatively flat trend in estimated nonresidential water use between 2010 and 2035.

Residential Water Use

While single-family homes are estimated to account for about 61 percent of the total occupied housing stock in 2010, they are responsible for about 74 percent of total residential water demands (Tables A.1-8 and A.1-9). This is consistent with the fact that single-family households are known to use more water than multifamily households (e.g., those residing in duplexes, triplexes, apartment buildings and condo developments) on a per housing-unit basis. This is because single-family households tend to have more persons living in the household; they are likely to have more water-using appliances and fixtures; and they tend to have more landscaping.

Nonresidential Water Use

Nonresidential water use represents an approximately 25 percent of the total M&I demands in Metropolitan's service area (Table A.1-10). This includes water that is used by businesses, services, government, institutions (such as hospitals and schools), and industrial (or manufacturing) establishments. Within the commercial/institutional category, the top

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[5] Complete information for 2010 are not available. The figure given is a model-based estimate.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Figure A. 1-5 Actual and Projected Retail Water Demand

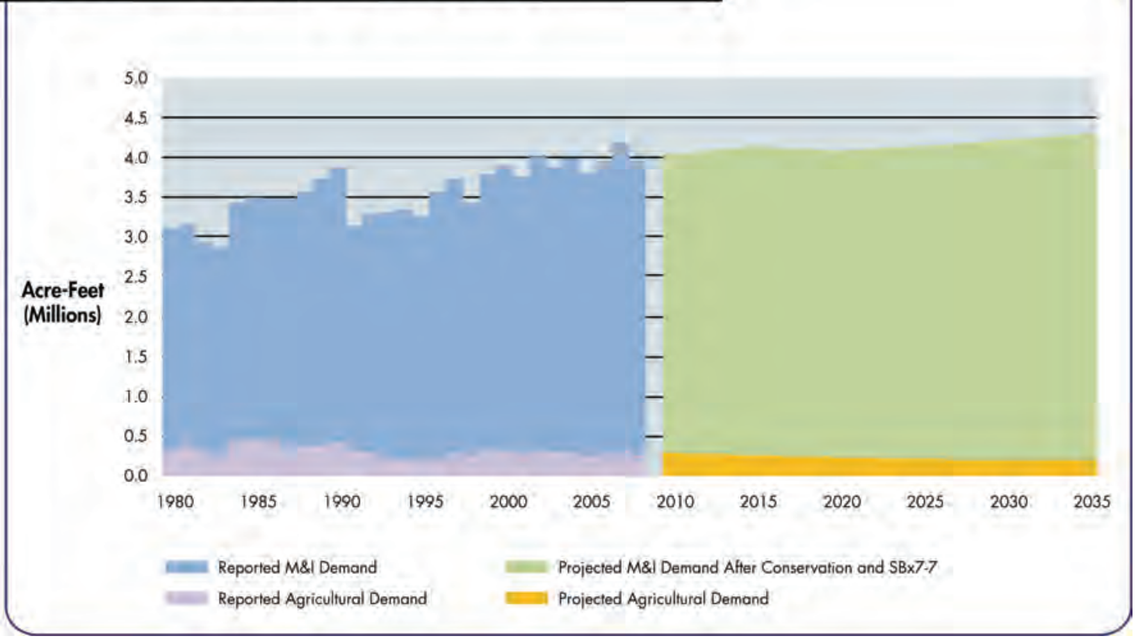

water users include schools, hospitals, hotels, amusement parks, colleges, laundries, and restaurants. In Southern California, major industrial users include electronics, aircraft, petroleum refining, beverages, food processing, and other industries that use water as a major component of the manufacturing process.

Conservation Savings

Table A.1-12 shows estimated conservation savings resulting from active conservation programs (“Active”), ongoing conservation from natural replacement of plumbing fixtures (“Code-Based”), and conservation induced by projected increases in the real price of water (“Price"). Code-Based savings account for the largest share of total conservation. However, aggressive utility-funded conservation programs have made a significant contribution in this area. For example, Metropolitan-assisted programs were responsible for an estimated 134,000 acre-feet in savings during FY 2008/09 and nearly 1.3 MAF in cumulative conservation savings since FY 1990/91.[6]

Projected M&I Demand by Sector

Table A.1-13 provides a summary of municipal and industrial demands, broken down by sector, along with each sector’s share of total retail demand. In 2010, residential use accounted for about two-thirds (68 percent) of total projected M&I demand while non-residential use constituted nearly one-fourth (24 percent) of projected M&I demand. These shares are expected to change slightly in 2035 with estimated residential use at 71 percent and non-residential use accounting for approximately 21 percent of total M&I use. System losses and unmetered use are expected to remain relatively constant over this period at about 8.1 percent.

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[6] Metropolitan Water District of Southern California. Annual Progress Report to the California State Legislature: Achievements in Conservation, Recycling and Groundwater Recharge. February 2010.

Table A.1-2 Population Growth in Metropolitan' s Service Area (July)

(Persons)

	Actual					Projected				
County	1990	1995	2000	2005	2010*	2015	2020	2025	2030	2035
Los Angeles County	8,268,000	8,458,000	8,860,000	9,364,000	9,567,000	9,900,000	10,132,000	10,356,000	10,574,000	10,781,000
Orange County	2,412,000	2,604,000	2,863,000	3,057,000	3,205,000	3,452,000	3,534,000	3,586,000	3,630,000	3,654,000
Riverside County	851,000	994,000	1,129,000	1,381,000	1,559,000	1,756,000	1,909,000	2,049,000	2,173,000	2,292,000
San Bernardino County	565,000	637,000	707,000	792,000	832,000	915,000	968,000	1,020,000	1,070,000	1,117,000
San Diego County	2,407,000	2,519,000	2,737,000	2,934,000	3,109,000	3,274,000	3,439,000	3,599,000	3,759,000	3,899,000
Ventura County	451,000	478,000	542,000	588,000	624,000	659,000	683,000	702,000	720,000	731,000
Metropolitan's Service Area	**14,954,000**	**15,690,000**	**16,838,000**	**18,116,000**	**18,896,000**	**19,956,000**	**20,665,000**	**21,312,000**	**21,926,000**	**22,474,000**

Source: US Census, CA Department of Finance, SCAG RTP-07, SANDAG Series 12 2050 Regional Growth Forecast (Feb 2010)

* Interpolated

Table A.1-3 Urban Employment Growth in Metropolitan' s Service Area (July)

	Actual					Projected				
County	1990	1995	2000	2005	2010*	2015	2020	2025	2030	2035
Los Angeles County	4,236,000	3,820,000	4,135,000	4,082,000	4,179,000	4,328,000	4,389,000	4,461,000	4,538,000	4,611,000
Orange County	1,260,000	1,240,000	1,500,000	1,616,000	1,671,000	1,830,000	1,890,000	1,925,000	1,953,000	1,974,000
Riverside County	277,000	297,000	373,000	465,000	507,000	622,000	714,000	804,000	895,000	976,000
San Bernardino County	164,000	186,000	246,000	308,000	334,000	387,000	411,000	438,000	469,000	510,000
San Diego County	1,001,000	1,017,000	1,254,000	1,288,000	1,318,000	1,446,000	1,529,000	1,601,000	1,665,000	1,728,000
Ventura County	151,000	156,000	218,000	229,000	235,000	255,000	269,000	281,000	291,000	300,000
Metropolitan's Service Area	**7,089,000**	**6,716,000**	**7,726,000**	**7,988,000**	**8,244,000**	**8,868,000**	**9,202,000**	**9,510,000**	**9,811,000**	**10,099,000**

Source: US Census, CA Department of Finance, SCAG RTP-07, SANDAG Series 12 2050 Regional Growth Forecast (Feb 2010)

* Interpolated

Table A.1-4 Occupied Housing Growth in Metropolitan's Service Area

(Households)

	Actual					Projected				
County	1990	1995	2000	2005	2010*	2015	2020	2025	2030	2035
Los Angeles County	2,825,000	2,875,000	2,911,000	2,961,000	3,064,000	3,185,000	3,299,000	3,389,000	3,475,000	3,545,000
Orange County	832,000	881,000	938,000	981,000	1,027,000	1,072,000	1,088,000	1,102,000	1,111,000	1,118,000
Riverside County	283,000	322,000	357,000	427,000	496,000	552,000	605,000	650,000	692,000	733,000
San Bernardino County	175,000	190,000	203,000	216,000	234,000	253,000	269,000	285,000	300,000	314,000
San Diego County	863,000	913,000	965,000	1,016,000	1,062,000	1,116,000	1,168,000	1,220,000	1,271,000	1,312,000
Ventura County	143,000	151,000	170,000	184,000	197,000	208,000	215,000	221,000	227,000	232,000
Metropolitan's Service Area	**5,121,000**	**5,332,000**	**5,544,000**	**5,785,000**	**6,080,000**	**6,386,000**	**6,644,000**	**6,867,000**	**7,076,000**	**7,254,000**

Source: US Census, CA Department of Finance, SCAG RTP-07, SANDAG Series 12 2050 Regional Growth Forecast (Feb 2010)

* Interpolated

Table A.1-5 Total Retail Demand in Metropolitan's Service Area with Conservation and SBx7-7

(Acre-Feet)

	Actual							Projected				
County	1980	1985	1990	1995	2000	2005	2010*	2015	2020	2025	2030	2035
Los Angeles County	1,528,000	1,703,000	1,734,000	1,558,000	1,739,000	1,643,000	1,762,000	1,704,000	1,664,000	1,676,000	1,694,000	1,705,000
Orange County	521,000	596,000	673,000	577,000	660,000	629,000	624,000	651,000	634,000	635,000	637,000	637,000
Riverside County	348,000	376,000	480,000	404,000	492,000	495,000	544,000	603,000	626,000	664,000	701,000	736,000
San Bernardino County	166,000	188,000	210,000	184,000	251,000	264,000	268,000	259,000	252,000	263,000	275,000	286,000
San Diego County	481,000	487,000	686,000	502,000	661,000	614,000	668,000	687,000	682,000	691,000	709,000	728,000
Ventura County	96,000	113,000	145,000	108,000	132,000	158,000	166,000	170,000	170,000	174,000	178,000	181,000
Metropolitan's Service Area	**3,140,000**	**3,463,000**	**3,928,000**	**3,333,000**	**3,935,000**	**3,803,000**	**4,032,000**	**4,074,000**	**4,028,000**	**4,103,000**	**4,194,000**	**4,273,000**

Table A.1-6 Total Retail M&I Demand in Metropolitan's Service Area with Conservation and SBx7-7

(Acre-Feet)

	Actual							Projected				
County	1980	1985	1990	1995	2000	2005	2010*	2015	2020	2025	2030	2035
Los Angeles County	1,522,000	1,698,000	1,732,000	1,550,000	1,738,000	1,643,000	1,761,000	1,703,000	1,664,000	1,676,000	1,693,000	1,704,000
Orange County	481,000	547,000	646,000	559,000	643,000	619,000	613,000	644,000	630,000	633,000	634,000	634,000
Riverside County	141,000	174,000	279,000	245,000	357,000	413,000	454,000	508,000	532,000	570,000	606,000	641,000
San Bernardino County	120,000	150,000	172,000	152,000	221,000	236,000	242,000	243,000	245,000	256,000	268,000	279,000
San Diego County	365,000	370,000	548,000	438,000	556,000	523,000	596,000	603,000	604,000	631,000	657,000	675,000
Ventura County	77,000	91,000	118,000	94,000	125,000	145,000	151,000	149,000	149,000	152,000	156,000	158,000
Metropolitan's Service Area	**2,706,000**	**3,030,000**	**3,495,000**	**3,038,000**	**3,640,000**	**3,579,000**	**3,817,000**	**3,850,000**	**3,824,000**	**3,918,000**	**4,014,000**	**4,091,000**

Table A.1-7 Total Retail Agricultural Demand in Metropolitan' s Service Area

(Acre-Feet)

	Actual							Projected				
County	1980	1985	1990	1995	2000	2005	2010*	2015	2020	2025	2030	2035
Los Angeles County	6,300	5,300	2,800	7,500	500	400	500	400	400	400	400	400
Orange County	40,300	48,400	26,900	17,700	17,300	9,800	10,900	6,800	3,800	2,900	2,900	2,900
Riverside County	207,000	202,000	200,800	158,700	134,100	81,700	89,600	94,200	94,200	94,200	94,200	94,200
San Bernardino County	46,100	37,700	37,200	32,200	29,800	27,500	26,500	15,200	7,100	7,100	7,100	7,100
San Diego County	116,200	117,400	138,600	64,400	105,600	91,300	72,000	84,300	78,300	59,800	52,300	52,300
Ventura County	19,400	22,000	27,400	14,300	7,500	12,600	14,700	20,900	21,300	21,700	22,300	22,900
Metropolitan's Service Area	**435,300**	**432,800**	**433,700**	**294,800**	**294,800**	**223,300**	**214,200**	**221,800**	**205,100**	**186,100**	**179,200**	**179,800**

* Data not available - estimated based on prior years.

Table A.1-8 Single Family Retail Demand in Metropolitan' s Service Area*

(Acre-Feet)

County	Projected 2010	2015	2020	2025	2030	2035
Los Angeles County	778,000	831,000	857,000	866,000	878,000	885,000
Orange County	300,000	325,000	334,000	337,000	339,000	341,000
Riverside County	329,000	376,000	411,000	439,000	465,000	490,000
San Bernardino County	138,000	148,000	154,000	159,000	165,000	168,000
San Diego County	265,000	282,000	295,000	303,000	311,000	315,000
Ventura County	91,000	99,000	103,000	105,000	107,000	108,000
Metropolitan's Service Area	**1,901,000**	**2,061,000**	**2,154,000**	**2,209,000**	**2,265,000**	**2,307,000**

* Projections do not include savings estimates to meet SBx7-7.

Table A. 1-9 Multifamily Retail Demand in Metropolitan's Service Area*

Average Year (Acre-Feet)

County	Projected 2010	2015	2020	2025	2030	2035
Los Angeles County	318,000	349,000	364,000	373,000	384,000	393,000
Orange County	111,000	125,000	129,000	131,000	133,000	135,000
Riverside County	54,000	62,000	68,000	74,000	79,000	86,000
San Bernardino County	31,000	35,000	38,000	42,000	46,000	50,000
San Diego County	125,000	140,000	154,000	170,000	186,000	201,000
Ventura County	12,000	13,000	14,000	15,000	16,000	16,000
Metropolitan's Service Area	**651,000**	**724,000**	**767,000**	**805,000**	**844,000**	**881,000**

* Projections do not include savings estimates to meet SBx7-7.

Table A. 1-10 Commercial, Industrial and Institutional Retail Demand in Metropolitan's Service Area*

Average Year (Acre-Feet)

County	Projected 2010	2015	2020	2025	2030	2035
Los Angeles County	456,000	470,000	467,000	457,000	449,000	441,000
Orange County	169,000	182,000	185,000	182,000	178,000	173,000
Riverside County	47,000	52,000	58,000	62,000	66,000	69,000
San Bernardino County	37,000	44,000	46,000	47,000	49,000	52,000
San Diego County	148,000	164,000	166,000	169,000	169,000	168,000
Ventura County	33,000	33,000	34,000	35,000	35,000	35,000
Metropolitan's Service Area	**890,000**	**945,000**	**956,000**	**952,000**	**946,000**	**938,000**

* Projections do not include savings estimates to meet SBx7-7.

Table A. 1-11 Unmetered Use in Metropolitan's Service Area*

Average Year (Acre-Feet)

	Projected					
County	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Los Angeles County	135,000	143,000	146,000	147,000	148,000	149,000
Orange County	41,000	45,000	46,000	46,000	46,000	46,000
Riverside County	42,000	47,000	52,000	55,000	59,000	62,000
San Bernardino County	28,000	31,000	33,000	34,000	35,000	37,000
Table 2-7	45,000	50,000	52,000	54,000	56,000	58,000
Ventura County	12,000	12,000	13,000	13,000	13,000	14,000
Metropolitan's Service Area	**303,000**	**328,000**	**342,000**	**349,000**	**357,000**	**366,000**

* Projections do not include savings estimates to meet SBx7-7.

Table A.1-12 Conservation Savings in Metropolitan's Service Area - 1980 Base Year

(Acre-Feet)

	Estimated				Projected					
County	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Los Angeles County	0	98,000	194,000	279,000	328,000	347,000	358,000	388,000	416,000	441,000
Orange County	0	29,000	64,000	95,000	116,000	120,000	120,000	128,000	135,000	142,000
Riverside County	0	11,000	23,000	38,000	56,000	65,000	71,000	82,000	92,000	102,000
San Bernardino County	0	4,000	8,000	13,000	21,000	25,000	28,000	32,000	36,000	40,000
San Diego County	0	25,000	56,000	77,000	98,000	109,000	118,000	130,000	142,000	153,000
Ventura County	0	4,000	9,000	13,000	17,000	19,000	21,000	23,000	25,000	27,000
Active, Code and Price	**0**	**171,000**	**355,000**	**515,000**	**636,000**	**686,000**	**717,000**	**783,000**	**846,000**	**906,000**
Pre-1990 Conservation	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Total Conservation	**250,000**	**421,000**	**605,000**	**765,000**	**886,000**	**936,000**	**967,000**	**1,033,000**	**1,096,000**	**1,156,000**

Note:

* Estimated conservation savings with active savings installed as of calendar year 2009.
Savings projections do not include savings derived from SB7x7.

Table A.1-13 Projected Municipal and Industrial Demands by Sector

(Acre-Feet)

	Historical[1]				Projection[2]					
Sector	**1990**	**1995**	**2000**	**2005**	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Single-Family	1,754,000	1,529,000	1,837,000	1,812,000	1,901,000	2,061,000	2,154,000	2,209,000	2,264,000	2,307,000
Multifamily	545,000	487,000	600,000	606,000	650,000	724,000	769,000	805,000	844,000	880,000
Non-Residential	915,000	777,000	910,000	874,000	890,000	945,000	956,000	952,000	946,000	938,000
System Losses/Unmetered	282,000	245,000	294,000	289,000	303,000	328,000	342,000	350,000	358,000	365,000
Metropolitan Total	**3,495,000**	**3,038,000**	**3,640,000**	**3,580,000**	**3,744,000**	**4,058,000**	**4,221,000**	**4,315,000**	**4,413,000**	**4,490,000**
Single-Family	50.2%	50.3%	50.5%	50.6%	50.8%	50.8%	51.0%	51.2%	51.3%	51.4%
Multifamily	15.6%	16.0%	16.5%	16.9%	17.4%	17.8%	18.2%	18.7%	19.1%	19.6%
Non-Residential	26.2%	25.6%	25.0%	24.4%	23.8%	23.3%	22.7%	22.1%	21.4%	20.9%
System Losses/Unmetered	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%
Metropolitan Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

[1] Estimates of historical water use by sector are prorated using percentages from projected demands and actual water use.

[2] Projected demand are weather normalized and do not include savings estimates to meet SBx7-7.

APPENDIX A.2
EXISTING REGIONAL WATER SUPPLIES

A.2 EXISTING REGIONAL WATER SUPPLIES

Water used in Metropolitan's service area comes from both local and imported sources. Local sources include groundwater, surface water, and recycled water. Sources of imported water include the Colorado River, the State Water Project (SWP), and the Owens Valley/Mono Basin. Local sources meet about 45 percent of the water needs in Metropolitan's service area, while imported sources supply the remaining 55 percent.

The city of Los Angeles imports water from the eastern Owens Valley/Mono Basin in the Sierra Nevada through the Los Angeles Aqueducts (LAA). This water currently meets about 7 percent of the region's water needs based on a five-year average from 2005-2009, but is dedicated for use by the city of Los Angeles. Contractually and for planning purposes, Metropolitan treats the LAA as a local supply, although physically its water is imported from outside the region. Other supplies come from local sources, and Metropolitan provides imported water supplies to meet the remaining 47 percent of the region's water needs based on the same five-year period. These imported supplies are received from Metropolitan's Colorado River Aqueduct (CRA) and the SWP's California Aqueduct. Table A.2-1 and Figure A.2-1 show the historical use of local and imported supplies within Metropolitan's service area.

Table A.2-2 shows the quantities of Metropolitan water used by member agencies during the last ten years. Metropolitan's largest water customers are the San Diego County Water Authority (28 percent of Metropolitan's supplies based on 2005-2009 average), city of Los Angeles (15 percent) and Municipal Water District of Orange County (13 percent).[1] The reliance on Metropolitan's water supplies varies by agency. For example, in recent years, Upper San Gabriel received as little as 5 percent (in fiscal year 2008/09) of its total water supply from Metropolitan, while Beverly Hills received over 93 percent. However, this relative share of local and imported supplies varies from year to year based on supply and demand conditions.

The following sections describe the current supply sources in more detail. The main body of the Urban Water Management plan contains descriptions of planned future supplies.

Local Water Supplies

Local sources of water available to the region include surface water, groundwater, and recycled water. Some of the major river systems in Southern California have been developed into systems of dams, flood control channels, and percolation ponds for supplying local water and recharging groundwater basins. For example, the San Gabriel and Santa Ana rivers capture over 80 percent of the runoff in their watersheds. The Los Angeles River system, however, is not as efficient in capturing runoff. In its upper reaches, which make up 25 percent of the watershed, most runoff is captured with recharge facilities. In its lower

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[1] Metropolitan Fiscal Annual Report 2008-09.

reaches, which comprise the remaining 75 percent of the watershed, the river and its tributaries are lined with concrete, so there are no recharge facilities. The Santa Clara River in Ventura County is outside of Metropolitan's service area, but it replenishes groundwater basins used by water agencies within Metropolitan's service area. Other rivers in Metropolitan's service area, such as the Santa Margarita and San Luis Rey, are essentially natural replenishment systems.

Table A. 2-1
Sources of Water Supply to the Metropolitan Service Area
(Acre-Feet)[1]

Calendar Year	Local Supplies	L.A. Aqueduct	Colorado River Aqueduct[2]	State Water Project[3]	Total
1976	1,363,000	430,000	778,000	638,000	3,209,000
1977	1,370,000	275,000	1,277,000	209,000	3,131,000
1978	1,253,000	472,000	705,000	576,000	3,005,000
1979	1,419,000	493,000	784,000	532,000	3,227,000
1980	1,452,000	515,000	791,000	560,000	3,317,000
1981	1,500,000	465,000	791,000	827,000	3,583,000
1982	1,392,000	483,000	686,000	737,000	3,298,000
1983	1,385,000	519,000	850,000	410,000	3,163,000
1984	1,621,000	516,000	1,150,000	498,000	3,785,000
1985	1,535,000	496,000	1,018,000	728,000	3,776,000
1986	1,510,000	521,000	1,011,000	756,000	3,799,000
1987	1,465,000	428,000	1,175,000	763,000	3,831,000
1988	1,521,000	369,000	1,199,000	957,000	4,047,000
1989	1,542,000	288,000	1,189,000	1,215,000	4,234,000
1990	1,470,000	106,000	1,183,000	1,458,000	4,217,000
1991	1,426,000	186,000	1,252,000	625,000	3,490,000
1992	1,512,000	177,000	1,153,000	744,000	3,586,000
1993	1,408,000	289,000	1,142,000	663,000	3,502,000
1994	1,527,000	133,000	1,263,000	845,000	3,768,000
1995	1,590,000	464,000	933,000	451,000	3,438,000
1996	1,715,000	425,000	1,089,000	663,000	3,892,000
1997	1,759,000	436,000	1,125,000	724,000	4,044,000
1998	1,726,000	467,000	941,000	521,000	3,655,000
1999	1,887,000	309,000	1,072,000	792,000	4,060,000
2000	1,768,000	255,000	1,217,000	1,473,000	4,714,000
2001	1,708,000	267,000	1,245,000	1,119,000	4,340,000
2002	1,706,000	179,000	1,198,000	1,415,000	4,498,000
2003	1,659,000	252,000	676,000	1,561,000	4,148,000
2004	1,627,000	203,000	741,000	1,802,000	4,373,000
2005	1,590,000	369,000	685,000	1,525,000	4,168,000
2006	1,710,000	379,000	535,000	1,695,000	4,319,000
2007	1,852,000	129,000	696,000	1,648,000	4,326,000
2008	1,842,000	147,000	896,000	1,037,000	3,922,000
*2009	1,801,000	137,000	1,043,000	908,000	3,890,000
**2010	1,832,000	243,000	1,150,000	1,500,000	4,725,000

[1] Not including system losses.

[2] Colorado River Aqueduct deliveries to service area: gross Havasu diversions less return flows, deliveries to USBR, Mexico, and storage.

[3] State Water Project deliveries to service area: includes Table A, Art. 21, Art. 14(b), Art. 12(d), Art. 55, draws from storage & carryover, DWCV & other exchanges, transfers, Drought Water Bank and Dry Year Pool Purchases, Pools A&B, Flood Water, wheeling, Port Hueneme lease, SBVMWD Purchases.

* 2009 local supplies are based 2006-08 averages.

** 2010 CRA and SWP are best estimates as of May 2010; LAA is based on actuals from January thru April plus projections for May thru December; Local Supplies are averages of prior years.

Table A. 2-2
Historic Metropolitan Water Deliveries to Member Agencies
(Acre-Feet)

Agency	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*
City of Anaheim	25,000	16,000	23,000	21,000	26,000	33,000	25,000	21,000	16,000	21,000	21,000
City of Beverly Hills	14,000	13,000	14,000	12,000	12,000	12,000	12,000	12,000	12,000	11,000	11,000
City of Burbank	12,000	12,000	12,000	14,000	13,000	15,000	16,000	13,000	15,000	12,000	12,000
Calleguas Municipal Water District	120,000	110,000	127,000	118,000	128,000	120,000	126,000	131,000	121,000	101,000	101,000
Central Basin Municipal Water District	128,000	109,000	97,000	62,000	117,000	67,000	114,000	85,000	55,000	53,000	53,000
City of Compton	4,000	4,000	3,000	3,000	3,000	4,000	4,000	3,000	2,000	2,000	2,000
Eastern Municipal Water District	86,000	80,000	101,000	90,000	115,000	113,000	126,000	127,000	109,000	97,000	97,000
Foothill Municipal Water District	12,000	11,000	13,000	13,000	14,000	12,000	12,000	12,000	10,000	10,000	10,000
City of Fullerton	7,000	8,000	13,000	10,000	17,000	18,000	20,000	11,000	8,000	11,000	11,000
City of Glendale	29,000	28,000	23,000	23,000	24,000	22,000	22,000	23,000	21,000	19,000	19,000
Inland Empire Utilities Agency	70,000	67,000	76,000	81,000	84,000	93,000	112,000	75,000	58,000	36,000	36,000
Las Virgenes Municipal Water District	23,000	21,000	23,000	22,000	26,000	21,000	23,000	26,000	27,000	21,000	21,000
City of Long Beach	44,000	44,000	43,000	49,000	48,000	51,000	43,000	36,000	35,000	33,000	33,000
City of Los Angeles	330,000	304,000	403,000	318,000	392,000	184,000	185,000	441,000	430,000	352,000	352,000
Municipal Water District of Orange County	321,000	264,000	340,000	277,000	297,000	303,000	319,000	270,000	234,000	211,000	211,000
City of Pasadena	24,000	19,000	29,000	23,000	24,000	21,000	24,000	25,000	24,000	20,000	20,000
San Diego County Water Authority	593,000	589,000	663,000	652,000	679,000	547,000	598,000	698,000	566,000	540,000	540,000
City of San Fernando	0	0	0	1,000	1,000	1,000	0	1,000	0	0	0
City of San Marino	1,000	0	1,000	1,000	2,000	1,000	2,000	1,000	1,000	1,000	1,000
City of Santa Ana	11,000	13,000	19,000	13,000	20,000	22,000	22,000	12,000	8,000	7,000	7,000
City of Santa Monica	12,000	12,000	13,000	14,000	14,000	13,000	13,000	13,000	12,000	12,000	12,000
Three Valleys Municipal Water District	82,000	71,000	93,000	82,000	86,000	69,000	68,000	74,000	68,000	58,000	58,000
City of Torrance	21,000	22,000	21,000	21,000	21,000	21,000	21,000	20,000	19,000	18,000	18,000
Upper San Gabriel Valley Municipal Water District	60,000	31,000	54,000	72,000	45,000	45,000	48,000	23,000	13,000	6,000	6,000
West Basin Municipal Water District	151,000	141,000	147,000	145,000	147,000	145,000	144,000	142,000	130,000	120,000	120,000
Western Municipal Water District of Riverside County	85,000	82,000	99,000	97,000	106,000	91,000	103,000	120,000	99,000	88,000	88,000
Metropolitan Total	**2,265,000**	**2,071,000**	**2,450,000**	**2,234,000**	**2,461,000**	**2,044,000**	**2,202,000**	**2,415,000**	**2,093,000**	**1,860,000**	**1,860,000**

* Data not available. Assumed 2010 delivery is similar to 2009.

Figure A. 2-1 Sources of Water Supply to Metropolitan's Service Area

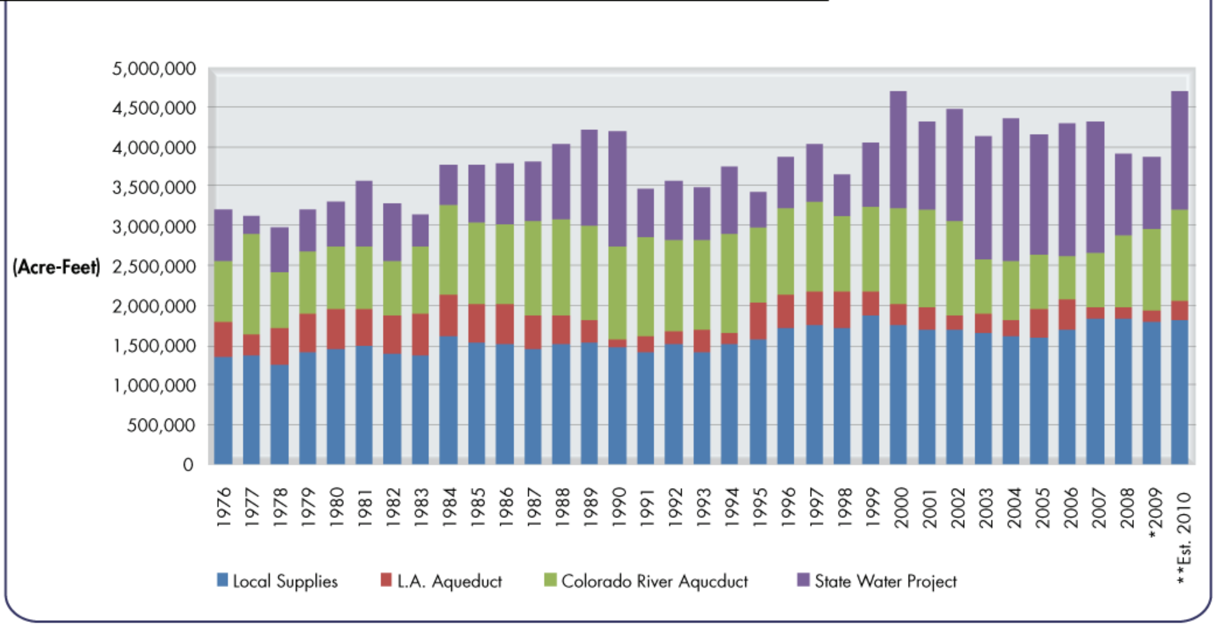

Local supplies fluctuate in response to variations in rainfall. During prolonged periods of below-normal rainfall, local water supplies decrease. Conversely, prolonged periods of above-normal rainfall increase local supplies. Sources of groundwater basin replenishment include local precipitation, runoff from the coastal ranges, and artificial recharge with imported water supplies. In addition to runoff, recycled water provides an increasingly important source of replenishment water for the region.

Major Groundwater Basins

Groundwater sources account for about 90 percent of the natural local water supplies, which are found in many basins throughout the Southern California region and provide an annual average total production of about 1.5 MAF per year. Figure A.2-2 shows the location of the major groundwater basins. The majority of groundwater yield comes from natural recharge, which is accomplished through the percolation of rainfall and stream runoff. In certain major drainage areas, runoff is retained in flood control reservoirs and released into spreading basins or ponds for additional percolation into the ground. The Los Angeles County Department of Public Works operates many groundwater recharge facilities located at the upper reaches of the Los Angeles River and San Gabriel River systems providing recharge to San Fernando, Raymond, Main San Gabriel, Central, and West Coast groundwater basins. In addition, the Orange County Water District operates a system of diversion structures and recharge basins along the Santa Ana River that captures much of the storm runoff, as well as water from reclamation facilities in Riverside and San Bernardino counties. Storm runoff is also diverted to recharge basins in the Chino Basin. This water, which would otherwise flow into the Pacific Ocean, is allowed to percolate into the underlying aquifers so it may be pumped for local use when needed. Groundwater basins are also recharged with imported supplies and recycled water, either by injection, by percolation in spreading basins, or in-lieu storage.

Almost all major groundwater basins in Southern California are either adjudicated or managed by special districts or agencies. Over 90 percent of the groundwater used in Metropolitan's service area is produced from adjudicated or managed groundwater basins. Adjudicated basins in the region include: Raymond Basin, San Fernando Basins, Main San Gabriel Basin, Central Basin, West Coast Basin, Six Basins, Chino Basin, and Cucamonga Basin. The Orange County Groundwater Basin is managed by Orange County Water District; portions of the Ventura County Basins are managed by the Fox Canyon Groundwater Management Agency; and San Jacinto Basin is managed by Eastern Municipal Water District. In general, these basins have management plans that include protection from seawater intrusion, water quality deterioration, and excessive lowering of water levels.

Major River Systems and Reservoirs

Local surface water resources consist of runoff captured in storage reservoirs and diversions from streams. Reservoirs hold the runoff for later direct use, and diversions from streams are delivered directly to local water systems. As Table A2.3 shows, local water agencies currently own and operate 34 reservoirs. These reservoirs provide a storage capacity of 737 TAF. The historic average yield of these local surface supplies, which come from reservoir releases and stream diversions, is about 90 TAF per year (based on 2005-09 average). The annual yield varies widely between wet and dry years, and most reservoirs that capture local surface runoff are operated with minimal carry-over storage. San Diego County has the greatest storage capacity for these types of reservoirs, with approximately 80 percent of the total local agency storage capacity in Metropolitan's service area.

In addition to the storage that is owned and operated by local agencies, Metropolitan operates DVL, Lake Skinner and Lake Mathews. DVL stores water imported during years of ample supply. Of DVL's 810 TAF capacity up to half is dedicated to emergency storage; the remainder is available to augment supplies during dry years and for seasonal storage. In contrast, Lake Skinner and Lake Mathews are largely used for system operations rather than dry year storage. Table A.2-4 lists Metropolitan-owned reservoirs.

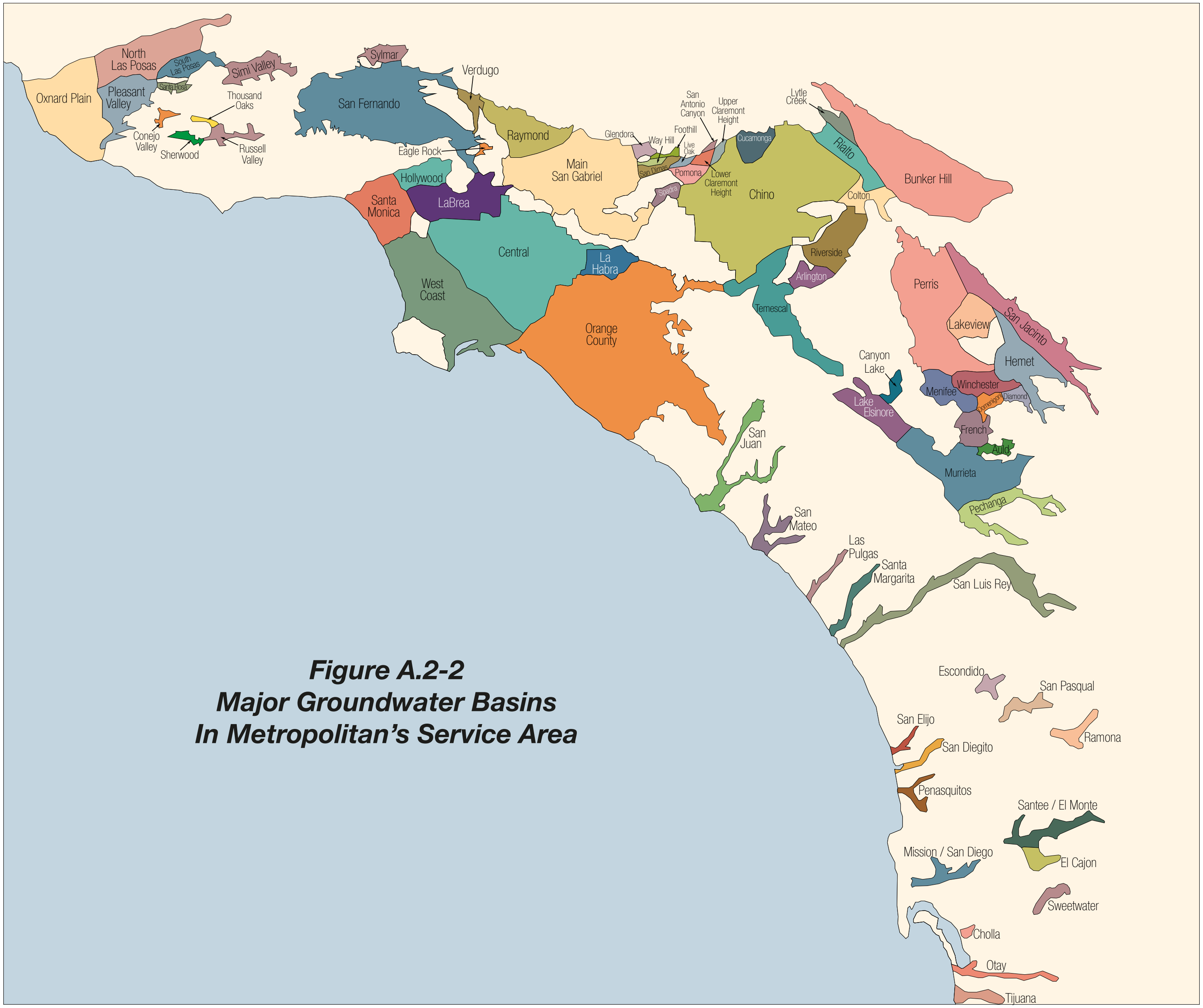

Figure A.2-2
Major Groundwater Basins
In Metropolitan's Service Area

Table A.2-3
Local Storage Reservoirs In Metropolitan's Service Area
(Thousand Acre-Feet

Member Agency/Subagency	Reservoir	Storage Capacity
Eastern MWD		
Rancho California WD	Vail Lake	51.0
Lake Hemet MWD	Lake Hemet	14.0
Las Virgenes MWD	Westlake Reservoir	10.0
City of Los Angeles	Los Angeles	10.2
	Encino	9.8
	Stone Canyon	10.8
	Hollywood	4.2
MWD of Orange Co.		
Irvine Ranch WD & Serrano ID	Santiago	25.0
San Diego County Water Authority		
Carlsbad MWD	Maerkle	0.6
Escondido, City of	Dixon	2.6
	Wohlford	6.5
Fallbrook PUD	Red Mountain	1.3
Helix WD	Cuyamaca	8.2
	Jennings	9.8
Poway, City of	Poway	3.3
Rainbow MWD	Beck	0.6
	Morro Hill	0.5
Ramona MWD	Ramona	12.0
San Diego County Water Authority	Olivenhain - CWA	24.8
San Diego, City of	Barrett	37.9
	El Capitan	112.8
	Hodges	30.3
	Lower Otay	49.5
	Miramar	7.2
	Morena	50.2
	Murray	4.8
	San Vicente	89.3
	Sutherland	29.7
San Dieguito WD	San Dieguito	0.9
Sweetwater Authority	Loveland	25.4
	Sweetwater	28.1
Valley Center M.WD	Turner	1.6
Vista Irrigation District	Henshaw	51.8
Western MWD of Riverside		
Temescal Water Company	Railroad Canyon	12.0
Total		**736.7**

Table A.2-4
Regional Reservoirs in Metropolitan's Service Area

Reservoir	Capacity (TAF)
Diamond Valley	810
Lake Skinner[1]	44
Lake Mathews[1]	182

[1] These are used for operations and not primarily for dry year storage.

Lastly, Castaic Reservoir and Perris Reservoir are the terminal reservoirs to the West Branch and East Branch of the California Aqueduct operated by DWR. Through the Monterey Amendment to its SWP water service contract Metropolitan has access to 218.94 TAF of flexible storage capacity in these SWP terminal reservoirs.

Water Recycling and Groundwater Recovery

Water recycling projects involve treating wastewater to a level that is acceptable and safe for many nonpotable applications. This resource is providing an increasing level of local water. From 1995 to 2009, Metropolitan invested approximately $244 million in water recycling projects. In 2009, water recycling projects in which Metropolitan has invested produced 161 TAF. In addition, local agency projects that did not receive financial assistance from Metropolitan produced an additional 147 TAF, for a regional total of 308 TAF. Figure A.2-3 demonstrates the increase in this regional supply for direct use.

Figure A.2-3 Recycled Water

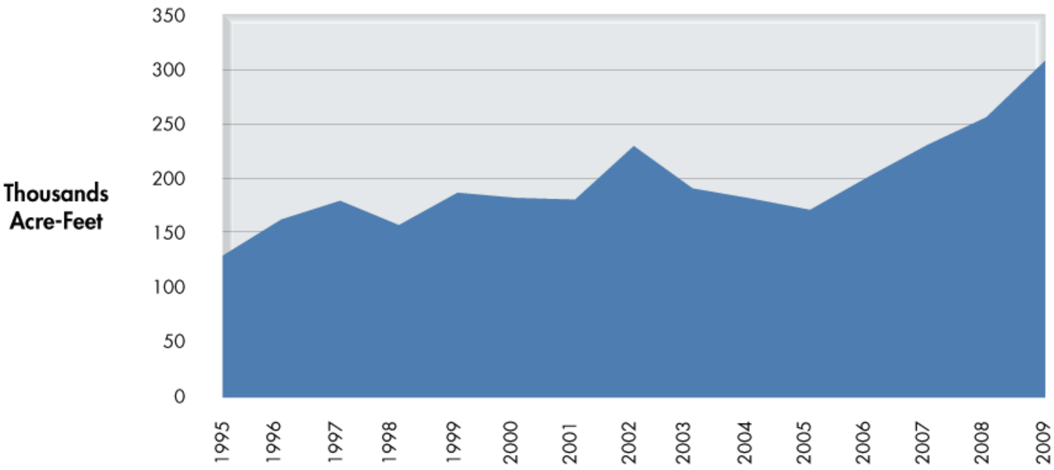

In addition, local agencies have implemented several projects to recover contaminated or degraded groundwater for potable uses. The groundwater recovery projects use a variety of treatment technologies to remove nitrates, volatile organic compounds, perchlorate, color and salt. In 1991, Metropolitan began helping to fund its member agencies' groundwater recovery projects. Since that time, Metropolitan has invested approximately $102 million. In 2009, these groundwater recovery projects produced 62 TAF. Other member agency projects that did not receive funding from Metropolitan produced another 35 TAF, for a regional total of 97 TAF. Figure A.2-4 shows this increase in supply.

Figure A.2-4 Groundwater Recovery

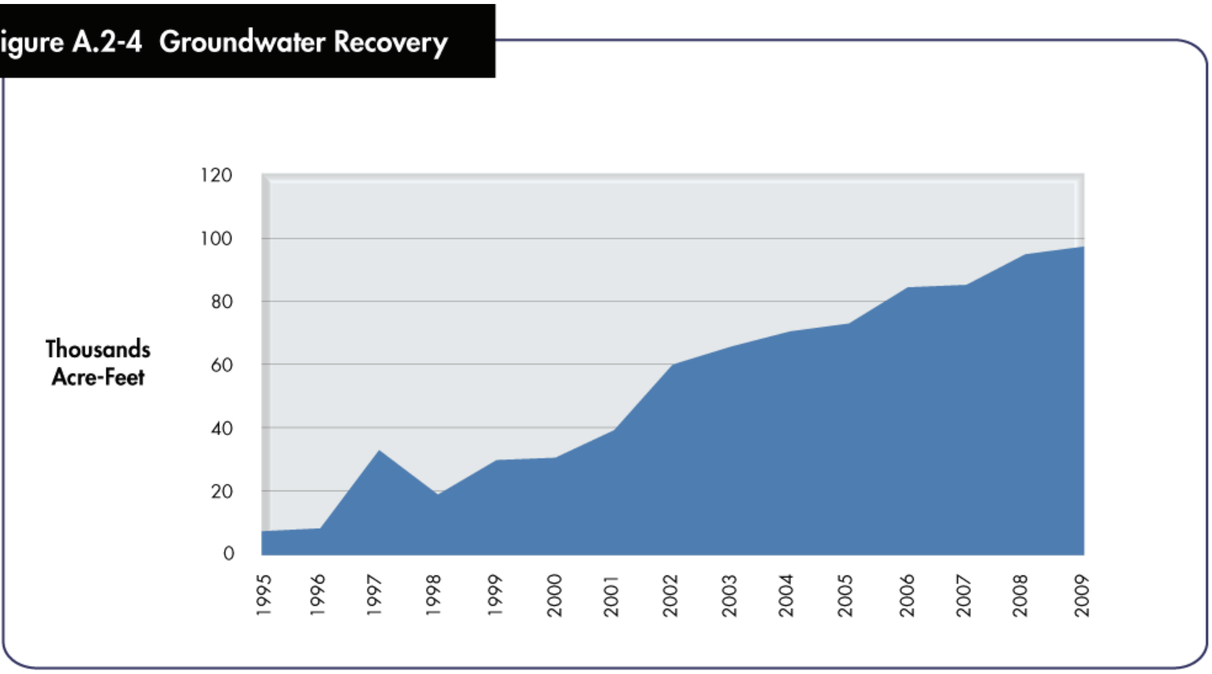

Imported Water

Most member agencies and retail water suppliers depend on imported water for a portion of their water supply. For example, Los Angeles and San Diego (the largest and second largest cities in the state) have historically (1995-2004) obtained about 85 percent of their water from imported sources. These imported water requirements are similar to those of other metropolitan areas within the state, such as San Francisco and other cities around the San Francisco Bay.

Figure A.2-5 shows the conveyance facilities for the state's imported water supplies. Descriptions of each of the imported sources of water available to Metropolitan's service area follow. Justification for projected water supplies from these sources, as required for retail water agencies to comply with Senate Bills 221 and 610, are provided in Appendix A.3.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Colorado River

A number of water agencies within California have rights to divert water from the Colorado River. Through the Seven Party Agreement (1931), seven agencies recommended apportionments of California's share of Colorado River water within the state. Table A.2-5 shows the historic apportionment of each agency, and the priority accorded that apportionment.

Table A.2-5
Priorities in Seven-Party Agreement and Water Delivery Contracts

Priority	Description	TAF Annually
1	Palo Verde Irrigation District – gross area of 104,500 acres of land in the Palo Verde Valley	3,850
2	Yuma Project (Reservation Division) – not exceeding a gross area of 25,000 acres in California	
3(a)	Imperial Irrigation District and land in Imperial and Coachella Valleys1 to be served by All American Canal	
3(b)	Palo Verde Irrigation District—16,000 acres of land on the Lower Palo Verde Mesa	
4	Metropolitan Water District of Southern California for use on the coastal plain of Southern California	550
Subtotal		4,400
5(a)	Metropolitan Water District of Southern California for use on the coastal plain of Southern California	550
5(b)	Metropolitan Water District of Southern California for use on the coastal plain of Southern California2	112
6(a)	Imperial Irrigation District and land in Imperial and Coachella Valleys1 to be served by the All American Canal	300
6(b)	Palo Verde Irrigation District—16,000 acres of land on the Lower Palo Verde Mesa	
7	Agricultural Use in the Colorado River Basin in California	
	Total Prioritized Apportionment	**5,362**

[1] The Coachella Valley Water District now serves Coachella Valley.

[2] In 1946, the City of San Diego, the San Diego County Water Authority, Metropolitan, and the Secretary of the Interior entered into a contract that merged and added the City of San Diego's rights to store and deliver Colorado River water to the rights of Metropolitan. The conditions of that agreement have long since been satisfied.

Figure A.2-5
MAJOR WATER CONVEYANCE
FACILITIES IN CALIFORNIA

The water is delivered to Metropolitan's service area by way of the Colorado River Aqueduct (CRA), which has a capacity of nearly 1,800 cubic feet per second or 1.3 MAF per year. The CRA conveys water 242 miles from its Lake Havasu intake to its terminal reservoir, Lake Mathews, near the city of Riverside. Conveyance losses along the Colorado River Aqueduct of 10 TAF per year reduce the amount of Colorado River water received in the coastal plain.

Since the date of the original contract, several events have occurred that changed the dependable supply that Metropolitan expects from the CRA. The most significant event was the 1964 U.S. Supreme Court decree in Arizona v. California that reduced Metropolitan's dependable supply of Colorado River water to 550 TAF per year. The reduction in dependable supply occurred with the commencement of Colorado River water deliveries to the Central Arizona Project. In 1987, Metropolitan entered into a contract with the Bureau of Reclamation for an additional 180 TAF per year of surplus water. In addition, Metropolitan has obtained a minimum of 85 TAF per year of Colorado River water through a conservation program with the Imperial Irrigation District.

In 1979, the Present Perfected Rights (PPRs) of certain Indian reservations, cities, and individuals along the Colorado River were quantified. These PPRs predate the Seven-Party Agreement, but the rights holders were not included in the Seven Party Agreement prioritizing California's use and storage of Colorado River water.

In 1999, the Colorado River Board of California developed "California's Colorado River Water Use Plan" (Plan). The Colorado River Board of California protects California's rights and interests in the resources provided by the Colorado River and represents California in discussions and negotiations regarding the Colorado River and its management. The overall purpose of the Plan is to provide Colorado River water users with a framework by which programs, projects, and other activities may be coordinated and cooperatively implemented. This framework specified how California would make the transition from relying on surplus water supplies from the Colorado to living within its normal water supply apportionment.

To implement these plans, a number of agreements have been executed. In October 2003, representatives from Metropolitan, IID, and Coachella Valley Water District (CVWD) executed the Quantification Settlement Agreement (QSA) and several other related agreements. Parties involved include the San Diego County Water Authority (SDCWA), the California Department of Water Resources (DWR), the California Department of Fish and Game, the U.S. Department of the Interior and the San Luis Rey Indian Water Rights Settlement Parties. The QSA quantifies the use of water under the third priority of the Seven Party Agreement and allows for implementation of agricultural conservation, land management, and other programs identified in Metropolitan's 1996 IRP. Quantification of the third priority provides the needed numeric baseline from which conservation and transfer programs may be measured. The QSA has helped California reduce its reliance on Colorado River water above its normal apportionment.

The quantification of the agricultural priorities under the QSA provided for the water saved under the Palo Verde Land Management and Crop Rotation Program to be made available to Metropolitan. This program provides up to 133 TAF of water to be available to Metropolitan in certain years and will supply a minimum of 33 TAF per year.

In October 2004, SNWA and Metropolitan entered into a storage and interstate release agreement. Under this program, Nevada can request that Metropolitan store unused Nevada apportionment in Metropolitan's service area. The amount of water stored through 2009 under this agreement was approximately 70 TAF. In subsequent years, Nevada may request recovery of this stored water. As part of a recently executed amendment, it is expected that Nevada will not request return of this water until 2019. The stored water provides flexibility to Metropolitan for blending Colorado River water with State Water Project water and improves near-term water supply reliability.

In December 2007, the Secretary of the Interior approved the adoption of specific interim guidelines for reductions in Colorado River water deliveries during declared shortages and coordinated operations of Lake Powell and Lake Mead. These new guidelines provide water release criteria from Lake Powell and water storage and water release criteria from Lake Mead during shortage, normal, and surplus conditions in the Lower Basin, provide a mechanism for the storage and delivery of conserved system and non-system water in Lake Mead, and modify and extend interim surplus guidelines through 2026. The Record of Decision and accompanying agreement among the Colorado River Basin States protect reservoir levels by reducing deliveries during drought periods, encourage agencies to develop conservation programs and allow the states to develop and store new water supplies. The Colorado River Basin Project Act of 1968 insulates California from shortages in all but the most extreme hydrologic conditions.

In May 2006, Metropolitan and the USBR executed an agreement for a demonstration program that allowed Metropolitan to leave conserved water in Lake Mead that Metropolitan would otherwise have used in 2006 and 2007. The water left in Lake Mead must have been made available through extraordinary conservation measures, which was accomplished in 2006 and 2007 through savings realized under the Palo Verde Land Management, Crop Rotation, and Water Supply Program. This Demonstration program was an activity eligible for creation of Extraordinary Conservation Intentionally Created Surplus (ICS) under the provisions of the December 2007 federal guidelines for the operation of Lake Powell and Lake Mead. As of January 1, 2010, Metropolitan had nearly 80 TAF of extraordinary conservation ICS water in Lake Mead.

The December 2007 federal guidelines provided Colorado River contractors the ability to create System Efficiency ICS through development and funding of system efficiency projects. To that end, in 2008 the Central Arizona Conservation District, SNWA, and Metropolitan contributed funds for the construction of the Drop 2 Reservoir by the Bureau of Reclamation. The purpose of the Drop 2 reservoir is to increase the capacity to regulate deliveries of Colorado River water at Imperial Dam reducing the amount of released downstream by approximately 70 TAF annually. In return for funding one-sixth of the project cost, 100 TAF of water stored in Lake Mead was assigned to Metropolitan as System Efficiency ICS. As of January 1, 2010, Metropolitan had nearly 66 TAF of System Efficiency ICS water in Lake Mead.

Metropolitan is undertaking ongoing efforts to maintain and improve the flexibility and quality of its water supply from the Colorado. Section 3.7 of this report describes current programs and plans related to flexibility, and Chapter 4 describes water quality programs.

State Water Project

The State Water Project, which is owned by the state and operated by the

California Department of Water Resources (DWR), is the second source of Metropolitan's imported water supplies. The SWP comprises 32 storage facilities (reservoirs and lakes), 662 miles of aqueduct, and 25 power and pumping plants.

The SWP conveys water from Northern California to the north and south of the San Francisco Bay Area and areas south of the Bay Delta region. Water from the SWP originates at Lake Oroville, which is located on the Feather River in Northern California. That water, along with all additional unused water from the watershed, flows into the Sacramento/San Joaquin Delta. Water from the Delta is then either pumped to water users in the San Francisco Bay area or transported through the California Aqueduct to water users in Central and Southern California.

DWR contracted to deliver water in stages to 32 SWP contractors, with an ultimate delivery of 4,172 TAF per year. Currently, DWR is delivering water to 29 of these SWP contractors. Metropolitan is the largest, with a contracted entitlement of 1,911 TAF per year, or approximately 46 percent of the total contracted amount. Metropolitan receives deliveries of SWP supplies via the California Aqueduct at Castaic Lake in Los Angeles County, Devil Canyon Afterbay in San Bernardino County, and Box Springs Turnout and Lake Perris in Riverside County. The first delivery of SWP water to Metropolitan occurred in 1972.

The initial facilities of the SWP, completed in the early 1970s, were designed to meet the original needs of the SWP contractors. It was intended that additional SWP facilities would be built over time to meet projected increases in contractors' delivery needs. Each contractor's SWP contract provided for a buildup in entitlement over time, with most contractors reaching their maximum annual entitlement by the year 1990. Since the completion of the initial SWP facilities in the early 1970s, major improvements to the system have included: four new pumps added to the Banks Pumping Plant at the Delta, the completion of the Coastal Branch, and the East Branch enlargement. Even with these improvements, however, there are still significant capacity constraints within the SWP that limit the delivery capability of the full contracted entitlement. During the same time, the contractors' needs for water from the SWP have increased. As a result, the contractors' demands for SWP water currently exceed the dependable yield.2 Metropolitan has developed groundwater storage programs with Semitropic Water Storage District, Arvin-Edison Water Storage District, and Kern Delta Water District to supplement the available water supply.

The amount of entitlement DWR approves for delivery varies annually with contractor demands and projected water supplies from tributary sources to the Delta, based on snowpack in the Sierra Nevada, reservoir storage, operational constraints, and demands of other water users. Historically, the SWP has been able to meet all contractors' requests for entitlement water except during the years of 1977, 1990-92, 1994, 2001-02, 2004, and 2007-09. In many years, surplus water has been delivered to contractors. Deliveries to Metropolitan reached a high of 1,802 TAF in calendar year 2004. Metropolitan experienced shortages in SWP supplies in fiscal years 1991 and 1992, with reduced deliveries of 391 TAF and 710 TAF, respectively.[3] More recently, SWP deliveries in 2008 and 2009 were limited to

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[2] The dependable yield of the existing SWP facilities is considered to be the delivery capability during a critically dry seven-year period.

[3] These numbers are Metropolitan's allocated entitlement. Total water deliveries to Metropolitan's service area are shown in Table A.2-1.

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35 percent and 40 percent of entitlements, respectively, resulting in drafts from storage of approximately 820 AF over this period to meet service area demands. Continued investments in conservation and recycling have allowed Metropolitan to reduce its requirements for SWP water.

In recent years the listing of several fish species in the Sacramento/San Joaquin Delta (Delta) under both state and federal Endangered Species Acts has constrained SWP operations and created more uncertainty in SWP supply reliability. These listed species include Delta smelt, winter-run Chinook salmon, spring-run Chinook salmon, and splittail. In January 2010, DWR released a draft of the biannual update of its Reliability Report. The report shows that future SWP deliveries will be impacted by two significant factors. The first is significant restrictions on SWP and Central Valley Project (CVP) Delta pumping required by the biological opinions issued by the U.S. Fish and Wildlife Service (December 2008) and National Marine Fisheries Service (June 2009). The second is climate change, which is altering the hydrologic conditions in the State. The 2009 draft report shows greater reductions in water deliveries on average when compared to the 2007 report. Over multiple-year dry periods, average annual Table A deliveries vary from 32 percent to 38 percent of the maximum Table A amount, while average annual deliveries over multiple-year wet periods range from 72 to 93 percent of the maximum Table A amount. Under future conditions, annual SWP Article 21 deliveries average 60 TAF, ranging from 1 TAF to 540 TAF over the 82-year simulation period.

Metropolitan is undertaking ongoing efforts to maintain and improve the reliability and quality of its water supply from the State Water Project. Sections 3.5 and 3-6 describe current programs and plans for reliability, and Chapter 4 addresses water quality issues.

Los Angeles Aqueducts

The city of Los Angeles imports water from the eastern Sierra Nevada through the Los Angeles Aqueduct (LAA). The original Los Angeles Aqueduct, completed in 1913, imported water from the Owens Valley. In 1940, the aqueduct was extended to the Mono Basin. A second aqueduct, which parallels the original, was completed in 1970.

With the completion of the aqueduct system in 1970, an average of 470 TAF of water was delivered annually through the LAA. Of this total, 380 TAF originated from surface water and groundwater in the Owens Valley, while 90 TAF came from surface water in the Mono Basin. In 1986, the aqueduct delivered a record 520 TAF of water.

In the late 1980s, a series of court injunctions limited the amount of water that Los Angeles could receive from its aqueduct system. In 1990, these limitations, along with a persistent drought, limited the delivery from the aqueduct to only 106 TAF. The Mono Lake Water Rights Decision (Decision) in September of 1994 ended the litigation in the Mono Basin, while negotiations continue with Inyo County on the fate of the Owens Valley water supply. In the Decision, the state ruled that Mono Lake should rise 17 feet over the next 25 years. During this time, Los Angeles would only be permitted to divert a fraction of its historical amounts. After the lake had risen, the city of Los Angeles would still be allowed only significantly reduced diversions. However, the high precipitation during the nineties allowed increased diversions of water to the LAA to occur at a much earlier time frame than had been foreseen at the time of the Decision.

More recently, the LAA diversions of water from the Owens Valley came under additional pressure. A long history of diversions of water from the Owens River had led to the drying up of Owens Lake by the end of the 1920s. This dry lakebed became a major source of windblown dust, resulting in EPA pressure to develop a State Implementation Plan to bring the region into compliance with federal air quality standards. In 1998, the Los Angeles Department of Water and Power entered into a Memorandum of Agreement with the Great Basin Air Pollution Control District that specified actions needed to control the problem. These actions included shallow flooding and managed vegetation at various lakebed locations. An estimated 54 TAF per year will be required to maintain the dust control measures, further restricting the water available for diversion through the LAA. More recently, the city has been required to restore portions of the Owens River, which could further restrict the water that can be provided from this source.

Historic Total Regional Water Supplies

The previous sections have presented the various sources of Metropolitan and the region's water supply. The amount of water supplied by each local and imported source from 1976 through 2008 appears in Table A.2-1. The imported supplies represent the amount of water imported into Metropolitan's service area, not the amount delivered to member agencies, which is shown in Table A.2-2. The difference between Metropolitan's imports and deliveries is water placed into or withdrawn from storage. The fluctuation in water supplies that occurred during this 1976-2008 period is the result of a number of factors. California experienced an extended drought during this period, which was particularly severe in 1991 and 1992. The long duration of this drought, which began in 1987, resulted in a decline in local supplies over the period due primarily to a reduction in groundwater availability. In addition, shortages in SWP supplies in 1991 and 1992 resulted in significant efforts to increase water conservation activities and, for part of that time, the imposition of water rationing. Water conservation activities in the region were already considerable before the 1991-92 shortage years, but these efforts were greatly expanded during those years and have stayed at similar levels even though adequate supplies have been available. Efforts at increasing water recycling have also continued. As a result of these efforts, consumers in Metropolitan’s service area have reduced their use of both imported and local supplies.

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APPENDIX A.3

JUSTIFICATIONS FOR SUPPLY PROJECTIONS

A.3 JUSTIFICATIONS FOR SUPPLY PROJECTIONS

Legislation authored by Senator Sheila Kuehl (Senate Bill 221 – now Water Code §10613 *et seq.*) and Senator Jim Costa (Senate Bill 610 – now Water Code §66473.7) requires water retailers to demonstrate that their water supplies are sufficient for certain proposed subdivisions and large development projects subject to the California Environmental Quality Act (CEQA). Although Metropolitan and other wholesalers do not have verification responsibilities under this legislation, information provided by Metropolitan may be useful to retailers in complying with these responsibilities. This Appendix provides the basis for the water availability contained in this report, by major source of supply. Such bases and proofs are required for supply verification under the legislation. Links to copies of the legislation can be found at http://www.groundwater.water.ca.gov/water_laws/index.cfm#otherleg.

Throughout this appendix, references are made to Metropolitan's operating budget and its long-term capital investment plan. The most recent operating budget (for fiscal year 2009-10) was adopted at the April 14, 2009 Board Meeting. A copy of the budget summary and the Capital Investment Plan for FY 2009-10 can be found at http://www.mwdh2o.com/mwdh2o/pages/finance/budget/AB09_10web.pdf.

Another document of interest related to Metropolitan's water supply planning is its annual report to the state Legislature in compliance with Senate Bill 60 of 1999 (Hayden).[1] This requires that Metropolitan report on its progress in increasing its emphasis on cost-effective conservation, recycling, and groundwater recharge.

A.3.1 Colorado River Aqueduct Deliveries

A. Colorado River Supplies

Metropolitan obtains water from the Colorado River under a number of categories specified in its supplemental water storage and delivery contract with the Secretary of the Interior: its basic apportionment that is classified as Priority 4 water, unused and surplus water that is classified as Priority 5 and Priority 6(a) water, and water resulting from a number of conservation programs that is classified as Priority 3(a) water. Pursuant to a U.S. Supreme Court decree, and regulations and operating guidelines of the U.S. Bureau of Reclamation, Metropolitan may receive as unused apportionment, water supplies unused by agricultural districts, supplies unused by the states of Arizona and Nevada, and as Intentionally Created Surplus, supplies stored from previous years' extraordinary conservation and efficiency improvements to the operations of the Colorado River system. Subject to the terms of agreements, this stored water may be withdrawn as needed during years in which insufficient supplies are available. Appendix A.2 describes the history

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[1] Metropolitan Water District of Southern California, *Annual Progress Report to the California State Legislature: Achievements in Conservation, Recycling and Groundwater Recharge* (February 2010), which can be found at http://www.mwdh2o.com/mwdh2o/pages/yourwater/SB60/SB60_2010.pdf. The legislation requiring this information can be found at http://www.leginfo.ca.gov/pub/99-00/bill/sen/sb_0051-0100/sb_60_bill_19990916_chaptered.pdf. Similar reports have been filed with the Legislature since 2000.

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of water supplies and the expected availability from this source, and Section 3.1 describes the agreements for water supplies.

Rationale for Expected Supply

Historical Record

Water supply under Metropolitan's Priority 4 apportionment of Colorado River water has been delivered since 1939. By existing contract, it is expected to be available in perpetuity because of California's senior water rights to use of Colorado River water.

The historical record for available Colorado River water indicates that Metropolitan's fourth priority supply has been available in every year and can reasonably be expected to be available over the next 20 years.

Written Contracts or Other Proof

Metropolitan's entitlement to Colorado River water is based on a series of interstate compacts, federal laws, agreements, court decrees, and guidelines collectively known as "The Law of the River,"[2] which govern the distribution and management of Colorado River water. The following documents specifically determine Metropolitan's dependable supplies:

- 1931 Seven Party Agreement.[3] The 1931 Agreement recommended California's Colorado River use priorities and has no termination date. California's basic annual apportionment is 4.4 MAF. Palo Verde Irrigation District (PVID), Yuma Project (Reservation Division), Imperial Irrigation District (IID), Coachella Valley Water District (CVWD), and Metropolitan are the entities that hold the priorities. As shown in Appendix A.2, these priorities are included in the contracts that the Department of the Interior executed with the California agencies in the 1930s for water from Lake Mead. Metropolitan holds Priority 4 to California's basic apportionment of Colorado River water and utilizes this water – 550 TAF per year – every year. In addition, Metropolitan has access to additional Colorado River water – up to 662 and 38 TAF per year, respectively – through its Priority 5, and Priority 6(a) in the California apportionment. Appendix A.2 describes the current status of water available under this priority.
- Metropolitan's Basic Contracts.[4] Metropolitan's 1930, 1931, and 1946 basic contracts with the Secretary of the Interior permit the delivery of 1.212 MAF per year when sufficient water is available. Metropolitan's 1987 surplus flow contract with Reclamation permits the delivery of water to fill the remainder of the Colorado River Aqueduct when water is available.
- Consolidated Court Decree.[5] The 1964 U.S. Supreme Court Decree confirmed the Arizona, California, and Nevada basic apportionments of 2.8 MAF per year, 4.4 MAF per year and 300 TAF per year, respectively. The 1964 Decree also permits the Secretary of the Interior to make water available that is unused by one of the states for use in the other two states. In addition, it permits the Secretary of the Interior to make surplus water available. Several decrees were subsequently entered by the U.S. Supreme Court in the case *Arizona v. California et al* culminating in the Consolidated Decree entered on March 27, 2006.
- 2003 Quantification Settlement Agreement (QSA) and several other related agreements were executed in

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[2] A description of many of these documents can be found at http://www.usbr.gov/lc/region/pao/lawofrvr.html.

[3] This agreement among the seven California agencies was dated August 18, 1931 and was codified in federal regulations promulgated by the Secretary of the Interior on September 28, 1931.

[4] Including contract number Ilr-645 dated 04-09-1930, supplemented 09-28-1931.

[5] The Consolidated decree entered by the U.S. Supreme Court on March 27, 2006, in *Arizona v. California et al,* can be found at http://www.usbr.gov/lc/region/pao/pdfiles/scconsolidateddecree2006.pdf

October 2003.[6] The QSA quantifies the use of water under the third priority of the Seven Party Agreement, and further allocates 38 TAF of the sixth priority to Metropolitan. The QSA provides the numeric baseline needed to measure conservation and transfer programs, and it allows for implementation of agricultural conservation, land fallowing, and other programs identified in the 1996 IRP. Although this agreement does not directly impact Metropolitan's entitlements, Metropolitan agreed to forbear consumptive use when necessary so that the Secretary of the Interior can satisfy the uses of holders of miscellaneous and Indian present perfected rights in excess of 14.5 TAF.

- 2005 Settlement Agreement with Quechan Indian Tribe. In 2005, Metropolitan entered into a settlement agreement with the Quechan Indian Tribe (Tribe) and other parties. The Tribe uses Colorado River water on the Fort Yuma Indian Reservation. Under the settlement agreement, the Tribe, in addition to the amounts of water decreed for the benefit of the Reservation in 1964, is entitled to (a) an additional 20 TAF of diversions from the Colorado River or (b) the amount necessary to supply the consumptive use required for irrigation of a specified number of acres, and for the satisfaction of related uses, whichever is less. Of the additional water, 13 TAF became available to the Tribe in 2006. An additional 7 TAF becomes available to the Tribe in 2035. Metropolitan and the Tribe agreed that if the Tribe chooses to limit proposed development and utilization of their irrigable lands, which would require the diversion of any of the additional water in a year, and instead allows the water which would otherwise be used to be diverted by Metropolitan, Metropolitan provides an incentive payment to the Tribe to avoid or reduce a loss of supply.
- Colorado River Interim Guidelines for Lower Basin Shortage and the Coordinated Operations for Lake Powell and Lake Mead. In December 2007, the Secretary of the Interior approved a Record of Decision establishing specific interim guidelines for reductions in Colorado River water deliveries in the Lower Basin during declared shortages and coordinated operations of Lake Powell and Lake Mead. These new guidelines provide water release criteria from Lake Powell and water storage and water release criteria from Lake Mead during shortage, normal, and surplus conditions in the Lower Basin, and provide a mechanism for Metropolitan to store and take delivery of conserved system and non-system water in Lake Mead.

Financing

Metropolitan's operating budget (referenced at the beginning of this appendix) includes the cost of delivering Colorado River water and the payment to the Quechan Indian Tribe, which is paid from water sales revenue.

Federal, State, and Local Permits/Approvals

Metropolitan's fourth priority Colorado River water is currently available, and this priority assures delivery of the Basic apportionment.

B. IID - Metropolitan Conservation Program

Source of Supply

The IID-Metropolitan Conservation Program provides an annual supply that is delivered to Metropolitan's service area via its Colorado River Aqueduct (CRA). In 1988, Metropolitan executed a Conservation Agreement to fund water efficiency improvements within IID's service area in return for the right to divert the water conserved by those improvements. The program consists of structural and non-structural measures, including the concrete lining of existing canals, the construction of local reservoirs and spill-interceptor canals, installation of non-leak gates, and

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[6] These agreements can be found at http://www.iid.com/Water/QSAAgreementsRelatedDocuments2003.

automation of the distribution system. Other implemented projects include the delivery of water to farmers on a 12-hour basis rather than a 24-hour basis and improvements in on-farm water management through the installation of tailwater pumpback systems and drip irrigation systems.

Expected Supply Capability

The IID-Metropolitan Conservation Program activity began in 1990, has been fully operational since 1998, and makes available 105 TAF of conserved water annually. The initial program agreement provided CVWD the option to call up to about 45 TAF per year if needed to meet its demands. Execution of the QSA has reduced CVWD's option to a maximum of 20 TAF. This water is available to Metropolitan if not required by CVWD, but the minimum supply to MWD has been increased to 85 TAF with continued operation of 24 tailwater pumpback systems through a second amendment to the agreement.

Rationale for Expected Supply

Historical Record

The IID-Metropolitan Conservation Program has been fully operational since 1998. Existing agreements have extended the initial term to at least 2041 or 270 days after the termination of the QSA, whichever is later, and they guarantee Metropolitan a minimum of 85 TAF per year.

With operations beginning in 1990, the program has conserved as much as 109.46 TAF per year to date. By an amendment to the program agreement beginning in 2007 the annual conserved water yield has and will be 105 TAF. The historical record indicates that Metropolitan's expected minimum supply of 85 TAF per year would be available over the next 31 years at least.

Written Contracts or Other Proof

Metropolitan's annual supply from the IID-Metropolitan Conservation Program is based on three agreements and amendments to the agreements.

- 1988 IID-Metropolitan Conservation and Use of Conserved Water Agreement. This Agreement was executed in December 1988 by IID and Metropolitan for a 35-year term following completion of program implementation (1998–2033).
- 1989 Approval Agreement. This Agreement secured the approval of the PVID and CVWD to not divert an amount of water equal to the amount conserved except under limited circumstances. The Agreement was executed in December 1989.
- 1989 Supplemental Approval Agreement. This Agreement was executed in December 1989 between Metropolitan and CVWD to coordinate Colorado River diversions and the use of the conserved water provided by the Program.
- 2003 Amendments to 1988 Agreement and 1989 Approval Agreement. These amendments revise Metropolitan's potential obligation to reduce its use of the conserved water yield in favor of its use by CVWD down to 20 TAF annually. Any of this water not used by CVWD would be available to Metropolitan.
- 2007 Amendments to 1988 Agreement and 1989 Approval Agreement. These amendments specify that beginning in 2007 the annual conserved water yield has and will be 105 TAF, of which up to 20 TAF would be made available to CVWD upon its request.

Financing

The water efficiency improvements under this Program have already been funded, constructed, and put into operation. Metropolitan's five-year financial forecast in the budget includes the cost of operating, maintaining, and delivering the conserved water under the IID-Metropolitan Conservation Program.

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Federal, State, and Local Permits/Approvals

A comprehensive environmental review process supported implementation.

- EIR for Program. The IID Board certified the final Environmental Impact Report for the Program in December 1986.[7]
- EIR for Supplemental Program. The IID Board certified the final Environmental Impact Report for the Completion Program in June 1994.[8]
- Program EIR for Quantification Settlement Agreement. Metropolitan's Board certified the final Program Environmental Impact Report for the QSA in June 2002.[9]
- Addendums to the QSA Final Program EIR. Metropolitan's Board adopted the Addendum to the QSA Final Program Environmental Impact Report in December 2002 and a second addendum in September 2003. Metropolitan's Board also adopted the Findings of Fact and Statement of Overriding Considerations, and Mitigation and Monitoring and Reporting Program at that time.

C. Hayfield Groundwater Storage Project

Source of Supply

The Hayfield Groundwater Storage Project (Hayfield Project) is planned to supply up to 100 TAF per year during dry year or non-surplus Colorado River conditions. During wet and surplus years, Metropolitan would replenish the Hayfield Project from the CRA.

Expected Supply Capability

It is estimated that the Hayfield aquifer can hold up to 400 TAF of additional CRA water. At buildout, this water could be extracted during dry year conditions at a rate of up to 100 TAF per year. This supply would be available to Metropolitan in any year, but delivery is constrained by the existing capacity of the CRA. Incremental deliveries of water to the CRA from the Hayfield Project can be made during wet or average years depending on operating conditions along the CRA. For example, the Hayfield Project may provide operational efficiencies in meeting delivery obligations at Whitewater or other locations along the CRA.

Rationale for Expected Supply

As an integral part of the Colorado River resource strategy for storage programs, the Hayfield Project could be used by Metropolitan in meeting its demands in future dry years.

Program Facilities

The Hayfield Program would consist of facilities in two general areas:

- 390 acres of spreading basins,
- A well field consisting of 40 new wells to extract water from the aquifer, and pumps to return the water to the Colorado River Aqueduct;

Historical Record

Metropolitan’s Board of Directors authorized implementation of the Hayfield Project in April 1999. Over 70 TAF of water have been stored in the Hayfield aquifer since that time from historical CRA releases. A prototype extraction well was constructed in 2009.

Written Contracts or Other Proof

The Hayfield Project has been implemented as a component of California’s Colorado River Water Use Plan. The following actions have occurred:

- 1998 Memorandum of Understanding (MOU) between Metropolitan and the

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[7] Imperial Irrigation District, *Final EIR, Proposed Water Conservation Program and Initial Water Transfer, Imperial Irrigaton District,* October, 1986. SCH Number: 1986012903.

[8] Imperial Irrigation District, *Final EIR for Modified East Lowline and Trifolium Interceptors, and Completion Projects*, May 1994. SCH Number: 1992071061.

[9] Coachella Valley Water District, Imperial Irrigation District, Metropolitan, San Diego County Water Authority, *Final Program EIR, Implementation of the Colorado River Quantification Settlement Agreement*, June 2002, SCH Number 2000061034.

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U. S. Department of the Interior Bureau of Land Management (BLM). This MOU describes the intent of both Metropolitan and the BLM to exchange properties overlying the Hayfield Basin in order to support the implementation of the Hayfield Project. Approximately 3,800 acres of federally owned property in the Hayfield Valley would be exchanged with like properties held by Metropolitan. The purpose of this exchange of properties is to manage the underlying groundwater resource and protect water quality.

- <u>April 1999 Board of Directors Adoption of the CEQA Document.</u> Metropolitan's Board of Directors adopted the Mitigated Negative Declaration for the Hayfield Project at its regularly scheduled Board of Directors meeting in April 1999.
- <u>June 2000 Board of Directors Approval of the Hayfield Project.</u> Metropolitan's Board of Directors approved the Hayfield Project and appropriated an additional $7.35 million for land acquisition, preliminary design, continued water quality monitoring, additional aquifer testing and other tasks. The Board authorized storage of up to 800 TAF of CRA water.
- <u>December 2002 Board of Directors Appropriation of Design, Testing and Construction Funds.</u> Metropolitan authorized expenditure of an additional $18 million to implement the Hayfield Project. This action increased the authorized funding to implement the Hayfield Project to more than $27 million.
- Because of the recent drought in the Colorado River basin, the storage portion of the Hayfield Program is currently on hold indefinitely.
- <u>October 2008 Board of Directors Authorize Agreements for Final Design.</u> Metropolitan authorized $3 million for the final design of the facilities to extract the previously stored water in three to four years. Facilities included 4 wells, 2.5 miles of pipeline and power lines. Total estimated cost to complete the project is $21 million.
- <u>February 2009 Board of Directors Authorize Installation of Prototype Well for Hydrogeologic Investigations.</u> Metropolitan authorized $1.9 million for the installation of a prototype well to evaluate the hydrogeologic constraints with the extraction of the stored water from Hayfield. This action was taken to address concerns with respect to water quality and well yield.
- <u>March 2010 Authorize Final Design of Hayfield Groundwater Extraction Project.</u> Metropolitan authorized final design for the equipping of the Prototype Well. The prototype well would have the ability to extract the stored water in 15 years. Estimated design and construction cost is $4 million.

Financing

The capital cost of the full-scale Hayfield Project is estimated to be approximately $75 million. A four-well configuration project for extraction only is estimated to cost approximately $21 million. This cost is included in Metropolitan's 10-year capital budget (referenced above) and would be financed through a combination of bonds and water sales revenue.

Federal, State and Local Permits/Approvals

Metropolitan has applied for and requested all appropriate federal, state and local permits for construction. Metropolitan anticipates the operating permit for the Hayfield groundwater recovery project to be issued by California Department of Public Health during the later potion of 2010. Monitoring wells and test wells were completed in accordance with Riverside County permitting procedures. Necessary environmental permits would be acquired as needed.

D. Palo Verde Irrigation District Land Management, Crop Rotation And Water Supply Program

Source of Supply

At its May 11, 2004 meeting, Metropolitan's Board authorized a 35-year land management, crop rotation, and water supply program with the PVID. Under the program, participating farmers in PVID are being paid to reduce their water use by not irrigating a portion of their land. A maximum of 29 percent of lands within PVID can be fallowed in any given year. Under the terms of the QSA, water savings within the PVID service area are made available to Metropolitan. PVID has the first priority for Colorado River water under the water delivery contracts with the U.S. Bureau of Reclamation. Implementation of the program began in January 2005. The program is estimated to provide up to 133 TAF per year. The agreement also specifies that the program will provide a minimum of 33 TAF per year.

Expected Supply Capability

It is estimated that the PVID/Metropolitan Program would provide up to 133 TAF per year of additional Colorado River water. This water would be available in any year as needed and in accordance with the provisions described in the agreements with Palo Verde Valley landowners and PVID.

Rationale for Expected Supply

Historical Record

Metropolitan and PVID tested the concept of developing a water supply for Metropolitan by entering into an agreement in 1992.[10] Agreements were signed with landowners and lessees in the Palo Verde Valley to forego irrigation for a two-year period from August 1992 to July 1994. Water unused by PVID, in the amount of 186 TAF, was stored in Lake Mead for Metropolitan. Both PVID and Metropolitan signed approved Principles of Agreement in 2001. PVID issued the Final Environmental Impact Report for the Proposed Palo Verde Irrigation District Land Management, Crop Rotation and Water Supply Program in September 2002.[11]

Implementation of the program began in January 2005. In 2005, 2006, 2007, 2008, and 2009, approximately 108.7, 105.0, 72.3, 94.3, and 120.2 TAF of water, respectively, were saved and made available to Metropolitan. In March 2009, Metropolitan and PVID entered into a one-year supplemental fallowing program within PVID that provides for the fallowing of additional acreage, with savings projected to be as much as 62 TAF. Of that total, 24.1 TAF of water was saved in 2009, with the balance to be made available in 2010.

Written Contracts or Other Proof

- August 2004 Forbearance and Fallowing Program Agreement. This agreement establishes the PVID/Metropolitan Program, which provides for a solicitation of and provisional approval of landowner participation offers, specifies the process for incorporating offers into agreements with landowners, and states the terms and conditions for fallowing, including payments made by Metropolitan.
- Landowner Agreements for Fallowing in the PVID. These agreements specify an escrow process to consummate the transaction, an easement deed to encumber land for fallowing, a tenant agreement to subordinate a tenant's lease to the agreement and easement, and an encumbrance agreement to subordinate any encumbrance (e.g., a mortgage) to the easement. These agreements also state the landowner's fallowing obligation, payments to be made by Metropolitan, and land management measures to be implemented.

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[10] Presented to Metropolitan's Board at its regular meeting January 14, 1992.

[11] SCH Number 2001101149.

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Financing

Metropolitan's annual O&M budget (referenced above) includes the cost of the PVID/Metropolitan Program.

Federal, State and Local Permits

A Notice of Preparation for the PVID/Metropolitan Program was published on October 29, 2001. PVID issued the Final Environmental Impact Report for the Proposed Palo Verde Irrigation District Land Management, Crop Rotation, and Water Supply Program in September 2002 (see reference above).

E. All-American and Coachella Canal Lining Projects

Source of Supply

Water is being conserved by the replacement of earthen portions of the Coachella Canal and the All-American Canal with concrete-lined canals. The concrete lining reduces the amount of water lost to seepage from the canals.

Expected Supply Capability

Pursuant to the October 10, 2003 Allocation Agreement, Metropolitan is entitled to delivery of 16 TAF annually until the San Luis Rey Settlement Parties[12] satisfy the conditions described in Section 104 of the San Luis Rey Indian Water Rights Settlement Act (Public Law 100-675 as amended). Once the statutory conditions have been met, Metropolitan will provide by exchange water to the United States for use by the Settlement Parties and San Diego County Water Authority will convey the water for use by the Settlement Parties'.

Rationale for Expected Supply

The All-American and Coachella canal lining projects were implemented pursuant to the authorization contained in Title II of Public Law 100-675. The allocation of the water resulting from these projects is provided under the Allocation Agreement. The Allocation Agreement is a QSA-related agreement. The USBR, on behalf of the Secretary of the Interior, has issued interim determinations for the Coachella Canal Lining Project (January 31, 2008) and the All-American Canal Lining Project (December 4, 2009) that results in the annual delivery to Metropolitan of 4.5 TAF and 11.5 TAF, respectively. Delivery of this water for Metropolitan's use continues until conditions described in Section 104 of Public Law 100-675 and the Allocation Agreement are satisfied.

Program Facilities

The Coachella Canal is owned by the United States and is operated by CVWD. The All-American Canal is owned by the United States and is operated by IID. The water is conveyed through existing CRA facilities from Lake Havasu to Metropolitan.

Historical Record

The Coachella Canal Lining Project began conserving water in 2006 and reached its full conservation yield in calendar year 2009. The All-American Canal Lining Project began conserving water in 2008 and will reach its full conservation yield in calendar year 2010. Actual annual deliveries to Metropolitan are as follows:

Calendar Year	**Volume Delivered to Metropolitan** (AF)
2006	172
2007	4,500
2008	6,013
2009	15,648
2010	16,000 (projected)

Written Contracts or Other Proof

- 2003 Allocation Agreement. This agreement among the United States, Metropolitan, CVWD, IID, San Diego County Water Authority, and the San Luis Rey Settlement Parties, provides for the determination by the Secretary of the

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[12] The San Luis Rey Settlement Parties are the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians, the San Luis Rey River Indian Water Authority, and the City of Escondido and Vista Irrigation District.

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Interior of the conserved water yield from the All-American Canal Lining Project and the Coachella Canal Lining Project, the allocation of that yield among IID, SDCWA, Metropolitan, and the Settlement Parties, and the delivery of the allocated amounts to the respective users by the Secretary of the Interior.

Financing

Under the Allocation Agreement, water resulting from the All-American and Coachella Canal lining projects is made available to Metropolitan until the conditions specified in Sections 7.2.1, 7.2.2, and 7.2.4 of the Allocation Agreement have been satisfied. Metropolitan and the San Luis Rey River Indian Water Authority have a dispute over the validity of Section 7[13] of the October 10, 2003 Agreement Relating to Supplemental Water among The Metropolitan Water District of Southern California, the San Luis Rey Settlement Parties, and the United States. Pending resolution of the dispute, Metropolitan sets aside funding for the portion of the conserved water it receives as part of its annual O&M budget.

Federal, State, and Local Permits/Approvals

A comprehensive environmental review process supported implementation.

- Program EIR for Quantification Settlement Agreement. Metropolitan's Board certified the final Program Environmental Impact Report for the QSA in June 2002.[14]
- Addendums to the QSA Final Program EIR. Metropolitan's Board adopted the Addendum to the QSA Final Program Environmental Impact Report in December 2002 and a second addendum in September 2003. Metropolitan's Board also adopted the Findings of Fact and Statement of Overriding Considerations, and Mitigation and Monitoring and Reporting Program at that time.
- EIR/EIS for the All-American Canal Lining Project. Reclamation approved the Record of Decision for the All American Canal Lining Project on July 29, 1994. IID certified the All American Canal Lining Project Final EIS/EIR and approved the project on August 16, 1994. Reclamation released a Supplemental Information Report on the All American Canal Lining Project, dated January 12, 2006.
- EIR/EIS for the Coachella Canal Lining Project. Reclamation approved the Record of Decision for the Coachella Canal Lining Project on March 27, 2002. CVWD certified the Coachella Canal Lining Project Final EIS/EIR and approved the project on May 15, 2001. Metropolitan certified that it had reviewed and considered the information contained in those two documents and adopted the Lead Agencies' findings on December 13, 1994, for the All American Canal Lining Project and on September 11, 2001, for the Coachella Canal Lining Project.
- Addendum to EIS/EIR for the Coachella Canal Lining Project. Addendum to the Coachella Canal Lining Project Final EIS/EIR was published on February 27, 2004. CVWD certified the Addendum and approved the project on March 2, 2004.

F. Metropolitan-CVWD Delivery and Exchange Agreement for 35,000 Acre-Feet

Source of Supply

Metropolitan delivers to CVWD up to 35 TAF from Metropolitan's available State Water Project (SWP) Table A supply without condition on the actual Department of Water Resources (DWR) allocation for that year. As CVWD does not have a connection to the SWP, the water is delivered to CVWD by an

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[13] Payments from Metropolitan for Supplemental Water and Related Power Delivered Prior to Satisfaction of Section 104

[14] Coachella Valley Water District, Imperial Irrigation District, Metropolitan, San Diego County Water Authority, Final Program EIR, Implementation of the Colorado River Quantification Settlement Agreement, June 2002, SCH Number 2000061034.

exchange with Colorado River water. Metropolitan takes delivery of the Table A supply in conjunction with forgoing diversion of an equal volume of its Colorado River supply effectively leaving this water in the River for diversion by CVWD at Imperial Dam. Exchange deliveries may also be made at the CRA Whitewater service connection or through the Metropolitan-CVWD-Desert Water Agency Advance Delivery Agreement. This program represents a net debit to Metropolitan's supplies.

Expected Capability

Up to 35 TAF of Metropolitan's SWP Table A supply will be delivered annually to CVWD by exchange.

Rationale for the Expected Supply

This program is undertaken pursuant to the Delivery and Exchange Agreement between Metropolitan and Coachella for 35,000 AF dated October 10, 2003 and is a QSA-related agreement.

Program Facilities

Metropolitan takes delivery of the Table A supply from the East Branch of the California Aqueduct at Devil Canyon Afterbay. At Metropolitan's request the USBR releases a portion of Metropolitan's available Colorado River supply from Lake Mead for diversion by CVWD at Imperial Dam and conveyance through the All-American Canal System.

Historical Record

Since the 2003 execution of the QSA and the Delivery and Exchange Agreement, the following volumes of exchange water were delivered to CVWD at Imperial Dam:

Calendar Year	**Volume of Exchange Water** (AF)
2003	0
2004	0
2005	0
2006	34,958
2007	0
2008	0
2009	0
2010	10,000 (projected)

Written Contracts or Other Proof

- 2003 Delivery and Exchange Agreement. This agreement between Metropolitan and CVWD provides for the delivery of up to 35,000 AF of Metropolitan SWP Table A supply by exchange with Colorado River water.

Federal, State, and Local Permits/Approvals

- Program EIR for Quantification Settlement Agreement. Metropolitan's Board certified the final Program Environmental Impact Report for the QSA in June 2002.[15]
- Addendums to the QSA Final Program EIR. Metropolitan's Board adopted the Addendum to the QSA Final Program Environmental Impact Report in December 2002 and a second addendum in September 2003. Metropolitan's Board also adopted the Findings of Fact and Statement of Overriding Considerations, and Mitigation and Monitoring and Reporting Program at that time.
- September 2002 Final Program EIR for Coachella Valley Water Management Plan and State Water Project Entitlement Transfer as certified by the CVWD on October 8, 2002

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[15] Coachella Valley Water District, Imperial Irrigation District, Metropolitan, San Diego County Water Authority, Final Program EIR, Implementation of the Colorado River Quantification Settlement Agreement, June 2002, SCH Number 2000061034.

G. SNWA and Metropolitan Storage and Interstate Release Agreement

Source of Supply

The source of supply is SNWA's intentionally created unused Nevada apportionment of Colorado River water made available to Metropolitan for diversion and storage. In later years Metropolitan would return this water through reduced diversions of Colorado River water made at the request of SNWA.

Expected Capability

Based on recent use patterns in Nevada as much as 60 TAF could be made available in a single year to Metropolitan from SNWA. As of January 1, 2010, 70 TAF has been diverted by Metropolitan.

Returns to SNWA are limited to no more than 30 TAF annually and SNWA has agreed to forgo requesting return of stored water through 2019. If the Secretary of the Interior apportions less than 280 TAF of basic apportionment for use in Nevada, SNWA may request the return of up to 50 TAF, 1 acre-foot for each acre-foot less than 280 TAF of basic apportionment apportioned for use in Nevada.

Rationale for the Expected Supply

Program Facilities

Water is diverted through the CRA by Metropolitan. To return the water to SNWA, Metropolitan would reduce its CRA diversions and the Secretary of the Interior would make water available to SNWA at Lake Mead.

Historical Record

The annual volumes of water diverted into the CRA by Metropolitan ares as follows:

Calendar Year	**Volume of Exchange Water (AF)**
2004	10,000
2005	10,000
2006	5,000
2007	0
2008	45,000
2009	0
2010	0 (estimated)

No water has been returned to SNWA.

Written Contracts or Other Proof

- 2004 Storage and Interstate Release Agreement. This agreement among Metropolitan, Colorado River Commission of Nevada, SNWA, and the United States provides for the Secretary of the Interior to make available to Metropolitan for diversion and storage unused Nevada apportionment. In subsequent years, the agreement provides for Metropolitan to make this water available to SNWA by forgoing diversion of a portion of its available Colorado River supply.
- Operational Agreement. As amended on August 11, 2009, the Operational Agreement specifies the conditions under which Metropolitan would divert and store unused Nevada apportionment through 2026 and the return of this water to SNWA to begin no earlier than 2019.

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H. Lower Colorado Water Supply Project

Source of Supply

Groundwater is pumped by the Lower Colorado Water Supply Project near the All-American Canal and is discharged to the Canal. IID reduces its net diversions of Colorado River water by an amount equal to the amount of Project water discharged into the Canal, permitting entities along the Colorado River that do not have rights or have insufficient rights to divert Colorado River water to obtain a supply of water. In 2007, Metropolitan entered into a contract with the USBR and the City of Needles to utilize the unused Project capacity.

Expected Capability

The City of Needles projects that Metropolitan will receive 2.8 TAF of Lower Colorado Water Supply Project water in 2010. This is projected to increase to 5 TAF in future years should a new Project well be drilled.

Rationale for the Expected Supply

Program Facilities

Two Lower Colorado Water Supply Project wells pump water into the All-American Canal. The groundwater level in one of the wells has declined to the point that it cannot operate at capacity with existing equipment. Replacement equipment to restore pumping capacity is expected to be installed. A new Project well may be drilled to augment pumping capacity.

Historical Record

Metropolitan has received the following amounts of Lower Colorado Water Supply Project water:

Calendar Year	**Volume of Water** (AF)
2007	5,011
2008	6,300
2009	2,349
2010	3.000 (projected)

Written Contracts or Other Proof

- 2007 Lower Colorado Water Supply Project Contract among the United States, the City of Needles, and Metropolitan. This contract provides for the United States to deliver Colorado River water to Metropolitan, the availability of which results from the pumping of Lower Colorado Water Supply Project groundwater and the exchange of such water.

Financing

Metropolitan's budget includes the cost associated with receipt of Lower Colorado Water Supply Project water.

I. Lake Mead Storage Program, Drop 2 Reservoir Funding, and Yuma Desalting Plant Pilot Project

Source of Supply

Water has been and will be stored in Lake Mead as Intentionally Created Surplus (ICS) through extraordinary conservation measures, such as water saved through the Palo Verde Irrigation District Land Management, Crop Rotation, and Water Supply Program.

Water has been and will be stored in Lake Mead as ICS through system efficiency measures, such as Metropolitan's funding contributions toward construction of the Drop 2 Reservoir near the All-American Canal and pilot operation of the Yuma Desalting Plant.

Expected Capability

Metropolitan may create as much as 400 TAF of extraordinary conservation ICS water in a single year less the amount that may be created by IID, which could be as much as 25 TAF.

Upon creation, 5 percent of the extraordinary conservation ICS is deducted resulting in additional system water in storage in Lake Mead leaving 95 percent of the water available for release to Metropolitan. Each year thereafter, the remaining balance at the end of the year is reduced by three percent to account for evaporation losses.

The amount of extraordinary conservation ICS accumulated in Lake Mead for Metropolitan is limited to 1.5 MAF less the amount accumulated by IID which could be as much as 50 TAF.

Metropolitan may take delivery of as much as 400 TAF of extraordinary conservation ICS from Lake Mead in a year less the amount delivered to IID, which could be as much as 50 TAF.

Rather than storing extraordinary conservation ICS water in Lake Mead, IID may, with the written consent of Metropolitan, have up to 25 TAF of this water delivered to Metropolitan for storage in any one calendar year. Upon request by IID, Metropolitan would return 90 percent of the stored water to IID with the remaining 10 percent left for Metropolitan's use. Also, Metropolitan may make temporary use of IID's extraordinary conservation ICS accumulated in Lake Mead.

As of January 1, 2010, Metropolitan has 66 TAF of system efficiency ICS stored in Lake Mead. There are no evaporation losses charged to stored system efficiency ICS. Metropolitan may take delivery of as much as 34 TAF of this system efficiency ICS through 2010, down to 25 TAF annually from 2011 through 2015. The Bureau of Reclamation may reduce this delivery if it determines a reduction is necessary to avoid a shortage. If a shortage is declared in 2011 or 2012, then Metropolitan must payback any system efficiency ICS used from 2008 through 2010 in the shortage year, restoring that water to Metropolitan's system efficiency ICS account.

Pilot operation of the Yuma Desalting Plant is projected to result in the storage of 23.2 TAF of system efficiency ICS for Metropolitan over the course of its 365 days of operation.

Rationale for the Expected Supply

Program Facilities

This program makes use of Lake Mead and the CRA.

Historical Record

Since 2006 Metropolitan has created 100.6 TAF of extraordinary conservation ICS.

In 2008, the USBR assigned to Metropolitan 100 TAF of water stored in Lake Mead as system efficiency ICS.

As of January 1, 2010 Metropolitan's extraordinary conservation and system efficiency ICS volumes in Lake Mead were approximately 79.8 TAF and 66 TAF, respectively.

Written Contracts or Other Proof

- 2007 Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement among the Arizona Department of Water Resources, PVID, IID, the City of Needles, CVWD, Metropolitan, SNWA, and the Colorado River Commission of Nevada. This agreement sets forth the rules under which ICS water is developed, and stored in and delivered from Lake Mead.
- 2007 California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus among Metropolitan, PVID, IID, CVWD, and the City of Needles. This agreement determines the conditions under which California contractors receiving Colorado River water may store and deliver water from Lake Mead.
- 2007 Agreement among the United States, the Colorado River Commission of Nevada, and the SNWA for the Funding and Construction of the Lower Colorado River Drop 2 Storage Reservoir Project. This agreement provides for: the United States to design and construct the Drop 2 Storage Reservoir Project, SNWA to fund the capital cost of the Project, the United States to credit SNWA's ICS account with

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600 TAF of System Efficiency ICS; and allows Metropolitan to become a party to the agreement requiring that Metropolitan provide funding for a portion of the capital cost.

- 2007 Delivery Agreement between the United States and Metropolitan. This agreement provides the procedures for creating the ICS water and guarantees delivery of the water to Metropolitan.
- 2008 Metropolitan Notice of Election to Participate as a Party to the Drop 2 Funding Agreement. This notice requires Metropolitan to provide funding for a portion of the capital cost of the Drop 2 Storage Reservoir Project, and the United States to credit Metropolitan's ICS account with 100 TAF of System Efficiency ICS, reducing the amount of System Efficiency ICS in SNWA's account by an equal amount.
- 2009 Agreement among the United States, Metropolitan, the Colorado River Commission of Nevada, SNWA, and the Central Arizona Water Conservation District for a Pilot Project for Operation of the Yuma Desalting Plant. This agreement provides for the allocation of the costs for the preparation and pilot operation of the Yuma Desalting Plant.
- 2010 Yuma Desalting Plant Pilot Project Delivery Agreement between the United States and Metropolitan. This agreement secures delivery of the ICS water created and specifies the manner in which this water will be accounted.

J. Programs Under Development as Part of the Five-Year Supply Plan

- *Expansion of the Palo Verde Irrigation District (PVID) Land Management Program:* In March 2009, the Board approved the emergency one year land fallowing expansion of the existing PVID program. An agreement with PVID was signed in April 2009 and farmers began fallowing later that month. The yield of the program is 62 TAF, with 24 TAF saved in 2009 and the balance to be made available in 2010. Additional fallowing agreements may be developed in subsequent years as needed.
- *Arizona Exchange:* An exchange program with Central Arizona Project is still in negotiations. In lieu of Arizona storing Colorado River water in the ground, water would be exchanged with Metropolitan for later return. Arizona does not expect to have water to provide to Metropolitan in 2010, but discussions continue for 2011 and beyond. At this time the potential yield is expected to be up to 150 TAF per year.
- *California Indians:* Discussions continue on developing a fallowing program. There is potential to receive from 10 to 20 TAF beginning in 2011.

A.3.2 California Aqueduct Deliveries

A. State Water Project Deliveries

Source of Supply

The State Water Project (SWP) provides imported water to the Metropolitan service area and has provided from 25 to 50 percent of Metropolitan's supplies through 2001. Since 2002, SWP deliveries accounted for an even greater share—as much as 70 percent. In accordance with its contract with the Department of Water Resources (DWR), Metropolitan has a Table A allocation of 1,911,500 AF per year under contract from the State Water Project. Actual deliveries have never reached this amount because they depend on the availability of supplies as determined by DWR. The availability of SWP supplies for delivery through the California Aqueduct over the next 18 years is estimated according to the historical record of hydrologic conditions, existing system capabilities as may be influenced by environmental permits, requests of the state water contractors and SWP contract provisions for allocating Table A, Article 21 and other SWP deliveries including San Luis carryover to each contractor. As shown in this report, the estimates of SWP deliveries to Metropolitan are based on DWR's most recent SWP reliability estimates contained in its State Water Project Delivery Reliability Report 2007[16] and the December 2009 draft of the biannual update.

As part of its contract with DWR, Metropolitan pays both the fixed costs of financing SWP facilities construction and variable costs of operations, maintenance, power and replacement costs for water delivered each year. SWP water is delivered to Metropolitan through the East Branch at Devil Canyon Power Plant afterbay, along the Santa Ana Valley Pipeline, and at Lake Perris. Metropolitan takes delivery from the West Branch at Castaic Lake.

Expected Supply Capability

The Edmund G. Brown California Aqueduct is capable of transporting Metropolitan's full contract amount of 1,911,500 AF per year. However, the quantity of water available for export through the California Aqueduct can vary significantly year to year. The amount of precipitation and runoff in the Sacramento and San Joaquin watersheds, system reservoir storage, regulatory requirements, and contractor demands for SWP supplies impact the quantity of water available to Metropolitan.

Rationale for Expected Supply

Metropolitan and 28 other public entities have contracts with the State of California for State Water Project water. These contracts require the state, through its DWR, to use reasonable efforts to develop and maintain the SWP supply. The state has made significant investment in infrastructure. It has constructed 28 dams and reservoirs, 26 pumping and generation plants, and about 660 miles of aqueducts. More than 25 million California residents benefit from water from the SWP. DWR estimates that with current facilities and regulatory requirements, the project will deliver approximately 2.3 MAF under average hydrology considering impacts attributable to the combined Delta smelt and salmonid species biological opinions.

On a yearly basis, DWR estimates the amount of supplies that are available for that year. Metropolitan uses a forecasting method for SWP deliveries based on historical patterns of precipitation, runoff, and actual deliveries of water.

Further, under the water supply contract, DWR is required to use reasonable efforts to maintain and increase the reliability of service to Metropolitan. As discussed in a subsequent section, DWR is participating in the Bay-Delta process to achieve these requirements.

Historical Record

The historical record shows significant accomplishments by DWR in providing its contractors with SWP water supplies. Through 2008, the SWP has delivered nearly 80 MAF to its contractors. The maximum annual water supply was delivered in 2005, and totaled 3.75 MAF. In 2006 the project delivered 3.7 MAF. DWR has continued to invest in SWP facilities to deliver water to its contractors.

Written Contracts or Other Proof

- 1960 Contract between the State of California and The Metropolitan Water District of Southern California for a Water Supply. This Contract, initially executed in 1960 and amended numerous times since, is the basis for SWP deliveries to Metropolitan. It requires DWR to make reasonable efforts to secure water supplies for Metropolitan and its other contractors. The contract expires in 2035. At that time, Metropolitan has the option to renew the contract under the same basic conditions.

Financing

Metropolitan's payments for its State Water contract obligation are approved each year by its Board of Directors and currently

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[16] The State Water Project Delivery Reliability Report 2007 can be accessed at http://baydeltaoffice.water.ca.gov/swpreliability/.

constitute approximately 35 percent of the annual budget (referenced above).

Federal, State and Local Permit/Approvals

- Operation of the SWP. The DWR is responsible for acquiring, maintaining and complying with numerous federal and state permits for operation of the SWP. Metropolitan has been active in monitoring the issues affecting its contract with DWR.
- Environmental Impact Report for the East Branch Enlargement. In April 1984, DWR prepared and finalized an Environmental Impact Report for the Enlargement of the East Branch of the Governor Edmund G. Brown California Aqueduct.
- Environmental Impact Report for the Harvey O. Banks Pumping Plant. In January 1986, DWR prepared and finalized an Environmental Impact Report for the additional pumping units at Harvey O. Banks Delta Pumping Plant.
- Environmental Impact Report for the Mission Hills Extension. In 1990, DWR prepared and finalized an Environmental Impact Report for the State Water Project Coastal Branch, Phase II and Mission Hills Extension.
- East Branch Extension Project Phase 1. In 1998, DWR completed an EIR to extend the East Branch of the California Aqueduct to provide service to San Gorgonio Pass Water Agency. Phase 1 was completed in 2002.
- U.S. Fish and Wildlife Service Biological Opinion. In December 2008, U.S. Fish and Wildlife issued a Biological Opinion for Delta smelt.
- National Marine Fisheries Service Biological Opinion. In June 2009, the National Marine Fisheries Service issued a Biological Opinion for salmon.

B. Desert Water Agency/Coachella Valley Water District/Metropolitan Water Exchange and Advance Delivery Programs

Source of Supply

The Desert Water Agency (DWA) and CVWD, both in Riverside County, have rights to SWP deliveries but do not have any physical connections to the SWP facilities. Both agencies are adjacent to the CRA. For DWA and CVWD to obtain water equal to their SWP allocations, Metropolitan has agreed to exchange an equal quantity of its Colorado River water for DWA and CVWD's SWP water. DWA has a SWP Table A contract right of 55.75 TAF per year and CVWD has a SWP Table A contract right of 138.35 TAF per year, for a total of 194.1 TAF per year.

Expected Supply Capability

Under the existing agreements, Metropolitan provides water from its CRA to DWA and CVWD in exchange for SWP deliveries. Metropolitan can deliver additional water to its DWA/CVWD service connections permitting these agencies to store water. When supplies are needed, Metropolitan can then receive its full Colorado River supply as well as the SWP allocation from the two agencies, while the two agencies can rely on the stored water for meeting their water supply needs. The amount of DWA and CVWD SWP Table A water available to Metropolitan depends on total SWP deliveries and varies from year to year.

In addition to their Table A supplies DWA and CVWD, subject to Metropolitan's written consent, may take delivery of SWP supplies available under Article 21, the Turn-back Pool Program, and non-SWP water supplies they may acquire and convey through the SWP facilities. These non-SWP deliveries are delivered to DWA and CVWD by exchange with Metropolitan in the same manner as Table A deliveries. DWA and CVWD are participants in the Yuba Dry Year Water Purchase Program and DWA participated in the 2009 Drought Water Bank. Metropolitan has also consented to:

- 10 TAF of exchange deliveries to CVWD for non-SWP water acquired from the San Joaquin Valley from 2008 through 2010, and
- 36 TAF of exchange deliveries to DWA for non-SWP water acquired from the San Joaquin Valley from 2008 through 2015.

Rationale for Expected Supply

The DWR estimates the amount of supplies that are available each year. Metropolitan uses a forecasting method for SWP deliveries based on historical patterns of precipitation, runoff and actual deliveries of water.

Historical Record

The DWA and CVWD Exchange Program is currently in operation. The Advance Delivery Agreement has been in place since 1984. Since 1973, Metropolitan has been taking delivery of these agencies' SWP Table A water and has provided equivalent water to those agencies from Metropolitan's CRA supplies. Metropolitan has also been delivering water in advance of the amount needed under the exchange agreements. With water having been delivered in advance, Metropolitan can reduce deliveries to DWA and CVWD as needed. Indeed, from the end of December 2005 through December 2009, Metropolitan drafted approximately 231 TAF leaving 45 TAF in the Advance Delivery account.

Written Contracts or Other Proof

- 1967 and 1983 Water Exchange Contract and Agreements. The DWA and CVWD Program is currently in operation. The DWA and CVWD water exchange contract has been in place since 1967, was amended in 1972 and was modified with execution of additional agreements in 1983.
- 1984 Advance Delivery Agreement. The Advance Delivery Agreement allows Metropolitan to supply DWA and CVWD with Colorado River water in advance of the time these agencies are entitled to receive water under the exchange agreements. In future years, Metropolitan can recover this water by reducing its deliveries under the exchange agreements.
- The 2003 Exchange Agreement. DWA, CVWD and Metropolitan executed The 2003 Exchange Agreement under which Metropolitan transferred 88,100 AF and 11,900 AF of its SWP Table A to DWA and CVWD, respectively, reducing Metropolitan's Table A volume from 2,011,500 AF to 1,911,500 AF. The 2003 Exchange Agreement became operational in calendar year 2005 with the execution of letter agreements among DWA, CVWD, and Metropolitan governing its implementation. The exhibits to the November 9, 2004, and November 19, 2007, letter agreements also modify certain provisions of the Water Exchange Contract and Agreements and the Advance Delivery Agreement.

Financing

The funds for deliveries under this Program are included in Metropolitan's O&M budget and Long-Range Finance Plan (referenced above).

Federal, State, and Local Permits/Approvals

DWR is responsible for acquiring, maintaining and complying with numerous Federal and State permits for operation of the SWP.

- July 26, 1983, CVWD Negative Declaration, Whitewater River Spreading Area expansion Phase 1.
- February 1983, DWA Final EIR for the proposed extension of time for utilizing Colorado River water to recharge the upper Coachella Valley groundwater basins to the year 2035, Volume I and II, April 1983, Volume III
- September 2002, Final Program EIR for Coachella Valley Water Management Plan and State Water Project Entitlement Transfer as certified by CVWD on October 8, 2002

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C. Semitropic Water Banking and Exchange Program

Source of Supply

The agreement between Semitropic Water Storage District (Semitropic) and Metropolitan was executed in February 1994. Semitropic obtains water from the SWP through its contracts with the Kern County Water Agency. SWP supplies irrigate an area of 161,200 acres within Semitropic's service area. When this surface water is not available, these growers withdraw water from the underlying aquifer. The agreement between Semitropic and Metropolitan allows Metropolitan to make use of 350 TAF of storage in Semitropic's groundwater basin. In years of plentiful supply, Metropolitan can deliver available SWP supplies to Semitropic through the California Aqueduct. During dry years, Metropolitan can withdraw this stored water. Five other banking partners participate in this Program and use 650 TAF of storage in Semitropic's groundwater basin.

Expected Supply Capability

The Semitropic-Metropolitan Program provides Metropolitan with the capacity to store up to 350 TAF of water under the current agreement. During dry years, Metropolitan can recover its stored water through a combination of direct pumping of the groundwater and delivery of Semitropic's SWP Table A water in the California Aqueduct. Based on the terms and conditions of the program agreements, the return of water to Metropolitan ranges from a minimum of 31.5 TAF per year (assuming the lowest groundwater return capacity available) up to 223 TAF (assuming the maximum capacity from the groundwater return and highest State Water Project Allocation). The average annual supply capability for a single dry year similar to 1977 is 125 TAF or multiple dry years similar to the period 1990-1992 is 107 TAF.

Rationale for Expected Supply

Historical Record

The Semitropic-Metropolitan Water Banking and Exchange Program has been operational since 1994. With existing agreements, it will continue to operate over the term of 41 years (1994-2035). At the end of 2009, Metropolitan had 45 TAF in its storage account. The program expects to have 45 TAF in its storage account by the end of 2010.

Written Contracts or Other Proof

- 1992 Turn-in/out Construction, Operation and Maintenance Agreement. This Agreement was executed in 1992 by the Department of Water Resources and Semitropic to allow construction, operation and maintenance of the Semitropic California Aqueduct Turn in/out.
- 1993 Temporary Semitropic-Metropolitan Water Banking Agreement. This Agreement was executed in February 1993 by Semitropic and Metropolitan to allow the storage of available Metropolitan supplies in advance of execution of the long-term agreement.
- 1994 Semitropic/Metropolitan Water Banking and Exchange Agreement. This Agreement was executed in December 1994 by Semitropic and Metropolitan to implement the program for a 41-year term (1994-2035).
- 1995 Point of Delivery Agreement. This agreement, with the Department of Water Resources, Kern County Water Agency and Metropolitan, allows Metropolitan to divert water from the California Aqueduct into Semitropic's service area.
- 1995 Introduction of Local Water into the California Aqueduct. This agreement, with the Department of Water Resources, Kern County Water Agency and Semitropic, allows Metropolitan to receive water from the program into the California Aqueduct.

Financing

Metropolitan's O&M budget (referenced above) includes payments for the Semitropic Program.

Federal, State and Local Permits/Approvals

- Final EIR. Semitropic acting as the lead agency under CEQA and Metropolitan acting as a responsible agency jointly completed the Environmental Impact Report for the Program. The EIR was certified by Semitropic in July 1994 and adopted by Metropolitan in August 1994.
- Regulatory Approvals. All regulatory approvals are in place and the program is operational.

D. Arvin-Edison Water Management Program

Source of Supply

The Arvin-Edison Water Storage District (Arvin-Edison) manages the delivery of local groundwater and water imported into its service area from the Central Valley Project's (CVP) Millerton Reservoir via the Friant-Kern Canal. The surface water service area consists of 132,000 acres of predominantly agricultural land, and to a minor degree, municipal and industrial uses. It is situated in Kern County. Arvin-Edison operates its supplies conjunctively, storing water in the underlying aquifer when imported supplies are available and withdrawing that water when the availability of imported supplies is reduced. In 1997, Metropolitan entered into an agreement with the Arvin-Edison Water Storage District. The agreement allows Metropolitan to store available water in Arvin-Edison's groundwater basin, either through direct spreading operations, or through deliveries to growers in Arvin-Edison's service area. Similar to Arvin-Edison's own usage, this previously stored water could be withdrawn when the availability of imported supplies to Metropolitan is reduced.

Expected Supply Capability

The Arvin-Edison/Metropolitan Program provides Metropolitan with the capacity to store up to 350 TAF of water under the current agreement. During dry years, Metropolitan can recover its stored water either through direct pumping of the groundwater or through exchange. Based on the terms and conditions of the program agreement, the return of water to Metropolitan ranges from a minimum of 40 TAF per year (peak 4-month summer period) up to 110 TAF (over a 12-month period). The average annual supply capability for this program is 75 TAF for either a single dry year similar to 1977 or for each year of a multiple dry year period similar to the period 1990-1992.

Rationale for Expected Supply

Historical Record

The Arvin-Edison/Metropolitan Water Management Program has been operational since 1997. With existing agreements, it will continue to operate over the term of 38 years (1997-2035). At the end of 2009, Metropolitan had 95 TAF in its storage account. The program expects to have 95 TAF in its storage account by the end of 2010.

Written Contracts or Other Proof

- 1997 Arvin-Edison/Metropolitan Water Management Agreement. This Agreement was executed in December 1997 by Arvin-Edison and Metropolitan to implement the program for a 30-year term (1997-2027).
- 1998 Turn-in/out Construction and Maintenance Agreement. This Agreement was executed in 1998 by the Department of Water Resources, Kern County Water Agency, Arvin-Edison and Metropolitan to allow construction, operation and maintenance of the Arvin-Edison California Aqueduct Turn in/out.
- 1998-2002 Water Delivery and Return Agreements. These agreements, with the Department of Water Resources, Kern County Water Agency, Arvin-Edison and Metropolitan, allow Metropolitan to divert water from, and introduce water to, the California Aqueduct.

- <u>2004 Point of Delivery Agreement.</u> This agreement, with the Department of Water Resources, Kern County Water Agency and Metropolitan, allows Metropolitan to divert water from the California Aqueduct into Arvin-Edison's service area.
- <u>2004 Introduction of Water into the California Aqueduct.</u> This agreement, with the Department of Water Resources, Kern County Water Agency and Arvin-Edison, allows Metropolitan to receive water from the program into the California Aqueduct.
- 2007 First Amended and Restated Agreement Between Arvin-Edison Water Storage District and The Metropolitan Water District of Southern California for a Water Management Program. This amendment increased the maximum storage level to 350 TAF, extended the agreement term to 2035, and provided for the construction of the South Canal Improvement Project. The project increases the reliability of Arvin-Edison returning higher water quality to the California Aqueduct.

Financing

Metropolitan's O&M budget (referenced above) includes payments for the Arvin-Edison Program.

Federal, State and Local Permits/Approvals

- All regulatory approvals are in place.
- Environmental Status: A Negative Declaration was completed in 1996.
- An Addendum to the 1996 Negative Declaration was completed in 2003.
- A Negative Declaration for the Arvin-Edison South Canal Improvement Project was completed in 2007.
- Regulatory Approvals. All regulatory approvals are in place and program is operational.

E. San Bernardino Valley Municipal Water District Program

Source of Supply

The San Bernardino Valley Municipal Water District Program allows Metropolitan to purchase a dependable annual supply, as well as, an additional supply for dry year needs. Under this program, Metropolitan purchases water provided to San Bernardino Valley Municipal Water District (Valley District) from its annual State Water Project (SWP) water allocation. Valley District delivers the purchased supplies to Metropolitan's service area through the coordinated use of facilities and interconnections within the water conveyance system of the two districts.

The purchased SWP supply is provided to Metropolitan as direct deliveries of annual SWP water through the California Aqueduct to Metropolitan's service area, as well as through deliveries of recaptured SWP water previously stored in the San Bernardino groundwater basin to Metropolitan's service area. Under this program, Metropolitan purchases a minimum of 20 TAF per year of SWP allocation every year. In addition, Metropolitan has the option to purchase Valley District's additional SWP allocation, if available, and the first right-of-refusal to purchase additional SWP supplies available beyond the minimum and option amounts. In the event that Metropolitan's operational needs do not require all, or a portion of the minimum purchased water, that unused amount may be carried forward up to a total of 50 TAF for later delivery. Finally, the program establishes a critical dry year supply account for Metropolitan that could provide additional amounts of dry year supplies. During any year designated by DWR as a critically dry year, Valley District could deliver from this account up to 50 TAF of recaptured SWP water previously stored in the San Bernardino groundwater basin.

To facilitate the transfer, the program also provides the coordinated use of existing facilities, including the Valley District's Foothill Pipeline and the Inland Feeder, to improve the conveyance capabilities of the delivery of SWP water to the service areas of both districts. The intertie between the Foothill Pipeline and the Inland Feeder has been constructed and was operational as of December 2002. This intertie allows Metropolitan to move SWP water from the East Branch of the California Aqueduct through the Foothill Pipeline and Inland Feeder, into Diamond Valley Lake and the Colorado River Aqueduct. As a result of this intertie, Metropolitan has an alternative conveyance capacity of 260 cfs into Metropolitan's system should an outage occur on the upper section of the Inland Feeder.

Expected Supply Capability

The average annual supply capability for a single dry year similar to 1977 is 70 TAF. For multiple dry years similar to the period 1990-1992, the expected supply capability is 37 TAF.

Rationale for Expected Supply

Historical Record

The San Bernardino Valley Municipal Water District Program began operations in 2001 and is expected to be renewed continually in the future. Since its inception in 2001, this program has delivered 103 TAF to Metropolitan. There was no water remaining in the carryover account in 2009. Deliveries in 2010 have been suspended by mutual agreement.

Written Contracts or Other Proof

Metropolitan's dependable annual and dry-year supplies from the San Bernardino Valley Municipal Water District Program are based on Metropolitan Board actions and agreements.

- 2000 Board Approval of Coordinated Operating Agreement. In June 2000, Metropolitan's Board authorized entering into a Coordinated Operating Agreement between Metropolitan and Valley District to develop projects that could provide benefits to both districts through the coordinated use of facilities and SWP supplies.
- 2000 Coordinated Operating Agreement. The Coordinated Operating Agreement between Metropolitan and Valley District was executed in July 2000.
- 2001 Board Approval of the Coordinated Use Agreement. In April 2001, Metropolitan's Board authorized entering into the Coordinated Use Agreement for Conveyance Facilities and SWP Water Supplies between Metropolitan and Valley District for the purchase of dependable annual and dry year supplies by Metropolitan.
- 2001 Coordinated Use Agreement. The Coordinated Use Agreement for Conveyance Facilities and SWP Water Supplies between Metropolitan and Valley District for the purchase of dependable annual and dry year supplies by Metropolitan was executed May 2001. The Agreement is effective as of July 1, 2001, for an "evergreen" term (10-years with automatic annual extensions unless otherwise notified).

Financing

Metropolitan's O&M budget (referenced above) includes the funds to purchase Program water.

Federal, State, and Local Permits/Approvals

The Program became effective as of July 1, 2001. An environmental review process and regulatory approval supported implementation.

- Final EIR. Final Regional Water Facilities Master Plan Environmental Impact Report dated February 1, 2001 was certified by Valley District, as lead agency, and by Metropolitan, as responsible agency. Notices of determinations were filed by Valley District and Metropolitan on May 29, 2001, and April 18, 2001, respectively.

- State Water Contractors' Review. In May 2001 the State Water Contractors reviewed and issued a letter supporting the program.
- DWR Review. The California Department of Water Resources agreed to the program in December 2001.

F. Bay-Delta Improvements

Source of Supply

Improving the water supply reliability of the State Water Project (SWP) is a primary focus of Metropolitan's long-term planning efforts. Metropolitan's strategy is to reduce its dependence on SWP supplies during dry years, when risks to the Bay-Delta ecosystem are greatest, and to maximize its deliveries of available SWP water during wetter years to store in surface reservoirs and groundwater basins for later use during droughts and emergencies.

Restoring and stabilizing the environmental health and supply reliability of the Bay-Delta through the implementation of CALFED's Bay-Delta Program and the Sacramento Valley Water Management Agreement are important steps to accomplishing this objective. These improvements are necessary for Metropolitan to attain its goal of 650 TAF of supply yield from the Bay-Delta in dry years by 2020. This yield is 200 TAF to 250 TAF over estimates of existing available dry-year supplies, as described above. This goal means that Metropolitan will rely on only 32.5 percent of its total SWP contract amount of 2.0 MAF per year in dry years. In addition, Metropolitan policy objectives for Bay-Delta improvements include an average of 1.5 MAF of supply yield to Metropolitan over all year types.

The SWP conveys water from the western slope of the Sierra Nevada to water users both north and south of the Bay-Delta. Specifically, SWP is delivered to Metropolitan's service area through a system of reservoirs, the Bay-Delta, pumping plants and the California Aqueduct. Owned and operated by the California Department of Water Resources (DWR), the SWP provides municipal and agricultural water to 29 State Water Contractors. Annual deliveries for the SWP average about 2.5 MAF. Municipal uses account for about 60 percent of annual deliveries, with the remaining 40 percent going to agriculture.

In January 2010, DWR released a draft of the biannual update of its Reliability Report. The report shows that future SWP deliveries will be impacted by two significant factors. The first is significant restrictions on SWP and Central Valley Project (CVP) Delta pumping required by the biological opinions issued by the U.S. Fish and Wildlife Service (December 2008) and National Marine Fisheries Service (June 2009). The second is climate change, which is altering the hydrologic conditions in the State. The 2009 draft report shows greater reductions in water deliveries on average when compared to the 2007 report. Over multiple-year dry periods, average annual Table A deliveries vary from 32% to 38% of the maximum Table A amount, while average annual deliveries over multiple-year wet periods range from 72 to 93% of the maximum Table A amount. Under future conditions, annual SWP Article 21 deliveries average 60 TAF, ranging from 1 TAF to 540 TAF over the 82-year simulation period.

The Bay Delta Conservation Plan

The Bay Delta Conservation Plan (BDCP) is being prepared through a collaboration of state, federal, and local water agencies, state and federal fish agencies, environmental organizations, and other interested parties. These organizations have formed the BDCP Steering Committee. The plan will identify a set of water flow and habitat restoration actions to contribute to the recovery of endangered and sensitive species and their habitats in California's Sacramento-San Joaquin Delta. The goal of the BDCP is to provide for both species/habitat protection and improved reliability of water supplies.

In order to select the most appropriate elements of the final conservation plan, the

BDCP will consider a range of options for accomplishing these goals using information developed as part of an environmental review process. Potential habitat restoration and water supply conveyance options included in the BDCP will be assessed through an Environmental Impact Report (EIR)/Environmental Impact Statement (EIS). The BDCP planning process and the supporting EIR/EIS process is being funded by state and federal water contractors.

Lead agencies for the EIR/EIS are the California Department of Water Resources, the Bureau of Reclamation, the U.S. Fish and Wildlife Service, and NOAA's National Marine Fisheries Service, in cooperation with the California Department of Fish and Game, the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers. MWD is on the steering committee.

Metropolitan also has been working with Bay-Delta watershed users toward settling the question of how all Bay-Delta water users would bear some of the responsibility of meeting Delta flow requirements. In December 2002, all of the parties signed a settlement agreement known as "The Sacramento Valley Water Management Agreement" or "Phase 8 Settlement Agreement." The agreement resulted from the SWRCB Bay-Delta Water Rights Phase 8 proceedings. It includes work plans to develop and manage water resources to meet Sacramento Valley in-basin needs, environmental needs under the SWRCB's Water Quality Control Plan, and export supply needs for both water demands and water quality. The agreement specifies about 60 water supply and system improvement projects by 16 different entities in the Sacramento Valley. Its various conjunctive use projects will yield approximately 185 TAF per year in the Sacramento Valley, and approximately 55 TAF of this water would come to Metropolitan through its SWP allocation. The Agreement specifies a supply breakdown of 110 TAF (60 percent) to the SWP and 75 TAF (40 percent) to the CVP.

Based on the work plans for CALFED's Bay-Delta Program and the Sacramento Valley Management Agreement, expected dry-year supply capabilities are projected to be 55 TAF for the period 2010 through 2015, and 110 TAF beyond 2015.

Rationale for Expected Supply

Implementation Status

Expected supplies are projected in accordance with the approved implementation plan for CALFED's Bay-Delta Program and with the work plans for the Sacramento Valley Water Management Agreement.

Written Contracts or Other Proof

Metropolitan's projected dependable annual and dry-year supplies from planned Bay-Delta improvements are based on Metropolitan Board actions and agreements.

- CALFED's Bay-Delta Program.
  - Bay-Delta Accord approved in December 1994.[17]
  - Proposition 204 funds approved by voters in November 1996.
  - Metropolitan policy direction regarding CALFED's Bay-Delta Program adopted in July 1999. This policy direction established water supply goals.
  - Proposition 13 funds approved by voters in March 2000.
  - CALFED Framework announced in June 2000[18].
  - Final implementation plans for the first phase of CALFED's Bay-Delta Program approved in August 2000, in conjunction with the approval of the Program and conclusion of the environmental review process.

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[17] A copy of this agreement can be found at http://calwater.ca.gov/Archives/GeneralArchive/SanFranciscoBayDeltaAgreement.shtml.

[18] California's Water Future: A Framework for Action can be found at http://calwater.ca.gov/Archives/GeneralArchive/adobe_pdf/new_final_framework.pdf.

  - Proposition 50 funds approved by voters in November 2002.
  - Annual Federal appropriations.
- Sacramento Valley Water Management Agreement[19]
  - Work plans detailing projects that could provide benefits by the 2002 and 2003 water years were developed in October 2001.
  - Statement of settlement policy principles recommended in December 2001 by negotiators for approval.
  - Statement of settlement policy principles approved by Metropolitan's Board in January 2002.
  - A Sacramento Valley Water Management Agreement was signed and approved by settlement parties in December 2002.

Financing

Funding for BDCP will come from federal, state, and local water supplier sources.

Phase 8 funding is structured as follows. The agreement calls for 185 TAF per year to be produced in below normal, dry and critical years with the ability of Central Valley water agencies to preclude delivery in above-normal years if it impairs their ability to perform in other years. The water is divided equally into two blocks: Block 1 is for local use in the Central Valley and if not needed, it becomes available to exporters (the predominant expectation of all); Block 2 is settlement water, available to meet flow standards/exports, except as noted above. Exporters have to buy an equal amount of Block 1 and Block 2 water if it is made available. Capital expenditures for infrastructure needed to deliver this water are assumed to be financed with public/bond funds. O&M expenses are shared for Block 2 on a 50-50 basis. For Block 1 water the price schedule is fixed at $50/AF in above normal, $75 in below normal, $100 in dry and $125 in critical years. This price schedule is indexed to a cost-of-living index.

Federal, State, and Local Permits/Approvals

- CALFED's Bay-Delta Program.
  - Programmatic Environmental Impact Report/Statement finalized in July 2000.
  - Record of Decision issued in August 2000 for the final Programmatic Environmental Impact Report/Statement regarding the CALFED Bay-Delta Program.
- Sacramento Valley Water Management Agreement.
  - Settlement parties approved Sacramento Valley Management Agreement in December 2002.
  - Environmental review will be conducted by the applicable lead agencies on the various work plan projects to comply with the California Environmental Quality Act, and as appropriate the National Environmental Policy Act.

G. Kern Delta Water Management Program

Source of Supply

In December 1999, Metropolitan advertised a request for proposals for participation in "The California Aqueduct Dry-year Transfer Program." As a result of this request for proposals, four programs, including one from the Kern Delta Water District (Kern Delta), were selected for further consideration. In 2001, Metropolitan entered into Principles of Agreement with Kern Delta for the development of a dry-year supply program. Kern Delta serves 125,000 acres of actively farmed highly productive farmland located in the San Joaquin Valley portion of southern Kern County. Kern Delta has under contract 180 TAF per year of good quality, highly reliable pre-1914 Kern River water and 25.5 TAF per year of SWP Table A contract

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[19] A copy of this agreement can be found at http://www.norcalwater.org/pdf/agreementfinal.pdf

right (under contract with Kern County Water Agency).

The dry-year supply program between Kern Delta and Metropolitan involves the storage of water with Kern Delta. In years of plentiful supply the agreement allows Metropolitan to store water in Kern Delta's groundwater basin, either through direct spreading operations or through deliveries to growers in Kern Delta's service area. Metropolitan has the ability to store up to 250 TAF of water. Agreement provisions may allow for storage beyond this amount. When needed, Metropolitan can recover its stored water either through direct pumping of the groundwater or exchange at a rate of 50 TAF per year. The program duration will be from 2002 to 2027 with provisions that allow the water to be withdrawn until 2033.

Expected Supply Capability

The Kern Delta/Metropolitan Program provides Metropolitan with the capacity to store up to 250 TAF of water at any one time. When needed, Metropolitan can recover its stored water either through direct pumping of the groundwater or exchange at a rate of 50 TAF per year.

Rationale for Expected Supply

Implementation Status

Expected supplies are projected in accordance with accepted detailed groundwater modeling that has been accomplished for the program. In addition, the Kern Delta/Metropolitan Water Management Program was operational and accepting water for storage by fall of 2003. Metropolitan had 10 TAF in storage as of the end of 2009 and expects to recover all stored water by the end of 2010.

Written Contracts or Other Proof

- 2001 Kern Delta/Metropolitan Principles of Agreement. Principles of agreement were entered into between Kern Delta and Metropolitan in June 2001, covering program costs, operational aspects and risks/responsibilities.
- 2002 Kern Delta and Metropolitan Boards of Directors Approval. These actions approved execution of the long-term agreement, which delineates program operations, costs, and risks/responsibilities

Financing

Metropolitan's O&M budget (referenced above) includes payments for the Kern Delta/Metropolitan Program.

Federal, State and Local Permits/Approvals

Kern Delta, acting as lead agency under CEQA has prepared a full Environmental Impact Report. As part of this EIR, Kern Delta published a Notice of Preparation, and held meetings with the general public, interested agencies and resource agencies. In November 2002, the Final EIR certified by Kern Delta and adopted by Metropolitan.

H. Central Valley Water Transfers

Source of Supply

Up to 27 MAF of water (80 percent of California's developed water) is delivered for agricultural use every year. Over half of this water is used in the Central Valley; and much of it is delivered by, or adjacent to, SWP and Central Valley Project (CVP) conveyance facilities. This allows for the voluntary transfer of water to many urban areas, including Metropolitan, via the California Aqueduct.

In recent years, a portion of this agricultural water supply has been secured by Metropolitan through mutually beneficial transfer agreements:

- The Governor's Water Bank (Bank) in 1991, 1992, 1994, and 2009 secured 75 to 820 TAF per year of water supply. Further, the DWR's Dry Year Water Purchase Program (Purchase Program) in 2001, 2002 and 2003 secured a total of 162 TAF. The DWR established and administered the Bank and the Purchase Program by facilitating purchasing water from willing sellers and transferring the water to those with critical needs using the State Water Project (SWP) facilities. Sellers, such as farmers and water districts, made water available for the Bank and Purchase Program by fallowing crops, shifting crops, releasing surplus reservoir storage, and by substituting groundwater for surface supplies.

- Under the Central Valley Improvement Act, passed by Congress in October 1992, water agencies that are not contractors with the Central Valley Project (CVP), such as Metropolitan, may for the first time be able to acquire a portion of the CVP's 7.8 MAF per year of supply.
- In 2003, Metropolitan secured options to purchase approximately 145 TAF of water from willing sellers in the Sacramento Valley during the irrigation season. Using these options, Metropolitan purchased approximately 125 TAF of water for delivery to the California Aqueduct.
- In 2005, Metropolitan, in partnership with three other State Water Contractors, secured options to purchase approximately 130 TAF of water from willing sellers in the Sacramento Valley during the irrigation season, of which Metropolitan's share was 113 TAF. Metropolitan also had the right to assume the other State Water Contractors options if they chose not to exercise their options. Due to improved hydrologic conditions, Metropolitan and the other State Water Contractors did not exercise these options.
- In December 2007, Metropolitan entered into a long-term agreement with DWR providing for Metropolitan's participation in the Yuba Dry Year Water Purchase Program between Yuba County Water Agency and DWR that was approved by the SWRCB as part of the Yuba River Accord. This program provides for transfers of water from the Yuba County Water Agency during dry years through the year 2025 and Metropolitan has purchased 26.4 TAF and 42.9 TAF of Yuba transfer supplies in 2008 and 2009, respectively.
- In 2008, Metropolitan, in partnership with eight other State Water Contractors, purchased approximately 40 TAF of water from willing sellers in the Sacramento Valley during the irrigation season, of which Metropolitan's share was approximately 27 TAF.
- In 2009, Metropolitan participated in the Governor's Water Bank, which purchased approximately 47.5 TAF, of which Metropolitan's share was approximately 36.9 TAF.

Expected Supply Capability

Metropolitan's recent water transfer activities demonstrate Metropolitan's ability to develop and negotiate water transfer agreements working either directly with the agricultural districts that are selling the water or with DWR acting as an intermediary via a Drought Water Bank. As discussed in the State Water Project section of this document, significant restrictions on SWP and Central Valley Project (CVP) Delta pumping required by the biological opinions issued by the U.S. Fish and Wildlife Service (December 2008) and National Marine Fisheries Service (June 2009) will reduce anticipated SWP deliveries and therefore increase Metropolitan's need for Central Valley water transfer supplies. Unfortunately, these biological opinions result in SWP deliveries being shifted to the summer months thereby restricting the ability to pump water transfer supplies through the Delta pumping plants. On average, in dry years when Delta pumping capacity is available, Metropolitan expects to be able to purchase 125 TAF for delivery via the California Aqueduct.

Rationale for Expected Supply

Historical Record

Metropolitan has made rapid progress in developing Central Valley transfer programs. This progress may be attributed to several factors, including Metropolitan dedicating additional staff to identify, develop, and implement Central Valley transfer programs; increased willingness of Central Valley agricultural interests to enter into transfer programs with Metropolitan; and Metropolitan staff's ability to work with California Department of Water Resources and USBR staff to facilitate Central Valley storage and transfer programs. The availability of dry year supplies has been demonstrated in 1991, 1992, 1994, 2001, 2002, 2003, 2005, 2008, and 2009.

The historical record for purchases from the Bank, Purchase Program, and Metropolitan-initiated Central Valley programs, as well as the number of sellers and buyers participating in these Programs, are strong indicators that there are significant amounts of water that can be purchased through spot market water transfers during dry years. This historical record is summarized in Table A.3-1 below.

A portion of these transfers from north of the Delta were lost in its conveyance across the Delta to the Banks Pumping Plant (20 percent) and in its conveyance through the California Aqueduct System to Metropolitan's service area (3 percent).

Written Contracts or Other Proof

- Executive Orders. In response to the extended 1987-92 drought, Governor Wilson issued an executive order establishing a Drought Action Team. This team, made up of state and federal officials, developed an action plan to lessen the impacts of the continuing drought (State 1991). One of the proposed actions was the formation of an emergency water bank managed by DWR. The purpose of the bank would be to help California's urban, agricultural, and environmental interests meet their critical water supply needs. In June 2008, Governor Schwarzenegger issued an executive order establishing a 2009 Drought Water Bank.

Table A.3-1
Historical Record of MWD Central Valley Water Transfers

Program	Purchases (AF per year)		Participants	
	Total	Metropolitan	Seller	Buyers
1991 Governor's Water Bank	820,000	215,000	351	13
1992 Governor's Water Bank	193,246	10,000	18	16
1994 Governor's Water Bank	220,000	100	6	15
2001 Dry-Year Purchase Program	138,806	80,000	9	8
2003 MWD Water Transfer Program	146,230[1]	126,230	11	1
2005 SWC Water Transfer Program	127,275[2]	0	3	4
2008 SWC Water Transfer Program	39,152	26,621	4	8
2009 Governor's Water Bank	47,505	36,900	10	9

[1] Quantities denote options Metropolitan secured, of which 20,000 AF were not exercised due to improved hydrologic conditions.

[2] Quantities denote options Metropolitan secured, but not exercised due to improved hydrologic conditions.

- Agreements Between Sellers and Buyers. Since 1991, Metropolitan has entered into Central Valley water transfer agreements in eight years with sellers, or DWR acting in an intermediary capacity for the Drought Water Banks. The essential terms and conditions for negotiating purchases, including maximum offering price, quantity of water needed, and the timing of delivery, were established in these agreements.
- 1999 Board Directive. Metropolitan's Board has authorized water transfers in accordance with the Water Surplus and Drought Management Plan (WSDM Plan) adopted in April 1999. The WSDM Plan is a comprehensive policy guideline for managing Metropolitan's water supply during periodic surplus and shortage conditions. During shortage conditions, the plan specifies the type, priority and timing of drought actions, including the purchase of transfers on the spot market that could be taken in order to prevent or mitigate negative impacts on retail demands.

Financing

Funds for Central Valley water transfers are included in the O&M budget.

Federal, State, and Local Permits/Approvals

- Environmental documentation for the Drought Water Banks. In November 1993, DWR prepared and finalized a programmatic Environmental Impact Report for the operation of the drought water banks during future drought events. In 2009, an emergency CEQA exemption was issued to support the Drought Water Bank.
- Individual CEQA and NEPA documents for Metropolitan's 2003, 2005, and 2008 Central Valley water transfer programs. Individual sellers prepared CEQA documentation to support their transfers. In addition, the U.S. Bureau of Reclamation prepared NEPA documentation for those transfers requiring federal approval.

I. Yuba Accord Dry Year Purchase Program

Source of Supply

As part of a comprehensive settlement of a State Water Resources Control Board (SWRCB) proceeding in which the Yuba County Water Agency (YCWA) is required to increase Yuba River fishery flows, referred to as the "Yuba River Accord" (Accord), YCWA reached agreement with DWR and the United States Bureau of Reclamation to sell a portion of the water it would be required to release, plus additional water made available by reoperation of YCWA's storage reservoirs and groundwater substitution. DWR entered into a purchase agreement with YCWA under which one-half of the water available for purchase would be available to SWP contractors that elected to participate in the purchase program.

Under this 25-year program Metropolitan is obligated to purchase transfer water when the Table A allocation is 40 percent or less and has the option to purchase transfer water when the Table A allocation is greater than 40 percent but less than or equal to 60 percent. The price for water is set by the agreement between DWR and the Yuba County Water Agency. There are four categories of water the price for which varies depending on hydrology.

Expected Supply Capability

Metropolitan's share of the water made available under the Yuba Accord Dry Year Purchase Program is approximately 25 percent. Should other participating contractors decline to purchase their respective shares, that water is allocated to the remaining interested participating contractors. Metropolitan's likely share of assured YCWA transfer water would be at least 13,750 AF in dry years and up to 35,000 AF or more in other years. These volumes are as provided by YCWA north-of-the-Delta. Conveyance losses through the Delta to the Banks Pumping Plant

(20 percent) and down the California Aqueduct (3 percent) results in net delivery to Metropolitan ranging from approximately 11,000 AF in dry years to 27,000 AF or more in other years.

Rationale for Expected Supply

Historical Record

Actual volumes purchased and net deliveries to Metropolitan during the first two years of this program were as follows:

Year	**Purchased Volume** (AF)	**Net Delivery** (AF)
2008	26,430	20,510
2009	42,915	33,302

Written Contracts or Other Proof

- DWR-YCWA Purchase Agreement. This December 4, 2007, agreement provides the annual determination of the amount of water to be made available by YUBA and purchased by DWR. The agreement also specifies the costs of various categories of water to be made available under a variety of hydrologic conditions.
- DWR-Metropolitan Participation Agreement. This December 21, 2007, agreement provides Metropolitan's election to purchase water made available by YCWA to DWR and the scheduling delivery of the purchased water. The agreement provides for mechanisms for Metropolitan payments to DWR that are due to YCWA under the DWR-YCWA Purchase Agreement.

Financing

Funds for purchases of water from the Yuba Accord Dry Year Purchase Program are included in the O&M budget.

Federal, State, and Local Permits/Approvals

- SWRCB Order WR 2008-0014. Approval of YCWA's petition to modify revised Water Right Decision 1644 related to Water Right Permits 15026, 15027, and 15030 (Applications 5632, 15204, and 15574), and petition for long-term transfer of up to 200,000 AF of water per year from YCWA to the Department of Water Resources and the United States Bureau of Reclamation under Permit 15026 (Application 5632) - Lower Yuba River in Yuba County.

J. *Programs Under Development as Part of the Five Year Supply Plan*

- *Two-Gate System:* This project is in addition to the Bay-Delta improvements described under section F above. The proposed system includes the installation of new temporary gates in central Delta channels that would be operated in real time to reduce fish take, minimize water supply restrictions at the State and Federal export facilities, and improve Delta water quality. A review by the State Water Contractors (SWC) and Central Valley Project contractors suggests that the Two-Gate System can operate within the discretionary provisions of the Biological Opinion (BiOp) to reduce water supply restrictions. This would beneficially affect Delta smelt salvage, help maintain Delta smelt and their preferred habitats further downstream from the export pumps, and provide improved water supply benefits. The installation of the Two-Gate System is estimated to be completed by Fall 2012 and is anticipated to be fully operational in 2013.
- *North of Delta Transfers:* (covered under section H above)
- *In-Delta Transfers*: In January 2009, the Board authorized staff to enter into a water transfer agreement with Delta Wetlands Properties. Metropolitan entered into the water transfer agreement in late January to secure up to 18 TAF of new supply prior to any losses. The program is estimated to provide 8 TAF in 2009, depending on the amount of land fallowed and the conveyance losses. Metropolitan only pays for water that is made available for transfer. For 2010 and beyond, additional transfer agreements

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

like this one could yield up to 20 TAF per year.

- *North Kern / DWA Exchange*: In this agreement, Desert Water Agency (DWA) will purchase water from North Kern and deliver it to Metropolitan in exchange for Colorado River water delivered to DWA. In 2008, DWA purchased over 8 TAF from North Kern and delivered it to Metropolitan. In future years, DWA will buy additional water for delivery to Metropolitan. Metropolitan is scheduled to return all water received from DWA uniformly over the next 30 years, but may return it sooner if desired.
- *Semitropic Agricultural Water Reuse Demonstration Project*: This project provides a new water supply through the recovery of agricultural water in the San Joaquin Valley with an expected yield of about 11 TAF per year. In November 2009, Metropolitan and Semitropic Water District finalized an agreement to complete environmental review and technical studies for this project. Currently work is underway to complete the characterization of the groundwater, develop documents for environmental permits, and define facility design. Assuming this project moves forward as planned, it could begin operation in late 2011.

A.3.3 In-Basin Storage Deliveries

A. Surface Storage

Source of Supply

Surface storage is a critical element of Southern California's water resources strategy. Because California experiences dramatic swings in weather and hydrology, surface storage is important to regulate those swings and mitigate possible supply shortages. Surface storage provides a means of storing water during normal and wet years for later use during dry years, when imported supplies are limited. Since the early twentieth century, DWR and Metropolitan have constructed surface water reservoirs to meet emergency, drought/seasonal and regulatory water needs for Southern California. These reservoirs include Pyramid Lake, Castaic Lake, Elderberry Forebay, Silverwood Lake, Lake Perris, Lake Skinner, Lake Mathews, Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, Orange County Reservoir and Metropolitan's Diamond Valley Lake. Some reservoirs such as Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, and Orange County Reservoir, which have a total combined capacity of about 3,500 AF, are used solely for regulatory purposes. The remaining surface reservoirs are primarily used to meet emergency, drought and seasonal requirements. The total gross storage capacity for these larger remaining reservoirs is 1,768,100 AF. However, not all of the gross storage capacity is available to Metropolitan; dead storage and storage allocated to others reduce the amount of storage that is available to Metropolitan to 1,669,100 AF.

Expected Supply Capability

Surface storage reservoirs are an important tool that allows Metropolitan to meet the water needs of its service area. As discussed in the Final Environmental Impact Report for the Eastside Reservoir (DVL) Project dated October 1991and Metropolitan's IRP, the allocation of available surface storage can be divided into two primary components: emergency and drought/seasonal. As specified by Metropolitan's Board of Directors in the Final EIR for DVL, "Metropolitan shall maintain sufficient water reserves within its service area to supplement local production during an emergency or severe water shortage." With DVL in operation, Metropolitan can now re-operate the surface reservoirs and meet the Board's stated objectives.

<u>Updated Emergency Storage Requirements:</u> Metropolitan's criteria for determining emergency storage requirements, which was approved by Metropolitan's Board, was established in the Final EIR for DVL and further discussed in the IRP. Emergency Storage requirements are based on the potential for a major earthquake to damage the Colorado River Aqueduct, Los Angeles Aqueduct, and both branches of the California Aqueduct that could force the aqueducts out of service for six months. During this period, all interruptible service deliveries would be suspended, a mandatory reduction in water use of 25 percent from normal-year demand levels would be instituted, water stored in surface reservoirs and groundwater basins under Metropolitan's interruptible program would be made available, and full local groundwater production would be sustained.

The storage reserved in system reservoirs for emergency purposes changes over the next 20 years in accordance with the projected demands on Metropolitan as shown in Table A.3-2. The residual storage available to meet other needs, dry-year/seasonal, is also shown and discussed in greater detail in this appendix.

<u>Updated Storage Requirements for Dry-Year Supply and Seasonal Needs:</u> Storage capacity in system reservoirs, including DVL, is also earmarked for dry-year supply and system regulation purposes. Dry-year supply storage within Metropolitan's service area is required to meet the additional water demands that occur during single-year and extended droughts. As specified in the Final EIR for DVL and further discussed in the IRP, this storage requirement is defined as the difference between average-year demand

Table A.3-2
Surface Storage Utilization
(acre-feet per year)

Forecast Year	2015	2020	2025	2030	2035
MWD Dry-Year/Seasonal Surface Storage					
DVL, Mathews, Skinner	794,203	765,773	773,380	756,073	734,180
Flexible Storage in Castaic & Perris	219,000	219,000	219,000	219,000	219,000
Subtotal of Dry-Year/Seasonal Storage	***1,013,203***	***984,773***	***992,380***	***975,073***	***953,180***
MWD Emergency Storage					
DVL, Mathews, Skinner	238,097	266,527	258,920	276,227	298,120
Emergency Storage in DWR Reservoirs	334,000	334,000	334,000	334,000	334,000
Subtotal of Emergency Storage	***572,097***	***600,527***	***592,920***	***610,227***	***632,120***
Total MWD Surface Storage	**1,585,300**	**1,585,300**	**1,585,300**	**1,585,300**	**1,585,300**

and above average demand during dry years. In addition to dry-year storage, seasonal storage is required to meet seasonal peak demands, which are defined as the difference between average winter demands and average summer demands. The dry-year supply and seasonal storage also provides sufficient reserves to permit approximately five percent downtime for rehabilitation, repair, and maintenance of raw water transmission facilities.

Historical Record

Metropolitan has a contract with the Department of Water Resources that allows use of DWR's terminal reservoirs, such as Lake Castaic on the West Branch and Lake Perris on the East Branch of the California Aqueduct (see Section A.3.3.B for a discussion of Metropolitan's contractual rights to storage in these DWR reservoirs). In addition, Metropolitan owns and operates surface reservoirs such as Lake Skinner, Lake Mathews and Diamond Valley Lake to enhance water supply reliability for its Member Agencies.

Written Contracts or Other Proof of Usage

The Surface Reservoirs used by Metropolitan are available either by contract (in the case of the DWR terminal reservoirs) or by construction of its own facilities. The following historical record is provided:

November 1960 Contract between the State of California Department of Water Resources and the Metropolitan Water District of Southern California for a Water Supply. This Contract and its numerous amendments describe Metropolitan's legal access to and obligations for the operation of the State Water Project for the benefit of its Contractors. Metropolitan has an entitlement to 1,911,500 AF of water each year subject to availability. The terms of this Contract describe Metropolitan's rights to and obligations for the terminal surface reservoirs for water supply purposes.

November 1974 Memorandum of Understanding and Agreement on Operation of Lake Skinner. This MOU, signed by Metropolitan and other affected parties, governs Metropolitan's operations of Lake Skinner in Riverside County. The DWR Division of Safety and Dams also reviews monitoring data on the safety of the dam annually.

November 1999 Memorandum of Understanding on Operation of Diamond Valley Lake. This MOU, signed by Metropolitan and other affected parties, governs Metropolitan's operations of Lake Skinner in Riverside County. The DWR

Division of Safety and Dams also reviews monitoring data on the safety of the dam annually.

Elderberry Forebay Contract for Conditions for Use. Conditions for use of storage are described in the Contract between the Department of Water Resources, State of California, and the Department of Water and Power, City of Los Angeles, for Cooperative Development, West Branch, California Aqueduct; Amendment No. 1, July 3, 1969; and Amendment No. 4, June 27, 1985.

June 2002 Division of Safety of Dams Certificate of Approval. The Department of Water Resources, Division of Safety of Dams issued the Certificate of Approval for operation of Diamond Valley Lake in early 2000, with three conditions. These conditions were: (1) Satisfactory operation of the butterfly valves and emergency gate in the inlet/outlet tower, (2) completion of the Tank Saddle Cutoff remediation and (3) completion of the Signal Spillway. Metropolitan completed these conditions in 2001 and the Diamond Valley Lake is currently operational in accordance with the Certificate of Approval.

October 1991 Final Environmental Impact Report for the Eastside Reservoir Project (DVL). The EIR established criteria for integrating the operations of Metropolitan's reservoirs and DWR's southern reservoirs for emergency purposes. These criteria also provided that Metropolitan reservoirs could be expected to withdraw all drought storage water within a two-year period.

B. Flexible Storage Use of Castaic Lake and Lake Perris

Source of Storage

Metropolitan's flexible storage accounts in Castaic Lake and Lake Perris, SWP reservoirs, is 153,940 AF and 65,000 AF, respectively. These accounts provide Metropolitan with dry-year supply that is independent of the Table A allocation. Metropolitan can withdraw water from these reservoirs in addition to their allocated supply in any year on an as-needed basis. Withdrawn water must be replaced from supplies available to Metropolitan within five years of each withdrawal. This "flexible storage" is available in Castaic Lake to Metropolitan, Ventura County Flood Control and Water Conservation District, and to the Castaic Lake Water Agency. It is available in Lake Perris to Metropolitan only.

Expected Supply Capability

The dry year supply available to Metropolitan from the flexible storage use of Castaic Lake and Lake Perris totals 218,940 AF, made up of 153,940 AF in Castaic Lake and 65,000 AF in Lake Perris. Table A.3-3 shows the use of this available supply in accordance with Metropolitan's operating criteria.

In 2005, Seismic concerns arose regarding the Lake Perris Dam. In response, DWR plans to reduce the storage amount at Lake Perris by half until those concerns can be studied and addressed. In the long-term, the reduction in storage may potentially impact the amount of flexible storage available to Metropolitan from Lake Perris, and also impact the total amount of emergency storage available. However, since 2005 Metropolitan has continued to withdraw and replace water from the reservoir, which is operating at a lower level. In January 2010, DWR issued a Draft EIR for the repair of the Dam. Discussions are ongoing regarding the ultimate disposition of the reservoir as it related to costs allocated to the SWP contractors.

Rationale for Expected Supply

Implementation Status
Express provisions related to flexible storage have been incorporated in Metropolitan's SWP contract since 1995. The operating options have been available for use since that time and will continue to be in effect indefinitely as a part of the SWP contracts.

Historical Record
Metropolitan has exercised the flexible storage provision on numerous occasions through and including calendar year 2010. Its use is based on existing contract provisions.

Table A.3-3
Estimated Water Supplies Available for Metropolitan's Use Under the Flexible Storage Use of Castaic Lake and Lake Perris *

(TAF per year)

Year	Multiple Dry-Years (1990-1992)	Single Dry Year (1997)
2015	73	219
2020	73	219
2025	73	219
2030	73	219
2035	73	219

* Source: Metropolitan's operating criteria.

<u>DWR Bulletin 132-94.</u> The use of Castaic Lake and Lake Perris is determined in accordance with the proportionate use factors from Bulletin 132-94, Table B, upon which capital cost repayment obligations are based. Based on its capital repayment obligations, Metropolitan's proportionate use of Castaic Lake is 96.2 percent and of Lake Perris is 100 percent. Per its SWP contract, Metropolitan has express rights to use certain portions of the SWP southern reservoirs independently of DWR to supply water in amounts in addition to approved SWP deliveries.

<u>Metropolitan's SWP Contract.</u> Metropolitan's SWP contract was amended in 1995 to include Article 54, "Usage of Lakes Castaic and Perris." This article provides flexible storage to contractors participating in repayment of the capital costs of Castaic Lake and Lake Perris. Each contractor shall be permitted to withdraw up to a Maximum Allocation from Castaic Lake and Lake Perris. These contractors may withdraw a collective Maximum Allocation up to 160 TAF in Castaic Lake and 65 TAF in Lake Perris, which shall be apportioned among them pursuant to the respective proportionate use factors, as shown in Table A.3-4 below.

Table A.3-4
Flexible Storage Allocations

Participating Contractor	Proportionate Use Factor	Maximum Flexible Storage Allocation (AF)
Castaic Lake		
Metropolitan	.96212388	153,940
Ventura County Flood Control and Water Conservation District	.00860328	1,376
Castaic Lake Water Agency	.02927284	4,684
Total Castaic Lake	1.00000000	160,000
Lake Perris[1]	1.00000000	65,000
Metropolitan		

[1] The 2003 Exchange Agreement among Metropolitan, CVWD, and DWA, among other things, transferred to CVWD and DWA a portion of Metropolitan's capacity in the California Aqueduct and the East Branch including Lake Perris. However, Metropolitan's rights to the full 65,000 AF of Lake Perris flexible storage account was retained by Metropolitan.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Financing

The cost associated with the withdrawal and replacement of water in the flexible storage is included in Metropolitan's annual payments under the State Water Contract.

Federal, State, and Local Permits/Approvals

The flexible storage provision became effective in 1995. DWR has the approval authority to affect changes in the operations and usage of existing SWP facilities, including Castaic Lake and Lake Perris.

C. Metropolitan Surface Reservoirs

Source of Supply

Storage capacity in Metropolitan reservoirs, including Lake Skinner, Lake Mathews, Live Oak Reservoir, Garvey Reservoir, Palos Verdes Reservoir, Orange County Reservoir and Metropolitan's Diamond Valley Lake, is earmarked to meet emergency, dry-year/seasonal and system regulation needs, as these have been defined above.

Expected Supply Capability

The total available storage capacity for all Metropolitan-controlled surface reservoirs (Metropolitan-owned and DWR terminal reservoirs) is 1,585,300 AF. As discussed earlier, approximately 570 TAF in 2015 rising to 630 TAF in 2035 has been set aside to meet the emergency storage requirements of the service area. After accounting for emergency storage, the surface storage available in Metropolitan-owned reservoirs to meet dry-year/seasonal requirements is presented in Table A.3-5.

Rationale for Expected Supply

Program Facilities

Major facilities for Lake Mathews include an earthen dam to impound water and a recently completed new outlet tower. Major facilities for Lake Skinner include an earthen dam to impound water, an outlet tower, a inlet from the San Diego Canal to deliver water into the reservoir, a water treatment filtration facility, and recreational facilities consisting of a marina, parks, swimming areas, golf course, and hiking trails. Major facilities at Diamond Valley Lake include three earthen dams to impound water, an inlet/outlet tower, a secondary inlet from the Inland Feeder, a large pumping station to deliver water into the reservoir, and power generating facilities. Recreational facilities consisting of a marina, parks, swimming areas, golf course, hiking trails, equestrian trails and lodging are planned.

Historical Record

The Diamond Valley Lake has been operational for 10 years and is currently half full. Lake Mathews and Lake Skinner have been in service for over 30 years and are currently available for full operations.

- November 1974 Memorandum of Understanding and Agreement on Operation of Lake Skinner. This MOU, signed by Metropolitan and other affected parties, governs Metropolitan's operations of Lake Skinner in Riverside County. The DWR Division of Safety and Dams also reviews monitoring data on the safety of the dam annually.
- October 1991 Final Environmental Impact Report for the Eastside Reservoir Project (DVL). The EIR established criteria for integrating the operations of Metropolitan's reservoirs and DWR's southern reservoirs for emergency purposes. These criteria also provided that Metropolitan reservoirs could be expected to withdraw all drought storage water within a two-year period.
- November 1999 Memorandum of Understanding on Operation of Diamond Valley Lake. This MOU, signed by Metropolitan and other affected parties, governs Metropolitan's operations of Lake Skinner in Riverside County. The DWR Division of Safety and Dams also reviews monitoring data on the safety of the dam annually.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.3-5
Estimated Supplies Available from Metropolitan Surface Storage
Program Capabilities
(acre-feet per year)

Forecast Year	Multiple Dry Years (1990-92)	Single Dry Year (1977)
2015	171,000	514,000
2020	239,000	716,000
2025	277,000	832,000
2030	237,000	712,000
2035	192,000	576,000

Source: Metropolitan analysis

- June 2002 Division of Safety of Dams Certificate of Approval. The Department of Water Resources, Division of Safety of Dams issued the Certificate of Approval for operation of Diamond Valley Lake in early 2000, with three conditions. These conditions were: (1) satisfactory operation of the butterfly valves and emergency gate in the inlet/outlet tower, (2) completion of the Tank Saddle Cutoff remediation and (3) completion of the Signal Spillway. Metropolitan completed these conditions in 2001 and the Diamond Valley Lake is currently operational in accordance with the Certificate of Approval.

Financing

The capital cost of Diamond Valley Lake, Lake Mathews and Lake Skinner was financed by a combination of revenue bonds and operating revenues. Annual operating costs, including maintenance and pumping, are included in Metropolitan's annual O&M budget (referenced above).

Federal, State, and Local Permits/Approvals

All necessary permits have been obtained. A permit to generate and sell power has been acquired from the Federal Energy Regulatory Commission. No further regulatory permits are required.

D. Groundwater Conjunctive Use Programs

Source of Supply

Metropolitan's IRP established the strategy to store imported water that is most available during wet years in surface reservoirs or groundwater aquifers for later use during droughts and emergencies. In this way, Metropolitan can reduce its reliance on direct deliveries from the SWP and the Colorado River during dry years when competing demands by other users and risks to the watershed ecosystems are greatest.

Groundwater basins in Metropolitan's service area have potential to store more than 3.0 MAF of additional water supplies. In 2000, the Association of Ground Water Agencies (AGWA) published Groundwater and Surface Water in Southern California: A Guide to Conjunctive Use which estimated a substantial potential for developing dry-year or long term conjunctive use within Metropolitan's service area. In 2007, Metropolitan published the Groundwater Assessment Study which estimated 3.2 MAF of space in groundwater basins available for storage. Based on these studies, Metropolitan continues to pursue a resource objective to develop dry-year supply from in-basin groundwater storage of 300 TAF per year by 2020.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Rationale for Expected Supply

Implementation Status:

The status of implementation for the groundwater conjunctive use programs has been described in the body of this report.

Historical Record

- Long-term Replenishment Program. In years of surplus imported supply, Metropolitan has delivered discounted water for groundwater storage under the Long-Term Replenishment Program in order to maintain groundwater production during the summer season and dry years. In recent years, Metropolitan has sold an average of 200 to 225 TAF per year of water under this program. The Replenishment Program was interrupted in 2007 due to imported water shortages.
- The Main San Gabriel Cyclic Storage Agreement. The Cyclic Storage Agreement with Upper San Gabriel Valley MWD was originally signed in 1975 for a term of five years and has been extended in five year increments. In 2009, the agreement was extended for two years. Currently expires in 2009, but is expected to be renewed repeatedly in future. The Cyclic Storage Agreement with Three Valleys MWD was originally signed in 1991 for a term of five years and has been extended in five year increments. This agreement was also extended for two years in 2009.
- Chino Basin Cyclic Storage Agreement. The Cyclic Storage Agreement with Inland Empire Utilities Agency was first signed in 1979 and extended in five year increments through 2012.
- North Las Posas Groundwater Storage Program. Two phases of the program's ASR wells (18 wells) have been constructed, providing approximately 8 TAF per year of replenishment capacity and 12 TAF per year of withdrawal capacity until fully integrated into Calleguas MWD's distribution system. At such time, the wellfields will be fully operational and able to pump 47 TAF per year of stored water from the basin. This agreement is in place for forty years, through 2035.

As of July 1, 2007, approximately 230 TAF of water had been stored in contractual dry-year storage programs in the North Las Posas, Chino, Orange County, Live Oak, Central, and Raymond groundwater basins. As of January 1, 2010, 117 TAF had been produced to offset imported water shortages leaving a balance of about 113 TAF in these storage accounts.

Written Contracts or Other Proof

Metropolitan's dry-year supply from the ground water conjunctive use programs is based on Metropolitan's Board actions and agreements.

- Approval of Long-term Replenishment Program. Beginning in fiscal year 1989/90, Metropolitan implemented the Long-term Replenishment Program. The continuation of this program was reaffirmed as part of the new rate structure that was approved by Metropolitan's Board in April 2009.
- Agreements for North Las Posas Groundwater Storage Program. An Agreement between Metropolitan and Calleguas Municipal Water District (Calleguas) was executed in June 1995 and amended in May 1998 and in March 2008. The term of the Agreement extends to 2035.
- Proposition 13 Groundwater Conjunctive Use Programs Operational by 2010.
  - Association of Ground Water Agencies (AGWA) published Groundwater and Surface Water in Southern California: A Guide to Conjunctive Use in 2000 identifying the potential storage capacity for groundwater basins.

- Metropolitan Water District published the Groundwater Assessment Study Report in 2007 in collaboration with its member agencies and groundwater basin managers documenting existing use and development of groundwater resources in Metropolitan's service area and estimating additional groundwater basin storage potential.
- Principles for groundwater storage adopted by the Metropolitan Board in January 2000.
- Resolution for Proposition 13 Funds adopted by the Metropolitan Board in October 2000.
- Agreement executed with the California Department of Water Resources for Interim Water Supply Construction Grant Commitment Safe Drinking Water, Clean Water, Watershed Protection and Flood Protection (Proposition 13, Chapter 9, Article 4) providing for Metropolitan to administer $45 million in state Proposition 13 grant funds for groundwater reliability programs; October 2000
- Agreement executed for Long Beach Conjunctive Use Project, July 2002
- Agreement executed for Live Oak Conjunctive Use Project, October 2002
- Agreement executed for Foothill Area Groundwater Storage Project, February 2003
- Agreement executed for Chino Basin Programs, June 2003
- Agreement executed for Orange County Groundwater Storage Program, June 2003
- Agreement executed for Compton Conjunctive Use Program, February 2005
- Agreement executed for Long Beach Conjunctive Use Project — Expansion in Lakewood, July 2005
- Agreement executed for Upper Claremont Basin Groundwater Storage Program, September 2005
- Agreement executed for Elsinore Basin Conjunctive Use Program, May 2008

All of these programs have an initial 25-year term, with provision for renewal or extension after that period.

Financing

Financing has been supplied from multiple sources as discussed below:

- Financing for Long-Term Replenishment Program. No capital or O&M costs are associated with the implementation of the Long-term Replenishment Program. Rather, Metropolitan provides a discounted water rate to encourage member agencies to take delivery of surplus water for storage purposes.
- Financing for North Las Posas Groundwater Storage Program.
    - Metropolitan's Board appropriated $6 million to construct wells and appurtenant facilities in Phase 1 of the program in June 1995.
    - Metropolitan's Board appropriated $25 million to construct wells and appurtenant facilities Phase 2 of the program in January 1998.
    - Metropolitan has reimbursed Calleguas MWD for over $28 million for capital facilities for this program.
- Financing for Proposition 13 and Additional Groundwater Storage Programs.
    - Metropolitan's Board appropriated $210,000 to conduct initial environmental, engineering and planning studies for the Raymond Basin storage program in January 2000. In May 2006, Metropolitan's Board appropriated $480,000 to conduct preliminary engineering and complete CEQA environmental

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documentation for the proposed storage program.

  - Proposition 13 funds ($45 million) were allocated to Metropolitan by the state in May 2000 for the development of local groundwater storage projects.
  - Metropolitan has executed groundwater storage funding agreements for nine storage programs, expended $45 million of the Proposition 13 funds, and appropriated over $35 million of Metropolitan capital funds for the storage programs in the Orange County and Chino groundwater basins. All nine storage programs have completed facilities and are on-line. Metropolitan has called for production of stored water beginning in 2007.

Table A.3-6 provides details of funding for specific groundwater storage programs.

Federal, State, and Local Permits/Approvals

- <u>Final EIR for North Las Posas Groundwater Storage Program.</u> Environmental Impact Report for the North Las Posas Groundwater Storage Program was certified by Calleguas Municipal Water District, lead agency, and by Metropolitan, responsible agency, in April 1995 and June 1995, respectively.
- <u>Long Beach Conjunctive-use Storage Project.</u> Environmental documentation for the Long Beach Conjunctive-use Storage Project was certified by the City of Long Beach in August 2001.
- <u>Live Oak Basin Conjunctive-use Storage Project</u>. Environmental documentation for the Live Oak Basin Conjunctive-use Storage Project was certified by Three Valleys MWD in January 2002.
- <u>Foothill Area Groundwater Storage Project.</u> Environmental documentation for the Foothill Area Groundwater Storage Project was certified by Foothill Municipal Water District in January 2003.
- <u>Chino Basin Programs Groundwater Storage Project.</u> Environmental documentation for the Chino Basin Programs Groundwater Storage Project was certified by Inland Empire Utility Agency in December 2002.
- <u>Long Beach Conjunctive Use Storage Project — Expansion in Lakewood.</u> Environmental documentation for the project was certified by the City of Lakewood in May 2005.
- <u>City of Compton Conjunctive Use Program.</u> Environmental documentation for the project was certified by the City of Compton in December 2004.
- <u>Orange County Groundwater Conjunctive Use Program.</u> Environmental documentation for the project was certified by Orange County Water District in March 1999 and in July 2002.
- <u>Upper Claremont Basin Groundwater Storage Program.</u> Environmental documentation for the project was certified by Three Valleys MWD in July 2005.
- <u>Elsinore Basin Conjunctive Use Program.</u> Environmental documentation for the project was certified by Elsinore Valley MWD in February 2004

E. Programs under Development as Part of the Five Year Supply Plan

LADWP Groundwater Demonstration Project: Treatment facilities were installed at the Tujunga Well Field to produce about 12 TAF per year. In December 2008, Metropolitan entered into an agreement with LADWP and in April 2009, a contract was awarded to Siemens Water Technologies Corporation. The facilities were on line and production began in May 2010. Metropolitan's partnership with LADWP brought the treatment facilities on-line nearly two years ahead of the original schedule.

F. IRP Development Targets

20% x 2020 Regional Consistency: Achieving regional consistency on water use efficiency with the legislative goal of 20 percent reduction for the region as a whole would result in a total reduction of potable demand by 580 TAF by 2020. This estimate for regional compliance requires a 200 TAF of additional savings over the 380 TAF estimated retail level reduction already included in the demand projections for the 2010 RUWMP. The additional 200 TAF savings target by 2020 would be an important part of the region's future supply and is included in the water supply forecast tables as part of IRP Development Targets presented in Appendix A.3-7. Achieving an annual demand reduction of 580 TAF by 2020 will require additional local and regional investments in both conservation and recycled water.

Local Supply Augmentation: Included as part of the IRP Development Target are additional supplies obtained through Local Supply Augmentation. Appendix A.5 presents a list of recycling, groundwater recovery, and seawater desalination projects within Metropolitan's service area that could be developed to achieve this future supply goal. Metropolitan collected information on the ultimate yields of each project and potential project on-line dates through various technical workgroups and collaborative efforts with the member agencies. These local projects are in various stages of development and Metropolitan anticipates continued partnership with its member agencies in augmenting local water supplies.

The following Table A.3-7 shows the detailed water supply forecasts by water source, in five-year increments and for single dry-year, multiple dry years, and average years.

In developing the supply capabilities for the 2010 RUWMP, Metropolitan assumed a simulated median storage level going into each of the five-year increments based on the balances of supplies and demands. Under the median storage condition, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. All storage capability figures shown in the 2010 RUWMP reflect actual storage program conveyance constraints. In addition, SWP supplies are estimated using the draft 2009 SWP Delivery Reliability Report distributed by DWR in December 2009. The draft 2009 reliability report presents the current DWR estimate of the amount of water deliveries for current (2009) conditions and conditions 20 years in the future. DWR estimates are based on current facilities and incorporate restrictions on SWP and CVP operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008, and June 4, 2009, respectively.

Table A.3-6
Metropolitan's In-Region Groundwater Storage Programs

Program	Metropolitan Agreement Partners	Agreement Execution Date	Max Storage AF	Dry-Year Yield AF/Yr	Capital Funding
Long Beach Conjunctive Use Storage Project (Central Basin)	Long Beach	June 2002	13,000	4,300	$4.5 million – Prop. 13 funds
Foothill Area Groundwater Storage Program (Monkhill/ Raymond Basin)	Foothill MWD	February 2003	9,000	3,000	$1.7 million – Prop. 13 funds
Orange County Groundwater Conjunctive Use Program	MWDOC OCWD	June 2003	66,000+	22,000	$31.7million: $15.0 million – Prop 13 $16.7million – Met CIP*
Chino Basin Programs	IEUA TVMWD Watermaster	June 2003	100,000	33,000	$27.5 million: $9.0 million – Prop 13 $18.5 million – Met CIP*
Live Oak Basin Conjunctive Use Project (Six Basins)	TVMWD City of La Verne	October 2002	3,000	1,000	$3.3 million – Prop 13
City of Compton Conjunctive Use Project (Central Basin)	Compton	February 2005	2,289	763	$2.43 million – Prop 13
Metropolitan – Calleguas MWD Groundwater Storage Project (North Las Posas Basin)	Calleguas MWD	1995, amended 1999	210,000	47,000	$31 million – Met CIP* $28.2 million expended.
Long Beach Conjunctive Use Program Expansion in Lakewood (Central Basin)	Long Beach	July 2005	3,600	1,200	$3.1 million – Prop 13

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Table A.3-6 (Contd)
Metropolitan's In-Region Groundwater Storage Programs

Program	Metropolitan Agreement Partners	Agreement Execution Date	Max Storage AF	Dry-Year Yield AF/Yr	Capital Funding
Upper Claremont Basin Groundwater Storage Program (Six Basins)	TVMWD	Sept. 2005	3,000	1,000	$1.23 million – Prop 13
Elsinore Basin Conjunctive Use Storage Program (Elsinore Basin)	Western MWD Elsinore Valley MWD	May 2008	12,000	4,000	$4.74 million - Prop 13
Total			**421,889**	**117,263**	**$45 million – Prop 13** **$63.4 million – Met CIP***

* Metropolitan's Capital Investment Plan

Table A.3-7
Colorado River Aqueduct
Program Capabilities

Year 2015

(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Basic Apportionment – Priority[4]	550,000	550,000	550,000
IID/MWD Conservation Program	85,000	85,000	85,000
Priority 5 Apportionment (Surplus)	0	0	91,000
PVID Land Management, Crop Rotation, and Water Supply Program	133,000	133,000	133,000
Lower Colorado Water Supply Project	6,000	6,000	6,000
Lake Mead Storage Program	341,000	400,000	400,000
Quechan Settlement Agreement Supply	7,000	7,000	7,000
Forbearance for Present Perfected Rights	(42,000)	(47,000)	(47,000)
CVWD SWP/QSA Transfer Obligation	(35,000)	(35,000)	(35,000)
DWCV SWP Table A Obligation	(60,000)	(54,000)	(127,000)
DWCV SWP Table A Transfer Callback	32,000	29,000	67,000
DWCV Advance Delivery Account	28,000	25,000	60,000
Drop 2 Reservoir Funding	22,000	66,000	66,000
SNWA Agreement	40,000	40,000	40,000
Expand SNWA Agreement	15,000	15,000	15,000
Subtotal of Current Programs	***1,122,000***	***1,220,000***	***1,311,000***
Programs Under Development			
Additional PVID Transfers (Crop Stressing/Fallowing)	62,000	62,000	62,000
Arizona Programs - CAP	50,000	50,000	50,000
California Indians / Other Ag	10,000	10,000	10,000
ICS Exchange	25,000	25,000	25,000
Agreements with CVWD	35,000	35,000	35,000
Hayfield Groundwater Extraction Project	5,000	5,000	5,000
Subtotal of Proposed Programs	***187,000***	***187,000***	***187,000***
Additional Non-Metropolitan CRA Supplies			
SDCWA/IID Transfer	100,000	100,000	100,000
Coachella & All-American Canal Lining			
To SDCWA	80,000	80,000	80,000
To San Luis Rey Settlement Parties1	16,000	16,000	16,000
Subtotal of Non-Metropolitan Supplies	***196,000***	***196,000***	***196,000***
Maximum CRA Supply Capability[2]	**1,505,000**	**1,603,000**	**1,694,000**
Less CRA Capacity Constraint (amount above 1.25 MAF)	*(255,000)*	*(353,000)*	*(444,000)*
Maximum Expected CRA Deliveries[3]	**1,250,000**	**1,250,000**	**1,250,000**
Less Non-Metropolitan Supplies[4]	*(196,000)*	*(196,000)*	*(196,000)*
Maximum Metropolitan Supply Capability[5]	**1,054,000**	**1,054,000**	**1,054,000**

[1] Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

[2] Total amount of supplies available without taking into consideration CRA capacity constraint.

[3] The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

[4] Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

[5] The amount of CRA water available to Metropolitan after meeting its exchange obligations.

Table A.3-7
Colorado River Aqueduct
Program Capabilities
Year 2020
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Basic Apportionment – Priority [4]	550,000	550,000	550,000
IID/MWD Conservation Program	85,000	85,000	85,000
Priority 5 Apportionment (Surplus)	167,000	356,000	61,000
PVID Land Management, Crop Rotation, and Water Supply Program	133,000	133,000	133,000
Lower Colorado Water Supply Project	6,000	6,000	6,000
Lake Mead Storage Program	400,000	400,000	400,000
Quechan Settlement Agreement Supply	7,000	7,000	7,000
Forbearance for Present Perfected Rights	(47,000)	(47,000)	(47,000)
CVWD SWP/QSA Transfer Obligation	(35,000)	(35,000)	(35,000)
DWCV SWP Table A Obligation	(60,000)	(54,000)	(127,000)
DWCV SWP Table A Transfer Callback	32,000	29,000	67,000
DWCV Advance Delivery Account	28,000	25,000	60,000
Drop 2 Reservoir Funding	22,000	25,000	25,000
SNWA Agreement	40,000	40,000	40,000
Expand SNWA Agreement	15,000	15,000	15,000
Subtotal of Current Programs	***1,343,000***	***1,535,000***	***1,240,000***
Programs Under Development			
Additional PVID Transfers (Crop Stressing/Fallowing)	62,000	62,000	62,000
Arizona Programs - CAP	50,000	50,000	50,000
California Indians / Other Ag	10,000	10,000	10,000
ICS Exchange	25,000	25,000	25,000
Agreements with CVWD	35,000	35,000	35,000
Hayfield Groundwater Extraction Project	5,000	5,000	5,000
Subtotal of Proposed Programs	***187,000***	***187,000***	***187,000***
Additional Non-Metropolitan CRA Supplies			
SDCWA/IID Transfer	161,000	193,000	193,000
Coachella & All-American Canal Lining			
To SDCWA	80,000	80,000	80,000
To San Luis Rey Settlement Parties1	16,000	16,000	16,000
Subtotal of Non-Metropolitan Supplies	***257,000***	***289,000***	***289,000***
Maximum CRA Supply Capability[2]	**1,787,000**	**2,011,000**	**1,716,000**
Less CRA Capacity Constraint (amount above 1.25 MAF)	*(537,000)*	*(761,000)*	*(466,000)*
Maximum Expected CRA Deliveries[3]	**1,250,000**	**1,250,000**	**1,250,000**
Less Non-Metropolitan Supplies[4]	*(257,000)*	*(289,000)*	*(289,000)*
Maximum Metropolitan Supply Capability[5]	**993,000**	**961,000**	**961,000**

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[1] Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties
[2] Total amount of supplies available without taking into consideration CRA capacity constraint.
[3] The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.
[4] Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.
[5] The amount of CRA water available to Metropolitan after meeting its exchange obligations.

Table A.3-7
Colorado River Aqueduct
Program Capabilities
Year 2025
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Basic Apportionment – Priority [4]	550,000	550,000	550,000
IID/MWD Conservation Program	85,000	85,000	85,000
Priority 5 Apportionment (Surplus)	0	250,000	53,000
PVID Land Management, Crop Rotation, and Water Supply Program	133,000	133,000	133,000
Lower Colorado Water Supply Project	6,000	5,000	5,000
Lake Mead Storage Program	400,000	400,000	400,000
Quechan Settlement Agreement Supply	7,000	7,000	7,000
Forbearance for Present Perfected Rights	(47,000)	(47,000)	(47,000)
CVWD SWP/QSA Transfer Obligation	(35,000)	(35,000)	(35,000)
DWCV SWP Table A Obligation	(77,000)	(60,000)	(155,000)
DWCV SWP Table A Transfer Callback	41,000	32,000	82,000
DWCV Advance Delivery Account	36,000	28,000	73,000
Drop 2 Reservoir Funding	22,000	25,000	25,000
SNWA Agreement	0	0	0
Expand SNWA Agreement	0	0	0
Subtotal of Current Programs	***1,121,000***	***1,373,000***	***1,176,000***
Programs Under Development			
Additional PVID Transfers (Crop Stressing/Fallowing)	62,000	62,000	62,000
Arizona Programs - CAP	50,000	50,000	50,000
California Indians / Other Ag	10,000	10,000	10,000
ICS Exchange	25,000	25,000	25,000
Agreements with CVWD	35,000	35,000	35,000
Hayfield Groundwater Extraction Project	5,000	5,000	5,000
Subtotal of Proposed Programs	***187,000***	***187,000***	***187,000***
Additional Non-Metropolitan CRA Supplies			
SDCWA/IID Transfer	200,000	200,000	200,000
Coachella & All-American Canal Lining			
To SDCWA	80,000	80,000	80,000
To San Luis Rey Settlement Parties1	16,000	16,000	16,000
Subtotal of Non-Metropolitan Supplies	***296,000***	***296,000***	***296,000***
Maximum CRA Supply Capability[2]	**1,604,000**	**1,856,000**	**1,659,000**
Less CRA Capacity Constraint (amount above 1.25 MAF)	*(354,000)*	*(606,000)*	*(409,000)*
Maximum Expected CRA Deliveries[3]	**1,250,000**	**1,250,000**	**1,250,000**
Less Non-Metropolitan Supplies[4]	*(296,000)*	*(296,000)*	*(296,000)*
Maximum Metropolitan Supply Capability[5]	**954,000**	**954,000**	**954,000**

[1] Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

[2] Total amount of supplies available without taking into consideration CRA capacity constraint.

[3] The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

[4] Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

[5] The amount of CRA water available to Metropolitan after meeting its exchange obligations.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.3-7
Colorado River Aqueduct
Program Capabilities
Year 2030
(acre-feet per year)

Hydrology	**Multiple Dry Years (1990-92)**	**Single Dry Year (1977)**	**Average Year (1922-2004)**
Current Programs			
Basic Apportionment – Priority [4]	550,000	550,000	550,000
IID/MWD Conservation Program	85,000	85,000	85,000
Priority 5 Apportionment (Surplus)	0	0	13,000
PVID Land Management, Crop Rotation, and Water Supply Program	133,000	133,000	133,000
Lower Colorado Water Supply Project	5,000	5,000	5,000
Lake Mead Storage Program	400,000	400,000	400,000
Quechan Settlement Agreement Supply	7,000	7,000	7,000
Forbearance for Present Perfected Rights	(47,000)	(47,000)	(47,000)
CVWD SWP/QSA Transfer Obligation	(35,000)	(35,000)	(35,000)
DWCV SWP Table A Obligation	(77,000)	(60,000)	(155,000)
DWCV SWP Table A Transfer Callback	41,000	32,000	82,000
DWCV Advance Delivery Account	36,000	28,000	73,000
Drop 2 Reservoir Funding	22,000	25,000	25,000
SNWA Agreement	0	0	0
Expand SNWA Agreement	0	0	0
Subtotal of Current Programs	***1,120,000***	***1,123,000***	***1,136,000***
Programs Under Development			
Additional PVID Transfers (Crop Stressing/Fallowing)	62,000	62,000	62,000
Arizona Programs - CAP	50,000	50,000	50,000
California Indians / Other Ag	10,000	10,000	10,000
ICS Exchange	25,000	25,000	25,000
Agreements with CVWD	35,000	35,000	35,000
Hayfield Groundwater Extraction Project	0	0	0
Subtotal of Proposed Programs	***182,000***	***182,000***	***182,000***
Additional Non-Metropolitan CRA Supplies			
SDCWA/IID Transfer	200,000	200,000	200,000
Coachella & All-American Canal Lining			
To SDCWA	80,000	80,000	80,000
To San Luis Rey Settlement Parties1	16,000	16,000	16,000
Subtotal of Non-Metropolitan Supplies	***296,000***	***296,000***	***296,000***
Maximum CRA Supply Capability[2]	**1,598,000**	**1,601,000**	**1,614,000**
Less CRA Capacity Constraint (amount above 1.25 MAF)	*(348,000)*	*(351,000)*	*(364,000)*
Maximum Expected CRA Deliveries[3]	**1,250,000**	**1,250,000**	**1,250,000**
Less Non-Metropolitan Supplies[4]	*(296,000)*	*(296,000)*	*(296,000)*
Maximum Metropolitan Supply Capability[5]	**954,000**	**954,000**	**954,000**

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[1] Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

[2] Total amount of supplies available without taking into consideration CRA capacity constraint.

[3] The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

[4] Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

[5] The amount of CRA water available to Metropolitan after meeting its exchange obligations.

Table A.3-7
Colorado River Aqueduct
Program Capabilities
Year 2035
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Basic Apportionment – Priority[4]	550,000	550,000	550,000
IID/MWD Conservation Program	85,000	85,000	85,000
Priority 5 Apportionment (Surplus)	0	0	10,000
PVID Land Management, Crop Rotation, and Water Supply Program	133,000	133,000	133,000
Lower Colorado Water Supply Project	5,000	5,000	5,000
Lake Mead Storage Program	400,000	400,000	400,000
Quechan Settlement Agreement Supply	7,000	7,000	7,000
Forbearance for Present Perfected Rights	(47,000)	(47,000)	(47,000)
CVWD SWP/QSA Transfer Obligation	(35,000)	(35,000)	(35,000)
DWCV SWP Table A Obligation	(77,000)	(60,000)	(155,000)
DWCV SWP Table A Transfer Callback	41,000	32,000	82,000
DWCV Advance Delivery Account	36,000	28,000	73,000
Drop 2 Reservoir Funding	22,000	25,000	25,000
SNWA Agreement	0	0	0
Expand SNWA Agreement	0	0	0
Subtotal of Current Programs	***1,120,000***	***1,123,000***	***1,133,000***
Programs Under Development			
Additional PVID Transfers (Crop Stressing/Fallowing)	62,000	62,000	62,000
Arizona Programs - CAP	50,000	50,000	50,000
California Indians / Other Ag	10,000	10,000	10,000
ICS Exchange	25,000	25,000	25,000
Agreements with CVWD	35,000	35,000	35,000
Hayfield Groundwater Extraction Project	0	0	0
Subtotal of Proposed Programs	***182,000***	***182,000***	***182,000***
Additional Non-Metropolitan CRA Supplies			
SDCWA/IID Transfer	200,000	200,000	200,000
Coachella & All-American Canal Lining			
To SDCWA	80,000	80,000	80,000
To San Luis Rey Settlement Parties1	16,000	16,000	16,000
Subtotal of Non-Metropolitan Supplies	***296,000***	***296,000***	***296,000***
Maximum CRA Supply Capability[2]	**1,598,000**	**1,601,000**	**1,611,000**
Less CRA Capacity Constraint (amount above 1.25 MAF)	*(348,000)*	*(351,000)*	*(361,000)*
Maximum Expected CRA Deliveries[3]	**1,250,000**	**1,250,000**	**1,250,000**
Less Non-Metropolitan Supplies[4]	*(296,000)*	*(296,000)*	*(296,000)*
Maximum Metropolitan Supply Capability[5]	**954,000**	**954,000**	**954,000**

[1] Subject to satisfaction of conditions specified in agreement among Metropolitan, the United States, and the San Luis Rey Settlement Parties

[2] Total amount of supplies available without taking into consideration CRA capacity constraint.

[3] The Colorado River Aqueduct delivery capacity is 1.250 MAF annually.

[4] Exchange obligation for the SDCWA-IID transfer and the Coachella and All American Canal Lining projects.

[5] The amount of CRA water available to Metropolitan after meeting its exchange obligations.

Table A.3-7
California Aqueduct
Program Capabilities
Year 2015
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
MWD Table A	469,000	107,000	1,026,000
DWCV Table A	60,000	54,000	127,000
San Luis Carryover[1]	48,000	145,000	145,000
Article 21 Supplies	0	0	3,000
San Bernardino Valley MWD Minimum Purchase	8,000	5,000	20,000
San Bernardino Valley MWD Option Purchase	11,000	13,000	20,000
Yuba River Accord Purchase	14,000	14,000	4,000
Central Valley Storage and Transfers			
Semitropic Program	41,000	39,000	60,000
Arvin Edison Program	47,000	75,000	75,000
San Bernardino Valley MWD Program	7,000	20,000	20,000
Kern Delta Program	47,000	50,000	50,000
Subtotal of Current Programs	***752,000***	***522,000***	***1,550,000***
Programs Under Development			
Delta Improvements	154,000	487,000	285,000
Mojave Groundwater Storage Program	5,000	2,000	30,000
North of Delta/In-Delta Transfers	33,000	33,000	33,000
SBVMWD Central Feeder	5,000	5,000	5,000
Shasta Return	18,000	18,000	18,000
Semitropic Agricultural Water Reuse	11,000	11,000	11,000
IRP SWP Target[2]	16,000	0	0
Subtotal of Proposed Programs	***242,000***	***556,000***	***382,000***
Maximum Supply Capability	**994,000**	**1,078,000**	**1,932,000**

[1] Includes DWCV carryover.

[2] Remaining supply needed to meet IRP target.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.3-7
California Aqueduct
Program Capabilities
Year 2020
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
MWD Table A	469,000	107,000	1,026,000
DWCV Table A	60,000	54,000	127,000
San Luis Carryover[1]	69,000	208,000	208,000
Article 21 Supplies	0	0	3,000
San Bernardino Valley MWD Minimum Purchase	8,000	5,000	20,000
San Bernardino Valley MWD Option Purchase	11,000	13,000	20,000
Yuba River Accord Purchase	14,000	14,000	4,000
Central Valley Storage and Transfers			
Semitropic Program	41,000	39,000	60,000
Arvin Edison Program	63,000	75,000	75,000
San Bernardino Valley MWD Program	12,000	36,000	36,000
Kern Delta Program	47,000	50,000	50,000
Subtotal of Current Programs	***794,000***	***601,000***	***1,629,000***
Programs Under Development			
Delta Improvements	154,000	487,000	285,000
Mojave Groundwater Storage Program	5,000	2,000	31,000
North of Delta/In-Delta Transfers	33,000	33,000	33,000
SBVMWD Central Feeder	5,000	5,000	5,000
Shasta Return	18,000	18,000	18,000
Semitropic Agricultural Water Reuse	11,000	11,000	11,000
IRP SWP Target[2]	47,000	0	0
Subtotal of Proposed Programs	***273,000***	***556,000***	***383,000***
Maximum Supply Capability	**1,067,000**	**1,157,000**	**2,012,000**

[1] Includes DWCV carryover.

[2] Remaining supply needed to meet IRP target.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.3-7
California Aqueduct
Program Capabilities
Year 2025
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
MWD Table A	469,000	107,000	1,026,000
DWCV Table A	77,000	60,000	155,000
San Luis Carryover [1]	80,000	239,000	239,000
Article 21 Supplies	0	0	52,000
San Bernardino Valley MWD Minimum Purchase	12,000	8,000	20,000
San Bernardino Valley MWD Option Purchase	12,000	11,000	29,000
Yuba River Accord Purchase	14,000	14,000	2,000
Central Valley Storage and Transfers			
Semitropic Program	46,000	41,000	69,000
Arvin Edison Program	63,000	75,000	75,000
San Bernardino Valley MWD Program	15,000	46,000	46,000
Kern Delta Program	47,000	50,000	50,000
Subtotal of Current Programs	***835,000***	***651,000***	***1,763,000***
Programs Under Development			
Delta Improvements	341,000	628,000	605,000
Mojave Groundwater Storage Program	11,000	5,000	43,000
North of Delta/In-Delta Transfers	33,000	33,000	33,000
SBVMWD Central Feeder	5,000	5,000	5,000
Shasta Return	18,000	18,000	18,000
Semitropic Agricultural Water Reuse	11,000	11,000	11,000
IRP SWP Target [2]	0	0	0
Subtotal of Proposed Programs	***419,000***	***700,000***	***715,000***
Maximum Supply Capability	**1,254,000**	**1,351,000**	**2,478,000**

[1] Includes DWCV carryover.

[2] Remaining supply needed to meet IRP target.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.3-7
California Aqueduct
Program Capabilities
Year 2030
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
MWD Table A	469,000	107,000	1,026,000
DWCV Table A	77,000	60,000	155,000
San Luis Carryover[1]	69,000	208,000	208,000
Article 21 Supplies	0	0	52,000
San Bernardino Valley MWD Minimum Purchase	12,000	8,000	20,000
San Bernardino Valley MWD Option Purchase	12,000	11,000	29,000
Yuba River Accord Purchase	0	0	0
Central Valley Storage and Transfers			
Semitropic Program	46,000	41,000	69,000
Arvin Edison Program	63,000	75,000	75,000
San Bernardino Valley MWD Program	16,000	49,000	49,000
Kern Delta Program	47,000	50,000	50,000
Subtotal of Current Programs	***811,000***	***609,000***	***1,733,000***
Programs Under Development			
Delta Improvements	341,000	628,000	605,000
Mojave Groundwater Storage Program	11,000	5,000	43,000
North of Delta/In-Delta Transfers	33,000	33,000	33,000
SBVMWD Central Feeder	5,000	5,000	5,000
Shasta Return	18,000	18,000	18,000
Semitropic Agricultural Water Reuse	11,000	11,000	11,000
IRP SWP Target[2]	0	0	0
Subtotal of Proposed Programs	***419,000***	***700,000***	***715,000***
Maximum Supply Capability	**1,230,000**	**1,309,000**	**2,448,000**

[1] Includes DWCV carryover.

[2] Remaining supply needed to meet IRP target.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.3-7
California Aqueduct
Program Capabilities
Year 2035
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
MWD Table A	469,000	107,000	1,026,000
DWCV Table A	77,000	60,000	155,000
San Luis Carryover[1]	69,000	208,000	208,000
Article 21 Supplies	0	0	52,000
San Bernardino Valley MWD Minimum Purchase	12,000	8,000	20,000
San Bernardino Valley MWD Option Purchase	12,000	11,000	29,000
Yuba River Accord Purchase	0	0	0
Central Valley Storage and Transfers			
Semitropic Program	46,000	41,000	69,000
Arvin Edison Program	63,000	75,000	75,000
San Bernardino Valley MWD Program	17,000	50,000	50,000
Kern Delta Program	47,000	50,000	50,000
Subtotal of Current Programs	***812,000***	***610,000***	***1,734,000***
Programs Under Development			
Delta Improvements	341,000	628,000	605,000
Mojave Groundwater Storage Program	11,000	5,000	43,000
North of Delta/In-Delta Transfers	33,000	33,000	33,000
SBVMWD Central Feeder	5,000	5,000	5,000
Shasta Return	18,000	18,000	18,000
Semitropic Agricultural Water Reuse	11,000	11,000	11,000
IRP SWP Target[2]	0	0	0
Subtotal of Proposed Programs	***419,000***	***700,000***	***715,000***
Maximum Supply Capability	**1,231,000**	**1,310,000**	**2,449,000**

[1] Includes DWCV carryover.

[2] Remaining supply needed to meet IRP target.

Table A.3-7
In-Region Storage and Programs

Program Capabilities

Year 2015

(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Metropolitan Surface Storage (DVL, Mathews, Skinner)	134,000	403,000	403,000
Flexible Storage in Castaic & Perris	37,000	111,000	111,000
Groundwater Storage			
Conjunctive Use	56,000	115,000	115,000
Cyclic Storage	19,000	56,000	56,000
Subtotal of Current Programs	***246,000***	***685,000***	***685,000***
Programs Under Development			
Raymond Basin Groundwater Conjunctive Use	9,000	22,000	22,000
LADWP Groundwater Recovery Project	12,000	12,000	12,000
IRP Development Targets			
20% by 2020 Regional Consistency	80,000	100,000	100,000
Local Supply Augmentation	61,000	72,000	72,000
Subtotal of Proposed Programs	***162,000***	***206,000***	***206,000***
Maximum Supply Capability	**408,000**	**891,000**	**891,000**

Table A.3-7
In-Region Storage and Programs

Program Capabilities

Year 2020

(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Metropolitan Surface Storage (DVL, Mathews, Skinner)	186,000	557,000	557,000
Flexible Storage in Castaic & Perris	53,000	159,000	159,000
Groundwater Storage			
Conjunctive Use	101,000	115,000	115,000
Cyclic Storage	33,000	100,000	100,000
Subtotal of Current Programs	***373,000***	***931,000***	***931,000***
Programs Under Development			
Raymond Basin Groundwater Conjunctive Use	16,000	22,000	22,000
LADWP Groundwater Recovery Project	12,000	12,000	12,000
IRP Development Targets			
20% by 2020 Regional Consistency	180,000	200,000	200,000
Local Supply Augmentation	72,000	72,000	72,000
Subtotal of Proposed Programs	***280,000***	***306,000***	***306,000***
Maximum Supply Capability	**653,000**	**1,237,000**	**1,237,000**

Table A.3-7
In-Region Storage and Programs
Program Capabilities
Year 2025
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Metropolitan Surface Storage (DVL, Mathews, Skinner)	216,000	648,000	648,000
Flexible Storage in Castaic & Perris	61,000	184,000	184,000
Groundwater Storage			
Conjunctive Use	115,000	115,000	115,000
Cyclic Storage	43,000	129,000	129,000
Subtotal of Current Programs	***435,000***	***1,076,000***	***1,076,000***
Programs Under Development			
Raymond Basin Groundwater Conjunctive Use	20,000	22,000	22,000
LADWP Groundwater Recovery Project	12,000	12,000	12,000
IRP Development Targets			
20% by 2020 Regional Consistency	200,000	200,000	200,000
Local Supply Augmentation	82,000	102,000	102,000
Subtotal of Proposed Programs	***314,000***	***336,000***	***336,000***
Maximum Supply Capability	**749,000**	**1,412,000**	**1,412,000**

Table A.3-7
In-Region Storage and Programs
Program Capabilities
Year 2030
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Metropolitan Surface Storage (DVL, Mathews, Skinner)	184,000	552,000	552,000
Flexible Storage in Castaic & Perris	53,000	160,000	160,000
Groundwater Storage			
Conjunctive Use	115,000	115,000	115,000
Cyclic Storage	46,000	137,000	137,000
Subtotal of Current Programs	***398,000***	***964,000***	***964,000***
Programs Under Development			
Raymond Basin Groundwater Conjunctive Use	22,000	22,000	22,000
LADWP Groundwater Recovery Project	12,000	12,000	12,000
IRP Development Targets			
20% by 2020 Regional Consistency	200,000	200,000	200,000
Local Supply Augmentation	102,000	102,000	102,000
Subtotal of Proposed Programs	***336,000***	***336,000***	***336,000***
Maximum Supply Capability	**734,000**	**1,300,000**	**1,300,000**

Table A.3-7
In-Region Storage and Programs
Program Capabilities
Year 2035
(acre-feet per year)

Hydrology	Multiple Dry Years (1990-92)	Single Dry Year (1977)	Average Year (1922-2004)
Current Programs			
Metropolitan Surface Storage			
(DVL, Mathews, Skinner)	148,000	444,000	444,000
Flexible Storage in Castaic & Perris	44,000	132,000	132,000
Groundwater Storage			
Conjunctive Use	115,000	115,000	115,000
Cyclic Storage	46,000	139,000	139,000
Subtotal of Current Programs	***353,000***	***830,000***	***830,000***
Programs Under Development			
Raymond Basin Groundwater Conjunctive Use	22,000	22,000	22,000
LADWP Groundwater Recovery Project	12,000	12,000	12,000
IRP Development Targets			
20% by 2020 Regional Consistency	200,000	200,000	200,000
Local Supply Augmentation	102,000	102,000	102,000
Subtotal of Proposed Programs	***336,000***	***336,000***	***336,000***
Maximum Supply Capability	**689,000**	**1,166,000**	**1,166,000**

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APPENDIX A.4

WATER SUPPLY ALLOCATION PLAN

AND

WATER SURPLUS AND DROUGHT MANAGEMENT PLAN

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Water Supply Allocation Plan

Revised June 2009

Southern California

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

1928

Inside cover: Photo courtesy of Cora Edmonds/ArtXchange for the Healing Planet

Water Supply Allocation Plan

Table of Contents

List of Tables and Figures:

List of Acronyms:

AF- Acre-feet

CWD- County Water District

DWP- Drought Management Plan

IAWP-Interim Agricultural Water Program Reductions and Rates

IICP- Incremental Interruption and Conservation Plan

IRP- Integrated Resources Plan

M&I- Municipal and Industrial

MWD- Municipal Water District

RUWMP- Regional Urban Water Management Plan

SWP - State Water Project

WSDM- Water Surplus and Drought Management

Definitions:

Extraordinary Increases in Production- Local water production efforts that increase local supplies, including purchasing water transfers or overproducing groundwater yield.

Groundwater Recovery- The extraction and treatment of groundwater making it usable for a variety of applications by removing high levels of chemicals and/or salts.

In-lieu deliveries- Metropolitan-supplied water bought to replace water that would otherwise be pumped from the groundwater basins.

Overproducing groundwater yield- Withdrawal (removal) of groundwater over a period of time that exceeds the recharge rate of the supply aquifer. Also referred to as overdraft or mining the aquifer.

Seasonal Shift- Water requested in a period of low demand for use in high demand periods. This water will not be available beyond 2009.

Seawater Barrier- The injection of fresh water into wells along the coast to protect coastal groundwater basins from seawater intrusion. The injected fresh water acts like a wall, blocking seawater that would otherwise seep into groundwater basins as a result of pumping.

Surface Storage Operating Agreement Demand- Deliveries made to the San Diego County Water Authority under the Surface Storage Operating Agreement. Water delivered under this program is used by San Diego County Water Authority to offset peak period delivery requirements.

Section 1: Introduction

Calendar Year 2007 introduced a number of water supply challenges for The Metropolitan Water District of Southern California (Metropolitan) and its service area. Critically dry conditions affected all of Metropolitan's main supply sources. In addition, a ruling in the Federal Courts in August 2007 provided protective measures for the Delta smelt in the Sacramento-San Joaquin River Delta which brought uncertainty about future pumping operations from the State Water Project. This uncertainty, along with the impacts of dry conditions, raised the possibility that Metropolitan would not have access to the supplies necessary to meet total firm demands[1] and would have to allocate shortages in supplies to the member agencies[2].

In preparing for this possibility, Metropolitan staff worked jointly with the member agency managers and staff to develop a Water Supply Allocation Plan (Plan). This Plan includes the specific formulas for calculating member agency supply allocations and the key implementation elements needed for administering an allocation should a shortage be declared. Ultimately, the Plan will be the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and will be incorporated into Metropolitan's Regional Urban Water Management Plan (RUWMP).

Section 2: Development Process

Member Agency Input

Between July 2007 and February 2008, Metropolitan staff worked cooperatively with the member agencies through a series of member agency manager meetings and workgroups to develop a formula and implementation plan to allocate supplies in case of shortage. These workgroups provided an arena for in-depth discussion of the objectives, mechanics, and policy aspects of the different parts of the Plan. Metropolitan staff also met individually with 15 member agencies for detailed discussions of the elements of the recommended proposal. Metropolitan introduced the elements of the proposal to many nonmember retail agencies in its service area by providing presentations and feedback to a number of member agency caucuses, working groups, and governing boards. The discussions, suggestions, and comments expressed by the member agencies during this process contributed significantly to the development of this Plan.

Board of Directors Input

Throughout the development process Metropolitan's Board of Directors was provided with regular progress reports on the status of this Plan, with oral reports in September, October, and December 2007, an Information Board of Directors Letter with a draft of the Plan in November 2007, and a Board of Directors Report with staff recommendations in January 2008. Based on Water Planning and Stewardship Committee discussion of the staff recommendations and further review of the report by

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[1] Firm demands are also referred to as uninterruptable demands; likewise non-firm demands are also called interruptible demands.

[2] See Appendix A for list of member agencies.

the member agencies, refinements were incorporated into the Plan for final consideration and action in February 2008. The Plan was adopted at the February 12, 2008 Board of Directors meeting[3].

Section 3: Review of Historical Shortage Plans[4]

The Plan incorporates key features and principles from the following historical shortage allocation plans but will supersede them as the primary and overarching decision tool for water shortage allocation.

Interruptible Water Service Program

As part of the new rate structure implemented in 1981, Metropolitan's Board of Directors adopted the Interruptible Water Service Program (Interruptible Program) which was designed to address short-term shortages of imported supplies. Under the Interruptible Program, Metropolitan delivered water for particular types of use to its member agencies at a discounted rate. In return for this discounted rate, Metropolitan reserved the right to interrupt delivery of this Interruptible Program water so that available supplies could be used to meet municipal and industrial demands.

Incremental Interruption and Conservation Plan

The ability to interrupt specific deliveries was an important element of Metropolitan's strategy for addressing shortage conditions when it adopted the Incremental Interruption and Conservation Plan (IICP) in December 1990. Reductions in IICP deliveries were used in concert with specific objectives for conservation savings to meet needs during shortages. The IICP reduced Interruptible Service deliveries in stages and provided a pricing incentive program to insure that reasonable conservation measures were implemented.

1995 Drought Management Plan

The 1995 Drought Management Plan (DMP) was a water management and allocation strategy designed to match supply and demand in the event that available imported water supplies were less than projected demands. Adopted by the Metropolitan Board of Directors in November 1994, the 1995 DMP was a short-term plan designed to provide for the 1995 calendar year only. The primary objective of the 1995 DMP was to identify methods to avoid implementation of mandatory reductions. The 1995 DMP included various phases and a step-by-step strategy for evaluating supply and demand conditions and utilizing Metropolitan's available options, with the final phase being implementation of the revised IICP.

1999 Water Surplus and Drought Management Plan

Metropolitan staff began work on the Water Surplus and Drought Management (WSDM) Plan in March 1997 as part of the Integrated Water Resources Plan (IRP), which was adopted by Metropolitan's Board of Directors in January 1996. The IRP established regional water resource targets, identifying the need for developing resource management policy to guide annual operations. The WSDM Plan defined Metropolitan's resource management policy by establishing priorities for the use of regional resources

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[3] A complete listing of member agency meetings and Board of Directors reporting activities is contained in Appendix B of this report.

[4] A summary of the key elements in the following allocation plans is found in Appendix C.

to achieve the region's reliability goal identified in the IRP. In April 1999, Metropolitan's Board of Directors adopted the WSDM Plan.

The WSDM Plan also included a set of principles and considerations for staff to address when developing specific allocation methods. The WSDM Plan stated the following guiding principle to be followed in developing any future allocation scheme:

> *"Metropolitan will encourage storage of water during periods of surplus and work jointly with its member agencies to minimize the impacts of water shortages on the region's retail consumers and economy during periods of shortage."*[5]

This principle reflects a central desire for allocation methods that are both equitable and minimize regional hardship to retail water consumers. The specific considerations postulated by the WSDM Plan to accomplish this principle include the following:[6]

- The impact on retail customers and the economy
- Allowance for population and growth
- Change and/or loss of local supply
- Reclamation/Recycling
- Conservation
- Investment in local resources
- Participation in Metropolitan's interruptible programs
- Investment in Metropolitan's facilities.

Section 4: Water Supply Allocation Formula

Based on the guiding principle and considerations described in the WSDM Plan, Metropolitan staff and the member agencies developed a specific formula for allocating water supplies in times of shortage. The formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level, and takes into account growth, local investments, changes in supply conditions and the demand hardening[7] aspects of non-potable recycled water use and the implementation of conservation savings programs. The formula, described below[8], is calculated in three steps: base period calculations, allocation year calculations, and supply allocation calculations. The first two steps involve standard computations, while the third section contains specific methodology developed for this Plan.

Step 1: Base Period Calculations

The first step in calculating a water supply allocation is to estimate water supply and demand using a historical base period with established water supply and delivery data. The base period for each of the different categories of demand and supply is calculated using data from the three most recent non-shortage years, 2004-2006.[9]

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[5] WSDM Plan, p. 1. Emphasis added.

[6] WSDM Plan, p. 2.

[7] Demand hardening is the effect that occurs when all low-cost methods of decreasing overall water demand have been applied (e.g., low-flow toilets, water recycling) and the remaining options to further decrease demand become increasingly expensive and difficult to implement.

[8] Detailed operational elements of these objectives and a numerical example are discussed in Appendix D of this report.

[9] Exceptions to this methodology are noted in the descriptions of base period calculations.

(a) **Base Period Local Supplies:** Local supplies for the base period are calculated using a three-year average of groundwater production, groundwater recovery, Los Angeles Aqueduct supply, surface water production, and other imported supplies. Non-potable recycling production is not included in this calculation due to its demand hardening effect.

(b) **Base Period Wholesale Demands:** Firm demands on Metropolitan for the base period are calculated using a three-year average of full-service, seawater barrier, seasonal shift, and surface storage operating agreement demand.

(c) **Base Period Retail Demands:** Total retail-level municipal and industrial (M&I) demands for the base period are calculated by adding the Base Period Wholesale Demands and the Base Period Local Supplies. This estimates an average total demand for water from each agency.

(d) **Base Period In-lieu Deliveries:** Base period in-lieu deliveries to member agency storage are calculated using a three-year average of in-lieu deliveries to long-term groundwater replenishment, conjunctive use, cyclic, and supplemental storage programs.

(e) **Base Period Interim Agricultural Water Program Deliveries:** Through discussions with the member agencies, fiscal year 2003/04 was established as the base period for Interim Agricultural Water Program (IAWP) deliveries. This baseline will remain in place for the period in which the IAWP Reduction is in effect and for droughts continuing into successive years.

(f) **Base Period Conservation:** Conservation savings for the base period are calculated using modeled estimates of the most recent year’s savings from active programs, code-based savings, and system losses. This is different than other base period calculations because, for demand hardening purposes, it is preferable to use the most recent estimate of installed water savings as opposed to a three-year average. Modeled estimates are generated using device-based savings and decay rates provided by California Urban Water Conservation Council and other recognized sources. These estimates currently include savings accumulated from Metropolitan funded programs. Agencies with verified conservation device installations from conservation efforts funded without Metropolitan assistance can be added through an appeals process.

(g) **Qualifying Conservation Rate Structure:** An additional consideration will be given to agencies whose retail-level water use is subject to a qualifying water rate structure. A qualifying rate structure is defined as one with at least two tiers of volumetric rates, with a price differential between the bottom and top tiers of at least 10 percent. Agencies with a qualifying rate structure will be given a credit of .five percent of the qualified Base Period Retail Demand to be added to the Base Period Conservation estimate listed above.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Step 2: Allocation Year Calculations

The next step in calculating the water supply allocation is estimating water needs in the allocation year. This is done by adjusting the base period estimates of retail demand for population or economic growth and changes in local supplies.

(a) **Allocation Year Retail Demands:** Total retail M&I demands for the allocation year are calculated by adjusting the Base Period Retail Demands for growth. The growth adjustment is calculated using the estimated actual annual rate of population growth at the county level, as generated by the California Department of Finance, whenever possible. For years without complete data, the growth rate is calculated using an average of the three most recent years available. On an appeals basis, member agencies may request that their adjustment be calculated using member agency level population growth. A weighted combination of actual population and actual employment growth rates may also be requested.

(b) **Allocation Year Local Supplies:** Allocation year local supplies are estimated using the Base Period Local Supplies plus Base Period In-Lieu Deliveries and adjusting for any local gain or loss in supply, including extraordinary increases in production. In-lieu deliveries are added to reflect the corresponding reduction in base year local production that was required to certify in-lieu deliveries to storage. Planned or scheduled increases in supply, which are not due to extraordinary increases in production over the base year, are added to the Base Period Local Supplies. Losses of local supply due to such things as hydrology or water quality are subtracted from the Base Period Local Supplies[10]. These adjustments are made to give a more accurate estimate of actual supplies in the allocation year and more accurately reflect an agency's demand for Metropolitan supplies.

(c) **Allocation Year Wholesale Demands:** Demands on Metropolitan for the allocation year are calculated by subtracting the Allocation Year Local Supplies from the Allocation Year Retail Demands.

Step 3: Supply Allocation Calculations

The final step is calculating the water supply allocation for each member agency based on the allocation year water needs identified in Step 2. The following table displays the elements that form the basis for calculating the supply allocation. Each element and its application in the allocation formula is discussed below.

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[10] Losses of local supply that are not covered by this adjustment include groundwater losses that are less than or equal to base period replenishment deliveries (for a two year period following interruptions of replenishment deliveries) and supplies that were used to cover IAWP shortages and are no longer available to meet firm demands.

Table 1: Shortage Allocation Index					
(a) Regional Shortage Level	(b) Regional Shortage Percentage	(c) Extraordinary Increased Production Percentage	(d) Wholesale Minimum Percentage	(e) Maximum Retail Impact Percentage	(f) IAWP Reduction
1	5%	0%	92.5%	0.0%	30%
2	10%	0%	85.0%	0.0%	30%
3	15%	15%	77.5%	7.5%	40%
4	20%	20%	70.0%	10.0%	50%
5	25%	25%	62.5%	12.5%	75%
6	30%	30%	55.0%	15.0%	90%
7	35%	35%	47.5%	17.5%	100%
8	40%	40%	40.0%	20.0%	100%
9	45%	45%	32.5%	22.5%	100%
10	50%	50%	25.0%	25.0%	100%

(a) Regional Shortage Levels: The formula allocates shortages of Metropolitan supplies over ten levels.

(b) Regional Shortage Percentage: The total regional shortage is determined by dividing Metropolitan's available supplies by the sum of the Allocation Year Wholesale Demands and subtracting this amount from 1, presented as a percentage in five percent increments from five to 50.

(c) Extraordinary Increased Production Adjustment: This adjustment accounts for extraordinary increases in local supplies in times of shortage above the base period, including such efforts as purchasing water transfers or overproducing groundwater yield. In order not to discourage these efforts, only a percentage of the yield from these supplies is added back to Allocation Year Local Supplies, as seen in Table 1. This has the effect of "setting aside" the majority of the yield for the agency who procured the supply.

(d) Wholesale Minimum Allocation: The Wholesale Minimum Allocation ensures a minimum level of Metropolitan supplied wholesale water service to the member agencies equal to 100 percent of Allocation Year Wholesale Demand minus one-and-a-half times the Shortage Percent. The Wholesale Minimum Allocation ensures that member agencies will not experience shortages on the wholesale level that are greater than one-and-a-half times the Regional Shortage Percentage.

(e) Maximum Retail Impact Adjustment: The purpose of this adjustment is to ensure that agencies with a high level of dependence on Metropolitan do not experience disparate shortages at the retail level compared to other agencies when faced with a reduction in wholesale water supplies. The Maximum Retail Impact Percentage is calculated as the difference between the Regional Shortage Percentage and the Wholesale Minimum Percentage then prorated on a linear scale[11] based on each member agency's dependence on Metropolitan at the retail level. This percentage is then multiplied by the agency's Allocation Year Wholesale Demand to determine an additional allocation. For agencies that are 100 percent dependent on Metropolitan, this will result in a shortage equal to the Regional Shortage Percentage.

(f) **Interim Agricultural Water Program Reductions:** Certified Interim Agricultural Water Program (IAWP) allocation is calculated by decreasing the base year IAWP deliveries by the IAWP Reduction Percentage as seen in Table 1. Penalty rates for noncompliance with this reduction schedule shall be consistent with the rates described in Administrative Code Section 4907.

(g) **Conservation Demand Hardening Credit:** The Conservation Demand Hardening Credit addresses the increased difficulty in achieving additional water savings at the retail level that comes as a result of successful implementation of water conserving devices and conservation savings programs. This supply credit is calculated in two steps. First, an estimated retail shortage percentage is calculated by adding Wholesale Minimum Percentage, Retail Impact Allocation, and Allocation Year Local Supplies and dividing by Allocation Year Retail Demands and then subtracting this from 1. Finally, this retail shortage percentage is multiplied by the agency's quantified conservation savings to find the Conservation Demand Hardening Credit. This indicates the fraction of an agency's conservation savings that will be credited back to the agency as additional allocation.

(h) **Municipal & Industrial Allocation:** The allocation to an agency for its M&I retail demand is the sum of the Wholesale Minimum Allocation, the Retail Impact Adjustment, and the Conservation Demand Hardening Credit.

(i) **Total Allocation:** The total allocation of Metropolitan supplies to an agency is calculated by adding together the Municipal & Industrial Allocation and the Interim Agricultural Water Program Reductions. This is the total amount of water the agency will receive from Metropolitan at any given Regional Shortage Level, factoring in local production, wholesale allocation, retail allocation, IAWP allocation, and conservation[12].

Section 5: Plan Implementation

The Plan will take effect if a regional shortage is declared by the Board of Directors. The following implementation elements are necessary for administering the Plan during a time of shortage. These

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[11] This pro-rated adjustment is only applied when Metropolitan Shortage Level is three or greater.
[12] See Appendix D for specific allocation formulae.

elements cover the processes needed to declare a regional shortage level as well as provide a penalty rate structure for enforcing each agency's allocation.

Allocation Period

The allocation period covers twelve consecutive months, from July of a given year through the following June. This period was selected to minimize the impacts of varying State Water Project (SWP) allocations and to provide member agencies with sufficient time to implement their outreach strategies and rate modifications.

Setting the Regional Shortage Level

Metropolitan staff is responsible for recommending a Regional Shortage Level for the Board of Directors' consideration. The recommendation shall be based on water supply availability, and the implementation of Metropolitan's water management actions as outlined in the WSDM Plan. Metropolitan staff will keep the Board of Directors apprised to the status of water supply conditions and management actions through monthly reports to the Water Planning and Stewardship Committee. To further facilitate staff in the development of a recommended regional shortage level, member agency requests for local supply adjustments shall be submitted by April 1st.

Metropolitan's Board of Directors, through the Water Planning and Stewardship Committee, is responsible for approving the final Regional Shortage Level at its April meeting. By the April meeting, the majority of the winter snowfall accumulation period will have passed and will allow staff to make an allocation based on more stable water supply estimates. Barring unforeseen large-scale circumstances, the Regional Shortage Level will be set for the entire allocation period, which will provide the member agencies an established water supply level for their planning.

Allocation Appeals Process

An appeals process is necessary for the administration of any changes or corrections to an agency's allocation. Metropolitan's General Manager will designate, subsequent to a declaration of an allocation by the Board of Directors, an Appeals Liaison as the official point of contact for all information and inquiries regarding appeals. All member agency General Managers will be notified in writing of the name and contact information of the Appeals Liaison. Only appeals that are made through the Appeals Liaison and in accordance with the provisions outlined in Appendix G will be evaluated. Basis for appeals claims can include but are not limited to:

- Adjusting erroneous historical data used in base period calculations
- Adjusting for unforeseen loss or gain in local supply
- Adjusting for extraordinary increases in local supply
- Adjusting for population growth rates
- Reviewing calculation of base period, allocation year and supply allocation figures for consistency with the standards outlined in the Plan

Additional details and a checklist for the appeals process are available in Appendix G and H.

Allocation Penalty Rates

Member agency allocations are enforced through a penalty rate structure. The applicable rates are based on Metropolitan's established tiered pricing structure[13]. Penalty rates and charges will only be assessed to the extent that an agency's total annual usage exceeds its total annual allocation. Any funds collected will be applied towards investments in conservation and local resources development within the service area of the member agency by which the penalties are incurred. No billing or assessment of penalty rates will take place until the end of the twelve-month allocation period.

(1) **Standard Penalty Rates:** The recommended penalty rate structure is an ascending block structure that provides a lower penalty for minor overuse of allocations and a higher penalty for major overuse of allocations. The structure and applicable rates are listed in Table 2. The penalty rates shall be based on the official Metropolitan water rates in effect the last day in June of the 12-month allocation period.

Table 2: Standard Penalty Rates

Water Use	Base Water Rate[14]	Penalty Rate[15]	Total Rate
100% of Allocation	Tier 1	0	Tier 1
Between 100% and 115%	Tier 1	2 x Tier 2	Tier 1 + (2 x Tier 2)
Greater than 115%	Tier 1	4 x Tier 2	Tier 1 + (4 x Tier 2)

(2) **Penalty Rates in Recognition of Section 135 of the MWD Act[16]:** Section 135 of the Metropolitan Water District Act declares that a member agency has the right to invoke its preferential right to water. Each year, Metropolitan calculates each agency's percentage of preferential rights based on a formula of collected cumulative revenues. Table 3 shows the preferential rights percentages as of July 2007.

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[13] See Appendix E for tiered pricing rates as of January 10, 2008.

[14] The base water rate shall be the applicable water rate for the water being purchased. In most cases, it will be the Tier 1 rate (plus Treatment Surcharge for treated water deliveries). However, it is possible that the water being purchased would be in the amount that would put an agency beyond its Tier 1 limit. In that case, the base water rate will be the Tier 2 rate (plus Treatment Surcharge for treated water deliveries).

[15] Penalty rate is the fully loaded untreated Tier 2 rate.

[16] For further definition of Preferential Rights, see Appendix F.

Table 3: Preferential Water Rights by Member Agency[17]	
Member Agency	Preferential Right as Percent of Total
City of Anaheim	0.97%
City of Beverly Hills	1.01%
City of Burbank	0.94%
Calleguas MWD	3.85%
Central Basin MWD	7.48%
City of Compton	0.26%
Eastern MWD	3.11%
Foothill MWD	0.68%
City of Fullerton	0.59%
City of Glendale	1.29%
Inland Empire Utilities Agency	2.47%
Las Virgenes MWD	0.80%
City of Long Beach	2.54%
City of Los Angeles	20.97%
MWD of Orange County	13.99%
City of Pasadena	1.08%
San Diego CWA	16.73%
City of San Fernando	0.10%
City of San Marino	0.20%
City of Santa Ana	0.77%
City of Santa Monica	0.88%
Three Valleys MWD	2.62%
City of Torrance	1.17%
Upper San Gabriel MWD	3.74%
West Basin MWD	8.16%
Western MWD	3.60%

There is a discounted penalty rate schedule in recognition of these preferential rights. Using the regional supply amount used in the determination of a Regional Shortage Level, Metropolitan staff will also calculate an allocation to each member agency based on its most recent preferential right percentage. Member agencies that exceed allocations under the Plan formula but do not exceed an equivalent calculation using preferential rights will be subject to the penalty rate schedule described in Table 4.

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[17] Calculated by Metropolitan staff and audited June 30 of each year.

Table 4: Preferential Right Penalty Rate[18]			
Water Use	Base Water Rate	Penalty Rate[19]	Total Rate
100% of Allocation	Tier 1	0	Tier 1
Between 100% and 115%	Tier 1	1 x Tier 2	Tier 1 + (1 x Tier 2)
Greater than 115%	Tier 1	3 x Tier 2	Tier 1 + (3 x Tier 2)

As previously stated, the penalty rates shall be based on the official Metropolitan water rates in effect the last day in June of the 12-month allocation period. Metropolitan staff will include equivalent preferential rights calculations in monthly reports of each member agency's water use compared to allocations.

(3) Qualifying Income-Based Rate Penalty Adjustment[20]: Any penalties incurred by a member agency under the Plan will be adjusted to reflect the extent to which retail customers within a member agency's service area are served under a "lifeline" or similar qualified discounted rate program based on income or ability to pay ("Income-Based Rate").

Any member agency who is assessed penalties under the Plan may submit an acre-foot equivalent of water used by retail customers served under a qualifying Income-Based Rate[21]. This amount of water use would be multiplied by the percentage of retail-level reduction in allocation year demand necessary for that member agency to avoid exceeding its allocation. The monetary penalties resulting from these acre feet are subtracted from the total monetary penalties incurred by an agency for exceeding its allocation. In the case that the monetary penalties associated with the Income-Based Rate are greater than the total penalties an agency incurs, no penalty will be incurred. The end result of this adjustment is that the member agency will not be subject to penalties for the use of water by their retail customers served under a qualifying Income-Based Rate.

Tracking and Reporting

Subsequent to a declared regional shortage by the Board of Directors, Metropolitan staff will produce monthly reports of each member agency's water use compared to its allocations based on monthly delivery patterns to be submitted by the member agency. In order to produce these reports, member agencies are requested to submit their local supply use on a monthly basis and certify end of allocation

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[18] The base water rate shall be the applicable water rate for the water being purchased. In most cases, it will be the Tier 1 rate (plus Treatment Surcharge for treated water deliveries). However, it is possible that the water being purchased would be in the amount that would put an agency beyond its Tier 1 limit. In that case, the base water rate will be the Tier 2 rate (plus Treatment Surcharge for treated water deliveries).

[19] Penalty rate is the fully loaded untreated Tier 2 Rate.

[20] See Appendix E for specific penalty adjustment formulae and example.

[21] Appropriate documentation and certification will be required.

year local supply use. These reports and comparisons are to be used for the purposes of tracking and communicating potential underage/overage of an agency's annual allocations.

Key Dates for Water Supply Allocation Implementation

The timeline for implementation of an allocation is shown in Table 5. A brief description of this timeline follows:

January to March: Water Surplus and Drought Management reporting occurs at Metropolitan's Water Planning and Stewardship Committee meetings. These reports will provide updated information on storage reserve levels and projected supply and demand conditions.

April: Member agencies report their projected local supplies for the coming allocation year. This information is incorporated in staff analysis of storage reserves and projected supply and demand conditions in order to provide an allocation recommendation to the Board. Metropolitan's Board will consider whether an allocation is needed. A declaration of an allocation will include the level of allocation to be in effect for the allocation year.

June 30: The allocation year is complete.

July 1st: If the Board declared an allocation in April, then it will be effective starting July. The allocation level will be held through June 30, barring unforeseen circumstances. Member agencies will now be requested to submit their local supply use on a monthly basis and certify end of allocation year local supply use. Local production data must be reported to Metropolitan by the end of the month following the month of use (use in July must be reported by the end of August). This information will be combined with Metropolitan sales information in order to track retail water use throughout Metropolitan's service area. Each month Metropolitan will report on member agency water sales compared to their allocation amounts.

June 30: The allocation year is complete.

July: Member agency local supplies must be certified for the month of June, the last month of the previous allocation year.

August: Metropolitan will calculate each member agency's total potable water use based on local supply certifications and actual sales data for the allocation year of July through June. Penalties will be assessed for usage above a given member agency's final adjusted allocation (reflecting the actual local supply and imported water use that occurred in the allocation year).

Table 5: Board Adopted Allocation Timeline

Year	Month	Year 1 Board Allocation Decision	Year 1 Allocation Year	Year 2 Board Allocation Decision	Year 2 Allocation Year
Year 1	January				
	February				
	March				
	April	Declaration *			
	May				
	June				
	July		**Effective Period** Continuous Tracking of Member Agency Local Supply and Imported Water Use		
	August				
	September				
	October				
	November				
	December				
Year 2	January				
	February				
	March				
	April			Declaration *	
	May				
	June				
	July				**Effective Period** Continuous Tracking of Member Agency Local Supply and Imported Water Use
	August		Assess Penalties		
	September				
	October				
	November				
	December				
Year 3	January				
	February				
	March				
	April				
	May				
	June				

* Member agency projections of local supplies are due on April 1st to assist Metropolitan staff in determining the need for an allocation in the coming allocation year.

Revisiting the Plan

There will be a formal revisit of the Plan commencing in February 2010. The scheduled revisit ensures the opportunity for Metropolitan staff and the member agencies to re-evaluate the plan and recommend appropriate changes to the Board of Directors. The Plan will also be reviewed twelve months following a Board of Directors implementation of the Plan to consider any immediate refinements that are necessary based on lessons learned.

Appendix A: Member Agency List as of November 2007

Table 6: Member Agencies

City of Anaheim	City of Glendale	City of San Marino
City of Beverly Hills	Inland Empire Utilities Agency	City of Santa Ana
City of Burbank	Las Virgenes MWD	City of Santa Monica
Calleguas MWD	City of Long Beach	Three Valleys MWD
Central Basin MWD	City of Los Angeles	City of Torrance
City of Compton	MWD of Orange County	Upper San Gabriel MWD
Eastern MWD	City of Pasadena	West Basin MWD
Foothill MWD	San Diego CWA	Western MWD
City of Fullerton	City of San Fernando	

Source: http://mwdh2o.com/mwdh2o/pages/memberag/member04.html

Appendix B: Water Supply Allocation Plan Process Timeline

July 2007

- City of Long Beach Water Department staff briefing
- Member Agency Managers/Member Agency Workgroup meeting
- Northern Managers Group meeting
    - Foothill MWD, City of Pasadena, City of Long Beach, Calleguas MWD, City of Los Angeles, West Basin MWD, City of Burbank, Three Valleys MWD, City of Glendale, Upper San Gabriel MWD

August 2007

- Central Basin MWD staff briefing
- Eastern MWD staff briefing
- San Diego CWA staff briefing
- Member Agency Managers/Member Agency Workgroup meeting
- Western MWD staff briefing
- City of Beverly Hills staff briefing

September 2007

- Member Agency Subgroup meetings
    - MWD of Orange County, San Diego CWA, West Basin MWD, Central Basin MWD
- MWD of Orange County staff briefing
- Member Agency Workgroup meeting

- Member Agency Workgroup meeting
- MWD Board of Directors Oral Report

October 2007

- Inland Empire Utilities Agency staff briefing
- Central Basin MWD Caucus Meeting (included sub-agencies)
- Three Valleys MWD staff briefing
- MWD of Orange County staff briefing
- West Basin MWD staff briefing
- MWD Board of Directors Oral Report

November 2007

- West Basin MWD Caucus Meeting (included sub-agencies)
- West Basin Water Users Association presentation
- Walnut Valley MWD staff briefing (sub-agency of Three Valleys MWD)
- Foothill MWD Managers Meeting (included sub-agencies)
- Central Basin MWD staff briefing
- City of Claremont City Council (sub-agency of Three Valleys MWD)
- MWD Board of Directors Information Letter with Draft Proposal

December 2007

- Northern Managers Group Meeting
- California Department of Public Health staff briefing
- City of Long Beach Water Department staff briefing
- Santa Ana River Watershed Project Authority presentation
- Foothill MWD Managers Meeting (included sub-agencies)
- MWD Board of Directors Oral Report

January 2008

- Northern Managers Group Meeting
- Water Replenishment District Board of Directors presentation
- Three Valleys MWD staff briefing
- Member Agency Conservation Coordinator’s Group presentation
- Member Agency Managers/Member Agency Workgroup meeting
- City of Chino Hills presentation (sub-agency of IEUA)
- Member Agency Workgroup meeting
- Hemet/San Jacinto Exchange Club presentation
- MWD Board of Directors Report with Staff Recommended Water Supply Allocation Plan

February 2008

- MWD of Orange County and Irvine Ranch WD staff briefing
- MWD Board of Directors Action Item
- San Gabriel Valley Water Association Meeting
- Orange County Water Policy Meeting
- SCAG Water Policy Task Force Meeting

Appendix C: Summary of Historical Shortage Plans

These five elements incorporated into the Plan have, in four out of five instances, been used in previous shortage plans. Both the IICP and the 1995 DMP used a historical base period calculation, adjusted for growth, made local supply adjustments, and used conservation hardening credits in their formulations. The retail impact adjustment is the only feature of the Plan that has not been used historically.

Table 7: Historical Shortage Plan Overview

Plan Element	1991 IICP	1995 DMP	Water Supply Allocation Plan
Historical Base Period	√	√	√
Growth Adjustment	√	√	√
Local Supply Adjustment	√	√	√
Conservation Hardening Credit	√	√	√
Retail Impact Adjustment			√

Appendix D: Water Supply Allocation Formula Example

The following example gives a step-by-step description of how the formula would be used to calculate an allocation of Metropolitan supplies for a hypothetical member agency. All numbers are hypothetical for the purpose of the example and do not reflect any specific member agency.

Step 1: Base Period Calculations

(a) Base Period Local Supplies: Calculated using a three-year average of groundwater (gw), groundwater recovery (gwr), Los Angeles Aqueduct supply (laa), surface water(sw), and other non-Metropolitan imported supplies(os).

$$[(gw^1+gwr^1+laa^1+sw^1+os^1)+(gw^2+gwr^2+laa^2+sw^2+os^2)+(gw^3+gwr^3+laa^3+sw^3+os^3)]\div 3=59{,}000\text{ AF}$$

(For the purpose of this example, assume that the three year average is 59,000 AF.)

(b) Base Period Wholesale Demands: Calculated using the same three-year time period as the Base Period Local Supplies. The Base Period Wholesale Demands include full-service (fs), seawater barrier (sb), seasonal shift (ss), and surface storage operating agreement (ssoa).

$$[(fs^1+sb^1+ss^1+ssoa^1)+(fs^2+sb^2+ss^2+ssoa^2)+(fs^3+sb^3+ss^3+ssoa^3)]\div 3=69{,}000\text{ AF}$$

(For the purpose of this example, assume that the three year average is 69,000 AF.)

(c) **Base Period Retail Demands:** Calculated as the sum of the Base Period Local Supplies and Base Period Wholesale Demand.

59,000 + 69,000 = 128,000 AF

Figure 1: Base Period Calculations

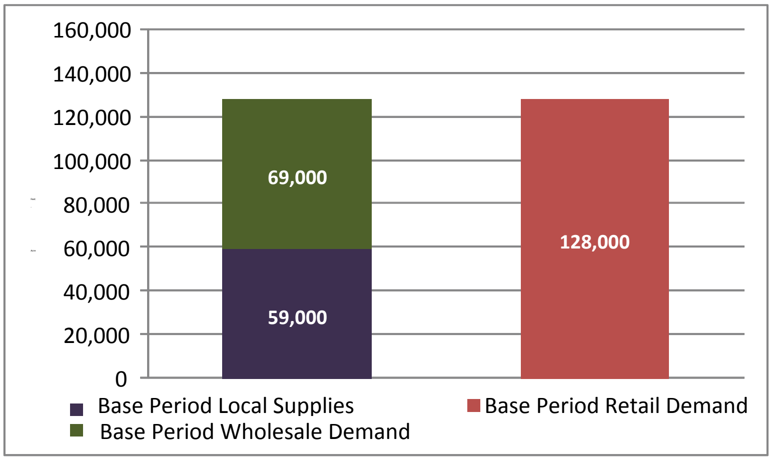

(d) **Base Period In-lieu Deliveries:** Calculated by averaging in-lieu deliveries from the same three-year period that was used to calculate the Base Period Local Supplies and Demands.

(4,000 AF +5,000 AF +4,500 AF)÷3=4,500 AF

(e) **Base Period Interim Agricultural Water Program Deliveries:** Fiscal year 2003/04 was established as the base period for Interim Agricultural Water Program (IAWP) deliveries

Base Period IAWP Deliveries = 6,000 AF

(f) **Base Period Conservation:** Calculated using a tool developed by Metropolitan staff that inputs the total amount of conservation savings devices and programs installed by each member agency and standardized water savings factors provided by the CUWCC and other recognized bodies.

Base Period Conservation=14,500 AF

(g) **Qualifying Conservation Rate Structure:** Agencies that have retail use that is covered by a qualifying conserving water rates structure would be able to add .five percent of their covered Base Period Retail Demand to the Base Period Conservation.

Step 2: Allocation Year Calculations

(a) **Allocation Year Retail Demand:** Calculated by adjusting the Base Period Retail Demand for growth that occurred since the Base Period. Growth is estimated using the actual annual rate of county-level population growth whenever possible, or an average of the three most recent years if complete data in not available. Member agency level population or a weighted combination of population and employment growth rates may be used if an agency so requests through the appeals process.

128,000 AF + 5,000 AF (based on average annual growth rates)= 133,000 AF

Figure 2: Allocation Year Retail Demand

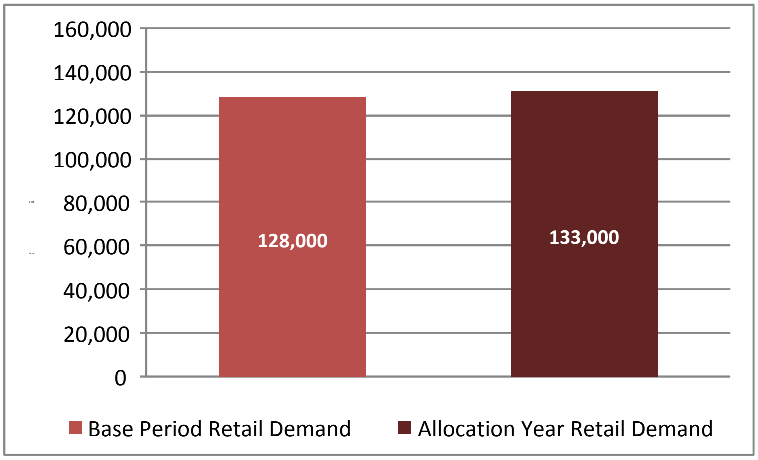

(b) **Allocation Year Local Supplies:** Calculated by adding the Base Period Local Supplies (59,000 AF), Base Year In-Lieu Deliveries (4,500 AF), and adjustments for gains or losses of local supply. For the purposes of this example a net gain in local supply of 2,000 AF is assumed.

59,000 AF + 4,500 AF + 2,000 AF =65,500 AF

Figure 3: Allocation Year Local Supplies

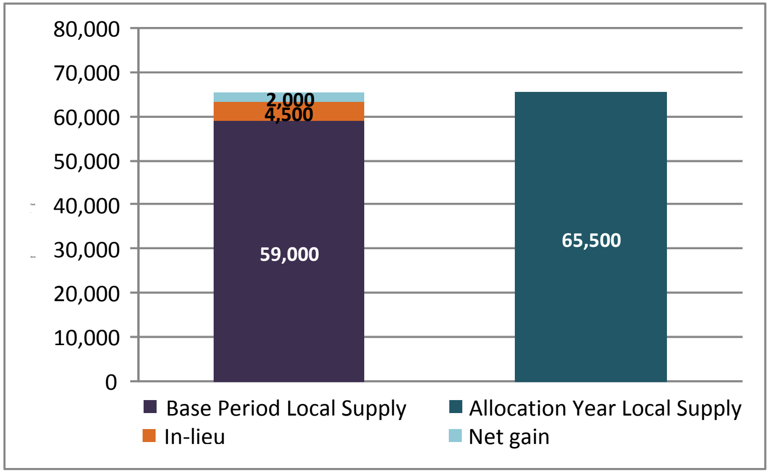

(c) **Allocation Year Wholesale Demands:** Calculated by subtracting the Allocation Year Local Supplies (65,500 AF) from the Allocation Year Retail Demands (133,000 AF).

133,000 AF - 65,500 AF= 67,500 AF

Figure 4: Allocation Year Wholesale Demand

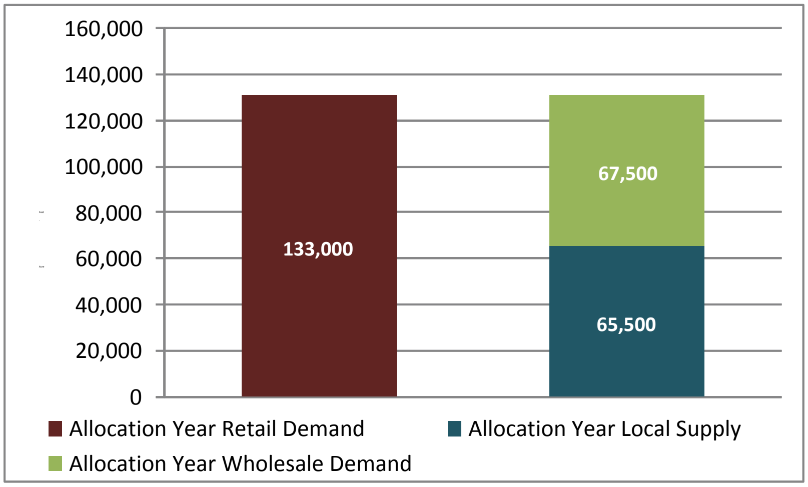

Step 3: Supply Allocation Calculations

Regional Shortage Levels 1 &2: For regional shortages of 10 percent or less, the allocation is an across-the-board reduction in wholesale supplies to all agencies with adjustments for conservation demand hardening. There is no adjustment to address disparate retail level shortages in Regional Shortage Levels 1 & 2.

(a) **Regional Shortage Levels:** For the example, we will use calculations from Table 1 for Regional Shortage Level 2.

Table 1: Shortage Allocation Index

(a) Regional Shortage Level	(b) Regional Shortage Percentage	(c) Extraordinary Increased Production Percentage	(d) Wholesale Minimum Percentage	(e) Maximum Retail Impact Percentage	(f) IAWP Reduction
2	10%	0%	85.0%	0.0%	30%

(b) **Regional Shortage Percentage:** The Regional Shortage Percentage at Regional Shortage Level 2 = 10%

(c) **Extraordinary Increased Production Adjustment:** There is no increase in Allocation Year Local Supplies for Extraordinary Increased Production in Regional Shortage Levels 1 and 2.

(d) Wholesale Minimum Allocation: Calculated by multiplying the agency's Allocation Year Wholesale Demand (67,500 AF) by the Wholesale Minimum Percentage (85%) from the Table 1 for Regional Shortage Level 2.

67,500 AF*.85 = 57,375 AF

Figure 5: Wholesale Minimum Allocation Shortage Level 2

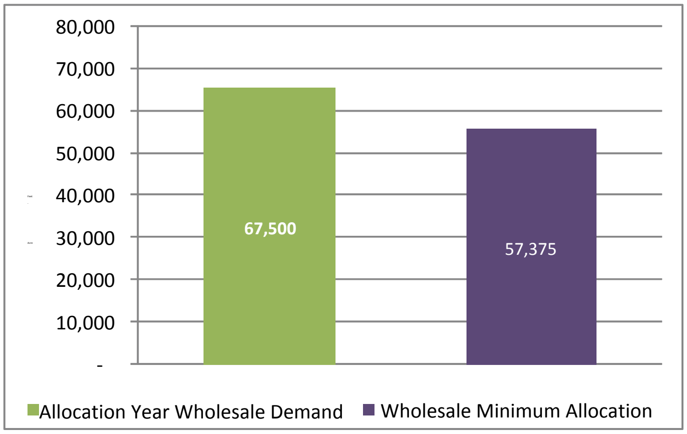

(e) Maximum Retail Impact Adjustment: There is no adjustment for Maximum Retail Impact Adjustment for Regional Shortage Levels 1 and 2.

(f) Interim Agricultural Water Program Reductions: Calculated by reducing the Base Year IAWP deliveries (6,000 AF) by the IAWP Reduction Percentage (30%). At Regional Shortage Level 2 this agency would see a 30 percent reduction in IAWP deliveries in the allocation year.

6,000 AF x .30 = 1,800 AF reduction
6,000 AF- 1,800 AF= 4,200 AF IAWP Allocation

Figure 6: Interim Agricultural Water Program Reductions Shortage Level 2

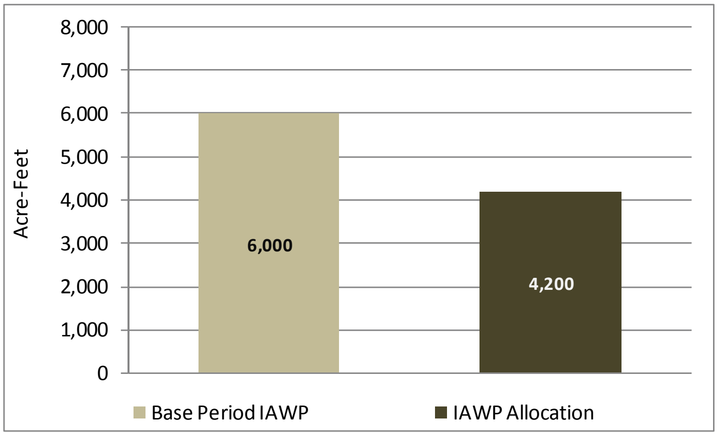

(g) Conservation Demand Hardening Credit: Calculated by multiplying the agency's quantified conservation savings in acre-feet (14,500 AF) by its estimated retail shortage percentage. The retail shortage percentage is calculated by adding Wholesale Minimum Allocation (57,375 AF) and Allocation Year Local Supplies (65,500 AF), dividing by Allocation Year Retail Demands (133,000 AF) and then subtracting this from 1. .

1- ((57,375 + 65,500) ÷ 133,000) = .076 = 7.6%.
14,500 AF*.076= 1,102 AF

Figure 7: Conservation Demand Hardening Credit Shortage Level 2

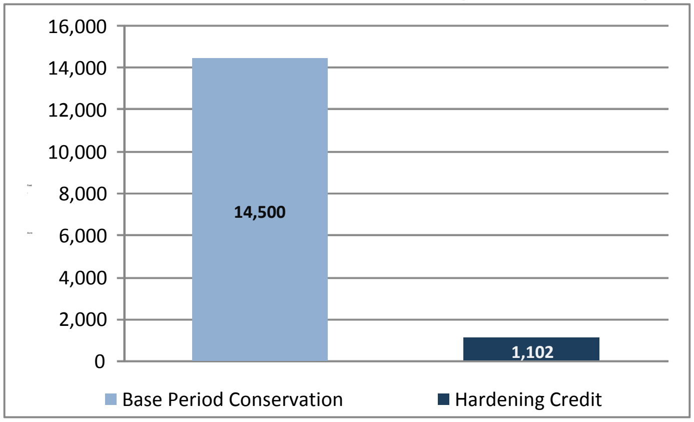

(h) **Municipal & Industrial Allocation:** Calculated by adding the Wholesale Minimum Allocation (57,375 AF) and the Conservation Hardening Credit (1,102 AF).

57,375 AF + AF+1,102 AF= 58,477 acre-feet.

Figure 8: Municipal and Industrial Allocation Shortage Level 2

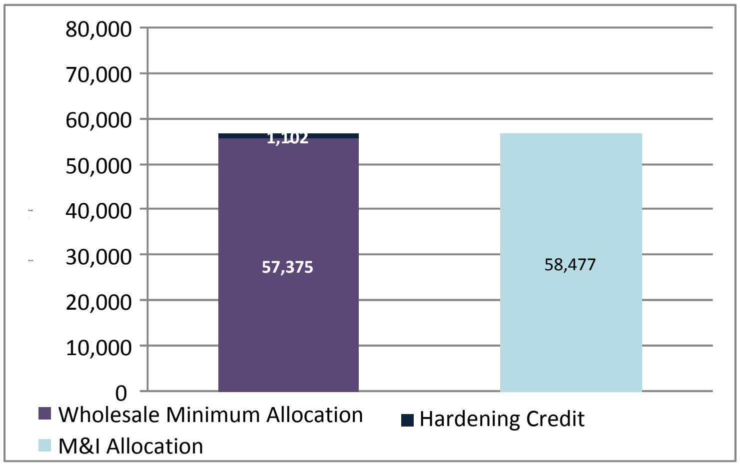

(i) **Total Allocation:** Add Municipal & Industrial Allocation (58,477 AF) and Interim Agricultural Water Program (4,200 AF) totals.

58,477 AF + 4,200 AF = 62,677 AF

Figure 9: Total Allocation Shortage Level 2

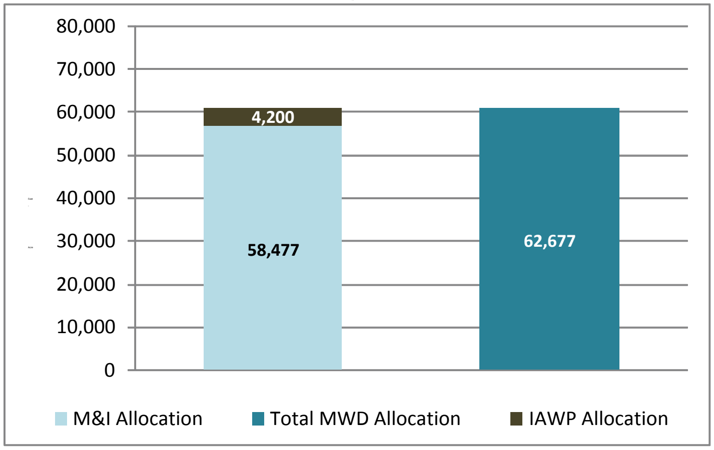

Regional Shortage Levels 3-10: For deeper regional shortages greater than 10 percent, the Allocation Plan formula includes a Retail Impact Adjustment Allocation to address disparate retail level shortages. This example will follow the allocation formula through a Regional Shortage Level 4.

(a) Regional Shortage Levels: Calculate from Table 1 for Regional Shortage Level 4.

Table 1: Shortage Allocation Index

(a) Regional Shortage Level	(b) Regional Shortage Percentage	(c) Extraordinary Increased Production Percentage	(d) Wholesale Minimum Percentage	(e) Maximum Retail Impact Percentage	(f) IAWP Reduction
4	20%	20%	70.0%	10.0%	50%

(b) Regional Shortage Percentage: The Regional Shortage Percentage at Regional Shortage Level 4 is 20%

(c) Extraordinary Increased Production Adjustment: Let us assume that the agency has produced 3,700 AF of extraordinary production of local supplies in a shortage year. This is calculated by multiplying the extraordinary production (3,700 AF) and the Extraordinary Increase Percentage (20%).

3,700 AF*.20=740 AF

This is then added to the Allocation Year Local Supply (65,500 AF).

65,500 AF + 740 AF = 66,240 AF

The **Allocation Year Wholesale Demand** (67,500 AF) is then decreased by the extraordinary local supply production (740 AF) because Allocation Year Retail Demands (133,000 AF) remain unchanged.

133,000 AF- 66,240 AF = 66,760 AF or
67,500 AF-740 AF=66,760 AF

(d) **Wholesale Minimum Allocation:** Calculated by multiplying the agency's Allocation Year Wholesale Demand (66,760 AF) by the Wholesale Minimum Percentage (70%) from the Table 1 for Regional Shortage Level 4.
66,760 AF*.70 = 46,732 AF

Figure 10: Wholesale Minimum Allocation Shortage Level 4

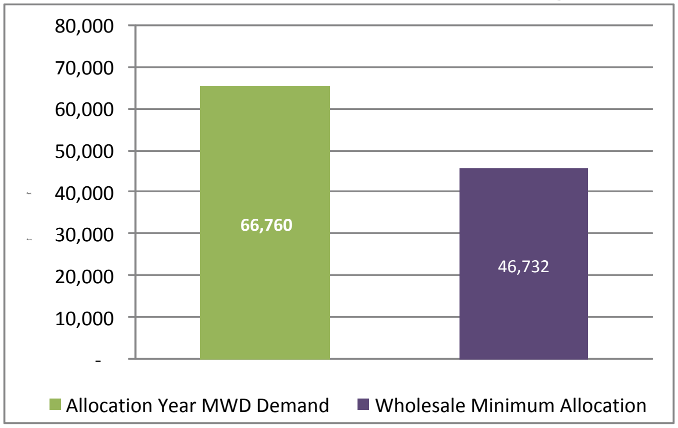

(e) **Maximum Retail Impact Adjustment:** Calculated first by determining the agency's dependence on Metropolitan by dividing the Allocation Year Wholesale Demand (66,760 AF) by the Allocation Year Retail Demand (133,000 AF) and multiplying by 100.

(66,760 AF/ 133,000 AF)*100=50.2%

Next, this percentage dependence on Metropolitan (50.2%) is multiplied by the Maximum Retail Impact Percentage for Shortage Level 4 (10%).

.502 * .10 =.050=5%

This percentage is now multiplied by the Allocation Year Wholesale Demand (66,760 AF) for the Maximum Retail Impact Adjustment.

66,760 AF*.050=3,351 AF

(f) **Interim Agricultural Water Program Reductions:** Calculated by reducing the Base Year IAWP deliveries by the IAWP Reduction Percentage. Under a Regional Shortage Level 4 the agency

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

would see 50% reduction in IAWP deliveries in the allocation year. We will assume the agency has 6,000 AF IAWP water.

6,000 AF * .50 = 3,000 AF

Figure 11: Interim Agricultural Water Program Reductions Shortage Level 4

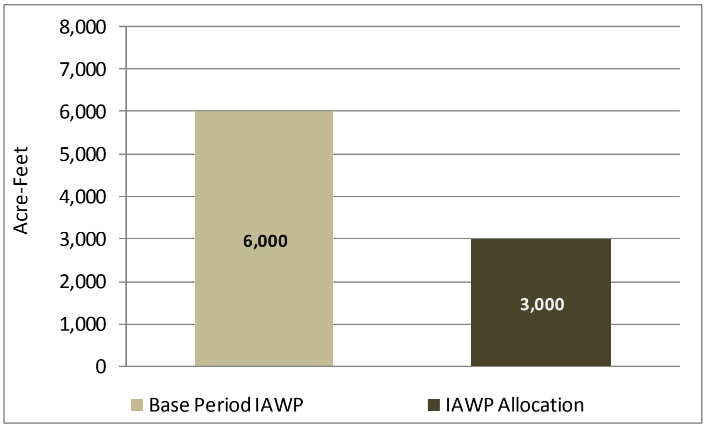

(g) Conservation Demand Hardening Credit: Calculated by adding Wholesale Minimum Allocation (46,732 AF) and Allocation Year Local Supplies (66,240 AF), dividing by Allocation Year Retail Demands (133,000 AF) and then subtracting this from 1.

1- ((46,732 + 66,240) ÷ 133,000) = .151 = 15.1%.

Next, multiply the agency's quantified conservation savings in acre-feet (14,500 AF) by its estimated retail shortage percentage calculated in the step above.

14,500 AF*.151= 2,189.5 AF

Figure 12: Conservation Demand Hardening Credit Shortage Level 4

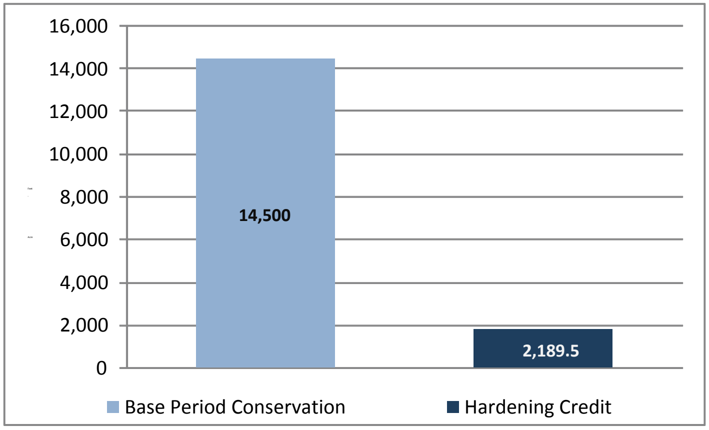

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

(h) Municipal & Industrial Allocation: Calculated by adding the Wholesale Minimum Allocation (46,732 AF), the Maximum Retail Impact Adjustment (3,351 AF), and the Conservation Hardening Credit (2,189.5 AF).

46,732 AF + 3,351 AF+ 2,189.5 AF= 52,272.5 AF

Figure 13: Municipal and Industrial Allocation Shortage Level 4

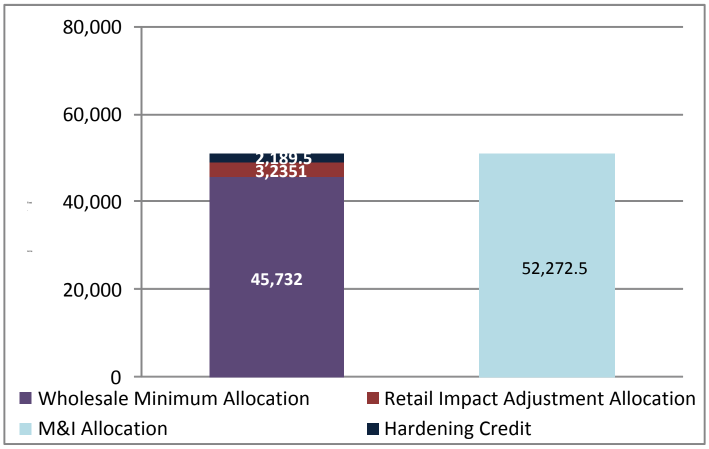

(i) Total Allocation: Calculated by adding the Municipal and Industrial Allocation (52,272.5 AF) and the Interim Agricultural Water Program Allocation (3,000 AF).

52,272.5 AF + 3,000 AF= 55,272.5 AF

Figure 14: Total Allocation Shortage Level 4

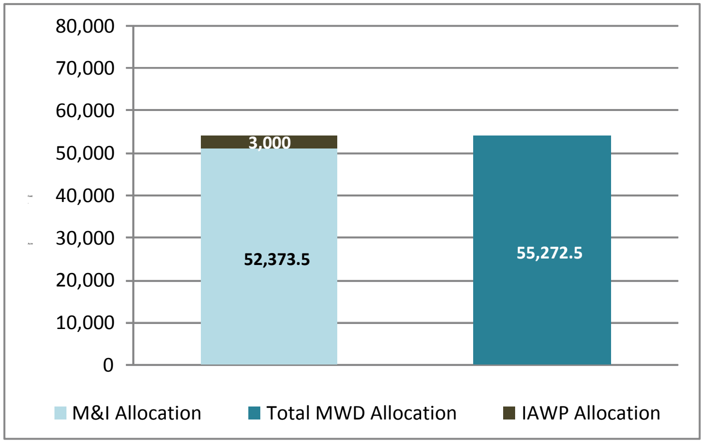

Appendix E: Qualifying Income-Based Rate Penalty Adjustment Example

The following example provides a step by step description of how the qualifying income-based rate penalty adjustment is calculated.

The following table summarizes the allocation year demands, local supplies and allocation as calculated in Appendix D for a hypothetical agency under a Level 1 or 2 Regional Shortage Level. For detailed instructions on how to calculate these figures, reference Appendix D of the Plan.

Allocation Year Retail Demand	133,000 AF
Allocation Year Local Supplies	65,500 AF
Wholesale Municipal & Industrial Allocation	58,477 AF

Step 1: Penalty Calculation

(a) **Water Use above Allocation:** The first step in calculating the income-based rate penalty adjustment is to calculate the agency's total penalty under the Plan. If the agency did not incur any penalties from the allocation year, the income-based rate penalty adjustment would not apply. For the purpose of this example, the agency used 67,600 acre-feet of MWD supplies in the allocation year. This represents 9,123 acre-feet of use above the water supply allocation.

Total MWD Water Supply Allocation	58,477 AF
Actual MWD Water Use	67,600 AF
Use Above Water Supply Allocation	**9,123 AF**

(b) **Total Penalty:** In this example the agency used 115.6% of its water supply allocation. Assuming that the preferential right penalty rate does not apply to this agency, 8,772 of the 9,123 acre-feet of use above the allocation would be penalized at a rate of two times the untreated Tier 2 rate and 351 of the 9,123 acre-feet of use above the allocation would be penalized at a rate of four times the untreated Tier 2 rate. Note that this calculation is based on the 2008 rates found in Appendix F; the actual rate will be based on the rate in effect at the end of the allocation year.

Between 100% and 115% of Allocation	8,772 AF	2 x Tier 2 = $898/AF	$7,877,256
Greater than 115% of Allocation	351 AF	4 x Tier 2 = $1796/AF	$630,396
Total	**9,123 AF**		**$8,507,652**

Step 2: Effective Income-Based Rate Cutback

(a) **Calculate Retail Cutback:** The second step in calculating the income-based rate penalty adjustment is to calculate the amount of supply cutback that would have been expected from qualifying income-based rate customers under the WSAP. Using the water supply allocation that was calculated above, the total retail level impact on the agency can be determined. In this example the agency receives a retail level cutback of 9,023 acre-feet, or 6.8% of their retail level demand.

Wholesale Municipal & Industrial Allocation + Allocation Year Local Supplies	123,977 AF
Allocation Year Retail Demand	133,000 AF
Effective Cutback	**9,023 AF (6.8%)**

(b) Income-based Rate Customer Retail Cutback: To calculate the effective income-based rate cutback, the amount of demand covered by a qualifying income-based rate is multiplied by the effective retail level cutback.

Qualifying Income-Based Rate Demand	7,690 AF
Effective Cutback Percentage	6.8%
Effective Income-Based Rate Cutback	**523 AF**

(c) Income-based Rate Cutback Penalty: Once the effective cutback has been calculated, the amount of penalty that is associated with qualifying income-based rate customers can be determined.

Between 100% and 115% of Allocation	172 AF	2 x Tier 2 = $898/AF	$154,456
Greater than 115% of Allocation	351 AF	4 x Tier 2 = $1796/AF	$630,396
Total	**523 AF**		**$784,852**

(d) Adjusted Penalty Calculation: Finally, the penalty attributable to qualifying income-based rate customers is subtracted from the total penalty that was calculated above to determine the qualifying income-based rate adjusted penalty. In the case that the monetary penalties associated with the Income-Based Rate are greater than the total penalties an agency incurs, no penalty will be incurred.

Total Penalty	$8,507,652
Qualifying Income-Based Rate Penalty	$784,852
Qualifying Income-Based Rate Adjusted Penalty	**$7,722,800**

Appendix F: Water Rates, Charges, and Definitions

Table 8: Tiered Water Pricing Rates and Charges		
Rate	**2007**	**2008**
Tier 1 Supply Rate (dollars per acre-foot)	$73	$73
Tier 2 Supply Rate (dollars per acre-foot)	$169	$171
System Access Rate (dollars per acre-foot)	$143	$143
Water Stewardship Rate (dollars per acre-foot)	$25	$25
System Power Rate (dollars per acre-foot)	$90	$110
Full Service Untreated Volumetric Cost ($/AF)		
Tier 1	$331	$351
Tier 2	$427	$449
Replenishment Water Rate: untreated (dollars per acre-foot)	$238	$258
Interim Agricultural Water Program: untreated (dollars per acre-foot)	$241	$261
Treatment Surcharge (dollars per acre-foot)	$147	$157
Full Service Treated Volumetric Cost ($/AF)		
Tier 1	$478	$508
Tier 2	$574	$606
Treated Replenishment Water Rate (treated dollars per acre-foot)	$360	$390
Treated Interim Agricultural Water Program (dollars per acre-foot)	$364	$394
Readiness-to-Serve Charge (millions of dollars)	$80	$82
Capacity Charge (dollars per cubic foot second)	$6,800	$6,800

Definitions:

(1) **Tier 1 Supply Rate -** recovers the cost of maintaining a reliable amount of supply.

(2) **Tier 2 Supply Rate** - set at Metropolitan's cost of developing additional supply to encourage efficient use of local resources.

(3) **System Access Rate** – recovers a portion of the costs associated with the delivery of supplies.

(4) **System Power Rate** – recovers Metropolitan’s power costs for pumping supplies to Southern California.

(5) **Water Stewardship Rate** – recovers the cost of Metropolitan’s financial commitment to conservation, water recycling, groundwater clean-up and other local resource management programs.

(6) **Replenishment Water Rate** – a discounted rate for surplus system supplies available for the purpose of replenishing local storage.

(7) **Treated Replenishment Water Rate** – a discounted rate for surplus system supplies available for the purpose of replenishing local storage.

(8) **Interim Agricultural Water Rate** – discounted rate for surplus system supplies available for the purpose of growing agricultural, horticultural, or floricultural products.

(9) **Treated Interim Agricultural Water Program Rate** – discounted rate for surplus system supplies available for the purpose of growing agricultural, horticultural, or floricultural products**.**

(10) **Treatment Surcharge** – recovers the costs of treating imported water.

(11) **Readiness-to-Serve Charge -** a fixed charge that recovers the cost of the portion of system capacity that is on standby to provide emergency service and operational flexibility.

(12) **Capacity Charge** – the capacity charge recovers the cost of providing peak capacity within the distribution system.

http://www.mwdh2o.com/mwdh2o/pages/finance/finance_03.html

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Appendix G: Preferential Rights

Any review of Metropolitan's methods for allocating supplies during shortages must recognize Section 135 of the 1927 Metropolitan Water District Act (Act). Under Section 135, each member agency has a preferential right to a percentage of Metropolitan's available water supplies based on a legislatively established formula. That percentage is equal to the ratio of each member agency's total accumulated payments to Metropolitan's capital costs and operating expenses compared to the total of all member agencies' payments toward those costs, exempting payments for water purchases. As a result, a member agency's preferential right roughly equals it's pro rata share of all tax assessments and other payments.

In the event of a water supply shortage or drought, any Metropolitan member agency can request that its preferential right be invoked; however, Metropolitan's Board of Directors has never exercised this provision of the Act, even in response to the two statewide droughts in 1976-77 and 1987-92.

Appendix H: Allocation Appeals Process

Step 1: Appeals Submittal:

All appeals shall be submitted to the Appeals Liaison in the form of a written letter signed by the member agency General Manager. Each appeal must be submitted as a separate request, submittals with more than one appeal will not be considered. The appeal request is to include:

- A designated member agency staff person to serve as point of contact.
- The type of appeal (erroneous baseline data, loss of local supply, etc.).
- The quantity (in acre-feet) of the appeal.
- A justification for the appeal which includes supporting documentation.

A minimum of 60 days are required to coordinate the appeals process with Metropolitan's Board process.

Step 2: Notification of Response and Start of Appeals Process

The Appeals Liaison will phone the designated member agency staff contact within three business days of receiving the appeal to provide an initial receipt notification, and schedule an appeals conference. Subsequent to the phone call, the Liaison will send an e-mail to the Agency General Manager and designated staff contact documenting the conversation. An official notification letter confirming both receipt of the appeal submittal, and the date of the appeals conference, will be mailed within two business days following the phone contact

Step 3: Appeals Conference

All practical efforts will be made to hold an appeals conference between Metropolitan staff and member agency staff at Metropolitan's Union Station Headquarters within 15 business days of receiving the appeal submittal. The appeals conference will serve as a forum to review the submittal materials, and ensure that there is consensus understanding as to the spirit of the appeal. Metropolitan staff will provide an initial determination of the size of the appeal (small or large), and review the corresponding steps and timeline for completing the appeals process.

Steps 4-7 of the appeals process differ depending upon the size of the appeal

Small Appeals

Small appeals are defined as those that would change an agency's allocation by less than 10 percent, or are less than 5,000 acre-feet in quantity. Small appeals are evaluated and approved or denied by Metropolitan staff.

Step 4: Preliminary Decision

Metropolitan staff will provide a preliminary notice of decision to the member agency within ten business days of the appeals conference. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the preliminary decision and the rationale for approving or denying the appeal.

Step 5: Clarification Conference

Following the preliminary decision the Appeals Liaison will schedule a clarification conference. The member agency may choose to decline the clarification conference if they are satisfied with the preliminary decision. Declining the clarification conference serves as acceptance of the preliminary decision, and the decision becomes final.

Step 6: Final Decision

Metropolitan staff will provide a final notice of decision to the member agency within ten business days of the clarification conference. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the final decision and the rationale for the decision. A copy of the letter will also be provided to Metropolitan executive staff.

Step 6a: Board Resolution of Small Appeal Claims

> Member agencies may request to forward appeals that are denied by Metropolitan staff to the Board of Directors through the Water Planning and Stewardship Committee for final resolution. The request for Board resolution shall be submitted to the Appeals Liaison in the form of a written letter signed by the member agency General Manager, this request will be administered according to Steps 6 and 7 of the large appeals process.

Step 7: Board Notification

Metropolitan staff will provide a report to the Board of Directors, through the Water Planning and Stewardship Committee, on all submitted appeals including the basis for determination of the outcome of the appeal.

Large Appeals

Large appeals are defined as those that would change an agency's allocation by more than 10 percent, and are larger than 5,000 acre-feet. Large appeals are evaluated and approved or denied by the Board of Directors.

Step 4: Preliminary Recommendation

Metropolitan staff will provide a preliminary notice of recommendation to the member agency within 10 business days of the appeals conference. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the preliminary recommendation and the rationale for the recommendation. A copy of the draft recommendation will also be provided to Metropolitan executive staff.

Step 5: Clarification Conference

Following the preliminary recommendation the Appeals Liaison will schedule a clarification conference. The member agency may choose to decline the clarification conference if the satisfied with preliminary recommendation. Declining the clarification conference signifies acceptance of the preliminary recommendation, and the recommendation becomes final.

Step 6: Final recommendation

Metropolitan staff will provide a final notice of recommendation to the member agency within 10 business days of the clarification conference. The Appeals Liaison will mail a written letter to the member agency staff contact and General Manager, stating the final recommendation and the rationale for the recommendation. A copy of the final recommendation will also be provided for Metropolitan executive review.

Step 7: Board Action

Metropolitan staff shall refer the appeal to the Board of Directors through the Water Planning and Stewardship Committee for approval.

Appendix I: Appeals Submittal Checklist

Appeal Submittal

- ☐ Written letter (E-mail or other electronic formats will not be accepted)
- ☐ Signed by the Agency General Manager
- ☐ Mailed to the appointed Metropolitan Appeals Liaison

Contact Information

- ☐ Designated staff contact
  - Name
  - Address
  - Phone Number
  - E-mail Address
- ☐ General Manager
  - Name
  - Address
  - Phone Number
  - E-mail Address

Type of Appeal

- ☐ State the type of appeal
  - Erroneous historical data used in base period calculations
    - Metropolitan Deliveries
    - Local Production
    - Growth adjustment
    - Conservation savings
  - Unforeseen loss or gain in local supply
  - Extraordinary increases in local supply

Quantity of Appeal

- ☐ State the quantity in acre-feet of the appeal

Justification and Supporting Documentation

- ☐ State the rationale for the appeal
- ☐ Provide verifiable documentation to support the stated rationale
  - Examples of verifiable documentation Include, but are not limited to:
    - Billing Statements
    - Invoices for conservation device installations
    - Basin Groundwater/Watermaster Reports
    - CA Department of Finance economic or population data
    - Department of Public Health reports

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

WATER SURPLUS AND DROUGHT MANAGEMENT PLAN

REPORT NO. 1150

AUGUST 1999

ACKNOWLEDGMENTS

The consensus reached in the Water Surplus and Drought Management Plan would not have been possible without the dedication and participation of the Rate Refinement Process Workgroup, comprises made by the General Manager, staff from Metropolitan's member agencies, Metropolitan staff, and the dedication and work of the consultants.

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WATER SURPLUS AND DROUGHT MANAGEMENT PLAN

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TABLE OF CONTENTS

EXECUTIVE SUMMARY

INTRODUCTION

The Water Surplus and Drought Management (WSDM) Plan for the Metropolitan Water District of Southern California (Metropolitan) is a ten-year plan that will be used to direct Metropolitan's resource operations to help attain the region's 100% reliability goal. The WSDM Plan recognizes the interdependence of surplus and shortage actions and is a coordinated plan that utilizes all available resources to maximize supply reliability. The overall objective of the WSDM Plan is to ensure that shortage allocation of Metropolitan's imported water supplies is not required.

The central effort in developing the WSDM Plan was a participatory process involving Metropolitan and its member agencies. Metropolitan staff and member agency representatives coordinated the Plan's development during a series of meetings of the Rate Refinement Team.

To lay a foundation for the WSDM Plan, participants in the Rate Refinement Process developed a set of proposed WSDM Principles and Implementation Goals which were subsequently adopted by the Metropolitan Board of Directors in September 1998. These Principles and Implementation Goals outline fundamental policies for guiding surplus and shortage management and establish a basis for dealing with shortages in an equitable and efficient manner.

WSDM PRINCIPLES AND IMPLEMENTATION GOALS

Guiding Principle

- Metropolitan will encourage storage of water during periods of surplus and work jointly with its Member Agencies to minimize the impacts of water shortages on the region's retail consumers and economy during periods of shortage.

Supporting Principles

- Maintain an ongoing coordinated effort among Metropolitan and its Member Agencies to encourage efficient water use, develop cost-effective local resource programs, and inform the public on water supply and reliability issues

- Encourage local and regional storage during periods of surplus and use of storage during periods of shortage

- Manage and operate Metropolitan's regional storage and delivery system in coordination with local facilities to capture and store surplus water in local groundwater and surface reservoirs

- Arrange for secure sources of additional water from outside the region for use during periods of shortage

- Call upon sources of additional water from outside the region and water stored locally to meet the needs of consumers and protect the economy during periods of shortage

WSDM Plan Implementation Goals

- Avoid mandatory import water allocations to the extent practicable

- Equitably allocate imported water on the basis of agencies' needs

  Considerations to create an equitable allocation of imported water may include:

  - Impact on retail consumers and economy
  - Reclamation/Recycling
  - Conservation
  - Population and economic growth
  - Investment in local resources
  - Change and/or loss of local supply
  - Participation in Metropolitan's Non-firm (interruptible) programs
  - Investment in Metropolitan's facilities

- Encourage storage of surplus supplies to mitigate shortages and improve water quality

SURPLUS AND SHORTAGE ACTIONS

The region's ability to implement a long-term WSDM Plan results from the significant investments Metropolitan and its member agencies have made in a variety of resources since 1991. These additional resources include increased local conservation and water recycling, improvements in the reliability of imported supplies, increased regional storage, and increased conjunctive use groundwater programs. Together these improvements allow a comprehensive approach to water management.

The growing variety of resources available to the region is transforming Metropolitan from an agency with relatively modest storage capacity to one that will have storage sufficient to manage many shortages without impacts to its member agencies or retail customers. To attain this level of reliability, all storage programs and facilities, along with conservation, recycling, and other programs, must be managed as an integrated set of regional resources. To accomplish this, the WSDM Plan establishes the linkage between surplus and shortage resource management actions.

When imported supplies exceed projected demands for imported water within Metropolitan's service area, Metropolitan can operate available storage facilities to maximize the benefits of stored water to its member agencies. A number of factors affect Metropolitan's ability to divert surplus water into storage. Some of these factors include facility outages, system capacity, water quality (including requirements for managing total dissolved solids), and varying supply and demand patterns. The WSDM Plan provides a description of storage options available to Metropolitan and a framework for storing water in these programs and facilities when surplus supplies are available.

Except in severe or extreme shortages (defined in the Introduction) or emergencies, Metropolitan's resource management will allow shortages to be mitigated without impacting retail Municipal and Industrial (M&I) customers. A list of resource management actions and their descriptions are provided below. This list emphasizes critical storage programs and facilities, and conservation programs that make up part of Metropolitan's response to shortages. The order in which these actions are presented does not imply the exact operational management of resources that would occur during a shortage, rather it represents a general framework and guide. In fact, several actions are likely to be taken concurrently. Many factors will dictate the exact order in which these actions will be taken during shortages. One action, however, will have an assigned prioritization: the curtailment of Full Service (firm) deliveries will be last. The following summarizes the drought actions:

- Draw on storage in the Eastside Reservoir Project
- Draw on out-of-region storage in Semitropic and Arvin-Edison
- Reduce/suspend long-term seasonal and groundwater replenishment deliveries
- Draw on contractual groundwater storage programs in the region
- Draw on State Water Project (SWP) terminal reservoir storage (per Monterey Agreement)
- Call for extraordinary drought conservation and public education
- Reduce Interim Agricultural Water Program (IAWP) deliveries
- Call on water transfer options contracts
- Purchase transfers on the spot market
- Implement the allocation of Metropolitan's imported supplies to its member agencies

For the ten-year period addressed by the WSDM Plan, 1999-2008, the majority of shortage contingencies will be managed by withdrawals from storage, groundwater management and options transfers. Shortages managed using these actions would not impact the quantity of water delivered to member agencies for consumptive uses. In fact, when coupled with other drought actions such as extraordinary conservation and reduction of agricultural deliveries, it is fully expected that an allocation of firm imported water supplies will not be necessary during the next ten years. Under this worse-case scenario, an approach to allocate Metropolitan's firm imported water supplies in a fair and equitable manner will be developed.

The overall policy objective of the allocation method will be to minimize the impacts to any one agency and the region as a whole. To meet that objective, the method of allocating firm imported supply will account for:

- Each agency's demands on Metropolitan,
- Each agency's local resources
- Each agency's total retail demands.

The WSDM Plan allocation method would address each of these supply and demand components and account for each agency's conservation and recycled water programs. A pricing structure will be coupled with the WSDM allocation method to accomplish two goals:

- Encourage conservation and water recycling
- Ensure that the regional impact of the shortage is as small as possible

To provide as much water as possible without changing wholesale prices, the allocation of all available supplies will be made at the prevailing rates for firm deliveries. In order to encourage conservation to the level of allocation, the rate for agency usage from 100-102% of its allocation will be the Full Service rate plus $175. Usage above 102% of allocated supply will be charged at three times the Full Service rate. Any substantial change in Metropolitan's water rate structure may require these rates to be revised.

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

During severe or extreme shortage conditions, public outreach will play a critical role in shaping consumer response. Public information campaigns will send clear signals if extraordinary drought conservation is required. An effective public information campaign requires a joint effort among Metropolitan and its member agencies. Under this Plan, the administration of the Public Information and Government Affairs program will be the responsibility of a Drought Program Officer (DPO). The DPO will be responsible for integrating the various activities in these areas, coordinating efforts with Metropolitan's Board of Directors and member agencies, and designing the region-wide messages for the general public and various target audiences. Important constituencies are residential users, industrial and institutional users, business interests, agricultural users, elected officials, officials of various agencies such as the Department of Water Resources, and the media.

INTEGRATED RESOURCES MANAGEMENT

Throughout the Integrated Resources Planning process and the development of the WSDM Plan, extensive analysis of resource management strategies focused on maximizing supply reliability while minimizing overall resource costs. Various management strategies were analyzed trader shortage scenarios based on historical hydrologic data. The WSDM Plan presents a resource management framework to guide Metropolitan's integrated approach to supply management.

The resource management framework does not dictate a scripted response to shortage or surplus. The framework recognizes the complexity and variety of conditions that require action. Supporting this framework are general rules that describe the actions to be taken in each stage of surplus or shortage. These rules depend on shortage stage, account for monthly delivery requirements, and depend on when various supplies would be available.

One of the fundamental trade-offs in dealing with supply shortages is the need to maintain flexibility while providing supply certainty to member agencies and consumers. A central focus of the WSDM Plan is the analysis of information about supplies and demands. When do various pieces of information about the supply/demand balance become more certain? When should this information impact policy-making and trigger various resource actions? The WSDM Plan addresses these questions and the actual implementation of the Plan during a shortage.

Appendix A of this report provides a ten-year simulation of projected demands and supplies showing an example of how the region can maintain 100% reliability.

INTRODUCTION

The Metropolitan Water District of Southern California (Metropolitan) provides water to a service area covering approximately 5,200 square miles. Over 16.5 million people live within the service area, which supports a $500 billion economy. Metropolitan provides supplemental supplies to twenty-seven member agencies, both retail and wholesale agencies, who in turn provide water to over three hundred cities and local agencies providing supplies at the retail level. In recent years Metropolitan supplemental deliveries have accounted for about one-half to two-thirds of the region's total water demands. With supplies from its Colorado River Aqueduct (CRA) and the State Water Project (SWP), Metropolitan delivers water for municipal and industrial (M&I) uses, agricultural uses, and augmentation of local storage.

As part of the implementation of the regional Integrated Resources Plan (IRP), Metropolitan and its member agencies have developed the Water Surplus and Drought Management (WSDM) Plan for Southern California. This ten-year plan will direct Metropolitan's resource operations to help attain the region's 100% reliability goal. Over this ten-year period, the WSDM Plan will be updated to account for changes impacting supplies from the Colorado River and California's Bay-Delta. In the past, Metropolitan has developed drought management plans that simply addressed shortage actions and primarily focused on issues of short-term conservation and allocation of imported water. The WSDM Plan recognizes the interdependence of surplus and shortage actions and is a coordinated plan that utilizes all available resources to maximize supply reliability. The overall goal of the WSDM Plan is to ensure that shortage allocation of Metropolitan's imported water supplies is no---At required.

Because it addresses both surplus and shortage contingencies, the WSDM Plans draws clear distinctions among the terms *surplus, shortage, severe shortage,* and *extreme shortage.*

***Surplus**: Supplies are sufficient to allow Metropolitan to meet Full Service demands, make deliveries to all interruptible programs (replenishment, long-term seasonal storage, and agricultural deliveries), and deliver water to regional and local facilities for storage.*

***Shortage**: Supplies are sufficient to allow Metropolitan to meet Full Service demands and make partial or full deliveries to interruptible programs, sometimes using stored water and voluntary water transfers.*

***Severe Shortage**: Supplies are insufficient and Metropolitan is required to make withdrawals from storage, call on its water transfers, and possibly call for extraordinary drought conservation and reduce deliveries under the IAWP.*

***Extreme Shortage**: Supplies are insufficient and Metropolitan is required to allocate available imported supplies.*

WSDM PRINCIPLES AND IMPLEMENTATION GOALS

The central effort in developing the WSDM Plan was a participatory process involving Metropolitan and its member agencies. Metropolitan staff and member agency representatives coordinated the Plan's development during a series of meetings of the Rate Refinement Team and the Integrated Resources Planning Workgroup. To lay a foundation for the WSDM Plan, participants in the Rate Refinement Process developed a set of "WSDM Principles and Implementation Goals."

Guiding Principle

- Metropolitan will encourage storage of water during periods of surplus and work jointly with its Member Agencies to minimize the impacts of water shortages on the region's retail consumers and economy during periods of shortage.

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  - Investment in local resources
  - Change and/or loss of local supply
  - Participation in Metropolitan's Non-firm (interruptible) programs
  - Investment in Metropolitan's facilities.

- Encourage storage of surplus supplies to mitigate shortages and improve water quality

REGIONAL RESOURCES AND DEMANDS

Southern California receives its water supplies from a variety of different sources, both local to the region and imported from outside the region. These sources are summarized below.

Local Supplies

Local supplies include groundwater pumping of local aquifers, surface reservoir production, recycled water, and supplies imported through wheeling arrangements or through the Los Angeles Aqueduct, which is owned and operated by the City of Los Angeles. Local supplies have, in the past, provided as much as 2.1 million acre-feet (maf) of water to meet the region's water demands. By far the largest component of local supplies is groundwater pumping, providing over 75% of historical local supplies.

Colorado River Supplies

The distribution and management of Colorado River water is governed by a complex body of laws, court decrees, compacts, agreements, regulations, and an international treaty collectively known as the "Law of the River." Metropolitan's entitlement is established by the fourth and fifth priorities of California's Seven Party Agreement, included in Metropolitan's 1931 and 1946 contracts with the Secretary of the Interior. These priorities provide 550,000 acre-feet (af) per year and 662,000 af per year, respectively. In addition, Metropolitan holds a surplus water contract for delivery of 180,000 af. The physical capacity of the CRA is slightly in excess of 1.3 maf per year, based on a pumping capacity of 1,800 cubic feet per second (cfs). Metropolitan's long-held objective is to maximize the availability of Colorado River water, up to the maximum capacity of the CRA, subject to environmental, contractual, legal, political, financial, and institutional constraints. A California 4.4 Plan is being developed among California parties that will help ensure that full CRA deliveries are maintained, while addressing the concerns of the other Colorado River basin states that rely on the river. The California 4.4 Plan includes core transfers (such as the IID/MWD conservation agreement and the proposed IID/SDCWA transfer), system conservation (such as the lining of the All American Canal), offstream storage (such as the Arizona groundwater storage program), dry year option transfers (such as PVID land fallowing), and river re-operations.

State Water Project

Metropolitan is one of 29 water agencies that have contracted with the State of California, through the Department of Water Resources (DWR), for water deliveries from the SWP system. Metropolitan's contracted entitlement is for 2.01 maf per year, or about 48 percent of the total contracted entitlement of 4.2 maf per year. SWP deliveries to Metropolitan are made via the SWP's California Aqueduct.

Initial SWP facilities, completed in the early 1970's, have produced average supply yields adequate to meet just over half of the total contracted entitlement. While it was intended that additional SWP facilities would be constructed as SWP contractor demands increased up to their contracted entitlements, few facilities have been constructed since that time.

The SWP obtains its supplies primarily from the Sacramento River Basin. About half of the total supply diverted from the Delta for the SWP is regulated flow from the Feather River (a tributary to the Sacramento River), while the other half is unregulated flow from runoff downstream of Sacramento River reservoirs and from other rivers that flow into the Delta. The Sacramento River watershed is subject to wide annual variations in total runoff. The Sacramento River Index (SRI), which measures runoff in the watershed, has averaged about 18 maf per year over the last 90 years. However, runoff varies widely from year to year. For example, the SRI measured 7.8 mafin 1994 and 32.5 mafin 1995.

Figure 1 shows the historical total regional supply production by type. As shown in Figure 1, water supplies were as high as 4.25 mafin 1990 and within two years dropped to 3.4 mar, a 20% decrease.

Figure 1. Historical Supply Production by Type of Supply

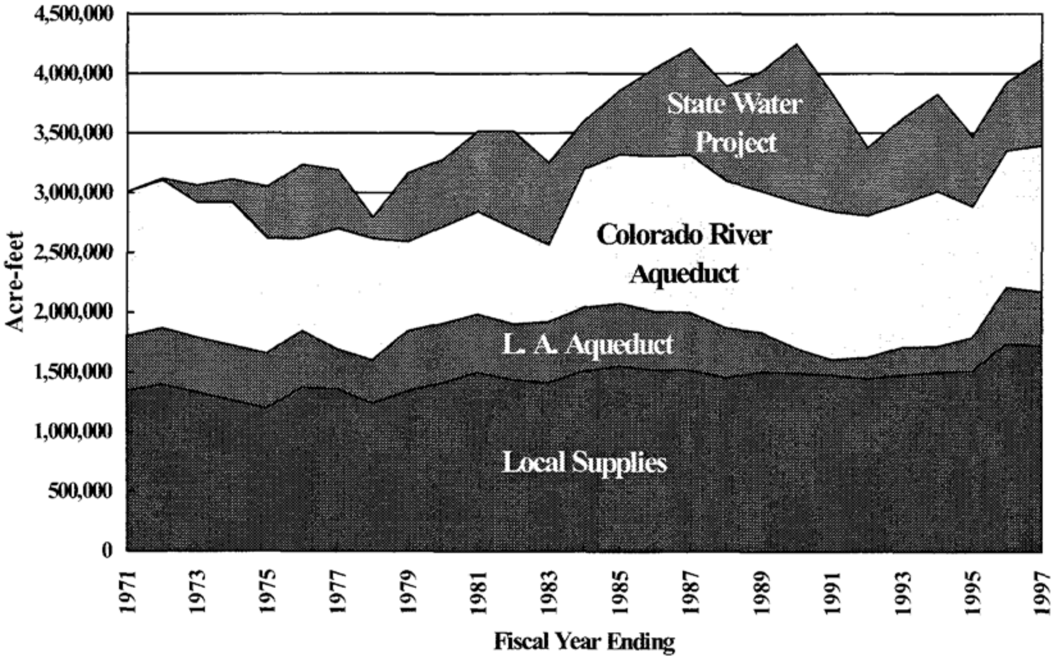

RETAIL DEMANDS

From 1982 through 1995, the region experienced retail water demands averaging 3.5 mar. In dry years retail demands are approximately 5 to 7% greater than normal years, while demands in wet years are about 6 to 8% below normal demands. Under normal weather conditions, assuming full implementation of conservation best management practices, total regional retail demands are projected to increase from about 3.7 mar in 1997 to almost 4.3 mar in 2010. Without conservation, demands in 2010 would be about 10 to 12% greater than projected. Increases in retail demand are driven by demographics and economics, including changes in population, housing, employment, and income. Figure 2 shows the historical and projected retail demands in Metropolitan's service area.

Figure 2. Regional Retail Water Demands

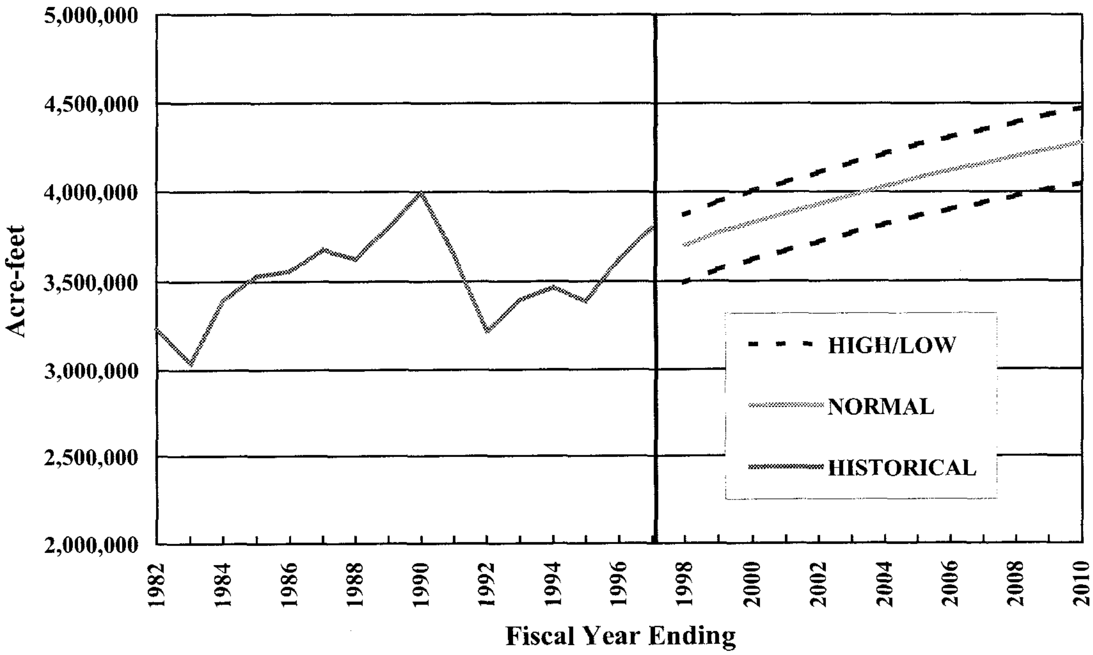

The historical variability in demands from 1982 to 1997 is mainly due to weather and the economy. In 1983, extreme wet weather caused a significant drop in retail demands. During the period from 1985 to 1990, hot and dry weather coupled with a strong economy resulted in increased demand from 3.5 maf to 4.0 maf, a 14% increase. In 1991, the 5th year of a prolonged drought, conditions forced many communities to implement mandatory supply reductions. These mandatory reductions coupled with extraordinary drought conservation caused a 10 to 15% decrease in retail demands for the region. In addition, the period between 1992 and 1995 was very wet (with the exception of 1994, which was dry), and was a period of severe economic recession. Southern California alone lost some 700,000 jobs from 1990 through 1995. The combination of wet weather, economic recession, and conservation resulted in demands decreasing by over 17%.

DEMANDS ON METROPOLITAN

For many member agencies, Metropolitan's water deliveries represent a supplemental supply. Most member agencies have local water supplies, but agencies differ in how much their supplies alone can meet their respective retail demands. Local supplies are often base-loaded (maximized subject to various constraints) and purchases from Metropolitan are used to meet remaining demands. In addition, to meeting consumptive demands, Metropolitan's deliveries are used to replenish local groundwater and surface reservoirs. To project demands on Metropolitan, projections of member agency's retail water demands and local water supplies are made. Local supplies are then subtracted from retail demands to get consumptive demands on Metropolitan. A projection of Metropolitan's long-term seasonal and replenishment deliveries are made based on safe groundwater yield and weather/hydrology.

Metropolitan forecasts its demands for three different broad categories: Full Service, Seasonal (reservoir storage and groundwater replenishment delivered for shift or long-term storage purposes and sold at a discount), and Agricultural (deliveries of water sold at a discount for agricultural use). Overall, demands on Metropolitan can vary -+ 11 to 18% from normal conditions due to weather and hydrology.

The following four figures show historical and projected demands on Metropolitan by category. Figure 3 shows Basic Water Deliveries, Figure 4 shows Seasonal Water Deliveries, Figure 5 shows Interim Agricultural Water Program (IAWP) Deliveries, and Figure 6 shows Total Water Deliveries for Metropolitan.

Figure 3. MWD Basic Water Deliveries

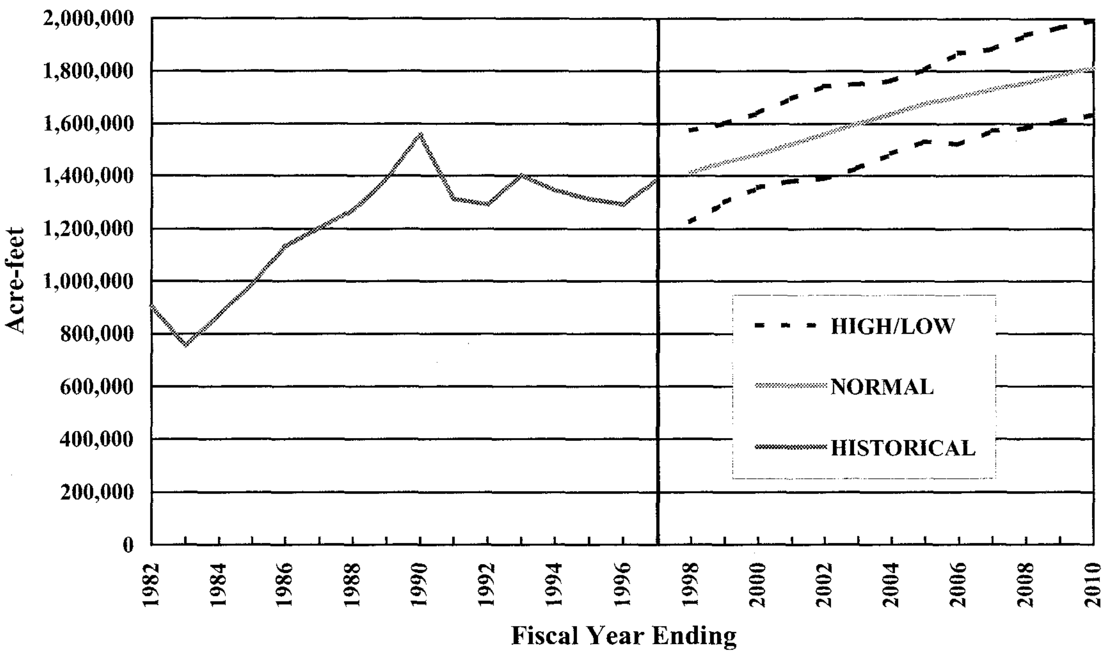

Figure 4. MWD Seasonal Water Deliveries

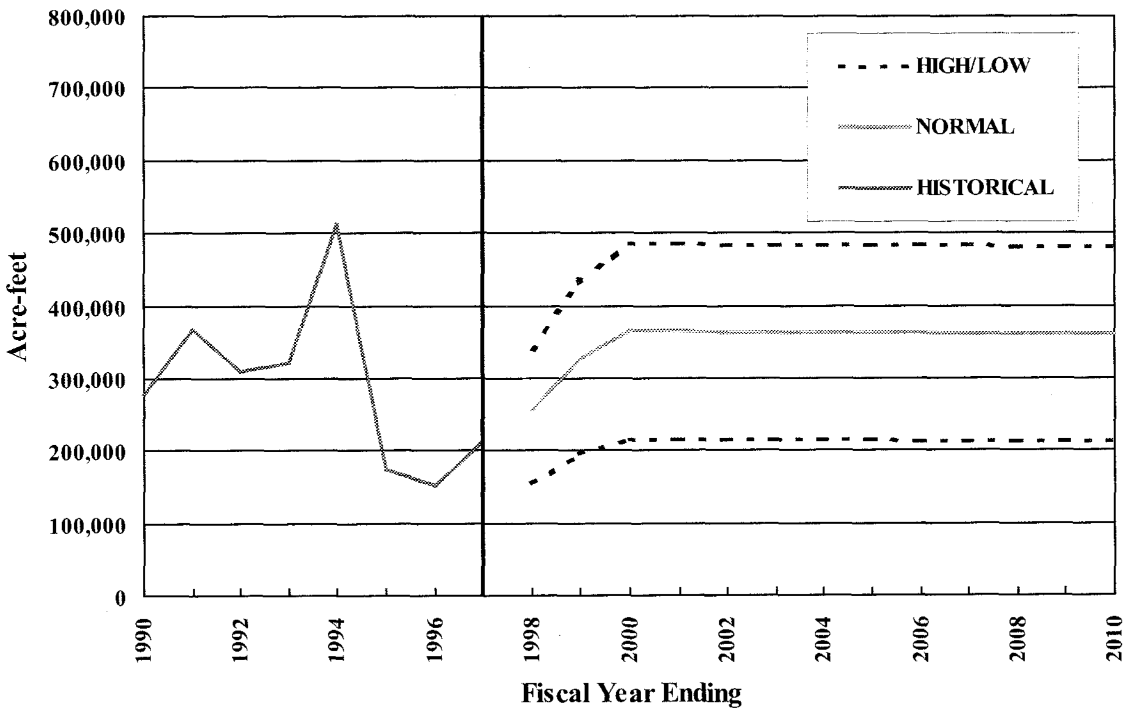

Figure 5. MWD Interim Agricultural Water Program (IAWP) Deliveries

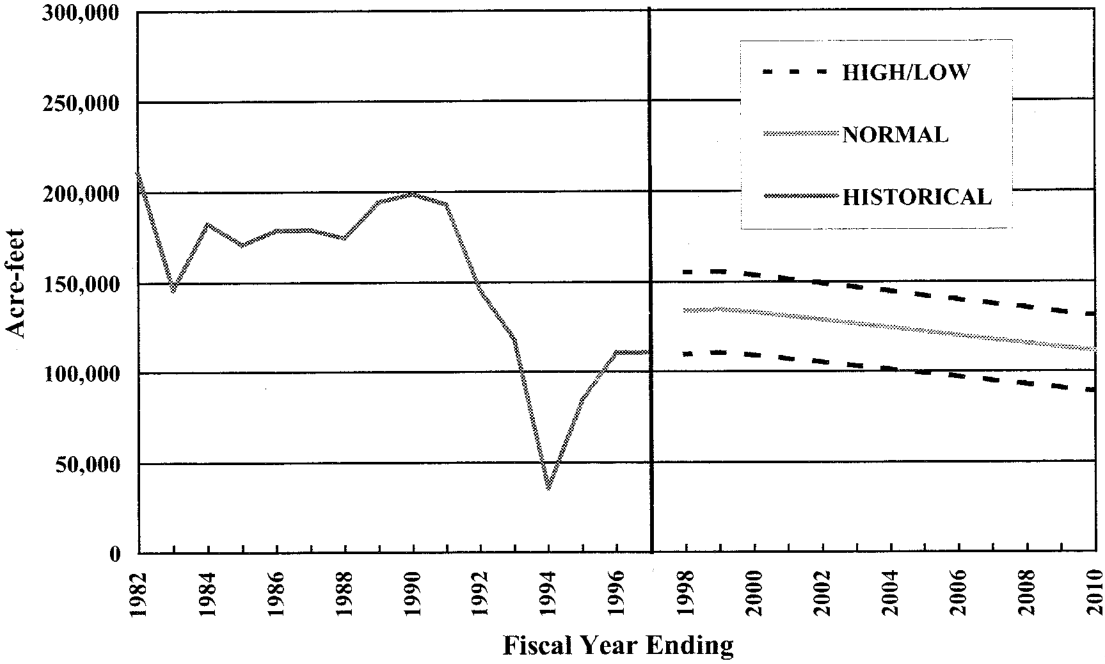

Figure 6. MWD Total Water Deliveries

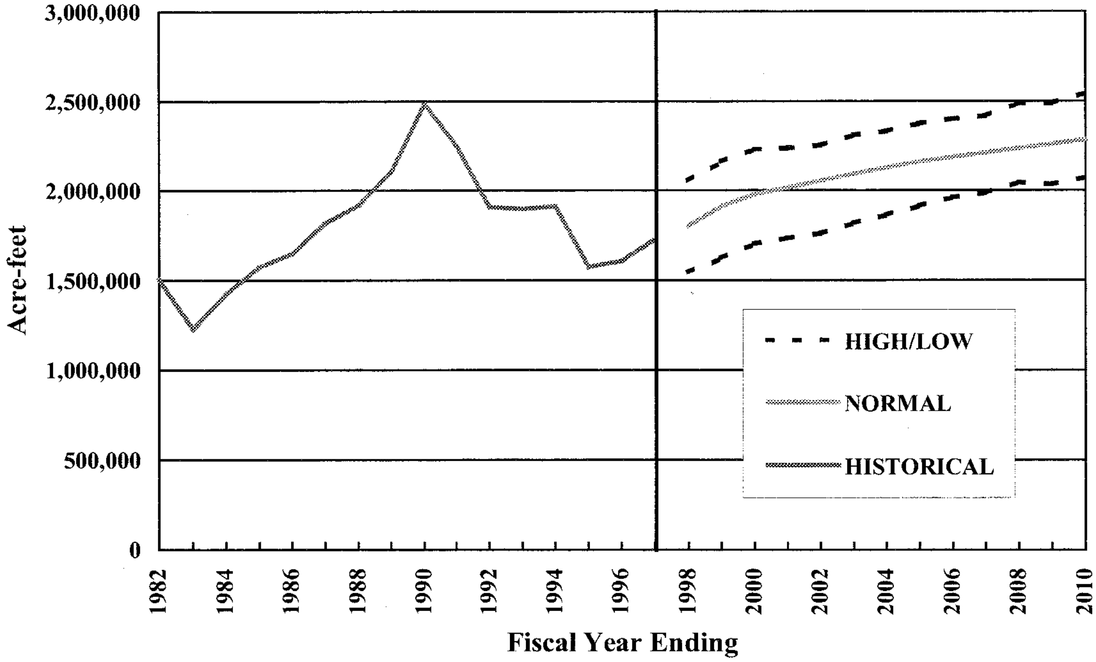

INTEGRATED RESOURCES PLANNING

To ensure supply reliability under various drought conditions, Metropolitan and its member agencies developed an Integrated Resources Plan (IRP). The IRP, adopted by Metropolitan's Board of Directors in January 1996 and periodically updated, guides Metropolitan's resource and capital improvements investments. The region's ability to develop a long-term WSDM Plan results from the significant investments Metropolitan and its member agencies have made in resources since 1991. To date, these investments include:

- Local supplies: Metropolitan co-funded over 23 local projects and 200 conservation programs that will yield a total of 160,000 af per year.

- **Colorado River Aqueduct:** Metropolitan developed transfers and storage programs to help ensure a full aqueduct. The landmark Metropolitan/Imperial Irrigation District Conservation Program (IID), will result in a savings of 107,000 af per year. Storage programs in Arizona and California, combined with the IID savings, yield a total of 280,000 af of annual core, dry year options, and storage supply.

- **State Water Project:** Metropolitan and other parties negotiated the Bay-Delta Accord and the Monterey Amendment. The Bay-Delta Accord and subsequent efforts will increase the reliability of Metropolitan's entitlement deliveries. The Monterey Amendment provides access to 220,000 af of SWP storage.

- **In-Basin Storage:** Metropolitan is constructing the Eastside Reservoir Project, with 800,000 af of storage (400,000 af of which is emergency storage for use in case of facility failure as a result of earthquake or other event).

- **Groundwater Conjunctive Use Storage:** Metropolitan developed a conjunctive use storage program in the North Las Posas Basin in Ventura County with an anticipated capacity of 210,000 af and a dry-year withdrawal rate of up to 70,000 af.

- **Transfers and Storage:** Metropolitan developed the Semitropic Storage Program, with 350,000 af of storage and dry-year withdrawals averaging about 60,000 af. Metropolitan also approved the Arvin-Edison Storage and Transfer Program, with 250,000 af of storage and dry-year withdrawals averaging about 70,000 af. Metropolitan is also exploring storage and transfer programs with the Coachella Valley Water District and the Cadiz Land Company.

As a result of these investments, it is anticipated that Metropolitan and its member agencies will be 100% reliable over the next 10 years even under a repeat of the 1991 drought condition. Figure 7 compares actual Metropolitan demands and supplies during 1991 (the last year in a multiyear severe drought) and projected demands and supplies in year 2005 (assuming a repeat of 1991 conditions). In 1991, the region faced shortages that required Metropolitan to allocate water under the Incremental Interruption and Conservation Plan (IICP). The reduction in deliveries came after demands had already been reduced as a result of local conservation. In addition, water had to be purchased from the Governor's drought emergency water bank. By the year 2005 with the investments made to date, Metropolitan's additional water supplies will be more than adequate to meet demands under a repeat of the 1991 drought event--even with increased demands due to growth.

Figure 7. Historical and Projected Metropolitan Supplies and Demands Under Drought Conditions

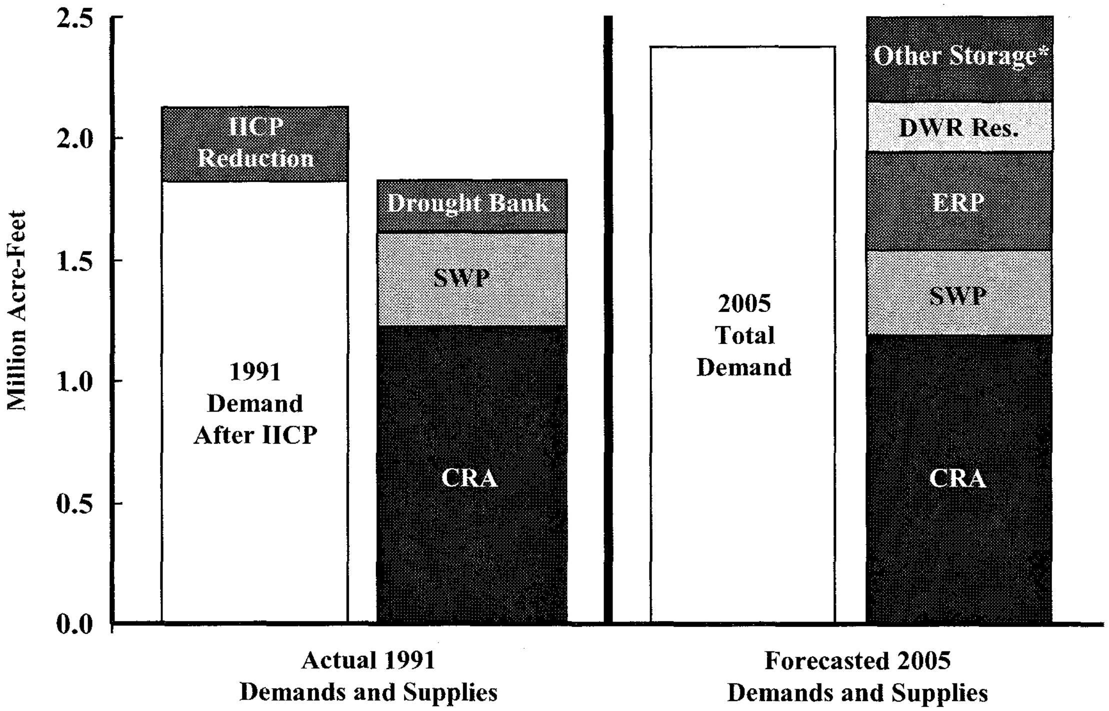

* Groundwater management, Semitropic Storage Program, and Arvin-Edison Storage Program

SURPLUS AND SHORTAGE RESOURCE ACTIONS

Metropolitan's investments in water resources, facilities, and programs has transformed it from an agency with relatively modest storage capacity to one that will have storage sufficient to manage many shortages without negative impacts to its member agencies or retail customers. To attain this level of reliability, storage programs and facilities, along with conservation, recycling, and other programs, must be managed as an integrated set of regional resources. To accomplish this, the WSDM Plan recognizes the linkage between surplus and shortage resource management actions.

SURPLUS ACTIONS

The combination of Metropolitan's regional storage facilities, such as Lake Mathews, Lake Skinner, the future Eastside Reservoir Project, and the storage capacity available to Metropolitan in Castaic Lake and Lake Perris as a result of the Monterey Amendment, allows Metropolitan great flexibility in managing its water resources. The development of storage programs both outside and within the service area provides even greater flexibility in storing surplus water. Each of the storage facilities and programs plays an important role in achieving Metropolitan's reliability goal.

When imported supplies exceed projected demands for imported water within Metropolitan's service area, Metropolitan can operate storage facilities to maximize stored water to benefit its member agencies. A number of factors affect Metropolitan's ability to divert surplus water into storage. Some of these factors include facility outages, system capacity, water quality (including requirements for managing total dissolved solids), and varying supply and demand patterns. This section provides a description of storage options available to Metropolitan and a framework for storing water in these programs and facilities when surplus supplies are available.

Storage of Colorado River Supplies

Metropolitan has participated in a number of programs to maximize the reliability of supplies from the Colorado River. The landmark Metropolitan/Imperial Irrigation District Conservation Program will result in a savings of 107,000 af per year. These supplies will increase the reliability of Metropolitan's entitlement of Colorado River water. Other programs yield shortage benefits by increasing amounts of water stored for use during shortages. Between August 1992 and July 1994, Metropolitan and the Palo Verde Irrigation District conducted a Test Land Fallowing Program. Approximately 20,000 acres of farmland in the Palo Verde Valley were not irrigated, saving 186,000 af of water which was stored in Lake Mead for later use by Metropolitan. With Arizona and Nevada water agencies, Metropolitan is participating in a Central Arizona Groundwater Storage Demonstration Program that has encouraged the storage of water. To date, 139,000 af of supplies have been stored in groundwater basins in Central Arizona. The Desert Coachella program is an exchange and storage program with agencies situated along the Colorado River Aqueduct. Metropolitan releases Colorado River water for storage in the Coachella Groundwater Basin. Metropolitan then exchanges these supplies for the participating agencies' SWP supplies. These programs serve as models for future programs that could increase the reliability of Colorado River supplies. Metropolitan continues to explore other possible options that would increase the reliability of supplies. The California 4.4 Plan is being developed among California parties to increase storage programs for Colorado River supplies. In addition to core transfers and conservation programs, the California 4.4 Plan includes offstream storage (such as the Arizona groundwater storage program), dry year option transfers (such as PVID land fallowing), and river re-operations. These programs, in conjunction with favorable supply determinations by the Secretary of Interior, will ensure the highest possible reliability of Colorado River supplies.

In addition to the programs mentioned above, the Colorado River system itself contributes to the high reliability of Metropolitan's Colorado River supplies. Currently, the average Colorado River runoff exceeds basin-wide demands by over 1.0 maf per year. The Colorado River system also contains a great deal of reservoir storage capacity. The total storage capacity in the Colorado River Basin is approximately 60 maf, almost four times the Colorado River's average annual flow. For much of 1997, system storage levels were at 80% or more of total capacity. These factors allow the Bureau of Reclamation, operators of the Colorado River system, to store significant supplies for use during shortages.

Storage of State Water Project Supplies

Total storage capacity is a critical factor in comparing the operations of the Colorado River system with the SWP. On average, both systems have similar amounts of water available on an annual basis. The SWP's watersheds in the Sacramento River Basin have produced about 18 maf per year over the long term, as represented by the Sacramento River Index (SRI.) Long-term runoff on the Colorado River has averaged more than 16 maf annually since 1906. However, the ability to carry over unused water from a wet year for use in a dry year differs substantially between the two systems. State Water Project storage facilities have storage capacity of about 4.5 maf, while system storage in the Colorado River Basin totals nearly 60 maf. This gives the operators of the Colorado River reservoirs much more flexibility in storing unused water from a wet year for use in a subsequent dry year.

When water from the SWP cannot be put to immediate use in Metropolitan's service area, the water may be stored for future use. Provided storage capacity is available, the water may remain in either Oroville Reservoir (as SWP storage for delivery to all contractors the following year) or San Luis Reservoir (as carryover storage assigned to Metropolitan). Through the carryover storage program, as amended by the Monterey Amendment, Metropolitan can place a maximum of 200,000 af per year of allocated supplies in SWP surface reservoirs. The program also allows for carryover storage in non-project facilities, including surface reservoirs and groundwater basins. In the case of carryover storage in San Luis Reservoir, SWP supplies allocated to but unused by a contractor may, under certain conditions, be assigned as carryover if storage capacity is available at the end of the calendar year. However, carryover water stored for a contractor has lower priority than storage of SWP water and consequently "spills" first as San Luis Reservoir fills.

Also, in a wet year such as 1995, low demands may allow DWR to operate San Luis Reservoir nearly full, eliminating any possibility of contractor carryover storage into the following year. As a result, carryover storage on the SWP may not be possible, and even when possible, is subject to spilling.

Due to these carryover storage limitations, Metropolitan has invested a great deal to expand its ability to store surplus SWP supplies. Metropolitan has entered into a number of water transfer and storage agreements. The Semitropic Water Banking and Exchange program allows Metropolitan to store up to 350,000 afin the groundwater basin underlying the Semitropic Water Storage District. The storage and withdrawal capacities of the program are shared with other participants in the storage program, with Metropolitan's share equaling 35%. Dry-year withdrawals will average about 60,000 af.

Metropolitan and the Arvin-Edison Water Storage District have developed a program that allows Metropolitan to store water in the groundwater basin in the Arvin-Edison service area. The program would allow the storage and withdrawal of 250,000 af of supplies over the next 25430 years. Dry-year withdrawals will average about 70,000 af.

Storage in Regional Facilities

In addition to the storage of Colorado River and SWP supplies outside the region, Metropolitan has established a number of programs for storing supplies within the region. Metropolitan owns and operates two main surface reservoirs, Lake Mathews and Lake Skinner, which have a combined storage of about 226,000 af. Only a small portion of this capacity is available for shortages, with the balance being used to regulate flows in Metr0Politan's delivery system. The Eastside Reservoir Project, currently under construction, will have a total capacity of 800,000 af, with approximately 400,000 af of operational drought and seasonal storage and 400,000 af of emergency storage. Through the Monterey Amendment, Metropolitan obtained the fight to use up to 220,000 af of water stored in the SWP terminal reservoirs. However, withdrawals from these terminal reservoirs must be replaced within five years.

Metropolitan and its member agencies have established the cyclic storage program to increase storage in groundwater basins within the service area. Regional groundwater basins offer an economical way for Metropolitan to improve supply reliability by storing water within the service area. This makes water readily accessible in times of need, either in emergency situations or during shortages. Some limitations are imposed by the fact that such water can generally only be used through pumping from the groundwater basin by an overlying member agency or local agency. Storage in groundwater basins takes place either by direct replenishment (spreading or injection), or through in-lieu means. Spreading (or injection) is desirable because direct measurement of the amount of stored water is a relatively simple, verifiable transaction. The main disadvantage to direct spreading is that spreading can occur only under certain conditions. For example, spreading cannot occur when spreading facilities are being used to capture local storm runoff for flood control purposes, or when the amount of local runoff precludes the need for imported water to replenish the basins. Also, spreading basins require frequent maintenance to assure maximum efficiency. These and other conditions can limit the ability to deliver water for spreading at a time when surplus supplies are available.

In-lieu replenishment allows most member agencies to participate in groundwater replenishment without needing direct access to replenishment facilities. Their wells, in effect, become their replenishment facilities. Both direct and in-lieu replenishment from 1986 through 1990 served the region well during the critical drought years from 1991 through 1993.

The overall objective of the various storage programs is to maximize the availability of imported water during times of need by storing surplus water in a strategic manner and utilizing the storage available within the region. Many factors affect the availability of storage capacity and Metropolitan's ability to move water to and from various facilities. After reviewing the full range of shortage actions available to Metropolitan, a framework for prioritizing the full range of surplus and shortage actions will be presented.

In addition to pricing incentives used to encourage local agencies to store water in groundwater basins, Metropolitan has developed a conjunctive use contractual storage program with the Calleguas MWD in the North Las Posas Basin. Metropolitan will fund the construction of wells which will be called upon to meet demands during dry years. This program will yield a dry year supply of about 70,000 af.

SHORTAGE ACTIONS

Except in severe or extreme shortages or emergencies, Metropolitan's management of available resources will allow shortages to be mitigated without negatively impacting retail M&I demands. Below is a list of drought actions that will be taken during periods of shortage. The goal of these actions is to avoid, to the extent practicable, the allocation of Metropolitan's firm supplies. The order in which these actions are presented does not imply the exact operational management of resources that would occur. In fact, several actions are likely to be taken concurrently. Many factors dictate the particular order in which actions will be taken during an actual shortage, although it is clear that the last action will be the curtailment of firm deliveries to the member agencies.

- Draw on storage in the Eastside Reservoir Project
- Draw on out-of-region storage in Semitropic and Arvin-Edison
- Reduce/suspend long-term seasonal and groundwater replenishment deliveries
- Draw on contractual groundwater storage programs in the region
- Draw on SWP terminal reservoir storage (per Monterey Agreement)
- Call for extraordinary drought conservation and public education
- Reduce IAWP deliveries
- Call on water transfer options contracts
- Purchase transfers on the spot market
- Implement an allocation of Metropolitan's imported supplies to its member agencies

Even with dedicated programs to meet the reliability goal for the region, proper management and operations of these resources is critical to ensure reliability. The prioritization of both surplus and shortage actions need to account for several important criteria. It is also important to recognize that these criteria will need to be balanced. The criteria include:

Location: Out-of-region storage is more vulnerable than in-basin-storage due to the risks of seismic events. To only maximize out-of-region storage will put reliability at risk.

Take capacity: Surface reservoirs generally have the ability to be filled and drawn down very quickly. Certain groundwater storage programs have limited take capacities--requiring several years at full take capacity to withdraw **all** available storage. Stored water will be balanced so that dry year supplies are maximized.

Cost: Programs vary with respect to their marginal operating costs. Program actions will be taken to maximize supply reliability while minimizing cost.

Flexibility: Not all storage programs and transfers offer the same flexibility to Metropolitan. Some programs can only meet specific overlying demands, while others can meet demands anywhere in the system.

DESCRIPTIONS OF RESOURCE ACTIONS

Draw on storage in the Eastside Reservoir Project: Withdrawals from the Eastside Reservoir Project would provide a flexible supply for meeting a shortage. Eastside Reservoir Project supplies can be drawn upon quickly. The amount of water drawn from the Eastside Reservoir Project before exercising other shortage actions will depend on the severity of the shortage and the overall condition of other resources available to Metropolitan.

Draw on out-of-region storage in Semitropic and Arvin-Edison programs: Out-of-region programs such as Semitropic and Arvin-Edison provide cost-effective shortage supplies. These supplies also provide flexibility, as they can be distributed as effectively as any SWP supplies coming into Metropolitan's service area. Exercising these programs relatively early in the order of actions reduces the risk of leaving supplies out-of-region. Based upon the ratio of storage capacity to take capacity, these programs will generally provide supplies over several years. This provides the rationale for calling on these programs relatively early in a shortage.

Reduce Long-Term Seasonal and Replenishment Deliveries, and call on cyclic storage accounts: Certain interruptible supply programs provide benefits during shortage. Reducing deliveries to interruptible programs established for storage purposes, while continuing expected levels of groundwater production, allows limited supplies to go toward meeting direct consumptive uses. In addition, calling on cyclic storage accounts can extend the replenishment needs for several years. Most replenishment supplies would be expected to be interruptible for a minimum of two years before agencies would be allowed to claim a local supply adjustment on such supplies. Some programs have longer interruption requirements. For example, most Groundwater Recovery Programs are governed by contracts that require supply production through a three-year interruption in service.

Draw on contractual groundwater storage programs: In-region contractual groundwater programs provide cost-effective supplies that would be drawn upon during shortages. These programs are also limited by their take capacities and generally have several years of withdrawals in storage. For this reason, these programs might be called upon before withdrawing heavily from surface reservoir storage.

Draw on SWP terminal reservoir storage: The storage available in the SWP terminal reservoirs provides a flexible and cost-effective shortage supply. Supplies withdrawn from this program must be replaced within five years of withdrawal. For this reason, the storage in these reservoirs would be reserved for more serious shortage conditions and would be utilized after the programs and facilities listed above were used to meet the shortage.

Call for extraordinary drought conservation: Voluntary conservation programs have historically been effective in reducing water demand during drought. However, voluntary conservation programs are not without impact to the retail customer and can be perceived as a failure of water agencies to properly plan for shortages. Therefore, the call for extraordinary drought conservation will only be taken with the consent of Metropolitan's Board of Directors.

Reduce agricultural deliveries: The Interim Agricultural Water Program (IAWP) offers interruptible water to southern California's agricultural industry at discounted rates. These supplies will be interrupted as part of Metropolitan's shortage actions. Metropolitan will work with IAWP participants to provide as much advance warning of interruption as possible. The IAWP reflects current policies toward agricultural water users. The policies underlying this program are due to be reviewed during the ten-year period of the WSDM Plan. The WSDM Plan will be changed accordingly.

Call on water transfer option contracts: Transfer options programs provide cost-effective supplies when the region is faced with reducing deliveries to meet consumptive demands. These programs might also be used to increase storage levels in Metropolitan storage facilities. Replenishment of these facilities reduces the risk of leaving available supplies outside the region and helps to protect the region during extended shortages.

Purchase transfers on the spot market: During the 1987-92 drought, the Drought Water Bank proved to be one mechanism for California to reduce the overall impacts of the shortage. However, the cost of spot market supplies may cause Metropolitan to use them as a last increment of supply before the region implements reductions in M&I deliveries. It is likewise possible that availability and cost will make spot market options more favorable under certain conditions. If this occurs then spot market supplies will be sought prior to calls on option transfers. However, participation in the spot market may be restricted to those agencies that have already taken significant actions in response to the shortage.

Implement allocation plan: As the final stage in responding to shortages, Metropolitan will implement an allocation plan to deliver reduced supplies to its member agencies. The issues of allocation and the methods of allocation are outlined in the following section.

ALLOCATION OF SUPPLY FOR M&I DEMANDS

The equitable allocation of supplies is addressed by the Implementation Goals established for the WSDM Plan, with the first goal being to "avoid mandatory import water allocations to the extent practicable." The second fundamental goal is to "equitably allocate imported water on the basis of agencies' needs." Factors for consideration in establishing the equitable allocation include retail and economic impacts, recycled water production, conservation levels, growth, local supply production, and participation and investment in Metropolitan's system and programs. In the event of an extreme shortage an allocation plan will be adopted in accordance with the principles of the WSDM Plan.

INTEGRATED RESOURCE MANAGEMENT STRATEGY

Throughout the Integrated Resources Planning process and the development of the WSDM Plan, extensive analysis of resource management strategies focused on maximizing supply reliability while minimizing overall resource costs. Various management strategies were analyzed under shortage scenarios based on historical hydrologic data. Certain strategies yield high reliability but incur very high costs. This is the case for strategies that utilize relatively costly transfer programs early in a shortage while maintaining high storage levels. If a shortage is short, this results in high transfer costs and shortage storage programs that are not fully utilized. Other strategies draw more heavily on storage early in a shortage and do not use options transfer programs. Later in a shortage, the yields from these transfer programs, combined with low yields from depleted storage facilities, might not make up for continuing or deepening shortages. Overall, such approaches may be inexpensive to pursue at the wholesale level but have high costs associated with retail level impacts. The resource management framework presented results from extensive analysis of various strategies for managing available resources under a variety of surplus and shortage conditions. Although the extent to which various actions are exercised may still vary depending on specific shortage conditions, the ordering presented does reflect Metropolitan's anticipated order of actions during shortages.

RESOURCE MANAGEMENT FRAMEWORK

The analysis of surplus and shortage actions yields a water management framework that accounts for the degree or "stage" of surplus and shortage. These stages are defined by parameters such as storage levels and expected SWP supplies. Each stage has associated actions that could be taken as part of the response to prevailing shortage conditions. For example, Surplus Stage 1 might have as associated actions to place water in the highest-priority storage resources. Figure 8 shows the mapping between actions and stages. The darkly shaded diagonal area identifies actions that can be undertaken concurrently, while the lightly shaded areas show actions that will not be taken. For example, Metropolitan will not withdraw water from most storage resources during a surplus.

Figure 8 highlights several aspects of the WSDM Plan's approach to supply management. First and most importantly, it does not dictate a response to shortage or surplus. The framework recognizes the complexity and variety of conditions that could require various responses. Supporting this framework are general "rule curves" that dictate the extent to which particular actions are taken in various stages of surplus or shortage. For example, the rule curves indicate approximately how much water should be taken from the Eastside Reservoir Project before calling on supplies from the Semitropic or Arvin-Edison storage programs. If a shortage were greater than the desired initial withdrawal from the Eastside Reservoir Project, then Stage 2 actions would be taken. The rule curves for a particular resource would take into account shortage stage, monthly delivery requirements, and when various supplies are available.

Surplus and Shortage Stages are determined by the total amount of water that would be stored or produced by exercising the actions in that Stage. Overall storage levels in each stage are determined by the extent to which storage is increased or reduced by earlier actions. Therefore, each Stage is defined by supplies (stored or produced) and an approximate overall level of storage remaining in all resources. Up through Shortage Stage 4, the actions taken will not result in negative impacts to any consumptive uses. Shortage Stages 1 through 4 constitute shortage management without retail level impacts. The conservation efforts and reductions in IAWP deliveries in Shortage Stage 5 will result in retail impacts.

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Action by the Metropolitan Board of Directors would be required before actions corresponding to Stages 5, 6, and 7.

Figure 8. Resource Stages and Actions Matrix

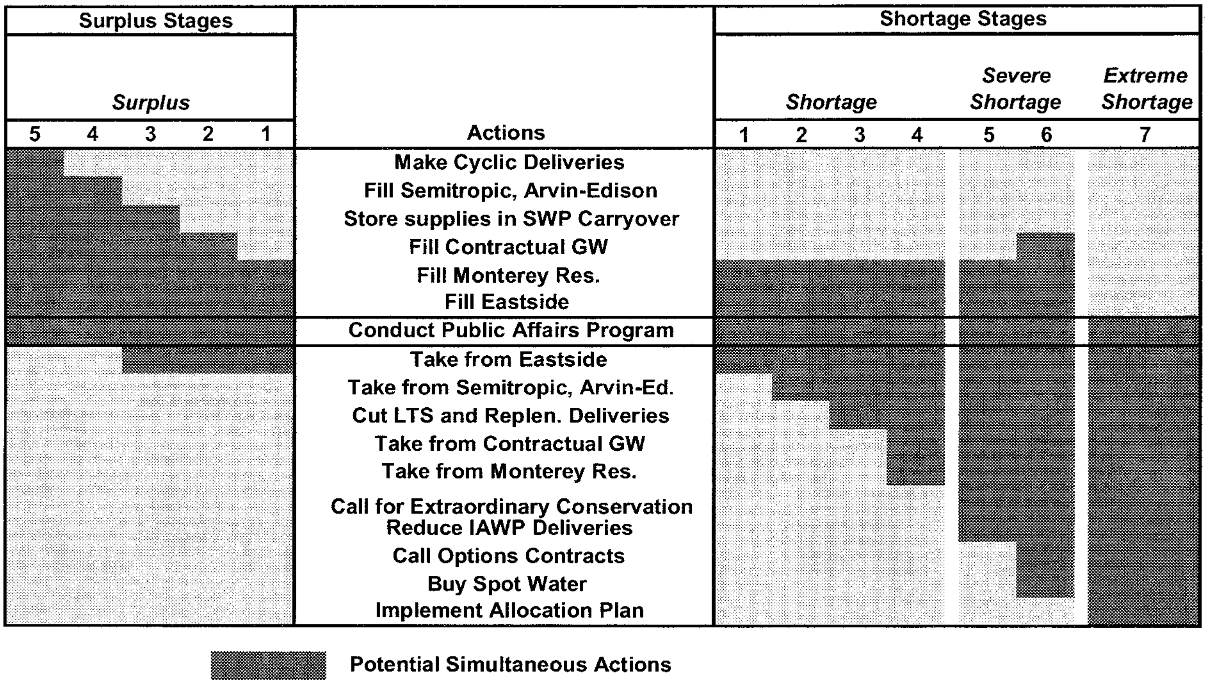

The Stages and Actions Matrix (Figure 8) is read from the center moving outward. Moving from the center to the left, are actions that Metropolitan will take during surplus conditions. For instance, in a Stage 3 Surplus, Metropolitan will be adding water to the Eastside Reservoir Project, the Monterey Reservoirs (if any water is due for repayment), Contractual Groundwater Programs, and carryover storage on the State Water Project. Moving from the center to the right are actions that Metropolitan will take during periods of shortage. For instance, in a Stage 3 Shortage, Metropolitan will be pulling water from the Eastside Reservoir Project, the Semitropic and Arvin Edison programs, and interrupting deliveries of Long-Term Seasonal and Replenishment program water. In addition, the Stages and Actions Matrix allows for surplus actions to be taken during shortages and vice versa, but these actions are strictly a result of prudent water management. For example, in a Stage 6 Shortage, Figure 8 shows Metropolitan potentially filling the Eastside Reservoir Project, the Monterey Reservoirs, and contractual groundwater programs while calling on spot transfers and buying spot water. Through these actions Metropolitan will be ensuring that water supply opportunities during a drought are realized--ultimately adding to the drought reserves of southern California.

Figure 8 also highlights the on-going efforts by Metropolitan and its member agencies in the conduct of public outreach and active conservation programs. Through all conditions, effective pubilc outreach and conservation programs are an integral part of Metropolitan's management of resources. In addition to ongoing conservation and water efficiency programs, Stage 5 of the Stages and Actions Matrix calls for participation of the citizens of southern California to take extraordinary conservation measures to cut water demand during droughts.

As with the listing of shortage actions earlier in the report, the Stages/Actions matrix in Figure 8 only highlights certain programs and response actions. However, unlike the discussion of actions earlier, Figure 8 is intended to convey Metropolitan's currently anticipated ordering for those actions listed. As the supply and demand outlooks, programs, and other factors continue to change, the analysis of the ordering of actions will continue during the ten-year period of the WSDM Plan.

SUPPLY CERTAINTY AND THE TIMING OF RESOURCE ACTIONS

One of the fundamental trade-offs in dealing with supply shortages is the need to maintain flexibility while providing supply certainty to member agencies and consumers. A central focus of the WSDM Plan is the analysis of information about supplies and demands. When do various pieces of information about the supply/demand balance become more certain? When should this information impact policy-making and trigger various resource actions? The WSDM Plan addresses these questions and the actual implementation of the Plan during a shortage.

Figure 9 shows a hypothetical shortage year. With respect to the supply and demand outlook, a typical shortage year will have periods of certainty and stability, and other periods of relative uncertainty and transition. Important supply components--such as the SWP, CRA, Los Angeles Aqueduct (LAA), and local supplies--are closely monitored through the early part of the year. These supplies and demands are fairly well-known through the April-September period. Storage is assessed in the post-summer period and decisions about certain programs, such as long-term (LT) seasonal deliveries could be made at this time.

Figure 9. Water Supply Outlook Throughout the Year

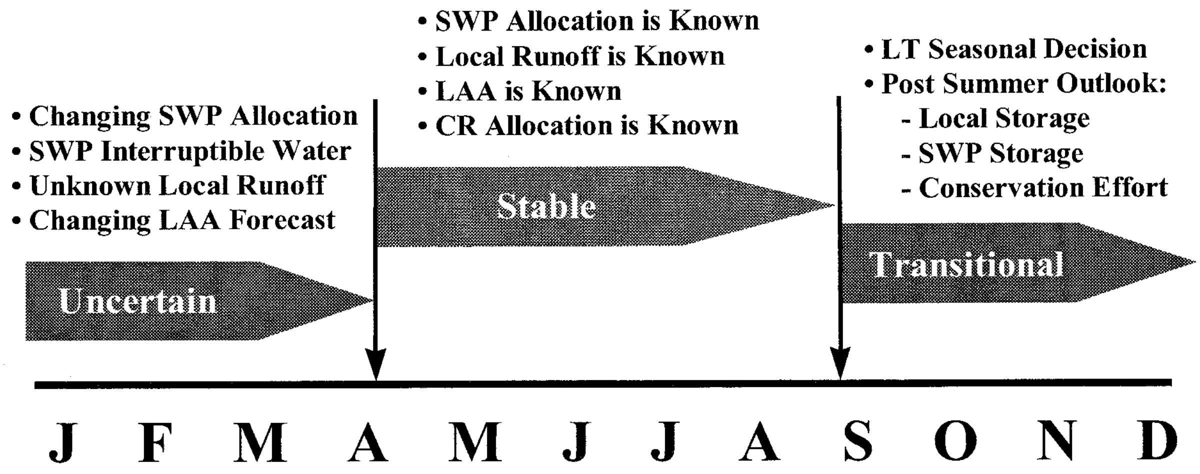

Figure 10 presents the annual schedule for actions taken in response to shortage conditions. Starting in January, an initial supply/demand report will be presented to the Metropolitan Board of Directors. SWP allocations are still only estimates in January and become more certain towards April and May. Demands for Metropolitan deliveries depend in part on how the winter hydrology develops and the condition of local supplies. These factors start to become known during the February-March period and will be reported to the Board in the Supply Report Update. By April-May, the outlook for imported supplies is known to a fairly high degree of certainty and a Final Supply Report will be produced. The May-September period will be one in which the import supply situation does not change drastically and drought policies can be implemented. Demands can be more or less than anticipated as a result of unusually hot or cool weather. At the end of summer, carryover SWP storage will be determined. October through December is a transitional period during which early assessments of available supplies for the following year will be made. During this period, Board actions would determine the management of various Metropolitan programs such as long-term seasonal (LTS) and IAWP deliveries. The following list presents major information and decision points during the year.

Month	Information/Action
January	Initial Supply/Demand Reports
February, March	Updated Supply/Demand Reports
April, May	Final Supply/Demand Report
	Notification on Contractual GW and Options Transfer Programs
	Recommended Drought Actions
May-September	Stable Policy Period
October	Supply and Carryover Storage Report
November	MWD Program Decisions - LT Seasonal, Replenishment, IAWP

Figure 10. One Year of a Hypothetical Shortage - Supply and Demand Reports and Response Actions

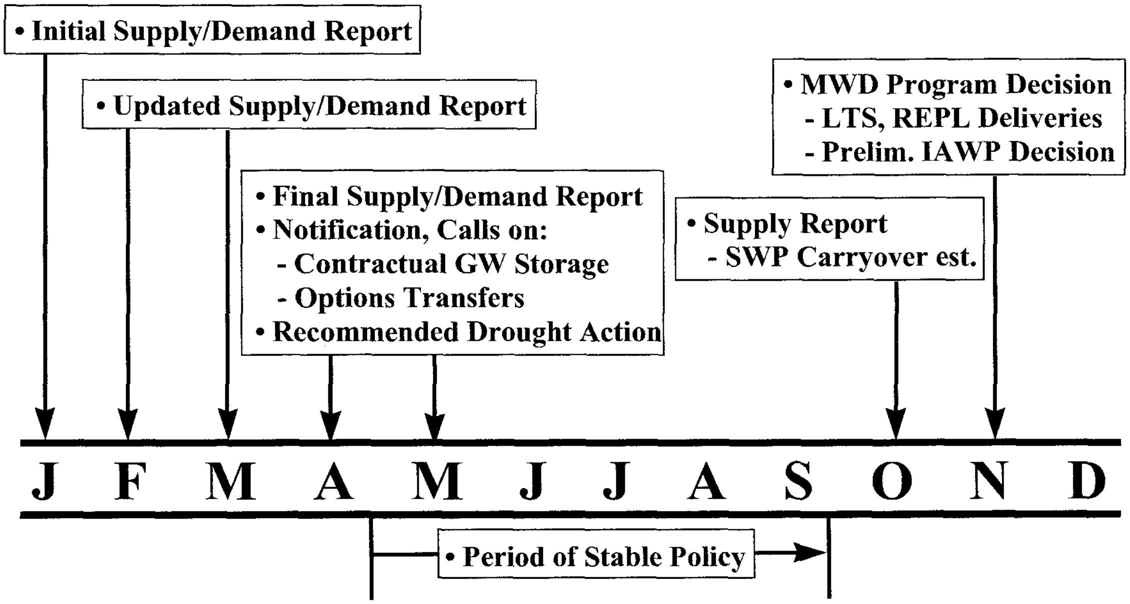

PUBLIC OUTREACH AND CONSERVATION

Mechanisms are already in place to implement most of the water management actions and programs that are addressed in the WSDM Plan. Under the majority of supply and demand conditions, the actions of Metropolitan's Board of Directors, the General Manager, the operational activities of Metropolitan, and its member agencies would constitute all actions necessary to mitigate the shortage. Several aspects of the WSDM Plan, however, require additional attention to the administration of programs and actions. In particular, a shortage contingency requires special programs in the areas of public and governmental affairs and conservation. Metropolitan maintains an on-going public information program to encourage efficient water use. Public outreach programs are conducted at all times under both surplus and shortage conditions (see Figure 8). The actions discussed in this section constitute special actions in times of shortage.

During shortage conditions, public outreach will play a critical role in shaping consumer response. Public information campaigns need to send clear signals if extraordinary drought conservation is to achieve needed reductions in demands. Given Metropolitan's diverse set of customers and the varying impacts that shortages can have on different consumer groups, an effective public information campaign will require a joint effort among Metropolitan and its member agencies. Under this Plan, the administration of the Public Information and Government Affairs programs will be the responsibility of a Drought Program Officer (DPO). The DPO will be responsible for integrating the various activities in these areas, coordinating efforts with Metropolitan's Board of Directors and member agencies, and designing the region-wide messages for the general public and various target audiences. Important constituencies that have been identified in the process are residential users, business interests, agricultural users, elected officials, officials of various agencies (such as the Department of Water Resources), and the media.

Many conservation programs, such as Metropolitan's ultra-low flush toilet rebate program, are driven by member agency requests. Based on history, Metropolitan expects member agency requests to increase during droughts. Metropolitan is committed to increasing overall conservation program funding to meet member agency requests during droughts and attain higher levels of savings. These programs will be implemented by Metropolitan and member and local agency conservation staff. As many of the short-term conservation objectives during a shortage would be dependent upon an effective public information program, the Drought Program Officer will also be responsible for monitoring the effectiveness of the augmented conservation programs. A monthly conservation reporting process will be implemented. Quarterly estimates of regional conservation will be developed to track the progress of various actions in mitigating the shortage.

APPENDIX A: RESOURCE AND STORAGE SIMULATION

The Water Surplus and Drought Management Plan (WSDM Plan) uses the Stages and Actions Matrix (Figure 8) as a guide for the operation of storage and transfers for the next ten years, 1999-2008**.** Metropolitan asserts that the investments that Metropolitan and its member agencies have made in water supply and storage, managed in a coordinated manner as presented in the WSDM Plan, will be sufficient to assure that retail firm water demands will be met 100% of the time through the year 2008. Metropolitan performed an extensive analysis of projected water demands, current and expected water supplies, along with hydrologic variations to support this assertion. Appendix A presents a summary of this analysis which includes statistical probabilities of actions under the WSDM Plan and two illustrative examples of how supply resources may be used in the future under worst-case drought events. Although the WSDM Plan is intended to be in effect through 2008, for the purposes of analysis the planning horizon was extended through 2010.

The WSDM Plan seeks to define the operational envelope for the Metropolitan system into the near future. Although the WSDM Plan only looks out ten years, it nonetheless involves the operation of some storage and water transfer projects that have not yet become fully operational. This makes the estimation of storage and transfers operations difficult. Compounding this problem is the lack of certainty around future demands, economic conditions, or even the weather over the next ten years. To manage these uncertainties, Metropolitan has developed a computer based simulation model called the Integrated Resources Planning Simulation Model or IRPSIM.

IRPSIM uses a modeling method known as sequentially indexed monte-carlo simulation. Simply put, the model looks at projected regional retail demand and supplies of water over the next twelve years and adjusts each, up or down, based on an assumed pattern of future weather. For instance, if Metropolitan expected the weather over the next twelve years (1999-2010) to be the same as the last twelve years (1987-1998), then IRPSIM would adjust the projected 1999 demands and supplies based on the historical 1987 hydrology, and adjust the projected 2000 demands and supplies using the historical 1988 hydrology, and so on. One obvious drawback to this approach is that Metropolitan does not know what future weather will be. Therefore, Metropolitan runs the models over and over again until all recorded hydrologies, 70 in all, have been tried. In this way, Metropolitan can look at probabilistic results of being in shortage year by year through 2010.

Although the projections of water supplies used in this analysis required certain assumptions to be made, they were based on most likely or probable outcomes. In most cases, projected water supplies represented projects that are currently operational, under construction, or in the final stages of negotiations. The following represents a summary of these assumptions:

- Local recycling and groundwater recovery: assumes currently operational projects with expected increases in supply yield as demand increases

- Conjunctive use groundwater storage: assumes Las Posas (under final stages of construction) and implementation of similar programs which are under negotiation (such as Raymond, Orange, and Chino Basins)

- Semitropic and Arvin-Edison storage: assumes use of both programs which are operational with water already stored

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- Eastside Reservoir Project: assumes use of non-emergency storage from the reservoir currently under construction and an initial fill projected to start in approximately one year

- The Monterey Reservoirs: assumes use of State Water Project terminal reservoir supplies, Castaic and Perris Reservoirs, per the Monterey Amendment

- Colorado River Aqueduct: assumes a full aqueduct through the implementation of the California Plan (including lining of All American and Coachella canals, SD/IID water transfer/exchange, conjunctive use off-aqueduct storage, and river re-operations)

- State Water Project: assumes continuance of Bay-Delta Accord (with only current facilities)

One way of viewing the result of Metropolitan's WSDM Plan analyses is by summary statistics. Table A- 1 gives the probabilities of shortage actions over the next twelve years.

Table A-1. Probability of Shortage Stage[1] by Forecast Year

1999	13%	13%	11%	7%	3%	0%	O%
2000	13%	13%	11%	9%	3%	O%	0%
2001	19%	17%	13%	10%	6%	O%	0%
2002	19%	17%	13%	10%	4%	1%	0%
2003	19%	19%	14%	11%	4%	0%	0%
2004	20%	19%	16%	13%	4%	0%	0%
2005	21%	19%	17%	13%	6%	O%	O%
2006	21%	19%	19%	13%	6%	0%	0%
2007	23%	20%	19%	13%	4%	0%	0%
2008	26%	21%	19%	16%	6%	1%	0%
2009	26%	24%	19%	17%	6%	1%	0%
2010	26%	26%	19%	19%	6%	1%	O%

Table A-1 can be read in one of two ways, by column or row. The Stage 7 column indicates that there are no historical weather conditions that require allocation over the next twelve years. This is the single most important conclusion of the WSDM Plan analysis. The Stage 6 column indicates that only in a few years--2002, and 2008 through 2010--would Metropolitan need have a need for option or spot transfer water. Read by row, Table A-1 indicates that in the year 2008 there is a 21% likelihood of taking some water from the Eastside Reservoir Project, a 19% likelihood of taking water from Semitropic or Arvin-Edison storage programs, a 17% likelihood of interrupting long-term seasonal and replenishment deliveries for two years, and so on. It should be noted that these probabilities represent the best current estimates by Metropolitan, but are based entirely on historical weather conditions. Conditions that fall outside of historical ranges, either in duration or severity, are not represented by this data.

Another way to view the WSDM Plan analysis is by observing the operation of a single hydrology. Table A-2 provides an example of resource operations for the period 1999 through 2010 assuming a repeat of the 1923 through 1934 hydrology. The table provides descriptions of hydrologic conditions to aid in understanding the example.

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[1] Stage 1 consists of withdrawal from the Eastside Reservoir Project. Stage 2 consists of the above plus withdrawals from the Semitropic and Arvin-Edison water storage and transfer projects. Stage 3 consists of the above plus an interruption of Long-Term Seasonal and Replenishment discount water. Stage 4 consists of the above plus withdrawal from contractual groundwater programs and the Monterey Reservoirs. Stage 5 consists of the above plus a call for extraordinary drought conservation and interruption in agricultural discount water. Stage 6 consists of the above plus calls on option contract water and purchases of water on the open market. Stage 7 consists of the above plus allocation of remaining shortages. For a full description of stages and action, see Surplus and Shortage Resource Actions section and Figure 8 above.

For instance, 1923 was considered to be a dry year in southern California (defined as less than 9 inches of rain at the Los Angeles Civic Center) and is categorized by the California Department of Water Resources (DWR) as a below normal year for State Water Project deliveries. In this example, 1923 weather increases southern California's demand for water and decreases imported State Water Project supplies. The Colorado River Aqueduct supplies are influenced by yet another hydrologic indicator, but for the next ten year Metropolitan expects the Aqueduct to be full.

Table A-2 indicates that retail water demands in 1999, assuming a 1923 hydrology, will be 3.979 million acre-feet (maf). Adding expected long-term seasonal and replenishment demands of 0.165 maf gives a regional total water demand of 4.144 maf. After subtracting local supplies of 2.192 maf, which are also adjusted for 1923 weather, Metropolitan expects to see a demand of 1.952 maf. In 1999, under a 1923 hydrology, Metropolitan expects to see 2.954 maf of supply. This is enough to meet all expected demands and put over 1.0 maf into storage.

The 1923 through 1934 hydrology is significant because it starts and ends dry with little recovery in the middle. However, even in these most adverse conditions the actions proposed by the WSDM Plan provides the region with enough water to avoid shortage allocation. Again the most important result of this example is read from the last line, which indicates that there are no remaining shortages through 2008

Table A-3 provides a second example of using the 1980 through 1991 hydrology. This hydrology contains the most significant drought in recent record, ending with a critically dry year on the State Water Project that is expected to yield a mere 0.389 maf. However, even under these conditions the WSDM Plan provides a method to avoid firm water allocation.

The analyses performed using the prioritized action of the Stages and Actions Matrix support Metropolitan's assertion that water supply reliability can be attained through the use of regional storage, interruption of discounted water supplies, and transfers. And, through the implementation of the WSDM Plan, Metropolitan does not expect to allocate firm water deliveries for at least the next ten years.

Table A-2. A Simulation of Water Supplies and Demands 1923-1934 Hydrology

Forecast Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Hydrology Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Hydrologic Conditions												
Southern California Year Type	Dry	Dry	Dry	Wet	Wet	Dry	Dry	Normal	Wet	Normal	Wet	Normal
Sacramento River Index D1630 Year Type	Below Normal	Critically Dry	Dry	Dry	Wet	Above Normal	Critically Dry	Dry	Critically Dry	Dry	Critically Dry	Critically Dry
Demands												
Retail Demand	3.979	4.152	4.149	4,018	4.005	**4.249**	4.237	4.223	4.280	4.280	4.407	4.500
Long-term/Replenishment Demand	0.165	0.182	0.226	0.188	0.149	0.176	0,213	0.203	0.164	0.175	0.141	0.163
Total Demand	4.144	4.334	4.375	4.205	4.154	4.425	4.450	4.426	4,443	4.455	4.548	4,663
Local Supplies												
Groundwater Production	1.529	1.545	1.537	1.288	1.299	1.575	**1.568**	1.434	1.307	1.439	1.318	1.454
L. A. Aqueduct Production	0.383	0,287	0.304	0.316	0.392	0.302	0,245	0.235	0.174	0,324	0.251	0.220
Recycling Production	0.152	0.162	0.174	0.186	0,197	0.207	0.217	0.230	0,242	0.254	0.266	0.277
Surface Production	0,128	0,089	0,076	0.116	0.154	0.147	0.108	0.094	0,133	0,136	0.151	0.145
Total Local Supply	2,192	2.084	2.091	1.905	2,043	2.231	2,139	1.993	1.856	2.153	1.986	2,097
Total MWD Demand	1.952	2.250	2,284	2,300	2.112	2.194	2.311	2.433	2.587	2.302	2.562	2.566
MWD Supply Sources												
Colorado River Aqueduct Supply	1.200	1.200	1.200	1.200	1.200	**1.200**	1.200	1.200	1.200	1.200	1.200	1.200
State Water Project Supply	1.754	0.812	0.783	1.280	1.678	1.438	0,764	1.163	0,589	0.843	0.559	0.620
MWD Cyclic Groundwater Deliveries	0.000	0.060	0.060	0.000	0.000	0,000	0.060	0,060	0.060	0.059	0.000	0.000
Eastside Reservoir	0.000	0.066	0.058	0.000	0.000	0.000	0,060	0.010	0.425	0.023	0.219	0.041
Arvin/Semitropic Groundwater Storage	0.000	0.111	0.115	0,000	0.000	0,000	0,119	0,000	0.115	0.117	0.059	0.041
Longterm Seasonal Demand Cuts	0.000	0,000	0,166	0.000	0.000	0.000	0.153	0.000	0.104	0,116	0.000	0.000
Cyclic Benefits	0.000	0.000	0.000	0.000	0.000	0.000	0,000	0,000	0,000	0,000	0.060	0.060
Contractual Groundwater Storage	0.000	0.000	0.000	0,000	0.000	0.000	0.000	0,000	0.095	0.000	0.095	0.084
DWR Reservoirs (Monterey Agreement)	0.000	0.000	0,000	0.000	0.000	0.000	0.000	0.000	0,000	0,000	0.131	0.088
Voluntary Conservation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0,000	0.000	0.206	0.210
MWD Ag Cuts	0.000	0.000	0.000	0.000	0.000	0,000	0.000	0.000	0.000	0.000	0.033	0.031
Central Valley Transfers	0.000	0.000	0,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.193
Storage Puts	1.003	0.000	0.097	0.180	0.549	0.438	0.045	0.000	0,000	0.056	0.000	0.000
Remaining Shortage	0,000	0,000	0.000	0,000	0.000	0.000	0.000	0,000	0.000	0.000	0.000	0.000

Table A-3. A Simulation of Water Supplies and Demands 1980-1991 Hydrology

Forecast Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Hydrology Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Hydrologic Conditions												
Southern California Year Type	Wet	Normal	Normal	Wet	Dry	Dry	Wet	Normal	Normal	Dry	Dry	Normal
Sacramento River Index D1630 Year Type	Above Normal	Dry	Wet	Wet	Wet	Dry	Wet	Dry	Critically Dry	Dry	Critically Dry	Critically Dry
Demands												
Retail Demand	3.781	4.170	3.930	3.647	4.308	4.250	4.151	4.281	4.380	4.550	4.663	4.497
Lon£1-term/Replenishment Demand	0.105	0.141	0.171	0.101	0.136	0.187	0.183	0.201	0.191	0.219	0.224	0.214
Total Demand	3.886	4.311	4.101	3.748	4.444	4.437	4.334	4.483	4.572	4.769	4.887	4.712
Local Supplies												
Groundwater Production	1.292	**1.440**	**1.381**	1.248	1.546	1.565	1.275	1.413	1.438	1.588	1.600	1.446
L. A. Aqueduct Production	0.462	0.372	0.499	0.529	0.516	O.367	0.472	0.400	0.326	0.278	0.213	0.223
Recycling Production	0.152	0.162	0.174	0.186	0.197	0.207	0.217	0.230	0.242	0.254	0.266	0.277
Surface Production	0.225	0.175	0.154	0.194	0.195	0.151	0.115	0.116	0.115	0.081	0.068	0.081
Total Local Supply	2.131	2.149	2.208	2.156	2.455	2.290	2.081	2.159	2.122	2.200	2,146	2.027
Total MWD Demand	1.755	2.162	1.894	1.591	1.989	2.147	2.253	2.324	2.450	2.569	2.741	2.684
MWD Supply Sources												
Colorado River Aqueduct Supply	1.200	1.200	1.200	1,200	1.200	1.200	1.200	1.200	**1.200**	1.200	1.200	1.200
State Water Project Supply	1.561	1.441	1.725	1.886	1.643	1.590	1.441	1.292	0.611	1.285	0.877	0.389
MWD Cyclic Groundwater Deliveries	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.060	0.060	0.060	0.060
Eastside Reservoir	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.199	0.024	0.222	0.209
Arvin/Semitropic Groundwater Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.115	0.000	0.122	0.104
Long-term Seasonal Demand Cuts	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.131	0.000	0.164	0.154
Cyclic Benefits	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Contractual Groundwater Storage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.133	0.000	0.095	0.085
DWR Reservoirs (Monterey Agreement)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.216
Voluntary Conservation	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.235
MWD Ag Cuts	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.032
Central Valley Transfers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Storage Puts	1.006	0.260	0.344	0.240	0.200	0.200	0.388	0.168	0.000	0.000	0.000	0.000
Remaining Shortage	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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APPENDIX A.5
Local Projects

Table A.5-1

Groundwater Recovery Projects

Existing	Ultimate Yield/Capacity Acre-Feet	Online Date
City of Beverly Hills		
Beverly Hills Desalter Project	2,600	
City of Burbank		
Burbank Lake Street GAC Plant	2,744	
Burbank Operable Unit/Lockheed Valley Plant	14,517	
Central Basin Municipal Water District		
Water Quality Protection Project	5,807	
Eastern Municipal Water District		
Menifee Basin Desalter	3,360	
Perris Desalter	4,500	
Foothill Municipal Water District		
Glenwood Nitrate	1,600	
City of Glendale		
San Fernando Basin - Glendale Operable Units	7,300	
Verdugo Basin - Verdugo Wells A & B	2,750	
Inland Empire Utilities Agency		
Chino Basin Desalter 1	6,000	
Chino Basin Desalter 2	8,000	
Municipal Water District of Orange County		
Arlington Basin Groundwater Desalter Project	2,000	
IRWD DATS Potable (Exempt)	8,000	
IRWD Irvine Desalter Project	11,200	
Mesa Colored Water Treatment Facility	11,300	
SJC San Juan Desalter GRP Project	4,800	
So Coast WD Capistrano Beach Desalter	1,300	
Tustin Desalter 17th St.	3,200	
Tustin Main Street Nitrate	2,000	
Well 28	4,300	
San Diego County Water Authority		
Lower Sweetwater Desalter	3,600	
Oceanside Mission Basin Desalter	6,500	
Three Valleys Municipal Water District		
City of Pomona VOC Plant	4,678	
Pomona Well #37	1,100	
City of Torrance		
Madrona Desalter (Goldsworthy)	2,400	
West Basin Municipal Water District		
West Basin Brewer Desalter No. 1	1,524	
Western Municipal Water District of Riverside County		
Arlington Basin Groundwater Desalter Project	4,100	
Chino Basin Desalter 1	2,000	
Chino Basin Desalter 2	8,000	
Temescal Basin Desalting Facility Project	10,000	

Table A.5-1

Groundwater Recovery Projects

Full Design & Appropriated Funds	Ultimate Yield/Capacity Acre-Feet	Online Date
Inland Empire Utilities Agency		
Chino Basin Desalter 2	11,760	2016
San Diego County Water Authority		
Lower Sweetwater Desalter	5,200	2020

Advanced Planning (EIR/EIS Certified)	Ultimate Yield/Capacity Acre-Feet	Online Date
Calleguas Municipal Water District		
Oxnard GREAT Program	15,500	2016
City of Los Angeles		
Tujunga Well Treatment	24,000	2014
Municipal Water District of Orange County		
SJC San Juan Desalter GRP Project	3,363	2014
Tustin Legacy Well # 1	2,200	2014
Wells 21 & 22	7,900	2014
San Diego County Water Authority		
Middle Sweetwater River Basin Groundwater Well System (Capacity)	1,000	2018
Rancho del Rey Well Desalination	500	2016

Feasibility	Ultimate Yield/Capacity Acre-Feet	Online Date
Municipal Water District of Orange County		
IRWD Wells 51,52,53, 21& 22 Potable (Non-exempt)	12,700	2018
Mesa Colored Water Treatment Facility	5,650	2018
San Diego County Water Authority		
Mission Valley Brackish Groundwater Recovery Project	1,760	2016
Oceanside Mission Basin Desalter	5,600	2016
Otay Mesa Lot 7 Well Desalination	400	2016
San Diego Formation / Balboa Park Pilot Production Well	1,300	2018
San Diego Formation / Diamond BID Pilot Production Well	1,600	2015
San Dieguito Reservoir Seepage Recovery Feasibility Study	150	2015
San Paqual Brackish Groundwater Recovery Project	3,360	2016
San Vicente & El Capitan Seepage Recovery	1,400	2015
Sweetwater Authority/Otay WD San Diego Formation Recovery	3,900	2020
City of San Marino		
San Marino GWR Project	2,500	2018
West Basin Municipal Water District		
West Basin Brewer Desalter No. 1	156	2018
Western Municipal Water District of Riverside County		
Chino Basin Desalter 3	10,000	2018

Table A.5-1

Groundwater Recovery Projects

Conceptual	Ultimate Yield/Capacity Acre-Feet	Online Date
City of Beverly Hills		
Shallow Groundwater Development	500	2020
Calleguas Municipal Water District		
Camarillo (City of) Groundwater Treatment Facility	4,000	2020
Camrosa Brackish Water Reclamation Project (CSUCI)	1,050	2020
Camrosa Santa Rosa Basin Desalter	5,040	2020
Golden State Desalter	1,668	2020
Somis Desalter (District 19)	2,800	2020
South Las Posas Desalter	5,000	2020
West Simi Desalter (District 8)	2,800	2020
Eastern Municipal Water District		
Perris Desalter	5,585	2020
Municipal Water District of Orange County		
So Coast WD Capistrano Beach Desalter	700	2020
City of Pasadena		
Sunset Reservoir Well Treatment,IX	1,500	2020
San Diego County Water Authority		
San Dieguito River Basin Brackish GW Recovery and Treatment	500	2015
City of Torrance		
Madrona Desalter (Goldsworthy)	2,600	2020
Western Municipal Water District of Riverside County		
Arlington Basin Groundwater Desalter Project	8,000	2020

Table A.5-2

Recycled Water Projects

Existing	Ultimate Yield/Capacity Acre-Feet	Online Date
City of Burbank		
Burbank Reclaimed Water System Project	850	
Caltrans and BWP Power Plant	1,520	
Calleguas Municipal Water District		
Camrosa Water District Recycling System	1,680	
City of Simi Vally/VCWWD No. 8 Reclaimed Water Distribution System	1,100	
Conejo Creek Diversion Project	14,000	
Lake Sherwood Reclaimed Water System	250	
Oak Park/North Ranch Water Reclamation Project	1,300	
VCWWD No. 1/Moorpark WWTP Reclaimed Water Distribution System	5,040	
Central Basin Municipal Water District		
Century/Rio Hondo Reclamation Program	10,500	
Cerritos Reclaimed Water Project	4,000	
Lakewood Water Reclamation Project	440	
Montebello Forebay	50,000	
Eastern Municipal Water District		
Eastern Regional Reclaimed Water System	56,000	
EMWD Recycled Water Pipeline Reach 1 Phase II	1,700	
EMWD Recycled Water Pipeline Reach 16	820	
Rancho California Reclamation	6,450	
Foothill Municipal Water District		
La Canada-Flintridge Country Club	224	
City of Glendale		
Glendale Forest Lawn Water Reclamation Expansion Project	500	
Glendale Grayson Power Plant Project	600	
Glendale Verdugo-Scholl Brand Park Reclaimed Water Project	2,225	
Inland Empire Utilities Agency		
Carbon Canyon/IEUA Regional Recycled Water Distribution System	38,500	
Las Virgenes Municipal Water District		
Calabasas System	4,700	
Decker Canyon Recycled Water Line Extension Project	300	
Las Virgenes Reclamation Project	2,700	
Las Virgenes Valley Reclaimed Water System	500	
City of Long Beach		
Alamitos Barrier Reclaimed Water Project	3,025	
Long Beach Reclamation Project	6,550	
THUMS	1,429	
City of Los Angeles		
Environmental Use	28,500	
Griffith Park and MCA/Universal	2,920	
Hansen Area Water Recycling Project Phase 1	2,500	
Harbor Water Recycling Project	3,600	
Los Angeles Greenbelt Project	900	
Sepulveda Basin Water Reclamation Project	1,500	
West Basin Water Reclamation Program	1,000	

Table A.5-2

Recycled Water Projects

Existing	Ultimate Yield/Capacity Acre-Feet	Online Date
Municipal Water District of Orange County		
El Toro WD Recycling	375	
Green Acres Reclamation Project	6,200	
Irvine Ranch Reclamation Project	10,000	
IRWD Los Alisos Water Reclamation Plant	1,500	
IRWD Michelson & LAWRP Reclamation Upgrades	8,500	
IRWD Michelson Reclamation Project	8,200	
MNWD Moulton Niguel Water Reclamation Project	9,746	
OCWD Groundwater Replenishment System	72,000	
San Clemente Water Reclamation Project	1,610	
SJC Capistrano Valley Non-Domestic Water System Expansion	3,460	
SMWD Chiquita Reclamation Project	2,772	
SMWD Oso Reclamation Expansion Project	3,600	
SMWD purchase from IRWD	321	
South Coast WD South Laguna Reclamation Project	1,450	
Trabuco Canyon Reclamation Expansion Project	1,330	
San Diego County Water Authority		
Camp Pendleton	1,700	
Carlsbad MWD Encina Basin Water Reclamation Program - Phases I and II	5,000	
Escondido Regional Reclaimed Water Project	2,800	
Fairbanks Ranch	308	
Fallbrook Reclamation Project	1,200	
North City Water Reclamation Project	17,500	
Oceanside Water Reclamation Project	200	
Olivenhain Recycled Project - SE Quadrant	1,888	
Otay Recycled Water System	7,500	
Padre Dam Reclaimed Water System	850	
Ramona MWD - San Vicente Water Pollution Control Facility	585	
Ramona MWD - Santa Maria Water Reclamation Project	400	
Rancho Santa Fe Water Pollution Control Facility	500	
RDDMWD Recycled Water Program	4,074	
San Diego Wild Animal Park	168	
San Elijo Water Reclamation System	1,600	
Skyline Ranch	28	
South Bay Water Reclamation Project	1,670	
Valley Center MWD - Lower Moosa Canyon	476	
Valley Center MWD - Woods Valley Ranch	300	
Whispering Palms	448	
City of Santa Ana		
Green Acres Reclamation Project	800	
City of Santa Monica		
Santa Monica Urban Runoff Recycling Facility (SMURRF)	280	
Three Valleys Municipal Water District		
City of Industry Regional Water System	2,584	
Pomona Reclamation Project	9,320	

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.5-2

Recycled Water Projects

Existing	Ultimate Yield/Capacity Acre-Feet	Online Date
Three Valleys Municipal Water District (contd)		
Rowland Reclamation Project	2,000	
Walnut Valley Reclamation Project	4,234	
City of Torrance		
West Basin Water Reclamation Program	7,800	
Upper San Gabriel Valley Municipal Water District		
Direct Reuse	3,258	
Los Angeles County Sanitation District Projects	4,375	
Norman's Nursery	100	
West Basin Municipal Water District		
West Basin Water Reclamation Program	46,700	
Western Municipal Water District of Riverside County		
Elsinore Valley/Horse Thief Reclamation	560	
Elsinore Valley/Railroad Canyon Reclamation	730	
March Air Force Base Reclamation Project	896	
Rancho California Reclamation	4,950	
Western Riverside County Regional Water Authority	8,950	

Under Construction	Ultimate Yield/Capacity Acre-Feet	Online Date
Inland Empire Utilities Agency		
Carbon Canyon/IEUA Regional Recycled Water Distribution System	25,000	2015
Three Valleys Municipal Water District		
City of Industry Regional Water System	2,164	2011
Upper San Gabriel Valley Municipal Water District		
City of Industry Regional Water System	3,720	2013
Western Municipal Water District of Riverside County		
March Air Force Base Reclamation Project	448	2012

Full Design & Appropriated Funds	Ultimate Yield/Capacity Acre-Feet	Online Date
Las Virgenes Municipal Water District		
Thousand Oaks Boulevard Extension	176	2010
City of Los Angeles		
Hansen Dam Golf Course Water Recycling Project	500	2011
Municipal Water District of Orange County		
SMWD Canada Gobernadora	725	2013
West Basin Municipal Water District		
West Basin Water Reclamation Program	1,710	2011

Table A.5-2

Recycled Water Projects

Advanced Planning (EIR/EIS Certified)	Ultimate Yield/Capacity Acre-Feet	Online Date
City of Burbank		
Burbank Reclaimed Water System Project	974	2013
Calleguas Municipal Water District		
VCWWD No. 1/Moorpark WWTP Reclaimed Water Distribution System	1,179	2014
Eastern Municipal Water District		
Eastern Regional Reclaimed Water System	12,900	2015
Inland Empire Utilities Agency		
Carbon Canyon/IEUA Regional Recycled Water Distribution System	50,000	2020
City of Long Beach		
Long Beach Reclamation Project	450	2014
City of Los Angeles		
LA-Glendale Storage & Distribution System Water Recycling Project	2,600	2014
Municipal Water District of Orange County		
IRWD Michelson Reclamation Project	11,200	2011
OCWD Groundwater Replenishment System	20,000	2013
San Clemente Water Reclamation Project	1,400	2012
SMWD Arroyo Trabuco Sump	270	2013
SMWD Chiquita Reclamation Project	3,360	2014
San Diego County Water Authority		
Padre Dam Reclaimed Water System	3,304	2015
Upper San Gabriel Valley Municipal Water District		
Direct Reuse	620	2020
Western Municipal Water District of Riverside County		
Elsinore Valley/Summerly	1,380	2011
Elsinore Valley/Wildomar (Phase 1)	300	2011
Elsinore Valley/Tuscany (Phase 1A)	1,225	2013

Feasibility	Ultimate Yield/Capacity Acre-Feet	Online Date
Calleguas Municipal Water District		
City of Simi Vally/VCWWD No. 8 Reclaimed Water Distribution System	50	2018
Eastern Municipal Water District		
EMWD Indirect Potable Reuse	15,000	2018
City of Long Beach		
Alamitos Barrier Reclaimed Water Project	5,000	2018
City of Los Angeles		
Elysian Park Tank & Pumping Station Water Recycling Project	500	2014
Harbor Water Recycling Project	15,500	2015
LA Zoo Water Recycling Project	500	2014
LAX Cooling Towers	240	2018
Terminal Island AWTF and Distriubtion System Expansion Water Recyclng Project	10,000	2019
Tillman Groundwater Replenishment System	15,000	2019

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Table A.5-2

Recycled Water Projects

Feasibility	Ultimate Yield/Capacity Acre-Feet	Online Date
Municipal Water District of Orange County		
El Toro AWT Joint project (MNWD, ETWD & IRWD)	400	2018
IRWD Michelson Reclamation Project	5,600	2014
LBCWD Laguna Canyon Blended Recycled Water	100	2014
MNWD Moulton Niguel Water Reclamation Project	600	2014
OCWD Groundwater Replenishment System	30,000	2018
SMWD Chiquita Reclamation Project	5,600	2012
SOCWA J.B. Latham AWT Joint project	7,841	2012
San Diego County Water Authority		
Carlsbad MWD - Mahr Reservoir	151	2015
Olivenhain Northwest Quadrant Recycled Water Project	1,000	2015
Otay Recycled Water System	1,200	2015
Otay WD - North District Recycled Water System	1,100	2020
Ramona MWD - Santa Maria Water Reclamation Project	430	2020
Shadowridge Reclaimed Water System	1,100	2020
Valley Center - Welk WRF	140	2020
Valley Center MWD - Lilac Ranch WRF	60	2020
Upper San Gabriel Valley Municipal Water District		
Direct Reuse	7,000	2018
West Basin Municipal Water District		
Joint Water Pollution Control Plant (JWPCP)	17,500	2012
West Basin Water Reclamation Program	25,540	2012
Western Municipal Water District of Riverside County		
Rancho California Reclamation	13,800	2018

Conceptual	Ultimate Yield/Capacity Acre-Feet	Online Date
City of Anaheim		
Anaheim Water Recycling Demonstration Project	110	2020
Calleguas Municipal Water District		
Thousand Oaks-Camrosa Interconnect	314	2020
Central Basin Municipal Water District		
Joint Water Pollution Control Plant (JWPCP)	45,000	2020
Eastern Municipal Water District		
Hemet Citrus In Lieu Project	5,000	2020
Foothill Municipal Water District		
Arroyo Seco - Flint Wash Project	240	2020
Eaton Canyon Project	500	2025
Verdugo Basin Project	400	2020
Las Virgenes Municipal Water District		
Hidden Hills Outdoor Residential Pilot Project	273	2020
Thousand Oaks Boulevard Extension	250	2020

Table A.5-2

Recycled Water Projects

Conceptual	Ultimate Yield/Capacity Acre-Feet	Online Date
Las Virgenes Municipal Water District (contd)		
Woodland Hills Golf Course Extension	316	2020
City of Los Angeles		
San Fernando Valley/Central City Water Recycling and Reliability Project	1,500	2019
Satellite Plant & Distribution System	4,500	2019
Westside Tier 2A Expansion Water Recycling Project	5,000	2019
Municipal Water District of Orange County		
MWDOC West OC Recycling	6,000	2020
City of Pasadena		
Joint Water Pollution Control Plant (JWPCP)	15,000	2020
San Diego County Water Authority		
Carlsbad MWD Encina Basin Water Reclamation Program - Phases I and II	3,658	2020
Escondido Regional Reclaimed Water Project	1,200	2020
Oceanside Water Reclamation Project	1,300	2020
Olivenhain Joint RW Transmission Project with SFID and OMWD	500	2020
Olivenhain Northwest Quadrant Recycled Water Project	300	2020
Olivenhain Wanket Reservoir RW Conversion	300	2020
Santa Fe ID Evaluating Multiple Options	500	2015
Valley Center MWD - Lower Moosa Canyon	672	2016
Valley Center MWD - North Village WRF	150	2015
Three Valleys Municipal Water District		
Thompson Creek	3,000	2020
City of Torrance		
Joint Water Pollution Control Plant (JWPCP)	5,000	2020
Upper San Gabriel Valley Municipal Water District		
Direct Reuse	4,900	2020
Groundwater Reliability Improvement Project	25,000	2020
Joint Water Pollution Control Plant (JWPCP)	35,000	2020
West Basin Municipal Water District		
Joint Water Pollution Control Plant (JWPCP)	5,000	2020
West Basin Water Reclamation Program	1,008	2015
Western Municipal Water District of Riverside County		
City of Riverside Recycled Water Program	41,400	2015

Table A.5-3

Seawater Desalination Projects

Advanced Planning (EIR/EIS Certified)	Ultimate Yield/Capacity Acre-Feet	Online Date
Municipal Water District of Orange County		
Huntington Beach Seawater Desalination Project	56,000	2012
San Diego County Water Authority		
Carlsbad Seawater Desalination Project	56,000	2012

Feasibility	Ultimate Yield/Capacity Acre-Feet	Online Date
San Diego County Water Authority		
Camp Pendleton Seawater Desalination Project	56,000	2019
Rosarito Beach Seawater Desalination Feasibility Study	28,000	2020
West Basin Municipal Water District		
West Basin Seawater Desalination Project	20,000	2025

Conceptual	Ultimate Yield/Capacity Acre-Feet	Online Date
City of Long Beach		
Long Beach Seawater Desalination Project	10,000	2025
Municipal Water District of Orange County		
South Orange Coastal Ocean Desalination Project	16,000	2015

APPENDIX A.6
RECENT CUWCC FILINGS

Water Supply & Reuse

Reporting Unit: **Metropolitan Water District of SC**	Year: **2005**

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
CRA	611128	Imported
SWP	1575911	Imported

Total AF: 2187039

Purchaser Information

Name of Agency	Quantity (AF) Supplied	Retailer or Wholesaler
Anaheim	28073.9	retail
Beverly Hills	11917.8	retail
Burbank	13764.8	retail
Calleguas MWD	113539.8	wholesale
Central Basin MWD	88790.2	wholesale
Compton	2978.8	retail
Eastern MWD	6221.2	wholesale
Eastern MWD	97465.9	retail
Foothill	11651.4	wholesale
Fullerton	17486.5	retail
Glendale	22678.2	retail
Inland Empire UA	97157.2	wholesale
Las Virgenes MWD	21734	retail
Long Beach	47565.2	retail
Los Angeles	250666.6	retail
MWD of Orange County	266938.6	wholesale
Pasadena	21982	retail
San Diego CWA	531535.7	wholesale
San Fernando	500	retail
San Marino	1422.3	retail
Santa Ana	19177.8	retail
Santa Monica	13195.8	retail
Three Valleys	76610.5	wholesale
Torrance	29045.5	retail
Upper San Gabriel Valley MWD	51951.8	wholesale
West Basin MWD	140841.8	wholesale
Western MWD	112991.9	wholesale

Total AF: 2097885.2

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2005**

A. Implementation

	1. Does your agency own or operate a water distribution system?	yes
	2. Has your agency completed a pre-screening system audit for this reporting year?	yes
	3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:	
	a. Determine metered sales (AF)	2060111.1
	b. Determine other system verifiable uses (AF)	0
	c. Determine total supply into the system (AF)	2109000.9
	d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required.	0.98
	4. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production?	yes
	5. Did your agency complete a full-scale audit during this report year?	yes
	6. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit?	yes
	7. Does your agency operate a system leak detection program?	yes
	a. If yes, describe the leak detection program: Metropolitan's system is monitored by 10+ patrols who also collect WQ samples, pilots flying the CRA and pipeline staff in the normal course of their duties. If evidence of leaking water is detected near any of our facilities, we analyze a water sample to determine if it's our water leaking. Normally it is not. If it is, we may hire a leak detection firm to locate the leak.	

B. Survey Data

	1. Total number of miles of distribution system line.	1017
	2. Number of miles of distribution system line surveyed.	1017

C. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

BMP 07: Public Information Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2005**

A. Implementation

	1. How is your public information program implemented? Wholesaler implements program (none or minimal retailer participation)		
	2. Describe the program and how it's organized: Major advertising and public relations campaign promoting outdoor water use efficiency and California Friendly landscaping. Educational brochures and campaign artwork including bill-stuffers available for retailer and sub-agency use.		
	3. Indicate which and how many of the following activities are included in your public information program:		
	Region-Wide Public Information Program Activity	**Yes/No**	**Number of Events**
	a. Paid Advertising	yes	3205
	b. Public Service Announcement	yes	48
	c. Bill Inserts / Newsletters / Brochures	yes	15
	d. Bill showing water usage in comparison to previous year's usage	no	
	e. Demonstration Gardens	yes	31
	f. Special Events, Media Events	yes	8
	g. Speaker's Bureau	yes	0
	h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	1. Annual Expenditures (Excluding Staffing)	2000000

C. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." NA	

D. Comments

	NA

BMP 08: School Education Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2005**

A. Implementation

1. How is your public information program implemented?
Wholesaler and retailer both participate in program

2. Please provide information on your region-wide school programs (by grade level):

Grade	Are grade- appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	7	25010	337
Grades 4th-6th	yes	21	33346	450
Grades 7th-8th	yes	12	12104	165
High School	yes	12	12909	171

4. Did your Agency's materials meet state education framework requirements?	yes
5. When did your Agency begin implementing this program?	11/1/1983

B. School Education Program Expenditures

1. Annual Expenditures (Excluding Staffing)	605050

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2005**

A. Implementation

1. Financial Support by BMP

BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded	BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded
1	yes	70000	61298	**8**	No		0
2	yes	350000	373532	**9**	yes	2000000	1901119
3	No		0	**10**	No		0
4	No		0	**11**	No		0
5	yes	60000	57438	**12**	No		0
6	yes	275000	2664241	**13**	No		0
7	No		0	**14**	yes	5500000	5548600

2. Technical Support

a. Has your agency conducted or funded workshops addressing CUWCC procedures for calculating program savings, costs and cost-effectiveness?	No
b. Has your agency conducted or funded workshops addressing retail agencies' BMP implementation reporting requirements?	No
c. Has your agency conducted or funded workshops addressing:	
1) ULFT replacement	No
2) Residential retrofits	No
3) Commercial, industrial, and institutional surveys	yes
4) Residential and large turf irrigation	yes
5) Conservation-related rates and pricing	No

3. Staff Resources by BMP

BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP	BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP
1	yes	.45	**8**	No	
2	yes	.45	**9**	yes	2
3	No		**10**	yes	2.2
4	No		**11**	No	
5	yes	2.7	**12**	No	
6	yes	1.4	**13**	No	
7	No		**14**	yes	1.2

4. Regional Programs by BMP

BMP	Implementation/ Management Program?	BMP	Implementation/ Management Program?
1	No	**8**	yes
2	No	**9**	yes

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2005**

3	No	**10**	No
4	No	**11**	No
5	yes	**12**	No
6	yes	**13**	No
7	yes	**14**	No

B. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

C. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 11: Conservation Pricing

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2005**

A. Implementation

	Water Service Rate Structure Data by Customer Class		
	Number of schedules:	**Use of classification:**	**Rate structure:**
	For the following accounts, how many rate schedules does agency offer/use?	This agency:	Click link for each rate schedule:
	1. Single-family residential: 0	Does not offer	
	2. Multi-family residential: 0	Does not offer	
	3. Commercial: 0	Does not offer	
	4. Industrial: 0	Does not offer	
	5. Institutional/ government: 0	Does not offer	
	6. Dedicated irrigation (potable water): 0	Does not serve	
	7. Other: 0	Does not offer	
	8. Recycled-reclaimed water: 0	Does not offer	
	9. Raw water (urban use): 0	Uses class	
	10. Wholesale (urban use): 1	Uses class	RATES ENTERED
	Sewer Service		
	11. Does your agency provide sewer service to your water customers?		no
	12. Does all sewer service use conservation rate structures?		no
	13. Has your agency made the required efforts (as prescribed in BMP 11) to have sewer services billed on conservation rates?		no
	14. What water agency activities have been undertaken during the reporting period to achieve waste water agency volumetric billing in your water agency service area?		None

B. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

C. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 12: Conservation Coordinator

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2005**

A. Implementation

1. Does your Agency have a conservation coordinator?	yes
2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program ?	no
a. Partner agency's name:	
3. If your agency supplies the conservation coordinator:	
a. What percent is this conservation coordinator's position?	80%
b. Coordinator's Name	Andy Hui
c. Coordinator's Title	Unit Manager V
d. Coordinator's Experience and Number of Years	3 years managing unit
e. Date Coordinator's position was created (mm/dd/yyyy)	8/8/1988
4. Number of conservation staff (FTEs), including Conservation Coordinator.	10

B. Conservation Program Expenditures

1. Staffing Expenditures (In-house Only)	1811000
2. BMP Program Implementation Expenditures (Total of all BMPs)	10606226

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	no
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

RSU Labor (including travel, training, materials, etc)(minus 45400-45550)+ $500,000 (to cover AH and TB whose salary expenses are under AS's budget) x 0.65 = BMP staff expenses

Water Supply & Reuse

Reporting Unit:	Year:
Metropolitan Water District of SC	**2006**

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
CRA	611972	Imported
SWP	1625990	Imported

Total AF: 2237962

Purchaser Information

Name of Agency	Quantity (AF) Supplied	Retailer or Wholesaler
Anaheim	31271.4	retail
Beverly Hills	12045.7	retail
Burbank	13031.7	retail
Calleguas MWD	112681.6	wholesale
Central Basin MWD	87261.8	wholesale
Compton	2808.1	retail
Eastern MWD	11850.5	wholesale
Eastern MWD	104225.1	retail
Foothill	10518.3	wholesale
Fullerton	17794.7	retail
Glendale	22317.3	retail
Inland Empire UA	86428.2	wholesale
Las Virgenes MWD	22689.4	retail
Long Beach	44252.7	retail
Los Angeles	208864.1	retail
MWD of Orange County	284399.1	wholesale
Pasadena	21593.5	retail
San Diego CWA	572771.4	wholesale
San Fernado	801.9	retail
San Marino	1208.6	retail
Santa Ana	22007.3	retail
Santa Monica	12885.4	retail
Three Valleys MWD	63447.7	wholesale
Torrance	21337.8	retail
Upper San Gabriel Valley MWD	75565.5	wholesale
West Basin MWD	143485.1	wholesale
Western MWD	89024	wholesale

Total AF: 2096567.9

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2006**

A. Implementation

1. Does your agency own or operate a water distribution system?	yes
2. Has your agency completed a pre-screening system audit for this reporting year?	yes
3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:	
a. Determine metered sales (AF)	2039602.2
b. Determine other system verifiable uses (AF)	0
c. Determine total supply into the system (AF)	2357014.2
d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required.	0.87
4. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production?	yes
5. Did your agency complete a full-scale audit during this report year?	yes
6. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit?	yes
7. Does your agency operate a system leak detection program?	yes
a. If yes, describe the leak detection program: Metropolitan's system is monitored by 10+ patrols who also collect WQ samples, pilots flying the CRA and pipeline staff in the normal course of their duties. If evidence of leaking water is detected near any of our facilities, we analyze a water sample to determine if it's our water leaking. Normally it is not. If it is, we may hire a leak detection firm to locate the leak.	

B. Survey Data

1. Total number of miles of distribution system line.	1017
2. Number of miles of distribution system line surveyed.	1017

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

BMP 07: Public Information Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2006**

A. Implementation

	1. How is your public information program implemented? Wholesaler implements program (none or minimal retailer participation)
	2. Describe the program and how it's organized: Major advertising and public relations campaign promoting outdoor water use efficiency and California Friendly landscaping. Educational brochures and campaign artworkincluding bill-stuffers available for retailer and sub-agency use.
	3. Indicate which and how many of the following activities are included in your public information program:

	Region-Wide Public Information Program Activity	**Yes/No**	**Number of Events**
	a. Paid Advertising	yes	6308
	b. Public Service Announcement	yes	0
	c. Bill Inserts / Newsletters / Brochures	yes	12
	d. Bill showing water usage in comparison to previous year's usage	no	
	e. Demonstration Gardens	yes	30
	f. Special Events, Media Events	yes	10
	g. Speaker's Bureau	yes	0
	h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	1. Annual Expenditures (Excluding Staffing)	3800000

C. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." NA	

D. Comments

	NA

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 08: School Education Programs

Reporting Unit:	Form Status:	Year:
Metropolitan Water District of SC	**CUWCC Reviewed**	**2006**

A. Implementation

1. How is your public information program implemented?
Wholesaler and retailer both participate in program

2. Please provide information on your region-wide school programs (by grade level):

Grade	Are grade- appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	11	28917	378
Grades 4th-6th	yes	22	38556	503
Grades 7th-8th	yes	13	13494	186
High School	yes	14	15	192

4. Did your Agency's materials meet state education framework requirements?	yes
5. When did your Agency begin implementing this program?	11/1/1983

B. School Education Program Expenditures

1. Annual Expenditures (Excluding Staffing)	509450

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit:	Form Status:	Year:
Metropolitan Water District of SC	**CUWCC Reviewed**	**2006**

A. Implementation

1. Financial Support by BMP

BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded	BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded
1	yes	70000	31780	**8**	No	0	0
2	yes	350000	225460	**9**	yes	25000000	2679214
3	No	0	0	**10**	No	0	0
4	No	0	0	**11**	No	0	0
5	yes	250000	195213	**12**	No	0	0
6	yes	3000000	3047545	**13**	No	0	0
7	No	0	0	**14**	yes	4500000	4159840

2. Technical Support

a. Has your agency conducted or funded workshops addressing CUWCC procedures for calculating program savings, costs and cost-effectiveness?	No
b. Has your agency conducted or funded workshops addressing retail agencies' BMP implementation reporting requirements?	No
c. Has your agency conducted or funded workshops addressing:	
1) ULFT replacement	No
2) Residential retrofits	No
3) Commercial, industrial, and institutional surveys	yes
4) Residential and large turf irrigation	yes
5) Conservation-related rates and pricing	No

3. Staff Resources by BMP

BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP	BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP
1	yes	.45	**8**	No	
2	yes	.45	**9**	yes	2
3	No		**10**	yes	2.2
4	No		**11**	No	
5	yes	2.7	**12**	No	
6	yes	1.4	**13**	No	
7	No		**14**	yes	1.2

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2006**

4. Regional Programs by BMP

BMP	Implementation/ Management Program?	BMP	Implementation/ Management Program?
1	No	**8**	yes
2	No	**9**	yes
3	No	**10**	No
4	No	**11**	No
5	yes	**12**	No
6	yes	**13**	No
7	yes	**14**	No

B. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

C. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 11: Conservation Pricing

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2006**

A. Implementation

Water Service Rate Structure Data by Customer Class

Number of schedules:	**Use of classification:**	**Rate structure:**
For the following accounts, how many rate schedules does agency offer/use?	This agency:	Click link for each rate schedule:
1. Single-family residential: 0	Does not offer	
2. Multi-family residential: 0	Does not offer	
3. Commercial: 0	Does not offer	
4. Industrial: 0	Does not offer	
5. Institutional/ government: 0	Does not offer	
6. Dedicated irrigation (potable water): 0	Does not offer	
7. Other: 0	Does not offer	
8. Recycled-reclaimed water: 0	Does not offer	
9. Raw water (urban use): 0	Does not offer	
10. Wholesale (urban use): 2	Uses class	RATES ENTERED

Sewer Service

11. Does your agency provide sewer service to your water customers?	no
12. Does all sewer service use conservation rate structures?	no
13. Has your agency made the required efforts (as prescribed in BMP 11) to have sewer services billed on conservation rates?	no
14. What water agency activities have been undertaken during the reporting period to achieve waste water agency volumetric billing in your water agency service area?	None

B. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

C. Comments

BMP 12: Conservation Coordinator

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2006**

A. Implementation	
1. Does your Agency have a conservation coordinator?	yes
2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program ?	no
a. Partner agency's name:	
3. If your agency supplies the conservation coordinator:	
a. What percent is this conservation coordinator's position?	80%
b. Coordinator's Name	Andy Hui
c. Coordinator's Title	Unit Manager V
d. Coordinator's Experience and Number of Years	4 years managing unit
e. Date Coordinator's position was created (mm/dd/yyyy)	8/8/1988
4. Number of conservation staff (FTEs), including Conservation Coordinator.	10
B. Conservation Program Expenditures	
1. Staffing Expenditures (In-house Only)	1811000
2. BMP Program Implementation Expenditures (Total of all BMPs)	10891889
C. "At Least As Effective As"	
1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	no
a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	
D. Comments	
RSU Labor (including travel, training, materials, etc)(minus 45400-45550)+ $500,000 (to cover AH and TB whose salary expenses are under AS's budget) x 0.65 = BMP staff expenses	

Water Supply & Reuse

Reporting Unit: **Metropolitan Water District of SC**	Year: **2007**

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
CRA	662539	Imported
SWP	1788579	Imported

Total AF: 2451118

Purchaser Information

Name of Agency	Quantity (AF) Supplied	Retailer or Wholesaler
Anaheim	23741.1	retail
Beverly Hills	12775.5	retail
Burbank	13401.4	retail
Calleguas MWD	130688.5	wholesale
Central Basin MWD	119236.9	wholesale
Compton	3694.7	retail
Foothill	12520.8	wholesale
Glendale	23828.8	retail
Inland Empire UA	77717.9	wholesale
Las Virgenes	25372.6	retail
Long Beach	43644.9	retail
Los Angeles	291375	retail
MWD of Orange County	322021.4	wholesale
Pasadena	25309.2	retail
San Diego CWA	609396.6	wholesale
San Fernando	902	retail
San Marino	1572.9	retail
Santa Ana	18427.4	retail
Santa Monica	13472.5	retail
Three Valleys MWD	68454	wholesale
Torrance	21100.3	retail
Upper San Gabriel MWD	15271.7	wholesale
West Basin MWD	149226.4	wholesale
Western MWD	117924.8	wholesale
Eastern MWD	125051.7	retail
Eastern MWD	5210.5	wholesale
Fullerton	16276.6	retail

Total AF: 2287616.1

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2007**

A. Implementation		
	1. Does your agency own or operate a water distribution system?	yes
	2. Has your agency completed a pre-screening system audit for this reporting year?	yes
	3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:	
	a. Determine metered sales (AF)	2287617.1
	b. Determine other system verifiable uses (AF)	0
	c. Determine total supply into the system (AF)	2357014.2
	d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required.	0.97
	4. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production?	yes
	5. Did your agency complete a full-scale audit during this report year?	yes
	6. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit?	yes
	7. Does your agency operate a system leak detection program?	yes
	a. If yes, describe the leak detection program: Metropolitan's system is monitored by 10+ patrols who also collect WQ samples, pilots flying the CRA and pipeline staff in the normal course of their duties. If evidence of leaking water is detected near any of our facilities, we analyze a water sample to determine if it's our water leaking. Normally it is not. If it is, we may hire a leak detection firm to locate the leak.	
B. Survey Data		
	1. Total number of miles of distribution system line.	1017
	2. Number of miles of distribution system line surveyed.	1017
C. "At Least As Effective As"		
	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	
D. Comments		

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 07: Public Information Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2007**

A. Implementation

1. How is your public information program implemented?
Wholesaler implements program (none or minimal retailer participation)

2. Describe the program and how it's organized:
Major advertising and public relations campaign promoting outdoor water use efficiency and California Friendly landscaping. Educational brochures and campaign artworkincluding bill-stuffers available for retailer and sub-agency use.

3. Indicate which and how many of the following activities are included in your public information program:

Region-Wide Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	yes	5769
b. Public Service Announcement	yes	300
c. Bill Inserts / Newsletters / Brochures	yes	25
d. Bill showing water usage in comparison to previous year's usage	no	
e. Demonstration Gardens	yes	22
f. Special Events, Media Events	yes	13
g. Speaker's Bureau	yes	14
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

1. Annual Expenditures (Excluding Staffing)	1522124

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

BMP 08: School Education Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2007**

A. Implementation

1. How is your public information program implemented?
Wholesaler implements program (none or minimal retailer participation)

2. Please provide information on your region-wide school programs (by grade level):

Grade	Are grade- appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	14	8991	86
Grades 4th-6th	yes	25	42958	418
Grades 7th-8th	yes	19	25975	253
High School	yes	16	21978	214

4. Did your Agency's materials meet state education framework requirements?	yes
5. When did your Agency begin implementing this program?	11/1/1983

B. School Education Program Expenditures

1. Annual Expenditures (Excluding Staffing)	488000

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit:	Form Status:	Year:
Metropolitan Water District of SC	**CUWCC Reviewed**	**2007**

A. Implementation

1. Financial Support by BMP

BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded	BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded
1	yes	50000	49288	**8**	No		
2	yes	30000	29040	**9**	yes	6000000	5265935
3	No			**10**	No		
4	No			**11**	No		
5	yes	2000000	1318574	**12**	No		
6	yes	3000000	2262078	**13**	No		
7	No			**14**	yes	7000000	6485726

2. Technical Support

a. Has your agency conducted or funded workshops addressing CUWCC procedures for calculating program savings, costs and cost-effectiveness?	No
b. Has your agency conducted or funded workshops addressing retail agencies' BMP implementation reporting requirements?	No
c. Has your agency conducted or funded workshops addressing:	
1) ULFT replacement	No
2) Residential retrofits	No
3) Commercial, industrial, and institutional surveys	yes
4) Residential and large turf irrigation	yes
5) Conservation-related rates and pricing	No

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit:	Form Status:	Year:
Metropolitan Water District of SC	**CUWCC Reviewed**	**2007**

3. Staff Resources by BMP

BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP	BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP
1	yes	.5	**8**	No	
2	yes	.5	**9**	yes	2
3	No		**10**	yes	2.5
4	No		**11**	No	
5	yes	2.5	**12**	No	
6	yes	1.5	**13**	No	
7	No		**14**	yes	1.25

4. Regional Programs by BMP

BMP	Implementation/ Management Program?	BMP	Implementation/ Management Program?
1	No	**8**	yes
2	No	**9**	yes
3	No	**10**	No
4	No	**11**	No
5	yes	**12**	No
6	yes	**13**	No
7	yes	**14**	No

B. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

C. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 12: Conservation Coordinator

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2007**

A. Implementation

	1. Does your Agency have a conservation coordinator?	yes
	2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program ?	no
	a. Partner agency's name:	
	3. If your agency supplies the conservation coordinator:	
	a. What percent is this conservation coordinator's position?	80%
	b. Coordinator's Name	Andy Hui
	c. Coordinator's Title	Unit Manager V
	d. Coordinator's Experience and Number of Years	5 years managing unit
	e. Date Coordinator's position was created (mm/dd/yyyy)	8/8/1988
	4. Number of conservation staff (FTEs), including Conservation Coordinator.	14

B. Conservation Program Expenditures

	1. Staffing Expenditures (In-house Only)	2605400
	2. BMP Program Implementation Expenditures (Total of all BMPs)	17581628

C. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	no
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

	RSU Labor (including travel, training, materials, etc)(minus 45400-45550)+ $500,000 (to cover AH and TB whose salary expenses are under AS's budget) x 0.65 = BMP staff expenses

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Water Supply & Reuse

Reporting Unit: **Metropolitan Water District of SC**	Year: **2008**

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
SWP	1312397	Imported
CRA	801018	Imported

Total AF: 2113415

Purchaser Information

Name of Agency	Quantity (AF) Supplied	Retailer or Wholesaler
Anaheim	15271.9	retail
Beverly Hills	12179.3	retail
Burbank	14596.6	retail
Callegua MWD	131364.2	wholesale
Central Basin MWD	59053.6	wholesale
Compton	2237.3	retail
Eastern MWD	104691.5	retail
Eastern MWD	4362.2	wholesale
Foothill	12305.5	wholesale
Fullerton	9224.8	retail
Glendale	21880.6	retail
Inland Empire UA	69040.8	wholesale
Las Virgenes MWD	27064.5	wholesale
Long Beach	35330.1	retail
Los Angeles	422313.8	retail
MWD of Orange County	229682.4	wholesale
Pasadena	25517	retail
San Fernando	.2	retail
San Diego CWA	562208.1	wholesale
San Marino	895.1	retail
Santa Ana	8520.8	retail
Santa Monica	12563.6	retail
Three Valleys MWD	72828.6	wholesale
Torrance	19306.2	retail
Upper San Gabriel MWD	70998.4	wholesale
West Basin MWD	135546.9	wholesale
Western MWD	105945	wholesale

Total AF: 2184929

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2008**

A. Implementation

	1. Does your agency own or operate a water distribution system?	yes
	2. Has your agency completed a pre-screening system audit for this reporting year?	yes
	3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:	
	a. Determine metered sales (AF)	2184929
	b. Determine other system verifiable uses (AF)	0
	c. Determine total supply into the system (AF)	2206548
	d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required.	0.99
	4. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production?	yes
	5. Did your agency complete a full-scale audit during this report year?	yes
	6. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit?	yes
	7. Does your agency operate a system leak detection program?	yes
	a. If yes, describe the leak detection program: Metropolitan's system is monitored by 10+ patrols who also collect WQ samples, pilots flying the CRA and pipeline staff in the normal course of their duties. If evidence of leaking water is detected near any of our facilities, we analyze a water sample to determine if it's our water leaking. Normally it is not. If it is, we may hire a leak detection firm to locate the leak.	

B. Survey Data

	1. Total number of miles of distribution system line.	1017
	2. Number of miles of distribution system line surveyed.	1017

C. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

Voluntary Questions (Not used to calculate compliance)

E. Volumes

		Estimated	Verified
	1. Volume of raw water supplied to the system		
	2. Volume treated water supplied into the system		
	3. Volume of water exported from the system		
	4. Volume of billed authorized metered consumption		
	5. Volume of billed authorized un-metered consumption		

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**			Year: **2008**
	6. Volume of unbilled authorized metered consumption			
	7. Volume of unbilled authorized unmetered consumption			
F. Infrastructure and Hydraulics				
	1. Are system input (source or master meter) volumes metered at the entry to the:			
	2. How frequently are system input volumes tested and calibrated:		# months	
	3. Length of mains			
	4. What % distribution of mains are rigid pipes (metal, ac, concrete)			
	5. Number of service connections			
	6. What % of service connections are rigid pipes (metal)			
	7. Are residential properties fully metered?			
	8. Are non-residential properties fully metered?			
	9. Provide an estimate of customer meter under-registration:			
	10. Average length of customer service line from the main to the point of the meter:			
	11. Average system pressure:			
	12. Range of system pressures:			
	13. What percentage of the system is fed from gravity feed:			
	14. What percentage of the system is fed by pumping and re-pumping:			
G. Maintenance Questions				
	1. Who is responsible for providing, testing, repairing and replacing customer meters?			
	2. Does your agency test, repair and replace your meters on a regular timed schedule?			
	a. If yes, does your agency test by meter size or customer category?			
	b. If yes to meter size, please provide the frequency of testing by meter size:			
	• Less than or equal to 1"			# years
	• 1.5" to 2"		# years	
	• 3" and Larger		# months	
	c. If yes to customer category, provide the frequency of testing by customer category:			
	• SF residential		# years	
	• MF residential		# years	

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**		Year: **2008**
	• Commercial	# months	
	• Industrial & Institutional	# months	
	3. Who is responsible for repairs to the customer lateral or customer service line?:		
	4. Who is responsible for service line repairs downstream of the customer meter?:		
	5. Does your agency proactively search for leaks using leak survey techniques or does your utility reactively repair leaks which are called in, or both?		
	6. What is the utility budget breakdown for:		
	• Leak Detection	$	
	• Leak Repair	$	
	• Auditing and Water Loss Evaluation	$	
	• Meter Testing	$	

BMP 07: Public Information Programs

Reporting Unit:	Form Status:	Year:
Metropolitan Water District of SC	**CUWCC Reviewed**	**2008**

A. Implementation

	1. How is your public information program implemented? Wholesaler implements program (none or minimal retailer participation)		
	2. Describe the program and how it's organized: Major advertising and public relations campaign promoting outdoor water use efficiency and California Friendly landscaping. Educational brochures and campaign artwork including bill-stuffers available for retailer and sub-agency use.		
	3. Indicate which and how many of the following activities are included in your public information program:		
	Region-Wide Public Information Program Activity	**Yes/No**	**Number of Events**
	a. Paid Advertising	yes	27329
	b. Public Service Announcement	yes	531
	c. Bill Inserts / Newsletters / Brochures	yes	26
	d. Bill showing water usage in comparison to previous year's usage	no	
	e. Demonstration Gardens	yes	8
	f. Special Events, Media Events	yes	17
	g. Speaker's Bureau	yes	37
	h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

B. Conservation Information Program Expenditures

	1. Annual Expenditures (Excluding Staffing)	5958089

C. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

BMP 08: School Education Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2008**

A. Implementation

1. How is your public information program implemented?
Wholesaler implements program (none or minimal retailer participation)

2. Please provide information on your region-wide school programs (by grade level):

Grade	Are grade- appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	12	7594	69
Grades 4th-6th	yes	23	36281	326
Grades 7th-8th	yes	16	21937	198
High School	yes	11	18562	160

4. Did your Agency's materials meet state education framework requirements?	yes
5. When did your Agency begin implementing this program?	11/1/1983

B. School Education Program Expenditures

1. Annual Expenditures (Excluding Staffing)	495000

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

D. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2008**

A. Implementation

1. Financial Support by BMP

BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded	BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded
1	yes	10000	7363	**8**	No		
2	yes	10000	12543	**9**	yes	6000000	6381198
3	No			**10**	No		
4	No			**11**	No		
5	yes	2000000	3602141	**12**	No		
6	yes	3000000	3456924	**13**	No		
7	No			**14**	yes	6000000	4639325

2. Technical Support

a. Has your agency conducted or funded workshops addressing CUWCC procedures for calculating program savings, costs and cost-effectiveness?	No
b. Has your agency conducted or funded workshops addressing retail agencies' BMP implementation reporting requirements?	No
c. Has your agency conducted or funded workshops addressing:	
1) ULFT replacement	No
2) Residential retrofits	No
3) Commercial, industrial, and institutional surveys	yes
4) Residential and large turf irrigation	yes
5) Conservation-related rates and pricing	No

3. Staff Resources by BMP

BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP	BMP	Qualified Staff Available for BMP?	No. FTE Staff Assigned to BMP
1	yes	.5	**8**	No	
2	yes	.5	**9**	yes	2
3	No		**10**	yes	2.5
4	No		**11**	No	
5	yes	2.5	**12**	No	
6	yes	1.5	**13**	No	
7	No		**14**	yes	1.25

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2008**

4. Regional Programs by BMP

BMP	**Implementation/ Management Program?**	BMP	**Implementation/ Management Program?**
1	No	**8**	yes
2	No	**9**	yes
3	No	**10**	No
4	No	**11**	No
5	yes	**12**	No
6	yes	**13**	No
7	yes	**14**	No

B. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

C. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

BMP 12: Conservation Coordinator

Reporting Unit: **Metropolitan Water District of SC**	Form Status: **CUWCC Reviewed**	Year: **2008**

A. Implementation

	1. Does your Agency have a conservation coordinator?	yes
	2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program?	no
	a. Partner agency's name:	
	3. If your agency supplies the conservation coordinator:	
	a. What percent is this conservation coordinator's position?	80%
	b. Coordinator's Name	Andy Hui
	c. Coordinator's Title	Unit Manager V
	d. Coordinator's Experience and Number of Years	6 years managing unit
	e. Date Coordinator's position was created (mm/dd/yyyy)	8/8/1988
	4. Number of conservation staff (FTEs), including Conservation Coordinator.	17

B. Conservation Program Expenditures

	1. Staffing Expenditures (In-house Only)	2521325
	2. BMP Program Implementation Expenditures (Total of all BMPs)	13554507

C. "At Least As Effective As"

	1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?	no
	a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."	

D. Comments

Attachment: J - Water Supply Assessment (3 of 3) (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Activity ID	Activity Name	Start	Finish	Budgeted Total Cost
W	**WATER**	01-Dec-00 A	26-Apr-11	$237,203,515
GD	**GENERAL DISTRICT**	06-Jan-03 A	15-Nov-09	$68,284,350
	Expansion	06-Jan-03 A	15-Nov-09	$68,207,250
	BARTON & NANDINA INTERAGENCY CONNECTION PIPELINE	09-Oct-06 A	26-Apr-08	$227,000
	HEMET WATER FILTRATION PLANT	06-Jan-03 A	03-Aug-07 A	$45,000,000
	MENIFEE WEST WATER STUDY	16-Oct-06 A	27-Oct-07	$108,000
	OLEANDER PUMP STATION TRANSMISSION PIPELINES	20-Jun-06 A	28-Aug-09	$14,502,250
	WATER FACILITIES MASTER PLAN UPDATE (2005/06)	03-Nov-05 A	12-Feb-08	$1,370,000
	WESTERN WAY BOOSTER STATION	15-Sep-06 A	15-Nov-09	$7,000,000
	Replacement	29-Jan-07 A	15-Dec-07	$77,100
	MILLS PUMP STATION MODIFICATIONS PRE-DESIGN STUDY	29-Jan-07 A	15-Dec-07	$77,100
41	**Moreno Valley / Perris / Menifee**	01-Dec-00 A	26-Apr-11	$130,917,576
	Expansion	15-Sep-03 A	26-Apr-11	$107,598,826
	CACTUS AVENUE FEEDER P/L IMPROVEMENT	06-Sep-05 A	26-Aug-08	$8,000,000
	CACTUS AVENUE FEEDER/PUMP STATION	01-Sep-05 A	21-Nov-08	$8,000,000
	CHAMBERS II POTABLE TANK	19-Jun-07 A	21-Dec-09	$1,163,700
	ELLIS TANK (GOODHOPE II) REPL. 0.25MG W/2.5MG TANK	03-Aug-04 A	25-Jul-09	$4,220,100
	NUEVO RD/I-215 WTR TRANS P/L CROSS	01-Jan-04 A	10-Nov-07	$796,700
	ORANGE ZONE TK REPL. 0.15MG W/0.55 MG TK	03-Aug-04 A	11-Oct-09	$2,308,800
	PERRIS DESALTER II	03-Aug-05 A	26-Apr-11	$30,000,000
	PERRIS DESALTER IRON/MANGANESE REMOVAL FAC	03-Jan-05 A	17-Apr-09	$7,944,726
	PERRIS DESALTER WELL PUMPING FAC, PH II (3 WELLS)	01-Jun-04 A	12-Sep-07	$4,375,000
	PERRIS WATER FILTRATION PLANT, PH II	15-Sep-03 A	19-Dec-07	$24,525,000
	PERRIS WFP/SPW SUPPLY P/L	24-Feb-05 A	07-Apr-09	$5,613,100

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Activity ID	Activity Name	Start	Finish	Budgeted Total Cost
	SCOTT ROAD BOOSTER STATION	02-May-05 A	01-Oct-08	$4,104,200
	SCOTT ROAD TRANSMISSION PIPELINE	01-Mar-07 A	09-Jan-08	$3,375,000
	TALLY RD TANK SITE (ANTELOPE II)	01-Aug-04 A	22-Dec-08	$3,172,500
	Replacement	01-Dec-00 A	26-Mar-11	$19,037,450
	36" POTABLE & 18" RECYCLED WATER P/Ls IN LINDENBERGE...	16-Mar-05 A	02-May-08	$5,313,200
	ELDER BOOSTER STATION RELOCATION	08-Jun-07 A	18-Mar-10	$1,243,700
	HWY 74 - GOOD HOPE WTR P/L RELOC.	01-Dec-00 A	29-Dec-07	$2,144,100
	LEAKY PIPE REPLACEMENT 2003/2004	01-Jun-03 A	26-Jan-09	$1,947,553
	MEAD VALLEY II BOOSTER UPGRADE	17-Aug-03 A	26-Mar-11	$1,706,650
	QUAIL VALLEY AREA LOW PRESSURE ANALYSIS	28-Dec-06 A	22-Sep-07	$112,000
	SUNNYMEAD BLVD PIPELINE REPLACEMENT	01-May-06 A	14-Oct-08	$6,570,247
	Syst Betterment	14-Sep-03 A	20-Oct-10	$4,170,000
	NASON & DRACEA BOOSTER STA. RELOCATION	01-Sep-05 A	20-Oct-10	$2,000,000
	OLD ELSINORE ROAD - 8"/12" WATER P/L REPL.	14-Sep-03 A	20-Nov-07	$2,170,000
	No CONST COST FUND:	20-Jun-07 A	22-Nov-07	$111,300
	MANZANITA II TANK DRAINAGE IMPROVEMENTS	20-Jun-07 A	22-Nov-07	$111,300
42	**Hemet / San Jacinto**	01-Mar-01 A	31-May-09	$27,046,400
	Expansion	01-Mar-01 A	20-Apr-09	$22,555,800
	HSJIRRP - PH I MONITORING WELLS (3)	20-Nov-06 A	15-Jun-08	$314,000
	HSJIRRP - PH I PIPELINES (FOR WELLS & RECHARGE PONDS)	20-Nov-06 A	07-Sep-08	$2,902,700
	HSJIRRP - PH I PRODUCTION WELL (3)	20-Nov-06 A	21-Feb-08	$3,356,800
	HSJIRRP - PH I PRODUCTION WELL PUMPING FACS (3)	20-Nov-06 A	20-Apr-09	$6,320,000
	HSJIRRP - PH I RECHARGE PONDS	20-Nov-06 A	16-May-08	$3,430,000
	HSJIRRP - WARREN RD & COMMONWEALTH P.S. MODS.	20-Nov-06 A	06-Oct-08	$4,232,300

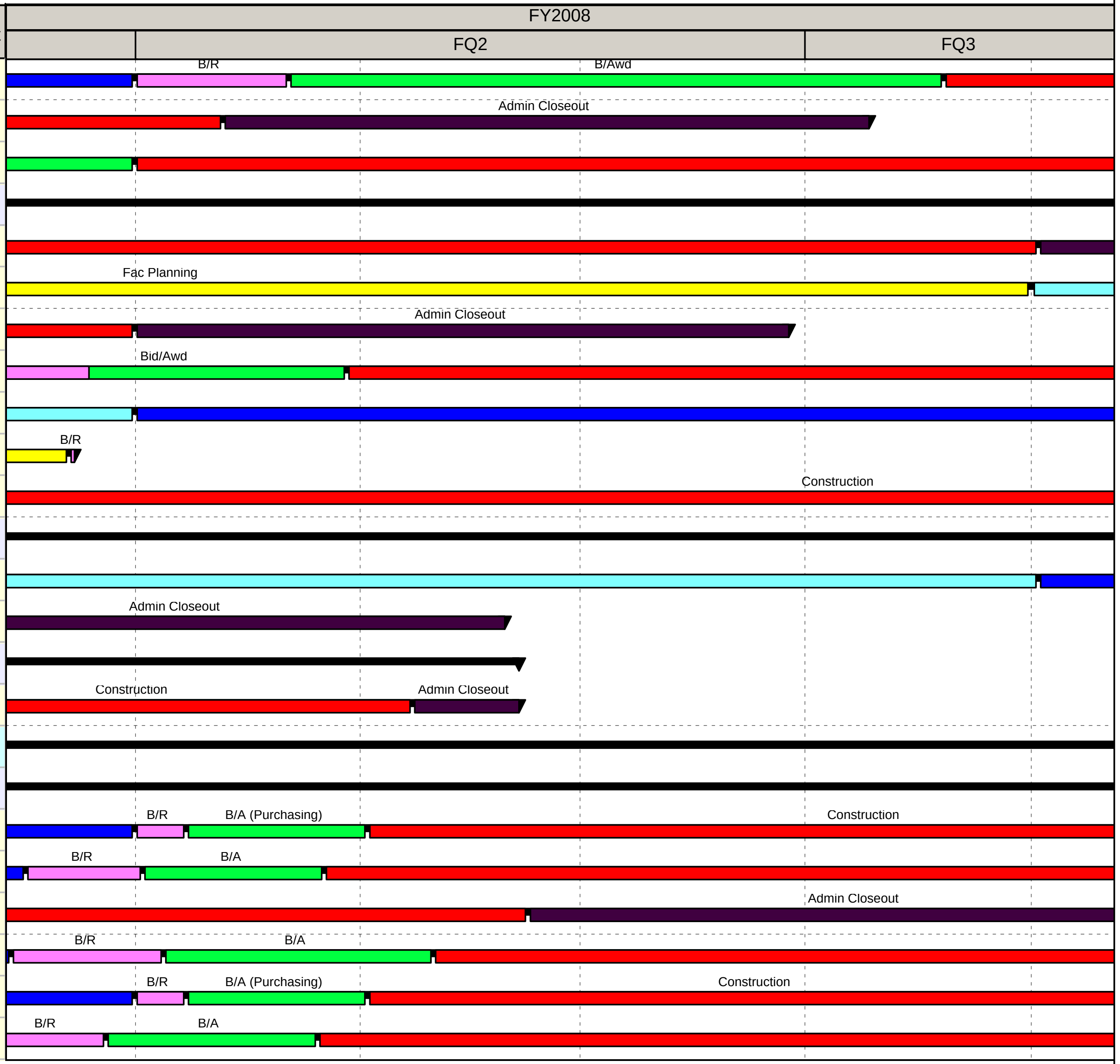

2007/2008 CAPITAL IMPROVEMENT PROGRAM

13-Sep-07 14:07

Activity ID	Activity Name	Start	Finish	Budgeted Total Cost
	NORTH SAN JACINTO RAW WATER PUMP STATION	01-Mar-01 A	29-Dec-07	$2,000,000
	Replacement	01-Oct-05 A	31-May-09	$4,490,600
	EAST VALLEY PIPELINE PROJECTS 2005/06	01-Oct-05 A	31-May-09	$4,490,600
43	**Murrieta / Temecula**	30-Nov-01 A	14-Sep-07	$5,155,189
	Expansion	30-Nov-01 A	14-Sep-07	$5,155,189
	RANCHO GLENOAKS AD-19 P/L, PS, & TANK	30-Nov-01 A	14-Sep-07	$5,155,189
	No SUB SERV AREA	11-Jun-07 A	30-Apr-08	$5,800,000
	Expansion	11-Jun-07 A	30-Apr-08	$5,800,000
	IE ENERGY CENTER NON-RECLAIMABLE WASTE P/L	11-Jun-07 A	30-Apr-08	$5,800,000
S	**SEWER**	02-Jul-01 A	28-Jul-13	$943,885,668
GD	**GENERAL DISTRICT**	11-Jan-05 A	28-May-08	$6,147,292
	Expansion	11-Jan-05 A	01-Mar-08	$2,353,992
	BRINE STORAGE PONDS AT SCRWRF	28-Mar-07 A	11-Sep-07	$89,000
	DE ANZA LIFT STATION UPGRADE	11-Jan-05 A	30-Jan-08	$1,794,992
	WASTEWATER FACILITIES MASTER PLAN UPDATE - 2006	23-Dec-05 A	01-Mar-08	$470,000
	Syst Betterment	21-Nov-05 A	28-May-08	$3,768,100
	EVALUATION OF CHEMICAL CONTAINMENT CAPABILITIES AT ...	01-May-07 A	29-Dec-07	$20,000
	MVRWRF TERTIARY EFFLUENT EMERGENCY DIVERSION	21-Nov-05 A	28-May-08	$3,748,100
	No CONST COST FUND:	21-Apr-06 A	24-Nov-07	$25,200
	SEWAGE LIFT STATION STANDARDS	21-Apr-06 A	24-Nov-07	$25,200
M	**Multiple**	02-Jul-01 A	28-Jan-08	$14,280,000
	Expansion	01-Apr-04 A	28-Jan-08	$7,240,000
	MV & SJV & TVRWRF's CENTRIFUGE INSTALL.	01-Apr-04 A	28-Jan-08	$7,240,000
	Replacement	02-Jul-01 A	19-Sep-07	$7,040,000

Activity ID	Activity Name	Start	Finish	Budgeted Total Cost
	MV & SJV & TVRWRF's DIGESTER HEATING SYS	02-Jul-01 A	01-Aug-07 A	$5,600,000
	MVRWRF CHLORINE SCRUBBER REPL.	01-Feb-05 A	19-Sep-07	$1,440,000
	31 SJVRWRF	14-Apr-03 A	05-Sep-12	$299,305,375
	Expansion	14-Apr-03 A	05-Sep-12	$84,339,000
	NORTH SAN JACINTO SEWER, PHASE I	14-Apr-03 A	15-Dec-07	$13,800,000
	NORTH SAN JACINTO SEWER, PHASE II	01-Oct-03 A	28-Apr-08	$10,409,000
	NORTH SAN JACINTO SEWER, PHASE III	18-May-06 A	09-Sep-07	$4,800,000
	SJV INTERCEPTOR SEWER, PHASE I	10-Nov-04 A	06-Dec-08	$18,000,000
	SJVRWRF TITLE 22 UPGRADE FOR TERTIARY EXPANSION	01-Dec-04 A	05-Sep-12	$37,330,000
	Replacement	01-Dec-04 A	01-Apr-08	$8,342,875
	MV & SJV & TVRWRF's DIGESTER GAS, MIXING & FLARE SYS ...	01-Dec-04 A	01-Apr-08	$8,342,875
	Syst Betterment	01-Dec-04 A	22-Aug-12	$206,623,500
	SJVRWRF CHLORINE BUILDING MAINTENANCE PROJECT	15-Jan-07 A	28-Feb-08	$146,500
	SJVRWRF EQ BASINS	25-Jun-05 A	30-Oct-07	$8,867,000
	SJVRWRF EXP. FOR ENHANCED BNR TO 14 MGD, PLANT 2	01-Dec-04 A	22-Aug-12	$197,360,000
	SJVRWRF WETLANDS CONVERSION TO RECEIVE TERTIARY ...	01-May-07 A	20-Sep-07	$250,000
	32 MVRWRF	01-Dec-04 A	27-Jan-13	$173,737,970
	Expansion	28-Apr-05 A	27-Jan-13	$160,471,000
	MV & TVRWRF'S WAS THICKENING	16-Jun-05 A	29-Mar-08	$7,171,000
	MVRWRF EXPANSION TO 18 MGD	28-Apr-05 A	27-Jan-13	$100,477,000
	MVRWRF SCATT PROJECT	28-Apr-05 A	10-Aug-10	$52,823,000
	Replacement	01-Dec-04 A	16-Dec-07	$2,431,970
	MVRWRF PLANT I IMPRVS & REHAB.	01-Dec-04 A	16-Dec-07	$2,431,970
	Syst Betterment	12-May-06 A	16-Jul-08	$10,835,000

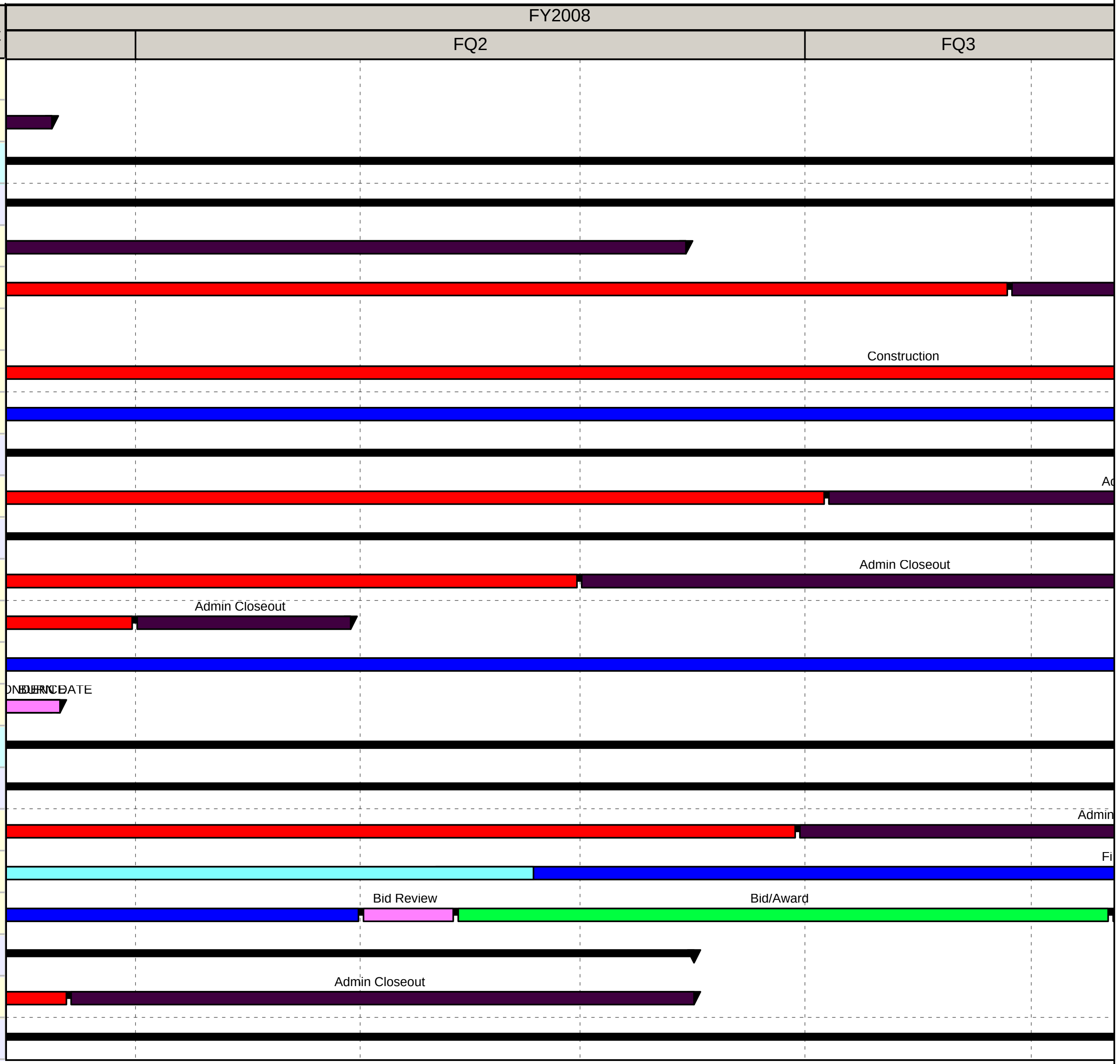

2007/2008 CAPITAL IMPROVEMENT PROGRAM

Activity ID	Activity Name	Start	Finish	Budgeted Total Cost
	MV & TVRWRF'S HEADWORKS REHABILITATION	12-May-06 A	29-May-08	$2,710,000
	MVRWRF FUEL CELL	21-Feb-07 A	16-Jul-08	$8,125,000
	33 SCRWRF	03-Nov-03 A	10-Aug-10	$71,205,000
	Expansion	03-Nov-03 A	30-Dec-07	$1,205,000
	SCRWRF EFFLUENT PONDS MODIFICATIONS	03-Nov-03 A	30-Dec-07	$1,205,000
	Syst Betterment	01-Dec-05 A	10-Aug-10	$70,000,000
	QUAIL VALLEY SEWER IMPRVS	01-Dec-05 A	10-Aug-10	$70,000,000
	34 TVRWRF	01-Jul-02 A	28-Jul-13	$146,766,831
	Expansion	01-Jul-02 A	28-Jul-13	$137,411,831
	DIAZ FORCEMAIN REPLACEMENT PROJECT	16-Apr-07 A	04-Apr-08	$3,000,000
	DIAZ SEWAGE LIFT STATION REPLACEMENT	10-Apr-04 A	12-May-11	$11,049,632
	FRENCH VALLEY SEWER - PH I & II	20-Oct-03 A	07-Nov-07	$13,570,000
	MURRIETA AREA SEWER IMPROV'T PH-I	01-Jul-02 A	17-Jun-09	$2,864,799
	TVRWRF EXPANSION TO 23 MGD	09-Apr-07 A	28-Jul-13	$105,729,100
	WARM SPRINGS L.S. INTERIM EXPANSION	15-Apr-04 A	14-May-08	$1,198,300
	Replacement	04-Apr-06 A	03-May-09	$3,605,000
	DIAZ ROAD 36" SEWER RELOC & 36" RECYC WTR REINFORCE...	04-Apr-06 A	07-Nov-07	$2,700,000
	MURRIETA CREEK SEWER IMPROVEMENTS	15-Jan-08	03-May-09	$905,000
	Syst Betterment	26-Jul-06 A	31-Mar-09	$5,750,000
	DEL RIO SEWER IMPROVEMENTS	02-Aug-07 A	31-Mar-09	$4,200,000
	TVRWRF PLANT I PRIMARY CLARIFIER INFLUENT CHANNEL R...	26-Jul-06 A	20-Apr-08	$1,550,000
	35 PVRWRF	01-Nov-03 A	14-May-12	$232,443,200
	Expansion	01-Nov-03 A	14-May-12	$232,324,200
	PATTERSON AVE., NANDINA AVE., & WESTERN WAY SEWER I...	21-Jun-06 A	18-Dec-07	$1,973,600

Activity ID	Activity Name	Start	Finish	Budgeted Total Cost
	PVRWRF EXPANSION TO 22 MGD, PLANT 3	01-Nov-03 A	14-May-12	$191,345,000
	PVRWRF PLANT 1 TERTIARY CONVERSION	03-Feb-06 A	21-Dec-07	$2,859,000
	PVRWRF TERTIARY EXPANSION, 2005	01-Apr-04 A	29-Mar-08	$36,146,600
	Syst Betterment	16-Jan-05 A	14-Dec-07	$119,000
	PERRIS VALLEY CHANNEL SEWER IMPROVEMENTS	16-Jan-05 A	14-Dec-07	$119,000
R	**RECYCLED**	10-Mar-04 A	09-Jul-09	$17,123,000
H	**RECYCLED**	10-Mar-04 A	09-Jul-09	$17,123,000
	Expansion	10-Mar-04 A	30-Jul-08	$12,558,600
	DIAMOND VALLEY (1719 ZONE) RECYCLED TANK SOUTH HEM...	01-Jul-07 A	01-Nov-07	$15,000
	MENIFEE LAKES 18" RECYCLED WTR TRANS P/L	02-Aug-04 A	30-Jul-08	$1,968,700
	REACH 16 RECYCLED WTR P/L, PH II	10-Mar-04 A	25-Oct-07	$6,364,900
	SAN JACINTO AG. IN-LIEU PROJECT	05-Apr-06 A	21-Jun-08	$3,210,000
	WINCHESTER PONDS EXPANSION	09-Feb-05 A	26-Mar-08	$1,000,000
	Syst Betterment	14-Jul-05 A	09-Jul-09	$4,564,400
	NANDINA PUMP STATION	01-Nov-05 A	22-Nov-08	$1,731,000
	REACH 4 RECLAIMED & BRINELINE A/V & B/L UPGRADES	14-Jul-05 A	24-May-08	$1,333,400
	SIMPSON/LA VENTANA RECYCLED WATER BOOSTER	25-Jun-06 A	09-Jul-09	$1,500,000
G	**GENERAL**	15-Jan-06 A	07-Feb-10	$17,516,039
GD	**GENERAL DISTRICT**	15-Jan-06 A	07-Feb-10	$17,516,039
	Syst Betterment	15-Jan-06 A	07-Feb-10	$17,516,039
	ADMINISTRATIVE CENTER EXPANSION	15-Jan-06 A	07-Feb-10	$17,516,039

Moreno Valley Logistics Center

ENERGY ANALYSIS

CITY OF MORENO VALLEY

PREPARED BY:

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MARCH 17, 2016

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LIST OF ABBREVIATED TERMS

(1)	Reference
AQIA	Air Quality Impact Analysis
ARB	Air Resources Board
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEC	California Energy Commission
CPUC	California Public Utilities Commission
EVs	Electric Vehicles
EMFAC	Emissions Factor
FERC	Federal Energy Regulatory Commission
GPA	General Plan Amendment
GWh	Gigawatt Hour
HHD	Heavy-Heavy Duty
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
LHD	Light-Heavy Duty
MHD	Medium-Heavy Duty
MPG	Miles Per Gallon
MPO	Metropolitan Planning Organization
Project	Moreno Valley Logistics Center
SCE	Southern California Edison
SoCalGas	Southern California Gas
SF	Square Feet
TEA-21	Transportation Equity Act for the 21st Century
VMT	Vehicle Miles Traveled

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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1 INTRODUCTION

This report presents the results of the air energy analysis prepared by Urban Crossroads, Inc., for the proposed Moreno Valley Logistics Center (referred to as "Project"). The purpose of this report is to ensure that energy implication are considered by the City of Moreno Valley, as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The proposed Moreno Valley Logistics Center site is located south of Krameria Avenue between Heacock Street and Indian Street in the City of Moreno Valley, as shown on Exhibit 1-A. The Project site is currently vacant. Under existing conditions, the Project site is surrounded to the north and south by a mixture of industrial warehouse buildings and a few undeveloped and underutilized parcels that are designated by the Moreno Valley Industrial Area Plan (MVIAP) for future industrial development; to the west by March Air Reserve Base, and to the east by a single-family residential neighborhood. The Perris Valley Storm Drain Channel transects the Project site in a northwest to southeast direction. Approximately 15.3 acres of the Project site are located west of the Perris Valley Storm Drain Channel and approximately 74.1 acres of the Project site are located east of the Perris Valley Storm Drain Channel. (1) The Interstate 215 (I-215) Freeway is located approximately 1.3 miles west of the Project site.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of 1,351,770 square feet (sf) of high-cube warehouse use/distribution center within a single building (Building 1). Building 2, located on the southwest corner of Cosmos Street and Krameria Avenue, is proposed to consist of 122,516 sf of general light industrial use; Building 3, located at the eastern terminus of Cardinal Avenue, is proposed to consist of 97,222 sf of general light industrial use; and Building 4, located on the east of Heacock Street and south of Krameria Avenue (North), is proposed to consist of 166,010 sf of general light industrial use, as shown on Exhibit 1-B[1]. This analysis accounts for emissions and impacts associated with tenants that require cold storage (refrigeration). For analytical purposes, a maximum of 10% cold storage is proposed and analyzed. The Project is anticipated to be constructed and occupied by Year 2017.

The Project also includes an alternate site plan that would omit Building 2 and construct a 166-space truck trailer parking lot in its place. In the event the alternate site plan is implemented, the truck trailer parking lot will be utilized as overflow parking for Building 1. The alternative site plan would not involve any changes to the intensity of use, size, location, configuration, or design of proposed Buildings 1, 3, or 4.As part of the Project's design, all on-site outdoor cargo handling

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[1] This report analyzes a slightly higher general light industrial square footage (385,748 square feet compared to 384,417 square feet) than what was analyzed in the EIR. As such, the report represents a more conservative estimate of emissions.

equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) will be powered by diesel fueled engines that comply with the California Air Resources Board (CARB)/U.S. EPA Tier IV Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr for PM10) and all on-site indoor forklifts shall be powered by electricity, compressed natural gas, or propane.

1.3 SUMMARY OF FINDINGS

For new development such as that proposed by the Moreno Valley Logistics Center, compliance with California Building Standards Code Title 24 energy efficiency requirements (CalGreen), combined with the mitigation measures and project design features that are recommended by the Moreno Valley Logistics Center Air Quality Impact Analysis, Greenhouse Gas Analysis, and Health Risk Assessment, are considered demonstrable evidence of efficient use of energy. Additionally, mitigation measures identified in the AQIA/GHG analysis reports would also have the potential to reduce energy consumption. As such, the mitigation measures from the AQIA/GHG analysis are restated herein.

As previously discussed, the alternate site plan replaces construction of Building 2 with the construction of additional truck trailer parking in its place, thus reducing total building area. Should the alternate site plan be implemented, energy consumption would not exceed the level of energy consumption analyzed within the current Project scenario. As such, the Project scenario analysis represents a “worst-case” analysis scenario.

As discussed below, the Project would provide for, and promote, energy efficiencies beyond those required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the Project’s operation is calculated to be comparable to, or less than, energy consumed by other industrial warehouse uses of similar scale and intensity that are constructed and operating in California. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the Project would not cause or result in the need for additional energy producing facilities or energy delivery systems.

1.4 CONSTRUCTION-SOURCE AIR POLLUTANT EMISSIONS MITIGATION MEASURES

The Project Air Quality Impact Analysis (AQIA) establishes construction activity mitigation measures that would globally reduce air pollutant emissions generated by subsequent development proposals within the Project site. Although these measures could act to reduce energy consumption, there is insufficient data to support any reductions associated with the construction activity mitigation measures identified in the AQIA. Thus, as a conservative measure no reduction in energy consumption are taken for construction activity mitigation measures identified in the AQIA.

1.5 OPERATIONAL-SOURCE MITIGATION MEASURES

MM AQ-3:

Prior to the issuance of building permits, the Project applicant shall ensure that the Project is designed to achieve efficiency equal to or exceeding then incumbent (2013 or later) California Building Code Title 24 requirements.

MM AQ-4:

To reduce water consumption and the associated energy-usage, the Project will be designed to comply with the mandatory reductions in indoor water usage contained in the incumbent CalGreen Code (53) and any mandated reduction in outdoor water usage contained in the City's water efficient landscape requirements. Additionally, the Project shall implement the following:

- Landscaping palette emphasizing drought tolerant plants;
- Use of water-efficient irrigation techniques;
- U.S. EPA Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and water-conserving shower heads.

MM AQ-5:

The Project will reduce vehicle miles traveled and emissions associated with by implementing the following measures:

- Pedestrian and bicycle connections shall be provided to surrounding areas consistent with the City's General Plan.
- Implement a voluntary trip reduction program, for which all employees shall be eligible to participate.

MM AQ-6:

The truck access gates and loading docks within the truck court on the Project site shall be posted with signs which state:

a) Truck drivers shall turn off engines when not in use;

b) Diesel delivery trucks servicing the Project shall not idle for more than five (5) minutes[1]; and

c) Telephone numbers of the building facilities manager and the CARB to report violations.

MM AQ-7:

- Site design shall allow for trucks to check-in within the facility area to prevent queuing of trucks outside the facility.[2]

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[1] While restricted idling is required per MM HRA-1, the analysis presented here takes no quantified credit or reduction in emissions for restricted idling, and reflects an assumed 15-minute "worst case" idling condition.
[2] As above, no quantified credit or reduction in emissions is taken for site design requirements reflected in MM HRA-2

- Signs shall be posted in loading dock areas that instruct truck drivers to shut down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park", and the parking brake is engaged (54).

MM AQ-8

A frequent CEQA petitioner in the Inland Empire routinely asks lead agencies to impose dozens and dozens of a variety of mitigation measures. This list includes suggestions that are often duplicative of current SCAQMD Rules and are duplicative in and of themselves. In an effort to hopefully forestall a future dispute on air quality issues, this assessment has already included most of the mitigation measures from this list that are not already duplicative of existing Rules, State law, and other mitigation measures. As a conservative measure, no reduction for any of the measures listed under MM AQ-8 is taken in the analysis.

Construction Impacts

- Gravel pads must be installed at all access points to prevent tracking of mud onto public roads.
- Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect (eg. Install wheel shakers, wheel washers, and limit site access.)
- Limit fugitive dust sources to 20 percent opacity.
- Require a dust control plan for earthmoving operations.
- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.
- All streets shall be swept at least once a day using SCAQMD Rule 1186 certified street sweepers utilizing reclaimed water trucks if visible soil materials are carried to adjacent streets.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.
- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.
- Any vegetative cover to be utilized onsite shall be planted as soon as possible to reduce the disturbed area subject to wind erosion. Irrigation systems required for these plants shall be installed as soon as possible to maintain good ground cover and to minimize wind erosion of the soil.
- Any on-site stock piles of debris, dirt, or other dusty material shall be covered or watered as necessary to minimize fugitive dust pursuant to SCAQMD Rule 403.
- A high wind response plan shall be formulated for enhanced dust control if winds are forecast to exceed 25 mph in any upcoming 24-hour period.
- Implement activity management techniques including
- Development of a comprehensive construction management plan designed to minimize the number of large construction equipment operating during any given time period;
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emission;
- Require the use of CARB certified equipment for construction activities.

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

- Utilize only CARB certified equipment for construction activities.
- The developer shall require all contractors to turn off all construction equipment and delivery vehicles when not in use and/or idling in excess of 3 minutes.
- Restrict engine size of construction equipment to minimum practical size.
- Install catalytic converters on gasoline-powered equipment.
- Electrical powered equipment shall be utilized in-lieu of gasoline-powered engines where technically feasible.
- Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.
- Reroute construction trucks away from congested streets and sensitive receptor areas.
- Configure construction parking to minimize traffic interference.
- Minimize construction worker trips by requiring carpooling and providing for lunch onsite.
- Provide on-site food service options for the construction crew.
- Provide shuttle service to transit stations/multimodal center for the construction crew.

Operational Emissions

- Encourage all fleet vehicles to conform to 2010 air quality standards or better. Users shall maintain compliance through normal course of business. Any spaces utilizing refrigerated storage, including restaurants and food or beverage stores, shall provide an electrical hookup for refrigeration units on delivery trucks. Trucks incapable of utilizing the electrical hookup for powering refrigeration shall be prohibited from accessing the site.
- Install catalytic converters on gasoline-powered equipment.
- Electrical powered equipment should be utilized in-lieu of gasoline-powered engines where technically feasible.
- All forklifts shall be electric or natural gas powered.
- Prohibit idling of trucks for periods exceeding three minutes.
- Charge reduced or no parking fee for EVs and CNG vehicles.
- Provide preferential parking locations for EVs and CNG vehicles.
- Planting shade trees in parking lots to provide minimum 50% cover to reduce evaporative emission from parked vehicles.
- Provide preferential parking for carpool/vanpool vehicles.
- Provide secure, weather protected bicycle parking for employees.
- Design buildings for passive heating and cooling and natural light, including building orientation, proper orientation and placement of windows, overhangs, skylights, etc.

EXHIBIT 1-A: LOCATION MAP

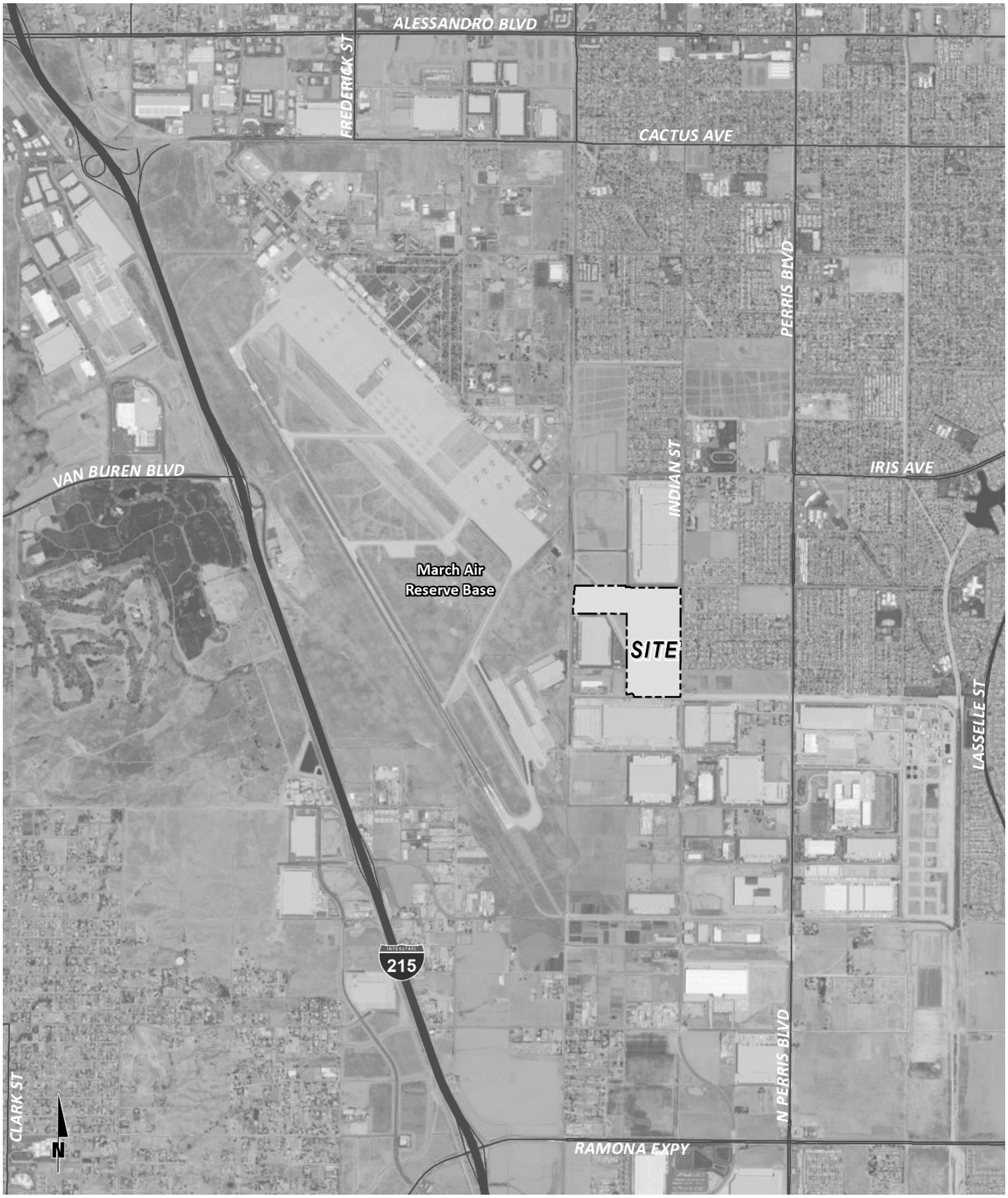

EXHIBIT 1-B: SITE PLAN

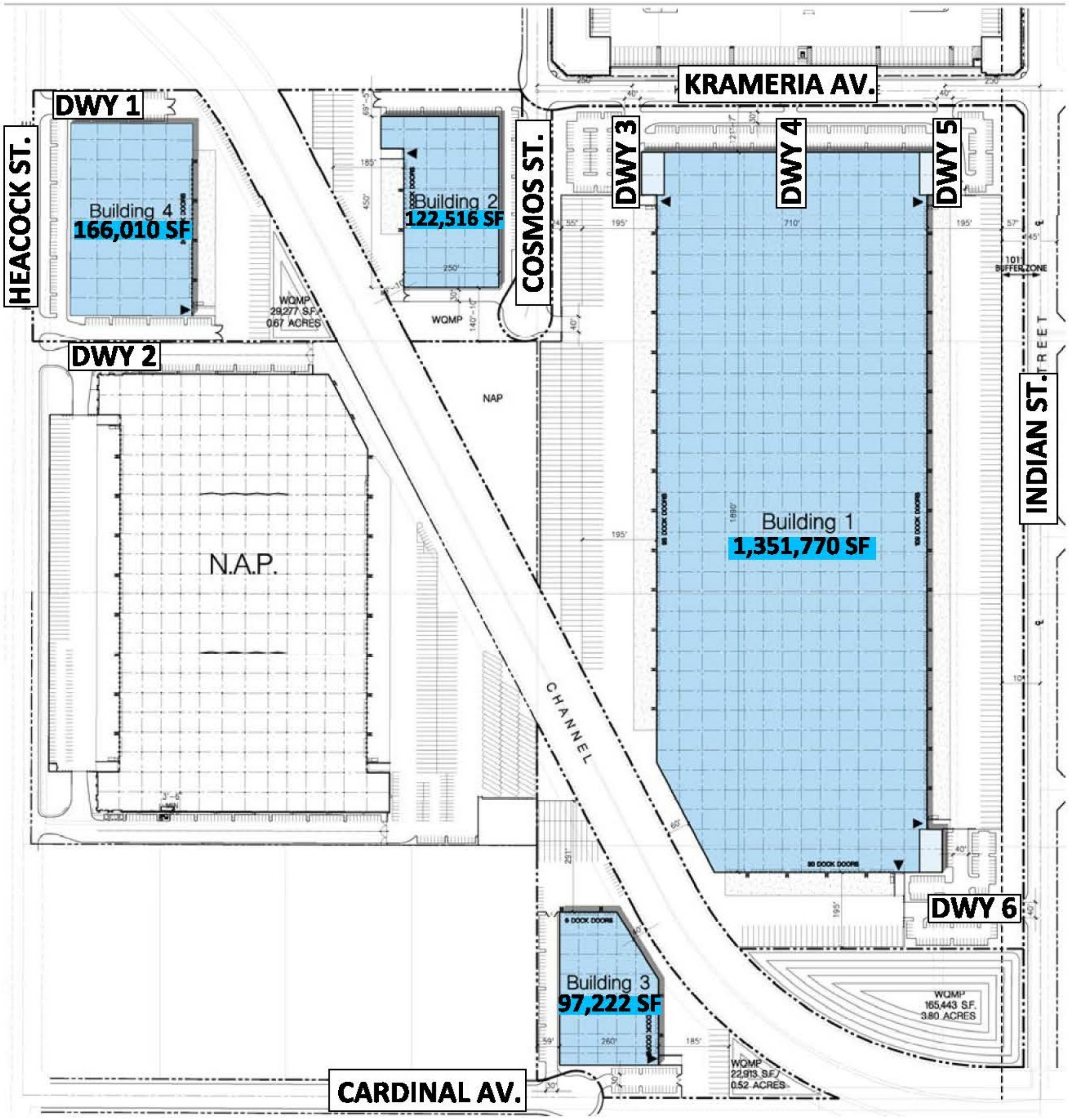

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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project area and region.

2.1 OVERVIEW

California's estimated annual energy use as of 2014 included:

- Approximately 296,843 gigawatt hours of electricity; (2)
- Approximately 12,767 million therms natural gas (approximately 3.5 billion cubic feet of natural gas per day); and
- Approximately 18 billion gallons of gasoline. (3)

As of 2013, the year of most recent data currently available by the United States Energy Information Administration (EIA), energy use in California by demand sector was:

- Approximately 37.8 percent transportation;
- Approximately 23.6 percent industrial;
- Approximately 19.3 percent residential; and
- Approximately 19.3 percent commercial. (4)

California's massive electricity in-state generation system generates more than 200,000 gigawatt-hours each year and is transported over the state's 32,000 miles of transmission lines. In 2014, California produced close to 70% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (21%). Natural gas is the main source for electricity generation at 45% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2014)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	California Power Mix (GWh)	Percent California Power Mix
Coal	1,011	0.5%	-	17,877	18,888	6.4%
Large Hydro	14,052	7.1%	160	2,138	16,350	5.5%
Natural Gas	121,934	61.3%	1	10,151	132,087	44.5%
Nuclear	17,027	8.6%	-	8,193	25,220	8.5%
Oil	46	0.0%	-	-	46	0.0%
Other	16	0.0%	-	-	16	0.0%
Renewables	44,887	22.5%	11,423	3,493	59,803	20.1%
Biomass	6,721	3.4%	762	24	7,507	2.5%
Geothermal	12,186	6.1%	150	694	13,030	4.4%
Small Hydro	2,426	1.2%	361	-	2,787	0.9%
Solar	10,557	5.3%	-	2,009	12,566	4.2%
Wind	12,997	6.5%	10,151	766	23,913	8.1%
Unspecified Sources of Power	N/A	N/A	25,676	18,757	44,433	15.0%
Total	**198,973**	**100.00%**	**37,261**	**60,609**	**296,843**	**100.00%**

Source: http://energyalmanac.ca.gov/electricity/total_system_power.html

A summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below:

- Excluding federal offshore areas, California ranked third in the nation in crude oil production in 2014, despite an overall decline in production rates since the mid-1980s.
- California also ranked third in the nation in refining capacity as of January 2015, with a combined capacity of almost 2 million barrels per calendar day from its 18 operable refineries.
- In 2013, California's per capita energy consumption ranked 48th in the nation; the state's low use of energy was due in part to its mild climate and its energy efficiency programs.
- In 2014, California ranked fourth in the nation in conventional hydroelectric generation, second in net electricity generation from other renewable energy resources, and first as a producer of electricity from geothermal energy.
- In 2014, California ranked 16th in net electricity generation from nuclear power after one of its two nuclear plants was taken out of service in January 2012; as of June 2013, operations permanently ceased at that plant, the San Onofre Nuclear Generating Station.
- Average site electricity consumption in California homes is among the lowest in the nation (6.9 megawatt hours per year), according to EIA's Residential Energy Consumption Survey. (5)

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the proposed Project being an industrial development, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and natural gas for industrial uses, and transportation fuel for vehicle trips associated with industrial uses planned for the Project.

2.2 ELECTRICITY

The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies had revealed the extent to which the Los Angeles Basin and San Diego region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 IEPR after a collaborative process with other energy agencies, utilities, and air districts. If the resource development outlined in the preliminary plan continues as detailed, reliability in Southern California would likely be assured; however, tight resource margins have led energy agencies and the ARB to develop a contingency plan. This contingency plan was discussed at a public workshop in Los Angeles on August 20, 2014, and is detailed within this Section (6).

Electricity would be provided to the Project by the Moreno Valley Electric Utility (MVU), a municipally owned electricity provider that began operating in various parts of Moreno Valley on February 6, 2004. MVU is contracted through wholesale distribution service provided by Southern California Edison (SCE). SCE's wholesale distribution service allows for the transmission of power by SCE from the State's main power grid and into MVU's facilities that serve its end-use customers (7) MVU also contracts with Enco Utility Services Moreno Valley, LLC to provide services related to operations of the electric utility, such as meter reading, billing, and emergency response (8).

Electricity would be provided to MVU by Southern California Edison (SCE). SCE provides electric power to more than 14 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (7)

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator ("ISO") is a nonprofit public benefit corporation, and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California residential and commercial users. While utilities [such as SCE] still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that sufficient power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities. (8)

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, transmission owners (investor-owned utilities such as SCE) file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Table 2-2 identifies SCE's specific proportional shares of electricity sources in 2014. It should be noted that since 87% of MVU's specific proportional shares of electricity sources in 2014 are labeled as "unspecified sources of power" and because MVU obtains its source of power through SCE, SCE's power content label is herein provided (11). As indicated in Table 2-2, the 2014 SCE Power Mix has renewable energy at 24% of the overall energy resources. Geothermal is remaining steady at 9%, same as in 2013 and 2012. Wind power is remaining steady at 10%, same as in 2013 and increasing from 8% in 2012. Large hydro is at 3%, having fallen from 4% in 2013 and 2012. Solar energy is at 4%, having increased from 1% in 2013 and 2012. Biomass and waste has remained steady at 1%. Coal is at 0%, having decreased significantly from 6% in 2013 and from 7% in 2012. Natural gas is at 27%, decreasing slightly from 28% in 2013.

TABLE 2-2: SCE 2014 POWER CONTENT MIX

Energy Resources	2014 SCE Power Mix
Eligible Renewable	**24%**
Biomass & waste	1%
Geothermal	9%
Small Hydroelectric	0%
Solar	4%
Wind	10%
Coal	**0%**
Large Hydroelectric	**3%**
Natural Gas	**27%**
Nuclear	**6%**
Other	**0%**
Unspecified Sources of power*	40%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

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2.3 NATURAL GAS

Natural gas would be provided to the Project by The Gas Company (Southern California Gas, SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

> "The California Public Utilities Commission (PUC) regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.
>
> The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers, who accounted for approximately 32% of the natural gas delivered by California utilities in 2012. Large consumers, like electric generators and industrial customers, referred to as "noncore" customers, accounted for approximately 68% of the natural gas delivered by California utilities in 2012.
>
> The PUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing. Most of the natural gas used in California comes from out-of-state natural gas basins. In 2012, California customers received 35% of their natural gas supply from basins located in the Southwest, 16% from Canada, 40% from the Rocky Mountains, and 9% from basins located within California. California gas utilities may soon also begin receiving biogas into their pipeline systems.
>
> Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California consumers are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, the Ruby Pipeline, Questar Southern Trails and Mojave Pipeline. Another pipeline, the North Baja – Baja Norte Pipeline, takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, the PUC often participates in FERC regulatory proceedings to represent the interests of California natural gas consumers.
>
> Most of the natural gas transported via the interstate pipelines, as well as some of the California-produced natural gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" natural gas pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered into the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large noncore customers take natural gas directly off

> the high pressure backbone pipeline systems, while core customers and other noncore customers take natural gas off the utilities' distribution pipeline systems. The PUC has regulatory jurisdiction over 150,000 miles of utility-owned natural gas pipelines, which transported 82% of the total amount of natural gas delivered to California's gas consumers in 2012.
>
> SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, and currently receive all of their natural gas from the SoCalGas system (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area). Some other municipal wholesale customers are the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.
>
> Some of the natural gas delivered to California customers may be delivered directly to them without being transported over the regulated utility systems. For example, the Kern River/Mojave pipeline system can deliver natural gas directly to some large customers, "bypassing" the utilities' systems. Much of California-produced natural gas is also delivered directly to large consumers.
>
> PG&E and SoCalGas own and operate several natural gas storage fields that are located in northern and southern California. These storage fields, and four independently owned storage utilities – Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage – help meet peak seasonal natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. (A portion of the Gill Ranch facility is owned by PG&E).
>
> California's regulated utilities do not own any natural gas production facilities. All of the natural gas sold by these utilities must be purchased from suppliers and/or marketers. The price of natural gas sold by suppliers and marketers was deregulated by the FERC in the mid-1980's and is determined by "market forces." However, the PUC decides whether California's utilities have taken reasonable steps in order to minimize the cost of natural gas purchased on behalf of their core customers." (9)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The PUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. As of 2012, there are more than 27 million registered vehicles in California, and those vehicles (as noted previously) consume an estimated 18 billion gallons of fuel each year. Gasoline (and other vehicle fuels) are commercially-provided commodities, and would be available to the Project patrons and employees via commercial outlets.

California's on-road transportation system includes 170,000 miles of highways and major roadways, more than 26 million passenger vehicles and light trucks, and almost 1 million medium- and heavy-duty vehicles. The most recent data available (2012) shows the transportation sector emits 36 percent of the total greenhouse gases in the state and about 83 percent of smog-forming oxides of nitrogen (NO_x). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. Petroleum comprises about 92 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels. Nearly 18 billion gallons of on-highway fuel are burned each year, including 14.5 billion gallons of gasoline (including ethanol) and 3.4 billion gallons of diesel fuel (including biodiesel and renewable diesel). In 2013, Californians also used 174 million therms of natural gas as a transportation fuel, or the equivalent of 142 million gallons of gasoline, and 841,345 megawatt hours of electricity for transportation, or about the equivalent of 25 million gallons of gasoline. For 2013, combined alternative fuel use in California was slightly more than 7 percent of total transportation fuel use.

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below. Project consistency with applicable federal and state regulations is also presented in *italicized* text.

3.1 FEDERAL REGULATIONS

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. *Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site.*

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.*

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As shown on Exhibit 3-A, data from both the Port of Los Angeles and the Port of Long Beach shows that the receiving and shipping of containers have had a stable trend since the recession that hit in 2007 (10) (11). *Therefore, truck transport from the ports is relatively stable and a Project of this type would not be increasing the amount of truck trips and consequently VMT than what would normally occur within the basin. As such, the estimation of the Moreno Valley Logistics Center Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips.*

Additionally, the Southern California Association of Governments' (SCAG's) 2012-2035 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) includes information on goods movement that clearly illustrates that of the port-related trips within the SCAG region, more than 85% have an origin or destination within Los Angeles County. As a result, the Project would serve to meet this demand and not be expected to increase trips or VMT in the air basin.

EXHIBIT 3-A: PORT OF LOS ANGELES/PORT OF LONG BEACH CONTAINER COUNTS

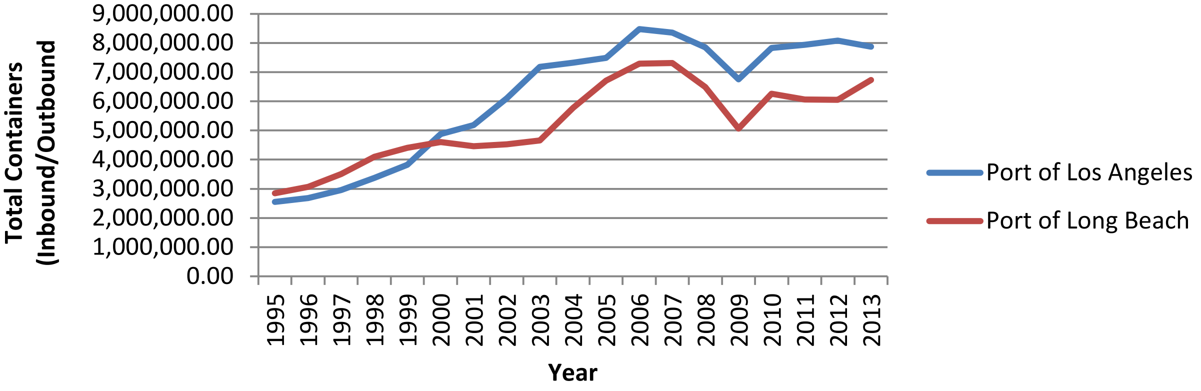

3.2 CALIFORNIA REGULATIONS

<u>Integrated Energy Policy Report</u>

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301a]). The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2014 Integrated Energy Policy Report Update (2014 IEPR Update) focused on next steps for transforming transportation energy use in California. The 2014 Integrated Energy Policy Report Update provides the results of the California Energy Commission's assessments of a variety of energy issues currently facing California. These issues include the role of transportation in meeting state climate, air quality, and energy goals; the Alternative and Renewable Fuel and

Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure deployment; measuring success and defining metrics within the Alternative and Renewable Fuel and Vehicle Technology Program; market transformation benefits resulting from Alternative and Renewable Fuel and Vehicle Technology Program investments; the state of hydrogen, zero-emission vehicle, biofuels, and natural gas technologies over the next 10 years; transportation linkages with natural gas infrastructure; evaluation of methane emissions from the natural gas system and implications for the transportation system; changing trends in California's sources of crude oil; the increasing use of crude-by-rail in California; the integration of environmental information in renewable energy planning processes; an update on electricity reliability planning for Southern California energy infrastructure; and an update to the electricity demand forecast.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. *The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through the introduction of commercial uses on a commercially-designated site. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.*

California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, the Energy Commission's energy efficiency standards have saved Californians more than $74 billion in reduced electricity bills since 1977. (12) California's building efficiency standards are updated on an approximately three-year cycle. The 2013 Standards would continue to improve upon the current 2008 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 Standards went into effect on July 1, 2014, following approval of the California Building Standards Commission.

The 2013 Energy Efficiency Standards in their entirety may be reviewed at: http://www.energy.ca.gov/title24/2013standards/. The 2013 Energy Efficiency Standards may

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also be reviewed at the California Energy Commission, 1516 Ninth Street, MS-37, Sacramento, CA 95814-5512.

With every installment of new Title 24 requirements, more stringent regulations and standards are placed into effect, thus amounting to increased energy efficiency gains. Table 3-1 illustrates the percentage of energy efficiency gains from the baseline 2005 year to the latest 2013 Title 24 standards.

TABLE 3-1: TITLE 24 ENERGY STANDARD REDUCTIONS (FIRST-YEAR)

Land Use	**2008 Standard Reduction from 2005 Baseline**		**2013 Standard Reduction from 2008 Standard**	
	Electricity Savings (GWh)	**Gas Savings (millions Therms)**	**Electricity Savings (GWh)**	**Gas Savings (millions Therms)**
Single-Family Constructed Buildings and Alterations	22.7%	10%	36.4%	6.5%
Multi-Family Constructed Buildings and Alterations	19.7%	7%	23.3%	3.8%
Non-residential Newly Constructed Buildings	4.9%	9.4%	21.8%	16.8%

The Project would be designed, constructed and operated so as to meet or exceed incumbent Title 24 Energy Efficiency Standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards.

4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

In compliance with Appendix F of the *State CEQA Guidelines,* (13) this report analyzes the project's anticipated energy use to determine if the Project would:

- Result in the wasteful, inefficient or unnecessary consumption of energy; or
- Result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

4.2 METHODOLOGY

Information from the CalEEMod 2013.2.2 outputs for the Moreno Valley Logistics Center Air Quality Impact Analysis, Urban Crossroads (2015) (14) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands. These outputs can be referenced in Appendix 3.1.

4.3 CONSTRUCTION ENERGY DEMANDS

4.3.1 CONSTRUCTION EQUIPMENT ELECTRICITY USAGE ESTIMATES

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project. Based on the 2015 National Construction Estimator, Richard Pray (2015) (15), the typical power cost per 1,000 square feet of building construction per month is estimated to be $2.28. For the Moreno Valley Logistics Center development, the Project plans to develop 1,737,520 square feet of building space over the course of 12 months. Base on Table 4-1, the total power cost of the on-site electricity usage during the construction of the proposed Project is estimated to be approximately $47,538.55. Additionally, as of February 23, 2015, SCE's general service rate schedule (GS-1) for an industrial land use is $.07 per kWh of electricity (16). As shown on Table 4-2, the total electricity usage from on-site Project construction related activities is estimated to be approximately 679,122 kWh.

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TABLE 4-1: PROJECT CONSTRUCTION POWER COST

Power Cost (per 1,000 SF of building per month of construction)	**Total Building Size** (1,000 SF)	**Construction Duration** (months)	**Total Project Construction Power Cost**
$2.28	1,737.52	12	$47,538.55

TABLE 4-2: PROJECT CONSTRUCTION ELECTRICITY USAGE

Cost per kWh	**Total Project Construction Electricity Usage (kWh)**
$0.07	679,122

[1] Assumes the Project will be under the GS-1 General Industrial service rate under SCE

4.3.2 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-3. Eight-hour daily use of all equipment is assumed. The aggregate fuel consumption rate for all equipment is estimated at 18.5 hp-hr-gal., obtained from California Air Resources Board (CARB) 2013 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. (17) For the purposes of this analysis, that the calculations are based on all construction equipment being diesel-powered which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the County and region.

As presented in Table 4-3, Project construction activities would consume an estimated 334,992 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

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TABLE 4-3: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Activity/Duration	**Equipment**	**HP Rating**	**Quantity**	**Usage Hours**	**Load Factor**	**HP-hrs/day**	**Total Fuel Consumption** (gal. diesel fuel)
Phase 1							
Building 1							
Grading (45 days)	Scraper	452	8	8	0.48	13,885	33,775
	Crawler Tractor	410	1	8	0.43	1,410	3,431
	Rubber Tired Dozer	451	1	8	0.4	1,443	3,510
	Off-Highway Tractors	485	2	8	0.44	3,414	8,305
	Other Construction Equip.	354	2	8	0.42	2,379	5,786
	Grader	302	1	8	0.41	991	2,409
	Rubber Tired Loader	350	1	8	0.36	1,008	2,452
	Other General Industrial Equipment	330	3	8	0.37	2,930	7,128
Trenching (98 days)	Rubber Tired Loader	350	2	8	0.36	2,016	10,679
	Tractors/Loaders/Backhoes	110	2	8	0.37	651	3,450
	Other Material Handling Equipment	249	2	8	0.43	1,713	9,075
	Excavator	268	2	8	0.38	1,629	8,632
	Other Construction Equip.	354	2	8	0.42	2,379	12,602
Concrete Shell (82 days)	Tractors/Loaders/Backhoes	110	4	8	0.37	1,302	5,773
	Other Construction Equip.	354	1	8	0.42	1,189	5,272
	Other Construction Equip.	354	1	8	0.42	1,189	5,272
	Other Construction Equip.	354	1	8	0.42	1,189	5,272
	Other Construction Equip.	354	2	8	0.42	2,379	10,544
Steel & Roof (47 days)	Crane	215	2	8	0.29	998	2,534
	Other Construction Equip.	354	2	8	0.42	2,379	6,044
	Other Construction Equip.	354	1	8	0.42	1,189	3,022

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Roofing & Overhead Work (48 days)	Other Construction Equip.	354	1	8	0.42	1,189	3,086
	Forklifts	110	2	8	0.20	352	913
	Other Construction Equip.	354	2	8	0.42	2,379	6,172
	Aerial Lifts	48	3	8	0.31	357	927
Architectural Coating (39 days)	Other Construction Equip.	354	4	8	0.42	4,758	10,030
Misc. Finishes (65 days)	Aerial Lifts	48	2	8	0.31	238	836
	Other Construction Equip.	354	2	8	0.42	2,379	8,358
Paving (89 days)	Other Construction Equip.	354	1	8	0.42	1,189	5,722
	Rubber Tired Loader	350	2	8	0.3	1,680	8,082
	Trencher	81	1	8	0.50	324	1,559
Building 2							
Grading (14 days)	Scraper	452	3	8	0.48	5,207	3,940
	Crawler Tractor	410	1	8	0.43	1,410	1,067
	Other Construction Equip.	354	1	8	0.42	1,189	900
	Grader	302	1	8	0.41	991	750
	Rubber Tired Loader	350	1	8	0.36	1,008	763
	Other General Industrial Equipment	330	1	8	0.37	977	739
Trenching (34 days)	Rubber Tired Loader	350	1	8	0.36	1,008	1,853
	Tractors/Loaders/Backhoes	110	1	8	0.37	326	598
	Other Material Handling Equipment	249	1	8	0.43	857	1,574
	Excavator	268	1	8	0.38	815	1,497
	Other Construction Equip.	354	1	8	0.42	1,189	2,186
Concrete Shell (50 days)	Tractors/Loaders/Backhoes	110	2	8	0.37	651	1,760
	Other Construction Equip.	354	1	8	0.42	1,189	3,215

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	**Total Fuel Consumption** (gal. diesel fuel)
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
Steel & Roof (22 days)	Crane	215	1	8	0.29	499	593
	Other Construction Equip.	354	1	8	0.42	1,189	1,414
	Other Construction Equip.	354	1	8	0.42	1,189	1,414
Roofing & Overhead Work (23 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,479
	Forklifts	110	1	8	0.20	176	219
	Other Construction Equip.	354	1	8	0.42	1,189	1,479
	Aerial Lifts	48	1	8	0.31	119	148
Architectural Coating (18 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,157
Misc. Finishes (30 days)	Aerial Lifts	48	1	8	0.31	119	193
	Other Construction Equip.	354	1	8	0.42	1,189	1,929
Paving (28 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,800
	Rubber Tired Loader	350	1	8	0.36	1,008	1,526
	Trencher	81	1	8	0.50	324	490
Phase 2							
Building 3							
Grading (12 days)	Scraper	452	3	8	0.48	5,207	3,378
	Crawler Tractor	410	1	8	0.43	1,410	915
	Other Construction Equip.	354	1	8	0.42	1,189	772
	Grader	302	1	8	0.41	991	643
	Rubber Tired Loader	350	1	8	0.36	1,008	654
	Other General Industrial Equipment	330	1	8	0.37	977	634

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Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	**Total Fuel Consumption** (gal. diesel fuel)
Trenching (33 days)	Rubber Tired Loader	350	1	8	0.36	1,008	1,798
	Tractors/Loaders/Backhoes	110	1	8	0.37	326	581
	Other Material Handling Equipment	249	1	8	0.43	857	1,528
	Excavator	268	1	8	0.38	815	1,453
	Other Construction Equip.	354	1	8	0.42	1,189	2,122
Concrete Shell (47 days)	Tractors/Loaders/Backhoes	110	2	8	0.37	651	1,654
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
	Other Construction Equip.	354	1	8	0.42	1,189	3,022
Steel & Roof (20 days)	Crane	215	1	8	0.29	499	539
	Other Construction Equip.	354	1	8	0.42	1,189	1,286
	Other Construction Equip.	354	1	8	0.42	1,189	1,286
Roofing & Overhead Work (22 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,414
	Forklifts	110	1	8	0.20	176	209
	Other Construction Equip.	354	1	8	0.42	1,189	1,414
	Aerial Lifts	48	1	8	0.31	119	142
Architectural Coating (18 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,157
Misc. Finishes (29 days)	Aerial Lifts	48	1	8	0.31	119	187
	Other Construction Equip.	354	1	8	0.42	1,189	1,865
Paving (28 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,800
	Rubber Tired Loader	350	1	8	0.36	1,008	1,526
	Trencher	81	1	8	0.50	324	490
Building 4							

Activity/Duration	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Grading (18 days)	Scraper	452	3	8	0.48	5,207	5,066
	Crawler Tractor	410	1	8	0.43	1,410	1,372
	Other Construction Equip.	354	1	8	0.42	1,189	1,157
	Grader	302	1	8	0.41	991	964
	Rubber Tired Loader	350	1	8	0.36	1,008	981
	Other General Industrial Equipment	330	1	8	0.37	977	950
Trenching (35 days)	Rubber Tired Loader	350	1	8	0.36	1,008	1,907
	Tractors/Loaders/Backhoes	110	1	8	0.37	326	616
	Other Material Handling Equipment	249	1	8	0.43	857	1,621
	Excavator	268	1	8	0.38	815	1,541
	Other Construction Equip.	354	1	8	0.42	1,189	2,250
Concrete Shell (50 days)	Tractors/Loaders/Backhoes	110	2	8	0.37	651	1,760
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
	Other Construction Equip.	354	1	8	0.42	1,189	3,215
Steel & Roof (23 days)	Crane	215	1	8	0.29	499	620
	Other Construction Equip.	354	1	8	0.42	1,189	1,479
	Other Construction Equip.	354	1	8	0.42	1,189	1,479
Roofing & Overhead Work (24 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,543
	Forklifts	110	1	8	0.20	176	228
	Other Construction Equip.	354	1	8	0.42	1,189	1,543
	Aerial Lifts	48	1	8	0.31	119	154
Architectural Coating (20 days)	Other Construction Equip.	354	1	8	0.42	1,189	1,286

Activity/Duration	**Equipment**	**HP Rating**	**Quantity**	**Usage Hours**	**Load Factor**	**HP-hrs/day**	**Total Fuel Consumption** (gal. diesel fuel)
Misc. Finishes (31 days)	Aerial Lifts	48	1	8	0.31	119	199
	Other Construction Equip.	354	1	8	0.42	1,189	1,993
Paving (36 days)	Other Construction Equip.	354	1	8	0.42	1,189	2,315
	Rubber Tired Loader	350	1	8	0.36	1,008	1,962
	Trencher	81	1	8	0.50	324	630
CONSTRUCTION FUEL DEMAND (gallons diesel fuel)							***334,992***

Note: Construction equipment schedules, power ratings, load factors populated from CalEEMod data presented in Moreno Valley Logistics Center Air Quality Impact Analysis, County of Riverside (Urban Crossroads, Inc.)

4.3.3 CONSTRUCTION WORKER FUEL ESTIMATES

It is assumed that all construction worker trips are from light duty autos (LDA) along area roadways. With respect to estimated VMT, the construction worker trips would generate an estimated 1,084,375 VMT (18). Data regarding Project related construction worker trips were based on CalEEMod 2013.2.2 model defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis.

Vehicle fuel efficiencies for LDA were estimated using information generated within the 2014 version of the Emissions FACtor model (EMFAC) developed by the Air Resources Board (ARB). EMFAC 2014 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (19). For purposes of this analysis, EMFAC 2014 was run for the LDA vehicle class within the California sub-area for a 2017 calendar year (consistent with the opening year of the Project). Data from EMFAC 2014 is shown in Appendix 3.2

As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 26.27 miles per gallon (MPG). Table 4-4 provides an estimated annual fuel consumption resulting from Project generated light duty autos related to construction worker trips. Based on Table 4-4, it is estimated that 41,278 gallons of fuel will be consumed related to construction worker trips after full construction of the proposed Project. Project construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

TABLE 4-4: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Phase 1					
Building 1					
Grading 1 (45 days)	48	14.7	31,752	26.27	1,209
Trenching 1 (98 days)	25	14.7	36,015	26.27	1,371
Concrete Shell 1 (82 days)	125	14.7	150,675	26.27	5,736
Steel & Roof 1 (47 days)	125	14.7	86,363	26.27	3,287
Roofing & Overhead Work 1 (48 days)	125	14.7	88,200	26.27	3,357
Architectural Coating 1 (39 days)	213	14.7	122,113	26.27	4,648
Misc. Finishes 1 (65 days)	125	14.7	119,438	26.27	4,547
Paving 1 (89 days)	10	14.7	13,083	26.27	498
Building 2					
Grading 2 (14 days)	20	14.7	4,116	26.27	157
Trenching 2 (34 days)	13	14.7	6,497	26.27	247
Concrete Shell 2 (50 days)	40	14.7	29,400	26.27	1,119
Steel & Roof 2 (22 days)	40	14.7	12,936	26.27	492
Roofing & Overhead Work 2 (23 days)	40	14.7	13,524	26.27	515

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Architectural Coating 2 (18 days)	213	14.7	56,360	26.27	2,145
Misc. Finishes 2 (30 days)	40	14.7	17,640	26.27	671
Paving 2 (28 days)	8	14.7	3,293	26.27	125
Phase 2					
Building 3					
Grading 3 (12 days)	20	14.7	3,528	26.27	134
Trenching 3 (33 days)	13	14.7	6,306	26.27	240
Concrete Shell 3 (47 days)	40	14.7	27,636	26.27	1,052
Steel & Roof 3 (20 days)	40	14.7	11,760	26.27	448
Roofing & Overhead Work 3 (22 days)	40	14.7	12,936	26.27	492
Architectural Coating 3 (18 days)	213	14.7	56,360	26.27	2,145
Misc. Finishes 3 (29 days)	40	14.7	17,052	26.27	649
Paving 3 (28 days)	8	14.7	3,293	26.27	125
Building 4					
Grading 4 (18 days)	20	14.7	5,292	26.27	201
Trenching 4 (35 days)	13	14.7	6,689	26.27	255
Concrete Shell 4(50 days)	40	14.7	29,400	26.27	1,119
Steel & Roof 4 (23 days)	40	14.7	13,524	26.27	515

Construction Activity	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Roofing & Overhead Work 4 (24 days)	40	14.7	14,112	26.27	537
Architectural Coating 4 (20 days)	213	14.7	62,622	26.27	2,384
Misc. Finishes 4 (31 days)	40	14.7	18,228	26.27	694
Paving 4 (36 days)	8	14.7	4,234	26.27	161
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION					**41,278**

4.3.4 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips would generate an estimated 1,832,316 VMT along area roadways (14). It is assumed that 100% of all hauling trips for Concrete Pours and Site Slabs (modeled in CalEEMod through Concrete Shell phases and Paving phases, respectively) are from heavy-heavy duty trucks (HHD). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHD) and 50% are from heavy-heavy duty trucks (HHD). These assumptions are consistent with the 2013.2.2 CalEEMod defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis. Vehicle fuel efficiencies for MHD and HHD trucks were estimated using information generated within EMFAC 2014. For purposes of this analysis, EMFAC 2014 was run for the MHD and HHD vehicle class within the California sub-area for a 2017 calendar year (consistent with the opening year of the Project). Data from EMFAC 2014 is shown in Appendix 3.2

As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 8.13 mpg. Additionally, HHD trucks are estimated to have a fuel efficiency of 5.70 mpg.

Table 4-5 and Table 4-6 shows the estimated fuel economy of MHD and HHD trucks accessing the Project site. Based on Table 4-5 and Table 4-6, fuel consumption from construction hauling and vendor trips (medium and heavy duty trucks) will total approximately 241,866 gallons. Project construction vendor trips would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-5: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (MHD TRUCKS) [2]

Construction Activity	Vendor/Hauling Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Concrete Shell 1 (82 days)	416	6.9	235,373	8.13	28,939
Concrete Shell 2 (50 days)	416	6.9	143,520	8.13	17,646
Concrete Shell 3 (47 days)	416	6.9	134,909	8.13	16,587
Concrete Shell 4 (50 days)	416	6.9	143,520	8.13	17,646
Misc. Finishes 1 (65 days)	416	6.9	186,576	8.13	22,939
Misc. Finishes 2 (30 days)	416	6.9	86,112	8.13	10,587
Misc. Finishes 3 (29 days)	416	6.9	83,242	8.13	10,235
Misc. Finishes 4 (31 days)	416	6.9	88,982	8.13	10,940
Roofing & Overhead Work 1 (48 days)	416	6.9	137,779	8.13	16,940
Roofing & Overhead Work 2 (23 days)	416	6.9	66,019	8.13	8,117
Roofing & Overhead Work 3 (22 days)	416	6.9	63,149	8.13	7,764
Roofing & Overhead Work 4 (24 days)	416	6.9	68,890	8.13	8,470

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[2] Assumptions for the vendor trip length and vehicle miles traveled are consistent with 2013.2.2 model defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis.

Construction Activity	Vendor/Hauling Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Steel & Roof 1 (47 days)	416	6.9	134,909	8.13	16,587
Steel & Roof 2 (22 days)	416	6.9	63,149	8.13	7,764
Steel & Roof 3 (20 days)	416	6.9	57,408	8.13	7,058
Steel & Roof 4 (23 days)	416	6.9	66,019	8.13	8,117

TABLE 4-6: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES (HHD TRUCKS) [3]

Construction Activity	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Concrete Shell 1 (82 days)	127	6.9	71,650	5.70	12,570
Concrete Shell 2 (50 days)	27	6.9	9,481	5.70	1,663
Concrete Shell 3 (47 days)	23	6.9	7,438	5.70	1,305
Concrete Shell 4 (50 days)	35	6.9	12,130	5.70	2,128
Paving 1 (89 days)	47	6.9	28,649	5.70	5,026
Paving 2 (28 days)	26	6.9	5,023	5.70	881
Paving 3 (28 days)	28	6.9	5,368	5.70	942

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[3] Assumptions for the vendor trip length and vehicle miles traveled are consistent with 2013.2.2 model defaults utilized within the Moreno Valley Logistics Center Air Quality Impact Analysis.

Construction Activity	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Paving 4 (36 days)	23	6.9	5,782	5.70	1,014

4.3.5 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

The equipment used for Project construction would conform to CARB regulations and CA emissions standards and would evince related fuel efficiencies. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The Project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, certain incidental construction-source energy efficiencies would likely accrue through implementation of California regulations and best available control measures (BACM). More specifically, California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. To this end, “grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before three minutes of idling.” In this manner, construction equipment operators are informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Indirectly, construction energy efficiencies and energy conservation would be achieved for the proposed development through energy efficiencies realized from bulk purchase, transport and use of construction materials.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.3.6 ALTERNATE SITE PLAN CONSTRUCTION IMPACTS

As previously discussed, the alternate site plan replaces construction of Building 2 with the construction of additional truck trailer parking in its place, thus reducing total building area. Should the alternate site plan be implemented, the level of construction-based energy consumption would not exceed the level of construction-based energy consumption analyzed within the current Project scenario. As such, the Project scenario analysis represents a "worst-case" analysis scenario.

4.3.7 SUMMARY

The estimated power cost of on-site electricity usage during the construction of the proposed Project is assumed to be around $95,077. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be around 1,358,244 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 334,992 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Best available control measures inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the proposed Project would result in the estimated fuel consumption of 41,278 gallons of fuel. Additionally, fuel consumption from construction vendor trips (medium and heavy duty trucks) will total approximately 241,866 gallons. Diesel fuel would be supplied by County and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved through the use of bulk purchases, transport and use of construction materials. The 2014 IEPR released by the California Energy Commission has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements. Several vehicle engine regulation includes the CARB Drayage Truck Regulation (22), the CARB statewide On-road Truck and Bus Regulation (23), and the Ports of Los Angeles and Long Beach "Clean Truck Program" (CTP), which require accelerated implementation of "clean trucks" into the statewide truck fleet (24). In other words, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

4.4 OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 TRANSPORTATION ENERGY DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site.

LIGHT DUTY AUTOS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated 19,836,014 annual VMT along area roadways for all passenger cars with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 26.27 mpg. Table 4-7 provides an estimated range of annual fuel consumption resulting from Project generated LDAs. Based on Table 4-7, it is estimated that 762,505 gallons of fuel will be consumed from Project generated LDA trips.

TABLE 4-7: PROJECT-GENERATED PASSENGER CAR TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	7,922,799	26.01	304,556
Light-Industrial	11,913,215	26.01	457,949

LIGHT-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated 8,397,486 annual VMT along area roadways for all LHD trucks with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of LHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 12.79 mpg. Table 4-8 provides an estimated range of annual fuel consumption resulting from Project generated LHD trucks. Based on Table 4-8, it is estimated that 656,510 gallons of fuel will be consumed from Project generated LHD truck trips.

TABLE 4-8: PROJECT-GENERATED LHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	3,946,392	12.79	308,526
Light-Industrial	4,451,094	12.79	347,984

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

MEDIUM-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated 5,333,173 annual VMT along area roadways for all MHD trucks with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 8.13 mpg. Table 4-9 provides an estimated range of annual fuel consumption resulting from Project generated MHD trucks. Based on Table 4-9, it is estimated that 655,710 gallons of fuel will be consumed from Project generated MHD truck trips.

TABLE 4-9: PROJECT-GENERATED MHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	3,163,563	8.13	388,958
Light-Industrial	2,169,611	8.13	266,752

HEAVY-HEAVY DUTY TRUCKS

With respect to estimated VMT, and based on the trip frequency and trip length methodologies cited in the Project's Air Quality Impact Analysis, the Project would generate an estimated 16,084,379 annual VMT along area roadways for all HHD trucks with full build-out of the Project (14). As generated by EMFAC 2014, an aggregated fuel economy of HHD trucks ranging from model year 1974 to model year 2017 are estimated to have a fuel efficiency of 5.70 mpg. Table 4-10 provides an estimated range of annual fuel consumption resulting from Project generated HHD trucks. Based on Table 4-10, it is estimated that 2,821,826 gallons of fuel will be consumed from Project generated HHD truck trips.

TABLE 4-10: PROJECT-GENERATED HHD TRUCK TRAFFIC ANNUAL FUEL CONSUMPTION

Land Use	Annual Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
High-Cube	10,803,763	5.70	1,895,400
Light-Industrial	5,280,616	5.70	926,426

TABLE 4-11: PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)

Vehicle Type	Annual Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Light Duty Autos	19,836,014	762,505
LHD Trucks	8,397,486	656,510
MHD Trucks	5,333,173	655,710
HHD Trucks	16,084,379	2,821,826
Total (All Vehicles)	**49,651,053**	**4,896,551**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

As summarized on Table 4-11, the Project will result in 49,651,053 annual VMT and an estimated annual fuel consumption of 4,896,550 gallons of fuel.

4.4.2 FACILITY ENERGY DEMANDS

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied to the Project by Southern California Edison. Annual natural gas and electricity demands of the Project are summarized in Table 4-12.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting (20). Non-building energy use, or "plug-in" energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.).

TABLE 4-12: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY

Natural Gas Demand	kBTU/year
Parking Lot	0
Refrigerated Warehouse	8,923,800
Unrefrigerated Warehouse	2,108,660
General Light Industrial	11,796,180
Total Project Natural Gas Demand	**22,828,640**

Electricity Demand	kWh/year
Parking Lot	703,296
Refrigerated Warehouse	7,113,330
Unrefrigerated Warehouse	3,439,820
General Light Industrial	4,042,640
Total Project Electricity Demand	**15,299,086**

Note: Refrigerated Warehouse Natural Gas and Electricity Demand is based on the maximum estimate of 10% cold storage building use.

4.4.3 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficient/energy conserving design features and operational programs that would be implemented under the Project are summarized below. Also noted in the following discussions, energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title24, California Green Building Code). In this latter regard, pursuant to mitigation measures identified in the Project's air quality and greenhouse gas report, several measures will be implemented that reduce energy associated with the building envelope, indoor space efficiencies, irrigation and landscaping, potable water use, employment and trip reductions beyond existing requirements. Specifically implementation of MM AQ-3, MM AQ-4, MM AQ-5, and MM AQ-6 will reduce operational energy demand from the project. As such, the Project's energy use is not considered inefficient, wasteful, or unnecessary.

The Project would also not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

Enhanced Vehicle Fuel Efficiencies

Estimated annual fuel consumption estimates presented previously in Table 4-11 represent likely potential maximums that would occur in the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

4.4.4 ALTERNATE SITE PLAN OPERATIONAL IMPACTS

As previously discussed, the alternate site plan omits Building 2 with the addition of truck trailer parking in its place, thus decreasing operational energy capacity. Should the alternate site plan be implemented, operational-source energy consumption would not exceed the operational-source energy consumption analyzed within the current Project scenario. As such, the Project scenario analysis represents a "worst-case" analysis scenario.

4.5 SUMMARY

4.5.1 TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the Project would result in an estimated 762,504 gallons of fuel consumption per year for LDAs. Additionally, the Project would result in an estimated 656,510 gallons of fuel consumption per year for LHD trucks. In regards to MHD trucks, the Project would result in an estimated 655,710 gallons of fuel consumption per year. For HHD trucks an estimated 2,821,826 gallons of fuel consumption per year is estimated for the year 2017. The total estimated annual fuel consumption from Project generated VMT would result in a fuel demand of 4,896,550 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other warehouse uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Ed., 2012); and California Emissions Estimator Model (CalEEMod) v2013.2.2. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of LDVs and HDVs to alternative energy sources (e.g., electricity, natural gas, bio fuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the

Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would also implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at: 22,828,640 kBTU/year of natural gas; and 15,535,696 kWh/year of electricity. Natural gas would be supplied to the Project by The Gas Company; electricity would be supplied by Southern California Edison. The Project proposes conventional warehouse uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other warehouse projects of similar scale and configuration.

Various energy conserving features and operational programs that would be realized under the Project are discussed previously. Based on the preceding, Project facilities energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.6 CONCLUSIONS

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Notwithstanding, the Project proposes warehousing land use and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

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6 CERTIFICATION

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Moreno Valley Logistics Center Project. The information contained in this air quality impact report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 660-1994 ext. 217.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June, 2013
Planned Communities and Urban Infill – Urban Land Institute • June, 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April, 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August, 2007
AB2588 Regulatory Standards – Trinity Consultants • November, 2006
Air Dispersion Modeling – Lakes Environmental • June, 2006

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Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

MoVal Logistics Center- Construction

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	385.75	1000sqft	16.70	385,748.00	0
Unrefrigerated Warehouse-No Rail	1,351.77	1000sqft	50.14	1,351,770.00	0
Parking Lot	1,998.00	Space	17.98	799,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	515.47	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Total Lot Acreage:84.82; A trailer parking space requires significantly more space than one regular parking space. Therefore, for analysis purposes, 1 trailer parking=3.27 parking spaces.

Construction Phase - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

Off-road Equipment - Based on client specifications
Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

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Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Off-road Equipment - Based on client specifications

Trips and VMT - Based on client specifications

Grading -

Architectural Coating - Based on client specifications; Use 50g/L Low VOC Paint

Vehicle Trips - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Vechicle Emission Factors - Construction run only

Road Dust - Construction run only

Consumer Products - Construction run only

Area Coating - Construction run only

Landscape Equipment - Construction run only

Energy Use - Construction run only

Water And Wastewater - Construction run only

Solid Waste - Construction run only

Construction Off-road Equipment Mitigation - Based on client specifications

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Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

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Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

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Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

tblOffRoadEquipment	HorsePower	130.00	49.00
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Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	515.47
tblProjectCharacteristics	OperationalYear	2014	2017
tblRoadDust	RoadPercentPave	100	0
tblSolidWaste	SolidWasteGenerationRate	478.33	0.00
tblSolidWaste	SolidWasteGenerationRate	1,270.66	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,078.00
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tblTripsAndVMT	HaulingTripNumber	0.00	728.00
tblTripsAndVMT	HaulingTripNumber	0.00	778.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,152.00
tblTripsAndVMT	HaulingTripNumber	0.00	838.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,384.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,374.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
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tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	125.00
tblTripsAndVMT	WorkerTripNumber	1,065.00	40.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00
tblVehicleEF	LHD2	7.3830e-003	0.00

tblVehicleEF	MCY	6.4540e-003	0.00
tblVehicleEF	MCY	6.4540e-003	0.00
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tblVehicleEF	MDV	0.17	0.00
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tblVehicleEF	MH	3.2420e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	OBUS	9.5400e-004	0.00
tblVehicleEF	SBUS	8.8400e-004	0.00
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tblVehicleEF	SBUS	8.8400e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
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tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.59	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	2.59	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	2.59	0.00
tblWater	IndoorWaterUseRate	89,204,687.50	0.00

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tblWater	IndoorWaterUseRate	312,596,812.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	3.6791	37.7091	27.9859	0.0583	1.5183	1.2935	2.8118	0.4066	1.1900	1.5966	0.0000	5,344.4448	5,344.4448	0.8305	0.0000	5,361.8845
2017	1.0745	6.5290	5.6239	0.0133	0.3350	0.2000	0.5350	0.0927	0.1840	0.2767	0.0000	1,179.5583	1,179.5583	0.1348	0.0000	1,182.3892
Total	**4.7537**	**44.2381**	**33.6099**	**0.0715**	**1.8533**	**1.4936**	**3.3468**	**0.4994**	**1.3740**	**1.8734**	**0.0000**	**6,524.0030**	**6,524.0030**	**0.9653**	**0.0000**	**6,544.2737**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	2.1054	17.2071	27.1824	0.0583	1.2477	0.4730	1.7207	0.3409	0.4508	0.7917	0.0000	5,344.4416	5,344.4416	0.8305	0.0000	5,361.8813
2017	0.8504	3.8001	5.7843	0.0133	0.3350	0.0905	0.4255	0.0927	0.0859	0.1787	0.0000	1,179.5578	1,179.5578	0.1348	0.0000	1,182.3887
Total	**2.9557**	**21.0072**	**32.9667**	**0.0715**	**1.5827**	**0.5635**	**2.1461**	**0.4337**	**0.5367**	**0.9703**	**0.0000**	**6,523.9994**	**6,523.9994**	**0.9653**	**0.0000**	**6,544.2700**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**37.82**	**52.51**	**1.91**	**0.00**	**14.60**	**62.27**	**35.88**	**13.16**	**60.94**	**48.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading 1	Grading	4/29/2016	6/30/2016	5	45	
2	Grading 2	Grading	7/1/2016	7/20/2016	5	14	
3	Trenching 1	Trenching	7/1/2016	11/15/2016	5	98	

4	Concrete Shell 1	Building Construction	7/1/2016	10/24/2016	5	82	
5	Trenching 2	Trenching	7/15/2016	8/31/2016	5	34	
6	Concrete Shell 2	Building Construction	7/22/2016	9/29/2016	5	50	
7	Grading 3	Grading	8/4/2016	8/19/2016	5	12	
8	Trenching 3	Trenching	8/15/2016	9/28/2016	5	33	
9	Grading 4	Grading	8/22/2016	9/14/2016	5	18	
10	Concrete Shell 3	Building Construction	8/22/2016	10/25/2016	5	47	
11	Trenching 4	Trenching	9/8/2016	10/26/2016	5	35	
12	Concrete Shell 4	Building Construction	9/15/2016	11/23/2016	5	50	
13	Steel & Roof 1	Building Construction	9/30/2016	12/5/2016	5	47	
14	Steel & Roof 2	Building Construction	9/30/2016	10/31/2016	5	22	
15	Steel & Roof 3	Building Construction	10/26/2016	11/22/2016	5	20	
16	Roofing & Overhead Work 2	Building Construction	10/28/2016	11/29/2016	5	23	
17	Roofing & Overhead Work 1	Building Construction	11/1/2016	1/5/2017	5	48	
18	Paving 2	Paving	11/8/2016	12/15/2016	5	28	
19	Architectural Coating 2	Architectural Coating	11/14/2016	12/7/2016	5	18	
20	Misc. Finishes 2	Building Construction	11/18/2016	12/29/2016	5	30	
21	Roofing & Overhead Work 3	Building Construction	11/23/2016	12/22/2016	5	22	
22	Steel & Roof 4	Building Construction	11/24/2016	12/26/2016	5	23	
23	Paving 3	Paving	12/2/2016	1/10/2017	5	28	
24	Architectural Coating 1	Architectural Coating	12/7/2016	1/30/2017	5	39	
25	Misc. Finishes 3	Building Construction	12/8/2016	1/17/2017	5	29	
26	Architectural Coating 3	Architectural Coating	12/8/2016	1/2/2017	5	18	
27	Paving 1	Paving	12/23/2016	4/26/2017	5	89	
28	Roofing & Overhead Work 4	Building Construction	12/27/2016	1/27/2017	5	24	
29	Architectural Coating 4	Architectural Coating	1/11/2017	2/7/2017	5	20	
30	Paving 4	Paving	1/12/2017	3/2/2017	5	36	
31	Misc. Finishes 4	Building Construction	1/17/2017	2/28/2017	5	31	

32	Misc. Finishes 1	Building Construction	1/20/2017	4/20/2017	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 51,832; Non-Residential Outdoor: 51,832 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading 1	Crawler Tractors	1	8.00	410	0.43
Grading 1	Excavators	0	8.00	162	0.38
Grading 1	Graders	1	8.00	302	0.41
Grading 1	Off-Highway Tractors	2	8.00	485	0.44
Grading 1	Other Construction Equipment	2	8.00	354	0.44
Grading 1	Other General Industrial Equipment	3	8.00	330	0.37
Grading 1	Rubber Tired Dozers	1	8.00	451	0.40
Grading 1	Rubber Tired Loaders	1	8.00	350	0.36
Grading 1	Scrapers	8	8.00	452	0.48
Grading 1	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 2	Cranes	0	7.00	226	0.29
Grading 2	Crawler Tractors	1	8.00	410	0.43
Grading 2	Excavators	0	8.00	162	0.38
Grading 2	Forklifts	0	8.00	89	0.20
Grading 2	Generator Sets	0	8.00	84	0.74
Grading 2	Graders	1	8.00	302	0.41
Grading 2	Other Construction Equipment	1	8.00	354	0.42
Grading 2	Other General Industrial Equipment	1	8.00	330	0.37

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

Grading 2	Pavers	0	8.00	125	0.42
Grading 2	Paving Equipment	0	8.00	49	0.36
Grading 2	Rollers	0	8.00	80	0.38
Grading 2	Rubber Tired Dozers	0	8.00	255	0.40
Grading 2	Rubber Tired Loaders	1	8.00	350	0.36
Grading 2	Scrapers	3	8.00	452	0.48
Grading 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 2	Welders	0	8.00	46	0.45
Trenching 1	Excavators	2	8.00	268	0.38
Trenching 1	Other Construction Equipment	2	8.00	354	0.42
Trenching 1	Other Material Handling Equipment	2	8.00	249	0.40
Trenching 1	Rubber Tired Loaders	2	8.00	350	0.36
Trenching 1	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 1	Cranes	0	7.00	226	0.29
Concrete Shell 1	Excavators	0	8.00	268	0.38
Concrete Shell 1	Forklifts	0	8.00	89	0.20
Concrete Shell 1	Generator Sets	0	8.00	84	0.74
Concrete Shell 1	Other Construction Equipment	5	8.00	354	0.42
Concrete Shell 1	Other Material Handling Equipment	0	8.00	249	0.43
Concrete Shell 1	Pavers	0	8.00	125	0.42
Concrete Shell 1	Paving Equipment	0	8.00	49	0.36
Concrete Shell 1	Rollers	0	8.00	80	0.38
Concrete Shell 1	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 1	Surfacing Equipment	0	8.00	350	0.30
Concrete Shell 1	Tractors/Loaders/Backhoes	4	8.00	110	0.37
Concrete Shell 1	Welders	0	8.00	46	0.45
Trenching 2	Excavators	1	8.00	268	0.38
Trenching 2	Other Construction Equipment	1	8.00	354	0.42

Trenching 2	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 2	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 2	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Concrete Shell 2	Air Compressors	0	6.00	78	0.48
Concrete Shell 2	Cranes	0	7.00	226	0.29
Concrete Shell 2	Forklifts	0	8.00	89	0.20
Concrete Shell 2	Generator Sets	0	8.00	84	0.74
Concrete Shell 2	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 2	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 2	Welders	0	8.00	46	0.45
Grading 3	Air Compressors	0	6.00	78	0.48
Grading 3	Cranes	0	8.00	215	0.29
Grading 3	Crawler Tractors	1	8.00	410	0.43
Grading 3	Excavators	0	8.00	162	0.38
Grading 3	Forklifts	0	8.00	89	0.20
Grading 3	Generator Sets	0	8.00	84	0.74
Grading 3	Graders	1	8.00	302	0.41
Grading 3	Off-Highway Tractors	0	8.00	485	0.44
Grading 3	Other Construction Equipment	1	8.00	354	0.42
Grading 3	Other General Industrial Equipment	1	8.00	330	0.34
Grading 3	Rubber Tired Dozers	0	8.00	255	0.40
Grading 3	Rubber Tired Loaders	1	8.00	350	0.36
Grading 3	Scrapers	3	8.00	452	0.48
Grading 3	Surfacing Equipment	0	8.00	350	0.30
Grading 3	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading 3	Welders	0	8.00	46	0.45
Trenching 3	Excavators	1	8.00	268	0.38
Trenching 3	Other Construction Equipment	1	8.00	354	0.42

Trenching 3	Other Material Handling Equipment	1	8.00	249	0.43
Trenching 3	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 3	Tractors/Loaders/Backhoes	1	8.00	110	0.37
Grading 4	Aerial Lifts	0	8.00	48	0.31
Grading 4	Cranes	0	8.00	215	0.29
Grading 4	Crawler Tractors	1	8.00	410	0.43
Grading 4	Excavators	0	8.00	162	0.38
Grading 4	Forklifts	0	8.00	110	0.20
Grading 4	Generator Sets	0	8.00	84	0.74
Grading 4	Graders	1	8.00	302	0.41
Grading 4	Other Construction Equipment	1	8.00	354	0.42
Grading 4	Other General Industrial Equipment	1	8.00	330	0.34
Grading 4	Rubber Tired Dozers	0	8.00	255	0.40
Grading 4	Rubber Tired Loaders	1	8.00	350	0.36
Grading 4	Scrapers	3	8.00	452	0.48
Grading 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Grading 4	Welders	0	8.00	46	0.45
Concrete Shell 3	Cranes	0	7.00	226	0.29
Concrete Shell 3	Forklifts	0	8.00	89	0.20
Concrete Shell 3	Generator Sets	0	8.00	84	0.74
Concrete Shell 3	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 3	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 3	Welders	0	8.00	46	0.45
Trenching 4	Excavators	1	8.00	268	0.38
Trenching 4	Other Construction Equipment	1	8.00	354	0.42
Trenching 4	Other Material Handling Equipment	1	8.00	249	0.40
Trenching 4	Rubber Tired Loaders	1	8.00	350	0.36
Trenching 4	Tractors/Loaders/Backhoes	1	8.00	110	0.37

Concrete Shell 4	Air Compressors	0	6.00	78	0.48
Concrete Shell 4	Cranes	0	7.00	226	0.29
Concrete Shell 4	Excavators	0	8.00	268	0.38
Concrete Shell 4	Forklifts	0	8.00	89	0.20
Concrete Shell 4	Generator Sets	0	8.00	84	0.74
Concrete Shell 4	Other Construction Equipment	4	8.00	354	0.42
Concrete Shell 4	Other Material Handling Equipment	0	8.00	249	0.40
Concrete Shell 4	Rubber Tired Loaders	0	8.00	350	0.36
Concrete Shell 4	Tractors/Loaders/Backhoes	2	8.00	110	0.37
Concrete Shell 4	Welders	0	8.00	46	0.45
Steel & Roof 1	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 1	Air Compressors	0	6.00	78	0.48
Steel & Roof 1	Cranes	2	8.00	215	0.29
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Forklifts	0	8.00	89	0.20
Steel & Roof 1	Generator Sets	0	8.00	84	0.74
Steel & Roof 1	Other Construction Equipment	3	8.00	354	0.42
Steel & Roof 1	Pavers	0	8.00	125	0.42
Steel & Roof 1	Paving Equipment	0	8.00	130	0.36
Steel & Roof 1	Rollers	0	8.00	80	0.38
Steel & Roof 1	Rubber Tired Loaders	0	8.00	350	0.36
Steel & Roof 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 1	Trenchers	0	8.00	81	0.50
Steel & Roof 1	Welders	0	8.00	46	0.45
Steel & Roof 2	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 2	Air Compressors	0	6.00	78	0.48
Steel & Roof 2	Cranes	1	8.00	215	0.29
Steel & Roof 2	Crawler Tractors	0	8.00	410	0.43

Steel & Roof 2	Excavators	0	8.00	162	0.38
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Forklifts	0	8.00	89	0.20
Steel & Roof 2	Generator Sets	0	8.00	84	0.74
Steel & Roof 2	Graders	0	8.00	302	0.41
Steel & Roof 2	Off-Highway Tractors	0	8.00	485	0.44
Steel & Roof 2	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 2	Rubber Tired Dozers	0	8.00	255	0.40
Steel & Roof 2	Scrapers	0	8.00	452	0.48
Steel & Roof 2	Surfacing Equipment	0	8.00	350	0.30
Steel & Roof 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 2	Welders	0	8.00	46	0.45
Steel & Roof 3	Aerial Lifts	0	8.00	48	0.31
Steel & Roof 3	Cranes	1	8.00	215	0.29
Steel & Roof 3	Forklifts	0	8.00	110	0.20
Steel & Roof 3	Generator Sets	0	8.00	84	0.74
Steel & Roof 3	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Steel & Roof 3	Welders	0	8.00	46	0.45
Roofing & Overhead Work 2	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 2	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 2	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 2	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 2	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 2	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 2	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41
Roofing & Overhead Work 2	Graders	0	8.00	302	0.41

Roofing & Overhead Work 2	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 2	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 2	Other General Industrial Equipment	0	8.00	330	0.34
Roofing & Overhead Work 2	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 2	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 2	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 2	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 2	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 2	Scrapers	0	8.00	330	0.48
Roofing & Overhead Work 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 1	Aerial Lifts	3	8.00	48	0.31
Roofing & Overhead Work 1	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 1	Cranes	0	8.00	215	0.29
Roofing & Overhead Work 1	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 1	Forklifts	2	8.00	110	0.20
Roofing & Overhead Work 1	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 1	Other Construction Equipment	3	8.00	354	0.42
Roofing & Overhead Work 1	Other Material Handling Equipment	0	8.00	249	0.43
Roofing & Overhead Work 1	Rubber Tired Loaders	0	8.00	350	0.36
Roofing & Overhead Work 1	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 1	Welders	0	8.00	46	0.45
Paving 2	Aerial Lifts	0	8.00	48	0.31
Paving 2	Cranes	0	7.00	226	0.29
Paving 2	Crawler Tractors	0	8.00	249	0.43
Paving 2	Excavators	0	8.00	268	0.38
Paving 2	Forklifts	0	8.00	110	0.20
Paving 2	Generator Sets	0	8.00	84	0.74

Paving 2	Graders	0	8.00	174	0.41
Paving 2	Other Construction Equipment	1	8.00	354	0.42
Paving 2	Pavers	0	8.00	125	0.42
Paving 2	Paving Equipment	0	8.00	130	0.36
Paving 2	Rollers	0	8.00	80	0.38
Paving 2	Rubber Tired Dozers	0	8.00	255	0.40
Paving 2	Rubber Tired Loaders	1	8.00	350	0.36
Paving 2	Scrapers	0	8.00	361	0.48
Paving 2	Surfacing Equipment	0	8.00	350	0.30
Paving 2	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Paving 2	Trenchers	1	8.00	81	0.50
Paving 2	Welders	0	8.00	46	0.45
Architectural Coating 2	Air Compressors	0	6.00	78	0.48
Architectural Coating 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 2	Cranes	0	7.00	226	0.29
Misc. Finishes 2	Forklifts	0	8.00	89	0.20
Misc. Finishes 2	Generator Sets	0	8.00	84	0.74
Misc. Finishes 2	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 2	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 2	Welders	0	8.00	46	0.45
Roofing & Overhead Work 3	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 3	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 3	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 3	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 3	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 3	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 3	Generator Sets	0	8.00	84	0.74

Roofing & Overhead Work 3	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 3	Rubber Tired Dozers	0	8.00	255	0.40
Roofing & Overhead Work 3	Surfacing Equipment	0	8.00	350	0.30
Roofing & Overhead Work 3	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 3	Welders	0	8.00	46	0.45
Steel & Roof 4	Cranes	1	8.00	215	0.29
Steel & Roof 4	Forklifts	0	8.00	89	0.20
Steel & Roof 4	Generator Sets	0	8.00	84	0.74
Steel & Roof 4	Other Construction Equipment	2	8.00	354	0.42
Steel & Roof 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Steel & Roof 4	Welders	0	8.00	46	0.45
Paving 3	Other Construction Equipment	1	8.00	354	0.42
Paving 3	Pavers	0	8.00	125	0.42
Paving 3	Paving Equipment	0	8.00	130	0.36
Paving 3	Rollers	0	8.00	80	0.38
Paving 3	Rubber Tired Loaders	1	8.00	350	0.36
Paving 3	Trenchers	1	8.00	81	0.50
Architectural Coating 1	Air Compressors	0	6.00	78	0.48
Architectural Coating 1	Other Construction Equipment	4	8.00	354	0.42
Misc. Finishes 3	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 3	Cranes	0	7.00	226	0.29
Misc. Finishes 3	Forklifts	0	8.00	89	0.20
Misc. Finishes 3	Generator Sets	0	8.00	84	0.74
Misc. Finishes 3	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 3	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 3	Welders	0	8.00	46	0.45
Architectural Coating 3	Air Compressors	0	6.00	78	0.48
Architectural Coating 3	Other Construction Equipment	1	8.00	354	0.42

Paving 1	Other Construction Equipment	1	8.00	354	0.42
Paving 1	Pavers	0	8.00	125	0.42
Paving 1	Paving Equipment	0	8.00	130	0.36
Paving 1	Rollers	0	8.00	80	0.38
Paving 1	Rubber Tired Loaders	2	8.00	350	0.36
Paving 1	Trenchers	1	8.00	81	0.50
Roofing & Overhead Work 4	Aerial Lifts	1	8.00	48	0.31
Roofing & Overhead Work 4	Air Compressors	0	6.00	78	0.48
Roofing & Overhead Work 4	Concrete/Industrial Saws	0	8.00	81	0.73
Roofing & Overhead Work 4	Cranes	0	7.00	226	0.29
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	410	0.43
Roofing & Overhead Work 4	Crawler Tractors	0	8.00	249	0.43
Roofing & Overhead Work 4	Excavators	0	8.00	162	0.38
Roofing & Overhead Work 4	Excavators	0	8.00	268	0.38
Roofing & Overhead Work 4	Forklifts	1	8.00	110	0.20
Roofing & Overhead Work 4	Generator Sets	0	8.00	84	0.74
Roofing & Overhead Work 4	Graders	0	8.00	302	0.41
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	451	0.44
Roofing & Overhead Work 4	Off-Highway Tractors	0	8.00	485	0.44
Roofing & Overhead Work 4	Other Construction Equipment	2	8.00	354	0.42
Roofing & Overhead Work 4	Other General Industrial Equipment	0	8.00	330	0.37
Roofing & Overhead Work 4	Pavers	0	8.00	125	0.42
Roofing & Overhead Work 4	Paving Equipment	0	8.00	130	0.36
Roofing & Overhead Work 4	Rollers	0	8.00	80	0.38
Roofing & Overhead Work 4	Rubber Tired Dozers	0	8.00	451	0.40
Roofing & Overhead Work 4	Rubber Tired Loaders	0	8.00	350	0.37
Roofing & Overhead Work 4	Scrapers	0	8.00	452	0.48
Roofing & Overhead Work 4	Surfacing Equipment	0	8.00	350	0.30

Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	8.00	110	0.37
Roofing & Overhead Work 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Roofing & Overhead Work 4	Welders	0	8.00	46	0.45
Architectural Coating 4	Air Compressors	0	6.00	78	0.48
Architectural Coating 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Other Construction Equipment	1	8.00	354	0.42
Paving 4	Pavers	0	8.00	125	0.42
Paving 4	Paving Equipment	0	8.00	130	0.36
Paving 4	Rollers	0	8.00	80	0.38
Paving 4	Rubber Tired Loaders	1	8.00	350	0.36
Paving 4	Trenchers	1	8.00	81	0.50
Misc. Finishes 4	Aerial Lifts	1	8.00	48	0.31
Misc. Finishes 4	Cranes	0	7.00	226	0.29
Misc. Finishes 4	Forklifts	0	8.00	89	0.20
Misc. Finishes 4	Generator Sets	0	8.00	84	0.74
Misc. Finishes 4	Other Construction Equipment	1	8.00	354	0.42
Misc. Finishes 4	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 4	Welders	0	8.00	46	0.45
Misc. Finishes 1	Aerial Lifts	2	8.00	48	0.31
Misc. Finishes 1	Cranes	0	7.00	226	0.29
Misc. Finishes 1	Forklifts	0	8.00	89	0.20
Misc. Finishes 1	Generator Sets	0	8.00	84	0.74
Misc. Finishes 1	Other Construction Equipment	2	8.00	354	0.42
Misc. Finishes 1	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Misc. Finishes 1	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading 1	19	48.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 2	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 1	10	25.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 1	9	125.00	416.00	10,384.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 2	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 2	6	40.00	416.00	1,374.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 3	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 3	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading 4	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 3	6	40.00	416.00	1,078.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching 4	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Shell 4	6	40.00	416.00	1,758.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 1	5	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 2	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 3	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 2	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 1	8	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 2	3	8.00	0.00	728.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 2	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 2	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 3	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Steel & Roof 4	3	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 3	3	8.00	0.00	778.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 1	4	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 3	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 3	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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Paving 1	4	10.00	0.00	4,152.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Roofing & Overhead Work 4	4	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating 4	1	213.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving 4	3	8.00	0.00	838.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 4	2	40.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Misc. Finishes 1	4	125.00	416.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Grading 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3503	0.0000	0.3503	0.0977	0.0000	0.0977	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5124	6.4082	3.9145	5.8500e-003		0.2573	0.2573		0.2367	0.2367	0.0000	551.4246	551.4246	0.1663	0.0000	554.9175
Total	**0.5124**	**6.4082**	**3.9145**	**5.8500e-003**	**0.3503**	**0.2573**	**0.6076**	**0.0977**	**0.2367**	**0.3344**	**0.0000**	**551.4246**	**551.4246**	**0.1663**	**0.0000**	**554.9175**

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3.2 Grading 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799
Total	**3.7100e-003**	**5.4300e-003**	**0.0547**	**1.3000e-004**	**0.0119**	**8.0000e-005**	**0.0120**	**3.1500e-003**	**7.0000e-005**	**3.2200e-003**	**0.0000**	**10.0701**	**10.0701**	**4.7000e-004**	**0.0000**	**10.0799**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1366	0.0000	0.1366	0.0381	0.0000	0.0381	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1328	1.3915	3.0024	5.8500e-003		0.0559	0.0559		0.0539	0.0539	0.0000	551.4239	551.4239	0.1663	0.0000	554.9169
Total	**0.1328**	**1.3915**	**3.0024**	**5.8500e-003**	**0.1366**	**0.0559**	**0.1925**	**0.0381**	**0.0539**	**0.0920**	**0.0000**	**551.4239**	**551.4239**	**0.1663**	**0.0000**	**554.9169**

3.2 Grading 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	5.4300e-003	0.0547	1.3000e-004	0.0119	8.0000e-005	0.0120	3.1500e-003	7.0000e-005	3.2200e-003	0.0000	10.0701	10.0701	4.7000e-004	0.0000	10.0799
Total	**3.7100e-003**	**5.4300e-003**	**0.0547**	**1.3000e-004**	**0.0119**	**8.0000e-005**	**0.0120**	**3.1500e-003**	**7.0000e-005**	**3.2200e-003**	**0.0000**	**10.0701**	**10.0701**	**4.7000e-004**	**0.0000**	**10.0799**

3.3 Grading 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0297	0.0000	0.0297	3.2100e-003	0.0000	3.2100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0670	0.8435	0.4878	8.1000e-004		0.0332	0.0332		0.0305	0.0305	0.0000	76.4976	76.4976	0.0231	0.0000	76.9822
Total	**0.0670**	**0.8435**	**0.4878**	**8.1000e-004**	**0.0297**	**0.0332**	**0.0629**	**3.2100e-003**	**0.0305**	**0.0337**	**0.0000**	**76.4976**	**76.4976**	**0.0231**	**0.0000**	**76.9822**

3.3 Grading 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067
Total	**4.8000e-004**	**7.0000e-004**	**7.0900e-003**	**2.0000e-005**	**1.5400e-003**	**1.0000e-005**	**1.5500e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3054**	**1.3054**	**6.0000e-005**	**0.0000**	**1.3067**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0116	0.0000	0.0116	1.2500e-003	0.0000	1.2500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1512	0.3870	8.1000e-004		5.5200e-003	5.5200e-003		5.5200e-003	5.5200e-003	0.0000	76.4975	76.4975	0.0231	0.0000	76.9821
Total	**0.0131**	**0.1512**	**0.3870**	**8.1000e-004**	**0.0116**	**5.5200e-003**	**0.0171**	**1.2500e-003**	**5.5200e-003**	**6.7700e-003**	**0.0000**	**76.4975**	**76.4975**	**0.0231**	**0.0000**	**76.9821**

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3.3 Grading 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8000e-004	7.0000e-004	7.0900e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3054	1.3054	6.0000e-005	0.0000	1.3067
Total	**4.8000e-004**	**7.0000e-004**	**7.0900e-003**	**2.0000e-005**	**1.5400e-003**	**1.0000e-005**	**1.5500e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**	**0.0000**	**1.3054**	**1.3054**	**6.0000e-005**	**0.0000**	**1.3067**

3.4 Trenching 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3082	3.8105	1.8246	4.3500e-003		0.1529	0.1529		0.1407	0.1407	0.0000	409.8082	409.8082	0.1236	0.0000	412.4040
Total	**0.3082**	**3.8105**	**1.8246**	**4.3500e-003**		**0.1529**	**0.1529**		**0.1407**	**0.1407**	**0.0000**	**409.8082**	**409.8082**	**0.1236**	**0.0000**	**412.4040**

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3.4 Trenching 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333
Total	**4.2100e-003**	**6.1500e-003**	**0.0621**	**1.5000e-004**	**0.0135**	**9.0000e-005**	**0.0136**	**3.5800e-003**	**8.0000e-005**	**3.6500e-003**	**0.0000**	**11.4221**	**11.4221**	**5.3000e-004**	**0.0000**	**11.4333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0815	1.2180	2.2283	4.3500e-003		0.0516	0.0516		0.0516	0.0516	0.0000	409.8077	409.8077	0.1236	0.0000	412.4035
Total	**0.0815**	**1.2180**	**2.2283**	**4.3500e-003**		**0.0516**	**0.0516**		**0.0516**	**0.0516**	**0.0000**	**409.8077**	**409.8077**	**0.1236**	**0.0000**	**412.4035**

3.4 Trenching 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2100e-003	6.1500e-003	0.0621	1.5000e-004	0.0135	9.0000e-005	0.0136	3.5800e-003	8.0000e-005	3.6500e-003	0.0000	11.4221	11.4221	5.3000e-004	0.0000	11.4333
Total	**4.2100e-003**	**6.1500e-003**	**0.0621**	**1.5000e-004**	**0.0135**	**9.0000e-005**	**0.0136**	**3.5800e-003**	**8.0000e-005**	**3.6500e-003**	**0.0000**	**11.4221**	**11.4221**	**5.3000e-004**	**0.0000**	**11.4333**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2287	2.8039	1.6770	3.2200e-003		0.1276	0.1276		0.1174	0.1174	0.0000	303.1787	303.1787	0.0915	0.0000	305.0991
Total	**0.2287**	**2.8039**	**1.6770**	**3.2200e-003**		**0.1276**	**0.1276**		**0.1174**	**0.1174**	**0.0000**	**303.1787**	**303.1787**	**0.0915**	**0.0000**	**305.0991**

3.5 Concrete Shell 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0807	1.4507	0.9900	3.6900e-003	0.0893	0.0252	0.1145	0.0245	0.0232	0.0477	0.0000	337.8962	337.8962	2.1500e-003	0.0000	337.9414
Vendor	0.1399	1.4959	1.7508	3.5800e-003	0.1058	0.0279	0.1337	0.0303	0.0256	0.0559	0.0000	325.7243	325.7243	2.1600e-003	0.0000	325.7696
Worker	0.0176	0.0258	0.2596	6.4000e-004	0.0563	3.6000e-004	0.0567	0.0150	3.3000e-004	0.0153	0.0000	47.7863	47.7863	2.2300e-003	0.0000	47.8330
Total	**0.2382**	**2.9724**	**3.0004**	**7.9100e-003**	**0.2514**	**0.0535**	**0.3048**	**0.0697**	**0.0492**	**0.1189**	**0.0000**	**711.4069**	**711.4069**	**6.5400e-003**	**0.0000**	**711.5441**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0464	0.4623	1.6182	3.2200e-003		0.0269	0.0269		0.0269	0.0269	0.0000	303.1783	303.1783	0.0915	0.0000	305.0988
Total	**0.0464**	**0.4623**	**1.6182**	**3.2200e-003**		**0.0269**	**0.0269**		**0.0269**	**0.0269**	**0.0000**	**303.1783**	**303.1783**	**0.0915**	**0.0000**	**305.0988**

3.5 Concrete Shell 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0807	1.4507	0.9900	3.6900e-003	0.0893	0.0252	0.1145	0.0245	0.0232	0.0477	0.0000	337.8962	337.8962	2.1500e-003	0.0000	337.9414
Vendor	0.1399	1.4959	1.7508	3.5800e-003	0.1058	0.0279	0.1337	0.0303	0.0256	0.0559	0.0000	325.7243	325.7243	2.1600e-003	0.0000	325.7696
Worker	0.0176	0.0258	0.2596	6.4000e-004	0.0563	3.6000e-004	0.0567	0.0150	3.3000e-004	0.0153	0.0000	47.7863	47.7863	2.2300e-003	0.0000	47.8330
Total	**0.2382**	**2.9724**	**3.0004**	**7.9100e-003**	**0.2514**	**0.0535**	**0.3048**	**0.0697**	**0.0492**	**0.1189**	**0.0000**	**711.4069**	**711.4069**	**6.5400e-003**	**0.0000**	**711.5441**

3.6 Trenching 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0544	0.6726	0.3202	7.7000e-004		0.0270	0.0270		0.0248	0.0248	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731
Total	**0.0544**	**0.6726**	**0.3202**	**7.7000e-004**		**0.0270**	**0.0270**		**0.0248**	**0.0248**	**0.0000**	**72.1163**	**72.1163**	**0.0218**	**0.0000**	**72.5731**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.6 Trenching 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627
Total	**7.6000e-004**	**1.1100e-003**	**0.0112**	**3.0000e-005**	**2.4300e-003**	**2.0000e-005**	**2.4400e-003**	**6.5000e-004**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**2.0606**	**2.0606**	**1.0000e-004**	**0.0000**	**2.0627**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0143	0.2119	0.3915	7.7000e-004		8.9700e-003	8.9700e-003		8.9700e-003	8.9700e-003	0.0000	72.1163	72.1163	0.0218	0.0000	72.5731
Total	**0.0143**	**0.2119**	**0.3915**	**7.7000e-004**		**8.9700e-003**	**8.9700e-003**		**8.9700e-003**	**8.9700e-003**	**0.0000**	**72.1163**	**72.1163**	**0.0218**	**0.0000**	**72.5731**

3.6 Trenching 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1100e-003	0.0112	3.0000e-005	2.4300e-003	2.0000e-005	2.4400e-003	6.5000e-004	1.0000e-005	6.6000e-004	0.0000	2.0606	2.0606	1.0000e-004	0.0000	2.0627
Total	**7.6000e-004**	**1.1100e-003**	**0.0112**	**3.0000e-005**	**2.4300e-003**	**2.0000e-005**	**2.4400e-003**	**6.5000e-004**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**2.0606**	**2.0606**	**1.0000e-004**	**0.0000**	**2.0627**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759
Total	**0.1000**	**1.2570**	**0.7360**	**1.4600e-003**		**0.0537**	**0.0537**		**0.0494**	**0.0494**	**0.0000**	**137.9024**	**137.9024**	**0.0416**	**0.0000**	**138.7759**

3.7 Concrete Shell 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.1920	0.1310	4.9000e-004	0.0118	3.3300e-003	0.0151	3.2400e-003	3.0700e-003	6.3100e-003	0.0000	44.7101	44.7101	2.8000e-004	0.0000	44.7161
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.0994**	**1.1091**	**1.2492**	**2.7900e-003**	**0.0873**	**0.0204**	**0.1077**	**0.0246**	**0.0188**	**0.0434**	**0.0000**	**252.6466**	**252.6466**	**2.0300e-003**	**0.0000**	**252.6894**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758
Total	**0.0200**	**0.1665**	**0.7097**	**1.4600e-003**		**8.9900e-003**	**8.9900e-003**		**8.9900e-003**	**8.9900e-003**	**0.0000**	**137.9022**	**137.9022**	**0.0416**	**0.0000**	**138.7758**

3.7 Concrete Shell 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0107	0.1920	0.1310	4.9000e-004	0.0118	3.3300e-003	0.0151	3.2400e-003	3.0700e-003	6.3100e-003	0.0000	44.7101	44.7101	2.8000e-004	0.0000	44.7161
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.0994**	**1.1091**	**1.2492**	**2.7900e-003**	**0.0873**	**0.0204**	**0.1077**	**0.0246**	**0.0188**	**0.0434**	**0.0000**	**252.6466**	**252.6466**	**2.0300e-003**	**0.0000**	**252.6894**

3.8 Grading 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0255	0.0000	0.0255	2.7500e-003	0.0000	2.7500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0571	0.7187	0.4156	6.9000e-004		0.0283	0.0283		0.0260	0.0260	0.0000	65.0874	65.0874	0.0196	0.0000	65.4997
Total	**0.0571**	**0.7187**	**0.4156**	**6.9000e-004**	**0.0255**	**0.0283**	**0.0537**	**2.7500e-003**	**0.0260**	**0.0288**	**0.0000**	**65.0874**	**65.0874**	**0.0196**	**0.0000**	**65.4997**

3.8 Grading 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200
Total	**4.1000e-004**	**6.0000e-004**	**6.0800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1189**	**1.1189**	**5.0000e-005**	**0.0000**	**1.1200**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.9300e-003	0.0000	9.9300e-003	1.0700e-003	0.0000	1.0700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1272	0.3290	6.9000e-004		4.6400e-003	4.6400e-003		4.6400e-003	4.6400e-003	0.0000	65.0874	65.0874	0.0196	0.0000	65.4996
Total	**0.0111**	**0.1272**	**0.3290**	**6.9000e-004**	**9.9300e-003**	**4.6400e-003**	**0.0146**	**1.0700e-003**	**4.6400e-003**	**5.7100e-003**	**0.0000**	**65.0874**	**65.0874**	**0.0196**	**0.0000**	**65.4996**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.8 Grading 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1000e-004	6.0000e-004	6.0800e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1189	1.1189	5.0000e-005	0.0000	1.1200
Total	**4.1000e-004**	**6.0000e-004**	**6.0800e-003**	**1.0000e-005**	**1.3200e-003**	**1.0000e-005**	**1.3300e-003**	**3.5000e-004**	**1.0000e-005**	**3.6000e-004**	**0.0000**	**1.1189**	**1.1189**	**5.0000e-005**	**0.0000**	**1.1200**

3.9 Trenching 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0528	0.6529	0.3108	7.4000e-004		0.0262	0.0262		0.0241	0.0241	0.0000	69.9953	69.9953	0.0211	0.0000	70.4386
Total	**0.0528**	**0.6529**	**0.3108**	**7.4000e-004**		**0.0262**	**0.0262**		**0.0241**	**0.0241**	**0.0000**	**69.9953**	**69.9953**	**0.0211**	**0.0000**	**70.4386**

3.9 Trenching 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020
Total	**7.4000e-004**	**1.0800e-003**	**0.0109**	**3.0000e-005**	**2.3600e-003**	**1.0000e-005**	**2.3700e-003**	**6.3000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**2.0000**	**2.0000**	**9.0000e-005**	**0.0000**	**2.0020**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.2056	0.3800	7.4000e-004		8.7000e-003	8.7000e-003		8.7000e-003	8.7000e-003	0.0000	69.9952	69.9952	0.0211	0.0000	70.4386
Total	**0.0138**	**0.2056**	**0.3800**	**7.4000e-004**		**8.7000e-003**	**8.7000e-003**		**8.7000e-003**	**8.7000e-003**	**0.0000**	**69.9952**	**69.9952**	**0.0211**	**0.0000**	**70.4386**

3.9 Trenching 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.3600e-003	1.0000e-005	2.3700e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	2.0000	2.0000	9.0000e-005	0.0000	2.0020
Total	**7.4000e-004**	**1.0800e-003**	**0.0109**	**3.0000e-005**	**2.3600e-003**	**1.0000e-005**	**2.3700e-003**	**6.3000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**2.0000**	**2.0000**	**9.0000e-005**	**0.0000**	**2.0020**

3.10 Grading 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0382	0.0000	0.0382	4.1200e-003	0.0000	4.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0856	1.0780	0.6234	1.0400e-003		0.0424	0.0424		0.0390	0.0390	0.0000	97.6311	97.6311	0.0295	0.0000	98.2496
Total	**0.0856**	**1.0780**	**0.6234**	**1.0400e-003**	**0.0382**	**0.0424**	**0.0806**	**4.1200e-003**	**0.0390**	**0.0431**	**0.0000**	**97.6311**	**97.6311**	**0.0295**	**0.0000**	**98.2496**

3.10 Grading 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800
Total	**6.2000e-004**	**9.0000e-004**	**9.1200e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6784**	**1.6784**	**8.0000e-005**	**0.0000**	**1.6800**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0149	0.0000	0.0149	1.6100e-003	0.0000	1.6100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0167	0.1908	0.4935	1.0400e-003		6.9600e-003	6.9600e-003		6.9600e-003	6.9600e-003	0.0000	97.6310	97.6310	0.0295	0.0000	98.2495
Total	**0.0167**	**0.1908**	**0.4935**	**1.0400e-003**	**0.0149**	**6.9600e-003**	**0.0219**	**1.6100e-003**	**6.9600e-003**	**8.5700e-003**	**0.0000**	**97.6310**	**97.6310**	**0.0295**	**0.0000**	**98.2495**

3.10 Grading 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.0000e-004	9.1200e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.3000e-004	1.0000e-005	5.4000e-004	0.0000	1.6784	1.6784	8.0000e-005	0.0000	1.6800
Total	**6.2000e-004**	**9.0000e-004**	**9.1200e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.3000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.6784**	**1.6784**	**8.0000e-005**	**0.0000**	**1.6800**

3.11 Concrete Shell 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0940	1.1816	0.6918	1.3800e-003		0.0505	0.0505		0.0465	0.0465	0.0000	129.6283	129.6283	0.0391	0.0000	130.4494
Total	**0.0940**	**1.1816**	**0.6918**	**1.3800e-003**		**0.0505**	**0.0505**		**0.0465**	**0.0465**	**0.0000**	**129.6283**	**129.6283**	**0.0391**	**0.0000**	**130.4494**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.11 Concrete Shell 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1506	0.1028	3.8000e-004	9.2700e-003	2.6200e-003	0.0119	2.5400e-003	2.4100e-003	4.9500e-003	0.0000	35.0782	35.0782	2.2000e-004	0.0000	35.0829
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	3.2300e-003	4.7200e-003	0.0476	1.2000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	6.0000e-005	2.8000e-003	0.0000	8.7647	8.7647	4.1000e-004	0.0000	8.7733
Total	**0.0918**	**1.0128**	**1.1539**	**2.5500e-003**	**0.0803**	**0.0187**	**0.0989**	**0.0226**	**0.0172**	**0.0398**	**0.0000**	**230.5386**	**230.5386**	**1.8700e-003**	**0.0000**	**230.5778**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0188	0.1565	0.6671	1.3800e-003		8.4500e-003	8.4500e-003		8.4500e-003	8.4500e-003	0.0000	129.6281	129.6281	0.0391	0.0000	130.4492
Total	**0.0188**	**0.1565**	**0.6671**	**1.3800e-003**		**8.4500e-003**	**8.4500e-003**		**8.4500e-003**	**8.4500e-003**	**0.0000**	**129.6281**	**129.6281**	**0.0391**	**0.0000**	**130.4492**

3.11 Concrete Shell 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1506	0.1028	3.8000e-004	9.2700e-003	2.6200e-003	0.0119	2.5400e-003	2.4100e-003	4.9500e-003	0.0000	35.0782	35.0782	2.2000e-004	0.0000	35.0829
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	3.2300e-003	4.7200e-003	0.0476	1.2000e-004	0.0103	7.0000e-005	0.0104	2.7400e-003	6.0000e-005	2.8000e-003	0.0000	8.7647	8.7647	4.1000e-004	0.0000	8.7733
Total	**0.0918**	**1.0128**	**1.1539**	**2.5500e-003**	**0.0803**	**0.0187**	**0.0989**	**0.0226**	**0.0172**	**0.0398**	**0.0000**	**230.5386**	**230.5386**	**1.8700e-003**	**0.0000**	**230.5778**

3.12 Trenching 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0550	0.6804	0.3258	7.8000e-004		0.0273	0.0273		0.0251	0.0251	0.0000	73.1800	73.1800	0.0221	0.0000	73.6436
Total	**0.0550**	**0.6804**	**0.3258**	**7.8000e-004**		**0.0273**	**0.0273**		**0.0251**	**0.0251**	**0.0000**	**73.1800**	**73.1800**	**0.0221**	**0.0000**	**73.6436**

3.12 Trenching 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233
Total	**7.8000e-004**	**1.1400e-003**	**0.0115**	**3.0000e-005**	**2.5000e-003**	**2.0000e-005**	**2.5200e-003**	**6.6000e-004**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**2.1213**	**2.1213**	**1.0000e-004**	**0.0000**	**2.1233**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.2175	0.3979	7.8000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	73.1799	73.1799	0.0221	0.0000	73.6435
Total	**0.0145**	**0.2175**	**0.3979**	**7.8000e-004**		**9.2100e-003**	**9.2100e-003**		**9.2100e-003**	**9.2100e-003**	**0.0000**	**73.1799**	**73.1799**	**0.0221**	**0.0000**	**73.6435**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.12 Trenching 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	1.1400e-003	0.0115	3.0000e-005	2.5000e-003	2.0000e-005	2.5200e-003	6.6000e-004	1.0000e-005	6.8000e-004	0.0000	2.1213	2.1213	1.0000e-004	0.0000	2.1233
Total	**7.8000e-004**	**1.1400e-003**	**0.0115**	**3.0000e-005**	**2.5000e-003**	**2.0000e-005**	**2.5200e-003**	**6.6000e-004**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**2.1213**	**2.1213**	**1.0000e-004**	**0.0000**	**2.1233**

3.13 Concrete Shell 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1000	1.2570	0.7360	1.4600e-003		0.0537	0.0537		0.0494	0.0494	0.0000	137.9024	137.9024	0.0416	0.0000	138.7759
Total	**0.1000**	**1.2570**	**0.7360**	**1.4600e-003**		**0.0537**	**0.0537**		**0.0494**	**0.0494**	**0.0000**	**137.9024**	**137.9024**	**0.0416**	**0.0000**	**138.7759**

3.13 Concrete Shell 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.2456	0.1676	6.3000e-004	0.0151	4.2700e-003	0.0194	4.1500e-003	3.9200e-003	8.0700e-003	0.0000	57.2055	57.2055	3.6000e-004	0.0000	57.2131
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.1024**	**1.1628**	**1.2859**	**2.9300e-003**	**0.0906**	**0.0213**	**0.1120**	**0.0255**	**0.0196**	**0.0452**	**0.0000**	**265.1420**	**265.1420**	**2.1100e-003**	**0.0000**	**265.1864**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0200	0.1665	0.7097	1.4600e-003		8.9900e-003	8.9900e-003		8.9900e-003	8.9900e-003	0.0000	137.9022	137.9022	0.0416	0.0000	138.7758
Total	**0.0200**	**0.1665**	**0.7097**	**1.4600e-003**		**8.9900e-003**	**8.9900e-003**		**8.9900e-003**	**8.9900e-003**	**0.0000**	**137.9022**	**137.9022**	**0.0416**	**0.0000**	**138.7758**

3.13 Concrete Shell 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0137	0.2456	0.1676	6.3000e-004	0.0151	4.2700e-003	0.0194	4.1500e-003	3.9200e-003	8.0700e-003	0.0000	57.2055	57.2055	3.6000e-004	0.0000	57.2131
Vendor	0.0853	0.9122	1.0676	2.1800e-003	0.0645	0.0170	0.0815	0.0185	0.0156	0.0341	0.0000	198.6124	198.6124	1.3200e-003	0.0000	198.6400
Worker	3.4400e-003	5.0200e-003	0.0507	1.2000e-004	0.0110	7.0000e-005	0.0111	2.9200e-003	6.0000e-005	2.9800e-003	0.0000	9.3242	9.3242	4.3000e-004	0.0000	9.3333
Total	**0.1024**	**1.1628**	**1.2859**	**2.9300e-003**	**0.0906**	**0.0213**	**0.1120**	**0.0255**	**0.0196**	**0.0452**	**0.0000**	**265.1420**	**265.1420**	**2.1100e-003**	**0.0000**	**265.1864**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0891	1.1375	0.5559	1.1600e-003		0.0452	0.0452		0.0416	0.0416	0.0000	109.2624	109.2624	0.0330	0.0000	109.9545
Total	**0.0891**	**1.1375**	**0.5559**	**1.1600e-003**		**0.0452**	**0.0452**		**0.0416**	**0.0416**	**0.0000**	**109.2624**	**109.2624**	**0.0330**	**0.0000**	**109.9545**

3.14 Steel & Roof 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	0.0101	0.0148	0.1488	3.6000e-004	0.0323	2.1000e-004	0.0325	8.5700e-003	1.9000e-004	8.7600e-003	0.0000	27.3897	27.3897	1.2800e-003	0.0000	27.4165
Total	**0.0903**	**0.8722**	**1.1523**	**2.4100e-003**	**0.0929**	**0.0162**	**0.1091**	**0.0259**	**0.0149**	**0.0408**	**0.0000**	**214.0854**	**214.0854**	**2.5200e-003**	**0.0000**	**214.1381**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0433	0.4295	0.5402	1.1600e-003		0.0188	0.0188		0.0174	0.0174	0.0000	109.2623	109.2623	0.0330	0.0000	109.9544
Total	**0.0433**	**0.4295**	**0.5402**	**1.1600e-003**		**0.0188**	**0.0188**		**0.0174**	**0.0174**	**0.0000**	**109.2623**	**109.2623**	**0.0330**	**0.0000**	**109.9544**

3.14 Steel & Roof 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0802	0.8574	1.0035	2.0500e-003	0.0607	0.0160	0.0766	0.0174	0.0147	0.0321	0.0000	186.6957	186.6957	1.2400e-003	0.0000	186.7216
Worker	0.0101	0.0148	0.1488	3.6000e-004	0.0323	2.1000e-004	0.0325	8.5700e-003	1.9000e-004	8.7600e-003	0.0000	27.3897	27.3897	1.2800e-003	0.0000	27.4165
Total	**0.0903**	**0.8722**	**1.1523**	**2.4100e-003**	**0.0929**	**0.0162**	**0.1091**	**0.0259**	**0.0149**	**0.0408**	**0.0000**	**214.0854**	**214.0854**	**2.5200e-003**	**0.0000**	**214.1381**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0253	0.3252	0.1631	3.4000e-004		0.0127	0.0127		0.0117	0.0117	0.0000	32.2410	32.2410	9.7300e-003	0.0000	32.4452
Total	**0.0253**	**0.3252**	**0.1631**	**3.4000e-004**		**0.0127**	**0.0127**		**0.0117**	**0.0117**	**0.0000**	**32.2410**	**32.2410**	**9.7300e-003**	**0.0000**	**32.4452**

3.15 Steel & Roof 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1043	0.1582	3.4000e-004		4.5100e-003	4.5100e-003		4.1900e-003	4.1900e-003	0.0000	32.2409	32.2409	9.7300e-003	0.0000	32.4452
Total	**0.0110**	**0.1043**	**0.1582**	**3.4000e-004**		**4.5100e-003**	**4.5100e-003**		**4.1900e-003**	**4.1900e-003**	**0.0000**	**32.2409**	**32.2409**	**9.7300e-003**	**0.0000**	**32.4452**

3.15 Steel & Roof 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0230	0.2957	0.1482	3.1000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	29.3100	29.3100	8.8400e-003	0.0000	29.4956
Total	**0.0230**	**0.2957**	**0.1482**	**3.1000e-004**		**0.0116**	**0.0116**		**0.0107**	**0.0107**	**0.0000**	**29.3100**	**29.3100**	**8.8400e-003**	**0.0000**	**29.4956**

3.16 Steel & Roof 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0341	0.3649	0.4270	8.7000e-004	0.0258	6.8000e-003	0.0326	7.3900e-003	6.2500e-003	0.0136	0.0000	79.4450	79.4450	5.3000e-004	0.0000	79.4560
Worker	1.3700e-003	2.0100e-003	0.0203	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.7297	3.7297	1.7000e-004	0.0000	3.7333
Total	**0.0355**	**0.3669**	**0.4473**	**9.2000e-004**	**0.0302**	**6.8300e-003**	**0.0370**	**8.5600e-003**	**6.2800e-003**	**0.0148**	**0.0000**	**83.1746**	**83.1746**	**7.0000e-004**	**0.0000**	**83.1893**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0100	0.0948	0.1438	3.1000e-004		4.1000e-003	4.1000e-003		3.8100e-003	3.8100e-003	0.0000	29.3099	29.3099	8.8400e-003	0.0000	29.4956
Total	**0.0100**	**0.0948**	**0.1438**	**3.1000e-004**		**4.1000e-003**	**4.1000e-003**		**3.8100e-003**	**3.8100e-003**	**0.0000**	**29.3099**	**29.3099**	**8.8400e-003**	**0.0000**	**29.4956**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.16 Steel & Roof 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0341	0.3649	0.4270	8.7000e-004	0.0258	6.8000e-003	0.0326	7.3900e-003	6.2500e-003	0.0136	0.0000	79.4450	79.4450	5.3000e-004	0.0000	79.4560
Worker	1.3700e-003	2.0100e-003	0.0203	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.7297	3.7297	1.7000e-004	0.0000	3.7333
Total	**0.0355**	**0.3669**	**0.4473**	**9.2000e-004**	**0.0302**	**6.8300e-003**	**0.0370**	**8.5600e-003**	**6.2800e-003**	**0.0148**	**0.0000**	**83.1746**	**83.1746**	**7.0000e-004**	**0.0000**	**83.1893**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0225	0.2855	0.1654	3.3000e-004		0.0117	0.0117		0.0108	0.0108	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756
Total	**0.0225**	**0.2855**	**0.1654**	**3.3000e-004**		**0.0117**	**0.0117**		**0.0108**	**0.0108**	**0.0000**	**31.4762**	**31.4762**	**9.4900e-003**	**0.0000**	**31.6756**

3.17 Roofing & Overhead Work 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.5300e-003	0.0545	0.1603	3.3000e-004		3.1200e-003	3.1200e-003		2.9100e-003	2.9100e-003	0.0000	31.4762	31.4762	9.4900e-003	0.0000	31.6756
Total	**7.5300e-003**	**0.0545**	**0.1603**	**3.3000e-004**		**3.1200e-003**	**3.1200e-003**		**2.9100e-003**	**2.9100e-003**	**0.0000**	**31.4762**	**31.4762**	**9.4900e-003**	**0.0000**	**31.6756**

3.17 Roofing & Overhead Work 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0695	0.8777	0.5195	1.0300e-003		0.0368	0.0368		0.0338	0.0338	0.0000	96.7040	96.7040	0.0292	0.0000	97.3165
Total	**0.0695**	**0.8777**	**0.5195**	**1.0300e-003**		**0.0368**	**0.0368**		**0.0338**	**0.0338**	**0.0000**	**96.7040**	**96.7040**	**0.0292**	**0.0000**	**97.3165**

3.18 Roofing & Overhead Work 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0751	0.8027	0.9395	1.9200e-003	0.0568	0.0150	0.0717	0.0163	0.0138	0.0300	0.0000	174.7789	174.7789	1.1600e-003	0.0000	174.8032
Worker	9.4500e-003	0.0138	0.1393	3.4000e-004	0.0302	1.9000e-004	0.0304	8.0300e-003	1.8000e-004	8.2000e-003	0.0000	25.6414	25.6414	1.1900e-003	0.0000	25.6665
Total	**0.0845**	**0.8165**	**1.0788**	**2.2600e-003**	**0.0870**	**0.0152**	**0.1022**	**0.0243**	**0.0139**	**0.0382**	**0.0000**	**200.4204**	**200.4204**	**2.3500e-003**	**0.0000**	**200.4697**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0267	0.2149	0.5048	1.0300e-003		0.0121	0.0121		0.0112	0.0112	0.0000	96.7039	96.7039	0.0292	0.0000	97.3164
Total	**0.0267**	**0.2149**	**0.5048**	**1.0300e-003**		**0.0121**	**0.0121**		**0.0112**	**0.0112**	**0.0000**	**96.7039**	**96.7039**	**0.0292**	**0.0000**	**97.3164**

3.18 Roofing & Overhead Work 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0751	0.8027	0.9395	1.9200e-003	0.0568	0.0150	0.0717	0.0163	0.0138	0.0300	0.0000	174.7789	174.7789	1.1600e-003	0.0000	174.8032
Worker	9.4500e-003	0.0138	0.1393	3.4000e-004	0.0302	1.9000e-004	0.0304	8.0300e-003	1.8000e-004	8.2000e-003	0.0000	25.6414	25.6414	1.1900e-003	0.0000	25.6665
Total	**0.0845**	**0.8165**	**1.0788**	**2.2600e-003**	**0.0870**	**0.0152**	**0.1022**	**0.0243**	**0.0139**	**0.0382**	**0.0000**	**200.4204**	**200.4204**	**2.3500e-003**	**0.0000**	**200.4697**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9300e-003	0.0739	0.0445	9.0000e-005		3.0400e-003	3.0400e-003		2.8000e-003	2.8000e-003	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009
Total	**5.9300e-003**	**0.0739**	**0.0445**	**9.0000e-005**		**3.0400e-003**	**3.0400e-003**		**2.8000e-003**	**2.8000e-003**	**0.0000**	**8.6453**	**8.6453**	**2.6500e-003**	**0.0000**	**8.7009**

3.18 Roofing & Overhead Work 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1500e-003	0.0662	0.0806	1.7000e-004	5.1600e-003	1.2200e-003	6.3800e-003	1.4800e-003	1.1200e-003	2.6000e-003	0.0000	15.6205	15.6205	1.0000e-004	0.0000	15.6227
Worker	7.7000e-004	1.1300e-003	0.0113	3.0000e-005	2.7500e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2385	2.2385	1.0000e-004	0.0000	2.2406
Total	**6.9200e-003**	**0.0673**	**0.0920**	**2.0000e-004**	**7.9100e-003**	**1.2400e-003**	**9.1400e-003**	**2.2100e-003**	**1.1400e-003**	**3.3500e-003**	**0.0000**	**17.8591**	**17.8591**	**2.0000e-004**	**0.0000**	**17.8633**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3200e-003	0.0186	0.0458	9.0000e-005		1.0000e-003	1.0000e-003		9.3000e-004	9.3000e-004	0.0000	8.6453	8.6453	2.6500e-003	0.0000	8.7009
Total	**2.3200e-003**	**0.0186**	**0.0458**	**9.0000e-005**		**1.0000e-003**	**1.0000e-003**		**9.3000e-004**	**9.3000e-004**	**0.0000**	**8.6453**	**8.6453**	**2.6500e-003**	**0.0000**	**8.7009**

3.18 Roofing & Overhead Work 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1500e-003	0.0662	0.0806	1.7000e-004	5.1600e-003	1.2200e-003	6.3800e-003	1.4800e-003	1.1200e-003	2.6000e-003	0.0000	15.6205	15.6205	1.0000e-004	0.0000	15.6227
Worker	7.7000e-004	1.1300e-003	0.0113	3.0000e-005	2.7500e-003	2.0000e-005	2.7600e-003	7.3000e-004	2.0000e-005	7.5000e-004	0.0000	2.2385	2.2385	1.0000e-004	0.0000	2.2406
Total	**6.9200e-003**	**0.0673**	**0.0920**	**2.0000e-004**	**7.9100e-003**	**1.2400e-003**	**9.1400e-003**	**2.2100e-003**	**1.1400e-003**	**3.3500e-003**	**0.0000**	**17.8591**	**17.8591**	**2.0000e-004**	**0.0000**	**17.8633**

3.19 Paving 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0313	0.3631	0.1908	3.8000e-004		0.0164	0.0164		0.0150	0.0150	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0549**	**0.3631**	**0.1908**	**3.8000e-004**		**0.0164**	**0.0164**		**0.0150**	**0.0150**	**0.0000**	**35.7254**	**35.7254**	**0.0108**	**0.0000**	**35.9517**

3.19 Paving 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6600e-003	0.1017	0.0694	2.6000e-004	6.2600e-003	1.7700e-003	8.0200e-003	1.7200e-003	1.6300e-003	3.3400e-003	0.0000	23.6892	23.6892	1.5000e-004	0.0000	23.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.6700e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0443	1.0443	5.0000e-005	0.0000	1.0453
Total	**6.0400e-003**	**0.1023**	**0.0751**	**2.7000e-004**	**7.4900e-003**	**1.7800e-003**	**9.2600e-003**	**2.0500e-003**	**1.6400e-003**	**3.6700e-003**	**0.0000**	**24.7335**	**24.7335**	**2.0000e-004**	**0.0000**	**24.7377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.1400e-003	0.1091	0.1987	3.8000e-004		4.9500e-003	4.9500e-003		4.9500e-003	4.9500e-003	0.0000	35.7254	35.7254	0.0108	0.0000	35.9517
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0307**	**0.1091**	**0.1987**	**3.8000e-004**		**4.9500e-003**	**4.9500e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**35.7254**	**35.7254**	**0.0108**	**0.0000**	**35.9517**

3.19 Paving 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.6600e-003	0.1017	0.0694	2.6000e-004	6.2600e-003	1.7700e-003	8.0200e-003	1.7200e-003	1.6300e-003	3.3400e-003	0.0000	23.6892	23.6892	1.5000e-004	0.0000	23.6924
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.6000e-004	5.6700e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	1.0443	1.0443	5.0000e-005	0.0000	1.0453
Total	**6.0400e-003**	**0.1023**	**0.0751**	**2.7000e-004**	**7.4900e-003**	**1.7800e-003**	**9.2600e-003**	**2.0500e-003**	**1.6400e-003**	**3.6700e-003**	**0.0000**	**24.7335**	**24.7335**	**2.0000e-004**	**0.0000**	**24.7377**

3.20 Architectural Coating 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2600e-003	0.0965	0.0539	1.2000e-004		3.5600e-003	3.5600e-003		3.2700e-003	3.2700e-003	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819
Total	**0.1274**	**0.0965**	**0.0539**	**1.2000e-004**		**3.5600e-003**	**3.5600e-003**		**3.2700e-003**	**3.2700e-003**	**0.0000**	**10.9128**	**10.9128**	**3.2900e-003**	**0.0000**	**10.9819**

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3.20 Architectural Coating 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4200e-003	6.1400e-003	0.0519	1.2000e-004		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	10.9128	10.9128	3.2900e-003	0.0000	10.9819
Total	**0.1215**	**6.1400e-003**	**0.0519**	**1.2000e-004**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**10.9128**	**10.9128**	**3.2900e-003**	**0.0000**	**10.9819**

3.20 Architectural Coating 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

3.21 Misc. Finishes 2 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0130	0.1753	0.1025	2.1000e-004		6.3400e-003	6.3400e-003		5.8300e-003	5.8300e-003	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3265
Total	**0.0130**	**0.1753**	**0.1025**	**2.1000e-004**		**6.3400e-003**	**6.3400e-003**		**5.8300e-003**	**5.8300e-003**	**0.0000**	**20.1985**	**20.1985**	**6.0900e-003**	**0.0000**	**20.3265**

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3.21 Misc. Finishes 2 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	0.5473	0.6406	1.3100e-003	0.0387	0.0102	0.0489	0.0111	9.3800e-003	0.0205	0.0000	119.1674	119.1674	7.9000e-004	0.0000	119.1840
Worker	2.0600e-003	3.0100e-003	0.0304	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.5945	5.5945	2.6000e-004	0.0000	5.6000
Total	**0.0533**	**0.5503**	**0.6709**	**1.3800e-003**	**0.0453**	**0.0102**	**0.0556**	**0.0128**	**9.4200e-003**	**0.0223**	**0.0000**	**124.7619**	**124.7619**	**1.0500e-003**	**0.0000**	**124.7840**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2600e-003	0.0247	0.0991	2.1000e-004		7.3000e-004	7.3000e-004		6.9000e-004	6.9000e-004	0.0000	20.1985	20.1985	6.0900e-003	0.0000	20.3264
Total	**3.2600e-003**	**0.0247**	**0.0991**	**2.1000e-004**		**7.3000e-004**	**7.3000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**20.1985**	**20.1985**	**6.0900e-003**	**0.0000**	**20.3264**

3.21 Misc. Finishes 2 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0512	0.5473	0.6406	1.3100e-003	0.0387	0.0102	0.0489	0.0111	9.3800e-003	0.0205	0.0000	119.1674	119.1674	7.9000e-004	0.0000	119.1840
Worker	2.0600e-003	3.0100e-003	0.0304	7.0000e-005	6.5900e-003	4.0000e-005	6.6400e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.5945	5.5945	2.6000e-004	0.0000	5.6000
Total	**0.0533**	**0.5503**	**0.6709**	**1.3800e-003**	**0.0453**	**0.0102**	**0.0556**	**0.0128**	**9.4200e-003**	**0.0223**	**0.0000**	**124.7619**	**124.7619**	**1.0500e-003**	**0.0000**	**124.7840**

3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0215	0.2731	0.1582	3.2000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984
Total	**0.0215**	**0.2731**	**0.1582**	**3.2000e-004**		**0.0112**	**0.0112**		**0.0103**	**0.0103**	**0.0000**	**30.1077**	**30.1077**	**9.0800e-003**	**0.0000**	**30.2984**

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3.22 Roofing & Overhead Work 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-003	0.0522	0.1533	3.2000e-004		2.9800e-003	2.9800e-003		2.7800e-003	2.7800e-003	0.0000	30.1077	30.1077	9.0800e-003	0.0000	30.2984
Total	**7.2000e-003**	**0.0522**	**0.1533**	**3.2000e-004**		**2.9800e-003**	**2.9800e-003**		**2.7800e-003**	**2.7800e-003**	**0.0000**	**30.1077**	**30.1077**	**9.0800e-003**	**0.0000**	**30.2984**

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3.22 Roofing & Overhead Work 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0375	0.4013	0.4697	9.6000e-004	0.0284	7.4800e-003	0.0359	8.1300e-003	6.8800e-003	0.0150	0.0000	87.3895	87.3895	5.8000e-004	0.0000	87.4016
Worker	1.5100e-003	2.2100e-003	0.0223	5.0000e-005	4.8400e-003	3.0000e-005	4.8700e-003	1.2800e-003	3.0000e-005	1.3100e-003	0.0000	4.1026	4.1026	1.9000e-004	0.0000	4.1066
Total	**0.0391**	**0.4036**	**0.4920**	**1.0100e-003**	**0.0332**	**7.5100e-003**	**0.0407**	**9.4100e-003**	**6.9100e-003**	**0.0163**	**0.0000**	**91.4921**	**91.4921**	**7.7000e-004**	**0.0000**	**91.5083**

3.23 Steel & Roof 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0264	0.3400	0.1705	3.6000e-004		0.0133	0.0133		0.0123	0.0123	0.0000	33.7065	33.7065	0.0102	0.0000	33.9200
Total	**0.0264**	**0.3400**	**0.1705**	**3.6000e-004**		**0.0133**	**0.0133**		**0.0123**	**0.0123**	**0.0000**	**33.7065**	**33.7065**	**0.0102**	**0.0000**	**33.9200**

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3.23 Steel & Roof 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0115	0.1090	0.1653	3.6000e-004		4.7200e-003	4.7200e-003		4.3800e-003	4.3800e-003	0.0000	33.7064	33.7064	0.0102	0.0000	33.9199
Total	**0.0115**	**0.1090**	**0.1653**	**3.6000e-004**		**4.7200e-003**	**4.7200e-003**		**4.3800e-003**	**4.3800e-003**	**0.0000**	**33.7064**	**33.7064**	**0.0102**	**0.0000**	**33.9199**

3.23 Steel & Roof 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0392	0.4196	0.4911	1.0000e-003	0.0297	7.8200e-003	0.0375	8.4900e-003	7.1900e-003	0.0157	0.0000	91.3617	91.3617	6.1000e-004	0.0000	91.3744
Worker	1.5800e-003	2.3100e-003	0.0233	6.0000e-005	5.0600e-003	3.0000e-005	5.0900e-003	1.3400e-003	3.0000e-005	1.3700e-003	0.0000	4.2891	4.2891	2.0000e-004	0.0000	4.2933
Total	**0.0408**	**0.4219**	**0.5144**	**1.0600e-003**	**0.0347**	**7.8500e-003**	**0.0426**	**9.8300e-003**	**7.2200e-003**	**0.0171**	**0.0000**	**95.6508**	**95.6508**	**8.1000e-004**	**0.0000**	**95.6677**

3.24 Paving 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0235	0.2724	0.1431	2.8000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	26.7941	26.7941	8.0800e-003	0.0000	26.9638
Paving	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0412**	**0.2724**	**0.1431**	**2.8000e-004**		**0.0123**	**0.0123**		**0.0113**	**0.0113**	**0.0000**	**26.7941**	**26.7941**	**8.0800e-003**	**0.0000**	**26.9638**

3.24 Paving 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.0815	0.0556	2.1000e-004	6.2800e-003	1.4200e-003	7.6900e-003	1.6900e-003	1.3000e-003	2.9900e-003	0.0000	18.9871	18.9871	1.2000e-004	0.0000	18.9897
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.2000e-004	4.2500e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7832	0.7832	4.0000e-005	0.0000	0.7840
Total	**4.8200e-003**	**0.0819**	**0.0599**	**2.2000e-004**	**7.2000e-003**	**1.4300e-003**	**8.6200e-003**	**1.9400e-003**	**1.3100e-003**	**3.2400e-003**	**0.0000**	**19.7704**	**19.7704**	**1.6000e-004**	**0.0000**	**19.7737**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3500e-003	0.0818	0.1490	2.8000e-004		3.7100e-003	3.7100e-003		3.7100e-003	3.7100e-003	0.0000	26.7940	26.7940	8.0800e-003	0.0000	26.9638
Paving	0.0177					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0230**	**0.0818**	**0.1490**	**2.8000e-004**		**3.7100e-003**	**3.7100e-003**		**3.7100e-003**	**3.7100e-003**	**0.0000**	**26.7940**	**26.7940**	**8.0800e-003**	**0.0000**	**26.9638**

3.24 Paving 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5300e-003	0.0815	0.0556	2.1000e-004	6.2800e-003	1.4200e-003	7.6900e-003	1.6900e-003	1.3000e-003	2.9900e-003	0.0000	18.9871	18.9871	1.2000e-004	0.0000	18.9897
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.2000e-004	4.2500e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.5000e-004	1.0000e-005	2.5000e-004	0.0000	0.7832	0.7832	4.0000e-005	0.0000	0.7840
Total	**4.8200e-003**	**0.0819**	**0.0599**	**2.2000e-004**	**7.2000e-003**	**1.4300e-003**	**8.6200e-003**	**1.9400e-003**	**1.3100e-003**	**3.2400e-003**	**0.0000**	**19.7704**	**19.7704**	**1.6000e-004**	**0.0000**	**19.7737**

3.24 Paving 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.4400e-003	0.0844	0.0454	9.0000e-005		3.8200e-003	3.8200e-003		3.5200e-003	3.5200e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410
Paving	5.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0133**	**0.0844**	**0.0454**	**9.0000e-005**		**3.8200e-003**	**3.8200e-003**		**3.5200e-003**	**3.5200e-003**	**0.0000**	**8.7845**	**8.7845**	**2.6900e-003**	**0.0000**	**8.8410**

3.24 Paving 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0249	0.0178	7.0000e-005	5.4600e-003	4.3000e-004	5.8900e-003	1.3900e-003	4.0000e-004	1.7900e-003	0.0000	6.2218	6.2218	4.0000e-005	0.0000	6.2226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	1.3000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2507	0.2507	1.0000e-005	0.0000	0.2510
Total	**1.4900e-003**	**0.0250**	**0.0191**	**7.0000e-005**	**5.7700e-003**	**4.3000e-004**	**6.2000e-003**	**1.4700e-003**	**4.0000e-004**	**1.8700e-003**	**0.0000**	**6.4725**	**6.4725**	**5.0000e-005**	**0.0000**	**6.4736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7800e-003	0.0273	0.0497	9.0000e-005		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	8.7845	8.7845	2.6900e-003	0.0000	8.8410
Paving	5.8900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.6700e-003**	**0.0273**	**0.0497**	**9.0000e-005**		**1.2400e-003**	**1.2400e-003**		**1.2400e-003**	**1.2400e-003**	**0.0000**	**8.7845**	**8.7845**	**2.6900e-003**	**0.0000**	**8.8410**

3.24 Paving 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4000e-003	0.0249	0.0178	7.0000e-005	5.4600e-003	4.3000e-004	5.8900e-003	1.3900e-003	4.0000e-004	1.7900e-003	0.0000	6.2218	6.2218	4.0000e-005	0.0000	6.2226
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	1.3000e-004	1.2700e-003	0.0000	3.1000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2507	0.2507	1.0000e-005	0.0000	0.2510
Total	**1.4900e-003**	**0.0250**	**0.0191**	**7.0000e-005**	**5.7700e-003**	**4.3000e-004**	**6.2000e-003**	**1.4700e-003**	**4.0000e-004**	**1.8700e-003**	**0.0000**	**6.4725**	**6.4725**	**5.0000e-005**	**0.0000**	**6.4736**

3.25 Architectural Coating 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0290	0.3861	0.2157	4.6000e-004		0.0142	0.0142		0.0131	0.0131	0.0000	43.6511	43.6511	0.0132	0.0000	43.9276
Total	**0.2890**	**0.3861**	**0.2157**	**4.6000e-004**		**0.0142**	**0.0142**		**0.0131**	**0.0131**	**0.0000**	**43.6511**	**43.6511**	**0.0132**	**0.0000**	**43.9276**

3.25 Architectural Coating 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2600					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6600e-003	0.0245	0.2077	4.6000e-004		7.6000e-004	7.6000e-004		7.6000e-004	7.6000e-004	0.0000	43.6510	43.6510	0.0132	0.0000	43.9275
Total	**0.2657**	**0.0245**	**0.2077**	**4.6000e-004**		**7.6000e-004**	**7.6000e-004**		**7.6000e-004**	**7.6000e-004**	**0.0000**	**43.6510**	**43.6510**	**0.0132**	**0.0000**	**43.9275**

3.25 Architectural Coating 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5900e-003	9.6300e-003	0.0971	2.4000e-004	0.0211	1.3000e-004	0.0212	5.5900e-003	1.2000e-004	5.7200e-003	0.0000	17.8744	17.8744	8.3000e-004	0.0000	17.8919
Total	**6.5900e-003**	**9.6300e-003**	**0.0971**	**2.4000e-004**	**0.0211**	**1.3000e-004**	**0.0212**	**5.5900e-003**	**1.2000e-004**	**5.7200e-003**	**0.0000**	**17.8744**	**17.8744**	**8.3000e-004**	**0.0000**	**17.8919**

3.25 Architectural Coating 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.4160	0.2336	5.4000e-004		0.0152	0.0152		0.0140	0.0140	0.0000	50.0693	50.0693	0.0153	0.0000	50.3915
Total	**0.3353**	**0.4160**	**0.2336**	**5.4000e-004**		**0.0152**	**0.0152**		**0.0140**	**0.0140**	**0.0000**	**50.0693**	**50.0693**	**0.0153**	**0.0000**	**50.3915**

3.25 Architectural Coating 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447
Total	**6.8600e-003**	**0.0101**	**0.1014**	**2.8000e-004**	**0.0246**	**1.5000e-004**	**0.0247**	**6.5300e-003**	**1.4000e-004**	**6.6700e-003**	**0.0000**	**20.0260**	**20.0260**	**8.9000e-004**	**0.0000**	**20.0447**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3033					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6100e-003	0.0286	0.2423	5.4000e-004		8.8000e-004	8.8000e-004		8.8000e-004	8.8000e-004	0.0000	50.0693	50.0693	0.0153	0.0000	50.3914
Total	**0.3099**	**0.0286**	**0.2423**	**5.4000e-004**		**8.8000e-004**	**8.8000e-004**		**8.8000e-004**	**8.8000e-004**	**0.0000**	**50.0693**	**50.0693**	**0.0153**	**0.0000**	**50.3914**

3.25 Architectural Coating 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8600e-003	0.0101	0.1014	2.8000e-004	0.0246	1.5000e-004	0.0247	6.5300e-003	1.4000e-004	6.6700e-003	0.0000	20.0260	20.0260	8.9000e-004	0.0000	20.0447
Total	**6.8600e-003**	**0.0101**	**0.1014**	**2.8000e-004**	**0.0246**	**1.5000e-004**	**0.0247**	**6.5300e-003**	**1.4000e-004**	**6.6700e-003**	**0.0000**	**20.0260**	**20.0260**	**8.9000e-004**	**0.0000**	**20.0447**

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3600e-003	0.0994	0.0581	1.2000e-004		3.5900e-003	3.5900e-003		3.3000e-003	3.3000e-003	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183
Total	**7.3600e-003**	**0.0994**	**0.0581**	**1.2000e-004**		**3.5900e-003**	**3.5900e-003**		**3.3000e-003**	**3.3000e-003**	**0.0000**	**11.4458**	**11.4458**	**3.4500e-003**	**0.0000**	**11.5183**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.26 Misc. Finishes 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.3101	0.3630	7.4000e-004	0.0219	5.7800e-003	0.0277	6.2800e-003	5.3200e-003	0.0116	0.0000	67.5282	67.5282	4.5000e-004	0.0000	67.5376
Worker	1.1700e-003	1.7100e-003	0.0172	4.0000e-005	3.7400e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1702	3.1702	1.5000e-004	0.0000	3.1733
Total	**0.0302**	**0.3118**	**0.3802**	**7.8000e-004**	**0.0257**	**5.8000e-003**	**0.0315**	**7.2700e-003**	**5.3400e-003**	**0.0126**	**0.0000**	**70.6984**	**70.6984**	**6.0000e-004**	**0.0000**	**70.7109**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.8500e-003	0.0140	0.0562	1.2000e-004		4.1000e-004	4.1000e-004		3.9000e-004	3.9000e-004	0.0000	11.4458	11.4458	3.4500e-003	0.0000	11.5183
Total	**1.8500e-003**	**0.0140**	**0.0562**	**1.2000e-004**		**4.1000e-004**	**4.1000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**11.4458**	**11.4458**	**3.4500e-003**	**0.0000**	**11.5183**

3.26 Misc. Finishes 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0290	0.3101	0.3630	7.4000e-004	0.0219	5.7800e-003	0.0277	6.2800e-003	5.3200e-003	0.0116	0.0000	67.5282	67.5282	4.5000e-004	0.0000	67.5376
Worker	1.1700e-003	1.7100e-003	0.0172	4.0000e-005	3.7400e-003	2.0000e-005	3.7600e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.1702	3.1702	1.5000e-004	0.0000	3.1733
Total	**0.0302**	**0.3118**	**0.3802**	**7.8000e-004**	**0.0257**	**5.8000e-003**	**0.0315**	**7.2700e-003**	**5.3400e-003**	**0.0126**	**0.0000**	**70.6984**	**70.6984**	**6.0000e-004**	**0.0000**	**70.7109**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.8900e-003	0.0649	0.0384	9.0000e-005		2.3000e-003	2.3000e-003		2.1200e-003	2.1200e-003	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956
Total	**4.8900e-003**	**0.0649**	**0.0384**	**9.0000e-005**		**2.3000e-003**	**2.3000e-003**		**2.1200e-003**	**2.1200e-003**	**0.0000**	**7.9445**	**7.9445**	**2.4300e-003**	**0.0000**	**7.9956**

3.26 Misc. Finishes 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.1984	0.2419	5.2000e-004	0.0155	3.6600e-003	0.0191	4.4300e-003	3.3600e-003	7.8000e-003	0.0000	46.8616	46.8616	3.0000e-004	0.0000	46.8680
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1490	2.1490	1.0000e-004	0.0000	2.1510
Total	**0.0192**	**0.1995**	**0.2527**	**5.5000e-004**	**0.0181**	**3.6800e-003**	**0.0218**	**5.1300e-003**	**3.3800e-003**	**8.5200e-003**	**0.0000**	**49.0106**	**49.0106**	**4.0000e-004**	**0.0000**	**49.0190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2700e-003	9.5500e-003	0.0396	9.0000e-005		2.5000e-004	2.5000e-004		2.4000e-004	2.4000e-004	0.0000	7.9445	7.9445	2.4300e-003	0.0000	7.9956
Total	**1.2700e-003**	**9.5500e-003**	**0.0396**	**9.0000e-005**		**2.5000e-004**	**2.5000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**7.9445**	**7.9445**	**2.4300e-003**	**0.0000**	**7.9956**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.26 Misc. Finishes 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0185	0.1984	0.2419	5.2000e-004	0.0155	3.6600e-003	0.0191	4.4300e-003	3.3600e-003	7.8000e-003	0.0000	46.8616	46.8616	3.0000e-004	0.0000	46.8680
Worker	7.4000e-004	1.0800e-003	0.0109	3.0000e-005	2.6400e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.1490	2.1490	1.0000e-004	0.0000	2.1510
Total	**0.0192**	**0.1995**	**0.2527**	**5.5000e-004**	**0.0181**	**3.6800e-003**	**0.0218**	**5.1300e-003**	**3.3800e-003**	**8.5200e-003**	**0.0000**	**49.0106**	**49.0106**	**4.0000e-004**	**0.0000**	**49.0190**

3.27 Architectural Coating 3 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8500e-003	0.0912	0.0509	1.1000e-004		3.3600e-003	3.3600e-003		3.0900e-003	3.0900e-003	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718
Total	**0.1026**	**0.0912**	**0.0509**	**1.1000e-004**		**3.3600e-003**	**3.3600e-003**		**3.0900e-003**	**3.0900e-003**	**0.0000**	**10.3065**	**10.3065**	**3.1100e-003**	**0.0000**	**10.3718**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.27 Architectural Coating 3 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979
Total	**6.2200e-003**	**9.1000e-003**	**0.0917**	**2.2000e-004**	**0.0199**	**1.3000e-004**	**0.0200**	**5.2800e-003**	**1.2000e-004**	**5.4000e-003**	**0.0000**	**16.8814**	**16.8814**	**7.9000e-004**	**0.0000**	**16.8979**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3400e-003	5.8000e-003	0.0490	1.1000e-004		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	10.3065	10.3065	3.1100e-003	0.0000	10.3718
Total	**0.0971**	**5.8000e-003**	**0.0490**	**1.1000e-004**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**10.3065**	**10.3065**	**3.1100e-003**	**0.0000**	**10.3718**

3.27 Architectural Coating 3 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2200e-003	9.1000e-003	0.0917	2.2000e-004	0.0199	1.3000e-004	0.0200	5.2800e-003	1.2000e-004	5.4000e-003	0.0000	16.8814	16.8814	7.9000e-004	0.0000	16.8979
Total	**6.2200e-003**	**9.1000e-003**	**0.0917**	**2.2000e-004**	**0.0199**	**1.3000e-004**	**0.0200**	**5.2800e-003**	**1.2000e-004**	**5.4000e-003**	**0.0000**	**16.8814**	**16.8814**	**7.9000e-004**	**0.0000**	**16.8979**

3.27 Architectural Coating 3 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8000e-004	4.9500e-003	2.7800e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999
Total	**6.0100e-003**	**4.9500e-003**	**2.7800e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.7000e-004**	**1.7000e-004**	**0.0000**	**0.5961**	**0.5961**	**1.8000e-004**	**0.0000**	**0.5999**

3.27 Architectural Coating 3 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545
Total	**3.3000e-004**	**4.8000e-004**	**4.8300e-003**	**1.0000e-005**	**1.1700e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9536**	**0.9536**	**4.0000e-005**	**0.0000**	**0.9545**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	5.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-005	3.4000e-004	2.8800e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.5961	0.5961	1.8000e-004	0.0000	0.5999
Total	**5.7100e-003**	**3.4000e-004**	**2.8800e-003**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**0.5961**	**0.5961**	**1.8000e-004**	**0.0000**	**0.5999**

3.27 Architectural Coating 3 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	4.8000e-004	4.8300e-003	1.0000e-005	1.1700e-003	1.0000e-005	1.1800e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	0.9536	0.9536	4.0000e-005	0.0000	0.9545
Total	**3.3000e-004**	**4.8000e-004**	**4.8300e-003**	**1.0000e-005**	**1.1700e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9536**	**0.9536**	**4.0000e-005**	**0.0000**	**0.9545**

3.28 Paving 1 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.3200e-003	0.1087	0.0553	1.1000e-004		4.6600e-003	4.6600e-003		4.2900e-003	4.2900e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1087**	**0.0553**	**1.1000e-004**		**4.6600e-003**	**4.6600e-003**		**4.2900e-003**	**4.2900e-003**	**0.0000**	**10.6821**	**10.6821**	**3.2200e-003**	**0.0000**	**10.7497**

3.28 Paving 1 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1800e-003	0.0391	0.0267	1.0000e-004	0.0275	6.8000e-004	0.0282	6.8200e-003	6.2000e-004	7.4500e-003	0.0000	9.1083	9.1083	6.0000e-005	0.0000	9.1095
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2797	0.2797	1.0000e-005	0.0000	0.2800
Total	**2.2800e-003**	**0.0393**	**0.0282**	**1.0000e-004**	**0.0278**	**6.8000e-004**	**0.0285**	**6.9100e-003**	**6.2000e-004**	**7.5400e-003**	**0.0000**	**9.3880**	**9.3880**	**7.0000e-005**	**0.0000**	**9.3895**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3300e-003	0.0389	0.0599	1.1000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003	0.0000	10.6821	10.6821	3.2200e-003	0.0000	10.7497
Paving	1.5900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.9200e-003**	**0.0389**	**0.0599**	**1.1000e-004**		**1.6500e-003**	**1.6500e-003**		**1.6500e-003**	**1.6500e-003**	**0.0000**	**10.6821**	**10.6821**	**3.2200e-003**	**0.0000**	**10.7497**

3.28 Paving 1 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1800e-003	0.0391	0.0267	1.0000e-004	0.0275	6.8000e-004	0.0282	6.8200e-003	6.2000e-004	7.4500e-003	0.0000	9.1083	9.1083	6.0000e-005	0.0000	9.1095
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5200e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2797	0.2797	1.0000e-005	0.0000	0.2800
Total	**2.2800e-003**	**0.0393**	**0.0282**	**1.0000e-004**	**0.0278**	**6.8000e-004**	**0.0285**	**6.9100e-003**	**6.2000e-004**	**7.5400e-003**	**0.0000**	**9.3880**	**9.3880**	**7.0000e-005**	**0.0000**	**9.3895**

3.28 Paving 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1222	1.3935	0.7285	1.5700e-003		0.0601	0.0601		0.0553	0.0553	0.0000	145.3445	145.3445	0.0445	0.0000	146.2797
Paving	0.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1442**	**1.3935**	**0.7285**	**1.5700e-003**		**0.0601**	**0.0601**		**0.0553**	**0.0553**	**0.0000**	**145.3445**	**145.3445**	**0.0445**	**0.0000**	**146.2797**

3.28 Paving 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0279	0.4949	0.3548	1.3800e-003	0.0351	8.6400e-003	0.0437	9.5800e-003	7.9500e-003	0.0175	0.0000	123.8626	123.8626	7.8000e-004	0.0000	123.8790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	1.8700e-003	0.0188	5.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	3.0000e-005	1.2400e-003	0.0000	3.7160	3.7160	1.7000e-004	0.0000	3.7194
Total	**0.0292**	**0.4968**	**0.3736**	**1.4300e-003**	**0.0397**	**8.6700e-003**	**0.0483**	**0.0108**	**7.9800e-003**	**0.0188**	**0.0000**	**127.5785**	**127.5785**	**9.5000e-004**	**0.0000**	**127.5984**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0322	0.5374	0.8287	1.5700e-003		0.0228	0.0228		0.0228	0.0228	0.0000	145.3443	145.3443	0.0445	0.0000	146.2795
Paving	0.0220					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0542**	**0.5374**	**0.8287**	**1.5700e-003**		**0.0228**	**0.0228**		**0.0228**	**0.0228**	**0.0000**	**145.3443**	**145.3443**	**0.0445**	**0.0000**	**146.2795**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.28 Paving 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0279	0.4949	0.3548	1.3800e-003	0.0351	8.6400e-003	0.0437	9.5800e-003	7.9500e-003	0.0175	0.0000	123.8626	123.8626	7.8000e-004	0.0000	123.8790
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2700e-003	1.8700e-003	0.0188	5.0000e-005	4.5600e-003	3.0000e-005	4.5900e-003	1.2100e-003	3.0000e-005	1.2400e-003	0.0000	3.7160	3.7160	1.7000e-004	0.0000	3.7194
Total	**0.0292**	**0.4968**	**0.3736**	**1.4300e-003**	**0.0397**	**8.6700e-003**	**0.0483**	**0.0108**	**7.9800e-003**	**0.0188**	**0.0000**	**127.5785**	**127.5785**	**9.5000e-004**	**0.0000**	**127.5984**

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.9100e-003	0.0497	0.0288	6.0000e-005		2.0400e-003	2.0400e-003		1.8800e-003	1.8800e-003	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088
Total	**3.9100e-003**	**0.0497**	**0.0288**	**6.0000e-005**		**2.0400e-003**	**2.0400e-003**		**1.8800e-003**	**1.8800e-003**	**0.0000**	**5.4741**	**5.4741**	**1.6500e-003**	**0.0000**	**5.5088**

3.29 Roofing & Overhead Work 4 - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8300e-003	0.0730	0.0854	1.7000e-004	5.1600e-003	1.3600e-003	6.5200e-003	1.4800e-003	1.2500e-003	2.7300e-003	0.0000	15.8890	15.8890	1.1000e-004	0.0000	15.8912
Worker	2.7000e-004	4.0000e-004	4.0500e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7459	0.7459	3.0000e-005	0.0000	0.7467
Total	**7.1000e-003**	**0.0734**	**0.0895**	**1.8000e-004**	**6.0400e-003**	**1.3700e-003**	**7.4000e-003**	**1.7100e-003**	**1.2600e-003**	**2.9700e-003**	**0.0000**	**16.6349**	**16.6349**	**1.4000e-004**	**0.0000**	**16.6379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3100e-003	9.4800e-003	0.0279	6.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	5.4741	5.4741	1.6500e-003	0.0000	5.5088
Total	**1.3100e-003**	**9.4800e-003**	**0.0279**	**6.0000e-005**		**5.4000e-004**	**5.4000e-004**		**5.1000e-004**	**5.1000e-004**	**0.0000**	**5.4741**	**5.4741**	**1.6500e-003**	**0.0000**	**5.5088**

3.29 Roofing & Overhead Work 4 - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8300e-003	0.0730	0.0854	1.7000e-004	5.1600e-003	1.3600e-003	6.5200e-003	1.4800e-003	1.2500e-003	2.7300e-003	0.0000	15.8890	15.8890	1.1000e-004	0.0000	15.8912
Worker	2.7000e-004	4.0000e-004	4.0500e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7459	0.7459	3.0000e-005	0.0000	0.7467
Total	**7.1000e-003**	**0.0734**	**0.0895**	**1.8000e-004**	**6.0400e-003**	**1.3700e-003**	**7.4000e-003**	**1.7100e-003**	**1.2600e-003**	**2.9700e-003**	**0.0000**	**16.6349**	**16.6349**	**1.4000e-004**	**0.0000**	**16.6379**

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0184	0.2298	0.1350	2.9000e-004		9.3200e-003	9.3200e-003		8.5700e-003	8.5700e-003	0.0000	26.9141	26.9141	8.2500e-003	0.0000	27.0873
Total	**0.0184**	**0.2298**	**0.1350**	**2.9000e-004**		**9.3200e-003**	**9.3200e-003**		**8.5700e-003**	**8.5700e-003**	**0.0000**	**26.9141**	**26.9141**	**8.2500e-003**	**0.0000**	**27.0873**

3.29 Roofing & Overhead Work 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	0.3307	0.4031	8.7000e-004	0.0258	6.0900e-003	0.0319	7.3900e-003	5.6000e-003	0.0130	0.0000	78.1026	78.1026	5.1000e-004	0.0000	78.1133
Worker	1.2300e-003	1.8000e-003	0.0181	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.5817	3.5817	1.6000e-004	0.0000	3.5850
Total	**0.0320**	**0.3325**	**0.4212**	**9.2000e-004**	**0.0302**	**6.1200e-003**	**0.0363**	**8.5600e-003**	**5.6300e-003**	**0.0142**	**0.0000**	**81.6843**	**81.6843**	**6.7000e-004**	**0.0000**	**81.6983**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.3000e-003	0.0453	0.1391	2.9000e-004		2.4900e-003	2.4900e-003		2.3200e-003	2.3200e-003	0.0000	26.9140	26.9140	8.2500e-003	0.0000	27.0872
Total	**6.3000e-003**	**0.0453**	**0.1391**	**2.9000e-004**		**2.4900e-003**	**2.4900e-003**		**2.3200e-003**	**2.3200e-003**	**0.0000**	**26.9140**	**26.9140**	**8.2500e-003**	**0.0000**	**27.0872**

3.29 Roofing & Overhead Work 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0308	0.3307	0.4031	8.7000e-004	0.0258	6.0900e-003	0.0319	7.3900e-003	5.6000e-003	0.0130	0.0000	78.1026	78.1026	5.1000e-004	0.0000	78.1133
Worker	1.2300e-003	1.8000e-003	0.0181	5.0000e-005	4.4000e-003	3.0000e-005	4.4200e-003	1.1700e-003	3.0000e-005	1.1900e-003	0.0000	3.5817	3.5817	1.6000e-004	0.0000	3.5850
Total	**0.0320**	**0.3325**	**0.4212**	**9.2000e-004**	**0.0302**	**6.1200e-003**	**0.0363**	**8.5600e-003**	**5.6300e-003**	**0.0142**	**0.0000**	**81.6843**	**81.6843**	**6.7000e-004**	**0.0000**	**81.6983**

3.30 Architectural Coating 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6000e-003	0.0990	0.0556	1.3000e-004		3.6200e-003	3.6200e-003		3.3300e-003	3.3300e-003	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980
Total	**0.1483**	**0.0990**	**0.0556**	**1.3000e-004**		**3.6200e-003**	**3.6200e-003**		**3.3300e-003**	**3.3300e-003**	**0.0000**	**11.9213**	**11.9213**	**3.6500e-003**	**0.0000**	**11.9980**

3.30 Architectural Coating 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902
Total	**6.5300e-003**	**9.6000e-003**	**0.0966**	**2.6000e-004**	**0.0234**	**1.4000e-004**	**0.0236**	**6.2200e-003**	**1.3000e-004**	**6.3500e-003**	**0.0000**	**19.0723**	**19.0723**	**8.5000e-004**	**0.0000**	**19.0902**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1407					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5700e-003	6.8200e-003	0.0577	1.3000e-004		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	11.9213	11.9213	3.6500e-003	0.0000	11.9980
Total	**0.1423**	**6.8200e-003**	**0.0577**	**1.3000e-004**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**11.9213**	**11.9213**	**3.6500e-003**	**0.0000**	**11.9980**

3.30 Architectural Coating 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5300e-003	9.6000e-003	0.0966	2.6000e-004	0.0234	1.4000e-004	0.0236	6.2200e-003	1.3000e-004	6.3500e-003	0.0000	19.0723	19.0723	8.5000e-004	0.0000	19.0902
Total	**6.5300e-003**	**9.6000e-003**	**0.0966**	**2.6000e-004**	**0.0234**	**1.4000e-004**	**0.0236**	**6.2200e-003**	**1.3000e-004**	**6.3500e-003**	**0.0000**	**19.0723**	**19.0723**	**8.5000e-004**	**0.0000**	**19.0902**

3.31 Paving 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0382	0.4343	0.2336	4.9000e-004		0.0197	0.0197		0.0181	0.0181	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0618**	**0.4343**	**0.2336**	**4.9000e-004**		**0.0197**	**0.0197**		**0.0181**	**0.0181**	**0.0000**	**45.1772**	**45.1772**	**0.0138**	**0.0000**	**45.4679**

3.31 Paving 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1071	0.0768	3.0000e-004	7.2000e-003	1.8700e-003	9.0700e-003	1.9800e-003	1.7200e-003	3.7000e-003	0.0000	26.8064	26.8064	1.7000e-004	0.0000	26.8100
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	6.5000e-004	6.5300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2894	1.2894	6.0000e-005	0.0000	1.2906
Total	**6.4800e-003**	**0.1078**	**0.0833**	**3.2000e-004**	**8.7800e-003**	**1.8800e-003**	**0.0107**	**2.4000e-003**	**1.7300e-003**	**4.1300e-003**	**0.0000**	**28.0958**	**28.0958**	**2.3000e-004**	**0.0000**	**28.1006**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1800e-003	0.1403	0.2554	4.9000e-004		6.3700e-003	6.3700e-003		6.3700e-003	6.3700e-003	0.0000	45.1772	45.1772	0.0138	0.0000	45.4679
Paving	0.0236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0327**	**0.1403**	**0.2554**	**4.9000e-004**		**6.3700e-003**	**6.3700e-003**		**6.3700e-003**	**6.3700e-003**	**0.0000**	**45.1772**	**45.1772**	**0.0138**	**0.0000**	**45.4679**

3.31 Paving 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0400e-003	0.1071	0.0768	3.0000e-004	7.2000e-003	1.8700e-003	9.0700e-003	1.9800e-003	1.7200e-003	3.7000e-003	0.0000	26.8064	26.8064	1.7000e-004	0.0000	26.8100
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	6.5000e-004	6.5300e-003	2.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.2894	1.2894	6.0000e-005	0.0000	1.2906
Total	**6.4800e-003**	**0.1078**	**0.0833**	**3.2000e-004**	**8.7800e-003**	**1.8800e-003**	**0.0107**	**2.4000e-003**	**1.7300e-003**	**4.1300e-003**	**0.0000**	**28.0958**	**28.0958**	**2.3000e-004**	**0.0000**	**28.1006**

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0126	0.1676	0.0991	2.2000e-004		5.9400e-003	5.9400e-003		5.4600e-003	5.4600e-003	0.0000	20.5233	20.5233	6.2900e-003	0.0000	20.6553
Total	**0.0126**	**0.1676**	**0.0991**	**2.2000e-004**		**5.9400e-003**	**5.9400e-003**		**5.4600e-003**	**5.4600e-003**	**0.0000**	**20.5233**	**20.5233**	**6.2900e-003**	**0.0000**	**20.6553**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.32 Misc. Finishes 4 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0477	0.5126	0.6248	1.3500e-003	0.0400	9.4500e-003	0.0495	0.0115	8.6900e-003	0.0201	0.0000	121.0591	121.0591	7.9000e-004	0.0000	121.0756
Worker	1.9000e-003	2.7900e-003	0.0281	8.0000e-005	6.8100e-003	4.0000e-005	6.8600e-003	1.8100e-003	4.0000e-005	1.8500e-003	0.0000	5.5516	5.5516	2.5000e-004	0.0000	5.5568
Total	**0.0496**	**0.5154**	**0.6529**	**1.4300e-003**	**0.0468**	**9.4900e-003**	**0.0563**	**0.0133**	**8.7300e-003**	**0.0220**	**0.0000**	**126.6106**	**126.6106**	**1.0400e-003**	**0.0000**	**126.6323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2900e-003	0.0247	0.1023	2.2000e-004		6.5000e-004	6.5000e-004		6.2000e-004	6.2000e-004	0.0000	20.5232	20.5232	6.2900e-003	0.0000	20.6553
Total	**3.2900e-003**	**0.0247**	**0.1023**	**2.2000e-004**		**6.5000e-004**	**6.5000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**20.5232**	**20.5232**	**6.2900e-003**	**0.0000**	**20.6553**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.32 Misc. Finishes 4 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0477	0.5126	0.6248	1.3500e-003	0.0400	9.4500e-003	0.0495	0.0115	8.6900e-003	0.0201	0.0000	121.0591	121.0591	7.9000e-004	0.0000	121.0756
Worker	1.9000e-003	2.7900e-003	0.0281	8.0000e-005	6.8100e-003	4.0000e-005	6.8600e-003	1.8100e-003	4.0000e-005	1.8500e-003	0.0000	5.5516	5.5516	2.5000e-004	0.0000	5.5568
Total	**0.0496**	**0.5154**	**0.6529**	**1.4300e-003**	**0.0468**	**9.4900e-003**	**0.0563**	**0.0133**	**8.7300e-003**	**0.0220**	**0.0000**	**126.6106**	**126.6106**	**1.0400e-003**	**0.0000**	**126.6323**

3.33 Misc. Finishes 1 - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0530	0.7030	0.4156	9.3000e-004		0.0249	0.0249		0.0229	0.0229	0.0000	86.0653	86.0653	0.0264	0.0000	86.6191
Total	**0.0530**	**0.7030**	**0.4156**	**9.3000e-004**		**0.0249**	**0.0249**		**0.0229**	**0.0229**	**0.0000**	**86.0653**	**86.0653**	**0.0264**	**0.0000**	**86.6191**

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3.33 Misc. Finishes 1 - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0999	1.0749	1.3101	2.8300e-003	0.0839	0.0198	0.1037	0.0240	0.0182	0.0422	0.0000	253.8335	253.8335	1.6500e-003	0.0000	253.8681
Worker	0.0125	0.0183	0.1842	5.0000e-004	0.0447	2.8000e-004	0.0449	0.0119	2.5000e-004	0.0121	0.0000	36.3762	36.3762	1.6200e-003	0.0000	36.4102
Total	**0.1124**	**1.0932**	**1.4942**	**3.3300e-003**	**0.1285**	**0.0201**	**0.1486**	**0.0359**	**0.0185**	**0.0543**	**0.0000**	**290.2097**	**290.2097**	**3.2700e-003**	**0.0000**	**290.2784**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0138	0.1035	0.4290	9.3000e-004		2.7100e-003	2.7100e-003		2.6000e-003	2.6000e-003	0.0000	86.0652	86.0652	0.0264	0.0000	86.6190
Total	**0.0138**	**0.1035**	**0.4290**	**9.3000e-004**		**2.7100e-003**	**2.7100e-003**		**2.6000e-003**	**2.6000e-003**	**0.0000**	**86.0652**	**86.0652**	**0.0264**	**0.0000**	**86.6190**

3.33 Misc. Finishes 1 - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0999	1.0749	1.3101	2.8300e-003	0.0839	0.0198	0.1037	0.0240	0.0182	0.0422	0.0000	253.8335	253.8335	1.6500e-003	0.0000	253.8681
Worker	0.0125	0.0183	0.1842	5.0000e-004	0.0447	2.8000e-004	0.0449	0.0119	2.5000e-004	0.0121	0.0000	36.3762	36.3762	1.6200e-003	0.0000	36.4102
Total	**0.1124**	**1.0932**	**1.4942**	**3.3300e-003**	**0.1285**	**0.0201**	**0.1486**	**0.0359**	**0.0185**	**0.0543**	**0.0000**	**290.2097**	**290.2097**	**3.2700e-003**	**0.0000**	**290.2784**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Unmitigated	9.1665	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.1664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.1664					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.7000e-004	3.7000e-004	0.0000	0.0000	3.9000e-004
Total	**9.1665**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.7000e-004**	**3.7000e-004**	**0.0000**	**0.0000**	**3.9000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

MoVal Logistics Center- 2020 High Cube (Trucks)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operational run only

Trips and VMT - Operational Run Only.

Vehicle Trips - ITE Truck Trip Rate for High-Cube Warehouse.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Vechicle Emission Factors - Trucks Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	HHD	0.04	0.60
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD1	0.05	0.22
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	ST_TR	2.59	0.64
tblVehicleTrips	SU_TR	2.59	0.64

tblVehicleTrips	SU_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblVehicleTrips	WD_TR	2.59	0.64
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	3.3388	61.1427	33.0996	0.2437	7.6556	1.3959	9.0515	2.1285	1.2843	3.4128	0.0000	20,763.9797	20,763.9797	0.1368	0.0000	20,766.8515
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	39.5605	44.1117	0.4699	0.0116	57.5591
Total	**12.0093**	**63.3142**	**34.3012**	**0.2499**	**7.6556**	**1.4906**	**9.1462**	**2.1285**	**1.3747**	**3.5032**	**262.4837**	**23,984.8475**	**24,247.3312**	**16.0889**	**0.0524**	**24,601.4393**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	3.2838	59.9586	32.6731	0.2389	7.5025	1.3681	8.8706	2.0860	1.2586	3.3446	0.0000	20,351.6423	20,351.6423	0.1342	0.0000	20,354.4594
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	3.6410	31.6484	35.2894	0.3759	9.2200e-003	46.0415
Total	**11.9543**	**62.1301**	**33.8747**	**0.2450**	**7.5025**	**1.4628**	**8.9653**	**2.0860**	**1.3491**	**3.4350**	**261.5735**	**23,564.5980**	**23,826.1714**	**15.9923**	**0.0501**	**24,177.5295**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.57**	**4.45**	**3.32**	**3.09**	**2.00**	**5.46**	**2.56**	**2.00**	**5.44**	**3.35**	**0.35**	**2.81**	**2.79**	**1.11**	**4.45**	**2.76**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	3.3388	61.1427	33.0996	0.2437	7.6556	1.3959	9.0515	2.1285	1.2843	3.4128	0.0000	20,763.9797	20,763.9797	0.1368	0.0000	20,766.8515
Mitigated	3.2838	59.9586	32.6731	0.2389	7.5025	1.3681	8.8706	2.0860	1.2586	3.3446	0.0000	20,351.6423	20,351.6423	0.1342	0.0000	20,354.4594

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	111.20	111.20	111.20	2,302,543	2,256,492
Unrefrigerated Warehouse-No Rail	753.93	753.93	753.93	15,611,175	15,298,952
Total	865.13	865.13	865.13	17,913,718	17,555,444

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.220300	0.000000	0.176600	0.603100	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
NaturalGas Mitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Mitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	44.1117	0.4699	0.0116	57.5591
Mitigated	35.2894	0.3759	9.2200e-003	46.0415

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	5.6699	0.0604	1.4800e-003	7.3984
Unrefrigerated Warehouse-No Rail	12.5017 / 0	38.4418	0.4095	0.0101	50.1607
Total		**44.1117**	**0.4699**	**0.0115**	**57.5591**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.47513 / 0	4.5359	0.0483	1.1900e-003	5.9179
Unrefrigerated Warehouse-No Rail	10.0014 / 0	30.7535	0.3276	8.0400e-003	40.1235
Total		**35.2894**	**0.3759**	**9.2300e-003**	**46.0415**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Total	**0.1341**	**1.6304**	**0.7121**	**2.8900e-003**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**254.1640**	**254.1640**	**0.0822**	**0.0000**	**255.8902**

10.0 Vegetation

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

MoVal Logistics Center- 2020 High Cube (Passenger Car)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	173.75	1000sqft	4.62	173,750.00	0
Unrefrigerated Warehouse-No Rail	1,178.02	1000sqft	41.61	1,178,020.00	0
Parking Lot	1,386.00	Space	12.47	554,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocation," cells AH/AQ 35-44.

Land Use - Lot Acreage:58.7; Cold Storage takes into account 10% of total Project land uses (High Cube and Light Industrial)

Construction Phase - Operation run only

Off-road Equipment - Operation run only

Trips and VMT - Operation run only

Vehicle Trips - ITE Passenger Cars Trip Rate for High-Cube Warehouse. For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Vechicle Emission Factors - Passenger Cars Only.

Area Coating -

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	70.00	1.00
tblEnergyUse	T24E	1.30	1.02
tblEnergyUse	T24E	0.45	0.35
tblEnergyUse	T24NG	3.42	2.85
tblEnergyUse	T24NG	2.11	1.76
tblLandUse	LotAcreage	3.99	4.62
tblLandUse	LotAcreage	27.04	41.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CNW_TTP	41.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	ST_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04
tblVehicleTrips	SU_TR	2.59	1.04

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tblVehicleTrips	WD_TR	2.59	1.04
tblVehicleTrips	WD_TR	2.59	1.04
tblWater	IndoorWaterUseRate	40,179,687.50	1,843,913.00
tblWater	IndoorWaterUseRate	272,417,125.00	12,501,696.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	0.3504	0.5912	6.3621	0.0293	2.9593	0.0151	2.9744	0.7855	0.0140	0.7995	0.0000	1,809.4387	1,809.4387	0.0636	0.0000	1,810.7741
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	4.5512	39.5605	44.1117	0.4699	0.0116	57.5591
Total	**9.0209**	**2.7627**	**7.5636**	**0.0355**	**2.9593**	**0.1098**	**3.0691**	**0.7855**	**0.1045**	**0.8899**	**262.4837**	**5,030.3065**	**5,292.7902**	**16.0158**	**0.0524**	**5,645.3618**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Energy	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	2,927.0753	2,927.0753	0.1565	0.0408	2,943.0233
Mobile	0.3485	0.5802	6.2491	0.0288	2.9001	0.0149	2.9150	0.7698	0.0138	0.7835	0.0000	1,773.7831	1,773.7831	0.0624	0.0000	1,775.0928
Offroad	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Waste						0.0000	0.0000		0.0000	0.0000	257.9325	0.0000	257.9325	15.2434	0.0000	578.0434
Water						0.0000	0.0000		0.0000	0.0000	3.6410	31.6484	35.2894	0.3759	9.2200e-003	46.0415
Total	**9.0190**	**2.7517**	**7.4506**	**0.0349**	**2.9001**	**0.1096**	**3.0097**	**0.7698**	**0.1042**	**0.8740**	**261.5735**	**4,986.7387**	**5,248.3122**	**15.9205**	**0.0501**	**5,598.1629**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.51**	**59.41**	**10.91**	**9.78**	**2.00**	**48.93**	**3.68**	**2.00**	**47.34**	**7.32**	**0.35**	**5.92**	**5.64**	**1.11**	**4.45**	**5.37**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/1/2016	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.3504	0.5912	6.3621	0.0293	2.9593	0.0151	2.9744	0.7855	0.0140	0.7995	0.0000	1,809.4387	1,809.4387	0.0636	0.0000	1,810.7741
Mitigated	0.3485	0.5802	6.2491	0.0288	2.9001	0.0149	2.9150	0.7698	0.0138	0.7835	0.0000	1,773.7831	1,773.7831	0.0624	0.0000	1,775.0928

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	180.70	180.70	180.70	1,018,358	997,991
Unrefrigerated Warehouse-No Rail	1,225.14	1,225.14	1225.14	6,904,440	6,766,351
Total	1,405.84	1,405.84	1,405.84	7,922,799	7,764,343

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,338.3415	2,338.3415	0.1452	0.0301	2,350.7065
NaturalGas Mitigated	0.0595	0.5408	0.4543	3.2400e-003		0.0411	0.0411		0.0411	0.0411	0.0000	588.7339	588.7339	0.0113	0.0108	592.3168

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Refrigerated Warehouse-No Rail	8.9238e+006	0.0481	0.4374	0.3675	2.6200e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.2080	476.2080	9.1300e-003	8.7300e-003	479.1061
Unrefrigerated Warehouse-No Rail	2.10866e+006	0.0114	0.1034	0.0868	6.2000e-004		7.8600e-003	7.8600e-003		7.8600e-003	7.8600e-003	0.0000	112.5259	112.5259	2.1600e-003	2.0600e-003	113.2107
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0595**	**0.5408**	**0.4543**	**3.2400e-003**		**0.0411**	**0.0411**		**0.0411**	**0.0411**	**0.0000**	**588.7339**	**588.7339**	**0.0113**	**0.0108**	**592.3168**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	487872	103.3249	6.4200e-003	1.3300e-003	103.8712
Refrigerated Warehouse-No Rail	7.11333e+006	1,506.5084	0.0936	0.0194	1,514.4748
Unrefrigerated Warehouse-No Rail	3.43982e+006	728.5082	0.0453	9.3600e-003	732.3605
Total		**2,338.3415**	**0.1452**	**0.0301**	**2,350.7065**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Mitigated	8.4769	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5856					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8880					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3100e-003	3.2000e-004	0.0352	0.0000		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.0679	0.0679	1.8000e-004	0.0000	0.0718
Total	**8.4769**	**3.2000e-004**	**0.0352**	**0.0000**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0679**	**0.0679**	**1.8000e-004**	**0.0000**	**0.0718**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	44.1117	0.4699	0.0116	57.5591
Mitigated	35.2894	0.3759	9.2200e-003	46.0415

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.84391 / 0	5.6699	0.0604	1.4800e-003	7.3984
Unrefrigerated Warehouse-No Rail	12.5017 / 0	38.4418	0.4095	0.0101	50.1607
Total		**44.1117**	**0.4699**	**0.0115**	**57.5591**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No	1.47513 / 0	4.5359	0.0483	1.1900e-003	5.9179
Unrefrigerated Warehouse-No	10.0014 / 0	30.7535	0.3276	8.0400e-003	40.1235
Total		**35.2894**	**0.3759**	**9.2300e-003**	**46.0415**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	257.9325	15.2434	0.0000	578.0434
Unmitigated	257.9325	15.2434	0.0000	578.0434

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	163.32	33.1525	1.9593	0.0000	74.2969
Unrefrigerated Warehouse-No Rail	1107.34	224.7800	13.2841	0.0000	503.7465
Total		**257.9325**	**15.2434**	**0.0000**	**578.0433**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	5	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.1341	1.6304	0.7121	2.8900e-003		0.0535	0.0535		0.0492	0.0492	0.0000	254.1640	254.1640	0.0822	0.0000	255.8902
Total	**0.1341**	**1.6304**	**0.7121**	**2.8900e-003**		**0.0535**	**0.0535**		**0.0492**	**0.0492**	**0.0000**	**254.1640**	**254.1640**	**0.0822**	**0.0000**	**255.8902**

10.0 Vegetation

MoVal Logistics Center- 2020 Light Industrial (Trucks)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Truck Trip Rate based on Traffic Study

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Vechicle Emission Factors - Trucks Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	HHD	0.04	0.44
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDA	0.46	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD1	0.05	0.37
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	MHD	0.01	0.18
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	16.60	61.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	1.49
tblVehicleTrips	SU_TR	0.68	1.49
tblVehicleTrips	WD_TR	6.97	1.49
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	1.8593	34.5609	18.4798	0.1405	5.0192	0.7377	5.7568	1.3949	0.6787	2.0736	0.0000	11,934.1878	11,934.1878	0.0854	0.0000	11,935.9819
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	14.9683	16.6903	0.1778	4.3700e-003	21.7783
Total	**4.7118**	**35.7914**	**19.2632**	**0.1451**	**5.0192**	**0.8031**	**5.8222**	**1.3949**	**0.7423**	**2.1373**	**98.8187**	**13,582.1368**	**13,680.9555**	**6.1025**	**0.0275**	**13,817.6323**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	1.8291	33.8911	18.2319	0.1377	4.9188	0.7229	5.6417	1.3670	0.6651	2.0322	0.0000	11,697.1168	11,697.1168	0.0838	0.0000	11,698.8766
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.3776	11.9747	13.3523	0.1422	3.4900e-003	17.4205
Total	**4.6816**	**35.1216**	**19.0153**	**0.1423**	**4.9188**	**0.7883**	**5.7071**	**1.3670**	**0.7288**	**2.0958**	**98.4743**	**13,342.0721**	**13,440.5464**	**6.0653**	**0.0266**	**13,576.1692**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.78**	**3.69**	**2.77**	**2.72**	**2.00**	**4.50**	**2.34**	**2.00**	**4.48**	**2.86**	**0.35**	**2.52**	**2.50**	**1.15**	**3.20**	**2.49**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	1.8593	34.5609	18.4798	0.1405	5.0192	0.7377	5.7568	1.3949	0.6787	2.0736	0.0000	11,934.1878	11,934.1878	0.0854	0.0000	11,935.9819
Mitigated	1.8291	33.8911	18.2319	0.1377	4.9188	0.7229	5.6417	1.3670	0.6651	2.0322	0.0000	11,697.1168	11,697.1168	0.0838	0.0000	11,698.8766

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	182.55	182.55	182.55	3,780,038	3,704,438
General Light Industry	144.86	144.86	144.86	2,999,472	2,939,483
General Light Industry	247.35	247.35	247.35	5,121,810	5,019,374
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	574.77	574.77	574.77	11,901,321	11,663,295

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	61.00	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.000000	0.000000	0.000000	0.000000	0.374000	0.000000	0.182300	0.443700	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
NaturalGas Mitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e +006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e +006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e +006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e +006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e +006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e +006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Mitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6903	0.1778	4.3700e-003	21.7783
Mitigated	13.3523	0.1422	3.4900e-003	17.4205

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	16.6903	0.1778	4.3700e-003	21.7783
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**16.6903**	**0.1778**	**4.3700e-003**	**21.7783**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.3423 / 0	13.3523	0.1422	3.4900e-003	17.4205
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.3523**	**0.1422**	**3.4900e-003**	**17.4205**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	**0.0537**	**0.6521**	**0.2849**	**1.1600e-003**		**0.0214**	**0.0214**		**0.0197**	**0.0197**	**0.0000**	**101.6656**	**101.6656**	**0.0329**	**0.0000**	**102.3561**

10.0 Vegetation

MoVal Logistics Center- 2020 Light Industrial (Passenger Cars)

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	122.52	1000sqft	5.27	122,516.00	0
General Light Industry	97.22	1000sqft	4.61	97,222.00	0
General Light Industry	166.01	1000sqft	6.83	166,010.00	0
Parking Lot	187.00	Space	1.68	74,800.00	0
Parking Lot	220.00	Space	1.98	88,000.00	0
Parking Lot	205.00	Space	1.84	82,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	466.91	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use - Lot Acreage (Light Industrial Buildings 2,3,4):22.21

Construction Phase -

Off-road Equipment - Operational Run Only.

Trips and VMT - Operational Run Only.

Vehicle Trips - Passenger Trip Rate based on Traffic Study; For conservative analysis, C-W trip % changed to 100%.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Vechicle Emission Factors - Passenger Cars Only; Information derived from Traffic Study.

Energy Use - Title-24 Electricity Energy Intensity and Title-24 Natural Gas Energy Intensity were adjusted by 21.8% and 16.8% respectively, to reflect 2013 Title 24 requirements. Source: Impact Analysis California's 2013 Building Energy Efficiency Standards (CEC 2013)

Water And Wastewater - Water usage based on 0.75 AFY per acre which is based on EMWD data for similar projects.

Operational Off-Road Equipment - based on CARB Cargo Handling Equipment Yard Truck Emission Testing Report. hours per day based on the Port of Long Beach Air Emissions Inventory (June 2008)

Mobile Land Use Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	2.69	2.10
tblEnergyUse	T24NG	16.16	13.45
tblLandUse	LandUseSquareFeet	122,520.00	122,516.00
tblLandUse	LandUseSquareFeet	97,220.00	97,222.00
tblLandUse	LotAcreage	2.81	5.27
tblLandUse	LotAcreage	3.81	6.83
tblLandUse	LotAcreage	2.23	4.61
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00

tblOperationalOffRoadEquipment	OperHorsePower	97.00	200.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	466.91
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	VendorTripLength	6.90	0.00
tblTripsAndVMT	WorkerTripLength	14.70	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	HHD	0.04	0.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDA	0.46	1.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT1	0.07	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LDT2	0.18	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD1	0.05	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	LHD2	7.4600e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00
tblVehicleEF	MCY	6.5150e-003	0.00

tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MDV	0.17	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MH	3.2720e-003	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	MHD	0.01	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	OBUS	9.0200e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	SBUS	8.2800e-004	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleEF	UBUS	1.0560e-003	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	ST_TR	1.32	5.48
tblVehicleTrips	SU_TR	0.68	5.48
tblVehicleTrips	WD_TR	6.97	5.48
tblWater	IndoorWaterUseRate	89,204,687.50	5,427,870.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	0.5269	0.8889	9.5664	0.0441	4.4498	0.0227	4.4725	1.1811	0.0211	1.2022	0.0000	2,720.7850	2,720.7850	0.0956	0.0000	2,722.7930
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.7220	14.9683	16.6903	0.1778	4.3700e-003	21.7783
Total	**3.3793**	**2.1194**	**10.3498**	**0.0487**	**4.4498**	**0.0881**	**4.5379**	**1.1811**	**0.0848**	**1.2658**	**98.8187**	**4,368.7340**	**4,467.5527**	**6.1127**	**0.0275**	**4,604.4434**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Energy	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	1,531.2904	1,531.2904	0.0681	0.0231	1,539.8900
Mobile	0.5240	0.8725	9.3965	0.0432	4.3608	0.0223	4.3831	1.1575	0.0207	1.1782	0.0000	2,667.1709	2,667.1709	0.0938	0.0000	2,669.1403
Offroad	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Waste						0.0000	0.0000		0.0000	0.0000	97.0967	0.0000	97.0967	5.7383	0.0000	217.5999
Water						0.0000	0.0000		0.0000	0.0000	1.3776	11.9747	13.3523	0.1422	3.4900e-003	17.4205
Total	**3.3764**	**2.1030**	**10.1799**	**0.0479**	**4.3608**	**0.0877**	**4.4485**	**1.1575**	**0.0844**	**1.2418**	**98.4743**	**4,312.1263**	**4,410.6006**	**6.0753**	**0.0266**	**4,546.4329**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**1.67**	**31.54**	**4.39**	**4.16**	**2.00**	**24.73**	**2.44**	**2.00**	**23.66**	**3.45**	**0.35**	**3.62**	**3.55**	**1.15**	**3.20**	**3.48**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	162	0.38
Demolition	Rubber Tired Dozers	0	8.00	255	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	0.00	0.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Unmitigated	0.5269	0.8889	9.5664	0.0441	4.4498	0.0227	4.4725	1.1811	0.0211	1.2022	0.0000	2,720.7850	2,720.7850	0.0956	0.0000	2,722.7930
Mitigated	0.5240	0.8725	9.3965	0.0432	4.3608	0.0223	4.3831	1.1575	0.0207	1.1782	0.0000	2,667.1709	2,667.1709	0.0938	0.0000	2,669.1403

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	671.41	671.41	671.41	3,783,816	3,708,140
General Light Industry	532.77	532.77	532.77	3,002,470	2,942,420
General Light Industry	909.73	909.73	909.73	5,126,929	5,024,390
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,113.91	2,113.91	2,113.91	11,913,215	11,674,950

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
General Light Industry	16.60	8.40	6.90	100.00	0.00	0.00	92	5	3
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
NaturalGas Unmitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	901.8016	901.8016	0.0560	0.0116	906.5703
NaturalGas Mitigated	0.0636	0.5782	0.4857	3.4700e-003		0.0440	0.0440		0.0440	0.0440	0.0000	629.4888	629.4888	0.0121	0.0115	633.3197

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

Attachment: K - Energy Analysis Report (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	2.97305e+006	0.0160	0.1457	0.1224	8.7000e-004		0.0111	0.0111		0.0111	0.0111	0.0000	158.6532	158.6532	3.0400e-003	2.9100e-003	159.6187
General Light Industry	3.74654e+006	0.0202	0.1837	0.1543	1.1000e-003		0.0140	0.0140		0.0140	0.0140	0.0000	199.9296	199.9296	3.8300e-003	3.6700e-003	201.1463
General Light Industry	5.07659e+006	0.0274	0.2489	0.2090	1.4900e-003		0.0189	0.0189		0.0189	0.0189	0.0000	270.9060	270.9060	5.1900e-003	4.9700e-003	272.5546
Total		**0.0636**	**0.5782**	**0.4857**	**3.4600e-003**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**629.4888**	**629.4888**	**0.0121**	**0.0116**	**633.3197**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e+006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e+006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e+006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	1.01889e+006	215.7867	0.0134	2.7700e-003	216.9278
General Light Industry	1.28397e+006	271.9274	0.0169	3.4900e-003	273.3654
General Light Industry	1.73978e+006	368.4635	0.0229	4.7300e-003	370.4119
Parking Lot	65824	13.9407	8.7000e-004	1.8000e-004	14.0144
Parking Lot	72160	15.2825	9.5000e-004	2.0000e-004	15.3634
Parking Lot	77440	16.4008	1.0200e-003	2.1000e-004	16.4875
Total		**901.8016**	**0.0560**	**0.0116**	**906.5703**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Mitigated	2.7352	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4555					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.2785					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2100e-003	1.2000e-004	0.0128	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0248	0.0248	7.0000e-005	0.0000	0.0262
Total	**2.7352**	**1.2000e-004**	**0.0128**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0248**	**0.0248**	**7.0000e-005**	**0.0000**	**0.0262**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Unmitigated	16.6903	0.1778	4.3700e-003	21.7783
Mitigated	13.3523	0.1422	3.4900e-003	17.4205

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	5.42787 / 0	16.6903	0.1778	4.3700e-003	21.7783
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**16.6903**	**0.1778**	**4.3700e-003**	**21.7783**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.3423 / 0	13.3523	0.1422	3.4900e-003	17.4205
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.3523**	**0.1422**	**3.4900e-003**	**17.4205**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.0967	5.7383	0.0000	217.5999
Unmitigated	97.0967	5.7383	0.0000	217.5999

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	478.33	97.0967	5.7383	0.0000	217.5999
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**97.0967**	**5.7383**	**0.0000**	**217.5999**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Tractors/Loaders/Backhoes	2	4.00	365	200	0.37	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Tractors/Loaders/ Backhoes	0.0537	0.6521	0.2849	1.1600e-003		0.0214	0.0214		0.0197	0.0197	0.0000	101.6656	101.6656	0.0329	0.0000	102.3561
Total	**0.0537**	**0.6521**	**0.2849**	**1.1600e-003**		**0.0214**	**0.0214**		**0.0197**	**0.0197**	**0.0000**	**101.6656**	**101.6656**	**0.0329**	**0.0000**	**102.3561**

10.0 Vegetation

APPENDIX 3.2:

EMFAC 2014 MODEL OUTPUTS

EMFAC2014 (v1.0.7) Emissions Inventory
Region Type: Statewide
Region: California
Calendar Year: 2017
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Populatior	VMT	Fuel_Consumption			
Statewide	2017	HHDT	Aggregate	Aggregate	GAS	1951.672	237237.1	53.18238	53,182.38	4.460822	5.699996
Statewide	2017	HHDT	Aggregate	Aggregate	DSL	262062.9	37511294	6569.371	6,569,371.08	5.710028	
Statewide	2017	LDA	Aggregate	Aggregate	GAS	13744297	4.99E+08	19207.63	19,207,627.74	25.9583	26.01426
Statewide	2017	LDA	Aggregate	Aggregate	DSL	117684.9	4599520	135.49	135,490.02	33.9473	
Statewide	2017	LHDT1	Aggregate	Aggregate	GAS	373673.2	11449741	1140.361	1,140,360.93	10.04045	12.7911
Statewide	2017	LHDT1	Aggregate	Aggregate	DSL	316855.1	11085324	621.4165	621,416.45	17.8388	
Statewide	2017	MHDT	Aggregate	Aggregate	GAS	41009.19	2048387	312.3257	312,325.66	6.558498	8.133431
Statewide	2017	MHDT	Aggregate	Aggregate	DSL	288070.3	14981854	1781.531	1,781,531.29	8.409538	

GEOTECHNICAL INVESTIGATION PROPOSED MORENO VALLEY LOGISTICS CENTER

SWC Krameria Avenue and Indian Street
Moreno Valley, California
for
ProLogis

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

March 24, 2015

ProLogis
2817 East Cedar Street, Suite 200
Ontario, California 91761

Attention: Mr. Scott Mulkay
Vice President – Regional Development Manager

Project No.: **14G160-1R**

Subject: **Geotechnical Investigation**
Proposed Moreno Valley Logistics Center
SWC Krameria Avenue and Indian Street
Moreno Valley, California

Gentlemen:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

ROBERT TRAZO
No. 2655

Robert G. Trazo, GE 2655
Principal Engineer

John A. Seminara, GE 2294
Principal Engineer

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Plate 2: Boring Location Plan
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C Laboratory Test Results
D Grading Guide Specifications
E Seismic Design Parameters

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Site Preparation

- Initial site preparation should include stripping of any surficial vegetation from the site. At the time of our investigation, ground surface cover consists of moderate amounts of native grass and weed growth. This material should be removed and disposed of off-site.
- The subject site is generally underlain by native alluvial soils possessing high collapse potential and moderate susceptibility to consolidation extending to depths of 3 to 4± feet as well as lower strength alluvial soils extending to depths of 3 to 4± feet. The underlying native soils generally possess higher strengths and generally more favorable consolidation and collapse characteristics.
- Remedial grading is recommended to be performed within the new building pad areas. The existing soils within the building areas should be overexcavated to a depth of 3 feet below existing grade and to a depth of 3 feet below proposed pad grades. The soils within the proposed foundation influence zones should be overexcavated to a depth of 2 feet below proposed foundation bearing grades.
- After the recommended overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated. The resulting subgrade should then be scarified to a depth of 10 to 12 inches and thoroughly moisture conditioned to 2 to 4 percent above optimum moisture content. The resulting subgrade should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.
- The new parking area subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned to 2 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 lbs/ft^2 maximum allowable soil bearing pressure.
- Reinforcement consisting of at least four (4) No. 5 rebars (2 top and 2 bottom) in strip footings due to the presence of low to medium expansive soils. Additional reinforcement may be necessary for structural considerations.

Building Floor Slabs

- Conventional Slab-on-Grade, 5 inches thick.
- Minimum slab reinforcement: No. 3 bars at 18-inches on center, in both directions due to low to medium expansive soils. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

Pavements

ASPHALT PAVEMENTS (R = 35)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	5	7	9	10	11
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 35)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	6½	8	9
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 14P266, dated June 4, 2014. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slabs, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located on the west side of Indian Street southwest of the intersection of Indian Street and Krameria Avenue in Moreno Valley, California. The site is bounded to the north by a commercial/industrial building and vacant land, to the east by Indian Street, to the west by vacant land, commercial/industrial buildings, and Heacock Street. The Perris Valley Storm Drain channel transects the site in a northwest to southeast direction. The general location of the site is illustrated on the Site Location Map included as Plate 1 in Appendix A of this report.

The overall site in an "L"-shaped property, 82.7± acres in size. The overall site is comprised of four (4) separate parcels which are divided by the northwest-to-southeast trending Perris Valley Storm Drain channel. Parcels 1 and 2 are located on the east side of the channel and are 58.7± and 6.9± acres in size, respectively. Parcel 3 is located to the southwest of the storm drain channel and is approximately 6.4 acres in size. Parcel 4 is located to the northwest of the channel and is 9.4± acres in size. Ground surface cover throughout the overall site consists of exposed soil with sparse to moderate native grass and weed growth. Several regions of the property appear to have been previously disked.

Detailed topographic information was not available at the time of this report. However, based on visual observations made at the time of our investigation, the site topography within Parcels 1 and 2 generally slopes downward to the southwest at an estimated gradient of 2 to 3± percent, with an estimated elevation differential of 25± feet across the Parcel 1 site. The site topography within Parcels 3 and 4 generally slopes downward to the south at an estimated gradient of less than 1 percent. Topographic relief across Parcels 3 and 4 are on the order of 10± feet and 4± feet, respectively.

3.2 Proposed Development

Based on the conceptual site plan provided to our office by the client, the overall site will be developed with four (4) commercial/industrial buildings, identified and Buildings 1 through 4. The buildings will generally encompass the central regions of their respective parcels. The buildings will range from 93,665± ft^2 to 1,333,586± ft^2 in size and will include of 5,000± ft^2 to 10,000± ft^2 of office space. Building 1 will be constructed in a cross-dock configuration, with loading docks on the east and west sides of the building. Buildings 2 and 4 will be constructed with loading docks along the west and east building lines, respectively. Loadings will also be constructed on the north and east sides of Building 3. The areas surrounding the buildings are expected to be developed with asphaltic concrete pavements in the automobile parking and drive lanes and Portland cement concrete (PCC) in the loading dock areas. It is assumed that landscape planters and areas of concrete flatwork with will be located in limited areas throughout the site. The proposed development will also include the construction of new public streets, located at the north and east property lines.

Detailed structural information has not been provided. It is assumed that the new buildings will be single-story structures of tilt-up concrete construction, supported on conventional shallow foundations with concrete slab-on-grade floors. The construction may include second floor mezzanine offices. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 80 kips and 3 to 5 kips per linear foot, respectively.

Based on the existing topography, cuts and fills of 3 to 6± feet are expected to be necessary to achieve the new site grades within the building areas. No significant below grade construction such as basements or crawl spaces is anticipated.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of twenty-two (22) borings advanced to depths of 5 to 30± feet below existing site grades. All of the borings were logged during drilling by a member of our staff.

The borings were advanced with hollow-stem augers, by a truck-mounted drilling rig. Representative bulk and in-situ soil samples were taken during drilling. Relatively undisturbed in-situ samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Alluvium

Native alluvial soils were encountered at the ground surface of all of the exploratory borings. The alluvial soils generally consist of very stiff to hard sandy clays, clayey silts and silty clays as well as medium dense to very dense sands, silty sands and clayey sands extending to the maximum depth explored of 30± feet. The results of the laboratory testing indicate that a significant amount of the near surface soils were in a dry to damp condition.

Groundwater

At Boring No. B-19, free water was encountered at a depth of 27± feet below existing site grades. However, the remaining twenty-one (21) borings did not encounter any groundwater. It is expected that the groundwater encountered at Boring No. B-19 was localized perched water, sitting above an impermeable soil layer. Based on the lack of any water within the remaining borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 30± feet at the time of the subsurface exploration.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

In-situ Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Soluble Sulfates

Representative samples of the near-surface soils were submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Sulfate Classification
B-1 @ 0 to 5 feet	0.028	Negligible
B-10 @ 0 to 5 feet	0.022	Negligible
B-13 @ 0 to 5 feet	0.013	Negligible

Consolidation

Selected soil samples have been tested to determine their consolidation potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-20 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

Three (3) representative bulk samples were tested for their maximum dry densities and optimum moisture contents. The results were obtained using the Modified Proctor procedure, per ASTM D-1557. These test results are enclosed in presented on Plates C-21 through C-23 in Appendix C of this report. This test is generally used to compare the in-situ densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Expansion Index

The expansion potential of the on-site soils was determined in general accordance with ASTM D-4829. The testing apparatus is designed to accept a 4-inch diameter, 1-in high, remolded sample. The sample is initially remolded to 50± 1 percent saturation and then loaded with a surcharge equivalent to 144 pounds per square foot. The sample is then inundated with water, and allowed to swell against the surcharge. The resultant swell or consolidation is recorded after a 24-hour period. The results of the EI testing are as follows:

Sample Identification	Expansion Index	Expansion Potential
B-4 @ 0 to 5 feet	66	Medium
B-10 @ 0 to 5 feet	33	Low
B-13 @ 0 to 5 feet	0	Very Low
B-16 @ 0 to 5 feet	1	Very Low

Resistivity and pH Testing

The resistivity of the soils is a measure of their potential to attack buried metal improvements such as utility lines. The results of the resistivity and pH testing are presented below. These test results are as follows:

Sample Identification	Resistivity (ohm-cm)	pH
B-3 @ 0 to 5 feet	1,270	7.6

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations. The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structures should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, the possibility of significant fault rupture on the site is considered to be low.

Seismic Design Parameters

The 2013 California Building Code (CBC) was adopted by all municipalities within Southern California on January 1, 2014. The CBC provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

The 2013 CBC Seismic Design Parameters have been generated using U.S. Seismic Design Maps, a web-based software application developed by the United States Geological Survey. This software application, available at the USGS web site, calculates seismic design parameters in accordance with the 2013 CBC, utilizing a database of deterministic site accelerations at 0.01 degree intervals. The table below is a compilation of the data provided by the USGS application. A copy of the output generated from this program is included in Appendix E of this report. A copy of the Design Response Spectrum, as generated by the USGS application is also included in Appendix E. Based on this output, the following parameters may be utilized for the subject site:

2013 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	1.500
Mapped Spectral Acceleration at 1.0 sec Period	S_1	0.600
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	1.500
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	0.900
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.000
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.600

Liquefaction

Liquefaction is the loss of the strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and grain size characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Clayey (cohesive) soils or soils which possess clay particles (d<0.005mm) in excess of 20 percent (Seed and Idriss, 1982) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The Riverside County Land Information System indicates that the subject site is located within a zone of low liquefaction susceptibility. In addition, the subsurface conditions encountered at the boring locations are not considered to be susceptible to liquefaction. These conditions consist of medium dense well-graded granular soils, and the lack of a shallow groundwater table. Based on these conditions, liquefaction is not considered to be a design concern for this project.

6.2 Geotechnical Design Considerations

General

Native alluvial soils were encountered at the ground surface at all of the borings. The native alluvial soils at depths of 2 to 4 feet had generally lower strengths than the native alluvial soils at greater depths. The native alluvial soils at depths of 2 to 4 feet also possessed significant collapse potential and possessed moderate susceptibility to load-induced consolidation. In

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addition, numerous samples of the near surface clayey soils were dry. Dry, clayey, near-surface soils possess a moderate potential for swelling and soil heave when exposed to cyclical wetting and drying. Based on these conditions, remedial grading is considered warranted within the proposed building areas in order to remove and replace the surficial soils as compacted structural fill. The proposed remedial grading will also result in placement of a uniform blanket of structural fill below the foundations and floor slabs of the new structures.

Settlement

The recommended remedial grading will remove a portion of the near surface alluvial soils, and replace these materials as compacted structural fill. The native soils that will remain in place below the depth of recommended overexcavation possess favorable consolidation/collapse characteristics. Therefore, following completion of the recommended grading, post-construction settlements are expected to be within tolerable limits.

Expansion

The near surface soils at this site generally consist of sandy clays, silty clays, and clayey sands. Laboratory testing indicates that these materials have a very low to medium expansion potential (EI = 0 to 66). Based on the presence of expansive soils, special care should be taken to properly moisture condition and maintain adequate moisture content within all subgrade soils as well as newly placed fill soils. The foundation and floor slab design recommendations contained within this report are made in consideration of the expansion index test results. It is recommended that additional expansion index testing be conducted at the completion of rough grading to verify the expansion potential of the as-graded building pads.

Soluble Sulfates

The results of the soluble sulfate testing indicate that the selected sample of the on-site soils contains a negligible concentration of soluble sulfates, in accordance with American Concrete Institute (ACI) guidelines. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building areas.

Shrinkage/Subsidence

Based on the results of the laboratory testing, removal and recompaction of the near surface native soils is estimated to result in an average shrinkage of 12 to 16 percent. Removal and recompaction of the existing fill soils is expected to result in an average shrinkage of 5 to 10± percent. Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.1 ±feet. This estimate may be used for grading in areas that are underlain by native alluvial soils. These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

No grading and foundation plans were available at the time of this report. It is therefore recommended that we be provided with copies of the preliminary plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping and Demolition

Initial site stripping should include removal of any surficial vegetation. This should include any weeds, grasses, shrubs, and trees. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered. This material should be removed and disposed of off-site.

Treatment of Existing Soils: Building Pads

Remedial grading should be performed within the proposed building areas in order to remove the potentially collapsible native soils. Based on conditions encountered at the boring locations, these materials extend to depths of 2 to 4± feet. To provide a uniform blanket of structural fill beneath the foundations and floor slabs for the new structure, it is recommended that the existing soils within the proposed building areas be overexcavated to a depth of at least 3 feet below proposed building pad subgrade elevation and to a depth of at least 3 feet below existing grade, whichever is greater.

Where not encompassed within the general building pad overexcavation, additional overexcavation should be performed within the influence zones of the new foundations, to provide for a new layer of compacted structural fill extending to a depth of 2 feet below proposed bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building perimeters, and to an extent equal to the depth of fill below the new foundations. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the building areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structures. This evaluation should include proofrolling and probing to identify any soft, loose or otherwise unstable soils that must be removed. Some localized areas of deeper excavation may be required if additional fill materials or loose, porous, or low density native soils are encountered at the base of the overexcavation.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches, moisture treated to 2 to 4 percent above optimum moisture content. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of any proposed retaining walls should be overexcavated to a depth of 2 feet below foundation bearing grade and replaced as compacted structural fill as discussed above for the proposed building pads. Additional overexcavation should be performed to remove any existing fill soils. The foundation areas for non-retaining site walls should be overexcavated to a depth of 1 foot below proposed foundation bearing grade. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning, and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Parking and Drive Areas

Based on economic considerations, overexcavation of the existing soils in the new parking and drive areas is not considered warranted, with the exception of areas where lower strength, or unstable, soils are identified by the geotechnical engineer during grading. Subgrade preparation in the new parking and drive areas should initially consist of removal of all soils disturbed during stripping and demolition operations.

The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. Any such materials should be removed to a level of firm and unyielding soil. The exposed subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to at least 2 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength surficial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed parking area assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of undocumented fill soils or collapsible native alluvium in the parking areas. As such, settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the parking area should be graded in a manner similar to that described for the building areas.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 2 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2010 CBC and the grading code of the City of Moreno Valley.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of very low expansive (EI < 20), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. It is recommended that materials in excess of 3 inches in size not be used for utility trench backfill. Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by City of Moreno Valley. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Excavation Considerations

The near-surface soils generally consist of sandy clays, silty clays, and clayey sands. Some of these materials may be subject to minor caving within shallow excavations. Where caving does occur, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 1.5h:1v. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Moisture Sensitive Subgrade Soils

Most of the near surface soils possess appreciable silt and clay content and may become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. In addition, based on their granular content, some of the on-site soils will also be susceptible to erosion. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

Expansive Soils

The near surface on-site soils have been determined to possess a low to medium expansion potential. Therefore, care should be given to proper moisture conditioning of all building pad subgrade soils to a moisture content of 2 to 4 percent above the Modified Proctor optimum during site grading. All imported fill soils should have very low expansive (EI < 20) characteristics. **In addition to adequately moisture conditioning the subgrade soils and fill soils during grading, special care must be taken to maintain moisture content of these soils at 2 to 4 percent above the Modified Proctor optimum. This will require the contractor to frequently moisture condition these soils throughout the grading process, unless grading occurs during a period of relatively wet weather**.

Due to the presence of expansive soils at this site, provisions should be made to limit the potential for surface water to penetrate the soils immediately adjacent to the structures. These provisions should include directing surface runoff into rain gutters and area drains, reducing the extent of landscaped areas around the structure, and sloping the ground surface away from the buildings. Where possible, it is recommended that landscaped planters not be located immediately adjacent to the proposed buildings. If landscaped planters around the buildings are necessary, it is recommended that drought tolerant plants or a drip irrigation system be utilized, to minimize the potential for deep moisture penetration around the structure. Other provisions, as determined by the civil engineer may also be appropriate.

Corrosion Potential

The results of the electrical resistivity and pH testing indicate that the tested sample of the on-site soils has a resistivity value of 1,270 ohm-cm and a pH value of 7.6. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Resistivity and pH are two of the five factors that enter into the evaluation procedure. Relative soil moisture content as well as redox potential and sulfides are also included. We have evaluated the corrosivity characteristics of the on-site soils using resistivity, pH and moisture content. **Based on these factors, and utilizing the DIPRA procedure, some of the on-site soils are considered to be severely corrosive to ductile iron pipe.** Therefore, it is expected that polyethylene encasement will be required for ductile iron pipe. The client may also wish to contact a corrosion engineer to provide a more thorough evaluation.

Groundwater

The static groundwater table at this site is considered to exist at a depth in excess of 30± feet. Therefore, groundwater is not expected to impact grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pads will be underlain by structural fill soils used to replace the potentially collapsible near-surface alluvial soils. These new structural fill soils are expected to extend to depths of at least 2 feet below proposed foundation bearing grade, underlain by 1± foot of additional soil that has been densified and moisture conditioned in place. Based on this subsurface profile, the proposed structure may be supported on conventional shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Four (4) No. 5 rebars (2 top and 2 bottom), due to the presence of low to medium expansive soils.
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 24 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slabs.
- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on geotechnical considerations; additional reinforcement may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill, compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to at least 2 to 4 percent of the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. **Since it is typically not feasible to increase the moisture content of the floor slabs and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.**

Estimated Foundation Settlements

Post-construction total and differential settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively. Differential movements are expected to occur over a 30-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slabs and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 275 lbs/ft^3
- Friction Coefficient: 0.28

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill. The maximum allowable passive pressure is 2500 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support new floor slabs should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the new structure may be constructed as a conventional slab-on-grade supported on newly placed structural fill, extending to a depth of at least 3 feet below existing grade. Based on geotechnical considerations, the floor slabs may be designed as follows:

- Minimum slab thickness: 5 inches.

- Minimum slab reinforcement: No. 3 bars at 18-inches on center, in both directions due to the presence of low to medium expansive soils. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below these areas. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.

- Moisture condition the floor slab subgrade soils to 2 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slabs should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Trash Enclosure Design Parameters

It is anticipated that trash enclosures will be constructed at the subject site. It is expected that the trash enclosures as well as the approach slabs will be subjected to relatively heavy wheel loads imposed by trash removal equipment.

The subgrade soils in the area of the trash enclosures and the approach slabs should be prepared in accordance with the recommendations for the parking areas, presented in Section 6.3 of this report. As such, it is expected that the trash enclosures will be underlain by structural fill soils, extending to a depth of 1 foot below proposed subgrade elevation. Based on geotechnical considerations, the following recommendations are provided for the design of the trash enclosures and the trash enclosure approach slabs:

- The trash enclosure may consist of a 6-inch thick concrete slab incorporating a perimeter footing or a turned down edge, extending to a depth of at least 12 inches below adjacent finished grade. If the trash enclosure will incorporate rigid walls such as masonry block or tilt-up concrete, the perimeter foundations should be designed in accordance with the recommendations previously presented in Section 6.5 of this report.

- Reinforcement within the trash enclosure slab should consist of at least No. 3 bars at 18-inches on-center, in both directions.

- The trash enclosure approach slab should be constructed of Portland cement concrete, at least 6 inches in thickness. Reinforcement within the approach slab should consist of at least No. 3 bars at 18-inches on-center, in both directions.

- The trash enclosure and approach slab subgrades should be moisture conditioned to 2 to 4 percent above the optimum moisture content to a depth of 12 inches. The trash enclosure slab and the approach slab should be structurally connected, to reduce the potential for differential movement between the two slabs.

- The actual design of the trash enclosure and the trash enclosure approach slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.8 Retaining Wall Design and Construction

Although not indicated on the site plan, some small retaining walls may be required to facilitate the new site grades. It is also expected that some retaining walls will be required in the truck loading dock areas. All of these walls are expected to be less than 3 to 5± feet in height. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. The on-site soils generally consist of sandy clays, silty clays, clayey sands, and silty sands. **It is recommended that the on-site expansive clayey soils not be used to backfill any proposed on-site retaining walls.** Based on the composition of the on-site sands, these soils have been assigned a friction angle of 28 degrees.

In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60 degrees.

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

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RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type On-Site Sands and Clayey Sands
Internal Friction Angle (ϕ)		30°
Unit Weight		125 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	43 lbs/ft^3
	Active Condition (2h:1v backfill)	76 lbs/ft^3
	At-Rest Condition (level backfill)	63 lbs/ft^3

Regardless of the backfill type, the walls should be designed using a soil-footing coefficient of friction of 0.28 and an equivalent passive pressure of 275 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed compacted structural fill, extending to a depth of at least 2 feet below the proposed bearing grade. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Seismic Lateral Earth Pressures

In accordance with the 2013 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Backfill Material

It is recommended that a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls, may be used. If the layer of free-draining material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The layer of free draining granular material should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer

All retaining wall backfill should be placed and compacted under engineering controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557-91). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 4-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 8-foot on-center spacing. The weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system.

6.9 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on recompacted native alluvial soils that consist of fine sandy clays and clayey fine sands. These existing soils are considered to possess fair pavement support characteristics. Based on their classification, these materials are expected to possess good pavement support characteristics, with R-values in the range of 35 to 45. Since R-value was not included in the scope of services for this project, the subsequent pavement design is based upon an assumed R-value of 35. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that R-value testing be performed after completion of rough grading. Depending upon the results of the R-value testing, it may be feasible to use thinner pavement sections in some areas of the site.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20 year design life, assuming six operational traffic days per week.

Traffic Index	**No. of Heavy Trucks per Day**
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R=35)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	5	7	9	10	11
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the

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Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R=35)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	6½	8	9
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

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7.0 GENERAL COMMENTS

This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A

SOURCE: RIVERSIDE COUNTY
THOMAS GUIDE, 2013

SITE LOCATION MAP

PROPOSED MORENO VALLEY LOGISTICS CENTER
MORENO VALLEY, CALIFORNIA

SCALE: 1" = 2400'

DRAWN: PM
CHKD: JAS

SCG PROJECT
14G160-1R

PLATE 1

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

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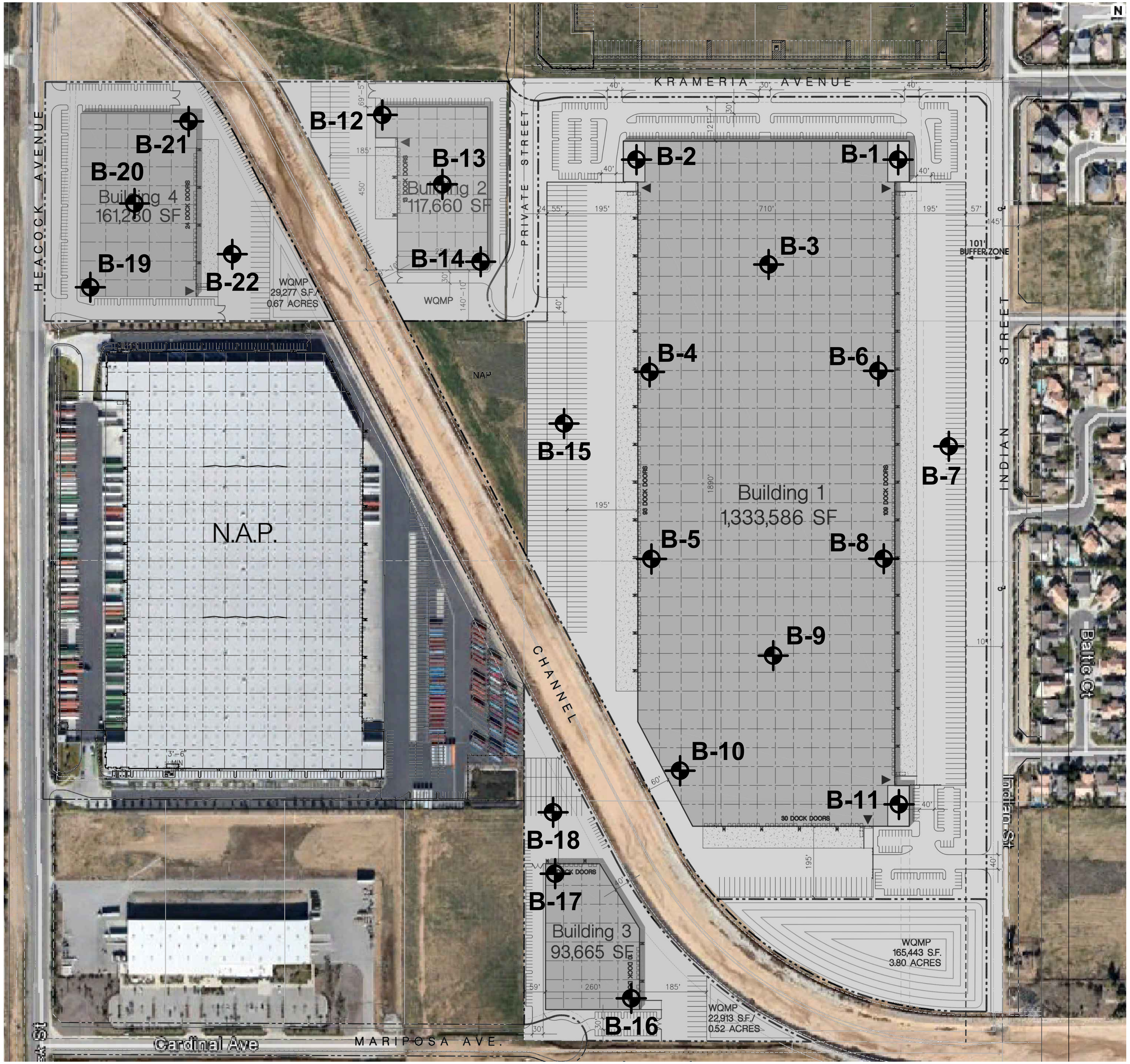

GEOTECHNICAL LEGEND

⌖ APPROXIMATE BORING LOCATION

BORING LOCATION PLAN
PROPOSED MORENO VALLEY LOGISTICS CENTER
MORENO VALLEY, CALIFORNIA

SCALE: 1" = 300'
DRAWN: PM
CHKD: JAS
SCG PROJECT
14G160-1R
PLATE 2

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER	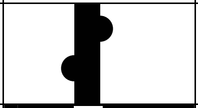	SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE	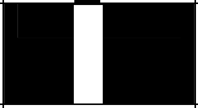	ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS	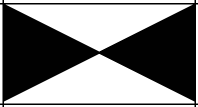	CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR	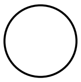	NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT	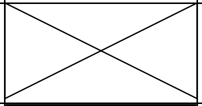	STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE	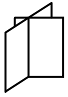	VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH:	Distance in feet below the ground surface.
SAMPLE:	Sample Type as depicted above.
BLOW COUNT:	Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3” indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.
POCKET PEN.:	Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.
GRAPHIC LOG:	Graphic Soil Symbol as depicted on the following page.
DRY DENSITY:	Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.
MOISTURE CONTENT:	Moisture content of a soil sample, expressed as a percentage of the dry weight.
LIQUID LIMIT:	The moisture content above which a soil behaves as a liquid.
PLASTIC LIMIT:	The moisture content above which a soil behaves as a plastic.
PASSING #200 SIEVE:	The percentage of the sample finer than the #200 standard sieve.
UNCONFINED SHEAR:	The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS	▨	GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		(LITTLE OR NO FINES)	▨	GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES	▨	GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
		(APPRECIABLE AMOUNT OF FINES)	▨	GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	SAND AND SANDY SOILS	CLEAN SANDS	▨	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		(LITTLE OR NO FINES)	▨	SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
	MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	SANDS WITH FINES	▨	SM	SILTY SANDS, SAND - SILT MIXTURES
		(APPRECIABLE AMOUNT OF FINES)	▨	SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50	▨	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			▨	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			▨	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50	▨	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			▨	CH	INORGANIC CLAYS OF HIGH PLASTICITY
			▨	OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			▨	PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORI
B-1

JOB NO.: 14G160	DRILLING DATE: 6/24/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
				░	ALLUVIUM: Brown Silty fine Sand, trace medium Sand, trace to little Clay, slightly porous, loose to medium dense-dry to damp							
	☒	12		░			3					
	☒	9		░			5					
5				░								
				▨	Brown Clayey fine Sand, trace Silt, medium dense-damp to moist							
	☒	15		▨			9					
				▨	Dark Brown fine Sandy Clay to Clayey fine Sand, medium dense to very stiff-moist							
	☒	21	3.5	▨			13					
10				▨								
	☒	29	3.5	▨			11					
				░	Brown Silty fine to medium Sand, medium dense-damp to moist		7					
15				░								
				▥	Brown fine Sandy Silt, little Clay, stiff to very stiff-moist to very moist							
	☒	17		▥			19					
20				▥								
	☒	13		▥			17					
25					Boring Terminated at 25'							

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORI
B-2

JOB NO.: 14G160	DRILLING DATE: 6/24/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					<u>ALLUVIUM:</u> Brown Silty fine Sand, trace medium Sand, medium dense-dry to damp							
	☒	26				105	2					
					Brown Silty fine to medium Sand, loose-dry to damp							
	☒	11				108	3					
5	☒	38				123	3					
					Brown Clayey fine Sand, little to some Silt, trace medium Sand, dense-damp							
	☒	26	4.5+		Dark Brown fine Sandy Clay, trace to little Silt, slightly porous, very stiff-damp to moist	122	9					
	☒	26	4.5+			115	19					
10												
	☒	25	4.5+		@ 13½ to 15 feet, trace calcareous veining		14					
15												
					Dark Brown Silty fine Sand, little to some Clay, slightly porous, medium dense-damp to moist							
	☒	16					8					
20												
					Brown Clayey fine Sand, little Silt, medium dense-moist							
	☒	20					12					
25												
					Dark Brown Silty fine Sand, little to some Clay, medium dense-moist							
	☒	23					11					
30												
					Boring Terminated at 30'							

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TEST BORING LOG

**BORING NO.
B-3**

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/24/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	
	⧓	23		⁘	ALLUVIUM: Brown Silty fine Sand, trace Clay, medium dense-dry to damp	88	2					
				▥	Dark Brown Clayey Silt, little to some fine Sand, slightly porous, stiff-dry to damp							
	⧓	15		▨	Brown Clayey fine Sand, little to some Silt, trace calcareous veining, medium dense-damp to moist	105	7					
5	⧓	30		▨		113	7					
	⧓	18		⁘	Dark Brown Silty fine to medium Sand, trace to little Clay, medium dense-damp to moist	111	4					
	⧓	33		⁘		130	7					
10				⁘								
				▨	Brown Clayey fine Sand, medium dense-damp to moist							
	☒	29		▨			8					
15												

Boring Terminated at 15'

TEST BORING LOG

PLATE B-3

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-4

JOB NO.: 14G160 DRILLING DATE: 6/24/14 WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center DRILLING METHOD: Hollow Stem Auger CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California LOGGED BY: Eric Torres READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	26	4.5+		ALLUVIUM: Dark Brown Silty Clay, trace calcareous veining, very stiff-dry to damp		8					EI = 66 @ 0 to feet
5	☒	15	3.0		Brown Clayey Silt, little fine Sand, trace calcareous veining, stiff to very stiff-damp to moist		13					
	☒	14			Dark Brown Silty fine Sand, little Clay, medium dense-damp to moist		10					
10	☒	24			Dark Brown Clayey fine Sand, little to some Silt, medium dense-damp to moist		6					
	☒	24					10					
15					Dark Brown fine to medium Sand, trace Silt, medium dense-damp to moist		7					
20	☒	37	4.5+		Brown Silty Clay, hard-damp		10					

Boring Terminated at 20'

TBL 14G160.GPJ SOCALGEO.GDT 3/24/15

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-5

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/24/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	16		⁙	ALLUVIUM: Brown Silty fine to medium Sand, medium dense-dry to damp		2					
5	☒	8		⁘	Brown fine to medium Sand, trace Silt, trace fine Gravel, loose-dry to damp		2					
	☒	20	4.25	▨	Dark Brown to Gray Brown Silty Clay, trace to little fine Sand, slightly porous, very stiff-damp to moist		10					
10	☒	25	4.5+	▨	Dark Brown Silty Clay, trace fine Sand, very stiff-damp to moist		11					
15	☒	27	4.5+	▨			9					
20	☒	19	3.5	⁙	Brown Silty fine Sand, little to some Clay, medium dense-damp to moist		9					
					Boring Terminated at 20'							

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CALIFORNIA
GEOTECHNICAL
A California Corporation

BORING NO.
B-6

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 6/24/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres
WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	⧗	26			ALLUVIUM: Brown Silty fine Sand to fine Sandy Silt, medium dense-dry to damp	111	3					
	⧗	32				102	3					
5	⧗	54			Brown Clayey Silt, trace fine Sand, trace calcareous veining, hard-dry to damp	102	6					
	⧗	55	1.5			106	5					
					Dark Brown Silty Clay, hard-damp							
	⧗	78			Dark Brown Clayey fine Sand to fine Sandy Clay, little to some Silt, very dense-damp	111	5					
10												
	⧖	22	3.75		Dark Brown to Red Brown fine Sandy Clay, trace Silt, very stiff-damp to moist		10					
15												
	⧖	40			Dark Brown fine to medium Sand, trace Silt, slightly cemented, medium dense-damp		6					
20					Brown Silty fine Sand, little Clay, meidum dense-damp to moist		10					

Boring Terminated at 20'

TEST BORING LOG

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CALIFORNIA
GEOTECHNICAL
A California Corporation

BORI
B-7

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/24/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	22		⁘	<u>ALLUVIUM:</u> Brown Silty fine Sand, trace to little Clay, medium dense-dry to damp		4					
5	☒	21		‖	Brown fine Sandy Silt, trace Clay, trace calcareous veining, medium dense-dry to damp		6					
					Boring Terminated at 5'							

TBL 14G160.GPJ SOCALGEO.GDT 3/24/15

TEST BORING LOG

PLATE B-7

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-8

JOB NO.: 14G160 | DRILLING DATE: 6/25/14 | WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center | DRILLING METHOD: Hollow Stem Auger | CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California | LOGGED BY: Eric Torres | READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	62			ALLUVIUM: Brown Silty fine Sand, little Clay, very dense-dry to damp		2					
	☒	35	4.5+		Gray Brown to Brown Clayey fine Sand to fine Sandy Clay, trace to little Silt, trace calcareous veining, very stiff to medium dense to dense-damp		6					
5	☒	25	4.5+				6					
	☒	28	2.0				7					
10			4.5+		Dark Brown to Gray Brown Silty Clay, trace fine Sand, very stiff-damp to moist		11					
	☒	23	3.0		Gray Brown fine Sandy Clay, trace Silt, very stiff-moist		13					
15	☒	23			Gray Brown Silty fine Sand, trace Silt, trace medium Sand, medium dense-damp to moist		8					
20					Boring Terminated at 20'							

TEST BORING LOG

PLATE B-8

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORI
B-9

JOB NO.: 14G160	DRILLING DATE: 6/25/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	31		▨	ALLUVIUM: Dark Brown Clayey fine Sand, little Silt, slightly porous, medium dense-dry to damp	114	2					
	☒	43		░	Brown Silty fine Sand, trace to little Clay, medium dense-damp	110	3					
5	☒	33		░	Brown fine to medium Sand, trace Silt, trace Clay, medium dense-damp	107	3					
	☒	56	4.5+	▨	Brown Clayey fine Sand to fine Sandy Clay, little Silt, trace medium Sand, medium dense-damp	118	6					
10	☒	49	4.5+	▨	Brown to Red Brown fine Sandy Clay, trace Silt, hard-damp to moist	116	11					
15	⊠	32		▨	Red Brown Clayey fine Sand, trace Silt, medium dense-moist		12					
					Boring Terminated at 15'							

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
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BORING NO.
B-10

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres
WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	31	4.5+		ALLUVIUM: Dark Brown Clayey Silt, trace to little fine Sand, hard-dry to damp		4					EI = 33 @ 0 tc feet
	☒	20			Brown Silty fine Sand, little to some Silt, medium dense-damp to moist		10					
5												
	☒	27					11					
	☒	38			Brown Silty fine Sand, little Clay, dense-damp to moist		9					
10												
	☒	20	4.5+		Brown to Red Brown Silty Clay, trace to little fine Sand, trace calcareous veining, very stiff-moist		13					
15												
	☒	19	3.0		Brown fine Sandy Clay, trace to little Silt, very stiff-moist		14					
20												
	☒	46	4.5+		Dark Brown fine Sandy Clay, hard-moist		13					
25												
					Boring Terminated at 25'							

TBL 14G160.GPJ SOCALGEO.GDT 3/24/15

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TEST BORING LOG

PLATE B-10

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORI
B-11

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					ALLUVIUM: Brown Silty fine Sand, trace Clay, medium dense-dry to damp							
	⧗	31			Brown fine Sandy Clay, trace to little Silt, trace calcareous veining, very stiff to hard-damp	110	4					
	⧗	49	4.5+			114	9					
5	⧗	33	4.5+		Brown Clayey Silt, trace fine Sand, very stiff-damp	108	8					
	⧗	43	4.5+			116	8					
10	⧗	36			Brown Silty fine Sand, little to some Clay, trace medium Sand, medium dense-damp	117	5					
	☒	31					6					
15					Brown to Gray Brown Silty fine to medium Sand, trace Silt, trace Clay, slightly cemented, dense-moist		14					
					Brown to Red Brown Clayey fine Sand, little Silt, medium dense-damp to moist							
20	☒	25			Brown Silty fine Sand, trace Clay, medium dense-damp to moist		10 9					
					Dark Brown Clayey fine to medium Sand, trace Silt, medium dense-damp to moist							
25	☒	23					9					
30	☒	26					8					
					Boring Terminated at 30'							

TEST BORING LOG

BORING NO.
B-12

JOB NO.: 14G160	DRILLING DATE: 6/25/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	⧗	21			ALLUVIUM: Dark Brown to Brown Silty fine Sand, little Clay, trace medium Sand, medium dense-dry to damp	102	4					
	⧗	12				107	5					
5	⧗	25				115	7					
	⧗	55	4.5+		Dark Brown fine Sandy Clay, trace Silt, slightly cemented, very stiff to hard-damp to moist	118	13					
	⧗	24	3.75			107	25					
10					Brown Silty Clay, trace fine Sand, very stiff-moist to very moist							
					Brown Clayey fine Sand, little to some Silt, medium dense-moist							
	⧖	15					12 8					
15					Brown Silty fine Sand, trace medium Sand, trace Clay, medium dense-damp to moist							
					Brown fine Sandy Clay, trace Silt, very stiff-damp to moist							
	⧖	18	3.5				12					
20												
					Brown fine to medium Sand, little to some Clay, trace Silt, medium dense-moist							
	⧖	25					11					
25			4.5+		Gray Brown Silty Clay, trace fine Sand, very stiff-moist		15					

Boring Terminated at 25'

TEST BORING LOG

PLATE B-12

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORI
B-13

JOB NO.: 14G160	DRILLING DATE: 6/25/14	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Moreno Valley, California	LOGGED BY: Eric Torres	READING TAKEN: At Completion

DESCRIPTION

SURFACE ELEVATION: --- MSL

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	26			ALLUVIUM: Dark Brown Silty fine Sand, medium dense-dry to damp		3					EI = 0 @ 0 to feet
5	☒	24	2.5		Brown Clayey Silt, trace to little Clay, very stiff-damp to moist		8					
	☒	16	2.5		Dark Brown Silty Clay, trace fine Sand, very stiff-damp to moist		10					
10	☒	14	3.0				12					
	☒	21			Dark Brown Clayey fine to medium Sand, trace Silt, stiff-damp to moist		9					
15												

Boring Terminated at 15'

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO.
B-14

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	19			<u>ALLUVIUM:</u> Dark Brown Silty fine Sand, trace to little Clay, loose to medium dense-dry to damp	107	3					
	☒	9				103	4					
5	☒	20			Brown Clayey fine Sand, trace Silt, medium dense-moist	106	16					
	☒	46	4.5+		Brown fine Sandy Clay, little Silt, very stiff-damp to moist	119	8					
10	☒	16			Gray Brown Silty fine Sand, trace Clay, medium dense-damp to moist	110	8					
					Brown to Gray Brown fine Sandy Silt, trace Clay, stiff to very stiff-moist							
15	⊠	15					12					
20	⊠	28					16					
					Boring Terminated at 20'							

TBL 14G160.GPJ SOCALGEO.GDT 3/24/15

TEST BORING LOG

PLATE B-14

SOUTHERN
CALIFORNIA
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A California Corporation

BORING NO.
B-15

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 6/25/14
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Eric Torres

WATER DEPTH: Dry
CAVE DEPTH: 18 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	30	4.5+	▨	<u>ALLUVIUM:</u> Brown fine Sandy Clay, little to some Silt, trace calcareous veining, very stiff to hard-dry to damp		6					
	☒	24		▥	Light Brown fine Sandy Silt, medium dense-damp to moist		8					
5					Boring Terminated at 5'							

TEST BORING LOG

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

BORI
B-16

JOB NO.: 14G160	DRILLING DATE: 3/12/15	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 12 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	⧓	23		░	<u>ALLUVIUM:</u> Brown Silty fine Sand, trace Clay, trace medium Sand, medium dense-dry to damp	102	5					EI = 1 @ 0 to 5
	⧓	28		░	Brown Silty fine to medium Sand, trace coarse Sand, trace Clay, medium dense-damp	115	5					
5	⧓	19		░	Brown fine to coarse Sand, some Silt, medium dense-damp	109	3					
	⧓	41	4.5+	▨	Dark Brown Silty Clay, trace fine Sand, trace calcareous veining, very stiff-damp to moist	122	12					
10	⧓	80		░	Orange Brown Silty fine Sand, slightly cemnented, very dense-damp to moist	111	8					
15	☒	18		▧	Dark Brown Clayey fine Sand, trace medium Sand, some Silt, medium dense-damp to moist		8					
	☒	25		░	Light Brown fine to coarse Sand, trace Silt, medium dense-damp		3					
20			3.5	▨	Brown fine Sandy Clay, some Silt, very stiff-damp to moist		12					
25	☒	21	4.0	▨			13					
					Boring Terminated at 25'							

TEST BORING LOG

SOUTHERN CALIFORNIA GEOTECHNICAL
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**BORING NO.
B-17**

JOB NO.: 14G160	DRILLING DATE: 3/12/15	WATER DEPTH: Dry
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 12 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	⧓	25			ALLUVIUM: Brown Silty fine to medium Sand, trace coarse Sand, trace Clay, medium dense-damp	107	5					
	⧓	32				118	6					
5	⧓	33			Light Brown Silty fine Sand, trace to little medium Sand, trace Clay, medium dense-damp	116	5					
	⧓	60			Light Gray Brown fine Sandy Silt, trace Clay, slightly cemented, dense-damp to moist	116	7					
	⧓	74/9"			Light Orange Brown Silty fine Sand, little calcareous veining, slightly cemented, very dense-damp to moist	108	10					
10												
					Brown Silty fine Sand, little medium Sand, little calcareous veining, dense-damp to moist							
	☒	32					8					
15												
					Brown Clayey fine Sand, medium dense-moist							
	☒	16					13					
20												
					Boring Terminated at 20'							

TEST BORING LOG

PLATE B-17

SoCalGeo
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CALIFORNIA
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BORI
B-18

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 3/12/15
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Daryl Kas

WATER DEPTH: Dry
CAVE DEPTH: 3 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	22		▨	ALLUVIUM: Gray Brown Clayey fine Sand, trace medium Sand, medium dense-damp		5					
	☒	22		▨	@ 3½ feet, moderately cemented		8					
5					Boring Terminated at 5'							

TEST BORING LOG

PLATE B-18

SOUTHERN
CALIFORNIA
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A California Corporation

BORI
B-19

JOB NO.: 14G160	DRILLING DATE: 3/12/15	WATER DEPTH: 27 feet
PROJECT: Prop. Moreno Valley Logistics Center	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 12 feet
LOCATION: Moreno Valley, California	LOGGED BY: Daryl Kas	READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	⧓	19			ALLUVIUM: Gray Brown Silty fine Sand to fine Sandy Silt, trace coarse Sand, slightly porous, medium dense-dry to damp	105	2					
	⧓	21			Brown Silty fine to medium Sand, medium dense-dry to damp	108	2					
5	⧓	39			Gray Brown Silty fine Sand, trace Clay, little medium to coarse Sand, moderately cemented, medium dense-dry to damp	118	4					
	⧓	30			Gray Brown Clayey fine Sand, trace Silt, trace to little medium Sand, medium dense-damp	121	6					
	⧓	28			Brown Silty fine Sand, some Clay, trace fine Sand, medium dense-moist	118	11					
10												
	☒	30			Red Brown Silty fine Sand, medium dense to dense-moist		9					
15												
	☒	11			Dark Gray Brown fine Sandy Silt, some Clay, medium dense-moist to very moist		21					
20												
	☒	13	2.0		Gray Brown Clayey Silt, trace fine Sand, stiff-moist to very moist		19					
25												
					▽ @ 27 feet, Perched Groundwater encountered during drilling							
	☒	13	2.75				18					
30												
					Boring Terminated at 30'							

TEST BORING LOG

PLATE B-19

SOUTHERN CALIFORNIA GEOTECHNICAL
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BORING NO.
B-20

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 3/12/15
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Daryl Kas

WATER DEPTH: Dry
CAVE DEPTH: 12 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
					ALLUVIUM: Gray Brown Silty fine Sand, medium dense-damp							
	☒	12					5					
					Gray Brown Clayey fine Sand, medium dense-damp							
	☒	24					4					
5												
					Brown Silty fine to coarse Sand, medium dense-damp							
	☒	23					4					
					Gray Brown Silty Clay, trace to little fine Sand, moderately cemented, very stiff-damp to moist							
	☒	25	4.5+				13					
10												
					Light Brown Silty fine to coarse Sand, medium dense-damp							
	☒	18					5					
15												
					Gray Brown Clayey fine Sand, dense-damp							
	☒	42					7					
20												
					Boring Terminated at 20'							

TBL 14G160.GPJ SOCALGEO.GDT 3/24/15

SOUTHERN CALIFORNIA GEOTECHNICAL
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**BORING NO.
B-21**

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California

DRILLING DATE: 3/12/15
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Daryl Kas

WATER DEPTH: Dry
CAVE DEPTH: 15 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	⧗	22			ALLUVIUM: Dark Gray Brown Silty fine Sand, porous, medium dense-dry to damp	102	4					EI = 0 @ 0 to 5
					Light Brown Silty fine Sand, trace coarse Sand, medium dense-damp							
	⧗	25			Brown Silty fine to coarse Sand, medium dense-damp	107	3					
5	⧗	38				120	2					
					Gray Brown Clayey fine Sand, medium dense-damp							
	⧗	59			Light Gray Brown Silty fine to medium Sand, trace Clay, moderately cemented, dense-damp	115	5					
10	⧗	61			Light Brown Silty fine Sand, slightly cemented, trace calcareous nodules, some calcareous veining, dense-moist	112	11					
15	☒	21	1.5		Brown Clayey Silt, some fine Sand, slightly cemented, trace calcareous veining, very stiff-damp to moist		8					
	☒	10	1.5		Light Gray Brown Clayey Silt, trace fine Sand, stiff-moist to very moist		18					
20	⧗	33			Gray Brown Clayey fine Sand, trace medium Sand, medium dense-very moist	117	14					
	☒	19					15					
25					Boring Terminated at 25'							

TBL 14G160.GPJ SOCALGEO.GDT 3/24/15

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

TEST BORING LOG

PLATE B-21

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-22

JOB NO.: 14G160
PROJECT: Prop. Moreno Valley Logistics Center
LOCATION: Moreno Valley, California
DRILLING DATE: 3/12/15
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Daryl Kas
WATER DEPTH: Dry
CAVE DEPTH: 3 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	UNCONFINED SHEAR (TSF)	COMMENTS
	☒	22			<u>ALLUVIUM:</u> Light Brown Silty fine Sand, medium dense-dry to damp		3					
5	☒	39		▨	Gray Brown Clayey fine Sand, trace medium Sand, dense-damp		4					
					Boring Terminated at 5'							

TEST BORING LOG

APPENDIX C

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Consolidation/Collapse Test Results

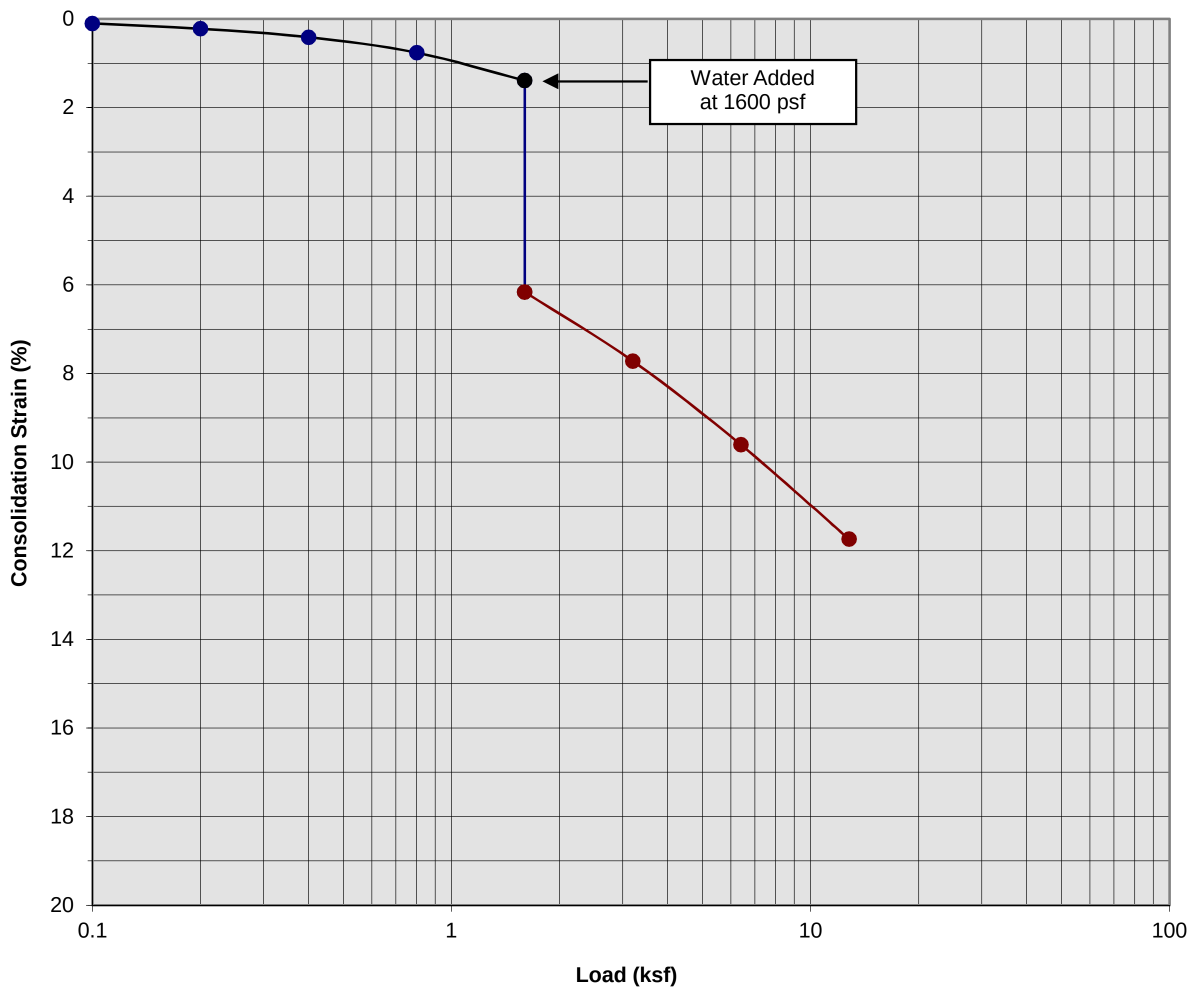

Classification: Brown Silty fine Sand, trace medium Sand

Boring Number:	B-2	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	1 to 2	Initial Dry Density (pcf)	105.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	119.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	4.77

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 1

SoCalGeo
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Consolidation/Collapse Test Results

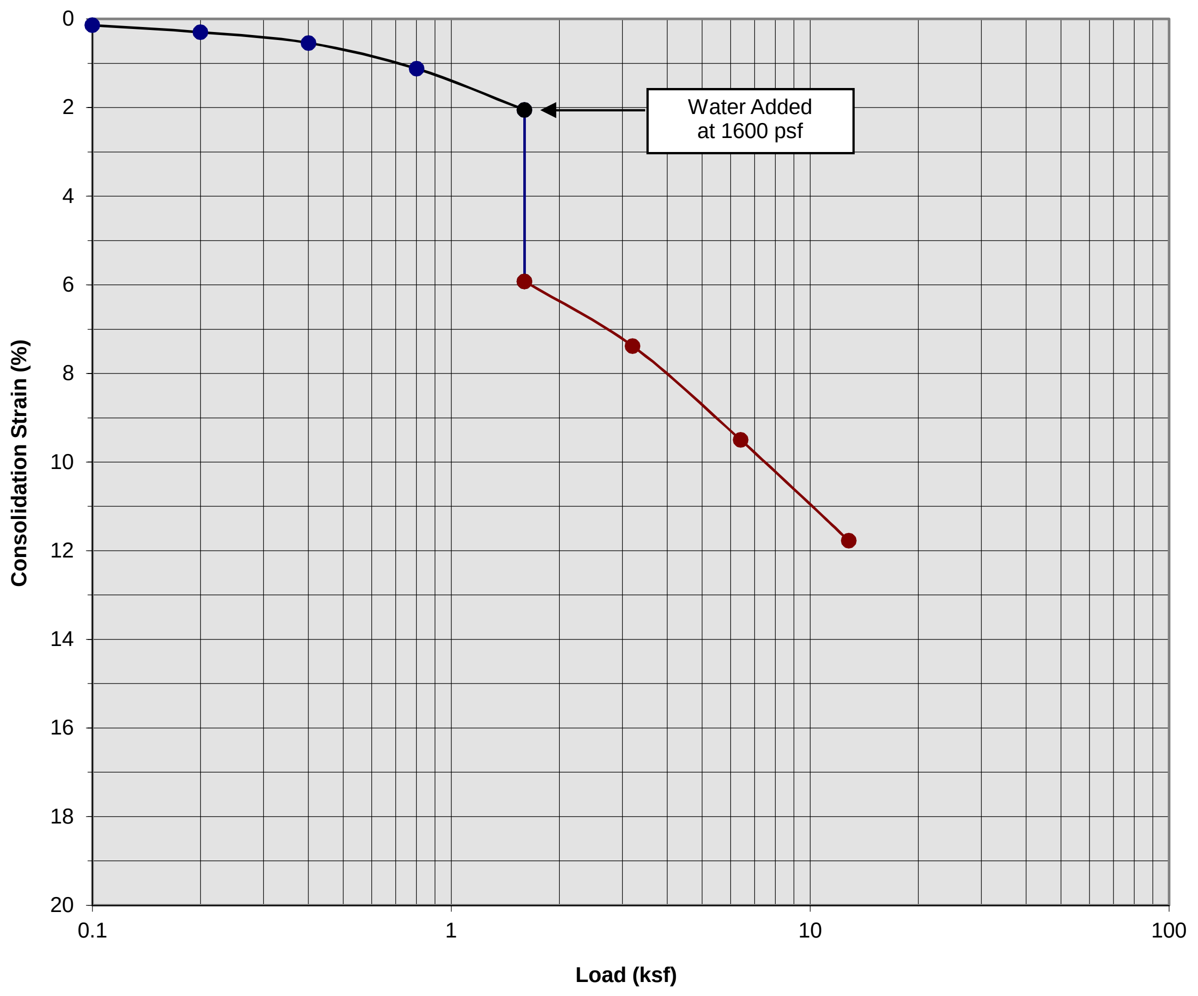

Classification: Brown Silty fine to medium Sand

Boring Number:	B-2	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	12
Depth (ft)	3 to 4	Initial Dry Density (pcf)	108.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	3.87

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 2

SOUTHERN CALIFORNIA GEOTECHNICAL
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Consolidation/Collapse Test Results

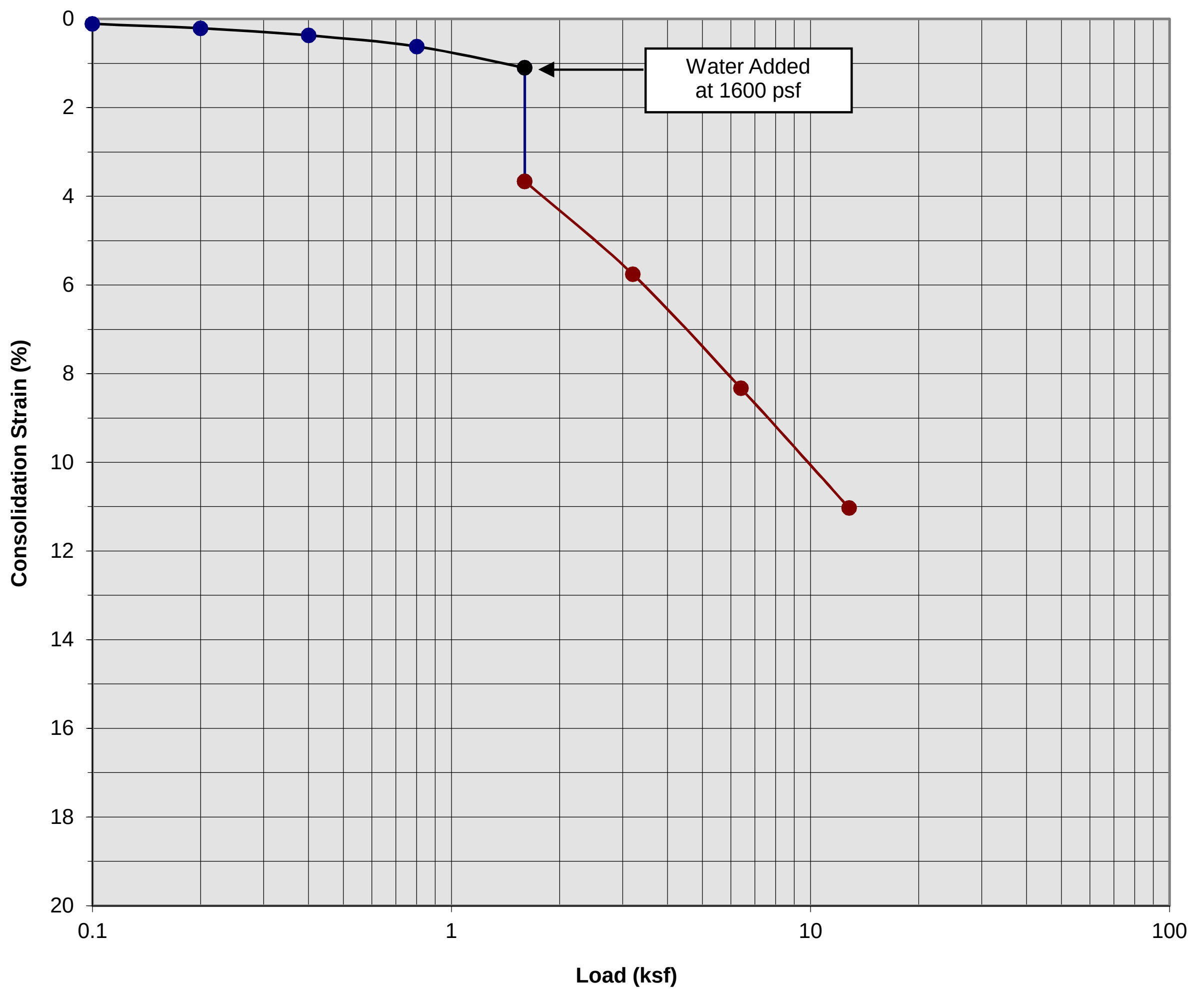

Classification: Brown Clayey fine Sand, little to some Silt, trace medium Sand

Boring Number:	B-2	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	5 to 6	Initial Dry Density (pcf)	123.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	138.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.56

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 3

SoCalGeo
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Consolidation/Collapse Test Results

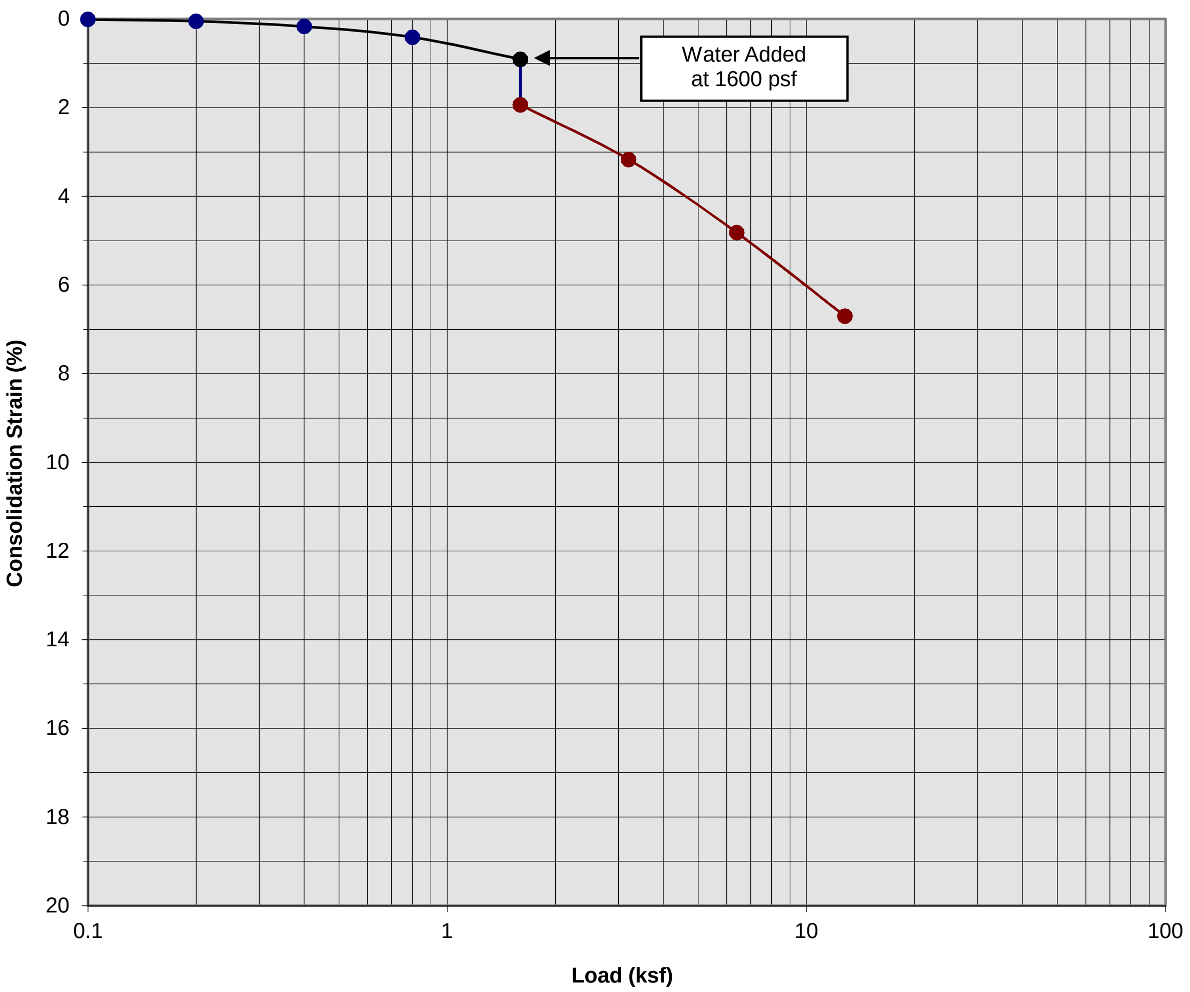

Classification: Dark Brown fine Sandy Clay, trace to little Silt

Boring Number:	B-2	Initial Moisture Content (%)	10
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	7 to 8	Initial Dry Density (pcf)	122.5
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	130.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.03

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 4

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL *A California Corporation*

Consolidation/Collapse Test Results

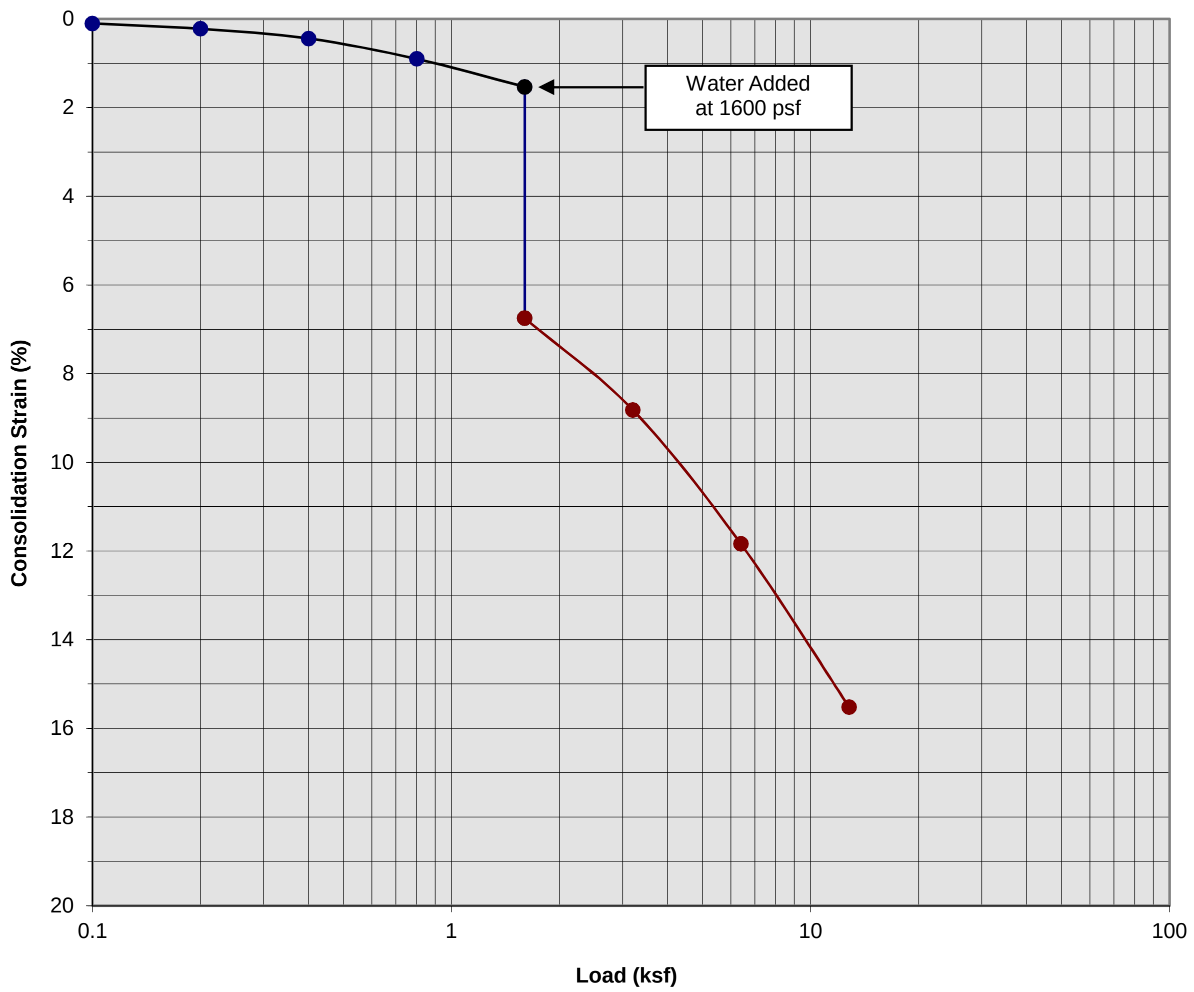

Classification: Brown fine Sandy Clay, trace to little Silt

Boring Number:	B-11	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	1 to 2	Initial Dry Density (pcf)	109.6
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	129.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	5.22

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160

PLATE C- 5

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Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

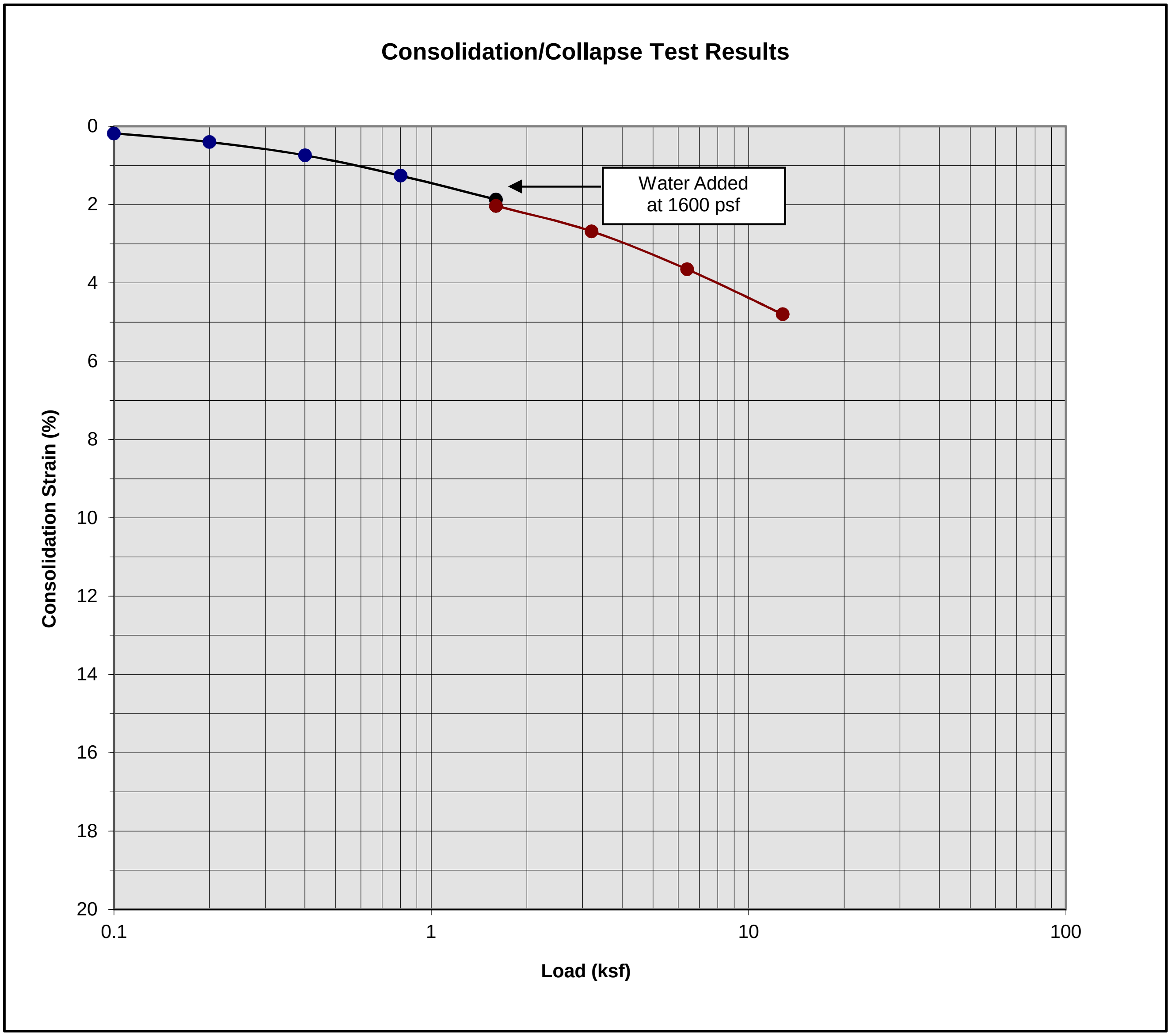

Classification: Brown fine Sandy Clay, trace to little Silt

Boring Number:	B-11	Initial Moisture Content (%)	9
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	3 to 4	Initial Dry Density (pcf)	114.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.16

Consolidation/Collapse Test Results

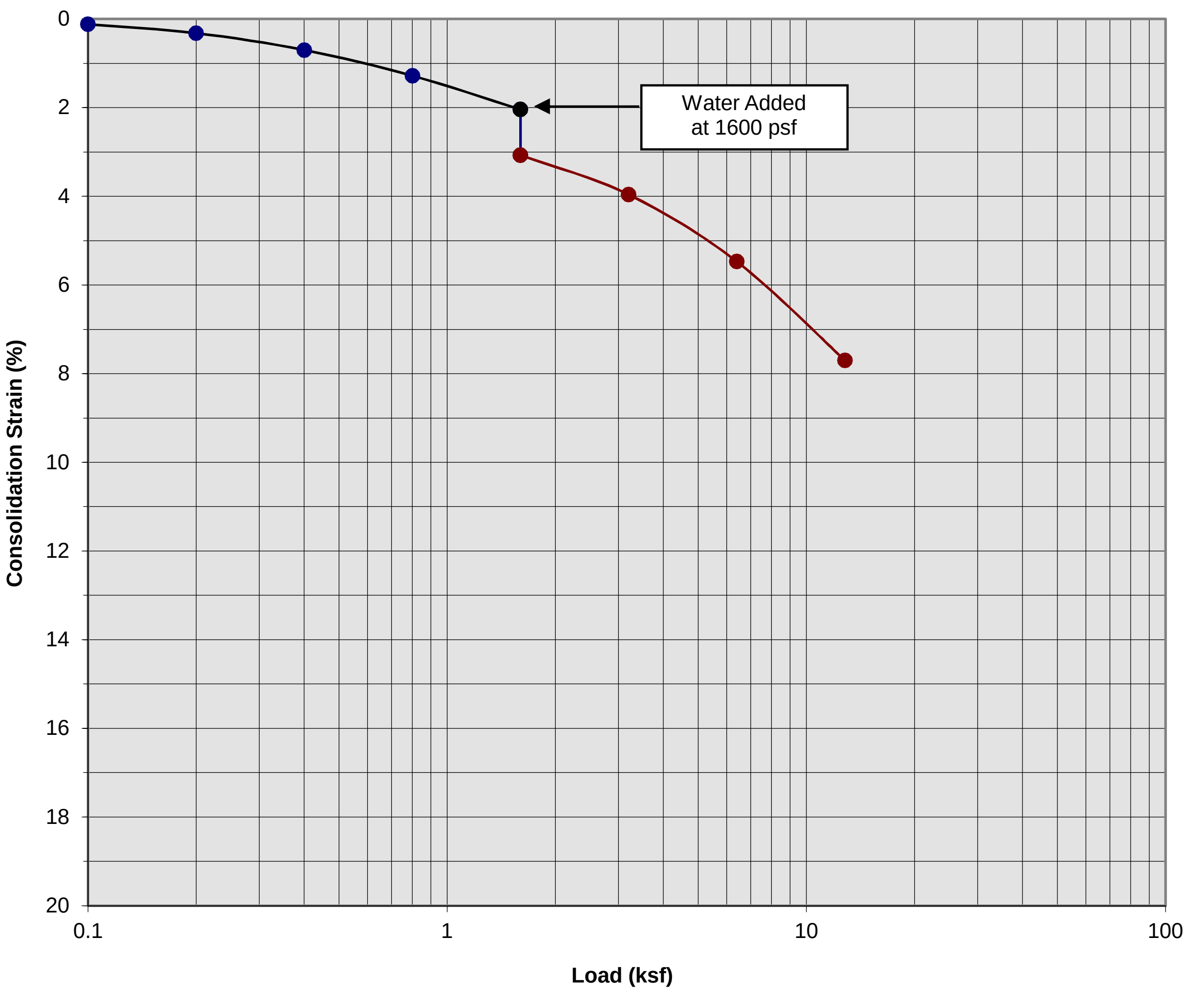

Classification: Brown Clayey Silt, trace fine Sand

Boring Number:	B-11	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	5 to 6	Initial Dry Density (pcf)	108.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	117.6
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.03

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 7

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
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Consolidation/Collapse Test Results

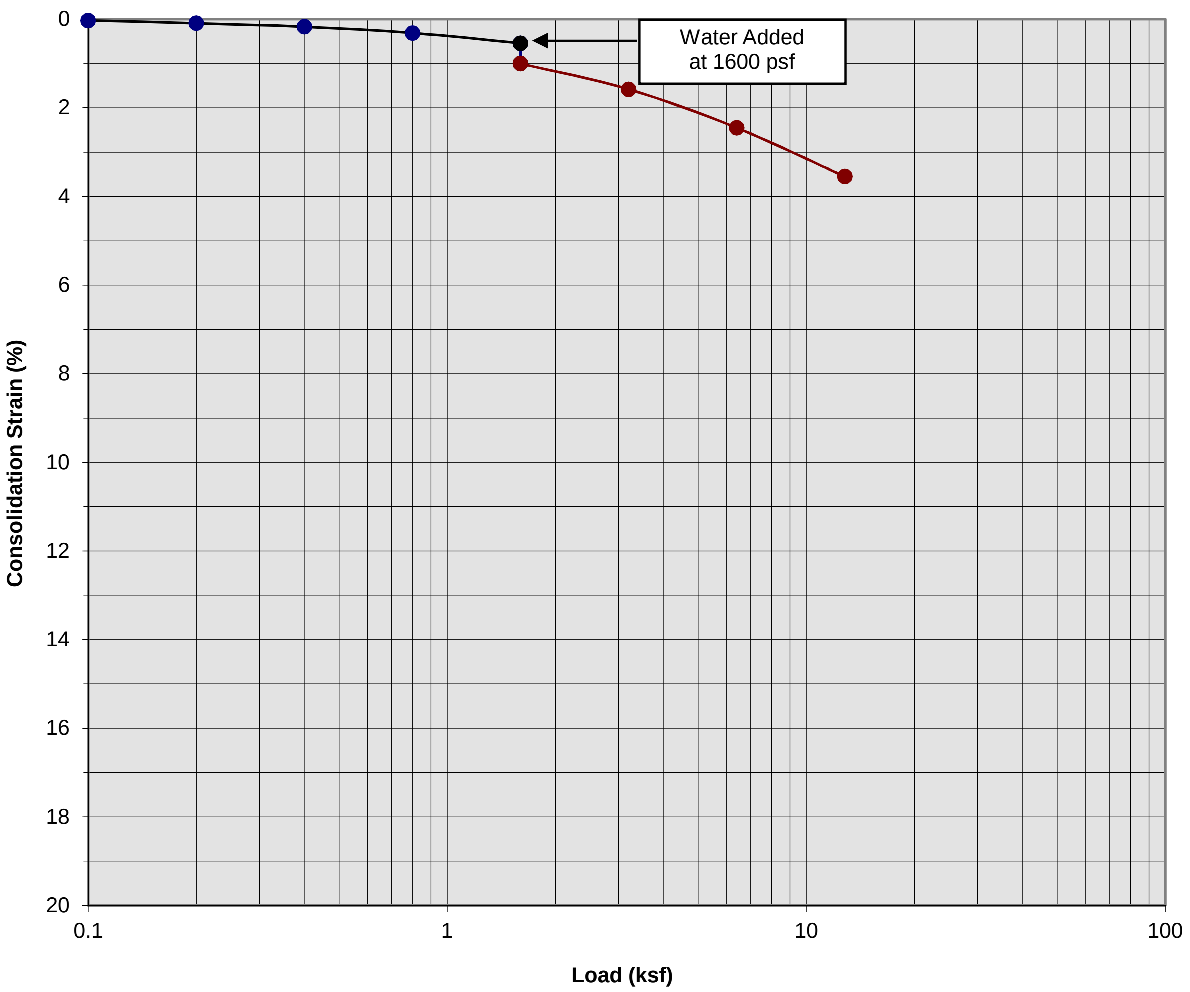

Classification: Brown Clayey Silt, trace fine Sand

Boring Number:	B-11	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	7 to 8	Initial Dry Density (pcf)	115.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.6
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.46

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160

PLATE C- 8

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Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Consolidation/Collapse Test Results

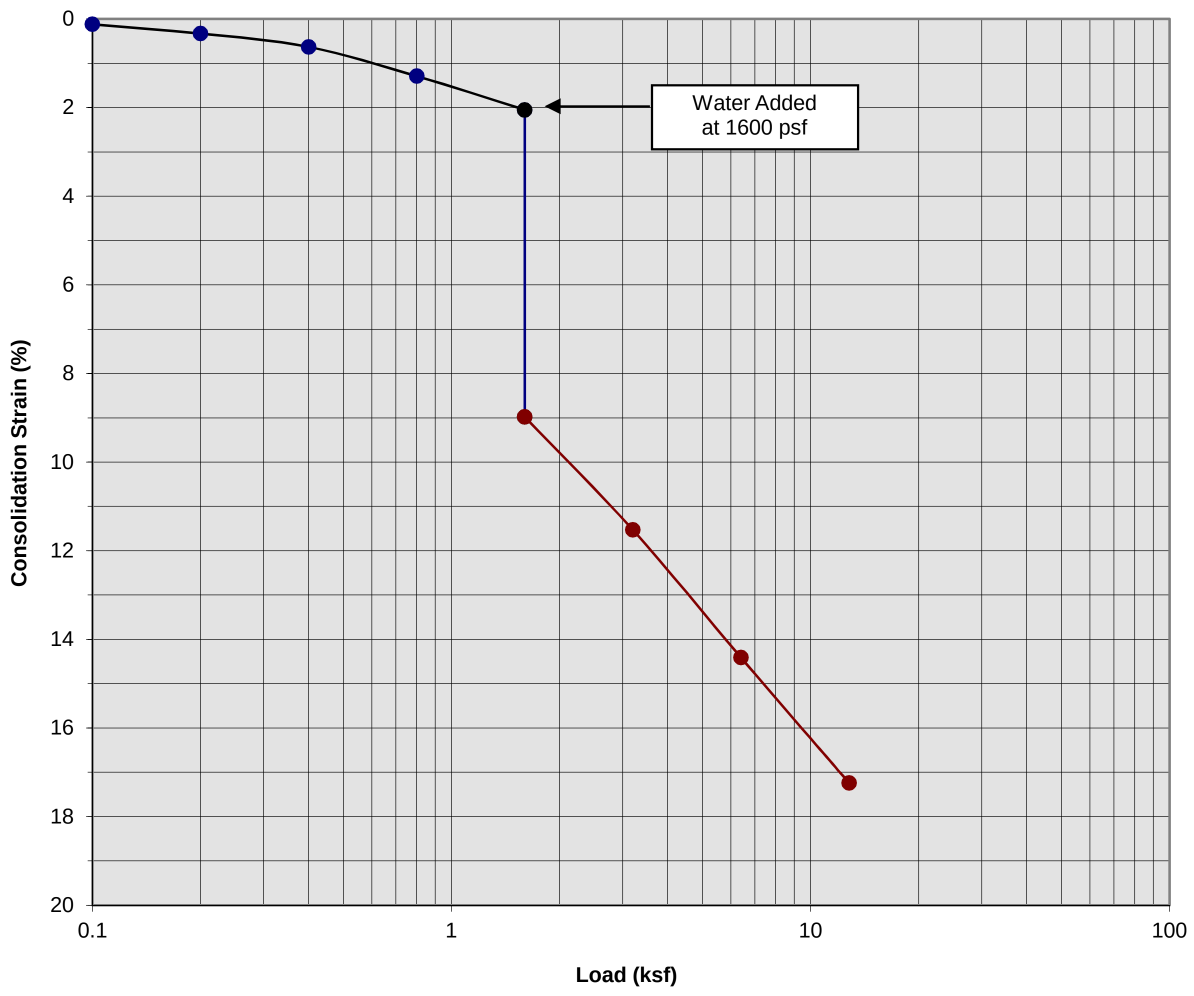

Classification: Dark Brown Silty fine Sand, trace to little Clay

Boring Number:	B-14	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	1 to 2	Initial Dry Density (pcf)	107.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	129.8
Specimen Thickness (in)	1.0	Percent Collapse (%)	6.93

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 9

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
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Consolidation/Collapse Test Results

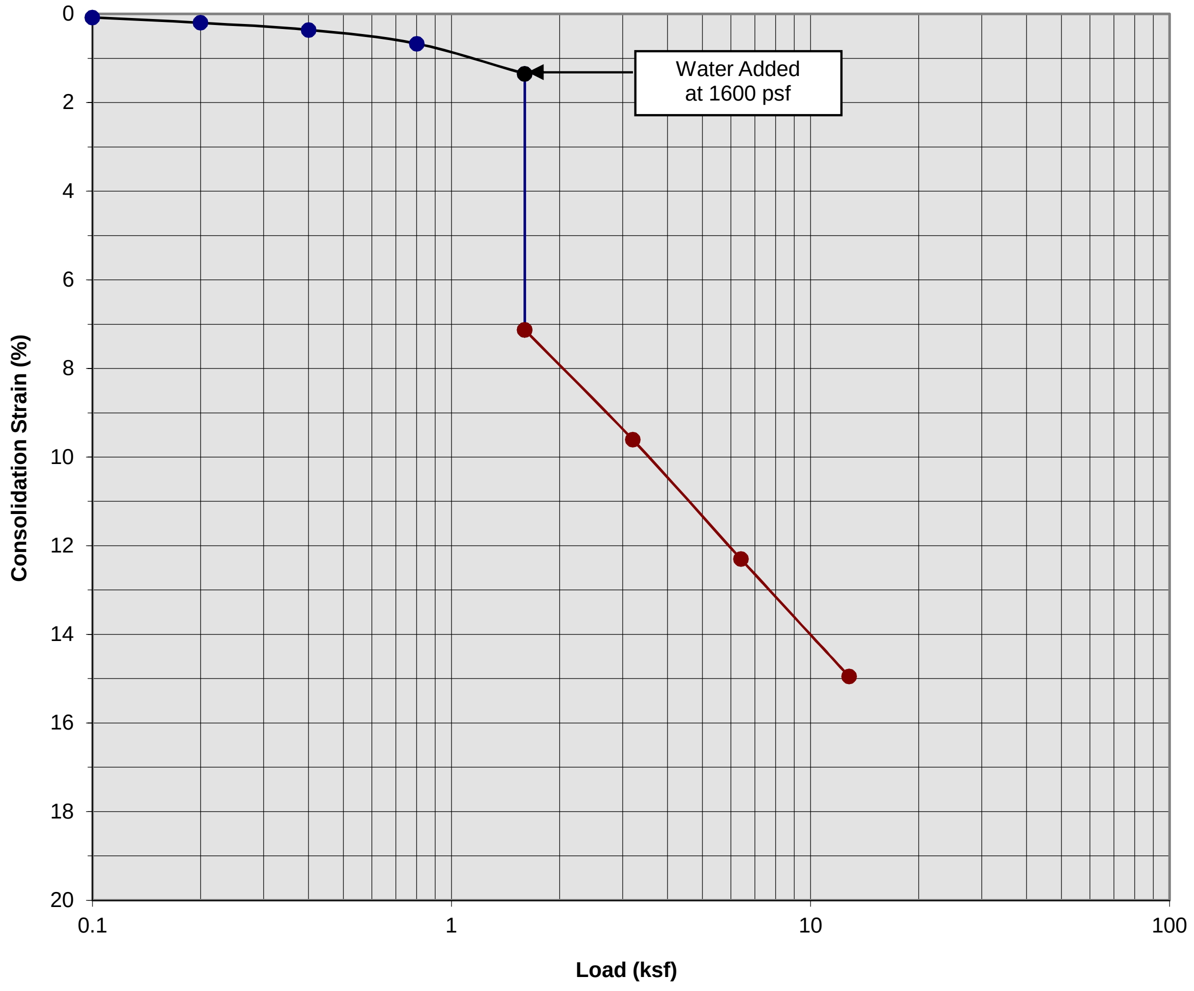

Classification: Dark Brown Silty fine Sand, trace to little Clay

Boring Number:	B-14	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	3 to 4	Initial Dry Density (pcf)	103.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.8
Specimen Thickness (in)	1.0	Percent Collapse (%)	5.78

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 10

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Consolidation/Collapse Test Results

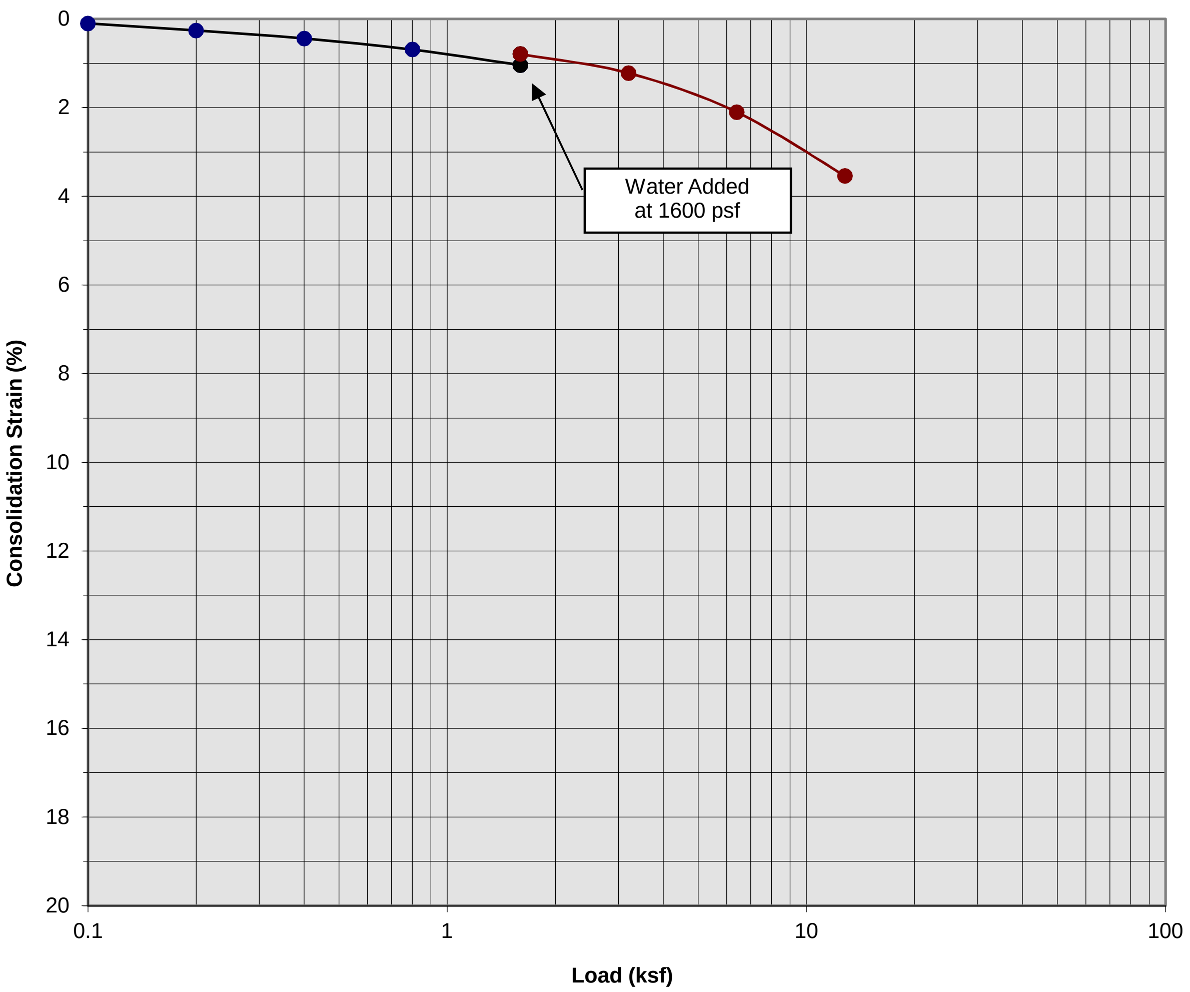

Classification: Dark Brown Silty fine Sand, trace to little Clay

Boring Number:	B-14	Initial Moisture Content (%)	16
Sample Number:	---	Final Moisture Content (%)	21
Depth (ft)	5 to 6	Initial Dry Density (pcf)	106.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	110.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	-0.25

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 11

SoCalGeo
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A California Corporation

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Consolidation/Collapse Test Results

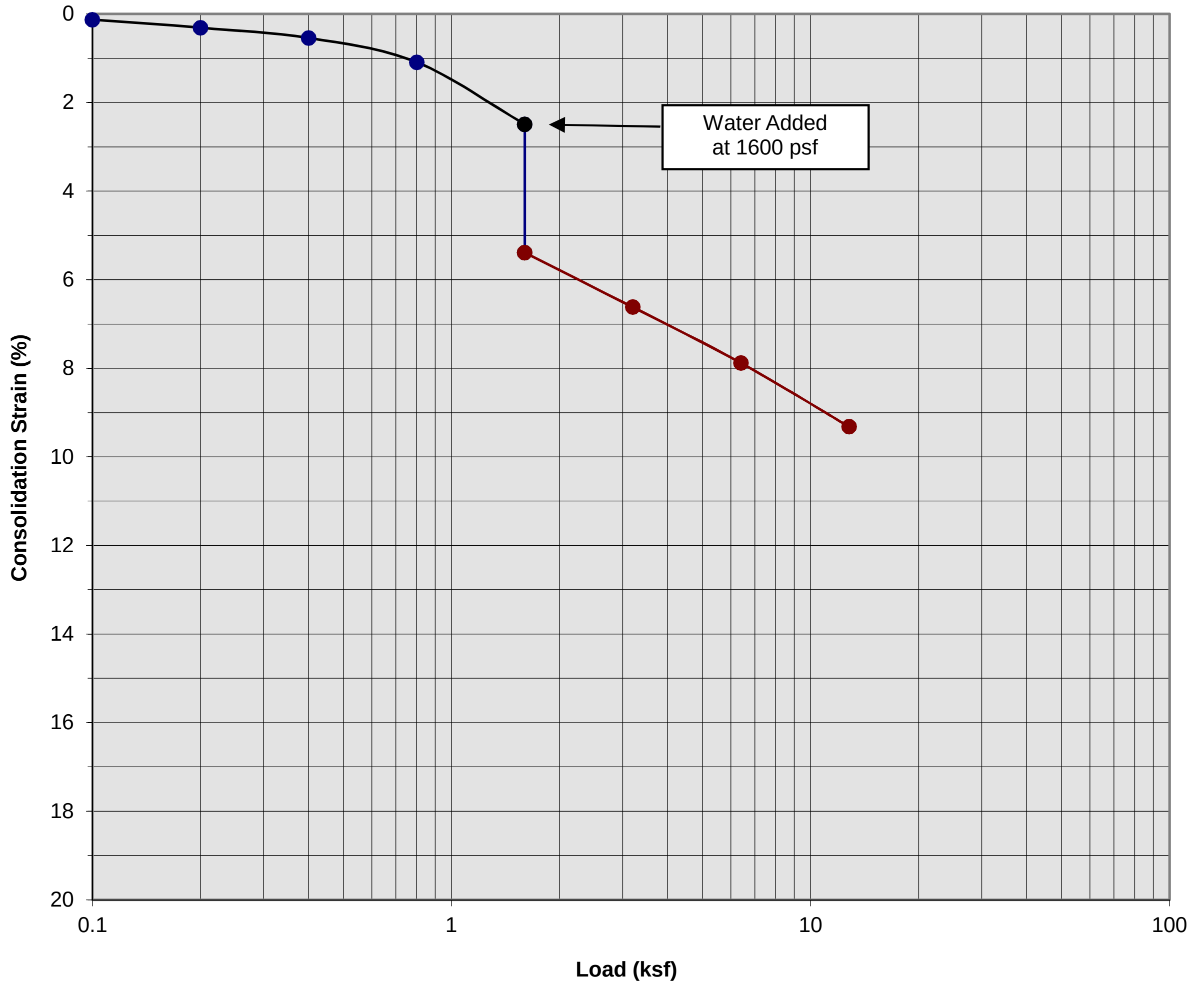

Classification: Brown fine Sandy Clay, little Silt

Boring Number:	B-14	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	7 to 8	Initial Dry Density (pcf)	118.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	131.6
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.90

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 12

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL
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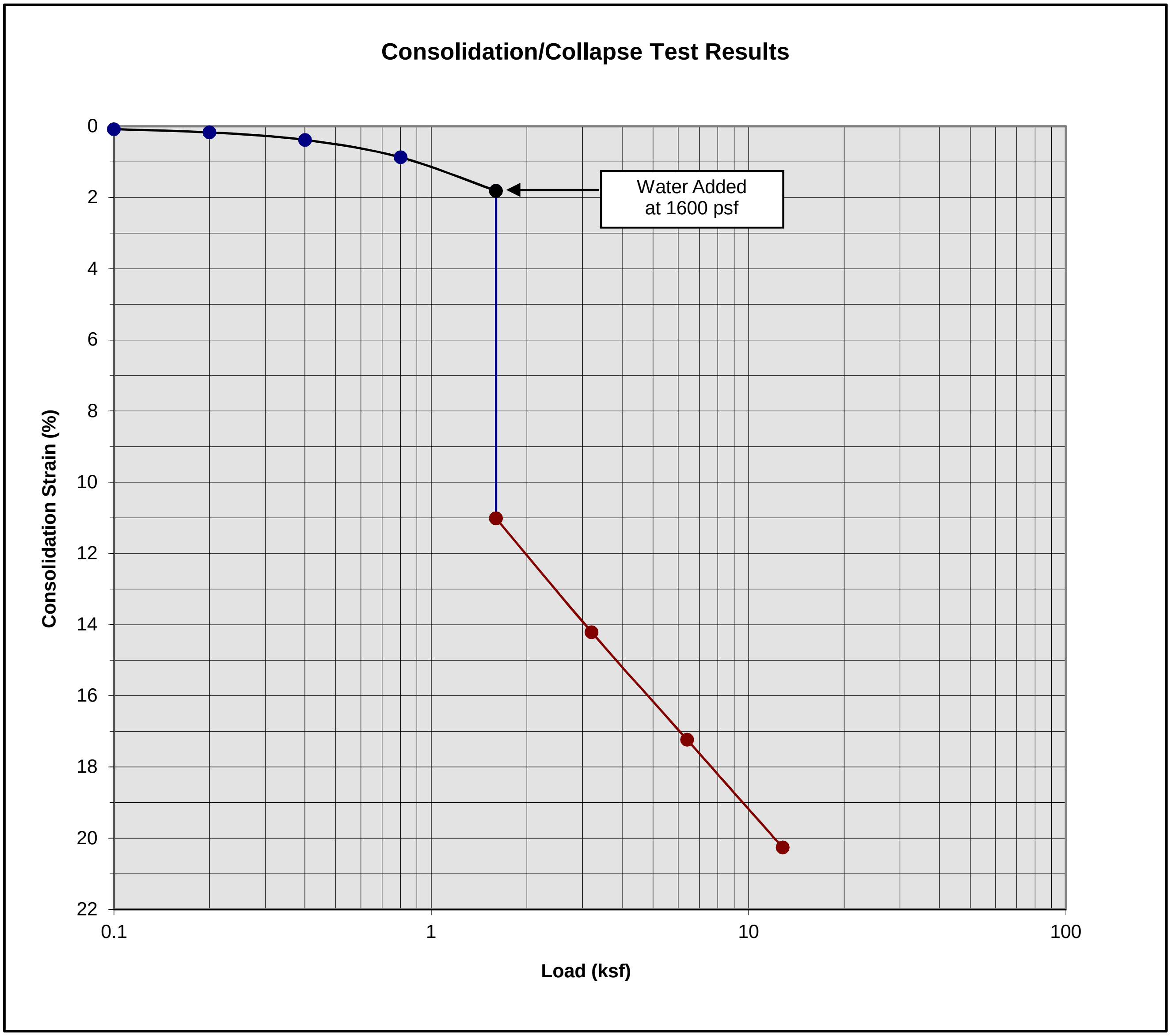

Classification: Brown Silty fine Sand, some Clay, trace medium Sand

Boring Number:	B-16	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	1 to 2	Initial Dry Density (pcf)	100.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	126.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	9.20

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 13

SoCalGeo
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CALIFORNIA
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Consolidation/Collapse Test Results

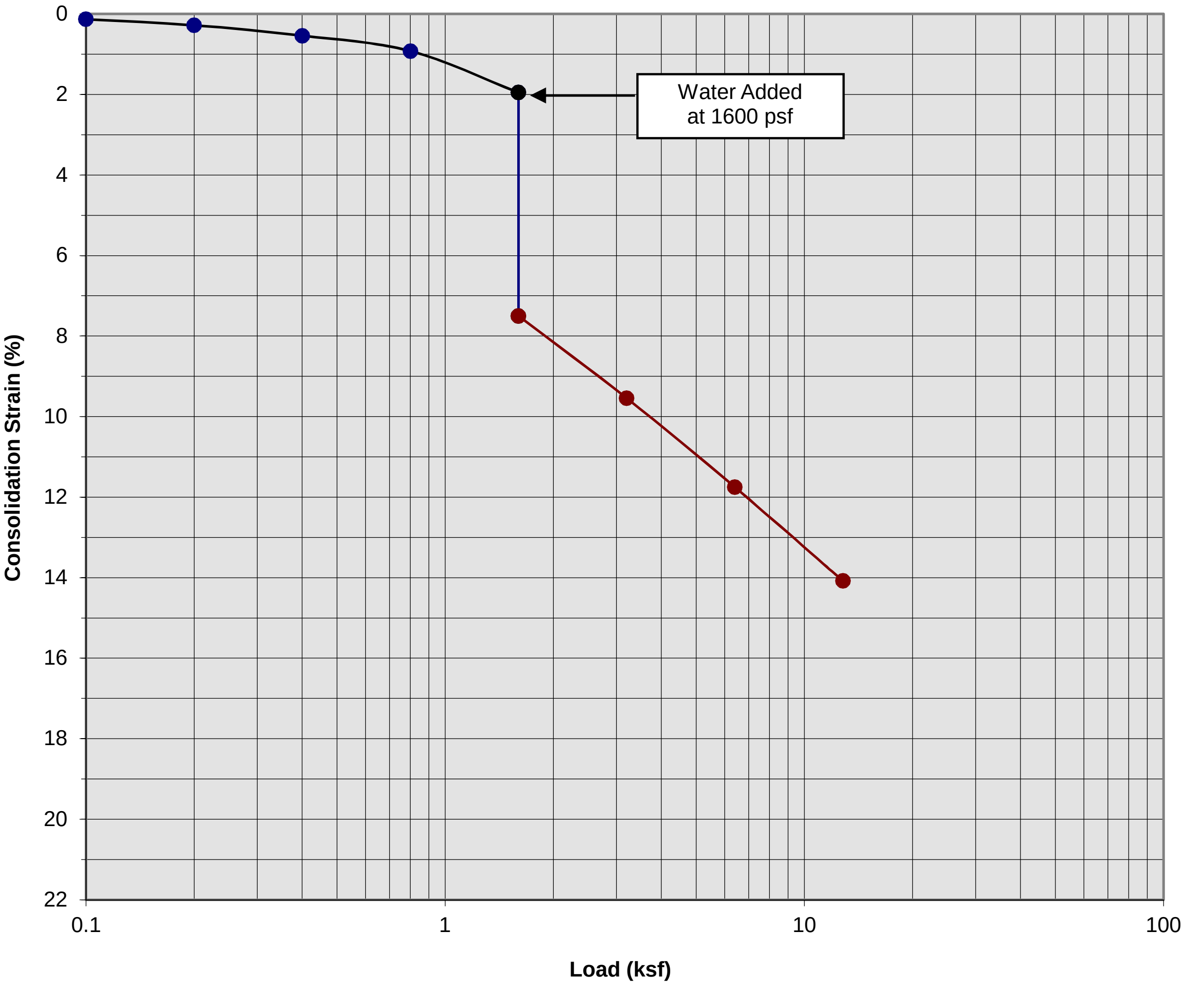

Classification: Brown Silty fine to medium Sand, trace coarse Sand, trace Clay

Boring Number:	B-16	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	13
Depth (ft)	3 to 4	Initial Dry Density (pcf)	114.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	132.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	5.55

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 14

SOUTHERN CALIFORNIA GEOTECHNICAL
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Consolidation/Collapse Test Results

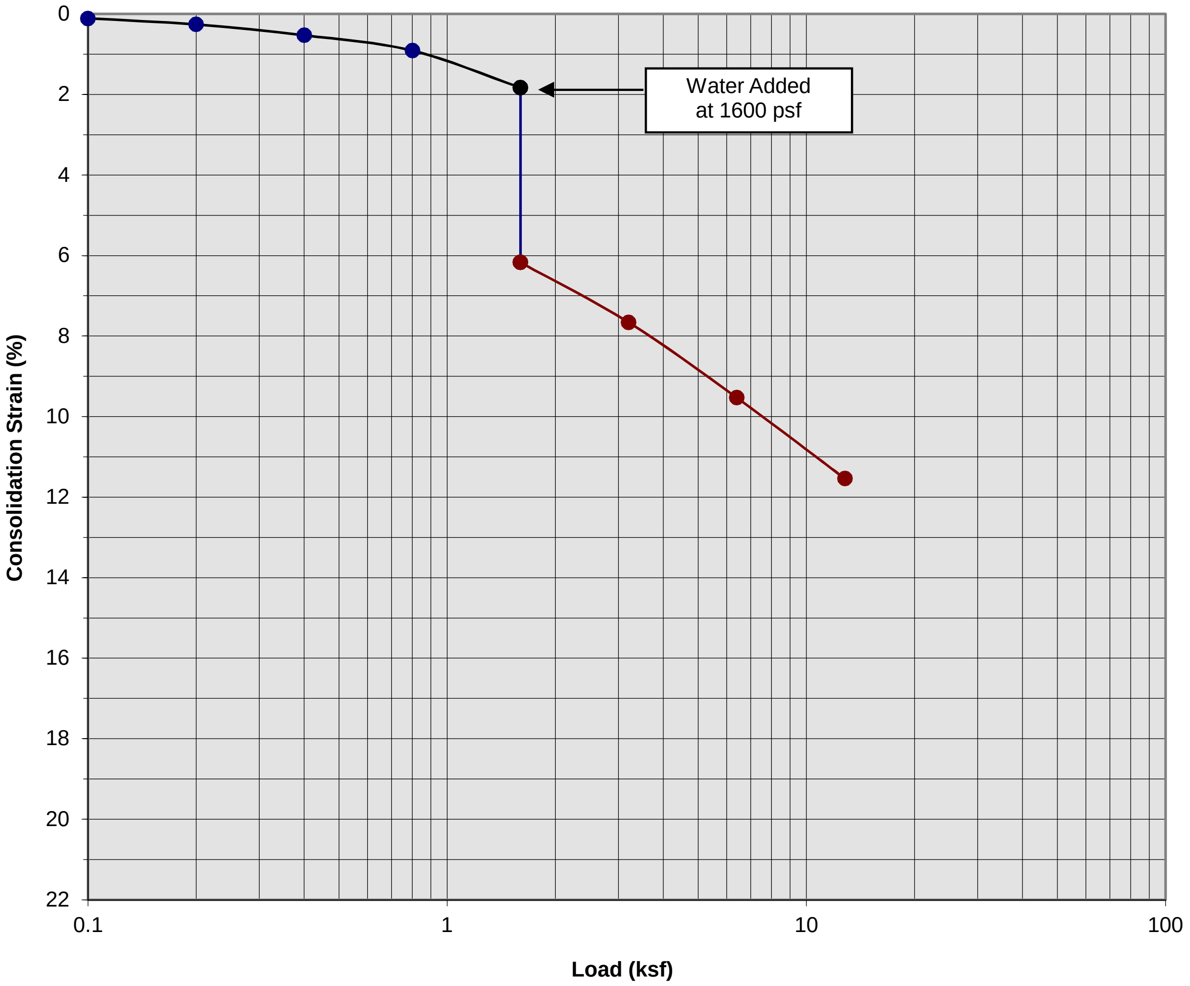

Classification: Brown fine to coarse Sand, some Silt

Boring Number:	B-16	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	5 to 6	Initial Dry Density (pcf)	109.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	123.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	4.34

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 15

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
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Consolidation/Collapse Test Results

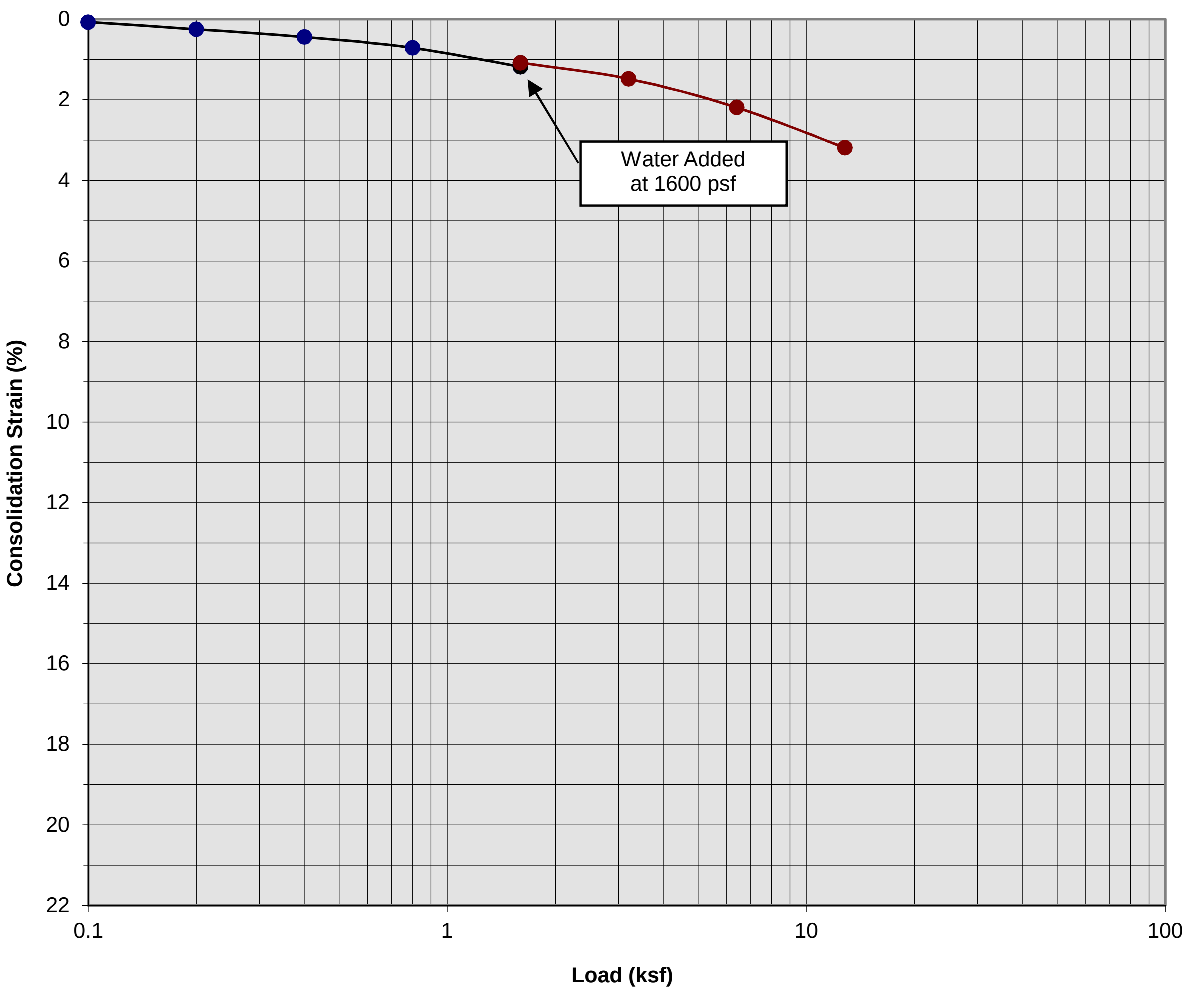

Classification: Dark Brown Silty Clay, trace fine Sand

Boring Number:	B-16	Initial Moisture Content (%)	12
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	7 to 8	Initial Dry Density (pcf)	121.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	125.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	-0.10

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 16

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL *A California Corporation*

Consolidation/Collapse Test Results

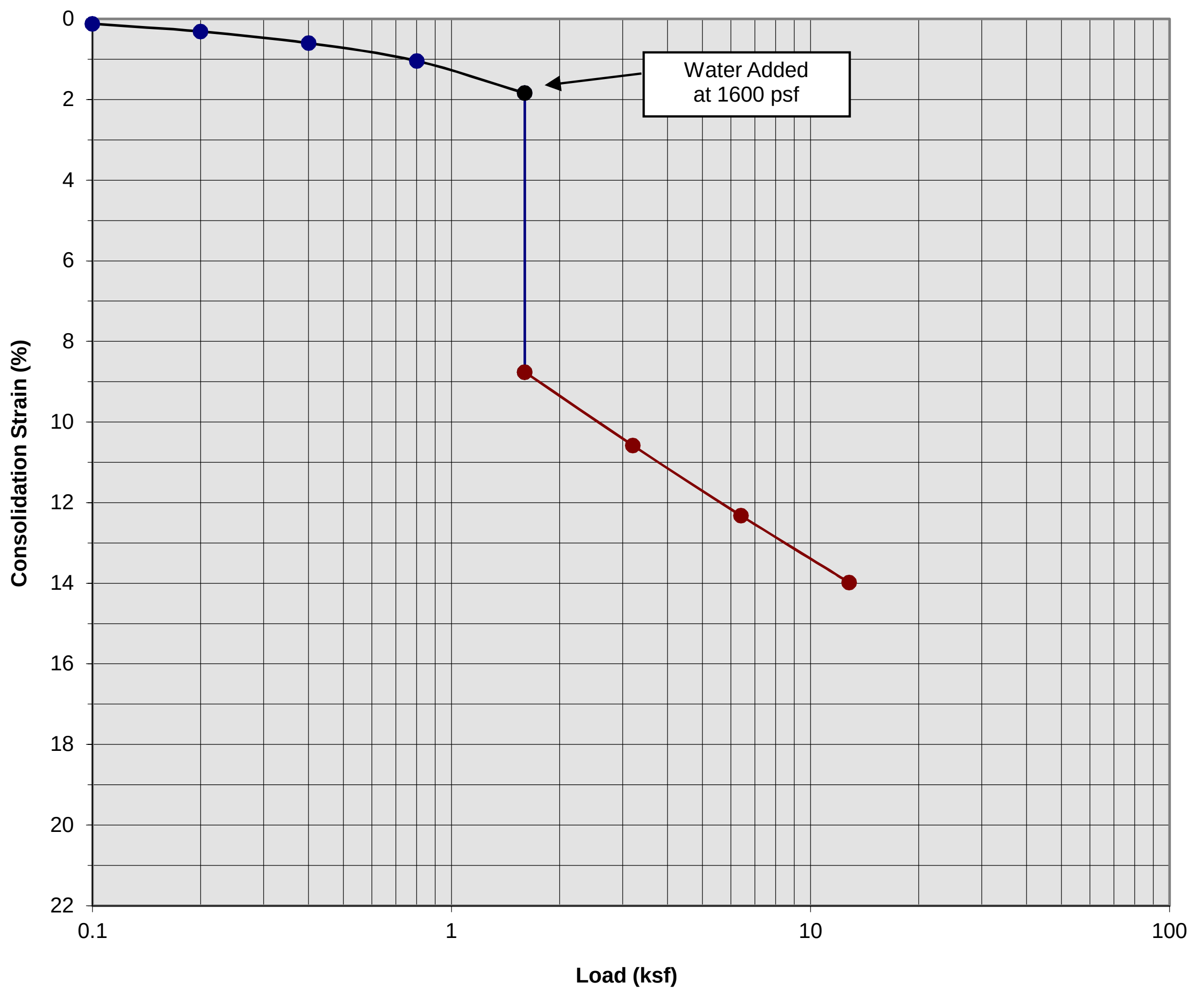

Classification: Gray Brown Silty fine Sand to fine Sandy Silt, trace coarse Sand

Boring Number:	B-19	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	1 to 2	Initial Dry Density (pcf)	105.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	6.92

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 17

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
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Consolidation/Collapse Test Results

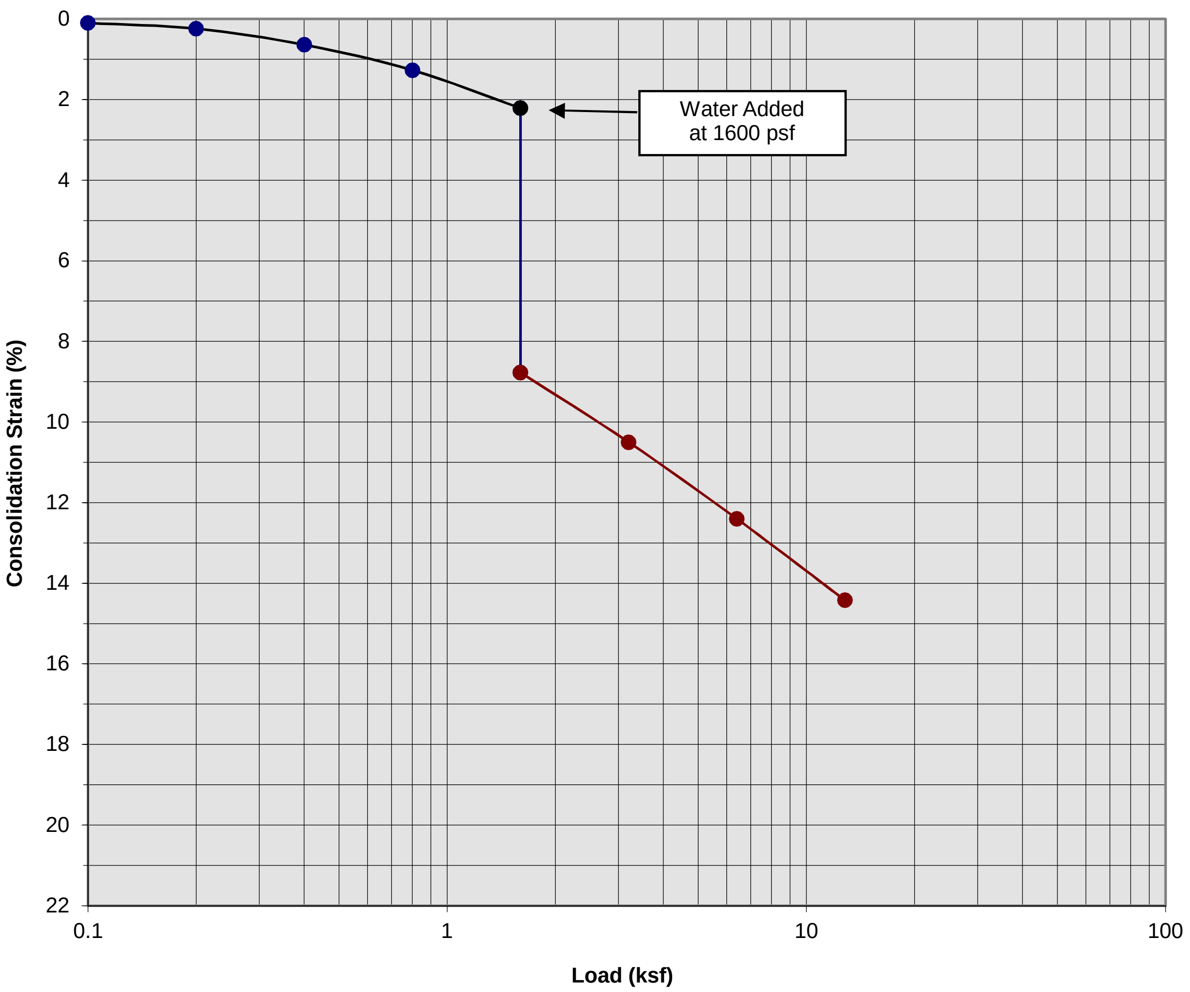

Classification: Brown Silty fine to medium Sand

Boring Number:	B-19	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	11
Depth (ft)	3 to 4	Initial Dry Density (pcf)	107.5
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	125.8
Specimen Thickness (in)	1.0	Percent Collapse (%)	6.56

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Moreno Valley, California
Project No. 14G160
PLATE C- 18

SoCalGeo
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Consolidation/Collapse Test Results

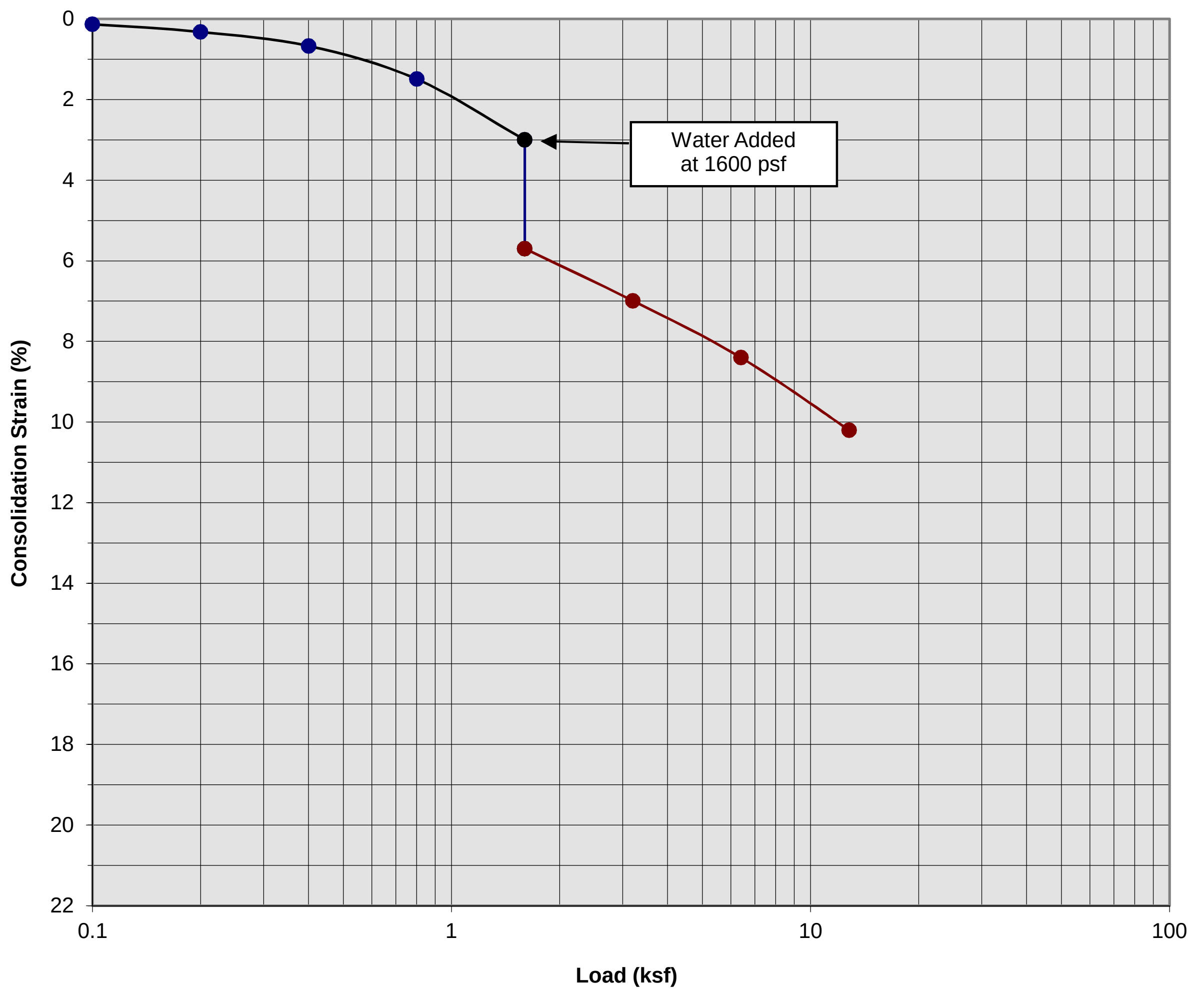

Classification: Gray Brown Silty fine Sand, trace Clay, little medium to coarse Sand

Boring Number:	B-19	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	5 to 6	Initial Dry Density (pcf)	117.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	130.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.70

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 19

SoCalGeo
SOUTHERN
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GEOTECHNICAL
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Consolidation/Collapse Test Results

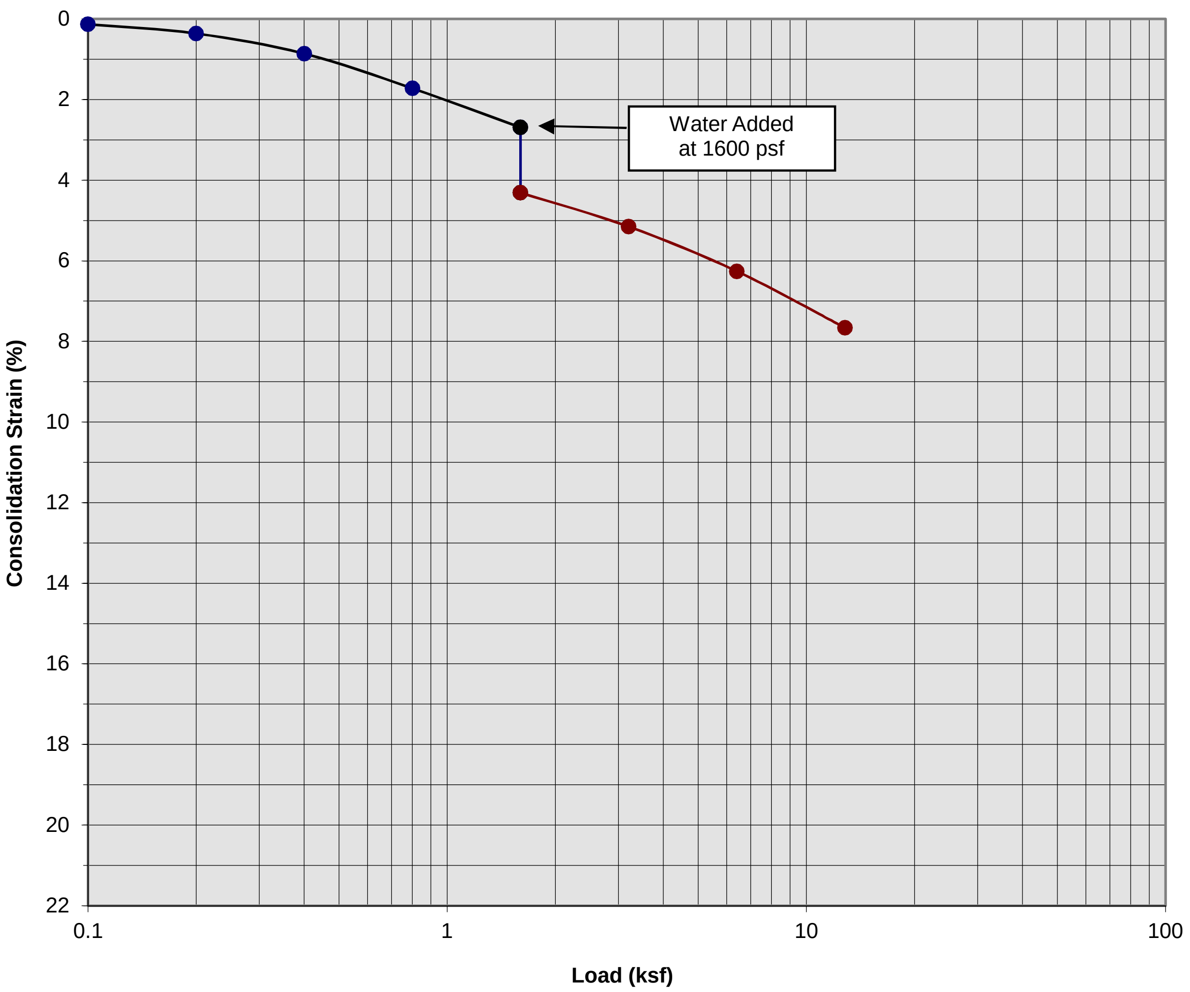

Classification: Gray Brown Clayey fine Sand, trace Silt, trace to little medium Sand

Boring Number:	B-19	Initial Moisture Content (%)	6
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	7 to 8	Initial Dry Density (pcf)	121.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	131.6
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.62

Prop. Moreno Valley Logistics Center
Moreno Valley, California
Project No. 14G160
PLATE C- 20

SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
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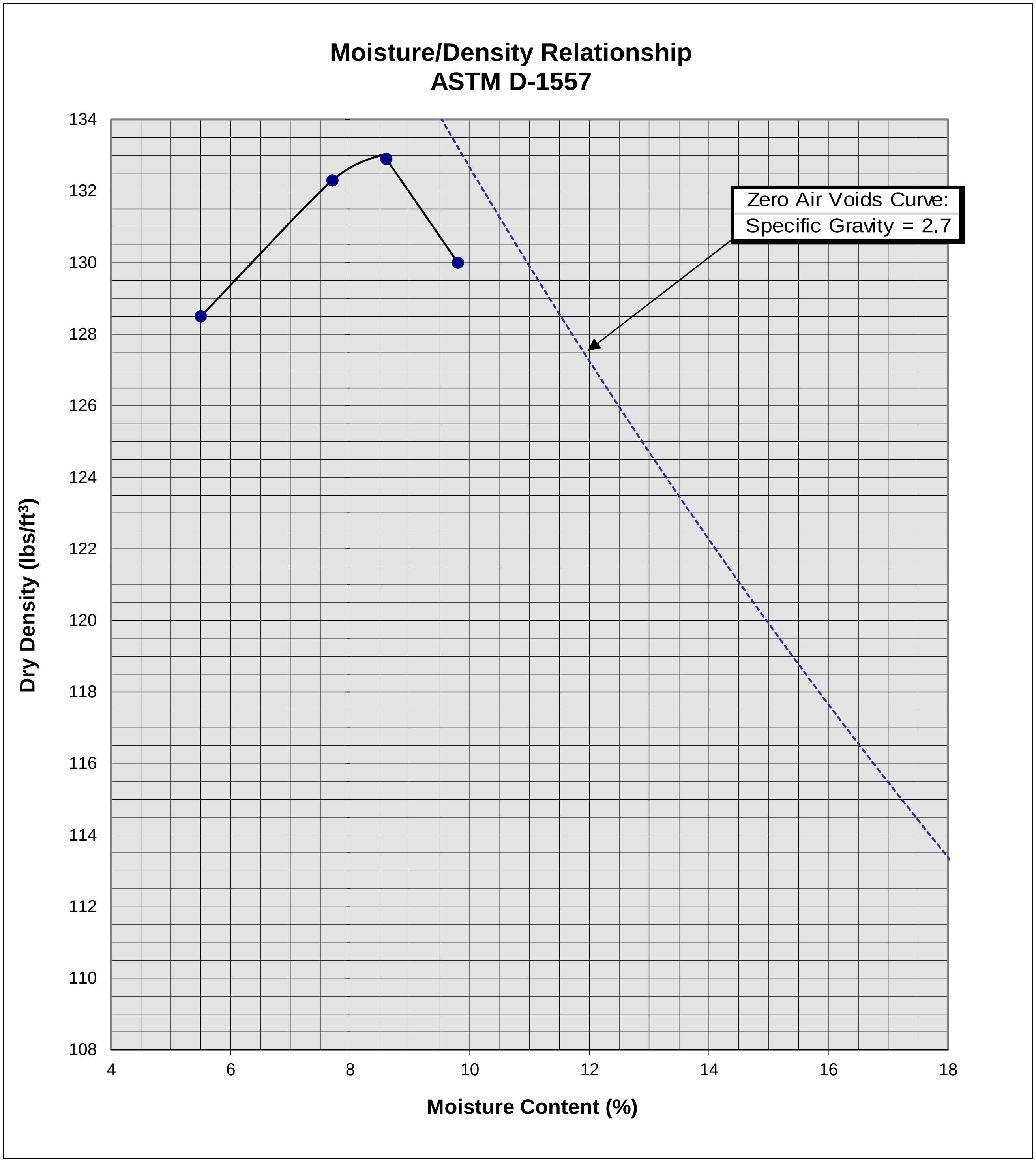

Soil ID Number	B-8 @ 0 to 5'
Optimum Moisture (%)	8.5
Maximum Dry Density (pcf)	133
Soil Classification	Brown Silty fine Sand, little Clay

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Moreno Valley, California
Project No. 14G160

PLATE C-21

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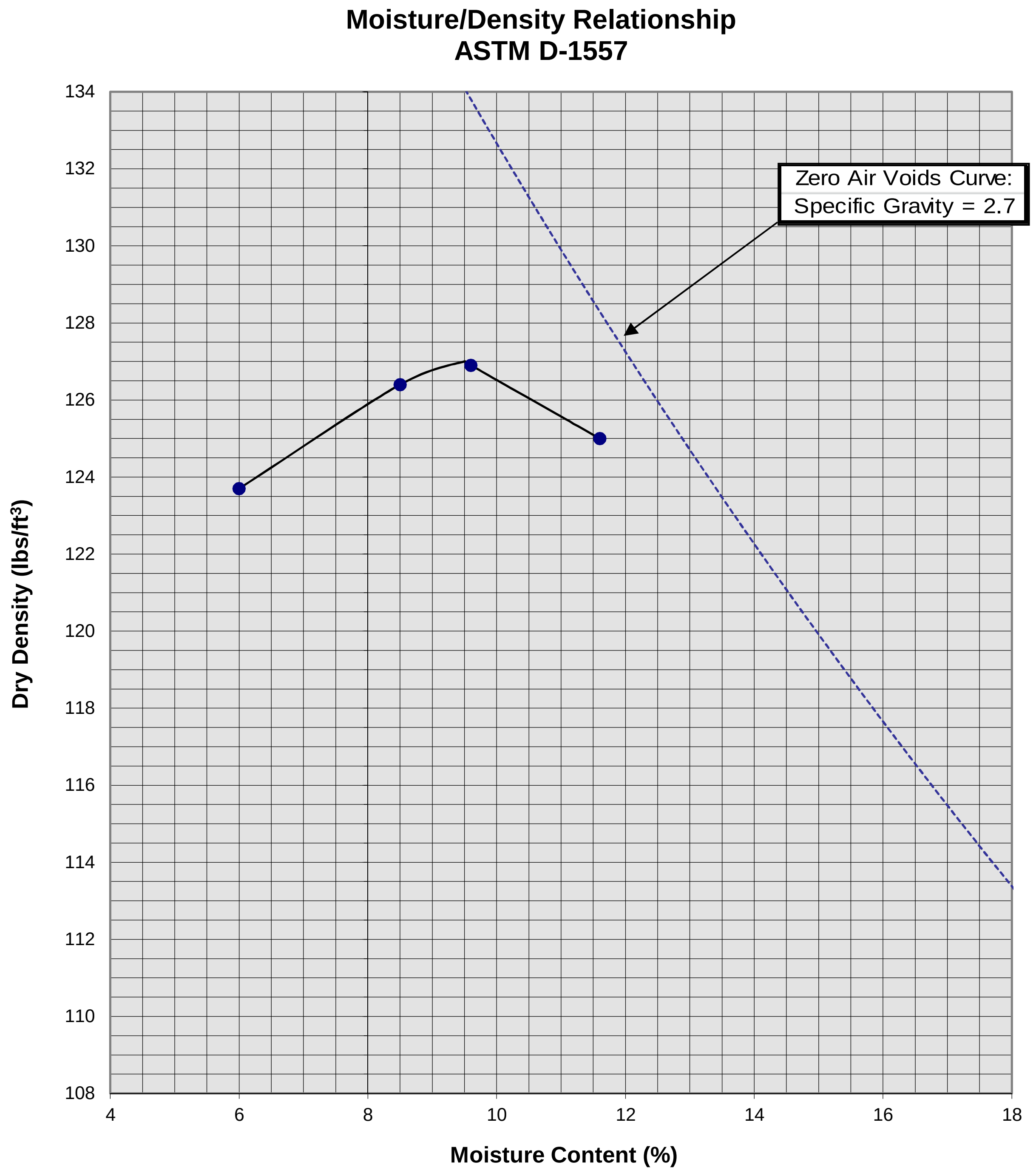

Soil ID Number	B-13 @ 0 to 3'
Optimum Moisture (%)	9.5
Maximum Dry Density (pcf)	127
Soil Classification	Dark Brown Silty fine Sand

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Moreno Valley, California
Project No. 14G160

PLATE C-22

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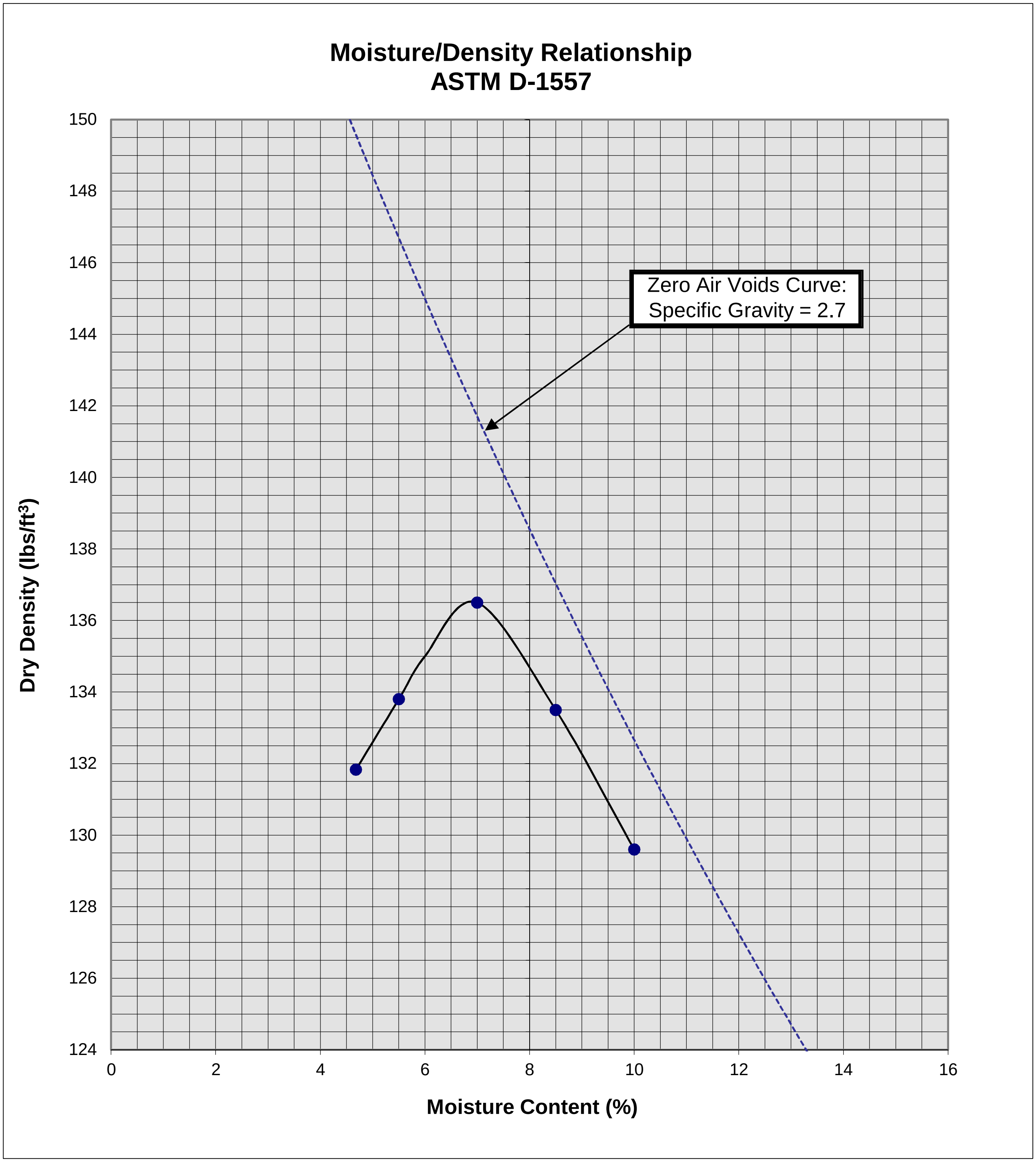

Soil ID Number	B-21 @ 0 to 3'
Optimum Moisture (%)	7
Maximum Dry Density (pcf)	136.5
Soil Classification	Brown Silty fine to medium Sand, trace coarse Sand

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Moreno Valley, California
Project No. 14G160

PLATE C-23

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SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.
- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.
- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.
- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.
- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.
- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.
- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as "contaminated," and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

  - Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.
  - To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.
- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.
- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.
- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.
- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.
- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.
- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.
- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.
- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

<u>Subdrains</u>

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT

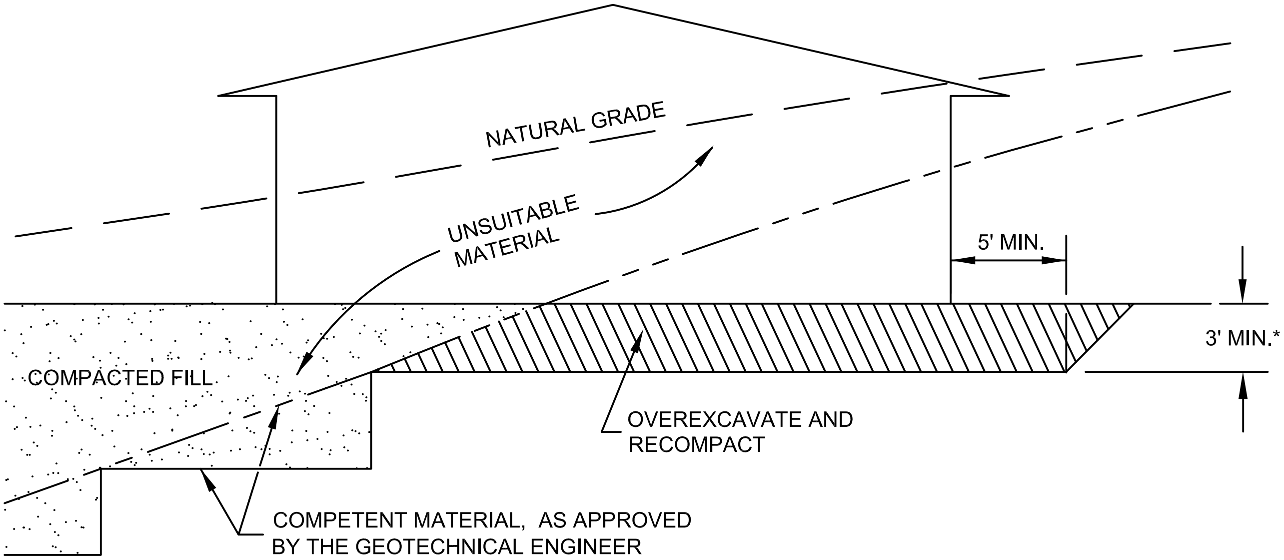

CUT/FILL LOT (TRANSITION)

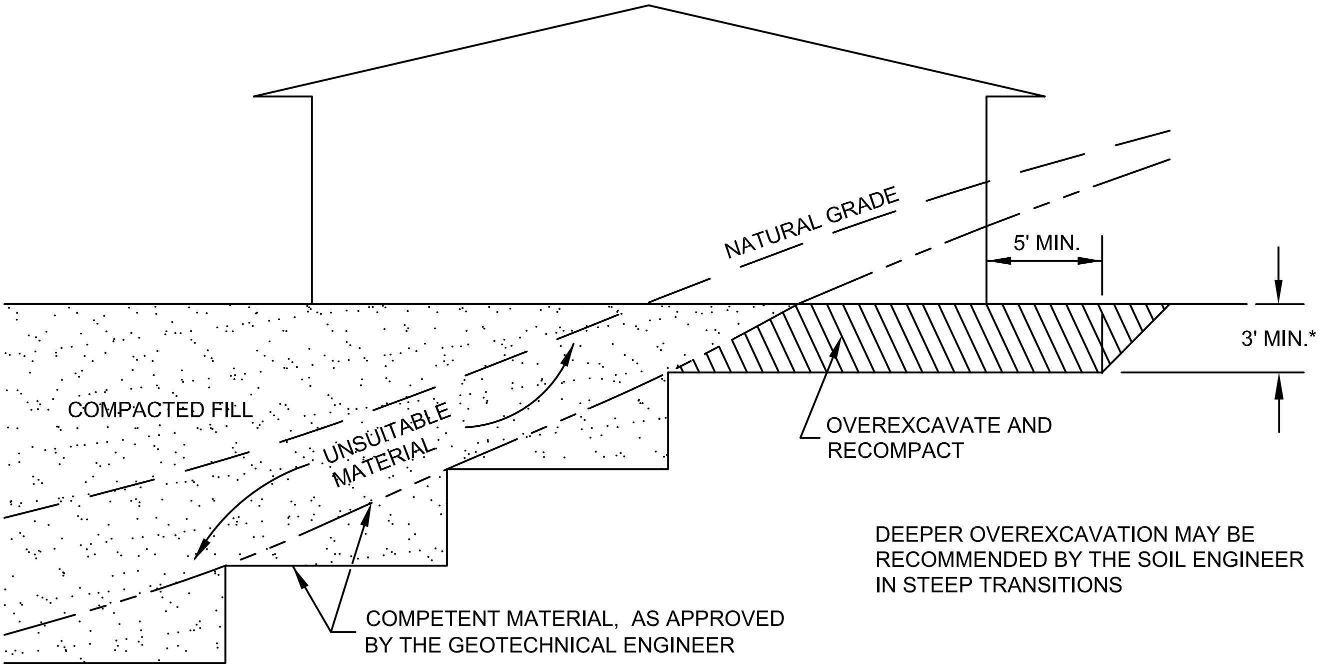

DEEPER OVEREXCAVATION MAY BE
RECOMMENDED BY THE SOIL ENGINEER
IN STEEP TRANSITIONS

*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION.
ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE
DRAWN: JAS
CHKD: GKM

PLATE D-1

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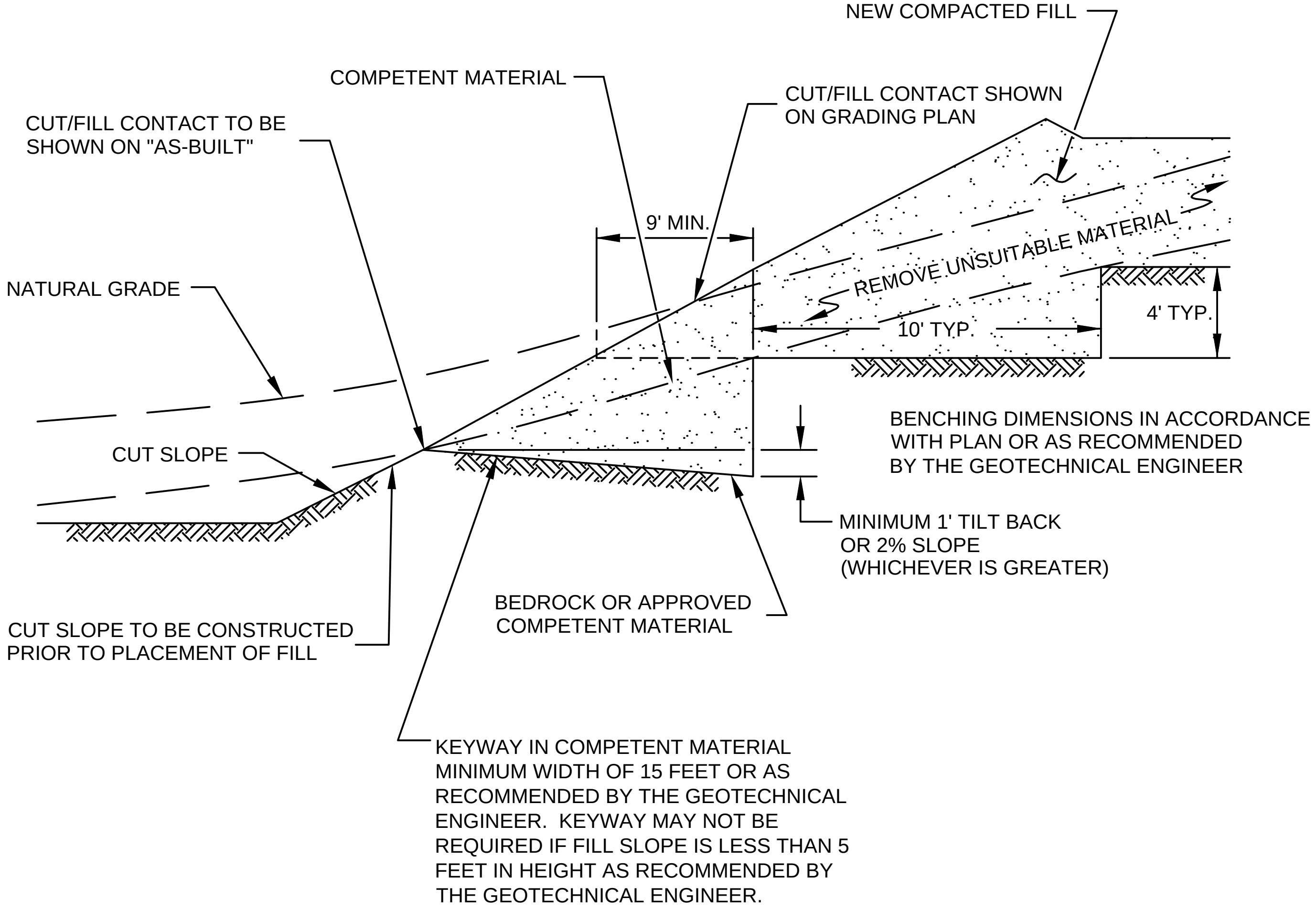

FILL ABOVE CUT SLOPE DETAIL
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE
DRAWN: JAS
CHKD: GKM
PLATE D-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

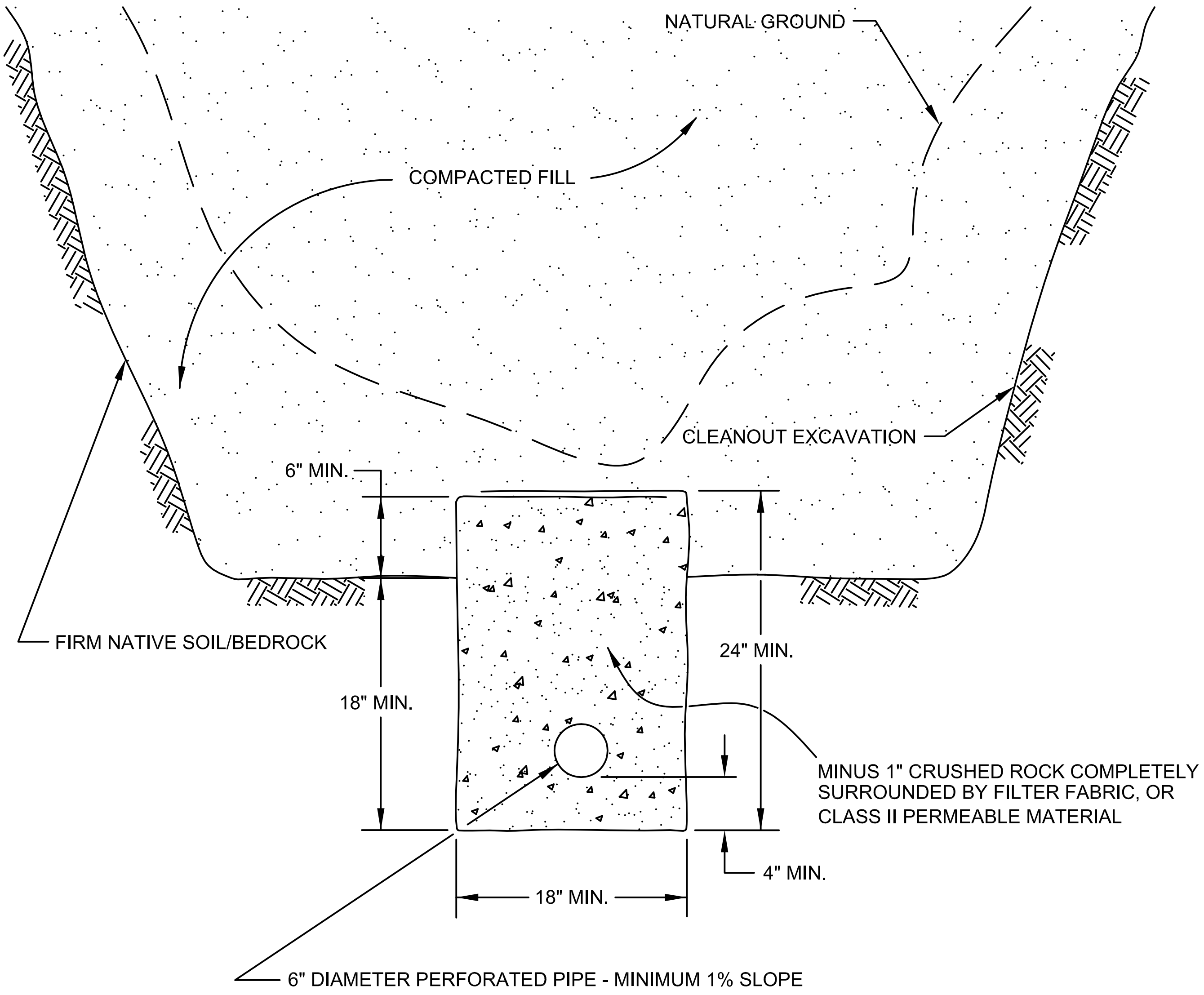

PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

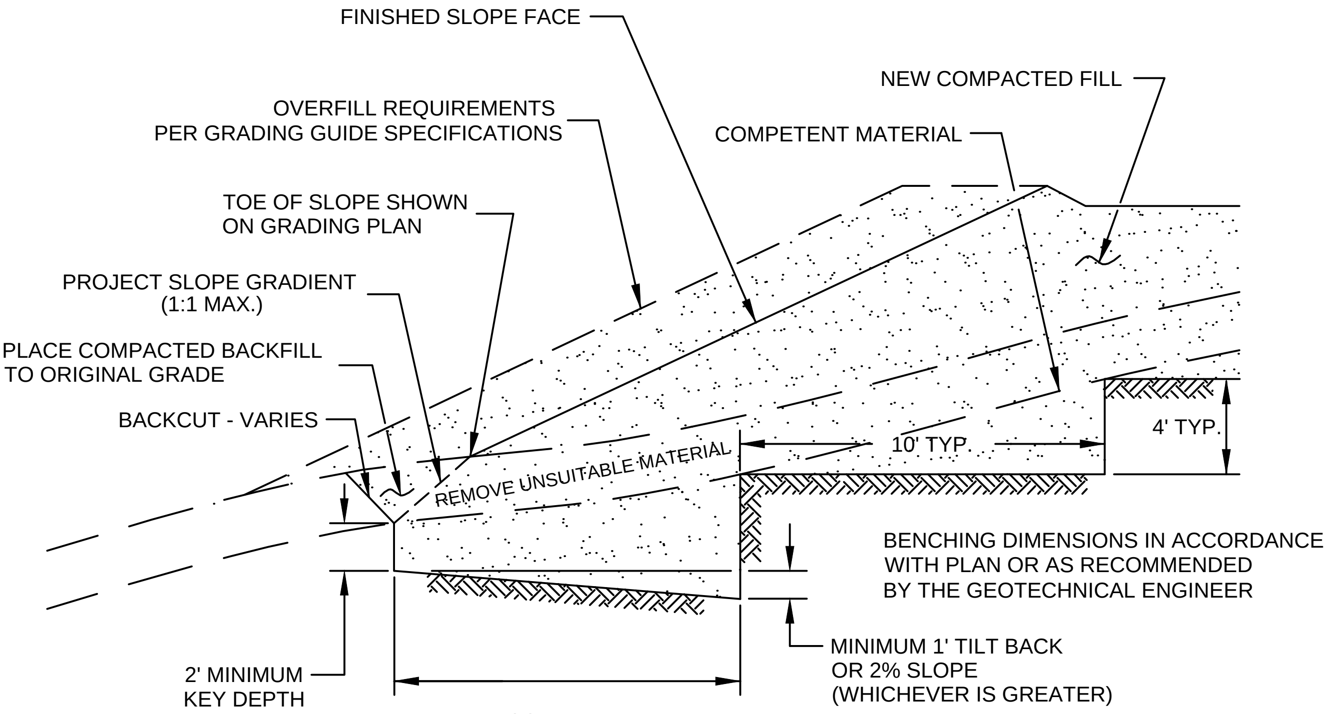

BENCHING DIMENSIONS IN ACCORDANCE WITH PLAN OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER

KEYWAY IN COMPETENT MATERIAL. MINIMUM WIDTH OF 15 FEET OR AS RECOMMENDED BY THE GEOTECHNIAL ENGINEER. KEYWAY MAY NOT BE REQUIRED IF FILL SLOPE IS LESS THAN 5' IN HEIGHT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

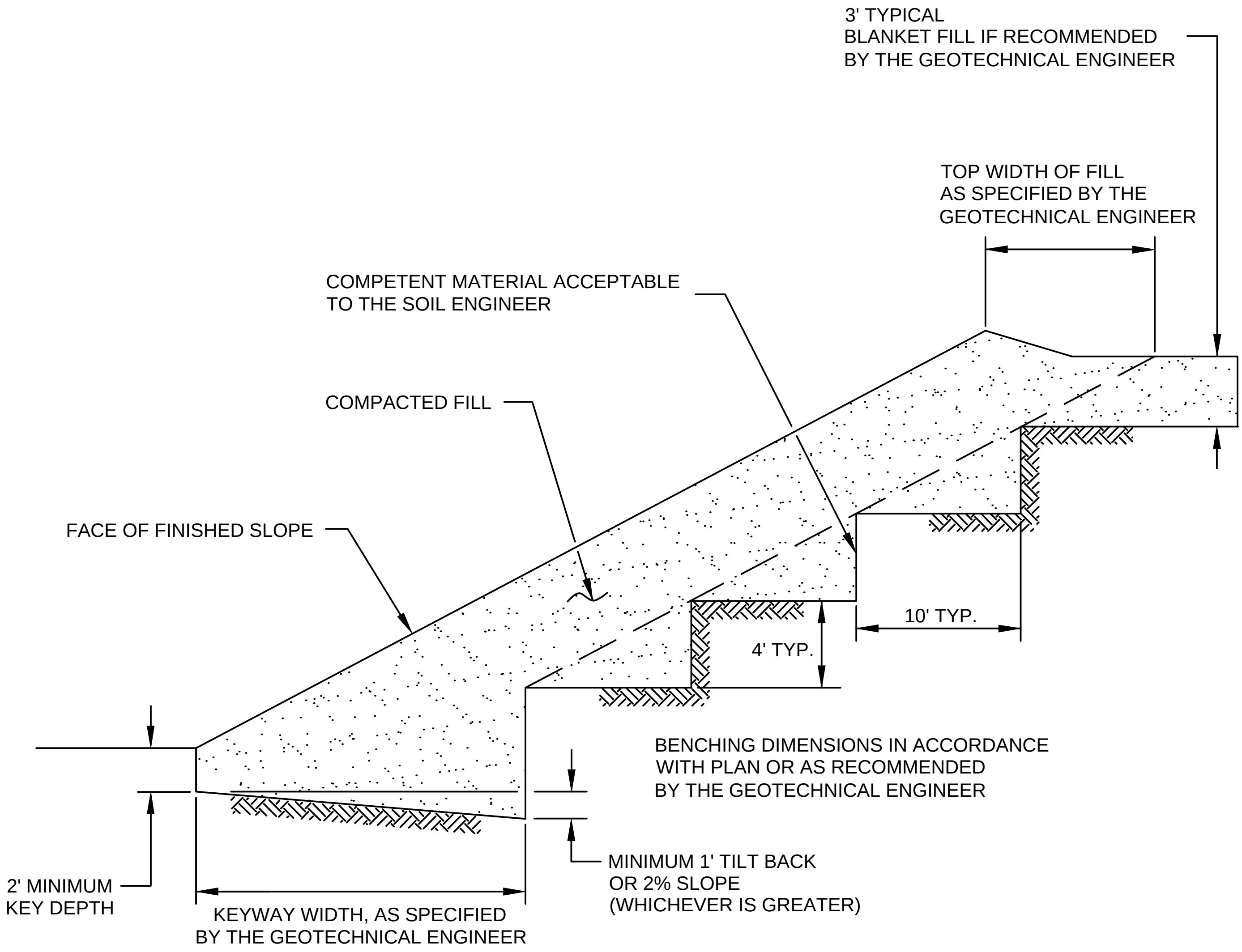

STABILIZATION FILL DETAIL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo

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CALIFORNIA
GEOTECHNICAL

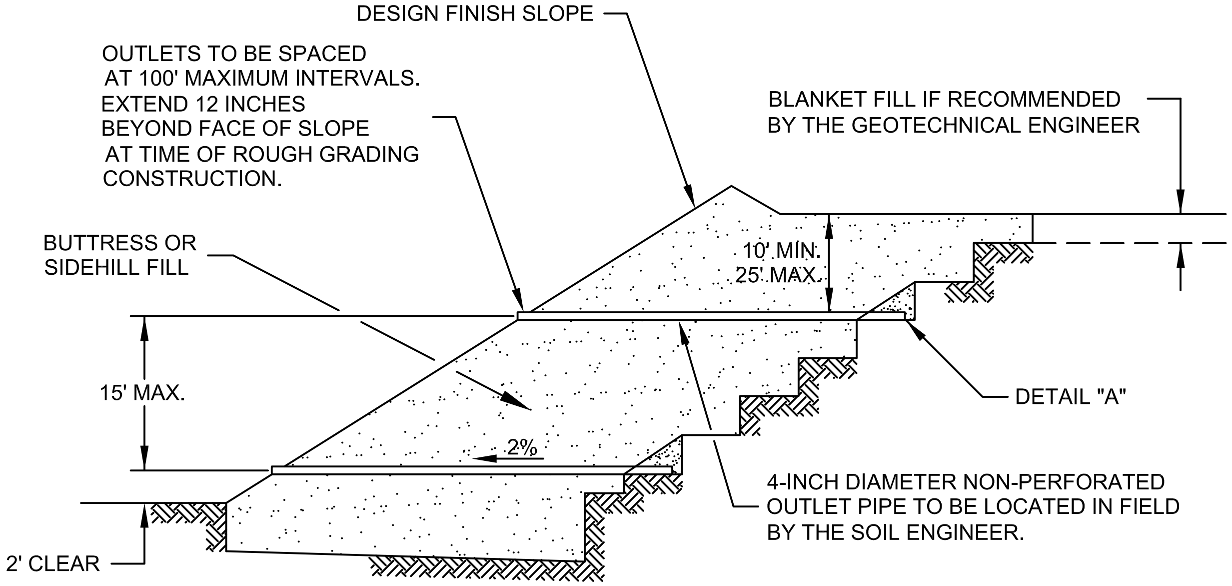

"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

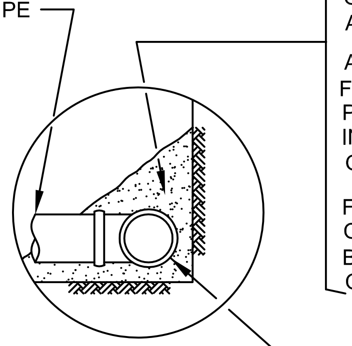

OUTLET PIPE TO BE CONNECTED TO SUBDRAIN PIPE WITH TEE OR ELBOW

FILTER MATERIAL - MINIMUM OF FIVE CUBIC FEET PER FOOT OF PIPE. SEE ABOVE FOR FILTER MATERIAL SPECIFICATION.

ALTERNATIVE: IN LIEU OF FILTER MATERIAL FIVE CUBIC FEET OF GRAVEL PER FOOT OF PIPE MAY BE ENCASED IN FILTER FABRIC. SEE ABOVE FOR GRAVEL SPECIFICATION.

FILTER FABRIC SHALL BE MIRAFI 140 OR EQUIVALENT. FILTER FABRIC SHALL BE LAPPED A MINIMUM OF 12 INCHES ON ALL JOINTS.

MINIMUM 4-INCH DIAMETER PVC SCH 40 OR ABS CLASS SDR 35 WITH A CRUSHING STRENGTH OF AT LEAST 1,000 POUNDS, WITH A MINIMUM OF 8 UNIFORMLY SPACED PERFORATIONS PER FOOT OF PIPE INSTALLED WITH PERFORATIONS ON BOTTOM OF PIPE. PROVIDE CAP AT UPSTREAM END OF PIPE. SLOPE AT 2 PERCENT TO OUTLET PIPE.

DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE
DRAWN: JAS
CHKD: GKM
PLATE D-6

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

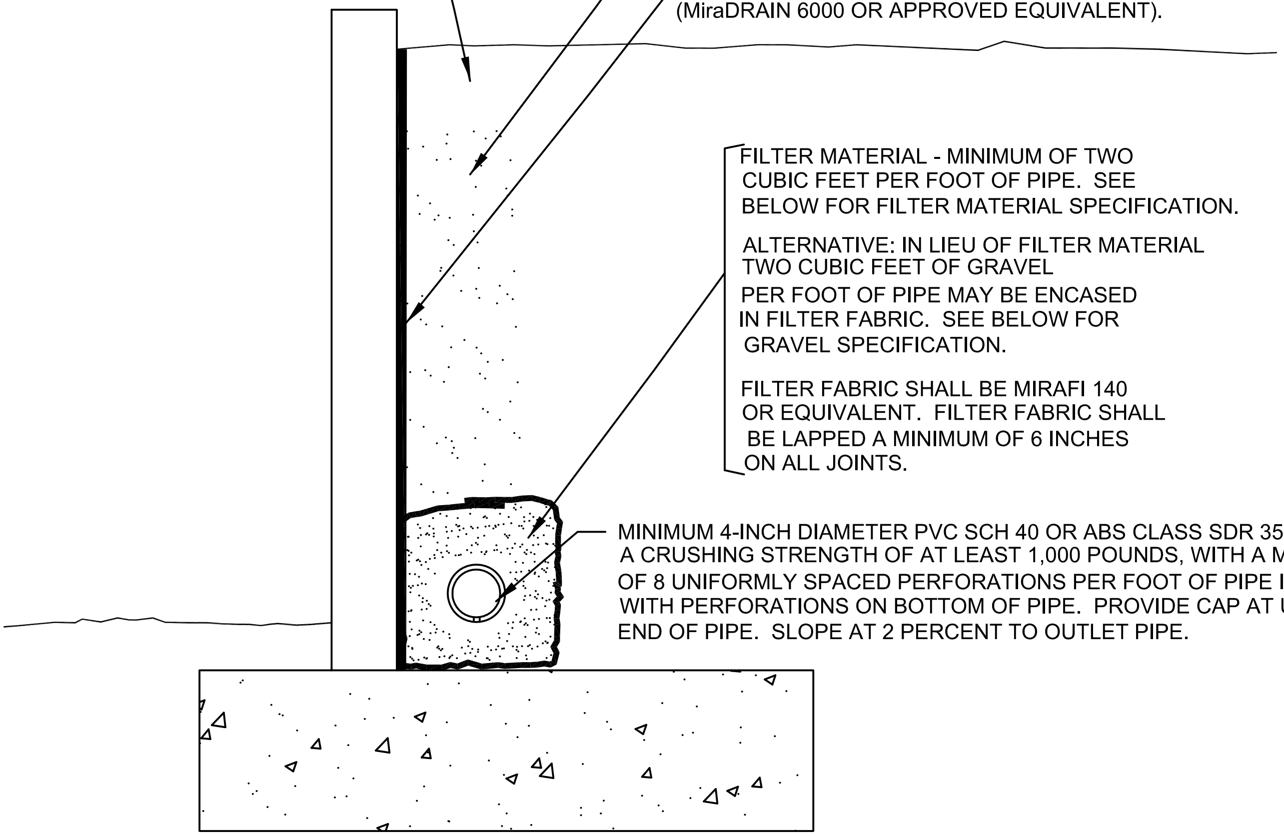

MINIMUM ONE FOOT THICK LAYER OF LOW PERMEABLILITY SOIL IF NOT COVERED WITH AN IMPERMEABLE SURFACE

MINIMUM ONE FOOT WIDE LAYER OF FREE DRAINING MATERIAL (LESS THAN 5% PASSING THE #200 SIEVE)

OR

PROPERLY INSTALLED PREFABRICATED DRAINAGE COMPOSITE (MiraDRAIN 6000 OR APPROVED EQUIVALENT).

FILTER MATERIAL - MINIMUM OF TWO CUBIC FEET PER FOOT OF PIPE. SEE BELOW FOR FILTER MATERIAL SPECIFICATION.

ALTERNATIVE: IN LIEU OF FILTER MATERIAL TWO CUBIC FEET OF GRAVEL PER FOOT OF PIPE MAY BE ENCASED IN FILTER FABRIC. SEE BELOW FOR GRAVEL SPECIFICATION.

FILTER FABRIC SHALL BE MIRAFI 140 OR EQUIVALENT. FILTER FABRIC SHALL BE LAPPED A MINIMUM OF 6 INCHES ON ALL JOINTS.

MINIMUM 4-INCH DIAMETER PVC SCH 40 OR ABS CLASS SDR 35 WITH A CRUSHING STRENGTH OF AT LEAST 1,000 POUNDS, WITH A MINIMUM OF 8 UNIFORMLY SPACED PERFORATIONS PER FOOT OF PIPE INSTALLED WITH PERFORATIONS ON BOTTOM OF PIPE. PROVIDE CAP AT UPSTREAM END OF PIPE. SLOPE AT 2 PERCENT TO OUTLET PIPE.

"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-7

SoCalGeo

SOUTHERN
CALIFORNIA
GEOTECHNICAL

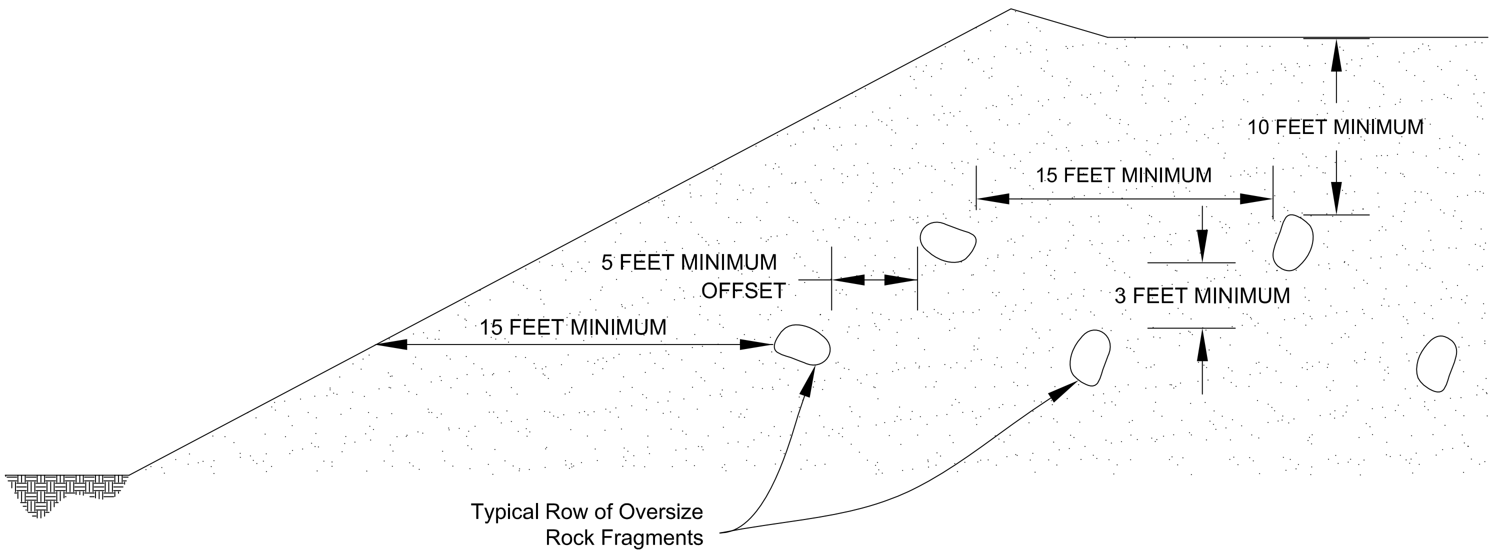

Section View

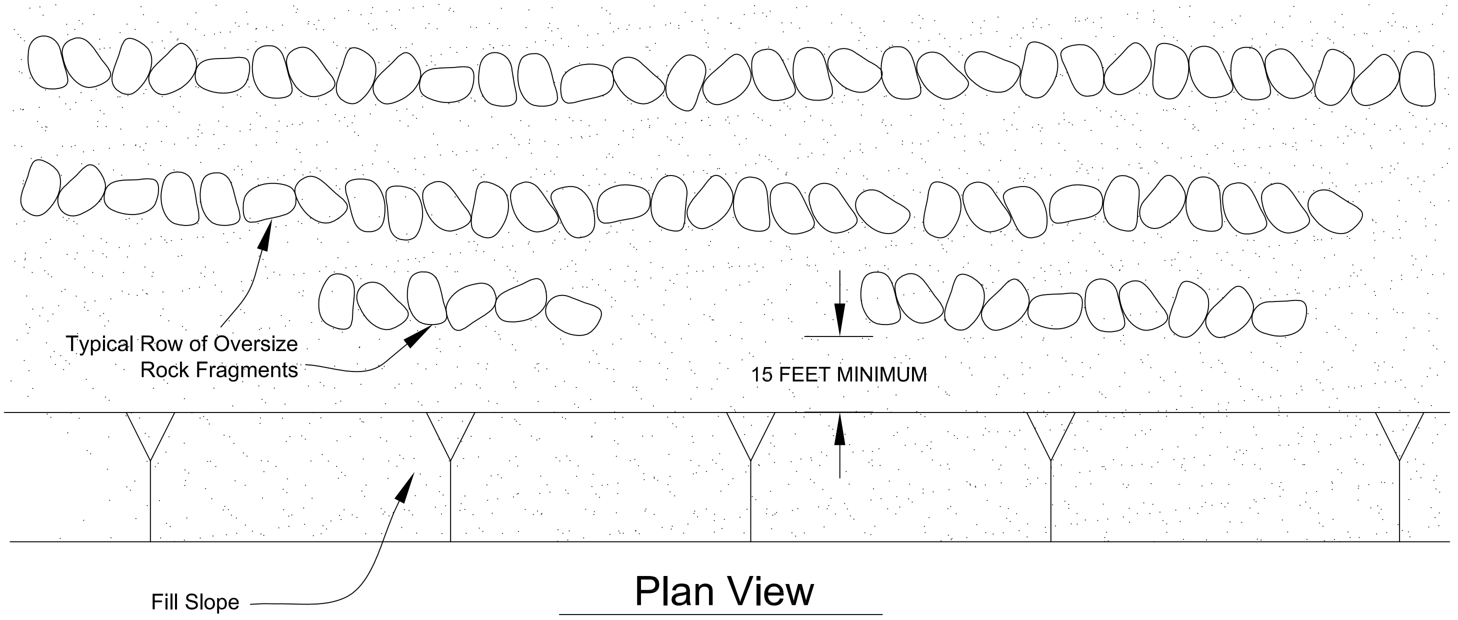

Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

PLATE D-8

SoCalGeo

SOUTHERN
CALIFORNIA
GEOTECHNICAL

APPENDIX E

Attachment: L - Geotechnical Investigation (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

USGS Design Maps Summary Report

User–Specified Input

Report Title	Proposed Moreno Valley Logistics Center Fri March 20, 2015 17:24:25 UTC
Building Code Reference Document	ASCE 7-10 Standard (which utilizes USGS hazard data available in 2008)
Site Coordinates	33.87639°N, 117.23689°W
Site Soil Classification	Site Class D – "Stiff Soil"
Risk Category	I/II/III

USGS–Provided Output

S_S = 1.500 g **S_{MS} =** 1.500 g **S_{DS} =** 1.000 g

S_1 = 0.600 g **S_{M1} =** 0.900 g **S_{D1} =** 0.600 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.

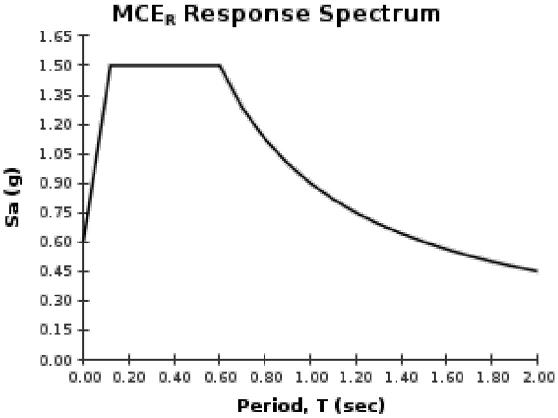

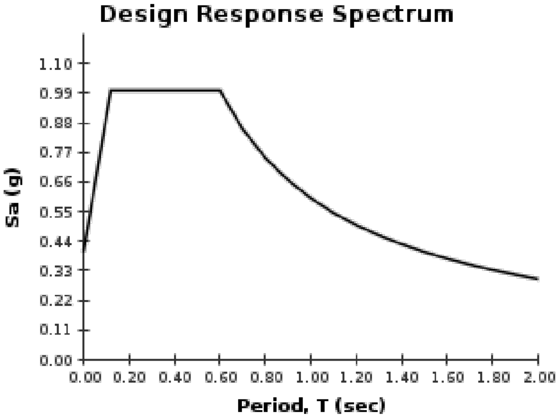

SOURCE: U.S. GEOLOGICAL SURVEY (USGS)
<http://geohazards.usgs.gov/designmaps/us/application.php>

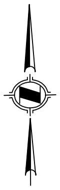

SEISMIC DESIGN PARAMETERS
PROPOSED MORENO VALLEY LOGISTICS CENTER
MORENO VALLEY, CALIFORNIA

DRAWN: PM
CHKD: JAS
SCG PROJECT
14G160-3
PLATE E-1

SoCalGeo
SOUTHERN
CALIFORNIA
GEOTECHNICAL

FARALLON
CONSULTING

Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Bend | Baker City

California
Oakland | Sacramento | Irvine

January 8, 2016

Ms. Janet Frentzel
Prologis, Inc.
Pier One, Bay One
San Francisco, California 94111

BY E-MAIL ONLY

RE: SOIL TESTING FOR ORGANOCHLORINE PESTICIDES
MORENO VALLEY LOGISTICS CENTER
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CALIFORNIA
FARALLON PN: 1071-011 (TASK 6)

Dear Ms. Frentzel:

Farallon Consulting, L.L.C. (Farallon) has prepared this letter report to present the findings for testing soil for organochlorine pesticides (pesticides) performed at the Moreno Valley Logistics Center property located along Indian Street and Krameria Avenue in Moreno Valley, California (herein referred to as the Site). The soil testing was performed in accordance with the letter regarding Proposal for Soil Testing dated December 7, 2015 prepared by Farallon. The purpose for the testing was to screen soil for the presence of pesticides related to historical agricultural activities on the Site.

The Site consists of four undeveloped lots totaling approximately 96 acres (Figure 1). The scope of work for the testing consisted of collecting 1 four-point composite soil sample from approximately every 5 acres of land for laboratory analysis:

- 11 soil samples were collected from Lot 1, which comprises approximately 55 acres of land;
- 4 soil samples were collected from Lot 2, which comprises approximately 21 acres of land;
- 2 soil samples were collected from Lot 3, which comprises approximately 11 acres of land; and
- 2 soil samples were collected from Lot 4, which comprises approximately 9 acres of land.

Figure 1 presents the lot boundaries and composite soil sample boundaries. A total of 19 soil samples were collected and analyzed for organochlorine pesticides by U.S. Environmental Protection Agency Method 8081A.

Soil samples from beneath the organic layer (approximately 0.5 feet below ground surface) were collected using hand tools. Four discrete soil samples were collected from across each composite soil sample area and placed into individual glass jars. The four discrete soil samples from each composite soil sample area were composited by the laboratory prior to performing pesticide analysis.

The pesticide analytical results are summarized in Table 1. The laboratory analytical report is provided in Attachment A. The soil analytical results were compared to California Office of Environmental Health Hazard Assessment Table 1, *Soil-Screening Numbers (mg/kg Soil) for Nonvolatile Chemicals Based on Total Exposure to Contaminated Soil: Inhalation, Ingestion and Dermal Absorption* (OEHHA Soil Screening Numbers) for both residential and commercial/industrial use scenarios. OEHHA Soil Screening Numbers are conservative risk-based guidelines for determining whether further evaluation is warranted for the presence of chemical impact to soil under the applicable use scenario.

As indicated in Table 1, pesticides were not detected at concentrations exceeding the OEHHA Soil Screening Numbers for residential or commercial/industrial use scenarios. Based on these results, pesticides in soil do not pose unacceptable risk to future occupants under an unrestricted use.

Please contact Scott Allin at (916) 616-8113 if you have questions or comments regarding the information provided herein.

Sincerely,

Farallon Consulting, L.L.C.

Gary Hokkanen

Scott Allin, R.E.P.A.
Principal Environmental Scientist

Gary Hokkanen
Principal Hydrogeologist

Attachments: Figure 1, *Site Plan*
Table 1, *Organochlorine Pesticide Analytical Results in Soil*
A, *Laboratory Analytical Report*

SA/GH:bjj

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

FIGURE

SOIL TESTING FOR ORGANOCHLORINE PESTICIDES
Moreno Valley Logistics Center
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-011 (Task 6)

LEGEND

🟥	LOT BOUNDARIES
– – – –	COMPOSITE SOIL SAMPLE AREA
L1-A	COMPOSITE SOIL SAMPLE ID

N

0 600
SCALE IN FEET

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Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Bend | Baker City

California
Oakland | Sacramento | Irvine

FIGURE 1

SITE PLAN
MORENO VALLEY LOGISTICS CENTER
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CALIFORNIA

FARALLON PN:1071-011-6

Drawn By: GPF Checked By: SA Date: 1/6/2016 Disk Reference: 1071-011-6

TABLE

SOIL TESTING FOR ORGANOCHLORINE PESTICIDES
Moreno Valley Logistics Center
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-011 (Task 6)

Table 1
Organochlorine Pesticide Analytical Results in Soil
Moreno Valley Logistics Center
Indian Street and Krameria Avenue
Moreno Valley, California
Farallon PN: 1071-011 Task 6

Sample Location	Sample Identification	Sample Depth (feet)[2]	Sample Date	Analytical Results[1] (micrograms per kilogram)					
				4,4-DDD	**4,4-DDE**	**4,4-DDT**	**Dieldrin**	**Methoxychlor**	**Toxaphene**
L1-A	COMP (L1A 1,2,3,4)	0.5	12/18/15	<5.0	250	48	<5.0	<5.0	<100
L1-B	COMP (L1B 1,2,3,4)	0.5	12/18/15	<5.0	280	51	5.5	<5.0	<99
L1-C	COMP (L1C 1,2,3,4)	0.5	12/18/15	<5.0	160	29	<5.0	<5.0	<100
L1-D	COMP (L1D 1,2,3,4)	0.5	12/18/15	<5.0	300	56	7.1	<5.0	<99
L1-E	COMP (L1E 1,2,3,4)	0.5	12/18/15	<5.0	150	34	<5.0	<5.0	<100
L1-F	COMP (L1F 1,2,3,4)	0.5	12/18/15	5.6	250	60	15	<5.0	<99
L1-G	COMP (L1G 1,2,3,4)	0.5	12/18/15	<5.0	83	15	<5.0	<5.0	<100
L1-H	COMP (L1H 1,2,3,4)	0.5	12/18/15	<5.0	59	11	<5.0	<5.0	<99
L1-I	COMP (L1I 1,2,3,4)	0.5	12/18/15	<5.0	20	9.5	<5.0	<5.0	<100
L1-J	COMP (L1J 1,2,3,4)	0.5	12/18/15	<5.0	40	11	<5.0	<5.0	<99
L1-K	COMP (L1K 1,2,3,4)	0.5	12/18/15	5.1	34	9.6	<5.0	<5.0	<100
L2-A	COMP (L2A 1,2,3,4)	0.5	12/18/15	<5.0	35	9.1	<5.0	<5.0	<99
L2-B	COMP (L2B 1,2,3,4)	0.5	12/18/15	<5.0	130	25	<5.0	<5.0	<100
L2-C	COMP (L2C 1,2,3,4)	0.5	12/18/15	<5.0	35	6.4	<5.0	<5.0	<100
L2-D	COMP (L2D 1,2,3,4)	0.5	12/18/15	<5.0	96	17	<5.0	<5.0	<100
L3-A	COMP (L3A 1,2,3,4)	0.5	12/18/15	<5.0	77	25	9.1	<5.0	110
L3-B	COMP (L3B 1,2,3,4)	0.5	12/18/15	<5.0	48	9.6	<5.0	10	190
L4-A	COMP (L4A 1,2,3,4)	0.5	12/18/15	<5.0	24	7.2	<5.0	11	150
L4-B	COMP (L4B 1,2,3,4)	0.5	12/18/15	<5.0	23	5.9	<5.0	<5.0	130
OEHHA Soil Screening Numbers[3] (Residential Scenario)				**2,300**	**1,600**	**1,600**	**35**	**340,000**	**460**
OEHHA Soil Screening Numbers[3] (Commercial/Industrial Scenario)				**9,000**	**6,300**	**6,300**	**130**	**3,800,000**	**1,800**

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

Only analytes with detections exceeding the laboratory reporting limit are shown.

[1] Analyzed by U.S. Environmental Protection Agency Method 8081A.

[2] Depth in feet below ground surface.

[3] California Office of Environmental Health Hazard Assessment Table 1, *Soil-Screening Numbers (mg/kg Soil) for Nonvolatile Chemicals Based on Total Exposure to Contaminated Soil: Inhalation, Ingestion and Dermal Absorption, September 23, 2010.*

ATTACHMENT A
LABORATORY ANALYTICAL REPORT

SOIL TESTING FOR ORGANOCHLORINE PESTICIDES
Moreno Valley Logistics Center
Indian Street and Krameria Avenue
Moreno Valley, California

Farallon PN: 1071-011 (Task 6)

eurofins | Calscience

WORK ORDER NUMBER: 15-12-1551

The difference is service

Analytical Report For

Client: Farallon Consulting
Client Project Name: Indian Business Park
Attention: Scott Allin
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Approved for release on 12/30/2015 by:
Vikas Patel
Project Manager

ResultLink ▸

Email your PM ▸

ACCREDITED IN ACCORDANCE WITH nelac

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Contents

Client Project Name: Indian Business Park
Work Order Number: 15-12-1551

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Work Order Narrative

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 12/18/15. They were assigned to Work Order 15-12-1551.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptanc Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 1 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted fro mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

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Sample Summary

Client:	Farallon Consulting 975 5th Avenue Northwest Issaquah, WA 98027-2419	Work Order:	15-12-155
		Project Name:	Indian Business Par
		PO Number:	
		Date/Time Received:	12/18/15 18:0
		Number of Containers:	9
Attn:	Scott Allin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
L3A1	15-12-1551-1	12/18/15 08:20	1	Solid
L3A2	15-12-1551-2	12/18/15 08:20	1	Solid
L3A3	15-12-1551-3	12/18/15 08:20	1	Solid
L3A4	15-12-1551-4	12/18/15 08:20	1	Solid
L3B1	15-12-1551-5	12/18/15 08:40	1	Solid
L3B2	15-12-1551-6	12/18/15 08:40	1	Solid
L3B3	15-12-1551-7	12/18/15 08:40	1	Solid
L3B4	15-12-1551-8	12/18/15 08:40	1	Solid
L4A1	15-12-1551-9	12/18/15 09:15	1	Solid
L4A2	15-12-1551-10	12/18/15 09:15	1	Solid
L4A3	15-12-1551-11	12/18/15 09:15	1	Solid
L4A4	15-12-1551-12	12/18/15 09:15	1	Solid
L4B1	15-12-1551-13	12/18/15 09:30	1	Solid
L4B2	15-12-1551-14	12/18/15 09:30	1	Solid
L4B3	15-12-1551-15	12/18/15 09:30	1	Solid
L4B4	15-12-1551-16	12/18/15 09:30	1	Solid
L2A1	15-12-1551-17	12/18/15 10:25	1	Solid
L2A2	15-12-1551-18	12/18/15 10:25	1	Solid
L2A3	15-12-1551-19	12/18/15 10:25	1	Solid
L2A4	15-12-1551-20	12/18/15 10:25	1	Solid
L2B1	15-12-1551-21	12/18/15 10:45	1	Solid
L2B2	15-12-1551-22	12/18/15 10:45	1	Solid
L2B3	15-12-1551-23	12/18/15 10:45	1	Solid
L2B4	15-12-1551-24	12/18/15 10:45	1	Solid
L2C1	15-12-1551-25	12/18/15 11:05	1	Solid
L2C2	15-12-1551-26	12/18/15 11:05	1	Solid
L2C3	15-12-1551-27	12/18/15 11:05	1	Solid
L2C4	15-12-1551-28	12/18/15 11:05	1	Solid
L2D1	15-12-1551-29	12/18/15 11:20	1	Solid
L2D2	15-12-1551-30	12/18/15 11:20	1	Solid
L2D3	15-12-1551-31	12/18/15 11:20	1	Solid
L2D4	15-12-1551-32	12/18/15 11:20	1	Solid
L1A1	15-12-1551-33	12/18/15 01:00	1	Solid
L1A2	15-12-1551-34	12/18/15 01:00	1	Solid
L1A3	15-12-1551-35	12/18/15 01:00	1	Solid
L1A4	15-12-1551-36	12/18/15 01:00	1	Solid
L1B1	15-12-1551-37	12/18/15 01:25	1	Solid
L1B2	15-12-1551-38	12/18/15 01:25	1	Solid
L1B3	15-12-1551-39	12/18/15 01:25	1	Solid
L1B4	15-12-1551-40	12/18/15 01:25	1	Solid
L1C1	15-12-1551-41	12/18/15 01:45	1	Solid
L1C2	15-12-1551-42	12/18/15 01:45	1	Solid

Return to Contents

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Sample Summary

Client:	Farallon Consulting 975 5th Avenue Northwest Issaquah, WA 98027-2419	Work Order:	15-12-155
		Project Name:	Indian Business Par
		PO Number:	
		Date/Time Received:	12/18/15 18:0
		Number of Containers:	9
Attn:	Scott Allin		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
L1C3	15-12-1551-43	12/18/15 01:45	1	Solid
L1C4	15-12-1551-44	12/18/15 01:45	1	Solid
L1D1	15-12-1551-45	12/18/15 02:00	1	Solid
L1D2	15-12-1551-46	12/18/15 02:00	1	Solid
L1D3	15-12-1551-47	12/18/15 02:00	1	Solid
L1D4	15-12-1551-48	12/18/15 02:00	1	Solid
L1E1	15-12-1551-49	12/18/15 02:18	1	Solid
L1E2	15-12-1551-50	12/18/15 02:18	1	Solid
L1E3	15-12-1551-51	12/18/15 02:18	1	Solid
L1E4	15-12-1551-52	12/18/15 02:18	1	Solid
L1F1	15-12-1551-53	12/18/15 02:35	1	Solid
L1F2	15-12-1551-54	12/18/15 02:35	1	Solid
L1F3	15-12-1551-55	12/18/15 02:35	1	Solid
L1F4	15-12-1551-56	12/18/15 02:35	1	Solid
L1G1	15-12-1551-57	12/18/15 02:52	1	Solid
L1G2	15-12-1551-58	12/18/15 02:52	1	Solid
L1G3	15-12-1551-59	12/18/15 02:52	1	Solid
L1G4	15-12-1551-60	12/18/15 02:52	1	Solid
L1H1	15-12-1551-61	12/18/15 03:10	1	Solid
L1H2	15-12-1551-62	12/18/15 03:10	1	Solid
L1H3	15-12-1551-63	12/18/15 03:10	1	Solid
L1H4	15-12-1551-64	12/18/15 03:10	1	Solid
L1I1	15-12-1551-65	12/18/15 03:27	1	Solid
L1I2	15-12-1551-66	12/18/15 03:27	1	Solid
L1I3	15-12-1551-67	12/18/15 03:27	1	Solid
L1I4	15-12-1551-68	12/18/15 03:27	1	Solid
L1J1	15-12-1551-69	12/18/15 03:40	1	Solid
L1J2	15-12-1551-70	12/18/15 03:40	1	Solid
L1J3	15-12-1551-71	12/18/15 03:40	1	Solid
L1J4	15-12-1551-72	12/18/15 03:40	1	Solid
L1K1	15-12-1551-73	12/18/15 04:00	1	Solid
L1K2	15-12-1551-74	12/18/15 04:00	1	Solid
L1K3	15-12-1551-75	12/18/15 04:00	1	Solid
L1K4	15-12-1551-76	12/18/15 04:00	1	Solid
COMP (L3A 1,2,3,4)	15-12-1551-77	12/18/15 00:00	1	Solid
COMP (L3B 1,2,3,4)	15-12-1551-78	12/18/15 00:00	1	Solid
COMP (L4A 1,2,3,4)	15-12-1551-79	12/18/15 00:00	1	Solid
COMP (L4B 1,2,3,4)	15-12-1551-80	12/18/15 00:00	1	Solid
COMP (L2A 1,2,3,4)	15-12-1551-81	12/18/15 00:00	1	Solid
COMP (L2B 1,2,3,4)	15-12-1551-82	12/18/15 00:00	1	Solid
COMP (L2C 1,2,3,4)	15-12-1551-83	12/18/15 00:00	1	Solid
COMP (L2D 1,2,3,4)	15-12-1551-84	12/18/15 00:00	1	Solid

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Sample Summary

Client: Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Attn: Scott Allin

Work Order: 15-12-155
Project Name: Indian Business Par
PO Number:
Date/Time Received: 12/18/15 18:0
Number of Containers: 9

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
COMP (L1A 1,2,3,4)	15-12-1551-85	12/18/15 00:00	1	Solid
COMP (L1B 1,2,3,4)	15-12-1551-86	12/18/15 00:00	1	Solid
COMP (L1C 1,2,3,4)	15-12-1551-87	12/18/15 00:00	1	Solid
COMP (L1D 1,2,3,4)	15-12-1551-88	12/18/15 00:00	1	Solid
COMP (L1E 1,2,3,4)	15-12-1551-89	12/18/15 00:00	1	Solid
COMP (L1F 1,2,3,4)	15-12-1551-90	12/18/15 00:00	1	Solid
COMP (L1G 1,2,3,4)	15-12-1551-91	12/18/15 00:00	1	Solid
COMP (L1H 1,2,3,4)	15-12-1551-92	12/18/15 00:00	1	Solid
COMP (L1I 1,2,3,4)	15-12-1551-93	12/18/15 00:00	1	Solid
COMP (L1J 1,2,3,4)	15-12-1551-94	12/18/15 00:00	1	Solid
COMP (L1K 1,2,3,4)	15-12-1551-95	12/18/15 00:00	1	Solid

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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Detections Summary

Client:	Farallon Consulting 975 5th Avenue Northwest Issaquah, WA 98027-2419	Work Order:	15-12-1551
		Project Name:	Indian Business Park
		Received:	12/18/15
Attn:	Scott Allin		Page 1 of 2

Client SampleID Analyte	Result	Qualifiers	RL	Units	Method	Extraction
COMP (L3A 1,2,3,4) (15-12-1551-77)						
4,4'-DDE	77		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	25		5.0	ug/kg	EPA 8081A	EPA 3545
Dieldrin	9.1		5.0	ug/kg	EPA 8081A	EPA 3545
Toxaphene	110		99	ug/kg	EPA 8081A	EPA 3545
COMP (L3B 1,2,3,4) (15-12-1551-78)						
4,4'-DDE	48		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	9.6		5.0	ug/kg	EPA 8081A	EPA 3545
Methoxychlor	10		5.0	ug/kg	EPA 8081A	EPA 3545
Toxaphene	190		100	ug/kg	EPA 8081A	EPA 3545
COMP (L4A 1,2,3,4) (15-12-1551-79)						
4,4'-DDE	24		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	7.2		5.0	ug/kg	EPA 8081A	EPA 3545
Methoxychlor	11		5.0	ug/kg	EPA 8081A	EPA 3545
Toxaphene	150		100	ug/kg	EPA 8081A	EPA 3545
COMP (L4B 1,2,3,4) (15-12-1551-80)						
4,4'-DDE	23		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	5.9		5.0	ug/kg	EPA 8081A	EPA 3545
Toxaphene	130		100	ug/kg	EPA 8081A	EPA 3545
COMP (L2A 1,2,3,4) (15-12-1551-81)						
4,4'-DDE	35		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	9.1		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L2B 1,2,3,4) (15-12-1551-82)						
4,4'-DDE	130		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	25		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L2C 1,2,3,4) (15-12-1551-83)						
4,4'-DDE	35		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	6.4		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L2D 1,2,3,4) (15-12-1551-84)						
4,4'-DDE	96		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	17		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1A 1,2,3,4) (15-12-1551-85)						
4,4'-DDE	250		50	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	48		25	ug/kg	EPA 8081A	EPA 3545
COMP (L1B 1,2,3,4) (15-12-1551-86)						
4,4'-DDE	280		250	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	51		25	ug/kg	EPA 8081A	EPA 3545
Dieldrin	5.5		5.0	ug/kg	EPA 8081A	EPA 3545

* MDL is shown

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Detections Summary

Client: Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Work Order: 15-12-1551
Project Name: Indian Business Park
Received: 12/18/15

Attn: Scott Allin

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
COMP (L1C 1,2,3,4) (15-12-1551-87)						
4,4'-DDE	160		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	29		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1D 1,2,3,4) (15-12-1551-88)						
4,4'-DDE	300		250	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	56		25	ug/kg	EPA 8081A	EPA 3545
Dieldrin	7.1		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1E 1,2,3,4) (15-12-1551-89)						
4,4'-DDE	150		50	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	34		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1F 1,2,3,4) (15-12-1551-90)						
4,4'-DDD	5.6		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	250		50	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	60		50	ug/kg	EPA 8081A	EPA 3545
Dieldrin	15		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1G 1,2,3,4) (15-12-1551-91)						
4,4'-DDE	83		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	15		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1H 1,2,3,4) (15-12-1551-92)						
4,4'-DDE	59		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	11		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1I 1,2,3,4) (15-12-1551-93)						
4,4'-DDE	20		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	9.5		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1J 1,2,3,4) (15-12-1551-94)						
4,4'-DDE	40		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	11		5.0	ug/kg	EPA 8081A	EPA 3545
COMP (L1K 1,2,3,4) (15-12-1551-95)						
4,4'-DDD	5.1		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	34		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	9.6		5.0	ug/kg	EPA 8081A	EPA 3545

Subcontracted analyses, if any, are not included in this summary.

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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* MDL is shown

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received: 12/18/1
Work Order: 15-12-155
Preparation: EPA 354
Method: EPA 8081/
Units: ug/k

Project: Indian Business Park

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L3A 1,2,3,4)	**15-12-1551-77-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 10:51**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	25	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	9.1	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	110	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L3A 1,2,3,4)	**15-12-1551-77-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 16:49**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	77	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting		Date Received:	12/18/1
975 5th Avenue Northwest		Work Order:	15-12-155
Issaquah, WA 98027-2419		Preparation:	EPA 354
		Method:	EPA 8081,
		Units:	ug/k
Project: Indian Business Park			Page 2 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L3B 1,2,3,4)	**15-12-1551-78-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 11:05**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	9.6	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	10	5.0	1.00	
Toxaphene	190	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	24-168	
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L3B 1,2,3,4)	**15-12-1551-78-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 17:04**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	48	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received: 12/18/1
Work Order: 15-12-155
Preparation: EPA 354
Method: EPA 8081
Units: ug/k

Project: Indian Business Park

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L4A 1,2,3,4)	**15-12-1551-79-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 11:20**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	24	5.0	1.00	
4,4'-DDT	7.2	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	11	5.0	1.00	
Toxaphene	150	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received: 12/18/1
Work Order: 15-12-155
Preparation: EPA 354
Method: EPA 8081/
Units: ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L4B 1,2,3,4)	**15-12-1551-80-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 11:34**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	23	5.0	1.00	
4,4'-DDT	5.9	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	130	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Farallon Consulting	Date Received: 12/18/1
975 5th Avenue Northwest	Work Order: 15-12-155
Issaquah, WA 98027-2419	Preparation: EPA 354
	Method: EPA 8081
	Units: ug/k
Project: Indian Business Park	Page 5 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L2A 1,2,3,4)	**15-12-1551-81-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 11:48**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	35	5.0	1.00	
4,4'-DDT	9.1	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting	Date Received: 12/18/1
975 5th Avenue Northwest	Work Order: 15-12-155
Issaquah, WA 98027-2419	Preparation: EPA 354
	Method: EPA 8081/
	Units: ug/k
Project: Indian Business Park	Page 6 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L2B 1,2,3,4)	**15-12-1551-82-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 12:02**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	25	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L2B 1,2,3,4)	**15-12-1551-82-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 17:18**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	130	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Return to Contents

RL: Reporting Limit.   DF: Dilution Factor.   MDL: Method Detection Limit.

Analytical Report

Farallon Consulting		Date Received:	12/18/1
975 5th Avenue Northwest		Work Order:	15-12-155
Issaquah, WA 98027-2419		Preparation:	EPA 354
		Method:	EPA 8081/
		Units:	ug/k
Project: Indian Business Park			Page 7 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L2C 1,2,3,4)	**15-12-1551-83-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 12:17**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	35	5.0	1.00	
4,4'-DDT	6.4	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Farallon Consulting		Date Received:	12/18/1
975 5th Avenue Northwest		Work Order:	15-12-155
Issaquah, WA 98027-2419		Preparation:	EPA 354
		Method:	EPA 8081
		Units:	ug/k
Project: Indian Business Park			Page 8 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L2D 1,2,3,4)	**15-12-1551-84-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 12:31**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	17	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L2D 1,2,3,4)	**15-12-1551-84-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 17:32**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	96	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	108	24-168	
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081/
Units:	ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1A 1,2,3,4)	**15-12-1551-85-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 12:45**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1A 1,2,3,4)	**15-12-1551-85-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 17:46**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	48	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081
Units:	ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1A 1,2,3,4)	**15-12-1551-85-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 19:55**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	250	50	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	140	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1B 1,2,3,4)	**15-12-1551-86-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 12:59**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	5.5	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081
Units:	ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1B 1,2,3,4)	**15-12-1551-86-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 18:01**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	51	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1B 1,2,3,4)	**15-12-1551-86-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 20:09**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	280	250	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081
Units:	ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1C 1,2,3,4)	**15-12-1551-87-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 13:14**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	29	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1C 1,2,3,4)	**15-12-1551-87-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 18:15**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	160	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081/
Units:	ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1D 1,2,3,4)	**15-12-1551-88-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 13:28**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	7.1	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1D 1,2,3,4)	**15-12-1551-88-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 18:29**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	56	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting		Date Received:	12/18/1
975 5th Avenue Northwest		Work Order:	15-12-155
Issaquah, WA 98027-2419		Preparation:	EPA 354
		Method:	EPA 8081/
		Units:	ug/k
Project: Indian Business Park			Page 14 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1D 1,2,3,4)	**15-12-1551-88-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 20:24**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	300	250	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	137	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1E 1,2,3,4)	**15-12-1551-89-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 13:42**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	34	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081.
Units:	ug/k

Project: Indian Business Park

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1E 1,2,3,4)	**15-12-1551-89-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 18:43**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	150	50	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1F 1,2,3,4)	**15-12-1551-90-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 13:57**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	5.6	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	15	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081
Units:	ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1F 1,2,3,4)	**15-12-1551-90-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 18:58**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	250	50	10.0	
4,4'-DDT	60	50	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1G 1,2,3,4)	**15-12-1551-91-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 14:11**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	15	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received: 12/18/1
Work Order: 15-12-155
Preparation: EPA 354
Method: EPA 8081
Units: ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1G 1,2,3,4)	**15-12-1551-91-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 19:12**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	83	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1H 1,2,3,4)	**15-12-1551-92-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 14:25**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	11	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081/
Units:	ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1H 1,2,3,4)	**15-12-1551-92-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 19:26**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	59	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1I 1,2,3,4)	**15-12-1551-93-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 14:39**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	20	5.0	1.00	
4,4'-DDT	9.5	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	24-168	
2,4,5,6-Tetrachloro-m-Xylene	64	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Farallon Consulting		Date Received:	12/18/1
975 5th Avenue Northwest		Work Order:	15-12-155
Issaquah, WA 98027-2419		Preparation:	EPA 354
		Method:	EPA 8081
		Units:	ug/k
Project: Indian Business Park			Page 19 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1J 1,2,3,4)	**15-12-1551-94-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 14:54**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	11	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1J 1,2,3,4)	**15-12-1551-94-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 19:41**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	40	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting		Date Received:	12/18/1
975 5th Avenue Northwest		Work Order:	15-12-155
Issaquah, WA 98027-2419		Preparation:	EPA 354
		Method:	EPA 8081
		Units:	ug/k
Project: Indian Business Park			Page 20 of 21

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
COMP (L1K 1,2,3,4)	**15-12-1551-95-A**	**12/18/15 00:00**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 15:08**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	5.1	5.0	1.00	
4,4'-DDE	34	5.0	1.00	
4,4'-DDT	9.6	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received: 12/18/1
Work Order: 15-12-155
Preparation: EPA 354
Method: EPA 8081
Units: ug/k

Project: Indian Business Park

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-537-2323**	**N/A**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 10:37**	**151223L18**

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received:	12/18/1
Work Order:	15-12-155
Preparation:	EPA 354
Method:	EPA 8081/

Project: Indian Business Park

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Numbe
COMP (L1F 1,2,3,4)	**Sample**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 13:57**	**151223S18**
COMP (L1F 1,2,3,4)	**Matrix Spike**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 16:06**	**151223S18**
COMP (L1F 1,2,3,4)	**Matrix Spike Duplicate**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 16:21**	**151223S18**

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	21.05	84	21.29	85	50-135	1	0-25	
Alpha-BHC	ND	25.00	20.38	82	20.49	82	50-135	1	0-25	
Beta-BHC	ND	25.00	22.89	92	23.61	94	50-135	3	0-25	
4,4'-DDD	5.596	25.00	30.08	98	29.31	95	50-135	3	0-25	
4,4'-DDE	254.8	25.00	523.1	1073	500.5	983	50-135	4	0-25	3
4,4'-DDT	60.48	25.00	91.50	124	86.72	105	50-135	5	0-25	
Delta-BHC	ND	25.00	24.03	96	24.52	98	50-135	2	0-25	
Dieldrin	14.59	25.00	38.91	97	38.64	96	50-135	1	0-25	
Endosulfan I	ND	25.00	22.77	91	22.72	91	50-135	0	0-25	
Endosulfan II	ND	25.00	25.20	101	24.62	98	50-135	2	0-25	
Endosulfan Sulfate	ND	25.00	26.45	106	24.73	99	50-135	7	0-25	
Endrin	ND	25.00	28.84	115	29.08	116	50-135	1	0-25	
Endrin Aldehyde	ND	25.00	24.24	97	24.17	97	50-135	0	0-25	
Gamma-BHC	ND	25.00	21.28	85	21.68	87	50-135	2	0-25	
Heptachlor	ND	25.00	22.31	89	22.72	91	50-135	2	0-25	
Heptachlor Epoxide	ND	25.00	23.85	95	23.65	95	50-135	1	0-25	
Methoxychlor	ND	25.00	29.01	116	28.31	113	50-135	2	0-25	

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027-2419

Date Received: 12/18/1
Work Order: 15-12-155
Preparation: EPA 354
Method: EPA 8081

Project: Indian Business Park

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-537-2323	**LCS**	**Solid**	**GC 44**	**12/23/15**	**12/29/15 16:35**	**151223L18**

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Aldrin	25.00	22.17	89	50-135	36-149	
Alpha-BHC	25.00	22.47	90	50-135	36-149	
Beta-BHC	25.00	22.79	91	50-135	36-149	
4,4'-DDD	25.00	25.44	102	50-135	36-149	
4,4'-DDE	25.00	24.81	99	50-135	36-149	
4,4'-DDT	25.00	24.55	98	50-135	36-149	
Delta-BHC	25.00	24.18	97	50-135	36-149	
Dieldrin	25.00	23.83	95	50-135	36-149	
Endosulfan I	25.00	22.00	88	50-135	36-149	
Endosulfan II	25.00	25.37	101	50-135	36-149	
Endosulfan Sulfate	25.00	26.09	104	50-135	36-149	
Endrin	25.00	26.88	108	50-135	36-149	
Endrin Aldehyde	25.00	22.74	91	50-135	36-149	
Gamma-BHC	25.00	23.08	92	50-135	36-149	
Heptachlor	25.00	23.86	95	50-135	36-149	
Heptachlor Epoxide	25.00	22.65	91	50-135	36-149	
Methoxychlor	25.00	26.46	106	50-135	36-149	

Total number of LCS compounds: 17
Total number of ME compounds: 0
Total number of ME compounds allowed: 1
LCS ME CL validation result: Pass

Attachment: M - Pesticide Sampling Analysis (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

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RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 15-12-1551 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8081A	EPA 3545	669	GC 44	1
EPA 8081A	EPA 3545	960	GC 44	1

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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

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Glossary of Terms and Qualifiers

Work Order: 15-12-1551 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without furthe clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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WO NO. / LAB USE ONLY
15-12-1551

CHAIN-OF-CUSTODY RECORD

DATE: 12-18-15
PAGE: 1 OF 2

LABORATORY CLIENT: Farallon Consultants, LLC
ADDRESS: 975 5th Avenue, NW
CITY: Issaquah STATE: WA ZIP: 98027
TEL: 916 616 8113 E-MAIL: sallin@farallonconsultants.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD
EDD:
☐ COELT EDF ☐ OTHER
SPECIAL INSTRUCTIONS:
*Composite 4samples into 1

CLIENT PROJECT NAME / NO.: Indian Business Park
P.O. NO.:
PROJECT CONTACT: Scott Allin
LAB CONTACT OR QUOTE NO.:
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT) Kevin Sheridan

REQUESTED ANALYSES
Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ___	BTEX / MTBE ☐ 8260 ☐ ___	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	EPA 8081A			
1-4	L3A 1,2,3,4	12-18	8:20	Soil	4	X																	X			
5-8	L3B 1,2,3,4		8:40			X																	X			
9-12	L4A 1,2,3,4		9:15			X																	X			
13-16	L4B 1,2,3,4		9:30			X																	X			
17-20	L2A 1,2,3,4		10:25			X																	X			
21-24	L2B 1,2,3,4		10:45			X																	X			
25-28	L2C 1,2,3,4		11:05			X																	X			
29-32	L2D 1,2,3,4		11:20			X																	X			
33-36	L1A 1,2,3,4		1:00			X																	X			
37-4	L1B 1,2,3,4		1:25			X																	X			

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 12-18-15	Time: 1809
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO NO. / LAB USE ONLY: 15-12-1551

CHAIN-OF-CUSTODY RECORD

DATE: 12-18-15
PAGE: 2 OF 2

LABORATORY CLIENT: Farallon Consultants, LLC
ADDRESS: Same
CITY: STATE: ZIP:
TEL: E-MAIL:
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD
EDD: ☐ COELT EDF ☐ OTHER
SPECIAL INSTRUCTIONS: * composite all samples 4 into 1

CLIENT PROJECT NAME / NO.: Indian Business Park
P.O. NO.:
PROJECT CONTACT: Scott Allin
LAB CONTACT OR QUOTE NO.:
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT) Kevin Sheridan

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6	EPA 8081A			
41-44	L1C 1,2,3,4	12-18	1:45	Soil	4	X																	X			
45-48	L1D 1,2,3,4		2:00			X																	X			
49-52	L1E 1,2,3,4		2:18			X																	X			
53-56	L1F 1,2,3,4		2:35			X																	X			
57-60	L1G 1,2,3,4		2:52			X																	X			
61-64	L1H 1,2,3,4		3:10			X																	X			
65-68	L1I 1,2,3,4		3:27			X																	X			
69-72	L1J 1,2,3,4		3:40			X																	X			
73-76	L1K 1,2,3,4		4:00			X																	X			

Relinquished by: (Signature)	Received by: (Signature/Affiliation) ECI	Date: 12-19-15	Time: 1809
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

/ision

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WORK ORDER NUMBER: 15-12- 1551

SAMPLE RECEIPT CHECKLIST

COOLER 1 **OF** __

CLIENT: Farallon

DATE: 12 / 18 **/ 201**

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC2 (CF:-0.4°C); Temperature (w/o CF): 3.9 °C (w/ CF): 3.5 °C; ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: ________)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 802

CUSTODY SEAL:

Cooler	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 802
Sample(s)	☐ Present and Intact	☐ Present but Not Intact	☑ Not Present	☐ N/A	Checked by: 1050

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers			
☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and in good condition	☑	☐	☐
Proper containers for analyses requested	☑	☐	☐
Sufficient volume/mass for analyses requested	☑	☐	☐
Samples received within holding time	☑	☐	☐
Aqueous samples for certain analyses received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation chemical(s) noted on COC and/or sample container	☐	☐	☑
Unpreserved aqueous sample(s) received for certain analyses			
☐ Volatile Organics ☐ Total Metals ☐ Dissolved Metals			
Container(s) for certain analysis free of headspace	☐	☐	☑
☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)			
☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE: **(Trip Blank Lot Number: ____________)**

Aqueous: ☐ VOA ☐ VOA**h** ☐ VOA**na$_2$** ☐ 100PJ ☐ 100PJ**na$_2$** ☐ 125AGB ☐ 125AGB**h** ☐ 125AGB**p** ☐ 125PB ☐ 125PB**znna** ☐ 250AGB ☐ 250CGB ☐ 250CGB**s** ☐ 250PB ☐ 250PB**n** ☐ 500AGB ☐ 500AGJ ☐ 500AGJ**s** ☐ 500PB ☐ 1AGB ☐ 1AGB**na$_2$** ☐ 1AGB**s** ☐ 1PB ☐ 1PB**na** ☐ ________ ☐ ________ ☐ ________ ☐ ________

Solid: ☑ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® (____) ☐ TerraCores® (____) ☐ ________

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ ________ **Other Matrix** (____________): ☐ ________ ☐ ________

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO_3, **na** = NaOH, **na$_2$** = $Na_2S_2O_3$, **p** = H_3PO_4, **s** = H_2SO_4, **u** = ultra-pure, **znna** = $Zn(CH_3CO_2)_2$ + NaOH

Labeled/Checked by: 1050

Reviewed by: 965

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TECHNICAL MEMORANDUM

TO: Janet Frentzel – Prologis, Inc. (by e-mail)

FROM: Scott Allin, Principal Environmental Scientist
Gary Hokkanen, Principal Hydrogeologist

DATE: May 10, 2016

RE: **VAPOR MIGRATION ANALYSIS**
MORENO VALLEY LOGISTICS CENTER
INDIAN STREET AND KRAMERIA AVENUE
MORENO VALLEY, CALIFORNIA
FARALLON PN: 1071-011 (TASK 6)

Farallon Consulting, L.L.C. (Farallon) has prepared this technical memorandum to provide a vapor migration analysis for the Moreno Valley Logistics Center property located along Indian Street and Krameria Avenue in Moreno Valley, California (herein referred to as the Site). The analysis was requested in a technical memorandum regarding Third Party Review of the Moreno Valley Logistics Center Second Screencheck EIR and Technical Studies dated April 6, 2016, prepared by PlaceWorks (PlaceWorks Memorandum). The PlaceWorks Memorandum requested the vapor migration analysis be incorporated into the *Phase I Environmental Site Assessment Report, Indian Business Park, Indian Street and Krameria Avenue, Moreno Valley, California* dated March 23, 2015, prepared by Farallon (Farallon Phase I ESA). However, according to Prologis, Inc., City of Moreno Valley representatives agreed a response in the form of a technical memorandum would be sufficient.

The Site consists of four undeveloped lots totaling approximately 96 acres that are planned for commercial development by Prologis, Inc. The City of Moreno Valley currently is evaluating the Environmental Impact Report prepared for the Site, and PlaceWorks is providing third party comments on the Environmental Impact Report and related portions, including the Farallon Phase I ESA. The PlaceWorks Memorandum indicated that a vapor migration analysis was appropriate for the Site based on the Site location east-adjacent to March Air Reserve Base (MARB) and the presence of a chemical plume in groundwater in the region. The Farallon Phase I ESA identified the presence of volatile organic compounds (VOCs) in groundwater originating from MARB as a recognized environmental condition in connection with the Site, but concluded vapor migration would not pose an unacceptable risk to Site occupants under the planned commercial use based on the low concentrations of VOCs reported in documents reviewed, and the depth to groundwater of over 100 feet below ground surface. This technical memorandum provides further discussion and evidence to support that vapor migration does not pose an unacceptable risk to future Site occupants under a commercial use.

As part of the Farallon Phase I ESA, Farallon reviewed *Final Third Five-Year Review Report, Performance-Based Remediation at March Air Reserve Base and Former March Air Force Base, California* dated September 29, 2014, prepared by AECOM (2014 AECOM Report). The 2014 AECOM Report is the latest report available on the online database of the U.S. Environmental Protection Agency, the regulatory oversight agency for the cleanup actions at MARB. According to the 2014 AECOM Report, the most recent groundwater data proximate to the Site were collected in 2012. The constituent with the highest vapor intrusion risk to concentration ratio was trichloroethene (TCE). TCE was detected at a maximum concentration of 150 micrograms per liter (µg/l) in groundwater from an extraction well, designated EX05A located off-Site and west-adjacent to Heacock Street. The highest on-Site concentration of TCE was from well 5MW07 on the northern portion of the Site that contained 12 µg/l. The California Regional Water Quality Control Board, San Francisco Bay Region, has developed risk-based screening criteria for volatilization of chemicals from groundwater to indoor air known as Environmental Screening Levels (ESLs) (February 2016). ESLs are not cleanup guidelines but conservative screening levels to determine if further evaluation is warranted. The groundwater vapor intrusion ESL for TCE with a depth of 10 feet below ground surface or greater with a mixture of fine and course grained geology, which applies to the Site, is 170 and 1,500 µg/l for residential and commercial use scenarios, respectively.

The highest concentrations of TCE on Site and off Site proximate to the Site are well below conservative screening levels for potential vapor intrusion to indoor air for both residential and commercial use scenarios. The responsible party continues to operate a groundwater cleanup remedy, and concentrations of VOCs in groundwater are anticipated to decrease over time. Based on this information, vapor migration beneath the Site does not pose an unacceptable risk to Site occupants under a future commercial use, and no further assessment is warranted.

Moreno Valley Logistics Center Economic and Fiscal Impact Report

June 2016

ANDREW CHANG & CO, LLC

1107 9th Street, Suite 501, Sacramento ■ CA 95814 ■ 916-538-6091

About Andrew Chang & Company, LLC:

The professionals at Andrew Chang & Company work with our clients to achieve tangible results by combining our best-in-class research and analyses with unique insights into public policy and business and government strategy and operations. Using advanced economic, statistical and business administration techniques, we provide strategy and operations consulting to Fortune 1000 firms and provide policy, economic, fiscal and operations consulting for public sector agencies and non-profit organizations to improve operations.

Moreno Valley Logistics Center Economic and Fiscal Impact Report
(Table of Contents)

Moreno Valley Logistics Center Economic and Fiscal Impact Report
(Key Findings)

- Construction of the proposed Logistics Center is estimated to cost $50.6 – $54.6 million, with an additional $6.8 – $7.5 million in tenant improvements in the first three years of operations.
- Total operations revenue generated from the Center over ten years is projected to be $915 million – $1.1 billion.
- Combined with construction and tenant improvement costs, the Project could generate $970 million – $1.14 billion in direct spend.
- Net fiscal revenue for the City of Moreno is estimated to be up to $830,000 – $960,000 by 2020 annually with an 11-year cumulative total of $8.0 – $9.2 million.
- General Fund revenue is generated from eight impacted tax categories with a total amount of roughly $9.2 – $10.1 million in new tax revenues.
- General Fund expenditures are generated through three recurring costs with a total of $920,000 – $1.6 million.
- Center operations is estimated to create and sustain 340 – 620 new direct and indirect jobs in the City of Moreno Valley.
- The Center is projected to create a cumulative total of $238 – $288 million in new household earnings over 11 years, an average increase of $21.6 – $26.2 million annually.
- The Center is projected to create a cumulative total of $1.1 – $1.2 billion in increased economic output for the City over 11 years, an average increase of $92.6 – $110.3 million annually.

1. Introduction

The City of Moreno Valley is located in the northwest portion of Riverside County, California. Prologis, an international developer and manager of logistics and distribution facilities, has submitted its application to the City to develop a logistics complex totaling 1.7 million square feet on approximately 90 acres of currently undeveloped land. The complex consists of four buildings and would be utilized for warehousing and logistics and potentially light manufacturing.

In order to inform the discussion regarding the development, Prologis has retained Andrew Chang & Company, LLC to conduct an economic and fiscal impact analysis of the proposed development on the City. This study analyzes the one-time impact on the City resulting from the construction of the development, the ongoing impact on the City as a result of facility operations on the City’s General Fund budget, and also characterizes the general economic impacts on the City in terms of employment, household earnings, and economic output creation for City residents and workers. Key questions addressed include the following:

- What is the impact on City General Fund revenues on a one-time and ongoing basis?
- What is the impact on City General Fund expenditures on an ongoing basis?
- What is the net fiscal General Fund impact on a one-time and ongoing basis?
- What are the direct and indirect impacts (multiplier effect) of the initiative on employment in the local area on a one-time and ongoing basis?
- What are the direct and indirect impacts (multiplier effects) of the initiative on regional economic output on a one-time and ongoing basis?
- What are the direct and indirect impacts (multiplier effects) of the initiative on regional personal earnings on a one-time and ongoing basis?

It should be noted that there may be other impacts, such as the effects on adjacent property values that were not assessed within the scope of this study due to the high degree of uncertainty. Depending on how the property will ultimately be used and how the market reacts, property values could marginally increase, decrease, or remain unaffected.

In conducting this analysis, the study team has applied generally accepted principles of public policy analysis, finances, economics, and mathematics. In addition to reporting findings, this study documents the approach, data sources, and assumptions for our assessment.

2. Background

Current & Proposed Land Use

The site for the proposed Prologis Logistics Center is an 89.4 acre property that is currently empty of other buildings or permanent structures/facilities. The terrain is flat and dirt-covered with elevations ranging from approximately 1,497 feet above mean sea level (AMSL) at its northern boundary to approximately 1,468 AMSL at the southeast corner of the property. An ephemeral stream bed transected the Project site from the northwest corner to the southeast until it was channelized as part of the man-made Perris Valley Storm Drain Channel (PVSD), a concrete lined drain channel that bisects the land. See Figure 2.1 below for an aerial photo.

Figure 2.1

Current Land Use

Prologis proposes to construct a Logistics Center made up of four buildings totaling 1,736,180 square feet with the following break down between the four buildings:

- Building 1 – 1,351,753 square feet;
- Building 2 – 122,275 square feet;
- Building 3 – 97,222 square feet; and
- Building 4 – 164,920 square feet.

Building 1, the main anchor of the Project, is specifically designated for high-cube warehousing operations. Buildings 2-4 have yet to be specifically designated an industry type but it is expected they will be used for manufacturing, warehousing, or similar operations. The lot for Building 2 may be used for trailer parking and storage rather than being built out. Of the 1,736,180 square foot Project total, a maximum of 174,000 square feet will be designated for cold storage. See Figure 2.2 below for a diagram of the proposed land use.

Figure 2.2

Proposed Land Use

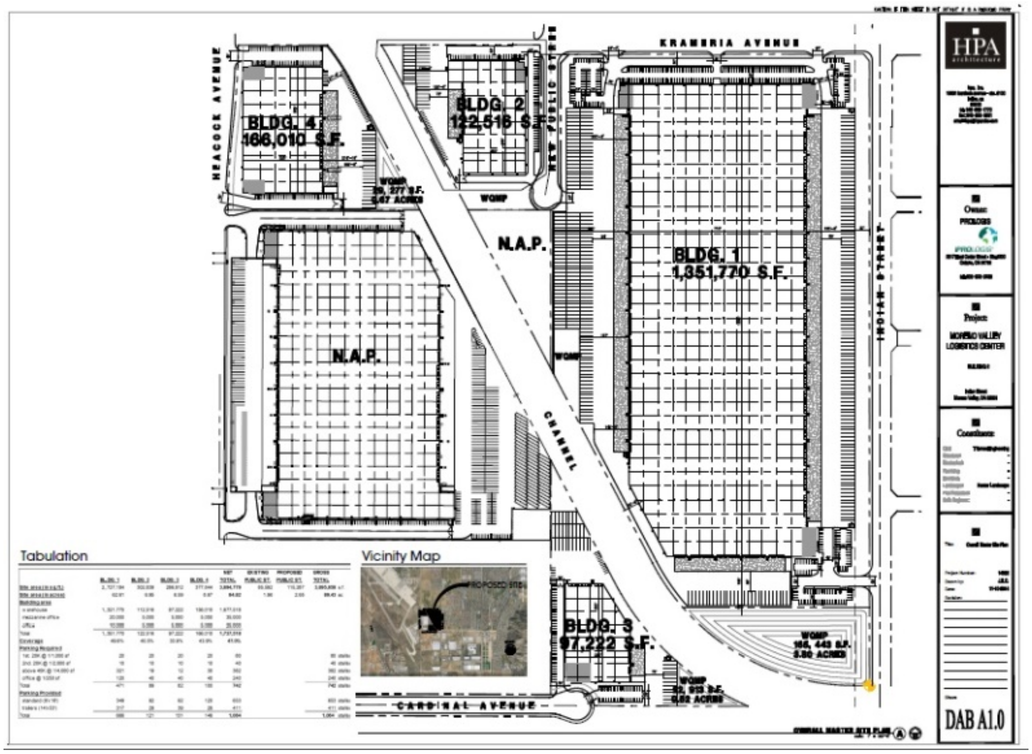

Study Scope & Approach

The purpose of this study is to ascertain the economic and fiscal impact of the proposed Logistics Center. Specifically this report seeks to answer the following questions:

- What is the impact to the City's General Fund?
    - What are the one-time and ongoing impacts to the City's General Fund revenues?
    - What are the one-time and ongoing impacts to the City's General Fund expenditures?
    - What is the net gain/loss to the City from the Project?
- What is the one-time and ongoing effect of the Project on job creation within the City?
- What is the one-time and ongoing impact of the project on economic output within the City?
- What is the one-time and ongoing effect of the Project on household earnings within the City?

In addressing these questions the study approach relies on generally accepted principles of public policy analysis, finances, economics, and mathematics to construct cash-flow/direct spend and economic models specific to the project. The models rely upon information provided by the applicant and publicly available sources. In the instance where data and/or necessary information was unavailable, assumptions were made according to industry standards and are well documented within the body and Appendixes this report.

The direct and indirect impact of the construction and the business operations on the site are measured to account for the holistic impact of the project development and business operations on the site. The term "Direct Effect" represents the economic effect produced by the infusion of new monies into the local economy from construction and operation spend. The term "Indirect Effect" represents the economic effects of local inter-industry spending for goods and services to support construction and operations of the facilities. Both the direct and indirect impacts for each measured impact are summed to provide the "Total Impact" on the City of Moreno Valley. See Figure 2.3 below for a graphical representation of these discussed differences.

Figure 2.3

Direct & Indirect Effects

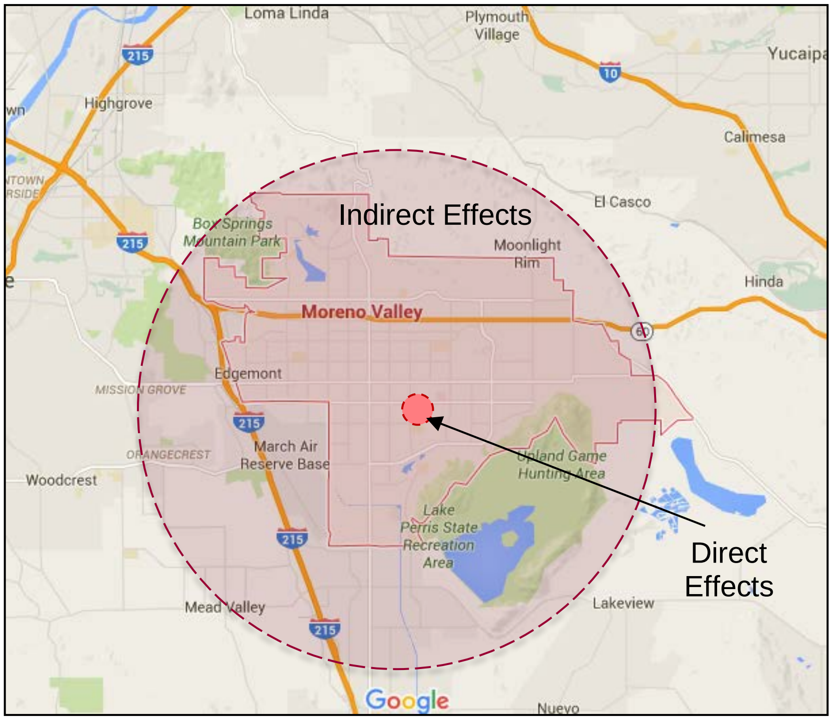

3. Scenario Analysis

Two scenarios for potential building usage were developed to best represent the uncertainty regarding the industry type yet to be designated for Buildings 2-4. The two scenarios are designed to encapsulate the full-range of potential economic and fiscal impacts and are listed below in Table 3.1.

Table 3.1
Scenario Analysis

Mix Manufacturing	Industry Type	Revenue / sq. ft.
Building 1	Warehousing	$89.49
Building 2	Trailer Storage	$1.20
Building 3	Manufacturing	$38.19
Building 4	Manufacturing	$38.19

Warehousing	Industry Type	Revenue / sq. ft.
Building 1	Warehousing	$89.49
Building 2	Warehousing	$89.49
Building 3	Warehousing	$89.49
Building 4	Warehousing	$89.49

In each scenario Building 1 is classified as warehousing as it is the only building with a decided designation. In the Mix Manufacturing scenario the plot for Building 2 is used only for trailer storage and Buildings 3 and 4 are purposed for manufacturing with an expected $38.19 operating revenue per square foot. In the Warehousing scenario all four buildings are purposed for warehousing with an expected $89.49 operating revenue per square foot. See Appendix A – Direct Spend Methodology for details as to how the expected revenues per square foot for each industry were calculated. This approach effectively represents the respective low and high range of possible Project utilization.

The Mix Manufacturing scenario for construction differs from the Warehousing scenario as it does not include the cost of constructing Building 2 but only the cost for pavement.

Attachment: O - Fiscal Impact Study (2234 : PEN16-0001-PEN16-0007 (PA15-0014-0017) Prologis Plot Plans)

4. Construction & Project Operations Phasing

Construction of the Project is expected to be completed in one year for an estimated total of $50.6 –$54.6 million in construction (as provided by the applicant with the variance dependent on whether the plot for Building 2 is developed or utilized as trailer storage). Construction will include the four buildings within the Project as well as work on five streets as listed below in Table 4.1. Of the construction spend, 40% ($20.3 – $21.8 million) is assumed to be for materials per industry standards.[1] [2]

Table 4.1
Construction Cost Estimates

Project Component	Mix Manufacturing Estimate	Warehousing Estimate
Building 1	$32.0 million	$32.0 million
Building 2	$800,000	$4.7 million
Building 3	$4.1 million	$4.1 million
Building 4	$5.6 million	$5.6 million
Indian Street	$3.4 million	$3.4 million
Krameria Avenue	$1.0 million	$1.0 million
Private Street	$0.7 million	$0.7 million
Heacock Street	$2.1 million	$2.1 million
Mariposa Avenue	$1.0 million	$1.0 million
Total	**$50.6 million**	**$54.6 million**
Materials Total	**$20.3 million**	**$21.8 million**

After construction it is estimated that building tenants will spend an additional $6.8 – $7.5 million in building improvements to suit tenant needs. This study assumes a three-year phasing

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[1] Construction Labor Market Analyzer, "CLMA Project Labor Cost Allocation," (2016), accessed May 11, 2016, http://myclma.com/wp-content/uploads/2015/02/CLMA-Allocation-of-Project-Cost-2014Oct27.pdf.

[2] George Hedley, "Construction Labor Costs – 5 Percent Factor," Construction Business Owner, accessed May 11, 2016, http://www.constructionbusinessowner.com/topics/accounting/accounting-finance/construction-labor-costs-5-percent-factor.

period for Project operations and that tenant improvements will follow this timeline as shown below in Table 4.2.

Table 4.2

Tenant Improvements ($Thousands)

Mix Manufacturing Scenario				
Building	2018	2019	2020	Total
Building 1	$1,802.3	$1,802.3	$1,802.3	$5,407
Building 2	$0	$0	$0	$0
Building 3	$194.3	$194.3	$194.3	$583
Building 4	$275.0	$275.0	$275.0	$825
Total				$6,815

Warehousing Scenario				
Building	2018	2019	2020	Total
Building 1	$1,802.3	$1,802.3	$1,802.3	$5,407
Building 2	$244.7	$244.7	$244.7	$734
Building 3	$194.3	$194.3	$194.3	$583
Building 4	$275.0	$275.0	$275.0	$825
Total				$7,549

In addition to the three-year phasing period for Project operations to ramp up, this study also assumes that operations will reach a maximum utilization of 80% in order to preserve a conservative estimate. This is an especially conservative estimate as the total utilization rate for the area is roughly 95% currently.[3] Utilization is measured by the number of square feet activated as shown in Figure 4.1 below. As square footage activation increases in the initial three years of operations the economic and fiscal impact increase as well.

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[3] CBRE, 2015 YTD is through the 2Q 2015.

Figure 4.1

Project Square Footage Activation

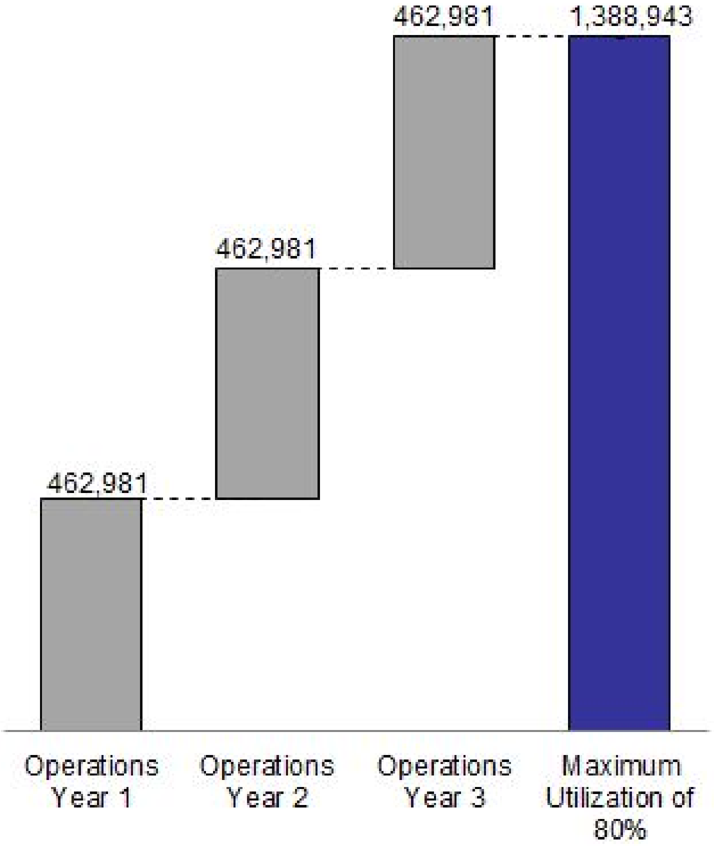

5. Direct Spend Analysis

Direct spend represents the influx of new cash as a result of the Project and is composed of three components as shown below in Figure 5.1 below:

- One-time construction spend in 2017;
- Three-year tenant improvement spend starting in 2018; and
- Center operations starting in 2018.

Figure 5.1

Direct Spend Analysis ($Millions)

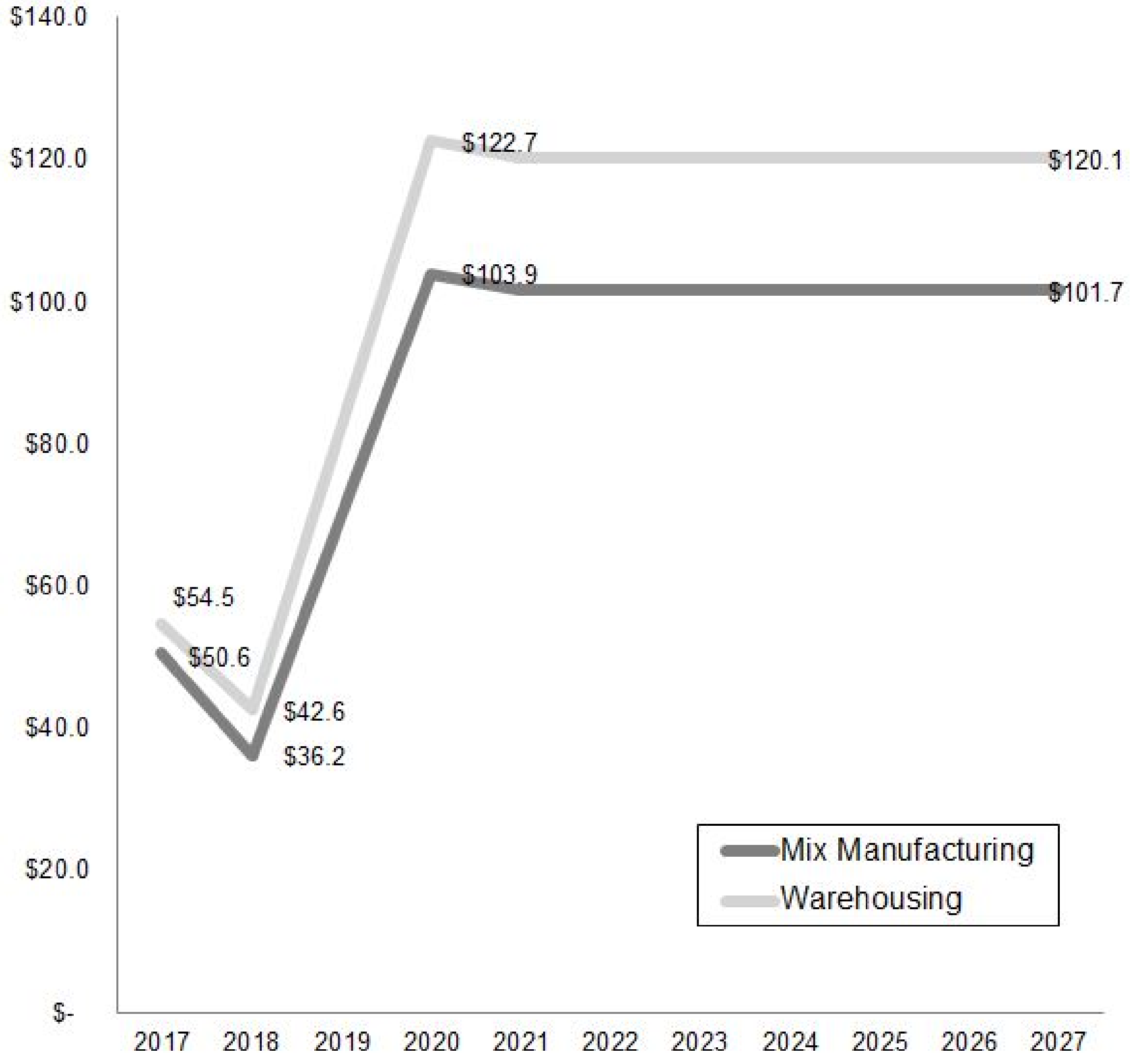

The estimate for construction spend was provided by Prologis but varies due to change in cost for Building 2 and whether it will be used for trailer storage or for an additional building, which will be more expensive. As previously mentioned, in order to preserve a conservative estimate it is assumed that the maximum efficiency of the Project's operations will be no more than 80% and that it will have a three-year phasing period before achieving that level of efficiency. That phasing period is reflected in the high influx of direct spend seen in the graph from 2017 – 2020. The dip in direct spend in 2018 is due to the end of construction spend and early operations of the center. The second but smaller dip in 2021 is due to the end of tenant improvement spending but operations will have reached peak efficiency and maintain that level.

In total after ten years of operations it is expected the Logistics Center will generate between $915 million – $1.1 billion in revenue. Combined with the construction and tenant improvement spend, cumulative direct spend is projected to be $970 million – $1.14 billion. These direct spend levels have economic and fiscal impacts for the City of Moreno Valley as detailed in the following sections. For additional details regarding the direct spend analysis, see Appendix A – Direct Spend Methodology.

6. Tax Revenue Analysis

Net Fiscal Impact Analysis

The projected net fiscal impact to the City of Moreno Valley is estimated to be $830,000 - $960,000 by 2020 once operations have finished the initial three-year phasing period as show in Figures 6.1 and 6.2 below. At that time it is also expected that General Fund costs will level off. By 2027 net revenue is estimated to reach $850,000 - $980,000 due to the annual increase in property tax revenue. By that year, after the initial construction year and ten years of operations, the City stands to receive $8.0 - $9.2 million in total revenue.

In total the Mix Manufacturing scenario has higher costs and fewer revenues than the Warehousing scenario. This is due to the higher expected revenue per square foot for warehousing and the fact that warehousing is expected to hire fewer employees, which will produce fewer costs as will be discussed in the following sub-sections. For additional details regarding General Fund costs and revenues in each scenario see Appendix B – Tax Revenue Scope and Methodology and Appendix C – General Fund Cost Analysis Scope & Methodology.

Figure 6.1

Mix Manufacturing Scenario Net Fiscal Impact

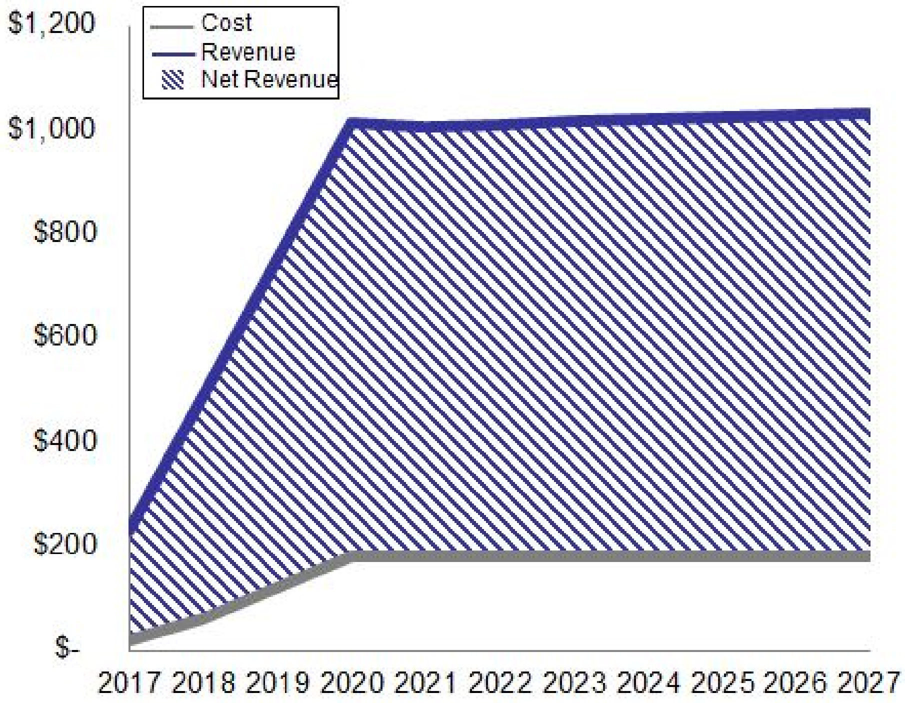

Figure 6.2

Warehousing Scenario Net Fiscal Impact

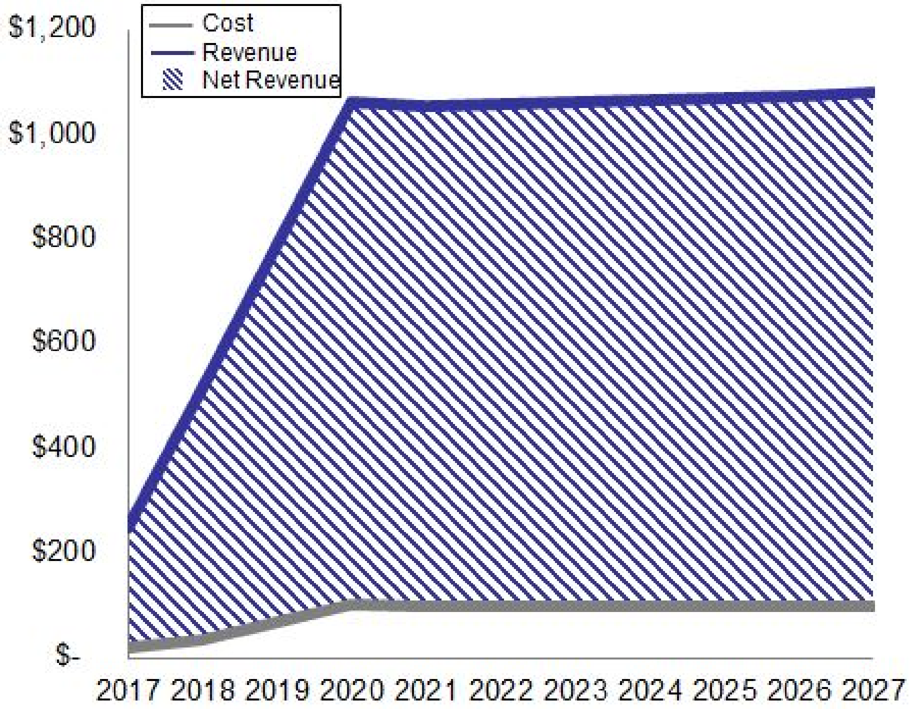

General Fund Revenue Analysis

This study reviewed the most recent Adopted Budget for the City of Moreno Valley and identified eight tax categories that will be impacted by the Prologis Logistics Center and provide General Fund revenue to the City as listed below (see Appendix B – Tax Revenue Scope & Methodology for additional details regarding the scope of expected tax revenue and its justification):

- One-time sales tax;
- On-going sales tax;
- Property tax;
- Property tax in-lieu;
- Utility tax;
- Franchise fee; and
- Business gross tax.

These taxes will produce a cumulative total of roughly $9.2 – $10.1 million in total tax revenue by 2027 for the City as shown in Figure 6.3 below. The largest portion of revenue is projected to come from utility tax (29%), on-going sales tax (22%), and property tax (21%) while the smallest three revenue sources only make up a rough cumulative 9% of the total.

Variance between the two scenarios is driven by the different uses for Buildings 2-4, most significantly whether or not the lot for Building 2 is developed into a warehouse or for trailer storage. On-going sales tax is only calculated for the supply spend of the Logistics Center. This is due to the fact that few goods in manufacturing and warehousing industries are taxable and so, in order to preserve a conservative estimate, this study assumes there will be no sales tax revenue on operations other than supply spend. All other impacted tax categories have little variance dependent on the different industries in each scenario. See Appendix B – Tax

Revenue Scope & Methodology for additional details regarding the approach to calculating each tax category total.

Figure 6.3

Cumulative Tax Revenue by Category – 2017-27 ($Thousands)

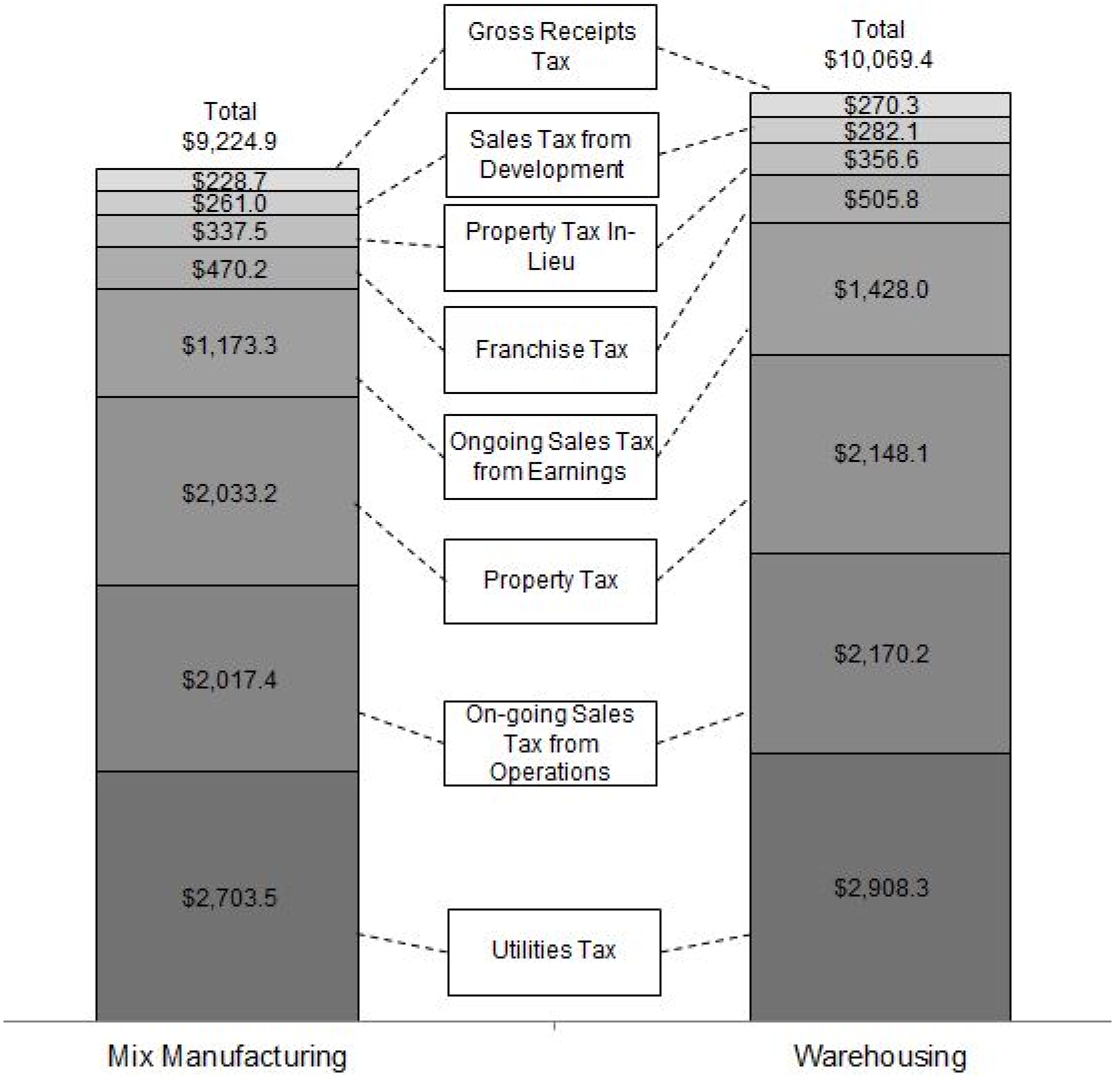

General Fund Expenditure Analysis

Cumulative costs to the General Fund resulting from the Logistics Center are estimated to be between $920,000 and $1.6 million by 2027. An analysis of the most recent Adopted Budget for the City of Moreno Valley identified three recurring expenditures potentially impacted by the Center as listed below (see Appendix C – General Fund Cost Analysis Scope & Methodology for additional details regarding the scope of expected expenditures and its justification):

- City Police services;
- Fire services; and
- Street-maintenance.

These costs were determined using a per capita multiplier method in the case of City Police and Fire services (where new employees are assumed to be a one for one added total capita) and a per lane mile multiplier method in the case of street-maintenance (see Appendix C – General Fund Cost Analysis Scope & Methodology for further details). As a result, the increased expected employment figures generated in the Mix Manufacturing scenario produce higher corresponding costs, and the Warehousing scenario, which is expected to generate fewer new jobs, produce lower costs (see the following section, Employment Analysis, for further detail regarding job creation).

City Police services make up roughly 68% of all identified costs while Fire Services make up the majority of the remainder and Street-Maintenance less than 1% in the Mix Manufacturing scenario and 1.2% in the Warehousing scenario as shown below in Figure 6.4.

Typically speaking these costs are paid for by the applicant through municipality development impact fees. However, in order to preserve a conservative estimate this approach assumes the cost will be absorbed by the City.

Figure 6.4

Cumulative General Fund Expenditures by Category – 2017-27 ($Thousands)

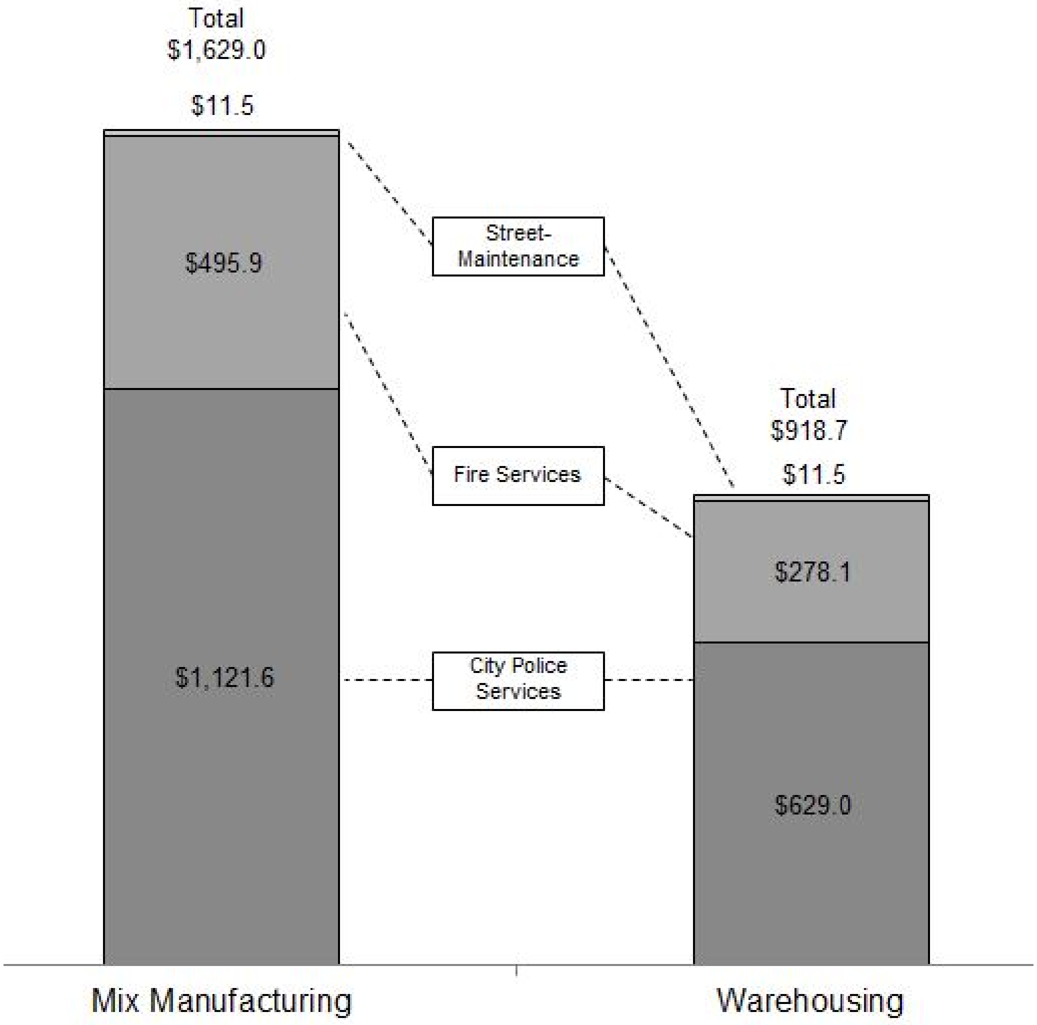

7. Employment Analysis

The proposed Logistics Center is projected to create between 340 – 620 ongoing jobs by 2020 once the Center has completed the assumed three-year phasing as shown below in Figure 7.1. The Mix Manufacturing scenario is expected to produce almost twice as many jobs as the Warehousing scenario despite the fewer number of operating buildings in the Mix Manufacturing scenario. This is due to the inherent higher demand for labor in manufacturing than in warehousing. See Appendix D – Employment Methodology for additional details.

Figure 7.1

Job Creation from Project Construction and Operations

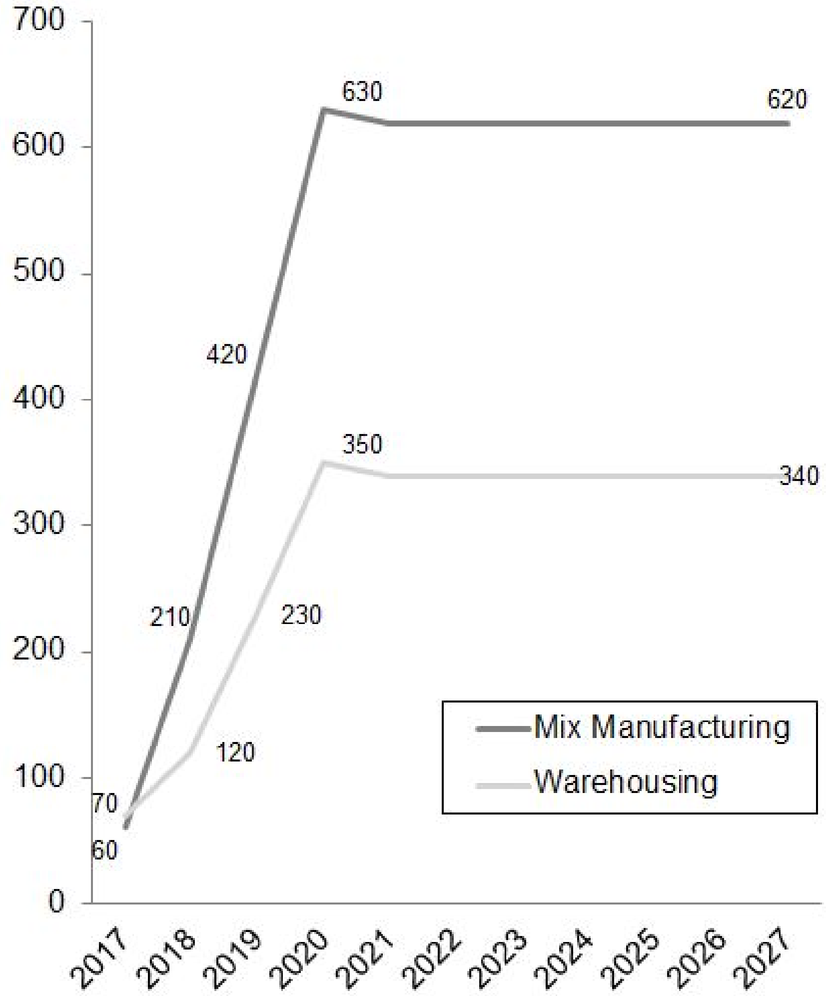

Data from the California Employment Development Department's Labor Market Information Division[4] and housing information from the US Census[5] for the year 2014 provides a jobs-to-housing ratio for the City of Moreno Valley of 1.4518. Assuming this ratio remains consistent, by 2020 when job creation resulting from the Project levels off the jobs-to-housing ratio will grow to 1.4631 in the Mix Manufacturing scenario and 1.458 in the Warehousing scenario.

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[4] Employment Development Department, Labor Market Information Division. "Monthly Labor Force Data for Cities and Census Designated Places (CDP)." (2014). Accessed May 6, 2016. http://www.labormarketinfo.edd.ca.gov.

[5] US Census Bureau, Quick Facts, Riverside County, Moreno Valley City.

8. Earnings Analysis

Household earnings for City residents are estimated to increase by a cumulative total of $238 – $288 million by 2027 as a result of the Logistics Center as shown in Figure 8.1 below. Annual increases in household earnings vary from the initial low point in 2017 of roughly $7 million resulting from construction in each scenario to the sustained annual amount of $25.6 – $31.1 million in 2021. On average across the 11 years, City residents are projected to see an annual increase of $21.6 – $26.2 million in household earnings. See Appendix E – Earnings & Output Methodology for additional details regarding the approach utilized in this study.

Figure 8.1

Cumulative Increase in Household Earnings – 2017-27 ($Millions)

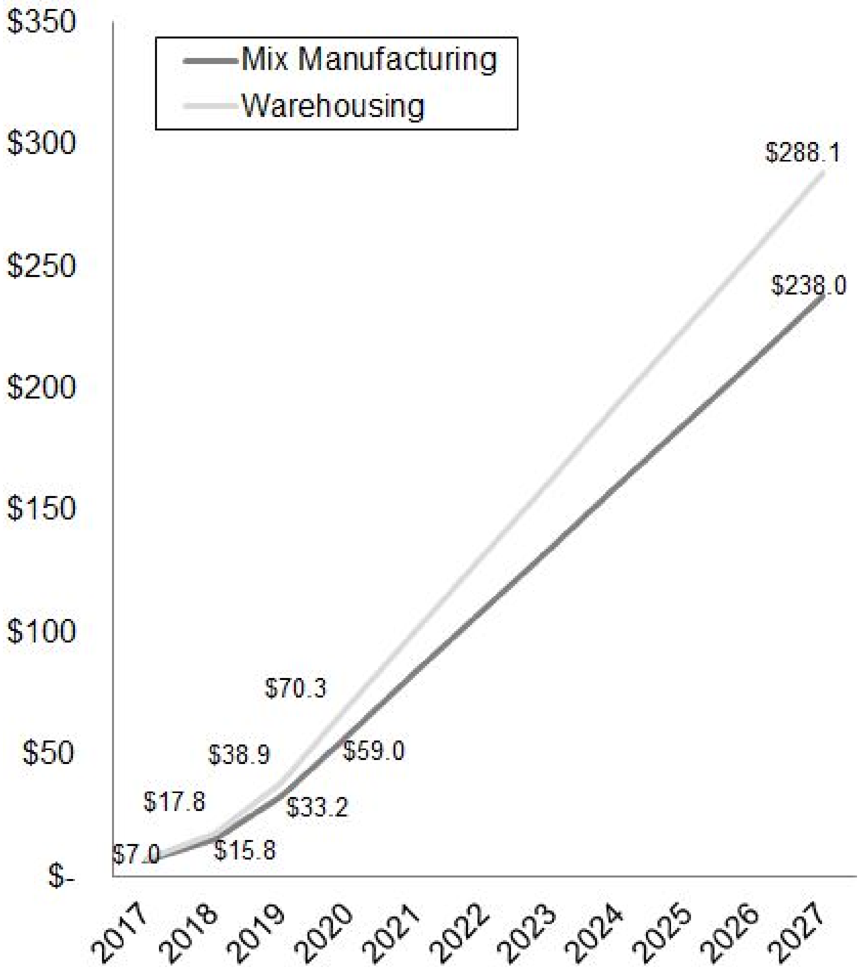

9. Output Analysis

Economic output for the City of Moreno Valley is estimated to increase by a cumulative total of $1.1 – $1.2 billion by 2027 as a result of the Logistics Center as shown in Figure 9.1 below. Annual increases in output vary from the initial low point in 2017 of $35.4 – $38.2 million resulting from construction to the sustained annual amount of $108.8 – $130.0 million in 2021. On average across the 11 years, the City is projected to see an annual increase of $92.6 – $110.3 million in economic output. See Appendix E – Earnings & Output Methodology for additional details regarding the approach utilized in this study.

Figure 9.1

Cumulative Increase in Economic Output – 2017-27 ($Millions)

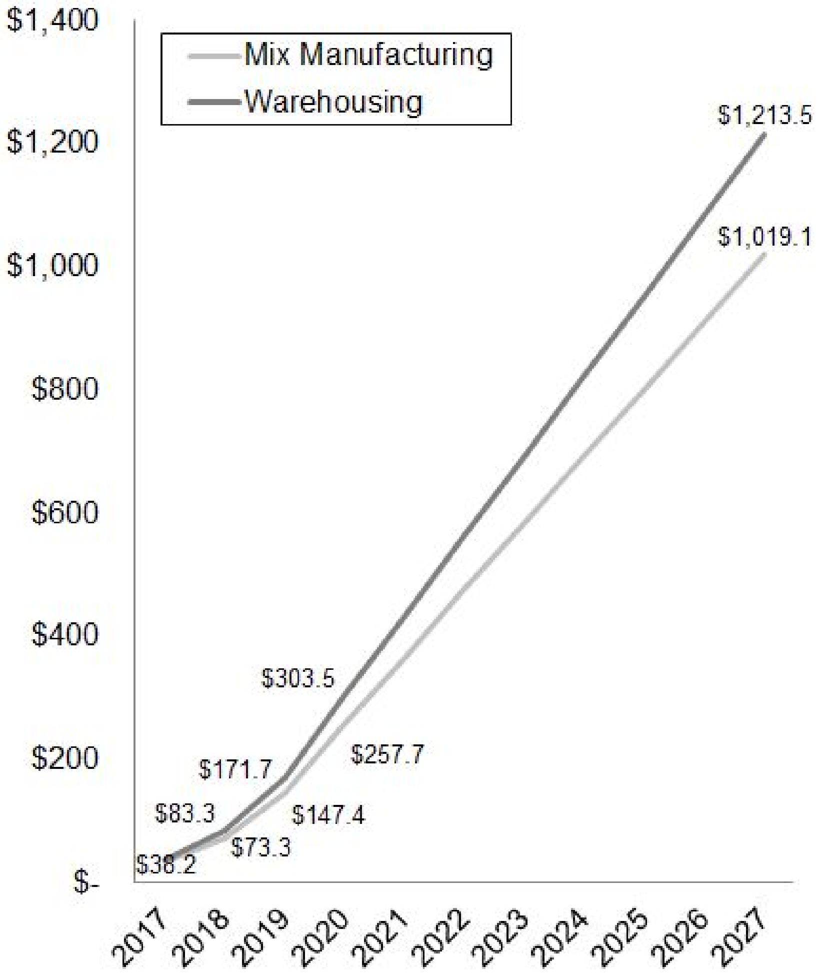

10. Conclusion

Prologis, an international developer and manager of logistics and distribution facilities, has proposed to develop a Logistics Center in the City of Moreno Valley totaling 1.7 million square feet on approximately 90 acres of undeveloped land. The complex consists of four plots for up to four buildings (or three and a trailer storage lot) and would be utilized for warehousing, logistics, light manufacturing, or similar uses. The Center is estimated to cost $50.6 – $54.6 million to construct with an additional $6.8 – $7.5 million in tenant improvements during the first three years of operations. Over ten years of operations the Center could generate $915 million – $1.1 billion in revenue. When combined with the direct spend from construction and tenant improvements, the Center stands to generate $970 million – $1.14 billion in direct spend. This influx of funds will have economic and fiscal impacts on the City of Moreno Valley in the form of net fiscal revenue, job creation, household earnings, and economic output.

Net fiscal revenue for the City is estimated to be up to $830,000 – $960,000 annually by 2020 with an 11-year cumulative total of $8.0 – $9.2 million. This net fiscal revenue is the result of roughly $9.2 – $10.1 million in new tax revenue generated by the Project offset by $920,000 – $1.6 million in General Fund expenditures. Center operations can create and sustain 340 – 620 new jobs specific to the City. Additionally it is projected to increase household earnings by an 11-year total of $238 – $288 million, or an annual average of $21.6 – $26.2 million, as well as economic output by an 11-year total of $1.1 – $1.2 billion, or an annual average of $92.6 – $110.3 million.

Appendix A – Direct Spend Methodology

The direct spend for this project is comprised of three components:

- Applicant construction spend;
- Tenant improvements spend; and
- Revenue through operations of the Logistics Center.

Estimates for the applicant construction spend and tenant improvements spend were provided by the applicant. Typically speaking, estimates for revenue would be calculated by factoring the square footage of the project by the average revenue per square foot for that particular industry. This was done to estimate the total expected revenue for the trailer storage lot in the Mix Manufacturing scenario and the figure for expected revenue per square foot was provided by the applicant. Upon initial research no such estimates that were specific to the area for revenue per square foot for manufacturing and warehousing could be found.

An alternative approach was utilized where the total jobs for each industry (manufacturing and warehousing) was found for the Inland Empire (Riverside and San Bernardino Counties)[6] as well as the total activated square footage for each industry in the same counties[7] with both figures from the year 2015. Dividing the total number of jobs by the total square footage for each industry produced perspective average figures for number of employees per square feet. This ratio was factored by the total square footage of the project to find the expected number of direct jobs from the project assuming 100% operation capacity for each of the model's scenarios (mix manufacturing and warehousing). This figure was factored by the industry-specific direct effect multiplier as produced by the U.S. Bureau of Economic Analysis (BEA)[8] to find the

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[6] Employment Development Department, Labor Market Information Division. "Riverside San Bernardino Ontario MSA." (2016). Accessed May 12, 2016. http://www.labormarketinfo.edd.ca.gov.

[7] Teresa Petrosyan. "Industrial Statistics: Inland Empire, Q4 2015." (2016). Accessed May 5, 2016. http://www.us.jll.com/united-states/en-us/research/6686/US-Inland-Empire-Industrial-Stats-Q4-2015-JLL.

[8] U.S. Bureau of Economic Analysis, Regional Multipliers. Series: 2013 U.S. Annual I-O Data and 2013 Regional Data. Region: Riverside.

expected total number of new jobs (direct and indirect) in Riverside County as a result of the project. The total number of new jobs in the county was then divided by the industry-specific final demand multiplier, also produced by the BEA,[9] to find the expected direct spend of the project. With the direct spend estimated for each industry type, each perspective total is divided by the total square footage for each industry type to find the expected revenue per square foot. See Flowchart A.1 below for a graphical representation of this approach.

Flowchart A.1

Direct Spend Methodology

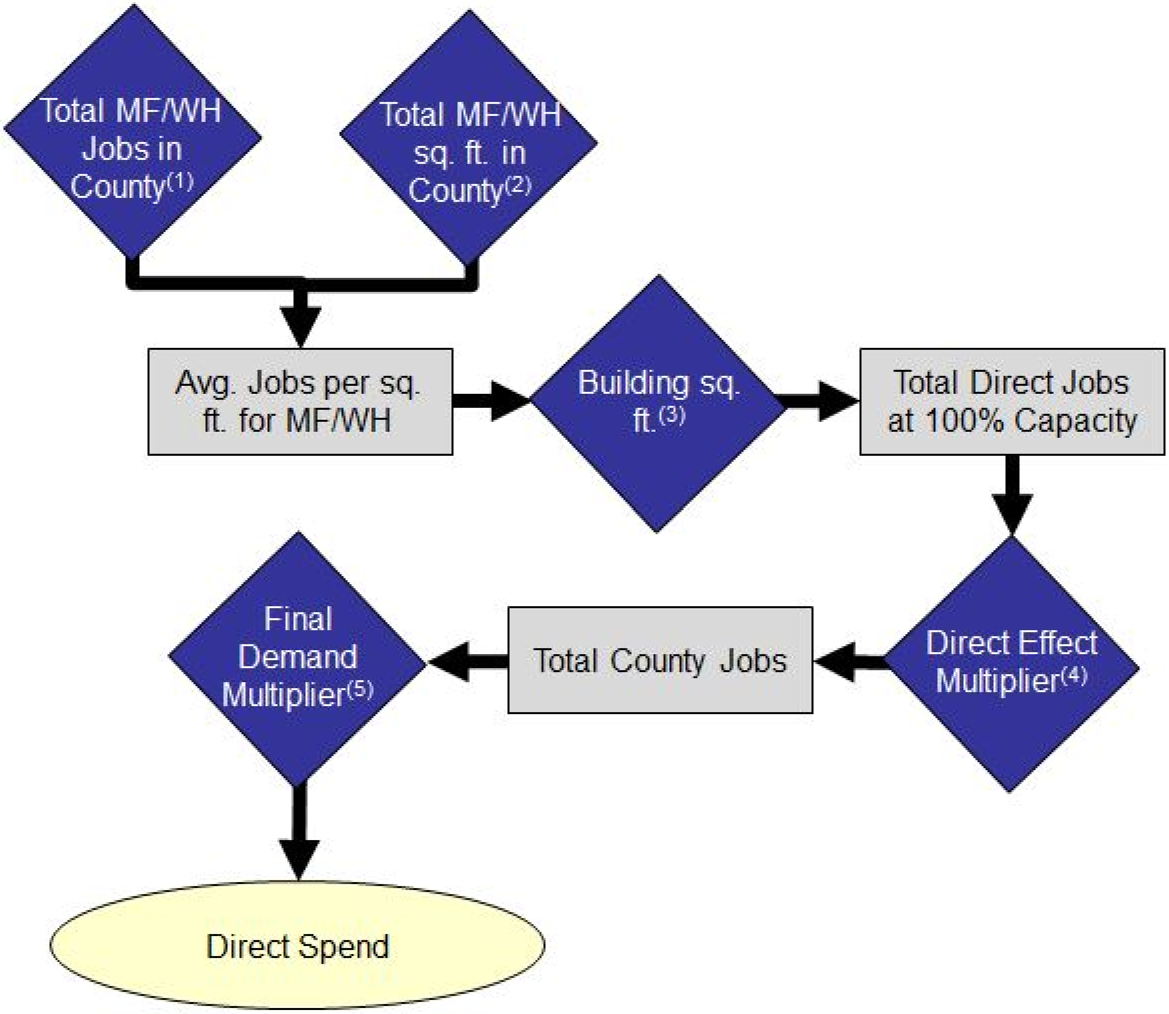

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[9] U.S. Bureau of Economic Analysis.

Notes

(1) Total manufacturing (MF) and warehousing (WH) jobs in Riverside and San Bernardino Counties for 2015 as listed in the California Employment Development Department's Labor Market Information Division database.[10]

(2) Total manufacturing (MF) and warehousing (WH) square footage in Riverside and San Bernardino Counties as listed in Jones Lang LaSalle's Industrial Statistics for the Inland Empire for Q4 2015.[11]

(3) Building square footage for Prologis Logistics Centers as provided by applicant.

(4) Direct effect regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[12]

(5) Final demand regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[13]

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[10] Employment Development Department, "Riverside, San Bernardino, Ontario MSA."
[11] Petrosyan.
[12] U.S. Bureau of Economic Analysis.
[13] U.S. Bureau of Economic Analysis.

Appendix B – Tax Revenue Scope & Methodology

Scope

The 2016-17 Adopted Budget for the City of Moreno Valley[14] was analyzed to determine potential revenue to the City from the Logistics Center through taxes and fees. The budget is composed of seven major taxes and six major categories of fees and intergovernmental transfers. Based on the analysis of the City's budget it was concluded that the following recurring taxes may be impacted by the Project:

- Sales tax;
- Property taxes;
- Property tax in-lieu of vehicle license fee;
- Utility users tax;
- Franchise fee; and
- Business gross receipts tax.

This report's approach also includes the one-time potential sales tax gains for the materials involved in the development of the property.

This approach accounts for 98% of taxes and 77% of all General Funds, including fees, fines and government transfers. It is believed that the taxes, fees, fines and transfers excluded from the analysis are exogenous to the construction and operation of the facility. See Table B.1 below for more information.

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[14] Financial & Management Services Department: City of Moreno Valley. "City of Moreno Valley Fiscal Year 2015/16 – 2016/17 Adopted Budget." 2015. Accessed May 6, 2016. http://www.moreno-valley.ca.us/city_hall/departments/fin-man-serv/fin-pdf/budg-15-16-16-17/adopt-budget15-16-16-17.pdf.

Table B.1

City Budget Taxes and Fees

City of Moreno Valley Budget	FY 2016/17 Adopted	Study Scope	
		One-Time	Recurring
Taxes:			
Sales Tax	$20,486,866	XX	XX
Property Tax	$12,736,197	--	XX
Property Tax In-Lieu of VLF	$16,597,580	--	XX
Utility Users Tax	$16,092,542	--	XX
Franchise Fees	$6,069,018	--	XX
Business Gross Receipts Tax	$1,778,000	--	XX
Transient Occupancy Tax	$1,105,650	--	--
Other Taxes	$500,000	--	--
Fees & Intergovernmental Transfers:			
Charges for Services	$10,971,363	--	--
Use of Money & Property	$3,469,962	--	--
Licenses & Permits	$2,126,877	--	--
Fines & Forfeitures	$629,073	--	--
Intergovernmental	$215,000	--	--
Transfers In	$2,547,650	--	--
Miscellaneous	$103,400	--	--
Total Revenue Budget	$95,429,178	--	--

One-Time Sales Tax

One-time sales tax revenue is composed of two components:

- Direct sales tax revenues from the cost of materials during construction; and
- Indirect sales tax revenue from the increase in household earnings.

Direct sales tax revenues are found by factoring the cost of materials estimated at 40% of the total construction cost, per industry standards,[15] [16] by the statutory city tax rate as listed in the Adopted Budget 2016-17.[17] The sales tax rate in Riverside County is 8.0%, of which Moreno Valley receives 1% from the California Board of Equalization (BOE) for transactions occurring within the City. Indirect sales tax revenue on earnings is found by first factoring the total construction costs as provided by the applicant with the earnings multiplier produced by the U.S. Bureau of Economic Analysis (BEA)[18] in order to find the increase in household earnings resulting from construction of the Project. Those earnings are then factored by the effective sales tax rate[19] to find the one-time indirect sales tax revenue. See Flowchart B.1 below for a graphical representation for this approach.

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[15] Construction Labor Market Analyzer.
[16] Hedley.
[17] City Budget
[18] U.S. Bureau of Economic Analysis.
[19] See “Effective Sales Tax Calculation” at the end of this Appendix (Appendix B – Tax Revenue Scope and Methodology).

Flowchart B.1

Sales Tax Methodology

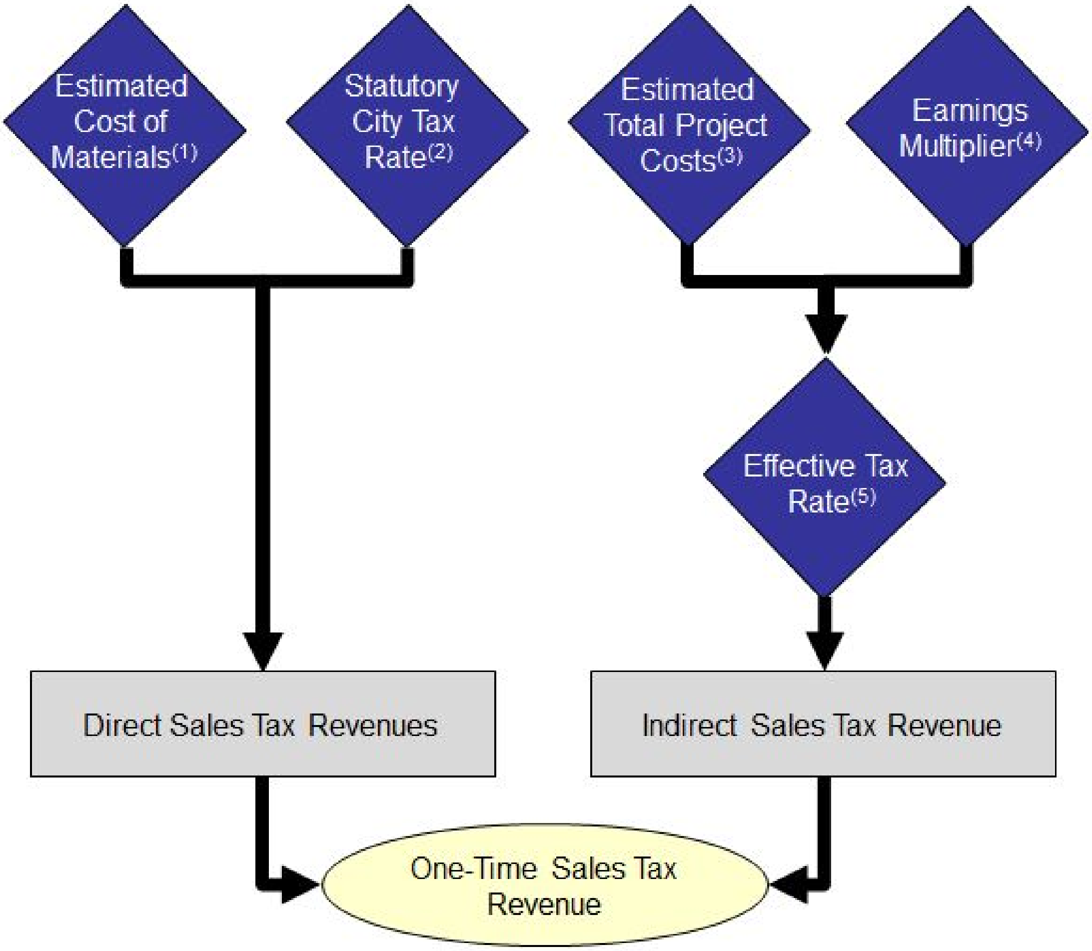

Notes

(1) Cost of materials estimated at 40% of total construction costs as provided by the applicant per industry standards.[20] [21]

(2) Statutory City tax rate is 1% based on information provided in City of Moreno Valley, Adopted Budget Fiscal Year 2015-16, Fiscal Year 2016-17.[22]

(3) Total construction costs estimated to be $54.6 million as provided by the applicant.

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[20] Construction Labor Market Analyzer.
[21] Hedley.
[22] Financial & Management Services Department, "…Adopted Budget."

(4) Earnings regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[23]

(5) See "Effective Sales Tax Calculation" at the end of Appendix B – Tax Revenue Scope and Methodology for methodology.

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[23] U.S. Bureau of Economic Analysis.

On-Going Sales Tax

On-going sales tax revenue is composed of two components:

- Local sales tax revenue from business operations; and
- Induced household earnings sales tax revenue.

Local sales tax revenue from business operations represents the tax revenue collected from supply expenditures. Due to the business nature of manufacturing and warehousing it is assumed that no other sales tax will be collected outside of supply expenditures. This approach preserves a conservative estimate of City revenues. The local sales tax revenue is calculated by first factoring the estimated supply spend per square foot ($27.78), as found in the BizCost report, “Comparative Distribution Warehousing Operating Costs”,[24] by the local spend retention rate, which is assumed at 50% as the actual rate will depend on what goods are sold and the tenant company policy which are both currently unknown. The result is the local supply spend, which is then factored by the statutory sales tax rate as listed in the Adopted Budget 2016-17[25] to find the local sales tax revenue.

Indirect household earnings sales tax revenue is found by first factoring the total operation revenue as earlier estimated (see “One-Time Sales Tax” in Appendix B – Tax Revenue Scope & Methodology) with the earnings multiplier produced by the U.S. Bureau of Economic Analysis (BEA)[26] in order to find the increase in household earnings resulting from the Project’s operations. Those earnings are then factored by the effective sales tax rate[27] to find the induced household earnings sales tax revenue. See Flowchart B.2 below for a graphical representation for this approach.

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[24] BizCosts. Comparative Distribution Warehousing Operating Costs. Princeton, NJ: The Boyd Company, 2012.

[25] Financial & Management Services Department, “…Adopted Budget.”

[26] U.S. Bureau of Economic Analysis.

[27] See “Effective Sales Tax Calculation” at the end of this Appendix (Appendix B – Tax Revenue Scope and Methodology).

Flowchart B.2

On-Going Sales Tax Methodology

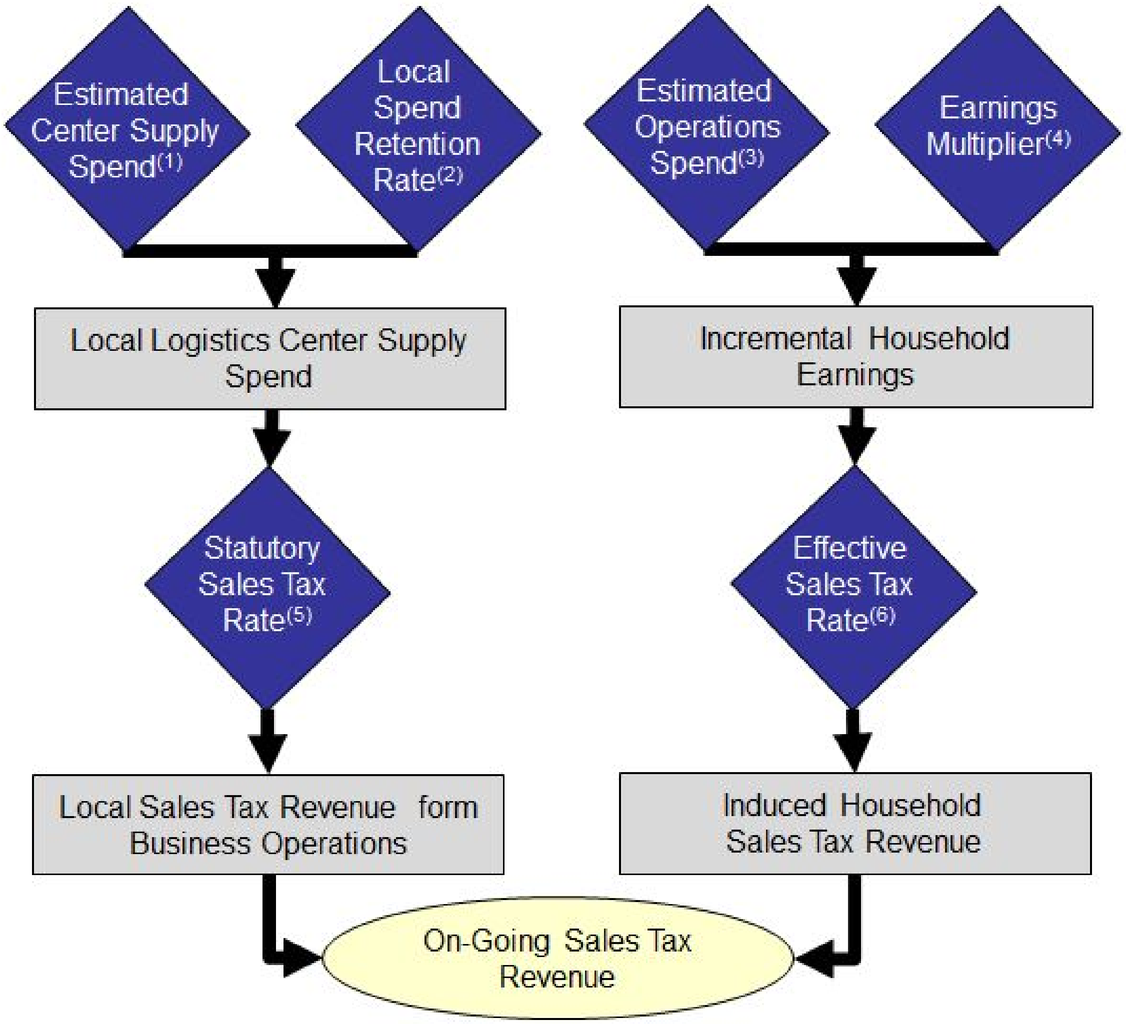

Notes

(1) Center supply spend estimated to be $27.78 per square foot.[28]

(2) Local spend retention rate assumed to be 50% of total spend.

(3) Operations spend as determined by estimated revenue of the Project. See “One-Time Sales Tax” in Appendix B – Tax revenue Scope & Methodology for methodology.

---

[28] BizCosts.

(4) Earnings regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[29]

(5) Statutory City tax rate is 1% based on information provided in City of Moreno Valley, Adopted Budget Fiscal Year 2015-16, Fiscal Year 2016-17.[30]

(6) See “Effective Sales Tax Calculation” at the end of Appendix B – Tax Revenue Scope and Methodology for methodology.

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[29] U.S. Bureau of Economic Analysis.

[30] Financial & Management Services Department, “…Adopted Budget.”

Property Tax

Moreno Valley property owners pay a basic tax equal to 1% of the assessed value of real property. Based on the Tax Rate Area (TRA) a property may be located in, the City's General Fund receives approximately 11% of these 1% tax payments, with the larger shares going to local schools, community colleges and Riverside County. Property tax revenue for the Project is found by factoring the assessed property value as provided by the applicant, taking into account the 2% growth in value per year, by the TRA tax rate of 1%[31] and again by 11% to represent the amount received by the City's General Fund.[32] See Flowchart B.3 below for a graphical representation of this approach.

Flowchart B.3
Property Tax Methodology

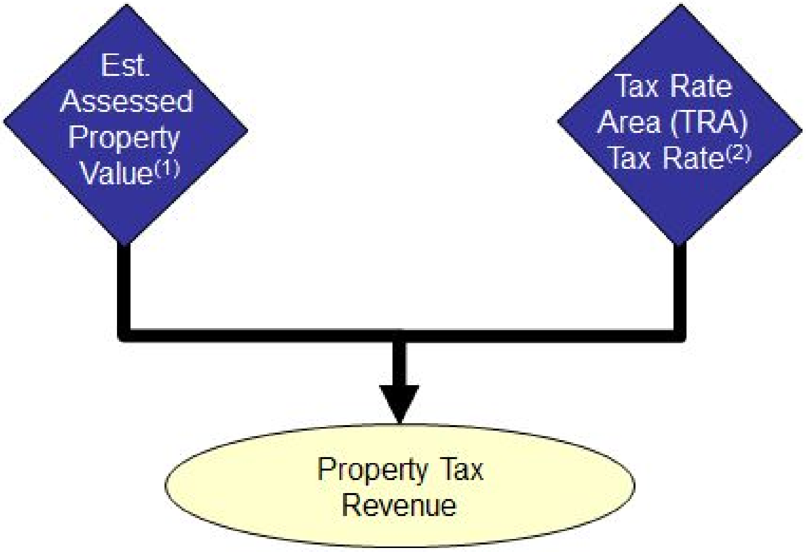

Notes

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[31] Auditor Controller, County of Riverside, "Tax Rates by Tax Rate Areas (2015-16)," accessed May 6, 2016, http://www.auditorcontroller.org/Portals/0/Documents/about_us/division/Proptax/AUCB940-DISTtax.pdf.

[32] Financial & Management Services Department, "…Adopted Budget."

(1) Estimated assessed property value provided by the applicant.

(2) Tax rate for the TRA is 1.09210% as provided by the Riverside County Tax Assessor's Office.[33]

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[33] Auditor Controller, "Tax Rates…"

Property Tax In-Lieu

Per California Tax and Revenue and Taxation Code 97.70, the City General Fund receives property tax in lieu of Vehicle License Fee based on the change in the City's gross assessed valuation of taxable property for new developments. See Flowchart B.4 below for a graphical representation of this approach.

Flowchart B.4
Property Tax In-Lieu Methodology

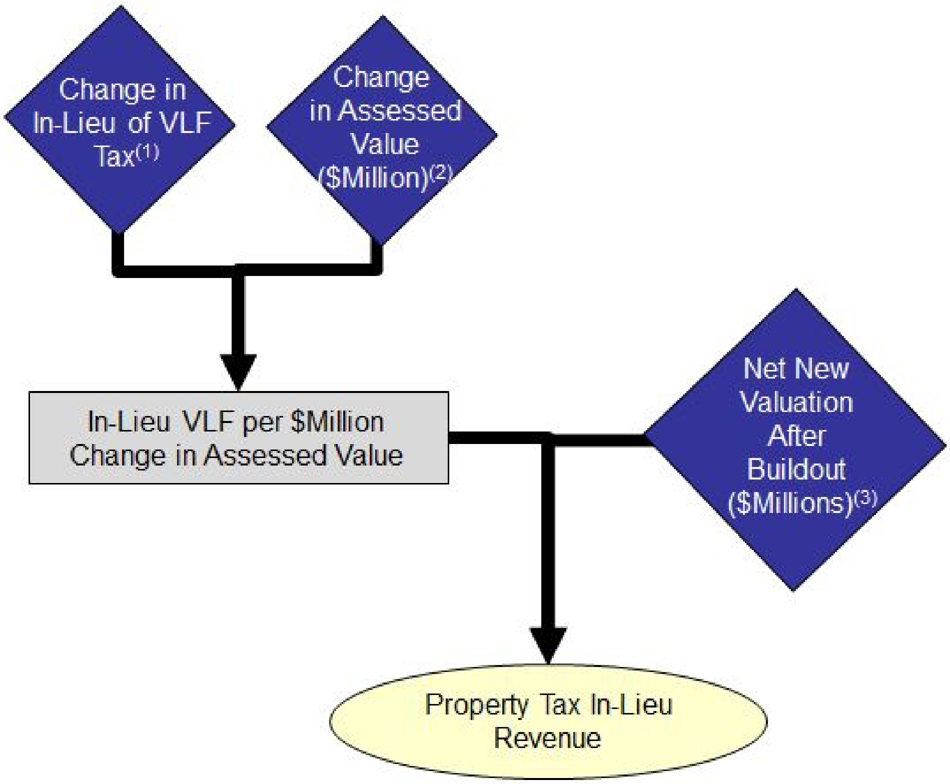

Notes

(1) Change in In-Lieu of VLF revenues between Fiscal Year (FY) 2004-05[34] and FY 2016-

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[34] Finance Department, Moreno Valley City Hall. "City of Moreno Valley, California, Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2005." (2005). Accessed May 12, 2016. http://www.moreno-valley.ca.us/city_hall/departments/fin-man-serv/fin-pdf/mv2005cafr0605.pdf.

17.[35]

(2) Change in the City of Moreno Valley total assessed property value between FY 2004-05[36] and FY 2016-17.[37]

(3) New net valuation after buildout as provided by the applicant.

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[35] Financial & Management Services Department, "…Adopted Budget."

[36] Gary L. Orso, "City of Riverside, Assessor-County Clerk-Recorder 2004-2005 Annual Report." (2005). Accessed May 11, 2016. www.asrclkrec.com.

[37] Riverside County Assessor, "Assessed Value for Cities 2016/2018," accessed May 9, 2016, www.asrclkrec.com/.

Utility Users Tax

Utility users tax (UUT) is a 5.75% charge on all utility activity in the City of Moreno Valley. The tax is assessed on electricity, energy, water, cable, and wireless and telephone charges. In order to preserve a conservative approach only the electricity and natural gas components were included in this analysis. To find the UUT revenue the electricity and natural gas spend per square foot, as provided in the BizCost report,[38] is factored by the total square footage of the Project, as provided by the applicant. Then both the electricity and natural gas spend is factored by the UUT rate to find the total revenue. See Flowchart B.5 below for a graphical representation of this approach.

Flowchart B.5
Utility Tax Methodology

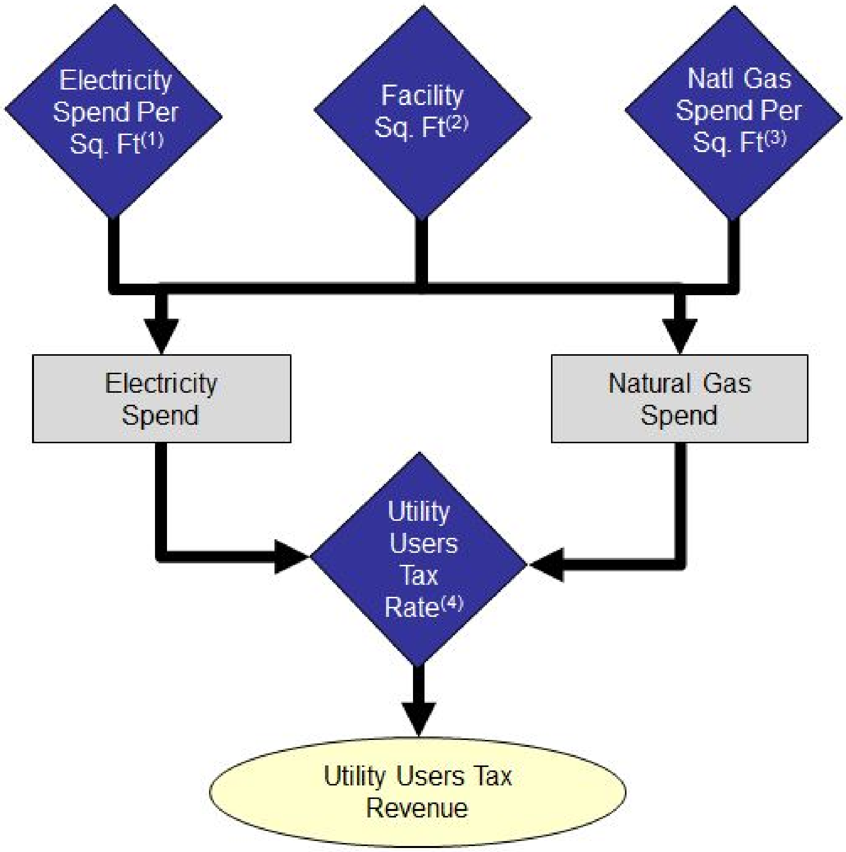

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[38] BizCosts.

Notes

(1) Electricity costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts report.[39]

(2) Facility square footage as provided by the applicant.

(3) Natural gas costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts report.[40]

(4) Utility users tax rate as provided by the Adopted Budget 2016-17.[41]

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[39] BizCosts

[40] Ibid.

[41] Financial & Management Services Department, "…Adopted Budget."

Franchise Fee

Franchise fee revenue consists of a tax on four franchise operations in the City of Moreno Valley – electric, natural gas, cable, television, and refuse. In order to preserve a conservative approach only the electricity and natural gas components are included in this analysis. To find the franchise fee revenue the electricity and natural gas spend per square foot, as provided in the BizCosts report,[42] is factored by the total square footage of the Project, as provided by the applicant. Then both the electricity and natural gas spend is factored by the franchise fee rate to find the total revenue. See Flowchart B.5 below for a graphical representation of this approach.

Flowchart B.6
Franchise Fee Methodology

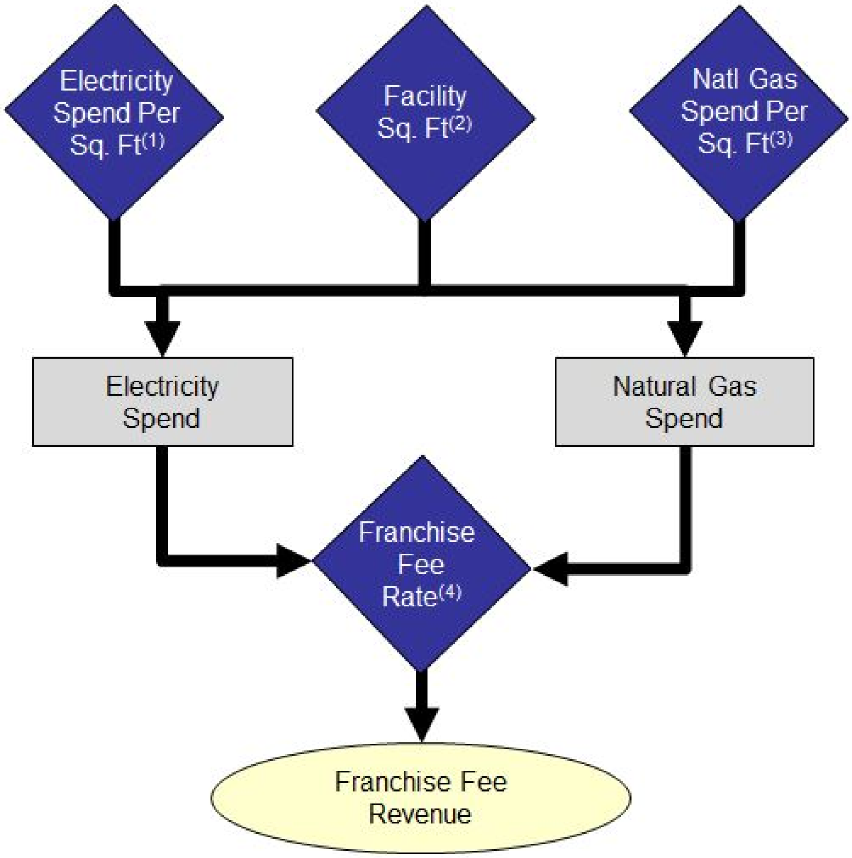

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[42] BizCosts.

Notes

(1) Electricity costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts report.[43]

(2) Facility square footage as provided by the applicant.

(3) Natural gas costs per square foot for Riverside and San Bernardino warehouse facilities as provided by the BizCosts report.[44]

(4) The franchise fee rate for both electric and natural gas is equal to 1% of gross annual revenues.[45]

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[43] BizCosts.
[44] Ibid.
[45] Financial & Management Services Department, "…Adopted Budget."

Business Gross Tax

The City of Moreno Valley imposes a gross receipts tax for warehousing and manufacturing establishments in the amount of $0.25 per $1,000 of gross receipts.[46] Gross receipts are assumed to be equivalent to the estimated revenue of the Logistics Center. To find the gross receipts tax revenue the estimated gross receipts is factored by the gross receipts tax rate. See Flowchart B.7 below for a graphical representation of this approach.

Flowchart B.7

Business Gross Tax Methodology

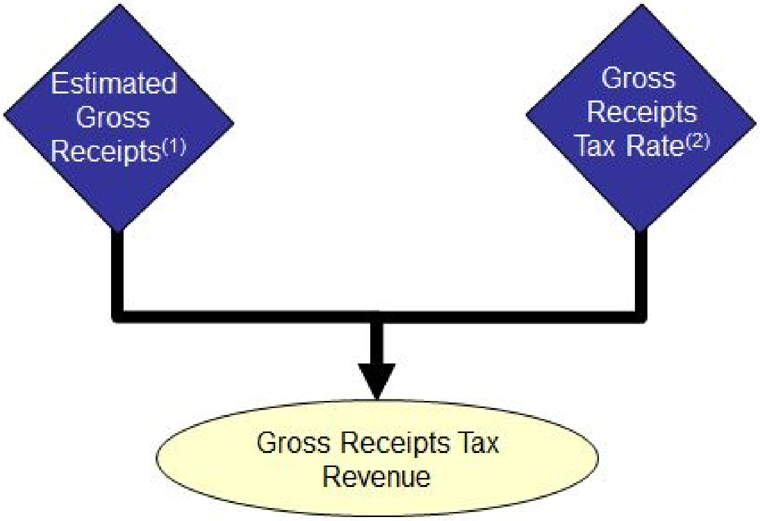

Notes

(1) Gross receipts are assumed to be equivalent to the estimated revenue of the Project.

(2) Gross receipts tax rate is $0.25 per $1,000, or 0.025%.[47]

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[46] City of Moreno Valley. “Business License Categories and Application Fees.” (2016). Accessed May 10, 2016. http://www.moreno-valley.ca.us/edd/pdfs/BusLicCategories-Fees.pdf.

[47] Ibid.

Effective Sales Tax Calculation

The effective sales tax represents the amount of additional sales taxes expected to be paid with any increase in household earnings. The effective tax rate is the ratio that can be factored by any increase in earnings to find that expected increase. The formula used to calculate the effective tax rate is the total City sales tax revenue for a particular year divided by the total income of City residents for the same year. The total income of City residents is calculated by factoring the average per capita income by the City population.

In order to produce an effective sales tax rate for this study, Andrew Chang & Company first calculated an estimated population for the City of Moreno Valley for 2017 based on average population growth between 2010 and 2014. Next an estimated per capita income for 2017 is calculated based on the California Price Index (CPI) growth between 2014 and 2016. This figure is factored with the estimated population to find the total income of City residents for 2017. The City sales tax revenue, as provided by the Adopted Budget 2016-17,[48] is divided by the total income of City residents to produce an effective sales tax rate for 2017. See the equation below and the following Table B.2 for data sources and additional information.

$$\frac{\text{City Sales Tax Revenue Projections FY 2016/17}}{\text{Est. 2017 Per Capita Income X Est. 2017 City Population}} = \frac{\$20,486,866}{\$3,982,312,116} = 0.51\%$$

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[48] Financial & Management Services Department, "…Adopted Budget."

Table B.2

Effective Sales Tax Calculation

Element	Value	Source/Notes
City of Moreno Valley population census (April 2010)	193,365	http://www.census.gov/quickfacts/table/POP010210/0649270, extracted on May 5, 2016
City of Moreno Valley population estimate (July 2014)	202,976	http://www.census.gov/quickfacts/table/POP010210/0649270, extracted on May 5, 2016
City of Moreno Valley population estimate (July 2017)	210,637	Andrew Chang & Company estimate based on average population growth between 2010 and 2014
Consumer Price Index (2014)	246.055	California Department of Finance
Consumer Price Index (2016)	255.408	California Department of Finance
Per capita income ($2014)	$17,874	http://www.census.gov/quickfacts/table/POP010210/0649270, extracted on May 5, 2016
Estimated per capita income ($2017)	$18,906	Andrew Chang & Company estimate based on CPI growth between 2014 and 2016
City of Moreno Valley Sales Tax Revenue Projections FY 2016/17	$20,486,866	City of Moreno Valley, Adopted Budget Fiscal Year 2015-16, Fiscal Year 2016-17, p. xvii

Appendix C – General Fund Cost Analysis Scope & Methodology

Scope

The 2016-17 Adopted Budget for the City of Moreno Valley[49] was analyzed to determine potential costs to the City from the Logistics Center. The City is projected to spend $94 million in General Fund expenses during the current fiscal year. The budget is composed of 62 expense items grouped here (see Table C.1 below) into nine categories:

- Fire;
- City Police;
- Mall Police & Emergency/Volunteer Services;
- Public Works – Street Maintenance;
- Public Works – All Other;
- Finance and Administration;
- Development;
- Communication; and
- Other.

All expenses appear to be recurring expenses rather than one-time. The scope for the Project includes all expense items directly impacted by the Logistics Center, namely Fire, City Police, and Street Maintenance. All other expense items are considered to be not directly impacted or not impacted at all by the Project. Typically speaking these costs come from the applicant. However, in order to preserve a conservative figure, the approach assumes the costs will be absorbed by the City. This approach accounts for 64% of all General Fund expenses. See Table C.1 below for more information.

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[49] Financial & Management Services Department, "…Adopted Budget."

Table C.1

City Budget Expenses

City of Moreno Valley Budget	FY 2016/17 Adopted	Study Scope	
		One-Time	Recurring
City Police	$41,567,317	--	XX
Fire	$18,378,935	--	XX
Mall Police & Emergency/Volunteer Services	$828,136	--	--
Public Works – Street Maintenance	$697,822	--	XX
Public Works – All Other	$2,508,707	--	--
Finance and Administration	$9,282,318	--	--
Development	$8,054,890	--	--
Communication	$2,004,847	--	--
Other	$11,088,061	--	--
Total Expense Budget	$94,411,033	--	--

City Police & Fire

Increased General Fund expenses for City Police and Fire are calculated using the same methodology. The total budget expense for each, as provided by the Adopted Budget 2016-17,[50] is divided by the 2017 population estimates produced by Andrew Chang & Company[51] to find the per capita/employee multiplier, i.e. the cost of City Police and Fire services per person. The per capita/employee multiplier for both City Police and Fire is then factored by the total new jobs (direct and indirect) created by the Project to find the total increase in City Police and Fire services resulting from the Project. This approach assumes a 1:1 ratio for capita to employee, which avoids additional assumptions and leaves the least room for error. See Flowchart C.1 below for a graphical representation of this approach.

Flowchart C.1

City Police & Fire Methodology

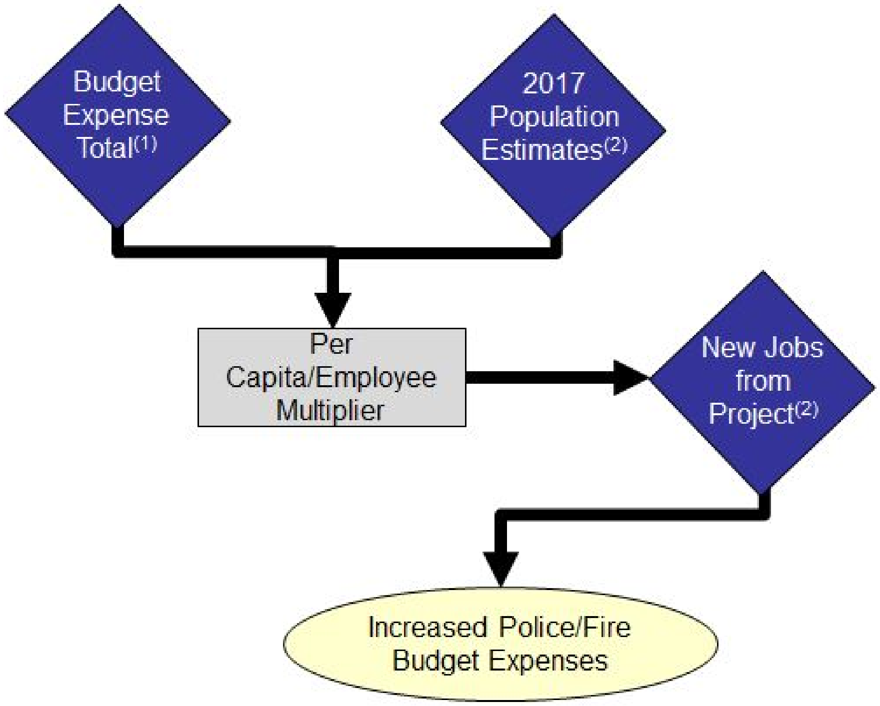

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[50] Financial & Management Services Department, "…Adopted Budget."

[51] See "Effective Sales Tax Calculation" in Appendix B – Tax Revenue Scope & Methodology for methodology.

Notes

(1) Budget expense for City Police and Fire services as provided by the Adopted Budget 2016-17.[52]

(2) 2017 population estimate as produced by Andrew Chang & Company.[53]

(3) Total jobs created by the Project in the City of Moreno Valley, including direct and indirect jobs.

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[52] Financial & Management Services Department, "…Adopted Budget."

[53] See "Effective Sales Tax Calculation" in Appendix B – Tax Revenue Scope & Methodology for methodology.

Street Maintenance

Increase in General Fund expenses for street maintenance is calculated first by dividing the current total expense for street maintenance, as provided by the Adopted Budget 2016-17,[54] by the total number of lane miles maintained by the City (1,080 lane miles) as provided by the City of Moreno Valley's Maintenance and Operations Division Office to find the per lane mile multiplier, i.e. the cost of street maintenance per lane mile. The per lane mile multiplier is then factored by the total lane miles from the Project, as provided by the applicant, to provide the increase street maintenance General Fund expenses.

Flowchart C.2

Street Maintenance Methodology

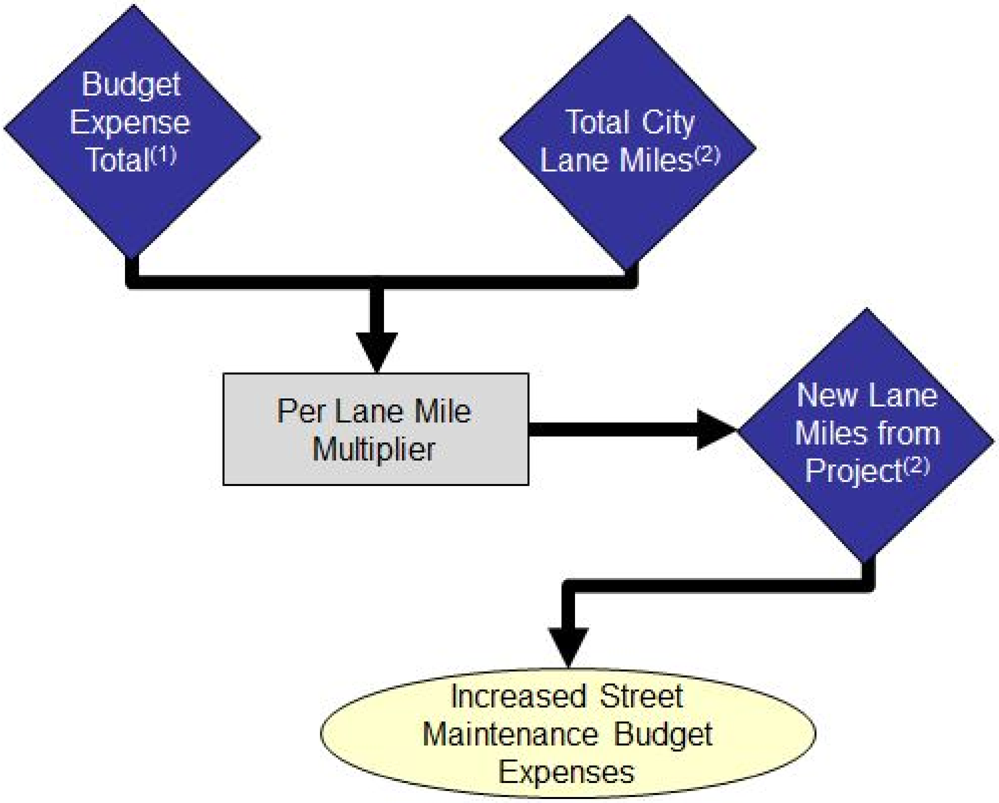

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[54] Financial & Management Services Department, "…Adopted Budget."

Notes

(1) Budget expense for street maintenance as provided by the Adopted Budget 2016-17.[55]

(2) Total lane miles (1,080) as provided by the City of Moreno Valley's Maintenance and Operations Division Office.

(3) New lane miles as provided by the applicant. Construction plans include linear feet of all street work. These were summed and converted into lane miles.

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[55] Financial & Management Services Department, "…Adopted Budget."

Appendix D – Employment Methodology

The employment model calculates all jobs (direct and indirect) created in the City of Moreno Valley as a result of the Project. The approach utilized in this study first calculates the total Riverside County jobs by factoring the direct spend[56] with the appropriate industry-specific final demand multiplier, as produced by the U.S. BEA.[57] The total jobs are then divided by the industry-specific direct effect multiplier[58] to find the direct jobs created in the Logistics Center. Next the indirect jobs within the City are found by factoring the difference in the total county jobs and the direct jobs (representing the indirect jobs to the entire county) by the City of Moreno Valley's retention rate (the ratio of employed labor force in the City over the employed labor force in the county as provided by California's Employment Development Department's Labor Market Information Division database).[59] The direct jobs and indirect jobs specific to the City are summed to provide the total jobs specific to the City of Moreno Valley. See Flowchart D.1 below for a graphical representation of this approach.

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[56] See Appendix A – Direct Spend Methodology.
[57] U.S. Bureau of Economic Analysis.
[58] Ibid.
[59] Employment Development Department, "Riverside, San Bernardino, Ontario MSA."

Flowchart D.1

Employment Methodology

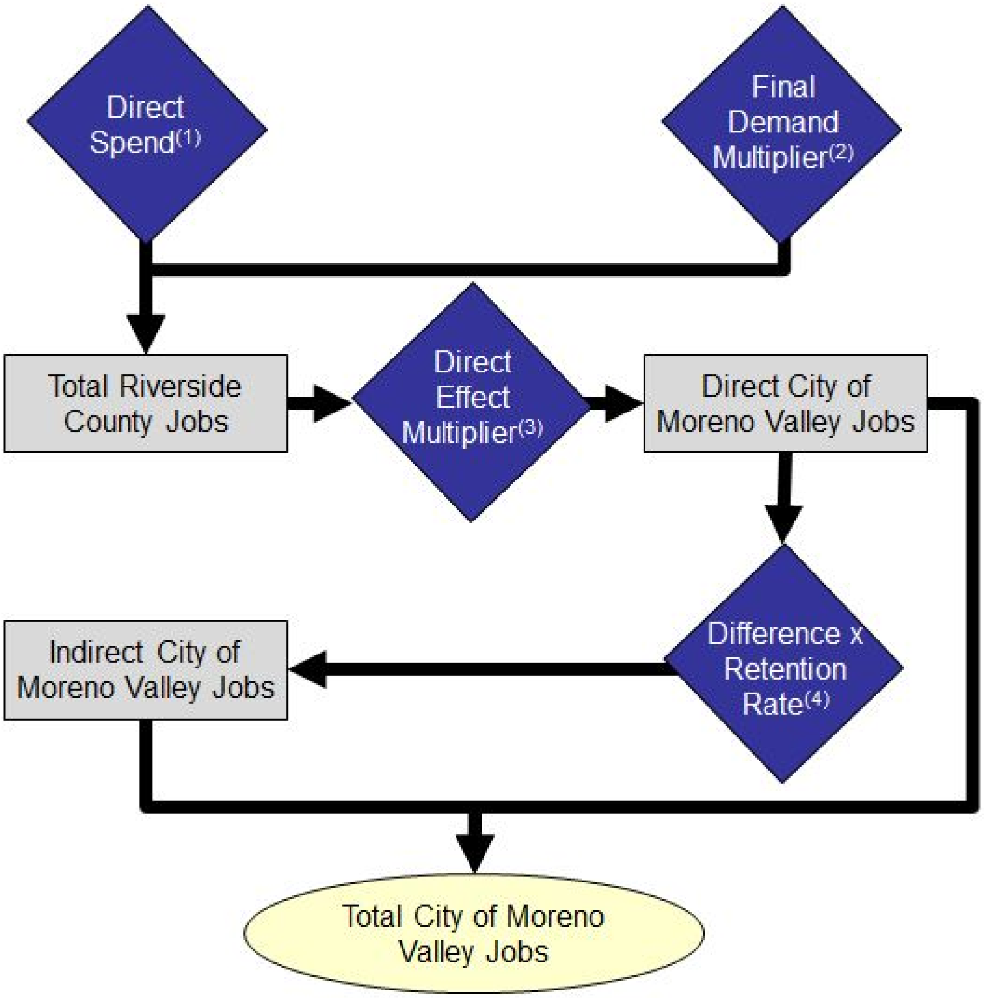

Notes

(1) Direct spend as calculated in Appendix A – Direct Spend Methodology.

(2) Final Demand employment regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[60]

(3) Direct Effect employment regional multipliers (RIMS II) for Riverside County produced by the U.S. Bureau of Economic Analysis.[61]

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[60] U.S. Bureau of Economic Analysis.
[61] Ibid.

(4) The difference between the total jobs and the direct jobs is factored by the retention rate, which is the total number of employees in the City of Moreno Valley over the total number of employees in Riverside County as provided by California's Employment Development Department's Labor Market Information Division database).[62]

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[62] Employment Development Department, "Monthly Labor Force Data…"

Appendix E – Earnings & Output Methodology

The economic and fiscal impact includes the total (direct and indirect) impact in increased household earnings and economic output to the City of Moreno Valley. The approach utilized in this study factored the direct spend[63] of the project with the correlating derived final demand multiplier (i.e. industry specific multipliers for construction, warehousing, and manufacturing) for earnings and output to find the economic and fiscal impact. Each derived final demand multiplier is calculated by dividing the total number (direct and indirect) of new jobs created in the City of Moreno Valley by the total number of new jobs created in Riverside County for all utilized industries[64] with the assumption that the amount of jobs retained in the City will reflect the amount of earnings and output retained in the City.

Flowchart E.1

Earnings & Output Methodology

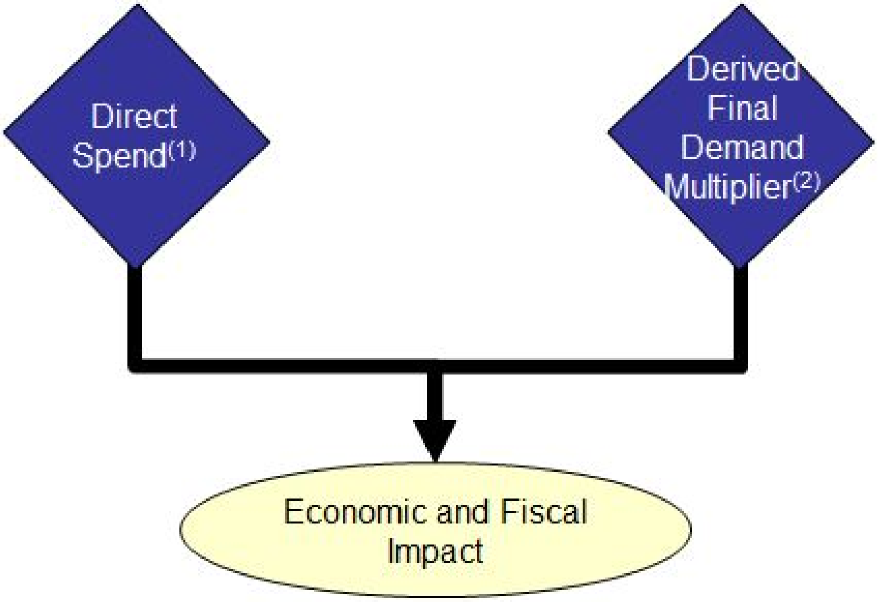

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[63] See Appendix A – Direct Spend Methodology.
[64] See Appendix D – Employment Methodology.

Notes

(1) Direct spend as calculated in Appendix A – Direct Spend Methodology.

(2) The derived final demand multipliers are calculated by dividing the total number of jobs created by in the City of Moreno Valley as a result of the Project by the total number of jobs created in Riverside County as a result of the Project.

Appendix F – Multipliers

This study utilizes the most recent regional RIMS II multipliers produced by the U.S. Bureau of Economic Analysis for Riverside County in order to determine the change in output, earnings, and employment as a result of the proposed Prologis Logistics Center. The industry-specific multipliers utilized for this study are listed below in Table F.1. The manufacturing multipliers are customized to account for the uncertainty of the potential manufacturing type in prospective tenant companies. The customized manufacturing multiplier is the median of 17 different manufacturing industry multipliers, representing an average manufacturing multiplier.

Derived final demand multipliers were created for the City of Moreno Valley in order to calculate the total impact (direct and indirect) specific to the City. These multipliers are calculated by dividing the total number of direct and indirect jobs created in the City of Moreno Valley by the total number of jobs created in Riverside County with the assumption that the portion of jobs generated within the City would reflect the portion of output and earnings generated within the City. See Table F.1 below for additional detail.

Table F.1

Multipliers

	Riverside County					City of Moreno Valley	
	Final Demand			Direct Effect		Derived Final Demand	
Industry	Output / Dollars	Earnings / Dollars	Employment / Jobs	Earnings / Dollars	Employment / Jobs	Output / Dollars	Earnings / Dollars
Construction	1.1860	0.1803	2.2069	1.3471	1.8175	0.6935	0.106346944
Warehousing	1.389	0.3366	8.7441	1.3386	1.3197	0.77909	0.262241848
Manufacturing	1.3379	0.2285	3.9039	1.4404	1.5063	0.589833	0.158462649

Appendix G – Data Tables

Table G.1

Tax Revenue ($Thousands)

Mix Manufacturing	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Sales Tax from Development	$230.1	$10.3	$10.3	$10.3	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$261.0
Ongoing Sales Tax (Operations)	$0.0	$74.7	$149.4	$224.2	$224.2	$224.2	$224.2	$224.2	$224.2	$224.2	$224.2	$2,017.4
Ongoing Sales Tax (Earnings)	$0.0	$43.5	$86.9	$130.4	$130.4	$130.4	$130.4	$130.4	$130.4	$130.4	$130.4	$1,173.3
Property Tax	$0.0	$185.7	$189.4	$193.2	$197.1	$201.0	$205.0	$209.1	$213.3	$217.6	$221.9	$2,033.2
Property Tax In-Lieu	$0.0	$33.8	$33.8	$33.8	$33.8	$33.8	$33.8	$33.8	$33.8	$33.8	$33.8	$337.5
Utilities Tax	$0.0	$100.1	$200.3	$300.4	$300.4	$300.4	$300.4	$300.4	$300.4	$300.4	$300.4	$2,703.5
Franchise Tax	$0.0	$17.4	$34.8	$52.2	$52.2	$52.2	$52.2	$52.2	$52.2	$52.2	$52.2	$470.2
Gross Receipts Tax	$0.0	$8.5	$16.9	$25.4	$25.4	$25.4	$25.4	$25.4	$25.4	$25.4	$25.4	$228.7
Total	$230.1	$473.9	$721.9	$969.8	$963.4	$967.3	$971.3	$975.4	$979.6	$983.9	$988.2	$9,224.9

Warehousing	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Sales Tax from Development	$247.8	$11.4	$11.4	$11.4	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$282.1
Ongoing Sales Tax (Operations)	$0.0	$80.4	$160.8	$241.1	$241.1	$241.1	$241.1	$241.1	$241.1	$241.1	$241.1	$2,170.2
Ongoing Sales Tax (Earnings)	$0.0	$52.9	$105.8	$158.7	$158.7	$158.7	$158.7	$158.7	$158.7	$158.7	$158.7	$1,428.0
Property Tax	$0.0	$196.2	$200.1	$204.1	$208.2	$212.3	$216.6	$220.9	$225.3	$229.9	$234.4	$2,148.1
Property Tax In-Lieu	$0.0	$35.7	$35.7	$35.7	$35.7	$35.7	$35.7	$35.7	$35.7	$35.7	$35.7	$356.6
Utilities Tax	$0.0	$107.7	$215.4	$323.1	$323.1	$323.1	$323.1	$323.1	$323.1	$323.1	$323.1	$2,908.3
Franchise Tax	$0.0	$18.7	$37.5	$56.2	$56.2	$56.2	$56.2	$56.2	$56.2	$56.2	$56.2	$505.8
Gross Receipts Tax	$0.0	$10.0	$20.0	$30.0	$30.0	$30.0	$30.0	$30.0	$30.0	$30.0	$30.0	$270.3
Total	$247.8	$513.0	$786.6	$1,060.4	$1,053.0	$1,057.2	$1,061.4	$1,065.8	$1,070.2	$1,074.7	$1,079.3	$10,069.4

Table G.2

General Fund Cost Analysis ($Thousands)

Mix Manufacturing	2016/17 Adopted Budget	Per Unit Cost[(1)]	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Police Services	$41,567	$197	$12.3	$41.6	$82.6	$123.6	$123.1	$123.1	$123.1	$123.1	$123.1	$123.1	$123.1
Moreno Valley Fire	$18,379	$87	$5.4	$18.4	$36.5	$54.7	$54.4	$54.4	$54.4	$54.4	$54.4	$54.4	$54.4
Public Works - Street Maintenance	$698	$646	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0
Total	N/A	N/A	$18.8	$61.0	$120.2	$179.3	$178.5	$178.5	$178.5	$178.5	$178.5	$178.5	$178.5

Warehousing	2016/17 Adopted Budget	Per Unit Cost[(1)]	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Police Services	$41,567	$197	$13.3	$23.3	$46.1	$68.8	$68.2	$68.2	$68.2	$68.2	$68.2	$68.2	$68.2
Moreno Valley Fire	$18,379	$87	$5.9	$10.3	$20.4	$30.4	$30.2	$30.2	$30.2	$30.2	$30.2	$30.2	$30.2
Public Works - Street Maintenance	$698	$646	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0
Total	N/A	N/A	$20.2	$34.7	$67.5	$100.3	$99.4	$99.4	$99.4	$99.4	$99.4	$99.4	$99.4

Notes

(1) Per Unit Cost is in real dollars, not thousands.

Table G.3

Direct Spend and Economic and Fiscal Impact

Mix Manufacturing	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Direct Spend ($Millions)	$50.6	$36.2	$70.0	$103.9	$101.7	$101.7	$101.7	$101.7	$101.7	$101.7	$101.7	$972.4
Jobs	60	210	420	630	620	620	620	620	620	620	620	N/A
Earnings ($Millions)	$7.0	$8.8	$17.4	$25.9	$25.6	$25.6	$25.6	$25.6	$25.6	$25.6	$25.6	$238.0
Output ($Millions)	$35.4	$37.8	$74.1	$110.4	$108.8	$108.8	$108.8	$108.8	$108.8	$108.8	$108.8	$1,019.1

Warehousing	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
Direct Spend ($Millions)	$54.6	$42.6	$82.6	$122.7	$120.1	$120.1	$120.1	$120.1	$120.1	$120.1	$120.1	$1,143.3
Jobs	70	120	230	350	340	340	340	340	340	340	340	N/A
Earnings ($Millions)	$7.5	$10.7	$21.1	$31.5	$31.1	$31.1	$31.1	$31.1	$31.1	$31.1	$31.1	$288.1
Output ($Millions)	$38.2	$45.1	$88.4	$131.8	$130.0	$130.0	$130.0	$130.0	$130.0	$130.0	$130.0	$1,213.5

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